DECEMBER 3, 1984

NOTICE OF AVAILABILITY

Revised Sections of the Final Environmental Impact Report
(SCH #2012021045)

NOTICE IS HEREBY GIVEN that, pursuant to requirements of the California Environmental Quality Act (CEQA) and in response to a Riverside County Superior Court ruling, the City of Moreno Valley has prepared Revised Sections of the Final Environmental Impact Report (FEIR) with a State Clearinghouse number, 2012021045, to evaluate the potential environmental impacts associated with construction and operation of the World Logistics Center project, and its associated infrastructure.

Project Description: This Notice of Availability (NOA) has been prepared to notify agencies and interested parties that the City of Moreno Valley as the Lead Agency has prepared Revised Sections of the FEIR to provide the public and trustee agencies with information about the potential effects on the local and regional environment associated with the construction and operation of the proposed World Logistics Center project, and its associated infrastructure on approximately 2,600 acres of land in the eastern portion of the City. All of the land use entitlements for the World Logistics Center are in place – the General Plan and Zoning designations, the Specific Plan, a request for annexation of unincorporated land and a development agreement. The potential environmental impacts evaluated in the Revised Sections of the FEIR are based upon these adopted entitlements allowing 40.6 million square feet of buildings specifically designed to support large scale logistic operations in a quality business environment.

Location: The project site includes the area generally east of Redlands Boulevard, south of the SR-60 Freeway, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.

Potential Environmental Impacts: Analyses presented in the Revised Sections of the FEIR indicates that the proposed project will have certain significant unavoidable adverse impacts to Aesthetics, Air Quality/Health Risks, Land Use, Noise, and Transportation/Traffic, as described in detail within the document. All other environmental effects evaluated in the EIR are considered to be less than significant, or can be feasibly reduced with mitigation measures to less than significant levels.

Public Review and Comment Deadline: The City of Moreno Valley is soliciting comments from the public about the Revised Sections of the FEIR. Pursuant to Section 21091 of the Public Resources Code, the City has established a review period that runs 45 days, beginning July 25, 2018 through the close of City business on September 7, 2018. The City is also providing, for informational purposes, documents that show the changes from the FEIR. **If you wish to make written comments on the Revised Sections of the Final Environmental Impact Report, or the changes from the FEIR, comments must be received at the City of Moreno Valley Community Development Department by no later than the conclusion of the 45-day review period, 4:30 pm on September 7, 2018.** Written comments on the Revised Sections of the FEIR or the changes from the FEIR should be addressed to:

Albert Armijo, Interim Planning Manager
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3206
Email: alberta@moval.org

Document Availability: The Revised Sections of the FEIR, and the document showing the changes from the FEIR, and all documents incorporated and/or referenced therein, can be reviewed during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and Friday's, 7:30 a.m. to 4:30 p.m.) at the City of Moreno Valley Planning Division counter, located at 14177 Frederick Street, Moreno Valley, CA 92553. The documents may also be reviewed at the Moreno Valley Library, located at 25480 Alessandro Boulevard, Moreno Valley, California. For your convenience, the document will also be provided on-line at the City's web page, www.moval.org.

World Logistics Center

WORLD
LOGISTICS
CENTER

Revised Sections of the Final Environmental Impact Report

Moreno Valley, California

State Clearinghouse No. 2012021045

Prepared for:

City of Moreno Valley

July 2018

World Logistics Center

Revised Sections of the Final Environmental Impact Report

Moreno Valley, California

State Clearinghouse no. 2102021045

Prepared for
City of Moreno Valley

July 2018

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NOTE TO READERS: The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 1.0 that have been revised. Revisions to, and deletions from, the FEIR have been identified in a separate document, available for review at the City of Moreno Valley. The absence of any reference to a portion of Section 1.0 means that the corresponding portion of Section 1.0 in the FEIR remains unchanged. However, where appropriate, unrevised portions of the FEIR have been included for ease of understanding. The absence of reference to a portion of Section 1.0 means that the corresponding portion of Section 1.0 in the FEIR remains unchanged or has been deleted.

1.0 EXECUTIVE SUMMARY

In August, 2015, the City Council of the City of Moreno Valley certified a Final Environmental Impact Report (the "FEIR") as complying with the California Environmental Quality Act (CEQA). The FEIR had been prepared to analyze the environmental impacts that could result from the construction and operation of the World Logistics Center. Several lawsuits were filed challenging the adequacy of the FEIR.

In February, 2018, a judge of the Riverside County Superior County issued a ruling which identified five deficiencies in the FEIR. In June, 2018, a judgement was entered and a writ issued which ordered the City to set aside the certification of the FEIR. This document, referred to as the Revised Sections of the FEIR, has been prepared to correct the deficiencies identified in the February ruling. The Revised Sections of the FEIR will be circulated for public comment. Those portions of the FEIR which were found to be have been in compliance with CEQA will not be circulated and no further comments on them will be sought. Responses to comments on the Revised Sections of the FEIR will be prepared. A revised FEIR, consisting of the Revised Sections of the FEIR, the comments and responses and portions of the FEIR which were found to have been in compliance with CEQA, will then be considered by the City to determine if the Revised FEIR should be certified as complying with CEQA.

The development of the World Logistics Center is subject to the regulations and development standards contained in the existing World Logistics Center Specific Plan which authorizes the construction of 40,600,000 square feet of logistics facilities and associated infrastructure. The Revised FEIR, once certified, will be used in conjunction with the discretionary approvals required for the development of the World Logistics Center, including, but not limited to, subdivision maps, plot plan approvals, and annexation of land, currently in unincorporated Riverside County, into the City.

The Revised Sections of the FEIR have been prepared to address each of the deficiencies identified in the court's ruling, summarized as follows:

- **Energy Impacts**: "The FEIR must provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis".
- **Biological Impacts**: "The FEIR should remove all references to and consideration of the 910 acres of SJWA and MSHCP lands as "buffer zone" or "CDFW Conservation Buffer Area" in the Biological Resources and Habitat Impacts analysis".
- **Noise Impacts**: "The FEIR must provide an analysis of construction noise over ambient levels; provide adequate analysis on construction noise impacts on nearby homes; address the inadequacy of mitigation measures, which fail to include performance standards or ways to reduce construction noise".
- **Agricultural Impacts**: "The FEIR and the resolution certifying the FEIR require clarification as to whether loss of locally important farmland will have a significant direct or cumulative impact on agriculture and, if significant, the FEIR must either explain how proposed mitigation will reduce the impact or why other mitigation is not feasible".

- **Cumulative Impacts**: “The FEIR should include consideration of recently constructed and proposed large warehouse projects in the summary of projections method, and should analyze whether individually significant impacts may be cumulative considerable”.

The Revised Sections of the FEIR responds to the deficiencies as follows:

- **Energy Impacts**: A new Energy Impact Assessment technical report has been prepared, and a new Energy section added, to provide a comparison of cost- effective renewable energy technologies and associated energy conservation features. This includes an evaluation of all potential renewable energy source options, the feasibility of incorporating these options into the project to reduce overall energy consumptions and to reduce greenhouse gas emissions.
- **Biological Impacts**: A new Biological Resource technical memo has been prepared to document current biological resources on the World Logistics Center site. The Biological Resource section has been updated to remove any reference to the 910-acre “buffer” and “CDFW Conservation Buffer”. The entire project site has been resurveyed to document existing biological resources, sensitive species and to update the biological Resource Technical Report.
- **Noise Impacts**: The Noise technical report and section have been updated to include an updated analysis of construction impacts and mitigation measures focused on the onsite and adjacent residential land uses. In addition, overall noise operational mobile and stationary source noise impacts and mitigation measures have been updated.
- **Agricultural Impacts**: The Agricultural section has been updated to accurately reflect the status of the agricultural resources found on the World Logistics Center site.
- **Cumulative Impacts**: The cumulative impact sections of the FEIR have been updated to function as a stand-alone section and to add recently constructed and proposed warehouse facilities to the summary of projections and list method to determine cumulative impacts. In order to complete the updated cumulative impact assessment, certain project level analysis (air quality/greenhouse gases, traffic) was completed to form the basis for the cumulative impact analysis. The project level analysis is included in the body of this Revised Sections of the FEIR and associated technical studies are included in the appendices for reference. Extensive research has been completed to identify 361 cumulative projects in the City of Moreno Valley and surrounding jurisdictions, including the Cities of Riverside, Perris, Hemet, San Jacinto, Redlands Beaumont, as well as the Counties of Riverside and San Bernardino, and the March Joint Powers Authority (JPA). These identified projects form the basis of the cumulative project list to be evaluated in Section 6.0.

In addition, although not required by the court ruling, the following analysis has been updated or newly prepared to assist in the response to the deficiencies identified by the court:

- The Air Quality assessment has been updated based upon the updated traffic study to provide the current baseline for the updated cumulative impact analysis.
- The Greenhouse Gas / Climate Change Assessment has been updated based upon the updated traffic study to provide the current baseline for the updated cumulative impact analysis
- The Traffic Impact assessment has been updated to provide the current baseline traffic conditions for the updated air quality, greenhouse gas/climate change, noise, and cumulative impact analysis.

Only the above outlined revised information is contained in this Revised Sections of the FEIR, all other sections of the FEIR and technical studies remain valid, and are available for review at the City of Moreno Valley. A highlight/strikeout version of the Revised Sections of the FEIR is available for review at the City of Moreno Valley, which shows all changes made to the document.

The following Sections of the FEIR remain valid and are not included in the Revised Sections of the FEIR, except for the cumulative impact chapter: Aesthetics, Cultural Resources, Geology and Soils, Hazard and Hazardous Materials, Hydrology, Land Use and Planning, Mineral Resources, Population and Housing, and Public Services and Utilities.

Portions of the following Sections of the FEIR have been revised and are included in the Revised Sections of the FEIR: Agriculture and Forestry Resources, Air Quality, Greenhouse Gas/Climate Change/Sustainability, Land Use and Planning, Noise, and Traffic and Circulation.

The following Sections of the FEIR have been entirely replaced with new sections in the Revised Sections of the FEIR: Biological Resources and Energy (new stand-alone sections).

The Revised Sections of the Final EIR are being circulated for additional public review. The 45-day public review period is from July 25, 2018 through September 7 ,2018. All comments received on the Revised Sections of the FEIR will be responded to and incorporated into a response to comments document, which will be considered by the City at a public hearing to certify that the Revised Sections of the FEIR is in compliance with CEQA. The Revised Sections of the FEIR is also available for review on the City of Moreno Valley's website (www.moval.org).

Please submit comments on the Revised Sections of the FEIR no later than 4:30 PM, September 7, 2018 to:

Albert Armijo
Interim Planning Manager
City of Moreno Valley
14177 Frederick Street
P.O. Box 88055
Moreno Valley, CA 92552-0805
alberta@moval.org

Table 1.0-1 summarizes the mitigation measures from the FEIR and the Revised Sections of the FEIR, and identifies project impacts, mitigation measures and level of significance with mitigation for each of the seventeen environmental factors evaluated in the FEIR and Revised Sections of the FEIR.

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.1 Aesthetics		
LESS THAN SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
SIGNIFICANT IMPACTS		
Impact 4.1.6.1 Scenic Vistas		
The WLC project will significantly impact viewsheds in the area, including views of the Mt. Russell Range and the Badlands.	**4.1.6.1A** Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official. **4.1.6.1B** Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. “Effective” screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division. **4.1.6.1C** Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official.	Significant and Unavoidable

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
	4.1.6.1D	Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owner's association or may remain in private ownership and may be fenced and access prohibited.	
Impact 4.1.6.2 Scenic Resources and Scenic Highways			
The WLC project will significantly impact existing viewsheds from SR-60 which is a locally designated scenic route.	Previously referenced Mitigation Measures 4.1.1.6A through 4.1.16D		Significant and Unavoidable
Impact 4.1.6.3 Existing Visual Character and its Surroundings			
The WLC project will fundamentally change views of the area from agriculture to large warehouses.	**4.1.6.3A**	Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.	Significant and Unavoidable
Impact 4.1.6.4 Light and Glare			
The WLC project will significantly impact the area by substantially increasing lighting and glare in the area.	**4.1.6.4A**	Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts.	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	4.1.6.4B Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.	
Cumulative Aesthetic Impacts		
The cumulative effect of development in the region will continue to modify existing viewsheds, especially along SR-60. Cumulative impacts would remain significant and unavoidable.	Previously referenced Mitigation Measures 4.1.6.1A through 4.1.6.1D, 4.1.6.4A and 4.1.6.4B	Significant and Unavoidable
4.2 Agriculture		
LESS THAN SIGNIFICANT IMPACTS		
Forest Land Zoning		
There are no significant impacts because there are no areas designated as forest land or timberland on the project site.	No mitigation is required.	No Impact
Loss or Conversion of Forest Land		
There are no forest lands on the project site or in the surrounding area.	No mitigation is required.	No Impact
Existing Zoning and Williamson Act		
There are no Williamson Act Contracts on or adjacent to the project site.	No mitigation is required.	No Impact

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Farmland Conversion		
The project will not convert Unique Farmland by the state to urban uses.	No mitigation is required.	No Impact
Impact 4.2.6.2 Conversion of Farmland to Non-Agricultural Uses		
The project will convert 2,610 acres of Farmland of Local Importance to urban uses.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None		No Impact
Cumulative Agricultural Impacts		
As urban development continues in the City and surrounding areas, there will be a cumulative loss of agricultural land through conversion to urban uses. This conversion is a long-established historical process based on local and regional economic conditions, resulting in the eventual relocation of farming to more rural and outlying areas (e.g., Coachella Valley, Kern County, etc.).	**6.2.1:** Prior to the issuance of any grading permit affecting land designated as “Farmland of Local importance” (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis shall include a comparison of the project’s “Farmland of Local Significance” considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It shall include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.	Less than Significant with Mitigation
4.3 Air Quality		
LESS THAN SIGNIFICANT IMPACTS		
Odors		
The project involves large warehouses and no uses that would generate substantial odors. The natural	No mitigation is required.	Less than Significant

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
gas facilities on site sometimes generate temporary odors from natural gas blow-offs, but these are not considered significant impacts.		
Long-Term Microscale (CO Hot Spot) Emissions		
The project air quality study determined that project-related traffic would not create any CO hot spots on local roadways through project buildout.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.3.6.1 Air Quality Management Plan Consistency		
The land uses of the project are not consistent with those used to prepare the most current AQMP. Although the project would substantially improve the jobs/housing balance of the City by introducing more employment-generating uses than new housing, it would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures for both construction and operation, emissions associated with the project cannot be reduced below applicable SCAQMD thresholds.	Implementation of Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3D, and 4.3.6.4A, will help reduce air pollutant emissions of the project, but it will still be inconsistent with the AQMP.	Significant and Unavoidable
Impact 4.3.6.2 Construction Equipment Exhaust Emissions		
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for construction-related activities.	**4.3.6.2A** Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley. a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment. b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day.	Significant and Unavoidable

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	c) Construction equipment shall be properly maintained according to manufacturer specifications. d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour. e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley. g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In “SOON” funds which provides funds to accelerate cleanup of off-road diesel vehicles. h) Construction on-road haul trucks shall be model year 2010 or newer if diesel fueled. i) Information on ridesharing programs shall be made available to construction employees. j) During construction, lunch options shall be provided onsite. k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted. **4.3.6.2B** Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using World Logistics Center Parkway (formerly	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Theodore Street), Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer. **4.3.6.2C** The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC): a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per liter or lower for both interior and exterior surfaces shall be used. b) Leftover paint shall be taken to a designated hazardous waste center. c) Paint containers shall be closed when not in use. d) Low VOC cleaning solvents shall be used to clean paint application equipment. e) Paint and solvent-laden rags shall be kept in sealed containers. **4.3.6.2D** No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).	
Impact 4.3.6.3 Localized Construction and Operation Emissions		
Future development within the WLCSP will exceed local significance thresholds of the SCAMQD for trucks and other operational activities.	**4.3.6.3A** Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots. **4.3.6.3B** The following shall be implemented as indicated: **Prior to Issuance of a Certificate of Occupancy** a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations and the prohibition of parking in residential areas. b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes;	Significant and Unavoidable

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations. c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code. **On an Ongoing Basis** d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City. e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City. f) Tenants shall be encouraged to become a SmartWay Partner. g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers. h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation. i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center. j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet. k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025. l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time. m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel. n) Truck and vehicle idling shall be limited to three (3) minutes. **4.3.6.3C** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D. **4.3.6.3D** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C. **4.3.6.3E** Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the Revised Sections of the FEIR. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
Impact 4.3.6.4 Long-Term Operational Emissions			
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for trucks and other operational activities.	**4.3.6.4A**	The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan: a) All tenants shall be required to participate in Riverside County's Rideshare Program. b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities. c) Class II bike lanes shall be incorporated into the design for all project streets. d) The project shall incorporate pedestrian pathways between on-site uses. e) Site design and building placement shall provide pedestrian connections between internal and external facilities. f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site. g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction. h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code. Each building shall provide a minimum of two shower and changing facilities for employees. i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.	Significant and Unavoidable

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.	
Impact 4.3.6.5 Impacts to Sensitive Receptors		
The construction and operation of the project would result in the emissions of several toxic air contaminants, the most ubiquitous being diesel particulate matter (diesel PM). The projects estimated cancer risk for sensitive receptors onsite would exceed the maximum cancer risk thresholds.	**4.3.6.5A** Prior to the issuance of grading permits, the Applicant shall arrange for MERV 13 air filters to be installed at the residence located at 13241 World Logistics Center Parkway (formerly Theodore Street). Implementation of the previously identified Mitigation Measures 4.1.6.1A, 4.3.6.2A through 4.3.6.2D, and 4.3.6.3A through 4.3.6.3E will help reduce short- and long-term project emissions and health risks to sensitive receptors, but not to less than significant levels.	Significant and Unavoidable
Cumulative Air Quality Impacts		
The project will increase short-term local and long-term regional air pollutant emissions and chronic health risks.	Implementation of the previously identified Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A and 4.3.6.5A will help reduce short- and long-term project emissions and health risks, but not to less than significant levels.	Significant and Unavoidable
4.4 Biological Resources		
LESS THAN SIGNIFICANT IMPACTS		
Adopted Policies and/or Ordinances		
There are no local policies or ordinances regarding the protection of biological resources.	No mitigation required	No Impact
The project would not conflict with an adopted HCP, NCCP or local. regional or state habitat conservation plan.	**4.4.5.2A** Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation	Less than significant with mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official. **4.4.5.2B** Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Western Riverside County Regional Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Western Riverside County Regional Conservation Authority ("RCA"). In addition, the **Mitigation Measures 4.4.6.1A and 4.4.6.1B** described below will also help reduce potential direct and indirect impacts to biological resources covered by the MSHCP. Potential impacts related to MSHCP consistency will be less than significant. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2B, 4.4.5.2A,** and **4.4.5.2B**, the less than significant impacts related to MSHCP consistency will be further reduced.	
Habitat Fragmentation/Wildlife Movement		
The project will not restrict the movement of wildlife to and from the Badlands and the SJWA/Mystic Lake area, and will protect Drainage 9 through the project area as a natural drainage channel.	No mitigation required	Less than Significant
Impact 4.4.6.1 Endangered and Threatened Species		
There are 17 plant and animal species designated as endangered or threatened by state and/or federal authorizes that have the potential to occur within the general vicinity of the WLC project area. Development will remove agricultural land which	**4.4.6.1A** All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures		Level of Significance
provides minimal habitat value for most species present.		buildings or truck access/parking/maneuvering facilities are permitted in this setback area. In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area. Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official. A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.	
	4.4.6.1B	Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City of Moreno Valley and RWQCB requirements. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.	

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Issues/Impacts	Mitigation Measures		Level of Significance
Impact 4.4.6.2 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities			
Drainage Features 7, 8, 9, 12, and 15 within the project area are considered riparian/riverine areas.	**4.4.6.2A**	Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant shall secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation shall be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins shall be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins shall be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation shall be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan shall be prepared for all unavoidable impacts and shall be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below. Mitigation shall consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat shall be	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat shall be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation shall include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3). **4.4.6.2B** As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project grading permit approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program. If impacts to riparian habitat within the WLC Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.2A. A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Mitigation required for compensation for impacts to riparian/ riverine areas shall require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land. As outlined in the WLC programmatic DBESP, erosion control improvements shall be installed within Drainage 9 to reduce sediment	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		transport, and additional riparian habitat shall be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).	
	4.4.6.2C	Prior to issuance of any grading permit for any offsite improvements that support development within the WLC site, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2013 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions with a minimum1:1 mitigation ratio. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.	
Impact 4.4.6.3 Candidate, Non-listed Sensitive, or Special-Status Species			
The project area contains suitable habitat for sensitive species, including a variety of nesting birds, including burrowing owl, and Los Angeles pocket mouse.	**4.4.6.3A**	Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.3B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.3B** If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.3A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.3C** The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple Species Habitat Conservation Plan fee shall be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A shall be established within the WLC site. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas. ***Burrowing Owl*** **4.4.6.3D**A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the WLC site.	

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Issues/Impacts	Mitigation Measures	Level of Significance
	In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required. If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife. If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan shall outline the basic process and provides options for avoidance. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW. A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor. ***Los Angeles Pocket Mouse*** **4.4.6.3E** Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and	

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Issues/Impacts	Mitigation Measures	Level of Significance
	submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the WLC site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division. ***Resource Management*** **4.4.6.3F** Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan shall also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.5.2A, 4.4.6.3D, and 4.4.6.3E. The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division. **4.4.6.3G** Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed	

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Issues/Impacts	Mitigation Measures	Level of Significance
	in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8). During construction, the runoff leaving construction areas shall be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).	
	4.4.6.3H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.	
	4.4.6.3I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health-Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management	

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Issues/Impacts	Mitigation Measures	Level of Significance
	Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.	
	4.4.6.3J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the WLC site adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following: • A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area. • A list of non-native invasive plants that are prohibited from installation. • Maintenance activities and a maintenance schedule. Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.	
	4.4.6.3K Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.	

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Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Biological Impacts		
With implementation of the stated project-specific mitigation and payment of required MSHCP fees, no significant cumulative effect on biological resources would result from development of the WLC project.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A through 4.4.6.2C, 4.4.6.3A through 4.4.6.3C, and 4.4.6.3A through 4.4.6.3K.	Less than Significant
4.5 Cultural Resources		
LESS THAN SIGNIFICANT IMPACTS		
Human Remains		
There is no evidence that the site has been utilized for human burials, and there is state law dealing with human remains that are found during grading or excavation.	No mitigation required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.5.6.1 Archaeological Resources		
Most of the site has been previously surveyed, and previously identified resources have been surveyed and retrieved according to required protocols. Nine on-site rural residential properties (designated “Light Logistics”) have not been previously surveyed and would need to be surveyed prior to development. The City has conducted SB 18 Consultation with local Native American tribes and the Pechanga and Soboba tribes have expressed a desire to consult.	**4.5.6.1A** Prior to the approval of any grading permit for any of the “Light Logistics” parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the “Light Logistics” parcel to determine if significant archaeological or historical resources are present. A Phase 2 significance evaluation shall be completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg. 74). **4.5.6.1B** Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg. 74). Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment. If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official. If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary.	

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Issues/Impacts	Mitigation Measures	Level of Significance
	Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3, Table 3, pg. 74). Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg. 74). **4.5.6.1C** Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg. 74): 1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected; 2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative. 3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular finds are investigated; and	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if necessary, the museum where any recovered artifacts have been curated. 5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study. 6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official.	
	4.5.6.1D Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the Planning Official.	
	4.5.6.1E It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist	

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Issues/Impacts	Mitigation Measures	Level of Significance
	shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City. No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.	
Impact 4.5.6.2 Historic Resources		
Seven on-site rural residential properties (designated "Light Logistics") have not been previously surveyed for historical resources, and would need to be surveyed prior to development. Juan Bautista de Anza crossed the southern portion of the site while exploring California in 1774.	**4.5.6.2A** If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance. In addition, the following measure is proposed to acknowledge the route of Juan Bautista de Anza through the project area as an important historical event: **4.5.6.2B** As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society.	
	4.5.6.2C	Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.	
Impact 4.5.6.3 Paleontological Resources			
The project area is considered moderately sensitive regarding paleontological resources, and fossiliferous materials have been found in the surrounding region in the past.	**4.5.6.3A**	Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions: 1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations. 2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed. 3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources. This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg. 76).	Less than Significant with Mitigation
	4.5.6.3B	Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures: 1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations. 2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed. 3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.	
Cumulative Cultural Impacts		
The project site and surrounding area, especially the uplands associated with Mt. Russell, have yielded cultural resources in the past. As this area develops, there is a potential for impacts to or loss of archaeological, historical, or paleontological resources.	Previously referenced Mitigation Measures 4.5.6.1A through 4.5.6.1E, 4.5.6.2A through 4.5.6.2C, and 4.5.6.3A and 4.4.6.3B.	Less than Significant
4.6 Geology and Soils		
LESS THAN SIGNIFICANT IMPACTS		
Landslides or Rockfalls		
A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The Specific Plan designates 74.3 acres in the southwest corner of the site as open space.	No development will occur in the potential landslide zone, so no mitigation is needed.	Less than Significant

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Soil Erosion or Loss of Topsoil		
On-site soils have a slight erosion hazard, and uncontrolled runoff could result in erosion or loss of topsoil.	The project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.	Less than Significant
Septic Tanks		
The project would not involve the installation of septic tanks or alternative wastewater disposal systems, no impacts would occur.	No mitigation is required.	No Impact
Seismic-Related Ground Failure		
The City's General Plan and project geotechnical report indicates the site has little or no potential for seismically-induced failure or liquefaction.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.6.6.1 Fault Rupture		
The eastern portion of the site contains one or more splays of the San Jacinto Fault, and the Casa Loma Fault may be in in the general vicinity of the western portion of the site.	**4.6.6.1A** Prior to approval of any projects for development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	
	4.6.6.1B	Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a “special foundation or grading remediation zone” for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	
	4.6.6.1C	Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be implemented to the satisfaction of the City Engineer.	
Impact 4.6.6.2 Ground Shaking			
Southern California is located in a seismically active area and will continue to be subject to ground shaking resulting from seismic activity on regional and local faults.	**4.6.6.2A**	Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City, which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report shall also determine final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building	Less than Significant <u>with Mitigation</u>

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.	
Impact 4.6.6.3 Unstable Soils			
On-site soils have a moderate to low shrink-swell potential, and there are some moderately expansive soils on site as well.	**4.6.6.3A**	Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site. The report shall determine: 1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. 2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer. **4.6.6.3B** Any cut slopes in excess of five (5) feet in vertical height shall be constructed as “replacement fill slopes” per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist. **4.6.6.3C** During all grading activities, a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	
Cumulative Geology and Soils Impacts		
It is reasonable to conclude that all development within this seismically active area will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies.	Previously referenced Mitigation Measures 4.6.6.1A through 4.6.6.1C, 4.6.6.2A, and 4.6.6.3A through 4.6.6.3C.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
4.7 Greenhouse Gases and Global Climate Change		
LESS THAN SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
SIGNIFICANT IMPACTS		
Impact 4.7.6.1 Greenhouse Gas Emissions		
The project will emit substantial quantities of greenhouse gases during construction and operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions, while generated by this project, are nonetheless considered cumulative impacts (see below).	**4.7.6.1A** The World Logistic Center project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development: a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout. c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan. e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building. f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals. g) The property owner shall advise all tenants of the availability of community recycling and composting services. h) Existing onsite street material shall be recycled for new project streets to the extent feasible. **4.7.6.1B** (Previously Included as Utilities Mitigation Measure 4.16.4.6.1A for building energy). Each application for a building permit shall include energy calculations to demonstrate compliance with California Energy Efficiency Standards (Title 24, Part 6). Plans shall show the following: • Energy-efficient roofing systems, such as "cool" roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning. • Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment. • Energy-efficient appliances that achieve the 2016 California Appliance Energy Efficiency Standards (e.g. EnergyStar® Appliances) and use of sunlight-filtering window coatings or double-paned windows	

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Issues/Impacts	Mitigation Measures	Level of Significance
	4.7.6.1C (Previously Included as Utilities Mitigation Measure 4.16.4.6.1B building energy). Prior to the issuance of any building permits within the WLC site, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards, for each new structure. Plans may include but are not necessarily limited to implementing the following as appropriate: • High-efficiency air-conditioning with electronic management system (computer) control. • Isolated High-efficiency air-conditioning zone control by floors/separable activity areas. • Use of Energy Star ® exit lighting or exit signage.	
	4.7.6.1D (Previously Included as Utilities Mitigation Measure 4.16.4.6.1C building energy; <u>now modified</u>). Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following: • Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building <u>or up to the limit allowed by MVU's restriction on distributed solar PV connecting to their grid, whichever is greater;</u> • Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and • Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.	

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency		
The project could be potentially inconsistent with established Greenhouse Gas plans, policies, or regulations.	Implementation of previously referenced Mitigation Measures 4.3.6.2A, 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A through 4.7.6.1D, 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C, will help reduce project-related GHG emissions	Less than Significant with Mitigation
Cumulative Greenhouse Gas Impacts		
The project will emit substantial quantities of greenhouse gases during project operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions are considered cumulative in terms of global climate change.	Project-specific energy conservation, air quality, and greenhouse gas Mitigation Measure 4.7.6.1A through 4.7.6.1D will help reduce project greenhouse gas emissions, the project will not make a significant cumulative contribution to greenhouse gas emissions.	Less than Significant with Mitigation
4.8 Hazards and Hazardous Materials		
LESS THAN SIGNIFICANT IMPACTS		
Within Two Miles of a Private Airport, Airport Land Use Plan, or Public Airport		
The nearest airport is 7 miles away so, the development of the WLC project area as proposed would not result in airport safety hazards for people working in the WLC project area.	No mitigation is required.	No Impact
Existing or Proposed School		
There are no existing planned schools on or within a quarter mile of the project site.	No mitigation is required.	Less than Significant
Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions		
The transport, use, handling, or disposal of hazardous materials is regulated by various local, state, and federal standards, ordinances, and regulations that would ensure that potential impacts associated with environmental and health hazards related to an accidental release of hazardous	No mitigation is required.	Less than Significant

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materials are less than significant, and no mitigation is required. Compliance with established safety laws and regulations regarding natural gas plants is expected to reduce this potential impact to a less than significant level, and no mitigation is required. Local soils would be extensively disturbed during grading, and would employ relatively stringent dust control measures including regular watering, and revegetation as soon as possible after grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores ("Valley Fever") would survive in the soil. This potential impact appears minimal and no mitigation is recommended.		
Located on a List of Hazardous Materials Sites		
The project site and surrounding areas are not on any list of the hazardous materials sites as defined by Government Code Section 65962.5. In addition, a number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials.	No mitigation is required.	Less than Significant
Conflict with Emergency Response Plans		
Compliance with existing regulations for emergency access and evacuation would ensure that impacts related to this issue are less than significant, and no mitigation is required.	No mitigation is required.	Less than Significant
Wildlands Fire Risk		
The Badlands to the east, across Gilman Springs Road, is considered a Very High Fire Hazard Area. The project allows the construction of warehouse buildings which have a low fire potential, and the	The WLC Specific Plan identifies a new on-site fire station, and payment of DIF and increased property taxes will fund future fire services. No other mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures		Level of Significance
project will add a new roadway network to facilitate access for fire protection vehicles and services. Fire Station #58 is relatively close to the project site, but future development will generate a need for an additional fire station on the site. New structures will have to comply with current Fire and Building Code regulations.			
SIGNIFICANT IMPACTS			
On-site Conditions Involving Hazardous Materials			
A number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials. However, the existing rural residences on site have not been surveyed as yet for hazardous materials.	**4.8.6.1A**	Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations.	Less than Significant with Mitigation
	4.8.6.1B	Prior to the issuance of any discretionary permits associated with the proposed fueling facility (“logistic support” site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.	
	4.8.6.1C	Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau. **4.8.6.1D** Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.	
Cumulative Hazards and Hazmat Impacts		
The risk to each future project is based on the location and interface between urbanized area and wildland areas. Potential risks associated with development in this area can be effectively reduced through conformance with Fire and Building Code regulations.	The WLC Specific Plan identifies a new on-site fire station, and increased property taxes will fund future police and fire services. Project specific mitigation measures 4.8.6.1A, 4.8.6.1B, 4.8.6.1C, and 4.8.6.1D are required and would ensure no significant cumulative impacts would result.	Less than Significant
4.9 Hydrology and Water Quality		
LESS THAN SIGNIFICANT IMPACTS		
Seismic Flooding-Related Impacts		
The WLC project area is not identified as being located within the City's mapped inundation area.	No mitigation required	Less than Significant
Seismic-Related Impacts		
The southwest corner of the site has slopes associated with Mt. Russell, but this area is designated as open space and the rest of the WLC	No mitigation is required	Less than Significant

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Issues/Impacts	Mitigation Measures		Level of Significance
area gently sloping and landslides or mudslides would not occur here.			
Groundwater			
The proposed WLC project would not interfere with groundwater recharge as the project site is not identified as a groundwater recharge area and it will utilize water supplies from EMWD.	No mitigation is required		Less than Significant
100-Year Flooding-Related Impacts			
The project site does not lie within a 100-year floodplain and does not include housing, so impacts related to this issue are less than significant.	No mitigation is required		Less than Significant
SIGNIFICANT IMPACTS			
Impact 4.9.6.1 Drainage Pattern and Capacity-Related Impacts			
The project will modify local drainage patterns, increase impervious surfaces (roofs, hardscape, etc.), and add landscaped areas with irrigation.	**4.9.6.1A**	Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention area(s), and spreading area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term “construct” shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins, are captured and infiltrated. The water balance model will be updated	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.	
	4.9.6.1B	The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale). For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours. For the Detention/infiltration Basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).	

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Issues/Impacts	Mitigation Measures		Level of Significance
Impact 4.9.6.2 Construction-Related Water Quality			
The construction and grading phases of the WLC Specific Plan area would temporarily disturb surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation within the WLCSP area.	**4.9.6.2A**	Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer.	Less than Significant with Mitigation
	4.9.6.2B	Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may include (but shall not be limited to) the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required. • Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas. • All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps. • The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase. • Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan. • The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time. The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.	
Impact 4.9.6.3 Operational-Related Water Quality			
During the operational phase of the WLC the major source of pollution in storm water runoff would be contaminants such as, a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron that have accumulated on the land surface over which runoff passes. These contaminants may lead to the degradation of storm water in downstream channels and require mitigation to reduce impacts to less than significant.	**4.9.6.3A**	Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate: **Site Design Best Management Practices** (a) Minimize urban runoff.	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	(b) Maximize the permeable area. (c) Incorporate landscaped buffer areas between sidewalks and streets. (d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs. (e) Use natural drainage systems. (f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration. (g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives. (h) Minimize impervious footprint. (i) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised. (j) Reduce widths of street where off-street parking is available. (k) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design. (l) Conserve natural areas. (m) Minimize Directly Connected Impervious Areas (DCIAs). (n) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices. (o) Streets, sidewalks, and parking lots will sheet flow to landscaping/ bioretention areas that are planted with native or drought tolerant trees and large shrubs. **Source Control Best Management Practices** Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural. Non-structural source control Best Management Practices include: (a) Education for property owners, operator, tenants, occupants, or employees; (b) Activity restrictions; (c) Irrigation system and landscape maintenance;	

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Issues/Impacts	Mitigation Measures	Level of Significance
	(d) Common area litter control; (e) Street sweeping private streets and parking lots; and (f) Drainage facility inspection and maintenance. Structural source control Best Management Practices include: (g) MS4 stenciling and signage; (h) Landscape and irrigation system design; (i) Protect slopes and channels; and (j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas. **Treatment Control Best Management Practices** Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store runoff for later non-potable uses. Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously. **4.9.6.3B** The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.	
	4.9.6.3C	Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site. The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall	

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Issues/Impacts	Mitigation Measures	Level of Significance
	be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.	
Cumulative Hydrology and Water Quality		
The drainage system for the proposed WLC project would maintain post-development runoff at pre-development levels for off-site downstream properties. Therefore, the proposed WLC project will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality.	Previously referenced Mitigation Measures 4.9.6.1A, 4.9.6.1B, and 4.9.6.3A through 4.9.6.3C. No additional mitigation is required.	Less than Significant
4.10 Land Use and Planning		
LESS THAN SIGNIFICANT IMPACTS		
Conflict with Applicable Land Use Plans, Policies, or Regulations		
The land uses per se of the project are not consistent with SCAG growth projections and some Compass Plan policies because they are not residential in nature. However, the project will substantially improve the City's job/housing balance which is consistent with these regional plans. The WLC project is consistent with the City General Plan upon approval of the requested General Plan Amendment. The project is consistent with the City's Housing Element. Therefore, the project is consistent with both regional and local land use plans, policies, and regulations.	No mitigation is required.	Less than Significant
Conflict with any Applicable Habitat or Natural Community Conservation Plan		
The project will be required to comply with the requirements of the County's MSHCP and pay its development impact fee.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4F related to Biological Resources will be implemented, and no additional mitigation is required.	Less than Significant

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Land Use and Planning Impacts		
The WLC project would not have significant project-related impacts related to dividing an established community, conflicting with applicable land use plans, policies, or regulations, or conflicting with an approved habitat conservation plan. While the WLC project would represent a shift in land use policy, this policy shift does not represent a significant CEQA impact.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Physically Divide an Established Community		
The WLC is located in the eastern end of the City, so its development would not physically divide an established community. However, development could adversely affect seven existing rural residences onsite, and the land plan cannot accommodate residences within logistics warehousing areas.	No feasible mitigation is available.	Significant and Unavoidable
4.11 Mineral Resources		
LESS THAN SIGNIFICANT IMPACTS		
Loss of Statewide, Regional, or Locally Important Mineral Resources		
The project site and surrounding area do not contain any identified regional or local mineral resources, nor are there any ongoing mineral resource extraction activities in the project area.	No mitigation is required.	No impact
Cumulative Mineral Resources		
The WLC project site does not contain significant forest resources, so it will not make a significant contribution to cumulatively considerable impacts relative to any forest resources.	No mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant
4.12 Noise		
LESS THAN SIGNIFICANT IMPACTS		
Groundborne Vibration		
Project-related earthwork will create groundborne vibration, but the project noise study determined it would not exceed significance criteria for adjacent residential uses.	No mitigation is required.	Less than Significant
Airport Noise		
There are no public airports or private airstrips within two miles of the project site, so there will be no significant airport-related noise.	No mitigation is required.	No Impact
SIGNIFICANT IMPACTS		
Impact 4.12.6.1 Short-Term Construction Noise		
Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.	**4.12.6.1A** Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The NRCP shall be prepared by a qualified acoustical consultant describing how noise reduction measures shall be implemented to reduce the noise exposure on sensitive receptors adjacent to onsite and offsite construction areas. The noise reduction measures shall be implemented so that construction activities do not exceed the City's daytime and nighttime average hourly noise standard of 60 dBA L_{eq} and 55 dBA L_{eq}, respectively. The construction noise reduction measures shall include, but not be limited to, the following measures:	Significant and Unavoidable

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	• All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards. • Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the project. • No construction activity shall occur within 800 feet of residences between 8 p.m. and 7 a.m. on weekdays and weekends. • A 12-foot tall temporary construction sound barrier blocking the line-of-sight of construction activity to any residential receptor located within 800 feet of active construction areas shall be installed prior to commencement of any construction activity. The temporary sound barrier shall be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. • Distribute to the potentially affected residences and other sensitive receptors within 500 feet of project construction boundary a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The distribution shall identify a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute feasible actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The distribution shall also notify residents adjacent to the project site of the construction schedule. Records of any complaints and corrective action	

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Issues/Impacts	Mitigation Measures		Level of Significance
		shall be stored at the site and available to the City upon request.	
Impact 4.12.6.2 Long-Term Traffic Noise			
Project operations will create significant long-term noise impacts on site and along a number of off-site roadways. Not all off-site impacts can be mitigated to less than significant levels by installing sound-attenuation improvements.	**4.12.6.2A**	When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development: Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the Revised Sections of the FEIR remain valid. These procedures used to conduct these noise analyses shall be consistent with the noise analysis conducted in the Revised Sections of the FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings. Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the World Logistics Center site, the Applicant shall implement the appropriate level of mitigation, identified in the Revised Sections of the FEIR to reduce the identified impacts to comply with the Moreno Valley Municipal Code, which sets maximum sound levels reaching residential uses at 60 dBA during the daytime hours (8:00 a.m. – 10:00 p.m.) and 55 dBA during nighttime hours (10:01 p.m. – 7:59 a.m.). Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants. If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise	Significant and Unavoidable

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Issues/Impacts	Mitigation Measures	Level of Significance
	abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote. At the completion of the vote at the end of the 45-day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public. Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement.	
	4.12.6.2B Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 49 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road.	
	4.12.6.2C Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D.	
	4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		the residential zone boundary, and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12-foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, "All manufacturing and industrial uses adjacent to residential land uses shall include a setback zone and/or noise attenuation wall to reduce outside noise levels"	
Impact 4.12.6.3 Long-Term Operational Noise			
Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. With implementation of a minimum 250-foot setback from residential uses, potential long-term operational noise impacts would be less than significant.	The project noise assessment determined that operational noise impacts from warehouse activities would not exceed City standards at nearby residential areas with implementation of the 250-foot setback requirement.		Less than Significant with Mitigation
Impact 4.12.6.4 Long-Term Utility Noise			
Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.	**4.12.6.4A**	Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.12.6.5 Cumulative Noise Impacts		
Traffic noise level increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative development projects in the project vicinity and region as well as the project. This is a significant impact and mitigation is required.	Previously referenced Mitigation Measures 4.12.6.1A, 4.12.6.2A through 4.12.6.2C, 4.12.6.3A, and 4.12.6.4A will be implemented, but cumulative noise impacts will still be significant.	Significant and Unavoidable
4.13 Population, Housing, and Employment		
LESS THAN SIGNIFICANT IMPACTS		
Population Growth		
The project proposes to develop logistics warehouses which will result in minimal direct population increase in the City, although some workers may move to the City to work at this project, and some local residents will also work at this project. The project will not necessitate extension of major infrastructure and the project will not remove obstacles that will result in substantial population growth.	No mitigation is required.	Less than Significant
Displace Substantial Housing/People		
The existing seven rural residences on the site will eventually convert to "Light Logistics" uses. The project will eliminate the potential for the site to provide 388 units of affordable housing that were proposed under the Moreno Highlands Specific Plan. However, the City can meet its regional housing goals without these units, and the project is consistent with the City's current Housing Element.	No mitigation required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable

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Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Population, Housing, and Employment Impacts		
Implementation of the proposed WLC project would improve the City's jobs/housing ratio by creating thousands of new construction and permanent jobs in the City. Therefore, it will not result in cumulatively considerable impacts to population or housing.	No mitigation is required.	Less than Significant
4.14 Public Services and Facilities		
LESS THAN SIGNIFICANT IMPACTS		
Police Protection		
As development under the WLCSP, the need for police services will increase. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant
Fire Protection		
As development under the WLCSP, the need for fire services will increase. Under the WLCSP, a new fire station site will be contributed to the City. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant
Schools		
Future industrial development will contribute no new students to local schools. Payment of the school impact fees to the MVUSD and SJUSD will reduce potential impacts to school services and facilities to less than significant levels.	No mitigation is required.	Less than Significant
Parks, Recreation, Trails		
Development under the WLCSP is logistics warehousing which will not generate new City	No mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
residents who require additional parks and trails. The WLCSP proposes trail connections to Redlands Boulevard, Cactus Avenue, and the State-owned land to the south, plus a loop trail through the WLCSP site.		
New or Physically Altered Recreation and Park Facilities		
Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional or altered parks.	No mitigation is required.	Less than Significant
Cumulative Public Services and Facilities Impacts		
As development occurs, the need for public services will incrementally increase. Anticipated property tax increases and payment of DIF fees to the City will effectively mitigation potential cumulative impacts to public services.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant
4.15 Traffic and Circulation		
LESS THAN SIGNIFICANT IMPACTS		
Air Traffic Patterns		
The project site is not within two miles of a public airport or private airstrip, and there are no major air traffic patterns over or in the immediate vicinity of the project site.	No mitigation is required.	Less than Significant
Design Hazard Features		
The project site is currently vacant agricultural land with only two major roadways (Theodore Street and	No mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
Alessandro Boulevard). Under the WLCSP, a complete arterial circulation network will eventually be constructed that will allow full truck access and minimize road-related hazards.		
Emergency Access		
The project site is currently vacant agricultural land with only two major roadways and minimal need for emergency services. Development under the WLCSP will eventually result in the construction of a complete arterial circulation network which will allow full access for emergency vehicles and services.	No mitigation is required.	Less than Significant
Alternative Transportation Policies, Plans, or Programs		
The project will create a complete roadway circulation network, install a loop trail system, have Class II bikeways and sidewalks on all internal arterial streets, and streets can accommodate bus turnouts when needed by the local transit agency.	Carpooling is required under Air Quality Mitigation Measure 4.3.6.4A. No additional mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.15.6.1 Existing (2018) With Phase 1 Conditions Traffic and Level of Service		
Existing baseline (year 2018) with Phase 1 intersection levels of service for the study area intersections include 15 study intersections where Phase 1 of the project would have a significant impact. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts and mitigation is required. Phase 1 of the project would cause a direct project impact at the other three intersections and mitigation is required.	**4.15.7.4A:** A traffic impact analysis ("TIA"), conforming to the guidelines for TIAs adopted by the City shall be submitted in conjunction with each Plot Plan application within the WLCSP. Prior to the approval of Plot Plans, the City shall review the Revised TIA to determine if any of the traffic improvements listed in the above tables need to be implemented as part of the plot plan. The TIA prepared for the Revised Sections of the FEIR are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of	Significant and Unavoidable

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	improvements within the City shall be subject to reimbursement agreement for those costs that exceed the fair share contribution determined for the specific Plot Plan application. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in MM 4.15.7F prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Revised TIA, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service. **4.15.7.4B**: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way, where feasible, consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map. Required dedications shall be made prior to the issuance of occupancy permits for the requested development. **4.15.7.4C:** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the Applicant to construct or to fully fund the transportation measures identified in the development's TIA (see MM4.15.7.4A) as needed to mitigate the transportation impacts within the city of the Plot Plan development. The payment or construction shall be made prior to the issuance of occupancy permits for the requested development. This condition shall apply only to mitigation measures where a mechanism has been established to collect funds from the project and any other funds to needed to complete the improvements. **4.15.7.4D:** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Chapter 3.44.	

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development. **4.15.7.4E:** In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the Revised Traffic Impact Analysis, i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to MM 4.15.7.4F. As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. Mitigation measures are summarized in Tables 4.15-1 to 4.15-13. **4.15.7.4F** The Applicant shall pay its portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the Project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the WLC project as a whole has a significant impact identified in the Revised Sections of the FEIR) as determined by the Revised Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Revised Sections of the FEIR will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.	

Table 1.1: World Logistics Center Project Environmental Impact Summary

<table>
<tr><th>Issues/Impacts</th><th>Mitigation Measures</th><th>Level of Significance</th></tr>
<tr><td></td><td>
For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection IN-85) in the City of Riverside was identified as a place where the WLC contributes to cumulatively significant impacts, and where the fair share contribution of the WLC project as a whole was computed to be 0.6%. If the City of Riverside establishes a fair share contribution program consistent with this MM to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million sq. ft. high-cube warehouse in the WLC (approximately 5% of the entire WLC project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:
<table>
<tr><td>Amount Due</td><td>=</td><td>Total cost of Improvement</td><td>×</td><td>Total World Logistics Center fair share (0.6%) as determined by Traffic Impact Analysis</td><td>×</td><td>% attributable to the building that is subject to the certificate of occupancy (5%)</td></tr>
</table>
<table>
<tr><th colspan="2">A × B × C = D</th></tr>
<tr><td>A =</td><td>% attributable to the building that is subject to the certificate of occupancy (5%)</td></tr>
<tr><td>B =</td><td>Total World Logistics Center fair share (0.6%) as determined by Traffic Impact Analysis</td></tr>
<tr><td>C =</td><td>Total cost of Improvement</td></tr>
<tr><td>D =</td><td>Amount Due</td></tr>
</table>
A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire WLC to the extent that the responsible
</td><td></td></tr>
</table>

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	jurisdiction has chosen to adopt a fair share contribution funding program consistent with MM 4.15.7.4F **4.15.7.4G** City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the needs of the City, including improvements identified in this TIA. Toward this end, City shall meet regularly with WRCOG.	
Impact 4.15.6.2 Existing (2018) With Project (Buildout) Conditions Traffic and Level of Service Impacts		
When project traffic under buildout conditions is overlaid on existing roadway and freeway conditions, significant project-specific and cumulative traffic impacts will occur. Local and regional roadway and intersection impacts can be effectively mitigated, as outlined in the project TIA and described in the mitigation measures to the right. At this time, there is no effective mitigation for anticipated project impacts on local freeways. In addition, the City cannot control the timing of improvements required at locations outside of the City of Moreno Valley.	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Buildout.	Significant and Unavoidable (see Cumulative Impacts)
Impact 4.15.6.3 Year 2025 with Project (Phase 1) Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, during Phase 1 development (approx. 2020 to 2025).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Year 2025 (considered to be Phase 1).	Significant and Unavoidable
Impact 4.15.6.4 Cumulative Impacts - General Plan Buildout (Year 2040) With Project Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, after completion of development under the WLCSP (i.e., after 2025).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G for development as it occurs during development under the WLCSP.	Significant and Unavoidable

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.16 Utilities and Service Systems		
LESS THAN SIGNIFICANT IMPACTS		
Construction or Expansion of Water Treatment Facilities		
The project can connect to the existing water supply and will not require the construction of any new water storage or treatment facilities.	No mitigation is required.	Less than Significant
Cumulative Water Supply		
The EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project area, including existing and future users, when planned groundwater storage improvements are completed.	No mitigation is required.	Less than Significant
Wastewater Treatment Requirements		
Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant.	No mitigation is required.	No Impact
Wastewater Treatment Capacity and/or New or Expanded Wastewater Facilities		
The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects.	No mitigation is required.	Less than Significant
Cumulative Wastewater Treatment		
The project, in conjunction with planned and future development within the service area, will incrementally increase the need for wastewater treatment over the long-term. However, the project itself would not require the construction of new wastewater treatment facilities or expansion of existing facilities.	No mitigation is required.	Less than Significant

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Solid Waste Facilities		
Adequate daily surplus capacity exists at the receiving landfill, so project development would not significantly impact current operations or the expected lifetime of the landfill serving the project area.	No mitigation is required.	Less than Significant
Solid Waste Reduction		
The project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, state, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations.	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site, and no additional mitigation is required.	Less than Significant
Cumulative Solid Waste		
The project, in conjunction with planned development in the surrounding region, will contribute increased volumes of solid waste to local landfills. However, these volumes will not exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered less than significant.	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site.	Less than Significant

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
Impact 4.16.1.6.1 Adequate Water Supply		
The Water Supply Assessment prepared for the project by Eastern Municipal Water District determined there were sufficient supplies of water to serve the project. However, the supply of water imported from the State is not currently guaranteed, so there may be significant impacts related to long-term water supply.	**4.16.1.6.1A** Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following: • Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan; • Use of vacuums, sweepers, and other “dry” cleaning equipment to reduce the use of water for wash down of exterior areas; • Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors); • Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest; • Use of recirculation systems in any outdoor water features, fountains, etc.; • Use of low-flow sprinkler heads in irrigation system; • Provide information to the public in conspicuous places regarding outdoor water conservation; and • Use of reclaimed water for irrigation if it becomes available. **4.16.1.6.1B** All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following: • Instantaneous (flash) or solar water heaters; • Automatic on and off water facets; • Water-efficient appliances;	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	- Low-flow fittings, fixtures and equipment; - Use of high efficiency toilets (1.28 gallons per flush [gpf] or less); - Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf); - Use of self-closing valves for drinking fountains; - Infrared sensors on drinking fountains, sinks, toilets and urinals; - Low-flow showerheads; - Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances; - Cooling tower recirculating system where applicable; - Provide information to the public in conspicuous places regarding indoor water conservation; and - Use of reclaimed water for wash down if it becomes available. **4.16.1.6.1C** Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.	
Impact 4.16.1.6.2 Storm Water Drainage Requirements		
The development of the proposed WLC project would introduce a substantial amount of impervious surfaces on the site, which could result in significant increases in off-site runoff.	**4.16.1.6.2A** Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.	Less than Significant with Mitigation

Table 1.1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Impacts to Water Supply Services		
The proposed WLC project would connect to existing conveyance infrastructure and adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.	Mitigation not required	Less than Significant with Mitigation
4.17 Energy (New Section)		
LESS THAN SIGNIFICANT IMPACTS		
Energy Consumption and Generation		
The project would not result in energy use or consumption that would cause wasteful, inefficient, and unnecessary consumption of energy.	No mitigation is required.	Less than Significant
Cumulative Energy Facilities and Consumption		
The WLC project, in conjunction with planned development in the region, will increase energy consumption as development occurs. The project will adhere to Title 24 and the California Green Building Code, and will exceed Title 24 energy consumption guidelines by at least 10 percent. Therefore, the project will not make a significant contribution to energy facilities or consumption.	No mitigation is required.	Less than Significant

NOTE TO READERS: The absence of reference to a portion of Section 2.0 means that the corresponding portion of Section 2.0 in the FEIR remains unchanged or has been deleted.

2.0 INTRODUCTION AND PURPOSE

In August, 2015, the City Council of the City of Moreno Valley (City) certified a Final Programmatic Environmental Impact Report (FEIR), which analyzed the environmental impacts that would result from the construction and operation of the World Logistics Center (WLC), as having been prepared in compliance with the California Environmental Quality Act (CEQA) The City Council the approved a General Plan Amendment (“GPA”), a Zone Change (“Zone Change”), the World Logistics Center Specific Plan (“WLC Specific Plan”), a financing and conveyancing Parcel Map (“Parcel Map 36457”), a Development Agreement (“Development Agreement”) and a request that 85 acres in an unincorporated portion of Riverside County be annexed into the City. In September, 2015, a number of lawsuits were filed challenging the City’s certification of the FEIR and the approvals granted for the construction and operation of the WLC.

In November, 2015, the City Council, in response to initiative petitions submitted to it for the GPA, the Zone Change, the WLC Specific Plan and the Development Agreement, vacated approvals for those entitlements granted in August, and then readopted the GPA, the Zone Change, the WLC Specific Plan and the Development Agreement. The Tentative Parcel Map (36547) was not part of the Initiative adoption and is not currently approved. The World Logistics Center Specific Plan is entitled for 40.6 million square feet of logistics and associated infrastructure land uses on the 2,610-acre project site.

In a court ruling dated February, 8, 2018, the Honorable Sharon J. Waters, Judge of the Riverside County Superior Court, identified five deficiencies in the FEIR. The key findings from Judge Waters’ ruling are quoted below:

- **Energy Impacts**: “The FEIR must provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis”.
- **Biological Impacts**: “The FEIR should remove all references to and consideration of the 910 acres of SJWA and MSHCP lands as “buffer zone” or “CDFW Conservation Buffer Area” in the Biological Resources and Habitat Impacts analysis”.
- **Noise Impacts**: “The FEIR must provide an analysis of construction noise over ambient levels; provide adequate analysis on construction noise impacts on nearby homes; address the inadequacy of mitigation measures, which fail to include performance standards or ways to reduce construction noise”.
- **Agricultural Impacts**: “The FEIR and the resolution certifying the FEIR require clarification as to whether loss of locally important farmland will have a significant direct or cumulative impact on agriculture and, if significant, the FEIR must either explain how proposed mitigation will reduce the impact or why other mitigation is not feasible”.
- **Cumulative Impacts**: “The FEIR should include consideration of recently constructed and proposed large warehouse projects in the summary of projections method, and should analyze whether individually significant impacts may be cumulative considerable”.

In a writ of mandate issued on June 12, 2018, the Judge order the City to set aside its certification of the FEIR and its approval of the Parcel Map. The remaining approvals – the GPA, Zone Change, World Logistics Center Specific Plan, Annexation Request and Development Agreement granted in November, 2015 – and those entitlements remain in effect.

This Revised Sections of the FEIR has been prepared to respond to the Judge’s ruling and writ by correcting the five deficiencies identified in the ruling. With respect to cumulative impacts, the Judge’s ruling did not indicate the specific environmental topics to be evaluated, and thus, to ensure compliance with the ruling, this Revised Sections of the FEIR includes an analysis of potential cumulative impacts for all environmental topics, even those never raised in the Superior Court proceedings. While such information may not be required to comply with the Judge's ruling, it is included here to account for the most conservative interpretation of the Judge's ruling. The court will have the discretion to determine whether it was required to comply with the writ or not. The Revised Sections of the FEIR evaluate the current environmental baseline conditions, impacts and any required additional or revised mitigation measures associated with the construction and operation of the World Logistics Center.

Using this interpretation of the Judge's ruling for cumulative impacts, this Revised Sections of the FEIR includes a revised analysis of the WLC's potential transportation impacts to incorporate the cumulative impacts of additional projects, although the FEIR's section on Transportation and Traffic (Section 4.15) was upheld by Judge Waters. Although not required by the Judge's ruling, this section has also been prepared to reflect the latest trip generation rates found in the Institute of Transportation Engineers' Trip Generation Manual (10th ed., 2017). The revised traffic analysis also forms the basis for revised analyses of air quality, greenhouse gases and traffic noise, even though those sections of the FEIR were upheld by the court (Sections 4.3, 4.7 and portions of 4.12).

The Revised Sections of the FEIR are being circulated to the public for review and comment. Written responses to those comments will then be prepared. A Revised FEIR, which will consist of this Revised Sections of the FEIR, the comments and responses and the portions of the FEIR that were found to be in compliance with CEQA after trial, will be considered by the City.

Because the Judge found that substantial portions of the FEIR did comply with CEQA, only this Revised Sections of the FEIR is being circulated for public review and comment. This Revised Sections of the FEIR presents additional environmental analyses necessary to respond to the Judge's ruling. Some portions of this Revised Sections of the FEIR adds to the FEIR, e.g., new Section 4.17 (Energy), or provides additional information on the same topic, e.g., Section 2.1 (Document Format). Elsewhere in this Revised Sections of the FEIR, individual sections have been revised and replace the corresponding sections in the FEIR (Air Quality, Biological Resources, Greenhouse Gas Emissions/Climate Change). The Revised Sections of the FEIR also identify certain specific portions of the FEIR (Project Description) that are no longer applicable to the CEQA analysis, which identifies the GPA, Zone Change, the World Logistics Center Specific Plan, Annexation Request and the Development Agreement as a discretionary action anticipated to be taken by the City.

For clarity, although the GPA, Zone Change, WLC Specific Plan, Annexation Request and Development Agreement were approved by the City in compliance the initiative process set forth in the California Elections Code, this Revised Sections of the FEIR in combination with the valid portions of the FEIR, serves to evaluate the environmental effects of the World Logistics Center project.

The absence of any reference to a section of the FEIR in this Revised Sections of the FEIR means that the corresponding section in the FEIR remains unchanged because the Judge found that it complied with CEQA.

The reader should note that each section within Section 4.0 of the FEIR contained a subsection analyzing cumulative impacts. Those subsections are no longer applicable and have been replaced with a new Section 6.0.

Finally, the FEIR sometimes refers to Theodore Street. It has since been renamed World Logistics Center Parkway south of SR-60.

2.1 Document Format

As noted above, the Judge's ruling identified five areas where the FEIR failed to comply with CEQA. The ruling requires that the Revised Sections of the FEIR: (1) provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis; (2) remove references to and consideration of the northernmost 910 acres of the San Jacinto Wildlife Area (SJWA) as a “buffer zone” or the “CDFW Conservation Buffer Area” in the Biological Resources analysis; (3) provide an analysis of construction noise over ambient levels, provide adequate analysis of construction noise impacts on nearby homes, and address inadequate mitigation measures, which fail to include performance standards or ways to reduce construction noise; (4) clarify as to whether loss of farmlands of local importance was significant and, if so, how it would be mitigated, if feasible; and (5) consider recently constructed and proposed large warehouse projects to determine whether they will result in cumulatively significant impacts.

This Revised Sections of the FEIR responds to each of the five areas as follows:

> **(1) Renewable Energy**: A new section dealing with renewable energy technologies, Section 4.17, has been prepared and is included in this Revised Sections of the FEIR. In addition, a new Appendix E, World Logistics Center, Comparison of Renewable Energy Technologies, has been prepared and is included in this Revised Sections of the FEIR.
>
> (**2) Biological Resource**s: References to and consideration of the SJWA as a “buffer zone” or “CDFW Conservation Buffer Area” have been removed from Section 4.4, Biological Resources, and a revised version of that section has been prepared. These terms have also been removed in all other relevant sections of the FEIR. Those sections, as revised, have also been included in these Revised Sections of the FEIR.
>
> **(3) Construction Noise**: Those portions of Section 4.12, Noise, dealing with construction noise and mitigation measures have been revised and are included herein. In addition, a revised Appendix K, Noise Technical Report, has been prepared and is included in the appendices.
>
> **(4) Farmlands of Local Importance**: Those portions of Section 4.2, Agricultural and Forestry Resources, dealing with the loss of farmland of local importance have been revised and are included herein.
>
> **(5) Cumulative Impacts**: A new Section 6.0, Cumulative Impacts, has been prepared and is included herein. Over 360 recent past, present and reasonably foreseeable projects that could cumulatively contribute to the World Logistics Center’s environmental impacts have been identified and considered. These are in addition to the contributions of projects reflected in various planning documents.

As mentioned, the Revised Sections of the FEIR also includes revised analyses in Traffic and Circulation, and in Appendix F, Traffic Impact Analysis (TIA), Section 4.15, in Air Quality, Section 4.3, and in Appendix D, Air Quality/Health Risk/Greenhouse Gases, Noise, Section 4.12, and in Appendix C, Noise. It should also be noted that the methodologies used to determine the environmental impacts have not been changed. As an example, the same general approach, LOS methodologies, and thresholds that were used in the 2014 TIA were repeated in the 2018 TIA; although the input data and study years were updated to reflect the best available current information.

2.2 Process for Revised Sections of the FEIR

CEQA requires the Lead Agency to consider the information contained in an EIR prior to taking any discretionary action on a project. This Revised Sections of the FEIR corrects deficiencies found by the court to exist in the FEIR and provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from the construction and operation of the World Logistics Center project. The purpose of the public review of an EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the *CEQA Guidelines* states the following regarding standards from which adequacy is judged:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *CEQA Guidelines*, and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

Under CEQA (PRC Section 21002.1[a]):

> "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the proposed project, and to indicate the manner in which those significant effects can be mitigated or avoided."

This Revised Sections of the FEIR has been prepared to correct deficiencies found by the court to exist in the FEIR by evaluating some of the potential environmental impacts associated with the construction and operation of the World Logistics Center project which will include 40.6 million square feet of logistics warehouse facilities, as well as its associated infrastructure. ESA (ESA) has prepared this Revised Sections of the FEIR under the direction of professional City planning staff. However, prior to certification of the Revised FEIR, the City must independently review the methodologies used, and conclusions reached in the Revised Sections of the FEIR. The City is undertaking an independent review of the Revised Sections of the FEIR by having City planning staff work with ESA on the document, and by employing a third-party consultant to independently review it as well. If certified by the City, the information included and the conclusions reached in the Revised Sections of the FEIR will therefore represent the City's independent judgment.

This Revised Sections of the FEIR has been prepared utilizing information from City planning and environmental documents, applicant-provided technical studies, and other publicly-available data. Additional mitigation measures that would offset, minimize, or otherwise avoid significant environmental impacts from the World Logistics Center project have been identified, where required. This document has been prepared in accordance with CEQA, California Public Resources Code §21000 *et seq.*; the *Guidelines for California Environmental Quality Act* (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City. The objective of the Revised Sections of the FEIR is to inform City decision-makers, representatives of other affected/responsible agencies, the public, and other interested parties of the potential environmental consequences that were not adequately dealt with in the FEIR that may be associated with the approval and implementation of the WLC project.

2.3 Incorporated Documents

The CEQA Guidelines (§15150) permits the incorporation by reference of all or portions of other documents that are generally available to the public. Any document incorporated by reference is required to be made available to the public for inspection at a public place or public building and requires that the EIR state where the incorporated documents will be made available for public inspection. The following documents have been incorporated by reference:

City of Moreno Valley General Plan, various elements, adopted by City Council Resolution No. 2006-83, July 11, 2006, and last updated October 2006.

City of Moreno Valley General Plan Final Environmental Impact Report, certified July 2006.

City of Moreno Valley General Plan Land Use Map, last updated November, 2017.

City of Moreno Valley Zoning Atlas, last updated November 2017.

City of Moreno Valley Municipal Code (various chapters), last updated February 2012.

Moreno Highlands Specific Plan EIR, adopted 1992.

World Logistics Center Initiative, November 24, 2015

2.4 Technical Reports

Various technical or project-related reports have been prepared to assess specific issues that may result from the construction and operation of the project. As relevant, information from the following documents and technical reports has been integrated into the Revised Sections of the FEIR as appendices:

“The World Logistics Center Specific Plan” (Highland Fairview) original dated January 30, 2013, revised dated September 2014.

“An Agricultural Industry Analysis of the Inland Empire” (Andrew Chang & Co.), original dated March 2012, revised September 2014.

“Agricultural Resources Assessment for the WLCSP” (Parsons Brinckerhoff), original dated March 2012, revised December 2013.

“Agricultural Assessment for the WLCSP” (Cushman and Wakefield) new report dated December 20, 2013 (prepared for Final EIR in response to comments) and revised September 2014.

“Air Quality, Greenhouse Gas, and Health Risk Assessment for the WLCSP” (MBA), original dated January 2013, revised April 2015.

“Habitat Assessment, MSHCP Consistency Analysis, and JPR Review” (MBA), original dated December 20, 2012, revised September 2014.

“Delineation of Jurisdictional Waters and Wetlands” (MBA), original dated November 2012, revised September 2014.

“Phase I and Phase II Cultural Resources Assessment” (MBA), original dated May 2012, revised September, 2014.

“Preliminary Geotechnical Investigation” (Leighton), original dated March 23, 2012, revised September 2014.

“Supplemental Geotech Assessment for Offsite Improvements Related to the WLCSP” (Leighton), original dated March 23, 2013, revised September 2014.

“Phase 1 Environmental Site Assessments” (various dates, LOR Geotechnical) (not revised).

“Draft Master Plan of Drainage Study” (CH2MHill) original dated November 2012, revised dated September 2014.

“Preliminary Water Quality Management Plan” (CH2MHill) original dated November 2012, revised September 2014.

“Noise Assessment for the WLCSP” (Mestre Greve Associates) original dated January 2013, revised September 2014.

“Traffic Impact Assessment (TIA) for the WLCSP” (Parsons Brinckerhoff) original dated January 2013, revised September 2014.

“NAIOP Assessment of Available High-Cube Trip Generation Rates” (Kunzman Associates), December 20, 2011.

"Water Supply Assessment for the WLCSP" (Eastern Municipal Water District), March 21, 2012.

"Highlands Water Budget" (CH2MHill), original dated December 2012, revised September 2014.

"Water System Modeling Results" (CH2MHill), original dated December 2012, revised dated October 22, 2013.

"Sewer and Reclaimed Wastewater Memorandum" (CH2MHill), original dated April 25, 2012, revised September 2014.

"Dry Utilities – Technical Memorandum" (Utility Specialists), original dated December 20, 2012, revised September 2014.

"Electrical System Forecast of Utility Infrastructure" (MVU Engineering), original dated December 2012, revised September 2014.

"Fiscal and Economic Impact Study for the World Logistics Center" (David Taussig and Associates), original dated January 15, 2013, revised September 2014.

Hydrology and Water Quality Memorandum (Woodard Curran), 2018

Traffic Impact Assessment (WSP), 2018

Energy Assessment (WSP),2018

Transportation Energy Assessment (ESA), 2018

Air Quality Assessment (ESA), 2018

Noise Assessment (ESA), 2018

Greenhouse Gas Assessment (ESA), 2018

Health Risk Assessment (ESA), 2018

Biological Resources Assessment (ESA), 2018

Sensitive Species Surveys (ESA), 2018

In addition to their inclusion in their entireties as appendices to the Revised Sections of the FEIR, these documents are available for review at the following location:

Moreno Valley City Hall
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3238
Monday–Thursday 7:30 a.m.– 5:30 p.m.
Friday 7:30 a.m. – 4:30 p.m.

2.5 Public Review of the Revised Sections of the FEIR

This Revised Sections of the FEIR will be distributed to responsible and trustee agencies, other affected agencies, and interested parties. Additionally, in accordance with Public Resources Code Section 21092(b)(3), this document will be provided to all parties who previously requested copies. The Notice of Completion (NOC) and Notice of Availability (NOA) of the EIR is being distributed for a 45-day public review period. During the public review period, the Revised Sections of the FEIR and the revised technical appendices will be made available for review. Written Comments should be addressed to:

Albert Armijo, Interim Planning Manager
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3206
Email: alberta@moval.org

After the public review period, written responses to comments on the Revised Sections of the FEIR will be prepared. These responses will be available for review for a minimum of 10 days prior to the public hearings before the City, at which time the certification of the Revised FEIR will be considered. The Revised FEIR (which includes the Revised Sections of the FEIR, the public comments and responses to the Revised Sections of the FEIR and the portions of the FEIR found to comply with CEQA) will be included as part of the environmental record for consideration by the City decision-makers. The City will respond as appropriate to comments made at public hearings on the WLC Project and Revised Sections of the FEIR.

2.6 Mitigation Monitoring and Reporting Program

The Mitigation Monitoring and Reporting Program (MMRP) will be revised to comply with the requirements of State law (Public Resources Code Section 21081.6) and the court’s ruling and writ. When mitigation measures are required to avoid or reduce the severity of significant impacts, State law requires the adoption of an MMRP. The monitoring program is intended to ensure compliance during implementation of the program.

2.7 Potential Impacts of the Project Discussed in the Revised Sections of the FEIR

The Revised Sections of the FEIR focuses on the areas of concern identified by the court ruling and writ.

The following seven environmental topics are addressed in the project impacts section (Section 4.0) of these Revised Sections of the FEIR:

- Agriculture and Forestry Resources (loss of farmland of local importance)
- Biological Resources
- Energy
- Noise
- Traffic
- Air Quality
- Greenhouse Gas Emissions

The following seventeen environmental topics are addressed in the cumulative impact sections (Section 6.0) of the Revised Sections of the FEIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality, including Human Health
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology, and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population, Housing, and Employment
- Public Services and Facilities
- Transportation and Traffic
- Utilities and Service Systems
- Energy

2.8 Cumulative Impacts

Cumulative Impacts are discussed in Section 6.0 of these Revised Sections of Final EIR.

NOTE TO READERS: The project as originally proposed to the City, and as described in the FEIR, included both the World Logistics Center and a General Plan Amendment and a rezoning of land south of the World Logistics Center site to reflect their open space nature. The General Plan Amendment and rezoning have since been accomplished through the initiative process. The description of the World Logistics Center has not changed. It should be noted that Theodore Street has been renamed World Logistics Center Parkway, south of SR-60.

The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 3.0 that have been revised. Revisions to, and deletions from, the FEIR have been identified in a separate document, available for review at the City of Moreno Valley. The absence of any reference to a portion of Section 3.0 means that the corresponding portion of Section 3.0 in the FEIR remains unchanged or has been deleted. However, where appropriate, unrevised portions of the FEIR have been included for ease of understanding.

3.0 PROJECT DESCRIPTION

The World Logistics Center is located on 2,610 acres in the Rancho Belago area at the eastern end of Moreno Valley, south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road and north of the San Jacinto Wildlife Area. The site currently has a General Plan designation of Business Park/Light Industrial and zoning designations of WLCSP-LD (World Logistics Center Specific Plan – Logistics Development) and WLCSP-LL (World Logistics Center Specific Plan – Light Logistics). The site is subject to the adopted World Logistics Center Specific Plan which authorizes the construction and operation of 40,600,000 square feet of logistics facilities and associated infrastructure. The land use plan in the Specific Plan is shown in Figure 3-8 and is also shown in this section in Figure 3-1.

All of the land use entitlements for the World Logistics Center are in place – the General Plan and zoning designations, the Specific Plan, a request for annexation of 85 acres of unincorporated land in Riverside County into the City and a development agreement – having been adopted in November, 2015, through the initiative process.

3.3.13 Phasing

Development of the WLC project is planned over a period of fifteen years, from 2020 through 2035.

Under this projected development schedule, the project will absorb an average of approximately 2.7 million square feet of new development each year from 2020 to 2035, with actual development phasing and square footage buildout based on future market conditions. Section 8.0 of the Specific Plan, *Project Phasing*, suggests that development will likely occur in two large phases, starting in the western portion of the site south of Eucalyptus Avenue This phasing concept is based on beginning construction where infrastructure presently exists and expanding southerly and easterly. It is anticipated that Phase 1 would be completed by 2025 and would contain approximately 50% of development or approximately 20,300,000 square feet of logistics warehouse uses. Phase 2 anticipates full development build-out by 2035. Figure 3.19 in the FEIR shows the proposed phasing plan.

As stated in the Specific Plan, project phasing predictions are conceptual. The actual amount and timing of development will be dependent upon numerous factors, many of which are outside the control of the City or the developer, including interest by building users, private developers and local, regional, and national economic conditions. These and other factors acting together will ultimately determine the location and rate at which development within the project area occurs.

The framework for development of the area will be in accordance with the Specific Plan, which identifies the type and intensity of land uses permitted within the project. It is anticipated that development of the project would occur over time, as the result of the construction of multiple separate independent projects of varying sizes and configurations. Each of these future projects would be required to be consistent with the General Plan and zoning and would comply with all applicable regulations of the Specific Plan.

Table 3.E in the FEIR provides an estimate of the rate at which the project area could be built out, consistent with the Specific Plan, and estimated levels of construction projected to occur during each phase of development. Table 3.E in the FEIR also includes the approximate amount of equipment anticipated to be used during construction of the project. Project phasing is summarized in Table 3.1.

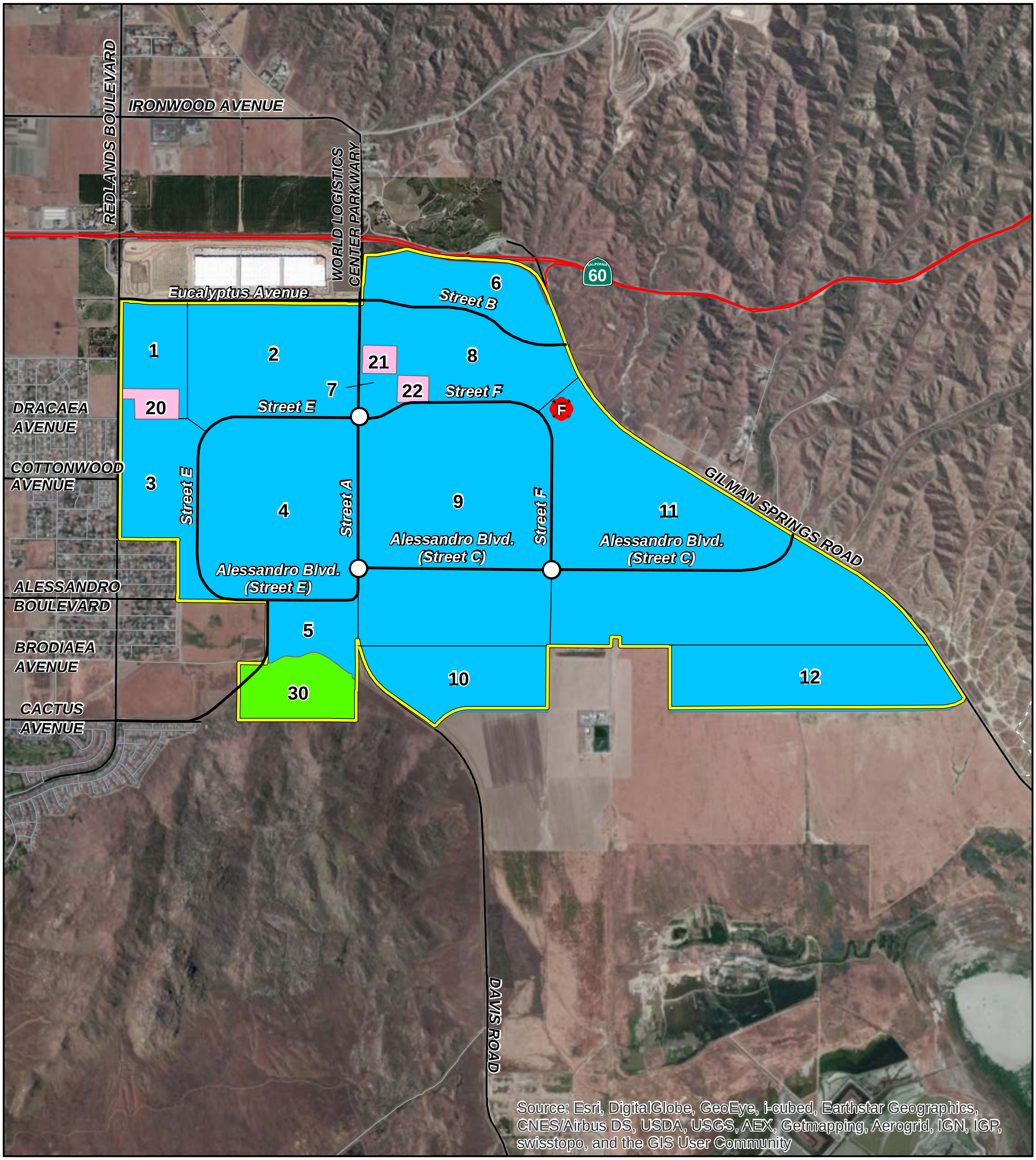

LSA

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0 1,500 3,000

FEET

☐ Project Boundary

🟪 Light Logistics

🟦 Logistics Development

🟩 Open Space

F Fire Station Site

1 Planning Area Number

Figure 3.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Specific Plan Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

Table 3.1: Estimated Construction Equipment and Phasing (2020–2035)

Activity/Equipment	#	Duration (months)	Phase 1– Start	Phase 1– End	Phase 2– Start	Phase 2– End
Mass Grading/Excavation						
Dozers (D8R, D9, D10)	4-21	96	The equipment will be used from January 1 to December 31 during the following years: 2020, 2022, 2024, and 2026		For the years 2027 to 2029 equipment will be used from October 1 to March 31 of the following year. For the years 2032, 2033, and 2035 equipment will be used from January 1 to June 30.	
Scraper (651E)	6-30					
Compactor (824C, 834)	2-6					
Motor Grader (140G)	1-3					
Service/Support Truck	7-27					
Other Dozers (D6M, 550)	2-9					
Other[1]	8-18					
Finish Grading						
Dozer (D6M, 550)	3-9	32	Equipment will be used two months out of the following years 2020, 2022, 2024, and 2026		Equipment will be used two months out of the following years 2027, 2028, 2029, 2030, 2032, 2023, and 2035	
Backhoe (420D)	1-3					
Water Truck	1-3					
Service/Support Truck	1-3					
Building						
Backhoe (590)	6	186	July 1, 2020	December 31, 2026	January 1, 2027	December 31, 2035
Concrete Truck	36					
Excavators (9060, 270, 240, mini)	16					
Material Delivery Trucks	11					
Forklift (420 and 544D)	10					
Case and Skip Loaders[2]	28					
Service/Support Truck	24					
Other[3]	12					
Utilities						
Excavators[4]	26-30	186	July 1, 2020	December 31, 2026	January 1, 2027	December 31, 2035
Loaders	8					
Water Truck	17					
Backhoe (420)	2					
Service/Support Trucks	18					
Delivery Trucks	10					
Concrete Trucks	8					
Other[5]	4-8					
Interchange						
Dozer (D9, D10)	1	18	January 1, 2025	September 30, 2026	--	--
PW Scraper (623)	1					
Excavator (324)	1					
Backhoe (430)	1					
Crane	1					
Concrete Truck	4					
Service/Support Truck	4					

Table 3.1: Estimated Construction Equipment and Phasing (2020–2035)

Activity/Equipment	#	Duration (months)	Phase 1–		Phase 2–	
			Start	End	Start	End
Drill Rig	1					
Dump Truck	5					
RT Wheel Loader (950)	1					
Concrete Screed Mach.	1					
Skip Loader (414)	1					
Dozer (D5, D6)	1					
Motor Grader (14M)	1					
Curbing						
Curb Machine/Screed	2	62	July 1, 2020[1]	December 31, 2026	January 1, 2027	December 31, 2035
Skip Loader (210)	1					
Concrete Truck	6					
Service/Support Truck	4					
Paving						
Roller/Paving/Blade/ Scraper	10	32	January 1, 2020[2]	December 31, 2026	January 1, 2027	December 31, 2035
Skip Loader	4					
Bottom Dump Truck	4					
Delivery Truck	7					
Service/Support Truck	6					
Landscaping						
Loader (310G, 210LE, 544J)	6	186	January 1, 2020	December 31, 2026	January 1, 2027	December 31, 2035
Water Truck	2					
Excavator (mini) /Lift (544D)/ Steer (S190R)	6					
Trencher (RT-45)	2					
Service/Support Truck	14					

Source: Highland Fairview

1. Includes: Water Puller, 420D Backhoe, water trucks, support trucks
2. Includes: 414, 721, cat skip loader, 310G, 210LE, 544J
3. Includes: boom pump/truck, water truck, trencher, skid steer, water truck
4. Includes: 65,000 lbs to 175,000 lbs, 250G, and cat mini
5. Includes: dump truck, crane, fork lift

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[1] Two months a year

[2] Four weeks a year

NOTE TO READERS: This portion of the Revised Sections of the FEIR replaces Sections 4.2, 4.3, 4.4, 4.7, and 4.15. of the FEIR. A new Section 4.17 has been added. The cumulative portions of Chapter 4.0 have been deleted from the FEIR to allow for their reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Chapter 6.0 of this Revised Sections of the FEIR.

The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 4.0 that have been revised. Revisions to, and deletions from, the FEIR have been identified in a separate document, available for review at the City of Moreno Valley. The absence of any reference to a portion of Section 4.0 means that the corresponding portion of Section 4.0 in the FEIR remains unchanged or has been deleted.

4.0 ENVIRONMENTAL IMPACT EVALUATION

There are 17 environmental issue areas that are analyzed in this Revised Sections of the FEIR. Issue areas highlighted in bold remain valid in the FEIR and no additional analysis is included herein:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Geology and Soils
4.7 Greenhouse Gas Emissions, Energy Conservation, and Global Climate Change
4.8 Hazards and Hazardous Materials
4.9 Hydrology and Water Quality
4.10 Land Use and Planning
4.11 Mineral Resources
4.12 Noise
4.13 Population, Housing, and Employment
4.14 Public Services
4.15 Transportation and Traffic
4.16 Utilities and Service Systems
4.17 Energy (New)

Those portions of the FEIR that have been found to be deficient by the Superior Court have been updated. In addition, because of the inclusion of additional past, present and reasonably foreseeable projects and the issuance of a new Trip Generation Manual, the Traffic and Circulation section has been updated. That section also serves as the basis for analyzing the World Logistic Center's air quality, greenhouse gas and traffic noise impacts so the sections for each of them have also been updated. The analysis of all other issues were not included because there were no substantive updates. The following information is presented relative to each environmental issue that was updated:

- Description of the existing setting as it relates to the specific environmental issue;
- A summary of policies and regulations relevant to the specific environmental issue;
- Identification of the thresholds of significance;
- Evaluation of project-specific impacts and a determination of significance based on identified threshold levels;
- Description of design features of the Specific Plan that will help reduce potential impacts;
- Identification of mitigation measures;
- A determination of the level of significance after mitigation measures are implemented

Because the cumulative impact analysis has been ordered to be updated by the Superior Court, all updated cumulative impact analysis is addressed in Chapter 6.0 of these Revised Sections of the FEIR.

NOTE TO READERS: The cumulative portion of Section 4.1 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.1 of the Revised Sections of the FEIR. All other portions of Section 4.1 of the 2015 FEIR remain unchanged. The absence of reference to a portion of Section 4.1 means that the corresponding portion of Section 4.1 in the FEIR remains unchanged or has been deleted.

4.1 AESTHETICS

NOTE TO READERS: The cumulative portion of Section 4.2 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.2 of this Revised Sections of the FEIR. This section has been updated to reflect the updated 2016 State of California, Riverside County Important Farmland Map. The absence of reference to a portion of Section 4.2 means that the corresponding portion of Section 4.2 in the FEIR remains unchanged or has been deleted.

4.2 AGRICULTURAL AND FORESTRY RESOURCES

This section discusses possible agricultural and forestry resource impacts attributable to the World Logistics Center project. It describes existing agricultural resources and State farmland classifications for the project site. This section focuses on applicable State, regional, and local policies regarding agricultural resources and the conversion of farmland to non-agricultural uses.

The Superior Court ruling and writ of mandate require the following actions with regards to the analysis of Agricultural and Forestry Resources:

- *The FEIR and the resolution certifying the FEIR require clarification as to whether loss of locally important farmland will have a significant direct or cumulative impact on agriculture and, if significant, the FEIR must either explain how proposed mitigation will reduce the impact or why other mitigation is not feasible".*

At the time the Draft EIR was prepared, 25 acres of the project site were designated as "Unique Farmland" and 2,200 acres were designated as "Farmland of Local Importance by the state Department of Conservation. The Draft EIR found that the development of the World Logistics Center would convert the 25 acres of "Unique Farmland" to urban uses represented a significant impact to agricultural resources. Mitigation Measure 4.2.6.1 was applied to require an agricultural easement over comparable land, and therefore, reduce this impact to less than significant. In response to comments, the FEIR added analysis under the California Land Evaluation and Site Assessment (LESA) model (discussed further in Section 4.2.6.2 below) which demonstrated that potential impacts to Farmland of Local Importance would be less than significant. However, certain other text in the FEIR and in the City's resolution to certify the FEIR had not been updated and erroneously indicated that there was a significant impact resulting from the development of the Farmland of Local Importance. This revised Section 4.2 corrects these misstatements and replaces in its entirety Section 4.2 of the FEIR.

Since publication of the FEIR, the California Department of Conservation has published its "Riverside County Important Farmland 2016" map (published July 2017) which shows that the 25-acre parcel that had previously been designated as "Unique Farmland" has been re-designated as "Farmland of Local Importance." In addition, there were additional revisions to the Farmland designations on the project site. Based on the Farmland map published in July 2017, the 2,610-acre World Logistics Center site includes 2,361 acres of Farmland of Local Importance, 247.5 acres of Other Land, and 1.5 acres of Urban Built-up Land. With the change in designations for this parcel, the mitigation measure to reduce the impact from the loss of the onsite area designated as Unique Farmland is no longer applicable, since there is no longer any "Unique Farmland" in the development area of the World Logistics Center site. As a result of the publication of the revised map, this Revised Sections of the FEIR has updated the exhibit and text to reflect the most current designations.

The following text and figure from the FEIR has been revised to address the issues discussed above. The analysis contained in this section is based on the following reference documents:

- *Agricultural Mitigation Bank Memorandum*, County of Riverside Transportation and Land Management Agency, October 2, 2003.
- *Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 12, 2012, revised December 2013.

- *California LESA Model*, Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW). December 20, 2013.
- *A Guide to the Farmland Mapping and Monitoring Program*, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.
- *California Land Evaluation and Site Assessment Model, Instruction Manual*, California Department of Conservation, Office of Land Conservation, 1997.
- *Conservation Element, City of Moreno Valley General Plan*, adopted July 11, 2006.
- Google Maps Street View, imagery dated 2007.
- Moreno Valley General Plan Land Use Map, November, 2017
- *Moreno Valley General Plan Environmental Impact Report*, SCH#200091075, certified July 2006.
- *Moreno Valley Municipal Code*, Chapter 9.06, current through February 2012.
- Riverside County Integrated Project website, http://www.rcip.org/, accessed April 5, 2012.
- *Riverside County Land Use Conversions, 1998–2000, 2000–2002, 2002–2004, 2004–2006,* California Department of Conservation, Division of Land Resources Protection.
- *Riverside County 2010 Agricultural Production Report*, Riverside County Farm Bureau, 2010.
- *Soil Survey Western Riverside County Area California*, United States Department of Agriculture, November 1971.
- *An Agriculture Industry Analysis of the Inland Empire*, Andrew Chang & Company, LLC. March 12, 2012 (DEIR Appendix C).
- California Department of Conservation's "Riverside County Important Farmland 2016" map (published July 2017).
- *Habitat Assessment, MSHCP Consistency, and HANS Report*, MBA, original dated December 20, 2012, revised September 2014 and May 2018. (This includes the focused surveys included as separate documents in the previous version.)

The California Land Evaluation and Site Assessment (LESA) Model worksheets prepared for the project are included in Appendix C to this Revised Sections of the FEIR (*Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 2012, revised September 2014).

4.2.1 Existing Setting

Most of the land within the project area has been utilized for agricultural purposes since the late 1880s. The area has a history of citrus production and dryland farming incorporating various agricultural activities such as frequent disking, infrequent pesticide application, and very limited irrigation. Due to a variety of local and regional economic factors, agricultural production is no longer a principal characteristic of the Moreno Valley economy.[1]

Based on the updated project habitat assessment (ESA, 2018) and the review of recent aerial photographs, approximately 2,200 acres or 84 percent of the 2,610-acre Specific Plan area is currently dry farmed, mainly with winter wheat. The remaining acreage of the Specific Plan area contains rural residential uses and disturbed native vegetation.

The farming activity on the WLC area has been conducted for the past several years under contract to a single contractor, Bruno Farms. The landowner, Highland Fairview, has made the land available for

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[1] Conservation Element, City of Moreno Valley General Plan.

agricultural use at no cost, as the agricultural activities provide a valuable property maintenance function (fuel modification). Based on conversations with the contractor, agricultural production on the World Logistics Center site has been largely unsuccessful. For example, during the last seven years (the period for which statistics are available), only one year (2017) produced a harvestable crop. That year, rainfall levels in the area were extraordinarily high. In six of the past seven years, no crops were harvested at all. The contractor indicates that the lack of productivity of the past seven-year period is typical for the entire period he has been farming the WLC property. Despite the lack of productivity, the contractor continues to farm the property simply to continue his family's long history in agriculture. Table 4.2-1 includes the results of each year's production.

Table 4.2-1: Agricultural Production at World Logistics Center Site

Year	Rainfall (Wet/Dry)	Planted (Acres)	Crop	Harvested (Bushels)
2012	Dry	2,200	Wheat	0
2013	Dry	2,200	Wheat	0
2014	Dry	2,200	Wheat	0
2015	Dry	2,200	Wheat	0
2016	Dry	2,200	Wheat	0
2017	Wet	2,200	Wheat	79,992
2018	Dry	2,200	Wheat	0
Total Production from 2012 to 2018 (7 Years)				79,992
Average Annual Production for 2,200 acres				11,427
Average Annual Production per Acre				5.19

Source: Highland Fairview and Bruno Farms, 2018.

4.2.1.1 State Designated Farmland

The California Government Code (Section 65570) requires the collection and reporting of agricultural land use acreage by June 30 of each even-numbered year. Utilizing data from the U.S. Department of Agriculture, Natural Resource Conservation Service (USDA, NRCS) soil survey and current land use information, the Farmland Mapping and Monitoring Program (FMMP)[1] within the California Department of Conservation (DOC), compiles important farmland maps for each county within the State. Maps and statistics are produced biannually using a process that integrates aerial photo interpretation, field mapping, a computerized mapping system, and public review. These maps delineate land use in eight mapping categories (and one overlay category) and represent an inventory of agricultural soil resources within each county. The map for Western Riverside County is provided in Figure 4.2-1. The categories of land shown on these maps are listed below.

- **Prime Farmland:** Land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.
- **Farmland of Statewide Importance:** Land that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store moisture.

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[1] A Guide to the Farmland Mapping and Monitoring Program, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.

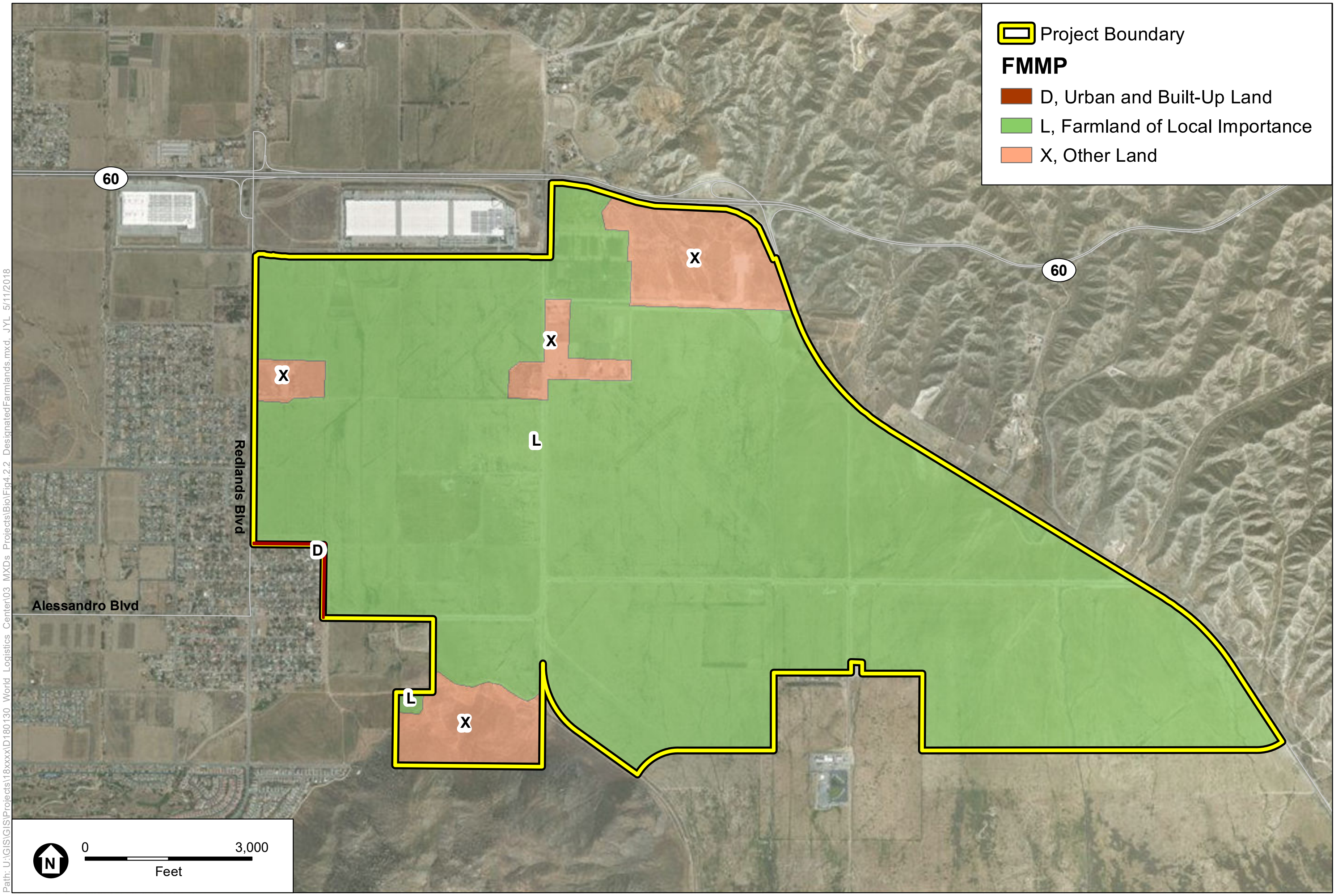

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\Bio\Fig4.2.2 DesignatedFarmlands.mxd, JYL 5/11/2018

SOURCE: ESRI 2016; FMMP 2016; Highland Fairview 2018

World Logistics Center

Figure 4.2-1

State Designated Farmlands

ESA

- **Unique Farmland:** Land of lesser-quality soils used to produce specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of Unique Farmland crops include oranges, olives, avocados, rice, grapes, and cut flowers.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committees, i.e., dairies, dry land farming, aquaculture, and uncultivated areas with soils qualifying for Prime Farmland and Farmland of Statewide Importance.

  Farmland of Local Importance in Riverside County, including the City of Moreno Valley, is defined as:

  - Lands with soils that would be classified as Prime Farmland and Farmland of Statewide Importance but lack available irrigation water.
  - Lands planted with dry land crops of barley, oats, and wheat.
  - Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
  - Dairylands, including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture, or hayland of 10 acres or more.
  - Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands.
  - Lands planted with jojoba, which are under cultivation and are of producing age.

- **Grazing Land:** Land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.

- **Urban and Built-up Land:** Land used for residential, industrial, commercial, construction, institutional, and public administrative purposes such as railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities also are included in this category.

- **Other Land:** Land not included in any of the other mapping categories. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres.

- **Water:** Water areas with an extent of at least 40 acres.

- **Land Committed to Nonagricultural Use:** This optional designation is an overlay to the standard farmland categories and represents existing farmland and grazing land and vacant areas that have a permanent commitment for development. Examples of Land Committed to Nonagricultural Use would include an area undergoing permanent infrastructure installation or for which bonds or assessments have been issued for public utilities. Such lands represent planning areas where there are commitments for future nonagricultural developments that are not reversible by a simple majority vote by a city council or board of supervisors.

Figure 4.2-1 details farmland designations on the project area. Approximately 2,361 acres, or 90 percent of the 2,610-acre project site, are designated as Farmland of Local Importance. Approximately 247.5 acres located in several areas of the project area are designated X (Other Land) with the largest acreages in the northeast corner, southwest, and south central portions of the project area. Approximately 1.5 acres are designated Urban Built-up Land in the southwest portion of the project site. In addition,104 acres of offsite area required for infrastructure improvements are designated as X (Other Land).

4.2.1.2 California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, also referred to as the Williamson Act, is a non-mandated State program administered by counties and cities for the preservation of agricultural land. This program enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive much lower property tax assessments than normal because the assessments are based upon farming and open space uses rather than full market value.

Participation in the program is voluntary on the part of both landowners and local governments, and it is implemented through the establishment of Agricultural Preserves and the execution of Williamson Act contracts. Individual property owners enter into a contract that restricts or prohibits development of their property to non-agricultural uses during the term of the contract in return for lower property taxes. Initially signed for a minimum ten-year period, the contracts are automatically renewed each year for a successive minimum ten-year period unless a notice of non-renewal is filed, or a contract cancellation is approved by the local government.

The nearest parcel that is under Williamson Act contract is approximately 1.5 miles to the southeast of the project site just west of Gilman Springs Road. This property is outside of Moreno Valley city limits but within the city's sphere of influence. There are no Williamson Act Conservation contracts[1] within the project area.

4.2.1.3 General Plan, Specific Plan, and Zoning Designations

General Plan. The City's 2006 General Plan Land Use Element (Land Use Map, updated November, 2017) has no "agricultural" land use designation.[2] The EIR accompanying the City's 2006 General Plan determined that the conversion of agricultural land to nonagricultural uses represented a significant cumulative impact. In accordance with Section 15152 of the CEQA Guidelines, "agencies are encouraged to tier the environmental analysis which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for discussion at each level of environmental review." This Revised Sections of the FEIR is being tiered with the City's 2006 General Plan EIR. The City's 2006 General Plan EIR identified that as the transition from agricultural to urban and suburban uses continues, the extent to which agriculture and supporting economic activities contribute to the economic base of the City is reduced. In its adoption of the 2006 General Plan, the City recognized that these losses were offset by the economic activities and social benefits that typically accompany urban development. In connection with the City's conclusion that a significant cumulative impact would result from implementation of the General Plan, the City adopted Findings of Fact and a Statement of Overriding Considerations indicating that social and economic factors outweighed the significant cumulative impacts associated with conversion of agricultural land to non-agricultural use.

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[1] Department of Conservation, FMMP, 2008.

[2] City of Moreno Valley General Plan, adopted July 2006. Available at: http://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/ieir/eir-tot.pdf

The General Plan designation for the project site is Business Park/Light Industrial. The zoning for the project site is World Logistics Center Specific Plan – Logistics Development and World Logistics Center Specific Plan – Light Logistics. The development of the project site is regulated by the World Logistics Center Specific Plan.

4.2.2 Existing Policies and Regulations

4.2.2.1 City of Moreno Valley General Plan Policies

Neither, the City of Moreno Valley's General Plan nor it's zoning designates any land for agricultural production or preservation, but growing crops is permitted in all of the City's zoning categories. Where practical, the City encourages incorporation of crops, such as existing tree groves, into the design of proposed development projects allowing continuation of the agricultural character of the area as well as providing a buffer between different types of land uses.

The following City General Plan goals and policies are applicable to the World Logistics Center project.

9.1 Ultimate Goals

VIII.	Recognize the need to conserve natural resources while accommodating growth and development.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1	Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

4.2.3 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to agricultural resources. Based on these significance thresholds, potential impacts to agricultural resources could be considered significant if the proposed project would:

- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use; and/or
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use.

4.2.4 Methodology

The methodological analysis underlying this section of this Revised Sections of the FEIR consists of the following:

- First, analyze the FMMP data to determine if portions of the 2,610-acre project site and 104-acre offsite improvement area are designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

- Second, evaluate the current General Plan land use designations, and zoning applicable to the site to determine the existence of any conflicts between the project and any potential existing agricultural General Plan and zoning designations applicable to the site.
- Finally, use the California Land Evaluation and Site Assessment (LESA) model, developed by the State Department of Conservation, as a guide to quantify any potential impacts the project may have on agricultural resources. Utilization of the LESA model is currently considered to be the most reliable method by which to determine a project's potential impacts on agricultural resources.

In the late 1980s and the early 1990s, the Department of Conservation (DOC) and the State Legislature began exploring ways by which local agencies could analyze the specific impacts of local projects related to the conversion of farmland in a manner that was consistent throughout the State. At that time, reference to the FMMP maps was the only widely utilized methodological approach to analyzing conversion impacts. Oftentimes, the FMMP maps were outdated and/or did not contain specific data on local conditions that could better assess whether local land contains viable farmland. Federal and State agencies were and are cognizant of the fact that determining the true significance of agricultural conversions is a function of understanding the specific characteristics affecting a particular site proposed for conversion. In order to create a more site-specific methodological approach to assessing agricultural impacts, following the preparation of several State and Federal studies, the DOC developed the LESA model as an optional method by which local agencies could assess the impacts of land conversion on agricultural resources. (See, e.g., Stats. 1993, Ch. 812; Pub. Res. Code § 21095; California Agricultural Land Evaluation and Site Assessment Model, Instruction Manual, 1987.) Because of its use of localized input factors, the LESA model is generally recognized as the preferred methodological tool to assess the significance of a project's impacts on agricultural resources.

4.2.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In either instance, no mitigation would be required.

4.2.5.1 Forest Land Zoning

Threshold	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

According to the California Department of Forestry and Fire Protection, there are no areas designated as forest land or timberland on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.2 Loss or Conversion of Forest Land

Threshold	Would the project result in the loss of forest land or conversion of forest land to non-forest use?

There are no areas of forest lands on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.3 Existing Zoning and Williamson Act

Threshold	Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

While some portions of the 2,610-acre project site are currently used for agriculture, there are no Williamson Act contracts (see previously referenced Figure 4.2-1) on either the project site or any adjacent properties. Because the project would not conflict with any Williamson Act contracts, there would be no impacts related to this issue and no mitigation is required.

There are no agricultural zones identified on the 2,610-acre project site or on any of the surrounding properties.[1] However, agriculture is allowed in most areas of the City as an interim land use until it is replaced by development. The project site is not zoned for agricultural uses, so implementation of the World Logistics Center project would not conflict with an agricultural zone. Existing agriculture use is a permitted use in all areas of the proposed Specific Plan. In the absence of a significant impact, no mitigation is required.

General Plan Consistency. The following evaluates the project in relation to the City's General Plan goals and objectives relative to agriculture:

9.1 Ultimate Goals

Goal VIII. Recognize the need to conserve natural resources while accommodating growth and development.

Consistency: With mitigation outlined in Section 4.1, *Aesthetics*, the Specific Plan will allow for preservation of the most prominent existing visual resources in this portion of the City, but will result in the removal of agricultural fields to support the proposed development of logistics warehousing. Therefore, the project is consistent with this goal and no mitigation is needed.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1 Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

Consistency: The project will eventually result in the loss of agricultural land within the Specific Plan area; however, Section 12.5 of the Specific Plan contains a "right to farm" provision that will allow farming to continue within the WLCSP until such time as it converts to developed uses. This provision will help protect onsite farming from "nuisance" claims by new landowners or tenants (e.g., dust and noise). Therefore, the World Logistics Center project is consistent with this objective and no mitigation is needed.

4.2.5.4 Farmland Conversion

Impact 4.2.5.4: *Construction of the proposed project would not convert any Prime Farmland, Unique Farmland or Farmland of Statewide Importance as identified by the State of California to non-agricultural uses.*

Threshold	Would the project result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural land use?

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[1] *Land Use Map, Land Use Designations,* City of Moreno Valley General Plan, July 2006, last updated November, 2017

While portions of the project site is currently used for agriculture, there is no land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the 2,610-acre project or in the 104-acre off-site improvement area. Because the project would not convert any onsite or off-site land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, the project's impacts related to this issue would be less than significant, and no mitigation is required.

Project or Specific Plan Design Features. Section 12.5 of the Specific Plan contains a "right to farm" provision that will allow farming to continue within the WLCSP until such time as it converts to developed uses. This provision will help protect onsite farming from "nuisance" claims by new landowners or tenants (e.g., dust and noise).

Mitigation Measures. Since there is no impact to Prime Farmland, Farmland of Statewide Importance or Unique Farmland, no mitigation measures are required.

4.2.6.2 Conversion of Farmland to Non-Agricultural Uses

Impact 4.2.5.5: *The project would convert approximately 2,200 acres of land currently being farmed and approximately 2,361 acres that are designated as Farmland of Local Importance, to non-agricultural uses.*

Threshold	Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use?

In addition to the FMMP designations, Riverside County has established a program through which it classifies various land within the County as Locally Important Farmland. The state uses the County's determination to identify Farmland of Local Importance for its FMMP designations.

The factors used by Riverside County to define Locally Important Farmland are provided in Section 4.2.1.1 above.

The LESA Model. The California LESA Model was developed to provide lead agencies with an optional methodology to ensure that potentially significant effects on the environment from agricultural land conversions are quantitatively and consistently considered in the environmental review process (Public Resources Code Section 21095), including in California Environmental Quality Act (CEQA) reviews. The California Agricultural LESA Model evaluates measures of soil resource quality, a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. For a given project, the factors are rated, weighted, and combined, resulting in a single numeric score. The project score becomes the basis for making a determination of a project's potential significance.

The conversion of agricultural land to non-agricultural uses is a result of various economic and demographic factors. Increased costs for water and a continuing demand for housing and commercial development in the City and region have provided the primary impetus for this agricultural land conversion. Appendix G of the *CEQA Guidelines* states as follows: "In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation (DOC) as an optional model to use in assessing impacts on agriculture and farmland."[1]

- The LESA model is intended to provide lead agencies with a methodology to identify potentially significant impacts that may result from agricultural land conversions. The model is a method of rating the relative quality of land resources and potential impacts to agricultural resources.

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[1] *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

- The LESA Model uses six different factors (two based on soil resource quality and four based on on-site and adjacent land characteristics) to develop a weighted score that identifies the significance of potential impacts to agricultural resources. The Land Evaluation (LE) scoring utilizes two soil factors. The Land Capability Classification (LCC) indicates the suitability of soils for most kinds of crops and the risk of damage when they are used in agriculture, while the Storie Index provides a numeric rating (0–100) of the relative degree of suitability or value of a given soil for intensive agriculture. The Site Assessment (SA) scoring considers the size of the site to be converted, water supply restrictions in drought and non-drought years, and the presence (or absence) of adjacent agricultural, habitat, or parkland uses.
- By assessing and weighing a variety of soil, water, and land use characteristics, it is possible that the conversion of a large parcel containing poor soils and with limited access to water would not result in a significant impact, while the conversion of a much smaller well-watered parcel with quality soils could be considered significant. To ensure potential impacts to adjacent agricultural activities are appropriately considered, the LESA model requires an examination of land use on all parcels within a Zone of Influence (ZOI) that extends a minimum 0.25 mile from the boundary of the site. For any site evaluated using the LESA model, the factors are rated, weighed, and combined, resulting in a single numeric score that becomes the basis for determining a project's potential significance.[1]

WLC Project Assessment

To assess potential agricultural resource impacts that may result from development of the World Logistics Center site, the LESA model was run by Parsons Brinkerhoff (PB) for the 2,610-acre project area. The total LESA score for the project is 60.4, which is considered significant unless either LE and SA are less than 20 (see Table 4.2-1). The LE sub-score is 40.9 and the SA sub-score is 19.5, indicating a less than significant impact and therefore does not require mitigation. The worksheets detailing the variables considered during the evaluation of each site are included in the *Agricultural Resources Assessment for the World Logistics Center Specific Plan* (DEIR Appendix C).

An independent analysis was conducted on the potential agricultural resource impacts that may result from development of the World Logistics Center site, the LESA model was run by Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW) for the 2,610-acre project area. The total LESA score for the project is 58.9, which is considered significant only if the LE and SA sub-scores are each greater than 20 (see Table 4.2-2). The LE sub-score is 40.9 and the SA sub-score is 18.0, indicating a less than significant impact and therefore does not require mitigation. The worksheets detailing the variables considered during the evaluation of each site are included in the *Agricultural Resources Assessment for the World Logistics Center Specific Plan* (DEIR Appendix C).

Table 4.2-2: LESA Model Significance Determination

Total LESA Score	Scoring Decision
0–39 Points	Not considered significant
40–59 Points	Considered significant *only* if LE and SA sub-scores are each *greater* than or equal to 20 points
60–79 Points	Considered significant *unless* either LE or SA sub-score is *less* than 20 points
80–100 Points	Considered significant

Source: California Land Evaluation and Site Assessment Model, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

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[1] *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997. Zoning map last updated November, 2017.

The majority of the World Logistics Center project site is currently designated as Farmland of Local Importance by the state's FMMP as determined by the County. The County's maps do not reflect the City's General Plan Land Use Map, which shows no agricultural designations in the City.

Implementation of the project would result in the permanent conversion of approximately 2,200 acres currently used for dry farming to non-agricultural uses, and would result in the permanent conversion of approximately 2,361 acres of land designated as Farmland of Local Importance. While this could have an effect on accelerating the loss of other existing agricultural land, portions of the state-owned lands to the south likely will continue in agricultural production. Likewise, there is no other agricultural use in the Zone of Influence (term used in the State LESA Model) and a majority of the land in that zone is vacant (i.e., in the Badlands to the east and portions of the San Jacinto Wildlife Area and the Lake Perris State Recreation Area to the south). The conversion of agricultural lands to urban uses is supported by the City's General Plan policies, as discussed above. The entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City, and the area designated Farmland of Local Importance within the Specific Plan area will be permanently converted to non-agricultural urban uses. Therefore, project implementation will result in less than significant impacts to conversion of Farmland of Local Importance (see previously referenced Figure 4.2-1). No mitigation is required.

Project or Specific Plan Design Features. There are no features included in the Specific Plan that address the loss of agriculture on the project site.

Mitigation Measures. No mitigation measures are required.

Level of Significance after Mitigation. Less than significant impact.

NOTE TO READERS: This portion of the Revised Sections of the FEIR replaces portions of Section 4.3 of the FEIR, except for subsections 4.3.1, 4.3.1.1 and 4.3.1.2 which remain unchanged... The cumulative portion of Section 4.3 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.3 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.3 means that the corresponding portion of Section 4.3 in the FEIR remains unchanged or has been deleted.

4.3 AIR QUALITY

Although not required by the Judge's ruling, portions of the Traffic and Circulation analysis have been revised to: (1) Show the effect of using the trip generation rates shown in the most recent edition of the Institute of Traffic Engineer's Trip Generation Manual; and (2) Show the effect of the inclusion of the over 360 projects that cumulatively contribute to traffic impacts. As a result, Section 4.3 Air Quality, Section 6.3 Air Quality Cumulative, along with Appendix A, Air Quality, Greenhouse Gas, and Health Risk Assessment Report, have also been revised to show the effect of incorporating the applicable data from the revised traffic analysis.

This section analyzes the World Logistics Center project's potential air quality impacts and provides a discussion of the World Logistics Center project, the physical setting of the project area, and the air quality regulatory framework. The air quality analyses evaluate potential air quality impacts by examining the short-term construction as well as long-term operational impacts associated with the project and by evaluating the effectiveness of the identified mitigation measures. Modeled air quality levels are based upon vehicle data, project trip generation, and vehicle miles traveled assumptions included in the project's *Traffic Impact Analysis (TIA)* and peak turn volumes generated for the World Logistics Center project combined with emission factors from the California Air Resources Board (CARB). The evaluation was prepared in accordance with appropriate standards, utilizing procedures and methodologies as recommended by the South Coast Air Quality Management District (SCAQMD), the California Office of Environmental Health Hazards Assessment (OEHHA), and CARB. Air quality data posted by the SCAQMD, CARB, and the EPA web sites are included to document the local air quality environment and are incorporated herein by reference.

Compared to the FEIR, construction emissions analyzed herein assume later construction years and therefore newer, more efficient equipment. This results in reduced construction emissions. As reflected in the TIA, use of the most recent edition of the Institute of Traffic Engineer's Trip General Manual results in fewer average daily trips than previously analyzed in the FEIR. A lower trip rate coupled with a lower regional vehicle miles traveled assumption analyzed in the TIA and the later operational year assumption results in reduced mobile emissions when compared to those in the FEIR. Additionally, the later operational year results in the inclusion of a greater number of electric vehicles in the operational assumptions. Due to these factors, the construction and operational analyses contained herein entirely replace the analyses included in the FEIR and no further comparison is required.

The analysis contained in this section is based on the following technical studies prepared for the World Logistics Center project:

- *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* (ESA Associates, dated June 2018) contained in Appendix A of this Revised Sections of the FEIR; and
- *Traffic Impact Analysis Report, The World Logistics Center,* (WSP USA, Inc., dated June 2018) contained in Appendix L of this Revised Sections of the FEIR.

4.3.1.1 Regional Air Quality Improvements

The American Lung Association website (lung.org) includes data collected from State air quality monitors that are used to compile an annual *State of the Air* report. These reports have been published over the last 13 years. The latest *State of the Air Report* compiled for the Basin was in 2017 (American Lung Association, 2017). As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. Riverside County's average number of unhealthy ozone days dropped from 203 days per year in the initial 2000 State of the Air report to 122 in the 2017 report and San Bernardino County's number of unhealthy ozone days dropped from 230 in 2000 to 142 in 2017. Both Counties has seen dramatic reduction in particle pollution since the initial State of the Air report (2000). While the 2017 *State of the Air Report* shows a slight uptick in the number of days of unhealthy particle pollution for both counties since the 2016 report, it is important to note that pollution levels measured in this latter report were affected by fluctuations in weather conditions.

The 2016 Air Quality Management Plan (SCAQMD, 2017) outlines a comprehensive control strategy that meets the requirement for expeditious progress towards an attainment date for the five National Ambient Air Quality Standards (NAAQS) being analyzed. As stated in the 2016 AQMP, "The ozone and PM levels continue to trend downward as the economy and population increase, demonstrating that it is possible to maintain a healthy economy while improving public health through air quality improvements" (SCAQMD, 2017). NO_X, VOC, PM, NH_3, have been decreasing in the Basin since 2000 and are projected to continue to decrease through 2035 (CARB, 2013). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. The number of days exceeding the ozone national 8-hour standard has decreased between 1992 and 2011. During the 1992 time period, nearly all of the South Coast Air Basin had more than 50 exceedance days, with more than 100 days in nearly one-third of the Basin. This is equivalent to more than three months during a year with ozone concentrations above the level of the standard. Much of this area currently meets the national standard, including about two-thirds of Orange County and one-third of Los Angeles County, where the majority of the Basin population lives and works (CARB, 2013).

The reduction in air pollution levels experienced in the Basin is attributable to multiple factors. First, Federal and State regulatory strategies requiring the use of cleaner fuels and use of emissions control technology in the transportation and energy production industries have proven to greatly reduce the amount of tailpipe emission (vehicles) and point source (power plants) pollutants (e.g., NO_X and ROG). Second, the SCAQMD's rules and regulatory programs have proven to be instrumental in improving the air quality in the Basin. As an example, the SCAQMD has adopted multiple rules regarding fugitive dust (PM_{10} and $PM_{2.5}$) and construction emissions that have resulted in reduced emission levels. Third, the SCAQMD's creation of the 1993 CEQA review handbook has resulted in lead agencies throughout the air basin employing uniform CEQA analyses and methodologies. The use of uniform CEQA review has allowed the SCAQMD and lead agencies that rely on the 1993 SCAQMD Air Quality Handbook to perform CEQA analysis to better track progress and to employ uniform mitigation and design feature strategies. Fourth, the use of the SCAQMD thresholds of significance to determine a project's direct and cumulative impact has allowed the SCAQMD to make tremendous progress toward achieving air quality attainment. The discussion above (pertaining to the air quality improvements achieved over the past 20 years) demonstrates that the SCAQMD's rules and procedures, including the uniform utilization of the thresholds of significance recommended in the SCAQMD *CEQA Air Quality Handbook* are contributing toward the achievement of improved air quality in the Basin.

4.3.1.2 Local Air Quality

The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station most representative of the project site is the Riverside-Rubidoux station. This station monitors CO, SO_2, NO_2, O_3, PM_{10}, and $PM_{2.5}$. Some monitoring data for SO_2 has been omitted as attainment is regularly met for this pollutant within the Basin. This station characterizes the air quality representative of the ambient air quality in the project area. The ambient air quality data in Table 4.3-3 identify that CO and NO_2 levels are consistently below the relevant State and Federal standards in the project vicinity. O_3, PM_{10}, and $PM_{2.5}$ levels all exceed State and/or Federal standards regularly. Figure 4.3-1 identifies the location of the monitoring station relative to the World Logistics Center project site.

Table 4.3-1: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10}) [9]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$) [9]	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15.0 µg/m^3	
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm(40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2) [10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	None	
Sulfur Dioxide (SO_2) [11]	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas) [11]	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas) [11]	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)	—	
Lead[12, 13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas) [12]	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		
Visibility-Reducing Particles[14]	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Footnotes

[1] California standards for ozone; carbon monoxide (except 8-hour Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; particulate matter (PM_{10} and $PM_{2.5}$ and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest eight-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

[8] On October 1, 2015, the natural eight-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the 98th percentile of the daily maximum concentrations at each site must not exceed 0.100 ppm. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm).

[12] The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

°C = degrees Celsius
EPA = United States Environmental Protection Agency
µg/m^3 = micrograms per cubic meter
mg/m^3 = milligrams per cubic meter
ppm = parts per million
ppb = parts per billion

Source: CARB, 2016a

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Table 4.3-2: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Maintenance – serious (San Bernardino County is in nonattainment)
$PM_{2.5}$	Nonattainment	Moderate Nonattainment
CO	Attainment	Serious Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period.

Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.

Source: CARB, 2017a. USEPA, 2018a

4.3.1.3 Sensitive Land Uses in the Project Vicinity

Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses where people sensitive to air pollutants may be located (i.e., the ill, elderly, pregnant women, and children). There are currently six occupied single-family homes and associated ranch/farm buildings in various locations on the World Logistics Center project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Nearby sensitive land uses are depicted in Figure 4.3-2.

4.3.1.4 Existing Project Area Emissions

The project area is largely vacant undeveloped marginal agricultural land, with six occupied single-family homes and associated ranch/farm buildings in various locations on the property. Much of the site is currently used for dry farming. San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres south of the site. The Southern California Gas Company (SCGC) also operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) south of the site south of Alessandro Boulevard along existing Virginia Street. Existing air quality conditions at the project site reflect ambient[1] monitored conditions as presented in Table 4.3-3.

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[1] Ambient: of or related to the immediate surroundings of something; in this context it means “in the air”

Table 4.3-3: Ambient Air Quality Monitored in the Project Vicinity

Pollutant	Standard	2014	2015	2016	2017
Carbon Monoxide (CO)					
Maximum 1-hr concentration (ppm)		2.4	2.5	1.6	2.4
Number of days exceeded:	State: > 20 ppm	0	0	0	0
	Federal: > 35 ppm	0	0	0	0
Maximum 8-hr concentration (ppm)		1.9	1.7	1.3	1.8
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0	0
	Federal: ≥ 9 ppm	0	0	0	0
Ozone (O_3)					
Maximum 1-hr concentration (ppm)		0.141	0.132	0.142	0.145
Number of days exceeded:	State: > 0.09 ppm	29	31	33	ND
Maximum 8-hr concentration (ppm)		0.105	0.106	0.105	0.118
Number of days exceeded:	State: > 0.070 ppm	69	59	71	ND
	Federal: > 0.075 ppm	41	39	47	84
Coarse Particulates (PM_{10})					
Maximum 24-hr concentration (µg/m^3)		100	69	84	92
Number of days exceeded:	State: > 50 µg/m^3	125	92	ND	ND
	Federal: > 150 µg/m^3	0	0	0	0
Annual arithmetic mean concentration (µg/m^3)		44.8	40.0	ND	ND
Exceeded for the year	State: > 20 µg/m^3	Yes	Yes	ND	ND
Fine Particulates ($PM_{2.5}$)					
Maximum 24-hr concentration (µg/m^3)		50.6	61.1	60.8	50.3
Number of days exceeded:	Federal: > 35 µg/m^3	ND	10	5	ND
Annual arithmetic mean (µg/m^3)		16.8	15.3	12.6	12.2
Exceeded for the year	State: > 12 µg/m^3	Yes	Yes	Yes	Yes
	Federal: > 12.0 µg/m^3	Yes	Yes	Yes	Yes
Nitrogen Dioxide (NO_2)					
Maximum 1-hr concentration (ppm)		0.0600	0.057	0.073	0.063
Number of days exceeded:	State: > 0.18 ppm	0	0	0	0
Annual arithmetic mean concentration (ppm)		0.015	0.0144	0.015	0.015
Exceeded for the year	State: > 0.030 ppm Federal: > 0.053 ppm	No No	No No	ND	ND
Sulfur Dioxide (SO_2)					
Maximum 24-hr concentration (ppm)		1.3	1.0	1.2	1.2
Number of days exceeded:	State: > 0.04 ppm	ND	ND	ND	ND
Annual arithmetic average concentration (ppm)		0.26	0.27	0.23	0.29
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No	No

µg/m^3 = micrograms per cubic meter
EPA = United States Environmental Protection Agency
ID = Insufficient data
ND = No data
ppm = parts per million
Source: CARB, 2018 for the SCAQMD Riverside-Rubidoux air monitoring station.

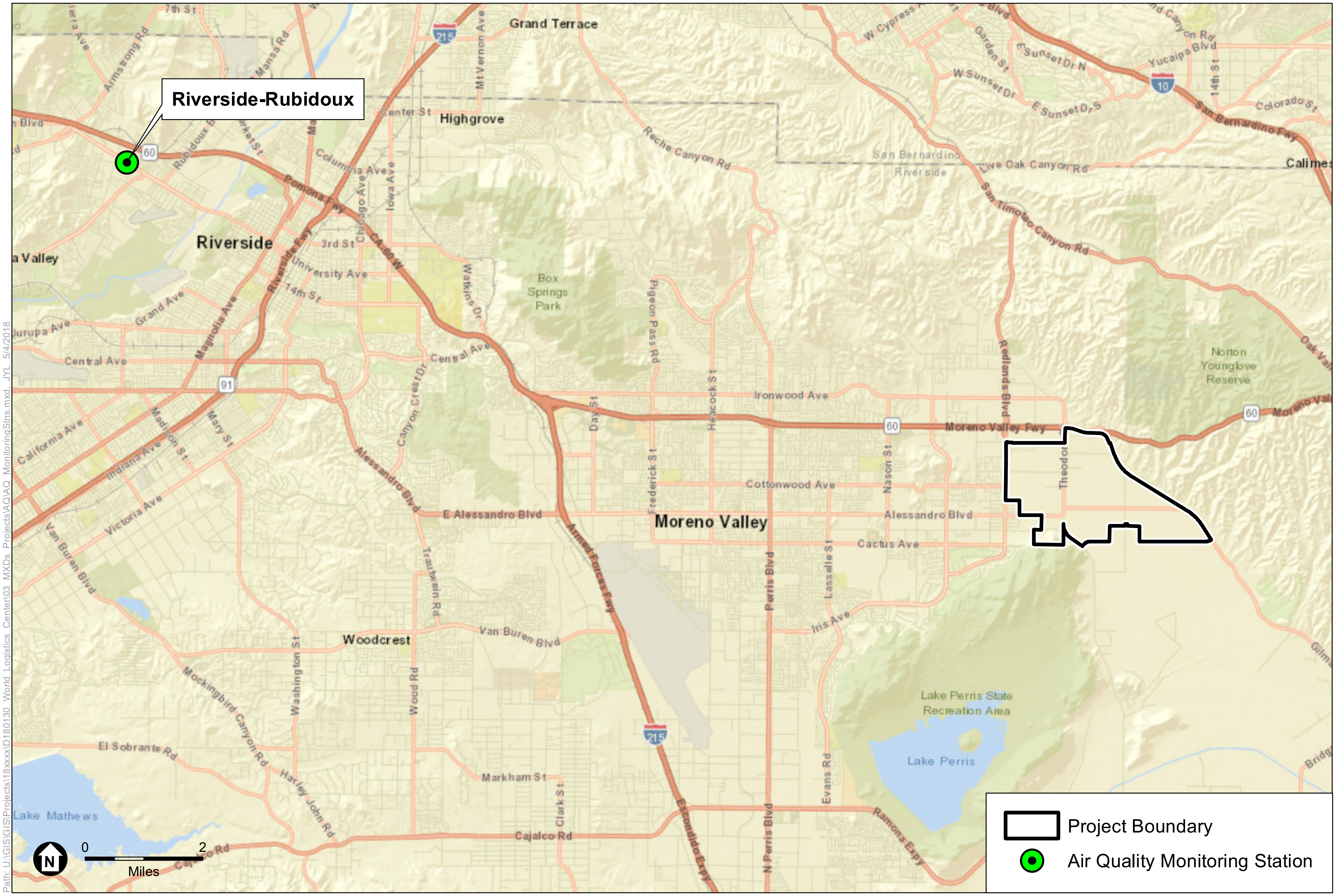

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SOURCE: ESRI

World Logistics Center

Figure 4.3-1
SCAQMD Monitoring Stations

ESA

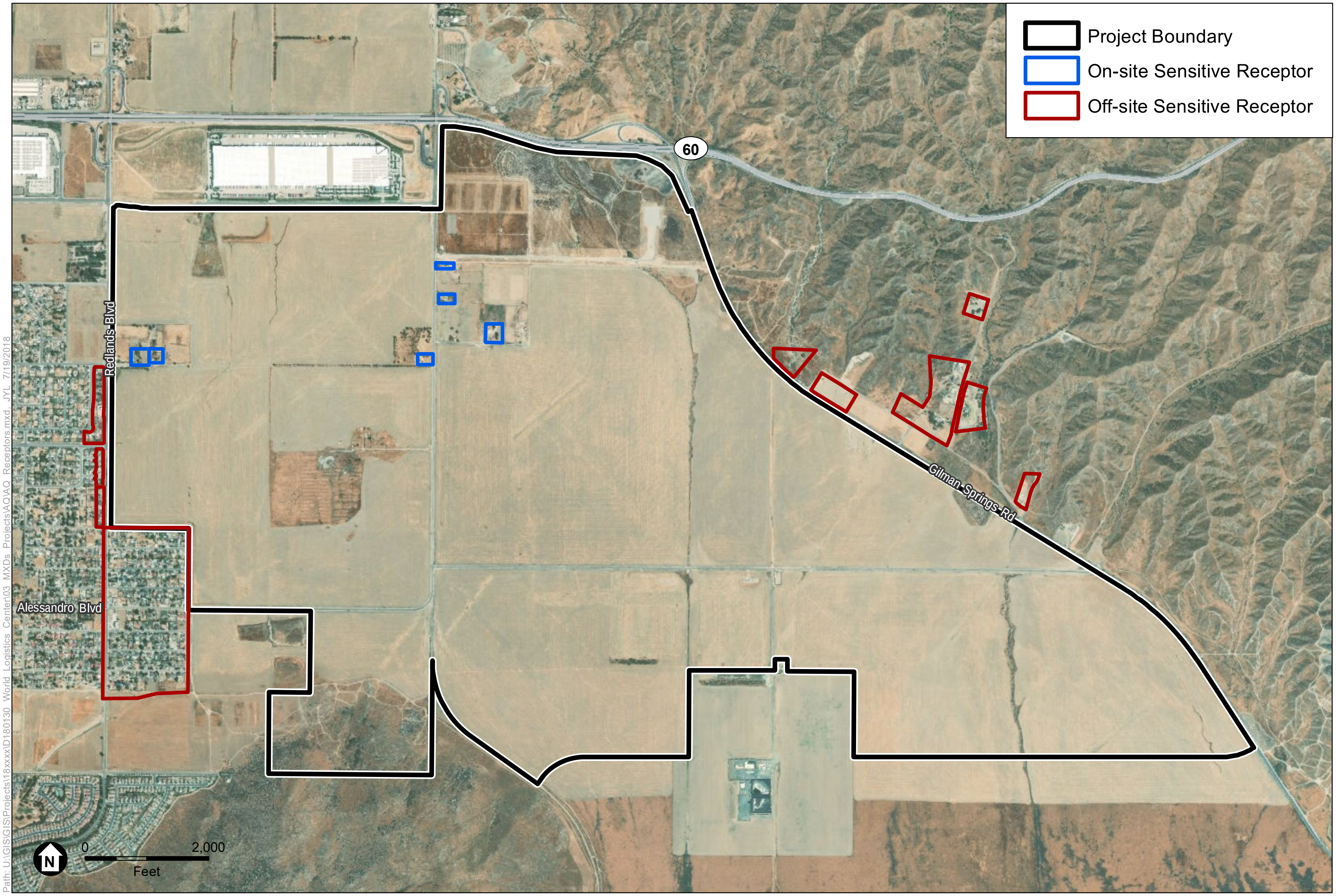

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SOURCE: ESRI 2016; County of Riverside 2017

World Logistics Center

Figure 4.3-2
Sensitive Receptors in the Project Vicinity

ESA

4.3.2 Policies and Regulations

4.3.2.1 Federal Regulations

Clean Air Act. Pursuant to the Federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Effective June 2, 2010, the EPA revised the primary standard for SO_2 by establishing a new 1-hour standard at a level of 75 ppb. The EPA revoked the two existing primary standards of 140 ppb evaluated over 24 hours and 30 ppb evaluated over an entire year as they would not provide additional public health protection given a 1-hour standard at 75 ppb. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

Effective December 14, 2012, the national annual $PM_{2.5}$ standard was lowered from 15 µg/m^3 to 12 µg/m^3 but the existing 24-hour and annual secondary standards were retained.

On October 1, 2015, the national eight-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm, respectively.

4.3.2.2 Regional Regulations

Regional Air Quality Management Plan (AQMP). The SCAQMD and the SCAG are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the Federal and/or California ambient air quality standards. The SCAQMD and SCAG must update the AQMP every three years.

2012 AQMP. The 2012 AQMP was adopted December 7, 2012 (SCAQMD, 2012b). The purpose of the 2012 AQMP for the Basin was to set forth a program that would lead the Basin into compliance with the Federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin’s projections in meeting the Federal 8-hour ozone standards. The AQMP was adopted by the SCAQMD Board; therefore, it was submitted to the EPA as the State Implementation Plan (SIP). Specifically, the AQMP served as the official SIP submittal for the Federal 2006 24-hour $PM_{2.5}$ standard. In addition, the AQMP updated specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory, and 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.

The 2012 AQMP states, “The remarkable historical improvement in air quality since the 1970’s is the direct result of Southern California’s comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs.”

The 2012 AQMP proposed Basin-wide $PM_{2.5}$ measures that would be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high $PM_{2.5}$ days), Section 182(e)(5) implementation measures (to maintain progress toward meeting the 2023 8-hour ozone national standard), and transportation control measures. Most of the control measures focused on incentives, outreach, and education.

Proposed $PM_{2.5}$ reduction measures in the 2012 AQMP included the following:

- Further NO_X reductions from the SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program. The RECLAIM program was adopted by the SCAQMD in October 1993 and set an emissions cap and declining balance for many of the largest facilities emitting NO_x and SO_x in the South Coast Air Basin. RECLAIM includes over 350 participants in its NO_x market and about 40 participants in its SO_x market. RECLAIM has the longest history and practical experience of any locally designed and implemented air emissions cap and trade program. RECLAIM allows participating facilities to trade air pollution while meeting clean air goals.
- Further reductions from residential wood-burning devices.
- Further reductions from open burning.
- Emission reductions from under-fired char broilers.
- Further ammonia reductions from livestock waste.
- Backstop measures for indirect sources of emissions from ports and port-related sources.
- Further criteria pollutant reductions from education, outreach, and incentives.

There were multiple VOC and NO_X reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, and mold release products.

The 2012 AQMP also contained proposed mobile source implementation measures for the deployment of zero and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There were measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.

The 2012 AQMP proposed the following mobile source implementation measures:

- On-road mobile sources:
    - Accelerated penetration of partial zero-emission and zero-emission vehicles. This measure proposed to continue incentives for the purchase of zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode. The state Clean Vehicle Rebate Pilot program was proposed to continue from 2015 to 2023 with a proposed funding for up to $5,000 per vehicle. The measure seeks to provide funding assistance for up to 1,000 zero-emission or partial-zero emission vehicles per year.
    - Accelerated penetration of partial zero-emission and zero-emission light-heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles. The objective of the proposed action was to accelerate the introduction of advanced hybrid and zero-emission technologies for Class 4 through 6 heavy-duty vehicles. The state is currently implementing a Hybrid Vehicle Incentives Project program to promote zero-emission and hybrid heavy-duty vehicles. The proposed measure aims to continue the program from 2015 to 2023 to deploy up to 1,000 zero- and partial-zero emission vehicles per year with up to $25,000 funding assistance per vehicle. Zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode would be given the highest priority.
    - Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives.
    - Further emission reductions from heavy-duty vehicles serving near-dock rail yards This proposed control measure called for a requirement that any cargo container moved between the ports of Los Angeles and Long Beach to the nearby rail yards be with zero-emission technologies. The measure would be fully implemented by 2020 through the deployment of zero-emission trucks or any alternative zero-emission container movement system such as a

fixed guideway system. The measure called for the CARB to either adopt a new regulation or amend an existing regulation to require such deployment by 2020.

- Off-road mobile sources:
  - Extension of the Surplus Off-Road Opt-In for NO_x (SOON) provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment.
  - Further emission reductions from freight and passenger locomotives called for an accelerated use of Tier 4 locomotives in the Basin.
  - Further emission reductions from ocean-going marine vessels while at berth.
  - Emission reductions from ocean-going marine vessels.

The 2012 AQMP also relied upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program (FTIP), which contains the following sections:

1. Linking regional transportation planning to air quality planning and making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.
2. Regional transportation strategy and transportation control measures: The RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.
3. Reasonably available control measure analysis.

2016 AQMP. On March 3, 2017, SCAQMD approved the Final 2016 Air Quality Management Plan (2016 AQMP) that demonstrates attainment of the 1-hr and 8-hr ozone NAAQS as well as the latest 24-hr and annual $PM_{2.5}$ standards. Currently, the 2016 AQMP is being reviewed by the U.S. EPA and CARB. Until the approval of the EPA and CARB, the current regional air quality plan is the Final 2012 Air Quality Management Plan (AQMP) adopted by the SCAQMD on December 7, 2012.The Final 2016 AQMP includes the integrated strategies and measures needed to meet the NAAQS.

The 2016 AQMP seeks to achieve multiple goals in partnership with other entities promoting reductions in criteria pollutant, greenhouse gases, and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most effective way to reduce air pollution impacts on the health of our nearly 17 million residents, including those in disproportionally impacted and environmental justice communities that are concentrated along our transportation corridors and goods movement facilities, is to reduce emissions from mobile sources, the principal contributor to our air quality challenges. For that reason, the SCAQMD worked closely with CARB and the U.S. EPA who have primary responsibility for these sources. The Plan recognized the critical importance of working with other agencies to develop new regulations, as well as secure funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. These “win-win” scenarios will be key to implementation of this Plan with broad support from a wide range of stakeholders. The 2016 AQMP also includes transportation control measures (TCMs) developed by SCAG from the 2016 RTP/SCS.

The RTP/SCS and FTIP were developed in consultation with federal, state and local transportation and air quality planning agencies and other stakeholders. The four County Transportation Commissions (CTCs) in the South Coast Air Basin, namely Los Angeles County Metropolitan Transportation Authority, Riverside County Transportation Commission, Orange County Transportation Authority and the San Bernardino Associated Governments, were actively involved in the development of the regional transportation measures. In the South Coast Air Basin, TCMs include the following three main categories of transportation improvement projects and programs that have funding programmed for right-of-way and/or construction in the first two years of the 2015 FTIP:

- Transit, Intermodal Transfer, and Active Transportation Measures;
- High Occupancy Vehicle (HOV) Lanes, High Occupancy Toll (HOT) Lanes, and their pricing alternatives; and
- Information-based Transportation Strategies.

Diesel Regulations. The Ports of Long Beach and Los Angeles and the CARB have adopted regulations aimed at reducing the amount of diesel particulate. These programs are the Ports of Los Angeles and Long Beach “Clean Truck Program” (POLA, 2018), the CARB Drayage Truck Regulation (CARB, 2017b), and the CARB statewide On-road Truck and Bus Regulation (CARB, 2017c). Each of these regulatory programs will require an accelerated introduction of “clean trucks” into the statewide truck fleet that will result in substantially lower diesel emissions during the 2008 to 2020 timeframe. Additionally, the Ports of Long Beach and Los Angeles updated the Clean Air Action Plan in 2017, providing new strategies and emission targets supporting zero-emissions and freight efficiency targets (POLA and POLB, 2017).

Toxic Air Contaminants. A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality (death) or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Hazardous Air Pollutants (HAPs) and TACs are used interchangeably in this discussion. HAPs are regulated by the EPA under the Federal Clean Air Act. TAC is the term used under the California Clean Air Act to regulate the same hazardous pollutants. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for periods of several years. Many of these contaminants originate from human activities, such as fuel combustion and solvent use.

In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants carbon dioxide, nitrogen dioxide, particulate matter, and ozone for which acceptable levels of exposure can be determined and for which the State and federal governments have set ambient air quality standards. For this reason, thresholds for TAC impacts for regulatory purposes and for CEQA thresholds have been set based on the increase in risk of cancer of a specific amount at sensitive receptors located near the source of TAC emissions.

The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, paradichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM).

TAC measurements, available at the SCAQMD Riverside Rubidoux monitoring station (14 miles northwest of the project site) can be used to characterize the “background” health risks from regional TAC emission sources. Table 4.3-4 provides this summary of TAC levels in the project area and health risk information. This table lists the air concentration levels and associated health cancer risks for eight of the nine TACs reported by the CARB in its Almanac as measured at the Riverside-Rubidoux air monitoring station. Note that since diesel PM cannot be measured directly, the table does not provide estimates of either measured diesel PM or the cancer risk associated with diesel PM.

Past studies have indicated that diesel PM poses the greatest health risk among the TACs listed in Table 4.3-4. The principal concern regarding exposures to diesel PM lies in its small size and thus its ability to penetrate deep into lung tissues when inhaled. Diesel exhaust has been found to cause health effects from short-term or acute exposures and from long-term chronic exposures, such as repeated occupational exposures. The type and severity of health effects depends upon several factors including the amount of chemical you are exposed to and the length of time you are exposed. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Long-term (chronic) exposure to diesel exhaust is likely to occur when a person works in a field where diesel is used regularly or experiences repeated exposure to diesel fumes over a long period of time. Human health studies demonstrate a correlation between exposure to diesel exhaust and increased lung cancer rates in occupational settings. Experimental animal inhalation studies of chronic exposure to diesel exhaust have shown that a range of doses causes varying levels of inflammation and cellular changes in the lungs. Human and laboratory studies have also provided considerable evidence that diesel exhaust is a likely carcinogen.

Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950’s era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.

In 2014, the SCAQMD released the fourth iteration of the Multiple Air Toxics Exposure Study (MATES-IV). The MATES-IV is a follow up to the previous MATES studies and included an updated toxics air emission inventory, new air toxics air dispersion modeling, and enhanced air toxics monitoring. A key conclusion reached in the MATES-IV study was that the population weighted cancer risk in the Basin decreased by 57 percent from the MATES-III period in 2005 to the MATES-IV period in 2012 indicating that overall, cancer risks are declining in the Basin as a result of the implementation of emission controls principally on large diesel trucks. The MATES-IV study also concluded that diesel PM contributed 68 percent to the total cancer risk in the Basin with benzene and 1.3 Butadiene also making important contributions to cancer risk.

Table 4.3-4: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration^A / Health Risk^B	2015	2016	2017	Health Effects
Acetaldehyde	Mean	1.48	1.44	1.08	Acetaldehyde is a carcinogen that also causes chronic non-cancer toxicity in the respiratory system. Symptoms of chronic intoxication of acetaldehyde in humans resemble those of alcoholism. The primary acute effect of inhalation exposure to acetaldehyde is irritation of the eyes, skin, and respiratory tract in humans. At higher exposure levels, erythema, coughing, pulmonary edema, and necrosis may also occur. Acute inhalation of acetaldehyde resulted in a depressed respiratory rate and elevated blood pressure in experimental animals.
	Health Risk	22	21	16	
Benzene	Mean	ID	0.27	0.271	Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness in humans. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions in humans. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract in humans. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes disorders in the blood in humans. Benzene specifically affects bone marrow (the tissues that produce blood cells). Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.
	Health Risk	ID	85	70	
Chromium Hex	Mean	0.083	0.045	ID	In California, hexavalent chromium has been identified as a carcinogen. There is epidemiological evidence that exposure to inhaled hexavalent chromium may result in lung cancer. The principal acute effects are renal toxicity, gastrointestinal hemorrhage, and intravascular hemolysis. The respiratory tract is the major target organ for chromium (VI) following inhalation exposure in humans. Other effects noted from acute inhalation exposure to very high concentrations of chromium (VI) include gastrointestinal and neurological effects, while dermal exposure causes skin burns in humans. Chronic inhalation exposure to chromium (VI) in humans results in effects on the respiratory tract, with perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness reported. Chronic human exposure to high levels of chromium (VI) by inhalation or oral exposure may produce effects on the liver, kidneys, gastrointestinal and immune systems, and possibly the blood.
	Health Risk	34	19	ID	

Table 4.3-4: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration[A] / Health Risk[B]	2015	2016	2017	Health Effects
Para-Dichlorobenzene	Mean	ID	ID	ID	In California, para-dichlorobenzene has been identified as a carcinogen. Acute exposure to 1,4-dichlorobenzene via inhalation results in irritation to the eyes, skin, and throat in humans. In addition, long-term inhalation exposure may affect the liver, skin, and central nervous system in humans (e.g., cerebellar ataxia, dysarthria, weakness in limbs, and hyporeflexia).
	Health Risk	ID	ID	ID	
Formaldehyde	Mean	3.52	3.64	3.35	The major toxic effects caused by acute formaldehyde exposure via inhalation are eye, nose, and throat irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Chronic exposure to formaldehyde by inhalation in humans has been associated with respiratory symptoms and eye, nose, and throat irritation. Animal studies have reported effects on the nasal respiratory epithelium and lesions in the respiratory system from chronic inhalation exposure to formaldehyde. Occupational studies have noted statistically significant associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer. This evidence is considered “limited” rather than “sufficient” due to possible exposure to other agents that may have contributed to the excess cancers. EPA considers formaldehyde to be a probable human carcinogen (cancer-causing agent) and has ranked it in EPA’s Group B1. In California, formaldehyde has been identified as a carcinogen.
	Health Risk	70	76	70	
Methylene Chloride	Mean	ID	48.2	12.3	Case studies of methylene chloride poisoning during paint-stripping operations have demonstrated that inhalation exposure to extremely high levels can be fatal to humans. Acute inhalation exposure to high levels of methylene chloride in humans has resulted in effects on the central nervous system, including decreased visual, auditory, and psychomotor functions, but these effects are reversible once exposure ceases. Methylene chloride also irritates the nose and throat at high concentrations. The major effects from chronic inhalation exposure to methylene chloride in humans are effects on the central nervous system, such as headaches, dizziness, nausea, and memory loss. In addition, chronic exposure can lead to bone marrow, hepatic, and renal toxicity. EPA considers methylene chloride to be a probable human carcinogen and has ranked it in EPA’s Group B2. California considers methylene chloride to be carcinogenic.
	Health Risk	ID	477	122	
Perchloroethylene	Mean	ID	0.018	0.013	In California, perchloroethylene has been identified as a carcinogen. Perchloroethylene vapors are irritating to the eyes and respiratory tract. Following chronic exposure, workers have shown signs of liver toxicity, as well as kidney dysfunction and neurological disorders.
	Health Risk	ID	2	2	
Diesel PM	Mean	No Monitoring Data Available			In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust
	Health Risk				

Table 4.3-4: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration[A] / Health Risk[B]	2015	2016	2017	Health Effects
					increases the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. This research was based on studies prior to the advent of modern diesel engines with high efficiency emissions controls. Note: Since then the Health Effects Institute study clearly demonstrates that the application of new emissions control technology to diesel engines has virtually eliminated the health impacts of diesel exhaust.

ID = Insufficient data

A = Concentrations for Hexavalent Chromium are expressed as µg/m^3, and concentrations for Diesel PM are expressed as µg/m^3. Concentrations for all other TACs are expressed as ppb.

B = Health Risk represents the number of excess cancer cases per million people based on a lifetime (70-year) exposure to the annual average concentration. Total Health Risk represents only those compounds listed in this table and only those with data for the year. There may be other significant compounds for which monitoring and/or health risk information are not available

Source: CARB, 2018 for the SCAQMD Riverside-Rubidoux air monitoring station.

In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust has been a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. Within the Basin, in addition to diesel PM, there are emissions of benzene, formaldehyde, acetaldehyde, naphthalene, ethylbenzene, acrolein, toluene, hexane, propylene, and xylene from a variety of sources located within the Basin that contribute to health risks.

In January 2015, a major new study evaluated the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology is referred to as New Technology Diesel Exhaust (NTDE). As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of the Health Effects Institute (HEI) and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The HEI, funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found chronic exposure to NTDE did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue in laboratory rats. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine. Rats are the most sensitive laboratory animal species for evaluation of older technology diesel engines (pre-model year 2007), because of their sensitivity to high concentrations of particles (present in older technology diesel engines), compared with other species (including humans).

The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust (McDonald et al, 2015).

Conservative Nature of Health Risk Assessments. Moreover, the current methodological protocols required by the SCAQMD and CARB when studying the health risk posed by diesel PM assume the following (CAPCOA, 2009): (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 30 years. These are overly conservative assumptions that are not replicated in reality. Most people are indoors for 18–20 hours a day (at their place of employment or home) and most people do not live in the same location for a 30-year period. In fact, less than 10 percent of the population has a continuous residency at the same location of greater than 30 years (American Community Survey, 2011). Thus, the health risk assessments prepared pursuant to the current protocols overestimate the risk of cancer associated with diesel PM exposure.

Alternate Views on Diesel PM Risk. Some researchers, such as Dr. James E. Enstrom (Enstrom, 2008), believe that the risk from diesel PM is exaggerated. Enstrom calls into question some of the basic research on the declaration of diesel exhaust as a toxic air contaminant. In particular, the article states the following:

> *There is substantial new epidemiologic evidence relevant to the health effects of diesel exhaust that was not considered when the 1998 toxic air contaminant declaration was made. For instance, the 2007 paper by Francine Laden et al. measured death rates during 1985–2000 among 54,000 members of the unionized U.S. trucking industry. … This cohort, which included 36,000 diesel truck drivers, had death rates from all causes and all cancer that were substantially below the rates among US males. Furthermore, unlike earlier evidence that was used in the TAC declaration, this cohort did not have a substantially elevated lung cancer death rate.*

Dr. Enstrom also indicates that the premature mortality calculation in the report, “Quantification of the Health Impacts and Economic Valuation of Air Pollution from Ports and Goods Movement in California,” is exaggerated. Dr. Enstrom’s analysis “found no relationship between $PM_{2.5}$ and mortality in elderly Californians during 1983–2002.”

4.3.3 Methodology

The *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* for this revised section of the FEIR (ESA Associates, 2018) evaluated the air quality impacts associated with the development of the World Logistics Center project including the following:

- Determined the short-term construction air quality and health risk impacts on both on-site and off-site sensitive receptors based on SCAQMD and OEHHA assessment methodologies and significance thresholds;
- Determined the long-term air quality and health risk impacts, including vehicular traffic, on both on-site and off-site sensitive uses based on SCAQMD and OEHHA assessment methodologies and significance thresholds; and
- Determined the required mitigation measures to reduce short-term and long-term on-site air quality and health risk impacts from all sources.

An Air Quality, Greenhouse Gas, and Health Risk Assessment Report was prepared by ESA Associates (ESA Associates, 2018) in June 2018, included as Appendix A of this Revised Sections of the FEIR, which estimated the impacts associated with the interim and horizon opening years. The methodology used in the analysis is discussed below.

4.3.3.1 Construction

Construction-related emissions are expected from various activities associated with the construction of the project such as rough grading, infrastructure construction, asphalt paving, building construction, architectural coatings, and construction workers commuting. Construction emissions for construction worker vehicles traveling to and from the project site, in addition to vendor trips (construction materials delivered to the project site) and haul trips (dump trucks and concrete trucks) were also accounted for in the analysis. Localized air quality in the project area would be affected by both heavy-duty construction equipment usage on site as well as local traffic due to the equipment delivery and construction worker commuting. The anticipated construction equipment and construction schedule are identified in Appendix A. The SCAQMD CEQA methodology (SCAQMD, 1993) was used to analyze the criteria pollutant emissions from these activities.

A summary of the construction assumptions is included below. For a detailed description of assumptions, please refer to Appendix A.

- *Version of CalEEMod*. The construction emissions were estimated utilizing the latest version of CalEEMod (version 2016.3.2), which uses mobile source emissions from EMFAC2014.
- *Construction Period.* Construction was assumed to occur over 16 years from the year 2020 to 2035.[2] Although buildout of the project would depend on market conditions, the project could be built out as early as 2035. Therefore, to provide a conservative air quality analysis, construction was assumed to be completed over a 16-year period that provides for phase overlap and the use of less efficient construction equipment.
- *Building Phasing.* Building construction activity was subdivided into the following sub-phases: building-concrete; building-wet utilities; building-electrical; and building-landscaping to accurately describe construction activities.
- *Mass Grading Duration.* Each planning area was assumed to be graded separately over a total of approximately 58 months to reflect a realistic grading plan.
- *On-Site On-road Vehicle Emissions.* On-site travel and idling emissions from concrete trucks, haul trucks, service/support trucks, and delivery trucks were included in this analysis.
- *Equipment for Grading.* The construction equipment and haul truck deliveries for the mass excavation and fine grading phases vary per planning area (since there are varying sizes of each planning area).
- *Onsite Equipment Fleet for Non-Grading Phases.* The peak number of equipment was based on the size of each planning area and duration of construction.
- *Onsite Equipment Hours per Day.* The analysis assumed that the onsite equipment would be in the on position for 10 hours per day as a project design feature. This is a conservative scenario as the CalEEMod default assumes construction equipment would be on for 6 to 8 hours per day. This was used to calculate maximum daily emissions which are required for the regional analysis, because project emissions can occur on any day of the week.

  Concrete pouring would likely occur during nighttime hours due to limitations high temperatures pose for concrete work during the day. On-site equipment used during concrete pouring would involve daytime prep with actual concrete pouring occurring during the nighttime hours. On average, the total hours of operation for each piece of equipment during the concrete phase would be approximately 10 hours. Therefore, the analysis assumes a realistic average use of construction equipment by assuming that the maximum equipment would be used for five days per week occurring for 10 hours per day (including the concrete pouring phase). In this way, an annual average and daily emission inventories were estimated.

  - *Tier 4 Equipment.* The analysis assumed that for the mitigated emissions, all equipment over 50 horsepower would be Tier 4 as required by a revised mitigation measure.

4.3.3.2 Operation

Air quality in the project area would be affected by long-term air emissions from stationary sources and mobile sources related to the World Logistics Center project once it commences operations. The stationary source emissions would come from consumption of natural gas and emergency generators

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[2] *Full build out of the Project is expected to take 15 to 20 years, dependent on market forces. The TIA analyzes full project buildout in 2040, which is worst case for traffic analysis purposes as it accounts for greater regional growth in non-project traffic. However, for purposes of a conservative construction impact analysis, the fifteen-year buildout (ending in 2035) is analyzed. An accelerated construction schedule occurring in earlier years would account for greater overlap of construction activity and the use of dirtier construction equipment (i.e. subject to less stringent emission standards).*

while mobile source emissions would come from vehicular emissions from automobiles and trucks traveling to, from, and within the project site and from on-site forklifts and yard trucks.

A key piece of information required to estimate the project's operational emissions deals with an estimate of the number of trips and types of vehicles (i.e., cars and trucks) generated by the project during a peak hour and on a daily basis. To determine mobile source emissions associated with the project, the trip generation rates were derived from the *Traffic Impact Analysis Report* (TIA) for the project prepared by WSP USA.

Working jointly with the National Association of Industrial and Office Properties (NAIOP), the SCAQMD conducted a trip generation study for high-cube warehouses, the predominant form of land use for the project, *High-Cube Warehouse Vehicle Trip Generation Analysis* (ITE, 2016). The study replaces the earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the project. The results of the study for high-cube warehouse trip generation has been incorporated into the 10th edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual.* The trip generation rates included in this study for high-cube warehouse uses and trip rates from the 10th edition of the ITE *Trip Generation Manual* have been used for other proposed land uses.

For purposes of the TIA and worst case traffic growth assumptions, project operations were analyzed based on two buildout years: 2025 Phase 1 buildout year and 2040 full buildout year. Forecasted trip generation and vehicle miles traveled (VMT) contained in the TIA were used to estimate the project's motor vehicle emissions for the Phase 1 and full buildout scenarios. The traffic model provided estimates of project traffic volumes segregated by vehicle class as passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks. The TIA provides VMT attributable to the project based on the net effect the project has on regional travel as well as project VMT without consideration of a net effect. The net effect includes consideration that creation of a job center (the project) would redistribute existing regional travel and result in shorter employee trips. Freeway and non-freeway VMT and speed data, as provided by WSP, were utilized to determine the appropriate emission factors to apply to project trips from the EMFAC2014 model. In calculating the operational traffic emissions, the VMT per speed was based on daily speed data provided by WSP. Emissions factors vary by speed bin. Therefore, accounting for variations in speed attributable to slow downs occurring during peak hours provides a realistic representation of project mobile emissions.

Mobile emissions utilized EMFAC2014's projected vehicle fuel mix for Phase 1 buildout year 2025 and project buildout year 2040. EMFAC2014 does not include population assumptions for electric or natural gas-fueled trucks. Section 6.17, *Energy*, of this EIR addresses the potential penetration of electric trucks and potential use in association with the project. Although the State has set targets for zero-emission vehicles, it would be speculative to assume that the High Penetration scenario discussed in Section 6.17 would be practicable or feasible by 2025 or by 2040. The Low, Medium, and High Penetration scenarios discussed in Section 6.17 are possible; however, as a worst-case analysis, the air quality analysis included herein did not take factor in any potential emissions reductions provided by electric or natural gas-fueled trucks.

Emission factors for the year 2018 were used for the "worst-case" scenario. Phase 1 of the project used emission factors from the year 2025, and Phase 2 of the project used emission factors for the year 2040. For the mitigated scenario, the emission factors were modified to reflect the mitigation measure that requires the use of model year 2010 or newer trucks for all diesel trucks associated with the project. Note that emissions from the existing on-site residence and fugitive dust that would be removed were not included in this analysis as a worst-case scenario.

4.3.3.3 Localized Construction/Operation

SCAQMD has developed the Localized Significance Threshold (LST) methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts that substantially affect sensitive receptors. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable Federal or State AAQS and are developed based on the ambient concentrations of that pollutant for each source receptor area identified by the SCAQMD. SCAQMD's current guidelines, *Final Localized Significance Threshold Methodology* (SCAQMD, 2003) and subsequent additions, were adhered to in the assessment of local air quality impacts from the World Logistics Center project. The local emissions of concern from construction and operational activities as defined by the SCAQMD are NO_X, CO, PM_{10}, and $PM_{2.5}$ combustion emissions from construction equipment and fugitive PM_{10} dust from construction site preparation activities. A summary of assumptions for the localized assessment is included below. For detailed assumptions, refer to Appendix A.

- *Construction Schedule.* Construction was assumed to occur over 16 years from the year 2020 to 2035.[3] Although buildout of the project would depend on market conditions, the project could be built out as early as 2035. Therefore, to provide a conservative air quality analysis, construction was assumed to be completed over a 16-year period that provides for activity overlap and the use of older construction equipment.
- *Emission Source Configuration.* The analysis represented the off-road construction exhaust emission source as a series of contiguous volume sources, which is consistent with the SCAQMD methodology for LST assessments.
- *Operational Truck Idling.* Each truck was assumed to idle for 5 minutes per day consistent with the California Air Resources Board's Air Toxic Control Measure that limits such idling to 5 minutes and requirements specified in the World Logistics Center Specific Plan. Although project mitigation limits idling to 3 minutes per day per truck, this reduction in emissions has not been accounted for to provide a worst-case analysis.

The localized significance threshold analysis evaluated three conditions:

- Project Phase 1 (2018): this condition assumed that Phase 1 of the project is fully built out in 2018.
- Project Phase 1 and Phase 2 Full Build Out (2018): this condition assumes that Phase 1 and Phase 2 of the project are fully built out in 2018.
- Proposed Development Schedule: this condition examined the proposed development schedule of the two-phased project. Three analysis years were examined under this condition for potential localized air quality impacts:
    - 2025, the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern portion of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street, and when all of Phase I operations would occur (approximately 57 percent of entire project floor space);
    - 2032, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road (eastern portion of site); and

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[3] *Full build out of the Project is expected to take 15 to 20 years, dependent on market forces. The TIA analyzes full project buildout in 2040, which is worst case for traffic analysis purposes as it accounts for greater regional growth in non-project traffic. However, for purposes of a conservative construction impact analysis, the fifteen-year buildout (ending in 2035) is analyzed. An accelerated construction schedule occurring in earlier years would account for greater overlap of construction activity and the use of dirtier construction equipment (i.e. subject to less stringent emission standards)*

- 2040[4] when the Phase 1 and Phase 2 of the project are fully operational.

Project Phase 1 (2018) represents an interim step during which Phase 1 of the project (approximately 57 percent of the total size of the project) is completely built out in 2018. This analysis simply looked at the situation of what would happen if Phase 1 of the project were built in its entirety with no reductions in motor vehicle emissions that would occur in the future as a result of emission control programs that have already been adopted. This assessment also provided consistency with the TIA and noise reports which examine the Project Phase 1 (2018) condition. The project impact results were compared to the existing air quality levels in 2018 and only consider the project's operational emissions and not construction emissions.

Project Phase 1 and 2 Full Build Out 2018 represents a worst-case scenario since the project could not be physically built out in its entirety in a single year and does not reflect the fact that the project would be developed over a time period of 16 years depending on market demands for warehouse space. This assumption also does not account for the fact that emissions from mobile sources, prior to mitigation, particularly from heavy duty diesel trucks are expected to decline significantly over time as emissions control technologies continue to improve. This assessment also provided consistency with the TIA and noise reports which examine the full Project Phase 1 and Phase 2 (2018) Build Out condition. The project impact results were compared to the existing air quality levels in 2018 and only consider the project's operational emissions and not construction emissions.

The Project Development condition represents the project development including the localized impacts during construction and operation over the time period of 2020 to 2040. These results were compared to the existing air quality levels in 2018.

4.3.3.4 Health Risk Assessment

A Health Risk Assessment (HRA) is a guide that helps to determine whether current or future exposures to a chemical or substance in the environment could affect the health of a population. In general, risk depends on the following factors:

- How much of a chemical is present in an environmental medium (e.g., air);
- How much contact (exposure) a person has with the contaminated environmental medium; and
- The inherent toxicity of the chemical.

The assessment of health impacts is a continuing evolution of science and regulation. Since December 2014, three major scientific and regulatory activities have come forward that will affect how such assessments are performed and what such impacts mean to society as described below.

On December 30, 2014, the ARB released its update to the Emissions Factor Model, EMFAC2014, which is used to estimate emissions from motor vehicles in California. The EFAC2014 model represents the ARB's current understanding of motor vehicle technologies and regulatory implementation of rules aimed at reducing air emissions from motor vehicles. Of significance in this regard are the new projections of air emissions from heavy duty diesel engines. Based on the results of the EMFAC2014 model, emissions of diesel particulate matter range from 50 to 80 percent lower than previously estimated using the previous version of the EMFAC model, EMFAC2011. Since heavy duty trucks constitute nearly all of the project's diesel PM emissions, the incorporation of the emission information

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[4] *In some circumstances, references are made to the year 2035. The year 2035 is the year the construction schedule assumes full completion of project construction. Assuming earlier construction years would result in a more conservative analysis because the use of less efficient construction equipment is assumed. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. For purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.*

from the EMFAC2014 model is important in estimating the amount of diesel PM and in assessing the project's health risk impacts resulting from these emissions

On January 27, 2015, the HEI, a joint private-government partnership, released a major peer-reviewed scientific report entitled *Effects of Lifetime Exposure to Inhaled New-Technology Diesel Exhaust in Rats* (McDonald et al, 2015)*.* This is the first study to conduct a comprehensive evaluation of lifetime inhalation exposure to emissions from heavy-duty 2007-compliant engines (referred to as "new technology diesel exhaust," or NTDE). The study evaluated the long-term effects of multiple concentrations of inhaled NTDE, which has greatly reduced particle emissions compared with "traditional-technology diesel exhaust" (TDE) in male and female rats on more than 100 different biologic endpoints, including tumor development, and compared the results with biologic effects seen in earlier studies in rats after exposure to TDE. Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE. The importance of this study is that diesel PM emissions from new technology diesel engines does not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals that, in fact are more sensitive to toxics exposures than humans. While this study focused on heavy duty truck emissions, the new clean diesel technology has the potential for impacting all sectors, including passenger cars, agriculture, construction, maritime and transportation. Previous studies directed at studying the effects of diesel PM on health were based on exposure studies that date 15 to 20 years ago when diesel emissions were significantly higher than the NTDE. It is also important to highlight that the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, the U.S. Department of Energy (DOE) and the U.S. Federal Highway Administration are sponsors and/or reviewers of this study in conjunction with the manufacturers of emissions control equipment.

On March 6, 2015, the OEHHA adopted a new guidance for estimating health risks from toxic air contaminants that incorporated the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. Within the context of this assessment, this new assessment guidance is referred to as the "Current OEHHA Guidance". The new guidance updates earlier guidance recommended by OEHHA and SCAQMD referred to in this assessment as the "Former OEHHA Guidance", which was used in the Draft EIR. The "Former OEHHA Guidance" is based on a lifetime exposure of 70 years and does not incorporate early-in-life age sensitivity factors. The importance of the "Current OEHHA Guidance" is that the guidance produces much more conservative estimates of cancer risks from toxic air contaminant exposures than the "Former OEHHA Guidance".

The HRA has been conducted to allow decision makers to see the cancer-related impacts of the World Logistics Center project with the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The following information summarizes the main assumptions utilized in preparation of the HRA. For more detailed discussion of assumptions and methodology, refer to Appendix A.

Traffic Volumes. The HRA used the construction and operational emission values as described above in the air quality study. Note that with respect to the operational emissions, since the project may change the traffic distribution in the region, net trips and associated net emissions on each project-impacted roadway segment was calculated using the difference between the trip rates for the 2018 (baseline year) with-project scenario and without-project scenario. The TIA studied three with-project and without-project scenarios, based on existing (year 2018), interim year 2025, and horizon year 2040; the HRA analysis is based on the 2018 traffic scenario because it has the highest certainty with regard to pre-project conditions than the 2025 and 2040 traffic scenarios (i.e., the pre-project traffic conditions for those future year traffic scenarios are speculative in nature). To be conservative, for segments that have net negative trips (i.e., where the project causes reduction in trip rates on some roadway segments due to traffic redistribution in the region), the HRA used a zero emission value instead of taking credit for the trip rate reductions.

Vehicle Speeds. In calculating the operational traffic emissions, the VMT per speed was based on daily speed data provided by the traffic consultant (WSP). Speed data accounts for variations in speed attributable to slow downs occurring during peak hours.

Organic Gas Emissions. The assessment of acute non-cancer hazards examined the impacts of the toxic components of the project's organic gas and PM emissions from construction equipment during project construction, and total organic gas and PM emissions from gasoline and diesel vehicles during project operation.

Calculated Cancer Population Burden. The health risk assessment included the computation of cancer population burden attributed to the project's diesel PM emissions.

Maximum Exposure Duration for Sensitive/Residential Receptors. The HRA used the SCAQMD recommended intake rate percentiles - RMP using the Derived Method, which applies to multi-pathway risk assessments in which two dominant exposure pathways use the high-end point-estimates of exposure. Furthermore, since cancer risk calculation is based on 30-year exposure duration, the HRA assumed exposure starts at the beginning of construction (Construction + Operation HRA). The revised HRA also analyzed the 30-year exposure scenario that assumed exposure starts at the beginning of full project operation (Operational HRA). The Operational HRA assumed that a receptor starts exposure at the beginning of the full project operational year of 2040 and exposure lasts for 30 years until 2069. The Operational HRA also conservatively used the 2040 emission rate for each of the 30 years of exposure.

Maximum Exposure Duration for Worker Receptors. The cancer risk impacts are presented in accordance with "Current OEHHA Guidance", which assumes an exposure duration of 25 years for worker receptors, which is based on labor statistics showing 95 percent of workers stay in the same job for 25 years or less.

School Receptors. The assessment of cancer risks at local school receptors was included based on "Current OEHHA Guidance".

The HRA methodology applied a risk characterization model to the results from an air dispersion model to estimate potential health risks at each sensitive receptor location. Because of the pervasive nature of diesel particulate matter (diesel PM) in contributing to estimated health risks in California, the focus of this assessment was on estimating the health risks from diesel PM. While the project activities may result in the emission of other TACs (e.g., Total Organic Gases (TOG) from diesel and gasoline-powered vehicles), diesel PM from the project was found to contribute approximately 98 percent of the total cancer risk from project operations (see the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Appendix A of the Revised FEIR). Reactive Organic Gases (ROG) and PM exhaust emissions from construction equipment and TOG and PM emissions from diesel and gasoline vehicles of project operation were, however, included in the assessment of acute non-cancer hazards.

The health risk calculation methodology in this HRA is consistent with *SCAQMD Health Risk Assessment Guidance* (SCAQMD, 2016) and the "Current OEHHA Guidance" set forth in the 2015 OEHHA *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. The estimation of cancer risk involves the specification of several parameters including the concentration level of the toxic air contaminant (for purposes of this assessment diesel PM_{10} exhaust), the rate of inhalation of the toxic, the exposure frequency (number of days per year), the exposure duration in years, the time period over which the exposure takes place, what is termed a slope factor that represents an upper bound on the increased cancer risk from a lifetime exposure to a toxic by ingestion or inhalation and early-in-life age sensitivity factors. The values of these parameters depend on the type of receptor, i.e., sensitive/residential, worker, and student as discussed below.

Cancer Risk Exposure Assumptions. The principal focus of this HRA was on the potential health impacts to sensitive/residential receptors located within and surrounding the project site. Sensitive receptors include hospitals, schools, daycare facilities, elderly housing and convalescent facilities.

Residences are also considered sensitive receptors. An important parameter necessary to estimate cancer risk is the duration of exposure of an individual to toxic air contaminants. An assessment of population mobility can assist in determining the length of time a residential receptor is exposed in a particular location. For example, the duration of exposure to a source of toxic air contaminants will be directly related to the period of time residents live near the source of the emissions.

Table 4.3-5 summarizes the primary exposure assumptions used in this HRA to calculate individual cancer risk by receptor type, which is based on the SCAQMD HRA Guidance and the "Current OEHHA Guidance".

The underlying factors used in the analysis exemplify the conservative nature of utilizing the exposure scenarios and the underlying assumptions:

- The residential cancer risk calculation assumed that each resident will be exposed to diesel particulate matter (diesel PM) and organic gases for 24 hours a day for 350 days a year at the location of his or her home throughout the entire 30-year residential exposure period.
- The worker and student cancer risk calculations assumed that workers or students are exposed to diesel PM for 8 hours a day, next to, but outside of the buildings in which they work or study.
- The atmospheric dispersion model and traffic model that were used to estimate risks generally provide impact estimates that are over-estimated based on the use of conservative model assumptions.

Table 4.3-5: Exposure Assumptions for Cancer Risk

Type of Guidance	Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate (L/kg-day)
		Hours/ day	Days/ year				
Current OEHHA Guidance	Sensitive/Residential:						
	3rd Trimester	24	350	0.25	10	85	361
	0-2 years	24	350	2	10	85	1090
	2-16 years	24	350	14	3	72	572
	Older than 16 years	24	350	14	1	73	261
	Student	8	180	9	3	NA	640
	Worker	8	250	25	1	NA	230

Time at home factor is 1 if there is a school receptor within the 1 in a million (or greater) cancer risk isopleth, which was the case for this project's unmitigated scenario for the Construction + Operation HRA.
(L/kg-day) = liters per kilogram body weight per day; NA = not applicable.
The daily breathing rates shown are RMP using the Derived Method for residential as recommended by the SCAQMD and the 95th percentile rate for other receptors as recommended by the OEHHA.
Source: OEHHA, 2015; SCAQMD, 2016.

Other Factors that Influence Health Risk Estimates: Conservative Trip Estimates. It should also be noted that the TIA used a conservative estimate of the number of truck trips after the project begins operation. The number of truck trips is important because diesel PM emissions are directly related to both the number of trucks and the vehicle miles traveled. As mentioned above, the TIA in the Revised Sections of the FEIR uses the traffic generation rate for high-cube warehouses from the 10th edition of the Institute of Traffic Engineers' (ITE) Trip Generation Manual which is based on the *High-Cube Warehouse Vehicle Trip Generation Analysis* prepared jointly by SCAQMD and National Association of Industrial and Office Properties (NAOIP).

Cancer Burden. Whereas cancer risk represents the probability that an individual will develop cancer, cancer burden multiplies the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project. The exposed population is defined as the number of persons within a facility's zone of impact, which is typically the area exposed to an incremental cancer risk of one in a million from the project. Consistent with this definition, cancer burden was calculated by first identifying all population census tracts[5] located within the project's zone of impact, multiplying the estimated incremental project cancer risk impact in the census tract by the population of the census tract and then summing all of products of population times estimated cancer risk in the zone of impact. Note that each census tract contributes to the cancer burden in proportion to its population and risk. For example, if a census tract has a relatively high estimated cancer risk, but no people living there, it will not contribute to the estimation of the cancer burden. In accordance with "Current OEHHA Guidance", the cancer burden was calculated assuming a 30-year exposure duration along with the appropriate exposure frequency, daily breathing rates, age sensitivity factors, and time at home factors appropriate to each age group (OEHHA, 2015). A cancer burden greater than 0.5 is considered a significant cancer burden.

Non-cancer Hazards. Separate from cancer risk impacts, exposures to TACs such as diesel PM can also cause chronic (long-term) and acute (short-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health risks from TACs is expressed as a HI. The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL). This is a separate and distinct analysis from the analysis conducted for cancer risk. A significant risk is defined by the SCAQMD as an HI of 1 or greater. The California OEHHA has assigned a chronic non-cancer REL of 5 $\mu g/m^3$ for diesel PM (OEHHA, 2015). Diesel PM has effects on the respiratory system, which accounts for essentially all of its potential chronic non-cancer hazards. Therefore, the only HI calculated was for the respiratory system.

Exposures to TACs can also have short-term or acute non-cancer effects, typically dealing with exposures over an hour or so. OEHHA has not defined a REL for diesel PM appropriate for estimating acute non-cancer hazards from diesel PM. Therefore, to estimate the potential acute non-cancer impacts from the project, it was necessary to examine the various individual chemical components (or chemical species) that comprise the emissions from both diesel vehicles and gasoline vehicles. For this purpose, use was made of emission source profiles that provide estimates of the various chemical components that comprise the exhaust from diesel and gasoline vehicles. From this information, an estimate was made of the maximum one-hour average concentration levels of the project's various chemical species from which an acute non-cancer HI can be determined.

Morbidity and Mortality. Respirable particulate matter is a public health concern as it is known to impact both the respiratory and cardiovascular systems. Respirable particulate matter deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne particulate matter (PM_{10} and $PM_{2.5}$) include children, the elderly, smokers, and people of all ages with low pulmonary/ cardiovascular function. The CARB reviewed and summarized the toxic health effects (i.e., mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify these impacts based on concentration-response functions (C-R functions) (CARB, 2008a). This CARB model has been used, for example, to estimate the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement in California.

The CARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity, however, such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions, baseline rates of mortality and morbidity that are entered into C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such

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[5] A census tract is a geographic region defined for the purpose of taking a census. Usually these regions coincide with the limits of cities, towns, or other administrative areas. Each tract has a unique numeric code and averages about 4,000 inhabitants. The census tract centroid is the geographic center of the tract based on a weighted distribution of the population within the tract using the census blocks that comprise the tract. A census block is the smallest geographic unit used to tabulate population and each tract can be comprised of several blocks.

as sulfur dioxide, NO_2, CO, and O_3 that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted. For estimates mortality and morbidity impacts, the following C-R function is used:

$\Delta Y = -Y_O$ [exp $(-\beta * \Delta PM)$ - 1] * population

Where:

- ΔY: changes in the incidence of a health risk endpoint (in this case changes in mortality or morbidity) corresponding to a particular change in DPM.
- $Y_{O:}$ baseline occurrence of the health risk endpoint rate per person for the South Coast Air Basin.
- β: the coefficient based on the relative risk that is associated with a particular concentration and varies from one study to another.
- ΔPM: change in DPM concentration estimated by the project's air dispersion modelling ($\mu g/m^3$).
- Population = population of the impacted census tracts and population subgroup exposed to the change in DPM.

To use a C-R function from an epidemiological study to estimate changes in the incidence of a health endpoint corresponding to a particular change in PM in a location, it is important to use appropriate values of parameters for the C-R function, which are the measure of PM, the type of population, and the characterization of the health endpoint should be the same as or as close as possible to those used in the study that estimated the C-R function.

The form of the C-R function was used to predict the effect of changes in ambient PM concentrations on health effects such as premature deaths, cardiac and respiratory hospitalizations, asthma and other lower respiratory symptoms, etc. The parametric values for the variables Y_O and β are provided in Table 4.3-6 along with the averaging time for the estimate of the health risk endpoint.

Table 4.3-6: Parameter Values

Health Risk Endpoint	Averaging Time	Affected Population	Baseline Occurrence (Y_O)	Relative Incidence (β)	Health Risk Endpoint
Long Term Mortality	Annual	Ages 30 years and older	0.001768	0.005827	Long Term Mortality
Chronic Illness: Chronic Bronchitis	Annual	Ages 27 years and older	0.00378	0.0132	Chronic Illness: Chronic Bronchitis
Hospitalization: Chronic Obstruction Pulmonary Disease	Daily	Ages 65 years and older	0.0000259	0.00288	Hospitalization: Chronic Obstruction Pulmonary Disease
Hospitalization: Pneumonia	Daily	Ages 65 years and older	0.0000516	0.00207	Hospitalization: Pneumonia
Hospitalization: Cardiovascular	Daily	Ages 65 years and older	0.000158	0.00119	Hospitalization: Cardiovascular
Hospitalization: Asthma	Daily	Ages 0 to 64 years old	0.00000263	0.00205	Hospitalization: Asthma
Emergency Room Visits for Asthma	Daily	Ages 0 to 64 years old	0.00000448	0.00367	Emergency Room Visits for Asthma

Source: CARB, 2002.

The basic procedure for determining exposures is based on the methods published by the CARB in its development of the technical support to consider amendments to the ambient air quality standards for particulate matter and sulfates (CARB, 2002). Within this assessment, the following information is required to make the relevant health risk endpoint estimates in addition to the C-R function shown in the above equation and the parametric information shown in Table 4.3-6:

- Air pollutant concentrations (represented as the incremental diesel PM impacts from the population affected.)

The incremental air pollutant concentrations of DPM resulting from the project were determined using the USEPA AERMOD air dispersion model and associated emission estimates of DPM. The dispersion model predicted annual estimates of DPM at locations surrounding the project corresponding to the location of population census tracts from the US Census Bureau. To provide estimates of 24-hour DPM, the annual average DPM concentration values calculated by the air dispersion model were multiplied by a factor of 6 which corresponds to the ratio of 24-hour average to annual average air concentrations recommended by the California Office of Environmental Health Hazard Assessment (OEHHA, 2015). The breakdown of the total population by age group for use in the concentration-response functions was accomplished using the 2010 US Census for California age breakdown as shown in Table 4.3-7. This population breakdown was assumed to apply to all census tract receptors to determine the affected population in each census tract.

Table 4.3-7: California Age Breakdown in 2010

Age	Percent of Total Population
<5	7.3%
5-9	8.0%
10-14	7.6%
15-19	7.2%
20-24	7.0%
25-34	15.5%
35-44	16.2%
45-54	12.8%
55 to 59	4.3%
60 to 64	3.4%
65-74	5.6%
75-84	3.8%
>=85	1.6%

Source: USCB, 2014.

Despite a number of uncertainties in the analysis methodology, the expected increase in mortality and morbidity was calculated for the project's toxic air emissions.

Geographic Scope of the Health Risk Assessment. The HRA is characterized by two important differences from the localized significance threshold assessment for criteria pollutants. According to the SCAQMD localized significance threshold assessment methodology, the assessment of localized impacts addresses only those emissions that are generated "onsite", that is for the purposes of this project, emissions generated from within or along the boundaries of the Specific Plan. However, for the HRA, both the universe of the project's emission sources and air dispersion model receptors were expanded to assess the off-site impact of the project's emissions of toxics. Besides onsite emission sources and receptors, the HRA included a receptor grid that extends up to 5 kilometers (km) from the project boundary and the roadway network that extends 10 km from the project boundary (e.g., including 18 miles on SR-60. This study area reasonably captured the most extensive emissions from project-generated vehicles on the roadway network, since all trips to and from the project would travel on the roadway segments and freeway segments (SR-60) nearest the project site regardless of origin or destination. Since project activity is highest onsite, the project's emissions and associated health impact decreases with distance from the project site. Thus, the selected study area was capable of capturing the project's maximum impact. If the maximum risk from the study area is less than significant, project health risk impacts will be less than significant for receptors further away.

The generation of emissions from traffic traveling along the various arterial and freeway mainline roadway segments requires information on traffic volumes, length of segment, and emission factors. The emission factors, in turn, depend on vehicle type, speed, calendar year, and fuel type. Estimates of peak hour vehicle volumes and types (passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks) were provided by the traffic consultant for each roadway segment analyzed. The TIA also provided daily vehicle volumes for freeway segments, but not for non-freeway segments. For use in the cancer risk and chronic non-cancer hazard calculations, the daily vehicle volumes for non-freeway segments were assumed to be 10 times that of the peak hour vehicle volumes. The physical length and width of each roadway segment were estimated using the segment location as provided by the traffic consultant and aerial photographs available from Google Earth. Vehicle speeds for each roadway segment and vehicle type were based on the speed groups provided by the traffic consultant.

The health risk analysis examined the following condition:

- Project Development condition which examined the effect of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2020 and the final full build out in 2035.[6] This condition forms the basis for quantifying the incremental impacts from the project.

Annual average diesel PM emissions and impacts were calculated for each year starting from 2020 based on the assumption that diesel exhaust can cause cancer. Specifically, annual average diesel PM concentrations were estimated from the diesel PM construction emissions for each year of construction from 2020 to 2035 according to the construction schedule and equipment usage projected for each year of construction. Project Development examines project impacts resulting from the proposed construction and operation of the project from the commencement of construction in 2020 for a 30-year duration for sensitive/residential receptors, 25-year for worker receptors, and 9-year exposure time periods for school-site student receptors. Annual average diesel PM emissions and impacts during operation were estimated for the Phase 1 build out year and the final full build out year, years for which detailed traffic information was available from the TIA. The annual average operational diesel PM impacts were then interpolated among operational years between 2020 and 2035.

During years when both construction and operations occur simultaneously (2021 to 2035), the annual diesel PM concentrations at the sensitive receptors from construction were added to the annual diesel PM concentrations from operations to provide a total impact assessment of all diesel PM emissions from the project during each year. The resulting total annual average diesel PM concentrations calculated each year for the exposure time period (individual annual averages) multiplied by the requisite daily breathing rates, age sensitivity factors, and time-at-home factors for each year of exposure. The HRA assumed that a fetus in the 3rd trimester (within the mother's womb) commences its lifetime exposure with exposure starting in year 2020 (construction start year) for construction +

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[6] In some circumstances, references are made to the year 2035. The year 2035 is the year the conservative construction schedule assumes full completion of project construction. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. Similar to the Phase 1 buildout year, and for purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.

operation and in year 2040 for full operational. The HRA is being provided to allow decision makers to see the cancer-related impacts of the World Logistics Center project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4.

4.3.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, air quality impacts would occur if the World Logistics Center project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); and/or
- Expose sensitive receptors to substantial pollutant concentrations.

In addition to the Federal and State AAQS, there are daily emissions thresholds for construction and operation of a project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook* (SCAQMD, 1993) and subsequent additions to the Handbook were used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution related to air quality and health risks.

4.3.4.1 Thresholds for Construction Emissions

The following CEQA significance thresholds for regional construction emissions have been established by the SCAQMD for the Basin:

- 75 pounds per day of VOC, also known as reactive organic compounds (ROC).
- 100 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA.

4.3.4.2 Thresholds for Operational Emissions

Projects with regional operation-related emissions that exceed any of the regional emission thresholds listed below are considered significant under the SCAQMD guidelines.

- 55 pounds per day of VOC, also known as ROC.

- 55 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

4.3.4.3 Air Pollutant Standards for CO with Localized Effects

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards (previously referenced Table 4.3-1). If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more. The Basin meets State and Federal attainment standards for CO; therefore, the project would have a significant CO impact if project emissions result in an exceedance of State or Federal one-hour or eight-hour standard. The following emission concentration standards for CO, based on the SCAQMD *CEQA Air Quality Handbook* (1993), apply to the project:

- California State one-hour CO standard of 20.0 ppm.
- California State eight-hour CO standard of 9.0 ppm.

4.3.4.4 Localized Significance Thresholds

The SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 (SCAQMD, 2003), revised July 2008 and *Final Methodology to Calculate Particulate Matter (PM) 2.5 and* $PM_{2.5}$ *Significance Thresholds* (SCAQMD, 2006), recommending that all air quality analyses include a localized assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of Federal or State AAQS. LSTs are based on the ambient concentrations of that pollutant within the Source Receptor Area (SRA) where a project is located and the distance to the nearest sensitive receptor. The project site is located in the northern portions of SRAs 24 (Moreno Valley) and 28 (San Jacinto).

In the case of CO and NO_2, if ambient levels are below the air standards for these pollutants, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are nonattainment pollutants in the Basin. For these latter two pollutants, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 $\mu g/m^3$ applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 $\mu g/m^3$ applies to non-aggregate handling operational activities.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. There are currently six occupied single-family homes and associated ranch/farm buildings in various locations on the World Logistics Center project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, and west of Redlands Boulevard, and scattered residences along Gilman Springs Road.

Following the SCAQMD LST methodology, for sites larger than 5 acres, air dispersion modeling needs to be conducted. Because the project site greatly exceeds 5 acres, the localized significance for project air pollutant emissions was determined by performing dispersion modeling to determine if the pollutant concentrations would exceed relevant significance thresholds established by the SCAQMD.

The following LSTs were applied to the construction and operation of the project:

- 0.18 ppm (State 1-hour); 0.100 ppm (Federal 1-hour); and 0.03 ppm (Annual) of NO_2 for construction or operations.
- 20 ppm (1-hour) and 9.0 ppm (8-hour) of CO for construction or operation.
- 10.4 µg/m^3 (24-hour) and 1 µg/m^3 of PM_{10} (Annual) for construction.
- 2.5 µg/m^3 (24-hour) and 1.0 ppm (Annual) of PM_{10} for operations.
- 10.4 µg/m^3 (24-hour) of $PM_{2.5}$ for construction.
- 2.5 µg/m^3 (24-hour) of $PM_{2.5}$ for operation.

Note that when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operation apply in determining emission significance

4.3.4.5 Health Risk Significance Thresholds

For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), “substantial” is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level.

The SCAQMD has defined several health risk significance thresholds that it recommends to Lead Agencies in assessing a project’s health risk impacts. The City of Moreno Valley has not adopted its own set of thresholds. Therefore, the following SCAQMD thresholds were adopted for the project.

- **Maximum Individual Cancer Risk (MICR)and Cancer Burden.** MICR is the estimated increase in lifetime probability of the maximally exposed individual contracting cancer as a result of exposure to TACs over the applicable exposure period. Cancer burden multiples the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project.

  A significant impact would occur for:

  (A) An increased MICR greater than 10 in 1 million at any receptor location; or

  (B) A cancer burden greater than 0.5

- **Chronic Hazard Index (HI).** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. A reference exposure level is the exposure level below which an adverse health effect will not occur as determined by health professionals The chronic HI calculations include multi-pathway consideration, when applicable.

  A significant impact would occur if the increase in total chronic HI for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.

- **Acute Hazard Index (HI).** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level, the exposure level below which an adverse health effect will not occur as determined by health professionals (see Section 4.3.2.3).

A significant impact would occur if the increase in total acute HI for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.

4.3.5 Less than Significant Impacts

The following impact was determined to be less than significant (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.3.5.1 Long-Term Microscale (CO Hot Spot) Emissions

Impact 4.3.5.1: The World Logistics Center project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation for CO.

Threshold	Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation? For CO, the applicable thresholds are: - California State one-hour CO standard of 20.0 ppm; and - California State eight-hour CO standard of 9.0 ppm.

Vehicular trips associated with the development of the World Logistics Center project could contribute to congestion at intersections and along roadway segments in the project vicinity resulting in potential local CO “hot spot” impacts. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle travel speeds and idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, schoolchildren, etc.). High CO concentrations are typically associated with roadways or intersections operating at unacceptable levels of service or with very high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project’s effect on local CO levels.

Carbon monoxide (CO) “hot spot” thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecast regional traffic do not exceed State or Federal standards for CO at any traffic intersection affected by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the State CO 1-hour standard of 20 ppm, State CO 8-hour standard of 9 ppm, Federal CO 1-hour standard of 35 ppm, or Federal CO 8-hour standard of 9 ppm.

A CO hot spot is a localized concentration of CO that is above the State or Federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections where the concentrations would be the greatest.

This analysis follows guidelines recommended by the CO Protocol (University of California, Davis, 1997) and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The LOS for intersections is determined in the TIA (refer to Section 4.15 of this Revised FEIR, Traffic and

Circulation). The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: (1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or (2) the project decreases LOS at an intersection from C to D. A decrease in LOS, i.e., from C to D, means that there is more traffic and more delay at the intersection.

For this project analysis, the intersections with the highest traffic volumes and the LOS E or F before mitigation were identified for 2025 using information from the table in the TIA “Intersection LOS under 2025 Plus Phase 1 Conditions.” The intersections with the greatest LOS before mitigation were also identified for 2040 using information from the table in the TIA “Intersection LOS under 2040 Plus Build-out Conditions.”

The CO concentrations were estimated using the CALINE4 model using 2025 and 2040 emission factors. The emission factors are for “all” vehicle classes and are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project mitigation reductions from requiring that all diesel trucks are model year 2010 or newer.

Table 4.3-8 shows estimated CO concentrations at year 2025 plus project traffic conditions. The estimated CO concentrations at year 2040 are shown in Table 4.3-9. As shown in the tables, the estimated 1-hour and 8-hour average CO concentrations from project-generated and cumulative traffic plus the background concentrations are below the State and Federal standards. No CO hot spots are anticipated because of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact. No mitigation is required.

Table 4.3-8: Carbon Monoxide Concentrations at Intersections, 2025

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Alessandro Boulevard and Chicago Avenue	PM	5.2	3.5	No
Alessandro Boulevard and Canyon Crest Drive	PM	4.8	3.2	No
Alessandro Boulevard and Mission Grove Parkway	PM	4.3	2.9	No
Arlington Avenue and Victoria Avenue	PM	4.3	2.9	No
Alessandro Boulevard and Sycamore Canyon Boulevard	AM	4.3	2.9	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-9: Carbon Monoxide Concentrations at Intersections, 2040

Intersection	Peak Hour	CO Concentration (ppm) 1 Hour	CO Concentration (ppm) 8 Hour	Significant Impact?
Alessandro Boulevard and Chicago Avenue	PM	4.5	3.0	No
Alessandro Boulevard and Canyon Crest Drive	PM	4.6	3.1	No
Alessandro Boulevard and Sycamore Canyon Boulevard	PM	4.2	2.8	No
Ramona Expressway and Sanderson Avenue	PM	4.7	3.1	No
Alessandro Boulevard and Mission Grove Parkway	PM	4.2	2.8	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

4.3.6 Significant Impacts

The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.

4.3.6.1 Air Quality Plan Management Plan Consistency

Impact 4.3.6.1: *Implementation of the World Logistics Center project has the potential to conflict with implementation of the SCAQMD 2012 AQMP.*

Threshold	Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the Air Quality Management Plan (AQMP):

1. Indicator: Whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Indicator: A project would conflict with the AQMP if it would exceed the assumptions in the AQMP in 2012 or increments based on the year of project buildout and phase. The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used in the Regional Transportation Model run by the Southern California Association of Governments that generated the mobile inventory used by the SCAQMD for AQMP are not available and assumed not to include the project; therefore, the SCAQMD's significance thresholds are used to determine if the project exceeds the assumptions in the AQMP.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis utilizes the following criteria to address this potential impact:

- Project's contribution to air quality violations (SCAQMD's first indicator, 1 as listed above);
- Assumptions in AQMP (SCAQMD's second indicator, 2, as listed above); and
- Compliance with applicable emission control measures in the AQMPs.

Project's Contribution to Air Quality Violations and Assumptions in AQMP. According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD, 1993, page 12-3). As shown in analyses in Impacts 4.3.6.2, 4.3.6.3, and 4.3.6.4, the project could violate an air quality standard and therefore could contribute substantially to an existing or projected air quality violation.

If a project's emissions exceed the SCAQMD regional thresholds for NO_X, VOC, PM_{10}, or $PM_{2.5}$, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the Basin is in nonattainment (ozone, PM_{10}, and $PM_{2.5}$) at a monitoring station in the Basin. The thresholds are criteria for determining environmental significance and are discussed in the SCAQMD's 1993 Handbook for Air Quality Analysis. An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP—to achieve attainment of pollutants. As discussed in the analyses below (Impact 4.3.6.2, Construction Emissions, and Impact 4.3.6.4, Long-Term Operational Emissions), the project would exceed the regional emission significance thresholds for VOC, NO_X, CO, PM_{10}, and/or $PM_{2.5}$ prior to the application of mitigation. This means that project emissions could combine with other sources and could result in an ozone, PM_{10}, or $PM_{2.5}$ exceedance at a nearby monitoring station. The Basin in which the project is located is in nonattainment for these pollutants; therefore, according to this criterion, the project would not be consistent with the AQMP. The regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. Therefore, based on this criterion, the project could contribute to air quality violations and would not be consistent with the AQMP.

Compliance with Emission Control Measures. The second indicator of whether the project could conflict with or obstruct implementation of the AQMP is by assessing the project's compliance with the control measures in the AQMPs and the State Implementation Plan (SIP).

2012 AQMP. The project would comply with all applicable rules and regulations enacted as part of the AQMP. In addition, the AQMP relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 RTP/SCS and 2011 FTIP. Included in the RTP/SCS are transportation control measures including active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.

2016 AQMP. As stated previously, the SCAQMD recently approved on March 3, 2017 the Final 2016 AQMP. Currently, the 2016 AQMP is being reviewed by the U.S. EPA and CARB. Until the approval of the EPA and CARB, the current regional air quality plan is the Final 2012 AQMP adopted by the SCAQMD on December 7, 2012. Therefore, consistency analysis with the 2016 AQMP has not been included. Nonetheless, the project would comply with all applicable rules and regulations enacted as part of the 2016 AQMP, including transportation control measures from the 2016 RTP/SCS.

State Implementation Plans. Geographical areas in the State that exceed the Federal air quality standards are called nonattainment areas. The project area is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. SIPs show how each area will attain the Federal standards. To do this, the SIPs identify the amount of pollutant emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions. On September 27, 2007, the CARB adopted its State Strategy for the 2007 SIP. In 2009, the SIP was revised to account for emissions reductions from regulations adopted in 2007 and 2008 and clarifies CARB's legal commitment. Additional recent revisions to the SIP are as follows:

- In 2008, the EPA revised the lead[7] national ambient air quality standard by reducing it to 0.15 $\mu g/m^3$. On December 31, 2010, the Los Angeles County portion of the Basin was designated as

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[7] Lead referred to here is a chemical element; a heavy metal.

nonattainment for the 2008 lead national standard as a result of exceedances measured near a large lead-acid battery recycling facility. The 2012 Lead SIP for Los Angeles County was prepared by the SCAQMD and addresses the recent revision to the lead national standard, and outlines the strategy and pollution control activities that demonstrate attainment of the lead national standard before December 31, 2015. The 2012 Lead SIP was approved May 4, 2012.

- A SIP revision for the federal nitrogen dioxide standard was prepared in 2012, to address the new 1-hour federal ambient air quality standard for nitrogen dioxide.
- The proposed California Infrastructure SIP revision was considered by the CARB on January 23, 2014. The proposed Infrastructure SIP revision is administrative in nature and covers the National Ambient Air Quality Standards (federal standards) for ozone (1997 and 2008), fine particulate matter ($PM_{2.5}$; 1997, 2006, and 2012), lead (2008), nitrogen dioxide (2010), and sulfur dioxide (2010). The proposed revision describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce these federal standards. It does not contain any proposals for emission control measures.

The SIP takes into account CARB rules and regulations. The project will comply with applicable rules and regulations as identified in the AQMPs and SIPs and therefore, complies with this criterion.

Summary. Although the project would be consistent with the policies, rules, and regulations in the AQMPs and SIPs, the project must meet all the criteria listed above to be consistent with the AQMPs. The project could impede AQMP attainment because its construction and operation emissions exceed the SCAQMD regional significance thresholds, so the project is considered to be inconsistent with the AQMP.

Mitigation Measures. Applicable SCAQMD regulatory requirements are restated in the mitigation measures identified below in Section 4.3.6.2 and 4.3.6.3. These measures shall be incorporated in all project plans, specifications, and contract documents. **Mitigation Measures 4.3.6.2A, 4.3.6.2B, 4.3.6.2C, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A** are required.

Level of Significance After Mitigation. Implementation of the World Logistics Center project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X, as noted below. Despite the implementation of mitigation measures, emissions associated with the project cannot be reduced below the applicable thresholds. Construction and operational emissions would be reduced to the extent feasible through implementation of mitigation measures listed above and described below. Construction emissions would be reduced through implementation of mitigation measures that require the use of Tier 4 construction equipment, reduced idling time, use of non-diesel equipment where feasible, low-VOC paints and cleaning solvents, and dust suppression measures. Operational emissions would be reduced through implementation of mitigation measures that require reduced vehicle idling, use of non-diesel on-site equipment, meeting or exceeding 2010 engine emission standards for all diesel trucks entering the site, electric vehicle charging stations, and prohibition of refrigerated warehouses. In the absence of further feasible mitigation to reduce the project's emission of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from exhaust from construction equipment will remain significant and unavoidable.

4.3.6.2 Regional Construction Emissions

Impact 4.3.6.2: *Construction of the World Logistics Center project has the potential to exceed applicable daily thresholds that may affect sensitive receptors.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For construction operations, the applicable daily thresholds are: - 75 pounds per day of ROC/VOC;

- 100 pounds per day of NO_X;
- 550 pounds per day of CO;
- 150 pounds per day of PM_{10};
- 150 pounds per day of SO_X; and
- 55 pounds per day of $PM_{2.5}$.

Grading and other construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions during these construction activities will vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Activity during peak grading days typically generates a greater amount of air pollutants than other project construction activities.

While the actual details of the future construction schedule are not known, it is expected that project construction would occur in two phases with seven discrete activities in Phase 1 and eight discrete activities in Phase 2. For Phase 1, the following activities are assumed to occur over the course of seven years in the analysis: 1) rough grading, which includes mass site grading; 2) finish grading; 3) building construction; 4) infrastructure construction which includes utility installation; 5) curb, gutter, sidewalk, subgrade preparation, drop rock, and paving activities; 6) asphalt paving; and 7) landscaping. For Phase 2, the same activities are assumed to occur over the course of nine years in the analysis, and includes interchange construction as the eighth activity. Within the “building construction” phase, it is assumed that there would also be subphases of concrete pouring, installation of wet utilities, electrical installation, and landscaping. Appendix A of this Revised Sections of the FEIR includes details of the emission factors and other assumptions.

Table 4.3-10 identifies projected emissions resulting from grading and construction activities for the World Logistics Center project and shows the estimated maximum daily construction emissions over the course of project construction prior to the application of mitigation.

Table 4.3-10: Short-Term Regional Construction Emissions–Without Mitigation

Year	Maximum Daily Pollutant Emissions (lbs/day)								
	VOC	NO_X	CO	PM_{10} dust	PM_{10} exhaust	PM_{10} Total	$PM_{2.5}$ dust	$PM_{2.5}$ exhaust	$PM_{2.5}$ Total
2020	281	639	407	99	25	117	11	23	31
2021	270	460	434	97	20	117	11	18	29
2022	298	776	645	132	30	162	15	28	43
2023	262	347	419	97	14	111	11	13	24
2024	343	1,233	992	177	47	224	20	43	63
2025	263	342	457	105	13	118	12	12	24
2026	282	536	595	144	20	164	16	18	35
2027	269	415	476	114	15	130	13	14	27
2028	296	690	663	39	26	165	16	24	39
2029	281	543	560	125	20	145	14	19	33
2030	309	391	605	128	12	140	15	12	26
2031	268	207	427	97	5	102	11	5	16
2032	307	391	616	131	12	143	15	12	26
2033	297	340	565	125	10	135	14	10	24
2034	268	206	426	97	5	102	11	5	16
2035	282	237	511	117	5	122	13	5	19

Table 4.3-10: Short-Term Regional Construction Emissions–Without Mitigation

	Maximum Daily Pollutant Emissions (lbs/day)								
Year	VOC	NO_X	CO	PM_{10} dust	PM_{10} exhaust	PM_{10} Total	$PM_{2.5}$ dust	$PM_{2.5}$ exhaust	$PM_{2.5}$ Total
SCAQMD Threshold	**75**	**100**	**550**	**NA**	**NA**	**150**	**NA**	**NA**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**NA**	**NA**	**Yes**	**NA**	**NA**	**Yes**

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2 pounds per day, substantially under the threshold of 150 pounds per day.
- Dust plus exhaust emissions may not add up to total emissions for both PM10 and PM2.5 because the numbers included in this table are the maximum emissions between winter and summer model outputs for each of the three categories.
- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.
- Emissions assume compliance with SCAQMD Rule 403.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

The construction emissions estimates summarized in Table 4.3-10 are based on the assumed construction scenario described in Appendix A, of this Revised Sections of the FEIR. Using emission factors from the CalEEMod model, Table 4.3-10 indicates that construction emissions of criteria pollutants would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X.[8] This is a significant impact requiring mitigation.

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, and cut-and-fill grading operations. Dust generated during construction varies substantially by project, depending on the level of activity, the specific operations and equipment, local soils, and weather conditions at the time of construction. The World Logistics Center project will be required to comply with SCAQMD Rules 402 and 403 to control fugitive dust. There are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction.

As identified in Table 4.3-10, fugitive dust and exhaust emissions during the anticipated peak construction day for the World Logistics Center project would exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM_{10} is an average of 88 percent dust and 12 percent exhaust. $PM_{2.5}$ has an average of 50 percent dust and 50 percent exhaust.

Concrete pouring would likely occur during nighttime hours due to limitations high temperatures pose for concrete work during the day. On-site equipment used during concrete pouring would involve daytime prep with actual concrete pouring occurring during the nighttime hours. On average, the total hours of operation for each piece of equipment during the concrete phase would be approximately 10 hours. Therefore, maximum daily emissions presented in Table 4.3-10 represent the average concrete pour day. However, under rare occurrences, extended concrete pour days may be required. Table 4.3-11 summarizes daily maximum emissions for each year of construction associated with 24-hour operation of on-site building concrete equipment. As shown in Table 4.3-11, maximum 24-hour concrete pour days would exceed SCAQMD thresholds for NO_X. However, all maximum daily emissions are less than those for the worst-case construction day as summarized in Table 4.3-10. Therefore, rare 24-hour concrete pour days would be within the estimated worst-case construction day assumptions. No further analysis of 24-hour concrete pour days is required.

Similar to extended concrete pouring days, other phases of construction such as utility installation and building construction may require an occasional extended construction day based on the task at hand

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[8] The project would emit SO_X from construction equipment exhaust; however, the maximum emissions (2 pounds per day) are less than significant as they are far below the threshold of 150 pounds per day.

and schedule goals. Occasional extended construction hours would occur for specific tasks within specific planning areas as needed (determined on a day-to-day basis) and would not occur site-wide throughout the 16-year construction period. Therefore, it is anticipated that estimated yearly maximum construction day emissions, as summarized in Table 4.3-10, represent the realistic worst-case regional construction emissions for the 16-year construction duration. Therefore, no further analysis of potential extended construction days is required.

Table 4.3-11: Short-Term Regional 24-hour Concrete Pour Emissions–Without Mitigation

	Maximum Daily Pollutant Emissions (lbs/day)				
Year	**VOC**	**NO_X**	**CO**	**PM_{10} Total**	**$PM_{2.5}$**
2020	No Concrete Phase				
2021	17.01	151.89	166.94	8.76	7.56
2022	15.74	138.58	165.83	7.71	6.57
2023	14.86	127.45	165.21	6.94	5.84
2024	14.29	121.56	165.30	6.37	5.30
2025	13.53	114.23	164.89	5.66	4.64
2026	13.52	114.13	164.83	5.66	4.63
2027	13.52	114.04	164.77	5.66	4.63
2028	13.51	113.97	164.72	5.66	4.63
2029	13.50	113.90	164.67	5.66	4.63
2030	14.15	91.24	169.34	3.48	2.63
2031	14.14	91.21	169.31	3.48	2.63
2032	14.13	91.15	169.27	3.48	2.63
2033	14.13	91.10	169.24	3.47	2.63
2034	14.12	91.06	169.20	3.47	2.63
2035	13.36	84.68	169.02	2.94	2.10
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2 pounds per day, substantially under the threshold of 150 pounds per day.
- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.
- Emissions assume compliance with SCAQMD Rule 403.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

The World Logistics Center project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. The applicable Rule 403 measures are as follows:

- All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions.

- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions.

As previously discussed, SCAQMD Rule 1113 regulates the sale and application of architectural coatings. Rule 1113 is applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of ROG or VOC emissions allowed for all types of architectural coatings. Compliance with Rule 1113 means that architectural coatings used during construction would have ROG or VOC emissions that comply with these limits.

Mitigation Measures. The following measures are recommended to reduce the level of emissions of criteria pollutants:

4.3.6.2A Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley.

a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit’s certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.

b) During all construction activities, off-road diesel-powered equipment may be in the “on” position not more than 10 hours per day.

c) Construction equipment shall be properly maintained according to manufacturer specifications.

d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour.

e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used.

f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.

g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In “SOON” funds which provides funds to accelerate cleanup of off-road diesel vehicles.

h) Construction on-road haul trucks shall be model year 2010 or newer if diesel-fueled.

i) Information on ridesharing programs shall be made available to construction employees.

j) During construction, lunch options shall be provided onsite.

k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards.

l) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.

4.3.6.2B Prior to issuance of any grading permits, a Construction Staging Plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using World Logistics Center Parkway (formerly Theodore Street), Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the Construction Staging Plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer.

4.3.6.2C The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC):

a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per liter or lower for both interior and exterior surfaces shall be used.

b) Leftover paint shall be taken to a designated hazardous waste center.

c) Paint containers shall be closed when not in use

d) Low VOC cleaning solvents shall be used to clean paint application equipment.

e) Paint and solvent-laden rags shall be kept in sealed containers.

4.3.6.2D No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).

Level of Significance After Mitigation. Significant and unavoidable. As shown in Table 4.3-12, construction emissions are still significant after mitigation, with the exception of $PM_{2.5}$. The reduction in $PM_{2.5}$ emissions is by a reduction in exhaust from the application of Tier 4 off-road equipment. PM_{10} emissions are still significant because emissions in 2024 exceed the threshold; however, emissions of PM_{10} during all other years of construction are less than significant. Although mitigation reduces emissions of all pollutants during construction, potential air quality impacts resulting from exhaust from construction equipment and fugitive dust will remain significant and unavoidable.

The results of this regional construction analysis indicate that during project construction, project emissions combined with regional emissions within the South Coast Air Basin, would result in the following cumulative health effects from ozone exposure:[9]

- Irritation of respiratory system; reduction in lung function; changes in breathing patterns; reduction of breathing capacity; inflammation of and damage to cells that line the lungs; increase in lung susceptibility to infection; aggravation of asthma; aggravation of other chronic lung diseases; permanent lung damage; some immunological changes; and/or increased mortality risk.

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[9] Although carbon monoxide emissions are over the threshold, it is primarily a localized pollutant. The localized analyses demonstrated that concentrations would not exceed the ambient air quality standards for carbon monoxide; therefore, less than significant health effects are anticipated.

Table 4.3-12: Mitigated Short-Term Regional Construction Emissions

Year	Maximum Daily Pollutant Emissions (lbs/day)				
	VOC	NO_X	CO*	PM_{10}	$PM_{2.5}$
2020	149	178	452	102	15
2021	151	177	493	101	15
2022	165	200	741	136	19
2023	149	142	488	100	14
2024	167	235	1135	182	25
2025	150	140	537	108	15
2026	155	170	718	147	20
2027	151	143	567	117	16
2028	157	173	803	143	19
2029	154	157	675	128	17
2030	160	160	808	131	18
2031	151	121	490	99	13
2032	160	162	803	134	18
2033	158	152	723	128	17
2034	151	121	489	99	13
2035	155	133	636	119	16
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**No**

* There is an error in the way CalEEMod estimates the effect of a higher tier (such as Tier 3 or 4) on mitigated CO; therefore, the mitigated CO values are greater than unmitigated values.

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report; the maximum emissions would be approximately 2 pounds per day after mitigation, substantially under the threshold of 150 pounds/day.
- Mitigation Measure 4.3.6.2A(a) was estimated by CalEEMod using its mitigation module by assuming Tier 4 off-road equipment for equipment greater than 50 horsepower.
- Mitigation Measure 4.3.6.2A(b) restricts equipment from operating more than 10 hours per day in the on position, which is estimated in CalEEMod in both the unmitigated and mitigated estimates.
- Mitigation Measures 4.3.6.2A(c) through (e), 4.3.6.2A(g) through (m), 4.3.6.2B, and 4.3.6.2D are not quantified.
- Mitigation Measure 4.3.6.2A(f) is assumed in the unmitigated and mitigated estimates (Rule 403).
- Mitigation Measure 4.3.6.2A(i) requires that construction haul trucks be 2007 model year or greater. CalEEMod does not have a mitigation measure embedded in the model to quantify the reduction from this measure. Therefore, this reduction quantification was not provided.
- Mitigation Measure 4.3.6.2C reduces VOC emissions during painting and is calculated as demonstrated in the spreadsheets in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

4.3.6.3 Localized Construction and Operational Air Quality Impacts

Impact 4.3.6.3: *Construction and operation of the World Logistics Center project has the potential to exceed localized daily thresholds that may affect sensitive receptors.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? The applicable localized thresholds are: - 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction or operation; - 0.18 ppm (State 1 hour), 0.100 ppm (National 1 hour), and 0.030 ppm (Annual) of NO_X during construction or operation; - 10.4 µg/m^3 (24 hours) 1.0 µg/m^3 (Annual) of PM_{10} during construction - 2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM_{10}; during operation and - 2.5 µg/m^3 (24 hours) of $PM_{2.5}$ during operation - During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operations to assess the significance of the activities

The localized analysis focused on three potential scenarios:

1. Project Phase 1 (2018), which evaluates the air quality impacts if Phase 1 of the project (approximately 57 percent of the square footage) was built out in full in 2018[10] and no other changes occurred to land uses or the roadway system;
2. Project Phase 1 and Phase 2 Full Build Out (2018), which evaluates what air quality impacts would arise if the entire project, both Phase 1 and Phase 2, were built out in full in 2018 and no other changes occurred to land uses or the roadway system; and
3. Project Development Schedule, which evaluates the air quality impacts from the following scenarios:
    - o 2025, the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern portion of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street, and when all of Phase I operations would occur (approximately 57 percent of entire project floor space);
    - o 2032, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road (eastern portion of site); and
    - o 2040[11] when the Phase 1 and Phase 2 of the project are fully operational.

The Project Phase 1 (2018) and Project Phase 1 and Phase 2 Full Build Out (2018) conditions represents hypothetical worst-case conditions in that the project physically could not be built-out in 2018 or, in fact, in any single year due to the size of the project. These conditions have been included in this assessment to correspond to the analysis scenarios examined in the project TIA. These conditions also do not account for the fact that vehicle emissions are expected to decline over time as vehicle emission control technologies improve. Thus, consideration of these conditions will significantly overestimate the project's potential air quality impacts. The Project Development condition represents the logical and realistic

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[10] 2018 is the CEQA Baseline year for purposes of this analysis.

[11] *In some circumstances, references are made to the year 2035. The year 2035 is the year the construction schedule assumes full completion of project construction. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. Similar to the Phase 1 buildout year, and for purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.*

development of the project over a period of 16 years as represented by the project applicant. The LST analysis is presented for each condition below.

Pursuant to the SCAQMD's LST methodology, only emissions generated from emission sources located within and along the project boundaries are included in the LST assessment. These emission sources include vehicle travel on the roadway network within and along the borders of the project and emissions from support equipment including forklifts, yard/hostler trucks, and emergency standby electric generators.

The project's emissions then served as input into the AERMOD air dispersion model to derive estimate of the project's localized air quality impacts for each condition.

Project Phase 1 (2018) LST Assessment

The project's on-site emissions were estimated from the traffic-generated by the various project vehicles as provided by the TIA. Vehicle emissions were assumed to be representative of the calendar year 2018 vehicle fleet. Also included were emissions from various support equipment including forklifts, yard trucks, and standby emergency generators. The localized assessment results for the Project Phase 1 (2018) condition are provided in Table 4.3-13 for receptors located within the project boundaries and in Table 4.3-14 for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.[12]

As noted from Table 4.3-13, the project would not exceed the SCAQMD's localized significance thresholds for any of the pollutants studied at receptors located within the project boundaries. As shown in Table 4.3-14, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries.

The Project Phase 1 and Phase 2 Full Build Out (2018) LST Assessment

The localized assessment results for the Project Phase 1 and Phase 2 Full Build Out (2018) condition are provided in Table 4.3-15 for receptors located within the project boundaries and in Table 4.3-16 for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.

As noted from Table 4.3-15, the project would exceed the SCAQMD's significance thresholds for the annual PM_{10} threshold for receptors located within the project's boundaries. As shown in Table 4.3-16, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries.

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[12] In keeping with the SCAQMD recommendations, the highest NO_2 and CO air quality measurements over a 3-year rolling average was used to determine existing background conditions. Historical data for years 2014, 2015, 2016, and 2017 were obtained from SCAQMD's Riverside-Rubidoux air monitoring station.

Table 4.3-13: Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Within the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.004	0.02	0.030	No
PM$_{10}$	24 hour, µg/m^3	NA	1.7	1.7	2.5	No
	Annual, µg/m^3	NA	0.99	0.99	1.0	No
PM$_{2.5}$	24 hour, µg/m^3	NA	0.5	0.5	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-14: Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Outside of the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.07	0.18	No
	National 1 hour, ppm	0.053	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM$_{10}$	24 hour, µg/m^3	NA	0.8	0.8	2.5	No
	Annual, µg/m^3	NA	0.4	0.4	1.0	No
PM$_{2.5}$	24 hour, µg/m^3	NA	0.2	0.2	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts generally occur at the existing residences along Gilman Springs Road to the east of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-15: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Within the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.02	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.07	0.100	No
	Annual, ppm	0.015	0.005	0.02	0.030	No
PM$_{10}$	24 hour, μg/m^3	NA	1.6	1.6	2.5	No
	Annual, μg/m^3	NA	1.0	1.0	1.0	Yes
PM$_{2.5}$	24 hour, μg/m^3	NA	0.5	0.5	2.5	No

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-16: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Outside the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.08	0.18	No
	National 1 hour, ppm	0.064	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.002	0.02	0.030	No
PM$_{10}$	24 hour, μg/m^3	NA	0.8	0.8	2.5	No
	Annual, μg/m^3	NA	0.5	0.5	1.0	No
PM$_{2.5}$	24 hour, μg/m^3	NA	0.2	0.2	2.5	No

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts generally occur at the existing residences along Gilman Springs Road to the east of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

It is important to note the Project Phase 1 (2018) and Project Phase 1 and Phase 2 Full Build Out (2018) conditions assume that the project's emissions are at the levels that would occur in 2018. The majority of the project's operational emissions are from on-road mobile sources, more particularly, heavy-duty trucks that contribute a disproportionate amount of emissions compared to passenger vehicles. Emissions from on-road mobile sources are regulated at the State and Federal levels and, therefore, are outside of the control of local agencies such as the City and the SCAQMD. For example, the CARB is working closely with the USEPA, engine and vehicle manufacturers, and other interested parties to identify programs that will reduce emissions from heavy-duty diesel vehicles in California. Emission reductions arise from a combination of measures including the use of ultra-low sulfur diesel fuel, new emission standards for large diesel engines, restrictions on diesel engine idling, addition of post-combustion filter and catalyst equipment, and retrofits for business and government diesel truck fleets. The implementation of these emission reductions will also result in reductions of other pollutants such as NO_X, VOC, and CO. As these emission reduction programs are implemented and there is a turnover in the use of older vehicles with newer and cleaner vehicles, the project's operational emissions are expected to decline significantly in the future. Emission controls on mobile source vehicles already adopted by the CARB particularly dealing with NO_X and PM_{10} controls on heavy duty trucks will reduce truck emissions significantly over time. As an example, in the South Coast Air Basin, the per-mile running exhaust rate of NO_X emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 5.4 grams/mile in 2018 to 2.5 grams/mile by 2025, a decline of 53 percent from 2018 levels and to 2.22 grams/mile in 2040, a decrease of 59 percent from 2018 levels. Similarly, the per-mile running exhaust rate of PM_{10} emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 0.09 gram/mile in 2018 to 0.020 gram/mile in 2025, a decline of 79 percent from 2018 levels and decline to 0.018 grams/mile in 2040, a decline of 81 percent from 2018 levels. Thus, two Project (2018) conditions represent highly conservative estimates, in terms of overestimating of the project's operational impacts.

Project Development Schedule LST Assessment

The final localized threshold assessment condition examined potential local project impacts considering the proposed construction and build out schedule of the project over a time period of 16 years from the commencement of construction in 2020 to the final build out in 2040. This condition examined three specific time periods:

- The year 2025: the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street and when all of Phase I operations would occur (approximately 57 percent of entire project floor space); These residences are the closest sensitive receptors outside of the project's boundaries. According to the conceptual construction schedule provided by the applicant, extensive building construction is expected to take place within the southern portion of the site, south of Alessandro Boulevard, as well on both sides of World Logistics Center Parkway during the completion of Phase 1 construction and the beginning of Phase 2 construction. This scenario also corresponds to the complete operations of Phase 1 and the attendant operational emissions. The project's onsite maximum daily and annual construction emissions were estimated using the CalEEMod land use emission model and the construction equipment inventory and activities provided by the applicant. The project's onsite operational emissions, principally from the project's mobile sources, were derived from detailed traffic volume data provided by the project's TIA that reflects a completely operational Phase 1. The TIA applied a comprehensive regional transportation model to develop daily and peak hour traffic volumes for 2025 and 2040 from the project's mobile sources. Peak hour and daily project traffic volumes were developed for each year from 2020 to buildout for roadway segments within and along the boundaries of the project using the following assumptions:
    - Project operational traffic volumes were assumed to be zero in 2020, the year that project construction would commence.

  - Traffic volumes for the years 2021 to 2025 (the completion year for Phase 1 operations) were interpolated from 2021 to 2025 by applying the annual project occupancy schedule to the 2025 traffic volumes.
  - Traffic volumes for the years 2025 to buildout were interpolated from the provided traffic volumes in 2025 and 2040 by applying the annual project occupancy schedule.
- The year 2032, when the project's total daily on-site construction and operational emissions would be the highest for several air pollutants and construction and operations would occur along the eastern portion of the project potentially impacting the existing residences across from the project along Gilman Springs Road; and
- The year 2040, which is the long term planning year analyzed in the TIA and representative of the complete build out of the project.

Localized Impact Analysis, 2025. The localized impacts for the short-term construction and operational activities were analyzed using an air dispersion model (EPA AERMOD Model) to simulate the transport and dispersion of project-related emissions through the air. These impacts were then compared to the applicable SCAQMD localized concentration thresholds.

The estimated maximum localized air quality impacts from the construction and operation of the project at Phase 1 buildout are summarized in Table 4.3-17 for locations within the project's boundaries. These maximum impacts were found at the locations of the existing residences within the project boundaries. Table 4.3-18 summarizes the highest air quality impacts for sensitive receptors located outside of the project boundaries. As noted from these two tables, project impacts would exceed the significance thresholds for PM_{10} for locations within the project boundaries, thus represents a significant impact without mitigation. Project impacts would not exceed localized thresholds for receptors located outside the project boundaries.

Table 4.3-17: Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts Within the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.05	2.2	20	No
	8 hour, ppm	1.6	0.02	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.03	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	3.3	3.3	2.5[2]	Yes
	Annual, µg/m^3	NA	1.6	1.6	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.8	0.8	2.5[2]	No

µg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5.}$ This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2018.

Localized Air Quality Impact Analysis, 2032. The year 2032 was selected for the LST Analysis for two principal reasons: 1) the year 2032 corresponds to the year with the highest combined total onsite construction and operational emissions of NO_x and CO and the third or fourth highest onsite emissions of PM_{10} and $PM_{2.5}$ during the time period of 2020 to 2035; and 2) the location of the building construction in 2032 places the construction emissions adjacent to the existing residences located on the eastern side of the project across Gilman Springs Road.

Table 4.3-18: Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts Outside the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.04	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.1	2.1	2.5[2]	No
	Annual, µg/m^3	NA	0.7	0.7	1.0	No
$PM_{2.5}$	24 hour, µg/m^3	NA	0.5	0.5	2.5[2]	No

µg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

The project's maximum combined impacts from construction and operations during 2032 are shown in Table 4.3-19 for the existing sensitive receptors located within the project boundaries along with the SCAQMD-recommended significance thresholds. Table 4.3-20 shows the maximum combined impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the east of the project across Gilman Springs Road. As shown in these tables, the project would exceed the SCAQMD's significance thresholds for PM_{10} at locations within the project boundary and outside of the project boundary.

Localized Air Quality Impact Analysis, 2040. The year 2040 represents a long-term planning year when both phases of the project would be fully in operation. Operational emissions during 2040 were estimated based on the project's trip generation and project-related travel along the local roadway network within and along the project boundaries. Table 4.3-21 shows the maximum localized air quality impacts for 2040 relative to the background air quality levels at the existing sensitive receptors located within the project boundaries. Table 4.3-22 identifies the highest localized impacts for sensitive receptors located outside of the project boundaries. As shown in Table 4.3-21 and Table 4.3-22, the project would exceed PM_{10} LSTs for receptors within and outside the project boundary, and would, therefore, represent a significant impact without mitigation.

Summary. The localized significance analysis demonstrates that without mitigation, the project would exceed the localized significance thresholds for PM_{10} for one or more of the LST assessment years (2025, 2032, or 2040) analyzed. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the annual and 24-hour PM_{10} ambient air quality standards.

Table 4.3-19: Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Within the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.06	2.2	20	No
	8 hour, ppm	1.6	0.02	1.7	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.03	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	3.9	3.9	2.5[3]	Yes
	Annual, µg/m^3	NA	1.7	1.7	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.9	0.9	2.5[3]	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas
to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5.}$
This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-20: Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Outside the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.09	2.3	20	No
	8 hour, ppm	1.6	0.03	1.7	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.07	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	4.7	4.7	2.5[3]	Yes
	Annual, µg/m^3	NA	1.5	1.5	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.9	0.9	2.5[3]	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5.}$
This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-21: Localized Assessment – Project Operation Full Build Out, Year 2040 Maximum Impacts Within the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.009	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.009	0.07	0.18	No
	National 1 hour, ppm	0.053	0.008	0.06	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.9	2.9	2.5	Yes
	Annual, µg/m^3	NA	1.8	1.8	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.8	0.8	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-22: Localized Assessment – Project Operation, Year 2040 Maximum Impacts Outside of the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.006	0.07	0.18	No
	National 1 hour, ppm	0.053	0.006	0.06	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.2	2.2	2.5	No
	Annual, µg/m^3	NA	1.3	1.3	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.6	0.6	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Mitigation Measures. Mitigation measures identified previously under Impact 4.3.6.2 (**Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, and **4.3.6.2D**) to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403. Additionally, the following mitigation measures are required to reduce emissions of criteria pollutants during project operations.

4.3.6.3A Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.

4.3.6.3B The following shall be implemented as indicated:

Prior to Issuance of a Certificate of Occupancy

a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations, and the prohibition of parking in residential areas.

b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations.

c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.

On an Ongoing Basis

d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.

e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.

f) Tenants shall be encouraged to become a SmartWay Partner.

g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers.

h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.

i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center.

j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet.

k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.

l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.

m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel.

n) Truck and vehicle idling shall be limited to three (3) minutes.

4.3.6.3C Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.

4.3.6.3D Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.

4.3.6.3E Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the Revised Sections of the FEIR. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).

Level of Significance After Mitigation. Significant and unavoidable. Table 4.3-23 compares the project impacts before and after mitigation for those assessment conditions and pollutants that indicated a significant impact before mitigation. After application of mitigation, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual). In addition, the project would continue to exceed the localized significance thresholds at offsite receptors for PM_{10} (24-hour and annual).

In summary, those residents inside and outside the project boundaries could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

Table 4.3-23: Comparison of Local Project Air Quality Impacts Before and After Mitigation

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation(1)	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?
Project Phase 1 and Phase 2 Full Build Out (2018)	Inside Project Boundaries	PM_{10}, Annual, $\mu g/m^3$	1.02	0.97	1.0	No
Project Development Schedule Year 2025	Inside Project Boundaries	PM_{10} 24-hour, $\mu g/m^3$	3.30	3.23	2.5	Yes
		PM_{10}, Annual, $\mu g/m^3$	1.57	1.56	1.0	Yes
Project Development Schedule Year 2032	Inside Project Boundaries	PM_{10} 24-hour, $\mu g/m^3$	3.90	3.89	2.5	Yes
		PM_{10} Annual, $\mu g/m^3$	1.7	1.7	1.0	Yes
	Outside Project Boundaries	PM_{10} 24-hour, $\mu g/m^3$	4.7	4.6	2.5	Yes
		PM_{10} Annual, $\mu g/m^3$	1.5	1.4	1.0	Yes
Project Development Schedule Year 2040 Build Out	Inside Project Boundaries	PM_{10} 24 hour, $\mu g/m^3$	2.9	2.9	2.5	Yes
		PM_{10} Annual, $\mu g/m^3$	1.8	1.8	1.0	Yes
	Outside Project Boundaries	PM_{10} Annual, $\mu g/m^3$	1.3	1.3	1.0	Yes

Notes: $\mu g/m^3$ = micrograms per cubic meter (a unit of concentration); ppm = parts per million (a unit of concentration)

(1) Total Impacts include the incremental impacts from the project plus the pollutant background; see Tables 4.3-13 to 4.3-22 for the total impacts for the various assessment conditions prior to the application of mitigation.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

4.3.6.4 Long-Term Operational Emissions

Impact 4.3.6.4: *Implementation of the World Logistics Center project may have the potential to exceed applicable daily thresholds for operational activities.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For long-term operations, the applicable daily thresholds are: - 55 pounds of VOC; - 55 pounds of NO$_X$; - 550 pounds of CO; - 150 pounds of PM$_{10}$; - 55 pounds of PM$_{2.5}$; and - 150 pounds of SO$_X$.

Long-term air pollutant emission impacts that would result from the World Logistics Center project are those associated with stationary sources (generators, boilers, etc.), area sources (landscaping and maintenance activities), and mobile sources (e.g., emissions from the use of motor vehicles by project-generated traffic). As discussed above in Section 4.3.3.2, the TIA provides VMT attributable to the project based on the net effect the project would have on regional travel as well as project VMT without consideration of a net effect. The emissions from the net effect on VMT, in conjunction with the proposed stationary and area sources, are shown in the tables below for determination of significance. For informational purposes only the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report (*Appendix A*)* of this revised section of the FEIR includes operational mobile emissions without consideration of a net effect in regional traffic volumes.

Worst-Case Scenario. Projected emissions resulting from operational activities of the project under the worst-case scenario are identified in Table 4.3-24.

There may be minor emissions of VOC from the fueling station, depending on what type of fuel is used. However, details regarding the fueling station are currently unknown so the emission source is not estimated. This is a worst-case analysis because it assumes that the entire project would be built-out in 2018. The motor vehicle and truck emission factors are from 2018, which assumes a “dirtier” fleet than would be the case in later years. In addition, no reductions are taken for mitigation measures.

Table 4.3-24: Operational Regional Air Pollutant Emissions (Worst-Case Scenario)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO$_X$	CO	PM$_{10}$	PM$_{2.5}$
Phase 1 2018 emission factors	Mobile	107	2,078	579	386	116
	Area	175	<1	2	<1	<1
	Onsite equipment	5	138	51	1	1
	Total	**287**	**2,216**	**632**	**388**	**117**
Buildout 2018 emission factors	Mobile	241	3,958	1,472	898	274
	Area	311	<1	4	<1	<1
	Onsite equipment	9	245	89	2	2
	Total	**561**	**4,202**	**1,565**	**901**	**276**
Significance Threshold		55	55	550	150	55
Significant Impact?		Yes	Yes	Yes	Yes	Yes

Notes: VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide
PM$_{10}$ and PM$_{2.5}$ = particulate matter <1 = less than one
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

As identified in Table 4.3-24, operational emissions for the project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the "worst-case" 2018 scenario.

Operational Regional Emissions. Table 4.3-25 shows the detailed operational emission sources generated both on site and off site for Phase 1 and buildout. The table shows particulate matter (PM_{10} and $PM_{2.5}$) divided into dust and exhaust sources. As shown in the table, emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout.

Table 4.3-26 shows the operational emissions year by year using future year emission factors. The VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ emissions would be over the SCAQMD's significance thresholds for most years beginning as early as year 2021 for NO_X, 2023 for VOC, 2024 for PM_{10} and $PM_{2.5}$, and 2029 for CO. The emissions demonstrate that although the number of vehicles and trucks would increase year by year, the emissions do not increase dramatically because the per-vehicle emission factors decrease over time as cleaner vehicles enter the fleet over time.

Combined Construction and Operation. There would be overlapping of construction and operational emissions with project implementation. The maximum daily operational emissions were added to the maximum daily construction emissions and are shown in Table 4.3-27, which shows all pollutants for all years exceed the SCAQMD thresholds, with the exception of SO_X emissions. SO_X are not shown in the table as they are far below the significance threshold of 150 pounds per day.

As identified in the preceding tables, project-related air quality impacts for all criteria pollutants, with the exception of SO_X, would be significant and mitigation measures are required.

Table 4.3-25: Operational Regional Air Pollutant Emissions (Detail, Unmitigated)

Phase	Source	Emissions (pounds/day)								
		VOC	NO_X	CO	PM_{10} Dust	PM_{10} Exh.	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exh.	$PM_{2.5}$ Total
Phase 1	Mobile	57	607	322	313	5	318	85	3	88
	Area	175	<1	2	0	<1	<1	0	<1	<1
	On-site Equipment	5	138	51	0	1	1	0	1	1
	Total	**238**	**746**	**375**	**313**	**6**	**319**	**85**	**4**	**89**
Buildout	Mobile	103	803	772	940	5	945	252	5	256
	Area	311	<1	4	0	<1	<1	0	<1	<1
	On-site Equipment	9	245	89	0	2	2	0	2	2
	Total	**422**	**1,047**	**865**	**940**	**7**	**947**	**252**	**7**	**259**
Significance Threshold		55	55	550	None	None	150	None	None	55
Significant Impact?		Yes	Yes	Yes	--	--	Yes	--	--	Yes

Notes: VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter Exh. = exhaust <1 = less than 1

On-site equipment emissions include emissions from yard trucks, forklifts, and stationary generators.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-26: Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2020	0	0	0	*	0	0
2021	25	98	50	*	44	12
2022	49	195	100	*	89	25
2023	82	326	166	*	148	41
2024	115	456	233	*	207	58
2025	175	698	356	*	317	89
2026	226	769	460	*	445	123
2027	252	806	514	*	513	141
2028	268	829	547	*	553	152
2029	284	851	580	*	594	163
2030	307	884	627	*	652	179
2031	332	920	680	*	718	197
2032	358	957	733	*	784	214
2033	384	993	786	*	849	232
2034	401	1,017	821	*	893	244
2035	418	1,041	856	*	936	256
Buildout	422	1,047	865		947	259
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

- Emissions are from local vehicles, trucks, natural gas, emergency generators, forklifts, yard trucks, painting, and consumer products. There is no reduction from existing onsite emissions.
- Operational emissions are assumed to be zero in 2020 when project construction commences.
- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.

* Sulfur dioxide emissions as estimated are substantially less than the threshold of 150 pounds per day. Thus, emissions reflecting decreased vehicle miles traveled would also be less than significant.

VOC = volatile organic compounds; NO_X = nitrogen oxides; SO_2 = sulfur dioxide; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-27: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2020 (construction only)	281	639	407	124	34
2021	294	557	484	161	42
2022	347	972	745	251	68
2023	344	673	585	259	65
2024	457	1,688	1,225	431	121
2025	438	1,040	813	434	112
2026	507	1,304	1,055	608	158
2027	521	1,221	990	642	168
2028	564	1,519	1,210	718	192
2029	565	1,395	1,140	739	196
2030	616	1,274	1,231	792	205
2031	601	1,127	1,107	820	213
2032	666	1,347	1,349	926	241
2033	681	1,333	1,351	985	256
2034	669	1,223	1,247	995	260
2035	699	1,278	1,367	1,058	274
Buildout (operation only)	422	1,047	865	947	259
Max Daily Emissions	**699**	**1,688**	**1,367**	**1,058**	**274**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day
- Reduction from existing onsite emissions are not included.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Mitigation Measures. The mitigation measures previously identified under Impact 4.3.6.3 (**Mitigation Measures 4.3.6.3A** through **4.3.6.3E**) would reduce operational emissions of criteria pollutants associated with the project

Additionally, the following mitigation measure is required:

4.3.6.4A The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

a) All tenants shall be required to participate in Riverside County's Rideshare Program.

b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.

c) Class II bike lanes shall be incorporated into the design for all project streets.

d) The project shall incorporate pedestrian pathways between on-site uses.

e) Site design and building placement shall provide pedestrian connections between internal and external facilities.

f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.

g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 200 parking spaces or more shall be designed and constructed so that at least six percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Sizing of conduit and service capacity at the time of construction shall be sufficient to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater.

h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code. Each building shall provide a minimum of two shower and changing facilities for employees.

i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.

j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

It is important to note that, in addition to the operational activity mitigation measures identified previously, future development would need to incorporate physical attributes and operational programs that will act to generally reduce operational-source pollutant emissions including GHG emissions. These project characteristics are identified in Section 4.7, *Climate Change and Greenhouse Gas Emissions*, and Section 4.17, *Energy,* of this revised FEIR.

Level of Significance after Mitigation. Significant and unavoidable. Mitigated operational emissions for full buildout are shown in Table 4.3-28. Note that the emissions are based on conservative assumptions and does not subtract existing emissions that would cease to exist (i.e., assumes all emissions are net new). As shown on Table 4.3-28, even with implementation of the mitigation measures, emissions are still significant. Despite implementation of mitigation measures, emissions of criteria pollutants would still exceed SCAQMD significance thresholds resulting in a significant and unavoidable operational air quality impact.

Table 4.3-28: Operational Regional Air Pollutant Emissions (Mitigated)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Buildout	Vehicles: Local and trucks	97	802	773	945	256
	Area	311	<1	4	<1	<1
	Onsite Equipment	8	91	107	<1	<1
	Total Project Emissions	**416**	**893**	**883**	**946**	**257**
	Significance Threshold	55	55	550	150	55
	Significant Impact?	Yes	Yes	Yes	Yes	Yes

- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.
- Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout would be less than 23 pounds per day.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
On-site equipment emissions include emissions from yard trucks, forklifts, and stationary generators.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Therefore, there could be cumulative health effects from ozone, PM_{10}, and $PM_{2.5}$ as described earlier in this section and summarized as follows:

- Ozone can cause the following health effects: irritate respiratory system; reduce lung function; breathing pattern changes; reduce breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increase mortality risk.
- Particulate matter (PM_{10} and $PM_{2.5}$) can cause the following health effects from short-term (hours/days) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

During overlap of construction and operation, VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ would continue to exceed SCAQMD significance thresholds after mitigation, as shown in Table 4.3-29. Therefore, impacts are significant and unavoidable.

Table 4.3-29: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day) – Mitigated

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2020	149	178	452	4	3
2021	176	261	542	48	16
2022	214	367	839	93	29
2023	231	420	651	150	44
2024	281	625	1,363	211	62
2025	324	736	887	319	90
2026	379	827	1,176	447	125
2027	400	831	1,083	514	143
2028	422	881	1,352	556	155
2029	434	884	1,259	596	165
2030	463	914	1,441	654	181
2031	479	906	1,179	718	197
2032	513	978	1,548	785	216
2033	536	999	1,523	851	233
2034	546	988	1,326	893	244
2035	566	1,020	1,510	936	256
Buildout	416	893	883	946	257
Max Daily Emissions	**566**	**1,020**	**1,548**	**946**	**257**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day.
- Emissions do not include existing onsite emissions.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018

4.3.6.5 Impacts to Sensitive Receptors

Impact 4.3.6.5: *Implementation of the World Logistics Center project may have the potential to result in impacts to sensitive receptors.*

Threshold	Would the proposed project expose sensitive receptors to substantial pollutant concentrations? For localized air quality impacts, the applicable thresholds are: - 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction and operation; - 0.18 ppm (State 1 hour), 0.100 ppm National 1 hour), and 0.030 ppm (Annual) of NO_X during construction and operation; - 10.4 µg/m^3 (24-hours) and 1 µg/m^3 (Annual) of PM_{10} during construction - 2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM_{10} during operations; and - 2.5 µg/m^3 (24 hours) of $PM_{2.5}$ during operations. - During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance threshold for operations. For health risk impacts, the applicable thresholds are:

- Maximum Individual Cancer Risk: An increased cancer risk greater than 10 in 1 million at any receptor location;
- Cancer burden: An increase in cancer burden of 0.5 or
- Non-cancer chronic hazard indices (HI): A cumulative increase for any target organ system exceeding 1.0 at any receptor location.

Acute and Chronic Health Risk Impacts. Acute and chronic health risk impact analyses examine the increased risk for non-cancer health outcomes associated with project-related air pollutant emissions. Since these are non-cancer health impacts, as described below, the impacts are analyzed separately from increased cancer risk associated with air pollution.

The construction and operation of the project would not emit any toxic chemicals in any significant quantity other than vehicle exhaust. While there may be other toxic substances in use on site, risk would be negligible due to intermittent use (i.e., chemicals from periodic maintenance), dispersion of chemicals throughout the project site, and compliance with State and Federal handling regulations.

Exposure to diesel exhaust can have immediate (acute) health effects, such as irritation of the eyes, nose, throat, and lungs, and can cause coughs, headaches, light headedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (CARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer REL.

The analysis, however, does derive an estimate of acute non-cancer risks by examining the acute health effects of the various toxic components that comprise diesel and gasoline emissions. There is specific guidance for estimating the acute non-cancer hazards from these toxic components based on chemical profiles established by the CARB which was used in the analysis to determine the project's acute non-cancer hazards.

To determine the project's *chronic* non-cancer hazard impact, the highest annual diesel PM concentration was determined covering the years 2020 (the commencement of project construction) to 2035 (the full build out of the project). In this regard, the highest annual average diesel PM concentration prior to mitigation determined through air dispersion modeling was 0.2 ug/m^3, at an existing residence located within the project boundaries. This diesel PM concentration was due to the impacts of diesel PM emissions from the off-road construction equipment and operation equipment. This level of diesel PM impact results in a chronic non-cancer HI of 0.04. This HI is less than the SCAQMD's significance level of 1.0, and is, therefore, less than significant.

The estimation of the *acute* non-cancer HI requires the estimation of the maximum 1-hour impacts of TAC components in organic gases and PM emissions. For project construction, estimates of the maximum 1-hour ROG and PM exhaust emissions were derived from the project's peak daily construction equipment emissions; for project operation, estimates of the project's maximum 1-hour TOG and PM emissions were derived from the project's peak hour traffic data along the nearly 230 roadway segments contained within the study area and then speciated or broken down into the various TAC components by fuel type, gasoline and diesel, and emission type (i.e., exhaust, evaporative, brake wear and tire wear). The acute non-cancer HI was determined for a worst-case condition that assumed the project would be constructed between 2020 and 2035 and full operation starts in 2040. Based on this information, the maximum acute non-cancer HI found at any receptor within the model domain prior to mitigation was 0.16 during project construction and 0.05 during full project operation, which are less than the SCAQMD's non-cancer HI of 1.0, and, therefore, is less than significant without mitigation.

Therefore, the potential for short-term acute and chronic exposure from diesel exhaust are considered to be less than significant and no mitigation is required.

Cancer Risks. As noted in Section 4.3.3, *Methodology*, the project health risk assessment examined the following condition for impacts to both sensitive/residential and worker receptors:

> *Project Development condition which evaluates the impacts of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2020 and the full build out in 2035.*

This HRA is being provided to allow decision makers to see the cancer-related impacts of the World Logistics Center project in the assumption that new technology diesel exhaust causes cancer, contrary to what was found by the HEI study. The mitigation conditions require that all diesel-fueled haul trucks during construction be 2010 or newer, diesel trucks accessing the project during operation be model year 2010 or newer, and that all on-site equipment greater than 50 horsepower be Tier 4 (see MM 4.3.6.2A[h] and MM 4.3.6.2A[a], respectively).

To be conservative, the HRA relied on EMFAC2014 to determine the breakdown of vehicle types and fuel types and did not consider the potential reductions in TACs emissions and health risks from increased penetration of zero emission vehicles (ZEVs). The increased penetration of ZEVs is speculative, but likely given rapid technology advancement and more stringent legislation. For example, this HRA assumed that the 2040 heavy duty truck fleet would be made up of 94% diesel, 6% gasoline and 0% electric. According to the WLC Transportation Energy Technical Report (ESA, 2018), a High EV Penetration scenario projects that the heavy duty truck fleet would consist of 55.7% diesel, 4.3% gasoline, and 40% electric. Therefore, accounting for the High EV Penetration scenario would result in a greatly reduced health risk impact than what has been calculated in this analysis.

Localized Risk

Cancer Risk for Sensitive/Residential Receptors. For reference, a risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration of diesel PM over the duration of the exposure. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics (USEPA, 2017).

Table 4.3-30 presents the estimated cancer risks for the 30-year exposure scenario that starts from the beginning of project construction (Construction + Operation HRA), which uses updated construction and operational emissions values. The results are provided separately for project construction diesel PM emissions, operational diesel PM emissions, and the total project diesel PM emissions prior to the application of emission mitigation. Table 4.3-31 shows the estimated cancer risk for the 30-year residential exposure scenario that starts from the beginning of project full operation in 2040 (Operational HRA), which used the 2040 emission levels to represent the emissions for 2040 to 2069.

On the basis of the results shown in Table 4.3-30, the project would exceed the SCAQMD’s cancer risk significance threshold of an incremental increase of 10 in a million prior to the application of mitigation and would represent a significant impact. Construction impacts contribute the greatest proportion of the total impact presented in Table 4.3-30. Table 4.3-31 shows that during full project operation, the estimated maximum cancer risk anywhere in the model domain is less than the 10 in a million threshold, impact will therefore be less than significant without mitigation. Overall, without mitigation, the project is expected to have a significant impact mainly due to diesel PM emissions from construction activities.

Figures 4.4-3 and 4.3-4 show the incremental cancer risks for the project location. The figures show the results prior to the application of mitigation.

Estimates of Cancer Risk for School Site Receptors. Cancer risk estimates at school sites in the area are provided in Appendix D. Prior to the application of the mitigation, the maximum cancer risk is at Ridgecrest Elementary School and would be less than 2 in a million. Therefore, impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.

Estimates of Cancer Risk for Worker Receptors. Estimates of worker exposures were prepared based on the assumption of a 25-year exposure duration for 250 days per year and 8 hours per day as described in the methodology section above. Note that the OEHHA early-in-life age factors do not apply to worker receptors. The highest worker cancer risk estimates prior to the application of mitigation is less than 5 in one million for the construction + operational scenario and 0.6 in one million for the full operational scenario, both at one onsite location. Therefore, cancer risk for worker receptors anywhere in the revised HRA's study area is less than the 10 in one million significance threshold. Projected impacts are less than significant without mitigation.

This analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.

Estimates of Cancer Burden. The cancer burden calculation provides an estimate of the increased number of cancer cases as a result of exposures to TAC emissions. The total cancer burden is the product of the number of persons in a population area (such as a census tract) and the estimated individual risk from TACs in that population area and then summed overall population areas. The SCAQMD indicates that the burden calculation includes those population units having an incremental cancer risk of 1 in a million or greater.

Cancer risks were estimated at the geographical center (centroid) of census tracts that are within the study area of the HRA. For the 30-year exposure duration in accordance with "Current OEHHA Guidance", the cancer burden is estimated to be 0.09 out of a population of about 63,090 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.

Table 4.3-30: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), Without Mitigation

Receptor Location	Incremental Increase in Cancer Risk During Project Construction (risk/million)	Incremental Increase in Cancer Risk During Project Operation (risk/million)	Total Incremental Increase in Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	54.1	3.9	57.5	10	Yes
Maximum risk within the project boundaries(3)	54.1	3.9	57.5	10	Yes
Maximum risk at any area outside of the project boundaries(4)	14.9	1.1	16.0	10	Yes

Notes:

(1) Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2020 to 2049 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the updated construction emission estimate, TIA, EMFAC2014 emission model, SCAQMD HRA guidance and “Current OEHHA Guidance” for estimating cancer risks

(2) Location is at the existing residences within the boundaries of the project

(3) Location is at the existing residence located at the 13241 World Logistic Parkway (formerly Theodore Street)

(4) Location is adjacent to the midwestern boundary of the project

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-31: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, Without Mitigation

Receptor Location	Total Incremental Increase in Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	7.9	10	No
Maximum risk within the project boundaries(3)	7.9	10	No
Maximum risk at any area outside of the project boundaries(4)	3.4	10	No
Maximum risk along SR 60 freeway(5)	3.4	10	No

Notes:

(1) Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2040 to 2069 (includes diesel PM emissions from full project operation); cancer risk estimates derived from the TIA, EMFAC2014 emission model, SCAQMD HRA guidance and “Current OEHHA Guidance” for estimating cancer risks

(2) Location is at the existing residences within the boundaries of the project.

(3) Location is at the existing residence located at 30220 Dracaea Avenue.

(4) Location is to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

(5) Location is south of SR 60 freeway, same as the location in footnote (4), which to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Regional Freeway Network Risk

As mentioned in the methodology section, the HRA study area was focused on the most extensive emissions from project related activities. Because project activity is highest on-site, the project's emissions and associated health impact decreases with an increase in distance from the project site, as demonstrated by the cancer risk contours in Figures 4.3-3 and 4.3-4. The HRA study area included approximately 18 miles of freeway segments along SR60 that extend from north of the project boundary 8.6 miles toward west (toward Port of Long Beach) and 9 miles toward east (toward Palm Springs), and the HRA receptor grids include receptors along the SR-60 freeway. Based on the results shown in Figure 4.3-3 for the construction plus operation scenario, without mitigation, only a small segment (approximately one mile) along SR-60 that is immediately north of the project boundary will potentially have an incremental cancer risk exceeding the SCAQMD 10 in one million threshold at an approximate distance of 2.5 miles away from the project boundary, the potential increment cancer risk along SR60 would be less than 2 in one million. Based on results shown in Figure 4.3-4 for 30 years of the full project buildout scenario, without mitigation, no segment along SR-60 would exceed the 10 in one million cancer risk threshold; at a distance of less than two miles from the project boundary, the incremental cancer risk is less than 2 in one million. The project's mitigation conditions require that all construction equipment over 50 horsepower would be Tier 4, all diesel trucks accessing the project during operation be model year 2010 or newer, that all on-site equipment be Tier 4. As shown in Figures 4.3-5 and 4.3-6, with mitigation, the incremental cancer risk along SR-60 will be less than 10 in one million and less than significant. Because project-generated vehicle trips and associated impacts decrease with an increase in distance from the project site, the project impact along the regional freeway network that is outside the HRA's study area will be less than those presented in Figures 4.3-3 and 4.3-4. The project impact to regional freeway network will be the greatest during project full operation, as shown in Tables 4.3-31 and Tables 4.3-34, the maximum cancer risk for receptors along the SR-60 freeway would be 3.4 without mitigation and 3.2 with mitigation (less than the 10 in one million threshold). Therefore, the project health impact along the regional freeway network will be less than significant.

Of note, results in Figure 4.3-3 is based on project construction overlapping with project operations (partial project operation since project is not built out yet) while Figure 4.3-4 is based on full project operation. The difference between the two sets of results indicate that the incremental cancer risk in Figure 4.3-3 is mainly driven by the DPM emissions from onsite construction equipment. Therefore, the impact would be localized near the project site and will disappear once construction completes.

Informational Purposes: Morbidity and Mortality

There is no established threshold or approved methodology for calculating morbidity and mortality. For purposes of this assessment, morbidity is a term for describing how an external effect such as air pollution would exacerbate an existing illness and other health effect. Mortality is another term for death. The following represents the result of the calculations for long-term mortality and various morbidity health endpoints due to DPM for the project prior to the application of mitigation. The locations for the morbidity/mortality estimations were at the location with the highest combined annual DPM concentration and census tract population such that the change in DPM would affect the greatest number of people. A cumulative total of each mortality/morbidity health endpoint was also calculated that totals the number of added cases of an identified health endpoint at each census tract location within the entire region potentially impacted by the project emissions.

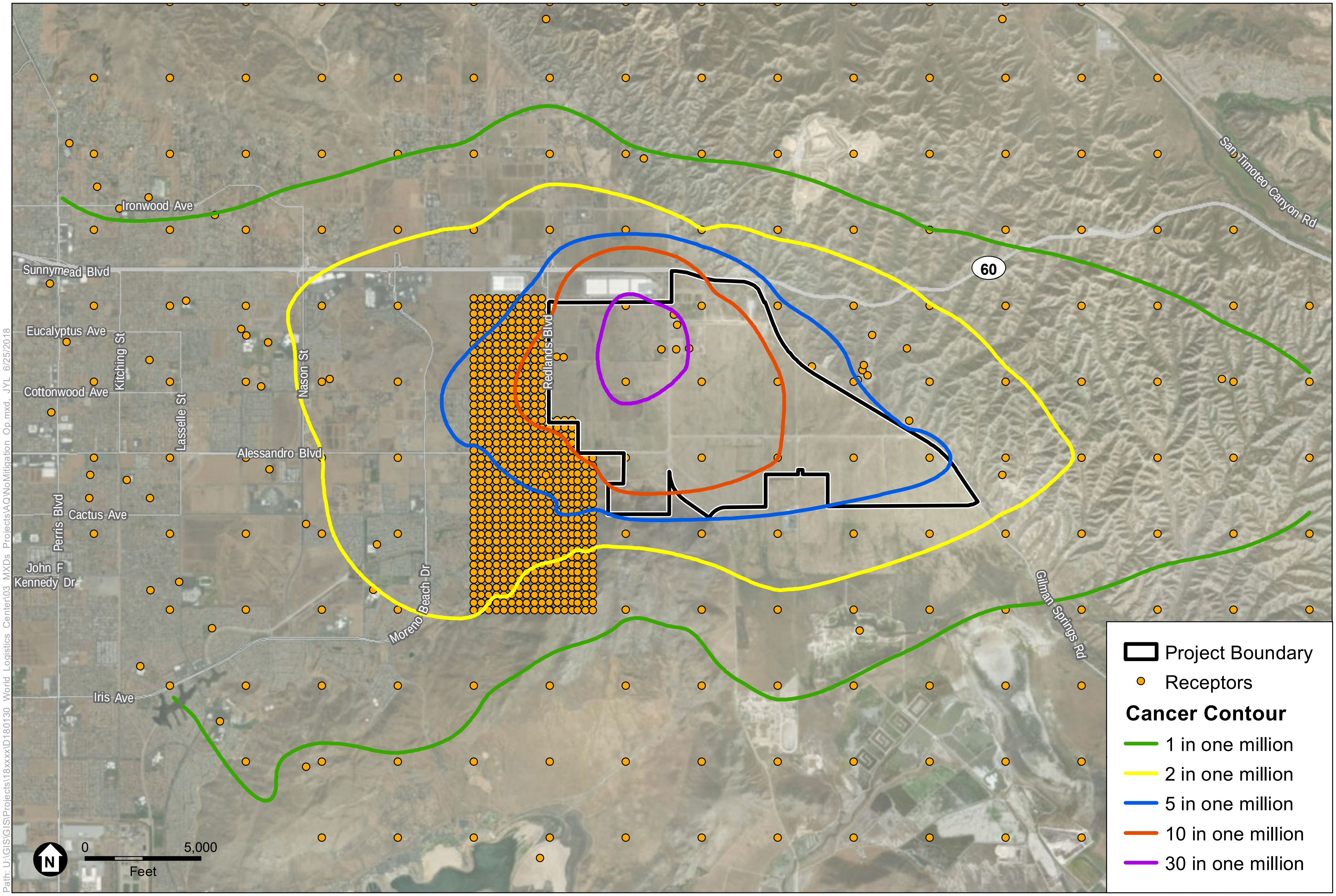

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\AQ\NoMitigation_Op.mxd, JYL 6/25/2018

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-3

Incremental Project Cancer Risk – No Mitigation (Construction and Operation)

ESA

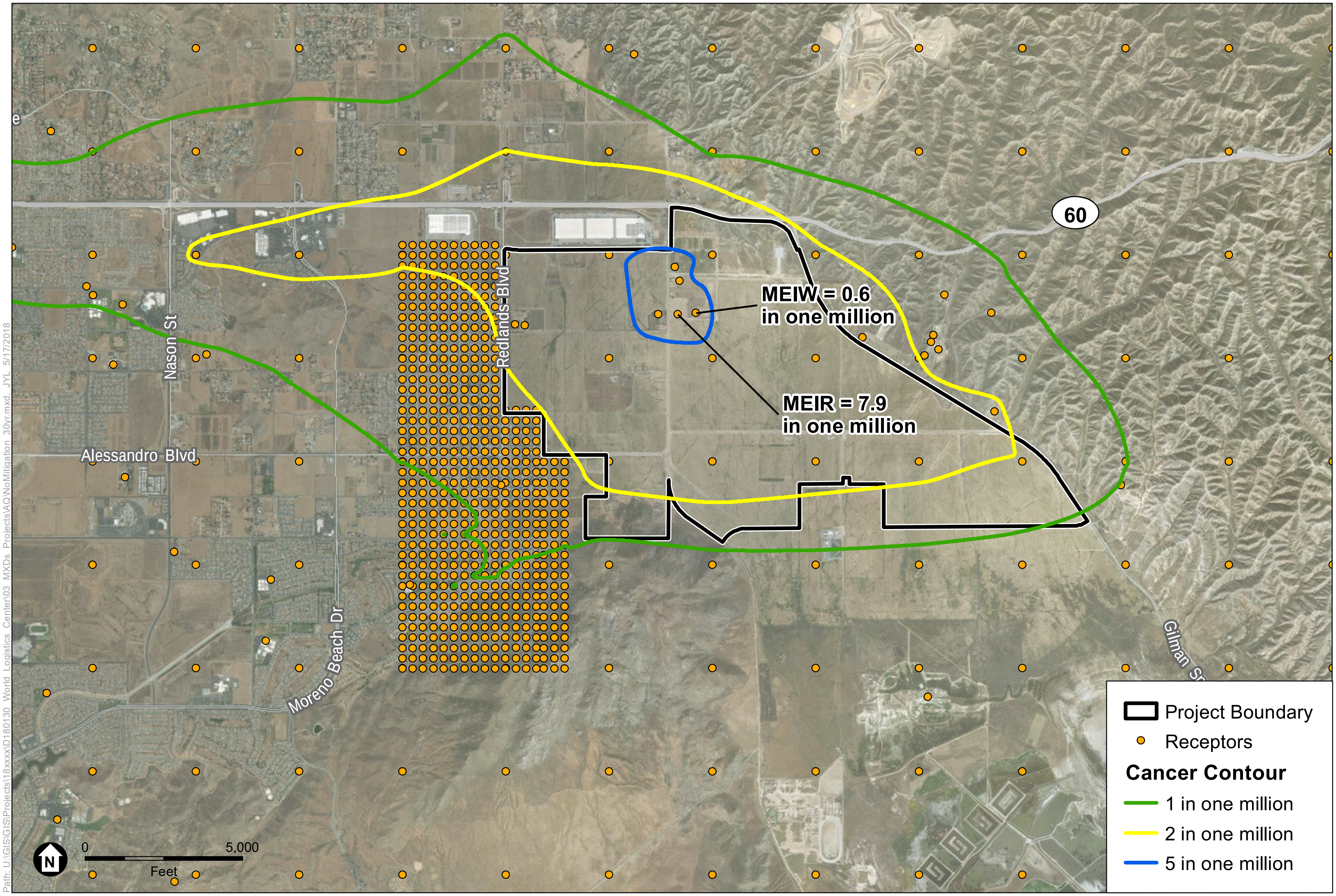

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-4

Incremental Project Cancer Risk – No Mitigation
(30 Years of Full Operation)

ESA

The estimates of mortality and morbidity impacts are based on the application of concentration-response functions (C-R functions) that relate the change in the number of adverse health effect incidences in a population to a change in air pollutant concentration experienced by that population. However, such estimations are subject to great uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, form of C-R functions, baseline rates of mortality and morbidity that are entered into the C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions.

Exposure to the Project's DPM emissions prior to mitigation would result in an increase in mortality of approximately 0.00011 additional cases per year at the location where the project has its maximum impact from DPM emissions or 0.001 additional cases over all of the census tracts contained in the modeling domain.

Table 4.3-32 summarizes the estimates of the various morbidity health endpoints due to the emissions from the project without mitigation. As shown in these tables, the project would not result in a single new added case of a quantified health endpoint either at location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment.

Table 4.3-32: Estimates of Various Morbidity Health Endpoints from Project Emissions Without Mitigation

Health Endpoint	Maximum Added Occurrences (cases/year)	Cumulative Occurrences over the Entire Modeling Region (cases/year)
Long-term Mortality (Ages 30+)	0.00011	0.001
Chronic Illness: Chronic Bronchitis (Age 27+)	0.00053	0.005
Hospitalization: Chronic Obstructive Pulmonary Disease Age 65+)	0.000001	0.000008
Hospitalization: Pneumonia (Age 65+)	0.000001	0.00001
Hospitalization: Cardiovascular (Age 65+)	0.000002	0.00002
Hospitalization: Asthma (Age 0-64)	0.0000005	0.000005
Hospitalization: Asthma-related Emergency Visits (Ages 0-64)	0.000002	0.00001

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Mitigation Measures. The mitigation measures previously identified under other impact sections are required (**Mitigation Measures 4.1.6.1A, 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.3E**) to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project. Additionally, the following mitigation measure is required to ensure that significant health risk does not occur at on-site residential receptor.

4.3.6.5A Prior to the issuance of grading permits, the applicant shall arrange for MERV 13 air filters to be installed at the residence located at 13241 World Logistics Center Parkway.

Mitigation Measure 4.3.6.3B(l) would require that all diesel trucks that access the project site be model year 2010 or later and limits truck and vehicle idling to 3 minutes. **Mitigation Measure 4.3.6.2A(a)** would require that Tier 4 construction equipment be used on the project site. These mitigation measures would reduce the cancer risk from the project.

Mitigation Measure 4.3.6.3C may encourage alternative fueled vehicles and trucks on the project site. As discussed above, a High EV Penetration scenario assumes that up to 40 percent of the project's heavy duty trucks would be electric-powered; however, no reduction is taken. **Mitigation Measure 4.3.6.3D** may reduce vehicle miles traveled to food establishments; however, no direct reduction is taken. **Mitigation Measure 4.3.6.3E** requires that if transportation refrigeration units are to be used, electrical hookups would be required. In addition, refrigerated space is prohibited unless the impacts do not exceed any environmental impacts identified in this Revised FEIR. Therefore, it is assumed in the unmitigated and mitigated estimates that there would be no transportation refrigeration units. **Mitigation Measure 4.3.6.5A** requires that the Applicant install MERV 13 air filters at the residence located at 13241 World Logistics Center Parkway. The Applicant currently retains ownership of this property and can arrange for the installation of MERV 13 filters at this residence.

Level of Significance after Mitigation for Sensitive Receptor Cancer Risk. Less than significant. Table 4.3-33 and Figure 4.3-5 show the cancer risks for the construction and operation HRA after application of mitigation. As noted, the cancer risks are substantially lower after mitigation, and the SCAQMD cancer risk significance threshold would not be exceeded at any of the onsite or offsite receptors within the study area. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM associated with the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when the "Current OEHHA Guidance" assigns large age sensitivity factors to the first few years of the 30-year exposure duration. Table 4.3-34 and Figure 4.3-6 show the mitigated cancer risk from the 30-year full project buildout.

Through mitigation requirements, new technology diesel engines are required for the WLC project. The mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals. The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

Mitigation measures 4.3.6.2A(a) and 4.3.6.3B(l) require 2010-compliant trucks for operation and Tier 4 equipment for construction and require 2010-compliant trucks for operation, respectively, both of which rely on diesel particulate filters similar to those tested in the HEI study. These vehicles reduce emissions by 90% when compared to 2006 vehicles and by 99% when compared to uncontrolled diesel engines. Recent emissions testing by CARB revealed that these diesel engines are cleaner than originally estimated. These findings, which are reflected in the CARB emissions factor model EMFAC2014, are 70% cleaner than previously estimated.

Table 4.3-33: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), With Mitigation

Receptor Location	Incremental Increase in Cancer Risk During Project Construction (risk/million)	Incremental Increase in Cancer Risk During Project Operation (risk/million)	Total Incremental Increase in Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	8.3	1.4	9.7	10	No
Existing residences within the project boundaries					
13241 World Logistics Center Pkwy	8.3	1.4	9.7	10	No
13100 World Logistics Center Pkwy	4.4	2.2	6.6	10	No
13200 World Logistics Center Pkwy	4.3	1.7	6.0	10	No
30220 Dracaea Ave	4.9	2.7	7.6	10	No
29080 Dracaea Ave	2.5	0.9	3.3	10	No
29140 Dracaea Ave	2.9	1.0	3.8	10	No
Maximum risk at any area outside of the project boundaries[3]	2.0	0.6	2.6	10	No

Notes:

* Pursuant to Mitigation Measure 4.3.6.5A, the Applicant shall install MERV-13 air filters at the residence located at 13241 World Logistics Center Parkway (formerly Theodore Avenue).

[1] Cancer risk calculation conservatively assumed all receptors modeled are residential receptors. 30-year average exposures from 2020 to 2049 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and “Current OEHHA Guidance” for estimating cancer risks

[2] Location is at existing residences within the boundaries of the project

[3] Location is adjacent to the midwestern boundary of the project

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-34: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, With Mitigation

Receptor Location	Total Incremental Increase in Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	7.1	10	No
Maximum risk within the project boundaries(3)	7.1	10	No
Maximum risk at any area outside of the project boundaries(4)	3.2	10	No
Maximum risk along SR60 freeway outside of the project boundaries(5)	3.2	10	No

Notes:

(1) Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2040 to 2069 (includes diesel PM emissions from full project operation); cancer risk estimates derived from the TIA, EMFAC2014 emission model, SCAQMD HRA guidance and "Current OEHHA Guidance" for estimating cancer risks

(2) Location is at the existing residences within the boundaries of the project.

(3) Location is at the existing residence located at 30220 Dracaea Avenue.

(4) Location is to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

(5) Location is south of SR 60 freeway, same as the location in footnote (4), which to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

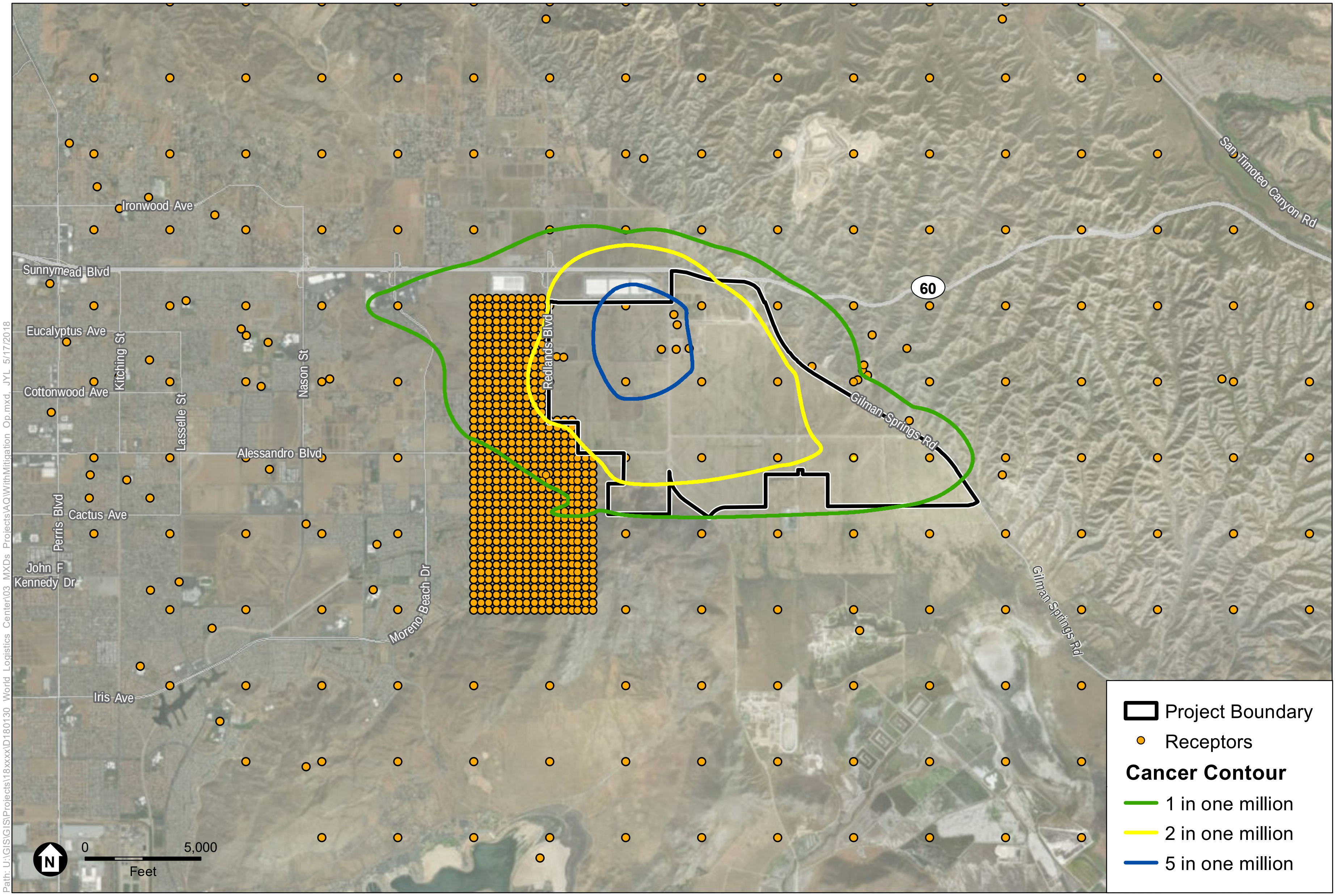

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-5

Incremental Project Cancer Risk – With Mitigation (Construction and Operation)

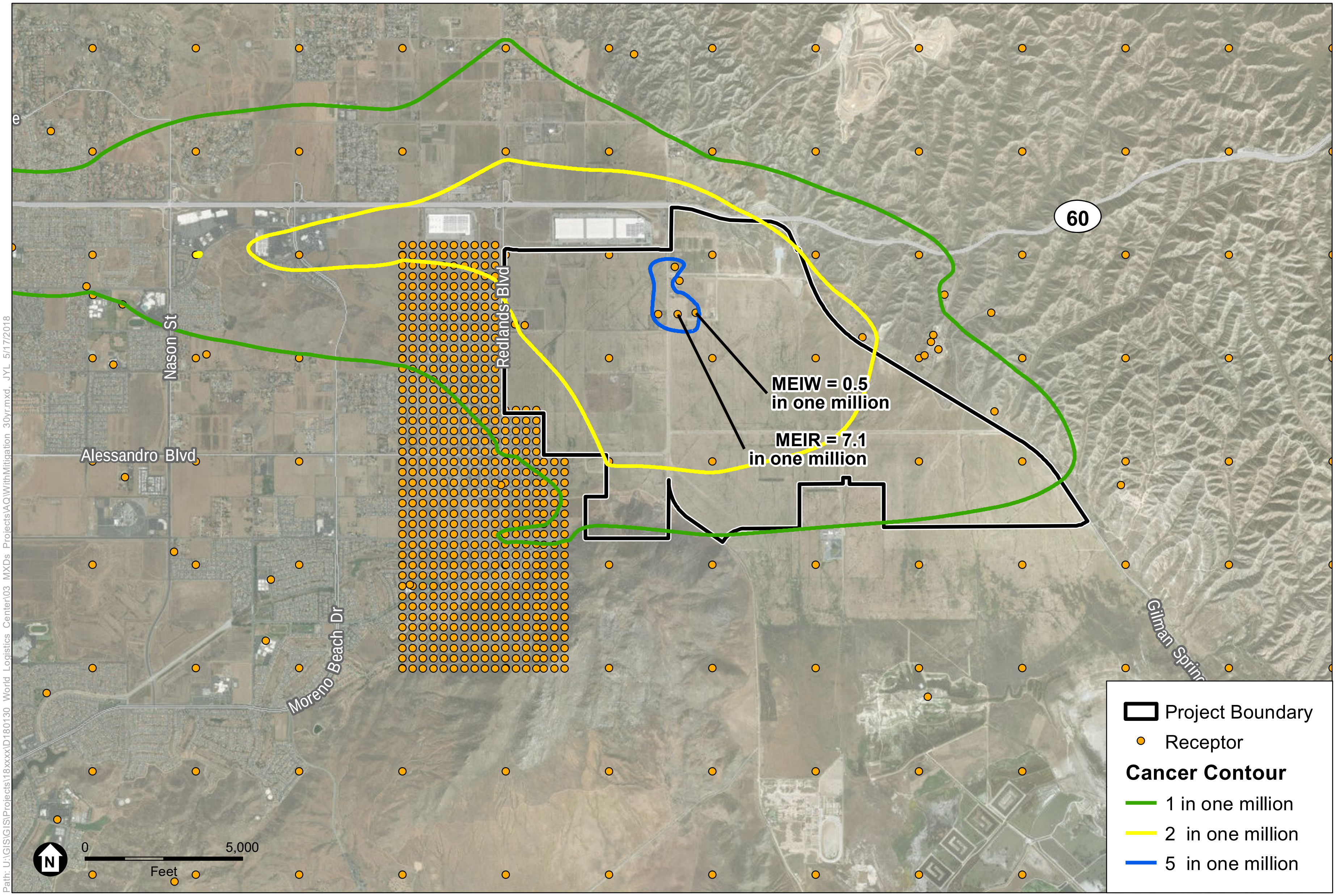

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-6

Incremental Project Cancer Risk – With Mitigation (30 Years of Full Operation)

ESA

Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from equipment equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The HEI, funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found that lifetime exposure to NTDE did not cause carcinogenic lung tumors. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine.

As a result of the very low emissions from NTDE and the research conducted by HEI, it is projected that the project would not result in a significant increase in cancer health risks from the project’s diesel emissions. Therefore, the project would have a less than significant health risk impact.

As discussed above, the HRA analysis assumed DPM emissions from NTDE causes cancer (contrary to the HEI findings) and used a very conservative application of the “Current OEHHA Guidance” to the World Logistics Center project (which was provided for informational purposes). Although air quality significance thresholds have been established for outdoor environments, a significant portion of human exposure to air pollutants occurs indoors where people spend more than 90 percent of their time (USEPA, 2011). One approach to reduce exposure is the installation of high efficiency panel filters inside the HVAC system. Air filters and other air-cleaning devices are designed to remove pollutants from indoor air. Some are installed in the ductwork of a home’s central heating, ventilating, and air-conditioning (HVAC) system to clean the air in the entire house. In studies of the effectiveness of air filtration systems in classrooms (SCAQMD, 2003) and by the EPA in residences (USEPA, 2010), the combination of an HVAC system with a high performance panel filter reduced indoor levels of fine particulate matter, PM2.5 and smaller particles by 70 to 90 percent.

The use of a filtration system consisting of the application of filters with a rating of ASHRSE Standard 52.2 MERV-13, as required by Mitigation Measure 4.3.5.4.A, is sufficient to capture a significant portion of the diesel particulate matter. However, the filtration system would not remove the smallest of particles (less than approximately 0.01 to 0.2 micron in diameter). MERV-13 filters would, however, reduce particles in the range of 0.3 to 1 micron by up to 75 percent and particles larger than 1 micron by 90 percent (see Table 1 of the Addendum to CARB, 2013b). Based on measurement studies of the size distribution of the collected DPM, approximately 0.1 to 10 percent of the total DPM mass includes particles between 0.01 and 0.2 micrometer in diameter, particles between 0.3 and 1 micrometer in diameter comprise 70 percent of the total DPM mass, and particles above 1 micrometer comprise 5 to 20 percent of the total DPM mass (DieselNet.com, 2002).

Since the cancer risk from DPM is calculated from the mass of DPM emitted, the quantity of DPM reduced by the action of air filters would thus equate to a reduction in cancer risk. The application of MERV-13 air filter filtration system would result in a reduction of DPM exposures by approximately 70 percent, as calculated below.

DPM size:	0.01 to 0.2 µm	0.3 to 1 µm	Greater than 1 µm
Calculation:	10% mass x 0% reduction	70% mass x 75%	20% mass x 90%
Reduction:	0% reduction	52.5% reduction	18% reduction

Attributing an adjustment for time that windows might be open, residents would be outside, or for different compounds that result in the cancer risk would reduce the efficacy of the filters by about 20 percent, bringing the total cancer risk reduction from the filters to 50 percent.

The use of the filters would bring the OEHHA-calculated risk below the SCAQMD threshold eliminating any possible risk from the project on any onsite or offsite receptors within the study area. Health risk impacts are less than significant and no further mitigation is required.

In summary, the implementation of all the recommended mitigation measures, including the requirement to use 2010 diesel engine emissions standards, Tier 4 construction equipment, and installation of air filters at the identified on-site residence will reduce the OEHHA-calculated cancer risk to below 10 in one million at all sensitive receptors. Therefore, impacts would be less than significant.

Finally, note further that before mitigation, the cancer risk burden is estimated at 0.09 and is less than the SCAQMD cancer burden significance threshold of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold.

Summary of Project-Related Air Quality Impacts

Based on the preceding analyses in Sections 4.3.5.1 through 4.3.6.5, the WLC project will have the following direct air quality impacts:

Table 4.3-35: Summary of Project-Related Air Quality Impacts

Impact	Air Quality Topic/Issue	Impact Conclusion
Project Impacts		
4.3.5.1	Odors	Less than Significant No Mitigation Required
4.3.5.2	Long-Term Micro-Scale CO Hotspot Emissions	Less than Significant No Mitigation Required
4.3.6.1	Air Quality Management Plan Consistency	Significant (inconsistent) and Unavoidable with Mitigation
4.3.6.2	Regional Construction Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, and PM_{10}; regional health effects from ozone and particulate matter)
4.3.6.3	Localized Construction and Operation (LSTs)	Significant and Unavoidable with Mitigation (PM_{10}) (onsite and offsite)
4.3.6.4	Regional Long-Term Operational Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; regional health effects from ozone, PM_{10}, and $PM_{2.5}$)
4.3.6.5	Sensitive Receptors (a) Localized PM_{10}	Significant and Unavoidable for PM_{10} with Mitigation (onsite) Less than Significant with Mitigation (offsite)
	(b) Non-Cancer Acute and Chronic Health Risks	Less than Significant
	(c) Cancer Risks– Sensitive Receptors	Less than Significant with Mitigation
	(d) Cancer Burden	Less than Significant
	(e) Cancer Risks –Workers	Less than Significant
	(f) Cancer Risks – School Sites	Less than Significant

NOTE TO READERS: This portion of the Revised Sections of the FEIR entirely replaces Section 4.4 of the FEIR. The cumulative portion of Section 4.4 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.4 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.4 means that the corresponding portion of Section 4.4 in the FEIR remains unchanged or has been deleted.

4.4 BIOLOGICAL RESOURCES

The Superior Court ruling requires the following actions with regards to Biological Resources:

> “The FEIR should remove all references to and consideration of the 910 acres of SJWA and MSHCP land as “buffer zone” or “CDFW Conservation Buffer Area” in the Biological Resources and Habitat Impacts analysis, and the potential environmental impacts on Biological Resources should be re-analyzed without and consideration of said buffer”. The Biological Resources and Sensitive Species Survey Results Technical Memorandum is included in Appendix B.

The following text and figures from the FEIR has been amended to address the above outlined requirements. In particular, the text has been amended to ensure that the “buffer” concept was eliminated and not considered, and this document does not consider or evaluate any part of the San Jacinto Wildlife Area (SJWA) as a buffer area, and instead, the analyses below evaluate whether or not the WLC Project would have any potential impacts on biological resources.

This section discusses the potential impacts of development of the WLC project on biological resources. In 2012, Michael Brandman Associates (MBA) conducted a Habitat Assessment, Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis, Habitat Acquisition and Negotiation Strategy (HANS) Report, and California Environmental Quality Act (CEQA) Biological Resources Assessment to comply with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) requirements. The 2012 MBA report summarized the results of several focused surveys conducted since 2004 on the WLC property. In 2014, the various WLC project studies were updated to reflect the most current information about the World Logistics Center (WLC) site. ESA completed updated biological resource assessments in 2018 to document any changes to the results from the previous surveys conducted by MBA. Information to evaluate and analyze the project’s impacts to biological resources is derived from the following references and studies included in Appendix E:

- 2018 focused surveys for Los Angeles pocket mouse, burrowing owl and coastal California gnatcatcher conducted by ESA.
- *Habitat Assessment, MSHCP Consistency, and HANS Report*, MBA, original dated December 20, 2012, revised September 2014 and May 2018. (This includes the focused surveys included as separate documents in the previous version.)
- *Jurisdictional Delineation of the World Logistics Center,* MBA, original dated October 29, 2012, revised dated December 19, 2013.
- *World Logistics Center – Jurisdictional Delineation Update,* ESA, December 19, 2016 letter to Highland Fairview.
- Determination of Biologically Equivalent or Superior Preservation (DBESP), MBA, December 5, 2013, revised September 2014 and May 2018.

In addition, the analysis contained in this section is based on the following reference documents:

- Western Riverside County Regional Conservation Authority – World Logistics Center Joint Project Review (JPR) Consistency Determination 13-12-12-01, dated October 17, 2014.
- *Conservation Element*, City of Moreno Valley General Plan, adopted in July 2006.

- Western Riverside County MSHCP, adopted October 2003.
- MSHCP Final EIR, certified October 2003.

For the reader's reference, this portion of the Revised Sections of the FEIR and each of the technical reports and analyses contained herein have been written to address the court ruling summarized in Section 1.0 of this Revised Sections of the FEIR.

The MBA report included an assessment of the WLC Specific Plan (WLC site) (2,610 acres), the northern portion of the San Jacinto Wildlife Area (SJWA), the SDG&E Moreno Compressor Plant (194 acres), an "indirect impact zone" surrounding portions of the WLC site property (502 acres, all off-site within the SJWA and east of Gilman Springs Road), potential offsite infrastructure facilities (104 acres) and modified survey areas to match the reduced WLC site of the specific plan from the original 2005 MBA surveyed areas. In this section, the combined areas described in this paragraph total 5,972 acres and are hereafter referred to in this section as the survey area. This area has been resurveyed by ESA in March/April, 2018, except for the "indirect impact zone."

The information presented in this section is based on surveys of various areas of the project site conducted by MBA from 2005 to 2013 as referenced above and by ESA in 2018. Development is only proposed on the WLC site; the SJWA and public facilities property are not proposed for development and are expected to remain in their present condition. The habitat assessment information summarized in this section was collected during several site visits to the WLC site, the northern portion of the SJWA, the public facilities property, and the off-site improvement area at various times from 2005 to 2018.

4.4.1 Existing Setting

The WLC site is located on the fringe of the urbanized development area of the City of Moreno Valley. The majority of the WLC site has been used for agricultural purposes for decades. Various portions of the area contain structures associated with previous agricultural activities, including residential structures, farm buildings, concrete pads, and fences. There are two small portions of relatively undisturbed vegetation on site, one in the northeastern portion of the site on land owned by Metropolitan Water District, and the second in the southwestern portion of the site in the rocky hills south of Alessandro Road and west of World Logistics Center Parkway. Many of the off-site facilities such as water and sewer lines and access to potential water reservoirs are proposed along existing rights-of-way in the City of Moreno Valley. Debris basins are proposed along the eastern side of Gilman Springs Road to prevent debris and sediment from the Badlands from disrupting traffic on Gilman Springs Road after significant storm events. The northern portion of the SJWA south of the Specific Plan area is similar in history and conditions to the project site. The northernmost portion of the SJWA has been plowed for decades and portions of it were recently farmed. A portion of the northernmost portion of the SJWA contains areas of non-native grasslands, although aerial photographs show that the area has been intermittently tilled over last 80 years.

The entire WLC site is regulated by the MSHCP, which is a regional conservation plan adopted by Riverside County in 2003. The MSHCP establishes core areas identifying important land that supports listed or sensitive species. The MSHCP also establishes criteria cells for land with important resources that need to be protected as part of the overall plan. The MSHCP identifies these critical lands for preservation or for relatively passive open space and utility uses. The MSHCP serves as a regional habitat conservation plan. The MSHCP was created, studied, and adopted by the County, the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and fourteen cities in Riverside County. A more complete discussion of the MSHCP is provided in Section 4.4.1.6.

4.4.1.1 Vegetation, General

The vegetation data in the study area are from the City's *General Plan Final Program EIR*[1] and the *MSHCP Consistency Analysis Report*[2] for the WLC site. The following describes the vegetation within various WLC sites, including the Specific Plan area, Offsite Improvement Area, northern portion of the SJWA adjacent to WLC, Indirect Impact Zone, and Additional Survey Areas. Table 4.4-1 provides a numerical summary of the various types of vegetation within the WLC planning area. For this Revised Sections of the FEIR acreages are limited to the Specific Plan area and the Offsite Improvement Area.

4.4.1.2 Vegetation (Project Survey Area)

There are eleven (11) plant communities/vegetation types that occur within the project survey area: extensive agriculture (e.g., dry-land farming), non-native grassland, urban/developed, disturbed, Riversidean sage scrub, mule fat scrub, non-vegetated channel, open water, ornamental, southern willow scrub, and northern mixed chaparral (see Figure 4.4.1). Figure 4.4.2 depicts the location of drainage features and Riparian/Riverine areas. The following acreages are for approximately 5,972 acres including the WLC site (2,610 acres) plus off-site improvements and the existing Highland Fairview Corporate Park (Skechers) property, which was included in some of the historical vegetation surveys for this area. The vegetation of the SJWA/public facilities lands and the Off-site Analysis Zone are addressed following the information on the WLC site (i.e., areas of proposed or existing development).

Almost all (5,815 acres or 97.4 percent) of the project survey area (5,972 acres) is disturbed by human activity,[3] mainly dryland farming, with only 157 acres or 2.6 percent consisting of native plant communities. The nature and extent of the existing plant communities are discussed below in the order of their presence on the property.

a. Extensive Agriculture

This disturbed plant association covers 2,837.0 acres or 47.5 percent of the project survey area, and includes areas where vegetative cover comprises less than 10 percent of the surface area and where there is evidence of intense soil surface disturbance associated with agricultural uses. There are approximately 2,200 acres of extensive agriculture found within the WLC site and there is no extensive agriculture in the Offsite Improvement Areas. This community is generally dominated by winter wheat (*Triticum aestivum*), but also has small inclusions of non-native vegetation along the margins of the fields. Non-native vegetation within disturbed land will have a high predominance of invasive or weedy species that are indicators of heavy, soil disturbance, such as horse nettle (*Solanum elaeagnifolium*), bindweed (*Convolvulus arvensis*), and short-pod mustard (*Hirschfeldia incana*). There was no modification to this mapped plant association made after the 2018 update survey.

The extensive agriculture community in the WLC site also contains various interstitial ditches that are excluded from regular heavy-agricultural equipment disturbances, such as disking. These areas are less frequently disturbed and contain larger, more established, ruderal vegetation, such as tree tobacco (*Nicotiana glauca*) and tree of heaven (*Ailanthus altissima*), in addition to the fast-growing Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), lamb's quarters (*Chenopodium album*), sow thistle (*Sonchus oleraceus*), and short-pod mustard. The interstitial ditch areas do not occupy enough area nor are continuous enough to constitute a separate plant community and are therefore considered part of the extensive agricultural plant community. The majority of the WLC site is occupied by extensive agriculture and recently disked or heavily grazed, such as in the pasturelands in the northwestern portion of the WLC site. Most of these areas are disked at least once each year and planted with winter wheat.

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[1] City of Moreno Valley Final Program EIR Conservation Element, City of Moreno Valley, October 2006.

[2] *Habitat Assessment, MSHCP Consistency Analysis, and HANS report*, Michael Brandman Associates, September 2014.

[3] Includes agriculture, non-native grassland, urban/developed, disturbed, and ornamental categories.

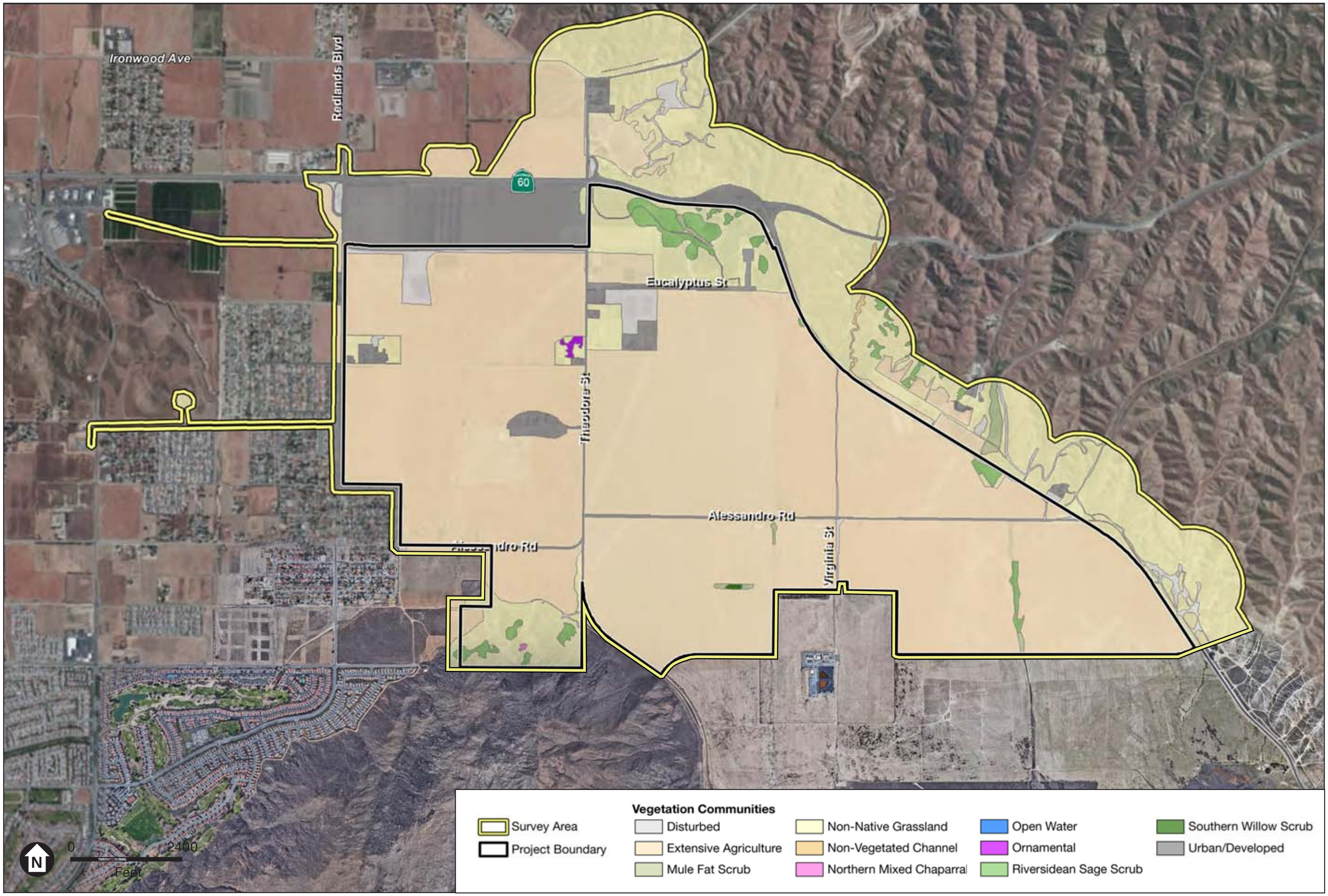

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SOURCE: LSA 2013; ESA, 2018

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Figure 4.4-1
Vegetation Communities

ESA

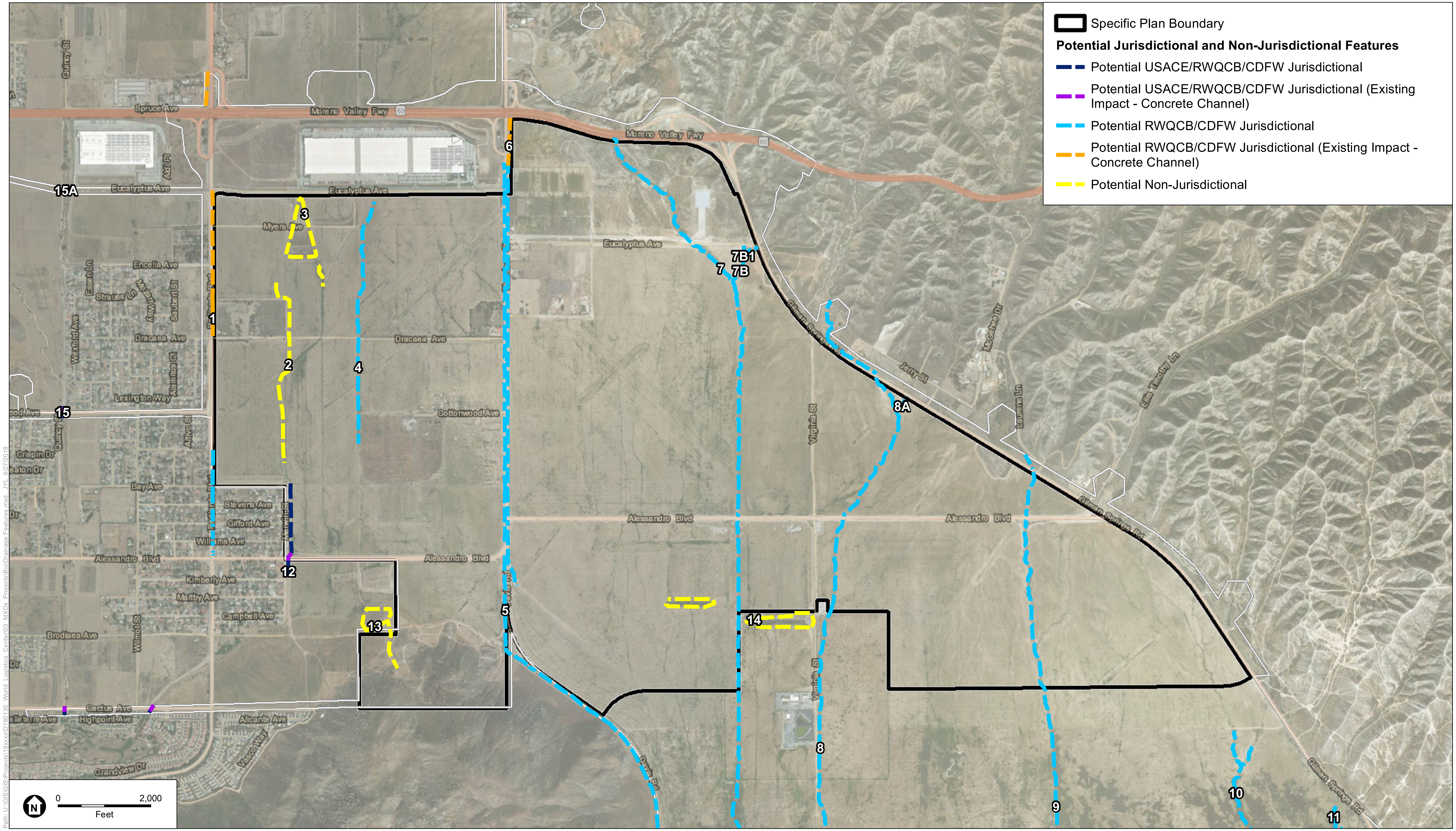

SOURCE: ESRI 2016; ESA 2018

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Figure 4.4-2
Drainage Features

ESA

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b. Non-Native Grassland

Non-native grassland is characterized by a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season. Dominant plants include brome (*Bromus* spp.), wild oat (*Avena* spp.), Russian thistle, London rocket (*Sisymbrium irio*), cheeseweed (*Malva parviflora*), wild radish (*Raphanus raphanistrum*), short-pod mustard, stinknet (*Oncosiphon piluliferum*), Jimson weed (*Datura stramonium*), and common sunflower (*Helianthus annuus*). Non-native grassland occupies 2,326.0 acres or 38.9 percent of the project survey area, mainly in the Badlands area east of Gilman Springs Road and the northern portion of the SJWA lands to the south of the WLC site. There are 219 acres of non-native grassland found within the WLC site and there are 9 acres of non-native grassland in the Offsite Improvement Areas. There was no modification to this mapped plant association made after the 2018 update survey.

Table 4.4-1: Summary of Onsite and Offsite Improvement Area Vegetation

Vegetation Community	WLC Site	Offsite Improvements Area
Extensive Agriculture	2,193	0
Non-Native Grassland	219	95.0
Urban/Developed	92	4.0
Disturbed	48	3.0
Riversidean Sage Scrub	48	0
Mule Fat Scrub	5	0
Southern Willow Scrub	1	0
Non-Vegetated Channel	0	2.0
Ornamental	3	0
Northern Mixed Chaparral	1	0
Totals	**2,610.0**	**104.0**

Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014. Acreages corroborated by ESA in April 2018.

c. Urban/Developed

The urban/developed area includes any form of human disturbance associated with the development of rural residences that has resulted in permanent impacts to natural communities. This land use type comprises approximately 492.0 acres or 8.2 percent of the project survey area. By definition, urban/developed areas include roads, buildings and structures, pavement, concrete, landscape vegetation, and windrow vegetation. There are 92 acres of urban/developed found within the WLC site and there are 4 acres of urban/developed in the Offsite Improvement Areas. The isolated occurrences of the urban/developed community occur throughout the study area. The urban/developed area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with human activity. The largest area of Urban/Developed land occurs in the northwestern corner of the survey area and is associated with the existing Skechers building. There was no modification to this mapped land use type made after the 2018 update survey.

d. Disturbed Areas

These areas support sparse ruderal vegetation and an occasional scattering of native plant species. This type of “habitat” is not a plant community and is considered to be of little or no value to wildlife. Disturbed areas include an area in the northern portion of the project site associated with the adjacent rural residences. These areas have been cleared of vegetation. The remaining disturbed areas are associated with dirt access roads and the area surrounding the existing natural gas compressor station. This category occupies 150 acres or 2.5 percent of the project survey area. There are 48 acres of disturbed areas found within the WLC site and there are 3 acres of disturbed areas in the Offsite Improvement Areas. There was no modification to this mapped habitat made after the 2018 update survey.

e. Riversidean Sage Scrub

Stands of Riversidean sage scrub (RSS) range from fairly open to dense with dominant species including brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), and coastal goldenbush (*Isocoma menziesii*). Other species observed include four-winged saltbush (*Atriplex canescens*), scalebroom (*Lepidospartum squamatum*), and California aster (*Corethrogyne filaginifolia*), in addition to non-native grasses such as ripgut brome (*Bromus diandrus*), slender oat (*Avena barbata*), red brome (*Bromus madritensis* ssp. *rubens*), and non-native weedy species such as short-pod mustard. There are 97.0 acres (1.6%) of RSS located within the main drainage feature on the eastern side of the project survey area (Drainage Feature 9, see Figure 4.4.2). There are 48 acres of RSS found within the WLC site and there is no RSS in the Offsite Improvement Areas. The quality of the habitat on site can generally be considered moderate based on vegetation characteristics such as plant density, diversity of species, and level of disturbance. The stand within Drainage Feature 9 is of low quality due to high levels of disturbance, low density of native species, and sparse coverage. There are small patches of RSS in the northeastern and southwestern corners of the project survey area. There was no modification necessary for this mapped plant association after the 2018 update survey.

f. Mule Fat Scrub

Mule fat scrub is a widespread natural community throughout California and usually occurs below 2,000 feet. Mule fat scrub occupies approximately 41.0 acres or 0.7 percent of the project survey area within a portion of Drainage Feature 9 in the southeastern portion of the WLC Specific Plan area and the northern portion of the SJWA lands to the south. There are 5 acres of mule fat scrub found within the WLC site and there is no mule fat scrub in the Offsite Improvement Areas. The mule fat scrub in the WLC site is generally characterized by dense stands of mule fat (*Baccharis salicifolia*) with various shrubs, weeds, and non-native grasses sparsely intermixed. There was no modification necessary for this mapped plant association after the 2018 update survey.

All areas of mule fat scrub within the drainage feature on the site are relatively undisturbed and contain little trash dumping, agricultural activities, or the presence of domesticated animals. The mule fat scrub plant community provides moderate quality habitat for a number of species. The dominant species observed within the mule fat scrub community were mule fat and tree tobacco. Other species observed include cheeseweed, wild radish, Russian thistle, common sunflower, and short-pod mustard, in addition to non-native grasses such as ripgut brome, slender oat, and red brome. Drainage Feature 9 also contains scattered occurrences of scalebroom and four-winged saltbush.

g. Southern Willow Scrub

The southern willow scrub community is characterized by dense, broad-leafed, winter deciduous riparian thickets of vegetation, and is dominated by several species of willow tree. Scattered emergent Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*) are most closely associated with this community. Most stands are too dense for understory development. This plant community is typically found on loose, sandy, or fine gravelly alluvium soils near stream channels during flood flows. It requires repeated flooding to prevent it from converting to a more mature Southern Cottonwood-Sycamore Riparian Forest community. The CDFW lists it as a sensitive plant community. Plant species identified within the community include sandbar willow (*Salix exigua*), black willow (*Salix goodingii*), mule fat, Fremont cottonwood, Mexican fan palm (*Washingtonia robusta*), olive (*Olea europea*), phacelia (*Phacelia sp.*), and common sunflower. There was no modification necessary for this mapped plant association after the 2018 update survey.

There is a single patch of southern willow scrub that comprises approximately 0.9 acre within the central portion of the WLC site. There is no southern willow scrub in the Offsite Improvement Areas. This community is composed of a single isolated stand within a human-made, catch basin that occurs south of Alessandro Boulevard and west of Virginia Street (see Figure 4.4.2). This stand was a direct result of nuisance flow and agricultural runoff from concrete cattle containment areas adjacent to the catch basin. This area no longer receives runoff from the previous cattle facility and habitat quality is progressively getting worse due to a lack of available moisture. Therefore, this patch of habitat is considered of low-habitat value. The remainder of the southern willow scrub habitat is either within additional survey area or within the northern portion of the SJWA to the south.

h. Non-Vegetated Channel

The non-vegetated channel community occurs within the northeastern portion of the site (east of Gilman Springs Road) and the southwestern corner of the survey area, west of World Logistics Center Parkway and south of Alessandro Road and accounts for 7 acres (0.1%) of habitat within the survey area. There is no non-vegetated channel found within the WLC site and there are 2 acres of non-vegetated channel in the Offsite Improvement Areas. This habitat contains mainly cobbles and boulders along the channel bottom and banks. The substrate contains sparse sandy deposits with limited vegetative cover and therefore provides low quality habitat for sensitive plant and wildlife species. There was no modification necessary for this mapped community after the 2018 update survey.

i. Ornamental

This plant community occupies 6.0 acres or 0.1 percent of the project survey area. There are 3 acres of ornamental found within the WLC site and there is no ornamental in the Offsite Improvement Areas. There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of World Logistics Center Parkway and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within a human-made catch basin in the center of the WLC site and is likely naturally occurring and likely began growing several decades ago. The area with this vegetation previously contained southern willow scrub, but has naturally converted to a dense stand of salt cedar. Wildlife that uses this area has adapted to urban, agricultural, or other disturbed areas associated with human activity. The other catch basin is discussed relative to the southern willow scrub community above. The ornamental area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds. There was no modification to this mapped plant community made after the 2018 update survey.

An ornamental plant community is typically described as a large stand of non-native ornamental trees or shrubs. These areas are often artificially created, but can be naturally occurring. Plant species vary from project site to project site, but are generally non-native and are often associated with landscape plants.

There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of World Logistics Center Parkway and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within a human-made catch basin in the center of the WLC site and is likely naturally occurring and likely began growing several decades ago.

The ornamental areas are not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with development. This land use type comprises approximately six acres of the survey area.

j. Open Water

Open water is characterized by ponded or flowing water with little to no vegetative cover. These areas are specifically associated with freshwater drainage features and typically provide habitat for aquatic plant and wildlife species. There is a 1.0-acre area or less than 0.1 percent of open water located in the northern portion of the SJWA. The open water areas within the survey area are artificially created ponded areas and none exists within the WLC site or the Offsite Improvement Areas. There was no modification to this mapped land cover made after the 2018 update survey.

k. Northern Mixed Chaparral

The northern mixed chaparral community is characterized by broad-leaved shrubs forming dense, often nearly impenetrable vegetation dominated by scrub oak (*Quercus dumosa*), chamise (*Adenostoma fasciculatum*), and any one of several species of manzanitas (*Arctostaphylos)* and California lilacs (*Ceanothus*). Plants are typically deep-rooted and little or no understory vegetation is present. This vegetation community is adapted to repeated fires, to which many species respond by stump sprouting. A dense cover of annual herbs may appear during the first growing season after a fire, followed in subsequent years by perennial herbs, short-lived shrubs, and reestablishment of dominance by the original shrub species. There is 1.0 acre or less than 0.1 percent of northern mixed chaparral located on a north-facing slope of the hills at the southwestern corner of the WLC site. This one (1) acre of northern mixed chaparral occurs within the WLC site. There is no northern mixed chaparral in the Offsite Improvement Areas. There was no modification necessary for this mapped plant association after the 2018 update survey.

4.4.1.3 Vegetation in the Northern Portion of the San Jacinto Wildlife Area (SJWA)

Six plant communities/land use types occur within the northern portion of the SJWA to the south: extensive agriculture (e.g., dryland farming), non-native grassland, Riversidean sage scrub, disturbed, southern willow scrub, and urban/developed. The northern portion of the SJWA consists of the fallow farmland that was placed into conservation in 2001 and surrounding portions of the 194-acre SDG&E facility. This northern portion of the SJWA has been used for agricultural pursuits over many years, but it has been left fallow for several years now and these have become non-native grassland and Riversidean sage scrub. See Table 4.4-1 for a listing of plant associations in the SJWA within the Survey Area.

4.4.1.4 Vegetation in the Indirect Impact Zone

Seven plant communities/land use types occur within the 1,636.6-acre off-site analysis zone. This area was evaluated as an additional 1,000-foot zone beyond the boundaries of the WLC site to consider potential off-site indirect impacts associated with noise, light, water quality, and air quality concerns beyond the boundary of the actual WLC site. Plant communities associated with the Indirect Impact Zone include non-native grassland, extensive agriculture, RSS, disturbed, urban/developed, mule fat scrub, and non-vegetated channel (see Figure 4.4.1). This area contains land that has been previously disturbed as a result of development and off-road vehicle trails east of Gilman Springs Road and general open space areas in the southwestern portion of the survey area.

4.4.1.5 Wildlife in the Specific Plan Area

Despite the disturbed nature of the WLC planning area (i.e., 97% non-native vegetation), common wildlife species that have adapted to human-modified landscapes are present and were observed on site, including the red-tailed hawk (*Buteo jamaicensis*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaidia macroura*), common raven (*Corvus corax*), coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*). A complete list of species observed on site is included in Appendix B of the *MSHCP Consistency Analysis* contained as an appendix to this Revised Sections of the FEIR. Utilization of agricultural areas by wildlife varies greatly depending upon the type of crop and the time of the year. Due to the amount of agricultural activities over the past decades, there is a limited number of species that are present although many species discussed above occur along the margins of the agricultural fields and along the limited drainage areas. In addition to the more common species discussed above, the San Diego gopher snake (*Pituophis cantenifer annectens*), white-tailed kite (*Elanus leucurus*), barn owl (*Tyto alba*), loggerhead shrike (*Lanius ludovicianus*), and Botta's pocket gopher (*Thomomys bottae*) were recorded to occur within the WLC site and the off-site facility areas. There is a robust passerine bird population at the site during the growing season with a severely limited number of mammals following the harvest, largely due to the extensive disking activities.

4.4.1.6 Wildlife in the Northern Portion of the SJWA

The adjacent SJWA to the south of the WLC site has a very high diversity and abundance of bird species, and is recognized nationally and internationally for its bird population. The amount and diversity of birds in the SJWA contributes to a large degree to the number of different kinds of birds observed in the agricultural areas on the project site. Numerous bird and mammal species occur within these agricultural areas and fallow fields may provide foraging opportunities for raptors. The number of passerine birds is high and includes both year-round species and transitory birds associated with the SJWA. The number of mammals is limited probably due to the extensive agricultural pursuits of the past.

4.4.1.7 Wildlife in the Indirect Impact Zone

MBA evaluated this area using direct observations, literature reviews, and information from studies performed on adjacent areas. The area adjacent to Gilman Springs Road on the south end of the planning area was examined by MBA biologists in 2007 (unpublished Burrowing Owl Survey Report, MBA). The distribution of wildlife species at this adjacent area was similar to the WLC site and the SJWA, with a very limited distribution of mammals (primarily burrowing mammals) and a high incidence of passerine birds.

4.4.1.8 Wildlife in the SJWA and Mystic Lake

The SJWA is 20,000 acres of man-made wetlands and open water ponds and is the first state wildlife area to utilize reclaimed water to enhance its wetlands. It is located south of the WLC site and the northern portion of the SJWA adjacent to the WLC site was included in the Survey Area. This northern portion of the SJWA is included in the Survey Area because it is adjacent to the WLC site. The SJWA contains several habitat areas, including wetlands, restored riparian habitat, grasslands, sage scrub, and marshes and provides habitat for the several threatened and endangered wildlife species including Stephens' kangaroo rat, Swainson's hawk, and bald eagle. The SJWA contains an important inland wetland, which provides habitat for many wetland plant species and wildlife species including aquatic birds, amphibians, and fish. According to the CDFW:

> *"The San Jacinto Wildlife Area public lands currently total about 20,000 acres. The Wildlife Area shares a common boundary with the 8,800-acre Lake Perris State Recreation Area. The majority of the Wildlife Area is located in unincorporated Riverside County. The northern portion of the Wildlife Area is included within the city limits of Incorporated City of Moreno Valley. Davis Road, an unimproved dirt road, bisects the Wildlife Area in a north-south direction. This roadway is maintained by DFG on the north and the County of Riverside on the south. Surrounding land users are primarily involved in agriculture principally dry land wheat farming and dairy operations. The private lands immediately north of the Wildlife Area are currently farmed and are included within the City of Moreno Valley jurisdiction. The 150-acre Double Bar "S" Horse Ranch represents the only substantial in-holding within the current Wildlife Area boundary. To the east lies Mystic Lake bed, the most northern portion of which has recently been Incorporated into the Wildlife Area. The south eastern parts of the lake bed remain in private ownership and are used for agriculture when not inundated with flood waters from the San Jacinto River. Numerous privately owned hunt clubs (waterfowl and game bird hunting clubs) are also located on the current eastern boundary of the Wildlife Area. The unincorporated rural communities of Lakeview and Nuevo are located to the south. Much of the land on the immediate southern boundary of the Wildlife Area is currently farmed by the Amway Corporation Nutrilite Division."*

The SJWA is a significant resource for avian species and other wildlife. In 1981–82, the State Wildlife Conservation Board initially purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project (SWP).

Mystic Lake. This is a large crescent-shaped, intermittent water body within the SJWA, which serves as a significant wetland habitat for numerous birds including migratory waterfowl such as ducks, grebes, and occasional geese. Seasonal upland game hunting is allowed within the SJWA and Lake Perris State Recreation Area. Other uses of the SJWA include wildlife observation, nature study, fishing, hiking, photography, field trials, hunting dog training classes, and conservation of wildlife and wildlife habitat. Bird species commonly found at various times of the year in the SJWA include a wide variety of ducks, shore birds and gulls, upland game species, and a variety of passerine birds including those found in the WLC site.

4.4.1.9 Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP for western Riverside County is an element of the Riverside County Integrated Project (RCIP), which is an integration of land use, transportation, and conservation planning and implementation to develop a consensus for the future development of Riverside County. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres of land in western Riverside County. The MSHCP was conceived, developed, and is being implemented specifically to address the direct, indirect, cumulative, and growth-related effects on covered species resulting from build out of planned land use and infrastructure, including the project.

The MSHCP involves efforts by the County, State, and Federal governments, the fourteen cities in western Riverside County, and private and public entities engaged in construction activities that potentially affect the species covered under the MSHCP. The plan specifies an obligation of local projects, both public and private, to mitigate their impacts on species. The MSHCP includes incentives for conservation or the purchase of properties from willing sellers and will eventually result in a Conservation Area in excess of 500,000 acres, focusing on conservation of 146 species. The MSHCP Conservation Area includes approximately 347,000 acres of existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land.

The MSHCP Conservation Area is made up of existing and proposed “Core” areas, or large assemblages of public land that contain important habitat and listed or sensitive species populations. The core areas are connected by a series of “linkages” or “corridors” identified across public and private lands to allow wildlife movement and genetic connectivity and diversity among the core areas. The MSHCP identifies conservation areas through a series of “criteria cells” within which certain biological resources (i.e., vegetation and/or physical features) should be preserved over the long term. The MSHCP also establishes various processes to evaluate land development proposals in light of its goals and requirements. The MSHCP also identifies when studies need to be performed within certain criteria cells to determine the presence or absence of listed or otherwise sensitive species of plants or animals.

The project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP. Portions of the WLC site occur in 3criteria cells of the MSHCP. Therefore, the project applicant, the City, and the County[1] are required to use the Habitat Acquisition Negotiation Strategy (HANS) process established in the MSHCP to identify and acquire habitat as part of the development review process. The HANS process involves negotiations between a landowner and the Western Riverside County Regional Conservation Authority (RCA) so the County can acquire land with important habitat or other biological resources while providing fair compensation and/or reasonable development opportunities on the remaining land for the landowner.

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[1] Western Riverside County Regional Conservation Authority (RCA)

MSHCP Proposed Core 3 is located to the north and east of the WLC site, and Existing Core H is located to the south. Small portions of the WLC site fall within both Core Areas (see Figure 4.4.3). No existing or proposed linkage or constrained linkage areas are within or adjacent to the WLC site.

The 2013 habitat assessment and DBESP focused on sensitive resources that could potentially occur in the overall planning area, including nine Criteria Area plant species, burrowing owl (*Athene cunicularia*), and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*).

4.4.1.10 Endangered, Threatened, and Special Status Species

It is typical to base the presence or likelihood of presence of sensitive species within a specific area on the following criteria:

- Direct observation of the species or its sign in the WLC site or immediate vicinity during site-specific surveys or reported in previous biological studies;
- Sighting by other qualified observers;
- Record reported by the Natural Diversity Data Base (NDDB) published by the CDFW; and/or
- Presence or location of specific species lists provided by private groups (e.g., California Native Plant Society - CNPS).

Threatened and Endangered Species. The USFWS and the CDFW list species as threatened or endangered under the Federal and California Endangered Species Acts (FESA and CESA, respectively). An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future.

The USFWS may designate “critical habitat” that identifies specific areas, both occupied and unoccupied, that are often necessary to the conservation of a listed species. To make a determination of Critical Habitat, biologists consider physical and biological habitat features needed for life and successful reproduction of the species which include:

- Space for individual and population growth and for normal behavior;
- Cover or shelter;
- Food, water, air, light, minerals, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitats that are protected from disturbances or are representative of the historic geographical and ecological distributions of a species.

Critical Habitat areas may require special management considerations or protections.

The project site is not located within any USFWS designated Critical Habitat area, and no threatened or endangered species were observed within the project site during the previous field surveys. However, the threatened coastal California gnatcatcher was observed in the northeastern portion of the project survey area during the 2018 focused surveys.

Table 4.4-2 identifies special status plant species identified in the City’s *General Plan Final EIR,* and in searches of the CDFW’s *California Natural Diversity Data Base* (CNDDB) and the CNPS’s *Electronic Inventory of Rare and Endangered Vascular Plants of California* that may potentially occur in the project survey area, and a statement as to whether they were identified onsite.

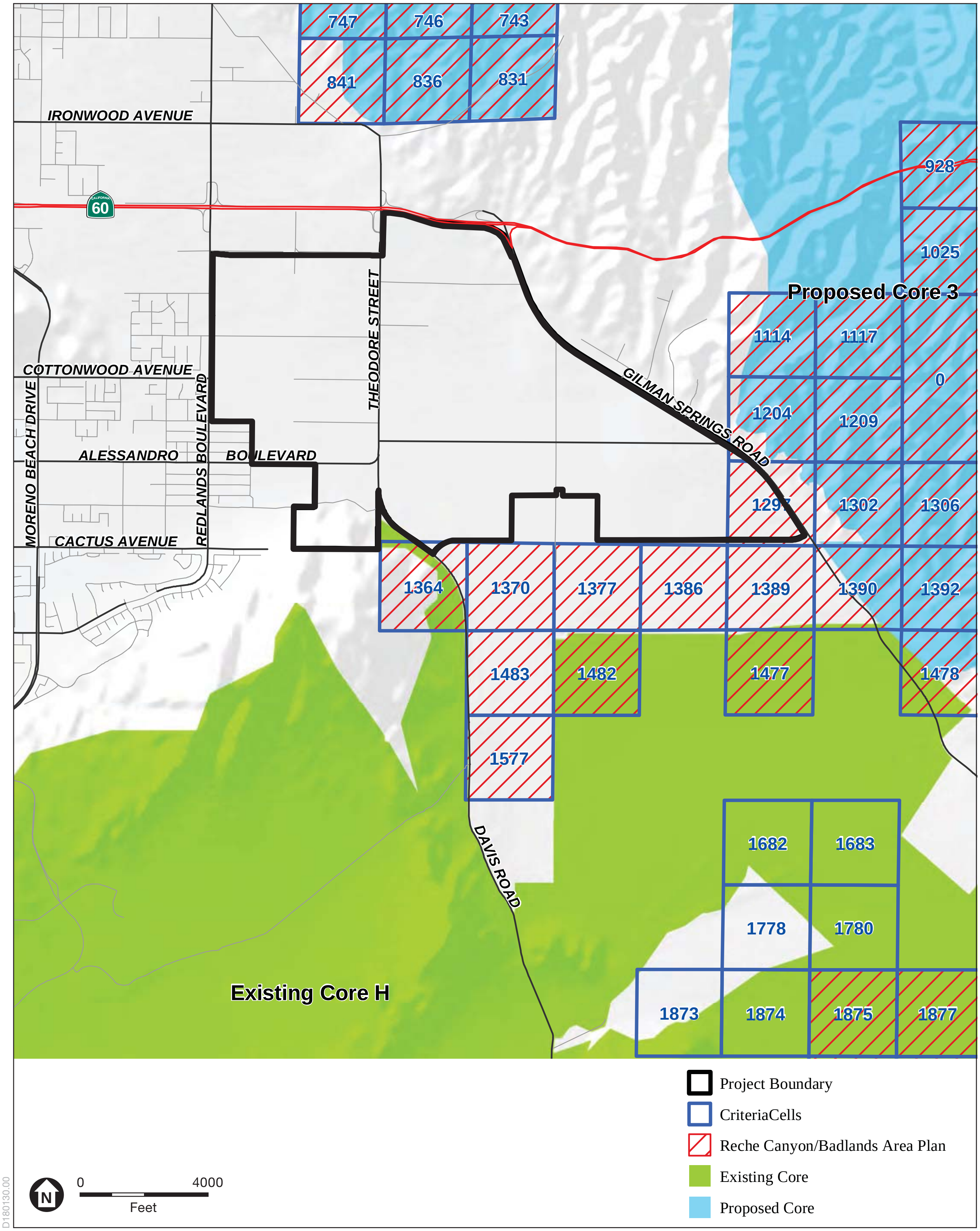

SOURCE: County of Riverside GIS 2017

World Logistics Center Project

Figure 4.4-3
MSHCP Areas

Federally Endangered Plant Species. As shown in Table 4.4-2, two federally endangered plant species, San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) and slender-horned spineflower (*Dodecahema leptoceras*), were analyzed for their potential to occur in the WLC site and the off-site facilities. No evidence of these plant species was found during reconnaissance-level surveys. In addition, no suitable habitat for this species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native, low-quality vegetation. No additional federally endangered plant species were analyzed for potential to occur in the WLC site and off-site facilities because no additional federally endangered plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the WLC site or off-site facilities to support other federally endangered plant species. Therefore, federally endangered plant species are not likely to occur in the WLC site or off-site facilities.

Federally Threatened Plant Species. As shown in Table 4.4-2, one federally threatened plant species, thread-leaved brodiaea (*Brodiaea filifolia*), was analyzed for its potential to occur in the WLC site. No evidence of this federally threatened plant species was found and no suitable habitat for this federally threatened plant species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally threatened plant species were analyzed for their potential to occur in the WLC site because no additional federally threatened plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found during the site surveys to support other federally threatened plant species. Therefore, federally threatened plant species are not likely to occur in the WLC site.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Plant Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status.

Federally Protected Plant Species. As shown in Table 4.4-2, no Federal plant species of concern were analyzed for their potential to occur in the WLC site and off-site facilities because no evidence of any Federal plant species of concern was found in the WLC site, nor was any suitable habitat found due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation.

Federally Endangered Wildlife Species. As shown in Table 4.4-3, four federally endangered wildlife species were analyzed for potential to occur in the WLC site or off-site facilities: Riverside fairy shrimp (*Streptocephalus woottoni*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and Stephens' kangaroo rat (*Dipodomys stephensi*). No evidence of any federally endangered wildlife species was found in the WLC site or off-site facilities. Stephens' kangaroo rat is the only federally listed wildlife species potentially occurring on site. Although no sign of Stephens' kangaroo rat was identified during the site surveys, it was determined that this species may range through the general area. This species is commonly found in ruderal and minimally disturbed areas. Low quality habitat was observed along existing roadsides.

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	Common Name	USFWS		CNPS	Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Atriplex coronata var. *notatior*	San Jacinto valley crownscale	FE	—	1B.1	Occurs in playas, chenopod scrub, grasslands, and vernal pools. Specifically found in dry alkali flats in the San Jacinto River Valley. Elevation limits: 1,200 to 1,500 feet.	Annual herb	Apr to Aug	Covered	**Not Likely to Occur.** No alkali flats occur in the WLC site. Recorded approximately 2.5 miles southeast of the WLC site (CNDDB 2012) and 1.5 miles south of the study area boundary (RCA 2013).
Brodiaea filifolia	Thread-leaved brodiaea	FT	SE	1B.1	Occurs in coastal scrub, cismontane woodland, grasslands, and vernal pools. Usually associated with annual grassland and vernal pools in clay soils. Elevation limits: 75 to 2,500 feet.	Perennial herb bulbiferous	Mar to Jun	Covered	**Not Likely to Occur.** No clay soils or vernal pools occur in the WLC site. Recorded approximately 5 miles south of the WLC site (CNDDB 2012) and 4 miles south according to the BMP (RCA 2013).
Calochortus plummerae	Plummer's mariposa lily	—	—	4.2	Occurs in coastal scrub, chaparral, grasslands, cismontane woodlands, and lower montane coniferous forests. Found in rocky and sandy soils, usually of granitic or alluvial material. Very common after fire. Elevation limits: 300 to 4,500 feet.	Bulbiferous herb	May to Jul	Not Covered	**Moderate Potential to Occur.** The portion of the WLC site that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 2 miles east of the WLC site. (CNDDB 2012)

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	Common Name	USFWS		CNPS	Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Centromadia pungens ssp. *laevis*	Smooth tarplant	—	—	1B.1	Occurs in grasslands, chenopod scrub, meadows, playas, and riparian woodland. Prefers alkali meadow and alkali scrub. Elevation limits: 0 to 1,500 feet.	Annual herb	Apr to Sep	Covered	**Not Likely to Occur.** No alkali soils occur in the WLC site. Recorded approximately 3 miles west of the WLC site (CNDDB 2012) and 2.5 miles south by the BMP (RCA 2013).
Chorizanthe parryi var. *parryi*	Parry's spineflower	—	—	1B.1	Occurs in coastal scrub and chaparral. Found on dry slopes and flats, sometimes at interface of two vegetation types, on dry, sandy soils. Elevation limits: 150 to 5,000 feet.	Annual herb	Apr to Jun	Covered	**Moderate Potential to Occur.** The portion of the WLC site that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4.5 miles northwest of WLC site. (CNDDB 2012)
Dodecahema leptoceras	Slender-horned spineflower	FE	SE	1B.1	Occurs in chaparral and alluvial fan sage scrub. Prefers flood deposited terraces and washes. Elevation limits: 600 to 2,300 feet.	Annual herb	Apr to Jun	Covered	**Low Potential to Occur.** The WLC site contains several natural drainages; one contains a mixture of RSS and mule fat scrub. The remaining drainages are generally devoid of vegetation. Recorded approximately 7 miles northwest of the WLC site. (CNDDB 2012)
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	—	—	1B.1	Occurs in coastal salt marshes, playas, grasslands, and vernal pools. Usually found on alkali soils in playas, sinks, and grasslands. Elevation limits: 1 to 4,500 feet.	Annual herb	Feb to Jun	Covered	**Not Likely to Occur.** No alkali soils, marshes, or vernal pools occur in the WLC site. Observed approximately 2 miles south of WLC site (CNDDB 2012) and as close as 0.75 mile to the south of the WLC site study area according to the BMP (RCA 2013).

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	Common Name	USFWS		CNPS	Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	—	—	4.3	Occurs in chaparral and coastal scrub on dry soils. Elevation limits: 1 to 3,000 feet.	Annual herb	Jan to Jul	Not Covered	**Low Potential to Occur.** The portion of the WLC site that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 7 miles northwest of WLC site. (CNDDB 2012)
Nama stenocarpum	Mud nama	—	—	2B.2	Occurs in marshes, swamps, lakeshores, riverbanks, and intermittently wet areas. Elevation limits: 15 to 1,500 feet.	Annual/ perennial herb	Jan to Jul	Covered	**Not Likely to Occur.** No lakes, marshes or riverine areas occur in the WLC site. The drainage features onsite do not remain wet long enough to be considered suitable habitat. Recorded approximately 2.5 miles southeast of WLC site. (CNDDB 2012)
site	San Bernardino aster	—	—	1B.2	Occurs in meadows, seeps, marshes, swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grasslands. Found in vernally mesic areas near ditches, streams, and springs. Elevation limits: 6 to 6,000 feet.	Rhizomatous herb	Jul to Nov	Not Covered	**Not Likely to Occur.** The ditches and erosion features in the WLC site are heavily disturbed. Recorded 2.5 miles northeast of the WLC site. (CNDDB 2012)

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	**Common Name**	**USFWS**		**CNPS**	**Preferred Habitat**	**Life Form**	**Bloom Period**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	—	—	2B.1	Occurs in marshes and swamps, riparian forest, meadows, seeps, and vernal pools. Found in mud flats of vernal lakes, drying riverbeds, and alkali meadows. Elevation limits: 10 to 1,300 feet.	Annual herb	May to Sep	Covered	**Not Likely to Occur.** No marshes, riverine or vernal pool areas occur in the WLC site. Recorded approximately 4 miles south of the WLC site. (CNDDB 2012)

U.S. Fish and Wildlife Service
FE Federal Endangered
FT Federal Threatened
PE Proposed Endangered
PT Proposed Threatened
FC Federal Candidate
FSC Species of Concern*
*No longer recognized as a Federal designation.

California Department of Fish and Wildlife
CE California Endangered
CT California Threatened
CR California Rare

California Native Plant Society
1A Plants presumed extinct in California.
1B Plants rare, threatened, or endangered in California and elsewhere.
2A Plants presumed extinct in California, but more common elsewhere.
2B Plants rare, threatened, or endangered in California, but more common elsewhere.
3 Plants about which we need more information.
4 Plants of limited distribution.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLC site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the WLC site.
Low Potential to Occur - There is a historical record of the species in the vicinity of the WLC site and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLC site, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLC site (within 3 miles).
Species Present - The species was observed in the WLC site at the time of the survey or during a previous biological survey.

Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014 and ESA, May 2018.

Since the WLC site is within the known range of this species and low quality habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the WLC site or off-site facilities.

No suitable habitat for Riverside fairy shrimp, southwestern willow flycatcher, and least Bell's vireo, occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally endangered wildlife species were analyzed in Table 4.4C for their potential to occur in the WLC site because no additional federally endangered wildlife species are known to occur on, or in the vicinity of, the site.

Federally Threatened Wildlife Species. As shown in Table 4.4-3, Coastal California gnatcatcher (*Polioptila californica californica*) is known to occur within moderate to high quality coastal sage scrub in the general area and some suitable habitat occurs on site for coastal California gnatcatcher. There is marginal Riversidean sage scrub in the northern portion of the project site near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the Lake Perris State Recreation Area (LPSRA) south of Brodiaea Avenue, west of World Logistics Center Parkway and east of Redlands Boulevard. Coastal California gnatcatcher was observed by ESA on the WLC site in coastal sage scrub habitat south of SR-60 near Gilman Springs Road in 2018. No additional federally threatened wildlife species were analyzed for their potential to occur in the WLC site.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status. The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is the only Federal Candidate Species with a potential to occur in this area, but this species is not likely to occur in the WLC site and off-site facilities. In addition, it is a covered species under the MSHCP.

Federally Protected Wildlife Species. There was only one Federal wildlife species of concern analyzed for its potential to occur in the WLC site and off-site facilities (see the western yellow-billed cuckoo discussed above). No evidence of any other Federal wildlife species of concern was found in the WLC site nor does any suitable habitat occur due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional Federal wildlife species of concern were analyzed for potential to occur in the WLC site because no additional Federal wildlife species of concern are known to occur on, or in the vicinity of, the site.

California State Endangered Plant Species. As shown in Table 4.4-2, two California State endangered plant species were analyzed for their potential to occur in the WLC site and off-site facilities: slender-horned spine-flower and thread-leaved brodiaea. No evidence of these State-listed plant species was found in the WLC site nor is there any suitable habitat for these State-listed plant species due to regular disking of the site and dominance of sparse, non-native low-quality vegetation. No additional State-listed plant species were analyzed for potential to occur in the WLC site because no additional State-listed plant species are known to occur on, or in the vicinity of, the site, nor was any suitable habitat found to support other State-listed plant species. Therefore, State-listed plant species are not likely to occur in the WLC site and there is no potential impact to State endangered plant species.

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	Common Name	Federal	State	Other	Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Branchiopods							
*Streptocephalus wootton*i	Riverside fairy shrimp	FE	—	CDFW: CSC	Occurs in tectonic swales and earth slump basins in grassland and coastal sage scrub. Inhabits seasonally astatic pools filled by winter/spring rains. Hatches in warm water later in the season.	Covered	**Not Likely to Occur.** No vernal pools occur in the WLC site. Observed farther than 5 miles south of the WLC site.
Reptiles and Amphibians							
Aspidoscelis hyperythra	Orange-throated whiptail	—	—	CDFW: CSC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Also near perennial plants where termites, its major food, can be found.	Covered	**Low Potential to Occur.** Limited coastal scrub is present in the WLC site. Woody vegetation onsite is very sparse and is not considered sufficient to support the species. The nearest occurrence of the species was recorded approximately 0.3 mile north of the WLC site; however, in the eighteen years since the observation, the previous site conditions have changed to become unsuitable habitat (CNDDB 2012).
Crotalus ruber ruber	Northern red-diamond rattlesnake	—	—	CDFW: CSC	Inhabits chaparral, woodland, grassland, and desert habitats. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	Covered	**Not Likely to Occur.** No rocky areas and dense native plant communities occur in the WLC site and the site is regularly disturbed. Recorded approximately 1-mile south of the WLC SITE; however, the observation occurred over 80 years ago (CNDDB 2012). The BMP has recently found the species in the same area as the CNDDB sighting (RCA 2013)
Phrynosoma blainvillei	Coast horned lizard	—	—	CDFW: CSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climates. Prefers friable, rocky, or shallow sandy soils.	Covered	**Low Potential to Occur.** The portion of the WLC site that contains sandy soils or rocky soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4 miles northwest of the WLC site (CNDDB 2012)

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Spea hammondii	Western spadefoot	—	—	CDFW: CSC	Occurs primarily in grassland habitats, but also found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Covered	**Not Likely to Occur.** No vernal pools or native woodlands occur in the WLC site. Recorded approximately 2 miles south and west of the WLC site (CNDDB 2012). The BMP studies have occurrences approximately 0.7 mile south of the study area boundary (RCA 2013)
Birds							
Agelaius tricolor	Tricolored blackbird	—	—	CDFW: CSC	Highly colonial species. Requires open water, protected nesting substrate, and foraging areas with insect prey within a few miles of the colony.	Covered	**Low Potential to Occur.** No open water or protected nesting habitat is located in the WLC site. Numerous nesting pairs were recorded within the wheat fields on the southeastern portion of the WLC site in 1995. The wheat has since been removed and no suitable nesting vegetation remains (CNDDB 2012).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	—	—	CDFW: CSC	Resident in coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Covered	**Low Potential to Occur.** While sparse RSS and chaparral are present within the WLC site, no steep slopes are present in the WLC site. Recorded approximately 4 miles west of the WLC site (CNDDB 2012). The BMP database has the species less than 1.0 mile from the WLC SITE study area boundary (RCA 2013).
Amphispiza belli belli	Bell's sage sparrow	—	—	CDFW: CSC	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in southern portion of range. Nests typically located on the ground beneath shrub or in shrub 6 to 18 inches above ground.	Covered	**Not Likely to Occur.** No dense stands chaparral or coastal sage scrub vegetation occurs in the WLC site. Recorded approximately 4 miles northwest of the WLC site (CNDDB 2012) and according to the BMP 4 miles south of the WLC site study area (RCA 2013).

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
site	Burrowing owl	—	—	CDFW: CSC	Occupies burrows in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Covered	**Present.** Despite the heavy disturbance the WLC site contains flat topography with sparse, low-lying vegetation and various California ground squirrel burrows. Observed within the WLC site in 2005; however, focused surveys conducted in 2010 and 2012 found the WLC site and surroundings to be unoccupied. The 2013 survey of the WLC site again found a pair of owls (MBA 2013b); however, the 2018 ESA survey found only a single owl.
Aquila chrysaetos	Golden eagle	—	—	CDFW: FP	Open mountains, foothills, plains.	Covered	**Low Potential to Occur.** The WLC site contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the WLC site (RCA 2013)
Buteo swainsonii	Swainson's hawk	—	ST	—	Grasslands and riparian areas	Covered	**Low Potential to Occur.** The WLC site contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the WLC site (RCA 2013)
Buteo regalis	Ferruginous hawk	—	—	CDFW: CSC	Winters in open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats.	Covered	**Low Potential to Occur.** The WLC site contains open flat area that is considered marginally suitable foraging habitat, but no suitable nesting habitat. Recorded approximately 1 mile northeast of the WLC site (CNDDB 2012) and 2 miles south of the WLC site according to BMP records (RCA 2013).

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	Common Name	Federal	State	Other	Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	FC	SE	—	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Specifically nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLC site. Recorded approximately 5.5 miles northwest of the WLC site (CNIDDB 2012).
Elanus leucurus	White-tailed kite	—	—	CDFW: FP	Nests in rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodlands. Prefers open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Covered	**Present.** The WLC site contains suitable foraging habitat, but few dense-topped trees occur in the vicinity of the site. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates that the species is found 1.0 mile from the WLC site study area boundary (2013). Species was observed foraging within the southern portion of the survey area adjacent to the SJWA and was observed in the western portion of the survey area in 2018.
Empidonax traillii extimus	Southwestern willow flycatcher	FE	SE	—	Nests in riparian woodlands in southern California.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLC site. Recorded approximately 6.5 miles east of the WLC site (CNDDB 2012).
Eremophila alpestris actia	California horned lark	—	—	CDFW: CSC	Inhabits short-grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	Covered	**Present.** The WLC SITE contains flat, fallow grain fields that constitute suitable nesting habitat. Observed in the WLC site during the reconnaissance-level surveys (MBA 2012) but not seen in 2018.

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Falco columbarius	Merlin	—	—	CDFW: CSC	Winters in seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Covered	**Low Potential to Occur.** Portions of the WLC site contain windbreak trees and open farmland. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP database has the species less than a mile south of the WLC site study area (RCA 2013).
Falco mexicanus	Prairie falcon	—	—	CDFW: CSC	Inhabits dry, open terrain, either flat or hilly. Breeding sites located on cliffs.	Covered	**Low Potential to Occur.** The WLC site contains marginally suitable foraging habitat but no suitable nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012).
Falco peregrinus anatum	Peregrine falcon	FD	SE	CDFW: FP	Nests near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds, and human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	Covered	**Low Potential to Occur.** The WLC site contains marginal nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates the species is within 1.0 mile of the southern boundary of the study area (RCA 2013).
Icteria virens	Yellow-breasted chat	—	—	CDFW: CSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Specifically nests in low, dense riparian vegetation, consisting of willow, blackberry, wild grape. Forages and nests within 10 feet of ground.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLC site. Recorded approximately 5.5 miles northwest of the WLC site (CNDDB 2012).

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Lanius ludovicianus	Loggerhead shrike	—	—	CDFW: CSC	Inhabits broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Covered	**Present.** The WLC site contains flat, open area that is suitable foraging habitat but not suitable nesting habitat. Observed by MBA during previous surveys, approximately within the WLC site (MBA 2012) but not observed by ESA in 2018.
Plegadis chihi	White-faced ibis	—	—	CDFW: CSC	Rookery sites include shallow freshwater marshes. Nests in dense tule thickets interspersed with areas of shallow water for foraging.	Covered	**Not Likely to Occur.** No marshes or bodies of water occur in the WLC site. Recorded approximately 3 miles southeast of the WLC site (CNDDB 2012).
Polioptila californica californica	Coastal California gnatcatcher	FT	—	CDFW: CSC	Obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California. Prefers low coastal sage scrub in arid washes and on mesas and slopes.	Covered	**Present.** There is limited and sparse coastal sage scrub vegetation occurring in the WLC site. Previously recorded approximately 4 miles northwest of the WLC site (CNDDB 2012) and less than 0.5 mile of the WLC site study area according to BMP (RCA 2013). Observed within the WLC site by ESA during 2018 update surveys.
Vireo bellii pusillus	Least Bell’s vireo	FE	SE	—	Summer resident in low riparian vegetation in the vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, and mesquite.	Covered	**Not Likely to Occur.** No riparian plant communities or significant riparian vegetation occur in the WLC site. Recorded approximately 3 miles northeast of the WLC site (CNDDB 2012) and was recorded by the BMP at 2 miles from the closest WLC site border (RCA 2013).

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	Common Name	Federal	State	Other	Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Mammals							
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	—	—	CDFW: CSC	Inhabits coastal scrub, chaparral, and grasslands. Prefers sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Covered	**Present.** Sandy to loamy soils occur in the WLC site. There are limited areas of RSS and chaparral and herbaceous areas are severely limited due to agricultural activities. Species was trapped within Drainage 9 (MBA 2013).
Dipodomys stephensi	Stephens' kangaroo rat	FE	ST	—	Primarily found in annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass, and filaree. Will burrow into firm soil.	Covered under SKRHCP	**Moderate Potential to Occur.** The WLC site contains areas similar to grasslands with very sparse canopy, but is heavily disturbed. Recorded approximately adjacent to the general WLC site on the west and south (CNDDB 2012).
Lasiurus xanthinus	Western yellow bat	—	—	CDFW: CSC	Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats below 1,800 feet. Roosts in trees.	Not Covered	**Not Likely to Occur.** No riparian or native plant communities occur in the WLC site. Recorded approximately 3.5 miles southwest of the WLC site (CNDDB 2012).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	—	—	CDFW: CSC	Inhabits coastal sage scrub habitats. Specifically, intermediate canopy stages of shrub, open shrub, herbaceous and tree, and herbaceous edge habitats.	Covered	**Present** Recorded within the MWD lands in the northern portion of the WLC site during burrowing owl surveys (MBA 2013) but not observed in 2018.
Onychomys torridus ramona	Southern grasshopper mouse	—	—	CDFW: CSC	Inhabits desert areas, especially scrub habitats with friable soils. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Not Covered	**Not Likely to Occur.** No shrub or scrub habitat occurs in the WLC site. Additionally, the site is regularly disturbed by disking. Recorded approximately 4 miles southeast of the WLC site (CNDDB 2012).

Table 4.4-3: Sensitive Wildlife Species in the WLC Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Perognathus longimembris brevinasus	Los Angeles pocket mouse	—	—	CDFW: CSC	Inhabits lower elevation grasslands and coastal sage communities. Prefers open ground with fine sandy soils.	Covered	**Low Potential to Occur.** The sandy soils that occur in the WLC site are limited to existing drainages with the proper coastal sage communities. Three years of trapping did not produce any Los Angeles pocket mice. Recorded approximately 3 miles south of the WLC site (CNDDB 2012). It was observed in BMP trapping within 2 miles of the study area (RCA 2013).
Taxidea taxus	American badger	—	—	CDFW: CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents.	Not covered	**Low potential to occur.** The WLC site contains limited amounts of vegetation and the ground is cultivated. Recorded approximately 8.5 miles northwest of the WLC site (CNDDB 2012). RCA data lists the closest recorded occurrence within the badlands area north and east of the project site.

Federal		**State**		**Other**	
FE	Federal Endangered	SE	State Endangered	CDFW: CSC	California Species of Special Concern
FT	Federal Threatened	ST	State Threatened	CDFW: FP	Fully Protected Species
FSC	Federal Species of Concern			CDFW: P	Protected Species
PFT	Proposed Federal Threatened				
FC	Candidate for Federal Listing				
FD	Delisted				

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLC site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.

Low Potential to Occur - There is a historical record of the species in the vicinity of the WLC site and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLC site, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLC site (within 3 miles).

Species Present - The species was observed in the WLC site at the time of the survey or during a previous biological survey.

Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014 and ESA, May 2018.

California State Threatened Plant Species. As shown in Table 4.4-2, no California State threatened plant species are known to occur on, or in the vicinity of, the project site and no suitable habitat occurs within the project are for any California State threatened plant species. Therefore, California State threatened plant species are not likely to occur in the WLC site and there is no potential impact to State threatened plant species.

California State Endangered Wildlife Species. As shown in Table 4.4.-3, four California State endangered wildlife species were analyzed for their potential to occur in the WLC site and off-site facilities: western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, and peregrine falcon (*Falco peregrinus anatum*). No evidence of these California State endangered wildlife species was found in the WLC site. In addition, no suitable habitat for these species occurs within the WLC site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional California State endangered wildlife species were analyzed for potential to occur in the WLC site because no additional California State endangered wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the WLC site to support other California State endangered wildlife species. Therefore, California State endangered wildlife species are not likely to occur in the WLC site and there is no potential impact to State endangered wildlife species.

California State Threatened Wildlife Species. As shown in Table 4.4-3, two California State threatened wildlife species was analyzed for its potential to occur in the WLC site: Swainson's hawk (*Buteo swainsonii*) and Stephens' kangaroo rat. There is little to no nesting habitat within the WLC SITE for Swainson's hawk and marginal quality foraging habitat. This species is known to occur within the adjacent SJWA and has a low potential to occur within the WLC site project site. Although no sign of Stephens' kangaroo rat was identified in the WLC site, it is concluded that this species may range through the general area. This species is known to occur in ruderal and minimally disturbed areas. Marginal habitat for Stephens' kangaroo rat was observed along existing roadsides and within active pasture areas. Since the WLC site is within the known range of this species, and marginal habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the area.

No other California State threatened wildlife species are known to occur on, or in the vicinity of, the WLC site. No suitable habitat was found in the WLC site to support other California State threatened wildlife species. Therefore, except for the Stephens' kangaroo rat, California State threatened wildlife species are not likely to occur in the WLC site and there is no potential impact to California State threatened wildlife species.

California State Fully Protected Species. The classification of Fully Protected was California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. The list of fully protected species included fish, mammals, amphibians, reptiles, birds, and mammals. Most fully protected species are currently listed as threatened or endangered species under the more recent endangered species laws and regulations.

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

As shown in Table 4.4-3, three California State Fully Protected species were analyzed for their potential to occur in the WLC site: golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*) and peregrine falcon. No suitable nesting habitat for golden eagle, white-tailed kite or peregrine falcon occurs within the area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. However, agricultural land does represent marginal quality foraging habitat within the WLC site project site and adjacent SJWA. No additional California State fully protected wildlife species were analyzed for their potential to occur in the WLC site because no additional California State fully protected wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the WLC site and off-site facilities to support other California State fully protected wildlife species. Therefore, California State fully protected wildlife species are not likely to occur in the WLC site and there is no impact to California State fully protected wildlife species.

California Rare Plants Species and California Species of Concern. California Species of Concern (CSC) applies to animals not listed under the FESA or CESA, but are declining at a rate that could result in Federal or State listing or historically occur in low numbers and known threats to their persistence currently exist.

California Rare Plant Species. No California rare plant species are known to occur on, or in the vicinity of, the WLC site nor is any suitable habitat known to occur within the area. Therefore, no California rare plant species were analyzed for their potential to occur in the WLC site. Eleven special status plant species, as determine by the California Native Plant Society, were identified as potentially occurring within the WLC site. Three of the species (Plummer's mariposa lily [*Calochortus plummerae*], Robinson's pepper-grass [*Lepidium virginicum* var. *robinsonii*], and San Bernardino aster [*Symphyotrichum defoliatum*]) are not covered by the MSHCP. Plummer's mariposa lily and Robinson' pepper-grass have a moderate to low potential to occur based on habitat type and soils requirements. These species were not identified during sensitive plant surveys (MBA 2010; ESA 2018).

The 2010 sensitive plant survey was conducted based on the 2010 site boundary and the then-current existing conditions. Several areas within the current WLC site were not surveyed because they were either not included in the proposed development footprint (such as the Off-site Improvement Areas) or were not within areas of suitable habitat. Therefore, areas that contained suitable habitat, but are outside of the proposed development footprint, or areas that were not accessible during the survey, were not included. Since all areas of the WLC site were not surveyed, additional plant surveys are recommended on a project-by-project basis. There has been below-average rainfall in the area since the 2010 plant surveys were conducted. Project-level surveys will be required prior to submittal of the CEQA documents as part of the project-specific environmental review process.

The Sensitive Plant Focused Survey Report only discusses the plant communities in which focused plant surveys were conducted. Many of the areas within the Extensive Agricultural Areas and the Urban/Developed areas contain elements of Riversidean sage scrub, non-native grasslands, and riparian habitat, but not in a sufficient amount to be considered a separate plant community. The remaining nine plant communities found within the WLC site, either do not provide suitable habitat or are not within the project impact area; these plant communities will not be directly or indirectly impacted by project development.

Updated focused plant surveys will likely be warranted on a project-level basis, especially if existing site conditions change over time. However, updated focused plant surveys in 2018 did not observe any special-status plant species. If the agricultural fields are left fallow, suitable habitat for a number of sensitive plant species may develop. Therefore, additional focused plant surveys will be required on a project-by-project basis as specific developments are proposed and subsequent or supplemental CEQA documentation is prepared.

The potential habitat for these species is confined to RSS and sandy-rocky soils, which are confined to the proposed open space area in the southwestern portion of the Specific Plan area.

California Species of Concern. Twenty-one California Wildlife Species of Concern were analyzed for their potential to occur in the WLC site and off-site facilities:

- Orange-throated whiptail (*Aspidoscelis hyperythra*)
- Coast horned lizard (*Phrynosoma coronatum*)
- Northern red-diamond rattlesnake (*Crotalus ruber ruber*)
- Western spadefoot (*Spea hammondii*)

- Tricolored blackbird (*Agelaius tricolor*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Bell’s sage sparrow (*Amphispiza belli belli*)
- Burrowing owl (*Athene cunicularia hypugaea*)
- Ferruginous hawk (*Buteo regalis*)
- California horned lark (*Eremophila alpestris actia*)
- Merlin (*Falco columbarius*)
- Prairie falcon (*Falco mexicanus*)
- Yellow-breasted chat (*Icteria virens*)
- Loggerhead shrike (*Lanius ludovicianus*)
- White-faced ibis (*Plegadis chihi*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- Western yellow bat (*Lasiurus xanthinus*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- Southern grasshopper mouse (*Onychomys torridus ramona*)
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)
- American badger (*Taxidea taxus*)

The WLC site contains suitable foraging habitat for loggerhead shrike, ferruginous hawk, merlin, prairie falcon, California horned lark, and burrowing owl but no suitable nesting habitat for ferruginous hawk, merlin, or prairie falcon. Suitable ground-nesting habitat occurs for burrowing owl and California horned lark. No sign of burrowing owl was identified during focused surveys conducted in 2012. However, burrowing owl was identified within the southern portion of in the WLC project site and offsite facilities during focused surveys conducted in 2013 and in 2018, and, it was determined that this species may range through the general area. Several California horned larks and loggerhead shrikes were observed foraging within the area. No suitable habitat for western spadefoot, Bell’s sage sparrow, yellow-breasted chat, white-faced ibis, western yellow bat, southern grasshopper mouse, and American badger occurs within the WLC site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. The western yellow bat, southern grasshopper mouse and American badger are not covered under the MSHCP. However, since there is no suitable habitat for these species, no impact is expected to occur. The remaining species are covered under the MSHCP.

There is limited suitable habitat for orange-throated whiptail, northern red-diamond rattlesnake, coast horned lizard, southern rufous-crowned sparrow, northwestern San Diego pocket mouse, San Diego jackrabbit, and Los Angeles pocket mouse in the WLC site. These species are generally associated with RSS, which is limited to the north near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the LPSRA between World Logistics Center Parkway and Redlands Boulevard, just south of Brodiaea Avenue. Focused surveys for Los Angeles pocket mouse in 2005, 2010, 2012, and 2013 were negative. The orange-throated whiptail is not covered under the MSHCP. There is limited habitat for the orange-throated whiptail in an area that is currently proposed for open space in the southwestern corner of the Specific Plan area. The other species mentioned are covered under the MSHCP. There is a low potential for these species to occur.

No additional California wildlife species of concern were analyzed for potential to occur in the WLC site because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the WLC site to support other California Wildlife Species of Concern. Therefore, except for the burrowing owl, loggerhead shrike, and California horned lark, California Wildlife Species of Concern are not likely to occur in the WLC site and off-site facilities.

California Native Plant Society (CNPS). The CNPS is a non-profit organization whose collaborative efforts in research helps maintain an inventory of rare and endangered plants that occur throughout California. The CNPS has developed its own classification system in defining the degree of endangerment for sensitive plant species that models that of the FESA and CESA. Plants considered to be rare, threatened, or endangered in California are designated as CRPR 1B or List 2B plant species. Plants for which more information is needed to determine their status are designated CRPR 3 species. Plants with limited distribution are designated as CRPR 4 species.

CNPS Ranked Plant Species. Eight CNPS CRPR 1B plant species were analyzed for potential to occur in the WLC site: San Jacinto Valley crownscale, thread-leaved brodiaea, Plummer's mariposa lily, smooth tarplant (*Centromadia pungens* ssp. *laevis*), slender-horned spineflower, Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Robinson's peppergrass, and San Bernardino aster.

Two CNPS CRPR 2B plant species, mud nama (*Nama stenocarpum*) and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), were analyzed for potential to occur in the WLC site.

One CNPS CRPR 3 plant species, Parry's spineflower (*Chorizanthe parryi* var. *parryi*), was also analyzed for potential to occur in the WLC site.

No evidence of any CNPS CRPR 1B, List 2B, or List 3 plant species were observed in the WLC site. In addition, no suitable habitat for any of these species occurs due to historic agricultural activities, regular disking of the site, and dominance of sparse, low quality non-native vegetation.

No additional CNPS CRPR plant species were analyzed for potential to occur in the WLC site and off-site facilities because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the WLC site to support other CNPS CRPR plant species. Therefore, CNPS CRPR plant species are not likely to occur in the WLC site.

Migratory Bird Treaty Act and Section 3503 of the State Fish and Game Code. The WLC site contains suitable nesting habitat for ground-nesting birds such as burrowing owl and horned lark. The few large trees on the site provide suitable habitat for other migratory birds.

Raptor Foraging Habitat. The WLC site contains flat, open areas with sparse vegetation, which provides marginal foraging habitat for some raptors species. Due to the regular, heavy disturbance associated with the various agricultural activities in the area, and the limited size of the site in relation to the expansive foraging habitat in the vicinity including the SJWA, LPSRA, and the Badlands to the east, the foraging habitat on site is considered marginally suitable and of poor quality (MBA 2013, pages 94-95).

4.4.1.11 MSHCP Consistency Analysis

a. Burrowing Owl

The burrowing owl is an avian species of special concern that is protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3503. This species typically occurs in grassland and scrub habitats characterized by low-growing vegetation with an abundance of small mammal burrows, including the California ground squirrel. It often prefers areas with moderate disturbance and/or berms or drainage features. Reasons for burrowing owl population decline include habitat destruction, insecticide poisoning, rodenticide (particularly squirrel eradication), and shooting.

The WLC site contains potentially suitable habitat for burrowing owl, such as flat, open, valley floor plains occupied by non-native grasslands, fallow fields, and agricultural lands. Details of the methodologies for the focused surveys are discussed in Appendix D, Burrowing Owl Focused Surveys.

Details for these focused surveys for burrowing owl may not match exactly with the WLC site as the boundaries of the various studies have evolved over time. The 2012 studies for burrowing owl encompassed 3,300 acres.

Burrowing owl was identified within the southern portion of the WLC site during focused surveys conducted in 2013 by MBA and in 2018 by ESA, and the species may continue to range through the general area. Focused surveys for burrowing owl conducted in June–July 2012 did not locate any owls (MBA 2012b). However, burrowing owl was observed on the WLC site in 2018. During focused surveys conducted by MBA in 2005 (covering approximately 1,778 acres of the WLC site), a single breeding pair of burrowing owls was observed within an ephemeral drainage feature (Drainage 4) that longitudinally traverses the western portion of the survey area. The owls were observed perching and in flight along the western bank of the drainage feature, immediately south of its intersection with Dracaea Avenue. Conditions in this area have changed over the 6-year period and there was no longer suitable habitat due to changes in land use.

In addition, focused burrow and burrowing owl surveys conducted by MBA in 2006 (750 acres), 2007 (2,904 acres), 2010 (3,714 acres), and 2012 (3,300 acres) did not determine the presence of any burrowing owls. (Appendix D, Burrowing Owl Focused Surveys). Burrowing owls were recorded in 2008 (246 acres) just south of the Skecher's Logistic Center (Fierro, personal communication). A single burrowing owl was observed within the temporary detention basin located south of the Skecher's building during the March 2012 site visit. Burrowing owl was observed in the southeastern portion of the WLC site in 2018, just north of the SJWA.

The disked and fallow fields within the WLC site continue to provide suitable foraging habitat for burrowing owl. The area contains numerous California ground squirrel and desert cottontail burrows, which are potentially suitable for burrowing and nesting by the owls. Therefore, this species appears to be present within portions of the WLC site and the SJWA to the south, although it may not be a permanent resident.

b. Los Angeles Pocket Mouse

Los Angeles pocket mouse (LAPM) is a California species of special concern that inhabits lower elevation grasslands and scrub communities within Los Angeles, San Bernardino, and Riverside Counties. Los Angeles pocket mouse is the smallest of the pocket mice subspecies and is adapted for arid or semi-arid environments and nocturnal activity. The primary habitat requirement for the subspecies is a suitable burrowing substrate of fine sandy soils. LAPM is commonly found in low elevation open grasslands, coastal sage scrub, and alluvial fan sage scrub. The subspecies is recorded to have been observed approximately 2 miles southeast of the study area (CDFW 2012).

The majority of the WLC site does not contain suitable habitat for LAPM due to regular disturbance associated with agriculture, and the absence of fine sand soils. Drainage Feature 9, however, is not subject to regular agricultural disturbance and contains Riversidean sage scrub appropriate soils; therefore, this drainage feature contains marginally suitable habitat for LAPM.

MBA conducted surveys for LAPM in 2005, 2010, 2012, and 2013. ESA conducted LAPM surveys in 2018. In 2005, MBA conducted focused trapping surveys for LAPM in the south-central and southeastern portions of the WLC site. A total of 121 traps were set throughout the drainage features. In 2010, MBA conducted focused trapping surveys in the same location as in 2005 and in two additional drainage features. A total of 122 traps were set among the three drainage features in 2010. Only Drainage Feature 9 has suitable RSS and soils, and the other two drainage features only contained suitable soils. The 2012 trapping effort was conducted in the same area as in 2010. No LAPM were trapped. No LAPM were trapped during the focused surveys in any of the MBA trapping sessions (2005, 2010, 2012, and 2013); therefore, it was determined that this species is absent from the WLC site and no additional trapping were required. However, ESA conducted trapping in 2018 but found no LAPM.

c. Criteria Area Species

The following ten Criteria Area Species were assessed for their potential to occur in the WLC site:

- Mud nama (*Nama stenocarpum*);
- Little mousetail (*Myosurus minimus* ssp. *apus*);
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*);
- Thread-leafed brodiaea (*Brodiaea filifolia*);
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*);
- Parish's brittlescale (*Atriplex parishii*);
- San Jacinto valley crownscale (*Atriplex coronata* var. *notatior*);
- Round-leafed filaree (*California macrophyllum*);
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*) and
- Nevin's Barberry (*Berberis nevinii*).

The thread-leafed brodiaea typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline mudflats; therefore, it is not likely to occur within the WLC site.

Most of these species are associated with in highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association. In Riverside County, vernal pool plant species are most closely associated with the Willows soil series.

According to the biological assessment, San Jacinto valley crownscale, Parish's brittlescale, Davidson's saltscale, smooth tarplant, Coulter's goldfields, and little mousetail are not likely to occur on the project site due to the absence of vernal pools or vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation).

The WLC site does not contain friable clay soils, so round-leafed filaree is not expected to occur. Although small areas of the site contain sage scrub and chaparral vegetation, no alluvial scrub or rocky chaparral slopes occur; therefore, Nevin's barberry is not likely to occur on the project site.

Mud nama is associated with ponds, lakes, or regularly muddy embankments. Since these conditions are not present, it is unlikely this species occurs on the WLC site.

d. Narrow Endemic Plant Species

The following six Narrow Endemic Plant Species were assessed for their potential to occur on the WLC site:

- San Diego ambrosia (*Ambrosia pumila*);
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*);
- California Orcutt grass (*Orcuttia californica*);
- spreading navarretia (*Navarretia fossalis*);
- many-stemmed dudleya (*Dudleya multicaulis*); and
- Munz's onion (*Allium munzii*).

As with the Criteria Area species, San Diego ambrosia, Wright's trichocoronis, California Orcutt grass, and spreading navarretia are not likely to occur on the WLC site due to the absence of vernal pools, vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation). In addition, no clay soils occur within the WLC site; therefore, many-stemmed dudleya and Munz's onion are not likely to occur. Rare plant surveys conducted by ESA in 2018 did not result in observations of any Criteria Area nor Narrow Endemic Plant Species.

e. Riparian/Riverine Habitat and Vernal Pools

The WLC site contains two types of riparian vegetation: mule fat scrub and southern willow scrub. Both plant communities are isolated, disturbed, low in vegetative cover, and generally of poor habitat quality. Three drainage features and one catch basin contain riparian/riverine areas (see previously referenced Figure 4.4.2). One of these drainage features is outside of the WLC site on the east side of Gilman Springs Road, within one of the proposed debris basins.

The mule fat scrub community on site occurs intermittently within Drainage Feature 9; a small patch within Drainage Feature 7; and within the debris basin associated with Drainage Feature 8. Drainage Feature 9 and the catch basin are both narrow and bordered on each side by disked agricultural fields. Drainage Feature 9 also contains a narrow band of mule fat scrub, but is bordered by relatively undisturbed Riversidean sage scrub. Over time, the drainage feature has fragmented and currently contains isolated patches of riparian vegetation. Within the mule fat scrub community, tree tobacco and other non-native plant species, have established in approximately equal quantity as mule fat.

Drainage Feature 8 has a proposed debris basin across Gilman Springs Road. This small drainage has an area of mule fat scrub that is probably surviving based on the blockage of the drainage at the road. The mule fat scrub portions of the WLC site are poor in habitat quality due to the small size of the stands, the sparse vegetative cover within the communities, the isolation of the individual stands, and the disturbance from the adjacent agricultural uses. Given the above characteristics, riparian wildlife species have a low potential to occur. Despite the absence of suitable habitat for federally and State listed threatened or endangered species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo that commonly occur in riparian habitat, this drainage feature is considered riparian/riverine areas under the MSHCP because of the presence of mule fat and the subsurface connectivity to off-site riparian areas downstream.

Southern willow scrub occurs in a single isolated catch basin in the WLC site (Figure 4.4.2, Drainage Feature 14). The catch basin contains marginal vegetative characteristics and no hydrological characteristics that fit the MSHCP description for riverine/riparian areas. It exists as isolated, human-made, catch basin that receives nuisance flows and agricultural runoff from concrete cattle containment areas adjacent to the basin, which have subsequently been removed. It is located south of Alessandro Road and does not contain any upstream or downstream connection to any other drainage features. There is no evidence of prolonged ponding within this basin. Due to the high percolation rate, this area does not hold water long enough to provide the necessary hydrology associated with the creation and maintenance of a vernal pool. There are no drainage features that convey natural flows into these basins. Therefore, the basins only source of hydrology is from natural rainfall within the limits of the basin. Vegetation in the catch basin consists of southern willow scrub and includes plant species such as Freemont's cottonwood, black willow, sandbar willow, and mule fat. The plant community primarily consists of a moderate density of trees with a few understory plants.

Southern willow scrub is typically considered suitable habitat for a number of wildlife species that commonly occur in riverine/riparian habitats throughout southern California. These wildlife species include sensitive avian species such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. The southern willow scrub associated with Drainage 14 does not contain hydric soils or wetland hydrology indicators. This basin is considered low in habitat quality because it is isolated, small in size, and lacks significant vegetation density. The vegetation within the basin is sparse, with a 30- to 40- percent canopy cover of native willows. The small patch of riparian habitat also contains about 50 percent native willows and 50 percent non-native ornamental trees such as Peruvian pepper tree (*Schinus molle*). The southern willow scrub habitat is 0.86 acre in size (rounded up to 1 acre in the document). There is no suitable habitat for any riparian/riverine avian species, such as least Bell's vireo (*Vireo bellii pusillus),* southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), due to the limited size of the basin. There is also no suitable habitat within the immediate vicinity (approximately 2 miles) and there is no direct habitat connection to any suitable offsite habitat. Based on these factors, there is no suitable nesting habitat and limited resting habitat for the listed riparian species covered under the MSHCP. Given these characteristics, riparian wildlife species have a low potential to occur.

The term "functioning riparian habitat" describes a patch or area of riparian habitat that functions as a riparian habitat. It provides suitable habitat for plant and wildlife species that are commonly found in riparian habitats. Even low-quality riparian habitat may provide functional riparian habitat if it supports a population of riparian species. The riparian habitat onsite is extremely small and completely isolated from riparian habitat in the eastern portion of the City of Moreno Valley.

The riparian vegetation onsite does not support wildlife species commonly found within riparian habitat such as common yellow-throat (*Geothlypis trichas sinuosa*), yellow warbler (*Dendroica petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and summer tanager (*Piranga rubra*), as described in the Birds as Indicators of Riparian Vegetation (no date) condition in the western U.S. Bureau of Land Management, Partners in Flight, Boise, Idaho. Therefore, even though the WLC site contains small patches of riparian vegetation, it does not function as a riparian habitat for common riparian bird species. A few plants in an isolated area do not create a functional habitat.

MBA also conducted a vernal pool habitat assessment within the WLC site and off-site facilities. As defined by the MSHCP, vernal pools are "seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season." No vernal pools or ephemeral ponds were observed in the WLC site or any of the off-site areas during the habitat assessment survey. In addition, no suitable habitat for any fairy shrimp species was identified within any of the WLC site.

f. Urban/Wildlands Interface Analysis

This section addresses the indirect effects associated with locating development in proximity to MSHCP Conservation Areas. The WLC site is bordered to the east by Proposed Core 3 (MSHCP Section 6.1.1) and to the south by the SJWA and Existing Core H. Moreover, portions of the WLC site fall within the boundaries of these Conservation Areas.

The portion of the study area within the SJWA was previously used for agricultural land, but is owned by the State of California and operated as part of the SJWA. No development will occur in this area. The remaining portions of the WLC site that are within or adjacent to conservation areas will incorporate the design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development discussed below. These measures will make the project consistent with the MSHCP, Section 6.1.4, Guidelines Pertaining to the Urban/Wildlands Interface. A detailed description of recommendations pertaining to an urban/wildlands interface is provided below for adjacency issues identified in the MSHCP. Additional discussion of indirect impacts of the project on the SJWA and Conservation Areas is included in Section 4.4.1.12, *Other Issues*, later in this section. This information is from Section 6.1.4 of the MSHCP, *Guidelines Pertaining to the Urban/Wildland Interface.*

Drainage Features. Development of the WLC site will include a comprehensive system of storm drains to handle runoff from the project. The project drainage plan shows that drainage from the WLC site will be directed to the regional storm drain system and away from the adjacent open space, or treated by water quality and retention basins to maintain historical runoff rates and patterns onto downstream land, such as the Mystic Lake area.

The conceptual drainage plan for the WLC site development consists of a series of collection basins throughout the development that will treat the first flush storm events and convey storm flows to a series of detention basins along the southern boundary of the WLC site. The basins will be designed to provide a water quality treatment as well as provide an area for creation of riparian habitat. Based on the size of the proposed detention basins, only the inlet and outlet structures will require routine maintenance. This allows the majority of the detention basins to remain undisturbed, which allows for long-term conservation of the riparian habitat. The design, operation, and maintenance of the drainage system for the project will be designed to regulate the discharge of water into any MSHCP Conservation Area under either of these design scenarios. No water quality impact to downstream properties will result with implementation of the project.

Proposed Developments in proximity to the MSHCP Conservation Area will be required to incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures will be required to be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems will be required to be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

Barriers. The WLC project will incorporate special edge treatments designed to separate development areas from MSHCP open space areas both to the south and across Gilman Springs Road (i.e., fencing). The Specific Plan requires that native landscaping and fencing be installed to minimize unauthorized public access to the south and across Gilman Springs Road, which will also help minimize impacts related to domestic animal predation and illegal trespass and dumping. Impacts to adjacent native areas across Gilman Springs Road will therefore be minimized. In addition, the landscaping palette for the Specific Plan uses native species and precludes invasive plants as shown in the MSHCP invasive species list (MSHCP Table 6-2). The Specific Plan shows a 250-foot setback along the SJWA boundary to the south, as well as walls/fencing and controls on lighting that will comply with the City’s new Municipal Code section 9.08.100 to preclude light spillage off site greater than 0.25 foot-candles per square meter. Warehousing will have a minimum 11-foot solid wall along the SJWA boundary with landscaping to soften the appearance and which may eventually provide roosting or nesting opportunities for native birds. There will be no public pedestrian or vehicular access from the development onto the SJWA land to the south, and private access to MSHCP areas to the east across Gilman Springs Road will be limited by fencing along private property lines within the project site.

Access. The project will prohibit public access into all MSHCP conservation areas including those contained within SJWA and Existing Core H to the south of the WLC site. Private access to Proposed Core 3 (Section 6.1.1, Proposed Core 3) in the eastern portion of the WLC site will be limited by fencing of private property limits, but the public may still be able to access these areas from public roads, including Gilman Springs Road.

Grading/Land Development. Project grading will not encroach into conservation land that will be designated as open space located within Existing Core H to the south or Proposed Core 3 (Section 6.1.1, *Proposed Core 3*) to the east of the WLC site.

Fuels Management. Fuels management focuses on hazard reduction for humans and their property (MSHCP, p. 6-72). According to the Fuels Management Guidelines, for new development planned adjacent to all MSHCP conservation areas or other undeveloped areas, brush management shall be incorporated in the development boundaries and shall not encroach into the MSHCP conservation areas (MSHCP, p. 6-72). Any areas planted with fire-resistant, non-invasive plants must not encroach into the MSHCP conservation area. Accordingly, with implementation of these measures, the WLC SITE project will be consistent with the MSHCP Fuels Management Guidelines.

g. Migratory Corridors/Linkages

The WLC site is adjacent to an existing migratory corridor across Gilman Springs Road (i.e., Criteria Cells 1290, 1389, and 1390) as designated by the MSHCP. While the open agricultural fields that presently occupy much of the WLC site are not designated as corridors or linkages in the MSHCP, the WLC site, and the SJWA, supports extensive agricultural fields, which do not constitute native vegetation, but do provide some foraging value and may allow for migration or movement of wildlife through the general area even considering the level of repeated disturbance by agricultural activities. Wildlife movement through this area is generally planned to take place across the Mystic Lake property to the south. The northern (upland) portion of the SJWA and the southern portion of the Specific Plan area do not provide suitable habitat or resources to support wildlife migration or regular wildlife movement.

4.4.1.12 MSHCP Conservation Criteria Areas

Figure 4.4.4 shows the location and relationship of the MSHCP conservation areas described in this section, as well as their relationship to the WLC site.

a. Core 3

The MSHCP establishes a number of “core” areas that contain or support important biological habitat or species. Some of the core areas are existing reserves, while others are proposed for preservation. This section analyzes the project in relation to the nearby MSHCP core areas. The WLC site is located within the Reche Canyon/Badlands Area Plan and falls within both the Badlands North Area Plan Subunit and the SJWA/Mystic Lake Area Plan Subunit. No existing or proposed linkage, or constrained linkage areas are in the vicinity of the project. Proposed Core 3 (MSHCP Section 6.1.1) is located to the north and east of the WLC site and Existing Core H is located to the south (see previously referenced Figure 4.4.4). As shown in Table 4.4-4, portions of the WLC site fall within 3 Criteria Cells associated with existing or proposed core areas. No development will take place within any of the three Criteria Cells nor will there be any development within the 74.3-acre Open Space area in the southwestern corner of the WLC site.

Table 4.4-4: MSHCP Criteria Cells within the WLC Site Study Area

Area Plan Subunit within MSHCP	Cell Group	Criteria Cells
Badlands North Area Plan Subunit 3	Cell Group E	1390
	Cell Group X	1297
		1204
San Jacinto Wildlife Area/Mystic Lake Area Plan Subunit 4	Cell Group D	1364
		1370
		1377
		1386
		1389
		1482
		1483
		1477
		1577

No portions of the WLC site occur within Cell Group D, which is within the SJWA/Mystic Lake Area Plan Subunit 4. This Cell Group supports Existing Core H. Approximately 929 acres of the SJWA site are within Cell Group D. This area is owned by the State of California through a purchase in 2001 and is designated as Public/Quasi-Public Conserved Land under the MSHCP (see Figure 4.4.4). This land consists of more than 900 acres of non-native grassland.

Minimizing edge effects is considered a significant goal of Proposed Core 3. The portions of the Core along Gilman Springs Road are currently subject to edge effects associated with existing traffic, and the development of the project may incrementally increase these edge effects. All development in the southern portion of the project will need to implement measures that minimize edge effects associated with urban development in wildlands. The minimization efforts are addressed in Section 4.4.1.8g, *Urban/Wildlands Interface Analysis*, of this report.

The SJWA land is located adjacent to the junction of Proposed Core 3 and Existing Core H. Development of the WLC project will not impede the movement of wildlife or reduce the continuous area of the two cores, which are both goals of Proposed Core 3. Additionally, the portion of the WLC site located adjacent to the Core 3/Core H junction will remain undeveloped, facilitating connectivity between the two Cores.

The WLC site occupies less than 0.1 percent of Proposed Core 3 and the goals of the Proposed Core 3 will be maintained.

b. Existing Core H

Existing Core H consists of the Lake Perris State Recreation Area (LPSRA), SJWA, private lands, and lands with pre-existing conservation agreements (see Figure 4.4.4). It provides resident habitat for several species, contains soils suitable for some Narrow Endemic plant species, supports vernal pool complexes and may provide a connection to Core Areas in the Badlands and the middle reach of the San Jacinto River. Maintenance of habitat quality, floodplain processes along the San Jacinto River, and conservation of vernal pool complexes are important for species covered by the MSHCP. The Core Area provides potentially suitable live-in habitat for small rodents and common mammals.

The SJWA in Existing Core H contains potentially suitable habitat for small rodents, common mammals, and burrowing owl. No vernal pool complexes or floodplain conditions occur on the project site and there is no suitable habitat for any narrow endemic plant species. The WLC site is not located within Existing Core H and the goals of this core area will be maintained.

c. Reche Canyon/Badlands Area Plan

The Reche Canyon/Badlands Area Plan of the MSHCP is in the northern portion of western Riverside County, south of the City of San Bernardino, west of The Pass Area Plan and the San Jacinto Valley Area Plan, north of the Mead Valley Area Plan and the Lakeview/Nuevo Area Plan, and east of the Highgrove Area Plan, the Cities of Norco and Riverside Area Plan, and the March Area Plan. The City of Moreno Valley sits entirely within the Reche Canyon/Badlands Area Plan. The Area Plan incorporates lands within the LPSRA and SJWA, and is separated into 4 Area Plan Subunits. The WLC site is located within portions of Area Plan Subunit 3: Badlands North and Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake (see Figure 4.4.4).

The target conservation acreage range for the Reche Canyon/Badlands Area Plan is 30,815 to 35,905 acres; it is composed of approximately 20,295 acres of existing Public/Quasi-Public Lands and 10,520 to 15,610 acres of Additional Reserve Lands. The target acreage range within the City of Moreno Valley is 80 to 130 acres. The City of Moreno Valley target acreage is included within the 10,520 to 15,610-acre target conservation range on Additional Reserve Lands for the entire Area Plan.

The SJWA immediately south of the WLC site, is designated as Additional Reserve Land. All of this area is within the City of Moreno Valley, and will not be impacted by the WLC project, which would fulfill the MSHCP’s target acreage range for the City.

d. Area Plan Subunit 3: Badlands, North

Area Plan Subunit 3 of the Reche Canyon/Badlands Area Plan includes lands within the northeastern and eastern portions of the Area Plan within the Badlands (see Figure 4.4.4). Area Plan Subunit 3 contains a total of 88 Criteria Cells organized into 16 Cell Groups and 4 independent cells. The MSHCP conservation objectives for Area Plan Subunit 3 include conserving land within the Badlands area, north to the vicinity of SR-60, south to southeastern extent of the SJWA, west to the eastern boundary of the SJWA, and east to the Laborde Canyon vicinity. Target acreage range required for Additional Reserve Lands within Area Plan Subunit 3 is 8,270 to 10,895 acres. Plant and Wildlife Planning Species within Area Plan Subunit 3 include:

- Nevin's barberry;
- Bell's sage sparrow;
- Cactus wren;
- Loggerhead shrike;
- Southern California rufous-crowned sparrow;
- Los Angeles pocket mouse;
- San Bernardino kangaroo rat;
- Stephens' kangaroo rat;
- Bobcat; and
- Mountain lion.

Under the MSHCP, additional biological issues and considerations are proposed for conservation for each Area Plan Subunit. The biological issues and considerations emphasized in Area Plan Subunit 3 include:

- Conserving large habitat blocks in the Badlands.
- Maintain Core Area for bobcat.
- Maintaining Core and Linkage Areas for mountain lion.
- Determining potential for populations of San Bernardino kangaroo rat along San Timoteo Creek.
- Maintain Linkage Area to SJWA for Stephens' kangaroo rat.
- Determine presence of potential Core Area for Los Angeles pocket mouse in San Timoteo Creek and tributaries to the Badlands.
- Maintain Core Area for Nevin's barberry.

The eastern boundary of the WLC site (i.e., Gilman Springs Road) is within Area Plan Subunit 3, the main focus of which is protection of bobcat and mountain lion habitat. The portions of the WLC site within Area Plan Subunit 3 are along the southwestern edge of the Subunit and collectively comprise approximately one percent of the target acreage range proposed for conservation. Since the WLC site encroaches on a limited portion of the boundary of the Area Plan Subunit, and since these portions of the WLC site are already subject to existing edge effects, impacts from development under the WLC site does not conflict with the long-term conservation goals for bobcat or mountain lion habitat. It should be noted that the WLC site is across a major roadway (Gilman Springs Road) from the Badlands and the sensitive habitat contained in this Area Plan Subunit.

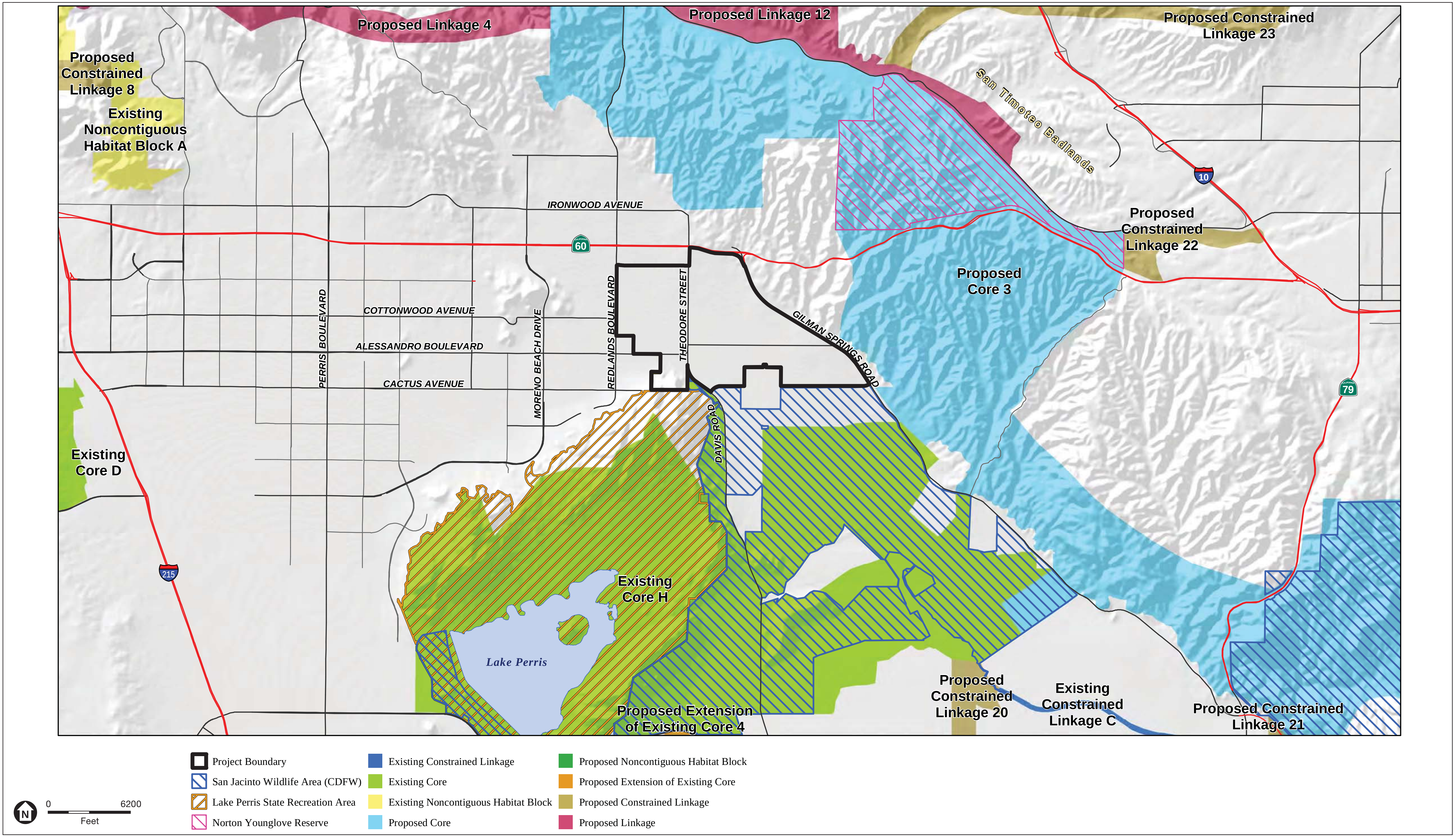

SOURCE: County of Riverside, 2003 & 2011; California Dept. of Fish and Game, 2011

World Logistics Center Project

Figure 4.4-4
MSHCP Conservation Areas

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e. Cell Group E and Criteria Cell 1390

Conservation within Cell Group E will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, grassland, and Riversidean alluvial fan sage scrub habitat. Areas conserved within this Cell Group will be connected to habitat proposed for conservation in Cell Group X to the north, habitat proposed for conservation in Cell Group C also to the north, and to habitat proposed for conservation in Cell Group F to the south. Conservation within Cell Group E will range from 45 percent to 55 percent of the Cell Group focusing in the western portion (see Figure 4.4.4).

f. Cell Group X: Criteria Cells 1204 and 1297

Conservation within Cell Group X will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, and grassland habitat. Areas conserved within Cell Group X will be connected to habitat proposed for conservation in Cell Groups C to the east, V to the northeast, and to chaparral and grassland habitat proposed for conservation in Cell Group E to the south. Conservation within Cell Group X will range from 65 percent to 75 percent of the Cell Group focusing in the northeastern portion of the Cell Group (see Figure 4.4.4).

Within the southwestern portion of Cell Group X, and specifically within Criteria Cells 1204 and 1297, the WLC site encroaches on 114.2 acres. Under the MSHCP, conservation for Cell Group X is proposed for the northeastern portions of the Cell Group. The WLC site is not within the targeted conservation areas and, therefore, will not adversely affect the County's ability to achieve the goals of the MSHCP (see Figure 4.4.4). In addition, no development is proposed within Criteria Cells 1204 and 1297.

g. Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake

Area Plan Subunit 4 of the Reche Canyon/Badlands Area Plan includes lands within the southeastern portions of the Area Plan within the SJWA. Area Plan Subunit 4 contains 26 Criteria Cells organized into 3 Cell Groups and 12 independent cells. The MSHCP conservation objectives for Area Plan Subunit 4 include conserving land within the SJWA and Mystic Lake (see Figure 4.4.4). The target acreage range required for Additional Reserve Lands within Area Plan Subunit 4 is 860 to 1,750 acres.

Plant and Wildlife Planning Species within Area Plan Subunit 4 include:

- California Orcutt grass
- Los Angeles pocket mouse
- Smooth tarplant
- Thread-leaved brodiaea
- Wright's trichocoronis
- Stephens' kangaroo rat
- Loggerhead shrike
- Northern harrier (*Circus cyaneus*)
- Peregrine falcon
- Tricolored blackbird
- White-tailed kite
- Coulter's goldfields
- San Jacinto Valley crownscale
- Spreading navarretia
- Vernal barley (*Hordeum intercedens*)
- American bittern (*Botaurus lentiginosus*)
- Burrowing owl
- Bobcat
- Mountain plover (*Charadrius montanus*)
- Osprey (*Pandion haliaetus*)
- Prairie falcon
- White-faced ibis

- Black-crowned night heron (*Nycticorax nycticorax*)
- California horned-lark
- Davidson's saltscale
- Double-crested cormorant (*Phalacrocorax auritus*)

The biological issues and considerations emphasized in Area Plan Subunit 4 include:

- Conservation of alkali playa and other habitat to augment existing conservation in the SJWA and Mystic Lake.
- Conservation of existing vernal pool complexes associated with the San Jacinto River floodplain in the SJWA and Mystic Lake area. Conservation should focus on vernal pool surface area and supporting watersheds.
- Provide for a connection of intact habitat between the SJWA and the adjacent Badlands to the north.
- Conservation of Willow-Domino-Travers soils supporting sensitive plants such as San Jacinto Valley crownscale, Davidson saltscale, Coulter's goldfields, spreading navarretia, vernal barley and Wright's trichocoronis.
- Provide for and maintain a continuous linkage along the San Jacinto River from the southern to the southeastern boundary of the Reche Canyon/Badlands Area Plan.
- Maintain Linkage Area for bobcat.
- Maintain a Linkage Area for Stephens' kangaroo rat to SJWA.
- Determine the potential presence of potential Core Area for Los Angeles pocket mouse in connection between the Badlands and the SJWA.

The SJWA south of the WLC site includes grasslands and agricultural lands. The WLC site is not within or along the San Jacinto River floodplain, and does not contain any alkali playa habitat or vernal pool complexes under the definition provided by the MSHCP.

There is no Willow-Domino-Travers soil within the WLC site; therefore, San Jacinto Valley crownscale, Davidson saltscale, Coulter's goldfields, spreading navarretia, vernal barley and/or Wright's trichocoronis are not likely to occur in the WLC site.

The WLC site is located immediately north of the Stephens' kangaroo rat preserve within the SJWA. Only a small portion of the northern portion of the SJWA (about 135 acres along the northern boundary) has been subject to regular disking and other disturbances associated with agricultural uses, while the remainder has converted to non-native grassland. The regular disturbances have resulted in an absence of suitable habitat for Stephens' kangaroo rat within the northern portion of the SJWA. The presence of a habitat linkage for this species within the WLC site is unlikely and population fragmentation is not anticipated.

Small portions of the WLC site contain suitable habitat for Los Angeles pocket mouse and burrowing owl; however, focused surveys by MBA and ESA concluded that the WLC site does not support the Los Angeles pocket mouse. The population of burrowing owl on site fluctuates from year to year, but they have been observed on site in the past and in the recent 2018 survey, and extended periods of time.

h. Cell Group D: Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577

Conservation within Cell Group D will contribute to assembly of areas proposed for conservation for Existing Core H (see Figures 4.4.4 and 4.4.3). Conservation within Cell Group D will focus on agricultural land. Conservation within this Cell Group will be approximately five percent of Cell Group

D focused on the southern and western portion of the Cell Group. This cell group is already part of the SJWA and is being maintained for possible agricultural use.

Cell Group D, which includes Criteria Cells 1364, 1370, 1377, 1386, 1477, 1482, 1483 and 1577, is proposed for conservation under the MSHCP. All of the Criteria Cells are within the SJWA except for approximately 5 acres of the WLC site within Criteria Cell 1364 on which no development will be allowed.

4.4.1.13 Federal Migratory Bird Act and California Department of Fish and Wildlife Protection

a. Nesting Birds

The extensive agriculture plant communities in the WLC site provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the WLC site as well as isolated, remnant patches of vegetation in undisturbed portions of the WLC site. Therefore, portions of the WLC site provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

b. Stephens' Kangaroo Rat

The WLC site is located just north of the Core Reserve Area for the Stephen's Kangaroo Rat Habitat Conservation Plan (HCP), but is not located within a core area. However, the entire study area is located within the fee area of the HCP. The project would have to comply with the HCP's Implementing Agreement (IA) and pay the County's per-acre mitigation fee.

c. USFWS Designated Critical Habitat

No USFWS designated Critical Habitat for any species is present within the WLC site.

d. Other Special Status Species

Based on the CDFW and CNPS database searches mentioned above, 26 special status species that are not listed as Threatened or Endangered have the potential to occur in the project vicinity (previously referenced Tables 4.4-2 and 4.4-3). Species that are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time are also included in those tables.

4.4.1.14 Special-Status Species Not Covered by the MSHCP

The vast majority of special-status species considered in this analysis are "covered" species under the MSHCP. However, 18 special-status species have the potential to occur in the general project vicinity and are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time. Details regarding the potential occurrence of these non-covered species are included in the General Biological Resources and MSHCP Compliance Report prepared by MBA and included as Appendix E-1. Due to unsuitable habitat and conditions within the project limits, none of these 18 non-covered species is expected to occur in the WLC site (see previously referenced Tables 4.4-2 and 4.4-3). Neither additional surveys nor additional conservation measures will be required for the project to address these species.

a. Special-Status Wildlife

The revised MBA report (2013) states that no special-status wildlife species were observed during field surveys. However, raptors are numerous in the agricultural fields on the WLC site and off site in the SJWA. None of the other special-status wildlife species was determined to be present within the WLC planning area because their habitat requirements are not present on the site; therefore, no further survey or study is required to determine likely presence, absence, or to assess project-related effects to these species.

While none of the bat species identified in the MSHCP Compliance Report (Appendix E-1) is expected to roost in the WLC site, the site does contain suitable foraging habitat for bat species that may roost in the surrounding region. The incremental loss of bat foraging habitat on the site would be compensated by participation in the MSHCP because the MSHCP mitigation fees are meant to purchase conservation lands to support species throughout western Riverside County.

b. Raptors and Other Avian Species

California Fish and Game Code, Sections 3503, 3503.5, 3505, and 3513, and the California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey). Furthermore, the MBTA protects the nests of migratory birds and raptors. There are a limited number of tall trees within the project site that would provide roosting or nesting habitat for raptors, such as hawks and owls, among other resident and migratory bird species. Two raptor species, red-shouldered hawk and American kestrel, have been observed in the area on a regular basis, suggesting at least these raptors may be roosting on site or nearby. The extensive open land within the WLC site provides foraging habitat for raptors and other avian species.

Thirteen species have a low-to-moderate potential to occur on the site based on existing habitat quality. Burrowing owl is assumed to be present on site, especially in areas of suitable habitat and in agricultural fields that are left fallow for extended periods of time. Burrowing owl was observed on-site in 2018.

As previously indicated, the project site is within the MSHCP burrowing owl survey area, and habitat assessments and focused surveys were conducted. During the focused survey in 2005, one location within the WLC site contained burrowing owl sign (i.e., whitewash and bone fragments) and a pair was observed in this same area. Field surveys also identified suitable burrows in the WLC site that may provide habitat for the western burrowing owl. Therefore, the species is considered to be present due to the presence of suitable habitat on site.

To confirm presence or absence of the burrowing owl in specific development areas of the WLC site, an MSHCP 30-day pre-construction protocol survey for burrowing owl will need to be conducted prior to any ground-disturbing activities. Figure 4.4.5 shows the location of burrowing owl habitat on the WLC site.

Of the species with potential to occur on the site, none is listed as threatened or endangered under State or Federal law, all are relatively widespread, and the WLC site does not contain high quality habitat for any of these species.

4.4.1.15 Other Issues

a. Setbacks

The MSHCP's urban/wildlands interface analysis encourages setbacks between proposed development areas and areas with sensitive biological resources. The WLC project has been designed to incorporate setbacks from sensitive biological resources pursuant to MSHCP requirements. The SJWA is considered an important resource due to the large number and diversity of birds that utilize it. Available research and MSHCP guidelines recommend a setback between the north boundary of the SJWA and the south boundary of development within the WLC project. Existing scientific and academic literature can provide guidance on the appropriate width of such a setback under these types of conditions.

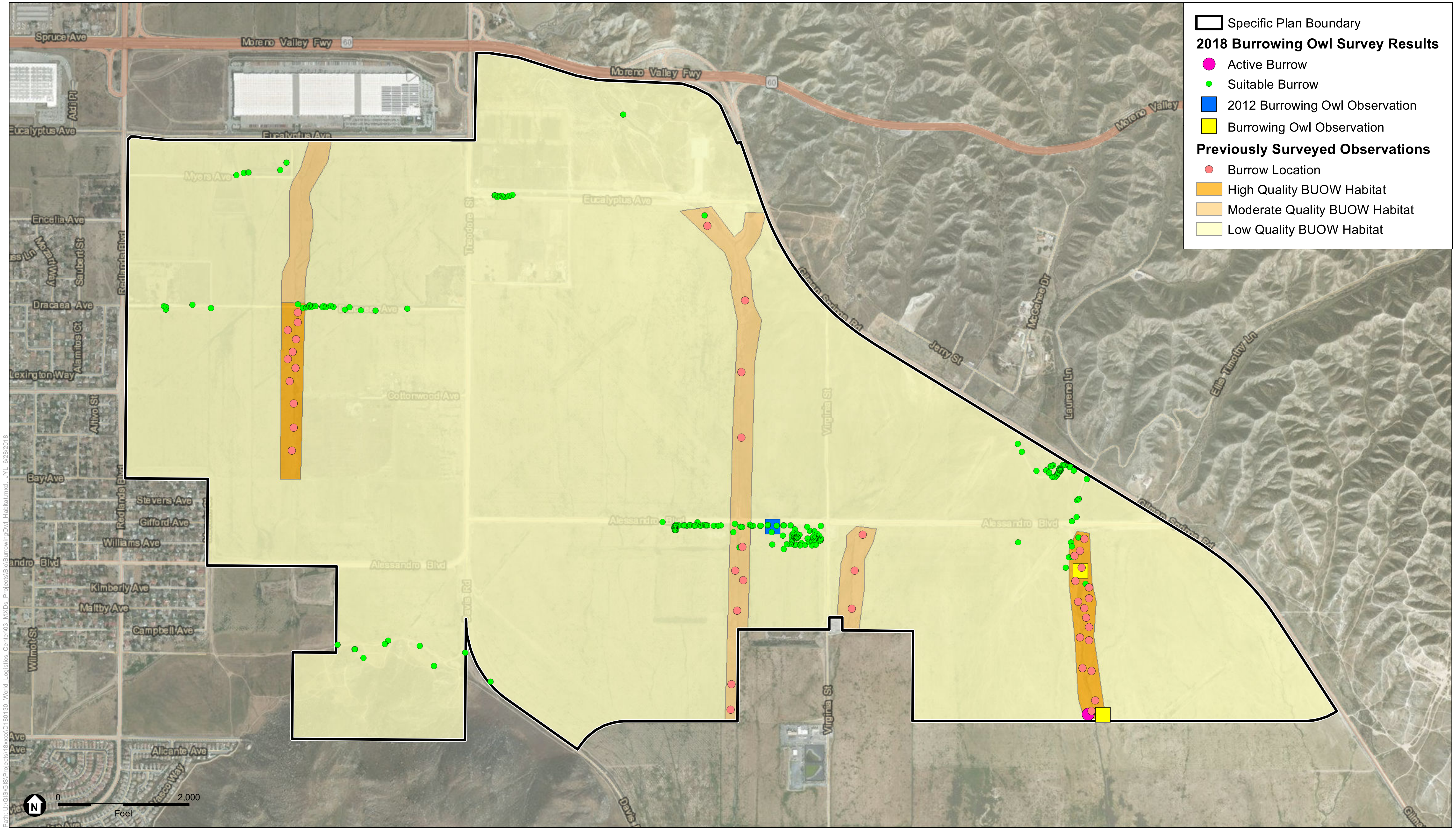

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SOURCE: ESRI 2016; Michael Brandman Associates 2010; ESA 2018

World Logistics Center

Figure 4.4-5
Burrowing Owl Habitat Suitability

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Typical setbacks to protect wildlife from human presence (though not warehousing) ranges from 50 to 500 feet, but 200–250 feet appears adequate for the most sensitive species.[1] In addition, the MSHCP and adopted guidelines of the USFWS and CDFW include a setback of 200 feet or more from nesting birds during construction activities. For example, typical burrowing owl mitigation says, “To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season.”

Note: The following information has been excerpted from the Jurisdictional Delineation Report prepared by MBA which was updated in 2014 to respond to comments from the resource agencies. ESA prepared an update in 2016. The reports are available for review at the City of Moreno Valley

4.4.1.16 On-site Drainages

A formal jurisdictional delineation (JD) was conducted within the WLC site and offsite facilities by MBA in September 2007 and again in March 2012. ESA conducted an updated JD in 2016 that corroborated the MBA JD. A total of 15 primary drainage features were identified during these combined surveys. A number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB), respectively; the Porter Cologne Act as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by CDFW.

Based on comments received from the resource agencies, the 2013 JD report concludes that two drainage features (Drainage 12 and 15) have been determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the Clean Water Act (CWA). Drainage 15 is included in this discussion because it may occur within two offsite utility improvements. Approximately 500 linear feet of the drainage feature was included in the survey area. Approximately 5,430 linear feet of Drainage 12 is included in the survey area (0.5 acres). This includes approximately 1,300 linear feet within the WLC site, and the remaining 4,130 linear feet will be part of the offsite improvements. The remaining 13 drainage features are considered isolated features with no direct connectivity to downstream traditional navigable waters or have no significant nexus. Drainage features 1, 5, and 6 are roadside ditches that are also isolated features. Drainage features 3, 4, 10, 11, and 13 are upland swales with evidence of periodic erosion but no evidence of annual flows and no clearly defined bed and bank feature. No jurisdictional wetlands were identified within the entire WLC site. However, the regulatory agencies make all final jurisdictional determinations.

Drainage features 3, 4, 10, 11, and 13 do not have a clearly defined bed and bank feature and do not have any riparian habitat or evidence of flows. These features are better described as upland swales with occasional eroded areas. Under the Porter Cologne Act, the RWQCB takes jurisdiction of drainage features that would normally be under USACE jurisdiction, but are considered isolated. Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. The jurisdictional limits of waters of the state are not required to have downstream connectivity. There are approximately 3.0 acres of waters of the state, which includes areas with a clearly defined bed and bank feature within the WLC site and offsite facilities. However, the CDFW makes all final Section 1600 jurisdictional determinations.

Drainage 1: This feature is a roadside ditch that conveys nuisance flows on the east side of Redlands Boulevard. Currently the ditch is contained within a concreted-lined swale and has intermittent areas with an earthen bed and bank. This ditch has no vegetation and leaves the site in an underground storm drain facility. This roadside ditch typically conveys flows during any storm event because most of the drainage is currently paved. This feature does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature.

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[1] *Setting Buffer Sizes for Wetlands.* J. McElfish 2008.

Drainage 2: This feature is an upland swale that conveys nuisance flows within an actively disked agricultural field and only receives flows every 5 to 7 years. This swale contains periodic sign of erosion, but is mostly an unvegetated swale with minimal evidence of flows. This drainage begins to sheet flow just north of Bay Avenue and has no hydrologic connection to any downstream drainage feature. This feature does not contribute to the function or value of any downstream drainage and is not considered a riparian/riverine feature.

Drainage 3: This feature is a temporary detention basin used to treat nuisance flow from the adjacent Skechers logistic facility. The flows within this feature are completely contained within the facility and there is no downstream connection to any other drainage features. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature.

Drainage 4: The drainage feature previously originated from an underground storm drain beneath SR-60. The previous flows from this feature have been redirected into the detention basin associated with Drainage 3. Drainage 4 currently conveys flows from local runoff within the WLC site footprint and only receives flows every 5 to 7 years. This feature has evidence of a historic channel near the intersection of Dracaea Avenue and Sinclair Street. However, this feature sheet flows just south of Cottonwood Avenue and has no hydrologic connection to any downstream drainage features. This drainage does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature.

Drainage 5: This drainage is a roadside ditch located along the western side of World Logistics Center Parkway. This drainage originates at the eastbound World Logistics Center Parkway off-ramp from SR-60. This feature conveys nuisance flows from Theodore Street and immediate vicinity during large storm events and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates just north of Alessandro Boulevard. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature.

Drainage 6: This feature is also a roadside ditch located along the eastern side of World Logistics Center Parkway. This drainage originates from an underground storm drainage beneath SR- 60. It conveys nuisance flow from World Logistics Center Parkway and immediate vicinity and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates southeast of Alessandro Boulevard within an active agricultural field. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature.

Drainage 10: This drainage is an isolated feature that contains some evidence of erosion and is caused by a change in slope within highly erosive soils. This feature terminates as the topography levels resulting in sheet flows. This feature contains a few scattered tree tobacco, but otherwise has no change in soils or vegetation. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature.

Drainage 11: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with Gilman Springs Road. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature.

Drainage 13: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with the steep hillsides to the south. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature.

Drainages 1, 2, 3, 4, 5, 6, 10, 11, and 13 do not provide any function or value as drainage features and do not meet the minimum criteria to be designated as Riparian/Riverine areas. All of the above-mentioned drainage features, with the exception of Drainage 13, flow in a north-to-south direction and in a straight-line channel. Drainage 13 flows in a south-to-north orientation. All of these channels terminate as sheet-flow within the WLC site or immediately offsite and do not reappear further downstream. These features have a parallel flow pattern and are artificially created to minimize flooding impacts to the surrounding agricultural lands within the WLC site. None of these features has any downstream hydrologic connectivity to any downstream drainage features.

Project components affecting streambed and bank subject to CDFW jurisdiction, including riparian habitat, would require a Streambed Alteration Agreement (SAA) from CDFW.

When impacts are identified during project-specific applications, the proponent will apply for appropriate permits. Mitigation ratios will be determined following standard guidelines and mitigation will include a mixture of onsite habitat creation, offsite habitat creation, or the purchase of offsite mitigation credits at an established mitigation bank. Compensatory mitigation will be no less than a 1:1 replacement ratio to guarantee a no net loss of riparian habitat, but this mitigation ratio is negotiated during the permit acquisition process on a project-by-project basis.

The WLC site also incorporates a number of potential offsite improvements. All offsite improvements east of Redlands Boulevard may potentially impact drainage features likely considered jurisdictional by USACE, RWQCB, and CDFW. Once these offsite improvements have been finalized, a project specific jurisdictional delineation will be required in order to document the existing conditions, potential impacts, and recommended mitigation measures.

The previous jurisdictional delineation report[1] conducted in 2012 concluded that the WLC site contained 14 drainage features including four roadside ditches, seven isolated drainage features, and three isolated features. All 14 drainage features lack direct connectivity to any downstream Traditional Navigable Waters (TNWs) or any other Relatively Permanent Waters (RPW). The four roadside ditches lack riparian vegetation and only convey nuisance flows from localized runoff from the adjacent road. These flows eventually revert to sheet flow within the survey area and have no direct connectivity.

According to the 2012 report, the three isolated features include an abandoned water quality detention basin and two abandoned basins associated with previous cattle activities. The water quality basin is a temporary facility that was constructed to treat drainage flows resulting from the construction of the Skechers facility. The two isolated basins were previously used to collect polluted runoff from the associated cattle facility. The facility included concrete-lined areas to contain cattle in a dairy operation. Animal waste would be collected in the basins to protect downstream water quality. The livestock facilities have been removed and the basins are no longer functioning.

The 2012 report determined that the on-site features did not meet the minimum requirements to be considered jurisdictional by regulatory agencies due to the following:

- Lack of connectivity to any downstream waters of the US or waters of the State.
- Absence of a consistent bed and bank and/or ordinary high water mark (OHWM).
- Low biological resource value.
- The roadside ditches and agricultural drainages drain only upland areas and do not carry relatively permanent water flows.
- No jurisdictional wetlands occur within the WLC site.

Important Note. Although the JD report from 2012 concluded the onsite drainages were not jurisdictional, the 2013 JD report has amended that conclusion based on comments by the state and

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[1] *Jurisdictional Delineation Report*, Michael Brandman Associates, April 23, 2012.

Federal resource agencies. The 2013 JD report concludes there are two (2) drainage channels on the WLC site (Drainages 12 and 15) that are considered jurisdictional by both Federal and state agencies, while drainages 7, 8, and 9 are considered jurisdictional by the CDFW and the RWQCB. The location and extent of these on-site drainages in relation to the project site are illustrated in previously referenced Figure 4.4.2.

4.4.2 Existing Policies and Regulations

4.4.2.1 Federal Regulations

Federal Endangered Species Act (FESA). The FESA was enacted to protect any species of plant or animal that is endangered or threatened with extinction. Section 9 of the FESA prohibits "take" of federally threatened or endangered wildlife. Take, as defined under the FESA, means to harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct (16 USC 1532[19]). Section 9 also prohibits the removal and reduction of endangered plants from lands under Federal jurisdiction, and the removal, cutting, digging, damage, or destruction of endangered plants on any other area in "knowing violation of State law or regulation."

Section 9 of the FESA (16 USC 1538) prohibits take of a federally listed endangered species of fish or wildlife except pursuant to a permit and HCP approved under Section 10(a) of the FESA (16 USC 1539). The FESA prohibitions and requirements are different, however, for endangered species of plants. Section 9 prohibits the take of endangered plants only from areas under Federal jurisdiction, or if such take would violate state law.

Development of the WLC site is located on private land. For listed plants located on private land, formal consultation with the USFWS is required when a project has a Federal "nexus" (i.e., a Federal permit is required or Federal funding is involved). In the absence of a Federal nexus, a project does not require a permit under the FESA for impacts to listed plants on private lands.

Clean Water Act. The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the Federal Clean Water Act (CWA) is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high water mark (OHWM). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met.

In 2006, the United States Supreme Court in *Rapanos v. United States* 574 U.S. 715 (2006) addressed CWA jurisdiction over wetlands adjacent or abutting navigable, non-navigable and ephemeral tributaries and jurisdiction over permanent and relatively permanent non-navigable tributaries. According to the United Sates Supreme Court, the CWA does not assert jurisdiction over upland erosional features, gullies, and roadside ditches that have infrequent, low volume, and short duration of water flow. The USACE uses a significant nexus analysis. A water body is considered to have a "significant nexus" with a traditional navigable water (TNW)[1] if its flow characteristics and functions in combination with the ecologic and hydrologic functions performed by all wetlands adjacent to such a tributary, affect the chemical, physical, and biological integrity of a downstream traditional navigable water. Additional information is provided in the Environmental Protection Agency (EPA) memorandum titled "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United*

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[1] A "traditional navigable water" includes all of the "navigable waters of the United States," defined in 33 C.F.R. § 329 and by numerous decisions of the Federal courts, plus all other waters that are navigable-in-fact.

States & *Carabell v. United States*,” dated June 5, 2007 (USACE 2007), and also the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (USACE and EPA 2007).

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA, through water quality certification of any activity that may result in a discharge to jurisdictional waters of the U.S. The RWQCB may also regulate discharges to “waters of the State,” including wetlands, under the California Porter-Cologne Water Quality Control Act.

4.4.2.2 State Regulations

California Endangered Species Act (CESA). The CESA is similar to the FESA in that its intent is to protect species of fish, wildlife, and plants that are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of overexploitation, disease, predation, or other factors.

“Take” as defined under CESA means hunt, pursue, capture, or kill, or attempt to hunt, pursue, capture, or kill. Under certain conditions, CESA has provisions for take through a 2081 Permit or a Section 2081 Memorandum of Understanding. The impacts of the authorized take must be minimized and fully mitigated. No permit may be issued if the issuance of the permit would jeopardize the continued existence of the species.

California Environmental Quality Act. Section 15380(b) of the *CEQA Guidelines* provides that a species not listed on the Federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet specified criteria. These criteria have been modeled after the definitions in FESA and CESA and § 2780–2781 of Article 1 of the California Fish and Game Code dealing with the California Wildlife Protection Act of 1990. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

California Fish and Game Code Section 3503 and the Migratory Bird Treaty Act. Section 3503 of the California Fish and Game Code prohibits the destruction of bird nests except as otherwise provided for in the Fish and Game Code. The MBTA similarly protects the nests of migratory birds. These regulations apply to the individual nests of these species, but do not regulate impacts to the species’ habitats.

Raptor Protection. The California Fish and Game Code (Fish and Game Code, Sections 3503, 3503.5, 3505 and 3513), and California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey).

Streambed Alteration Agreements. Sections 1600 et seq. of the California Fish and Game Code define the responsibilities of the CDFW and require public and private applicants to obtain an agreement for projects that would “divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by the CDFW in which there is at any time an existing fish or wildlife resource or from which those resources derive benefit, or would use material from the streambed designated by the department.” CDFW wardens and/or unit biologists typically have the responsibility for formulating and issuing Streambed Alteration Agreements. The CDFW, through provisions of the Code (Sections 1601–1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW.

Native Plant Protection Act (NPPA). Sections 1900–1913 of the California Fish and Game Code (Native Plant Protection Act) direct the CDFW to carry out the Legislature's intent to "… preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

4.4.2.3 Regional Regulations

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The continued loss of habitat to new development and the cumbersome process of environmental review and habitat mitigation on a project-by-project basis led to preparation of the MSHCP. The MSHCP is a multi-jurisdictional effort that provides a regional conservation solution to species and habitat issues. The underlying goal of the MSHCP is to protect multiple species by preserving a variety of habitat and providing linkages between different habitat areas and other undeveloped lands. The MSHCP allows Riverside County and its cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of CESA and FESA. The overall goal of the MSHCP is to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth.

The MSHCP was adopted on June 17, 2003. The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the long-term conservation of species and their habitats in western Riverside County. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of FESA as well as the Natural Communities Conservation Plan (NCCP) under the State of California. The CDFW also issued the NCCP Approval and Take Authorization for the MSHCP. As long as adherence to the policies and requirements of the MSHCP is maintained, participants in the MSHCP, which include the County of Riverside and fourteen cities (including the City of Moreno Valley), are allowed to authorize "incidental take" of plant and wildlife species of concern.

The MSHCP will eventually result in an MSHCP Conservation Area in excess of 500,000 acres and focuses on conservation of 146 species including amphibians, reptiles, birds, mammals, invertebrates, and plants. The MSHCP Conservation Area includes approximately 347,000 acres on existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles); it includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. It provides a coordinated MSHCP Conservation Area and implementation program to preserve biological diversity and maintain the region's quality of life.

The MSHCP serves as a HCP pursuant to Section 10(a)(1)(B) of FESA, as well as an NCCP under the NCCP Act of 2001. The MSHCP allows the City of Moreno Valley as well as other signatories of the Plan to authorize "Take" of plant and wildlife species identified within the Plan Area. The USFWS and CDFW have authority to regulate the Take of Threatened, Endangered, and rare Species. Under the MSHCP, the USFWS and CDFW can grant "Take Authorization" for otherwise lawful actions—such as public and private development that may incidentally Take or harm individual species or their habitat outside of the MSHCP Conservation Area—in exchange for the assembly and management of a coordinated MSHCP Conservation Area.

Of the 1.26 million acres covered by the MSHCP, 500,000 acres have been designated for preservation: 347,000 acres are already conserved as public or quasi-public land and another 45,270 acres have been acquired as habitat by the Regional Conservation Authority (RCA). According to the most recent RCA-MSHCP Annual Report, the City of Moreno Valley has a high-end goal of conserving 130 acres within its sphere of influence of the MSHCP; the City has already conserved 943 acres (RCA Annual Report 2010, Table 3). Altogether, Riverside County has reached 77 percent of the goal in the MSHCP.

Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP). The USFWS issued a permit to the Riverside County Habitat Conservation Agency on May 3, 1996, for incidental take of Stephens' kangaroo rat (*Dipodomys stephensi*). The 30-year plan is designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions (including the City of Moreno Valley), and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied Stephens' kangaroo rat habitat in 7 Core Reserves encompassing over 41,000 acres. Currently 12,460 acres of occupied habitat exists within the Core Reserves.

4.4.2.4 City of Moreno Valley General Plan Policies

The specific policies outlined in the City's General Plan Conservation Element related to biological resources include:

Conservation Element

Policy 7.4.1 Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate setbacks to mitigate impacts to such areas.

Policy 7.4.3 Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.

Policy 7.4.5 The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.

4.4.3 Methodologies

The WLC site was assessed to determine consistency with the MSHCP focusing on conservation of species and their associated habitats in western Riverside County. The Riverside County Integrated Project (RCIP) Conservation Summary Report was first reviewed to determine habitat assessment and potential survey requirements for the study area. Geographic Information Systems (GIS) software was used to map the site in relation to MSHCP areas including Criteria Cells; conservation areas and linkages; Criteria Area Species Survey Areas for plant, bird, mammal, and amphibian species; Narrow Endemic Plants Survey Area; and survey requirements for inadequately covered species.

4.4.3.1 Literature Search

Prior to each field visit, a literature review, to determine environmental conditions occurring on the study area and the surrounding area was conducted. The primary objective of the review is to evaluate the potential for suitable habitat for sensitive plant and wildlife species, as well as to determine the applicability of other MSHCP and CEQA requirements as they pertain to the project. A compilation of sensitive plant and wildlife species recorded in the vicinity of the study area was derived from the CDFW's California Natural Diversity Data Base (CDFW 2012), a sensitive species and plant community account database. Additional recorded occurrences of plant species found on or near the planning area were derived from the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California database. The CNDDB and CNPS search was based on the *Lakeview, Sunnymead*, and *El Casco, California* USGS 7.5-minute topographic quadrangles, encompassing 126 square miles. Additional recorded occurrences of these species found on or near the study area were derived from biota studies conducted for the MSHCP as well as studies conducted by MBA biologists for other projects over the years.

The MSHCP and CEQA also require an assessment to determine the potentially significant effects of the project on riparian/riverine areas and vernal pools. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in the MSHCP's Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. This assessment is independent from considerations given to waters of the U.S. and waters of the State under the Clean Water Act (CWA) and California Fish and Game Code. This assessment has been completed for all of the study area but not in the zone of potentially indirect effects.

As part of the MSHCP requirements, an Urban/Wildlands Interface Analysis is required to address the indirect effects associated with locating proposed development in proximity to MSHCP conservation areas. The development may result in edge effects, which could potentially affect biological resources within the MSHCP Conservation Area. According to the MSHCP, the analysis should include an assessment of the potential indirect project impacts that may result from drainage features, toxics, noise, invasive species, barriers, access, and grading/development, as listed and described in the MSHCP's Section 6.1.4, *Guidelines Pertaining to Urban/Wildlands Interface*. For this study, the Urban/Wildlands Interface Analysis was extended eastward to include indirect effects adjacent to Gilman Springs Road.

4.4.3.2 Habitat Assessment Survey

MBA originally assessed the planning area in 2005 and has conducted numerous additional surveys since then. Details of the survey dates and specific survey areas are provided in the 2012 MBA report (DEIR Appendix E). The WLC site, off-site facilities and the adjacent SJWA, were surveyed to determine the plant communities present, the suitability for Narrow Endemic and Criteria Area plant species, the presence of riparian areas, and the presence of suitable habitat for burrowing owl and Los Angeles pocket mouse. Parameters assessed included soil conditions, presence of indicator species, slope, aspect, and hydrology. ESA conducted update surveys in 2018 for Narrow Endemic plant species, burrowing owl, coastal California gnatcatcher, and Los Angeles pocket mouse.

4.4.3.3 Plants

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photographs. The plant communities within the planning area were classified according to the CDFW's List of Terrestrial Natural Communities (2003) and cross-referenced to descriptions provided in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986) and Oberbauer's Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions (1996). Common plant species observed during reconnaissance-level surveys in the planning area were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified off site using taxonomical guides. A list of all species observed on the study area was compiled from the survey data, shown in Appendix A of the MBA 2012 report (DEIR Appendix E).

ESA conducted a rare plant survey in 2018 focusing on three plant species having a moderate to high potential to occur based on the existing habitats within the Plan Area and known occurrences within the Project vicinity. These three species include thread-leaf brodiaea, smooth tarplant, and Coulter's goldfields. No special-status plant species were observed during the 2018 focused survey effort.

4.4.3.4 Wildlife

Wildlife species detected during field surveys in the planning area by sight, calls, tracks, scat, or other sign recorded during surveys in a field notebook by all biologists working on the project. Field guides were used to assist with identification of species during surveys. Although common names of wildlife species are fairly well standardized, scientific names are used in this report and are provided in Appendix A of the 2013 MBA report (DEIR Appendix E).

4.4.3.5 Riparian/Riverine and Vernal Pool Habitat

Aerial photography was reviewed prior to conducting general surveys to identify any potential natural drainage features and water bodies that may qualify as riparian/riverine. In general, the surface drainage features indicated as blue-line streams on USGS topographic quadrangle maps that were observed or expected to exhibit evidence of flow, can potentially support riparian/riverine areas. The WLC site was evaluated for any riparian/riverine and vernal pool habitat in 2005, 2007, 2012, 2013, and 2016.

4.4.3.6 Burrowing Owl

The WLC site is within the MSHCP burrowing owl survey area, and habitat assessments for burrowing owl (*Athene cunicularia hypugea*) were conducted 2005, 2006, 2010, 2012, 2013, and 2018 on various portions of the WLC site. Areas of suitable habitat, if present, were mapped onto an aerial photograph. Potential owl burrows, such as abandoned small mammal burrows, as well as manmade structures including earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles, or openings beneath cement or asphalt pavement are generally mapped onto an aerial photograph. The site was determined to have suitable habitat in a number of widespread locations, and owls were observed in various locations during the MSHCP fieldwork, so a focused survey was recently conducted in 2018.

A focused western burrowing owl survey was conducted for the proposed WLC site on seven separate days in 2013 and on four days in 2018. Under the MSHCP, the focused survey protocol was divided into two parts: 1) a Focused Burrow Survey; and 2) a Focused Burrowing Owl Survey. The focused survey was conducted during the breeding season (March 1–August 31) as defined under the MSHCP,[1] and also in accordance with the California Burrowing Owl Consortium's (CBOC) *Burrowing Owl Survey Protocol and Mitigation Guidelines*.[2] The species was observed during the most recent survey in 2018 conducted by ESA, and the species has been observed at other times in the past, and is assumed to be present due to the presence of suitable habitat and the fact they can occupy fallow agricultural fields relatively quickly. The MSHCP requires that pre-construction surveys be completed in areas of suitable habitat.

4.4.3.7 Los Angeles Pocket Mouse

Focused surveys for the Los Angeles pocket mouse (LAPM) (*Perognathus longimembris brevinasus*) were conducted in August 2005, June 2010, June 2012, July 2013, and May 2018 (see DEIR Appendix E). The surveys were conducted according to the established USFWS protocols for Pacific pocket mouse (*Perognathus longimembris longimembris*), a similar species. The current protocol requires trapping for 5 consecutive nights: conducted when the animal is active aboveground at night, during a new moon phase, if possible. No LAPM were observed in the WLC site during the focused surveys, although there is marginal habitat located in Drainages 7 and 9. MBA and ESA concluded that the WLC site was not occupied by LAPM. However, future surveys may be needed for development in areas of the site that contain suitable habitat for the project to be consistent with the long-term conservation goals of the MSHCP.

4.4.3.8 Jurisdictional Determination Report

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the WLC site and the previously cited USGS topographic maps were examined to determine the locations of potential areas of USACE/CDFW/RWQCB jurisdiction. Potential jurisdictional areas were field-checked for the presence of definable channels[3] and/or wetland vegetation, soils and hydrology. Suspected

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[1] Western Riverside County Multiple Species Habitat Conservation Plan, Volume I, Dudek & Associates, June 17, 2003.

[2] Burrowing Owl Survey Protocol and Mitigation Guidelines, California Burrowing Owl Consortium, 1993.

[3] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) ion the Arid West Region of the United States: A Delineation Manual. ERDC/CRREL TR-08-12: Cold Regions Research and Engineering Laboratory, U.S. Army Engineer Research and Development Center, Hanover NH.

wetland habitats on the site were evaluated using the methodology set forth in the *U.S. Army Corps of Engineers 1987 Wetland Delineation Manual*[1] (Wetland Manual) and the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0).[2] The limits of USACE/CDFW/RWQCB jurisdiction were recorded using sub-meter GPS technology while in the field.

4.4.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, biological resource impacts would occur if the project would:

- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.4.5 Less than Significant Impacts

4.4.5.1 Adopted Policies and/or Ordinances

Threshold	Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Table 4.4-5 summarizes the City's General Plan and Municipal Code policies regarding biological resources and their consistency with the WLC site.

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[1] Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[2] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Table 4.4-5: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		Project Consistency
City of Moreno Valley General Plan		
Objective 7.4	Maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance.	No significant riparian or other biologically sensitive habitat is on or adjacent to the WLC site. The project is consistent with this objective.
Policy 7.4.1	Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.	No significant riparian or other biologically sensitive habitat is on or adjacent to the WLC site. The project is consistent with this policy.
Policy 7.4.2	Limit the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.	Limited stands of natural plant communities or stands of native vegetation occur in the WLC site within hillside areas. These areas are proposed as open space under the proposed action. The project is consistent with this policy.
Policy 7.4.3	Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.	The study area contains 14 drainages and/or basins. As specific projects are designed within the WLC site, consistency with the policy will have to be determined.
Policy 7.4.4	Incorporate significant rock formations into the design of hillside developments.	The WLC site is generally not a hillside area. Limited natural rock formations occur in a proposed open space area. The project is consistent with this policy,
Policy 7.4.5	The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.	See Consistency with Chapter 3.48 of the City of Moreno Valley Municipal Code below.
City of Moreno Valley Municipal Code		
Title 3 Revenue and Finance		
Chapter 3.48 MSHCP Fee Program (Ordinance 742 Section 1.1, 2007)	Establish a local development mitigation fee to assist in the maintenance of biological diversity and the natural ecosystem processes that support this diversity; the protection of vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species; the maintenance of economic development within the city by providing a streamlined regulatory process from which development can proceed in an orderly process; and the protection of the existing character of the city and the region through the implementation of a system of reserves which will provide for permanent open space, community edges, and habitat conservation for species covered by the MSHCP.	MBA conducted an MSHCP Consistency Analysis for the project in 2012 and found that the WLC site area is within the MSHCP fee area. Impacts are potentially consistent; however, mitigation is provided.

Table 4.4-5: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		Project Consistency
Title 8 Buildings and Construction		
Chapter 8.60 Threatened and Endangered Species (Ordinance 502 Section 2.1, 1996)	Adopt and require certain implementation measures as required by the Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP), the Section 10(a) Permit and the Management Authorization; and to adopt and impose an impact and mitigation fee to provide funds to the Riverside County Habitat Conservation Authority to implement the terms of the SKRHCP.	The WLC site is located within the known range of SKR. The study area is also located within the SKRHCP fee area and not in the SKRHCP Core Reserve Area. Impacts are potentially not consistent; however mitigation is provided.

Sources: City of Moreno Valley General Plan, 2006; City of Moreno Valley Municipal Code.

This analysis indicates the project is consistent with local policies and ordinances protecting biological resources that apply to the WLC site. Compliance with State and Federal regulations to ensure protection and preservation of significant biological resources, and the implementation of the MSHCP are the applicable policies/programs that the project must implement. As there are no other local policies or ordinances regarding the protection of biological resources identified by the City or other local jurisdiction applicable to the WLC site, no impact would occur and no mitigation is required.

4.4.5.2 Adopted Habitat Conservation Plans

Threshold	Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is subject to the provisions of two HCPs: the SKR HCP and the MSHCP. Impacts related to these HCPs are discussed in this section.

a. Stephens' Kangaroo Rat Habitat Conservation Plan

The WLC site is within the SKR HCP Fee Area. The SKR is relatively widespread throughout the SKR HCP Fee Area, but the main blocks of occupied habitat are concentrated in several Core Areas that must be conserved. The WLC site is not within an SKR Core Area. The SKR also requires species-specific monitoring and management to ensure its long-term viability in the SKR HCP, including tracking population densities and maintaining sparse, open grassland habitats. The recently released Draft Land Management Plan for the San Jacinto Wildlife Area proposes an SKR resource area in the northeast portion of the SJWA, adjacent to Gilman Springs Road and the WLC site.[1]

The long-term SKR HCP provides Take Authorization for the SKR within its boundaries. The core reserves established by the SKR HCP will be managed as part of the MSHCP Conservation Area consistent with the provisions of the SKR HCP. Focused surveys for Stephens' kangaroo rat will not be required for this project because the project lies within the SKR Fee Area; therefore, no requirements under the SKR HCP other than payment of a local fair share mitigation fee to acquire additional SKR conservation lands are required.

b. Summary of Western Riverside County Multiple Species Habitat Conservation Plan Impacts

The WLC site is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the WLC site would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche

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[1] "Draft Land Management Plan for the San Jacinto Wildlife Area." Department of Fish and Wildlife, 2017.

Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H.

The WLC site and the proposed offsite facilities occur immediately adjacent to the vicinity of Core H and proposed Core 3. RCA staff commented that they believed any increase in truck traffic associated with the WLC project along Gilman Springs Road could significantly affect wildlife movement between Core H and proposed Core 3 and requested mitigation to offset those impacts. However, the appropriate mitigation for increased traffic on Gilman Springs Road is payment of the project’s fair share of the improvements to Gilman Springs Road, including provisions for wildlife movement or crossings. The design and improvement of Gilman Springs Road is a County project that is not under the control of the project applicant or the city. In addition, the WLC project site supports limited habitat suitable to promote wildlife movement because of the lack of vegetative cover.

No development will be allowed within 250 feet of the SJWA. However, development that will be near the SJWA may cause significant indirect impacts to species within the SJWA, which will require mitigation that may include a fair share contribution toward safety improvements along Gilman Springs Road.

The WLC site is adjacent to Cell Group D and Proposed Core 3, it is not near any Linkages identified in the MSHCP. However, it is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). The project is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP.

The WLC project does not propose to alter land use in any way that would adversely affect Cores, Linkages, or Reserve Assembly within the Reche Canyon/Badlands Area Plan.

The WLC project is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA).

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project prior to the issuance of building permits. The MSHCP provides that payment of the fee completely mitigates a project’s environmental impacts.

From available information, potential indirect impacts to avian and other biological resources within the SJWA will be reduced to less than significant levels by the creation of a 250-foot on-site setback in **Mitigation Measure 4.4.6.1A**. Project design features and associated setbacks previously described will reduce project impacts to adjacent biological resources to less than significant levels. As required by the October 17, 2014 JPR, the WLC Project must implement the guidelines contained in MSHCP Section 6.1.4 related to controlling adverse effects for development adjacent to the MSHCP Conservation Area, of which there are seven specific conditions. Therefore, the WLC project would have a less than significant impact in regard to the MSHCP.

Participation in the MSHCP and contribution of MSHCP provides compensation for the loss of raptor foraging habitat due to approved projects. A project proponent is required to participate as outlined in the MSHCP, so that loss of raptor foraging habitat is considered to be less than significant and no mitigation is required.

Narrow Endemic Plant Species. No Narrow Endemic plant species are anticipated to occur in the WLC site, but compliance with **Mitigation Measure 4.4.5.2A** will assure there will be no significant impacts to these plant species.

Criteria Area Plant Species. No Criteria Area plant species are anticipated to occur on the WLC site, but compliance with **Mitigation Measure 4.4.5.2A** will assure there will be no significant impacts to these plant species.

Riparian/Riverine Areas and Vernal Pools. Drainage Features 7, 8, 9, 12, and 15 contain riparian/riverine areas, as designated by the MSHCP. The WLC site does not contain habitat suitable for covered riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. No vernal pools or ephemeral ponds were observed on the WLC site and no suitable habitat for any fairy shrimp species was identified on site. No additional mitigation regarding vernal pools or vernal pool species is required. A programmatic-level DBESP was prepared by MBA in 2013 to outline specific requirements for project related impacts to these features in the future. A project-specific DBESP will be required for each development project within the WLC.

c. Nitrogen Deposition

Nitrogen deposition is the term used to describe nitrogen-based pollutants that are deposited as a result of emissions from future project related activities. The pollutants are typically in the form of nitrogen oxide (NO_x) and ammonia (NH_3)-derived pollutants, primarily nitric acid (HNO_3). Although there are many types of nitrogen-based pollutants resulting from project-related emissions, HNO3 is typically the easiest to measure and is used in determining nitrogen deposition rates. Mechanisms by which nitrogen deposition can lead to impacts on sensitive species include (1) direct toxicity, (2) changes in species composition among native plants, and (3) enhancement of invasive species (Fenn et al. 2003; Weiss 2006a). Direct toxicity refers to impacts associated with direct contact with the nitrogen pollutants. There is no scientific documentation that links direct toxicity to impacts associated with sensitive plant and wildlife species. Therefore, direct toxicity is not considered a significant impact.

An increase in available nitrogen promotes the growth of non-native weedy species, which alone is not considered a significant impact. The increased dominance and growth of invasive annual grasses is especially prevalent in low-biomass vegetation communities that are naturally nitrogen-limited, such vegetation communities that occur in the project vicinity include coastal sage scrub and vernal pools (Weiss 2006a). An increase in nitrogen deposition does not inhibit the growth of native plants, but promotes the rapid growth of non-native invasive species that could out-compete native plants for available water and nutrients. If the increase of non-native plant species is detrimental to the growth of native plants, the result may be a conversion from a native plant community to a non-native plant community. This change in habitat is only considered a significant impact if that change occurs in suitable habitat for a federally threatened or endangered species within USFWS-designated critical habitat.

In addition, vernal pools were identified by Weiss (2006a) as a California ecosystem that may be sensitive to nitrogen deposition. Nitrogen deposition in vernal pools stimulates plant growth (including non-native species in adjacent uplands) and the nitrogen is rapidly assimilated by plants and invertebrates within the pools (biomass and dissolved organic nitrogen) (Hobson and Dahlgren 1998). Because of the isolated nature of vernal pools, the nitrogen pollutants accumulate over time and provide a more concentrated level of nitrogen for non-native plants. Since vernal pools are known to provide suitable habitat for a number of federally threatened or endangered species, impacts to vernal pools caused by nitrogen deposition may be considered a significant impact. There are no vernal pools within the WLC site.

Although non-native plant invasions have affected the vernal pools in the region (the closest recorded occurrence of vernal pool habitat is approximately 3.5 miles to the south), these invasions generally occur in years when precipitation is sparse. In wetter years, the number of non-native plants is reduced since the non-native upland species are intolerant of inundation and the invasion cycle may be reset in some cases. This means that the established non-native plants are not adaptable to an aquatic habitat and die-off during prolonged periods of inundation. Even though the non-native plant species will have an abundance of available nitrogen and optimum growing conditions, the prolonged inundation periods prohibit non-native invasive species growth.

The WLC will consist of mobile, non-point pollution sources (diesel trucks), which will result in a highly random dispersion of emissions that will occur in a broad, regional fashion. Because of the way in which nitrogen is generated by the WLC project, its overall patterns for dispersion, and the multi-variant parameters that would need to be taken into consideration for such an analysis, there is no established scientific basis or standards to study the effects of nitrogen dispersion for non-point pollution sources; hence, project-specific conclusions or mitigation would be overly speculative for the purposes of this Revised Sections of the FEIR.

Specific Plan Design Features. The project is consistent with the MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the WLC project complies with the MSHCP guidelines for urban/wildland interface, riparian/riverine areas, or related buffers (with implementation of **Mitigation Measure 4.4.6.1A**). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects.

Regulatory Compliance. Stephens' kangaroo rats have a low potential to occur within the study area. While the study area is not within the SKR Core Reserve Area, the SKR HCP Implementing Agreement requires payment for loss of habitat within defined areas. The entire WLC site lies within the fee area. An assessment of individual actions for development within the WLC site would be required prior to any implementation. The number of acres of disturbance associated with the development and any off-site improvements will require payment to comply with the SKR HCP. In addition, prior to issuance of a grading permit on each project, applicants will be required to pay the mandatory mitigation fee for the MSHCP. The mitigation fee is a per acre fee for commercial or industrial development. Payment of the fee is considered complete mitigation of a project's environmental impacts.

Mitigation Measures. In addition to payment of SKR and MSHCP impact fees, the following measures are recommended to ensure that potential impacts to sensitive species are reduced to less than significant levels:

4.4.5.2A Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.

4.4.5.2B Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Regional Conservation Authority (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").

In addition, the **Mitigation Measures 4.4.6.1A and 4.4.6.1B** described below will also help reduce potential direct and indirect impacts to biological resources covered by the MSHCP.

Potential impacts related to MSHCP consistency will be less than significant. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2B, 4.4.5.2A,** and **4.4.5.2B**, the less than significant impacts related to MSHCP consistency will be further reduced.

4.4.5.3 Habitat Fragmentation/Wildlife Movement

Threshold	Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Habitat fragmentation occurs when a single, contiguous habitat area is divided into two or more areas, or where an action isolates the two or more new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or to/from one habitat type to another. Habitat fragmentation may occur when a portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning. Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging. Examples of migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

The WLC site contains no significant cover of native plant communities and currently experiences heavy disturbance associated with agricultural activities. Additionally, the WLC site is adjacent to SR-60 and Gilman Springs Road on the north and east and is bordered by urban development on the west. The nearest linkage area as identified under the MSHCP is Proposed Linkage 5 and is located approximately 3 miles north of the project and approximately 3.6 miles south of the project is Proposed Constrained Link 20. The development of the WLC site will not impede the movement of any wildlife; therefore, the project will not affect any wildlife movement corridor.

The SJWA currently provides foraging habitat for various resident and migratory wildlife species. The southern portion of the WLC site adjacent to the SJWA lands has been actively farmed for decades and is regularly disked. The northern portion of the SJWA is designated as open space and no development is proposed for this area.

Although the WLC site does not contain any designated wildlife movement corridors or MSHCP linkages (i.e., MSHCP, City General Plan, etc.), it is likely that wildlife moves through adjacent properties such as the SJWA and the Mystic Lake area to the south, the Badlands area to the east and the Lake Perris State Recreation Area to the southwest. The MBA project biological report concluded, which was confirmed in the 2018 surveys by ESA, that development of the project as WLC site would not directly have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas because the WLC site contains limited vegetation cover and minimal resource value for wildlife moving between habitat blocks. The biological report also determined that the WLC site would not impede or minimize any significant wildlife corridor for the target species associated within the Reche Canyon/Badlands Area plan, which include Bell’s sage sparrow (*Amphispiza belli belli*), cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), loggerhead shrike (*Lanius ludovicianus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), bobcat (*Lynx rufus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), mountain lion (*Puma concolor*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Stephens’ kangaroo rat (*Dipodomys stephensi*), and Nevin’s barberry (*Berberis nevinii*). In addition, although not required, Drainage 9, comprising the most suitable habitat in the eastern portion of the WLC site, is being retained to allow for wildlife movement between the Badlands and the SJWA (e.g., relatively natural channel conditions with 50-foot setbacks on either side of the channel through the WLC site property. These project design features will maintain a wildlife travel path along Drainage 9. Therefore, impacts related to wildlife movement are less than significant, and no mitigation is needed.

4.4.6 Significant Impacts

4.4.6.1 Endangered and Threatened Species

Impact 4.4.6.1: *The project may have significant impacts on listed species.*

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Of the special-status plant and animal species that have the potential to occur within the general vicinity of the WLC site, 17 plant and animal species are designated as endangered or threatened by State and/or Federal authorities (Table 4.4-6). One of these species, coastal California gnatcatcher, was observed but none of the other species are believed to be present on the WLC site; it is possible the listed birds may utilize the SJWA on a seasonal basis.

Table 4.4-6: Endangered/Threatened Species Within the WLC site

Species	Status Designation	Potential for Occurrence
Munz's onion *Allium munzii*	Federal: Endangered State: Threatened	Not Expected
San Diego ambrosia *Ambrosia pumila*	Federal: Endangered State: None	Not Expected
Marsh sandwort *Arenaria paludicola*	Federal: Endangered State: Endangered	Low
Nevin's barberry *Berberis nevinii*	Federal: Endangered State: Endangered	Not Expected
Thread-leaved brodiaea *Brodiaea filfolia*	Federal: Endangered State: Threatened	Not Expected
Slender-horned spineflower *Dodecahema leptoceras*	Federal: Endangered State: Endangered	Not Expected
Spreading navarretia *Navarretia fossalis*	Federal: Threatened State: None	Not Expected
California Orcutt grass *Orcuttia californica*	Federal: Endangered State: Endangered	Not Expected
Vernal pool fairy shrimp *Brachinecta lynchi*	Federal: Threatened State: Special Animal	Not Expected
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: Endangered State: Special Animal	Not Expected
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: Endangered State: Special Animal	Not Expected
California tiger salamander *Ambystoma californiense*	Federal: Threatened State: Species of Special Concern	Not Expected
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: Endangered State: Special of Special Concern	Not Expected
Coastal California gnatcatcher *Polioptila californica californica*	Federal: Threatened State: Special of Special Concern	Present
Least Bell's vireo *Vireo belli pusillus*	Federal: Threatened State: Special of Special Concern	Not Expected
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: Threatened State: Special of Special Concern	Not Expected
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: Endangered State: Threatened	Not Expected

Source: *MSHCP Compliance Report,* Michael Brandman Associates. April 23, 2012 Appendix E-1.

The potential for occurrence determination was based on the results of focused biological resource surveys, and/or the lack of suitable habitat in the project limits for the referenced species. One Federal or State endangered/threatened species, coastal California gnatcatcher, was detected on the WLC site during the focused biological resource surveys, for which mitigation is included. It is also reasonable to conclude that, at a minimum, indirect impacts to listed species may be significant, and mitigation is required.

Coastal California gnatcatcher is a Covered Species in the MSHCP and is considered Adequately Conserved. Consistent with the MSHCP requirements, Mitigation Measure **4.4.6.3A** prevents suitable habitat from disturbance during the breeding season. Active bird nests are protected by both the Migratory Bird Treaty Act and sections of the California Fish and Game Code.

Project or Specific Plan Design Features. The World Logistics Center Specific Plan provides for a number of project design features to address the interface between the WLC site and the SJWA. These features include enhanced landscaping along the southern boundary, restrictions on site lighting, restrictions on native/drought-tolerant landscape materials, the installation of special drainage facilities, restrictions on public access, special architectural standards for building elevations facing the SJWA, restrictions on the orientation of adjacent buildings, signage restrictions, and other development guidelines intended to create an interface area that is sensitive to the unique relationship between the project and the SJWA.

The Specific Plan establishes a 250-foot wide development setback from the southernmost property line along the SJWA boundary, and an additional 150-foot building setback from the development setback to help minimize potential impacts on biological resources of the SJWA.

The Specific Plan includes development restrictions that may affect off-site areas such as the SJWA, including architecture and building design, landscaping, and off-site lighting:

- *Architecture and Building Restrictions (Specific Plan Section 4.1).* Sections 4.1.2 and 4.1.3 require ground- and roof-mounted equipment to be screened from off-site view.

- *Landscaping Restrictions (Specific Plan Section 4.2).* Section 4.2.4 provides “Special Edge Treatment Areas” in terms of adjacent land uses, including the SJWA (Section 4.2.4.3) and Gilman Springs Road (Section 4.2.4.4).

- *Off-site Lighting (Specific Plan Section 4.3).* Section 4.3.1 indicates one of the main objectives of the project lighting is “… all lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area” (page 4-42). The project will also have to comply with the City’s new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines.

- *Setbacks* - The Specific Plan provides for a 250-foot development setback and an additional 150-foot building setback adjacent to the SJWA. The development setback area would include landscape areas, drainage facilities, site fencing and walls, etc. According to available research previously presented in Section 4.4.1.18a, a 250-foot development setback is adequate for a project-SJWA separation and is supported by a compilation of available academic and scientific literature and studies on wildlife impacts from diesel emissions, and also the distance established in nesting bird surveys for setbacks from human activity. In addition, the Specific Plan requires solid walls along the property line, which will help provide an additional a buffer from building lighting and noise and effectively mitigate potential direct and indirect impacts on the SJWA.

Roadkill. As development occurs within the WLC site, some local wildlife will be injured or killed by the additional vehicles and trucks on SR-60, Gilman Springs Road, Redlands Boulevard north of Eucalyptus Avenue, and all internal WLC site roads. There is no accurate way to quantify this impact, since there are no data on existing roadkill on these roadways. However, it is reasonable to assume this impact will increase linearly (from current levels) as project-related traffic increases. It should be noted that development within the WLC site along the west side of Gilman Springs Road will be separated from the roadway by fencing or walls as appropriate; this will help restrict human access to Gilman Springs Road and native areas along the east side of the roadway, and may incrementally reduce roadkill along Gilman Springs Road. Native wildlife will still experience incremental adverse impacts from roadkill along Gilman Springs Road as the WLC project develops in the future, but these impacts would be less than significant as long as the County coordinates with the RCA and takes wildlife movement between Core H and proposed Core 3 into account when designing and improving Gilman Springs Road.

Operational Noise. The northern portion of the SJWA will experience increased, fluctuating sound levels during construction and operation (e.g., vehicle traffic and truck loading and unloading), but truck traffic and human activity will result in an incremental increase in overall ambient sound over the long term. In addition, it is possible construction activities on the WLC site, including areas adjacent to the SJWA, may be subject to construction activity on a 24-hour-per-day, 7-day-per-week schedule. The calculations in Table 4.4-7 were provided by the project noise consultant (Mestre Greve Associates) specifically for the southern boundary area of the project.

The portion of the SJWA immediately south of the WLC site is vacant and the northern 135 acres immediately adjacent to the WLC site has been regularly disked for dry farming. This area is quiet, with L_{eq} levels during the day of 40.8 dB and nighttime levels of 35.8 dB. Existing noise levels in the northern SJWA area are affected by road noise from Gilman Springs Road to the east and from noise generated at the existing natural gas facilities.

Table 4.4-7: Noise Levels along the WLC Site Southern Boundary

Noise Conditions	Daytime (dB)			Nighttime (dB)		
	L_{min}	L_{eq}	L_{max}	L_{min}	L_{eq}	L_{max}
Ambient Noise	35.9	40.8	50.3	30.0	35.8	51.1
Warehousing Noise						
50 feet	38.3	48.6	63.1	38.3	48.6	63.1
100 feet	37.5	47.8	62.3	37.5	47.8	62.3
250 feet	34.4	44.7	59.2	34.4	44.7	59.2
500 feet	30.6	40.9	55.4	30.6	40.9	55.4
Warehousing Noise Plus Ambient[1]						
50 feet	38.3	49.3	63.1	38.3	48.8	63.1
100 feet	37.5	48.6	62.3	37.5	48.1	62.3
250 feet	35.9	46.2	59.2	34.4	45.2	59.2
500 feet	35.9	43.9	55.4	30.6	42.1	55.4
Change in Ambient Noise Levels[2]						
50 feet	2.4	8.5	12.8	8.3	13.0	12.0
100 feet	1.6	7.8	12.0	7.5	12.3	11.2
250 feet	0.0	5.4	8.9	4.4	9.4	8.1
500 feet	0.0	3.1	5.1	0.6	6.3	4.3

1 Distances are in feet, noise levels are in dBA.
2 L_{eq} noise added logarithmically, L_{max} and L_{min} will not add in this situation.
Highest L_{max} and highest L_{min} were used.
3 Ambient Noise levels reported by ESA in March 2018.
Please refer to Section 4.12 for a description of noise measurement terms. .

The noise data in Table 4.4-7 indicate that warehousing activity would raise ambient noise levels (measured at 50 feet) by 8.5 dB during the day and 13 dB at night. The physical setback of the project design would separate the warehouse structures from the SWJA reducing noise impacts, with the estimated noise levels shown in Table 4.4-7. The project design separation of warehouse structures from the SWJA would be 400 feet at the SWJA boundary (the combined 250-foot wide development setback from the southernmost property line with the additional 150-foot building setback).

These calculations show that the increase in noise levels from development would be close to 3 dB at a distance of 500 feet, resulting in overall noise levels (ambient plus development) of 43.9 dB measured at a distance of 500 feet (L_{eq}) during the day and 42.1 dB at 500 feet at night. Recent noise modeling by ESA (2018) concludes that nighttime operational noise levels would not exceed 55 dB at the WLC site boundary and the highest noise level expected at the SJWA boundary during construction would be 52 dB.

In addition to regular background noise contributions from traffic on Gilman Springs Road and the compressors at the SDG&E plant that run 24 hours per day, the SDG&E compressor plant has regular “blow-down” events, which is an automatic pipeline pressure relief process. When these occur, noise levels in the SJWA adjacent to the compressor plant property lines may reach 130 dB or higher, which is equivalent to a jet plane landing or a train horn at 100 feet. For more information on “blow-down” effects to humans, see Section 4.12, *Noise*, and 4.8, *Hazards and Hazardous Materials*. It should be noted that the pump noise and the blow-down events have been occurring regularly for many years, along with their potential impacts on SJWA wildlife; however, these utility facilities already exist and are not part of any development proposed within the WLC site.

Based on available information, it is reasonable to conclude that increased noise from human activity (project construction, traffic on local roads, loading and unloading of trucks, etc.) related to the project will not have significant impacts on local wildlife in the SJWA area. Available research indicates that increased noise levels near wildlife areas can contribute to behavioral changes such as increased startling in birds, which can be especially harmful during nesting periods, hunting pattern changes or avoidance which decrease habitat value and use, sleep pattern disruption, and decreased overall health from noise stress. These impacts can affect mammals, birds, and other species present within the SJWA. For these reasons, human activity should be set back from the SJWA to help minimize these impacts. The WLCSP requires there be a 250-foot minimum development setback and an additional 150-foot building setback along the southern boundary of the WLC site to act as a buffer between the WLC SITE and the SJWA. With implementation of the two setback areas (total 400 feet) and proposed solid walls along the SJWA boundary, the anticipated increase in noise from the project will not have a significant impact on wildlife and would not require mitigation.

Construction Noise. Development within the WLC site and off-site facilities must incorporate landscape elements including trees, shrubs, and groundcover, which would assist in off-site noise reduction. A noise analysis has been prepared for the project to quantify potential short-term and long-term noise impacts that could occur as a result of development of the parcel adjacent to open space areas. Based on past studies (Landrum and Brown 2012), noise contours would exceed 60 dBA (L_{eq}) roughly 1,000 feet into the SJWA during construction of the southernmost areas of Phase 2. Any noise-related impacts would be temporary in nature and generally limited to construction of Phase 2 facilities along the southern boundary of the WLC site. Recent noise studies by ESA (2018) conclude that construction noise levels would not exceed 60 dB within the SJWA, with the highest construction noise level projected to be 52 dB at the SJWA boundary with the incorporation of the Specific Plan 250-foot setback.

Invasive Species. The WLCSP landscaping palette does not include any of the invasive plant species listed in Section 6.1.4 of the MSHCP (Table 6-2), but there should be mitigation to ensure that no on-site landscaping along the southern boundary of the site conflicts with MSHCP invasive plant guidelines.

Lighting. Lighting associated with planned warehouse development of the eastern and southern portions of the WLC site would have various direct and indirect impacts on local wildlife, depending on the species and the nature of light exposure. There is some scientific and academic research on the effects of night lighting on various species, even though the subject species and lighting conditions vary widely. This section generally compares the results of this research to the relationship of the project and the SJWA.

Some available research[1] states that night lighting can have a wide range of adverse effects on wildlife, including mammals, birds, bats, amphibians, insects, fish, even plants. Effects range from reduced health by upsetting diurnal rhythms, reduced clutch size, egg size, or survival success of nesting birds, to actual mortality from increased predation under higher ambient light levels. Bats and certain insects are also attracted to outdoor night lighting, which may adversely affect their survival or cause them to become dependent on the lighting. Small mammals would also be attracted to these areas and might suffer increased predation or roadkill crossing streets.

Future development within the WLC site will have to comply with the off-site lighting restrictions outlined in Section 4.3 of the Specific Plan, including the requirement that direct light rays from all lighting fixtures be directed downward, illuminate only the building or space intended, and do not spill onto adjacent properties (Section 9.08.100 Lighting 5.5.2.1). This will also apply to project-related development in Planning Areas 10 and 12, which will help minimize lighting impacts on biological species in the adjacent SJWA land.

All on-site lighting will also have to comply with the new night lighting guidelines in Section 9.08.100 of the City's Municipal Code, which limits off-site impacts to 0.25 foot-candles per square meter. As development occurs within the Specific Plan, adherence to these design guidelines and restrictions will help ensure that night lighting increases will not result in significant indirect lighting impacts on native wildlife within the SJWA.

For example, the Specific Plan requires that streetlights, parking lot lighting, and other project-related illumination sources be positioned, directed, and shielded to avoid "direct light spill" into MSHCP conservation areas including those contained within Existing Core H to the south of the WLC site, and Proposed Core 3 (Section 6.1.1, Proposed Core 3) to the east of the WLC site. Lighting installed according to the WLC Specific Plan will be consistent with MSHCP guidelines. The project will also have to comply with the City's new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines. However, due to the size of the WLC project and its proximity to the SJWA, additional mitigation may be necessary for cumulative lighting impacts on the SJWA.

In addition to night lighting issues associated with construction and operation, the proposed facilities are to include roof-mounted photovoltaic panels to provide electricity for the facilities and aid in the sustainability of the project and reduce additional GHG emissions. There is a potential for glare from these panels to confuse migratory birds into attempting to land in the area of the panels. However, the project design calls for the use of low glare and high solar transmission films to increase solar capacity and prevent unnecessary glare, so this impact would be less than significant.

Toxics Water Quality Development plans for the WLC project will include Water Quality Best Management Practices (BMPs) such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. The BMPs recommended for the proposed WLC site are described in more detail in Section 4.9.6.1, *Construction-Related Water Quality Impacts,* and Section 4.9.6.2*, Operational Water Quality Impacts*. (Detention basins will be designed to filter potential toxics from storm water. Section 4.9.6.2, *Operational Water Quality Impacts*, also requires the regular removal of any contaminated materials from the detention basins to protect downstream water quality.) These BMPs

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[1] *Ecological Consequences of Artificial Night Lighting.* C. Rich and T. Longcore (ed), 2006.

will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

Development of the WLC project will result in the additional use of hazardous materials in limited quantities associated with normal logistics use such as janitorial and cleaning products, solvents, herbicides, and insecticides. However, compliance with regulations, standards, and guidelines established by the Environmental Protection Agency (EPA), State, County, and local agencies relating to the storage, use, and disposal of hazardous waste will reduce the potential risk of hazardous materials exposure.

Development plans for the WLC project will include Water Quality BMPs such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. Detention basins will be designed to filter potential toxics from storm water. These BMPs will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

Emissions Local wildlife (i.e., within the SJWA) may be exposed to vehicular exhaust and diesel particulates and toxic air contaminants from truck exhaust as the WLC project builds out. New development will produce significant amounts of diesel-related air pollutants that will be released into the atmosphere, including gases and particles of various sizes.

Most of the available (and most applicable) research is on diesel pollutant impacts on humans. Although the physiology of many animals is very different than humans, data on health effects from diesel pollution may nonetheless be somewhat instructive when attempting to assess diesel impacts on wildlife. Potential health effects on wildlife obviously depend on the species involved,[1] but in general health effects from air pollution/diesel exhaust include impaired cardiac and lung or respiratory function,[2] reduced heart function or longevity, decreased clutch size or hatching success, increased incidence of cancer and other mutagenic or teratogenic effects, ingestion of air deposited particulates, reduction in overall biodiversity, reproductive failure, etc. In general, impacts on higher animals are most commonly attributed to food loss and reproductive effects, rather than to direct toxic effects on adults. There are relatively few examples of higher animals suffering direct toxic effects from either atmospheric acidity or gaseous air pollution. However, a number of mammals are known to build up high levels of heavy metals and other pollutants in their systems from air pollution.[3]

A recent study of the health effects on rats from diesel particulates concludes that exposure to new technology diesel exhaust would not cause an increase in tumor formation or substantial toxic health effects in rats, although some biological effects might occur. The overall conclusion was that chronic exposure of rats to new technology diesel exhaust did not produce tumors in the lung; these observations are in marked contrast to the effects of chronic exposure to traditional technology diesel exhaust observed in multiple previous rat studies, in which lung tumors, as well as inflammation and the deposition of soot in the lung, were observed.[4]

Diesel emissions[5] contain thousands of pollutant species, and the composition depends on the fuel, vehicle, and driving conditions. The main public health concerns are from fine and ultrafine particulate matter, black or elemental carbon, polyaromatic hydrocarbons (PAHs) like phenanthrene, metallic ashes, gases like nitrogen dioxide, aldehydes like acetaldehyde, acrolein, and crotonaldehyde, volatile organic compounds like benzene and 1,3-butadiene, etc. One of the research limitations is that some health effects from these pollutants take a long time, in some cases even a lifetime, to exhibit themselves. These pollutant species can also be emitted from other sources, so in complex urban environments, it can be difficult to trace individual sources of air pollution. In this case, air quality is

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[1] "Air Pollution and Biodiversity: A Review." 1995.

[2] "Cardiovascular and thermoregulatory responses of unrestrained rats exposed to filtered or unfiltered diesel exhaust." C. Gordon et al, Inhalation Toxicology, 2012.

[3] Ibid.

[4] "The Advanced Collaborative Emissions Study (ACES)." Health Effects Institute, 2015

[5] "Diesel Emissions, Toxics, and Health Implications." M. Costantini, 2006.

relatively good and the only major activity is agriculture, so the increase in most of these pollutant species would predominantly be the result of new warehouse uses within the project. Research[1] suggests that wildlife may be more susceptible to air pollutant impacts than humans, due to their smaller size, higher respiration rates, smaller lung capacities, ingestion of local plant materials that have also been exposed, higher metabolic rates, etc., although some factors like shorter lifespans would reduce the length of exposure over time. For these reasons and for the purposes of this analysis, it is assumed that animals within the SJWA would be at least as susceptible to health effects from air pollution, including diesel exhaust, as humans.

In 2002, the EPA compiled a wide range of scientific studies on the health effects of diesel exhaust, including non-carcinogenic effects[2] of diesel exhaust on laboratory animals. Studies found that diesel particulate matter (diesel PM) had a limited effect on the survival and growth of rats and mice when exposed to diesel PM for short periods of time. However, rats, mice and hamsters all experienced increased lung to body-weight ratios when exposed to 1.5 mg/m^3 diesel PM concentrations for extended periods of time. Several studies looked at behavior effects in animals, and found that juvenile rats exposed to diesel emissions (DE) exhibited a decreased ability to move around on their own, and negatively affected their learning in adulthood.

Extended exposure to diesel emissions caused negative effects on the pulmonary functions of rats, hamsters, cats and monkeys. Depending on the species, DE levels of 1.5–11.7 mg/m^3 affected lung mechanical properties, diffusing capacity, lung volumes, and ventilator performance of the subject animal. The ability of rats to clear their airways was also severely impaired by diesel PM concentrations of 1 mg/m^{3}or greater. Data on the effect of diesel PM on airway clearance in other animals were limited, but the pathological effects of diesel PM seemed to be dependent on the relative rates of pulmonary deposition and clearance (rate of breathing) of the subject animal. The studies also showed that diesel PM can reduce an animal’s resistance to respiratory infections. Diesel PM can begin to impair an animal’s immune system in as little as 2–6 hours with exposures of 5–8 mg/m^3 of diesel PM. The testing data also suggested that diesel PM may be a factor in increased allergic reactions in animals.

When comparing filtered versus non-filtered DE, studies found that diesel particulates are the main cause of noncancerous health effects. However, they could not determine if diesel PM acts additively with the gas, or whether it combines with the gases to create different effects. The studies also found that other airborne contaminants (e.g., criteria pollutants) can be altered by diesel PM when absorbed by the diesel particles and increase the physical health effects caused by the diesel PM and other contaminants. These increased health risks were only found in laboratory settings. There was no evidence for DE interacting with other contaminants in normal urban atmospheric settings except for the impaired ability of animals to resist respiratory tract infections. No other noncancerous effects were found in any of the studies.

Chapter 7 of the EPA document includes studies that concluded diesel emissions also have carcinogenic effects on animals. Studies indicated that DE and/or diesel PM did result in increased cases of cancer in laboratory animals as well as humans. Rats experienced a trend of increased tumor growth when exposed to concentrations of DE exceeding 1×10^4 mg × hr/m^3. Because tumors were induced at high concentrations it is believed that they are caused by the lungs experiencing particle overload. The studies also examined the effect of filtered exhaust and discovered that it did not cause tumors. They concluded that filtered exhaust either was not a carcinogenic or had low cancer potency.

In addition to pollutants associated with diesel trucks, passenger vehicles produce additional air pollutants including carbon monoxide, nitrogen oxides, particulates,[3] etc. These pollutants will also have indirect impacts on wildlife resources of the SJWA. Two impacts of most concern would be ozone

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[1] “*Exhausted by Diesel.”* NRDC 1998.

[2] “*Health Assessment Document for Diesel Engine Exhaust.”* United States EPA. March 2002.

[3] “Pulmonary and cardiovascular of traffic-related particulate matter from roadside and diesel engine exhaust particles.” M. Gerlofs-Nijland et al. Inhalation Toxicology, 2010.

degradation (e.g., plants having an unusual dry or “burned” look) and the deposition of additional nitrogen, both of which can disrupt plant growth cycles.

Direct air pollutant impacts on wildlife within the northern end of the SJWA will be reduced somewhat because prevailing winds are mainly to the southeast with the remainder mostly to the east (i.e., very little to the south), based on data from the project air quality study (MBA 2012). However, some diesel and other project-related air pollutants will still be expected to disperse toward the SJWA, including gases and particulates, from trucks and passenger vehicles, when prevailing winds are absent.

There appears to be little academic or scientific research on the specific impacts of diesel air pollutant emissions on wildlife (i.e., not laboratory animals) in natural settings, or specific setbacks for wildlife protection areas from warehouse distribution centers or other sources of diesel pollution. Most available research is too limited or specific regarding the type of pollutant and/or the species considered to be affected (e.g., impacts of one pollutant on one species). The portion of the SJWA adjacent to the WLC site property has been upland agricultural fields which may be used by foraging birds. The northern portion of the SJWA land is currently non-native grassland with predominantly non-native or invasive species.

Based on available scientific data, it is reasonable to conclude that the project, due to its size and expected amount of truck traffic, will have potentially significant impacts on wildlife within the SJWA and east across Gilman Springs Road from project air pollution, including diesel truck exhaust.

Research by the California Air Resources Board (CARB)[1] indicates that 80 percent of the particulates generally settle out of the atmosphere within 1,000 feet of emission sources. Therefore, diesel particulate deposition may occur within approximately 1,000 feet of truck activities within the project, which would extend part way into the northern portion of the SJWA.

Toxics, Health Risk Assessment. A Health Risk Assessment (HRA) (ESA 2018/MBA 2012) was completed for the project primarily prepared for human health risks associated with airborne hazards. An HRA is a guide that helps to determine if current or future exposure to a chemical or substance could affect the health of a population. The State of California Office of Environmental Health Hazard Assessment (OEHHA) develops methods for conducting health risk assessments. As defined under the Air Toxics “Hotspots” Information and Assessment Act of 1987 [“AB 2588” (Chapter 1252, Statutes of 1987), California Health and Safety Code Section 44306], “A health risk assessment means a detailed comprehensive analysis prepared pursuant to Section 44361 to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure” (Office of Environmental Health Hazard Assessment 1987).

The HRA of toxic air contaminants builds upon the assessment methodology described above but requires one additional step beyond that for *assessment* of the local pollutants. This step involves applying a risk characterization model to the results from the air dispersion model to estimate potential health risks at each sensitive receptor location.

Table 4 in the HRA (ESA 2018/MBA 2012) provides a discussion on the air pollutants that could potentially be present as a result of the construction and/or operation of the proposed facilities and the most relevant effects from pollutant exposure to humans. No standards for impacts to wildlife have been established. Since air is not stationary, there is a potential that air quality concerns associated with the project will not be confined to the WLC site itself and thus would disperse into “wildland” areas. The primary wind direction near the WLC site is to the southeast, as shown in the HRA (ESA 2018/MBA 2012). The wind direction would send any air hazards toward the Badlands MSHCP Criteria Cells and points to the east across Gilman Springs Road.

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[1] *Air Quality and Land Use Handbook.* CARB and EPA. 2005.

Health risks within the context of this analysis are represented as the increase in cancer risk associated with exposure to diesel particulate matter emissions from project operations. These diesel particulate matter emissions arise from both exhaust and idling of diesel trucks while operating on and near the project site. The methodology applied in calculating cancer risk from diesel particulate matter has been published by the SCAQMD and the California OEHHA.

The Current OEHHA Guidance incorporates the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. In this regard, cancer risk is expressed as the probability of an individual developing cancer due to exposure to diesel particulate matter emissions at the above-referenced durations from the project, out of a population of 1 million individuals. Thus, a receptor calculated to have a cancer risk of 1 in one million means that this receptor has a probability of 1 in 1 million of developing cancer from the continuous exposure to diesel particulate matter. The SCAQMD has established a significance threshold of 10 in 1 million for cancer risk attributable to exposure to a project's emissions. No such threshold exists for wildlife and a number of factors vary from the criteria established for human populations. The average life of migratory waterfowl ranges from 10 to 20 years. This might represent the most long-lived of the species in the vicinity of the project site. These species are also not present year round and may spend as little at 100 days in the WLC site on the SJWA. Based upon the available information, the effect of emissions on wildlife is less than significant.

Specific Plan Design Features. The Specific Plan requires a 250-foot development setback and an additional 150-foot building setback along the southern boundary of The WLC site and the SJWA. In addition, the Specific Plan calls for native landscaping in the setback area and a wall along the north side of the 250-foot setback zone. The separation between planned development along the east side of Gilman Springs Road will be set back from the roadway. This setback, plus the width of the roadway and related shoulder areas, will be sufficient to separate the project from the MSHCP criteria cell areas east of Gilman Springs Road, so no additional setback is needed in that area.

Mitigation Measures. The following measures are proposed to mitigate potential direct and indirect impacts to listed species due to the WLC site's proximity to the SJWA, even with the presence of the proposed approximately 400-foot setback along the WLC site boundary along the SJWA:

4.4.6.1A All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area.

In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area.

Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.

A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the SJWA. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in

Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.

4.4.6.1B Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City of Moreno Valley and RWQCB requirements. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.

Based upon the previously described information, the 250-foot setback identified in **Mitigation Measure 4.4.6.1A**, will effectively mitigate potential indirect impacts of air pollutants, including diesel particulate matter, on wildlife within the SJWA. Compliance with the off-site lighting guidelines of the Specific Plan, compliance with the night lighting standards in Section 9.08.100 of the City Municipal Code, and implementation of Aesthetics **Mitigation Measure 4.1.6.4A** will help reduce lighting impacts on the SJWA to less than significant levels.

In addition, **Mitigation Measure 4.4.5.2A** will help assure that potential impacts to listed or sensitive plant species remain at less than significant levels.

Level of Impact After Mitigation. Compliance with the Specific Plan, Municipal Code, and implementation of the recommended **Mitigation Measures 4.4.6.1A** and **4.4.61B** will help reduce project impacts to listed species to less than significant levels.

4.4.6.2 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities

Impact 4.4.6.2: The project has the potential to result in significant impacts to jurisdictional land, riparian habitat and sensitive natural communities and may require subsequent permits from various resource agencies.

Threshold	Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Drainages in the WLC site were investigated and delineated by MBA in March 2012 and updated in 2013. A total of 15 primary drainage features were identified during this survey and a number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; Porter Cologne as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by the CDFW.

All 15 drainage features identified in the 2013 document were assessed to determine the jurisdictional limits. Based on current conditions, two of the 15 features are subject to the jurisdiction of the USACE and/or RWQCB. In addition, no jurisdictional wetlands or isolated wetlands were identified. Drainage Features 1, 2, 4, 12, and 13 flow to the south and then southwest of the WLC site. These drainage features are contained in roadside ditches or otherwise sheet flow prior to leaving the WLC site.

Drainage Feature 12 and 15 are likely subject to USACE jurisdiction. However, if any portion of Drainage Features 12 and 15 are affected by WLC project construction activities or flood control improvements in the future, then regulatory permitting may be required.

There are two drainage features that are completely isolated, Drainage Features 3 and 14. Drainage Feature 3 is an isolated temporary water quality facility serving the new Skechers building. This feature was created in an existing upland area and will eventually be converted into an underground storm drainage system. The second feature (consisting of two small basins) was created in an upland area to contain polluted runoff from a now-abandoned cattle operation. The eastern feature (Feature 14) is dominated by non-native tree species and contains no native riparian habitat. The western feature contains a mix of non-native trees and native riparian habitat. There is no evidence of ponding and the basin is no longer in use. These basins no longer serve any water quality function and are therefore not considered to be isolated waters of the State under the Porter Cologne Act.

The remaining seven features flow to the south and eventually revert to sheet flow conditions before reaching the San Jacinto Wildlife Area. Each drainage feature was walked until neither an ordinary high water mark (OHWM) nor a clearly defined bed and bank feature was present and the drainage course reverted to sheet flow onto open land. There was no evidence of flows downstream of the drainage where the OHWM was no longer present. Therefore, these features are hydrologically and physically isolated from any downstream RPW or TNW. Surface flows from the WLC site will eventually be conveyed into the SJWA. The SJWA's system of ponded areas was surveyed to document any downstream connectivity to any RPW or TNW. Based on current site conditions, the water within the SJWA is completely contained within the ponded area system with a large overflow area that conveys flows over a spillway in the southwest corner of the facility. There is no evidence of active flows within the spillway channel and all upstream flows are likely maintained within the SJWA exclusive of major flood events (50- to 100-year floods).

The MBA 2013 report concludes that two of the drainages on the project site are under the jurisdiction of the USACE (Drainages 12 and 15), and several additional drainages are under the jurisdiction of the CDFW and RWQCB (Drainages 7, 8, 9, 12, and 15).

Riparian or riverine areas are lands that contain habitat dominated by trees, shrubs, and persistent emergents, which occur close to or depend upon soil moisture from a nearby water source; or areas with fresh water flowing during all or a portion of the year. Unvegetated drainages (ephemeral streams) may be included if alterations to that drainage have the potential to affect Covered Species and Conservation Areas.

Drainage Feature 7, 8, 9, 12, and 15 within the WLC project are considered riparian/riverine areas, as defined by MSHCP. If impacts to any of these areas cannot be avoided, a DBESP report and relevant mitigation will be required by the RCA.

The WLC site does not contain habitat suitable for sensitive riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Additionally, no vernal pools or ephemeral ponds were observed on the WLC site and no suitable habitat for any fairy shrimp species was identified onsite.

Raptor Foraging Habitat. The WLC site and off-site facilities contain flat, open areas with sparse vegetation, which could be considered foraging habitat for some raptor species. Due to the regular, heavy disturbance associated with the various agricultural activities in the WLC site and off-site facilities resulting in a rather limited prey base, and the limited size of the site in relation to the expansive foraging habitat in the near vicinity including the SJWA, LPSRA and the extensive Badlands to the east, the foraging habitat on site is considered marginally suitable and an adverse but not significant impact to raptor foraging habitat is anticipated. No mitigation is necessary or proposed.

Project or Specific Plan Design Features. The WLC site does not contain any design features related to riparian habitat or other sensitive natural communities.

Mitigation Measures. The JD prepared for the project in 2013 is programmatic in nature because no specific development activity or building plans are proposed at this time. The 2012 JD determined the on-site drainages were not under the jurisdiction of the USACE, but one or more may be under the jurisdiction of the CDFW. Therefore, **Mitigation Measure 4.4.6.2A** will help ensure there will be no significant impacts to riparian areas associated with Waters of the U.S. or Waters of the State as a result of future development within the project.

In addition to the previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.1C**, the following measures have been identified to reduce the significance of potential impacts to riparian/riverine habitat:

4.4.6.2A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant shall secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation shall be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins shall be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins shall be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation shall be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan shall be prepared for all unavoidable impacts and shall be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.

The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.

Mitigation shall consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat shall be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat shall be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation shall include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).

4.4.6.2B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project grading permit approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.

If impacts to riparian habitat within the WLC site cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.2A.

A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Mitigation required for compensation for impacts to riparian/ riverine areas shall require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.

As outlined in the WLC programmatic DBESP, erosion control improvements shall be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat shall be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).

4.4.6.2C Prior to issuance of any grading permit for any offsite improvements that support development within the WLC site, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2013 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions with a minimum1:1 mitigation ratio. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.

Level of Significance after Mitigation. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, and 4.4.6.2A** through **4.4.6.2C**, potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, will be reduced to less than significant levels.

4.4.6.3 Candidate, Non-listed Sensitive, or Special-Status Species

Impact 4.4.6.3: *The project has the potential to affect the burrowing owl, designated "species of special concern" by the California Department of Fish and Wildlife.*

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Critical Habitat. No USFWS designated Critical Habitat for any species is located within the WLC site; therefore, no further action with regard to Critical Habitat is necessary.

Los Angeles Pocket Mouse. Focused surveys for the LAPM were conducted in August 2005, June 2010, June 2012, July 2013, and May 2018. Suitable habitat was found within Drainage Feature 9, one of the main drainage features located in the eastern end of the WLC site. In its MSHCP Consistency Report, MBA concluded that LAPM is absent from the WLC site, which is substantiated by the ESA May 2018 surveys. However, the WLC Specific Plan indicates this drainage will remain in its present natural condition, except for the southern end as it becomes the Street H channel and outlets to the SJWA land to the south. Extensive surveys were completed in 2005, 2010, 2012, 2013, and 2018, which concluded that Los Angeles pocket mouse was not present. In addition, there is no suitable habitat between the known occurrence of Los Angeles pocket mouse and the WLC SITE. The known populations of Los Angeles pocket mouse are located within the southern portion of the SJWA, which is more than 2 miles from the southern WLC site boundary. The area between the known recorded occurrences of Los Angeles pocket mouse and the WLC site have been actively disked farmland in the past and a 500-foot wide area along the southern WLC site boundary continues to be actively disked. Therefore, there is no habitat connectivity between the known occurrences of Los Angeles pocket mouse and the WLC site. However, to ensure that no impacts occur**, Mitigation Measure 4.4.6.3E** has been added below.

Migratory or Nesting Birds. The 2013 MBA report found the extensive agriculture plant communities in the WLC site and offsite facilities provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the WLC site and offsite facilities as well as isolated, remnant patches of vegetation in undisturbed portions of the WLC site and off-site facilities. Therefore, portions of the WLC site and offsite facilities and immediately adjacent to the WLC site and off-site facilities provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

The WLC site contains suitable nesting habitat for several tree-, shrub-, and ground-nesting avian species. Therefore, MBA recommends construction activities avoid the avian nesting season, from February to August, if possible. If construction activity must take place during the nesting season, a pre-construction nesting bird survey should be conducted prior to any ground disturbance activities. The survey can be conducted in conjunction with the pre-construction survey for burrowing owl.

If passerine birds are found to be nesting or if there is evidence of nesting behavior within 250 feet of the impact area, a 250-foot setback will be required around the nest where no vegetation disturbance will be permitted. For raptor species such as hawks and owls, this buffer should be expanded to 500 feet. A qualified biologist will be required to closely monitor nests until it is determined that they are no longer active, at which time construction activity in the vicinity of nests could continue. Construction activity may proceed within the buffer area at the discretion of the biological monitor.

Burrowing Owl. For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. While no burrowing owls were identified within the project's proposed area of disturbance, because suitable habitat is present within the WLC site for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. The species was documented in 2018 within the proposed 250-foot setback area along the southern WLC site boundary. This is a potentially significant impact requiring mitigation.

All burrowing owl observations within the project site prior to 2018 are associated with artificially created berms. The recorded sightings have been within a bank of an existing drainage feature, a berm within the recently constructed detention basin associated with the Skechers Building (Drainage 3), and a roadside berm just south of Alessandro Boulevard. Burrowing owl was observed in 2018 in the eastern drainage within the proposed 250-foot setback area.

The proposed detention basins will be constructed with similar manufactured berms. Based on historic observations of burrowing owl within the WLC site, it is reasonable to assume that construction of similar berms will continue to provide optimum burrow habitat for resident burrowing owls.

In addition, since there have been no recorded occurrences of burrowing owl in the northern portion of the SJWA there is no concern for competition with other burrowing owls. It is reasonable to assume that the created detention basins will provide more than a sufficient amount of foraging habitat to support a single pair of burrowing owl. Since the southern 250-feet of the WLC site will not contain any building development and construction activities will be restricted to detention basins and associated access roads, it would be more appropriate to include the setback area in a deed restriction rather than a conservation easement.

Plant Survey Areas. The project limits are within MSHCP Survey Area 10 of the NEPSSA and MSHCP Survey Area 9 of the CASSA for plant species. The MSHCP requires that a habitat site assessment (HSA) be conducted for all proposed developments within Narrow Endemic Plant Species' (NEPSSAs) and Criteria Area Sensitive Plant Species' (CASSAs). The HSA for most NEPSSA and CASSA plants must be done during a normal rainfall year and/rainy season. If it is determined during the HSA that suitable soils and/or growing conditions are present on site to support identified NEPSSA species, a focused plant survey is required during the plant species blooming period.

Habitat suitability of the site for NEPSSA and CASSA species is detailed in the General Biological Resources and MSHCP Compliance Report (Appendix E). None of the species analyzed in the NEPSSA or CASSAs is anticipated to occur on the WLC site and none were observed during 2018 rare plant surveys. The implementation of the WLC project would not affect the habitat or result in a direct impact for any special status plant species.

WLC or Specific Plan Design Features. The WLC Specific Plan does not contain any design features relative to sensitive species or birds, other than the landscape palette that contains all native and/or drought-tolerant plants that may be utilized by birds tolerant of human activity.

Mitigation Measures. The following measures have been identified to reduce the significance of potential impacts to special status bird species:

Listed or Sensitive Species:

The previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.1B** will reduce potential impacts on listed or otherwise sensitive plant or animal species or critical habitat to less than significant levels, other than the following which are addressed with additional measures:

Migratory/Nesting Birds

4.4.6.3A Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the applicant shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the setback area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.3B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.3B If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.3A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.3C The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped setback area adjacent to the SJWA property. First, the payment of the Western Riverside County Multiple Species Habitat Conservation Plan fee shall be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A shall be established within the WLC site. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.

Burrowing Owl

4.4.6.3D A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the WLC site.

In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500-foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan shall outline the basic process and provides options for avoidance. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW.

A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot setback area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.

Los Angeles Pocket Mouse

4.4.6.3E Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the WLC site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division.

Resource Management

4.4.6.3F Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan shall identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan shall also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.5.2A, 4.4.6.3D, and 4.4.6.3E.

The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division.

4.4.6.3G Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8).

During construction, the runoff leaving construction areas shall be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLC site shall be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat shall be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).

4.4.6.3H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the setback area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.

4.4.6.3I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and “Best Management Practices for Mosquito Control on California State Properties” which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.

4.4.6.3J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the WLC site adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project applicant and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following:

- A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area.
- A list of non-native invasive plants that are prohibited from installation.
- Maintenance activities and a maintenance schedule.

Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.

4.4.6.3K Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, “Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting.” This measure shall be implemented to the satisfaction of the City Planning Division.

Level of Significance after Mitigation. Implementation of the above-listed mitigation measures would reduce impacts to burrowing owl, migratory bird species, and Los Angeles pocket mouse to less than significant levels.

Note to reader: Cumulative Impacts to Biological Resources are discussed in Section 6.4 Biological Resources.

NOTE TO READERS: The cumulative portion of Section 4.5 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.5 of this Revised Sections of the FEIR. All other portions of Section 4.5 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.5 means that the corresponding portion of Section 4.5 in the FEIR remains unchanged or has been deleted.

4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

NOTE TO READERS: The cumulative portion of Section 4.6 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.6 of this Revised Sections of the FEIR. All other portions of Section 4.6 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.6 means that the corresponding portion of Section 4.6 in the FEIR remains unchanged or has been deleted.

4.6 GEOLOGY AND SOILS

NOTE TO READERS: This portion of the Revised Sections of the FEIR replaces portions of Section 4.7 of the FEIR. The cumulative portion of Section 4.7 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.7 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.7 means that the corresponding portion of Section 4.7 in the FEIR remains unchanged or has been deleted.

4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND SUSTAINABILITY

Although not required by the Judge's ruling, portions of the Traffic and Circulation analysis have been revised to: (1) Show the effect of using the trip generation rates shown in the most recent edition of the Institute of Transportation Engineer's Trip Generation Manual. (2) Show the effect of the inclusion of the over 300 projects that cumulatively contribute to traffic impacts. As a result, Section 4.7 Greenhouse Gas Emissions, Climate Change, and Sustainability, Section 6.7 Greenhouse Gas Emissions, Climate Change, and Sustainability Cumulative, along with Appendix A, Air Quality, Greenhouse Gas, and Health Risk Assessment Report, have also been revised to show the effect of incorporating the applicable data from the revised traffic analysis.

This section provides a discussion of global climate change, existing regulations pertaining to global climate change, and an analysis of greenhouse gas (GHG) emissions associated with the World Logistics Center project. This analysis examines the short-term construction and long-term operational impacts and evaluates the effectiveness of measures incorporated as part of the project design.

This section analyzes the World Logistics Center project's potential climate impacts based on the following technical studies:

Air Quality, Greenhouse Gas, and Health Risk Assessment Report World Logistics Center Specific Plan (ESA, 2018) contained in Appendix A of this Revised Sections of the FEIR.

World Logistics Center (WLC) Transportation Energy Technical Study, May 2018, Environmental Science Associates.

World Logistics Center (WLC) Comparison of Renewable Energy Technologies report, May 2018, WSP.

4.7.1 Existing Setting

4.7.1.1 Global Climate Change

Global climate change is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policy makers to "global warming" because it helps convey the notion that there are other changes in addition to rising temperatures.

Climate change refers to any significant change in measures of climate such as temperature, precipitation, or wind, lasting for decades or longer (U.S. Environmental Protection Agency [EPA], 2007). Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation); and/or

- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).

The primary observed effect of global climate change has been a rise in the average global tropospheric[1] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and increased intensity of tropical cyclones (hurricanes). Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.

Human activities, such as fossil fuel combustion and land use changes release carbon dioxide (CO_2) and other compounds, cumulatively termed greenhouse gases (GHGs). GHGs are effective in trapping infrared radiation that otherwise would have escaped the atmosphere, thereby warming the atmosphere, the oceans, and earth's surface (USEPA, 2007). Many scientists believe that "most of the warming observed over the last 50 years is attributable to human activities" (Intergovernmental Panel on Climate Change [IPCC], 2007d). The increased amounts of CO_2 and other GHGs are alleged to be the primary causes of the human-induced component of warming.

GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO_2, methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). In the last 200 years, substantial quantities of GHGs have been released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, enhancing the natural greenhouse effect, which is believed to be causing global climate change. While human-made GHGs include CO_2, CH_4, and N_2O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere.

GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one-unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons of "CO_2 equivalents" (mt CO_2e or MTCO_2e).

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Human-made sources include the mining and burning of fossil fuels; digestive processes in ruminant animals such as cattle; rice paddies; and the burying of waste in landfills. As for CO_2, the major removal process of atmospheric CH_4—chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Worldwide emissions of GHGs in 2010 were approximately 47,351 million mt CO_2e (World Resources Institute [WRI], 2018). Emissions from the top five countries and the European Union accounted for approximately 57 percent of the total global GHG emissions, according to the most recently available data. The United States was the number two producer of GHG emissions, contributing 13 percent of the emissions. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 82 percent of total GHG emissions. CO_2 from fossil fuel combustion, the

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[1] The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

largest source of GHG emissions, accounted for approximately 85 percent of the GHG emissions (WRI, 2018).

In 2016, the United States emitted approximately 5.3 billion mt CO_2e or approximately 16.5 tons per year (tpy) per person. Of the six major sectors nationwide (electric power industry, transportation, industry, agriculture, commercial, and residential), the electric power industry and transportation sectors combined account for approximately 72 percent of the GHG emissions; the majority of the electrical power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Between 1990 and 2016, total United States GHG emissions rose approximately 2.8 percent (USEPA, 2018b).

World carbon dioxide emissions are expected to increase by 1.9 percent annually between 2001 and 2025 (USEIA, 2017). Much of the increase in these emissions is expected to occur in the developing world where emerging economies, such as China and India, fuel economic development with fossil energy. Developing countries' emissions are expected to grow above the world average at 2.7 percent annually between 2001 and 2025; and surpass emissions of industrialized countries near 2018.

The California Air Resources Board (CARB) is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted into and removed from the atmosphere by human activities within the State of California and supports the Assembly Bill (AB) 32 Climate Change Program. The most recent inventory of GHG emissions in California estimated 440.4 million mt CO_2e in 2015 (CARB, 2017d). This is a 2.2 percent increase in GHG emissions from 1990. The top contributor of emissions in 2015 was transportation, which contributed 37 percent of the emissions. The second highest sector was industrial (21 percent), which includes sources from refineries, general fuel use, oil and gas extraction, and cement plants. According to CARB, California is on track to meet the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32) (CARB, 2016a).

4.7.1.2 Effects of Global Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use these data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The International Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean surface temperature change for 2081-2100 relative to the period from 1986 to 2005, given six scenarios, could range from 0.3 degrees Celsius (°C) to 4.8 °C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC, 2007c). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels. However, the scientific literature is not consistent regarding many of the aspects of global warming or climate change, including actual temperature changes during the 20th century, the accuracy of the IPCC report, and contributions of human versus non-human activities.

Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

Additionally, the following climate change effects, which are based on trends established by the IPCC, can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State's water supply. If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier.
- A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the project area as it is a significant distance away from coastal areas.)
- An increase in temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- Increased risk of large wildfires if rain increases as temperatures rise. Precipitation, winds, temperature, and vegetation influence wildfire risk; therefore, wildfire risk is not uniform throughout the state. Changes in current precipitation patterns could influence that risk. As an example, wildfires in the grasslands and chaparral ecosystems of *southern* California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more *northern* California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas (see below).
- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.
- Increased electricity demand, particularly in the hot summer months.
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

Consequences of Climate Change in Moreno Valley. The figure below displays a chart of measured historical and projected annual average temperatures in the Moreno Valley area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios.

Water for the project would be provided by the Eastern Municipal Water Department (EMWD). The EMWD 2015 Urban Water Management Plan considered the impact of climate change on water supplies as part of its long-term strategic planning. One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long-term planning focuses on the development of reliable local resources and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area.

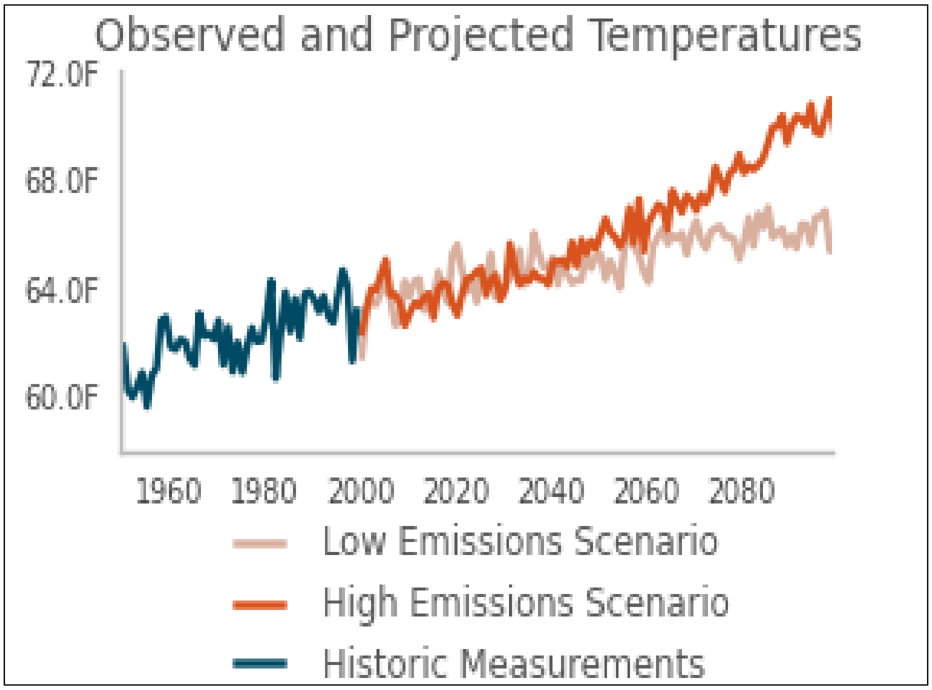

The figure below displays the fire risk in Moreno Valley relative to 2010 levels. The figure displays the projected increase in potential area burned given three different 30-year averaging periods ending in 2020, 2050, and 2085 and two different scenarios (A2, B1). The data are modeled solely on climate projections and do not take landscape and fuel sources into account (there is very little combustible material in the project area). The data modeled the ratio of additional fire risk for an area as compared to the expected burned area. The data are shown in the figure below and indicate that under the low-emissions scenario, the additional wildfire risk is about 1, which means that wildfire risk is expected to remain about the same. Under the high-emission scenario, additional risk is variable with a slight increase.

Wildfire Risk in Moreno Valley

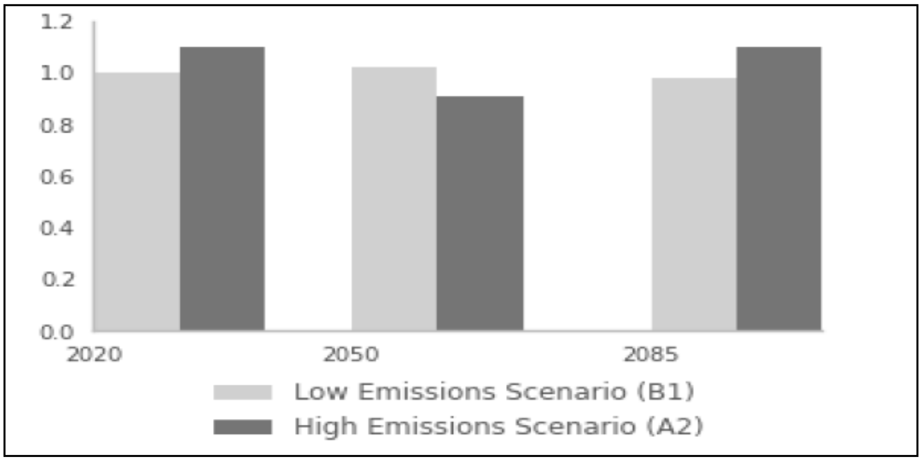

4.7.2 Regulatory Setting

4.7.2.1 Federal Regulations/Standards

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles had to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards were designed to cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle (EPA 2012).

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses (also known as "Phase 1"). For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year. Building on the success of the standards, the EPA and U.S. Department of Transportation jointly finalized additional standards (called "Phase 2") for medium- and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons.

4.7.2.2 State Regulations/Standards

California Code of Regulations Title 24, Part 6. The California Energy Code (Title 24, Section 6) was created as part of the California Building Standards Code (Title 24 of the California Code of Regulations) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy consumption. These standards include provisions applicable to all buildings, residential and nonresidential, which describe requirements for documentation and certificates that the building meets the standards. These provisions include mandatory requirements for efficiency and design of energy systems, including space conditioning (cooling and heating), water heating, and indoor and outdoor lighting systems and equipment, and appliances. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle as technology and methods have evolved. The 2016 Standards, effective January 1, 2017, focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations. The next code update (2019) is expected to focus on integrating solar photovoltaic (PV) and other renewables with energy storage, taking Title 24 another step closer toward the state's zero net energy (ZNE) goals as spelled out in the California Energy Efficiency Strategic Plan (CEC, 2011), calling for all new residential construction to be ZNE by 2020 and all new commercial construction to be ZNE by 2030.

California Code of Regulations Title 24, Part 11. The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development in 2008. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017.

Renewable Electricity Standards. There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewables Portfolio Standard (RPS) target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.

Senate Bill 350: The Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 2015) was approved by Governor Brown on October 7, 2015. SB 350 (1) increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provides for the evolution of the Independent System Operator (ISO) into a regional organization; and (4) requires the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the Legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

Pavley Regulation, Advanced Clean Cars (ACC), and the California Mobile Source Strategy. Assembly Bill 1493 (2002) requires CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emission standards; however, California is allowed to set its own standards with a federal waiver from the USEPA, granted in 2009. Known as the Pavley Clean Car Standards, AB 1493 regulated GHG emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016.

In January 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2015 through 2025. The program includes components to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. The zero emissions vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEV) in the 2018 to 2025 model years (CARB, 2017f).

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years, through a transition to zero-emission vehicles (ZEVs), cleaner transit systems and reduction of vehicle miles traveled. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 “last mile” delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels (CARB, 2016c).

Executive Order B-16-2012 (Zero-Emission Vehicles). This executive order indicates that all State entities under the Governor’s control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:

- By 2015: The State’s major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State’s manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector’s investment in zero-emission vehicle infrastructure; and the State’s academic and research institutions contributing to zero-emission vehicle research, innovation and education.
- By 2020: The State’s zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles; zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.
- By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part

of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.

Sustainable Freight Action Plan. Executive Order B-32-15 directed the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system. The targets are not mandates, but rather aspirational measures of progress towards sustainability for the State to meet and try to exceed. The targets include:

- System Efficiency Target: Improve freight system efficiency by 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030.
- Transition to Zero Emission Technology Target: Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- Increased Competitiveness and Economic Growth Targets: Establish a target or targets for increased State competitiveness and future economic growth within the freight and goods movement industry based on a suite of common-sense economic competitiveness and growth metrics and models developed by a working group comprised of economists, experts, and industry. These targets and tools will support flexibility, efficiency, investment, and best business practices through State policies and programs that create a positive environment for growing freight volumes and jobs, while working with industry to mitigate potential negative economic impacts. The targets and tools will also help evaluate the strategies proposed under the Action Plan to ensure consideration of the impacts of actions on economic growth and competitiveness throughout the development and implementation process.

California Transportation Plan 2040. The California Transportation Plan (CTP) 2040 provides a long-range policy framework to meet future mobility needs and reduce GHG emissions. The CTP defines goals, performance-based policies, and strategies to achieve maximum feasible emission reductions in order to attain a statewide reduction in GHG emissions.

The CTP 2040 recognizes that the Governor is committed to reduce by one-half current petroleum use in cars and trucks; increase from one-third to one-half the electricity derived from renewable sources; double the efficiency savings of existing buildings and make heating fuels cleaner; reduce the release of methane, black carbon, and other short-lived climate pollutants; and manage farm and rangelands, forests, and wetlands to store more carbon.

Transportation GHG reduction strategies within the CTP 2040 include demand management (including telecommuting/working at home, increased carpoolers, and increase car sharing), mode shift (including transit service improvements, high-speed rail, bus rapid transit, expanded bike and pedestrian facilities, carpool land occupancy requirements, and increased HOV lanes), travel cost (implement expanded pricing policies), and operational efficiency (incident/emergency management, Caltrans' Master Plan, ITS/TSM, and eco-driving).

Low Carbon Fuel Standard, Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandated that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard requires producers of petroleum based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The Low Carbon Fuel

Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against the CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration. With the adoption of the 2017 Scoping Plan Update, the Low Carbon Fuel Standard has been increased to an 18 percent reduction in carbon intensity by 2030.

Senate Bill 1383. This bill creates goals for short-lived climate pollutant (SLCP) reductions in various industry sectors. The SLCPs included under this bill – including methane, fluorinated gases, and black carbon – are GHGs that are much more potent than carbon dioxide and can have detrimental effects on human health and climate change. SB 1383 requires the CARB to adopt a strategy to reduce methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. The methane emission reduction goals include a 75% reduction in the level of statewide disposal of organic waste from 2014 levels by 2025. **Executive Order S-3-05.** Executive Order S-3-05 was signed by Governor Schwarzenegger in 2005 proclaiming California is vulnerable to the impacts of climate change. It states that increased temperatures could reduce the Sierra Nevada's snowpack, worsen California's air quality problems, and potentially cause a rise in sea levels. The Executive Order establishes total GHG emission targets including emissions reductions to the 2000 level by 2010, and the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target.

Assembly Bill 32 (AB 32). California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The original 2020 GHG emissions limit was 427 million mt CO_2e. The current 2020 GHG emissions limit is 431 million mt CO_2e. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change.

The Scoping Plan was approved by the CARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures (CARB, 2008b). The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The CARB rule-making process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by a CARB hearing and rule adoption.

Pursuant to AB 32, the CARB and the Climate Action Team (CAT)[2] did the following:

- Adopted a list of discrete early action measures;
- Established a statewide GHG emissions cap for 2020 based on 1990 emissions and adopted mandatory reporting rules for significant sources of GHG;
- Indicated how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions; and

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[2] CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of CARB's jurisdiction.

- Adopted regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The CARB adopted additional early action measures in October 2007 (CARB, 2007a) that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and sulfur hexafluoride (SF_6) reductions from the non-electricity sector. The combination of early action measures was estimated to reduce statewide GHG emissions by nearly 16 million mt CO_2e (CARB, 2007b).

AB 32 codifies Executive Order S-3-05's[3] year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020.

The first AB 32 Scoping Plan, published in 2008, identified a future cap-and-trade program covering refineries, power plants, industrial facilities, and transportation fuels as a central element of California's overall strategy to reduce GHG emissions to 1990 levels. More information on the Scoping Plan and California's Cap and Trade program is provided below.

Amendments to California Global Warming Solutions Act of 2006: Emission Limit (Senate Bill 32): Signed into law on September 8, 2016, Senate Bill (SB) 32 (Amendments to California Global Warming Solutions Act of 2006: Emission Limit) amends HSC Division 25.5 and codifies the 2030 target in the recent Executive Order B-30-15 (40 percent below 1990 levels by 2030). The 2030 target is intended to ensure that California remains on track to achieve the goal set forth by Executive Order B-30-15 to reduce statewide GHG emissions by 2050 to 80 percent below 1990 levels. SB 32 states the intent of the legislature to continue to reduce GHGs for the protection of all areas of the state and especially the state's most disadvantaged communities, which are disproportionately impacted by the deleterious effects of climate change on public health (California Legislative Information Website 2017). SB 32 was passed with companion legislation AB 197, which provides additional direction for developing the Scoping Plan. In 2016, the California State Legislature adopted SB 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030, while AB 197 includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

California Cap and Trade Program. Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the cap-and-trade program is a core strategy that California is using to meet its statewide GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020 (CA, 2013a). Under the Cap-and-Trade program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, fuel suppliers, and large industrial facilities that emit more than 25,000 metric tons CO2e per year) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions

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[3] Executive Order S-3-05 establishes greenhouse gas emission reduction targets for California.

throughout the Program's duration (CA, 2013b). On July 17, 2017 the California legislature passed Assembly Bill 398, extending the Cap-and-Trade program through 2030.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 and 2030 statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not direct GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are assured on a State-wide basis.

Since 2015, fuels, such as gasoline, diesel, and natural gas, have been covered under the Cap-and-Trade Program. Fuel suppliers are required to reduce GHG emissions by supplying low carbon fuels or purchasing pollution permits, called "allowances," to cover the GHGs produced when the conventional petroleum-based fuel they supply is combusted.

2008 Scoping Plan. The California State Legislature adopted AB 32 in 2006 which focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.

The Scoping Plan (CARB, 2008b) contains the following 18 strategies to reduce the State's emissions:

1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. *California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. *Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.
4. *Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.
5. *Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.
6. *Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.
7. *Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.
8. *Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. *Million Solar Roofs Program.* Install 3,000 MW of solar-electric capacity under California's existing solar programs.
10. *Medium/Heavy-Duty Vehicles.* Adopt medium and heavy-duty vehicle efficiency measures.
11. *Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and

provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.

12. *High Speed Rail.* Support implementation of a high-speed rail system.
13. *Green Building Strategy.* Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. *High Global Warming Potential Gases.* Adopt measures to reduce high global warming potential gases.
15. *Recycling and Waste.* Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.
16. *Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.
17. *Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.
18. *Agriculture.* In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

2014 Scoping Plan Update. This First Update to California's Climate Change Scoping Plan (2014 Scoping Plan Update) was developed by the CARB in collaboration with the Climate Action Team and reflects the input and expertise of a range of state and local government agencies. The Update reflects public input and recommendations from business, environmental, environmental justice, utilities and community-based organizations provided in response to the release of prior drafts of the Update, a Discussion Draft in October 2013, and a draft Proposed Update in February 2014.

This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The First Update includes recommendations for establishing a mid-term emissions limit that aligns with the State's long-term goal of an emissions limit 80 percent below 1990 levels by 2050 and sector-specific discussions covering issues, technologies, needs, and ongoing State activities to significantly reduce emissions throughout California's economy through 2050. The focus areas include energy, transportation, agriculture, water, waste management, and natural and working lands (CARB, 2014a). With respect to the transportation sector, California has outlined several steps in the State's zero emission vehicle (ZEV) Action Plan to further support the market and accelerate its growth. Committed implementation of the actions described in the plan will help meet Governor Brown's 2012 Executive Order (EO) B-16-2012, which—in addition to establishing a more specific 2050 GHG target for the transportation sector of 80 percent from 1990 levels—called for 1.5 million ZEVs on California's roadways by 2025.

Achieving such an aggressive 2050 target will require innovation and unprecedented advancements in energy demand and supply (CARB, 2014a). Emissions from 2020 to 2050 will have to decline at more than twice the rate of that which is needed to reach the 2020 statewide emissions limit. In addition to our climate objectives, California also must meet federal clean air standards. Emissions of criteria air pollutants, including ozone precursors (primarily oxides of nitrogen, or NOX) and particulate matter, must be reduced by an estimated 90 percent by 2032 to comply with federal air quality standards. The scope and scale of emission reductions necessary to improve air quality is similar to that needed to meet long-term climate targets. Achieving both objectives will align programs and investments to leverage limited resources for maximum benefit.

2017 Scoping Plan Update. On December 14, 2017, CARB approved the final version of California's 2017 Climate Change Scoping Plan (2017 Scoping Plan Update), which outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels (CARB, 2017e). The 2017 Scoping Plan Update identifies key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the target Statewide 2030 emissions limit is 260 MMTCO2e, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO2e beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2050 limit set forth by E.O. B-30-15.

The 2017 Scoping Plan Update’s strategy for meeting the 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030. These include:

- Extending the low carbon fuel standard (LCFS) beyond 2020 and increasing the carbon intensity reduction requirement to 18 percent by 2030;
- SB 350, which increase renewables portfolio standard (RPS) to 50 percent and requires a doubling of energy efficiency for existing buildings by 2030;
- The 2016 Mobile Source Strategy is estimated to reduce emissions from mobile sources including an 80 percent reduction in smog-forming emissions and a 45 percent reduction in diesel particulate matter from 2016 level in the South Coast Air Basin, a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels;
- The Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies (described in more detail below);
- SB 1383, which requires a 50 percent reduction in anthropogenic black carbon and a 40 percent reduction in hydrofluorocarbon and methane emissions below 2013 levels by 2030; and
- Assembly Bill 398, which extends the state Cap-and-Trade Program through 2030.

With respect to project-level GHG reduction actions and thresholds for individual development projects, the 2017 Scoping Plan Update Indicates,

> *Beyond plan-level goals and actions, local governments can also support climate action when considering discretionary approvals and entitlements of individual projects through CEQA. Absent conformity with an adequate geographically-specific GHG reduction plan as described in the preceding section above, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development (CARB, 2017e).*

4.7.2.3 Regional Regulations

Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) within Regional Transportation Plan (RTP) demonstrates the region’s ability to attain and exceed the GHG emission reduction targets set by the CARB. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint Demonstration Projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network, which emphasizes system preservation, active transportation, and transportation demand management measures.

The RTP/SCS exceeds its greenhouse gas emission-reduction targets set by the CARB by achieving an 8 percent reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. Table 4.7-1 shows the assumptions regarding Moreno Valley that SCAG used in its 2016 analysis.

Table 4.7-1: SCAG Assumptions for Moreno Valley

Year	Population	Households	Employment
2012	197,600	51,800	31,400
2040	256,600	73,000	83,200

Source: Southern California Association of Governments 2016 (http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf)

The RTP also includes an appendix on Goods Movement, which describes a process to develop and deploy needed technologies for improving efficiency of goods movement, along with key action steps for public sector agencies to help move the region to that objective. The 2016 RTP/SCS reaffirms zero- and near zero-emission technologies as a priority, and establishes the regional path forward towards improving the goods movement system.

4.7.2.4 City of Moreno Valley Climate Action Strategy

The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The Strategy contains the following policies to reduce greenhouse gas emissions in 2010 by 15 percent by 2020:

R2-T1	*Land Use Based Trips and VMT Reduction Policies.* Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.
R2-T3	*Employment-Based Trip Reductions.* Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.
R2-E1	*New Construction Residential Energy Efficiency Requirements.* Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.
R2-E2	*New Construction Residential Renewable Energy.* Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.
R2-E5	*New Construction Commercial Energy Efficiency Requirements.* Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.
R3-E1	*Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining.* Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.
R3-L2	*Heat Island Plan.* Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

R2-W1	*Water Use Reduction Initiative.* Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.
R3-W1	*Water Efficiency Training and Education.* Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.
R2-S1	*City Diversion Program.* For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

4.7.3 Methodology

Bearing in mind that CEQA does not require “perfection” but instead “adequacy, completeness, and a good faith effort at full disclosure,” the analysis of project GHG emissions and climate change is based on methodologies and information available at the time this Revised Sections of the FEIR was prepared. Many uncertainties exist regarding the precise relationship between specific levels of GHG emissions and the ultimate impact on global climate. Significant uncertainties also exist regarding the reduction potential of mitigation strategies. Thus, while information is presented below to assist the public and the City’s decision-makers in understanding the project’s potential contribution to global climate change impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.

The recommended approach for GHG analysis included in the California Governor’s Office of Planning and Research (OPR’s) June 2008 release is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below a level of significance (Governor’s Office of Planning and Research, 2008). Neither the CEQA statute nor Guidelines prescribe quantitative thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: “CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government lead agencies, adoption of General Plan policies and certification of General Plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews.”

Pursuant to SB 97, the OPR must develop guidelines for analysis of the effects of GHG emissions. As part of this process, the OPR asked CARB technical staff to recommend statewide interim thresholds of significance for GHGs. The CARB released a preliminary draft staff proposal in October 2008 that included initial suggestions for significance criteria related to industrial, commercial, and residential projects. However, CARB’s staff did not adopt or suggest any new statewide thresholds. The OPR finalized its revised *CEQA Guidelines* without reference to CARB’s draft proposal.

In March 2010, *CEQA Guidelines* amendments were adopted and include the following direction regarding determination of significant impacts from GHG emissions (Section 15064.4):

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

The analysis takes into account the following:

- *CalEEMod.* The latest version of CalEEMod (Version 2016.3.2) was utilized to calculate GHG emissions from the following source categories: construction energy, waste, land use change, architectural coatings and water. For a detailed description of the assumptions used to estimate the GHG emissions, refer to the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

- *Operational Mobile Assumptions*. Operational mobile GHG emissions were estimated using the same procedures for the air quality analysis (which includes using EMFAC2014), which is consistent with updated Traffic Impact Analysis. Please refer to Section 4.3.3.2 in the Air Quality Section of this Revised Sections of the FEIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2018) for a list of those changes.

- *Vehicle Fuel Assumptions:* Mobile emissions in this analysis utilizes EMFAC2014's projected vehicle fuel mix for Phase 1 buildout year 2025 and project buildout year 2040. EMFAC2014 does not include population assumptions for electric or natural gas-fueled trucks. Section 4.17, Energy, of this Revised Sections of the FEIR addresses the potential penetration of electric trucks and potential use in association with the project. Although the State has set targets for zero-emission vehicles, it would be speculative to assume that the High Penetration scenario discussed in Section 4.17 would be practicable or feasible by 2025 or by 2040. The Low and Medium Penetration scenarios discussed in Section 4.17 are possible; however, as a worst-case analysis, the greenhouse gas analysis included herein does not factor in any potential emissions reductions provided by electric or natural gas-fueled trucks. For informational purposes only, emissions associated with the Medium Penetration scenario has been taken into account to show further emissions reduction potential.

For a detailed discussion of GHG emissions source and methodology, refer to Appendix A of this Revised Sections of the FEIR.

4.7.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, climate change/greenhouse gas emissions impacts would occur if the World Logistics Center project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., exceeds the SCAQMD's 10,000 mt CO_2e emissions screening threshold of significance); and/or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Global climate change may result in significant adverse effects to the environment that will be experienced worldwide, with some specific effects observed in California. AB 32 requires statewide GHG emissions reductions to 1990 levels by 2020, and SB 32 requires statewide GHG emissions reductions to 40 percent below 1990 levels by 2030. Although these statewide reductions are now mandated by law, no generally applicable GHG emission threshold has yet been established.

State CEQA Guidelines Section 15064(b) provides that "…the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." The *State CEQA Guidelines* further indicate that even when thresholds are established, they may include "identifiable quantitative, qualitative or performance level of a particular environmental effect" (*State CEQA Guidelines*, Section 15064.7).

Some policymakers and regulators suggest that a zero emissions threshold would be appropriate when evaluating GHGs and their potential effect on climate change. Such a rule appears inconsistent with the State's approach to mitigation of climate change impacts. AB 32 and SB 32 do not prohibit all new GHG emissions; rather, they require a reduction in statewide emissions to a given level. Thus, AB 32 and SB 32 recognize that GHG emissions will continue to occur; increases will result from certain activities, but reductions must occur elsewhere.

Individual projects incrementally contribute toward the potential for global climate change (GCC) on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect GCC, each of these projects incrementally contributes toward the potential for GCC on a cumulative basis, in concert with all other past, present, and probable future projects. This analysis examines whether the project's emissions should be considered cumulatively significant.

In order to evaluate the significance of a proposed project's environmental impacts related to GHG emissions, it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As previously described, while project-related GHG emissions can be estimated the direct impact of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that the World Logistics Center project would directly affect GCC. The SCAQMD has adopted a quantitative GHG emission significance threshold to assess direct impacts from industrial projects where the SCAQMD is the lead agency. The SCAQMD and other air quality agencies agree that GHG and GCC should be assessed as a potentially significant cumulative impact rather than a project-specific impact.

The following is an excerpt from the SCAQMD (Draft Guidance Document – Interim CEQA Greenhouse Gas [GHG] Significance Threshold, October 2008):

> *"The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimate contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.*
>
> *As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level."*

This project utilizes Tier 3 of the SCAQMD's draft threshold and compares the project's uncapped greenhouse gas emissions to the SCAQMD's threshold for industrial projects, 10,000 mt CO_2e per year. Therefore, the threshold used for this project was based on the goal in Executive Order S-3-05. If the project's uncapped emissions are under the threshold, then the project would be in compliance with Executive Order S-3-05.

In September 2013, the SCAQMD adopted two Negative Declarations stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue a step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:

- "Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."
- "The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."
- "[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."
- "[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."

The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.

The consideration of only uncapped GHG emissions to determine the significance of those emissions under CEQA used by the SCAQMD and the SJVAPCD was validated in Association of Irritated Residents v. Kern County Board of Supervisors, 17 Cal. App. 5th 708 (2017). The EIR's GHG analysis properly relied on compliance with California's cap-and-trade program to conclude that GHG emissions would be less than significant.

4.7.5 Less than Significant Impacts

Due to the size of the project, all potential impacts related to greenhouse gas emissions are considered to be potentially significant.

4.7.6 Significant Impacts

4.7.6.1 Greenhouse Gas Emissions

Impact	Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Future development that could occur within the World Logistics Center project site could generate GHG emissions during both construction and operation activities. The following activities are associated with the World Logistics Center project and could directly or indirectly contribute to the generation of GHG emissions:

- **Removal of Vegetation (Land Use Change) and Sequestration:** Carbon sequestration is the process of capture and storage of carbon dioxide; trees, vegetation, and soil store carbon in their tissues and wood. The net removal of vegetation for construction from land use change results in a loss of the carbon sequestration in plants. However, planting additional vegetation (sequestration) would result in additional carbon sequestration and would lower the carbon footprint of the project.
- **Construction Activities:** During construction of the World Logistics Center project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Leaks from installation of refrigeration equipment for air conditioning may occur.
- **Gas, Electric, and Water Use:** Natural gas use results in the emissions of CH_4 (the major component of natural gas) and CO_2 from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. Conveying water to the project and treating wastewater also uses electricity.
- **Solid Waste Disposal:** Solid waste generated by the World Logistics Center project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is approximately 21 times more potent than CO_2. Landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the World Logistics Center project would result in GHG emissions from the combustion of fossil fuels and the use of electricity in daily automobile and truck trips.
- **On-site Equipment:** During operation of the World Logistics Center project, there would be on-site equipment operating, including yard trucks, emergency generators, and forklifts.

Construction Emissions. The World Logistics Center project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment, as shown in

Table 4.7-2. The GHG emissions are from all phases of construction. The SCAQMD recommends that construction emissions be averaged over a 30-year period.

Table 4.7-2: Construction Greenhouse Gas Emissions (without mitigation)

Year	Annual Emissions (mt CO_2e)
2020	11,783
2021	11,447
2022	15,056
2023	11,036
2024	20,704
2025	12,384
2026	14,241
2027	11,982
2028	14,057
2029	12,930
2030	15,605
2031	11,894
2032	17,188
2033	15,872
2034	11,839
2035	14,082
Total	222,098
Averaged over 30 years	**7,403**
Capped: Fuel-Based Emission Sources Averaged over 30 years	**7,334**
Uncapped: Refrigerant Installation and Construction Waste Averaged over 30 years	**34**

mt CO_2e = metric tons of carbon dioxide equivalents.
Note: The SCAQMD recommends that construction emissions be averaged over a 30-year period.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2018
Sources include onsite construction equipment, worker trips, haul trips, vendor trips, refrigerant installation for the air conditioning in the offices, construction waste, and water use. Values presented in the table may not equal the sum due to rounding.

Total Emissions, Worst-Case Scenario. Operational or long-term emissions occur over the life of the project. Included for informational purposes, operational emissions for a worst-case buildout condition are shown in Table 4.7-3. This is a worst-case analysis because it assumes that the entire project would be built-out in 2018. The emissions are presented by greenhouse gas (in tons per year), which was also converted to metric tons of carbon dioxide equivalents (mt CO_2e). The vehicle emissions in the table represent travel within the South Coast Air Basin. The emissions do not take into account mitigation measures to reduce emissions, such as the use of model year 2010 and later diesel trucks on the project site. As shown in the table, the project's uncapped emissions are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.

The analysis presented in Table 4.7-3 also represents a worst-case analysis because the emission factors do not take into account implementation of California's Mobile Source Strategy and the full reductions expected from newer trucks and cars as a result of the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. The emissions are estimated using emission factors from EMFAC2014, CARB's emission factor model, for the year 2018.

Table 4.7-3: Annual Project Operational GHG Emissions (Worst-Case 2018 Analysis at Buildout)

Source	Individual Emissions (tons)					Greenhouse Gas Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	Hydrofluoro-carbons	Black Carbon	
AB 32/SB 32 Capped Emissions						
Mobile (net)	285,523	3.17	1.56	0.00	6.27	263,840
Other	81,599	71.50	185.20	0.00	0.70	126,199
Total	367,122	74.67	186.77	0.00	6.97	390,039
Uncapped Emissions	**9,804**	**504.67**	**0.00**	**1.95**	**0.00**	**22,974**
					Threshold	**10,000**
					Significant?	**Yes**

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
The "other" emissions include the non-mobile capped emissions as presented in Table 4.7-4. below.
Source: *ESA,* 2018

Total Project Emissions. Table 4.7-4 shows the unmitigated project emissions at buildout, including estimates of the project's mobile emissions estimates for future years based on EMFAC emission factors for the actual year assessed, which take into account the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. Emissions are shown by individual GHG (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and black carbon) and totaled used the common unit of metric tons CO2e based on the global warming potential of each gas. Emissions estimates for electricity and natural gas do not account for Project Design Features (described in Energy Section 4.17.5) that improve building energy efficiency and maximize the use of on-site renewable energy

Table 4.7-4 shows project emissions separated into capped and uncapped sectors, as defined by California's cap-and-trade program. California's cap-and-trade program is enforceable and meets the requirements of AB 32 and SB 32. The program began on January 1, 2012, placing GHG emissions limits on capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MT CO2e per year), and enforcing compliance obligations beginning with 2013 emissions. Vehicle fuels were placed under the cap in 2015, and with the passage of AB 398, the program was extended through 2030. The Cap-and-Trade Program allocates emissions permits across covered entities in each sector.

As shown in Table 4.7-4, the majority of the project's GHG emissions are from sources that are subject to the requirements of the Cap-and-Trade Program. AB 32/SB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold.

Table 4.7-4: Project GHG Emissions at Buildout by GHG (Unmitigated)

	Emissions (tons per year)					
Source	**Carbon Dioxide**	**Methane**	**Nitrous Oxide**	**HFCs**	**Black Carbon**	**GHG Emissions (mt CO_2e)**
AB 32/SB 32 Capped Emissions						
On-road vehicles	*231,254*	*1.05*	*1.70*	*0.00*	*0.63*	*210,708*
Electricity[1]	*60,348*	*62.33*	*158.06*	*0.00*	*0.00*	*54,947*
Construction[2]	*7,550*	*1.36*	*<0.01*	*0.00*	*0.66*	*7,334*
Yard trucks	*5,631*	*0.00*	*0.00*	*0.00*	*0.00*	*5,109*
Electricity-convey water	*2,664*	*5.43*	*0.15*	*0.00*	*0.00*	*2,580*
Natural gas[1]	*4,942*	*2.37*	*26.99*	*0.00*	*0.12*	*4,510*
Generator	*267*	*0.01*	*0.00*	*0.00*	*0.04*	*267*
Forklifts	*197*	*0.00*	*0.00*	*0.00*	*0.01*	*183*
Total AB 32/SB 32 Capped	**312,853**	**72.55**	**186.90**	**0.00**	**1.33**	**285,639**
Significant?	--	--	--	--	--	*No*
Uncapped Emissions						
Waste	8,540	504.67	0.00	0.00	0.00	19,193
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Refrigerants	0	0.00	0.00	1.89	0.00	2,572
Construction*	115	0.00	0.00	0.06	0.00	166
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total Uncapped	**9,804**	**504.67**	**0.00**	**1.95**	**0.00**	**22,974**
Threshold	--	--	--	--	--	10,000
Significant impact?	--	--	--	--	--	Yes

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons [HFC] – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072. <0.01 = less than 0.01

1 – Electricity and natural gas emissions estimates are based on minimum compliance with 2016 Title 24 building standards

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction emissions are amortized over 30 years.

Source: *ESA, 2018*

The total emissions estimates for the project, summarized in Table 4.7-5, include both construction and operations emissions, and do not account for Project Design Features (described in Energy Section 4.17.5) that improve building energy efficiency and maximize the use of on-site renewable energy; nor do they account for the project's mitigation measures. Table 4.7-5 shows a summary of AB 32/SB 32 capped and uncapped project emissions (unmitigated) for each year between 2020 and buildout. As shown in the table, the uncapped emissions in the year 2026 and after are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant, and mitigation is required.

Table 4.7-5: Project GHG Emissions (Year by Year without Mitigation)

	GHG Unmitigated Emissions (mt CO_2e/year)							
Source	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,688	29,376	48,960	68,544	104,914	126,417	137,770
Electricity[1]	0	4,696	9,393	15,654	21,916	33,545	37,895	40,192
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	133	267	445	623	953	1,283	1,458
Natural gas	0	381	763	1,271	1,779	2,723	3,087	3,278
Generator	0	14	28	46	64	99	133	151
Forklifts	0	9	19	32	44	68	91	104
Total AB 32 Capped Emissions	11,669	31,520	55,289	78,184	114,676	156,342	185,550	197,724
Uncapped Emissions								
Waste	0	992	1,985	3,308	4,632	7,089	9,547	10,844
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction refrigerants and waste[2]	114	114	140	140	231	231	198	132
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**114**	**1,293**	**2,499**	**4,072**	**5,735**	**8,656**	**11,543**	**13,019**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	Yes	Yes

	GHG Unmitigated Emissions (mt CO_2e/year)								
Source	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Buildout**
AB 32/SB 32 Capped Emissions									
On-road vehicles	144,593	151,416	161,152	172,192	183,233	194,274	201,510	208,747	210,708
Electricity[1]	41,572	42,952	44,922	47,155	49,389	51,622	53,086	54,550	54,947
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,562	1,667	1,817	1,986	2,156	2,326	2,437	2,548	2,580
Natural gas	3,394	3,509	3,673	3,860	4,046	4,233	4,355	4,478	4,510
Generator	162	173	188	206	223	241	252	264	267
Forklifts	111	118	129	141	153	165	173	181	183
Total AB 32 Capped Emissions	208,448	215,943	230,949	241,233	260,523	273,238	278,378	289,842	285,638
Uncapped Emissions									
Waste	11,624	12,404	13,517	14,779	16,040	17,302	18,129	18,956	19,193
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	132	174	193	193	193	138	138	64	166
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**13,946**	**14,915**	**16,256**	**17,756**	**19,255**	**20,700**	**21,683**	**22,591**	**22,974**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates are based on minimum compliance with 2016 Title 24 building standard; includes electricity use by on-site EV chargers.

2 – Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years.

Source: *ESA, 2018*

Project Design Features. The WLCSP incorporates site and building designs (Project Design Features) that emphasize conservation of water and energy, which in turn help reduce greenhouse gas emissions (WLCSP September 2014, Section 1.3.2, Green Building-Sustainable Development). The revised Project Design Features, as outlined in the *Comparison of Renewable Energy Technologies* report (WSP, 2018) and explained in detail in Energy Section 4.17.5, go substantially beyond that previous commitment with energy conservation measures (ECMs) that exceed minimal compliance with current (2016) Title 24 requirements by about 17 percent at Phase 1 and 16 percent at full buildout, and a commitment to maximize the use of onsite rooftop solar PV generation.

Mitigation Measures. The following mitigation measures would reduce the GHG emissions impact of the WLC project. Mitigation measures 4.7.6.1B, 4.7.6.1C, and 4.7.5.1D were previously included in the 2015 FEIR as Utilities Mitigation Measures 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C to address building energy, but energy impacts have now been removed from the Utilities section and considered in the standalone Energy section of this Revised Sections of the FEIR (Section 4.17).

4.7.6.1A The World Logistics Center project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development:

a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

   Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.

c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.

d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan.

e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.

f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.

g) The property owner shall advise all tenants of the availability of community recycling and composting services.

h) Existing onsite street material shall be recycled for new project streets to the extent feasible.

4.7.6.1B (Previously Included as Utilities Mitigation Measure 4.16.4.6.1A for building energy). Each application for a building permit shall include energy calculations to demonstrate compliance with California Energy Efficiency Standards (Title 24, Part 6). Plans shall show the following:

- Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning.
- Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment.
- Energy-efficient appliances that achieve the 2016 California Appliance Energy Efficiency Standards (e.g. EnergyStar® Appliances) and use of sunlight-filtering window coatings or double-paned windows

4.7.6.1C (Previously Included as Utilities Mitigation Measure 4.16.4.6.1B building energy). Prior to the issuance of any building permits within the WLC site, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards, for each new structure. Plans may include but are not necessarily limited to implementing the following as appropriate:

- High-efficiency air-conditioning with electronic management system (computer) control.
- Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.
- Use of Energy Star ® exit lighting or exit signage.

4.7.6.1D (Previously Included as Utilities Mitigation Measure 4.16.4.6.1C building energy; now modified). Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

- Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building or up to the limit allowed by MVU’s restriction on distributed solar PV connecting to their grid, whichever is greater;
- Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24’s energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and
- Require the equivalent of “Leadership in Energy and Environmental Design Certified” for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.

Additionally, the following mitigation measures from other sections of the Revised Sections of the FEIR help reduce GHG emissions. The complete air quality and utilities mitigation measures can be found in the executive summary.

Air Quality Mitigation Measure 4.3.6.2A (construction fuel) would require that construction equipment greater than 50 horsepower be USEPA Tier 4 emissions compliant and limits on-site idling of all diesel-powered construction equipment, delivery vehicles, and delivery trucks to three minutes in any one hour.

AQ Mitigation Measure 4.3.6.3B (long haul trucks). Require the operation of model year 2010 diesel trucks or later.

AQ Mitigation Measure 4.3.6.4A: The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

- All tenants shall be required to participate in Riverside County’s Rideshare Program.
- Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.
- Class II bike lanes shall be incorporated into the design for all project streets.
- The project shall incorporate pedestrian pathways between on-site uses.
- Site design and building placement shall provide pedestrian connections between internal and external facilities.
- The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.
- A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 200 parking spaces or more shall be designed and constructed so that at least six percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Sizing of conduit and service capacity at the time of construction shall be sufficient to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater.
- Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code. Each building shall provide a minimum of two shower and changing facilities for employees.
- Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.
- The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

Utilities Mitigation Measure 4.16.1.6.1A would reduce outdoor water usage which in turn reduces energy use associated with the conveyance of that water.

Utilities Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.

Utilities Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.

Figure 4.7.1 displays the unmitigated and mitigated uncapped GHG emissions. As shown in the figure, the mitigated uncapped emissions are less than the significance threshold and are therefore less than significant.

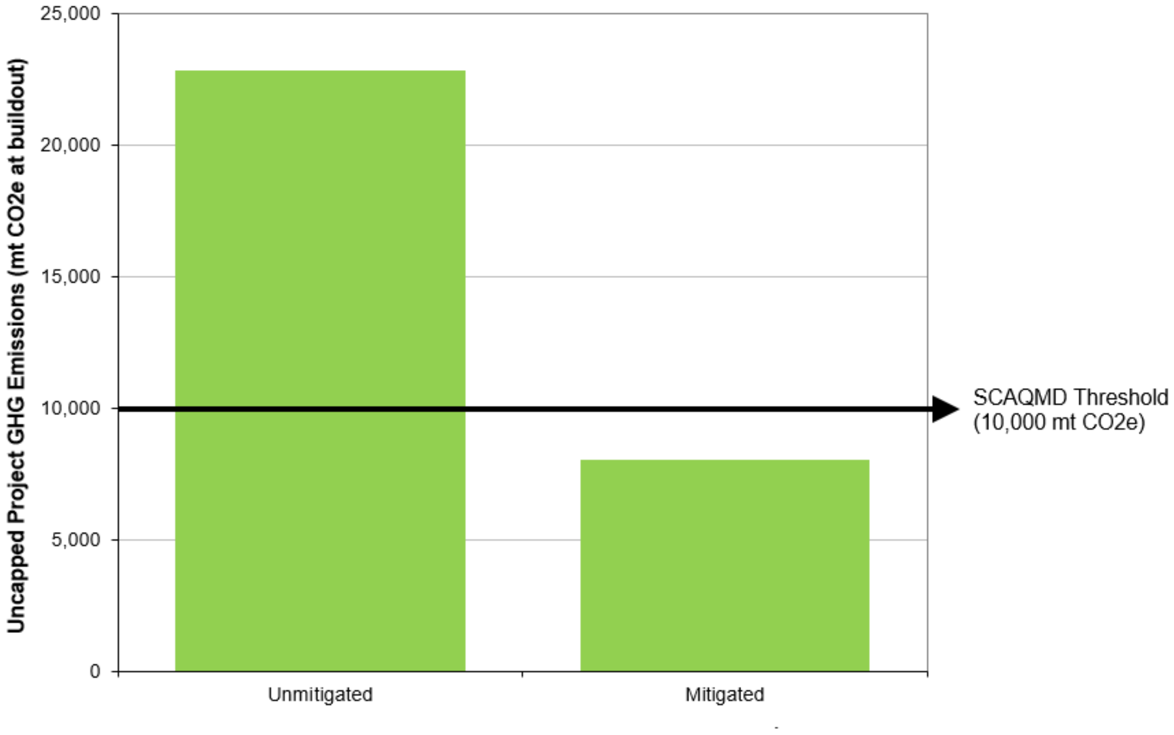

Figure 4.7.1: Uncapped Project GHG Emissions at Buildout

Table 4.7-6 evaluates to what degree the mitigation measures (including the various PDFs of the project as described in Energy Section 4.17.5) will reduce potential GHG emissions.

Table 4.7-7 shows the project GHG emissions with implementation of Project Design Features and mitigation measures, at buildout only. Table 4.7-8 shows the mitigated GHG emissions for each year between 2020 and buildout.

AB 32/SB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold. The tables indicate that with mitigation, the uncapped emissions would not exceed the significance threshold. GHG emissions are less than significant after mitigation.

Level of Impact After Mitigation. Less than significant.

Table 4.7-6: Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
Construction Fuel	**Mitigation Measure 4.3.6.2A** would require that construction equipment be Tier 4.	This reduction was estimated in CalEEMod. Tier 4 construction equipment would have fewer PM2.5 emissions, and therefore black carbon emissions.
Construction Waste	Regulation in the California Green Building Standards require that projects divert (reduce or recycle) at least 50 percent of waste.	This reduction was estimated using the U.S. EPA's Waste Reduction Model (WARM) version 13.
On-road Vehicles: Local	*Project Design Feature:* Local bus service to the area is provided by the Riverside Transit Agency. Local bus routes would typically be extended into the project area when adequate demand is generated from this employment center. Future bus routes could circulate on available looped routes with adequate right-of-way along the major arterial roadways of Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Likewise, the industrial collector roadways provide access to locations nearest building front entrances. Due to building scale, bus stops may be spread out by grouped entrances or centralized gateway drive areas as compared to individual business entries.	The California Air Pollution Control Officer's Association (CAPCOA) report's reduction measure TRT-1 indicates a 5.2 percent reduction in commute vehicle miles traveled for low-density suburbs for inclusion of a commute trip reduction program. However, this reduction is not used in this analysis. In this Revised Sections of the FEIR, no reductions are taken for these measures in order to provide a conservative analysis.
	Mitigation Measure 4.3.6.4A: Class II bike lanes.	
	Mitigation Measure 4.3.6.4A: Participate in Riverside County's rideshare program	
	Mitigation Measure 4.3.6.4A: Lockers for employees.	
	Mitigation Measure 4.3.6.4A: Bicycle storage and changing rooms	
	Project Design Features: The project would have pedestrian circulation, sidewalks, and a multiuse trail.	
	Mitigation Measure 4.3.6.4A*:* Safe pedestrian connections	
	Mitigation Measure 4.3.6.4A: Parking for fuel-efficient vehicles	
On-road Vehicles: Long haul trucks	**Mitigation Measure 4.3.6.3B:** Require model year 2010 diesel trucks or later.	This was implemented by utilizing the emission factors for medium-heavy duty and heavy-heavy duty trucks from EMFAC2014 for year 2010 and after.

Table 4.7-6: Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
On-road Vehicles: all	*Pavley-I Regulation:* A clean-car standard to reduce greenhouse gas emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016. *Low Carbon Fuel Standard:* A fuel standard that requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. *California Mobile Source Strategy:* This 2016 plan includes targets for zero emission vehicles (ZEVs) that exceed assumptions included in EMFAC 2014. Project design includes supporting infrastructure to accommodate future EV populations consistent with targets in the Mobile Source Strategy.	EMFAC2014 provides emission factors for carbon dioxide that include these regulations. Therefore, both the unmitigated and mitigated emissions account for these regulations.
Electricity and Natural Gas: Title 24	**Mitigation Measures 4.7.6.1B** and **4.7.6.1C** would reduce electricity related emissions. In addition, the project would be LEED certified for buildings and Mitigation Measure 4.7.6.1D would require buildings to exceed Title 24 (2008 version) by 10 percent or comply with the current version in place. Project design includes energy conservation measures that would enable the project to exceed 2016 Title 24 energy standards by approximately 17 percent at Phase 1 and 16 percent at Full Buildout, by lowering electrical demand with implementation of sustainability measures such as high efficiency appliances and skylights.	Reductions from exceeding the requirements of Title 24 (2016) were accounted for in calculations.
Electricity: Lighting	**Mitigation Measures 4.7.6.1C** (lighting efficiency) and **4.7.6.1D** (Title 24) would reduce electricity from lighting. Project design includes energy conservation measures that lower electrical demand with implementation of sustainability measures such as high efficiency lighting and motion sensors.	Reductions due to efficient lighting were accounted for in calculations.
Electricity: Solar	**Mitigation Measure 4.7.6.1D** requires that the project install solar panels. Project design includes on-site solar panel installation.	The estimated electricity generation from onsite solar is 24,083 MWh per year, which is 5.0 percent of the electricity demand at buildout. Therefore, 5.0 percent of the unmitigated electricity-related GHG emissions are reduced by solar generation.
Water	**Mitigation Measure 4.16.1.6.1A** would reduce outdoor water usage	CalEEMod mitigation for water-efficient irrigation systems (6.1% reduction, CalEEMod default)

Table 4.7-6: Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
	Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.	CalEEMod mitigation for: - low-flow toilet (20% reduction in flow, CalEEMod default) - low flow bathroom faucet (32% reduction in flow, CalEEMod default) - low-flow kitchen faucet (18% reduction in flow, CalEEMod default) - low-flow shower (20% reduction in flow, CalEEMod default)
	Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.	No reductions are taken for the potential use of reclaimed water.
Waste	**Mitigation Measure 4.7.6.1A***:* Recycling and composting to divert construction and operational waste by at least 50 percent before 2020 and 75 percent thereafter.	The project would commit to reducing construction and operational waste by 50 percent prior to 2020 and 75 percent after; therefore, a 75 percent reduction is applied.
	Project Design Feature: Specific Plan (Section 5.1.6) requires that all development within the project provide enclosures or compactors for trash and recyclable materials.	

[1] Project design features are from the WLC Project Description and WLC Sustainable Energy Plan (WSP, 2018); mitigation measures are shown in Section 1.0, Table 1.B.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2018

Table 4.7-7: GHG Reductions at Buildout (with Mitigation)

Type of Emissions	Source	GHG Emissions (mt CO_2e) at Buildout		
		Unmitigated	Reductions from Mitigation	With Reductions (Mitigated)
AB 32/SB 32 Capped Emissions	On-road vehicles	210,708	-112	210,596
	Electricity[1]	54,947	-4,579	50,368
	Construction[2]	7,334	0	7,334
	Yard trucks	5,109	0	5,109
	Electricity to convey water	2,580	-271	2,308
	Natural Gas[1]	4,510	-4,510	0
	Generator	267	19	286
	Forklifts	183	0	183
	Solar PV	0	-3,386	-3,386
	Total	**285,638**	**-12,840**	**272,799**
	Significant?	No	—	—
Uncapped Emissions	Waste	19,193	-14,395	4,798
	Land use change	1,154	0	1,154
	Refrigerants	2,572	0	2,572
	Construction waste and refrigerants[2]	166	-17	149
	Sequestration	-111	0	-111
	Total	**22,974**	**-14,412**	**8,563**
	Threshold	10,000	—	10,000
	Significant?	Yes	—	No

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
1 - Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.
2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction would no longer occur at buildout; however, according to SCAQMD recommendations, construction emissions are included as amortized over 30 years.

Source: *ESA, 2018*

Table 4.7-8: Project GHG Emissions (Year by Year with Mitigation)

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,601	29,202	48,670	68,138	104,293	125,899	137,307
Electricity[1]	0	4,235	8,469	14,116	19,762	30,248	34,337	36,496
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	119	239	398	557	853	1,148	1,304
Natural gas[1]	0	0	0	0	0	0	0	0
Generator	0	15	30	49	69	106	142	161
Forklifts	0	9	19	32	44	68	91	104
Solar PV	0	-179	-357	-595	-834	-1,276	-1,705	-1,931
Total AB 32/SB 32 Capped Emissions	11,669	30,399	53,046	74,446	109,443	148,331	176,557	188,213
Uncapped Emissions								
Waste	0	248	496	827	1,158	1,772	2,387	2,711
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction waste and refrigerants[2]	97	97	123	123	214	214	181	115
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**97**	**532**	**993**	**1,574**	**2,245**	**3,322**	**4,366**	**4,869**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

Source	GHG Mitigated Emissions (mt CO_2e/year)								
	2028	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Buildout**
AB 32/SB 32 Capped Emissions									
On-road vehicles	144,163	151,018	160,801	171,895	182,989	194,083	201,354	208,625	210,596
Electricity[1]	37,794	39,091	40,943	43,043	45,143	47,242	48,619	49,995	50,368
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,398	1,492	1,626	1,778	1,929	2,081	2,181	2,280	2,308
Natural gas[1]	0	0	0	0	0	0	0	0	0
Generator	173	185	201	220	239	258	270	282	286
Forklifts	111	118	129	141	153	165	173	181	183
Solar PV	-2,068	-2,204	-2,398	-2,618	-2,838	-3,059	-3,203	-3,347	-3,386
Total AB 32/SB 32 Capped Emissions	198,626	205,810	220,371	230,152	248,938	261,149	265,958	277,092	272,799
Uncapped Emissions									
Waste	2,906	3,101	3,379	3,695	4,010	4,326	4,532	4,739	4,798
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	115	147	176	176	176	121	121	47	149
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**5,211**	**5,595**	**6,102**	**6,655**	**7,208**	**7,706**	**8,069**	**8,357**	**8,563**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No	No

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 - Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

Source: *ESA, 2018*

Operational Emissions, Scoping Plan Scenario (Included for informational purposes only). The emissions presented under the Scoping Plan scenario (Table 4.7-10) assume successful implementation of the 2017 Scoping Plan Update, which included the Mobile Source Strategy in addition to the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. The mobile emissions estimates for future years are based on emission factors that account for higher penetrations of electric vehicles (EVs) than assumed by EMFAC.

The Scoping Plan Scenario assumes that California's 2016 Mobile Source Strategy (MSS) would be implemented as a key strategy in the 2017 Scoping Plan Update for meeting the state's 2030 GHG target (presented in the Energy section as Vehicle Scenario B: Medium EV Penetration). The MSS has a target of 4.2 million zero emission vehicles (ZEVs) in operation statewide by 2030. As explained in the Energy Section, after 2025 the sales and penetration of ZEVs under the MSS start to exceed the numbers assumed by EMFAC 2014. Table 4.7-9 shows that under the MSS approximately 8.4 percent of the passenger vehicle (LDA) and light truck (LDT) fleet is expected to powered by electricity or other zero emission engines by 2025 in the South Coast AQMD region, compared to 6.2 percent using EMFAC 2014 assumptions. By 2040, 42.2 percent of cars and light trucks are expected to be ZEVs in the South Coast AQMD region, compared to 13.7 percent using EMFAC 2014 assumptions.

Table 4.7-9: California and SCAQMD Electric Vehicle (EV) Penetration Estimates

		EMFAC 2014				Mobile Source Strategy	
Jurisdiction	**Year**	**Total LDA + LDT Population**	**EV Population**	**% EV**	**EV Sales in year as % of total**	**EV Population**	**% EV**
SCAQMD	2020	6,970,018	139,875	2.0%	4.9%	139,875	2.0%
	2025	7,700,136	475,480	6.2%	9.6%	646,695	8.4%
	2030	8,467,075	841,661	9.9%	9.6%	1,797,448	21.2%
	2040	9,634,507	1,316,666	13.7%	9.6%	4,064,551	42.2%
Statewide	2020	16,052,322	307,181	1.9%	4.9%	307,181	1.9%
	2025	17,860,364	1,075,826	6.0%	9.9%	1,500,000	8.4%
	2030	19,784,562	1,959,302	9.9%	9.6%	4,200,000	21.2%
	2040	22,755,593	3,133,990	13.8%	9.6%	9,600,000	42.2%

LDA = Passenger cars (EMFAC category)
LDT = Light Duty Trucks (EMFAC category)
Sources: CARB, 2014b - based on EMFAC2011 Categories, and EMFAC2014 Volume III - Technical Documentation

For informational purposes only, emissions associated with the Scoping Plan Scenario (the Medium EV Penetration scenario) are shown in Table 4.7-10.

Table 4.7-10: Project GHG Emissions (Year by Year with Mitigation and Medium EV Penetration) – Scoping Plan Scenario, For Informational Purposes Only

	GHG Mitigated Emissions (mt CO_2e/year)							
Source	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,622	29,245	48,741	68,238	104,445	124,584	135,216
Electricity[1]	0	4,302	8,605	14,341	20,078	30,731	37,945	41,815
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	119	239	398	557	853	1,148	1,304
Natural gas[1]	0	0	0	0	0	0	0	0
Generator	0	15	30	49	69	106	142	161
Forklifts	0	9	19	32	44	68	91	104
Solar PV	0	-179	-357	-595	-834	-1,276	-1,705	-1,931
Total AB 32/SB 32 Capped Emissions	11,669	30,488	53,224	74,742	109,858	148,966	178,890	191,441
Uncapped Emissions								
Waste	0	248	496	827	1,158	1,772	2,387	2,711
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction refrigerants and waste[2]	97	97	123	123	214	214	181	115
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**97**	**532**	**993**	**1,573**	**2,245**	**3,321**	**4,366**	**4,868**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

Source	GHG Mitigated Emissions (mt CO_2e/year)								
	2028	2029	2030	2031	2032	2033	2034	2035	Buildout
AB 32/SB 32 Capped Emissions									
On-road vehicles	141,606	147,996	157,114	167,455	177,795	188,135	194,912	201,689	203,526
Electricity[1]	44,117	46,418	49,703	53,427	57,152	60,877	63,318	65,759	66,421
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,398	1,492	1,626	1,778	1,929	2,081	2,181	2,280	2,308
Natural gas[1]	0	0	0	0	0	0	0	0	0
Generator	173	185	201	220	239	258	270	282	286
Forklifts	111	118	129	141	153	165	173	181	183
Solar PV	-2,068	-2,204	-2,398	-2,618	-2,838	-3,059	-3,203	-3,347	-3,386
Total AB 32/SB 32 Capped Emissions	202,392	210,115	225,444	236,096	255,753	268,835	274,216	285,920	281,781
Uncapped Emissions									
Waste	2,906	3,101	3,379	3,695	4,010	4,326	4,532	4,739	4,798
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	115	157	176	176	176	121	121	47	149
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**5,211**	**5,594**	**6,101**	**6,655**	**7,207**	**7,707**	**8,067**	**8,357**	**8,562**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 - Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

Source: *ESA, 2018*

4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency

Impact	Would the proposed project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

This impact assesses whether the project would conflict with any applicable plans, policies, or regulations, as discussed below.

Federal and State Reduction Strategies. Table 4.7-11 evaluates the consistency of the World Logistics Center project with the various Federal and State energy conservation strategies and other regulations related to GHG emissions.

Table 4.7-11: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Mandatory Codes	
California Green Building Code. The Cal Green Code (Title 24, Part 11) prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business as Usual Scenario (California Building Code). The mandatory measures that are applicable to nonresidential projects include site selection, energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures.	**Consistent.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code.
Energy Efficiency Measures	
Energy Efficiency. Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Consistent with Mitigation Incorporated.** The project will comply with current California Building Code (CBC) requirements for building construction. **Mitigation Measures 4.7.6.1B** and **4.7.6.1C** would increase energy efficiency. **Mitigation Measure 4.7.6.1D** would require that the project exceed Title 24 (2008 version) by 10 percent or comply with the current version. The WLC Project Design Features (explained in detail in Energy Section 4.17.5) go further by committing the project to energy conservation measures that will enable the project to exceed the more rigorous 2016 Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout.
Renewables Portfolio Standard. Achieve a 50 percent renewable energy mix statewide by 2050. Qualifying renewable energy sources under the RPS include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not Applicable.** The project is not part of the State's power generation grid, but would install solar photovoltaic panels on project roofs pursuant to **Mitigation Measure 4.7.6.1D**. The solar PV would reduce the project's electricity related emissions by approximately 5.0 percent. In addition, Moreno Valley Electric Utility is subject to the Renewable Portfolio Standard.

Table 4.7-11: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Water Conservation and Efficiency Measures	
Water Use Efficiency. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The CalGreen Code, including the California Plumbing Code (Part 5), promotes water conservation. Title 20 and includes appliance and fixture efficiency standards that promote water conservation.	**Consistent with Mitigation Incorporated.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code and the Specific Plan outlines a number of water conservation measures, and **Mitigation Measures 4.16.1.6.1A** through **4.16.1.6.1C** will help reduce potential water use even further.
Solid Waste Reduction Measures	
Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste. AB 341 mandates commercial recycling and sets a goal that 75 percent of the state's solid waste generated be reduced, recycled, or composted by 2020. AB 1826 adds requirements regarding mandatory commercial organics recycling. SB 1383 requires methane emissions reduction from landfills and sets statewide disposal targets to reduce landfilling of organic waste by 50 percent from the 2014 level by 2020, and 75 percent from the 2014 level by 2025.	**Consistent with Mitigation Incorporated.** Data available from the California Integrated Waste Management Board (CIWMB) indicate that the City of Moreno Valley has not achieved the 50 percent diversion rate. The project will comply with **Mitigation Measure 4.7.6.1A** to help increase solid waste diversion, composting, and recycling. The measure would also require 50 percent diversion of construction waste prior to 2020 and 75 percent diversion starting in 2020.
Transportation and Motor Vehicle Measures	
Pavley Regulations and Vehicle Fuel Efficiency Standards. AB 1493 (Pavley) and the Advanced Clean Car (ACC) program require the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004 and expanded with the ACC program in 2012.	**Consistent.** The project does not involve the manufacture of vehicles or production of vehicle fuels. However, vehicles that are purchased and used within the project site would comply with any vehicle and fuel standards that the CARB adopts or has adopted. In addition, the project would require that all diesel trucks be 2010 or newer (**Mitigation Measure 4.3.6.3B**) and would be built to support the charging of future electric-powered vehicles anticipated by the Mobile Source Strategy. The Project design also includes supporting infrastructure to accommodate future EV populations consistent with targets in the Mobile Source Strategy.
Light-Duty Vehicle Efficiency Measures. Implement additional measures that could reduce light-duty vehicle GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency.	
Heavy- and Medium-Duty Fuel and Engine Efficiency Measures. Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased engine efficiency of vehicles.	
Mobile Source Strategy. This 2016 plan includes a target of 4.2 million zero emission vehicles (ZEVs) by 2030, and GHG reductions from medium-duty and heavy-duty vehicles, and transit. It also includes reductions in GHGs from medium-duty and heavy-duty vehicles via the Phase 2 Medium and Heavy-Duty GHG Standards.	

Table 4.7-11: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Low Carbon Fuel Standard. The CARB identified this measure as a Discrete Early Action Measure in the 2008 Scoping Plan. As included in the Mobile Source Strategy, this measure would reduce the carbon intensity of California's transportation fuels by at least 18 percent by 2030.	
Sustainable Freight Action Plan. The 2016 plan directs the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system.	
Regional Transportation-Related GHG Targets. Develop regional GHG emissions reduction targets for passenger vehicles, as required by SB 375. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.	**Not Applicable.** Specific regional emission targets for transportation emissions do not directly apply to the WLC project; regional GHG reduction target development is outside the scope of this project. The project will comply with any plans developed by the City of Moreno Valley.
Measures to Reduce High Global Warming Potential (GWP) Gases.	
Short-Lived Climate Pollutant Strategy. SB 1383 (2016) requires the CARB to approve and implement Short-Lived Climate Pollutant strategy to reduce high GWP GHGs to achieve a statewide reduction in methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030.	**Not Applicable.** New products used or serviced on the WLC project site (after implementation of the reduction of GHG gases) would comply with future CARB rules and regulations, as would vehicles (with their refrigerants used in air conditioning systems) visiting the site.

AB = Assembly Bill CARB = California Air Resources Board
GHG = greenhouse gas
Source: based on analysis in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2018

With implementation of applicable strategies/measures, project design features, and mitigation measures, the project's contribution to cumulative GHG emissions would be reduced. In order to ensure that the World Logistics Center project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32 and SB 32, the Mitigation Measures and Project design Features listed in the above table shall be implemented.

The project will comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting. The warehouse buildings will be built in compliance with the California Building Code to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices. In addition, **Mitigation Measure 4.7.6.1D** requires that the project will exceed the Title 24 energy conservation standards (2008 version) by 10 percent or comply with the current version, while the WLC Project Design Features go even further by committing the project to energy conservation measures that will enable the project to exceed the more rigorous 2016 Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout.

CARB Scoping Plan and the California Cap and Trade Program. AB 32 focuses on reducing GHG emissions to 1990 levels by the year 2020, while SB 32 has a target of 40 percent below

1990 levels by 2030. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which contains a variety of strategies to reduce the State's emissions. The First Update to the Scoping Plan was approved in 2014 and the Second Update was approved in 2017 following the passage of SB 32. As described in Section 4.7.2.2 – State Regulations/Standards, AB 398 extended California's cap-and-trade program through 2030 and the program is adopted as a core strategy in the 2017 Scoping Plan Update for meeting the state's GHG reduction targets for 2020 and 2030. The 2017 Scoping Plan Update incorporates all of the state's GHG reduction strategies included in Table 4.7-11. Table 4.7-12 considers the strategies in 2017 Scoping Plan Update that are not included in Table 4.7-11, indicating that all are either consistent with or not applicable to the project; therefore, the project does not conflict with the Scoping Plan.

Table 4.7-12: Analysis of Additional Measures in the 2017 Scoping Plan Update

Scoping Plan Reduction Measure	Consistency Analysis
1. **California Cap-and-Trade Program Linked to Western Climate Initiative.** Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable.** California's cap-and-trade system covers products or services (such as electricity) and the cost of the cap-and-trade system would be transferred to the consumers. Large industrial uses are the most likely source of participants for this program, and it is not likely individual logistics warehousing will be an active participant in this program. Under AB 32 and SB 32, emissions from natural gas use, transportation fuel use, and electricity generation are covered under the cap-and-trade program and subject to the program's emission reduction requirements.
16. **Carbon Sequestration in Natural and Working Lands**. Natural and working lands – including forests and agricultural lands – are a key sector in the State's climate change strategy. Storing carbon in trees, other vegetation, soils, and aquatic sediment is an effective way to remove carbon dioxide from the atmosphere. The 2017 Scoping Plan Update describes policies and programs that prioritize protection and enhancement of California's landscapes, and commits the State to finalizing a carbon sequestration and GHG emissions reduction goal for natural and working lands by September 2018	**Not Applicable.** No forested lands exist on site. As reported in the Agriculture and Forestry Resources section 4.2.1, approximately 2,200 acres of the 2,610-acre Specific Plan area is currently dry farmed, mainly with winter wheat. However, the state's Natural and Working Lands Climate Change Implementation Plan has not been adopted, and there is no protection currently in place to preserve the site for agriculture. Further, as described in the Agriculture and Forestry Resources section, the conversion of the existing agricultural lands to urban uses is supported by the City's General Plan policies, and the entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City. The Agriculture and Forestry Resources section concludes that project implementation will result in less than significant impacts to conversion of Farmland of Local Importance.

Source: CARB, 2017e

City General Plan Policies. The project must also be evaluated against the City's General Plan policies that relate to greenhouse gas emissions, as shown in Table 4.7-13. This analysis shows that the project is consistent with the applicable General Plan objectives and policies, or the particular objective or policy is not applicable to the proposed WLC project.

Table 4.7-13: Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Objective 6.6. Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** The project is providing employment opportunities to Moreno Valley and the surrounding area.
Policy 6.6.1. Provide sites for new neighborhood commercial facilities within close proximity to the residential areas they serve.	**Not Applicable.** The project does not propose the development of neighborhood commercial facilities or residential dwellings.
Policy 6.6.2. Provide multifamily residential development sites in close proximity to neighborhood commercial centers in order to encourage pedestrian instead of vehicular travel.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Policy 6.6.3. Locate neighborhood parks in close proximity to the appropriate concentration of residents in order to encourage pedestrian and bicycle travel to local recreation areas.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Objective 6.7. Reduce mobile and stationary source air pollutant emissions.	**Consistent.** The project would be implementing feasible Mitigation Measures to reduce mobile and stationary emissions (**Mitigation Measures 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A**).
Policy 6.7.1. Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.	**Not Applicable.** This measure is beyond the scope of the project; the City will continue to work with the SCAQMD in regional planning efforts.
Policy 6.7.2. Encourage the financing and construction of park-and-ride facilities.	**Not Applicable.** The project consists of industrial uses; a park and ride on the project would not be feasible.
Policy 6.7.3. Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.	**Not Applicable.** No express mass transit facilities are designated on the project site or planned on the project site; therefore, this measure is beyond the scope of the project.
Policy 6.7.6. Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.	**Consistent.** The project will comply with Title 24 requirements.

Policies 6.7.4 and 6.7.5 are discussed in the air quality EIR section, Section 4.3).
Source of objectives and policies: Moreno Valley General Plan (2006).

City Climate Action Strategy. Finally, Table 4.7-14 evaluates the consistency of the World Logistics Center project with the policies of the City's Climate Action Strategy approved in October 2012. As shown below, the project is consistent with the requirements of the Strategy for non-residential development with implementation of project design features and mitigation measures.

Table 4.7-14: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.	**Not Applicable.** A Transit Priority Project is one that has at least 50 percent residential use based on area, at least 20 units per acre and is within a ½ mile of a major transit stop or High Quality Transit Corridor. A High Quality Transit Corridor is defined as one with 15-minute frequencies during peak commute hours. The project does not include a residential component and is not along a High Quality Transit Corridor nor are there any High Quality Transit Corridors or major transit stops in the vicinity of the project area. As a result, the strategy is not applicable.

Table 4.7-14: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.	**Consistent** with implementation of **Mitigation Measure 4.3.6.4A.**
R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.	**Not Applicable.** This measure applies to residential projects.
R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.	**Not Applicable.** This measure applies to residential projects.
R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards.	**Consistent** with **Mitigation Measure 4.7.6.1D.**
R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.	**Not Applicable.** This refers to updating building and zoning codes and does not apply to this warehousing development plan.
R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.	**Consistent.** The Specific Plan indicates that vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).
R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.	**Consistent.** California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. The Specific Plan also contains a variety of water conservation features. **Mitigation Measures 4.16.1.6.1A, B,** and **C** also provide water reduction measures.
R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.	**Consistent.** Tenants and owners within the WLC site will provide water conservation information from EMWD and other sources to workers on a regular basis.
R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.	**Consistent.** The project would incorporate standard City waste reduction features and **Mitigation Measure 4.7.6.1A** (has a target to reduce waste by 75 percent by 2020).
C11: Require that developer recycle existing street material for use as base for new streets.	**Consistent.** Project will implement **Mitigation Measure 4.7.6.1A** where feasible.

Executive Order S-3-05. As discussed in Section 4.7.4, the SCAQMD developed its thresholds based on consistency with California Executive Order S-3-05. As shown in Impact 4.7.6.1, the project's uncapped GHG emissions would not exceed the SCAQMD's industrial threshold.

Therefore, the project would not conflict with Executive Order S-3-05. This impact is less than significant.

Specific Plan Design Features. The WLCSP contains a sustainability section that emphasizes water and energy conservation throughout the project design, which in turn will help reduce GHG emissions (Section 1.3.2, Green Building-Sustainable Development). The revised WLC Project Design Features (described in detail in Energy Section 4.17.5) go beyond the WLSCP with energy conservation measures that exceed minimal compliance with current (2016) Title 24 requirements by about 17 percent at Phase 1 and 16 percent and full buildout.

Mitigation Measures. Implementation of previously referenced Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C will help reduce project-related GHG emissions and therefore make it more consistent with GHG reduction plans, policies, and/or regulations.

As previously identified, implementation of the WLC project could result in the development of an approximately 40.6 million square foot high cube-logistics distribution logistics. The project includes a variety of physical attributes and operational programs that would help reduce operational-source pollutant emissions from worker commuting, including GHG emissions. Future development that would occur under the project would be consistent with greenhouse gas emission reduction strategies and policies, including the City's Climate Change Strategy. The project would implement the Mitigation Measures listed above to reduce its contribution to GHG emissions and to ensure it does not conflict with or impede implementation of reduction goals identified in AB 32, SB 32, Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. In addition, the project would also be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. Therefore, the project would not conflict with any applicable plan, program, policy, or regulation related to the reduction of GHG emissions. Impacts are considered less than significant.

Similar to the discussion of cumulative air quality impacts, the project may employ workers locally from the City. This has the benefit of improving the local jobs/housing balance leading to air quality benefits in terms of shorter trip lengths, which lead to lower emissions than if the workforce was derived from distant locations.

The State of California has adopted a number of policies, including AB 32, SB 32, Governor's Executive Order S-3-05, the Pavley vehicle standards, the Advanced Clean Car program, and the Mobile Source Strategy, which collectively provide the structure and commitment to address California's contribution to global climate change. Since the project is consistent with these policies, including being below the SCAQMD threshold for greenhouse gases that was structured in accordance with these State policies, the project is consistent with greenhouse gas plans, policies, and regulations and impacts are less than significant after mitigation.

Level of Impact After Mitigation. Less than significant.

NOTE TO READERS: The cumulative portion of Section 4.8 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.8 of this Revised Sections of the FEIR. All other portions of Section 4.8 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.8 means that the corresponding portion of Section 4.8 in the FEIR remains unchanged or has been deleted.

4.8 HAZARDS AND HAZARDOUS MATERIALS

NOTE TO READERS: The cumulative portion of Section 4.9 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.9 of this Revised Sections of the FEIR. All other portions of Section 4.9 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.9 means that the corresponding portion of Section 4.9 in the FEIR remains unchanged or has been deleted. The Hydrology/Water Quality Technical Memorandum is included in Appendix C.

4.9 HYDROLOGY AND WATER QUALITY

NOTE TO READERS: This portion of the Revised Sections of the FEIR sets forth those portions of Section 4.10 of the FEIR which has been revised. The cumulative portion of Section 4.10 of the FEIR has been deleted from the FEIR to allow for its reanalysis to include impacts expected from past, present and reasonably foreseeable projects. The revised cumulative analysis can be found in Section 6.10 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.10 means that the corresponding portion of Section 4.10 in the FEIR remains unchanged or has been deleted.

4.10 LAND USE AND PLANNING

In 1981–82, the State Wildlife Conservation Board purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project. This area was designated as the San Jacinto Wildlife Area (SJWA). In 1995, the Board acquired an additional 921 acres within the southern portion of the Moreno Highlands Specific Plan (MHSP) property to incorporate into the SJWA. Since the land use designations for the acquired property were not changed following the acquisition, they remain designated for development under the Moreno Highlands Specific Plan. This project will change the designation of the acquired properties to “Open Space.”

4.10.1.5 Existing General Plan, Specific Plan and Zoning Land Use Designations Applicable to the World Logistics Center Site

The World Logistics Center site currently has a General Plan designation of Business Park/Light industrial and zoning land use designations of WLSP-LD (World Logistics Center Specific Plan – Logistics Development) and WLCSP – LL (World Logistics Center Specific Plan – Light Logistics). The zoning land use designations are shown on Figure 4.10.3 in the FEIR. Development of the site is controlled by the World Logistics Center Specific Plan which authorizes the construction and operation of 40,600,000 square feet of logistics facilities and associated infrastructure, The Specific Plan land use plan is shown on FEIR Figure 4.10.4 and in Section 3.0 of the Revised Sections of the FEIR.

4.10.1.7 Project Components

The only land use approvals currently needed for the development of the World Logistics Center site are subdivision maps, and Local Agency Formation Commission (LAFCO) action to transfer 85 acres from unincorporated Riverside County to the City of Moreno Valley and into the City’ Community Services District.

4.10.5.3 Conflict with Applicable Land Use Plans, Policies or Regulations (Local)

This section has been edited to remove all references to the proposed general plan amendment, specific plan and rezoning. It should conclude that the WLC project is in full compliance with all applicable plans, policies and regulations.

NOTE TO READERS: The cumulative portion of Section 4.11 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.11 of this Revised Sections of the FEIR. All other portions of Section 4.11 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.11 means that the corresponding portion of Section 4.11 in the FEIR remains unchanged or has been deleted.

4.11 MINERAL RESOURCES

NOTE TO READERS: This portion of the Revised Sections of the FEIR replaces portions of Section 4.12 of the FEIR. Tables and figures included herein are numbered sequentially as they appear for ease of reading and do not account for any tables or figures included in the unchanged portions of Section 4.12 of the FEIR. The cumulative portion of Section 4.12 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.12 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.12 means that the corresponding portion of Section 4.12 in the FEIR remains unchanged or has been deleted.

4.12 NOISE

The Superior Court ruling requires the follow actions with regards to Noise:

"The FEIR must provide an analysis of construction noise over ambient levels; provide adequate analysis on construction noise impacts on nearby homes; address the inadequacy of mitigation measures, which fail to include performance standards or ways to reduce construction noise."

The Noise technical report is included in Appendix D.

This section of the Revised Sections of the FEIR is intended to satisfy the City's requirements for a project-specific noise impact analysis by examining construction impacts of the project on sensitive land uses adjacent to the World Logistics Center project area, noise generated by project-related traffic, and by evaluating the effectiveness of mitigation measures. This analysis includes the potential for the project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the project area; and exposure of people to noise levels exceeding noise standards.

The analysis contained in this section is based on the following technical study prepared for the project:

- *Noise Assessment for the World Logistic Center Specific Plan,* ESA Associates, dated July 2018 (Appendix D of this Revised Sections of the FEIR).

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- *California Noise Insulation Standards,* California Code of Regulations, Title 24, Part 2, §3501;
- *Highway Traffic Noise Prediction Model (FHWA-RD-77-108)*, Federal Highway Administration (FHWA);
- *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006;
- *Moreno Valley Municipal Code,* City of Moreno Valley, current through Ordinance 836 and the February 2012 code supplement; and
- *State of California General Plan Guidelines*, Governor's Office of Planning and Research, October 2003, pages 249 and 250.
- *Traffic Impact Analysis Report for The World Logistics Center,* WSP USA Inc., dated June 2018 (Appendix F of this Revised FEIR).

4.12.1 Existing Setting

4.12.1.1 Background

Characteristics of Noise. To the human ear, sound is technically described in terms of its loudness (amplitude) and pitch (frequency). Pitch is generally an annoyance, while loudness can affect our ability to hear. Noise is usually defined as unwanted sound; it consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

Measurement of Noise. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on a logarithmic scale. The logarithmic scale compresses the wide range in sound levels resulting in a more usable range of sound level values, similar to the Richter scale used to measure earthquakes. To humans, a sound 10 dB higher than another is considered to be twice as loud; a sound 20 dB higher than another is considered four times as loud; etc. Typical daily sounds in the environmental range from 30 dB (very quiet) to 100 dB (very loud).

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the dBA. Figure 4.12-1 shows examples of various noises sources and their typical dBA noise level.

There are two categories of noise that are measured to characterize noise conditions: single event noise and community or cumulative noise. Single event measurements describe the noise levels from an individual event such as a passing airplane or a heavy-duty truck. Cumulative measurements average the total noise in a community over a specific time period, which is typically 1 or 24 hours.

The noise impact analysis performed for this Revised Final EIR is based on assessment of both single event noise and community or cumulative noise. Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on humans; (2) the variety of noises found in the environment; (3) the variations in noise levels that occur as a person moves through the environment; and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to affect people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominant noise scales are the Equivalent Noise Level (L_{eq}) and the Community Noise Equivalent Level (CNEL). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is the “energy” average noise level during the time period of the sample. L_{eq} can be measured for any time period, but is typically measured for 1 hour. This 1-hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL is the predominant rating scale now in use in California for land use noise compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the dBA. Time weighted refers to the inclusion of penalties for noise that occurs during certain noise-sensitive time periods. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA, reflecting people’s increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a CNEL of 60 dBA, 60 dBA CNEL, or simply 60 CNEL.

L(%) is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example, since 5 minutes is 25 percent of 20 minutes, L(25) is the noise level that is equal to or exceeded for five minutes in a twenty-minute measurement period. It is L(%) that is used for most Noise Ordinance standards. For example, most daytime County, State and City noise ordinances use a standard of 55 dBA for 30 minutes per hour, or an L(50) level of 55 dBA. In other words, the noise ordinance may state that no noise level should exceed 55 dBA for more than fifty percent of a given period.

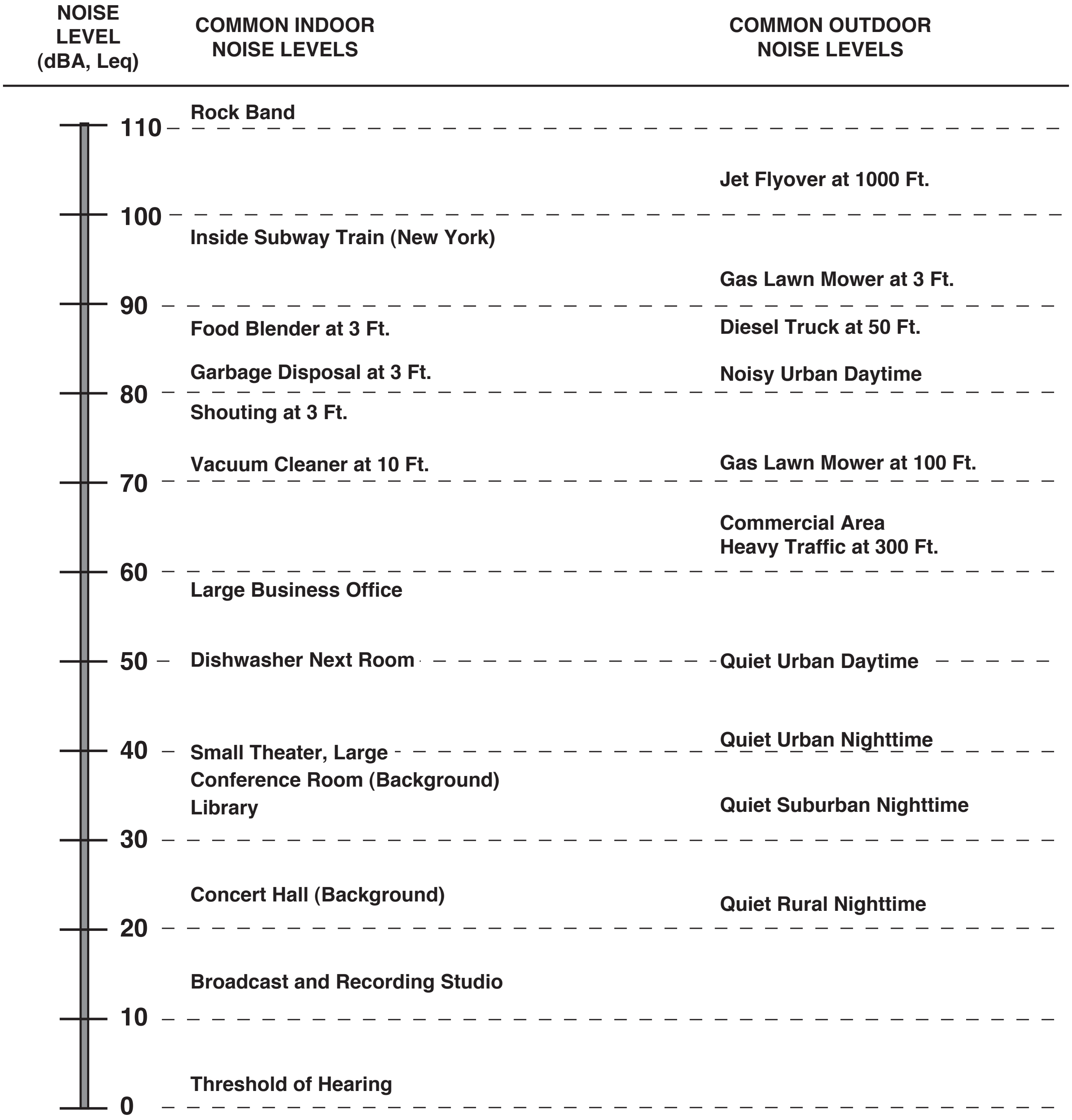

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SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf

World Logistics Center Project

Figure 4.12-1

Typical A-weighted Noise Levels

ESA

The maximum noise level (L_{max}) is the highest exponential time averaged sound level that occurs during a stated time period. The noise levels discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak noise conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

4.12.1.2 Sensitive Land Uses in the Project Vicinity

Certain land uses are considered more sensitive to noise than others. Examples include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The World Logistics Center project vicinity and World Logistics Center site are characterized by a mix of developed and undeveloped properties. Developed properties in the vicinity include an industrial/warehouse building in Moreno Valley to the northwest (Skechers), several residential neighborhoods along Redlands Boulevard along the western boundary of the project site, and scattered residential uses along Gilman Springs Road to the east of the project site. An area of the City known as “Old Moreno” is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Merwin Street, east of Redlands Boulevard, constitute the closest sensitive receptors to the project site (i.e., they are adjacent to the property). Additionally, there are currently six occupied residential uses located within the northwestern portion of the World Logistics Center site.

4.12.1.3 Existing Noise Measurements

Existing noise levels in the vicinity of the World Logistics Center project are used to establish baseline noise levels in key areas. Noise measurements within the project site and in the surrounding area were conducted. The noise measurement locations were selected to provide coverage of the project’s potential noise impact area. The noise measurement locations are shown Figure 4.12-2.

Noise measurements were conducted at 14 sites in the World Logistics Center project vicinity. Long-term (24-hour) measurements were conducted at locations R1 and R3 through R5, a 13-hour measurement was conducted at location R2, and short-term (15-minute) noise measurements were conducted at locations R6 through R14. Short-term ambient noise measurements were conducted between 8:00 A.M. to 12:00 P.M. on Thursday, March 15, 2018, and long-term ambient noise measurements were conducted from Thursday, March 15 through Friday, March 16, 2018 to characterize the existing noise environment in the project vicinity. Long-term measurements (typically 24 hours a day for several days) are used to characterize the diurnal traffic noise pattern at selected locations in the project area. This data can be used to identify the worst noise hour and to develop relationships between non-worst-hour and worst-hour noise levels. Long-term noise measurement locations were selected to represent the existing 24-hour noise environment at residential uses adjacent to the western boundary of the project site and short-term measurement locations were selected to represent each major developed area within the World Logistics Center site and serve as representative modeling locations. This information can be used to estimate worst-hour noise levels from levels measured during non-worst hour times. A summary of the noise measurements collected is provided in Table 4.12-1.

Table 4.12-1: Existing Ambient Noise Measurements (dBA L_{eq})

Site	Date	Start Time/ Measurement Period	Daytime (7 a.m. to 10 p.m.) Hourly L_{eq}	Daytime Average Hourly Leq	Nighttime (10 P.M. to 7 A.M.) Hourly Leq	Nighttime Average Hourly Leq	dBA CNEL
Off-Site Measurement Locations							
R1	3-15 to 3-16-18	8 a.m. / 24 hours	32.0 – 47.2	41.2	29.8 – 39.2	34.0	43
R2	3-15-18	9 a.m. / 13 hours	52.8 – 82.7	75.6	52.8	52.8	N/A
R3	3-15 to 3-16-18	9 a.m. / 24 hours	38.8 – 58.0	51.6	39.1 – 63.3	54.4	61
R4	3-15 to 3-16-18	11 a.m. / 24 hours	62.2 – 68.3	66.4	56.2 – 69.7	64.7	72
R5	3-15 to 3-16-18	11 a.m. / 24 hours	66.4 – 71.5	69.6	60.3 – 71.2	66.9	74
R6	3-15-18	9:16 a.m. / 15 minutes	65.4	N/A	N/A	N/A	N/A
R7	3-15-18	9:39 a.m. / 15 minutes	72.0	N/A	N/A	N/A	N/A
R8	3-15-18	10:02 a.m. / 15 minutes	53.4	N/A	N/A	N/A	N/A
R9	3-15-18	10:23 a.m. / 15 minutes	51.0	N/A	N/A	N/A	N/A
R10	3-15-18	10:44 a.m. / 15 minutes	71.7	N/A	N/A	N/A	N/A
R11	3-15-18	8:53 a.m. / 15 minutes	74.2	N/A	N/A	N/A	N/A
On-Site Measurement Locations							
R12	3-15-18	10:07 a.m. / 15 minutes	54.4	N/A	N/A	N/A	N/A
R13	3-15-18	10:32 a.m. / 15 minutes	47.0	N/A	N/A	N/A	N/A
R14	3-15-18	10:54 a.m. / 15 minutes	50.7	N/A	N/A	N/A	N/A

4.12.1.4 Existing Traffic Noise Environment

The primary existing noise sources in the World Logistics Center project area are transportation facilities. Traffic on SR-60, Redlands Boulevard, Theodore Street, World Logistics Center Parkway, Gilman Springs Road, and other local streets is the dominant source contributing to the ambient noise levels in the project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Table 4.12-2 identifies the existing (2018) traffic noise levels adjacent to roadway segments in the project vicinity without consideration of existing noise barriers.

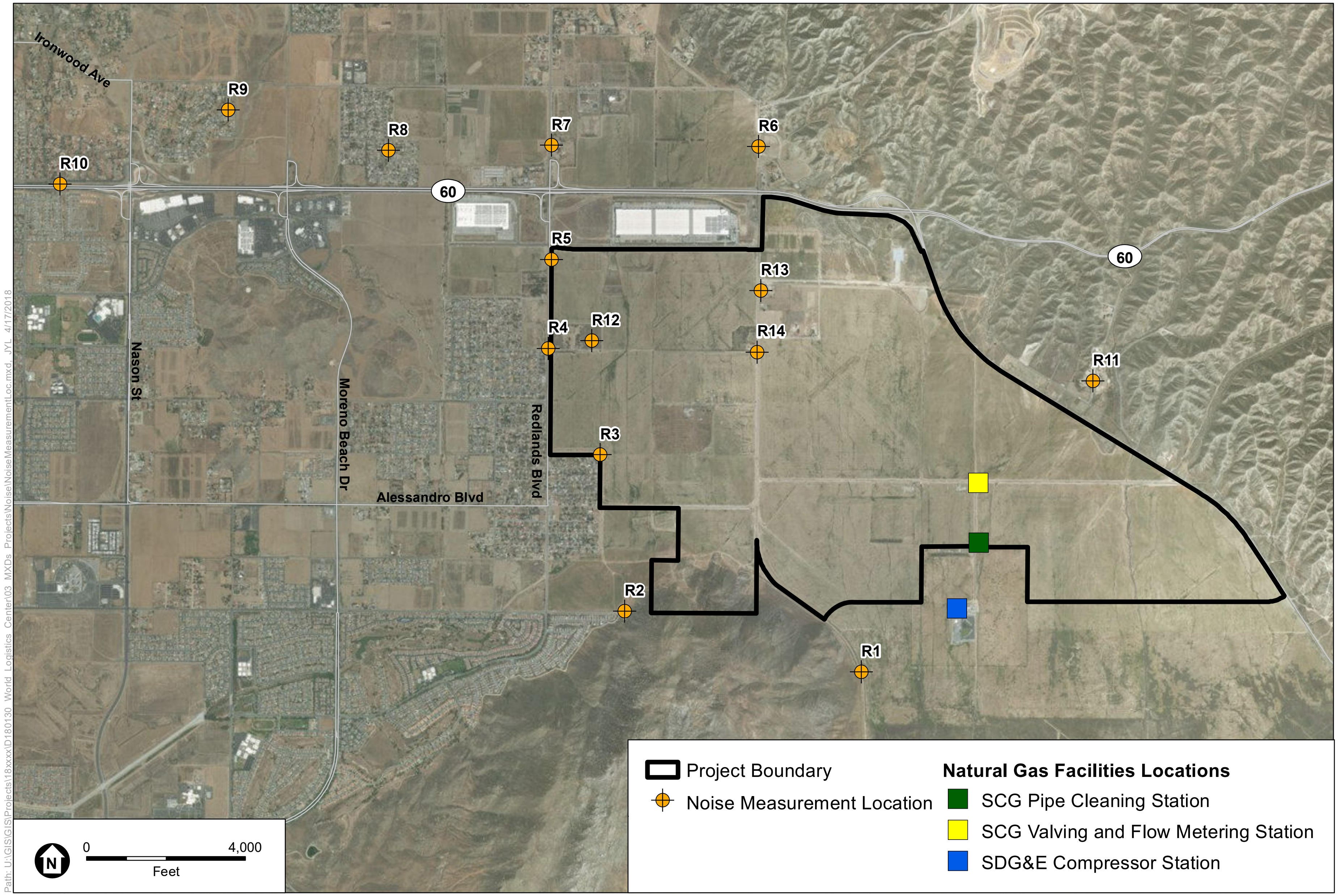

SOURCE: ESRI

World Logistics Center

Figure 4.12-2
Noise Measurement Locations

ESA

Table 4.12-2: Existing Traffic Noise Levels (CNEL dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Alessandro Boulevard (Lasselle Street and Morrison Street)	65.3
Alessandro Boulevard (Morrison Street to Nason Street)	66.1
Alessandro Boulevard (Nason Street to Oliver Street)	64.5
Cactus Avenue (Nason Street to Oliver Street)	64.0
Cactus Avenue (Oliver Street to Moreno Beach Drive)	63.2
Cactus Avenue (Redlands Boulevard to Street D/Cactus Avenue Extension)	51.9
Cactus Avenue (west of Redlands Boulevard)	60.2
Canyon Crest Drive (Alessandro Boulevard to Sandtrack Road)	49.0
Canyon Crest Drive (Central Avenue to Country Club Drive)	67.8
Country Club Drive (Chicago Avenue to Canyon Crest Drive)	55.4
Crescent Avenue (west of Alessandro Road)	56.2
Day Street (Cottonwood Avenue to Alessandro Boulevard)	59.5
Elsworth Street (Cottonwood Avenue to Alessandro Boulevard)	58.6
Evans Road (Marbella Gate to Ramona Expressway)	68.2
Gilman Springs Road (Bridge Street to Beaumont Avenue)	67.4
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	67.2
Gilman Springs Road (Eucalyptus Avenue to Street C/Alessandro Boulevard)	67.2
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	67.8
Gilman Springs Road (south of Street C/Alessandro Boulevard)	68.0
Gilman Springs Road (SR-79 Northbound Ramps to Record Road)	66.5
Heacock Street (Alessandro Boulevard to Cactus Avenue)	66.3
Heacock Street (Cactus Avenue to John F Kennedy Drive)	69.2
Indian Street (Alessandro Boulevard to Cactus Avenue)	65.0
Indian Street (Cactus Avenue to John F Kennedy Drive)	65.4
Iris Avenue (Kitching Street to Lasselle Street)	67.7
Iris Avenue (Lasselle Street to Nason Street)	68.6
Iris Avenue (Nason Street to Oliver Street)	67.0
Iris Avenue (Perris Boulevard to Kitching Street)	67.5
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7
John F Kennedy Drive (south of Cactus Avenue)	63.8
Kitching Street (Alessandro Boulevard to Cactus Avenue)	63.5
Kitching Street (Cactus Avenue to John F Kennedy Drive)	64.1
Kitching Street (Iris Avenue to Ivory Avenue)	64.0
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9
Krameria Avenue (Perris Boulevard to Lasselle Street)	63.8
Lasselle Street (Cahuilla Drive to Krameria Avenue)	68.2
Lasselle Street (Cottonwood Avenue to Alessandro Boulevard)	64.1
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	68.2
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	62.8
Lochmoor Drive (Central Avenue to Fair Isle Drive)	60.5
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1
Mission Grove Parkway (Alessandro Boulevard to Northrop Drive)	65.2
Mission Grove Parkway (Cannon Road to Alessandro Boulevard)	59.3
Moreno Beach Drive (John F Kennedy Drive to Cactus Avenue)	65.8

Table 4.12-2: Existing Traffic Noise Levels (CNEL dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Moreno Beach Drive (John F Kennedy Drive to Oliver Street)	62.7
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1
Old 215 Frontage Road (Eucalyptus Avenue to Alessandro Boulevard)	65.5
Orange Avenue (Evans Road to Foothill Drive)	72.9
Perris Boulevard (Alessandro Boulevard to Cactus Avenue)	68.3
Perris Boulevard (Alessandro Boulevard to Cottonwood Avenue)	68.7
Perris Boulevard (Cactus Avenue to John F Kennedy Drive)	68.4
Perris Boulevard (Iris Avenue to Krameria Avenue)	68.6
Perris Boulevard (John F Kennedy Drive to Iris Avenue)	68.2
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	70.0
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	69.6
Perris Boulevard (Sunnymead Boulevard to Fir Avenue)	69.4
Ramona Expressway (Evans Road to Rider Street)	71.2
Reche Canyon Road (Keissel Road to Reche Vista Drove)	67.1
Reche Vista Drive (Heacock Street to Reche Canyon Road)	63.8
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	69.8
Redlands Boulevard (Ironwood Avenue to SR-60)	69.3
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	66.1
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	67.1
World Logistics Center Parkway (Eucalyptus Avenue to Street F)	52.6
Sunset Drive (Alessandro Road to Cameo Drive)	50.3
Sunset Drive (Crown Street to Alessandro Road)	47.4
Sycamore Canyon Boulevard (Central Avenue to College Boulevard)	64.4
Theodore Street (SR-60 to Ironwood Avenue)	59.6
Freeways	
SR-60 (Heacock Street to Perris Boulevard)	79.9
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9
SR-60 (Perris Boulevard to Nason Street)	80.1
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	81.2
SR-60 (Redlands Boulevard to World Logistics Center Parkway, South of SR 60)	77.0

Source: ESA, 2018.

4.12.2 Existing Policies and Regulations

The applicable noise standards governing the World Logistics Center site are the criteria in the City of Moreno Valley General Plan Safety Element (Environmental Safety, Noise) and Municipal Code (Noise Ordinance). The City's Safety Element of the General Plan does not contain specific noise standards or significance thresholds. However, the General Plan does cite applicable State standards including the California Administrative Code, Section 1092 of Title 25, Chapter 1, Subchapter 1, Article 4 and Section 5014 of Title 21, Subchapter 6, Article 2. In addition, other applicable standards identified in the California Code of Regulations, Title 24, Part 2, Section 3501, the *California Noise Insulation Standards* and the *State of California Vehicular Code* (Governor's Office of Planning and Research, 2003). The following sections list the City of Moreno Valley General Plan policies, City of Moreno Valley Municipal Code, and State standards relevant to noise for the project. Construction- and traffic-related noise could potentially impact uses in neighboring jurisdictions. Therefore, General Plan goals and policies and Noise Ordinance standards for the City of Perris, City of Riverside, and County of Riverside have also been included herein.

4.12.2.1 City of Moreno Valley General Plan Policies

Chapter 9 of the *City of Moreno Valley General Plan* (COMV, 2006g) defines goals, objectives, policies, and action items related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Objective 6.3 Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.

Policy 6.3.5 Enforce the California Administrative Code, Title 24 noise insulation standards for new multi-family housing developments, motels and hotels.

Policy 6.3.6 Building shall be limited in areas of sensitive receptors.

Objective 6.4 Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.

Policy 6.4.1 Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.

Objective 6.5 Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.

Policy 6.5.1 New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.

Policy 6.5.2 Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

4.12.2.2 City of Moreno Valley Municipal Code

The *Moreno Valley Municipal Code* (COMV, 2018) establishes a Noise Ordinance that describes the noise standards within the City. Chapter 11.80.030 (Title 11) lists specific prohibited acts.

The City's Municipal Code, Section 6.04.030.J states that "to create, allow or maintain any loud or unusual noise or operate or maintain any device, instrument, vehicle, or machinery in such a manner as to create loud or unusual noise, cause vibrations, or unreasonable light spillage or glare which causes discomfort or annoyance to reasonable persons of normal sensitivity, or which endangers the comfort, repose, health or peace of the public or of any person using or occupying other property in the vicinity" is prohibited.

The City's Municipal Code, Section 9.10.140, specifies that all commercial and industrial uses shall be operated so that noise created by any loudspeaker, bells, gongs, buzzers, or other noise attenuation or attracting devices shall not exceed 55 dBA at any one time beyond the boundaries of the property.

Chapter 11.80.030 of the City's Municipal Code also states:

> *Based on statistics from the Center for Disease Control and Prevention and the National Institute for Occupational Safety and Health, Table 1 and Table 1-A specify sound level limits which, if exceeded, will have a high probability of producing permanent hearing loss in anyone in the area where the sound levels are being exceeded. No sound shall be permitted within the City which exceeds the parameters set forth in Table 11.80.030-1* [Table 4.12-3] *and 11.80.030-1A* [Table 4.12-4] *of this chapter.*
>
> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2* [Table 4.12-5] *when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.*
>
> *The following uses and activities shall be exempt from the sound level regulations except the maximum sound levels provided in Tables 11.80.030-1* [Table 4.12-3] *and 11.80.030-1A* [Table 4.12-4]*:*
>
> 1. *Sounds resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of an emergency.*
> 2. *Sounds resulting from emergency work as defined in Section 11.80.020.*
> 3. *Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations and air traffic control instruction used pursuant to and within the duly adopted federal air regulations; and any aircraft operating under technical difficulties in any kind of distress, under emergency orders or air traffic control, or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations.*
> 4. *All sounds coming from the normal operations of interstate motor and rail carriers, to the extent that local regulation of sound levels of such vehicles has been preempted by the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) or other applicable federal laws or regulations.*
> 5. *Sounds from the operation of motor vehicles, to the extent they are regulated by the California Vehicle Code.*
> 6. *Any constitutionally protected noncommercial speech or expression conducted within or upon any public right-of-way, public space or other publicly owned property constituting an open or a designated public forum in compliance with any applicable reasonable time, place and manner restriction on such speech or expression or otherwise pursuant to legal authority.*
> 7. *Sounds produced at otherwise lawful and permitted city-sponsored events, organized sporting events, school assemblies, school playground activities, by permitted fireworks, and by permitted parades on public right-of-way, public space, or other publicly owned property.*
> 8. *An event for which a temporary use permit or special event permit has been issued under other provisions of this code, where the provision of Section 11.80.010 are met, the permit granted expressly grants an exemption from specific standards contained in this chapter, and the permittee and all persons under the permittee's reasonable control actually comply with all conditions of such permit. Violation of any condition of such permit related to sound or sound equipment shall be in violation of this chapter and punishable as such.*

Table 4.12-3 and Table 4.12-4 show the maximum sound levels that are permitted in the City for continuous and impulsive sounds, respectively.

Table 4.12-3: Maximum Continuous Sound Levels*

Duration Per Day Continuous Hours	Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

* When the daily sound exposure is composed of two or more periods of sound exposure at different levels, the combined effect of all such periods shall constitute a violation of this section if the sum of the percentage of allowed period of sound exposure at each level exceeds 100 percent.

Source: COMV, 2018.

Table 4.12-4: Maximum Impulsive Sound Levels

Number of Repetitions Per 24-Hour Period	Sound Level (dBA)
1	145
10	135
100	125

Source: Chapter 11.80.030 Table 11.80.030-1A, City of Moreno Valley Municipal Code, City of Moreno Valley.

The City also restricts the sound levels for non-impulsive sound on lands designated for residential and commercial land uses during the daytime and nighttime time periods. These levels are shown in Table 4.12-5. Section 11.80.050 (3) clearly identifies the measurement as an “average” noise level, and therefore, the noise limits shown in Table 4.12-5 are interpreted as the L_{eq} noise level.

Table 4.12-5: Maximum Non-Impulsive Sound Levels (in dBA)

Residential		Commercial	
Daytime (8:00 a.m. – 10:00 p.m.)	Nighttime (10:01 p.m. – 7:59 a.m.)	Daytime (8:00 a.m. – 10:00 p.m.)	Nighttime (10:01 p.m. – 7:59 a.m.)
60	55	65	60

Source: COMV, 2018.

Should a noise disturbance occur during construction, the City prohibits all construction and demolition activities between the hours of 8:00 p.m. and 7:00 a.m. the day following the noise disturbance; with the exception of emergency work by public service utilities or for other work approved by the city manager or designee. A noise disturbance is defined as any sound which that disturbs a reasonable person of normal sensitivities, exceeds the sound level limits set forth in the Noise Ordinance, or is plainly audible. A noise disturbance is defined as plainly audible measured at a distance of 200 feet from the real property line of the source of the sound if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property.

4.12.2.5 City of Perris General Plan Policies

The Noise Element of the *City of Perris General Plan* (COP, 2016) defines goals, policies, and implementation measures related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Goal II	Roadway improvements compatible with existing noise-sensitive land uses.
Policy II.A	Appropriate measures shall be taken in the design phase of future roadway widening projects to minimize impacts on existing sensitive noise receptors.
Goal V	Future non-residential land uses compatible with noise sensitive land uses.
Policy V.A	New large scale commercial or industrial facilities located within 160 feet of sensitive and uses shall mitigate noise impacts to attain an acceptable level as required by the State of California Noise/Land use Compatibility Criteria.

4.12.2.6 City of Riverside General Plan Policies

The Noise Element of the *City of Riverside General Plan* (COR, 2018) defines objectives and policies related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Objective N-1	Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.
Policy N-1.5	Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.
Policy N-1.7	Evaluate noise impacts from roadway improvement projects by using the City's Acoustical Assessment Procedure.
Policy N-1.8	Continue to consider noise concerns in evaluating all proposed development decisions and roadway projects.
Objective N-4	Minimize ground transportation-related noise impacts.
Policy N-4.1	Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (e.g., earthen berms, landscaped walls, lowered streets, improved technology).
Policy N-4.2	Investigate and pursue innovative approaches to reducing noise from railroad sources.
Policy N-4.3	Identify and aggressively pursue funding sources to provide grade separations and sound walls along train routes as noise reduction measures.
Policy N-4.5	Use speed limit controls on local streets as appropriate to minimize vehicle traffic noise.

4.12.2.7 County of Riverside General Plan Policies

The Noise Element of the *County of Riverside General Plan* (COR, 2015) defines policies related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

N.1.1	Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

N.1.2 Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of any adjacent airports.

N.1.4 Determine if existing land uses will present noise compatibility issues with projects by undertaking site surveys.

N.1.5 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

N.1.6 Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or noise-sensitive uses.

N.1.8 Limit the maximum permitted noise levels that cross property lines and impact adjacent land uses, except when dealing with noise emissions from wind turbines.

N.2.3 Mitigate exterior and interior noises to the levels listed in Table 4.12-6 below to the extent feasible.

Table 4.12-6: Stationary Source Land Use Standards

Land Use	Interior Standards	Exterior Standards
Residential		
10:00 p.m. to 7:00 a.m.	40 L_{eq} (10 minute)	45 L_{eq} (10 minute)
7:00 a.m. to 10:00 p.m.	55 L_{eq} (10 minute)	65 L_{eq} (10 minute)

Source: COR, 2015.

N.3.3 Ensure compatibility between industrial development and adjacent land uses. To achieve compatibility, industrial development projects may be required to include noise mitigation measures to avoid or minimize project impacts on adjacent uses.

N.3.5 Require that a noise analysis be conducted by an acoustical specialist for all proposed projects that are noise producers. Include recommendations for design mitigation if the project is to be located either within proximity of a noise-sensitive land use, or land designated for noise-sensitive land uses.

N.3.6 Discourage projects that are incapable of successfully mitigating excessive noise.

N.3.7 Encourage noise-tolerant land uses such as commercial or industrial, to locate in areas already committed to land uses that are noise-producing.

N.4.1 Prohibit facility-related noise received by any sensitive use from exceeding the following worst-case noise levels:

a. 45 dBA-10-minute Leq between 10:00 p.m. and 7:00 a.m.

b. 65 dBA-10-minute Leq between 7:00 a.m. and 10:00 p.m.

N.4.3 Ensure any use determined to be a potential generator of significant stationary noise impacts be properly analyzed and ensure that the recommended mitigation measures are implemented.

N.4.4 Require that detailed and independent acoustical studies be conducted for any new or renovated land uses or structures determined to be potential major stationary noise sources.

N.4.5 Encourage major stationary noise-generating sources throughout the County of Riverside to install additional noise buffering or reduction mechanisms within their facilities to reduce noise generation levels to the lowest extent practicable prior to the renewal of conditional use permits or business licenses or prior to the approval and/or issuance of new conditional use permits for said facilities.

N.4.8 Require that the parking structures, terminals, and loading docks of commercial or industrial land uses be designed to minimize the potential noise impacts of vehicles on the site as well as on adjacent land uses.

N.6.3 Require commercial or industrial truck delivery hours be limited when adjacent to noise-sensitive land uses unless there is no feasible alternative or there are overriding transportation benefits.

N.9.2 Ensure the inclusion of noise mitigation measures in the design of new roadway projects in the county.

N.9.3 Require development that generates increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses to provide for appropriate mitigation measures.

N.9.4 Require that the loading and shipping facilities of commercial and industrial land uses, which abut residential parcels be located and designed to minimize the potential noise impacts upon residential parcels.

N.9.5 Employ noise mitigation practices when designing all future streets and highways, and when improvements occur along existing highway segments. These mitigation measures will emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.

N.12.1 Utilize natural barriers such as hills, berms, boulders, and dense vegetation to assist in noise reduction.

N.12.2 Utilize dense landscaping to effectively reduce noise. However, when there is a long initial period where the immaturity of new landscaping makes this approach only marginally effective, utilize a large number of highly dense species planted in a fairly mature state, at close intervals, in conjunction with earthen berms, setbacks, or block walls.

N.13.1 Minimize the impacts of construction noise on adjacent uses within acceptable practices.

N.13.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

N.13.4 Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

4.12.3 Methodology

Evaluation of noise impacts associated with the project includes the following:

- Determination of the short-term construction noise impacts on on-site and off-site noise-sensitive uses;
- Determination of the long-term noise impacts, of vehicular traffic, on on-site and off-site noise-sensitive uses; and
- Determination of the required mitigation measures to reduce construction and traffic noise.

Because of the location of noise-sensitive receptors, the noise analysis evaluates the noise effects of the industrial development on the existing residential development (sensitive receptors) near the project area.

Analysis of the project's temporary construction noise effects is based on estimates of construction equipment units and duration of use consistent with the air quality analysis. The analyses accounted for attenuation of noise levels due to distances that would be between the construction activity and the nearest sensitive land uses. Construction noise levels at nearby sensitive land uses were estimated using the FHWA's Roadway Construction Noise Model (FHWA, 2006a) assuming two of the loudest pieces of construction equipment would operate at the closest location point to the nearest sensitive receptor. Modeled construction noise levels at nearby sensitive receptors were compared to the City of Moreno Valley noise ordinance and to ambient noise levels.

The City of Moreno Valley prohibits construction from occurring outside of the hours of 8:00 p.m. to 7:00 a.m. that creates a noise disturbance. The project is anticipated to require limited nighttime construction activity, subject to the City's approval. Therefore, for this analysis, residences that are exposed to noise levels exceeding those identified in Chapter 11.80.030, Table 11.80.030-2 of the City of Moreno Valley Municipal Code (see Table 4.12-5) during project construction (60 dBA L_{eq} between 8:00 a.m. and 10:00 p.m. and 55 dBA L_{eq} between 10:01 p.m. and 7:59 a.m.) would result in violation of the City's noise ordinance.

Construction noise impacts are also assessed relative to the increase in noise levels that could result from the operation of specified construction equipment compared to existing noise level conditions. The City of Moreno Valley General Plan and noise ordinance does not specify an incremental increase threshold for construction. For this analysis, substantial temporary or periodic increases in ambient noise would occur and it would be considered a significant impact in cases where sensitive land uses are exposed to construction noise levels that increase ambient noise levels by 10 dB. A 10 dB increase in noise is considered a doubling of loudness to the average person (Caltrans, 2013).

Roadway noise impacts were evaluated using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) method (FHWA 2006b) based on the roadway traffic volume data provided in the Traffic Study prepared for the project and included in Appendix D of this Revised Final EIR. This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels that would occur under the "Without Project" condition.

4.12.4 Thresholds of Significance

A project would have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or if it would conflict with adopted environmental plans and goals of the community in which it is located.

The applicable noise standards and guidelines governing the project are those specified previously in Section 4.12.2. In summary, these criteria are contained within the Safety Element of the General Plan, the Municipal Code, the California Vehicle Code, and the State Noise Compatibility Guidelines.

For the purpose of this Revised Sections of the FEIR, a noise impact is considered significant if the project would result in:

- Construction noise would expose persons to noise levels in excess of standards established in the *City of Moreno Valley General Plan*, City of *Moreno Valley Municipal Code*, or applicable standards of other agencies; and/or
- A substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

The standards within the *City of Moreno Valley General Plan* and City of *Moreno Valley Municipal Code* determine the acceptable noise environment for project and its vicinity. The standards are as follows:

- Consider the following uses noise-sensitive and discourage them in areas where exterior noise levels exceed 65 dBA CNEL unless measures are implemented that reduce the noise exposure below this level: single-family and multiple-family residential uses, group homes, hospitals, schools and other learning institutions, and parks and open space areas where quiet is a basis for use.
- Noise from construction and demolition activities exceeding those identified in Chapter 11.80.030, Table 11.80.030-2 of the City of Moreno Valley Municipal Code (60 dBA L_{eq} between 8:00 a.m. and 10:00 p.m. and 55 dBA L_{eq} between 10:01 p.m. and 7:59 a.m.) at sensitive uses during project construction would result in violation of the City's noise ordinance (see Table 4.12-5).
- Construction activity that would increase ambient noise levels at sensitive land uses by 10 dB or more would result in substantial temporary or periodic increases in ambient noise and be considered significant.

Long-term impacts from the project's traffic noise that affect existing sensitive land uses are considered to be substantial and, therefore, constitute a significant noise impact if the project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

4.12.5 No Impact/Less than Significant Impacts

Section 4.12.5 of the 2015 FEIR remains unchanged.

4.12.6 Significant Impacts

4.12.6.1 Short-Term Construction Noise Impacts

Impact 4.12.6.1A: *The project could expose persons to noise levels in excess of standards established in the City of Moreno Valley General Plan, City of Moreno Valley Municipal Code, or applicable standards of other agencies.*

Threshold	Would the project result in the exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, City of Moreno Valley Municipal Code, or applicable standards of other agencies?

Construction noise levels in and around the project area would fluctuate depending on the type, number, and duration of use of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as pile driving or blasting), which can be particularly disruptive. Pile driving and blasting, however, is not proposed during project construction. Table 4.12-7 shows typical noise levels produced by the types of construction equipment that would likely be used during project construction.

As previously discussed in the *Methodology* discussion in Section 4.12.3, the City of Moreno Valley Noise Ordinance prohibits construction from occurring outside of the hours of 8:00 p.m. to 7:00 a.m. that creates a noise disturbance. Construction occurring within the allowable hours of 7:00 a.m. and 8:00 p.m. would not result in the violation of the City's Noise Ordinance. For this analysis, residences that are exposed to noise levels exceeding those identified in Table 4.12-5 during daytime or nighttime project construction would result in violation of the City's Noise Ordinance.

Table 4.12-7: Reference Construction Equipment Noise Levels

Type of Equipment	L_{max}, dBA (50 Feet from Source)	Hourly L_{eq}, dBA/percent Use[1] (50 Feet from Source)
Bore/Drill Rigs	85	78/20
Cement and Mortar Mixers	85	81/40
Cranes	85	77/16
Excavators	85	81/40
Forklifts	85	78/20
Graders	85	81/40
Pavers	85	82/50
Pumps	77	74/50
Rollers	85	78/20
Dozers	85	81/40
Scrapers	85	81/40
Skid Steer Loaders	85	81/40
Tractors	84	80/40
Loaders	80	76/40
Backhoes	80	76/40
Trenchers	85	78/20

NOTES:

1. Percent used during the given time period (usually an hour – hourly L_{eq}) were obtained from the FHWA Roadway Construction Noise Model User's Guide.

SOURCE: FHWA, 2006a.

Construction operations would occur in two general areas; on-site and off-site. The on-site construction activities will be more intense. Some phases of the on-site construction are expected to occur for 24-hours a day, 7-days per week. For the purpose of this analysis, construction is anticipated to begin in 2020, periodically, for a total of 16-years. Off-site construction would be much less intense and consist of minor grading, drainage, interchange, utility and roadway improvements. Off-site construction activities would be of shorter duration and would only occur on weekdays during daytime hours. Both on-site and off-site construction are discussed in more detail below.

On-site construction activities are expected to occur outside of the allowed construction hours specified in the City of Moreno Valley Noise Ordinance. The operation of each piece of off-road equipment within the on-site construction areas (i.e., Plots 1 through 22) would not be constant throughout the day, as equipment would be turned off when not in use. Most of the time over a typical work day, the equipment would be operating at different locations within the various plots of the project site and would not likely be operating concurrently. However, for a more conservative approximation of construction noise levels to which the nearest sensitive receptor would be exposed, it is assumed that two of the loudest pieces of construction equipment would be operating at the same time and located within the project plots nearest to a sensitive receptor. The nearest sensitive receptors are the existing on-site residences, which would be located approximately 25 feet from construction activity of various Plots. As a worst case scenario, it has been assumed that all existing on-site residences will remain onsite throughout construction.

Based on the list of the construction equipment that would be used at each of the plots, it was assumed that the two loudest pieces of off-road equipment (a paver and scraper) would have a combined noise level of 85 dBA L_{eq} from a distance of 50 feet (FHWA, 2006a). Using this reference noise level and a 7.5 dB per doubling of distance attenuation rate, the noise exposure level at representative locations around the project site were calculated and presented in Table 4.12-8. The location of the modeled receptor locations is presented in Figure 4.12-3. As shown in Figure 4.12-3 and Table 4.12-8, noise generated during construction of the plots, in some cases construction of various plots occurring concurrently, would expose sensitive receptors to noise levels that would exceed the City's 60 dBA L_{eq} daytime and 55 dBA L_{eq} nighttime exterior noise standard. Specifically, impacts would occur at existing residences located within and to the west of the project area. Affected receptors are all located within City of Moreno Valley boundaries.

Based on these projections, anticipated worst-case construction noise levels would regularly be exceeded at residences within and near the project area. Based on an L_{eq} noise level of 85 dBA L_{eq} at 50 feet and an attenuation rate of 7.5 dB per doubling of distance, an observer would need to be at a distance of 500 feet from an active project construction area to experience a noise level of 60 dBA L_{eq}, or 800 feet for a noise level of 55 dBA L_{eq}. Therefore, the on-site construction of the project would result in the exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley Noise Ordinance would result in a significant impact.

Off-site construction activities would occur within the allowed construction hours identified in the City's Noise Ordinance and would be consistent with the City's code. The nearest sensitive receptors are located at approximately 25 feet from off-site construction areas. Based on the operation of the two loudest pieces of equipment simultaneously at 25 feet, off-site construction could expose sensitive receptors to a noise level of 93 dBA L_{eq}, which would exceed the City's allowable daytime exterior noise level of 60 dBA L_{eq}. Therefore, the off-site construction activities would result in the exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley Noise Ordinance would result in a significant impact.

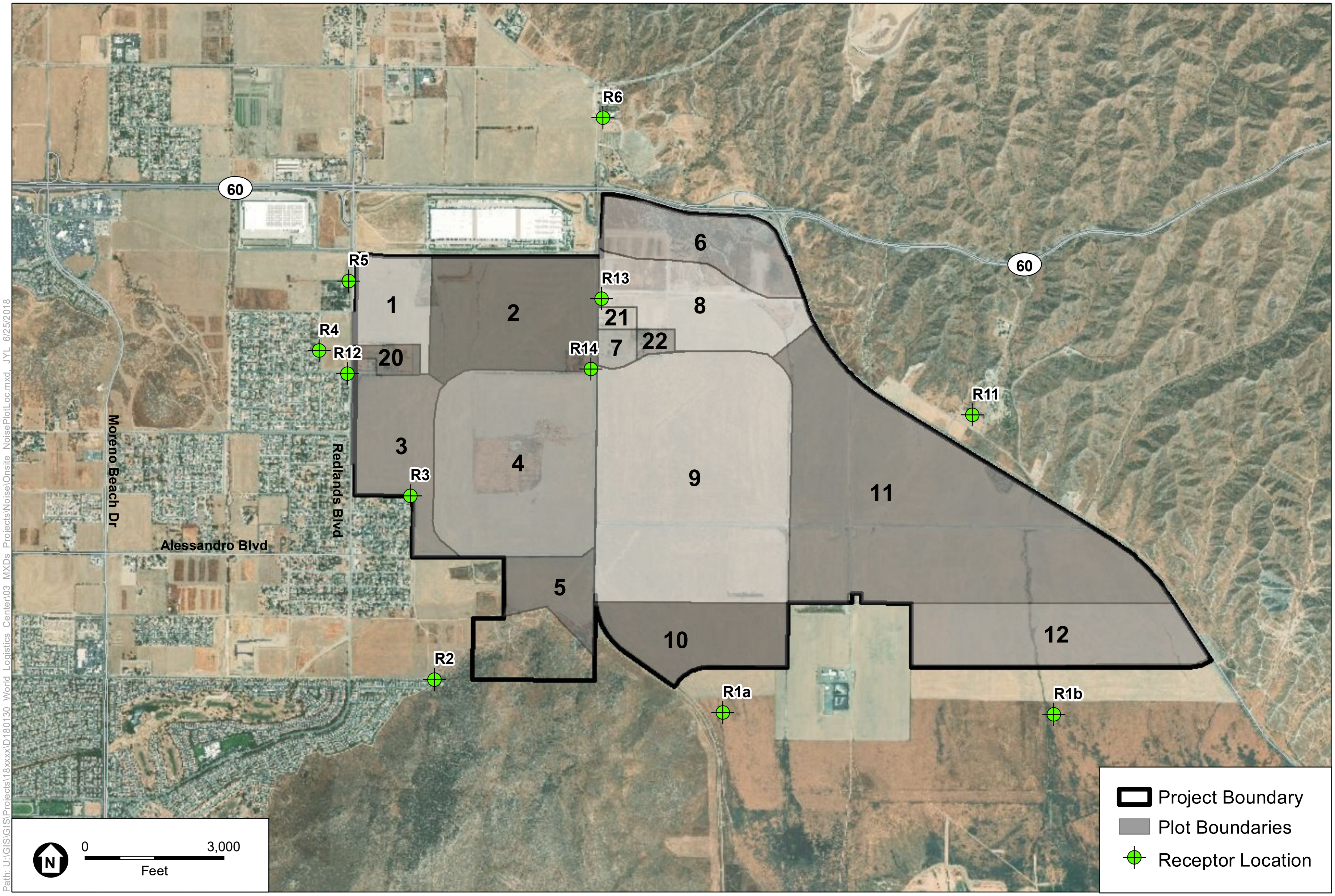

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SOURCE: ESRI

World Logistics Center

Figure 4.12-3

Onsite Plot Locations

ESA

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Noise Level Day/Night (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)**	**Unmitigated Increase Over Ambient Day/Night (dB)**	**Mitigated Increase Over Ambient Day/Night (dB)**
Plot 2								
1a	8,185	41	30	20	41	41	0	0
1b	12,584	41	25	15	41	41	0	0
2	6,885	76	32	22	76	76	0	0
3	2,670	52	42	32	52	52	0	0
4	2,260	66	44	34	66	66	0	0
5	1,575	70	48	38	70	70	0	0
6	3,000	65	41	31	65	65	0	0
11	8,325	74	29	19	74	74	0	0
12	1,700	54	47	37	55	54	1	0
13	120	47	75	65	75	65	**29**	**19**
14	25	51	93	83	93	83	**42**	**32**
Plot 4								
1a	4,580	41	36	26	42	41	1	0
1b	10,410	41	27	17	41	41	0	0
2	2,750	76	41	31	76	76	0	0
3	500	52	60	50	61	54	9	2
4	2,655	66	42	32	66	66	0	0
5	2,940	70	41	31	70	70	0	0
6	5,740	65	34	24	65	65	0	0
11	8,140	74	30	20	74	74	0	0
12	1,880	54	46	36	55	54	1	0
13	1,500	47	48	38	51	48	4	1
14	25	51	93	83	93	83	**42**	**32**

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Noise Level Day/Night (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)**	**Unmitigated Increase Over Ambient Day/Night (dB)**	**Mitigated Increase Over Ambient Day/Night (dB)**
Plot 9								
1a	3,990	41	37	27	43	41	2	0
1b	6,915	41	31	21	41	41	0	0
2	4,815	76	35	25	76	76	0	0
3	3,930	52	38	28	52	52	0	0
4	6,060	66	33	23	66	66	0	0
5	5,700	70	34	24	70	70	0	0
6	5,175	65	35	25	65	65	0	0
11	3,600	74	39	29	74	74	0	0
12	5,350	54	34	24	54	54	0	0
13	950	47	53	43	54	48	7	1
14	400	51	62	52	62	55	**12**	4
Plot 1, 3, and 20								
1a	7035 – 9915	41	34	24	42	41	1	0
1b	13530 – 15620	41	28	18	41	41	0	0
2	2745 – 7365	76	42	32	76	76	0	0
3	25 – 2670	52	93	83	93	83	**41**	**31**
4	835 – 1000	66	59	49	67	66	1	0
5	120 – 1875	70	79	69	80	73	9	2
6	5010 – 6840	65	38	28	65	65	0	0
11	11290 – 12100	74	31	21	74	74	0	0
12	150 – 730	54	74	64	74	64	**20**	**10**
13	3650 – 4230	47	42	32	48	47	1	0
14	3400 – 3775	51	43	33	52	51	1	0

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)		
Plot 5 and 10								
1a	1030 – 3375	41	52	42	52	45	**11**	4
1b	5750 – 10100	41	34	24	42	41	1	0
2	1735 – 3790	76	47	37	76	76	0	0
3	1930 – 4740	52	46	36	53	52	1	0
4	5575 – 8270	66	35	25	66	66	0	0
5	6465 – 8810	70	34	24	70	70	0	0
6	9440 – 10480	65	31	21	65	65	0	0
11	5750 – 8765	74	35	25	74	74	0	0
12	7380 – 45800	54	31	21	54	54	0	0
13	4550 – 5570	47	38	28	48	47	1	0
14	3980 – 5130	51	39	29	51	51	0	0
Plot 7, 8, 21, and 22								
1a	7718 – 8610	41	36	26	42	41	1	0
1b	9290 – 12360	41	32	22	42	41	1	0
2	7540 – 8750	76	36	26	76	76	0	0
3	4840 – 6075	52	40	30	52	52	0	0
4	6030 – 6850	66	38	28	66	66	0	0
5	5265 – 5955	70	40	30	70	70	0	0
6	2960 – 4745	65	44	34	65	65	0	0
11	3640 – 7650	74	40	30	74	30	0	0
12	5230 – 6900	54	39	29	54	29	0	0
13	25 – 1550	47	97	87	97	87	**50**	**40**
14	200 – 1370	51	70	60	70	60	**19**	**10**

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)		
Plot 11								
1a	4,475	41	36	26	42	41	1	0
1b	4,100	41	37	27	42	41	1	0
2	8,560	76	29	19	76	76	0	0
3	8,435	52	29	19	52	52	0	0
4	10,190	66	27	17	66	66	0	0
5	9,655	70	28	18	70	70	0	0
6	6,725	65	32	22	65	65	0	0
11	675	74	57	47	74	74	0	0
12	9,770	54	28	18	54	54	0	0
13	4,240	47	37	27	47	47	0	0
14	4,460	51	36	26	51	51	0	0
Plot 12								
1a	4,160	41	37	27	43	41	1	0
1b	1,050	41	52	42	52	45	**11**	3
2	10,250	76	27	17	76	76	0	0
3	11,110	52	26	16	52	52	0	0
4	13,920	66	24	14	66	66	0	0
5	13,960	70	24	14	70	70	0	0
6	12,400	65	25	15	65	65	0	0
11	4,000	74	37	27	74	74	0	0
12	13,130	54	25	15	54	54	0	0
13	9,330	47	28	18	47	47	0	0
14	8,540	51	29	19	51	51	0	0

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)		
Plot 6								
1a	8,870	41	29	19	41	41	0	0
1b	10,300	41	27	17	41	41	0	0
2	9,975	76	28	18	76	76	0	0
3	6,730	52	32	22	52	52	0	0
4	6,515	66	32	22	66	66	0	0
5	5,435	70	34	24	70	70	0	0
6	1,610	65	47	37	65	65	0	0
11	4,340	74	37	27	74	74	0	0
12	6,100	54	33	23	54	54	0	0
13	960	47	53	43	54	49	7	1
14	2,440	51	43	33	52	51	1	0

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.

2. Mitigation assumed a 10 dB reduction from a temporary noise barrier and equipment exhaust mufflers.

Source: ESA, 2018; FHWA, 2006a

Specific Plan Design Features. The WLCSP does not contain any design features that specifically address noise. Other features, such as perimeter setback requirements, will have the effect of reducing noise to certain residential areas.

Mitigation Measures. Construction of the World Logistics Center project would result in noise levels at the closest residences exceeding the maximum noise level allowed under the City's Municipal Code. The following measures would reduce short-term construction-related noise impacts associated with the proposed WLC project:

4.12.6.1A Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The NRCP shall be prepared by a qualified acoustical consultant describing how noise reduction measures shall be implemented to reduce the noise exposure on sensitive receptors adjacent to onsite and offsite construction areas. The noise reduction measures shall be implemented so that construction activities do not exceed the City's daytime and nighttime average hourly noise standard of 60 dBA L_{eq} and 55 dBA L_{eq}, respectively. The construction noise reduction measures shall include, but not be limited to, the following measures:

- All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.
- Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the project.
- No construction activity shall occur within 800 feet of residences between 8 p.m. and 7 a.m. on weekdays and weekends.
- A 12-foot tall temporary construction sound barrier blocking the line-of-sight of construction activity to any residential receptor located within 800 feet of active construction areas shall be installed prior to commencement of any construction activity. The temporary sound barrier shall be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater.
- Distribute to the potentially affected residences and other sensitive receptors within 500 feet of project construction boundary a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The distribution shall identify a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute feasible actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The distribution shall also notify residents adjacent to the project site of the construction schedule. Records of any complaints and corrective action shall be stored at the site and available to the City upon request.

Level of Significance after Mitigation. Implementation of Mitigation Measure 4.12.6.1A would reduce construction noise levels at nearby sensitive receptors through implementation of a NRCP, which is expected to attenuate construction noise levels by a minimum of 10 dB. Table 4.12-8 shows mitigated construction noise levels at sensitive receptors in the vicinity of on-site construction areas. In addition, Mitigation Measure 4.12.6.1A prohibits construction activity within 800 feet of any sensitive receptor outside of the allowable hours of 7:00 a.m. to 8:00 p.m. As shown in Table 4.12-8, at distances greater than 800 feet, construction noise would not exceed the City's nighttime exterior noise standard of 55 dBA L_{eq}. Therefore, impacts would be less than significant with mitigation incorporated for nighttime construction. With regard to daytime construction, sensitive receptors located within and to the west of the project would continue to be exposed to construction noise levels that would exceed the City's daytime exterior noise standard of 60 dBA L_{eq} even with implementation of mitigation. Additionally, with a 10 dB reduction, off-site construction activity would continue to expose the sensitive receptors at 25 feet to noise levels up to 83 dBA L_{eq}. Therefore, this would result in a significant and unavoidable impact with mitigation.

Impact 4.12.6.1B: The project could result in a substantial temporary and/or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Threshold	Would the project result in a substantial temporary and/or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The project has the potential of exposing sensitive receptors within the vicinity of on- and off-site construction areas to noise levels that could temporarily elevate the existing ambient noise level above the applied 10 dB substantial temporary increase threshold. As previously discussed in the *Methodology* discussion in Section 4.12.3, the City of Moreno Valley noise ordinance and general plan does not contain an incremental increase threshold for construction. Therefore, for purposes of this analysis, it would be considered a significant impact in cases where sensitive receptors are exposed to construction noise levels that increase ambient noise levels by 10 dB.

Construction crew commutes and the transport of construction equipment and materials to the site for the project would incrementally increase noise levels on access roads in the planning area. Using algorithms from the FHWA's TNM Technical Manual and the estimated work, vendor and haul truck volumes, project peak hour construction traffic noise levels were estimated for anticipated construction years and compared to measured daytime ambient noise levels along Redlands Boulevard and World Logistics Center Parkway, South of SR 60. The results of the modeling are shown in Table 4.12-9. As shown in Table 4.12-9, project construction traffic would not elevate existing ambient noise levels above the applied substantial temporary increase threshold of 10 dB.

As previously discussed, two of the loudest pieces of construction equipment running at the same time and place was used to model project-related construction noise levels at sensitive receptors nearest to on- and off-site construction areas. The modeled receptor locations for on- and off-site construction areas are shown in Figure 4.12-3 and Figure 4.12-4, respectively. These modeled construction noise levels were compared to ambient noise measurements conducted by ESA in March 2018 to evaluate whether project-related construction activities could elevate the existing ambient noise level above the applied 10 dB substantial temporary increase threshold. Table 4.12-8 and Table 4.12-10 compares the highest on-site and off-site, respectively, project construction-related L_{eq} noise levels to which sensitive receptors could be exposed against the applicable temporary substantial increase in ambient noise threshold.

As shown in Table 4.12-8, construction activities within the project area (i.e., plots 1 through 22) would elevate existing ambient noise levels by as much as 50 dB. The existing sensitive receptors that would be most affected by on-site construction activities are located within, to the west, and to the southwest of the project area. The project-related construction activities could also have the potential to expose wildlife located within the undeveloped land located south of the project area to construction noise levels that would elevate the existing ambient to above the applied 10 dB substantial temporary increase threshold. Transient construction noise consisting of worker trips and construction equipment and materials delivery would not occur along the southern boundary of the site, adjacent to the wildlife corridor. Therefore, noise generated during onsite construction activities would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project and would result in a significant impact.

Table 4.12-9: Increase Over Ambient Along Local Roadways During Project Construction

Project Construction Year	Construction Areas	Construction On-Road Traffic Noise from 100 feet L_{eq}	Range of Existing Daytime Ambient Noise Levels along Local Roadways (dBA L_{eq})	Project Construction Noise Plus Measured Existing Noise Levels (dBA L_{eq})
2020	Plot 2	52	47 - 68	0 - 6
2021	Plot 2	54	47 - 68	0 - 8
2022	Plot 4	52	47 - 68	0 - 6
2023	Plot 4	54	47 - 68	0 - 8
2024	Plot 9	55	47 - 68	0 - 9
2025	Plot 9	54	47 - 68	0 - 8
2026	Plots 1, 3, 20	51	47 - 68	0 - 5
2027	Plots 5, 10	52	47 - 68	0 - 6
2028	Plots 5, 10	55	47 - 68	0 - 8
2029	Plots 7, 8, 21, 22	54	47 - 68	0 - 8
2030	Plot 11	55	47 - 68	0 - 8
2031	Plot 11	54	47 - 68	0 - 8
2032	Plot 11	52	47 - 68	0 - 7
2033	Plot 12	52	47 - 68	0 - 6
2034	Plot 12	54	47 - 68	0 - 8
2035	Plot 6	52	47 - 68	0 - 6

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction traffic noise levels were modeled using estimated work, vendor and haul trips from a distance of 100 feet from center of roadway. Construction traffic noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.

Source: ESA, 2018

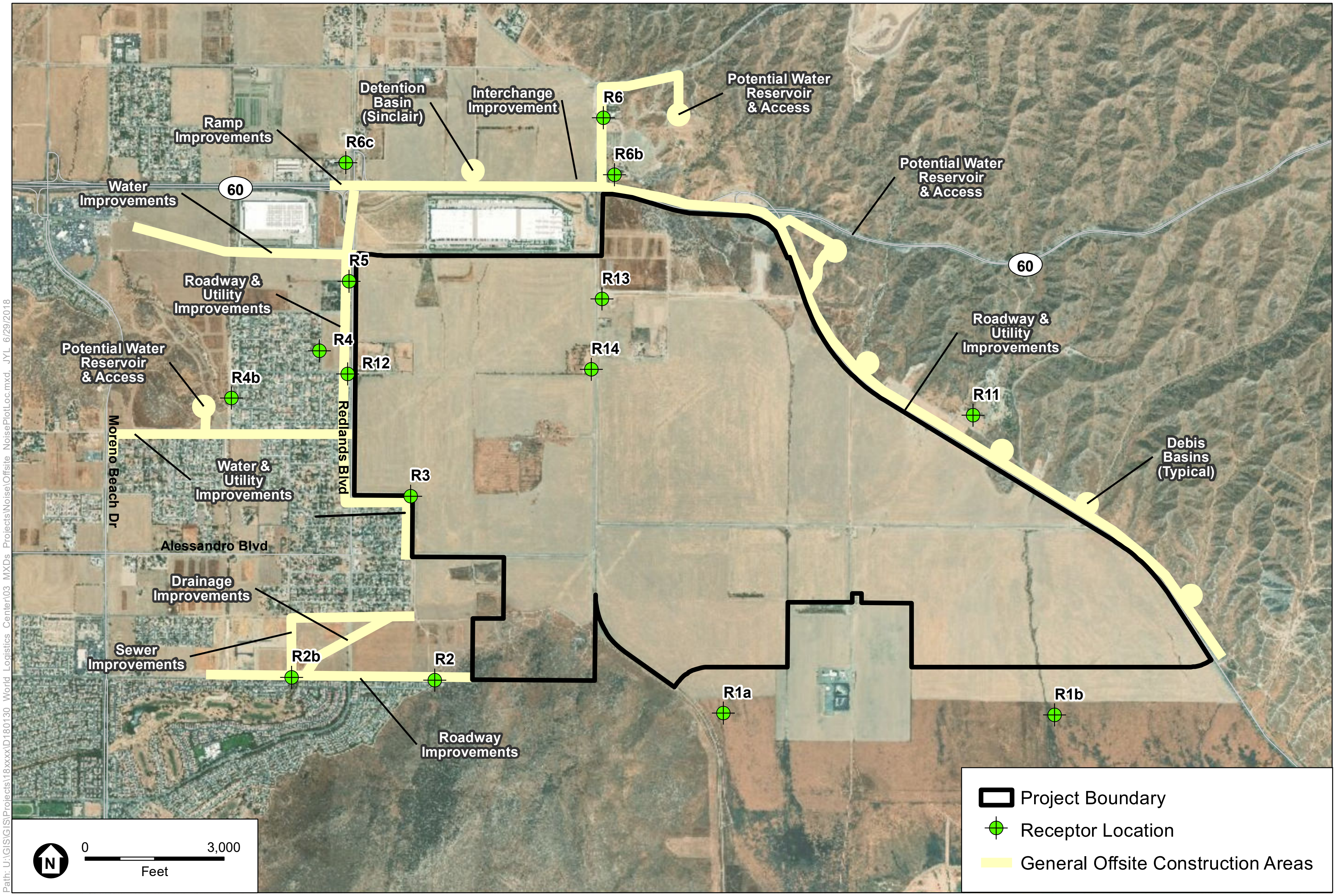

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\Noise\Offsite_NoisePlotLoc.mxd, JYL 6/29/2018

SOURCE: ESRI

World Logistics Center

Figure 4.12-4
Offsite Construction Locations

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)		
Roadway Improvements								
1a	6,140	41	33	23	42	41	1	0
1b	13,320	41	24	14	41	41	0	0
2	25	76	93	83	93	84	**17**	8
2b	25	76	93	83	93	84	**17**	8
3	1,260	52	50	40	54	52	2	0
4a	675	66	57	47	67	66	0	0
4b	2,600	66	42	32	66	66	0	0
5	25	70	93	83	93	83	**23**	**13**
6a	4,845	65	35	25	65	65	0	0
6b	5,125	65	35	25	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	640	74	57	47	74	74	0	0
12	25	54	93	83	93	83	**38**	**28**
13	4,220	47	37	27	47	47	0	0
14	5,000	51	35	25	51	51	0	0
Drainage Improvements								
1a	7,530	41	31	21	41	41	0	0
1b	14,560	41	23	13	41	41	0	0
2	1,680	76	47	37	76	76	0	0
2b	25	76	93	83	93	84	**17**	8
3	2,700	52	42	32	52	52	0	0
4	6,000	66	33	23	66	66	0	0
4b	5,765	66	33	23	66	66	0	0
5	7,400	70	31	21	70	70	0	0
6	11,700	65	26	16	65	65	0	0
6b	11,030	65	26	16	65	65	0	0
6c	9,810	65	28	18	65	65	0	0
11	13,400	74	24	14	74	74	0	0
12	5,313	54	34	24	54	54	0	0
13	8,230	47	30	20	47	47	0	0
14	6,890	51	32	22	51	51	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Daytime Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Unmitigated Increase Over Daytime Ambient (dB)**	**Mitigated Increase Over Daytime Ambient (dB)**
Sewer Improvements								
1a	7,000	41	31	21	41	41	0	0
1b	14,010	41	24	14	41	41	0	0
2	1,370	76	49	39	76	76	0	0
2b	25	76	93	83	93	84	**17**	8
3	2,610	52	42	32	52	52	0	0
4	6,130	66	33	23	66	66	0	0
4b	5,150	66	35	25	66	66	0	0
5	7,360	70	31	21	70	70	0	0
6	11,630	65	26	16	65	65	0	0
6b	10,525	65	27	17	65	65	0	0
6c	9,810	65	28	18	65	65	0	0
11	12,710	74	25	15	74	74	0	0
12	5,300	54	34	24	54	54	0	0
13	7,900	47	30	20	47	47	0	0
14	6,530	51	32	22	51	51	0	0
Water Utility Improvements								
1a	7,500	41	31	21	41	41	0	0
1b	14,255	41	24	14	41	41	0	0
2	2,660	76	42	32	76	76	0	0
2b	3,745	76	38	28	76	76	0	0
3	25	52	93	83	93	83	**41**	**31**
4	1,770	66	46	36	66	66	0	0
4b	2,525	66	42	32	66	66	0	0
5	3,240	70	40	30	70	70	0	0
6	8,670	65	29	19	65	65	0	0
6b	8,072	65	30	20	65	65	0	0
6c	5,800	65	33	23	65	65	0	0
11	13,500	74	24	14	74	74	0	0
12	1,275	54	50	40	56	54	1	0
13	6,170	47	33	23	47	47	0	0
14	5,380	51	34	24	51	51	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Daytime Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Unmitigated Increase Over Daytime Ambient (dB)**	**Mitigated Increase Over Daytime Ambient (dB)**
Potential Water Reservoir & Access								
1a	13,550	41	24	14	41	41	0	0
1b	20,000	41	20	10	41	41	0	0
2	8,316	76	29	19	76	76	0	0
2b	6,780	76	32	22	76	76	0	0
3	5,370	52	34	24	52	52	0	0
4	2,885	66	41	31	66	66	0	0
4b	925	66	53	43	66	66	0	0
5	4,082	70	37	27	70	70	0	0
6	10,590	65	27	17	65	65	0	0
6b	10,180	65	27	17	65	65	0	0
6c	6,120	65	33	23	65	65	0	0
11	16,900	74	22	12	74	74	0	0
12	3,420	54	39	29	54	54	0	0
13	9,100	47	28	18	47	47	0	0
14	8,690	51	29	19	51	51	0	0
Roadway & Utility Improvements								
1a	6,140	41	33	23	42	41	1	0
1b	13,320	41	24	14	41	41	0	0
2	25	76	93	83	93	84	**17**	8
2b	25	76	93	83	93	84	**17**	8
3	1,260	52	50	40	54	52	2	0
4	675	66	57	47	67	66	0	0
4b	2,600	66	42	32	66	66	0	0
5	25	70	93	83	93	83	**23**	**13**
6	4,845	65	35	25	65	65	0	0
6b	5,125	65	35	25	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	640	74	57	47	74	74	0	0
12	25	54	93	83	93	83	**38**	**28**
13	4,220	47	37	27	47	47	0	0
14	5,000	51	35	25	51	51	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)		
Water Improvements								
1a	12,830	41	25	15	41	41	0	0
1b	18,245	41	21	11	41	41	0	0
2	9,400	76	28	18	76	76	0	0
2b	9,230	76	28	18	76	76	0	0
3	3,690	52	38	28	52	52	0	0
4	2,045	66	45	35	66	66	0	0
4b	3,792	66	38	28	66	66	0	0
5	560	70	59	49	70	70	0	0
6	6,190	65	33	23	65	65	0	0
6b	5,840	65	33	23	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	13,900	74	24	14	74	74	0	0
12	2,685	54	42	32	54	54	0	0
13	5,465	47	34	24	47	47	0	0
14	5,765	51	33	23	51	51	0	0
Ramp Improvements								
1a	13,760	41	24	14	41	41	0	0
1b	19,000	41	21	11	41	41	0	0
2	10,750	76	27	17	76	76	0	0
2b	10,686	76	27	17	76	76	0	0
3	6,780	52	32	22	52	52	0	0
4	3,660	66	38	28	66	66	0	0
4b	4,930	66	35	25	66	66	0	0
5	1,933	70	45	35	70	70	0	0
6	5,600	65	34	24	65	65	0	0
6b	5,570	65	34	24	65	65	0	0
6c	350	65	64	54	68	65	2	0
11	14,260	74	24	14	74	74	0	0
12	3,990	54	37	27	54	54	0	0
13	5,935	47	33	23	47	47	0	0
14	6,610	51	32	22	51	51	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Daytime Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Unmitigated Increase Over Daytime Ambient (dB)**	**Mitigated Increase Over Daytime Ambient (dB)**
Detention Basin (Sinclair)								
1a	12,900	41	25	15	41	41	0	0
1b	17,125	41	22	12	41	41	0	0
2	11,145	76	26	16	76	76	0	0
2b	11,740	76	26	16	76	76	0	0
3	7,315	52	31	21	52	52	0	0
4	5,225	66	35	25	66	66	0	0
4b	7,010	66	31	21	66	66	0	0
5	3,790	70	38	28	70	70	0	0
6	2,755	65	41	31	65	65	0	0
6b	2,880	65	41	31	65	65	0	0
6c	2,760	65	41	31	65	65	0	0
11	11,915	74	26	16	74	74	0	0
12	5,320	54	34	24	54	54	0	0
13	3,870	47	38	28	47	47	0	0
14	4,940	51	35	25	51	51	0	0
Interchange Improvement								
1a	11,750	41	26	16	41	41	0	0
1b	15,150	41	23	13	41	41	0	0
2	11,300	76	26	16	76	76	0	0
2b	12,560	76	25	15	76	76	0	0
3	7,865	52	30	20	52	52	0	0
4	6,980	66	31	21	66	66	0	0
4b	9,060	66	29	19	66	66	0	0
5	5,805	70	33	23	70	70	0	0
6	1,455	65	48	38	65	65	0	0
6b	85	65	79	69	79	70	**14**	5
6c	5,230	65	35	25	65	65	0	0
11	9,570	74	28	18	74	74	0	0
12	6,770	54	32	22	54	54	0	0
13	2,450	47	43	33	49	47	1	0
14	3,995	51	37	27	51	51	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Daytime Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Unmitigated Increase Over Daytime Ambient (dB)**	**Mitigated Increase Over Daytime Ambient (dB)**
Potential Water Reservoir & Access								
1a	12,600	41	25	15	41	41	0	0
1b	15,800	41	23	13	41	41	0	0
2	12,070	76	25	15	76	76	0	0
2b	13,300	76	24	14	76	76	0	0
3	8,635	52	29	19	52	52	0	0
4	7,310	66	31	21	66	66	0	0
4b	9,400	66	28	18	66	66	0	0
5	5,975	70	33	23	70	70	0	0
6	25	65	93	83	93	83	**27**	**17**
6b	333	65	64	54	68	65	3	0
6c	5,440	65	34	24	65	65	0	0
11	9,885	74	28	18	74	74	0	0
12	7,200	54	31	21	54	54	0	0
13	3,085	47	40	30	48	47	1	0
14	4,545	51	36	26	51	51	0	0
Potential Water Reservoir & Access								
1a	9,945	41	28	18	41	41	0	0
1b	10,880	41	27	17	41	41	0	0
2	12,365	76	25	15	76	76	0	0
2b	14,665	76	23	13	76	76	0	0
3	10,400	52	27	17	52	52	0	0
4	11,245	66	26	16	66	66	0	0
4b	13,235	66	24	14	66	66	0	0
5	10,445	70	27	17	70	70	0	0
6	5,915	65	33	23	65	65	0	0
6b	5,065	65	35	25	65	65	0	0
6c	11,300	65	26	16	65	65	0	0
11	4,300	74	37	27	74	74	0	0
12	10,775	54	27	17	54	54	0	0
13	5,100	47	35	25	47	47	0	0
14	5,635	51	34	24	51	51	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
Debris Basins (Typical)								
1a	4,280	41	37	27	43	41	2	0
1b	10,250	41	27	17	41	41	0	0
2	16,090	76	22	12	76	76	0	0
2b	19,250	76	20	10	76	76	0	0
3	10,375	52	27	17	52	52	0	0
4	12,000	66	25	15	66	66	0	0
4b	13,935	66	24	14	66	66	0	0
5	11,385	70	26	16	70	70	0	0
6	7,755	65	30	20	65	65	0	0
6b	6,890	65	32	22	65	65	0	0
6c	12,200	65	25	15	65	65	0	0
11	1,680	74	47	37	74	74	0	0
12	11,255	54	26	16	54	54	0	0
13	6,000	47	33	23	47	47	0	0
14	6,065	51	33	23	51	51	0	0

Notes:

Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.

1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.
2. Mitigation assumed a 10 dB reduction from a temporary noise barrier and equipment exhaust mufflers.

Source: ESA, 2018; FHWA, 2006a

As shown in Table 4.12-10, off-site construction (e.g., roadway improvements, drainage improvements, etc.) in some areas, would elevate ambient noise levels by as much as 45 dB over existing ambient noise levels. The existing sensitive receptors located adjacent to Redlands Boulevard, Cactus Avenue and near the intersections of World Logistics Center Parkway, South of SR 60/Highway 60 and Redlands Boulevard/Highway 60 would be most affected by offsite construction activities. Therefore, noise generated during off-site construction activities would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project and would result in a significant impact.

Specific Plan Design Features. The WLCSP does not contain any design features that specifically address noise. Other features, such as perimeter setback requirements, will have the effect of reducing noise to certain residential areas.

Mitigation Measures. Construction activities occurring on- and off-site would expose nearby sensitive receptors to noise levels that would exceed the applied 10 dB substantial temporary increase threshold. Mitigation Measure 4.12.6.1A would reduce short-term construction-related noise impacts associated with the proposed WLC project.

Level of Significance after Mitigation. Implementation of Mitigation Measure 4.12.6.1A would reduce construction noise levels at nearby sensitive receptors through implementation of a NRCP, which is expected to attenuate construction noise levels by 10 dB and prohibit construction activities within 800 feet of residences during nighttime hours. As shown in Table 4.12-8 and Table 4.12-10, even with implementation of Mitigation Measure 4.12.6.1A, sensitive receptors located near on-site and off-site construction areas would be exposed to construction noise levels that would elevate the existing ambient noise levels above the applied 10 dB substantial temporary increase threshold. Therefore, this would result in a significant and unavoidable impact with mitigation.

4.12.6.2 Long-Term Traffic Noise Impacts

Impact 4.12.6.2: *The project could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.*

Threshold	Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The noise analysis for the World Logistics Center project is based on the traffic volume data contained in the revised Traffic Impact Analysis (TIA) prepared for the project (contained in its entirety as Revised Sections of the FEIR Appendix D). The TIA addressed the intersections of surface streets in Moreno Valley of a collector or higher classification street with another collector or higher classification street, at which the project will add 50 or more peak hour trips. The study area also included the main travel routes between the project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area extended west to the nearest ramps on SR-91 and as far south as the I-215 ramps at Redlands Avenue in Perris. The study area for freeways was selected to encompass the freeway routes radiating from the project site to the north, south, east, and west. The traffic analysis covered SR-60 from I-10 in the east to SR-71 in the west, SR-91/I-215 from I-210 in the east to I-15 in the west, I-215 from Redlands Avenue in the north to the Scott Road interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west.

Three hundred and thirty-nine (339) roadway links and eighty-nine (89) freeway segments were analyzed in the noise analysis. The change in noise level was calculated for all 428 roadway and freeway links with and without the World Logistics Center project for the existing case (2018), 2025, and 2040 buildout scenarios. Segments with noise increases less than 1.5 dB would not have a substantial noise increase and were not presented in the main body of the noise report (i.e., the tables). Similarly, any segments that do not have sensitive receptors (e.g., residential uses or schools) were also not presented in the main body of the noise report. Based on this filtering process, of the 428 segments analyzed, 21 segments have sensitive receptors and an increase of 1.5 dB for at least one buildout scenario and were therefore addressed in the analysis.

The projected future traffic volumes (WSP USA, June 2018) for roadway segments in the World Logistics Center project vicinity were used in the TIA. Modeled noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. As previously identified, long-term impacts from the project's traffic noise that affect existing sensitive land uses are considered to be substantial and, therefore, constitute a significant noise impact if the project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

Operation of development that could occur within the World Logistics Center project area would generate traffic along roadways in the project vicinity. Table 4.12-11 identifies existing with Project roadway traffic noise levels.

Table 4.12-11: Existing Year (2018) Plus Project Buildout Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.6	71.1	18.5	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	51.9	64.4	12.5	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	65.7	65.7	Yes
John F Kennedy Drive (south of Cactus Avenue)	63.8	65.7	1.9	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6	68.4	2.8	Yes
Street F (east of World Logistics Center Parkway)	0.0	69.2	69.2	Yes
Cactus Avenue (west of Redlands Boulevard)	60.2	62.3	2.1	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7	56.2	5.5	Yes
Theodore Street (SR-60 to Ironwood Avenue)	59.6	61.5	1.9	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4	62.1	1.7	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	51.9	64.4	12.5	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1	47.2	5.1	Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6	60.3	5.7	Yes
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1	57.9	3.8	No
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9	65.1	3.2	Yes
Sunset Drive (Crown Street to Alessandro Road)	47.4	49.0	1.6	No
SR-60 EB Ramps (SR-60 to Central Avenue)	57.4	65.0	7.6	Yes
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.1	81.6	1.5	Yes
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9	80.3	2.4	Yes
SR-215 (Mill Street to 2nd Street)	82.9	83.0	0.1	No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	80.4	0.0	No

Source: ESA, 2018

As identified in Table 4.12-11, build out of the proposed WLC project under 2018 conditions would result in substantial increases in traffic noise levels in the Existing plus Project Build Out scenario case. The largest project-related increase in traffic noise would be along Cactus Avenue Extension and Street F where increases of greater than 65 dBA are predicted. However, the increases associated with these roadway segments is attributable in part to Cactus Avenue Extension and Street F being new roads that will be constructed by the project. A total of 13 road or freeway segments would result in a substantial noise increase attributable to the project, resulting in a significant impact requiring mitigation.

Year 2025 (Phase I) With and Without World Logistics Center project scenarios projected traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected traffic volumes in the area were taken from the TIA prepared for the project. Table 4.12-12 identifies year 2025 Without Project and With Project traffic noise levels.

Table 4.12-12: Phase I (2025) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.9	69.5	16.6	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	54.3	63.5	9.2	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	63.9	63.9	Yes
John F Kennedy Drive (south of Cactus Avenue)	65.0	65.5	0.5	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	67.5	67.6	0.1	No
Street F (east of World Logistics Center Parkway)	0.0	58.1	58.1	Yes
Cactus Avenue (west of Redlands Boulevard)	60.4	61.4	1.0	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	51.5	54.3	2.8	No
Theodore Street (SR-60 to Ironwood Avenue)	59.3	60.5	1.2	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	62.1	62.1	0.0	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	54.3	63.5	9.2	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	47.2	47.2	0.0	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	56.4	56.2	-0.2	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	55.1	55.0	-0.1	No
Kitching Street (Krameria Avenue to Lurin Avenue)	64.9	64.9	0.0	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	49.0	0.0	No
SR-60 EB Ramps (SR-60 to Central Avenue)	65.2	65.5	0.3	No
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.8	81.6	0.8	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	79.2	80.4	1.2	No
SR-215 (Mill Street to 2nd Street)	83.1	83.1	0.0	No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.5	80.6	0.1	No

Source: ESA, 2018

Increases in noise levels associated with Buildout Year (2040) traffic conditions on area roadways range up to 68.3 dBA. As identified in the Table 4.12-13, the greatest increase in noise levels would be along Cactus Avenue Extension and Street F (east of World Logistics Center Parkway), where increases of 66.8 dBA and 68.3 dBA, respectively, are predicted for the Buildout Year 2040 With Project scenario over the Buildout Year 2040 Without Project scenario. However, the increases associated with these roadway segments is attributable in part to Cactus Avenue Extension and Street F being new roads that will be constructed by the project. A total of eight road and freeway segments would result in a substantial noise increase attributable to the project, resulting in a significant impact requiring mitigation.

Table 4.12-13: Buildout Year (2040) Plus Project Traffic Noise Levels (dBA)

	CNEL (dBA) at 100 feet			
Roadway Segment	**Without Project**	**With Project**	**Change**	**Substantial Increase?**
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	54.2	71.0	16.8	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	55.3	66.7	11.4	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	66.8	66.8	Yes
John F Kennedy Drive (south of Cactus Avenue)	66.5	67.0	0.5	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	69.2	69.2	0.0	No
Street F (east of World Logistics Center Parkway)	0.0	68.3	68.3	Yes
Cactus Avenue (west of Redlands Boulevard)	61.0	64.9	3.9	Yes
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	55.9	58.2	2.3	No
Theodore Street (SR-60 to Ironwood Avenue)	65.3	66.0	0.7	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	64.4	64.6	0.2	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	55.3	66.7	11.4	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	61.4	61.3	-0.1	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	60.7	60.9	0.2	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	62.8	63.0	0.2	No
Kitching Street (Krameria Avenue to Lurin Avenue)	68.5	68.4	-0.1	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	49.0	0.0	No
SR-60 EB Ramps (SR-60 to Central Avenue)	65.5	66.5	1.0	No
Freeways				
SR-60 (Perris Boulevard to Nason Street)	81.6	82.4	0.8	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	80.5	81.6	1.1	No
SR-215 (Mill Street to 2nd Street)	82.9	84.8	1.9	Yes
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	82.1	1.7	Yes

Source: ESA, 2018

Tables 4.12-11 through 4.12-13 identify the noise increases directly caused by the project. These numbers represent the distance from the centerline of the road to the contour value shown. Note that the values given in Tables 4.12-11 through 4.12-13 do not take into account the effect of any existing noise attenuation in the form of barriers, soundwalls, or topography that may affect ambient noise levels.

It should be noted that the same noise increase occurs at all locations along a roadway link. In addition, the noise contours for the With Project scenarios cover a wider area around the local roadways than what was evaluated for existing conditions. State Route 60, however, continues to be the dominant noise source in the area.

In general, the World Logistics Center project proposes logistics uses and will not be affected by these noise increases. However, there are a few scattered residences within the project area and adjacent to the World Logistics Center site that would be affected by the proposed logistics uses.

Within the World Logistics Center Site. Six occupied noise-sensitive uses within the World Logistics Center site include residences that may remain with the implementation of the project. The Specific Plan would rezone the properties as Light Logistics, but it is anticipated that the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered sensitive land uses.

- *Street A/ World Logistics Center* Parkway, South of SR 60 *(Street B/Eucalyptus Avenue to Street F).* Three residences are located along Street A (World Logistics Center Parkway, South of SR 60) between the future Street B and Street F. These residences are anticipated to experience noise increases up to 18.5 dB due to the implementation of the project. As a result, existing noise levels at these residences will be changed significantly. Therefore, this would be a significant impact requiring mitigation.
- *Street F/Dracaea Avenue (east of Street A/* World Logistics Center Parkway, South of SR 60*).* A single residence is located east of World Logistics Center Parkway, South of SR 60 along what is currently Dracaea Avenue (future Street F). Existing conditions identify low levels of traffic noise on Dracaea Avenue. With build out of the project in year 2040, this residence would experience noise increases up to 69.2 dB during the 2018 buildout year. Therefore, this would be a significant impact requiring mitigation.

- *Street E/Dracaea Avenue (east of Redlands Boulevard).* Two residences are located along Dracaea Avenue east of Redlands Boulevard. These residences would be most affected by traffic along Redlands Boulevard between Eucalyptus Avenue and Cottonwood Avenue, where no significant noise increase has been identified. Additionally, although the alignment of future Street E is not yet known, it is not anticipated that the future Street E centerline would be located less than 100 feet from these residences. Therefore, impacts would be less than significant and no mitigation is required.

Off-Site Areas Adjacent to the World Logistics Center Site. For areas adjacent to the World Logistics Center site, 13 segments would experience a noise increase that would be greater than significance criteria specified previously. These areas are described below.

- *Street D/Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue).* Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the World Logistics Center project parallel to Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. These homes would experience noise level increases of up to 66.8 dB during the 2040 buildout year. Therefore, this would be a significant impact requiring mitigation.
- *Redlands Boulevard (from Eucalyptus Avenue to State Route 60).* There are homes located at the northwestern corner of Redlands Boulevard and Eucalyptus Avenue. The 2018 buildout scenario results in a significant noise increase of 2.8 dB. Therefore, this would be a significant impact requiring mitigation.

- *Cactus Avenue (west of Redlands Boulevard).* Existing residences are located along Cactus Avenue with rear yards facing Cactus Avenue with soundwalls located long the rear yards of the residences. The 2018 and 2040 buildout scenarios result in significant noise increases of 2.1 dB and 3.9 dB, respectively. Therefore, this would be a significant impact requiring mitigation.
- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase of 5.5 dB is projected for 2018 with full project build out. Therefore, this would be a significant impact requiring mitigation.
- *Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension).* This area is occupied by a small group of single-family homes along Cactus Avenue between the future Street D/Cactus Avenue Extension and Redlands Boulevard. A significant noise increase is projected for all buildout scenarios. Currently, there is no soundwall along these homes. Therefore, this would be a significant impact requiring mitigation.
- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2018 buildout scenario results in a significant noise increase for this area. In 2018, the project will increase noise levels by 5.1 dB. Therefore, this would be a significant impact requiring mitigation.
- *Locust Avenue (between Moreno Beach Drive and Redlands Boulevard).* There are single-family homes along this roadway with front, rear, and side yards facing Locust Avenue. With project buildout in 2018, the project will increase noise levels by 5.7 dB. Therefore, this would be a significant impact requiring mitigation.
- *Kitching Street (between Krameria Avenue and Lurin Avenue).* There are single-family homes along this roadway with rear yards facing Kitching Street. Existing 6-foot high soundwalls are located along the residences and rear yard areas. Under the 2018 buildout scenario, the noise level is projected to increase by 3.2 dB. Therefore, this would be a significant impact requiring mitigation.
- *State Route 60 eastbound ramps (between SR-60 and Central Avenue).* Single-family homes are located south of SR-60 eastbound ramps. Under the project buildout scenario in year 2018, a noise level increase of 7.6 dB is anticipated. Therefore, this would be a significant impact requiring mitigation.
- *State Route 60 (from Perris Boulevard to Nason Street).* All residential areas along this stretch of freeway have soundwalls in place. The 2018 buildout scenario results in a significant noise increase of 1.5 dB. Therefore, this would be a significant impact requiring mitigation.
- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* There are soundwalls in place for all residences in this area. The existing 2018 buildout scenario results in a significant noise increase of 2.4 dB. Therefore, this would be a significant impact requiring mitigation.
- *State Route 215 (from Mill Street to 2nd Street).* There are four residential uses located to the west of SR-215 south of 2nd Street with no soundwalls. The residential uses are set back from the freeway and are located at a lower grade than the freeway. The 2040 buildout scenario results in a significant noise increase of 1.9 dB. Therefore, this would be a significant impact requiring mitigation.
- *State Route 215 (from Baseline Road to Highland Avenue/SR-210).* There are residential uses on the west and east sides of SR-215. There are soundwalls in place along this segment of the SR-215 alignment. The 2040 buildout scenario results in a significant noise increase of 1.7 dB. Therefore, this would be a significant impact requiring mitigation.

Specific Plan Design Features. The WLCSP indicates there will be a 250-foot setback from existing housing along Redlands Boulevard. No additional design features to attenuate noise impacts are planned as part of the WLCSP.

Mitigation Measures. Construction of the proposed WLC project would result in noise levels at the closest residences within and adjacent to the WLCSP area exceeding the maximum noise level allowed under the City's Municipal Code. The following measures would reduce long-term traffic related noise impacts associated with the project:

4.12.6.2A When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development:

Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the Revised Sections of the FEIR remain valid. These procedures used to conduct these noise analyses shall be consistent with the noise analysis conducted in the Revised Sections of the FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings.

Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the World Logistics Center site, the Applicant shall implement the appropriate level of mitigation, identified in the Revised Sections of the FEIR to reduce the identified impacts to comply with the Moreno Valley Municipal Code, which sets maximum sound levels reaching residential uses at 60 dBA Leq during the daytime hours (8:00 a.m. – 10:00 p.m.) and 55 dBA Leq during nighttime hours (10:01 p.m. – 7:59 a.m.). Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.

If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote.

At the completion of the vote at the end of the 45-day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public.

Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement.

4.12.6.2B Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 49 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road.

4.12.6.2C Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D.

4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a setback with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary, and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12-foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, "All manufacturing and industrial uses adjacent to residential land uses shall include a setback zone and/or noise attenuation wall to reduce outside noise levels".

Level of Significance after Mitigation. *Within the WLC Site.* For areas within the World Logistics Center site, noise levels at on-site residences may exceed the noise standard with the implementation of the project. The level of significance after mitigation is provided for each of the two areas for which a significant impact has been identified.

- *Street A/* World Logistics Center Parkway *(Street B/Eucalyptus Avenue to Street F).* Three residences are located along Street A (World Logistics Center Parkway) between the future Street B and Street F. These residences are anticipated to experience noise increases up to 18.5 dB due to the implementation of the project. As a result, existing noise levels at these residences will be changed significantly. The exact alignment of the roadway is to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. Two residences front onto Street A (World Logistics Center Parkway), and the driveway access would make a soundwall ineffective. The other residence is on Street A (World Logistics Center Parkway) and it is difficult to determine where an outdoor living area is for this residence. However, since it is a single residence, a soundwall would have a limited effectiveness. Since mitigation is not feasible, impacts remain significant and unavoidable.
- *Street F/Dracaea Avenue (east of Street A/* World Logistics Center Parkway*).* There is one residence in this area fronting onto the future alignment of Street F (currently Dracaea Avenue). Existing conditions identify low levels of traffic noise on Dracaea Avenue. The 65 CNEL contour is projected to lie 114 feet from the centerline of Street F and it is likely that the one residence would lie within this zone. With build out of the project, noise levels would reach as high as 68.3 CNEL, which exceeds the City's 65 CNEL threshold. Installation of a soundwall would not be effective in reducing noise levels due to the opening for the driveway. Since mitigation is not feasible, impacts remain significant and unavoidable.

Off-Site Areas Adjacent to the World Logistics Center Site. For areas adjacent to the World Logistics Center site, two areas would experience noise increases that would be mitigated to a less than significant level with implementation of **Mitigation Measures 4.12.6.2A** through **4.12.6.2D**. These areas are as follows:

- Cactus Avenue from Redlands Boulevard to Cactus Avenue Extension; and
- Cactus Avenue Extension from Alessandro Boulevard to Cactus Avenue.

  Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the World Logistics Center site parallel to Merwin Street and roughly 1,250 feet from Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. The noise forecast for buildout year 2040 shows that the 65 CNEL contour will lie 49 feet from the centerline of Cactus Avenue Extension. If the centerline of Cactus Avenue Extension is located closer than 49 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. Due to the distance currently envisioned between Merwin Street and Cactus Avenue Extension, it is most likely that no soundwall will be needed. If a soundwall is needed, a preliminary estimate indicates that the soundwall along Cactus Avenue Extension would need to be roughly 2,000 feet long. The soundwall shall reduce traffic noise to 65 dBA CNEL measured at the boundary of residences along Merwin Street.

For the remaining noise impact locations adjacent to the World Logistics Center site for which significant noise impacts have been identified, mitigation measures are not feasible or will not fully reduce the impact to less than significant levels. Each location that will remain significant and unavoidable is discussed below.

- *Redlands Boulevard (Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2018 buildout scenario results in a significant noise increase for this area. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Cactus Avenue (west of Redlands Boulevard).* Existing residential uses are located along Redlands Boulevard with rear yards facing Cactus Avenue. Existing 6-foot high soundwalls are located along the rear yard areas. Soundwalls are already present on the west side of the roadway. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. Land uses that are widely separated from one another cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Locust Avenue (between Moreno Beach Drive and Redlands Boulevard).* There are single-family homes along this roadway with front, rear, and side yards facing Locust Avenue. The homes located on the north side of Locust Avenue mostly front onto the roadway, making erecting a soundwall infeasible. A majority of the homes on the south side of the street either already have soundwalls in place or front onto Locust Avenue. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Kitching Street (between Krameria Avenue and Lurin Avenue).* There are single-family homes along this roadway with rear yards facing Kitching Street. Existing soundwalls are located along the rear years. Soundwalls are already present on the west side of the roadway. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 eastbound ramps (between SR-60 and Central Avenue).* Single-family homes are located south of SR-60 eastbound ramps. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 (from Perris Boulevard to Nason Street).* Residential uses along this stretch of the freeway have soundwalls in place. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* Residential uses along this stretch of the freeway do not have soundwalls in place. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 215 (from Mill Street to 2nd Street).* Residential uses along this stretch of the freeway do not have soundwalls in place. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 215 (from Baseline Road to Highland Avenue/SR-210).* The freeway has soundwalls in place. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

NOTE TO READERS: The cumulative portion of Section 4.13 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.13 of this Revised Sections of the FEIR. All other portions of Section 4.13 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.13 means that the corresponding portion of Section 4.13 in the FEIR remains unchanged or has been deleted.

4.13 POPULATION, HOUSING, AND EMPLOYMENT

NOTE TO READERS: The cumulative portion of Section 4.14 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.14 of this Revised Sections of the FEIR. All other portions of Section 4.14 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.14 means that the corresponding portion of Section 4.14 in the FEIR remains unchanged or has been deleted.

4.14 PUBLIC SERVICES AND FACILITIES

NOTE TO READERS: This portion of the Revised Sections of the FEIR Sections replaces portions of Section 4.15 of the FEIR. The cumulative portion of Section 4.15 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.15 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.15 means that the corresponding portion of Section 4.15 in the FEIR remains unchanged or has been deleted.

Although not required by the court ruling, the Traffic and Circulation analysis has been completely updated to reflect current traffic and circulation conditions, updated cumulative projects, updated project impacts and associated mitigation measures. The project-specific portion of the updated traffic analysis has been prepared, as it is required for the revised cumulative impact assessment, which is required by the court order.

The Revised Traffic Impact Analysis (TIA) is located in Appendix F of the Revised Final EIR Sections in its entirety. The following summarizes the results of the revised TIA.

4.15 TRAFFIC AND CIRCULATION

PURPOSE OF THE TRAFFIC IMPACT ANALYSIS

The purpose of this Traffic Impact Analysis (TIA) is to fully analyze the local and regional traffic impacts of the proposed World Logistics Center (WLC) located in Moreno Valley, California. The TIA identifies the specific near-term and longer-term circulation improvements that would be required to mitigate project impacts and maintain acceptable peak hour and daily levels of service (LOS) on surface streets and freeways affected by the project. As part of this comprehensive analysis special attention was paid to analyzing truck access routes, safety issues relating to trucks, and the effects of truck traffic on traffic operations.

SCOPE OF STUDY

The study considers seven development scenarios, namely:

1) Existing baseline conditions (2018) without the WLC project

2) Existing baseline conditions plus Phase 1 (only) of the WLC project

3) Existing baseline conditions plus the Full Build-out of the WLC project

4) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2025, without the WLC project

5) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2025, plus Phase 1 (only) of the WLC project

6) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2040, including full build-out of the City of Moreno Valley General Plan, except that existing conditions remain on the site of the WLC project. The horizon year 2040 corresponds with the long-term planning horizon in the Southern California Association of Governments (SCAG) regional forecasts.

7) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2040, including full build-out of the City of Moreno Valley General Plan except for the WLC site, where full build-out of the WLC project was assumed.

2040 was selected for the horizon year because it corresponds to the horizon year used by agencies in the SCAG region for the most recent Sustainable Communities Strategy. The interim year analysis shows the Project when it is approximately half built out. 2025 was selected for the interim year based on SCAG's projection that 222 million square feet of logistics warehouses would be built in the region between 2016 and 2025[1], and the assumption that the WLC would attract approximately 10% of the regional total (around 22 million square feet). Most of the LOS analyses focused on the morning and evening peak hours because that is when capacity problems most frequently occur. An analysis was performed using daily traffic volumes to determine if the proposed circulation element amendment would achieve City LOS goals.

The study area for surface streets covered all intersections in Moreno Valley of collector or higher functional classification with another collector or higher classification street, at which the proposed project would add 50 or more peak hour trips[2]. The study area also included the main routes between the project and the neighboring communities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area also extended west to the nearest ramps to SR-91 and as far south as the I-215 ramps at Redlands Ave. in Perris. These limits represent the extreme range of the RIVTAM model's capacity to accurately predict real differences between the No-Project and Plus-Project scenarios. Figure 4.15-1 shows the study area for surface street intersections.

The study area for freeways was selected to encompass the freeway routes extending from the project site to the north, south, east, and west. The analysis covered SR-60 from I-10 in the east to SR-71 in the west, SR-91/I-215 from I-210 in the east to I-15 in the west, I-215 from Redlands Ave. in the north to the Scott Rd. interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west. (Figure 4.15-2). These limits represent the extreme range of the RIVTAM model's capacity to accurately predict differences between No-Project and Plus-Project scenarios. In addition, the two main routes to the ports of Los Angeles and Long Beach were studied (4.15-3). For these corridors, trips from the WLC were manually added to forecasts for the No-Project scenario taken from the SCAG model[3].

Any freeway ramp where the project added 100 or more peak-hour trips was also studied. These included:

- All ramps of the SR-60/Theodore Interchange
- All ramps of the SR-60/Gilman Springs Rd. Interchange
- All ramps of the SR-60/Redlands Blvd. Interchange
- Westbound off- and eastbound on-ramps to the SR-60/Central Ave. Interchange, and
- Westbound off- and eastbound on-ramps to the SR-60/Martin Luther King Blvd. interchange.

CHANGES SINCE 2014

In 2012 an application was made to the City of Moreno Valley for the World Logistics Center (WLC), a new plan for the area that had been subject to the Moreno Highlands Specific Plan. A notice of preparation for the WLC environmental impact report (EIR) was issued in February 2012. A traffic impact analysis (TIA) was prepared as one of several technical studies in support of the EIR and submitted to the City in September 2014. The full Draft EIR, including traffic sections based on the TIA, was submitted for public comment in February 2013 and was the subject of public hearings held in

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[1] See Table 3.2 in *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities (Task Report 5)*, SCAG, June 2010

[2] City of Moreno Valley Traffic Impact Preparation Guide, 2007

[3] The modeling data in the SCAG model is based upon modeling information originally developed by the Southern California Association of Governments (SCAG), which has been modified by WSP. The modeling data used in this study does not necessarily reflect the official views or policies of SCAG. WSP is wholly responsible for the modeling results and the content of the documentation.

June 2015. The General Plan Amendment, zoning change, and the WLC Specific Plan, were adopted by the City Council in August 2015 and adopted again by ballot initiative in November 2015.

In the time since the 2014TIA, a number of developments have occurred that effect the forecast of traffic impacts from the WLC. These changes include:

- The most important new development was the completion in October 2016 of *High-Cube Warehouse Vehicle Trip Generation Analysis*, a major trip generation study for high-cube warehouses, the predominant form of land use in the WLC. This study was jointly sponsored by the South Coast Air Quality Management District (SCAQMD) and the National Association of Industrial and Office Properties (NAIOP), and was conducted by the Institute of Transportation Engineers (ITE). The results were incorporated into the 10th edition of ITE's *Trip Generation Manual*.

  This study replaces the multitude of earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the WLC. The 2016 study found that on average, warehouses generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis). However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed.
- The trip generation rates for other land uses (light logistics, convenience market, etc.) were also updated to those in the 10th edition of ITE's *Trip Generation Manual*.
- The study analysis years were updated so that 2018 is used for Existing Conditions, 2025 is used for Phase 1, and 2040 is used for the Cumulative Scenarios.
- The assumptions regarding background (i.e. non-WLC) land development have been updated to reflect the Sustainable Community Strategy adopted by SCAG in 2016. The list of reasonably foreseeable projects was also updated to account for projects that have been completed or have dropped out, and for proposed projects that have been added to the pipeline.
- The assumptions regarding changes to the transportation network have been updated to reflect the Regional Transportation Plan adopted by SCAG in 2016. The existing conditions network was also updated to account for projects completed since the base year of the previous TIA (2012).
- New traffic counts were performed for all study intersections and roadway segments, and new data was collected for volumes on the study freeway segments.
- An analysis of the effect of the Project on regional vehicle-miles of travel (VMT) has been added. This analysis was done primarily to provide data needed for the air quality analysis. Readers may be aware that, as a result of Senate Bill 743 (Steinberg, 2013), CEQA analysis of traffic impacts is likely to change at some point in the future from LOS-based to VMT-based. This change will not take effect before January 1st 2020 at the earliest, so the LOS approach that is the primary focus of the current study accords with current state law. The VMT analysis is therefore included in this traffic study for informational purposes only.

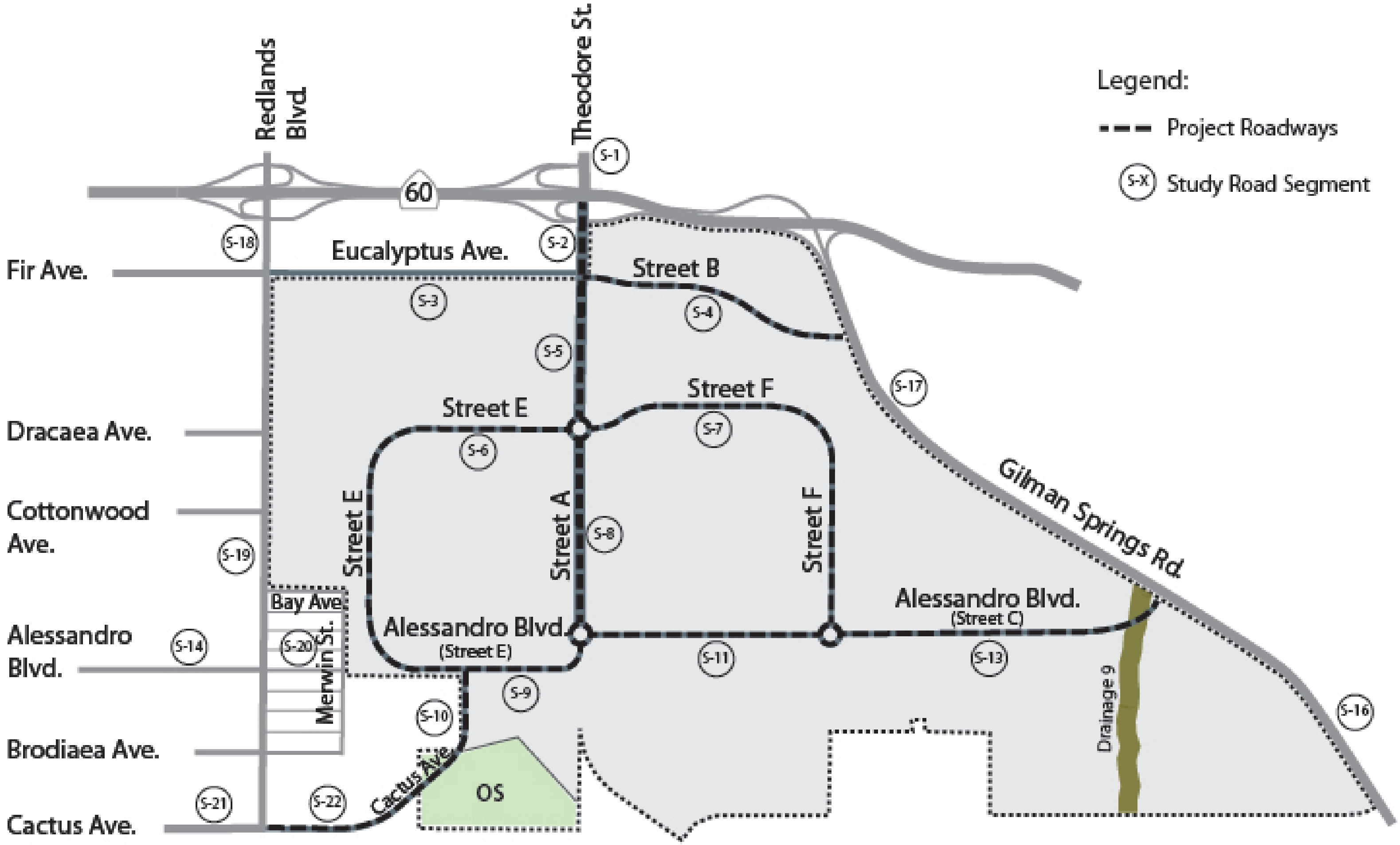

Figure 4.15-1: Study Roadway Segment Locations

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018.

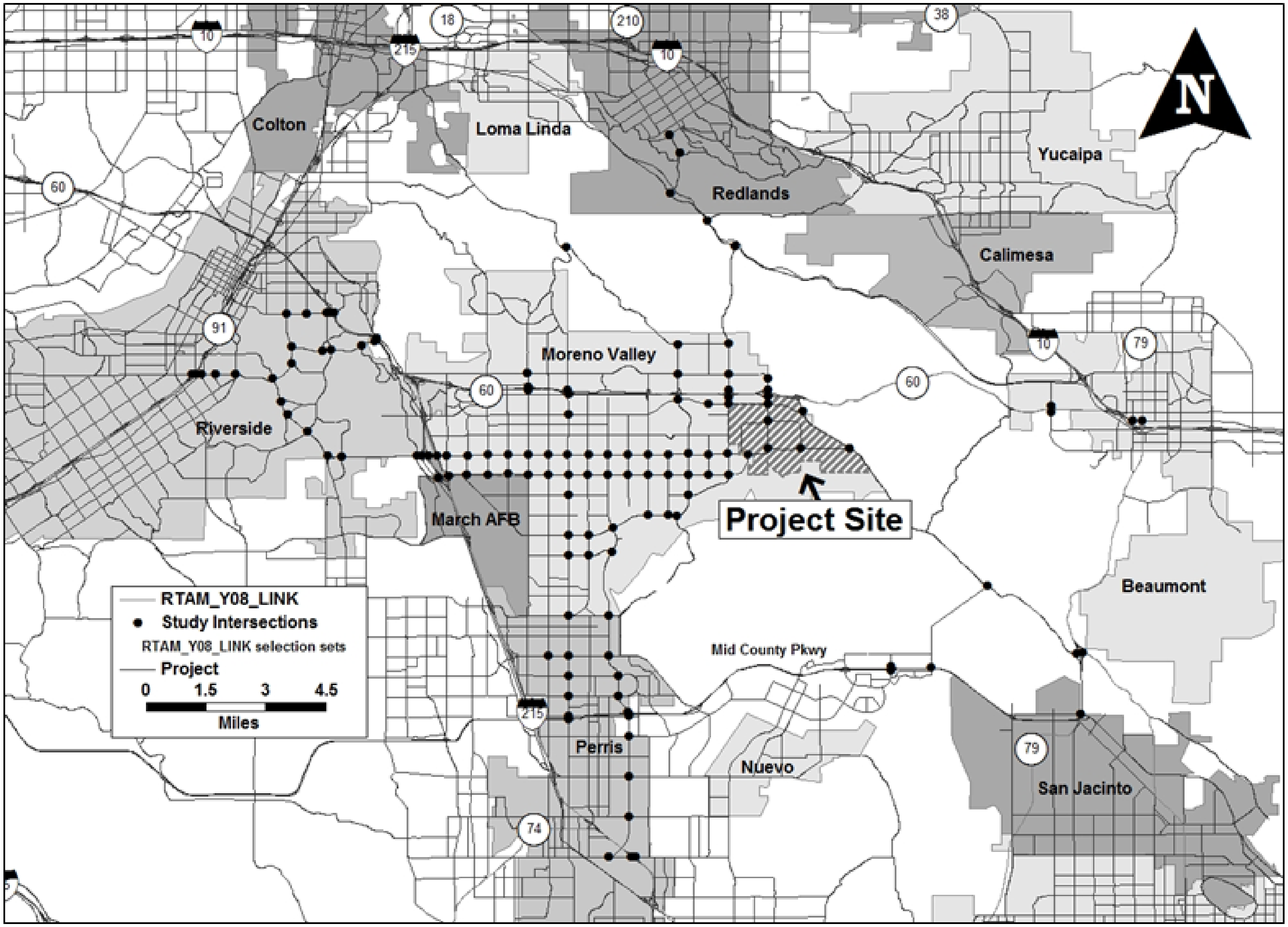

Figure 4.15-2: Study Intersection Locations
Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

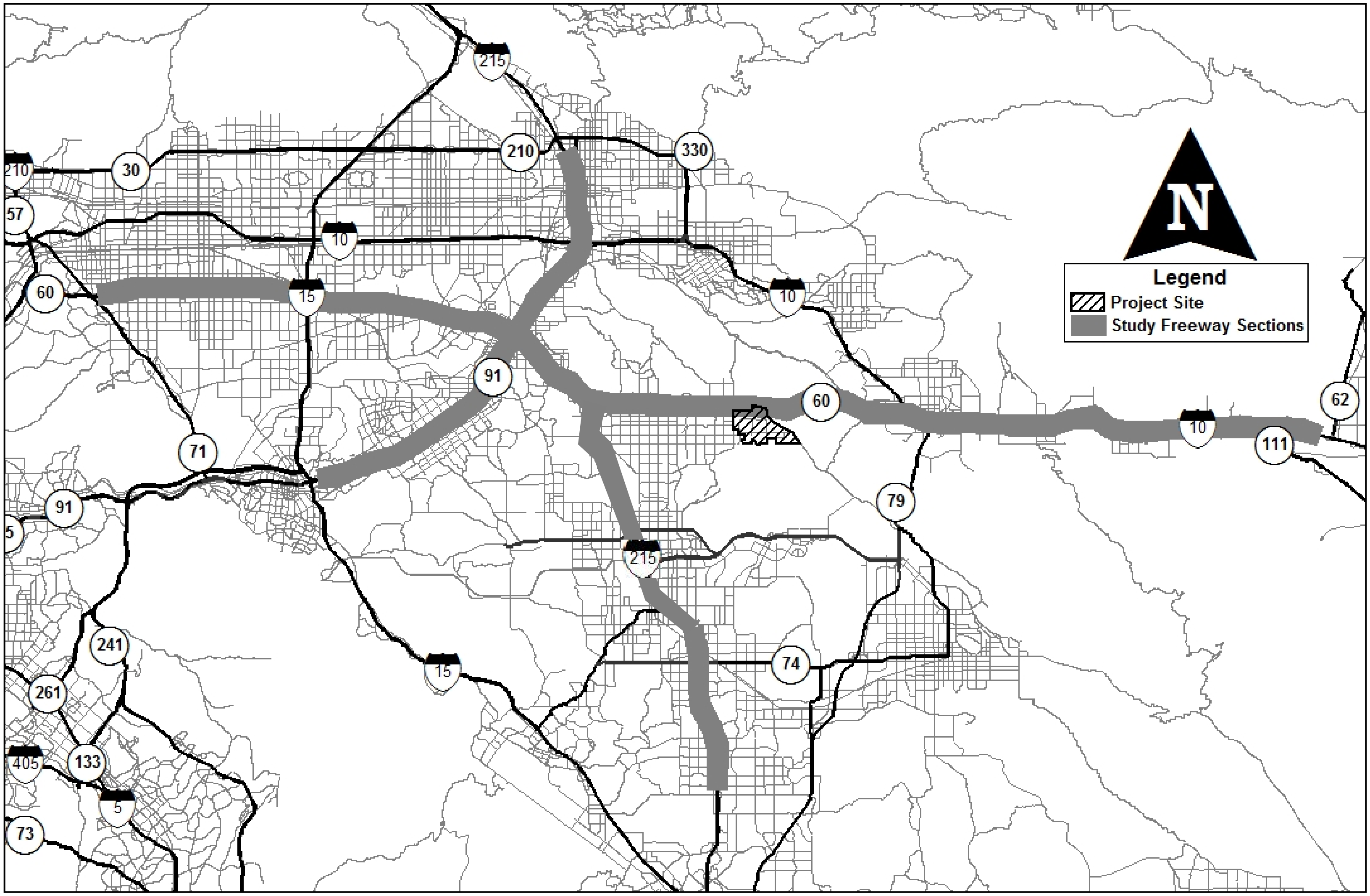

Figure 4.15-3: Freeway Segment Locations

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

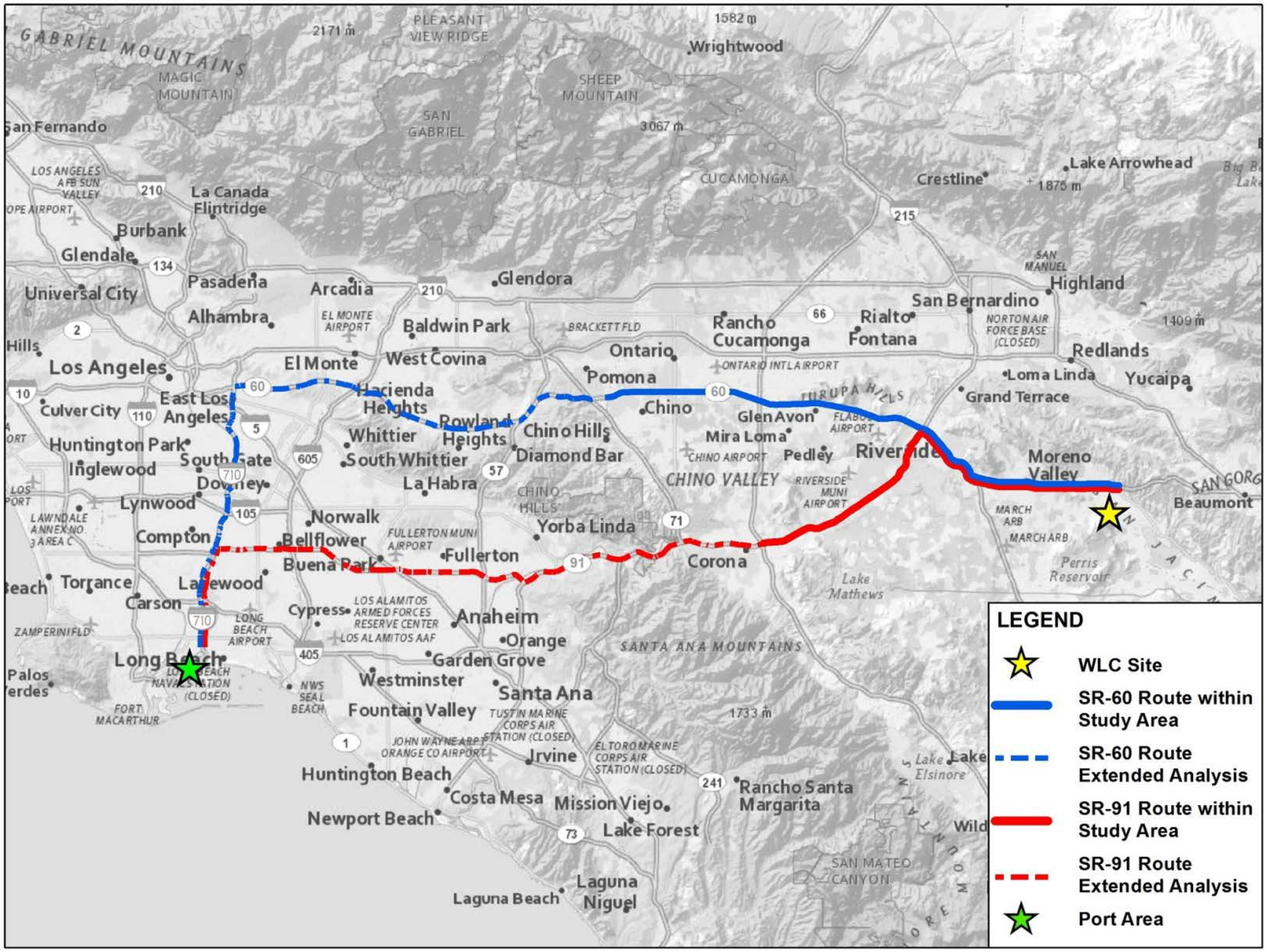

Figure 4.15-4: Freeway Segment Locations to the Ports of Los Angeles and Long Beach

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP July 2018

4.15.1 Existing Setting

4.15.1.1 Traffic Level of Service Definitions

Level of Service (LOS) is an expression of a transportation facility's operations and is dictated by the relationship between capacity and traffic volumes. LOS is generally defined using the letter grades A through F (Table 4.15-1). These levels reflect the reality that conditions rapidly deteriorate as traffic approaches the absolute capacity of a thoroughfare.

Table 4.15-1: Traffic Level of Service Definitions

Level of Service	Description
A	Volume-tocapacity ratio is low and either the progression is exceptionally favorable or the cycle length is short. If due to favorable progression, most vehicles during the green indication and travel through the intersection without stopping.
B	Volume to capacity ratio is low and either the progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A
C	Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e. one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	Volume-to-capacity ratio is high and either progression is ineffective or cycle length is long. Most vehicles stop and individual cycle failures are noticeable.
E	Volume-to-capacity ratio is high, progression is unfavorable and the cycle length is long. Individual cycle failures are frequent.
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: *Highway Capacity Manual, Special Report 209,* Transportation Research Board, Washington, D.C., 2010

Roadway Segment Level of Service Methodology. Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element as shown in Table 4.15-2.

Table 4.15-2: City of Moreno Valley Level of Service Criteria for Roadway Segments

Roadway Classification	Level of Service*				
	A	B	C	D	E
6-Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
4-Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
4-Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
2-Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
2-Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

*Maximum Average Daily Traffic (ADT)

Source: City of Moreno Valley *Traffic Impact Analysis Preparation Guide*, 2007.

Riverside County's LOS thresholds for surface streets were used for the assessment of impacts to Gilman Springs Road, as shown in Table 4.15-3.

Table 4.15-3: Riverside County LOS Thresholds for Surface Streets

Type of Roadway	Level of Service(1)		
	LOS C	LOS D	LOS E
8-Lane Urban Arterial	57,400	64,600	71,800
6-Lane Urban Arterial	43,100	48,500	53,900
4-Lane Urban Arterial	28,700	32,300	35,900
2-Lane Collector	10400	11700	13,000

Notes: All capacity figures are based on optimum conditions and are intended as guidelines for planning purpose only.

(1) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.

Source: County of Riverside General Plan, Circulation Element, 2008

Intersection Level of Service Methodologies. LOS criteria for signalized intersections are identified in Table 4.15-4. Levels of service at signalized intersections were calculated using the methodology described in Chapter 16 of the *Highway Capacity Manual* (HCM) and generated by the Synchro analysis software. Signalized intersection LOS are based on an intersection’s average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.15-1.

Table 4.15-4: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection and Roundabouts Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: *Highway Capacity Manual,* Transportation Research Board, Washington, DC, 2010

LOS criteria for unsignalized intersections are also identified in Table 4.15.D. The City of Moreno Valley requires unsignalized intersection analysis based on the methodology described in Chapter 17 of the HCM.

Freeway Level of Service Methodology. Caltrans LOS criteria for freeway mainline segments, freeway weave segments, and freeway ramp merge/diverge locations are expressed in terms of density (passenger cars/mile/lane). Table 4.15-5 shows the correlation between density and LOS for freeway segments and ramps.

Table 4.15-5: Level of Service Criteria for Freeway Segments

Level of Service	Freeway Segment Density (passenger cars/mile/lane)	Freeway Weaving Segment Density (pc/mi/lane)	Freeway Ramp Density (passenger cars/mile/lane)
A	0–11.0	≤ 10.0	≤ 10.0
B	11.0–18.0	> 10.0 and ≤ 20.0	> 10.0 and ≤ 20.0
C	18.0–26.0	> 20.0 and ≤ 28.0	> 20.0 and ≤ 28.0
D	26.0–35.0	> 28.0 and ≤ 35.0	> 28.0 and ≤ 35.0
E	35.0–45.0	>35.0 and ≤ 43.0	>35
F	> 45.0	>43.0	Exceeds Capacity

Source: (Table 11, PB 2013) *Highway Capacity Manual,* Transportation Research Board, Washington, DC, 2000.

4.15.1. Baseline Conditions

The project is located within the eastern portion of the City of Moreno Valley. The project site is located south of SR-60 and west of Gilman Springs Road. Tables 4.15.F and 4.15.G show existing intersection control types and roadway through lanes for the study area intersections and roadways, respectively. LOS and volumes are discussed below for existing (2018) without project conditions (otherwise known as the “baseline” condition).

Baseline Levels of Service. Existing (2018) traffic operations have been evaluated for study area intersections. The analysis was performed for the a.m. and p.m. peak hours. Existing traffic volumes at study area intersections are based on peak hour intersection turn movement counts. An intersection level of service analysis was conducted to determine current intersection performance for existing baseline conditions. The levels of service for existing baseline conditions at study area intersections are summarized in Table 4.15-6, which shows the following 21 study intersections currently operate at an unsatisfactory level of service during either the a.m. and p.m. peak hour:

- N-10 Redlands Blvd./Locust Ave. (AM, PM)
- IN-20 Oliver St./Alessandro Blvd. (AM)
- IN-23 Redlands Blvd./Alessandro Str. (PM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-39 Iris Ave./Perris Blvd. (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)

- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM)
- IN-125 SR-79 (Sanderson Ave) SB/Gilman Springs Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

A roadway segment analysis was conducted to determine current roadway system performance for existing baseline conditions for the roadway segments that would be affected by the WLC project. Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element and summarized in previously referenced Table 4.15-2. The roadway segment levels of service are summarized in Table 4.15-6. The following two roadway segments currently exceed the threshold of significance established in the General Plan.

- Gilman Springs Road: Alessandro to Bridge Street
- Gliman Springs Road: SR60 to Alessandro Blvd
- Redlands Blvd: SR 60 to Eucalyptus Ave.

A freeway analysis was conducted for existing baseline conditions to determine current freeway performance on SR-60, SR-91, I-215, and I-10 basic freeway segments where the project would add 100 or more peak-hour trips and on the freeway routes to the Ports of Los Angeles and Long Beach. A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Existing baseline freeway mainline and weaving section levels of service are summarized in Tables 4.15-7 and 4.15-8, respectively, which show the following 34 freeway mainline segments and 7 weaving segments are currently operating at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

North or Eastbound

- SR-60 Ramona Ave. to Central Ave. (AM, PM)
- SR-60 Central Ave. to Mountain Ave. (PM)
- SR-60 Mountain Ave. to Euclid Ave. (PM)
- SR-60 Euclid Ave. to Grove Ave. (PM)
- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (PM)
- SR-60 Market St. to Main St. (PM)
- SR-60 Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 Pigeon Pass Rd. to Heacock St. (PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Adams St. to Madison St. (AM, PM)
- SR-91 Central Ave. to 14th St. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave./Washington St. (AM)
- I-215 Auto Plaza Dr. to Mill St. (PM)

Southbound or Westbound

- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (PM)
- SR-60 Market St. to Main St. (AM)
- SR-60 Main St. to SR-91 (AM)
- SR-60 Fair Isle Dr./Box Springs Rd. to I-215 (PM)
- SR-60 I-215 to Day St. (AM)
- SR-60 Pigeon Pass Rd. to Heacock St. (AM)
- SR-91 McKinley St. to Pierce St. (AM, PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Magnolia Ave. to La Sierra Ave. (AM, PM)
- SR-91 La Sierra Ave. to Tyler St. (PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Van Buren Blvd. to Adams St. (PM)
- SR-91 Madison St. to Arlington Ave. (AM, PM)
- I-215 Harley Knox Blvd. to Van Buren Blvd. (PM)
- I-215 Alessandro Blvd. to Eucalyptus Ave. (PM)
- I-215 Center St. to La Cadena Dr. (AM, PM)
- I-215 La Cadena Dr. to Barton Rd. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave. (PM)

Most of the freeway basic sections currently exceeding the target LOS involve congestion in the peak direction. That is why regional agencies stress the importance of promoting reverse commuting; to move some traffic from the congested side of the freeway to the uncongested side.

Table 4.15-6: Existing (2018) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		Non-Existent	
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Non-Existent	
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	10.2	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	29.4	D
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	73.0	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	28.5	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	21.2	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	17.8	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	9.1	A
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	9.0	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	2.6	A
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	9.0	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	19.3	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	29.3	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	33.7	**D**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	17.1	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	15.4	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	10.6	B
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	18.7	B
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	33.4	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	20.8	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	13.9	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	36.3	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	18.5	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	18.5	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	41.8	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	61.8	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	31.1	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	56.6	**E**
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	17.2	B
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	34.4	C
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	19.4	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	15.0	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	10.7	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	20.7	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	14.6	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	19.5	B
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	20.0	C

Table 4.15-6: Existing (2018) Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	22.5	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	7.5	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	19.4	B
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	19.9	B
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	28.8	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	18.8	B
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	26.3	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	27.9	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	36.7	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	26.6	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	34.5	C
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	9.3	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	21.0	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	31.8	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	23.1	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	35.5	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	29.0	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	9.0	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	13.0	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	17.4	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	14.5	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	20.8	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	14.4	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	7.0	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	26.5	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	8.8	A
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	53.6	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	15.8	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	9.4	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	15.8	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	27.8	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	51.6	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	10.9	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	34.2	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	7.4	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	91.4	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	15.8	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	39.6	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	5.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	24.2	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	6.4	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	27.1	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	5.9	A
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	39.0	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	78.5	**E**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	11.1	B

Table 4.15-6: Existing (2018) Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	22.8	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	34.4	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	29.9	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	20.1	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	27.9	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	36.1	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	16.7	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	21.3	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	22.8	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	28.4	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	11.9	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	39.0	**E**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	23.8	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	111.0	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	84.5	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	146.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	115.4	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	29.7	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	31.4	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	14.0	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	17.5	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	23.1	C
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	104.8	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	178.9	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	12.5	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	9.6	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

Table 4.15-7: Existing (2018) Roadway Segment Levels of Service

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road		
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	**F**
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	**E**
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

Table 4.15-8: Existing (2018) Freeway Mainline Levels of Service

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6,638	26.3	D	6,223	24.8	C
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	**E**	9,400	47.3	**F**	6,167	24.4	C	6,459	26.1	D
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	**E**	6,751	28.4	D	6,489	26.9	D
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	**E**	6,859	28.8	D	6,883	29.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	**E**	7,108	29.3	D	7,527	32.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	**F**	6,656	26.2	D	9,400	51.0	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	**F**	7,821	34.9	D	9,400	53.0	**F**
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,339	22.4	C	5,698	17.5	B
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	5,456	20.8	C	5,111	19.6	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	4,888	14.7	B	4,648	14.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	2,913	11.5	B	3,567	13.3	B	5,070	19.2	C	5,970	23.7	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	2,437	9.8	A	2,959	11.3	B	4,277	16.3	B	4,958	19.3	C
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	4,296	16.3	B	4,981	19.4	C
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	4,326	16.4	B	5,020	19.6	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,515	23.2	C	5,262	29.2	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,697	24.1	C	5,477	30.6	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	**E**	6,485	40.3	**E**	5,115	27.9	D
F-20	SR-60	Main St to SR-91	See Weaving Analysis			See Weaving Analysis			7,050	47.9	**F**	4,062	21.0	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	**F**	9,400	51.1	**F**	7,050	33.3	D	6,885	30.5	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	7,385	30.6	D	8,085	36.9	**E**
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			4,328	41.6	**E**	3,251	26.8	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	**F**	4,700	49.0	**F**	2,786	21.9	C
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	3,192	25.1	C	3,003	24.0	C
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,592	19.5	C	2,695	21.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,817	14.0	B	1,882	14.7	B
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,481	11.6	B	1,504	11.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	1,460	11.4	B	1,486	11.7	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,121	13.4	B	1,165	12.7	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,121	9.0	A	1,165	9.3	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	6,576	26.3	D	7,158	31.4	D
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	7,050	49.6	**F**	7,050	55.5	**F**
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	**E**	7,050	54.7	**F**	7,050	48.4	**F**	7,050	53.3	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			7,050	48.4	**F**	7,050	53.3	**F**
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	5,943	34.3	D	7,050	53.3	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	**E**	6,106	23.6	C	7,990	37.2	**E**

Table 4.15-8: Existing (2018) Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	6,381	25.0	C	7,990	37.2	**E**
F-46	SR-91	Adam St to Madison St	7,451	57.6	**F**	8,209	96.0	**F**	5,931	22.8	C	7,582	33.9	D
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,050	48.4	**F**	7,050	52.6	**F**
F-49	SR-91	Central Ave to 14th St	7,050	52.1	**F**	5,797	35.9	**E**	5,166	19.5	C	7,050	30.0	D
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	5,166	19.5	C	7,050	30.0	D
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,294	11.5	B	2,318	11.5	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	2,528	12.6	B	3,111	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,528	12.6	B	3,111	15.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	2,882	14.4	B	3,854	19.1	C
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	4,515	23.2	C	4,700	24.1	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	2,538	12.7	B	2,634	13.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,380	12.7	B	3,249	12.1	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,515	23.2	C	5,262	28.0	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,913	27.7	D	5,947	34.3	D	2,658	13.3	B	5,310	28.1	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	3,802	19.7	C	7,050	46.7	**F**
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	3,572	13.4	B	6,195	23.6	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	5,031	26.7	D	6,129	35.5	**E**
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	7,050	29.6	D	7,050	28.4	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	7,050	50.2	**F**	7,050	47.3	**F**
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	7,050	49.6	**F**	7,050	46.7	**F**
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	**E**	5,640	32.0	D	5,974	34.6	D	7,050	46.7	**F**
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	5,726	22.1	C	5,432	20.5	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	**F**	6,123	23.7	C	5,837	22.0	C
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	4,700	17.6	B	3,704	13.7	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	4,888	20.9	C	4,190	15.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	4,968	21.5	C	4,259	16.3	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	5,209	22.7	C	4,465	17.0	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	5,009	21.7	C	4,293	16.4	B
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	4,888	16.7	B	4,190	12.8	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	4,808	20.7	C	4,121	15.7	B
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	4,808	20.7	C	4,121	15.7	B
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	4,327	18.6	C	3,709	14.2	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	4,127	17.7	B	3,537	13.6	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	3,646	15.4	B	3,125	11.8	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	3,646	15.4	B	3,125	11.7	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	3,165	13.4	B	2,713	10.2	A
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	3,165	13.4	B	2,713	10.3	A

▨ Indicates that the LOS exceeds the target level

Table 4.15-9: Existing (2018) Freeway Weaving Segment Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,466	19.6	B	5,871	21.3	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,671	26.3	C	7,844	33.1	D
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	**E**	5,660	21.3	C	5,717	21.6	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,568	22.6	C	6,273	22.6	C
W-23	SR-60	University Ave to Martin Luther King Blvd	5,965	22.6	C	7,050	24.6	C	7,050	38.2	**E**	7,050	44.9	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	5,979	25.0	C	8,119	31.6	D	7,050	34.2	D	7,050	34.5	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	**E**	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,197	14.4	B	7,050	32.7	D	4,700	30.6	D	3,279	20.4	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,207	12.1	B	2,252	12.5	B
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	7,050	33.4	D	7,050	36.0	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			8,102	29.2	D	11,750	> Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	5,036	23.0	C	6,139	28.5	D
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			6,019	21.4	C	7,017	25.6	C
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	**F**	4,317	22.0	C	7,050	35.1	**E**	7,050	34.9	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	6,311	21.8	C	6,261	21.9	C
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	7,050	24.5	C	6,421	22.7	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	7,050	22.5	C	5,762	18.0	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	3,646	13.9	B	3,125	11.7	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-10: Existing (2018) Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	**F**	8,384	1,016	34.3	**F**
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C

▨ Indicates that the LOS exceeds the target level

4.15.2 Existing Policies and Regulations

The City of Moreno Valley's current General Plan was approved in July 2006, and the following goals and policies are extracted from the Circulation Element of the current General Plan.

Community Development

Policy 2.2.17 Discourage nonresidential uses on local residential streets that generate traffic, noise, or other characteristics that would adversely affect nearby residents.

Circulation Element

Objective 5.1 **Create a safe, efficient, and neighborhood-friendly street system.**

Policy 5.1.1 Plan access and circulation of each development project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.

Policy 5.1.2 Plan the circulation system to reduce conflicts between vehicular, pedestrian and bicycle traffic.

Policy 5.1.3 Require adequate off-street parking for all developments.

Policy 5.1.4 Driveway placement shall be designed for safety and to enhance circulation wherever possible.

Policy 5.1.5 Incorporate American Disability Act (ADA) and Title 24 requirements in roadway improvements as appropriate.

Policy 5.1.6 Design new developments to provide opportunity for access and circulation to future adjacent developments.

Objective 5.2 **Implement access management policies.**

Policy 5.2.1 Locate residential units with access from local streets. Minimize direct residential access from collectors. Prohibit direct single-family driveway access on arterials and higher classification roadways.

Policy 5.2.2 Feed short local street into collectors.

Policy 5.2.3 Encourage the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds.

Policy 5.2.4 Design new subdivisions to minimize the disruptive impact of motor vehicles on local streets. Long, broad and linear streets should be avoided. Residential streets should be no wider than 40 feet, and should have an uninterrupted length of less than one half mile. Curvilinear streets and cul-de-sacs are preferred. Streets within the subdivision should be designed to facilitate access to residences and to discourage through traffic.

Objective 5.3 **Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers.**

Policy 5.3.1 Obtain right-of-way and construct roadways in accordance with the designation shown on the General Plan Circulation Element Map and the City street improvement standards.

Policy 5.3.2 Wherever feasible, promote the development of roadways in accordance with the City standard roadway cross-sections, as shown in Figure 9-3. Cross-sections range from two-lane undivided roadways to 8-lane divided facilities.

Policy 5.3.3 Create new roadway classifications to accommodate future traffic demand, including; Divided Major Arterial – Reduced Cross-Section, and Divided Arterial – 6-lane. These cross-sections are shown on Figure 9-3.

Policy 5.3.4 For planning purposes, utilize LOS standards shown on Table 5 –1 to determine recommended roadway widths.

Policy 5.3.5 Ensure that new development pays a fair-share cost to provide local and regional transportation improvements and to mitigate cumulative traffic impacts. For this purpose, require new developments to participate in Transportation Uniform Mitigation Fee (TUMF), the Development Impact Fee Program (DIF), and any other applicable transportation fee programs and benefit assessment districts.

Policy 5.3.6 Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements.

Policy 5.3.7 Provide consideration to projects that have overriding regional or local benefits that would be desirable even though the LOS standards cannot be met. These projects would be required to analyze traffic impacts and mitigate such impacts to the extent that it is deemed feasible.

Policy 5.3.8 Pursue arterial improvements that link and/or cross the State Route 60 (SR-60) Freeway, including an additional over-crossing at Graham Street.

Policy 5.3.9 Address additional widenings at arterials providing access to SR-60 at Day Street, Frederick Street/Pigeon Pass Road, and Perris Boulevard.

Objective 5.4 **Maximize efficiency of the regional circulation system through close coordination with State and regional agencies and implementation of regional transportation policies.**

Policy 5.4.1 Coordinate with Caltrans and the Riverside County Transportation Commission (RCTC) to identify and protect ultimate rights-of-way, including those for freeways, regional arterial projects, transit, bikeways, and interchange expansion.

Policy 5.4.2 Coordinate with Caltrans and RCTC regarding the integration of Intelligent Transportation Systems (ITS) consistent with the principles and recommendations of the Inland Empire Regional ITS Architecture Project.

Policy 5.4.3 Work with property owners, in cooperation with RCTC, to reserve rights-of-way for potential Community and Environmental Transportation Acceptability Process (CETAP) corridors through site design, dedication, and land acquisition, as appropriate.

Policy 5.4.4 The City Council will commit to establishing ongoing relationships with all agencies that play a role in the development of the City's transportation system. Council members who are appointed to these agencies as City representatives shall seek out leadership roles to maximize their effectiveness on behalf of the City. Council will strive to maintain continuity in their appointments of representatives.

Policy 5.4.5 Work with RCTC, WRCOG, and the TUMF Central Zone Committee to facilitate the expeditious construction of TUMF Network projects, especially projects that directly benefit Moreno Valley.

Policy 5.4.6 Cooperatively participate with SCAG, RCTC, and WRCOG in the planning for a transportation system that anticipates regional needs for the safe and efficient movement of goods and people.

Policy 5.4.7 Utilizing a combination of regional, state and federal funds, development impact fees, and other locally generated funds, provide needed improvements along SR 60 and the associated interchanges, including interchange and grade separation improvements.

Policy 5.4.8 Reserve rights-of-way to accomplish future improvements as specified in the Caltrans District 8 Route Concept Fact Sheet for SR-60. Specifically, SR-60 shall be built to six general purpose lanes and two High Occupancy Vehicle (HOV) lanes through Moreno Valley. Additional auxiliary lanes may be required between interchanges. The need for auxiliary lanes will be determined from future studies.

Policy 5.4.9 Lobby the State Legislature to keep triple trailer trucks off highways in developed areas of California.

Objective 5.5 **Maximize efficiency of the local circulation system by using appropriate policies and standards to design, locate, and size roadways.**

Policy 5.5.1 Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.

Policy 5.5.2 Provide dedicated left-turn lanes at all major intersections on minor arterials and higher classification roadways.

Policy 5.5.3 Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.

Policy 5.5.4 Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.

Policy 5.5.5 Design streets and intersections in accordance with the Moreno Valley Municipal Code.

Policy 5.5.6 Consider the overall safety, efficiency and capacity of street designs as more important than the location of on-street parking.

Policy 5.5.7 For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.

Policy 5.5.8 Whenever possible, require private and public land developments to provide on-site and off-site improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system. The City may require developers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.

Policy 5.5.9 Design curves and grades to permit safe movement of vehicular traffic per applicable Caltrans and Moreno Valley standards.

Policy 5.5.10 Provide adequate sight distances for safe vehicular movement at all intersections and driveways.

Policy 5.5.11 Implement National Pollutant Discharge Elimination System (NPDES) Best Management Practices (BMPs) relating to construction of roadways to control runoff contamination from affecting water resources.

Objective 5.6 **Support development of a ground access system to March Inland Port in accordance with its development plan as a major cargo airport.**

Policy 5.6.1 Ensure that City arterials that provide access to and from March Inland Port are properly designed to accommodate projected traffic volumes, including truck traffic.

Policy 5.6.2 Ensure that traffic routes to March Inland Port are planned to minimize impacts to City residential communities.

Objective 5.7	**Design roads to meet the needs of the residents of the community without detracting from the "rural" atmosphere in designated portions of Moreno Valley. (Designated "rural" areas include those encompassed by the Residential Agriculture 2, Residential 1, Rural Residential and Hillside Residential zoning districts. "Urban" areas encompass all other zoning districts.)**
Policy 5.7.1	Pursue development of modified sidewalk standards for local and collector roads within low density areas to reflect the rural character of those areas.
Policy 5.7.2	Provide sidewalks on arterials in designated low density areas that provide access to schools and bus stops.
Objective 5.8	**Encourage development of an efficient public transportation system for the entire community.**
Policy 5.8.1	Support the development of high-speed transit linkages, or express routes, that would benefit the citizens and employers of Moreno Valley.
Policy 5.8.2	Support the efforts of the March Joint Powers Authority in its pursuit of a Transit Center.
Policy 5.8.3	Encourage public transportation opportunities that address the particular needs of transit dependent individuals in the City such as senior citizens, the disabled and low-income residents.
Policy 5.8.4	Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.
Policy 5.8.5	Continue ongoing coordination with transit authorities toward the expansion of transit facilities into newly developed areas.
Objective 5.9	**Support and encourage development of safe, efficient and aesthetic pedestrian facilities.**
Policy 5.9.1	Encourage walking as an alternative to single occupancy vehicle travel, and help ensure the safety of the pedestrian as follows: (a) All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas. (b) The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.
Policy 5.9.2	Walkways shall be designed to minimize conflicts between vehicles and pedestrians.
Policy 5.9.3	Where appropriate, provide amenities such as, but not limited to, enhanced paving, seating, and landscaping to enhance the pedestrian experience.
Policy 5.9.4	Require the provision of convenient and safe pedestrian access to buildings from the public sidewalk.
Objective 5.10	**Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.**
Policy 5.10.1	Bikeways shall link residential neighborhood areas with parks, employment centers, civic and commercial areas, and schools.

Policy 5.10.2 Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.

Policy 5.10.3 Support bicycle safety programs, and active enforcement of laws relating to the safe operation of bicycles on City streets.

Policy 5.10.4 Link local bikeways with existing and planned regional bikeways.

Objective 5.11 **Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.**

Policy 5.11.1 Landscaping adjacent to City streets, sidewalks and bikeways shall be designed, installed and maintained so as not to physically or visually impede public use of these facilities.

(a) The removal or relocation of mature trees, street trees and landscaping may be necessary to construct safe pedestrian, bicycle and street facilities.

(b) New landscaping, especially street trees shall be planted in such a manner to avoid overhang into streets, obstruction of traffic control devices or sight distances, or creation of other safety hazards.

Policy 5.11.2 Driveways shall be designed to avoid conflicts with pedestrian and bicycle travel.

Objective 5.12 **Promote efficient circulation planning for all school sites that will maximize pedestrian safety, and minimize traffic congestion and neighborhood impacts.**

Policy 5.12.1 Coordinate with school districts to identify suggested pedestrian routes within existing and new subdivisions for school children to walk to and from schools and/or bus stops.

Program 5-1 Periodically review current traffic volumes, traffic collision data, and the pattern of urban development to coordinate, program, and as necessary revise the planning and prioritization of road improvements.

Program 5-2 Periodically reassess the goals, objectives and policies statements of the Circulation Element and propose amendments, as necessary.

Program 5-3 Develop a comprehensive strategy to ensure full funding of the circulation system. The strategy will include the DIF, TUMF, and other funding sources that may be available to the City. In addition, the creation of benefit assessment districts, and road and bridge fee districts may be considered where appropriate.

Program 5-4 Develop a multi-year transportation infrastructure improvement program that, to the extent feasible, phases the construction of new projects in advance of new development.

Program 5-5 The above-referenced program will prioritize circulation improvement projects to be funded from DIF, TUMF and other sources. Prioritization to consider the following factors: (a) Traffic safety; (b) Congestion relief; (c) Access to new development; and (d) Equitable benefit.

Program 5-6 Conduct studies of specified arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan buildout for at least one of the reasons discussed below:

(a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities.

(b) Segments will need improvements but require inter-jurisdictional coordination.

(c) Segments would require significant encroachment on existing adjacent development if built out to their Circulation Element designations.

Program 5-7 Establish traffic study guidelines to deal with development projects in a consistent manner. The traffic study guidelines shall include criteria for projects that propose changes it the approved General Plan land uses.

Program 5-13 Implement Transportation demand management (TDM) strategies that reduce congestion in the peak travel hours. Examples include carpooling, telecommuting, and flexible work hours.

4.15.3 Methodology

This section summarizes: i) the traffic volume scenarios analyzed in this EIR and methods of traffic volume projection; ii) the proposed project's trip generation, distribution and assignment, and iii) opening year traffic.

4.15.3.1 Traffic Volume Scenarios

Existing Baseline, Existing Baseline Plus Phase 1, and Existing Baseline Plus Project Conditions. The existing year (2018) represents the baseline traffic conditions as they existed at the time the Revised Sections of the FEIR was issued to represent pre-project approval (existing physical conditions). The existing baseline plus project analysis determines direct project-related traffic impacts that would occur on the existing roadway system in a theoretical scenario in which the project is placed upon existing baseline conditions.

Within the WLC project site, the Phase 1 land uses were used for the "Plus Phase 1" scenarios, the proposed project buildout land uses were used for the "Plus Project" scenarios, while the existing land uses were used for the "No Project" scenarios. The Existing Plus Phase 1 and Existing plus Project analyses are intended to identify the project-specific impacts associated solely with the development of the project and the corresponding mitigation measures necessary to mitigate the project-related impacts.

Year 2025 and Year 2025 Plus Phase 1 Conditions. The year 2025 analysis determines the project's cumulative contribution to near-term traffic impacts based on a comparison of year 2025 conditions to year 2025 plus Phase 1 of the project conditions. Within the site, the proposed Phase 1 land uses were used for the "Plus Phase 1" scenarios while the existing land uses were used for the "No Project" scenarios.

The opening year 2025 cumulative analysis has been utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF) program and the City of Moreno Valley Development Impact Fee (DIF) program, can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the regionally funded improvements can provide the target LOS, and the payment of such funds for such improvements is foreseeable, then the project's payment into the established fee programs will be considered as mitigation for cumulative impacts through the conditions of approval. Other improvements needed beyond the regionally funded improvements (such as localized improvements to non-TUMF, or non-DIF) are identified in the impacts section (Section 4.15.5).

The circulation system assumed in the analysis includes transportation improvement projects that are either under construction or are funded and planned for implementation in the short-term. These improvement projects are identified in SCAG's 2012-2035 Regional Transportation Plan (RTP). The

RTP is a long-range transportation plan based on 20-year growth projections that is developed and updated by SCAG every four years. The Federal Transportation Improvement Program (FTIP) is a capital listing of all transportation improvement projects proposed over a six-year period for the SCAG region. The FTIP implements the transportation projects and programs listed in the RTP in compliance with state and federal requirements. For the 2025 scenarios, only the projects in the FTIP and the RTP's financially constrained[1] project list were assumed to be completed. The projects in the RTP's Strategic Plan were not included because funding for them is too uncertain. Also, the proposed East-West Freight Corridor included in the financially constrained plan was not included because the freight corridor is expected to be funded through tolls to be collected by a process that has not yet been established and whose future efficacy is unknown. If it is constructed, then traffic impacts would be less than those described in this EIR. The 2025 improvements are shown in Figure 4.15.5.

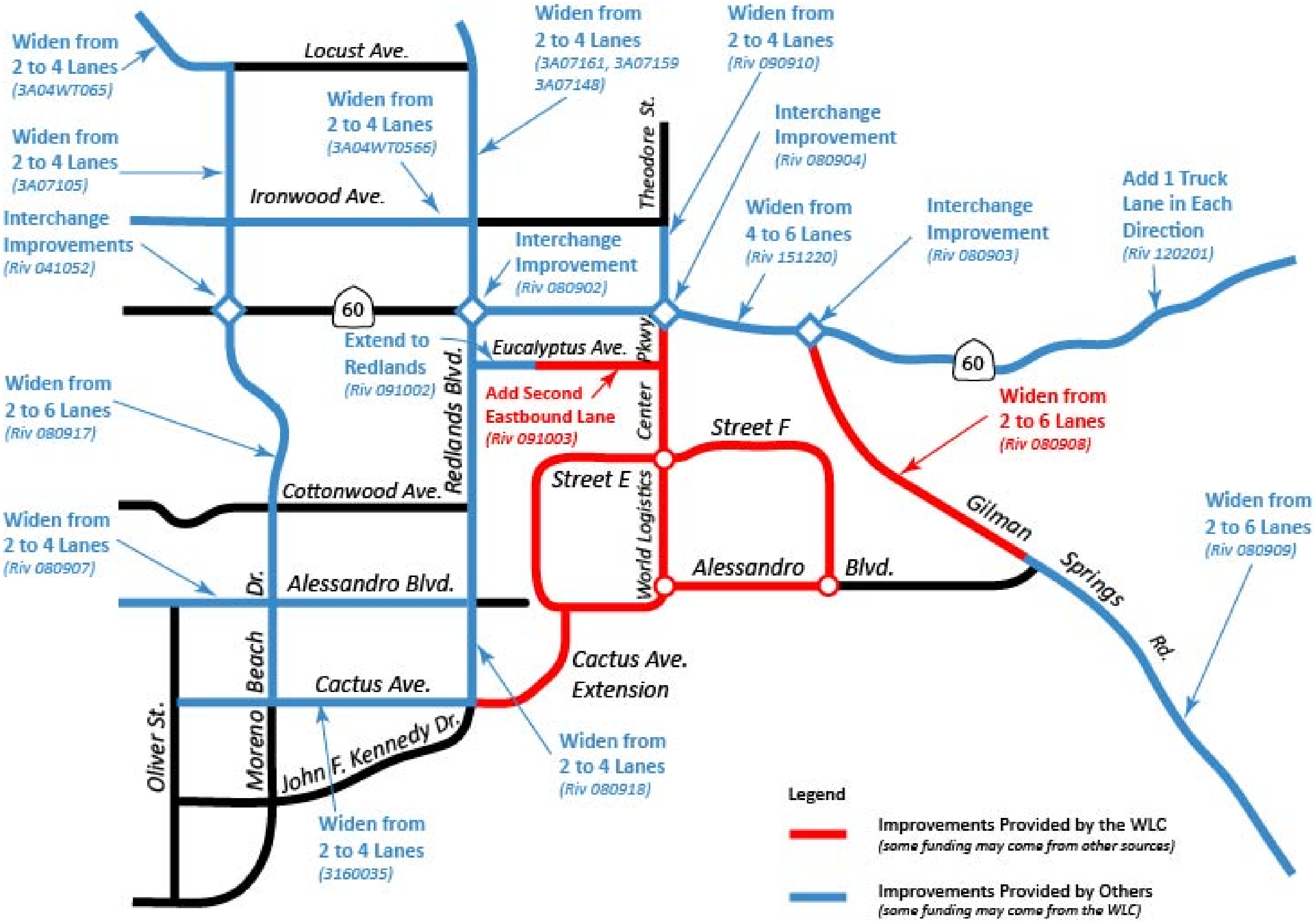

Figure 4.15.5: Roadway Improvements Assumed for 2025

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

Phase 1 of the proposed project will be completed in 2025 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue extension and Streets C and E. World Logistics Center Parkway would serve north-south traffic as it does today.

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[1] These are the projects for which funds are committed or have reasonably available revenue sources, and are probable for implementation.

Traffic projections for year 2025 conditions were derived from the RivTAM using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing (2018) baseline conditions and horizon year (2025) conditions. Specifically, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project were included in the socioeconomic inputs for the year 2025 traffic volume scenario as shown in the Traffic Impact Analysis Report, dated July 2018. Table 4.15-11 summarizes the forecast years as well as each development scenario analyzed.

Table 4.15-11: Analysis Scenarios

Forecast Year	Scenarios Analyzed
2018	• Existing (2018) Baseline Conditions. • Existing (2018) Baseline Plus Phase 1 Conditions Project (21,450,000 square feet). • Existing Baseline plus Project Conditions.
2025	• Year 2025 without Project Conditions Analysis based on data from the RivTAM plus cumulative projects. • Year (2025) plus Phase 1 Project (21,450,000 square feet).
2040	• Year 2040 Cumulative, without Project: Analysis based on data from the RivTAM plus cumulative projects. • Year 2040 Cumulative plus Project.

4.15.3.2 Project Trip Generation, Distribution, and Assignment

Based on the proposed WLC Specific Plan, high-cube logistics warehousing would comprise 99.4% of the floor space of the WLC, so a considerable amount of deliberation and study went into the selection of the most appropriate trip generation rate for this particular type of building. In the 2014 TIA four possible sources of trip generation rates were identified and evaluated, with a combination of two sources eventually being used. These were ITE's *Trip Generation Manual 9th Edition* being the source of the overall trip generation rate and the City of Fontana *Truck Trip Generation Study* being the source of the vehicle mix percentages.

Given the growing importance of high-cube logistics to southern California and plethora of small, conflicting studies of trip-generation rates for that type of building, a consensus formed on the need for a single, comprehensive survey that would provide definitive trip-gen rates for use in TIAs going forward. Accordingly, the South Coast Air Quality Management District (SCAQMD), a leading environmental agency for Riverside County, and the National Association of Industrial and Office Properties (NAIOP), representing developers, jointly sponsored a study to be conducted by a highly respected neutral party, ITE. The findings of this very large[1] study were released in October 2016 as a report entitled *High-Cube Warehouse Vehicle Trip Generation Analysis*.

The 2016 ITE study found that on average high-cube transload and short-term storage warehouses, the type of warehouse proposed for the WLC, generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis). However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed. These results have been incorporated into the 10th edition of ITE's *Trip Generation Manual* in a new land use code (Code 154). SCAQMD has indicated its acceptance of these results on its website[2],

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[1] Counts were taken at 107 sites

[2] http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/high-cube-warehouse accessed 2/16/2018

> "*Draft final results for the Warehouse Truck Trip Study were completed and were lower than SCAQMD recommended truck trip rates in the California Emissions Estimator Model (CalEEMod). Staff recommends truck trip rates from the Institute of Transportation Engineers (ITE) for high cube warehouse projects located in SCAQMD. Consistent with CEQA Guidelines, a CEQA document may use a non-default trip rate if there is substantial evidence in the recording supporting another rate is more appropriate for the air quality analysis.*"

Based on the substantial evidence collected by ITE and presented in the 10th edition of ITE's *Trip Generation Manual* and in *High-Cube Warehouse Vehicle Trip Generation Analysis*, the data from these two sources were used in the current analysis of WLC traffic impacts. Specifically, the trip generation rates and directionality (percent of vehicle entering and leaving the site) were taken from the 10th edition of *Trip Generation Manual*, while the percentage of vehicles in each vehicle class was taken from *High-Cube Warehouse Vehicle Trip Generation Analysis*. A mixture was required because Trip Generation Manual reported the directional split but not the vehicle mix while High-Cube Warehouse Vehicle Trip Generation Analysis reported the vehicle mix but not the directional mix.

High-Cube Warehouse Vehicle Trip Generation Analysis classified vehicles into three classes, namely passenger vehicles, 2- to 4-axle trucks, and 5+ axle trucks. The "passenger vehicles" category corresponds directly with the "passenger vehicle" category used in the RIVTAM model, and all of the vehicles in the "5+ axle trucks" fall within RIVTAM's "Heavy Truck" category. However, ITE's middle category, 2- to 4-axle trucks, covers three different categories used in RIVTAM. Specifically, 2-axle trucks correspond with RIVTAM's "Light Truck" category, 3-axle trucks correspond with RIVTAM's "Medium Truck" category, and 4-axle trucks fall within RIVTAM's "Heavy Truck" category along with 5+ axle trucks. Vehicle mix data from NAIOP's survey of 31 southern California warehouses was used to disaggregate ITE's middle category into the corresponding RIVTAM vehicle classes.

Using these rates, the trips that would be generated by the WLC are shown in Table 4.15-12.

Table 4.15-12: Trip Generation Rates - Proposed and Existing Land Uses

Vehicle Class	Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
		In	Out	In	Out	
High-Cube Logistics (per KSF)	Pass Veh	0.029	0.028	0.024	0.055	0.963
	Light Trucks	0.002	0.002	0.002	0.003	0.074
	Medium Trucks	0.001	0.002	0.002	0.003	0.097
	Heavy Trucks	0.007	0.009	0.005	0.006	0.266
	Total	0.039	0.041	0.034	0.066	1.400
Light Logistics (per KSF)	Pass Veh	0.105	0.031	0.041	0.111	1.397
	Light Trucks	0.007	0.002	0.003	0.007	0.090
	Medium Trucks	0.006	0.002	0.002	0.006	0.078
	Heavy Trucks	0.013	0.004	0.005	0.014	0.174
	Total	0.131	0.039	0.051	0.139	1.740
Utilities (per KSF)	Pass Veh	1.426	0.357	0.350	1.401	10.217
	Light Trucks	0.211	0.053	0.052	0.207	1.511
	Medium Trucks	0.048	0.012	0.012	0.047	0.341
	Heavy Trucks	0.163	0.041	0.040	0.161	1.171
	Total	1.848	0.462	0.454	1.816	13.240
Gas Station w Mart (Pumps)	Heavy Trucks	1.160	1.114	0.899	0.864	31.613
Fire Station (site)	Pass Veh	20.000	8.000	10.000	20.000	137.000
Convenience Market (KSF)	Pass Veh	13.209	13.209	10.580	10.165	321.873

Notes: 1) Trips for gas station and convenience market are net of pass-by and diverted trips
2) Trucks using the fueling stations are all non-diesel

Table 4.15-13: Project Trips Generated by Proposed and Existing Land Uses

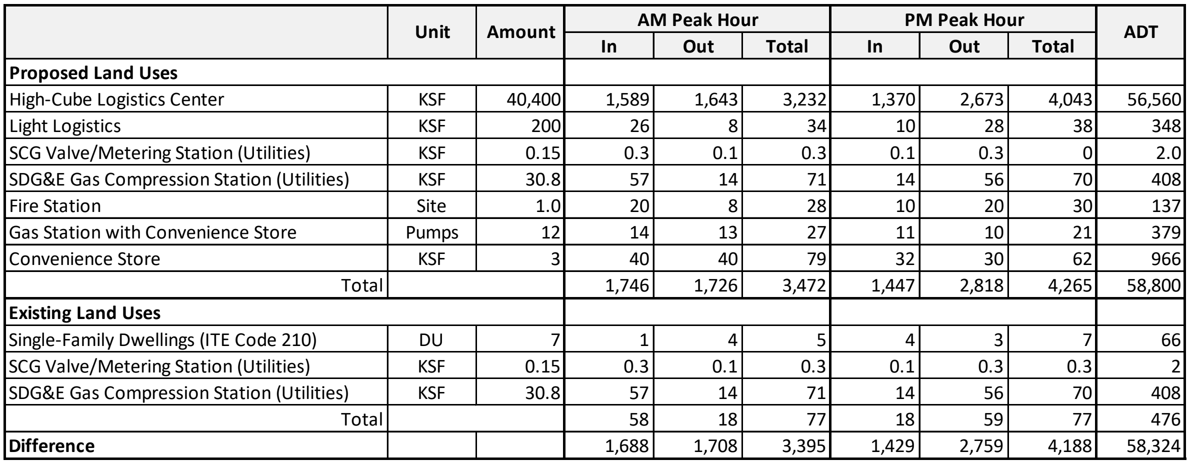

	Unit	Amount	AM Peak Hour			PM Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Proposed Land Uses									
High-Cube Logistics Center	KSF	40,400	1,589	1,643	3,232	1,370	2,673	4,043	56,560
Light Logistics	KSF	200	26	8	34	10	28	38	348
SCG Valve/Metering Station (Utilities)	KSF	0.15	0.3	0.1	0.3	0.1	0.3	0	2.0
SDG&E Gas Compression Station (Utilities)	KSF	30.8	57	14	71	14	56	70	408
Fire Station	Site	1.0	20	8	28	10	20	30	137
Gas Station with Convenience Store	Pumps	12	14	13	27	11	10	21	379
Convenience Store	KSF	3	40	40	79	32	30	62	966
Total			1,746	1,726	3,472	1,447	2,818	4,265	58,800
Existing Land Uses									
Single-Family Dwellings (ITE Code 210)	DU	7	1	4	5	4	3	7	66
SCG Valve/Metering Station (Utilities)	KSF	0.15	0.3	0.1	0.3	0.1	0.3	0.3	2
SDG&E Gas Compression Station (Utilities)	KSF	30.8	57	14	71	14	56	70	408
Total			58	18	77	18	59	77	476
Difference			1,688	1,708	3,395	1,429	2,759	4,188	58,324

Table 4.15-14: Project Trips by Vehicle Type

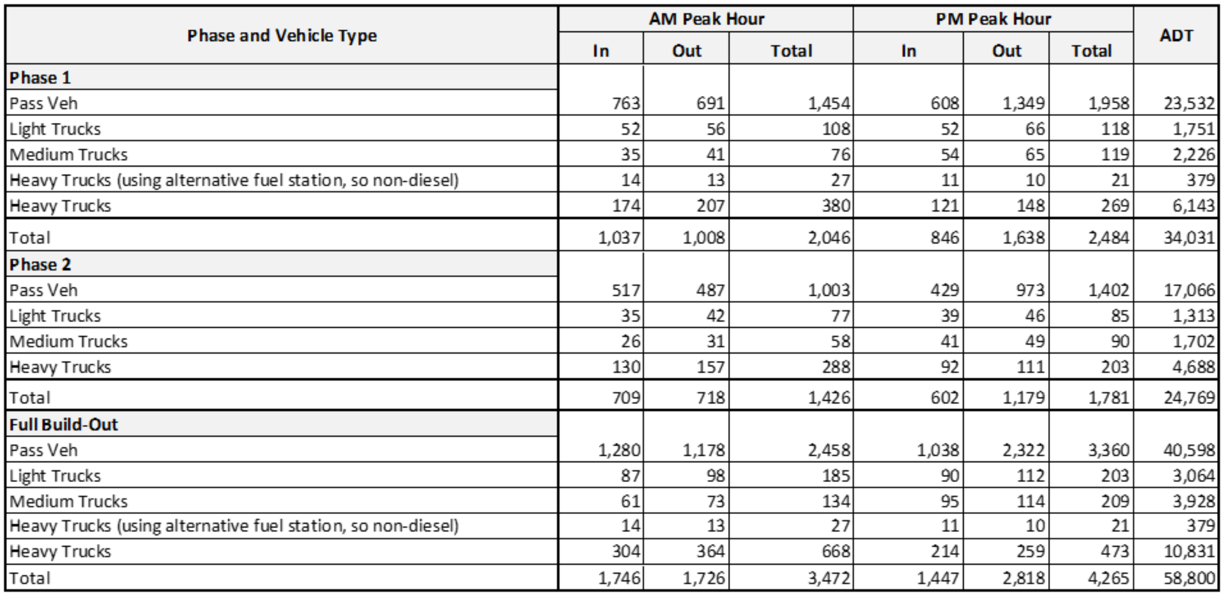

Phase and Vehicle Type	AM Peak Hour			PM Peak Hour			ADT
	In	Out	Total	In	Out	Total	
Phase 1							
Pass Veh	763	691	1,454	608	1,349	1,958	23,532
Light Trucks	52	56	108	52	66	118	1,751
Medium Trucks	35	41	76	54	65	119	2,226
Heavy Trucks (using alternative fuel station, so non-diesel)	14	13	27	11	10	21	379
Heavy Trucks	174	207	380	121	148	269	6,143
Total	1,037	1,008	2,046	846	1,638	2,484	34,031
Phase 2							
Pass Veh	517	487	1,003	429	973	1,402	17,066
Light Trucks	35	42	77	39	46	85	1,313
Medium Trucks	26	31	58	41	49	90	1,702
Heavy Trucks	130	157	288	92	111	203	4,688
Total	709	718	1,426	602	1,179	1,781	24,769
Full Build-Out							
Pass Veh	1,280	1,178	2,458	1,038	2,322	3,360	40,598
Light Trucks	87	98	185	90	112	203	3,064
Medium Trucks	61	73	134	95	114	209	3,928
Heavy Trucks (using alternative fuel station, so non-diesel)	14	13	27	11	10	21	379
Heavy Trucks	304	364	668	214	259	473	10,831
Total	1,746	1,726	3,472	1,447	2,818	4,265	58,800

Truck Distribution. The truck trip distribution patterns have been developed based on the anticipated travel patterns for the proposed project's high-cube logistics warehousing trucks. Since the internal trips, the port-related trips, and the majority of external trips (all but those on I-10) use routes west of the project site, it is anticipated that a large majority of the WLC truck traffic will be oriented to the west of the project, with a much smaller amount to and from the east. In addition, the majority of project truck traffic would use the freeway system to enter and leave the project area due to truck routing restrictions. Based on these factors, truck trips generated by the proposed project would be oriented in the following manner (See Figure 37 of the WLC TIA):

- 82 percent to/from the west via one or more freeways;
- 6 percent to/from the north via surface streets;
- 9 percent to/from the east utilizing SR-60 and I-10; and
- 3 percent to/from the southeast via surface streets.

Auto Distribution. Figure 32 of the WLC TIA indicates that daily passenger vehicle traffic will distribute in the following directions:

- 44 percent to/from the west on SR-60;
- 9 percent to/from the east on SR-60 (east of Gilman Springs Road);
- 11 percent to/from the southeast on Gilman Springs Road;
- 29 percent to/from the south on Cactus Avenue; and
- 7 percent to/from the north along Theodore Street.

Moreno Valley currently has a jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately 25,000 new jobs; nearly doubling the number of jobs in Moreno Valley. This would have four effects on commute patterns. First, many current and future residents of Moreno Valley would be able to work locally with very short commute trips.

Second, residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the Western Riverside Council of Governments and the Riverside County Transportation Commission to promote use of the arterial road network as an alternative to freeways. Tests with the RIVTAM model (see Figure 32 of the WLC TIA) suggest that nearly half of auto traffic associated with the WLC would be on surface streets; i.e., not on freeways.

Third, workers coming from more distant locations would, in most cases, be traveling on freeways in the off-peak direction; i.e., commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of freeways, since the freeways were sized for flows in the peak direction.

Fourth, because the RIVTAM model assumes that WLC employees would work elsewhere if the WLC project were not implemented, then the availability of jobs at the east end of Moreno Valley would reduce the number of workers driving long commutes to distant jobsites to the west and southwest. Although the project would increase freeway auto traffic eastbound in the morning, it would also decrease the traffic in the more congested westbound direction. In the evening the pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore, the WLC project would have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of SCAG, WRCOG, and other regional governments and agencies to encourage better jobs/housing balances as a way to reduce peak directional flows on the regional freeway system.

The assignment of traffic from the project area to the adjoining roadway system is based upon the project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the project. For more information on project trip generation and distribution for both trucks and passenger vehicles over and above the summary above, see the project TIA (WSA July 2018, Revised Sections of the FEIR Appendix). It is important to note that all trucks must use established truck routes within the City of Moreno Valley by the Municipal Code, while passenger vehicles will distribute onto the freeway and local streets depending on their destinations.

It should be noted that all technical studies based all or in part on traffic (i.e., air quality, greenhouse gases, and noise) have used these same assumptions regarding trip generation, trip length, etc. from the project TIA for their assessments of project impacts.

Passenger Car Equivalents. The analytical methods used to forecast traffic impacts must take into account the driving characteristics of different classes of vehicles. This is typically done through the use of passenger car equivalent (PCE) factors, which convert the number of heavy vehicles in the traffic stream into an equivalent number of passenger cars. The term PCE was first used in the 1965 *Highway Capacity Manual* (HCM), and was determined by comparing the relative number of passing of trucks by passenger cars in relation to number of passing of passenger car by passenger cars. According to the *HCM 2000*:

> *The entry of heavy vehicles-that is, vehicles other than passenger cars (a category that includes small trucks and vans)-into the traffic stream affects the number of vehicles that can be served. Heavy vehicles are vehicles that have more than four tires touching the pavement.*
>
> *Trucks, buses, and recreational vehicles (RVs) are the three groups of heavy vehicles addressed by the methods in this manual. Heavy vehicles adversely affect traffic in two ways:*
>
> - *They are larger than passenger cars and occupy more roadway space; and*
> - *They have poorer operating capabilities than passenger cars, particularly with respect to acceleration, deceleration, and the ability to maintain speed on upgrades.*
>
> *The second impact is more critical. The inability of heavy vehicles to keep pace with passenger cars in many situations creates large gaps in the traffic stream, which are difficult to fill by passing maneuvers. The resulting inefficiencies in the use of roadway space cannot be completely overcome. This effect is particularly harmful on sustained, steep upgrades, where the difference in operating capabilities is most pronounced, and on two-lane highways, where passing requires use of the opposing travel lane.*

Grade is by far the most important determinant in the PCE factor to be used. The HCM's recommended PCE for trucks ranges from 1.5 for places with slopes of less than 2 percent up to 7.0 for places with steep grades more than a mile long. HCM's recommended PCE factors were used for the freeway analysis.

For the analysis of surface streets, the City's TIA guidelines mandate the use of PCE factors taken from the San Bernardino County CMP, 2003 Update. These are more precise and on average somewhat higher than the HCM rates, because HCM recommends two PCEs per heavy truck while the San Bernardino County CMP uses three (see PCE Factors table below). This means that the San Bernardino County CMP PCE rates used in the WLC analysis represent a deliberately conservative approach in the sense that the analysis will tend to over-state the impact of trucks on traffic conditions.

PCE Factors for Surface Streets

Vehicle Class	HCM	San Bernardino CMP
Passenger Cars	1.0	1.0
2-Axle Trucks	2.0	1.5
3-Axle Trucks		2.0
4 or more-Axle Trucks		3.0

Potential Rail Alternative. This section describes why rail service is not considered a viable option for reducing the traffic impacts of the WLC. This conclusion is based on several factors, including the physical constraints to bringing rail service to the WLC site, the cost of cargo movement by rail relative to movement by truck, capacity constraints in the rail system that the WLC branch line would tie into, and the minimal effect that rail service would have even if all other factors could be overcome. These factors are discussed in turn below.

The Possible Alignments for Bringing Rail Service to the WLC Site. The WLC site is not currently served by rail. The rail lines nearest the site are the Union Pacific Yuma Line (single-track in this area), the Riverside County Transportation Commission's San Jacinto Branch Line (single-track, currently inactive), and the BNSF double-track line through the City of Riverside (see TIA Figure 36).

There are four general alignment possibilities for a branch line to the WLC. Each alignment is inherent with significant problems as follows:

- Western Alignment – Alignments running from the BNSF line in Riverside to the WLC, an approximate distance of 15 miles, would have to run through built-up areas of the Cities of Riverside and Moreno Valley. The cost of acquiring right-of-way through these areas, and the impacts to the community (noise, traffic disruption, safety, division of the community, etc.) render such alignments unviable. Moreover, trains using the at-grade rail crossings in the City of Riverside already impose substantial delays on road traffic. In fact, in recent years the City of Riverside has sued the ports over the issue of traffic impacts from additional trains passing through the city. Adding more crossings and more trains would exacerbate this problem.
- Southern Alignment – It would be possible to avoid densely populated and built-out areas by connecting to the San Jacinto Branch Line south of March Air Reserve Base. However, the only way to avoid established communities would be to pass along the northern portion of the Lake Perris State Recreation Area. The alignment, approximately 10 miles in length, would be a major impact as it would require constructing and operating a rail line along the slopes of the Lake Perris State Recreation Area and potentially the San Jacinto Wildlife Area. There would also be traffic impacts at road crossings, potential grade issues, and grade separated crossings needed for drainage channels and I-215. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways (which will be discussed in a later section).
- Northern Alignment – The shortest alignment to an existing rail line is to the north in the vicinity of Redlands Boulevard and connecting to the UP Yuma line near the intersection of Redlands Boulevard and San Timoteo Canyon Road, approximately five miles from the project site. This alignment would require extensive ROW acquisition, encounter very serious grade issues that would increase the length of track needed, result in environmental impacts on the Badlands, and require a grade separated crossing of SR-60. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways.
- Eastern Alignment – The final possibility would be to connect to the UP Yuma line along an alignment parallel to SR-60. This alignment would connect to the existing rail network near the Morongo Golf Club at Tukwet Canyon, approximately five miles to the east of the WLC site. The eastern alignment would be affected by the same drawbacks as the northern alignment, with the addition of the need to construct a bridge over San Timoteo Creek.

As can be seen from the discussion above, providing rail service to the WLC along any of the possible alignments would in itself create serious environmental impacts.

Relative Costs of Truck and Rail Service. The loading and unloading of rail cargos requires special equipment and handling and can only be performed at specialized places, which adds to the cost of shipping goods by rail. On the other hand, the actual movement of goods by rail is more energy-efficient and less expensive than movement by truck. This combination of relatively high fixed costs at each end of a trip with low variable costs for the distance traveled means rail can be a less expensive way to ship cargo than truck, but only if the shipping distance is sufficiently long.

The break-even distance between rail and truck shipping has been the subject of several studies. The industry rule-of-thumb is that the rail becomes economically viable when cargos are shipped more than 500 miles. For example, the National Rail Plan, a nationwide guiding document from the U.S. Department of Transportation Federal Railroad Administration, has set the freight rail goal to, "Develop strategies to attract 50 percent of all shipments 500 miles or greater to intermodal rail." In addition, the Plan highlights the importance that trucks have in conjunction with rail when moving freight, as trucks "excel in providing time-sensitive delivery services for high-value goods being transported over medium and short haul distances." A local example is the Ports of Long Beach/Los Angeles Rail Master Planning Study, which indicates that rail loaded with two levels of shipping containers, "traditionally competes well with trucks at distances greater than 500 miles." The San Pedro Bay Ports Rail Market Study shows the break-even point between truck and rail freight transport beginning east of Las Vegas and Phoenix, and north of the Bay Area. For shipments between the Ports of Los Angeles and Long Beach and the WLC, a distance of about 70 miles, shipping by rail would be far more expensive than by truck. Even if a rail line were built to the WLC, it would be uneconomical to use it for trips to and from the ports.

Capacity Constraints in the Rail System. If a rail line could be built to the WLC site and tenants could be induced to use it despite higher costs, this would only be helpful if the regional rail system had sufficient capacity to accommodate WLC freight without detriment to other users.

In fact, there are serious capacity constraints in the rail network in the Los Angeles Basin. Among other things, both BNSF and UP rail operations are already capacity-constrained on the lines between the ports and western Riverside County. Two studies, completed in the early 2000s and using the year 2000 as the existing condition, found that many of the rail lines were already operating near capacity. The studies evaluated 10 and 25 years of projected growth on the network and found that within 10 years (of the date of the study) the network would be over capacity. Without capacity increasing improvements, 10 years of train traffic growth was forecast to increase delay more than six-fold. This did not include additional delays that would be caused by trains serving the WLC.

The Los Angeles-Inland Empire Railroad Main Line Advanced Planning Study from October 2002 found that the "region's rail system is inadequate for forecast train traffic." The study presented other findings that illustrate the near-capacity state of the rail network, for example, "… just 25 percent of the forecast 2010 traffic is sufficient to roughly double the average delay per train, to 67.6 minutes for BNSF freight and 54.4 minutes for UP freight." This occurs because small increases in train traffic result in disproportionate delays as the network nears capacity.

Several minor improvements to the rail network have been made since the 2002 study. However, accommodating estimated future demand in the year 2025 by providing capacity improvements alone would be costly; to meet future demand without rerouting would require capacity of some segments to be increased from two to four tracks. Therefore, an approach has been developed to revise train routing on the existing rail network and make limited capacity-increasing improvements. Even the limited improvements are estimated to cost over $2 billion.

The fact that the rail system has limited capacity to accommodate additional traffic means that potential users have to be prioritized so that the capacity can be allocated efficiently. Highest priority would be for long-distance rail service direct from the ports. Short-distance cargo trips between the ports and the WLC would receive much lower priority than long-distance shipments. If regional passenger trains (e.g., Metrolink) share the tracks with freight trains, as is the case for some lines, then service to WLC would drop even further on the priority list. Based on existing capacity of the rail network and projected growth, the studies indicated that the rail network would be over capacity without further capital investments, which is beyond the scope of the WLC project.

Minimal Reduction in Traffic. Assuming that a rail line could be built to the WLC site and assuming that WLC freight could be accommodated by the rail network and that the costs for these things could be covered by subsidies or by increasing the prices on goods moved through the WLC, the question must be asked, "how much of a reduction in truck traffic impacts would be achieved?"

The answer is, "very little." As was discussed earlier, the economics of freight shipment make rail viable only for trips of 500 miles or more. As is described in the TIA prepare for this EIR (Chapter 12, Section F), between 2 and 7 percent (depending on the year) of the truck trips beginning or ending in WLC go to the ports and these trips have no significant impact on freeway LOS for most of their lengths. So the effect of rail service on reducing truck impacts would be very small.

Conclusions About the Rail Alternative. This analysis of the rail alternative found that bringing rail service to the site would be very costly, result in serious environmental impacts, create major disruption to existing communities, and take many years to design, acquire right-of-way, and construct. Even if a line were built, both economics and system constraints would deter its use for cargos between the WLC and the ports. Even if built and used, rail service would have very little effect on reducing the traffic impacts of the WLC. Based on these considerations, rail service was not included in the design of the WLC and is not discussed further in this EIR.

4.15.3.4 Year 2025 Conditions

Levels of service are discussed below for year 2025. As noted above, Phase 1 of the proposed project will be completed in 2025 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue Extension and Streets C and E. World Logistics Center Parkway would serve north-south traffic as it does today. As discussed previously, roadway projects that are either under construction or are funded and planned for implementation in the short-term (i.e., improvement projects on the FTIP and the RTP's Financially Constrained Project list) and therefore reasonably assured of being constructed within the scenario timeframe were added.

Year 2025 Without Project Levels of Service. An intersection level of service analysis was conducted to determine intersection performance under opening year 2025 cumulative conditions. Table 4.15-15 summarizes the levels of service for opening year cumulative conditions at study area intersections. As shown on Table 4.15-15, the number of intersections that exceeded the LOS target in the AM peak hour, PM peak hour, or both, rose from 19 under Existing Conditions to 30 under the 2025 No-Project Scenario due to population and employment growth.. The intersections that were forecast to exceed the City's LOS standards under opening year 2025 cumulative conditions were:

- IN-10 Redlands Blvd/Locust Ave (AM, PM)
- IN-20 Oliver St/Alessandro Blvd. (AM, PM)
- IN-23 Redlands Blvd./Alessandro Blvd. (AM, PM)
- IN-41 Lasselle St/Iris Ave (PM)
- IN-53 Lasselle St./Cactus Ave. (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM, PM)
- IN-66 Alessandro Blvd./Sycamore Canyon Blvd. (AM)
- IN-75 Central Ave./Lochmoor Dr. (AM, PM)
- IN-76 Sycamore Canyon Blvd/Central Ave (AM, PM)
- IN-80 Alessandro Blvd./Mission Grove Pkwy. (AM, PM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM, PM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-96 Alessandro Blvd./Century Ave. (AM)
- IN-97 Alessandro Blvd./Via Vista Dr. (AM, PM)
- IN-98 Alessandro Blvd./Canyon Crest Dr. (AM, PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave.) SB/Gilman Springs Rd. (AM, PM)
- IN-126 Ramona Expy./Sanderson Ave. (AM, PM)
- IN-129 W 6th St/California Ave (PM)

- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM, PM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Table 4.15-15: Year 2025 Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		Non-Existent	
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Non-Existent	
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.0	A	10.3	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	6.2	A	9.5	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	25.0	C
IN-12	Theodore St/Ironwood Ave	D	CSS	9.0	A	8.8	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	26.5	C	23.2	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.3	B	19.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	10.4	B	9.3	A
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.7	A	9.5	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	26.1	C	25.1	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	9.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	31.9	**D**	27.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	15.6	B	17.8	B
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	46.2	**E**	36.2	**E**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	26.2	C	19.7	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.1	B	17.5	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.0	A	3.2	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	15.1	C	14.2	B
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	24.7	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	34.3	C	47.3	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	30.7	C	21.2	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	22.2	C	23.3	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.8	C	42.4	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	17.2	B	19.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	19.0	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	9.0	A	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	37.6	D	20.9	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	16.6	B	25.2	C
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	34.8	C	50.4	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	44.3	D	42.3	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	24.5	C	22.9	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	39.6	D	58.7	**E**
IN-42	Nason St/Iris Ave	C	SIGNAL	18.0	B	19.4	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	28.6	C	25.7	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	12.3	B	11.8	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	37.0	D	35.9	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	21.0	C	18.7	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	23.9	C	24.2	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	26.2	C	24.8	C

Table 4.15-15: Year 2025 Without Project Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.1	C	22.3	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.0	A	6.6	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	25.2	C	23.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	28.7	C	24.2	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	30.3	C	36.9	**D**
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	34.8	C	32.9	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	27.9	C	42.2	D
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	26.0	C	49.7	D
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	30.1	C	34.5	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	23.2	C	32.0	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	38.6	D	40.4	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	11.5	B	10.2	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	22.3	C	23.6	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.4	D	52.3	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.5	C	30.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	79.0	**E**	42.0	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	61.2	**E**	42.0	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	5.4	A	10.3	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	29.0	C	15.6	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	32.6	C	22.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.7	B	15.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.6	C	22.1	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.4	A	24.8	C
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	46.7	D	13.2	B
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	27.9	C	34.7	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.9	**E**	72.3	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	63.6	**E**	83.8	**F**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	9.1	A	23.5	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	24.0	C	9.1	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	37.7	D	22.7	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	72.1	**E**	56.9	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	32.8	C	54.3	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	23.9	C	13.7	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	107.5	**F**	57.3	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	23.5	C	7.9	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.2	**E**	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	25.2	C	33.6	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	44.6	D	88.1	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.3	A	9.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	26.1	C	42.6	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.0	B	27.7	C
IN-92	Arlington Ave/Maude St	D	SIGNAL	34.5	C	53.5	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	24.3	C	11.5	B
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	175.9	**F**	>180	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	122.6	**F**	151.6	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	133.9	**F**	19.8	B

Table 4.15.15: Year 2025 Without Project Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	120.7	**F**	114.3	**F**
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	60.9	**E**	85.6	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	37.5	D	37.5	D
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	24.0	C	62.8	E
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	46.0	D	27.2	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	59.4	E	68.1	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	15.5	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.8	C	24.7	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	25.6	C	18.4	B
IN-107	Evans Rd/Rider St	C	SIGNAL	40.1	**D**	30.2	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	40.4	D	35.2	D
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	33.5	C	30.4	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	88.9	**F**	97.4	**F**
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	24.7	C	37.1	**D**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	15.6	B	20.2	C
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	51.4	**D**	21.3	C
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	>180	**F**	171.9	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	19.6	C	20.3	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.8	B	11.1	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The year 2025 without project roadway levels of service are based on daily V/C ratios for the study area roadway segments. Table 4.15-16 summarizes the results of this analysis and shows all segments would meet the general plan LOS target.

Table 4.15-16: Year 2025 Without Project Roadway Levels of Service

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	1,174	A
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	906	A
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road		
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,524	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	5,484	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	22,365	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	20,260	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	16,194	B
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	11,586	A
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,885	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	10,282	A
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	990	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

A freeway segment level of service analysis was conducted to determine freeway performance under year 2025 conditions. Table 4.15-17 summarizes the levels of service at study area segments under year 2025 no project conditions. As shown in Table 4.15-17, the following 40 study freeway segments are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

North or Eastbound

- SR-60 Ramona Ave. to Central Ave. (AM, PM)
- SR-60 Central Ave. to Mountain Ave. (AM, PM)
- SR-60 Mountain Ave. to Euclid Ave. (AM, PM)
- SR-60 Euclid Ave. to Grove Ave. (AM, PM)
- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (PM)
- SR-60 Rubidoux Blvd. to Market St. (PM)
- SR-60 Market St. to Main St. (AM, PM)
- SR-60 Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 Pigeon Pass Rd. to Heacock St. (PM)
- SR-91 McKinley St. to Pierce St. (PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Adams St. to Madison St. (AM, PM)

- SR-91 Central Ave. to 14th St. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave./Washington St. (AM, PM)
- I-215 Auto Plaza Dr. to Mill St. (PM)

Southbound or Westbound

- SR-60 Euclid Ave. to Grove Ave. (PM)
- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (AM, PM)
- SR-60 Valley Way to Rubidoux Blvd. (PM)
- SR-60 Rubidoux Blvd. to Market St. (PM)
- SR-60 Market St. to Main St. (AM)
- SR-60 Main St. to SR-91 (AM)
- SR-60 Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 Fair Isle Dr./Box Springs Rd. to I-215 (PM)
- SR-60 I-215 to Day St. (AM)
- SR-60 Pigeon Pass Rd. to Heacock St. (AM)
- SR-91 McKinley St. to Pierce St. (AM, PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Magnolia Ave. to La Sierra Ave. (AM, PM)
- SR-91 La Sierra Ave. to Tyler St. (AM, PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Van Buren Blvd. to Adams St. (PM)
- SR-91 Adams St. to Madison St. (PM)
- SR-91 Madison St. to Arlington Ave. (AM, PM)
- I-215 Harley Knox Blvd. to Van Buren Blvd. (PM)
- I-215 Center St. to La Cadena Dr. (AM, PM)
- I-215 La Cadena Dr. to Barton Rd. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave. (PM)

Table 4.15-17: Year 2025 Without Project Freeway Mainline Levels of Service

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,520	29.7	D	6,580	28.2	D	6,700	26.6	D	6,540	26.5	D
F-3	SR-60	Ramona Ave to Central Ave	8,600	43.5	**E**	9,500	48.5	**F**	6,250	24.9	C	6,780	28.0	D
F-4	SR-60	Central Ave to Mountain Ave	7,710	35.2	**E**	8,390	37.3	**E**	6,850	29.0	D	6,860	29.3	D
F-5	SR-60	Mountain Ave to Euclid Ave	8,040	38.0	**E**	8,390	37.3	**E**	6,970	29.5	D	7,260	31.7	D
F-6	SR-60	Euclid Ave to Grove Ave	7,960	37.3	**E**	8,560	38.7	**E**	7,250	30.4	D	7,930	35.6	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	7,320	32.2	D	9,460	48.0	**F**	6,820	27.1	D	9,890	58.8	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,210	31.2	D	9,610	49.9	**F**	7,980	36.2	**E**	9,930	62.2	**F**
F-9	SR-60	Archibald Ave to Haven Ave	7,290	32.0	D	6,980	27.8	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	8,240	28.2	D	7,640	23.5	C	7,510	23.0	C	6,280	19.4	C
F-11	SR-60	Milliken Ave to I-15	4,670	18.6	C	5,430	20.5	C	5,640	21.6	C	5,880	23.0	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,210	16.7	B	4,820	18.0	B	5,200	15.7	B	5,290	16.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,640	14.4	B	3,970	14.9	B	5,480	20.9	C	6,690	27.5	D
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	3,120	12.6	B	3,430	13.1	B	4,790	18.2	C	5,670	22.4	C
F-15	SR-60	Pedley Rd to Pyrite St	3,290	13.2	B	3,760	14.3	B	4,760	18.1	C	5,670	22.4	C
F-16	SR-60	Pyrite St to Valley Way	3,940	15.8	B	4,170	15.8	B	4,940	18.8	C	5,650	22.3	C
F-17	SR-60	Valley Way to Rubidoux Blvd	5,110	29.1	D	5,840	32.7	D	5,170	27.7	D	5,930	35.7	**E**
F-18	SR-60	Rubidoux Blvd to Market St	5,320	30.9	D	6,110	35.6	**E**	5,340	28.6	D	6,210	38.2	**E**
F-19	SR-60	Market St to Main St	5,780	35.5	**E**	6,910	45.6	**F**	7,070	48.8	**F**	5,810	34.2	D
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			7,450	56.0	**F**	4,820	26.1	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,930	74.8	**F**	10,270	66.4	**F**	7,770	38.8	**E**	7,500	35.8	**E**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,300	21.0	C	6,590	25.5	C	7,540	31.6	D	8,230	38.5	**E**
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			4,740	50.7	**F**	3,260	26.9	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,020	25.3	C	5,100	59.6	**F**	5,080	59.8	**F**	2,860	22.7	C
F-30	SR-60	Heacock St to Perris Blvd	2,770	22.5	C	3,740	30.5	D	3,730	31.3	D	3,160	25.6	C
F-31	SR-60	Perris Blvd to Nason St	2,530	20.2	C	3,410	26.7	D	3,340	26.2	D	2,920	23.2	C
F-32	SR-60	Nason St to Moreno Beach Dr	2,270	12.1	B	3,140	15.5	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,120	11.3	B	2,910	14.4	B	2,780	21.4	C	2,410	18.8	C
F-34	SR-60	Redlands Blvd to Theodore St	1,800	9.6	A	2,790	13.8	B	2,500	12.7	B	2,050	10.7	A
F-35	SR-60	Theodore St to Gilman Springs Rd	1,930	7.7	A	3,050	11.3	B	2,530	9.7	A	2,040	8.0	A
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,380	8.0	A	2,220	11.5	B	1,810	10.1	A	1,580	9.0	A
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	1,500	12.1	B	2,270	16.8	B	1,460	11.5	B	1,390	11.1	B
F-38	SR-60	Potero Blvd to I-10	1,420	11.5	B	1,340	10.0	A	1,940	14.4	B	1,720	13.3	B
F-39	SR-91	I-15 to McKinley St	4,670	17.5	B	6,840	28.9	D	6,700	27.0	D	7,610	34.7	D
F-40	SR-91	McKinley St to Pierce St	5,230	27.9	D	5,840	35.5	**E**	7,250	53.3	**F**	7,330	62.3	**F**
F-41	SR-91	Pierce St to Magnolia Ave	6,760	44.9	**E**	7,590	68.9	**F**	7,260	52.2	**F**	7,260	57.8	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			7,410	55.1	**F**	7,330	59.6	**F**
F-43	SR-91	La Sierra Ave to Tyler St	7,390	30.6	D	7,530	33.8	D	6,320	38.3	**E**	7,390	61.1	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	7,410	30.5	D	8,330	40.3	**E**	6,470	25.4	C	8,280	39.8	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,950	18.6	C	5,280	20.8	C	6,760	27.0	D	8,230	39.3	**E**
F-46	SR-91	Adam St to Madison St	7,670	63.0	**F**	8,550	120.9	**F**	6,320	24.7	C	7,790	35.5	**E**

Table 4.15-17: Year 2025 Without Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,440	55.8	**F**	7,240	56.6	**F**
F-49	SR-91	Central Ave to 14th St	7,300	56.6	**F**	6,200	40.8	**E**	5,650	21.6	C	7,260	31.3	D
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	5,650	21.6	C	7,260	31.3	D
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,030	11.3	B	2,500	9.3	A
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	2,990	11.2	B	2,930	10.9	A
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	3,170	11.9	B	3,680	13.6	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,170	11.9	B	3,680	13.6	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	3,700	13.9	B	4,350	16.1	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	5,200	19.8	C	5,000	18.7	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	3,160	11.9	B	2,640	9.8	A
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,020	12.1	B	3,250	9.7	A
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,430	13.4	B	4,080	12.3	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,830	14.6	B	5,980	17.8	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,440	14.2	B	5,920	17.9	B	2,790	8.5	A	5,460	16.3	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	3,770	19.8	C	6,720	42.4	**E**
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,000	15.1	B	6,260	24.1	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	5,410	29.5	D	5,950	34.0	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	7,630	33.2	D	7,220	29.4	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	7,710	64.0	**F**	7,280	51.2	**F**
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	7,720	64.3	**F**	7,400	52.7	**F**
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	**E**	6,150	36.7	**E**	6,570	41.4	**E**	7,460	53.9	**F**
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,350	25.1	C	5,840	22.3	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	**F**	6,460	25.4	C	6,020	22.8	C
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	4,930	18.5	C	3,740	13.9	B
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	5,750	25.3	C	5,190	19.6	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	5,880	26.4	D	5,330	20.4	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	6,330	29.3	D	5,480	21.1	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	5,810	26.0	D	5,150	19.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	5,580	19.1	C	5,060	15.5	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	5,460	24.0	C	4,960	19.0	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	5,390	23.6	C	4,980	19.1	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	4,830	20.9	C	4,660	17.8	B
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	4,620	19.9	C	4,560	17.4	B
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	4,110	17.4	B	4,150	15.6	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	4,100	17.4	B	4,200	15.8	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	3,570	15.2	B	3,570	13.4	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	3,590	15.2	B	3,580	13.5	B

▨ Indicates that the LOS exceeds the target level

A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Table 4.15-18 summarizes the levels of service at weaving segments under 2025 conditions. As shown on Table 4.15-18, the following thirteen sections are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

North or Eastbound

- SR-60 from Main St. to SR-91 (AM, PM)
- SR-60 from SR-91 to Blaine St./3rd St. (PM)
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd. (PM)
- SR-60 from I-215 to Day St. (PM)
- SR-60 from Day St. to Pigeon Pass Rd./Frederick St. (PM)
- SR-91 from Magnolia Ave. to La Sierra Ave. (PM)
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd. (PM)

South or Westbound

- SR-60 from Haven Ave. to Archibald Ave. (PM)
- SR-60 from University Ave. to Martin Luther King Blvd. (AM, PM)
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd. (AM, PM)
- SR-91 from Arlington Ave. to Central Ave. (AM, PM)
- SR-91 from SR-60 to Mission Inn Ave./University Ave. (PM)
- I-215 from SR-60 to Columbia Ave. (AM, PM)

Table 4.15-18: Year 2025 Without Project Freeway Weaving Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,820	23	C	6,930	26	C	5,570	20.1	C	6,240	22.9	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,840	27.1	C	8,360	35.6	E
W-20	SR-60	Main St to SR-91	7,350	37.6	E	7,570	37.4	E	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,600	27.1	C	9,810	43.8	F	6,460	24.6	C	6,350	24.4	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,460	25.4	C	7,490	31.3	D	7,390	25.8	C	7,010	25.8	C
W-23	SR-60	University Ave to Martin Luther King Blvd	6,400	24.7	C	7,750	27.4	C	7,710	42.4	E	7,610	> Capacity	F
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	6,480	27.4	C	9,050	35.6	E	7,900	39.1	E	7,550	38.0	E
W-27	SR-60	I-215 to Day St	3,320	12.9	B	10,550	47.4	F	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,400	15.4	B	7,590	35.6	E	5,080	34.3	D	3,460	21.9	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,720	15.1	B	2,340	13.2	B
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	7,320	34.2	D	7,590	38.0	E	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,300	27.8	C	5,250	20.6	C	7,550	36.4	E	7,320	38.0	E
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			8,690	31.7	D	12,040	> Capacity	F
W-93	I-215	Cactus Ave to Alessandro Blvd	4,500	23.4	C	5,370	25.1	C	5,490	23.8	C	6,300	26.9	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			6,110	22.0	C	6,800	25.8	C
W-73	I-215	SR-60 to Columbia Ave	4,590	25.2	C	4,680	23.9	C	7,530	38.0	E	7,240	36.0	E
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,570	24.5	C	9,930	37.5	E	6,750	23.5	C	6,540	23.0	C
W-81	I-215	Mill St to 2nd St	6,060	23.0	C	7,480	28.4	D	7,430	26.0	C	6,600	23.4	C
W-82	I-215	5th St to Baseline Rd	4,370	12.9	B	7,510	23.4	C	7,460	23.9	C	5,970	18.7	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,280	11.2	B	4,260	14.4	B	4,100	16.0	B	4,190	16.2	B

▨ Indicates that the LOS exceeds the target level

Freeway ramp merge and diverge operations have been evaluated for year 2025 conditions. Table 4.15-19 summarizes the levels of service under year 2025 no project conditions and shows the following freeway ramp junction is forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- SR-60 eastbound On-Ramp from Martin Luther King Blvd (a.m./p.m.).

Table 4.15-19: Year 2025 Without Project Freeway Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,500	430	41.9	**F**	9,220	1,050	39.9	**F**
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,960	520	15.6	B	7,620	1,430	25.3	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,120	570	6.2	A	2,910	860	10.3	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,680	120	9.1	A	2,470	320	13.8	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,800	90	12.3	B	2,790	70	17.0	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,870	60	7.3	A	2,940	110	12.2	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,930	340	7.2	A	3,050	760	13.5	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,370	10	9.9	A	2,210	10	13.5	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,810	10	14.1	B	1,580	50	13.0	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	2,010	520	10.6	B	1,650	390	7.9	A
R-13	SR-60 WB	Off-Ramp to Theodore St	1	2,530	90	7.0	A	2,040	40	4.4	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	2,430	70	12.9	B	1,990	60	10.9	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	2,500	220	7.1	A	2,050	150	4.6	A
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	2,090	690	15.2	B	1,810	600	13.3	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,900	710	5.9	A	7,550	540	5.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,770	650	25.2	C	7,500	1,010	27.6	C

▨ Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

4.15.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the proposed project would create potentially significant traffic impacts if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.
- Cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the without project condition. The adopted LOS standards are as follows:

  - Roadway segments and intersections: LOS C; and LOS D as outlined in previously referenced Table 4.15.E.
  - Freeway mainline: LOS D.
  - Freeway Ramp Merge/Diverge: LOS D.
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks.
- Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Moreno Valley General Plan Circulation Element, adopted July 2006, defines a preferred performance standard of LOS C (where feasible) for City roads (including intersections). However, the circulation element also allows peak hour levels of service in the LOS D range at certain locations. These locations include areas of high employment concentration or north/south roads in the vicinity of the SR-60. Therefore, if a roadway segment or intersection is projected to operate at an acceptable level of service (i.e., LOS C/D or better) without the project, and the project is expected to cause the intersection to operate at an unacceptable level of service, the project impact is considered significant.

The study area includes intersections and roadways in six cities besides Moreno Valley. Table 4.15.20 shows the various level of service standards for intersections within each jurisdiction. A project's impact on an intersection is considered significant if it causes the LOS to exceed the target level set by the jurisdiction or, if the LOS in the no project condition already exceeds the LOS level, if the project causes an increase in traffic delay beyond the no project condition.

Table 4.15-20: Intersection LOS Standards by Jurisdiction

Jurisdiction	Type of Facility	# of Study Intersections	LOS Standard	Source
Moreno Valley	Intersections adjacent to freeways or employment centers	57	D	Moreno Valley General Plan, Chapter 5: Circulation element; Adopted July 2006
	All other intersections	14	C	
Beaumont	Intersections (during peak hours)	4	D	City of Beaumont General Plan; Section 3.0: Circulation Element; Approved March 2007
Perris	Intersections with SR-74, Ramona Exp, or I-215	5	E	City of Perris General Plan, Circulation Element; Amended August 2008
	All other intersections	16	D	
Redlands	Intersections currently operating at "D" or worse	1	Existing LOS	City of Redlands General Plan 2035, Chapter 5: Connected City; Adopted December 2017
	All other intersections	2	C	
Riverside (County)	Intersections in area plans near WLC*	9	D	County of Riverside General Plan, Chapter 4: Circulation Element; Revised December 2016
Riverside (City)	Intersections of collectors or higher roads	27	D	
San Jacinto	Arterial intersections	1	D	San Jacinto General Plan, Circulation Element; Adopted May 2006
Caltrans	State highway facilities currently operating at LOS "E" or "F"		Existing Density	Guide for the Preparation of Traffic Impact Studies, Chapter I; December 2002
	State highway facilities		D	

* LOS D applies to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans. LOS C applies at all other locations in unincorporated Riverside County.

All freeway mainline segments and freeway ramps are under the jurisdiction of Caltrans. LOS D has been established by Caltrans as the operating standard for freeway mainline segments and freeway ramps. Therefore, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS D or better) without the project, and the project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS E or F), the impact is considered significant. Previously referenced Table 4.15.E shows level of service criteria for freeway segments and ramps.

4.15.5 Less than Significant Impacts

Air traffic patterns, design hazard features, emergency access, and alternative transportation policies, plans, or programs are considered to have either no impact or less than significant impacts.

4.15.5.1 Air Traffic Patterns

Threshold	Would the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Airport facilities within the vicinity of the project site include the March Air Field, which is part of the March Air Reserve Base (MARB). The MARB encompasses approximately 6,500 acres of the Air Force Reserve's 452nd Air Mobility Wing, which provides host base support for numerous tenant active military units. It is also the home of 4th Air Force and multiple units of the California Air National Guard. When March Air Force Base (March AFB) was converted from an active duty base to a Reserve Base in 1996, the decision resulted in approximately 4,400 acres of property and facilities being declared surplus and available for disposal actions, as well as joint use of the airfield. With the realignment of March AFB, the MARB Redevelopment Project Area was established. The MARB Redevelopment Project Area includes the entire 6,500-acre former active duty base area, and approximately 450 acres adjacent to the base in the industrial area of the City of Moreno Valley.

To implement the MARB Redevelopment Project Area and to facilitate the transition of a portion of the MARB from military to civilian uses, the March Joint Powers Authority, (March JPA) consisting of the

County of Riverside and the Cities of Moreno Valley, Perris, and Riverside, was formed. The March JPA along with the U.S. Air Force pursued the establishment of March Air Field as a joint use airport.

The Air Force defines a "joint use airport" as one where the facilities which are owned and operated by the Air Force are made available for use by civil aviation. A joint use agreement between these parties was executed May 7, 1997, along with land leases for over 300 acres as the civilian airport name MIP. Under the agreement, the civilian (March JPA) and the military (AFRC) entities share essential aviation facilities such as the control towers and runways, as well as maintenance of facilities, under this joint use arrangement. Under the provisions of the Joint Use Agreement, the MIP is the civilian facility that is managed and operated by the MIP Airport Authority (MIPAA). The MIP includes air cargo operations such as the March Global Port, a 350-acre commercial air cargo and distribution center.

The Department of the Defense (Air Force) completed an Air Installation Compatible Use Zone (AICUZ) study for MARB in 1998. The AICUZ study was designed and is intended to aid in the development of compatible land uses in non-government areas surrounding military airfields to protect public safety and health. The study established three zones based on potential crash patterns: a Clear Zone and two Accident Potential Zones (APZs). The Clear Zone reaches from along the extended runway centerline to a distance of 3,000 feet, APZ 1 extends from 3,000 feet to 8,000 feet, and APZ II extends from 8,000 feet to 15,000 feet. According to the AICUZ, outside of the Clear Zone and APZs “the risk of aircraft accidents is not significant enough to warrant special consideration in land use planning.” The proposed project site is not located within a Clear Zone, APZ 1, or APZ 2 for MARB as designated by the Air Force 2005 AICUZ Study. In addition to the AICUZ, Airport Influence Area boundaries around MARB have been adopted by County of Riverside Airport Land Use Commission (ALUC) in its Airport Land Use Plan (ALUP). The proposed project site is located within Influence Area III.

The project site is approximately 1.5 miles east of the March Air Field and is entirely within Airport Influence Area III of the MIP. As part of the standard process for development within Airport Influence Areas for MARB, proposed projects are required to be reviewed by the ALUC for consistency with the ALUP. As a standard condition imposed during ALUC reviews, development located within the boundaries of Influence Area III is required to provide navigation easements. Development that is allowed to occur within Airport Influence III of the MIP would not include any features that would alter air traffic patterns or the level of air traffic at the MIP; therefore, a less than significant air safety impact would occur and no mitigation is required.

4.15.5.2 Design Hazard Features

Threshold	Would the proposed project substantially increase hazards due to a design feature or incompatible use?

The design of roadways must provide adequate sight distance and traffic control measures. This provision is normally realized through roadway design to facilitate roadway traffic flows. Roadway improvements in and around the project site would be designed and constructed to satisfy all City and Caltrans requirements for street widths, corner radii, intersection control as well as incorporate design standards tailored specifically to project access requirements. Adherence to applicable City requirements would ensure the proposed project would not include any sharp curves or dangerous intersections.

Temporary impacts associated with the construction of infrastructure improvements included as a part this project may temporarily restrict vehicular traffic or cause temporary hazards. The construction of infrastructure would coincide with roadway improvements, which would include road or lane closures as well as the presence of construction workers and equipment on public roads. Construction operations would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road or lane closures. Site-specific activities, such as temporary construction activities, are finalized on a project-by-project basis by the City and are required to ensure adequate traffic flow. At the time of approval of any site-specific plans required for the construction of infrastructure as a part of typical conditions of approval, the project would be required to implement measures that would maintain traffic flow and access. In the absence of a roadway design hazard, no impact would occur; therefore, no mitigation is required.

An analysis of safety impacts resulting from potential conflicts between project traffic and local schools was performed for this EIR. As identified in the project TIA (Appendix F), the project would not produce a significant safety risk and appropriate safety features are already present on roads near local schools. Other than Perris Boulevard, which would experience a small number of project trucks (22 and 25 medium and heavy duty trucks in the a.m. and p.m. peak hours, respectively), none of the other truck routes would result in project trucks traveling near local schools. The safety impact of project-related passenger cars along streets near local schools was also evaluated by reviewing existing pedestrian facilities and collecting pedestrian counts at the intersections along project truck routes. All pedestrian crossings at signalized intersections near schools are protected. Crosswalks near schools are striped in yellow (per the California Manual on Traffic Control Devices page 1,282). In most cases, sidewalks exist along roadways and lead to the striped, protected crosswalks at the intersections. Intersection and roadway features along project truck routes were reviewed and it was determined that adequate pedestrian amenities already exist in the form of protected crossings, crosswalks, curb ramps, and pedestrian signals. For these reasons, project passenger cars and trucks would not create unsafe conflicts with pedestrians.

4.15.5.3 Emergency Access

Threshold	Would the proposed project result in inadequate emergency access?

Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road closures. Site-specific activities such as temporary construction activities are finalized on a project-by-project basis by the City and are required to ensure adequate emergency access.

The roadway improvements that will take place as a part of this project will improve the traffic circulation in the area. For example, emergency vehicles that currently pass through the site using either World Logistics Center Parkway or Alessandro Boulevard would continue to have those routes available to them, and these roads will be upgraded to arterial standards within the proposed project limits. Access to Alessandro Boulevard would be provided by a connection to Redlands Boulevard at Cactus Avenue instead, of a direct extension to Alessandro Boulevard. The change would not lengthen the distance between Gilman Springs Road and the Riverside Community Regional Medical Center on Cactus Avenue or the route to and from the Kaiser Moreno Valley Community Hospital on Iris Avenue. The extension of Eucalyptus Avenue through the project area would improve access between the project site and the nearest existing fire station (the Moreno Beach fire station). As a condition of approval, the proposed project will also be required to construct a fire station on site.

These improvements would enhance the ability of emergency vehicles to access the project as well as the surrounding properties. Access to the project site is designed to accommodate large trucks with trailers used for the distribution of goods to and from the warehouses. This would provide ample vehicular access for emergency vehicles. During the operational phase of the proposed project, on-site access would be required to comply with standards established by the City Public Works Department. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to Fire Department standards. As required of all development in the City, the operation of the proposed project would conform to applicable Uniform Fire Code standards. The submittal of such plans would be considered a condition of approval, which would be part of the permitting process initiated by the applicant and approved by the City in accordance with City standards. As with any development, access to and through the project would be required to comply with the required street widths, as determined in the California Building Code (CBC), Master Plan of Streets, and the Uniform Fire Code. Therefore, implementation of the proposed project would not significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no mitigation is required.

4.15.5.4 Alternative Transportation Policies, Plans, or Programs

Threshold	Would the proposed project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project would result in the development of employment opportunities and would therefore reduce vehicle miles traveled. Currently, approximately 70 percent of workers residing in the City of Moreno Valley commute to jobs outside the City. According to the U.S. Census Bureau, 21.7 percent of Moreno Valley workers commute more than 50 miles one-way to work, and another 20.8 percent drive 25 to 50 miles one way. Nearly four out of five Moreno Valley workers drive to work alone. The City is in need of employment opportunities to serve City and regional residents. A better jobs/housing balance results in shorter commute times, reduced vehicle miles traveled, and reduced traffic congestion. Locating jobs in areas such as the City is a public policy prerogative of the City, regional governmental entities such as SCAG, and the State of California as manifested by recent legislation such as SB 375. The project is consistent with these policies because it will provide approximately 20,000[1] new jobs; nearly doubling the number of jobs in Moreno Valley. As a result, the percentage of Moreno Valley residents that need to commute regionally would be reduced.

An updated Housing Element, adopted by the City in February 2011, identified the Moreno Highlands area as a potential location for future jobs-producing land uses. In April 2011, the City adopted its Economic Development Action Plan, which identified eastern Moreno Valley as a potential area for major job-producing land uses. The proposed World Logistics Center project is consistent with this planning objective, as it provides a comprehensive plan for jobs-producing land uses.

The WLC Specific Plan provides for Class II bicycle lanes on all project streets (see WLCSP Section 3.4.3 and WLCSP Figure 3-18). In addition, WLCSP Section 6.0, Sustainability, Item 2 indicates showers and changing rooms will be available which will facilitate people using bicycles to get to and from work.

As stated previously, the proposed project would generate jobs for approximately 20,000 employees working in the eastern portion of the City that would help reduce the number of workers driving long commutes to distant jobsites, primarily to the west and southwest. This finding is supported by the results of the RivTAM traffic model projections used in the TIA. The provision of additional employment options in proximity to existing residential development in the City will help reduce local vehicle miles traveled as the employment generated by the project slowly improves the City's job/housing ratio, and more local jobs are created for City residents. Therefore, the proposed project is consistent with City policies encouraging alternative transportation. Since the project will not create any significant impacts related to non-vehicular transportation, no mitigation is required.

Although there is currently no transit service in the project area, the proposed project would be designed to accommodate bus access on all project streets. Bus turnouts and shelters would be provided at all active bus stops. It is expected that transit service would be provided once the project reaches a transit-supportable level of operations. Candidate streets for future bus routes within the project limits are Eucalyptus Avenue, Street C, Street E, and Street F as shown in WLCSP Figure 3-14.

The WLCSP provides for connections to existing trails to the west along Redlands Boulevard, and to the southwest along Cactus Avenue. In addition, the plan provides for a new trail connection from the southwest corner of the site around the land designated as open space under the WLCSP, to connect to a future planned "trailhead" at the northwest corner of the state-owned property to the south. The

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[1] Based on a ratio of 0.5 employees per 1000 square feet of logistics. This ratio is taken from: *DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010).San Bernardino Planning Department.*

WLCSP also includes a “loop” trail segment through the WLCSP along Street F to Eucalyptus Avenue and back to Redlands Boulevard (see FEIR Figure 3-12, *Non-Vehicular Circulation*). In addition, the project will be conditioned to provide sidewalks and landscaping treatments to allow for pedestrian access throughout the site. With these planned improvements, the WLCSP will have less than significant impacts regarding non-vehicular circulation and no mitigation is required.

4.15.6 Significant Impacts

The following potential impacts were determined to be significant, either because the project would contribute to an intersection, roadway segment or freeway facility already exceeding the LOS threshold, or because the project would cause the intersection, roadway segment or freeway to exceed the LOS threshold. The project would be required to make required on-site and adjacent off-site improvements, contribute to local and regional circulation improvement through the payment of TUMFs, and would therefore contribute to improvements that may mitigate the direct project impact or cumulative impact of the project. Mitigation of direct project impacts can be in the form of improvements to the intersection, or payment of the fees if projects funded by the fee would mitigate the project impact to a less than significant level.

Planned Improvements. As part of the analysis of project traffic impacts, it is important to note that development within the WLCSP will make a number of roadway and intersection improvements that are within or adjacent to project property (i.e., on-site improvements). These improvements include:

- Gilman Springs/Alessandro Boulevard Intersection;
- Gilman Springs/Eucalyptus Avenue Intersection;
- SR-60 Westbound Ramp/World Logistics Center Parkway Intersection;
- SR-60 Eastbound Ramp/World Logistics Center Parkway Intersection;
- Redlands Boulevard/Eucalyptus Avenue Intersection;
- World Logistics Center Parkway/Eucalyptus Avenue Intersection;
- World Logistics Center Parkway (Street A)/Alessandro Boulevard (Streets C and E) Roundabout;
- World Logistics Center Parkway (Street A)/Streets E and F Roundabout;
- Street F/Street C Roundabout;
- Eucalyptus Avenue from Redlands Boulevard to World Logistics Center Parkway (south side); and
- Cactus Avenue Extension from the existing Redlands Boulevard/Cactus Avenue intersection to internal loop Street "E".
- Internal Streets A, B, C, E, and F shown on WLCSP Circulation Plan (FEIR Figure 3-10).

4.15.6.1 Existing (2018) With Phase 1 Conditions Traffic and Level of Service

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative

traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (year 2018) with Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.1--21 and 4.15-22, which shows there are 19 study intersections where Phase 1 of the project would have a significant impact.

Would Exceed Threshold of Significance Under Both the Existing Conditions and the Existing Plus Phase 1 Scenario

- IN-10 Redlands Blvd./Locust Ave. (AM, PM)
- IN-20 Oliver St./Alessandro Blvd. (PM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-83 Martin Luther King Blvd/Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd/I-215 NB Ramps (AM, PM)
- IN-86 Central Ave/Chicago Ave (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM)
- IN-125 SR-79 (Sanderson Ave) SB/Gilman Springs Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Table 4.15-21: Intersection LOS under Existing Plus Phase 1 Scenario

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.8	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	10.7	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.0	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	10.9	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	CSS	16.7	C
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	86.8	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	SIGNAL	29.1	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	SIGNAL	22.7	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	SIGNAL	16.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	SIGNAL	14.9	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	SIGNAL	3.6	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	16.9	B
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	SIGNAL	8.4	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	57.6	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	SIGNAL	28.8	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	AWS	16.2	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	SIGNAL	22.0	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	16.5	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	AWS	17.0	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	SIGNAL	23.2	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	SIGNAL	32.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	SIGNAL	25.8	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	SIGNAL	21.7	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	SIGNAL	27.9	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	SIGNAL	19.6	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	SIGNAL	20.9	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	CSS	8.9	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	53.1	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	42.3	D
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	SIGNAL	31.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	SIGNAL	40.1	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	SIGNAL	23.3	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	SIGNAL	43.1	D
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	SIGNAL	17.0	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	SIGNAL	22.8	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	SIGNAL	12.3	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	SIGNAL	30.7	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	21.3	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	SIGNAL	22.9	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	SIGNAL	24.7	C

Table 4.15-21: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	SIGNAL	32.0	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	SIGNAL	9.6	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	SIGNAL	22.9	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	SIGNAL	28.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	SIGNAL	27.6	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	SIGNAL	27.1	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.6	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.0	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	SIGNAL	28.0	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	22.7	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	SIGNAL	35.3	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	SIGNAL	10.6	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	SIGNAL	21.2	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	SIGNAL	40.7	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	SIGNAL	28.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	SIGNAL	66.3	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	SIGNAL	30.2	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	SIGNAL	4.7	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	SIGNAL	23.7	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.0	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	SIGNAL	16.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	SIGNAL	18.8	B
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	SIGNAL	6.2	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	SIGNAL	38.1	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	SIGNAL	20.9	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	SIGNAL	26.1	C
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	SIGNAL	26.7	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	SIGNAL	13.3	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	SIGNAL	21.4	C
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	SIGNAL	24.5	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	SIGNAL	44.8	D
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	SIGNAL	41.3	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	SIGNAL	17.5	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	75.4	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	SIGNAL	18.7	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.3	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	50.4	D
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	SIGNAL	15.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	SIGNAL	33.1	C
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	SIGNAL	8.6	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	SIGNAL	32.6	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	SIGNAL	13.6	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	SIGNAL	20.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	SIGNAL	12.6	B

Table 4.15-21: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	E	SIGNAL	62.9	E
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	SIGNAL	46.4	D
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	SIGNAL	28.3	C
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	SIGNAL	30.5	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	SIGNAL	54.8	D
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	SIGNAL	32.4	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	SIGNAL	14.1	B
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	SIGNAL	37.7	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	SIGNAL	57.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	SIGNAL	8.9	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	SIGNAL	28.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	SIGNAL	28.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	D	SIGNAL	41.3	D
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	SIGNAL	20.0	C
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	F	AWS	>180	F
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	D	SIGNAL	44.5	D
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	E	CSS	53.0	F
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	F	CSS	101.7	F
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	F	CSS	>180	F
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	E	CSS	44.4	E
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	SIGNAL	40.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	SIGNAL	18.3	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	SIGNAL	12.4	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	SIGNAL	18.0	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	F	AWS	73.1	F
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	F	AWS	116.2	F
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	F	AWS	109.1	F
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	CSS	14.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	AWS	9.4	A

Notes:

"NB" and "SB" denote northbound and southbound respectively	"CSS" means the cross-street is stop-controlled
"EB" and "WB" denote eastbound and westbound respectively	"AWS" means all-way stop
▨ Indicates LOS exceeds the target level	"RABT" means roundabout

Table 4.15-21: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	11.2	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	6.5	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	10.0	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	29.4	D	CSS	33.7	D
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	73.0	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	37.2	D
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.9	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	21.2	C	SIGNAL	22.6	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	17.8	B	SIGNAL	20.9	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.1	A	SIGNAL	12.6	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.0	A	SIGNAL	2.4	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	2.6	A	SIGNAL	19.7	B
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.0	A	SIGNAL	8.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	19.3	C	CSS	25.1	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	29.3	C	SIGNAL	35.2	D
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	33.7	**D**	AWS	20.4	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	17.1	B	SIGNAL	18.0	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	15.4	B	SIGNAL	15.9	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	10.6	B	AWS	20.2	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.7	B	SIGNAL	19.6	B
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	33.4	C	SIGNAL	41.4	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	20.8	C	SIGNAL	18.8	B
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	13.9	B	SIGNAL	22.4	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	36.3	D	SIGNAL	37.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	18.5	B	SIGNAL	19.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	19.4	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.9	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	41.8	D	SIGNAL	44.8	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	61.8	**E**	SIGNAL	66.6	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.1	C	SIGNAL	32.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	56.6	**E**	SIGNAL	54.2	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	17.2	B	SIGNAL	18.8	B
IN-41	Lasselle St/Iris Ave	D	SIGNAL	34.4	C	SIGNAL	36.3	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	15.5	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	15.0	B	SIGNAL	15.9	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	10.7	B	SIGNAL	11.5	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	20.7	C	SIGNAL	24.1	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	14.6	B	SIGNAL	15.5	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	20.1	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	20.0	C	SIGNAL	20.6	C

Table 4.15-21: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Phase 1		
			Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.5	C	SIGNAL	23.1	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	7.5	A	SIGNAL	7.9	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	20.4	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	19.9	B	SIGNAL	20.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	29.4	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	18.8	B	SIGNAL	19.7	B
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	26.3	C	SIGNAL	27.1	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	29.9	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	36.7	D	SIGNAL	38.6	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	27.7	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	36.3	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	9.3	A	SIGNAL	9.4	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	31.8	C	SIGNAL	33.0	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	23.1	C	SIGNAL	22.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	35.5	D	SIGNAL	35.9	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.0	C	SIGNAL	30.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.8	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	13.0	B	SIGNAL	14.0	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.4	B	SIGNAL	18.2	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.5	B	SIGNAL	15.5	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.1	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	14.4	B	SIGNAL	14.6	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	7.0	A	SIGNAL	7.7	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	26.5	C	SIGNAL	27.8	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	8.8	A	SIGNAL	10.6	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	53.6	D	SIGNAL	48.4	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	15.8	B	SIGNAL	24.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.4	A	SIGNAL	8.3	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.8	B	SIGNAL	16.0	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	27.8	C	SIGNAL	27.8	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	51.6	D	SIGNAL	48.8	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	10.9	B	SIGNAL	11.1	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	34.2	C	SIGNAL	32.6	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.4	A	SIGNAL	8.2	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	91.4	**F**	SIGNAL	94.8	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	15.8	B	SIGNAL	16.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	39.6	D	SIGNAL	51.5	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	5.9	A	SIGNAL	6.0	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	24.2	C	SIGNAL	23.9	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	6.4	A	SIGNAL	6.9	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	27.1	C	SIGNAL	27.5	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	5.9	A	SIGNAL	6.5	A

Table 4.15-21: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	39.0	D	SIGNAL	40.9	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	78.5	E	SIGNAL	66.2	E
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	11.1	B	SIGNAL	11.9	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	22.8	C	SIGNAL	28.3	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	34.4	C	SIGNAL	35.7	D
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	20.1	C	SIGNAL	20.9	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.9	C	SIGNAL	28.5	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	36.1	D	SIGNAL	36.4	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	16.7	B	SIGNAL	18.0	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	21.3	C	SIGNAL	24.9	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	22.8	C	SIGNAL	23.2	C
IN-107	Evans Rd/Rider St	C	SIGNAL	28.4	C	SIGNAL	28.9	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	11.9	B	SIGNAL	13.2	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	39.0	E	AWS	41.5	E
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	23.8	C	SIGNAL	23.3	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	111.0	F	CSS	140.5	F
IN-123	Gilman Springs Rd/Bridge St	C	CSS	84.5	F	CSS	94.1	F
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	146.0	F	CSS	141.9	F
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	115.4	F	CSS	138.6	F
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	29.7	C	SIGNAL	29.0	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	31.4	C	SIGNAL	34.8	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	14.0	B	SIGNAL	15.1	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	17.5	B	SIGNAL	18.3	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.1	C	AWS	30.5	D
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	104.8	F	AWS	127.8	F
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	178.9	F	AWS	>180	F
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	12.5	B	CSS	13.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.6	A	AWS	10.0	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Roadway Analysis. Existing baseline (year 2018) with Phase 1 roadway segment levels of service for the study area are summarized in Table 4.15-22, which shows three roadway segments would operate at unsatisfactory levels of service.

Phase 1 of the project would worsen the existing LOS deficiency at the following three roadway segments under existing with Phase 1 conditions:

- Gilman Springs Rd. between SR-60 and Alessandro Blvd. would exceed the threshold of significance under both Existing Conditions and under the Existing Plus Phase 1 Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.
- Gilman Springs Rd. from Alessandro Blvd. to Bridge St. would exceed the threshold of significance under both Existing Conditions and under the Existing Plus Phase 1 Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.
- Redlands Boulevard from Eucalyptus Avenue to the SR-60 eastbound ramps. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.

Table 4.15-22: Existing Plus Phase 1 Road Segment Impacts and Mitigations

					Existing Conditions			Existing Plus Phase 1 Conditions					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Project Impact Significant?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A	2U	2,438	A			
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	6D	11,196	A			
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A	4D	1,822	A			
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	4D	21,762	A			
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			2U	3,415	A			
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	869	A			
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	10,705	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A	4U	6,181	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	10,044	A			
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	2,895	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	4,563	A			
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A	2U	5,456	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	F	2U	21,882	F	Yes	Widen to 4 lanes	D
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	F	2U	17,491	F	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	E	2U	12,135	E	Yes	Widen to 4 lanes	A
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C	2U	8,083	B			
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A	2U	300	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B	2U	6,847	A			
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A	4U	8,353	A			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

Freeway Segment Analysis. Existing (2018) with Phase 1 freeway segment levels of service for the study area are summarized in Tables 4.15-23 and 4.15-24, which show twenty-four freeway segments already operate at unsatisfactory levels of service.

Northbound or Eastbound

- SR-60 from Ramona Ave. to Central Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Barton Rd. to Mt. Vernon Ave.
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- SR-60 from Grove Ave. to Vineyard Ave.
- SR-60 from Vineyard Ave. to Archibald Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
- SR-60 from I-215 to Day St.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-91 from McKinley St. to Pierce St.
- SR-91 from Pierce St. to Magnolia Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- SR-91 from Madison St. to Arlington Ave.
- I-215 from Center St. to La Cadena Dr.
- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.

Table 4.15-23: Existing Plus Phase 1 Freeway Mainline LOS

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6170	27.6	D	6,400	27.3	D
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	**E**	9,400	47.3	**F**	8,280	40.6	**E**	9,310	46.7	**F**
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	**E**	7,370	32.9	D	8,180	35.9	**E**
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	**E**	7,690	35.3	**E**	8,130	35.5	**E**
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	**E**	7,600	34.6	D	8,240	36.4	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	**F**	6,980	30.2	D	9,140	44.8	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	**F**	6,830	29.0	D	9,290	46.5	**F**
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	6,890	29.4	D	6,660	26.2	D
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,840	26.3	D	7,250	22.2	C
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	4,380	17.5	B	5,090	19.2	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	3,740	14.9	B	4,220	15.9	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village	2,913	11.5	B	3,567	13.3	B	3,160	12.6	B	3,440	13.0	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,437	9.8	A	2,959	11.3	B	2,680	10.9	A	2,870	11.2	B
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	2,910	11.8	B	3,070	11.9	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	3,620	14.5	B	3,520	13.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,740	26.2	D	5,160	27.6	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,790	26.6	D	5,370	29.4	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	**E**	5,200	29.9	D	6,260	37.6	**E**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	**F**	9,400	51.1	**F**	9,740	69.7	**F**	9,320	51.9	**F**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	5,540	22.2	C	6,060	23.3	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	**F**	2,960	25.3	C	4,690	49.9	**F**
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	2,770	23.2	C	3,290	26.3	D
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,480	20.4	C	2,830	22.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	2,110	11.6	B	2,500	12.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,860	10.4	A	2,140	11.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,850	15.5	B	1,850	14.5	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,270	13.8	B	1,280	12.5	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,270	10.3	A	1,280	9.8	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	4,270	16.1	B	6,340	26.2	D
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	4,890	25.7	C	5,250	30.1	D
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	**E**	7,050	54.7	**F**	6,450	41.1	**E**	7,030	54.3	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	7,130	29.2	D	7,020	30.4	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	**E**	7,170	29.3	D	7,970	37.0	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	4,800	18.1	C	4,940	19.5	C
F-46	SR-91	Adam St to Madison St	7,451	57.6	**F**	8,209	96.0	**F**	7,500	59.6	**F**	8,190	94.9	**F**

Table 4.15-23: Existing Plus Phase 1 Freeway Mainline LOS (continued)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,710	33.6	D	5,370	21.6	C
F-49	SR-91	Central Ave to 14th St	7,050	52.1	**F**	5,797	35.9	**E**	7,000	51.8	**F**	5,800	36.3	**E**
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	4,570	17.2	B	4,240	16.5	B
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	5,880	17.9	B	5,500	17.4	B
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,730	14.4	B	3,270	16.3	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	1,840	9.7	A	2,040	10.2	A
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,350	12.4	B	3,280	16.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	3,670	19.4	C	3,140	15.7	B
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	3,200	17.1	B	4,180	21.3	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	4,290	23.1	C	3,190	16.0	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,360	13.3	B	4,780	18.0	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,520	24.8	C	5,230	28.1	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,913	27.7	D	5,947	34.3	D	4,920	27.8	D	5,940	34.3	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	5,070	28.8	D	4,430	23.0	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	4,770	19.0	C	4,210	15.8	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	4,450	24.4	C	5,350	29.1	D
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	4,820	27.0	D	6,010	35.0	D
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	6,660	28.8	D	7,100	28.9	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	5,120	29.4	D	5,310	28.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	5,160	29.6	D	4,980	26.1	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	**E**	5,640	32.0	D	5,690	35.5	**E**	5,700	32.5	D
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	6,070	25.7	C	5,880	22.8	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	**F**	5,190	20.7	C	9,440	48.3	**F**
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	3,140	12.5	B	4,730	17.7	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	3,490	13.7	B	4,740	18.3	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	3,530	14.1	B	4,890	19.2	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	3,700	14.7	B	5,120	20.2	C
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	3,540	14.1	B	4,960	19.5	C
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	3,450	11.0	A	4,850	15.2	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	3,390	13.5	B	4,770	18.7	C
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	3,380	13.5	B	4,770	18.7	C
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	3,040	12.2	B	4,300	16.9	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	2,890	11.6	B	4,110	16.2	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	2,560	10.1	A	3,630	14.1	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	2,560	10.0	A	3,640	14.1	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	2,230	8.8	A	3,160	12.2	B
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	2,230	8.8	A	3,160	12.2	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-23: Existing Plus Phase 1 Freeway Mainline LOS (continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,638	26.3	D	6,223	24.8	C	6,560	26.0	D	6,330	25.5	C
F-3	SR-60	Ramona Ave to Central Ave	6,167	24.4	C	6,459	26.1	D	6,090	24.3	C	6,560	26.8	D
F-4	SR-60	Central Ave to Mountain Ave	6,751	28.4	D	6,489	26.9	D	6,650	28.0	D	6,600	27.7	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,859	28.8	D	6,883	29.0	D	6,770	28.5	D	6,990	29.9	D
F-6	SR-60	Euclid Ave to Grove Ave	7,108	29.3	D	7,527	32.6	D	7,020	29.0	D	7,630	33.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,656	26.2	D	9,400	51.0	**F**	6,570	25.9	C	9,510	53.3	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,821	34.9	D	9,400	53.0	**F**	7,710	34.4	D	9,510	54.7	**F**
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,339	22.4	C	5,698	17.5	B	7,220	22.1	C	5,820	18.0	B
F-11	SR-60	Milliken Ave to I-15	5,456	20.8	C	5,111	19.6	C	5,330	20.4	C	5,240	20.3	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,888	14.7	B	4,648	14.3	B	4,680	14.2	B	4,780	14.8	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village	5,070	19.2	C	5,970	23.7	C	5,000	19.1	C	6,120	24.6	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,277	16.3	B	4,958	19.3	C	4,150	15.9	B	5,090	20.0	C
F-15	SR-60	Pedley Rd to Pyrite St	4,296	16.3	B	4,981	19.4	C	4,160	16.0	B	5,120	20.1	C
F-16	SR-60	Pyrite St to Valley Way	4,326	16.4	B	5,020	19.6	C	4,170	16.0	B	5,100	20.0	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	23.2	C	5,262	29.2	D	4,520	23.5	C	5,400	30.8	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	24.1	C	5,477	30.6	D	4,520	23.2	C	5,610	32.3	D
F-19	SR-60	Market St to Main St	6,485	40.3	**E**	5,115	27.9	D	6,310	38.6	**E**	5,220	29.1	D
F-20	SR-60	Main to SR-91	7,050	47.9	**F**	4,062	21.0	C	6,830	45.5	**F**	4,330	22.9	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	33.3	D	6,885	30.5	D	6,940	34.0	D	6,970	32.4	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,385	30.6	D	8,085	36.9	**E**	7,270	30.3	D	8,230	38.8	**E**
F-27	SR-60	I-215 to Day St	4,328	41.6	**E**	3,251	26.8	D	4,320	43.2	**E**	3,230	27.5	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	4,700	49.0	**F**	2,786	21.9	C	4,740	52.6	**F**	2,800	22.7	C
F-30	SR-60	Heacock St to Perris Blvd	3,192	25.1	C	3,003	24.0	C	3,240	26.6	D	3,070	25.5	C
F-31	SR-60	Perris Blvd to Nason St	2,592	19.5	C	2,695	21.0	C	2,700	21.3	C	2,810	23.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,817	14.0	B	1,882	14.7	B	2,000	16.2	B	1,960	16.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,481	11.6	B	1,504	11.8	B	1,770	14.6	B	1,670	13.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,460	11.4	B	1,486	11.7	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,121	13.4	B	1,165	12.7	B	1,140	13.9	B	1,120	12.8	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,121	9.0	A	1,165	9.3	A	1,140	9.2	A	1,120	9.0	A
F-39	SR-91	I-15 to McKinley St	6,576	26.3	D	7,158	31.4	D	6,480	26.0	C	7,220	32.0	D
F-40	SR-91	McKinley St to Pierce St	7,050	49.6	**F**	7,050	55.5	**F**	6,960	48.6	**F**	7,100	56.6	**F**
F-41	SR-91	Pierce St to Magnolia Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,960	47.5	**F**	7,100	55.1	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,990	48.0	**F**	7,090	54.8	**F**
F-43	SR-91	La Sierra Ave to Tyler St	5,943	34.3	D	7,050	53.3	**F**	5,870	33.9	D	7,100	55.1	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	6,106	23.6	C	7,990	37.2	**E**	6,040	23.5	C	8,020	37.8	**E**
F-45	SR-91	Van Buren Blvd to Adam St	6,381	25.0	C	7,990	37.2	**E**	6,310	24.8	C	8,010	37.7	**E**
F-46	SR-91	Adam St to Madison St	5,931	22.8	C	7,582	33.9	D	5,870	22.7	C	7,590	34.2	D

Table 4.15-23: Existing Plus Phase 1 Freeway Mainline LOS (continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,050	48.4	F	7,050	52.6	F	7,000	48.2	F	7,030	52.9	F
F-49	SR-91	Central Ave to 14th St	5,166	19.5	C	7,050	30.0	D	5,150	19.6	C	7,020	30.0	D
F-50	SR-91	14th St to University Ave	5,805	22.2	C	7,050	30.0	D	5,830	22.5	C	6,990	29.8	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	11.5	B	2,318	11.5	B	2,290	11.4	B	2,270	11.2	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	12.6	B	3,111	15.4	B	2,530	12.6	B	3,020	14.9	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,528	12.6	B	3,111	15.4	B	2,530	12.6	B	3,020	14.9	B
F-70	I-215	Ethanac Rd to SR-74	2,882	14.4	B	3,854	19.1	C	2,900	14.5	B	3,760	18.6	C
F-71	I-215	SR-74 to Redlands Ave	4,515	23.2	C	4,700	24.1	C	4,540	23.4	C	4,610	23.5	C
F-86	I-215	Redlands Blvd to D St	2,538	12.7	B	2,634	13.1	B	2,570	13.0	B	2,550	12.7	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,380	12.7	B	3,249	12.1	B	3,410	12.8	B	3,160	11.8	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	23.2	C	5,262	28.0	D	4,550	23.4	C	5,240	27.8	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	2,658	13.3	B	5,310	28.1	D	2,680	13.4	B	5,260	27.8	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,802	19.7	C	7,050	46.7	F	3,850	20.0	C	7,000	45.9	F
F-92	I-215	Van Buren Blvd to Cactus Ave	3,572	13.4	B	6,195	23.6	C	3,600	13.5	B	6,170	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,031	26.7	D	6,129	35.5	E	5,110	27.2	D	6,070	34.9	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,050	29.6	D	7,050	28.4	D	7,070	29.7	D	6,990	28.0	D
F-75	I-215	Center St to La Cadena Dr	7,050	50.2	F	7,050	47.3	F	7,070	50.6	F	7,010	47.2	F
F-76	I-215	La Cadena Dr to Barton Rd	7,050	49.6	F	7,050	46.7	F	7,100	50.5	F	7,030	46.4	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,974	34.6	D	7,050	46.7	F	6,010	35.3	E	7,040	46.6	F
F-78	I-215	Mt. Vernon Ave to I-10	5,726	22.1	C	5,432	20.5	C	5,780	22.4	C	5,420	20.4	C
F-80	I-215	Auto Plaza Dr to Mill St	6,123	23.7	C	5,837	22.0	C	6,110	23.6	C	5,830	22.0	C
F-83	I-215	Baseline Rd to Highland Ave	4,700	17.6	B	3,704	13.7	B	4,670	17.5	B	3,700	13.7	B
F-52	I-10	SR-60 to Beaumont Ave	4,888	20.9	C	4,190	15.8	B	4,910	21.0	C	4,160	15.7	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,968	21.5	C	4,259	16.3	B	4,970	21.5	C	4,200	16.0	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,209	22.7	C	4,465	17.0	B	5,190	22.6	C	4,440	17.0	B
F-55	I-10	Highland Springs Ave to Sunset Ave	5,009	21.7	C	4,293	16.4	B	5,010	21.7	C	4,270	16.3	B
F-56	I-10	Sunset Ave to 22nd St	4,888	16.7	B	4,190	12.8	B	4,900	16.7	B	4,160	12.7	B
F-57	I-10	22nd St to 8th St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,090	15.6	B
F-58	I-10	8th St to Hargrave St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,080	15.6	B
F-59	I-10	Hargrave St to Fields Rd	4,327	18.6	C	3,709	14.2	B	4,350	18.7	C	3,660	14.0	B
F-60	I-10	Fields Rd to Morongo Trail	4,127	17.7	B	3,537	13.6	B	4,150	17.8	B	3,490	13.5	B
F-61	I-10	Morongo Trail to Main St	3,646	15.4	B	3,125	11.8	B	3,670	15.5	B	3,080	11.6	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,646	15.4	B	3,125	11.7	B	3,680	15.5	B	3,080	11.5	B
F-64	I-10	SR-111 to Tipton Rd	3,165	13.4	B	2,713	10.2	A	3,190	13.5	B	2,680	10.0	A
F-65	I-10	Tipton Rd to SR-62	3,165	13.4	B	2,713	10.3	A	3,190	13.5	B	2,680	10.1	A

▨ Indicates that the LOS exceeds the target level

Table 4.15-24: Existing Plus Phase 1 Freeway Mainline Impacts and Mitigations

			Northbound / Eastbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Phase 1 & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-3	SR-60	Ramona Ave to Central Ave	**E**	**E**	**F**	**F**	Yes	8,280	28.0	D	9,310	30.7	D	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	D	**E**	**E**	**E**	Yes	7,690	25.3	C	8,130	25.4	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	**F**	**F**	**F**	**F**	Yes	9,740	39.0	**E**	9,320	32.9	D	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	C	C	**F**	**F**	Yes	2,960	16.2	B	4,690	24.8	C	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**E**	**E**	**F**	**F**	Yes	6,450	25.8	C	7,030	30.5	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison St	**F**	**F**	**F**	**F**	Yes	7,500	32.1	D	8,190	39.7	**E**	Add 1 mixed flow lane
F-49	SR-91	Central Ave to 14th St	**F**	**F**	**E**	**E**	Yes	7,000	29.7	D	5,800	23.8	C	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	**E**	**E**	D	D	Yes	5,690	23.4	C	5,700	22.0	C	Add 1 mixed flow lane
F-80	I-215	Auto Plaza Dr to Mill St	C	C	**F**	**F**	Yes	5,190	16.4	B	9,440	31.4	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Phase 1 & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-7	SR-60	Grove Ave to Vineyard Ave	D	C	**F**	**F**	Yes	6,570	19.9	C	9,510	33.4	D	Add 1 mixed flow lane
F-8	SR-60	Vineyard Ave to Archibald Ave	D	D	**F**	**F**	Yes	7,710	24.8	C	9,510	34.0	D	Add 1 mixed flow lane
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	D	D	**E**	**E**	Yes	7,270	22.5	C	8,230	27.1	D	Add 1 mixed flow lane
F-27	SR-60	I-215 to Day St	**E**	**E**	D	D	Yes	4,320	22.9	C	3,230	17.2	B	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	**F**	**F**	C	C	Yes	4,740	25.4	C	2,800	14.8	B	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	**F**	**F**	**F**	**F**	Yes	6,960	28.6	D	7,100	31.2	D	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**F**	**F**	**F**	**F**	Yes	6,960	28.2	D	7,100	30.7	D	Add 1 mixed flow lane
F-42	SR-91	Magnolia Ave to La Sierra Ave	**F**	**F**	**F**	**F**	Yes	6,990	28.4	D	7,090	30.7	D	Add 1 mixed flow lane
F-43	SR-91	La Sierra Ave to Tyler St	D	D	**F**	**F**	Yes	5,870	22.7	C	7,100	30.7	D	Add 1 mixed flow lane
F-44	SR-91	Tyler St to Van Buren Blvd	C	C	**E**	**E**	Yes	6,040	18.3	C	8,020	26.6	D	Add 1 mixed flow lane
F-45	SR-91	Van Buren Blvd to Adam St	C	C	**E**	**E**	Yes	6,310	19.1	C	8,010	26.5	D	Add 1 mixed flow lane
F-47	SR-91	Madison St to Arlington Ave	**F**	**F**	**F**	**F**	Yes	7,000	28.5	D	7,030	30.1	D	Add 1 mixed flow lane
F-75	I-215	Center St to La Cadena Dr	**F**	**F**	**F**	**F**	Yes	7,070	29.3	D	7,010	28.1	D	Add 1 mixed flow lane
F-76	I-215	La Cadena Dr to Barton Rd	**F**	**F**	**F**	**F**	Yes	7,100	29.3	D	7,030	27.9	D	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	D	**E**	**F**	**F**	Yes	6,010	23.3	C	7,040	27.9	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Weaving Analysis. Existing (2018) with Phase 1 freeway weaving segment levels of service for the study area are summarized in Table 4.15-25, which identifies five weaving sections where the Project would have a significant impact.

Phase 1 of the project would worsen the existing LOS deficiency at the following five freeway weaving segments under existing with Phase 1 conditions:

Northbound or Eastbound

- I-215 from SR-60 to Columbia Ave.
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

- SR-60 from University Ave. to Martin Luther King Blvd.
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
- SR-91 from Arlington Ave. to Central Ave.

Table 4.15-25: Existing Plus Phase 1 Freeway Weaving Section LOS

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,480	22	C	6,760	25	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	6,890	34.8	D	6,940	33.9	D
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	E	6,350	26.5	C	9,150	41.2	E
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,240	24.4	C	6,880	28.4	D
W-23	SR-60	University Ave to Martin Luther King	5,965	22.6	C	7,050	24.6	C	6,190	23.7	C	6,980	24.7	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	5,979	25.0	C	8,119	31.6	D	6,260	27.2	C	8,010	31.9	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	E	3,280	13.1	B	9,230	41.5	E
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,197	14.4	B	7,050	32.7	D	3,330	15.2	B	7,010	32.7	D
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			1,600	9.6	A	1,600	9.0	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	7,170	32.8	D	7,970	34.8	D
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	4,570	26.9	C	4,240	19.1	B
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	5,120	23.2	C	5,310	24.4	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	F	4,317	22.0	C	6,070	>Capacity	F	5,880	22.4	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	4,670	23.2	C	3,700	35.2	E
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	7,040	22.1	C	6,390	26.7	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	6,110	12.5	B	5,830	21.9	C
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	2,230	8.6	A	3,160	12.2	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-25: Existing Plus Phase 1 Freeway Weaving Section LOS (continued)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,466	19.6	B	5,871	21.3	C	6,247	19.5	B	7,109	22.0	C
W-9	SR-60	Haven Ave to Archibald Ave	6,671	26.3	C	7,844	33.1	D	6,570	26.0	C	9,510	33.8	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	5,660	21.3	C	5,717	21.6	C	6,310	21.3	C	5,220	22.3	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,568	22.6	C	6,273	22.6	C	6,830	22.6	C	4,330	23.2	C
W-23	SR-60	University Ave to Martin Luther King	7,050	38.2	**E**	7,050	44.9	**F**	5,580	37.9	**E**	5,820	45.7	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	34.2	D	7,050	34.5	D	6,940	34.5	D	7,100	36.1	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,700	30.6	D	3,279	20.4	C	7,270	31.1	D	8,230	21.4	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,207	12.1	B	2,252	12.5	B	3,240	13.3	B	3,070	13.0	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,000	7.2	A	1,960	8.1	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	33.4	D	7,050	36.0	**E**	5,870	33.2	D	7,590	36.4	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	8,102	29.2	D	11,750	> Capacity	**F**	5,150	29.5	D	7,020	>Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	5,036	23.0	C	6,139	28.5	D	3,410	23.4	C	3,160	28.2	D
W-95	I-215	Eucalyptus Ave to SR-60	6,019	21.4	C	7,017	25.6	C	2,680	21.8	C	5,260	25.2	C
W-73	I-215	SR-60 to Columbia Ave	7,050	35.1	**E**	7,050	34.9	D	3,850	35.0	**E**	7,000	34.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,311	21.8	C	6,261	21.9	C	7,070	21.7	C	6,990	21.7	C
W-81	I-215	Mill St to 2nd St	7,050	24.5	C	6,421	22.7	C	7,100	24.5	C	7,030	22.6	C
W-82	I-215	5th St to Baseline Rd	7,050	22.5	C	5,762	18.0	B	6,010	22.5	C	7,040	18.0	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,646	13.9	B	3,125	11.7	B	3,670	14.1	B	3,080	11.5	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-26: Existing Plus Phase 1 Freeway Weaving Impacts and Mitigations

			Northbound / Eastbound												
ID	Freeway	Weaving Segment	Determination of Impact					Existing Plus Phase 1 & Mitigations							
			AM Peak Hour		PM Peak Hour		Project Impact?	Sgement type	AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS			Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	
W-73	I-215	SR-60 to Columbia Ave	**F**	**F**	C	C	Yes	Basic	4,280	17.1	B	4,370	16.5	B	Extend auxillary lane beyond off-ramp
								On-Ramp	2,020	20.4	C	1,690	18.4	B	
								Off-Ramp	330	21.2	C	540	21.7	C	
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	D	**E**	Yes	Weaving	4,670	19.1	B	3,700	28.7	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound												
ID	Freeway	Weaving Segment	Determination of Impact					Existing Plus Phase 1 & Mitigations							
			AM Peak Hour		PM Peak Hour		Project Impact?	Sgement type	AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS			Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	
W-23	SR-60	University Ave to Martin Luther King	**E**	**E**	**F**	**F**	Yes	Weaving	5,580	29.5	D	5,820	35.4	**E**	Add 1 mixed flow lane
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	D	D	D	**E**	Yes	Weaving	6,940	26.8	C	7,100	28.0	D	Add 1 mixed flow lane
W-48	SR-91	Arlington Ave to Central Ave	D	D	**E**	**E**	Yes	Weaving	5,870	25.8	C	7,590	28.3	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Ramp Analysis. Existing (2018) with Phase 1 freeway ramp levels of service for the study area are summarized in Table 4.15-27, which identifies the one ramp segment where the Project would have a significant impact.

- SR-60 eastbound On-Ramp from Martin Luther King Blvd.

Table 4.15-27: Existing Plus Phase 1 Freeway Ramp LOS

				Existing Conditions								Existing Plus Phase 1 Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	F	8,384	1,016	34.3	F	9,360	380	40.4	F	8,280	1,040	34.3	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C	5,760	500	15.1	B	6,780	1,230	22.3	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A	1,860	430	4.9	A	2,140	560	5.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B	1,740	110	17.7	B	1,730	120	16.6	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B	1,850	410	21.1	C	1,850	420	19.9	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B	1,580	20	18.0	B	1,580	20	17.1	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B	1,260	10	14.2	B	1,270	10	13.6	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B	1,770	10	13.5	B	1,670	10	13.3	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B	1,660	680	15.8	B	1,840	410	15.0	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B	2,340	150	20.0	B	2,250	90	19.0	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B	2,290	410	18.0	B	2,300	510	17.8	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A	6,940	670	2.6	A	7,100	520	3.9	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C	6,490	600	22.1	C	6,370	980	25.4	C

▨ Indicates that the LOS exceeds the target level

Table 4.15-28: Existing Plus Phase 1 Freeway Ramp Impacts and Mitigations

				Determination of Impact					Existing Plus Phase 1 & Mitigations								
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
ID	**Freeway / Direction**	**Ramp Segment**	**Ramp No. of Lanes**	**No-Project LOS**	**Plus Phase 1 LOS**	**No-Project LOS**	**Plus Phase 1 LOS**	**Project Impact?**	**Mainline Volume**	**Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	**Mainline Volume**	**Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	**Mitigation Measures Required to Reduce Impact to Less-Than-Significant**
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	**F**	**F**	**F**	**F**	Yes	9,360	380	26.6	C	8,280	1,040	26.5	C	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

4.15.6.2 Existing (2018) With Project (Buildout) Conditions Traffic and Level of Service

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (2018) with project buildout intersection levels of service for the study area intersections are summarized in Table 4.15-29 and 4.15-30, which shows there are 25 study intersections where the LOS would exceed the general plan target. In 20 of these locations the LOS would have been worse than the target for at least one peak hour (AM or PM) even in the No Project scenario. The Project would cause the LOS to exceed the target in 2 locations that would otherwise have met the target in both peak hours, and in 3 cases the Project would case the LOS to exceed the target in both peak hours when it would otherwise have exceeded the target in only one of the peak hours (AM or PM). The intersections with poor LOS under the Existing Plus Buildout Scenario are:

Would Exceed Threshold of Significance Under Both the Existing Conditions and the Existing Plus Buildout Scenario

- IN-10 Redlands Blvd./Locust Ave. (AM, PM)
- IN-20 Oliver St./Alessandro Blvd. (AM)
- IN-23 Redlands Blvd/Alessandro Blvd (PM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-83 Martin Luther King Blvd/Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd/I-215 NB Ramps (AM, PM)
- IN-86 Central Ave/Chicago Ave (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)

- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave) SB/Gilman Springs Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Would Exceed Threshold of Significance Under the Existing Plus Buildout Scenario (only)

- IN-18 Redlands Blvd/Eucalyptus Ave (PM)
- IN-36 Moreno Beach Drive & Ironwood Avenue (AM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (AM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (PM),

Table 4.15-29: Existing (2018) Plus Project Intersection Levels of Service

			Existing Conditions			Existing Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.6	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.3	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.4	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.7	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	SIGNAL	13.6	B
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	SIGNAL	29.4	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	SIGNAL	28.0	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	SIGNAL	23.2	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	SIGNAL	24.1	C
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	SIGNAL	4.0	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	22.8	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	SIGNAL	28.9	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	74.5	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	SIGNAL	34.1	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	AWS	17.6	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	SIGNAL	22.3	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	16.5	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	AWS	22.7	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	SIGNAL	26.1	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	SIGNAL	32.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	SIGNAL	28.9	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	SIGNAL	22.2	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	SIGNAL	27.7	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	SIGNAL	19.8	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	SIGNAL	21.0	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	CSS	9.2	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	59.5	**E**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	58.2	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	SIGNAL	35.7	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	SIGNAL	46.0	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	SIGNAL	25.0	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	SIGNAL	38.5	D
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	SIGNAL	17.3	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	SIGNAL	25.0	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	SIGNAL	12.4	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	SIGNAL	33.1	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	22.3	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	SIGNAL	23.3	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	SIGNAL	24.6	C

Table 4.15-29 Existing (2018) Plus Project Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Build-out		
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	SIGNAL	31.4	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	SIGNAL	9.1	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	SIGNAL	23.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	SIGNAL	28.6	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	SIGNAL	28.3	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	SIGNAL	27.4	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.9	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.3	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	SIGNAL	28.3	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	22.6	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	SIGNAL	35.6	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	SIGNAL	11.0	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	SIGNAL	21.2	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	SIGNAL	40.9	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	SIGNAL	28.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	SIGNAL	62.7	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	SIGNAL	30.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	SIGNAL	6.5	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	SIGNAL	20.0	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	SIGNAL	16.1	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	SIGNAL	18.8	B
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	SIGNAL	6.8	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	SIGNAL	37.7	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	SIGNAL	20.8	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	SIGNAL	27.0	C
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	SIGNAL	24.8	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	SIGNAL	13.5	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	SIGNAL	26.3	C
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	SIGNAL	24.4	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	SIGNAL	40.7	D
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	SIGNAL	39.2	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	SIGNAL	17.4	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	77.8	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	SIGNAL	19.8	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.4	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	41.4	D
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	SIGNAL	15.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	SIGNAL	33.6	C
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	SIGNAL	8.6	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	SIGNAL	39.0	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	SIGNAL	15.1	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	SIGNAL	24.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	SIGNAL	13.2	B

Table 4.15-29: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	SIGNAL	62.7	**E**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	SIGNAL	39.6	D
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	SIGNAL	27.9	C
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	SIGNAL	30.2	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	SIGNAL	30.0	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	SIGNAL	33.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	SIGNAL	14.2	B
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	SIGNAL	41.6	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	SIGNAL	58.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	SIGNAL	9.7	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	SIGNAL	28.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	SIGNAL	28.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	SIGNAL	41.3	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	SIGNAL	20.4	C
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	SIGNAL	42.9	**D**
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	CSS	64.1	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	CSS	90.3	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	CSS	67.9	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	SIGNAL	35.8	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	SIGNAL	18.7	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	SIGNAL	12.4	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	SIGNAL	18.4	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	AWS	87.8	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	AWS	136.3	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	AWS	124.1	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	CSS	14.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	AWS	9.5	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 4.15-29: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.2	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.6	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.4	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	29.4	D	SIGNAL	18.8	B
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	73.0	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	47.0	D
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	9.2	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	21.2	C	SIGNAL	22.7	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	17.8	B	SIGNAL	20.9	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.1	A	SIGNAL	14.7	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.0	A	SIGNAL	2.3	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	2.6	A	SIGNAL	64.6	**E**
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.0	A	SIGNAL	20.4	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	19.3	C	CSS	24.9	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	29.3	C	SIGNAL	36.3	D
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	33.7	**D**	AWS	29.7	**D**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	17.1	B	SIGNAL	18.0	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	15.4	B	SIGNAL	16.4	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	10.6	B	AWS	22.5	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.7	B	SIGNAL	20.2	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	33.4	C	SIGNAL	41.9	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	20.8	C	SIGNAL	21.1	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	13.9	B	SIGNAL	14.2	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	36.3	D	SIGNAL	37.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	18.5	B	SIGNAL	18.9	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	19.3	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	9.2	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	41.8	D	SIGNAL	50.6	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	61.8	**E**	SIGNAL	88.8	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.1	C	SIGNAL	34.3	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	56.6	**E**	SIGNAL	53.9	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	17.2	B	SIGNAL	21.1	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	34.4	C	SIGNAL	38.8	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	15.8	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	15.0	B	SIGNAL	15.9	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	10.7	B	SIGNAL	11.5	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	20.7	C	SIGNAL	26.0	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	14.6	B	SIGNAL	16.0	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	20.1	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	20.0	C	SIGNAL	20.8	C

Table 4.15-29: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.5	C	SIGNAL	23.3	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	7.5	A	SIGNAL	7.5	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	20.3	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	19.9	B	SIGNAL	20.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	29.9	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	18.8	B	SIGNAL	20.0	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	26.3	C	SIGNAL	27.0	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	30.5	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	36.7	D	SIGNAL	39.6	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	28.0	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	36.6	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	9.3	A	SIGNAL	9.5	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	31.8	C	SIGNAL	33.3	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	23.1	C	SIGNAL	22.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	35.5	D	SIGNAL	35.6	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.0	C	SIGNAL	31.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.4	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	13.0	B	SIGNAL	14.5	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.4	B	SIGNAL	18.4	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.5	B	SIGNAL	17.4	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	14.4	B	SIGNAL	14.4	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	7.0	A	SIGNAL	7.8	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	26.5	C	SIGNAL	28.2	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	8.8	A	SIGNAL	14.0	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	53.6	D	SIGNAL	53.2	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	15.8	B	SIGNAL	25.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.4	A	SIGNAL	8.1	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.8	B	SIGNAL	15.8	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	27.8	C	SIGNAL	27.3	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	51.6	D	SIGNAL	45.8	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	10.9	B	SIGNAL	11.2	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	34.2	C	SIGNAL	33.7	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.4	A	SIGNAL	8.0	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	91.4	**F**	SIGNAL	93.4	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	15.8	B	SIGNAL	16.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	39.6	D	SIGNAL	37.0	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	5.9	A	SIGNAL	6.0	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	24.2	C	SIGNAL	23.8	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	6.4	A	SIGNAL	6.9	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	27.1	C	SIGNAL	27.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	5.9	A	SIGNAL	6.5	A

Table 4.15-29: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	39.0	D	SIGNAL	41.6	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	78.5	E	SIGNAL	67.7	E
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	11.1	B	SIGNAL	11.9	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	22.8	C	SIGNAL	28.3	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	34.4	C	SIGNAL	29.8	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	20.1	C	SIGNAL	22.1	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.9	C	SIGNAL	28.7	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	36.1	D	SIGNAL	36.6	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	16.7	B	SIGNAL	15.2	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	21.3	C	SIGNAL	24.9	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	22.8	C	SIGNAL	23.6	C
IN-107	Evans Rd/Rider St	C	SIGNAL	28.4	C	SIGNAL	28.9	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	11.9	B	SIGNAL	13.5	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	39.0	E	AWS	41.3	E
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	23.8	C	SIGNAL	22.4	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	111.0	F	CSS	143.6	F
IN-123	Gilman Springs Rd/Bridge St	C	CSS	84.5	F	CSS	126.3	F
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	146.0	F	CSS	146.8	F
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	115.4	F	CSS	134.4	F
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	29.7	C	SIGNAL	29.3	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	31.4	C	SIGNAL	34.1	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	14.0	B	SIGNAL	15.2	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	17.5	B	SIGNAL	18.9	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.1	C	AWS	37.0	E
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	104.8	F	AWS	133.0	F
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	178.9	F	AWS	90.7	F
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	12.5	B	CSS	13.5	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.6	A	AWS	10.0	A

Notes:

"NB" and "SB" denote northbound and southbound respectively	"CSS" means cross-street is stop-controlled
"EB" and "WB" denote eastbound and westbound respectively	"AWS" means all-way stop
▨ Indicates LOS exceeds the target level	"RABT" means roundabout

Table 4.15-30: Existing (2018) Plus Project Intersection Impacts and Mitigations

			Existing Conditions			Existing Plus Build-out			Existing Conditions			Existing Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1 & Mitigations				
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level																				
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	>180	**F**	CSS	73.0	**F**	CSS	>180	**F**	Signalize. Add 1 EB LT and 1 WB LT.	SIGNAL	7.7	A	10.6	B
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	22.8	C	SIGNAL	2.6	A	SIGNAL	64.6	**E**	Add WB RT pocket.	SIGNAL	21.1	C	31.5	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	74.5	**F**	CSS	19.3	C	CSS	24.9	C	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	CSS	21.2	C	14.9	B
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	59.5	**E**	SIGNAL	41.8	D	SIGNAL	50.6	D	Add 1 NB RT lane.	SIGNAL	38.0	D	27.9	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	58.2	**E**	SIGNAL	61.8	**E**	SIGNAL	88.8	**F**	Add 1 SB LT Change Phasing to Prot.	SIGNAL	16.2	B	30.3	C
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)																				
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	77.8	**E**	SIGNAL	34.2	C	SIGNAL	33.7	C	change 1 NBT to NBT-R	SIGNAL	34.3	C	40.3	D
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.4	**E**	AWS	>180	**F**	AWS	>180	F	Signalize.	AWS	1.0	A	0.9	A
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	41.4	D	SIGNAL	91.4	**F**	SIGNAL	93.4	**F**	Change WBT to WBT-R and NBT to NBT-R	SIGNAL	28.4	C	45.6	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	SIGNAL	62.7	**E**	SIGNAL	39.0	D	SIGNAL	41.6	D	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage)	SIGNAL	47.4	D	32.7	C
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**	AWS	39.0	**E**	AWS	41.3	**E**	Signalize	SIGNAL	92.1	F	13.5	B
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	CSS	64.1	**F**	CSS	111.0	**F**	CSS	143.6	**F**	Signalize.	SIGNAL	13.4	B	14.6	B
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	CSS	90.3	**F**	CSS	84.5	**F**	CSS	126.3	**F**	Signalize.	SIGNAL	7.6	A	21.1	C
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	CSS	>180	**F**	CSS	146.0	**F**	CSS	146.8	**F**	Signalize.	SIGNAL	8.2	A	7.2	A
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	CSS	67.9	**F**	CSS	115.4	**F**	CSS	134.4	**F**	Signalize.	SIGNAL	8.6	A	8.0	A
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	AWS	87.8	**F**	AWS	19.8	C	AWS	37.0	**E**	Signalize.	SIGNAL	11.2	B	7.9	A
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	AWS	136.3	**F**	AWS	26.9	**D**	AWS	133.0	**F**	Signalize.	SIGNAL	17.7	B	12.8	B
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	AWS	124.1	**F**	AWS	55.0	**F**	AWS	90.7	**F**	Signalize. Add 1 EB Right Turn and 1 NB Left Turn.	SIGNAL	8.9	A	10.0	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

Roadway Analysis. Existing baseline (year 2018) with project roadway segment levels of service for the study area are summarized in Table 4.15-30, which shows three roadway segments would operate at unsatisfactory levels of service.

The project would worsen the existing LOS deficiency at the following three roadway segments under existing with project conditions:

- Gilman Springs Rd. between SR-60 and Alessandro Blvd. exceeds the target LOS under both Existing Conditions and under the Existing Plus Build-out Scenario.
- Gilman Springs Rd. from Alessandro Blvd. to Bridge St. exceeds the threshold of significance under both Existing Conditions and under the Existing Plus Build-out Scenario.
- Redlands Boulevard from Eucalyptus Avenue to the SR-60 eastbound ramps.

Freeway Segment Analysis. Existing (2018) with project freeway segment levels of service for the study area are summarized in Table 4.15-31, which shows 24 freeway segments would operate at unsatisfactory levels of service. The Project would have impacts at:

Northbound or Eastbound

- SR-60 from Ramona Ave. to Central Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Eucalyptus Ave. to SR-60
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- SR-60 from Grove Ave. to Vineyard Ave.
- SR-60 from Vineyard Ave. to Archibald Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
- SR-60 from I-215 to Day St.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-91 from McKinley St. to Pierce St.
- SR-91 from Pierce St. to Magnolia Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- I-215 from Center St. to La Cadena Dr.
- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.

Table 4.15-31: Existing (2018) plus Project Roadway Segment Levels of Service

					Existing Conditions			Existing Plus Build-out Conditions					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Project Impact Significant?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A	2U	3,670	A			
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	4D	32,466	D			
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A	2U	3,712	A			
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	6D	33,184	A			
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			4U	3,448	A			
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	8,262	B			
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	13,283	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A	4U	11,714	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	15,602	B			
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	7,503	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	8,746	A			
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A	2U	6,512	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	**F**	2U	21,405	**F**	Yes	Widen to 4 lanes	D
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	**F**	2U	18,693	**F**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	**E**	2U	13,002	**F**	Yes	Widen to 4 lanes	A
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C	2U	7,890	B			
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A	2U	300	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B	2U	6,857	A			
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A	4U	13,902	A			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

Table 4.15-32: Existing (2018) plus Project Freeway Mainline Levels of Service

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6280	28.5	D	6,330	27.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	**E**	9,400	47.3	**F**	8,380	41.6	**E**	9,240	45.9	**F**
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	**E**	7,480	33.7	D	8,120	35.4	**E**
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	**E**	7,810	36.3	**E**	8,060	35.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	**E**	7,720	35.5	**E**	8,180	35.9	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	**F**	7,080	30.8	D	9,080	44.2	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	**F**	6,950	29.7	D	9,210	45.6	**F**
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	7,010	30.4	D	6,560	25.9	C
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,970	27.1	D	7,150	22.0	C
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	4,500	18.0	C	5,000	18.9	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	3,890	15.6	B	4,100	15.5	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	2,913	11.5	B	3,567	13.3	B	3,340	13.4	B	3,400	12.9	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	2,437	9.8	A	2,959	11.3	B	2,860	11.7	B	2,770	10.9	A
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	3,020	12.3	B	3,130	12.2	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	3,750	15.1	B	3,520	13.6	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,900	27.6	D	5,130	27.5	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,950	28.0	D	5,310	29.1	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	**E**	5,310	31.1	D	6,220	37.5	**E**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	**F**	9,400	51.1	**F**	9,870	77.2	**F**	9,250	52.7	**F**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	5,530	22.5	C	6,190	24.2	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	**F**	2,990	26.3	D	4,690	51.1	**F**
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	2,880	24.7	C	3,190	25.9	C
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,550	21.5	C	2,750	21.8	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	2,100	11.9	B	2,430	12.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,780	10.3	A	2,050	10.9	A
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,910	16.3	B	1,870	15.2	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,260	14.4	B	1,240	12.5	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,270	10.4	A	1,240	9.5	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	4,380	16.6	B	6,300	25.9	C
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	4,950	26.1	D	5,210	29.7	D
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	**E**	7,050	54.7	**F**	6,520	42.0	**E**	7,010	54.6	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	7,180	29.5	D	7,010	30.4	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	**E**	7,200	29.4	D	7,950	37.2	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	4,810	18.2	C	4,940	19.5	C
F-46	SR-91	Adam St to Madison St	7,451	57.6	**F**	8,209	96.0	**F**	7,530	60.3	**F**	8,190	97.1	**F**

Table 4.15-32 Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,720	33.6	D	5,370	21.6	C
F-49	SR-91	Central Ave to 14th St	7,050	52.1	**F**	5,797	35.9	**E**	6,970	51.2	**F**	5,810	36.4	**E**
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	4,550	17.1	B	4,280	16.7	B
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	5,850	17.8	B	5,530	17.4	B
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,670	14.1	B	3,270	16.3	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	1,790	9.5	A	2,030	10.2	A
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,280	12.1	B	3,280	16.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	3,590	19.0	C	3,140	15.7	B
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	3,090	16.6	B	4,190	21.5	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	4,210	22.6	C	3,220	16.2	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,290	13.1	B	4,800	18.1	C
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,460	24.4	C	5,240	28.2	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,913	27.7	D	5,947	34.3	D	4,870	27.4	D	5,950	34.4	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	5,030	28.5	D	4,460	23.2	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	4,740	18.8	C	4,230	15.9	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	4,400	24.1	C	5,400	29.7	D
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	4,770	26.6	D	6,110	36.0	**E**
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	6,650	28.7	D	7,100	28.9	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	5,110	29.6	D	5,330	28.7	D
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	5,150	29.5	D	5,010	26.3	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	**E**	5,640	32.0	D	5,650	35.0	**E**	5,740	32.9	D
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	6,040	25.5	C	5,930	23.1	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	**F**	5,150	20.5	C	9,480	48.9	**F**
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	3,130	12.5	B	4,760	17.8	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	3,500	13.8	B	4,730	18.4	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	3,520	14.1	B	4,860	19.2	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	3,670	14.6	B	5,080	20.0	C
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	3,500	14.0	B	4,960	19.5	C
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	3,410	10.9	A	4,850	15.2	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	3,350	13.4	B	4,770	18.8	C
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	3,340	13.4	B	4,780	18.9	C
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	2,980	12.0	B	4,310	17.0	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	2,840	11.4	B	4,120	16.3	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	2,500	10.0	A	3,650	14.2	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	2,500	9.8	A	3,660	14.2	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	2,190	8.6	A	3,180	12.3	B
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	2,190	8.6	A	3,180	12.3	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-32: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,638	26.3	D	6,223	24.8	C	6,470	25.7	C	6,410	26.1	D
F-3	SR-60	Ramona Ave to Central Ave	6,167	24.4	C	6,459	26.1	D	6,000	24.0	C	6,640	27.4	D
F-4	SR-60	Central Ave to Mountain Ave	6,751	28.4	D	6,489	26.9	D	6,580	27.7	D	6,690	28.5	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,859	28.8	D	6,883	29.0	D	6,700	28.2	D	7,080	30.7	D
F-6	SR-60	Euclid Ave to Grove Ave	7,108	29.3	D	7,527	32.6	D	6,940	28.7	D	7,720	34.3	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,656	26.2	D	9,400	51.0	**F**	6,480	25.6	C	9,600	54.7	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,821	34.9	D	9,400	53.0	**F**	7,620	34.0	D	9,590	56.8	**F**
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,339	22.4	C	5,698	17.5	B	7,140	22.0	C	5,920	18.4	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.8	C	5,111	19.6	C	5,200	20.0	C	5,350	20.9	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,888	14.7	B	4,648	14.3	B	4,630	14.2	B	4,940	15.4	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	5,070	19.2	C	5,970	23.7	C	4,880	18.8	C	6,290	25.7	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	4,277	16.3	B	4,958	19.3	C	4,060	15.7	B	5,270	20.9	C
F-15	SR-60	Pedley Rd to Pyrite St	4,296	16.3	B	4,981	19.4	C	4,040	15.6	B	5,310	21.0	C
F-16	SR-60	Pyrite St to Valley Way	4,326	16.4	B	5,020	19.6	C	4,070	15.8	B	5,340	21.2	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	23.2	C	5,262	29.2	D	4,400	23.1	C	5,550	32.4	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	24.1	C	5,477	30.6	D	4,270	22.0	C	5,760	34.0	D
F-19	SR-60	Market St to Main St	6,485	40.3	**E**	5,115	27.9	D	6,050	36.3	**E**	5,380	30.7	D
F-20	SR-60	Main to SR-91	7,050	47.9	**F**	4,062	21.0	C	6,610	42.8	**E**	4,500	24.1	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	33.3	D	6,885	30.5	D	6,870	34.9	D	7,000	34.1	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,385	30.6	D	8,085	36.9	**E**	7,170	30.1	D	8,340	40.2	**E**
F-27	SR-60	I-215 to Day St	4,328	41.6	**E**	3,251	26.8	D	4,280	43.6	**E**	3,220	28.1	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	4,700	49.0	**F**	2,786	21.9	C	4,740	54.0	**F**	2,850	23.9	C
F-30	SR-60	Heacock St to Perris Blvd	3,192	25.1	C	3,003	24.0	C	3,280	27.8	D	3,120	26.9	D
F-31	SR-60	Perris Blvd to Nason St	2,592	19.5	C	2,695	21.0	C	2,740	22.2	C	2,890	24.4	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,817	14.0	B	1,882	14.7	B	1,980	16.6	B	1,890	16.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,481	11.6	B	1,504	11.8	B	1,860	15.8	B	1,630	13.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,460	11.4	B	1,486	11.7	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,121	13.4	B	1,165	12.7	B	1,130	14.4	B	1,090	13.0	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,121	9.0	A	1,165	9.3	A	1,130	9.2	A	1,090	8.9	A
F-39	SR-91	I-15 to McKinley St	6,576	26.3	D	7,158	31.4	D	6,470	25.9	C	7,290	32.5	D
F-40	SR-91	McKinley St to Pierce St	7,050	49.6	**F**	7,050	55.5	**F**	6,950	48.5	**F**	7,140	58.4	**F**
F-41	SR-91	Pierce St to Magnolia Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,950	47.4	**F**	7,140	55.9	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,970	47.7	**F**	7,130	55.7	**F**
F-43	SR-91	La Sierra Ave to Tyler St	5,943	34.3	D	7,050	53.3	**F**	5,860	33.8	D	7,140	55.9	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	6,106	23.6	C	7,990	37.2	**E**	6,050	23.5	C	8,050	38.1	**E**
F-45	SR-91	Van Buren Blvd to Adam St	6,381	25.0	C	7,990	37.2	**E**	6,310	24.8	C	8,020	37.8	**E**
F-46	SR-91	Adam St to Madison St	5,931	22.8	C	7,582	33.9	D	5,870	22.7	C	7,590	34.2	D

Table 4.15-32: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,050	48.4	F	7,050	52.6	F	7,010	48.3	F	7,010	52.5	F
F-49	SR-91	Central Ave to 14th St	5,166	19.5	C	7,050	30.0	D	5,140	19.6	C	6,970	29.7	D
F-50	SR-91	14th St to University Ave	5,166	19.5	C	7,050	30.0	D	5,140	19.6	C	6,970	29.7	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	11.5	B	2,318	11.5	B	2,290	11.5	B	2,220	11.0	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	12.6	B	3,111	15.4	B	2,530	12.7	B	2,950	14.6	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,528	12.6	B	3,111	15.4	B	2,530	12.7	B	2,950	14.6	B
F-70	I-215	Ethanac Rd to SR-74	2,882	14.4	B	3,854	19.1	C	2,910	14.6	B	3,660	18.2	C
F-71	I-215	SR-74 to Redlands Ave	4,515	23.2	C	4,700	24.1	C	4,560	23.6	C	4,540	23.2	C
F-86	I-215	Redlands Blvd to D St	2,538	12.7	B	2,634	13.1	B	2,600	13.1	B	2,490	12.4	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,380	12.7	B	3,249	12.1	B	3,450	13.0	B	3,110	11.6	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	23.2	C	5,262	28.0	D	4,580	23.8	C	5,230	27.7	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	2,658	13.3	B	5,310	28.1	D	2,690	13.5	B	5,230	27.5	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,802	19.7	C	7,050	46.7	F	3,890	20.2	C	6,990	45.8	F
F-92	I-215	Van Buren Blvd to Cactus Ave	3,572	13.4	B	6,195	23.6	C	3,640	13.7	B	6,180	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,031	26.7	D	6,129	35.5	E	5,180	27.7	D	6,060	34.9	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,050	29.6	D	7,050	28.4	D	7,090	29.8	D	7,000	28.1	D
F-75	I-215	Center St to La Cadena Dr	7,050	50.2	F	7,050	47.3	F	7,090	51.0	F	6,950	46.2	F
F-76	I-215	La Cadena Dr to Barton Rd	7,050	49.6	F	7,050	46.7	F	7,150	51.4	F	7,020	46.2	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,974	34.6	D	7,050	46.7	F	6,060	35.8	E	7,050	46.7	F
F-78	I-215	Mt. Vernon Ave to I-10	5,726	22.1	C	5,432	20.5	C	5,840	22.7	C	5,410	20.4	C
F-80	I-215	Auto Plaza Dr to Mill St	6,123	23.7	C	5,837	22.0	C	6,130	23.7	C	5,810	21.9	C
F-83	I-215	Baseline Rd to Highland Ave	4,700	17.6	B	3,704	13.7	B	4,680	17.5	B	3,680	13.6	B
F-52	I-10	SR-60 to Beaumont Ave	4,888	20.9	C	4,190	15.8	B	4,830	20.7	C	4,170	15.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,968	21.5	C	4,259	16.3	B	4,920	21.2	C	4,210	16.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,209	22.7	C	4,465	17.0	B	5,170	22.5	C	4,400	16.8	B
F-55	I-10	Highland Springs Ave to Sunset Ave	5,009	21.7	C	4,293	16.4	B	5,010	21.7	C	4,270	16.3	B
F-56	I-10	Sunset Ave to 22nd St	4,888	16.7	B	4,190	12.8	B	4,900	16.7	B	4,160	12.7	B
F-57	I-10	22nd St to 8th St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,050	15.5	B
F-58	I-10	8th St to Hargrave St	4,808	20.7	C	4,121	15.7	B	4,830	20.8	C	4,050	15.5	B
F-59	I-10	Hargrave St to Fields Rd	4,327	18.6	C	3,709	14.2	B	4,360	18.7	C	3,620	13.9	B
F-60	I-10	Fields Rd to Morongo Trail	4,127	17.7	B	3,537	13.6	B	4,170	17.9	B	3,450	13.3	B
F-61	I-10	Morongo Trail to Main St	3,646	15.4	B	3,125	11.8	B	3,690	15.6	B	3,040	11.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,646	15.4	B	3,125	11.7	B	3,700	15.6	B	3,040	11.4	B
F-64	I-10	SR-111 to Tipton Rd	3,165	13.4	B	2,713	10.2	A	3,210	13.6	B	2,640	9.9	A
F-65	I-10	Tipton Rd to SR-62	3,165	13.4	B	2,713	10.3	A	3,210	13.6	B	2,640	10.0	A

▨ Indicates that the LOS exceeds the target level

Table 4.15-32: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

			Northbound / Eastbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-3	SR-60	Ramona Ave to Central Ave	**E**	**E**	**F**	**F**	Yes	8,380	28.4	D	9,240	30.4	D	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	D	**E**	**E**	D	Yes	7,810	25.8	C	8,060	25.1	C	Add 1 mixed flow lane
F-6	SR-60	Euclid Ave to Grove Ave	D	**E**	**E**	**E**	Yes	7,720	25.4	C	8,180	25.6	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	**F**	**F**	**F**	**F**	Yes	9,870	41.2	**E**	9,250	33.2	D	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	C	D	**F**	**F**	Yes	2,990	16.6	B	4,690	25.1	C	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**E**	**E**	**F**	**F**	Yes	6,520	26.2	D	7,010	30.6	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison St	**F**	**F**	**F**	**F**	Yes	7,530	32.3	D	8,190	40.1	**E**	Add 1 mixed flow lane
F-49	SR-91	Central Ave to 14th St	**F**	**F**	**E**	**E**	Yes	6,970	29.5	D	5,810	23.8	C	Add 1 mixed flow lane
F-95	I-215	Eucalyptus Ave to SR-60	D	D	D	**E**	Yes	4,770	19.0	C	6,110	23.6	C	Add 1 mixed flow lane
F-80	I-215	Auto Plaza Dr to Mill St	C	C	**F**	**F**	Yes	5,150	16.3	B	9,480	31.7	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-7	SR-60	Grove Ave to Vineyard Ave	D	C	**F**	**F**	Yes	6,480	19.7	C	9,600	34.0	D	Add 1 mixed flow lane
F-8	SR-60	Vineyard Ave to Archibald Ave	D	D	**F**	**F**	Yes	7,620	24.6	C	9,590	34.8	D	Add 1 mixed flow lane
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	D	D	**E**	**E**	Yes	7,170	22.4	C	8,340	27.8	D	Add 1 mixed flow lane
F-27	SR-60	I-215 to Day St	**E**	**E**	D	D	Yes	4,280	23.1	C	3,220	17.5	B	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	**F**	**F**	C	C	Yes	4,740	25.8	C	2,850	15.5	B	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	**F**	**F**	**F**	**F**	Yes	6,950	28.6	D	7,140	31.7	D	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**F**	**F**	**F**	**F**	Yes	6,950	28.2	D	7,140	31.0	D	Add 1 mixed flow lane
F-42	SR-91	Magnolia Ave to La Sierra Ave	**F**	**F**	**F**	**F**	Yes	6,970	28.3	D	7,130	30.9	D	Add 1 mixed flow lane
F-43	SR-91	La Sierra Ave to Tyler St	D	D	**F**	**F**	Yes	5,860	22.6	C	7,140	31.0	D	Add 1 mixed flow lane
F-44	SR-91	Tyler St to Van Buren Blvd	C	C	**E**	**E**	Yes	6,050	18.3	C	8,050	26.7	D	Add 1 mixed flow lane
F-45	SR-91	Van Buren Blvd to Adam St	C	C	**E**	**E**	Yes	6,310	19.1	C	8,020	26.6	D	Add 1 mixed flow lane
F-75	I-215	Center St to La Cadena Dr	**F**	**F**	**F**	**F**	Yes	7,090	29.4	D	6,950	27.8	D	Add 1 mixed flow lane
F-76	I-215	La Cadena Dr to Barton Rd	**F**	**F**	**F**	**F**	Yes	7,150	29.6	D	7,020	27.8	D	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	D	**E**	**F**	**F**	Yes	6,060	23.6	C	7,050	28.0	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

Freeway Weaving Analysis. Existing (2018) with project freeway weaving segment levels of service for the study area are summarized in Table 4.15-32, which shows five freeway weaving segments would operate at unsatisfactory levels of service.

The project would worsen the existing LOS deficiency at the following five freeway weaving segments under existing with project conditions:

Northbound or Eastbound

- I-215 from Main St. to SR-91
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

- SR-60 from University Ave. to Martin Luther King Blvd.
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
- SR-91 from Arlington Ave. to Central Ave

Table 4.15-33: Existing (2018) plus Project Freeway Weaving Segments Levels of Service

			Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,590	22	C	6,680	25	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	6,920	35.2	**E**	6,770	33.1	D
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	**E**	6,410	26.9	C	9,130	41.3	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,310	24.7	C	6,850	28.5	D
W-23	SR-60	University Ave to Martin Luther King	5,965	22.6	C	7,050	24.6	C	6,260	24.2	C	6,900	24.5	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	5,979	25.0	C	8,119	31.6	D	6,440	28.4	D	8,000	32.3	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	**E**	3,370	13.6	B	9,230	41.7	**E**
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,197	14.4	B	7,050	32.7	D	3,340	15.4	B	6,980	32.8	D
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			1,580	9.5	A	1,410	8.2	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	7,070	33.0	D	6,980	34.6	D
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	7,050	26.9	C	4,900	19.0	B
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	4,470	23.1	C	5,350	24.7	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	**F**	4,317	22.0	C	4,260	>Capacity	**F**	4,380	22.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	6,250	23.1	C	9,460	35.3	**E**
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	5,840	22.1	C	7,100	26.8	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	4,220	12.5	B	7,110	22.0	C
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	2,500	8.4	A	3,660	12.3	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-33: Existing (2018) plus Project Freeway Weaving Segments Levels of Service (Continued)

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,466	19.6	B	5,871	21.3	C	5,320	19.2	B	6,060	22.4	C
W-9	SR-60	Haven Ave to Archibald Ave	6,671	26.3	C	7,844	33.1	D	6,480	25.7	C	8,040	34.2	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	5,660	21.3	C	5,717	21.6	C	5,480	21.0	C	5,840	22.5	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,568	22.6	C	6,273	22.6	C	6,390	22.5	C	6,410	23.6	C
W-23	SR-60	University Ave to Martin Luther King	7,050	38.2	**E**	7,050	44.9	**F**	6,850	37.7	**E**	7,160	46.6	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	34.2	D	7,050	34.5	D	6,890	35.2	**E**	7,160	37.2	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,700	30.6	D	3,279	20.4	C	4,690	31.4	D	3,350	21.9	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,207	12.1	B	2,252	12.5	B	2,370	13.8	B	2,220	13.1	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			1,030	6.0	A	1,370	8.3	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	33.4	D	7,050	36.0	**E**	6,940	33.0	D	7,030	36.3	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	8,102	29.2	D	11,750	> Capacity	**F**	8,140	29.5	D	11,670	>Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	5,036	23.0	C	6,139	28.5	D	5,160	23.7	C	6,060	28.2	D
W-95	I-215	Eucalyptus Ave to SR-60	6,019	21.4	C	7,017	25.6	C	6,220	22.1	C	6,860	25.0	C
W-73	I-215	SR-60 to Columbia Ave	7,050	35.1	**E**	7,050	34.9	D	7,010	35.1	**E**	6,990	34.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,311	21.8	C	6,261	21.9	C	6,310	21.8	C	6,200	21.8	C
W-81	I-215	Mill St to 2nd St	7,050	24.5	C	6,421	22.7	C	7,060	24.6	C	6,370	22.6	C
W-82	I-215	5th St to Baseline Rd	7,050	22.5	C	5,762	18.0	B	7,060	22.5	C	5,740	17.9	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,646	13.9	B	3,125	11.7	B	3,700	14.2	B	3,040	11.4	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-33: Existing (2018) plus Project Freeway Weaving Segments Levels of Service

			Northbound / Eastbound												
ID	Freeway	Weaving Segment	Determination of Impact					Existing Plus Project& Mitigations							
			AM Peak Hour		PM Peak Hour		Project Impact?	Sgement type	AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS			Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	
W-20	SR-60	Main St to SR-91	D	**E**	D	D	Yes	Weaving	6,920	27.4	C	6,770	25.8	C	Add 1 mixed flow lane
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	D	**E**	Yes	Weaving	6,250	19.0	B	9,460	28.8	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound												
ID	Freeway	Weaving Segment	Determination of Impact					Existing Plus Project& Mitigations							
			AM Peak Hour		PM Peak Hour		Project Impact?	Sgement type	AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS			Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	
W-23	SR-60	University Ave to Martin Luther King	**E**	**E**	**F**	**F**	Yes	Weaving	6,850	29.3	D	7,160	36.0	**E**	Add 1 mixed flow lane
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	D	**E**	D	**E**	Yes	Weaving	6,890	27.4	C	7,160	28.9	D	Add 1 mixed flow lane
W-48	SR-91	Arlington Ave to Central Ave	D	D	**E**	**E**	Yes	Weaving	6,940	25.7	C	7,030	28.2	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

Freeway Ramp Analysis. Existing (2018) with project freeway ramp levels of service for the study area are summarized in Table 4.15-34. The table identifies the one ramp segment where the Project would have a significant impact, namely:

- SR-60 eastbound On-Ramp from Martin Luther King Blvd.

Table 4.15-34: Existing (2018) plus Project Freeway Ramps Levels of Service

				Existing Conditions								Existing Plus Project Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	F	8,384	1,016	34.3	F	9,134	266	41.9	F	8,384	1,016	34.1	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C	5,529	450	15.6	B	6,913	1,206	22.2	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A	1,757	278	4.7	A	2,053	543	5.7	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B	1,575	96	18.5	B	1,609	99	17.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B	1,671	133	22.1	C	1,708	40	20.7	C
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B	1,569	31	18.0	B	1,703	35	15.8	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B	1,264	7	14.2	B	1,310	9	13.4	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B	1,121	10	13.5	B	1,165	10	13.1	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B	1,422	59	17.2	B	1,457	47	14.9	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B	1,481	73	21.5	C	1,504	73	19.0	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B	1,427	390	18.4	B	1,448	434	17.7	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A	7,050	606	2.7	A	7,050	498	4.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C	7,050	595	22.1	C	6,885	976	25.7	C

▨ Indicates that the LOS exceeds the target level

The following table shows the mitigation measure needed to reduce the impacts of the WLC to a less-than-significant level. While this measure is feasible in the sense that, if it could be constructed it would achieve the target LOS, this does not necessarily mean that it passes other tests of feasibility. The physical and financial feasibility of mitigation measures and the means to fund them are discussed in greater depth in the Traffic Impact Analysis of the Revised Sections of the FEIR.

Table 4.15-34: Existing (2018) plus Project Freeway Ramps Levels of Service (Continued)

				Determination of Impact					Existing Plus Project & Mitigations								Mitigation Measures Required to Reduce Impact to Less-Than-Significant
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	**F**	**F**	**F**	**F**	Yes	9,134	266	27.2	C	8,384	1,016	26.3	C	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

4.15.6.3 Year 2025 With Phase 1 Conditions Traffic and Level of Service Impacts

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Intersection Analysis. Year 2025 with Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.15-35 and 4.15-36, which shows 26 study intersections would operate at unsatisfactory LOS in the 2025 with Phase 1 condition.

Phase 1 of the project would have a significant cumulative impact at the following 26 intersections under year 2025 with Phase 1 conditions:

Would Exceed Threshold of Significance Under Both the 2025 No-Project Scenario and the 2025 Plus Phase 1 Scenario

- IN-10 Redlands Blvd/Locust Ave. (AM, PM)
- IN-20 Oliver St/Alessandro Blvd. (AM, PM)
- IN-53 Lasselle St./Cactus Ave. (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-66 Alessandro Blvd./Sycamore Canyon Blvd. (AM)
- IN-75 Central Ave./Lochmoor Dr. (AM)
- IN-76 Sycamore Canyon Blvd/Central Ave (PM)
- IN-80 Alessandro Blvd./Mission Grove Pkwy. (AM, PM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)

- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-98 Alessandro Blvd./Canyon Crest Dr. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave.) SB/Gilman Springs Rd. (AM, PM)
- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM, PM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Would exceed the target LOS under the 2025 Plus Phase 1 Scenario, but not under the 2025 No Project Scenario:

- IN-27 Redlands Blvd./Cactus Ave. (PM)
- IN-123 Gilman Springs Rd./Bridge St. (PM)

Table 4.15-35: Year 2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

			2025 No Project			2025 Plus Phase 1		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.8	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	10.8	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.0	A	RABT	7.1	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	11.3	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	6.2	A	SIGNAL	8.4	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	28.1	C
IN-12	Theodore St/Ironwood Ave	D	CSS	9.0	A	CSS	9.1	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	26.5	C	SIGNAL	27.8	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.3	B	SIGNAL	11.0	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	10.4	B	SIGNAL	14.6	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.7	A	SIGNAL	3.9	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	26.1	C	SIGNAL	28.2	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	SIGNAL	7.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	31.9	**D**	CSS	34.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	15.6	B	SIGNAL	16.3	B
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	46.2	**E**	AWS	12.0	B
IN-24	Oliver St/Cactus Ave	D	SIGNAL	26.2	C	SIGNAL	27.2	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.1	B	SIGNAL	17.9	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.0	A	SIGNAL	2.9	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	15.1	C	AWS	23.1	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	SIGNAL	27.7	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	34.3	C	SIGNAL	33.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	30.7	C	SIGNAL	31.5	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	22.2	C	SIGNAL	22.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.8	C	SIGNAL	25.6	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	17.2	B	SIGNAL	18.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	18.6	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	9.0	A	CSS	9.0	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	37.6	D	SIGNAL	34.1	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	16.6	B	SIGNAL	16.6	B
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	34.8	C	SIGNAL	40.2	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	44.3	D	SIGNAL	55.0	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	24.5	C	SIGNAL	24.3	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	39.6	D	SIGNAL	43.8	D
IN-42	Nason St/Iris Ave	C	SIGNAL	18.0	B	SIGNAL	18.7	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	28.6	C	SIGNAL	29.8	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	12.3	B	SIGNAL	12.3	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	37.0	D	SIGNAL	47.2	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	21.0	C	SIGNAL	20.4	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	23.9	C	SIGNAL	23.7	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	26.2	C	SIGNAL	25.8	C
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.1	C	SIGNAL	21.4	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.9	A

Table 4.15-35: Year 2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour) (Continued)

			2025 No Project			2025 Plus Phase 1		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	28.7	C	SIGNAL	28.8	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	30.3	C	SIGNAL	29.5	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	34.8	C	SIGNAL	35.4	D
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	27.2	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	26.0	C	SIGNAL	25.3	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	30.1	C	SIGNAL	29.9	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	23.2	C	SIGNAL	22.9	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	38.6	D	SIGNAL	38.1	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	11.5	B	SIGNAL	11.8	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	22.3	C	SIGNAL	22.0	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.4	D	SIGNAL	50.5	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.5	C	SIGNAL	29.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	79.0	**E**	SIGNAL	73.9	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	61.2	**E**	SIGNAL	56.6	**E**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	5.4	A	SIGNAL	7.6	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	29.0	C	SIGNAL	24.1	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	32.6	C	SIGNAL	30.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.7	B	SIGNAL	15.7	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.6	C	SIGNAL	20.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.4	A	SIGNAL	5.0	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	46.7	D	SIGNAL	38.7	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	27.9	C	SIGNAL	26.5	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.9	**E**	SIGNAL	61.0	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	63.6	**E**	SIGNAL	35.3	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	9.1	A	SIGNAL	13.1	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	24.0	C	SIGNAL	14.3	B
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	37.7	D	SIGNAL	33.0	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	72.1	**E**	SIGNAL	72.8	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	32.8	C	SIGNAL	33.7	C
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	23.9	C	SIGNAL	25.1	C
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	107.5	**F**	SIGNAL	107.4	**F**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	23.5	C	SIGNAL	23.1	C
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.2	**E**	AWS	46.8	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	158.1	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	25.2	C	SIGNAL	24.2	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	44.6	D	SIGNAL	42.2	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.3	A	SIGNAL	9.4	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	26.1	C	SIGNAL	26.4	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.0	B	SIGNAL	14.8	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	34.5	C	SIGNAL	46.4	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	24.3	C	SIGNAL	22.1	C
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	175.9	**F**	SIGNAL	166.0	**F**

Table 4.15-36: Year 2025 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

			2025 No Project			2025 Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour Delay	PM Peak Hour LOS	Traffic Control	PM Peak Hour Delay	PM Peak Hour LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	11.3	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.3	B	RABT	6.4	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	11.0	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	9.5	A	SIGNAL	9.7	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.0	C	SIGNAL	26.5	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.8	A	CSS	9.0	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	23.2	C	SIGNAL	21.6	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	19.1	B	SIGNAL	19.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.3	A	SIGNAL	15.3	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.5	A	SIGNAL	2.5	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	25.1	C	SIGNAL	24.2	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	SIGNAL	8.7	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	27.0	**D**	CSS	31.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.8	B	SIGNAL	29.9	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	36.2	**E**	AWS	14.5	B
IN-24	Oliver St/Cactus Ave	D	SIGNAL	19.7	B	SIGNAL	19.5	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.5	B	SIGNAL	18.9	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.2	A	SIGNAL	3.1	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	14.2	B	AWS	36.4	**E**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	SIGNAL	24.5	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	47.3	D	SIGNAL	47.5	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	21.2	C	SIGNAL	21.0	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	23.3	C	SIGNAL	23.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	42.4	D	SIGNAL	43.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	19.1	B	SIGNAL	19.2	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.0	B	SIGNAL	18.7	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	20.9	C	SIGNAL	21.0	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	25.2	C	SIGNAL	27.1	C
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.4	D	SIGNAL	50.3	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	42.3	D	SIGNAL	38.1	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	22.9	C	SIGNAL	23.2	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	58.7	**E**	SIGNAL	52.9	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	19.5	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	25.7	C	SIGNAL	26.2	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.8	B	SIGNAL	11.8	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	35.9	D	SIGNAL	37.0	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	18.7	B	SIGNAL	19.1	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	24.2	C	SIGNAL	22.7	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.8	C	SIGNAL	24.7	C
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.3	C	SIGNAL	22.1	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	6.6	A	SIGNAL	6.7	A

Table 4.15-36: Year 2025 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour) (Continued)

ID	Study Intersection	LOS Standard	2025 No Project			2025 Plus Phase 1		
			Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	23.0	C	SIGNAL	23.1	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	24.2	C	SIGNAL	24.4	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	36.9	**D**	SIGNAL	36.8	**D**
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	32.9	C	SIGNAL	32.9	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	42.2	D	SIGNAL	40.3	D
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	49.7	D	SIGNAL	45.7	D
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	34.9	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	32.0	C	SIGNAL	30.4	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	40.4	D	SIGNAL	40.8	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.2	B	SIGNAL	10.1	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	23.6	C	SIGNAL	23.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.3	D	SIGNAL	51.3	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.9	C	SIGNAL	28.2	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	42.0	D	SIGNAL	39.8	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	42.0	D	SIGNAL	44.0	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	10.3	B	SIGNAL	11.7	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	15.6	B	SIGNAL	18.8	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	21.8	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.0	B	SIGNAL	15.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	22.1	C	SIGNAL	21.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	24.8	C	SIGNAL	21.3	C
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	13.2	B	SIGNAL	10.9	B
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	34.7	C	SIGNAL	36.0	D
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.3	**E**	SIGNAL	49.1	D
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	83.8	**F**	SIGNAL	55.5	**E**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	23.5	C	SIGNAL	25.9	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.1	A	SIGNAL	9.9	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	22.7	C	SIGNAL	24.1	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	56.9	**E**	SIGNAL	55.2	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	54.3	D	SIGNAL	51.4	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	13.7	B	SIGNAL	13.0	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	57.3	**E**	SIGNAL	51.0	D
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.9	A	SIGNAL	8.0	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	33.6	C	SIGNAL	22.2	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	88.1	**F**	SIGNAL	71.0	**E**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.9	A	SIGNAL	9.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	42.6	D	SIGNAL	45.7	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	27.7	C	SIGNAL	24.5	C
IN-92	Arlington Ave/Maude St	D	SIGNAL	53.5	D	SIGNAL	36.8	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.5	B	SIGNAL	11.0	B
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	SIGNAL	179.3	**F**

Table 4.15-36: Year 2025 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour) (Continued)

			2025 No Project			2025 Plus Phase 1		
				PM Peak Hour			PM Peak Hour	
ID	Study Intersection	LOS Standard	Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	151.6	**F**	SIGNAL	158.4	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	19.8	B	SIGNAL	18.8	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	114.3	**F**	SIGNAL	54.8	D
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	85.6	**F**	SIGNAL	54.8	**D**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	37.5	D	SIGNAL	40.2	D
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	62.8	E	SIGNAL	71.3	E
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.2	C	SIGNAL	27.2	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	68.1	E	SIGNAL	56.2	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	15.5	B	SIGNAL	12.8	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	24.7	C	SIGNAL	24.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	18.4	B	SIGNAL	18.5	B
IN-107	Evans Rd/Rider St	C	SIGNAL	30.2	C	SIGNAL	30.3	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	35.2	D	SIGNAL	38.6	D
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	30.4	C	SIGNAL	28.0	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	97.4	**F**	SIGNAL	53.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	37.1	**D**	SIGNAL	37.4	**D**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	20.2	C	SIGNAL	21.1	C
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	21.3	C	SIGNAL	21.0	C
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	171.9	**F**	AWS	175.8	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	20.3	C	CSS	20.0	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	11.1	B	AWS	10.9	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Roadway Analysis. Table 4.15-37compares the average daily traffic (ADT) volumes for study roadway segments for the 2025 No-Project Scenario and to their threshold of significance under the City’s General Plan policies. The Project would have no impacts on roadway segments provided that the improvements in the RTP are implemented.

Table 4.15-37: 2025 Plus Phase 1 Road Segment Impacts and Mitigations

					2025 No-Project Conditions			2025 Plus Phase 1 Conditions			Project Impact Significant?
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	1,174	A	4U	2,267	A	
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	6D	24,242	A	
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	906	A	4D	1,668	A	
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road			
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	6D	22,164	A	
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			4U	3,342	A	
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	1,164	A	
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	10,947	A	
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,524	A	4U	6,214	A	
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	9,706	A	
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	3,719	A	
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	5,951	A	
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	5,484	A	4U	6,690	A	****
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	22,365	C	6D	23,267	C	
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	20,260	C	6D	18,028	C	
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	16,194	B	4U	15,793	B	
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	11,586	A	4U	10,950	A	
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,885	A	2U	350	A	
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	10,282	A	4U	8,351	A	
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	990	A	4U	8,819	A	

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

**** Due to the severing of Alessandro Blvd. and the diversion of traffic to other routes, there would be no need to widen this section beyond the current 2U configuration

▨ Indicates LOS exceeds the target level

Freeway Segment Analysis. Year 2025 with Phase 1 freeway segment levels of service for the study area are summarized in Table 4.15-38, which shows 34 freeway segments would operate at unsatisfactory levels of service in the year 2025 with Phase 1 condition.

Northbound or Eastbound Sections:

- SR-60 from Ramona Ave. to Central Ave.
- SR-60 from Central Ave. to Mountain Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Market St. to Main St.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Eucalyptus Ave. to SR-60
- I-215 from Barton Rd. to Mt. Vernon Ave.
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Grove Ave. to Vineyard Ave.
- SR-60 from Vineyard Ave. to Archibald Ave.
- SR-60 from Valley Way to Rubidoux Blvd.
- SR-60 from Rubidoux Blvd. to Market St.
- SR-60 from Market St. to Main St.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
- SR-60 from I-215 to Day St.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from I-15 to McKinley St.
- SR-91 from McKinley St. to Pierce St.
- SR-91 from Pierce St. to Magnolia Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- SR-91 from Adams St. to Madison St.
- SR-91 from Madison St. to Arlington Ave.
- I-215 from Center St. to La Cadena Dr.
- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.

Table 4.15-38: 2025 Plus Phase 1 Freeway Mainline Level of Service

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
ID	Freeway	Segment	Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,520	29.7	D	6,580	28.2	D	6640	30.5	D	6,530	28.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,600	43.5	**E**	9,500	48.5	**F**	8,730	45.5	**F**	9,460	48.5	**F**
F-4	SR-60	Central Ave to Mountain Ave	7,710	35.2	**E**	8,390	37.3	**E**	7,850	36.6	**E**	8,350	37.3	**E**
F-5	SR-60	Mountain Ave to Euclid Ave	8,040	38.0	**E**	8,390	37.3	**E**	8,190	39.7	**E**	8,340	37.2	**E**
F-6	SR-60	Euclid Ave to Grove Ave	7,960	37.3	**E**	8,560	38.7	**E**	8,110	39.0	**E**	8,500	38.6	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	7,320	32.2	D	9,460	48.0	**F**	7,480	33.7	D	9,390	47.7	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,210	31.2	D	9,610	49.9	**F**	7,360	32.5	D	9,530	49.5	**F**
F-9	SR-60	Archibald Ave to Haven Ave	7,290	32.0	D	6,980	27.8	D	7,440	33.1	D	6,900	27.5	D
F-10	SR-60	Haven Ave to Milliken Ave	8,240	28.2	D	7,640	23.5	C	8,390	28.9	D	7,520	23.2	C
F-11	SR-60	Milliken Ave to I-15	4,670	18.6	C	5,430	20.5	C	4,820	19.3	C	5,310	20.1	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,210	16.7	B	4,820	18.0	B	4,430	17.6	B	4,700	17.7	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,640	14.4	B	3,970	14.9	B	3,830	15.3	B	3,810	14.3	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	3,120	12.6	B	3,430	13.1	B	3,370	13.7	B	3,340	12.9	B
F-15	SR-60	Pedley Rd to Pyrite St	3,290	13.2	B	3,760	14.3	B	3,520	14.2	B	3,670	14.1	B
F-16	SR-60	Pyrite St to Valley Way	3,940	15.8	B	4,170	15.8	B	4,240	17.0	B	4,060	15.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	5,110	29.1	D	5,840	32.7	D	5,400	31.9	D	5,700	32.0	D
F-18	SR-60	Rubidoux Blvd to Market St	5,320	30.9	D	6,110	35.6	**E**	5,450	32.4	D	5,970	34.5	D
F-19	SR-60	Market St to Main St	5,780	35.5	**E**	6,910	45.6	**F**	5,890	36.7	**E**	6,870	45.5	**F**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,930	74.8	**F**	10,270	66.4	**F**	10,310	87.7	**F**	10,130	66.5	**F**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,300	21.0	C	6,590	25.5	C	5,540	22.2	C	6,340	24.6	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,020	25.3	C	5,100	59.6	**F**	3,140	27.4	D	4,980	58.0	**F**
F-30	SR-60	Heacock St to Perris Blvd	2,770	22.5	C	3,740	30.5	D	3,010	25.5	C	3,690	30.8	D
F-31	SR-60	Perris Blvd to Nason St	2,530	20.2	C	3,410	26.7	D	2,790	23.2	C	3,400	27.3	D
F-32	SR-60	Nason St to Moreno Beach Dr	2,270	12.1	B	3,140	15.5	B	2,490	13.6	B	3,120	15.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,120	11.3	B	2,910	14.4	B	2,380	13.1	B	2,900	14.8	B
F-34	SR-60	Redlands Blvd to Theodore St	1,800	9.6	A	2,790	13.8	B	2,320	12.8	B	2,880	14.7	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,930	7.7	A	3,050	11.3	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,380	8.0	A	2,220	11.5	B	1,330	7.7	A	2,150	11.5	B
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	1,500	12.1	B	2,270	16.8	B	1,440	11.6	B	2,230	16.7	B
F-38	SR-60	Potero Blvd to I-10	1,420	11.5	B	1,340	10.0	A	1,360	11.0	A	1,400	10.6	A
F-39	SR-91	I-15 to McKinley St	4,670	17.5	B	6,840	28.9	D	4,790	18.0	C	6,730	28.2	D
F-40	SR-91	McKinley St to Pierce St	5,230	27.9	D	5,840	35.5	**E**	5,350	28.9	D	5,720	34.2	D
F-41	SR-91	Pierce St to Magnolia Ave	6,760	44.9	**E**	7,590	68.9	**F**	6,880	46.8	**F**	7,490	65.8	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,390	30.6	D	7,530	33.8	D	7,460	31.3	D	7,450	33.5	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,410	30.5	D	8,330	40.3	**E**	7,480	31.0	D	8,320	40.2	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,950	18.6	C	5,280	20.8	C	5,010	18.9	C	5,280	20.8	C
F-46	SR-91	Adam St to Madison St	7,670	63.0	**F**	8,550	120.9	**F**	7,720	64.3	**F**	8,560	121.9	**F**

Table 4.15-38: 2025 Plus Phase 1 Freeway Mainline Level of Service (Continued)

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,870	34.5	D	5,730	23.2	C
F-49	SR-91	Central Ave to 14th St	7,300	56.6	**F**	6,200	40.8	**E**	7,310	57.6	**F**	6,200	40.8	**E**
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	4,770	18.0	B	4,630	18.0	C
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	6,090	18.5	C	5,920	18.7	C
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,410	13.5	B	4,610	17.3	B
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	3,120	12.3	B	4,110	15.4	B
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	2,450	9.7	A	3,030	11.3	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,040	12.0	B	4,280	16.0	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	4,130	16.4	B	4,050	15.2	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	3,490	14.0	B	4,900	18.6	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	4,760	18.8	C	4,010	15.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,040	12.8	B	5,570	16.8	B
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,020	12.8	B	4,930	14.9	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,860	15.4	B	5,850	17.7	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,440	14.2	B	5,920	17.9	B	4,370	13.9	B	5,900	17.8	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	4,470	24.5	C	4,340	22.7	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,840	19.4	C	4,420	16.7	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	4,430	24.4	C	5,530	30.8	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	4,720	26.4	D	6,170	37.0	**E**
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	6,950	30.5	D	7,410	30.8	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	5,380	31.8	D	5,660	31.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	5,450	32.2	D	5,460	29.7	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	**E**	6,150	36.7	**E**	5,910	37.6	**E**	6,220	37.9	**E**
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,330	27.2	D	6,460	25.7	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	**F**	5,420	21.7	C	9,970	55.8	**F**
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	3,200	12.7	B	5,050	19.0	C
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	4,060	15.9	B	5,330	20.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	4,180	16.6	B	5,800	23.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	4,370	17.4	B	6,040	24.5	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	4,270	17.0	B	5,900	23.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	4,170	13.3	B	5,690	17.8	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	4,070	16.2	B	5,550	22.1	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	4,050	16.1	B	5,490	21.9	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	3,720	14.9	B	4,980	19.7	C
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	3,560	14.2	B	4,760	18.8	C
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	3,190	12.6	B	4,270	16.7	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	3,220	12.6	B	4,280	16.6	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	2,740	10.8	A	3,740	14.5	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	2,690	10.6	A	3,770	14.6	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-38: 2025 Plus Phase 1 Freeway Mainline Level of Service (Continued)

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
ID	Freeway	Segment	Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,870	34.5	D	5,730	23.2	C
F-49	SR-91	Central Ave to 14th St	7,300	56.6	F	6,200	40.8	E	7,310	57.6	F	6,200	40.8	E
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	4,770	18.0	B	4,630	18.0	C
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	6,090	18.5	C	5,920	18.7	C
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,410	13.5	B	4,610	17.3	B
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	3,120	12.3	B	4,110	15.4	B
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	2,450	9.7	A	3,030	11.3	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,040	12.0	B	4,280	16.0	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	4,130	16.4	B	4,050	15.2	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	3,490	14.0	B	4,900	18.6	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	4,760	18.8	C	4,010	15.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,040	12.8	B	5,570	16.8	B
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,020	12.8	B	4,930	14.9	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,860	15.4	B	5,850	17.7	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,440	14.2	B	5,920	17.9	B	4,370	13.9	B	5,900	17.8	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	4,470	24.5	C	4,340	22.7	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,840	19.4	C	4,420	16.7	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	4,430	24.4	C	5,530	30.8	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	4,720	26.4	D	6,170	37.0	E
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	6,950	30.5	D	7,410	30.8	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	5,380	31.8	D	5,660	31.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	5,450	32.2	D	5,460	29.7	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	E	6,150	36.7	E	5,910	37.6	E	6,220	37.9	E
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,330	27.2	D	6,460	25.7	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	F	5,420	21.7	C	9,970	55.8	F
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	3,200	12.7	B	5,050	19.0	C
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	4,060	15.9	B	5,330	20.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	4,180	16.6	B	5,800	23.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	4,370	17.4	B	6,040	24.5	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	4,270	17.0	B	5,900	23.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	4,170	13.3	B	5,690	17.8	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	4,070	16.2	B	5,550	22.1	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	4,050	16.1	B	5,490	21.9	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	3,720	14.9	B	4,980	19.7	C
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	3,560	14.2	B	4,760	18.8	C
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	3,190	12.6	B	4,270	16.7	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	3,220	12.6	B	4,280	16.6	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	2,740	10.8	A	3,740	14.5	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	2,690	10.6	A	3,770	14.6	B

▨ Indicates that the LOS exceeds the target level

Table 4.15-38: 2025 Plus Phase 1 Freeway Mainline Level of Service (Continued)

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,440	55.8	F	7,240	56.6	F	7,440	55.8	F	7,240	57.4	F
F-49	SR-91	Central Ave to 14th St	5,650	21.6	C	7,260	31.3	D	5,680	21.7	C	7,260	31.6	D
F-50	SR-91	14th St to University Ave	5,650	21.6	C	7,260	31.3	D	5,680	21.7	C	7,260	31.6	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	3,030	11.3	B	2,500	9.3	A	1,420	5.5	A	1,320	5.0	A
F-67	I-215	Gambroni Rd to Newport Rd	2,990	11.2	B	2,930	10.9	A	3,010	11.3	B	2,450	9.1	A
F-68	I-215	Newport Rd to McCall Blvd	3,170	11.9	B	3,680	13.6	B	3,180	12.0	B	3,630	13.5	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,170	11.9	B	3,680	13.6	B	3,180	12.0	B	3,630	13.5	B
F-70	I-215	Ethanac Rd to SR-74	3,700	13.9	B	4,350	16.1	B	3,700	13.9	B	4,250	15.8	B
F-71	I-215	SR-74 to Redlands Ave	5,200	19.8	C	5,000	18.7	C	5,210	19.8	C	4,900	18.3	C
F-86	I-215	Redlands Blvd to D St	3,160	11.9	B	2,640	9.8	A	3,170	12.0	B	2,630	9.8	A
F-87	I-215	D St to Nuevo St/Harvil Ave	4,020	12.1	B	3,250	9.7	A	4,040	12.2	B	3,250	9.7	A
F-88	I-215	Nuevo St to Mid-County Pkwy	4,430	13.4	B	4,080	12.3	B	4,430	13.5	B	4,120	12.4	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,830	14.6	B	5,980	17.8	B	4,870	14.7	B	6,010	17.9	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	2,790	8.5	A	5,460	16.3	B	2,840	8.6	A	5,420	16.1	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,770	19.8	C	6,720	42.4	E	3,840	20.1	C	6,720	42.4	E
F-92	I-215	Van Buren Blvd to Cactus Ave	4,000	15.1	B	6,260	24.1	C	4,020	15.2	B	6,150	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,410	29.5	D	5,950	34.0	D	5,470	30.2	D	5,800	32.6	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,630	33.2	D	7,220	29.4	D	7,650	33.4	D	7,230	29.4	D
F-75	I-215	Center St to La Cadena Dr	7,710	64.0	F	7,280	51.2	F	7,770	65.8	F	7,320	51.9	F
F-76	I-215	La Cadena Dr to Barton Rd	7,720	64.3	F	7,400	52.7	F	7,770	65.8	F	7,380	52.4	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	6,570	41.4	E	7,460	53.9	F	6,620	42.0	E	7,430	53.3	F
F-78	I-215	Mt. Vernon Ave to I-10	6,350	25.1	C	5,840	22.3	C	6,410	25.4	C	5,810	22.1	C
F-80	I-215	Auto Plaza Dr to Mill St	6,460	25.4	C	6,020	22.8	C	6,520	25.7	C	6,010	22.8	C
F-83	I-215	Baseline Rd to Highland Ave	4,930	18.5	C	3,740	13.9	B	5,000	18.8	C	3,750	13.9	B
F-52	I-10	SR-60 to Beaumont Ave	5,750	25.3	C	5,190	19.6	C	5,710	25.3	C	5,160	19.5	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,880	26.4	D	5,330	20.4	C	5,840	26.2	D	5,300	20.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	6,330	29.3	D	5,480	21.1	C	6,290	29.0	D	5,440	20.9	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,810	26.0	D	5,150	19.8	C	5,800	26.0	C	5,100	19.6	C
F-56	I-10	Sunset Ave to 22nd St	5,580	19.1	C	5,060	15.5	B	5,590	19.1	C	5,020	15.3	B
F-57	I-10	22nd St to 8th St	5,460	24.0	C	4,960	19.0	C	5,470	24.2	C	4,930	18.9	C
F-58	I-10	8th St to Hargrave St	5,390	23.6	C	4,980	19.1	C	5,400	23.8	C	4,930	18.9	C
F-59	I-10	Hargrave St to Fields Rd	4,830	20.9	C	4,660	17.8	B	4,860	21.1	C	4,600	17.6	B
F-60	I-10	Fields Rd to Morongo Trail	4,620	19.9	C	4,560	17.4	B	4,650	20.1	C	4,510	17.3	B
F-61	I-10	Morongo Trail to Main St	4,110	17.4	B	4,150	15.6	B	4,140	17.6	B	4,090	15.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	4,100	17.4	B	4,200	15.8	B	4,130	17.5	B	4,140	15.6	B
F-64	I-10	SR-111 to Tipton Rd	3,570	15.2	B	3,570	13.4	B	3,600	15.3	B	3,540	13.3	B
F-65	I-10	Tipton Rd to SR-62	3,590	15.2	B	3,580	13.5	B	3,620	15.4	B	3,550	13.4	B

▨ Indicates that the LOS exceeds the target level

4.15.6.5 Freeway Impacts from Truck Trips to the Ports of Los Angeles and Long Beach

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Several comments received on the Draft EIR indicated confusion regarding the volume of truck traffic between the WLC and the Ports of Los Angeles and Long Beach. In general, the DEIR commenters seemed to believe that the truck traffic between the WLC and the ports will be much higher than will actually occur. This section responds to these comments by 1) describing the current share of port-related use of warehouse space, 2) estimating the truck traffic between the WLC and the ports using three different methods, 3) estimating the growth in WLC truck traffic to the port over time, and 4) determining whether WLC trucks would impose significant impacts on the freeways to the ports beyond those identified in previous chapters.

Current Share of Port-Related Warehouse Space. The DEIR commenters referred to SCAG's study titled Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities. This study states that 13 percent of the occupied warehouse space in the SCAG region in 2009 was port-related. This indicates that while the ports are important sources of demand for warehouse space, the great majority of warehouse space serves other demands. In a large regional economy such as southern California this other demand amounted to 578 million square feet in 2009, and is growing over time.

The SCAG study also shows wide differentiation in the markets served. Riverside County serves only a small percentage of port-related demand while playing a much more important role in serving non-port demand. This differentiation reflects the tendency of warehouse tenants whose operations rely on the ports to self-select locations close to the port.

The information provided in the report indicates that only 5 percent of the warehouse space in Riverside County serves port-related demand, which suggests that the volume of truck traffic between the ports and warehouses in Riverside County, including those in WLC, will be relatively small.

The study also reached two conclusions regarding the regional supply of warehouse space, taken from the report's Executive Summary (pages ES-1 and ES-2):

> *"According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet.*
>
> *During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available."*

In other words, according to the SCAG study cited by the commenters, even if all of the land currently zoned for warehouse space were developed, there would still be a massive shortfall of warehouse space by 2040 unless projects like the WLC are approved and built.

***Estimating Truck Trips between WLC and the Ports*.** In order to ensure that a reasonable worst-case scenario was used for the impact analysis, the number of truck trips between the WLC and the ports was forecast using three different methods, all based on data provided by regional planning agencies, with the highest of the three forecasts used for the analysis. The three methods were as follows:

- *Method 1: RivTAM Model.* The first method for estimating truck trips to the port was to use the RivTAM model. As described in Chapter 2, RivTAM is the standard traffic forecasting tool used by agencies in Riverside County to analyze the regional effects of proposed projects. Like most other traffic models, RivTAM assigns trips to destinations using a gravity model where the number of trips between each origin/destination pair increases in proportion to the number of trips generated at each end, but decreases in proportion to the distance between the origin and destination. The effect of distance on the likelihood of travel between origin-destination pairs is determined by the trip length distribution which in turn is based on survey data.

  The WLC's proposed land uses were input into the RivTAM model as described in Chapter 2, the model was run, and the outputs were checked to find how many truck trips were assigned between the ports TAZs and the WLC. Using the RivTAM model to estimate truck trips yields 82 truck trips per day between the ports and the WLC if the WLC were built today (i.e., the 2018 Plus Full Build-Out scenario).

- *Method 2: Based on Port Truck Study.* The best information currently available on truck trips from the ports comes from the Ports of Los Angeles and Long Beach Year 2010 Marine Terminal Gate Surveys. These surveys found that 1.5 percent of truck trips entering the ports came from Riverside County and 1.7 percent of trucks leaving the ports went to Riverside County. These finding are consistent with an earlier study that found 1 percent of truck trips entering the ports came from Riverside County and 2 percent of truck trips leaving the ports went to Riverside County (the numbers are rounded in the study). Applying the percentages from the 2010 survey to the approximately 54,700 truck trips per day generated by the ports yields a total of approximately 800 trucks per day between the ports and Riverside County.

  If we make the conservative assumption that every one of these 875 truck trips goes to a warehouse rather than to a factory, store, or some other destination, and divide these trips among the 136 million square feet of occupied warehouse space in Riverside County, we find an average of 6.5truck trips to or from the ports per million square feet of warehouse space per day. Applying this rate to the 40.6 million square feet of warehouse space proposed for the WLC yields 261 truck trips per day between the ports and the WLC if the WLC were built today (the 2018 Plus Full Build-Out scenario).

- *Method 3: Based on Truck Flows from Riverside County.* The best information currently available on regional truck traffic patterns comes from SCAG's Goods Movement Study that was done in preparation for the 2016 RTP/SCS.

  Applying the ports' 0.8 percent share of Riverside County truck trips applies to WLC's 15,138 medium and heavy truck trips per day yields 125 truck trips per day between the ports and the WLC if the WLC were built today (the 2018 Plus Full Build-Out scenario).

  This analysis shows that a reasonable estimate of truck traffic between WLC and the ports would be in the range of 82 to 261 truck trips per day. The higher figure of 261 truck trips per day was used as a reasonable worst-case scenario.

***Growth in Truck Trips to the Port*.** Some comments suggested that the analysis should consider the possibility that the share of warehouse space in the Inland Empire, and by extension the WLC, may grow over time. This section addresses those comments.

As discussed previously, currently only 0.8 percent of the truck trips in Riverside County are to or from the ports. In the future, port-related uses are anticipated to require a greater share of warehouse space. For Riverside County, SCAG estimates that the percentage of warehouse space devoted to port uses would more than triple between 2018 and 2035, from 6.6 percent to 16.3 percent.

The estimated percentage of WLC trucks going to the ports is 1.72% for the Year 2018 scenario, 2.54% for the Year 2025 scenario, 4.24% for the Year 2035 scenario and 5.09% for Year 2040 scenario. These estimates are based on 261 project truck trips per day to the port compared to 15,138 total medium and heavy truck trips to and from the WLC in the year 2018 scenario.

These percentages were then applied to the trip generation rates to obtain the number of WLC trucks to and from the port for each analysis period. The estimated quantity of WLC trucks going to the ports per day is 261 for the Year 2018 scenario, 222 for the Year 2025 scenario, and 770 for the Year 2040 scenario. Tests with the SCAG traffic model showed that these trips would split approximately evenly between SR-60 and SR-91 routes.

***Determination of Whether Impacts are Significant*.** The potential for traffic impacts along the SR-60 and SR-91 corridors was assessed by manually adding the forecasts for WLC trucks to and from the port to the No-Project condition from the SCAG model. Because the ports and the freeways leading to them are in Los Angeles County, the threshold of significance for the analysis was taken from the Los Angeles County Congestion Management Program (CMP). The CMP states that a significant impact would be deemed to occur if the project increased demand on a highway by at least 2 percent causing LOS F or, if the highway facility already operates at LOS F, then a significant impact would be deemed to occur if the project increases traffic demand by 2 percent or more of capacity.

Analysis of the project's impacts to each section of the SR-60 and SR-91 corridors and in each direction, for both the a.m. and p.m. peak periods, was conducted for the 2018, 2025, and 2040 scenarios. The addition of the WLC traffic would increase freeway traffic volume ranging from 0.03 percent to 0.48 percent of non-project traffic, would not cause a significant impact on any segment of these freeways.

4.15.7 Mitigation of Significant Impacts

As described in detail in Section 4.15.4, the level of service performance standards used in this EIR are as follows:

- Roadway segments and intersections: LOS C, LOS D, or LOS E as outlined in previously referenced Tables 4.15.B, 4.15.C, and 4.15.D.
- Freeway mainline: LOS D (or existing density if currently operating at LOS E or F).
- Freeway Ramp Merge/Diverge: LOS D.

The methodology used to identify mitigation measures included:

1) Determining whether the LOS exceeded the target threshold in the Plus Project condition.
2) If so, then determining whether the appropriate measure of effectiveness under Plus Project conditions was below that under No Project conditions. Some study freeway segments were found to exceed the threshold of significance under Plus Project conditions but the traffic density was lower under Plus Project conditions than No Project conditions. This could happen because the project would cause some commuters to switch from the peak direction to the off-peak direction, thus reducing congestion at some locations. The project's impacts (both project direct and cumulative impacts) were considered significant only when the Plus Project condition was worse than the No-Project condition.
3) If the project had a significant impact, capacity-increasing improvements were then added incrementally until the LOS was within the target threshold of significance.
4) For cumulative impacts, determining whether the mitigations could be funded as part of an established fee program such as TUMF or DIF. If so, then payment into the TUMF or DIF program constitutes mitigation of impacts to the TUMF and DIF facilities.
5) For improvements that would not be funded from an established fee program the project's fair-share contribution was computed using the formula in Caltrans' *Guide for the Preparation of Traffic Impact Studies - Appendix "B"*. This formula defines the project's fair-share as the project-related traffic's percentage share of overall traffic growth, not including new traffic attributable to projects that have already been approved. Where there were significant impacts in both the a.m. and p.m. peak periods, the period with the higher share of project traffic was used to determine the fair-share contribution.

Potential mitigation measures were analyzed to determine whether they were feasible or not. Improvements were deemed to be infeasible if they would require the acquisition of existing homes or businesses, if they would result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or would create safety impacts that could be considered less acceptable than a reduced traffic LOS. In cases where feasibility is uncertain, the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities (i.e. "conservative" in the sense that the project's responsibilities would not be under-estimated).

In cases where a proposed modification to an existing intersection would result in the elimination of an existing bus stop or bicycle lane the proposed mitigation would include the replacement of the bicycle lane or bus stop even if not explicitly stated. This is also true of the replacement of existing curbs, gutters, sidewalks, lights, and other existing design features.

Timing of Improvements. It is important to note that the specific timing of installation of the various identified improvements will occur as indicated by subsequent traffic studies when specific development is proposed in the future, as outlined in Mitigation Measure 4.15.7.4A. It is therefore not possible at this time, in this programmatic document, to identify the specific timing of roadway or other circulation improvements identified in this document.

4.15.7.1 The TUMF Program

In 1988, the voters of Riverside County approved Measure A, a half-cent sales tax to fund transportation projects. In 2002, voters approved a 20-year extension of Measure A, this time including a Transportation Uniform Mitigation Fee or TUMF. The rationale behind TUMF was that having a single uniform fee program to mitigate the cumulative regional impacts of new development on the area's arterial highway system would be more effective than having multiple and potentially uncoordinated fee programs with varying policies, fee amounts, and project lists. Under the TUMF, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required as a result of the growth the projects create. The program is recognition by voters that residents and employees in all of Western Riverside County's jurisdictions benefit from arterials located not just in their own city, but also in nearby cities as well.

The TUMF program is designed to provide a network of roads, bridges, interchanges, and railroad grade separations, known as the Regional System of Highways and Arterials (RSHA), needed to accommodate future growth in the area through 2035. The RSHA was developed by the Public Works Directors of the Western Riverside Council of Governments (WRCOG) member jurisdiction. A "Nexus Study" was then prepared in accordance with the California Mitigation Fee Act, which requires that a reasonable relationship exist between the impact fee collected and the proposed improvements for which a fee is used. The study determined the proportion of the cost of the improvements should be borne by different types of development based on the trip generating characteristics of each land use type. The Nexus Study was updated in 2010 and the RSHA was revised to reflect the most current transportation needs and costs for Western Riverside County. The new network reflected several changes due to completed projects and recommendations from the WRCOG Public Works Committee (PWC) to better represent the transportation needs of Western Riverside County.

TUMF is administered by the WRCOG. As administrator, WRCOG receives all fees generated from the TUMF as collected by the local jurisdictions. TUMF funds are programmed by WRCOG's partner agencies, which are responsible for prioritizing projects and overseeing their development.

The TUMF program uses six categories of land uses: two residential categories and four non-residential categories. The two residential types are single-family residential and multifamily residential. Non-residential uses are industrial, retail, service commercial, and high-cube warehouse, with fees assessed at different rates depending on the category. The high-cube warehouses in the WLC would fall into the "high-cube" category of non-residential development. As this fee level, if the WLC builds out completely, it would potentially pay more than $70 million in TUMFs.

TUMF revenues are collected when a development reaches the Building Permit stage. Once collected and administrative costs and a mitigation allocation made to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), TUMF revenues are allocated as follows:

- 46.39 percent is allocated for regional improvements. These revenues are programmed by the RCTC pursuant to an agreement with WRCOG.
- 46.39 percent is allocated to the geographic zone from which the fees are collected. Project prioritization and programming are undertaken by the jurisdictions in each of the five zones.
- 1.64 percent is allocated for regional transit projects. WRCOG administers the funds on behalf of the RTA which prioritizes and programs capital transit projects.
- 1.59 percent is allocated to the Multiple Species Habitat Conservation Plan.
- 4.0 percent is used for program administration.

Since its inception, TUMF has collected more than $686 million in revenues, making it the largest multi-jurisdictional fee program in the nation. It has completed 85 projects with several dozen more under development. The projects successfully funded by the program include a variety of road widening, intersection improvements, and freeway interchanges, including:

- Widening Pigeon Pass Road from 2 lanes to 4 lanes from Climbing Rose Drive to Hidden Springs Drive;
- Widening the Ramona Expressway from 2 lanes to 6 lanes from I-215 to Evans Road;
- Improvements to the Ironwood Avenue/Moreno Beach Drive intersection;
- Improvements to the Ironwood Avenue/Nason Street intersection;
- Adding a northbound lane to Lasselle Street from John F Kennedy Drive to Alessandro Boulevard;

- Widening Oleander Avenue from Perris Boulevard to Indian Avenue;
- The Van Buren Boulevard/SR-91 Interchange Project;
- Widening State Street in Hemet from 2 to 4 lanes with a center turn lane; and
- Widening Sanderson Avenue from Menlo Avenue to Ramona Expressway.

This track record of success is a key reason why the TUMF projects have a good probability of being implemented. Between now and 2040, when the program is scheduled for completion, the TUMF program is forecast to provide nearly $2.9 billion towards a total of $3.7 billion in arterial road, bridge, intersection, and interchange improvements in Western Riverside County. Those components of infrastructure that are subject to and included in the TUMF program are identified in the TIA and this Traffic and Circulation section of the EIR.

4.15.7.2 The City of Moreno Valley Development Impact Fee Program

The City of Moreno Valley's Development Impact Fee (DIF) program is used to fund road and intersection improvements needed to accommodate new residential, commercial, and industrial development. The program collects fees from three categories of residential development (single-family, multi-family, and mobile homes) and five categories of commercial development (general commercial, regional commercial, general industrial, high-cube warehouse, and office) based on their respective trip generating characteristics. In many cases developers dedicate right-of-way and/or construct improvements that are part of the TUMF or DIF programs in lieu of paying the fees. These facilities are typically part of a project's direct frontage or are necessary to accommodate traffic needs in the immediate area of the project. DIF fees on high-cube warehouses are currently set at $1.016 per square foot, which means that the WLC would more than $41 million in DIF fees if the project builds out and is required to pay DIF[8].

DIF funds are overseen by the City's Public Works Department. Department staff monitors traffic volumes and periodically develops a capital improvement program designed to ensure that improvements are installed to help maintain the City's target LOS threshold. The CIP is reviewed and approved by the city council. Examples of projects successfully completed using DIF funds include:

- Iris Ave. from Indian St. to Perris Blvd.
- Lasselle St./Bay Ave. traffic signal
- Lasselle St./Cottonwood Ave. traffic signal
- Cactus Ave. eastbound improvements from I-215 to Veterans Way

Similar to the TUMF, this track record of success is a key reason why the DIF projects have a good probability of being implemented. The DIF program supplements the TUMF program by funding elements of the City's General Plan Circulation Element not covered by TUMF and, in some projects, by providing funds for additional capacity beyond what the TUMF project will provide. The DIF program has been updated several times, most recently in January 2013, to reflect changes in priorities as development occurs in different parts of the City.

Table 4.15-39 shows a sample of transportation improvement projects from the City's Capital Improvement Program that used DIF and/or TUMF funds in combination with other funding sources.

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[8] Section 4.8 of the Development Agreement requires Highland Fairview to fully fund or construct all needed improvements within Moreno Valley in lieu of paying the traffic DIF. However, if the court sets aside the Development Agreement then Highland Fairview would pay into DIF.

Table 4.15-39: Projects Using DIF and TUMF in Combination with Other Funding Sources

Project	DIF Funds	TUMF Funds	Other Funds	Sources of Other Funds
Iron Avenue / Heacock Street to Perris Boulevard	$1,509,420	$72,413	$57,358	2005 Lease Revenue Bonds
Nason Street / Cactus Avenue Street Improvements	$9,272,000		$15,910,845	Measure "A"; State-Local Partnership Program; General Fund; General City C.P.; Successor Agency Tax Revenue; Redevelopment Agency Cap. Proj.; Eastern Municipal Water District; Riverside County Flood Control; 2007 Taxable Lease Revenue Bonds
SR-60 / Moreno Beach Drive South Side of Interchange (Phase 1)		$3,500,000	$6,110,735	Successor Agency; Redevelopment Agency
SR-60 / Nason Street Interchange	$740,000		$13,285,777	Measure "A"; Federal Demonstration Funds; Demo Toll Credit - Const.; Surface Transportation Program Local (construction); Surface Transportation Program Local Toll Credit - Const.
Heacock Street South Extension		$300,000	$564,172	Measure "A"
Emergency Vehicle Pre-emption at 117 Traffic Signals	$93,534		$840,000	Highway Safety Improvement Program
Nason Street / Riverside County Regional Medical Center Main Driveway Traffic Signal	$250,000		$50,000	Measure "A"
Transportation Management Center	$316,578		$214,646	Air Quality Management
Lasselle Street / John F. Kennedy Drive to Alessandro Boulevard		$2,757,886	$1,058,143	2005 Lease Revenue Bonds
Kitching Street / Alessandro Boulevard to Gentian Avenue	$11,903		$1,639,854	2005 Lease Revenue Bonds
Pigeon Pass Road Widening / Climbing Rose Drive to North City Limits	$462,239	$679,953	$22,664	Measure "A"
Total	$12,655,674	$7,310,252	$39,754,194	
Percentage of Total	21%	12%	67%	

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

4.15.7.3 Required Improvements

Existing plus Project Direct and Cumulative Project Impacts. As individual projects within the WLC are processed, the City will require that each project do a traffic impact assessment in accordance with City guidelines. These project-level assessments will determine the timing of each transportation improvement measure and will ensure that the impact assumptions made in this programmatic EIR document are consistent with the analysis of potential impacts at the project-specific implementation stage.

This section is devoted to disclosing project impacts and identifying required improvements to improve the impacted location to within the applicable level of service standard. Each impacted facility is discussed in the text and the results are summarized in Tables 4-15-40 through 4-15-41. These tables all follow a similar format which includes the following data fields (columns):

(A) This field identifies the location of the impact.

(B) This field identifies which agency has jurisdiction over the facility in question.

(C) This field shows the agency's target LOS for the facility in question.

(D) This field shows the LOS under Existing conditions. This is used to determine whether or not there is an existing deficiency.

(E) This field shows the LOS under Existing Plus Project conditions. This is used to determine whether or not the project has a significant impact.

(F) This field shows whether there is a significant impact. It is based on the thresholds of significance described in Chapter 4.

(G) This field describes what improvements would be required to achieve the target LOS under Existing Plus Project conditions.

(H) This field states whether the measure described in Column G is feasible or not. In some cases the needed improvements may not be feasible. For example, it may be infeasible to widen a road because doing so would cause major negative impacts to an adjacent neighborhood.

(I) This field shows the LOS after all feasible mitigations have been implemented. If mitigation is infeasible then Column I will be the same as Column E.

(J) This field states whether the impact would still be significant after all feasible mitigation measures have been implemented. For those facilities under the jurisdiction of the City of Moreno Valley (see Column B) a "No" in Column J indicates that the impact will be mitigated to a less than significant level. For those facilities outside the jurisdiction of the City of Moreno Valley, Column J indicates what would happen if the jurisdiction that controls the facility implements the recommended feasible mitigations. However, because the City of Moreno Valley cannot guarantee that the other agency will implement the needed improvement the City cannot guarantee that the impact will be mitigated to a less than significant level.

(K) This field shows whether or not there is an existing deficiency. Generally speaking, under state law a developer is responsible for mitigating the impacts of their project but is not responsible for rectifying existing deficiencies that are the result of earlier projects. They need only pay a fair-share representing the portion of the deficiency that is attributable to their own project.

(L) This field reports the action that the developers of the WLC will be required to take as a condition of approval.

PROJECT DIRECT IMPACTS (SHORT-TERM)

The direct impacts of the WLC project were determined by comparing the LOS of study facilities under Existing and Existing Plus Project conditions. The direct impacts of the project and the associated improvements necessary to obtain the target LOS are as follows.

Road Section Direct Impacts. The project's direct impacts on road sections are summarized in Table 4.15.AV. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Gilman Springs Road from Alessandro Boulevard to Bridge Street (S-16)*** is already deficient and needs to be widened to four lanes and will need to be widened to six lanes in the future. In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair share contribution.

  However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to four lanes between Alessandro Boulevard and Bridge Street, or even preclude any widening at all. The project's impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

- ***Gilman Springs Road from SR-60 to Alessandro Boulevard (S-17)*** is already deficient and needs to be widened to four lanes. In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair share contribution.

However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. The project's impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County to find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

Redlands Boulevard between Eucalyptus Avenue and the SR-60 eastbound ramps (S-18) is already deficient and needs to be widened to four lanes. This project is in the City's Capital Improvement Program with planned funding from the TUMF and DIF programs. Mitigation is for the developer to pay into the TUMF and to pay a fair-share contribution towards this improvement as a condition of approval.

Intersection Direct Impacts. The project's direct impacts on study intersections are summarized in Table 4.15-40. These impacts and the associated improvements necessary to obtain the target LOS would be:

- **Redlands Blvd./Locust Ave. intersection** (IN-10) already exceeds the LOS threshold in both the AM and PM peak hours and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection and adding an eastbound left-turn and westbound left-turn lanes would reduce project impacts to a less-than-significant level. Improvements to this intersection are already programmed in the RTP, so no action is required by the developer.
- **Redlands Blvd./Eucalyptus Avenue** (IN-18) would exceed the LOS threshold in the PM peak hour under the Existing Plus Build-out Scenario. Adding a westbound right-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.

Table 4.15-40: Existing plus Project Direct Impacts and Mitigation Measures on Roadway Segments

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Impacts that can be Mitigated to a Less-Than-Significant Level														
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	Moreno Valley	C	**E**	**F**	Yes	Widen to 4 lanes	Yes	A	No	Yes	Pay fair share (7.9%)
Road Section Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	Riverside County	D	**F**	**F**	Yes	Widen to 4 lanes	No	**F**	Yes	Yes	N/A**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	Riverside County	D	**F**	**F**	Yes	Widen to 4 lanes	No	**F**	Yes	Yes	N/A**

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Not applicable because mitigation is infeasible

▨ Indicates LOS exceeds the target level

- **Oliver St./Alessandro Blvd. intersection** (IN-20) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Adding a receiving lane for left turns from Oliver Street would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Moreno Beach Dr./Ironwood Ave.** (IN-36) would exceed the LOS threshold in the AM peak hour under the Existing Plus Build-out Scenario. Adding a northbound right-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Moreno Beach Dr./SR-60 EB Ramps intersection** (IN-37) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Adding a southbound left-turn lane and changing the phasing to protected would reduce project impacts to a less-than-significant level. At time of publication, the needed improvements were already being made to the intersection.
- **Martin Luther King Blvd./Canyon Crest Dr.** (IN-83) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Changing a northbound through lane to a shared through-right-turn lane would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection
- **Martin Luther King Blvd./I-215 northbound ramps** (IN-85) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.
- **Central Ave./Chicago Ave.** (IN-86) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Changing a westbound through lane to a shared through-right-turn lane and changing a northbound through lane to a shared through-right-turn lane would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Victoria Ave.** (IN-94) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Re-configuring the westbound approach to one left-turn lane, two through lanes, and one right-turn lane would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Evans Rd./Orange Ave.** (IN-114) already exceeds the LOS threshold in both the AM and PM peak hours and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Perris has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Bridge St./Ramona Expy.** (IN-122) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection will be eliminated as part of planned improvements to the Ramona Expressway. Therefore, no action is required by the developer.

- **Gilman Springs Rd./Bridge St.** (IN-123) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. intersection** (IN-124) already exceeds the LOS threshold in both the AM and PM peak hours and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **SR-79 (Sanderson Ave.) SB/Gilman Springs Rd.** (IN-125) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **San Timoteo Canyon Rd./Alessandro Rd. intersection** (IN-132) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Redlands. The City will require the developer to pay for a fair share of this improvement as a condition of approval if the City of Redlands has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Redlands to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **San Timoteo Canyon Rd./Live Oak Canyon Rd. intersection** (IN-133) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- **Redlands Blvd./San Timoteo Canyon Rd. intersection** (IN-134) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection and adding an eastbound right turn and a northbound left turn lane would reduce project impacts to a less-than-significant level.

This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

Table 4.15-41: Existing plus Project Direct Impacts and Mitigation Measures on Intersections

ID	Study Intersection	Jurisdiction	LOS Standard	Existing LOS		Existing Plus Buildout LOS		Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented ?	Is There an Existing Deficiency?	Developer Action Required
				AM	PM	AM	PM				AM	PM			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level															
IN-10	Redlands Blvd/Locust Ave	Moreno Valley	C	**D**	**F**	**F**	**F**	Yes	Signalize. Add 1 EB LT and 1 WB LT.	Yes			No	Yes	No action required. Improvement is already in RTP
IN-18	Redlands Blvd/Eucalyptus Ave	Moreno Valley	D	A	A	C	**E**	Yes	Add WB RT pocket. Perm / Ovlp phasing.	Yes			No	No	Implement improvement, with reimbursement agreement based on fair share contribution (19.4%)
IN-20	Oliver St/Alessandro Blvd	Moreno Valley	C	**E**	C	**F**	C	Yes	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	Yes			No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (9.8%)
IN-36	Moreno Beach Dr/Ironwood Ave	Moreno Valley	D	D	D	**E**	D	Yes	Add 1 NB RT lane.	Yes			No	No	Implement improvement, with reimbursement agreement based on fair share contribution (11.3%)
IN-37	Moreno Beach Dr/SR-60 EB Ramps	Moreno Valley	D	C	**E**	**E**	**F**	Yes	Add 1 SB LT Change Phasing to Prot.	Yes			No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (10.6%)
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)															
IN-83	Martin Luther King Blvd/Canyon Crest Dr	Riverside (City)	D	**E**	C	**E**	C	Yes	change 1 NBT to NBT-R	Yes			No	Yes	Pay fair share (0.9%)
IN-85	Martin Luther King Blvd/I-215 NB Ramps	Riverside (City)	D	**E**	**F**	**E**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (0.6%)
IN-86	Central Ave/Chicago Ave	Riverside (City)	D	D	**F**	D	**F**	Yes	Change WBT to WBT-R and NBT to NBT-R	Yes			No	Yes	Pay fair share (3.7%)
IN-94	Arlington Ave/Victoria Ave	Riverside (City)	D	**E**	D	**E**	D	Yes	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage)	Yes			No	Yes	Pay fair share (2.1%)
IN-114	Evans Rd/Orange Ave	Perris	C	**F**	**E**	**F**	**E**	Yes	Signalize	Yes			No	Yes	Pay fair share (1.5%)
IN-122	Bridge St/Ramona Expy	Riverside County	C	**E**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	No Actions required. Intersection eliminated in the future.
IN-123	Gilman Springs Rd/Bridge St	Riverside County	C	**F**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (2.2%)
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	Riverside County	C	**F**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (3.9%)
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	Riverside County	C	**E**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (3.2%)
IN-132	San Timoteo Canyon Rd/Alessandro Rd	Redlands	D	**F**	C	**F**	**E**	Yes	Signalize.	Yes			No	Yes	Pay fair share (13.1%)
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	Riverside County	C	**F**	**D**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (11.5%)
IN-134	Redlands Blvd/San Timoteo Canyon Rd	Riverside County	C	**F**	**F**	**F**	**F**	Yes	Signalize. Add 1 EB Right Turn and 1 NB Left Turn.	Yes			No	Yes	Pay fair share (5.4%)

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

- ***SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road Intersection (IN-124)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of the Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the County of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road Intersection (IN-125)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***San Timoteo Canyon Road/Alessandro Road Intersection (IN-132)*** already exceeds the LOS threshold in the a.m. peak hour and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Redlands. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Redlands to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***San Timoteo Canyon Road/Live Oak Canyon Road Intersection (IN-133)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***Redlands Boulevard/San Timoteo Canyon Road Intersection (IN-134)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection and adding an eastbound right-turn storage lane with an overlap phase would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval.

However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

Freeway Direct Impacts. Unlike the surface streets, where intersection improvements are generally both feasible and desirable, the strategic situation for freeways in western Riverside County is such that major freeway improvements are becoming increasingly problematic over time. A key problem is that the rights-of way are essentially built out in many locations and cannot be expanded without severe impacts to existing communities (loss of homes and businesses, visual intrusion, increased noise and air quality impacts, etc.) and high costs to replace overcrossing structures. Moreover, there is a growing consensus that over-provision of freeway capacity facilitates long-distance commuting by car and leads to more auto-oriented residential development on the urban fringe, which in turn increases greenhouse gas emissions. This has resulted in a policy shift away from continued expansion of the freeway system, as reflected, for example, in the Riverside County Transportation Commission Ordinance No. 02-001 which reads in part:

> *"State Routes 91 and 60 and Interstate Routes 15 and 215 cannot cost effectively be widened enough to provide for the traffic expected as Riverside County continues to grow. In addition to the specific highway improvements listed in Section 1 above, congestion relief for these highways will require that new north–south and east-west transportation corridors will have to be developed to provide mobility within Riverside County and between Riverside County and its neighboring Orange and San Bernardino Counties."*

In other words, as a matter of policy, with the exception of spot improvements in some specific locations, the overall strategy to relieve congestion on SR-60 and SR-91 is to improve the capacity of surface streets that could serve as alternate routes to freeways. The policy to forego further widening of some sections of SR-60 and SR-91 is also noted in the Riverside County Congestion Management Program (CMP) which permits LOS F for some of the study freeway sections because those sections already operated at LOS F when the CMP was established in 1991. For these reasons, some of the identified mitigation measures may not be pursued even if they are deemed feasible in an engineering sense. In such cases, the project's payment into the TUMF and DIF programs and funding for the surface street improvements would constitute their mitigation because they help create viable alternative routes that would substitute for freeway travel for some trips. For the purposes of this EIR, however, impacts to freeways were treated as significant and unavoidable.

The project's direct impacts on the regional freeway system are summarized in Table 4.15-42. The freeways studied in this report are state facilities outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvements of these freeways as a condition of approval. However, because the freeways are outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place either for collecting fees from WLC or for ensuring the availability of the non-project portion of the needed funds[9], the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
These impacts and the associated improvements necessary to obtain the target LOS would be:

Direct Impacts on Freeway Mainline Basic Sections

- **Eastbound SR-60 from Ramona Ave. to Central Ave.** (F-3) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The

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[9] The City and Highland Fairview are providing funds for a study, currently underway, to determine the feasibility of establishing a freeway impact fee to mitigate the effects of truck traffic from new logistics warehouses in Riverside County.

improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Eastbound SR-60 from Mountain Ave. to Euclid Ave.** (F-5) currently operates at an acceptable LOS in the AM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.
- **Eastbound SR-60 from Euclid Ave. to Grove Ave.** (F-6) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.
- **Eastbound SR-60 from Martin Luther King Blvd. to Central Ave.** (F-24) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.
- **Eastbound SR-60 from Pigeon Pass Rd./Frederick St. to Heacock St.** (F-29) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
- **Eastbound SR-91 from Pierce St. to Magnolia Ave.** (F-41) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
- **Eastbound SR-91 from Adams St. to Madison St.** (F-46) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.
- **Eastbound SR-91 from Central Ave. to 14th St.** (F-49) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from Eucalyptus Ave. to SR-60** (F-95) currently operates at an acceptable LOS but would exceed the LOS threshold in the PM peak hour under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project’s impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from Auto Plaza Dr. to Mill St.** (F-80) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project’s impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Grove Ave. to Vineyard Ave.** (F-7) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Westbound SR-60 from Vineyard Ave. to Archibald Ave.** (F-8) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Westbound SR-60 from Fair Isle Dr./Box Springs Rd. to I-215** (F-26) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project’s impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from I-215 to Day St.** (F-27) already exceeds the LOS threshold in the AM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Pigeon Pass Rd. to Heacock St.** (F-29) already exceeds the LOS threshold in the AM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from McKinley St. to Pierce St.** (F-40) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Pierce St. to Magnolia Ave.** (F-41) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Magnolia Ave. to La Sierra Ave.** (F-42) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from La Sierra Ave. to Tyler St.** (F-43) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Tyler St. to Van Buren Blvd.** (F-44) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Van Buren Blvd. to Adams St.** (F-45) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Southbound I-215 from Center St. to La Cadena Dr.** (F-75) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- **Southbound I-215 from La Cadena Dr. to Barton Rd.** (F-76) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Southbound I-215 from Barton Rd. to Mt. Vernon Ave.** (F-77) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

Table 4.15-42: Existing Plus Project Freeway Impacts and Mitigations

Study Facility		Juris-diction	LOS Standard	Determination of Impact					Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
				Existing		Existing Plus Project		Does the Project Have a Significant Impact?							
				AM	PM	AM	PM				AM LOS	PM LOS			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-3	EB SR-60 Ramona Ave to Central Ave	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	N/A*
F-5	EB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	D	**E**	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A*
F-6	EB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A*
F-24	EB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**
F-29	EB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	C	**F**	D	**F**	Yes	Add one mixed flow lane.	Yes	B	C	No	Yes	Pay fair share (6.9%)
F-41	EB SR-91 Pierce St to Magnolia Ave	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (3.1%)
F-46	EB SR-91 Adams St to Madison St	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**
F-49	EB SR-91 Central Ave to 14th St	Caltrans	D	**F**	**E**	**F**	**E**	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (1.4%)
F-95	NB I-215 Eucalyptus Ave to SR-60	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (3.1%)
F-80	NB I-215 Auto Plaza Dr to Mill St	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (0.7%)
F-7	WB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	D	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A*
F-8	WB SR-60 Vineyard Ave to Archibald Ave	Caltrans	D	D	**F**	D	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A*
F-26	WB SR-60 Fair Isle Dr/Box Springs Rd to I-215	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (5.7%)
F-27	WB SR-60 I-215 to Day St	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (7.1%)
F-29	WB SR-60 Pigeon Pass Rd to Heacock St	Caltrans	D	**F**	C	**F**	C	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (7.3%)
F-40	WB SR-91 McKinley St to Pierce St	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.9%)
F-41	WB SR-91 Pierce St to Magnolia Ave	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (2.0%)
F-42	WB SR-91 Magnolia Ave to La Sierra Ave	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (2.0%)
F-43	WB SR-91 La Sierra Ave to Tyler St	Caltrans	D	D	**F**	D	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (2.2%)
F-44	WB SR-91 Tyler St to Van Buren Blvd	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.8%)
F-45	WB SR-91 Van Buren Blvd to Adam St	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.5%)
F-75	SB I-215 Center St to La Cadena Dr	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**
F-76	SB I-215 La Cadena Dr to Barton Rd	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.4%)
F-77	SB I-215 Barton Rd to Mt. Vernon Ave	Caltrans	D	D	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (2.7%)
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-20	EB SR-60 Main St to SR-91	Caltrans	D	D	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	Pay fair share (5.4%)
W-79	NB I-215 I-10 to Auto Plaza Dr/Orange Show Rd	Caltrans	D	C	C	D	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (0.5%)
W-23	WB SR-60 University Ave to Martin Luther King Blvd	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	D	**E**	No	Yes	Pay fair share (4.7%)
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	D	D	**E**	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (4.9%)
W-48	WB SR-91 Arlington Ave to Central Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.1%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-1	SR-60 EB On-Ramp from Martin Luther King Blvd	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**

▨ Indicates LOS exceeds the target level

* Project is in the current RTP and is planned to be completed independent of the WLC project

** Not applicable because mitigation is infeasible

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

Direct Impacts on Freeway Weaving Sections

- **Eastbound SR-60 from Main St. to SR-91** (W-20) currently operates at an acceptable LOS in the AM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from SR-60 to Columbia Ave.** (W-73) already exceeds the LOS threshold in the AM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Extending the auxiliary lane beyond the off-ramp would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.** (W-79) currently operates at an acceptable LOS in the PM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from University Ave. to Martin Luther King Blvd.** (W-23) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the AM peak hour LOS to within the target threshold and reduce the PM peak hour from "F" to "E".

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.** (W-25) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Arlington Ave. to Central Ave.** (W-48) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

Direct Impacts on Freeway Ramps

- **Eastbound SR-60 on-ramp from Martin Luther King Blvd.** (R-1) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.

4.15.7.4 Mitigation Measures

4.15.7.4A: A traffic impact analysis ("TIA"), conforming to the guidelines for TIAs adopted by the City shall be submitted in conjunction with each Plot Plan application within the WLCSP. Prior to the approval of Plot Plans, the City shall review the Revised TIA to determine if any of the traffic improvements listed in the above tables need to be implemented as part of the plot plan. The TIA prepared for the Revised Sections of the FEIR are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to reimbursement agreement for those costs that exceed the fair share contribution determined for the specific Plot Plan application. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in MM 4.15.7F prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Revised TIA, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

4.15.7.4B: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way, where feasible, consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map Required dedications shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4C: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the Applicant to construct or to fully fund the transportation measures identified in the development's TIA (see

MM4.15.7.4A) as needed to mitigate the transportation impacts within the city of the Plot Plan development. The payment or construction shall be made prior to the issuance of occupancy permits for the requested development. This condition shall apply only to mitigation measures where a mechanism has been established to collect funds from the project and any other funds to needed to complete the improvements.

4.15.7.4D As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Chapter 3.44. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4E: In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the Revised Traffic Impact Analysis, i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to MM 4.15.7.4F. As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. Mitigation measures are summarized in Tables 4.15-1 to 4.15-13.

4.15.7.4F The Applicant shall pay its portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the Project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the WLC project as a whole has a significant impact identified in the Revised Sections of the FEIR) as determined by the Revised Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Revised Sections of the FEIR will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection IN-85) in the City of Riverside was identified as a place where the WLC contributes to cumulatively significant impacts, and where the fair share contribution of the WLC project as a whole was computed to be 0.6%. If the City of Riverside establishes a fair share contribution program consistent with this MM to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million sq. ft. high-cube warehouse in the WLC (approximately 5% of the entire WLC project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due	=	Total cost of Improvement	*	Total WLC fair Share (0.6%) as determined by TIA	*	% attributable to the building that is subject to the certificate of occupancy (5%)

A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire WLC to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with MM 4.15.7.4F.

4.15.7.4G: City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the needs of the City, including improvements identified in this TIA. Toward this end, City shall meet regularly with WRCOG.

Congestion Management

In addition to and in concert with the mitigation measures defined above for or traffic impacts, the World Logistics Center would incorporate a number of measures that reduce single occupancy vehicle trips as part of design features and required mitigation measures to reduce air quality impacts. These design features and measures, described in more detail in Section 4.3 Air Quality, would create alternatives to single occupancy vehicle trips for those individuals that would be employed at the World Logistics Center. These measures include:

- Participation in Riverside County's Rideshare Program
- Class II bike lanes for all project streets
- Pedestrian pathways throughout the project site
- Pedestrian connections to nearby residential areas
- Provision of bicycle storage space
- Preferential carpool/vanpool parking

In addition, the World Logistics Center Specific Plan requires that mass transit features, such as bus stops, be incorporated into the project, based on consultation with the Riverside Transit Agency.

4.15.7.5 Level of Significance after Mitigation

Even with implementation of **Mitigation Measures 4.15.7.4.A through 4.15.7.4.G**, and implementation of all the improvements identified in Tables 4.15-40 through 4.15-42, direct and cumulative impacts on study area roadway segments, intersections, and freeway facilities would not be reduced to less than significant levels, including all improvement locations not under the control of the lead agency (i.e., outside of the City of Moreno Valley). This is because the primary determinant of the level of significance after mitigation is the agency responsible for the transportation facility in question. The City has no means for controlling when transportation improvements are made outside of its jurisdiction, and therefore, cannot guarantee when such improvements would be made. These roadways, intersections, and freeway facilities are grouped into four categories based on the jurisdiction the transportation facility is located and are summaries as follows.

On-Site Improvements. These are improvements and changes to the road system within the WLC project site that are being undertaken as part of the WLC project. The developer shall be responsible for constructing the improvements described in the TIA (Chapter 4, "Proposed Road Network") in accordance with City standards for roadway construction and the roadway cross-sections in the proposed Specific Plan. Completion of these improvements shall constitute the developer's mitigation of the project's on-site impacts. When these improvements are completed, the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

Off-Site Improvements for Non-TUMF Roads Under the Jurisdiction of the City of Moreno Valley. These are improvements and changes to public streets in Moreno Valley that are outside the area covered by the proposed WLC Specific Plan. The developer shall be responsible for paying its fair share contribution which the City shall use to implement the mitigation measures identified in Tables 4.15-40, 4.15-41 and 4.15-42 pertaining to facilities under the City's jurisdiction. These payments shall constitute the developer's mitigation of project impacts on this category of roads. When these improvements are completed, the project's impacts on the City roadway and intersection system will be mitigated to a less-than-significant level.

Off-Site Improvements to TUMF Facilities. These are improvements and changes to roads and intersections that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads and intersections.

The City shall implement the mitigation measures identified in Tables 4.15-40, 4.15-41 and 4.15-42 pertaining to TUMF facilities under the City's jurisdiction. When these improvements are completed, the project's impacts on the roadway and intersection system within the WLC project site will be mitigated to a less than-significant level.

The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in 4.15-40, 4.15-41 and 4.15-42 pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable.

Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program. This category includes all of the recommended mitigation measures that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials.

At this time, the City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. The City shall therefore work with the Cities of Beaumont, Perris, Redlands and Riverside, and with Riverside County to collect funds from the developer and to implement the mitigations measures identified in 4.15-40, 4.15-41 and 4.15-42 that are in these jurisdictions. To the extent that the City is able to establish such a mechanism (as described in Mitigation Measure 4.15.7.4F) and the other jurisdiction constructs the recommended improvement, the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. Thus, at this point the project's impacts on these facilities must be considered significant and unavoidable.

Similarly, the City has not entered into an agreement with Caltrans for the collection of developer payments for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in Tables 4.15-40 and 4.15-41. Instead, Caltrans has traditionally relied on other means to fund freeway improvements; means involving multiple stages of review and input from other agencies, with priorities and constraints applied at each stage, that preclude a direct connection between developer-provided fair-share funds and specific highway improvements.

Decisions on funding for improvements to the state highway system are made by four bodies, namely:

- **Legislature:** Establishes overall policies, including determining funding sources and distribution, and spending priorities through state statutes such as Revenue and Taxation Code, Streets and

Highways Code, and Government Code. The Legislature appropriates funds through the annual budget for transportation projects and has authority to designate transportation projects statutorily.

- **California Transportation Commission (CTC):** The nine-member CTC, appointed by the Governor, reviews and adopts the state transportation programs and approves projects nominated by Caltrans and regional agencies for funding. The CTC recommends policy and funding priorities to the Legislature and is also responsible for project delivery oversight.
- **California Department of Transportation (Caltrans):** Caltrans owns, operates and maintains the state highway system. Caltrans plans, designs, and nominates interregional capital improvement projects on the state highway system and also manages the intercity rail operation.
- **Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs):** MPOs and RTPAs are responsible for planning, coordinating and administering funds for regional transportation systems. In California, 17 MPOs and 48 RTPAs develop 20-year Regional Transportation Plans (RTPs) as well as 5-year Regional Transportation Improvement Program (RTIP), which identify projects for the regional portion of the State Transportation Improvement Program (STIP). SCAG is the MPO for Riverside County.

Most funds for improvements to the state highway system come through the State Highway Account (SHA), which receives funding from a variety of sources including:

- Motor vehicle fuel taxes, part of which goes into the Highway Users Tax Account, a portion of which goes to the SHA and the rest goes to cities and counties according to a statutory formula.
- The fuel tax swap, enacted in 2011 (Fuel Tax Swap Fix), reenacted the provisions of the Fuel Tax Swap of 2010 addressing issues raised by the passage of Propositions 22 and 26. The Fuel Tax Swap eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ (July 2010). The increase in the excise tax would generate revenues equivalent to what would have been collected from the state sales tax on gasoline. These revenues are intended for new road construction (STIP), highway maintenance and operations (SHOPP), and local roadways.
- The federal fuel tax, which goes into the Highway Trust fund for use on the portions of the system that are designated ad federal aid highways.

In addition, local sales tax measures, such as Measure A in Riverside County, and the proceeds of Proposition 1B provide funding for improvements to certain portions of the state highway system.

The key feature of this system pertaining to the recommended freeway mitigation measures is that this system is outside the control of the City of Moreno Valley. The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project’s impacts on the state highway system must be considered significant and unavoidable.

4.15.8 Summary of Project-Related Traffic Impacts

Based on the preceding analyses in Sections 4.15.5.1 through 4.15.6.4, the WLC project will have the following direct and cumulative traffic impacts (Table 4.15-43):

Table 4.15-43: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.5.1	Air Traffic Patterns	Less than Significant No Mitigation Required
4.15.5.2	Design Hazard Features	Less than Significant No Mitigation Required
4.15.5.3	Emergency Access	Less than Significant No Mitigation Required
4.15.5.4	Alternative Transportation Policies, Plans, or Programs	Less than Significant No Mitigation Required
4.15.6.1	Existing (2018) With Phase 1 Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)
4.15.6.2	Existing (2018) With Project (Buildout) Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)

Table 4.15-43: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.6.3	Year 2025 With Phase 1 Conditions Traffic and Level of Service Impacts	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)

NOTE TO READERS: The cumulative impact analysis portion of Section 4.16 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative impact analysis can be found in Section 6.16 of this Revised Sections of the FEIR. In addition, the Energy portion of Section 4.16 in the FEIR has been moved to new Sections 4.17 and 6.17 in the Revised Sections of the FEIR. All other portions of Section 4.16 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.16 means that the corresponding portion of Section 4.16 in the FEIR remains unchanged or has been deleted.

4.16 UTILITIES AND SERVICE SYSTEMS

NOTE TO READERS: This portion of the Revised Sections of the FEIR entirely replaces the energy discussion in Section 4.16.4, *Energy Consumption,* of the FEIR. The portion of Section 4.16.4.7, *Cumulative Impact to Energy Facilities*, has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.17 of this Revised Sections of the FEIR. The Renewable Energy technical report is included in Appendix E.

4.17 ENERGY

Pursuant to Appendix F of the CEQA Guidelines, this section discusses the energy requirements of the WLC project and addresses the court's ruling that "the FEIR must provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis." This section discusses existing regulations pertaining to energy and provides an analysis of energy use associated with the project, with an emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. This analysis examines the short-term construction and long-term operational impacts and evaluates the effectiveness of Energy Conservation Measures (ECMs) incorporated as part of the project design. It also evaluates prospective renewable energy supply technologies, their feasibility within the project and an evaluation of which supply technology option provides the best renewable energy supply strategy.

The project will incorporate Project Design Features (PDFs) and ECMs that minimize energy consumption and are expected to deliver energy performance that exceeds the current minimum Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout. The project will be designed to eliminate the need for natural gas in building systems, positioning the WLC to become an all-electric development with the future potential to operate 100% on renewable electricity.

Pursuant to the World Logistics Center Specific Plan (WLCSP), WLC buildings will include rooftop solar photovoltaic (PV) systems sized, at minimum, to offset the power demands of office space contained in the building. In addition, the project will provide on-site rooftop solar generating capacity up to the maximum level currently permitted by Moreno Valley Electric Utility (MVU), which is currently defined as one-half the minimum electric demand a building experiences during daytime hours. As described herein, this would be more than sufficient to satisfy 100% of the office energy needs. In anticipation of increased electricity loads in the future that could result from a growing electric vehicle fleet, the project will provide solar ready roofs that could accommodate expanded rooftop solar installations in the future.

This section analyzes the project's potential energy impacts based on the following technical studies:

Air Quality, Greenhouse Gas, and Health Risk Assessment Report World Logistics Center Specific Plan April 2018, Environmental Science Associates

World Logistics Center (WLC) Transportation Energy Technical Study, May 2018, Environmental Science Associates and CALSTART.

World Logistics Center (WLC) Comparison of Renewable Energy Technologies Report, May 24, 2018, WSP

4.17.1 Existing Setting

4.17.1.1 Existing Site Energy Use

The existing project Site is largely vacant with a few residences and scattered dry farming that generates minimal demand for electricity, natural gas, and transportation fuels. With implementation of the project, these uses would largely cease and be replaced. For the purposes of this analysis, a "zero demand" baseline was assumed; thus, the net change from baseline calculated for these analyses are conservative, representing a hypothetical "worst case".

4.17.1.2 Existing Electricity Supply and Transmission

Southern California Edison (SCE) currently has two existing 115 kilovolt (kV) overhead power transmission lines within the WLC site limits. One is located along Gilman Springs Road from the south to Eucalyptus Avenue, then east on Eucalyptus Avenue to World Logistics Parkway and then north on World Logistics Parkway across SR-60. The second 115 kV transmission line is located along Brodiaea Avenue from the west to Davis Road then southeast into the San Jacinto Wildlife Area. In the project area, SCE also maintains 12 kV overhead distribution lines along Redlands Boulevard, World Logistics Parkway, and Alessandro Boulevard just west of the project site.

The WLC project would be supplied electricity by Moreno Valley Electric Utility (MVEU). MVEU currently has an existing electrical substation west of the project area at the southwest corner of Moreno Beach Drive and Cottonwood Avenue. This substation currently has a capacity to distribute 28 megawatts (MW) of electricity based on two existing 28 MW units (i.e., if one unit goes off, the other unit still maintains capacity to handle the demand). Ultimate capacity of this substation is 90 MW based on four 28 MW units. The current peak load for this substation is 22 to 26 MW; therefore, there is an existing 2 to 6 MW surplus capacity available. MVEU has underground 12 kV distribution lines along Cottonwood Avenue from the west to Redlands Boulevard, then north along Redlands Boulevard to Fir Street (now Eucalyptus Avenue), and then east along Eucalyptus Avenue to World Logistics Parkway. The existing underground conduit underlying Eucalyptus Avenue currently serves the existing Skechers warehouse, office, and factory store. It should be noted that the MVEU indicated these assumptions are valid at this time, but could change if other development occurs before the project.

4.17.1.3 Existing Natural Gas Supply and Transmission

The WLC project would be supplied natural gas by the Southern California Gas Company (SCGC). SCGC currently maintain a 4-inch medium-pressure service line underlying Redlands Boulevard that runs from SR-60 on the north to Cactus Avenue on the south and then runs west along Cactus Avenue with a stub-out to the north at Merwin Street. SCGC has low-pressure facilities that serve the residential areas located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue.

Throughout the WLC site, there are existing high-pressure natural gas transmission mains ranging in diameters of 16 inches up to 36 inches. SCGC currently maintains two 30-inch diameter transmission pipelines traversing the project site that run in an east-west direction and are located north and south of Alessandro Boulevard. There are also three transmission pipelines (a 16-inch, 30-inch, and 36-inch diameters) that run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter pipeline also runs east from Virginia Street parallel with the 30-inch pipeline that runs south of Alessandro Boulevard.

Within the WLC site, SCGC maintains a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Further south on Virginia Street, the San Diego Gas and Electric Company (SDG&E) maintains a natural gas compression station, known as the Moreno Compressor Station, which supplies gas to San Diego via 16-inch, 30-inch, and 36-inch transmission pipelines that continue to the south. SCGC has a gas transmission regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the WLC project site.

Questar currently maintains a 16-inch gas transmission pipeline that underlies Alessandro Boulevard from Gilman Springs Road to World Logistics Parkway, where it heads south to the Maltby Avenue alignment and then heads west toward Redlands Boulevard.

4.17.1.4 Existing Regional Electricity Demand

The MVU is the primary utility provider for the residences and businesses of Moreno Valley and is the utility provider to the WLC project. Southern California Edison does provide electrical service to a portion of the City and has existing facilities running through the project. The annual electricity sale to all customers in the MVU service area for the 2015-2016 fiscal year was approximately 185 million kilowatt hours (kWh).[1]

4.17.1.5 Existing Regional Natural Gas Demand

Southern California Gas Company (SoCal Gas) is responsible for providing natural gas to 21.6 million consumers through 5.9 million meters in more than 500 communities throughout Central and Southern California and is regulated by the California Public Utilities Commission and other state agencies.[2] The annual natural gas sale to customers in 2017 was approximately 311,535 million kilo British thermal units (kBtu).[3] The consumption of natural gas by residences and businesses exclusively within Moreno Valley is not known.

4.17.1.4 Existing Regional Transportation Energy Demand

According to the California Energy Commission (CEC), transportation accounts for nearly 37 percent of California's total energy consumption.[4] Based on available fuel consumption data from the CEC, in 2016, Riverside County consumed a total of 1,035,000,000 gallons of gasoline for transportation.[5] California consumed a total of 273,000,000 gallons of diesel fuel for transportation.[6] Transportation fuels, primarily gasoline and diesel, are provided by local or regional suppliers and vendors.

According to the California Air Resources Board on-road vehicle emissions factor (EMFAC2014) model, the average fuel economy for the fleet-wide mix of vehicles operating in the South Coast Air Basin region is approximately 20.17 miles per gallon for gasoline-fueled vehicles and approximately 7.81 miles per gallon for diesel-fueled vehicles. Gasoline-fueled vehicles account for approximately 96 percent of the total vehicles and diesel-fueled vehicles account for approximately 3.6 percent of the total vehicles.[7] Electric vehicles account for approximately 0.3 percent of the total vehicle registration in California.

4.17.2 Regulatory Setting

4.17.2.1 Federal

Energy Policy Act of 1992. The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and

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[1] City of Moreno Valley, Moreno Valley Utility, 2015/16 Annual Report, 2016 http://www.moreno-valley.ca.us/resident_services/utilities/pdfs/mvuAnnualReport0217.pdf Accessed April 2018.

[2] Southern California Gas Company, https://www.socalgas.com/about-us/company-profile Accessed April 2018.

[3] Sempra Energy, 2017 Annual Report, (2018). Available at: http://www.sempra.com/sites/default/files/content/files/node-page/file-list/2018/2017_annualreport_sre.pdf. Accessed April 2018. Converted from 294 billion cubic feet and a conversion factor of 1,035 Btu per cubic foot based on USEIA data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, April 28, 2017. Available: https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed April 2018).

[4] California Energy Commission, 2015 Integrated Energy Policy Report, CEC-100-2015-001-CMF, 2016, page 153, http://www.energy.ca.gov/2015_energypolicy. Accessed April 2018.

[5] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018.

[6] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[7] Based on the California Air Resources Board on-road vehicle emissions model, EMFAC2014 (Modeling input: South Coast Area Air Basin; LDA, LDT1, LDT2; Annual; 2020). The modeling input values are considered generally representative of project buildout conditions for the region and representative of the majority of vehicles associated with project-related VMT.

individuals to cover the incremental cost of AFVs. States are also required by the Act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005. The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles had to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards were designed to cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[8]

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies proposed engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies proposed separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies proposed engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year. Building on the success of the standards, the EPA and U.S. Department of Transportation jointly finalized additional standards for medium- and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution.

4.17.2.2 State

California Code of Regulations Title 24, Part 6. The California Energy Code (Title 24, Section 6) was created as part of the California Building Standards Code (Title 24 of the California Code of Regulations) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy consumption. These standards include provisions applicable to all buildings, residential and nonresidential, which describe requirements for documentation and certificates that the building meets the standards. These provisions include mandatory requirements for efficiency and design of energy systems, including space conditioning

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[8] United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, (August 2012). Available at: http://www.epa.gov/oms/climate/documents/420f12051.pdf. Accessed April 2018.

(cooling and heating), water heating, and indoor and outdoor lighting systems and equipment, and appliances. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle as technology and methods have evolved. The 2016 Standards, effective January 1, 2017, focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations. The next code update (2019) is expected to focus on integrating solar photovoltaic (PV) and other renewables with energy storage, taking Title 24 another step closer toward the state's zero net energy (ZNE) goals as spelled out in the California Energy Efficiency Strategic Plan (CEC, 2011), calling for all new residential construction to be ZNE by 2020 and all new commercial construction to be ZNE by 2030.

California Code of Regulations Title 24, Part 11. The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development in 2008. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017.

2016 Title 24, Part 11 includes construction requirements for non-residential projects that are designed to facilitate installation of future electric vehicle supply equipment (EVSE) to support electric vehicle (EV) charging. Under section 5.106.5.3, construction plans and specifications for large (projects with more than 200 total parking spaces) must include raceways for future EVSE at a minimum of 6 percent of the total parking spaces.

Renewable Electricity Standards. There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewables Portfolio Standard (RPS) target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.

Senate Bill 350: The Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 2015) was approved by Governor Brown on October 7, 2015. SB 350 (1) increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provides for the evolution of the Independent System Operator (ISO) into a regional organization; and (4) requires the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the Legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

Pavley Regulation, Advanced Clean Cars (ACC), and the California Mobile Source Strategy. Assembly Bill 1493 (2002) requires CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emission standards; however, California is allowed to set its own standards with a federal waiver from the USEPA, granted in 2009. Known as the Pavley Clean Car Standards, AB 1493 regulated GHG emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016.

In January 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2015 through 2025. The program includes components to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. The zero emissions vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEV) in the 2018 to 2025 model years (CARB, 2017).

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years, through a transition to ZEVs, cleaner transit systems and reduction of vehicle miles traveled. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 “last mile” delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels (CARB, 2016).

Transportation Electrification. Complementing the Mobile Source Strategy and the state’s push toward zero carbon electricity, SB 350 orders the CPUC to direct the six investor-owned electric utilities in the state to file Applications for programs that “accelerate widespread transportation electrification.” These programs are required to reduce dependence on petroleum, increase the adoption of zero-emission vehicles, help meet air quality standards, and reduce GHG emissions.

On January 11, 2018, the CPUC approved the first transportation electrification applications under SB 350 from the three large investor-owned utilities. The decision approves 15 projects with combined budgets of $42 million. In SCE territory, $16 million was approved for projects that help expand residential and transit bus EV charging infrastructure, including in or adjacent to disadvantaged communities, as well as crane and heavy duty vehicle electrification at the Port of Long Beach. In PG&E and San Diego Gas and Electric territories, projects are similar but also include electrification of delivery vehicles and commercial shuttle fleets, and demonstration projects for electrification of school buses and medium- or heavy-duty vehicles fleets (CPUC, 2018).

Executive Order B-16-2012 (Zero-Emission Vehicles). This executive order indicates that all State entities under the Governor’s control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:

- By 2015: The State’s major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State’s manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector’s investment in zero-emission vehicle infrastructure; and the State’s academic and research institutions contributing to zero-emission vehicle research, innovation and education.

- By 2020: The State's zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles; zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.
- By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.

Sustainable Freight Action Plan. Executive Order B-32-15 directed the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system. The targets are not mandates, but rather aspirational measures of progress towards sustainability for the State to meet and try to exceed. The targets include:

- System Efficiency Target: Improve freight system efficiency by 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030.
- Transition to Zero Emission Technology Target: Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- Increased Competitiveness and Economic Growth Targets: Establish a target or targets for increased State competitiveness and future economic growth within the freight and goods movement industry based on a suite of common-sense economic competitiveness and growth metrics and models developed by a working group comprised of economists, experts, and industry. These targets and tools will support flexibility, efficiency, investment, and best business practices through State policies and programs that create a positive environment for growing freight volumes and jobs, while working with industry to mitigate potential negative economic impacts. The targets and tools will also help evaluate the strategies proposed under the Action Plan to ensure consideration of the impacts of actions on economic growth and competitiveness throughout the development and implementation process.

California Transportation Plan 2040. The California Transportation Plan (CTP) 2040 provides a long-range policy framework to meet future mobility needs and reduce GHG emissions. The CTP defines goals, performance-based policies, and strategies to achieve maximum feasible emission reductions in order to attain a statewide reduction in GHG emissions.

The CTP 2040 recognizes that the Governor is committed to reduce by one-half current petroleum use in cars and trucks; increase from one-third to one-half the electricity derived from renewable sources; double the efficiency savings of existing buildings and make heating fuels cleaner; reduce the release of methane, black carbon, and other short-lived climate pollutants; and manage farm and rangelands, forests, and wetlands to store more carbon.

Transportation GHG reduction strategies within the CTP 2040 include demand management (including telecommuting/working at home, increased carpoolers, and increase car sharing), mode shift (including transit service improvements, high-speed rail, bus rapid transit, expanded bike and pedestrian facilities, carpool land occupancy requirements, and increased HOV lanes), travel cost (implement expanded pricing policies), and operational efficiency (incident/emergency management, Caltrans' Master Plan, ITS/TSM, and eco-driving).

Low Carbon Fuel Standard, Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandated that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, the CARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The LCFS requires producers of petroleum based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The LCFS was challenged in the United States District Court in Fresno in 2011. The court’s ruling issued on December 29, 2011, included a preliminary injunction against the CARB’s implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration. With the adoption of the 2017 Scoping Plan Update, the LCFS has been increased to an 18 percent reduction in carbon intensity by 2030.

2017 Scoping Plan Update. On December 14, 2017, CARB approved the final version of *California’s 2017 Climate Change Scoping Plan* (2017 Scoping Plan Update), which outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels.[9] The 2017 Scoping Plan Update identifies key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. As of 2015, California’s emissions totaled approximately 440 $MMTCO_2e$. The emissions breakdown is as follows: 37 percent from transportation, 21 percent from industrial sources, 11 percent from in-state electricity generation, 9 percent from commercial and residential, 8 percent from imported electricity generation, 8 percent from agriculture, 4 percent from high global warming potential gases, and 2 percent from recycling and waste. Through a combination of data synthesis and modeling, CARB determined that the target Statewide 2030 emissions limit is 260 $MMTCO_2e$, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO2e beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2050 limit set forth by Executive Order B-30-15.

The 2017 Scoping Plan Update’s strategy for meeting the 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030. These include:

- Extending the LCFS beyond 2020 and increasing the carbon intensity reduction requirement to 18 percent by 2030;
- Senate Bill 350, which increases the RPS to 50 percent and requires a doubling of energy efficiency for existing buildings by 2030;
- The 2016 Mobile Source Strategy targets for more ZEVs and much cleaner trucks and transit (described in more detail below);
- The Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies (described in more detail below);
- Senate Bill1383, which requires a 50 percent reduction in anthropogenic black carbon and a 40 percent reduction in hydrofluorocarbon and methane emissions below 2013 levels by 2030; and
- Assembly Bill 398, which extends the state Cap-and-Trade Program through 2030.

California’s climate stabilization strategy relies on contributions from all sectors of the economy, which includes continued investment in renewable energy such as solar roofs, wind, and other types of distributed generation. In addition to being an integral factor in meeting GHG reduction goals, shifting

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[9] CARB, *California’s 2017 Climate Change Scoping Plan: The strategy for achieving California’s 2030 greenhouse gas target*, November, 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf; Accessed April 2018.

to clean, local, and efficient use of energy also reinvests energy expenditures on local economies and reduces risks associated with exposure to volatile global and national oil and gas commodity prices (CARB, 2017).

California Cap and Trade Program. Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the cap-and-trade program is a core strategy in the Scoping Plan for the state to meet its reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32’s emission-reduction mandate of returning to 1990 levels of emissions by 2020.[10] Under the Cap-and-Trade program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 metric tons CO_2e per year) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions throughout the Program’s duration.[11] On July 17, 2017 the California legislature passed Assembly Bill 398, extending the Cap-and-Trade program through December 31, 2030.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 and 2030 statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not direct GHG emissions reductions to occur in any discrete location or by any particular source. Rather, GHG emissions reductions are assured on a State-wide basis.

CARB Low NOx Regulation. CARB has identified that reductions of up to 90 percent are needed for heavy-duty trucks to meet NOx reduction targets. In 2013, California established an optional low-NOx standard to pave the way for a future mandatory standard. A more stringent low-NOx regulation is expected in the 2021/2023 timeframe. When implemented, this regulation will continue to drive the deployment of zero or near-zero emissions truck solutions. This development has been taken into consideration in estimating the number of zero emission trucks projected in this study.

CARB Advanced Clean Local Truck Rule. The goal with the Advanced Clean Local Truck Rule is to accelerate the early market adoption of zero emission trucks that are usually centrally fueled, have duty cycles with low average speed and stop-and-go operation. The rule focuses on urban, mostly vocational trucks, but includes heavy truck (class 7-8) urban goods movement as well. The proposed regulatory schedule begins with the 2023 vehicle model year with early action credits given for pre- 2023 vehicle models. The regulation is scheduled for CARB board consideration in November 2018.

The Clean Port Plan 2.0 for Ports of Long Beach and Los Angeles. The ports of Long Beach and Los Angeles have set goals to drastically reduce air pollution over the next decades and move towards zero emissions solutions. It is anticipated that new fee structures will be implemented in 2021 that favors low-NOx engine and zero emission solutions.

SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In April, 2016, the Southern California Association of Governments (SCAG) adopted the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which provides a vision for transportation throughout the region for the next 25 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The 2016 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by achieving an 8 percent reduction by 2020,

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[10] 17 CCR §§ 95800 to 96023.

[11] See generally 17 CCR §§ 95811, 95812.

18 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level on a per capita basis.

The 2016 RTP/SCS includes $70.7 billion in goods movement strategies, and a Goods Movement Appendix that addresses the region’s challenges in moving freight while reducing harmful emissions generated by trucks and other goods movement sources.

SCAG Comprehensive Regional Goods Movement Plan and Implementation Plan. This report from SCAG, issued in 2012, presents a long-range comprehensive plan for the goods movement system in Southern California. The Plan is designed to ensure that the region continues to play a vital role in the global supply chain while meeting regional economic goals, addressing critical mobility challenges, preserving the environment, and contributing to community livability and quality of life goals. The Plan is the final product of the SCAG Comprehensive Regional Goods Movement Plan and Implementation Strategy, a four-year effort to collect data, conduct analyses, and engage with regional, statewide and national stakeholders covering various aspects of the region’s goods movement system

CARB Heavy-Duty On-Road and Off-Road Vehicle Regulations. In 2004, the CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

In addition to limiting exhaust from idling trucks, CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007 aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel efficient engines.

4.17.2.5 City of Moreno Valley

City of Moreno Valley General Plan Policies. The City adopted its General Plan in 2006. The General Plan’s Conservation Element contains policies directly related to energy efficiency and renewable energy listed below:

Objective 7.5	Encourage efficient use of energy resources
Policy 7.5.1	Encourage building, site design, and landscaping techniques that provide passive heating and cooling to reduce energy demand.
Policy 7.5.2	Encourage energy efficient modes of transportation and fixed facilities, including transit, bicycle, equestrian, and pedestrian transportation. Emphasize fuel efficiency in the acquisition and use of City-owned vehicles.
Policy 7.5.5	Encourage the use of solar power and other renewable energy systems.

City of Moreno Valley Climate Action Strategy. The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and GHG emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and GHG emissions. The Strategy contains the following policies to reduce GHG emissions in 2010 by 15 percent by 2020:

R2-T1 *Land Use Based Trips and VMT Reduction Policies.* Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

R2-T3 *Employment-Based Trip Reductions.* Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

R2-E1 *New Construction Residential Energy Efficiency Requirements.* Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.

R2-E2 *New Construction Residential Renewable Energy.* Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.

R2-E5 *New Construction Commercial Energy Efficiency Requirements.* Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.

R3-E1 *Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining.* Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.

R3-L2 *Heat Island Plan.* Develop measures that address “heat islands.” Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

R2-W1 *Water Use Reduction Initiative.* Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

R3-W1 *Water Efficiency Training and Education.* Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

R2-S1 *City Diversion Program.* For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

Moreno Valley Utility 2015 Integrated Resource Plan (IRP). MVU provides electrical services to approximately 6,000 customers. MVU’s main guidance document to plan for future growth and development is the 2015 IRP which forecasts a 10-year planning period from 2015 to the horizon year of 2024. The purpose of the IRP is to identify key considerations to meet future energy demand, increase local renewable energy projects, and plan for large-scale logistics and distribution centers that are increasingly prevalent in the region. As stated above, electricity sales for 2015 totaled 185 million kWh and the IRP forecasts growth in sales to be 352,044 million kWh by the horizon year of 2024.

MVU previously offered a solar net energy metering program to their customers, but in MVU’s latest Electric Rates Schedule for Net Energy Metering, adopted April 17, 2018, this schedule is closed to new applicants effective April 2018. Furthermore, per *Resolution No. 2017-20* the “maximum solar generating capacity that will be approved to be connected to each meter is up to 50% of the meter minimum daytime load.” This limits the amount of on-site solar generation that can be installed at WLC buildings.

4.17.3 Methodology

The analysis addresses the project’s potential impacts related to energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. The potential for on-site generation of renewable energy is also assessed. Specific analysis methodologies are discussed below. Calculations are provided in Appendix E.

4.17.3.1 Construction

Construction activities can vary substantially from day to day, depending on the specific type of construction activity and the number of workers and vendors traveling to the Site. This analysis considers these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Energy use during construction is forecasted by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). The energy usage required for project construction has been estimated based on the number and type of construction equipment that would be used during project construction, the extent that various equipment is utilized in terms of equipment operating hours or miles driven, and the estimated duration of construction activities. Energy for construction worker commuting trips has been estimated based on the predicted number of workers for the various phases of construction and the estimated VMT.

The heavy duty construction equipment would likely be diesel-fueled (with the exception of construction worker commute vehicles, which would primarily be gasoline-fueled). For the purposes of this assessment, it is conservatively assumed heavy-duty construction equipment and haul trucks would be diesel-fueled and construction equipment would be in operation for the entire construction day. This represents the maximum potential energy use during construction since some equipment could feasibly be electric or gasoline powered and be less energy intensive and since it is unlikely that equipment would be in operation for the entire construction day. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB off-road vehicle (OFFROAD) emissions model, which is a state-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB EMFAC emissions model, which is a state-approved model for estimating emissions for on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into the California Emissions Estimator Model (CalEEMod), which is a state-approved emissions model used for the project’s air quality and GHG emissions assessment. Therefore, this energy assessment is consistent with the modeling approach used for other environmental analyses in the EIR and consistent with general CEQA standards.

4.17.3.2 Operation

The WLC project would require energy in the form of electricity and natural gas for the operation of buildings and infrastructure (heating, cooling, lighting, water demand and wastewater treatment, consumer electronics, and other energy needs) and gasoline, diesel, natural gas, and electricity (to charge plug-in EVs) for vehicles traveling to and from the project site. The project would also require energy from natural gas use for on-site forklifts and yard trucks associated with warehousing activities.

The project’s estimated building and infrastructure energy consumption was calculated in the WLC *Comparison of Renewable Energy Technologies* report (WSP, 2018). The energy usage required for project building and infrastructure operations is estimated based on the net change in energy demand from the new buildings and facilities compared to the existing uses (as described above, the existing energy usage is conservatively assumed to be zero). project building and infrastructure operations will consume energy directly through electricity used to power equipment and appliances on-site, and indirectly, through the demand for water. On-site energy usage takes into account building energy standards pursuant to the 2016 Title 24 Building Standards Code and CALGreen Code, the sustainability measures in the WLCSP for which the effect can be quantified, and Mitigation Measures prescribed in the Revised Sections of the FEIR. Refrigerated warehouse space is not an allowed use within the WLC site (see Mitigation Measure 4.3.6.3E in the Revised Sections of the FEIR). Energy usage from water demand (e.g., electricity used to supply, convey, treat, and distribute) is based on predicted annual water demand rates (which in turn are based on the size and type of future land uses) and state-wide averages regarding the amount of electricity needed to pump, treat, and transport each gallon of potable water and sewage.

Energy for transportation from increased activities to, from, and on the WLC site is estimated based on the predicted number of trips and the estimated VMT per trip. Trip types include employees commuting to and from home, vendors and deliveries associated with operation of the future uses, trucks bringing goods to and from the proposed warehousing facilities, and off-road mobile equipment needed for cargo/material handling (fork lifts, etc.). The estimated fuel economy for on-road vehicles is based on fuel consumption factors from the CARB EMFAC emissions model. As discussed above, EMFAC is incorporated into CalEEMod, which is a state-approved emissions model used for the project's air quality and GHG emissions assessment. Therefore, this energy assessment is consistent with the modeling approach used for other environmental analyses in the Revised Sections of the FEIR and consistent with general CEQA standards. However, additional analysis was required to quantify the increased electricity use and decreased fuel use associated with higher fleet penetration of electric vehicles (EVs) expected with implementation of California's 2016 Mobile Source Strategy, which is not incorporated into EMFAC 2014 (for more information see next section on Technology Development).

CNG/LNG station fuel use was estimated based on assumptions outlined in the traffic study. The traffic study assumed all visits to the station were from trucks. The estimated number of CNG/LNG trucks visiting the station each day was multiplied by the typical tank size of a CNG/LNG truck and then calculated over the span of a year to result in annual fueling demand.

4.17.3.3 Renewable Energy

To supply the project with electricity, the *Comparison of Renewable Energy Technologies* report considered on-site and off-site options for integrating the use of renewable energy and optimizing onsite energy management. A comprehensive list of prospective energy resources was evaluated, and a screening process was applied to winnow the options down to those that hold the greatest potential for being successfully implemented at WLC. Screening criteria causing certain energy supply options to be discarded involved safety considerations, regulatory barriers, air emissions concerns and technical impracticalities. Several on-site supply options were deemed infeasible for WLC, including the use of biomass energy, biogas/landfill gas, district energy system, microgrid, in-line hydroelectric turbines in water transmission pipelines, natural gas pressure recovery, and local wind generation.

Onsite energy supply options considered feasible include ground-source heat pumps (GSHPs); combined cooling, heat, and power (CCHP); and solar photovoltaic (PV) with and without battery storage:

- GSHP is not recommended in the WLC location due to the cooling requirements within the building being much greater than the building heating needs as a result of year-round weather conditions at the WLC site. Such an imbalance would cause the geoexchange field (where excess heat removed from the building by the cooling process is transferred via piping into the ground) to grow increasingly warmer over time. This, in turn, would degrade GSHP performance in providing building space cooling.
- CCHP produces air emissions, resulting from the combustion of fossil fuels, that exacerbate the poor air quality of Moreno Valley and the entire South Coast Air Quality Basin. Furthermore,

CCHP increases the project's GHG emissions since it produces more GHG emissions than California's increasingly green grid.

- On-site solar PV generation is scalable and is becoming more cost competitive as project size increases.

As described in Section 4.17.5 (Project Design Features), the *Comparison of Renewable Energy Technologies* report (WSP, 2018) found that onsite rooftop PV systems without energy storage were determined to be the project's best sustainable clean energy supply option. Pursuant to the WLCSP, the rooftop solar PV generating capacity for the project will be designed at minimum to offset the power demands of office space contained in the building. In addition, the project proponent is committed to requiring on-site rooftop solar generating capacity up to the maximum level currently permitted by MVU, which is defined as one-half the minimum electric demand a building experiences during daytime hours.

To determine the specific allowable PV capacity at the WLC site, the *Comparison of Renewable Energy Technologies* report analyzed the hourly electric loads using energy simulation software. Phase 1 building simulation produced a minimum daytime electric load of about 600 kW. The minimum daytime electric load at buildout was simulated to be about 1,600 kW. The offices in each typical WLC building would consume about 474,120 kWh/yr in Phase 1 and experience a peak electric demand of about 280 kW. At buildout, the offices in each building would consume about 417,230 kWh/yr and experience a peak demand of about 270 kW. At the maximum solar PV generating capacity allowed by MVU, Phase 1 buildings could provide up to 300 kW (one-half the 600 kW minimum daytime electric load) and Phase 2 buildings could provide up to 800 kW (one-half the 1,600 kW minimum daytime electric load). This would generate approximately 512,275 kWh/yr and 1,366,400 kWh/yr per building for Phase 1 and Phase 2, respectively, which is more than sufficient to power 100% of the office energy needs.

4.17.3.4 Technology Advancement

Section 15144 of the CEQA Guidelines states "*Drafting an EIR or preparing a Negative Declaration necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can*." This essentially limits the requirement for forecasting to that which could be reasonably expected under the circumstances and is part of the effort to provide a general "rule of reason" for EIR contents. The following discussion, in conjunction with the regulatory drivers listed above, seeks to establish what is reasonably foreseeable with respect to technology advancements that may influence transportation energy use contemporaneous with development of the WLC project.

As spelled out in the California Energy Efficiency Strategic Plan, the state has ambitious goals for the development of zero net energy (ZNE) buildings (zero net energy consumption), including a goal for all new commercial construction to be ZNE by 2030. Most zero-energy buildings rely on the electrical grid during times when local demand exceeds supply, and return the same amount of power or more at other times. Some ZNE buildings utilize on-site energy storage and are thus independent of the grid. ZNE buildings usually harvest some amount of energy on-site using technologies like solar and wind, while reducing the overall use of energy with highly efficient HVAC and lighting technologies.

The ZNE goal for commercial buildings is becoming more practical as the costs of alternative energy technologies decrease, grids become "smarter" and the costs of traditional fossil fuels increase. As pointed out by the California Public Utilities Commission (CPUC) in their draft *Commercial ZNE Action Plan* (CPUC, 2017), the current commercial ZNE market is extremely small, with approximately 190 currently verified or designed ZNE commercial buildings in California, but is positioned to grow. As described in Section 4.17.5 *Project Design Features,* future updates to the Title 24 building standards are expected to require ZNE commercial buildings by the year 2030. By proactively embracing an all-electric building design and committing to solar-ready roof construction, WLC would be net-zero-ready and in a stronger position for compliance with future Title 24 updates.

Zero emission vehicle (ZEV) technology is developing rapidly for both light-duty and heavy-duty vehicles. ZEVs can be powered by grid electricity stored in a battery, by electricity produced onboard the vehicle through a fuel cell, or through electricity provided by sources outside the vehicle such as overhead catenary wires that are currently used for light rail and some transit buses. ZEVs achieve zero tailpipe emissions by utilizing electric drive to power the vehicle instead of fuel combustion, and achieve higher system efficiency compared to fossil fuel powered vehicles. Additionally, Low Carbon Fuels, such as biodiesel and natural gas, have achieved relatively high rates of market penetration in some specific commercial applications, such as fleet delivery trucks, public buses, and waste hauling.

Because the project is proposed to be developed over a long period of time, the assessment of future energy demand by fuel type may consider likely achievements related to the development and improvement of technologies to reduce or displace traditional fossil fuel energy consumption. The following scenarios were developed in the WLC Transportation Energy Technical Report (ESA, 2018) based on varying degrees of electric vehicles projected to be in use at the time of the project's Phase 1 development in 2025 and full buildout in 2040 and their effects on overall project energy use. These scenarios form the basis for considering the project's potential impacts to energy consumption and generation in Section 4.17.7 Impacts Analysis:

Vehicle Scenario A: Low EV Penetration

Scenario A reflects the vehicle technology assumptions built into the EMFAC model that is the standard for use in CEQA analysis to calculate emission rates from motor vehicles operating on highways, freeways and local roads in California. It also reflects the requirements of current state building code, which stipulates that 6 percent of parking spaces be constructed to accommodate the future installation of EV charging stations (see Table 4.17-1). This scenario assumes no increase in the stringency of the construction requirement, as any change in the regulatory minimums would be purely speculative at this time. Scenario A also assumes that charging stations would be installed for charging passenger vehicles, and that there would be no charging of light duty truck EVs (or any other size trucks). The number of EV stations needed for 2025 and 2040 were determined using the following data and assumptions.

Table 4.17-1: EV Charging Station Requirements at WLC

Stage of Development	WLC WAREHOUSE BUILDINGS			WLC PARKING REQUREMENTS		
	Total Bldg SF	Avg Bldg SF (approximate)	# Bldgs	Avg per Bldg	WLC Total	EV Charging Equipped (6%)
Phase 1 - 2025	22,946,000	1,500,000	15.3	584	8,781	527
Full build out - 2040	40,600,000	1,500,000	27.1	575	15,536	932

For determining the breakdown of vehicle types and fuels powering the fleet, Scenario A relies on EMFAC 2014, which forecasts a statewide EV population of 1.08 million zero emission passenger vehicles by 2025 (4.6% of total) and 3.14 million by 2040 (10.5%).[12] For the South Coast Air Basin, the EMFAC 2014 forecasts very similar percentages of passenger EV populations at 4.6% by 2025 and 10.5% by 2040. Using these figures for the South Coast Air Basin, the number of passenger EVs estimated to access the project site daily under Scenario A were determined to be 533 for Phase 1 (2025) and 2,058 for full build-out in 2040. For Phase 1 under Scenario A there would be approximately the same number of parking spaces pre-constructed for installing EV charging stations as there would

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[12] As interpreted by the project traffic modeling, passenger vehicles include all Light Duty Automobile (LDA) and Light Duty Truck (LDT) category vehicles in EMFAC

be EVs visiting the site each day. At full buildout, the number of EVs expected each day would be approximately double the parking spaces pre-constructed for charging stations.

Scenario A energy demand calculations assume that passenger EVs would have an average battery size of 100 kWh in the year 2025, equating to an average charge capacity of 80 kWh (80 %). Passenger cars in 2040 would have an average battery size of 200 kWh, equating to an average charge capacity of 160 kWh (80 %).

Scenario A assumes that half of the passenger EV population on site each day would charge their batteries to full capacity. If Level 2 AC chargers with a minimum charging rate of 19.2 kW (highest rate currently available) were provided, it would take approximately 4 hours to fully charge a vehicle with a 100 kWh battery. If the site was served by DC power blocks that spread the power delivery across multiple vehicles simultaneously in response to site energy management requirements, the charging time could be much faster. DC power blocks provide power at up to 500 kW, but it is reasonable to assume an average charging rate would be 100 kW, resulting in a charging time of approximately 48 minutes for a vehicle with a 100 kWh battery. At that rate, 932 charging stations at full buildout could charge thousands of vehicles per day, assuming vehicles move in and out of the EV charging parking spaces throughout the day.

Peak electricity loads for servicing the EVs were provided by WSP in their World Logistics Center *Comparison of Renewable Energy Technologies* report (WSP, 2018).[13]

Vehicle Scenario B: Medium EV Penetration (Scoping Plan Scenario)

This scenario reflects the same assumption regarding electric vehicle charging infrastructure as used in Scenario A (EV charging stations will be installed at 6 percent of parking spaces by the completion of Phase 1) but with higher electric vehicle populations consistent with the goals of California's 2017 Scoping Plan Update and 2016 Mobile Source Strategy, which are both designed to enable statewide attainment of the SB 32 GHG Target of 40 percent below 1990 levels by 2030. For Scenario B, the higher numbers of EVs include passenger vehicles and light trucks, and result in a higher vehicle charging load for the project.

The passenger EV population estimates are aligned with Governor Brown's Executive Order calling for 1.5 million ZEVs by 2025 (5.8 percent of total passenger vehicles), and the Mobile Source Strategy calling for 4.2 million ZEVs by 2030 (16.1 percent of total passenger vehicles). The passenger EV population estimate for 2040 is based on the conservative assumption that the EV population increase from 2025 to 2030 due to the Mobile Source Strategy (448,000 more EVs per year than assumed by EMFAC 2014) continues after 2030 through the year 2040. Based on that rate, as described in the WLC Transportation Energy Technical Study, there would be approximately 8.7 million ZEVs in operation statewide by 2040 (29 percent of total). Assuming the passenger EV percentages would be the same in the South Coast Air Basin, the project would be visited by 659 passenger EVs per day by 2025 and 5,795 passenger EVs by 2040.

The light duty truck EV populations estimates for 2025 and 2040 were provided by CALSTART, based on CARB's *Proposed Fiscal Year 2017-18 Funding Plan for Clean Transportation Incentives*,[14] and CALSTART's analysis of existing and potential regulations related to zero emission trucks (for more details please refer to the *WLC Vehicle Energy Technology Report*). CALSTART's Zero Emission Transformation model was used as a basis in estimating that 10 percent of the light duty trucks will be

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[13] As explained in the WSP report, peak EV charging rate was estimated by allocating the annual electricity consumption of EVs according to the building operating schedules. The resulting peak electric load imposed by EV charging is about 25% of the aggregate nameplate capacity of all charging stations. This result agrees quite well with industry expectations that charging blocks managed with automated 'smart' controls will reduce the coincident peak demand to 20-25% of the aggregate capacity of the individual charging stations.

[14] Available at: https://www.arb.ca.gov/msprog/aqip/fundplan/proposed_1718_funding_plan_final.pdf

electric by 2025 and that the population would grow to 25 percent by 2040. Scenario B assumes there would be no medium duty or heavy duty EV trucks associated with the project.

Charging loads for the light truck category were determined using the daily mileage estimates and average kWh/mile consumption for each vehicle category, using data from the U.S. Department of Energy's Alternative Fuels Data Center.[15]

Like Scenario A, Scenario B assumes that passenger EVs in 2025 would have an average battery size of 100 kWh, and by 2040 they would have an average battery size of 200 kWh. Due to the higher EV populations the demand for fast charging will be higher, and it is reasonably assumed that DC power blocks, which manage power delivery across multiple vehicles simultaneously in response to site energy requirements, would be the appropriate chargers at the site to handle the increased loads. Like Scenario A, it is assumed that the average charging rate for DC power block chargers would be 100 kW. At that rate a 200 kWh battery (160 kWh capacity) would take approximately 96 minutes to charge. 932 charging stations at full buildout could charge thousands of vehicles per day, assuming vehicles move in and out of the EV charging parking spaces throughout the day.

Peak electricity loads for servicing the EVs were provided by WSP in their World Logistics Center *Comparison of Renewable Energy Technologies* report (WSP, 2018).

Vehicle Scenario C: High EV Penetration

Scenario C is the same as Scenario B with respect to passenger and light truck EVs, but includes estimates for medium duty and heavy duty EV trucks based on CALSTART's zero-emission transformation model that takes into account how nascent zero emission solutions, namely technologies from the transit bus segment, evolve and transition into other medium- and heavy-duty categories. As with the light duty truck estimates, the projections take into account funding programs, sales trends, technology development, and upcoming regulations. In addition, the estimates consider regulatory and commercialization studies completed by CALSTART, including potential regulations related to zero emission drayage trucks and access by zero emission trucks to city centers.

CALSTART's zero emission transformation model indicates that 10 percent of medium-duty and 20 percent of heavy-duty trucks servicing the South Coast Air Basin could feasibly be EVs by 2025; by 2040, the forecasts indicate that 40 percent medium-duty and heavy-duty trucks could be EVs. Charging loads for the light truck category were determined using the daily mileage estimates and average kWh/mile consumption for each vehicle category, using data from the U.S. Department of Energy's Alternative Fuels Data Center.[16]

4.17.4 Thresholds of Significance

4.17.4.1 Appendix F of the State CEQA Guidelines

Appendix G of the State CEQA Guidelines does not provide specific thresholds for the evaluation of impacts related to energy resources. Appendix F of the CEQA Guidelines was prepared in response to the requirement in Public Resources Code Section 21100(b)(3), which states that and EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy."

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[15] https://www.afdc.energy.gov/

[16] https://www.afdc.energy.gov/

- A project would result in significant impacts with regard to energy use and consumption if it would cause wasteful, inefficient, and unnecessary consumption of energy. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:
  1) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed (Appendix F Section II C-1).
  2) The effects of the project on local and regional energy supplies and on requirements for additional capacity (Appendix F Section II C-2).
  3) The effects of the project on peak and base period demands for electricity and other forms of energy (Appendix F Section II C-3).
  4) The effects of the project on energy resources (Appendix F Section II C-5).
  5) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives (Appendix F Section II C-6).
- A project would result in significant impacts with regard to energy use and consumption if it would require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.
- A project would result in significant impacts with regard to energy use and consumption if it would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:
  1) The degree to which the project complies with existing energy standards (Appendix F Section II C-4).

4.17.5 Project Design Features

The WLCSP incorporates Project Design Features (PDFs) including sustainable development standards that minimize energy consumption, conserve water, and use recycled or sustainable building materials, where feasible. The WLCSP provides developers with a specific framework for identifying and implementing a variety of practicable and measurable green building measures into the design, construction, operations, and maintenance of each development. Pursuant to the WLCSP, all new development within the project site will be required to meet the California Building Energy Standards in effect at the time construction commences or be 10% more stringent than 2008 standards, whichever results in lowest energy use. In addition, WLC buildings will be designed to be "solar ready" (i.e., structural upgrades to allow the installation of solar photovoltaic systems on the roof of each building), and the WLCSP includes a commitment that the energy requirements of all office space will be supplied with rooftop solar energy systems.

Building Energy

As outlined in the WLCSP, the project will incorporate sustainable design features to save energy and reduce its environmental footprint, including but not limited to:

- Reduced water use for landscape irrigation,
- Street designs that harvest and channel runoff into landscape areas instead of storm drains,
- Accommodate the use of alternative means of transportation,
- Use recycled building materials to the extent feasible,

- Use local sources of building materials to the extent feasible,
- Support waste management reduction identified in AB 341.
- Minimize the use of impervious paved surfaces throughout the project,
- Incorporate on-site storm water capture and infiltration within landscape areas,
- Support alternative fuel use through the provision of an on-site alternative fueling site, and
- Provide for the use of roof-mounted solar systems or other alternative power systems.

The WLCSP specifies that all buildings of at least 500,000 square feet (representing more than 99 percent of total project square footage at buildout) shall be designed to meet or exceed the LEED Certified Building Standards and that buildings will be designed to accommodate renewable energy systems. The design of the WLC will pursue these goals by incorporating design features such as, but not limited to, the following:

Building Design and Construction Features:

- Construct “Solar ready” rooftops for buildings;
- Implement design and construction techniques will be employed to reduce the heat island effect, including the use of materials that have a low solar reflectance index such as white roofs and light-colored pavements;
- High performance glazing, overhangs, and landscaping to capture and control natural daylight;
- Use of atriums, skylights and internal courtyards to provide additional daylighting;
- Use of renewable materials and building materials with recycled content where feasible;
- Develop waste management plan and a comprehensive recycling and management program to divert at least 50 percent of waste from landfill, including storage and collection of recyclables, building and material reuse, and careful construction waste management;
- Incorporate the use of passive heating and cooling into the design or modification of the high-cube warehouse development (e.g., white building colors and roof insulation to minimize heat gain, and landscaping to help shade buildings);
- Install outdoor electric outlets to accommodate the use of electrical property maintenance equipment (Section 12.4 of the WLCSP);
- Install advanced irrigation systems, drought-tolerant plants, the use of mulch, recycled and other permissible alternative sources of water, and turfless plantings with decorative hardscape materials such as rock and other materials that do not require potable water sources.

Transportation Features:

- Accommodate alternate forms of transportation including, public transportation (bus), charging stations for electric cars, carpooling, and bicycles.
- Construct sidewalks and a multiuse trail for pedestrian circulation;
- Promote the riding of bicycles, through the provision of bike racks/storage, showers and changing rooms; and
- Design streets to accommodate bus service – Riverside Transit Agency (RTA) does not currently operate any routes in the immediate vicinity of the WLC. RTA will determine if and when bus service will be provided.

Solid Waste Diversion Features:

- Require that all development within the project provide enclosures or compactors for trash and recyclable materials per Specific Plan (Section 5.1.6).

In addition to the prescriptive Building Design and Construction Features, Transportation Features, and Solid Waste Diversion Features listed above, the Applicant commissioned the WLC *Comparison of Renewable Energy Technologies* report (WSP, 2018) to compare feasible, cost-effective renewable energy technologies that could be incorporated into the project design. The report evaluates additional project design options for the WLC that could improve energy performance and increase the use of renewable energy. The screening criteria used to evaluate feasibility include GHG emissions, resiliency, financial constraints, technical constraints, and regulatory constraints. Both on-site and off-site sources of renewable energy were considered.

As an overall strategy, the report recommends eliminating the need for natural gas in building systems and maximizing onsite renewable electricity generation to position the WLC to become an all-electric development that has the future potential to operate 100% on renewable electricity.[17]

Recognizing that energy efficiency is the least-cost sustainable energy resource available, the *Comparison of Renewable Energy Technologies* report recommends implementing all feasible and cost-effective energy conservation measures (ECMs) before determining the feasibility and cost-effectiveness of renewable energy supply options. In addition to reducing energy demand associated with the project, improving the energy efficiency of the buildings will reduce the additional electrical distribution capacity that must be built to supply the project, and help minimize expansion of the electricity distribution infrastructure (e.g., substation and transformer) and the associated local distribution capital costs. To that end, the report identifies feasible and cost-effective ECMs that go beyond the PDFs in the WLCSP and can further reduce building energy consumption beyond the minimum requirements of the current (2016) Title 24 energy code, and help achieve or exceed LEED Certified Building Standards. The ECMs address internal loads, such as lighting and equipment, as well as the energy required to provide heating, cooling, and domestic hot water. Key ECMs in the recommended package that go beyond the PDFs in the WLCSP are variable refrigerant flow (VRF) heat pumps providing heating and cooling to the office spaces, direct evaporative cooling as the first cooling stage and VRF as the supplemental cooling stage for air-conditioned warehouse spaces, LED lighting throughout the offices and warehouses, and LED exterior and parking lot lighting. If fully implemented by the project, the ECMs in combination with the WLCSP PDFs are expected to deliver energy performance that exceeds the current minimum Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout:

Building Envelope:

- Optimal Vertical Fenestration Construction
- Optimal Skylight Construction
- Optimal Window to Wall Ratio
- Optimal Skylight to Roof Ratio

Exterior Loads:

- LED exterior lighting
- Daylight sensor based exterior lighting

Internal Equipment Loads:

- Automatic Receptacle Control

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[17] The State of California is expected to require net-zero energy (ZNE) buildings in future updates to Title 24 building standards. By proactively embracing an all-electric building design and committing to solar-ready roof construction, WLC would be net-zero-ready and in a stronger position for compliance with future Title 24 updates.

- Highest Efficiency Office Equipment
- Highest Efficiency Other Internal Loads

Lighting:

- Multi-Level Switching
- High Performance Lighting (LED)
- Use separate controls for lighting areas near windows
- Occupant sensors

Daylighting:

- High-on-wall continuous daylighting windows/clerestory windows
- Optimal Daylighting Control
- Dimming daylight controls

HVAC:

- Thermostat setback/setup
- Shut off outdoor air and exhaust air dampers during unoccupied periods
- Supply air temperature reset
- High Performance Fans
- Variable Speed Fans
- High efficiency pumps
- Variable Speed Pump motors
- Reduce service water consumption
- Efficient service water pumping
- Integrated and optimized air side economizer
- Direct Evaporative Cooling
- Variable refrigerant flow heat pump & cooling
- Dedicated Outside Air System Ventilation with Heat Recovery
- Demand controlled ventilation/CO2 controls

On-Site Renewable Energy

The WLC Specific Plan commits the WLC project to meeting the annual energy requirements of all office spaces with PV, thereby effectively achieving net-zero energy (NZE) office operations. The *Comparison of Renewable Energy Technologies* report estimates that the offices in each typical WLC building would consume about 474,120 kWh/yr in Phase 1 and experience a peak electric demand of about 280 kW. At buildout, the offices in each building would consume about 417,230 kWh/yr and experience a peak demand of about 270 kW. The report also found that the maximum allowed amount of PV capacity/building in Phase 1 (300 kW) will generate about 512,275 kWh/yr at the WLC location. The maximum allowed amount of PV capacity/building at buildout (800 kW) will generate about 1,366,400 kWh/yr. These maximum allowed PV capacities are sufficient in both Phase 1 and buildout to satisfy 100% of the office energy needs, thereby meeting the NZE objective for WLC office space.

A system that combines PV with battery storage of excess solar generation was considered, but the MVU solar sizing limitations and the estimated WLC project demands do not result in excess solar generation that could be used to charge a battery. In addition, MVU's Time-of-Use rate structure is not compatible with the project's peak electrical usage (load curve) making the use of batteries to deliver any meaningful reduction an unviable option.

Considering the air emissions constraints, MVU rate structures, project electric load curves, and MVU PV sizing rules, rooftop PV systems without energy storage were determined to be the project's best sustainable clean energy supply option. The use of PV in each phase of the WLC project would cover both the peak electric load generated by the offices and the annual energy usage of the offices. Utilizing the maximum permitted amount of rooftop PV would enable the project office spaces to achieve effectively ZNE operations. Project Design Features include roofs with the structural integrity that can accommodate the possibility of future solar installation over the entire roof of each building. At a minimum, the project will install enough solar power in both phases to meet energy needs of the project's office spaces.

The *Comparison of Renewable Energy Technologies* report found that the use of on-site battery storage and vehicle-to-grid (V2G) technology[18] are not viable under current regulatory and economic conditions. MVU currently has no policies or rules that would allow WLC to use battery storage to increase usage of solar electricity. V2G technology is not yet commercialized, and MVU rules and rate structures would need to change to accommodate V2G technology and to incentivize EV owners to make their vehicle's batteries available while the vehicle is parked.

Off-Site Renewable Energy Procurement

While WLC tenants are expected to purchase electricity from MVU, there are multiple off-site renewable electricity procurement options available to them, if they are willing to incur the associated price premium. Understanding the risk profiles, market credibility, and regulatory implications of different renewable energy procurement options is paramount to making an informed decision. WSP evaluated the following options:

- Unbundled renewable energy certificates (RECs);
- Power purchase agreements (PPAs);
- Community choice aggregation (CCA);
- Green tariffs.

There is no one-size-fits-all recommendation for WLC tenant procurement of off-site renewable energy. Each tenant's circumstances are likely to be unique, so the best off-site procurement option for one tenant may very well not be the best option for another tenant.

To meet the Project Objectives and the City's Economic Development Objectives (see Section 1.3.1 of the WLC Specific Plan), WLC must establish and maintain a competitive position in the marketplace. The price premium associated with off-site renewable energy procurement would increase WLC tenant utility costs and thus run counter to the Project Objectives and the City's Economic Development Objectives. It would therefore be counterproductive to require WLC tenants to procure renewable energy from off-site sources. For these reasons, the concept of requiring a tenant to procure off-site renewable energy was not considered a viable sustainable supply option to impose on the project.

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[18] A V2G system uses the on-board battery packs of parked electric vehicles as distributed energy resources to store electricity for use during peak electricity demand periods. In the future, it is expected that smart controls on EV charging stations will enable each EV owner to decide whether or not to allow V2G charging and discharging of the EV's battery pack.

Transportation Energy

For transportation energy, the *Transportation Energy Technical Study* (ESA, 2018) was conducted to compare feasible, cost-effective options for integrating the use of renewable energy and improving the overall energy performance of transportation operations associated with the WLC project. The Transportation *Energy Technical Study* considered a wide range of fuel and vehicle options across all vehicle classes, and assessed feasibility based on applicability to the project, relative cost, commercial readiness, funding availability, policy and regulatory support, potential industry partners, and other factors.

The *Transportation Energy Technical Study* found that zero emission vehicle (ZEV) technology is steadily developing for both light-duty and heavy-duty vehicles, driven by both regulatory developments and market forces. ZEVs encompass a range of technologies including battery electric vehicles (BEVs), hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and range extended electric vehicles (REEVs) that utilize a fuel cell as an additional energy source. As outlined in the *Transportation Energy Technical Study* and summarized in the Vehicle Scenarios above, commercialization of passenger vehicles is occurring rapidly. A significant population of passenger EVs is expected at the site by Phase 1 (2025) and that number will increase substantially by full buildout of the project (2040), representing a potential significant demand for on-site charging. The study also found that development of electric medium- or heavy-duty vehicles is still in the pilot or demonstration phase and it is not possible to predict when they will become commercially available.

Although it is speculative to state what the regional fleet mix will be as each phase of the project is completed, and the adoption of ZEVs by WLC employees and customers will be beyond the direct control of the WLC, all EV types should be anticipated in planning for the onsite charging infrastructure. To that end, the project will construct the WLC parking areas with cable raceways for installing future EV charging stations, which will enable WLC to more readily and cost effectively provide this service to future tenants if and when demand dictates.

4.17.6 Mitigation Measures

In addition to the PDFs regarding energy conservation and renewable energy, the Revised Sections of the FEIR include the following mitigation measures for other environmental impacts that reduce potential impacts of the WLC project relative to energy use. The complete mitigation measures below can be found in the Executive Summary.

Air Quality Mitigation Measure 4.3.6.2A (construction fuel) would require that construction equipment greater than 50 horsepower be USEPA Tier 4 emissions compliant and limits on-site idling of all diesel-powered construction equipment, delivery vehicles, and delivery trucks to three minutes in any one hour.

AQ Mitigation Measure 4.3.6.3B (long haul trucks). Require model year 2010 medium-heavy duty and heavy-heavy duty trucks or later.

AQ Mitigation Measure 4.3.6.4A: Includes several measures related to bicycle and pedestrian facilities and infrastructure, electric vehicle infrastructure, and ridesharing as conditions to any Plot Plan approval within the WLC site.

Utilities Mitigation Measure 4.16.1.6.1A would reduce outdoor water usage which in turn reduces energy use associated with the conveyance of that water.

Utilities Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.

Utilities Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.

Greenhouse Gas Mitigation Measure 4.7.6.1A (waste diversion). Recycling and composting availability and reduce operational waste by at least 50 percent before 2020 and 75 percent after.

Greenhouse Gas Mitigation Measure 4.7.6.1B (Previously Included as Utilities Mitigation Measure 4.16.4.6.1A for building energy). Each application for a building permit shall include energy calculations to demonstrate compliance with California Energy Efficiency Standards (Title 24, Part 6).

Greenhouse Gas Mitigation Measure 4.7.6.1C (Previously Included as Utilities Mitigation Measure 4.16.4.6.1B building energy). Prior to the issuance of any building permits within the WLC site, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards, for each new structure.

Greenhouse Gas Mitigation Measure 4.7.6.1D (Previously Included as Utilities Mitigation Measure 4.16.4.6.1C building energy; now modified). Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

- Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building or up to the limit allowed by MVU's restriction on distributed solar PV connecting to their grid, whichever is greater;
- Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more stringent; and
- Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

4.17.7 Less than Significant Impacts

4.17.7.1 Energy Consumption and Generation

Threshold	Would the proposed project result in energy use and consumption that would cause wasteful, inefficient, and unnecessary consumption of energy?

4.17.7.1.1 Construction

Electricity

Electrical power would be consumed to construct the project. Electricity would be supplied by MVU, with electrical service extended to specific construction sites from existing infrastructure throughout the WLC site area, as warranted. Specifically, construction offices and security lighting are expected to be powered by MVU- provided electricity. However, diesel powered generators are expected to be used to power tools in remote portions of the construction sites (diesel use discussed below). The City's noise ordinance generally restricts construction during nighttime hours (See Section 4.12.3, the City of Moreno Valley Noise Ordinance as well as Section 4.12, *Noise*, in the Revised Sections of the FEIR), which would minimize the need for nighttime lighting.

However, on-site construction activities are expected to occur outside of the allowed construction hours specified in the City of Moreno Valley Noise Ordinance. The operation of each piece of off-road equipment within the on-site construction areas (i.e., Plots 1 through 22) would not be constant throughout the day, as equipment would be turned off when not in use. Most of the time over a typical work day, the equipment would be operating at different locations within the various plots of the project site and would be largely intermittent. Should 24-hour concrete pouring occur, the project would use light carts powered by diesel to illuminate pouring areas. The light carts used for continuous pouring are included in the construction transportation energy analysis below.

The project would require electricity for water conveyance during ground-moving activities. The project site spans 2,600+ acres and would require a relatively large amount of water to cover the affected construction areas. Electrical consumption due to the conveyance of water used for dust control is presented in **Table 4.17-2**, below.

Table 4.17-2: WLC Project Construction Electricity Use

Source	Electricity (MWh per year)
Water Conveyance from Dust Control and Grading (Annual Average over 15-16 year construction period)[b]	1,496
2020 MVU Electricity Sales (MVU 2016)	**312,786**
% of MVU Electricity Usage	**0.48%**

SOURCE: ESA 2018; MVU 2016

NOTES:

[a] Moreno Valley Utility, 2015/16 Annual Report (2016). Available at: http://www.moreno-valley.ca.us/resident_services/utilities/pdfs/mvuAnnualReport0217.pdf. Accessed April 2018.

[b] Derived from estimated construction water use in CalEEMod runs from 2015 FEIR.

Water use related to dust control is regulated under SCAQMD's Rules 402 and 403 and is required to limit fugitive particulate matter generated by construction activities. The project would be in compliance with Rules 402 and 403 and would require a relatively large amount of water to cover the entire acreage of the project site. However, the expected electricity consumption associated with water use equates to only 0.48 percent of MVU's forecasted sales for 2020 (expected starting year of construction).

The electrical demand would vary throughout the construction period based on the construction activities being conducted. Additionally, when not in use, electrical equipment would be powered off to avoid unnecessary energy consumption.

Therefore, since electricity from water conveyance represents a relatively negligible percentage of total electricity use, and night construction activities would be intermittent and would not require electricity, construction activities would not result in the wasteful, inefficient, and unnecessary consumption of electricity, and impacts would be less than significant.

Natural Gas

Natural gas is not expected to be consumed in any substantial quantities during construction of the WLC project. Therefore, related to the consumption of natural gas during construction, the project would have no impact.

Transportation Energy

The estimated fuel usage for off-road equipment is based on the number and type of equipment that would be used during construction activities, hour usage estimates, the total duration of construction activities, and hourly equipment fuel consumption factors from the OFFROAD model. On-road equipment would include trucks to haul material to and from the project site, vendor trucks to deliver supplies necessary for project construction, and fuel used for construction worker commute trips. A summary of the annual fuel consumption during construction of the project is provided in **Table 4.17-3**, *WLC Project Construction Fuel Usage*. As shown in Table 4.17-3, on- and off-road vehicles would consume an estimated annual average of 1,375,582 gallons of diesel fuel and 36,139 gallons of gasoline for each year of project construction.

Table 4.17-3: WLC Project Construction Fuel Usage

Source	Diesel Fuel (gallons per year)	Gasoline Fuel (gallons per year)
Construction:		
Heavy-Duty Construction Equipment	1,212,964	—
Haul Trucks	94,155	—
Vendor Trucks	68,463	—
Worker Trips	—	36,169
Annual Average (approximately up to a 15-16 year construction duration)	**1,375,582**	**36,169**
2016 Riverside County Fuel Sales (CEC 2016)	**273,000,000**[a]	**1,035,000,000**[b]
% of County Usage	**0.50%**	**0.0035%**

SOURCE: ESA 2018; CEC 2016

NOTES:

[a] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[b] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

Compliance with the anti-idling regulation and the use of cleaner, more energy efficiency construction equipment would reduce the project's annual average diesel fuel usage. As discussed previously, construction of the project would utilize fuel efficient equipment consistent with state and federal regulations, and would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy. While these regulations are intended to reduce construction emissions, compliance with them would also result in energy savings.

In addition, the project would implement a construction waste management plan to divert 50 percent of mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the AB 341. Implementation of the construction waste management plan will likely reduce truck trips to landfills and/or material recovery facilities and increase the amount recycling and reuse of materials.

Based on the available data, construction would utilize energy for necessary on-site activities and to transport construction materials and demolition debris to and from the project site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and thus result in the efficient use of the project's construction-related energy.

Construction of the WLC project would benefit from California's Pavley/ACC standards that are designed to result in more efficient use of transportation fuels, because they would affect the vehicles used by workers and any light duty trucks used by vendors or haulers. These vehicle efficiency standards are the most stringent in the nation and among the most stringent in the world. In addition, the project would reduce fuel use by requiring that construction equipment greater than 50 horsepower be USEPA Tier 4 emissions compliant and by limiting on-site idling of all diesel-powered construction equipment, delivery vehicles, and delivery trucks to three minutes in any one hour, as specified in Mitigation Measure 4.3.6.2A.

As shown in Tables 4.17-3 above, transportation fuel usage during construction represents approximately 0.0035 percent of annual gasoline usage and 0.50 percent of annual diesel usage within Riverside County, respectively, representing a small fraction of the County's total fuel demand. In conjunction with California's stringent vehicle efficiency standards, the project would not result in the wasteful, inefficient, and unnecessary consumption of energy.

4.17.7.1.2 Operation

Electricity

The WLC project would increase demand for electricity due to consumption by buildings, water supply and conveyance, and EV charging. The project's operational electricity demand was estimated for Phase 1 and Full Buildout by considering a Baseline scenario (minimum Title 24 compliance) and three project scenarios based on the Electric Vehicle Scenarios presented earlier. The project scenarios (Low, Medium, and High EV Penetration) all incorporate the energy conservation PDFs. The following assumptions were incorporated into the scenarios:

- The Title 24 Baseline scenario is based on the project's annual energy use being in minimum compliance with Title 24, including the Title 24 Part 6 requirement for the building energy efficiency and the Part 11 requirement that 6 percent of employee and visitor parking spaces be constructed to accommodate electric vehicle supply equipment (EVSE) for future electric vehicle charging. The Baseline scenario assumes that EV charging stations will be installed at 6 percent of the parking spaces by the time the project becomes operational.

- The project incorporates the Energy Conservation Measures (ECMs) from the WLC *Comparison of Renewable Energy Technologies* report[19] that would enable the project to exceed Title 24 energy standards by approximately 17 percent at Phase 1 and 16 percent at full buildout. As with the Title 24 Baseline Scenario, the project also assumes that EV charging stations will be installed at 6 percent of the parking spaces by the time the project becomes operational.

- The project implements the commitment to install rooftop solar PV generation designed so as to produce an amount of electricity equal to the power needs for the projected ancillary office portion of the warehouse buildings or up to the limit allowed by MVU's restriction on distributed solar PV connecting to the grid, whichever is greater.

The project's estimated operational electricity demand is provided in **Table 4.17-4**, *WLC Project Operational Electricity Usage* the for the Title 24 Baseline Scenario and the three Electric Vehicle Scenarios.

As discussed above and shown on Table 4.17-4, the project implements commitments and strategies to lower electricity consumption needed for buildings (e.g. lighting, cooling, power equipment, and water conveyance). In 2025, electrical demand will be lowered with implementation of sustainability measures such as high efficiency lighting and appliances, skylights, and motion sensors, etc. As discussed above, the project would comply with and exceed the applicable provisions of Title 24 and the CALGreen Code in effect at the time of building permit issuance and buildings over 500,000 sf (representing more than 99 percent of total project square footage at buildout) will be LEED certified. Reliance on grid-supplied power is further offset by the generation of 12 MW of power through on-site rooftop solar PV. Thus, the Project + Low EV Penetration (Scenario A) uses approximately 14 percent less electricity than the baseline demand scenario. In 2040, the Project + Low EV Penetration Scenario would use approximately 15 percent less electricity than the 2040 Baseline Scenario.

Although the Project + Medium EV Penetration Scenario would require more power than the Project + Low EV Penetration Scenario, the net electrical demand on MVU would still be 12 percent less than the Baseline Scenario for 2025 due to the ECMs and on-site solar PV generation. For 2040, electricity use would be 15 percent more than the Baseline Scenario due to the much higher EV penetration rates for light duty passenger cars consistent with the 2016 Mobile Source Strategy.

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[19] Referred to as Energy Conservation Measures (ECMs) in the *Comparison of Renewable Energy Technologies* report.

Table 4.17-4 WLC Project Operational Electricity Usage

Source	Phase 1 - 2025 (MWh/yr)	Full Buildout - 2040 (MWh/yr)
MVU Electricity Forecast Sales (2024)[a b c]	**352,044**	**-**
	Title 24 Baseline Scenario	
Building annual electricity [d]	194,287	330,649
EV charging annual electricity [e]	7,775	60,116
Total	**202,062**	**390,765**
% of MVU Forecast	**57%**	**-**
	Project + Low EV Penetration (Scenario A)	
Building annual electricity [d]	174,423	298,084
EV charging annual electricity [e]	7,775	60,116
Electricity Savings from Solar PV [f]	-7,686	-24,083
Total	**174,512**	**334,117**
Change from Baseline	-27,550	-56,648
% Change from Baseline	**-14%**	**-15%**
% of MVU Forecast	**50%**	**-**
	Project + Medium EV Penetration (Scenario B)	
Building annual electricity [d]	174,423	298,084
EV charging annual electricity [e]	10,687	174,279
Electricity Savings from Solar PV [f]	-7,686	-24,083
Total	**177,424**	**448,280**
Change from Baseline	-24,638	+57,515
% Change from Baseline	**-12%**	**+15%**
% of MVU Forecast	**50%**	**-**
	Project + High EV Penetration (Scenario C)	
Building annual electricity [d]	174,423	298,084
EV charging annual electricity [e]	96,619	485,017
Electricity Savings from Solar PV [f]	-7,686	-24,083
Total	**263,356**	**759,018**
Change from Baseline	**+61,294**	**+368,253**
% Change from Baseline	**+30%**	**+94%**
% of MVU Forecast	**75%**	**-**

NOTES:

Scenario A through C's building energy is different from the baseline due to Project Design Features that exceed Title 24 energy standards. The baseline scenario complies with but does not exceed standards.

[a] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015.

[b] Electricity sales forecasts only available up to 2024 in MVU's IRP.

[c] Since MVU's forecast only extends until 2024, it is not possible to adequately estimate electricity use in 2040 and compare to future project use.

[d] Source: Evans, 2018; electricity consumption numbers estimated by WSP, as communicated by email (subject: WSP draft inputs – Building electricity) from Evan Evans to Jeff Caton on June 29, 2018.

[e] Source: ESA and CALSTART, 2018

[f] Source: WSP, 2018

In the Project + High EV Penetration Scenario, total electrical demand driven by populations of EV trucks would exceed total electrical demand in the Baseline Scenarios for 2025 and 2040; however, a substantial reduction in the use of liquid transportation fuels (diesel and gasoline) would also be expected (see discussion below). Replacing VMT powered by the combustion of diesel and gasoline fuels with EV-generated VMT, especially as electricity becomes less GHG-intensive under the State's RPS, has the added advantage, or co-benefit, of reducing the emission of harmful air pollutants such as particulate matter (PM) and oxide of nitrogen (NOx) associated with transportation.

The feasibility of using medium and heavy duty EVs for delivery of goods to or from the WLC is, to a great extent, dependent on the nature of the warehousing operations. For example, many warehouses implement the “drop and drag” procedure, where a truck will bring goods to the facility, and the trailer (or sea-going cargo container) will be disconnected and left on-site for the lengthy process of unloading. An empty trailer may be connected and the truck quickly departs to return to its point of origin. Conversely, an out-bound truck is usually scheduled to retrieve a delivery load only once the container/trailer is full. Thus, trucks are not on-site or idle for long enough times to obtain a meaningful battery charge. Medium-duty and heavy-duty zero emission trucks are in the very early stages of commercially market deployment and currently cost substantially more than conventionally fueled trucks, and current funding assistance programs do not fully offset that cost difference (ESA and CALSTART, 2018). Given that the future tenants of the WLC are not known and cannot be identified at this time, it would be speculative to assume the High EV Penetration Scenario would be practicable or feasible by 2025 or by 2040.

In regard to forecasting, such as done with EV penetration rates to generate the scenarios evaluated, the *Laurel Heights* Court commented that an agency is required to forecast only to the extent that an activity could be reasonably expected under the circumstances. The Court recognizes that an agency cannot be expected to predict the future course of governmental regulation or exactly what information scientific advances may ultimately reveal. *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal. 3d 376. Therefore, in light of the changes to market and regulatory drivers that would have to occur to make medium and heavy duty EVs widely implemented and feasible by 2025 or 2040 to the now unknown future tenants of the WLC, the potential for the electrical demand projected under the Project + High EV Penetration Scenario to materialize is highly speculative. CEQA Guidelines Section 15145 advise “*If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact*.” Therefore, any effects to energy resources from achieving the Project + High EV Penetration Scenario would be highly speculative, and associated analyses are presented herein for informational purposes only.

MVU forecasts that its peak demand in 2024, the furthest forecasted year in its 2015 IRP, would be approximately 352,044 MWh per year.[20] This is approximately 90 percent higher than the 185,000 MWh that MVU sold to all customers in its area for the 2015-2016 fiscal year. As shown in Table 4.17-4, the WLC project’s estimated electrical consumption would account for between 50 and 75 percent of MVU’s projected electricity projected sales depending on the EV penetration scenario for Phase 1 (2025). However, MVU’s 2015 IRP anticipates growth in the region and specifically considers the electrical demand generated by the project. The IRP states that a portion of the WLC project’s demand is incorporated into forecasted growth and MVU will monitor the development progress of the project. Therefore, it is reasonable to assume that MVU’s existing and planned electricity supplies could support the project’s electricity demand calculated for the Project + Low EV Penetration (Scenario A) and the Project + Medium EV Penetration (Scenario B) by 2025. Any determination of MVU’s need for additional capacity beyond what is planned would be speculative and depend on the cumulative demand within MVU’s service area.

As stated above, effects attributable to the Project + High EV Penetration Scenarios would be highly speculative, and could be as much as 75 percent of MVU’s projected forecast sales in 2024. Since the 2015 IRP only forecasts out to 2024, projecting MVU’s electricity use and supply for the full buildout 2040 Scenarios would also be highly speculative. MVU has a considerable amount of time to procure energy resources in anticipation of the project’s development, and has committed to taking the WLC project’s needs into consideration in future IRP development.

Based on MVU’s forecasts, the peak demand for their power grid in 2024 will be 79 MW.[21] The project’s annual peak demand from buildings is expected to be 34.9 MW in 2025 and 58.2 MW in 2040, as shown in Table 4.17-5, below. For the Low and Medium EV Penetration Scenarios, the total peak demand

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[20] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015.

[21] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015,

including EV loads could be 36 MW and 36.5 MW for 2025, respectively. By the year 2040, the annual peak demand for the Low and Medium EV Penetration Scenarios could total 67.3 KW and 84.6 KW, respectively. However, as stated above, forecasting project peak demand and MVU's peak demand for 2040 is highly speculative and would depend on cumulative demand. The peak demand for 2040 is included for informational purposes.

Table 4.17-5: WLC Project Annual Peak Demand

Source	Peak Demand (MW)	
	2025	2040
Building Demand	34.9	58.2
Scenario A Low EV Penetration	1.1	9.1
Total	**36.0**	**67.3**
Building Demand	34.9	58.2
Scenario B Medium EV Penetration	1.6	26.4
Total	**36.5**	**84.6**
Building Demand	34.9	58.2
Scenario C High EV Penetration	14.6	73.4
Total	**49.5**	**131.6**

SOURCE: WSP 2018 and ESA 2018

MVU's electrical generation is derived from a mix of non-renewable and renewable sources such as coal, natural gas, solar, geothermal, wind, and hydropower. MVU's 2015 Power Integrated Resources Plan identifies adequate resources to support future generation capacity, and a new 112 kV substation is proposed to be constructed within the WLC site. With regard to renewable energy sources, the project would use electricity provided by MVU, which MVU is required to meet the 2050 RPS. MVU's current source of renewable resources include wind, solar, and hydroelectric and account for 17 percent of MVU's overall energy mix for 2016 (the most current year data is available for).[22] The project itself is incorporating renewable energy sources with a minimum of 14.1 MW of rooftop solar at buildout to achieve a net-zero energy use for the estimated office demands. At full build-out WLC will feature the equivalent of twenty-seven 60,000 square-foot net-zero office buildings. To put this in context, the entire State of California has about 190 net-zero commercial buildings that are currently verified or designed as of 2017 (CPUC, 2017). This solar commitment would be within the solar PV limitations set by MVU.

In addition to the solar commitment the WLC project would implement energy performance improvement measures to exceed the current minimum Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent improvement at full buildout. Although the project would result in moderate increases in annual electrical demand compared to MVU's current supply, for the low and medium EV penetration scenarios, MVU is committed to meeting the project's electricity demand through a future IRP update and planning process. Therefore, with the incorporation of these features, operation of the project would not result in the wasteful, inefficient, or unnecessary consumption of electricity, would not cause a need for additional capacity regionally or locally, and would not affect electricity resources to the extent that electricity demand can reasonably be projected and assessed.

Building Natural Gas

The WLC project could increase the demand for natural gas resources through the project's commitment to a CNG/LNG fueling station,[23] but the project's operational natural gas demand from buildings is expected to be zero, as shown in Table 4.17-6. The project would mostly comprise high-cube warehouses that do not require heating from natural gas. The spaces that do require heating are ancillary office spaces. Because all heating and cooling is provided via direct evaporative cooling and heat pumps, natural gas is not required. This allows the project to reduce on-site fossil fuel combustion

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[22] California Energy Commission, Utility Annual Power Content Labels for 2016. http://www.energy.ca.gov/pcl/labels/. Accessed February 2018.

[23] For natural gas use from CNG/LNG fueling station, see discussion under Transportation Energy, below.

that would normally be associated with service water and space heating. The Title 24 Baseline scenario assumes compliance but not exceedance of energy standards and includes annual natural gas use equating to 51,274 MMBtu in 2025 and 84,771 MMBtu in 2040. As such, the project would result in a 100 percent decrease in consumption of natural gas from the Title 24 Baseline scenario for both Phase 1 and Full Buildout.

Table 4.17-6: WLC Project Operational Natural Gas Usage in Buildings

Source	Phase 1 - 2025 (MMBtu/yr)	Full Buildout - 2040 (MMBtu/yr)
SoCal Gas (2016)[a]	304,290	304,290
Title 24 Baseline Scenario:		
Building annual natural gas	51,274	84,771
% of SoCal Gas	**17%**	**28%**
All-Electric Project:		
Building annual natural gas	0	0
% of SoCal Gas	**0%**	**0%**

NOTES:

[a] Total Sempra natural gas sales, from Sempra Energy, 2016 Annual Report, (2017). Available at: https://www.sempra.com/sites/default/files/microsites/2016_annualreport/. Accessed July 2018. Converted from 294 billion cubic feet and a conversion factor of 1,035 Btu per cubic foot based on USEIA data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, April 28, 2017. Available: https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed October 2017).

SOURCE: WSP 2018

Transportation Energy

Like operational electricity discussed above, the transportation energy usage was estimated for three EV penetration scenarios and for two different phases of development (Phase 1 and Full Buildout). In the context of transportation fuels, the Project + Low EV Penetration scenario represents the "baseline" scenario, as it assumes EV penetrations consistent with the EMFAC 2014 transportation model used in standard CEQA analysis. As explained in Section 4.17.3.3 *Technology Advancement*, the Medium EV Penetration and High EV Penetration Scenarios assume statewide attainment of the higher EV targets in the 2016 California Mobile Source Strategy or the 2017 Scoping Plan Update.

The WLC project's estimated operational transportation fuel demand is provided in Table 4.17-7. As discussed previously, the project would support statewide efforts to improve transportation energy efficiency and reduce fossil fuel consumption by private automobiles. The project would also include the installation of electric vehicle supply equipment (EVSE) pursuant to Title 24, part 6 of the CALGreen Code. According to the EMFAC2014 model, electric vehicles should account for approximately 4.7 percent of passenger vehicles[24] in 2025 and 10.3 percent by 2040 in the SoCAB region. The estimated potential fuel savings from the increased population of EVs is provided in Table 4.17-7.

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[24] As defined by the traffic modeling for the project, passenger vehicles include the EMFAC vehicle categories of Light Duty Automobile (LDA) and Light Duty Truck (LDT).

Table 4.17-7: WLC Project Operational Fuel Usage

Source	**2025**			**2040**		
	Gallons of Diesel Fuel Per Year (gallons)[a]	**Gallons of Gasoline Fuel Per Year (gallons)[b]**	**Electricity Use Per Year (MWh)**	**Gallons of Diesel Fuel Per Year (gallons)a**	**Gallons of Gasoline Fuel Per Year (gallons)b**	**Electricity Use Per Year (MWh)**
County of Riverside (Transportation Sector) 2016/ MVU 2024[c]	**273,000,000**	**1,035,000,000**	**352,044**	**273,000,000**	**1,035,000,000**	**352,044**
Project + Low EV Penetration (Scenario A)						
Low EV Penetration	36,678	22,910	7,789	60,755	30,886	60,105
% of County	**0.013%**	**0.0022%**	**2.2%**	**0.022%**	**0.003%**	**17%**
Project + Medium EV Penetration (Scenario B)						
Medium EV Penetration	36,674	22,607	10,687	60,671	26,036	174,279
% of County	**0.013%**	**0.0022%**	**3%**	**0.022%**	**0.002%**	**50%**
% change from Low EV	**-0.01%**	**-1.3%**	**+37%**	**-0.1%**	**-16%**	**+190%**
Project + High EV Penetration (Scenario C)						
High EV Penetration	29,507	21,663	96,619	36,989	23,142	485,017
% of County	**0.011%**	**0.0021%**	**27%**	**0.014%**	**0.002%**	**138%**
% change from Low EV	**-20%**	**-5%**	**+1,140%**	**-39%**	**-25%**	**+707%**

SOURCE: ESA 2018

NOTES:

[a] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[b] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[c] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015,

As discussed under Section 4.17.3, *Methodology*, and presented in Table 4.17-7 above, the WLC project would provide the infrastructure for supporting a higher population of electric vehicles, in direct support of the state's targets of 1.5 million ZEVs by 2025 and 4.2 million ZEVs by 2040. The increase in EV populations will increase demand for electricity but reduce demand for fossil-based vehicle fuels.

Estimates for the number of EVs and the expected annual electricity demand associated with each of the three vehicle scenarios are presented below in Tables 4.17-8 through 4.17-10, based on the information summarized in Section 4.17.3, *Methodology.*

Table 4.17-8: Scenario A: Low EV Penetration Charging Loads

Vehicle Type	2025				2040			
	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)
Passenger Vehicles	533	1.1	21.3	7,789	2,058	9.1	164.7	60,105
Light Trucks (2 axle)	0	0	0	0	0	0	0	0
Medium Trucks (3 axle)	0	0	0	0	0	0	0	0
Large Trucks (4+ axle)	0	0	0	0	0	0	0	0
Total	**533**	**1.1**	**21.3**	**7,789**	**2,058**	**9.1**	**164.7**	**60,105**

Table 4.17-9: Scenario B: Medium EV Penetration Charging Loads

Vehicle Type	2025				2040			
	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)
Passenger Vehicles	659	1.4	26.4	9,622	5,795	25.6	464	169,214
Light Trucks (2 axle)	73	0.2	2.9	1,065	346	0.8	13.9	5,065
Medium Trucks (3 axle)	0	0	0	0	0	0	0	0
Large Trucks (4+ axle)	0	0	0	0	0	0	0	0
Total	**732**	**1.6**	**29.3**	**10,687**	**6,141**	**26.4**	**478**	**174,279**

Table 4.17-10: Scenario C: High EV Penetration Charging Loads

Vehicle Type	2025				2040			
	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)
Passenger Vehicles	659	1.4	26.4	9,622	5,795	25.6	464	169,214
Light Trucks (2 axle)	73	0.2	2.9	1,065	346	0.8	13.9	5,065
Medium Trucks (3 axle)	111	0.4	6.0	2,189	786	2.4	42.3	15,455
Large Trucks (4+ axle)	614	12.7	229.4	83,743	2,166	44.2	809.0	295,282
Total	**1,457**	**14.6**	**265**	**96,619**	**9,093**	**73.4**	**1,329**	**485,017**

The Project + Low EV Penetration scenario has the lowest population of EVs and only includes passenger vehicle EVs. The annual electricity use would be 2.2 percent of MVU's forecasted demand in 2024.

The Project + Medium EV Penetration scenario includes EV passenger vehicles and light trucks. The annual electricity use would be only slightly more than the Low EV Penetration scenario and would represent 3 percent of MVU's demand. As stated above, this scenario would increase electricity use, however, it would be displacing and reducing gasoline use by 4 percent.

The Project + High EV Penetration scenario analyzes the inclusion of an increased percentage of medium and heavy duty trucks that are EVs. Under this scenario, electricity demand would be 27 percent of MVU's total electricity demand and the EVs would displace a substantial number of fossil fuel burning vehicles.

As shown in Table 4.17-7, the Project + Medium EV Penetration scenario would reduce gasoline use by approximately 1.3 percent and increase electricity use by 37 percent in 2025 compared to the Low EV Penetration scenario. Diesel consumption would be about the same for the two scenarios. By 2040, gasoline use with the Medium EV Penetration scenario would be reduced by 16 percent from the Low EV Penetration scenario and displaced with EVs that would increase electricity by 190 percent from the Low EV Penetration scenario.

The Project + High EV scenario would realize a greater amount of fuel savings (gasoline and diesel) due to the higher percentage of trucks assumed to be EVs. For 2025, diesel use would decrease by approximately 20 percent compared to the Low EV Penetration scenario and gasoline would decrease by approximately 5 percent. By 2040, diesel use would decrease by 39 percent and gasoline would decrease by 25 percent. Electricity demand would increase more than 11 times the Low EV Penetration scenario by 2025, and approximately 7 times by 2040. However, as stated earlier, forecasting demand for 2040 is highly speculative and numbers presented are strictly for informational purposes.

As described earlier, these increases in transportation-related electricity will be offset through implementation of energy conservation measures and installation of on-site rooftop solar PV, resulting in an approximate 16 percent improvement in energy efficiency as compared to the baseline scenario at full buildout. Although the project would result in moderate increases in annual electrical demand from EV charging compared to MVU's current supply (for the low and medium EV penetration scenarios), MVU is committed to meeting the project's electricity demand through a future IRP update and planning process. As mentioned above, MVU's IRP addresses the fact that the project would exceed the utility's current and forecasted demand. However, the IRP states that a portion of the project's demand is incorporated into forecasted growth and MVU will monitor the development progress of the project. Any determination on additional capacity would be speculative considering MVU is aware of the project and its effect on grid electricity. MVU has a considerable amount of time to procure energy resources in anticipation of the project's development.

As shown in Table 4.17-7, the Project + Low EV Penetration scenario would represent a small fraction of the county's overall diesel and gasoline fuel use for 2025, making up 0.013 and 0.0022 percent respectively. By 2040, those numbers increase to 0.022 percent for diesel and 0.003 percent for gasoline. Although the fuel does slightly increase, the Project's fuel use is still negligible when compared to overall county use.

The Project + Medium EV Penetration scenario would account for 0.013 percent of total County diesel use and 0.0022 percent of total County gasoline use in 2025. By 2040, those percentages increase to 0.022 percent for diesel and remain approximately 0.0022 percent for gasoline. This scenario slightly lowers fuel use when compared to the Project + Low EV Penetration because it assumes a greater percentage of car and light truck EVs (See Section 4.17.3.3, *Technology Advancement* for assumptions).

The Project + High EV Penetration scenario would represent 0.011 percent of total County diesel use and 0.0021 percent of total County gasoline use in 2025. By 2040, those percentages increase to 0.014 percent for diesel and remain approximately 0.0020 percent for gasoline. The High EV Penetration scenario assumes light, medium, and heavy trucks would have a higher population of EVs that would reduce diesel fuel use by 7,171 gallons per year from the Low EV Penetration scenario for 2025 and by 23,766 gallons per year for 2040.

Given the evidence presented herein, the WLC project would result in the efficient use of operational transportation fuel consistent with State and City goals. The project would represent between 0.002 to 0.003 percent of the County gasoline use and between 0.011 to 0.022 percent of County diesel use. Diesel and gasoline fuel consumption from the project would be negligible in any of the presented scenarios, however as stated in the electricity analysis above, any effects to energy resources from achieving the Project + High EV Penetration Scenario would be highly speculative, and associated analyses are presented herein for informational purposes only.

Operation of the WLC project would benefit from California's Pavley/ACC standards that are designed to result in more efficient use of transportation fuels. These vehicle efficiency standards are the most stringent in the nation and among the most stringent in the world. As shown in Tables 4.17-7 above, the project's operational activities under the Low EV Penetration Scenario (the most conservative scenario in terms of petroleum-based fuel consumption) would result in the consumption of approximately 0.013 percent of the County's diesel consumption and approximately 0.002 percent of the County's gasoline consumption, representing a very small fraction of the County's total fuel demand. Therefore, these activities would have a negligible effect on the transportation fuel supply. In conjunction with California's stringent vehicle efficiency standards, operation of the WLC project would not result in the wasteful, inefficient, or unnecessary consumption of transportation fuel.

Transportation Natural Gas

The WLC project (all scenarios) would also include regularly operating propane-powered yard trucks and CNG-powered forklifts that are typical of large warehouse facilities. Additionally, the project would include a CNG/LNG fueling station on-site that would be publically available for refueling. Table 4.17-11, below, shows the annual average natural gas use from operational vehicles and CNG/LNG vehicle refueling within the project.

Table 4.17-11: Natural Gas Use from Transportation

Source	Annual Fuel Use (MMBtu/yr)
State Natural Gas Consumption [a]	**2,253,678,345**
Yard Trucks[b]	14,543
Forklifts[b]	738
CNG/LNG Fueling Station[b]	805,148
Total Natural Gas Consumption (on- and off-road)	**820,429**
% of State	**0.036%**

NOTES:

[a] All uses; from US Energy Information Administration, California Natural Gas Consumption by Year (2017). Available at: https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm Converted from 2,177,467 million cubic feet using a conversion factor of 1,035 Btu per cubic foot based on USEIA data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, April 28, 2017. Available: https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed July 2018).

[b] See Appendix F for detailed calculations of natural gas vehicles and CNG/LNG fueling station

As presented in Table 4.17-11 above, the natural gas use from operational vehicles and the CNG/LNG fueling station would represent approximately 0.036 percent of the statewide natural gas consumption. The analysis assumes a conservative estimate of 204 trucks completely refueling per day based on trip rates presented in the WLC project's traffic study.[25] The traffic study bases trip rates on ITE's code for a gas station with convenience store that has a relatively high trip rate. CNG fueling stations would

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[25] Traffic study states an average daily traffic of 408 trips. This accounts for roundtrips of trucks, so the number of trucks visiting to refuel would be half of the average daily traffic volume.

likely have less daily visits than a traditional gas station, making the analysis even more conservative. The operational vehicles are also based on conservative assumptions of maximum operating hours of 7 hours for propane-powered yard trucks and 4 hours for CNG forklifts. Realistically, all of the yard trucks would not be operating simultaneously or continuously for 7 hours and forklifts would be used intermittently for the unloading and loading of warehousing goods. Furthermore, the analysis above represents additional natural gas use from vehicles and does not account for CNG/LNG trucks displacing diesel- or gasoline-powered vehicles. In actuality, the CNG/LNG trucks may displace fossil-fueled trucks on the project site. Even with the conservative assumptions for trip rates, volumes, non-displacement, and operating hours, and without considering the potential benefit of offsetting other vehicle fuels, the natural gas use from operational vehicles and the CNG/LNG fueling station represent a negligible percent of the State’s total natural gas use.

According to SoCal Gas data, natural gas sales have been relatively stable over the past three years with a slight increase from 287 billion cubic feet in 2014 to 294 billion cubic feet in 2016. Southern California’s natural gas supply is predominantly sourced from out of state with a small portion originating in California. Sources of natural gas are obtained from locations throughout the western United States as well as Canada.[26] According to the US Energy Information Administration (EIA), the United States has approximately 85 years of natural gas reserves based on consumption in 2015.[27] Statewide compliance with energy efficiency standards is expected to result in more efficient use of natural gas and therefore reduced consumption in future years. It is anticipated that SoCal Gas’ existing and planned natural gas supplies would be sufficient to support the project’s natural gas use and that the CNG/LNG fueling station would have a negligible effect on the natural gas supply.

Operation of the WLC project would benefit from California’s Pavley/ACC standards that are designed to result in more efficient use of transportation fuels. These vehicle efficiency standards are the most stringent in the nation and among the most stringent in the world. Operation of the project would require very small amounts of natural gas to be consumed by vehicles at the site, and in conjunction with California’s stringent vehicle efficiency standards, would not result in the wasteful, inefficient, and unnecessary consumption of natural gas.

4.17.7.2 Construction or Expansion of Electrical and Natural Gas Facilities

Threshold	Would the proposed project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Electricity

Through implementation of energy conservation measures the WLC project will exceed Title 24 energy standards by approximately 17 percent at Phase 1 and 16 percent at full buildout. The project would also incorporate renewable energy sources with a minimum of 14.1 MW of rooftop solar at buildout to achieve a net-zero energy use for the estimated office demands. Despite these improvements a number of SCE facilities would require relocation and expansion of MVU facilities would be needed in order to provide network backup (i.e., if the solar generation equipment were to fail) and accommodate the potential increase in electrical demand due to increased EV populations. Power poles, guy poles, and guy anchors for the existing overhead 115 kV line along World Logistic Center Parkway and Gilman Springs Road will need to be relocated at the time these roadways are widened. The portion of the existing 115 kV line along Eucalyptus Avenue may also need to be relocated into the new Eucalyptus Avenue alignment between World Logistic Center Parkway and Gilman Springs Road at the time the roadway is constructed. The existing 115 kV line along Brodiaea Avenue may be able to be protected

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[26] California Gas and Electric Utilities, 2016 California Gas Report. 2016.

[27] EIA. *Frequently asked Questions. https://www.eia.gov/tools/faqs/faq.php?id=58&t=8*. Accessed April 2018.

in place except for a few hundred feet where the transmission line intersects with the new Merwin Street, which will need to be relocated to accommodate street and storm drain channel improvements.

The existing 12 kV overhead power distribution lines along Redlands Boulevard will need to be undergrounded when the roadway is developed to its ultimate width. The existing 12 kV overhead power feeder lines located along World Logistic Center Parkway and Alessandro Boulevard will need to be relocated and undergrounded as these roadway improvements take place during the development of the WLC project. The existing 12 kV overhead power feeder line running south along Virginia Street to the Moreno Compressor Station (planned as Open Space) will be protected in place. The existing overhead service lines from the World Logistic Center Parkway 12 kV line along Dracaea Avenue to the east and along Cottonwood Avenue to the west can be abandoned when existing on-site residences served by these facilities are abandoned. Per SCE requirements, SCE 12 kV undergrounded lines cannot be in a common trench with MVU facilities and require a separate underground facility with a minimum 6 feet from other utility lines.

Based on the *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, (Utility Specialists, October 24, 2013) prepared for the WLC project, construction of the first three logistics buildings that would occur during the initial phase of construction can be served by the existing MVU substation at Cottonwood Avenue and Moreno Beach Drive, as long as capacity is still available at that station. Subsequent buildings in Phase 1 of construction will require the expansion of this substation. The expansion that would occur to meet this demand would be the addition of two new 28 MW transformer units which can be accommodated within the existing substation property. New 12 kV underground feeder circuits, including trenching, conduit, electrical vaults, and conductors will need to be installed from the substation to the WLC project site. These improvements will occur along Cottonwood Avenue, along Moreno Beach Drive, and along Alessandro Boulevard, Brodiaea Avenue, and Cactus Avenue. These improvements are expected to take place concurrently with roadway construction.

To meet the WLC project's ultimate annual electricity demand, a new 112 kV substation will be constructed within the project limits at a central location near one of SCE's 115 kV transmission lines that will feed power to the substation. The *Dry Utilities* memo for the project indicates two potential locations; the first adjacent to the SCE transmission lines along Gilman Springs Road, and the other adjacent to the SCE transmission lines along Brodiaea Avenue. Impacts of constructing the new station at either of these on-site locations may be the same.

SCE will require approximately 2 acres for a switching station near the new 112 kV substation proposed by MVU to serve the WLC project. All MVU primary distribution conductors within the project will be installed within underground conduits and vaults within the public roadway rights-of-way or within easements as a joint trench with telephone, cable television, and natural gas. Since the installation or relocation of electrical facilities would take place concurrently with roadway construction and/or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Connecting the site to existing utility lines is considered part of the project, the impact of which has been analyzed in the Revised Sections of the FEIR. Previously referenced Figure 3.16 depicts the proposed electrical facilities assuming 100 percent backup electrical service to the WLC site.

Natural Gas

Figure 3.17 in the Project Description depicts the existing natural gas pipelines at the site. An existing 3-inch medium pressure line traveling along World Logistics Parkway and Street F could supply the proposed CNG/LNG fuel station. Although there would be no anticipated use of natural gas by the buildings in the WLC project and thus no need for natural gas distribution infrastructure, SCGC has indicated that the existing 4-inch medium-pressure line underlying Redlands Boulevard and Cactus Avenue can be extended into and looped around the WLC project roadway alignments to serve the proposed development. New two-inch gas lines could also be installed to accommodate the WLC project's demand. Natural gas facilities could be installed in the public street rights-of-way and easements as a joint trench with telephone, cable TV and electrical services. The gas main in Eucalyptus Avenue would be on the south side of the street and in its own trench as it was not included in the common trench installed to serve the Sketchers building.

Relocation of natural gas transmission lines within the WLC site into public street rights-of-way and easements will be necessary to support site development and grading. These include 11,100 feet of the 30-inch gas pipeline in Cottonwood Avenue from Redlands Boulevard to World Logistics Parkway and then southeast to Virginia Street and Alessandro Boulevard intersection; 1,900 feet of 30-inch gas line from Gilman Springs Road at Lisa Lane southwest to Alessandro Boulevard; 1,000 feet of 16-inch gas line owned by Questar from Gilman Springs Road southwest to Alessandro Boulevard and 4,000 feet of 16-inch gas line owned by Questar on the Maltby Avenue alignment from Merwin Street to World Logistics Parkway. The remaining transmission gas lines are anticipated to be protected in place within the proposed streets or easements between buildings. The regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the WLC project will need to be relocated as part of the widening of this road. The gas facility on Alessandro Boulevard and Virginia Street will remain in place as the project develops in this area. The SDG&E natural gas compression station on Virginia Street south of the project site, known as the Moreno Compressor Station, along with a smaller facility on Virginia Street at Boadicea Avenue will be protected in place. Since the installation or relocation of natural gas facilities would take place concurrently with roadway construction and or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects.

4.17.7.3 Energy Standards, Policy, Regulation Consistency

Threshold	The Degree to which the Project Complies with Existing Energy Standards

This impact assesses whether the WLC project would conflict with any applicable standards, policies, or regulations, as discussed below.

The project would comply with applicable CARB regulations restricting the idling of heavy-duty diesel motor vehicles and governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. As discussed in Section 4.7, *Greenhouse Gas Emissions*, CARB has adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. The measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. While intended to reduce construction emissions, compliance with the above anti-idling and emissions regulations would also result in energy savings from the use of more fuel-efficient engines. According to the CARB staff report that was prepared at the time the anti-idling Airborne Toxic Control Measure was being proposed for adoption in late 2004/early 2005, the regulation was estimated to reduce non-essential idling and associated emissions of diesel particulate matter and nitrogen oxide (NO_X) emissions by 64 and 78 percent respectively in analysis year 2009.[28] These reductions in emissions are directly attributable to overall reduced idling times and the resultant reduced fuel consumption. Mitigation Measure 4.3.6.2A includes a stricter provision that would limit idling to no more than three minutes in any one hour. Therefore, fuel savings have the potential to be even more than those estimated from the Airborne Toxic Control Measure.

CARB has also adopted emission standards for off-road diesel construction equipment of greater than 25 hp. The emissions standards are referred to as “tiers,” with Tier 4 being the most stringent (i.e., least polluting). The requirements are phased in, with full implementation for large and medium fleets by 2023 and for small fleets by 2028. The project would accelerate the use of cleaner construction equipment by using mobile off-road construction equipment greater than 50 horsepower (wheeled or tracked) that meets, at a minimum, the Tier 4 off-road emissions standards as specified in Mitigation

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[28] CARB, Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, Appendix F, July 2004, https://www.arb.ca.gov/regact/idling/idling.htm, Accessed April 2018.

Measure 4.3.6.2A. Field testing by construction equipment manufacturers has shown that higher tier equipment results in lower fuel consumption. For example, Tier 4 interim engines have shown a 5 percent reduced fuel consumption compared to a Tier 3 engine.[29] Similar reductions in fuel consumption have been shown for Tier 3 engines compared to a Tier 2 engine.[30]

The project would comply with and exceed (through its PDFs and mitigation measures) the applicable provisions of Title 24 and the CALGreen Code in affect at the time of building permit issuance and buildings over 500,000 square feet will be designed to be LEED certified. According to the CEC, buildings compliant with the Title 24 (2016) standards should use 5 percent less energy for lighting, heating, cooling, ventilation, and water heating than the prior Title 24 (2013) standards for non-residential uses.[31] As specified in the Project's Design Features, the project would include numerous energy and waste reduction features that would allow the project to comply with or exceed the Title 24 standards and achieve energy savings equal to or greater than what is required by state regulations.

With respect to operational transportation-related energy, the WLC project would support statewide efforts to improve transportation energy efficiency and reduce transportation fuel consumption with respect to private automobiles. In particular, the project would provide the infrastructure for supporting a higher population of electric vehicles, in direct support of the state's targets of 1.5 million ZEVs by 2025 and 4.2 million ZEVs by 2040. Thus, the project would comply with existing energy standards.

4.17.8 Significant Impacts

The project has no significant impacts related to energy use, consumption, resources, or standards.

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[29] Businesswire, "Fuel Duel" Confirms 5 Percent Higher Fuel Efficiency for Cummins Tier 4, June 25, 2009, http://www.businesswire.com/news/home/20090625005468/en/%E2%80%9CFuel-Duel%E2%80%9D-Confirms-5-Percent-Higher-Fuel, Accessed April 2018.

[30] John Deere, Engine Performance, Fuel Efficiency, and Clean Air, Emissions Technology for Non-Road Applications, 2006, http://bellpower.com/uploads/product_brochures/15_Exp_EmissionsBrochure%20dswt14%5B1%5D.pdf, Accessed April 2018.

[31] CEC, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf, Accessed April 2018.

NOTE TO READERS: The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 5.0 that have been revised. Revisions to, and deletions from, the FEIR have been identified in a separate document, available for review at the City of Moreno Valley. The absence of any reference to a portion of Section 5.0 means that the corresponding portion of Section 5.0 in the FEIR remains unchanged or has been deleted. However, where appropriate, unrevised portions of the FEIR have been included for ease of understanding.

5.0 OTHER CEQA TOPICS

6.0 Cumulative Impacts

Chapter 6.0 is a new Chapter in the Revised Sections of the FEIR which evaluates the cumulative impact of the project in response to the court ruling on the petition for a Writ of Mandate, Superior Court of California, County of Riverside (Case No. RIC1510967) for the World Logistics Center (WLC) project on February 8, 2018. The Court ruling requires that the analysis of cumulative impacts should use the "Project List Method", in addition to the "Summary of Projects Method" to determine the project's cumulative impacts. As indicated in Chapter 4.0 of the Revised Sections of the FEIR, the cumulative analysis that was previously located in that section in the 2015 Final EIR has been expanded and relocated to Section 6.0 of the Revised Sections of the FEIR. The 2015 FEIR utilized a combination of the "Summary of Projections" method and the "Project List Method" to document cumulative projects and to conduct the cumulative impact analysis. The Revised Sections of the FEIR cumulative impact analysis uses the City of Moreno Valley General Plan Land Use Element growth projections and other regional plans (i.e., 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy), in conjunction with other known projects (project list method) to document cumulative impacts. The project list method was utilized for portions of surrounding jurisdictions including the counties of Riverside and San Bernardino, March JPA and the cities of Riverside, Perris, Hemet, San Jacinto, Redlands, Beaumont and Calimesa.

6.0.1 Approach to Cumulative Impact Analysis

In response to the court ruling, both the Summary of Projections method and the Cumulative Project List method has been updated to reflect current cumulative projects. The summary of growth projections for the City of Moreno Valley is provided in Table 6.0-1. Extensive research has been completed to identify past, present and reasonably foreseeable future projects and available associated CEQA documents to assist in the updated analysis of cumulative impacts. A total of 361 cumulative projects have been identified in the City of Moreno Valley and the surrounding cities, and unincorporated areas. These projects that are documented in Table 6.0-2 and Figure 6.0 include all cumulative projects that are located in the various cumulative geographic areas defined in Sections 6.1 through Section 6.17. A cumulative project area has been identified for each environmental topic evaluated in the Revised Sections of the FEIR and projects located with the cumulative impact area are summarized in tables and figures for each environmental topic. The CEQA documents listed in Table 6.0-1 are available for review at the City of Moreno Valley.

The land use assumptions for the 361 identified cumulative projects were taken from either the project-specific information contained in the associated CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes more intense cumulative development than is likely to occur and is therefore conservative in the sense that it would slightly over-state cumulative impacts.

6.0.2 Definition of Cumulative Impacts

Section 15130 of the CEQA Guidelines requires that an EIR address cumulative impacts of a project when the project's incremental effect would be cumulatively considerable. "Cumulatively considerable" means that "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects as defined in Section 15130."

Section 15355 of the CEQA Guidelines states that "cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." A cumulative impact is not considered significant if the impact can be mitigated to below the level of significance through mitigation, including providing improvements and/or contributing funds through fee-payment programs. The EIR must examine "reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project" (CEQA Guidelines Sections 15130(a)(3) and 15130(b)(5)).

According to Section 15130 of the CEQA Guidelines, the discussion of cumulative effects "... need not provide as great a detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness." Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR is not required to discuss cumulative impacts for environmental topic areas which have no individual project related impacts.

CEQA defines cumulative effects as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines Section 15130). The Guidelines further state that the individual effects can be the various changes related to a single project or the changes involved in a number of other closely-related past, present, and reasonably foreseeable future projects (Section 15335). The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period of time.

With respect to the analysis of cumulative impacts, CEQA requires the following:

(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as much detail as is provided regarding the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

Pursuant to CEQA Guidelines, Section 15130, the assessment of cumulative impacts contained in EIRs is typically based on either: (i) a list of past, present, and probable future projects, which are either approved or being considered for approval by the City or other municipalities; or (ii) growth projections set forth in local and regional plans, including regional modeling plans. Due to the size of the project and its potential future new land use and employment implications for the City, the cumulative analysis for the Revised Sections of the FEIR use the City's General Plan growth projections in conjunction with the newly developed cumulative project list. It is expected that the cumulative impact analysis set forth in the Revised Sections of the FEIR will be conservative and would tend to overstate (rather than understate) cumulative impacts because the impacts of some of the listed projects were wholly or partially taken into account by the growth projections summarized in Section 6.0.2 and Section 6.0.3 and because some of the listed projects ultimately may not be approved.

The significance of a cumulative impact may be greater or lesser than the effects resulting from the individual actions depending on whether the effects are additive, synergistic or countervailing. Thus, as set forth above, this section evaluates the project together with (i) the reasonably foreseeable potential effects of other closely related past, present, and reasonably foreseeable or probable future development in the area of the project, and (ii) growth projections set forth in regional plans.

Criteria for evaluating the significance of adverse effects are identified for each environmental topic area in Chapters 3.0 and 6.0. These criteria, which are based on resource sensitivity, quality, and quantity, are also instructive when evaluating whether the environmental effect resulting from implementation of a particular project is cumulatively considerable. The timing and duration of each activity is also an important consideration for evaluating the potential cumulative effects of activities that may occur only for a limited period. In such cases, a cumulative effect may occur only when two or more of the activities are occurring simultaneously.

Because of the nature of individual environmental factors, the cumulative "universe" for every issue addressed in the Revised Sections of the FEIR will not be identical. For example, the cumulative universe for noise impacts is reasonably assumed to be the traffic impact area (portion of Western Riverside County), which is much larger than the cumulative universe for public service impacts (i.e., the service area of the various service providers). The individual cumulative areas for the issues addressed in this Revised Sections of the FEIR are provided within the cumulative impacts discussion in the respective impact sections, but range from specific areas within the City of Moreno Valley to western Riverside County as appropriate.

6.0.3 City of Moreno Valley Growth Projections

The Moreno Valley General Plan establishes policies to guide future development within the City. Its implementation is long-term in nature. The Regional Growth Projections method is an appropriate methodology in evaluating cumulative impacts because it provides general growth projections for the region and considers long-term growth. Table 6.0-1. summarizes the cumulative growth information from the Final Program EIR for the SCAG from 2016 (Section 7, Cumulative Impacts). Table 6.0. shows that the City expects to grow at an average annual rate of 2–3 percent from 2000 to 2030, with a population at that point of 238,703 persons and 71,619 households. The City will comprise approximately seven percent of the County's population and housing stock at that time.

Table 6.0-1: Local and Regional Growth Projections for Moreno Valley and County of Riverside (2012–2040)

	Population		Households	
Jurisdiction	**2012**	**2040**	**2012**	**2040**
City of Moreno Valley	197,600	256,600	51,800	73,000
Average Annual Increase	—	+1.1%	—	+1.5%
Riverside County	2,245,000	3,168,000	694,000	1,049,000
Average Annual Increase	—	+1.5%	—	+1.8%
City (Percent of County)	8.7%	8.0%	7.5%	7.0%

Sources: SCAG, 2016 RTP Growth Forecast, Table 7-1, General Plan Final EIR, Section 7.0, Cumulative Impacts.

6.0.4 Local/Regional Summary of Growth Projections

6.0.4.1 Regional Plans

SCAG estimates regional growth for the Riverside County area for the purposes of planning and public policy development. The most recent set of growth projections are provided in the most recent Regional Transportation Plan (RTP) Growth Forecast, based on extensive analyses of the regional economic and demographic conditions. The 2016 RTP Growth Forecast provides estimates and forecasts of employment, population, and housing for the period between 2016 and 2040. Consistent with the projections shown in previously referenced Table 6.0-1 shows that the population, housing, and employment of the City are expected to increase consistent with overall regional trends for that period (i.e., approximately 1%–2% per year).

According to SCAG projections, the population of Moreno Valley is expected to increase by about 59,000 persons or approximately 30 percent between 2016 and 2040 to approximately 256,600 persons. By comparison, the population of Riverside County is projected to increase by 923,000 persons or approximately 41 percent between 2012 and 2040 to approximately 3,168,000 persons. The number of households is estimated to increase approximately 41 percent in Moreno Valley and 51 percent in Riverside County over this same time period.

6.0.5 Cumulative Project List

The cumulative project list has been updated to include past, present and reasonably foreseeable probable future projects in the surrounding jurisdictions that have the potential to result in cumulative impacts. The updated cumulative project list was compiled from available information in the identified geographic cumulative impact area and is current as of Spring 2018 to provide for informed decision-making, informed public participation, and a good faith effort at full disclosure of potential cumulative impacts. Refer to Table 6.0-2 and Figure 6.0 for the listing, description and general location of these projects. The list of cumulative projects in Table 6.0-2 includes all projects that are located in the various cumulative geographic areas, including for the sake of completeness, projects that have been withdrawn or for which no environmental information was reasonably obtainable. Projects that have been withdrawn or otherwise for which potentially contributory impacts would be speculative have not been considered in the resource-specific analyses in Section 6.1 through Section 6.17. The cumulative geographic areas incorporate portions of the cities of Moreno Valley, Riverside, Perris, Redlands, Hemet, San Jacinto, and Beaumont, the March JPA and portions of unincorporated Riverside and San Bernardino counties. CEQA documents reviewed to identify specifics about potentially cumulative projects include Environmental Impact Reports (EIRs), Mitigated Negative Declarations (MNDs), Negative Declarations (NDs), Initial Studies (ISs) and Exemptions (Exempt). In total over 360 projects have been identified within the surrounding jurisdictions that would cause impacts that could combine with those of the project to contribute to cumulative impacts, in conjunction with the summary of projections method. Only those cumulative projects with available CEQA documents have been included in the cumulative project summary tables and figures in Section s 6.1 – 6.17.

Individual project CEQA documents have been collected for projects on the list, to the extent feasible, to assist in the cumulative impact analysis for each environmental topical area. These CEQA documents have been reviewed and incorporated in the cumulative impact analysis for each environmental topic. The cumulative projects that are included in each cumulative impact analysis in Sections 6.1 through 6.17 are included in each section in a table and the specific environmental topic cumulative projects boundary is illustrated in a figure. The composite cumulative projects boundary map is shown in Figure 6.0.

Map Label; Project Name; "OLD_SL"

B City of Beaumont

B-1: Fairway Canyon SCPGA Tract Nos. 31462, 36558, and*: 147
B-2: Tournament Hills 3, TM 36307: 154
B-3: Heartland: 66
B-4: Hidden Canyon: 76
B-5: ProLogis/Rolling Hills Ranch: 16
B-6: Mountain Bridge Regional Commercial Planned Commu*: 86
B-7: Kirkwood Ranch (#14): 149
B-8: Noble Creek Vistas (#10): 152
B-9: Sundance (#17): 146
B-10: Tract No. 32850 (#39): 151
B-11: San Gorgonio Village, Phase 2 (#45): 156
B-12: Beaumont Commercial Center: 155
B-13: Four Seasons (#23) Tract Nos. 32260 and 33096: 148
B-14: Potrero Creek Estates (#26): 150

C City of Calimesa

C-1: TTM 33931 Fiesta Oak Valley/Mesa Verde Estates: 257
C-2: Summerwind Ranch: 258
C-3: JP Ranch: 259

H City of Hemet

H-1: TTM 36841: 205
H-2: Rancho Diamante: 217
H-3: Tres Cerritos Specfic Plan: 222
H-4: Sanderson Square: 224
H-5: Mc Sweeny Farms SP: 223
H-6: Ramona Creek: 227
H-7: Peppertree Specific Plan: 229
H-8: Florida Promenade Residential SP: 230
H-9: TTM 31807 / 31808: 231
H-10: Downtown Hemet Specific Plan: 202

M V City of Moreno Valley

MV-1: Auto Mall SP: 30
MV-2: TR35823 / Stowe Passco Devel.: 88
MV-3: ProLogis: 72
MV-4: Westridge Commerce Center: 12
MV-5: P06-158 / Gascon: 85
MV-6: Highland Fairview Corporate Park: 5
MV-7: TR33962 / Pacific Scene Homes: 40
MV-8: TR32460 / Sussex Capital: 37
MV-9: TR32459 / Sussex Capital: 38
MV-10: TR30998 / Pacific Communities: 41
MV-11: TR30411 / Pacific Communities: 39
MV-12: Moreno Medical Campus: 31
MV-13: Cresta Bella: 77
MV-14: TR32548 / Gabel, Cook & Assoc: 48
MV-15: TR32218 / Whitney: 50
MV-16: TR32284 / 26th Corporation & Granite Capitol: 49
MV-17: TR31590 / Winchester Associates: 43
MV-18: Convenience Store / Fueling Station: 32
MV-19: Senior Assisted Living: 42
MV-20: Moreno Marketplace: 83
MV-21: PEN16-0053 Medical Center: 170
MV-22: TR36882 (PA15-0010) SFR: 173
MV-23: PEN16-0129/0130 MV Ranch Apartments: 175
MV-24: TM 36436 (PA12-0005): 167
MV-25: TR32142: 65
MV-26: TR 30268 (PA01-0072) Pacific Communities: 168
MV-27: TR32917 / Empire land: 52
MV-28: TR34329 / Granite Capitol: 53
MV-29: TR36340: 36
MV-30: PA03-0168 TR 31517: 162
MV-31: PA15-0034 TR 36983: 169
MV-32: TTM 31592 (P13-078) SFR: 171
MV-33: TR32645 / Winchester Assoc: 47
MV-34: TR34397/Winchester Assoc: 46
MV-35: TR31771 / Sanchez: 45
MV-36: TM 31618 (PA03-0106): 166
MV-37: Vogel /PA09-004: 73
MV-38: Vogel Properties: 117
MV-39: VIP Moreno Valley (SaresRegis/Vogel): 116
MV-40: PEN17-0036 Warehouse: 176
MV-41: First Nandina Logistics Center: 109
MV-42: Indian Street Commerce Center: 111
MV-43: Ivan Devries / PA06-0017: 74
MV-44: Modular Logistics Center (Kearny RE Co): 112
MV-45: Iris Plaza: 138
MV-46: Harley Knox/Redlands Development: 133
MV-47: PA07-0129 TR 35606 SFR: 163
MV-48: PA11-001 thru 007 March Business Center: 69
MV-49: Indian Business Park: 3
MV-50: San Michele Industrial Center: 71
MV-51: PA07-0165 thru 01667 First Industrial I & II: 1
MV-52: First Industrial III & IV: 70
MV-53: I-215 Logistics Center: 110
MV-54: Moreno Valley Logistics Center (Prologis): 113
MV-55: MV Commerce Park II (Alere): 114
MV-56: Tract Map 33810: 141
MV-57: Tract Map 34151: 142
MV-58: Tract Map 33024: 143
MV-59: Tract Map 31442: 144
MV-60: Tract Map 36401: 145
MV-61: Walmart & Gas Station: 137
MV-62: Tract Map 22180: 139
MV-63: PA14-0053 (TTM 36760) Legacy Park: 160
MV-64: TR22180 / Young Homes: 63
MV-65: TR33607 / TL Group: 59
MV-66: TR34988 / Stratus Properties: 58
MV-67: TR32515: 64
MV-68: PA07-0035: 8
MV-69: PA07-0039 (Industrial Area SP): 9
MV-70: TR32756 / CTK, Inc.: 55
MV-71: TR34681 / Perris Pacific Co.: 56
MV-72: 35861 Frederick Homes: MV-83
MV-73: TR36038 / Alessandro Village Plaza LLC: 57
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SOURCE: ESRI; Highland Fairview 3/29/2018

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Cumulative Projects
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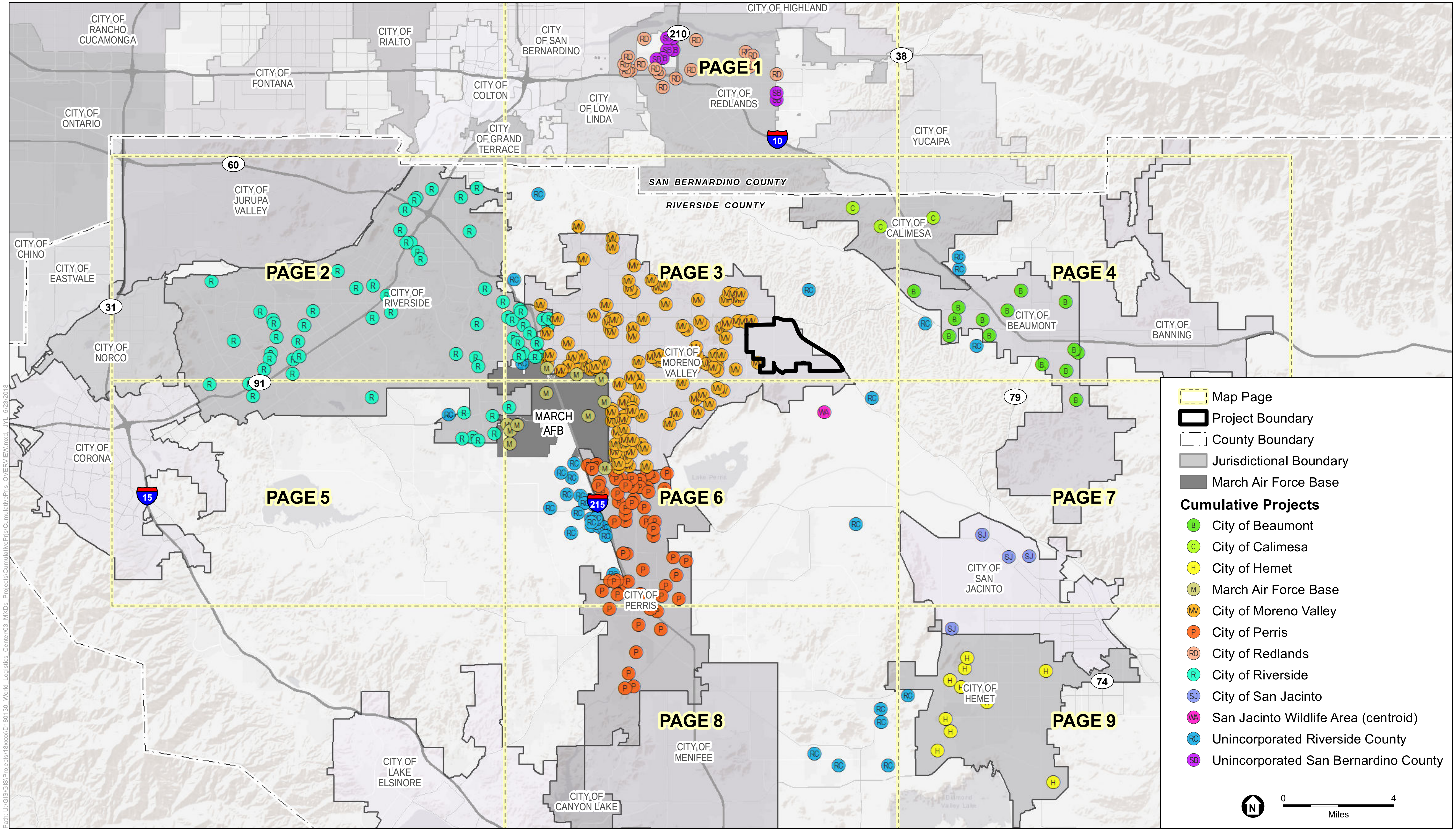

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

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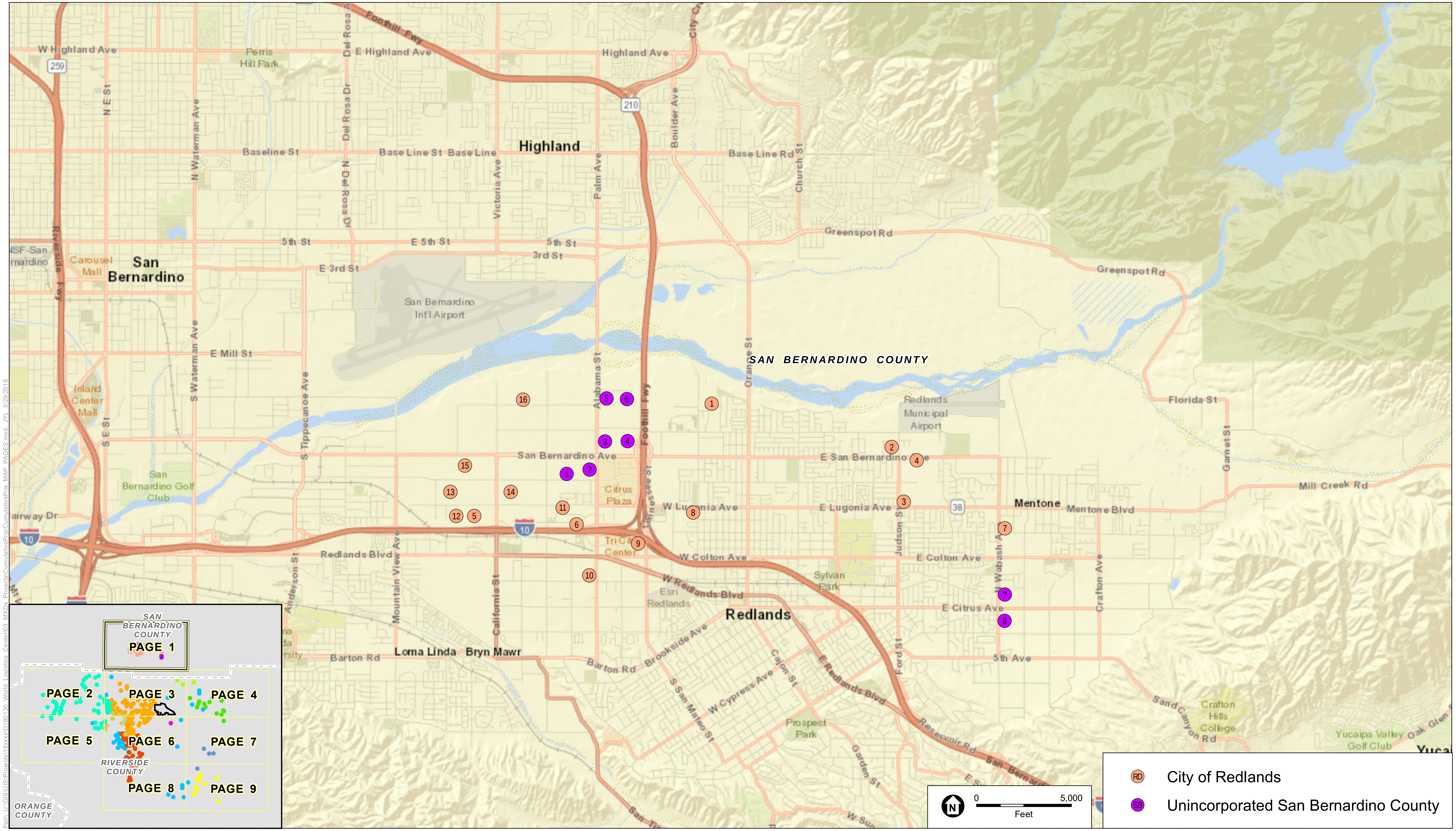

SOURCE: ESRI; Highland Fairview 3/12/2018

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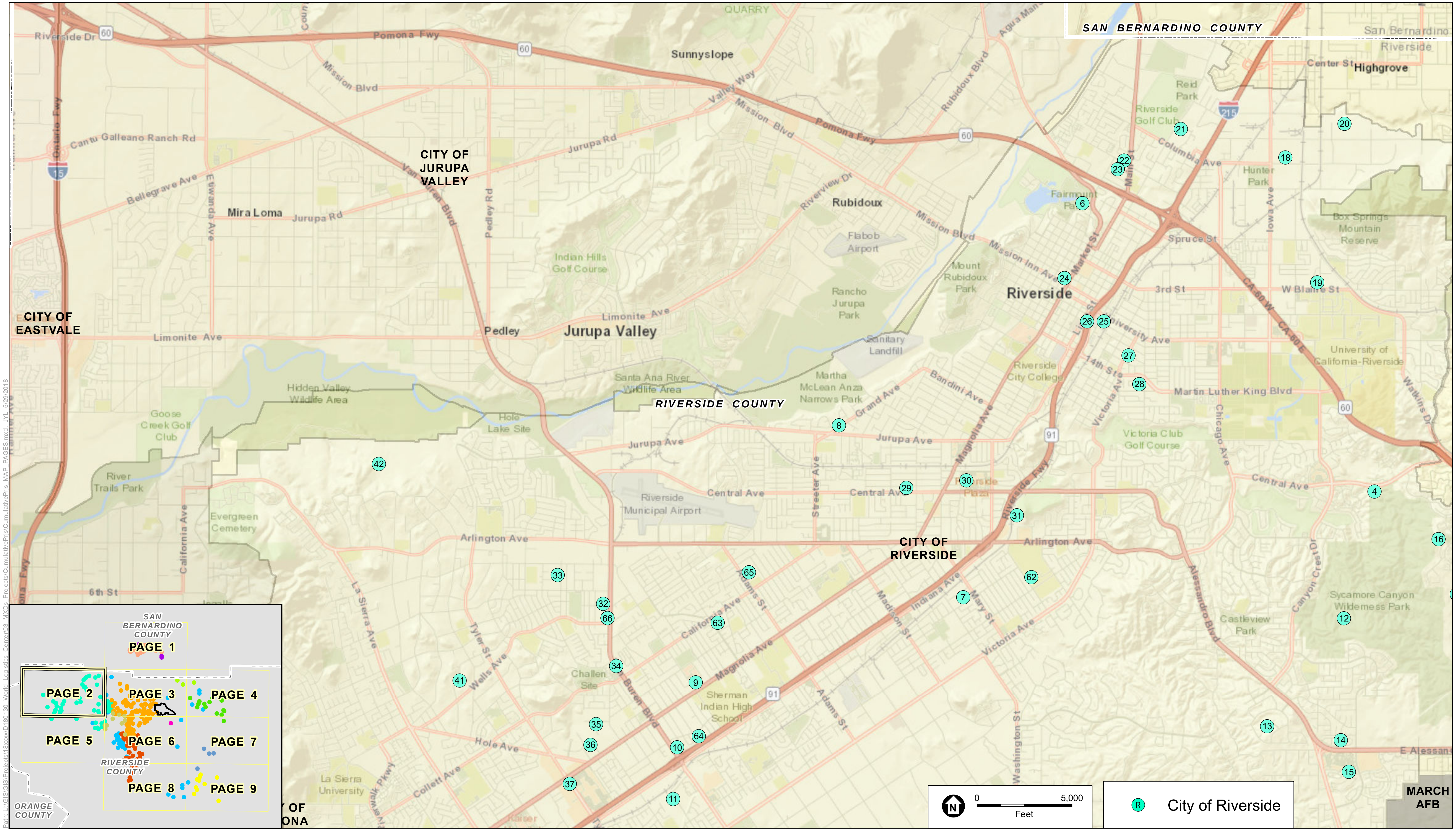

SOURCE: ESRI; Highland Fairview 3/12/2018

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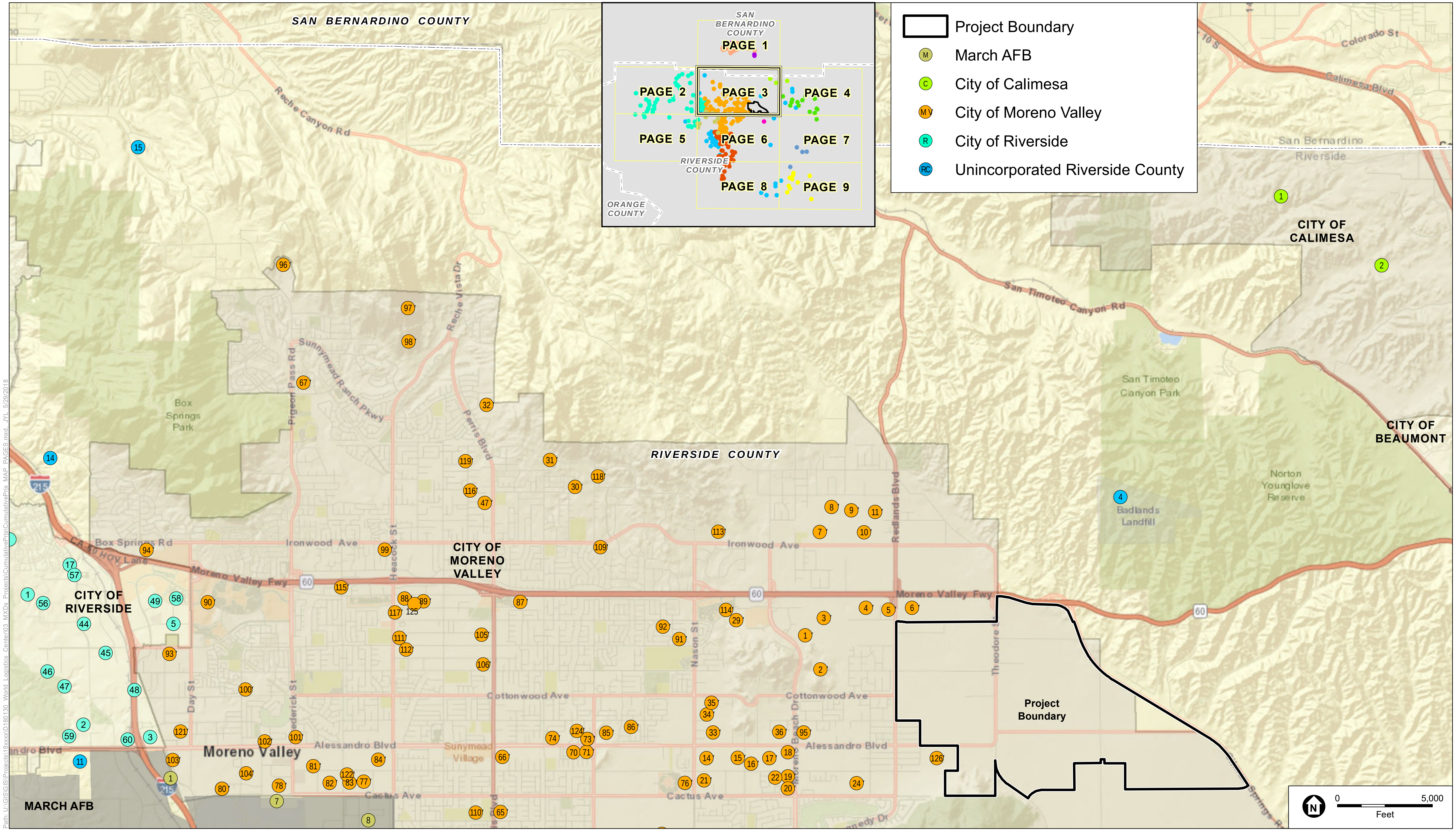

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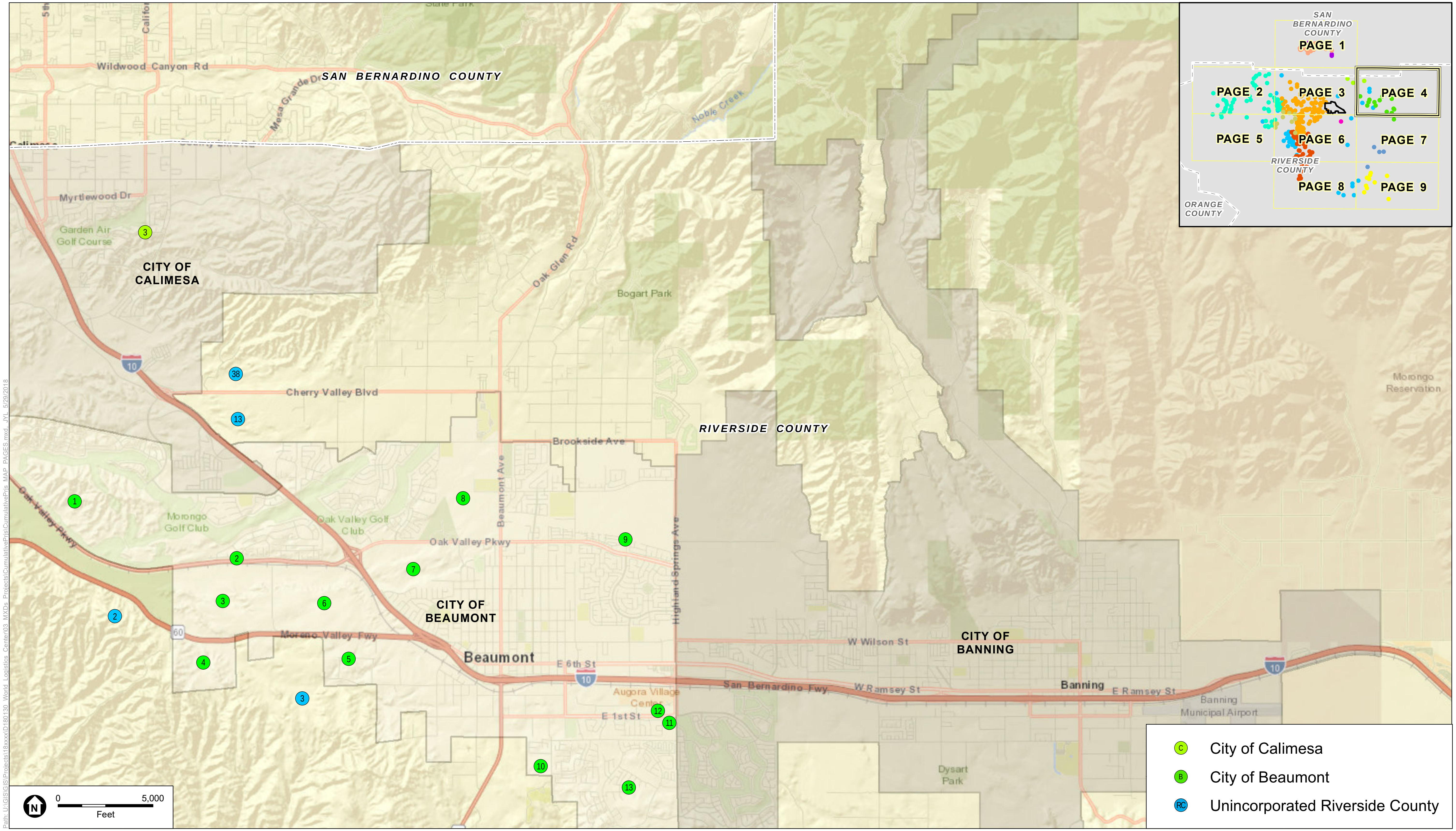

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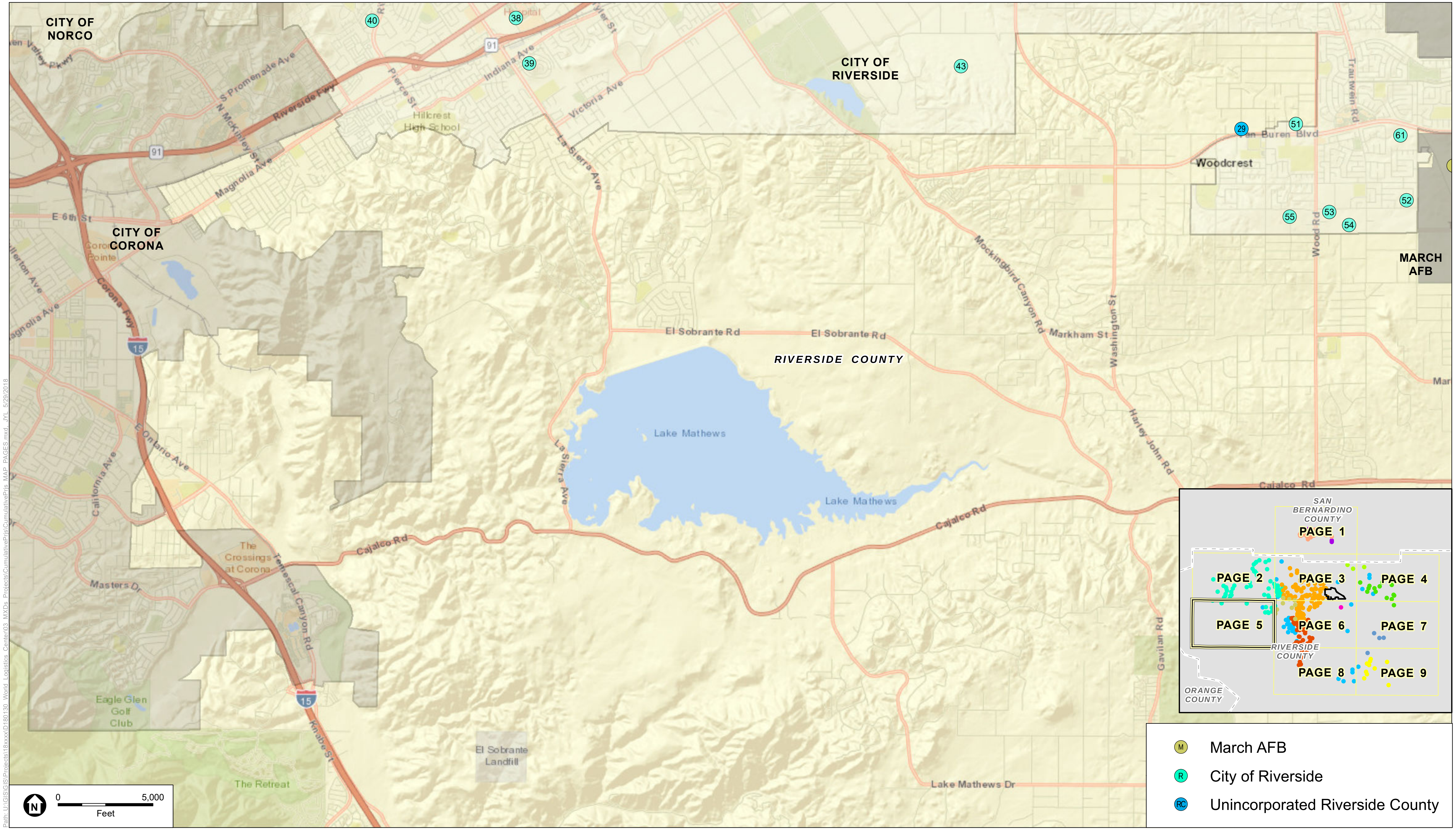

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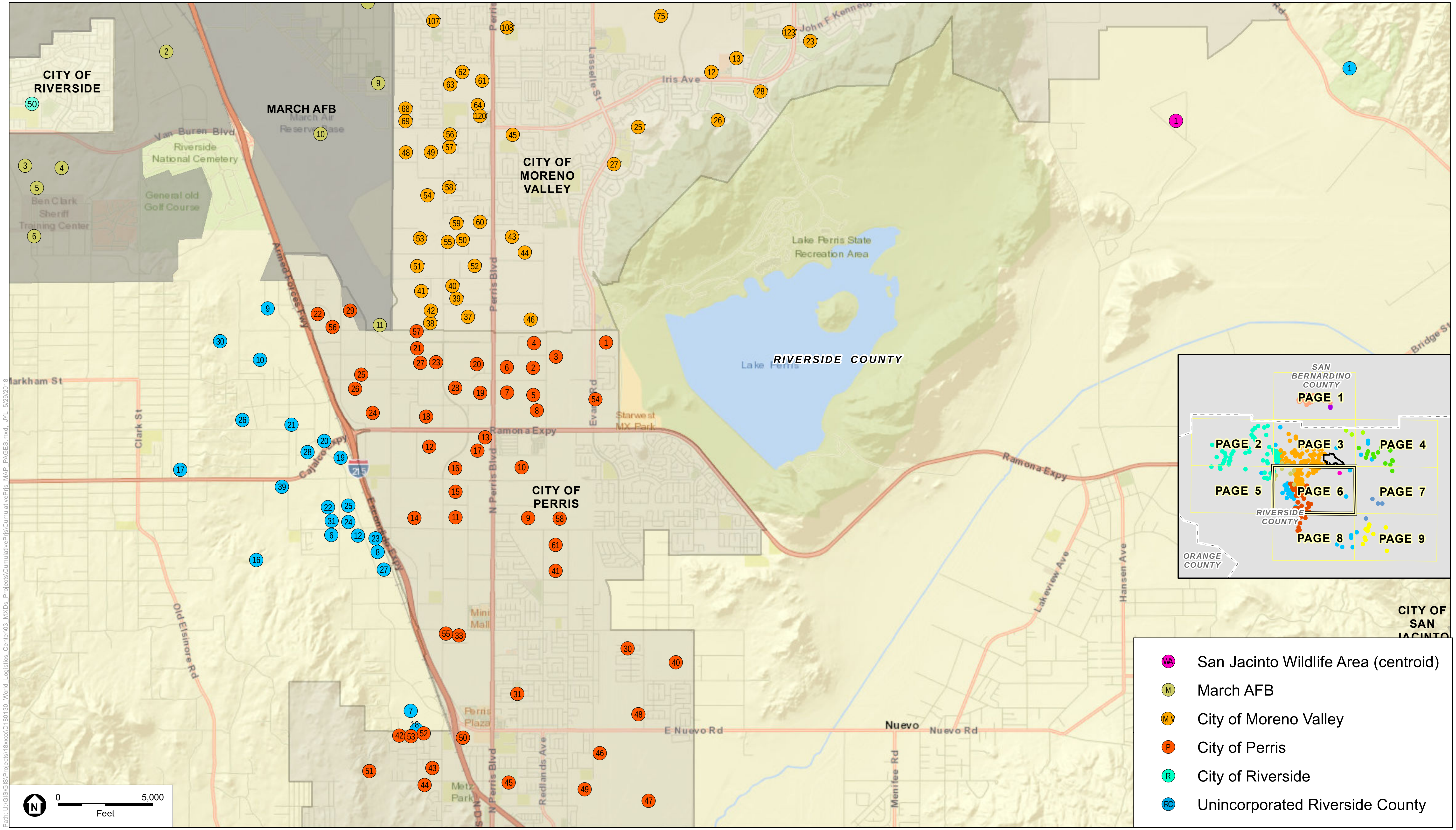

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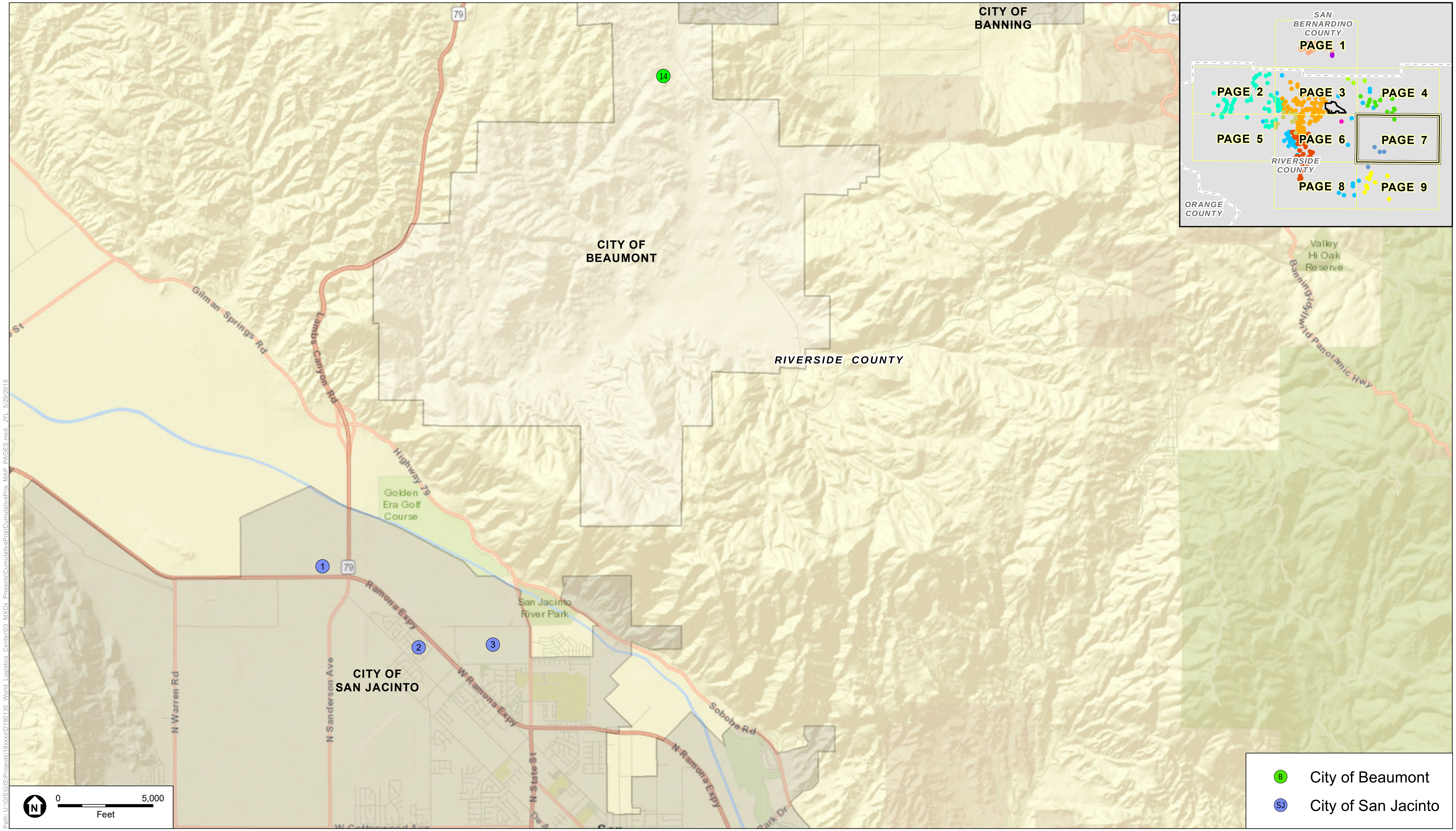

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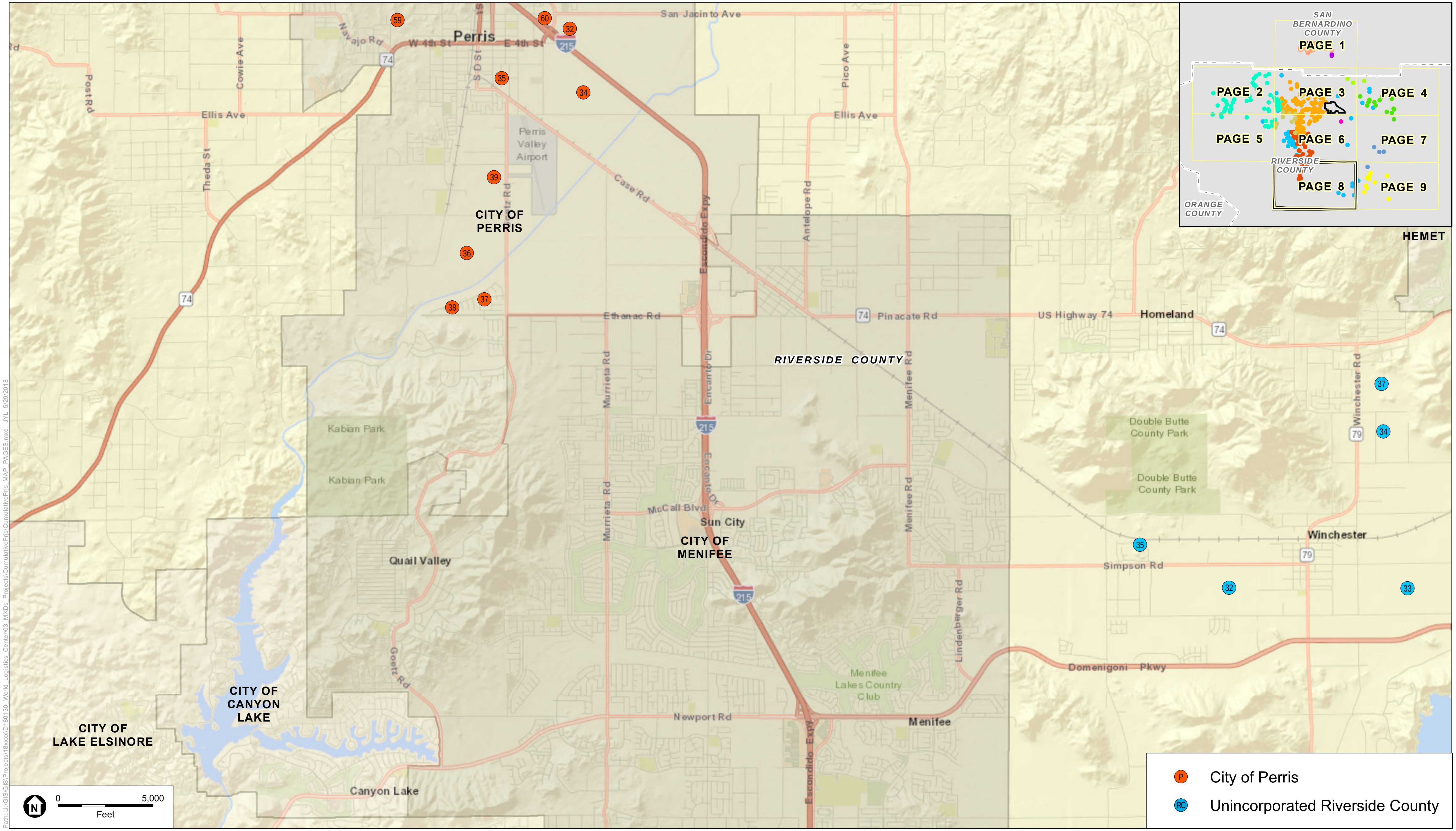

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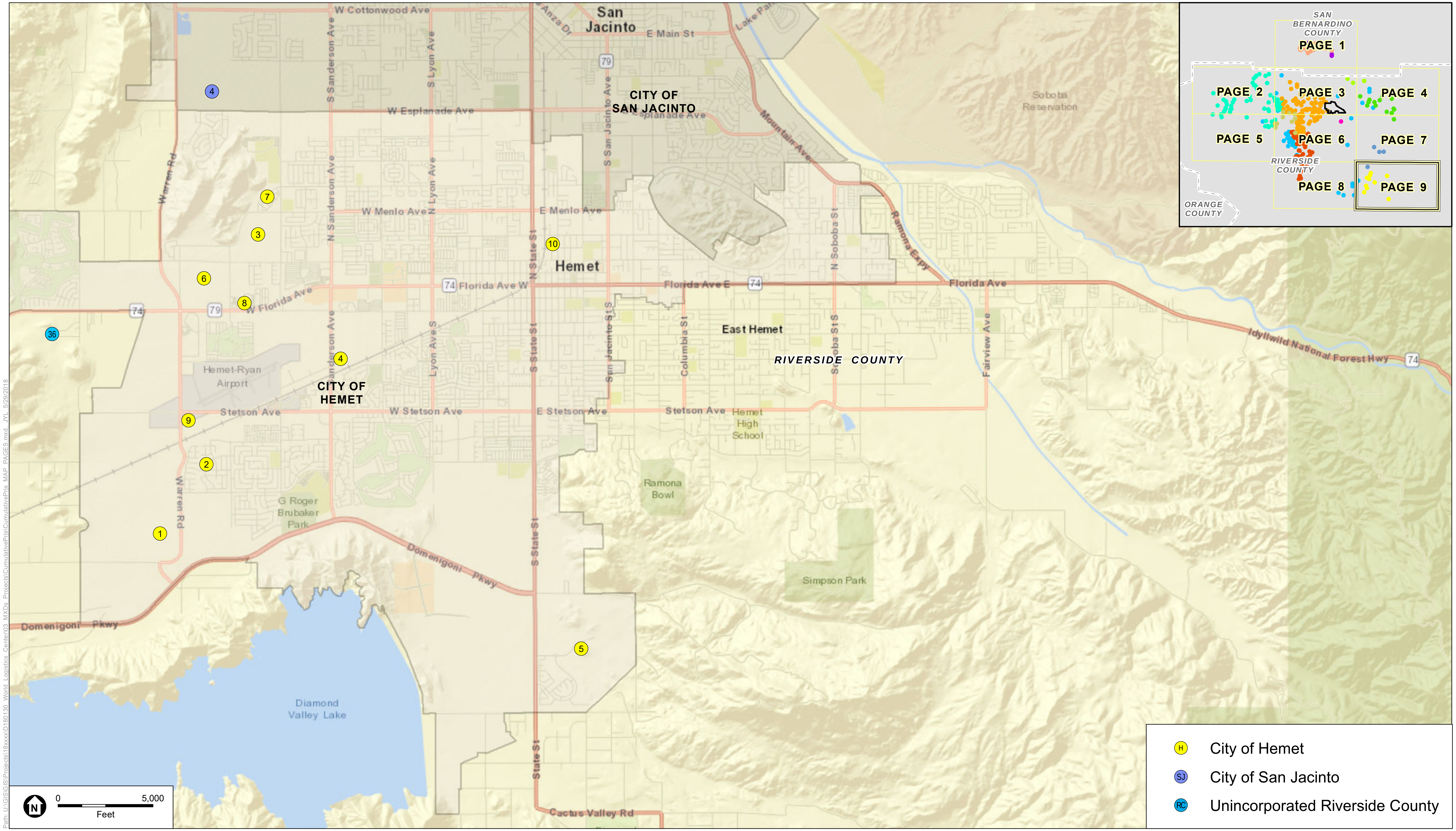

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Table 6.0-2: List of Cumulative Projects

Project ID	Project Name	Project Summary
B-1	Fairway Canyon SCPGA Tract Nos. 31462, 36558, and 36783 (#29)	Project Withdrawn
B-2	Tournament Hills 3	No project description available.
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park.
B-6	Mountain Bridge Regional Commercial Planned Community	Project Withdrawn
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site.
B-8	Noble Creek Vistas (#10)	No environmental documentation was available for review.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses.
B-13	Four Seasons (#23) Tract Nos. 32260 and 33096	No environmental documentation was available for review.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres.
C-1	TTM 33931 Fiesta Oak Valley/Mesa Verde Estates	No environmental documentation was available for review.
C-2	Summerwind Ranch	No environmental documentation was available for review.
C-3	JP Ranch	No environmental documentation was available for review.
H-1	TTM 36841	No environmental documentation was available for review.
H-2	Rancho Diamante	No environmental documentation was available for review.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres.

Project ID	Project Name	Project Summary
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres.
H-8	Florida Promenade Residential	No environmental documentation was available for review.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet’s 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet.
M-1	Amstar/Kaliber Development, PP22925	No project description available.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park.
M-3	Meridian Business Park - Phase 3	No environmental documentation was available for review.
M-4	March Business Center - South Campus	No environmental documentation was available for review.
M-5	Meridian LNR Phase 5	No environmental documentation was available for review.
M-6	Ben Clark Training Facility	No environmental documentation was available for review.
M-7	Meridian Business Park - Phase K4	No environmental documentation was available for review.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres.
M-9	TM 34748	Per the March Joint Powers Authority’s 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres.
M-10	Airport Master Plan	No environmental documentation was available for review.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power’s Authority’s draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres.
MV-1	Auto Mall Specific Plan Planning Area C	No environmental documentation was available for review.
MV-2	TR35823 / Stowe Passco Development	Project Closed Before Environmental Review
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres.

Project ID	Project Name	Project Summary
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres.
MV-5	P06-158 / Gascon	Project Closed Before Environmental Review
MV-6	Highland Fairview, Corporate Park, (Phases 2 and 3)	No environmental documentation was available for review.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres.
MV-12	Moreno Medical Campus	No environmental documentation was available for review.
MV-13	Cresta Bella	No environmental documentation was available for review.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots.
MV-23	PEN16-0129/0130 MV Ranch Apartments	No environmental documentation was available for review.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres.

Project ID	Project Name	Project Summary
MV-26	TR 30268 (PA01-0072) Pacific Communities	No environmental documentation was available for review.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots.
MV-31	PA15-0034 TR 36983	Project Closed Before Environmental Review
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-38	Vogel Properties	No environmental documentation was available for review.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-40	PEN17-0036 Warehouse	No environmental documentation was available for review.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays.

Project ID	Project Name	Project Summary
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district.
MV-46	Harley Knox/Redlands Development	No environmental documentation was available for review.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space.
MV-55	MV Commerce Park II (Alere) - Built before 2012	No environmental documentation was available for review.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site.

Project ID	Project Name	Project Summary
MV-62	Tract Map 22180	No environmental documentation was available for review.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots.
MV-64	TR22180 / Young Homes	No environmental documentation was available for review.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-70	TR32756 / CTK, Inc.	No environmental documentation was available for review.
MV-71	TR34681 / Perris Pacific Co.	No environmental documentation was available for review.
MV-72	35861 Frederick Homes	No environmental documentation was available for review.
MV-73	TR36038 / Alessandro Village Plaza LLC	Project Closed Before Environmental Review
MV-74	TR34216 / Creative Design Associates	No environmental documentation was available for review.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres.
MV-76	Commercial Medical Plaza, PA09-0033 thru 0039, and PA09-0019 & 0020	Project Closed Before Environmental Review
MV-77	Minka Lighting	No environmental documentation was available for review.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone.
MV-82	Centerpointe Bus. Ctr	No environmental documentation was available for review.
MV-83	Centerpointe Business Park	No environmental documentation was available for review.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots.
MV-87	TR31814 / Moreno Valley Investors	No project description available.

Project ID	Project Name	Project Summary
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts.
MV-90	PEN16-0110 Commercial Pad H	No environmental documentation was available for review.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision.
MV-99	36038 Alessandro Village Plaza, LLC	Project Closed Before Environmental Review
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site.
MV-101	Restaurant	No environmental documentation was available for review.
MV-102	Moreno Valley Professional Center	This project has been completed, with space available.

Project ID	Project Name	Project Summary
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres.
MV-104	373K Industrial Facility	No environmental documentation was available for review.
MV-105	35369 Tason Myers Property	N project description available.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres.
MV-107	32711 Isaac Genah	EXEMPT
MV-108	O'Reilly Automotive	No project description available.
MV-109	35530 Moreno Gilman 650, LLC-Quail Ranch	No environmental documentation was available for review.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses.
MV-115	Olivewood Plaza - Office Building	EXEMPT – No project description available.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes.
MV-120	Moreno Valley Shopping Center	No environmental documentation was available for review.
MV-121	Yum Donut Shop	EXEMPT – No project description available.
MV-122	Centerpointe Business Park	No environmental documentation was available for review.
MV-123	Rancho Belago Plaza - Retail	No project description available
MV-124	Alessandro & Lasselle	No environmental documentation was available for review.
MV-125	32756 Jimmy Lee	No environmental documentation was available for review.
MV-126	TTM 33222	No environmental documentation was available for review.
P-1	TR32707	No environmental documentation was available for review.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses.
P-3	P05-0477	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres.
P-6	Perris Circle Industrial Park	No environmental documentation was available for review.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres.
P-9	Aiere	No environmental documentation was available for review.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility.
P-13	Ridge	No environmental documentation was available for review.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres.
P-17	SRG Perris LC	No environmental documentation was available for review.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres.

Project ID	Project Name	Project Summary
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site.
P-29	P06-0411	No environmental documentation was available for review.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres.
P-33	Harvest Landing Specific Plan	No environmental documentation was available for review.
P-34	South Perris Industrial Phase 3	No environmental documentation was available for review.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility.
P-36	South Perris Industrial Phase 2	No environmental documentation was available for review.
P-37	Cabrillo	Per the City of Perris’ Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision.
P-38	Sequoia	No environmental documentation was available for review.
P-39	South Perris Industrial Phase 1	No environmental documentation was available for review.
P-40	TR 32041	No environmental documentation was available for review.
P-41	P 06-0228	No environmental documentation was available for review.
P-42	TR 31650	No environmental documentation was available for review.
P-43	TR 31225	No environmental documentation was available for review.
P-44	TR 33193	No environmental documentation was available for review.
P-45	P 12-05-0013	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
P-46	P 06-0378	No environmental documentation was available for review.
P-47	Park West Specific Plan	No environmental documentation was available for review.
P-48	TR 33338	No environmental documentation was available for review.
P-49	TR 31240	No environmental documentation was available for review.
P-50	P 11-09-0011	No environmental documentation was available for review.
P-51	TR 30973	No environmental documentation was available for review.
P-52	TR 31226	No environmental documentation was available for review.
P-53	TR 31659	No environmental documentation was available for review.
P-54	TTM 32708 (50% Complete)	No environmental documentation was available for review.
P-55	Perris Marketplace	No environmental documentation was available for review.
P-56	PM 34199/TPM 34697	No environmental documentation was available for review.
P-57	P 04-0343	No environmental documentation was available for review.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres.
P-59	TR 31407	No environmental documentation was available for review.
P-60	Retail on San Jacinto	No environmental documentation was available for review.
P-61	Investment Development Services (IDS) II	No environmental documentation was available for review.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed.
R-6	2450 Market Streetca (P13-0087; P13-0262)	No environmental documentation was available for review.
R-7	2861 Mary Street (P12-0442; P12-0443; P12-0444)	No environmental documentation was available for review.
R-8	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	No environmental documentation was available for review.
R-9	Magnolia Avenue Specific Plan	No environmental documentation was available for review.
R-10	SR-91/Van Buren Commercial	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
R-11	Citrus Business Park Specific Plan	No environmental documentation was available for review.
R-12	Sycamore Canyon Business Park Specific Plan	No environmental documentation was available for review.
R-13	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	No environmental documentation was available for review.
R-14	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	No environmental documentation was available for review.
R-15	Mission Grove Specific Plan	No environmental documentation was available for review.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside’s 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area.
R-17	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-0065)	No environmental documentation was available for review.
R-18	Hunter Business Park	No environmental documentation was available for review.
R-19	807 Blaine Street (P09-0717; P09-0718)	No environmental documentation was available for review.
R-20	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966)	No environmental documentation was available for review.
R-21	1006 & 1008 Clark Street	No environmental documentation was available for review.
R-22	3719 Strong Street (P05-0269; P08-0416; TM 33550)	No environmental documentation was available for review.
R-23	1710 Main Street (P12-0717)	No environmental documentation was available for review.
R-24	Downtown Specific Plan	No environmental documentation was available for review.
R-25	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-0046; P14-0047; P14-0048; P14-0049)	No environmental documentation was available for review.
R-26	Marketplace Specific Plan	No environmental documentation was available for review.
R-27	2586 University avenue (P13-0650; P13-0651)	No environmental documentation was available for review.
R-28	2340 Fourteenth Street (P09-0808; P08-0809)	No environmental documentation was available for review.
R-29	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	No environmental documentation was available for review.
R-30	3545 Central Avenue (P12-0741; P12-0743)	No environmental documentation was available for review.
R-31	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	No environmental documentation was available for review.
R-32	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	No environmental documentation was available for review.
R-33	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13-0201)	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
R-34	4247 Van Buren Boulevard (P13-0785; P13-0787)	No environmental documentation was available for review.
R-35	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	No environmental documentation was available for review.
R-36	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	No environmental documentation was available for review.
R-37	3705 Tyler Street (P13-0501; P13-0502)	No environmental documentation was available for review.
R-38	Park Sierra Avenue (P14-0026; P14-0027)	No environmental documentation was available for review.
R-39	Riverwalk Vista Specific Plan	No environmental documentation was available for review.
R-40	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	No environmental documentation was available for review.
R-41	4824 Jones Avenue (P13-0181; P13-0182)	No environmental documentation was available for review.
R-42	Rancho La Sierra Specific Plan	No environmental documentation was available for review.
R-43	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087; TM 34509)	No environmental documentation was available for review.
R-44	6465 Sycamore Canyon Boulevard	No environmental documentation was available for review.
R-45	P06-0591	No environmental documentation was available for review.
R-46	Sycamore-Highlands Specific Plan	No environmental documentation was available for review.
R-47	P06-0160/P06-1281	No environmental documentation was available for review.
R-48	P06-1408	No environmental documentation was available for review.
R-49	Canyon Springs Specific Plan	No environmental documentation was available for review.
R-50	Orangecrest Specific Plan	No environmental documentation was available for review.
R-51	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	No environmental documentation was available for review.
R-52	19811 Lurin Avenue (P06-1355; TM 33480)	No environmental documentation was available for review.
R-53	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	No environmental documentation was available for review.
R-54	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	No environmental documentation was available for review.
R-55	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM 32301)	No environmental documentation was available for review.
R-56	Office, Magnon & Panattoni	No environmental documentation was available for review.
R-57	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608; P0609; P13-0854)	No environmental documentation was available for review.
R-58	Canyon / Valley Springs Parkway	No environmental documentation was available for review.
R-59	Alessandro and Gorgonio	No environmental documentation was available for review.
R-60	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848)	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
R-61	Gless Ranch	No environmental documentation was available for review.
R-62	6091 Victoria Avenue (P13-0432)	No environmental documentation was available for review.
R-63	8616 California Avenue (P08-0084; PM 35852)	No environmental documentation was available for review.
R-64	P13-0389; TM36579	No environmental documentation was available for review.
R-65	P13-0723; P13-0724; P13-0725; TM 36654	No environmental documentation was available for review.
R-66	Azar Plaza	No environmental documentation was available for review.
RC-1	TR35530 / Quail Ranch Specific Plan	No environmental documentation was available for review.
RC-2	Jack Rabbit Trail	Project Withdrawn
RC-3	The Preserve / Legacy Highlands SP - Residential	No project description available.
RC-4	Badlands Sanitary Landfill	No environmental documentation was available for review.
RC-5	Villages of Lakeview - Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project.
RC-6	Rider Business Center (Core 5 Industrial Partners)	No environmental documentation was available for review.
RC-7	Nuevo Distribution Center	No environmental documentation was available for review.
RC-8	Trucking DC (Central Freight, LLC)	No environmental documentation was available for review.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres.
RC-14	University Highlands	No environmental documentation was available for review.
RC-15	TTM 33410 Box Springs	No environmental documentation was available for review.
RC-16	Rider Street Quarry	No environmental documentation was available for review.
RC-17	PP 24608	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
RC-18	TR 32406	No environmental documentation was available for review.
RC-19	CUP 03599	No environmental documentation was available for review.
RC-20	PP 25699	No environmental documentation was available for review.
RC-21	CUP 03527	No environmental documentation was available for review.
RC-22	TR30592	No environmental documentation was available for review.
RC-23	PP 25768	No environmental documentation was available for review.
RC-24	PP 21144	No environmental documentation was available for review.
RC-25	PP 16976	No environmental documentation was available for review.
RC-26	PM 32699	No environmental documentation was available for review.
RC-27	Yocum Baldwin	No environmental documentation was available for review.
RC-28	CUP03315	No environmental documentation was available for review.
RC-29	18580 Van Buren Boulevard (P08-0402; P13-0822)	No environmental documentation was available for review.
RC-30	Knox Logistics	No environmental documentation was available for review.
RC-31	PP23342	No environmental documentation was available for review.
RC-32	TR31537	No environmental documentation was available for review.
RC-33	TR34130	No environmental documentation was available for review.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space.
RC-36	TR36478, TR36480, PP25219	No environmental documentation was available for review.
RC-37	TR36504	Per Riverside County’s IS, the project proposes a Schedule ‘A’ subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space.
RC-39	Tract 33869	No environmental documentation was available for review.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres.
RD-2	Redlands Pioneer Tract	No project description available.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres.

Project ID	Project Name	Project Summary
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally the Project seeks approval to remove 5 acres from an Agricultural Preserve.
RD-5	I-10 Redlands LC - A	No project description available
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property.
RD-7	RV Storage Facility	No environmental documentation was available for review.
RD-8	Liberty Lane Apartments	No environmental documentation was available for review.
RD-9	Hilton Home2 Suites	No environmental documentation was available for review.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres.
RD-13	Ashley Furniture	No project description available.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking.
RD-15	2220 Almond Ave	No environmental documentation was available for review.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino’s 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino’s 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85.
SB-3	Prologis #12	Per the County of San Bernardino’s 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a “high cube” warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site.
SB-5	Prologis #13	No environmental documentation was available for review.
SB-6	Prologis #8	Per the County of San Bernardino’s 2007 IS, the project would result in the construction four industrial buildings to be used a “High Cube” and general warehouse distribution facilities.

Project ID	Project Name	Project Summary
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots.
SJ-1	Gateway Area Specific Plan	No environmental documentation was available for review.
SJ-2	TR31886 - Under Construction	No environmental documentation was available for review.
SJ-3	TR30598 (SP 1-03)	No environmental documentation was available for review.
SJ-4	TR32955 (SP 1-02)	No environmental documentation was available for review.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife’s 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking.

6.0.6 Analysis of Cumulative Impacts

The analysis of each environmental issue/topic (Sections 6.1 – 6.17) evaluates the cumulative impacts of the project in conjunction with the identified potentially cumulative projects based on the projects' potential to cause impacts that overlap geographically and temporally. Implementation of the mitigation measures identified in each specific section of the 2015 FEIR in conjunction with new mitigation measures from the Revised Sections of the FEIR will reduce the cumulative impact of the project to the extent feasible. In many cases, the mitigation measures result in reducing the project's cumulative impact to a less than significant level. For other impacts, the implementation of the identified mitigation measures will not avoid a significant cumulative impact. The seventeen subsections of Chapter 6.00 (i.e., 6.1 - 6.17) identify those significant, unavoidable cumulative impacts that will not be reduced to a less than significant level. In addition, the analyses indicate to what degree the project makes a significant (i.e., cumulatively considerable) contribution to significant cumulative impacts for each environmental topic.

This analysis considers the impacts of the project in combination with the potential environmental effects of other projects in the identified area. "Other projects," also referred to as "cumulative projects," include the ongoing impacts of past projects (which are reflected in the resource-specific descriptions of baseline conditions) and anticipated impacts of recently completed projects, projects currently under construction or the lead agency's consideration, and reasonably foreseeable probable future projects currently in development. The potential for projects to have a cumulative impact depends on their geographic location, size, land use type, and development schedule.

6.0.6 Geographic Scope

The project area is located in the eastern portion of the City of Moreno Valley. The potential for specific project-generated impacts to contribute to a significant cumulative impact would occur if the impacts of the project and other potentially cumulative projects are located within the same geographic area. This geographic area varies depending upon the resource area being evaluated (water quality, noise, etc.) and the geographic extent of the potential impact. For example, the geographic area associated with construction noise impacts would be limited to areas where construction noise from the project could be heard at the same time as noise from other projects could be heard. In contrast, the geographic area that could be affected by the project and cumulative construction-related traffic would include the western portion of Riverside County. Each topic evaluated in Section 6.0 of the Revised Sections of the FEIR has developed a specific geographic cumulative project impact area, based on the potential for cumulative impacts to occur, and includes individual tables summarizing the specific cumulative projects and a figure depicting the boundary of the cumulative project evaluation area and the location of the cumulative projects.

6.0.6 Project Timing

In addition to the geographic scope, cumulative impacts are determined by the timing of the generation of similar impacts by other projects relative to the project. Although the timing of the future projects is likely to fluctuate due to schedule changes or other unknown factors, this analysis assumes these individual projects would be developed for implementation through the course of the current planning horizon and could be implemented concurrently with construction of the project. The worst case planning horizon year is 2040.

6.1 Aesthetics

Cumulative effects to aesthetics are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to aesthetics is provided in Section 6.1.1. The geographic and temporal scopes for cumulative impacts to aesthetics are provided in Section 6.1.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the aesthetics issues are discussed in Section 6.1.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.1.3 below as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to aesthetics.

6.1.1 Project Impact Findings

The project's effects to aesthetics are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.1 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Have a substantial adverse effect on a scenic vista? **Significant and Unavoidable with Mitigation, Section 4.1.6.1, Impact 4.1.6.1.**
- Result in substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway and/or local scenic road? **Significant and Unavoidable with Mitigation, Section 4.1.6.2, Impact 4.1.6.2.**
- Result in substantial degradation of the existing visual character or quality of the site and its surroundings? **Significant and Unavoidable with Mitigation, Section 4.1.6.3, Impact 4.1.6.3.**
- Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area? **Less than Significant with Mitigation, Section 4.1.6.4, Impact 4.1.6.4.**

6.1.2 Geographic and Temporal Scope

The cumulative impact geographic area for aesthetics has been identified from the perspective of prominent public vantage points from which viewers could see the project, including public roads within and surrounding the project site, SR-60, Gilman Springs Road, Theodore Street, and Redlands Boulevard. See Figure 6.1. The views within the geographic area that could be altered by the project in combination with other projects include views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area, the Badlands east of Gillman Springs Road, and The San Jacinto Wildlife Area that includes Mystic Lake and associated wetlands. The prominent vantage points include SR-60 to the north, Gilman Springs Road to the east, Moreno Beach Drive to the west and the Lake Perris State Recreation area and San Jacinto Wildlife Area to the south. These prominent vantage points in the vicinity of the project site define the geographic area where public views could be altered. Public views beyond the prominent vantage points do not include the project site and therefore are not part of the cumulative aesthetics impacts geographic area. The geographic area for cumulative aesthetics and views impacts is shown on Figure 6.1-1. The projects located within the cumulative aesthetics impact area are listed in Table 6.1-1. The project would contribute to cumulative aesthetic conditions starting with project-related alteration of on-site conditions and lasting for the duration of the project.

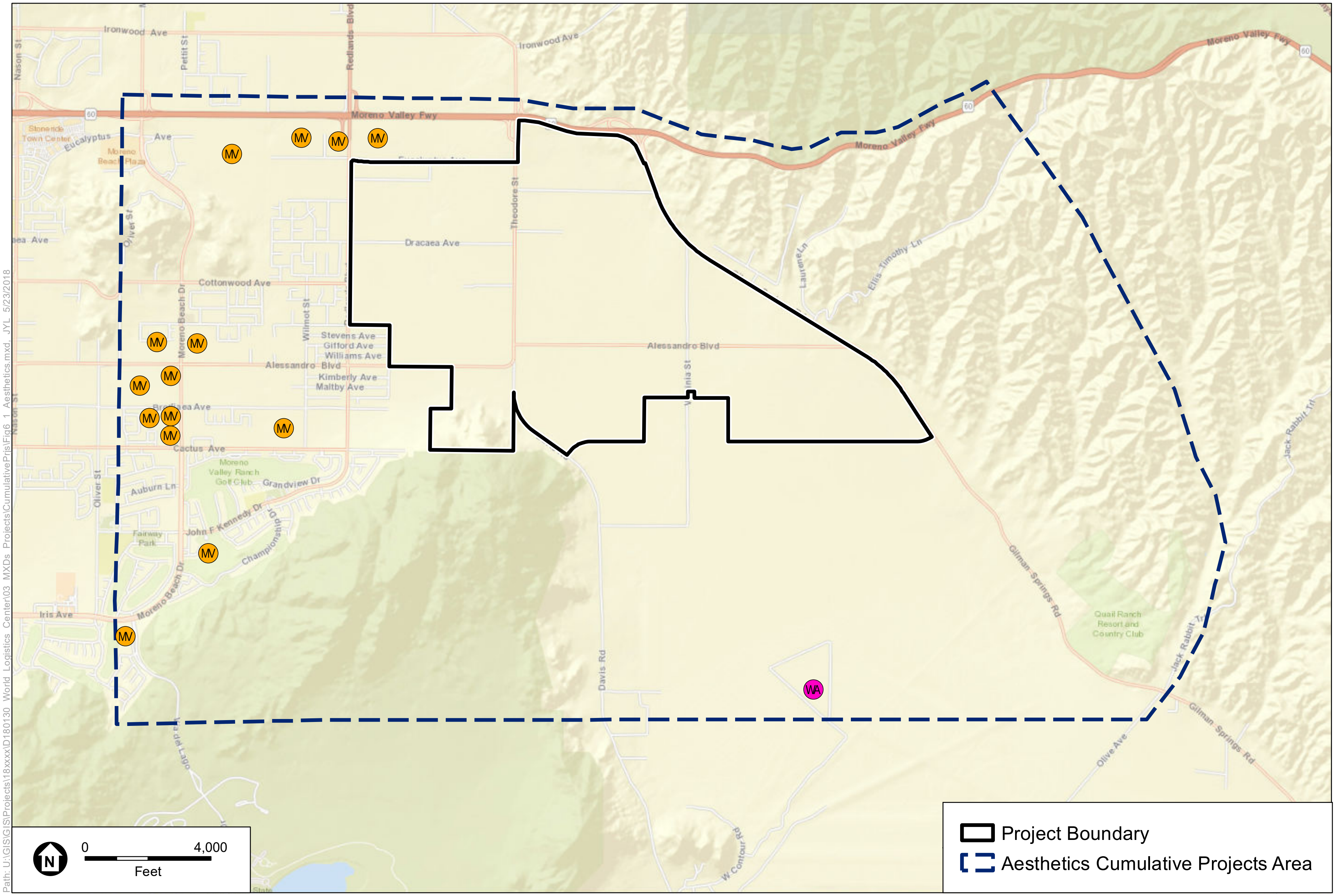

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.1-1
Aesthetics Cumulative Projects Area

ESA

Table 6.1-1: Aesthetics Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	As described in the project's 2014 EIR, the development of 2,244,638 square feet of distribution warehouse space would have a significant and unavoidable impact on aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) and could contribute to cumulative impacts to aesthetic resources due to the degree of visual change introduced by the project.
MV-4	Westridge Commerce Center	The visual change introduced by the development of a 937,260 square foot warehouse distribution facility could contribute to cumulative impacts on aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare)
MV-17	TR31590 / Winchester Associates	The Project's subdivision of 30 acres for 96 single family homes could contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.
MV-18	Convenience Store/Fueling Station	The Project's construction of a fueling station and convenience store would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.
MV-19	Senior Assisted Living	The Project's building of a 139-unit senior assisted living facility would contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.
MV-20	Moreno Marketplace	The Project's development of 95,905 square foot retail center would contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.

Project ID	Project Name	Environmental Document Summary
MV-22	TR36882 (PA15-0010) SFR	The Project's subdivision of 9.4 acres into 40 residential lots would contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.
MV-24	TM 36436 (PA12-0005)	The Project's subdivision of 43.52 acres into 159 single family residential lots would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.
MV-28	TR34329 / Granite Capitol	The Project's development of 90 condominiums on 10.41 acres would contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.
MV-36	TM 31618 (PA03-0106)	The Project's subdivision of 18.99 acres into 56 single family residential lots would contribute to cumulative impacts to aesthetic resources in the geographic area (including visual character and light and glare) due to the visual change introduced by the Project
MV-95	Moreno Beach Marketplace/ Lowes	The Project's development of retail space on 14.2 acres would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, visual character, and light and glare) due to the visual change introduced by the Project
SJWA-1	San Jacinto Wildlife Land Management Plan	The Project's development of a land management plan would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.

6.1.3 Cumulative Impact Evaluation

6.1.3.1 Scenic Vistas

Impact: *The project's contribution to cumulative impacts to scenic vistas would be cumulatively considerable.*

Threshold: Would the project have a substantial adverse effect on a scenic vista?

Cumulative Impact Analysis

Scenic vistas adversely impacted by the project include views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area, the Badlands, the San Jacinto Wildlife Area and the valley floor. Features of the existing development landscape that adversely affect views of these resources for travelers eastbound and westbound on SR-60 include the existing Skechers warehouse building located adjacent to the northwestern boundary of the project site.

For travelers eastbound on SR-60, the project together with cumulative projects MV-3, MV-4, MV-6, and MV-95 could potentially reduce views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area, the Badlands, the San Jacinto Wildlife Area and the valley floor. For travelers westbound on SR-60, the project together with cumulative projects MV-3, MV-4, MV-20, MV-95 and the existing Skechers could reduce views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area. Views from Gilman Springs Road, and other local roadways could be altered by the development of the project in combination with some or all of the cumulative projects. Environmental documents for MV-3 and MV-4 both identified scenic vistas as being significant and unavoidable impacts and that both projects would have cumulative impacts. Both MV-3 or MV-4 identified that there were no feasible measures to reduce impacts on the scenic vistas. MV-3 and MV-4 are considered large warehouse projects with structures and uses that would be similar in character to the structures and uses of the project. Many of the remaining cumulative projects within the cumulative geographic area for aesthetics include residential or commercial type projects, and the associated environmental documents found the impacts to be less than significant. Because there are cumulative projects that would result in significant and unavoidable impacts to scenic vistas, the cumulative development within the cumulative geographic areas for aesthetics would result in significant cumulative impacts associated with scenic vistas.

Views of the project site by the motoring public from SR-60, Gilman Springs Road, and other local roadways will change from open agricultural lands to logistics buildings and associated parking areas, roadways, infrastructure, and landscaping. Specifically, travelers in both directions on SR-60 will have views of the project site until the northernmost portion of the site is developed. If all future buildings of the project proposed along the south side of SR-60 block views to the same degree as the existing logistics building, this would create a significant visual impact as it would impact views of Mount Russell, the foothills surrounding the Lake Perris State Recreation Area, and the Badlands along Gilman Springs Road and the valley floor. Travelers in both directions on Gilman Springs Road have views across the project site. If future WLC buildings along Gilman Springs Road block views to the same degree as the Skechers building impacts views from SR-60, there would be a significant impact to the views of Mount Russell and the Mystic Lake area. Views from nearby residences could change as foreground and mid-ground views would change from vacant marginal agricultural land to trees, ornamental landscaping, and new logistics buildings. Most background views from nearby residences will be affected as well as distant views of the Badlands and Mount Russell. As discussed in Section 4.1.6.1 of the FEIR, the development of the project will substantially affect scenic vistas for residents living within, or in the vicinity of the project, and for travelers on SR-60, Gilman Springs Road, Redland Boulevard, Theodore Street, and Alessandro Boulevard. Because the project would result in significant impacts on scenic vistas, the project’s contribution to cumulative impacts to scenic vistas would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.1.6.1A through 4.1.6.1D is required.

Significance Level After Mitigation: Significant and unavoidable impact. The size, height, and location of buildings within the project site are limited by the standards and guidelines contained in the WLC Specific Plan. Mitigation Measures 4.1.6.1A through 4.1.6.1D are recommended to reduce impacts related to the loss of public and private views. After implementation of the proposed mitigation measures, adverse effects on scenic vistas would remain significant and unavoidable due to the change in views for residents within and surrounding the project site, for travelers on SR-60, Gilman Springs

Road, Theodore Street, and Redlands Boulevard. Therefore, the project's contribution to cumulative impacts to scenic vistas would be considered cumulatively significant and unavoidable.

6.1.3.2 Scenic Resources and Scenic Highways

Impact:	*The project's contribution to cumulative impacts on the views of scenic resources for motorists traveling on SR-60 and Gilman Springs Road would be cumulatively considerable.*
Threshold:	Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and/or local scenic road?

Cumulative Impact Analysis

The project in conjunction with the cumulative development could have a substantial effect on scenic resources for motorists traveling on SR-60 and Gilman Springs Road. According to Section 4.1.6.2 of the FEIR, the Caltrans Scenic Highway Program does not identify any scenic highways near the project site. However, the City of Moreno Valley identifies SR-60, Gilman Springs Road, and Moreno Beach Drive as local scenic roads. According to the City's General Plan EIR, major scenic resources within the City are visible from SR-60, Gilman Springs Road, and Moreno Beach Drive. Existing views for motorists traveling eastbound and westbound on SR-60 consist of agricultural fields in the foreground and midground, and the Badlands and Mount Russell in the background. Existing views for motorists on Gilman Springs Road consist of agricultural fields in the foreground, the San Jacinto Wildlife Area and the Badlands in the background. Views for motorists traveling northbound and southbound on Moreno Beach Drive includes agricultural fields and residential uses in the foreground and midground, and the Badlands and Mount Russell and the foothills surrounding the Lake Perris State Recreation Area in the background. The related projects located along SR-60 would alter views of the agricultural fields in the foreground and mid-ground as well as the background views of the Badlands and Mount Russell. This alteration of views along SR-60 from the implementation of the cumulative related projects such as MV-3 and MV-4 could be cumulatively significant, but the environmental document for MV-4 did not identify an individual or cumulative significant visual impact. In addition, alteration of views along Moreno Beach Drive from the implementation of cumulative related projects such as MV-95 could be cumulatively significant. The environmental document for MV-95 found it to be individually and cumulatively less than significant at the time of its publication. Based on a brief review of both projects, these two related projects could result in a significant combined visual impacts along Moreno Beach Drive. In summary, the cumulative projects could result in significant visual impacts for motorists along SR-60, Moreno Beach Drive and Gilman Springs Road.

According to Section 4.1.6.2 of the FEIR, development of the project would significantly alter existing views by introducing new logistics buildings and associated parking areas, roadways, infrastructure, and landscaping adjacent to SR-60 and Gilman Springs Road, but not along Moreno Beach Drive. The project meets the Caltrans' criteria in both the moderate and major visual intrusion categories. The characteristics of a "moderate intrusion" includes increased number of buildings, but complementary to the landscape; smaller setbacks and lack of roadway screening; buildings that do not degrade or obstruct a scenic view. The characteristics of a "major visual intrusion" includes dense and continuous development; highly reflective surfaces; buildings poorly maintained; visible blight; development along ridgelines; or buildings that degrade or obstruct a scenic view. Since the project meets both criteria, the project may create a significant visual impact for motorists traveling along SR-60 and Gilman Springs Road. The project would not be visible from Moreno Beach Drive, and therefore, no impact to motorist's views would occur.

Because the project could result in significant visual impacts for motorists along SR-60, and cumulative projects such as MV-3 and MV-4 could also result in significant visual impacts for motorists along SR-60, the project's contribution to cumulative impact along SR-60 would be cumulatively considerable. In addition, because the project would result in significant visual impacts for motorists along Gilman

Springs Road and the cumulative project RC-1 could also result in significant visual impacts for motorists along SR-60, the project's contribution to cumulative visual impacts along Gilman Springs Road would be cumulatively considerable. Although cumulative related projects MV-1 and MV-95 could result in significant visual impacts to motorists along Moreno Beach Drive, the project would not contribute to any visual impact to motorists' views. Therefore, the project would result in no cumulative impact to visual resources that can be viewed from Moreno Beach Drive.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.1.6.1A through 4.1.6.1D would be required.

Significance Level After Mitigation: Significant and unavoidable impact. The application of the development standards and design guidelines of the WLC Specific Plan, will help to soften the view of future buildings viewed from SR-60, but the project's incremental impact to local views in combination with the incremental impacts of other projects in the cumulative scenario would remain significant. Mitigation Measures 4.1.6.1A through 4.1.6.1D are recommended to reduce project impacts related to scenic resources. However, after implementation of the proposed mitigation measures, the alterations of views from SR-60 and Gilman Springs Road as a result of the project in combination with other cumulative projects would remain a significant and unavoidable impact. The project's contribution to cumulative impacts to scenic resources would be considered cumulatively considerable and significant and unavoidable.

6.1.3.3 Existing Visual Character and Surroundings

Impact: *The project's contribution to cumulative impacts to the existing visual character and surroundings would be cumulatively considerable.*

Threshold: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Cumulative Impact Analysis

The project in conjunction with the cumulative development could have a substantial effect on scenic resources for motorist traveling on SR-60 and Gilman Springs Road. According to Section 4.1.6.2 of the FEIR, the Caltrans Scenic Highway Program does not identify any scenic highways near the project site. However, the City of Moreno Valley identifies SR-60, Gilman Springs Road, and Moreno Beach Drive as local scenic roads. According to the City's General Plan EIR, major scenic resources within the City are visible from SR-60, Gilman Springs Road, and Moreno Beach Drive. Existing views for motorists traveling eastbound and westbound on SR-60 consist of agricultural fields in the foreground and midground, and the Badlands and Mount Russell in the background. Existing views for motorists on Gilman Springs Road consist of agricultural fields in the foreground, the San Jacinto Wildlife Area and the Badlands in the background. Views for motorists traveling northbound and southbound on Moreno Beach Drive includes agricultural fields and residential uses in the foreground and midground, and the Badlands and Mount Russell and the foothills surrounding the Lake Perris State Recreation Area in the background. The related projects located along SR-60 would alter views of the agricultural fields in the foreground and mid-ground as well as the background views of the Badlands and Mount Russell. This alteration of views along SR-60 from the implementation of the cumulative projects such as MV-3 and MV-4 could be cumulatively significant, but the environmental document for MV-4 did not identify an individual or cumulative significant visual impact. In addition, alteration of views along Moreno Beach Drive from the implementation of cumulative related projects such as MV-1 and MV-95 could be cumulatively significant. No environmental document was available to review for MV-1 and the environmental document for MV-95 found it to be individually and cumulatively less than significant at the time of its publication. Based on a brief review of both projects, these two related projects together and in combination with the project could result in a significant visual impacts along Moreno Beach

Drive. Although the environmental document for cumulative related project RC-1 is not available, based on a brief review of the project location and project characteristics, RC-1 has the potential to substantially alter views for motorists along Gilman Springs Road, and therefore, could result in significant cumulative impacts. In summary, the cumulative projects could result in significant visual impacts for motorists along SR-60, Moreno Beach Drive and Gilman Springs Road.

According to Section 4.1.6.2 of the FEIR, development of the project would significantly alter existing views by introducing new logistics buildings and associated parking areas, roadways, infrastructure, and landscaping adjacent to SR-60 and Gilman Springs Road, but not along Moreno Beach Drive. The project meets the Caltrans' criteria in both the moderate and major visual intrusion categories. The characteristics of a "moderate intrusion" includes increased number of buildings, but complementary to the landscape; smaller setbacks and lack of roadway screening; buildings that do not degrade or obstruct a scenic view. The characteristics of a "major visual intrusion" includes dense and continuous development; highly reflective surfaces; buildings poorly maintained; visible blight; development along ridgelines; or buildings that degrade or obstruct a scenic view. Since the project meets both criteria, the project may create a significant visual impact for motorists traveling along SR-60 and Gilman Springs Road. The project would not be visible from Moreno Beach Drive, and therefore, could not cause or contribute to any cumulative impact to motorist's views from there.

Because the project could result in significant visual impacts for motorists along SR-60, and cumulative projects such as MV-3 and MV-4 could also result in significant visual impacts for motorists along SR-60, the project's contribution to cumulative impact along SR-60 would be cumulatively considerable. In addition, because the project would result in significant visual impacts for motorists along Gilman Springs Road, the project's contribution to cumulative visual impacts along Gilman Springs Road would be cumulatively considerable. Although cumulative related projects MV-3 and MV-95 could result in significant visual impacts to motorists along Moreno Beach Drive, the project would not contribute to any visual impact to motorists' views. Therefore, the project would result in no cumulative impact to visual resources that can be viewed from Moreno Beach Drive.

6.1.3.4 Light and Glare

Impact: *The project's contribution to cumulative impacts to light and glare would be cumulative considerable.*

Threshold:	Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Cumulative Impact Analysis

The project in conjunction with the cumulative development could significantly degrade the existing visual character (including light and glare) of the project site by development of the project, including both daytime glare and nighttime lighting. Development of cumulative projects within the eastern Moreno Valley area would result in the conversion of open space/vacant land to urbanized land uses. The environmental document for MV-3 identified existing visual character/light and glare, and surroundings as being a significant and unavoidable impact. MV-4 did not identify existing visual character and surroundings as having a significant impact. Both MV-3 and MV-4 are considered large warehouse projects with structures and uses that would be similar in character to the structures and uses of the project. Many of the remaining cumulative projects within the cumulative geographic area for aesthetics include residential or commercial type projects, and the associated environmental documents found the impacts to visual character/light and glare of the area to be less than significant. Because MV-4 identified significant and unavoidable impacts to the existing visual character, cumulative development within the cumulative geographic areas for aesthetics would result in a significant cumulative impact associated with visual character.

The project site is largely vacant marginal agricultural land with six occupied single family homes and associated ranch/farm buildings in various locations on the property. SDG&E operates a natural gas compressor plant on 19 acres south of the project site. The SCGC operates a metering and pipe cleaning station on two separate parcels totaling 1.5 acres also south of the project site. The project site and areas adjacent to the project site contain a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service. Developed properties in the project vicinity include a logistics building to the northwest (Skechers) and several residential neighborhoods along Redlands Boulevard and Cactus Avenue along the western boundary of the project site. Development of the project would include approximately 40.6 million square feet of logistics uses with associated parking areas, ornamental landscaping, roadway and infrastructure on approximately 2,610 acres. Building heights will range from 60 to 80 feet depending on the location within the project site which will substantially impact the views of nearby residents and motorists on adjacent roadways including, but not limited to, SR-60 and Gilman Springs Road. Building roofs are expected to include solar panels which could create glare impacts.

According to Section 4.1.6.4 of the FEIR, development of the project would substantially alter the existing character and create light and glare impacts from conversions of the project site from open space to an urbanized setting with many large logistics buildings. Because the project would result in a significant impact on the visual character and light and glare from development of the area and cumulative development will also result in a significant impact on visual character, the project’s contribution to cumulative impacts to the existing visual character and surroundings would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.1.6.1A, 4.1.6.1B, 4.1.6.4A, and 4.1.6.4B would be required.

Significance Level After Mitigation: Less than significant impact. The project shall comply with the City’s General Plan, the City’s Municipal Code (Section 9.08.100, Lighting) and the WLC Specific Plan’s development guidelines for lighting and building materials. Mitigation Measure 4.1.6.1A and 4.1.6.1B would help reduce related visual impacts. Mitigation Measures 4.1.6.4A and 4.1.6.4B will help reduce light and glare associated with the new buildings near the San Jacinto Wildlife Area to the south. Mitigation Measure 4.1.6.4A requires a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of the adjacent residential uses. Mitigation Measure 4.1.6.4B requires an analysis of proposed solar panels demonstrating the glare from the panels will not negatively affect adjacent residential uses or motorist along perimeter roadways. Therefore, with compliance with the City’s General Plan, the City’s Municipal Code, and implementation of the mitigation measures, the project’s contribution to cumulative light and glare impacts would be less than cumulatively considerable.

6.2 Agricultural and Forestry Resources

Cumulative effects to agricultural and forestry resources are described in this section. A summary of the WLC project's incremental contribution to potential cumulative impacts to agricultural and forestry resources is provided in Section 6.2.1. The geographic and temporal scopes of the cumulative analysis are provided in Section 6.2.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the agricultural and forestry resources issues are discussed in Section 6.2.3.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.2-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact. In addition, this section includes an evaluation of the project's contribution to the cumulative impact to agricultural and forestry resources and whether that contribution would be cumulatively considerable.

6.2.1 Project Impact Findings

The project's effects to agricultural and forestry resources are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.2 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? **No Impact, Section 4.2.5.1.**
- Would the project result in the loss of forest land or conversion of forest land to non-forest use? **No Impact, Section 4.2.5.2.**
- Would the project conflict with existing zoning for agricultural use or a Williamson Act contract? **No Impact, Section 4.2.5.3.**
- Would the project result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural land use? **No Impact, Section 4.2.6.1.**

- Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use? **Less than Significant, Section 4.2.6.2.**

As documented in the FEIR, impacts to 25 acres of Unique Farmland were determined to be significant but were able to be reduced to less than significant with mitigation (Mitigation Measure 4.2.6.1A), which required the recordation of an Agricultural Conservation Easement over equivalent or better agricultural land. Since publication of the FEIR, the California Department of Conservation’s “Riverside County Important Farmland 2016” map (published July 2017), re-designated the 25-acre Unique Farmland parcel to “Farmland of Local Importance”. With the change in designation for this parcel, there is no longer any “Prime Farmland,” “Unique Farmland” or “Farmland of Statewide Importance” anywhere within the project site.

Pursuant to CEQA Guidelines §15130, “a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.” Because the project would result in no impact related to a conflict with zoning for forest land, timberland, or timberland zoned Timberland Production; no impact related to a loss of forest land or conversion of forest land to a non-forest use; no impact related to a conflict with existing zoning for agricultural use or a Williamson Act contract; and no impact related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural land use or of forest land to non-forest use, the project would not cause or contribute to any potential cumulative in any of these respects.

Because development of the project could result in a less-than-significant impact related to the conversion of 25 acres of Farmland of Local Importance, this cumulative effects analysis evaluates whether associated cumulative effects could be significant, and if so, whether the project’s contribution would be cumulatively considerable.

6.2.2 Geographic and Temporal Scope

The cumulative impact geographic area for potential impacts to agricultural use of Farmland of Local Importance is Western Riverside County. Portions of the project site have been designated as Farmland of Local Importance by the County of Riverside. Because Riverside County has two geographic regions (western and eastern), it is reasonable to focus the cumulative impact analysis within the region where the project is located. Therefore, the cumulative impact geographic area for agricultural resources is Western Riverside County. The geographic area for cumulative agricultural impacts is shown on Figure 6.2-1. The projects located within the cumulative agricultural impact area are listed in Table 6.2. The project would contribute to cumulative impacts to agricultural use starting from when the project site’s 2,361 acres of Farmland of Local Importance are converted to a non-agricultural use and would last for the duration of the project.

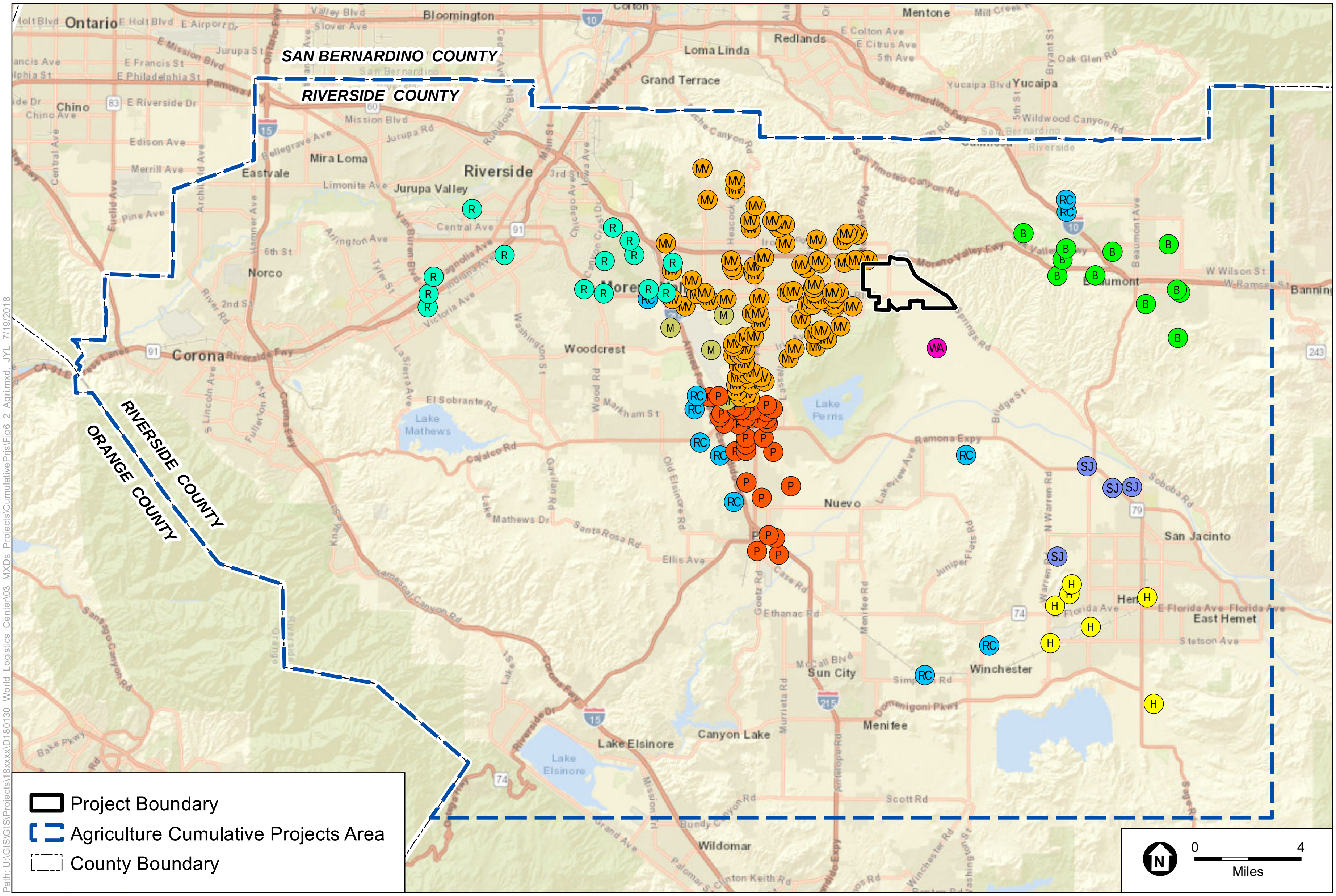

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.2-1
Agriculture Cumulative Projects Area

ESA

Table 6.2-1: Agricultural and Forestry Resources Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	The Project's development of low and medium density housing on 417.2 acres would result in the loss of 160 acres of soils which are Class II when irrigated and would contribute to cumulative changes in the environment which could result in impacts to agricultural resources.
B-4	Hidden Canyon	The Project would result in the development of 426 residential units, commercial space and open space on 196.5 acres
B-5	ProLogis/Rolling Hills Ranch Industrial	The Project would change the 152,9-acre property's General Plan land use designation from low density residential to Business Park and would result in the eventual conversion of fallow farmland to light industrial use. This conversion of farmland would contribute cumulatively to the conversion of farmland in the geographic area.
B-7	Kirkwood Ranch (#14)	The significant and unavoidable impacts to undeveloped farmland associated with the development of 470 single family detached units and 60 multi-family units on a 128-acre site would contribute cumulatively to the conversion of farmland in the geographic area.
B-9	Sundance (#17)	The Project would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres of land use for dryland farming and grazing. The project would contribute to the cumulative conversion of farmland in the geographic area. .
B-11	San Gorgonio Village, Phase 2 (#45)	The project would result in the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres and would contribute to cumulative impacts to agricultural resources in the geographic area.
B-14	Potrero Creek Estates (#26)	This Project would result in the development of 1,028 single family lots on 737 acres.
H-3	Tres Cerritos Specific Plan	The Project would result in the development of 787 residential units, park and open space, on 154.7 acres
H-4	Sanderson Square	The Project would result in the development off commercial and industrial uses on approximately 45 acres designated as farmland and used historically as farmland and would contribute to the cumulative conversion of farmland in the geographic area.
H-5	McSweeny Farms Specific Plan	This Project would result in the development off commercial and industrial uses on approximately 45 acres.

Project ID	Project Name	Environmental Document Summary
H-6	Ramona Creek Specific Plan	This Project would result in the development of a multiple-use commercial and residential community
H-7	Peppertree Specific Plan	The Project would result in the development of 456 residences, and recreational spaces on 79.2 acres leading to the conversion of 79.2 acres of prime farmland to non – agricultural use. The Project would contribute to the cumulative conversion of farmland in the geographic area.
H-9	Pulte Del Web (TTM 31807 and 31808)	The Project would result in the conversion of 164.77 acres of mostly prime soils and agricultural land to a non-agricultural use and would contribute to the cumulative conversion of farmland within the geographic area.
M-2	Meridian Business Park Phases I and II	The project would result in the development of a 130 acre business park on farmland of local importance and would contribute to the cumulative conversion of farmland in the geographic area.
M-8	March LifeCare Campus Specific Plan	The project would result in the development of a medical campus on approximately 236 acres and could contribute to the cumulative conversion of farmland within the geographic area.
MV-3	ProLogis	The Project’s development of 2,244,638 square feet of distribution warehouse space would result in a significant and unavoidable impact to farmland conversion and would contribute to the cumulative removal or conversion of farmland in the geographic area.
MV-4	Westridge Commerce Center	The Project’s development of a 937,260 square foot warehouse distribution facility con land previously used for dryland farming would contribute to the cumulative conversion of farmland and impacts to agricultural resources in the geographic area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the Agricultural and forestry resources in the geographic area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the agricultural and forestry resources in the geographic area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the agricultural and forestry resources in the geographic area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the agricultural and forestry resources in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the agricultural and forestry resources in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is less than significant impact to no impact on the agricultural and forestry resources in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the agricultural and forestry resources in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the agricultural and forestry resources in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the agricultural and forestry resources in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the agricultural and forestry resources in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the agricultural and forestry resources in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant to impact on the agricultural and forestry resources in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the agricultural and forestry resources in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the agricultural and forestry resources in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the agricultural and forestry resources in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no information on the ND regarding the impact on agricultural and forestry resources in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the agricultural and forestry resources in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the agricultural and forestry resources in the area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the agricultural and forestry resources in the area.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is no impact on the agricultural and forestry resources in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the agricultural and forestry resources in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is no impact on the agricultural and forestry resources in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the agricultural and forestry resources in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. It does not specifically mention an impact on the agricultural and forestry resources in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is no impact on the agricultural and forestry resources in the area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the agricultural and forestry resources in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is less than significant to no impact on the agricultural and forestry resources in the geographic area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would result in a significant and unavoidable impact to farmland conversion and would contribute to the cumulative removal or conversion of farmland in the geographic area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the agricultural and forestry resources in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project would not cause significant environmental impacts. The resolution does not specifically mention an effect on the agricultural and forestry resources in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the agricultural and forestry resources in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is no impact on the agricultural and forestry resources in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the agricultural and forestry resources in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the agricultural and forestry resources in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the agricultural and forestry resources in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the agricultural and forestry resources in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the agricultural and forestry resources in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the agricultural and forestry resources in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres There is impact on the agricultural and forestry resources in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is no impact on the agricultural and forestry resources in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the agricultural and forestry resources in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the agricultural and forestry resources in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the agricultural and forestry resources in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12-unit condominium complex on approximately 0.9 acres. The resolution states that the project will not have a significant impact on the environment. It does not specifically mention an impact on the agricultural and forestry resources in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. The exemption does not specifically mention impacts on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the agricultural and forestry resources in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the agricultural and forestry resources in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is no impact on the agricultural and forestry resources in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is no impact on the agricultural and forestry resources in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the agricultural and forestry resources in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the agricultural and forestry resources in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the agricultural resources in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. There is no significant impact on the environment. The resolution did not specifically state an impact on the agricultural and forestry resources in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the agricultural and forestry resources in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution stated that there would be no significant impact to the environment. The resolution did not specifically mention an impact on the agricultural and forestry resources in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution did not mention whether or not there would be an environmental impact on the area.

Project ID	Project Name	Environmental Document Summary
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is no impact on the agricultural and forestry resources in the area.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the agricultural and forestry resources in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the agricultural and forestry resources in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the agricultural and forestry resources in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the agricultural and forestry resources in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the agricultural and forestry resources in the area.
P-2	TR34716	Per the City of Perris’ 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. There is no impact on the agricultural and forestry resources in the area.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is no impact on the agricultural and forestry resources in the area.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is no impact on the agricultural and forestry resources in the area.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant to no impact on the agricultural and forestry resources in the area.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is no impact on the agricultural and forestry resources in the area.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is no impact on the agricultural and forestry resources in the area.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest’s existing facility. There is no impact on the agricultural and forestry resources in the area.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is no impact on the agricultural and forestry resources in the area.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is no impact on the agricultural and forestry resources in the area.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. After the approval of the EIR for the 2005 General plan which included the conversion of agricultural lands to other uses, it was decided that there is no impact on the agricultural and forestry resources in the area.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. There is no impact on the agricultural and forestry resources in the area.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is no impact on the agricultural and forestry resources in the area.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant to no impact on the agricultural and forestry resources in the area.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is no impact on the agricultural and forestry resources in the area.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is no impact on the agricultural and forestry resources in the area.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is no impact on the agricultural and forestry resources in the area.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a less than significant to no impact on the agricultural and forestry resources in the area.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a significant impact on the agricultural and forestry resources in the area. This is mitigated by the converting prime farmland, which is done by moving the top 12 inches of soils from parcels 302-030-003 and 302-030-00 to a farm site with lower quality soil.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is no impact on the agricultural and forestry resources in the area.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is no impact on the agricultural and forestry resources in the area.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is no impact on the agricultural and forestry resources in the area.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is no impact on the agricultural and forestry resources in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is no impact on the agricultural and forestry resources in the area.
P-37	Cabrillo	Per the City of Perris’ Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is no impact on the agricultural and forestry resources in the area.
P-38	Sequoia	Summary to be provided.

Project ID	Project Name	Environmental Document Summary
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. There is a less than significant impact on the agricultural and forestry resources in the area.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is no impact on the agricultural and forestry resources in the area.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is no impact on the agricultural and forestry resources in the area.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres. There is no impact on the agricultural and forestry resources in the area.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is no impact on the agricultural and forestry resources in the area.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is no impact on the agricultural and forestry resources in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	The Project would result in the conversion of between 551-1,265 acres of prime farmland and farmland of statewide importance and would contribute to the cumulative conversion of farmland in the geographic area.

Project ID	Project Name	Environmental Document Summary
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. There is no mention of agricultural and forestry resources in the area. However, it seems that there may be no impact because agricultural and forestry resources are not mentioned on the slide that discusses significant impacts not mitigated.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62-acre detention basin on 47.25 acres. There is no impact on the agricultural and forestry resources in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is no impact on the agricultural and forestry resources in the area.
RC-12	Cores Industrial Partners	Per Riverside County’s October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There will be no impact on the agricultural and forestry resources in the area.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is no impact on the agricultural and forestry resources in the area.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is no impact on the agricultural and forestry resources in the area.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant to no impact on the agricultural and forestry resources in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is no impact on the agricultural and forestry resources in the area.

6.2.3 Cumulative Impact Evaluation

6.2.3.1 Conversion of Farmland to Non-Agricultural Uses

Impact: *The project's contribution to the cumulative conversion of Farmland of Local Importance to non-agricultural use is cumulatively considerable.*

Threshold:	Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use?

Cumulative Impact Analysis

The implementation of the cumulative related projects listed in Table 6.2-1 includes farmlands that are proposed to be converted to a non-agricultural use including cumulative related project RC-5 (Villages of Lakeview). Specifically related to cumulative related project RC-5, the mitigation measure proposed to reduce this potential impact includes the conservation of approximately five percent of the agricultural land classified as Prime Farmland, Unique Farmland, Farmland of Statewide Importance and Farmland of Local Importance; however, potential impacts would remain significant and unavoidable. The environmental document for MV-3 identified Farmland Conversion as being a significant and unavoidable impact. MV-4 did not identify Farmland Conversion as having a significant impact. Both MV-3 and MV-4 are considered large warehouse projects with structures and uses that would be similar in character to the structures and uses of the project. Many of the remaining cumulative projects within the cumulative geographic area for agriculture include residential or commercial type projects, and the associated environmental documents found the impacts to be less than significant. Because there are cumulative related projects such as RC-5, MV-3 and MV-4 that would result in significant farmland conversion impacts, the cumulative related projects would result in significant cumulative impacts due to the conversion of an agricultural use to a non-agricultural use.

As discussed in Section 4.2, the WLC project site is currently in agricultural use. Approximately 2,200 acres are currently farmed of the 2,361 acres on the project site that are designated as Farmland of Local Importance. The implementation of the project would result in a maximum conversion of 2,361 acres to non-agricultural uses, and this conversion, while less than significant by itself, represents a significant contribution to a cumulative impact. As a result, the project’s contribution to the cumulative conversion of Farmlands and land designated as Farmlands of Local Importance would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures:

The following mitigation measure has been developed to reduce the project’s contribution to the cumulative impacts to agricultural uses and loss of Farmlands of Local Importance.

6.2.1: Prior to the issuance of any grading permit affecting land designated as “Farmland of Local importance” (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project’s “Farmland of Local Significance” considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.

Significance Level After Mitigation: Less than significant

The implementation of Mitigation Measure 6.2.1 would conserve agricultural land that is as productive as the onsite designated Farmland of Local Importance. This measure would conserve land located offsite that has equivalent or better agricultural economic productivity compared to the agricultural economic productivity of the project site. The implementation of this measure would reduce the project’s contribution to the cumulative impact on Farmlands and land designated as Farmland of Local Importance to less than cumulatively considerable.

6.3 Air Quality

Cumulative effects to air quality are described in this section. A summary of the project's potential impacts to air quality issues is provided in Section 6.3.1. The cumulative impact geographic areas for air quality issues are provided in Section 6.3.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the air quality issues are discussed in Section 6.3.3. In addition, a brief summary of the significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.3.3 as well as applicable mitigation measures and significance determination after mitigation.

The cumulative projects identified in Table 6.3-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to air quality. These potentially cumulative impacts are documented in the following section.

6.3.1 Project Impact Findings

The project's effects to air quality are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.3 of the Revised Final Programmatic EIR Sections (RPFEIRS) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Conflict with or obstruct implementation of the applicable air quality plan? **Significant and Unavoidable with Mitigation, Section 4.3.6.1.**
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation? **Less than Significant, Section 4.3.5.2.**
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); **Significant and Unavoidable with Mitigation, Section 4.3.6.**
- Expose sensitive receptors to substantial pollutant concentrations? **Significant and Unavoidable with Mitigation, Section 4.3.6.2; Significant and Unavoidable with Mitigation, Section 4.3.6.3; and Significant and Unavoidable with Mitigation, Section 4.3.6.4; Significant and Unavoidable with Mitigation, Section 4.3.6.5;**
- Create objectionable odors affecting a substantial number of people? **Less than Significant, Section 4.3.5.1.**

6.3.2 Geographic and Temporal Scope

The geographic scope of analysis for cumulative air quality impacts is the Air Basin and the identified cumulative projects. The SCAQMD recommends using two different methodologies to analyze cumulative air quality impacts: (1) that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality;[1] and (2) that a project's consistency with the current

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[1] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

AQMP be used to determine its potential cumulative impacts. Utilizing these two methodologies can determine a project's contribution to cumulative impacts. Should a project result in significant and unavoidable impacts, the project would most likely generate a cumulatively considerable impact, as the project alone is already exceeding respective SCAQMD significance thresholds. If a project's emissions were approaching significance thresholds with mitigation measures, these projects could also have a potential to cause a significant impact when combined with other projects within the project analysis area. Also, if a project was not consistent with AQMP, this could cause a cumulative impact as the AQMP is established to achieve air quality standards within the Basin.

Because the significance thresholds adopted by the SCAQMD are designed to assist the Basin in attaining the applicable NAAQS and CAAQS, the SCAQMD recommends application of the same significance thresholds for Project-level impacts and cumulative impacts. Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[2] Because the Project Site is located in a region that is in non-attainment for ozone, PM10, and PM2.5 under federal and/or state standards, should project specific emissions with mitigation exceed the SCAQMD daily significance thresholds, the Project's construction-related and operational emissions would be cumulatively considerable or contribute to cumulatively significant air quality impacts.

Although the Basin is considered the geographic area relative to cumulative impacts, it would be impracticable and unreasonable to review project-specific data and analyses related to regional emissions, localized impacts, health risks, and odors from all projects contemplated, entitled, and being built within the 6,745 square mile Basin. Instead this cumulative analysis was based on the limits set forth in the cumulative traffic analysis conducted by the project. This area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County, and the March JPA. The geographic area for these basin-wide projects is shown on Figure 6.3-1. For localized impacts, such as LSTs and odors, a geographic map for these cumulative projects are shown on Figure 6.3-2. Approximately 360 projects have been identified in the vicinity of the Project and are listed in Table 6.3-1. Out of those 360 projects, approximately 162 environmental documents were available. All 162 were reviewed to identify quantitative emissions for construction and operation of the respective projects. However, only 35 of the available documents contained construction and operation emissions. A mixture of results was identified for these 35 projects, 28 projects were found to have a less than significant impact, four projects were found to have a significant and unavoidable impact for operations and four projects were found to have a significant and unavoidable impacts for both construction and operations. Despite not having all the emissions from every one of the 360 cumulative projects within SCAB, a determination on the project's cumulative impact could still be assessed based on the SCAQMD's strategies in assessing a cumulatively considerable impact, where projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[3] As shown in Section 4.3.6 Significant Impacts (Air Quality), project-specific impacts were found to result in significant and unavoidable impacts with mitigation.

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[2] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

[3] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

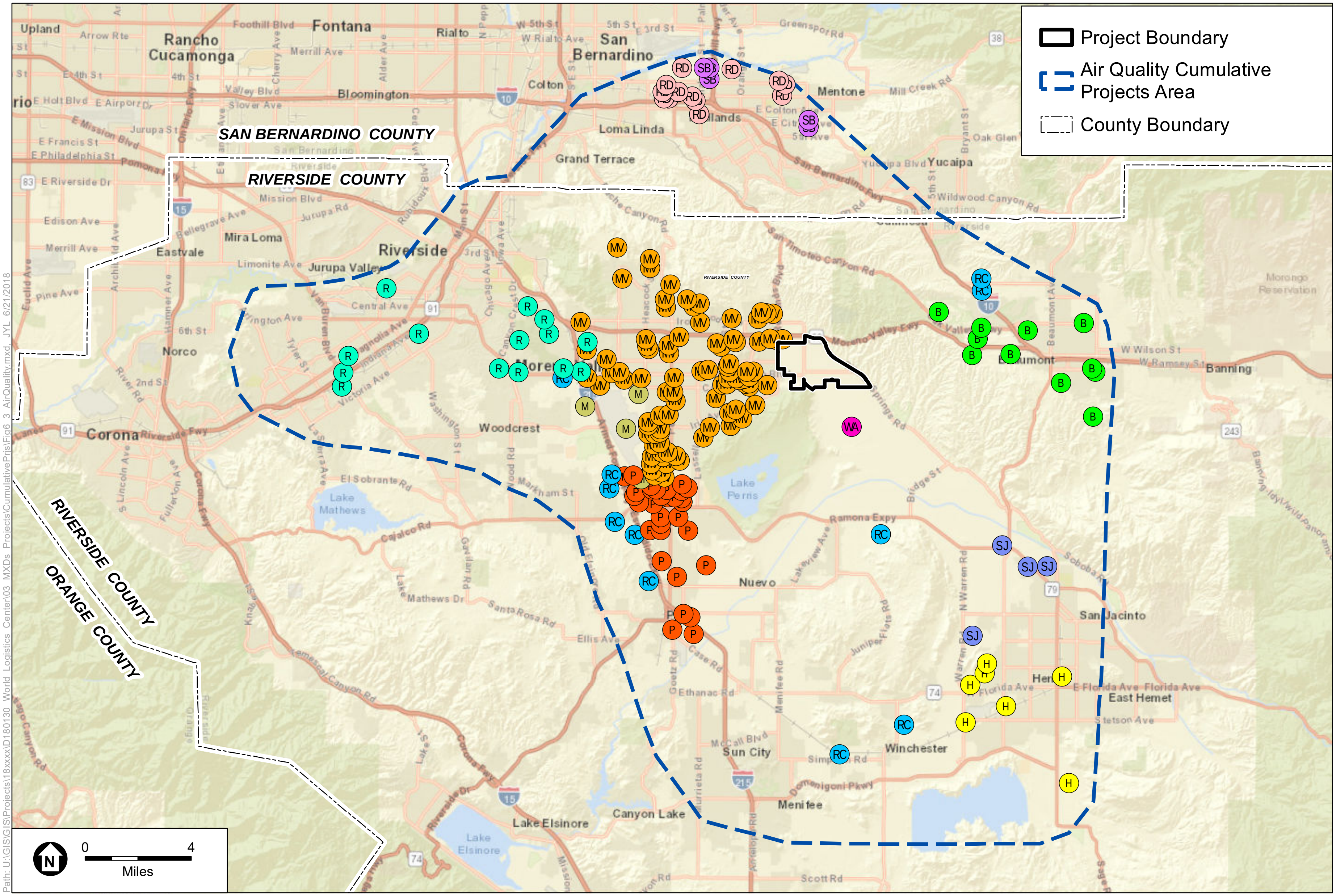

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.3-1
Air Quality Cumulative Projects Area

ESA

Table 6.3-1 - Air Quality Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The construction phase and project operation air quality impacts would exceed thresholds and remain significant after mitigation.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would result in the generation of pollutants both short and long-term and the level of impacts is considered significant, even with mitigation.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. After mitigation, no significant impact would occur to air quality.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The cumulative impacts of this project in conjunction with all other past, current, and future projects will have adverse impacts on regional air quality.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. No significant air quality impacts as compared to the Deutsch Specific Plan.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. The project will have no impact on air quality.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on air quality.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on air quality.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would result in no impact to air quality.

Project ID	Project Name	Environmental Document Summary
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's 2008 EIR , the Tres Cerritos Specific Plan would result in the development of 787 residential units, park and open space, on 154.7 acres. The project would result in no impact to air quality.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. The project would have a less than significant impact on air quality.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on air quality.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The project would have a less than significant impact on air quality and is consistent with SCAG’s Regional Comprehensive Plan and Guide.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet’s 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact with mitigation incorporated on air quality.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. The project would have significant and unavoidable impacts on air quality.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project woul have significant and unavoidable impacts on air qualtiy.
M-9	TM 34748	A Negative Declaration was prepared for the project, therefore, the project would have no significant effect on the environment.

Project ID	Project Name	Environmental Document Summary
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on air quality.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. Project would have significant air quality impacts.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project is consistent with the Air Quality Management Plan and impacts to air quality would be less than significant.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project would produce excessive volatile organic compound emissions, but would have a less than significant impact on air quality with mitigation.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project would have a less than significant impact on air quality.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project would have a less than significant impact on air quality with mitigation measures incorporated.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. Per the negative declaration, the project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project would have a less than significant impact on air quality.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have significant and unavoidable impacts to air quality.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have a less than significant impact on air quality.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. Emissions during project construction would violate air quality standards for VOCs and NO_x and would have a significant direct and cumulative impact on air quality.

Project ID	Project Name	Environmental Document Summary
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project would exceed the South Coast Air Quality Management District recommended regional significance thresholds for NO_x and would have a significant impact on air quality.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project would exceed the South Coast Air Quality Management District recommended regional significance thresholds for NO_x and would have a significant direct and cumulative impact on air quality.
MV-45	Iris Plaza	Per the City of Moreno Valley’s IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. The project would have a less than significant impact on air quality.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. The project would have a significant impact on air quality, even with mitigation.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project would have a less than significant impact on air quality with mitigation.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. The project would have a less than significant impact on air quality with mitigation.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would have significant direct and cumulative impacts on air quality due to the exposure of sensitive receptors to substantial pollutant concentrations.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. The project would generate NO_x in exceedance of South Coast Air Quality Management District regional thresholds and be inconsistent with the current Air Quality Management Plan. The project would have a significant impact on air quality.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project would result in significant individual and cumulative impacts to air quality from emissions of CO, PM_{10}, NO_x, and reactive organic gases.

Project ID	Project Name	Environmental Document Summary
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project is not consistent with the Regional Growth Management Strategy or Air Quality Management Plan and would have a significant impact on air quality.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project would have a less than significant impact on air quality.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. The project would have a less than significant impact on air quality.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project would have a less than significant impact on air quality with mitigation incorporated.

Project ID	Project Name	Environmental Document Summary
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
P-2	TR34716	Per the City of Perris’ 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a direct a cumulative impact on air quality.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have a less than significant effect on air quality with mitigation incorporated.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would not have a significant impact on air quality.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The Project would contribute to an increase of emissions due to operational NOx, and would have a significant impact on air quality.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a significant impact on air quality.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project would have a significant impact on air quality and would exceed the SCAQMD daily regional emissions thresholds for VOC and NO_x.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would not have any related long-term air quality impacts.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have a significant impact on air quality.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. Project would have an impact on air quality and regional NO_x emissions would exceed SCAQMD operational threshold after implementation of mitigation measures.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project documentation provided no information on significance of air quality impacts.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a significant impact on air quality.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have a significant impact on air quality.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project has mitigation measures in place for air quality impacts, no information on if impacts are significant after mitigation implemented.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on air quality with mitigation incorporated.

Project ID	Project Name	Environmental Document Summary
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project will have a less than significant impact on air quality.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project would have a cumulative impact on air quality.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have significant air quality impacts on air pollutant emissions.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on air quality.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project has mitigation measures for air quality impacts, no information given on significance of impacts after mitigation.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project would have significant impacts on air quality.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project would have a less than significant impact on air quality.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. The project would have a less than significant impact on air quality with mitigation incorporated.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. Per the City of Perris’ 2009 Initial Study, the project would have a potentially significant impact on air quality.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project would have a less than significant impact on air quality.
P-37	Cabrillo	Per the City of Perris’ Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. The project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would not have a significant impact on air quality.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. The project would have cumulatively significant impacts to air quality.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. The project would have significant air quality impacts, even with mitigation incorporated.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres. The project would have significant air quality impacts, even with mitigation incorporated.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. The project would have a less than significant impact on air quality.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project would have significant impacts on air quality.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside’s 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. The project would have potentially significant impacts on air quality.

Project ID	Project Name	Environmental Document Summary
RC-5	Villages of Lakeview - Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project would have significant impacts to air quality.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project would have significant air quality impacts of Short-term and long-term cumulative impacts of VOC, NO_x, CO, PM_{10} and $PM_{2.5}$.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. The project would have no impact on air quality.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. The project would have significant impacts on air qualtiy.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. The project would have a less than significant impact on air quality.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The project would have a significant impact on air quality.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project would have a significant impact on air quality.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project would have a less than significant impact on air quality with mitigation incorporated.

Project ID	Project Name	Environmental Document Summary
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. The project would have a less than significant impact on air quality with mitigation incorporated.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project would have significant impacts to air quality.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. The project would have less than significant impacts to air quality.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. The project would have a less than significant impact on air quality.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally, the Project seeks approval to remove 5 acres from an Agricultural Preserve. The project would have less than significant impacts on air quality. The project would have a less than significant impact on air quality with mitigation incorporated.
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. The project would have a less than significant impact on air quality with mitigation incorporated.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces. The project would have a less than significant impact on air quality.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. Project would have a less than significant impact on air quality with mitigation incorporated.

Project ID	Project Name	Environmental Document Summary
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking. The project would have a less than significant impact on air quality with mitigation incorporated.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino's 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino's 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-3	Prologis #12	Per the County of San Bernardino's 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a "high cube" warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-6	Prologis #8	The project would have a less than significant impact on air quality.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. The project would have a less than significant impact on air quality.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. The project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project would have a less than significant impact on air quality with mitigation incorporated.

6.3.3 Cumulative Impact Evaluation

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. Because the Air Basin is currently in nonattainment of the Federal ambient air quality standards for ozone, PM_{10}, and $PM_{2.5}$, related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance.

6.3.3.1 Odors

Impact: *The project's contribution to cumulative objectionable odors would be less than cumulatively considerable.*

Threshold: Would the project create objectionable odors affecting a substantial number of people?

Cumulative Impact Analysis

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

As stated previously in Section 4.3.5.1, diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Currently, there are six occupied single-family homes and associated ranch/farm buildings in various locations on the project site. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Diesel exhaust would also be emitted during operation of the project from the trucks that would visit the project site. However, the concentrations would not be at a level to result in a negative odor response at nearby sensitive or worker receptors. In addition, modern emission control systems on diesel vehicles since 2007 virtually eliminate diesel's characteristic odor. Further, project mitigation requires that 2010 or newer diesel vehicles be used during construction.

During blow-down maintenance activities, natural gas odors will be present around the SDG&E Compressor Plant located south of the project site. When this portion of the WLC Specific Plan is developed, these odors will occasionally be detectable from the industrial warehouse properties adjacent to the SDG&E facility. These odors will be infrequent and odorized natural gas will not be present in high concentrations. Therefore, potential odor impacts from on-site natural gas operations are considered to be less than significant and do not require mitigation.

Adherence to applicable provisions of these rules is standard for all development within the Basin. In addition, conditions for the design of waste storage areas on the proposed site would be established through the permit process to ensure enclosures are appropriately designed and maintained to prevent the proliferation of odors. Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on-site uses would be adequately managed.

Of the 162 environmental documents that were evaluated, all found that the respective projects would not create objectionable odors that will affect a substantial number of people and many projects were found to have a less than significant impact or no impact at all. Furthermore, Project-specific impacts would be less than significant and would not exceed the AQMDs significance threshold for odors. [4] Therefore, impacts associated with this issue would be considered cumulatively less than significant and no mitigation is required.

Significance Level Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant.

6.3.3.2 Long-term Microscale (CO Hot Spot) Emissions

Impact: *The project's contribution to cumulative impacts associated with the violation of any air quality standard would be less than cumulatively considerable.*

Threshold: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

For CO, the applicable thresholds are:

- California State one-hour CO standard of 20.0 ppm; and

- California State eight-hour CO standard of 9.0 ppm.

Cumulative Impact Analysis

As identified in Section 4.3.5.2, no significant CO hot spot impacts would occur due to project operations. The SCAQMD anticipates that CO emissions in the future will decrease with advances in technology. As previously identified, background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, ambient CO concentrations, from cumulative projects within the Basin, in the future years would generally be lower than existing conditions.

For this project analysis, peak hour traffic volumes, at the intersections with the highest traffic volumes and LOS E or F before mitigation were identified and evaluated for each condition analyzed. In addition, the emission factors for "all" vehicle classes are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project mitigation reductions from requiring that all diesel trucks are model year 2010 or newer. The project evaluation found that no CO hot spot impacts would occur at intersections with the highest traffic volumes and ranged as LOS E or F.

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[4] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

Furthermore, out of the 162 environmental documents within the Basin that were reviewed, all projects found that no hot spot impacts would occur with their respective projects. Similar to the project, intersections with the highest traffic volumes and worst LOS were identified and evaluated. No exceedance of significance thresholds was estimated. Furthermore, Project-specific impacts would be less than significant and would not exceed the AQMDs significance threshold for CO hot spot emissions. [5] Based on the analysis and SCAQMD methodology, it is reasonable to assume that a less than significant cumulative CO impact would occur.

Significance Level Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant.

6.3.3.3 Air Quality Plan Management Plan Consistency

Impact: *The project's contribution to the cumulative conflict with implementation of the applicable air quality plan would be cumulatively considerable.*

Threshold:	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Cumulative Impact Analysis

As previously stated in Section 4.3.6, according to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD 1993, page 12-3).

As discussed previously in Section 4.3.6.2 Construction Emissions, construction activities associated with the project would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X.

In addition, out of the 162 environmental documents that were evaluated, 62 were found to be completed with construction or currently undergoing construction. Therefore, 62 potentially cumulative projects are located within the Basin that could undergo construction activities during the project's 15-year construction period. However, even if none of these 62 Basin-wide cumulative projects undergo construction while the project is under construction, a cumulatively considerable impact will occur because projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[6] As previously stated the Project-specific construction emissions presented in Section 4.3.6.2 exceed the applicable SCAQMD significance thresholds for VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; therefore, a cumulatively considerable impact will occur, despite any potential construction activity associated with another Basin-wide project.

The SCAB is classified as nonattainment for the Federal ambient air quality standards for ozone, PM_{10}, or $PM_{2.5}$; therefore, according to this criterion, the project would not be consistent with the AQMP. The

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[5] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

[6] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. The project does not meet this criterion. As previously identified in Section 4.3.6.4 Long-Term Operational Emissions, the long-term operation and combined construction and operational emissions of the project would contribute to long-term regional air pollutants despite implementation of mitigation measures.

Out of the 162 Basin-wide environmental documents, five basin wide cumulative projects were identified as exceeding VOC significance thresholds and seven projects were identified as exceeding NOX emissions. Those projects that were found to exceed the SCAQMD thresholds were primarily industrial land uses or larger single-family residential developments. The number of each project type is provided in Table 6.3B. As shown, in Table 6.3B, up to 18 multi-family residential projects have been proposed in the Basin, in combination with 43 single-family residences and 36 industrial projects.

The cumulative impacts of all 360 projects have been taken into consideration with the AQMD thresholds. However, a cumulatively considerable impact will occur because projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[7] As previously stated the Project-specific operation emissions presented in Section 4.3.6.4 exceed the applicable SCAQMD significance thresholds for VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; therefore, a cumulatively considerable impact will occur, despite the potential operation of any of the identified Basin-wide cumulative projects.

Table 6.3-2: Air Quality Cumulative Operation Emissions

Type of Project	Number Identified within Moreno Valley
Business Park, Light Industrial	5
Industrial	36
Hotel	1
Medical	2
Mixed Use	4
Office	1
Residential - Assisted Living	1
Mixed Use – Residential	3
Single-Family Residential	43
Multi-Family Residential	18
Retail	11

Source: City of Moreno Valley, 2018
Mixed Use = Retail and residential combined plans
Mixed Use - Residential = Single and Multi-Family Residences

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[7] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

Significance Level Before Mitigation: Project construction would result in cumulatively considerable and potentially significant cumulative air impacts. Implementation of the project would contribute to significant long-term cumulative air quality impacts.

Mitigation Measures: As indicated in Section 4.3.6.1 Air Quality Management Plan Consistency, to facilitate monitoring and compliance, applicable SCAQMD regulatory requirements will be implemented. **Mitigation Measures 4.3.6.2A, 4.3.6.2B, 4.3.6.2C, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A** are required and shall be incorporated in all project plans, specifications, and contract documents.

Significance Level After Mitigation: As noted above, construction and operation of the project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_{X}. Despite the implementation of mitigation measures, emissions associated with the project cannot be reduced below the applicable thresholds. The project In the absence of feasible mitigation to reduce the project's emission of criteria pollutants to below SCAQMD construction and operation thresholds, potential air quality impacts resulting from construction and operation will remain significant and unavoidable. Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[8] Even with mitigation the Project-specific emissions in combination with any of the Basin-wide cumulative projects that have been identified, will result in a cumulative considerable impact.

6.3.3.4 Construction Emissions

Impact: *The project's contribution to the cumulative exceedance of applicable daily thresholds that may affect sensitive receptors would be cumulatively considerable.*

Threshold:	Would the project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For construction operations, the applicable daily thresholds are: - 75 pounds per day of ROC/VOC; - 100 pounds per day of NOX; - 550 pounds per day of CO; - 150 pounds per day of PM10; - 150 pounds per day of SOX; and - 55 pounds per day of PM2.5.

Cumulative Impact Analysis

The construction analysis discussed in Section 4.3.6.2 Construction Emissions found that construction activities associated with the project would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_{X}. Fugitive dust and exhaust emissions during the anticipated peak construction day for the project would also exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM_{10} is an average of 88 percent dust and 12 percent exhaust. $PM_{2.5}$ has an average of 50 percent

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[8] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

dust and 50 percent exhaust. Accordingly, projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[9]

In addition, out of the 162 environmental documents that were evaluated, 62 were found to be completed with construction or currently undergoing construction as of May 2018. Therefore, 62 potentially cumulative projects are located within the Basin that could undergo construction activities during the project's 15-year construction period. However, even if none of these 62 Basin-wide cumulative projects undergo construction while the project is under construction, a cumulatively considerable impact will occur because projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[10] As previously stated the Project-specific construction emissions presented in Section 4.3.6.2 exceed the applicable SCAQMD significance thresholds for VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; therefore, a cumulatively considerable impact will occur, despite any potential construction activity associated with another Basin-wide project.

Significance Level Before Mitigation: Project construction would result in cumulatively considerable and potentially significant cumulative air impacts.

Mitigation Measures: As identified in Section 4.3.6.2, **Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2C** and **4.3.6.2D** to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403.

Significance Level After Mitigation: Despite the implementation of mitigation measures, emissions associated with construction of the project cannot be reduced below the applicable thresholds. In the absence of feasible mitigation to reduce the project's emission of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from construction of the Project and potential construction of any of the identified Basin-wide cumulative projects will still be considered cumulatively significant.

6.3.3.5 Localized Construction and Operational Air Quality Impacts

Impact: *The project's contribution to the cumulative exceedance of localized daily thresholds that may affect sensitive receptors would be cumulatively considerable.*

Threshold:	Would the project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? The applicable localized thresholds are: - 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction or operation; - 0.18 ppm (State 1 hour), 0.100 ppm (National 1 hour), and 0.030 ppm (Annual) of NOX during construction or operation; - 10.4 µg/m3 (24 hours) 1.0 µg/m3 (Annual) of PM10 during construction - 2.5 µg/m3 (24 hours) and 1.0 µg/m3 (Annual) of PM10; during operation and

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[9] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

[10] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

- 2.5 µg/m3 (24 hours) of PM2.5 during operation

- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operations to assess the significance of the activities.

Cumulative Impact Analysis

The localized construction and operational analyses provided in Section 4.3.6.3, Localized Construction and Operational Air Quality Impacts, found that without mitigation, the project would exceed the localized significance thresholds for PM_{10} for one or more of the LST assessment years (2025, 2032, or 2040) analyzed under this revised LST assessment. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the ambient air quality standards for PM_{10}. Accordingly, projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[11]

Out of the 35 environmental documents that provided estimated project emissions, seven of those documents provided a quantitative analysis for localized construction thresholds. Of those seven quantitative localized construction threshold analyses, six of the identified projects were found to have a less than significant impact and one project was found to have a significant and unavoidable impact. However, none of these seven projects are within 500 feet of the project site. Despite the results of the environmental document review, due to the findings of the project's localized threshold analysis the air pollutant emissions from the project would result in a significant cumulative impact and could exceed or contribute to an exceedance of the ambient air quality standards for PM_{10}.

Significance Level Before Mitigation: Project construction and operation would result in cumulatively considerable significant air impacts.

Mitigation Measures: As identified in Section 4.3.6.2, **Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2C** and **4.3.6.2D** to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403. Additionally, **Mitigation Measures 4.3.6.3A**, **4.3.6.3B**, **4.3.6.3C, 4.3.6.3D** and **4.3.6.3E** are required to reduce emissions of criteria pollutants during project operations.

Significance Level After Mitigation: Significant and unavoidable. After application of mitigation, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual) all assessment conditions. In addition, the project would continue to exceed the localized significance thresholds at offsite receptors for PM_{10} (24-hour and annual). Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[12]

In summary, those residents inside and outside the project boundaries could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

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[11] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

[12] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.

Particulate matter can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

6.3.3.6 Long-Term Operational Emissions

Impact: *The project's contribution to the exceedance of cumulative operational thresholds would be cumulatively considerable.*

Threshold:	Would the project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For long-term operations, the applicable daily thresholds are: - 55 pounds of VOC; - 55 pounds of NOX; - 550 pounds of CO; - 150 pounds of PM10; - 55 pounds of PM2.5; and - 150 pounds of SOX.

Cumulative Impact Analysis

Long-term air pollutant emission impacts that would result from the project are those associated with stationary sources and mobile sources involving any project-related change (e.g., emissions from the use of motor vehicles by project-generated traffic). Cumulative long-term impacts would take into consideration both the project related emissions and those generated by the 360 Basin-wide cumulative projects that have been identified.

As identified in Section 4.3.6.4 Long-Term Operation Emissions, operational emissions for the project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the "worst-case" 2018 scenario. Furthermore, emissions of VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout. However, because the project-specific emissions exceed the SCAQMD significance thresholds, this project is considered by the SCAQMD to be cumulatively considerable, despite the potential operation of any of the identified Basin-wide cumulative projects.

Significance Level Before Mitigation: Operation of the project would result in potentially significant cumulative air impacts.

Mitigation Measures: Section 4.3.6.3 Localized Construction and Operational Air Quality Impacts identified **Mitigation Measures 4.3.6.3A** through **4.3.6.3E** that would reduce operational emissions of criteria pollutants associated with the project. Additionally, **Mitigation Measure 4.3.6.4A**, was provided in Section 4.3.6.4 Long-Term Operational Emissions and is required to further reduce operational emissions.

Significance Level After Mitigation: Even with mitigation, operational emissions generated by the project are still significant. Mitigated operational project emissions in combination with the 360 cumulative projects that have been identified in the Basin, emissions of criteria pollutants will still exceed SCAQMD significance thresholds resulting in a significant and unavoidable cumulative operational air quality impact.

6.3.3.7 Impacts to Sensitive Receptors

Impact: *The project's contribution to the cumulative exposure of substantial pollutant concentrations on sensitive receptors would be cumulatively considerable.*

Threshold: Would the project expose sensitive receptors to substantial pollutant concentrations?

For localized air quality impacts, the applicable thresholds are:

- 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction and operation;

- 0.18 ppm (State 1 hour), 0.100 ppm National 1 hour), and 0.030 ppm (Annual) of NOX during construction and operation;

- 10.4 µg/m3 (24-hours) and 1 µg/m3 (Annual) of PM10 during construction

- 2.5 µg/m3 (24 hours) and 1.0 µg/m3 (Annual) of PM10 during operations; and

- 2.5 µg/m3 (24 hours) of PM2.5 during operations.

- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance threshold for operations.

- For health risk impacts, the applicable thresholds are:

- Maximum Individual Cancer Risk: An increased cancer risk greater than 10 in 1 million at any receptor location;

- Cancer burden: An increase in cancer burden of 0.5 or

- Non-cancer chronic hazard indices (HI): A cumulative increase for any target organ system exceeding 1.0 at any receptor location.

Cumulative Impact Analysis

Project-Specific Localized Risks

Cancer Risk for Sensitive/Residential Receptors. The analysis performed in Section 4.3.6.5 Impacts to Sensitive Receivers, found that the project would exceed the SCAQMD's cancer risk significance threshold of 10 in a million prior to the application of mitigation and would represent a significant impact. Construction impacts contribute the greatest proportion of the total impact presented in the findings presented in Section 4.2.6.5. In addition, the estimated maximum cancer risk anywhere in the model domain is less than the 10 in a million threshold, impact will therefore be less than significant without mitigation. Overall, without mitigation, the project is expected to have a significant impact mainly due to diesel PM emissions from construction activities.

Estimates of Cancer Risk for School Site Receptors. Section 4.3.6.5 found that the maximum cancer risk is at Ridgecrest Elementary School at less than 2 in a million. Therefore, impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.

Estimates of Cancer Risk for Worker Receptors. The highest worker cancer risk estimates, from the project, prior to the application of mitigation is less than 5 in one million and is at an onsite location. Therefore, cancer risk for worker receptors anywhere in the revised HRA's study area is less than the 10 in one million significance threshold. Projected impacts are less than significant without mitigation.

Estimates of Cancer Burden. Cancer risks, from the project, were estimated at the geographical center (centroid) of census tracts that are within the study area of the HRA. For the 70-year exposure duration with the inclusion of the Current OEHHA Guidance, the cancer burden is estimated to be 0.09 out of a population of about 63,090 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.

Regional Freeway Network Risk. The analysis presented in Section 4.3.6.5 found that based on the results for the construction plus operation scenario, without mitigation, only a small segment (approximately one mile) along SR60 that is immediately north of the project boundary will potentially have an incremental cancer risk exceeding the SCAQMD 10 in one million thresholds; at an approximate distance of 2.5 miles away from the project boundary, the potential increment cancer risk along SR60 would be less than 2 in one million. Based on results for 30 years of the full project buildout scenario, without mitigation, no segment along SR60 would exceed the 10 in one million cancer risk threshold; at a distance of less than two miles from the project boundary, the incremental cancer risk is less than 2 in one million.

*Informational Purposes: Morbidity and Mortality***.** Exposure to the Project's DPM emissions prior to mitigation would result in an increase in mortality of approximately 0.00011 additional cases per year at the location where the project has its maximum impact from DPM emissions or 0.001 additional cases over all of the census tracts contained in the modeling domain.

Section 4.3.6.5 summarizes the estimates of the various morbidity health endpoints due to the emissions from the project without mitigation. There is no established threshold or approved methodology for calculating morbidity and mortality; however, the project would not result in a single new added case of a quantified health endpoint either at location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment.

Out of the 360 Basin-wide cumulative projects were identified, seven out of those projects provided a quantified health risk assessment and less than significant impacts were identified for all seven projects. However, because the project-specific emissions exceed the SCAQMD significance thresholds, this project is considered by the SCAQMD to be cumulatively considerable, despite the potential operation of any of the identified Basin-wide cumulative projects.

Significance Level Before Mitigation: Operation of the project would result in potentially significant cumulative air impacts.

Mitigation Measures: The mitigation measures previously identified in Section 4.3 are required (**Mitigation Measures 4.1.6.1A, 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.3E**) to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project. Additionally, **Mitigation Measure 4.3.6.5A** is required to ensure that significant health risk does not occur at on-site residential receptors.

Significance Level After Mitigation: The cancer risks are substantially lower after mitigation. The SCAQMD cancer risk significance threshold would not be exceeded in any areas outside of the project boundary. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM associated with the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when the “Current OEHHA Guidance” assigns large age sensitivity factors to the first few years of the 30-year exposure duration. The cancer risk value at all sensitive receptor locations will be below the significance threshold after mitigation, the cancer risk impact to sensitive receptors will therefore be less than significant and not result in a cumulatively considerable impact.

6.4 Biological Resources

Cumulative effects to biological resources are described in this section. A summary of the WLC project's potential impacts to biological resource issues is provided in Section 6.4.1. The cumulative impact geographic area for biological resource issues is provided in Section 6.4.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the biological resources issues are discussed in Section 6.4.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.4.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Figures 6.4-1 and 6.4-2 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to biological resources. These potentially cumulative impacts are documented in the following section.

6.4.1 Project Impact Findings

The project's effects to biological resources are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.4 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Have a substantial adverse effect, either directly or indirectly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS; **Less than Significant with Mitigation, Section 4.4.6.1.**
- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS; **Less than Significant with Mitigation, Section 4.4.6.4.**
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS; **Less than Significant with Mitigation, Section 4.4.6.3.**
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct

removal, filling, hydrological interruption, or other means; **Less than Significant with Mitigation, Section 4.4.6.3.**

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites; **Less than Significant, Section 4.4.5.2.**
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. **Less than Significant, Section 4.4.5.1; Less than Significant with Mitigation Section 4.4.6.2.**

As shown there are no unmitigated project-specific significant and unavoidable impacts to biological resources identified in the FEIR.

6.4.2 Geographic and Temporal Scope

The cumulative impact geographic area for biological resources is the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) area, which also includes the San Jacinto Wildlife Area (SJWA). Refer to Figure 6.4-1 for projects that could potentially result in a cumulative impact to the SJWA. The MSHCP establishes a comprehensive, multi-jurisdictional program focused on the conservation of 146 species and their habitats in western Riverside County. As a permittee, the City of Moreno Valley reviews all public and private development and construction projects and other land use plans/activities within the MSHCP area to ensure compliance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP. The MSHCP is designed to mitigate cumulative impacts to biological resource across the MSHCP planning area through a variety of methods, including fee payment, direct habitat acquisition and conservation easement dedication.

A lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program ... that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency." [Guidelines § 15064(11) (3).]

The project and the other cumulative projects fall within the jurisdiction of the MSHCP. The MSHCP involves the assembly and management of a 500,000-acre Conservation Area for the conservation of natural habitats and their constituent wildlife populations. The MSHCP permits development of lands and take of species “in exchange for the assembly and management of a coordinated MSHCP Conservation Area” (Riverside County, 2004). The Implementing Agreement authorized the "take of 146 species covered by the MSHCP (termed “covered species”), including state and federally listed species, as well as other identified sensitive species." The “take” authorization includes impacts to the habitats of the covered species. The MSHCP requires any new development to pay fees to support the financing for the MSHCP, to be applied toward acquisition and management of Conservation Area land. The fees are intended to meet mitigation requirements for the California Environmental Quality Act, the federal Endangered Species Act, and the California Endangered Species Act.

Cumulative projects identified within the biological resources cumulative impact area are summarized in Table 6.4-1 and Figure 6.4-1.

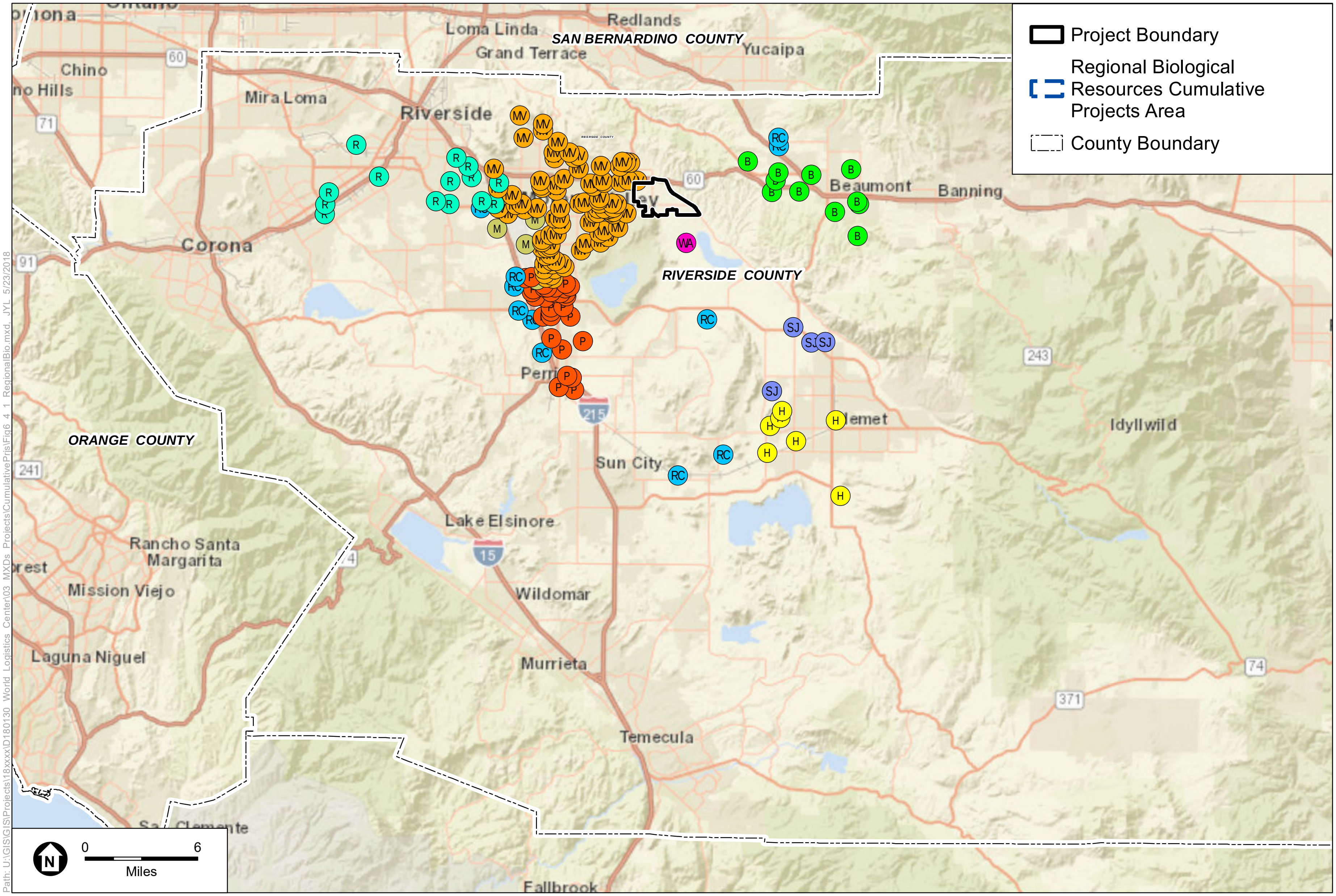

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_4_1_RegionalBio.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.4-1
Regional Biological Resources Cumulative Projects Area

ESA

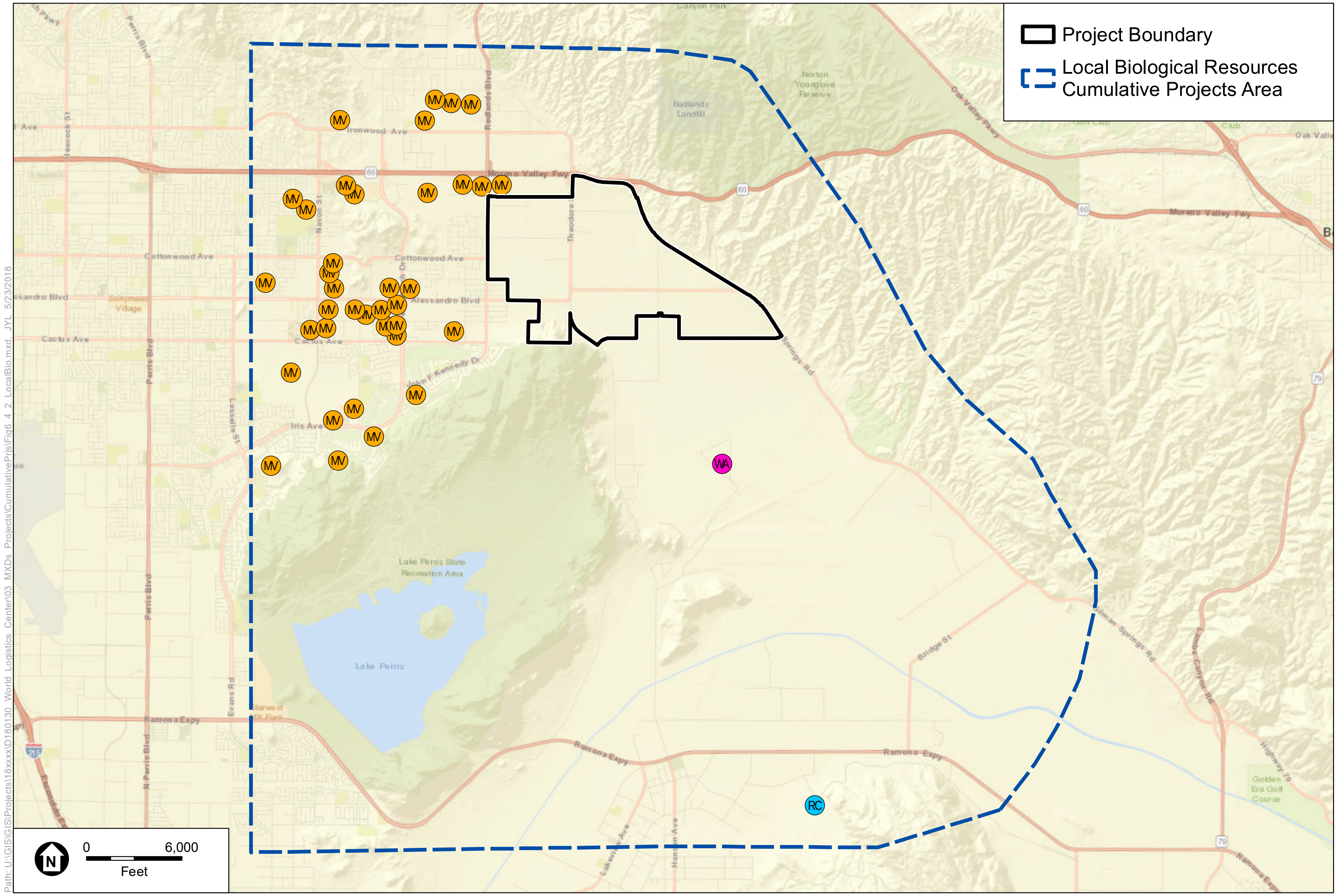

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.4-2

Local Biological Resources Cumulative Projects Area

ESA

Table 6.4-1: Biological Resource Cumulative Project Summary

Project ID	Project Name	Environmental Document Summary
B-2	**Tournament Hills 3**	**EIR**
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. There is a significant impact on the biological resources in the area. The loss of Sage grub and a golden eagle habitat is unmitigatable and significant.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. There is a significant impact on the biological resources in the area, even after mitigation measures. The EIR stated that the impact will require a Statement of Considerations.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152.9 acre property's General Plan land use designation from low density residential to Business Park. There is no significant impact on the biological resources in the area.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. There is no impact on the biological resources in the area.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. There is no impact on the biological resources in the area with mitigation measures.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. There is no impact on the biological resources in the area.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. There is a less than significant to no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. There would be a potentially significant impact unless mitigation is incorporated on the biological resources in the area.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. There is a significant impact on the biological resources in the area.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. There is no impact on the biological resources in the area.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. There is no impact on the biological resources in the area.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. There is a cumulative impact to the biological resources in the area.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. After mitigation measures, there is no impact on the biological resources in the area.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. There is a less than significant impact on the biological resources in the area.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The supplemental EIR does not mention an impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. With mitigation measures, there is a less than significant to no impact on the biological resources in the area.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR the project would result in the development of a 130 acre business park. There is no impact on the biological resources in the area.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. There is a less than significant impact on the biological resources in the area.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. There is a less than significant impact on the biological resources in the area.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. There is ales than significant to no impact on the on the biological resources in the area.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is no impact on the biological resources in the area with mitigation measures.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the biological resources in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the biological resources in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the biological resources in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the biological resources in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the biological resources in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the biological resources in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the biological resources in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the biological resources in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the biological resources in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is a less than significant to no impact on the biological resources in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the biological resources in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. With mitigation measures, there is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is no impact on the biological resources in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the biological resources in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the biological resources in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the biological resources in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the biological resources in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no biological impact on the resources in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the biological resources in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the biological resources in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is less than significant to no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the biological resources in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the biological resources in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the biological resources in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the biological resources in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is no impact on the biological resources in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is less than a significant to not impact on the biological resources in the area with mitigation measures.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the biological resources in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a less than significant impact on the biological resources in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the biological resources in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically state whether or not that is an impact on the biological resources in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant to no impact on the biological resources in the area with mitigation measures.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the biological resources in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the biological resources in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the biological resources in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the biological resources in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact on the biological resources in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does specifically mention an impact on the biological resources in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is a less than significant to no impact on the biological resources in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states there will be no significant impact to the environment in the area. It does not specifically mention if there is an impact on the biological resources in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the biological resources in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the biological resources in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is no impact on the biological resources in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant to no impact on the biological resources in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the biological resources in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is a less than significant to no impact on the biological resources in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the resources in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the biological resources in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the biological resources in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is a less than significant impact on the biological resources in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant to no impact on the biological resources in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is a less than significant to no impact on the biological resources in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the biological resources in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the biological resources in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution stated that there would be no significant impact on the environment. It did not specifically mention the impact on biological resources in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. The notice states that there will be no significant impact on the environment. It does not specifically mention an impact on the biological resources in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the biological resources in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the biological resources in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant to no impact on the resources in the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the biological resources in the area with mitigation measures
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is no impact on the biological resources in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the biological resources in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the biological resources in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the biological resources in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the biological resources in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution stated that there was no significant impact on the environment. It did not specifically mention an impact on the biological resources in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the biological resources in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no significant impact on the environment in the area. It does not specifically mention an impact on the biological resources in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention whether or not there is an impact on the environment in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the biological resources in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the biological resources in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the biological resources in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the biological resources in the area.
P-2	TR34716	Per the City of Perris’ 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. There is a less than significant to no impact on the biological resources in the area.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. There is no impact on the biological resources in the area.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is a less than significant impact on the biological resources in the area.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a less than significant impact on the biological resources in the area.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is a potentially significant impact to the biological resources in the area.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is a potentially significant impact on the biological resources, including candidate, sensitive, or special status species, in the area.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the biological resources in the area.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is a potential significant impact on the biological resources in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is no impact on the biological resources in the area.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a potentially significant impact on the biological resources in the area unless mitigation is incorporated
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. There is a potentially significant impact on the biological resources in the area unless mitigation is incorporated.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is a less than significant impact on the biological resources in the area.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is a less than significant impact on the biological resources in the area.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is a less than significant impact on the biological resources in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is a less than significant impact on the biological resources in the area with mitigation measures.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside’s 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. There is a less than significant impact on the biological resources in the area with mitigation measures.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County’s August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a less than significant impact on the biological resources in the area with mitigation measures.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The public slides do not mention any significant impacts on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is a less than significant impact on the biological resources in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There is no impact on the biological resources in the area.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The response to late comments do not mention an impact on the biological resources in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is a potentially significant impact on the biological resources in the area.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is a less than significant impact on the biological resources in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is no impact on the biological resources in the area.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant impact on the biological resources in the area with mitigation measures.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact on the biological resources in the area with mitigation measures.

6.4.3 Cumulative Impact Evaluation

There are very few cumulative projects that would directly affect the SJWA. RC-1 and RC-5, as identified in Table 6.0 have the potential to effect the SJWA, although there is no project description information available for those cumulative projects. Similar to the project, each of these identified cumulative projects are required to mitigate impacts to biological resources including the MSHCP and the SJWA. A review of available CEQA documents in the identified biological resources cumulative project area indicates that these identified projects mitigate impacts to biological resources through a combination of project design features, mitigation measures and payment of MSHCP fees. The northern portion of the SJWA Area is designated as Agriculture in the San Jacinto Wildlife Area Management Plan and the existing use is fallow agricultural land. As such, sensitive species associated with the San Jacinto Wildlife Area are located in the central and southern portion of the wildlife area, over one-mile south of the WLC project boundary and further away from the identified cumulative projects. Existing ongoing activities within and adjacent to the San Jacinto Wildlife Area include traffic along perimeter roadways and substantial noise associated with the periodic blow-down of the SEMPRA pressurization station and permitted hunting activities, including short gun blasts.

The cumulative impact analysis includes an evaluation of the above identified projects within the identified cumulative impact area, and any associated CEQA documents. The project has the potential to contribute to cumulatively considerable impacts to Endangered, Threatened or Special-Status species, riparian habitats, federally protected Waters of the U.S., and to an adopted conservation plan.

With the implementation of the recommended mitigation measures, cumulative impacts to biological resources would not be cumulatively significant or considerable.

The cumulative projects, when considered together with the project, would not result in a cumulatively considerable effect on the MSHCP or the SJWA. Therefore, when considered in addition to the anticipated impacts of other projects in the cumulative scenario, the project's incremental contribution to impacts to biological resources would not be cumulatively considerable, and cumulative impacts to biological resources would be less than significant.

6.4.3.1 Adversely Affect Endangered or Threatened Species

Impact: *The project contribution to potential cumulative effects on habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS would be cumulatively considerable.*

Threshold:	Would the project have a substantial adverse effect, either directly or indirectly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Cumulative Impact Analysis

There are 17 plant and animal species that are designated as endangered or threatened by State and/or Federal authorities that have the potential to occur within the general vicinity of the project area (Table 4.4-6) and the MSHCP area. Only the coastal California gnatcatcher has been observed within the project site. Coastal California gnatcatcher is a Covered Species in the MSHCP and is considered Adequately Conserved. Consistent with the MSHCP requirements, Mitigation Measure **4.4.6.4A** prevents suitable habitat from disturbance during the breeding season.

Consistency with the MSHCP would provide assurance that the project would be in compliance with the provisions of the federal Endangered Species Act, the California Endangered Species Act, and the Natural Community Conservation Planning Act; and would adequately provide for the conservation and protection of the covered species adequately conserved and their habitats in the MSHCP Plan Area. *State CEQA Guidelines* Section 15064(h)(3) indicates that a lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program ... that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located." In addition, *State CEQA Guidelines* Section 15130(a)(3) concludes that "A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact."

The WLC site and some offsite facilities border the Core Reserve Area for the Stephens' kangaroo rat HCP to the south, but the area itself is not located within a core area. Although this area will be subject to development, it is not close enough to the Core Reserve Area to be directly impacted and is not close enough to have any indirect impacts as well. The project site and offsite facilities are located within the fee area of the SKR HCP. The SKR HCP is managed as part of the MSHCP Conservation Area and significant cumulative impacts to SKR are addressed through adherence to the Stephens' kangaroo rat HCP's Implementing Agreement and payment of the County's per-acre mitigation fee. A lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program ... that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located." In addition, the Moreno Valley Municipal Code section 3.48.040 imposes MSHCP fees and section 8.60.070 imposes SKR fees on all projects within the City.

Cumulative projects that would occur on previously undeveloped land supporting endangered or threatened species would be required to identify and mitigate any potentially significant impacts to those biological resources. Cumulative projects within the MSHCP Plan Area, the purpose of which is to maintain viable populations of covered species, including those listed as endangered or threatened, would be subject to consistency with the MSHCP as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact endangered or threatened species, yet these projects would be required to pay the appropriate MSHCP fees. The combined construction of projects within the vicinity of the project could deprive some species of a significant amount of habitable space. Related projects that would potentially affect threatened or endangered species would also be subject to the same regulatory requirements as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on sensitive species would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on threatened and endangered species would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. Those mitigation measures are specific to the Villages at Lakeview project impacts and would be independent of those required for the WLC project. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.1A, 4.4.6.1B and 4.4.6.4A is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to listed endangered and threatened species would be reduced. Mitigation Measures 4.4.6.1A and 4.4.6.1B includes development setbacks from the SJWA northern boundary and water quality and erosion control facilities to minimize downstream impacts. Mitigation Measures 4.4.6.4A requires avoidance of impacts to nesting birds, including the Federally Threatened coastal California gnatcatcher. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.2 Adversely Affect Candidate, Non-listed Sensitive, or Special-Status Species

Impact: *The project contribution to potential cumulative effects on habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS would be cumulatively considerable.*

Threshold:	Would the project have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Cumulative Impact Analysis

Consistency with the MSHCP would provide assurance that the project would be in compliance with the provisions of the federal Endangered Species Act, the California Endangered Species Act, and the Natural Community Conservation Planning Act; and would adequately provide for the conservation and protection of the covered species adequately conserved and their habitats in the MSHCP Plan Area. A lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

The WLC Specific Plan area overlaps with the MSHCP Survey Areas for Narrow Endemic Plant Species as well as Criteria Area Sensitive Plant Species. Focused surveys for these species did not produce positive findings within the project site and these species are not anticipated to occur. The implementation of the WLC project would not affect the habitat or result in a direct impact for any special status plant species.

Focused surveys for Los Angeles pocket mouse did not find this species within the project site and the closest known location for the species is in the southern portion of the SJWA for which there is no suitable habitat connection. However, Mitigation Measure 4.4.6.4E is recommended to prevent impacts to the species from occurring with the implementation of the Specific Plan.

Burrowing owl has been observed within the WLC site on several occasions, most recently in 2018. The MSHCP requires specific protective action for this species; as such, Mitigation Measure 4.4.6.4D provides for pre-construction surveys and the preparation of a relocation plan if burrowing owl is found. In addition, the construction of berms around detention basins where burrowing owls have been observed to use will provide nesting opportunities and the conservation of 74.3 acres within the Specific Plan will provide the potential to construct artificial burrows for use in the relocation plan.

Migratory and nesting birds are known from the project site because suitable nesting habitat is available for several bird species. Mitigation measure 4.4.6.4A is recommended to minimize potential impacts to nesting birds.

Raptor foraging habitat will be lost through the construction of the WLC and cumulative projects. The MSHCP incorporates suitable raptor foraging habitat within the MSHCP conservation areas. The objective of the long-range planning is to maintain sustainable populations within the MSHCP boundary. As a result of conservation planning within the MSHCP area enabled through the contribution of fees required for approved development, cumulative impacts to raptor foraging habitat will not be considerable.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP fee requirements as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. The combined construction of projects within the vicinity of the project could deprive some species of a significant amount of habitable space. Related projects that would potentially affect local or regional candidate, sensitive, or special status species subject to the same regulatory requirements as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on sensitive species would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on local or regional candidate, sensitive, or special status species would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects reviewed were required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.4A through 4.4.6.4K is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to candidate, non-listed sensitive, or special-status species would be reduced. Mitigation Measures 4.4.6.4A through 4.4.6.4K includes protection for nesting birds, including burrowing owl, development of a resource management plan, landscape buffer adjacent to the SJWA, and payment of impact fee to the MSHCP. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.3 Adversely Affect Riparian Habitat or Other Sensitive Natural Communities

Impact:	*The project contribution to potential cumulative effects on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS would be cumulatively considerable.*
Threshold:	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS?

Cumulative Impact Analysis

Riparian or riverine areas are lands that contain habitat dominated by trees, shrubs, and persistent emergent plants, which occur close to or depend upon soil moisture from a nearby water source; or areas with fresh water flowing during all or a portion of the year. Drainage Feature 7, 8, 9, 12, and 15 within the WLC project are considered riparian/riverine areas, as defined by MSHCP. If impacts to any of these areas cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) report and relevant mitigation will be required.

Mitigation Measure 4.4.6.3A will help ensure there will be no significant impacts to riparian areas associated with Waters of the State as a result of future development within the project. In addition, Mitigation Measure 4.4.6.3B will provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. The intent of the regulatory permitting for Waters of State is a no net loss of these resources and cumulative impacts would be less than considerable.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. Related projects that would potentially affect habitat would also be subject to the same requirements of CEQA as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on riparian habitat or other sensitive natural communities would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. With the implementation of the MSHCP Conservation Areas, sustainable populations for covered species within conserved habitats would result and cumulative impacts would be less than considerable. Therefore, for the reasons described above, cumulative adverse effects on sensitive habitat would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.3A through 4.4.6.3C is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to riparian habitat or other sensitive natural communities would be reduced. Mitigation Measures 4.4.6.3A through 4.4.6.3C includes the requirement to obtain regulatory jurisdictional permits, creation or enhancement of riparian resources, development of a resource management plan, and demonstration that the mitigation resources are equivalent or better than the jurisdictional resources impacted. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.4 Adversely Affect Federally Protected Wetlands or Waters of the U.S.

Impact: *The project contribution to potential cumulative effects on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means would be cumulatively considerable.*

Threshold:	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh,

vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Cumulative Impact Analysis

A total of 15 primary drainage features were identified during this survey and a number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the Clean Water Act (CWA) as administered by USACE and RWQCB, respectively. Two of the 15 features are subject to the jurisdiction of the USACE and/or RWQCB. In addition, no jurisdictional wetlands or isolated wetlands were identified within the project site. Mitigation Measure 4.4.6.3A will help ensure there will be no significant impacts to riparian areas associated with Waters of the U.S. as a result of future development within the project. In addition, there would be no net loss of riparian resources.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP as well as subject to consistency for any relevant state and federal wetlands regulations. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. However, it is anticipated that related projects that would potentially affect wetlands would also be subject to the same requirements of the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on wetlands would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on wetlands would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it’s boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.3A through 4.4.6.3C is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to federally protected wetlands or waters of the U.S. would be reduced. Mitigation Measures 4.4.6.3A through 4.4.6.3C includes the requirement to obtain regulatory jurisdictional permits, creation or enhancement of riparian resources, development of a resource management plan, and demonstration that the mitigation resources are equivalent or better than the jurisdictional resources impacted. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.5 Interfere with Wildlife Movement

Impact:	*The project contribution to potential cumulative effects on the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites would be less than cumulatively considerable.*
Threshold:	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Cumulative Impact Analysis

The project area contains no significant cover of native plant communities and currently experiences heavy disturbance associated with agricultural activities. Additionally, the project area is adjacent to SR-60 and Gilman Springs Road on the north and east and is bordered by urban development on the west. The nearest linkage area as identified under the MSHCP is Proposed Linkage 5 and is located approximately 3 miles north of the project and approximately 3.6 miles south of the project is Proposed Constrained Link 20. The development of the project site will not impede the movement of any wildlife; therefore, the project will not affect any wildlife movement corridor.

Native wildlife will experience incremental adverse impacts from traffic along Gilman Springs Road as the WLC project develops in the future, but these impacts would be less than significant when the County coordinates with the Resource Conservation Authority (RCA) and implements wildlife movement corridors between Core H and proposed Core 3 when designing and improving Gilman Springs Road.

Development of the project would not directly have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. It is determined that the project would not impede or minimize any significant wildlife corridor for the target species associated within the Reche Canyon/Badlands Area plan. None of the cumulative projects would interfere with wildlife movement in the region.

Direct and indirect impacts of the project on the MSHCP and SJWA would be less than significant with mitigation, and the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning. Through the implementation of the stated mitigation for project-specific impacts, and the payment of required MSHCP mitigation fees, no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP, including wildlife movement corridors, as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. The combined construction of projects within the vicinity of the project could result in constrained wildlife movement. Related projects that would potentially affect wildlife movement would also be subject to the same requirements of CEQA as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on wildlife movement would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on wildlife movement would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.4.3.6 Conflict with Adopted Policies, Ordinances or Habitat Conservation Plans

Impact:	*The project contribution to potential cumulative effects on local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan would be cumulatively considerable.*
Threshold:	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Cumulative Impact Analysis

The WLC project site is located within the Stephen's Kangaroo Rat (SKR) Habitat Conservation Plan (HCP). Core Areas have been designated for the conservation of this species. The project site is not located within an SKR Core Area. The SKR HCP is managed as part of the MSHCP Conservation Area. Moreno Valley Municipal Code section 8.60.070 imposes SKR fees on all projects within the City.

Within the MSHCP, the project site is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project site would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H.

No development is proposed within the portion of the project site that lies adjacent to Cell Group D and the SJWA. Development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA. The project site is not adjacent to any Cores or Linkages identified in the MSHCP. However, it is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). The project is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP.

The project is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA). Surveys the CASSA and NEPSSA resulted in the lack of observation of these species. Burrowing owl has been observed within the project site.

The WLC project site is located within the Stephen's Kangaroo Rat (SKR) Habitat Conservation Plan (HCP). Core Areas have been designated for the conservation of this species; however, the project site is not located within an SKR Core Area. The SKR HCP is managed as part of the MSHCP Conservation Area and significant cumulative impacts to SKR are addressed through the compliance with the MSHCP provisions.

The effects of the project, in combination with other cumulative projects in the geographic area, could combine to cause or contribute to significant cumulative effects to biological resources. In particular, identified cumulative projects that are located within or near the northern portion of the San Jacinto Wildlife Area could have significant effects on special status species, sensitive vegetation communities, and wildlife movement documented in the MSHCP and the San Jacinto Wildlife Area Management Plan. It should be noted that cumulative projects are required to adhere to and be consistent with the goals and objectives established in the MSHCP, including the payment of MSHCP fees.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP as well as subject to consistency for any relevant HCPs and resource protection policies. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources related policies. However, it is anticipated that related projects that would potentially affect resource protection policies would also be subject to the same requirements of these policies as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on resource protection policy would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on resource protection policies would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project (RC-5) located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.2B and 4.4.6.3B is required as provisions of the MSHCP.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to federally protected wetlands or waters of the U.S. would be reduced. Mitigation Measures 4.4.6.2A and 4.4.6.2B includes the requirement to conduct a focused plant survey, and demonstration to the Riverside County Regional Conservation Authority compliance with the provisions of the MSHCP. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.5 Cultural and Paleontological Resources

Cumulative effects to cultural and paleontological resources are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to cultural and paleontological resource issues is provided in Section 6.5.1. The geographic and temporal scopes for cumulative impacts to cultural and paleontological resource issues is provided in Section 6.5.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the cultural and paleontological resources issues are discussed in Section 6.5.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.5.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.5 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts could cause or contribute to a significant cumulative impact to cultural and paleontological resources.

6.5.1 Project Impact Findings

The project's effects to cultural and paleontological resources are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.5 of the Revised Final Programmatic EIR Sections (RFPEIRS) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Result in any disturbance of human remains, including those interred outside of formal cemeteries? **Less than Significant, Section 4.5.5.1.**
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5? **Less than Significant with Mitigation, Section 4.5.6.1, Impact 4.5.6.1.**
- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5? **Less than Significant with Mitigation, Section 4.5.6.2, Impact 4.5.6.2.**
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? **Less than Significant with Mitigation, Section 4.5.6.3, Impact 4.5.6.3.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to cultural and paleontological resources identified in the FEIR.

6.5.2 Geographic and Temporal Scope

Cumulative impacts to cultural and paleontological resources could result from the project in conjunction with other past, present and future projects located within the tribal boundaries that encompass the project site. Although tribal boundaries overlap, it is appropriate to identify the geographic area for cultural and paleontological resources as Western Riverside County because of (1) the area would be expected to contain archaeological, historic, and paleontological resources similar to the area that encompasses the project area, (2) coherence in regional past Native American occupation and land use, (3) similarity in patterns of historic development, and (4) similarity in the geological formations that contain paleontological resources. The cumulative projects geographic boundary for cultural and paleontological resources is shown in Figure 6.5-1. The projects listed within the cultural and paleontological resources impact are is listed in Table 6.5-1.

The project would contribute to cumulative impacts to cultural and paleontological resources starting from when project-related ground disturbance begins and lasting until the conclusion of the construction phase: once construction is complete, operation and maintenance of the project would not disturb the surface of the site in ways that could cause an impact on subsurface resources. The project would contribute to cumulative impacts to historical resources from the initiation of removal activities of the rural residential structures and associated out-buildings that may be of historic-age from the project site.

6.5.3 Cumulative Impact Evaluation

6.5.3.1 Human Remains

Impact: *The project contribution to the potential disturbance of human remains, including those interred outside of formal cemeteries would be less than cumulatively considerable.*

Threshold:	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Cumulative Impact Analysis

Cumulative ground disturbance in Western Riverside County could disturb human burials. Potentially cumulative projects such as RC-5, M-2, M-5 and others would be subject to the State laws that protect human remains such as Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. Because these State laws have been adopted to protect human remains, compliance with them would assure that cumulative impacts related to the disturbance of human remains would be less than significant. Because there is no evidence of human burials on the project site and ground disturbing activities on the project site would be subject to the State laws cited above, the project's less-than-significant incremental contribution to potential cumulative impacts on human burials would not cause or contribute to a significant cumulative effect.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

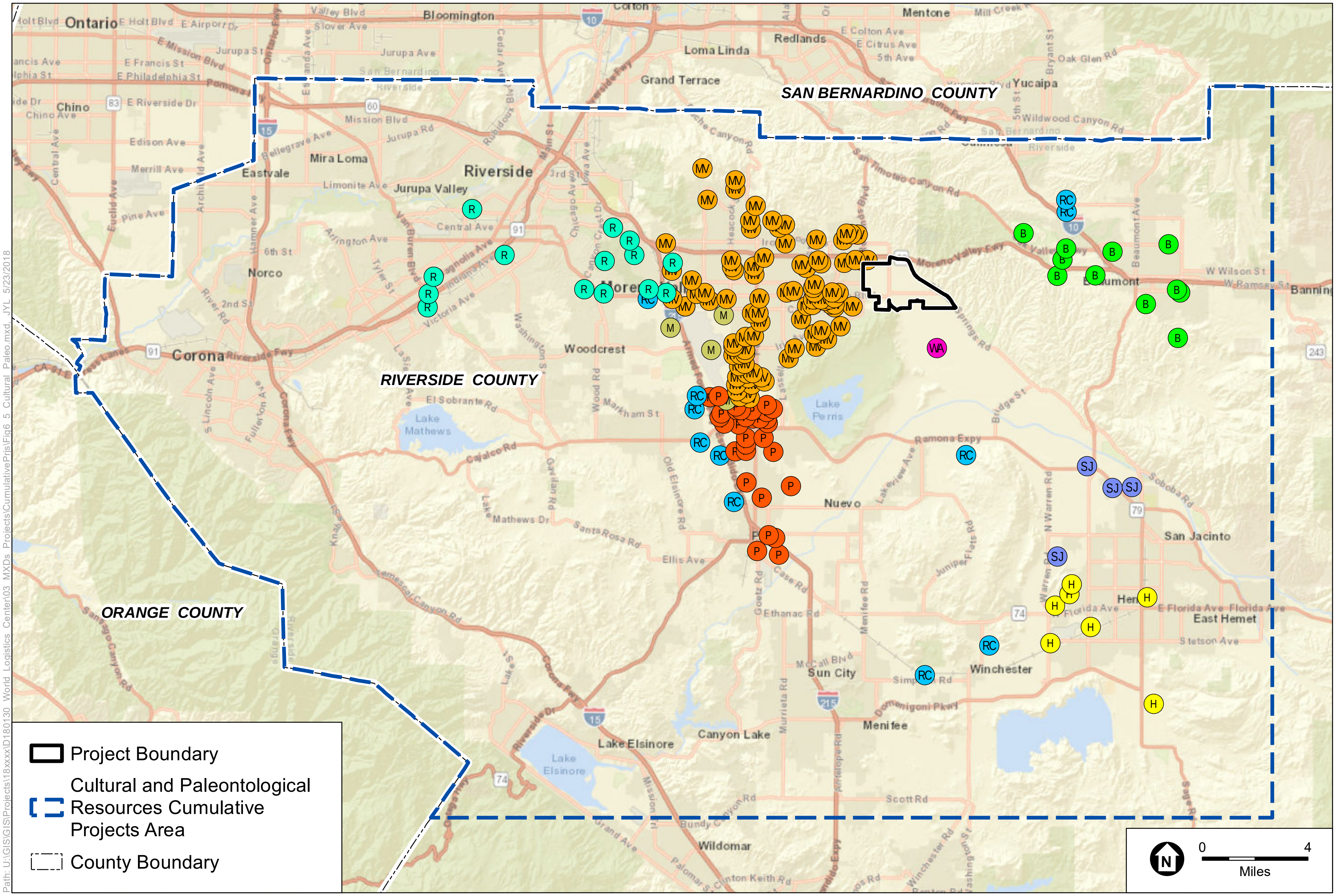

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6 5 Cultural Paleo.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.5-1
Cultural and Paleontological Resources Cumulative Projects Area

ESA

Table 6.5-1: Cultural and Paleontological Resources Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-2	Tournament Hills 3	No project description available.
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The project would have a less than significant impact on cultural resources.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would have a less than significant impact on cultural resources.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. The project would have no impact on cultural resources.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The project would have no impact on cultural resources.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. The project would have a less than significant impact on cultural resources with mitigation.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. The project would have no impact on cultural resources.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on cultural resources with mitigation.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would have a potentially significant impact on cultural resources.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. The project will have a less than significant impact on cultural resources.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project would have a less than significant impact on cultural resources with mitigation.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. No information in document related to cultural resources.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. No information in provided documentation on level of impact on cultural resources after mitigation.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMN, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on cultural resources with mitigation.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. No information in provided documentation on impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact on cultural resources with mitigation.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR, the project would result in the development of a 130 acre business park. The project would have a less than significant impact on cultural resources with mitigation.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project would have a significant impact on cultural resources and result in the demolition of one identified historical feature.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. The project would have a less than significant impact on cultural resources.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on cultural resources.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. No information in provided documentation on level of impact on cultural resources after mitigation.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project would have no impact on cultural resources.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. The project would have a less than significant impact on cultural resources.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. The project would have a less than significant impact on cultural resources.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. The project would have a less than significant impact on cultural resources.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. The project would have a less than significant impact on cultural resources.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. The project would have a less than significant impact on cultural resources.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. The project would have a less than significant impact on cultural resources.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. The project would have a less than significant impact on cultural resources.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. The project would have a less than significant impact on cultural resources.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. The project would have a less than significant impact on cultural resources.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. The project would have a less than significant impact on cultural resources.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. The project would have a less than significant impact on cultural resources.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project would have a less than significant impact on cultural resources.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project would have a less than significant impact on cultural resources.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. The project would have a less than significant impact on cultural resources.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. The project would have a less than significant impact on cultural resources.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. The project would have a less than significant impact on cultural resources.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. The project would have a less than significant impact on cultural resources.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project would have a less than significant impact on cultural resources.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. The project would have a less than significant impact on cultural resources.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have a less than significant impact on cultural resources.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have a less than significant impact on cultural resources.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. The project would have a less than significant impact on cultural resources with mitigation.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project would have a less than significant impact on cultural resources with mitigation.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. The project would have a less than significant impact on cultural resources.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. The project would have a less than significant impact on cultural resources with mitigation.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. The project would have a less than significant impact on cultural resources with mitigation.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project would have a less than significant impact on cultural resources.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. The project would have a less than significant impact on cultural resources.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project would have a less than significant impact on cultural resources.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space The project would have a less than significant impact on cultural resources.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would have a less than significant impact on cultural resources.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. The project would have a less than significant impact on cultural resources.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project would have a less than significant impact on cultural resources.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. The project would have a less than significant impact on cultural resources.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. The project would have a less than significant impact on cultural resources.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project would have a less than significant impact on cultural resources with mitigation.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. The project would have a less than significant impact on cultural resources.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. The project would have a less than significant impact on cultural resources.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project would have a less than significant impact on cultural resources.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project would have a less than significant impact on cultural resources.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project would have a less than significant impact on cultural resources.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. The project would have a less than significant impact on cultural resources.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project would have a less than significant impact on cultural resources.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project would have a less than significant impact on cultural resources.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. The project would have a less than significant impact on cultural resources.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project would have a less than significant impact on cultural resources.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. The project would have a less than significant impact on cultural resources.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. The project would have a less than significant impact on cultural resources.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. The project would have a less than significant impact on cultural resources.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project would have a less than significant impact on cultural resources with mitigation.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project would have no impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. The project would have a less than significant impact on cultural resources.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. The project would have a less than significant impact on cultural resources.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. The project would have a less than significant impact on cultural resources.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. The project would have a less than significant impact on cultural resources.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project would have a less than significant impact on cultural resources.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. Project was exempt from environmental review.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. The project would have a less than significant impact on cultural resources.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. Project was exempt from environmental review.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. Project was exempt from environmental review.

Project ID	Project Name	Environmental Document Summary
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project would have a less than significant impact on cultural resources.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. The project would have a less than significant impact on cultural resources.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. The project would have a less than significant impact on cultural resources.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. The project would have a less than significant impact on cultural resources.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. The project would have a less than significant impact on cultural resources.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. The project would have a less than significant impact on cultural resources.
P-2	TR34716	Per the City of Perris’ 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a less than significant impact on cultural resources with mitigation incorporated.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have a less than significant impact on cultural resources.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project would have a less than significant impact on cultural resources with mitigation.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a less than significant impact on cultural resources with mitigation.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project would have a less than significant impact on cultural resources with mitigation.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would have a less than significant impact on cultural resources.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have a less than significant impact on cultural resources with mitigation.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. No information in provided document on impact significance after mitigation incorporated.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have a less than significant impact on cultural resources.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project has mitigation measures in place for cultural resource impacts, no information on if impacts are significant after mitigation implemented.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on cultural resources.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project would have a less than significant impact on cultural resources.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project would have a less than significant impact on cultural resources with mitigation.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project would have a less than significant impact on cultural resources with mitigation.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project would have a less than significant impact on cultural resources.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. The project would have a less than significant impact on cultural resources.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. The project would have a potentially significant impact on cultural resources.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project would have a less than significant impact on cultural resources with mitigation.
P-37	Cabrillo	Per the City of Perris’ Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. The project would have a less than significant impact on cultural resources with mitigation.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. The project would have a less than significant impact on cultural resources with mitigation.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. The project would have a less than significant impact on cultural resources with mitigation.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. The project would have a less than significant impact on cultural resources with mitigation.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project would have a less than significant impact on cultural resources with mitigation.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County’s August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project would have significant, cumulative impacts on cultural resources.

Project ID	Project Name	Environmental Document Summary
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project would have less than significant impacts on cultural resources.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. The project would have less than significant impacts on cultural resources.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. The project has mitigation measures in place for cultural resource impacts, no information on if impacts are significant after mitigation implemented.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. The project would have less than significant impacts on cultural resources.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The project would have no impact on cultural resources.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project would have a potentially significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project would have a less than significant impact on cultural resources with mitigation.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. The project would have a less than significant impact on cultural resources.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project would have a less than significant impact on cultural resources.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project would have a less than significant impact on cultural resources with mitigation.

6.5.3.2 Archaeological Resources

Impact:	*The project contribution to potential cumulative effects on known or previously undetected subsurface archaeological resources would be cumulatively considerable.*
Threshold:	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Cumulative Impact Analysis

Cumulative projects within Western Riverside County such as RC-5, MV-2, MV-4 and M-8 would involve ground disturbance that could result in a significant impact to archaeological resources. Some of the cumulative projects have incorporated project design features to avoid potential effects to known archaeological resources; however, potential significant cumulative impacts could occur to unknown archaeological resources. Although no known resources are located within the project area, ground disturbing activities could result in a significant impact to unknown archaeological resources. Therefore, the project's contribution to potential significant cumulative impacts would be cumulatively considerable.

Typical mitigation measures implemented by the cumulative projects (such as RC-5, M-2, MV-4 and M-8) to reduce potential impacts to unknown archaeological resources include archeological monitoring, Native American tribal representation during monitoring, and protocols for treatment of discovered resources. These measures typically reduce potential impacts to unknown archaeological resources to less than significant.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.5.6.1A through 4.5.6.1E would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the recommended mitigation measures, potential impacts to archaeological resources would be reduced. Mitigation Measures 4.5.6.1A and 4.5.6.1B includes Phase 1 cultural resources assessments of parcels that have not been assessed, significance evaluation of any resources encountered, and development of appropriate treatment or mitigation. Mitigation measures 4.5.6.1C and 4.5.6.1D include the retention of an archaeological monitor to observe all grading activities, with invitation of a Native American tribal representative to participate in monitoring. Mitigation measure 4.5.6.1E includes protocols to be followed should resources be discovered, including resource evaluation and appropriate treatment for significant resources. Through the implementation of the above mitigation measures, the project's incremental contribution to potential significant cumulative impacts would be less than cumulatively considerable.

6.5.3.3 Historic Resources

Impact:	*The project contribution to potential cumulative direct and indirect effects on local historical resources would be cumulatively considerable.*

Threshold:	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines?

Cumulative Impact Analysis

Cumulative related projects within Western Riverside County (such as RC-5, M-2 and M-8) would involve ground disturbance that could impact above-ground structures that are of historic-age and meet the criteria of historic resources. Ground disturbance could also result in impacts to unknown historic resources that are located below ground. The construction activities associated with cumulative development could result in a potential significant cumulative impact.

The implementation of the project would contribute to potential cumulative impacts to historic resources. Because the project includes the removal of seven rural residential structures and associated out-buildings that may be of historic-age, impacts on these structures, features or resources could be significant. In addition, the project also includes effects on other structures of historic-age such as two previously identified historic sites containing farm buildings and related out-buildings as well as Alessandro Boulevard which was constructed across the site in the 1890s. The project's incremental contribution to cumulative historic impacts would be cumulatively considerable.

Typical mitigation measures implemented by projects in the cumulative scenario to reduce potential impacts to historical resources include proper curation and recordation of the recovered historic resources. These measures typically reduce potential impacts to historical resources to less than significant.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.5.6.2A through 4.5.6.2C would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the recommended mitigation measures, the project's contribution to historic cumulative impacts would be reduced. The implementation of Mitigation Measure 4.5.6.2A would include the proper curation of recovered historic resources. The implementation of Mitigation Measure 4.5.6.2B would include the installation of a historical marker along a historic trail. Mitigation Measure 4.5.6.2C include an alignment of an onsite road along the historical alignment of Alessandro Boulevard. With the implementation of these mitigation measures, the project's contribution to potentially significant cumulative historic impacts would be less than cumulatively considerable.

6.5.3.4 Paleontological Resources

Impact:	*The project's contribution to potential significant cumulative effects on previously undetected subsurface paleontological resources would be cumulatively considerable.*
Threshold:	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Cumulative Impact Analysis

Cumulative projects within Western Riverside County (such as RC-5, M-2 and RC-34) would involve ground disturbance that could cause adverse impacts to paleontological resources. Potential impacts from projects in the cumulative scenario that could impact the same fossil-bearing geologic units as the project would be considered significant. These units include older Pleistocene alluvium and the San Timoteo formation, both of which have been assigned a moderate paleontological sensitivity because they have yielded paleontological resources in the past. Potential impacts from the implementation of projects in the cumulative scenario (such as RC-5, M-2 and RC-34) could result in significant cumulative impacts.

Because the project would result in ground disturbance that could affect paleontological resources within the Pleistocene alluvium and the San Timoteo formation, the project's contribution to cumulative paleontological resources impacts would be cumulatively considerable.

The typical mitigation measures implemented by the cumulative related projects such as RC-5, M-2 and RC-34 to reduce potential impacts to paleontological resources are paleontological monitoring and properly curating resources that are found. These measures typically reduce potential impacts to paleontological resources to less than significant.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.5.6.3A and 4.5.6.3B would be required.

Significance Level After Mitigation: Less than significant impact. The implementation of the above mitigation measures would reduce the project's contribution to potential cumulative impacts to paleontological resources. The implementation of Mitigation Measure 4.5.6.3A includes the presence of a City-approved paleontologist to monitor excavation activities and salvage/collect fossils. Mitigation Measure 4.5.6.3B provides for the paleontological assessment of off-site improvements area and the implementation of monitoring protocols, where appropriate (MM 4.5.6.3B). Through the implementation of these mitigation measures, the project's contribution to potential significant cumulative impacts to paleontological resources would not be cumulatively considerable.

6.6 Geology and Soils

Cumulative effects to geology and soils are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to geology and soils is provided in Section 6.6.1. The geographic and temporal scopes for cumulative impacts to geology and soils are provided in Section 6.6.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the geology and soil issues are discussed in Section 6.6.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.6.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.6-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to geology and soils. These potentially significant cumulative impacts are documented in the following section.

6.6.1 Project Impact Findings

The project's effects to geology and soils are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.6 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides? **Less than Significant, Section 4.6.5.1.**
- Result in substantial soil erosion or the loss of topsoil; **Less than Significant, Section 4.6.5.2.**
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. **No Impact, Section 4.6.5.3.**
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure. **Less than Significant, Section 4.6.5.4.**
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other

substantial evidence of a known fault; **Less than Significant with Mitigation, Section 4.6.6.1, Impact 4.6.6.1.**

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. **Less than Significant with Mitigation, Section 4.6.6.2, Impact 4.6.6.2.**
- Be located on expansive soil, creating substantial risks to life or property. **Less than Significant with Mitigation, Section 4.6.6.3, Impact 4.6.6.3.**

Pursuant to CEQA Guidelines §15130, “a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.” Because the project would result in no impact related to the capability of soils to adequately support the use of septic tanks or alternative wastewater disposal systems, it could not cause or contribute to any potential cumulative impact in this respect.

In all remaining respects, the project’s impacts would be less than significant or less than significant with mitigation and are evaluated in the cumulative effects analysis below. .

6.6.2 Geographic and Temporal Scope

The geographic area to evaluate potential cumulative impacts to geology and soils is the City of Moreno Valley because the City has adopted specific regulations within their grading regulations and building codes (e.g., City adopted the California Building Code) to reduce potential geology and soils impacts. People and structures within the City are subject to geotechnical and soils issues including faults, seismic ground shaking, liquefaction, landslides, and unstable soils. The geographic area for cumulative geology and soils impacts is shown on Figure 6.6-1. The projects located within the cumulative geology and soil impact area are listed in Table 6.6-1.

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6 6 Geology Soils.mxd, JYL 5/23/2018

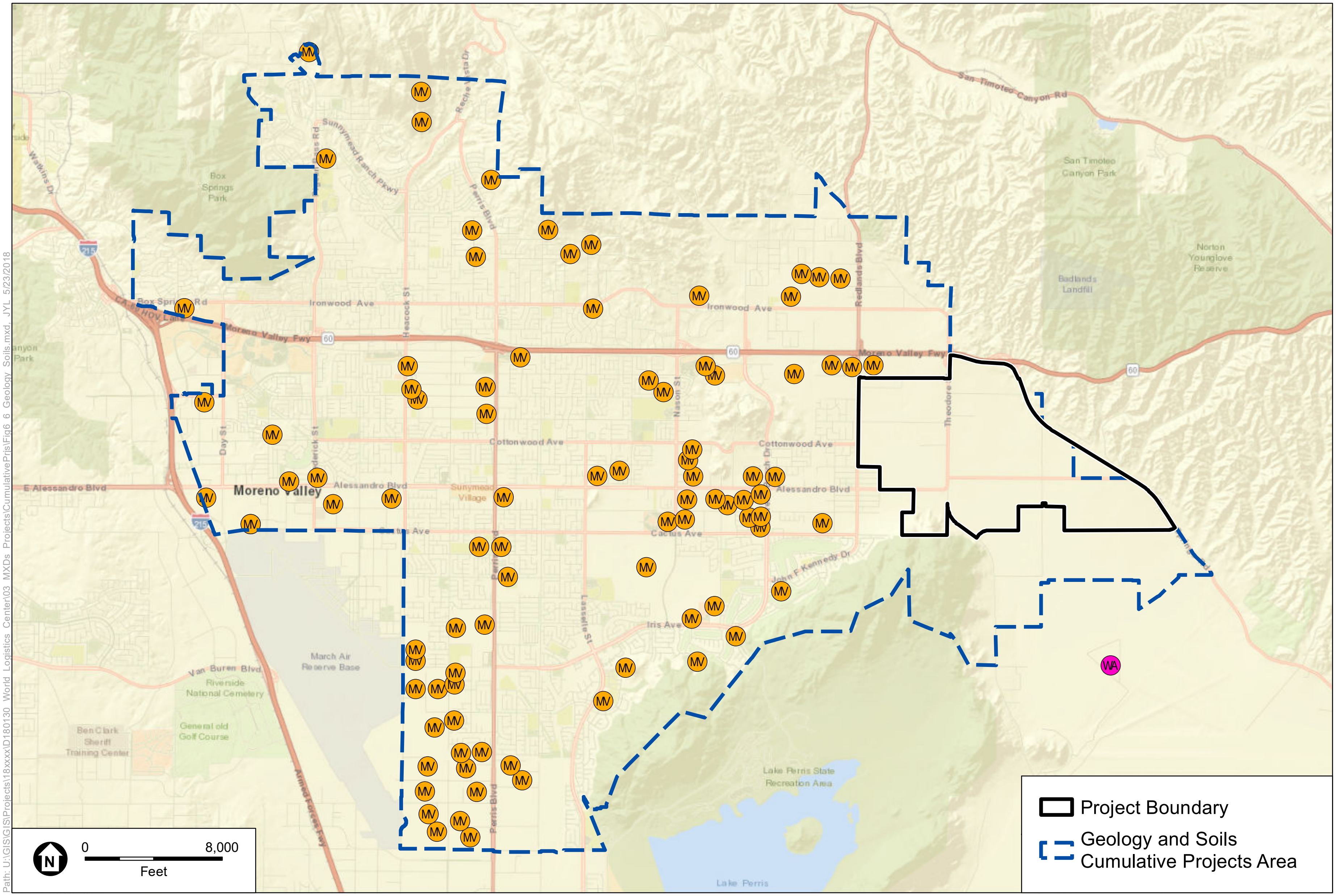

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.6-1
Geology and Soils Cumulative Projects Area

ESA

Table 6.6-1: Geology and Soils Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is no impact on the geology and soils in the area.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility would contribute to cumulative impacts from fault rupture, ground shaking, ground failure, soil erosion, expansive soils and landslides.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the geology and soils in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the geology and soils in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the geology and soils in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the geology and soils in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the geology and soils in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the geology and soils in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the geology and soils in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the geology and soils in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the geology and soils in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the geology and soils in the area.
MV-20	Moreno Marketplace	The Project's development of 95,905 square foot retail center would contribute to cumulative impacts from, ground shaking, ground failure, soil erosion, expansive soils and landslides.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the geology and soils in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the geology and soils in the area.
MV-24	TM 36436 (PA12-0005)	The Project's subdivision of 43.52 acres into 159 single family residential lots would contribute to cumulative impacts from ground shaking, ground failure, soil erosion, and landslides.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the geology and soils in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the geology and soils in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the geology and soils in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on eh geology and soils in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the geology and soils in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the geology and soils in the area.
MV-34	TR34397 / Winchester Associates	The Project's subdivision of 19 acres into 50 single family residential lots would contribute to cumulative impacts from fault rupture, ground shaking, ground failure, and soil erosion,
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the geology and soils in the area.
MV-36	TM 31618 (PA03-0106)	The Project's subdivision of 18.99 acres into 56 single family residential lots would contribute to cumulative impacts from ground shaking, ground failure, and soil erosion.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is no impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the geology and soils in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-45	Iris Plaza	Per the City of Moreno Valley’s IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the geology and soils in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the geology and sols in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project’s subdivision of a 75.05-acre property into four parcels with business center land uses could contribute to cumulative impacts from fault rupture, ground shaking, ground failure, soil erosion, expansive soils and landslides.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the geology and soils in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the geology ad soils in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the geology and soils in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is no impact on the geology and soils in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is no impact on the geology and soils in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. There is no mention on the impact on geology and soils in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the geology and soils in the area,
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there is no impact on the environment. It does mention an impact on the geology and soils in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the geology and soils in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the geology and soils in the area.
MV-61	Walmart & Gas Station	The Project's development of a 193,000 square-feet of retail/commercial uses on a 22.28-acre site would contribute to cumulative impacts from fault rupture, ground shaking, ground failure, soil erosion, expansive soils and landslides.

Project ID	Project Name	Environmental Document Summary
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the geology and soils in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the geology and soils in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the geology and soils in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the geology and soils in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the geology and soils in the area,
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the geology and soils in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the geology and soils in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the geology and soils in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the geology and soils in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the geology and soils in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the geology and soils in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the geology and soils in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the geology and soils in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resiolution did state that there was no impact on the environment in the area. It did not specifically mention the impact on the geology and soils.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact on the geology and soils in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the geology and soils in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the geology and soils in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is no impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the geology and soils in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the geology and soils in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the geology and soils in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the geology and soils in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the geology and soils in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the geology and soils in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution stated that there is no impact on the environment in the area. It does not specifically mention whether or not there is an impact on the geology and soils in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the geology and soils in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the geology and soils in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution makes no statements regarding the environment, including the geology and soils, in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the geology and soils in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the geology and soils in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the geology and soils in the area.

Project ID	Project Name	Environmental Document Summary
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is a less than significant impact on the geology and soils in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the geology and soils in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a potentially significant impact on the geology and soils in the area.

6.6.3 Cumulative Impact Evaluation

6.6.3.1 Landslides and Rockfalls

Impact: *The project would contribute incrementally to a less than significant cumulative impact relating to the exposure of persons or structures to potential substantial adverse landslide or rockfall effects.*

Threshold: Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Cumulative Impact Analysis

Based on a review of the available environmental documentation for projects in the cumulative scenario (such as MV 4, MV 24 and MV 126), none of the potentially cumulative projects has the potential to cause exposure to landslide or rockfall effects particularly adjacent to foothills and steep slopes. Therefore, there would be no significant cumulative landslides or rockfall effects that could adversely affect people or structures with the implementation of the cumulative scenario.

The project site includes one area that encompasses the lower slopes of Mount Russell. The project designates these slope areas as Open Space, which would reduce the potential for landslide or rockfalls that could adversely affect people or structures. With the application of the Open Space designation to this area, the project would reduce this potential effect to less than significant. Because projects in the cumulative scenario would not expose people or structures to landslides or rockfall impacts, the project's incremental less-than-significant contribution to potential cumulative effects would not alone cause or create a significant cumulative effect relating to the exposure of people and structures to landslide or rockfall impacts. A less than significant cumulative effect would result.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.6.3.2 Soil Erosion or Loss of Topsoil

Impact:	*The project would contribute incrementally to a less than significant cumulative impact relating to soil erosion or the loss of topsoil.*
Threshold:	Would the project result in substantial soil erosion or the loss of topsoil?

Cumulative Impact Analysis

Projects in the cumulative scenario have the potential to result in short-term erosion of surface soils; however, as appropriate, the cumulative projects include the implementation of erosion control features that comply with National Pollutant Discharge Elimination System (NPDES) requirements and would reduce erosion to less than significant. In addition, those projects include improvements that would not increase long-term erosion of on-site soils and therefore, would result in less than significant impacts. Following is a further discussion of the potential erosion associated with the cumulative projects.

Prior to moving soils during construction activities, the project proponent of each of the cumulative projects would be required to submit detailed grading plans to obtain grading permits. The approval of the permits would require compliance with applicable standards of the City's Grading Ordinance. Projects that would result in the disturbance of more than one acre of land would be required to obtain a NPDES permit and to comply with SCAQMD Rule 403 (fugitive dust). A Storm Water Pollution Prevention Plan (SWPPP) would also be required to reduce potential erosion and surface water discharge impacts. Based on a review of the environmental documentation prepared for each of the cumulative related projects, the SWPPP would include specific erosion control features to reduce potential soil erosion to less than significant. Therefore, the cumulative related projects would result in less than significant impacts associated with soil erosion or the loss of topsoil. The implementation of the proposed project includes specific components to reduce potential impacts of soil erosion or loss of topsoil during construction activities. These components are identified in Section 4.6.5.2 of the FEIR. With the implementation of these construction measures/components, the project would result in a less than significant soil erosion or loss of topsoil impact. In assessing the cumulative projects in conjunction with the project, the implementation of erosion control features that would be required to obtain grading permits would reduce the cumulative soil erosion or loss of topsoil impact to less than significant. Further, the project's incremental less-than-significant contribution to potential cumulative impacts associated with soil erosion or the loss of topsoil alone would not cause one. Thus, cumulative erosion and topsoil impacts would be less than significant during construction.

Long-term operations of projects in the cumulative scenario have the potential to cause soil erosion or loss of topsoil if soil stabilization measures are not incorporated into ongoing operations. However, based on review of the environmental documentation for the cumulative related projects, each project identifies that the implementation of the urban uses on the project site would result in less than significant soil erosion impacts or each project would incorporate soil stabilization measures to reduce soil erosion impacts to less than significant. In assessing the cumulative related projects in conjunction with the project, the implementation of soil stabilization measures for those projects that require those measures such as the project, the potential cumulative long-term soil erosion impact would be less than significant. Because the project includes various detention/retention, treatment and soil stabilization measures to reduce potential long-term soil erosion or the loss of topsoil with the measures identified in Section 4.6.5.2 of the FEIR, the project would not cause a significant cumulative impact. Thus, cumulative erosion and topsoil impacts would be less than significant during operation.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.6.3.3 Seismic-Related Ground Failure

Impact: *The project would contribute incrementally to a less than significant cumulative impact relating to the considerable exposure of people or structures to potential adverse seismic ground failure effects.*

Threshold:	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic ground failure?

Cumulative Impact Analysis

Persons or structures associated with projects in the cumulative scenario could be exposed to geologic conditions that cause ground failure during seismic events (including all “MV” cumulative projects). These potential geologic conditions include landslides, settlement, subsidence, or liquefaction, and potential ground failure that could expose people or structures to these effects. The exposure to these impacts could result in significant impacts; however, each of the cumulative projects would be subject to the City of Moreno Valley’s grading requirements and building codes. Compliance with these requirements would reduce potential effects to less than significant.

The project site is located in an area of the City that is not subject to settlement, subsidence or liquefaction. In addition, the majority of the project site lies on relatively flat terrain. There is one portion of the site that includes steep topographic features that could be subject to landslides; however, the project designates this area for Open Space (Planning Area 30). In considering the implementation of the project in combination with the cumulative related projects, no significant cumulative effect of exposing persons and structures to potential seismic ground failure would result.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significant Level After Mitigation: Less than significant impact.

6.6.3.5 Fault Rupture

Impact: *The project would cause a cumulatively considerable contribution to a significant cumulative effect relating to the exposure of people or structures to potential adverse fault rupture effects.*

Threshold:	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.

Cumulative Impact Analysis

The San Jacinto Fault Zone and its associated fault segments are located within the eastern portion of the City of Moreno Valley. According to the City of Moreno Valley General Plan EIR, no other active fault zone is located within the City. Based on a review of projects in the cumulative scenario, San Jacinto Wildlife Area Land Management Plan is the only related project that is located in the immediate vicinity of the San Jacinto Fault Zone. A portion of the Land Management Plan encompasses the area immediately south of the project site and is located within the City of Moreno Valley. This portion of the Land Management Plan includes a potential for a water storage project that would involve construction of enclosed berms to hold water and an onsite pipeline. However, based on information from the San Jacinto Wildlife Area Land Management Plan EIR, the water storage project would not be located on any of the mapped earthquake fault zones and would thus be unlikely subject to fault rupture. Therefore, no significant cumulative effect would result relating to surface rupture impacts exposing persons and structures to significant effects.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.6.6.1A through 4.6.6.1C is required.

Significance Level After Mitigation: Less than significant impact. The implementation of Mitigation Measures 4.6.6.1A through 4.6.6.1C will require subsurface evaluations to determine the implementation of structural setbacks, remedial earthwork and/or foundation recommendations if site-specific geotechnical investigations confirm the locations of the fault alignments in the areas of proposed land uses. The implementation of these mitigation measures would reduce the project's potential fault rupture impacts to less than cumulatively considerable.

6.6.3.6 Ground Shaking

Impact: *The project would result in a cumulatively considerable exposure of people or structures to potential strong seismic ground shaking.*

Threshold:	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong ground shaking?

Cumulative Impact Analysis

Projects in the cumulative scenario could be subject to ground shaking resulting from seismic activity on regional and local faults (including all "MV" cumulative projects). The level of potential ground motion from faults is considered moderate to high in the City of Moreno Valley. Based on a review of the environmental documents prepared for the cumulative projects (such as MV-34, MV-36, MV-41 and MV-48), the structures proposed by each project would be required to be designed in accordance with the California Building Code and the City of Moreno Valley Building Code to preclude adverse effects to the structures and persons associated with strong seismic ground-shaking. The amount of ground shaking would be dependent on the earthquake size, location and distance. Ground shaking would be greater with larger and closer earthquakes. Cumulative projects could expose persons and structures to significant cumulative seismic ground shaking impacts.

The implementation of the project could also subject persons and structures to ground shaking from seismic activity on regional and local faults. Section 4.6 identifies that the exposure of the proposed structures and persons to seismic activity would be significant. Therefore, the combination of impacts of the project and other projects in the cumulative scenario would result in a cumulative significant impact. Given the size of the project and the number of people and scope of structures it would include, the project's contribution to the significant cumulative impact associated with exposing persons and structures to strong seismic ground shaking impacts would be cumulatively considerable.

Significance Level Before Mitigation: Potential significant impact.

Mitigation Measures: Implementation of Mitigation Measure 4.6.6.2A would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of Mitigation Measure 4.6.6.2A, structural design parameters for the proposed improvements in accordance with the California Building Code, including applicable City amendments, would be implemented based on site-specific geotechnical investigations. The implementation of this measure would reduce the project's contribution to the potential significant cumulative exposure of persons and structures to seismic ground shaking impacts to less than cumulatively considerable.

6.6.3.7 Unstable Soils

Impact: *The project would result in a cumulatively considerable expansive soil impact that could create substantial risks to life or property.*

Threshold:	Would the project be located on expansive soil, creating substantial risks to life or property?

Cumulative Impact Analysis

Projects in the cumulative scenario (such as MV-20, MV-41, and MV-61) would include structural development on soils that have a low to moderate shrink/swell potential that could result in unstable soils. Areas where soils have a moderate shrink/swell potential could result in expansive soil impacts that would be significant. However, based on a review of the cumulative projects such as MV-20, MV-41 and MV-61, the implementation of special construction techniques and compliance with the California Building Code would reduce expansive soil impacts to less than significant.

The implementation of the project could include structures on soils with moderate shrink/swell and cause potential significant impacts to persons and structures Therefore, the combination of the project's incremental impacts together with the impacts of other projects in the cumulative scenario would result in a cumulative significant expansive soil impact. Given the size of the project and the number of people it would include, the project's contribution to exposing persons and structures to expansive soil impacts would be cumulatively considerable.

Significance Level Before Mitigation: Potential significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.6.6.3A through 4.6.6.3C would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of Mitigation Measures 4.6.6.3A through 4.6.6.3C, structural design parameters for the proposed improvements in accordance with the California Building Code, including applicable City amendments, would be implemented based on site-specific geotechnical investigations. The implementation of these measures would reduce the project's contribution to the potential significant cumulative exposure of persons and structures to expansive soil impacts to less than cumulatively considerable.

6.7 Greenhouse Gas Emissions, Climate Change and Sustainability

Cumulative effects to greenhouse gas (GHG) emissions, climate change and sustainability are described in this section. A summary of the project's potential impacts related to GHG emissions and consistency with plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs is provided in Section 6.7.1. The cumulative impact geographic area for GHG emissions, climate change, and sustainability issues is provided in Section 6.7.2. The potential cumulative impacts and the project's contribution to cumulative impacts related to GHG emissions and consistency with plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs are discussed in Section 6.7.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.7.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.7-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to greenhouse gas emissions, climate change and sustainability. These potentially cumulative impacts are documented in the following section.

6.7.1 Project Impact Findings

The project's effects on greenhouse gas emissions, climate change, and sustainability are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.7 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., exceeds the SCAQMD's 10,000 mt CO_2e emissions screening threshold of significance); **Less than Significant with Mitigation, Section 4.7.6.1.**
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. **Less than Significant with Mitigation, Section 4.7.6.2.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to greenhouse gas emissions identified in the revised FEIR.

6.7.2 Geographic and Temporal Scope

CEQA requires that lead agencies consider the cumulative impacts of GHG emissions from even relatively small (on a global basis) increases in GHG emissions. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and therefore significant. In the case of global climate change, the proximity of the project to other GHG emission generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. GHG emission impacts are, by their very nature cumulative, as both the California Natural Resources Agency and CAPCOA have recognized.

For purposes of this analysis, the cumulative impact geographic area for GHG emissions is based on the limits set forth in the cumulative traffic analysis conducted by the project. This area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County, and the March JPA. The primary sources of GHG emissions from this project would be related to energy consumption in buildings and related uses (lighting for streets and parking lots, etc.) and in the transport of goods by future tenants. Regulations applicable to the GHG-intensity of power and petroleum production in California are promulgated at the state level. Regulations, policies, and plans to reduce GHGs potentially applicable to the project are adopted by the State of California, regional governmental agencies (such as SCAG and SCAQMD), and local governments, in support of State laws AB32 and SB32.

As part of the GHG cumulative analysis a review of available environmental documents for projects within the Project vicinity was conducted. Approximately 360 projects have been identified and out of those 360 projects, approximately 162 environmental documents were available. All 162 were reviewed to identify project specific GHG analyses. Out of the 162 environmental documents that were reviewed, 84 were completed in 2008 or earlier, prior to the requirements of AB32 and the mandatory reporting rules for significant sources of GHG emissions. Therefore, those 84 documents did not provide GHG analyses. Out of the 78 documents that were completed after the year 2008, 24 environmental documents provided a GHG analysis. Despite not having a GHG analysis from all 360 cumulative projects, a determination on the project's cumulative impact could still be determined based on the AQMD's strategies in assessing a cumulatively considerable impact, where projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[1]

The projects located within the cumulative GHG emissions, climate change and sustainability impact area are shown in Figure 6.7-1 and listed in Table 6.7-1.

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[1] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

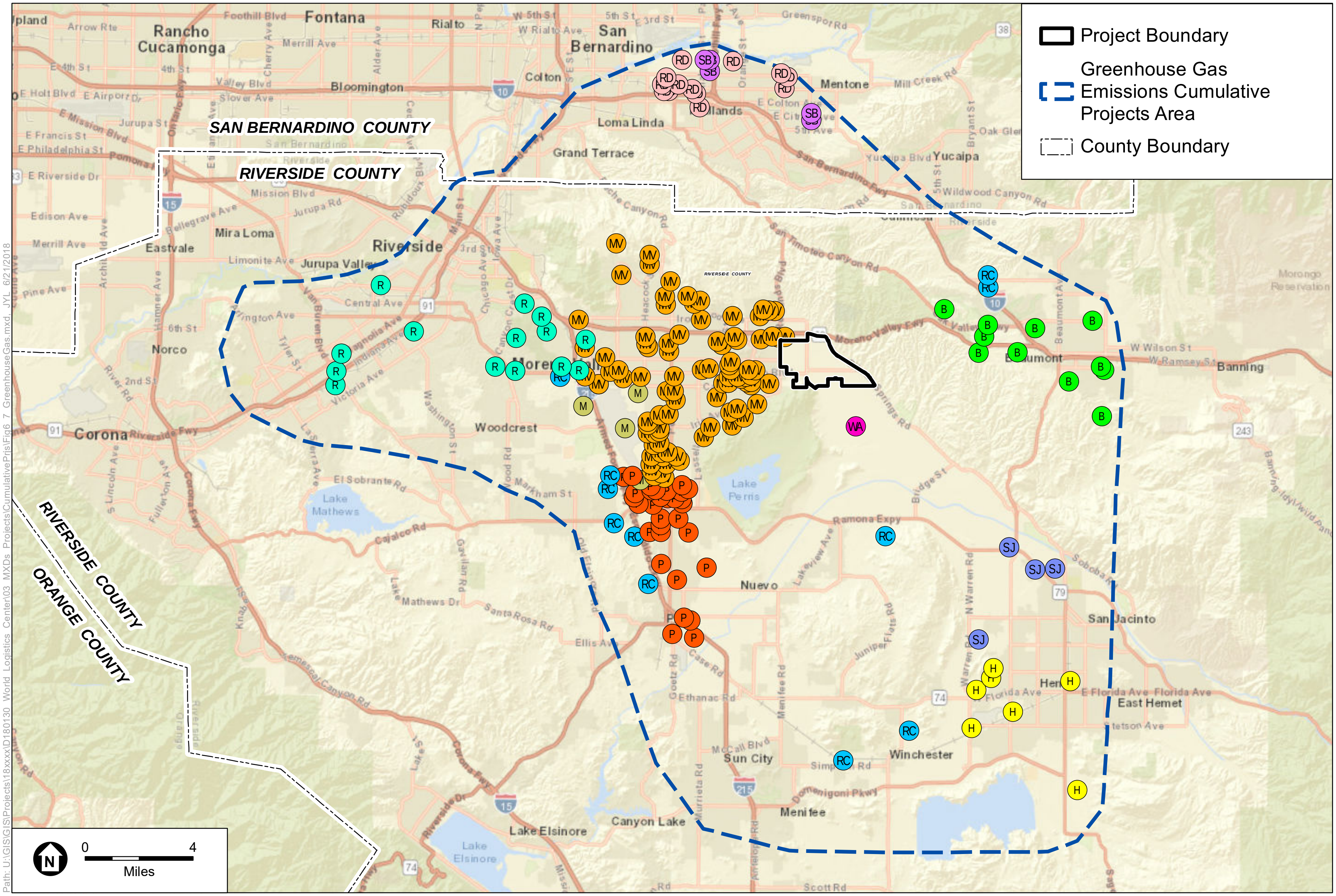

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6_7 GreenhouseGas.mxd, JYL 6/21/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.7-1
Greenhouse Gas Emissions Cumulative Projects Area

ESA

Table 6.7-1: Greenhouse Gas Emissions, Climate Change and Sustainability Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The project would have a significant impact on GHG emissions.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would have a significant impact on GHG emissions.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. The project would have no significant impacts on GHG emissions.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The project would have a significant impact on GHG emissions.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. The project would have a less than significant impact on GHG emissions.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. The project would have a less than significant impact on GHG emissions.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on GHG emissions.

Project ID	Project Name	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on GHG emissions.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would have no impact on GHG emissions.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. The project would have a less than significant impact on GHG emissions.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project would have a potentially significant impact on air quality.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The EIR provides no information on GHG.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. The project would have a less than significant impact on GHG emissions with mitigation incorporated.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on GHG emissions.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The project would have a less than significant impact on GHG emissions.

Project ID	Project Name	Environmental Document Summary
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact on GHG emissions.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR, the project would result in the development of a 130 acre business park. The project would have significant impacts on GHG emissions associated with consistency with the SCAG RTP/SCS and SB 375.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project would have a less than significant impact on GHG emissions.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. The project would have a less than significant impact on GHG emissions.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on GHG emissions.
MV-3	ProLogis	E Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is a less than significant impact on the GHG in the area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the GHG in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the GHG in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the GHG in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the GHG in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the GHG in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the GHG in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the GHG in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the GHG in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the GHG in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is a less than significant impact on the GHG in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the GHG in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the GHG in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the GHG in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the GHG in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the GHG in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the GHG in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the GHG in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the GHG in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is a less than significant impact on the GHG in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the GHG in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the GHG in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the GHG in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a significant and unavoidable impact on the GHG in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a significant and unavoidable impact on the GHG in the area.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is a less than significant impact on the GHG in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a significant and unavoidable impact on the GHG in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley’s IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the GHG in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is no impact on the GHG in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the GHG in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the GHG in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is no impact on the GHG in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the GHG in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is significant and unavoidable impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. It does not specifically mention an impact on the GHG in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the GHG in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there will be no impact on the environment in the area. It does not specifically mention an impact on the GHG in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the GHG in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the GHG in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the GHG in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the GHG in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the GHG in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the GHG in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the GHG in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is a less than significant impact on the GHG in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the GHG in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the GHG in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the GHG in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the GHG in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the GHG in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the GHG in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the GHG in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact on the GHG in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the GHG in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the GHG in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact on the GHG in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the GHG in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is no impact on the GHG in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the GHG in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the GHG in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the GHG in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the GHG in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that the project would be exempt from CEQA guidelines. It does not mention specifically anything about an impact on the GHG in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the GHG in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the GHG in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution states that the project is exempt from CEQA guidelines. It does not specifically mention an impact on the GHG in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the GHG in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the GHG in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the GHG in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the GHG in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the GHG in the area.
P-2	TR34716	Per the City of Perris’ 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a less than significant impact on GHG emissions.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have less than significant impacts on GHG emissions.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would have less than significant impacts on GHG emissions.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project would have less than significant impacts on GHG emissions with mitigation.

Project ID	Project Name	Environmental Document Summary
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have less than significant impacts on GHG emissions.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a potentially significant impact on air quality.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project would have a significant impact on GHG emissions.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would have a less than significant impact on GHG emissions.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have cumulatively significant impacts to GHG emissions.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. The project would have a significant impact on GHG emissions.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project would have a potentially significant impact on GHG emissions.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a significant impact on GHG emissions.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have a significant impact on GHG emissions.

Project ID	Project Name	Environmental Document Summary
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project would have a less than significant impact on GHG emissions with mitigation.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on GHG emissions.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on GHG emissions. The project would have a less than significant impact on GHG emissions.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project would have a less than significant impact on GHG emissions.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project would have a significant impact on GHG emissions.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have a less than significant impact on GHG emissions.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on GHG emissions.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project would have a significant impact on GHG emissions.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project would have a significant impact on GHG emissions.

Project ID	Project Name	Environmental Document Summary
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the GHG in the area.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the GHG in the area with mitigation measures.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is a potentially significant impact on the GHG in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is a less than significant impact on the GHG in the area.
P-37	Cabrillo	Per the City of Perris’ Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a less than significant impact on the GHG in the area.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would have a less than significant impact on GHG emissions.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is a less than significant impact on the GHG in the area with mitigation measures.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is no impact on the GHG in the area.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is a less than significant impact on the GHG in the area.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is a less than significant impact on the GHG in the area with mitigation measures.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. There is a major impact on the Air emissions/quality. It does not specifically mention an impact on the GHG in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a significant and unavoidable impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The slides do not specifically mention an impact from the GHG in the area. However, it is important to note that GHG is excluded from the slide titled: “Significant Impacts not mitigated”.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is no impact on the GHG in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is no impact on the GHG in the area.
RC-12	Cores Industrial Partners	Per Riverside County’s October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There is no impact on the GHG in the area.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. There is no impact on the GHG in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is a potentially significant impact on the GHG in the area.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
RC-37	TR36504	Per Riverside County’s IS, the project proposes a Schedule ‘A’ subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is a less than significant impact on the GHG in the area with mitigation measures.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant impact on the GHG in the area with mitigation measures.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. There is no impact on the GHG in the area.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. There is a less than significant impact on the GHG in the area.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally, the Project seeks approval to remove 5 acres from an Agricultural Preserve. There is a less than significant on the GHG in the area.
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property. There is a less than significant impact on the GHG in the area.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. There is a less than significant impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces. There is a significant cumulative impact on the GHG in the area.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. There is a less than significant impact on the GHG in the area.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking. There is a less than significant impact on GHG in the area.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres. There is a less than significant impact on the GHG in the area.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino’s 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. There is a less than significant impact on the GHG in the area.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino’s 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. There is a less than significant impact on the GHG in the area.
SB-3	Prologis #12	Per the County of San Bernardino’s 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a “high cube” warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres. There is a less than significant impact on the GHG in the area.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. There is a less than significant impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
SB-6	Prologis #8	Per the County of San Bernardino's 2007 IS, the project would result in the construction four industrial buildings to be used a "High Cube" and general warehouse distribution facilities. There is a less than significant impact on the GHG in the area.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. There is a less than significant impact on the GHG in the area.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. There is a less than significant impact on the GHG in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact on the GHG in the area.

6.7.3 Cumulative Evaluation

Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis of project GHG emissions and climate change is based on methodologies and information available at the time this EIR was prepared. While information is presented below to assist the public and the City's decision-makers in understanding the project's potential contribution to global climate change impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.

6.7.3.1 Greenhouse Gas Emissions

Impact: *The project's contribution to the generation of cumulative greenhouse gas emissions would not be cumulatively considerable.*

Threshold: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Cumulative Impact Analysis

The project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment. Section 4.7.6.1 Greenhouse Gas Emissions, found that construction of the project would contribute approximately from 11,738 metric tons of CO_2e in its first year of construction and up to approximately 20,659 mt CO_2e per year of construction during the 16-year construction period. Over the 16-year construction period the project would emit a total of 221,381 mt CO_2e. The SCAQMD recommends that construction emissions be averaged over a 30-year period. Average over a 30-year period results in approximately 7,379 mt CO_2e.

Operational or long-term emissions occur over the life of the project. Mobile emissions were calculated using emission factors for the actual year assessed. The motor vehicle and truck emissions for Phase 1 (2018 to 2025) use emission factors for the year 2025, whereas motor vehicle and truck emissions for Phase 2 (2026 to buildout, 2040) use emission factors for the year 2040. CARB has designed a California cap-and-trade program that is enforceable and meets the requirements of AB 32 and SB 32. The program began on January 1, 2012, placing GHG emissions limits on capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MT CO2e per year), and enforcing compliance obligations beginning with 2013 emissions. Vehicle fuels were placed under the cap in 2015, and with the passage of AB 398, the program was extended through 2030. The Cap-and-Trade Program allocates emissions permits across covered entities in each sector. As shown in Section 4.7.6.1 Greenhouse Gas Emissions, the project's unmitigated uncapped emissions of approximately 22,854 mt CO_2e per year are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year.

Out of the 24 environmental documents that evaluated GHG emissions, eight (8) documents provided quantitative operation and construction emissions and utilized the SCAQMD's Interim CEQA GHG Significance Thresholds to determine the respective project's level of significance. All eight (8) of the projects that were identified were either residential or commercial projects; therefore, Tier 3 of the SCAQMD's draft threshold for residential/commercial projects, 3,000 mt CO_2e per year, was used in each of the greenhouse assessments. All eight (8) projects that provided quantitative emissions were found to be less than significant and no cumulative impacts would be generated. Furthermore, the additional 16 projects that provided a qualitative GHG analysis were found to be less than significant and not contribute to a cumulative impact. However, although these 24 projects had less than significant impacts, the geographic cumulative area includes 360 projects, all of which could contribute to a significant cumulative impact. Given that the project would have a potentially significant impact to GHG emissions prior to the application of mitigation, this project's contribution to cumulative impact sis considered to be considerable prior to mitigation.

Significance Level Before Mitigation: Cumulatively considerable significant impact.

Mitigation Measures: As identified in Section 4.7.6.1, **Mitigation Measures 4.7.6.1A** is required to reduce solid waste and greenhouse gas emissions from construction and operation of project development.

Significance Level After Mitigation: Less than significant impact. The project's mitigated uncapped emissions of 8,013 mt CO_2e per year would not exceed the SCAQMD's significance threshold of 10,000 mt CO_2e per year. When considered with the other projects' less than significant impacts, the project would not contribute to a significant cumulative impact.

6.7.3.2 Greenhouse Gas Plan, Policy, Regulation Consistency

Impact: *The project, together with cumulative projects, would not cumulatively contribute to conflicts with applicable plans, policies and regulations to reduce greenhouse gas emissions. The project would not be cumulatively considerable.*

Threshold:	Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Cumulative Impact Analysis

Section 4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency, assesses the project's consistency with applicable federal, state, regional, and local GHG reduction strategies. The project would comply with all mandatory reduction strategies such as water conservation, energy efficiency, solid waste reduction, and efficiency measures related to transportation and motor vehicles. In addition, the project would go beyond energy conservation measures and exceed minimal compliance with 2016 Title 24 requirements by approximately 16 percent at full buildout.

Although all cumulative projects are required to comply with mandatory federal, state, regional, and applicable local GHG reduction measures, it would be speculative to assume that all cumulative projects would be consistent with all applicable plans, policies, and regulations related to the reduction of GHG emissions. However, as discussed in Section 4.7.6.2, the project would comply with and would not conflict with applicable GHG reduction measures. Additionally, the project would contribute to further reductions by exceeding minimum compliance with Title 24 requirements by approximately 16 percent at full buildout, incorporating an alternative fuel service station, and supporting infrastructure to accommodate future electric vehicle populations. Therefore, the project's contribution to cumulative impacts would not be cumulatively considerable.

Significance Level Before Mitigation: Cumulatively considerable significant impact.

Mitigation Measures: Implementation of previously referenced **Mitigation Measures 4.3.6.2A, 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.7.6.1B, 4.7.6.1C**, **4.7.6.1D, 4.16.1.6.1A, 4.16.1.6.1B,** and **4.16.1.6.1C** will help reduce project-related GHG emissions and therefore make it more consistent with GHG reduction plans, policies, and/or regulations.

Significance Level After Mitigation: Less than significant impact. The 24 environmental documents that evaluated GHG emissions found that their respective projects would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and were found to be less than significant. Because the project's impact would be less than significant with mitigation, and the other projects' impacts were found to be less than significant, the project is not considered to be cumulatively considerable.

6.8 Hazards and Hazardous Materials

Cumulative effects to hazards and hazardous materials are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to hazards and hazardous materials is provided in Section 6.8.1. The geographic and temporal scopes for cumulative impacts to hazards and hazardous materials is provided in Section 6.8.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the hazards and hazardous materials issues are discussed in Section 6.8.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.8.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.8-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to hazards and hazardous materials.

6.8.1 Project Impact Findings

The project's effects to hazards and hazardous materials are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.8 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; **No Impact, Section 4.8.5.1.**
- For a project located within the vicinity of a private airstrip, result in a safety hazard for people working in the project area; **No Impact, Section 4.8.5.1.**
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; **Less than Significant, Section 4.8.5.2.**
- Create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials; **Less than Significant, Section 4.8.5.3.**
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions; **Less than Significant, Section 4.8.5.3.**

- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment; **Less than Significant, Section 4.8.5.4.**
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation; **Less than Significant, Section 4.8.5.5.**
- Result in the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. **Less than Significant, Section 4.8.5.6.**
- Create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials; **Less than Significant with Mitigation, Section 4.8.6.1, Impacts 4.8.6.1A and 4.8.6.1B.**

Pursuant to CEQA Guidelines §15130, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." Because the project would result in no impact related to an airport land use plan or people living or working near a public airport, public use airport, or a private airstrip, it could not cause or contribute to any potential cumulative impact in any of these respects.

Because development of the project could result in a less-than-significant impact related to the remaining considerations, the analysis below evaluates whether impacts of the project could combine with the incremental impacts of other projects in the cumulative scenario to cause or contribute to a significant cumulative effect and, if so, whether the project's contribution would be cumulatively considerable.

6.8.2 Geographic and Temporal Scope

The cumulative impact geographic area for hazards and hazardous materials is the City of Moreno Valley because the City has adopted specific safety policies and regulations to reduce potential hazards and hazardous materials impacts. In addition, the geographic area for potential cumulative effects from the routine transport of hazardous materials is also the City of Moreno Valley because the hazardous materials would be transferred by trucks along major roadways and freeways (particularly SR-60) adjacent to land uses within the City of Moreno Valley. Cumulative impacts related to hazards and hazardous materials could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley. The geographic area for cumulative hazards and hazardous materials impacts is shown on Figure 6.8-1. The projects located within the cumulative hazards and hazardous materials impact area are listed in Table 6.8-1. The project would contribute to cumulative hazards and hazardous materials conditions starting with the transportation to the project site of project-related hazardous materials and lasting for the duration of onsite construction work and the operation of the project.

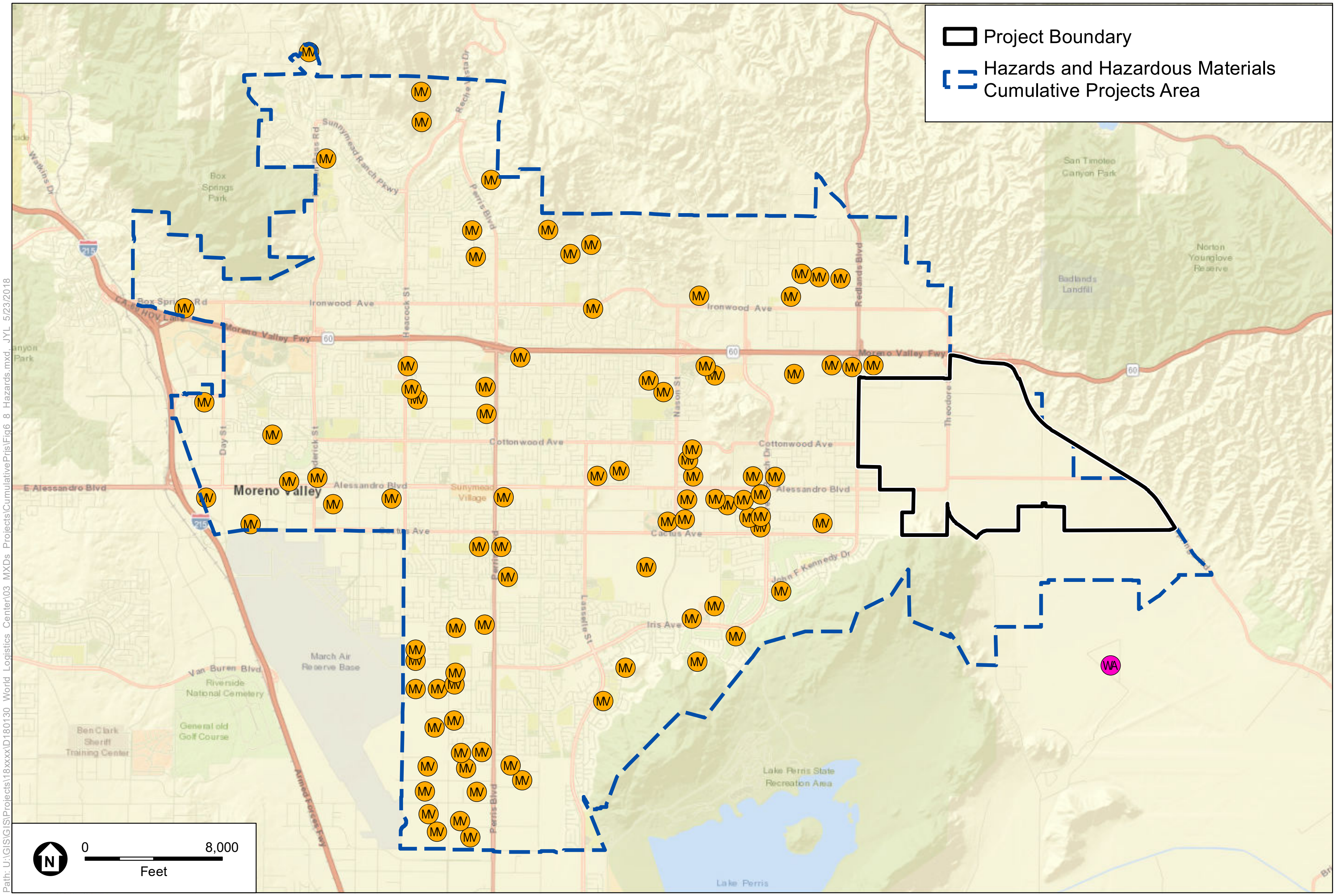

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.8-1

Hazards and Hazardous Materials Cumulative Projects Area

ESA

Table 6.8-1: Hazards and Hazardous Material Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-4	Westridge Commerce Center	The Project’s development of a 937,260 square foot warehouse distribution facility would contribute to cumulative impacts from the transport of hazardous materials within the geographic area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact from the hazards and hazardous materials in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact from the hazards and hazardous materials in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact from the hazards and hazardous materials in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact from the hazards and hazardous materials in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact from the hazards and hazardous materials in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact from the hazards and hazardous materials in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact from the hazards and hazardous materials in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact from the hazards and hazardous materials in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact from the hazards an hazardous materials in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact from the hazards and hazardous materials in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact from the hazards and hazardous materials in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact from the hazards and hazardous materials in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact from the hazards and hazardous materials in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact from the hazards and hazardous materials in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact from the hazards and hazardous materials in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact from the hazards and hazardous materials in the area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact from the hazards and hazardous materials in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is no impact from the hazards and hazardous materials in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley’s IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact from the hazards and hazardous materials in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. It does mention an impact from the hazards and hazardous materials in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project’s subdivision of a 75.05-acre property into four parcels with business center land uses would contribute to cumulative impacts from the transport of hazardous materials within the geographic area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact from the hazards and hazardous materials in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no new impact from the hazards and hazardous materials in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. It does specifically mention an impact from the hazards and hazardous materials in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact from the hazards and hazardous materials in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there will be no impact on the environment. It did not specifically mention the impact from hazards and hazardous material in the area.

Project ID	Project Name	Environmental Document Summary
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact from the hazards and hazardous materials in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact from the hazards and hazardous materials in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact from the hazards and hazardous materials in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact from the hazards and hazardous materials in the area.
MV-69	PA07-0039, (Industrial Area SP)	N Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact from the hazards and hazardous materials in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact from the hazards and hazardous materials in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact from the hazards and hazardous materials in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact from the hazards and hazardous materials in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact from the hazards and hazardous materials in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution does state that there will be no impact on the environment in the area. It does not specifically mention an impact from the hazards and hazardous materials in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact from the hazards and hazardous materials in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact from the hazards and hazardous materials in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact from the hazards and hazardous material in the area with mitigation measures.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is no impact from the hazards and hazardous materials in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is no impact from the hazards and hazardous materials in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact from the hazards and hazardous materials in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact from the hazards and hazardous materials in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the hazards and hazardous materials in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact from the hazards and hazardous materials in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact from the hazards and hazardous materials in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact from the hazards and hazardous materials in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention the impact on the environment in the area. It also does not mention the impact from the hazards and hazardous materials in the area.

Project ID	Project Name	Environmental Document Summary
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact from the hazards and hazardous materials in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact from the hazards and hazardous materials in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact from the hazards and hazardous materials in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact from the hazards and hazardous materials in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact from the hazards and hazardous materials in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife’s 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.

6.8.3 Cumulative Impact Evaluation

6.8.3.1 Existing or Proposed School

Impact: *The project would not contribute to the exposure of students to potential significant cumulative impacts related to hazardous emissions within one-quarter mile of an existing or proposed school.*

Threshold:	Would the project emit hazardous emissions or handle acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Cumulative Impact Analysis

Cumulative developments within the City of Moreno Valley may be located within one-quarter mile of an existing or proposed school and could emit hazardous emissions and/or handle acutely hazardous materials, substances, or waste. Therefore, the increases in potential exposure of school-age children to hazardous emissions or substances could result in significant cumulative impacts associated with exposure. There are no existing school facilities within one-quarter of a mile of the project area. The nearest existing school is Calvary Chapel Christian School which is located approximately 1.17 miles northwest of the project. There is one proposed elementary school site that is located within one-quarter mile of the WLC project area. The site for proposed Wilmot Elementary School is planned to be located on Bay Avenue at Wilmot Street, approximately 0.25 mile west of the project area.

The amount and type of materials that would be used during project construction (building and infrastructure) or stored in the high-cube logistics distribution center after construction is unknown at this time. The emission of air pollutants is discussed in the Air Quality Section of the EIR. While the warehouse facilities themselves are not expected to use acutely hazardous materials, the possibility exists that such materials could be stored or transported to and from the project site. For the purposes of this analysis, it is assumed that the project would handle substances that may be acutely hazardous. The handling of hazardous materials or emission of hazardous substances in accordance with the Hazardous Materials Business Emergency Plan (HMBEP) as required by applicable local, State, and Federal standards, ordinances, and regulations would ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools would be less than significant. The project would not contribute to cumulative safety hazards for school-age children within ¼-mile of the project because the nearest existing school is 1.17 miles from the project site; therefore, the project would not cause or contribute to any potential significant cumulative impacts to existing schools.

Many of the cumulative projects would use, handle, store, and/or transport hazardous materials or require demolition of structures containing such materials within ¼-mile of a proposed school. Cumulative projects would be required to use, store, and transport all potentially hazardous materials in accordance with the manufacturers' instructions and handle materials in accordance with Federal, State, and local health and safety standards and regulations. Compliance with existing standards and regulations would ensure that projects in the cumulative scenario would not result in significant impacts to the public, including school-age children, or the environment through the routine transport, storage, use, or handling of hazardous materials. Some of the cumulative projects may be on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. However, each cumulative project would be required to comply with existing Federal, State, and local regulations related to hazardous material sites, including cleanup sites, and hazardous materials generators. As such, cumulative development would account for clean-up of many existing hazardous conditions and would not result in significant cumulative impacts related to the exposure of students to hazardous emissions within 0.25-mile of a proposed school.

Significance Level Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.8.3.2 Routine Transport, Use, Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions

Impact: *The project would contribute incrementally to a less than significant cumulative hazard to the public through the routine transport, use, or disposal of hazardous materials or through* reasonably foreseeable upset and accident conditions.

Threshold:	Would the project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials? Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident?

Cumulative Impact Analysis

Cumulative projects (such as MV-4, and MV-48) in the City of Moreno Valley would routinely transport, use, or dispose of hazardous materials. Further, these cumulative projects could create significant hazards to the public or the environment through reasonably foreseeable upset and accident conditions during construction or operation activities. Related projects would be required to use, store, and transport all potentially hazardous materials in accordance with the manufacturers' instructions and handle materials in accordance with Federal, State, and local health and safety standards and regulations. Compliance with existing standards and regulations would ensure that the projects in the cumulative scenario would not result in significant impacts to the public or the environment through the routine transport, storage, use, or handling of hazardous materials. Some of the cumulative projects may be on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. However, each such project would be required to comply with existing Federal, State, and local regulations related to hazardous material sites, including cleanup sites, and hazardous materials generators. As such, cumulative development would account for clean-up of many existing hazardous conditions and would not result in cumulatively significant impacts.

The project's incremental less than significant contribution, in combination with the impacts of other cumulative projects, could create a significant impact related to this issue. Some of these risks are site-specific and localized, such as businesses that handle hazardous materials within their facilities (i.e., on site); these types of hazmat impacts are generally limited to the project site. It is also possible there would be incrementally increased impacts by the transport and disposal of hazardous materials related to warehouse operations on the project site. For example, the substantial increase in trucks in and around the WLC site would incrementally increase the risks of accidents involving truck-related fuels (e.g., fire or explosion). However, the number of trucks containing hazardous materials on the road in a given area at any given time would be difficult if not impossible to calculate, and it would be likewise difficult to estimate the number and/or location of accidental spills and leaks, which, by their nature, are accidental or unplanned occurrences, it would be impossible to predict the specific occurrence of such events on the project site. Despite these uncertainties, it is reasonable to assume that with an increase in vehicles transporting hazardous materials would incrementally increase the potential for accidents on a regional basis. However, the enforcement of applicable local, State, and Federal standards, ordinances, and regulations will ensure that potential cumulative impacts associated with environmental and health hazards related to an accidental release of hazardous materials would be less than significant.

Significance Level Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.8.3.3 Located on a List of Hazardous Material Sites

Impact: *The project's less-than-significant contribution to cumulative hazards to the public or the environment by being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 would not cause or contribute to a significant cumulative effect.*

Threshold:	Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

Cumulative Impact Analysis

Several cumulative projects could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. However, these projects would be required to comply with existing Federal, State, and local regulations related to hazardous material sites, including cleanup sites, and hazardous materials generators. As such, cumulative development would account for clean-up of many existing hazardous conditions and would not result in cumulatively significant impacts.

The project site is not located on a site compiled pursuant to Government Code Section 65962.5. As a result, the project's contribution to potential cumulative impacts related to development on a hazardous materials site would not cause or contribute to a significant cumulative effect.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.8.3.4 Conflict with Emergency Response Plans

Impact: *The project's less than significant contribution to cumulative interference with an adopted emergency response plan or emergency evacuation would not cause or contribute to a significant cumulative effect.*

Threshold:	Would the project impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation?

Cumulative Impact Analysis

Cumulative projects within the City of Moreno Valley could result in interference with an adopted emergency response plan or emergency evacuation plan. However, this would be based on the location of the project and the project-specific design requirements. The risks associated with impairment or physical interference with an adopted emergency response plan or emergency evaluation plan in the City can only be reduced through conformance with police, fire, building code regulations, and the responsible transportation authority. It is anticipated that cumulative projects would request the appropriate approvals and be in conformance with applicable codes and regulations. Therefore, cumulative development would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The project has been designed and would be constructed and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation would be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Compliance with existing regulations for emergency access and evacuation would ensure that impacts related to this issue would be less than significant. As a result, the project's incremental less than significant contribution to any potential cumulative impacts related to emergency response and evacuation would not cause or contribute to a significant cumulative impact.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.8.3.5 Wildland Fire Risks

Impact:	*The project's incremental less than significant contribution to cumulative human and structural risks associated with wildland fires would not cause or contribute to a significant cumulative effect.*
Threshold:	Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Cumulative Impact Analysis

The City of Moreno Valley is subject to both wildland and urban fires. Wildfires pose a threat to the northern and eastern portions of the City. Cumulative projects in the City could be located in areas subject to wildland and urban fires. Cumulative impacts involving wildfires consists of future development adjacent to a High Fire Hazard Area. The risk to each future project is based on the location and interface between urbanized area and wildland areas. The risks associated with development in these area can only be reduced through the additional/improved fire stations, equipment, additional personnel, and conformance with Fire and Building Code regulations, it is anticipated that cumulative development within the project area would not create a significant and cumulative impact associated with wildland fire hazards.

Development of the eastern portion of the project site could expose persons or property to wildland fire risks given the proximity of the project area adjacent to a High Fire Hazard Area. Regardless of this proximity, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period. In addition, no development would be allowed within the San Jacinto Fault Zone, which runs parallel to, and west of Gilman Springs Road; this area of limited development would serve as a fuel or fire break to help protect future occupied uses within the project area. Compliance with existing standards, codes and regulations for fire safety would ensure that cumulative impacts related to this issue would be less than significant. The project's incremental less-than-significant contribution, in combination with the impacts of other cumulative projects, would not cause or contribute to significant cumulative impacts related to risks from wildland fires.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.8.3.6 On-site Conditions Involving Hazardous Materials

Impact: *The project's contribution to cumulative hazardous materials impacts from the demolition of existing on-site structures and excavation of potential contaminated soil would be cumulatively considerable.*

Threshold:	Would the project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials?

Cumulative Impact Analysis

Cumulative development in the project area could result in the demolition and removal of structures containing hazardous building materials such as asbestos containing materials (ACM) and lead based paint (LBP). As discussed above, cumulative development could result in the routine use, transport, or disposal of hazardous materials.

The project could result in the exposure of onsite workers and the environment to hazardous building materials. This exposure could result in significant impacts. In addition, the Specific Plan proposes an alternative fuels station to be constructed in the Specific Plan area. It would provide fuels for motor vehicles visiting the project. Since this facility would store large volumes of motor fuel including natural gas under liquefied and compressed conditions, there is a potential for fire and/or explosion. This is a potentially significant hazards impact. The project's incremental impacts, together with the incremental impacts of other projects in the cumulative scenario, would result in significant cumulative hazard impacts involving the use, transport, or disposal of hazardous materials. The project's incremental contribution would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of **Mitigation Measures 4.8.6.1A, 4.8.6.1B, 4.8.6.1C,** and **4.8.6.1D** is required.

Significance Level After Mitigation: Less than significant impact.

6.9 Hydrology and Water Quality

Cumulative effects to hydrology and water quality are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to hydrology and water quality issues is provided in Section 6.9.1. The geographic and temporal scopes for hydrology and water quality issues are provided in Section 6.9.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the hydrology and water quality issues are discussed in Section 6.9.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.9.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.9-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative effect and, if so, whether the project's contribution would be cumulatively considerable.

6.9.1 Project Impact Findings

The project's effects to hydrology and water quality are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.9 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Expose people or structure to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? **Less than Significant, Section 4.9.5.1.**
- Expose people or structure to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow? **Less than Significant, Section 4.9.5.2.**
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level? **Less than Significant, Section 4.9.5.3.**
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows? **Less than Significant, Section 4.9.5.4.**

- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? **Less than Significant, Section 4.9.5.4.**
- Substantially alter the existing local drainage patterns of the site and substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion, siltation, or flooding on site or off site? **Less than Significant with Mitigation, Section 4.9.6.1, Impact 4.9.6.1.**
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? **Less than Significant with Mitigation, Section 4.9.6.1, Impact 4.9.6.1.**
- Violate any water quality standards or waste discharge requirements during construction phases of the project in form of increased soil erosion, sedimentation, or storm water discharges? **Less than Significant with Mitigation, Section 4.9.6.2, Impact 4.9.6.2.**
- Violate any water quality standards or waste discharge requirements during the operational phases of the project in the form of increased soil erosion, sedimentation, or urban runoff? **Section 4.9.6.3, Impact 4.9.6.3.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to hydrology and water quality associated with the project.

6.9.2 Geographic and Temporal Scope

To determine the project's cumulative impacts to hydrology and water quality, the tributary drainage area, flow direction of stormwater runoff from the project site were considered as were downstream drainage areas and facilities. As outlined in the FEIR, stormwater runoff from the project site flows in a southerly direction to the San Jacinto River. As shown in Figure 6.9-1 and 6.9-2, a topographic divide located west of World Logistics Center Parkway separates stormwater flows from the project site to the San Jacinto River by two routes. Runoff west of the divide flows to the Perris Valley Storm Drain (PVSD) at a gradient also ranging from 1 to 2 percent. Runoff east of the divide flows through the San Jacinto Valley at a gradient also ranging from 1 to 2 percent to the San Jacinto Wildlife Area (SJWA).

The area tributary to the PVSD consists of two subareas, Sunnymead and Moreno, as delineated by the Riverside County Flood Control & Water Conservation District (RCFC&WCD). The PVSD watershed begins in the Badlands to the north and extends to Mariposa Avenue to the south, Ellsworth Street to the west, and the topographic divide within the project site to the east. The area tributary to the SJWA incudes the Middle and Upper San Jacinto River watershed area and extends from the Badlands to the north, the Bernasconi Hills and Lakeview Mountains to the south, the headwaters of the San Jacinto River to the east, and the topographic divide just west of World Logistics Center Parkway. Both the PVSD and the SJWA watershed areas flow to the lower San Jacinto River south of the project site. Flows are then conveyed through the lower San Jacinto River to Canyon Lake, again to the lower San Jacinto River, and ultimately to Lake Elsinore.

For the PVSD area, SJWA, and other portions of the San Jacinto River watershed areas, the past, present, and probable future projects were identified and included in the cumulative impacts analysis. These projects are listed in Table 6.9-1 and shown on Figure 6.9-1. For the area tributary to the PVSD there are a total of 106 projects. These projects consist of a variety of project types and sizes including various commercial areas such as a gas station, a commercial auto mall, a Walmart, and several apartments and single-family developments. For the area tributary to the SJWA, there are 14 planned projects, including four projects adjacent to, within, or near the SJWA. These four projects are the Badlands Landfill Improvement Project, the Quail Ranch Specific Plan, the SJWA Land Management Plan and the Villages of Lakeview Project. For the other portions of the San Jacinto Watershed south of the PVSD area and SJWA there are 120 projects consisting of a variety of commercial, business and residential projects.

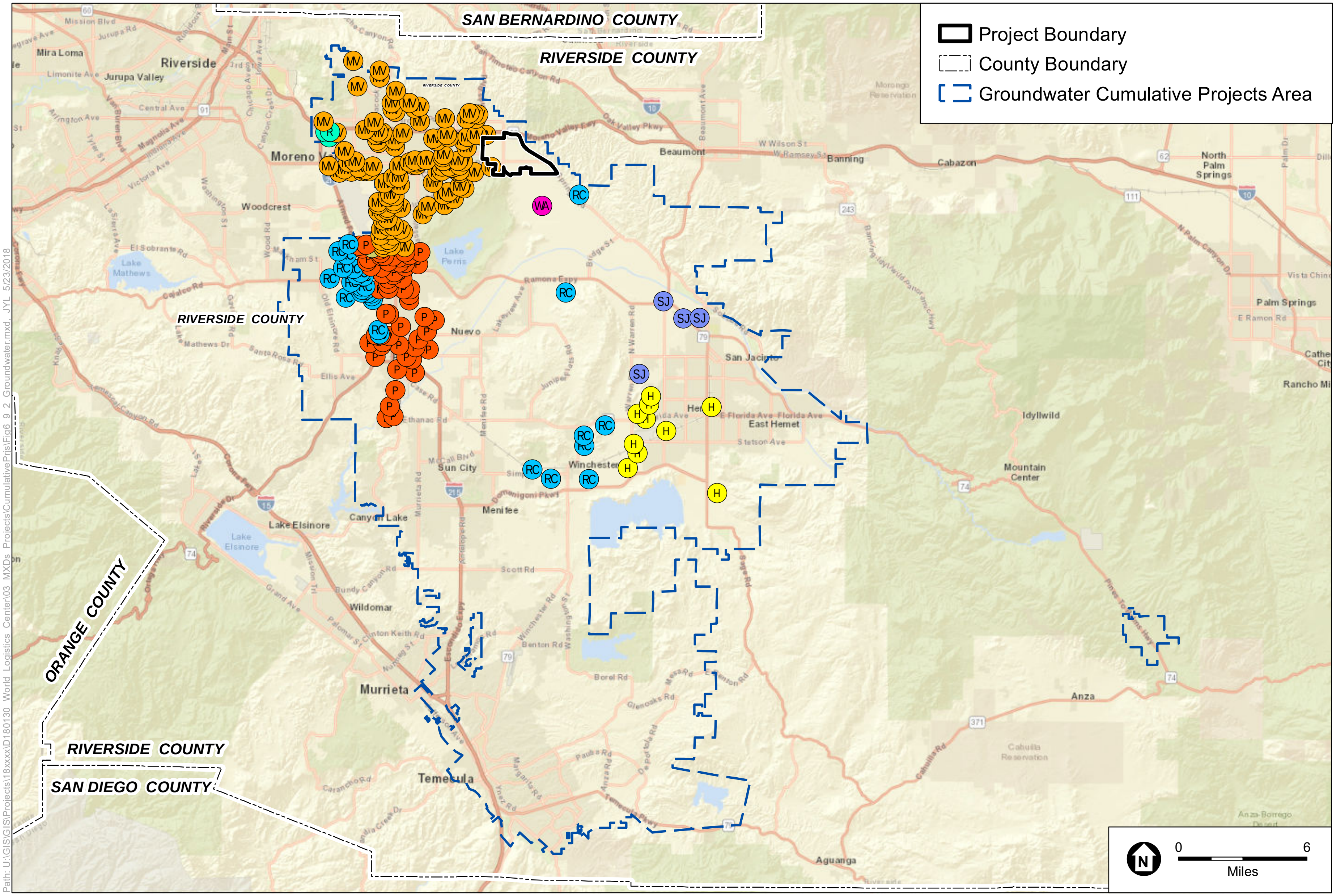

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.9-1

Groundwater Cumulative Projects Area

ESA

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjts\Fig6_9_2_Groundwater.mxd, JYL 5/23/2018

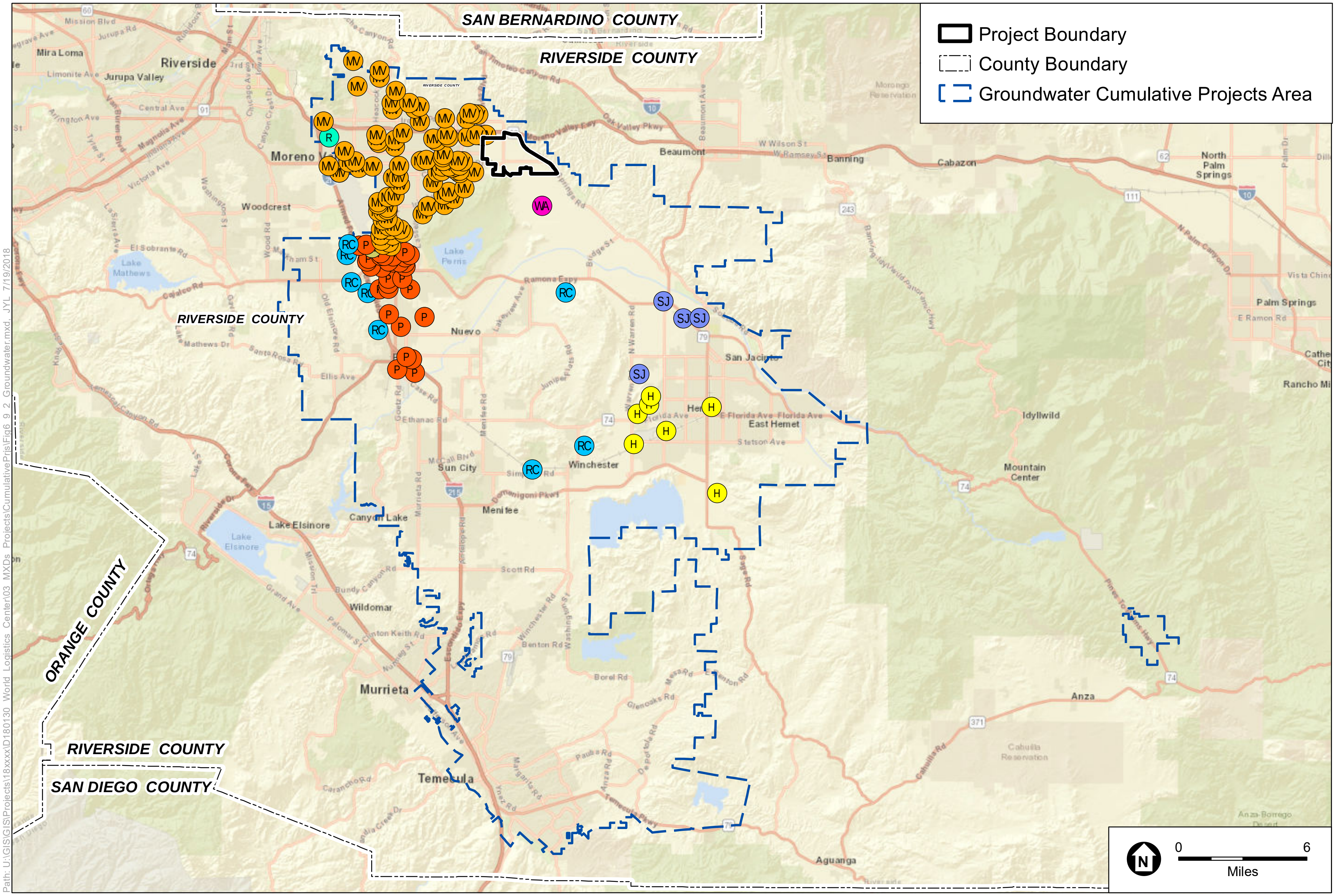

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6_9_2_Groundwater.mxd JYL 7/19/2018

World Logistics Center

Figure 6.9-2
Groundwater Cumulative Projects Area

ESA

Each of the projects are required to mitigate their impacts for hydrology and water quality and implement BMPs pursuant to the local agency's regulations such as the Moreno Valley Municipal Code Chapter 8.10 et seq. and § 8.21.170. Per the local regulations, each project is required to prepare a Water Quality Management Plan and comply with the Santa Ana Regional Quality Control Board Order No. R8-2010- 0033, NPDES Permit No. CAS618033 (NPDES Permit). The environmental documents, where available, were reviewed for each project to determine the type of drainage and water quality facilities to be constructed incompliance with the NPDES Permit. Each project was required to construct drainage and water quality facilities to mitigate the impacts. Each project analyzed cumulative impacts and concluded that the impacts would be less than significant since all projects in the watershed are required to comply with the local agency's drainage requirements and NPDES Permit and mitigate their individual impacts. The drainage facilities consisted of construction of storm drains and detention basins to mitigate increased peak flows, velocities and volumes.

The types of water quality facilities constructed include extended detention/sedimentation basins, infiltration basins, water quality basins sand filters, vegetated swales, and bioretention areas. For example, the ProLogis project includes on-site extended detention/sedimentation basins, sand filters, and vegetated swales which will treat all of the site's runoff. The Moreno Valley Logistics Center (MV-54) includes on-site, structural source control best management practices (BMPs) consisting of six water quality/detention basins as well as operational source controls prior to water being discharged from the site. The First Nandia Logistics Center includes three detention and water quality basins. The Modular Logistics Center (MV-44) constructed two water quality detention basins. The Villages of Lakeview Project includes construction of two regional water quality basins prior to flows being discharged to the San Jacinto River, although the majority go the project area is downstream of the SJWA. The SJWA Land Management Plan includes construction of source control and low impact development (LID) BMPs including bioretention facilities, infiltration trenches, filter strips, or vegetated buffers to detain and treat runoff before letting it seep away slowly. The Quail Ranch Project does not have an environmental document completed yet. However, the Quail Ranch Project will be required to comply with the local regulations and NPDES permit, as well.

The cumulative projects geographic boundary for hydrology/water quality is shown in Figure 6.9-1. The projects located within the hydrology and water quality impact area is listed in Table 6.9-1.

The project would contribute to cumulative hydrology and water quality conditions starting with the initiation of onsite work and lasting for the duration of the project.

Table 6.9-1 – Hydrology and Water Quality Cumulative Projects Summary

Project ID	Project	Environmental Document Summary
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. There is a less than significant impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The EIR states that the water quality is of satisfactory quality. Impact from the project is not mentioned.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. There is no impact on the hydrology and water quality in the area.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. There is a less than significant impact on the hydrology and water quality in the area.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The excerpt does not mention an impact on the hydrology and water quality in the area.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. There is no impact on the hydrology and water quality in the area.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. There is a less than significant impact on the hydrology and water quality in the area.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The SEIR does not mention an impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. There is a less than significant impact on the hydrology and water quality in the area.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. There is a less than significant impact on the hydrology and water quality in the area.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. There is no impact on the hydrology and water quality in the area.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. There is no impact on the hydrology and water quality in the area.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the hydrology and water quality in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the hydrology and water quality in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the hydrology and water quality in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the hydrology and water quality in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the hydrology and water quality in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the hydrology and water quality in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the hydrology and water quality in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the hydrology and water quality in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the hydrology and water quality in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the hydrology and water quality in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the hydrology and water quality in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the hydrology and water quality in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the hydrology and water quality in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the hydrology and water quality in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the hydrology and water quality in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the hydrology and water quality in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the hydrology and water quality in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no new impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is no impact on the hydrology and water quality in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is a less than significant impact on the hydrology and water quality in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the hydrology and water quality in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the hydrology and water quality in the area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the hydrology and water quality in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the hydrology and water quality in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the hydrology and water quality in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the hydrology and water quality in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact on the hydrology and water quality in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does not specifically mention an impact on hydrology and water quality in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the hydrology and water quality in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the hydrology and water quality in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the hydrology and water quality in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the hydrology and water quality in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is a less than significant impact on the hydrology and water quality in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the hydrology and water quality in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the hydrology and water quality in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the hydrology and water quality in the area with mitigation measures.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the hydrology and water quality in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is a less than significant impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the hydrology and water quality in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the hydrology and water quality in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the hydrology and water quality in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the hydrology and water quality in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the hydrology and water quality in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the hydrology and water quality in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the hydrology and water quality in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the hydrology and water quality in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the hydrology and water quality in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the hydrology and water quality in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the hydrology and water quality in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution states that the project is exempt from CEQA guidelines. It does specifically mention an impact on the hydrology and water quality in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the hydrology and water quality in the area.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the hydrology and water quality in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the hydrology and water quality in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the hydrology and water quality in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the hydrology and water quality in the area.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. There is no impact on the hydrology and water quality in the area.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.

Project ID	Project	Environmental Document Summary
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. There is a less than significant impact ton the hydrology and water quality in the area with mitigation measures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is no impact on the hydrology and water quality in the area.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project would have a less than significant impact on water quality.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is a less than significant impact on the hydrology and water quality in the area.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is no impact on the hydrology and water quality in the area.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is a potentially significant impact on the hydrology and water quality in the area.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a less than significant impact on the hydrology and water quality in the area.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is a potentially significant impact on the hydrology and water quality in the area.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the hydrology and water quality in the area.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.

Project ID	Project	Environmental Document Summary
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is a potentially significant impact on the hydrology and water quality in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a less than significant impact on the hydrology and water quality in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The slides do not specifically mention an impact on the hydrology and water quality in the area.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is no impact on the hydrology and water quality in the area.

Project ID	Project	Environmental Document Summary
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There is a less than significant impact on the hydrology and water quality in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is potentially significant impact on the hydrology and water quality in the area with mitigation measures.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is a less than significant impact on the hydrology and water quality in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.

Table 6.9-2: Water Quality Cumulative Projects Summary

Project ID	Project	Type of Environmental Document
H-3	Tres Cerritos Specific Plan	NOC
H-4	Sanderson Square	IS
H-5	McSweeny Farms Specific Plan	EIR
H-6	Ramona Creek Specific Plan	EIR
H-7	Peppertree Specific Plan	IS
H-9	Pulte Del Web (TTM 31807 and 31808)	SEIR
H-10	Downtown Hemet Specific Plan	MND
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	ND
MV-3	ProLogis	EIR
MV-4	Westridge Commerce Center	EIR
MV-7	TR33962 / Pacific Scene Homes	ND
MV-8	TR32460 / Sussex Capital	ND
MV-9	TR32459 / Sussex Capital	ND
MV-10	TR30998 / Pacific Communities	ND
MV-11	TR30411 / Pacific Communities	ND
MV-14	TR32548 / Gabel, Cook & Associates	ND
MV-15	TR32218 / Whitney	ND
MV-16	TR32284 / 26thCorporation & Granite Capitol	ND
MV-17	TR31590 / Winchester Associates	ND
MV-18	Convenience Store / Fueling Station	ND
MV-19	Senior Assisted Living	ND
MV-20	Moreno Marketplace	ND
MV-21	PEN16-0053 Medical Center	MND
MV-22	TR36882 (PA15-0010) SFR	MND
MV-24	TM 36436 (PA12-0005)	MND
MV-25	TR32142	ND
MV-27	TR32917 / Empire land	ND
MV-28	TR34329 / Granite Capitol	ND
MV-29	TR36340	ND
MV-30	PA03-0168 TR 31517	ND
MV-32	TTM 31592 (P13-078) SFR	ND
MV-33	TR32645 / Winchester Associates	ND
MV-34	TR34397 / Winchester Associates	ND
MV-35	TR31771 / Sanchez	ND
MV-36	TM 31618 (PA03-0106)	EIR
MV-37	Vogel /PA09-004	EIR
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	EIR
MV-41	First Nandina Logistics Center	EIR
MV-42	Indian Street Commerce Center	EIR

Project ID	Project	Type of Environmental Document
MV-43	Ivan Devries / PA06-0017	ND
MV-44	Modular Logistics Center (Kearny RE Co)	EIR
MV-45	Iris Plaza	IS
MV-47	PA07-0129 TR 35606 SFR	EXEMPT
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	EIR
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	MND
MV-50	San Michele Industrial Center, (Industrial Area SP)	ND
MV-51	Nandina Distribution Center IDS	MND
MV-52	First Industrial III & IV, (Industrial Area SP)	MND
MV-53	I-215 Logistics Center (Amazon)	MND
MV-54	Moreno Valley Logistics Center (Prologis)	EIR
MV-56	Tract Map 33810	EXEMPT
MV-57	Tract Map 34151	ND
MV-58	Tract Map 33024	ND
MV-59	Tract Map 31442	ND
MV-60	Tract Map 36401	MND
MV-61	Walmart & Gas Station	EIR
MV-63	PA14-0053 (TTM 36760) Legacy Park	MND
MV-65	TR33607 / TL Group	ND
MV-66	TR34988 / Stratus Properties	ND
MV-67	TR32515	ND
MV-68	PA07-0035	ND
MV-69	PA07-0039, (Industrial Area SP)	ND
MV-75	Aqua Bella Specific Plan	EIR
MV-78	Overton Moore Properties PA08-0072	MND
MV-79	Shaw Development	MND
MV-80	PA15-0032 MV Cactus Center	MND
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	ND
MV-84	PA16-0075 Brodiaea Business Center	ND
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	ND
MV-86	TR32505 / DR Horton	ND
MV-88	TR33771 / Creative Design Associates	EXEMPT
MV-89	TR35663 / Kha	EXEMPT
MV-91	TR31305 / Richmond American	ND
MV-92	TR 33256	ND
MV-93	PA14-0042 Edgemont Apartments	EIR
MV-94	PA15-0002 Box Springs Apartments	MND
MV-95	Moreno Beach Marketplace / Lowes	MND

Project ID	Project	Type of Environmental Document
MV-96	31394 Pigeon Pass, Ltd.	ND
MV-97	32005 Red Hill Village, LLC	ND
MV-98	33388 SCH Development, LLC	ND
MV-100	32215 Winchester Associates "Scottish Village"	ND
MV-103	Gateway Business Park	MND
MV-106	35304 Jimmy Lee	ND
MV-110	TM 33417	ND
MV-111	35769 Michael Chen	EXEMPT
MV-112	PA09-0006 Jim Nydam	EXEMPT
MV-113	Ironwood Residential	MND
MV-114	Stoneridge Town Centre - Vacant Restaurant	ND
MV-116	31621 Peter Sanchez	ND
MV-117	Riverside County Office Building	ND
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	ND
MV-119	32126 Salvador Torres	ND
P-2	TR34716	EIR
P-4	Bookend	NOI
P-5	Markham East	IS
P-7	Duke Warehouse	EIR
P-8	First Perry Logistics Project	MND
P-10	IDS	EIR
P-11	Ridge II	IS
P-12	Starcrest, P011-0005; 08-11-0006	EIR
P-14	Rados Distribution Center	EIR
P-15	Duke Perris Logistics Center I	EIR
P-16	Perris Ridge Commerce Center I	EIR
P-18	P07-07-0029	EIR
P-19	P05-0192	EIR
P-20	P05-0113	EIR
P-21	P07-09-0018	IS
P-22	NICOL	IS
P-23	Westcoast Textiles	IS
P-24	Optimus Logistics Center 1	EIR
P-25	Optimus Logistics Center 2	EIR
P-26	Duke Warehouse	IS
P-27	Perris DC (Industrial Property Trust)/Integra	EIR
P-28	Duke Warehouse	IS
P-30	Avelina	IS
P-31	Perris Family Apartments	IS

Project ID	Project	Type of Environmental Document
P-32	Lewis Retail Center	IS
P-35	Verano Apartments	IS
P-37	Cabrillo	IS
P-38	Sequoia	ND
P-58	Jordan Distribution	MND
R-5	Canyon Springs Healthcare Campus Specific Plan	EIR
RC-5	Villages of Lakeview -Residential/Commercial Development	EIR
RC-9	Oleander Business Park, PP20699	EIR
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	IS
RC-12	Cores Industrial Partners	ND
RC-34	Emerald Acres SP (SP00381)	IS
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	IS
RC-37	TR36504	IS
RC-38	San Gorgonio Crossings	EIR
SJWA-1	San Jacinto Wildlife Land Management Plan	EIR

This section also addresses potential cumulative impacts to groundwater. The cumulative impact geographic area for groundwater is the area under the jurisdiction of the Eastern Municipal Water District (EMWD) because groundwater within the EMWD is produced from groundwater basins underlying the EMWD service area. These two basins are the West San Jacinto Groundwater Basin Management Plan area and the Hemet/San Jacinto Water Management Plan area. In addition, EMWDD is a key player in the efforts to protect groundwater quality and reliability. Cumulative projects within the EMWD service area will be evaluated with the project to determine if a significant cumulative groundwater impact would occur. The cumulative projects geographic boundary for groundwater is shown in Figure 6.9B. The projects located within the groundwater impact area are listed in Table 6.9-2. The project would contribute to cumulative groundwater conditions starting with project-related alteration of on-site conditions and lasting for the duration of the project.

6.9.3 Cumulative Impact Evaluation

6.9.3.1 Seismic Flooding-Related Impacts

Impact: *The project's incremental impact would not cause or contribute to a significant cumulative effect associated with the exposure of people or structures to potential flooding from the failure of a levee or dam.*

Threshold: Would the project expose people or structure to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Cumulative Impact Analysis

Cumulative development within the watershed that encompasses the project site and offsite improvement areas could be subject to potential flooding due to a failure of the nearest dam. The nearest dams to the project site are Pigeon Pass Dam at Poorman's Reservoir located approximately five miles northwest of the project site and Lake Perris Dam located approximately four miles southwest of the project site. Although cumulative development could be exposed to inundation flooding, the project is not within anticipated inundation areas of either dam or any other dam as mapped within the City of Moreno Valley General Plan Final Program EIR. Therefore, the implementation of the project would not contribute to the exposure of people or structures to risk of loss, injury, or death involving flooding as a result of failure of either the Poorman Reservoir (Pigeon Pass Dam) or Lake Perris Dam. Therefore, the project would not cause or contribute to any cumulative effect associated with the exposure of people or structures to flooding.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.2 Seismic-Related Impacts

Impact: *The project would not cause or contribute to a significant cumulative impact relating to the exposure of people or structures to potential significant cumulative inundation impacts from seiche, tsunami, or mudflow.*

Threshold:	Would the project expose people or structure to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

Cumulative Impact Analysis

Cumulative development within the watershed that encompasses the project site and offsite improvement areas would not be subject to potential inundation by seiche or tsunami. As described in Section 4.9.5.2, the nearest enclosed body of water that could be subjected to seiche conditions is Lake Perris, but the Perris Dam has been designed to prevent seiche phenomena. The watershed is not located near the Pacific Ocean which is where tsunami risks occur. Therefore, cumulative development would not expose people or structures to inundation flooding due to seiche or tsunamis. As a result, the project would not cause or contribute to any significant cumulative seiche or tsunami inundation impacts.

Cumulative development within the watershed could expose people and structures to mudflow inundation due to the presence of steep slopes within the watershed. This exposure could result in significant cumulative impacts. However, because the project site as well as offsite improvement areas do not have steep slopes, the project's contribution to potential cumulative mudflow inundation impacts would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Not cumulatively considerable.

6.9.3.3 Groundwater

Impact: *The project would not cause or contribute to a significant cumulative depletion of groundwater supplies or the interference with groundwater recharge.*

Threshold:	Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

Cumulative Impact Analysis

Cumulative development within the Eastern Municipal Water District (EMWD) service area is planned to be supplied exclusively with imported water provided by the Metropolitan Water District. Therefore, cumulative development would not deplete groundwater supplies from use of groundwater. As a result, the project would not contribute to cumulative impacts to groundwater supplies.

Cumulative development would reduce the amount of pervious surfaces within the EMWD service area. This reduction of potential groundwater infiltration areas could cause a significant impact on groundwater recharge. However, because the project includes the implementation of bioretention areas and detention basins that would provide for infiltration opportunities, the project's contribution to potential significant cumulative groundwater infiltration impacts would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Not cumulatively considerable.

6.9.3.4 100-Year Flooding-Related Impacts

Impact: *The project would not cause or contribute to significant impacts relating ot the placement of structures within a 100-year flood hazard area that would impede or redirect flood flows.*

Threshold: Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Threshold: Would the project place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Cumulative Impact Analysis

Cumulative development within the watershed that encompasses the project site and offsite improvement areas include areas subject to 100-year storms according to the FEMA FIRM maps. Therefore, cumulative development could expose structures or housing to flood hazards and result in significant cumulative flood hazard impacts. However, because the project and offsite improvements would not located in any areas subject to flooding during a 100-year storm, the implementation of the project would not cause or contribute to any potential significant cumulative flood hazard to structures or housing.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.5 Drainage Pattern and Capacity-Related Impacts

Impact: *The project's incremental contribution would not cause or contribute to significant cumulative impacts to erosion, siltation, or flooding due to alterations of existing drainages or exceedance of drainage capacities or the addition of pollutant runoff.*

Threshold:	Would the project substantially alter the existing local drainage patters of the site and substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion, siltation, or flooding on site or off site?
Threshold:	Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Cumulative Impact Analysis

Cumulative development within the watershed will result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology by potentially increasing surface water runoff and increase potential pollutant loads. Following are the evaluations of cumulative hydrology and cumulative erosion, siltation and flooding impacts.

Hydrology

To analyze the cumulative impacts for hydrology, the geographic scope was determined based on the watershed area and potential impacts to downstream drainage facilities. As discussed above, the proposed project is located in the San Jacinto River watershed and is tributary to two separate sub-watershed areas, the PVSD Watershed and the SJWA watershed, prior to flows reaching the San Jacinto River. For the area to the west, the PVSD is the most downstream drainage facility that the WLC Project is tributary to before flows reach the San Jacinto River. It is necessary to consider the downstream drainage areas and their facilities when evaluating cumulative impacts for hydrology. The PVSD is a major drainage facility draining a large area including the City of Moreno Valley and any flow impacts to the facility would be important to analyze the effects. For this reason, on the west side, the area tributary to the PVSD was selected as the geographic area for the cumulative impacts analysis. On the east side, flows drain to the SJWA before reaching the San Jacinto River. The SJWA is an important habitat and water feature within the watershed and it is necessary to analyze any potential flow impacts to the area. For this reason, for flows draining to the east, the area tributary to the SJWA was chosen as the geographic area for considering potential cumulative effects. This area includes the upstream portion of the San Jacinto Watershed as the SJWA extends to the south side of the San Jacinto River.

As discussed in Section 4.9 of the FEIR, runoff from the western portion of the project site flows west toward the Perris Valley Storm Drain (PVSD), while runoff from the eastern portion of the project site flows south into Mystic Lake, and (during times of high storm flow), reaches the San Jacinto River south of the San Jacinto Wildlife Area. Table 6.9-1 identifies the cumulative projects that are located in each watershed.

PVSD Watershed Area

The PVSD watershed area is divided into two sub-watersheds, Sunnymead and Moreno, tributary to the PVSD. The RCFC&WCD has adopted Master Drainage Plans (MDPs) for each of the sub-watershed areas, Sunnymead MDP (RCFC&WCD, 1991) and Moreno MDP (RCFC&WCD, 2015) that serve as guides for development in these areas. The Moreno MDP was recently updated to include the hydrology of the WLC development. Potentially cumulative projects (such as MV-39, MV-41 and MV-48) would be required to conform to the MDPs by mitigating any increase in project flows such that any flows leaving the project boundary would be equal to or less than existing conditions. In addition, the cumulative projects would be required to contribute through the MDP Fee Program for the construction of facilities identified in the MDPs. Many of the cumulative projects such as MV-39, MV-41 and MV-48 include infiltration and/or detention basins to reduce offsite flow.

Portions of the proposed project are tributary to Line “F” of the Moreno MDP. As identified in the FEIR, Line “F” from Redlands Blvd to south of Eucalyptus Avenue would be constructed as part of the proposed project. Because it is not known when the proposed Moreno MDP Sinclair Basin north of SR-60 will be constructed, Line "F" was sized without the Sinclair Basin and all flows pass under SR-60. In addition, a detention/infiltration basin would be constructed to detain and infiltrate onsite flows as required by Mitigation Measures 4.9.6.1A and 4.9.6.1B such that flows leaving the project boundary will be less than existing in terms of peak flow, velocities, and volume for each of the 2, 5, 10, 25, and 100-year storms. As such, there would be no impact on downstream drainage facilities as a result of the development of the proposed project and the project would not cause or contribute to any cumulative impacts. In addition, construction of Line "F" by the project would exceed its obligation of MDP fees. An analysis of the volume of runoff and infiltration for the pre- and post- project conditions was performed which included hydrologic modeling. Pre-project conditions consist of agricultural uses. Post-project conditions consist of the development of the project. Post-project detention basins would be constructed not only for storm peak attenuation, but also for infiltration. The analysis showed that the project's impacts would be fully mitigated with the implementation of the detention/ infiltration basins.

The volume of runoff after the project is constructed would be less than the existing volume of runoff and the amount of infiltration and groundwater recharge would increase by a small amount, which would provide a net benefit to groundwater recharge. The proposed project's drainage improvements would be designed to have sufficient capacity to accommodate and convey storm water runoff flows generated by the project as well as expected future storm water runoff flows associated with buildout of the Moreno MDP area. All of the cumulative projects in the Moreno MDP and Sunnymead MDP areas would be required to mitigate flows to equal to or less than existing and/or demonstrate that storm drain capacity is available to service their anticipated flows and that their project is consistent with the MDPs. Section 15130 (a) (3) of the CEQA Guidelines states "A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact." The project's compliance with the Moreno MDP meets this requirement. In addition, there would be zero hydrologic impact on downstream drainage facilities due to the project; therefore, the project would not contribute to any cumulative impacts. As such, cumulative impacts would be less than significant.

SJWA Watershed Area

The portion of the project site located east of the topographic divide drains to the SJWA. In addition to the project, one current and one potential project are tributary to the SJWA. They are the Badlands Landfill Improvements Project located north of the project site and the Quail Ranch Specific Plan located southeast of the project site. Runoff from the Badlands Landfill flows through the project site. The hydrologic study for the project considered flows from the Badlands Landfill. The Badlands Landfill Improvement project does not change the pervious cover of the site. As such, flows from the Landfill Improvements Project would not increase above existing and would be consistent with the existing flows north of the project.

Downstream of the project site, the Quail Ranch Specific Plan Project is proposed. This cumulative project consists of a planned residential community. Currently, there are no specific details on this cumulative project. Stormwater flows generated by the cumulative project site could increase, however, the developer would be required to alleviate any increase in flows leaving a site and demonstrate that the cumulative project does not increase storm flows such as peak flow, velocities, and volume for each of the 2, 5, 10, 25, and 100-year storms. The cumulative project would be required to demonstrate that storm drain capacity is available to service the anticipated flows and that the project is consistent with the MDPs. As such, cumulative downstream capacity impacts within the SJWA watershed area would be less than significant. Because the project would reduce storm flows leaving the project site so that they do not exceed existing flows, the project's contribution to potential cumulative erosion and siltation impacts within the SJWA watershed area would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Although no mitigation measures are required; the applicant has committed to implementing Mitigation Measures 4.9.6.1A and 4.9.6.1B to further reduce the project's less-than-significant contribution to the less than significant cumulative impact to erosion, siltation and flooding.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.6 Construction-Related Water Quality Impacts

Impact: *The project's incremental contribution would not cause or contribute to a significant cumulative increase in surface water pollution during construction.*

Threshold:	Would the project violate any water quality standards or waste discharge requirements during construction phases of the project in form of increased soil erosion, sedimentation, or storm water discharges?

Cumulative Impact Analysis

Cumulative projects within the watershed would result in disturbance of surface soils and removal of vegetative cover during construction activities that could potentially result in erosion and sedimentation and the degradation of surface water quality. In addition, cumulative construction activities that use on-site construction equipment could introduce a risk of storm water contamination in downstream conveyance facilities. Spills and leaks could occur from the use of construction equipment during construction activities as well as from construction equipment located within staging areas. These spills and leaks could include substances such as fuels, oils, solvents, and paints.

As each cumulative project receives construction approval, compliance with the National Pollutant Elimination System (NPDES) General Construction permit would be required. To comply, construction site BMPs would be required to control runoff, sediment, erosion and ensure that construction waste is adequately handled and disposed. These BMPs are required elements of a Stormwater Pollution Prevention Plan that describes the construction operator's activities to comply with the NPDES General Construction permit. Because cumulative projects would be required to comply with the requirements of the NPDES General Construction permit program, cumulative water quality impacts to downstream areas would be less than significant. The project's less than significant incremental contribution would not combine with the impacts of other projects in the cumulative scenario to cause or contribute to a significant cumulative effect.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Although no mitigation measures are required; the applicant has committed to implementing Mitigation Measures 4.9.6.1A and 4.9.6.1B to further reduce the project's contribution to the less than significant cumulative water quality impacts during construction activities.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.7 Operational-Related Water Quality Impacts

Impact: *The project's contribution to the significant cumulative increase in surface water pollution during operation would be cumulatively considerable.*

Threshold:	Would the project violate any water quality standards or waste discharge requirements during the operational phases of the project in the form of increased soil erosion, sedimentation, or urban runoff?

Cumulative Impact Analysis

As discussed previously, the project site is tributary to two sub-watersheds, the Perris Valley Storm Drain and the San Jacinto Wildlife Area. Both sub-watersheds are tributary to the downstream Receiving Waters of the San Jacinto River, Canyon Lake and Lake Elsinore, two of which are impaired water bodies. Below is a discussion of cumulative water quality effects within the San Jacinto watershed. In addition, the water quality of runoff into the SJWA is also discussed.

San Jacinto Watershed

The operational activities associated with the cumulative projects would increase the potential for contaminants to enter stormwater runoff. Storm runoff from the roadways, parking lots, commercial and industrial buildings as well as residential uses can carry a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron, which may lead to the degradation of storm water in downstream channels. Runoff from landscaped areas within cumulative projects may contain elevated levels of phosphorus, nitrogen, and suspended solids. Oil and other hydrocarbons from vehicles are also expected in cumulative stormwater runoff. These pollutants are commonly categorized into eight categories: sediments, nutrients, metals, toxic organic compounds, trash and debris, pathogens, oil and grease and pesticides. Table 6.9-3 identifies the downstream receiving waters from the project site and states if the receiving water is listed as impaired on the 303(d) List or has a total maximum daily load (TMDL) adopted for a certain type of pollutant.

Table 6.9-3: Pollutant Stressors in Receiving Waters

Storm Drain/Receiving Waters	303(d) Listing	Adopted TMDL Pollutants
San Jacinto River	None	None
Canyon Lake	Nutrients (Phosphorus & Nitrogen), Pathogens	Phosphorus, Nitrogen
Lake Elsinore	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, Sediment Toxicity, Unknown Toxicity	Phosphorus, Nitrogen, Dissolved Oxygen

The operational activities associated with the cumulative projects within the San Jacinto watershed area have the potential to add pollutants to downstream Receiving Waters. The operational activities associated with the project have the potential to generate similar pollutants as those identified above for cumulative projects. These pollutants include sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron. The addition of these pollutants have the potential to degrade downstream receiving waters. The impacts of the project together with the impacts of other projects in the cumulative scenario could result in significant cumulative water quality impacts during operational activities. Given the size of the project site and scale of the proposed development, the project's contribution to this significant water quality impact would be cumulatively considerable.

San Jacinto Wildlife Area

Cumulative development tributary to the SJWA includes one current and one potential project. They are the Badlands Landfill Improvements Project located north of the project site and the Quail Ranch Specific Plan located southeast of the project site. Runoff from the Badlands Landfill flows through the project site. The hydrologic study for the project considered flows from the Badlands Landfill. The future operational activities of the Quail Ranch Specific Plan could contribute pollutants to the San Jacinto Wildlife Area. The operational activities associated with the project could also contribute pollutants to stormwater runoff conveyed to the San Jacinto Wildlife Area. These pollutants include sediments, nutrients, metals, toxic organic compounds, trash and debris, pathogens, oil and grease and pesticides. The implementation of the cumulative development, including the project, could increase various pollutants into the San Jacinto Wildlife Area, and thus result in significant cumulative water quality impacts during operational activities.

Given the size of the project site and scale of the proposed development, the project's contribution to this significant water quality impact would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: The implementation of Mitigation **Measures 4.9.63A** through **4.9.6.3C** would be required.

Significance Level After Mitigation: Less than cumulatively considerable contribution to the significant cumulative impact. The implementation of specific BMPs would control pollutant runoff from the project site to downstream areas within the San Jacinto Watershed as well as the San Jacinto Wildlife Area. The maintenance of the onsite water quality basins would ensure adequate facilities for stormwater treatment. Lastly, the establishment of a Water Quality Mitigation Monitoring Plan would allow periodic sampling of the quality of the storm flows before conveyance to downstream areas. The implementation of these measures would reduce the project's contribution to potential significant cumulative operational water quality impacts to a less than cumulatively considerable level.

6.10 Land Use and Planning

Cumulative effects to land use and planning are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to land use and planning is provided in Section 6.10.1. The geographic and temporal scopes of cumulative analysis are provided in Section 6.10.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the land use and planning issues are discussed in Section 6.10.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.10.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.10-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to land use and planning and, if so, whether the propose project's incremental contribution would be cumulatively considerable.

6.10.1 Project Impact Findings

The project's effects to land use and planning are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.10 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Physically divide an established community; **Significant and Unavoidable, Section 4.10.6.**
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; **Less than Significant, Section 4.10.5.2.**
- Conflict with any applicable habitat conservation plan or natural community conservation plan. **Less than Significant, Section 4.10.5.1.**

6.10.2 Geographic and Temporal Scope

The cumulative impact geographic area for land use and planning is the City of Moreno Valley because the project site is located within the jurisdiction of the City of Moreno Valley. The City determines how the local plans and policies are implemented and determines how the regional plans and policies of the Southern California Association of Governments that include the City's jurisdiction are implemented. Cumulative impacts to land use and planning could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley. The project site is currently designated as Business Park in the Moreno Valley General Plan, and development of the project site is subject to the World Logistics Center Specific Plan. The incremental impacts of potentially cumulative projects within the City of Moreno Valley have been evaluated together with the impacts of the project to determine if a significant cumulative impact would occur. The geographic area for cumulative land use and planning impacts is shown on Figure 6.10-1. The projects located within the cumulative land use and planning impact area are listed in Table 6.10-1. The project would contribute to cumulative impacts to land use and planning from when development activities commence on the project site and would last for the duration of the project.

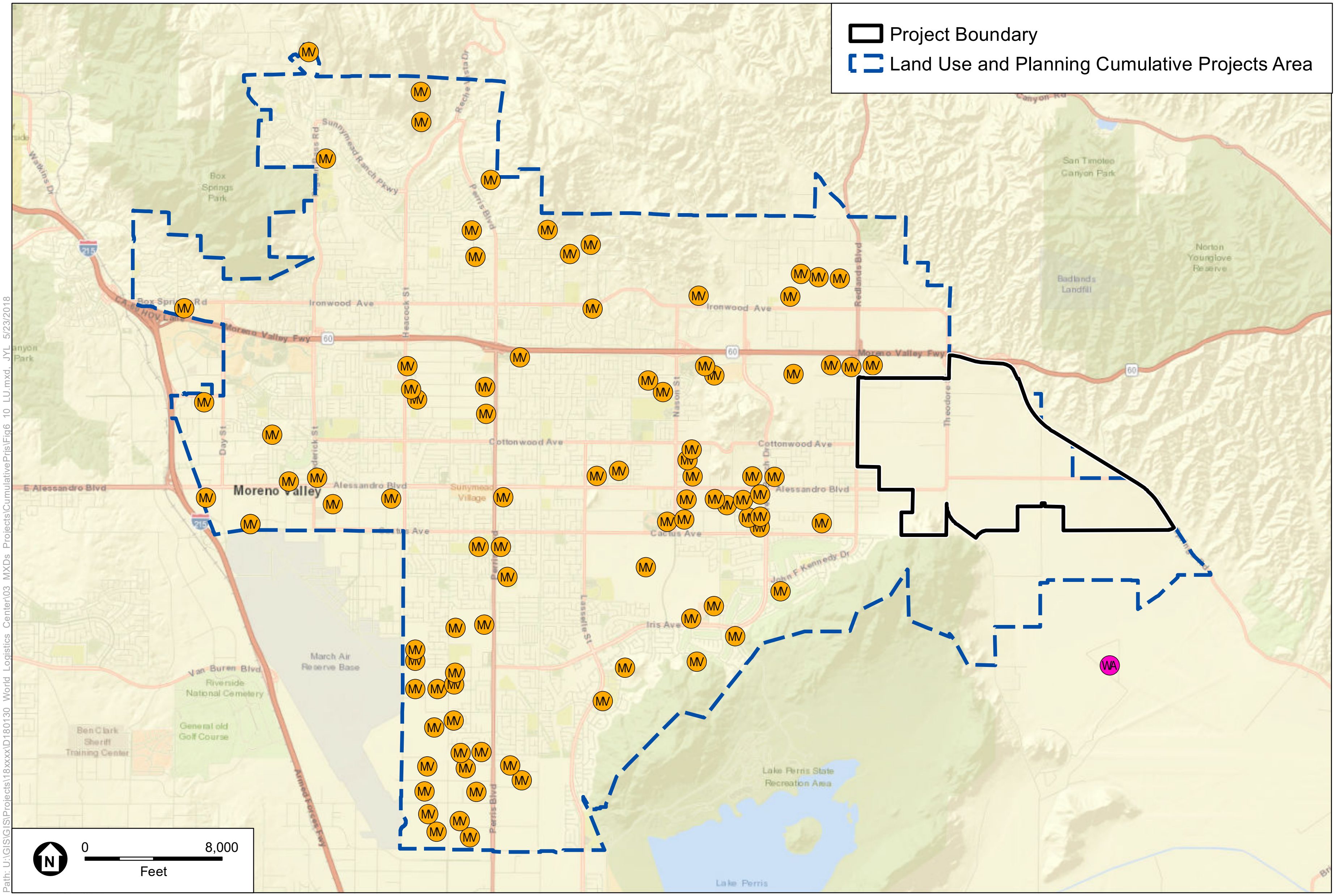

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6 10 LU.mxd, JYL 5/23/2018

World Logistics Center

Figure 6.10-1

Land Use and Planning Cumulative Projects Area

ESA

Table 6.10-1: Land Use and Planning Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a significant and unavoidable impact on the land use and planning in the area.
MV-4	Westridge Commerce Center	The Project’s development of a 937,260 square foot warehouse distribution facility would contribute to cumulative conflicts with land use policies and habitat conservation plan
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the land use and planning in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the land use and planning in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the land use and planning in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the land use and planning in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the land use and planning in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the land use and planning in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is a no impact on the land use and planning in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the land use and planning in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the land use and planning in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the land use and planning in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the land use and planning in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the land use and planning in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is no impact on the land use and planning in the area.
MV-24	TM 36436 (PA12-0005)	The Project’s subdivision of 43.52 acres into 159 single family residential lots would contribute to cumulative conflicts with land use policies and habitat conservation plan
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the land use and planning in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the land use and planning in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the land use and planning in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the land use and planning in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the land use and planning in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is a less than significant impact on land use and planning in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the land use and planning in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the land use and planning in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the land use and planning in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the land use and planning in the area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is no impact on the land use and planning in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is no impact on the land use and planning in the area.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the land use and planning in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is no impact on the land use and planning in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley’s IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is a less than significant impact on the land use and planning in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the land use and planning in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the land use and planning in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the land use and planning in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the land use and planning in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is no impact on the land use and planning in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is no impact on the land use and planning in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a significant and unavoidable cumulatively considerable impact on the land use and planning in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does not mention an impact on the land use and planning in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there is no impact on the environment in the area. It does not mention an impact on the land use and planning in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the land use and planning in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the land use and planning in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the land use and planning in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the land use and planning in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the land use and planning in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the land use and planning in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the land use and planning in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the land use and planning in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the land use and planning in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the land use and planning in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the land use and planning in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is no impact on the land use and planning in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the land use and planning in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the land use and planning in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the land use and planning in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the land use and planning the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution states that there will be no impact on the environment in the area. It does not mention an impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. The exemption does not specifically mention an impact on the land use and planning in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the land use and planning in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the land use and planning in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is no impact on the land use and planning in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the land use and planning in the area with mitigation measures.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the land use and planning in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the land use and planning in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the land use and planning in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the land use and planning in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact on the land use and planning in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there is no impact on the environment. The resolution does not specifically mention an impact on the land use and planning in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the land use and planning in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states there is no impact on the environment in the area. It does not specifically state an impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention an impact on the environment. It also does not mention an impact on the land use and planning in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the land use and planning in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the land use and planning in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the land use and planning in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the land use and planning in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the land use and planning in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the land use and planning in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife’s 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is no impact on the land use and planning in the area.

6.10.3 Cumulative Impact Evaluation

6.10.3.1 Conflict with Any Applicable Habitat or Natural Community Conservation Plan

Impact: *The project would not contribute to a significant cumulative effect relating to conflicts with a habitat or natural community conservation plan.*

Threshold:	Would the proposed WLC project conflict with any applicable habitat conservation plan or natural community conservation plan?

Cumulative Impact Analysis

Cumulative projects are located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and the Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan (HCP) areas. Based on a review of each of the potentially cumulative projects, each that would be subject to the MSHCP and/or SKR HCP would be required to pay a fee to sustain the plant and wildlife populations within the MSHCP and the species population in the SKR HCP areas.

Projects subject to the MSHCP are required to pay a fee that will eventually result in an MSHCP Conservation Area in excess of 500,000 acres and focuses on conservation of 146 species including amphibians, reptiles, birds, mammals, invertebrates, and plants. Certain species require additional measures to ensure that the population of the species is sustained. Because each of the cumulative projects within the MSHCP area is required to comply with the provisions of the MSHCP, no significant cumulative impact would result. In addition, since the project also would be required to comply with the MSHCP, the project's incremental impact on the species within the MSHCP would not combine with the incremental impacts of the other cumulative projects to cause or contribute to a significant cumulative impact.

Projects subject to the SKR HCP are required to pay a fee so that the funds can be used to acquire and permanently conserve, maintain and fund the conservation, preservation, restoration and enhancement of SKR occupied habitat. The implementation of the HCP has demonstrated the acquisition of habitat and sustaining the population of the SKR. Therefore, implementation of the cumulative projects would not result in a significant cumulative impact. In addition, because the project also would be subject to the SKR HCP, including the requirement to pay a conservation fee, the project's incremental impact on the SKR program would not combine with the incremental impacts of the other cumulative projects to cause or contribute to a significant cumulative impact.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.10.3.2 Conflict with Applicable Land Use Plans, Policies, or Regulations (Regional)

Impact: *The project would not contribute to potential significant cumulative impacts related to conflicts with regional plans or policies.*

Threshold:	Conflict with any applicable regional land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Cumulative Impact Analysis

Certain goals and policies of regional plans are applicable to certain cumulative projects. The regional plans evaluated in Section 4.10.5.2 of the FEIR included the Riverside County Airport Land Use Plan, the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and the SCAG Regional Comprehensive Plan.

Some among the cumulative projects are located within the Airport Land Use Plan (ALUP) for March Air Reserve Base. Those projects are expected to comply with the ALUP regulations; however, there is a possibility that one or more could be inconsistent with the ALUP in a way that results in potential significant cumulative impacts. Because the project is not located within an ALUP, the project would not cause or contribute to any potential cumulative ALUP impact. Therefore, the project would result in no cumulative impacts to ALUP regulations.

The RTP/SCS includes policies that provide a strong commitment to reduce emissions from traffic and transportation. The RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, play, and how they will move around. Many of the cumulative projects include the development of residential uses within the City of Moreno Valley. These projects are expected to be consistent with some of the policies identified in the RTP/SCS; however, cumulatively, the cumulative projects are not assisting in reducing potential commute traffic emissions. Therefore, development of the cumulative projects could result in significant cumulative impacts. With the implementation of the project, approximately 25,000 new jobs would be eventually created, which would nearly double the number of jobs within the City. This increase in jobs would positively affect commute patterns for residents within the City as well as within the region by reducing commuter trips. The project is consistent with the applicable policies of the RTP/SCS. Because the project would be consistent with the applicable RTP/SCS policies, the project would not contribute to any adverse cumulative conflicts associated with the RTP/SCS.

The RCP's overall goal is to reinvigorate the region's economy, avoid social and economic inequities and the geographical dislocation of communities, and to maintain the region's quality of life. Because the applicability of the RCP is to projects of "regional significance," the cumulative projects that include warehousing would be applicable. These warehousing projects would result in the creation of employment opportunities that would assist the City in balancing the current housing rich condition. These cumulative projects could modify commuting patterns to reduce overall vehicle miles travelled. These projects of "regional significance" would be consistent with the RCP and therefore would be less than cumulatively significant. The project is also considered a project of "regional significance." The project's anticipated increase of approximately 25,000 new employment opportunities would also modify commuting patterns so that overall vehicle miles travelled could be reduced. Because the project would be consistent with the policies of the RCP, the project would not contribute to potential adverse cumulative impacts to the implementation of the RCP.

In summary, the project would not contribute to potential adverse cumulative impacts related to the implementation of the policies of the applicable regional plans.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.10.3.3 Conflict with Applicable Land Use Plans, Policies, or Regulations (Local)

Impact: *The project would not contribute to potential significant cumulative conflicts with the City of Moreno Valley General Plan.*

Threshold:	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Cumulative Impact Analysis

Cumulative projects (including MV 4 and MV 24, for example) were consistent with the City's General Plan as they were proposed; others required amendments to the City's General Plan to become compliant. Based on a review of the available environmental documents for the cumulative projects that included an amendment, the amended land uses were still consistent with the goals, policies and objectives of the City's General Plan. The cumulative projects resulted in less than significant environmental effects related to the City's General Plan land use goals, policies and objectives.

As stated in Section 4.10.5.3 of the FEIR, the project included amendments to the General Plan; however, in November 2015, the City adopted the proposed amendments submitted through the initiative process. Even prior to the adoption, the FEIR identified that the project was consistent with the goals, policies and objectives of the General Plan. Therefore, the project would not contribute to any potential cumulative impacts relating to consistency with the City of Moreno Valley General Plan.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.10.3.4 Physically Divide an Established Community

Impact: *The project's contribution to cumulative impacts related to physically dividing the established existing rural residences on the project site would be cumulatively considerable.*

Threshold:	Would the proposed WLC project physically divide an established community?

Cumulative Impact Analysis

A few of the cumulative projects are proposed adjacent to the project site, primarily including residential uses but also including two warehouse uses along SR-60. The area primarily west of Redlands Boulevard includes residential uses as well as vacant land that is designated for residential uses in the City of Moreno Valley General Plan. These cumulative projects would not contribute to project's physical division of the established rural residential uses located on the project site. Because cumulative impacts include the effects of the project in combination with other cumulative projects and the project, as discussed below, would result in a significant physical division of the established onsite residences, there would be a significant cumulative impact. The project's contribution to this significant cumulative impact would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Because the project's physical division of the established onsite rural residences would be exacerbated by the incremental impacts of adjacent projects in the cumulative scenario, the determination in Section 4.10.6.1 of the Final EIR that there is no effective mitigation available to protect or separate these existing residences from future warehousing buildings and operations is equally applicable to the cumulative condition.

Significance Level After Mitigation: Cumulatively considerable contribution to a significant cumulative impact. Because there is no effective means of reducing the significant impact related to physically dividing the established onsite rural residences, this cumulative impact would be significant and unavoidable.

6.11 Mineral Resources

Pursuant to CEQA Guidelines §15130, “a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.” Because the proposed project would result in no impact related to the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, it could not cause or contribute to any potential cumulative impact in either respect.

6.12 Noise

Cumulative effects to noise are described in this section. A summary of the project's potential impacts to noise issues is provided in Section 6.12.1. The cumulative impact geographic area for noise issues is provided in Section 6.12.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the noise issues are discussed in Section 6.12.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.12.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Figures 6.12-1 and 6.12-2 and Tables 6.12-1 and 6.12-2 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to noise. These potentially cumulative impacts are documented in the following section.

6.12.1 Project Impact Findings

The project's effects to noise are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.12 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Expose people to or cause generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, Moreno Valley Municipal Code, or applicable standards of other agencies; **Significant and Unavoidable, Section 4.12.6.1; Less than Significant, Section 4.12.6.3**
- Exposure people to or cause generation of excessive groundborne vibration or groundborne noise levels; **Less than Significant, Section 4.12.5.1.**
- A substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project; **Significant and Unavoidable with Mitigation, Section 4.12.6.1; Significant and Unavoidable, Section 4.12.6.2.**
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; **No Impact, Section 4.12.5.2.**
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels. **No Impact, Section 4.12.5.2.**

The standards within the *City of Moreno Valley General Plan* and *Moreno Valley Municipal Code* determine the acceptable noise environment for project and its vicinity. The standards are as follows:

- To the extent feasible, ensure through the design review process that exterior noise levels at commercial and industrial areas do not exceed 65 dBA CNEL.
- Consider the following uses noise-sensitive and discourage them in areas where exterior noise levels exceed 65 dBA CNEL unless measures are implemented that reduce the noise exposure below this level: single-family and multiple-family residential uses, group homes, hospitals, schools and other learning institutions, and parks and open space areas where quiet is a basis for use.

The project's incremental contribution to a cumulative traffic noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when project traffic increases noise levels by 1 dB or more over existing pre-project conditions and the predicted future cumulative with project traffic noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

6.12.2 Geographic and Temporal Scope

Cumulative impacts to noise could result from the project in conjunction with other past, present and future projects located within two cumulative impact project areas: 1) the cumulative traffic noise impact project boundary (this area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County and the March JPA), and: 2) 500' from the proposed limits of construction for cumulative construction impact projects. The cumulative traffic noise impact area is based on the cumulative traffic impact area where past, present, and future projects contribute 50 average daily trips (ADT) or more to the roadway network and therefore to the traffic noise environment. Construction noise and vibration impacts are limited to the immediate area of construction activity. Therefore, the geographic scope of cumulative construction noise impacts encompass cumulative projects located within 500' of the project boundary.

Cumulative projects within the identified operational and construction noise areas will be evaluated with the project to determine if any cumulative impact would occur. The geographic area for cumulative construction noise impacts is shown on Figure 6.12-1. Cumulative operational noise impacts is shown on Figure 6.12-2. There are no projects with CEQA documents located within the cumulative construction noise impact area, although the cumulative projects identified within the cumulative construction noise impact area have been evaluated in this section. The projects located within the cumulative operational noise impact area are listed in Table 6.12.

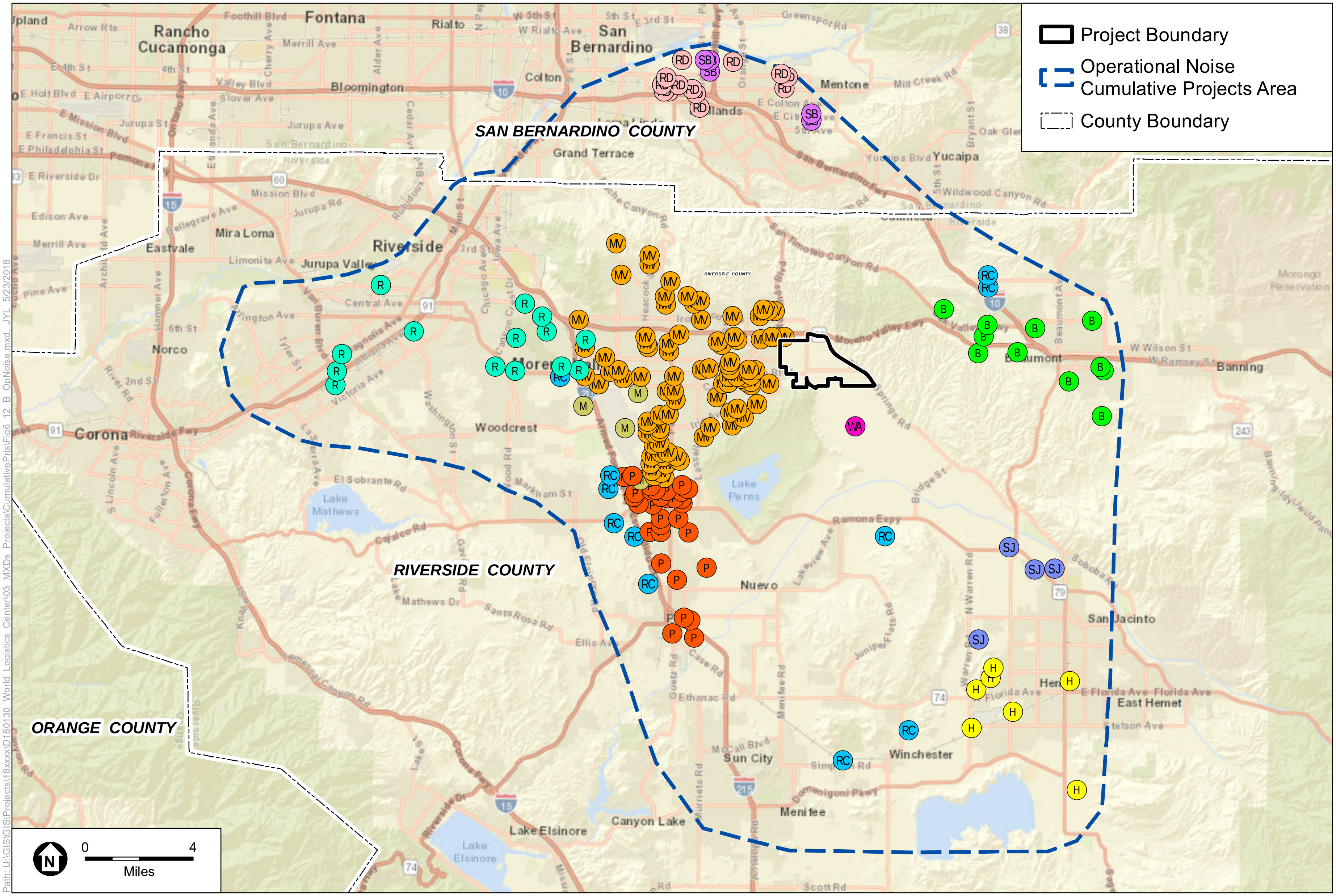

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6_12_B_OpNoise.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.12-1

Operational Noise Cumulative Projects Area

ESA

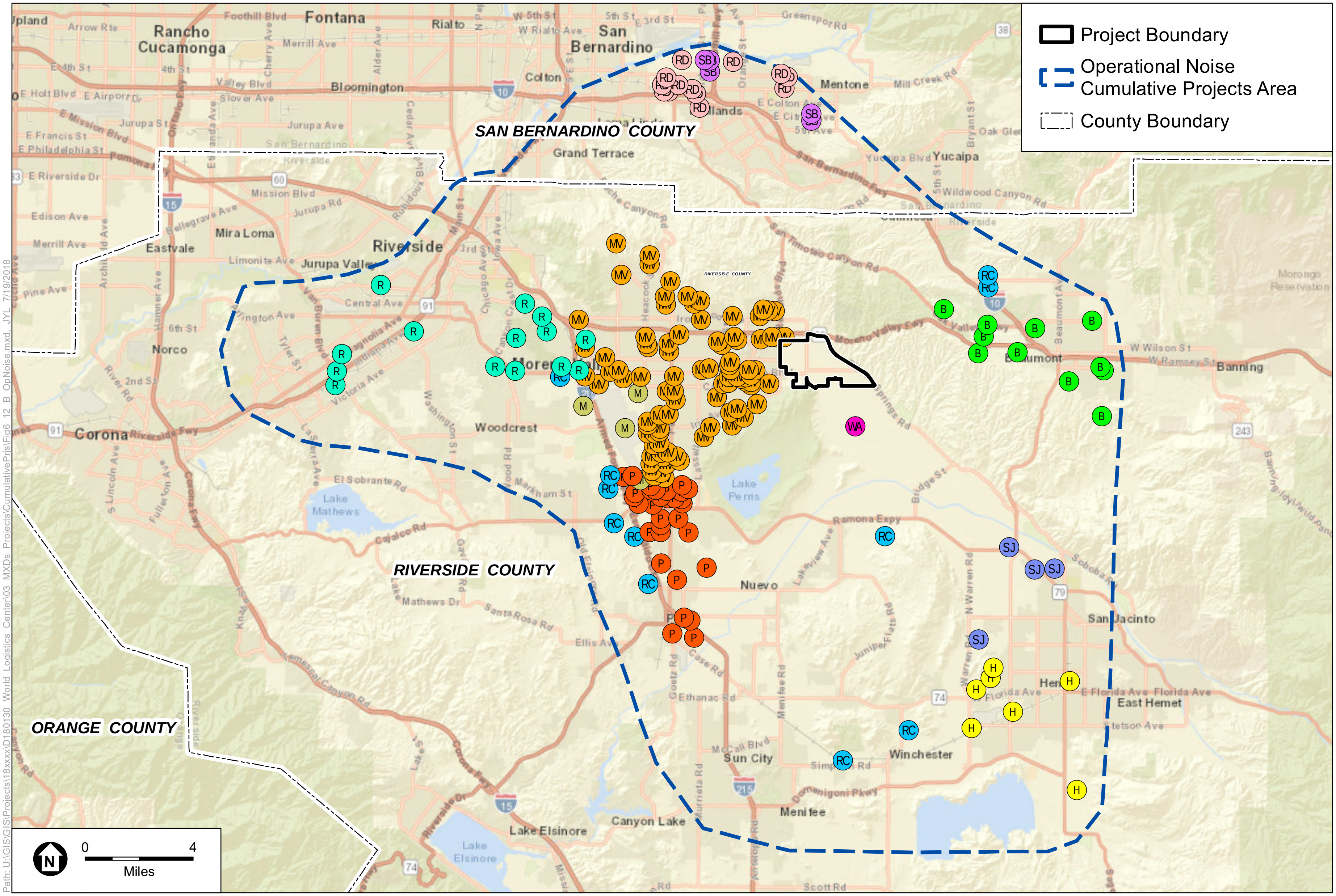

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.12-2

Operational Noise Cumulative Projects Area

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_12_B_OpNoise.mxd, JYL 7/19/2018

ESA

Table 6.12-1: Noise Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. There is a less than significant impact on the noise in the area with mitigation measures.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. There will be a significant impact on the noise in the area despite mitigation measures.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. There will be a less than significant impact on the noise in the area with mitigation measures.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. In the short term, there is an unavoidable impact on the noise in the area from construction. The long term noise will have a less than significant impact on the noise in the area with mitigation measures.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. There will be a less than significant impact on the noise in the area with mitigation measures.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. There is no impact on the noise in the area.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. There is a less than significant impact on the noise in the area with mitigation measures.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The EIR does not mention if there will be an impact on the noise in the area.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. There is no impact on the noise in the area.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. There is a potentially significant impact on the noise in the area.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The excerpt does not contain information on the impact on noise in the area.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. There is a less than significant impact on the noise in the area with mitigation measures.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. There is a less than significant impact on the noise in the area.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The EIR does not mention an impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. There is a less than significant impact on the noise in the area with mitigation measures.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. There is a less than significant impact on the noise in the area with mitigation measures.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. There is a significant and unavoidable impact on noise in the area.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. There is no impact on the noise in the area.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. There is no impact on the noise in the area.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the noise in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the noise in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the noise in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the noise in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the noise in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the noise in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the noise in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the noise in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the noise in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the noise in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the noise in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is no impact on the noise in the area. There is no impact on the noise in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the noise in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the noise in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the noise in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the noise in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the noise in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the noise in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the noise in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the noise in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the noise in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the noise in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the noise in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a significant impact to the noise in the area.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the noise in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a significant and unavoidable direct and cumulative impact (near-term) on the noise in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley’s IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the noise in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on noise in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the noise in the area with mitigation measures.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the noise in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the noise in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the noise in the area with mitigation measures.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the noise in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact on the noise in the area with mitigation measures.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does not specifically mention an impact on the noise in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the noise in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that the project will not cause an impact on the environment. It does not mention an impact on the noise in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the noise in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the noise in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the noise in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the noise in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the noise in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is a less than significant impact on the noise in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the noise in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the noise in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the noise in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the noise in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the noise in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the noise in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the noise in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the noise in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the noise in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution states that there will be no significant impact on the environment. It does not mention an impact on the noise in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact on noise in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the noise in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the noise in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the noise in the area with mitigation measures.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the noise in the area with mitigation measures.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the noise in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the noise in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the noise in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is a less than significant impact on the noise in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact on the noise in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there would be impact on the environment. It does not mention an impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is a less than significant impact on the noise in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there will be no impact on the environment. It does not mention an impact on noise in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention whether or not there would be an impact on the environment, including noise, in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the noise in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is a less than significant impact on the noise in the area with mitigation measures.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the noise in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the noise in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the noise in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the noise in the area.
P-2	TR34716	Per the City of Perris’ 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is no impact on the noise in the area.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. There is no impact on the noise in the area.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is a potentially significant impact on the noise in the area.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is a less than significant impact on the noise in the area with mitigation measures.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is a less than significant impact on the noise in the area with mitigation measures.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. There is a less than significant impact on the noise in the area with mitigation measures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is no impact on the noise in the area.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The excerpt does not mention an impact on the noise in the area.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. There is a less than significant impact on the noise in the area with mitigation measures.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is a less than significant impact on the noise in the area with mitigation measures.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant impact on the noise in the area.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is a less than significant impact on the noise in the area.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is a potentially significant impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a less than significant impact on the noise in the area with mitigation measures.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is a potentially significant impact on the noise in the area.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the noise in the area with mitigation measures.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is a potentially significant impact on the noise in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is a less than significant impact on the noise in the area with mitigation measures.
P-37	Cabrillo	Per the City of Perris’ Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a less than significant impact on the noise in the area.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. There is a less than significant impact on the noise in the area.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is a significant and unavoidable impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is a less than significant impact on the noise in the area with mitigation measures.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is a less than significant impact on the noise in the area with mitigation measures.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is a less than significant impact on the noise in the area with mitigation measures.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. There is a significant impact on the noise in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a significant and unavoidable impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The slides do not mention an impact on the noise in the area.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is a less than significant impact on the noise in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is a less than significant impact on the noise in the area with mitigation measures.
RC-12	Cores Industrial Partners	Per Riverside County’s October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There is no impact on the noise in the area.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The response to comments do not mention an impact on the noise in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is potentially significant impact on the noise in the area.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is a less than significant impact on the noise in the area.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant impact on the noise in the area.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. There is a less than significant impact on the noise in the area with mitigation measures.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. There is a less than significant impact on the noise in the area with mitigation measures.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally, the Project seeks approval to remove 5 acres from an Agricultural Preserve. There is a less than significant impact on the noise in the area.
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property. There is a less than significant impact on the noise in the area.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. There is a less than significant impact on the noise in the area with mitigation measures.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces. There is a less than significant impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. There is a less than significant impact on the noise in the area.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking. There is a less than significant impact on the noise in the area.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres. There is a less than significant impact on the noise in the area with mitigation measures.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino’s 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. There is a less than significant impact on the noise in the area.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino’s 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. There is a less than significant impact on the noise in the area with mitigation measures.
SB-3	Prologis #12	Per the County of San Bernardino’s 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a “high cube” warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres. There is a less than significant impact on the noise in the area.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. There is a less than significant impact on the noise in the area.
SB-6	Prologis #8	Per the County of San Bernardino’s 2007 IS, the project would result in the construction four industrial buildings to be used a “High Cube” and general warehouse distribution facilities. There is a less than significant impact on the noise in the area.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. There is a less than significant impact on the noise in the area with mitigation measures.

Project ID	Project Name	Environmental Document Summary
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. There is a less than significant impact on the noise in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is no impact on the noise in the area.

6.12.3 Cumulative Impact Evaluation

6.12.3.1 Groundborne Vibration Impacts

Impact: *The project's contribution to the cumulative exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels would be less than cumulatively considerable.*

Threshold: Could the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Cumulative Impact Analysis

Construction of the Project would generate ground-borne construction vibration during site clearing, grading and shoring activities. Project construction would generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The construction activities that typically generate the most severe vibrations, such as blasting and impact pile driving, would not occur for the Project. As discussed in Section 4.12.5.1, construction activities are not anticipated to generate perceptible vibration velocities. Therefore, impacts would be less than significant.

Two cumulative projects are located at distances that could undergo construction activities during the project's 16-year construction period: P06-158/Gascon and MV-6: Highland Fairview Corporate Park, and MV-126: TTM 33222. Due to the rapid attenuation characteristics of ground-borne vibration and distance from each of the Related Projects to the project site, there is no potential for cumulative construction impacts with respect to ground-borne vibration. Therefore, cumulative impacts would be less than significant.

The project's operations would include typical commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans, which would produce vibration. In addition, the primary sources of transient vibration would include truck circulation within the proposed parking areas and internal drive aisles. Ground-borne vibration generated by each of the above-mentioned activities would generate up to approximately 0.005 in/sec at 50 feet from the source.[1] The potential vibration levels from all Project operational sources at the closest existing sensitive receptor locations would be less than the significance threshold of 0.5 in/sec PPV significance threshold for potential residential building damage and 0.1 in/sec PPV significance threshold for human annoyance. As such, vibration

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[1] This vibration estimate is based on data presented in the USDOT Federal Transit Administration, 2006.

impacts associated with operation of the project would be below the significance threshold and would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.12.3.2 Airport Noise Impacts

Impact: *The project is not located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip. No significant impacts would occur.*

Threshold: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, results in exposure of people residing or working in the project area to excessive noise levels. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Cumulative Impact Analysis

The project is not located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip. The project area is located approximately 5.5 miles northeast of March Airfield (MAF) and is not located within two miles of a private airstrip. MAF is a joint-use airport, used for both military and civilian purposes. March Air Reserve Base (MARB) is the military operator of MAF and March Inland Port (MIP) is the civilian operator of the airport. This facility is anticipated to play an increasingly important role in the transportation of goods and cargo for the Southern California region. Existing flight patterns affect a large portion of the City of Moreno Valley, along a path that affects the western portion of the City in a northwest/southeast alignment. Aircraft operations from the airport currently contribute intermittent single-event noise.

There is potential for single-event noise exposure levels from MAF activity to affect the project. The exposure levels will vary dependent upon the type of aircraft and flight track flown for each operation at MAF. However, the project is not identified as being within the noise or safety contours delineated for MARB Airport and is not subject to Airport Land Use Commission (ALUC) compatibility analyses.[2] In addition, the project is not considered to contain sensitive receivers and, therefore, the impacts from these single-event noise levels are considered to be below the level of significance. The City's exterior noise standard for industrial uses is 70 dBA CNEL. MAF noise levels are less than 60 dB CNEL within the project area. Therefore, the project would not have the potential to expose people to excessive noise levels from airport operations. Therefore, less than significant noise impacts would occur regarding these issues from implementation of the project.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.12.3.3 Short-term Construction Noise Impacts

Impact: *The project's contribution to short-term construction noise levels in the project vicinity is cumulatively considerable.*

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[2] *Figure 5.4-1 March Reserve Air Base Noise Impact Area*, City of Moreno Valley General Plan EIR, July 2006.

Threshold:	Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Cumulative Impact Analysis

Construction crew commutes and the transport of construction equipment, and materials to the WLCSP area would incrementally increase noise levels on access roads leading to the site. Secondary sources of noise would include noise generated during excavation, grading, and building erection on the project site. The net increase in project site noise levels generated by these activities and other sources has been quantitatively estimated and compared to the applicable noise standards and thresholds of significance. Three cumulative projects are located at distances that could undergo construction activities during the project's 16-year construction period: MV-5: P06-158/Gascon, MV-6: Highland Fairview Corporate Park, and MV-126: TTM 33222. Construction of the western portion of the project would result in significant and unavoidable impacts. Should any of these three cumulative projects undergo construction while the western portion of the project is under construction, cumulative construction noise impacts would occur, potentially exposing sensitive receptors to cumulative construction noise greater than that experienced from project construction alone. Therefore, project construction would result in cumulatively considerable and potentially significant cumulative noise impacts.

The three cumulative construction projects do not have CEQA documents in which construction noise has been analyzed. Therefore, assuming that construction of Related Projects would consist of similar construction activity and equipment as the project, receptors located nearest both the project and each of the related projects could potentially be exposed to noise level increase of 10.1 dBA L_{eq} and 44.4 dBA L_{eq} as summarized in Table 6.12-2.

Table 6.12-2: Cumulative Construction Noise Impacts - Unmitigated

Related Project	Distance of Nearest Receptor[1] (feet)	Distance of Receptor to Project	Combined Construction Noise Level (dBA Leq) [2]	Existing Ambient (dBA Leq) [3]	Construction Plus Ambient (dBA Leq)	Increase over Ambient (dBA Leq)
MV-5	600	120	79.2	69.6	79.7	10.1
MV-6	600	120	79.7	69.6	79.7	10.1
MV-126	25	25	96.0	51.6	96.0	44.4

Notes:
* Noise levels are added logarithmically.
1 Distance to nearest receptor south of SR-60.
2 Assumes unmitigated project construction noise levels shown in Table 4.12.K and unmitigated construction noise levels for Related Projects.
3 See Table 4.12-1

Significance Level Before Mitigation: Significant impact

Mitigation Measures: As indicated in Section 4.12.6.1, construction noise impacts have been identified and **Mitigation Measure 4.12.6.1A** has presented to reduce construction noise impacts to the greatest extent feasible.

Significance Level After Mitigation: Implementation of Mitigation Measure 4.12.6.1A would reduce construction noise levels at nearby sensitive receptors through implementation of a NRCP, which is expected to attenuate construction noise levels by 10 dB and prohibit construction activities within 800 feet of residences during nighttime hours. A distance of 800 feet is the point at which any project-related construction activity is not expected to exceed the City of Moreno Valley's nighttime noise standard of 55 dBA L_{eq}. As shown in Section 4.12, Table 4.12-8 and Table 4.12-9, even with implementation of Mitigation Measure 4.12.6.1A, sensitive receptors located near on-site and off-site construction areas would be exposed to construction noise levels that would elevate the existing ambient noise levels above the applied 10 dB substantial temporary increase threshold. As shown in Table 6.12-3, with implementation of mitigation measures to project construction noise levels, cumulative construction noise at sensitive receptors nearest Related Project MV-126 is expected to remain significant and unavoidable. Therefore, this would result in a significant and unavoidable cumulative impact with mitigation.

Table 6.12-3: Cumulative Construction Noise Impacts – Mitigated Project

Related Project	Distance of Nearest Receptor[1] (feet)	Distance of Receptor to Project	Combined Construction Noise Level (dBA Leq) [2]	Existing Ambient (dBA Leq) [3]	Construction Plus Ambient (dBA Leq)	Increase over Ambient (dBA Leq)
MV-5	600	120	70.5	69.6	73.1	3.5
MV-6	600	120	70.5	69.6	73.1	3.5
MV-126	25	25	93.4	51.6	93.4	41.8

Notes:
* Noise levels are added logarithmically.
1 Distance to nearest receptor south of SR-60.
2 Assumes mitigated project construction noise levels shown in Table 4.12-8 and unmitigated construction noise levels for Related Projects.
3 See Table 4.12-1.

Significance Level After Mitigation: Significant impact.

6.12.3.4 Long-term Traffic Noise Impacts

Impact: *The project's contribution to long-term traffic noise levels in the project vicinity is cumulatively considerable.*

Threshold: Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Cumulative Impact Analysis

Cumulative traffic volumes contained in the TIA were developed for the Future Year 2025 and Buildout 2040 analysis time horizons. Traffic volumes for each time horizon were developed utilizing a combination of various future traffic growth methods as follows. For Future Year 2025, traffic volumes were developed by interpolating year 2040 traffic volume projections from the Riverside County Transportation and Analysis Model (RivTAM) to year 2025 plus traffic from a list of past, present, and reasonably foreseeable projects (see Table 6.12B). For Buildout Year 2040, traffic volumes were developed by utilizing the year 2040 traffic volume projections from the RivTAM plus traffic from a list of past, present, and reasonably foreseeable projects.

Three hundred and thirty-nine (339) roadway links and eighty-nine (89) freeway segments were analyzed in the noise analysis. The change in noise level was calculated for all 428 roadway and freeway links with and without the project for the existing case (2018), 2025, and 2040 buildout scenarios. Segments with noise increases less than 1.5 dB would not have a substantial noise increase and were not presented in the main body of the noise report (i.e., the tables and figures). Similarly, any segments that do not have sensitive receptors (e.g., residential uses) were also not presented in the main body of the noise report. Based on this filtering process, of the 428 segments analyzed, 21 segments have sensitive receptors and an increase of 1.5 dB for at least one buildout scenario analyzed in Section 4.12 and were therefore addressed in the analysis. Evaluation of all other segments is included in Appendix D of this Revised FEIR.

Cumulative noise impacts associated with roadway noise have been addressed based on the cumulative traffic volumes, analyzing the difference between future plus project traffic noise and existing without project traffic noise to account for cumulative projects as well as ambient growth as a worst-case scenario. Table 6.12-4 provides a comparison of Future Year 2025 with project noise levels and Existing Conditions and if a significant impact (project-specific or cumulatively significant) occurs. Table 6.12-5 provides a comparison of Buildout Year 2040 with project noise levels and Existing Conditions and if a significant impact (project-specific or cumulatively significant) occurs.

Table 6.12-4: Cumulative Impact for Phase 1 (2025) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Existing	Phase I (2025) Plus Project	Cumulative Increment (Project Contribution)	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.6	69.5	16.9	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	51.9	63.5	11.6	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	63.9	63.9	Yes
John F Kennedy Drive (south of Cactus Avenue)	63.8	65.5	1.7	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6	67.6	2.0	Yes
Street F (east of World Logistics Center Parkway)	0.0	58.1	58.1	Yes
Cactus Avenue (west of Redlands Boulevard)	60.2	61.4	1.2	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7	54.3	3.6	No
Theodore Street (SR-60 to Ironwood Avenue)	59.6	60.5	0.9	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4	62.1	1.7	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	51.9	63.5	11.6	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1	47.2	5.1	Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6	56.2	1.6	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1	55.0	0.9	No
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9	64.9	3.0	Yes
Sunset Drive (Crown Street to Alessandro Road)	47.4	49.0	1.6	No
SR-60 EB Ramps (SR-60 to Central Avenue)	57.4	65.5	8.1	Yes
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.1	81.6	1.5	Yes
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9	80.4	2.5	Yes
SR-215 (Mill Street to 2nd Street)	82.9	83.1	0.2	No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	80.6	0.2	No

Source: ESA, 2018

As identified in Table 6.12-4, implementation of the proposed WLC project would contribute to cumulative changes in traffic noise levels in Year 2025 (Phase I). The largest project-related increase in traffic noise would be along Street D/Cactus Avenue Extension (Alessandro Avenue to Cactus Avenue) and along Street F (east of World Logistics Center Parkway), where increases of 63.9 dBA and 58.1 dBA, respectively, are predicted for the 2025 With Project Phase 1 scenario over the 2018 Existing Conditions scenario. However, the increases associated with these roadway segments is attributable in part to Street D/Cactus Avenue Extension and Street F being new roads that will be constructed by the project through open space areas that are currently vacant and don't contribute to the overall ambient noise environment. A total of eleven road segments would result in a substantial noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation.

Table 6.12-5: Cumulative Impact for Buildout (2040) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Existing	Buildout (2040) Plus Project	Cumulative Increment (Project Contribution)	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.6	71.0	18.4	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	51.9	66.7	14.8	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	66.8	66.8	Yes
John F Kennedy Drive (south of Cactus Avenue)	63.8	67.0	3.2	Yes
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6	69.2	3.6	Yes
Street F (east of World Logistics Center Parkway)	0.0	68.3	68.3	Yes
Cactus Avenue (west of Redlands Boulevard)	60.2	64.9	4.7	Yes
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7	58.2	7.5	Yes
Theodore Street (SR-60 to Ironwood Avenue)	59.6	66.0	6.4	Yes
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4	64.6	4.2	Yes
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	51.9	66.7	14.8	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1	61.3	19.2	Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6	60.9	6.3	Yes
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1	63.0	8.9	Yes
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9	68.4	6.5	Yes
Sunset Drive (Crown Street to Alessandro Road)	47.4	49.0	1.6	Yes
SR-60 EB Ramps (SR-60 to Central Avenue)	57.4	66.5	9.1	Yes
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.1	82.4	2.3	Yes
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9	81.6	3.7	Yes
SR-215 (Mill Street to 2nd Street)	82.9	84.8	1.9	Yes
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	82.1	1.7	Yes

Increases in noise levels associated with Buildout Year (2040) traffic conditions on area roadways range up to 68.3 dBA. As identified in the Table 6.12-6, the greatest increase in noise levels would be along Street D/Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue) and along Street F (east of World Logistics Center Parkway), where increases of 66.8 dBA and 68.3 dBA, respectively, are predicted for the Buildout Year 2040 With Project scenario over the 2018 Existing Conditions scenario. However, the increases associated with these roadway segments is attributable in part to Cactus Avenue Extension and Street F, being new roads that will be constructed by the project through open space areas that are currently vacant and don't contribute to the overall ambient noise environment. A total of twenty-one road and freeway segments would result in a substantial noise increase attributable to the project, resulting in a significant impact requiring mitigation.

The project calls for improvements to several of the roadways around the project area in order to accommodate the projected increase in project traffic volumes. The presence of residential uses occurs within the WLCSP project and nearby area. These roadway segments are analyzed against the thresholds for determining significant impacts defined previously in Section 4.12.6.2. As described previously in Section 4.12.4, the project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

Cumulative noise impacts associated with roadway noise have been addressed based on the 2025 and 2040 time horizons analyses for the roadway segments identified for analysis in Section 4.12. Table 6.12-5 and Table 6.12-6 show the Future Year 2025 and Buildout 2040, respectively, CNEL values with the project and if a substantial increase would be produced based on the cumulatively significant significance criteria identified above. Traffic noise level increases from the existing baseline condition and the future (2025 and 2040) time horizons are attributable to the intermingled effects of both the cumulative (i.e., past, present, and reasonably foreseeable projects) development projects in the project vicinity and region as well as the project.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: As indicated in Section 4.12.6.2, roadway noise impacts have been identified and **Mitigation Measures 4.12.6.2A** through **4.12.62D** have been presented to reduce roadway noise impacts to the greatest extent feasible.

Significance Level After Mitigation: Significant impact. As disclosed in Section 4.12.6.2, there are numerous instances in which there is no feasible means to reduce roadway noise impacts because of the existing developed nature of the affected roadway segment and/or the scattered nature of the sensitive receptors (i.e., residences), which prohibits the effectiveness of a soundwall. For those segments at which there is a cumulatively considerable impact and there is no feasible means to provide mitigation, the significant cumulative impact will remain significant and unavoidable.

6.12.3.5 Long-term Operational Noise Impacts

Impact:	*The project's contribution to the cumulative exposure of persons to long-term operational noise would not be cumulatively considerable.*
Threshold:	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, Moreno Valley Municipal Code, or applicable standards of other agencies?

Cumulative Impact Analysis

On-site operational noises are individual noise occurrences and are not typically additive in nature. It is extremely unlikely that adjacent properties will generate noises that would be additive in nature because of two important reasons. First, the noise sources would have to be adjacent or in close proximity to one another in order for the noises to intermingle. Second, the sensitive receptor or receptors would also have to be adjacent to or in close proximity to the noise generators. Because the project assumes 24-hour operations, it is conservatively assumed that the geographic limit for cumulative on-site operational noise would include the three cumulative projects located adjacent to the project site. Cumulative project MV-126 consists of residential uses and would therefore not generate noise levels equivalent to the project. Assuming that the remaining two cumulative projects (MV-5 and MV-6) would generate noise at the same time as the project and at distances and levels that would be additive in nature, a significant cumulative noise impact at sensitive receptors could occur.

As discussed in Section 4.12.6.3 of the FEIR, on-site operational activity would include noise from truck delivery, loading/unloading activities at the loading areas, heating, ventilation, and air-conditioning equipment and other noise-producing activities within the parking lot. On-site activity would generate noise levels of up to 56.9 dBA L_{eq} at a distance of 50 feet. Related Projects MV-5 and MV-6 do not have CEQA documents in which on-site operational noise has been analyzed. Therefore, assuming that operation of Related Projects MV-5 and MV-6 would consist of similar on-site activity as the project, Table 6.12-6 summarizes the potential cumulative noise level increases at this receptor (referred to as R5 in Section 4.12). As shown in Table 6.12-6, cumulative on-site noise levels would not result in perceptible increases in ambient noise (3 dBA). Therefore, on-site project operations would not result in cumulatively considerable on-site operational noise impacts.

Table 6.12-6: Cumulative On-Site Operational Noise Impacts – Unmitigated Project

Related Project	Distance of Nearest Receptor[1] (feet)	Distance of Receptor to Project	Combined On-site Operational Noise Level (dBA Leq) [2]	Existing Ambient Day/Night (dBA Leq) [3]	On-Site Operation Plus Ambient Day / Night (dBA Leq)	Increase over Ambient (dBA Leq)
MV-5 + MV-6	600	120	49.5	69.6 / 66.9	69.6 / 67.0	0.0 / 0.1

Notes:
* Noise levels are added logarithmically.
1 Distance to nearest receptor south of SR-60.
2 Assumes a reference noise level of 56.9 dBA L_{eq} at 50 feet.
3 See Table 4.12-1.

With regard to on-site residential uses, the project would result in significant impacts at on-site residential uses. However, the nearest on-site residence to cumulative projects MV-5 and MV-6 is located at a distance greater than 2,400 feet. At this distance on-site operational noise at MV-5 and MV-6 would be negligible. Therefore, cumulative impacts would not occur.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Mitigation Measure 4.12.62D has been presented to reduce noise impacts from fixed mechanical equipment and internal roadways to the greatest extent feasible. With implementation of **Mitigation Measure 4.12.62D**, mechanical equipment noise and on-site mobile and idling activity would not exceed the City's nighttime exterior noise standard for off-site residential uses.

Significance Level After Mitigation: Less than significant impact. Implementation of **Mitigation Measure 4.12.6.2D** would eliminate any noise impacts on off-site residential areas due to the operation of logistic activities. Through the provision of a 250-foot setback, berms, and/or soundwalls, noise levels at the nearest residences would be reduced to below the City's thresholds. Therefore, with adherence to the identified mitigation measure, off-site impacts associated with this issue would be less than significant and would be less than cumulatively considerable. With respect to on-site residential uses, Section 4.12.6.3 determined that impacts to on-site residential uses would be less than significant with implementation of **Mitigation Measure 4.12.6.2D.** Additionally, the nearest on-site residence to cumulative projects MV-5 and MV-6 is located at a distance greater than 2,400 feet. At this distance on-site operational noise at MV-5 and MV-6 would be negligible. Therefore, cumulative impacts would not occur.

6.12.3.6 Long-term Utility Noise Impacts

Impact:	*The project's contribution to long-term utility noise impacts in excess of City standards is less than cumulatively considerable.*
Threshold:	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, Moreno Valley Municipal Code, or applicable standards of other agencies?

Cumulative Impact Analysis

There is one existing SDG&E compressor station and two existing SCGC facilities located adjacent to the WLC Specific Plan area. No other similar facilities were identified in proximity to the WLC Specific Plan area.

The L_{eq} noise level generated by the compressor station does not exceed 60 dBA L_{eq} beyond the property lines of the facility. For SCGC blow-down events, noise generated could reach as high as 130 dBA just outside the fence line of the southern facility and in excess of 135 dB just outside the fence line of the northern facility. People within approximately 250 feet of the blow-down points would be exposed to noise levels greater than 115 dBA. No sensitive receptors are located such that noise levels from the compressor station and on-site project activity would result in cumulatively considerable impacts. Therefore, noise impacts associated with the operation of the compressor station in conjunction with project operations would not be cumulative considerable and would be less than significant.

SCGC blow-down events also have the potential to produce groundborne vibration. However, the effect of the blow-down groundborne vibration would be limited to within 100 feet of the equipment and would not be perceived beyond the facility fence line, resulting in a less than significant impact and no mitigation is required.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.13 Population, Housing, Employment

Cumulative effects to population, housing, and employment are described in this section. A summary of the project's potential incremental impacts to cumulative population, housing, and employment issues is provided in Section 6.13.1. The geographic and temporal scopes for cumulative impacts to population, housing, and employment issues are provided in Section 6.13.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the population, housing, and employment issues are discussed in Section 6.13.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.13.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.13-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact and, if so, if the project's incremental contribution would cumulatively considerable.

6.13.1 Project Impact Findings

The project's effects to population, housing, and employment are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.13 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); **Less than Significant, Section 4.13.5.1.**
- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) that may lead to fiscal or economic impacts; **Less than Significant, Section 4.13.5.1.**
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; **Less than Significant, Section 4.13.5.2.**
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. **Less than Significant, Section 4.13.5.2.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to population, housing, and employment identified in the FEIR.

6.13.2 Geographic and Temporal Scope

The cumulative impact geographic area for population, housing, and employment is the City of Moreno Valley. This geographic area was selected to capture growth within the City of Moreno Valley. Cumulative impacts to population, housing, and employment could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley. The geographic area for cumulative population and housing impacts is shown on Figure 6.13-1. The projects located within the cumulative population and housing impact area are listed in Table 6.13-1. The project would contribute to cumulative conditions starting as soon as project-generated jobs are created and would continue to contribute for the duration of the project.

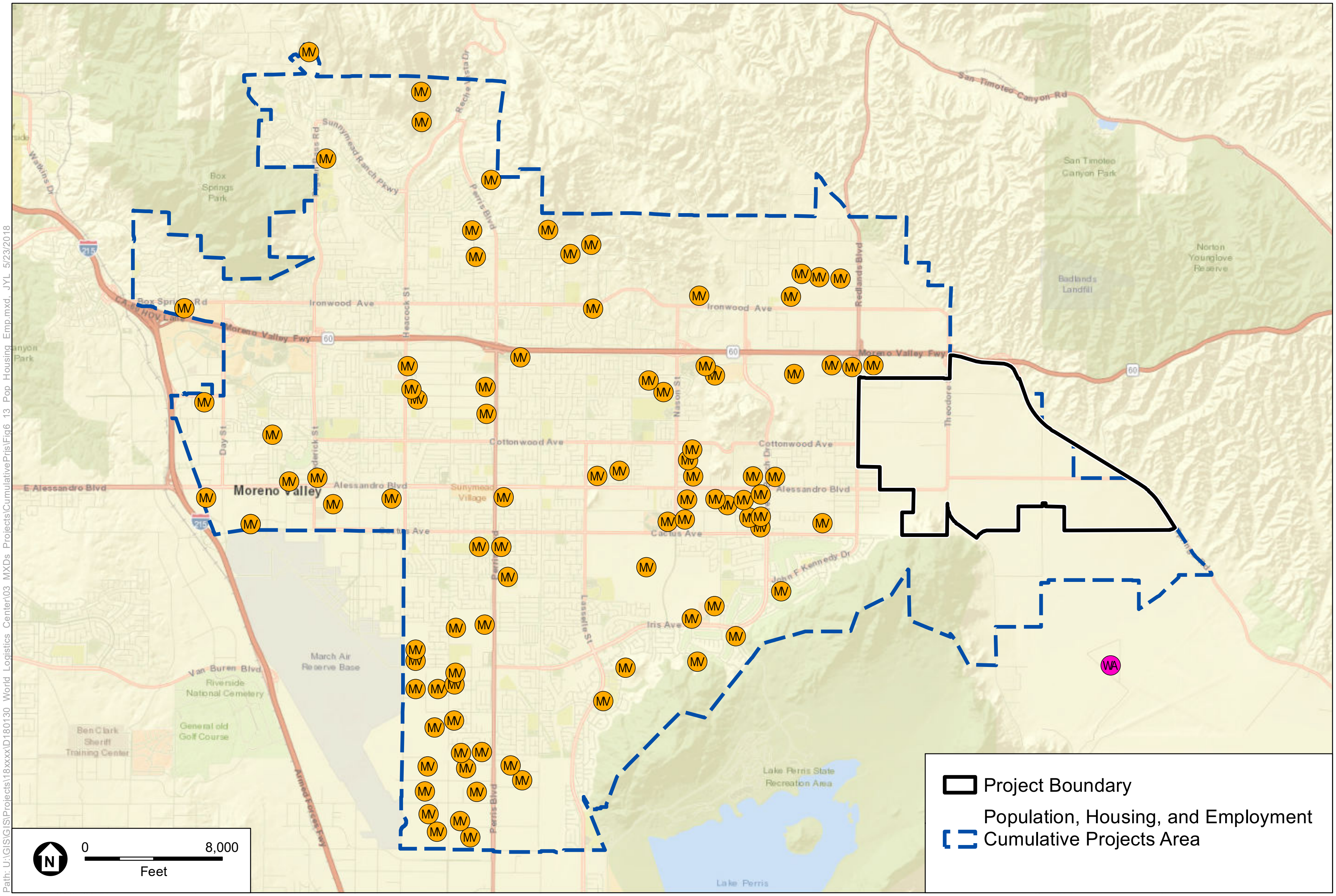

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_13_Pop_Housing_Emp.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.13-1

Population, Housing, and Employment Cumulative Projects Area

ESA

Table 6.13-1: Population, Housing, and Employment Cumulative Project Summary

Project ID	Project	Environmental Document Summary
MV-3	ProLogis	The Project's development of 2,244,638 square feet of distribution warehouse space would contribute to the cumulative increase in population and demand for housing due to the creation of 1,532 job opportunities within the geographic area.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility would contribute to the cumulative increase in population and demand for housing due to the creation of job opportunities within the geographic area.
MV-7	TR33962 / Pacific Scene Homes	The Project's subdivision of a 20-acre parcel into 31 single family lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-8	TR32460 / Sussex Capital	The Project's addition of 57 single family residential units would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-9	TR32459 / Sussex Capital	The Project's addition of 11 single-family residential lots on 13 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-10	TR30998 / Pacific Communities	The Project's subdivision of 60 acres into 47 single family lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-11	TR30411 / Pacific Communities	The Project's development of 25 single-family homes on 30.02 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-18	Convenience Store / Fueling Station	The Project's construction of a fueling station and convenience store would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-19	Senior Assisted Living	The Project's building of a 139-unit senior assisted living facility would contribute to the cumulative increase in population due to the availability of assisted living facilities and the provision of job opportunities within the geographic area.
MV-20	Moreno Marketplace	The Project's development of 95,905 square foot retail center would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

Project ID	Project	Environmental Document Summary
MV-21	PEN16-0053 Medical Center	The Project’s development of a medical complex on 18.38 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-24	TM 36436 (PA12-0005)	The Project’s subdivision of 43.52 acres into 159 single family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-25	TR32142	The Project’s development of 172 multi-family residences on 19.3 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-27	TR32917 / Empire land	The Project’s development of 227 condominiums on 17.9 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-29	TR36340	The Project’s development of 276 condominiums on 32 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-37	Vogel /PA09-004	The Project’s development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	The Project’s development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-41	First Nandina Logistics Center	The Project’s development of 1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of distribution warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-42	Indian Street Commerce Center	The Project’s development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-43	Ivan Devries / PA06-0017	The Project’s development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

Project ID	Project	Environmental Document Summary
MV-44	Modular Logistics Center (Kearny RE Co)	The Project's development of 1,109,378 of office space 50.84 acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-45	Iris Plaza	The construction of a 109,289 square foot shopping center on 12.4 acres of land would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project's subdivision of a 75.05-acre property into four parcels with business center land uses would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	The Project's development of a 1,560,046 square foot warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	The Project's development of a 414,533 square foot warehouse on a 17.17 acre-site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-51	Nandina Distribution Center IDS	The Project's development of a 770,867 industrial building on a 38 acre-site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-52	First Industrial III & IV, (Industrial Area SP)	The Project's development of a 880,000 square foot warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-53	I-215 Logistics Center (Amazon)	The Project's development of a 1,705,000 square foot distribution warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-54	Moreno Valley Logistics Center (Prologis)	The Project's development of a 1,736,180 square foot logistics center would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-60	Tract Map 36401	The Project's development of 216 dwelling units on a 19.4 acre site would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area.
MV-61	Walmart & Gas Station	The Project's development of a 193,000 square-feet of retail/commercial uses on a 22.28-acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

Project ID	Project	Environmental Document Summary
MV-63	PA14-0053 (TTM 36760) Legacy Park	The Project's subdivision of 53 acres into 221 single family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-66	TR34988 / Stratus Properties	The Project's construction of 271 dwelling units on 3.75 acres of outdoor recreation area would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-67	TR32515	The Project's construction of 174 senior single-family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-68	PA07-0035	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-69	PA07-0039, (Industrial Area SP)	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-75	Aqua Bella Specific Plan	The Project's construction of 2,922 adult community dwelling units on 685 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-78	Overton Moore Properties PA08-0072	The Project's development of a 522,772 square foot industrial warehouse building on 25.96 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-79	Shaw Development	The Project's development of a 366,698 square foot industrial warehouse building on 25.96 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-80	PA15-0032 MV Cactus Center	The Project's development of 39,950 square feet of warehouse buildings, and mixed retail uses on 6.3 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	The Project's development of a 353,859 square foot of warehouse on 16.55 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

Project ID	Project	Environmental Document Summary
MV-84	PA16-0075 Brodiaea Business Center	The Project’s development of 8 industrial buildings on 126 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	The Project’s subdivision of 16.9 acres into 6 pads for commercial retail use would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-89	TR35663 / Kha	The Project’s development of mixed use on approximately 2.2 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-93	PA14-0042 Edgemont Apartments	The Project’s development of 112 apartment units on approximately 5.89 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-94	PA15-0002 Box Springs Apartments	The Project’s development of 266 apartment units on approximately 12 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-95	Moreno Beach Marketplace / Lowes	The Project’s development of retail space on 14.2 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-97	32005 Red Hill Village, LLC	The Project’s development of 214 clustered and single-family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-100	32215 Winchester Associates "Scottish Village"	The Project’s development of 194 clustered and single-family residential lots on 26.12-acre site would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-103	Gateway Business Park	The Project’s development of a business park on 25.3 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area. areas.
MV-114	Stoneridge Town Centre - Vacant Restaurant	The Project’s development of 563,328 square feet of commercial uses would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-116	31621 Peter Sanchez	The Project’s development of 563,328 square feet of commercial use on 55.45 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

Project ID	Project	Environmental Document Summary
MV-117	Riverside County Office Building	The Project's development of 52,250 square feet of office building use on 5.8 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
SJWA-1	San Jacinto Wildlife Land Management Plan	The Project's development of a land management plan would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

6.13.3 Cumulative Impact Evaluation

6.13.3.1 Population Growth

Impact: *The project's less than significant contribution to cumulative conditions would not cause or contribute to potential significant cumulative impacts related to substantial population growth in the area. Additionally, the project's less than significant contribution to cumulative conditions would not cause or contribute to a potential significant cumulative impact relating to population growth in the area that may lead to fiscal or economic impacts.*

Threshold: Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure)?

Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?

Cumulative Impact Analysis

As discussed in Section 4.13 of the FEIR, the project would not contribute to substantial population growth and therefore would not result in an increased demand on the current or future housing in the region. It therefore would have a less-than-significant impact on inducing substantial population growth, or inducing substantial population growth that would lead to fiscal or economic impacts.

According to the Southern California Association of Governments (SCAG), the City of Moreno Valley is considered housing rich and jobs poor, with more than 3,000 vacant residential units (SCAG 2017). As the WLC project area represents the last largest remaining vacant land in the City of Moreno Valley, it would not significantly induce growth into areas where growth was not previously anticipated. Further, the project could result in an influx of new workers who would need to locate temporarily or permanently in the area. The City currently has an adequate supply of for-sale and rental housing. Implementation of the proposed project would benefit population and housing conditions relative to employment and jobs/housing ratio. MV 3 and MV 4 CEQA documents evaluated the effect on population housing and employment.

Other projects in the cumulative scenario would bring a mix of residential, employment, retail, medical and recreational uses that collectively would support the planned growth and local and regional population and housing goals within the geographic area of cumulative consideration. The incremental impacts of the proposed project, together with the incremental impacts of other projects in the cumulative scenario, would not cause or contribute to significant cumulative growth inducing impacts.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.13.3.2 Displace Substantial Housing/People

Impact: *The project's contribution to the displacement of substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere is less than cumulatively considerable.*

Threshold:	Would the proposed WLC project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?

Cumulative Impact Analysis

Projects in the cumulative scenario are a mix of residential, industrial, retail/commercial, office and medical uses. A majority of these projects, including the project, are proposed on vacant parcels of land and/or would not displace people or housing. Additionally, according to SCAG, the City of Moreno Valley is considered housing rich and jobs poor, with more than 3,000 vacant residential units (SCAG 2017). Therefore, while the cumulative projects, including the project, may result in an influx of new workers who would need to locate temporarily or permanently in the area, they would benefit the population and housing conditions relative to employment and jobs/housing ratio, and would result in cumulatively less than significant impacts on the displacement of people or existing housing.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.14 Public Services and Facilities

Cumulative effects to public services and facilities are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to public services and facilities is provided in Section 6.14.1. The geographic and temporal scopes are provided in Section 6.14.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the public services and facilities issues are discussed in Section 6.14.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.14.3 as well as mitigation measures, if applicable, and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.14-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative ly considerable impact to public services and utilities. These potentially cumulative impacts are documented in the following section.

6.14.1 Project Impact Findings

The project's effects to public services and facilities are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.14 of Revised Sections of the FEIR) is provided as well as a reference to the specific section. All of the public services and facilities that were evaluated were determined to experience a less than significant impact with the implementation of the project.

6.14.1.1 Police Protection

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Police Protection – Less than Significant, Section 4.14.1;**

  As shown, there are no unmitigated project-specific significant and unavoidable impacts to police services and facilities identified in the FEIR.

6.14.1.2 Fire Protection

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Fire Protection – Less than Significant Impact, Section 4.14.2;**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to fire services and facilities identified in the FEIR.

6.14.1.3 Schools

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Schools – Less than Significant, Section 4.14.3;**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to schools identified in the FEIR.

6.14.1.4 Parks, Recreation, and Trails

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Parks, Recreation and Trails – Less than Significant, Section 4.14.4;**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to park, recreation and trail facilities identified in the FEIR.

6.14.2 Geographic and Temporal Scope

The cumulative impact geographic area for police, fire, and parks/recreation is the City of Moreno Valley because these services are provided by the City within its jurisdictional boundary. The cumulative impact geographic area for schools is the Moreno Valley Unified School District (MVUSD) and the San Jacinto Unified School District (SJUSD) because these school districts serve portions of the project site. Cumulative impacts to public services and utilities could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley and within the MVUSD and SJUSD. Cumulative projects within the City and both school districts will be evaluated with the project to determine if any cumulative impact would occur. The geographic area for cumulative police, fire, and parks/recreation impacts is shown on Figure 6.14-1. The geographic area for cumulative school impacts is shown on Figure 6.14-2. The projects located within the cumulative police, fire, and parks/recreation impact area is listed in Table 6.14-1. The projects located within the school impact area is listed in Table 6.14-2. As significant crossover exists between the two impact areas, projects included in both tables are described only once in Table 6.14-1.

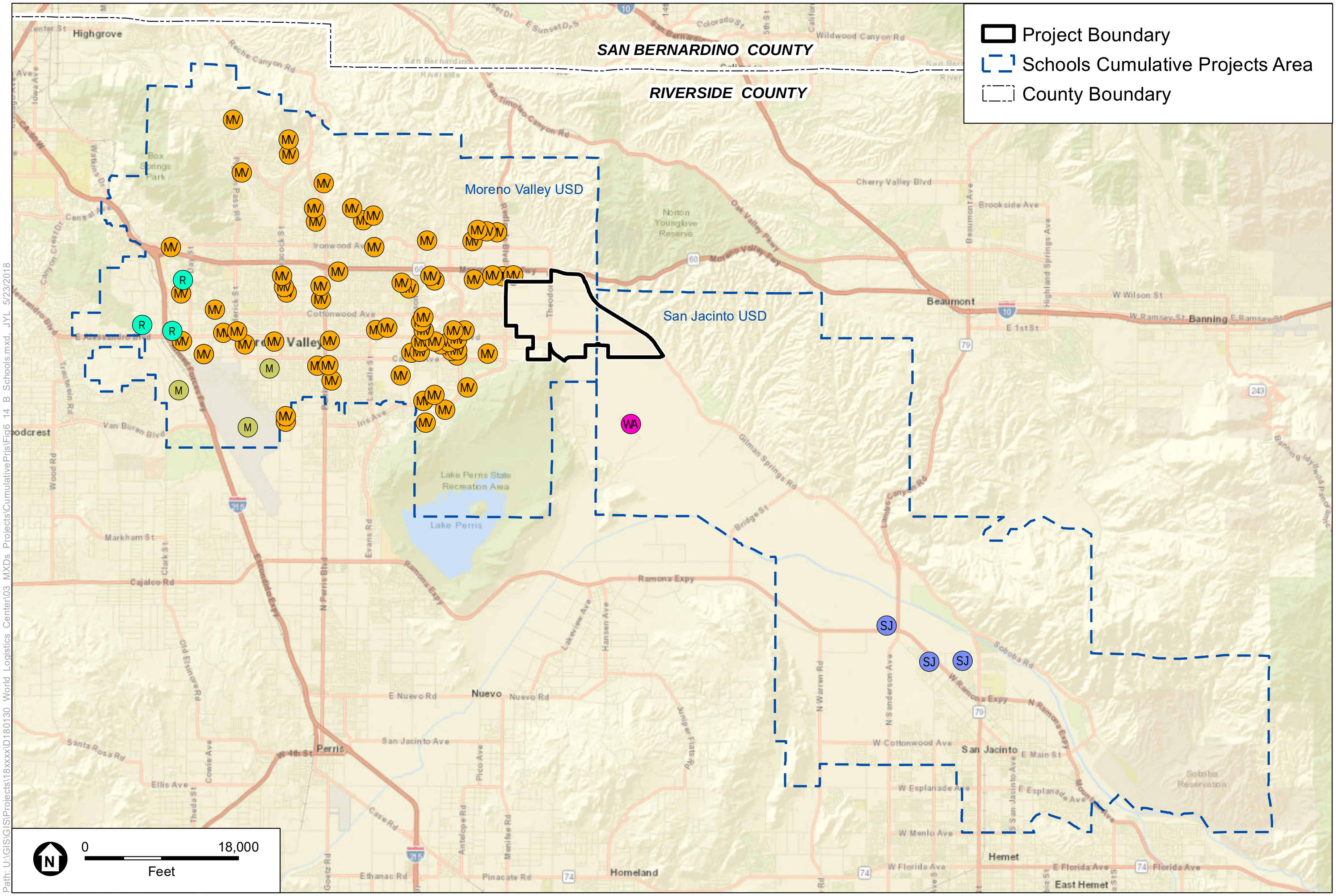

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_14_B_Schools.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.14-1

Schools Cumulative Projects Area

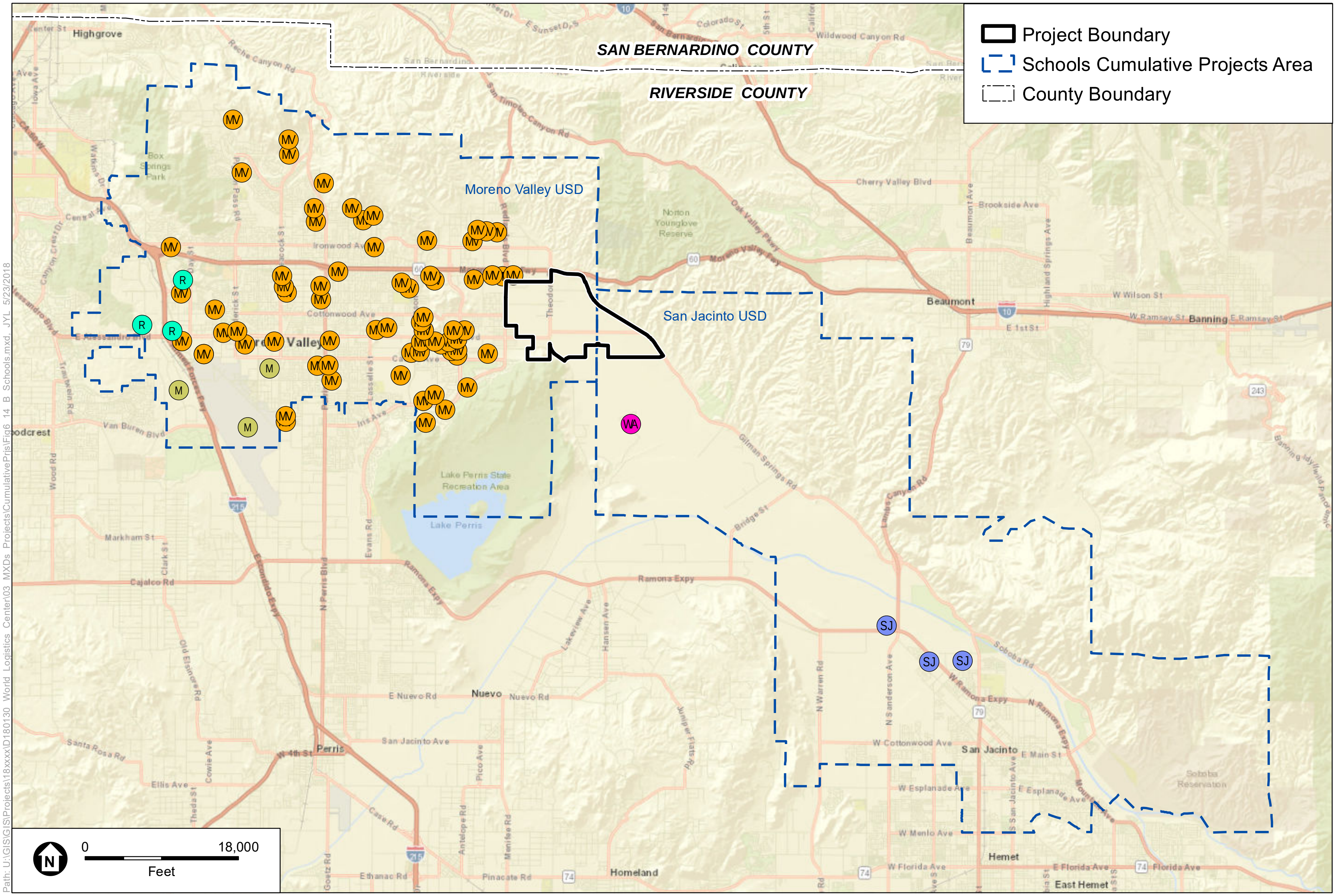

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.14-2
Schools Cumulative Projects Area

ESA

Table 6.14-1: Public Services (Police, Fire, and Parks) Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	The Project's development of 2,244,638 square feet of distribution warehouse space would contribute to the cumulative demand on public services (including fire, police schools, parks, and others) due to the increase in residents within the affected service areas.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in business activity within the affected service areas.
MV-7	TR33962 / Pacific Scene Homes	The Project's subdivision of a 20-acre parcel into 31 single family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-8	TR32460 / Sussex Capital	The Project's addition of 57 single family residential units would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas..
MV-9	TR32459 / Sussex Capital	The Project's addition of 11 single-family residential lots on 13 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-10	TR30998 / Pacific Communities	The Project's subdivision of 60 acres into 47 single family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-11	TR30411 / Pacific Communities	The Project's development of 25 single-family homes on 30.02 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-14	TR32548 / Gabel, Cook & Associates	The Project's subdivision of 36.24 acres for residential purposes would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-15	TR32218 / Whitney	The Project's subdivision of 17.25 acres for 63 single-family homes and open space would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-16	TR32284 / 26thCorporation & Granite Capitol	The Project's development of 32 residential lots on 8.77 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-17	TR31590 / Winchester Associates	The Project's subdivision of 30 acres for 96 single family homes would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-18	Convenience Store / Fueling Station	The Project's construction of a fueling station and convenience store would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in customer circulation within affected service areas.
MV-19	Senior Assisted Living	The Project's building of a 139-unit senior assisted living facility would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-20	Moreno Marketplace	The Project's development of 95,905 square foot retail center would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-21	PEN16-0053 Medical Center	The Project's development of a medical complex on 18.38 acres would contribute to the cumulative demand on public services (including fire, police schools, parks, and others) due to the increase in residents within the affected service areas.
MV-22	TR36882 (PA15-0010) SFR	The Project's subdivision of 9.4 acres into 40 residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-24	TM 36436 (PA12-0005)	The Project's subdivision of 43.52 acres into 159 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-25	TR32142	The Project's development of 172 multi-family residences on 19.3 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-27	TR32917 / Empire land	The Project's development of 227 condominiums on 17.9 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-28	TR34329 / Granite Capitol	The Project's development of 90 condominiums on 10.41 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-29	TR36340	The Project's development of 276 condominiums on 32 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-30	PA03-0168 TR 31517	The Project's development of 83 single-family residential lots on 31.71 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-32	TTM 31592 (P13-078) SFR	The Project's development of 115 single-family homes would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-33	TR32645 / Winchester Associates	The Project's subdivision of 18.48 acres into 53 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-34	TR34397 / Winchester Associates	The Project's subdivision of 19 acres into 50 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-35	TR31771 / Sanchez	The Project's subdivision of 9.34 acres into 25 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-36	TM 31618 (PA03-0106)	The Project's subdivision of 18.99 acres into 56 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-37	Vogel /PA09-004	The Project's development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	The Project's development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-41	First Nandina Logistics Center	The Project's development of 1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of distribution warehouse would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-42	Indian Street Commerce Center	The Project's development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-43	Ivan Devries / PA06-0017	The Project’s development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-44	Modular Logistics Center (Kearny RE Co)	The Project’s development of 1,109,378 of office space 50.84 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-45	Iris Plaza	The construction of a 109,289 square foot shopping center on 12.4 acres of land would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-47	PA07-0129 TR 35606 SFR	The Project’s subdivision of a 4.8 acre parcel into 16 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project’s subdivision of a 75.05-acre property into four parcels with business center land uses would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	The Project’s development of a 1,560,046 square foot warehouse would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-50	San Michele Industrial Center, (Industrial Area SP)	The Project’s development of a 414,533 square foot warehouse on a 17.17 acre-site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-51	Nandina Distribution Center IDS	The Project’s development of a 770,867 industrial building on a 38 acre-site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-52	First Industrial III & IV, (Industrial Area SP)	The Project’s development of a 880,000 square foot warehouse would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-53	I-215 Logistics Center (Amazon)	The Project’s development of a 1,705,000 square foot distribution warehouse would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-54	Moreno Valley Logistics Center (Prologis)	The Project’s development of a 1,736,180 square foot logistics center would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-56	Tract Map 33810	The Project’s subdivision of 4.62 acres into 16 lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-57	Tract Map 34151	The Project’s subdivision of 8.95 acres into 37 single-family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-58	Tract Map 33024	The Project’s subdivision of 2.17 acres into 8 single-family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-59	Tract Map 31442	The Project’s subdivision of 15.8 acres into 63 single-family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-60	Tract Map 36401	The Project's development of 216 dwelling units on a 19.4 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-61	Walmart & Gas Station	The Project's development of a 193,000 square-feet of retail/commercial uses on a 22.28-acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-63	PA14-0053 (TTM 36760) Legacy Park	The Project's subdivision of 53 acres into 221 single family residential lots would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-65	TR33607 / TL Group	The Project's construction of 52 condominiums on 4.28 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-66	TR34988 / Stratus Properties	The Project's construction of 271 dwelling units on 3.75 acres of outdoor recreation area would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-67	TR32515	The Project's construction of 174 senior single-family residential lots would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-68	PA07-0035	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-69	PA07-0039, (Industrial Area SP)	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-75	Aqua Bella Specific Plan	The Project's construction of 2,922 adult community dwelling units on 685 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-78	Overton Moore Properties PA08-0072	The Project's development of a 522,772 square foot industrial warehouse building on 25.96 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-79	Shaw Development	The Project's development of a 366,698 square foot industrial warehouse building on 25.96 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-80	PA15-0032 MV Cactus Center	The Project's development of 39,950 square feet of warehouse buildings, and mixed retail uses on 6.3 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	The Project's development of a 353,859 square foot of warehouse on 16.55 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-84	PA16-0075 Brodiaea Business Center	The Project's development of 8 industrial buildings on 126 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	The Project's subdivision of 16.9 acres into 6 pads for commercial retail use would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-86	TR32505 / DR Horton	The Project's subdivision of 18.66 acres into 72 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-88	TR33771 / Creative Design Associates	The Project's construction of 12 condominiums on 0.9 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-89	TR35663 / Kha	The Project's development of mixed use on approximately 2.2 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-91	TR31305 / Richmond American	The Project's subdivision of 22.9 acres into 87 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-92	TR 33256	The Project's subdivision of 28.6 acres into 99 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-93	PA14-0042 Edgemont Apartments	The Project's development of 112 apartment units on approximately 5.89 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-94	PA15-0002 Box Springs Apartments	The Project's development of 266 apartment units on approximately 12 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-95	Moreno Beach Marketplace / Lowes	The Project's development of retail space on 14.2 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-96	31394 Pigeon Pass, Ltd.	The Project's subdivision of 46 acres into 78 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-97	32005 Red Hill Village, LLC	The Project’s development of 214 clustered and single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-98	33388 SCH Development, LLC	The Project’s subdivision of 19.5 acres into 16 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-100	32215 Winchester Associates "Scottish Village"	The Project’s development of 194 clustered and single-family residential lots on 26.12-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-103	Gateway Business Park	The Project’s development of a business park on 25.3 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-106	35304 Jimmy Lee	The Project’s development of 15 dwelling units on 0.9-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-110	TM 33417	The Project’s development of 15 dwelling units on 0.9-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-111	35769 Michael Chen	The Project’s development of 16 condo units on 1.21-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-112	PA09-0006 Jim Nydam	The Project’s development of 15 affordable housing units on 1.57-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-113	Ironwood Residential	The Project's subdivision of 75 acres into 101 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-114	Stoneridge Town Centre - Vacant Restaurant	The Project's subdivision of 75 acres into 101 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-116	31621 Peter Sanchez	The Project's development of 563,328 square feet of commercial use on 55.45 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-117	Riverside County Office Building	The Project's development of 52,250 square feet of office building use on 5.8 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	The Project's subdivision of 75 acres into 101 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-119	32126 Salvador Torres	The Project's subdivision of 9 acres into 35 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
SJWA-1	San Jacinto Wildlife Land Management Plan	The Project's development of a land management plan would contribute to the cumulative demand for police and fire protection due to the increase in recreational trails and wildfire management activities.

Table 6.14-2: Public Services (Schools) Cumulative Projects Summary

Project ID	Project Name	Type of Environmental Document
MV-3	ProLogis	EIR
MV-4	Westridge Commerce Center	EIR
MV-7	TR33962 / Pacific Scene Homes	ND
MV-8	TR32460 / Sussex Capital	ND
MV-9	TR32459 / Sussex Capital	ND
MV-10	TR30998 / Pacific Communities	ND
MV-11	TR30411 / Pacific Communities	ND
MV-14	TR32548 / Gabel, Cook & Associates	ND
MV-15	TR32218 / Whitney	ND
MV-16	TR32284 / 26thCorporation & Granite Capitol	ND
MV-17	TR31590 / Winchester Associates	ND
MV-18	Convenience Store / Fueling Station	ND
MV-19	Senior Assisted Living	ND
MV-20	Moreno Marketplace	ND
MV-21	PEN16-0053 Medical Center	MND
MV-22	TR36882 (PA15-0010) SFR	MND
MV-24	TM 36436 (PA12-0005)	MND
MV-25	TR32142	ND
MV-27	TR32917 / Empire land	ND
MV-28	TR34329 / Granite Capitol	ND
MV-29	TR36340	ND
MV-30	PA03-0168 TR 31517	ND
MV-32	TTM 31592 (P13-078) SFR	ND
MV-33	TR32645 / Winchester Associates	ND
MV-34	TR34397 / Winchester Associates	ND
MV-35	TR31771 / Sanchez	ND
MV-36	TM 31618 (PA03-0106)	EIR
MV-37	Vogel /PA09-004	EIR
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	EIR
MV-41	First Nandina Logistics Center	EIR
MV-42	Indian Street Commerce Center	EIR
MV-43	Ivan Devries / PA06-0017	ND
MV-44	Modular Logistics Center (Kearny RE Co)	EIR
MV-45	Iris Plaza	IS
MV-47	PA07-0129 TR 35606 SFR	EXEMPT
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	EIR
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	MND
MV-50	San Michele Industrial Center, (Industrial Area SP)	ND

Project ID	Project Name	Type of Environmental Document
MV-51	Nandina Distribution Center IDS	MND
MV-52	First Industrial III & IV, (Industrial Area SP)	MND
MV-53	I-215 Logistics Center (Amazon)	MND
MV-54	Moreno Valley Logistics Center (Prologis)	EIR
MV-56	Tract Map 33810	EXEMPT
MV-57	Tract Map 34151	ND
MV-58	Tract Map 33024	ND
MV-59	Tract Map 31442	ND
MV-60	Tract Map 36401	MND
MV-61	Walmart & Gas Station	EIR
MV-63	PA14-0053 (TTM 36760) Legacy Park	MND
MV-65	TR33607 / TL Group	ND
MV-66	TR34988 / Stratus Properties	ND
MV-67	TR32515	ND
MV-68	PA07-0035	ND
MV-69	PA07-0039, (Industrial Area SP)	ND
MV-75	Aqua Bella Specific Plan	EIR
MV-78	Overton Moore Properties PA08-0072	MND
MV-79	Shaw Development	MND
MV-80	PA15-0032 MV Cactus Center	MND
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	ND
MV-84	PA16-0075 Brodiaea Business Center	ND
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	ND
MV-86	TR32505 / DR Horton	ND
MV-88	TR33771 / Creative Design Associates	EXEMPT
MV-89	TR35663 / Kha	EXEMPT
MV-91	TR31305 / Richmond American	ND
MV-92	TR 33256	ND
MV-93	PA14-0042 Edgemont Apartments	EIR
MV-94	PA15-0002 Box Springs Apartments	MND
MV-95	Moreno Beach Marketplace / Lowes	MND
MV-96	31394 Pigeon Pass, Ltd.	ND
MV-97	32005 Red Hill Village, LLC	ND
MV-98	33388 SCH Development, LLC	ND
MV-100	32215 Winchester Associates "Scottish Village"	ND
MV-103	Gateway Business Park	MND
MV-106	35304 Jimmy Lee	ND
MV-110	TM 33417	ND
MV-111	35769 Michael Chen	EXEMPT

Project ID	Project Name	Type of Environmental Document
MV-112	PA09-0006 Jim Nydam	EXEMPT
MV-113	Ironwood Residential	MND
MV-114	Stoneridge Town Centre - Vacant Restaurant	ND
MV-116	31621 Peter Sanchez	ND
MV-117	Riverside County Office Building	ND
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	ND
MV-119	32126 Salvador Torres	ND
R-2	Alessandro Business Center (Western Realco)	The Project's development of 662,018 square feet of industrial warehouse space could contribute to the cumulative demand on schools if employees relocated to the area with school aged children.
R-5	Canyon Springs Healthcare Campus Specific Plan	The Project's development of a healthcare campus on 50.85 acres would contribute to the cumulative demand on schools due to potential population growth as a result of 2,450 new permanent jobs.
M-2	Meridian Business Park Phases I and II	The Project's development of a 130 acre business park would contribute to the cumulative demand on schools due to potential population growth from the addition of new jobs.
M-8	March LifeCare Campus Specific Plan	The development of a medical campus on approximately 236 acres would contribute to the cumulative demand on schools due to potential population growth from the addition of new jobs.
M-9	TM 34748	The Project's subdivision of 40 acres into 135 single-family residential lots would contribute to the cumulative demand on schools due to the increase of residents within the school district.

6.14.3 Cumulative Impact Evaluation

6.14.3.1 Police Protection

6.14.3.1.1 New or Altered Law Enforcement Facilities

Impact: *The project's contribution to significant environmental effects from new or altered law enforcement facilities would be less than cumulatively considerable.*

Threshold:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services?

Cumulative Impact Analysis

The cumulative impact geographic area for police protection services is the City of Moreno Valley. Police protection services for the City, including the project and cumulative development, is provided by the City of Moreno Valley Police Department (MVPD), which contracts police services from the Riverside County Sheriff's Department (RCSD). As such, the City has access to all of the RCSD services which include dispatch, a specials weapons and tactics (SWAT) team, a bomb squad, a dive team, off-highway enforcement team, and a helicopter.

In general, impacts to the MVPD services and facilities during the construction of cumulative development would be addressed as part of each cumulative project's development review process conducted by the City. During construction of cumulative development, equipment and building materials could be temporarily stored on the cumulative project sites, which could result in theft, graffiti, and vandalism. Many cumulative project sites are located in areas of moderate to high vehicular activity from nearby streets. In addition, the construction sites of the cumulative projects would be fenced along the perimeters, when applicable, with the height and fence materials subject to review and approval by the City. Temporary lane closures may be required for right-of-way frontage improvements and utility construction. However, these closures would be temporary in nature and in the event of partial lane closures, both directions of travel on area roadways and access to the cumulative project sites would be maintained. Due to their proximity to the project site, should project construction occur concurrently with the construction of cumulative projects MV-4, MV-5, MV-6, and MV-126, coordination with these construction sites would be implemented through each cumulative project's respective construction traffic management plan, if applicable, which would ensure emergency access and traffic flow are maintained on adjacent right-of-ways. In addition, construction-related traffic generated by the cumulative development would not significantly impact the MVPD responses within the vicinities of the cumulative projects as emergency vehicles normally have a variety of options for avoiding traffic, such using sirens to clear a path of travel or driving in the lanes of opposing traffic.

According to the MVPD, there are no planned improvements for the MVPD facilities.[1],[2] If expanded police facilities were determined warranted by the MVPD, and were foreseeable, the impacts of the construction and operation of such a station would be analyzed at that time under CEQA as a project independent of the cumulative development. Moreover, the expansion of any police station would likely be on an infill lot potentially less than an acre in size. Generally, development associated with typical police stations is unlikely to result in significant unavoidable impacts, and projects involving the construction or expansion of a police station are typically anticipated to be addressed pursuant to CEQA through the use of a Class 32 categorical infill exemptions (CEQA Guidelines 15332) or (mitigated) negative declarations since they are likely relatively small structures on infill parcels. Accordingly, the

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[1] Deputy M. Reilly #4695, Community Services Unit, Moreno Valley Police Department, letter correspondence for the Ironwood Residential Project, dated June 7, 2016. Ironwood Residential Project Final Initial Study/Mitigated Negative Declaration, prepared by ESA, dated February 2017.

[2] Ibid.

need for additional police protection services as part of an unplanned or expanded police station at this time is not an environmental impact of a project or one that a project is required to mitigated.[3]

It is expected that the cumulative projects (particularly those of a larger nature) would be subject to discretionary review by the MVPD on a project-by-project basis to ensure that sufficient security measures are implemented to reduce potential impacts to police protection services. Many of the cumulative projects would also be expected, when applicable, to provide on-site security, personnel and/or design features for their residents and patrons per standard development practices for the given uses. Further, the City would collect development impact fees from the cumulative projects that would be used to fund the MVPD expenditures as necessary to offset any cumulative incremental impact from each cumulative project on police protection services. The protection of public safety is the first responsibility of local government, and local officials have an obligation to give priority to the provision of adequate public safety services, which are typically financed through the City general funds.

With regard to emergency response times, cumulative projects would introduce new uses which would generate additional traffic in the vicinity of the cumulative development. Traffic from the cumulative development could have the potential to affect emergency vehicle response times to the cumulative project sites and surrounding properties due to travel time delays caused by the additional traffic. Emergency vehicles would access the cumulative project sites directly from the surrounding roadways. The drivers of emergency vehicles have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. As such, emergency access to the vicinity of cumulative development would be maintained at all times, and the increase in cumulative traffic generated by cumulative development would not significantly impact emergency vehicle response times. Further, consistent with the *City of Hayward v. Trustees of California State University*,[4] significant impacts under CEQA consist of adverse changes in any of the physical conditions within the area a project, and potential impacts on emergency response times are not an environmental impact that CEQA requires a project to mitigate.

The project is located in an area of high vehicular activity and would provide construction fencing and private security during construction. As such, the project would not cause a significant impact to police protection services during construction. Therefore, the project’s contribution to cumulative impacts during construction on the MVPD’s emergency response would not be cumulatively considerable.

The project would be designed and operated per applicable standards required by the City for new development in regard to public safety. The project would be required to pay the applicable development impact fees to the City. Similar to cumulative development, the drivers of emergency vehicles would have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. Therefore, the project’s contribution to cumulative impacts to MVPD facilities would not be cumulatively considerable.

Based on the above considerations, the project would result in a less than cumulatively considerable contribution to the need for the construction of new, or expanded police facilities and, as such, cumulative impacts on police protection services would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

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[3] Court of Appeal of the State of California, First Appellate District, Division Three, Filed 11/30/15; City of Hayward v. Board of Trustees (Alameda County Superior Court No. RG09480852); Hayward Planning Association et al., v. Board of Trustees of the California State University, http://law.justia.com/cases/california/court-of-appeal/2015/a131412a.html, accessed April 2018.

[4] Court of Appeal of the State of California, First Appellate District, Division Three, Filed 11/30/15; City of Hayward v. Board of Trustees (Alameda County Superior Court No. RG09480852); Hayward Planning Association et al., v. Board of Trustees of the California State University, http://law.justia.com/cases/california/court-of-appeal/2015/a131412a.html, accessed April 2018.

Significance Level After Mitigation: Less than significant impact.

6.14.3.2 Fire Protection

6.14.3.2.1 New or Altered Fire-Fighting Facilities

Impact:	*The project's contribution to significant environmental effects from new or altered fire-fighting facilities would be less than cumulatively considerable.*
Threshold:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire-fighting facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire services?

Cumulative Impact Analysis

The cumulative impact geographic area for fire protection is the City of Moreno Valley. Fire protection for the City, including the project and cumulative development, is provided by the City of Moreno Valley Fire Department (MVFD), which contracts with the Riverside County Fire Department (RCFD).

In general, impacts to the MVFD services and facilities during the construction of cumulative development would be addressed as part of each cumulative project's development review process conducted by the City. Construction activities associated with cumulative development may temporarily increase the demand for fire protection and emergency medical services, and may cause the occasional exposure of combustible materials, such as wood, plastics, sawdust, covering and coatings, to heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings. However, in compliance with the requirements of the California Occupational Safety and Health Administration (OSHA), all construction managers and personnel of cumulative development would be trained in fire prevention and emergency response. Further, fire suppression equipment specific to construction of the cumulative development would be maintained on the cumulative project sites. As applicable, all cumulative construction activities would be required to comply with the 2013 California Building Code (CBC); the 2013 California Fire Code (CFD); and the City's Fire Code.

Construction activities may involve temporary lane closures of right-of-way frontage improvements and utility construction. However, these closures would be temporary in nature and in the event of partial lane closures, both directions of travel on area roadways and access to the cumulative project sites would be maintained. Due to their proximity to the project site, should project construction occur concurrently with the construction of cumulative projects MV-4, MV-5, MV-6, and MV-126, coordination with these construction sites would be implemented through each cumulative project's respective construction traffic management plan, if applicable, which would ensure emergency access and traffic flow are maintained on adjacent right-of-ways. In addition, construction-related traffic generated by the cumulative development would not significantly impact MVFD response within the vicinities of the cumulative projects as emergency vehicles normally have a variety of options for avoiding traffic, such using sirens to clear a path of travel or driving in the lanes of opposing traffic.

During operation, although the cumulative demand on MVFD services would increase, cumulative impacts on fire protection and emergency medical services would be reduced through each cumulative project's regulatory compliance and site-specific design and safety features. Each cumulative project would be subject to the required review by the MVFD for compliance with Fire Code and Building Code regulations related to emergency response, emergency access, fire flow, and fire safety that would reduce potential cumulative impacts to fire protection and emergency services. Further, the City would collect development impact fees from cumulative projects that would be used to fund MVFD expenditures as necessary to offset any cumulative incremental impact from each cumulative project on fire protection services. The protection of public safety is the first responsibility of local government, and local officials have an obligation to give priority to the provision of adequate public safety services, which are typically financed through the City general funds.

With regard to emergency response times, cumulative projects would introduce new uses which would generate additional traffic in the vicinity of the cumulative development. Traffic from the cumulative development could have the potential to affect emergency vehicle response times to the cumulative project sites and surrounding properties due to travel time delays caused by the additional traffic. The drivers of emergency vehicles have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. As such, emergency access would be maintained at all times, and the increase in cumulative traffic generated by cumulative development would not significantly impact emergency vehicle response times to the affected areas. Further, consistent with the *City of Hayward v. Trustees of California State University*,[5] significant impacts under CEQA consist of adverse changes in any of the physical conditions within the area a project, and potential impacts on emergency response times are not an environmental impact that CEQA requires a project to mitigate.

Cumulative project sites which are located in Very High Fire Severity Zone (VHFSZ) and susceptible to wildland fire hazards would adhere to the special construction features set forth in Chapter 7A of the CBC. Further, any significant risk of loss, injury, or death involving wildland fires, would be minimized to the maximum extent feasible through implementation of cumulative project-specific fuel modification plans, if applicable, that would be subject to review and approval by the MVFD.

In compliance with OSHA, the project would require all construction managers and personnel to be trained in fire prevention and emergency response. Fire suppression equipment would be maintained onsite and all construction activities would comply with the 2013 CBC, 2013 CFD, and the City's Fire Code. Therefore, the project's contribution to cumulative impacts during construction on MVFD's emergency response would not be cumulatively considerable.

The project would be subject to the required review of the MVFD for compliance with the Fire Code and Building Code regulations related to emergency response, emergency access, fire flow, and fire safety that would reduce potential impacts to fire protection and emergency services. The project includes a future 1.5-acre urban fire station within its boundaries to be dedicated to the City to help offset increased fire service needs. The new fire station will be located at the north end of Planning Area 11 and is required to be built during Phase I. Placement of the new fire station is subject to review and approval by the Fire Chief. As portions of the project site are located within a State-designated VHFSZ, the project would comply with Chapter 7A of the CBC. Further, the project would be required to pay the applicable development impact fees to the City. Compliance with payment of fees could further offset the cumulative impact from the cumulative projects on the project's proposed fire station. Therefore, the project's contribution to cumulative impacts to MVPD facilities would not be cumulatively considerable.

Based on the above considerations, the project would result in a less than cumulatively considerable contribution to the need for the construction of new, or expanded fire facilities and, as such, cumulative impacts on fire protection services would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

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[5] Court of Appeal of the State of California, First Appellate District, Division Three, Filed 11/30/15; City of Hayward v. Board of Trustees (Alameda County Superior Court No. RG09480852); Hayward Planning Association et al., v. Board of Trustees of the California State University, http://law.justia.com/cases/california/court-of-appeal/2015/a131412a.html, accessed April 2018.

6.14.3.3 Schools

6.14.3.3.1 New or Altered School Facilities

Impact: *The project's contribution to significant environmental effects from new or altered school facilities would be less than cumulatively considerable.*

Threshold:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Cumulative Impact Analysis

The project and cumulative development would be served by the MVUSD and SJUSD. The MVUSD includes 23 elementary schools, 6 middle schools, 5 high schools, and 9 specialized schools. The SJUSD includes 1 preschool, 7 elementary schools, 2 middle schools, 2 high schools, and 2 specialized schools.

Construction of the cumulative development would require the participation of construction employees who would be hired from a mobile regional construction work force that moves from project to project. Typically, construction workers pass through various development projects on an intermittent bass as their particular trades are required. Given the mobility and short durations of work at a particular site, and a large construction labor pool that can be drawn upon in the region, construction employees would not be expected to relocate their residences within this region or move from other regions as a result of their work on the cumulative development. Accordingly, construction of cumulative development is not anticipated to generate new students needing to attend local schools within the MVUSD or SJUSD.

The MVUSD and SJUSD monitors enrollment numbers at all schools within their districts. Seating shortages can be addressed through changes in attendance boundaries and new/expanded school facilities. Nonetheless, cumulative development is expected to generate students that would attend local schools within the MVUSD and SJUSD. As such, this cumulative development could require new or expanded school facilities. The cumulative projects would be required to pay development fees for schools to the MVUSD or SJUSD prior to the issuance of grading permits pursuant to SB 50. Pursuant to Government Code Section 65995, the payment of developer fees would be considered full and complete mitigation of schools impacts by cumulative development.

Construction of the project is not anticipated to generate new students needing to attend local school within the MVUSD or SJUSD. The project does not include residential uses but is expected to generate approximately 15,000 to 25,000 new jobs in the City. According to Section 4.14.3.5 of the FEIR, it is speculative to estimate how many workers would actually live within the City and how many would commute from the surrounding area. Although the exact number is speculative, any increase is not expected to be substantial and would not generate significant new demands related to the need for new or altered schools. Further, the project would be required to pay development fees pursuant to SB 50. Therefore, the project's contribution to cumulative impacts to school facilities would be less than cumulatively considerable.

Based on the above considerations, the project would result in a less than cumulatively considerable contribution to the need for the construction of new, or expanded school facilities and, as such, cumulative impacts on schools would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.14.3.4 Parks Recreation, and Trails

6.14.3.4.1 Deterioration of Existing Park, Recreation and Trail Facilities

Impact: *The project's contribution to the deterioration of existing park, recreation and trail facilities would be less than cumulatively considerable.*

Threshold:	Would the project result in increased use of existing neighborhood and regional parks or other recreational facilities (e.g., trails) where substantial physical deterioration would occur or be accelerated?

Cumulative Impact Analysis

The cumulative impact geographic area for parks, recreation, and trails is the City of Moreno Valley. The City maintains over 358 acres of parks and park facilities and approximately 10 miles of trails. This includes 39 parks and facilities including senior recreation centers and conference centers as well as 20 lighted sports fields.

Most park visits originate from residential uses. Typically, employees are engaged in their work during the day and do not contribute substantial demand for parks. If employees use the parks, such usage would occur during the week rather the weekend. Construction workers may visit a park to eat lunch or for recreation after a day of work. Cumulative development would increase the residential and visitor population which could create new demand on parks and recreation space in the vicinities of the cumulative projects. Some cumulative projects could include recreational facilities and open space features that would serve cumulative project residents and guests and would thereby reduce cumulative demand on public parks. Pursuant to the Quimby Act, the City would require the dedication of land, or the payment of fees for park and/or recreational facilities from the cumulative projects to offset any cumulative incremental impact from each cumulative project on parks, recreation, and trails. Therefore, with the dedication of land, or the payment of development fees, cumulative development would not substantially deteriorate or accelerate the deterioration of recreational facilities or resources.

The project includes the development of a master-planned logistics center; no residential development is proposed. There is a potential for the project to indirectly generate new residents in the City, although predicting the exact number would be too speculative. Trail linkages are provided as part of the project for future linkages to Gilman Springs Road, to the Lake Perris State Recreation Area, and to the San Jacinto Wildlife Area. Future development within the project site will pay the applicable development impact fees for parks or recreational services. Therefore, the project's contribution to cumulative impacts to parks, recreation, and trails would be less than cumulatively considerable.

Based on the above considerations, the project would result in less than cumulatively considerable contribution to increased use of existing neighborhood and regional parks or other recreational facilities where substantial physical deterioration would occur or be accelerated. As such, cumulative impacts on parks, recreation, and trails would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

Impact: *The project's contribution to environmental effects associated with the construction or expansion of recreational facilities would be less than cumulatively considerable.*

Threshold:	Would the project include recreational facilities or require the construction or expansion of recreational facilities that would have an adverse physical effect on the environment.

Cumulative Impact Analysis

Cumulative development could result in the construction or expansion of recreational facilities that could have an adverse physical effect on the environment. However, to offset the cumulative demand on park facilities and services, the project applicants of each residential cumulative project would be responsible for meeting the parkland dedication or fee requirements pursuant to the Quimby Act. Therefore, with the parkland dedication or payment of development fees, cumulative development would not have an adverse physical effect on the environment.

The project does not include the construction or expansion of a recreational facility since it would not create any substantial demands on recreational facilities. Therefore, the project's contribution to cumulative impacts to parks, recreation, and trails would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.15 Traffic and Circulation

Cumulative effects to traffic and circulation are described in this section. The entire revised traffic study is located in Appendix F. A summary of the project's potential impacts to traffic and circulation issues is provided in Section 6.15.1. The cumulative impact geographic area for traffic and circulation issues is provided in Section 6.15.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the traffic and circulation issues are discussed in Section 6.15.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.15.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.15-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to traffic and circulation. These potentially cumulative impacts are documented in the following section.

In 2012 an application was made to the City of Moreno Valley for the World Logistics Center (WLC), a new plan for the area that had been subject to the Moreno Highlands Specific Plan. A notice of preparation for the WLC environmental impact report (EIR) was issued in February 2012. A traffic impact analysis (TIA) was prepared as one of several technical studies in support of the EIR and submitted to the City in September 2014. The full Draft EIR, including traffic sections based on the TIA, was submitted for public comment in February 2013 and was the subject of public hearings held in June 2015. The General Plan Amendment, zoning change, and the WLC Specific Plan, were adopted by the City Council in August 2015 and adopted again through the initiative process in November 2015.

In the time since the 2014 TIA, a number of developments have occurred that affect the forecast of traffic impacts from the WLC. These changes include:

- The most important new development was the completion in October 2016 of *High-Cube Warehouse Vehicle Trip Generation Analysis*, a major trip generation study for high-cube warehouses, the predominant form of land use in the WLC. This study was jointly sponsored by the South Coast Air Quality Management District (SCAQMD) and the National Association of Industrial and Office Properties (NAIOP), and was conducted by the Institute of Transportation Engineers (ITE). The results were incorporated into the 10th edition of ITE's *Trip Generation Manual*.
- This study replaces the multitude of earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the WLC. The 2016 study found that on average, warehouses generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis).

However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed.

- The trip generation rates for other land uses (light logistics, convenience market, etc.) were also updated to those in the 10th edition of ITE's *Trip Generation Manual*.
- The study analysis years were updated so that 2018 is used for Existing Conditions, 2025 is used for Phase 1, and 2040 is used for Cumulative Conditions.
- The assumptions regarding background (i.e. non-WLC) land development have been updated to reflect the Sustainable Community Strategy adopted by SCAG in 2016. The list of reasonably foreseeable projects was also updated to account for projects that have been completed or have dropped out, and for projects that have been added to the pipeline.
- The assumptions regarding changes to the transportation network have been updated to reflect the Regional Transportation Plan adopted by SCAG in 2016. The existing conditions network was also updated to account for projects completed since the base year of the previous TIA (2012).
- New traffic counts were performed for all study intersections and roadway segments, and new data was collected for volumes on the study freeway segments.
- An analysis of the effect of the Project on regional vehicle-miles of travel (VMT) has been added. This analysis was done primarily to provide data needed for the air quality analysis. Readers may be aware that, as a result of Senate Bill 743 (Steinberg, 2013), CEQA analysis of traffic impacts is likely to change at some point in the future from LOS-based to VMT-based. This change will not take effect before January 1st 2020 at the earliest, so the LOS approach that is the primary focus of the current study accords with current state law. The VMT analysis is therefore included in this traffic study for informational purposes only.

  Please note one other change that has no effect on the analysis, which is that Parsons Brinckerhoff Inc. was acquired by WSP USA Inc. So although the company name on the cover of this report is different from that on the previous report, lead traffic engineer and key staff from the previous study also conducted the current study.

6.15.1 Project Impact Findings

The project's effects to traffic and circulation are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.15 of Revised Final Programmatic EIR Sections (RFPEIRS) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit; **Significant and Unavoidable, Section 4.15.6.1.**
- Cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the without project condition. The adopted LOS standards are as follows:
  - Roadway segments and intersections: LOS C; and LOS D as outlined in previously referenced Table 4.15.E. **Significant and Unavoidable, Section 4.15.6.1, Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**

  - Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. **Significant and Unavoidable, Section 4.15.6.1, Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**
  - Freeway mainline: LOS D. **Significant and Unavoidable, Section 4.15.6.1**, **Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.4, Section 4.15.6.5.**
  - Freeway Ramp Merge/Diverge: LOS D. **Significant and Unavoidable, Section 4.15.6.1, Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; **Significant and Unavoidable, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks; **Less than Significant, Section 4.15.5.1.**
- Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); **Less than Significant, Section 4.15.5.2.**
- Result in inadequate emergency access; **Less than Significant, Section 4.15.5.3.**
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. **Less than Significant, Section 4.15.5.4.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to traffic and circulation identified in the FEIR.

6.15.2 Geographic and Temporal Scope

Cumulative impacts to traffic and transportation could result from the project in conjunction with other past, present and future projects located within the 50 ADT cumulative projects impact area. This area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County, and the March JPA. Cumulative projects within the identified overall cumulative project area will be evaluated with the project to determine if any cumulative impact would occur. The geographic area for cumulative transportation and traffic impacts is shown on Figure 6.15-1. The projects located within the cumulative transportation and traffic impact area is listed in Table 6.15-1.

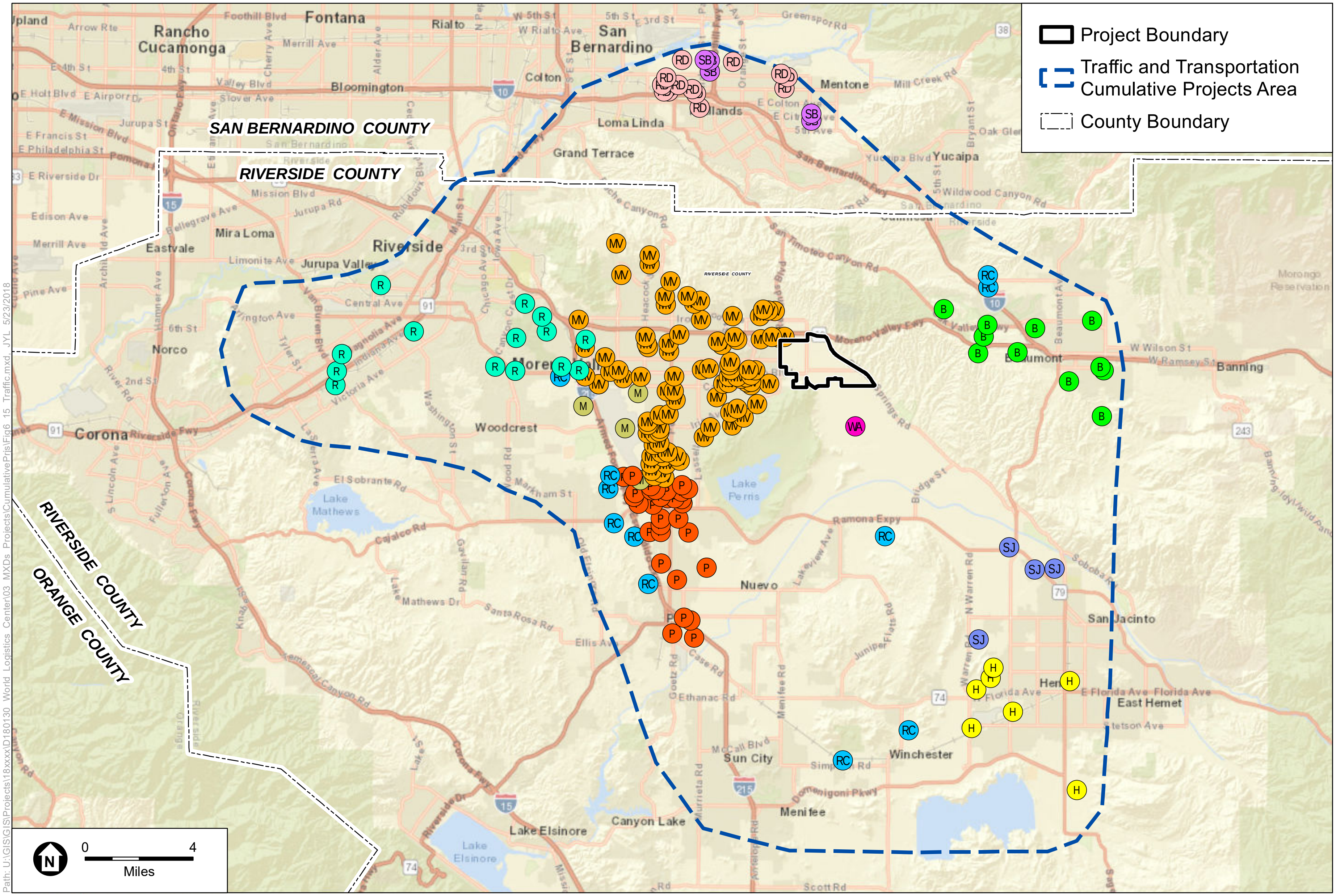

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6_15_Traffic.mxd JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.15-1

Traffic and Transportation Cumulative Projects Area

ESA

Table 6.15-1: Traffic and Circulation Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-2	Tournament Hills 3	No project description available.
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. The project would have a less than significant impact on traffic and circulation with mitigation.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The project would have a significant impact on traffic and circulation.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on traffic and circulation with mitigation.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would have potentially significant impacts on traffic and circulation.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. The project would have a less than significant impact on traffic and circulation.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project would have a potentially significant impact on traffic and circulation.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. No information in document related to traffic and circulation.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. No information in document on level of impact on traffic and circulation after mitigation.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on traffic and circulation.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. No information in provided documentation on impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact on traffic and circulation with mitigation.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR, the project would result in the development of a 130 acre business park. The project would have a significant impact on traffic and circulation.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project would have a significant impact on traffic and circulation.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. The project would have a less than significant impact on traffic and circulation.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on traffic and circulation.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. No information in document on level of impact on traffic and circulation after mitigation.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. The project would have a less than significant impact on traffic and circulation.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. The project would have a less than significant impact on traffic and circulation.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. The project would have a less than significant impact on traffic and circulation.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. The project would have a less than significant impact on traffic and circulation.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. The project would have a less than significant impact on traffic and circulation.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. The project would have a less than significant impact on traffic and circulation.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. The project would have a less than significant impact on traffic and circulation.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. The project would have a less than significant impact on traffic and circulation.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. The project would have a less than significant impact on traffic and circulation.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. The project would have a less than significant impact on traffic and circulation.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project would have no impact on traffic and circulation.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. The project would have a less than significant impact on traffic and circulation.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. The project would have a less than significant impact on traffic and circulation.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. The project would have a less than significant impact on traffic and circulation.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. The project would have a less than significant impact on traffic and circulation.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project would have a less than significant impact on traffic and circulation.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. The project would have a less than significant impact on traffic and circulation.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. No information in document on level of impact on traffic and circulation after mitigation.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. No information in document on level of impact on traffic and circulation after mitigation.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. The project would have a significant, cumulatively considerable impact on traffic and circulation.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project would have a significant impact on traffic and circulation.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project would have a significant impact on traffic and circulation.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. The project would have a less than significant impact on traffic and circulation.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. The project would have a significant impact on traffic and circulation.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project would have a less than significant impact on traffic and circulation.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. The project would have a less than significant impact on traffic and circulation.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project would have a less than significant impact on traffic and circulation.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project would have a less than significant impact on traffic and circulation.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would have a significant impact on traffic and circulation.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. The project would have a less than significant impact on traffic and circulation.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project would have a less than significant impact on traffic and circulation.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. The project would have a less than significant impact on traffic and circulation.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. The project would have a significant impact on traffic and circulation.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. The project would have a less than significant impact on traffic and circulation.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. The project would have a less than significant impact on traffic and circulation.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project would have a less than significant impact on traffic and circulation.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project would have a less than significant impact on traffic and circulation.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project would have a less than significant impact on traffic and circulation.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. The project would have a less than significant impact on traffic and circulation.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. The project would have a less than significant impact on traffic and circulation.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. The project would have a less than significant impact on traffic and circulation.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. The project would have a less than significant impact on traffic and circulation.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. The project would have a less than significant impact on traffic and circulation.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. The project would have a less than significant impact on traffic and circulation.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. The project would have a less than significant impact on traffic and circulation.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. The project would have a less than significant impact on traffic and circulation.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. The project would have a less than significant impact on traffic and circulation.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. The project would have a less than significant impact on traffic and circulation.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project would have a less than significant impact on traffic and circulation.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. Project was exempt from environmental review.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. Project was exempt from environmental review.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. Project was exempt from environmental review.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project would have a less than significant impact on traffic and circulation.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. The project would have a less than significant impact on traffic and circulation.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. The project would have a less than significant impact on traffic and circulation.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. The project would have a less than significant impact on traffic and circulation.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. The project would have a less than significant impact on traffic and circulation.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. The project would have a less than significant impact on traffic and circulation.
P-2	TR34716	Per the City of Perris’ 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a significant, cumulative impact on traffic and circulation.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would have a less than significant impact on traffic and circulation.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project would have a less than significant impact on traffic and circulation with mitigation.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a less than significant impact on traffic and circulation with mitigation.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project would have a less than significant impact on traffic and circulation with mitigation.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would have a less than significant impact on traffic and circulation.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. No information in provided document on impact significance after mitigation incorporated.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. No information in provided document on impact significance after mitigation incorporated. The project would have a less than significant impact on traffic and circulation with mitigation.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have potentially significant impacts on traffic and circulation.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project has mitigation measures in place for traffic and circulation impacts, no information on if impacts are significant after mitigation implemented.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on traffic and circulation.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project would have a less than significant impact on traffic and circulation.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project has mitigation measures in place for traffic and circulation impacts, no information on if impacts are significant after mitigation implemented.

Project ID	Project Name	Environmental Document Summary
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have a less than significant impact on traffic and circulation.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on traffic and circulation.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project would result in significant cumulative traffic and circulation impacts.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project would have significant traffic and circulation impacts related to project-generated traffic and freeway segments.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project would have a less than significant impact on traffic and circulation with mitigation.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. The project would have a less than significant impact on traffic and circulation.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. The project would have a less than significant impact on traffic and circulation with mitigation.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. The project will result in significant impacts to traffic and circulation.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. The project would have a less than significant impact on traffic and circulation with mitigation.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project would have a significant and cumulative impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. The project would have potential significant impacts on traffic and circulation.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project would have significant and cumulative impacts to traffic and circulation.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project would have significant and cumulative impacts to traffic and circulation.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. The project would have less than significant impacts on traffic and circulation.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. The project has mitigation measures in place for traffic and circulation impacts, no information on if impacts are significant after mitigation implemented.

Project ID	Project Name	Environmental Document Summary
RC-12	Cores Industrial Partners	Per Riverside County’s October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. The project would have less than significant impacts on traffic and circulation.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The project would have less than significant impacts on traffic and circulation with mitigation.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project would have a potentially significant impact on cultural resources.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project would have a less than significant impact on traffic and circulation with mitigation.
RC-37	TR36504	Per Riverside County’s IS, the project proposes a Schedule ‘A’ subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. The project would have a less than significant impact on traffic and circulation with mitigation.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project would have significant impacts to traffic and circulation.

Project ID	Project Name	Environmental Document Summary
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally, the Project seeks approval to remove 5 acres from an Agricultural Preserve. The project would have a less than significant impact on traffic and circulation.
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property. The project would have a less than significant impact on traffic and circulation.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. The project would have a less than significant impact on traffic and circulation with mitigation.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces. The project would have a less than significant impact on traffic and circulation.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. The project would have a less than significant impact on traffic and circulation.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres. The project would have a less than significant impact on traffic and circulation.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino’s 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. The project would have a less than significant impact on traffic and circulation.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino’s 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. The project would have a less than significant impact on traffic and circulation.
SB-3	Prologis #12	Per the County of San Bernardino’s 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a “high cube” warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres. The project would have a less than significant impact on traffic and circulation.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. The project would have a less than significant impact on traffic and circulation.
SB-6	Prologis #8	Per the County of San Bernardino’s 2007 IS, the project would result in the construction four industrial buildings to be used a “High Cube” and general warehouse distribution facilities. The project would have a less than significant impact on traffic and circulation.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. The project would have a less than significant impact on traffic and circulation.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project would have a less than significant impact on traffic and circulation with mitigation.

6.15.3 Cumulative Impact Evaluation

Cumulative traffic impacts are evaluated in the revised traffic study contained in Appendix F. Identified cumulative traffic impacts and associated mitigation measures are documented in Chapter 11-F of the traffic study, and in the tables identified below. Please refer to Appendix F for the complete discussion of cumulative traffic impacts, mitigation measures, feasibility and level of significance after mitigation.

6.15.3.1 Air Traffic Patterns

Impact: *The project would not contribute to cumulative changes in air traffic patterns.*

Threshold: Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Cumulative Impact Analysis

The project would not affect air traffic patterns and therefore, would not contribute to any cumulative changes in air traffic patterns.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.2 Design Hazard Features

Impact: *The project would not contribute to the cumulative increases in hazards due to a design feature or incompatible use.*

Threshold: Would the project substantially increase hazards due to a design feature or incompatible use?

Cumulative Impact Analysis

The project roadway system has been designed to conform to all city of Moreno Valley and professional traffic engineering design requirements. The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.3 Emergency Access

Impact: *The project would not contribute to the cumulative inadequate emergency access.*

Threshold: Would the project result in inadequate emergency access?

Cumulative Impact Analysis: The project roadway system has been designed to conform to all city of Moreno Valley and professional traffic engineering design requirements.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.4 Alternative Transportation Policies, Plans, or Programs

Impact: *The project would not contribute to any cumulative conflict with adopted policies, plans, or programs supporting alternative transportation.*

Threshold: Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Cumulative Impact Analysis

The project roadway system has been designed to conform to all city of Moreno Valley and professional traffic engineering design requirements. The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.5 Existing with Phase 1 Conditions Traffic and Level of Service

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Existing with Phase 1 Conditions would be cumulatively considerable.*

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.

– Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section. Please refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impacts for certain facilities

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significance Level After Mitigation: Less than significant impact.

6.15.3.6 Existing with Project (Buildout) Conditions Traffic and Level of Service

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Existing with Project (Buildout) Conditions would be cumulatively considerable.*

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

– Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

– Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.

– Freeway mainline: LOS D.

– Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: **T**he majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section. **P**lease refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures

Significance Level After Mitigation: Less than significant impact.

6.15.3.7 Year 2025 With Phase 1 Conditions Traffic and Level of Service Impacts

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Year 2025 With Phase 1 Conditions would be cumulatively considerable.*

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

– Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section. Please refer to Appendix F and Tables 6.15-1 and 6-15-2 for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significance Level After Mitigation: Less than significant impact.

6.15.3.8 Year 2040 Cumulative with Project Conditions Traffic and Level of Service Impacts

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Year 2040 Cumulative with Project Conditions would be cumulatively considerable.*

Cumulative Impacts to Roadway sections, Intersections and Mitigation Measures are summarized in Tables 6.15-2 and 6.15-3, and in the text following the tables.

Table 6.15-2: Cumulative Impacts to Roadway Sections and Mitigation Measures

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	**F**	**F**	Yes	Widen to 8 lanes	No	**F**	Yes	Yes	N/A**

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

▨ Indicates LOS exceeds the target level

** Not applicable because mitigation is infeasible

Table 6.15-3: Cumulative Intersection Impacts and Mitigation Measures

			2040 No Project			2040 Plus Build-out			2040 No Project			2040 Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1				
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
IN-12	Theodore Street/Ironwood Avenue	D	CSS	25.8	D	CSS	92.9	**F**	CSS	48.0	**E**	CSS	>180	**F**	Signalize.	SIGNAL	10.7	B	10.9	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	29.5	C	SIGNAL	50.4	**D**	SIGNAL	37.1	**D**	SIGNAL	42.6	**D**	Add 1 EB LT lane. Change NB RT to NB Through-RT.	SIGNAL	28.7	C	36.9	D
IN-27	Redlands Blvd/Cactus Ave	C	AWS	32.3	**D**	AWS	>180	**F**	AWS	26.5	**D**	AWS	>180	**F**	Signalize. Add 1 EB LT and 2 WB LT lanes. Add 1 NB LT and 1 SB LT.	SIGNAL	18.0	B	34.5	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	57.5	**E**	SIGNAL	65.8	**E**	SIGNAL	40.4	D	SIGNAL	34.9	C	Change E/W from protected to split phase. Convert WB Through to WB LT-Through.	SIGNAL	26.4	C	25.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	54.2	D	SIGNAL	37.4	D	SIGNAL	81.1	**F**	SIGNAL	96.1	**F**	Add 1 WB RT pocket.	SIGNAL	36.9	D	63.7	E
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	125.7	**F**	CSS	25.2	D	CSS	16.9	C	CSS	30.4	**D**	Signalize. Add 1 WB LT lane.	SIGNAL	7.1	A	14.4	B
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	64.4	**E**	SIGNAL	64.7	**E**	SIGNAL	51.5	D	SIGNAL	40.4	D	Add 1 WB LT and 1 SB LT lane.	SIGNAL	44.7	D	29.0	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	61.9	**E**	SIGNAL	64.4	**E**	SIGNAL	142.6	**F**	SIGNAL	137.9	F	Add 1 WB LT lane (resulting 3 turn lanes), and 1 EB RT Need to widen Lasselle in the SB to have 3 receiving lanes.	SIGNAL	51.8	D	84.6	F
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	87.5	**F**	SIGNAL	78.7	E	SIGNAL	92.0	**F**	SIGNAL	95.3	**F**	Add permissive / overlap phase for EB RT, SB RT, and WB RT.	SIGNAL	58.5	E	71.4	E
IN-52	Kitching St/Cactus Ave	C	SIGNAL	43.9	**D**	SIGNAL	46.7	**D**	SIGNAL	68.5	**E**	SIGNAL	75.7	**E**	Change SB RT Lane to SB Through-RT Lane	SIGNAL	39.5	D	46.2	D
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.8	C	SIGNAL	33.4	C	SIGNAL	52.9	**D**	SIGNAL	72.7	**E**	Add 1 WB LT lane.	SIGNAL	25.5	C	46.4	D
IN-54	Morrison St/Cactus Ave	D	SIGNAL	39.5	D	SIGNAL	49.1	D	SIGNAL	74.8	**E**	SIGNAL	89.9	**F**	Add 1 WB RT pocket with overlap phasing.	SIGNAL	35.4	D	64.0	E
IN-55	Nason St/Cactus Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Convert 1 SB Through-RT to 1 SB RT, and add permissive / overlap phase at SB RT.	SIGNAL	124.6	F	150.3	F
IN-64	Indian St/Cactus Ave	C	SIGNAL	51.1	**D**	SIGNAL	53.0	**D**	SIGNAL	77.9	**E**	SIGNAL	72.5	E	Add 1 NB LT pocket	SIGNAL	50.7	D	59.4	E
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	64.5	**E**	SIGNAL	65.5	**E**	SIGNAL	60.3	**E**	SIGNAL	62.5	**E**	Add 1 EB RT pocket, 1 SB LT pocket, and NB RT overlap phase.	SIGNAL	64.3	E	55.6	E
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	44.3	D	SIGNAL	42.0	D	SIGNAL	90.4	**F**	SIGNAL	93.3	**F**	Add 1 NB LT pocket	SIGNAL	31.4	C	57.0	E
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	152.3	**F**	SIGNAL	156.8	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Change NB approach to one LT and 1 shared LT/RT lane. Change EB approach to two through and 1 RT lane (150 ft storage)	SIGNAL	48.0	D	44.9	D
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	76.2	**E**	SIGNAL	109.8	**F**	SIGNAL	176.6	**F**	SIGNAL	>180	**F**	Change NB approach to one LT and 1 shared through/RT lane and 1 RT lane. Change EB approach to one LT, 2 through, 1 through/RT and 1 RT lane	SIGNAL	33.8	D	39.7	D

			2040 No Project			2040 Plus Build-out			2040 No Project			2040 Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1				
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	>180	**F**	SIGNAL	>180	F	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Add EB LT. Add NB TH lane. Change WB to 2 LT, 3 Th and RT lane (300 ft storage). Change SB to 1 RT (100 ft storage), 2 Th and 1 LT	SIGNAL	174.4	F	183.6	F
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	106.4	**F**	SIGNAL	110.3	**F**	SIGNAL	>180	**F**	SIGNAL	>180	F	Change EB approach to 1 LT, 2 THs and 1 RT. Change SB approach to 2 LTs, 2 THs and 1 RT. Add one WB LT lane. Add one NB LT lane.	SIGNAL	78.4	E	141.7	F
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	49.8	D	SIGNAL	57.2	**E**	SIGNAL	48.2	D	SIGNAL	48.3	D	Change NBR to pm+ov	SIGNAL	19.2	B	38.9	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	79.0	**E**	SIGNAL	77.0	E	SIGNAL	54.2	D	SIGNAL	59.1	**E**	Change EB approach to 1	SIGNAL	70.8	E	46.3	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	F	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage). Add one more EB LT lnae (195 ft storage)	SIGNAL	185.4	F	215.7	F
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	131.5	**F**	SIGNAL	137.1	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Reconfigure SB approach to 1 LT, 3 THs and 1 RT lane.	SIGNAL	119.1	F	209.7	F
IN-101	Ramona Expy/Indian St	E	SIGNAL	137.9	**F**	SIGNAL	160.6	**F**	SIGNAL	159.2	**F**	SIGNAL	163.0	**F**	Add 1 EB RT. Add 2nd NB LT and 1 NB RT. Provide signal phase overlap for all RTs.	SIGNAL	124.2	F	92.0	F
IN-107	Evans Rd/Rider St	C	SIGNAL	68.3	**E**	SIGNAL	68.4	**E**	SIGNAL	39.4	**D**	SIGNAL	34.0	C	Reconfigure SB approach to include 1 LT, 2 THs and 1 RT.	SIGNAL	63.6	E	29.2	C
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	F	Signalize. Change EB to EB LT and RT (100 ft storage)	SIGNAL	17.0	B	91.6	F
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	133.4	F	CSS	>180	**F**	CSS	>180	**F**	Signalize.	SIGNAL	41.7	D	10.7	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	58.9	**E**	SIGNAL	55.1	E	SIGNAL	167.2	**F**	SIGNAL	173.6	**F**	Reconfigure EB approach to 2 LTs, 2 THs and 1 RT. Reconfigure NB approach to 1 LT, 2 THs and 1 RT. change EB & WB lefts to protected.	SIGNAL	63.7	E	105.6	F

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

Cumulative Impacts on Study Intersections and Mitigation Measures

The project's cumulative impacts on study intersections is summarized in Table 6.15.2, and described in detail below:

- **Theodore St./Ironwood Ave. intersection** (IN-12) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Moreno Beach Dr./Cactus Ave. intersection** (IN-25) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a second eastbound left-turn lane and changing a northbound through lane to a shared through-right-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Redlands Blvd./Cactus Ave. intersection** (IN-27) should be signalized and added eastbound and westbound left-turn lanes in the short term (see previous section on direct impacts) and may exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a northbound left-turn lane and a southbound left turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Moreno Beach Dr./John Kennedy Dr.** (IN-28) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the east/west directions from protected to split phase and converting a westbound through lane to a share through-left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Sunnymead Blvd./Perris Blvd.** (IN-32) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Moreno Beach Dr./Locust Ave. intersection** (IN-35) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection and constructing a westbound left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Iris Ave./Perris Blvd. intersection** (IN-39) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a second westbound left-turn lane and a second southbound left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Lasselle St./Iris Ave. intersection** (IN-41) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a third westbound left-turn lane and an eastbound right-turn lane would reduce project impacts to a less-than-significant level. This improvement is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.

- **Nason St/Alessandro Blvd.** (IN-51) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a permissive overlap phase for the eastbound right turn, southbound right turn, and westbound right turn would reduce cumulative impacts to a less-than-significant level. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Kitching St./Cactus Ave.** (IN-52) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the southbound right turn lane into a shared southbound through-right-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Lasselle St./Cactus Ave.** (IN-53) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound left turn lane would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Morrison St./Cactus Ave.** (IN-54) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound right turn lane with overlap phasing would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Nason St./Cactus Ave.** (IN-55) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the southbound shared through-right-turn lane into a right turn lane with overlap phasing would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Indian St./Cactus Ave.** (IN-64) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a northbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Perris Blvd./Cactus Ave.** (IN-65) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding an eastbound right turn lane, a southbound left turn lane, and a northbound right turn overlap phase would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Elsworth St./Alessandro Blvd.** (IN-71) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a northbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Central Ave./Lochmoor Dr. intersection** (IN-75) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Converting the northbound approach to one left-turn lane and a shared left-right-turn lane and changing the eastbound approach to two through lanes and one right turn lane would reduce cumulative impacts to a less-than-significant level.

This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Alessandro Blvd./Mission Grove Pkwy. intersection** (IN-80) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding an eastbound left turn lane and a northbound through lane, and changing the westbound approach to have two left turn lanes, three through lanes, and one right turn lane3, and changing the southbound approach to one right turn, two through, and one left turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Central Ave./Canyon Crest Dr. intersection** (IN-88) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the eastbound approach to one left turn, two through, and one right turn lane, changing the southbound approach to two left turn, two through, and one right turn lane, adding a westbound left-turn lane, and a northbound left-turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Indiana Ave./SR-91 northbound ramps** (IN-91) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the northbound right turn to permissive with an overlap phase would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Horace St./Arlington Ave.** (IN-93) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the eastbound approach to one left, two through, and one right turn lane would reduce cumulative impacts to a less-than-significant level.

This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Victoria Ave. intersection** (IN-94) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the westbound approach to one left, two through, and one right turn lane, and adding an eastbound left turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Alessandro Blvd./Chicago Ave**. **intersection** (IN-95) is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this it already operates at LOS "F" in the PM peak period. Reconfiguring the southbound approach to one left turn, three through, and one right turn would mitigation the Project's cumulative impact but still result in LOS "F" during peak hours. There are established residential communities on each corner that would be impacted by such a widening or by grade separation. These mitigation measures are thus likely to be infeasible, and the project impact at this location is therefore considered to be a significant and unavoidable.

- **Ramona Expwy./Indian St. intersection** (IN-101) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing one eastbound right-turn lane, a second northbound left-turn lane, and one northbound right-turn lane, and modifying the traffic signal to provide overlap phasing for all right-turn movements would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Evans Rd./Rider St. intersection** (IN-107) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Reconfiguring the southbound approach to have one left turn, two through, and one right turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Gilman Springs Rd./Bridge St. intersection** (IN-123) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection and having eastbound left and right turn lanes would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- **SR-79 (Sanderson Ave) SB/Gilman Springs Rd.** (IN-125) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- **W. 6th St./Beaumont Ave. intersection** (IN-130) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Reconfiguring the eastbound approach to two left, two through, and one right turn, and reconfiguring the northbound approach to one left, two through and one right turn, and making the eastbound and westbound left turns protected movements would reduce cumulative impacts to a less-than-significant level.

  There are established commercial buildings on the corners on the northern part of the intersection that would be impacted by such a widening. These mitigation measures are thus infeasible, and the project impact at this location is therefore considered to be significant and unavoidable.

Cumulative Freeway Impacts and Mitigation Measures

The WLC's cumulative impacts on the freeways system are described in detail below:

Cumulative Impacts on Mainline Basic Sections

- **Eastbound SR-60 from Reservoir St. to Ramona Ave.** (F-2) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under 2040 Plus Build-out conditions. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.
  The state freeway system is owned and operated by Caltrans and is thus outside the jurisdiction of the City of Moreno Valley. The City will work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC

The following general mitigation measures apply to the implementation of the above outlined specific mitigation measures:

4.15.7.4A: A traffic impact analysis ("TIA"), conforming to the guidelines for TIAs adopted by the City shall be submitted in conjunction with each Plot Plan application within the WLCSP. Prior to the approval of Plot Plans, the City shall review the Revised TIA to determine if any of the traffic improvements listed in the above tables need to be implemented as part of the plot plan. The TIA prepared for the Revised Sections of the FEIR are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to reimbursement agreement for those costs that exceed the fair share contribution determined for the specific Plot Plan application. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in MM 4.15.7F prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Revised TIA, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

4.15.7.4B: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way, where feasible, consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map. Required dedications shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4C: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the Applicant to construct or to fully fund the transportation measures identified in the development's TIA (see MM4.15.7.4A) as needed to mitigate the transportation impacts within the city of the Plot Plan development. The payment or construction shall be made prior to the issuance of occupancy permits for the requested development. This condition shall apply only to mitigation measures where a mechanism has been established to collect funds from the project and any other funds to needed to complete the improvements.

4.15.7.4D: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Chapter 3.44. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4E: In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the Traffic Impact Analysis, i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to MM Trans-6. As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. Mitigation measures are summarized in Tables 4.15-1 to 4.15-13.

4.15.7.4F: The Applicant shall pay its portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the Project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the WLC project as a whole has a significant impact identified in the Revised Sections of the FEIR) as determined by the Revised Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Revised Sections of the FEIR will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection IN-85) in the City of Riverside was identified as a place where the WLC contributes to cumulatively significant impacts, and where the fair share contribution of the WLC project as a whole was computed to be 0.6%. If the City of Riverside establishes a fair share contribution program consistent with this MM to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million sq. ft. high-cube warehouse in the WLC (approximately 5% of the entire WLC project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due = Total cost of Improvement * Total WLC fair Share (0.6%) as determined by TIA * % attributable to the building that is subject to the certificate of occupancy (5%)

A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire WLC to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with MM 4.15.7.4F.

4.15.7.4G: City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the needs of the City, including improvements identified in this TIA. Toward this end, City shall meet regularly with WRCOG.

Level of Significance after Mitigation: The mitigation measures described above can be usefully grouped into four categories based on who is responsible for the facility, which is the primary determinant of the level of significance after mitigation. The four categories are as follows:

On-Site Improvements – These are changes to the road system within the WLC project site that are being undertaken as part of the WLC project. The developer shall be responsible for constructing the improvements described in the section "Proposed Road Network" in Chapter 4 above in accordance with City standards for roadway construction and the roadway cross-sections in the proposed Specific Plan. Completion of these improvements shall constitute the developer's mitigation of the project's on-site impacts. When these improvements are completed the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

Off-Site Improvements for Non-TUMF Roads Under the Jurisdiction of the City of Moreno Valley - These are improvements to public streets in Moreno Valley that are outside the area covered by the proposed WLC Specific Plan Amendment. The developer shall be responsible for paying the DIF as set forth in Municipal Code Chapter 3.42 which the City shall use to implement the mitigation measures identified in Tables 6.15-1 and 6-15-2. The developer shall also be required to pay its fair share of the improvements to City streets that are not in the DIF program where there are significant project impacts. These payments shall constitute the developer's mitigation of project impacts on this category of roads. When these improvements are completed the project's impacts on the City roadway system will be mitigated to a less-than-significant level.

Off-Site Improvements to TUMF Facilities – These are improvements to roads that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads.

The City shall implement the mitigation measures identified in Tables 6.15-1 and 6.15-2. to TUMF facilities under the City's jurisdiction. When these improvements are completed the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. Thus at this point the project's impacts on these facilities must be considered significant and unavoidable.

Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program – This category includes all of the recommended mitigation measures that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials.

At this time the City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. The City shall therefore work with the City of Redlands and Riverside County to collect funds from the developer and to implement the signalization of the San Timoteo Rd./Alessandro Rd. intersection and the San Timoteo Rd./Live Oak Canyon intersection (respectively). The City shall also work with the City of Riverside to collect a fair-share contribution from the developer to signalize the Martin Luther King Blvd./I-215 northbound ramp intersection. To the extent that the City is able to establish such a mechanism (as described in MM Trans-6) and the other jurisdiction constructs the recommended improvement the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. Thus at this point the project's impacts on these facilities must be considered significant and unavoidable.

Similarly, the City has not entered into an agreement with Caltrans for the collection of developer payments for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified instead, Caltrans has traditionally relied on other means to fund freeway improvements; means involving multiple stages of review and input from other agencies, with priorities and constraints applied at each stage, that preclude a direct connection between developer-provided fair-share funds and specific highway improvements.

Decisions on funding for improvements to the state highway system are made by four bodies, namely[1]:

> Legislature: Establishes overall policies, including determining funding sources and distribution, and spending priorities through state statutes such as Revenue and Taxation Code, Streets and Highways Code, and Government Code. The Legislature appropriates funds through the annual budget for transportation projects and has authority to designate transportation projects statutorily.
>
> California Transportation Commission (CTC): The nine-member CTC, appointed by the Governor, reviews and adopts the state transportation programs and approves projects nominated by Caltrans and regional agencies for funding. The CTC recommends policy and funding priorities to the Legislature and is also responsible for project delivery oversight.
>
> California Department of Transportation (Caltrans): Caltrans owns, operates and maintains the state highway system. Caltrans plans, designs, and nominates interregional capital improvement projects on the state highway system and also manages the intercity rail operation.
>
> Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs): MPOs and RTPAs are responsible for planning, coordinating and administering funds for regional transportation systems. In California, 17 MPOs and 48 RTPAs develop 20-year Regional Transportation Plans (RTPs) as well as 5-year Regional Transportation Improvement Program (RTIP), which identify projects for the regional portion of the State Transportation Improvement Program (STIP). SCAG is the MPO for Riverside County.

Most funds for improvements to the state highway system come through the State Highway Account (SHA), which receives funding from a variety of sources including:

- motor vehicle fuel taxes, part of which goes into the Highway Users Tax Account, a portion of which goes to the SHA and the rest goes to cities and counties according to a statutory formula.
- The fuel tax swap, enacted in 2011 (Fuel Tax Swap Fix), reenacted the provisions of the Fuel Tax Swap of 2010 addressing issues raised by the passage of Propositions 22 and 26. The Fuel Tax Swap eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ (July 2010). The increase in the excise tax would generate revenues equivalent to what would have been collected from the state sales tax on gasoline. These revenues are intended for new road construction (STIP), highway maintenance and operations (SHOPP), and local roadways.

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[1] This information came from *Transportation Funding in California*, Caltrans Economic Analysis Branch, 2011, page 2.

- the federal fuel tax, which goes into the Highway Trust fund for use on the portions of the system that are designated ad federal aid highways.

In addition, local sales tax measures, such as Measure A in Riverside County, and the proceeds of Proposition 1B provide funding for improvements to certain portions of the state highway system.

The key feature of this system pertaining to the recommended freeway mitigation measures is that this system is outside the control of the City of Moreno Valley. The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements (as described in MM Trans-6). However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

– Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

– Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.

- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: Please refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significance Level After Mitigation: Less than significant impact.

6.15.3.9 Freeway Impacts from Truck Trips to the Ports of Los Angeles and Long Beach

Impact: *The project's contribution to freeway impacts from truck trips to the Ports of Los Angeles and Long Beach would be cumulatively considerable.*

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Volumes Along Routes to Ports
- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Volumes Along Routes to Ports: Appendix F, Tables 87-98
- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

  - Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.2.
  - Freeway mainline: LOS D.
  - Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: Please refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significant Level After Mitigation: Less than significant impact.

Mitigation Measure Summary

Based on the analysis described above following Mitigation Measures are required:

6.16 Utilities and Service Systems

Cumulative effects to utilities and service systems are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to utilities and service system issues is provided in Section 6.16.1. The geographic and temporal scopes for utilities and service systems is provided in Section 6.16.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the utilities and service systems issues are discussed in Section 6.16.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.16.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts. The cumulative projects identified in Tables 6.16-1 and 6.16-2, and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact and, if so, whether the project's incremental impact would be cumulatively considerable.

6.16.1 Project Impact Findings

The project's effects to utilities and service systems are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.16 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

6.16.1.1 Water Supply

Would the project:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; **Less than Significant, Section 4.16.1.5.1.**
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements. **Less than Significant with Mitigation, Section 4.16.1.6.1.**
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; **Less than Significant with Mitigation, Section 4.16.1.6.2.**

6.16.1.2 Wastewater

Would the project:

- Exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board; **Less than Significant, Section 4.16.2.5.1.**
- Result in a determination by the wastewater treatment provider, which services or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; **Less than Significant, Section 4.16.2.5.2.**
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. **Less than Significant, Section 4.16.2.5.2.**

6.16.1.3 Solid Waste

Would the project:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; **Less than Significant, Section 4.16.3.5.1.**
- Fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste. **Less than Significant, Section 4.16.3.5.2.**

6.16.2 Geographic and Temporal Scope

The cumulative impact geographic area for utilities and service systems includes the Eastern Municipal Water District (EMWD) and Waste Management Services areas. The geographic area was selected to access the potential impacts to capacity within each service district. Cumulative impacts to utilities and service systems could result from impacts of the project in conjunction with the impacts of other past, present and future projects located within the EMWD and Waste Management service areas. The cumulative projects geographic boundary for Utilities and Service Systems is shown in Figure 6.16-1, Water and Wastewater and Figure 6.16-2B, Solid Waste. The projects located within the utilities and service systems cumulative impact area are listed in Table 6.16-1 and 6.16-2. The project would contribute to cumulative utilities and service system impacts starting with project construction and lasting for the duration of the project.

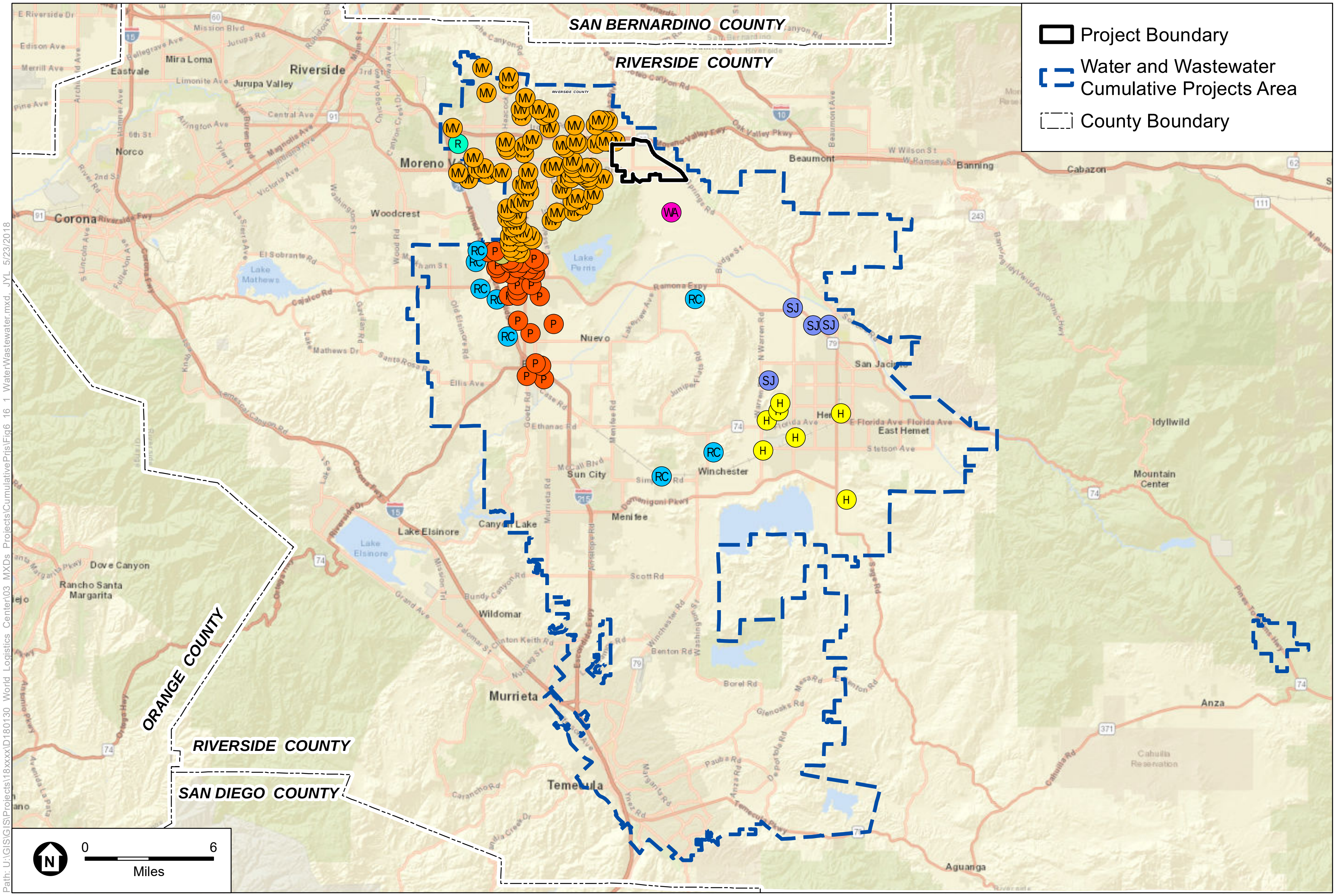

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_16_1_WaterWastewater.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.16-1
Water and Wastewater Cumulative Projects Area

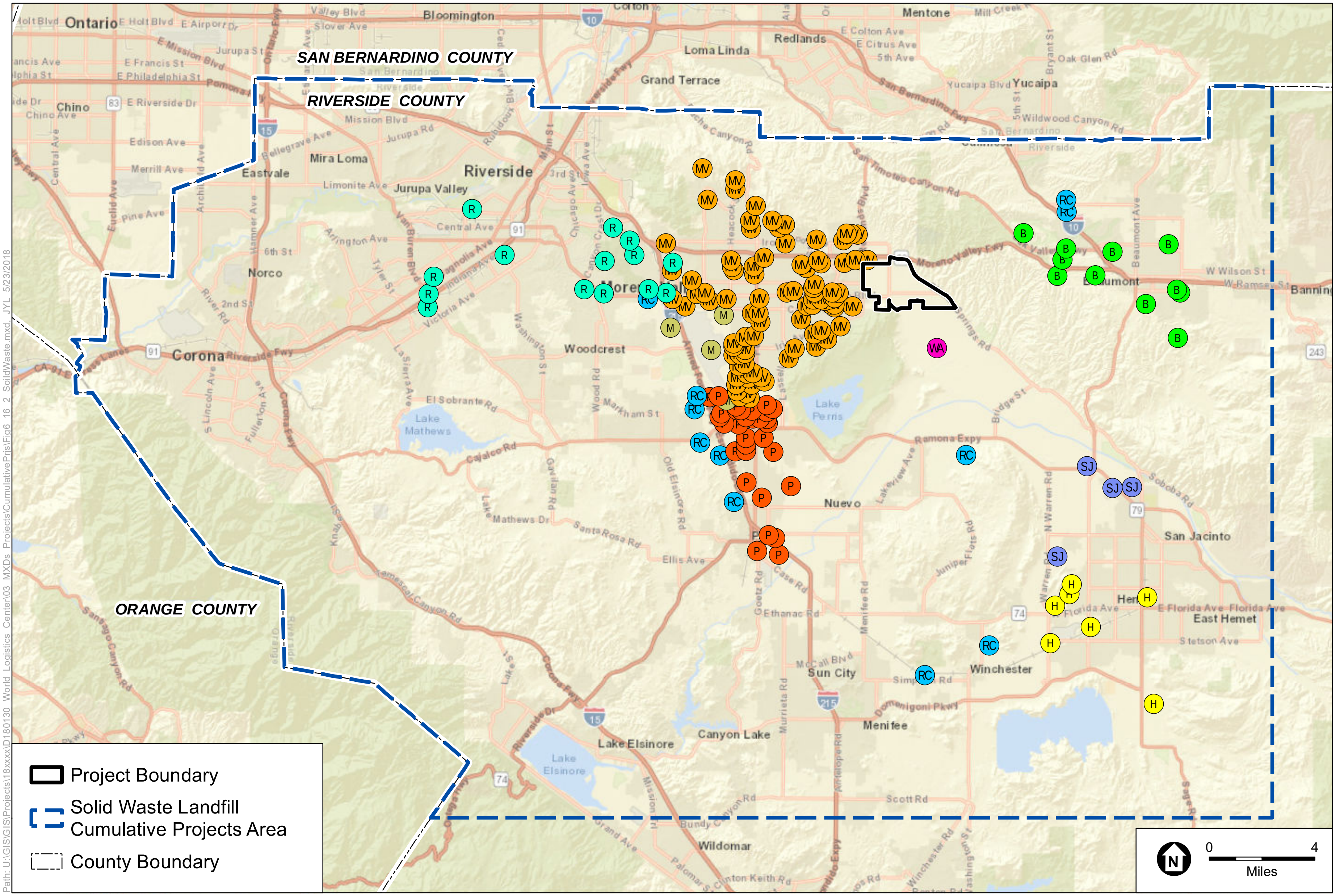

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.16-2
Solid Waste Landfill Cumulative Projects Area

ESA

Table 6.16-1: Water and Wastewater Cumulative Projects Summary

Project ID	Project	Environmental Document Summary
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's 2008 EIR, the Tres Cerritos Specific Plan would result in the development of 787 residential units, park and open space, on 154.7 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. The project requires water and wastewater service which could result in cumulative impacts.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The project requires water and wastewater service which could result in cumulative impacts.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet’s 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. The project requires water and wastewater service which could result in cumulative impacts.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. The project requires water and wastewater service which could result in cumulative impacts.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. The project requires water and wastewater service which could result in cumulative impacts.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres The project requires water and wastewater service which could result in cumulative impacts.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-39	VIP Moreno Valley (Sares Regis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project requires water and wastewater service which could result in cumulative impacts.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. The project requires water and wastewater service which could result in cumulative impacts.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project requires water and wastewater service which could result in cumulative impacts.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. The project requires water and wastewater service which could result in cumulative impacts.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project requires water and wastewater service which could result in cumulative impacts.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project requires water and wastewater service which could result in cumulative impacts.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. The project requires water and wastewater service which could result in cumulative impacts. The project requires water and wastewater service which could result in cumulative impacts. The project requires water and wastewater service which could result in cumulative impacts.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 sq new retail/commercial uses on the approximately 22.28-acre site. The project requires water and wastewater service which could result in cumulative impacts.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. The project requires water and wastewater service which could result in cumulative impacts.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. The project requires water and wastewater service which could result in cumulative impacts.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project requires water and wastewater service which could result in cumulative impacts.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. The project requires water and wastewater service which could result in cumulative impacts.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-88	TR33771 / Creative Design Associates	
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. The project requires water and wastewater service which could result in cumulative impacts.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. The project requires water and wastewater service which could result in cumulative impacts.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project requires water and wastewater service which could result in cumulative impacts.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project requires water and wastewater service which could result in cumulative impacts.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. The project requires water and wastewater service which could result in cumulative impacts.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. The project requires water and wastewater service which could result in cumulative impacts.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. The project requires water and wastewater service which could result in cumulative impacts.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. The project requires water and wastewater service which could result in cumulative impacts.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. The project requires water and wastewater service which could result in cumulative impacts.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. The project requires water and wastewater service which could result in cumulative impacts.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. The project requires water and wastewater service which could result in cumulative impacts.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project requires water and wastewater service which could result in cumulative impacts.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project requires water and wastewater service which could result in cumulative impacts.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project requires water and wastewater service which could result in cumulative impacts.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project requires water and wastewater service which could result in cumulative impacts.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project requires water and wastewater service which could result in cumulative impacts.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project requires water and wastewater service which could result in cumulative impacts.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Fina EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. The project requires water and wastewater service which could result in cumulative impacts.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project requires water and wastewater service which could result in cumulative impacts.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project requires water and wastewater service which could result in cumulative impacts.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project requires water and wastewater service which could result in cumulative impacts.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project requires water and wastewater service which could result in cumulative impacts.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project requires water and wastewater service which could result in cumulative impacts.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. The project requires water and wastewater service which could result in cumulative impacts.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project requires water and wastewater service which could result in cumulative impacts.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project requires water and wastewater service which could result in cumulative impacts.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project requires water and wastewater service which could result in cumulative impacts.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project requires water and wastewater service which could result in cumulative impacts.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres.

Project ID	Project	Environmental Document Summary
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project requires water and wastewater service which could result in cumulative impacts.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project requires water and wastewater service which could result in cumulative impacts.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project requires water and wastewater service which could result in cumulative impacts.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife’s 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project requires water and wastewater service which could result in cumulative impacts.

Table 6.16-2: Solid Waste Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's 2008 EIR , the Tres Cerritos Specific Plan would result in the development of 787 residential units, park and open space, on 154.7 acres.

Project ID	Project Name	Environmental Document Summary
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet’s 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power’s Authority’s draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres.

Project ID	Project Name	Environmental Document Summary
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres.

Project ID	Project Name	Environmental Document Summary
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acre
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres.

Project ID	Project Name	Environmental Document Summary
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots.

Project ID	Project Name	Environmental Document Summary
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone.

Project ID	Project Name	Environmental Document Summary
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision.

Project ID	Project Name	Environmental Document Summary
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf.

Project ID	Project Name	Environmental Document Summary
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Fina EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres.

Project ID	Project Name	Environmental Document Summary
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres.

Project ID	Project Name	Environmental Document Summary
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres.

Project ID	Project Name	Environmental Document Summary
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife’s 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking.

6.16.3 Cumulative Impact Evaluation

6.16.3.1 Water Supply

6.16.3.1.1 Construction of Expansion of Water Treatment Facilities

Impact: *The project’s incremental contribution to environmental effects associated with the construction of new water treatment facilities or expansion of existing facilities would not cause or contribute to a significant cumulative effect.*

Threshold: Would the proposed WLC project require the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Cumulative Impact Analysis

The cumulative impact geographic area for water treatment facilities is the EMWD. Cumulative impacts to water treatment facilities could result from the project in conjunction with other past, present and future projects located within the EMWD resulting in impacts due to construction of water treatment facilities. Water treatment services for the City, including the project site and cumulative project sites, is provided by the EMWD.

According to FEIR Section 4.16, the project would require the construction of new water reservoirs to serve each of three water pressure zones (1967, 1860, and 1764). All three reservoir sites are located outside of the Specific Plan boundary. As development proceeds within the project area, new waterlines, ranging in size from 12 to 24 inches, will be constructed in the existing and future street rights-of-way to connect the future water tanks to the development area. The water system will require a new pump station at the 1764 reservoir and an upgrade to the existing EMWD pump station near Cottonwood Avenue and Redlands Boulevard. All water facilities for the project would be constructed to EMWD standards and would be subject to a Plan of Service approval by EMWD (Specific Plan Section 3.5.1). Potential significant environmental impacts associated with such construction include air quality, traffic, biological resources, cultural resources, noise, hydrology, water quality, and other impacts as identified and analyzed in Chapters 4.0, 5.0 and 6.0 of this FEIR. None of those sections identified construction or operation of the project’s new or expanded water facilities as resulting in significant impacts apart from those already analyzed in this FEIR.

Annually, a 5-year Capital Improvement Plan (CIP) is prepared by the EMWD. The EMWD’s CIP outlines specific projects and their funding sources. Each project is also submitted individually to the Board for authorization and approval. This allows the EMWD to match needed facilities with development trends accurately. Funding for the EMWD’s microfiltration plants, distribution pipes, and the recharge and recovery program is listed in the most recent EMWD CIP. Development and construction of the cumulative scenario would be included in the most recent EMWD CIP. Each applicant also would have to fund the costs of the water-related infrastructure needed to serve a particular site. All new facilities proposed or necessitated by projects in the cumulative scenario would be subject to applicable CEQA review, and would be required to comply with all applicable laws and regulations protecting environmental resources. Cumulative project CEQA documents within the district boundary have been reviewed and the findings have been incorporated into this analysis.

Based on the above considerations, the impacts of the project would not combine with other projects in the cumulative scenario to cause or contribute to a significant cumulative impact. to water treatment facilities.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.2 Adequate Water Supply

Impact:	*The project’s incremental contribution to cumulative demand on water supplies requiring the need for new or expanded entitlements would not cause or contribute to a significant cumulative effect.*
Threshold:	Would the proposed WLC project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Cumulative Impact Analysis

The cumulative impact geographic area for water supply is the EMWD. The project would involve an increase in demand for water supplies. Cumulative projects also could result in potential water supply impacts, and incrementally increase the long-term demand for water service.

The WSA prepared for the project by the EMWD concluded that the water demand for the proposed on-site uses would be approximately 1,991.25 AFY.[1] The EMWD considers this a "worst-case" estimate based on the total acres and amount of square footage of warehousing proposed by the project. Taking into account the proposed water xeriscape landscaping plan, it is likely that actual water use for development within the WLC Specific Plan would be substantially less than the worst-case EMWD estimate. As identified in Table 4.16.A of the FEIR, anticipated water supplies in the EMWD total 213,900 and 302,200 AFY in 2015 and 2035, respectively. The water demand required for the proposed project would total 0.93 and 0.66 percent of the EMWD's 2015 and 2035 supplies under worst-case conditions. The demand estimated for this project is substantially less and therefore still within the limit of growth projected in the 2015 UWMP.

Existing and future development within the EMWD's service area would demand additional quantities of water. The project, along with any projects in the cumulative scenario, would be required to provide availability and commitment letters demonstrating sufficient water resources and access to available water facilities prior to building permit issuance. The 2015 UWMP addresses the water supply sources, projected demand, and supply reliability for Eastern EMWD service area. The 2015 UWMP estimates population within the EMWD service area to increase to 1,111,729 persons by the year 2035. Increases in population, square footage, and intensity of uses would contribute to increases in the overall regional water demand. The anticipated conversion of water-intensive uses (e.g., agriculture) and the implementation of existing water conservation measures and recycling programs would reduce the need for increased water supply. Demand projections for EMWD were developed using information about planned development and land use (UWMP 2015) and would include the water demand for the cumulative projects listed in Table 6.16-1. CEQA documents for projects in the cumulative scenario have been reviewed and the findings have been incorporated into the cumulative impact analysis.

Based on the information provided in the 2015 UWMP, EMWD has the ability to meet current and projected water demand through 2040 during normal, historic single-dry and historic multiple-dry year periods using imported water from MWD with existing supply resources. Planned local supplies will supplement imported supplies and improve reliability for EMWD and the region. In addition, adherence to regulations would ensure that cumulative projects would not result in a demand for water that exceeds existing entitlements and resources, or any new or expanded water-related infrastructure would be funded by the respective applicant. Therefore, projects in the cumulative scenario, together with the project, would not cause significant cumulative impacts associated with adequate water service and supplies.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.3 Storm Water Drainage Requirements

Impact: *The project's incremental contribution to environmental effects from the construction of new storm water drainage facilities or expansion of existing facilities would not cause or contribute to a significant cumulative effect.*

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[1] *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

Threshold:	Would the proposed WLC project result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Cumulative Impact Analysis

The cumulative impact geographic area for storm water drainage facilities is the watershed the project site is located in. The Final EIR, Section 4.16 analyzes the storm water drainage facilities necessary to serve the project site. To reduce flows to below or equal to pre-development conditions, the on-site storm water flows would be routed to a series of on-site detention and infiltration basins[2] by phase before flows are routed off site. While the increase in impervious surfaces attributable to the proposed WLC project would contribute to a greater volume and higher velocity of storm water flows, the proposed WLC project's detention and infiltration basins would accept and accommodate runoff that would result from project construction at pre-project conditions.

Potential significant environmental impacts associated with such construction include air quality, traffic, biological resources, cultural resources, noise, hydrology, water quality, and other impacts as identified and analyzed in Chapters 4.0, 5.0 and 6.0 of this FEIR. None of those sections identified construction or operation of the project's new storm water drainage facilities as resulting in significant impacts apart from those already analyzed in this FEIR. All new storm water drainage facilities proposed or necessitated by cumulative projects would be subject to applicable CEQA review, and would be required to comply with all applicable laws and regulations protecting environmental resources. CEQA documents prepared for projects in the cumulative scenario have been reviewed and the findings have been incorporated into this analysis.

Based on the above considerations, the impacts of the project would not combine with the impacts of other projects in the cumulative scenario to cause or contribute to significant cumulative impacts resulting from construction of storm water drainage facilities. As such, cumulative impacts to storm water drainage facilities would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.4 Wastewater Services

6.16.3.5 Wastewater Treatment Requirements

Impact: *The project's incremental contribution would not cause or contribute to any significant cumulative impact resulting from exceedance of wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board.*

Threshold:	Would the proposed WLC project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Cumulative Impact Analysis

The cumulative area for wastewater-related issues is the MVRWRF service area. Cumulative population increases and development within the area serviced by the MVRWRF would increase the

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[2] A detention basin is an area where excess storm water is stored or held temporarily and then slowly drains when water levels in the receiving channel recede. In essence, the water in a detention basin is temporarily detained until additional room becomes available in the receiving channel.

overall regional demand for wastewater treatment service. The previous treatment capacity at the MVRWRF was 16 mgd. Improvements to this facility have increased capacity at this facility to 21 mgd. Ultimate expansion of this facility is expected to be 41 mgd. The MVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Any proposed changes to capacity of the MVRWRF or any facility maintained by EMWD are reviewed throughout the year. EMWD has a funding and construction mechanism in place that ensures improvements to EMWD facilities occurs in a timely manner. This funding mechanism is referred to as EMWD's Sewer Financial Participation Charge Program. For all new development within the EMWD service area, the Sewer Financial Participation Charge is allocated to assist in the financing of any future collection and disposal facilities and any future sewer treatment plant facilities. Cumulative development would not exceed the capacity of the wastewater treatment system because the MVRWRF would expand as growth occurred. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been incorporated into this analysis.

The proposed project would not require the expansion of existing wastewater infrastructure: only connections to existing infrastructure would be required by the project. By adhering to the wastewater treatment requirements established by the Santa Ana RWQCB through the NPDES permit, wastewater from the project site that is processed through the MVRWRF would meet established standards. As the wastewater from all development within the service area of the MVRWRF would be similarly treated under the NPDES, no cumulatively significant exceedance of wastewater treatment requirements would occur.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.6 Wastewater Treatment Capacity and/or New or Expanded Wastewater Treatment Facilities

Impact: *The project's incremental contribution to impacts on wastewater treatment capacity would not cause or contribute to a significant cumulative effect.*

The project's contribution to environmental effects from the construction of new wastewater treatment facilities or expansion of existing facilities would be less than cumulatively considerable.

Threshold:	Would the proposed WLC project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? Would the proposed WLC project require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Cumulative Impact Analysis

The cumulative area for wastewater-related issues is the MVRWRF service area. Cumulative population increases and development within the area serviced by the MVRWRF would increase the overall regional demand for wastewater treatment service. The previous treatment capacity at the MVRWRF was 16 mgd. Improvements to this facility have increased capacity at this facility to 21 mgd. Ultimate expansion of this facility is expected to be 41 mgd. The MVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Any proposed changes to capacity of the MVRWRF or any facility maintained by EMWD are reviewed throughout the year. EMWD has a funding and construction mechanism in place that ensures improvements to EMWD facilities occurs in a timely manner. This funding mechanism is referred to as EMWD's Sewer Financial Participation Charge Program. For all new development within the EMWD service area, the Sewer Financial Participation Charge is allocated to assist in the financing of any future collection and disposal facilities and any future sewer treatment plant facilities. Cumulative development would not exceed the capacity of the wastewater treatment system because the MVRWRF would expand as growth occurred.

The proposed project would not cause or contribute to a cumulatively significant impact on wastewater infrastructure because the proposed project would not combine with the demands of other projects in the cumulative scenario to require the expansion of existing infrastructure. The project would require only connections to existing infrastructure. Potential significant environmental impacts associated with such construction include air quality, traffic, biological resources, cultural resources, noise, hydrology, water quality, and other impacts as identified and analyzed in Chapters 4.0 and 6.0 of this FEIR. None of those sections identified construction or operation of the project's new or expanded wastewater infrastructure as resulting in significant impacts apart from those already analyzed in this FEIR. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been considered in this analysis.

By adhering to the wastewater treatment requirements established by the Santa Ana RWQCB through the NPDES permit, wastewater from the project site that is processed through the MVRWRF would meet established standards. As the wastewater from all development within the service area of the MVRWRF would be similarly treated under the NPDES, no cumulatively significant exceedance of Santa Ana RWQCB wastewater treatment requirements would occur. As such, cumulative impacts to wastewater treatment facilities would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.7 Solid Waste Services

6.16.3.8 Solid Waste Facilities

Impact: *The project's incremental contribution to landfill impacts would not cause or contribute to a significant cumulative effec.*

Threshold:	Would the proposed WLC project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Cumulative Impact Analysis

The cumulative impact geographic area for solid waste services is the City of Moreno Valley. Solid waste disposal and recycling services for the proposed project site would be provided by Waste Management of the Inland Empire. [3] Waste Management of the Inland Empire separates and markets recyclable materials collected within its service area. The project, in combination with other cumulative projects, would increase the amount of solid waste being transferred to landfills within the City. The volume of solid waste generated by the proposed WLC project per day represents 2.6 percent of the current permitted throughput and 4.5 percent of the current surplus capacity at the Badlands Sanitary Landfill. As adequate daily surplus capacity exists at the receiving landfill, development of the proposed project would not significantly affect current operations or the expected lifetime of the landfill serving

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[3] Trash service in the City of Moreno Valley is mandatory and Waste Management of Inland Valley is the only solid waste service provider.

the project area. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been considered in this analysis.

AB 939 mandates the reduction of solid waste disposal in landfills. While the Badlands Sanitary Landfill has an estimated closure date of 2024, as previously identified, the City's waste hauler will also use other County landfills in the area (e.g., Lamb Canyon Landfill and El Sobrante Landfill). The estimated closure date of the Lamb Canyon Landfill is 2023 and the estimated closure date of the El Sobrante Landfill is 2030. With planned expansion activities of landfills in the project vicinity and projected growth rates contained in the City's General Plan EIR, sufficient landfill capacity would exist to accommodate future disposal needs through City buildout in 2030. Buildout of the City General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Therefore, although the project and cumulative projects would result in an increase in the amount of solid waste sent to landfills, compliance with state and local waste diversion requirements would contribute to the longevity of existing and proposed landfills that would serve the projects and ensure that cumulative impacts would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.9 Solid Waste Reduction

Impact: *The project's incremental contribution to cumulative solid waste regulation impacts would not cause or contribute to a significant cumulative impact.*

Threshold:	Would the proposed WLC project fail to comply with applicable federal, state, and local statutes and regulations related to solid waste?

Cumulative Impact Analysis

The project, in combination with other cumulative projects, would increase the amount of solid waste being transferred to landfills within the City. Federal, State and local governments have enacted a variety of laws and established programs to deal with the transport, use, storage, and disposal of hazardous materials to reduce the risks to public health and the environment. AB 939 and SB 1016 mandates the reduction of solid waste disposal in landfills. While the Badlands Sanitary Landfill has an estimated closure date of 2024, as previously identified, the City's waste hauler will also use other County landfills in the area (e.g., Lamb Canyon Landfill and El Sobrante Landfill). Additionally, the proposed project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been considered in this analysis. The estimated closure date of the Lamb Canyon Landfill is 2023 and the estimated closure date of the El Sobrante Landfill is 2030. With planned expansion activities of landfills in the project vicinity and projected growth rates contained in the City's General Plan EIR, sufficient landfill capacity would exist to accommodate future disposal needs through City buildout in 2030. Buildout of the City General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Therefore, although the project and cumulative projects would result in an increase in the amount of solid waste sent to landfills, compliance with state and local waste diversion requirements would contribute to the longevity of existing and proposed landfills that would serve the projects and ensure that cumulative impacts would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.17 Energy

Cumulative effects to energy are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to energy issues is provided in Section 4.17.1. The geographic and temporal scopes of the cumulative analysis are described in Section 4.17.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the energy issues are discussed in Section 6.17.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 4.17.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.17-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they could contribute to a cumulatively considerable impact to energy. These potentially cumulative impacts are documented in the following section.

6.17.1 Project Impact Findings

Appendix G of the State CEQA Guidelines does not provide specific thresholds for the evaluation of impacts related to energy resources. Appendix F of the CEQA Guidelines was prepared in response to the requirement in Public Resources Code Section 21100(b)(3), which states that an EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy."

- A project would result in significant impacts with regard to energy use and consumption if it would cause wasteful, inefficient, and unnecessary consumption of energy. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:
    1) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed (Appendix F Section II C-1).

    2) The effects of the project on local and regional energy supplies and on requirements for additional capacity (Appendix F Section II C-2).

    3) The effects of the project on peak and base period demands for electricity and other forms of energy (Appendix F Section II C-3).

    4) The effects of the project on energy resources (Appendix F Section II C-5).

5) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives (Appendix F Section II C-6).

- A project would result in significant impacts with regard to energy use and consumption if it would require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.
- A project would result in significant impacts with regard to energy use and consumption if it would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:
  1) The degree to which the project complies with existing energy standards (Appendix F Section II C-4).

The following project-level conclusions are presented in Section 4.17, regarding whether the project would:

- Result in energy use and consumption that would cause wasteful, inefficient, and unnecessary consumption of energy; **Less than Significan**t.
- Require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects; **Less than Significant.**
- Comply with existing energy standards: **Less than Significant**

6.17.2 Geographic and Temporal Scope

The geographic area for evaluating potential cumulative energy impacts is the Moreno Valley Electric Utility (MVU) service area for electricity, and the State for natural gas and transportation fuel use, shown on Figure 6.17-1 and in the cumulative discussion below. Cumulative impacts to energy could result from the project in conjunction with other past, present and future projects located within the applicable service area for each energy sector. The MVU service area covers over half of the City of Moreno Valley and follows the southern, eastern, and portions of the northern city boundary and is generally south of Alessandro Boulevard and easterly of Nason Street. The MVU service boundary is the appropriate cumulative project area boundary for electricity as the project is located within the MVU service area. Cumulative projects within the identified MVU area will be evaluated with the project to determine if any cumulative electricity impact would occur. The projects located within the cumulative electricity impact area are listed in Table 6.17-1. The project would contribute to cumulative impacts to energy starting when the project begins to demand energy resources and would last for the duration of the project. Very few of the cumulative project CEQA documents identified in Table 6.17-1 quantify the energy use associated with the specific project. As such, Table 6.17-1 only includes the energy use for the projects that were quantified in the respective CEQA document.

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_17_Energy.mxd_JYL_5/23/2018

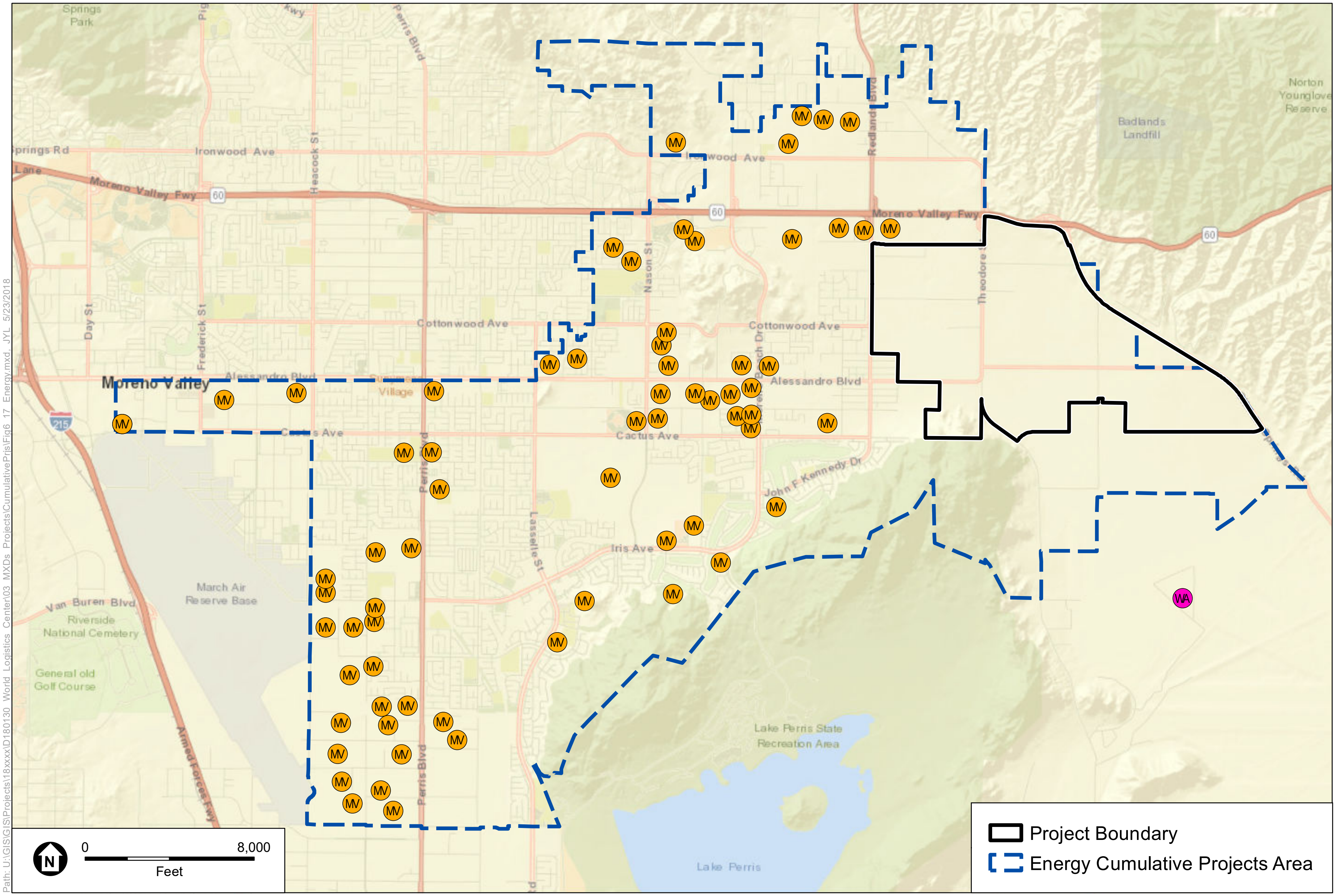

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.17-1
Energy Cumulative Projects Area

ESA

Table 6.17-1: Energy Cumulative Projects Summary

Project ID	Project Name	Document Type	Energy Considered	Quantified	Demand (MWh)
MV-3	ProLogis	EIR	No	No	—
MV-4	Westridge Commerce Center	EIR	No	No	—
MV-7	TR33962 / Pacific Scene Homes	ND	No	No	—
MV-8	TR32460 / Sussex Capital	ND	No	No	—
MV-9	TR32459 / Sussex Capital	ND	No	No	—
MV-10	TR30998 / Pacific Communities	ND	No	No	—
MV-11	TR30411 / Pacific Communities	ND	No	No	—
MV-14	TR32548 / Gabel, Cook & Associates	ND	No	No	—
MV-15	TR32218 / Whitney	ND	No	No	—
MV-16	TR32284 / 26thCorporation & Granite Capitol	ND	No	No	—
MV-17	TR31590 / Winchester Associates	ND	No	No	—
MV-18	Convenience Store / Fueling Station	ND	No	No	—
MV-19	Senior Assisted Living	ND	No	No	—
MV-20	Moreno Marketplace	ND	No	No	—
MV-21	PEN16-0053 Medical Center	MND	No	No	—
MV-22	TR36882 (PA15-0010) SFR	MND	No	No	—
MV-24	TM 36436 (PA12-0005)	MND	No	No	—
MV-25	TR32142	ND	No	No	—
MV-27	TR32917 / Empire land	ND	No	No	—
MV-28	TR34329 / Granite Capitol	ND	No	No	—
MV-29	TR36340	ND	No	No	—
MV-30	PA03-0168 TR 31517	ND	No	No	—
MV-32	TTM 31592 (P13-078) SFR	ND	No	No	—
MV-33	TR32645 / Winchester Associates	ND	No	No	—
MV-34	TR34397 / Winchester Associates	ND	No	No	—
MV-35	TR31771 / Sanchez	ND	No	No	—
MV-36	TM 31618 (PA03-0106)	EIR	No	No	—
MV-37	Vogel /PA09-004	EIR	No	No	—
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	EIR	No	No	—
MV-41	First Nandina Logistics Center	EIR	Yes	Yes	4,528
MV-42	Indian Street Commerce Center	EIR	Yes	No	—
MV-43	Ivan Devries / PA06-0017	ND	No	No	—
MV-44	Modular Logistics Center (Kearny RE Co)	EIR	Yes	Yes	3,575
MV-45	Iris Plaza	IS	No	No	—
MV-47	PA07-0129 TR 35606 SFR	Exempt	No	No	—
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	EIR	Yes	No	—
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	MND	No	No	—

Project ID	Project Name	Document Type	Energy Considered	Quantified	Demand (MWh)
MV-50	San Michele Industrial Center, (Industrial Area SP)	ND	No	No	—
MV-51	Nandina Distribution Center IDS	MND	No	No	—
MV-52	First Industrial III & IV, (Industrial Area SP)	MND	No	No	—
MV-53	I-215 Logistics Center (Amazon)	MND	No	No	—
MV-54	Moreno Valley Logistics Center (Prologis)	EIR	Yes	Yes	15,536
MV-55	MV Commerce Park II (Alere) - Built before 2012		No	No	—
MV-56	Tract Map 33810	Exempt	No	No	—
MV-57	Tract Map 34151	ND	No	No	—
MV-58	Tract Map 33024	ND	No	No	—
MV-59	Tract Map 31442	ND	No	No	—
MV-60	Tract Map 36401	MND	No	No	—
MV-61	Walmart & Gas Station	EIR	No	No	—
MV-63	PA14-0053 (TTM 36760) Legacy Park	MND	No	No	—
MV-65	TR33607 / TL Group	ND	No	No	—
MV-66	TR34988 / Stratus Properties	ND	No	No	—
MV-67	TR32515	ND	No	No	—
MV-68	PA07-0035	ND	No	No	—
MV-69	PA07-0039, (Industrial Area SP)	ND	No	No	—
MV-74	TR34216 / Creative Design Associates		No	No	—
MV-75	Aqua Bella Specific Plan	EIR	No	No	—
MV-78	Overton Moore Properties PA08-0072	MND	No	No	—
MV-79	Shaw Development	MND	No	No	—
MV-80	PA15-0032 MV Cactus Center	MND	No	No	—
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	ND	No	No	—
MV-84	PA16-0075 Brodiaea Business Center	ND	No	No	—
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	ND	No	No	—
MV-86	TR32505 / DR Horton	ND	No	No	—
MV-88	TR33771 / Creative Design Associates	Exempt	No	No	—
MV-89	TR35663 / Kha	Exempt	No	No	—
MV-91	TR31305 / Richmond American	ND	No	No	—
MV-92	TR 33256	ND	No	No	—
MV-93	PA14-0042 Edgemont Apartments	EIR	No	No	—
MV-94	PA15-0002 Box Springs Apartments	MND	No	No	—
MV-95	Moreno Beach Marketplace / Lowes	MND	No	No	—
MV-96	31394 Pigeon Pass, Ltd.	ND	No	No	—

Project ID	Project Name	Document Type	Energy Considered	Quantified	Demand (MWh)
MV-97	32005 Red Hill Village, LLC	ND	No	No	—
MV-98	33388 SCH Development, LLC	ND	No	No	—
MV-100	Scottish Village	ND	No	No	—
MV-103	Gateway Business Park	MND	No	No	—
MV-106	35304 Jimmy Lee	ND	No	No	—
MV-110	TM 33417	ND	No	No	—
MV-111	35769 Michael Chen	Exempt	No	No	—
MV-112	PA09-0006 Jim Nydam	Exempt	No	No	—
MV-113	Ironwood Residential	MND	No	No	—
MV-114	Stoneridge Town Centre - Vacant Restaurant	ND	No	No	—
MV-116	31621 Peter Sanchez	ND	No	No	—
MV-117	Riverside County Office Building	ND	No	No	—
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	ND	No	No	—
MV-119	32126 Salvador Torres	ND	No	No	—
SJWA-1	San Jacinto Wildlife Land Management Plan	EIR	Yes	No	—

6.17.3 Cumulative Impact Evaluation

6.17.3.1 Energy Consumption, Supply, Standards and Facilities

Impact: *The Project would not result in environmental impacts related to energy consumption, supply, energy standards and expansion of facilities.*

Threshold: Would the project result in energy use and consumption that would cause wasteful, inefficient, and unnecessary consumption of energy?

Would the project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Would the project comply with Existing Energy Standards?

Cumulative Impact Analysis

Electricity
The geographic context for the cumulative analysis of electricity is MVU’s service area. Growth within this geography is anticipated to increase the demand for electricity and the need for infrastructure, such as new or expanded facilities.

Buildout of the Project, the cumulative projects, and additional growth forecasted to occur in the City would increase electricity consumption during Project construction and operation, and may cumulatively increase the need for electricity supplies. MVU forecasts that its peak demand in 2024, the latest available forecast from the IRP, would be approximately 352,044 MWh/year. The Project’s estimated net new electrical consumption would account for between 47 to 73 percent of MVU’s projected electricity sales in 2025 depending on the EV scenario. As stated in Section 4.17, *Energy*, since the

2015 IRP only forecasts out to 2024, projecting electricity use and supply for the full buildout 2040 Scenarios would also be highly speculative. The utility has a considerable amount of time to procure energy resources in anticipation of the Project's development, and has committed to taking the WLCSP needs into consideration in future IRP development.

As the utility provider for the Project and cumulative projects, MVU has determined that the increased electricity demand would be minor compared to existing supply and infrastructure within its service area and would be consistent with growth expectations for its service area. MVU's 2015 IRP predicts an increase in electricity demand over a 10-year period that is planned to be met by increasing solar, wind, and geothermal power, and supplementing with natural gas as needed. MVU's IRP specifically mentions World Logistics Center and states that, "a portion of the anticipated demand [of the Project] is incorporated in MVU's load forecast. MVU will monitor development progress at the World Logistics Center and other local projects to determine potential impacts to customer energy requirements".[1] MVU forecasts projected growth in the region and with its 2015 IRP already has plans in place that account for future development including the Project and cumulative projects. Many of the identified cumulative project CEQA documents, including MV 2 and MV 3, evaluated the cumulative energy impacts, and that analysis has been incorporated into this assessment.

Furthermore, like the Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Although the phrase "rolling blackouts" is a household phrase and heat waves in 2017 registered record-setting elevated temperatures, the electrical grid largely holds strong. As discussed above and based on evidence from MVU, the Project would not have a cumulatively considerable impact on existing energy resources either individually or incrementally when considering the anticipated growth in the service area. Accordingly, the impacts related to electricity consumption would not be cumulatively considerable, and thus would be less than significant.

Natural Gas

The geographic context for the cumulative analysis of natural gas is the State. Growth within this geography is not anticipated to increase the demand for natural gas and the need for infrastructure, such as new or expanded facilities.

Though electricity usage is predicted to rise, natural gas demand is expected to decline overall from 2016-2035 accounting for population and economic growth as well as efficiency improvements and the State's transition away from fossil fuel-generated electricity to increased renewable energy. SoCalGas predicts a decline in every sector (residential, industrial, commercial, electricity generation, and vehicular), with the exception of wholesale and international gas sales to Mexico. The 2016 California Gas Report states, "SoCalGas projects total gas demand to decline at an annual rate of 0.6% from 2016 to 2035. The decline in throughput demand is due to modest economic growth, CPUC-mandated energy efficiency (EE) standards and programs, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI)."[2] Buildout of the Project and cumulative projects in the Statewide service area is not expected to increase natural gas consumption and the need for natural gas supplies from building energy.

Natural gas consumption from the Project was compared to Statewide natural gas fuel consumption since natural gas as a fuel can be procured from anywhere and is not limited to the service provider's resources. Natural gas consumption would primarily be from operation of on-site equipment and the planned CNG/LNG fueling station which will be publicly accessible. The combined annual natural gas use would represent 0.003 percent of the State's total natural gas use.

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[1] Moreno Valley Utility, Integrated Resource Plan (2015).

[2] California Gas and Electric Utilities, *2016 California Gas Report.* https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf. Accessed May 2018.

Although future development projects would result in use of nonrenewable natural gas resources which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with regional and local growth expectations for SoCal Gas's service area and would not strain Statewide natural gas resources. Further, like the Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards in Title 24, and incorporate mitigation measures, as necessary. While initially the Project and cumulative projects could result in increased natural gas demand compared to existing uses on each specific project site, the overall demand for natural gas over time is expected to decline due to increases in regional natural gas efficiencies and the transition to renewable energy on a statewide basis displacing fossil fuels including natural gas. Therefore, the Project would not have a cumulatively considerable impact related to natural gas consumption, and impacts would be less than significant.

Transportation Energy

Buildout of the Project and cumulative projects in the region would be expected to increase overall VMT; however, the effect on transportation fuel demand would be minimized by future improvements to vehicle fuel economy pursuant to federal and state regulations. By 2025, vehicles are required to achieve 54.5 mpg (based on USEPA measurements), which is a 54 percent increase from the 2012-2016 standard of 35.5 mpg. As discussed in detail in Section 4.07, *Greenhous Gas Emissions*, the Project would be consistent with the 2016 RTP/SCS for the region. Cumulative projects would need to demonstrate consistency with the goals in the 2016 RTP/SCS and incorporate project design features or mitigation measures as required under CEQA, which would also ensure cumulative projects contribute to transportation energy efficiency.

Furthermore, according to the USEIA's International Energy Outlook 2016, the global supply of crude oil, other liquid hydrocarbons, and biofuels is expected to be adequate to meet the world's demand for liquid fuels through 2040.[3] CARB's analyses and the State's 2017 Climate Change Scoping Plan show a 45 percent decrease in fossil fuel demand by 2030.[4] The State's Mobile Source Strategy aims to displace fossil fuel reliant vehicles with 1.5 million zero emission vehicles (ZEVs) by 2025 and 4.2 million ZEVs by 2030.[5] Considering the State's goals of displacing transportation fuels, overall fossil fuel use will decrease and the current refining capacity would be sufficient to support the demand of the Project and cumulative projects. Furthermore, the Project's annual gas and diesel consumption from construction and operation would represent approximately 0.04 percent of Statewide diesel sales and 0.0004 percent of Statewide gasoline sales in both 2025 and 2040.[6][7] Therefore, as the Project would incorporate land use characteristics consistent with state goals for reducing VMT and would represent a small fraction of State transportation sales, the Project would not have a cumulatively considerable impact related to transportation energy, and impacts would be less than significant.

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[3] EIA, International Energy Outlook 2016, https://www.eia.gov/outlooks/ieo/pdf/0484(2016).pdf , Accessed April 2018.

[4] CARB, *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*, November, 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf; Accessed May 2018.

[5] CARB, *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*, November, 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf; Accessed May 2018.

[6] United States Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2015. Available at: http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA. Accessed May 2018.

[7] United States Energy Information Administration, Table F7: Distillate Fuel Oil Consumption Estimates, 2015. Available at: http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_df.html&sid=CA. Accessed May 2018.

Conclusion

The cumulative condition related to the wasteful, inefficient, and unnecessary consumption of energy during construction or operation does not reflect a significant adverse cumulative impact. As detailed above, the project's incremental contribution to the cumulative condition would not cause or contribute to a significant impact. Accordingly, the Project would not result in cumulative environmental impacts related to energy consumption, supply, energy standards and expansion of facilities, and the cumulative energy impacts would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significant Level After Mitigation: Less than significant impact.

NOTE TO READERS: The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 7.0 that have been revised. The absence of any reference to a portion of Section 7.0 means that the corresponding portion of Section 7.0 in the FEIR remains unchanged or has been deleted. However, where appropriate, unrevised portions of the FEIR have been included for ease of understanding.

7.0 ALTERNATIVES TO THE PROPOSED PROJECT

8.0 REFERENCES

NOTE TO READERS: This portion of the Revised Sections of the FEIR sets forth those portions of each section within Section 7.0 of the 2015 FEIR which has been revised. The revised cumulative analysis can be found in Section 8.0 of this Revised Sections of the FEIR. The absence of any reference to a portion of Section 7.0 of the 2015 FEIR means that the corresponding portion of Section 7.0 in the FEIR remains unchanged or has been deleted.

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8.2 Acronyms and Abbreviations

§	Section
§§	Subsection
°C	degrees Celsius
°F	degrees Fahrenheit
$\mu g/m^3$	Micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACC	Andrew Chang and Company
ACM	Asbestos-Containing Material
AF	acre-feet
AFRES	Air Force Reserve
AFV	Alternative Fuel Vehicle
AFY	acre feet per year
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
amsl	above mean sea level
A-P Act	*Alquist-Priolo Earthquake Fault Zoning Act*
APN	Assessor’s Parcel Number
AQMP	Air Quality Management Plan
AST	Aboveground Storage Tank
Basin	South Coast Air Basin
BAU	Business As Usual
BDCP	Bay Delta Conservation Plan
BMP	Best Management Practice
BP	Business Park
BV&A	Bear Valley and Alessandro Development Company
BVIC	Bear Valley Irrigation Company
BVLWC	Bear Valley Land and Water Company
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency

CalFire	California Department of Forestry and Fire Protection
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historic Resources
Caltrans	California Department of Transportation
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CASSA	Criteria Area Species Survey Area
CAT	California Climate Action Team
CBC	California Building Code
CBOC	California Burrowing Owl Consortium
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game, former name of the California Department of Fish and Wildlife
CDFW	California Department of Fish and Wildlife, formerly known as the California Department of Fish and Game
CDGB	Community Development Block Grant
CDMG	California Department of Mines and Geology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
CFS	calls for service
cfs	cubic feet per second
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	Methane
CHP	California Highway Patrol
CIP	Capital Improvement Plan
CIWMB	California Integrated Waste Management Board
CLUP	Comprehensive Land Use Plan

CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COA	Coordinated Operations Agreement
CPD	(HUD Office of) Community Planning and Development
CPUC	California Public Utilities Commission
CRA	California Resource Agency
CRA	Cultural Resource Assessment
CSC	California Species of Concern
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council
CVC	California Vehicle Code
CVP	Central Valley Project
CWA	(Federal) Clean Water Act
CWC	California Water Code
DAMP	Drainage Area Management Plan
dB	decibel
dBA	decibel on the A-weighted scale
DBESP	Determination of a Biologically Equivalent or Superior Preservation
DCIA	Directly Connected Impervious Area
DE	Diesel Emissions
DEH	Department of Environmental Health
DHS	(California) Department of Health Services
DIF	Development Impact Fee
DMM	Demand Management Measure
DMP	Drainage Master Plan
DOC	(California) Department of Conservation
DOF	(California) Department of Finance
DTA	David Taussig & Associates, Inc.
DTSC	(California) Department of Toxic Substance Control
DWR	(California) Department of Water Resources

e.g.	*exemplī grātiā*, for example
ECSD	Edgemont Community Services District
EDR	Environmental Data Resources
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMWD	Eastern Municipal Water District
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
ESA	Environmental Site Assessment
ESG	Emergency Solutions Grant
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
ft	foot/feet
FTA	Federal Transit Administration
FTE	full-time equivalent
GCC	Global Climate Change
GHG	Greenhouse gas
GIS	Geographic Information Systems
GPA	General Plan Amendment
gpd	gallons per day
gpf	gallons per flush
GWP	Global Warming Potential
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCD	(California) Department of Housing and Community Development
HCM	*Highway Capacity Manual*
HCP	Habitat Conservation Plan
HFCP	Highland Fairview Corporate Park
HHWE	Household Hazardous Waste Element
HI	Hazard Indices

HMB	Hazardous Materials Branch
HMBEP	Hazardous Materials Business Emergency Plan
HMMA	Hazardous Materials Management Act
HMMP	Habitat Mitigation and Monitoring Plan
HNL	Hourly Noise Level
HOME	HOME Investment Partnership
HOPWA	Housing Opportunities for Persons with AIDS
hp	horsepower
HRA	Health Risk Assessment
HSA	Hydrologic Subarea
HSC	Health and Safety Code
HUD	Housing and Urban Development
HVAC	Heating, Ventilating, and Air Conditioning
HWCL	Hazardous Waste Control Law
Hz	hertz
i.e.	*id est*, that is
IMPLAN	Impact Analysis for Planning
IPCC	United Nations Intergovernmental Panel on Climate Change
IRP	Integrated Resources Plan
IS	Initial Study
ITE	Institute of Transportation Engineers
kV	kilovolt
LAFCO	Local Agency Formation Commission
LAPM	Los Angeles pocket mouse
LBP	Lead-Based Paint
LBRMP	Logistic Building Runoff Management Plan
lbs	pounds
LCC	Land Capability Classification
LD	Logistics Development
L_{dn}	day-night average noise
LE	Land Evaluation
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent continuous sound level (L_{eq})
LESA	(California) Land Evaluation and Site Assessment
LHMP	Local Hazard Mitigation Plan

LI	Light Industrial
LID	Low Impact Development
LL	Light Logistics
L_{max}	maximum noise level
LNG	Liquefied Natural Gas
LNG/CNG	liquefied natural gas/compressed natural gas
LOS	Level of Service
~~LS~~	~~Logistics Support~~
LSA	LSA Associates, Inc.
LST	Local Significance Threshold
MARB	March Air Reserve Base
MATES	Multiple Air Toxics Exposure Study
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
MC	Municipal Code
Metropolitan	Metropolitan Water District of Southern California
mgd	million gallons per day
MHSP	Moreno Highlands Specific Plan
MICR	maximum individual cancer risk
MIP	March Inland Port
MJPA	March Joint Powers Authority
mm/yr	millimeters per year
MMDP	Moreno Master Drainage Plan
MMRP	Mitigation Monitoring and Reporting Program
mmt	million metric tons
MOU	Memorandum of Understanding
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MPOA	Master Property Owners Association
MPT	Master Plan of Trails
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MSHCP	(Western Riverside County) Multiple Species Habitat Conservation Plan
mt	metric tons

mty	metric tons per year
MVEU	Moreno Valley Electric Utility
MVFD	Moreno Valley Fire Department
MVHS	Moreno Valley Historical Society
MVPD	Moreno Valley Police Department
MVRWRF	Moreno Valley Regional Water Reclamation Facility
MVUSD	Moreno Valley Unified School District
MW	megawatt
MWh	megawatt-hours
N_2O	nitrous oxide
NA	Native American
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAIOP	National Association of Industrial and Office Properties
National Register	National Register of Historic Places
NCCP	Natural Communities Conservation Plan
NDDB	Natural Diversity Data Base
NDFE	Nondisposal Facility Element
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NHTSA	Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCP	Noise Reduction Compliance Plan
NRCS	Natural Resource Conservation Service
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation

OHWM	Ordinary High Water Mark
OMB	(White House) Office of Management and Budget
OPR	Office of Planning and Research
OS	Open Space
PAH	Polycyclic Aromatic Hydrocarbon
Pb	Lead
PCBs	polychlorinated biphenyls
PEA	Preliminary Environmental Assessment
PM_{10}	Particulate Matter with a Diameter of 10 Microns or Less
$PM_{2.5}$	Particulate Matter with a Diameter of 2.5 Microns or Less
POTWs	Publicly Owned Treatment Works
POU	Publically Owned Utility
ppb	parts per billion
ppm	parts per million
PSB	Public Safety Building
PUC	Public Utilities Commission
PVC	Polyvinyl Chloride
PVCCSP	Perris Valley Commerce Center Specific Plan
PVSC	Perris Valley Storm Channel
PWC	Public Works Committee
PWQMP	Preliminary Water Quality Management Plan
PZ	Pressure Zone
q.v.	*quod vidē*, which see (presented elsewhere in the document)
RCA	Resource Conservation Agency
RCB	reinforced concrete box
RCC	Riverside Community College
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCIP	Riverside County Integrated Project
RCIWMP	Riverside Countywide Integrated Waste Management Plan
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RCSD	Riverside County Sheriff’s Department
RCTC	Riverside County Transportation Commission
RHNA	Regional Housing Needs Assessment

RivTAM	Riverside County Traffic Analysis Model
ROG	Reactive Organic Gas
RPR	(California) Rare Plant Ranking
RPS	Renewables Portfolio Standard
RPW	Relatively Permanent Water
RSHA	Regional System of Highways and Arterials
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SA	Site Assessment
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas and Electric
SEDAB	Southeast Desert Air Basin
sf	square foot/feet
SF_6	Sulfur Hexafluoride
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJUSD	San Jacinto Unified School District
SJWA	San Jacinto Wildlife Area
SKR	Stephens' kangaroo rat
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SMARA	Surface Mining and Reclamation Act
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
SP	Service Population
SR-60	State Route 60

SRRE	Source Reduction and Recycling Element
SSURGO	Soil Survey Geographic
STC	Sound Transmission Class
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWQCB	State Water Quality Control Board
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TAF	thousand acre-feet
TASAS	Traffic Accident Surveillance and Analysis System
TCM	Transportation Control Measures
TCP	Traditional Cultural Place
TDM	Transportation Demand Management
TDS	Total Dissolved Solids
TIA	Traffic Impact Analysis
TIS	Traffic Impact Study
TMDL	Total Maximum Daily Load
TNW	Traditional Navigable Water
tpy	tons per year
TRI	Toxics Release Inventory
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UC	University of California
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VAV	Variable Air Volume
VIA	Visual Impact Assessment
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

VRP	Visibility-Reducing Particles
WDR	Wastewater Discharge Requirement
WLC	World Logistics Center
WLCSP	World Logistics Center Specific Plan
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WSA	Water Supply Assessment
WSP	Water Shortage Plan
ZOI	Zone of Influence

8.3 Glossary of General Terms

Acre-Foot. An acre-foot is the quantity of volume of water that covers one acre to a depth of one foot; equal to 43,560 cubic feet or 325,851 gallons.

Aesthetics. The perception of artistic elements, or elements in the natural or human-made environment that are pleasing to the eye.

Air Quality Criteria. Air quality criteria are the levels of pollution and length of exposure at which adverse effects on health and welfare occur.

Air Quality Standards. Air quality standards are the prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

Ambient Noise. Ambient noise is the composite of noise from all sources near and far. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Applicant. An applicant is a person who proposes to carry out a project that needs a lease, permit, license, certificate, or other entitlement, for use or financial assistance from one or more public agencies.

Arterial. An arterial is a major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to non-residential properties.

Attainment. Attainment means that there is compliance with State and Federal ambient air quality standards within an air basin.

A-Weighted Decibel (dBA). The dB on the A-weighted scale is the sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

California Environmental Quality Act (CEQA). Enacted in 1970, CEQA requires State and local agencies to estimate and evaluate the environmental implications of their actions. It aims to prevent environmental effects of the agency actions by requiring agencies, when feasible, to avoid or reduce the significant environmental impacts of their decisions. If a proposed activity has the potential for a significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project (*California Public Resources Code* §§21000 et seq.)

Capacity. The maximum rate of flow at which vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions.

Collector. Relatively low-speed, low-volume street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Community Noise Equivalent Level (CNEL). A 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for greater sensitivity to noise during these hours.

Congestion Management Plan (CMP). A mechanism employing growth management techniques, including traffic level of service requirements, standards for public transit, trip reduction programs involving transportation systems management and jobs/housing balance strategies, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional traffic impacts of development.

Cumulative Impact. As used in CEQA, the total impact resulting from the accumulated impacts of individual projects or programs over time.

Day-Night Average Level (L_{dn}). The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m. (Note: CNEL and L_{dn} represent daily levels of noise exposure averaged on an annual or daily basis, while L_{eq} represents the equivalent energy noise exposure for a shorter time period, typically one hour.)

Decibel (dB). The decibel (dB) is the unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.

Emission Standard. The maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Environment. In CEQA, the environment are "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance."

Environmental Impact Report (EIR). A report required pursuant to the California Environmental Quality Act that assesses all the environmental characteristics of an area, determines what effects or impacts will result if the area is altered or disturbed by a proposed action, and identifies alternatives or other measures to avoid or reduce those impacts.

Equivalent Energy Level (L_{eq}). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is typically computed over 1-hour, 8-hour, and 24-hour sample periods.

Feasible. To be feasible, according to CEQA, means to be capable of being accomplished in a successful manner within a reasonable time taking into account economic, environmental, social, and technological factors.

Findings. Findings required by CEQA are the conclusions made regarding the significance of a project in light of its environmental impacts. A Statement of Overriding Considerations does not obviate the need to make other required CEQA findings.

Floor Area Ratio (FAR). The FAR is the gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net square feet of land area, a floor area ratio of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 square feet of floor area; an FAR of 2.0 would allow 20,000 square feet; and an FAR of 0.5 would allow 5,000 square feet. Also commonly used in zoning, FARs typically are applied on a parcel-by-parcel basis as opposed to an average FAR for an entire land use or zoning district.

Floor Area, Gross. The sum of the horizontal areas of the several floors of a building measured from the exterior face of exterior walls, or from the centerline of a wall separating two buildings, but not including any space where the floor-to-ceiling height is less than six feet. Some cities exclude specific kinds of space (e.g., elevator shafts and parking decks) from the calculation of gross floor area.

Freeway. A freeway is a high-speed, high-capacity, limited-access road serving regional and countywide travel. Such roads are free of tolls, as contrasted with turnpikes or other toll roads. Freeways generally are used for long trips between major land use generators. Major streets cross at a different grade level.

Incorporation by Reference. "Incorporation by reference" is a CEQA term meaning reliance on a previous environmental document for some portion of the environmental analysis of a project. See *CEQA Guidelines* §15150.

Initial Study. An Initial Study is a preliminary CEQA analysis that can be prepared by a Lead Agency to determine whether an EIR or Negative Declaration must be prepared, and identifying the significant environmental effects to be analyzed in an EIR.

Land Use. Any land use is the determination by a governing authority of the use to which land within its jurisdiction may be put so as to promote the most advantageous development of the community.

Lead Agency. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency decides whether an EIR or Negative Declaration is required for a project, and causes the appropriate document to be prepared.

Level of Service (LOS). LOS is a qualitative measure describing operational conditions within a traffic stream and how motorists and/or passengers perceive them.

Maximum Noise Level (L_{max}). The maximum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.

Mitigation Measure. A mitigation measure is a change in a project designed to avoid, minimize, rectify, reduce, or compensate for a significant environmental impact.

Mitigation Monitoring and Reporting Program (MMRP). When a lead agency adopts a mitigated negative declaration or an EIR, it must adopt a program of monitoring or reporting which will ensure that mitigation measures are implemented. (See CEQA Statute §21081.6(a) and *CEQA Guidelines* §§15091(d) and 15097.)

Noise. Noise is any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying (unwanted sound).

Noise Contours. Noise contours are lines drawn about a noise source indicating equal levels of noise exposure.

Notice of Determination (NOD). An NOD is a brief notice filed with the State Clearinghouse to document project approval. The filing of the NOD starts the statute of limitations period. (See *CEQA Guidelines* §15373.)

Notice of Preparation (NOP). An NOP is a brief notice to notify the public, Responsible and Trustee Agencies that an EIR is being prepared for a project. The notice serves to solicit guidance from those agencies and the public about the scope and content of the environmental information to be included in the EIR. (See *CEQA Guidelines* §15375.)

Peak Hour. The hour of highest traffic volume on a given section of roadway between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m.

Programmatic EIR. A programmatic EIR is an EIR that examines the impacts that would result from a conceptual plan or policy action envisioned by the lead agency, which is carried out at a more general level of analysis based upon the development information available. (See C*EQA Guidelines* §15161.)

Project. According to CEQA, a project is the whole of an action that has the potential to result in significant environmental change in the environment, directly or ultimately. (See *CEQA Guidelines* §15378.)

Project Description. A project description describes the basic characteristics of the project including location, need for the project, project objectives, technical and environmental characteristics, project size and design, project phasing and required permits. The level of detail provided in the project description varies according to the type of environmental document prepared.

Project EIR. A project EIR is an EIR that examines the impacts that would result from development of a specific project. (See C*EQA Guidelines* §15161.)

Public Hearing. A public hearing is a mechanism for providing the public an opportunity to comment on and present evidence relating to a proposed project and its Draft EIR.

Responsible Agencies. According to CEQA, responsible agencies are all public agencies other than the Lead Agency that have discretionary approval power over the project. (See *CEQA Guidelines* §15381.)

Reviewing Agencies. Reviewing agencies are local, State, and Federal agencies with jurisdiction over the project area or resources potentially affected by the project. Cities and counties are also considered reviewing agencies.

Scoping Meeting. A scoping meeting is an optional meeting pursuant to CEQA in which the lead agency meets with members of the public or agency representatives after the Notice of Preparation has been issued to discuss environmental issues related to a project. Scoping sessions provide the opportunity to discuss environmental issues, project alternatives and potential mitigation measures that may warrant in-depth analysis in the environmental review process.

Sensitive Receptors. Sensitive receptors are people or institutions with people that are particularly susceptible to illness from environmental pollution, such as the elderly, very young children, people already weakened by illness (e.g., asthmatics), and persons engaged in strenuous exercise.

Significant Effect on the Environment. A significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (*CEQA Guidelines* §15382).

Thresholds of Significance. Thresholds of significance are criteria for each environmental issue area to assist with determinations of significance of project impacts. They are based on *CEQA Guidelines* Appendix G.

Trustee Agency. According to CEQA, a Trustee agency is a State agency that has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. (See *CEQA Guidelines* §15386.)

Volume (Transportation). The volume of traffic is the total number of vehicles that pass over a given point or section of a roadway during a given time interval. Volumes may be expressed in terms of annual, daily, hourly, or sub-hourly periods.

Wastewater. Wastewater is water carrying dissolved or suspended solids from homes, farms, businesses, and industries. The wastewater treatment process includes any process that modifies characteristics of the wastewater, usually for the purpose of meeting effluent standards.

Zoning. Regulation by zone districts of the height, use, and area of structures, the use of land, and the density of population and intensity of allowable uses.

8.4 Glossary of Project-Specific Definitions

The following definitions are excerpts from Section 3.4, *Project Description*.

Annexation Area: This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's adopted Sphere of Influence adopted on November 21, 1985.

CDFW Conservation Buffer Area: This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and replace them with Open Space and Public Facility designations. This property is not within the proposed World Logistics Center Specific Plan. This Buffer Area is a large part of the "Other Project Areas" described herein.

General Plan Amendment: One of the proposed entitlements is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on the 3,714-acre property located east of Redlands and south of SR-60. The following General Plan Elements will be amended: Community

Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) 2,610 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities.

Moreno Highlands Specific Plan: This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. This development will be replaced with the World Logistics Center Specific Plan and 1,104 acres of Open Space and Public Facilities uses.

Off-site Analysis Zone: This term refers to an approximately 1,000-foot wide zone adjacent to the south and east boundaries of the Specific Plan area that was studied by Michael Brandman Associates (MBA) as part of the assessment of potential impacts on biological resources. It covers approximately 1,637.5 acres.

Off-site Improvement Areas: Development under the Specific Plan will require construction of a number of offsite infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited to the following facilities (see Figure 3.7):

Debris Basins easterly of Gilman Springs Road;

Water reservoirs and access roads located northeast, north, and west of the project site;

SR-60 interchange improvements; and

Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.

Other Project Areas: The San Diego Gas & Electric Company (SDG&E) and the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.

Project Site or Project Area: This term refers to the entire 3,818-acre area covered by the EIR encompassed by: (a) the Specific Plan Area (2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities Lands area (194 aces); and (d) the Off-site Improvement Area on 104 acres.

Proposed Project or World Logistics Center Project: General term applied to all of the entitlements outlined above that are addressed in this EIR, including:

WLC Specific Plan	2,610 acres
General Plan Amendment	3,714 acres
Zone Change	3,714 acres
Tentative Parcel Map	1,539 acres
Annexation	85 acres
Off-site improvements	104 acres

Specific Plan Site: Approximately 2,610 acres of the project area are included in the proposed World Logistics Center (WLC) Specific Plan, located generally south of the SR-60 Freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.

State Lands: Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.

Tentative Parcel Map Area: A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.

WLC Specific Plan: The WLC Specific Plan proposes a master-planned logistics campus to include up to 40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, a site for logistics support uses (LS designation) and 74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines and review procedures for all development within the project.

World Logistics Center Project: The term refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of the State Route 60 freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.

Zone Change: The project includes a Zone Change covering 3,714 acres which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E, SCGC properties) and 2,610 acres for the World Logistics Center Specific Plan.

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World Logistics Center

Volume 2 – Revised FEIR (Track Changes)

Moreno Valley, California

State Clearinghouse No. 2012021045

Prepared for:

City of Moreno Valley

June, 2018

World Logistics Center

Revised Sections of the Final Environmental Impact Report

Moreno Valley, California

State Clearinghouse no. 2102021045

Prepared for
City of Moreno Valley

June, 2018

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NOTE TO READERS: The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 1.0 that have been revised. Revisions to, and deletions from, the FEIR have been identified in a separate document, available for review at the City of Moreno Valley. The absence of any reference to a portion of Section 1.0 means that the corresponding portion of Section 1.0 in the FEIR remains unchanged. However, where appropriate, unrevised portions of the FEIR have been included for ease of understanding. The absence of reference to a portion of Section 1.0 means that the corresponding portion of Section 1.0 in the FEIR remains unchanged or has been deleted.

1.0 EXECUTIVE SUMMARY

In August, 2015, the City Council of the City of Moreno Valley certified a Final Environmental Impact Report (the "FEIR") as complying with the California Environmental Quality Act (CEQA). The FEIR had been prepared to analyze the environmental impacts that could result from the construction and operation of the World Logistics Center. Several lawsuits were filed challenging the adequacy of the FEIR.

In February, 2018, a judge of the Riverside County Superior County issued a ruling which identified five deficiencies in the FEIR. In June, 2018, a judgement was entered and a writ issued which ordered the City to set aside the certification of the FEIR. This document, referred to as the Revised Sections of the FEIR, has been prepared to correct the deficiencies identified in the February ruling. The Revised Sections of the FEIR will be circulated for public comment. Those portions of the FEIR which were found to be have been in compliance with CEQA will not be circulated and no further comments on them will be sought. Responses to comments on the Revised Sections of the FEIR will be prepared. A revised FEIR, consisting of the Revised Sections of the FEIR, the comments and responses and portions of the FEIR which were found to have been in compliance with CEQA, will then be considered by the City to determine if the Revised FEIR should be certified as complying with CEQA.

The development of the World Logistics Center is subject to the regulations and development standards contained in the existing World Logistics Center Specific Plan which authorizes the construction of 40,600,000 square feet of logistics facilities and associated infrastructure. The Revised FEIR, once certified, will be used in conjunction with the discretionary approvals required for the development of the World Logistics Center, including, but not limited to, subdivision maps, plot plan approvals, and annexation of land, currently in unincorporated Riverside County, into the City.

The Revised Sections of the FEIR have been prepared to address each of the deficiencies identified in the court's ruling, summarized as follows:

- **Energy Impacts**: "The FEIR must provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis".
- **Biological Impacts**: "The FEIR should remove all references to and consideration of the 910 acres of SJWA and MSHCP lands as "buffer zone" or "CDFW Conservation Buffer Area" in the Biological Resources and Habitat Impacts analysis".
- **Noise Impacts**: "The FEIR must provide an analysis of construction noise over ambient levels; provide adequate analysis on construction noise impacts on nearby homes; address the inadequacy of mitigation measures, which fail to include performance standards or ways to reduce construction noise".
- **Agricultural Impacts**: "The FEIR and the resolution certifying the FEIR require clarification as to whether loss of locally important farmland will have a significant direct or cumulative impact on agriculture and, if significant, the FEIR must either explain how proposed mitigation will reduce the impact or why other mitigation is not feasible".

- **Cumulative Impacts**: "The FEIR should include consideration of recently constructed and proposed large warehouse projects in the summary of projections method, and should analyze whether individually significant impacts may be cumulative considerable".

The Revised Sections of the FEIR responds to the deficiencies as follows:

- **Energy Impacts**: A new Energy Impact Assessment technical report has been prepared, and a new Energy section added, to provide a comparison of cost- effective renewable energy technologies and associated energy conservation features. This includes an evaluation of all potential renewable energy source options, the feasibility of incorporating these options into the project to reduce overall energy consumptions and to reduce greenhouse gas emissions.
- **Biological Impacts**: A new Biological Resource technical memo has been prepared to document current biological resources on the World Logistics Center site. The Biological Resource section has been updated to remove any reference to the 910-acre "buffer" and "CDFW Conservation Buffer". The entire project site has been resurveyed to document existing biological resources, sensitive species and to update the biological Resource Technical Report.
- **Noise Impacts**: The Noise technical report and section have been updated to include an updated analysis of construction impacts and mitigation measures focused on the onsite and adjacent residential land uses. In addition, overall noise operational mobile and stationary source noise impacts and mitigation measures have been updated.
- **Agricultural Impacts**: The Agricultural section has been updated to accurately reflect the status of the agricultural resources found on the World Logistics Center site.
- **Cumulative Impacts**: The cumulative impact sections of the FEIR have been updated to function as a stand-alone section and to add recently constructed and proposed warehouse facilities to the summary of projections and list method to determine cumulative impacts. In order to complete the updated cumulative impact assessment, certain project level analysis (air quality/greenhouse gases, traffic) was completed to form the basis for the cumulative impact analysis. The project level analysis is included in the body of this Revised Sections of the FEIR and associated technical studies are included in the appendices for reference. Extensive research has been completed to identify 361 cumulative projects in the City of Moreno Valley and surrounding jurisdictions, including the Cities of Riverside, Perris, Hemet, San Jacinto, Redlands Beaumont, as well as the Counties of Riverside and San Bernardino, and the March Joint Powers Authority (JPA). These identified projects form the basis of the cumulative project list to be evaluated in Section 6.0.

In addition, although not required by the court ruling, the following analysis has been updated or newly prepared to assist in the response to the deficiencies identified by the court:

- The Air Quality assessment has been updated based upon the updated traffic study to provide the current baseline for the updated cumulative impact analysis.
- The Greenhouse Gas / Climate Change Assessment has been updated based upon the updated traffic study to provide the current baseline for the updated cumulative impact analysis
- The Traffic Impact assessment has been updated to provide the current baseline traffic conditions for the updated air quality, greenhouse gas/climate change, noise, and cumulative impact analysis.

Only the above outlined revised information is contained in this Revised Sections of the FEIR, all other sections of the FEIR and technical studies remain valid, and are available for review at the City of Moreno Valley. A highlight/strikeout version of the Revised Sections of the FEIR is available for review at the City of Moreno Valley, which shows all changes made to the document.

The following Sections of the FEIR remain valid and are not included in the Revised Sections of the FEIR, except for the cumulative impact chapter: Aesthetics, Cultural Resources, Geology and Soils, Hazard and Hazardous Materials, Hydrology, Land Use and Planning, Mineral Resources, Population and Housing, and Public Services and Utilities.

Portions of the following Sections of the FEIR have been revised and are included in the Revised Sections of the FEIR: Agriculture and Forestry Resources, Air Quality, Greenhouse Gas/Climate Change/Sustainability, Land Use and Planning, Noise, and Traffic and Circulation.

The following Sections of the FEIR have been entirely replaced with new sections in the Revised Sections of the FEIR: Biological Resources and Energy (new stand-alone sections).

The Revised Sections of the Final EIR are being circulated for additional public review. The 45-day public review period is from July 25, 2018 through September 7 ,2018. All comments received on the Revised Sections of the FEIR will be responded to and incorporated into a response to comments document, which will be considered by the City at a public hearing to certify that the Revised Sections of the FEIR is in compliance with CEQA. The Revised Sections of the FEIR is also available for review on the City of Moreno Valley's website (www.moval.org).

Please submit comments on the Revised Sections of the FEIR no later than 5:00 PM, September 7, 2018 to:

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Table 1.1-1 summarizes the mitigation measures from the FEIR and the Revised Sections of the FEIR, and identifies project impacts, mitigation measures and level of significance with mitigation for each of the seventeen environmental factors evaluated in the FEIR and Revised Sections of the FEIR.

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	**Mitigation Measures**	**Level of Significance**
4.1 Aesthetics		
LESS THAN SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
SIGNIFICANT IMPACTS		
Impact 4.1.6.1 Scenic Vistas		
The WLC project will significantly impact viewsheds in the area, including views of the Mt. Russell Range and the Badlands.	**4.1.6.1A** Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official. **4.1.6.1B** Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division. **4.1.6.1C** Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	4.1.6.1D Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owner's association or may remain in private ownership and may be fenced and access prohibited.	
Impact 4.1.6.2 Scenic Resources and Scenic Highways		
The WLC project will significantly impact existing viewsheds from SR-60 which is a locally designated scenic route.	Previously referenced Mitigation Measures 4.1.1.6A through 4.1.16D	Significant and Unavoidable
Impact 4.1.6.3 Existing Visual Character and its Surroundings		
The WLC project will fundamentally change views of the area from agriculture to large warehouses.	**4.1.6.3A** Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.	Significant and Unavoidable
Impact 4.1.6.4 Light and Glare		
The WLC project will significantly impact the area by substantially increasing lighting and glare in the area.	**4.1.6.4A** Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts. **4.1.6.4B** Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.	
Cumulative Aesthetic Impacts		
The cumulative effect of development in the region will continue to modify existing viewsheds, especially along SR-60. Cumulative impacts would remain significant and unavoidable.	Previously referenced Mitigation Measures 4.1.6.1A through 4.1.6.1D, 4.1.6.4A and 4.1.6.4B	Significant and Unavoidable
4.2 Agriculture		
LESS THAN SIGNIFICANT IMPACTS		
Forest Land Zoning		
There are no significant impacts because there are no areas designated as forest land or timberland on the project site.	No mitigation is required.	No Impact
Loss or Conversion of Forest Land		
There are no forest lands on the project site or in the surrounding area.	No mitigation is required.	No Impact
Existing Zoning and Williamson Act		
There are no Williamson Act Contracts on or adjacent to the project site.	No mitigation is required.	No Impact

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Farmland Conversion		
The project will not convert Unique Farmland by the state to urban uses.	No mitigation is required.	No Impact
Impact 4.2.6.2 Conversion of Farmland to Non-Agricultural Uses		
The project will convert 2,610 acres of Farmland of Local Importance to urban uses.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None		No Impact
Cumulative Agricultural Impacts		
As urban development continues in the City and surrounding areas, there will be a cumulative loss of agricultural land through conversion to urban uses. This conversion is a long-established historical process based on local and regional economic conditions, resulting in the eventual relocation of farming to more rural and outlying areas (e.g., Coachella Valley, Kern County, etc.).	**6.2.1:** Prior to the issuance of any grading permit affecting land designated as "Farmland of Local importance" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis shall include a comparison of the project's "Farmland of Local Significance" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It shall include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.3 Air Quality		
LESS THAN SIGNIFICANT IMPACTS		
Odors		
The project involves large warehouses and no uses that would generate substantial odors. The natural gas facilities on site sometimes generate temporary odors from natural gas blow-offs, but these are not considered significant impacts.	No mitigation is required.	Less than Significant
Long-Term Microscale (CO Hot Spot) Emissions		
The project air quality study determined that project-related traffic would not create any CO hot spots on local roadways through project buildout.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.3.6.1 Air Quality Management Plan Consistency		
The land uses of the project are not consistent with those used to prepare the most current AQMP. Although the project would substantially improve the jobs/housing balance of the City by introducing more employment-generating uses than new housing, it would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures for both construction and operation, emissions associated with the project cannot be reduced below applicable SCAQMD thresholds.	Implementation of Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3D, and 4.3.6.4A, will help reduce air pollutant emissions of the project, but it will still be inconsistent with the AQMP.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.3.6.2 Construction Equipment Exhaust Emissions		
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for construction-related activities.	**4.3.6.2A** Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley. a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment. b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer specifications. d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour. e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley. g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles. h) Construction on-road haul trucks shall be model year 2010 or newer if diesel fueled. i) Information on ridesharing programs shall be made available to construction employees.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	j) During construction, lunch options shall be provided onsite. k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted. **4.3.6.2B** Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using World Logistics Center Parkway (formerly Theodore Street), Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer. **4.3.6.2C** The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC): a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per liter or lower for both interior and exterior surfaces shall be used. b) Leftover paint shall be taken to a designated hazardous waste center. c) Paint containers shall be closed when not in use. d) Low VOC cleaning solvents shall be used to clean paint application equipment. e) Paint and solvent-laden rags shall be kept in sealed containers.	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	4.3.6.2D No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).	
Impact 4.3.6.3 Localized Construction and Operation Emissions		
Future development within the WLCSP will exceed local significance thresholds of the SCAMQD for trucks and other operational activities.	**4.3.6.3A** Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots. **4.3.6.3B** The following shall be implemented as indicated: **Prior to Issuance of a Certificate of Occupancy** a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations and the prohibition of parking in residential areas. b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations. c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code. **On an Ongoing Basis** d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City. e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	f) Tenants shall be encouraged to become a SmartWay Partner. g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers. h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation. i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center. j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet. k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025. l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time. m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel. n) Truck and vehicle idling shall be limited to three (3) minutes. **4.3.6.3C** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D. **4.3.6.3D** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C. **4.3.6.3E** Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the Revised Sections of the FEIR. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).	
Impact 4.3.6.4 Long-Term Operational Emissions		
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for trucks and other operational activities.	**4.3.6.4A** The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan: a) All tenants shall be required to participate in Riverside County's Rideshare Program. b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities. c) Class II bike lanes shall be incorporated into the design for all project streets. d) The project shall incorporate pedestrian pathways between on-site uses. e) Site design and building placement shall provide pedestrian connections between internal and external facilities.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site. g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction. h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.- Each building shall provide a minimum of two shower and changing facilities for employees. i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls. j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.	
Impact 4.3.6.5 Impacts to Sensitive Receptors		
The construction and operation of the project would result in the emissions of several toxic air contaminants, the most ubiquitous being diesel particulate matter (diesel PM). The projects estimated cancer risk for sensitive receptors onsite would exceed the maximum cancer risk thresholds.	**4.3.6.5A** Prior to the issuance of grading permits, the Applicant shall arrange for MERV 13 air filters to be installed at the residence located at 13241 World Logistics Center Parkway (formerly Theodore Street). Implementation of the previously identified Mitigation Measures 4.1.6.1A, 4.3.6.2A through 4.3.6.2D, and 4.3.6.3A through 4.3.6.3E will help reduce short- and long-term project emissions and health risks to sensitive receptors, but not to less than significant levels.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Air Quality Impacts		
The project will increase short-term local and long-term regional air pollutant emissions and chronic health risks.	Implementation of the previously identified Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A and 4.3.6.5A will help reduce short- and long-term project emissions and health risks, but not to less than significant levels.	Significant and Unavoidable
4.4 Biological Resources		
LESS THAN SIGNIFICANT IMPACTS		
Adopted Policies and/or Ordinances		
There are no local policies or ordinances regarding the protection of biological resources.	No mitigation required	No Impact
The project would not conflict with an adopted HCP, NCCP or local. regional or state habitat conservation plan.	**4.4.5.2A** Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official. **4.4.5.2B** Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Western Riverside County Regional Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Western Riverside County Regional Conservation Authority ("RCA").	Less than significant with mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	**Mitigation Measures**	**Level of Significance**
	In addition, the **Mitigation Measures 4.4.6.1A and 4.4.6.1B** described below will also help reduce potential direct and indirect impacts to biological resources covered by the MSHCP. Potential impacts related to MSHCP consistency will be less than significant. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2B, 4.4.5.2A,** and **4.4.5.2B,** the less than significant impacts related to MSHCP consistency will be further reduced.	
Habitat Fragmentation/Wildlife Movement		
The project will not restrict the movement of wildlife to and from the Badlands and the SJWA/Mystic Lake area, and will protect Drainage 9 through the project area as a natural drainage channel.	No mitigation required	Less than Significant
Impact 4.4.6.1 Endangered and Threatened Species		
There are 17 plant and animal species designated as endangered or threatened by state and/or federal authorizes that have the potential to occur within the general vicinity of the WLC project area. Development will remove agricultural land which provides minimal habitat value for most species present.	**4.4.6.1A** All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area. In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area.	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official. A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager. **4.4.6.1B** Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City of Moreno Valley and RWQCB requirements. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.	
Impact 4.4.6.2 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities		
Drainage Features 7, 8, 9, 12, and 15 within the project area are considered riparian/riverine areas.	**4.4.6.2A** Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant shall secure	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation shall be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins shall be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins shall be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation shall be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan shall be prepared for all unavoidable impacts and shall be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below. Mitigation shall consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat shall be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat shall be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation shall include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).	

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Issues/Impacts	Mitigation Measures	Level of Significance
	4.4.6.2B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project grading permit approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program. If impacts to riparian habitat within the WLC Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.2A. A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Mitigation required for compensation for impacts to riparian/ riverine areas shall require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land. As outlined in the WLC programmatic DBESP, erosion control improvements shall be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat shall be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).	
	4.4.6.2C Prior to issuance of any grading permit for any offsite improvements that support development within the WLC site, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2013 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions with a minimum1:1 mitigation ratio. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.	
Impact 4.4.6.3 Candidate, Non-listed Sensitive, or Special-Status Species			
The project area contains suitable habitat for sensitive species, including a variety of nesting birds, including burrowing owl, and Los Angeles pocket mouse.	**4.4.6.3A**	Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest,	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.3B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.3B** If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.3A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.3C** The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple Species Habitat Conservation Plan fee shall be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A shall be established within the WLC site. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas. ***Burrowing Owl*** **4.4.6.3D**A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the WLC site. In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required. If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction	

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Issues/Impacts	Mitigation Measures	Level of Significance
	activity shall maintain a 500foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife. If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan shall outline the basic process and provides options for avoidance. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW. A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor. ***Los Angeles Pocket Mouse*** **4.4.6.3E** Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the WLC site	

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Issues/Impacts	Mitigation Measures	Level of Significance
	or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division. ***Resource Management*** **4.4.6.3F** Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan shall also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.5.2A, 4.4.6.3D, and 4.4.6.3E. The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division. **4.4.6.3G** Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto	

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Issues/Impacts	Mitigation Measures	Level of Significance
	Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8). During construction, the runoff leaving construction areas shall be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10). **4.4.6.3H** As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas. **4.4.6.3I** The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website	

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Issues/Impacts	Mitigation Measures	Level of Significance
	at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group. **4.4.6.3J** A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the WLC site adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following: • A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area. • A list of non-native invasive plants that are prohibited from installation. • Maintenance activities and a maintenance schedule. Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks. **4.4.6.3K** Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.	

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Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Biological Impacts		
With implementation of the stated project-specific mitigation and payment of required MSHCP fees, no significant cumulative effect on biological resources would result from development of the WLC project.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A through 4.4.6.2C, 4.4.6.3A through 4.4.6.3C, and 4.4.6.3A through 4.4.6.3K.	Less than Significant
4.5 Cultural Resources		
LESS THAN SIGNIFICANT IMPACTS		
Human Remains		
There is no evidence that the site has been utilized for human burials, and there is state law dealing with human remains that are found during grading or excavation.	No mitigation required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.5.6.1 Archaeological Resources		
Most of the site has been previously surveyed, and previously identified resources have been surveyed and retrieved according to required protocols. Nine on-site rural residential properties (designated “Light Logistics”) have not been previously surveyed and would need to be surveyed prior to development. The City has conducted SB 18 Consultation with local Native American tribes and the Pechanga and Soboba tribes have expressed a desire to consult.	**4.5.6.1A** Prior to the approval of any grading permit for any of the “Light Logistics” parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the “Light Logistics” parcel to determine if significant archaeological or historical resources are present. A Phase 2 significance evaluation shall be completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg. 74). **4.5.6.1B** Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg. 74). Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment. If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official. If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be	

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Issues/Impacts	Mitigation Measures	Level of Significance
	significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary. Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3, Table 3, pg. 74). Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg. 74). **4.5.6.1C** Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg. 74): 1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected; 2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative. 3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item	

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Issues/Impacts	Mitigation Measures	Level of Significance
	shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular find are investigated; and 4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if necessary, the museum where any recovered artifacts have been curated. 5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study. 6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official. **4.5.6.1D** Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the Planning Official.	

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Issues/Impacts	Mitigation Measures	Level of Significance
	4.5.6.1E It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City. No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.	
Impact 4.5.6.2 Historic Resources		
Seven on-site rural residential properties (designated "Light Logistics") have not been previously surveyed for historical resources, and would need to be surveyed prior to development. Juan Bautista de Anza crossed the southern portion of the site while exploring California in 1774.	**4.5.6.2A** If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical	Less than Significant with Mitigation

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	group, the developer shall have no further responsibility for their management or maintenance. In addition, the following measure is proposed to acknowledge the route of Juan Bautista de Anza through the project area as an important historical event: **4.5.6.2B** As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society. **4.5.6.2C** Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.	
Impact 4.5.6.3 Paleontological Resources		
The project area is considered moderately sensitive regarding paleontological resources, and fossiliferous materials have been found in the surrounding region in the past.	**4.5.6.3A** Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions: 1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations. 2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed. 3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain	Less than Significant with Mitigation

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	fossil resources. This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg. 76). **4.5.6.3B** Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures: 1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations. 2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed. 3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.	
Cumulative Cultural Impacts		
The project site and surrounding area, especially the uplands associated with Mt. Russell, have yielded cultural resources in the past. As this area develops, there is a potential for impacts to or loss of archaeological, historical, or paleontological resources.	Previously referenced Mitigation Measures 4.5.6.1A through 4.5.6.1E, 4.5.6.2A through 4.5.6.2C, and 4.5.6.3A and 4.4.6.3B.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
4.6 Geology and Soils		
LESS THAN SIGNIFICANT IMPACTS		
Landslides or Rockfalls		
A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The Specific Plan designates 74.3 acres in the southwest corner of the site as open space.	No development will occur in the potential landslide zone, so no mitigation is needed.	Less than Significant
Soil Erosion or Loss of Topsoil		
On-site soils have a slight erosion hazard, and uncontrolled runoff could result in erosion or loss of topsoil.	The project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.	Less than Significant
Septic Tanks		
The project would not involve the installation of septic tanks or alternative wastewater disposal systems, no impacts would occur.	No mitigation is required.	No Impact
Seismic-Related Ground Failure		
The City's General Plan and project geotechnical report indicates the site has little or no potential for seismically-induced failure or liquefaction.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.6.6.1 Fault Rupture		
The eastern portion of the site contains one or more splays of the San Jacinto Fault, and the Casa Loma Fault	**4.6.6.1A** Prior to approval of any projects for development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands	Less than Significant with Mitigation

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may be in in the general vicinity of the western portion of the site.	Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist. **4.6.6.1B** Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a "special foundation or grading remediation zone" for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as	

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Issues/Impacts	Mitigation Measures	Level of Significance
	necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist. **4.6.6.1C** Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be implemented to the satisfaction of the City Engineer.	
Impact 4.6.6.2 Ground Shaking		
Southern California is located in a seismically active area and will continue to be subject to ground shaking	**4.6.6.2A** Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
resulting from seismic activity on regional and local faults.	submitted to the City, which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report shall also determine final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.	
Impact 4.6.6.3 Unstable Soils		
On-site soils have a moderate to low shrink-swell potential, and there are some moderately expansive soils on site as well.	**4.6.6.3A** Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site. The report shall determine: 1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	ensure that structures can withstand ground accelerations expected from known active faults. 2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer.	
	4.6.6.3B Any cut slopes in excess of five (5) feet in vertical height shall be constructed as “replacement fill slopes” per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist. **4.6.6.3C** During all grading activities, a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	
Cumulative Geology and Soils Impacts		
It is reasonable to conclude that all development within this seismically active area will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies.	Previously referenced Mitigation Measures 4.6.6.1A through 4.6.6.1C, 4.6.6.2A, and 4.6.6.3A through 4.6.6.3C.	Less than Significant
4.7 Greenhouse Gases and Global Climate Change		
LESS THAN SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
SIGNIFICANT IMPACTS		
Impact 4.7.6.1 Greenhouse Gas Emissions		
The project will emit substantial quantities of greenhouse gases during construction and operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions, while generated by this project, are nonetheless considered cumulative impacts (see below).	**4.7.6.1A** The World Logistic Center project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development: a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout. c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas. d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan. e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building. f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals. g) The property owner shall advise all tenants of the availability of community recycling and composting services.	

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Issues/Impacts	Mitigation Measures	Level of Significance
	h) Existing onsite street material shall be recycled for new project streets to the extent feasible. **4.7.6.1B** (Previously Included as Utilities Mitigation Measure 4.16.4.6.1A for building energy). Each application for a building permit shall include energy calculations to demonstrate compliance with California Energy Efficiency Standards (Title 24, Part 6). Plans shall show the following: - Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning. - Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment. - Energy-efficient appliances that achieve the 2016 California Appliance Energy Efficiency Standards (e.g. EnergyStar® Appliances) and use of sunlight-filtering window coatings or double-paned windows **4.7.6.1C** (Previously Included as Utilities Mitigation Measure 4.16.4.6.1B building energy). Prior to the issuance of any building permits within the WLC site, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards, for each new structure. Plans may include but are not necessarily limited to implementing the following as appropriate:	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	- High-efficiency air-conditioning with electronic management system (computer) control. - Isolated High-efficiency air-conditioning zone control by floors/separable activity areas. - Use of Energy Star ® exit lighting or exit signage. **4.7.6.1D** (Previously Included as Utilities Mitigation Measure 4.16.4.6.1C building energy; now modified). Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following: - Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building or up to the limit allowed by MVU's restriction on distributed solar PV connecting to their grid, whichever is greater; - Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and - Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.	

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency		
The project could be potentially inconsistent with established Greenhouse Gas plans, policies, or regulations.	Implementation of previously referenced Mitigation Measures 4.3.6.2A, 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A through 4.7.6.1D, 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C, will help reduce project-related GHG emissions	Less than Significant with Mitigation
Cumulative Greenhouse Gas Impacts		
The project will emit substantial quantities of greenhouse gases during project operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions are considered cumulative in terms of global climate change.	Project-specific energy conservation, air quality, and greenhouse gas Mitigation Measure 4.7.6.1A through 4.7.6.1D will help reduce project greenhouse gas emissions, the project will not make a significant cumulative contribution to greenhouse gas emissions.	Less than Significant with Mitigation
4.8 Hazards and Hazardous Materials		
LESS THAN SIGNIFICANT IMPACTS		
Within Two Miles of a Private Airport, Airport Land Use Plan, or Public Airport		
The nearest airport is 7 miles away so, the development of the WLC project area as proposed would not result in airport safety hazards for people working in the WLC project area.	No mitigation is required.	No Impact
Existing or Proposed School		
There are no existing planned schools on or within a quarter mile of the project site.	No mitigation is required.	Less than Significant
Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions		
The transport, use, handling, or disposal of hazardous materials is regulated by various local, state, and federal standards, ordinances, and regulations that would ensure that potential impacts associated with environmental and	No mitigation is required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
health hazards related to an accidental release of hazardous materials are less than significant, and no mitigation is required. Compliance with established safety laws and regulations regarding natural gas plants is expected to reduce this potential impact to a less than significant level, and no mitigation is required. Local soils would be extensively disturbed during grading, and would employ relatively stringent dust control measures including regular watering, and revegetation as soon as possible after grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores (“Valley Fever”) would survive in the soil. This potential impact appears minimal and no mitigation is recommended.		
Located on a List of Hazardous Materials Sites		
The project site and surrounding areas are not on any list of the hazardous materials sites as defined by Government Code Section 65962.5. In addition, a number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials.	No mitigation is required.	Less than Significant
Conflict with Emergency Response Plans		
Compliance with existing regulations for emergency access and evacuation would ensure that impacts related to this issue are less than significant, and no mitigation is required.	No mitigation is required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Wildlands Fire Risk		
The Badlands to the east, across Gilman Springs Road, is considered a Very High Fire Hazard Area. The project allows the construction of warehouse buildings which have a low fire potential, and the project will add a new roadway network to facilitate access for fire protection vehicles and services. Fire Station #58 is relatively close to the project site, but future development will generate a need for an additional fire station on the site. New structures will have to comply with current Fire and Building Code regulations.	The WLC Specific Plan identifies a new on-site fire station, and payment of DIF and increased property taxes will fund future fire services. No other mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
On-site Conditions Involving Hazardous Materials		
A number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials. However, the existing rural residences on site have not been surveyed as yet for hazardous materials.	**4.8.6.1A** Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations. **4.8.6.1B** Prior to the issuance of any discretionary permits associated with the proposed fueling facility ("logistic support" site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau. **4.8.6.1C** Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau. **4.8.6.1D** Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.	
Cumulative Hazards and Hazmat Impacts		
The risk to each future project is based on the location and interface between urbanized area and wildland areas. Potential risks associated with development in this area can be effectively reduced through conformance with Fire and Building Code regulations.	The WLC Specific Plan identifies a new on-site fire station, and increased property taxes will fund future police and fire services. Project specific mitigation measures 4.8.6.1A, 4.8.6.1B, 4.8.6.1C, and 4.8.6.1D are required and would ensure no significant cumulative impacts would result.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
4.9 Hydrology and Water Quality		
LESS THAN SIGNIFICANT IMPACTS		
Seismic Flooding-Related Impacts		
The WLC project area is not identified as being located within the City's mapped inundation area.	No mitigation required	Less than Significant
Seismic-Related Impacts		
The southwest corner of the site has slopes associated with Mt. Russell, but this area is designated as open space and the rest of the WLC area gently sloping and landslides or mudslides would not occur here.	No mitigation is required	Less than Significant
Groundwater		
The proposed WLC project would not interfere with groundwater recharge as the project site is not identified as a groundwater recharge area and it will utilize water supplies from EMWD.	No mitigation is required	Less than Significant
100-Year Flooding-Related Impacts		
The project site does not lie within a 100-year floodplain and does not include housing, so impacts related to this issue are less than significant.	No mitigation is required	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.9.6.1 Drainage Pattern and Capacity-Related Impacts		
The project will modify local drainage patterns, increase impervious surfaces (roofs, hardscape, etc.), and add landscaped areas with irrigation.	**4.9.6.1A** Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention area(s), and spreading	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins, are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained. **4.9.6.1B** The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale). For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities	

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Issues/Impacts	Mitigation Measures	Level of Significance
	should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours. For the Detention/infiltration Basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).	
Impact 4.9.6.2 Construction-Related Water Quality		
The construction and grading phases of the WLC Specific Plan area would temporarily disturb surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation within the WLCSP area.	**4.9.6.2A** Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer. **4.9.6.2B** Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	Practices to be implemented may include (but shall not be limited to) the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required. • Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas. • All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps. • The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase. • Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan. • The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time. The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.	

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.9.6.3 Operational-Related Water Quality		
During the operational phase of the WLC the major source of pollution in storm water runoff would be contaminants such as, a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron that have accumulated on the land surface over which runoff passes. These contaminants may lead to the degradation of storm water in downstream channels and require mitigation to reduce impacts to less than significant.	**4.9.6.3A** Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate: **Site Design Best Management Practices** (a) Minimize urban runoff. (b) Maximize the permeable area. (c) Incorporate landscaped buffer areas between sidewalks and streets. (d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs. (e) Use natural drainage systems. (f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration. (g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives. (h) Minimize impervious footprint. (i) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised. (j) Reduce widths of street where off-street parking is available. (k) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	(l) Conserve natural areas. (m) Minimize Directly Connected Impervious Areas (DCIAs). (n) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices. (o) Streets, sidewalks, and parking lots will sheet flow to landscaping/ bioretention areas that are planted with native or drought tolerant trees and large shrubs. **Source Control Best Management Practices** Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural. Non-structural source control Best Management Practices include: (a) Education for property owners, operator, tenants, occupants, or employees; (b) Activity restrictions; (c) Irrigation system and landscape maintenance; (d) Common area litter control; (e) Street sweeping private streets and parking lots; and (f) Drainage facility inspection and maintenance. Structural source control Best Management Practices include: (g) MS4 stenciling and signage; (h) Landscape and irrigation system design; (i) Protect slopes and channels; and (j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas. **Treatment Control Best Management Practices** Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store runoff for later non-potable uses. Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously. **4.9.6.3B** The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board. **4.9.6.3C** Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site. The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.	
Cumulative Hydrology and Water Quality		
The drainage system for the proposed WLC project would maintain post-development runoff at pre-development levels for off-site downstream properties. Therefore, the proposed WLC project will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality.	Previously referenced Mitigation Measures 4.9.6.1A, 4.9.6.1B, and 4.9.6.3A through 4.9.6.3C. No additional mitigation is required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.10 Land Use and Planning		
LESS THAN SIGNIFICANT IMPACTS		
Conflict with Applicable Land Use Plans, Policies, or Regulations		
The land uses per se of the project are not consistent with SCAG growth projections and some Compass Plan policies because they are not residential in nature. However, the project will substantially improve the City's job/housing balance which is consistent with these regional plans. The WLC project is consistent with the City General Plan upon approval of the requested General Plan Amendment. The project is consistent with the City's Housing Element. Therefore, the project is consistent with both regional and local land use plans, policies, and regulations.	No mitigation is required.	Less than Significant
Conflict with any Applicable Habitat or Natural Community Conservation Plan		
The project will be required to comply with the requirements of the County's MSHCP and pay its development impact fee.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4F related to Biological Resources will be implemented, and no additional mitigation is required.	Less than Significant
Cumulative Land Use and Planning Impacts		
The WLC project would not have significant project-related impacts related to dividing an established community, conflicting with applicable land use plans, policies, or regulations, or conflicting with an approved habitat conservation plan. While the WLC project would represent a shift in land use policy, this policy shift does not represent a significant CEQA impact.	No mitigation is required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
Physically Divide an Established Community		
The WLC is located in the eastern end of the City, so its development would not physically divide an established community. However, development could adversely affect seven existing rural residences onsite, and the land plan cannot accommodate residences within logistics warehousing areas.	No feasible mitigation is available.	Significant and Unavoidable
4.11 Mineral Resources		
LESS THAN SIGNIFICANT IMPACTS		
Loss of Statewide, Regional, or Locally Important Mineral Resources		
The project site and surrounding area do not contain any identified regional or local mineral resources, nor are there any ongoing mineral resource extraction activities in the project area.	No mitigation is required.	No impact
Cumulative Mineral Resources		
The WLC project site does not contain significant forest resources, so it will not make a significant contribution to cumulatively considerable impacts relative to any forest resources.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.12 Noise		
LESS THAN SIGNIFICANT IMPACTS		
Groundborne Vibration		
Project-related earthwork will create groundborne vibration, but the project noise study determined it would not exceed significance criteria for adjacent residential uses.	No mitigation is required.	Less than Significant
Airport Noise		
There are no public airports or private airstrips within two miles of the project site, so there will be no significant airport-related noise.	No mitigation is required.	No Impact
SIGNIFICANT IMPACTS		
Impact 4.12.6.1 Short-Term Construction Noise		
Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.	**4.12.6.1A** Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The NRCP shall be prepared by a qualified acoustical consultant describing how noise reduction measures shall be implemented to reduce the noise exposure on sensitive receptors adjacent to onsite and offsite construction areas. The noise reduction measures shall be implemented so that construction activities do not exceed the City's daytime and nighttime average hourly noise standard of 60 dBA L_{eq} and 55 dBA L_{eq}, respectively. The construction noise reduction measures shall include, but not be limited to, the following measures:	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	• All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards. • Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the project. • No construction activity shall occur within 800 feet of residences between 8 p.m. and 7 a.m. on weekdays and weekends. • A 12-foot tall temporary construction sound barrier blocking the line-of-sight of construction activity to any residential receptor located within 800 feet of active construction areas shall be installed prior to commencement of any construction activity. The temporary sound barrier shall be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. • Distribute to the potentially affected residences and other sensitive receptors within 500 feet of project construction boundary a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The distribution shall identify a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute feasible actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	corrective action taken. The distribution shall also notify residents adjacent to the project site of the construction schedule. Records of any complaints and corrective action shall be stored at the site and available to the City upon request.	
Impact 4.12.6.2 Long-Term Traffic Noise		
Project operations will create significant long-term noise impacts on site and along a number of off-site roadways. Not all off-site impacts can be mitigated to less than significant levels by installing sound-attenuation improvements.	**4.12.6.2A** When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development: Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the Revised Sections of the FEIR remain valid. These procedures used to conduct these noise analyses shall be consistent with the noise analysis conducted in the Revised Sections of the FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings. Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the World Logistics Center site, the Applicant shall implement the appropriate level of mitigation, identified in the Revised Sections of the FEIR to reduce the identified impacts to comply with the Moreno Valley Municipal Code, which sets maximum sound levels reaching residential uses at 60 dBA during the daytime hours (8:00 a.m. – 10:00 p.m.) and 55 dBA during nighttime hours (10:01 p.m. – 7:59 a.m.). Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote. At the completion of the vote at the end of the 45-day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public. Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement. **4.12.6.2B** Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 49 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road. **4.12.6.2C** Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D. **4.12.6.2D** Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary, and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12-foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, "All manufacturing and industrial uses adjacent to residential land uses shall include a setback zone and/or noise attenuation wall to reduce outside noise levels"	
Impact 4.12.6.3 Long-Term Operational Noise		
Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. With implementation of a minimum 250-foot setback from residential uses, potential long-term operational noise impacts would be less than significant.	The project noise assessment determined that operational noise impacts from warehouse activities would not exceed City standards at nearby residential areas with implementation of the 250-foot setback requirement.	Less than Significant with Mitigation
Impact 4.12.6.4 Long-Term Utility Noise		
Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.	**4.12.6.4A** Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).	
Impact 4.12.6.5 Cumulative Noise Impacts		
Traffic noise level increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative development projects in the project vicinity and region as well as the project. This is a significant impact and mitigation is required.	Previously referenced Mitigation Measures 4.12.6.1A, 4.12.6.2A through 4.12.6.2C, 4.12.6.3A, and 4.12.6.4A will be implemented, but cumulative noise impacts will still be significant.	Significant and Unavoidable
4.13 Population, Housing, and Employment		
LESS THAN SIGNIFICANT IMPACTS		
Population Growth		
The project proposes to develop logistics warehouses which will result in minimal direct population increase in the City, although some workers may move to the City to work at this project, and some local residents will also work at this project. The project will not necessitate extension of major infrastructure and the project will not remove obstacles that will result in substantial population growth.	No mitigation is required.	Less than Significant
Displace Substantial Housing/People		
The existing seven rural residences on the site will eventually convert to "Light Logistics" uses. The project will eliminate the potential for the site to provide 388 units of affordable housing that were proposed under the	No mitigation required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	**Mitigation Measures**	**Level of Significance**
Moreno Highlands Specific Plan. However, the City can meet its regional housing goals without these units, and the project is consistent with the City's current Housing Element.		
SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
Cumulative Population, Housing, and Employment Impacts		
Implementation of the proposed WLC project would improve the City's jobs/housing ratio by creating thousands of new construction and permanent jobs in the City. Therefore, it will not result in cumulatively considerable impacts to population or housing.	No mitigation is required.	Less than Significant
4.14 Public Services and Facilities		
LESS THAN SIGNIFICANT IMPACTS		
Police Protection		
As development under the WLCSP, the need for police services will increase. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant
Fire Protection		
As development under the WLCSP, the need for fire services will increase. Under the WLCSP, a new fire station site will be contributed to the City. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Schools		
Future industrial development will contribute no new students to local schools. Payment of the school impact fees to the MVUSD and SJUSD will reduce potential impacts to school services and facilities to less than significant levels.	No mitigation is required.	Less than Significant
Parks, Recreation, Trails		
Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional parks and trails. The WLCSP proposes trail connections to Redlands Boulevard, Cactus Avenue, and the State-owned land to the south, plus a loop trail through the WLCSP site.	No mitigation is required.	Less than Significant
New or Physically Altered Recreation and Park Facilities		
Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional or altered parks.	No mitigation is required.	Less than Significant
Cumulative Public Services and Facilities Impacts		
As development occurs, the need for public services will incrementally increase. Anticipated property tax increases and payment of DIF fees to the City will effectively mitigation potential cumulative impacts to public services.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.15 Traffic and Circulation		
LESS THAN SIGNIFICANT IMPACTS		
Air Traffic Patterns		
The project site is not within two miles of a public airport or private airstrip, and there are no major air traffic patterns over or in the immediate vicinity of the project site.	No mitigation is required.	Less than Significant
Design Hazard Features		
The project site is currently vacant agricultural land with only two major roadways (Theodore Street and Alessandro Boulevard). Under the WLCSP, a complete arterial circulation network will eventually be constructed that will allow full truck access and minimize road-related hazards.	No mitigation is required.	Less than Significant
Emergency Access		
The project site is currently vacant agricultural land with only two major roadways and minimal need for emergency services. Development under the WLCSP will eventually result in the construction of a complete arterial circulation network which will allow full access for emergency vehicles and services.	No mitigation is required.	Less than Significant
Alternative Transportation Policies, Plans, or Programs		
The project will create a complete roadway circulation network, install a loop trail system, have Class II bikeways and sidewalks on all internal arterial streets, and streets can accommodate bus turnouts when needed by the local transit agency.	Carpooling is required under Air Quality Mitigation Measure 4.3.6.4A. No additional mitigation is required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
Impact 4.15.6.1 Existing (2018) With Phase 1 Conditions Traffic and Level of Service		
Existing baseline (year 2018) with Phase 1 intersection levels of service for the study area intersections include 15 study intersections where Phase 1 of the project would have a significant impact. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts and mitigation is required. Phase 1 of the project would cause a direct project impact at the other three intersections and mitigation is required.	**4.15.7.4A:** A traffic impact analysis ("TIA"), conforming to the guidelines for TIAs adopted by the City shall be submitted in conjunction with each Plot Plan application within the WLCSP. Prior to the approval of Plot Plans, the City shall review the Revised TIA to determine if any of the traffic improvements listed in the above tables need to be implemented as part of the plot plan. The TIA prepared for the Revised Sections of the FEIR are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to reimbursement agreement for those costs that exceed the fair share contribution determined for the specific Plot Plan application. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in MM 4.15.7F prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Revised TIA, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	4.15.7.4B: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way, where feasible, consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map. Required dedications shall be made prior to the issuance of occupancy permits for the requested development. **4.15.7.4C:** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the Applicant to construct or to fully fund the transportation measures identified in the development's TIA (see MM4.15.7.4A) as needed to mitigate the transportation impacts within the city of the Plot Plan development. The payment or construction shall be made prior to the issuance of occupancy permits for the requested development. This condition shall apply only to mitigation measures where a mechanism has been established to collect funds from the project and any other funds to needed to complete the improvements. **4.15.7.4D:** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Chapter 3.44. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development. **4.15.7.4E:** In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the Revised Traffic Impact Analysis, i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to MM 4.15.7.4F. As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	up for any existing deficiencies. Mitigation measures are summarized in Tables 4.15-1 to 4.15-13. **4.15.7.4F** The Applicant shall pay its portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the Project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the WLC project as a whole has a significant impact identified in the Revised Sections of the FEIR) as determined by the Revised Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Revised Sections of the FEIR will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact. For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection IN-85) in the City of Riverside was identified as a place where the WLC contributes to cumulatively significant impacts, and where the fair share contribution of the WLC project as a whole was computed to be 0.6%. If the City of Riverside establishes a fair share contribution program consistent with this MM to improve that intersection, then when a certificate of occupancy is to be	

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

<table>
<tr><th>Issues/Impacts</th><th>Mitigation Measures</th><th>Level of Significance</th></tr>
<tr><td></td><td>
issued for a 2-million sq. ft. high-cube warehouse in the WLC (approximately 5% of the entire WLC project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:
<table>
<tr><td>Amount Due</td><td>=</td><td>Total cost of Improvement</td><td>×</td><td>Total World Logistics Center fair share (0.6%) as determined by Traffic Impact Analysis</td><td>×</td><td>% attributable to the building that is subject to the certificate of occupancy (5%)</td></tr>
</table>
<table>
<tr><td>A × B × C = D</td></tr>
<tr><td>A = % attributable to the building that is subject to the certificate of occupancy (5%)
B = Total World Logistics Center fair share (0.6%) as determined by Traffic Impact Analysis
C = Total cost of Improvement
D = Amount Due</td></tr>
</table>
A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire WLC to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with MM 4.15.7.4F

4.15.7.4G City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the needs of the City, including
</td><td></td></tr>
</table>

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	improvements identified in this TIA. Toward this end, City shall meet regularly with WRCOG.	
Impact 4.15.6.2 Existing (2018) With Project (Buildout) Conditions Traffic and Level of Service Impacts		
When project traffic under buildout conditions is overlaid on existing roadway and freeway conditions, significant project-specific and cumulative traffic impacts will occur. Local and regional roadway and intersection impacts can be effectively mitigated, as outlined in the project TIA and described in the mitigation measures to the right. At this time, there is no effective mitigation for anticipated project impacts on local freeways. In addition, the City cannot control the timing of improvements required at locations outside of the City of Moreno Valley.	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Buildout.	Significant and Unavoidable (see Cumulative Impacts)
Impact 4.15.6.3 Year 2025 with Project (Phase 1) Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, during Phase 1 development (approx. 2020 to 2025).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Year 2025 (considered to be Phase 1).	Significant and Unavoidable
Impact 4.15.6.4 Cumulative Impacts - General Plan Buildout (Year 2040) With Project Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, after completion of development under the WLCSP (i.e., after 2025).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G for development as it occurs during development under the WLCSP.	Significant and Unavoidable

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.16 Utilities and Service Systems		
LESS THAN SIGNIFICANT IMPACTS		
Construction or Expansion of Water Treatment Facilities		
The project can connect to the existing water supply and will not require the construction of any new water storage or treatment facilities.	No mitigation is required.	Less than Significant
Cumulative Water Supply		
The EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project area, including existing and future users, when planned groundwater storage improvements are completed.	No mitigation is required.	Less than Significant
Wastewater Treatment Requirements		
Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant.	No mitigation is required.	No Impact
Wastewater Treatment Capacity and/or New or Expanded Wastewater Facilities		
The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects.	No mitigation is required.	Less than Significant
Cumulative Wastewater Treatment		
The project, in conjunction with planned and future development within the service area, will incrementally increase the need for wastewater treatment over the long-	No mitigation is required.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
term. However, the project itself would not require the construction of new wastewater treatment facilities or expansion of existing facilities.		
Solid Waste Facilities		
Adequate daily surplus capacity exists at the receiving landfill, so project development would not significantly impact current operations or the expected lifetime of the landfill serving the project area.	No mitigation is required.	Less than Significant
Solid Waste Reduction		
The project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, state, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations.	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site, and no additional mitigation is required.	Less than Significant
Cumulative Solid Waste		
The project, in conjunction with planned development in the surrounding region, will contribute increased volumes of solid waste to local landfills. However, these volumes will not exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered less than significant.	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site.	Less than Significant

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
Impact 4.16.1.6.1 Adequate Water Supply		
The Water Supply Assessment prepared for the project by Eastern Municipal Water District determined there were sufficient supplies of water to serve the project. However, the supply of water imported from the State is not currently guaranteed, so there may be significant impacts related to long-term water supply.	**4.16.1.6.1A** Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following: • Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan; • Use of vacuums, sweepers, and other “dry” cleaning equipment to reduce the use of water for wash down of exterior areas; • Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors); • Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest; • Use of recirculation systems in any outdoor water features, fountains, etc.; • Use of low-flow sprinkler heads in irrigation system; • Provide information to the public in conspicuous places regarding outdoor water conservation; and • Use of reclaimed water for irrigation if it becomes available. **4.16.1.6.1B** All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following: • Instantaneous (flash) or solar water heaters; • Automatic on and off water facets;	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	• Water-efficient appliances; • Low-flow fittings, fixtures and equipment; • Use of high efficiency toilets (1.28 gallons per flush [gpf] or less); • Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf); • Use of self-closing valves for drinking fountains; • Infrared sensors on drinking fountains, sinks, toilets and urinals; • Low-flow showerheads; • Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances; • Cooling tower recirculating system where applicable; • Provide information to the public in conspicuous places regarding indoor water conservation; and • Use of reclaimed water for wash down if it becomes available. **4.16.1.6.1C** Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.	
Impact 4.16.1.6.2 Storm Water Drainage Requirements		
The development of the proposed WLC project would introduce a substantial amount of impervious surfaces on the site, which could result in significant increases in off-site runoff.	**4.16.1.6.2A** Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.	Less than Significant with Mitigation

Table 1.1-1: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Impacts to Water Supply Services		
The proposed WLC project would connect to existing conveyance infrastructure and adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.	Mitigation not required	Less than Significant with Mitigation
4.17 Energy (New Section)		
LESS THAN SIGNIFICANT IMPACTS		
Energy Consumption and Generation		
The project would not result in energy use or consumption that would cause wasteful, inefficient, and unnecessary consumption of energy.	No mitigation is required.	Less than Significant
Cumulative Energy Facilities and Consumption		
The WLC project, in conjunction with planned development in the region, will increase energy consumption as development occurs. The project will adhere to Title 24 and the California Green Building Code, and will exceed Title 24 energy consumption guidelines by at least 10 percent. Therefore, the project will not make a significant contribution to energy facilities or consumption.	No mitigation is required.	Less than Significant

~~1.0 EXECUTIVE SUMMARY~~

~~1.1 INTRODUCTION~~

~~The Draft Environmental Impact Report (EIR) for the World Logistics Center Project (proposed project) has been prepared to inform the decision-makers and the public of the environmental effects associated with implementation of the proposed project.~~

~~The Draft EIR (DEIR) was circulated for public review and comment on February 4, 2013. The comment period on the DEIR closed on April 8, 2013, however the City has continued to receive and accept letters and comments for an additional year through April 2014. The comments and written responses are contained in Volume 1 of this document.~~

~~This EIR is a program EIR. A program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project, and are related either:~~

~~Geographically,~~

~~As logical parts in the chain of contemplated actions,~~

~~In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or~~

~~As individual activities carried out under the same authorizing statutory or regulatory authority, and having generally similar environmental effects which can be mitigated in similar ways.~~

~~The use of a program EIR can provide the following advantages. The program EIR can:~~

~~Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,~~

~~Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,~~

~~Avoid duplicative reconsideration of basic policy considerations,~~

~~Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.~~

~~The project is considered regionally significant according to criteria set forth in CEQA Guidelines Section 15206(b). The EIR was prepared in accordance with the California Environmental Quality Act[1] (CEQA) and Sections 15120 through 15131 and 15161 of the *Guidelines for California Environmental Quality Act,*[2] which regulate the preparation of EIRs. The DEIR (State of California Clearinghouse No. 2012021045) has been prepared by LSA Associates, Inc. on behalf of the City of Moreno Valley (City) to: 1) identify the proposed project's impacts on the environment; 2) to discuss alternatives to the proposed project; and 3) to propose mitigation measures that will offset, minimize or otherwise avoid significant environmental impacts. Based on the potential impacts of the proposed project, including cumulative impacts, the City determined that an EIR should be prepared to analyze potential impacts of the proposed project with respect to the following environmental issues. The referenced~~

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[1] ~~*California Environmental Quality Act*, as of January 1, 2014, §§21000–21189.3, Public Resources Code, State of California.~~

[2] ~~*Guidelines for California Environmental Quality Act*, as of January 1, 2014, §§15000–15387, California Code of Regulations, Title 14, Chapter 3, State of California.~~

~~environmental issues below are individually addressed in the *Environmental Analysis* Section 4.0, of this report:~~

~~Aesthetics;~~

~~Agricultural and Forest Resources;~~

~~Air Quality;~~

~~Biological Resources;~~

~~Cultural Resources;~~

~~Geology and Soils;~~

~~Greenhouse Gas Emissions and Global Climate Change;~~

~~Hazards and Hazardous Materials;~~

~~Hydrology and Water Quality;~~

~~Land Use and Planning;~~

~~Mineral Resources;~~

~~Noise;~~

~~Population, Housing, and Employment;~~

~~Public Services including Recreation;~~

~~Traffic and Circulation; and~~

~~Utilities and Service Systems.~~

~~1.2 PROJECT LOCATION AND SETTING~~

~~1.2.1 Project Site~~

~~The Project site is located in Rancho Belago, the eastern portion of the City of Moreno Valley, in northwestern Riverside County. As shown in Figure 1.1, the project site is immediately south of State Route 60 (SR-60), between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. The major roads that currently provide access to the project site are Theodore Street, Redlands Boulevard, Alessandro Boulevard, and Gilman Springs Road. The project site slopes gently (approximately 2%) from north to south, with elevations ranging from approximately 1,760 feet above mean sea level (amsl) at the northeast corner to 1,480 feet amsl at the southeast corner.~~

~~1.2.2 City of Moreno Valley~~

~~Moreno Valley is Riverside County's second largest city with a population of nearly 200,000 people encompassing more than 46 square miles. Over the years, Moreno Valley has remained overwhelmingly residential in character with only 9 percent of its land allocated for job-producing land uses. Today, Moreno Valley has one of the lowest jobs-to-housing ratios in the region (0.47), representing about one-third of the rate of its neighboring City of Riverside (1.41). As a result of limited job opportunities in the City, a large number of Moreno Valley's residents commute great distances to jobs outside the City, with an average daily commute of 76 minutes. Long commutes result in more time in traffic, more time breathing polluted air, more stress, less time at home, and less time with families.~~

~~Figure 1.1: Regional and Project Location~~

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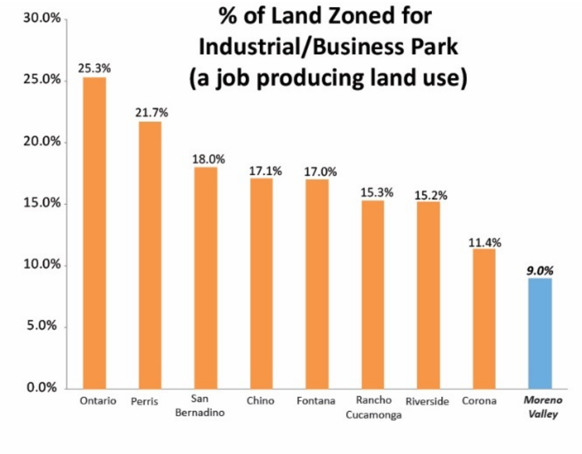

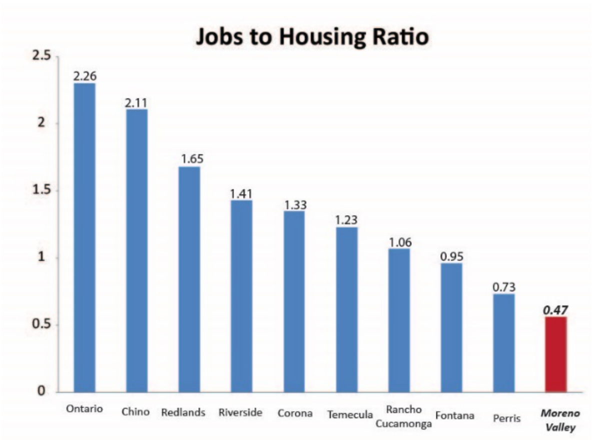

~~Under current municipal financial conditions, residential development does not “pay its way” in that property taxes and other revenues generated by residences do not cover the costs of municipal services for those residences. During times of rapid residential development, the City relied mainly on residential development fees to support its operations. In the early 1990s, when residential development slowed, revenues from development fees declined dramatically. This decline was exacerbated by reduced assessed valuations and property taxes, and Sacramento’s decision to take a greater share of property tax revenues from cities. These factors resulted in the City becoming financially overextended. To provide the funds necessary for the City to continue to meet its obligations, a temporary Utility Users Tax was enacted by the voters in 1991. With no significant improvement to its financial condition, this tax was made permanent in 1996. The City has become dependent on this tax which now represents approximately $16 million or 20 percent of the City’s budgeted revenue. The City does not currently have a sufficient tax base to fully fund its operations and provide the levels of service expected by its citizens. This has been a recurring challenge in the City for more than 20 years.~~

~~According to the U.S. Census Bureau, the per capita income in Moreno Valley is nearly 40 percent below the State of California average. Nearly 20 percent of the population in Moreno Valley is living below the national poverty level. Moreno Valley has one of the highest high-school drop-out rates in the County with over 50 percent of its adult residents having a high school education or less. Only 15 percent of the residents have a Bachelor’s Degree or higher. The majority of the population, 77 percent, does not have a college degree. Unemployment in~~

~~Moreno Valley remains among the highest in the region at 9.7 percent and median house prices are among the lowest in the Inland Empire.~~

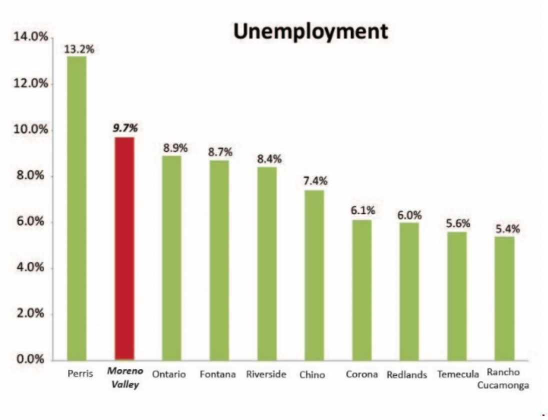

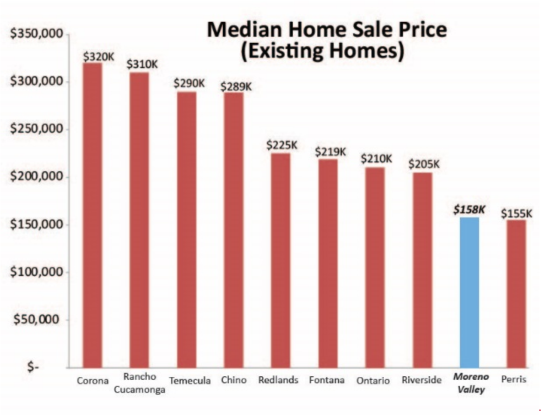

~~To address these conditions, in 2010 the City of Moreno Valley developed an Economic Development Strategy focused on creating job opportunities in the City, which are responsive to the education and skill level of its residents. The logistics and healthcare industries were identified as the two primary areas of opportunity. In April 2011, the City held public hearings on its proposed Economic Development Action Plan which was then adopted by the Moreno Valley City Council on April 26, 2011. The Action Plan focused on five geographic areas within the City and established key initiatives for each. The eastern portion of the City was identified in the Action Plan as being a prime area for logistics development. "Logistics" facilities are warehouses which store, assemble and process manufactured goods and materials prior to their distribution. They also include the facilities to deal with the trucks which deliver goods to, and take goods from, the warehouses. In April 2012 an application was filed for the development of the World Logistics Center which was developed consistent with the City's Economic Development Action Plan. . A Notice of Preparation of the EIR was filed in February 2012 for The World Logistics Center project. In 2013, the City adopted a 3-year Economic Development Action Plan based upon the adopted 2011 Economic Development Strategy. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.~~

~~According to the Inland Empire Economic Partnership January 2014 Quarterly Economic Report, "Logistics has been the fastest growing sector in the Inland Empire's economic base." The logistics industry offers an opportunity for upward mobility for workers providing access to skill ladders leading to the middle class and the number one contributor to job growth and upward mobility in the Inland Empire region.~~

~~1.3 EXISTING SITE DESCRIPTION~~

~~The project site is largely vacant agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. In the 1920s, several farm buildings and related houses were constructed on the property and, in the 1940s, a stock farm operated on a portion of the site that was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. The overall project site has been farmed by a variety of owners since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming today.~~

~~San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) operates a metering and pipe cleaning station on two~~

~~separate parcels (totaling 1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. The site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service. At present, the project site contains a number of unimproved drainage features, but it does not contain any improved flood control facilities.~~

~~1.4 PROJECT DESCRIPTION~~

~~The proposed project is a master planned business park designed to support the logistics operations of large global companies that will be implemented through the adoption of the World Logistics Center Specific Plan. Although it is called a Specific Plan, it is not intended to depict individual building projects, but rather to, provide a guide for the development of infrastructure and building projects within the project area. The Specific Plan will establish the zoning for the project site and include a land use plan, designation of planning areas, design and landscaping guidelines, and development standards for the development. As shown in Figure 3.8 –~~ ~~*Specific Plan Land Use*~~ ~~and reflected in Table 1.A,~~ ~~*Land Use Summary*~~ ~~below, the World Logistics Center Specific Plan will consist of the following land uses:~~

~~**Logistics Development (LD):**~~ ~~Approximately 2,382.8 acres of the Specific Plan Area are planned for development of logistics-oriented land uses to provide high-cube logistics warehouse uses consisting of buildings of 500,000 square feet or greater. Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities are permitted within this category along with facilities for the outdoor storage of trucks, trailers and shipping containers. Ancillary office, employee services and property management facilities are permitted in connection with primary uses. A permitted use within the LD category will include “logistics support” to provide fueling facilities and limited service commercial uses in support of the World Logistics Center.~~

~~**Light Logistics (LL):**~~ ~~Approximately 37.1 acres of the project site are planned for development of Light Logistics land uses to provide warehouse uses less than 500,000 square feet in size, including self-storage and vehicle storage uses.~~

~~**Open Space (OS):**~~ ~~Approximately 74.3 acres of the project site are planned for permanent open space to preserve the southwestern portion of the site, which is a portion of Mt. Russell.~~

~~**Table 1.A: WLCSP Land Use Summary**~~

~~**Area/Land Use**~~	~~**Acres**~~	~~**Building Square Footage**~~
~~Logistics Development (LD)~~	~~2,382.8~~	~~40,400,000~~
~~Light Logistics (LL)~~	~~37.1~~	~~200,000~~
~~Open Space (OS)~~	~~74.3~~	~~—~~
~~Right-Of-Way (ROW)~~[1]	~~115.8~~	~~—~~
~~**TOTAL**~~	~~**2,610.0**~~	~~**40,600,000**~~
~~**Floor Area Ratio (FAR)**~~[2]		~~**0.357**~~

~~Right-of-Way included in each land use category~~

~~Gross building area (sf) divided by gross site area (sf)~~

~~1.5 ACTIONS COVERED BY THE EIR~~

~~The proposed project covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land which is the subject of various entitlements, plus 104 acres of~~

~~land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use), Circulation, Parks, Recreation, and proposed Open Space, Safety, Conservation, and the General Plan Goals and Objectives~~

~~A new Specific Plan will be adopted to govern development of the 2,610-acre World Logistics Center. A separate zoning amendment is also proposed to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering a 1,539-acre portion of the site which has not yet been subdivided of the total 2,610-acres. This subdivision map is for financing purposes only creating new legal parcels but will not confer any development rights to said parcels.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project.~~

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~~Figure 1.2 Component Areas~~

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~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

~~1.6 SUMMARY OF ENVIRONMENTAL ISSUES~~

~~The following presents a short summary of the analysis conducted as part of this environmental assessment. It is intended to give the reader an easy to read summary of the analytical approach and results. It is not intended to be a comprehensive listing of project impacts or mitigation measures. For complete accounting of any analysis, please refer to the appropriate section of Chapter 4 of this EIR.~~

~~1.6.1 Aesthetics~~

~~The EIR evaluated potential impacts to Aesthetics (Section 4.1). Potential impacts to Scenic Vistas, Scenic Resources and Scenic Highways, Existing Visual Character and Surroundings, and Cumulative Aesthetics Impacts were analyzed and found that the proposed project has the potential to result in substantial adverse effects in these areas even after all feasible mitigation is applied. For the purposes of the analysis, the current undeveloped state of the property is analyzed in comparison to the project built out condition. It is important to note that the project area is currently covered by the Moreno Highlands Specific Plan which, if realized, would have transformed the site into an urbanized environment. The EIR found that the project's impact to light and glare could be mitigated to less than significant. Mitigation measures to address aesthetics impacts include a 250-foot setback from residential property lines, landscaping, berms and or fencing to screen and landscaped views of the project from existing residents, the dedication of 74.3 acres of open space, restriction on building heights to preserve views of Mt. Russell from SR-60, and restrictions on lighting and solar panels to protect existing resident from excess light and glare. Mitigation measures for each of these areas are listed in Table 1.B.~~

~~The Specific Plan contains extensive design guidelines to ensure a uniform architectural theme throughout the project. Similarly, landscape design standards are established project-wide. A process for the discretionary review of each proposed building is included in the Specific Plan which requires staff to evaluate all aesthetic aspects of each proposed building prior to its approval by the City.~~

~~1.6.2 Agriculture and Forestry Resources~~

~~The EIR evaluated potential impacts to Agricultural and Forestry Resources (Section 4.2) and found that impact to forest land zoning, loss or conversion of forest land, and existing zoning for agricultural use or a Williamson Act contract were less than significant and do not require mitigation. Mitigation is required for the loss of 25 acres of land designated as "Unique Farmland" through the provision of a conservation easement over comparably productive land.~~

~~The EIR contains an analysis of the state of the agriculture industry in the Inland Empire in Appendix C which concluded that the agriculture industry will continue to decline in the Inland Empire for three main reasons: 1) the more affordable housing market in the region compared to Los Angeles and Orange Counties, 2) the competition for cheaper farm labor from areas like the South Central Valley, and 3) lower water allocations to agriculture because of the growing urban population that receives priority for the water. The combination of the small size of the Inland Empire's agricultural industry and the three key economic constraints caused the EIR to conclude that the agriculture industry in the Inland Empire is in decline and that the~~

~~agriculture industry within the Inland Empire will become less competitive and continue to decline regardless of whether or not this project is developed.~~

~~An additional study found in EIR Appendix C, was prepared focusing specifically on the World Logistics Center property by Cushman & Wakefield in 2013 which concluded the project impact was not considered significant based on the results of the LESA Model.~~

~~1.6.3 Air Quality~~

~~An air quality and health effects assessment examined emissions from construction and operation of the World Logistics Center from both mobile and stationary sources. Broadly, the analysis of project-related emissions examined the (1) total amount of emissions generated, (2) the resulting concentrations of criteria (regulated) pollutants in the vicinity of the project area, and (3) the health effects of project-related emissions over a sub-regional area. A detailed discussion of the methodology approach can be found in Section 4.3.3 of the EIR.~~

~~1.6.3.1 Emissions~~

~~The total daily emissions from the project were analyzed in the air quality assessment. The analysis considered emissions of volatile organic compounds (VOCs), oxides of nitrogen (NO$_x$), carbon monoxide (CO), particulate matter (PM$_{10}$ and PM$_{2.5}$), and oxides of sulfur (SOx). Emissions from construction and operation of the proposed project were compared to South Coast Air Quality Management District's (SCAQMD) significance threshold separately and combined for those years that construction and operation overlap. For all pollutants, with the exception of SOx and PM$_{2.5}$ the daily emissions exceeded SCAQMD's significance thresholds after mitigation.~~

~~1.6.3.2 Localized Concentrations of Criteria (Regulated) Pollutants~~

~~Consistent with SCAQMD guidelines, localized concentrations of certain criteria pollutants in the vicinity of the project were also analyzed. The analysis considered the project's impacts on ambient concentrations of CO, NO$_X$, PM$_{10}$, and PM$_{2.5}$. The analysis considered multiple scenarios, including conservative assumptions that all work would have been completed in 2012 and in multiple years when construction and operation overlap. After mitigation, the project would exceed the localized significance thresholds at the existing residences located within the project boundaries for PM$_{10}$ in five different analysis scenarios that are described in detail in Section 4.3.6.3. but would not affect any residences outside the project boundary. Therefore, the project's localized impacts would not exceed any significance thresholds for receptors located outside of the project boundaries.~~

~~1.6.3.3 Health Effects~~

~~CEQA requires public disclosure of reasonably foreseeable health related impacts. Section 4.3.6 of the EIR evaluated the Project for both the cancer and non-cancer impacts. No significant impacts were found for either~~

~~The assessment of health impacts is a continuing evolution of science and regulation. Since December 2014, three major scientific and regulatory activities have come forward that will affect how such assessments are performed and what such impacts mean to society as described below.~~

~~On December 30, 2014, the ARB released its update to the Emissions Factor Model, EMFAC2014, which is used to estimated emissions from motor vehicles in California. The EFAC2014 model represents the ARB's current understanding of motor vehicle technologies and regulatory implementation of rules aimed at reducing air emissions from motor vehicles. Of significance in this regard are the new projections of air emissions from heavy duty diesel engines. Based on the results of the EMFAC2014 model, emissions of diesel particulate matter range from 50 to 80 percent lower than previously estimated using the previous~~

~~version of the EMFAC model, EMFAC2011. Since heavy duty trucks constitute nearly all of the project's diesel PM emissions, the incorporation of the emission information from the EMFAC2014 model is important in estimating the amount of diesel PM and in assessing the project's health risk impacts resulting from these emissions~~

~~On January 27, 2015, the Health Effects Institute (HEI), an independent organization funded by the U.S. Environmental Protection Agency and industry, released the result of a comprehensive multiyear (5 ½ years) peer-reviewed scientific study titled *Effects of Lifetime Exposure to Inhaled New-Technology Diesel Exhaust in Rats.* The importance of this study is the finding that diesel PM emissions from new technology diesel engines (2007 or newer-compliant engine) do not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals that, in fact, are more sensitive to particle exposure than humans.~~

~~This is the first study to conduct a comprehensive evaluation of lifetime inhalation exposure to emissions from heavy-duty 2007-compliant engines (referred to as "new technology diesel exhaust," or NTDE). The study evaluated the long-term effects of multiple concentrations of inhaled NTDE, which has greatly reduced particle emissions compared with "traditional-technology diesel exhaust" (TDE) in male and female rats on more than 100 different biologic endpoints, including tumor development, and compared the results with biologic effects seen in earlier studies in rats after exposure to TDE. The study found that NTDE does not induce tumors or pre-cancerous changes in the lung and does not increase tumors that were considered to be related to NTDE.~~

~~Previous studies directed at studying the effects of diesel PM on health were based on exposure studies that date 15 to 20 years ago when diesel emissions were significantly higher than the NTDE. The HEI study of lifetime inhalation exposure of rats exposed to one of three concentration levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, used a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies. It is also important to highlight that the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, the U.S. Department of Energy (DOE) and the U.S. Federal Highway Administration are sponsors and/or reviewers of this study in conjunction with the manufacturers of emissions control equipment.~~

~~On March 6, 2015, the California Office of Environmental Health Hazards Assessment (OEHHA) adopted a new guidance for estimating health risks from toxic air contaminants that incorporated the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. Within the context of this assessment, this new assessment guidance is referred to as the "Current OEHHA Guidance". The new guidance updates earlier guidance recommended by OEHHA and SCAQMD referred to in this assessment as the "Former OEHHA Guidance", which was used in the DEIR. The "Former OEHHA Guidance" was based on a lifetime exposure of 70 years and does not incorporate early-in-life age sensitivity factors. The importance of the "Current OEHHA Guidance" is that the guidance produces much more conservative estimates of cancer risks from toxic air contaminant exposures.~~

~~It should be kept in mind that the mitigation measures which mandated that all diesel trucks accessing the project be compliant with the 2010 standards and which mandate that all off-road equipment be Tier 4, which results in emissions equivalent to 2010 compliant diesel trucks, means that there will be no adverse health related impacts. Nevertheless, because the DEIR included an analysis of the health related impacts resulting from exposure to diesel exhaust using the "Former OEHHA Guidance," the FEIR includes a similar analysis to allow the reader to understand how the application of the "Current OEHHA Guidance" compares to~~

~~that which resulted from the "Former OEHHA Guidance," i.e. what the impacts would be if the results of the Health Effects Institute study were disregarded.~~

~~1.6.3.4 Mitigation~~

~~The project would incorporate a number of mitigation measures to reduce the project's impacts on air quality. Those mitigation measures are detailed in Table 1.B in the Executive Summary and throughout Section 4.3 in this EIR. Among the many mitigation measures (MM) is MM 4.3.6.3B, which requires that all trucks using the World Logistics Center meet U.S. EPA 2010 emissions standards, the most stringent heavy-duty truck emissions standards ever imposed by the U.S. or California. The trucks that would serve the proposed project would be 90 percent cleaner than the typical truck on the road today.~~

U.S. Emission Standards – Heavy Duty Trucks

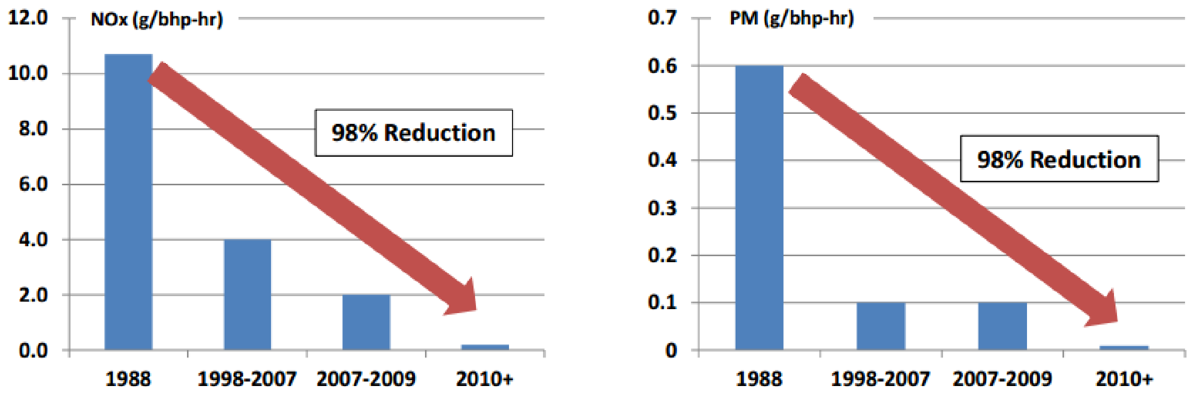

~~In addition to requiring clean trucks, the project would require low emission construction equipment, limit vehicle idling to three minutes or less, prohibit trucks from going through residential areas, require that all on-site equipment will be powered by non-diesel fuels, provide electrical hook-ups for the future use of electric vehicles, and require the development of an alternative fuel station to encourage the use of non-diesel vehicles at the World Logistics Center.~~

~~1.6.4 Biological Resources~~

~~The project site has been the subject of numerous professional biological studies since 2005, with the most recent evaluations conducted in 2012 and 2013 in connection with the preparation of this EIR. These reports are included in the appendices of this EIR and are discussed in detail in Section 4.4 in this EIR. The biological studies show that the vast majority of the project site (97.4%) is disturbed by human activity, mostly dry-land farming, with less than 3 percent of the area consisting of native plant communities. These conditions are discussed in depth in Section 4.4 of this EIR.~~

~~The biological studies evaluated the project site for the presence of wildlife and specifically any threatened or endangered species. The studies conclude that the project site is not located within any United States Fish and Wildlife Service (USFWS) designated Critical Habitat area and no threatened or endangered species were observed within the project site during any of~~

~~the field surveys. Further, no evidence of any California State endangered, threatened or protected wildlife species was found on the project site.~~

~~Suitable habitat was identified in the project site for the burrowing owl and the Los Angeles Pocket Mouse (both species of special concern) and mitigation measures are included to require site-specific biological evaluations to address these species prior to any site grading.~~

~~Impacts to jurisdictional waters/wetlands and to habitat fragmentation/wildlife movement were found to be less than significant. Impacts to endangered and threatened species may be significant and mitigation is included. The project has the potential to result in significant impacts to riparian habitat and sensitive natural communities and may require subsequent permits from various resource agencies depending on the details of each site-specific development proposal.~~

~~Other mitigation measures require the establishment of building setbacks along the boundary with the San Jacinto Wildlife Area (SJWA), a runoff management plan and a Biological Resources Management Plan for the SJWA edge, payment of Multi-Species Habitat Conservation Plan fees, prohibition of invasive plant species, and compensation for riparian habitat. A complete list of mitigation measures is included in Table 1.B in this Executive Summary.~~

~~More than 900 acres of the Moreno Highland master-planned community zoned for residential industrial and recreational uses was purchased by the State in 2001 to serve as a buffer from future development to the north. This development area to the north is being planned as the World Logistics Center. The referenced 900+ acres area will continue to serve that buffer purpose. Additionally, the WLC property is more than 4,000 feet (more than ¾ of a mile) from the closest sensitive habitat on SJWA property with the intervening property being used as cultivated farmland and disked regularly as it has for many decades.~~

~~The Specific Plan provides for a continuous buffer along the SJWA property that will include native landscaping, an extensive network of landscaped drainage facilities, trees and shrubs specifically selected to accommodate and support local wildlife, all of which will contribute to an environmentally-sensitive interface between the WLC and the SJWA property.~~

~~1.6.5 Cultural and Paleontological Resources~~

~~A thorough cultural resources study was conducted for the project area in connection with the project EIR and is discussed in Section 4.6. The area includes several known cultural (Native American) resources as well and other potential historical resources. This topic is discussed in Section 4.5.~~

~~The project has been designed to avoid any of the known Native American resources; designating sensitive areas as Open Space, realigning a proposed trail around the existing resources, and protecting the resources from disturbance. Further evaluations will be conducted in connection with site-specific project proposals prior to the issuance of any grading permits.~~

~~Consultations between Native American tribal groups and the City have been initiated pursuant to SB 18 and are ongoing.~~

~~Impacts to archaeological resources were determined to be potentially significant and mitigation measures are included to reduce the impacts. Mitigation measures include historical evaluations of all project sites, archaeological/paleontological monitoring of all project grading. Native American representatives will be invited to monitor all grading activities.~~

~~1.6.6 Geology and Soils~~

~~A detailed geotechnical evaluation was conducted for the project site in connection with the preparation of this EIR and is discussed in Section 4.6. The report evaluated faulting and seismicity, soils and geologic and seismic hazards affecting the property. Impacts due to~~

~~landslides and rockfalls, soil erosion or loss of topsoil, septic tanks, and seismic-related ground failure were considered less than significant and no mitigation is required. Impacts due to fault rupture, ground shaking and unstable soils were considered to be potentially significant and mitigation measures are included to reduce the significance of the identified impacts. Mitigation measures include preparation of site-specific design-level geotechnical investigations and application of all applicable code standards and requirements prior to the issuance of any grading or building permits.~~

~~1.6.7 Greenhouse Gas Emissions, Climate Change and Sustainability~~

~~An evaluation of the World Logistics Center's greenhouse gas impact and contribution to global climate change was conducted and is presented in Section 4.7. Greenhouse gas emissions were quantified for both direct emissions (e.g., motor vehicles) and indirect emissions (e.g., electricity generation and water delivery). In the past few years, the State of California has changed the way it regulates greenhouse gases. Under Assembly Bill 32, the Global Warming Solutions Act of 2006, the California Air Resources Board (CARB) has established a cap-and-trade program which differentiates between emissions that fall under the AB 32 restrictions and those that do not. Those emissions that fall under the restrictions of the cap include those emissions that derive from electricity generation, transportation fuels, natural gas use, and large industrial sources. This differentiation, explained in more detail in Section 4.7 and Appendix D, was used as part of the greenhouse gas analysis.~~

~~Greenhouse gas emissions were segregated between capped and uncapped emissions. The state has created a comprehensive regulatory program that determines the future allowable emissions that fall under the cap-and-trade cap. Significance was determined by comparing uncapped emissions to SCAQMD's significance threshold of 10,000 metric tons of~~ ~~CO_2~~ ~~equivalent annually (~~~~CO_2e~~~~, or carbon dioxide equivalent, is a standard unit for measuring carbon footprints. It expresses the impact of each different greenhouse gas in terms of the amount of~~ ~~CO_2~~ ~~that would create the same amount of warming). Examples of project emissions that fall under the cap include greenhouse gas emissions from transportation sources (trucks and cars), electricity use (from offsite power generation), and water use (from off-site power generation to convey water). Examples of project emissions that fall outside the cap include waste generation from landfill emissions caused by waste generated onsite and the use of refrigerants.~~

~~Mitigation for the proposed project includes increased waste diversion requiring 75 percent of all waste to be diverted to landfills and increased energy efficiency by exceeding California's Title 24 requirements (California's energy efficiency standards) by at least 10 percent. Additionally, the Specific Plan requires that on-site solar systems be provided to offset the demand of office space in the WLC, estimated at 13 megawatts of power at buildout. This is the equivalent amount of power used by over 1,700 homes. After mitigation, the remaining emissions from the project have a less than significant impact. A complete listing of mitigation measures can be found in Section 4.7 and Table 1.B in this Executive Summary.~~

~~1.6.8 Hazards and Hazardous Materials~~

~~An evaluation of Hazards and Hazardous Materials is discussed in Section 4.8 of the EIR. Historic land uses for the project site have included agricultural activities, two dairies, a chicken ranch, and scattered residential uses. Currently, nearly the entire site is used for dryland farming, which typically does not apply pesticides or other agricultural chemicals. The Phase 1 reports did not find significant residual pesticides on the project site and revealed no evidence of recognized environmental conditions on, at, in, or to the project site.~~

~~Sempra Energy operates a natural gas compressor facility near the WLC project. The EIR assessed the potential impacts of the facility on the future development of WLC property and found that compliance with existing safety regulations applicable to the Sempra plant plus the Specific~~

~~Plan's requirement for a 1,000-foot setback between Sempra buildings and future WLC buildings reduced any potential impact to a less than significant level and no mitigation is required.~~

~~In addition, a fueling station is required to be constructed within the WLC project area. The EIR assessed the potential impacts of such a facility and found that with the application of a mitigation measure requiring preparation of a risk assessment prior to any project approvals, potential impacts would be reduced to a less than significant level.~~

~~1.6.9 Hydrology, Drainage, and Water Quality~~

~~The EIR evaluated potential impacts to hydrology, drainage, and water quality (Section 4.9) and found that environmental impacts in these areas were less than significant and do not require mitigation. Potential impacts from construction-related water quality impacts, operation-related water quality impacts, and drainage capacity-related impacts could be mitigated to less than significant. The project would incorporate a number of mitigation measures to reduce these impacts which are detailed in Table 1.B. Among the mitigation measures is MM 4.9.6.1A, which requires the management of flow rates, velocities, and volumes at pre-project levels and the maintenance of historic groundwater recharge (water balance) rates. The project would also be required to implement a Storm Water Pollution Prevention Plan (SWPPP), a Water Quality Management Plan (WQMP), and development of an ongoing Water Quality Sampling Program (WQSP) to protect the San Jacinto Wildlife Area.~~

~~1.6.10 Land Use and Planning~~

~~The EIR evaluates the WLC project's impact on current on-site and adjacent land uses as well at the project's impacts on existing City land use policies (Section 4.10). The WLC project will replace the present Moreno Highlands Specific Plan, a largely residential, mixed-use project that included 7,700 residential units and 600+ acres of business park and mixed-use designations, with a project proposing 40.6 million square feet of logistics uses.~~

~~The EIR concludes that the WLC project is consistent with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and is generally consistent with SCAG's Regional Comprehensive Plan, Compass Plan and Regional Transportation Plan.~~

~~The project is consistent with the City's Economic Development Action Plan which encourages the development of job-producing land uses in the eastern portion of the City. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.~~

~~1.6.11 Mineral Resources~~

~~The EIR evaluated whether the project site contains any significant mineral resource areas, defined by the State as Mineral Resources Zone 2 areas. See Section 4.11 for the detailed analysis.~~

~~Lands within the City of Moreno Valley are designated MRZ-3 and MRZ-4, pursuant to the Surface Mining and Reclamation Act of 1975. These zones are not defined as significant mineral resource areas. No sites have been designated as locally-important mineral resource recovery sites on any local plan.~~

~~The EIR concluded that the development of the WLC project would not result in a loss of statewide, regional or locally important mineral resources and will not have any significant impact regarding such resources. No mitigation is required.~~

~~1.6.12 Noise~~

~~Project noise impacts were analyzed and the results are described in Section 4.12. As part of the analysis, existing noise levels were measured. Estimates of future noise levels as a result of the project and increases in background noise levels were assessed to determine where~~

~~significant noise impacts would occur. Generally, project-related noise impacts occur as a result of two types of activity: construction noise and traffic noise occurring as a result of increased project-related vehicle trips. Several measures have been identified that impose operational controls during construction activities to reduce noise impacts or require noise abatement, such as sound walls to reduce impacts from project operation. Examples of operational controls to reduce noise impacts include maintaining minimum distances from homes during nighttime grading activities and limiting the hours of offsite construction.~~

~~Examples of noise abatement mitigation measures include the construction of sound walls at various locations and the requirement for noise barriers located along the perimeter of property that faces any residential areas. While most noise impacts were able to be mitigated to a less than significant level, there are a few areas where significant impacts remain, either as a result of construction activities or the infeasibility of mitigation such as sound walls in specific locations, such as where residential access would be blocked. Section 4.12 details the location specific noise impacts and mitigation measures that have been identified for the proposed project. The majority of noise impacts from the WLC in residential areas are the result of passenger vehicles, not trucks. The WLC design directs all truck traffic away from residential areas. Other potential land uses for the project site could generate similar or greater noise impacts. For instance, the current Moreno Highlands Specific Plan would result in significantly more vehicle trips than the proposed World Logistics Center. As a result, Noise impacts would be expected to be higher under that scenario.~~

~~1.6.13 Population, Housing and Employment~~

~~The EIR evaluated potential impacts to Population, Housing and Employment (Section 4.13) and found impacts to population growth, displacement of housing/people, and cumulative impacts to population and housing were less than significant and did not require mitigation.~~

~~An economic study of the Project prepared by David Taussig and Associates (DTA) concluded that the WLC Project could generate approximately 20,307 new on-site jobs within the City. In addition to the projected on-site job creation, the DTA study estimates the WLC Project could generate new off-site jobs (i.e., indirect/induced employment) in all industries of the economy. The DTA study estimated that an additional 7,386 indirect/induced jobs could be created in the County, of which 3,693 jobs were projected to be within the City as a result of Project implementation. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that some percentage of these jobs will be support service jobs and are likely to be located in the WLC Project vicinity, and therefore the City. A stronger jobs base can support improved property values and the general economic well-being of the City.~~

~~The WLC project is directly consistent with the City's adopted Economic Development Action Plan, which calls for focused efforts to create more jobs-related land uses, specifically logistics uses in the eastern portion of the City. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.~~

~~The Fiscal and Economic Impact Study prepared by DTA concluded that the WLC project could generate approximately $11,257,000 in annual revenues while causing the City to annually incur approximately $5,557,000 in costs resulting in an annual surplus of almost $5,700,000 once the project is fully built out. These surplus funds could be used to fund police, fire, heath and senior programs and services throughout the City. Additional funding surpluses were identified relative to the Moreno Valley Fire Tax which is estimated to generate an additional $1,800,000 from WLC development for other fire-related needs elsewhere in the City.~~

~~Including the projected Fire Tax surplus, the build out of the WLC is expected to raise the projected tax surplus to the City of approximately $7,500,000.~~

~~1.6.14 Public Services and Facilities~~

~~The EIR evaluated the project's impact on police services, fire protection, schools and parks. See Section 4.14 for the complete analysis. The EIR concluded that as a result of the project's obligation to pay its fair share of applicable City costs the WLC project will not have a significant impact on the City's ability to provide these public services and facilities.~~

~~The EIR's Fiscal and Economic Impact Study (Appendix O) estimates that the projected build out of 40.6 million square feet of building will generate more than $4.7 million for police facilities and more than $10 million for fire facilities from the Development Impact Fee (DIF) program (using 2013 rates) and more than $19 million in school fees. In addition, the study estimates that the WLC will generate more than $11 million every year in taxes, fees, licenses, etc. while requiring $5.7 million in services, resulting in an annual surplus of nearly $6 million to the General Fund. A complete analysis is included in the Fiscal and Economic Impact Study.~~

~~Notably, the WLC is estimated to generate additional funding for fire services through the Moreno Valley Fire property tax that is separate from General Fund revenue sources. The Moreno Valley Fire property tax averages 5.54 percent of the total property taxes levied in the Center, which yields a total of $1.8 million in recurring annually surplus that can be spent on fire services in other parts of the City. Adding this $1.8 million in Moreno Valley Fire property tax surplus to the $5.7 million General Fund surplus is estimated to yield a total annual recurring surplus of $7.5 million generated by the WLC.~~

~~The EIR concluded that the project will not have a significant impact to Public Services and Facilities. No mitigation measures are proposed.~~

~~1.6.15 Traffic and Circulation~~

~~A comprehensive Traffic Impact Analysis (TIA) was prepared to evaluate the WLC's impacts within Moreno Valley and throughout the region and is discussed in Section 4.15. The traffic analysis encompasses road segments spanning from the project site 75 miles to the west, all the way to the Ports of Los Angeles and Long Beach, 30 miles to the east beyond the City of Banning, 20 miles to the south and 15 miles to the north.~~

~~As indicated in the table to the right below, 80 percent of the traffic would be generated from Passenger Cars, 12 percent of the traffic generated by the project would be classified as~~

~~Heavy-duty Trucks, and about 8 percent of the traffic would be generated by Light and Medium Duty Trucks.~~

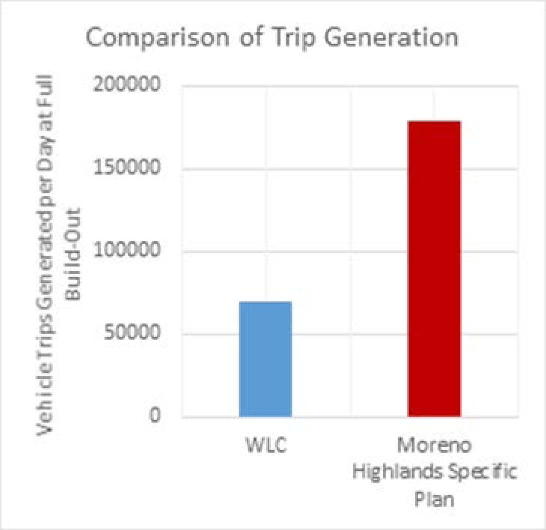

~~**Type of Vehicle**~~	~~**Number of Daily Trips**~~
~~Passenger Cars~~	~~54,714~~
~~Light-duty Trucks (2-axle)~~	~~2,385~~
~~Medium-duty Trucks (3-axle)~~	~~3,181~~
~~Heavy-duty Trucks (4-axle)~~	~~8,440~~
~~**Total Daily Trips**~~	~~**68,720**~~

~~The total number of daily trips generated by the project is 68,720. As shown in the chart above to the left, this represents a 61% reduction, or 100,000 less daily trips generated, compared to the City's General Plan/zoning designations for the project area (i.e., the Moreno Highlands Specific Plan MHSP).~~

~~Located at the eastern end of the City, the WLC will result in a reverse commute travel pattern. The traffic analysis indicates that many residents currently head west out of Moreno Valley for jobs. With thousands of job opportunities created as a result of the project in the eastern portion of the City, future employees will travel in the eastbound direction to the WLC where there is much less traffic. Those who would continue to commute westbound in the morning will have less traffic to deal with as some of the residents that are now or would be headed westbound would be diverted in the eastbound direction traveling to their jobs at the WLC.~~

~~1.6.16 Utilities and Service Systems~~

~~The EIR evaluated potential impacts to Utilities and Service Systems (Section 4.16) and found that impacts to these systems were generally less than significant and do not require mitigation. Potential impacts to storm water drainage requirements, adequate water supply, and electrical and natural gas facilities were able to be mitigated to less than significant.~~

~~The World Logistics Center emphasizes water conservation, and the landscape program is designed to achieve the project's landscape goals while consuming as little water as possible. This approach represents a significant departure from conventional development strategies, particularly in a large-scale master-planned logistics campus setting. Most of the project will be designed without mechanical irrigation, relying instead on maximizing the collection and harvesting of runoff to be directed to landscape areas. Mitigation measures include use of drought tolerant landscaping, using "dry" cleaning equipment, use of weather-based automatic irrigation controllers, use of irrigation systems primarily at night or early morning, use of recirculation system for any outdoor water feature, use of low-flow sprinkler heads and use of reclaimed water for irrigation if it becomes available. Additional mitigation measures include use of flash water heaters, automatic on/off water facets, water efficient appliances, exceedance of the energy-conservation requirements of title 24 (2008) by 10 percent, LEED~~

~~Certification, and solar panels to offset the power demand for office space in each building. Mitigation Measures for each of the affected areas are listed in Table 1.B.~~

~~1.7 PUBLIC INVOLVEMENT~~

~~The EIR process for the proposed project has involved input from the public and affected agencies at several steps. A Notice of Preparation (NOP) was issued on February 26, 2012, to notify state agencies and the public that an EIR was going to be prepared for the WLC project. The NOP was circulated for 30 days as required by CEQA. The distribution list, Notice of Public Scoping Meeting, and response letters are included in Appendix A of the Draft EIR. As of the close of the 30-day NOP public review period, ten responses to the NOP had been received from public agencies, four from conservation organizations, and 14 responses from members of the public.~~

~~On March 12, 2012, the City held a public scoping meeting to solicit input on concerns the public had about the project and issues that should be addressed in the EIR. There were 33 individual speakers including one agency (SCAQMD); 33 letters and comment cards were submitted during or subsequent to the scoping meeting.~~

~~The Draft EIR was circulated for a 60-day public review period, at which time agencies and the public were invited to comment on the technical studies and analysis of environmental issues in the EIR. The Draft EIR was circulated between February 5 and April 8, 2013;, a total of 63 days. All written comments on the Draft EIR received written responses, and the City carefully evaluated all available information on the project. A more thorough discussion of input from the public and affected agencies is presented in Section 2.0,~~ ~~*Introduction.*~~ ~~Table 2.A, in the next section, summarizes the comments received regarding the NOP.~~

~~1.8 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED~~

~~The EIR discusses impacts that would occur to on-site and off-site uses as a result of implementation of the project. This EIR also includes proposed mitigation measures that have been identified to reduce or avoid significant effects that would result from the construction and operation of the proposed on-site uses.~~ ~~*CEQA Guidelines*~~ ~~Section 15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be stated in the EIR summary. The following discussion identifies issues raised by other agencies and the public~~

~~during the 30-day public comment period of the NOP, as well as comments received during the public scoping meeting for the proposed project.~~

~~Local residents indicated they understood the desire of the City to add employment during these economic times, but also expressed concerns about the following potential impacts associated with the industrial warehouse uses proposed by the WLC project:~~

~~Loss of views from SR-60 and Gilman Springs Road. This issue is discussed in Section 4.1, *Aesthetics,* of this EIR.~~

~~Short-term and long-term air pollutant emissions including dust, diesel particulates, and health risks from truck exhaust that could negatively affect nearby residential uses. These issues are discussed in Section 4.3, *Air Quality,* of this EIR.~~

~~Indirect impacts on wildlife utilizing the San Jacinto Wildlife Area south of the site. This issue is discussed in Section 4.4, *Biological Resources*, of this EIR.~~

~~Potential loss of cultural (archaeological) resources by grading and development of the site, and suggestions to consult with local Native American tribes per SB 18. These issues are discussed in Section 4.4, *Biological Resources*, and 4.5, *Cultural Resources*, of this EIR.~~

~~Concerns about several geologic faults that cross the project site. This issue is discussed in Section 4.6, *Geology and Soils*, in this EIR.~~

~~In addition to air quality impacts, concerns were expressed about the project emitting large quantities of greenhouse gases and their influence on global climate change. These impacts are addressed in Section 4.7, *Greenhouse Gases and Global Climate Change*, in the EIR.~~

~~Potential water-related impacts (drainage and water quality of runoff from the project) are addressed in Section 4.9, *Hydrology and Water Quality*, in the EIR.~~

~~Loss of affordable housing identified in the Moreno Highlands Specific Plan currently approved for the project site. This issue is discussed in Section 4.10, *Land Use and Planning*, and Section 4.13, *Population, Housing, and Employment*, of this EIR.~~

~~Short-term and long-term noise impacts that could affect nearby residential uses. These issues are discussed in Section 4.12, *Noise,* of this EIR.~~

~~Project truck traffic causing congestion on local roads, potential of traveling through residential neighborhoods, intersections, and freeway ramps, primarily on Redlands Boulevard, and impacts to vehicular, bicycle, and pedestrian safety. These issues are discussed in Section 4.15, *Traffic and Transportation,* of this EIR.~~

~~1.9 SIGNIFICANT IMPACTS~~

~~The project will have significant adverse impacts even following adoption of all feasible mitigation measures. The following significant environmental impacts have been identified in the EIR and will require mitigation but cannot be mitigated to a level of insignificance. Sections 4.1~~

~~through 4.16 of the EIR identify the following significant impacts of the WLC project after mitigation:~~

~~Aesthetics: Scenic Vistas.~~

~~Aesthetics: Scenic Resources and Scenic Highways.~~

~~Aesthetics: Substantial degradation of the existing visual character or quality of the site and its surroundings.~~

~~Aesthetics: Cumulative Aesthetic Impacts.~~

~~Air Quality: Construction Air Pollutant Emissions.~~

~~Air Quality: Architectural Coating Emissions.~~

~~Air Quality: Operational Air Pollutant Emissions.~~

~~Air Quality: Consistency with Air Quality Management Plan (AQMP).~~

~~Air Quality: Cumulative Air Pollutant Emissions.~~

~~Land Use and Planning: Divide an Existing Neighborhood (impacts on existing residences).~~

~~Noise: Short-Term Construction Noise.~~

~~Noise: Long-Term Traffic Noise.~~

~~Noise: Cumulative Noise Levels.~~

~~Transportation: Off-Site Impacts to TUMF Facilities.~~

~~Transportation: Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program.~~

~~1.10 IMPACTS, MITIGATION, AND LEVEL OF IMPACTS SUMMARY TABLE~~

~~Table 1.B provides a summary of the proposed project impacts, proposed mitigation measures, and the level of significance of each impact following the application of identified mitigation measures.~~

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~~*NOTE TO READER: The mitigation measure summaries have been removed from Revised DEIR Table 1.B World Logistics Center Project Environmental Impact Summary and replaced with the revised mitigation measures in their entirety. For this reason, Original DEIR Table 1.B List of All Mitigation Measures has also been deleted.*~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~4.1 Aesthetics~~		
~~LESS THAN SIGNIFICANT IMPACTS~~		
~~None~~	~~Not applicable~~	~~Not applicable~~
~~SIGNIFICANT IMPACTS~~		
~~Impact 4.1.6.1 Scenic Vistas~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The WLC project will significantly impact viewsheds in the area, including views of the Mt. Russell Range and the Badlands.~~	~~**4.1.6.1A** Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official.~~ ~~**4.1.6.1B** Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.~~ ~~**4.1.6.1C** Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official.~~ ~~**4.1.6.1D** Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.~~	~~Significant and Unavoidable~~
~~**Impact 4.1.6.2 Scenic Resources and Scenic Highways**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The WLC project will significantly impact existing viewsheds from SR-60 which is a locally designated scenic route.~~	~~Previously referenced Mitigation Measures 4.1.1.6A through 4.1.16D~~	~~Significant and Unavoidable~~
~~Impact 4.1.6.3 Existing Visual Character and its Surroundings~~		
~~The WLC project will fundamentally change views of the area from agriculture to large warehouses.~~	~~**4.1.6.3A** Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.~~	~~Significant and Unavoidable~~
~~Impact 4.1.6.4 Light and Glare~~		
~~The WLC project will significantly impact the area by substantially increasing lighting and glare in the area.~~	~~**4.1.6.4A** Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts.~~ ~~**4.1.6.4B** Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.~~	~~Less than Significant with Mitigation~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~**Cumulative Aesthetic Impacts**~~		
~~The cumulative effect of development in the region will continue to modify existing viewsheds, especially along SR-60. Cumulative impacts would remain significant and unavoidable.~~	~~Previously referenced Mitigation Measures 4.1.6.1A through 4.1.6.1D, 4.1.6.3A, 4.1.6.4A and 4.1.6.4B~~	~~Significant and Unavoidable~~
~~**4.2 Agriculture**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		
~~**Forest Land Zoning**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~There are no significant impacts because there are no areas designated as forest land or timberland on the project site,~~	~~No mitigation is required.~~	~~No Impact~~
~~Loss or Conversion of Forest Land~~		
~~There are no forest lands on the project site or in the surrounding area.~~	~~No mitigation is required.~~	~~No Impact~~
~~Existing Zoning and Williamson Act~~		
~~There are no Williamson Act Contracts on or adjacent to the project site.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~Impact 4.2.6.1 Farmland Conversion~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The project will convert 25 acres of land designated Unique Farmland by the state to urban uses.~~	~~**4.2.6.1A** Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.~~	~~Less than Significant with Mitigation~~
~~Impact 4.2.6.2 Conversion of Farmland to Non-Agricultural Uses~~		
~~The project will convert 2,610 acres of Farmland of Local Importance to urban uses.~~	~~Previously referenced Mitigation Measures 4.2.6.1A and 4.2.6.1B~~	~~Less than Significant with Mitigation~~
~~Cumulative Agricultural Impacts~~		

~~As urban development continues in the City and surrounding areas, there will be a cumulative loss of agricultural land through conversion to urban uses. This conversion is a long-established historical process based on local and regional economic conditions, resulting in the eventual relocation of farming to more rural and outlying areas (e.g., Coachella Valley, kern County, etc.).~~	~~No feasible mitigation is available.~~	~~Less than Significant with Mitigation~~
~~4.3 Air Quality~~		
~~LESS THAN SIGNIFICANT IMPACTS~~		
~~Odors~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The proposed project involves large warehouses and no uses that would generate substantial odors. The natural gas facilities on site sometimes generate temporary odors from natural gas blow-offs, but these are not considered significant impacts.~~	~~No mitigation is required.~~	~~Less than Significant.~~
~~**Long-Term Microscale (CO Hot Spot) Emissions**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The project air quality study determined that project-related traffic would not create any CO hot spots on local roadways through project buildout.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~Impact 4.3.6.1 Air Quality Management Plan Consistency~~		

~~The land uses of the proposed project are not consistent with those used to prepare the most current AQMP. Although the project would substantially improve the jobs/housing balance of the City by introducing more employment-generating uses than new housing, it would exceed applicable thresholds for all criteria pollutants, with the exception of SO$_X$. Despite the implementation of mitigation measures for both construction and operation,~~	~~Implementation of Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A will help reduce air pollutant emissions of the project, but it will still be inconsistent with the AQMP.~~	~~Significant and Unavoidable~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~emissions associated with the proposed project cannot be reduced below applicable SCAQMD thresholds.~~		
~~Impact 4.3.6.2 Construction Equipment Exhaust Emissions~~		

~~Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for construction-related activities.~~	~~**4.3.6.2A** Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley.~~ ~~a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.~~ ~~b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer specifications.~~ ~~d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour.~~ ~~e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used~~ ~~f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.~~ ~~g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles.~~ ~~h) Construction on-road haul trucks shall be model year 2007 or newer.~~ ~~i) Information on ridesharing programs shall be made available to construction employees.~~ ~~j) During construction, lunch options shall be provided onsite.~~ ~~k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards.~~ ~~l) Only non-diesel material handling equipment may be used in any logistics building in the WLC.~~ ~~m) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.~~ ~~**4.3.6.2B** Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using Theodore Street, Redlands Boulevard (north of Eucalyptus Avenue),~~	~~Significant and Unavoidable~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
	~~and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer.~~ ~~**4.3.6.2C** The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC):~~ ~~a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per Liter or lower for both interior and exterior surfaces shall be used.~~ ~~b) Leftover paint shall be taken to a designated hazardous waste center.~~ ~~c) Paint containers shall be closed when not in use~~ ~~d) Low VOC cleaning solvents shall be used to clean paint application equipment.~~ ~~e) Paint and solvent-laden rags shall be kept in sealed containers.~~ ~~**4.3.6.2D** No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).~~	
~~**Impact 4.3.6.3 Localized Construction and Operation Emissions**~~		

~~Future development within the WLCSP will exceed local significance thresholds of the SCAMQD for trucks and other operational activities.~~	~~**4.3.6.3A** Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.~~ ~~**4.3.6.3B** The following shall be implemented as indicated:~~ ~~**Prior to Issuance of a Certificate of Occupancy**~~ ~~a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations and the prohibition of parking in residential areas.~~ ~~b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations.~~ ~~c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.~~ ~~**On an Ongoing Basis**~~ ~~d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.~~ ~~e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.~~ ~~f) Tenants shall be encouraged to become a SmartWay Partner.~~ ~~g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers.~~ ~~h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.~~ ~~i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center.~~ ~~j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet.~~	~~Significant and Unavoidable~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
	~~k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.~~	
	~~l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.~~	
	~~m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel.~~	
	~~n) Truck and vehicle idling shall be limited to three (3) minutes.~~	
	~~**4.3.6.3C** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.~~	
	~~**4.3.6.3D** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.~~	
	~~**4.3.6.3E** Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).~~	
~~**Impact 4.3.6.4 Long-Term Operational Emissions**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for trucks and other operational activities.~~	~~**4.3.6.4A** The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:~~ ~~All tenants shall be required to participate in Riverside County's Rideshare Program.~~ ~~Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.~~ ~~Class II bike lanes shall be incorporated into the design for all project streets.~~ ~~The project shall incorporate pedestrian pathways between on-site uses.~~ ~~Site design and building placement shall provide pedestrian connections between internal and external facilities.~~ ~~The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.~~ ~~A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction.~~ ~~Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code. Each building shall provide a minimum of two shower and changing facilities for employees.~~ ~~Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.~~ ~~The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.~~	~~Significant and Unavoidable~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~**Impact 4.3.6.5 Impacts to Sensitive Receptors**~~		
~~The construction and operation of the project would result in the emissions of several toxic air contaminants, the most ubiquitous being diesel particulate matter (diesel PM). The projects estimated cancer risk for sensitive receptors onsite would exceed the maximum cancer risk thresholds.~~	~~Implementation of the previously identified Mitigation Measures 4.1.6.1A, 4.3.6.2A through 4.3.6.2D, and 4.3.6.3A through 4.3.6.3E will help reduce short- and long-term project emissions and health risks to sensitive receptors, but not to less than significant levels.~~	~~Significant and Unavoidable~~
~~**Cumulative Air Quality Impacts**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The project will increase short-term local and long-term regional air pollutant emissions and chronic health risks.~~	~~Implementation of the previously identified Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A will help reduce short- and long-term project emissions and health risks, but not to less than significant levels.~~	~~Significant and Unavoidable~~
~~**4.4 Biological Resources**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		
~~**Adopted Policies and/or Ordinances**~~		
~~There are no local policies or ordinances regarding the protection of biological resources.~~	~~No mitigation required~~	~~No Impact~~
~~**Habitat Fragmentation/Wildlife Movement**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The project will not restrict the movement of wildlife to and from the Badlands and the SJWA/Mystic Lake area, and will protect Drainage 9 through the project area as a natural drainage channel.~~	~~No mitigation required~~	~~Less than Significant~~
~~**SIGNIFICANT IMPACTS**~~		
~~**Impact 4.4.6.1 Endangered and Threatened Species**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~There are 17 plant and animal species designated as endangered or threatened by state and/or federal authorizes that have the potential to occur within the general vicinity of the WLC project area. Development will remove agricultural land which provides minimal habitat value for most species present.~~	~~**4.4.6.1A** All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area.~~ ~~In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area.~~ ~~Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.~~ ~~A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.~~ ~~**4.4.6.1B** Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City Engineer. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.~~	~~Less than Significant~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~**Impact 4.4.6.2 Adopted Habitat Conservation Plans**~~		
~~The project site is subject to the provisions of SKR HCCP and the MSHCP.~~	~~**4.4.6.2A** Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's' mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.~~ ~~**4.4.6.2B** Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").~~	~~Less than Significant~~
~~**Impact 4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities**~~		

~~Drainage Features 7, 8, 9, 12, and 15 within the project area are considered riparian/riverine areas.~~	~~**4.4.6.3A** Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.~~ ~~The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.~~ ~~Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).~~ ~~**4.4.6.3B** As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.~~	~~Less than Significant~~

~~If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A.~~

~~A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.~~

~~As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).~~

~~**4.4.6.3C**~~ ~~Prior to issuance of any grading permit for any offsite improvements that support development within the World Logistics Center Specific Plan, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.~~

~~**Impact 4.4.6.4 Candidate, Non-listed Sensitive, or Special-Status Species**~~

~~The project area contains suitable habitat for sensitive species, including a variety of nesting birds, including burrowing owl, and Los Angeles pocket mouse.~~	~~**4.4.6.4A** Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.4B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division.~~ ~~**4.4.6.4B** If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.~~ ~~**4.4.6.4C** The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.~~ ~~***Burrowing Owl***~~ ~~**4.4.6.4D**A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the project area.~~ ~~In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.~~ ~~If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500foot buffer area around any active nest/burrow until~~	~~Less than Significant~~

~~it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife.~~

~~If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics Center Specific Plan. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW.~~

~~A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.~~

~~Los Angeles Pocket Mouse~~

~~4.4.6.4E~~ ~~Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the project site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division.~~

~~Resource Management~~

~~4.4.6.4F~~ ~~Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan will~~

~~identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan will also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.6.2A, 4.4.6.4D, and 4.4.6.4E.~~

~~The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division.~~

~~**4.4.6.4G** Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8).~~

~~During construction, the runoff leaving construction areas will be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).~~

~~**4.4.6.4H** As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.~~

~~**4.4.6.4I** The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
	~~to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.~~ ~~**4.4.6.4J** A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the World Logistics Center Specific Plan adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following:~~ ~~A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area.~~ ~~A list of non-native invasive plants that are prohibited from installation.~~ ~~Maintenance activities and a maintenance schedule.~~ ~~Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.~~ ~~**4.4.6.4K** Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.~~	

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Cumulative Biological Impacts~~		
~~With implementation of the stated project-specific mitigation and payment of required MSHCP fees, no significant cumulative effect on biological resources would result from development of the WLC project.~~	~~Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4K.~~	~~Less than Significant~~
~~4.5 Cultural Resources~~		
~~LESS THAN SIGNIFICANT IMPACTS~~		
~~Human Remains~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~There is no evidence that the site has been utilized for human burials, and there is state law dealing with human remains that are found during grading or excavation.~~	~~No mitigation required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~Impact 4.5.6.1 Archaeological Resources~~		

~~Most of the site has been previously surveyed, and previously identified resources have been surveyed and retrieved according to required protocols. Nine on-site rural residential properties (designated "Light Logistics") have not been previously surveyed and would need to be surveyed prior to development.~~ ~~The City has conducted SB 18 Consultation with local Native American tribes and the Pechanga~~	~~**4.5.6.1A** Prior to the approval of any grading permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the "Light Logistics" parcel to determine if significant archaeological or historical resources are present.~~ ~~A Phase 2 significance evaluation shall be completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg. 74).~~ ~~**4.5.6.1B** Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg. 74).~~ ~~Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment.~~ ~~If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official.~~ ~~If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be~~	~~Less than Significant with Mitigation~~

~~and Soboba tribes have expressed a desire to consult.~~	~~significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary.~~ ~~Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3, Table 3, pg. 74).~~ ~~Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg. 74).~~ ~~**4.5.6.1C** Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg. 74):~~ ~~1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected;~~ ~~2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative.~~ ~~3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular find are investigated; and~~ ~~4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if necessary, the museum where any recovered artifacts have been curated.~~	

~~5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.~~

~~6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official.~~

~~**4.5.6.1D** Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the Planning Official.~~

~~**4.5.6.1E** It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City.~~

~~No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.~~

~~**Impact 4.5.6.2 Historic Resources**~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Seven on-site rural residential properties (designated "Light Logistics") have not been previously surveyed for historical resources, and would need to be surveyed prior to development.~~ ~~Juan Bautista de Anza crossed the southern portion of the site while exploring California in 1774.~~	~~**4.5.6.2A** If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance.~~ ~~In addition, the following measure is proposed to acknowledge the route of Juan Bautista de Anza through the project area as an important historical event:~~ ~~**4.5.6.2B** As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society.~~ ~~**4.5.6.2C** Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.~~	~~Less than Significant with Mitigation~~
~~**Impact 4.5.6.3 Paleontological Resources**~~		

~~The project area is considered moderately sensitive regarding paleontological resources, and fossiliferous materials have been found in the surrounding region in the past.~~	~~**4.5.6.3A** Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions:~~ ~~1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations.~~ ~~2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed.~~ ~~3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens.~~ ~~4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources. This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg. 76).~~ ~~**4.5.6.3B** Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures:~~ ~~1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations.~~ ~~2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed.~~ ~~3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens.~~ ~~4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.~~	~~Less than Significant with Mitigation~~
~~**Cumulative Cultural Impacts**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The project site and surrounding area, especially the uplands associated with Mt. Russell, have yielded cultural resources in the past. As this area develops, there is a potential for impacts to or loss of archaeological, historical, or paleontological resources.~~	~~Previously referenced Mitigation Measures 4.5.6.1A through 4.5.6.1E, 4.5.6.2A and 4.5.6.2B, and 4.5.6.3A and 4.4.6.3B.~~	~~Less than Significant~~
~~**4.6 Geology and Soils**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		
~~**Landslides or Rockfalls**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The Specific Plan designates 74.3 acres in the southwest corner of the site as open space.~~	~~No development will occur in the potential landslide zone, so no mitigation is needed.~~	~~Less than Significant~~
~~Soil Erosion or Loss of Topsoil~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~On-site soils have a slight erosion hazard, and uncontrolled runoff could result in erosion or loss of topsoil.~~	~~The project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.~~	~~Less than Significant~~
~~**Septic Tanks**~~		
~~The project would not involve the installation of septic tanks or alternative wastewater disposal systems, no impacts would occur.~~	~~No mitigation is required.~~	~~No Impact~~
~~**Seismic-Related Ground Failure**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The City's General Plan and project geotechnical report indicates the site has little or no potential for seismically-induced failure or liquefaction.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~Impact 4.6.6.1 Fault Rupture~~		

~~The eastern portion of the site contains one or more splays of the San Jacinto Fault, and the Casa Loma Fault may be in in the general vicinity of the western portion of the site.~~	~~**4.6.6.1A** Prior to approval of any projects for development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.~~ ~~**4.6.6.1B** Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a "special foundation or grading remediation zone" for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24),~~	~~Less than Significant with Mitigation~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	**~~Mitigation Measures~~**	**~~Level of Significance~~**
	~~and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.~~ ~~This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.~~ ~~**4.6.6.1C** Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be implemented to the satisfaction of the City Engineer.~~	
~~Impact 4.6.6.2 Ground Shaking~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	**~~Mitigation Measures~~**	**~~Level of Significance~~**
~~Southern California is located in a seismically active area and will continue to be subject to ground shaking resulting from seismic activity on regional and local faults.~~	**~~4.6.6.2A~~** ~~Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City , which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report shall also determine final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.~~	~~Less than Significant with Mitigation~~
~~Impact 4.6.6.3 Unstable Soils~~		

~~On-site soils have a moderate to low shrink-swell potential, and there are some moderately expansive soils on site as well.~~	~~**4.6.6.3A** Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site. The report shall determine:~~ ~~1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults.~~ ~~2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements.~~ ~~Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.~~ ~~Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer.~~ ~~**4.6.6.3B** Any cut slopes in excess of five (5) feet in vertical height shall be constructed as “replacement fill slopes” per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist.~~ ~~**4.6.6.3C** During all grading activities, a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to~~	~~Less than Significant with Mitigation~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
	~~and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.~~	
~~**Cumulative Geology and Soils Impacts**~~		
~~It is reasonable to conclude that all development within this seismically active area will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies.~~	~~Previously referenced Mitigation Measures 4.6.6.1A through 4.6.6.1C, 4.6.6.2A, and 4.6.6.3A through 4.6.6.3C.~~	~~Less than Significant~~
~~**4.7 Greenhouse Gases and Global Climate Change**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		
~~None~~	~~Not applicable~~	~~Not applicable~~
~~**SIGNIFICANT IMPACTS**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Impact 4.7.6.1 Greenhouse Gas Emissions~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	**~~Mitigation Measures~~**	**~~Level of Significance~~**
~~The proposed project will emit substantial quantities of greenhouse gases during construction and operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions, while generated by this project, are nonetheless considered cumulative impacts (see below).~~	~~**4.7.6.1A** The project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development:~~ ~~a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.~~ ~~b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.~~ ~~Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.~~ ~~c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.~~ ~~d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan.~~ ~~e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.~~ ~~f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.~~ ~~g) The property owner shall advise all tenants of the availability of community recycling and composting services.~~ ~~h) Existing onsite street material shall be recycled for new project streets to the extent feasible.~~	~~Less than Significant~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Impact 4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency~~		
~~The proposed project could be potentially inconsistent with established Greenhouse Gas plans, policies, or regulations.~~	~~Implementation of previously referenced Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C will help reduce project-related GHG emissions~~	~~Less than Significant~~
~~Cumulative Greenhouse Gas Impacts~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The proposed project will emit substantial quantities of greenhouse gases during project operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions are considered cumulative in terms of global climate change.~~	~~Project-specific energy conservation, air quality, and greenhouse gas Mitigation Measure 4.7.6.1A will help reduce project greenhouse gas emissions, the project will not make a significant cumulative contribution to greenhouse gas emissions.~~	~~Less than Significant~~
~~4.8 Hazards and Hazardous Materials~~		
~~LESS THAN SIGNIFICANT IMPACTS~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~**Within Two Miles of a Private Airport, Airport Land Use Plan, or Public Airport**~~		
~~The nearest airport is 7 miles away so, the development of the WLC project area as proposed would not result in airport safety hazards for people working in the WLC project area.~~	~~No mitigation is required.~~	~~No Impact~~
~~**Existing or Proposed School**~~		
~~There are no existing planned schools on or within a quarter mile of the project site.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions**~~		

~~The transport, use, handling, or disposal of hazardous materials is regulated by various local, state, and federal standards, ordinances, and regulations that would ensure that potential impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant, and no mitigation is required.~~ ~~Compliance with established safety laws and regulations regarding natural gas plants is expected to~~	~~No mitigation is required.~~	~~Less than Significant~~

~~reduce this potential impact to a less than significant level, and no mitigation is required.~~ ~~Local soils would be extensively disturbed during grading, and would employ relatively stringent dust control measures including regular watering, and revegetation as soon as possible after grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores (“Valley Fever”) would survive in the soil. This potential impact~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	**~~Mitigation Measures~~**	**~~Level of Significance~~**
~~appears minimal and no mitigation is recommended.~~		
~~Located on a List of Hazardous Materials Sites~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The project site and surrounding areas are not on any list of the hazardous materials sites as defined by Government Code Section 65962.5. In addition, a number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Conflict with Emergency Response Plans**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~Compliance with existing regulations for emergency access and evacuation would ensure that impacts related to this issue are less than significant, and no mitigation is required.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Wildlands Fire Risk**~~		

~~The Badlands to the east, across Gilman Springs Road, is considered a Very High Fire Hazard Area. The project allows the construction of warehouse buildings which have a low fire potential, and the project will add a new roadway network to facilitate access for fire protection vehicles and services.~~ ~~Fire Station #58 is relatively close to the project site, but future development will generate a need for an additional fire station on the site.~~	~~The WLC Specific Plan identifies a new on-site fire station, and payment of DIF and increased property taxes will fund future fire services. No other mitigation is required.~~	~~Less than Significant~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~New structures will have to comply with current Fire and Building Code regulations.~~		
~~SIGNIFICANT IMPACTS~~		
~~On-site Conditions Involving Hazardous Materials~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~A number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials. However, the existing rural residences on site have not been surveyed as yet for hazardous materials.~~	~~**4.8.6.1A** Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations.~~ ~~**4.8.6.1B** Prior to the issuance of any discretionary permits associated with the proposed fueling facility (“logistic support” site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.~~ ~~**4.8.6.1C** Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.~~ ~~**4.8.6.1D** Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.~~	~~Less than Significant with Mitigation~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~**Cumulative Hazards and Hazmat Impacts**~~		
~~The risk to each future project is based on the location and interface between urbanized area and wildland areas. Potential risks associated with development in this area can be effectively reduced through conformance with Fire and Building Code regulations.~~	~~The WLC Specific Plan identifies a new on-site fire station, and increased property taxes will fund future police and fire services. No other mitigation is required.~~	~~Less than Significant~~
~~**4.9 Hydrology and Water Quality**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		
~~**Seismic Flooding-Related Impacts**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The WLC project area is not identified as being located within the City's mapped inundation area.~~	~~No mitigation required~~	~~Less than Significant~~
~~**Seismic-Related Impacts**~~		
~~The southwest corner of the site has slopes associated with Mt. Russell, but this area is designated as open space and the rest of the WLC area gently sloping and landslides or mudslides would not occur here.~~	~~No mitigation is required~~	~~Less than Significant~~
~~**Groundwater**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The proposed WLC project would not interfere with groundwater recharge as the project site is not identified as a groundwater recharge area and it will utilize water supplies from EMWD.~~	~~No mitigation is required~~	~~Less than Significant~~
~~100-Year Flooding-Related Impacts~~		
~~The project site does not lie within a 100-year floodplain and does not include housing, so impacts related to this issue are less than significant.~~	~~No mitigation is required~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Impact 4.9.6.1 Drainage Pattern and Capacity-Related Impacts~~		

~~The project will modify local drainage patterns, increase impervious surfaces (roofs, hardscape, etc.), and add landscaped areas with irrigation.~~	~~**4.9.6.1A** Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention area(s), and spreading area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term “construct” shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins, are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.~~ ~~**4.9.6.1B** The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale).~~ ~~For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours.~~ ~~For the Detention/infiltration Basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be~~	~~Less than Significant with Mitigation~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
	~~reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).~~	
~~**Impact 4.9.6.2 Construction-Related Water Quality**~~		

~~The construction and grading phases of the WLC Specific Plan area would temporarily disturb surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation within the WLCSP area.~~	~~**4.9.6.2A** Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer.~~ ~~**4.9.6.2B** Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may include (but shall not be limited to) the following:~~ ~~Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required.~~ ~~Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas.~~ ~~All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps.~~ ~~The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase.~~ ~~Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan.~~ ~~The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time.~~ ~~The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be~~	~~Less than Significant with Mitigation~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
	~~maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.~~	
~~Impact 4.9.6.3 Operational-Related Water Quality~~		

~~During the operational phase of the WLC the major source of pollution in storm water runoff would be contaminants such as, a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron that have accumulated on the land surface over which runoff passes. These contaminants may lead to the degradation~~	~~**4.9.6.3A** Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate:~~ ~~**Site Design Best Management Practices**~~ ~~Minimize urban runoff.~~ ~~Maximize the permeable area.~~ ~~Incorporate landscaped buffer areas between sidewalks and streets.~~ ~~Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.~~ ~~Use natural drainage systems.~~ ~~Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.~~ ~~Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.~~ ~~Minimize impervious footprint.~~ ~~Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.~~ ~~Reduce widths of street where off-street parking is available.~~ ~~Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.~~ ~~Conserve natural areas.~~ ~~Minimize Directly Connected Impervious Areas (DCIAs).~~ ~~Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices.~~ ~~Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas that are planted with native or drought tolerant trees and large shrubs.~~ ~~**Source Control Best Management Practices**~~	~~Less than Significant with Mitigation~~

~~of storm water in downstream channels and require mitigation to reduce impacts to less than significant.~~	~~Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural.~~ ~~Non-structural source control Best Management Practices include:~~ ~~Education for property owners, operator, tenants, occupants, or employees;~~ ~~Activity restrictions;~~ ~~Irrigation system and landscape maintenance;~~ ~~Common area litter control;~~ ~~Street sweeping private streets and parking lots; and~~ ~~Drainage facility inspection and maintenance.~~ ~~Structural source control Best Management Practices include:~~ ~~MS4 stenciling and signage;~~ ~~Landscape and irrigation system design;~~ ~~Protect slopes and channels; and~~ ~~Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas.~~ **~~Treatment Control Best Management Practices~~** ~~Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store runoff for later non-potable uses.~~ ~~Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously.~~	

	~~**4.9.6.3B** The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.~~ ~~**4.9.6.3C** Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site.~~ ~~The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.~~	
~~**Cumulative Hydrology and Water Quality**~~		
~~The drainage system for the proposed~~	~~Previously referenced Mitigation Measures 4.9.6.1A, 4.9.6.1B, 4.9.6.2A and 4.9.6.2B, and 4.9.6.3A through 4.9.6.3C. No additional mitigation is required.~~	~~Less than Significant~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~WLC project would maintain post-development runoff at pre-development levels for off-site downstream properties. Therefore, the proposed WLC project will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality.~~		
~~**4.10 Land Use and Planning**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		
~~**Conflict with Applicable Land Use Plans, Policies, or Regulations**~~		

~~The land uses per se of the project are not consistent with SCAG growth projections and some Compass Plan policies because they are not residential in nature. However, the project will substantially improve the City's job/housing balance which is consistent with these regional plans. The WLC project is consistent with the City General Plan upon approval of the requested General Plan Amendment. The project is consistent with the City's Housing~~	~~No mitigation is required.~~	~~Less than Significant~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~Element. Therefore, the project is consistent with both regional and local land use plans, policies, and regulations.~~		
~~**Conflict with any Applicable Habitat or Natural Community Conservation Plan**~~		
~~The project will be required to comply with the requirements of the County's MSHCP and pay its development impact fee.~~	~~Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4F related to Biological Resources will be implemented, and no additional mitigation is required.~~	~~Less than Significant~~
~~**Cumulative Land Use and Planning Impacts**~~		

~~The WLC project would not have significant project-related impacts related to dividing an established community, conflicting with applicable land use plans, policies, or regulations, or conflicting with an approved habitat conservation plan. While the WLC project would represent a shift in land use policy, this policy shift does not represent a significant CEQA impact.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~Physically Divide an Established Community~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The WLC is located in the eastern end of the City, so its development would not physically divide an established community. However, development could adversely affect seven existing rural residences onsite, and the land plan cannot accommodate residences within logistics warehousing areas.~~	~~No feasible mitigation is available.~~	~~Significant and Unavoidable~~
~~4.11 Mineral Resources~~		
~~Less than Significant Impacts~~		
~~Loss of Statewide, Regional, or Locally Important Mineral Resources~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The project site and surrounding area do not contain any identified regional or local mineral resources, nor are there any ongoing mineral resource extraction activities in the project area.~~	~~No mitigation is required.~~	~~No impact~~
~~**Cumulative Mineral Resources**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The WLC project site does not contain significant forest resources, so it will not make a significant contribution to cumulatively considerable impacts relative to any forest resources.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~None~~	~~Not applicable~~	~~Less than Significant~~
~~4.12 Noise~~		
~~LESS THAN SIGNIFICANT IMPACTS~~		
~~Groundborne Vibration~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Project-related earthwork will create groundborne vibration, but the project noise study determined it would not exceed significance criteria for adjacent residential uses.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Airport Noise**~~		
~~There are no public airports or private airstrips within two miles of the project site, so there will be no significant airport-related noise.~~	~~No mitigation is required.~~	~~No Impact~~
~~**SIGNIFICANT IMPACTS**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~**Impact 4.12.6.1 Short-Term Construction Noise**~~		

~~Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.~~	~~**4.12.6.1A** Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per Noise Study MM N-2, pg. 51).~~ ~~**4.12.6.1B** All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.~~ ~~**4.12.6.1C** Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the Specific Plan (per Noise Study MM N-1, pg. 51).~~ ~~**4.12.6.1D** No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51)~~ ~~**4.12.6.1E** As an alternative to Mitigation Measure 4.12.6.1D, a 12-foot tall temporary construction sound barrier may be installed for residences within 1,580 feet of active nighttime construction areas. The temporary sound barrier shall be constructed of plywood with a total thickness of 15 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52).~~ ~~**4.12.6.1F** As an alternative to Mitigation Measure 4.12.6.1D and 4.12.6.1E, on-site noise measurements of construction areas may be taken by qualified personnel and specific buffer distances between construction activities and existing residences may be proposed based on actual noise levels. These measurements will be incorporated into the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2, pg. 51).~~ ~~**4.12.6.1G** Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).~~ ~~**4.12.6.1H** All material stockpiles in connection with any grading operations shall be located at least 1,200 feet from existing residences (per Noise Study MM N-5, pg. 52).~~	~~Significant and Unavoidable~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
	~~4.12.6.1I~~ ~~All project-related off-site construction shall be limited to 6 a.m. and 8 p.m. on weekdays only. Construction during weekends and City holidays shall not be permitted (per Noise Study MM N-6, pg. 53) to the satisfaction of the Land Development Division/Public Works.~~ **~~4.12.6.1J~~** ~~Prior to issuance/approval of any grading permits, off-site construction activities adjacent to residential uses shall provide for installation of 12-foot temporary sound barriers for construction activities lasting more than one month. The sound barrier will reduce noise levels by approximately 10 dB. The temporary sound barrier may be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, the curtains must have a Sound Transmission Class (STC) rating of 27 or greater. No off-site construction is permitted during weekday nighttime hours (8 p.m. to 6 a.m.) or during weekends and City holidays except for emergencies (per Noise Study MM N-7, pg. 53).~~	
~~Impact 4.12.6.2 Long-Term Traffic Noise~~		

~~Project operations will create significant long-term noise impacts on site and along a number of off-site roadways. Not all off-site impacts can be mitigated to less than significant levels by installing sound-attenuation improvements.~~	~~**4.12.6.2A** When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development:~~ ~~Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the FEIR prepared for the programmatic level entitlement remain valid. These procedure used to conduct these noise analyses shall be consistent with the noise analysis conducted in the programmatic FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings.~~ ~~Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the specific plan area, the Applicant shall implement the mitigation identified in the WLC FEIR. Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.~~ ~~If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote.~~ ~~At the completion of the vote at the end of the 45 day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public.~~ ~~Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement (per Noise Study MM N-8, pg.53).~~ ~~**4.12.6.2B** Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 114 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will~~	~~Significant and Unavoidable~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
	~~be required to be submitted to and approved by the City prior to issuing permits to construct the road (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50).~~ ~~**4.12.6.2C** Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D (per Noise Study MM N-9, pg. 62).~~ ~~**4.12.6.2D** Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary, and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12 foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, "All manufacturing and industrial uses adjacent to residential land uses shall include a buffer zone and/or noise attenuation wall to reduce outside noise levels" (per Noise Study MM N-10, pg.62)~~	
~~Impact 4.12.6.3 Long-Term Operational Noise~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. With implementation of a minimum 250-foot setback from residential uses, potential long-term operational noise impacts would be less than significant.~~	~~The project noise assessment determined that operational noise impacts from warehouse activities would not exceed City standards at nearby residential areas with implementation of the 250-foot setback requirement.~~	~~Less than Significant with Mitigation~~
~~**Impact 4.12.6.4 Long-Term Utility Noise**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.~~	**~~4.12.6.4A~~** ~~Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).~~	~~Less than Significant with Mitigation~~
~~Impact 4.12.6.5 Cumulative Noise Impacts~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Traffic noise level increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative development projects in the project vicinity and region as well as the proposed project. This is a significant impact and mitigation is required.~~	~~Previously referenced Mitigation Measures 4.12.6.1A through 4.12.6.1I, 4.12.6.2A through 4.12.6.2C, 4.12.6.3A, and 4.12.6.4A will be implemented, but cumulative noise impacts will still be significant.~~	~~Significant and Unavoidable~~
~~**4.13 Population, Housing, and Employment**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Population Growth~~		

~~The project proposes to develop logistics warehouses which will result in minimal direct population increase in the City, although some workers may move to the City to work at this project, and some local residents will also work at this project. The project will not necessitate extension of major infrastructure and the project will not remove obstacles that will result in substantial population growth.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~Displace Substantial Housing/People~~		

~~The existing seven rural residences on the site will eventually convert to "Light Logistics" uses. The project will eliminate the potential for the site to provide 388 units of affordable housing that were proposed under the Moreno Highlands Specific Plan. However, the City can meet its regional housing goals without these units, and the project is consistent with the City's current Housing Element.~~	~~No mitigation required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	**~~Mitigation Measures~~**	**~~Level of Significance~~**
~~None~~	~~Not applicable~~	~~Not applicable~~
~~Cumulative Population, Housing, and Employment Impacts~~		
~~Implementation of the proposed WLC project would improve the City's jobs/ housing ratio by creating thousands of new construction and permanent jobs in the City. Therefore, it will not result in cumulatively considerable impacts to population or housing.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~4.14 Public Services and Facilities~~		
~~LESS THAN SIGNIFICANT IMPACTS~~		
~~Police Protection~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~As development under the WLCSP, the need for police services will increase. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Fire Protection**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~As development under the WLCSP, the need for fire services will increase. Under the WLCSP, a new fire station site will be contributed to the City. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Schools**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Future industrial development will contribute no new students to local schools. Payment of the school impact fees to the MVUSD and SJUSD will reduce potential impacts to school services and facilities to less than significant levels.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~Parks, Recreation, Trails~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional parks and trails. The WLCSP proposes trail connections to Redlands Boulevard, Cactus Avenue, and the State-owned land to the south, plus a loop trail through the WLCSP site.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~New or Physically Altered Recreation and Park Facilities~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	**~~Mitigation Measures~~**	**~~Level of Significance~~**
~~Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional or altered parks.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~Cumulative Public Services and Facilities Impacts~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~As development occurs, the need for public services will incrementally increase. Anticipated property tax increases and payment of DIF fees to the City will effectively mitigation potential cumulative impacts to public services.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~None~~	~~Not applicable~~	~~Less than Significant~~
~~4.15 Traffic and Circulation~~		
~~LESS THAN SIGNIFICANT IMPACTS~~		
~~Air Traffic Patterns~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The project site is not within two miles of a public airport or private airstrip, and there are no major air traffic patterns over or in the immediate vicinity of the project site.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~Design Hazard Features~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The project site is currently vacant agricultural land with only two major roadways (Theodore Street and Alessandro Boulevard). Under the WLCSP, a complete arterial circulation network will eventually be constructed that will allow full truck access and minimize road-related hazards.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Emergency Access**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The project site is currently vacant agricultural land with only two major roadways and minimal need for emergency services. Development under the WLCSP will eventually result in the construction of a complete arterial circulation network which will allow full access for emergency vehicles and services.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~Alternative Transportation Policies, Plans, or Programs~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The proposed project will create a complete roadway circulation network, install a loop trail system, have Class II bikeways and sidewalks on all internal arterial streets, and streets can accommodate bus turnouts when needed by the local transit agency.~~	~~Carpooling is required under Air Quality Mitigation Measure 4.3.6.4A. No additional mitigation is required.~~	~~Less than Significant~~
~~SIGNIFICANT IMPACTS~~		
~~**Impact 4.15.6.1 Existing (2012) With Phase 1 Conditions Traffic and Level of Service**~~		

~~Existing baseline (year 2012) with Phase 1 intersection levels of service for the study area intersections include 15 study intersections where Phase 1 of the project would have a significant impact. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts and mitigation is required. Phase 1 of the project would cause a direct project impact at the~~	~~**4.15.7.4A** A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to credit/reimbursement agreement for those DIF and/or TUMF eligible costs. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.~~ ~~**4.15.7.4B** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map, as shown in this Program EIR Figure 3-10 (or Figure 22 in the TIA prepared for this Program EIR). Required dedications shall be made prior to the issuance of occupancy permits for the requested development.~~ ~~**4.15.7.4C** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the Development Impact Fee (DIF) as set forth in Municipal Code Chapter 3.42. Required DIF payments shall be made prior to the issuance of occupancy permits for the requested development.~~ ~~**4.15.7.4D** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Sections 3.55.050 and 3.55.060. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.~~	~~Significant and Unavoidable~~

~~other three intersections and mitigation is required.~~

~~**4.15.7.4E** In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the World Logistic Center Specific Plan Traffic Impact Analysis (i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to Mitigation Measure 4.15.7.4F). As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies.~~

~~For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:~~

~~Amount Due~~	~~=~~	~~Total cost of Improvement~~	~~×~~	~~Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis~~	~~×~~	~~% attributable to the building that is subject to the certificate of occupancy (5%)~~

~~A × B × C = D~~

~~A= % attributable to the building that is subject to the certificate of occupancy (5%)~~

~~B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis~~

~~C= Total cost of Improvement~~

~~D= Amount Due~~

~~A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F.~~

~~**4.15.7.4F**~~ ~~The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the World Logistics Center project as a whole has a significant impact identified in the Programmatic Environmental Impact Report) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Programmatic Environmental Impact Report will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
	~~**4.15.7.4G** City shall work directly with Western Riverside Council of Governments to request that Transportation Uniform Mitigation Fee funding priorities be shifted to align with the needs of the City, including improvements identified in the World Logistics Center Specific Plan traffic impact analysis. Toward this end, City shall meet regularly with Western Riverside Council of Governments.~~	
~~**Impact 4.15.6.2 Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service Impacts**~~		

~~When project traffic under buildout conditions is overlaid on existing roadway and freeway conditions, significant project-specific and cumulative traffic impacts will occur. Local and regional roadway and intersection impacts can be effectively mitigated, as outlined in the project TIA and described in the mitigation measures to the right.~~ ~~At this time, there is no effective mitigation for anticipated project impacts on local freeways. In addition, the City cannot control the~~	~~Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Buildout.~~	~~Significant and Unavoidable~~ ~~(see Cumulative Impacts)~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~timing of improvements required at locations outside of the City of Moreno Valley.~~		
~~Impact 4.15.6.3 Year 2022 with Project (Phase 1) Conditions Traffic and Level of Service Impacts~~		
~~The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, during Phase 1 development (approx. 2013 to 2022).~~	~~Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Year 2022 (considered to be Phase 1).~~	~~Significant and Unavoidable~~
~~Impact 4.15.6.4 Cumulative Impacts - General Plan Buildout (Year 2035) With Project Conditions Traffic and Level of Service Impacts~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, after completion of development under the WLCSP (i.e., after 2022).~~	~~Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G for development as it occurs during development under the WLCSP.~~	~~Significant and Unavoidable~~
~~**4.16 Utilities and Service Systems**~~		
~~**LESS THAN SIGNIFICANT IMPACTS**~~		
~~**Construction or Expansion of Water Treatment Facilities**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The project can connect to the existing water supply and will not require the construction of any new water storage or treatment facilities.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Cumulative Water Supply**~~		

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~The EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project area, including existing and future users, when planned groundwater storage improvements are completed.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Wastewater Treatment Requirements**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant.~~	~~No mitigation is required.~~	~~No Impact~~
~~**Wastewater Treatment Capacity and/or New or Expanded Wastewater Facilities**~~		
~~The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects.~~	~~No mitigation is required.~~	~~Less than Significant~~

~~**Table 1.B: World Logistics Center Project Environmental Impact Summary**~~

~~**Issues/Impacts**~~	~~**Mitigation Measures**~~	~~**Level of Significance**~~
~~**Cumulative Wastewater Treatment**~~		
~~The proposed project, in conjunction with planned and future development within the service area, will incrementally increase the need for wastewater treatment over the long-term. However, the project itself would not require the construction of new wastewater treatment facilities or expansion of existing facilities.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~**Solid Waste Facilities**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Adequate daily surplus capacity exists at the receiving landfill, so project development would not significantly impact current operations or the expected lifetime of the landfill serving the project area.~~	~~No mitigation is required.~~	~~Less than Significant~~
~~Solid Waste Reduction~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, state, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations.~~	~~Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site, and no additional mitigation is required.~~	~~Less than Significant~~
~~**Cumulative Solid Waste**~~		

~~The proposed project, in conjunction with planned development in the surrounding region, will contribute increased volumes of solid waste to local landfills. However, these volumes will not exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered less than significant.~~	~~Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site.~~	~~Less than Significant~~
~~Cumulative Energy Facilities and Consumption~~		
~~The WLC project, in conjunction~~	~~Implementation of project as designed (i.e., with sustainability outlined in WLCSP) and allowance for future "solar ready" buildings (PV installations), plus implementation of Mitigation Measures 4.16.4.6.1A~~	~~Less than Significant~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~with planned development in the region, will increase energy consumption as development occurs. The project will adhere to Title 24 and the California Green Building Code, and will exceed Title 24 energy consumption guidelines by at least 10 percent. Therefore, the project will not make a significant contribution to energy facilities or consumption.~~	~~and 4.16.4.6.1C will reduce project's contribution to cumulative energy consumption to less than significant levels.~~	
~~SIGNIFICANT IMPACTS~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~Impact 4.16.1.6.1 Adequate Water Supply~~		

~~The Water Supply Assessment prepared for the project by Eastern Municipal Water District determined there were sufficient supplies of water to serve the proposed project. However, the supply of water imported from the State is not currently guaranteed, so there may be significant impacts related to long-term water supply.~~	~~**4.16.1.6.1A** Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following:~~ ~~Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan;~~ ~~Use of vacuums, sweepers, and other “dry” cleaning equipment to reduce the use of water for wash down of exterior areas;~~ ~~Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors);~~ ~~Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest;~~ ~~Use of recirculation systems in any outdoor water features, fountains, etc.;~~ ~~Use of low-flow sprinkler heads in irrigation system;~~ ~~Provide information to the public in conspicuous places regarding outdoor water conservation; and~~ ~~Use of reclaimed water for irrigation if it becomes available.~~ ~~**4.16.1.6.1B** All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following:~~ ~~Instantaneous (flash) or solar water heaters;~~ ~~Automatic on and off water facets;~~ ~~Water-efficient appliances;~~ ~~Low-flow fittings, fixtures and equipment;~~ ~~Use of high efficiency toilets (1.28 gallons per flush [gpf] or less);~~ ~~Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);~~ ~~Use of self-closing valves for drinking fountains;~~ ~~Infrared sensors on drinking fountains, sinks, toilets and urinals;~~ ~~Low-flow showerheads;~~	~~Less than Significant with Mitigation~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
	~~Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances;~~ ~~Cooling tower recirculating system where applicable;~~ ~~Provide information to the public in conspicuous places regarding indoor water conservation; and~~ ~~Use of reclaimed water for wash down if it becomes available.~~ ~~**4.16.1.6.1C** Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.~~	
~~**Impact 4.16.1.6.2 Storm Water Drainage Requirements**~~		
~~The development of the proposed WLC project would introduce a substantial amount of impervious surfaces on the site, which could result in significant increases in off-site runoff.~~	~~**4.16.1.6.2A** Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.~~	~~Less than Significant with Mitigation~~
~~**Cumulative Impacts to Water Supply Services**~~		

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	~~Mitigation Measures~~	~~Level of Significance~~
~~The proposed WLC project would connect to existing conveyance infrastructure and adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.~~	~~Mitigation not required~~	~~Less than Significant with Mitigation~~
~~Impact 4.16.4.6.1 Construction or Expansion of Electrical and Natural Gas Facilities~~		

~~Based on calculations contained Tables 4.16.I and 4.16.J, the proposed WLC project would consume approximately 376,426 megawatt-hours (MWh) of electricity and almost 14.6 million cubic feet of natural gas per year. Therefore, the proposed project may induce the need to construct new electrical and natural gas facilities. This is a significant impact that requires mitigation.~~	~~**4.16.4.6.1A** Each application for a building permit shall include energy calculations to demonstrate compliance with the California Energy Efficiency Standards confirming that each new structure meets applicable Building and Energy Efficiency Standards. The plans shall also ensure that buildings are in conformance with the State Energy Conservation Efficiency Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California Administrative Code). This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions. Plans shall show the following:~~ ~~Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning.~~ ~~Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment.~~ ~~Energy-efficient appliances that achieve the 2008 Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows.~~ ~~**4.16.4.6.1B** Prior to the issuance of any building permits within the World Logistics Center Specific Plan, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards to the Building and Safety and Planning Divisions that shows each new structure meets the applicable Building and Energy Efficiency Standards. Plans may include but are not necessarily limited to implementing the following as appropriate:~~ ~~High-efficiency air-conditioning with electronic management system (computer) control.~~ ~~Variable Air Volume air distribution.~~ ~~Outside air (100 percent) economizer cycle.~~ ~~Staged compressors or variable speed drives to flow varying thermal loads.~~ ~~Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.~~ ~~Specification of premium-efficiency electric motors (i.e., compressor motors, air handling units, and fan-coil units).~~ ~~Use of occupancy sensors in appropriate spaces.~~ ~~Use of compact fluorescent lamps in place of incandescent lamps.~~ ~~Use of cold cathode fluorescent lamps.~~ ~~Use of Energy Star exit lighting or exit signage.~~ ~~Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified.~~	~~Less than Significant with Mitigation~~

~~Table 1.B: World Logistics Center Project Environmental Impact Summary~~

~~Issues/Impacts~~	**~~Mitigation Measures~~**	**~~Level of Significance~~**
	~~Use of lighting power controllers in association with metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots.~~ ~~Use of skylights (may conflict with installation of solar panels in some instances).~~ ~~Consideration of thermal energy storage air conditioning for spaces or hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods.~~ ~~**4.16.4.6.1C** Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:~~ ~~1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building;~~ ~~2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and~~ ~~3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.~~ ~~This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.~~	

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~~1.11 ALTERNATIVES TO THE PROPOSED PROJECT~~

~~In compliance with *CEQA Guidelines* (Section 15126.6), an EIR must describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project objectives as listed in Table 1.C and would avoid or substantially lessen significant effects of the project. The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives. This EIR evaluates a “No Project/No Build” as well as a “No Project” alternative (i.e., development according to the General Plan and zoning) in order to allow decision-makers to compare the effect of approving the project to the effect of not approving the project. A more detailed description of each project alternative as well as an analysis of the potential environmental impacts associated with the construction and operation of each is provided in Section 6.0 *Alternatives*, It should be noted that, for all of the alternatives, the 1,084 acres owned by the California Department of Fish and Wildlife (CDFW) and San Diego Gas & Electric (SDG&E) would be designated as Open Space in the City’s General Plan, similar to the proposed project.~~

~~1.11.1 No Project/No Development~~

~~CEQA requires an analysis of the environmental effects of not developing the proposed project. This allows the reviewer to see what the results of not developing the project site would be and also outlines existing or baseline conditions on the site. With the No Development Alternative, no development would occur and the majority of the site would remain in dry farming, with a small amount in rural residential uses.~~

~~1.11.2 No Project/Existing General Plan Alternative~~

~~Pursuant to CEQA (§15126.6[e][2]), this No Project Alternative discusses what would reasonably be expected to occur on the site based on current plans and consistent with available infrastructure and community services in the foreseeable future. This alternative would result in development of the project with the land uses currently shown in the City’s General Plan (i.e., the Moreno Highlands Specific Plan or MHSP). The approved 3,038-acre MHSP is a master planned, mixed-use community, consisting of up to 7,763 residential dwelling units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. The 1,084 acres owned by the CDFW and SDG&E are currently designated as Residential, Public Facilities, and Open Space in the City’s General Plan and would be designated as permanent Open Space under this alternative, similar to the proposed project.~~

~~1.11.3 Alternative 1: Reduced Density~~

~~This alternative would develop approximately 29 million square feet of logistics warehousing (approximately 30% less than under the proposed project) on the 2,610 acres of land under the Specific Plan, including 74.3 acres for open space. The 1,084 acres owned by the CDFW and SDG&E would be designated as Open Space in the City’s General Plan, similar to the proposed project.~~

~~1.11.4 Alternative 2: Mixed Use A Alternative~~

~~This alternative would result in development of the entire property with a mix of 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and 150~~

~~acres of open space. The 1,084 acres owned by the CDFW and SDG&E would be designated as Open Space in the City's General Plan, similar to the proposed project.~~

~~1.11.5 Alternative 3: Mixed Use B Alternative~~

~~This alternative would develop the project site similar to the land use plan of the MHSP but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP.~~

~~1.11.6 Alternative Sites~~

~~This alternative would relocate development under the proposed project to another site in the surrounding region. This analysis included potential sites in nearby cities and several unincorporated sites in the general project area. Due to the size and nature of the project, no feasible alternative sites were found in any of the eleven (11) jurisdictions evaluated.~~

~~**1.11.7 Comparison of Project Alternatives**~~

~~The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Section 4.0 of this EIR. Table 1.C compares the impacts of the alternatives with those of the proposed project. This table identifies whether the alternative~~

~~results in (1) a reduction of the impact; (2) a greater impact than the project; or (3) the same impact as the project.~~

~~Table 1.C: Comparison of Alternatives to the Proposed Project~~

~~Environmental Issue~~	~~Proposed Project~~	~~No Project/ No Build~~	~~No Project/ Existing General Plan~~	~~Alt. 1 Reduced Density~~	~~Alt. 2 Mixed Use A~~	~~Alt. 3 Mixed Use B~~
~~Aesthetics~~	~~SIG~~	~~NI~~	~~←LTS~~	~~=~~	~~=~~	~~←LTS~~
~~Agricultural and Forest Resources~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Air Quality~~	~~SIG~~	~~NI~~	~~SIG~~	~~←SIG~~	~~→SIG/+~~	~~SIG~~
~~Biological Resources~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Cultural Resources~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Geology and Soils~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Global Climate Change~~	~~LTS/mit~~	~~NI~~	~~LTS~~	~~LTS/mit~~	~~LTS/mit~~	~~LTS/mit~~
~~Hazards and Hazardous Materials~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Hydrology and Water Quality~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Land Use and Planning~~	~~SIG~~	~~NI~~	~~LTS~~	~~=~~	~~=~~	~~=~~
~~Mineral Resources~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Noise~~	~~SIG~~	~~NI~~	~~←SIG~~	~~←SIG~~	~~←SIG~~	~~←SIG~~
~~Population, Housing, and Employment~~	~~LTS~~	~~NI~~	~~+~~	~~=~~	~~=~~	~~+~~

~~Table 1.C: Comparison of Alternatives to the Proposed Project~~

~~Environmental Issue~~	~~Proposed Project~~	~~No Project/ No Build~~	~~No Project/ Existing General Plan~~	~~Alt. 1 Reduced Density~~	~~Alt. 2 Mixed Use A~~	~~Alt. 3 Mixed Use B~~
~~Public Services~~ ~~(police, fire, schools, parks)~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~
~~Transportation and Traffic~~	~~SIG~~	~~NI~~	~~→SIG~~	~~←SIG~~	~~→SIG+~~	~~→SIG~~
~~Utilities and Service Systems~~ ~~(water, wastewater, etc.)~~	~~LTS/mit~~	~~NI~~	~~=~~	~~=~~	~~=~~	~~=~~

~~Proposed Project~~

~~NI: No Impact~~ ~~LTS: Less than Significant Impact~~

~~LTS/mit: Less than Significant Impact with Mitigation~~ ~~SIG: Significant Impact with or without Mitigation~~

~~Project Alternatives~~

~~= Compared with the proposed project, no change in the significance of impact will occur.~~

~~→ Compared with the proposed project, the significance of the impact is increased.~~

~~← Compared with the proposed project, the significance of the impact is reduced.~~

~~+ Compared with the proposed project, a new impact has been identified.~~

~~←SIG Compared with the proposed project, the volume or extent of the impact is reduced, yet still significant.~~

~~1.11.8 Environmentally Superior Alternative~~

~~As shown above in Table 1.C, the No Project/Existing General Plan Alternative has mixed impacts relative to the proposed project; it reduces aesthetic impacts to less than significant levels but worsens the jobs/housing ratio by introducing more housing than employment-generating uses. The Reduced Density Alternative incrementally reduces a number of impacts of the proposed project (e.g., traffic, air quality, and noise) but cannot reduce them to less than significant levels even with mitigation. The Mixed Use A Alternative substantially increases traffic and related impacts compared to the project impacts, but it does not create any additional significant impacts. The Mixed Use B Alternative would incrementally increase traffic and would not improve the jobs/housing balance. In addition, this alternative would also worsen the jobs/housing ratio of the City by allowing the construction of many more homes than job-creating land uses. Regarding air quality impacts (criteria pollutants), development of~~

~~any land uses would likely exceed SCAQMD thresholds mainly due to the size of the proposed project site.~~

~~The *CEQA Guidelines* (Section 15126.6 (e[2]) requires that an environmentally superior alternative be identified in the EIR. Based on the analysis in Section 6.0 *Alternatives* and the summary contained in Table 1.C, Alternative 1 – Reduced Density – is the only alternative that reduces traffic, air quality, and related impacts by reducing the total square footage of warehousing by approximately 30 percent. Alternative 3 - Mixed Use B - is the only alternative that would reduce a significant impact of the proposed project (i.e., aesthetics – views). However, it would worsen the jobs/housing balance of the City over the long term. For these reasons, Alternative 1 – Reduced Density - has been deemed to be environmentally superior to the proposed project. However, none of the alternatives achieves the objectives of the project to nearly the same degree as the proposed project.~~

~~Table 1.D compares Alternative 1 to the project objectives and indicates that Alternative 1 does not meet most of the major goals of the proposed project mainly because of the reduced total~~

~~square footage by 30 percent, which also reduces the amount of new employment and property tax revenues generated to the City.~~

~~***Note:*** *The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR, therefore, they are being corrected at this time. In addition, some numerical changes result from the changes to the Specific Plan area.*~~

~~Table 1.D: Comparison of the Environmentally Superior Alternative to the Project Objectives~~

~~**Project Objectives**~~	~~**Degree to Which Alternative 1 Satisfies the Project Objectives**~~
~~Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.~~	~~**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).~~
~~Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.~~	~~**Not to the Same Degree as the Proposed Project.** The alternative introduces substantially less employment-generating uses on the site which is not consistent with the City's Economic Strategic Plan.~~
~~Create a major logistics center with good regional and freeway access.~~	~~**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing near the SR-60 Freeway but it would less attractive as a major regional logistics center compared to the proposed project.~~
~~Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.~~	~~**Meets Objective.** Development of the project area under this alternative would most likely proceed under some form of specific plan, which would help ensure future development was consistent with a comprehensive plan for the area.~~
~~Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.~~	~~**Meets Objective.** The alternative would develop a smaller amount of logistics warehousing compared to the proposed project, but it would still be master planned, most likely under a specific plan.~~
~~Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.~~	~~**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing vs. 40.6 MSF for the proposed project.~~
~~Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.~~	~~**Not to the Same Degree as the Proposed Project.** The alternative would not provide nearly as much new warehouse capacity to form a regional port-oriented logistics center compared to the proposed project.~~
~~Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.~~	~~**Not to the Same Degree as the Proposed Project.** The alternative would produce 30% less employment than under the proposed project, and would also provide less property tax revenue and be able to pay for less public improvements and infrastructure compared to the proposed project.~~
~~Encourage new development consistent with regional and municipal service capabilities.~~	~~**Not to the Same Degree as the Proposed Project.** It is unclear if a substantially reduced logistics warehousing project could afford to provide the necessary infrastructure to support the planned development compared to the proposed project.~~

~~Table 1.D: Comparison of the Environmentally Superior Alternative to the Project Objectives~~

~~**Project Objectives**~~	~~**Degree to Which Alternative 1 Satisfies the Project Objectives**~~
~~Significantly improve the jobs/housing balance and help reduce unemployment within the City.~~	~~**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).~~
~~Provide thousands of construction job opportunities during the project's buildout phase.~~	~~**Not to the Same Degree as the Proposed Project.** The alternative would not provide as much work for as many construction workers compared to the proposed project~~
~~Provide appropriate transitions or setbacks between on-site and off-site uses.~~	~~**Meets Objective.** A smaller logistics warehouse project may be able to provide equal or greater transitions and buffers from existing off-site residential uses compared to the proposed project.~~

2.0 INTRODUCTION AND PURPOSE: TABLE OF CONTENTS

TABLES

~~NOTE TO READERS~~

~~*The Programmatic Draft Environmental Impact Report (DEIR) for the World Logistics Center Specific Plan (WLCSP) was originally circulated for public review from February 4 to April 8, 2013. Since that time, a number of changes have been made to the WLCSP. The original DEIR has also been revised to account for the changes to the WLCSP and to respond to the many comments received on the DEIR.*~~

~~*The primary change in the WLC Project is the total Specific Plan area has been reduced from 2,710 acres to 2,610 acres and the proposed development reduced from 41.6 million to 40.6 million square feet (both a 3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. In addition, the Specific Plan land use plan was divided into sixteen (16) Planning Areas based on traffic impact zones which allows for more accurate estimates of potential traffic and air quality impacts of the WLC Project. The revised Specific Plan (September 2014) also now shows a specific location for a “Clean Fueling” facility in Planning Area (PA) 7 at the northeast corner of Theodore Street and Eucalyptus Avenue. In the original WLCSP, a trail was proposed along the edge of the Open Space area in the southwestern portion of the site to connect to existing trails along Redlands Boulevard and Cactus Avenue to the west and planned trails within the San Jacinto Wildlife Area and Mystic Lake to the south. In response to changes to the proposed project and concerns expressed by Native Americans, the trail in the revised WLCSP has been moved away from the northern boundary of the Open Space area (now Planning Area 30) to reduce potential impacts to the Mt. Russell foothills. The WLCSP phasing plan or schedule was also revised or extended from 10 to 15 years, so that Phase 1 runs from 2015 to 2022 and Phase 2 runs from 2023 to 2030. Please refer to FEIR Volume 1 Section 1.4 and Section 3.0, Project Description, in this revised DEIR for a more detailed description of changes to the WLC project.*~~

~~*The technical studies that supported the analysis of environmental impacts in the DEIR were also modified to address changes in the WLCSP and in response to the many comments on the EIR and technical studies. The following studies were revised: agriculture, air quality, biology, cultural resources, greenhouse gases, hydrology/water quality, noise, economic and fiscal impacts, traffic, and utilities. An additional study on agricultural resources was prepared as an independent assessment of onsite resources using the state LESA model (see Section 4.2 in this document). For details on the changes to the technical studies, please refer to FEIR Volume 1 Section 1.6 and the introductory paragraphs of each environmental analysis section of this revised DEIR (Sections 4.1 through 4.16).*~~

~~*In summary, the WLCSP DEIR has been revised based on changes to the WLC project, technical studies, and the many comments received on the DEIR and its related technical studies. Changes to the DEIR document are shown in double underline if they are additions to the original text, and shown as if they are deletions to the original text.*~~

2.0 INTRODUCTION AND PURPOSE

This programmatic Environmental Impact Report (EIR) has been prepared to evaluate the environmental impacts associated with the ~~proposed~~ World Logistics Center Project (“~~proposed project” or~~ “project”) in Rancho Belago, the eastern portion of the City of Moreno Valley (“City”), and to identify mitigation measures to avoid or minimize significant environmental impacts. The City is the “public agency which has the principal responsibility for carrying out or approving the project” and, as such, is the “Lead Agency” for this project under the California Environmental Quality Act (CEQA) of 1970 (*CEQA Guidelines* section 15367). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. The EIR is also a public disclosure document available to agencies and the public for review and comment prior to the consideration of the proposed project by the City, and is intended to serve as an informational document to be considered by the City, Responsible Agencies, and Trustee Agencies during deliberations on the proposed project. The project approvals associated with the proposed project are described in Section 3.0.

This section of the EIR outlines the document’s format; describes the purpose of the EIR; summarizes public review of the EIR; describes the Mitigation Monitoring and Reporting Program (MMRP); identifies the environmental issues discussed in the EIR; and defines the parameters and data to be used in the analysis of cumulative impacts.

In August, 2015, the City Council of the City of Moreno Valley (City) certified a Final Programmatic Environmental Impact Report (FEIR), which analyzed the environmental impacts that would result from the construction and operation of the World Logistics Center (WLC), as having been prepared in compliance with the California Environmental Quality Act (CEQA) The City Council the approved a General Plan Amendment (“GPA”), a Zone Change (“Zone Change”), the World Logistics Center Specific Plan (“WLC Specific Plan”), a financing and conveyancing Parcel Map (“Parcel Map 36457”), a Development Agreement (“Development Agreement”) and a request that 85 acres in an unincorporated portion of Riverside County be annexed into the City. In September, 2015, a number of lawsuits were filed challenging the City’s certification of the FEIR and the approvals granted for the construction and operation of the WLC.

In November, 2015, the City Council, in response to initiative petitions submitted to it for the GPA, the Zone Change, the WLC Specific Plan and the Development Agreement, vacated approvals for those entitlements granted in August, and then readopted the GPA, the Zone Change, the WLC Specific Plan and the Development Agreement. The Tentative Parcel Map (36547) was not part of the Initiative adoption and is not currently approved. The World Logistics Center Specific Plan is entitled for 40.6 million square feet of logistics and associated infrastructure land uses on the 2,610-acre project site.

In a court ruling dated February, 8, 2018, the Honorable Sharon J. Waters, Judge of the Riverside County Superior Court, identified five deficiencies in the FEIR. The key findings from Judge Waters’ ruling are quoted below:

Energy Impacts: “The FEIR must provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis”.

Biological Impacts: "The FEIR should remove all references to and consideration of the 910 acres of SJWA and MSHCP lands as "buffer zone" or "CDFW Conservation Buffer Area" in the Biological Resources and Habitat Impacts analysis".

Noise Impacts: "The FEIR must provide an analysis of construction noise over ambient levels; provide adequate analysis on construction noise impacts on nearby homes; address the inadequacy of mitigation measures, which fail to include performance standards or ways to reduce construction noise".

Agricultural Impacts: "The FEIR and the resolution certifying the FEIR require clarification as to whether loss of locally important farmland will have a significant direct or cumulative impact on agriculture and, if significant, the FEIR must either explain how proposed mitigation will reduce the impact or why other mitigation is not feasible".

- **Cumulative Impacts**: "The FEIR should include consideration of recently constructed and proposed large warehouse projects in the summary of projections method, and should analyze whether individually significant impacts may be cumulative considerable".

In a writ of mandate issued on June 12, 2018, the Judge order the City to set aside its certification of the FEIR and its approval of the Parcel Map. The remaining approvals – the GPA, Zone Change, World Logistics Center Specific Plan, Annexation Request and Development Agreement granted in November, 2015 – and those entitlements remain in effect.

This Revised Sections of the FEIR has been prepared to respond to the Judge's ruling and writ by correcting the five deficiencies identified in the ruling. With respect to cumulative impacts, the Judge's ruling did not indicate the specific environmental topics to be evaluated, and thus, to ensure compliance with the ruling, this Revised Sections of the FEIR includes an analysis of potential cumulative impacts for all environmental topics, even those never raised in the Superior Court proceedings. While such information may not be required to comply with the Judge's ruling, it is included here to account for the most conservative interpretation of the Judge's ruling. The court will have the discretion to determine whether it was required to comply with the writ or not. This Revised Sections of the FEIR evaluates the current environmental baseline conditions, impacts and any required additional or revised mitigation measures associated with the construction and operation of the World Logistics Center.

Using this interpretation of the Judge's ruling for cumulative impacts, this Revised Sections of the FEIR includes a revised analysis of the WLC's potential transportation impacts to incorporate the cumulative impacts of additional projects, although the FEIR's section on Transportation and Traffic (Section 4.15) was upheld by Judge Waters. Although not required by the Judge's ruling, this section has also been prepared to reflect the latest trip generation rates found in the Institute of Transportation Engineers' Trip Generation Manual (10th ed., 2017). The revised traffic analysis also forms the basis for revised analyses of air quality, greenhouse gases and traffic noise, even though those sections of the FEIR were upheld by the court (Sections 4.3, 4.7 and portions of 4.12).

This Revised Sections of the FEIR is being circulated to the public for review and comment. Written responses to those comments will then be prepared. A Revised FEIR, which will consist of this Revised

Sections of the FEIR, the comments and responses and the portions of the FEIR that were found to be in compliance with CEQA after trial, will be considered by the City.

Because the Judge found that substantial portions of the FEIR did comply with CEQA, only this Revised Sections of the FEIR is being circulated for public review and comment. This Revised Sections of the FEIR presents additional environmental analyses necessary to respond to the Judge's ruling. Some portions of this Revised Sections of the FEIR adds to the FEIR, e.g., new Section 4.17 (Energy), or provides additional information on the same topic, e.g., Section 2.1 (Document Format). Elsewhere in this Revised Sections of the FEIR, individual sections have been revised and replace the corresponding sections in the FEIR (Air Quality, Biological Resources, Greenhouse Gas Emissions/Climate Change). This Revised Sections of the FEIR also identifies certain specific portions of the FEIR (Project Description) that are no longer applicable to the CEQA analysis, which identifies the GPA, Zone Change, the World Logistics Center Specific Plan, Annexation Request and the Development Agreement as a discretionary action anticipated to be taken by the City.

For clarity, although the GPA, Zone Change, WLC Specific Plan, Annexation Request and Development Agreement were approved by the City in compliance the initiative process set forth in the California Elections Code, this Revised Sections of the FEIR in combination with the valid portions of the FEIR, serves to evaluate the environmental effects of the World Logistics Center project.

The absence of any reference to a section of the FEIR in this Revised Sections of the FEIR means that the corresponding section in the FEIR remains unchanged because the Judge found that it complied with CEQA.

The reader should note that each section within Section 4.0 of the FEIR contained a subsection analyzing cumulative impacts. Those subsections are no longer applicable and have been replaced with a new Section 6.0.

Finally, the FEIR sometimes refers to Theodore Street. It has since been renamed World Logistics Center Parkway south of SR-60.

2.1 DOCUMENT FORMAT

To assist the reader's review of the document, the following describes the format of this EIR.

Section 1.0	*Executive Summary* provides a summary of the EIR document and (in Table 1.B) identifies potentially significant impacts, mitigation measures, and the level of significance of each impact following mitigation.
Section 2.0	*Introduction and Purpose* outlines the EIR document's format including technical appendices; describes the purpose of the EIR including the legal purpose of CEQA, the intended use of EIR, and the EIR's incorporated documents and referenced technical reports; summarizes the public review of the EIR to date; describes the role

of the MMRP to be provided in the Final EIR; identifies the sixteen environmental issues that are discussed; and defines the cumulative analysis provided in the EIR.

Section 3.0 *Project Description* provides a detailed description of the geographical setting, project location, project setting, City of Moreno Valley General Plan designations, World Logistics Center Specific Plan land use designations, zoning designations, project characteristics, project objectives, and discretionary actions required to implement the proposed project. This section also explains the other areas in addition to the Specific Plan that are part of the proposed project (i.e., off-site improvement areas, California Department of Fish and Wildlife property, and public facilities lands).

Section 4.0 *Existing Setting, Impacts, and Mitigation Measures* evaluates the impacts associated with the proposed project. This section is organized by sixteen issue areas with each following the framework:

- *Existing Setting*. Information in the existing setting contains a discussion of the local and regional environment conditions (environmental and man-made) in existence at the time this EIR was prepared. Existing setting information provides the reader with the “baseline” from which future impacts are analyzed, and provides a standard against which to measure these impacts.
- *Existing Policies and Regulations.* Regulatory requirements and policies (federal, state, and local) applicable to the issue area are summarized.
- *Methodology*. A brief summary of the methods and resources utilized in the preparation of the environmental analysis.
- *Thresholds of Significance*. Determinations regarding the significance of potential impacts resulting from implementation of the proposed project are provided. These thresholds represent the criteria used in this programmatic EIR to determine whether identified impacts are significant.
- *Less than Significant Impacts*. Potential issues for which the proposed project was determined to have no impact or a less than significant impact are identified. For these issues, either no mitigation would be required or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.
- *Significant Impacts*. Potential impacts from implementation of the proposed project are identified. Each of these issues contains an impact analysis, mitigation measures, and significance after mitigation discussion.
    - *Impact Analysis.* An analysis of potential programmatic impacts of the proposed project is presented in this section. This discussion focuses on the impacts of implementation of the proposed project, and includes potential short-term/long-term and direct/indirect project impacts, and consistency with applicable planning documents or regulations.
    - *Project Design Features.* Characteristics of the WLC Specific Plan or other aspects of the WLC project that help reduce potential environmental impacts.
    - *Mitigation Measures*. The measures proposed to mitigate any potential impacts of the proposed project are identified.
    - *Level of Significance after Mitigation* provides a conclusion as to whether implementation of the proposed project will reduce the project-related and cumulative impacts to a level that is less than significant.

- ~~*Cumulative Impacts.* This discussion focuses on the potential environmental effect of the proposed project combined with the effects of reasonably foreseeable cumulative projects within the project study area.~~

Section 5.0	*Other CEQA Topics* contains discussions of additional topics required by CEQA, including effects found not to be significant, unavoidable effects of the proposed project, and significant irreversible environmental changes. The proposed project's consistency with regional plans (discussed in Section 4.10) and potential to induce growth (discussed in Sections 4.13) are summarized in this section.
Section 6.0	*Cumulative Impacts.* This discussion focuses on the potential environmental effect of the proposed project combined with the effects of reasonably foreseeable cumulative projects within the project study area.
Section ~~6~~7.0	*Alternatives* contains discussion of alternatives to development of the proposed project. As allowed by CEQA, the impacts of these alternatives are evaluated at a more general level than the analyses of the proposed project that is contained in Section 4.0. This section ~~also~~ evaluates the proposed effects of the No Project Alternative ~~and identifies the environmentally superior alternative~~ only.
Section ~~7~~8.0	This section lists the organizations and persons consulted in preparation of the EIR.
Section ~~8~~9.0	This section contains all the references cited in the EIR, acronyms and abbreviations used in the document, and definitions of terms used, including those specific to the proposed WLC project.
Appendices	The Appendices contain a copy of the NOP, NOP mailing list, NOP comment letters and responses, public scoping meeting information, all of the various technical studies that support the EIR analysis, referenced materials, and other relevant correspondence received during the course of the analysis of the proposed project.

As noted above, the Judge's ruling identified five areas where the FEIR failed to comply with CEQA. The ruling requires that the Revised Sections of the FEIR: (1) provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis; (2) remove references to and consideration of the northernmost 910 acres of the San Jacinto Wildlife Area (SJWA) as a "buffer zone" or the "CDFW Conservation Buffer Area" in the Biological Resources analysis; (3) provide an analysis of construction noise over ambient levels, provide adequate analysis of construction noise impacts on nearby homes, and address inadequate mitigation measures, which fail to include performance standards or ways to reduce construction noise; (4) clarify as to whether loss of farmlands of local importance was significant and, if so, how it would be mitigated, if feasible; and (5) consider recently constructed and proposed large warehouse projects to determine whether they will result in cumulatively significant impacts.

This Revised Sections of the FEIR responds to each of the five areas as follows:

> **(1) Renewable Energy**: A new section dealing with renewable energy technologies, Section 4.17, has been prepared and is included in this Revised Sections of the FEIR. In addition, a new Appendix E, World Logistics Center, Comparison of Renewable Energy Technologies, has been prepared and is included in this Revised Sections of the FEIR.

(2) Biological Resources: References to and consideration of the SJWA as a "buffer zone" or "CDFW Conservation Buffer Area" have been removed from Section 4.4, Biological Resources, and a revised version of that section has been prepared. These terms have also been removed in all other relevant sections of the FEIR. Those sections, as revised, have also been included in these Revised Sections of the FEIR.

(3) Construction Noise: Those portions of Section 4.12, Noise, dealing with construction noise and mitigation measures have been revised and are included herein. In addition, a revised Appendix K, Noise Technical Report, has been prepared and is included in the appendices.

(4) Farmlands of Local Importance: Those portions of Section 4.2, Agricultural and Forestry Resources, dealing with the loss of farmland of local importance have been revised and are included herein.

(5) Cumulative Impacts: A new Section 6.0, Cumulative Impacts, has been prepared and is included herein. Over 300 recent past, present and reasonably foreseeable projects that could cumulatively contribute to the World Logistics Center's environmental impacts have been identified and considered. These are in addition to the contributions of projects reflected in various planning documents.

As mentioned, the Revised Sections of the FEIR also includes revised analyses in Traffic and Circulation, and in Appendix F, Traffic Impact Analysis (TIA), Section 4.15, in Air Quality, Section 4.3, and in Appendix D, Air Quality/Health Risk/Greenhouse Gases, Noise, Section 4.12, and in Appendix C, Noise. It should also be noted that the methodologies used to determine the environmental impacts have not been changed. As an example, the same general approach, LOS methodologies, and thresholds that were used in the 2014 TIA were repeated in the 2018 TIA; although the input data and study years were updated to reflect the best available current information.

2.2 PURPOSE OF CEQA AND THE ENVIRONMENTAL IMPACT REPORT

According to Section 15002 of *CEQA Guidelines*, the basic purposes of CEQA are to:

- Inform government decision-makers and the public about the potential significant environmental effects of proposed activities;
- Identify ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governing agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

CEQA requires that a project be reviewed to determine the environmental effects that would result if the project were approved and implemented. The City has the responsibility for preparing, processing, and determining whether to approve the proposed project and certify this EIR. As Lead Agency, the City has the authority to make decisions regarding discretionary actions relating to implementation of the proposed project.

2.2.1 Program EIR

This EIR will serve as a Program EIR pursuant to the *State CEQA Guidelines* Section 15168, which states that a Program EIR is appropriate for a project that involves "… a series of actions that can be characterized as one large project and are related either:

(1) Geographically;

(2) A logical parts in the chain of contemplated action;

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

Section 15168 of the *CEQA Guidelines* explains how a Program EIR relates to future activities within the project area:

"(c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.

> (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
>
> (2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.
>
> (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.
>
> (4) Where the subsequent activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.
>
> (5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

(d) Use with Subsequent EIRs and Negative Declarations. A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can:

> (1) Provide the basis in an Initial Study for determining whether the later activity may have any significant effects.

(2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

(3) Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

(e) Notice with Later Activities. When a law other than CEQA requires public notice when the agency later proposes to carry out or approve an activity within the program and to rely on the program EIR for CEQA compliance, the notice for the activity shall include a statement that:

(1) This activity is within the scope of the program approved earlier, and

(2) The program EIR adequately describes the activity for the purposes of CEQA."

2.2.2 World Logistics Center EIR

~~As previously noted, CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on a project. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from the construction and operation of the proposed project. The purpose of the public review of the EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the *CEQA Guidelines* states the following regarding standards from which adequacy is judged:~~

> ~~"An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."~~

~~An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *CEQA Guidelines*, and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.~~

~~Under CEQA (PRC Section 21002.1[a]):~~

> ~~"The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the proposed project, and to indicate the manner in which those significant effects can be mitigated or avoided."~~

~~*Note: The following revisions are based on project changes outlined in the WLC Specific Plan.*~~

~~This programmatic EIR has been prepared to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the proposed 40.4 million square feet of logistics warehouse facilities (i.e., the World Logistics Center), as well as its associated infrastructure, designation of the CDFW property as permanent open space, and designation of the Natural Gas Compressor Plant as Public Facility, along with related entitlements. As permitted under the *CEQA Guidelines* (Section 15084[d-e]), LSA Associates, Inc. (LSA) has prepared the EIR under the direction of professional City planning staff. However, prior to certification, the Planning Commission and the City Council must independently review the methodologies used, and conclusions reached in the EIR.~~

~~The City is undertaking an independent review of this EIR by having City planning staff work with LSA on the EIR, and by employing a third-party consultant to independently review the EIR. If certified by the City, the information included in and the conclusions reached in the EIR will therefore represent the City's independent judgment.~~

~~This programmatic EIR has been prepared utilizing information from City planning and environmental documents, applicant-provided technical studies, and other publicly-available data. Alternatives to the proposed project are also discussed and mitigation measures that would offset, minimize, or otherwise avoid significant environmental impacts from the proposed project have been identified. This EIR has been prepared in accordance with CEQA, California Public Resources Code §21000 *et seq.*; the *Guidelines for California Environmental Quality Act* (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City. The objective of the EIR is to inform City decision-makers, representatives of other affected/responsible agencies, the public, and other interested parties of the potential environmental consequences that may be associated with the approval and implementation of the proposed project.~~

CEQA requires the Lead Agency to consider the information contained in an EIR prior to taking any discretionary action on a project. This Revised Sections of the FEIR corrects deficiencies found by the court to exist in the FEIR and provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from the construction and operation of the World Logistics Center project. The purpose of the public review of an EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the *CEQA Guidelines* states the following regarding standards from which adequacy is judged:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *CEQA Guidelines*, and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

Under CEQA (PRC Section 21002.1[a]):

> "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the proposed project, and to indicate the manner in which those significant effects can be mitigated or avoided."

This Revised Sections of the FEIR has been prepared to correct deficiencies found by the court to exist in the FEIR by evaluating some of the potential environmental impacts associated with the construction and operation of the World Logistics Center project which will include 40.6 million square feet of logistics warehouse facilities, as well as its associated infrastructure. ESA (ESA) has prepared this Revised Sections of the FEIR under the direction of professional City planning staff. However, prior to certification of the Revised FEIR, the City must independently review the methodologies used, and conclusions reached in this Revised Sections of the FEIR. The City is undertaking an independent review of the Revised Sections of the FEIR by having City planning staff work with ESA on the document, and by employing a third-party consultant to independently review it as well. If certified by the City, the information included and the conclusions reached in the Revised Sections of the FEIR will therefore represent the City's independent judgment.

This Revised Sections of the FEIR has been prepared utilizing information from City planning and environmental documents, applicant-provided technical studies, and other publicly-available data. Additional mitigation measures that would offset, minimize, or otherwise avoid significant environmental impacts from the World Logistics Center project have been identified, where required. This document has been prepared in accordance with CEQA, California Public Resources Code §21000 *et seq.*; the *Guidelines for California Environmental Quality Act* (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City. The objective of the Revised Sections of the FEIR is to inform City decision-makers, representatives of other affected/responsible agencies, the public, and other interested parties of the potential environmental consequences that were not adequately dealt with in the FEIR that may be associated with the approval and implementation of the WLC project.

2.3 REGIONALLY SIGNIFICANT PROJECT

When an EIR is prepared for any project that is considered to be of statewide, regional, or area-wide significance, as defined by *CEQA Guidelines* Section 15206, then the Draft EIR must be submitted to the State Clearinghouse and the appropriate metropolitan area council of governments for review and comment. A project is considered to be of statewide, regional, or area-wide significance if it meets any of the following criteria:

(1) A proposed local general plan, element, or amendment thereof for which an EIR was prepared.

(2) A project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located. Projects of this nature would include:

  (a) A proposed residential development of more than 500 dwelling units.

  (b) A proposed shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space.

  (c) A proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space.

  (d) A proposed hotel/motel development of more than 500 rooms.

   (e) A proposed industrial, manufacturing, processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area.

(3) A project which would result in cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 (Williamson Act) for any parcel of 100 or more acres.

(4) A project for which an EIR has been prepared that is located in and would substantially affect areas of critical environmental sensitivity.

(5) A project which would substantially affect sensitive wildlife habitats and habitats for endangered, rare, or threatened species.

(6) A project that would interfere with the attainment of regional water quality control standards as stated in the approved area-wide waste treatment management plan.

(7) A project that would provide housing, jobs, or occupancy for 500 or more persons within 10 miles of a nuclear power plant.

The World Logistics Center Project, ~~as proposed,~~ would be considered a "project of statewide, regional or area-wide significance" per criteria 2(e). In addition, the Southern California Association of Governments (SCAG) indicated in its NOP letter that this project was regionally significant. Therefore, the NOP, Draft EIR, and NOC ~~will be~~were transmitted to the State Clearinghouse and the appropriate metropolitan area council of governments, which in this case is the Western Riverside Council of Governments (WRCOG), for review and comment.

2.4 INCORPORATED DOCUMENTS

CEQA (§15150) permits the incorporation by reference of all or portions of other documents that are generally available to the public. Any document incorporated by reference shall be made available to the public for inspection at a public place or public building and requires that the EIR state where the incorporated documents will be made available for public inspection. The following documents have been incorporated by reference:

- *City of Moreno Valley General Plan, various elements,* adopted by City Council Resolution No. 2006-83, July 11, 2006, and last updated October 2006.
- City of Moreno Valley General Plan Final Environmental Impact Report, certified July 2006.
- City of Moreno Valley General Plan Land Use Map, last updated August 2010.
- City of Moreno Valley Zoning Atlas, last updated November 2011.
- City of Moreno Valley Municipal Code (various chapters), last updated February 2012.
- ~~Moreno Highlands Specific Plan EIR, adopted 1992.~~
- City of Moreno Valley General Plan Land Use Map, last updated November, 2017.
- City of Moreno Valley Zoning Atlas, last updated November 2017.

2.5 TECHNICAL REPORTS

Various technical or project-related reports have been prepared to assess specific issues that may result from the construction and operation of the proposed project. As relevant, information from the following documents and technical reports has been integrated into the EIR as appendices.

- **“**The World Logistics Center Specific Plan” (Highland Fairview) original dated January 30, 2013, revised dated September 2014.
- “An Agricultural Industry Analysis of the Inland Empire” (Andrew Chang & Co.), original dated March 2012, revised September 2014.
- “Agricultural Resources Assessment for the WLCSP” (Parsons Brinckerhoff), original dated March 2012, revised December 2013.
- “Agricultural Assessment for the WLCSP” (Cushman and Wakefield) new report dated December 20, 2013 (prepared for Final EIR in response to comments) and revised September 2014.
- “Air Quality, Greenhouse Gas, and Health Risk Assessment for the WLCSP” (MBA), original dated January 2013, revised April 2015.
- “Habitat Assessment, MSHCP Consistency Analysis, and JPR Review” (MBA), original dated December 20, 2012, revised September 2014.
- “Delineation of Jurisdictional Waters and Wetlands” (MBA), original dated November 2012, revised September 2014.
- “Phase I and Phase II Cultural Resources Assessment” (MBA), original dated May 2012, revised September, 2014.
- “Preliminary Geotechnical Investigation” (Leighton), original dated March 23, 2012, revised September 2014.
- “Supplemental Geotech Assessment for Offsite Improvements Related to the WLCSP” (Leighton), original dated March 23, 2013, revised September 2014.
- “Phase 1 Environmental Site Assessments” (various dates, LOR Geotechnical) (not revised).
- **“**Draft Master Plan of Drainage Study” (CH2MHill) original dated November 2012, revised dated September 2014.
- “Preliminary Water Quality Management Plan” (CH2MHill) original dated November 2012, revised September 2014.
- **“**Noise Assessment for the WLCSP” (Mestre Greve Associates) original dated January 2013, revised September 2014.
- “Traffic Impact Assessment (TIA) for the WLCSP” (Parsons Brinckerhoff) original dated January 2013, revised September 2014.
- “NAIOP Assessment of Available High-Cube Trip Generation Rates” (Kunzman Associates), December 20, 2011.
- “Water Supply Assessment for the WLCSP” (Eastern Municipal Water District), March 21, 2012.
- “Highlands Water Budget” (CH2MHill), original dated December 2012, revised September 2014.
- “Water System Modeling Results” (CH2MHill), original dated December 2012, revised dated October 22, 2013.
- “Sewer and Reclaimed Wastewater Memorandum” (CH2MHill), original dated April 25, 2012, revised September 2014.

- “Dry Utilities – Technical Memorandum” (Utility Specialists), original dated December 20, 2012, revised September 2014.
- “Electrical System Forecast of Utility Infrastructure” (MVU Engineering), original dated December 2012, revised September 2014.
- “Fiscal and Economic Impact Study for the World Logistics Center” (David Taussig and Associates), original dated January 15, 2013, revised September 2014.
- Hydrology and Water Quality Memorandum (Woodard Curran), 2018
- Traffic Impact Assessment (WSP), 2018
- Energy Assessment (WSP),2018
- Transportation Energy Assessment (ESA), 2018
- Air Quality Assessment (ESA), 2018
- Noise Assessment (ESA), 2018
- Greenhouse Gas Assessment (ESA), 2018
- Health Risk Assessment (ESA), 2018
- Biological Resources Assessment (ESA), 2018
- Sensitive Species Surveys (ESA), 2018

In addition to their inclusion in their entireties as appendices to this EIR, these documents are available for review at the following location:

Moreno Valley City Hall
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3238
Monday–Thursday 7:30 a.m.– 5:30 p.m.
Friday 7:30 a.m. – 4:30 p.m.

2.6 PUBLIC REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

~~This EIR was distributed to responsible and trustee agencies, other affected agencies, and interested parties. Additionally, in accordance with Public Resources Code Section 21092(b)(3), the EIR was provided to all parties who previously requested copies. The Notice of Completion (NOC) and Notice of Availability (NOA) of the EIR was distributed for a 63-day public review period in excess of the 45 days typically suggested by CEQA. During the public review period, the EIR and technical appendices were made available for review.~~

This Revised Sections of the FEIR will be distributed to responsible and trustee agencies, other affected agencies, and interested parties. Additionally, in accordance with Public Resources Code Section 21092(b)(3), this document will be provided to all parties who previously requested copies. The Notice of Completion (NOC) and Notice of Availability (NOA) of the EIR is being distributed for a 45-day public review period. During the public review period, the Revised Sections of the FEIR and the revised technical appendices will be made available for review.

Written comments regarding this EIR were addressed to:

~~Richard Sandzimier,~~Albert Armijo ~~Planning Official~~ Interim Planning Manager
~~and~~
~~Mark Gross, Senior Planner~~
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3206
Email: ~~RichardSa~~alberta@moval.org
~~Markg@moval.org~~

~~After the public review period, written responses to all significant environmental issues raised were prepared and included in the Final EIR Volume 1 – Response to Comments. These responses will be available for review for a minimum of 10 days prior to the public hearings before the City of Moreno Valley Planning Commission and City Council, at which time the certification of the Final EIR will be considered. The Final EIR (which includes the Draft EIR, the public comments and responses to the Draft EIR, and findings) will be included as part of the environmental record for consideration by the City decision-makers. The City will respond as appropriate to comments made at public hearings on the WLC Project and EIR.~~

After the public review period, written responses to comments on the Revised Sections of the FEIR will be prepared. These responses will be available for review for a minimum of 10 days prior to the public hearings before the City, at which time the certification of the Revised FEIR will be considered. The Revised FEIR (which includes the Revised Sections of the FEIR, the public comments and responses to the Revised Sections of the FEIR and the portions of the FEIR found to comply with CEQA) will be included as part of the environmental record for consideration by the City decision-makers. The City will respond as appropriate to comments made at public hearings on the WLC Project and Revised Sections of the FEIR.

2.6.1 Notice of Preparation

~~The City initiated the environmental process without completion of an Initial Study. The City determined that, due to the nature and size of the proposed project, all environmental topics warranted further environmental review in an EIR. The City circulated over 40 copies of the Notice of Preparation (NOP) for the World Logistics Center EIR to state, regional, and local agencies, and nine copies to owners of adjacent properties on February 26, 2012, for a 30-day review period.[1] The NOP was distributed to the State Clearinghouse, as well as agencies and organizations that may provide comment on the proposed project as well as the potential environmental impacts that may result from the construction and operation of the proposed on-site uses.~~

~~Comments received regarding the NOP were used to help identify impacts that could result from implementation of the proposed project. The City received 27 comment letters to the NOP and six comment cards from the public Scoping Meeting. In addition, 30 individuals spoke at the Scoping Meeting. The NOP and comment letters received regarding the NOP are included in Appendix A of the EIR. Table 2.A provides a brief summary of NOP comment letters, Table 2.B lists City-identified issues~~

~~[1] The Notice of Preparation 30-day public review period was from February 25 to March 26, 2012. City of Moreno Valley.~~

~~from the scoping process, and Table 2.C lists Senate Bill (SB) 18 Native American consultation contacts.~~

~~Table 2.A: Notice of Preparation Comments Received~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~
~~Governor's Office of Planning and Research~~	~~2/22~~	~~Scott Morgan. This letter acknowledges receipt of the NOP and identified the 30-day review period (2/22–3/22). OPR issued State Clearinghouse No. 2012021045~~	~~(2.0) Introduction~~
~~California Department of Transportation (Caltrans)~~	~~2/29~~	~~Daniel Kopulsky. Must prepare a traffic impact study according to the Caltrans' Guide for the Preparation of Traffic Impact Studies. Also must prepare a drainage study and identify impacts to state drainage facilities. Existing capacity of the state drainage systems cannot be exceeded.~~	~~(4.15) Traffic~~
~~California Native American Heritage Commission (NAHC)~~	~~3/7~~	~~Dave Singleton. NAHC Sacred Lands File did not identify any resources within project area, but did list the following local tribes: Pechanga Band; Ramona Band; Santa Rosa Band; Morongo Band; San Manuel Band; Serrano Nation; Cahuilla Band; and Soboba Band (see Table 2.C).~~	~~(4.5) Cultural~~
~~Morongo Band~~	~~2/22~~	~~Franklin Dancy. Tribe indicated site was in its traditional use area and requested to be notified if human remains are found and the Morongo Band is determined to be the Most Likely Descendant, or if Native American artifacts are found during excavation/grading. They also requested that they be consulted if a Treatment Plan is needed for significant cultural resources on site.~~	~~(4.5) Cultural~~
~~Pala Tribe~~	~~3/8~~	~~Shasta Gaughen, Ph.D. Determined project was outside of traditional tribal area.~~	~~(4.5) Cultural~~
~~California Department of Fish and Wildlife (CDFW)~~	~~3/22~~	~~Jeff Brandt. EIR should address County's MSHCP, the San Jacinto Wildlife Preserve (SJWP), State jurisdictional areas and permitting, water resources, greenhouse gases, direct, indirect, and cumulative biological impacts.~~	~~(4.4) Biology~~ ~~(4.9) Hydrology~~
~~California Department of Parks and Recreation~~	~~3/21~~	~~Ron Krueper. Concerned about impacts to Lake Perris State Recreational Area to southwest. Also must evaluate MSHCP and keeping Davis Road closed to traffic.~~	~~(4.4) Biology~~ ~~(4.14) Services~~
~~Southern California Association of Governments (SCAG)~~	~~3/19~~	~~Jacob Lieb. Encouraged EIR to use data from Regional Transportation Plan (RTP) for jobs, housing, and employment. Project is regionally significant.~~	~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~
~~South Coast Air Quality Management District (SCAQMD)~~	~~3/23~~	~~Ian MacMillan. All air quality studies need to provide actual CalEEMod files, and evaluate construction and occupancy impacts for criteria pollutants, LSTs, Health Risk Assessment, dust (PM_{10} and $PM_{2.5}$), and use Western Riverside Council of Governments (WRCOG) "Good Neighbors" guidelines for distribution centers.~~	~~(4.3) Air Quality~~
~~Eastern Municipal Water District (EMWD)~~	~~3/22~~	~~Joseph Lewis. Need to address water resources.~~	~~(4.9) Hydrology~~ ~~(4.16) Utilities~~
~~Sierra Club, San Gorgonio Chapter, Moreno Valley Group~~	~~3/26~~	~~George Hague. EIR needs to address environmental justice and notices should be in Spanish. Also NOP insufficient and public needs more time to review. Need to evaluate SJWP, MSHCP, loss or transfer of 7,700 housing units elsewhere in~~	~~(2.0) Introduction~~ ~~(3.0) Project Description~~ ~~(4.1) Aesthetics~~

~~Table 2.A: Notice of Preparation Comments Received~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~
		~~the City from loss of Moreno Highlands project, local and regional traffic impacts, air quality impacts on wildlife, especially diesel particulates. Trails, LEED certification, transit, alternative access, rail, March Inland Port, infrastructure, loss of logistics from Panama Canal expansion, impacts to existing onsite homes, possible truck stop, "toxic" runoff, groundwater, Water Supply Assessment, green-solar design, 90% offsets with Tier III trucks, loss of agricultural land, raptors and foraging land, parking, alternative fuels, truck routes through the City, noise barriers during construction, burrowing owls, greenhouse gases, global climate change effects, and reasonable range of alternatives. Suggested references.~~	~~(4.2) Agriculture~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.5) Cultural~~ ~~(4.6) Geology~~ ~~(4.7) Greenhouse Gases~~ ~~(4.8) Hazards~~ ~~(4.9) Hydrology~~ ~~(4.10) Land Use~~ ~~(4.12) Noise~~ ~~(4.13) Population & Housing~~ ~~(4.14) Services~~ ~~(4.15) Traffic~~ ~~(4.16) Utilities~~ ~~(5.0) Other Topics~~ ~~(6.0) Alternatives~~
~~Friends of San Jacinto Valley~~	~~3/22~~	~~Tom Paulek. Concerned about CDFW land and impacts to SJWP and MSHCP analysis.~~	~~(4.4) Biology~~ ~~(4.9) Hydrology~~
~~San Jacinto Valley Wetlands Foundation~~	~~3/19~~	~~Michael Marshall. Impact of lights and diesel pollutants on SJWP, also noise and human disturbance too. Traffic, runoff and water quality, groundwater supplies, water use, and MSHCP analysis.~~	~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.9) Hydrology~~ ~~(4.15) Traffic~~ ~~(4.16) Utilities (water)~~
~~Residents for a Livable Moreno Valley~~	~~3/26~~	~~Susan Gilchrist. Impacts to employment and income in the City, loss of 7,700 homes, overall EIR process, biology impacts with CDFW land, SJWP, runoff, lighting, buffers for SJWP and Lake Perris, impacts on biology excess runoff, views, traffic, glut of warehouses in the City and region, need jobs diversity, actual number of employees, will it have a truck stop, alternative fuels, and building setbacks.~~	~~(2.0) Introduction~~ ~~(3.0) Project Description~~ ~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.7) Greenhouse Gases~~ ~~(4.9) Hydrology~~ ~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~ ~~(4.15) Traffic~~ ~~(4.16) Utilities~~ ~~(5.0) Other Topics~~
~~James Devlin~~	~~3/15~~	~~Devlin Eng. Representing Multivac (local property owners). Concerned about truck traffic through residential areas, concentrate trucks onto Theodore Street, use block walls to reduce noise impacts where houses are adjacent, need landscape buffers along Merwin Street and Redlands Boulevard, add lower intensity land uses along west side of project.~~	~~(4.1) Aesthetics~~ ~~(4.10) Land Use~~ ~~(4.12) Noise~~

~~Table 2.A: Notice of Preparation Comments Received~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~
~~Michael McCoy~~	~~3/21~~	~~Need site plan details, not Specific Plan; too vague, need accurate employment projections, seismic impacts, traffic, air quality, rail access, biological resources, drainage, and definition of high cube.~~	~~(3.0) Project Description~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.6) Geology~~ ~~(4.9) Hydrology~~ ~~(4.13) Population & Housing~~
~~Michael McKibben~~	~~3/25~~	~~NOP too short. Geologic and seismic constraints (San Jacinto, Casa Loma, and Farm Road Faults), Alquist Priolo earthquake zones, hazards, FEMA flooding, suggested references.~~	~~(4.6) Geology and Soils~~ ~~(4.9) Hydrology~~
~~Thomas Ketcham~~	~~3/12~~	~~Supports creation of new local jobs but not at expense of residents and environment. Skechers mainly transferred jobs from Ontario warehouse and Cabazon Outlet Mall. Also concerned that previous project by Highland Fairview (HF), called Aquabella, has cost the City a lot in terms of improvements while HF has not made its required improvements, and commenter is worried HF might do the same thing on this project. City does not need more debt. Project will generate jobs but does not need or want 100% warehouse jobs, need a mix. Already adequate of space and land for more warehouses in southern end of town where they are more appropriate. Also March JPA has space for warehouses too. City services, police, fire, street maintenance, and street landscaping should not be sacrificed “chasing” new jobs and more growth.~~	~~(3.0) Project Description~~ ~~(4.13) Population & Housing~~ ~~(4.14) Services~~ ~~(4.15) Traffic~~ ~~(4.16) Utilities~~ ~~(5.0) Other Topics~~
~~Ann McKibben~~	~~3/26~~	~~Aesthetics, open space, lighting on SJWP, Dark Skies, loss of agricultural land, air quality, biology, MSHCP, open space, energy and conservation, greenhouse gas emissions, water quality, land use and planning, noise, recreation, traffic, cumulative, and alternatives.~~	~~(4.1) Aesthetics~~ ~~(4.2) Agriculture~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.7) Greenhouse Gases~~ ~~(4.8) Hazards~~ ~~(4.9) Hydrology~~ ~~(4.10) Land Use~~ ~~(4.12) Noise~~ ~~(4.14) Services~~ ~~(4.15) Traffic~~ ~~(5.0) Other Topics~~ ~~(6.0) Alternatives~~
~~Gerald Budlong~~	~~3/22~~	~~Aesthetics, views, geology and soils, Casa Loma Fault, land use and planning, population and housing, widening of Panama Canal, public services, biology (SJWP), transportation, rail alternatives, and utilities (water and gas lines).~~	~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.10) Land Use~~ ~~(4.14) Services~~ ~~(4.15) Traffic~~ ~~(4.16) Utilities~~ ~~(5.0) Other Topics~~

~~Table 2.A: Notice of Preparation Comments Received~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~
			~~(6.0) Alternatives~~
~~Duncan Bush~~	~~3/13~~	~~On-site property owner, concerned about local and regional traffic impacts, public services, and cumulative impacts.~~	~~(4.13) Population & Housing~~ ~~(4.14) Services~~
~~Dave Simpson~~	~~3/13~~	~~Panama Canal to be expanded so west coast logistics will decline, new warehouses only transfer jobs from other cities (e.g., Skechers project and Ontario).~~	~~(3.0) Project Description~~ ~~(4.13) Population & Housing~~
~~Joshua Freeman~~	~~3/27~~	~~Quality of jobs and impacts on schools.~~	~~(3.0) Project Description~~ ~~(4.13) Population & Housing~~ ~~(4.14) Services~~
~~Ned and Dawn Newkirk~~	~~3/21~~	~~What will happen to existing homes on site and what will be the traffic impacts?~~	~~(4.10) Land Use~~ ~~(4.15) Traffic~~
~~Scott Simpson~~	~~3/26~~	~~Concerned about water use, loss of views, air quality, increased lighting, recreation, biological impacts on SJWP, and economics to City.~~	~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~ ~~(4.14) Services~~ ~~(4.16) Utilities~~
~~Ron Roy~~	~~ND~~	~~Actual jobs (Skechers did not provide the jobs promised). Lease terms, amount of automation, no rail available for logistics, City mostly residential – do we need so much of one kind of employment? Gas costs for freight, traffic impacts (SR-60), changes to job base, visual impacts and loss of open space, and change in City identity.~~	~~(3.0) Project Description~~ ~~(4.1) Aesthetics~~ ~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~ ~~(4.15) Traffic~~
~~Tom Thornsley~~	~~3/25~~	~~Air quality, aesthetics, drainage into SJWP, energy and conservation, water quality, land use, population, housing, employment changes, recreation, transportation, utilities, alternatives, and economic impacts.~~	~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.9) Hydrology~~ ~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~ ~~(4.14) Services~~ ~~(4.15) Traffic~~ ~~(4.16) Utilities~~ ~~(6.0) Alternatives~~
~~D. and M. Moreno~~	~~3/21~~	~~Fix local roads, project will reduce property values, air quality, and noise impacts.~~	~~(3.0) Project Description~~ ~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.12) Noise~~ ~~(4.15) Traffic~~
~~Scoping Meeting Comment Cards~~			
~~Jaeger Jones~~	~~3/12~~	~~HF track record proves this project will not benefit City.~~	
~~Sandra Williams~~	~~3/12~~	~~Should consider less polluting projects within the City that still bring jobs; should not count on only warehouses.~~	~~(4.3) Air Quality~~ ~~(4.10) Land Use~~

~~Table 2.A: Notice of Preparation Comments Received~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~
			~~(6.0) Alternatives~~
~~Amber Reilly~~	~~3/12~~	~~Concerned about traffic, air quality, and local owls~~	~~(4.3) Air Quality~~ ~~(4.4) Biology~~ ~~(4.15) Traffic~~
~~Peggy Hadaway~~	~~3/12~~	~~Concerned about actual number of new jobs that will be created and air pollution. Need more variety of new jobs, not just warehousing.~~	~~(4.3) Air Quality~~ ~~(4.10) Land Use~~
~~George Hague (local Sierra Club representative)~~	~~3/12~~	~~EIR must look at viable alternatives that reduce impacts on SR-60. What will be transitional uses along the project boundaries to minimize impacts on adjacent residents? Need to clearly define "high cube" and project objectives. Scoping meeting is premature before Specific Plan is ready for the public to review. Does developer control all the land within the SP area? Will there be a truck stop and what would be the impacts of that facility? What level of LEED will be achieved? Project will displace not replace 7,700 housing units so this must be analyzed in EIR (i.e., where those units will be transferred to within the City). EIR must look at toxic diesel particulates in addition to "diesel vapors" (term undefined).~~	~~(3.0) Project Description~~ ~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.10) Land Use~~ ~~(4.15) Traffic~~ ~~(6.0) Alternatives~~
~~"Residents for a Livable Moreno Valley" Scoping handout from local residents (at meeting)~~	~~3/12~~	~~Concerned about relocation of existing jobs rather than creating new jobs here, and not very many new jobs as compared to other uses. Existing zoning would generate more jobs, more sales, and higher property taxes. Displacement vs. replacement of 7,700 housing units. East end of Moreno Valley does not have infrastructure to support this amount of new warehouses. Air pollutant impacts to sensitive receptors. Why change zoning here when General Plan and regional planners anticipates new warehouses in southwest portion of City near I-215?~~	~~(4.3) Air Quality~~ ~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~
~~Arturo Benitez~~	~~3/14~~	~~Very concerned about the process and that everything be transparent and "published" so all can participate.~~	~~(2.0) Introduction~~
~~Charles Robinson~~	~~3/15~~	~~Need to make provisions to hire local employees (i.e., City residents) on a prioritized basis.~~	~~(3.0) Project Description~~ ~~(4.13) Population & Housing~~
~~Scoping Meeting Comments (in order of presentation)~~			
~~Kenny Bell~~	~~3/12~~	~~EIR needs to show accurate estimate of job creation, not like the Skechers project.~~	~~(4.13) Population & Housing~~
~~Susan Nash~~	~~3/12~~	~~State land south of site must be protected. CDFW open space land within project should not count toward open space requirements for project.~~	~~(4.4) Biology~~
~~Mike McCoy~~	~~3/12~~	~~Concerned about seismic safety (Casa Loma and San Jacinto Faults nearby). Impacts of warehouses vs. housing vastly higher, global reductions in logistics due to Panama Canal widening and railroad expansions.~~	~~(4.6) Geology~~
~~Tom Thornsley (2×)~~	~~3/12~~	~~Should bring railroad spur into site, should not just rely on trucks, no plans to widen SR-60, would take 10–20 years to complete such a widening. Need accurate economic~~	~~(4.1) Aesthetics~~ ~~(4.9) Hydrology~~ ~~(4.13) Population & Housing~~

~~Table 2.A: Notice of Preparation Comments Received~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~
		~~assessment. Localized flooding and project needs buffers for existing residents.~~	~~(4.15) Traffic~~
~~Cathy Godfree~~	~~3/12~~	~~Need buffers, open space, zero runoff, reduce flooding, so much more asphalt, Skechers did not take care of flooding on Redlands Boulevard as promised. Trucks get off at Redlands Boulevard and try to enter at Eucalyptus Avenue. Trucks park on Redlands Boulevard waiting to enter project block traffic. Will there be a truck stop? Will need big setbacks to not block views off Merwin Street and Bay Avenue~~	~~(4.1) Aesthetics~~ ~~(4.9) Hydrology~~ ~~(4.15) Traffic~~
~~Andrew Jones~~	~~3/12~~	~~Skechers is a nice project, new ones should also be attractive, low water use and runoff.~~	~~(4.1) Aesthetics~~ ~~(4.9) Hydrology~~
~~Nanette Bartenee~~	~~3/12~~	~~On board of "Friends of San Jacinto Valley" SJWP is world-famous raptor habitat. Need good alternatives analysis for regional impacts.~~	~~(4.4) Biology~~ ~~(6.0) Alternatives~~
~~Frank Wright~~	~~3/12~~	~~Need more jobs but this project will generate a lot of traffic and will need to widen freeways.~~	~~(4.13) Population & Housing~~ ~~(4.15) Traffic~~
~~Ian McMillian (SCAQMD)~~	~~3/12~~	~~Works for SCAQMD. Project represents 25% of all planned warehouse space in region, big concern about diesel particulates and other pollutants. He would like to work with developer regarding alternative fuels for trucks.~~	~~(4.3) Air Quality~~ ~~(4.7) Greenhouse Gases~~
~~Rick Tendell (2x)~~	~~3/12~~	~~Need environmental design studies (compressed natural gas, hydrogen fuel cells, solar, etc.). Maybe even fuel trucks.~~	~~(4.7) Greenhouse Gases~~
~~Jim Randondoth~~	~~3/12~~	~~Skechers laid off 600 people in Ontario when it opened, what will all these projects do to regional employment?~~	~~(4.13) Population & Housing~~
~~Peggy Hadaway~~	~~3/12~~	~~Our Quality of Life will deteriorate from more warehouses. Need to bring in more varied employment and is concerned about air pollution.~~	~~(4.3) Air Quality~~ ~~(4.13) Population & Housing~~
~~Dave Slawson~~	~~3/12~~	~~Air quality, traffic, groundwater, noise~~	~~(4.3) Air Quality~~ ~~(4.9) Hydrology~~ ~~(4.12) Noise~~ ~~(4.15) Traffic~~
~~John Escobell~~	~~3/12~~	~~Need to offer some program for local hiring first.~~	~~(4.13) Population & Housing~~
~~Cody Muser~~	~~3/12~~	~~Project needs to be Gold LEED certified.~~	~~(4.7) Greenhouse Gases~~
~~Tom Thornsley~~	~~3/12~~	~~SP needs to come out with EIR. Need building plans to be able to estimate impacts to local residents.~~	~~(2.0) Introduction~~
~~Deanna Reader~~	~~3/12~~	~~Need an unbiased evaluation of impacts. Traffic will be massive, Skechers was poor first example. Keep traffic on Theodore. Panama Canal expansion will change west coast logistics needs, port at capacity.~~	~~(2.0) Introduction~~ ~~(4.13) Population & Housing~~ ~~(4.15) Traffic~~
~~George Hague (4×)~~	~~3/12~~	~~EIR must look at viable alternatives that reduce impacts on SR-60. What will be transitional uses along the project boundaries to minimize impacts on adjacent residents? Need to clearly define "high cube" and project objectives. Scoping meeting is premature before Specific Plan is ready. Does~~	~~(3.0) Project Description~~ ~~(4.1) Aesthetics~~ ~~(4.3) Air Quality~~ ~~(4.10) Land Use~~

~~**Table 2.A: Notice of Preparation Comments Received**~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~
		~~developer control all the land within the SP area? Will there be a truck stop and what would be the impacts of that facility? What level of LEED will be achieved? Project will displace not replace 7,700 housing units so this must be analyzed in EIR (i.e., where those units will be transferred to within the City). EIR must look at toxic diesel particulates in addition to “diesel vapors” (term undefined).~~	~~(4.15) Traffic~~ ~~(6.0) Alternatives~~
~~Lorenzo Fiero~~	~~3/12~~	~~Alessandro already has lots of trucks and is half destroyed. Other streets have lots of potholes, flooding; this end of the City has poor public services. What will happen with construction and (even worse) project trucks operating on local streets?~~	~~(4.9) Hydrology~~ ~~(4.15) Traffic~~
~~Dawn Luoker~~	~~3/12~~	~~Local employment, traffic impacts on local streets to west, must involve Caltrans, need to see plans, also what about the results of the “community survey?” (Note: did not identify what survey.)~~	~~(2.0) Introduction~~ ~~(4.13) Population & Housing~~ ~~(4.15) Traffic~~
~~Dan Newkirk~~	~~3/12~~	~~Must identify impacts on properties within the project (houses).~~	~~(3.0) Project Description~~ ~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~
~~Brad Singer~~	~~3/12~~	~~With SoCal Audubon Club. Need to look at short- and long-term impacts of project, especially for local wildlife and SJWP, with gyre falcons and other raptors.~~	~~(4.4) Biology~~
~~Chris (no last name provided)~~	~~3/12~~	~~City needs growth and project will have to comply with all the various state environmental laws. Need to plan for our kids and grandkids.~~	~~(2.0) Introduction~~ ~~(5.0) Other Topics~~
~~Craig Gibbons~~	~~3/12~~	~~Need 1 mile buffer between project and habitat. Need to plan well because this is the last largest undeveloped part of City.~~	~~(4.4) Biology~~
~~Raul Wilson~~	~~3/12~~	~~14.5% unemployment, City needs jobs. Skechers took 3 years to approve, 18 months to build, need what’s good for local residents and workers.~~	~~(4.13) Population & Housing~~
~~Lori Nickels~~	~~3/12~~	~~Area has historical significance. In 1775 Juan Bautista de Anza came by Mystic Lake and Juan Bautista National Trail runs nearby. Need to contact National Park Service. Served 13 years on RCTC, no way you will get a rail spur out here.~~	~~(4.5) Cultural~~ ~~(4.14) Services~~ ~~(4.15) Traffic~~
~~Tom Gerald~~	~~3/12~~	~~Was on original General Plan committee, SJWP is a national treasure and project needs to be compatible.~~	~~(4.4) Biology~~
~~Chris Bauk~~	~~3/12~~	~~Project will provide jobs; maybe now can take Davis Road south to Ramona Parkway.~~	~~(4.4) Biology~~ ~~(4.15) Traffic~~
~~Lacy Sikes~~	~~3/12~~	~~Unemployment equals crime so this project will help.~~	~~(4.14) Services~~
~~Marshall Scott~~	~~3/12~~	~~Wants to see more detailed plans; sad to see whole area agriculture lost since early days.~~	~~(4.2) Agriculture~~
~~Lewis Miramontes~~	~~3/12~~	~~Need to protect Old Moreno, houses along Redlands Boulevard, on Merwin Street, and Bay Avenue, etc. Need to keep employment local.~~	~~(4.10) Land Use~~ ~~(4.13) Population & Housing~~

~~* Notes: All NOP response letters are included in Appendix A of the EIR.~~
~~GHG = greenhouse gases~~

~~Table 2.A: Notice of Preparation Comments Received~~

~~Agency/ Organization/ Individual~~	~~Date~~	~~Comments*~~	~~Addressed in Section(s) of the EIR~~

~~HF = Highland Fairview (project applicant)~~
~~LEED = Leadership in Energy and Environmental Design~~
~~MSHCP = Western Riverside County Multiple Species Habitat Conservation Plan~~
~~ND = No Date~~
~~NOP = Notice of Preparation~~
~~RTP = Regional Transportation Plan (SCAG)~~
~~SJWP = San Jacinto Wildlife Preserve~~
~~WSA = water supply assessment~~

~~Table 2.B: City-Identified Issues from Scoping Process~~

~~Issue~~	~~Addressed in Section(s) of the EIR~~
~~1. Number of jobs anticipated by the project; provide an independent analysis.~~	~~(4.13) Population & Housing~~
~~2. Identify impacts on local unemployment, including skill levels required.~~	~~(4.13) Population & Housing~~
~~3. Seismic safety related to the Casa Loma and San Jacinto fault lines.~~	~~(4.6) Geology~~
~~4. Impacts of current land use plan versus the proposal.~~	~~(4.10) Land Use~~
~~5. Potential impact of railroad and Panama Canal expansions on local demand for logistics.~~	~~(3.0) Project Description~~
~~6. Clear explanation of “high cube warehouse.”~~	~~(3.0) Project Description~~
~~7. Identify potential for rail spur to serve project.~~	~~(4.15) Traffic~~
~~8. Provide an economic assessment of the project (fiscal/cost benefit analysis)~~	~~(4.13) Population & Housing~~
~~9. Identify flooding impacts before and after project.~~	~~(4.9) Hydrology~~
~~10. Provide buffers to adjacent housing and wildlife areas.~~	~~(4.4) Biology~~
~~11. Do not use existing permanent open space as buffer.~~	~~(4.4) Biology~~
~~12. Identify impact on viability of adjacent residential areas with logistics adjacency.~~	~~(4.10) Land Use~~
~~13. Include list of other uses allowed in addition to logistics, and their impacts.~~	~~(4.10) Land Use~~
~~14. Include manufacturing and high tech as permitted uses.~~	~~(3.0) Project Description~~ ~~(4.10) Land Use~~
~~15. Impacts on views from Moreno neighborhood.~~	~~(4.1) Aesthetics~~
~~16. Include description of “net zero storm water treatment” and implementation.~~	~~(4.9) Hydrology~~
~~17. Potential for trucks to exit onto Redlands and need to turn around to access project.~~	~~(4.15) Traffic~~
~~18. Provide alternatives for waiting trucks rather than parking on off ramps and local streets.~~	~~(4.15) Traffic~~
~~19. Provide “solid” alternatives analysis to provide viable options.~~	~~(6.0) Alternatives~~
~~20. Include requirement for solar panels on building roofs.~~	~~(4.7) Greenhouse Gases~~
~~21. Include assessment on regional air quality including criteria pollutants.~~	~~(4.3) Air Quality~~
~~22. Work with SCAQMD on implementation of new truck technologies to reduce emissions.~~	~~(4.3) Air Quality~~
~~23. Identify air quality impacts specifically on children, elderly residents, and wildlife.~~	~~(4.3) Air Quality~~

~~Table 2.B: City-Identified Issues from Scoping Process~~

~~Issue~~	~~Addressed in Section(s) of the EIR~~
~~24. Identify diesel emission impacts on workers in project area.~~	~~(4.3) Air Quality~~
~~25. Provide impact on wildlife by species.~~	~~(4.4) Biology~~
~~26. Identify light and noise impacts on wildlife area.~~	~~(4.4) Biology~~
~~27. Identify impact on groundwater.~~	~~(4.9) Hydrology~~
~~28. Identify noise impacts.~~	~~(4.12) Noise~~
~~29. Identify specific green technologies to be included in project.~~	~~(3.0) Project Description~~ ~~(4.7) Greenhouse Gases~~
~~30. Include potential for use of CNG, hydrogen fuel cell, solar electricity to supply trucks.~~	~~(4.7) Greenhouse Gases~~
~~31. Identify amount of traffic on local roads, specifically truck traffic.~~	~~(4.15) Traffic~~
~~32. Identify impacts on Alessandro pavement quality.~~	~~(4.15) Traffic~~
~~33. Include potential diversion of truck traffic from Alessandro.~~	~~(4.15) Traffic~~
~~34. Identify impacts on wildlife, including owls and other raptors.~~	~~(4.4) Biology~~
~~35. Identify globally significant raptor habitat & impacts on grazing areas within project area.~~	~~(4.4) Biology~~
~~36. Identify impact on public services and funding.~~	~~(4.14) Services~~
~~37. Provide a comprehensive plan for review prior to completing environmental.~~	~~(3.0) Project Description~~
~~38. Identify all public improvements, including parks, to be provided by project.~~	~~(4.14) Services~~
~~39. Identify all impacts on current residents within project area.~~	~~(4.10) Land Use~~
~~40. Identify any use of roadways through the adjacent wildlife area.~~	~~(4.4) Biology~~
~~41. Identify where 7,700 housing units currently planned for project area will be replaced.~~	~~(4.13) Population & Housing~~
~~42. Identify traffic impact of relocated planned housing units.~~	~~(4.13) Population & Housing~~ ~~(4.15) Traffic~~
~~43. Impacts on route and historic views from Juan Bautista de Anza 1775 exploration.~~	~~(4.14) Services (trails)~~
~~44. Contact National Park Service related to Juan Bautista de Anza trail impacts.~~	~~(4.14) Services (trails)~~
~~45. Identify impact on crime rates.~~	~~(4.14) Services (police)~~

~~Source: Memo from John Terell, March 13, 2012~~

~~Table 2.C: SB 18 Native American Consultation Contacts~~

~~Agency/Tribe~~	~~Date~~[1]	~~Comments~~	~~Desire to Consult?~~
~~California Native American Heritage Commission (NAHC)~~	~~2/28~~	~~City notified NAHC that they would be contacting local tribes that may have an interest in this project. City has contacted these tribes and awaits reply during the SB 18 consultation period (90 days – ends May 30 - see Appendix A).~~	—
	~~3/7~~	~~NAHC sent letter requesting City contact local tribes and provided tribal contacts.~~	
	~~4/9~~	~~NAHC sent a second letter with a list of tribes and tribal representatives to contact.~~	

~~Table 2.C: SB 18 Native American Consultation Contacts~~

~~Agency/Tribe~~	~~Date[1]~~	~~Comments~~	~~Desire to Consult?~~
~~Cahuilla Tribe~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~4/19~~	~~Tribe sent letter requesting consultation.~~	
~~Los Coyotes office~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~—~~	~~No response from tribe within the 90-day noticing period.~~	
~~Morongo~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~2/22~~	~~Tribe sent letter providing information to be included in the EIR but did not request consultation.~~	
	~~10/2~~	~~City sends additional letter regarding consultation.~~	
~~Pala Band~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~3/8~~	~~Tribe sent letter indicating site was outside of Traditional Tribal Area and deferred to tribes in closer proximity.~~	
~~Pechanga~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	**~~Yes~~**
	~~3/16~~	~~Tribe sent letter providing information on cultural resources in the area, suggested mitigation language for EIR, and requested consultation on the project.~~	
	~~5/30~~	~~City met on site with tribe to consult regarding project activities.~~	
	~~10/2~~	~~City sends additional letter on consultation and EIR process.~~	
~~Ramona Band~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~4/19~~	~~City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.~~	
~~Rincon Band of Luiseño Indians~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~3/23~~	~~Tribe sent letter indicating site was not within the historic boundaries of the tribe, and referred the City to the Soboba Band of Luiseno Indians for further comment.~~	
~~San Manuel~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~4/19~~	~~City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.~~	
~~Santa Rosa~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~4/19~~	~~City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.~~	
~~Serrano Nation~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	~~No~~
	~~4/19~~	~~City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.~~	
~~Soboba~~	~~2/29~~	~~City letter asking if tribe wished to consult on the WLC project.~~	**~~Yes~~**
	~~4/16~~	~~Tribe sent letter with input on EIR regarding cultural resources.~~	
	~~4/19~~	~~City sent follow-up letter again to verify tribe's desire to consult.~~	
	~~4/30~~	~~Tribe sent follow-up letter again requesting consultation.~~	
	~~10/2~~	~~City sends letter discussing consultation and EIR process.~~	
	~~10/8~~	~~Tribe wants to be present during ground disturbing activities.~~	

~~Table 2.C: SB 18 Native American Consultation Contacts~~

~~Agency/Tribe~~	~~Date[1]~~	~~Comments~~	~~Desire to Consult?~~
	~~11/27~~	~~City met on site with tribe consult regarding project activities.~~	

~~Source: City Planning Department 2012 records on tribal correspondence (see DEIR Appendix A)~~

~~[1] NOP notices mailed February 21 so some tribes were responding to that notice before they received official SB 18 notice.~~

SB 18 Consultation. It should be noted that the city met with the Pechanga Tribe on May 30, 2012, and with the Soboba Tribe on November 27, 2012. No other Native American entities requested a government-to-government consultation meeting.

2.6.2 Public Scoping Meeting

~~A public Scoping Meeting was held at the City of Moreno Valley City Hall in the City Council Chambers on March 12, 2012, 6:00 p.m. There was one agency staff representative (from the Air Quality Management District) and over 150 individual members of the public in attendance. City staff and the developer briefly described the project, and then comments from the public were solicited. Local residents brought up essentially every major environmental concern, including traffic, truck traffic, air quality, noise, loss of views, and impacts to the nearby wildlife area. Copies of the written scoping comment forms are included in Appendix A and a list of commenters is provided as part of previously referenced Table 2.A.~~

2.7 MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) will be ~~prepared~~ revised for this EIR to comply with the requirements of State law (Public Resources Code Section 21081.6) and the Court's ruling and writ. When mitigation measures are required to avoid or reduce the severity of significant impacts, State law requires the adoption of an MMRP. The monitoring program is intended to ensure compliance during implementation of the program. An MMRP will be adopted by the City Council concurrent with certification of the Final EIR for the proposed ~~WLCSP~~ WLC project. ~~A copy of the MMRP, revised to reflect all changes in the DEIR that resulted from changes in the project description, technical studies, and response to comments on the DEIR, is included in the Final EIR Volume 1 Response to Comments.~~

2.8 POTENTIAL IMPACTS OF THE PROJECT DISCUSSED IN THE EIR

~~This EIR focuses on the areas of concern identified in the NOP and comments submitted regarding the NOP. The following sixteen environmental topics are addressed in this EIR:~~

- ~~Aesthetics~~
- ~~Agriculture and Forestry Resources~~
- ~~Air Quality, including Human Health~~
- ~~Biological Resources~~
- ~~Cultural Resources~~
- ~~Geology and Soils~~
- ~~Hydrology, and Water Quality~~
- ~~Land Use and Planning~~
- ~~Mineral Resources~~
- ~~Noise~~
- ~~Population, Housing, and Employment~~
- ~~Public Services and Facilities~~
- ~~Transportation and Traffic~~

- ~~Greenhouse Gas Emissions, Energy Conservation, and Global Climate Change~~
- ~~Hazards and Hazardous Materials~~
- ~~Utilities and Service Systems~~

The Revised Sections of the FEIR focuses on the areas of concern identified by the court ruling and writ.

The following seven environmental topics are addressed in the project impacts section (Section 4.0) of these Revised Sections of the FEIR:

Agriculture and Forestry Resources (loss of farmland of local importance)

Biological Resources

Energy

Noise

Traffic

Air Quality

Greenhouse Gas Emissions

The following seventeen environmental topics are addressed in the cumulative impact sections (Section 6.0) of the Revised Sections of the FEIR:

Aesthetics

Agriculture and Forestry Resources

Air Quality, including Human Health

Biological Resources

Cultural Resources

Geology and Soils

Greenhouse Gas Emissions

Hazards and Hazardous Materials

Hydrology, and Water Quality

Land Use and Planning

Mineral Resources

Noise

Population, Housing, and Employment

Public Services and Facilities

Transportation and Traffic

Utilities and Service Systems

Energy

2.9 EFFECTS FOUND NOT TO BE SIGNIFICANT

As required under CEQA (Section 15128), an EIR is to contain a statement supporting the Lead Agency's determination that some of the possible effects of a project are not significant and, therefore, are not discussed in detail in the EIR. ~~In this case, the proposed project is not consistent with the City's General Plan or the currently approved Moreno Highlands Specific Plan and the respective EIRs prepared for each.~~ Due to the size and scope of the project, the City determined that all potential environmental issues outlined above would be evaluated in this EIR. Section 4.0 of the EIR determined that only mineral resources and forest resources would not be significantly affected by the proposed project.

2.10 CUMULATIVE IMPACTS

2.10.1 Definition of Cumulative Impact

CEQA defines cumulative effects as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." (*State CEQA Guidelines* Section 15130). The *Guidelines* further state that the individual effects can be the various changes related to a single project or the changes involved in a number of other closely related past, present, and reasonably foreseeable future projects (Section 15335). Substantial changes are anticipated to occur as the result of warehousing and employment growth of the proposed project, as well as growth in population, housing, and employment from development of other projects in the City of Moreno Valley and the surrounding region. Section 15130 of the *State CEQA Guidelines* requires that an EIR include a discussion of the potential cumulative impacts of a proposed project. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period of time.

With respect to the analysis of cumulative impacts, CEQA generally requires the following:

(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

Pursuant to *CEQA Guidelines*, Section 15130, the assessment of cumulative impacts contained in EIRs is typically based on either: (i) past, present, and probable future projects, which are either approved or being considered for approval by the City or other municipalities (or anticipated to be submitted for consideration, including projects in the design phase or under construction); or (ii) growth projections set forth in regional plans, including regional modeling plans.

Due to the size of the ~~proposed~~ project and its potential future new land use and employment implications for the City, the cumulative analysis for this EIR will use the City's General Plan growth projections. It is expected that the cumulative impact analysis set forth in this EIR will be conservative and would tend to overstate (rather than understate) cumulative impacts.

The significance of a cumulative impact may be greater than the effects resulting from the individual actions if the effects of more than one action are additive. Thus, as set forth above, this section evaluates the ~~proposed~~ project together with (i) the reasonably foreseeable potential effects of other closely related past, present, and reasonably foreseeable or probable future development in the area of the project, and (ii) growth projections set forth in regional plans.

Criteria for evaluating the significance of adverse effects are identified for each environmental issue in Section 4.0. These criteria, which are based on resource sensitivity, quality, and quantity, are also instructive when evaluating whether the environmental effect resulting from implementation of a particular project is cumulatively considerable. The timing and duration of each activity is also an important consideration for evaluating the potential cumulative effects of activities that may occur only for a limited period. In such cases, a cumulative effect may occur only when two or more of the activities are occurring simultaneously.

Because of the nature of individual environmental factors, the cumulative "universe" for every issue addressed in this EIR will not be identical. For example, the cumulative universe for ~~air quality~~ construction noise impacts is reasonably assumed to be ~~the entire South Coast Air Basin~~cin close proximity to the project boundary, which is much ~~larger~~ smaller than the cumulative universe for ~~public~~ traffic ~~service~~ impacts ~~(i.e., the service area of the various service providers.)~~ which extend well beyond the City boundary. The individual cumulative areas for the issues addressed in this EIR are provided within the cumulative impacts discussion in the respective impact sections, but range from the City of Moreno Valley to the County to the entire SCAG region when necessary.

To summarize, in determining the cumulative impacts of a proposed project with other area projects, the *CEQA Guidelines* provide that an EIR may either consider a list of past, present, and probable future projects, or it may consider a summary of projections method. This EIR utilizes both.~~the summary of projections method due to the size of the project and its growth implications for the City as a whole.~~

2.10.2 City of Moreno Valley Growth Projections

The Moreno Valley General Plan establishes policies to guide future development within the City and its implementation is long-term in nature. The Regional Growth Projections Method is the appropriate methodology in evaluating cumulative impacts because it provides general growth projections for the region and considers long-term growth. Table 2.D summarizes the cumulative growth information from the Final Program EIR for the City General Plan Update from July 2006 (Section 7, *Cumulative Impacts*). Table 2.D shows that the City expects to grow at an average annual rate of 2–3 percent from 2000 to 2030, with a population at that point of 238,703 persons and 71,619 households. The City will comprise approximately 7 percent of the County's population and housing stock at that time.

Table 2.D: General Plan Growth Projections for Moreno Valley (2000–2030)

Jurisdiction	Population		Households	
	2000	2030	2000	2030
City of Moreno Valley	142,655	238,703	39,264	71,619
Average Annual Increase	—	+2.24%	—	+2.75%
Riverside County	1,850,231	3,143,468	509,311	1,127,780
Average Annual Increase	—	+2.33%	—	+4.05%
City (Percent of County)	7.7%	7.6%	7.7%	6.4%

Sources: SCAG, 2008 RTP Growth Forecast, Table 7-1, General Plan Final EIR, Section 7.0, Cumulative Impacts.

2.10.3 Regional Growth Projections

The SCAG estimates regional growth for the Riverside County area for the purposes of planning and public policy development. The most recent set of growth projections are provided in the most recent *Regional Transportation Plan (RTP) Growth Forecast*, based on extensive analyses of the regional economic and demographic conditions. The *Draft 2012 RTP Growth Forecast* provides estimates and forecasts of employment, population, and housing for the period between 2011 and 2035. Consistent with the projections shown in previously referenced Table 2.D, Table 2.E shows that the population, housing, and employment of the City are expected to increase consistent with overall regional trends for that period (i.e., approximately 2–3% per year).

According to SCAG projections, the population of Moreno Valley is expected to increase by about 60,749 persons or approximately 31.2 percent between 2011 and 2035 to approximately 255,200 persons. By comparison, the population of Riverside County is projected to increase by 1.1 million persons or approximately 50 percent between 2011 and 2035 to approximately 3,324,000 persons. The number of households is estimated to increase approximately 30.9 percent in Moreno Valley and 35.7 percent in Riverside County over this same time period.

The number of jobs in Moreno Valley is estimated to increase by approximately 156 percent from 2011 to 2035. Over this same time period, jobs in Riverside County are expected to increase by 125 percent. At present, Moreno Valley has a relatively low jobs-to-housing ratio of 0.45 compared to the overall regional ratio of 1.14 (i.e., 1.14 jobs for each 1 housing unit). SCAG's Compass Blueprint Plan and the Regional Transportation Plan encourages "bedroom" communities (i.e., those with more housing than jobs) to encourage jobs growth instead of housing growth, which will eventually help balance these factors across the region and help reduce commuter traffic. These plans forecast that the City's ratio of jobs to housing will increase in the future but will still be less than 1.0 (estimated 0.89 by 2035), compared to a projected ratio of 1.14 for the County and 1.29 for the entire SCAG area. The City's jobs/housing ratio is expected to still be less than 1.0 by 2035, but to achieve that ratio, the City would need to attract over 34,000 jobs in the next 20 years, compared to attracting 17,000 new houses during that same period.

Table 2.E: Regional Population, Housing, and Employment Forecasts through 2035

Forecast Category	2011	2020	2035
Population			
City of Moreno Valley	194,451[6]	213,700	255,200
Riverside County	2,205,731[6]	2,592,000	3,324,000
SCAG	18,163,664	19,663,000	22,091,000
Housing Units			
City of Moreno Valley	55,635	60,000	72,800
Riverside County	804,913	834,000	1,092,000
SCAG	6,348,741	6,458,000	7,325,000
Employment			
City of Moreno Valley	25,120[5]	48,000	64,400
Riverside County	551,492[5]	939,000	1,243,000
SCAG	7,224,670	8,414,000	9,441,000
Jobs/Housing Ratio			
City of Moreno Valley	0.45	0.80	0.89
Riverside County	0.69	1.13	1.14
SCAG	1.14	1.30	1.29

Table 2.E: Regional Population, Housing, and Employment Forecasts through 2035

Forecast Category	2011	2020	2035

Sources:
(1) 2010 Employment is based on 2010 data presented in *Profile of the City of Moreno Valley,* Southern California Association of Governments, May 2011.
(2) *Draft 2012 RTP Growth Forecast*, Southern California Association of Governments, http://www.scag.ca.gov/forecast/index.htm, date accessed March 15, 2012.
(3) *Table 2: City/County Population and Housing Estimates, 1/1/2011,* State of California Department of Finance.
(4) *Table 1: Population, Age and Sex Characteristics, April 1, 2010, Incorporated Cities and Census Designated Places (CDP) by County in California.* State of California, Department of Finance, Sacramento, California, May 19, 2011.
(5) 2011 Employment data for the City and County is based on the California Employment Development Department, Labor Market Information Division, as reported by *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, December 11, 2013.
(6) *2011 Employment and Housing data for City and County based on the E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, website accessed February 7, 2014.*

2.10.4 Analysis of Cumulative Impacts

The analysis of each environmental issue or topic (EIR Sections ~~4.1~~ 6.1 through ~~4.16~~6.17) also discusses the cumulative impacts of the ~~proposed~~ project. Implementation of the mitigation measures identified in each specific section of this EIR will reduce the cumulative impact of the project to the extent feasible. In many cases, the mitigation measures result in reducing the project's cumulative impact to a less than significant level. For other impacts, the implementation of the identified mitigation measures will not avoid a significant cumulative impact. The ~~sixteen~~ seventeen subsections of Section ~~4.0~~6.0 (i.e., ~~4.1~~6.1 through ~~4.16~~6.17) identify those significant, unavoidable cumulative impacts that will not be reduced to a less than significant level by implementation of the identified mitigation measures presented in each of those sections. In addition, the analyses indicate to what degree the project makes a significant contribution to cumulatively considerable impacts for each environmental issue (air quality, biological resources, etc.).

It should be noted that the project Traffic Impact Assessment developed an extensive list of cumulative projects to more accurately estimate potential traffic impacts over time on local roadways and intersections (see Section 4.15, *Transportation*).

~~***NOTE TO READERS.*** *A number of comments were raised on the Draft EIR about the validity of the growth projections used as the basis for the assessment of cumulative impacts of the WLC project. Some comments referred to a number of General Plan Amendments the City had approved since the last General Plan Update. In addition, some comments stated that the General Plan did not account for recent approvals of several warehouse projects, both within the City and in other nearby jurisdictions. However, the City's General Plan was updated in 2006, and SCAG's Regional Transportation Plan (RTP) was last updated in May 2008, although the Growth Forecasts that accompany the RTP were last updated in 2012 (Draft 2012 RTP Growth Forecast, Southern California Association of Governments, March 15, 2012). Both of these do constitute current applicable local and regional planning documents upon which to base the analysis of cumulative impacts in the programmatic WLCSP EIR. Therefore, there are no changes to the growth projections that are the basis for the cumulative impact analysis in this EIR.*~~

3.0 PROJECT DESCRIPTION: TABLE OF CONTENTS

FIGURES

TABLES

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~~***NOTE TO READERS:*** *The original Specific Plan was prepared in December 2012 and was analyzed in the Programmatic Draft EIR that was circulated for public review from February 4 to April 8, 2013. In response to comments received on the public review of the DEIR, the Specific Plan was revised to change the Specific Plan boundary resulting in a loss of 100 acres and 1 million square feet of potential development. In addition, the phasing was extended from ten to fifteen years so Phase 1 is from 2015 to 2022 and Phase 2 is 2023 to 2030 instead of the project completing development in 2022 as analyzed in the original DEIR. Changes to the Project Description are shown in double underline for added text and in strikeout for text to be deleted, plus notes about the reasons for the various changes. The revised figures are included in this section rather than the original figures to provide the most accurate project information for the reader.*~~

~~3.0 PROJECT DESCRIPTION~~

~~The project description is provided in this section of the EIR in conformance with *CEQA Guidelines* Section 15124. It discusses the geographic setting, project location, project setting, City of Moreno Valley General Plan designations, World Logistics Center (WLC) Specific Plan designations, zoning designations, project characteristics, project objectives, and discretionary actions required to implement the proposed project. The project description is used as the basis for analyzing the proposed project's impacts on the existing physical environment in Section 4.0 of the EIR.~~

~~The term "World Logistics Center Project" refers to all related development and planning activities currently proposed by Highland Fairview~~ **NOTE TO READERS:** The project as originally proposed to the City, and as described in the FEIR, included both the World Logistics Center and a General Plan Amendment and a rezoning of land south of the World Logistics Center site to reflect their open space nature. The General Plan Amendment and rezoning have since been accomplished through the initiative process. The description of the World Logistics Center has not changed. It should be noted that Theodore Street has been renamed World Logistics Center Parkway, south of SR-60.

3.0 PROJECT DESCRIPTION

The World Logistics Center is located on 2,610 acres in the Rancho Belago area ~~of~~at the eastern end of ~~the City of~~ Moreno Valley~~. The WLC property is generally located~~, south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road~~,~~ and north of ~~Mystic Lake and~~ the San Jacinto Wildlife Area. ~~The terms "Project Site" or "Project Area" refer to the entire 3,714-acre area covered by the project entitlements, which encompasses: (a) the General Plan Amendment and the Zone Change (including the revised WLC Specific Plan Area (2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); and (c) the Public Facilities Lands area (194 aces). Additional acreage that was evaluated in the EIR but that is not in the Project Area is the Off-site Improvement Area of 104 acres. See Section 3.4 for more details on these specific areas.~~

3.1 PROJECT LOCATION

The project is located in "Rancho Belago," the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. Figure 3.1 depicts the location of the proposed project within the region and the City of Moreno Valley. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, Alessandro Boulevard, and Gilman Springs Road.

The WLC project area is located in portions of Sections 1, 12, and 13 of Township 3 South, Range 3 West; and portions of Sections 6, 7, 8, 9, 16, 17, 18, 19, 20, and 21 of Township 3 South, Range 2 West, as depicted on the U.S. Geological Survey (USGS) 7.5-minute series *Sunnymead* and *El Casco, California* quadrangles. Figure 3.2 depicts the proposed project boundary on the applicable USGS quad sheets.

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FIGURE 3.1

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0 5,000 10,000

FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Regional Location

SOURCE: USGS DEM; Thomas Bros, 2009

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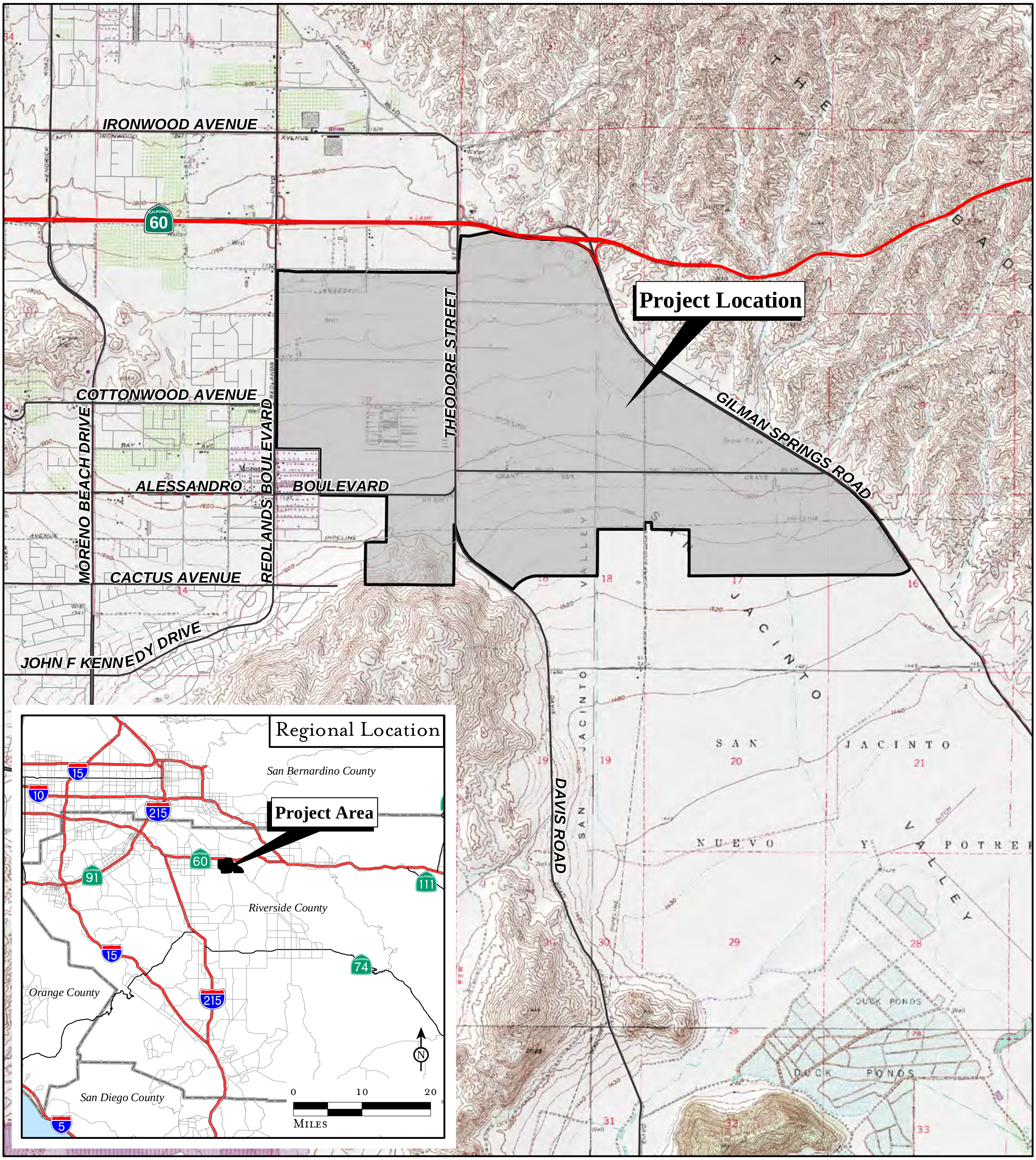

LSA

FIGURE 3.2

World Logistics Center Specific Plan Project
Environmental Impact Report

Regional and Project Location

SOURCE: USGS 7.5' Quads: El Casco, Lakeview and Perris (1979), Sunnymead (1980), CA; Riverside County, 2011.

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3.2 PROJECT SETTING AND HISTORY

3.2.1 Project Setting

The project site slopes gently (approximately 2%) from north to south, with elevations ranging from approximately 1,760 feet above mean sea level (amsl) at the northeast corner to 1,480 feet amsl at the southeast corner. Soils within the proposed project consist of disturbed top soil and natural soils, with a mixture of various silty clays, sandy silts, silty sands, and sands.

3.2.2 On-site Land Uses

The WLC project area is largely vacant undeveloped marginal agricultural land, with ~~seven~~ six occupied single-family homes and associated ranch/farm buildings in various locations on the property. In the 1920s, several farm buildings and related houses were constructed on the property and, in the 1940s, a stock farm operated on a portion of the site that was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. The overall project site has been farmed by a variety of owners since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming today.

San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres south of the WLC ~~in the south-central portion of the~~ site. The Southern California Gas Company (SCGC) operates a metering and pipe cleaning station on two separate parcels (totalling1.5 acres) ~~in the south-central portion of the site~~ south of Alessandro Boulevard along existing Virginia Street. The site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service.

At present, the WLC project site contains a number of unimproved drainage features, but it does not contain any improved flood control facilities. As Figure 3.3 illustrates, the project vicinity is largely vacant agricultural land with scattered utility facilities and seven rural residential properties.

3.2.3 Surrounding Land Uses

Developed properties in the vicinity include a logistics building to the northwest (Skechers) and several residential neighborhoods along Redlands Boulevard along the western boundary of the project site. An area of the City known as “Old Moreno” is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Bay Avenue, Merwin Street, and Redlands Boulevard constitute the closest off-site “sensitive receptors” to the project site (i.e., they are across the street from the property). Figure 3.3 shows the land uses on and around the project site.

The major roadways that currently provide access to the project area are SR-60 to the north, Redlands Boulevard to the west, Alessandro Boulevard (which traverses the site east-west), Gilman Springs Road to the east, and Theodore Street (which traverses the site north-south). Redlands Boulevard and Theodore Street are north-south arterial roadways that intersect with SR-60. Alessandro Boulevard is an east-west thoroughfare that runs through Moreno Valley from Interstate 215 (I-215) on the west to Gilman Springs Road on the east. Gilman Springs Road runs northwesterly-southeasterly connecting SR-60 to the Hemet-San Jacinto area.

Highland Fairview Corporate Park (HFCP) is located northwest of the project area between Redlands Boulevard and Theodore Street. It is currently under development and the first phase was completed in late 2011 (i.e., the Skechers logistics warehouse). The area north of SR-60 is largely undeveloped with clusters of low-density residential development.

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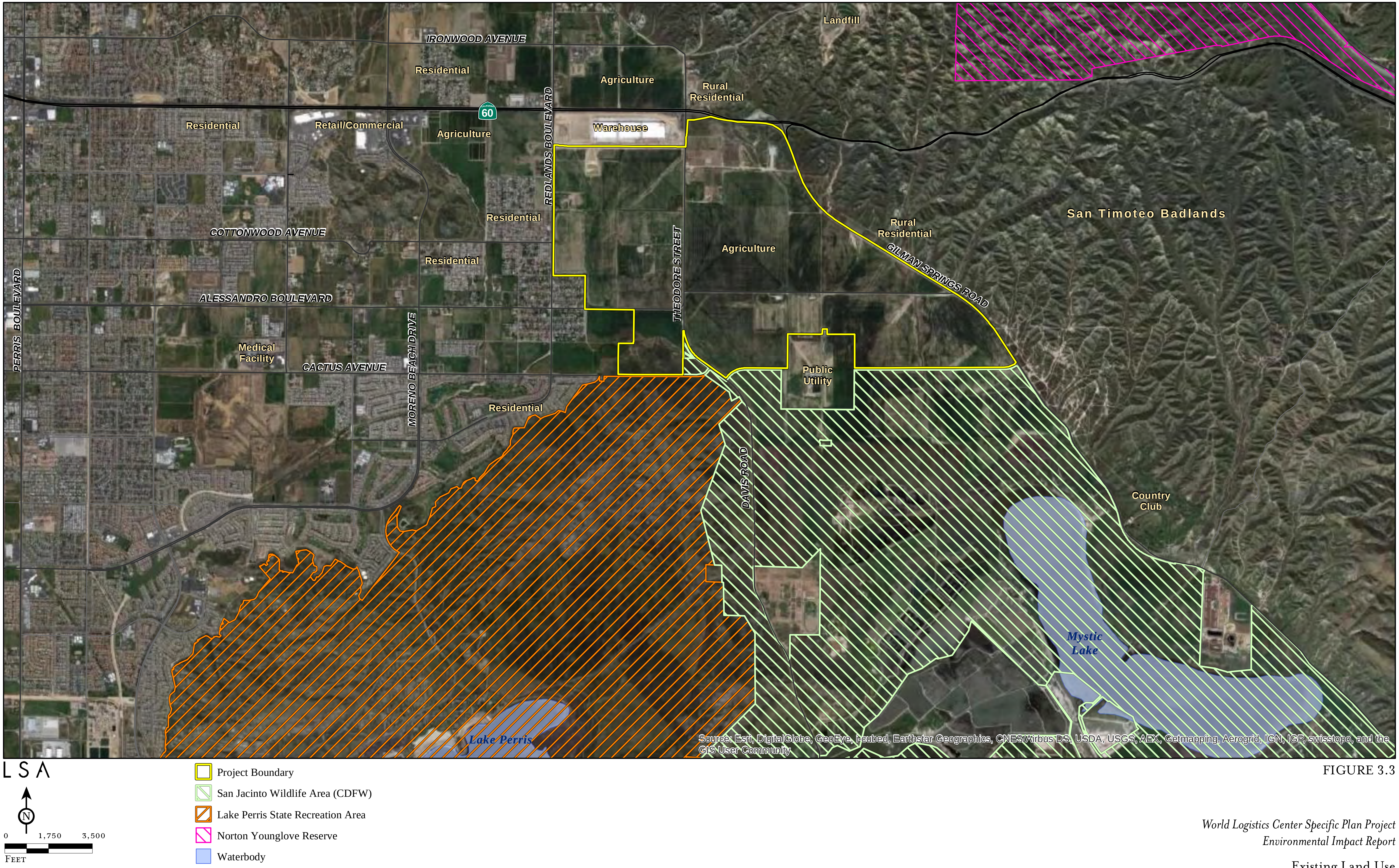

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

FIGURE 3.3

World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Land Use

SOURCE: County of Riverside, 2003 & 2011; California Dept. of Fish and Game, 2011; Google Earth, 2011

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Near the southwest boundary of the project site is an existing residential neighborhood at the intersection of Redlands Boulevard and Alessandro Boulevard; a small market and a post office are also located near this intersection. This area is referred to as "Old Moreno." The Moreno Valley Ranch and Golf Club residential community is approximately one mile southwest of the project area.

There is little development adjacent to the east and south boundaries of the WLC project area. The area east of the project site across Gilman Springs Road is commonly referred to as the Badlands, a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Due to its steep slopes and canyons, the Badlands area has experienced little development; however, there are approximately ten single-family homes in the area east of Gilman Springs Road near the project site. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeast of the project area.

Immediately south of the ~~proposed~~ WLC project is the San Jacinto Wildlife Area (SJWA), which includes an "Upland Game Hunting Area," and Mystic Lake. These lands are state-owned and access to these areas is restricted. The Lake Perris State Recreation Area is west of the SJWA and is owned and operated by the California State Parks Department and contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

The closest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive, approximately 1.25 miles to the west of the proposed project. This shopping complex includes a Walmart and Target along with restaurants and ancillary commercial and service uses, and the Moreno Valley Auto Center. The central core of Moreno Valley, which includes residential neighborhoods and more extensive commercial activity, is located approximately three miles west of the project area.

March Air Reserve Base (MARB) is located approximately seven miles southwesterly of the proposed project. The MARB is under the authority of the March Joint Powers Authority (MJPA), which acts as the land use authority as well as the March Inland Port Airport Authority for reuse of the former March Air Force Base.

3.2.4 Local History

In 1774, the Spanish explorer Juan Bautista de Anza traveled through this area, passing by Mystic Lake and traveling around the Mount Russell Range on his exploration of Alta California.

The project area was first developed in the late 1890s; prior to this, the property had been part of the *San Jacinto Nuevo y Potrero Rancho*. This Rancho, a subdivision of the massive San Jacinto Rancho (originally 8 square leagues in size or more than 50 square miles) lay vacant during the Spanish era and was not part of any rancho until 1842. Once defined, the old road from Temecula to San Jacinto was expanded such that a road was established between San Jacinto and the Box Springs area of the City of Riverside and points beyond. This road probably ran along the track now covered by Gilman Springs Road, headed to Box Springs across what is now Moreno Valley, thence to Riverside and points west. Because of the lack of reliable water, it is unlikely that the project area was used during the early historic period for anything except springtime grazing of sheep and cattle.

During the historic era, most of the parcels in the project area have been used sporadically for dry-land crops and the occasional irrigated farming plots. Horses were raised on one farm in the northwest corner of the site. Although plans were made to bring water from Big Bear to the project area as part of a regional California land boom scheme (circa 1891), the plan was never completed because the issue of water rights was adjudicated in favor of the City of Redlands.

The Moreno Valley area supported numerous military facilities from the early 1900s to today, with the March Air Reserve Base still functioning near I-215 on the west side of town. From the 1970s through the 1990s, Moreno Valley was one of the fastest-growing residential communities in the nation, and incorporated in 1984. In 1992, the City approved a master planned, mixed-use community called “Moreno Highlands Specific Plan” on most of the project site, but no uses within this community were ever built.

3.3 GENERAL PLAN AND ZONING DESIGNATIONS

3.3.1 Designations on the Project Site

The WLC site currently has a General Plan designation of Business Park/Light Logistics and is subject to the World Logistics Center Specific Plan.

~~The Community Development Element of the City’s General Plan currently designates the project area as a mix of residential, commercial, business park, and open space land uses. The currently approved 3,038-acre Moreno Highlands Specific Pan (MHSP) proposes a master planned, mixed-use community consisting of up to 7,763 residential dwelling units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. Table 3.A is a summary of land uses of the MHSP. Figure 3.4 depicts the City General Plan land use designations for the area.~~

~~Table 3.A: Moreno Highlands Specific Plan (Current Land Use Designations)~~

~~Land Use~~	~~Acreage~~
~~Residential Community~~	
~~Residential (7,763 du)~~	~~1,359.3~~
~~Parks and Open Space~~	~~701.9~~
~~Neighborhood Commercial~~	~~10.0~~
~~Cemetery~~	~~16.5~~
~~Public Facilities~~	~~347.7~~
~~Planned Business Center~~	
~~Business Park~~	~~360.8~~
~~Mixed Use~~	~~80.5~~
~~Community Commercial~~	~~16.0~~
~~Parks and Open Space~~	~~77.9~~
~~Public Facilities~~	~~67.4~~
~~Project Total~~	**~~3,038.0~~**

~~Adopted by City Council March 17, 1992~~

~~As a result of a variety of factors, the Moreno Highlands Specific Plan has not been implemented.~~

~~The City’s 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. In 2011, the City updated its Housing Element and anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City. The 2011 Housing Element concluded that redesignating the entire land area east of Redlands to the eastern City border for warehouse uses would not impede the City’s Housing Element Objectives. The State Department of Housing and Community Development certified the City’s Housing Element as being in compliance with State law on February 22, 2011. The proposed project is consistent with the City’s current Housing Element.~~

Highland Fairview currently owns or controls development rights on 1,754 acres or ~~46 percent of the total 3,714 acres within the WLC project area and~~ 67 percent of the WLC site~~SP area~~. The remainder of the project area property is owned by private individuals or entities such as the ~~San Diego Gas &~~

~~Electric Company, Southern California Gas Company,~~ Metropolitan Water District~~, and California Department of Fish and Wildlife~~. Figure 3.5 depicts the property ownership within the WLC site~~project area~~.

~~Figure 3.4: General Plan Land Uses~~

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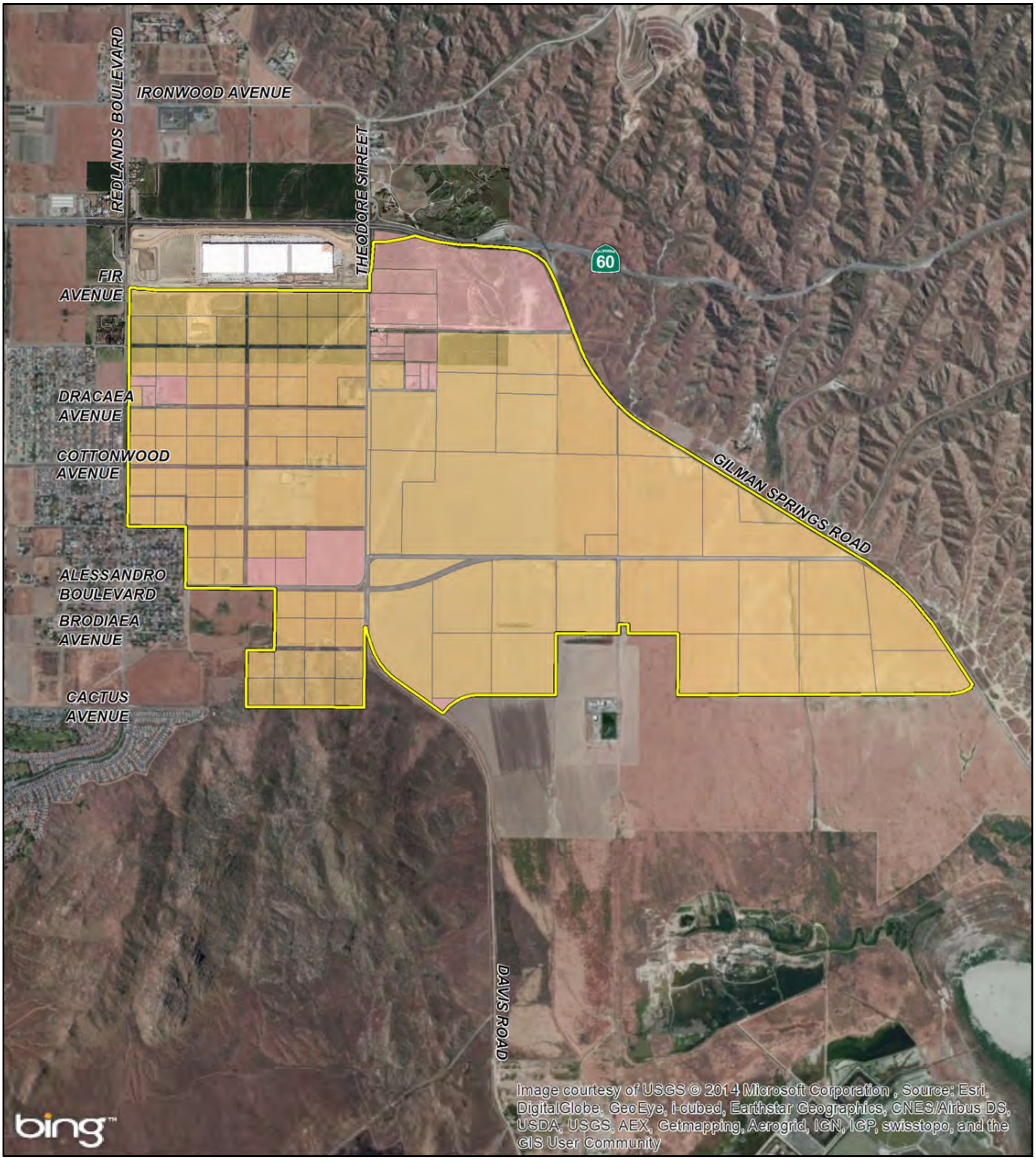

LSA

FIGURE 3.5

N

0 1,500 3,000

FEET

□ Project Boundary

🟥 Area Not Held by Highland Fairview

🟧 Area Held by Highland Fairveiw

World Logistics Center Specific Plan Project
Environmental Impact Report

Property Ownership

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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An 85-acre parcel located on the west side of Gilman Springs Road near Alessandro Boulevard is within an unincorporated area of Riverside County and within the City Sphere of Influence adopted in 1985. The City has requested that trghe 85 acres be annexed to the City.~~project will request a pre-annexation General Plan land use designation and zoning of Logistics Development (LD) within a Specific Plan for this parcel, and this~~This ~~-~~EIR will be the environmental documentation used by the Local Agency Formation Commission (LAFCO) to complete the annexation action. The County's land use designation currently applicable to this parcel is W-2-2½. The W-2 area allows single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). ~~and t~~The City's current General Plan land use designation for the site is Business Park/Light Logistics ~~(BP)~~ under the ~~MHSP~~ subject to the World Logistics Center Specific Plan.

~~The General Plan Amendment and Zone Change includes approximately 910 acres of land owned by the CDFW that are part of the San Jacinto Wildlife Area (SJWA). Much of this property is designated for residential development in the MHSP. The CDFW parcels were acquired by the State beginning in 1992 to act as a buffer from future development to the north (the MHSP) and to further the CDFW goal of eventually preserving approximately 20,000 acres of restored wetlands and ponds. The land around Mystic Lake was originally purchased as mitigation for habitat loss as a result of construction of the state water project.~~

~~The SJWA was the first state wildlife area to utilize reclaimed water to create and enhance wetlands, and improvements are ongoing. Waterfowl, wading birds, and quail are among the many animals found in this area. It also supports a number of private hunting clubs around its northwestern perimeter.~~

The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding the Inland Feeder.

The figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

3.3.2 Existing Conditions and Land Use Designations in Surrounding Areas

3.3.2.1 South of SR-60/East and north of Eucalyptus ~~-~~Avenueof Redlands Boulevard

Existing Conditions. This area ~~is~~ is planned and zoned for Business Park and is currently improved with a logistics facility used by Skechers.~~currently used mainly for dry farming, with several scattered rural residences. The only major improvements are several natural gas facilities and two local roadways (Alessandro Boulevard and Theodore Street)~~.

~~**Existing Land Use Designations.** The Highland Fairview Corporate Park (HFCP) project is currently under development and Phase 1 (Skechers' North American Operational Headquarters) was completed in late 2011. HFCP is located immediately northwest of the project area, on the north side~~

~~of Eucalyptus Avenue between Redlands Boulevard and Theodore Street. The HFCP project was approved by the City of Moreno Valley in 2009. The City General Plan land use designation for the site is a mixture of Commercial (C) and~~of Business Park/Light Industrial ~~(LI).~~

3.3.2.2 North of SR-60

Existing Conditions. This area is relatively rural at present with mixed light industrial uses along the freeway and scattered residences farther away from the freeway.

Existing Land Use Designations. The land located on the north side of SR-60 and westerly of Theodore Street is within the City of Moreno Valley and has a land use designation of Office (O) and Residential (R1—density of one dwelling unit per acre). The area easterly of Theodore Street is in an unincorporated area of Riverside County with land use designations of Scenic Highway Commercial (C-P-S) and Controlled Development Area (W-2). The W-2 area allows single-family residential and light agriculture (the suffix indicates a 2-acre minimum parcel size); and the C-P-S district allows certain wholesale and retail commercial uses. This county territory is within the City's Sphere of Influence; the City land use designation for the area is Rural Residential (RR) and Residential (R1).

3.3.2.3 East of Gilman Springs Road

Existing Conditions. This area currently contains scattered rural residences east and a golf course southeast of the WLC project area.

Existing Land Use Designations. The Badlands area, lying easterly of Gilman Springs Road, is within the jurisdiction of the County of Riverside and has a land use designation of Controlled Development Area (W-2, W-2-1, and W-2-20). Allowed uses include single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). A portion of this county territory is within the City's Sphere of Influence. The City land use designation for the area is Rural Residential (RR).

3.3.2.4 Southern Boundary

Existing Conditions. All the land south of the WLC project site is part of the Mystic Lake/San Jacinto Wildlife Area property, and currently provides various open space uses related to the presence of wildlife around the lake.

Existing Land Use Designations. The lands south of the WLC project are within the San Jacinto Wildlife Area and the Lake Perris State Recreation Area, and are designated either Open Space (OS) or public facilities (PF).

3.3.2.5 West of Redlands Boulevard

~~*The following change has been made to update the DEIR with the most current information.*~~

Existing Conditions. The land north of Eucalyptus Avenue (currently Fir Avenue) was recently approved for industrial warehousing (West Ridge Project) but the City approval of an EIR for that project had been challenged in court. As of the printing of this EIR the court challenge has been settled and the project sold. The new owners are currently processing a plot plan with the City. The land south of Fir Avenue is planned for suburban residential uses. There are residential neighborhoods along the west boundary of the project site, west of Redlands Boulevard south of Eucalyptus Avenue, and east of Redlands Boulevard south of Cottonwood Avenue.

Existing Land Use Designations. The City land use designations for the residential areas west of Redlands Boulevard are Residential R2 and R3 (maximum density of 2 and 3 dwelling units per acre, respectively). Residential areas southerly of the site along Alessandro Boulevard are subject to City land use designations of R2 and R5 (maximum density of 2 and 5 dwelling units per acre respectively).

Table 3.B summarizes on-site and adjacent land uses for the project site.

Table 3.B: On-site and Adjacent Land Use Designations

Location	Jurisdiction	Current Land Uses	General Plan Land Uses	Zoning Designations
On site	City of Moreno Valley	Agriculture/dry farming, rural residential	~~Moreno Highlands Specific Plan~~Business Park/Light Logistics	~~Moreno Highlands~~World Logistics Center Specific Plan
North	County and City of Moreno Valley	SR-60, rural residential north of freeway	County W-2, C-P-S City RR, R1	County W-2, C-P-S City O, R1
South	County and State of California	Agriculture, San Jacinto Valley Wildlife Area	~~MHSP and~~ OS (City and County)	~~MHSP and~~ OS (City and County)
East	Riverside County	Gilman Springs Road, rural residential	RR (City)	W-2, W-2-1 and W-2-20 (County)
West	City of Moreno Valley	Residential, Industrial [1]	R2, R3, R5, and LI	R2, R3, R5, and LI

Sources: City of Moreno Valley General Plan Land Use Map, adopted August 2010; City of Moreno Valley Zoning, online data accessed March 2012. County of Sphere of Influence, data from Transportation Land Management Agency (TLMA), County website accessed March 2012.

[1] approved Westridge project

3.4 PROJECT CHARACTERISTICS

The World Logistics Center Specific Plan ~~being evaluated in this EIR~~ covers 2,610 acres and allows ~~proposes~~ a maximum of 40.4 million square feet of “high-cube logistics” warehouse distribution uses classified as “Logistics Development” (LD) and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as “Light Logistics” (LL). The lands within the WLC Specific Plan that are designated LL are existing rural lots, some containing residential uses, that ~~will~~ became ~~become~~ “legal, non-conforming uses” when ~~once~~ the WLC Specific Plan was~~is~~ approved. In addition, the LD designation includes land for two special use areas; a fire station and a “logistics support” facility for vehicle fueling and sale of convenience goods (3,000 square feet is assumed for planning purposes for the “logistics support”). The components of the proposed project are discussed below and are shown in Figure 3.6.

3.4.1 Project Terms

The following terms and areas are defined here for the purposes of analysis in the EIR:

- **World Logistics Center or WLC Project:** The term refers to all related development and planning activities for the World Logistics center ~~currently proposed by~~ Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.

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~~Figure 3.6: WLC Project Areas~~

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- ~~**Project Site or Project Area:** This term refers to the entire 3,818 acre area covered by the EIR encompassed by: (a) the Specific Plan Area (2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities area (194 aces); and (d) the Off-site Improvement Area on 104 acres.~~

~~**CDFW Conservation[1] Buffer Area:** This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 as additional upland habitat for the SJWA and also to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and to replace them with Open Space and Public Facility designations. This property is **not** within the proposed Specific Plan – Logistics Development) and WLCSP-LL (World Logistics Center Specific Plan (i.e., not in the area planned for development). This Conservation Buffer Area is a large part of the "Other Project Areas" described herein. – Light Logistics). The site is subject to the adopted World Logistics Center Specific Plan which authorizes the construction and operation of 40,600,000 square feet of logistics facilities and associated infrastructure. The land use plan in the Specific Plan is shown in Figure 3-8 and is also shown in this section in Figure 3-1.~~

~~**Other Project Areas:** The San Diego Gas & Electric Company (SDG&E) and All of the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.~~

- **Off-site Improvement Areas:** Development under the Specific Plan will require construction of a number of off-site infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited, to the following facilities (see Figure 3.7):
    - Debris basins easterly of Gilman Springs Road;
    - Water reservoirs and access roads located northeast, north, and west of the project site;
    - SR-60 interchange improvements; and
    - Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.
- ~~**Specific Plan Site:** Approximately 2,610 acres of the project area are included in the proposed WLC Specific Plan, located generally south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.~~
- **WLC Specific Plan:** The ~~revised~~ WLC Specific Plan proposes a master-planned logistics campus ~~to~~ that includes up to 40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, and 74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines, and review procedures for all development within the project.

~~[1] Although there were many comments suggesting the term "buffer" be removed from the name of this area, it accurately reflects the purpose of its purchase by the State Conservation Board. However, it should be noted that this land **is**, and will remain, part of the SJWA.~~

- **Annexation Area:** This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's Sphere of Influence, adopted on November 21, 1985.

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~~Figure 3.7: Off-site Improvement Areas~~

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- **Tentative Parcel Map Area:** A Tentative Parcel Map is being processed to subdivide 1,539 acres of the WLC project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.

- ~~**General Plan Amendment:** One of the proposed~~ land use entitlements ~~is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on 3,487 acres of property located east of Redlands Boulevard and south of SR-60. The following General Plan Elements will be amended: Community Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) 2,383 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities. The General Plan land use designation for the site would become Business Park/Light Industrial (BP).~~

- ~~**Zone Change:** The project includes a Zone Change covering, 3,714 acres, which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E and SCGC properties), and 2,610 acres~~ for the World Logistics Center ~~Specific Plan. The specific land use zones would be Logistics Development (LD) and Light Logistics (LL).~~

- ~~**State Lands:** Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.~~

- ~~**Moreno Highlands Specific Plan (MHSP):** This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses.~~

~~*NOTE: Several commenters indicated that any mention of the current MHSP land plan should include the loss of 1,000 acres of land in the south end of that property that was purchased by the state for conservation as part of the SJWA, which is referred to in this document as the State Conservation Buffer Area.*~~

- ~~**Proposed Project or World Logistics Center Project:** General term applied to all of the entitlements outlined above that are addressed in this EIR, including:~~
    - ~~WLC Specific Plan .... 2,610 acres~~
    - ~~General Plan Amendment....................... 3,714 acres~~
    - ~~Zone Change .... 3,714 acres~~
    - ~~Tentative Parcel Map ....1,539 acres~~
    - ~~Annexation ....85 acres~~
    - ~~Off-site improvements ....104 acres~~

3.4.2 Logistics Warehousing Development

Logistics warehouses are used primarily for the storage and/or consolidation of manufactured goods (with no manufacturing) prior to their distribution to secondary retail outlets. These facilities consist of large buildings typically larger than 500,000 square feet in size, often subdivided for multiple tenants, with typical ceiling heights of 24 feet or more, and can be characterized by highly automated material handling systems supported by truck activities frequently during off-peak hours, and good freeway access. Goods imported through the Ports of Long Beach and Los Angeles as well as other locations are delivered via truck to the proposed distribution centers and distributed via truck to both in and out of state locations, thus benefiting both local and interstate commerce.

High-cube warehouse and logistics facilities include ancillary office and maintenance space along with the outdoor storage of trucks, trailers, and shipping containers. High cube-logistics warehouses provide businesses with a centralized location to sort, organize, and often transfer products from one shipping process to another where multiple forms of transport are available.

High-cube logistics warehouses are generally constructed with vertical-lift dock-high roll up doors to allow access for the loading and unloading of products from truck/trailers. Building interiors are typically large and open to accommodate the temporary storage and consolidation of the products to be distributed. Parking is provided for trucks and trailers in addition to parking for passenger vehicles in accordance with local standards.

3.4.3 Open Space Properties

~~The California Department of Fish and Wildlife (CDFW) owns 910 acres of vacant open space land within the project area. This area is the most northerly end of the San Jacinto Wildlife Area and all of it is being actively farmed. Section 4.4, *Biological Resources*, explains the importance of the SJWA in more detail, but generally supports a diversity of birds and other wildlife in and around Mystic Lake. This land was purchased by the State as a “buffer” between Mystic Lake and approved development under the Moreno Highlands Specific Plan within the City of Moreno Valley. This land is currently actively farmed and provides raptor foraging habitat in the northern portion of the SJWA. This land is designated as permanent open space on the proposed General Plan Amendment and Zone Change.~~

~~SDG&E owns and maintains 174 acres of open space around its 19-acre Moreno Compressor Station plant. The WLC project proposes this land be designated as permanent Open Space under the City are in place – the General Plan and zoning.~~

The WLC Specific Plan includes 74.3 acres of land designated as open space in the southwest corner of the property. It should be noted that Mount Russell and the Mount Russell Range are immediately southwest of the WLC project area, along with the Lake Perris State Recreational Area. No development is proposed for the 74.3 acres designated as Open Space within the Specific Plan.

~~3.4.4 Moreno Compressor Plant and Public Facilities~~

~~SDG&E operates a regional natural gas compression-transmission facility on 19 acres in the south-central portion of the site. This site is bounded on three sides by the CDFW property identified in Specific Section 3.4.3. The project proposes to designate this facility as “Public Facility” under the City General Plan and zoning, and does not propose or anticipate any further development of this site. Any proposal to expand the existing facilities at the site would require separate evaluation under CEQA.~~

~~A one-acre natural gas facility operated by SCGC is located just north of the Moreno Compressor Facility. It is also proposed to be designated as “Public Facility” as part of the project.~~

3.4.5 Annexation Area

Approximately 85 acres of land within ~~the~~ the WLC project area are within an unincorporated area of Riverside County and within the City’s Sphere of Influence. The ~~proposed~~ WLC project includes the completion of the annexation process for this land. This property is located just west of Gilman Springs Road and north of Alessandro Boulevard and is currently dry farmed similar to the land surrounding it. The 85 acres is currently has a General Plan designation of Business Park/Light Logstiocs and is subject to the WLC Sopecific Plan~~project includes approval of a pre-annexation General Plan and zoning land use designations of Logistics Development (LD) within the Specific Plan for this parcel~~. This EIR will be the environmental documentation used by the LAFCO to complete the annexation action, which commenced when the property was included in the City's Sphere of Influence in 1985. The County's land use designation currently applicable to this parcel is W-2-2½, which allows single-family residential and light agriculture~~, while the City's current General Plan land use designation for the site under the MHSP is Business Park (BP)~~.

3.4.6 World Logistics Center Specific Plan

The ~~proposed~~ WLC project includes a Specific Plan to implement the ~~new~~ General Plan ~~Amendment~~ designation and to set forth comprehensive land use regulations governing the ~~proposed~~ WLC project. The Specific Plan is a master plan for the future development of up to 40.6_million square feet of building area on 2,610 acres, providing for mainly high-cube logistics and distribution facilities. This programmatic EIR provides a streamlined environmental review process for future development projects in the WLC Specific Plan area, including site-specific subdivisions and development entitlements that are consistent with the overall plan. Subsequent projects that the City determines to be within the scope of the EIR may be approved pursuant to the procedures set forth in *CEQA Guidelines* Sections 15162 and 15177.

The following sections provide a summary of key elements of the Specific Plan, and Table 3.C provides a summary of the land uses of the Specific Plan and other areas addressed by the project.

Table 3.C: WLC Project Characteristics ~~(updated September 2014)~~

Area/Land Use	~~Original Project~~		~~Revised Project~~	
	~~Acres~~	~~Square Footage~~	Acres	Square Footage
World Logistics Center Specific Plan (WLCSP)				
LD Logistics Development[1]	~~2,606~~	~~41,400,000~~	2,382.8	40,400,000
LL Light Logistics	~~29~~	~~200,000~~	37.1	200,000
OS Open Space	~~75~~	—	74.3	—
ROW[2]	—	—	115.8	
WLCSP Total	**~~2,710~~**	**~~41,600,000~~**	**2,610.0**	**40,600,000**
~~Other Project Areas~~				
~~California Department of Fish and Wildlife~~	~~910~~	—	~~910~~	—
~~San Diego Gas and Electric – Open Space~~	~~174~~	—	~~174~~	—
~~San Diego Gas and Electric – Facility~~	~~19~~	—	~~19~~	—
~~Southern California Gas Company – Facility~~	~~1~~	—	~~1~~	—
~~Other Areas Total~~	**~~1,104~~**	**—**	**~~1,104~~**	**—**
Off-site Improvement Areas	**~~104~~**	**—**	**104**	**—**
TOTAL WLC PROJECT AREA **Floor Area Ratio (FAR)[3]**	**~~3,918~~** **~~NA~~**	**~~41,600,000~~** **~~0.352~~**	**~~3,818~~2,714** **NA**	**40,600,000** **0.357**

[1] Included in LD zone 3,000 square feet of "logistics support" in Planning Area 22 at northeast corner of ~~Theodore~~ World Logistics Center Parkway and Eucalyptus.

[2] Right-of-Way included in each land use category

[3] Floor Area Ratio (FAR) is gross building area divided by gross site area

~~*NOTE: The following changes are due to revisions to the Specific Plan size, land plan, and phasing.*~~

3.4.6.1 Land Use Plan/Planning Areas

The WLC Specific Plan is a master plan for the development of up to 40.6 million square feet of development emphasizing modern high-cube logistics distribution facilities. The following information summarizes Section 2.0, *Land Use Plan*, of the WLC Specific Plan (see Appendix B), including three proposed land use designations, as shown in Figure 3.8.

High Cube-Logistics Development (LD). The WLC Specific Plan project ~~proposes~~ allowsthe development of ~~to develop~~ approximately 2,383 acres with up to 40.4 million square feet of high cube logistics warehouse space. This represents approximately 99.5 percent of the total building area of the WLC Specific Plan ~~project~~areat. Land uses allowed under this classification include high cube logistics warehouse buildings of 500,000 square feet or greater. High cube logistics warehouses are characterized by a high level of automated material handling systems and typical truck activities outside of the peak hour. High cube logistics warehouses are generally used for the storage of manufactured goods prior to their distribution to retail outlets (see Section 4.15 and Appendix J of this EIR). Warehouses permitted in the LD portion of the WLC site would be no smaller than 500,000 square feet, with a maximum height of 80 feet. The Specific Plan prohibits buildings over 60 feet in height along the western, northern, and southern boundaries of the site (see Figure 3.9).

Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted throughout the WLC Specific Plan area. Refrigerated warehouse space is not an allowed use within the Specific Plan area (see Mitigation Measure 4.3.6.3E). Ancillary office and maintenance space is included along with the outdoor storage of trucks, trailers, and shipping containers. LD land uses provide a location for businesses to sort, organize, and transfer products from one shipping process to another.

Special Uses. Two “special use” areas are proposed within the land designated LD within the WLCSP. The first special use is at least one City fire station in Planning Area 11 east of Street F and west of Gilman Springs Road, although the City Fire Chief has not determined the specific site yet. The second special use area is for “logistics support” which will provide alternative fueling services for onsite users. The WLCSP encourages the development of warehousing that uses trucks powered by non-diesel fuels such as natural gas. The Specific Plan requires that smaller on-site service vehicles associated with these same buildings will use non-diesel fuels such as compressed natural gas (CNG) (WLCSP Section 12.3). The use of LNG/CNG will substantially reduce vehicular emissions from the WLC project, including diesel particulate matter (DPM) and other diesel-related pollutants. This facility will include a maximum of 3,000 square feet of building area for diesel and LNG/CNG fuel sales, and for a small convenience store on a minimum of a 1 acre plot. This facility will be located a minimum of 250 feet away from any residential uses (see Specific Plan Section 2.2.5, Land Use Plan for more information on this facility). Other permitted uses within the “logistics support” area include construction yards within, or immediately adjacent to approved construction sites, cellular transmission facilities and structures and public utility uses and structures.

NOTE: Diesel Emissions and Project Operation Restrictions. All medium-heavy duty trucks and heavy-heavy duty trucks entering logistics sites will be required to meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Year 2010 diesel engines are generally considered to be as “clean” in terms of emissions compared to natural gas engines. Facility operators must maintain a log of all trucks entering the facility to document that on average, the daily truck fleet meets the emission standards contained in this mitigation. This log shall be available for inspection by City staff at any time. All service yard trucks (hostlers, yard goats, etc.), pallet jacks, forklifts, and other on-site equipment used during operation shall be powered by electricity, natural gas, and/or propane. Electrical power sources shall be provided for service equipment.

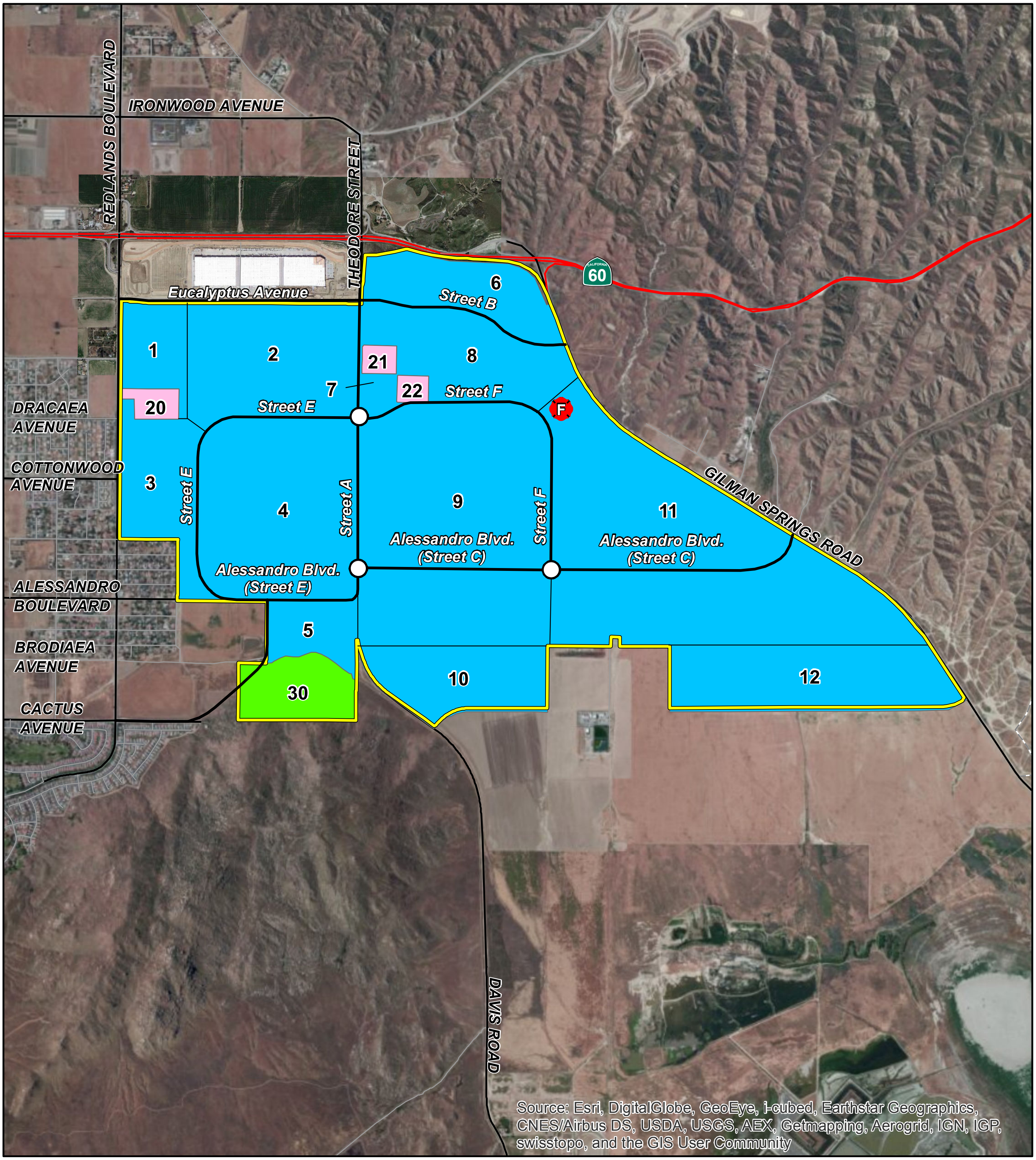

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LSA

FIGURE 3.8

World Logistics Center Specific Plan Project
Environmental Impact Report

Specific Plan Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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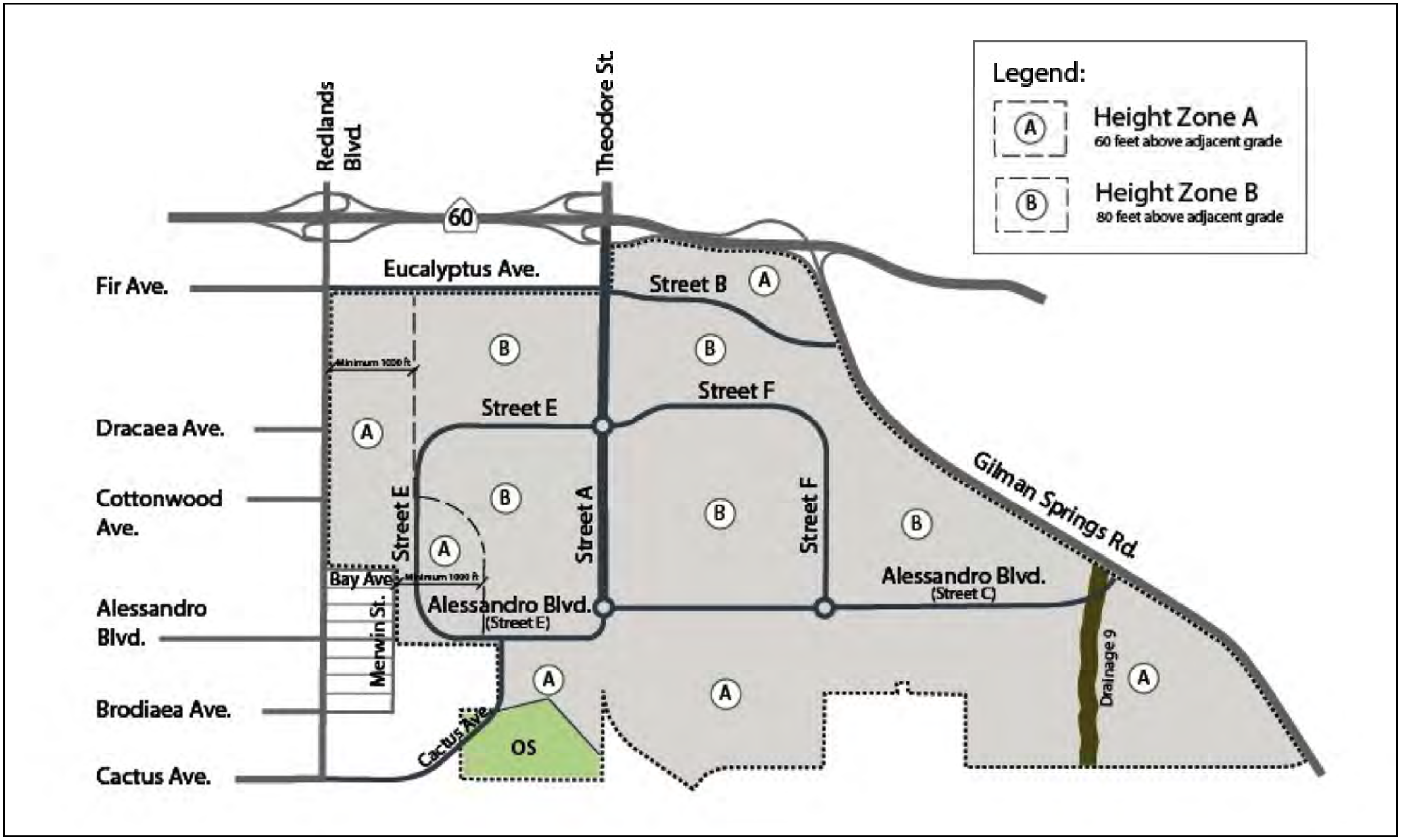

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FIGURE 3.9

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0 1,300 2,600

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SOURCE: HF, September, 2014.

World Logistics Center Specific Plan Project
Environmental Impact Report

Building Height Plans

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Light Logistics Uses (LL). This category provides for the storage of materials such as general warehouse, self-storage, or vehicle storage uses, and would also include related office and/or maintenance areas. The WLC Specific Plan applies this designation to approximately 37 acres of existing lots that are not large enough for LD buildings (minimum 500,000 square feet). Buildout of these areas could support up to 200,000 square feet of building area or 0.5 percent of the planned development of the site. Some of these lots are currently improved with residential uses and/or agricultural uses. ~~Under the~~Upon the adoption of the Specific Plan, the residential and agricultural uses ~~would become~~became legal, non-conforming uses.

Open Space (OS). Approximately 74.3 acres in the southwest corner of the project area is designated for open space use in the WLC Specific Plan. This property is adjacent to Mount Russell and the Lake Perris State Recreational Area. The Specific Plan restricts this property to passive open space and recreation uses. According to the WLC Specific Plan Section 2.4 the entire Open Space in Planning Area 30 will be offered for dedication in fee to the State of California for expansion of its adjacent ownership, or other public or private conservation organizations (see DEIR Section 4.1.6.1 for details). It should be noted that the only improvement planned for this area is the extension of Cactus Avenue.

Planning Areas. The Specific Plan land use plan is divided into sixteen (16) Planning Areas based on traffic impact zones which allows for more accurate estimates of potential traffic and air quality impacts of the WLC Project. The specific land use of each planning area is outlined in Table 3.D. Planning Areas (PA) 1-12 are designated as Logistic Development (LD), PA 20-22 are designated as Light Logistics (LL), PA 7 has been specified as an alternative fueling station (refer to DEIR Section 3.4.7.5 for more information), and PA 30 is Open Space (OS). The previous Figure 3.8 shows the locations of the new planning areas for the WLCSP on the revised land use plan.

NOTE: The following table and figure have been added to show planning areas in the Specific Plan.

Table 3.D: WLC Project Land Uses by Planning Areas ~~(all new from original DEIR)~~

Planning Area (PA)	Land Use Designation	Area (acres)	Building (square feet)
Logistics Development (LD)			
1	LD	77.8	1,100,000
2	LD	193.5	4,200,000
3	LD	120.3	1,600,000
4	LD	301.5	5,600,000
5	LD	64.2	600,000
6	LD	115.3	500,000
7	LD	10.3	50,000
8	LD	142.9	2,150,000
9	LD	485.8	10,400,000
10	LD	139.9	2,200,000
11	LD	500.0	8,000,000
12	LD	231.3	3,500,000
Subtotal		**2,382.8**	**40,400,000**
Light Logistics (LL)			
20	LL	16.1	45,500
21	LL	10.5	77,250
22	LL	10.5	77,250
Subtotal		**37.1**	**200,000**

Table 3.D: WLC Project Land Uses by Planning Areas ~~(all new from original DEIR)~~

Planning Area (PA)	Land Use Designation	Area (acres)	Building (square feet)
Open Space (OS)			
30	OS	74.3	—
Other			
ROW		115.8	—
Total		**2,610.0**	**40,600,000**

Source: WLCSP September 2014

3.4.6.2 Circulation System

The ~~revised~~ current General Plan Circulation Element ~~(as amended by the proposed WLC project)~~ and the Specific Plan's Circulation Plan (Specific Plan Section 3.1) provides for the movement of vehicles in and around the World Logistics Center area. It provides the details of the road/street designations, right-of-way design, and road improvement thresholds. This section addresses the interface of the planning area with existing roadways as defined in the City General Plan.

Four key roadways will provide access to the proposed project: ~~Theodore Street~~World Logistics Center Parkway, Eucalyptus Avenue (between Redlands Boulevard and ~~Theodore Street~~World Logistics Center Parkway), Gilman Springs Road, and Alessandro Boulevard (between Gilman Springs and the proposed extension of Cactus Avenue), as depicted in previously referenced Figure 3.6. The Specific Plan identifies five points of access for project traffic: (1) Eucalyptus Avenue at Redlands Boulevard; (2) ~~Theodore Street~~ World Logistics Center Parkway at SR-60; (3) Street B at Gilman Springs Road; (4) Street C at Gilman Springs Road; and (5) Cactus Avenue Extension extended to Cactus Avenue (no trucks, passenger vehicles only). Primary vehicular access to the project would be from SR-60 at Theodore Street and interchange improvements are planned to accommodate the increase in traffic volumes.

The Traffic Section of the DEIR provides that Transportation Management Plans (TMPs) may be included with each future building-specific project proposal in order to address project parking requirements in order to support "green building" or sustainable concepts. The number of required parking spaces may be modified subject to the approval of a TMP based on the provision of carpooling, van pools, staggered work hours or other facilities and programs. TMP applications would be processed in connection with future project-specific development applications.

Street Improvements. The following roadways lie on the WLC project perimeter. Future improvements to project-affected roadways will be completed in accordance with City General Plan standards. Figure 3.10 provides the WLCSP Circulation Plan and Figure 3.11 shows the typical street cross-sections.

- **State Route 60.** SR-60 is a State freeway that currently has two mixed-flow lanes in each direction. Future improvements are planned by Caltrans to add a separate truck lane eastbound on the freeway through the Badlands including a dedicated truck lane in the future. SR-60 provides primary access to the project area.
- **Redlands Boulevard.** Redlands Boulevard is a designated truck route between SR-60 and Eucalyptus Avenue only; therefore, truck travel would be prohibited on Redlands Boulevard south of Eucalyptus Avenue. The ultimate street section is a 4-lane Divided Arterial.
- **Eucalyptus Avenue (west of ~~Theodore Street~~World Logistics Center Parkway).** Eucalyptus Avenue is a 4-lane Divided Arterial within an ultimate right-of-way of 110 feet. Improvements on the north side of the street (two westbound lanes, a raised median, and one eastbound lane) were recently completed by the HFCP project.

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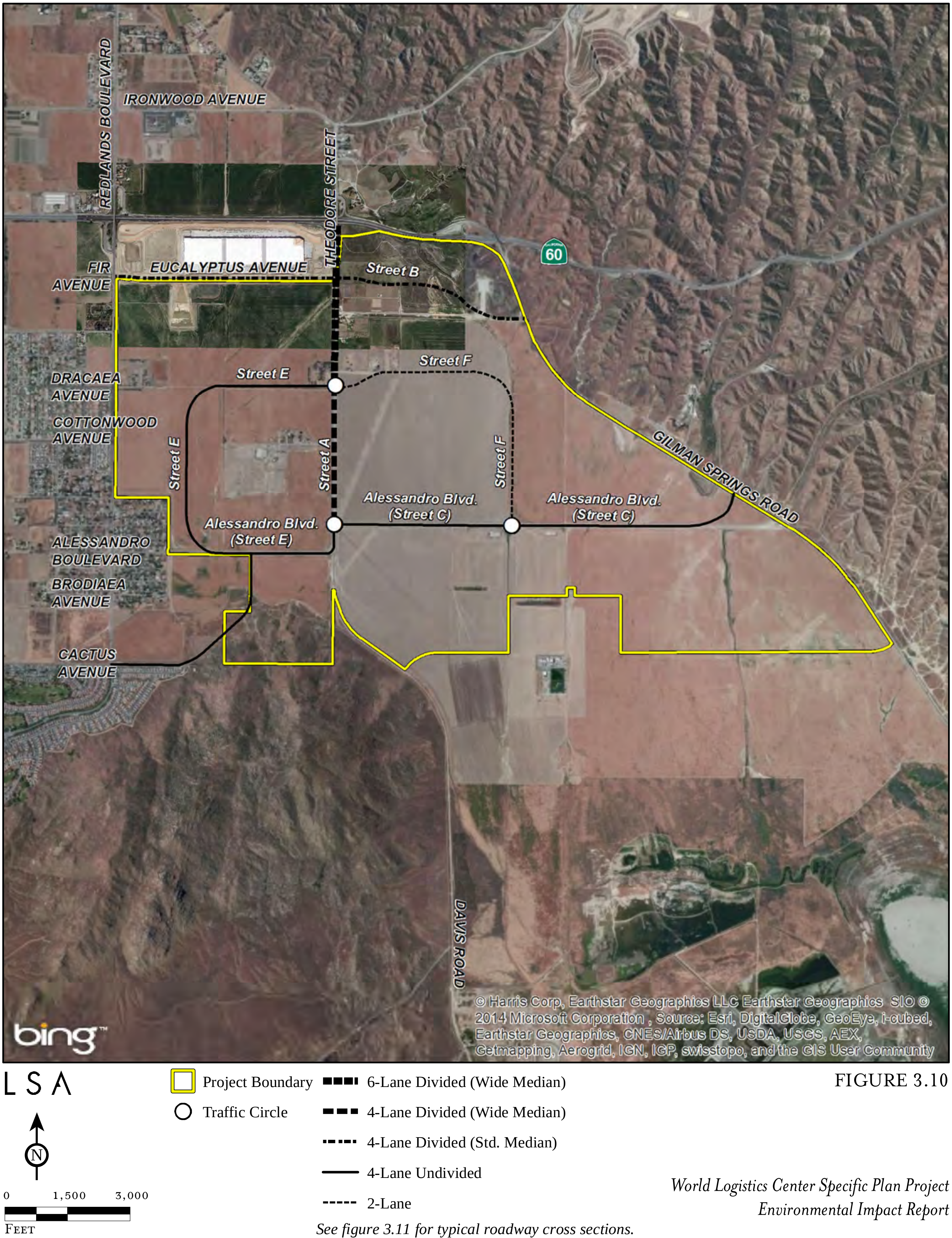

See figure 3.11 for typical roadway cross sections.

FIGURE 3.10

World Logistics Center Specific Plan Project
Environmental Impact Report

Circulation Plan

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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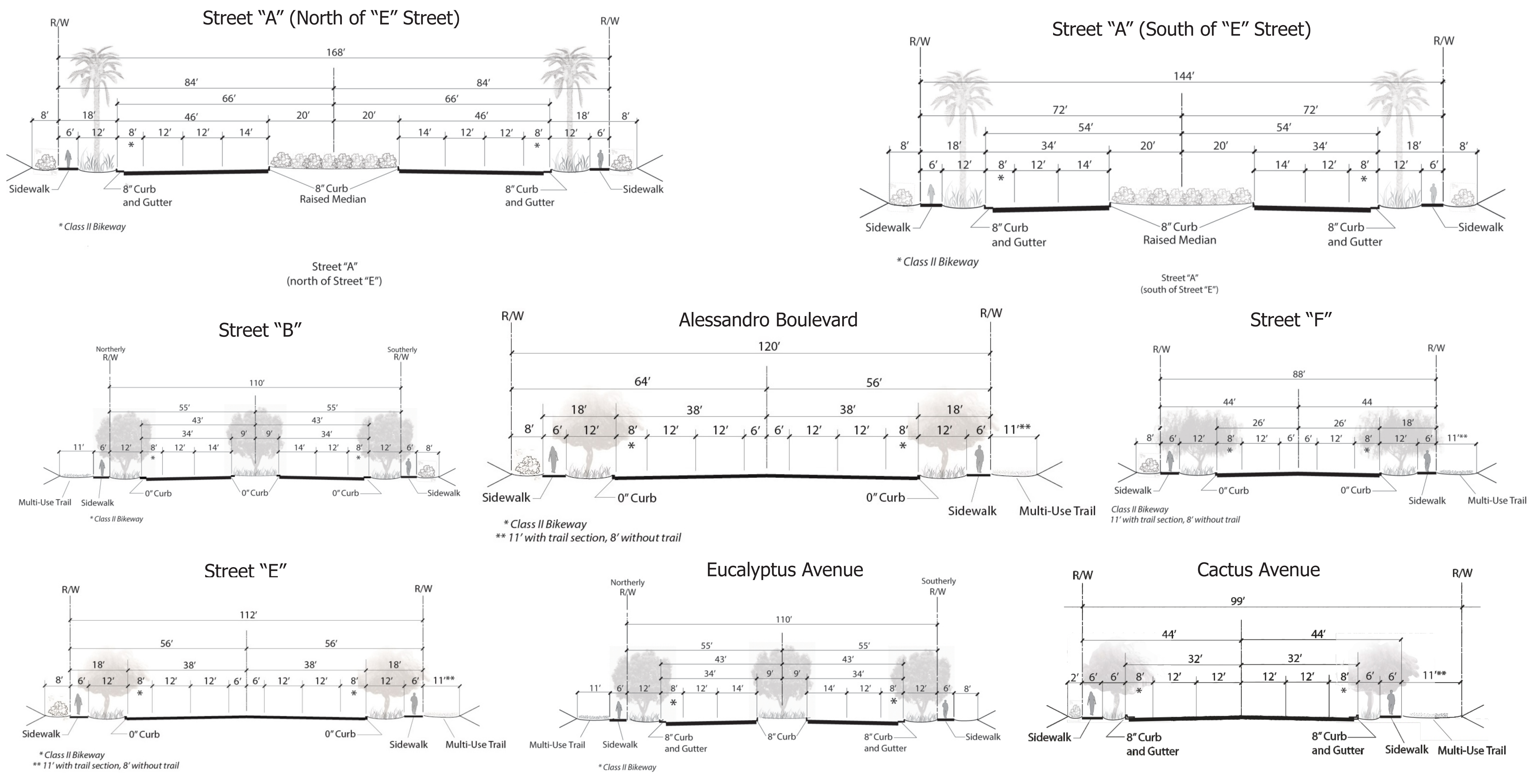

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FIGURE 3.11

World Logistics Center Specific Plan Project
Environmental Impact Report
Typical Street Cross Sections

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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- **Cactus Avenue (extension east of Redlands Boulevard).** This is proposed to be a 4-lane undivided north-south roadway connecting existing Cactus Avenue with the westerly internal loop street (Street "E"). The intersection with Street "E" and would be designed to prohibit large trucks from using Cactus Avenue Extension to prevent their travel through adjacent residential neighborhoods. Special design features and signage will reinforce this restriction.
- **Gilman Springs Road.** At project opening year 2020~~13~~, Gilman Springs Road will remain in its current condition (i.e., a two-lane undivided roadway) and future improvements would occur based on demand. The ultimate street section is a Divided Major Arterial with six through lanes and a raised median. Gilman Springs Road is a City-designated truck route. However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction.

The following roadways within the Specific Plan are classified as Arterials (see Figure 3.11). Access rights and intersections with other streets or highways are limited:

- **~~Theodore Street~~World Logistics center Parkway (Street A).** ~~Theodore Street~~World Logistics Center Parkway is a north/south Arterial and is the primary truck route to and from SR-60. The ultimate street section is a four- to six-lane Divided Arterial within a 144-foot right-of-way including a landscaped median. Traffic roundabouts are proposed at the two key intersections along ~~Theodore Street~~World Logistics Center Parkway within the project.
- **Street B (Eucalyptus Avenue east of** World Logistics Center Parkway**~~Theodore Street~~)**. This roadway will ultimately extend through the project from Theodore Street to Gilman Springs Road. The proposed street section is currently a four-lane Divided Arterial with a 122-foot right-of-way and a standard median.
- **Streets C and E.** The WLCSP circulated for public review with the Draft EIR showed these roadways would be four-lane Minor Arterials each within a 112-foot right-of-way with no median. Traffic roundabouts were proposed at key intersections within the project to facilitate efficient movement of trucks. However, these streets have been realigned northward to maintain the local historical landmark designation of Alessandro Boulevard (see below).

- **Alessandro Boulevard.** Alessandro Boulevard currently runs through the WLC site in an east-west direction, connecting to Gilman Springs Road on the east and traveling through Moreno Valley to the west. The WLCSP circulated for public review with the Draft EIR showed Alessandro Boulevard realigned as Streets C and E (see below). However, this roadway has been designated a City historical landmark, so the WLCSP circulation plan has been modified to retain the name, ROW width, and current alignment of Alessandro Boulevard as an undivided roadway running east-west through the World Logistics Center, still intersecting with Gilman Springs Road on the east and the Cactus Avenue Extension on the west. An existing section of Alessandro Boulevard between Merwin Street and the Cactus Avenue Extension will be closed to vehicular traffic except for emergency vehicles and bicycles and pedestrians access. This is to prevent project traffic, both trucks and passenger vehicles, from traveling through the existing residential neighborhoods to the west.

The smaller roadways within the Specific Plan (Streets F through H) would convey truck and other vehicle traffic in and around the project site. These two-lane roadways will have an ultimate right-of-way of 88 feet.

As Figure 3.10 shows, the Specific Plan proposes traffic roundabouts at the three internal intersections (World Logistics Center Parkway ~~Theodore Street~~/Streets E & F, World Logistics Center Parkway ~~Theodore Street~~/Alessandro Boulevard, and Street C/Street F.

Planned Improvements. As part of the analysis of project traffic impacts, it is important to note that development within the WLCSP area will make a number of roadway and intersection improvements that are within or adjacent to project property (i.e. onsite improvements). As outlined in the project TIA, these improvements include but are not limited to:

- Gilman Springs/Alessandro Boulevard Intersection;
- Gilman Springs/Eucalyptus Avenue Intersection;
- SR-60 Westbound Ramp/ World Logistics Center Parkway~~Theodore Street~~ Intersection;
- Redlands Boulevard/Eucalyptus Avenue Intersection;
- Theodore Street/Eucalyptus Avenue Intersection;
- Eucalyptus Avenue from Redlands Boulevard to World Logistics Center Parkway~~Theodore Street~~ (south side);
- Extension of Cactus Avenue east onto the WLC property; and
- Internal Streets A through F shown on WLCSP Circulation Plan (DEIR Figure 3-10).

Mobility. Section 3.4, *Non-Vehicular Circulation*, of the Specific Plan indicates that the intent of the mobility, transit, and pedestrian movement section is to ensure that people are able to move from one destination to another with minimal delays, either by walking or using other means of non-motorized travel. This means separating vehicles from pedestrian pathways and incorporating shared modes of travel such as trucks, autos, and bikes in the same right-of-way area where feasible. Bicycles would be able to use the street right-of-way throughout the project area. The Specific Plan states that project site development will support alternative transportation options for employees through implementation of on-site bicycle storage, preferred parking for low-emitting and fuel-efficient cars, carpool high-occupancy vehicles, and access to public transit.

According to Section 3.4.3, *Bicycle Circulation*, the Specific Plan will provide Class II (on-street) bicycle access along all connecting project roadways (i.e., not cul-de-sac streets), as shown in Figure 3.12. These Class II bicycle lanes will be integrated into the City's Bikeway Plan as well as the WRCOG Non-Motorized Transportation Plan, with connectivity to Class II bicycle lanes in the City that are adjacent to the WLC project site.

The Specific Plan requires sidewalks along all project streets (Specific Plan Section 5.2.8). Pedestrian movement relies on sidewalks providing direct access from the street to entry points for properties and buildings. Sidewalks are required to be shown on project-specific plot plans submitted for review by the City. All public street improvement shall meet the standards set forth in Title 24.

Local bus service to the area is provided by the Riverside Transit Agency (RTA). Local bus routes will be extended into the project area when adequate demand is generated as determined by the RTA. All roadways within the WLC area will be designed to accommodate bus access. The need for bus stops, turnouts, etc. will be determined by the RTA during the review of subsequent project-specific applications.

In addition to public sidewalks provided adjacent to project streets, Section 3.4.2 of the Specific Plan, *Multi-Use Trails*, requires the construction of a trail connection between the Redlands Boulevard/ Cottonwood Avenue intersection and the existing Cactus Avenue trail connection to the Lake Perris Recreational Area. This new trail will continue along Street E avoiding the Open Space area and connect to a new trail head and a potential trail (by others) to the San Jacinto Wildlife Area at the former Davis Road alignment (see Figure 3.12). Engineering details of the new trail will be provided with project-specific development applications in this portion of the project area.

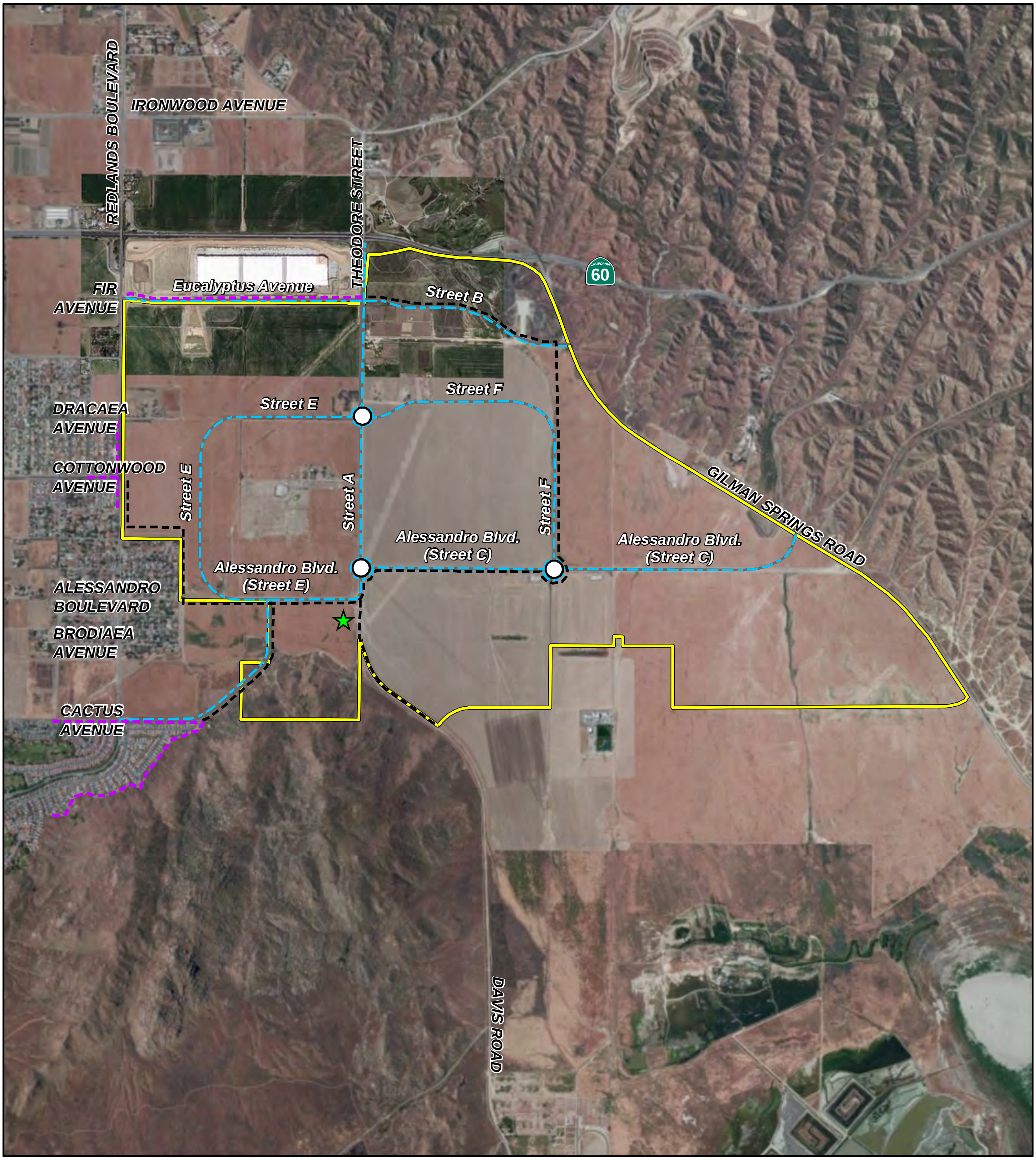

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FIGURE 3.12

☐ Project Boundary

- - Class III Bikeway

- - Conceptual Trail Alignment

- - Existing Trail Alignment

★ Staging Area

N

0 1,500 3,000

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World Logistics Center Specific Plan Project
Environmental Impact Report

Non-Vehicular Circulation

SOURCE: ESRI World Imagery, 2010; Google Maps, 2011.

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3.4.6.3 Utilities and Services

The Utilities section of the Specific Plan (Section 3.5) describes the infrastructure systems needed to support the development of the project. This section identifies facilities for potable water, reclaimed water, wastewater, storm drain systems, power, natural gas, and telecommunications. This section also addresses the demand for general City services.

Potable Water. The Eastern Municipal Water District (EMWD) provides water service to the project area. EMWD obtains its water from Metropolitan Water District (MWD) and local groundwater wells.

The 2009 EMWD Water Facilities Master Plan (Master Plan) in conjunction with the Moreno Valley Water Pressure Zone Realignment Study (Realignment Study) evaluated the existing and future water needs and facilities required for the Moreno Valley water system. The Master Plan and Realignment Study analyzed the existing water system operating pressures and flows and recommended improvements to the system including realignment of the 1764 and 1900 pressure zones to 1764, 1860, and 1967 pressure zones. The area is currently served by existing pipelines in the 1764 and 1900 pressure zones that range in size from 8-inch to 21-inch diameter pipes (see Figure 3.13). The Master Plan is included in Appendix M of this EIR. The Master Plan indicates that sufficient water is available for potable use and landscaping under expected conditions over a 20-year period.

The MWD owns and operates a 108-inch transmission line that runs north-south through the project area in Theodore Street, and then east-west in Eucalyptus Avenue, east of Theodore Street. Build-out of the proposed project site will require the construction of new water reservoirs to serve each of three water pressure zones (1967, 1860, and 1764). All three reservoir sites are located outside of the Specific Plan boundary. As development proceeds within the project area, new waterlines, ranging in size from 12 to 24 inches, will be constructed in the existing and future street rights-of-way to connect the future water tanks to the development area. The water system will require a new pump station at the 1764 reservoir and an upgrade to the existing EMWD pump station near Cottonwood Avenue and Redlands Boulevard.

All water facilities will be constructed to EMWD standards and will be subject to a Plan of Service approval by EMWD (Specific Plan Section 3.5.1). Previously referenced Figure 3.13 shows the new water system proposed for the project. The EIR will examine potential impacts of onsite and offsite water improvements including these reservoirs as outlined in Appendix M.

Reclaimed/Recycled Water. As stated in EMWD’s Water Supply Assessment (Appendix M), EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, greenbelts, open space common areas, commercial landscaping, and aesthetic impoundment or other water features. The proposed project is near an existing recycled water line and EMWD has indicated that in the future, recycled water may be available for the project. If EMWD determines adequate recycled water supply is available, recycled water will be used on the proposed project to the greatest extent practical. The availability, feasibility, and reliability of recycled water use will be included in EMWD’s evaluation of the Plan of Service for the project. Landscape irrigation may use potable water until recycled water facilities are in place. Information on reclaimed water is provided in Appendix N. “Purple” reclaimed water irrigation piping will be installed to certain landscaped areas as needed.

Wastewater. EMWD provides wastewater service to the project area at EMWD’s Moreno Valley Regional Water Reclamation Facility (WRF) located in the southwestern portion of the City near Kitching Street and Mariposa Avenue. The WRF has the capacity to treat 16 million gallons per day

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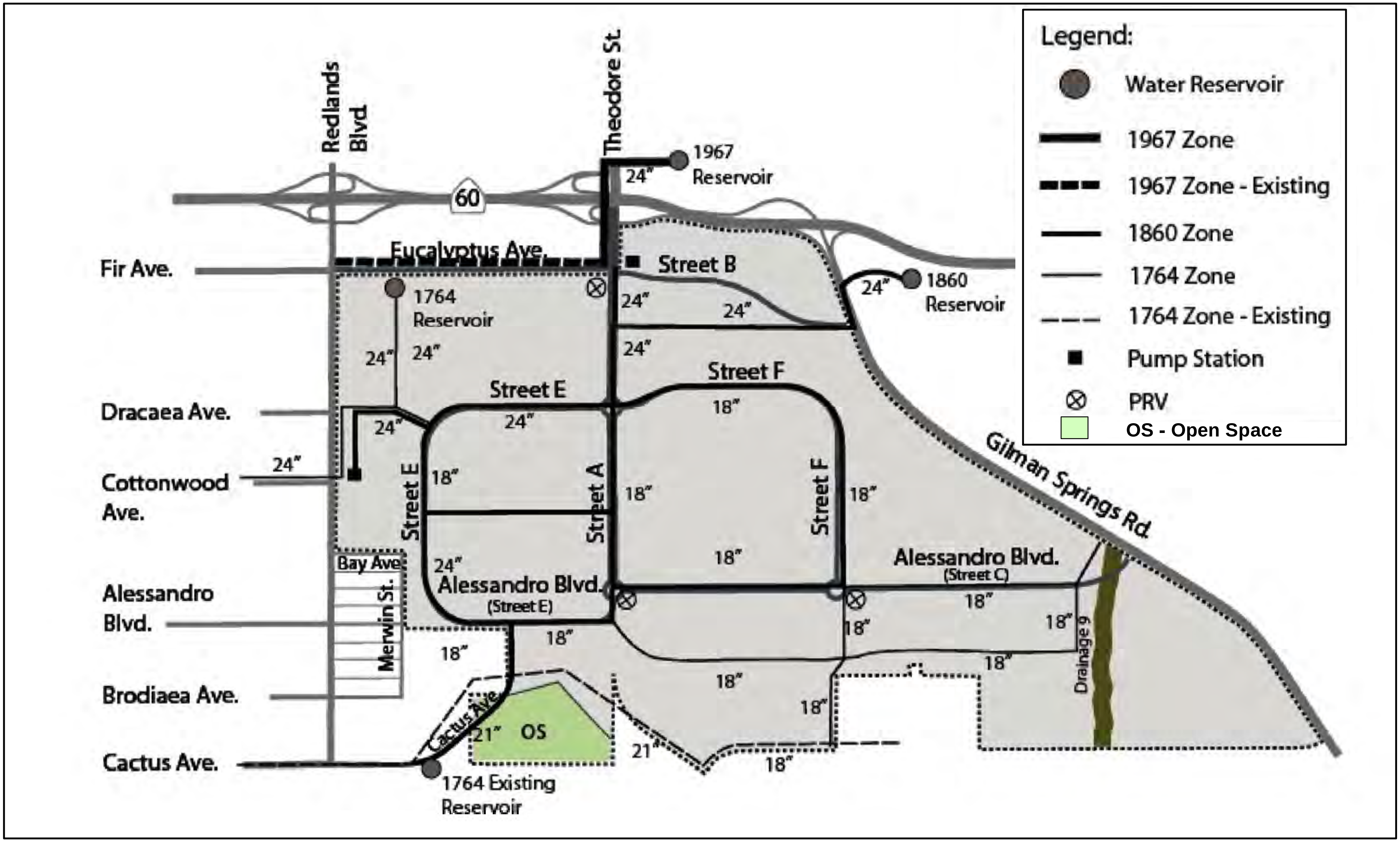

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FIGURE 3.13

World Logistics Center Specific Plan Project
Environmental Impact Report

Water System

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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(mgd) of wastewater. The analysis provided in Section 4.16, *Utilities and Service Systems*, indicates the WRF has a current excess capacity of 4.5 mgd and the proposed WLCSP would consume 0.3 mgd (6% of excess), so the WLC project does not by itself generate a need for new wastewater treatment facilities.

The primary trunk sewer line serving the WLC project area is located within Redlands Boulevard. This trunk sewer line continues in a southerly direction within Cactus Avenue, JFK Drive, Iris Avenue, and Lasselle Streets conveying wastewater to the WRF (Specific Plan Section 3.5.2). The proposed sewer in Street A and all lines to the west of World Logistics Center Parkway~~Theodore~~ (Street A) are a gravity system and run generally southwest to a point of connection at Brodiaea Avenue and Redlands Boulevard. As demand requires, the segment of sewer line within Brodiaea Avenue that is west of Redlands Boulevard will be upsized from a 15-inch to a 21-inch line. The sewer system east of World Logistics Center Parkway~~Theodore Street~~ (Street A) will flow by gravity to a future sewer lift station at the southerly project boundary. From there, a force main will carry wastewater in a northwest direction, where it will join the gravity system west of Street A described above. Sewer lines will be located within public street rights-of-way to the greatest degree possible. Some of the buildings may require individual (private) lift stations due to building lengths, location of buildings, and phasing of improvements. Future sewer lines will range in size between 8 and 21 inches, and will be constructed to EMWD standards and will be subject to a plan of service approval. Figure 3.14 shows the proposed sewer/wastewater system for the Specific Plan. Technical studies related to wastewater services are provided in Appendix N.

Storm Water Drainage. The WLC project area is within the San Jacinto River watershed, which is part of the larger Santa Ana River watershed. The storm water runoff from the project generally flows in a southerly direction to the San Jacinto River at an average gradient of 1 to 2 percent. A topographic divide located west of World Logistics Center Parkway~~Theodore Street~~ (Street A) separates storm water flows to the San Jacinto River into two subareas. Runoff east of the divide flows through the San Jacinto Valley to the San Jacinto Wildlife Area and ultimately to the Gilman Hot Springs hydro-subarea. Runoff west of the divide flows to the Perris Valley Storm Drain and ultimately the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site (Specific Plan Section 3.5.4).

The Riverside County Flood Control and Water Conservation District (RCFCWCD) is the responsible agency for the project area’s regional flood control system. The westerly portion of the project site is located within the Moreno Master Drainage Plan (MMDP). An existing 12-foot by 8-foot reinforced concrete box (RCB) owned and maintained by RCFCWCD is located east of Redlands Boulevard. This facility collects storm water passing under SR-60 and outlets south of Eucalyptus Avenue where it flows through a spreading basin then across agricultural land. Farther south, the agricultural land drains to an RCFCWCD earthen channel at Redlands Boulevard flows to a greenbelt channel located south of Cactus Avenue and east of Redlands Boulevard and ultimately drains to the Perris Valley Storm Channel.

There is no master plan of drainage on the east side of the WLC project site. The existing drainage facilities consist of open ditches along World Logistics Center Parkway~~Theodore Street~~ that convey runoff from adjacent areas and lands northerly of SR-60. A series of existing drainage culverts crosses Gilman Springs Road conveying the off-site runoff from the Badlands through the project site. Four of these culverts drain into natural drainage courses which drain to the south. Based on the latest Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA), the project site is not located within a 100-year floodplain.

Development according to the WLC Specific Plan will result in the placement of impervious surfaces on the project site, which would substantially increase the potential for runoff from the site. Post-development flows are required to be equal or less than pre-development flows, so the on-site storm

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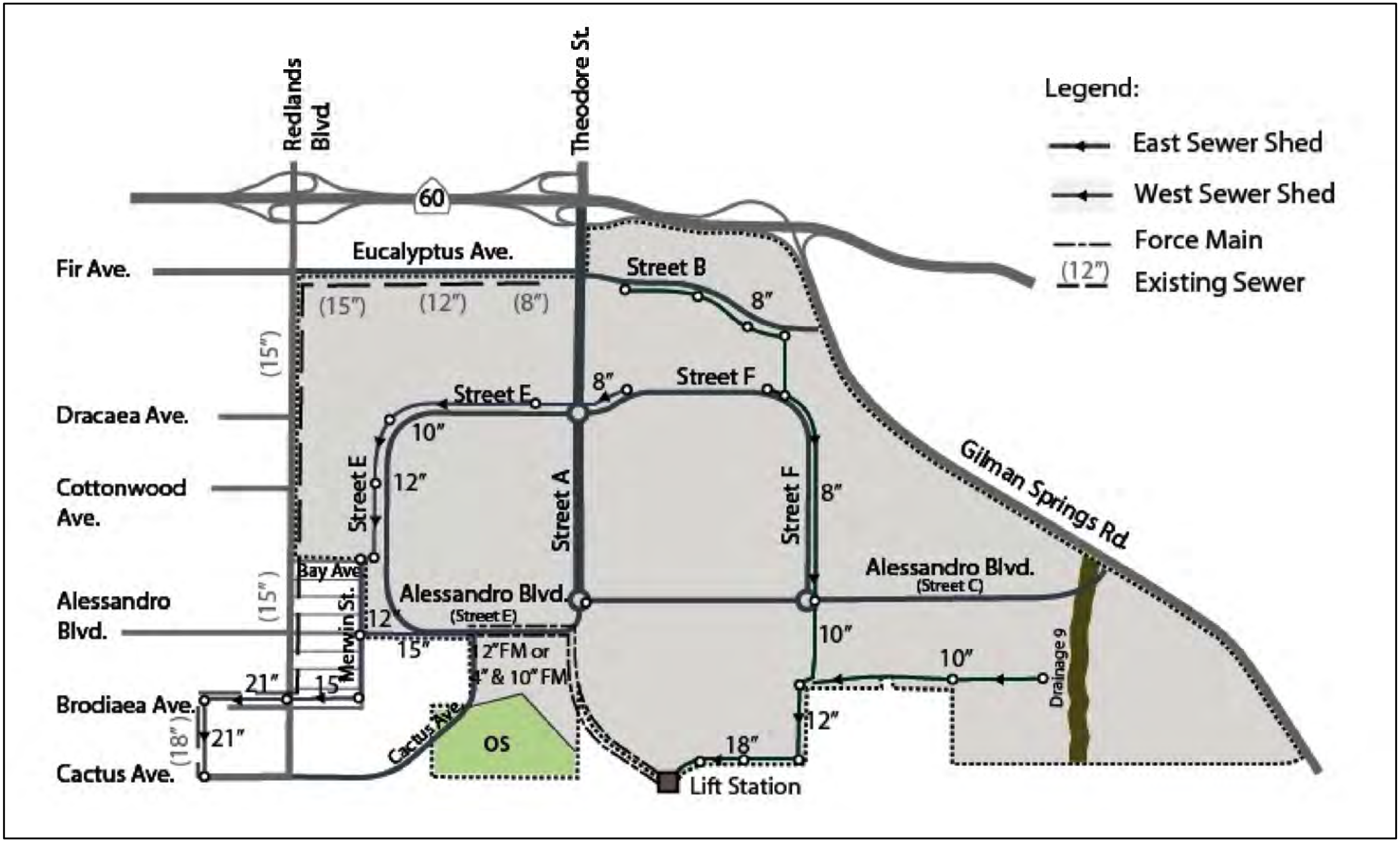

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FIGURE 3.14

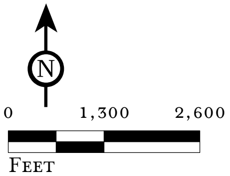

World Logistics Center Specific Plan Project
Environmental Impact Report

Wastewater System

SOURCE: HF, September, 2014.

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water flows will be routed through a new system of underground drainage lines to a series of on-site detention basins. While the increase in impervious surfaces attributable to the proposed project would contribute to a greater volume and higher velocity of storm water flows, the hydrology report for the project indicates that the proposed detention basins would be designed to accommodate runoff and maintain off-site flows at pre-project conditions. Drainage improvements will be phased as needed to ensure that the peak flows at downstream discharge points at the southerly project boundary will not exceed the peak flows for the existing condition (Specific Plan Section 3.5.4). Figure 3.15 shows the proposed drainage system for the Specific Plan area. The drainage study is included in Appendix J.

Drainage from east of Gilman Springs Road flows southwest and south out of the Badlands and flows under Gilman Springs Road through corrugated steel pipe culverts. These culverts are relatively small, and during times of high flow, runoff often causes repeated localized flooding along the roadway. When Gilman Springs Road is improved to its ultimate width by the County, improvements will include the installation of larger culverts where needed to eliminate flooding along the roadway.

Solid Waste. The WLC Specific Plan encourages recycling and reducing waste generation. Examples of the recycling processes identified by the Specific Plan include:

- Support recycling programs to sort and store materials destined for landfills;
- Reuse and recycle construction and demolition waste as much as feasible during building construction;
- Encourage the City of Moreno Valley to support by either implementing or expanding recycling and composting programs for businesses;
- Extend the types of recycling services offered (e.g., to include food and green waste recycling);
- Provide public education and publicity about recycling services conducted at the World Logistics Center; and
- Promote recycling programs aimed at supporting sustainable certification programs such as LEED, CalGreen, or similar sustainability programs.

Energy. Moreno Valley Electric Utility (MVEU) is the electricity provider for the World Logistics Center. While it will not provide service within the Specific Plan area, Southern California Edison (SCE) has existing 12 kV and 115 kV overhead power lines throughout the project area. There are SCE 115 kV power lines along Gilman Springs Road, Eucalyptus Avenue east of World Logistics Center Parkway~~Theodore Street~~, Theodore Street north of Eucalyptus Street, and along Brodiaea Avenue/Davis Road to the south. There are also SCE 12 kV power lines along Gilman Springs Road, World Logistics Center Parkway~~Theodore Street~~, Alessandro Boulevard, Eucalyptus Avenue east of Theodore Street, and Redlands Boulevard. MVEU has an existing underground electrical system at the intersection of Dracaea Avenue and Redlands Boulevard. As the project builds out, the Moreno Beach Substation will be expanded to 112 MW and a new 60 MW substation will be constructed to serve the project. Many of the existing 115 kV and 12 kV lines will be relocated as the Specific Plan is built out. Electrical facilities are shown in Figure 3.16.

Solar Energy. The WLC Specific Plan requires solar photovoltaic (PV) arrays to be installed on the project buildings to offset the electrical power requirements of the office portion of each proposed warehouse building (WLCSP Section 12.7, Solar Commitment).

The SCGC is the natural gas provider for the project. An existing 4-inch medium pressure service line is located within Redlands Boulevard. Low-pressure facilities serve the residential area located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue. Throughout the project, natural gas is transmitted through existing SDG&E underground pipelines serving the Southern

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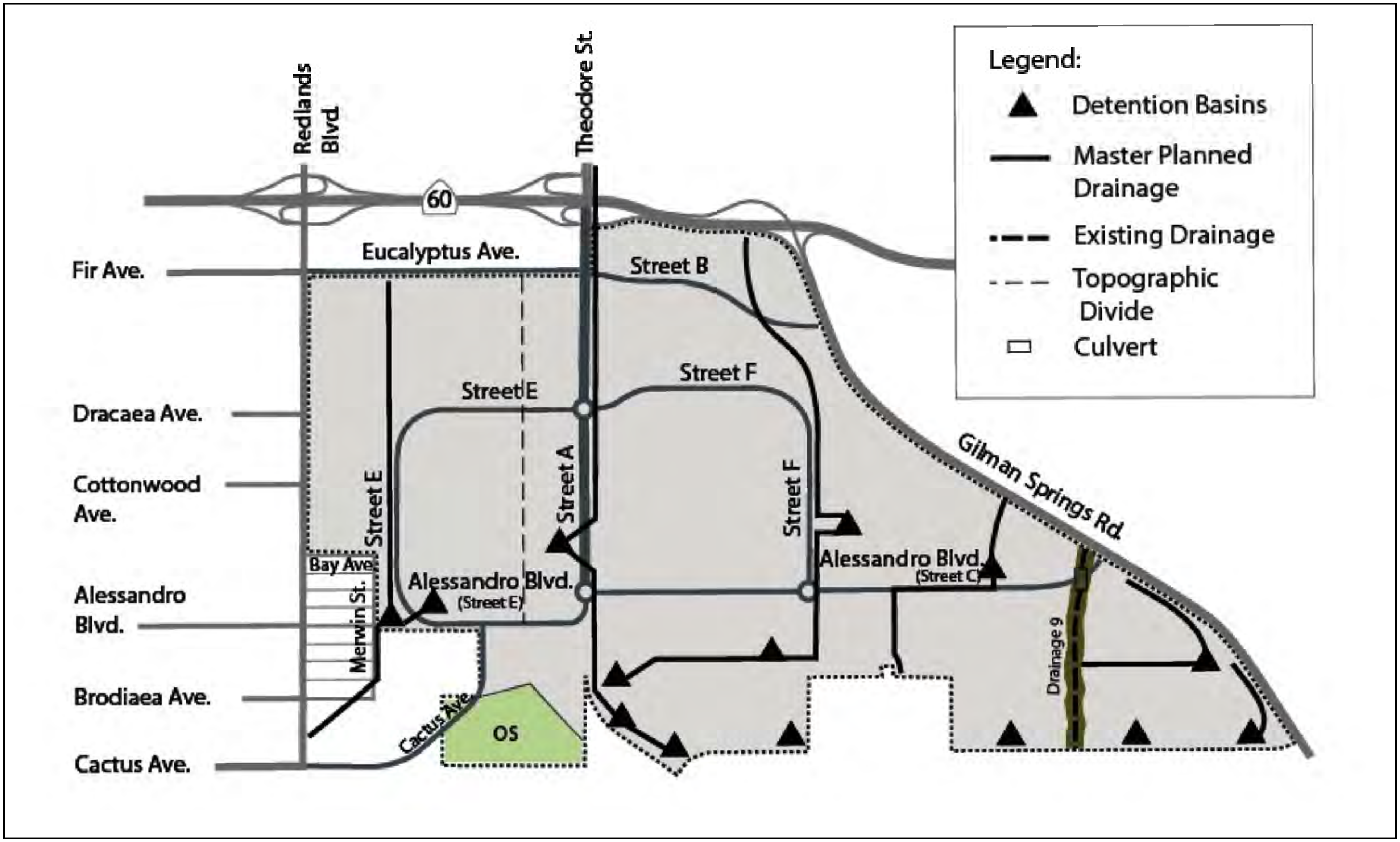

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FIGURE 3.15

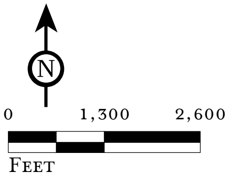

World Logistics Center Specific Plan Project
Environmental Impact Report

Master Drainage System

SOURCE: HF, September, 2014.

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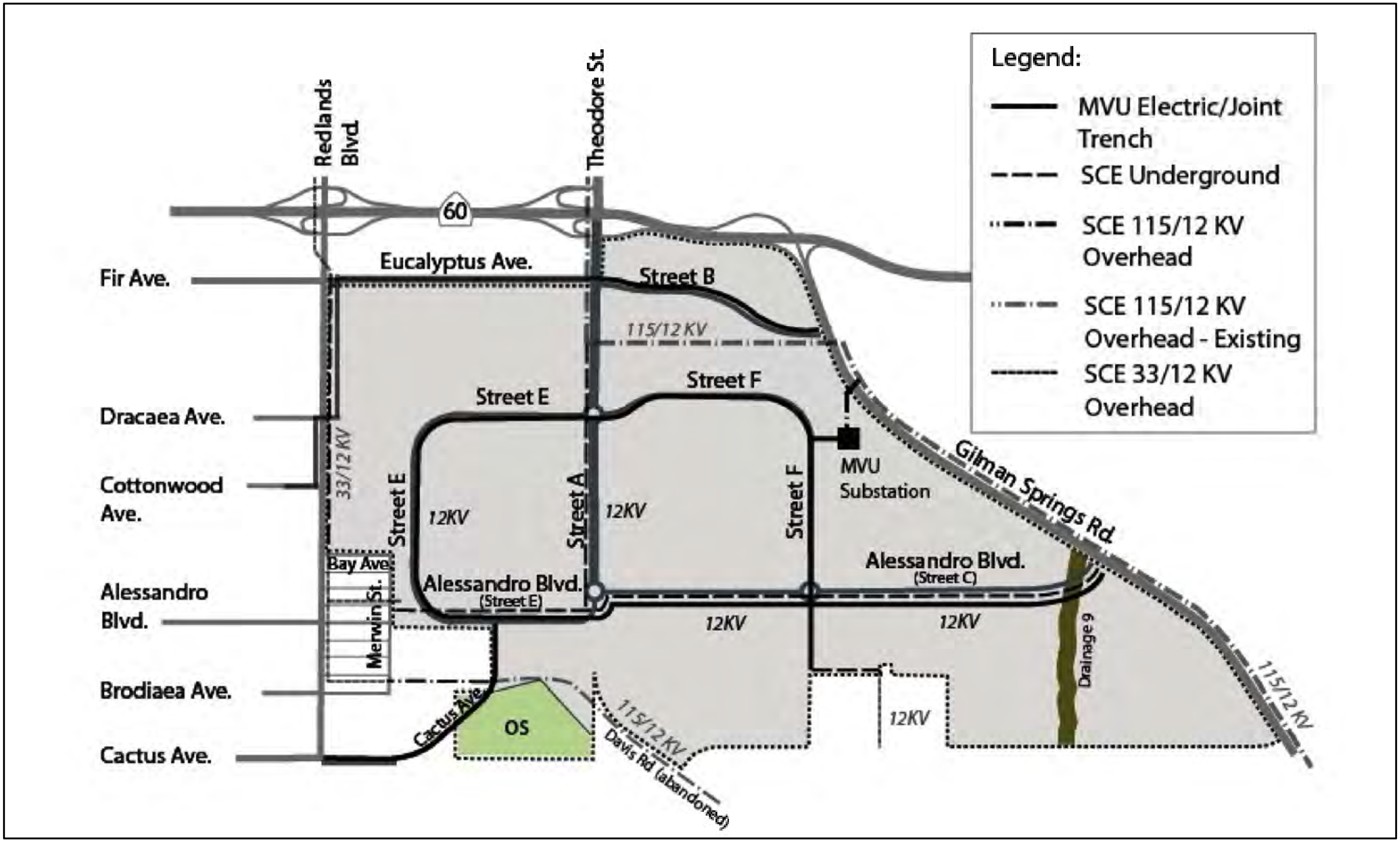

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FIGURE 3.16

World Logistics Center Specific Plan Project
Environmental Impact Report

Electrical Facilities

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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California region that range in size from 16 inches to 36 inches. Two 30-inch diameter transmission pipelines run in an east-west direction north and south of Alessandro Boulevard. Three transmission pipelines, 16, 24, and 36-inch diameters run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter line also extends east from Virginia Street parallel with the 30-inch line that runs south of Alessandro Boulevard. Figure 3.17 shows planned natural gas facilities.

SCGC transmission facilities in the WLC Specific Plan area include a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Farther south on Virginia Street, SDG&E operates the Moreno Compressor Station, which supplies gas to San Diego via 16, 30, and 36-inch transmission pipelines. In addition, Questar, a private utility company, has a 16-inch natural gas transmission line that runs within Alessandro Boulevard from Gilman Springs Road to World Logistics Center Parkway~~Theodore Street~~, where it turns south to Maltby Avenue, and then turns west to Redlands Boulevard.

SCGC has indicated the 4-inch medium-pressure service line that runs in Redlands Boulevard will be extended into the area to service the development. Gas service will be installed in the public street right-of-way or easements as a joint trench with telephone, cable TV, and electrical services. In connection with the development of the property, relocation of some natural gas transmission lines into public street right-of-way or easements will be necessary. SDG&E's Moreno Compressor Station will remain in place.

3.4.6.4 Public Services

Fire protection services in the WLC project area are provided by the Riverside County Fire Department under contract to the City of Moreno Valley. The Fire Department has an existing fire station located on Eucalyptus Avenue just east of Moreno Beach Boulevard. Response times to the project site from this station are approximately five (5) minutes. The Specific Plan indicates a new fire station will be located in the LD zone in the northeast portion of the site. At present, it is proposed in the north end of Planning Area 11, and the Specific Plan requires it to be built during Phase I. Placement of the fire station is subject to review and approval by the Fire Chief (Specific Plan Section 2.2.4 First Station Site). As development progresses, fire protection services within the Specific Plan area will continue to be evaluated through the plan development process, and additional facilities and/or services may be needed in the future.

Police service is provided to the WLC project area by the Riverside County Sheriff's Department under contract to the City of Moreno Valley. At present, the City's main police station is at its design capacity, and additional capacity may be needed in the future. No new police facilities are planned on the project site at this time.

Park facilities and programs are provided by the City of Moreno Valley. There are no local parks in or adjacent to the WLC project site at present and none are planned with the project. The Lake Perris State Recreation Area is located southwest of the project site.

School facilities and services are provided by the Moreno Valley Unified School District. No school sites are existing in or adjacent to the WLC project site and none are planned.

Library facilities and services are provided to local residents by the City of Moreno Valley. No library facilities are proposed to be included in the WLC Specific Plan area.

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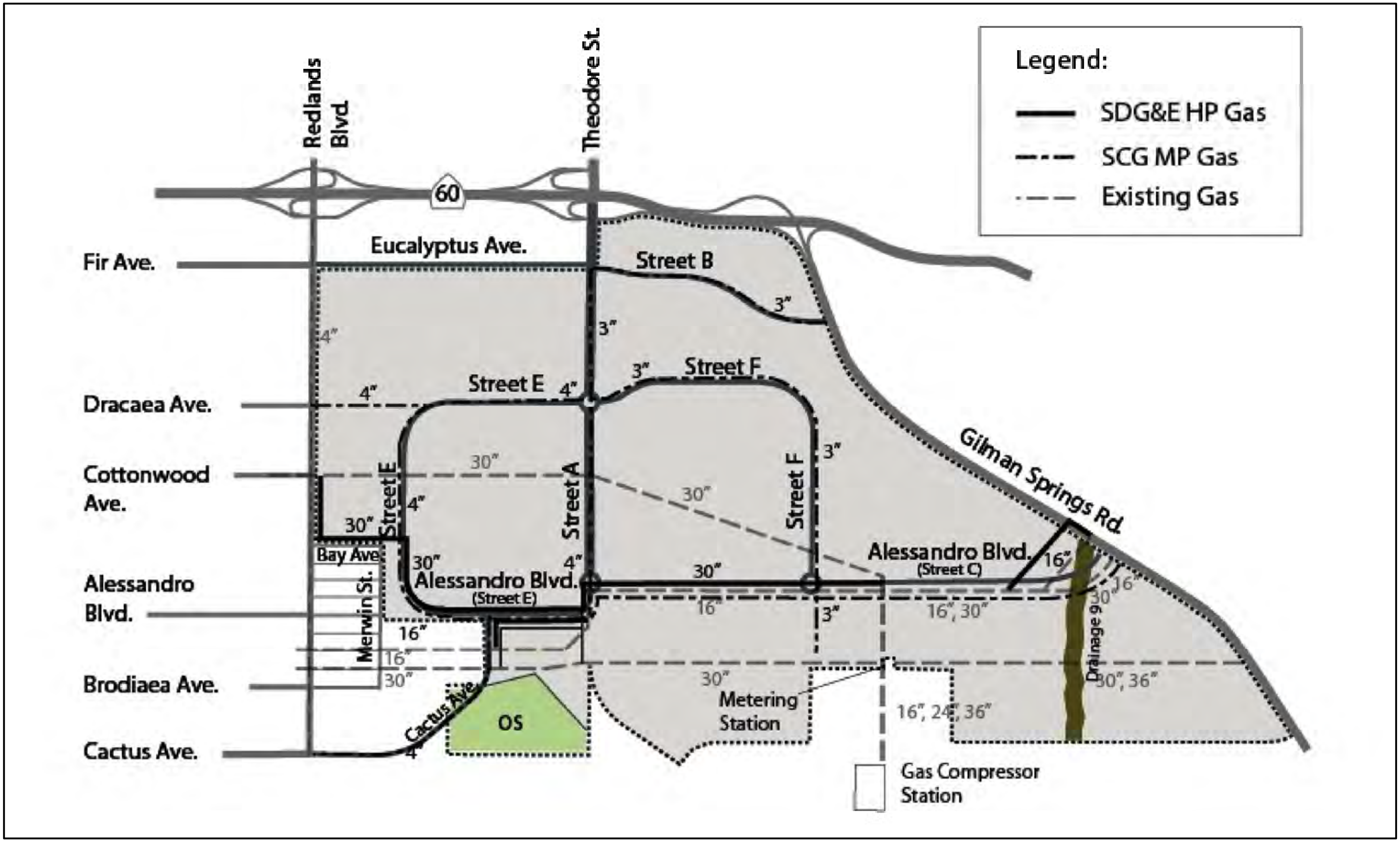

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FIGURE 3.17

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World Logistics Center Specific Plan Project
Environmental Impact Report

Natural Gas Facilities

SOURCE: World Logistics Center Specific Plan,HF, September, 2014.

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3.4.7 Sustainability

Site and building design within the WLC Specific Plan area will incorporate many sustainability and green building concepts. Green building is the practice of increasing building efficiency through site planning, water and energy management, material use, control of indoor air quality, and the use of innovative design concepts. These practices help to improve building operational efficiency, conserve water, reduce waste, and lessen the heat island effect of development.

All buildings within the WLC project will comply with the Title 24 California Building Code. Adopted in 1978 in response to the energy crisis of the 1970s and updated every five years by the California Energy Commission (CEC), California's Title 24 contains the strictest and most energy-efficient building code in the nation. The Title 24 Building Codes are called California's "Green Building" codes because they create energy efficiencies of up to 30 percent in some categories above and beyond the energy efficiencies achieved under the previous versions of Title 24.

The 2013 version of standards went into effect January 1, 2014. The CEC adopted these changes to the Building Energy Efficiency Standards for the following reasons:

1. To provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy.
2. To respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates California reduce its greenhouse gas emissions to 1990 levels by 2020.
3. To pursue California policy that energy efficiency is the resource of first choice for meeting California's energy needs.
4. To act on California's Integrated Energy Policy Report (IEPR) findings that Standards are the most cost-effective means to achieve energy efficiency, that the Building Energy Efficiency Standards will continue to be upgraded over time to reduce electricity and peak demand, and that the Standards will play a role in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions.
5. To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.

The WLC Specific Plan requires sustainable development standards so that new development within the project area minimizes energy consumption, conserves water, and uses recycled or sustainable building materials, where feasible. It provides developers with a specific framework for identifying and implementing a variety of practicable and measurable green building design, construction, operations, and maintenance. All new development within the project area will be required to be designed to meet the CEC standards in effect at the time construction commences (WLCSP Section 1.3.2). In addition, buildings within the Specific Plan will be designed to be "solar ready" (i.e., allow the installation of solar photovoltaic systems on the roof of each building) (WLCSP Section 1.2.2, Green Building – Sustainable Development).

The sustainability guidelines for the World Logistics Center serve the following functions to:

- Assist in meeting California's greenhouse gas reduction targets as set forth through Executive Order S-3-05 and Assembly Bill 32 (also known as the Global Warming Solutions Act of 2006);
- Assist in the region's development of a sustainable communities strategy pursuant to Senate Bill 375;
- Assist in meeting other state and local goals and requirements, including Assembly Bill 1385, The Complete Streets Act;

- Establish practical and innovative solutions for the developer, business, and residential community to improve resource efficiency and reduce consumption of energy, water, and raw materials; and
- Support waste management reduction identified in AB 341.

3.4.7.1 Building Design and Construction

The WLC Specific Plan requires sophisticated construction techniques that will provide pollution prevention and control such as noise, air quality, erosion, and sediment controls. Both site planning and future building design will require best practices for use of recycled materials and products, such as recycled steel, and crushed concrete and pavement materials.

Low-emitting volatile organic compound (VOC) building materials will be required to be used on the WLC site. Project design will allow the incorporation of alternative energy sources such as rooftop solar systems (i.e., "solar ready" buildings) or other technologies reasonably available at the time of development. Project design and construction techniques will be employed to reduce the heat island effect, which creates thermal gradient differences between developed and undeveloped areas. Such techniques will include the use of materials that have a low solar reflectance index such as white roofs and light-colored pavements.

All development within the Specific Plan will require the preparation of a waste management plan requiring the diversion of at least 50 percent of waste from landfill. This goal will be achieved through a comprehensive recycling and management program including storage and collection of recyclables, building and material reuse, and careful construction waste management.

The Specific Plan ~~will~~ incorporates the use of passive heating and cooling into the design or modification of the high-cube warehouse development (e.g., white building colors and roof insulation to minimize heat gain, and landscaping to help shade buildings).

Electrical power sources will be provided both indoors and outdoors to accommodate the use of electrical property maintenance equipment (Section 12.4 of the WLCSP).

3.4.7.2 Landscaping

The WLC Specific Plan requires development to install xeriscape or drought-tolerant landscaping that requires minimal irrigation and to utilize on-site runoff into landscaped areas as much as possible for landscape irrigation.

3.4.7.3 Water Usage

Under the requirements of the WLC Specific Plan, the project will employ water reduction and conservation principles, which will include advanced irrigation systems, drought-tolerant plants, the use of mulch, recycled and other permissible alternative sources of water, and turfless plantings with alternative landscaping materials such as rock and other materials that do not require potable water sources. The final design will be used to calculate the site's water demand. The annual maximum allowable water budget (AMAWB) will be compared to the estimated annual water use (EAWU) to ensure that the design meets EMWD guidelines.

3.4.7.4 Storm Water Quality

Through implementation of the design standards in the WLC Specific Plan, the project will incorporate storm water quality measures including infiltration basins, bioretention facilities, and extended detention basins to reduce pollutants in storm water (Specific Plan Section 5.1.8.5). Future development projects will be required to implement a Water Quality Management Plan (WQMP) in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit Board Order R8-2010-0033. The current approved Riverside County WQMP for Urban Runoff addresses the Municipal Separate Storm Sewer Systems (MS4) NPDES permit. The most recent WQMP for the Santa Ana Region of Riverside County addresses the latest MS4 NPDES permit requirements. Projects identified as a "Priority Development Project" will be required to prepare a project-specific WQMP. The MS4 Permit mandates a Low Impact Development (LID) approach to storm water treatment and management of runoff discharges. Site-specific projects will be designed to minimize imperviousness, detain runoff, and infiltrate, reuse, or evapotranspirate runoff where feasible. LID design will be used to infiltrate, evapotranspirate, harvest and use, or treat runoff from impervious surfaces, in accordance with the *Design Handbook for Low Impact Development Practices*.

The WLC project should also ensure that runoff does not create any hydrologic conditions of concern. The Regional Water Quality Control Board (RWQCB) continuously updates impairments as studies are completed. The most current version of impairment data should be reviewed prior to preparation of the Preliminary and Final Project-Specific WQMP (WLC Specific Plan Section 5.1.8, *Water Quality Site Design*).

The WLC Specific Plan contains extensive site design, source control, and treatment control Best Management Practices (BMPs) that will be analyzed in detail in Section 4.9, *Hydrology and Water Quality* of this EIR.

3.4.8 Architectural Design Guidelines

Sections 4.1 and 5.3 of the WLC Specific Plan contain the architectural and building design standards that will be applicable to all future off-site conditions and specific on-site development proposals. The design standards provide for attractive, functional, compatible contemporary designs, which can also minimize energy consumption and the production of greenhouse gases, helping to reduce the project's contribution to global climate change. These Specific Plan sections include typical building elevations, cross-sections, and photographic renderings that illustrate how future development will appear. The architectural guidelines also address project details such as building setbacks, walls, fences, building materials, and colors.

Section 2.0 of the WLC Specific Plan establishes building height limitations throughout the project, as shown in previously referenced Figure 3.9. Building heights are limited to 60 feet for buildings located along the north, west, and southern boundaries of the project and 80 feet along Gilman Springs Road and in the interior. The WLC Specific Plan contains a provision that portions of buildings could be raised an additional 10 percent to accommodate interior facilities (i.e., elevator shafts) and architectural design elements, which may be approved through the administrative variance process.

3.4.9 Landscaping Design Guidelines

Sections 2.5, 4.2, and 5.4 of the WLC Specific Plan provide landscaping guidelines for the project. The intent of these guidelines is to develop a landscape program that reduces the use of mechanical irrigation systems, maximizing the collection and use of rainfall to irrigate carefully designed landscape areas. The Specific Plan includes a plant palette specifically designed for the project site to consume significantly less water than conventional landscaping concepts. The Specific Plan contains an extensive palette of drought-tolerant plants.

The WLC Specific Plan calls for a more substantial landscape treatment to be installed along the perimeter of the site. These special edge treatment areas will be along the western boundary of the project site, north along SR-60, east along Gilman Springs Road, and along the southern boundary of the project adjacent to the SJWA. These areas have been designed to provide an aesthetic buffer and soften views between the surrounding land uses and the planned warehouse buildings and truck activity areas. Further description of the special edge treatment areas can be found in the Section 2.5 of the WLCSP and DEIR Section 4.1.6 and in DEIR Figure 4.1.6A. For areas not along the perimeter, landscaped areas would be grouped by water needs. Irrigation systems would be designed to irrigate at no more than 70 percent[2] of the plant groups' reference evapotranspiration rate (minimum required water for the plant groups' survival), and would be designed to minimize water runoff onto sidewalks or streets. The project will direct runoff to landscaped areas and employ techniques to promote percolation and water capture at the root zone, reducing the need for mechanical irrigation.

Section 5.4.2 of the WLCSP requires future development to consider the following water conservation measures: macro and micro climates, solar exposure, prevailing wind conditions; site analysis of, seasonal temperature patterns, soils and drainage, grades, and slopes; use of historical evapotranspiration rates and weather station (CIMIS) data; use of planting zones coordinated according to plant type, climatic exposure, soil condition and slope to facilitate use of zoned irrigation systems; use of low water or drought-tolerant plant species in landscape areas served by potable water; audit of water use and certification by a licensed landscape architect that the irrigation system was installed and operates as designed; use of reclaimed water systems if available and practical, use of best available irrigation technology to maximize efficient use of water, including moisture sensors, multi-program electronic timers, rain shutoff devices, remote control valves, drip systems, backflow preventers, pressure reducing valves and matched output sprinkler heads; use of gate valves to isolate and shut down mainline breaks; design to meet peak moisture demand of all plant materials within design zones, while avoiding flow rates that exceed infiltration rate of soil; design to prevent overspray or discharge onto roadways, non-landscaped areas or adjacent properties; and timing of irrigation cycles to operate at night when wind, evaporation, and human activities are at a minimum.

3.4.10 Lighting Design Guidelines

Section 5.5 of the WLC Specific Plan contains guidelines for site lighting within the Specific Plan area. The regulations prohibit direct light spillage onto adjacent properties, especially the San Jacinto Wildlife Area to the south (Specific Plan Sections 4.3 and 5.5), while providing sufficient light for nighttime activities and project security. The project will incorporate the design standards adopted by Ordinance 851 which established stricter controls on outdoor lighting.

3.4.11 Off-site Improvements

Development within the WLC Specific Plan area will require various infrastructure improvements, some of them located off site. Local roadways and intersections affected by project traffic will be improved as outlined in the project Traffic Impact Analysis (TIA). Electrical service will be extended from the Moreno Beach substation to the project. Electric power lines along Gilman Springs Road will be relocated when that road is widened. Providing potable water to the site will require the construction of three new reservoirs, one north of SR-60 off of Theodore Street, one east of Gilman Springs Road near the northeast corner of the site one in the northwestern portion of the project (see Figure 3.13). The Cactus extension will extend east through a portion of the Open Space area, then turn north to intersect with Alessandro Boulevard (see Figure 3.10), and a four-inch gas line will be constructed within this street extension (see Figure 3.10). A 21-inch sewer line will be extended to the west from the southwest corner of the site (see Figure 3.14) from Cactus Avenue. The existing County drainage channel near the southwest corner of the site will be improved to handle increased flows from project runoff. At such time as traffic demand dictates, the Theodore Street interchange on

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[2] Per the California Code of Regulations, Title 23 Waters Division, Department of Water Resources, Ch. 2.7 Model Water Efficient Landscape Ordinance, the County of Riverside Water Efficient Landscape Requirements Ordinance No. 859, and the Eastern Municipal Water District (EMWD) 2010 Urban Water Management Plan, or current Urban Water Management Plan.

SR-60 will be reconstructed to accommodate project traffic. All of the off-site improvements needed to support development of the Specific Plan are shown in previously referenced Figure 3.7. This EIR examines the impacts of these off-site improvements on approximately 104 acres of off-site land that they affect.

NOTE: The analysis of environmental impacts from the project, including biological resources, cultural resources, geotechnical constraints, air quality, greenhouse gases, noise, etc., also address development of these offsite improvement areas as well as development of the WLCSP property.

3.4.12 Grading and Excavation

Approximately 42 million cubic yards (cy) of cut and fill will be required to rough/mass grade the entire WLC project site, including remedial grading and overexcavation. Earthwork will balance on site within the Specific Plan, eliminating the need to import or export dirt for the project. See Figure 3.18 for the conceptual grading plan.

3.4.13 Phasing

Development of the ~~Specific Plan~~WLC project is planned over a period of fifteen years, from ~~2015~~2020 through ~~2030.~~ 2035.

Under this projected development schedule, the project will absorb an average of approximately 2.7 million square feet of new development each year from ~~2015~~2020 to ~~2030~~2035, with actual development phasing and square footage buildout based on future market conditions. Section 8.0 of the Specific Plan, *Project Phasing*, suggests that development will likely occur in two large phases, starting in the western portion of the site south of Eucalyptus Avenue This phasing concept is based on beginning construction where infrastructure presently exists and expanding southerly and easterly. It is anticipated that Phase 1 would be completed by ~~2022~~2025 and would contain approximately 50% of development or approximately 20,300,000 square feet of logistics warehouse uses. Phase 2 anticipates full development build-out by ~~2030~~2035. Figure 3.19 shows the proposed phasing plan.

As stated in the Specific Plan, project phasing predictions are conceptual. The actual amount and timing of development will be dependent upon numerous factors, many of which are outside the control of the City or the developer, including interest by building users, private developers and local, regional, and national economic conditions. These and other factors acting together will ultimately determine the location and rate at which development within the project area occurs.

~~City adoption of the project will establish the~~The framework for development of the area will be in accordance with the Specific Plan, which identifies the type and intensity of land uses permitted within the project. It is anticipated that development of the project would occur over time, as the result of the construction of multiple separate independent projects of varying sizes and configurations. Each of these future projects would be required to be consistent with the General Plan and zoning and would comply with all applicable regulations of the Specific Plan. Table 3.E provides an estimate of the rate at which the project area could be built out, consistent with the Specific Plan, and estimated levels of construction projected to occur during each phase of development. Table 3.E also includes the approximate amount of equipment anticipated to be used during construction of the project.

NOTE: The analysis of environmental impacts from the WLC project, including biological resources, cultural resources, geotechnical constraints, air quality, greenhouse gases, noise, etc., addressed development of these offsite improvement areas as well as development of the WLCSP property.

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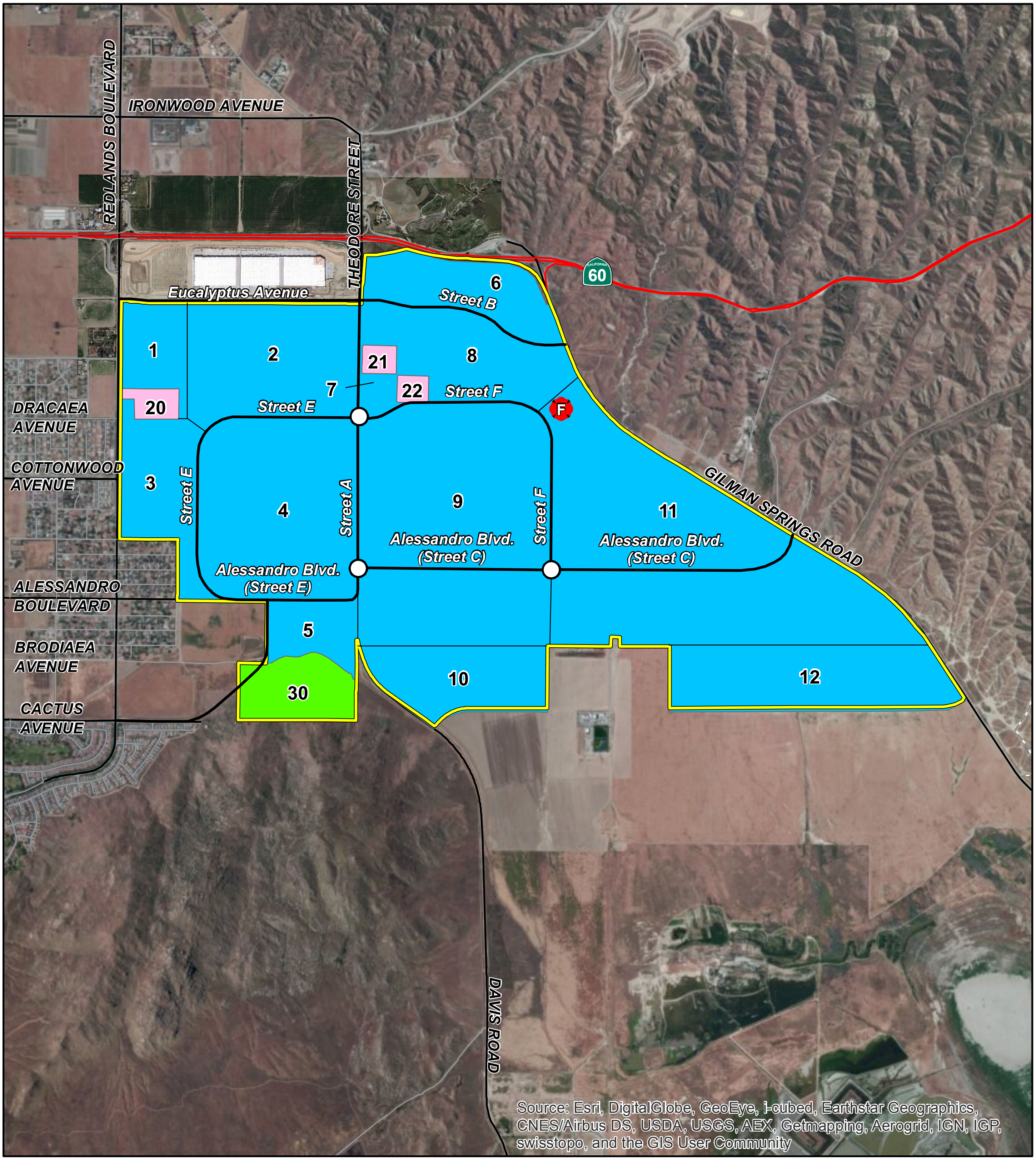

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FIGURE 3.8

☐ Project Boundary

🟪 Light Logistics

🟦 Logistics Development

🟩 Open Space

● Fire Station Site

1 Planning Area Number

N

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World Logistics Center Specific Plan Project
Environmental Impact Report

Specific Plan Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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Figure 3~~.18: Conceptual Grading~~-1 Adopted World Logistics Center Specific Plan

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~~**Figure 3.19: Phasing Plan**~~

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Table 3.E: Estimated Construction Equipment and Phasing (~~2015–2030) revised per new phasing plan~~2020–2035)

Activity/Equipment	#	Duration (months)	Phase 1–		Phase 2–	
			Start	End	Start	End
Mass Grading/Excavation						
Dozers (D8R, D9, D10)	4-21	96	The equipment will be used from January 1 to December 31 during the following years: ~~2015, 2017, 2019~~2020, 2022, 2024, and ~~2021~~2026		For the years ~~2022~~2027 to ~~2024~~2029 equipment will be used from October 1 to March 31 of the following year. For the years ~~2027, 2028~~2032, 2033, and ~~2030~~2035 equipment will be used from January 1 to June 30.	
Scraper (651E)	6-30					
Compactor (824C, 834)	2-6					
Motor Grader (140G)	1-3					
Service/Support Truck	7-27					
Other Dozers (D6M, 550)	2-9					
Other[1]	8-18					
Finish Grading						
Dozer (D6M, 550)	3-9	32	Equipment will be used two months out of the following years ~~2015, 2017, 2019~~2020, 2022, 2024, and ~~2021~~2026		Equipment will be used two months out of the following years ~~2022, 2023, 2024, 2025,~~ 2027, 2028, 2029, 2030, 2032, 2023, and ~~2030~~2035	
Backhoe (420D)	1-3					
Water Truck	1-3					
Service/Support Truck	1-3					
Building						
Backhoe (590)	6	186	July 1, ~~2015~~2020	December 31, ~~2021~~2026	January 1, ~~2022~~2027	December 31, ~~2030~~2035
Concrete Truck	36					
Excavators (9060, 270, 240, mini)	16					
Material Delivery Trucks	11					
Forklift (420 and 544D)	10					
Case and Skip Loaders[2]	28					
Service/Support Truck	24					
Other[3]	12					
Utilities						
Excavators[4]	26-30	186	July 1, ~~2015~~2020	December 31, ~~2021~~2026	January 1, ~~2022~~2027	December 31, ~~2030~~2035
Loaders	8					
Water Truck	17					
Backhoe (420)	2					
Service/Support Trucks	18					
Delivery Trucks	10					
Concrete Trucks	8					
Other[5]	4-8					
Interchange						
Dozer (D9, D10)	1	18	January 1, ~~2020~~2025	September 30, ~~2021~~2026	--	--
PW Scraper (623)	1					

Table 3.E: Estimated Construction Equipment and Phasing (~~2015–2030) revised per new phasing plan~~2020–2035)

Activity/Equipment	#	Duration (months)	Phase 1– Start	Phase 1– End	Phase 2– Start	Phase 2– End
Excavator (324)	1					
Backhoe (430)	1					
Crane	1					
Concrete Truck	4					
Service/Support Truck	4					
Drill Rig	1					
Dump Truck	5					
RT Wheel Loader (950)	1					
Concrete Screed Mach.	1					
Skip Loader (414)	1					
Dozer (D5, D6)	1					
Motor Grader (14M)	1					
Curbing						
Curb Machine/Screed	2	62	July 1, ~~2015~~2020[3]	December 31, ~~2021~~2026	January 1, ~~2022~~2027	December 31, ~~2030~~2035
Skip Loader (210)	1					
Concrete Truck	6					
Service/Support Truck	4					
Paving						
Roller/Paving/ Blade/Scraper	10	32	January 1, ~~2015~~2020[4]	December 31, ~~2021~~2026	January 1, ~~2022~~2027	December 31, ~~2030~~2035
Skip Loader	4					
Bottom Dump Truck	4					
Delivery Truck	7					
Service/Support Truck	6					
Landscaping						
Loader (310G, 210LE, 544J)	6	186	January 1, ~~2015~~2020	December 31, ~~2021~~2026	January 1, ~~2022~~2027	December 31, ~~2030~~2035
Water Truck	2					
Excavator (mini) /Lift (544D)/ Steer (S190R)	6					
Trencher (RT-45)	2					
Service/Support Truck	14					

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[3] Two months a year

[4] Four weeks a year

Table 3.E: Estimated Construction Equipment and Phasing (~~2015–2030) revised per new phasing plan~~2020–2035)

Activity/Equipment	#	Duration (months)	Phase 1–		Phase 2–	
			Start	End	Start	End

Source: Highland Fairview

1. Includes: Water Puller, 420D Backhoe, water trucks, support trucks
2. Includes: 414, 721, cat skip loader, 310G, 210LE, 544J
3. Includes: boom pump/truck, water truck, trencher, skid steer, water truck
4. Includes: 65,000 lbs to 175,000 lbs, 250G, and cat mini
5. Includes: dump truck, crane, fork lift ~~, February 2014~~

~~1. Includes: Water Puller, 420D Backhoe, water trucks, support trucks~~

~~2.~~1. ~~Includes: 414, 721, cat skip loader, 310G, 210LE, 544J~~

~~3.~~1. ~~Includes: boom pump/truck, water truck, trencher, skid steer, water truck~~

~~4.~~1. ~~Includes: 65,000 lbs to 175,000 lbs, 250G, and cat mini~~

~~5. Includes: dump truck, crane, fork lift~~

3.4.14 Construction Hours

Similar to the Highland Fairview Corporate Park, construction of warehousing buildings within the WLC Specific Plan area will occur on a 24 hour-a-day, 7 day-a-week basis. This is necessitated by the extensive use of poured concrete in the construction of building sites and the logistics buildings themselves. Major concrete pours are most efficiently and economically done in the cooler night and early morning hours. Additionally, the large number of concrete delivery trucks necessary for this construction has a minimal traffic impact in the nighttime hours.

The City's Municipal Code contains the following language regarding construction hours:

> ***Section 8.14.040*** *Hours of Construction. Any construction within the city shall only be as follows: Monday through Friday (except for holidays which occur on weekdays), six a.m. to eight p.m.; weekends and holidays (as observed by the city and described in Chapter 2.55 of this code), seven a.m. to eight p.m., unless written approval is obtained from the city building official or city engineer.*

> ***Section 8.21.050*** *Time of Grading Operations. Grading and equipment operations shall only be completed between the hours of seven a.m. and six p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on weekends and holidays. The city engineer may, however, permit grading or equipment operations before or after the allowable hours of operation if he or she determines that such operations are not detrimental to the health, safety, or welfare of residents or the general public. Permitted hours of operations may be shortened by the city engineer's finding of a previously unforeseen effect on the health, safety, or welfare of the surrounding community.*

If necessary, future developers within the WLCSP area can apply to the City for extended hours of operation under the Municipal Code guidelines, as outlined in Condition of Approval #7 for the Highland Fairview Corporate Center (Skechers):

> *Construction and Demolition. No person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city engineer or designee.*

3.4.15 Specific Plan Implementation

Although financial and economic parameters of a project are not typically included in an EIR, the size and complexity of the WLC Specific Plan project dictate that a certain amount of this information be included in the EIR to demonstrate that the project is feasible and that the City will not incur undue risk relative to the installation of public infrastructure and other facilities and services (Specific Plan Section 11.0).

Funding for the transportation, infrastructure, and other improvements identified in the WLC Specific Plan would be provided by a variety of sources. For example, Highland Fairview would construct certain backbone roads at the outset of project development; future development would install road connections and on-site improvements. ~~All projects would contribute to the City's Development Impact Fee (DIF) program to help fund future roadway improvements in the immediate surrounding City area.~~ In addition, future development would contribute to the County's Transportation Uniform Mitigation Fee (TUMF) program to fund identified regional improvements such as the SR-60 ramps at Redlands Boulevard. The Specific Plan contains a discussion of potential financing measures and mechanisms the City would need to enact, adopt, or participate in for the proposed infrastructure improvements.

One of the available regional infrastructure funding mechanisms is the TUMF managed by the Western Riverside Council of Governments (WRCOG). The primary purpose of the TUMF program is to fund regional transportation improvements. The TUMF program has become a key way to ensure that growth does not create gridlock on regional and local thoroughfares. Under the TUMF program, Western Riverside County is divided into five zones, with the Specific Plan located in the "Central" zone. The TUMF is structured so that 48.7 percent of funds generated in each zone go back to that zone to be programmed for projects. Another 48.7 percent is allocated to regional inter-zone projects programmed by the Riverside County Transportation Commission (RCTC), and 2.6 percent is allocated for regional transit projects programmed by the RTA. TUMF-eligible roadways within the proposed project include Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and freeway interchanges at Gilman Springs Road and Redlands Boulevard.

The City of Moreno Valley has implemented a Capital Improvement Program (CIP) that is closely linked to the City DIF program. According to the 2011–2012 CIP, the City has experienced a reduction in DIF as well as other development-related funding sources. The current CIP reflects the new projects that have been funded. DIF funding is collected for "Arterial Streets," "Interchange

Improvements," and "Traffic Signals." The CIP describes approximately $1.66 billion in capital projects through build out of the City.

There are several identified CIP projects within the project area including traffic signals along Alessandro Boulevard at Redlands Boulevard, Sinclair Street, Theodore Street, Virginia Street, and Gilman Springs Road; Eucalyptus Avenue at Redlands Boulevard, Sinclair Street, Theodore Street, Virginia Street, and Gilman Springs Road; SR-60 eastbound ramps at Theodore Street, and westbound ramps at Theodore Street and Redlands Boulevard. Future street improvements within the project area include SR-60 interchanges at Redlands Boulevard and/or World Logistics Center Parkway~~Theodore Street~~, and Gilman Springs Road; although these are included in the City CIP program, the funding sources are TUMF and private developer contributions. Other future CIP identified street improvements include Alessandro Boulevard through the project area, Eucalyptus Avenue, Gilman Springs Road (within the city limits), World Logistics Center Parkway~~Theodore Street~~, and Virginia Street. Updates to the CIP program may include future streets within the WLC project.

~~3.5 GENERAL PLAN AMENDMENT~~

~~Approval of the project includes amendments to the following General Plan text and Elements to incorporate the many aspects of the WLC Specific Plan (also see Figures 3.20a-j):~~

1. ~~**Community Development Element**~~
    - ~~a. Revise Land Use Map (Figure 2-2) to include WLCSP land plan~~
    - ~~b. Revise Section 2.1.3~~

    ~~… intersection of Virginia Street and Gato del Sol. The acquisitions encompasses about one third of the land within the Moreno Highlands Specific Plan.~~

    ~~Neither of the aforementioned land purchases are likely to be developed as envisioned in the original specific plan, and are likely to remain substantially vacant. In that the Moreno Highlands Specific Plan Development Agreement precludes the City from making unilateral changes to the specific plan land use plan, no changes were recommended for the Moreno Highland Specific Plan as part of the General Plan Update.~~

2. ~~**Parks, Recreation and Open Space Element**~~
    - ~~a. Revise Open Space Map (Figure 4-1) (page 4-2) to include WLCSP.~~
    - ~~a. Revise Future Parkland Acquisition Areas map (Figure 4-2) (page 4-6).~~
    - ~~b. Revise Master Plan of Trails (Figure 4-3) (page 4-13) to include WLCSP.~~

3. ~~**Circulation Element**~~
    - ~~a. Revise discussion on Industrial Development (Section 5.3.2.2).~~

    ~~Industrial and business park development is concentrated in the southern part of the City, located south of Iris Avenue and north of San Michele Road to the Perris city limits, and in the eastern part of the City, generally between Redlands Boulevard and Gilman Springs Road. This development … (page 5-7)~~

~~Figure 3.20a General Plan Amendment Exhibits~~

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~~Figure 3.20b General Plan Amendment Exhibits~~

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~~Figure 3.20c General Plan Amendment Exhibits~~

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~~Figure 3.20d General Plan Amendment Exhibits~~

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~~Figure 3.20e General Plan Amendment Exhibits~~

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~~Figure 3.20f General Plan Amendment Exhibits~~

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~~Technical Data for Noise Contour Map (page 1 of 7)~~

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~~Technical Data for Noise Contour Map (page 2 of 7)~~

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~~Technical Data for Noise Contour Map (page 3 of 7)~~

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~~Technical Data for Noise Contour Map (page 6 of 7)~~

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~~Technical Data for Noise Contour Map (page 7 of 7)~~

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~~Figure 3.20g General Plan Amendment Exhibits~~

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~~Figure 3.20h General Plan Amendment Exhibits~~

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~~Figure 3.20i General Plan Amendment Exhibits~~

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~~Figure 3.20j General Plan Amendment Exhibits~~

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~~**4. Safety Element (revise the following to incorporate WLCSP)**~~

   ~~a. Revise Fire Stations map (Figure 6-1) (page 6-8) consistent with WLCSP.~~

   ~~a. Revise Build-Out Noise Contours map (Figure 6-2) to match WLCSP contours.~~

~~**5. Conservation Element**~~

   ~~a. Revise Major Scenic Resources map (Figure 7-2)(page 7-13) to incorporate WLCSP.~~

~~**6. Goals and Objectives**~~

   ~~a. Revise Circulation Plan (Figure 9-1) (page 9-26) to incorporate WLCSP circulation plan.~~

   ~~a. Revise LOS Standards map (Figure 9-2) (page 9-28) consistent with WLCSP.~~

   ~~b. Revise Bikeway Plan map (Figure 9-4) (page 9-29) consistent with WLCSP bikeway plan.~~

3.6 PROJECT OBJECTIVES

The purpose of the ~~proposed~~ WLC project is to provide a new master-planned facility specializing in logistics warehouse distribution services. Section 1.3.1, *Development Goals*, of the WLC Specific Plan outlines the following overall objectives for the proposed WLC Specific Plan:

***NOTE:** The indicated minor wording change was made so the objectives would more accurate regarding service to the port which will only represent a small fraction of project trips (see Section 4.15, Transportation).*

- Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.
- Create a major logistics center with good regional and freeway access.
- Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.
- Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.
- Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.
- Create a project that will provide a balanced approach to the City's responsibilities of fiscal viability, economic expansion, and environmental integrity.
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.
- Encourage new development consistent with regional and municipal service capabilities.
- Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities during the project's build-out phase.
- Provide appropriate transitions or setbacks between on-site and off-site uses.

3.6.1 City's Economic Development Action Plan Objectives

In 2011, the City adopted an Economic Development Action Plan (EDAP) that outlined the following general objectives:

Objectives for Economic Development

- Create jobs locally and address City's high unemployment rate
- Address the Community's jobs to housing imbalance
- Strengthen and broaden the local economic foundation by attracting quality businesses
- Enhance City revenue generation from sources such as sales tax, property tax, transient occupancy tax, and utility tax – all aimed at improving quality of life in Moreno Valley

Eastern Moreno Valley–Rancho Belago

- Prime area of Community with large undeveloped areas.
- Skechers USA opening has generated interest by other prospective corporate users.
- Nearly 20-year old Moreno Highlands Specific Plan to expire in 2012
- Highest and Best land uses should be evaluated to address City's jobs to housing imbalance

Survey of Inland Region Industrial/Business Park Zoning

- Ontario 25.3%
- Perris 21.7%
- San Bernardino 18.0%
- Chino 17.1%
- Fontana 17.0%
- Rancho Cucamonga 15.3%
- Riverside 15.2%
- Corona 11.4%
- Moreno Valley 9.0%

In 2013, the EDAP was replaced and included the following specific objectives related to the World Logistics Center:

World Logistics Center at Rancho Belago

- Collaborate with Highland Fairview in the development of the World Logistics Center—a 41.6 million S.F. master planned corporate park proposed to be developed on 2,700 acres in the Rancho Belago area of eastern Moreno Valley.
- Process an Environmental Impact Report and preliminary development plans for the World Logistics Center in eastern Moreno Valley—south of SR 60 and east of Redlands Boulevard to Gilman Springs Road.
- Assist in the drafting of a Specific Plan that will guide the orderly development for of World Logistics Center.
- Cooperate with Highland Fairview in the formulation of a Development Agreement to create a public-private partnership to help facilitate the development of new public infrastructure in eastern

Moreno Valley associated with the World Logistics Center including roads, trails, utilities, storm water protection and fire protection facilities.

- Work with Highland Fairview in branding the World Logistics Center as one of the largest e-commerce focused development projects in the U.S.

3.7 REQUIRED DISCRETIONARY ACTIONS AND PERMITS

3.7.1 City of Moreno Valley – Current Approvals

This Program EIR is intended to inform the City of Moreno Valley decision-makers and the general public of the environmental consequences of the ~~proposed~~ WLC project. Entitlements being analyzed in this EIR include a ~~General Plan Amendment, adoption of a Specific Plan, a Zone Change, a Development Agreement, a~~ Tentative Parcel Map, and annexation of an 85-acre parcel along Gilman Springs Road. The City of Moreno Valley is the Lead Agency for the proposed project, but discretionary actions may also be required by other agencies (see Section 3.6.3).

The following discretionary actions are anticipated to be taken by the City of Moreno Valley as part of the proposed project:

3.7.1.1 Environmental Impact Report

Before taking action on the WLC project, the City must certify that the EIR prepared for the project is adequate and represents the independent judgment of the City as the Lead Agency under CEQA.

~~3.7.1.2 General Plan Amendment~~

~~The General Plan Amendment proposes a revision to the City General Plan land use designations for 3,714 acres to Business Park/Light Industrial (BP). The General Plan Amendment also includes amendments to several other elements, including the Community Development Element, the Parks, Recreation and Open Space Element, the Circulation Element, the Environmental Safety Element, and the Conservation Element to make them consistent with the proposed project (see previous Section 3.5, *General Plan Amendment*).~~

~~3.7.1.3 WLC Specific Plan~~

~~The proposed project includes a Specific Plan to implement the amended General Plan and to set forth comprehensive land use regulations governing the development of the proposed project. The World Logistics Center Specific Plan is a master plan for a 2,610-acre site for the development of up to 40.6 million square feet of modern high-cube logistics and related warehouse distribution facilities defined as Logistics Development and Light Logistics. The Specific Plan establishes the master plan of development for the project area, including development standards and use regulations, a master plan for circulation, infrastructure, architectural, landscape and design guidelines and sustainability goals, all of which will be applicable to all development within the area covered by the Specific Plan.~~

~~3.7.1.4 Change of Zone~~

~~The Change of Zone will establish the World Logistics Center Specific Plan, which will replace most of the Moreno Highlands Specific Plan and rezone several other contiguous properties. The new Specific Plan will become the regulatory land use document for the entire 2,610-acre Specific Plan area. The 910-acre CDFW property and the 174-acre SDG&E property will not be included in the~~

~~Specific Plan but will be rezoned to Open Space to reflect the long-range plans for the properties. The 20 acres of land owned by SDG&E and SCGC that are used for natural gas facilities will be zoned for Public Utility use. The WLC property would then have two land use zones, Logistics Development (LD) and Light Logistics (LL).~~

~~3.7.1.5 Development Agreement~~

~~The project includes a Development Agreement between the project applicant, Highland Fairview, and the City of Moreno Valley in order to provide certainty for the future development of the project for those parcels owned by Highland Fairview (see Final EIR Appendix H for updated text).~~

3.7.1.6 Tentative Parcel Map

A Tentative Parcel Map (for financing purposes only) proposes the subdivision of a portion of the WLC project site into large parcels. This map is for financing purposes only and does not create any development rights for the subdivided properties. Subsequent subdivision applications will be required prior to the development of any buildings on the site.

3.7.1.7 Annexation

The WLC project includes the completion of the annexation process for an 85-acre parcel located on the north side of Alessandro Boulevard at Gilman Springs Road which have a General Pklan designation of Business Park/Light Logistics and which are subject to the World Logistic Center Specific Plan. The County has already taken the first step to make this parcel part of the City by including it in the City's Sphere of Influence in 1985. The City has already requested that the Local Agency Formation Commission complete the annexation process~~proposed project includes pre-annexation General Plan land use designations and zoning for this parcel~~. This EIR will be the environmental documentation used by the Local Agency Formation Commission to complete the annexation process. ~~This project proposes to incorporate this property into the World Logistics Center Specific Plan.~~

3.7.2 City of Moreno Valley – Future Approvals

While building sizes, configurations and designs will vary, it is anticipated that between 15 and 30 logistics buildings will be developed within the WLC project. Each building may enclose from one to two million square feet and have multiple tenants. Each building will be subject to a discretionary Plot Plan process described in Section 11 of ~~this~~ the Specific Plan~~.~~"

Upon submittal of any site-specific development proposal within or related to the WLC Specific Plan project, the City must determine whether the environmental effects of the proposal are within the levels of environmental effects analyzed in this programmatic EIR. In order to make this determination, the City may require the completion of an initial study (*CEQA Guidelines*, Appendix G Checklist). For each development proposal, the City will make one of the following determinations, as set forth under CEQA:

3.7.2.1 Categorical Exemptions (CE)

The City would adopt a categorical exemption under the following circumstances.

1) An assessment of the proposed action relative to the certified Program EIR determined there was no possibility of a significant environmental impact and the proposed action (utility improvements within rights-of-way, etc.) had already been evaluated in the EIR.

3.7.2.2 Negative Declaration (ND)

The City would adopt a negative declaration under the following circumstances.

2) If the initial study leads to the conclusion that the proposed project would have no significant environmental effects; or
3) If the initial study leads to the conclusion that the project may have potentially significant environmental effects, but all such effects are within levels that were fully reviewed, disclosed, and/or mitigated within this programmatic EIR.

Upon making a negative declaration, no further environmental analysis would be required.

3.7.2.3 Mitigated Negative Declaration (MND)

The City would adopt a mitigated negative declaration if the initial study leads to all of the following conclusions:

1) The proposed project could have a significant environmental effect; and
2) This potentially significant environmental effect may exceed levels that were fully reviewed, disclosed and/or mitigated within this programmatic EIR; and
3) The City, through a review of any associated studies that may accompany the completion of the initial study, concludes that these potentially significant effects can be fully mitigated with mitigation measures in addition to those identified in this programmatic EIR.

Upon making a mitigated negative declaration, no further environmental analysis would be required.

3.7.2.4 Supplemental EIR

A Supplemental EIR would be needed if the City concluded that the proposed project could have significant environmental effects exceeding the levels that were fully reviewed, disclosed, and/or mitigated within this program EIR and that further study is needed to determine if any feasible mitigation measures may be reasonable or prudent to address these environmental effects. Any Supplemental EIR(s) would only cover the environmental topic areas in which potentially significant impacts were identified in the initial study.

The initial study process outlined above will also help the City in determining if any proposed project within the project area qualifies for a partial or full exemption from any further environmental analysis. Specifically, some proposed projects may qualify for a statutory or categorical exemption, as outlined in Articles 18 and 19 of the *CEQA Guidelines*. Other provisions of California law limit the extent of further environmental review required in the case where a city has adopted a specific plan and certified an associated EIR, as would be the case for this project. Notwithstanding, the law also provides that in the event of changed circumstances in the project area or the identification of impacts not previously considered or analyzed, subsequent environmental review (such as a mitigated negative declaration or supplemental EIR) may be required.

3.7.2.5 Subsequent EIR

CEQA Section 15162 requires a Subsequent EIR “If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration or EIR, the Lead Agency shall prepare a subsequent EIR if required under subsection (a). Otherwise, the Lead Agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.” Any changes to the Specific Plan will be subject to the criteria listed below. As required by Section 15162(a), a proposed change in a project will require preparation of a subsequent EIR if:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or a negative declaration due to an involvement of new significant environmental effects, or a substantial increase in the severity of previously identified significant effects; or
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects, or a substantial increase in the severity of the previously identified significant effects; or
3. New information of substantial importance, which was not known and could have not been known with the exercise of reasonable diligence at the time the previous EIR was certified, shows:
    a. The project will have one or more significant effects not discussed in the previous EIR;
    b. The significant effects previously examined will be substantially more severe than identified in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives; or
    d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

If none of the above conditions is met, the preparation of a subsequent EIR is not required.

3.7.2.6 Addendum to WLC EIR

An Addendum to a previously approved EIR may be required if there are minor changes or additions to the previously analyzed project. An Addendum is used:

- To evaluate whether or not there are any new or more severe significant environmental effects associated with the proposed project;
- To review whether there is new information or circumstances that would require preparation of additional environmental documentation in the form of a subsequent or supplemental EIR, or if an Addendum is appropriate; and
- To evaluate the proposed project's potential environmental impacts in the context of the questions posed in CEQA Section 15162(a).

3.7.3 Actions by Others

Although the City of Moreno Valley is the Lead Agency for the proposed project, a number of other Federal, State, or special purpose agencies may consult this EIR for their own decision-making and actions now or in the future. The following is a list of anticipated discretionary or non-discretionary actions by other agencies; however, it is not exhaustive and may include other agencies and processes in the future as appropriate:

- ***County of Riverside***
    - Local Agency Formation Commission (LAFCO): Annexation of 85-acre parcel.
    - Flood Control and Water Conservation District: Amend Storm Drain Master Plan.

- ***Other Affected Agencies***
  - Western Riverside Council of Governments: TUMF Contributions.
  - Eastern Municipal Water District: Water Service Agreements.
  - Developer will make "fair share" contributions to established development impact fee programs in the cities of Riverside, Perris, and Redlands for local road and intersection improvements identified in the programmatic Traffic Impact Assessment (TIA) included with the EIR (Final EIR Volume 2 Appendix L-1). This item is subject to review and approval by the City Transportation Division.

- ***State of California***
  - Regional Water Quality Control Board: Water Quality Permitting.
  - Department of Transportation (Caltrans): Encroachment Permits for SR-60 and adopt fair share contribution programs for future development within the WLCSP to contribute funds for local road and intersection improvements identified in the programmatic Traffic Impact Assessment (TIA) included with the EIR (Final EIR Volume 2 Appendix L-1).
  - California Department of Fish and Wildlife: Streambed Alteration Agreements.

- ***Federal Agencies***
  - U.S. Army Corps of Engineers: Clean Water Act Permitting.

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~~***NOTE TO READERS:*** *This section contains no major revisions based on changes to the WLC Project, revised technical studies, or in response to comments on the Programmatic Draft EIR.*~~

NOTE TO READERS: This portion of the Revised Sections of the FEIR replaces Sections 4.2, 4.3, 4.4, 4.7, and 4.15. of the FEIR. A new Section 4.17 has been added. The cumulative portions of Chapter 4.0 have been deleted from the FEIR to allow for their reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Chapter 6.0 of this Revised Sections of the FEIR.

The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 4.0 that have been revised. Revisions to, and deletions from, the FEIR have been identified in a separate document, available for review at the City of Moreno Valley. The absence of any reference to a portion of Section 4.0 means that the corresponding portion of Section 4.0 in the FEIR remains unchanged or has been deleted.

4.0 ENVIRONMENTAL IMPACT EVALUATION

~~As stated previously, there~~There are ~~16~~17 environmental issue areas that are analyzed in this ~~EIR with respect to~~Revised Sections of the ~~proposed project. These issues are~~FEIR. Issue areas highlighted in bold remain valid in the FEIR and no additional analysis is included herein:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Geology and Soils
4.7 Greenhouse Gas Emissions, Energy Conservation, and Global Climate Change
4.8 Hazards and Hazardous Materials
4.9 Hydrology and Water Quality
4.10 Land Use and Planning
4.11 Mineral Resources
4.12 Noise
4.13 Population, Housing, and Employment
4.14 Public Services
4.15 Transportation and Traffic
4.16 Utilities and Service Systems
4.17 Energy (New)
~~**4.16 Utilities and Service Systems**~~

~~Within each subsection described in Section 4.0, the following information is presented relative to each environmental issue described:~~
Those portions of the FEIR that have been found to be deficient by the Superior Court have been updated. In addition, because of the inclusion of additional past, present and reasonably foreseeable projects and the issuance of a new Trip Generation Manual, the Traffic and Circulation section has been updated. That section also serves as the basis for analyzing the World Logistic Center's air quality, greenhouse gas and traffic noise impacts so the sections for each of them have also been updated. The analysis of all other issues were not included because there were no substantive updates. The following information is presented relative to each environmental issue that was updated:

- Description of the existing setting as it relates to the specific environmental issue;
- A summary of policies and regulations relevant to the specific environmental issue;
- Identification of the thresholds of significance;

- Evaluation of project-specific impacts and a determination of significance based on identified threshold levels;
- Description of design features of the Specific Plan that will help reduce potential impacts;
- Identification of mitigation measures;
- A determination of the level of significance after mitigation measures are implemented~~; and~~
- ~~Cumulative impacts.~~

~~The environmental analysis provided in Sections 4.1 through 4.16 focuses on changes in the existing physical environment and identifies direct and indirect significant impacts associated with the proposed project. The cumulative impacts for each of the proposed project components are analyzed within the discussion of each component for each threshold.~~

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Because the cumulative impact analysis has been ordered to be updated by the Superior Court, all updated cumulative impact analysis is addressed in Chapter 6.0 of these Revised Sections of the FEIR.

4.1 AESTHETICS: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *The cumulative portion of Section 4.1 has been deleted from the 2015 FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.1 of the Revised Sections of the FEIR. All other portions of Section 4.1 of the 2015 FEIR remain unchanged. The absence of reference to a portion of Section 4.1 means that the corresponding portion of Section 4.1 in the FEIR remains unchanged or has been deleted.*~~*This section has been revised based on changes to the WLC Specific Plan and in response to comments on the Programmatic DEIR regarding views.*~~

4.1 AESTHETICS

This section describes the existing aesthetic condition of the project area and analyzes potential impacts of the proposed WLC project relative to views, and light and glare based on the development characteristics outlined in the WLC Specific Plan (September 2014). Although there are no specific building locations or designs proposed at this time, the Specific Plan contains sufficient detail as to the general appearance and locations of buildings to evaluate the potential aesthetic impacts of development.

As a program-level CEQA document, this analysis will be based on the characteristics of buildings that can be built under the WLCSP. This analysis will look at the height, glare and lighting, visual impact, and viewshed impacts of the type of buildings authorized by the design standards and criteria set forth in Section 5.0 of the WLCSP. This section of the WLCSP creates comprehensive design and aesthetic guidelines. Section 4.2.4 of the Specific Plan presents various line-of-sight cross-sections and photographic renderings showing views of various locations around the project site, which are illustrative of the massing and types of buildings authorized by the WLCSP.

~~*Note: The following changes have been made due to revisions to the Specific Plan project area.*~~

For the reader's reference, this EIR has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the proposed development. ~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.~~

~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

Information on visual characteristics, both on the site and in the vicinity of the project site, is presented in this section. Potential impacts to aesthetic visual resources and viewshed impacts resulting from the development of the proposed WLC project are based on analyses of site photographs, site reconnaissance, project data from the WLC Specific Plan, line-of-sight cross sections, and photographic renderings. The determinations in this section of the EIR are based, in part, on the City of Moreno Valley General Plan polices related to views and open space.

For the purposes of the following analyses, two general aesthetic terms are defined: scenic vistas and viewsheds.

- **Scenic Vistas.** A scenic vista can be categorized as either containing a panoramic view[1] or a focal view. Panoramic views are typically associated with publicly-accessible vantage points that provide a sweeping geographic orientation not commonly available (e.g., skylines, valleys, mountain ranges, or large bodies of water). Focal views are typically associated with views of natural landforms, public art/signs, and visually important structures, such as historic buildings. Aesthetic components of a scenic vista include three components: scenic quality, sensitivity level, and view access.
- **Viewsheds.** A viewshed is typically defined as the natural environment that is visible from one or more viewing points. CEQA documents most often define viewshed as what portions of the project viewers can see from surrounding areas. A viewshed can be divided into three distinct components: the foreground, midground, and background.

4.1.1 Existing Setting

~~*NOTE: The following changes have been made due to revisions to the Specific Plan.*~~

The approximately ~~3,714~~2,610-acre project site is located in Rancho Belago, the eastern portion of the City, and is situated on a gently sloping valley floor directly south of State Route 60 (SR-60) with the Badlands area to the east and northeast, the Mount Russell Range to the southwest, and Mystic Lake and the San Jacinto Wildlife Area to the southeast.

4.1.1.1 On-Site Conditions

Situated within northeastern Moreno Valley, the project site gently slopes to the south and elevations on-site range from 1,760 feet above mean sea level (amsl) near the northeast corner down to 1,480 feet amsl at the southeast corner. The site is largely vacant and supports mainly dry farm agriculture with little ornamental landscaping, lighting, or signage located within the project limits. At present, there are seven rural residences and associated farm structures in three areas on site: one on the east side of Redlands Boulevard in the west-central portion of the site and the others on either side of World Logistics Center Parkway~~Theodore Street~~ in the north-central portion of the site. The project site itself contains no scenic resources, although the large areas of agricultural fields do represent a kind of visual

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[1] A panoramic view consists of visual access to a large geographic area, for which the field of view can be wide and extend into the distance.

"open space" as vacant land and allow existing residences in the area to have unobstructed panoramic views. The site has significant views and scenic vistas of Mount Russell to the south, the Badlands to the north and east, Mount San Jacinto to the east, and the San Jacinto Wildlife Area to the south.

4.1.1.2 Adjacent Land Uses

Land uses adjacent to the project site include the Skechers logistics building to the northwest, and several suburban residential neighborhoods along Redlands Boulevard south of Cottonwood Avenue, and the "Old Moreno" commercial area at the intersection of Redlands Boulevard and Alessandro Boulevard. The closest residences are within 40 feet of the project property along Bay Street and Merwin Street. An additional residential neighborhood is located several hundred feet west of Redlands Boulevard, south of Eucalyptus Avenue. North of SR-60, there are several rural residences located between Redlands Boulevard and World Logistics Center Parkway~~Theodore Street~~ (refer to previously referenced Figure 3.3, *Existing Land Uses*). Much of the surrounding land is vacant and supports agriculture or open space (e.g., Badlands and Mount Russell). It should be noted that the General Plan makes reference to the "rural northeast portion of the City," which refers to the land north of SR-60, not south of the freeway (J. Terrell, personal communication, November 2012).

4.1.1.3 Existing Viewsheds and Scenic Vistas

As illustrated in Figure 4.1.1, the proposed project site represents a large undeveloped area situated between the Badlands (northeast and east), the San Jacinto Wildlife Area (south), and the Lake Perris Recreational Area (southwest). Views across the site from SR-60 and from Gilman Springs Road are of vacant agricultural land forming the foreground, midground, and background. In the far background from these two roadways are Mystic Lake and the uplands surrounding Lake Perris. The major scenic resources for the project area, as documented in Figure 7-2 of the General Plan Conservation Element, are the Russell Mountains to the southwest, the Badlands to the east and northeast, Moreno Peak to the west, and the Reche Mountains to the far northwest. The existing agricultural fields provide a pleasant low relief foreground over which to view the three surrounding upland areas described above. The Conservation Element does not include the existing agricultural fields as a major scenic resource, although it does acknowledge that "Expanses of open land are found throughout the eastern portion of the study area. These tracts of land allow for uninterrupted scenic vistas from State Route 60, Gilman Springs Road, and other roadways and provide views of the San Jacinto Valley and the ephemeral Mystic Lake" (General Plan page 7-12).

Section 5.11, *Aesthetics*, in the City's General Plan EIR, indicates the major scenic resources within the Moreno Valley study area are visible from SR-60, a City-designated local scenic road. As SR-60 travels through the eastern part of Moreno Valley, it approaches and eventually passes through the Badlands area. Characterized by steep and eroded hillsides, the Badlands provide a range of hills that act as a visual backdrop to the valley. Similarly, views afforded while traveling west through Rancho Belago, the eastern part of the City, include views of the Badlands to the north and south, and Mystic Lake and the Mount Russell Range to the far south. These resources are highlighted in General Plan EIR Figure 5.11-1, *Major Scenic Resources*. Table 4.1.A provides a summary of the existing viewsheds to and from the project site. Because of these resources, travelers on SR-60 and Gilman Springs Road are considered scenic routes since these visual resources are readily visible from these roadways.

The Conservation Element of the General Plan also states that, "The City of Moreno Valley has the opportunity to designate scenic routes as the basis for preserving outstanding scenic views. Special attention to the location and design of buildings, landscaping, and other features should be made to protect and enhance views from scenic roadways" (General Plan page 7-14). These statements indicate the City acknowledges the eventual conversion of the extensive agricultural fields and their replacement by buildings, but it emphasizes the importance of locating and designing the buildings to maintain existing scenic views (i.e., the surrounding uplands).

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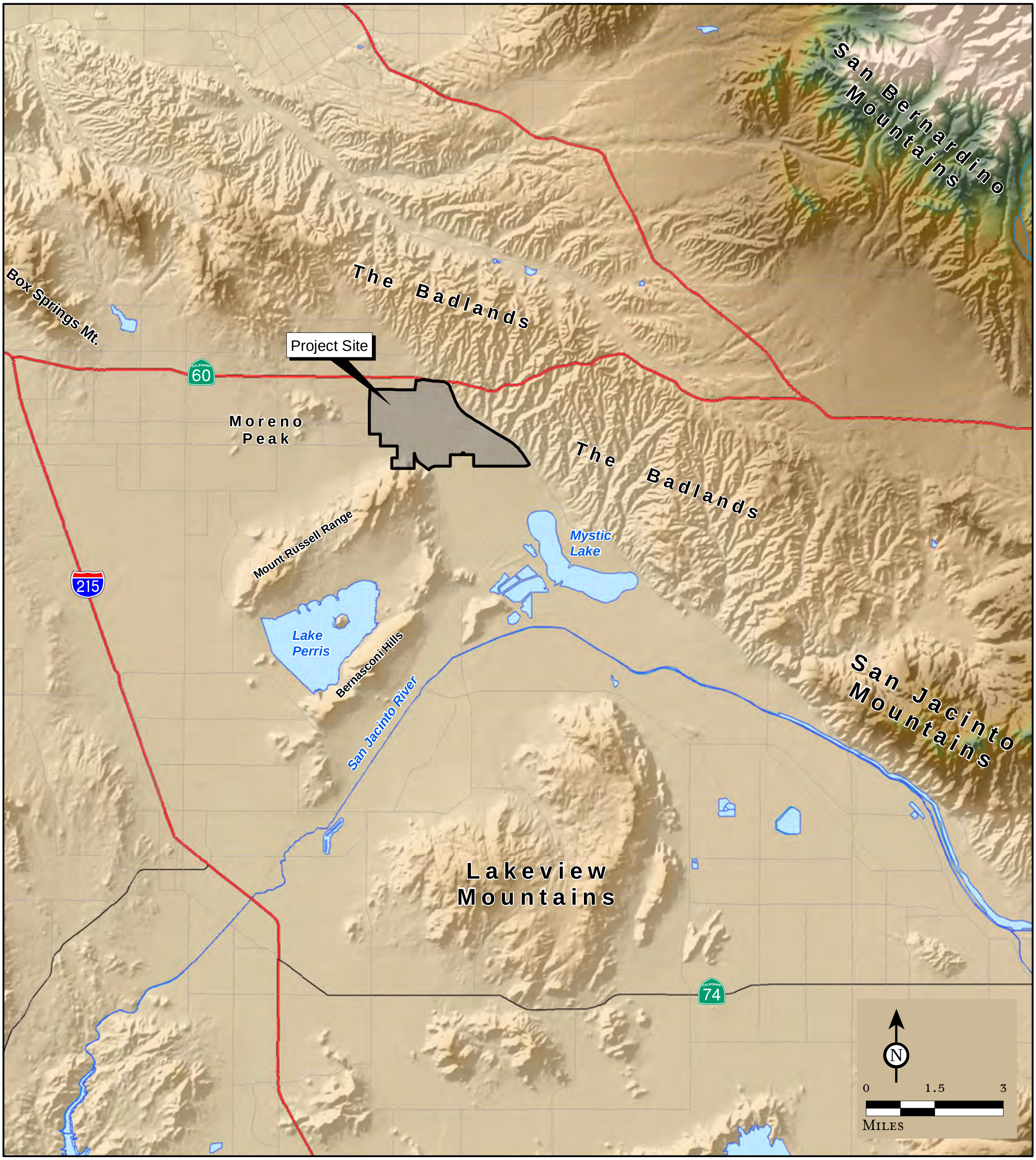

LSA

FIGURE 4.1.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Natural Landforms

SOURCE: ESRI, USGS DEM.

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Table 4.1.A: Existing Viewsheds

Vantage Point	Characteristics of Views		
	Foreground	Midground	Background
Looking north from the SJWA* land toward the project site	Agricultural fields that are part of SJWA property	Agricultural fields on project site and SDG&E** facility	SR-60 with Badlands rising above
Looking east from existing residential uses along Redlands Boulevard toward the project site	Agricultural fields of the project site and windrow of olive trees along east side of Redlands Boulevard	Agricultural fields of the project site and Gilman Springs Road	Gilman Springs Road with Badlands rising above, and portions of Mount San Gorgonio visible above the Badlands (on a clear day)
Looking south from SR-60 toward the project site	Agricultural fields and related equipment on the project site	Agricultural fields of the project site and the northern SJWA property	Mystic Lake, SJWA, and Mount Russell Range surrounding the Lake Perris State Recreational Area
Looking west from Gilman Springs Road and the Badlands toward the project site	Agricultural fields and related equipment on the project site	Agricultural fields of the project site	Skechers building, scattered rural residential on the project site, and suburban residential at southwest portion of project site

* San Jacinto Wildlife Area.
** San Diego Gas & Electric Natural Gas Compressor Plant.
Source: LSA Associates, Inc. Site Survey, March 2012.

Views from the Project Site. Views to the north from the project site include the new Skechers logistics building and SR-60, while to the northeast, east and southeast, the rugged topography of the Badlands dominates the view. To the south, the view is of the San Jacinto Wildlife Area with partial views of Mystic Lake. To the southwest, views of Mount Russell and the Mount Russell Range predominate, with suburban residential uses visible to the far southwest and west. These views are experienced by travelers on Redlands Boulevard, World Logistics Center Parkway~~Theodore Street~~, and Alessandro Boulevard, and residents of the rural residences on the project site. These represent significant visual resources; SR-60 and Gilman Springs Road are scenic routes because they have unobstructed views of these resources.

Views toward and across the Project Site. Views of the project site from the area north of SR-60 are limited by the SR-60 roadway and existing development. The skyline is dominated by views of the Badlands and of the Mount Russell Range. Views across the site from the northwest are from existing and/or planned non-residential uses. Current views of the site from these areas are of vacant agricultural land and the few scattered residences, and also the Skechers building near the northwest corner of the project site.

Foreground and midground views for the residences along the west and southwest boundaries of the project site are presently of vacant agricultural land, a windrow of olive trees along Redlands Boulevard, scattered palm trees, and scattered rural residences on site. Background views from these areas are of the Badlands, sweeping from the northeast to southeast. The Mount Russell Range dominates the southeasterly view from this area. Mystic Lake and the surrounding SJWA lands are not visible. These areas are also not visible from houses farther north along Redlands Boulevard as they are not elevated enough to see all the way to Mystic Lake, although there may be some limited views in that direction from second-story windows facing east that are not blocked by other residences.

Users of the SJWA south of the site have views of the existing agricultural lands on the project site. Finally, residents in the few homes on the east side of Gilman Springs Road have views of the agricultural lands on the project site.

Mount Russell, the Badlands, the SJWA, and Mystic Lake represent significant visual resources, and SR-60 and Gilman Springs Road are considered scenic routes because they have relatively unobstructed views of these resources.

This EIR analyzes the viewshed impacts of the project on (i) the residences along the west and southwest portions of the project site; (ii) the motoring public on SR-60 and Gilman Springs Road (designated scenic routes), Redlands Boulevard, World Logistics Center Parkway~~Theodore Street~~, and Alessandro Boulevard; (iii) residences north of SR-60; and (iv) existing residences within the project area.

Figures 4.1.2 and 4.1.3A and B present a photographic key map and representative views of the project site.

4.1.1.4 Lighting and Visibility

The majority of the project area is currently very dark, with little or no ambient nighttime lighting other than from scattered rural residences and the SDG&E compressor facility. There is street lighting and general lighting along the western boundary of the site (i.e., along Redlands Boulevard) and from the Skechers warehouse building. The only other lighting comes from SR-60 along the northern boundary of the site. At present, Gilman Springs Road has no streetlights. Assuming “worst-case” conditions, current ambient light levels in the central and southern portions of the project site are assumed to be at or near zero foot-candles per square foot; this is the same unit of measurement used by professionals when referring to sky glow and nighttime light levels.

4.1.1.5 NOP/Scoping Comments

Many residents commented during the public scoping process that they were concerned about what the project would look like and about night lighting since the area is presently undeveloped and has no significant source of night lighting. Several commenters raised issues with future “night sky” impacts on the area.

4.1.2 Existing Policies and Regulations

4.1.2.1 City of Moreno Valley General Plan Policies

The following policies and goals pertain to aesthetics and are applicable to the proposed project:

Community Development

Objective 2.5 Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.

Policy 2.5.1 The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio (FAR) of 1.00 and the average FAR should be significantly less.

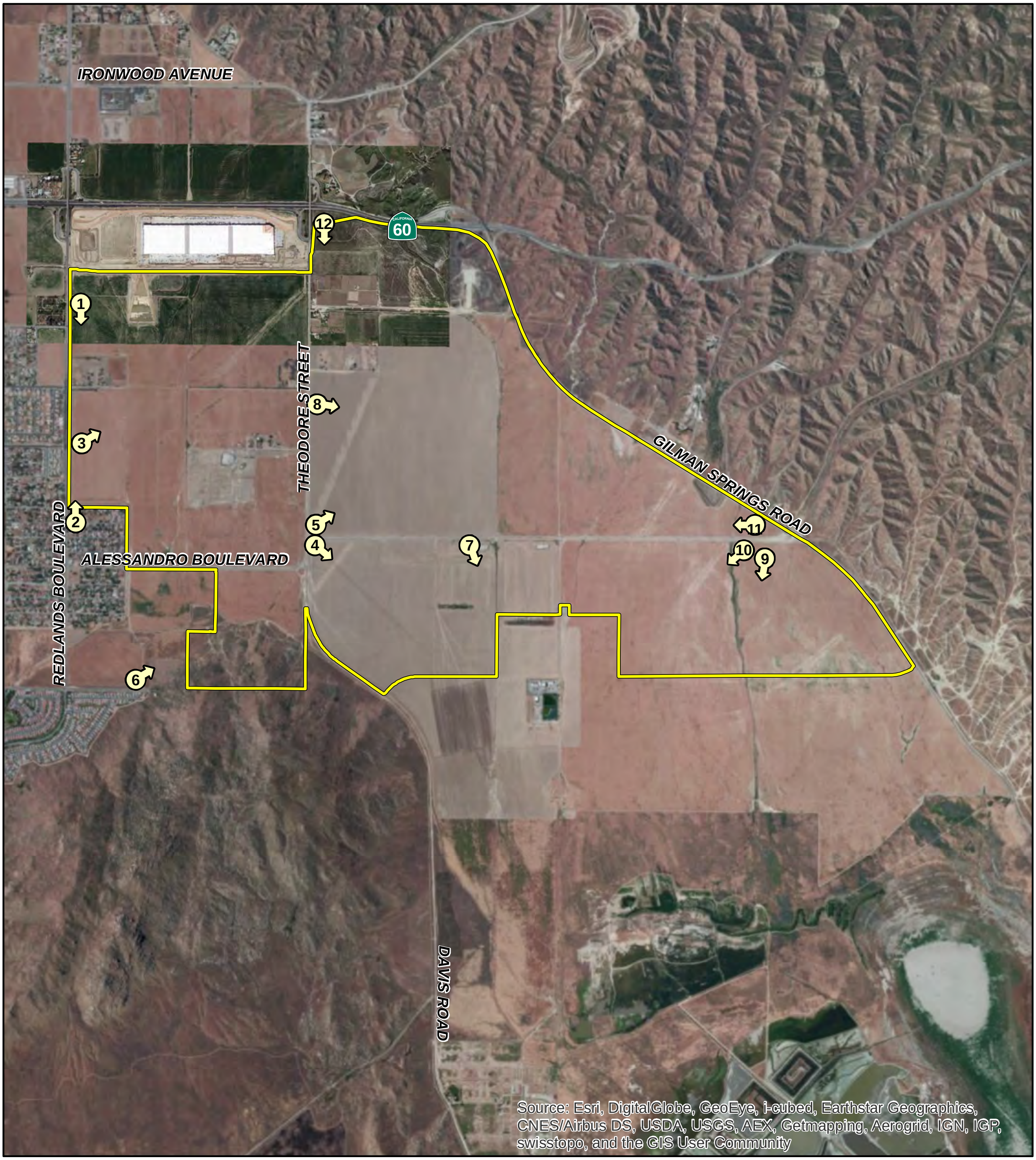

LSA

FIGURE 4.1.2

▭ Project Boundary

(1) Photograph Location and Direction Taken

World Logistics Center Specific Plan Project
Environmental Impact Report

Site Photograph Key

SOURCE: ESRI World Imagery & Bing Aerial, 2010; Google Earth, 2011.

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PHOTOGRAPH 1: *View looking south along Redlands Boulevard from Eucalyptus Avenue.*

PHOTOGRAPH 2: *View looking north along Redlands Boulevard from Alessandro Boulevard.*

PHOTOGRAPH 3: *View looking northeast across western portion of site near Redlands Boulevard and Cottonwood Avenue.*

PHOTOGRAPH 4: *View looking southeast from Theodore Street and Alessandro Boulevard.*

PHOTOGRAPH 5: *View looking northeast from Theodore Street and Alessandro Boulevard.*

PHOTOGRAPH 6: *View looking northeast from southwest corner of site.*

LSA

FIGURE 4.1.3A

World Logistics Center Specific Plan Project
Environmental Impact Report
Site Photographs

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PHOTOGRAPH 7: *View of SDG & E Natural Gas Compressor facility (central portion of site).*

PHOTOGRAPH 8: *View of agricultural fields (typical) in central and eastern portions of site.*

PHOTOGRAPH 9: *View looking southwest toward Mystic Lake from near Gilman Springs Road.*

PHOTOGRAPH 10: *View looking southwest toward Lake Perris area from near Gilman Springs Road (SDG & E facility at right).*

PHOTOGRAPH 11: *View looking west along Alessandro Boulevard from near Gilman Springs Road.*

PHOTOGRAPH 12: *View looking south along Theodore Street from the SR-60 Freeway bridge.*

LSA

FIGURE 4.1.3B

World Logistics Center Specific Plan Project
Environmental Impact Report
Site Photographs

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Policy 2.5.2 Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.

Policy 2.5.3 Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations, and unsightly views.

Policy 2.5.4 Design industrial developments to discourage access through residential areas.

Objective 2.10 Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.

Policy 2.10.1 Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.

Policy 2.10.2 Screen trash storage and loading areas, ground and roof mounted mechanical equipment, and outdoor storage areas from public view as appropriate.

Policy 2.10.3 Require exterior elevations of buildings to have architectural treatments that enhance their appearance.

- (a) A design theme, with compatible materials and styles, should be evident within a development project.
- (b) Secondary accent materials, colors, and lighting should be used to highlight building features.
- (c) Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass.
- (d) Industrial buildings shall include architectural treatments on visible façades that are aesthetically pleasing.

Policy 2.10.4 Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces, provide buffers and transitions as needed, and facilitate energy and resource conservation.

Policy 2.10.5 Development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way.

Policy 2.10.6 Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.

Policy 2.10.7 On-site lighting should not cause nuisance levels or glare on adjacent properties.

Policy 2.10.8 Lighting should improve the visual identification of structures.

Policy 2.10.9 Fences and walls should incorporate landscape elements and changes in materials or textures to deter graffiti and add visual interest.

Policy 2.10.10 Minimize the use and visibility of reverse frontage walls along streets and freeways by treatments such as landscaping, berming, and “side-on” cul-de-sacs.

Policy 2.10.11 Screen and buffer non-residential projects from adjacent residential property and other sensitive land uses when necessary to minimize noise, glare, and other adverse effects on adjacent uses.

Policy 2.10.12 Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).

Policy 2.10.13 Provide landscaping in automobile parking areas to reduce solar heat and glare.

Conservation Element

Objective 7.7	Where practicable, preserve significant visual features, significant views, and vistas.
Policy 7.7.3	Implement reasonable controls on the size, number, and design of signs to minimize degradation of visual quality.
Policy 7.7.4	Gilman Springs Road, Moreno Beach Drive, and State Route 60 shall be designated as local scenic roads.
Policy 7.7.5	Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake.

4.1.2.2 City of Moreno Valley Municipal Code

On September 11, 2012, the City Council adopted Ordinance 851, which amended various sections of the City Municipal Code, including Section 9.08.100 *Lighting* to address citywide night lighting standards. Among other things, it requires non-residential lighting to be fully shielded and directed away from surrounding residential uses. It also restricts non-residential lighting to not exceed 0.25 foot-candle of light measured from within five feet of any property line.

4.1.3 Methodology

Any evaluation of visual impacts is necessarily subjective; however, community aesthetic values can be used to evaluate changes in views within a particular community. These values are found in General Plan policies, zoning ordinances, and, where specific policies are absent, general design theory and visual analysis methods can be incorporated to evaluate aesthetic impacts. For the purposes of CEQA compliance, this analysis of visual impacts will focus on changes in the visual character of the project site that would result from the development of the proposed on-site uses, including the visual compatibility of on-site and adjacent uses, changes in vistas and viewsheds where visual changes would be evident, and the introduction of sources of light and glare. Impacts to the existing environment of the project site are to be determined by the contrast between the site's visual setting before and after the proposed development. In this analysis, emphasis has been placed on the transformation of the existing undeveloped conditions into urbanized uses. Although few standards exist to singularly define perceptions of aesthetic value, the degree of visual change can be measured and described in terms of visibility and visual contrast, dominance, and magnitude. Visual elevations and line-of-sight cross-sections from various vantage points around the project site are provided in Figures 4.1.4A-I, while computerized photographic renderings showing views of the site from different vantage points around the site are provided in Figures 4.1.5A-K.

~~*NOTE: In Responses to Comments F-8-54 through -56 and G-51-40, the captions on several renderings were found to be incorrect and have since been corrected. In addition, several more renderings have been added to more fully illustrate potential views from areas surrounding the WLC site. These illustrations include one view toward Mt. Russell from SR-60 (traveling westbound on SR-60) and one additional view toward the Badlands and Mt. San Jacinto (traveling eastbound on SR-60).*~~

Current residences southwest of the project site, as well as travelers along SR-60 and Gilman Springs Road are considered sensitive to the visual and aesthetic alteration of the project site. Where possible, the potential aesthetic impacts of the proposed project will be evaluated to determine if or the degree to which the project is consistent with applicable General Plan objectives and policies.

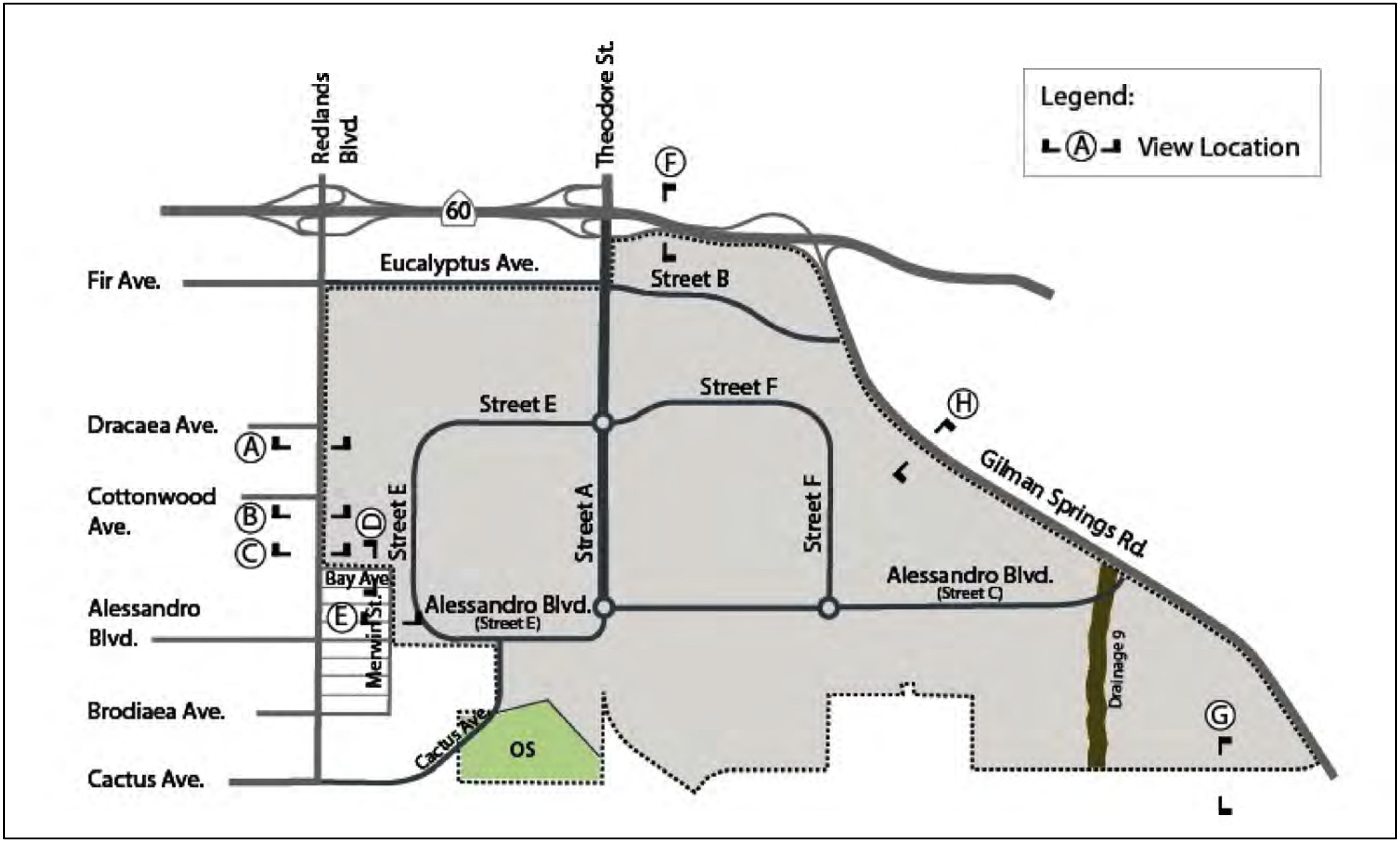

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FIGURE 4.1.4

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross-Sections and Line-of-Site Diagrams

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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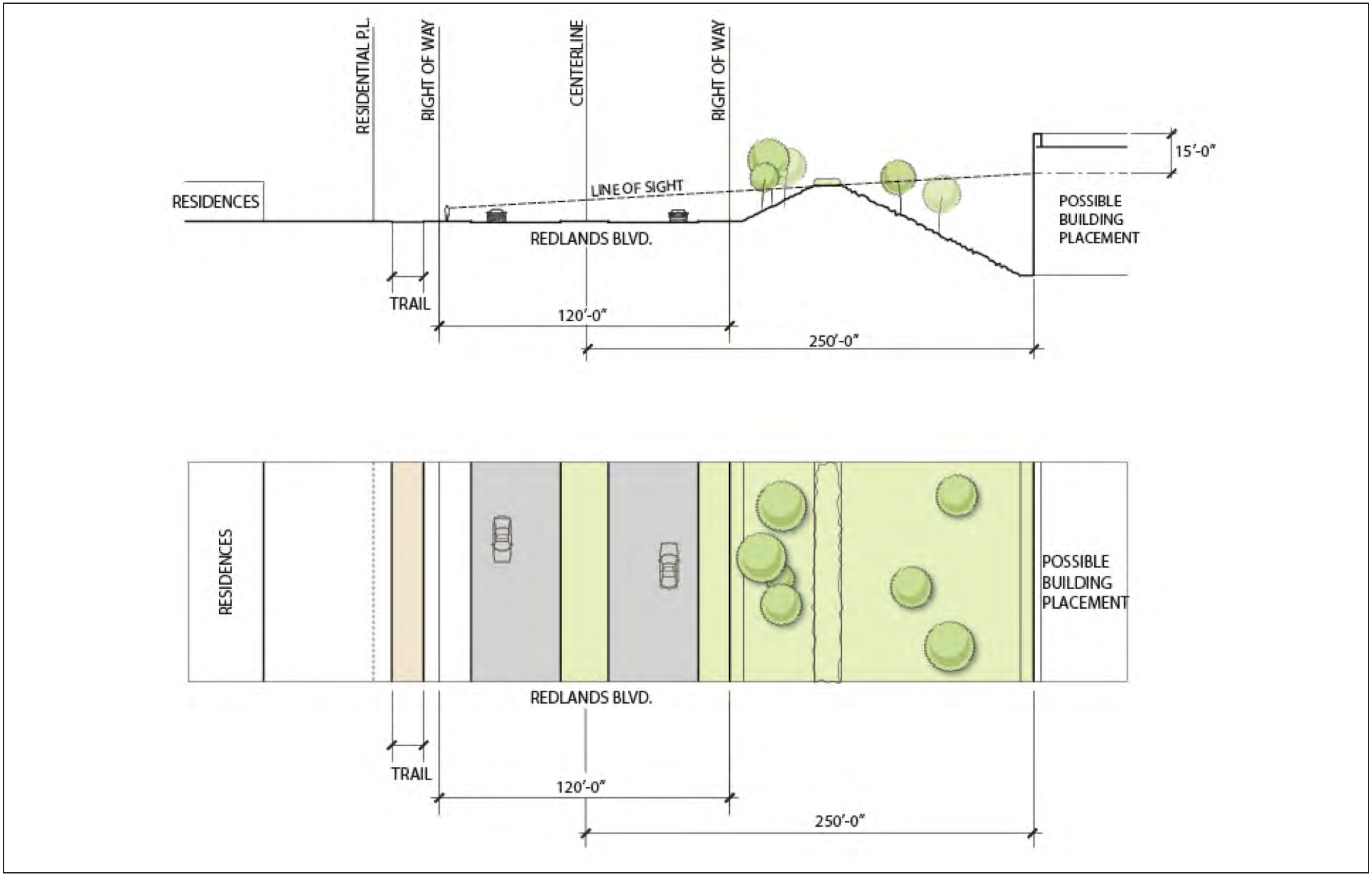

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FIGURE 4.1.4A

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section A

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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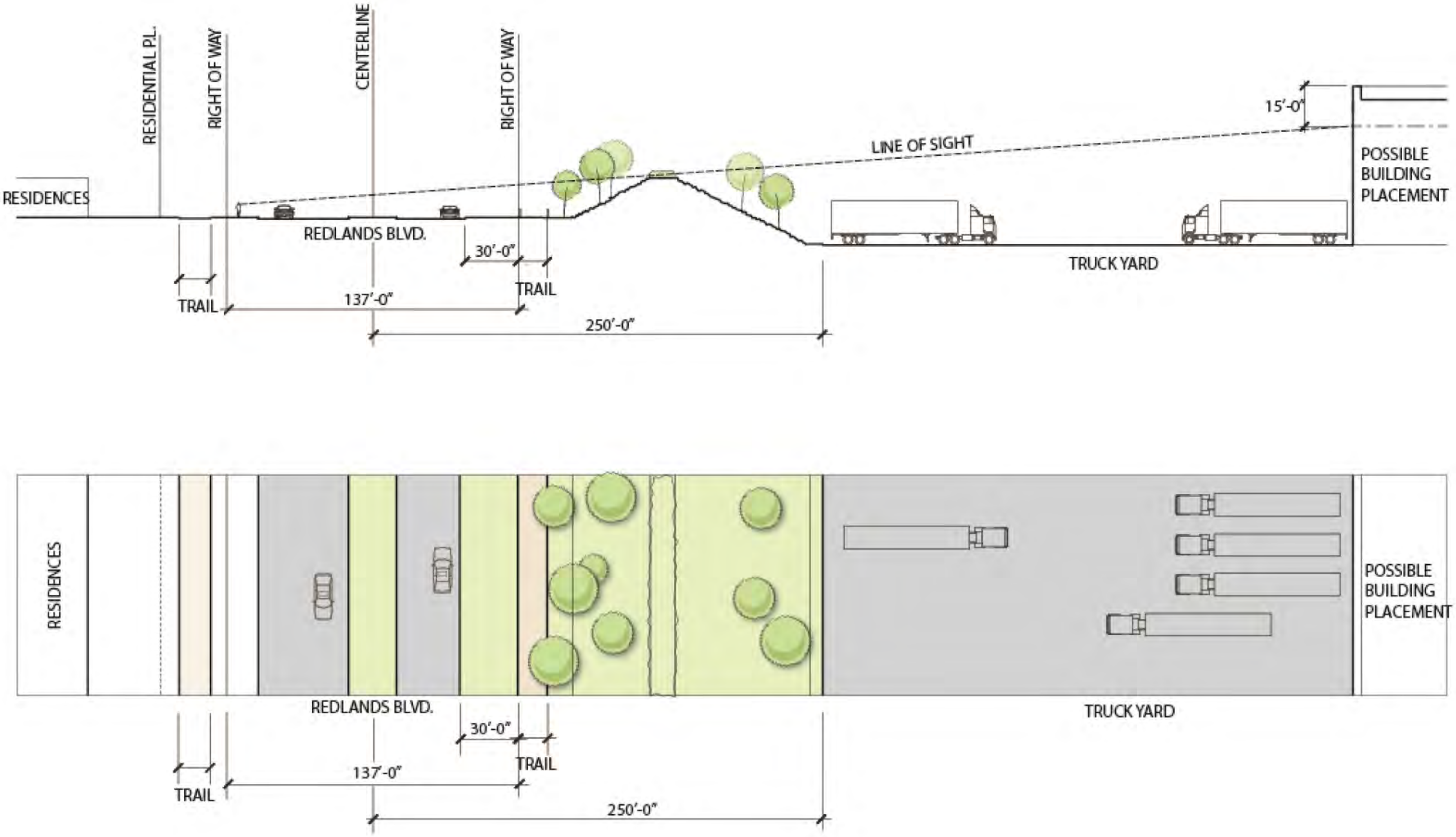

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FIGURE 4.1.4B

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section B

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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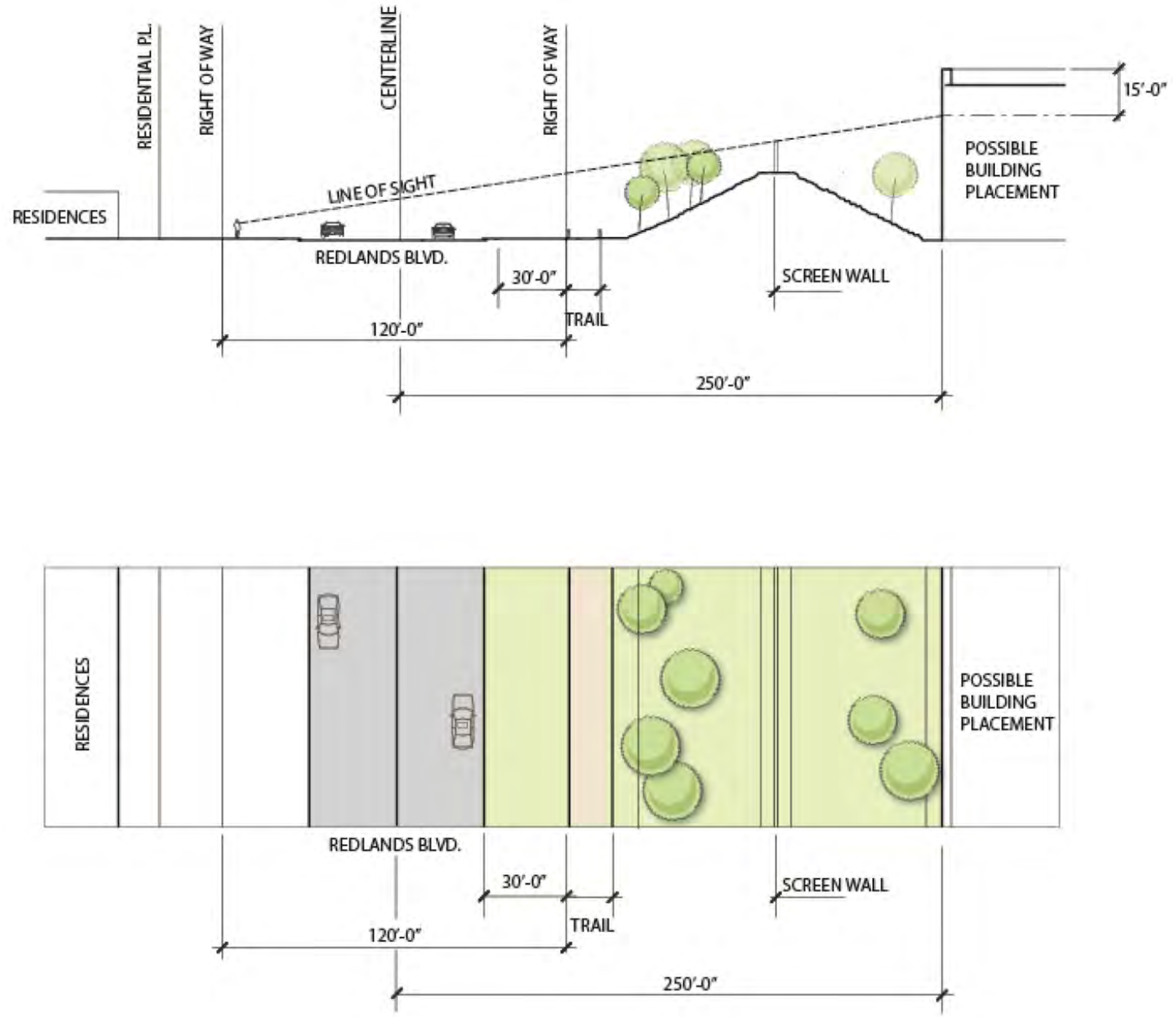

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FIGURE 4.1.4C

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section C

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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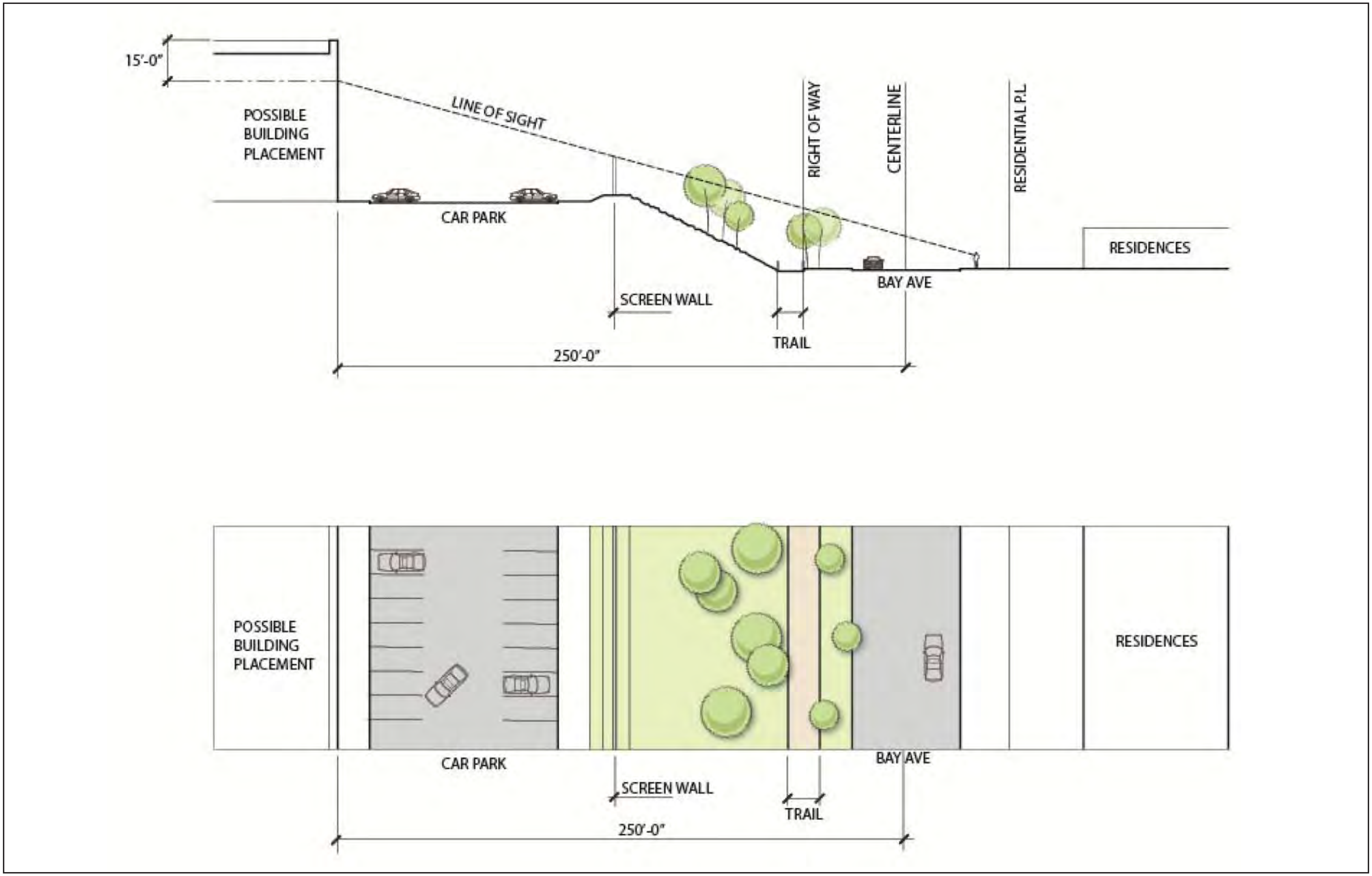

FIGURE 4.1.4D

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Bay Street, Section D

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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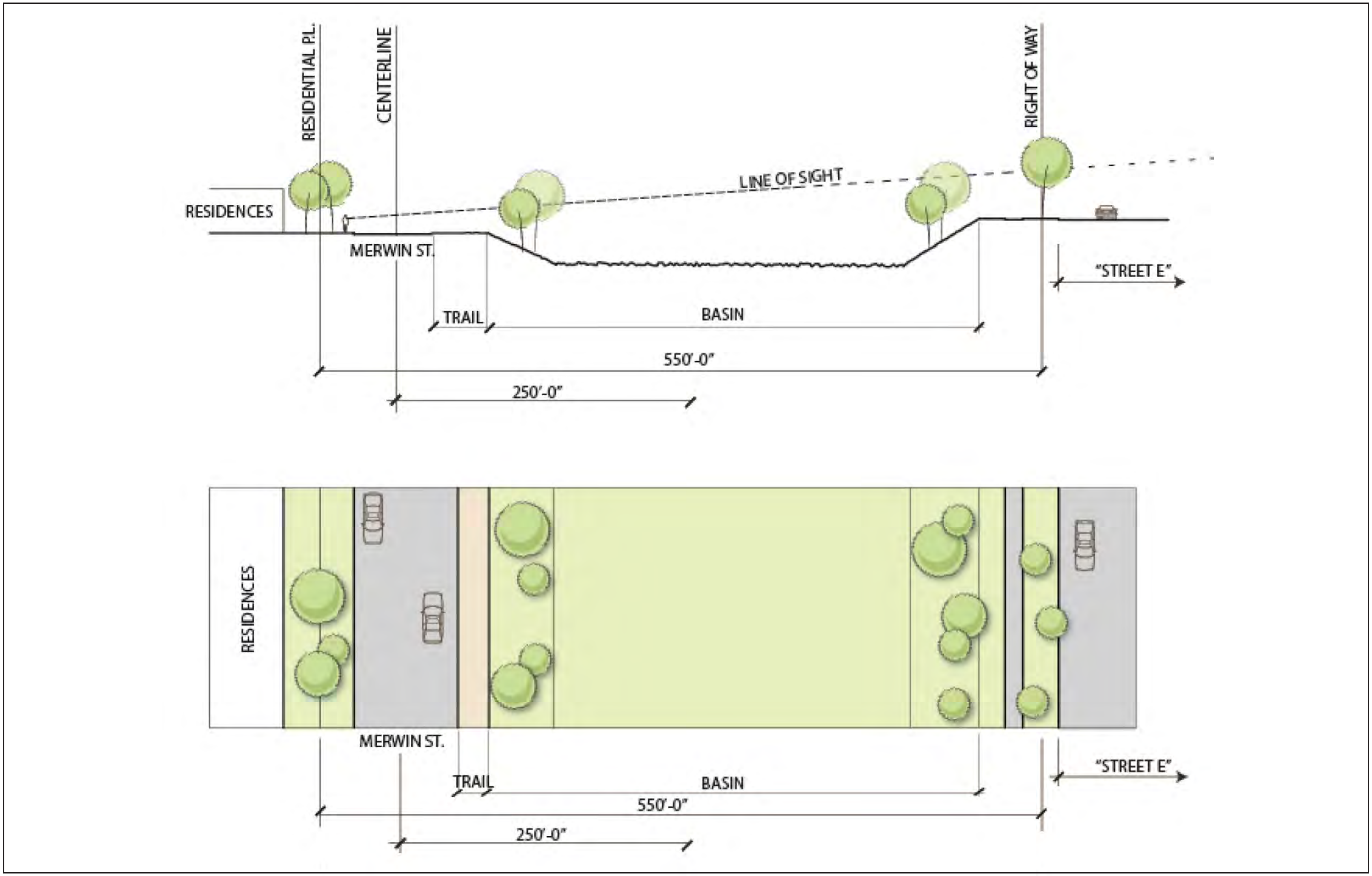

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FIGURE 4.1.4E

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Merwin Street, Section E

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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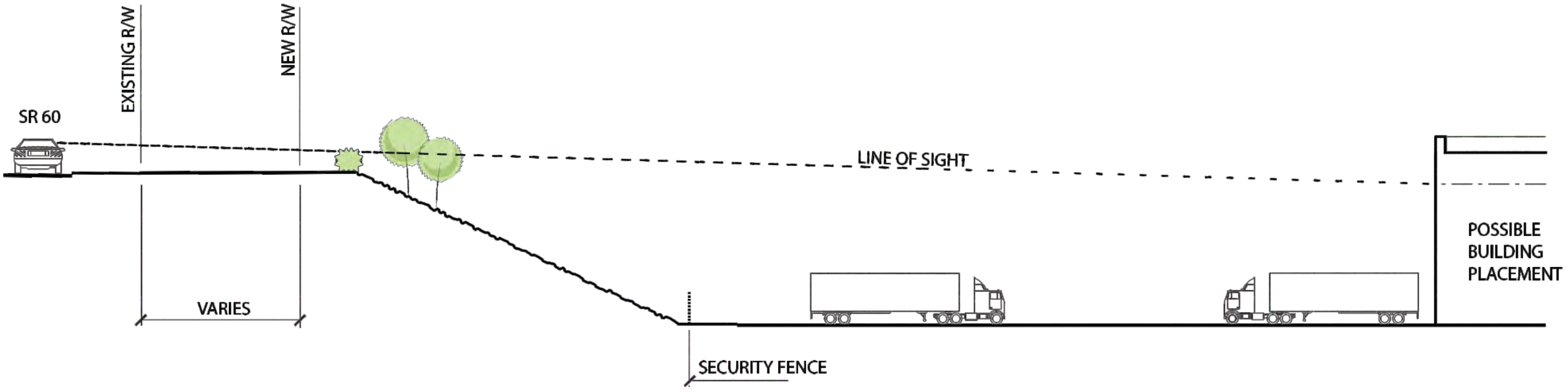

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FIGURE 4.1.4F

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
SR-60 Between Theodore and Gilman Springs Road, Section F

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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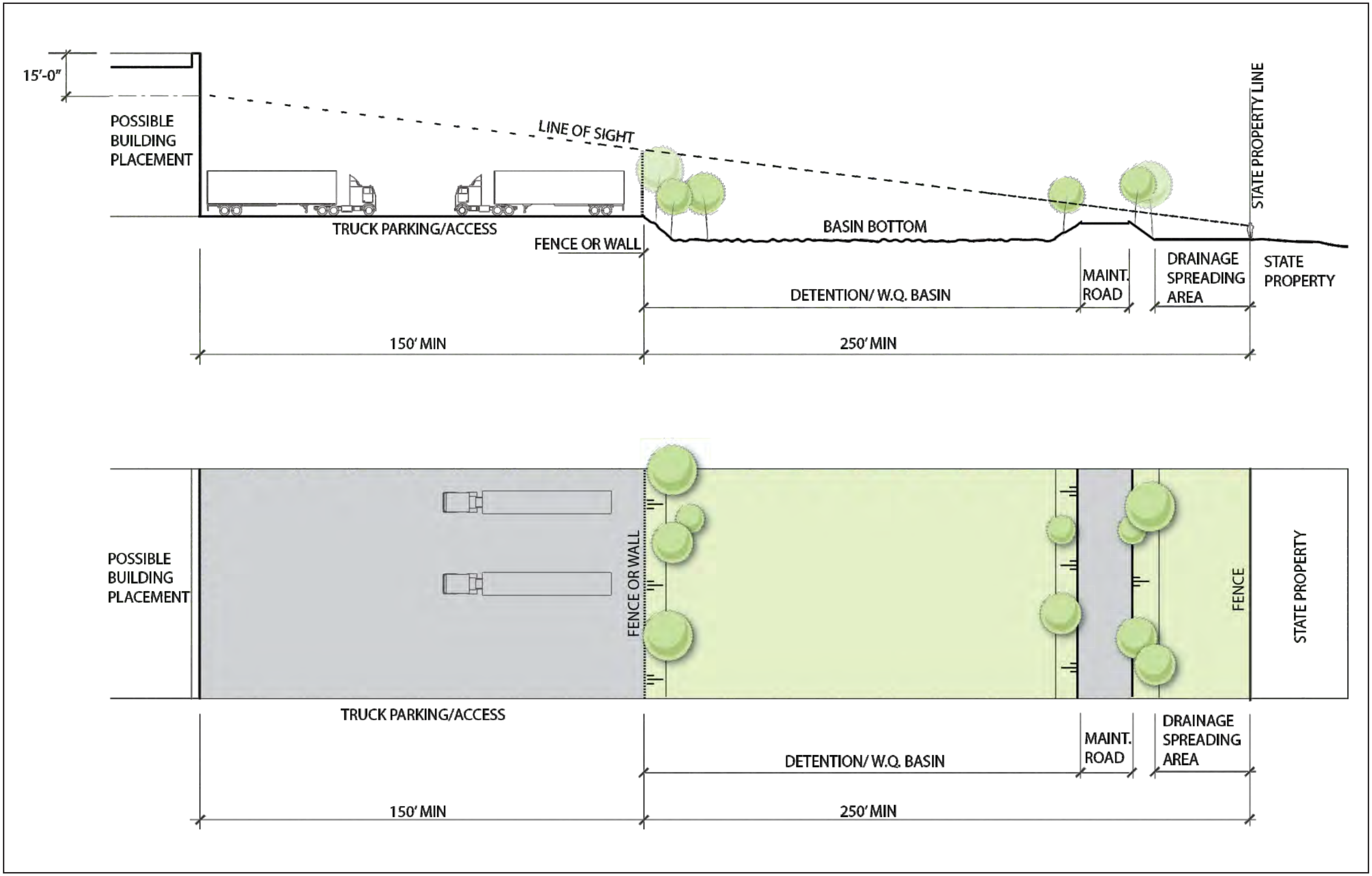

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FIGURE 4.1.4G

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Southern Boundary, Section G

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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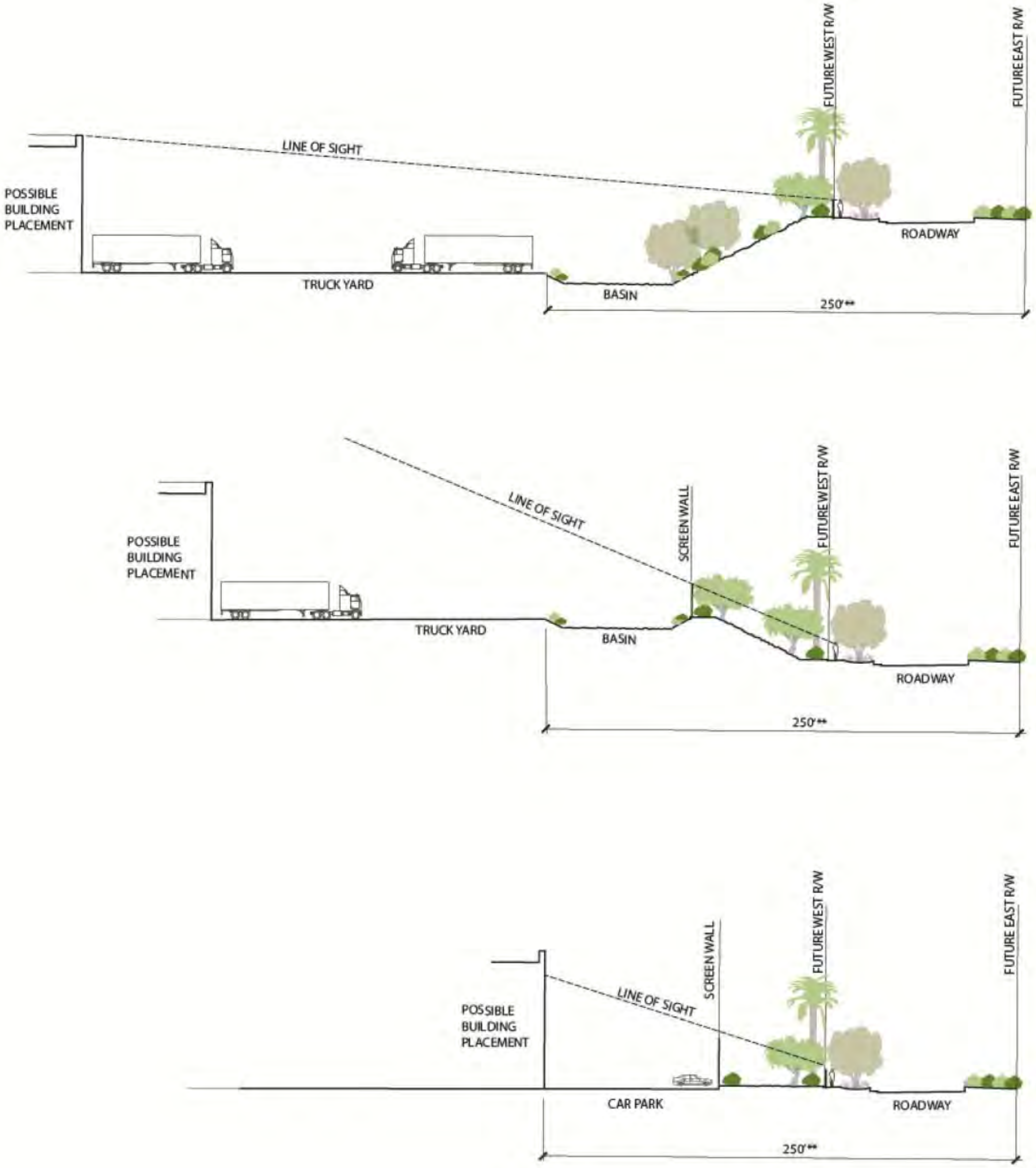

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FIGURE 4.1.4H

***Required setback to truck activity areas. A shorter setback is permitted subject to air quality and noise analyses.*

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Gilman Springs Road

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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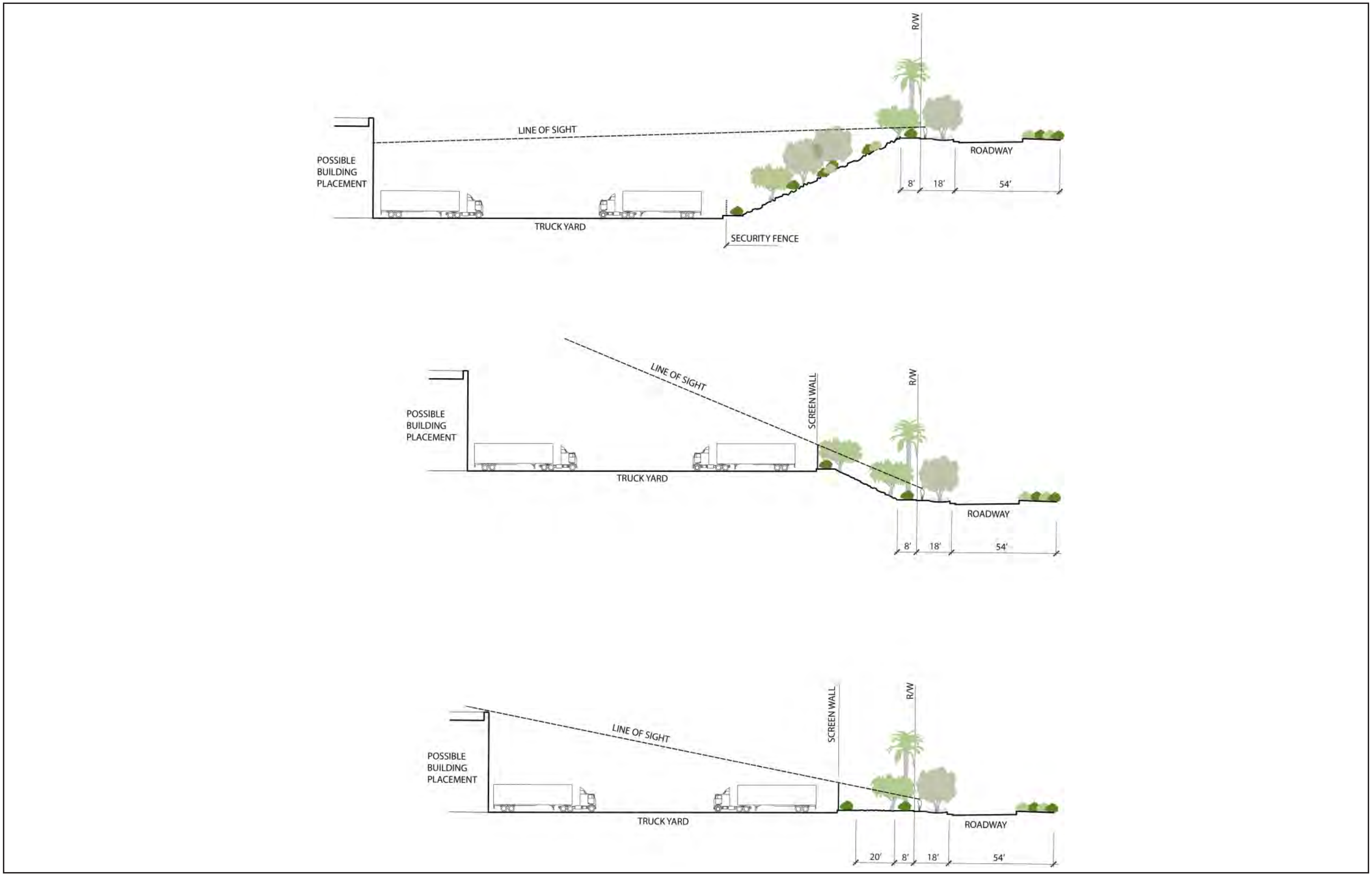

FIGURE 4.1.4I

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
All Interior Roadways

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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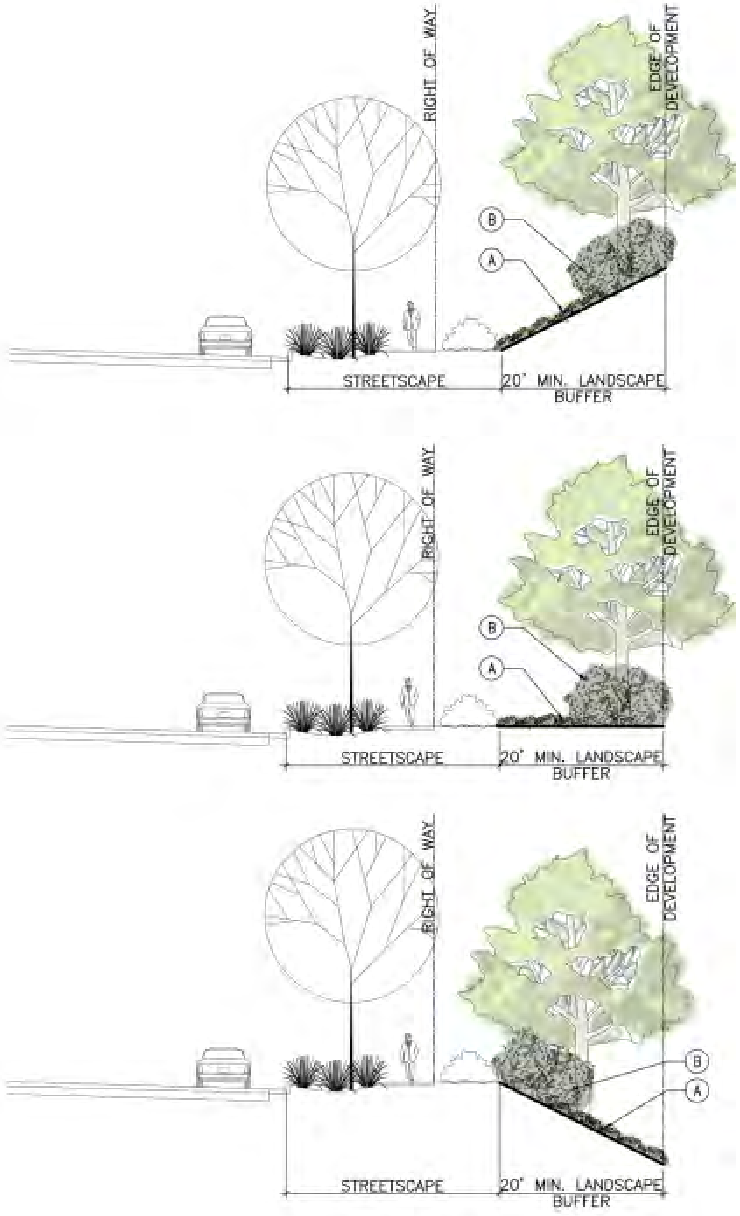

FIGURE 4.1.4J

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Slope Planting Guideline

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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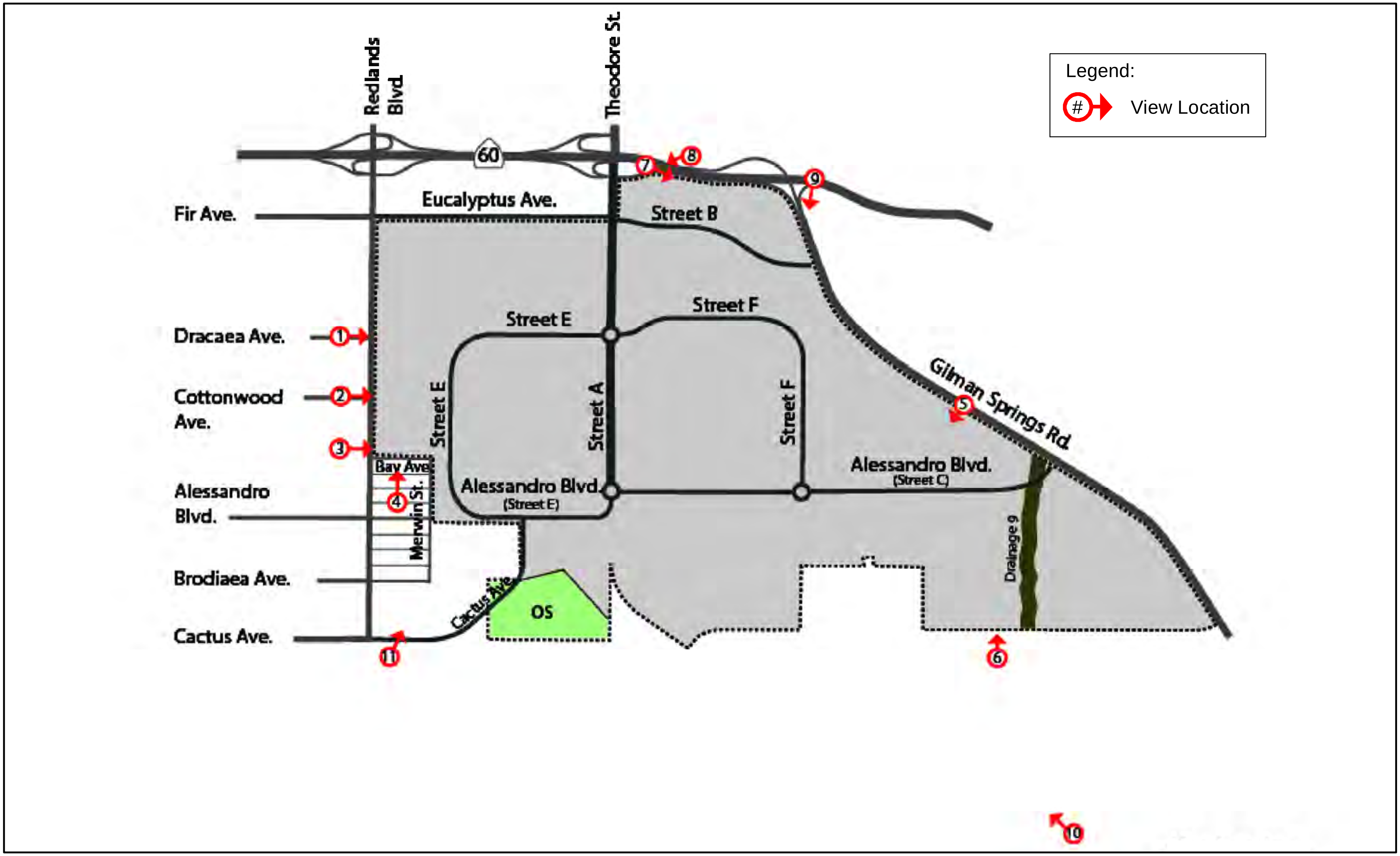

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FIGURE 4.1.5A

N

0 1,500 3,000

Feet

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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VIEW 1: *Looking east across Redlands Boulevard at Dracaea Avenue vegetation at installation.*

VIEW 1: *Looking east across Redlands Boulevard at Dracaea Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5B

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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VIEW 2: *Looking east across Redlands Boulevard at Cottonwood Avenue vegetation at installation.*

VIEW 2: *Looking east across Redlands Boulevard at Cottonwood Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5C

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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VIEW 3: *Looking east across Redlands Boulevard at Bay Avenue vegetation at installation.*

VIEW 3: *Looking east across Redlands Boulevard at Bay Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5D

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 4: *Looking north across Bay Avenue from east of Redlands Boulevard vegetation at installation.*

View 4: *Looking north across Bay Avenue from east of Redlands Boulevard vegetation at maturity.*

LSA

FIGURE 4.1.5E

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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VIEW 5: *Looking east across Gilman Springs Road at vegetation at installation.*

VIEW 5: *Looking east across Gilman Springs Road at vegetation at maturity.*

LSA

FIGURE 4.1.5F

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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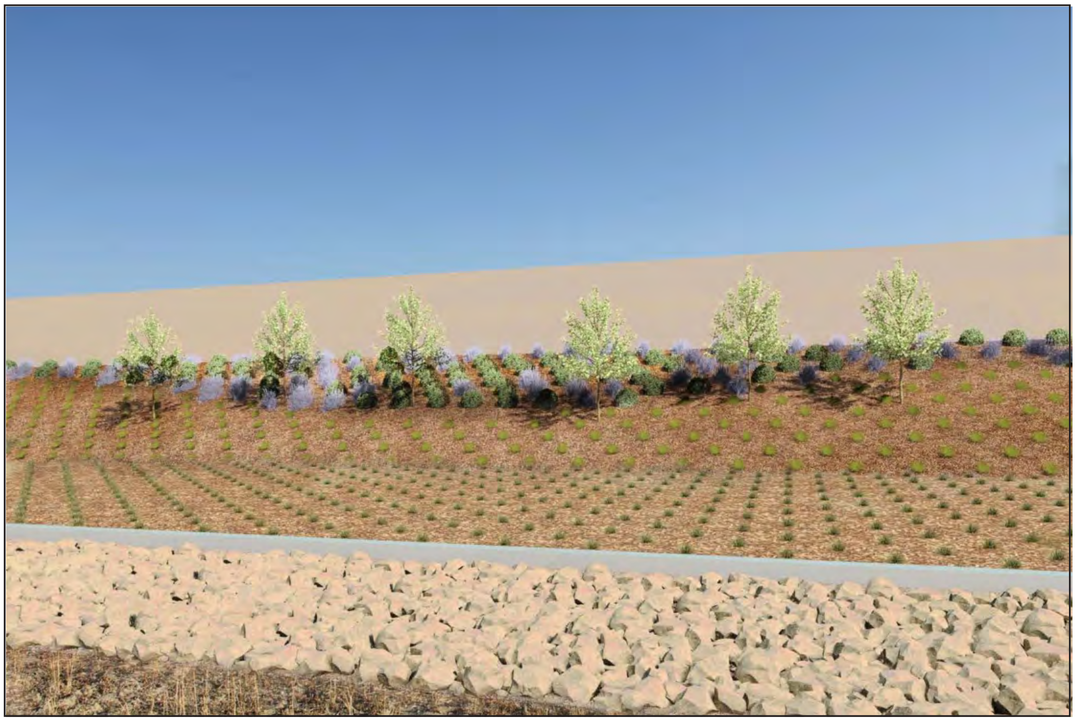

VIEW 6: *Looking north from vegetation at installation.*

VIEW 6: *Looking north toward southern Project Boundary vegetation at maturity*

LSA

FIGURE 4.1.5G

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 7: *Looking southeast heading eastbound from SR-60 vegetation at installation.*

View 7: *Looking southeast heading eastbound from SR-60 vegetation at maturity.*

LSA

FIGURE 4.1.5H

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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VIEW 8: *Looking southwest heading westbound from SR-60 vegetation at installation.*

VIEW 8: *Looking southwest heading westbound from SR-60 vegetation at maturity.*

LSA

FIGURE 4.1.5I

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 9: *Looking south across Gilman Springs Road at vegetation at maturity.*

View 10: *Looking northwest from within San Jacinto Wildlife Area.*

LSA

FIGURE 4.1.5J

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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VIEW 11: *Looking northeast from the corner of Cactus Avenue and Madrid Avenue.*

LSA

FIGURE 4.1.5K

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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4.1.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to aesthetics. Based on these significance thresholds, a project would have a significant impact on aesthetic resources if it would result in:

- A substantial adverse effect on a scenic vista;
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- Substantial degradation of the existing visual character or quality of the site and its surroundings; and/or
- A new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

4.1.5 Less than Significant Impacts

Due to the size and location of the project, and due to the fundamental and permanent alteration of the aesthetic characteristics of the site, all aesthetic impacts were determined to be potentially significant.

4.1.6 Significant Impacts

4.1.6.1 Scenic Vistas

Impact 4.1.6.1: *The proposed project would have a substantial significant effect on a scenic vista.*

Threshold	Would the proposed project have a substantial adverse effect on a scenic vista?

The proposed project could have a substantial adverse effect on one or more scenic vistas, notably views of the Badlands, Mount Russell and the Mount Russell Range, and Mystic Lake/San Jacinto Wildlife Area. For the proposed project, the nearest sensitive permanent visual receptors would be the existing single-family residences to the west and southwest along Redlands Boulevard. In addition, the views of the motoring public along SR-60, Gilman Springs Road, Redlands Boulevard, World Logistics Center Parkway~~Theodore Street~~, and Alessandro Boulevard would be significantly affected as well. At present, the Skechers building blocks views of the site for travelers on SR-60 who are immediately north of the Skechers building.

One of the development goals of the Specific Plan is to have the heights of the buildings along the north, west and south perimeter of the site, including SR-60, be approximately the same height as the existing Skechers building (i.e., approximately 55 feet above a ground elevation of 1,740 feet amsl). This means, as the site elevation decreases to the south, taller buildings theoretically could be built as long as they do not exceed 1,795 feet elevation (i.e., height above sea level, not building height above ground). This would result in seeing only the buildings adjacent to the freeway for eastbound travelers on SR-60, but it would adversely affect views from other locations around the WLC Specific Plan site regardless of the height comparison to the Skechers building. The motoring public heading westbound on SR-60 would experience impacts to their views of Mount Russell.

Along Gilman Springs Road and away from the perimeter of the site, the Specific Plan allows warehouse buildings that may reach a height of 80 feet. These buildings would have a maximum altitude of 1,795 feet. The potential heights of project buildings, and possible viewshed impacts of future development under the Specific Plan, are shown in previously referenced Figure 4.1.5, which provides computerized photographic renderings of the proposed project building and landscaping.

As stated previously, the project will allow a maximum of 60-foot tall warehouse buildings along the west, north, and south perimeters of the site, and 80-foot buildings on the “interior” portions of the site and along the eastern perimeter (i.e., Gilman Springs Road). Ground elevations range from 10 to 30 feet lower than Gilman Springs Road, which will help reduce visual impacts of warehouse buildings in the eastern portion of the site. The existing Skechers building at the northwest corner of the site can be seen from almost anywhere on the project site at present, and from surrounding off-site areas. Other warehouse buildings within the project will be at least that prominent when they are built.

Section 5.0 of the WLCSP contains architectural and design guidelines that will encourage the construction of attractive warehouse buildings and surrounding grounds. This is supported by the examples of building designs, materials, colors, and landscaping illustrations in the Specific Plan. The general development, setback, architectural design, and landscaping guidelines of the WLCSP require future development to provide attractive warehouse buildings with native plants and trees to help screen views of the lower portions of the buildings.

The Skechers building is mainly white, and the WLCSP indicates that future warehouse buildings on site will also be white or light colored to minimize energy consumption, provide architectural compatibility, and reflect heat to minimize the urban “heat island” effect (see also Section 5.3.13 Sustainability). Based on current views of the Skechers building, these new buildings will also be visible from various off-site locations (e.g., north of SR-60 and east of Gilman Springs Road). However, white or light-colored buildings, like Skechers, may be more visible at longer distances compared to darker or earth-toned buildings.

General View Impacts from Existing Residences. The Specific Plan establishes a minimum setback of 250 feet along the west and south boundary of the project site between sensitive receptors (i.e., SJWA houses) and buildings or parking/circulation areas within the WLCSP. The setback area is located entirely onsite and measured from the World Logistics Center Property boundary inward and onto the project site. The Specific Plan also includes specific landscaping and other design criteria for this setback~~buffer~~ (see WLCSP Section 4.2, *Offsite Landscaping*). It should be noted that the width of the adjacent street outside of the WLC project boundaries (e.g., Redlands Boulevard, Bay Avenue, and Merwin Street) is included in the 250-foot setback~~buffer~~ distance.

The line-of-sight exhibits and the photographic renderings help predict how the WLCSP project will appear as buildings are constructed. Figures 4.1.4A-E include typical cross-sections that show the 250-foot setback as measured from the center line of Redlands Boulevard and Merwin Street, and the center line of Bay Avenue. Not counting the existing street widths, the new landscaping setback/berm areas along the west side of the WLCSP will be approximately 150 feet wide (e.g., from the east side of Redlands Boulevard to the nearest truck activity area). These setbacks, and the proposed landscaping within the setback areas, are shown in previously referenced Figures 4.1.4A-E and 4.1.5A-F (Views 1-5). Section 4.2 of the Specific Plan describes and illustrates how the landscaping will appear both upon installation and at maturity (photographic renderings of these conditions are also shown in Section 4.2, *Offsite Landscaping*).

As development of the proposed project occurs, buildings, associated parking lots, and landscaping will be built on the project site. This will change existing views from virtually every point in and around the project site. Foreground and midground views would consist of trees, ornamental landscaping, and new warehouse buildings. Most background views will be affected as well with limited distant views of the Badlands, Mount San Jacinto, and Mount Russell remaining from some adjacent properties and roadways. Although the warehouse buildings and the single-family residences would be separated by some distance, the proposed project will result in the reduction or elimination of existing background views.

Views from SR-60. The existing Skechers building can be used as a visual reference relative to future views involving the WLCSP. The average floor elevation of the Skechers facility is 1,740 feet amsl. Assuming an average building height of 55 feet, the Skechers building is at an elevation of 1,795 feet amsl compared to the elevation of SR-60 at 1,760 feet amsl adjacent to the Skechers building. This means a person driving on SR-60 cannot see much of the WLCSP property, or Mystic Lake while adjacent to the Skechers building, although the top of Mount Russell is visible from most locations.

Travelers in both directions on SR-60 will have views of the project site until the northernmost portion of the site is developed. As the site develops, the buildings would replace existing flat agricultural fields with industrial buildings, which may block foreground and midground views of travelers in both directions, depending on their locations. There are no site plans at present to show exact building locations or heights, so the determination of impacts must be based on the characteristics of buildings allowed under the Specific Plan. Buildings adjacent to the freeway would be approximately 60 feet in height, while buildings away from the northern perimeter (i.e., the south side of SR-60) could be up to 80 feet tall. If all of the future buildings along the south side of SR-60 block views to the same degree as the Skechers building, this would be a significant visual impact as it would reduce views of Mount Russell, and the Badlands south of SR-60 along Gilman Springs Road.

The height and location of buildings along this portion of the project will have to be designed to allow background views between and over them (i.e., so the mountains and Mystic Lake are not fully or largely obscured by buildings in the future). The conceptual landscape plans for the proposed project show trees will be planted along the south side of SR-60 to soften views of future buildings, but these will not fully obscure views of the buildings or parking areas, as the buildings may be taller than the trees will grow, and the buildings will extend farther into the midground and background views for many travelers. Even with the landscaping proposed by the WLC Specific Plan, development of this area will eventually replace the existing flat agricultural fields with tall industrial warehouse buildings that may completely or partially block views of the lower slopes of Mount Russell and the Badlands. If future buildings were to block views of these major scenic resources substantially (per GP Figure 7-2), the WLC project would result in significant visual impacts along SR-60. The simulated view from SR-60 is shown in Figure 4.1.5J and K (Views 8 and 9).

Views from Gilman Springs Road. Travelers in both directions on Gilman Springs Road will have extensive views across the project site until the easternmost portion of the site is developed. As the site develops, the buildings would replace existing flat agricultural fields with industrial buildings. Buildings constructed in the eastern portion of the site may block foreground and midground views for travelers in both directions, depending on the location of the building and the traveler. There are no site plans at present to show exact building locations or individual building size/mass or heights, so the determination of impacts must be based on the characteristics of buildings allowed under the Specific Plan. Buildings adjacent to the roadway would be approximately 80 feet in height, while buildings away from the eastern perimeter (i.e., the west side of Gilman Springs Road) could be up to 80 feet tall. If all of the future buildings along the west side of Gilman Springs Road block views to the same degree as the Skechers building, this would be a significant visual impact as it would - reduce views of Mount Russell to the west and views of Mystic Lake to the south. The height and location of buildings along this portion of the project will have to be designed to allow background views between and over them (i.e., so the mountains and Mystic Lake are not fully or largely obscured by buildings in the future). The conceptual landscape plans for the proposed project show trees will be planted along the west side of Gilman Springs Road to soften views of future buildings, but these will not fully obscure views of the buildings or parking areas, as the buildings may be taller than the trees will grow, and the buildings will extend farther into the midground and background views for many travelers. Even with the landscaping proposed by the WLC Specific Plan, development of this area will eventually replace the existing flat agricultural fields with tall industrial warehouse buildings, which may completely or partially block views of the lower slopes of Mount Russell and Mystic Lake. If future buildings block views of these major scenic resources substantially (per GP Figure 7-2), the WLC project would result in significant visual impacts along Gilman Springs Road. The simulated view from this vantage point is shown in Figure 4.1.5G (View 6).

On-site Views. As the WLC project is developed, views from the various rural residences on site will become increasingly blocked, depending on the relative locations and heights of buildings. Over time, these views will be blocked by new logistics warehouse buildings.

In addition to the cross-sections in the WLCSP, LPA Architects created photographic renderings at nine locations to illustrate existing and future views from various vantage points around the WLC site. The following analysis of views is organized by the corresponding rendering(s). These renderings used actual photographs of the sites and superimposed a rendering of potential future buildings within the WLCSP, consistent with Specific Plan development guidelines. These renderings represent possible architectural treatments under the WLCSP design guidelines.

Views from Residences Southwest of the Site. As the project develops, views of the project site from existing residences southwest of the site will fundamentally change from vacant agricultural land to an urbanized logistics campus with major warehouse buildings, roadways, landscaping, and signage. The change in views would be softened somewhat by landscaping, which will be subject to the architectural and landscaping design guidelines outlined in the Specific Plan. All building proposals will be subject to a discretionary plan review process by the City with the opportunity for the public input and comment.

The WLCSP restricts building heights to 60 feet along the perimeter of the project, with the exception of along Gilman Springs Road, and 80 feet for non-perimeter buildings. The WLCSP also allows for the building office entrances and corners to be slightly higher than the main portions of buildings. By comparison, single-family residences southwest of the proposed project have an approximate maximum height of 18 feet for single-story homes and 30 feet for two-story homes. It should be noted that there is an existing windrow of olive trees along the east side of Redlands Boulevard between Cottonwood Avenue north to 700 feet north of Dracaea Avenue (almost 1,800 feet or a third of a mile in total). This windrow would help soften views of the WLCSP site from the homes west of the windrow for as long as the windrow remains in place.

The WLCSP requires that a landscaped berm be installed along the Redlands Boulevard right-of-way to soften project views from residential areas to the west. The Specific Plan requires that all truck accessways and loading areas be at least 250 feet from residential properties along Redlands Boulevard, Bay Avenue, and Merwin Street. The Specific Plan includes renderings of potential future buildings, which illustrate that future buildings will be largely screened by the landscaped berm and other landscaping. While the Specific Plan requires the use of native, drought-tolerant species throughout the project site, the areas adjacent to residential uses along Redlands Boulevard, Bay Avenue, and Merwin Street will receive a more extensive landscape treatment (WLCSP Section 4.2.4 refers these as special edge treatment area). However, landscaping will take a number of years to mature to a height that would soften views from residential areas. Even with the setbacks, berms, walls, and landscaping required by the WLC Specific Plan, the proposed development will fundamentally change views generally available to the public in this area (i.e., area residents driving or walking along Redlands Boulevard, Bay Avenue, and Merwin Street). This is a significant impact and requires mitigation. The photographic renderings for the project show proposed landscaping upon installation and at maturity (assumed to be approximately 15 years) for each rendered location (refer to Figures 4.1.5B-F, Views 1-5).

Views from the South. The existing view from the San Jacinto Wildlife Area north toward the Badlands will eventually be blocked by future buildings, resulting in visual impacts from this area. Buildings in this area will be setback from the SJWA boundary a minimum of 400 feet and limited in height to 60 feet, Figure 4.1.6A shows the location of three special edge treatment areas. Cross section and line of site diagrams are shown for the edge treatments in Figures 4.1.4A through 4.1.4I. Additional information on the Southern Boundary is shown in Figure 4.1.6B.

Views from the East. Permanent views from existing residences east of Gilman Springs Road will fundamentally change. The views they now have of the agricultural fields on the project site will eventually be replaced by a view of an urbanized area consisting of warehouse buildings, parking areas, streets, and ornamental landscaping. The proposed buildings will not block views of the Mount Russell Range to the southwest but may block or partially block views of the Mystic Lake area.

Transient/Motorist Views along Gilman Springs Road. Transient views for travelers on Gilman Springs Road will fundamentally change over time, as future buildings within the WLCSP will be visible to travelers in both directions, replacing existing views of agricultural fields. Eventually buildings within the Specific Plan may block or partially block views of the lower slopes of the Mount Russell Range, as well as distant views of Mystic Lake for southbound drivers. This is a potentially significant impact requiring mitigation.

Transient/Motorist Views along SR-60. Transient views for travelers on SR-60 will fundamentally change over time, as future logistics buildings will be visible to travelers in both directions as development occurs in the project area, replacing existing views of agricultural fields. Eventually buildings within the Specific Plan may block or partially block views of the lower slopes of the Badlands and the lower slopes of the Mount Russell Range, as well as views of Mystic Lake southbound depending on the driver's location and viewing angle. Mystic Lake is not visible for travelers along SR-60; therefore buildings will not block views of the lake for those traveling along SR-60.

Views from the North. Permanent views for residences north of SR-60 will change, and the upper portions of some of the future logistics buildings closest to SR-60 may be visible above the freeway. For residences that are elevated, views across the freeway may be more extensive and residents may see more of the WLC project as it develops. The proposed buildings are not expected to block views of the Mount Russell Range to the south or the Badlands to the southeast, but may eventually completely or partially block distant views of the vacant agricultural land and of Mystic Lake.

Views related to Off-site Improvements. Most project-related infrastructure improvements will not change existing views except for the future World Logistics Center Parkway / Theodore Street/SR-60 interchange improvements. When this interchange is rebuilt, views from some homes northwest of the intersection (i.e., looking southeast) may be incrementally affected by a larger, possibly higher bridge structure, depending on the ultimate design.

Construction of three off-site reservoir tanks will affect views of neighbors living near the new tanks. A new 1860 Zone tank southeast of SR-60/Gilman Springs Road and a new Zone 1967 tank just east of Theodore Street/Ironwood Avenue may be visible to some residents living northwest of Theodore Street/SR-60. In addition, a new 1764 Zone tank off of Cottonwood Avenue west of Redlands Boulevard may be visible to some residents living off of or driving along Cottonwood Avenue (see previously referenced Figure 3.13, *Water System*). However, views of a water tank are incremental and generally consistent with suburban areas, so these changes in views would not be considered significant.

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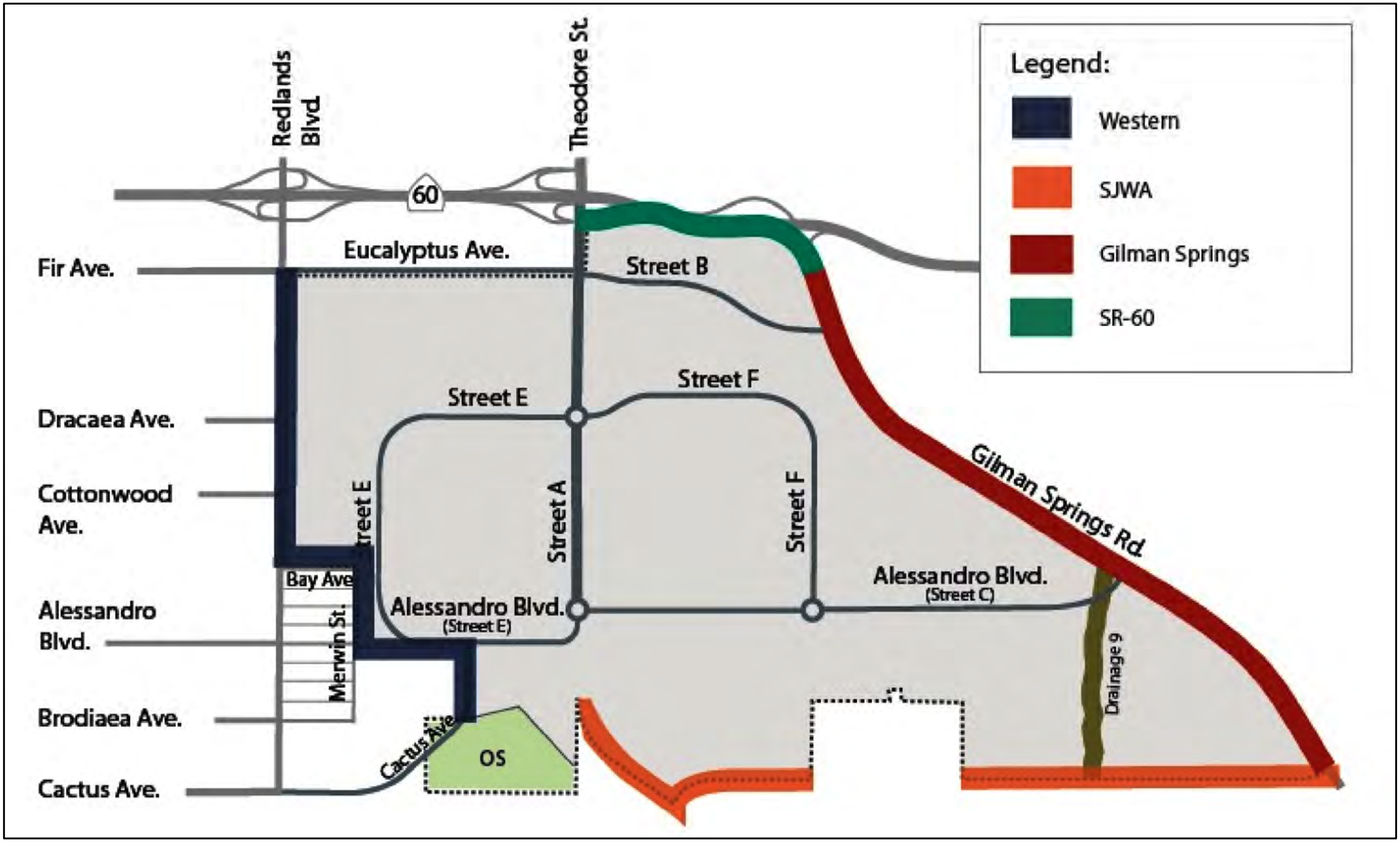

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FIGURE 4.1.6A

World Logistics Center Specific Plan Project
Environmental Impact Report

Special Edge Treatment Area

SOURCE: HF, September, 2014.

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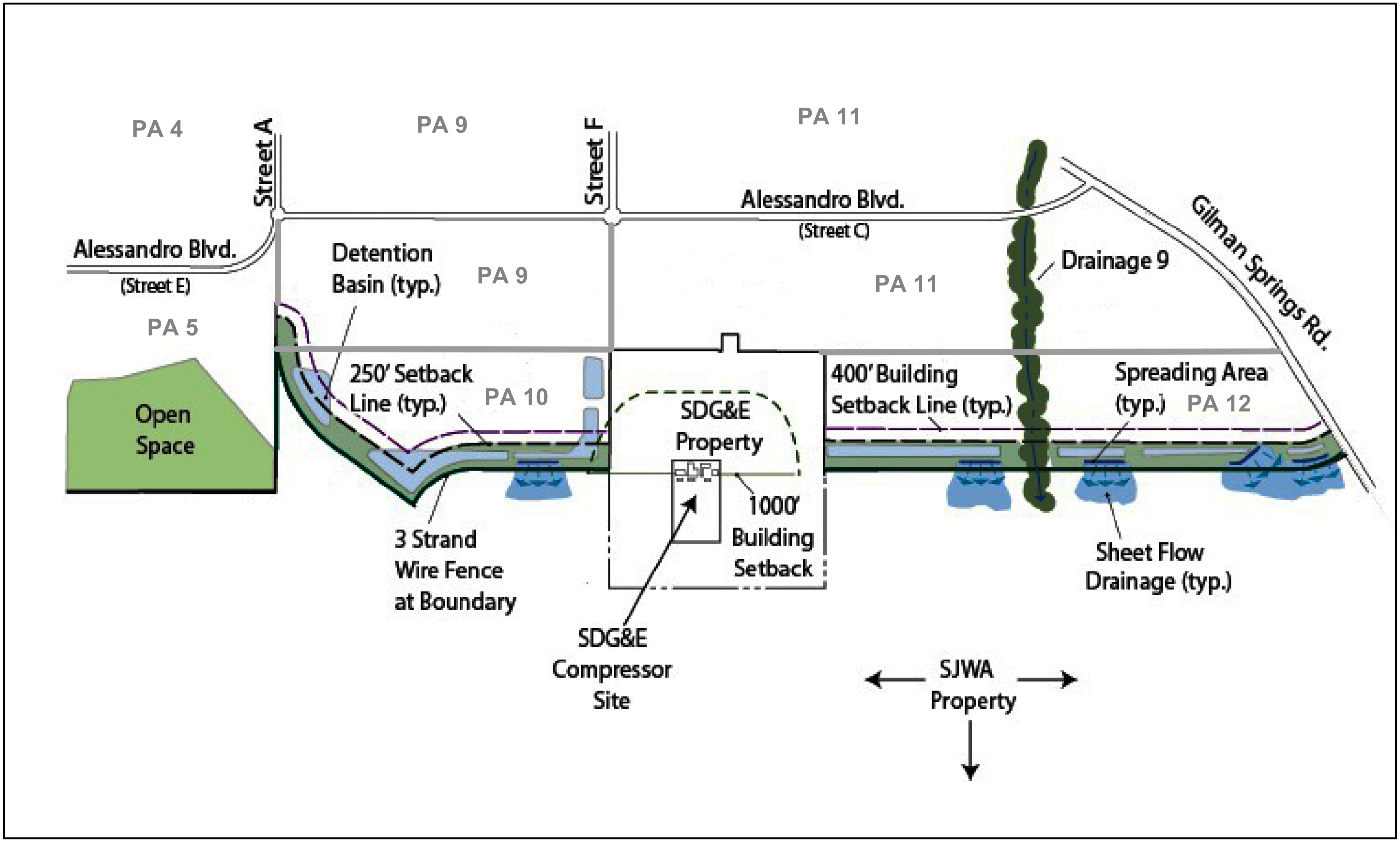

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FIGURE 4.1.6B

PA # Planning Area

World Logistics Center Specific Plan Project
Environmental Impact Report

Southern Edge Treatment

SOURCE: HF, September, 2014.

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General Plan Policies. These anticipated visual changes, while substantial, are generally consistent with General Plan Objective 7.7 in the Conservation Element regarding visual resources, which states, “Where practicable, preserve significant visual features, significant views, and vistas.” Based on the analysis in the preceding section, the WLCSP can preserve significant visual features, significant views, and vistas if the size and location of buildings developed under the WLCSP can be controlled so as to not substantially block views of Mount Russell, the Badlands, and Mystic Lake. The views from all areas surrounding the WLC site will fundamentally change as development occurs, but views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) may be largely preserved through careful limitations on the height and location of future buildings. The WLCSP outlines how future development will be made visually attractive and, through careful limitations on the height and location of future buildings, views of the surrounding mountains and Mystic Lake can be preserved through mitigation of individual buildings.

Impact Summary: Scenic Vistas. The implementation of the proposed project will obstruct and/or substantially affect scenic views for residents living within, or in the vicinity of, the project, and for travelers on SR-60, Gilman Springs Road, Redlands Boulevard, World Logistics Center Parkway~~Theodore Street~~, and Alessandro Boulevard. Many of the views of the motoring public while on local roadways will fundamentally change instead of views of open agricultural land, these residents and motorists will view new logistics buildings and the associated parking areas, roadways, infrastructure, and landscaping. Therefore, the project will have a significant visual impact. The degree to which these buildings may block views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) will depend on the location and heights of buildings. This impact requires mitigation; however, this change in views, while substantial, is anticipated in the City’s General Plan, which allows development within the project area. At present, the General Plan allows development of a mixed-use residential community (i.e., Moreno Highlands Specific Plan), which would mainly be one-story and two-story buildings (approximate maximum height 35 feet). The WLCSP proposes to instead develop the site with logistics warehouse buildings (maximum height 60–80 feet), so this change in itself would represent a significant visual impact. In addition, the eventual change in views from existing (baseline) conditions is substantial and is considered a significant visual impact on scenic vistas.

Project or Specific Plan Design Features. The WLC Specific Plan contains design guidelines for architecture and landscaping within the site, which will guide the design of all project buildings toward attractive and visually appealing treatments. Section 2.0 of the Specific Plan indicates that warehouse uses will occur throughout the site, except for in the 74.3 acres at the southwest corner of the site designated for Open Space (OS). Section 5.0 of the Specific Plan outlines the design standards to be applied to development within the project site, including Site Plan Guidelines (5.2), Architecture (5.3), Landscaping (5.4), and Lighting (5.5).

Specific Plan Section 5.1 indicates the project will utilize “Sustainable Design” to reduce pollution and conserve natural resources by considering renewable energy systems, minimizing the use of potable water, use atriums, skylights and internal courtyards to provide daylighting, orienting buildings to screen loading and service areas, collecting rainwater to irrigate drought-tolerant landscaping, providing landscaped outdoor plazas or entries, screening all truck yards from public view, etc.

Specific Plan Section 5.2 indicates building designs should “employ clean, simple, geometric forms and coordinated massing that produce overall unity, scale, and interest.” They should have appropriate façades, fenestration, glazing materials, roofs, colors, etc. Appropriate building design includes visible vertical support, visible structural base, functional and straightforward elements, columns integrated into the façade, and proper structural scale. The visual examples of what are appropriate and what are not also helps the reader to understand how the future buildings will appear.

NOTE: The following mitigation measures relative to views have been revised largely in Responses to Comments F-13-6 and F-13-21in Letter F-13 from Johnson & Sedlack on behalf of the Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley, Responses to Comments G-57-13, G-95-6, G-95-9, G-95-20, G-95-21, G-95-41, and related comments by others.

Mitigation Measures. The sizes, heights, and general locations of buildings on the site are limited by the standards and guidelines contained in the Specific Plan. The following mitigation measures are recommended to reduce project impacts related to the potential loss of public viewsheds:

4.1.6.1A Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official.

4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. “Effective” screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.

4.1.6.1C Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official.

4.1.6.1D Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.

Level of Significance after Mitigation. After implementation of the proposed mitigation measure(s), adverse effects on scenic vistas would remain significant and unavoidable due to the fundamental change in public views for residents within and surrounding the project site, for travelers on SR-60, Gilman Springs Road, World Logistics Center Parkway~~Theodore Street~~, and Redlands Boulevard,

4.1.6.2 Scenic Resources and Scenic Highways

Impact 4.1.6.2: *The proposed project would have a significant impact on the views of scenic resources for motorists traveling on SR-60 and Gilman Springs Road.*

Threshold	Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and/or local scenic road?

The California Department of Transportation (Caltrans) Scenic Highway Program does not identify any State-designated scenic highways[1] near the project site[2]. However, the City of Moreno Valley identifies SR-60 and Gilman Springs Road as local scenic roads.[3] According to the City's General Plan EIR, major scenic resources within the Moreno Valley study area are visible from SR-60 and Gilman Springs Road, both of which are City-designated local scenic roadways. It should be noted that Moreno Beach Drive, the other City-designated scenic route (per GP policy 7.7.4), is approximately one mile west of the project site. The proposed project would not be visible from Moreno Beach Drive, so it will not be analyzed further in this document. According to the City's General Plan, the built environment is equally important as natural landforms in terms of scenic values (e.g., buildings, landscaping, and signs).

Section 4.1.6.1 of this EIR determined that the proposed project could have a substantial adverse impact on one or more scenic vistas, including views of the Mount Russell Range and the Badlands for both residents and travelers on SR-60 and Gilman Springs Road.

The project is not required to provide a formal Visual Impact Assessment (VIA) to Caltrans since SR-60 is not a state-designated scenic highway; however, a cursory application of typical VIA requirements is useful in evaluating potential visual impacts of the project relative to travelers on SR-60 just north of the site. According to the Caltrans Handbook, a VIA is typically considered for projects that have the potential to change the "visual" environment. The level of assessment for the VIA can range from "no formal analysis" to a "complex analysis" and is determined by many factors such as numbers of viewer groups affected; existence of scenic resources; degree and totality of the proposed changes in the visual environment; local concerns or project controversy; and cumulative impacts along the transportation corridor.

In order to establish the need and level of study for a VIA, a preliminary evaluation is performed to determine if the project will cause any physical changes to the environment. This preliminary evaluation includes activities such as conducting a site visit to inventory the scenic resources of the project site, estimating potential changes to that character, and identifying viewer groups and public concerns or opposition to the proposal.

The following analysis of visual impacts of the project was conducted with the VIA criteria in mind. Even though a Caltrans VIA was not prepared, the following evaluation of potential impacts to visual resources is based on guidance from the following resource documents:

- Federal Highway Administration (FHWA) Technical Advisory T6640.8;
- FHWA Guidance HI-88-054: Visual Impact Assessment for Highway Projects;
- Title 23 U.S.C. 109 (h); and

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[1] A State Scenic Highway is defined as any freeway, highway, road, or other public right-of-way, that traverses an area of exceptional scenic quality.

[2] *Eligible and Officially Designated Routes,* California Department of Transportation Scenic Highway Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm, website accessed April 4, 2012.

[3] *Conservation Element, Figure 7-2 Major Scenic Resources,* City of Moreno Valley General Plan, adopted July 11, 2006.

- FHWA DOT-FH-11-9694: Visual Impact Assessment for Highway Projects, as published by the American Society of Landscape Architects.

Table 4.1.B provides the thresholds for a qualitative analysis as to what would be considered a minor, moderate, or major visual intrusion along scenic highways.

Table 4.1.B: Visual Intrusion Criteria

Type of Intrusion	Characteristics
Minor	Widely dispersed buildings; natural landscape dominates; wide setbacks and buildings screened from roadway; exterior colors and materials are compatible with environment; or buildings have cultural or historical significance.
Moderate	Increased number of buildings, but complementary to the landscape; smaller setbacks and lack of roadway screening; buildings do not degrade or obstruct scenic view.
Major	Dense and continuous development; highly reflective surfaces; buildings poorly maintained; visible blight; development along ridgelines; or buildings degrade or obstruct scenic view.

Source: *Scenic Highway Guidelines,* California Department of Transportation, March 1996; http://www.dot.ca.gov/hq/LandArch/scenic/guidelines/scenic_hwy_guidelines.pdf, site accessed April 27, 2012. Page 23.

The following analysis is generally based on the visual intrusion criteria from the Caltrans Guidelines for the Official Designation of Scenic Highways. These criteria, as identified in Table 4.1.B, provide for a qualitative analysis as to what would be considered a minor, moderate, or major visual intrusion along scenic highways. Existing views for motorists traveling eastbound and westbound on SR-60 consist of agricultural fields in the foreground and midground, and the Mount Russell Range and Badlands in the background. As previously identified in Figures 4.1.4 and 4.1.5, development of the proposed project would significantly alter the existing view by introducing large industrial buildings adjacent to the freeway. Existing eastbound and westbound views on SR-60 and Gilman Springs Road would be fundamentally altered with the future development of the proposed project. Views of the project buildings would occur for up to 112 seconds or almost two minutes when motorists are traveling at normal freeway speeds (approximately 9,000 feet or 1.7 miles @ 55 mph, Redlands Boulevard to Gilman Springs Road). Views would be even longer during rush hour or times of congestion when freeway speeds are below 55 mph and shorter higher freeway speeds.

According to Figure 5-3 in the WLCSP (Building Height Plan, and Figure 3.9 in the Project Description of this EIR), the north, west, and south perimeter portions of the site will have buildings with heights up to 60 feet, and some of the buildings along the eastern perimeter and south of Street C (southeastern portion of the site but not adjacent to the San Jacinto Wildlife Area), would have heights of up to 80 feet. Since the Skechers building (roof height approximately 1,790 feet amsl) is already visible throughout the project site and from off-site areas to the east, south, and southwest, it is likely that most new buildings will be visible from these areas or possibly even farther away, depending on building heights and locations. The use of light colors and reflective surfaces such as glass and polished metal near office entrances and building corners, such as required in the WLC Specific Plan design guidelines, will enhance the visibility of these buildings.

The proposed sound walls and ornamental landscaping would soften the visual impacts of future buildings, but the proposed project would likely result in at least a partial obstruction of a portion of the Mount Russell Range for motorists traveling on SR-60, so the proposed buildings may obstruct the view of a major scenic feature from a City-designated scenic route. The proposed project meets criteria in both the moderate and major visual intrusion categories. Therefore, it is anticipated that the WLC Specific Plan design guidelines may create a major visual intrusion (i.e., significant impact) for motorists traveling on SR-60 and Gilman Springs Road.

General Plan Policies. These anticipated visual changes, while substantial, are generally consistent with the General Plan policies in the Conservation Element regarding visual resources and scenic routes, as outlined in Section 4.1.2.2 and excerpted below:

Objective 7.7	Where practicable, preserve significant visual features, significant views, and vistas.
Policy 7.7.4	Gilman Springs Road, Moreno Beach Drive, and State Route 60 shall be designated as local scenic roads.
Policy 7.7.5	Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake.

Based on the analysis in the preceding section, the WLCSP can preserve significant visual features, significant views, and vistas if the size and location of buildings developed under the WLCSP can be controlled so as to not substantially block views of Mount Russell, the Badlands, and Mystic Lake. The views from SR-60 and Gilman Springs Road will fundamentally change, but their views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) may be preserved through careful limitations on the height and location of future buildings. The WLCSP outlines how future development along SR-60 and Gilman Springs Road will be made visually attractive and can maintain some view corridors of the surrounding mountains and Mystic Lake through careful limitations on the height and location of future buildings. These are considered significant visual impacts on local scenic roads that will require mitigation.

Project or Specific Plan Design Features. As outlined in the previous section, the WLCSP contains architectural and design guidelines that require the construction of attractive warehouse buildings and surrounding grounds. The WLCSP provides examples of building designs, materials, colors, and landscaping that would be allowed (or not allowed) within the Specific Plan. Section 5.0 of the Specific Plan outlines the design standards to be applied to development within the project site, including Site Plan Guidelines (5.2), Architecture (5.3), Landscaping (5.4), and Lighting (5.5).

Specific Plan Section 5.2.3 indicates the project will utilize “Sustainable Design” to reduce pollution and conserve natural resources by considering renewable energy systems, minimizing the use of potable water, use atriums, skylights and internal courtyards to provide daylighting, orienting buildings to screen loading and service areas, collecting rainwater to irrigate drought-tolerant landscaping, providing landscaped outdoor plazas or entries, screening all truck yards from public view, etc.

Specific Plan Section 5.3.4 indicates building designs should employ clean, simple, geometric forms and coordinated massing that produce overall unity, scale, and interest. They should have appropriate façades, fenestration, glazing materials, roofs, colors, etc. Appropriate building design includes visible vertical support, visible structural base, functional and straightforward elements, columns integrated into the façade, and proper structural scale. The visual examples of what are appropriate and what are not also help the reader understand how the future buildings will appear.

However, even with the extensive design features of the Specific Plan, the resulting change in views from SR-60 and Gilman Springs Road will be significant, and mitigation is required.

Mitigation Measures. Construction of future logistics warehousing according to the development standards and design guidelines of the WLC Specific Plan will help soften building façades, and the installation of ornamental landscaping will help screen ~~buffer~~ the visual appearance of the buildings from SR-60, but the obstruction of local views will still be significant. Implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1D** will help reduce these impacts, but not to less than significant levels.

Level of Significance after Mitigation. Even with implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1D**, the loss of views from SR-60 will remain a significant and unavoidable visual impact, but one that is nonetheless consistent with the City's applicable General Plan policies.

4.1.6.3 Existing Visual Character and Surroundings

Impact 4.1.6.3: *The proposed project will significantly degrade the existing visual character of the project site from open space to an urbanized setting by introducing large high cube logistics warehouse buildings.*

Threshold	Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?

NOTE: The following changes have been made due to revisions made to the Specific Plan project size.

Visual impacts associated with changes to the general character of the project site (e.g., loss of open space), the components of the visual settings (e.g., landscaping and architectural elements), and the visual compatibility between proposed site uses and adjacent land uses would occur. The significance of visual impacts is inherently subjective as individuals respond differently to changes in the visual characteristics of an area. The project site is currently undeveloped with existing agricultural fields throughout the site. Development of the proposed industrial uses on the project site would include approximately 40.6 million square feet of warehouse distribution uses with associated parking areas, ornamental landscaping, and roadway and infrastructure on approximately 2,635 acres. Maximum building heights will range from 60 to 80 feet depending on location within the project and will substantially change the views of both nearby residents and motorists on adjacent roadways.

The proposed project would also change views for travelers on the adjacent portion of SR-60 and Gilman Springs Road by introducing large industrial buildings in place of agricultural vacant land. The proposed buildings closest to the freeway would most likely have an average height of approximately 55 to 60 feet, although the maximum height may be increased by up to 10 percent for portions of some buildings if necessary to accommodate interior facilities (i.e., elevator shafts) and architectural design elements, which would exceed the existing height of the adjacent freeway by approximately 30 feet. Such changes may be approved through the administrative variance process which provides for consideration of alternative standards, such as greater building heights, up to a maximum modification of 10%. The Administrative Variance process is provided in Section 11.3.3.1 of the Specific Plan. Development of the proposed project would substantially and fundamentally change the existing character of the project site from open space to an urbanized setting with many large logistics buildings. The change in the character of the site would constitute a significant alteration of the existing visual character of the WLC project site, regardless of the architectural treatment and landscaping of the site. These impacts would be especially significant for residents of the existing residences on the project site, depending on the timing, location, and size of development in the future.

The proposed WLCSP includes a variety of architectural elements including façade accents such as corner treatments and roof trim. The project also provides variation in wall planes that serve to avoid an institutional appearance and break up the bulk of the buildings. This variation would create shadow lines at various times of the day.

The proposed warehouse buildings and ornamental landscaping would replace the widespread agricultural fields and scattered landscaping plants on the site. Landscaping would be provided in accordance with the Specific Plan Landscaping Guidelines.

The City recently approved an amendment to the Municipal Code requiring a 250-foot setback between industrial uses (i.e., the closest building and/or parking areas) and residential uses (i.e., Municipal Code Section 9.06). The Specific Plan design guidelines require specific setback distances. These required setbacks are shown in Section 4.2, *Offsite Landscaping*, of the Specific Plan. This section also includes a number of line-of-sight cross-sections and landscaping plans for the setbacks along the west side of the project. These setbacks provide a minimum 250 feet from existing residences to new proposed buildings or truck activity areas, consistent with the intent of Municipal Code Section 9.06.

In summary, the proposed setbacks, landscaping, berms, and walls outlined in the Specific Plan appear sufficient to provide adequate visual screening between proposed warehouse buildings and the existing residential uses. However, mitigation is required to ensure the actual design and appearance of setback areas will effectively screen new development from existing residences and neighboring roadways.

Consistency with General Plan Policies. Sections 4.1.6.1 and 4.1.6.2 evaluated the WLC project relative to the General Plan objectives and policies in the Conservation Element. Table 4.1.C compares the WLCSP project to the General Plan objectives and policies in the Community Development Element:

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
Objective 2.5: Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.	**Consistent.** The WLCSP provides high cube logistics industrial uses near SR-60.
Policy 2.5.1: The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio (FAR) of 1.00 and the average FAR should be significantly less.	**Consistent.** The WLCSP provides warehousing that is at FAR 0.5, which is much less than the maximum allowed.
Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	**Consistent.** The WLCSP provides setbacks and visual screening from neighboring residential and open space uses, and precludes project traffic through these areas as well.
Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations, and unsightly views.	**Consistent.** The WLCSP shows that the proposed warehouse buildings will be set back and screened from existing off-site residential uses.
Policy 2.5.4: Design industrial developments to discourage access through residential areas.	**Consistent.** WLCSP precludes project truck traffic through residential areas to the west and southwest, as outlined in the WLCSP circulation plan (see DEIR Figure 3.10).
Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.	**Consistent.** The WLCSP provides high quality architectural and landscaping themes for the proposed buildings and grounds within the project.
Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	*Note: The following changes have been made due to the revisions of the Specific Plan project size.* **Consistent.** The WLCSP encompasses 2,610 acres in the last remaining large vacant land in the

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
	City. It will create a new logistics center with unique design themes. This development will be set back and visually screened to make it compatible with other development within the project and screened from adjacent residential uses.
Policy 2.10.2: Screen trash storage and loading areas, ground and roof-mounted mechanical equipment, and outdoor storage areas from public view as appropriate.	**Consistent.** The WLCSP provides design and development guidelines that achieve these requirements.
Policy 2.10.3: Require exterior elevations of buildings to have architectural treatments that enhance their appearance. (a) A design theme, with compatible materials and styles should be evident within a development project. (b) Secondary accent materials, colors, and lighting should be used to highlight building features. (c) Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass. (d) Industrial buildings shall include architectural treatments on visible façades that are aesthetically pleasing.	**Consistent.** The WLCSP contains detailed development and architectural design guidelines intended to provide high quality logistics warehousing development on the project site. The WLCSP design guidelines include secondary accents, roofline variations, setbacks, and façade treatments, consistent with this policy.
Policy 2.10.4: Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces, provide buffers and transitions as needed, and facilitate energy and resource conservation.	**Consistent.** The WLCSP emphasizes landscaping and energy conservation or sustainability concepts as an integral part of project design. The entire southern boundary and the southwest corner of the project will be permanent open space.
Policy 2.10.5: Development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way.	**Consistent.** The WLCSP provides extensive landscaping along the south side of SR-60.
Policy 2.10.6: Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.	**Consistent.** The WLCSP includes a section on signage to provide a comprehensive plan for signage throughout the project area.
Policy 2.10.7: On-site lighting should not cause nuisance levels or glare on adjacent properties.	**Consistent with Mitigation.** The WLCSP contains lighting guidelines for future development, but ambient light level impacts will need to be calculated and, if necessary, mitigated through the City's site plan review process for each specific building proposed.
Policy 2.10.8: Lighting should improve the visual identification of structures.	**Consistent.** The WLCSP includes a section on signage with lighting for a comprehensive plan throughout the project area.
Policy 2.10.9: Fences and walls should incorporate landscape elements and changes in materials or textures to deter graffiti and add visual interest.	**Consistent.** The WLCSP design guidelines require that fences and walls incorporate landscaping and materials designed to reduce graffiti.
Policy 2.10.10: Minimize the use and visibility of reverse frontage walls along streets and freeways by treatments such as landscaping, berming, and "side-on" cul-de-sacs.	**Consistent.** The WLCSP design guidelines do not allow reverse frontage walls. The SR-60 freeway frontage along the north side of the project will be fully landscaped.
Policy 2.10.11: Screen and buffer non-residential projects from adjacent residential property and other sensitive land uses when necessary to minimize noise, glare, and other adverse effects on adjacent uses.	**Consistent.** The WLCSP provides a physical and visual setback to screen new warehouse buildings from existing residential buildings.

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).	**Consistent.** The WLCSP requires parking areas to be screened consistent with surveillance needs.
Policy 2.10.13: Provide landscaping in automobile parking areas to reduce solar heat and glare.	**Consistent.** The WLCSP landscaping plan provides for planting vegetation in parking areas that will help provide shade and reduce glare.

Due to the size and nature of the project, development of the WLCSP will eventually degrade the existing visual character of the area to a significant degree.

Project or Specific Plan Design Features. As outlined in previous sections, the WLCSP contains architectural and design guidelines that will encourage the construction of attractive warehouse buildings and surrounding grounds. The WLCSP provides examples of building designs, materials, colors, and landscaping that would be allowed (or not allowed) within the Specific Plan.

~~*NOTE: The following mitigation measure regarding views has been changed in Response to Comment F-8-3 in Letter F-8 from Shute Mihaly & Weinberger LLP, Comment G-33-6 in Letter G-33 from Tom Behrens, Responses to Comments G-95-21, G-96-4, and related comments from others.*~~

Mitigation Measures. Incorporation of the proposed design guidelines, landscaping guidelines, and **Mitigation Measure 4.1.6.1A** will help soften the visual appearance of the buildings from SR-60, Gilman Springs Road, and nearby residences. However, the fundamental change in visual character of the area will still be significant. Even with compliance with the City's General Plan and Municipal Code development guidelines for industrial development, including the 250-foot setback between industrial and residential land uses, the anticipated fundamental change in views expected in this area will be significant. Due to the heights and mass of buildings needed to accommodate the proposed land uses, no feasible mitigation is available that would reduce these potential impacts to less than significant levels. However, the following measure will help reduce the project's visual impacts on adjacent residential development:

4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.

Level of Significance after Mitigation. Even with implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1D** and **4.1.6.3A** the substantial change in visual character of the project site and surrounding area from development of the proposed project will cause aesthetic impacts to remain significant and unavoidable.

4.1.6.4 Light and Glare

Impact 4.1.6.4: *The proposed project will introduce a significant new source of light and glare into the project area.*

Threshold	Would the proposed project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Currently, there are few sources of light or glare on the project site and there is little or no impact on adjacent properties. Existing sources of light and glare in the surrounding area include the new Skechers building to the northwest of the project site, SR-60 traffic, streetlights, exterior lighting from the nearby residences, and vehicle headlights from motorists on Gilman Springs Road, Redlands Boulevard, World Logistics Center Parkway~~Theodore Street~~, and Alessandro Boulevard.

Development of the project site would introduce numerous new sources of light and glare into the area in the form of street lighting, parking lots, and security lighting for the buildings and nighttime traffic.

The WLCSP requires that all site lighting be oriented downward so as to not project direct light rays upward into the sky or onto adjacent properties. The development of the project will cause a significant increase in light and glare in the area. This new lighting will incrementally affect nighttime conditions in the area.

The WLC Specific Plan requires energy-efficient lighting in most cases, but does allow mercury or incandescent lighting under some conditions (i.e., limited walkway or entryway applications). In addition, the lighting guidelines of the Specific Plan require high-pressure sodium or light-emitting diodes (LEDs) that produce a very “white” color of light, which allows for accurate color rendition (e.g., compared to low-pressure sodium, which produces an orange-tinged light that skews color rendition).

Exterior surfaces of the concrete tilt-up structure would be finished with a combination of architectural coatings, trim, and/or other building materials such as concrete and brushed metal. The proposed project will incrementally increase the amount of daytime glare in the project area by introducing windows and metal fixtures into the area. All development in the City, which includes light generated from warehouse buildings and parking lots, is required to adhere to lighting requirements contained in the City’s Municipal Code (Section 9.08.100 *Lighting*), which states that any outdoor lighting associated with nonresidential uses shall be shielded and directed away from the surrounding residential uses. Such lighting shall not exceed one-quarter (0.25) foot-candle at property lines and shall not blink, flash, oscillate, or be of unusually high intensity or brightness. Lighting in parking areas and drive aisles must be at least 1.0 foot candle and cannot exceed a maximum of 8.0 foot candles.

Adherence to the City’s Zoning Code would help reduce potential building or parking lighting impacts, but the location of industrial uses adjacent to residential uses would not reduce potential lighting impacts on adjacent residential uses to less than significant levels.

The WLC Specific Plan also allows for the installation of roof-mounted solar panels on future warehouse buildings and these panels may produce unintended glare to the southeast, south, and southwest of the site, depending on the angle of the sun, the number and location of panels, and the degree to which the building parapet blocks views of the panels from surrounding land uses. Without additional information, this impact is determined to be potentially significant and requires mitigation.

Consistency with General Plan Policies. The only General Plan policy that specifically addresses lighting is Policy 2.10.7, which states, **“**On-site lighting should not cause nuisance levels or glare on adjacent properties.” Due to the amount of new development proposed, the project’s impact relative to nuisance lighting and glare is potentially significant, even with implementation of the development and lighting design guidelines in the WLCSP. Therefore, mitigation is required.

Consistency with Municipal Code Requirements. The recent changes to the Municipal Code from Ordinance 851 will help control lighting impacts of the proposed project relative to adjacent residential properties. All development within the Specific Plan adjacent to residences along Redlands Boulevard, Bay Avenue, and Merwin Street will be required to demonstrate compliance with the off-site light spillage requirements of Section 9.08.100 of the Municipal Code.

Project or Specific Plan Design Features. The WLCSP contains lighting standards and design guidelines that will require the minimal use of lighting for building visibility and safety at night. The WLCSP provides examples of lighting that would be allowed (or not allowed) within the Specific Plan. However, Section 5.5.1 of the Specific Plan states that, "… lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area" (WLCSP page 5-47).

In addition, Section 5.5 of the Specific Plan includes the following guidelines regarding lighting:

5.5.2.2 All exterior on-site lighting must be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent lots.

5.5.2.3 Lighting fixtures are to be of clean, contemporary design.

5.5.2.4 Lighting must meet all requirements of the City of Moreno Valley.

5.5.2.5 Tilted wall fixtures (i.e., light fixtures which are not 90 degrees from vertical) are not permitted. Lights mounted to the roof parapet are not permitted. Wall-mounted light fixtures used to illuminate vehicular parking lots are not permitted.

5.5.2.6 Wall-mounted utility lights that cause off-site glare are not permitted. "Shoebox" lights are preferred.

NOTE: The following changes to mitigation for lighting impacts from solar panels have been made in Response to Comment G-95-42 in Letter G-95 from Thomas Thornsley.

Mitigation Measures. Even with compliance with the City's General Plan, Municipal Code, and the Specific Plan's development guidelines for lighting and building materials, the anticipated lighting and glare changes in this area will be potentially significant, especially adjacent to the San Jacinto Wildlife Area. Implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1B** will help reduce related visual impacts, while **Mitigation Measures 4.1.6.4A** and **4.1.6.4B,** below, will help reduce light and glare associated with the new buildings near the SJWA. The project will also have to comply with the lighting requirements of City Municipal Code.

In addition, the following measures are recommended to help ensure that potential lighting impacts of the project will remain at less than significant levels:

4.1.6.4A Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts.

4.1.6.4B Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.

Level of Significance after Mitigation. Light and glare impacts of the proposed project can be reduced to less than significant levels by compliance with the lighting requirements of the City Municipal Code and implementation of **Mitigation Measures 4.1.6.4A** and **4.1.6.4B.**

~~4.1.7 Cumulative Impacts~~

~~**Significant Cumulative Impact:** The proposed project, in combination with other projects in the eastern portion of the City and along SR-60 and Gilman Springs Road, would have a cumulatively significant and unavoidable impact related to views, scenic resources, night lighting, and glare in this portion of the City.~~

~~The development of the proposed project would partially obstruct views of surrounding mountain vistas from various vantage points in and around the project area. Partial view opportunities would continue to be available over future buildings, along roadways, between development areas, etc. Development of lands within the City, particularly along SR-60, would result in the cumulative conversion from open space to urbanized land uses. The proposed project would continue the development of logistics uses along the south side of SR-60 east of the City's Auto Center. The proposed project, in conjunction with other cumulative projects, would be developed in a manner consistent with existing development trends in the City. Since other projects in the area will include similar distribution uses, it can be anticipated that such uses would have a similar design and massing as the proposed project. Since the proposed project would affect views of the surrounding mountains, it is reasonable to conclude that similar warehouse distribution uses would also obstruct views of the surrounding mountains. However, the analysis in Section 4.1.6.1 determined visual impacts, though substantial, were consistent with applicable General Plan policies (Policy 7.7.4 in the Conservation Element). Based on this analysis, the proposed project, in combination with other cumulative projects in the surrounding area, will have a cumulatively significant and unavoidable impact related to aesthetics (i.e., views, scenic resources, and lighting) in this portion of the City.~~

~~The proposed, existing, and future development within the planning area will increase the amount of light and glare in the area. The cumulative lighting-related impacts of this new development would be reduced through the adherence to applicable City Municipal Code lighting standards. However, this project, in combination with the Auto Center and other approved high cube logistics developments in this portion of the City, will result in cumulatively considerable light and glare impacts, and the proposed project will make a significant contribution to that cumulative impact.~~

~~4.2 AGRICULTURAL AND FORESTRY RESOURCES: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

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~~***NOTE TO READERS.*** *This section has been revised based on responses to comments on the Programmatic DEIR regarding calculation of and mitigation for loss of agricultural land, changes to the WLC Specific Plan, and changes to related technical studies.*~~

~~4.2 AGRICULTURAL AND FORESTRY RESOURCES~~

NOTE TO READERS: The cumulative portion of Section 4.2 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.2 of this Revised Sections of the FEIR. This section has been updated to reflect the updated 2016 State of California, Riverside County Important Farmland Map. The absence of reference to a portion of Section 4.2 means that the corresponding portion of Section 4.2 in the FEIR remains unchanged or has been deleted.

4.2 AGRICULTURAL AND FORESTRY RESOURCES

This section discusses possible agricultural and forestry resource impacts attributable to the ~~proposed~~World Logistics Center project. It describes existing agricultural resources and State farmland classifications for the project site. This section focuses on applicable State, regional, and local policies regarding agricultural resources and the conversion of farmland to non-agricultural uses.

~~*NOTE:*~~ The Superior Court ruling and writ of mandate require the following ~~*changes have been made due*~~actions with regards to ~~*revision to the Specific Plan project size.*~~

~~For~~ the ~~reader's reference, this EIR and each of the technical reports~~analysis of Agricultural and ~~analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~Forestry Resources:

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR,~~ ~~*Project Characteristics.*~~

- *The FEIR and the resolution certifying the FEIR require clarification as to whether loss of locally important farmland will have a significant direct or cumulative impact on agriculture and, if significant, the FEIR must either explain how proposed mitigation will reduce the impact or why other mitigation is not feasible".*

At the time the Draft EIR was prepared, 25 acres of the project site were designated as "Unique Farmland" and 2,200 acres were designated as "Farmland of Local Importance by the state Department of Conservation. The Draft EIR found that the development of the World Logistics Center would convert the 25 acres of "Unique Farmland" to urban uses represented a significant impact to agricultural resources. Mitigation Measure 4.2.6.1 was applied to require an agricultural easement over comparable land, and therefore, reduce this impact to less than significant. In response to comments, the FEIR added analysis under the California Land Evaluation and Site Assessment (LESA) model (discussed further in Section 4.2.6.2 below) which demonstrated that potential impacts to Farmland of Local Importance would be less than significant. However, certain other text in the FEIR and in the City's resolution to certify the FEIR had not been updated and erroneously indicated that there was a significant impact resulting from the development of the Farmland of Local Importance. This revised Section 4.2 corrects these misstatements and replaces in its entirety Section 4.2 of the FEIR.

Since publication of the FEIR, the California Department of Conservation has published its "Riverside County Important Farmland 2016" map (published July 2017) which shows that the 25-acre parcel that had previously been designated as "Unique Farmland" has been re-designated as "Farmland of Local Importance." In addition, there were additional revisions to the Farmland designations on the project site. Based on the Farmland map published in July 2017, the 2,610-acre World Logistics Center site includes 2,361 acres of Farmland of Local Importance, 247.5 acres of Other Land, and 1.5 acres of Urban Built-up Land. With the change in designations for this parcel, the mitigation measure to reduce the impact from the loss of the onsite area designated as Unique Farmland is no longer applicable, since there is no longer any "Unique Farmland" in the development area of the World Logistics Center site. As a result of the publication of the revised map, this Revised Sections of the FEIR has updated the exhibit and text to reflect the most current designations.

The following text and figure from the FEIR has been revised to address the issues discussed above.
The analysis contained in this section is based on the following reference documents:

- *Agricultural Mitigation Bank Memorandum*, County of Riverside Transportation and Land Management Agency, October 2, 2003.
- *Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 12, 2012, revised December 2013.
- *California LESA Model*, Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW). December 20, 2013.
- *A Guide to the Farmland Mapping and Monitoring Program*, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.
- *California Land Evaluation and Site Assessment Model, Instruction Manual*, California Department of Conservation, Office of Land Conservation, 1997.
- *Conservation Element, City of Moreno Valley General Plan*, adopted July 11, 2006.
- Google Maps Street View, imagery dated 2007.
- Moreno Valley General Plan Land Use Map, November, 2017
- *Moreno Valley General Plan Environmental Impact Report*, SCH#200091075, certified July 2006.
- *Moreno Valley Municipal Code*, Chapter 9.06, current through February 2012.
- Riverside County Integrated Project website, http://www.rcip.org/, accessed April 5, 2012.

- *Riverside County Land Use Conversions, 1998–2000, 2000–2002, 2002–2004, 2004–2006,* California Department of Conservation, Division of Land Resources Protection.
- *Riverside County 2010 Agricultural Production Report*, Riverside County Farm Bureau, 2010.
- *Soil Survey Western Riverside County Area California*, United States Department of Agriculture, November 1971.
- *An Agriculture Industry Analysis of the Inland Empire*, Andrew Chang & Company, LLC. March 12, 2012 (DEIR Appendix C).
- California Department of Conservation's "Riverside County Important Farmland 2016" map (published July 2017).
- *Habitat Assessment, MSHCP Consistency, and HANS Report*, MBA, original dated December 20, 2012, revised September 2014 and May 2018. (This includes the focused surveys included as separate documents in the previous version.)

The California Land Evaluation and Site Assessment (LESA) Model worksheets prepared for the project are included in Appendix C to this ~~EIR~~Revised Sections of the FEIR (*Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 2012, revised September 2014).

4.2.1 Existing Setting

Most of the land within the project area has been utilized for agricultural purposes since the late 1880s. The area has a history of citrus production and dryland farming incorporating various agricultural activities such as frequent disking, infrequent pesticide application, and very limited irrigation. Due to a variety of local and regional economic factors, agricultural production is no longer a principal characteristic of the Moreno Valley economy.[1]

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

Based on the updated project ~~biology study (MBA 2014~~habitat assessment (ESA, 2018) and the review of recent aerial photographs, ~~currently~~ approximately 2,~~452~~200 acres or ~~94~~84 percent of the 2,610-acre Specific Plan area is currently dry farmed, mainly with winter wheat. The remaining acreage of the Specific Plan area contains rural ~~residences and related building/~~residential uses~~,~~ and disturbed native vegetation~~ in the northeast and southwest portions of the site~~.

~~Approximately 897 acres or 81 percent of the 1,104-acre open space properties that are owned by the State and public utility companies and located south of the Specific Plan site are in active agriculture; they are also being dry farmed primarily with winter wheat. The remaining land in this area includes disturbed native vegetation associated with Mystic Lake and public facilities, such as the two natural gas facilities.~~

~~Adjacent to the project area, suburban residential uses are located to the west, open space and scattered rural residential uses are located to the east, and State-owned open space properties, such as the Lake Perris Recreation Area and the San Jacinto Wildlife Area, are located to the southwest and south, respectively.~~ The farming activity on the WLC area has been conducted for the past several years under contract to a single contractor, Bruno Farms. The landowner, Highland Fairview, has made the land available for agricultural use at no cost, as the agricultural activities provide a valuable property maintenance function (fuel modification). Based on conversations with the contractor, agricultural production on the World Logistics Center site has been largely unsuccessful. For example, during the last seven years (the period for which statistics are available), only one year (2017) produced a

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[1] Conservation Element, City of Moreno Valley General Plan.

harvestable crop. That year, rainfall levels in the area were extraordinarily high. In six of the past seven years, no crops were harvested at all. The contractor indicates that the lack of productivity of the past seven-year period is typical for the entire period he has been farming the WLC property. Despite the lack of productivity, the contractor continues to farm the property simply to continue his family's long history in agriculture. Table 4.2-1 includes the results of each year's production.

Table 4.2-1: Agricultural Production at World Logistics Center Site

Year	Rainfall (Wet/Dry)	Planted (Acres)	Crop	Harvested (Bushels)
2012	Dry	2,200	Wheat	0
2013	Dry	2,200	Wheat	0
2014	Dry	2,200	Wheat	0
2015	Dry	2,200	Wheat	0
2016	Dry	2,200	Wheat	0
2017	Wet	2,200	Wheat	79,992
2018	Dry	2,200	Wheat	0
Total Production from 2012 to 2018 (7 Years)				79,992
Average Annual Production for 2,200 acres				11,427
Average Annual Production per Acre				5.19

Source: Highland Fairview and Bruno Farms, 2018.

4.2.1.1 State Designated Farmland

The California Government Code (Section 65570) requires the collection and reporting of agricultural land use acreage ~~and conversion~~ by June 30 of each even-numbered year. Utilizing data from the U.S. Department of Agriculture~~ (USDA)~~, Natural Resource Conservation Service (USDA, NRCS) soil survey and current land use information, the ~~California Department of Conservation (DOC), the~~ Farmland Mapping and Monitoring Program (FMMP)[1] within the California Department of Conservation (DOC), compiles important farmland maps for each county within the State. Maps and statistics are produced biannually using a process that integrates aerial photo interpretation, field mapping, a computerized mapping system, and public review. These maps delineate land use in eight mapping categories (and one overlay category) and represent an inventory of agricultural soil resources within each county. The map for Western Riverside County ~~(see~~is provided in Figure 4.2~~.~~2-~~1).~~. The categories of land shown on these maps are listed below.

- **Prime Farmland:** Land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.
- **Farmland of Statewide Importance:** Land that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store moisture.

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[1] A Guide to the Farmland Mapping and Monitoring Program, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.

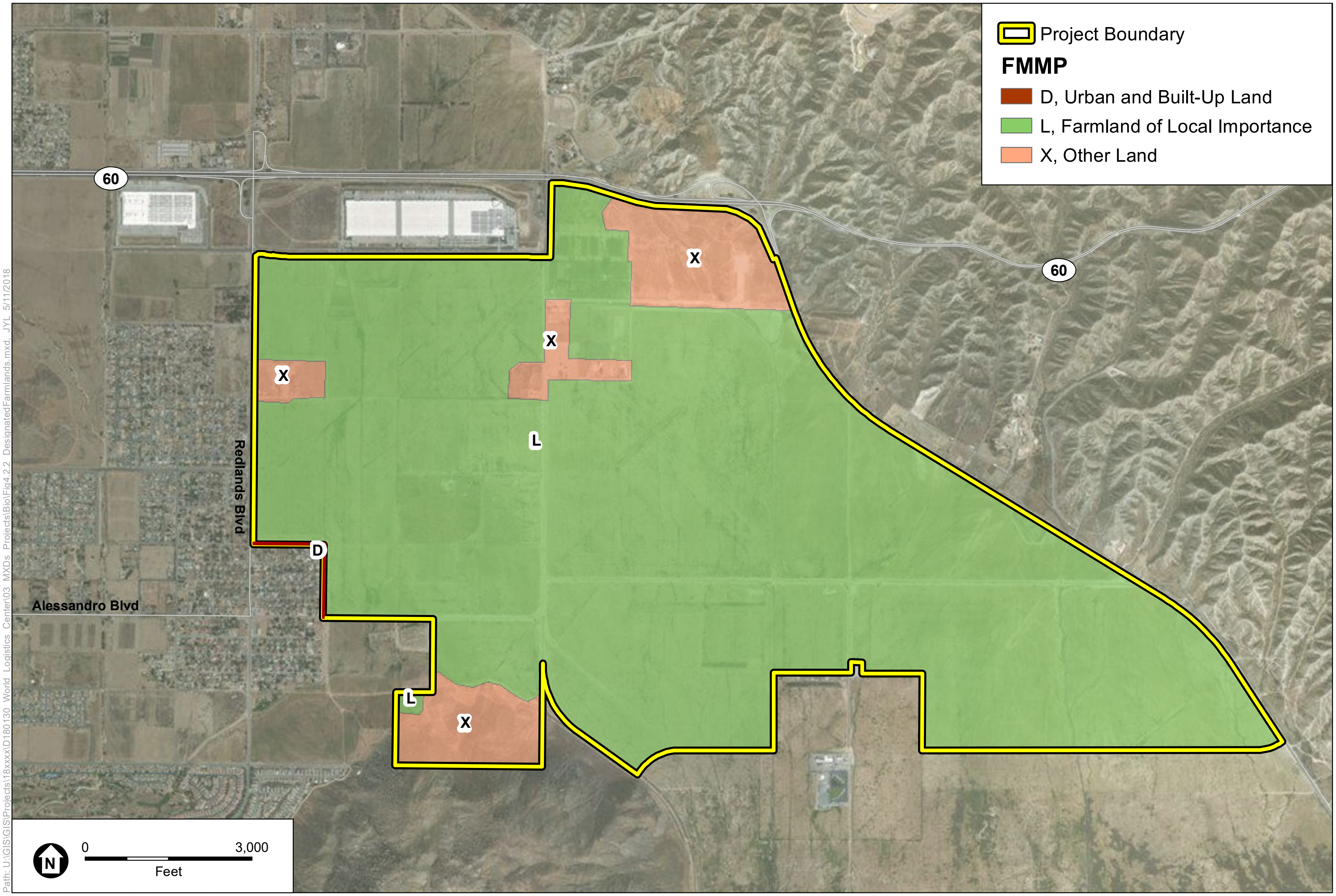

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SOURCE: ESRI 2016; FMMP 2016; Highland Fairview 2018

World Logistics Center

Figure 4.2-2
State Designated Farmlands

ESA

- **Unique Farmland:** Land of lesser-quality soils used to produce specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of Unique Farmland crops include oranges, olives, avocados, rice, grapes, and cut flowers.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committees, i.e., dairies, dry land farming, aquaculture, and uncultivated areas with soils qualifying for Prime Farmland and Farmland of Statewide Importance.

  Farmland of Local Importance in Riverside County, including the City of Moreno Valley, is defined as:

  - Lands with soils that would be classified as Prime Farmland and Farmland of Statewide ~~Farmland~~Importance but lack available irrigation water.
  - Lands planted with dry land crops of barley, oats, and wheat.
  - Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
  - Dairylands, including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture, or hayland of 10 acres or more.

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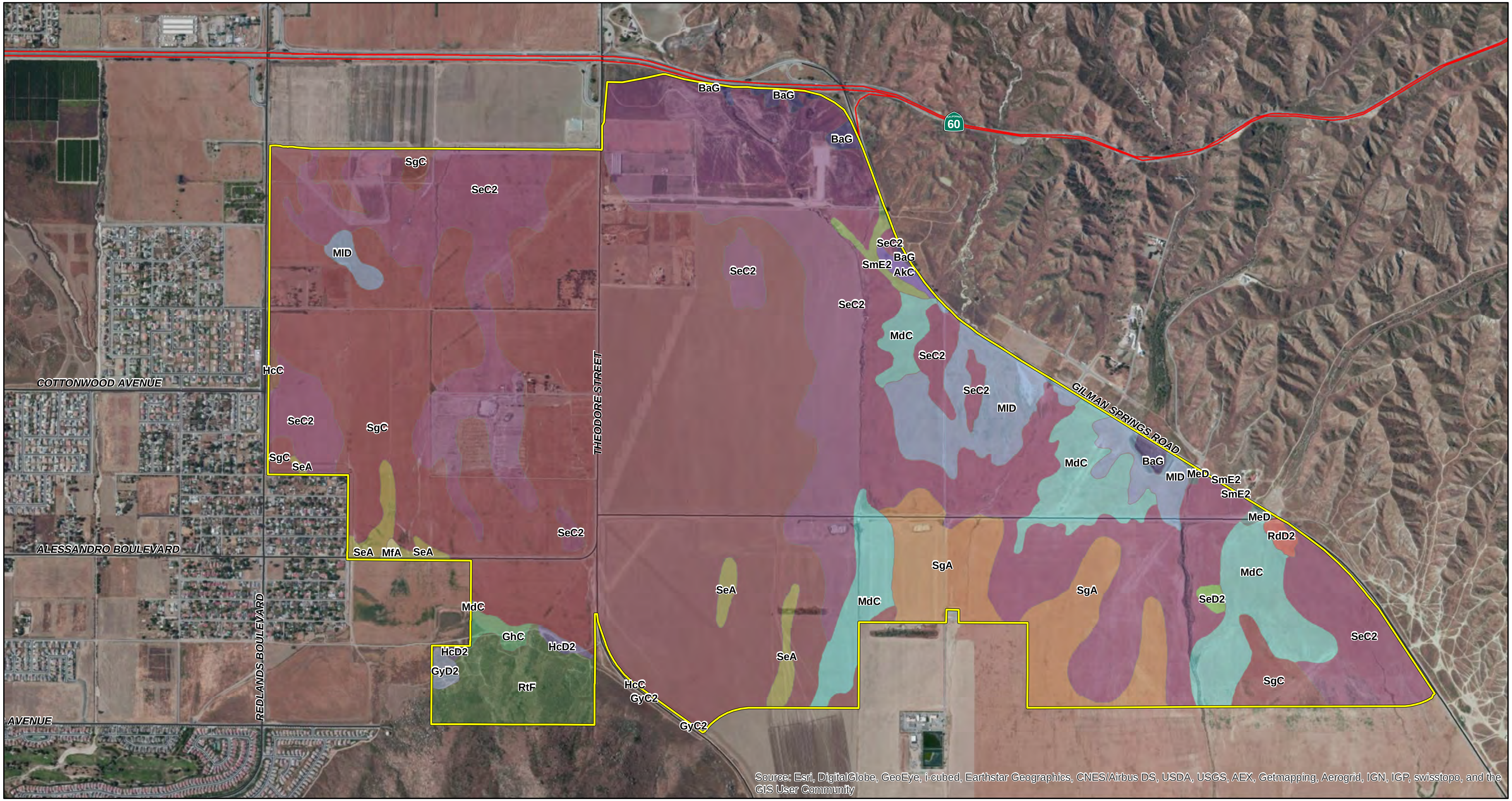

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▭ Project Boundary

Soil Classification

🟪 AkC:Arbuckle loam, 2 - 8 % slopes
🟪 BaG:Badland
🟩 GhC:Gorgonio loamy sand, 0 - 8 % slopes
🟪 GyC2:Greenfield sandy loam, 2 - 8 % slopes, eroded
🟦 GyD2:Greenfield sandy loam, 8 - 15 % slopes, eroded
🟫 HcC:Hanford coarse sandy loam, 2 - 8 % slopes
🟪 HcD2:Hanford coarse sandy loam, 8 - 15 % slopes, erod ed
🟦 MdC:Metz loamy sand, 2 - 8 % slopes
🟦 MeD:Metz loamy sand, channeled, 0 - 15 % slopes
🟨 MfA:Metz loamy fine sand, 0 - 2 % slopes
🟦 MlD:Metz gravelly sandy loam, 2 - 15 % slopes
🟥 RdD2:Ramona sandy loam, moderately deep, 8 - 15 % slopes, eroded
🟩 RtF:Rockland
🟨 SeA:San Emigdio fine sandy loam, 0 - 2 % slopes
🟪 SeC2:San Emigdio fine sandy loam, 2 - 8 % slopes, eroded
🟩 SeD2:San Emigdio fine sandy loam, 8 - 15 % slopes, eroded
🟧 SgA:San Emigdio loam, 0 - 2 % slopes
🟥 SgC:San Emigdio loam, 2 - 8 % slopes
🟩 SmE2:San Timoteo loam, 8 - 25 % slopes, eroded

FIGURE 4.2.1

World Logistics Center
Specific Plan Project
Environmental Impact Report

Soils Map

SOURCE: ESRI, World Imagery, 2010; Soild Data Mart, 2003.

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  - Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City “Proposition R” lands.
  - Lands planted with jojoba, which are under cultivation and are of producing age.

- **Grazing Land:** Land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.

- **Urban and Built-up Land:** Land used for residential, industrial, commercial, construction, institutional, and public administrative purposes such as railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities also are included in this category.

- **Other Land:** Land not included in any of the other mapping categories. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres.

- **Water:** Water areas with an extent of at least 40 acres.

- **Land Committed to Nonagricultural Use:** This optional designation is an overlay to the standard farmland categories and represents existing farmland and grazing land and vacant areas that have a permanent commitment for development. Examples of Land Committed to Nonagricultural Use would include an area undergoing permanent infrastructure installation or for which bonds or assessments have been issued for public utilities. Such lands represent planning areas where there are commitments for future nonagricultural developments that are not reversible by a simple majority vote by a city council or board of supervisors.

Figure 4.2.2 details farmland designations on the project area. Approximately 2,~~201~~361 acres, or ~~59~~90 percent of the ~~3,714~~2,610-acre project ~~area~~site, are designated as Farmland of Local Importance. Approximately ~~25 acres at the southeast corner of Theodore and Eucalyptus Streets are designated Unique Farmland. Imagery dated 2007 shows fallow fields with ruderal vegetation in this area, although some plowing appears to have occurred and several greenhouses stood on the site at that time.~~~~[1]~~ ~~Approximately 400~~247.5 acres located in several areas of the project area are designated X (Other Land) with the largest acreages in the northeast corner, southwest, and south central portions of the project area. ~~Although there are seven scattered rural residences on the project site, a “worst-case” assumption is that 2,200 acres of the WLC project site are considered Farmland of Local Importance with 25 acres classified as Unique Farmland by the State.~~Approximately 1.5 acres are designated Urban Built-up Land in the southwest portion of the project site. In addition,104 acres of offsite area required for infrastructure improvements are designated as X (Other Land).

4.2.1.2 California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, also referred to as the Williamson Act, is a non-mandated State program administered by counties and cities for the preservation of agricultural land. This program enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive much lower property tax assessments than normal because the assessments are based upon farming and open space uses rather than full market value.

Participation in the program is voluntary on the part of both landowners and local governments, and it is implemented through the establishment of Agricultural Preserves and the execution of Williamson

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~~[1] Google Maps Street View, dated 2007, viewed April 3, 2012.~~

Act contracts. Individual property owners enter into a contract that restricts or prohibits development

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~~**Figure 4.2.2: State Designated Farmland**~~

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of their property to non-agricultural uses during the term of the contract in return for lower property taxes. Initially signed for a minimum ten-year period, the contracts are automatically renewed each year for a successive minimum ten-year period unless a notice of non-renewal is filed, or a contract cancellation is approved by the local government.

The nearest parcel that is under Williamson Act contract is approximately 1.5 miles to the southeast of the project site just west of Gilman Springs Road~~ (see Figure 4.2.3).~~. This property is outside of Moreno Valley city limits but within the city's sphere of influence. There are no Williamson Act Conservation contracts[1] within the project area.

4.2.1.3 General Plan, Specific Plan, and Zoning Designations

General Plan. The City's 2006 General Plan Land Use Element (Land Use Map, updated November, 2017) has no "agricultural" land use designation.[2] The EIR accompanying the City's 2006 General Plan determined that the conversion of agricultural land to nonagricultural uses ~~throughout the City represented a significant cumulative impact. As~~represented a significant cumulative impact. In accordance with Section 15152 of the CEQA Guidelines, "agencies are encouraged to tier the environmental analysis which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for discussion at each level of environmental review." This Revised Sections of the FEIR is being tiered with the City's 2006 General Plan EIR. The City's 2006 General Plan EIR identified that as the transition from agricultural to urban and suburban uses continues, the extent to which agriculture and supporting economic activities contribute to the economic base of the City is reduced. In its adoption of the 2006 General Plan, the City recognized that these losses were offset by the economic activities and social benefits that typically accompany urban development. In connection with the City's conclusion that a significant cumulative impact would result from implementation of the General Plan, the City adopted ~~findings and facts~~Findings of Fact and a Statement of Overriding Considerations indicating that social and economic factors outweighed the significant cumulative impacts associated with conversion of agricultural land to non-agricultural use.

~~Most of the project area is within the current Moreno Highlands Specific Plan and is designated for a mix of Business Park, Open Space, Residential, Commercial, Mixed Use, and Public Facilities land uses (see Section 4.10, *Land Use and Planning*). The land uses proposed in the WLCSP are Logistics Development (LD), Light Logistics (LL), and Open Space (OS).~~

~~4.2.1.4 NOP/Scoping Comments~~

~~During the NOP/scoping process, some local residents expressed concern over the loss of agricultural land on the project site.~~

The General Plan designation for the project site is Business Park/Light Industrial. The zoning for the project site is World Logistics Center Specific Plan – Logistics Development and World Logistics Center Specific Plan – Light Logistics. The development of the project site is regulated by the World Logistics Center Specific Plan.

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[1] Department of Conservation, FMMP, 2008.

[2] City of Moreno Valley General Plan, adopted July 2006. Available at: http://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/ieir/eir-tot.pdf

4.2.2 Existing Policies and Regulations

4.2.2.1 City of Moreno Valley General Plan Policies

~~The~~Neither, the City of Moreno Valley's General Plan ~~does not designate~~nor it's zoning designates any land for agricultural production or preservation, but growing crops is permitted in all of the City's zoning categories. Where practical, the City encourages incorporation of crops, such as existing tree groves, into the design of proposed development projects allowing continuation of the agricultural character of the area as well as providing a buffer between different types of land uses.

The following City General Plan goals and policies ~~pertain to and~~ are applicable to the ~~proposed~~World Logistics Center project.

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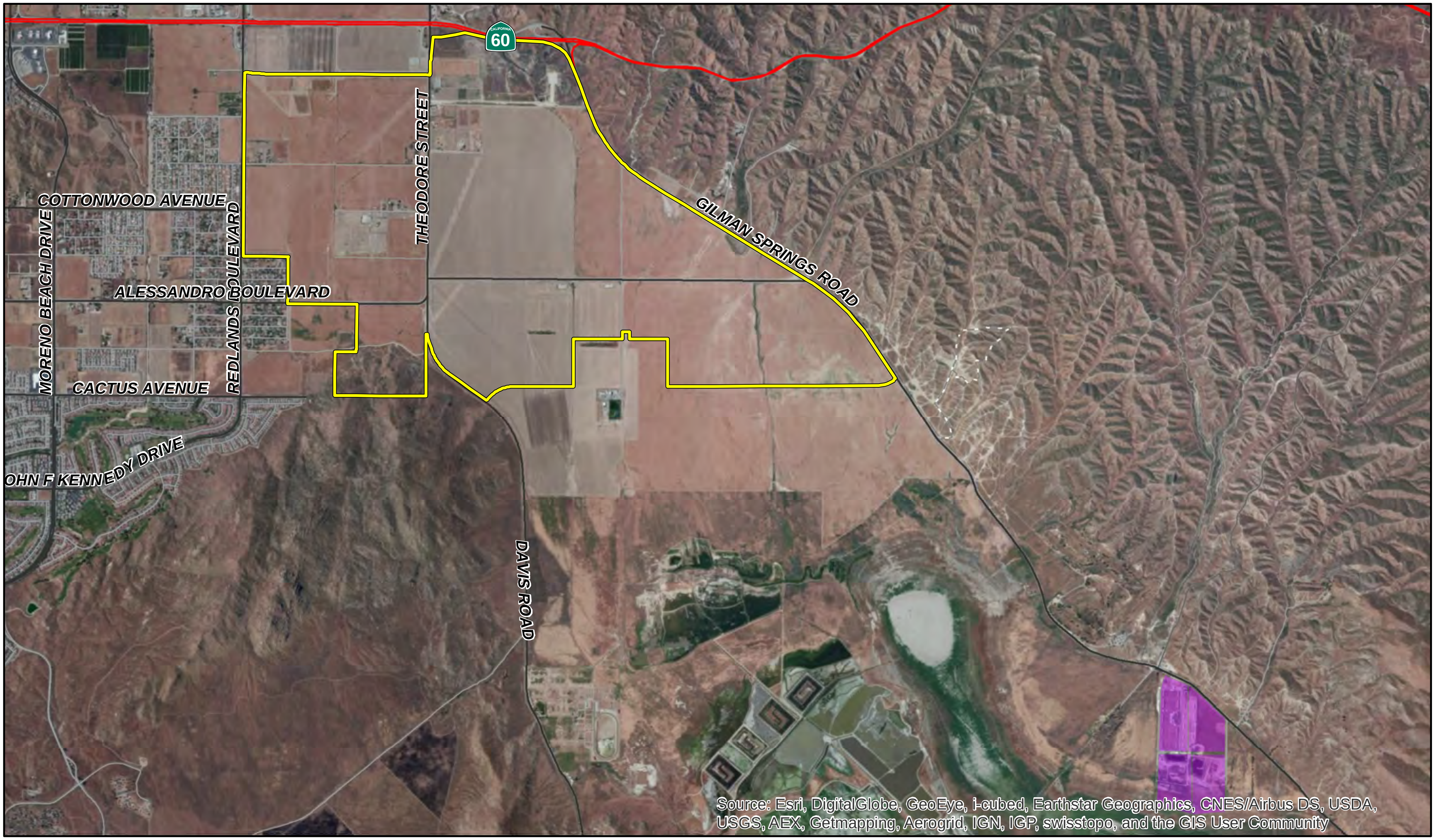

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LSA

FIGURE 4.2.3

▭ Project Boundary

🟪 Williamson Act Land

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FEET

SOURCE: ESRI, World Imagery, 2010; Riverside County, 2008.

World Logistics Center Specific Plan Project
Environmental Impact Report

Offsite Williamson Act Land

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9.1 Ultimate Goals

VIII. Recognize the need to conserve natural resources while accommodating growth and development.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1 Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

4.2.3 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to agricultural resources. Based on these significance thresholds, potential impacts to agricultural resources could be considered significant if the proposed project would:

- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use; and/or
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use.

4.2.4 Methodology

The methodological analysis underlying this section of this Revised Sections of the ~~EIR~~FEIR consists of the following:

- First, analyze the FMMP data to determine if portions of the ~~3,714~~2,610-acre project site and 104-acre offsite improvement area are designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.
- Second, evaluate the current General Plan land use designations, ~~Specific Plan proposal,~~ and zoning applicable to the site to determine the existence of any conflicts between the project and any potential existing agricultural General Plan and zoning designations applicable to the site.
- Finally, use the California Land Evaluation and Site Assessment (LESA) model, developed by the State Department of Conservation, as a guide to quantify any potential impacts the ~~proposed~~ project may have on agricultural resources. Utilization of the LESA model is currently considered to be the most reliable method by which to determine a project's potential impacts on agricultural resources.

In the late 1980s and the early 1990s, the ~~DOC~~Department of Conservation (DOC) and the State Legislature began exploring ways by which local agencies could analyze the specific impacts of local projects related to the conversion of farmland in a manner that was consistent throughout the State. At that time, reference to the FMMP maps was the only widely utilized methodological approach to analyzing conversion impacts. Oftentimes, the FMMP maps were outdated and/or did not contain specific data on local conditions that could better assess whether local land contains viable farmland. Federal and State agencies were and are cognizant of the fact that determining the true significance of agricultural conversions is a function of understanding the specific characteristics affecting a particular site proposed for conversion. In order to create a more site-specific methodological approach to assessing agricultural impacts, following the preparation of several State and Federal studies, the DOC developed the LESA model as an optional method by which local agencies could assess the impacts of land conversion on agricultural resources. (See, e.g., Stats. 1993, Ch. 812; Pub. Res. Code § 21095; California Agricultural Land Evaluation and Site Assessment Model, Instruction Manual, 1987.) Because of its use of localized input factors, the LESA model is generally recognized as the preferred methodological tool to assess the significance of a ~~proposed~~ project's impacts on agricultural resources.

4.2.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In either instance, no mitigation would be required.

4.2.5.1 Forest Land Zoning

Threshold	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

According to the California Department of Forestry and Fire Protection, there are no areas designated as forest land or timberland on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.2 Loss or Conversion of Forest Land

Threshold	Would the project result in the loss of forest land or conversion of forest land to non-forest use?

There are no areas of forest lands on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.3 Existing Zoning and Williamson Act

Threshold	Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

While some portions of the ~~3,714~~2,610-acre project site are currently used for agriculture, there are no Williamson Act contracts (see previously referenced Figure 4.2~~.3~~-2) on either the project site or any adjacent properties. Because the project would not conflict with any Williamson Act contracts, ~~the~~there would be no impacts related to this issue ~~would be less than significant~~ and no mitigation is required.

~~*The following changes have been made due to revision to the Specific Plan project size.*~~ There are no agricultural zones identified on the ~~3,714~~2,610-acre project site or on any of the surrounding properties.[1] However, agriculture is allowed in most areas of the City as an interim land use until it is replaced by development. The project site is not zoned for agricultural uses, so implementation of the ~~proposed~~World Logistics Center project would not conflict with ~~existing zoning for~~an agricultural ~~uses. Agriculture~~zone. Existing agriculture use is a permitted use in all areas of the proposed Specific Plan. In the absence of a significant impact, no mitigation is required.

~~It should be noted that the CDFW Conservation Buffer Area within the SJWA, which is immediately south of the Specific Plan site, is currently being used for agriculture. For additional analysis of the CDFW Conservation Buffer Area, see Section 4.4, *Biological Resources*, and 4.9, *Water Resources*.~~

General Plan Consistency. The following evaluates the~~ proposed~~ project in relation to the City's General Plan goals and objectives relative to agriculture:

9.1 Ultimate Goals

Goal VIII. Recognize the need to conserve natural resources while accommodating growth and development.

Consistency: With mitigation outlined in Section 4.1, *Aesthetics*, the Specific Plan will allow for preservation of the most prominent existing visual resources in this portion of the City, but will result in the removal of agricultural fields to support the proposed development of logistics warehousing. Therefore, the project is consistent with this goal and no mitigation is needed.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1 Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

Consistency: The project will eventually result in the loss of agricultural land within the Specific Plan area~~ but will allow for the permanent designation of open space within the "other project areas" south of the Specific Plan area, which are currently dry farmed. Therefore, the proposed~~; however, Section 12.5 of the Specific Plan contains a "right to farm" provision that will allow farming to continue within the WLCSP until such time as it converts to developed uses. This provision will help protect onsite farming from "nuisance" claims by new landowners or tenants (e.g., dust and noise). Therefore, the World Logistics Center project is consistent with this objective and no mitigation is needed.

4.2.~~6 **Significant Impacts**~~

~~Impacts of the project on agricultural resources have been determined to be significant based on two significance thresholds.~~

5.4~~.2.6.1~~ Farmland Conversion

Impact 4.2.~~6.1~~5.4: *Construction of the proposed project would not convert ~~25 acres of~~any Prime Farmland, Unique Farmland or Farmland of Statewide Importance as identified by the State of California to non-agricultural uses.*

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[1] *Land Use Map, Land Use Designations,* City of Moreno Valley General Plan, July 2006~~.~~, last updated November, 2017

Threshold	Would the project result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance~~,~~ (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural land use?

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

~~Approximately 25 acres of the project site are designated Unique Farmland. Under the proposed Specific Plan, this land will eventually be converted to non-agricultural use, which would result in a significant and unavoidable impact relative to “designated” farmland conversion. In addition, the project would result in the conversion of 2,585 acres of land designated as Farmland of Local Significance within the Specific Plan area (total 2,610 acres total minus 25 acres of Unique Farmland and 384.0 acres designated as Other). The 1,104 acres of open space and utility lands south of the Specific Plan site are not proposed for development and it is expected they will remain in their existing condition (i.e., dry farming).~~

While portions of the project site is currently used for agriculture, there is no land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the 2,610-acre project or in the 104-acre off-site improvement area. Because the project would not convert any onsite or off-site land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, the project’s impacts related to this issue would be less than significant, and no mitigation is required.

Project or Specific Plan Design Features. Section 12.5 of the Specific Plan contains a “right to farm” provision that will allow farming to continue ~~on vacant land~~ within the WLCSP until such time as it converts to developed uses. This provision will help protect onsite farming from “nuisance” claims by new landowners or tenants (e.g., dust and noise).

Mitigation Measures. ~~Consideration was given to the contribution to an agricultural mitigation bank as potential project-related mitigation. The County of Riverside considered the establishment of an Agricultural Mitigation Bank to mitigate the loss of farmland during the adoption process of the Riverside County General Plan in 2003; however, purchase of credits in such a bank to mitigate the loss of agricultural lands as part of the Draft EIR for the County General Plan (refer to Mitigation Measures 4.2.2A, B, and C in the Draft EIR of the Riverside County Integrated Project) were specifically removed from the General Plan during the public hearings on the General Plan.[1] Since potential mitigation for regional loss of agriculture has already been considered and rejected by the County, such mitigation would be even more infeasible on a citywide basis~~Since there is no impact to Prime Farmland, Farmland of Statewide Importance or Unique Farmland, no mitigation measures are required.

~~The DEIR originally contained the following text. In 2009, a regional agricultural conversion report was prepared by CBRE Consultants[2] for an unrelated development project in the City of Perris and a similar study was prepared in 2011 for this project by Andrew Chang and Company (ACC 2012). The ACC[3] and CBRE reports both concluded that the agriculture industry will continue to decline in the Inland Empire and identified three main reasons for the decline: 1) the more affordable housing market in the region compared to Los Angeles and Orange Counties, 2) the competition for cheaper farm labor from areas like the South Central Valley, and 3) lower water allocations to agriculture because of the growing urban population that receives priority for the water. The reports also noted that the agriculture industry within the Inland Empire is very small, making up only 4.1 percent of California’s total agricultural industry and only 1 percent of the regional economy in 2010. There is a clear pattern of agricultural decline from 2006 to 2010. Over these four years, 24,000 acres of farmland were removed in the Inland~~

~~[1] Riverside County Integrated Project website, http://www.rcip.org/, accessed April 5, 2012.~~
~~[2] Economic Viability of Agriculture in the East Inland Empire. CBRE Consulting. 2009.~~
~~[3] Agriculture Industry Analysis of the Inland Empire, Andrew Chang and Company, 2012.~~

~~Empire to make way for urban land uses. Agricultural production levels were 28 percent lower in 2010 than they were in 2004. The combination of the small size of the Inland Empire's agricultural industry and the three key economic constraints caused these studies to conclude that the agriculture industry in the Inland Empire is in decline. The ACC report concluded that the agriculture industry within the Inland Empire will become less competitive and continue to decline regardless of whether or not this project is developed. Under these circumstances, no mitigation that would artificially preserve or prolong agricultural activities (i.e., other than current market forces) in the project area and/or on the project site would be feasible or necessary.~~

~~The DEIR originally concluded there were no feasible mitigation measures to preserve agriculture over the long term on the project site in a regional context; however, the following Mitigation Measure 4.2.6.1A was recommended to preserve a part of the local heritage of farming for the Moreno Valley community for future generations:~~

~~Subsequent to circulation of the DEIR, it was determined that the new mitigation measure outlined below would sufficiently mitigate the loss of Unique Farmland, and so Mitigation Measure 4.2.6.1A for a "heritage farm" was no longer required.~~

~~The following mitigation measure has been added to the EIR in Response to Comment F-3-27 in Letter F-3 from California Clean Energy Committee, Comments F-7A-9, F-7A-39, and F-7A-63, in Letter F-7A from Lozeau Drury LLP, Response to Comment F-9A-43 in Letter F-9A from the Sierra Club, Response to Comment F-11-34 in Letter F-11 from the Sierra Club, Response to Comment F-13-06 in Letter F-13 from the Sierra Club et al, and related comments from others. The Response to Comment F-7A-39 outlines the changes made to the agricultural resources assessment for the project (FEIR Volume 2 Appendix C-2). In addition, a new MM 4.2.6.1A has been added to the FEIR Volume 2 requiring the acquisition of a conservation easement be recorded over land of comparable productive value to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland (refer to Response to Comment F-7A-39). It should be noted that the revised agricultural assessments determined the loss of farmland of local importance was in fact not significant under CEQA based on the results of the revised LESA model (see FEIR Volume 2 Appendices C-1 and C-4 for more information).~~

~~**4.2.6.1A** Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.~~

~~**Level of Significance after Mitigation.** The eventual conversion of 25 acres of Unique Farmland is a significant impact of the project resulting from the basic project objectives. However, implementation of the additional Mitigation Measure 4.2.6.1A will reduce this impact to a less than significant level.~~

4.2.6.2 Conversion of Farmland to Non-Agricultural Uses

Impact 4.2.~~6.2~~5.5: *The project would convert approximately 2,~~226~~200 acres of land currently being farmed~~, which includes~~ and approximately 2,~~201~~361 acres ~~of land~~that are designated as Farmland of Local Importance, to non-agricultural uses.*

Threshold	Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of ~~farmland~~Farmland to non-agricultural use, or conversion of forest land to non-forest use?

In addition to the FMMP designations, Riverside County has established a program through which it classifies various land within the County as Locally Important Farmland. ~~While the County has established criteria by which Locally Important Farmland is categorized, a small portion of that land has been so designated due simply to the historical use of the land~~The state uses the County's determination to identify Farmland of Local Importance for its FMMP designations.

The factors used by Riverside County to define Locally Important Farmland are ~~as follows:~~provided in Section 4.2.1.1 above.

- ~~Lands with soils that would be classified as Prime and Statewide Farmland but lack available irrigation water.~~
- ~~Lands planted with dry land crops of barley, oats, and wheat.~~
- ~~Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.~~
- ~~Dairylands, including corrals, pasture, milking facilities, and hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.~~
- ~~Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands.~~
- ~~Lands planted with jojoba which are under cultivation and are of producing age.~~

~~The majority of the proposed project site is currently designated Farmland of Local Importance by the County. None of the above factors supports maintaining the property as farmland; it is likely that the property was designated as Locally Important Farmland based simply on the agricultural uses that at one time existed on the property. The County's maps do not reflect the City's General Plan Land Use Map, which shows no agricultural designations in the City.~~

~~*NOTE: The following changes have been made in response to Comment G-95-54 in Letter G-95 from Thomas Thornsley.*~~

~~Implementation of the project would result in the permanent conversion of approximately 2,226 acres currently used for dry farming to non-agricultural uses. While this could have an effect on accelerating the loss of other existing agricultural land, the state conservation lands to the south could be continued for agricultural production. Likewise, there is no other agricultural use in the Zone of Influence (term used in the State LESA Model) and a majority of the land in that zone is vacant (i.e., in the Badlands to the east and portions of the San Jacinto Wildlife Area and the Lake Perris State Recreation Area to the south). The conversion of agricultural lands to urban uses is supported by the City's General Plan policies, as discussed above. The entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City. Nevertheless, much of the Specific Plan area is designated Farmland of Local Importance and will be permanently converted to non-agricultural urban uses. Therefore, the project will cause significant, unavoidable impacts related to conversion of locally important farmland (see previously referenced Figure 4.2.2).~~

~~The farming that is currently conducted on the CDFW property south of the Specific Plan area is expected to continue for the foreseeable future. The existing vacant land adjacent to the SDG&E compressor plant property is not currently being farmed, but is expected to remain vacant for the foreseeable future.~~

~~The following information was added to the LESA Model analysis in Response to Comment F-7A-39 and related comments by others, and also due to changes in the two technical studies on agricultural resources (FEIR Volume 2 Appendices C-1 and C-4).~~

~~**The LESA Model.**~~ **The LESA Model.** The California LESA Model was developed to provide lead agencies with an optional methodology to ensure that potentially significant effects on the environment from agricultural land conversions are quantitatively and consistently considered in the environmental review process (Public Resources Code Section 21095), including in California Environmental Quality Act (CEQA) reviews. The California Agricultural LESA Model evaluates measures of soil resource quality, a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. For a given project, the factors are rated, weighted, and combined, resulting in a single numeric score. The project score becomes the basis for making a determination of a project's potential significance.

The conversion of agricultural land to non-agricultural uses is a result of various economic and demographic factors. Increased costs for water and a continuing demand for housing and commercial development in the City and region have provided the primary impetus for this agricultural land conversion. ~~Although the project results in a significant impact related to the conversion of farmland to non-agricultural use, this EIR also refers to the State LESA model as an analytical tool by which the project's impacts on agricultural conversion can be assessed, and to further gauge the level of significance of that farmland conversion.~~ Appendix G of the *CEQA Guidelines* states as follows: "In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation (DOC) as an optional model to use in assessing impacts on agriculture and farmland."~~[1]~~ ~~Further, the LESA model was specifically created by the DOC in order to provide "specific guidance concerning how agencies should address farmland conversion impacts." Because of its use of localized inputs as part of the model, the LESA model is generally considered the preferred methodological tool by which to assess the significance of a proposed project's impacts related to agricultural resources.~~[2]

- The LESA model is intended to provide lead agencies with a methodology to identify potentially significant impacts that may result from agricultural land conversions. The model is a method of rating the relative quality of land resources and potential impacts to agricultural resources.
- The LESA Model uses six different factors (two based on soil resource quality and four based on on-site and adjacent land characteristics) to develop a weighted score that identifies the significance of potential impacts to agricultural resources. The Land Evaluation (LE) scoring utilizes two soil factors. The Land Capability Classification (LCC) indicates the suitability of soils for most kinds of crops and the risk of damage when they are used in agriculture, while the Storie Index provides a numeric rating (0–100) of the relative degree of suitability or value of a given soil for intensive agriculture. The Site Assessment (SA) scoring considers the size of the site to be converted, water supply restrictions in drought and non-drought years, and the presence (or absence) of adjacent agricultural, habitat, or parkland uses.
- By assessing and weighing a variety of soil, water, and land use characteristics, it is possible that the conversion of a large parcel containing poor soils and with limited access to water would not

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~~[1] *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.~~

[2] *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

result in a significant impact, while the conversion of a much smaller well-watered parcel with quality soils could be considered significant. To ensure potential impacts to adjacent agricultural activities are appropriately considered, the LESA model requires an examination of land use on all parcels within a Zone of Influence (ZOI) that extends a minimum 0.25 mile from the boundary of the site. For any site evaluated using the LESA model, the factors are rated, weighed, and combined, resulting in a single numeric score that becomes the basis for determining a project's potential significance.[1]

WLC Project Assessment

~~**DEIR Assessment.**~~ To assess potential agricultural resource impacts that may result from development of the ~~proposed~~World Logistics Center site, the LESA model was run ~~as part of the original DEIR~~by Parsons Brinkerhoff (PB) for the ~~entire 3,818~~2,610-acre project area.~~[2]~~ The total LESA score for the project is ~~63.51~~60.4, which is considered significant unless ~~the~~either LE and SA ~~sub-scores fall below~~are less than 20 (see Table 4.2~~.A~~-1). The LE sub-score is ~~43~~40.9 and the SA sub-score is ~~20~~19.5, indicating a less than significant impact and therefore does not require mitigation. The worksheets detailing the variables considered during the evaluation of each site are included in the *Agricultural Resources Assessment for the World Logistics Center Specific Plan* (DEIR Appendix C). ~~This was the conclusion of the DEIR that was circulated for public review.~~

An independent analysis was conducted on the potential agricultural resource impacts that may result from development of the World Logistics Center site, the LESA model was run by Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW) for the 2,610-acre project area. The total LESA score for the project is 58.9, which is considered significant only if the LE and SA sub-scores are each greater than 20 (see Table 4.2-2). The LE sub-score is 40.9 and the SA sub-score is 18.0, indicating a less than significant impact and therefore does not require mitigation. The worksheets detailing the variables considered during the evaluation of each site are included in the *Agricultural Resources Assessment for the World Logistics Center Specific Plan* (DEIR Appendix C).

Table 4.2~~.A~~-2: LESA Model Significance Determination

Total LESA Score	Scoring Decision
0–39 Points	Not considered significant
40–59 Points	Considered significant *only* if LE and SA sub-scores are each *greater* than or equal to 20 points
60–79 Points	Considered significant *unless* either LE or SA sub-score is *less* than 20 points
80–100 Points	Considered significant

Source: California Land Evaluation and Site Assessment Model, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

The majority of the ~~**Revised WLCSP Assessment.** In response to comments regarding agricultural impacts, the LESA Model assessment prepared by Parsons Brinckerhoff (PB)(DEIR Appendix C-1) was revised to account for the smaller WLCSP project site (2,610 acres instead of 2,710 acres) and delete the CDFW Conservation Buffer Area, and to address Response to Comment F-7A-39 and related comments by others. In addition, an independent analysis was conducted on the subject by the Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW). Part of their analysis included the preparation of a LESA Model report to validate assumptions made in the DEIR. The revised PB analysis (FEIR Volume 2 Appendix C-1) and the new C&WW analysis (FEIR Volume 2 Appendix C-4) both determined the WLC project impact on agricultural~~

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[1] *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997. Zoning map last updated November, 2017.

~~[2] *Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, February 2012.~~

~~resources is not considered significant because both the LE and SA sub-scores were less than 20 points (the revised PB report indicated an SA score of 19.5 while the new C&WW report indicated an SA score of 18.5), so mitigation is not required for this impact (i.e., "Conversion of Farmland to Non-Agricultural Uses"). In addition, Mitigation Measure 4.2.6.1A has been added to address the WLC project's contribution to loss of agricultural resources in western Riverside County.~~

World Logistics Center project site is currently designated as Farmland of Local Importance by the state's FMMP as determined by the County. The County's maps do not reflect the City's General Plan Land Use Map, which shows no agricultural designations in the City.

Implementation of the project would result in the permanent conversion of approximately 2,200 acres currently used for dry farming to non-agricultural uses, and would result in the permanent conversion of approximately 2,361 acres of land designated as Farmland of Local Importance. While this could have an effect on accelerating the loss of other existing agricultural land, portions of the state-owned lands to the south likely will continue in agricultural production. Likewise, there is no other agricultural use in the Zone of Influence (term used in the State LESA Model) and a majority of the land in that zone is vacant (i.e., in the Badlands to the east and portions of the San Jacinto Wildlife Area and the Lake Perris State Recreation Area to the south). The conversion of agricultural lands to urban uses is supported by the City's General Plan policies, as discussed above. The entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City, and the area designated Farmland of Local Importance within the Specific Plan area will be permanently converted to non-agricultural urban uses. Therefore, project implementation will result in less than significant impacts to conversion of Farmland of Local Importance (see previously referenced Figure 4.2-2). No mitigation is required.

Project or Specific Plan Design Features. There are no features included in the Specific Plan that address the loss of agriculture on the project site.

Mitigation Measures. ~~As stated above, consideration was given to the contribution to an agricultural mitigation bank as potential project-related mitigation. However, the County, through the adoption of its General Plan, determined that contribution to an agricultural mitigation bank is not feasible and the City of Moreno Valley followed suit in the adoption of its General Plan.~~ ~~**Mitigation Measure 4.2.6.1A** will help reduce impacts to agricultural resources, but development of the Specific Plan site will eventually remove 2,226 acres of locally important farmland from production, and this is considered a significant long-term impact.~~No mitigation measures are required.

Level of Significance after Mitigation. ~~**Level of Significance after Mitigation.** The DEIR concluded that there was no feasible mitigation to reduce the significant impacts resulting from the loss of agricultural land to a less than significant level. However, implementation of,~~ ~~**Mitigation Measure 4.2.6.1A,**~~ ~~to establish an off-site agricultural conservation easement, would mitigate the conversion of agricultural land, to non-agricultural uses. With implementation of these measures, project impacts to agricultural resources are reduced to less than significant levels.~~

~~4.2.7 Cumulative Impacts~~

~~**Significant Cumulative Impact:**~~ ~~*Riverside County has experienced a net loss of Unique Farmland over the most recent 2-year reporting period. The project contributes to the cumulative impacts of this net loss by removing an additional 25 acres of Unique Farmland from potential agricultural production in this portion of the County. In addition, it will eventually remove 2,201 acres of land that is designated*~~

~~as Farmland of Local Importance (including all of the land currently being dry farmed, in the project area, from potential agricultural production in this portion of the County.~~~~[1]~~

~~The DOC Office of Land Conservation publishes a Farmland Conversion Report every two years as part of its FMMP. These reports document land use conversion by acreage for each California county. The most recent data are for the 2008–2010 period,~~~~[2]~~ ~~during which Riverside County experienced a net loss of 3,300 acres of Prime Farmland, 567 acres of Farmland of Statewide Importance, and 1,742 acres of Unique Farmland. The amount of Important Farmland inventoried in Riverside County during the last countywide survey of farmland totaled 428,989 acres.~~

~~The cumulative area for agricultural resource impacts is Riverside County. As detailed in Table 4.2.B, the agricultural acreage inventoried in Riverside County by the FMMP has declined in each of the five past reporting cycles. The total planted acreage in Riverside County has fluctuated during the past five years (Table 4.2.C).~~

~~Table 4.2.B: Agricultural Acreage Inventoried~~

	~~Reporting Period~~				
	~~2010~~	**~~2008~~**	**~~2006~~**	**~~2002~~**	**~~2000~~**
~~Riverside County~~	~~428,989~~	~~433,877~~	~~444,455~~	~~479,278~~	~~609,535~~

~~Note: Though designated agricultural land, acreage may not necessarily be planted or otherwise used for agricultural uses.~~
~~Source: Table A-25 Riverside County 2008-2010 Land Use Conversion, California Department of Conservation, 2012.~~

~~Table 4.2.C: Planted Acreage~~

	~~Reporting Period~~				
	~~2010~~	**~~2009~~**	**~~2008~~**	**~~2007~~**	**~~2006~~**
~~Riverside County~~	~~209,913~~	~~202,066~~	~~246,012~~	~~214,050~~	~~216,219~~

~~Source: Riverside County 2010 Agricultural Production Report, 2010.~~

~~While agricultural land is a finite resource, the City, through its designation of the site for non-agricultural urban uses in its General Plan, has previously considered that continuing development pressures in the City and region would result in the conversion of agricultural land to non-agricultural uses. The utilization of the property sites for agricultural activity would impede the City from achieving the goals and objectives set forth in its General Plan.~~

~~As explained previously, the CBRE and the ACC reports concluded that the agriculture industry within the Inland Empire will become less competitive and continue to decline whether or not the proposed project is developed. Under these circumstances, no mitigation that would artificially preserve or prolong agricultural activities (i.e., other than current market forces) in the project area would be feasible or effective over the long term.~~

~~The continuation of agricultural operations on site over the long term is likely not economically viable. The County continues to experience a net loss of Unique Farmland and Farmland of Local Importance, and the development of the project would contribute to the countywide net loss of designated farmland. However, with implementation of Mitigation Measure 4.2.6.1A, the WLC project will not make a significant contribution to cumulative agricultural impacts in western Riverside County.~~Less than significant impact.

~~[1] Revision made in response to Comment G-95-57 in Letter G-95 from Thomas Thornsley.~~

~~[2] Table A-25 Riverside County 2008–2010 Land Use Conversion, Farmland Mapping and Monitoring Program, California Department of Conservation Division of Land Resource Protection, http://redirect.conservation.ca.gov/dlrp/fmmp/county_info_results.asp; website accessed April 4, 2012.~~

~~4.3 AIR QUALITY: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

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NOTE TO READERS: This portion of the Revised Sections of the FEIR replaces portions of Section 4.3 of the FEIR, except for subsections 4.3.1, 4.3.1.1 and 4.3.1.2 which remain unchanged... The cumulative portion of Section 4.3 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.3 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.3 means that the corresponding portion of Section 4.3 in the FEIR remains unchanged or has been deleted.

4.3 AIR QUALITY

Although not required by the Judge's ruling, portions of the Traffic and Circulation analysis have been revised to: (1) Show the effect of using the trip generation rates shown in the most recent edition of the Institute of Traffic Engineer's Trip Generation Manual; and (2) Show the effect of the inclusion of the over 360 projects that cumulatively contribute to traffic impacts. As a result, Section 4.3 Air Quality, Section 6.3 Air Quality Cumulative, along with Appendix A, Air Quality, Greenhouse Gas, and Health Risk Assessment Report, have also been revised to show the effect of incorporating the applicable data from the revised traffic analysis.

This section analyzes the World Logistics Center project's potential air quality impacts and provides a discussion of the World Logistics Center project, the physical setting of the project area, and the air quality regulatory framework. The air quality analyses evaluate potential air quality impacts by examining the short-term construction as well as long-term operational impacts associated with the project and by evaluating the effectiveness of the identified mitigation measures. Modeled air quality levels are based upon vehicle data, project trip generation, and vehicle miles traveled assumptions included in the project's *Traffic Impact Analysis (TIA)* and peak turn volumes generated for the World Logistics Center project combined with emission factors from the California Air Resources Board (CARB). The evaluation was prepared in accordance with appropriate standards, utilizing procedures and methodologies as recommended by the South Coast Air Quality Management District (SCAQMD), the California Office of Environmental Health Hazards Assessment (OEHHA), and CARB. Air quality data posted by the SCAQMD, CARB, and the EPA web sites are included to document the local air quality environment and are incorporated herein by reference.

Compared to the FEIR, construction emissions analyzed herein assume later construction years and therefore newer, more efficient equipment. This results in reduced construction emissions. As reflected in the TIA, use of the most recent edition of the Institute of Traffic Engineer's Trip General Manual results in fewer average daily trips than previously analyzed in the FEIR. A lower trip rate coupled with a lower regional vehicle miles traveled assumption analyzed in the TIA and the later operational year assumption results in reduced mobile emissions when compared to those in the FEIR. Additionally, the later operational year results in the inclusion of a greater number of electric vehicles in the operational assumptions. Due to these factors, the construction and operational analyses contained herein entirely replace the analyses included in the FEIR and no further comparison is required.

The analysis contained in this section is based on the following technical studies prepared for the World Logistics Center project:

- *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* (ESA Associates, dated June 2018) contained in Appendix A of this Revised Sections of the FEIR; and
- *Traffic Impact Analysis Report, The World Logistics Center*, (WSP USA, Inc., dated June 2018) contained in Appendix L of this Revised Sections of the FEIR.

4.3.1.1 Regional Air Quality Improvements

The American Lung Association website (lung.org) includes data collected from State air quality monitors that are used to compile an annual *State of the Air* report. These reports have been published over the last 13 years. The latest *State of the Air Report* compiled for the Basin was in 2017 (American Lung Association, 2017). As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. Riverside County's average number of unhealthy ozone days dropped from 203 days per year in the initial 2000 State of the Air report to 122 in the 2017 report and San Bernardino County's number of unhealthy ozone days dropped from 230 in 2000 to 142 in 2017. Both Counties has seen dramatic reduction in particle pollution since the initial State of the Air report (2000). While the 2017 *State of the Air Report* shows a slight uptick in the number of days of unhealthy particle pollution for both counties since the 2016 report, it is important to note that pollution levels measured in this latter report were affected by fluctuations in weather conditions.

The 2016 Air Quality Management Plan (SCAQMD, 2017) outlines a comprehensive control strategy that meets the requirement for expeditious progress towards an attainment date for the five National Ambient Air Quality Standards (NAAQS) being analyzed. As stated in the 2016 AQMP, "The ozone and PM levels continue to trend downward as the economy and population increase, demonstrating that it is possible to maintain a healthy economy while improving public health through air quality improvements" (SCAQMD, 2017). NO_X, VOC, PM, NH_3, have been decreasing in the Basin since 2000 and are projected to continue to decrease through 2035 (CARB, 2013). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. The number of days exceeding the ozone national 8-hour standard has decreased between 1992 and 2011. During the 1992 time period, nearly all of the South Coast had more than 50 exceedance days, with more than 100 days in nearly one-third of the Basin. This is equivalent to more than three months during a year with ozone concentrations above the level of the standard. Much of this area currently meets the national standard, including about two-thirds of Orange County and one-third of Los Angeles County, where the majority of the Basin population lives and works (CARB, 2013).

The reduction in air pollution levels experienced in the Basin is attributable to multiple factors. First, Federal and State regulatory strategies requiring the use of cleaner fuels and use of emissions control technology in the transportation and energy production industries have proven to greatly reduce the amount of tailpipe emission (vehicles) and point source (power plants) pollutants (e.g., NO_X and ROG). Second, the SCAQMD's rules and regulatory programs have proven to be instrumental in improving the air quality in the Basin. As an example, the SCAQMD has adopted multiple rules regarding fugitive dust (PM_{10} and $PM_{2.5}$) and construction emissions that have resulted in reduced emission levels. Third, the SCAQMD's creation of the 1993 CEQA review handbook has resulted in lead agencies throughout the air basin employing uniform CEQA analyses and methodologies. The use of uniform CEQA review has allowed the SCAQMD and lead agencies that rely on the 1993 SCAQMD Air Quality Handbook to perform CEQA analysis to better track progress and to employ uniform mitigation and design feature strategies. Fourth, the use of the SCAQMD thresholds of significance to determine a project's direct and cumulative impact has allowed the SCAQMD to make tremendous progress toward achieving air quality attainment. The discussion above (pertaining to the air quality improvements achieved over the past 20 years) demonstrates that the SCAQMD's rules and procedures, including the uniform utilization of the thresholds of significance recommended in the SCAQMD *CEQA Air Quality Handbook* are contributing toward the achievement of improved air quality in the Basin.

4.3.1.2 Local Air Quality

The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station most representative of the project site is the Riverside-Rubidoux station. This station monitors CO, SO_2, NO_2, O_3, PM_{10}, and $PM_{2.5}$. Some monitoring data for SO_2 has been omitted as attainment is regularly met for this pollutant within the Basin. This station characterizes the air quality representative of the ambient air quality in the project area. The ambient air quality data in Table 4.3-3 identify that CO and NO_2 levels are consistently below the relevant State and Federal standards in the project vicinity. O_3, PM_{10}, and $PM_{2.5}$ levels all exceed State and/or Federal standards regularly. Figure 4.3-1 identifies the location of the monitoring station relative to the World Logistics Center project site.

Table 4.3-1: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10}) [9]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$) [9]	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15.0 µg/m^3	
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm(40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2) [10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	None	
Sulfur Dioxide (SO_2) [11]	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas) [11]	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas) [11]	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)	—	
Lead[12, 13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas) [12]	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		
Visibility-Reducing Particles[14]	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Footnotes

[1] California standards for ozone; carbon monoxide (except 8-hour Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; particulate matter (PM_{10} and $PM_{2.5}$ and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest eight-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

[8] On October 1, 2015, the natural eight-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the 98th percentile of the daily maximum concentrations at each site must not exceed 0.100 ppm. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm).

[12] The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

°C = degrees Celsius
EPA = United States Environmental Protection Agency
µg/m^3 = micrograms per cubic meter
mg/m^3 = milligrams per cubic meter
ppm = parts per million
ppb = parts per billion

Source: CARB, 2016a

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Table 4.3-2: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Maintenance – serious (San Bernardino County is in nonattainment)
$PM_{2.5}$	Nonattainment	Moderate Nonattainment
CO	Attainment	Serious Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.
Source: CARB, 2017a. USEPA, 2018a

4.3.1.3 Sensitive Land Uses in the Project Vicinity

Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses where people sensitive to air pollutants may be located (i.e., the ill, elderly, pregnant women, and children). There are currently six occupied single-family homes and associated ranch/farm buildings in various locations on the World Logistics Center project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Nearby sensitive land uses are depicted in Figure 4.3-2.

4.3.1.4 Existing Project Area Emissions

The project area is largely vacant undeveloped marginal agricultural land, with six occupied single-family homes and associated ranch/farm buildings in various locations on the property. Much of the site is currently used for dry farming. San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres south of the site. The Southern California Gas Company (SCGC) also operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) south of the site south of Alessandro Boulevard along existing Virginia Street. Existing air quality conditions at the project site reflect ambient[1] monitored conditions as presented in Table 4.3-3.

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[1] Ambient: of or related to the immediate surroundings of something; in this context it means "in the air"

Table 4.3-3: Ambient Air Quality Monitored in the Project Vicinity

Pollutant	Standard	2014	2015	2016	2017
Carbon Monoxide (CO)					
Maximum 1-hr concentration (ppm)		2.4	2.5	1.6	2.4
Number of days exceeded:	State: > 20 ppm	0	0	0	0
	Federal: > 35 ppm	0	0	0	0
Maximum 8-hr concentration (ppm)		1.9	1.7	1.3	1.8
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0	0
	Federal: ≥ 9 ppm	0	0	0	0
Ozone (O$_3$)					
Maximum 1-hr concentration (ppm)		0.141	0.132	0.142	0.145
Number of days exceeded:	State: > 0.09 ppm	29	31	33	ND
Maximum 8-hr concentration (ppm)		0.105	0.106	0.105	0.118
Number of days exceeded:	State: > 0.070 ppm	69	59	71	ND
	Federal: > 0.075 ppm	41	39	47	84
Coarse Particulates (PM$_{10}$)					
Maximum 24-hr concentration (μg/m^3)		100	69	84	92
Number of days exceeded:	State: > 50 μg/m^3	125	92	ND	ND
	Federal: > 150 μg/m^3	0	0	0	0
Annual arithmetic mean concentration (μg/m^3)		44.8	40.0	ND	ND
Exceeded for the year	State: > 20 μg/m^3	Yes	Yes	ND	ND
Fine Particulates (PM$_{2.5}$)					
Maximum 24-hr concentration (μg/m^3)		50.6	61.1	60.8	50.3
Number of days exceeded:	Federal: > 35 μg/m^3	ND	10	5	ND
Annual arithmetic mean (μg/m^3)		16.8	15.3	12.6	12.2
Exceeded for the year	State: > 12 μg/m^3	Yes	Yes	Yes	Yes
	Federal: > 12.0 μg/m^3	Yes	Yes	Yes	Yes
Nitrogen Dioxide (NO$_2$)					
Maximum 1-hr concentration (ppm)		0.0600	0.057	0.073	0.063
Number of days exceeded:	State: > 0.18 ppm	0	0	0	0
Annual arithmetic mean concentration (ppm)		0.015	0.0144	0.015	0.015
Exceeded for the year	State: > 0.030 ppm	No	No		
	Federal: > 0.053 ppm	No	No	ND	ND
Sulfur Dioxide (SO$_2$)					
Maximum 24-hr concentration (ppm)		1.3	1.0	1.2	1.2
Number of days exceeded:	State: > 0.04 ppm	ND	ND	ND	ND
Annual arithmetic average concentration (ppm)		0.26	0.27	0.23	0.29
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No	No

μg/m^3 = micrograms per cubic meter
EPA = United States Environmental Protection Agency
ID = Insufficient data
ND = No data
ppm = parts per million
Source: CARB, 2018 for the SCAQMD Riverside-Rubidoux air monitoring station.

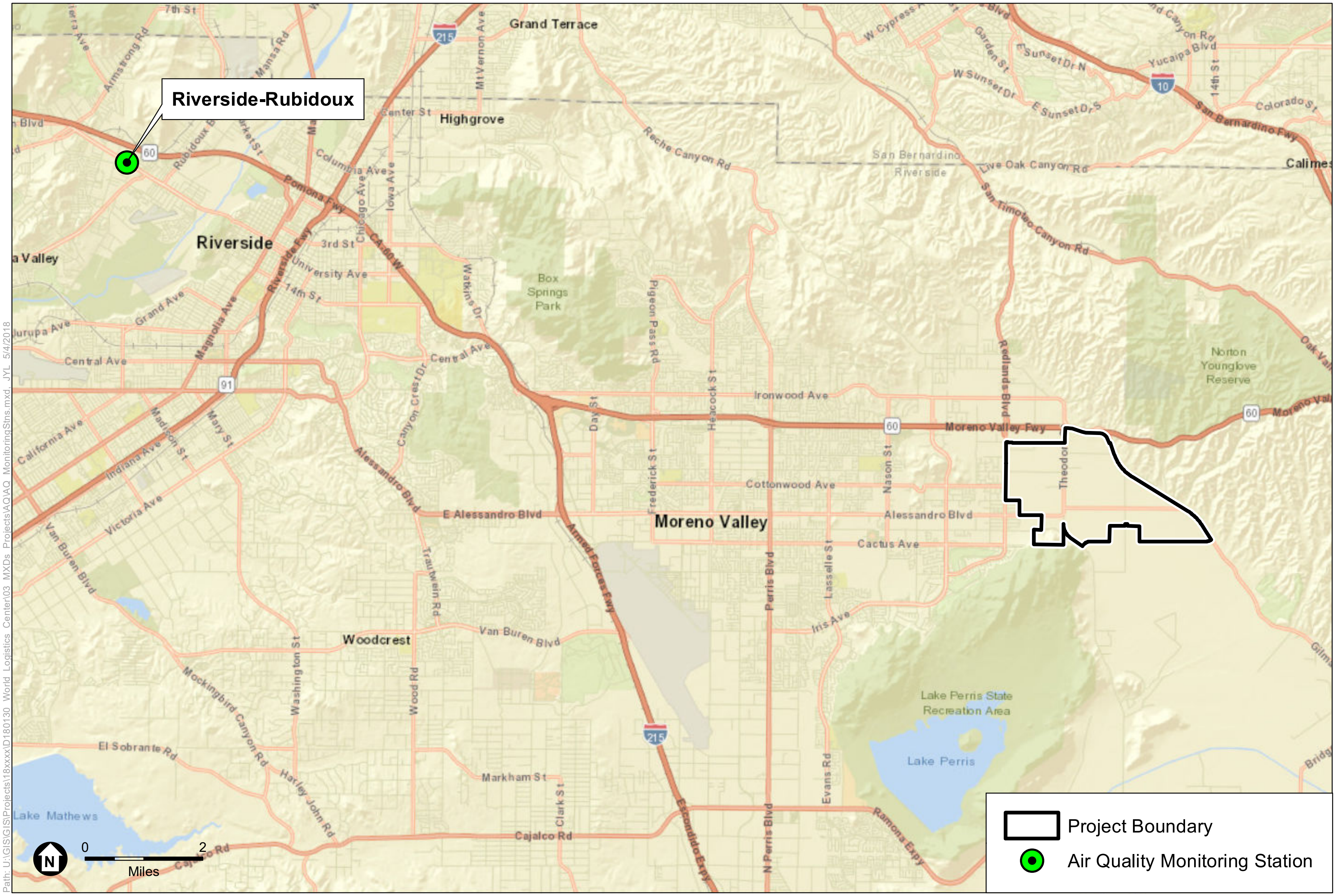

SOURCE: ESRI

World Logistics Center

Figure 4.3-1
SCAQMD Monitoring Stations

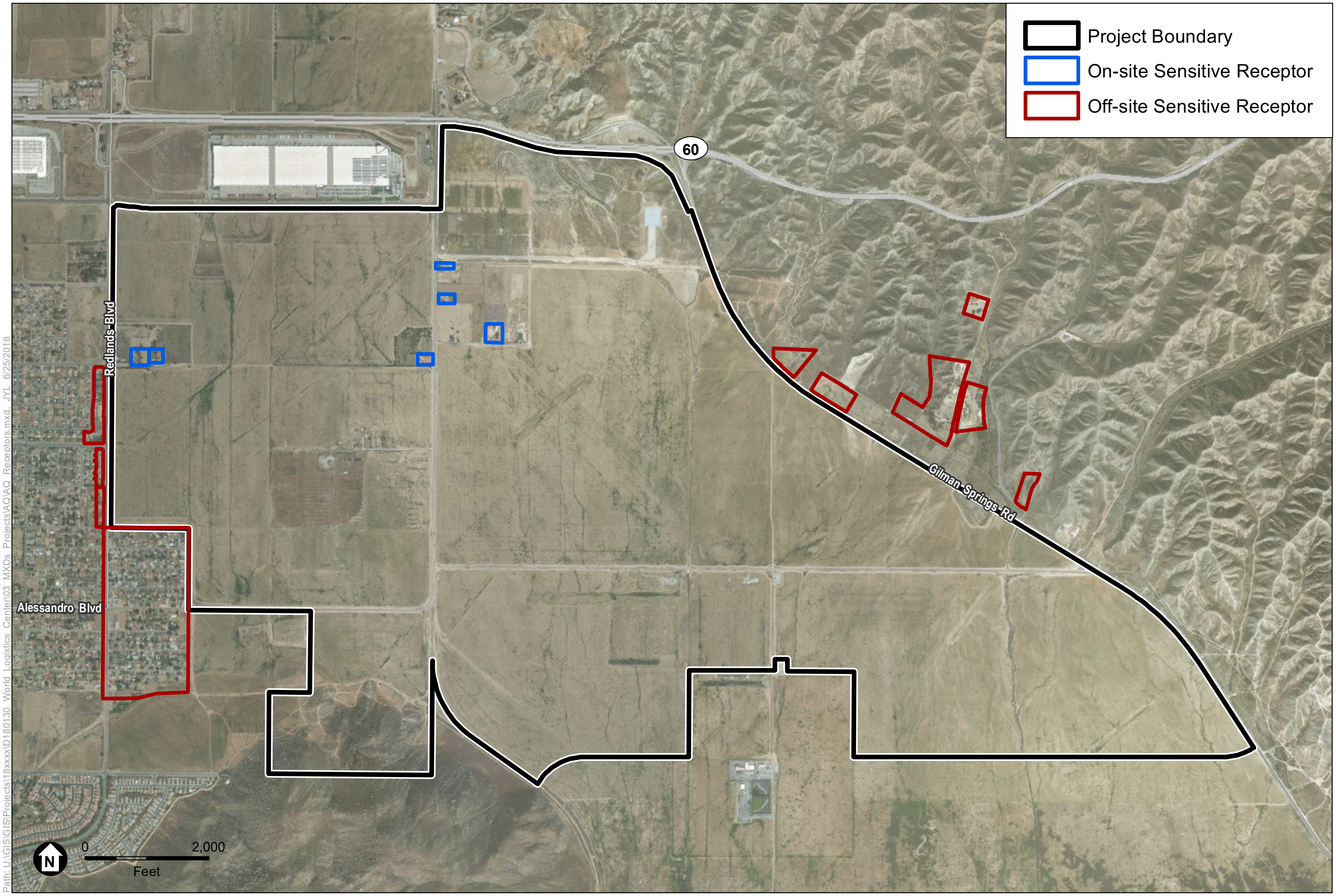

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SOURCE: ESRI 2016; County of Riverside 2017

World Logistics Center

Figure 4.3-2

Existing Sensitive Receptors

ESA

4.3.2 POLICIES AND REGULATIONS

4.3.2.1 Federal Regulations

Clean Air Act. Pursuant to the Federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Effective June 2, 2010, the EPA revised the primary standard for SO_2 by establishing a new 1-hour standard at a level of 75 ppb. The EPA revoked the two existing primary standards of 140 ppb evaluated over 24 hours and 30 ppb evaluated over an entire year as they would not provide additional public health protection given a 1-hour standard at 75 ppb. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

Effective December 14, 2012, the national annual $PM_{2.5}$ standard was lowered from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ but the existing 24-hour and annual secondary standards were retained.

On October 1, 2015, the national eight-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm, respectively.

4.3.2.2 Regional Regulations

Regional Air Quality Management Plan (AQMP). The SCAQMD and the SCAG are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the Federal and/or California ambient air quality standards. The SCAQMD and SCAG must update the AQMP every three years.

2012 AQMP. The 2012 AQMP was adopted December 7, 2012 (SCAQMD, 2012b). The purpose of the 2012 AQMP for the Basin was to set forth a program that would lead the Basin into compliance with the Federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The AQMP was adopted by the SCAQMD Board; therefore, it was submitted to the EPA as the State Implementation Plan (SIP). Specifically, the AQMP served as the official SIP submittal for the Federal 2006 24-hour $PM_{2.5}$ standard. In addition, the AQMP updated specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory, and 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.

The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."

The 2012 AQMP proposed Basin-wide $PM_{2.5}$ measures that would be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high $PM_{2.5}$ days), Section 182(e)(5) implementation measures (to maintain progress toward meeting the 2023 8-hour ozone national standard), and transportation control measures. Most of the control measures focused on incentives, outreach, and education.

Proposed $PM_{2.5}$ reduction measures in the 2012 AQMP included the following:

- Further NO_X reductions from the SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program. The RECLAIM program was adopted by the SCAQMD in October 1993 and set an emissions cap and declining balance for many of the largest facilities emitting NO_x and SO_x in the South Coast Air Basin. RECLAIM includes over 350 participants in its NO_x market and about 40 participants in its SO_x market. RECLAIM has the longest history and practical experience of any locally designed and implemented air emissions cap and trade program. RECLAIM allows participating facilities to trade air pollution while meeting clean air goals.
- Further reductions from residential wood-burning devices.
- Further reductions from open burning.
- Emission reductions from under-fired char broilers.
- Further ammonia reductions from livestock waste.
- Backstop measures for indirect sources of emissions from ports and port-related sources.
- Further criteria pollutant reductions from education, outreach, and incentives.

There were multiple VOC and NO_X reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, and mold release products.

The 2012 AQMP also contained proposed mobile source implementation measures for the deployment of zero and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There were measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.

The 2012 AQMP proposed the following mobile source implementation measures:

- On-road mobile sources:
  - Accelerated penetration of partial zero-emission and zero-emission vehicles. This measure proposed to continue incentives for the purchase of zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode. The state Clean Vehicle Rebate Pilot program was proposed to continue from 2015 to 2023 with a proposed funding for up to $5,000 per vehicle. The measure seeks to provide funding assistance for up to 1,000 zero-emission or partial-zero emission vehicles per year.
  - Accelerated penetration of partial zero-emission and zero-emission light-heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles. The objective of the proposed action was to accelerate the introduction of advanced hybrid and zero-emission technologies for Class 4 through 6 heavy-duty vehicles. The state is currently implementing a Hybrid Vehicle Incentives Project program to promote zero-emission and hybrid heavy-duty vehicles. The proposed measure aims to continue the program from 2015 to 2023 to deploy up to 1,000 zero- and partial-zero emission vehicles per year with up to $25,000 funding assistance per vehicle. Zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode would be given the highest priority.
  - Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives.

  - Further emission reductions from heavy-duty vehicles serving near-dock rail yards This proposed control measure called for a requirement that any cargo container moved between the ports of Los Angeles and Long Beach to the nearby rail yards be with zero-emission technologies. The measure would be fully implemented by 2020 through the deployment of zero-emission trucks or any alternative zero-emission container movement system such as a fixed guideway system. The measure called for the CARB to either adopt a new regulation or amend an existing regulation to require such deployment by 2020.

- Off-road mobile sources:
  - Extension of the Surplus Off-Road Opt-In for NO_x (SOON) provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment.
  - Further emission reductions from freight and passenger locomotives called for an accelerated use of Tier 4 locomotives in the Basin.
  - Further emission reductions from ocean-going marine vessels while at berth.
  - Emission reductions from ocean-going marine vessels.

The 2012 AQMP also relied upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program (FTIP), which contains the following sections:

1. Linking regional transportation planning to air quality planning and making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.
2. Regional transportation strategy and transportation control measures: The RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.
3. Reasonably available control measure analysis.

2016 AQMP. On March 3, 2017, SCAQMD approved the Final 2016 Air Quality Management Plan (2016 AQMP) that demonstrates attainment of the 1-hr and 8-hr ozone NAAQS as well as the latest 24-hr and annual $PM_{2.5}$ standards. Currently, the 2016 AQMP is being reviewed by the U.S. EPA and CARB. Until the approval of the EPA and CARB, the current regional air quality plan is the Final 2012 Air Quality Management Plan (AQMP) adopted by the SCAQMD on December 7, 2012.The Final 2016 AQMP includes the integrated strategies and measures needed to meet the NAAQS.

The 2016 AQMP seeks to achieve multiple goals in partnership with other entities promoting reductions in criteria pollutant, greenhouse gases, and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most effective way to reduce air pollution impacts on the health of our nearly 17 million residents, including those in disproportionally impacted and environmental justice communities that are concentrated along our transportation corridors and goods movement facilities, is to reduce emissions from mobile sources, the principal contributor to our air quality challenges. For that reason, the SCAQMD worked closely with CARB and the U.S. EPA who have primary responsibility for these sources. The Plan recognized the critical importance of working with other agencies to develop new regulations, as well as secure funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. These “win-win” scenarios will be key to implementation of this Plan with broad support from a wide range of stakeholders. The 2016 AQMP also includes transportation control measures (TCMs) developed by SCAG from the 2016 RTP/SCS.

The RTP/SCS and FTIP were developed in consultation with federal, state and local transportation and air quality planning agencies and other stakeholders. The four County Transportation Commissions (CTCs) in the South Coast Air Basin, namely Los Angeles County Metropolitan Transportation Authority, Riverside County Transportation Commission, Orange County Transportation Authority and the San Bernardino Associated Governments, were actively involved in the development of the regional transportation measures. In the South Coast Air Basin, TCMs include the following three main categories of transportation improvement projects and programs that have funding programmed for right-of-way and/or construction in the first two years of the 2015 FTIP:

- Transit, Intermodal Transfer, and Active Transportation Measures;
- High Occupancy Vehicle (HOV) Lanes, High Occupancy Toll (HOT) Lanes, and their pricing alternatives; and
- Information-based Transportation Strategies.

Diesel Regulations. The Ports of Long Beach and Los Angeles and the CARB have adopted regulations aimed at reducing the amount of diesel particulate. These programs are the Ports of Los Angeles and Long Beach “Clean Truck Program” (POLA, 2018), the CARB Drayage Truck Regulation (CARB, 2017b), and the CARB statewide On-road Truck and Bus Regulation (CARB, 2017c). Each of these regulatory programs will require an accelerated introduction of “clean trucks” into the statewide truck fleet that will result in substantially lower diesel emissions during the 2008 to 2020 timeframe. Additionally, the Ports of Long Beach and Los Angeles updated the Clean Air Action Plan in 2017, providing new strategies and emission targets supporting zero-emissions and freight efficiency targets (POLA and POLB, 2017).

Toxic Air Contaminants. A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality (death) or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Hazardous Air Pollutants (HAPs) and TACs are used interchangeably in this discussion. HAPs are regulated by the EPA under the Federal Clean Air Act. TAC is the term used under the California Clean Air Act to regulate the same hazardous pollutants. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for periods of several years. Many of these contaminants originate from human activities, such as fuel combustion and solvent use.

In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants carbon dioxide, nitrogen dioxide, particulate matter, and ozone for which acceptable levels of exposure can be determined and for which the State and federal governments have set ambient air quality standards. For this reason, thresholds for TAC impacts for regulatory purposes and for CEQA thresholds have been set based on the increase in risk of cancer of a specific amount at sensitive receptors located near the source of TAC emissions.

The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, paradichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM).

TAC measurements, available at the SCAQMD Riverside Rubidoux monitoring station (14 miles northwest of the project site) can be used to characterize the "background" health risks from regional TAC emission sources. Table 4.3-4 provides this summary of TAC levels in the project area and health risk information. This table lists the air concentration levels and associated health cancer risks for eight of the nine TACs reported by the CARB in its Almanac as measured at the Riverside-Rubidoux air monitoring station. Note that since diesel PM cannot be measured directly, the table does not provide estimates of either measured diesel PM or the cancer risk associated with diesel PM.

Past studies have indicated that diesel PM poses the greatest health risk among the TACs listed in Table 4.3-4. The principal concern regarding exposures to diesel PM lies in its small size and thus its ability to penetrate deep into lung tissues when inhaled. Diesel exhaust has been found to cause health effects from short-term or acute exposures and from long-term chronic exposures, such as repeated occupational exposures. The type and severity of health effects depends upon several factors including the amount of chemical you are exposed to and the length of time you are exposed. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Long-term (chronic) exposure to diesel exhaust is likely to occur when a person works in a field where diesel is used regularly or experiences repeated exposure to diesel fumes over a long period of time. Human health studies demonstrate a correlation between exposure to diesel exhaust and increased lung cancer rates in occupational settings. Experimental animal inhalation studies of chronic exposure to diesel exhaust have shown that a range of doses causes varying levels of inflammation and cellular changes in the lungs. Human and laboratory studies have also provided considerable evidence that diesel exhaust is a likely carcinogen.

Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.

In 2014, the SCAQMD released the fourth iteration of the Multiple Air Toxics Exposure Study (MATES-IV). The MATES-IV is a follow up to the previous MATES studies and included an updated toxics air emission inventory, new air toxics air dispersion modeling, and enhanced air toxics monitoring. A key conclusion reached in the MATES-IV study was that the population weighted cancer risk in the Basin decreased by 57 percent from the MATES-III period in 2005 to the MATES-IV period in 2012 indicating that overall, cancer risks are declining in the Basin as a result of the implementation of emission controls principally on large diesel trucks. The MATES-IV study also concluded that diesel PM contributed 68 percent to the total cancer risk in the Basin with benzene and 1.3 Butadiene also making important contributions to cancer risk.

Table 4.3-4: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration[A] / Health Risk[B]	2015	2016	2017	Health Effects
Acetaldehyde	Mean	1.48	1.44	1.08	Acetaldehyde is a carcinogen that also causes chronic non-cancer toxicity in the respiratory system. Symptoms of chronic intoxication of acetaldehyde in humans resemble those of alcoholism. The primary acute effect of inhalation exposure to acetaldehyde is irritation of the eyes, skin, and respiratory tract in humans. At higher exposure levels, erythema, coughing, pulmonary edema, and necrosis may also occur. Acute inhalation of acetaldehyde resulted in a depressed respiratory rate and elevated blood pressure in experimental animals.
	Health Risk	22	21	16	
Benzene	Mean	ID	0.27	0.271	Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness in humans. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions in humans. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract in humans. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes disorders in the blood in humans. Benzene specifically affects bone marrow (the tissues that produce blood cells). Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.
	Health Risk	ID	85	70	
Chromium Hex	Mean	0.083	0.045	ID	In California, hexavalent chromium has been identified as a carcinogen. There is epidemiological evidence that exposure to inhaled hexavalent chromium may result in lung cancer. The principal acute effects are renal toxicity, gastrointestinal hemorrhage, and intravascular hemolysis. The respiratory tract is the major target organ for chromium (VI) following inhalation exposure in humans. Other effects noted from acute inhalation exposure to very high concentrations of chromium (VI) include gastrointestinal and neurological effects, while dermal exposure causes skin burns in humans. Chronic inhalation exposure to chromium (VI) in humans results in effects on the respiratory tract, with perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness reported. Chronic human exposure to high levels of chromium (VI) by inhalation or oral exposure may produce effects on the liver, kidneys, gastrointestinal and immune systems, and possibly the blood.
	Health Risk	34	19	ID	
Para-Dichlorobenzene	Mean	ID	ID	ID	In California, para-dichlorobenzene has been identified as a carcinogen. Acute exposure to 1,4-dichlorobenzene via inhalation results in irritation to the eyes, skin, and throat in humans. In addition, long-term inhalation exposure may affect the liver, skin, and central nervous system in humans (e.g., cerebellar ataxia, dysarthria, weakness in limbs, and hyporeflexia).
	Health Risk	ID	ID	ID	
Formaldehyde	Mean	3.52	3.64	3.35	The major toxic effects caused by acute formaldehyde exposure via inhalation are eye, nose, and throat

Table 4.3-4: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration[A] / Health Risk[B]	2015	2016	2017	Health Effects
	Health Risk	70	76	70	irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Chronic exposure to formaldehyde by inhalation in humans has been associated with respiratory symptoms and eye, nose, and throat irritation. Animal studies have reported effects on the nasal respiratory epithelium and lesions in the respiratory system from chronic inhalation exposure to formaldehyde. Occupational studies have noted statistically significant associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer. This evidence is considered "limited" rather than "sufficient" due to possible exposure to other agents that may have contributed to the excess cancers. EPA considers formaldehyde to be a probable human carcinogen (cancer-causing agent) and has ranked it in EPA's Group B1. In California, formaldehyde has been identified as a carcinogen.
Methylene Chloride	Mean	ID	48.2	12.3	Case studies of methylene chloride poisoning during paint-stripping operations have demonstrated that inhalation exposure to extremely high levels can be fatal to humans. Acute inhalation exposure to high levels of methylene chloride in humans has resulted in effects on the central nervous system, including decreased visual, auditory, and psychomotor functions, but these effects are reversible once exposure ceases. Methylene chloride also irritates the nose and throat at high concentrations. The major effects from chronic inhalation exposure to methylene chloride in humans are effects on the central nervous system, such as headaches, dizziness, nausea, and memory loss. In addition, chronic exposure can lead to bone marrow, hepatic, and renal toxicity. EPA considers methylene chloride to be a probable human carcinogen and has ranked it in EPA's Group B2. California considers methylene chloride to be carcinogenic.
	Health Risk	ID	477	122	
Perchloroethylene	Mean	ID	0.018	0.013	In California, perchloroethylene has been identified as a carcinogen. Perchloroethylene vapors are irritating to the eyes and respiratory tract. Following chronic exposure, workers have shown signs of liver toxicity, as well as kidney dysfunction and neurological disorders.
	Health Risk	ID	2	2	
Diesel PM	Mean	No Monitoring Data Available			In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. This research was based on studies prio to the advent of modern diesel engines with high efficiency emissions controls. Note: Since then the Health Effects Institute study clearly demonstrates that the application of new emissions control technology to diesel engines has virtually eliminated the health impacts of diesel exhaust.
	Health Risk				

Table 4.3-4: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration[A] / Health Risk[B]	2015	2016	2017	Health Effects

ID = Insufficient data

A = Concentrations for Hexavalent Chromium are expressed as µg/m^3, and concentrations for Diesel PM are expressed as µg/m^3. Concentrations for all other TACs are expressed as ppb.

B = Health Risk represents the number of excess cancer cases per million people based on a lifetime (70-year) exposure to the annual average concentration. Total Health Risk represents only those compounds listed in this table and only those with data for the year. There may be other significant compounds for which monitoring and/or health risk information are not available

Source: CARB, 2018 for the SCAQMD Riverside-Rubidoux air monitoring station.

In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust has been a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. Within the Basin, in addition to diesel PM, there are emissions of benzene, formaldehyde, acetaldehyde, naphthalene, ethylbenzene, acrolein, toluene, hexane, propylene, and xylene from a variety of sources located within the Basin that contribute to health risks.

In January 2015, a major new study evaluated the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology is referred to as New Technology Diesel Exhaust (NTDE). As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of the Health Effects Institute (HEI) and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The HEI, funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found chronic exposure to NTDE did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue in laboratory rats. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine. Rats are the most sensitive laboratory animal species for evaluation of older technology diesel engines (pre-model year 2007), because of their sensitivity to high concentrations of particles (present in older technology diesel engines), compared with other species (including humans).

The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust (McDonald et al, 2015).

Conservative Nature of Health Risk Assessments. Moreover, the current methodological protocols required by the SCAQMD and CARB when studying the health risk posed by diesel PM assume the following (CAPCOA, 2009): (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 30 years. These are overly conservative assumptions that are not replicated in reality. Most people are indoors for 18–20 hours a day (at their place of employment or home) and most people do not live in the same location for a 30-year period. In fact, less than 10 percent of the population has a continuous residency at the same location of greater than 30 years (American Community Survey, 2011). Thus, the health risk assessments prepared pursuant to the current protocols overestimate the risk of cancer associated with diesel PM exposure.

Alternate Views on Diesel PM Risk. Some researchers, such as Dr. James E. Enstrom (Enstrom, 2008), believe that the risk from diesel PM is exaggerated. Enstrom calls into question some of the basic research on the declaration of diesel exhaust as a toxic air contaminant. In particular, the article states the following:

> *There is substantial new epidemiologic evidence relevant to the health effects of diesel exhaust that was not considered when the 1998 toxic air contaminant declaration was made. For instance, the 2007 paper by Francine Laden et al. measured death rates during 1985–2000 among 54,000 members of the unionized U.S. trucking industry. … This cohort, which included 36,000 diesel truck drivers, had death rates from all causes and all cancer that were substantially below the rates among US males. Furthermore, unlike earlier evidence that was used in the TAC declaration, this cohort did not have a substantially elevated lung cancer death rate.*

Dr. Enstrom also indicates that the premature mortality calculation in the report, "Quantification of the Health Impacts and Economic Valuation of Air Pollution from Ports and Goods Movement in California," is exaggerated. Dr. Enstrom's analysis "found no relationship between $PM_{2.5}$ and mortality in elderly Californians during 1983–2002."

4.3.3 METHODOLOGY

The *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* for this revised section of the FEIR (ESA Associates, 2018) evaluated the air quality impacts associated with the development of the World Logistics Center project including the following:

- Determined the short-term construction air quality and health risk impacts on both on-site and off-site sensitive receptors based on SCAQMD and OEHHA assessment methodologies and significance thresholds;
- Determined the long-term air quality and health risk impacts, including vehicular traffic, on both on-site and off-site sensitive uses based on SCAQMD and OEHHA assessment methodologies and significance thresholds; and
- Determined the required mitigation measures to reduce short-term and long-term on-site air quality and health risk impacts from all sources.

An Air Quality, Greenhouse Gas, and Health Risk Assessment Report was prepared by ESA Associates (ESA Associates, 2018) in June 2018, included as Appendix A of this Revised Sections of the FEIR, which estimated the impacts associated with the interim and horizon opening years. The methodology used in the analysis is discussed below.

4.3.3.1 Construction

Construction-related emissions are expected from various activities associated with the construction of the project such as rough grading, infrastructure construction, asphalt paving, building construction, architectural coatings, and construction workers commuting. Construction emissions for construction worker vehicles traveling to and from the project site, in addition to vendor trips (construction materials delivered to the project site) and haul trips (dump trucks and concrete trucks) were also accounted for in the analysis. Localized air quality in the project area would be affected by both heavy-duty construction equipment usage on site as well as local traffic due to the equipment delivery and construction worker commuting. The anticipated construction equipment and construction schedule are identified in Appendix A. The SCAQMD CEQA methodology (SCAQMD, 1993) was used to analyze the criteria pollutant emissions from these activities.

A summary of the construction assumptions is included below. For a detailed description of assumptions, please refer to Appendix A.

- *Version of CalEEMod.* The construction emissions were estimated utilizing the latest version of CalEEMod (version 2016.3.2), which uses mobile source emissions from EMFAC2014.
- *Construction Period.* Construction was assumed to occur over 16 years from the year 2020 to 2035.[2] Although buildout of the project would depend on market conditions, the project could be built out as early as 2035. Therefore, to provide a conservative air quality analysis, construction was assumed to be completed over a 16-year period that provides for phase overlap and the use of less efficient construction equipment.
- *Building Phasing.* Building construction activity was subdivided into the following sub-phases: building-concrete; building-wet utilities; building-electrical; and building-landscaping to accurately describe construction activities.
- *Mass Grading Duration.* Each planning area was assumed to be graded separately over a total of approximately 58 months to reflect a realistic grading plan.
- *On-Site On-road Vehicle Emissions.* On-site travel and idling emissions from concrete trucks, haul trucks, service/support trucks, and delivery trucks were included in this analysis.
- *Equipment for Grading.* The construction equipment and haul truck deliveries for the mass excavation and fine grading phases vary per planning area (since there are varying sizes of each planning area).
- *Onsite Equipment Fleet for Non-Grading Phases.* The peak number of equipment was based on the size of each planning area and duration of construction.
- *Onsite Equipment Hours per Day.* The analysis assumed that the onsite equipment would be in the on position for 10 hours per day as a project design feature. This is a conservative scenario as the CalEEMod default assumes construction equipment would be on for 6 to 8 hours per day. This was used to calculate maximum daily emissions which are required for the regional analysis, because project emissions can occur on any day of the week.

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[2] *Full build out of the Project is expected to take 15 to 20 years, dependent on market forces. The TIA analyzes full project buildout in 2040, which is worst case for traffic analysis purposes as it accounts for greater regional growth in non-project traffic. However, for purposes of a conservative construction impact analysis, the fifteen-year buildout (ending in 2035) is analyzed. An accelerated construction schedule occurring in earlier years would account for greater overlap of construction activity and the use of dirtier construction equipment (i.e. subject to less stringent emission standards).*

Concrete pouring would likely occur during nighttime hours due to limitations high temperatures pose for concrete work during the day. On-site equipment used during concrete pouring would involve daytime prep with actual concrete pouring occurring during the nighttime hours. On average, the total hours of operation for each piece of equipment during the concrete phase would be approximately 10 hours. Therefore, the analysis assumes a realistic average use of construction equipment by assuming that the maximum equipment would be used for five days per week occurring for 10 hours per day (including the concrete pouring phase). In this way, an annual average and daily emission inventories were estimated.

- *Tier 4 Equipment.* The analysis assumed that for the mitigated emissions, all equipment over 50 horsepower would be Tier 4 as required by a revised mitigation measure.

4.3.3.2 Operation

Air quality in the project area would be affected by long-term air emissions from stationary sources and mobile sources related to the World Logistics Center project once it commences operations. The stationary source emissions would come from consumption of natural gas and emergency generators while mobile source emissions would come from vehicular emissions from automobiles and trucks traveling to, from, and within the project site and from on-site forklifts and yard trucks.

A key piece of information required to estimate the project's operational emissions deals with an estimate of the number of trips and types of vehicles (i.e., cars and trucks) generated by the project during a peak hour and on a daily basis. To determine mobile source emissions associated with the project, the trip generation rates were derived from the *Traffic Impact Analysis Report* (TIA) for the project prepared by WSP USA.

Working jointly with the National Association of Industrial and Office Properties (NAIOP), the SCAQMD conducted a trip generation study for high-cube warehouses, the predominant form of land use for the project, *High-Cube Warehouse Vehicle Trip Generation Analysis* (ITE, 2016). The study replaces the earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the project. The results of the study for high-cube warehouse trip generation has been incorporated into the 10th edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual.* The trip generation rates included in this study for high-cube warehouse uses and trip rates from the 10th edition of the ITE *Trip Generation Manual* have been used for other proposed land uses.

For purposes of the TIA and worst case traffic growth assumptions, project operations were analyzed based on two buildout years: 2025 Phase 1 buildout year and 2040 full buildout year. Forecasted trip generation and vehicle miles traveled (VMT) contained in the TIA were used to estimate the project's motor vehicle emissions for the Phase 1 and full buildout scenarios. The traffic model provided estimates of project traffic volumes segregated by vehicle class as passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks. The TIA provides VMT attributable to the project based on the net effect the project has on regional travel as well as project VMT without consideration of a net effect. The net effect includes consideration that creation of a job center (the project) would redistribute existing regional travel and result in shorter employee trips. Freeway and non-freeway VMT and speed data, as provided by WSP, were utilized to determine the appropriate emission factors to apply to project trips from the EMFAC2014 model. In calculating the operational traffic emissions, the VMT per speed was based on daily speed data provided by WSP. Emissions factors vary by speed bin. Therefore, accounting for variations in speed attributable to slow downs occurring during peak hours provides a realistic representation of project mobile emissions.

Mobile emissions utilized EMFAC2014's projected vehicle fuel mix for Phase 1 buildout year 2025 and project buildout year 2040. EMFAC2014 does not include population assumptions for electric or natural gas-fueled trucks. Section 6.17, *Energy*, of this EIR addresses the potential penetration of electric trucks and potential use in association with the project. Although the State has set targets for zero-emission vehicles, it would be speculative to assume that the High Penetration scenario discussed in Section 6.17 would be practicable or feasible by 2025 or by 2040. The Low, Medium, and High Penetration scenarios discussed in Section 6.17 are possible; however, as a worst-case analysis, the air quality analysis included herein did not take factor in any potential emissions reductions provided by electric or natural gas-fueled trucks.

Emission factors for the year 2018 were used for the "worst-case" scenario. Phase 1 of the project used emission factors from the year 2025, and Phase 2 of the project used emission factors for the year 2040. For the mitigated scenario, the emission factors were modified to reflect the mitigation measure that requires the use of model year 2010 or newer trucks for all diesel trucks associated with the project. Note that emissions from the existing on-site residence and fugitive dust that would be removed were not included in this analysis as a worst-case scenario.

4.3.3.3 Localized Construction/Operation

SCAQMD has developed the Localized Significance Threshold (LST) methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts that substantially affect sensitive receptors. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable Federal or State AAQS and are developed based on the ambient concentrations of that pollutant for each source receptor area identified by the SCAQMD. SCAQMD's current guidelines, *Final Localized Significance Threshold Methodology* (SCAQMD, 2003) and subsequent additions, were adhered to in the assessment of local air quality impacts from the World Logistics Center project. The local emissions of concern from construction and operational activities as defined by the SCAQMD are NO_X, CO, PM_{10}, and $PM_{2.5}$ combustion emissions from construction equipment and fugitive PM_{10} dust from construction site preparation activities. A summary of assumptions for the localized assessment is included below. For detailed assumptions, refer to Appendix A.

- *Construction Schedule.* Construction was assumed to occur over 16 years from the year 2020 to 2035.[3] Although buildout of the project would depend on market conditions, the project could be built out as early as 2035. Therefore, to provide a conservative air quality analysis, construction was assumed to be completed over a 16-year period that provides for activity overlap and the use of older construction equipment.
- *Emission Source Configuration.* The analysis represented the off-road construction exhaust emission source as a series of contiguous volume sources, which is consistent with the SCAQMD methodology for LST assessments.
- *Operational Truck Idling.* Each truck was assumed to idle for 5 minutes per day consistent with the California Air Resources Board's Air Toxic Control Measure that limits such idling to 5 minutes and requirements specified in the World Logistics Center Specific Plan. Although project

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[3] *Full build out of the Project is expected to take 15 to 20 years, dependent on market forces. The TIA analyzes full project buildout in 2040, which is worst case for traffic analysis purposes as it accounts for greater regional growth in non-project traffic. However, for purposes of a conservative construction impact analysis, the fifteen-year buildout (ending in 2035) is analyzed. An accelerated construction schedule occurring in earlier years would account for greater overlap of construction activity and the use of dirtier construction equipment (i.e. subject to less stringent emission standards)*

mitigation limits idling to 3 minutes per day per truck, this reduction in emissions has not been accounted for to provide a worst-case analysis.

The localized significance threshold analysis evaluated three conditions:

- Project Phase 1 (2018): this condition assumed that Phase 1 of the project is fully built out in 2018.
- Project Phase 1 and Phase 2 Full Build Out (2018): this condition assumes that Phase 1 and Phase 2 of the project are fully built out in 2018.
- Proposed Development Schedule: this condition examined the proposed development schedule of the two-phased project. Three analysis years were examined under this condition for potential localized air quality impacts:
  - 2025, the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern portion of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street, and when all of Phase I operations would occur (approximately 57 percent of entire project floor space);
  - 2032, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road (eastern portion of site); and
  - 2040[4] when the Phase 1 and Phase 2 of the project are fully operational.

Project Phase 1 (2018) represents an interim step during which Phase 1 of the project (approximately 57 percent of the total size of the project) is completely built out in 2018. This analysis simply looked at the situation of what would happen if Phase 1 of the project were built in its entirety with no reductions in motor vehicle emissions that would occur in the future as a result of emission control programs that have already been adopted. This assessment also provided consistency with the TIA and noise reports which examine the Project Phase 1 (2018) condition. The project impact results were compared to the existing air quality levels in 2018 and only consider the project's operational emissions and not construction emissions.

Project Phase 1 and 2 Full Build Out 2018 represents a worst-case scenario since the project could not be physically built out in its entirety in a single year and does not reflect the fact that the project would be developed over a time period of 16 years depending on market demands for warehouse space. This assumption also does not account for the fact that emissions from mobile sources, prior to mitigation, particularly from heavy duty diesel trucks are expected to decline significantly over time as emissions control technologies continue to improve. This assessment also provided consistency with the TIA and noise reports which examine the full Project Phase 1 and Phase 2 (2018) Build Out

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[4] *In some circumstances, references are made to the year 2035. The year 2035 is the year the construction schedule assumes full completion of project construction. Assuming earlier construction years would result in a more conservative analysis because the use of less efficient construction equipment is assumed. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. For purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.*

condition. The project impact results were compared to the existing air quality levels in 2018 and only consider the project's operational emissions and not construction emissions.

The Project Development condition represents the project development including the localized impacts during construction and operation over the time period of 2020 to 2040. These results were compared to the existing air quality levels in 2018.

4.3.3.4 Health Risk Assessment

A Health Risk Assessment (HRA) is a guide that helps to determine whether current or future exposures to a chemical or substance in the environment could affect the health of a population. In general, risk depends on the following factors:

- How much of a chemical is present in an environmental medium (e.g., air);
- How much contact (exposure) a person has with the contaminated environmental medium; and
- The inherent toxicity of the chemical.

The assessment of health impacts is a continuing evolution of science and regulation. Since December 2014, three major scientific and regulatory activities have come forward that will affect how such assessments are performed and what such impacts mean to society as described below.

On December 30, 2014, the ARB released its update to the Emissions Factor Model, EMFAC2014, which is used to estimate emissions from motor vehicles in California. The EFAC2014 model represents the ARB's current understanding of motor vehicle technologies and regulatory implementation of rules aimed at reducing air emissions from motor vehicles. Of significance in this regard are the new projections of air emissions from heavy duty diesel engines. Based on the results of the EMFAC2014 model, emissions of diesel particulate matter range from 50 to 80 percent lower than previously estimated using the previous version of the EMFAC model, EMFAC2011. Since heavy duty trucks constitute nearly all of the project's diesel PM emissions, the incorporation of the emission information from the EMFAC2014 model is important in estimating the amount of diesel PM and in assessing the project's health risk impacts resulting from these emissions

On January 27, 2015, the HEI, a joint private-government partnership, released a major peer-reviewed scientific report entitled *Effects of Lifetime Exposure to Inhaled New-Technology Diesel Exhaust in Rats* (McDonald et al, 2015). This is the first study to conduct a comprehensive evaluation of lifetime inhalation exposure to emissions from heavy-duty 2007-compliant engines (referred to as "new technology diesel exhaust," or NTDE). The study evaluated the long-term effects of multiple concentrations of inhaled NTDE, which has greatly reduced particle emissions compared with "traditional-technology diesel exhaust" (TDE) in male and female rats on more than 100 different biologic endpoints, including tumor development, and compared the results with biologic effects seen in earlier studies in rats after exposure to TDE. Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE. The importance of this study is that diesel PM emissions from new technology diesel engines does not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals that, in fact are more sensitive to toxics exposures than humans. While this study focused on heavy duty truck emissions, the new clean diesel technology has the potential for impacting all sectors, including passenger cars, agriculture, construction, maritime and transportation. Previous studies directed at studying the effects of diesel PM on health were based on exposure studies that date 15 to 20 years ago when diesel emissions were significantly higher than the NTDE. It is also important to highlight that the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, the U.S. Department of Energy (DOE) and the U.S. Federal Highway Administration are sponsors and/or reviewers of this study in conjunction with the manufacturers of emissions control equipment.

On March 6, 2015, the OEHHA adopted a new guidance for estimating health risks from toxic air contaminants that incorporated the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. Within the context of this assessment, this new assessment guidance is referred to as the "Current OEHHA Guidance". The new guidance updates earlier guidance recommended by OEHHA and SCAQMD referred to in this assessment as the "Former OEHHA Guidance", which was used in the Draft EIR. The "Former OEHHA Guidance" is based on a lifetime exposure of 70 years and does not incorporate early-in-life age sensitivity factors. The importance of the "Current OEHHA Guidance" is that the guidance produces much more conservative estimates of cancer risks from toxic air contaminant exposures than the "Former OEHHA Guidance".

The HRA has been conducted to allow decision makers to see the cancer-related impacts of the World Logistics Center project with the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The following information summarizes the main assumptions utilized in preparation of the HRA. For more detailed discussion of assumptions and methodology, refer to Appendix A.

Traffic Volumes. The HRA used the construction and operational emission values as described above in the air quality study. Note that with respect to the operational emissions, since the project may change the traffic distribution in the region, net trips and associated net emissions on each project-impacted roadway segment was calculated using the difference between the trip rates for the 2018 (baseline year) with-project scenario and without-project scenario. The TIA studied three with-project and without-project scenarios, based on existing (year 2018), interim year 2025, and horizon year 2040; the HRA analysis is based on the 2018 traffic scenario because it has the highest certainty with regard to pre-project conditions than the 2025 and 2040 traffic scenarios (i.e., the pre-project traffic conditions for those future year traffic scenarios are speculative in nature). To be conservative, for segments that have net negative trips (i.e., where the project causes reduction in trip rates on some roadway segments due to traffic redistribution in the region), the HRA used a zero emission value instead of taking credit for the trip rate reductions.

Vehicle Speeds. In calculating the operational traffic emissions, the VMT per speed was based on daily speed data provided by the traffic consultant (WSP). Speed data accounts for variations in speed attributable to slow downs occurring during peak hours.

Organic Gas Emissions. The assessment of acute non-cancer hazards examined the impacts of the toxic components of the project's organic gas and PM emissions from construction equipment during project construction, and total organic gas and PM emissions from gasoline and diesel vehicles during project operation.

Calculated Cancer Population Burden. The health risk assessment included the computation of cancer population burden attributed to the project's diesel PM emissions.

Maximum Exposure Duration for Sensitive/Residential Receptors. The HRA used the SCAQMD recommended intake rate percentiles - RMP using the Derived Method, which applies to multi-pathway risk assessments in which two dominant exposure pathways use the high-end point-estimates of exposure. Furthermore, since cancer risk calculation is based on 30-year exposure duration, the HRA assumed exposure starts at the beginning of construction (Construction + Operation HRA). The revised HRA also analyzed the 30-year exposure scenario that assumed exposure starts at the beginning of full project operation (Operational HRA). The Operational HRA assumed that a receptor starts exposure at the beginning of the full project operational year of 2040 and exposure lasts for 30 years until 2069. The Operational HRA also conservatively used the 2040 emission rate for each of the 30 years of exposure.

Maximum Exposure Duration for Worker Receptors. The cancer risk impacts are presented in accordance with "Current OEHHA Guidance", which assumes an exposure duration of 25 years for worker receptors, which is based on labor statistics showing 95 percent of workers stay in the same job for 25 years or less.

School Receptors. The assessment of cancer risks at local school receptors was included based on "Current OEHHA Guidance".

The HRA methodology applied a risk characterization model to the results from an air dispersion model to estimate potential health risks at each sensitive receptor location. Because of the pervasive nature of diesel particulate matter (diesel PM) in contributing to estimated health risks in California, the focus of this assessment was on estimating the health risks from diesel PM. While the project activities may result in the emission of other TACs (e.g., Total Organic Gases (TOG) from diesel and gasoline-powered vehicles), diesel PM from the project was found to contribute approximately 98 percent of the total cancer risk from project operations (see the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Appendix A of the Revised FEIR). Reactive Organic Gases (ROG) and PM exhaust emissions from construction equipment and TOG and PM emissions from diesel and gasoline vehicles of project operation were, however, included in the assessment of acute non-cancer hazards.

The health risk calculation methodology in this HRA is consistent with *SCAQMD Health Risk Assessment Guidance* (SCAQMD, 2016) and the "Current OEHHA Guidance" set forth in the 2015 OEHHA *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. The estimation of cancer risk involves the specification of several parameters including the concentration level of the toxic air contaminant (for purposes of this assessment diesel PM_{10} exhaust), the rate of inhalation of the toxic, the exposure frequency (number of days per year), the exposure duration in years, the time period over which the exposure takes place, what is termed a slope factor that represents an upper bound on the increased cancer risk from a lifetime exposure to a toxic by ingestion or inhalation and early-in-life age sensitivity factors. The values of these parameters depend on the type of receptor, i.e., sensitive/residential, worker, and student as discussed below.

Cancer Risk Exposure Assumptions. The principal focus of this HRA was on the potential health impacts to sensitive/residential receptors located within and surrounding the project site. Sensitive receptors include hospitals, schools, daycare facilities, elderly housing and convalescent facilities. Residences are also considered sensitive receptors. An important parameter necessary to estimate cancer risk is the duration of exposure of an individual to toxic air contaminants. An assessment of population mobility can assist in determining the length of time a residential receptor is exposed in a particular location. For example, the duration of exposure to a source of toxic air contaminants will be directly related to the period of time residents live near the source of the emissions.

Table 4.3-5 summarizes the primary exposure assumptions used in this HRA to calculate individual cancer risk by receptor type, which is based on the SCAQMD HRA Guidance and the "Current OEHHA Guidance".

The underlying factors used in the analysis exemplify the conservative nature of utilizing the exposure scenarios and the underlying assumptions:

- The residential cancer risk calculation assumed that each resident will be exposed to diesel particulate matter (diesel PM) and organic gases for 24 hours a day for 350 days a year at the location of his or her home throughout the entire 30-year residential exposure period.
- The worker and student cancer risk calculations assumed that workers or students are exposed to diesel PM for 8 hours a day, next to, but outside of the buildings in which they work or study.
- The atmospheric dispersion model and traffic model that were used to estimate risks generally provide impact estimates that are over-estimated based on the use of conservative model assumptions.

Table 4.3-5: Exposure Assumptions for Cancer Risk

Type of Guidance	**Receptor Type**	**Exposure Frequency**		**Exposure Duration (years)**	**Age Sensitivity Factors**	**Time at Home Factor (%)**	**Daily Breathing Rate (L/kg-day)**
		Hours/ day	**Days/ year**				
Current OEHHA Guidance	Sensitive/Residential:						
	3rd Trimester	24	350	0.25	10	85	361
	0-2 years	24	350	2	10	85	1090
	2-16 years	24	350	14	3	72	572
	Older than 16 years	24	350	14	1	73	261
	Student	8	180	9	3	NA	640
	Worker	8	250	25	1	NA	230

Time at home factor is 1 if there is a school receptor within the 1 in a million (or greater) cancer risk isopleth, which was the case for this project's unmitigated scenario for the Construction + Operation HRA.
(L/kg-day) = liters per kilogram body weight per day; NA = not applicable.
The daily breathing rates shown are RMP using the Derived Method for residential as recommended by the SCAQMD and the 95th percentile rate for other receptors as recommended by the OEHHA.
Source: OEHHA, 2015; SCAQMD, 2016.

Other Factors that Influence Health Risk Estimates: Conservative Trip Estimates. It should also be noted that the TIA used a conservative estimate of the number of truck trips after the project begins operation. The number of truck trips is important because diesel PM emissions are directly related to both the number of trucks and the vehicle miles traveled. As mentioned above, the TIA in the Revised Sections of the FEIR uses the traffic generation rate for high-cube warehouses from the 10th edition of the Institute of Traffic Engineers' (ITE) Trip Generation Manual which is based on the *High-Cube Warehouse Vehicle Trip Generation Analysis* prepared jointly by SCAQMD and National Association of Industrial and Office Properties (NAOIP).

Cancer Burden. Whereas cancer risk represents the probability that an individual will develop cancer, cancer burden multiplies the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project. The exposed population is defined as the number of persons within a facility's zone of impact, which is typically the area exposed to an incremental cancer risk of one in a million from the project. Consistent with this definition, cancer burden was calculated by first identifying all population census tracts[5] located within the project's zone of impact, multiplying the estimated incremental project cancer risk impact in the census tract by the population of the census tract and then summing all of products of population times estimated cancer risk in the zone of impact. Note that each census tract contributes to the cancer burden in proportion to its population and risk. For example, if a census tract has a relatively high estimated cancer risk, but no people living there, it will not contribute to the estimation of the cancer burden. In accordance with "Current OEHHA Guidance", the cancer burden was calculated assuming a 30-year exposure duration along with the appropriate exposure frequency, daily breathing rates, age sensitivity factors, and time at home factors appropriate to each age group (OEHHA, 2015). A cancer burden greater than 0.5 is considered a significant cancer burden.

Non-cancer Hazards. Separate from cancer risk impacts, exposures to TACs such as diesel PM can also cause chronic (long-term) and acute (short-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health risks from TACs is expressed as a HI. The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL). This is a separate and distinct analysis from the analysis conducted for cancer risk. A significant risk is defined by the SCAQMD as an HI of 1 or greater. The California OEHHA has assigned a chronic non-cancer REL of 5 $\mu g/m^3$ for diesel PM (OEHHA, 2015). Diesel PM has effects on the respiratory system, which accounts for essentially all of its potential chronic non-cancer hazards. Therefore, the only HI calculated was for the respiratory system.

Exposures to TACs can also have short-term or acute non-cancer effects, typically dealing with exposures over an hour or so. OEHHA has not defined a REL for diesel PM appropriate for estimating acute non-cancer hazards from diesel PM. Therefore, to estimate the potential acute non-cancer impacts from the project, it was necessary to examine the various individual chemical components (or chemical species) that comprise the emissions from both diesel vehicles and gasoline vehicles. For this purpose, use was made of emission source profiles that provide estimates of the various chemical components that comprise the exhaust from diesel and gasoline vehicles. From this information, an estimate was made of the maximum one-hour average concentration levels of the project's various chemical species from which an acute non-cancer HI can be determined.

Morbidity and Mortality. Respirable particulate matter is a public health concern as it is known to impact both the respiratory and cardiovascular systems. Respirable particulate matter deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne particulate matter (PM_{10} and $PM_{2.5}$) include children, the elderly, smokers, and people of all ages with low pulmonary/ cardiovascular function. The CARB reviewed and summarized the toxic health effects (i.e., mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify these impacts based on concentration-response functions (C-R functions) (CARB, 2008a). This CARB

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[5] A census tract is a geographic region defined for the purpose of taking a census. Usually these regions coincide with the limits of cities, towns, or other administrative areas. Each tract has a unique numeric code and averages about 4,000 inhabitants. The census tract centroid is the geographic center of the tract based on a weighted distribution of the population within the tract using the census blocks that comprise the tract. A census block is the smallest geographic unit used to tabulate population and each tract can be comprised of several blocks.

model has been used, for example, to estimate the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement in California.

The CARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity, however, such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions, baseline rates of mortality and morbidity that are entered into C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and O_3 that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted. For estimates mortality and morbidity impacts, the following C-R function is used:

$$\Delta Y = -Y_O [\exp(-\beta * \Delta PM) - 1] * \text{population}$$

Where:

- ΔY: changes in the incidence of a health risk endpoint (in this case changes in mortality or morbidity) corresponding to a particular change in DPM.
- Y_O: baseline occurrence of the health risk endpoint rate per person for the South Coast Air Basin.
- β: the coefficient based on the relative risk that is associated with a particular concentration and varies from one study to another.
- ΔPM: change in DPM concentration estimated by the project's air dispersion modelling ($\mu g/m^3$).
- Population = population of the impacted census tracts and population subgroup exposed to the change in DPM.

To use a C-R function from an epidemiological study to estimate changes in the incidence of a health endpoint corresponding to a particular change in PM in a location, it is important to use appropriate values of parameters for the C-R function, which are the measure of PM, the type of population, and the characterization of the health endpoint should be the same as or as close as possible to those used in the study that estimated the C-R function.

The form of the C-R function was used to predict the effect of changes in ambient PM concentrations on health effects such as premature deaths, cardiac and respiratory hospitalizations, asthma and other lower respiratory symptoms, etc. The parametric values for the variables Y_O and β are provided in Table 4.3-6 along with the averaging time for the estimate of the health risk endpoint.

Table 4.3-6: Parameter Values

Health Risk Endpoint	Averaging Time	Affected Population	Baseline Occurrence (Y_O)	Relative Incidence (β)	Health Risk Endpoint
Long Term Mortality	Annual	Ages 30 years and older	0.001768	0.005827	Long Term Mortality
Chronic Illness: Chronic Bronchitis	Annual	Ages 27 years and older	0.00378	0.0132	Chronic Illness: Chronic Bronchitis

Table 4.3-6: Parameter Values

Health Risk Endpoint	Averaging Time	Affected Population	Baseline Occurrence (Y_O)	Relative Incidence (β)	Health Risk Endpoint
Hospitalization: Chronic Obstruction Pulmonary Disease	Daily	Ages 65 years and older	0.0000259	0.00288	Hospitalization: Chronic Obstruction Pulmonary Disease
Hospitalization: Pneumonia	Daily	Ages 65 years and older	0.0000516	0.00207	Hospitalization: Pneumonia
Hospitalization: Cardiovascular	Daily	Ages 65 years and older	0.000158	0.00119	Hospitalization: Cardiovascular
Hospitalization: Asthma	Daily	Ages 0 to 64 years old	0.00000263	0.00205	Hospitalization: Asthma
Emergency Room Visits for Asthma	Daily	Ages 0 to 64 years old	0.00000448	0.00367	Emergency Room Visits for Asthma

Source: CARB, 2002.

The basic procedure for determining exposures is based on the methods published by the CARB in its development of the technical support to consider amendments to the ambient air quality standards for particulate matter and sulfates (CARB, 2002). Within this assessment, the following information is required to make the relevant health risk endpoint estimates in addition to the C-R function shown in the above equation and the parametric information shown in Table 4.3-6:

- Air pollutant concentrations (represented as the incremental diesel PM impacts from the population affected.)

The incremental air pollutant concentrations of DPM resulting from the project were determined using the USEPA AERMOD air dispersion model and associated emission estimates of DPM. The dispersion model predicted annual estimates of DPM at locations surrounding the project corresponding to the location of population census tracts from the US Census Bureau. To provide estimates of 24-hour DPM, the annual average DPM concentration values calculated by the air dispersion model were multiplied by a factor of 6 which corresponds to the ratio of 24-hour average to annual average air concentrations recommended by the California Office of Environmental Health Hazard Assessment (OEHHA, 2015). The breakdown of the total population by age group for use in the concentration-response functions was accomplished using the 2010 US Census for California age breakdown as shown in Table 4.3-7. This population breakdown was assumed to apply to all census tract receptors to determine the affected population in each census tract.

Table 4.3-7: California Age Breakdown in 2010

Age	Percent of Total Population
<5	7.3%
5-9	8.0%
10-14	7.6%
15-19	7.2%
20-24	7.0%
25-34	15.5%
35-44	16.2%
45-54	12.8%

Table 4.3-7: California Age Breakdown in 2010

Age	Percent of Total Population
55 to 59	4.3%
60 to 64	3.4%
65-74	5.6%
75-84	3.8%
>=85	1.6%

Source: USCB, 2014.

Despite a number of uncertainties in the analysis methodology, the expected increase in mortality and morbidity was calculated for the project's toxic air emissions.

Geographic Scope of the Health Risk Assessment. The HRA is characterized by two important differences from the localized significance threshold assessment for criteria pollutants. According to the SCAQMD localized significance threshold assessment methodology, the assessment of localized impacts addresses only those emissions that are generated "onsite", that is for the purposes of this project, emissions generated from within or along the boundaries of the Specific Plan. However, for the HRA, both the universe of the project's emission sources and air dispersion model receptors were expanded to assess the off-site impact of the project's emissions of toxics. Besides onsite emission sources and receptors, the HRA included a receptor grid that extends up to 5 kilometers (km) from the project boundary and the roadway network that extends 10 km from the project boundary (e.g., including 18 miles on SR-60. This study area reasonably captured the most extensive emissions from project-generated vehicles on the roadway network, since all trips to and from the project would travel on the roadway segments and freeway segments (SR-60) nearest the project site regardless of origin or destination. Since project activity is highest onsite, the project's emissions and associated health impact decreases with distance from the project site. Thus, the selected study area was capable of capturing the project's maximum impact. If the maximum risk from the study area is less than significant, project health risk impacts will be less than significant for receptors further away.

The generation of emissions from traffic traveling along the various arterial and freeway mainline roadway segments requires information on traffic volumes, length of segment, and emission factors. The emission factors, in turn, depend on vehicle type, speed, calendar year, and fuel type. Estimates of peak hour vehicle volumes and types (passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks) were provided by the traffic consultant for each roadway segment analyzed. The TIA also provided daily vehicle volumes for freeway segments, but not for non-freeway segments. For use in the cancer risk and chronic non-cancer hazard calculations, the daily vehicle volumes for non-freeway segments were assumed to be 10 times that of the peak hour vehicle volumes. The physical length and width of each roadway segment were estimated using the segment location as provided by the traffic consultant and aerial photographs available from Google Earth. Vehicle speeds for each roadway segment and vehicle type were based on the speed groups provided by the traffic consultant.

The health risk analysis examined the following condition:

- Project Development condition which examined the effect of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2020 and the final full build out in 2035.[6] This condition forms the basis for quantifying the incremental impacts from the project.

Annual average diesel PM emissions and impacts were calculated for each year starting from 2020 based on the assumption that diesel exhaust can cause cancer. Specifically, annual average diesel PM concentrations were estimated from the diesel PM construction emissions for each year of construction from 2020 to 2035 according to the construction schedule and equipment usage projected for each year of construction. Project Development examines project impacts resulting from the proposed construction and operation of the project from the commencement of construction in 2020 for a 30-year duration for sensitive/residential receptors, 25-year for worker receptors, and 9-year exposure time periods for school-site student receptors. Annual average diesel PM emissions and impacts during operation were estimated for the Phase 1 build out year and the final full build out year, years for which detailed traffic information was available from the TIA. The annual average operational diesel PM impacts were then interpolated among operational years between 2020 and 2035.

During years when both construction and operations occur simultaneously (2021 to 2035), the annual diesel PM concentrations at the sensitive receptors from construction were added to the annual diesel PM concentrations from operations to provide a total impact assessment of all diesel PM emissions from the project during each year. The resulting total annual average diesel PM concentrations calculated each year for the exposure time period (individual annual averages) multiplied by the requisite daily breathing rates, age sensitivity factors, and time-at-home factors for each year of exposure. The HRA assumed that a fetus in the 3rd trimester (within the mother’s womb) commences its lifetime exposure with exposure starting in year 2020 (construction start year) for construction + operation and in year 2040 for full operational. The HRA is being provided to allow decision makers to see the cancer-related impacts of the World Logistics Center project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4.

4.3.4 THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, air quality impacts would occur if the World Logistics Center project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); and/or
- Expose sensitive receptors to substantial pollutant concentrations.

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[6] In some circumstances, references are made to the year 2035. The year 2035 is the year the conservative construction schedule assumes full completion of project construction. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. Similar to the Phase 1 buildout year, and for purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.

In addition to the Federal and State AAQS, there are daily emissions thresholds for construction and operation of a project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook* (SCAQMD, 1993) and subsequent additions to the Handbook were used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution related to air quality and health risks.

4.3.4.1 Thresholds for Construction Emissions

The following CEQA significance thresholds for regional construction emissions have been established by the SCAQMD for the Basin:

- 75 pounds per day of VOC, also known as reactive organic compounds (ROC).
- 100 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA.

4.3.4.2 Thresholds for Operational Emissions

Projects with regional operation-related emissions that exceed any of the regional emission thresholds listed below are considered significant under the SCAQMD guidelines.

- 55 pounds per day of VOC, also known as ROC.
- 55 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

4.3.4.3 Air Pollutant Standards for CO with Localized Effects

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards (previously referenced Table 4.3-1). If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more. The Basin meets State and Federal attainment standards for CO; therefore, the project would have a significant CO impact if project emissions result in an exceedance of State or Federal one-hour or eight-hour standard. The following emission concentration standards for CO, based on the SCAQMD *CEQA Air Quality Handbook* (1993), apply to the project:

- California State one-hour CO standard of 20.0 ppm.
- California State eight-hour CO standard of 9.0 ppm.

4.3.4.4 Localized Significance Thresholds

The SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 (SCAQMD, 2003), revised July 2008 and *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM$_{2.5}$ Significance Thresholds* (SCAQMD, 2006), recommending that all air quality analyses include a localized assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of Federal or State AAQS. LSTs are based on the ambient concentrations of that pollutant within the Source Receptor Area (SRA) where a project is located and the distance to the nearest sensitive receptor. The project site is located in the northern portions of SRAs 24 (Moreno Valley) and 28 (San Jacinto).

In the case of CO and NO$_2$, if ambient levels are below the air standards for these pollutants, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM$_{10}$ and PM$_{2.5}$, both of which are nonattainment pollutants in the Basin. For these latter two pollutants, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 $\mu g/m^3$ applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 $\mu g/m^3$ applies to non-aggregate handling operational activities.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. There are currently six occupied single-family homes and associated ranch/farm buildings in various locations on the World Logistics Center project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, and west of Redlands Boulevard, and scattered residences along Gilman Springs Road.

Following the SCAQMD LST methodology, for sites larger than 5 acres, air dispersion modeling needs to be conducted. Because the project site greatly exceeds 5 acres, the localized significance for project air pollutant emissions was determined by performing dispersion modeling to determine if the pollutant concentrations would exceed relevant significance thresholds established by the SCAQMD.

The following LSTs were applied to the construction and operation of the project:

- 0.18 ppm (State 1-hour); 0.100 ppm (Federal 1-hour); and 0.03 ppm (Annual) of NO$_2$ for construction or operations.
- 20 ppm (1-hour) and 9.0 ppm (8-hour) of CO for construction or operation.
- 10.4 $\mu g/m^3$ (24-hour) and 1 $\mu g/m^3$ of PM$_{10}$ (Annual) for construction.
- 2.5 $\mu g/m^3$ (24-hour) and 1.0 ppm (Annual) of PM$_{10}$ for operations.

- 10.4 µg/m^3 (24-hour) of $PM_{2.5}$ for construction.
- 2.5 µg/m^3 (24-hour) of $PM_{2.5}$ for operation.

Note that when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operation apply in determining emission significance

4.3.4.5 Health Risk Significance Thresholds

For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), "substantial" is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level.

The SCAQMD has defined several health risk significance thresholds that it recommends to Lead Agencies in assessing a project's health risk impacts. The City of Moreno Valley has not adopted its own set of thresholds. Therefore, the following SCAQMD thresholds were adopted for the project.

- **Maximum Individual Cancer Risk (MICR)and Cancer Burden.** MICR is the estimated increase in lifetime probability of the maximally exposed individual contracting cancer as a result of exposure to TACs over the applicable exposure period. Cancer burden multiples the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project.

  A significant impact would occur for:

  (A) An increased MICR greater than 10 in 1 million at any receptor location; or

  (B) A cancer burden greater than 0.5

- **Chronic Hazard Index (HI).** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. A reference exposure level is the exposure level below which an adverse health effect will not occur as determined by health professionals The chronic HI calculations include multi-pathway consideration, when applicable.

  A significant impact would occur if the increase in total chronic HI for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.

- **Acute Hazard Index (HI).** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level, the exposure level below which an adverse health effect will not occur as determined by health professionals (see Section 4.3.2.3).

  A significant impact would occur if the increase in total acute HI for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.

4.3.5 LESS THAN SIGNIFICANT IMPACTS

The following impact was determined to be less than significant (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.3.5.1 Long-Term Microscale (CO Hot Spot) Emissions

Impact 4.3.5.1: The World Logistics Center project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation for CO.

Threshold	Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
	For CO, the applicable thresholds are:
	- California State one-hour CO standard of 20.0 ppm; and
	- California State eight-hour CO standard of 9.0 ppm.

Vehicular trips associated with the development of the World Logistics Center project could contribute to congestion at intersections and along roadway segments in the project vicinity resulting in potential local CO “hot spot” impacts. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle travel speeds and idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, schoolchildren, etc.). High CO concentrations are typically associated with roadways or intersections operating at unacceptable levels of service or with very high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project’s effect on local CO levels.

Carbon monoxide (CO) “hot spot” thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecast regional traffic do not exceed State or Federal standards for CO at any traffic intersection affected by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the State CO 1-hour standard of 20 ppm, State CO 8-hour standard of 9 ppm, Federal CO 1-hour standard of 35 ppm, or Federal CO 8-hour standard of 9 ppm.

A CO hot spot is a localized concentration of CO that is above the State or Federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections where the concentrations would be the greatest.

This analysis follows guidelines recommended by the CO Protocol (University of California, Davis, 1997) and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The LOS for intersections is determined in the TIA (refer to Section 4.15 of this Revised FEIR, Traffic and Circulation). The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: (1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or (2) the project decreases LOS at an intersection from C to D. A decrease in LOS, i.e., from C to D, means that there is more traffic and more delay at the intersection.

For this project analysis, the intersections with the highest traffic volumes and the LOS E or F before mitigation were identified for 2025 using information from the table in the TIA "Intersection LOS under 2025 Plus Phase 1 Conditions." The intersections with the greatest LOS before mitigation were also identified for 2040 using information from the table in the TIA "Intersection LOS under 2040 Plus Build-out Conditions."

The CO concentrations were estimated using the CALINE4 model using 2025 and 2040 emission factors. The emission factors are for "all" vehicle classes and are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project mitigation reductions from requiring that all diesel trucks are model year 2010 or newer.

Table 4.3-8 shows estimated CO concentrations at year 2025 plus project traffic conditions. The estimated CO concentrations at year 2040 are shown in Table 4.3-9. As shown in the tables, the estimated 1-hour and 8-hour average CO concentrations from project-generated and cumulative traffic plus the background concentrations are below the State and Federal standards. No CO hot spots are anticipated because of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact. No mitigation is required.

Table 4.3-8: Carbon Monoxide Concentrations at Intersections, 2025

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Alessandro Boulevard and Chicago Avenue	PM	5.2	3.5	No
Alessandro Boulevard and Canyon Crest Drive	PM	4.8	3.2	No
Alessandro Boulevard and Mission Grove Parkway	PM	4.3	2.9	No
Arlington Avenue and Victoria Avenue	PM	4.3	2.9	No
Alessandro Boulevard and Sycamore Canyon Boulevard	AM	4.3	2.9	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-9: Carbon Monoxide Concentrations at Intersections, 2040

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Alessandro Boulevard and Chicago Avenue	PM	4.5	3.0	No
Alessandro Boulevard and Canyon Crest Drive	PM	4.6	3.1	No
Alessandro Boulevard and Sycamore Canyon Boulevard	PM	4.2	2.8	No
Ramona Expressway and Sanderson Avenue	PM	4.7	3.1	No
Alessandro Boulevard and Mission Grove Parkway	PM	4.2	2.8	No

Table 4.3-9: Carbon Monoxide Concentrations at Intersections, 2040

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

4.3.6 SIGNIFICANT IMPACTS

The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.

4.3.6.1 Air Quality Plan Management Plan Consistency

Impact 4.3.6.1: *Implementation of the World Logistics Center project has the potential to conflict with implementation of the SCAQMD 2012 AQMP.*

Threshold	Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the Air Quality Management Plan (AQMP):

1. Indicator: Whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Indicator: A project would conflict with the AQMP if it would exceed the assumptions in the AQMP in 2012 or increments based on the year of project buildout and phase. The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used in the Regional Transportation Model run by the Southern California Association of Governments that generated the mobile inventory used by the SCAQMD for AQMP are not available and assumed not to include the project; therefore, the SCAQMD's significance thresholds are used to determine if the project exceeds the assumptions in the AQMP.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis utilizes the following criteria to address this potential impact:

- Project's contribution to air quality violations (SCAQMD's first indicator, 1 as listed above);
- Assumptions in AQMP (SCAQMD's second indicator, 2, as listed above); and
- Compliance with applicable emission control measures in the AQMPs.

Project's Contribution to Air Quality Violations and Assumptions in AQMP. According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the

AQMP (SCAQMD, 1993, page 12-3). As shown in analyses in Impacts 4.3.6.2, 4.3.6.3, and 4.3.6.4, the project could violate an air quality standard and therefore could contribute substantially to an existing or projected air quality violation.

If a project's emissions exceed the SCAQMD regional thresholds for NO_X, VOC, PM_{10}, or $PM_{2.5}$, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the Basin is in nonattainment (ozone, PM_{10}, and $PM_{2.5}$) at a monitoring station in the Basin. The thresholds are criteria for determining environmental significance and are discussed in the SCAQMD's 1993 Handbook for Air Quality Analysis. An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP—to achieve attainment of pollutants. As discussed in the analyses below (Impact 4.3.6.2, Construction Emissions, and Impact 4.3.6.4, Long-Term Operational Emissions), the project would exceed the regional emission significance thresholds for VOC, NO_X, CO, PM_{10}, and/or $PM_{2.5}$ prior to the application of mitigation. This means that project emissions could combine with other sources and could result in an ozone, PM_{10}, or $PM_{2.5}$ exceedance at a nearby monitoring station. The Basin in which the project is located is in nonattainment for these pollutants; therefore, according to this criterion, the project would not be consistent with the AQMP. The regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. Therefore, based on this criterion, the project could contribute to air quality violations and would not be consistent with the AQMP.

Compliance with Emission Control Measures. The second indicator of whether the project could conflict with or obstruct implementation of the AQMP is by assessing the project's compliance with the control measures in the AQMPs and the State Implementation Plan (SIP).

2012 AQMP. The project would comply with all applicable rules and regulations enacted as part of the AQMP. In addition, the AQMP relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 RTP/SCS and 2011 FTIP. Included in the RTP/SCS are transportation control measures including active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.

2016 AQMP. As stated previously, the SCAQMD recently approved on March 3, 2017 the Final 2016 AQMP. Currently, the 2016 AQMP is being reviewed by the U.S. EPA and CARB. Until the approval of the EPA and CARB, the current regional air quality plan is the Final 2012 AQMP adopted by the SCAQMD on December 7, 2012. Therefore, consistency analysis with the 2016 AQMP has not been included. Nonetheless, the project would comply with all applicable rules and regulations enacted as part of the 2016 AQMP, including transportation control measures from the 2016 RTP/SCS.

State Implementation Plans. Geographical areas in the State that exceed the Federal air quality standards are called nonattainment areas. The project area is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. SIPs show how each area will attain the Federal standards. To do this, the SIPs identify the amount of pollutant emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions. On September 27, 2007, the CARB adopted its State Strategy for the 2007 SIP. In 2009, the SIP was revised to account for emissions reductions from regulations adopted in 2007 and 2008 and clarifies CARB's legal commitment. Additional recent revisions to the SIP are as follows:

- In 2008, the EPA revised the lead[7] national ambient air quality standard by reducing it to 0.15 $\mu g/m^3$. On December 31, 2010, the Los Angeles County portion of the Basin was designated as nonattainment for the 2008 lead national standard as a result of exceedances measured near a large lead-acid battery recycling facility. The 2012 Lead SIP for Los Angeles County was prepared by the SCAQMD and addresses the recent revision to the lead national standard, and outlines the strategy and pollution control activities that demonstrate attainment of the lead national standard before December 31, 2015. The 2012 Lead SIP was approved May 4, 2012.
- A SIP revision for the federal nitrogen dioxide standard was prepared in 2012, to address the new 1-hour federal ambient air quality standard for nitrogen dioxide.
- The proposed California Infrastructure SIP revision was considered by the CARB on January 23, 2014. The proposed Infrastructure SIP revision is administrative in nature and covers the National Ambient Air Quality Standards (federal standards) for ozone (1997 and 2008), fine particulate matter ($PM_{2.5}$; 1997, 2006, and 2012), lead (2008), nitrogen dioxide (2010), and sulfur dioxide (2010). The proposed revision describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce these federal standards. It does not contain any proposals for emission control measures.

The SIP takes into account CARB rules and regulations. The project will comply with applicable rules and regulations as identified in the AQMPs and SIPs and therefore, complies with this criterion.

Summary. Although the project would be consistent with the policies, rules, and regulations in the AQMPs and SIPs, the project must meet all the criteria listed above to be consistent with the AQMPs. The project could impede AQMP attainment because its construction and operation emissions exceed the SCAQMD regional significance thresholds, so the project is considered to be inconsistent with the AQMP.

Mitigation Measures. Applicable SCAQMD regulatory requirements are restated in the mitigation measures identified below in Section 4.3.6.2 and 4.3.6.3. These measures shall be incorporated in all project plans, specifications, and contract documents. **Mitigation Measures 4.3.6.2A, 4.3.6.2B, 4.3.6.2C, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A** are required.

Level of Significance After Mitigation. Implementation of the World Logistics Center project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X, as noted below. Despite the implementation of mitigation measures, emissions associated with the project cannot be reduced below the applicable thresholds. Construction and operational emissions would be reduced to the extent feasible through implementation of mitigation measures listed above and described below. Construction emissions would be reduced through implementation of mitigation measures that require the use of Tier 4 construction equipment, reduced idling time, use of non-diesel equipment where feasible, low-VOC paints and cleaning solvents, and dust suppression measures. Operational emissions would be reduced through implementation of mitigation measures that require reduced vehicle idling, use of non-diesel on-site equipment, meeting or exceeding 2010 engine emission standards for all diesel trucks entering the site, electric vehicle charging stations, and prohibition of refrigerated warehouses. In the absence of further feasible mitigation to reduce the project's emission

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[7] Lead referred to here is a chemical element; a heavy metal.

of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from exhaust from construction equipment will remain significant and unavoidable.

4.3.6.2 Regional Construction Emissions

Impact 4.3.6.2: *Construction of the World Logistics Center project has the potential to exceed applicable daily thresholds that may affect sensitive receptors.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?
	For construction operations, the applicable daily thresholds are:
	- 75 pounds per day of ROC/VOC;
	- 100 pounds per day of NO_X;
	- 550 pounds per day of CO;
	- 150 pounds per day of PM_{10};
	- 150 pounds per day of SO_X; and
	- 55 pounds per day of $PM_{2.5}$.

Grading and other construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions during these construction activities will vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Activity during peak grading days typically generates a greater amount of air pollutants than other project construction activities.

While the actual details of the future construction schedule are not known, it is expected that project construction would occur in two phases with seven discrete activities in Phase 1 and eight discrete activities in Phase 2. For Phase 1, the following activities are assumed to occur over the course of seven years in the analysis: 1) rough grading, which includes mass site grading; 2) finish grading; 3) building construction; 4) infrastructure construction which includes utility installation; 5) curb, gutter, sidewalk, subgrade preparation, drop rock, and paving activities; 6) asphalt paving; and 7) landscaping. For Phase 2, the same activities are assumed to occur over the course of nine years in the analysis, and includes interchange construction as the eighth activity. Within the "building construction" phase, it is assumed that there would also be subphases of concrete pouring, installation of wet utilities, electrical installation, and landscaping. Appendix A of this Revised Sections of the FEIR includes details of the emission factors and other assumptions.

Table 4.3-10 identifies projected emissions resulting from grading and construction activities for the World Logistics Center project and shows the estimated maximum daily construction emissions over the course of project construction prior to the application of mitigation.

Table 4.3-10: Short-Term Regional Construction Emissions–Without Mitigation

	Maximum Daily Pollutant Emissions (lbs/day)								
Year	**VOC**	**NO_X**	**CO**	**PM_{10} dust**	**PM_{10} exhaust**	**PM_{10} Total**	**$PM_{2.5}$ dust**	**$PM_{2.5}$ exhaust**	**$PM_{2.5}$ Total**
2020	281	639	407	99	25	117	11	23	31
2021	270	460	434	97	20	117	11	18	29

Table 4.3-10: Short-Term Regional Construction Emissions–Without Mitigation

Year	Maximum Daily Pollutant Emissions (lbs/day)								
	VOC	NO_X	CO	PM_{10} dust	PM_{10} exhaust	PM_{10} Total	$PM_{2.5}$ dust	$PM_{2.5}$ exhaust	$PM_{2.5}$ Total
2022	298	776	645	132	30	162	15	28	43
2023	262	347	419	97	14	111	11	13	24
2024	343	1,233	992	177	47	224	20	43	63
2025	263	342	457	105	13	118	12	12	24
2026	282	536	595	144	20	164	16	18	35
2027	269	415	476	114	15	130	13	14	27
2028	296	690	663	39	26	165	16	24	39
2029	281	543	560	125	20	145	14	19	33
2030	309	391	605	128	12	140	15	12	26
2031	268	207	427	97	5	102	11	5	16
2032	307	391	616	131	12	143	15	12	26
2033	297	340	565	125	10	135	14	10	24
2034	268	206	426	97	5	102	11	5	16
2035	282	237	511	117	5	122	13	5	19
SCAQMD Threshold	**75**	**100**	**550**	**NA**	**NA**	**150**	**NA**	**NA**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**NA**	**NA**	**Yes**	**NA**	**NA**	**Yes**

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2 pounds per day, substantially under the threshold of 150 pounds per day.
- Dust plus exhaust emissions may not add up to total emissions for both PM10 and PM2.5 because the numbers included in this table are the maximum emissions between winter and summer model outputs for each of the three categories.
- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.
- Emissions assume compliance with SCAQMD Rule 403.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

The construction emissions estimates summarized in Table 4.3-10 are based on the assumed construction scenario described in Appendix A, of this Revised Sections of the FEIR. Using emission factors from the CalEEMod model, Table 4.3-10 indicates that construction emissions of criteria pollutants would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X.[8] This is a significant impact requiring mitigation.

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, and cut-and-fill grading operations. Dust generated during construction varies substantially by project, depending on the level of activity, the specific operations and equipment, local soils, and weather conditions at the time of construction. The World Logistics Center project will be required to comply with SCAQMD Rules 402 and 403 to control fugitive dust. There are a number of feasible

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[8] The project would emit SO_X from construction equipment exhaust; however, the maximum emissions (2 pounds per day) are less than significant as they are far below the threshold of 150 pounds per day.

control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction.

As identified in Table 4.3-10, fugitive dust and exhaust emissions during the anticipated peak construction day for the World Logistics Center project would exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM_{10} is an average of 88 percent dust and 12 percent exhaust. $PM_{2.5}$ has an average of 50 percent dust and 50 percent exhaust.

Concrete pouring would likely occur during nighttime hours due to limitations high temperatures pose for concrete work during the day. On-site equipment used during concrete pouring would involve daytime prep with actual concrete pouring occurring during the nighttime hours. On average, the total hours of operation for each piece of equipment during the concrete phase would be approximately 10 hours. Therefore, maximum daily emissions presented in Table 4.3-10 represent the average concrete pour day. However, under rare occurrences, extended concrete pour days may be required. Table 4.3-11 summarizes daily maximum emissions for each year of construction associated with 24-hour operation of on-site building concrete equipment. As shown in Table 4.3-11, maximum 24-hour concrete pour days would exceed SCAQMD thresholds for NO_X. However, all maximum daily emissions are less than those for the worst-case construction day as summarized in Table 4.3-10. Therefore, rare 24-hour concrete pour days would be within the estimated worst-case construction day assumptions. No further analysis of 24-hour concrete pour days is required.

Similar to extended concrete pouring days, other phases of construction such as utility installation and building construction may require an occasional extended construction day based on the task at hand and schedule goals. Occasional extended construction hours would occur for specific tasks within specific planning areas as needed (determined on a day-to-day basis) and would not occur site-wide throughout the 16-year construction period. Therefore, it is anticipated that estimated yearly maximum construction day emissions, as summarized in Table 4.3-10, represent the realistic worst-case regional construction emissions for the 16-year construction duration. Therefore, no further analysis of potential extended construction days is required.

Table 4.3-11: Short-Term Regional 24-hour Concrete Pour Emissions–Without Mitigation

Year	Maximum Daily Pollutant Emissions (lbs/day)				
	VOC	NO_X	CO	PM_{10} Total	$PM_{2.5}$
2020	No Concrete Phase				
2021	17.01	151.89	166.94	8.76	7.56
2022	15.74	138.58	165.83	7.71	6.57
2023	14.86	127.45	165.21	6.94	5.84
2024	14.29	121.56	165.30	6.37	5.30
2025	13.53	114.23	164.89	5.66	4.64
2026	13.52	114.13	164.83	5.66	4.63
2027	13.52	114.04	164.77	5.66	4.63
2028	13.51	113.97	164.72	5.66	4.63
2029	13.50	113.90	164.67	5.66	4.63
2030	14.15	91.24	169.34	3.48	2.63
2031	14.14	91.21	169.31	3.48	2.63
2032	14.13	91.15	169.27	3.48	2.63
2033	14.13	91.10	169.24	3.47	2.63

Table 4.3-11: Short-Term Regional 24-hour Concrete Pour Emissions–Without Mitigation

Year	Maximum Daily Pollutant Emissions (lbs/day)				
	VOC	**NO_X**	**CO**	**PM_{10} Total**	**$PM_{2.5}$**
2034	14.12	91.06	169.20	3.47	2.63
2035	13.36	84.68	169.02	2.94	2.10
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2 pounds per day, substantially under the threshold of 150 pounds per day.
- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.
- Emissions assume compliance with SCAQMD Rule 403.
VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

The World Logistics Center project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. The applicable Rule 403 measures are as follows:

- All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions.

As previously discussed, SCAQMD Rule 1113 regulates the sale and application of architectural coatings. Rule 1113 is applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of ROG or VOC emissions allowed for all types of architectural coatings. Compliance with Rule 1113 means that architectural coatings used during construction would have ROG or VOC emissions that comply with these limits.

Mitigation Measures. The following measures are recommended to reduce the level of emissions of criteria pollutants:

4.3.6.2A Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley.

a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.

b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day.

c) Construction equipment shall be properly maintained according to manufacturer specifications.

d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour.

e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used.

f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.

g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles.

h) Construction on-road haul trucks shall be model year 2010 or newer if diesel-fueled.

i) Information on ridesharing programs shall be made available to construction employees.

j) During construction, lunch options shall be provided onsite.

k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards.

l) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.

4.3.6.2B Prior to issuance of any grading permits, a Construction Staging Plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using World Logistics Center Parkway (formerly Theodore Street), Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the Construction Staging Plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer.

4.3.6.2C The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC):

a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per liter or lower for both interior and exterior surfaces shall be used.

b) Leftover paint shall be taken to a designated hazardous waste center.

c) Paint containers shall be closed when not in use

d) Low VOC cleaning solvents shall be used to clean paint application equipment.

e) Paint and solvent-laden rags shall be kept in sealed containers.

4.3.6.2D No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).

Level of Significance After Mitigation. Significant and unavoidable. As shown in Table 4.3-12, construction emissions are still significant after mitigation, with the exception of $PM_{2.5}$. The reduction in $PM_{2.5}$ emissions is by a reduction in exhaust from the application of Tier 4 off-road equipment. PM_{10} emissions are still significant because emissions in 2024 exceed the threshold; however, emissions of PM_{10} during all other years of construction are less than significant. Although mitigation reduces emissions of all pollutants during construction, potential air quality impacts resulting from exhaust from construction equipment and fugitive dust will remain significant and unavoidable.

The results of this regional construction analysis indicate that during project construction, project emissions combined with regional emissions within the South Coast Air Basin, would result in the following cumulative health effects from ozone exposure:[9]

- Irritation of respiratory system; reduction in lung function; changes in breathing patterns; reduction of breathing capacity; inflammation of and damage to cells that line the lungs; increase in lung susceptibility to infection; aggravation of asthma; aggravation of other chronic lung diseases; permanent lung damage; some immunological changes; and/or increased mortality risk.

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[9] Although carbon monoxide emissions are over the threshold, it is primarily a localized pollutant. The localized analyses demonstrated that concentrations would not exceed the ambient air quality standards for carbon monoxide; therefore, less than significant health effects are anticipated.

Table 4.3-12: Mitigated Short-Term Regional Construction Emissions

Year	**Maximum Daily Pollutant Emissions (lbs/day)**				
	VOC	**NO$_X$**	**CO***	**PM$_{10}$**	**PM$_{2.5}$**
2020	149	178	452	102	15
2021	151	177	493	101	15
2022	165	200	741	136	19
2023	149	142	488	100	14
2024	167	235	1135	182	25
2025	150	140	537	108	15
2026	155	170	718	147	20
2027	151	143	567	117	16
2028	157	173	803	143	19
2029	154	157	675	128	17
2030	160	160	808	131	18
2031	151	121	490	99	13
2032	160	162	803	134	18
2033	158	152	723	128	17
2034	151	121	489	99	13
2035	155	133	636	119	16
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**No**

* There is an error in the way CalEEMod estimates the effect of a higher tier (such as Tier 3 or 4) on mitigated CO; therefore, the mitigated CO values are greater than unmitigated values.

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report; the maximum emissions would be approximately 2 pounds per day after mitigation, substantially under the threshold of 150 pounds/day.
- Mitigation Measure 4.3.6.2A(a) was estimated by CalEEMod using its mitigation module by assuming Tier 4 off-road equipment for equipment greater than 50 horsepower.
- Mitigation Measure 4.3.6.2A(b) restricts equipment from operating more than 10 hours per day in the on position, which is estimated in CalEEMod in both the unmitigated and mitigated estimates.
- Mitigation Measures 4.3.6.2A(c) through (e), 4.3.6.2A(g) through (m), 4.3.6.2B, and 4.3.6.2D are not quantified.
- Mitigation Measure 4.3.6.2A(f) is assumed in the unmitigated and mitigated estimates (Rule 403).
- Mitigation Measure 4.3.6.2A(i) requires that construction haul trucks be 2007 model year or greater. CalEEMod does not have a mitigation measure embedded in the model to quantify the reduction from this measure. Therefore, this reduction quantification was not provided.
- Mitigation Measure 4.3.6.2C reduces VOC emissions during painting and is calculated as demonstrated in the spreadsheets in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

VOC = volatile organic compounds NO$_X$ = nitrogen oxides CO = carbon monoxide PM$_{10}$ and PM$_{2.5}$ = particulate matter

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

4.3.6.3 Localized Construction and Operational Air Quality Impacts

Impact 4.3.6.3: *Construction and operation of the World Logistics Center project has the potential to exceed localized daily thresholds that may affect sensitive receptors.*

Threshold Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?

The applicable localized thresholds are:

- 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction or operation;
- 0.18 ppm (State 1 hour), 0.100 ppm (National 1 hour), and 0.030 ppm (Annual) of NO_X during construction or operation;
- 10.4 µg/m^3 (24 hours) 1.0 µg/m^3 (Annual) of PM_{10} during construction
- 2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM_{10}; during operation and
- 2.5 µg/m^3 (24 hours) of $PM_{2.5}$ during operation

- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operations to assess the significance of the activities

The localized analysis focused on three potential scenarios:

1. Project Phase 1 (2018), which evaluates the air quality impacts if Phase 1 of the project (approximately 57 percent of the square footage) was built out in full in 2018[10] and no other changes occurred to land uses or the roadway system;
2. Project Phase 1 and Phase 2 Full Build Out (2018), which evaluates what air quality impacts would arise if the entire project, both Phase 1 and Phase 2, were built out in full in 2018 and no other changes occurred to land uses or the roadway system; and
3. Project Development Schedule, which evaluates the air quality impacts from the following scenarios:

    a. 2025, the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern portion of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street, and when all of Phase I operations would occur (approximately 57 percent of entire project floor space);

    b. 2032, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road (eastern portion of site); and

    c. 2040[11] when the Phase 1 and Phase 2 of the project are fully operational.

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[10] 2018 is the CEQA Baseline year for purposes of this analysis.

[11] *In some circumstances, references are made to the year 2035. The year 2035 is the year the construction schedule assumes full completion of project construction. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. Similar to the Phase 1 buildout year, and for purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.*

The Project Phase 1 (2018) and Project Phase 1 and Phase 2 Full Build Out (2018) conditions represents hypothetical worst-case conditions in that the project physically could not be built-out in 2018 or, in fact, in any single year due to the size of the project. These conditions have been included in this assessment to correspond to the analysis scenarios examined in the project TIA. These conditions also do not account for the fact that vehicle emissions are expected to decline over time as vehicle emission control technologies improve. Thus, consideration of these conditions will significantly overestimate the project's potential air quality impacts. The Project Development condition represents the logical and realistic development of the project over a period of 16 years as represented by the project applicant. The LST analysis is presented for each condition below.

Pursuant to the SCAQMD's LST methodology, only emissions generated from emission sources located within and along the project boundaries are included in the LST assessment. These emission sources include vehicle travel on the roadway network within and along the borders of the project and emissions from support equipment including forklifts, yard/hostler trucks, and emergency standby electric generators.

The project's emissions then served as input into the AERMOD air dispersion model to derive estimate of the project's localized air quality impacts for each condition.

Project Phase 1 (2018) LST Assessment

The project's on-site emissions were estimated from the traffic-generated by the various project vehicles as provided by the TIA. Vehicle emissions were assumed to be representative of the calendar year 2018 vehicle fleet. Also included were emissions from various support equipment including forklifts, yard trucks, and standby emergency generators. The localized assessment results for the Project Phase 1 (2018) condition are provided in Table 4.3-13 for receptors located within the project boundaries and in Table 4.3-14 for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.[12]

As noted from Table 4.3-13, the project would not exceed the SCAQMD's localized significance thresholds for any of the pollutants studied at receptors located within the project boundaries. As shown in Table 4.3-14, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries.

Table 4.3-13: Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Within the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No

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[12] In keeping with the SCAQMD recommendations, the highest NO_2 and CO air quality measurements over a 3-year rolling average was used to determine existing background conditions. Historical data for years 2014, 2015, 2016, and 2017 were obtained from SCAQMD's Riverside-Rubidoux air monitoring station.

Table 4.3-13: Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Within the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.004	0.02	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	1.7	1.7	2.5	No
	Annual, $\mu g/m^3$	NA	0.99	0.99	1.0	No
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.5	0.5	2.5	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-14: Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Outside of the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.07	0.18	No
	National 1 hour, ppm	0.053	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	0.8	0.8	2.5	No
	Annual, $\mu g/m^3$	NA	0.4	0.4	1.0	No
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.2	0.2	2.5	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts generally occur at the existing residences along Gilman Springs Road to the east of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

The Project Phase 1 and Phase 2 Full Build Out (2018) LST Assessment

The localized assessment results for the Project Phase 1 and Phase 2 Full Build Out (2018) condition are provided in Table 4.3-15 for receptors located within the project boundaries and in Table 4.3-16 for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.

As noted from Table 4.3-15, the project would exceed the SCAQMD's significance thresholds for the annual PM_{10} threshold for receptors located within the project's boundaries. As shown in Table 4.3-16, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries.

It is important to note the Project Phase 1 (2018) and Project Phase 1 and Phase 2 Full Build Out (2018) conditions assume that the project's emissions are at the levels that would occur in 2018. The majority of the project's operational emissions are from on-road mobile sources, more particularly, heavy-duty trucks that contribute a disproportionate amount of emissions compared to passenger vehicles. Emissions from on-road mobile sources are regulated at the State and Federal levels and, therefore, are outside of the control of local agencies such as the City and the SCAQMD. For example, the CARB is working closely with the USEPA, engine and vehicle manufacturers, and other interested parties to identify programs that will reduce emissions from heavy-duty diesel vehicles in California. Emission reductions arise from a combination of measures including the use of ultra-low sulfur diesel fuel, new emission standards for large diesel engines, restrictions on diesel engine idling, addition of post-combustion filter and catalyst equipment, and retrofits for business and government diesel truck fleets. The implementation of these emission reductions will also result in reductions of other pollutants such as NO_X, VOC, and CO. As these emission reduction programs are implemented and there is a turnover in the use of older vehicles with newer and cleaner vehicles, the project's operational emissions are expected to decline significantly in the future.

Table 4.3-15: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Within the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.02	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.07	0.100	No
	Annual, ppm	0.015	0.005	0.02	0.030	No
PM_{10}	24 hour, μg/m³	NA	1.6	1.6	2.5	No
	Annual, μg/m³	NA	1.0	1.0	1.0	Yes
$PM_{2.5}$	24 hour, μg/m³	NA	0.5	0.5	2.5	No

μg/m³ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-16: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Outside the Project Boundaries (without mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.08	0.18	No
	National 1 hour, ppm	0.064	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.002	0.02	0.030	No
PM_{10}	24 hour, µg/m³	NA	0.8	0.8	2.5	No
	Annual, µg/m³	NA	0.5	0.5	1.0	No
$PM_{2.5}$	24 hour, µg/m³	NA	0.2	0.2	2.5	No

µg/m³ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts generally occur at the existing residences along Gilman Springs Road to the east of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Emission controls on mobile source vehicles already adopted by the CARB particularly dealing with NO_X and PM_{10} controls on heavy duty trucks will reduce truck emissions significantly over time. As an example, in the South Coast Air Basin, the per-mile running exhaust rate of NO_X emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 5.4 grams/mile in 2018 to 2.5 grams/mile by 2025, a decline of 53 percent from 2018 levels and to 2.22 grams/mile in 2040, a decrease of 59 percent from 2018 levels. Similarly, the per-mile running exhaust rate of PM_{10} emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 0.09 gram/mile in 2018 to 0.020 gram/mile in 2025, a decline of 79 percent from 2018 levels and decline to 0.018 grams/mile in 2040, a decline of 81 percent from 2018 levels. Thus, two Project (2018) conditions represent highly conservative estimates, in terms of overestimating of the project's operational impacts.

Project Development Schedule LST Assessment

The final localized threshold assessment condition examined potential local project impacts considering the proposed construction and build out schedule of the project over a time period of 16 years from the commencement of construction in 2020 to the final build out in 2040. This condition examined three specific time periods:

- The year 2025: the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street and when all of Phase I operations would occur (approximately 57 percent of entire project floor space); These residences are the closest sensitive receptors outside of the project's boundaries. According to the conceptual construction schedule provided by the applicant, extensive building construction is expected to take place within the southern portion of the site, south of Alessandro Boulevard, as well on both sides of World Logistics Center Parkway during the completion of Phase 1 construction and the beginning of Phase 2 construction. This scenario also corresponds to the complete operations of Phase 1 and the attendant operational emissions. The project's onsite maximum daily and annual construction emissions were estimated using the CalEEMod land use emission model and the construction equipment inventory and activities provided by the applicant. The project's onsite operational emissions, principally from the project's mobile sources, were derived from detailed traffic volume data provided by the project's TIA that reflects a completely operational Phase 1. The TIA applied a comprehensive regional transportation model to develop daily and peak hour traffic volumes for 2025 and 2040 from the project's mobile sources. Peak hour and daily project traffic volumes were developed for each year from 2020 to buildout for roadway segments within and along the boundaries of the project using the following assumptions:

  - Project operational traffic volumes were assumed to be zero in 2020, the year that project construction would commence.
  - Traffic volumes for the years 2021 to 2025 (the completion year for Phase 1 operations) were interpolated from 2021 to 2025 by applying the annual project occupancy schedule to the 2025 traffic volumes.
  - Traffic volumes for the years 2025 to buildout were interpolated from the provided traffic volumes in 2025 and 2040 by applying the annual project occupancy schedule.

- The year 2032, when the project's total daily on-site construction and operational emissions would be the highest for several air pollutants and construction and operations would occur along the eastern portion of the project potentially impacting the existing residences across from the project along Gilman Springs Road; and
- The year 2040, which is the long term planning year analyzed in the TIA and representative of the complete build out of the project.

Localized Impact Analysis, 2025. The localized impacts for the short-term construction and operational activities were analyzed using an air dispersion model (EPA AERMOD Model) to simulate the transport and dispersion of project-related emissions through the air. These impacts were then compared to the applicable SCAQMD localized concentration thresholds.

The estimated maximum localized air quality impacts from the construction and operation of the project at Phase 1 buildout are summarized in Table 4.3-17 for locations within the project's boundaries. These maximum impacts were found at the locations of the existing residences within the project boundaries. Table 4.3-18 summarizes the highest air quality impacts for sensitive receptors located outside of the project boundaries. As noted from these two tables, project impacts would exceed the significance thresholds for PM_{10} for locations within the project boundaries, thus represents a significant impact without mitigation. Project impacts would not exceed localized thresholds for receptors located outside the project boundaries.

Table 4.3-17: Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts Within the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.05	2.2	20	No
	8 hour, ppm	1.6	0.02	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.03	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No

Table 4.3-17: Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts Within the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	3.3	3.3	2.5[2]	Yes
	Annual, µg/m^3	NA	1.6	1.6	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.8	0.8	2.5[2]	No

µg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017. [2] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Localized Air Quality Impact Analysis, 2032. The year 2032 was selected for the LST Analysis for two principal reasons: 1) the year 2032 corresponds to the year with the highest combined total onsite construction and operational emissions of NO_x and CO and the third or fourth highest onsite emissions of PM_{10} and $PM_{2.5}$ during the time period of 2020 to 2035; and 2) the location of the building construction in 2032 places the construction emissions adjacent to the existing residences located on the eastern side of the project across Gilman Springs Road.

Table 4.3-18: Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts Outside the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.04	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.1	2.1	2.5[2]	No
	Annual, µg/m^3	NA	0.7	0.7	1.0	No
$PM_{2.5}$	24 hour, µg/m^3	NA	0.5	0.5	2.5[2]	No

µg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017. [2] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

The project's maximum combined impacts from construction and operations during 2032 are shown in Table 4.3-19 for the existing sensitive receptors located within the project boundaries along with the SCAQMD-recommended significance thresholds. Table 4.3-20 shows the maximum combined impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the east of the project across Gilman Springs Road. As shown in these tables, the project would exceed the SCAQMD's significance thresholds for PM_{10} at locations within the project boundary and outside of the project boundary.

Localized Air Quality Impact Analysis, 2040. The year 2040 represents a long-term planning year when both phases of the project would be fully in operation. Operational emissions during 2040 were estimated based on the project's trip generation and project-related travel along the local roadway network within and along the project boundaries. Table 4.3-21 shows the maximum localized air quality impacts for 2040 relative to the background air quality levels at the existing sensitive receptors located within the project boundaries. Table 4.3-22 identifies the highest localized impacts for sensitive receptors located outside of the project boundaries. As shown in Table 4.3-21 and Table 4.3-22, the project would exceed PM_{10} LSTs for receptors within and outside the project boundary, and would, therefore, represent a significant impact without mitigation.

Summary. The localized significance analysis demonstrates that without mitigation, the project would exceed the localized significance thresholds for PM_{10} for one or more of the LST assessment years (2025, 2032, or 2040) analyzed. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the annual and 24-hour PM_{10} ambient air quality standards.

Table 4.3-19: Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Within the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.06	2.2	20	No
	8 hour, ppm	1.6	0.02	1.7	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.03	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	3.9	3.9	2.5[3]	Yes
	Annual, $\mu g/m^3$	NA	1.7	1.7	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.9	0.9	2.5[3]	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-20: Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Outside the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.09	2.3	20	No
	8 hour, ppm	1.6	0.03	1.7	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.07	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	4.7	4.7	2.5[3]	Yes
	Annual, $\mu g/m^3$	NA	1.5	1.5	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.9	0.9	2.5[3]	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Mitigation Measures. Mitigation measures identified previously under Impact 4.3.6.2 (**Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, and **4.3.6.2D**) to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403. Additionally, the following mitigation measures are required to reduce emissions of criteria pollutants during project operations.

Table 4.3-21: Localized Assessment – Project Operation Full Build Out, Year 2040 Maximum Impacts Within the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.009	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.009	0.07	0.18	No
	National 1 hour, ppm	0.053	0.008	0.06	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	2.9	2.9	2.5	Yes
	Annual, $\mu g/m^3$	NA	1.8	1.8	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.8	0.8	2.5	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-22: Localized Assessment – Project Operation, Year 2040 Maximum Impacts Outside of the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.006	0.07	0.18	No
	National 1 hour, ppm	0.053	0.006	0.06	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	2.2	2.2	2.5	No
	Annual, $\mu g/m^3$	NA	1.3	1.3	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.6	0.6	2.5	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

4.3.6.3A Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.

4.3.6.3B The following shall be implemented as indicated:

Prior to Issuance of a Certificate of Occupancy

a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations, and the prohibition of parking in residential areas.

b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations.

c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.

On an Ongoing Basis

d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.

e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.

f) Tenants shall be encouraged to become a SmartWay Partner.

g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers.

h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.

i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center.

j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet.

k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.

l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.

m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel.

n) Truck and vehicle idling shall be limited to three (3) minutes.

4.3.6.3C Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.

4.3.6.3D Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.

4.3.6.3E Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the Revised Sections of the FEIR. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).

Level of Significance After Mitigation. Significant and unavoidable. Table 4.3-23 compares the project impacts before and after mitigation for those assessment conditions and pollutants that indicated a significant impact before mitigation. After application of mitigation, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual). In addition, the project would continue to exceed the localized significance thresholds at offsite receptors for PM_{10} (24-hour and annual).

In summary, those residents inside and outside the project boundaries could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

Table 4.3-23: Comparison of Local Project Air Quality Impacts Before and After Mitigation

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation[1]	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?
Project Phase 1 and Phase 2 Full Build Out (2018)	Inside Project Boundaries	PM_{10}, Annual, µg/m³	1.02	0.97	1.0	No
Project Development Schedule Year 2025	Inside Project Boundaries	PM_{10} 24-hour, µg/m³	3.30	3.23	2.5	Yes
		PM_{10}, Annual, µg/m³	1.57	1.56	1.0	Yes
Project	Inside	PM_{10} 24-hour, µg/m³	3.90	3.89	2.5	Yes

Table 4.3-23: Comparison of Local Project Air Quality Impacts Before and After Mitigation

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation[(1)]	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?
Development Schedule Year 2032	Project Boundaries	PM_{10} Annual, $\mu g/m^3$	1.7	1.7	1.0	Yes
	Outside Project Boundaries	PM_{10} 24-hour, $\mu g/m^3$	4.7	4.6	2.5	Yes
		PM_{10} Annual, $\mu g/m^3$	1.5	1.4	1.0	Yes
Project Development Schedule Year 2040 Build Out	Inside Project Boundaries	PM_{10} 24 hour, $\mu g/m^3$	2.9	2.9	2.5	Yes
		PM_{10} Annual, $\mu g/m^3$	1.8	1.8	1.0	Yes
	Outside Project Boundaries	PM_{10} Annual, $\mu g/m^3$	1.3	1.3	1.0	Yes

Notes: $\mu g/m^3$ = micrograms per cubic meter (a unit of concentration); ppm = parts per million (a unit of concentration)

(1) Total Impacts include the incremental impacts from the project plus the pollutant background; see Tables 4.3-13 to 4.3-22 for the total impacts for the various assessment conditions prior to the application of mitigation.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

4.3.6.4 Long-Term Operational Emissions

Impact 4.3.6.4: *Implementation of the World Logistics Center project may have the potential to exceed applicable daily thresholds for operational activities.*

Threshold Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?

For long-term operations, the applicable daily thresholds are:

- 55 pounds of VOC;
- 55 pounds of NO_X;
- 550 pounds of CO;
- 150 pounds of PM_{10};
- 55 pounds of $PM_{2.5}$; and
- 150 pounds of SO_X.

Long-term air pollutant emission impacts that would result from the World Logistics Center project are those associated with stationary sources (generators, boilers, etc.), area sources (landscaping and maintenance activities), and mobile sources (e.g., emissions from the use of motor vehicles by project-generated traffic). As discussed above in Section 4.3.3.2, the TIA provides VMT attributable to the project based on the net effect the project would have on regional travel as well as project VMT without consideration of a net effect. The emissions from the net effect on VMT, in conjunction with the proposed stationary and area sources, are shown in the tables below for determination of significance. For informational purposes only the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* (Appendix A) of this revised section of the FEIR includes operational mobile emissions without consideration of a net effect in regional traffic volumes.

Worst-Case Scenario. Projected emissions resulting from operational activities of the project under the worst-case scenario are identified in Table 4.3-24.

There may be minor emissions of VOC from the fueling station, depending on what type of fuel is used. However, details regarding the fueling station are currently unknown so the emission source is not estimated. This is a worst-case analysis because it assumes that the entire project would be built-out in 2018. The motor vehicle and truck emission factors are from 2018, which assumes a "dirtier" fleet than would be the case in later years. In addition, no reductions are taken for mitigation measures.

Table 4.3-24: Operational Regional Air Pollutant Emissions (Worst-Case Scenario)

Scenario	Source	Emissions (pounds per day)				
		VOC	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 2018 emission factors	Mobile	107	2,078	579	386	116
	Area	175	<1	2	<1	<1
	Onsite equipment	5	138	51	1	1
	Total	**287**	**2,216**	**632**	**388**	**117**
Buildout 2018 emission factors	Mobile	241	3,958	1,472	898	274
	Area	311	<1	4	<1	<1
	Onsite equipment	9	245	89	2	2
	Total	**561**	**4,202**	**1,565**	**901**	**276**
Significance Threshold		55	55	550	150	55
Significant Impact?		Yes	Yes	Yes	Yes	Yes

Notes: VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide
PM_{10} and $PM_{2.5}$ = particulate matter <1 = less than one
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

As identified in Table 4.3-24, operational emissions for the project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the "worst-case" 2018 scenario.

Operational Regional Emissions. Table 4.3-25 shows the detailed operational emission sources generated both on site and off site for Phase 1 and buildout. The table shows particulate matter (PM_{10} and $PM_{2.5}$) divided into dust and exhaust sources. As shown in the table, emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout.

Table 4.3-26 shows the operational emissions year by year using future year emission factors. The VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ emissions would be over the SCAQMD's significance thresholds for most years beginning as early as year 2021 for NO_X, 2023 for VOC, 2024 for PM_{10} and $PM_{2.5}$, and 2029 for CO. The emissions demonstrate that although the number of vehicles and trucks would increase year by year, the emissions do not increase dramatically because the per-vehicle emission factors decrease over time as cleaner vehicles enter the fleet over time.

Combined Construction and Operation. There would be overlapping of construction and operational emissions with project implementation. The maximum daily operational emissions were added to the maximum daily construction emissions and are shown in Table 4.3-27, which shows all pollutants for all years exceed the SCAQMD thresholds, with the exception of SO_X emissions. SO_X are not shown in the table as they are far below the significance threshold of 150 pounds per day.

As identified in the preceding tables, project-related air quality impacts for all criteria pollutants, with the exception of SO_X, would be significant and mitigation measures are required.

Table 4.3-25: Operational Regional Air Pollutant Emissions (Detail, Unmitigated)

Phase	Source	Emissions (pounds/day)								
		VOC	NO_X	CO	PM_{10} Dust	PM_{10} Exh.	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exh.	$PM_{2.5}$ Total
Phase 1	Mobile	57	607	322	313	5	318	85	3	88
	Area	175	<1	2	0	<1	<1	0	<1	<1
	On-site Equipment	5	138	51	0	1	1	0	1	1
	Total	**238**	**746**	**375**	**313**	**6**	**319**	**85**	**4**	**89**
Buildout	Mobile	103	803	772	940	5	945	252	5	256
	Area	311	<1	4	0	<1	<1	0	<1	<1
	On-site Equipment	9	245	89	0	2	2	0	2	2
	Total	**422**	**1,047**	**865**	**940**	**7**	**947**	**252**	**7**	**259**
Significance Threshold		55	55	550	None	None	150	None	None	55
Significant Impact?		Yes	Yes	Yes	--	--	Yes	--	--	Yes

Notes: VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter Exh. = exhaust <1 = less than 1
On-site equipment emissions include emissions from yard trucks, forklifts, and stationary generators.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-26: Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2020	0	0	0	*	0	0
2021	25	98	50	*	44	12
2022	49	195	100	*	89	25
2023	82	326	166	*	148	41
2024	115	456	233	*	207	58
2025	175	698	356	*	317	89
2026	226	769	460	*	445	123
2027	252	806	514	*	513	141
2028	268	829	547	*	553	152
2029	284	851	580	*	594	163
2030	307	884	627	*	652	179
2031	332	920	680	*	718	197
2032	358	957	733	*	784	214
2033	384	993	786	*	849	232
2034	401	1,017	821	*	893	244
2035	418	1,041	856	*	936	256
Buildout	422	1,047	865		947	259
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

- Emissions are from local vehicles, trucks, natural gas, emergency generators, forklifts, yard trucks, painting, and consumer products. There is no reduction from existing onsite emissions.
- Operational emissions are assumed to be zero in 2020 when project construction commences.
- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.

* Sulfur dioxide emissions as estimated are substantially less than the threshold of 150 pounds per day. Thus, emissions reflecting decreased vehicle miles traveled would also be less than significant.

VOC = volatile organic compounds; NO_X = nitrogen oxides; SO_2 = sulfur dioxide; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-27: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2020 (construction only)	281	639	407	124	34
2021	294	557	484	161	42

Table 4.3-27: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	**VOC**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
2022	347	972	745	251	68
2023	344	673	585	259	65
2024	457	1,688	1,225	431	121
2025	438	1,040	813	434	112
2026	507	1,304	1,055	608	158
2027	521	1,221	990	642	168
2028	564	1,519	1,210	718	192
2029	565	1,395	1,140	739	196
2030	616	1,274	1,231	792	205
2031	601	1,127	1,107	820	213
2032	666	1,347	1,349	926	241
2033	681	1,333	1,351	985	256
2034	669	1,223	1,247	995	260
2035	699	1,278	1,367	1,058	274
Buildout (operation only)	422	1,047	865	947	259
Max Daily Emissions	**699**	**1,688**	**1,367**	**1,058**	**274**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day
- Reduction from existing onsite emissions are not included.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Mitigation Measures. The mitigation measures previously identified under Impact 4.3.6.3 (**Mitigation Measures 4.3.6.3A** through **4.3.6.3E**) would reduce operational emissions of criteria pollutants associated with the project

Additionally, the following mitigation measure is required:

4.3.6.4A The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

a) All tenants shall be required to participate in Riverside County's Rideshare Program.

b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.

c) Class II bike lanes shall be incorporated into the design for all project streets.

d) The project shall incorporate pedestrian pathways between on-site uses.

e) Site design and building placement shall provide pedestrian connections between internal and external facilities.

f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.

g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 200 parking spaces or more shall be designed and constructed so that at least six percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Sizing of conduit and service capacity at the time of construction shall be sufficient to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater.

h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code. Each building shall provide a minimum of two shower and changing facilities for employees.

i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.

j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

It is important to note that, in addition to the operational activity mitigation measures identified previously, future development would need to incorporate physical attributes and operational programs that will act to generally reduce operational-source pollutant emissions including GHG emissions. These project characteristics are identified in Section 4.7, *Climate Change and Greenhouse Gas Emissions*, and Section 4.17, *Energy*, of this revised FEIR.

Level of Significance after Mitigation. Significant and unavoidable. Mitigated operational emissions for full buildout are shown in Table 4.3-28. Note that the emissions are based on conservative assumptions and does not subtract existing emissions that would cease to exist (i.e., assumes all emissions are net new). As shown on Table 4.3-28, even with implementation of the mitigation measures, emissions are still significant. Despite implementation of mitigation measures, emissions of criteria pollutants would still exceed SCAQMD significance thresholds resulting in a significant and unavoidable operational air quality impact.

Table 4.3-28: Operational Regional Air Pollutant Emissions (Mitigated)

		Emissions (pounds per day)				
Scenario	**Source**	**VOC**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Buildout	Vehicles: Local and trucks	97	802	773	945	256
	Area	311	<1	4	<1	<1
	Onsite Equipment	8	91	107	<1	<1
	Total Project Emissions	**416**	**893**	**883**	**946**	**257**
	Significance Threshold	55	55	550	150	55
	Significant Impact?	Yes	Yes	Yes	Yes	Yes

- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.
- Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout would be less than 23 pounds per day.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
On-site equipment emissions include emissions from yard trucks, forklifts, and stationary generators.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Therefore, there could be cumulative health effects from ozone, PM_{10}, and $PM_{2.5}$ as described earlier in this section and summarized as follows:

- Ozone can cause the following health effects: irritate respiratory system; reduce lung function; breathing pattern changes; reduce breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increase mortality risk.
- Particulate matter (PM_{10} and $PM_{2.5}$) can cause the following health effects from short-term (hours/days) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

During overlap of construction and operation, VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ would continue to exceed SCAQMD significance thresholds after mitigation, as shown in Table 4.3-29. Therefore, impacts are significant and unavoidable.

Table 4.3-29: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day) – Mitigated

Year	**VOC**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
2020	149	178	452	4	3
2021	176	261	542	48	16
2022	214	367	839	93	29
2023	231	420	651	150	44
2024	281	625	1,363	211	62
2025	324	736	887	319	90
2026	379	827	1,176	447	125
2027	400	831	1,083	514	143
2028	422	881	1,352	556	155
2029	434	884	1,259	596	165
2030	463	914	1,441	654	181
2031	479	906	1,179	718	197
2032	513	978	1,548	785	216
2033	536	999	1,523	851	233
2034	546	988	1,326	893	244
2035	566	1,020	1,510	936	256
Buildout	416	893	883	946	257
Max Daily Emissions	**566**	**1,020**	**1,548**	**946**	**257**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day.
- Emissions do not include existing onsite emissions.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018

4.3.6.5 Impacts to Sensitive Receptors

Impact 4.3.6.5: *Implementation of the World Logistics Center project may have the potential to result in impacts to sensitive receptors.*

Threshold Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

For localized air quality impacts, the applicable thresholds are:

- 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction and operation;
- 0.18 ppm (State 1 hour), 0.100 ppm National 1 hour), and 0.030 ppm (Annual) of NO_X during construction and operation;
- 10.4 $\mu g/m^3$ (24-hours) and 1 $\mu g/m^3$ (Annual) of PM_{10} during construction
- 2.5 $\mu g/m^3$ (24 hours) and 1.0 $\mu g/m^3$ (Annual) of PM_{10} during operations; and
- 2.5 $\mu g/m^3$ (24 hours) of $PM_{2.5}$ during operations.
- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance

threshold for operations.

For health risk impacts, the applicable thresholds are:

- Maximum Individual Cancer Risk: An increased cancer risk greater than 10 in 1 million at any receptor location;
- Cancer burden: An increase in cancer burden of 0.5 or
- Non-cancer chronic hazard indices (HI): A cumulative increase for any target organ system exceeding 1.0 at any receptor location.

Acute and Chronic Health Risk Impacts. Acute and chronic health risk impact analyses examine the increased risk for non-cancer health outcomes associated with project-related air pollutant emissions. Since these are non-cancer health impacts, as described below, the impacts are analyzed separately from increased cancer risk associated with air pollution.

The construction and operation of the project would not emit any toxic chemicals in any significant quantity other than vehicle exhaust. While there may be other toxic substances in use on site, risk would be negligible due to intermittent use (i.e., chemicals from periodic maintenance), dispersion of chemicals throughout the project site, and compliance with State and Federal handling regulations.

Exposure to diesel exhaust can have immediate (acute) health effects, such as irritation of the eyes, nose, throat, and lungs, and can cause coughs, headaches, light headedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (CARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer REL.

The analysis, however, does derive an estimate of acute non-cancer risks by examining the acute health effects of the various toxic components that comprise diesel and gasoline emissions. There is specific guidance for estimating the acute non-cancer hazards from these toxic components based on chemical profiles established by the CARB which was used in the analysis to determine the project's acute non-cancer hazards.

To determine the project's *chronic* non-cancer hazard impact, the highest annual diesel PM concentration was determined covering the years 2020 (the commencement of project construction) to 2035 (the full build out of the project). In this regard, the highest annual average diesel PM concentration prior to mitigation determined through air dispersion modeling was 0.2 ug/m^3, at an existing residence located within the project boundaries. This diesel PM concentration was due to the impacts of diesel PM emissions from the off-road construction equipment and operation equipment. This level of diesel PM impact results in a chronic non-cancer HI of 0.04. This HI is less than the SCAQMD's significance level of 1.0, and is, therefore, less than significant.

The estimation of the *acute* non-cancer HI requires the estimation of the maximum 1-hour impacts of TAC components in organic gases and PM emissions. For project construction, estimates of the maximum 1-hour ROG and PM exhaust emissions were derived from the project's peak daily construction equipment emissions; for project operation, estimates of the project's maximum 1-hour TOG and PM emissions were derived from the project's peak hour traffic data along the nearly 230 roadway segments contained within the study area and then speciated or broken down into the various TAC components by fuel type, gasoline and diesel, and emission type (i.e., exhaust, evaporative, brake wear and tire wear). The acute non-cancer HI was determined for a worst-case condition that assumed the project would be constructed between 2020 and 2035 and full operation starts in 2040. Based on this information, the maximum acute non-cancer HI found at any receptor within the model domain prior to mitigation was 0.16 during project construction and 0.05 during full project operation, which are less than the SCAQMD's non-cancer HI of 1.0, and, therefore, is less than significant without mitigation.

Therefore, the potential for short-term acute and chronic exposure from diesel exhaust are considered to be less than significant and no mitigation is required.

Cancer Risks. As noted in Section 4.3.3, *Methodology*, the project health risk assessment examined the following condition for impacts to both sensitive/residential and worker receptors:

> *Project Development condition which evaluates the impacts of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2020 and the full build out in 2035.*

This HRA is being provided to allow decision makers to see the cancer-related impacts of the World Logistics Center project in the assumption that new technology diesel exhaust causes cancer, contrary to what was found by the HEI study. The mitigation conditions require that all diesel-fueled haul trucks during construction be 2010 or newer, diesel trucks accessing the project during operation be model year 2010 or newer, and that all on-site equipment greater than 50 horsepower be Tier 4 (see MM 4.3.6.2A[h] and MM 4.3.6.2A[a], respectively).

To be conservative, the HRA relied on EMFAC2014 to determine the breakdown of vehicle types and fuel types and did not consider the potential reductions in TACs emissions and health risks from increased penetration of zero emission vehicles (ZEVs). The increased penetration of ZEVs is speculative, but likely given rapid technology advancement and more stringent legislation. For example, this HRA assumed that the 2040 heavy duty truck fleet would be made up of 94% diesel, 6% gasoline and 0% electric. According to the WLC Transportation Energy Technical Report (ESA, 2018), a High EV Penetration scenario projects that the heavy duty truck fleet would consist of 55.7% diesel, 4.3% gasoline, and 40% electric. Therefore, accounting for the High EV Penetration scenario would result in a greatly reduced health risk impact than what has been calculated in this analysis.

Localized Risk

Cancer Risk for Sensitive/Residential Receptors. For reference, a risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration of diesel PM over the duration of the exposure. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics (USEPA, 2017).

Table 4.3-30 presents the estimated cancer risks for the 30-year exposure scenario that starts from the beginning of project construction (Construction + Operation HRA), which uses updated construction and operational emissions values. The results are provided separately for project construction diesel PM emissions, operational diesel PM emissions, and the total project diesel PM emissions prior to the application of emission mitigation. Table 4.3-31 shows the estimated cancer risk for the 30-year residential exposure scenario that starts from the beginning of project full operation in 2040 (Operational HRA), which used the 2040 emission levels to represent the emissions for 2040 to 2069.

On the basis of the results shown in Table 4.3-30, the project would exceed the SCAQMD's cancer risk significance threshold of an incremental increase of 10 in a million prior to the application of mitigation and would represent a significant impact. Construction impacts contribute the greatest proportion of the total impact presented in Table 4.3-30. Table 4.3-31 shows that during full project operation, the estimated maximum cancer risk anywhere in the model domain is less than the 10 in a million threshold, impact will therefore be less than significant without mitigation. Overall, without mitigation, the project is expected to have a significant impact mainly due to diesel PM emissions from construction activities.

Figures 4.4-3 and 4.3-4 show the incremental cancer risks for the project location. The figures show the results prior to the application of mitigation.

Estimates of Cancer Risk for School Site Receptors. Cancer risk estimates at school sites in the area are provided in Appendix D. Prior to the application of the mitigation, the maximum cancer risk is at Ridgecrest Elementary School and would be less than 2 in a million. Therefore, impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.

Estimates of Cancer Risk for Worker Receptors. Estimates of worker exposures were prepared based on the assumption of a 25-year exposure duration for 250 days per year and 8 hours per day as described in the methodology section above. Note that the OEHHA early-in-life age factors do not apply to worker receptors. The highest worker cancer risk estimates prior to the application of mitigation is less than 5 in one million for the construction + operational scenario and 0.6 in one million for the full operational scenario, both at one onsite location. Therefore, cancer risk for worker receptors anywhere in the revised HRA's study area is less than the 10 in one million significance threshold. Projected impacts are less than significant without mitigation.

This analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.

Estimates of Cancer Burden. The cancer burden calculation provides an estimate of the increased number of cancer cases as a result of exposures to TAC emissions. The total cancer burden is the product of the number of persons in a population area (such as a census tract) and the estimated individual risk from TACs in that population area and then summed over all population areas. The SCAQMD indicates that the burden calculation includes those population units having an incremental cancer risk of 1 in a million or greater.

Cancer risks were estimated at the geographical center (centroid) of census tracts that are within the study area of the HRA. For the 30-year exposure duration in accordance with "Current OEHHA Guidance", the cancer burden is estimated to be 0.09 out of a population of about 63,090 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.

Table 4.3-30: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), Without Mitigation

Receptor Location	**Incremental Increase in Cancer Risk During Project Construction (risk/million)**	**Incremental Increase in Cancer Risk During Project Operation (risk/million)**	**Total Incremental Increase in Cancer Risk[1] (risk/million)**	**SCAQMD Cancer Risk Significance Threshold (risk/million)**	**Exceeds Threshold?**
Maximum risk anywhere in the modeling domain[2]	54.1	3.9	57.5	10	Yes
Maximum risk within the project boundaries[3]	54.1	3.9	57.5	10	Yes
Maximum risk at any area outside of the project boundaries[4]	14.9	1.1	16.0	10	Yes

Notes:

[1] Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2020 to 2049 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the updated construction emission estimate, TIA, EMFAC2014 emission model, SCAQMD HRA guidance and "Current OEHHA Guidance" for estimating cancer risks

[2] Location is at the existing residences within the boundaries of the project

[3] Location is at the existing residence located at the 13241 World Logistic Parkway (formerly Theodore Street)

[4] Location is adjacent to the midwestern boundary of the project

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-31: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, Without Mitigation

Receptor Location	Total Incremental Increase in Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	7.9	10	No
Maximum risk within the project boundaries(3)	7.9	10	No
Maximum risk at any area outside of the project boundaries(4)	3.4	10	No
Maximum risk along SR 60 freeway(5)	3.4	10	No

Notes:
(1) Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2040 to 2069 (includes diesel PM emissions from full project operation); cancer risk estimates derived from the TIA, EMFAC2014 emission model, SCAQMD HRA guidance and "Current OEHHA Guidance" for estimating cancer risks
(2) Location is at the existing residences within the boundaries of the project.
(3) Location is at the existing residence located at 30220 Dracaea Avenue.
(4) Location is to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.
(5) Location is south of SR 60 freeway, same as the location in footnote (4), which to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Regional Freeway Network Risk

As mentioned in the methodology section, the HRA study area was focused on the most extensive emissions from project related activities. Because project activity is highest on-site, the project's emissions and associated health impact decreases with an increase in distance from the project site, as demonstrated by the cancer risk contours in Figures 4.3-3 and 4.3-4. The HRA study area included approximately 18 miles of freeway segments along SR60 that extend from north of the project boundary 8.6 miles toward west (toward Port of Long Beach) and 9 miles toward east (toward Palm Springs), and the HRA receptor grids include receptors along the SR-60 freeway. Based on the results shown in Figure 4.3-3 for the construction plus operation scenario, without mitigation, only a small segment (approximately one mile) along SR-60 that is immediately north of the project boundary will potentially have an incremental cancer risk exceeding the SCAQMD 10 in one million threshold; at an approximate distance of 2.5 miles away from the project boundary, the potential increment cancer risk along SR60 would be less than 2 in one million. Based on results shown in Figure 4.3-4 for 30 years of the full project buildout scenario, without mitigation, no segment along SR-60 would exceed the 10 in one million cancer risk threshold; at a distance of less than two miles from the project boundary, the incremental cancer risk is less than 2 in one million. The project's mitigation conditions require that all construction equipment over 50 horsepower would be Tier 4, all diesel trucks accessing the project during operation be model year 2010 or newer, that all on-site equipment be Tier 4. As shown in Figures 4.3-5 and 4.3-6, with mitigation, the incremental cancer risk along SR-60 will be less than 10 in one million and less than significant. Because project-generated vehicle trips and associated impacts decrease with an increase in distance from the project site, the project impact along the regional freeway network that is outside the HRA's study area will be less than those presented in Figures 4.3-3 and 4.3-4. The project impact to regional freeway network will be the greatest during project full operation, as shown in Tables 4.3-31 and Tables 4.3-34, the maximum cancer risk for receptors along the SR-60 freeway would be 3.4 without mitigation and 3.2 with mitigation (less than the 10 in one million threshold). Therefore, the project health impact along the regional freeway network will be less than significant.

Of note, results in Figure 4.3-3 is based on project construction overlapping with project operations (partial project operation since project is not built out yet) while Figure 4.3-4 is based on full project operation. The difference between the two sets of results indicate that the incremental cancer risk in Figure 4.3-3 is mainly driven by the DPM emissions from onsite construction equipment. Therefore, the impact would be localized near the project site and will disappear once construction completes.

Informational Purposes: Morbidity and Mortality

There is no established threshold or approved methodology for calculating morbidity and mortality. For purposes of this assessment, morbidity is a term for describing how an external effect such as air pollution would exacerbate an existing illness and other health effect. Mortality is another term for death. The following represents the result of the calculations for long-term mortality and various morbidity health endpoints due to DPM for the project prior to the application of mitigation. The locations for the morbidity/mortality estimations were at the location with the highest combined annual DPM concentration and census tract population such that the change in DPM would affect the greatest number of people. A cumulative total of each mortality/morbidity health endpoint was also calculated that totals the number of added cases of an identified health endpoint at each census tract location within the entire region potentially impacted by the project emissions.

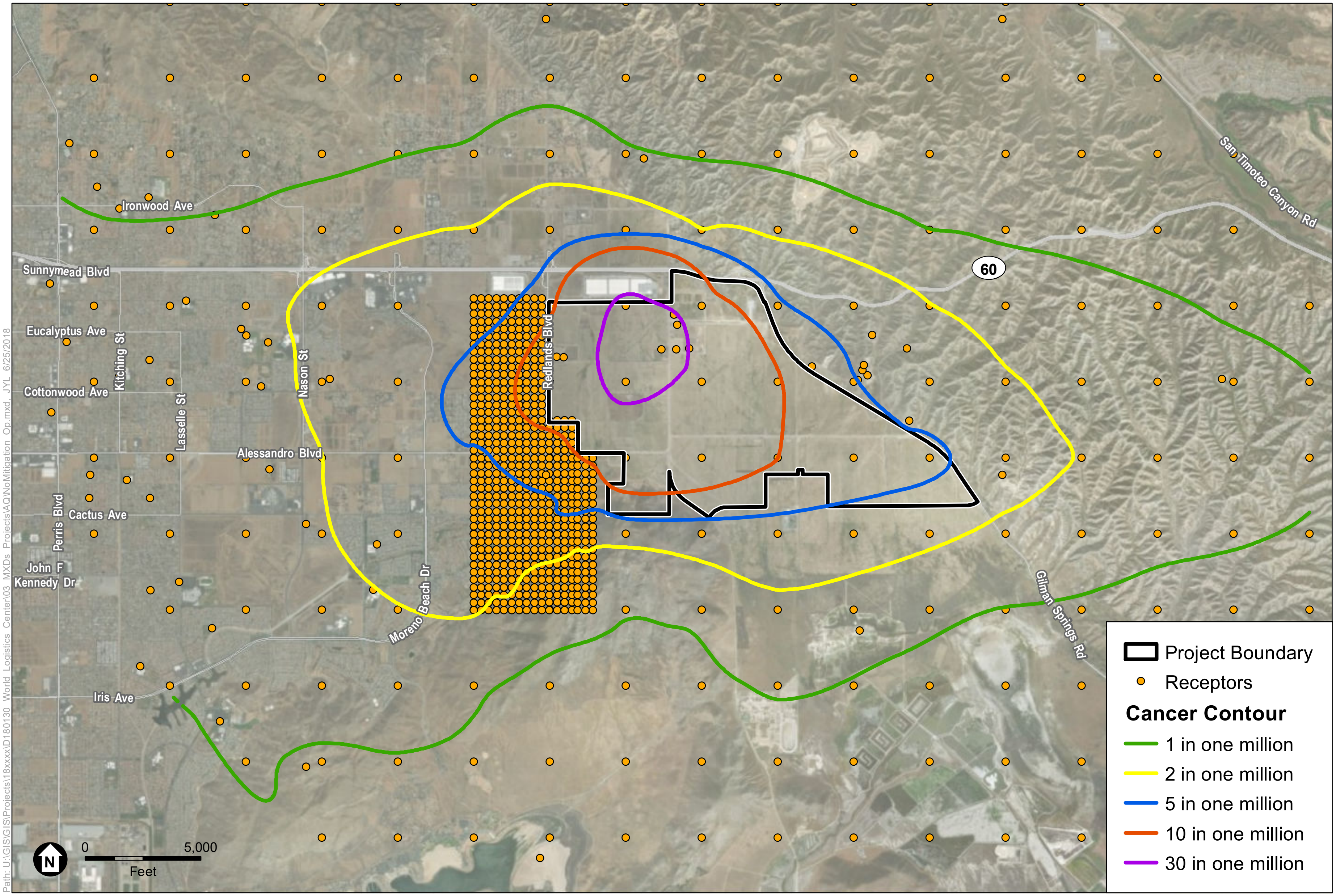

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SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-3

Incremental Project Cancer Risk – No Mitigation
(Construction and Operation)

ESA

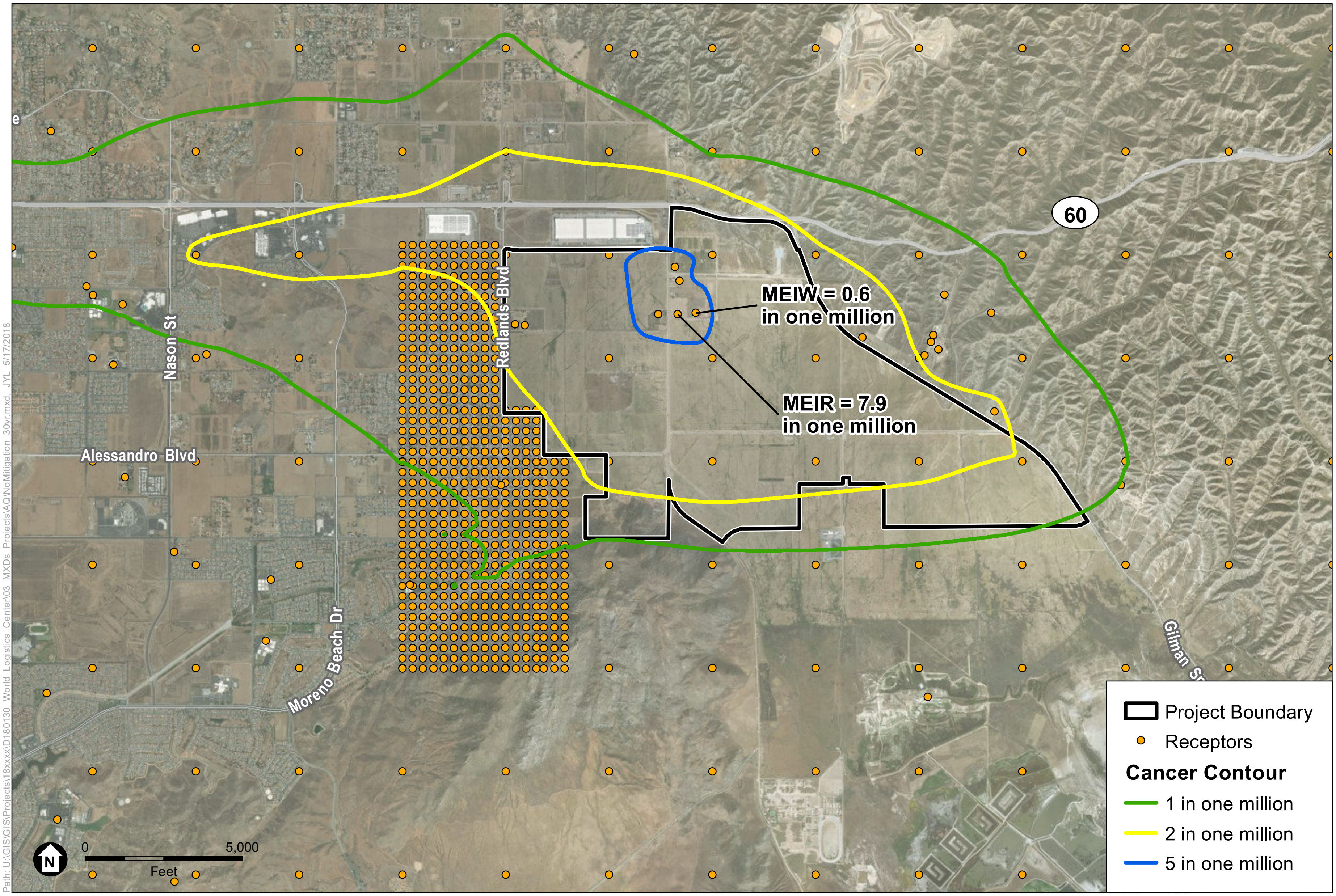

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SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-4

Incremental Project Cancer Risk – No Mitigation
(30 Years of Full Operation)

ESA

The estimates of mortality and morbidity impacts are based on the application of concentration-response functions (C-R functions) that relate the change in the number of adverse health effect incidences in a population to a change in air pollutant concentration experienced by that population. However, such estimations are subject to great uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, form of C-R functions, baseline rates of mortality and morbidity that are entered into the C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions.

Exposure to the Project’s DPM emissions prior to mitigation would result in an increase in mortality of approximately 0.00011 additional cases per year at the location where the project has its maximum impact from DPM emissions or 0.001 additional cases over all of the census tracts contained in the modeling domain.

Table 4.3-32 summarizes the estimates of the various morbidity health endpoints due to the emissions from the project without mitigation. As shown in these tables, the project would not result in a single new added case of a quantified health endpoint either at location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment.

Table 4.3-32: Estimates of Various Morbidity Health Endpoints from Project Emissions Without Mitigation

Health Endpoint	Maximum Added Occurrences (cases/year)	Cumulative Occurrences over the Entire Modeling Region (cases/year)
Long-term Mortality (Ages 30+)	0.00011	0.001
Chronic Illness: Chronic Bronchitis (Age 27+)	0.00053	0.005
Hospitalization: Chronic Obstructive Pulmonary Disease Age 65+)	0.000001	0.000008
Hospitalization: Pneumonia (Age 65+)	0.000001	0.00001
Hospitalization: Cardiovascular (Age 65+)	0.000002	0.00002
Hospitalization: Asthma (Age 0-64)	0.0000005	0.000005
Hospitalization: Asthma-related Emergency Visits (Ages 0-64)	0.000002	0.00001

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Mitigation Measures. The mitigation measures previously identified under other impact sections are required (**Mitigation Measures 4.1.6.1A, 4.3.6.2A, 4.3.6.2B, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.3E**) to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project. Additionally, the following mitigation measure is required to ensure that significant health risk does not occur at on-site residential receptor.

4.3.6.5A Prior to the issuance of grading permits, the applicant shall arrange for MERV 13 air filters to be installed at the residence located at 13241 World Logistics Center Parkway.

Mitigation Measure 4.3.6.3B(l) would require that all diesel trucks that access the project site be model year 2010 or later and limits truck and vehicle idling to 3 minutes. **Mitigation Measure 4.3.6.2A(a)** would require that Tier 4 construction equipment be used on the project site. These mitigation measures would reduce the cancer risk from the project.

Mitigation Measure 4.3.6.3C may encourage alternative fueled vehicles and trucks on the project site. As discussed above, a High EV Penetration scenario assumes that up to 40 percent of the project's heavy duty trucks would be electric-powered; however, no reduction is taken. **Mitigation Measure 4.3.6.3D** may reduce vehicle miles traveled to food establishments; however, no direct reduction is taken. **Mitigation Measure 4.3.6.3E** requires that if transportation refrigeration units are to be used, electrical hookups would be required. In addition, refrigerated space is prohibited unless the impacts do not exceed any environmental impacts identified in this Revised FEIR. Therefore, it is assumed in the unmitigated and mitigated estimates that there would be no transportation refrigeration units. **Mitigation Measure 4.3.6.5A** requires that the Applicant install MERV 13 air filters at the residence located at 13241 World Logistics Center Parkway. The Applicant currently retains ownership of this property and can arrange for the installation of MERV 13 filters at this residence.

Level of Significance after Mitigation for Sensitive Receptor Cancer Risk. Less than significant. Table 4.3-33 and Figure 4.3-5 show the cancer risks for the construction and operation HRA after application of mitigation. As noted, the cancer risks are substantially lower after mitigation, and the SCAQMD cancer risk significance threshold would not be exceeded at any of the onsite or offsite receptors within the study area. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM associated with the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when the "Current OEHHA Guidance" assigns large age sensitivity factors to the first few years of the 30-year exposure duration. Table 4.3-34 and Figure 4.3-6 show the mitigated cancer risk from the 30 year full project buildout.

Through mitigation requirements, new technology diesel engines are required for the WLC project. The mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals. The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

Mitigation measures 4.3.6.2A(a) and 4.3.6.3B(l) require 2010-compliant trucks for operation and Tier 4 equipment for construction and require 2010-compliant trucks for operation, respectively, both of which rely on diesel particulate filters similar to those tested in the HEI study. These vehicles reduce emissions by 90% when compared to 2006 vehicles and by 99% when compared to uncontrolled diesel engines. Recent emissions testing by CARB revealed that these diesel engines are cleaner than originally estimated. These findings, which are reflected in the CARB emissions factor model EMFAC2014, are 70% cleaner than previously estimated.

Table 4.3-33: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), With Mitigation

Receptor Location	Incremental Increase in Cancer Risk During Project Construction (risk/million)	Incremental Increase in Cancer Risk During Project Operation (risk/million)	Total Incremental Increase in Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	8.3	1.4	9.7	10	No
Existing residences within the project boundaries					
13241 World Logistics Center Pkwy	8.3	1.4	9.7	10	No
13100 World Logistics Center Pkwy	4.4	2.2	6.6	10	No
13200 World Logistics Center Pkwy	4.3	1.7	6.0	10	No
30220 Dracaea Ave	4.9	2.7	7.6	10	No
29080 Dracaea Ave	2.5	0.9	3.3	10	No
29140 Dracaea Ave	2.9	1.0	3.8	10	No
Maximum risk at any area outside of the project boundaries[3]	2.0	0.6	2.6	10	No

Notes:

* Pursuant to Mitigation Measure 4.3.6.5A, the Applicant shall install MERV-13 air filters at the residence located at 13241 World Logistics Center Parkway (formerly Theodore Avenue).

[1] Cancer risk calculation conservatively assumed all receptors modeled are residential receptors. 30-year average exposures from 2020 to 2049 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks

[2] Location is at existing residences within the boundaries of the project

[3] Location is adjacent to the midwestern boundary of the project

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

Table 4.3-34: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, With Mitigation

Receptor Location	Total Incremental Increase in Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	7.1	10	No
Maximum risk within the project boundaries(3)	7.1	10	No
Maximum risk at any area outside of the project boundaries(4)	3.2	10	No
Maximum risk along SR60 freeway outside of the project boundaries(5)	3.2	10	No

Notes:

(1) Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2040 to 2069 (includes diesel PM emissions from full project operation); cancer risk estimates derived from the TIA, EMFAC2014 emission model, SCAQMD HRA guidance and "Current OEHHA Guidance" for estimating cancer risks

(2) Location is at the existing residences within the boundaries of the project.

(3) Location is at the existing residence located at 30220 Dracaea Avenue.

(4) Location is to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

(5) Location is south of SR 60 freeway, same as the location in footnote (4), which to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018.

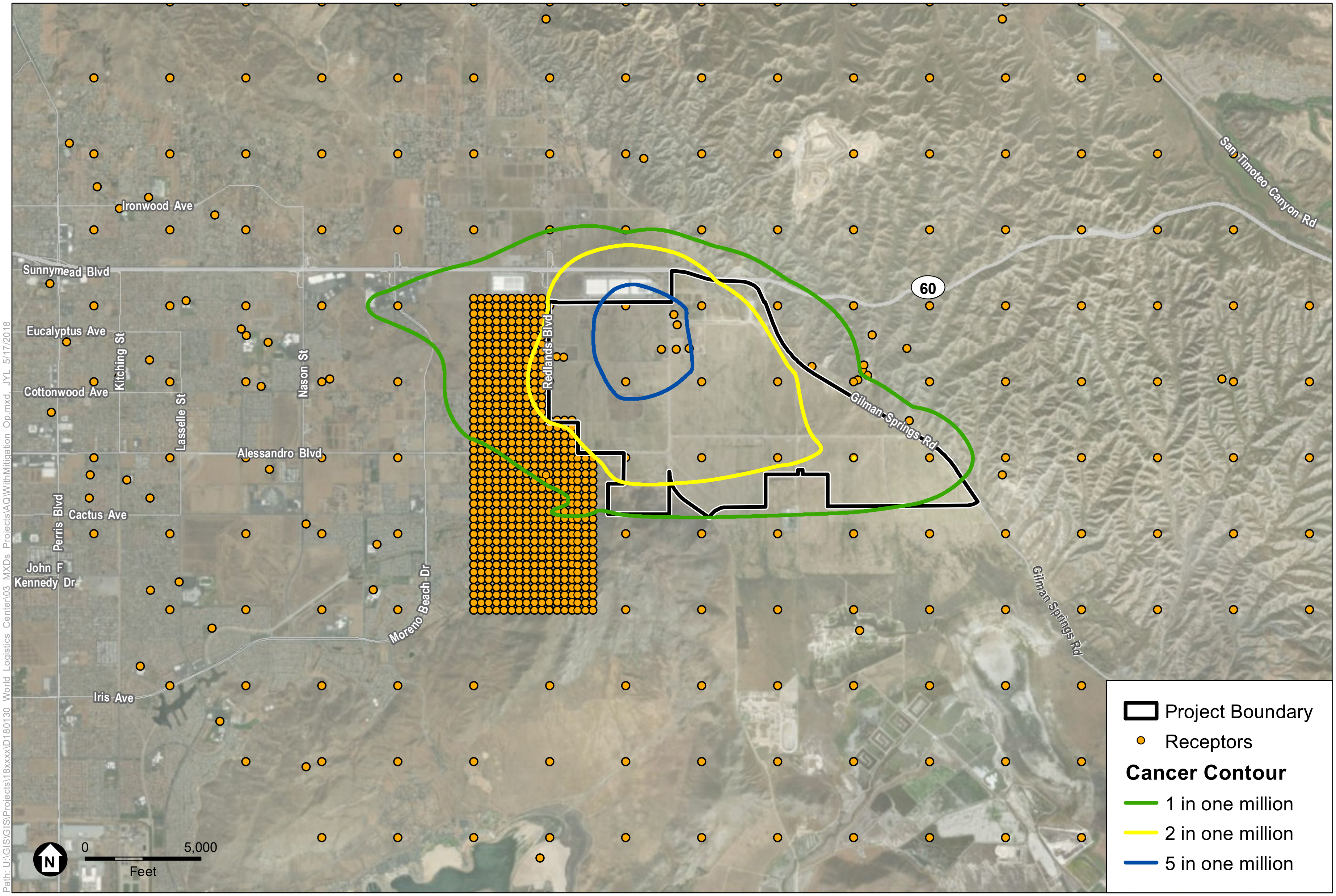

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-5
Incremental Project Cancer Risk – With Mitigation
(Construction and Operation)

ESA

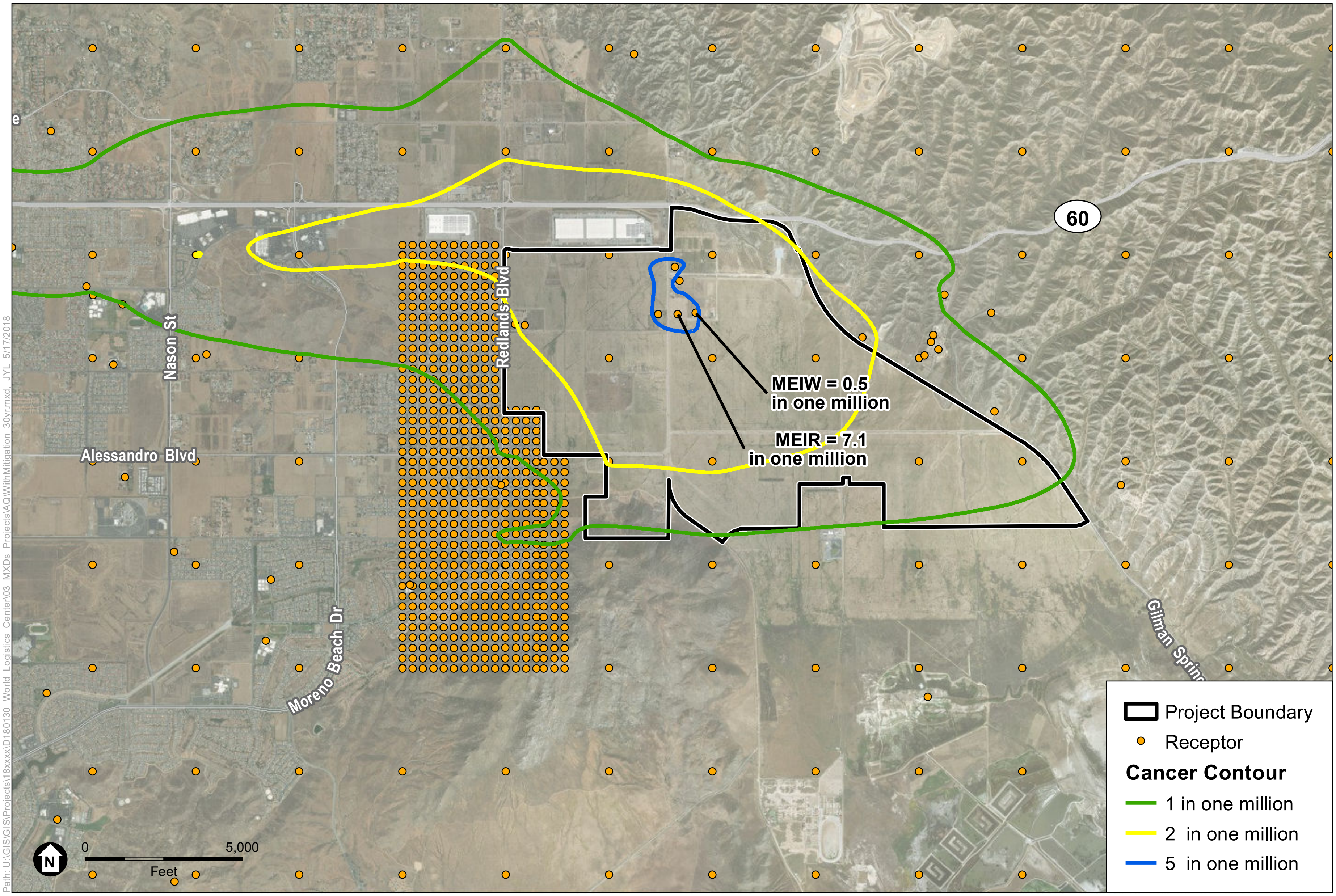

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SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.3-6
Incremental Project Cancer Risk – With Mitigation
(30 Years of Full Operation)

ESA

Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from equipment equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The HEI, funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found that lifetime exposure to NTDE did not cause carcinogenic lung tumors. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine.

As a result of the very low emissions from NTDE and the research conducted by HEI, it is projected that the project would not result in a significant increase in cancer health risks from the project's diesel emissions. Therefore, the project would have a less than significant health risk impact.

As discussed above, the HRA analysis assumed DPM emissions from NTDE causes cancer (contrary to the HEI findings) and used a very conservative application of the "Current OEHHA Guidance" to the World Logistics Center project (which was provided for informational purposes). Although air quality significance thresholds have been established for outdoor environments, a significant portion of human exposure to air pollutants occurs indoors where people spend more than 90 percent of their time (USEPA, 2011). One approach to reduce exposure is the installation of high efficiency panel filters inside the HVAC system. Air filters and other air-cleaning devices are designed to remove pollutants from indoor air. Some are installed in the ductwork of a home's central heating, ventilating, and air-conditioning (HVAC) system to clean the air in the entire house. In studies of the effectiveness of air filtration systems in classrooms (SCAQMD, 2003) and by the EPA in residences (USEPA, 2010), the combination of an HVAC system with a high performance panel filter reduced indoor levels of fine particulate matter, PM2.5 and smaller particles by 70 to 90 percent.

The use of a filtration system consisting of the application of filters with a rating of ASHRSE Standard 52.2 MERV-13, as required by Mitigation Measure 4.3.5.4.A, is sufficient to capture a significant portion of the diesel particulate matter. However, the filtration system would not remove the smallest of particles (less than approximately 0.01 to 0.2 micron in diameter). MERV-13 filters would, however, reduce particles in the range of 0.3 to 1 micron by up to 75 percent and particles larger than 1 micron by 90 percent (see Table 1 of the Addendum to CARB, 2013b). Based on measurement studies of the size distribution of the collected DPM, approximately 0.1 to 10 percent of the total DPM mass includes particles between 0.01 and 0.2 micrometer in diameter, particles between 0.3 and 1 micrometer in diameter comprise 70 percent of the total DPM mass, and particles above 1 micrometer comprise 5 to 20 percent of the total DPM mass (DieselNet.com, 2002).

Since the cancer risk from DPM is calculated from the mass of DPM emitted, the quantity of DPM reduced by the action of air filters would thus equate to a reduction in cancer risk. The application of MERV-13 air filter filtration system would result in a reduction of DPM exposures by approximately 70 percent, as calculated below.

DPM size:	0.01 to 0.2 µm	0.3 to 1 µm	Greater than 1 µm
Calculation:	10% mass x 0% reduction	70% mass x 75%	20% mass x 90%
Reduction:	0% reduction	52.5% reduction	18% reduction

Attributing an adjustment for time that windows might be open, residents would be outside, or for different compounds that result in the cancer risk would reduce the efficacy of the filters by about 20 percent, bringing the total cancer risk reduction from the filters to 50 percent.

The use of the filters would bring the OEHHA-calculated risk below the SCAQMD threshold eliminating any possible risk from the project on any onsite or offsite receptors within the study area. Health risk impacts are less than significant and no further mitigation is required.

In summary, the implementation of all the recommended mitigation measures, including the requirement to use 2010 diesel engine emissions standards, Tier 4 construction equipment, and installation of air filters at the identified on-site residence will reduce the OEHHA-calculated cancer risk to below 10 in one million at all sensitive receptors. Therefore, impacts would be less than significant.

Finally, note further that before mitigation, the cancer risk burden is estimated at 0.09 and is less than the SCAQMD cancer burden significance threshold of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold.

Summary of Project-Related Air Quality Impacts

Based on the preceding analyses in Sections 4.3.5.1 through 4.3.6.5, the WLC project will have the following direct air quality impacts:

Table 4.3-35: Summary of Project-Related Air Quality Impacts

Impact	Air Quality Topic/Issue	Impact Conclusion
Project Impacts		
4.3.5.1	Odors	Less than Significant No Mitigation Required
4.3.5.2	Long-Term Micro-Scale CO Hotspot Emissions	Less than Significant No Mitigation Required
4.3.6.1	Air Quality Management Plan Consistency	Significant (inconsistent) and Unavoidable with Mitigation
4.3.6.2	Regional Construction Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, and PM_{10}; regional health effects from ozone and particulate matter)
4.3.6.3	Localized Construction and Operation (LSTs)	Significant and Unavoidable with Mitigation (PM_{10}) (onsite and offsite)
4.3.6.4	Regional Long-Term Operational Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; regional health effects from ozone, PM_{10}, and $PM_{2.5}$)
4.3.6.5	Sensitive Receptors (a) Localized PM_{10}	Significant and Unavoidable for PM_{10} with Mitigation (onsite) Less than Significant with Mitigation (offsite)
	(b) Non-Cancer Acute and Chronic Health Risks	Less than Significant
	(c) Cancer Risks– Sensitive Receptors	Less than Significant with Mitigation
	(d) Cancer Burden	Less than Significant
	(e) Cancer Risks –Workers	Less than Significant
	(f) Cancer Risks – School Sites	Less than Significant

~~***NOTE TO READERS.*** *This section has been revised to reflect changes from the original DEIR as a result of the following:*~~

- ~~*Reduction of the project size by 100 acres and 1 million square feet of building space from the Specific Plan (in the southwest corner);*~~
- ~~*Commensurate changes to the Traffic Impact Assessment (TIA, see Section 4.15);*~~
- ~~*Updated trip lengths based on the revised TIA;*~~
- ~~*Updated CalEEMod computer program with updated emission factors;*~~
- ~~*Revised mitigation in response to comments;*~~
- ~~*Change in project construction phasing (from 10 to 15 years);*~~
- ~~*Updated EMFAC2014 emission factor model;*~~
- ~~*Updated OEHHA health risk methodology; and*~~
- ~~*Use of the latest Health Effects Institute (HEI) research that demonstrates that new technology diesel exhaust does not cause cancer.*~~

~~*In January 2015, the results of a 5½-year study, led by the Health Effects Institute, were published regarding the health effects of new technology diesel exhaust and particularly the risk of cancer from exposure to diesel exhaust. The study found that new technology diesel exhaust does not cause cancer.*~~

~~*The HEI study distinguishes between older Traditional Diesel Engines (TDE) (exhaust from engines that are older than model year 2007) and new technology diesel exhaust (NTDE) (exhaust from engines model year 2007 or newer), which is 90-99% cleaner than TDE. The revised mitigation measures contained in this section require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all off-road equipment meet Tier 4 engine standards. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.*~~

~~*The DEIR contained an air quality analysis prepared before the release of the HEI study. As a result, the DEIR analysis assumed that any diesel exhaust, including NTDE, could cause cancer. For comparison to the DEIR, the following discussion analyzes the health risks which would occur if NTDE could cause cancer, which, as noted above, it does not. This is only for informational purposes and does not reflect the health risks associated with the World Logistics Center project.*~~

~~*HEI is an independent, non-profit research institute funded by the U.S. Environmental Protection Agency (EPA) and industry, and supported by the California Air Resources Board (CARB), the U.S. Federal Highway Administration, the US Department of Energy, Engine Manufacturers Association, American Petroleum Institute and the Coordinating Research Council to provide credible, high quality science on air pollution and health for air quality decisions.*~~

~~*These changes also resulted in updates to the traffic and air quality technical studies and proposed mitigation measures In addition, this section has been revised in response to public comments received on the Programmatic DEIR.*~~

~~4.3 AIR QUALITY~~

~~This section analyzes the proposed project's potential air quality impacts and provides a discussion of the proposed project, the physical setting of the project area, and the air quality regulatory framework. The air quality analyses evaluate potential air quality impacts by examining the short-term construction as well as long-term operational impacts associated with the project and by evaluating the effectiveness of the identified mitigation measures. Modeled air quality levels are based upon vehicle data and project trip generation included in the project's *Traffic Impact Analysis* and peak turn volumes generated for the proposed project combined with emission factors from the CARB. The evaluation was prepared in accordance with appropriate standards, utilizing procedures and methodologies as recommended by the South Coast Air Quality Management District (SCAQMD), the California Office of Environmental Health Hazards Assessment (OEHHA), and CARB. Air quality data posted by the SCAQMD, CARB, and the EPA web sites are included to document the local air quality environment and are incorporated herein by reference.~~

~~For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.~~

~~The analysis contained in this section is based on the following technical studies prepared for the proposed project:~~

- ~~*Air Quality, Greenhouse Gas, and Health Risk Assessment Report* (Michael Brandman Associates – First Carbon Solutions [MBA-FCS], original dated January 29, 2013 and revised April 2015) contained in Appendix D of this EIR; and~~
- ~~*Traffic Impact Analysis Report, The World Logistics Center,* (Parsons Brinkerhoff, Inc., original dated January 28, 2013 and revised September 2014) contained in Appendix L of this EIR.~~

~~In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:~~

- ~~*CEQA Air Quality Handbook,* South Coast Air Quality Management District, 1993;~~
- ~~*Final EIR City of Moreno Valley General Plan*, July 2006;~~
- ~~*Conservation Element*, City of Moreno Valley General Plan, adopted July 11, 2005;~~
- ~~*Final 2012 Air Quality Management Plan,* South Coast Air Quality Management District ;~~
- ~~Health Effects Institute, 2015: HEI Research Report 184, Advanced Collaborative Emissions Study (ACES); Lifetime Cancer and Non-Cancer Assessment in Rats Exposed to New-Technology Diesel Exhaust, January, 2015; and~~
- ~~Other reference material, as cited herein and in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*.~~

~~4.3.1 Existing Setting~~

~~The project site is located in the South Coast Air Basin (Basin), a geographic area that encompasses the coastal plain and connecting broad inland valleys and low hills. The Pacific Ocean forms the southwestern border of the Basin, with mountain ranges forming the remainder of the border. The Basin includes Orange County and the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County. The Basin is under the jurisdiction of the SCAQMD.~~

~~*Note: The following text has been added to help the reader better understand the complex topic of air quality.*~~

~~The air quality in the air basin has been steadily improving over the last couple of decades as measured in air pollutant concentrations by the SCAQMD. A concentration of a pollutant is a measure of the amount of a pollutant in the air. Some pollutants are measured in parts per million (ppm) and some are measured in micrograms per cubic meter (μg/m^3).~~

~~When sensitive people, such as children, pregnant women, and the elderly, breathe in air pollutants, they can experience health effects. These health effects differ based on the type of pollutant, the length of time someone is exposed, pre-existing health conditions, and the concentration of the pollutant. In general, health effects can include coughing, sore throat, chest pain, difficulty breathing, eye irritation, reduced lung function, asthma aggravation, chronic lung diseases, cancer, and lung damage.~~

~~Federal, state, and local agencies enact rules and regulations to reduce air pollutant emissions to protect the health of sensitive individuals. The EPA sets federal ambient air quality standards and the CARB sets state ambient air quality standards. When concentrations of pollutants exceed the standards, sensitive individuals may experience health effects.~~

~~Ozone is a pollutant formed in the air when emissions of volatile organic compounds (VOC) and nitrogen oxides (NOx) combine in the presence of sunlight. Ozone is a pollutant of concern in the air basin because ozone levels exceed the ozone standards.~~

~~As shown in Figure 4.3.1, ozone concentrations in the basin have generally decreased over the past twenty years for 1-hour and 8-hour averaging time periods as defined by the State and/or federal ambient air quality standards. The 1-hour and 8-hour concentration refers to the average of the concentration over a 1-hour and 8-hour time period, respectively.~~

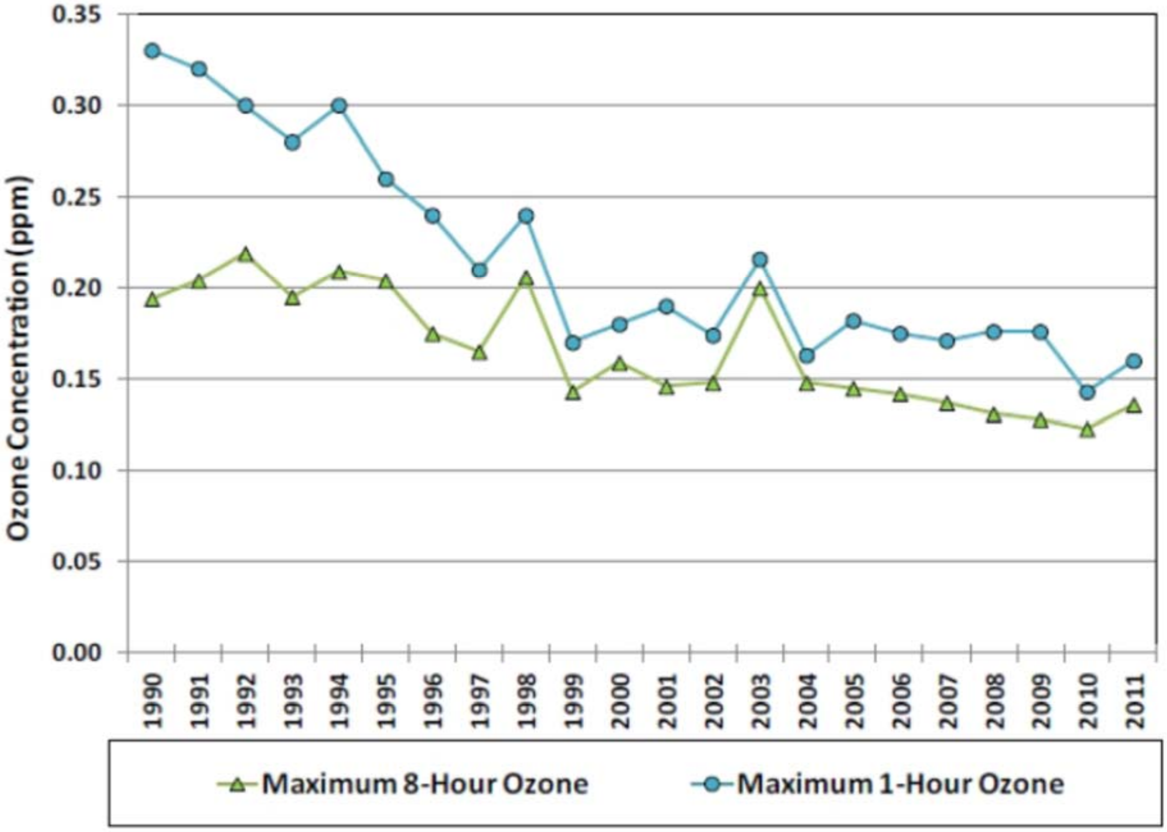

~~Figure 4.3.1: Ozone Concentration Trends in the South Coast Air Basin~~

~~As shown in Figure 4.3.2, the main source of NOx and VOC emissions in the basin are from on-road motor vehicles, not from the operation of buildings. Although vehicle miles traveled in the basin continue to increase, ozone concentrations are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with cleaner and lower-emitting vehicles. VOC and NOx are ozone precursors; therefore, if those emissions decrease, it follows that ozone concentrations would also decrease.~~

~~Emissions of NOx in the air basin are expected to decrease in the future despite future growth in population, and vehicle miles traveled, as shown in Figure 4.3.3.~~

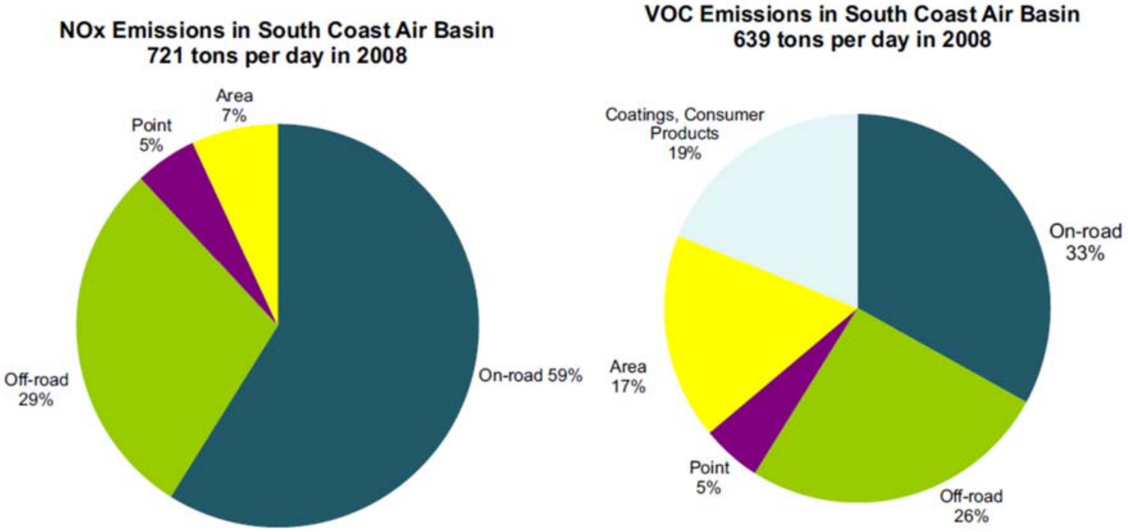

~~Figure 4.3.2: Ozone Precursor Emissions (VOC and NOx) in the South Coast Air Basin~~

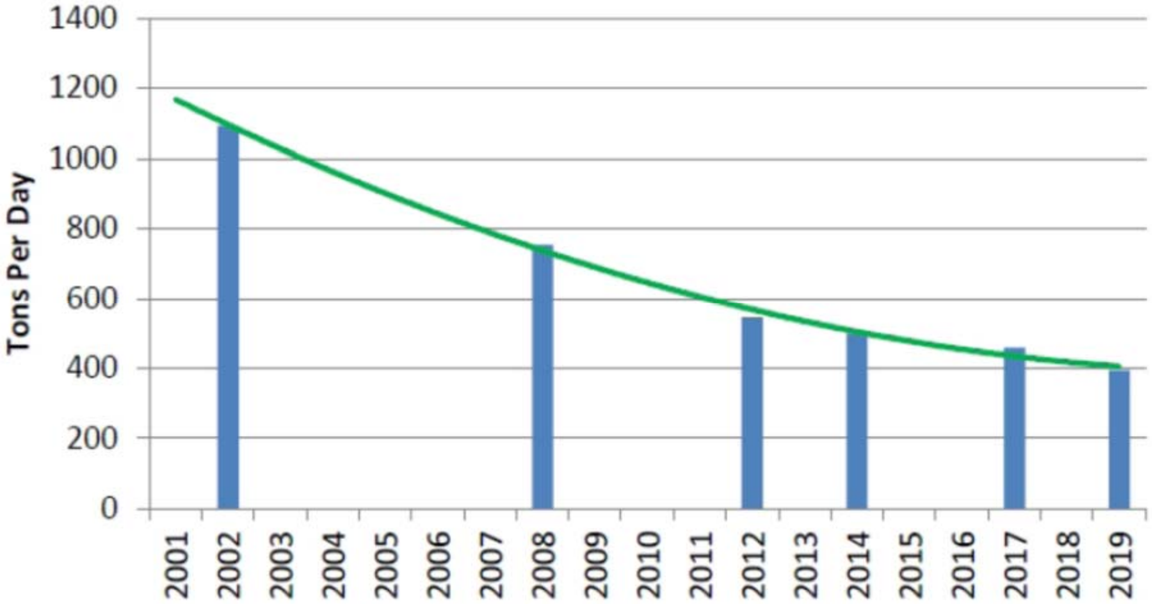

~~Figure 4.3.3: NOx Emissions Forecast in the South Coast Air Basin~~

~~Another pollutant of concern is particulate matter (PM). PM is a mixture of small particles and liquid droplets suspended in the air. It is made up of components such as chemicals, metals, soil, or dust particles. The size of these particulates is linked to their potential for causing health problems. Ultrafine particles are less than 0.1 in micron in diameter, fine particles are less than 2.5 microns in diameter ($PM_{2.5}$), and coarse particles are larger than 2.5 microns and smaller than 10 microns in diameter (PM_{10}). The CARB and EPA have established standards for $PM_{2.5}$ and PM_{10} but not for ultrafine particles. $PM_{2.5}$ and PM_{10} are a concern in the air basin because sometimes the concentrations exceed the standards. $PM_{2.5}$ is often used as a marker for toxic air pollutants such as diesel PM.~~

~~As shown in Figure 4.3.4, $PM_{2.5}$ emissions are expected to decrease in the Basin and then level out after the year 2014.~~

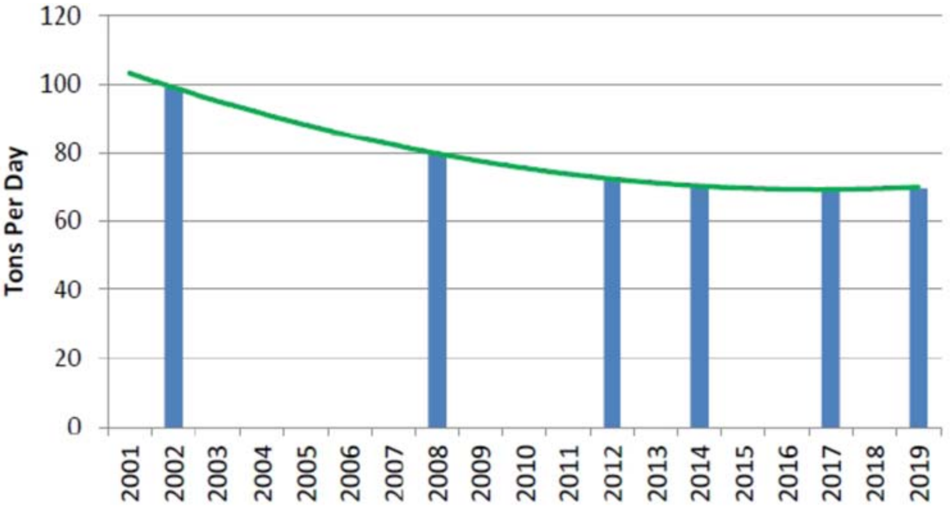

~~Figure 4.3.4: $PM_{2.5}$ Emissions Forecast in the South Coast Air Basin~~

~~As shown in Figure 4.3.5, PM_{10} and $PM_{2.5}$ annual concentrations have continued to decrease since 1990 within the air basin as a whole.~~

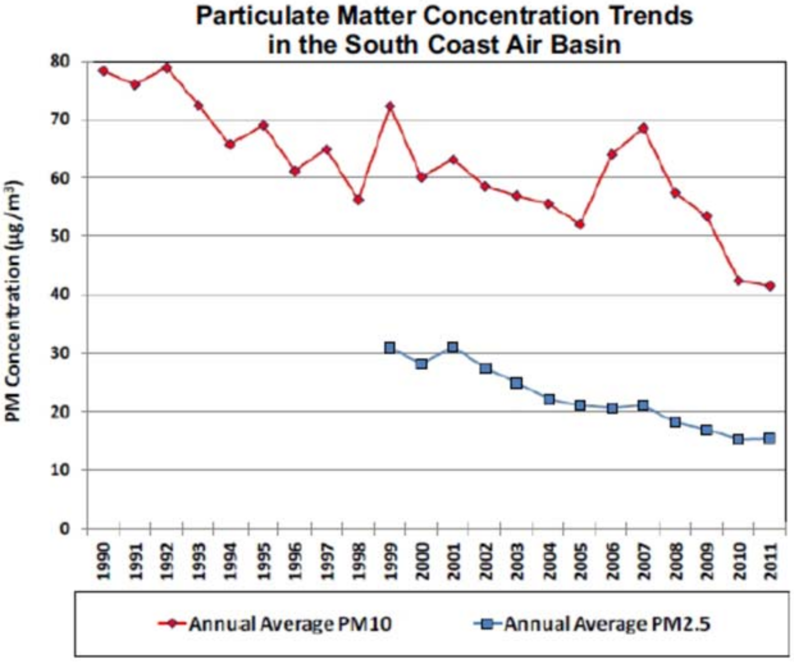

~~Figure 4.3.5: Particulate Matter Concentration Trends in the South Coast Air Basin~~

~~Figure 4.3.6 provides an additional view of $PM_{2.5}$ trends specifically in the Inland Empire. As shown, there is a marked decreasing trend in $PM_{2.5}$ concentrations in Riverside-Rubidoux, Fontana, and San Bernardino from 2001 to 2012 and at Mira Loma from 2006 to 2012. The relevance of these trends is~~

~~that $PM_{2.5}$ levels have displayed a decreasing trend in the Inland Empire despite increases in urban development including the development of large warehouse complexes since 2001.~~

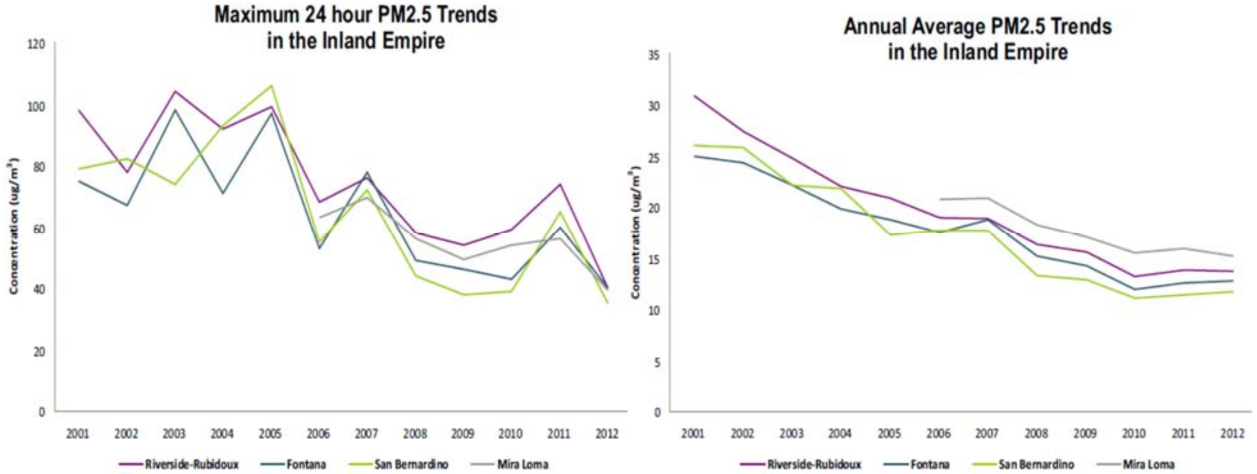

~~Figure 4.3.6: $PM_{2.5}$ Concentration Trends in the Inland Empire~~

~~Part of the success in the decreasing NOx and PM emissions are standards placed on motor vehicles. Figure 4.3.7 demonstrates the changes in U.S. heavy duty diesel emission standards for NOx and PM. The project would incorporate mitigation that would require that all heavy duty diesel trucks accessing the project incorporate 2010 emissions standards. As shown below, the 2010 standards are only a fraction of the older standards, at 0.2 grams per horsepower hour (g/HP-hr) of NOx and 0.01 g/HP-hr of PM. The text in blue represents the off-road construction standards; 2011 is Tier 4 Interim and 2014 is Tier 4 Final.~~

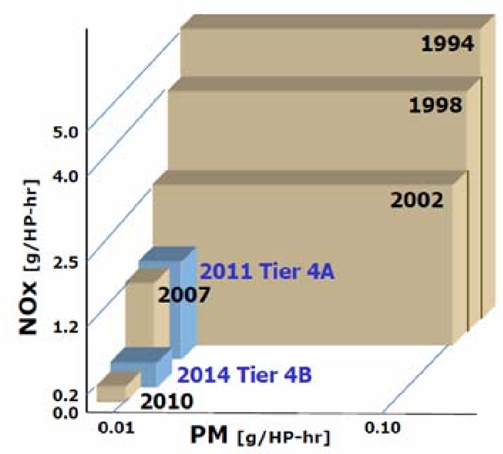

~~Figure 4.3.7: Changes in U.S. Heavy-Duty Diesel NOx and PM Emission Standards~~

~~4.3.1.1 Climate and Meteorology~~

~~Air quality in the project area is not only affected by various emission sources (mobile, industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, rainfall, and amount of sunshine. The combination of topography, low atmospheric mixing height, abundant sunshine, and emissions from the second largest urban area in the United States combine to give the Basin one of the worst air pollution problems in the nation.~~

~~Winds in the Basin are predominantly of relatively low velocities, averaging about 4.0 miles per hour (mph). These low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. These conditions tend to last for several days at a time.~~

~~During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas of Los Angeles County are transported predominantly inland into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide (CO) and oxides of nitrogen (NO_X), because of extremely low inversions and air stagnation during the night and early morning hours that trap emissions principally from mobile sources. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.~~

~~4.3.1.2 Regional Air Quality~~

~~Both the State of California and the Federal government have established health-based ambient air quality standards (AAQS) for six air pollutants. These pollutants are known as “criteria pollutants.”~~

- ~~Carbon monoxide (CO)~~
- ~~Lead (Pb)~~
- ~~Nitrogen dioxide (NO_2)~~
- ~~Ozone (O_3)~~
- ~~Particulate matter with a diameter of 10 microns or less (PM_{10})~~
- ~~Sulfur dioxide (SO_2)~~

~~Federal standards for 8-hour ozone and for fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) have also been adopted. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety and are listed in Table 4.3.A. Table 4.3.B lists the health effects of these criteria pollutants and their potential sources.~~

~~*Note: Episode criteria and smog alerts are no longer used by the CARB or the SCAQMD; the EPA’s Air Quality Index is now used. Therefore, the following text has been deleted and information regarding the Air Quality Index has been added.*~~

~~The **Air Quality Index** is an index developed and reported by the United States EPA for reporting daily air quality. It indicates how clean or polluted the air is and what associated health effects might be a concern. The Air Quality Index focuses on health effects that may be experienced within a few hours or days after breathing polluted air. Descriptions for the various levels in the Air Quality Index are shown in Table 4.3.C.~~

~~The federal 8-hour ambient air quality standard for ozone is 75 ppb and the California standard is 70 ppb. The California 1-hour standard for ozone is 90 ppb (there is no federal 1-hour standard). As shown in the table, to achieve the federal ambient air quality standard for ozone, the Air Quality Index would need to be below 101. To achieve the state 8-hour ambient air quality standard for ozone, the Air Quality Index would need to be below 84.~~

~~In the Moreno Valley area in 2010 and 2011, the air quality index was greater than 150 for one day for each year. That means the air was unhealthy for one day in 2010 and one day in 2011. If the future years follow that trend, then one day during each of the construction years would cease construction activities.~~

~~Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. Examples of this would be the motor vehicles at intersections, malls, and on highways. The California Clean Air Act (CCAA) provides the SCAQMD with the authority to manage transportation~~

~~activities at indirect sources. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.~~

~~The narrative below describes the pollutant characteristics, mechanisms of pollutant origination, and health effects for the criteria pollutants (i.e., pollutants specifically regulated under the Federal Clean Air Act [CAA] and/or the California Clean Air Act [CCAA]) and other pollutants of concern. Because the concentration levels of the AAQS were set with an adequate margin to protect public health and safety, these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than Federal AAQS. An additional discussion of health effects is contained in the~~ ~~*Air Quality, Greenhouse Gas, and Health Risk Assessment*~~ ~~(2015).~~

- ~~*Carbon Monoxide*~~
  - ~~Description and Properties: CO is colorless, odorless toxic gas produce by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). CO is a primary pollutant, meaning it is emitted directly into the air (unlike secondary pollutants such as ozone that are formed by the reactions of other pollutants). CO levels tend to be highest during the winter months when the meteorological conditions support the accumulation of the pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrated the CO (EPA 2006c). Because CO is somewhat soluble in water, normal winter conditions of rainfall and fog can suppress CO conditions.~~
  - ~~Health Effects: CO is essentially inert to plants and materials but can have significant effects on human health. CO gas enters the body through the lungs, dissolves in the blood, and replaces oxygen as an attached hemoglobin. This binding reduces available oxygen in the blood and; therefore, reduces oxygen delivery to the body’s organs and tissues. Effects on humans range from slight headaches to nausea to death. Elevated levels of CO can also cause visual impairments, reduced manual dexterity, poor learning ability, reduced work capacity, and trouble performing complex tasks.~~
  - ~~Sources: The major sources of CO are on-road vehicles, aircraft, and off-road equipment, or any source that burns fuel including residential heaters and stoves. Since most of the CO sources are the indirect result of urban development, most emissions and unhealthy CO levels occur in major urban areas.~~
- ~~*Ozone*~~
  - ~~Description and Physical Properties:~~ ~~O_3~~ ~~is known as a photochemical pollutant. Ozone is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between reactive organic gases (ROG) or volatile organic compounds (VOC),~~ ~~NO_X~~~~, and sunlight. ROG and~~ ~~NO_X~~ ~~are emitted from automobiles, solvents and fuel combustion, the sources of which are widespread throughout the SCAQMD. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. The conditions conducive to the formation of ozone include extended periods of daylight (solar radiation) and hot temperatures. These conditions are prevalent during the summer when thermal inversions are most likely to occur. As a result, summertime conditions of long periods of daylight and hot temperatures form ozone in the greatest qualities. During the summer, thermal inversions trap ozone from dispersing vertically, high concentrations of this pollutant are prevalent.~~

~~*Note: Table 4.3.C in the original DEIR was entitled “Attainment Status of Criteria Pollutants in the South Coast Air Basin” and has been moved to later in this section and renumbered Table 4.3.D.*~~

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~~**Table 4.3.A: Ambient Air Quality Standards**~~

		~~California Standards[1]~~		~~Federal Standards[2]~~		
~~**Pollutant**~~	~~**Averaging Time**~~	~~**Concentration[3]**~~	~~**Method[4]**~~	~~**Primary[3,5]**~~	~~**Secondary[3,6]**~~	~~**Method[7]**~~
~~**Ozone (O$_3$)**~~	~~1-Hour~~	~~0.09 ppm (180 µg/m^3)~~	~~Ultraviolet Photometry~~	~~—~~	~~Same as Primary Standard~~	~~Ultraviolet Photometry~~
	~~8-Hour~~	~~0.070 ppm (137 µg/m^3)~~		~~0.075 ppm (147 µg/m^3)~~		
~~**Respirable Particulate Matter (PM$_{10}$)**~~	~~24-Hour~~	~~50 µg/m^3~~	~~Gravimetric or Beta Attenuation~~	~~150 µg/m^3~~	~~Same as Primary Standard~~	~~Inertial Separation and Gravimetric Analysis~~
	~~Annual Arithmetic Mean~~	~~20 µg/m^3~~		~~—~~		
~~**Fine Particulate Matter (PM$_{2.5}$)**~~	~~24-Hour~~	~~No Separate State Standard~~		~~35 µg/m^3~~	~~Same as Primary Standard~~	~~Inertial Separation and Gravimetric Analysis~~
	~~Annual Arithmetic Mean~~	~~12 µg/m^3~~	~~Gravimetric or Beta Attenuation~~	~~12.0 µg/m^3~~		
~~**Carbon Monoxide (CO)**~~	~~8-Hour~~	~~9.0 ppm (10 mg/m^3)~~	~~Non-Dispersive Infrared Photometry (NDIR)~~	~~9 ppm (10 mg/m^3)~~	~~None~~	~~Non-Dispersive Infrared Photometry (NDIR)~~
	~~1-Hour~~	~~20 ppm (23 mg/m^3)~~		~~35 ppm(40 mg/m^3)~~		
	~~8-Hour (Lake Tahoe)~~	~~6 ppm (7 mg/m^3)~~		~~—~~	~~—~~	~~—~~
~~**Nitrogen Dioxide (NO$_2$)**~~	~~Annual Arithmetic Mean~~	~~0.030 ppm (57 µg/m^3)~~	~~Gas Phase Chemiluminescence~~	~~53 ppb (100 µg/m^3) (see footnote 8)~~	~~Same as Primary Standard~~	~~Gas Phase Chemiluminescence~~
	~~1-Hour~~	~~0.18 ppm (339 µg/m^3)~~		~~100 ppb (188 µg/m^3) (see footnote 8)~~	~~None~~	
~~**Sulfur Dioxide (SO$_2$)**~~	~~Annual Arithmetic Mean~~	~~—~~	~~Ultraviolet Fluorescence~~	~~0.030 ppm (for certain areas)~~ ~~(see footnote 9)~~	~~—~~	~~Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)~~
	~~24-Hour~~	~~0.04 ppm (105 µg/m^3)~~		~~0.14 ppm (for certain areas)~~	~~—~~	
	~~3-Hour~~	~~—~~		~~—~~	~~0.5 ppm (1300 µg/m^3)~~	
	~~1-Hour~~	~~0.25 ppm (655 µg/m^3)~~		~~75 ppb (196 µg/m^3) (see footnote 9)~~	~~—~~	
~~**Lead[10]**~~	~~30 Day Average~~	~~1.5 µg/m^3~~	~~Atomic Absorption~~	~~—~~	~~—~~	~~High-Volume Sampler and Atomic Absorption~~
	~~Calendar Quarter~~	~~—~~		~~1.5 µg/m^3~~	~~Same as Primary Standard~~	
	~~Rolling 3-Month Average[11]~~	~~—~~		~~0.15 µg/m^3~~		
~~**Visibility-Reducing Particles**~~	~~8-Hour~~	~~Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.~~	~~Beta Attenuation and Transmittance through Filter Tape~~	~~**No Federal Standards**~~		
~~**Sulfates**~~	~~24-Hour~~	~~25 µg/m^3~~	~~Ion Chromatography~~			
~~**Hydrogen Sulfide**~~	~~1-Hour~~	~~0.03 ppm (42 µg/m^3)~~	~~Ultraviolet Fluorescence~~			
~~**Vinyl Chloride[10]**~~	~~24-Hour~~	~~0.01 ppm (26 µg/m^3)~~	~~Gas Chromatography~~			

~~**Footnotes**~~

[1] ~~California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; suspended particulate matter (PM$_{10}$ and PM$_{2.5}$) and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.~~

[2] ~~National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM$_{10}$, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For PM$_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current federal policies.~~

[3] ~~Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.~~

[4] ~~Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.~~

[5] ~~National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.~~

[6] ~~National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.~~

[7] ~~Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.~~

[8] ~~To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.~~

[9] ~~On June 2, 2010, the U.S. EPA established a new 1-hour SO$_2$ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using the ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO$_2$ standard of 0.14 ppm and the annual primary SO$_2$ standard of 0.030 ppm, effective August 23, 2010. The secondary SO$_2$ standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.~~

[10] ~~The CARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.~~

[11] ~~National lead standard, rolling 3-month average: final rule signed October 15, 2008.~~

~~°C = degrees Celsius~~
~~EPA = United States Environmental Protection Agency~~
~~µg/m^3 = micrograms per cubic meter~~ ~~mg/m^3 = milligrams per cubic meter~~
~~ppm = parts per million~~

~~Source: California Air Resources Board, 2013.~~

~~**Table 4.3.B: Summary of Health Effects of the Major Criteria Air Pollutants**~~

~~Pollutants~~	~~Sources~~	~~Primary Effects~~
~~Ozone (O_3)~~	~~▪ Atmospheric reaction of organic gases (ROG or VOC) with nitrogen oxides in the presence of sunlight.~~	~~▪ Breathing difficulty.~~ ~~▪ Lung tissue damage.~~ ~~▪ Damage to rubber and some plastics.~~
~~Nitrogen Dioxide (NO_2)~~	~~▪ Motor vehicle exhaust.~~ ~~▪ Heavy construction equipment exhaust.~~ ~~▪ Farming equipment exhaust.~~ ~~▪ Residential heating.~~	~~▪ Lung irritation and damage.~~ ~~▪ Formation of acid rain.~~
~~Carbon Monoxide (CO)~~	~~▪ Motor vehicle exhaust.~~ ~~▪ Heavy construction equipment exhaust.~~ ~~▪ Farming equipment exhaust.~~ ~~▪ Residential heating.~~	~~▪ Reduced tolerance for exercise.~~ ~~▪ Impairment of mental function.~~ ~~▪ Impairment of fetal development.~~ ~~▪ Death at high levels of exposure.~~ ~~▪ Aggravation of some heart diseases (angina).~~
~~Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})~~	~~▪ Motor vehicle exhaust ($PM_{2.5}$).~~ ~~▪ Equipment and industrial sources ($PM_{2.5}$).~~ ~~▪ Residential and agricultural burning ($PM_{2.5}$ and PM_{10}).~~ ~~▪ Atmospheric chemical reactions ($PM_{2.5}$ and PM_{10}).~~ ~~▪ Road dust (PM_{10}).~~ ~~▪ Windblown dust (Agriculture [PM_{10}])~~ ~~▪ Construction (Fireplaces [PM_{10}])~~	~~▪ Reduced lung function.~~ ~~▪ Aggravation of the effects of gaseous pollutants.~~ ~~▪ Aggravation of respiratory and cardiorespiratory diseases.~~ ~~▪ Increased cough and chest discomfort.~~ ~~▪ Soiling.~~ ~~▪ Reduced visibility.~~
~~Sulfur Dioxide (SO_2)~~	~~▪ Coal/oil-burning power plants.~~ ~~▪ Industries, refineries, and diesel engines.~~	~~▪ Increased lung disease.~~ ~~▪ Breathing problems for asthmatics.~~ ~~▪ Formation of acid rain.~~
~~Lead (Pb)~~	~~▪ Metal smelters.~~ ~~▪ Resource recovery.~~ ~~▪ Leaded gasoline.~~ ~~▪ Deterioration of lead paint.~~	~~▪ Learning disabilities.~~ ~~▪ Brain and kidney damage.~~

~~Source: California Air Resources Board 2009 (http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm).~~

~~**Table 4.3.C: Air Quality Index Descriptions (new table)**~~

~~Air Quality Index Levels of Health Concern~~	~~Air Quality Index Numerical Range~~	~~Ozone Concentration for Air Quality Index (ppb)~~		~~Meaning~~
		~~8-Hour~~	~~1-Hour~~	
~~Good~~	~~Low: 0~~ ~~High: 50~~	—	—	~~Air quality is considered satisfactory, and air pollution poses little or no risk.~~
~~Moderate~~	~~Low: 51~~ ~~Std: 84*~~ ~~High: 100~~	~~Low: 59~~ ~~Std: 70*~~	~~Low: 85~~	~~Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.~~
~~Unhealthy for Sensitive Groups~~	~~Low: 101~~ ~~High: 150~~	~~Low: 75 (also the federal standard)~~	~~Low: 125~~	~~Members of sensitive groups may experience health effects. The general public is not likely to be affected. People with heart or lung disease, children, and older adults are considered sensitive and are at greater risk. For ozone, people who are active outdoors are also considered sensitive.~~
~~Unhealthy~~	~~Low: 151~~ ~~High: 200~~	~~Low: 95~~	~~Low: 165~~	~~Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.~~
~~Very Unhealthy~~	~~Low: 201~~ ~~High: 300~~	~~Low: 115~~	~~Low: 205~~	~~Health alert: everyone may experience more serious health effects~~
~~Hazardous~~	~~Low: 301~~ ~~High: 500~~	~~Low: 374~~	~~Low: 405~~	~~Health warnings of emergency conditions. The entire population is more likely to be affected.~~

~~ppb = parts per billion (a measure of concentration) * Std = 8-hour California ozone ambient air quality standard Source: MBA-FCS 2015~~

  - ~~Health Effects: Health effects of ozone can include respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation and damage to lung cells, aggravated cardiovascular disease, and permanent lung damage. The greatest health risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Ozone also damages natural ecosystems such as forests, foothill communities, and damages agricultural crops and some man-made materials such as rubber, paint, and plastics.~~

  - ~~Sources: Ozone is a secondary pollutant, thus is not emitted directly in the lower level of the atmosphere. The sources of ozone precursors (ROG and NO_X) are discussed above in the description of ozone.~~

- ~~*Oxides of Nitrogen*~~

  - ~~Description and Physical Properties: During combustion of fossil fuels, oxygen reacts with nitrogen to produce NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). Atmospheric deposition of NO_X occurs when atmospheric or airborne nitrogen is transferred to water, vegetation, soil, or other materials. Acid deposition involves the deposition of nitrogen and/or sulfur acidic compounds that can harm natural resources and materials. NO_X is also an ozone precursor. When NO_X and ROG are released in the atmosphere, they can also be a precursor to PM_{10} and $PM_{2.5}$.~~

  - ~~Health Effects: The EPA has concluded that the only form of NO_X that exists at a level high enough to cause public health concerns is nitrogen dioxide (NO_2) (EPA 1997). Nitrogen dioxide is a brown gas with a strong odor. NO_X can react with moisture, ammonia, and other compounds to form nitric acid and related particles. The main human health concerns of nitrogen dioxide include lung damage, increased incidence of chronic bronchitis, eye and mucus membrane damage, negative effects on the respiratory system, pulmonary dysfunction, and premature death. Small particles can penetrate deeply into the sensitive tissue of the lungs and can cause or worsen respiratory disease such as emphysema, asthma, and bronchitis, and can also aggravate existing heart disease (EPA 2005b). Because NO_X is an ozone precursor, the health effects associated with ozone are also indirect health effects associated with unhealthful levels of NO_X emissions.~~

  - ~~Sources: A major source of NO_X includes stationary source fuel combustion (i.e. manufacturing and industrial, food and agricultural processing, and service commercial uses). Additionally, NO_X emission sources include motor vehicles internal combustion engines and electric utility and industrial boilers powered by fossil fuel combustion. Natural sources of NO_X include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_X for the United States. On-road vehicles also contribute to NO_X emissions.~~

- ~~*Sulfur Dioxide*~~

  - ~~Description and Physical Properties: Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that affects acid deposition. Sulfur oxides (SO_X) include sulfur dioxide and sulfur trioxide (SO_3). The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. Historically, sulfur dioxide was a pollutant of concern. However, with the successful application of regulations at the State and local level, the levels of sulfur dioxide have been reduced dramatically in the past several decades. The CARB, the State regulatory agency charged with regulating air pollution in the State, demonstrates that sulfur dioxide levels in the State are well below the maximum standards (CARB 2006b, Page 107, 408, and 409). Although sulfur dioxide concentrations have been reduced to levels well below State and Federal standards, further reductions are desirable because sulfur dioxide is a precursor to~~

~~sulfate and PM_{10}. Sulfates are a particulate formed through the photochemical oxidation of sulfur dioxide.~~

  - ~~Health Effects: Sulfur dioxide is a soluble gas; therefore, it can be absorbed in the mucous membranes of the respiratory tract and nose. Long-term exposure of high levels of sulfur dioxide can cause irritation of existing cardiovascular disease, respiratory illness, and changes in the defenses in the lungs. When people with asthma are exposed to high levels of sulfur dioxide for short periods of time during moderate activity, effects may include wheezing, chest tightness, or shortness of breath (EPA 2000).~~
  - ~~Sources: Anthropogenic, or human caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide.~~

- ~~*Lead*~~
  - ~~Description and Physical Properties: Lead (Pb) is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Lead was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. The exclusion of lead from gasoline helped to decrease emissions of lead in the United States from 219,000 to 4,000 short tons per year between 1970 and 1997. Even though leaded gasoline has been phased out in most countries, some still use leaded gasoline. The mechanisms by which lead can be removed from the atmosphere (sinks) include deposition to soils, ice caps, and oceans, and inhalation.~~
  - ~~Health Effects: Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. The more serious effects of lead poisoning include behavior disorders, mental retardation, and neurological impairment. Low levels of lead in fetuses and young children can result in nervous system damage, which can cause learning deficiencies and low IQs. Lead may also contribute to high blood pressure and heart disease.~~
  - ~~Sources: Lead-ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, soil waste disposal, and crustal physical weathering.~~

- ~~*Particulate Matter (PM_{10} and $PM_{2.5}$)*~~
  - ~~Description and Physical Properties: Particulate matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmosphere particles include those produced from combustion (diesel soot or fly ash), light produced (urban haze), sea spray produced (salt particles), and soil-like particles from re-suspended dust. In discussions of air pollution, particulate matter is typically divided up into two size categories: PM_{10} and $PM_{2.5}$ because of the adverse health effects associated the smaller-sized particles. PM_{10} refers to particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter, also known as a micrometer [μm]). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in a diameter. Soil dust consists of the minerals and organic material found in soil being lifted up into the air by winds (e.g., fugitive dust).~~
  - ~~Health Effects: Particulate matter can be inhaled directly into the lungs where it can be absorbed into the bloodstream. It is a respiratory irritant and can cause direct pulmonary effects such as coughing, bronchitis, lung disease, respiratory illnesses, increased airway reactivity, and exacerbation of asthma. Relatively recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health effect includes reduced visibility and soiling of property.~~

- ~~Sources: Particulate matter originates from a variety of stationary and mobile sources. Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal and recycling. Mobile or transportation-related sources include particulate matter from highway vehicles and non-road vehicles and fugitive dust from paved and unpaved roads. Secondary particulate matter is formed in the atmosphere through chemical reactions that can involve ROG, SO_X, NO_X, and ammonia.~~

- ~~*Diesel Particulate Matter*~~
    - ~~Description and Physical Properties: Diesel particulate matter (DPM) is a source of $PM_{2.5}$ because the size of diesel particles are typically 2.5 microns and smaller. In 1998, DPM made up about 6 percent of the total $PM_{2.5}$ inventory nationwide (EPA 2002). Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. DPM includes the particles-phase constituents in diesel exhaust. Organic compounds account for 80 percent of the total particulate matter mass, which is composed of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons (PAHs) and their derivatives. Fifteen PAHs are confirmed for carcinogenicity, a number of which are found in diesel exhaust (NTP 2005b). The chemical composition and particle sizes of diesel PM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and the year of the engine (EPA 2002).~~

    - ~~Cancer Health Effects: Human studies on the carcinogenicity of diesel particulate matter demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure (NTP 2005b). Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.~~

    - ~~More recently, in January 2015, a major new study evaluated the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB begin issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology are referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the~~

~~petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.~~

- ~~o Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of an 2007-compliant engine equipped with a diesel particulate filter. HEI found:~~
  - ~~"Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue. A few mild changes were seen in the lungs, consistent with long-term exposure to~~ ~~NO_2~~~~, a major component of NTDE, which is being further substantially reduced in 2010-compliant engines". (Page 1)~~
  - ~~"Using appropriate statistical approaches to analyze the data from more than 100 endpoints in the broad areas of histology, serum chemistry, systemic and lung inflammation, and respiratory function, the investigators confirmed the a priori hypothesis, namely, that NTDE would not cause an increase in tumor formation or substantial toxic health effects in rats, although some biologic effects might occur". (Page 3)~~
  - ~~"The overall conclusion was that chronic exposure of rats to NTDE did not produce tumors in the lung, in marked contrast to the effects of chronic exposure to TDE observed in multiple previous rat studies, in which lung tumors, as well as inflammation and the deposition of soot in the lung, were observed. Rather, the effects of NTDE in the lung more closely resembled changes noted after long-term exposures to gaseous oxidant pollutants, in particular~~ ~~NO_2~~~~, and to TDE from which particles have been filtered out. It is possible that components of NTDE other than~~ ~~NO_2~~ ~~may have contributed to the effects reported, but the low levels of other components suggest that they would not be primarily responsible" (Page 3)~~
  - ~~"Some mild histologic changes were found in the lung; however, these were not pre-cancerous lesions, previously described in long-term exposure studies of rats to TDE. Rather, the histologic changes — periacinar epithelial hyperplasia, bronchiolization, accumulation of macrophages, and periacinar interstitial fibrosis — were confined to a small region, the centriacinus, which is involved in gas exchange." (Page 3)~~
  - ~~"The histologic changes in the lungs were consistent with previous findings in rats after long-term exposure to~~ ~~NO_2~~ ~~— a major component of the exposure atmosphere, which is being substantially further reduced in 2010-compliant engines." (Page 4)~~
  - ~~"The present findings strongly support the premise that advances in engine, fuel, and combustion technologies have substantially reduced the potential health impacts of DE and that estimates of hazard and risk based on laboratory or epidemiologic studies of the health impacts of TDE exposures most likely do not reflect either the hazards or the risks from NTDE". (Page 40)~~
  - ~~"As shown, the ACES Phase I study (Khalek et al. 2009) found that emissions from 2007-compliant engines were reduced more than 90% compared with those from a 2004 engine; emissions of hydrocarbons and other air toxics by 2007-compliant engines were also lower by more than 80% than those of older engines" (Page 154)~~
- ~~o The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.~~
- ~~o Non-Cancer Health Effects: Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and can cause coughs, headaches, light-headedness, and~~

~~nausea. Diesel exhaust is a major source of ambient particulate matter pollution as well, and numerous studies have linked elevated particle levels in the air to increase hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2002). The HEI study discussed above also evaluated non-cancer health effects. The study found NTDE would not cause an increase in substantial toxic health effects in rats, although some biologic effects might occur.~~

  - ~~Sources: Diesel exhaust.~~

- ~~*Visibility-Reducing Particles*~~
  - ~~Description and Physical Properties: Visibility-reducing particles (VRP) are suspended particulate matter that reduces visibility. Visibility is the distance through the air that can be seen without the use of instrumental assistance. The distance that can be seen is limited by the amount of gases and aerosol particles in the way. The EPA implemented a Regional Haze Rule in 1999 to attempt to protect visibility in 156 national parks and wilderness areas in the Unites States. The regulation requires states to establish goals for improving their areas and to work together with other states as the pollution is often transported over long distances (EPA 1999).~~
  - ~~Health Effects: The human health effects of VRP are those of pollution (particulate matter, oxides of nitrogen, and sulfur dioxide) discussed above.~~
  - ~~Sources: The sources are other pollutants (particulate matter, oxides of nitrogen, and sulfur dioxide) as discussed above.~~
- ~~*Vinyl Chloride*~~
  - ~~Description and Physical Properties: Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is formed when other substances such as trichloroethylene and tetrachloroethylene are broken down. This can occur when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. In 1978, the CARB established a State ambient air quality standard for vinyl chloride. The standard was set at 0.01 ppm for a 24-hour duration because that was the lowest level that could be detected at that time. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.~~
  - ~~Health Effects: Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches (CARB 2005). Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.~~
  - ~~Sources: Manufacturing of PVC plastic and vinyl products.~~
- ~~*Hydrogen Sulfide*~~
  - ~~Description and Physical Properties: Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.~~
  - ~~Health Effects: High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. Long exposure to hydrogen sulfide can cause pulmonary edema.~~
  - ~~Sources: Hydrogen sulfide and other reduced sulfur compounds form by the anaerobic decomposition of manure some types of bacteria found in animal and human by-products produce hydrogen sulfide during reduction of sulfur-containing compounds, such as proteins. Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary~~

~~sources of hydrogen sulfide emissions. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergoes putrefaction. It is used in the production of heavy water for nuclear reactors, the manufacture of chemicals, in metallurgy, and as an analytical reagent.~~

- ~~*Reactive Organic Gases and Volatile Organic Compounds*~~
  - ~~Description and Physical Properties: Reactive organic gases (ROG), or volatile organic compounds (VOC), are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. ROG consist of nonmethane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Nonmethane hydrocarbons are hydrocarbons that do not contain the unreactive hydrocarbon, methane. Oxygenated hydrocarbons are hydrocarbons with oxygenated functional groups attached.~~
  - ~~It should be noted that there are no State or Federal ambient air quality standard for ROG because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemicals reactions that contribute to the formulation of ozone. ROG are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.~~
  - ~~Health Effects: Although health-based standards have not been established for ROG, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of ROG are suspected to cause eye, nose, and throat irritation; headaches, loss of coordination, nausea, damage to liver, kidney, and the central nervous system (EPA 2005). There are many ROG that have been classified as toxic air contaminates. A particular ROG of concern is benzene, which is described in more detail below. The EPA maintains a list of all air substances that have been classified as hazardous to humans and/or animals, and includes ROG, pesticides, herbicides, and radionuclides (EPA 2006d).~~
  - ~~Sources: The major sources of ROG are on-road motor vehicles and solvent evaporation.~~
- ~~*Benzene*~~
  - ~~Description and Physical Properties: Benzene is an ROG. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” (human) carcinogen.~~
  - ~~Health Effects: Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure of high dose by inhalation has caused blood disorders, including aplastic anemia and lower levels or red blood cells (EPA 1992). Occupational exposure to benzene has been shown to cause leukemia (mainly acute myelogenous leukemia) (NTP 2005). Studies have also found that benzene exposure increased the risks of lymphatic and hematopoietic cancer (cancers of lymphatic system and of organs and tissues involved in the production of blood), total leukemia, and specific histologic types of leukemia (NTP 2005).~~
  - ~~Sources: Benzene is emitted into the air from gasoline services station (fuel evaporation), motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is also used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also manufactured for detergents, explosives, dyestuffs, and pharmaceuticals.~~

~~**Ultrafine Particles.** Ultrafine particles are particulate matter (PM) that exists in the ambient air and are less than 0.1 micrometer (µm or microns) in diameter. Ultrafine particles (UFP or PM$_{0.1}$) are included in the group called PM$_{2.5}$, particulate matter less than 2.5 micrometers in diameter.~~

~~The picture to the right displays the relative size of the particles compared with a human hair, with PM$_{10}$ (particulate matter less than 10 micrometers in diameter) indicated as yellow circles, PM$_{2.5}$ shown as blue circles, and ultrafine particles shown as red circles.~~

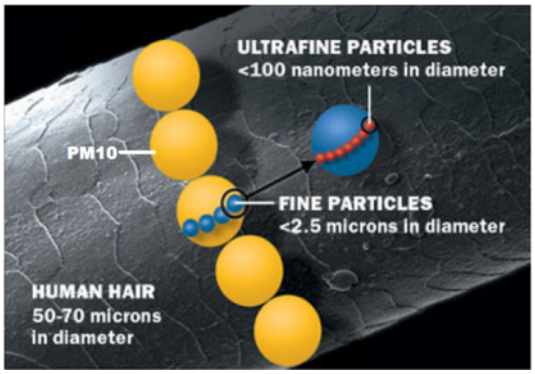

~~The CARB or the EPA have not set an ambient air quality standard for ultrafine particles because health effect evidence and measurements are currently limited. In its recent revisions to the national ambient air quality standards for particulate matter, the EPA states, "In considering both the currently available health effects evidence and the air quality data, the Policy Assessment concluded that this information was still too limited to provide support for consideration of a distinct PM standard for ultrafine particles" (EPA 2013,[1] page 3122).~~

~~The EPA indicates that evidence and research regarding health effects from short-term and long-term exposure to ultrafine particles are still too limited to establish a standard for ultrafine particles. In addition, the EPA reports that the studies that do exist have reported inconsistent and mixed results. The following is an excerpt from the Federal Register illustrating this point:~~

> ~~*"New evidence, primarily from controlled human exposure and toxicological studies, expands our understanding of cardiovascular and respiratory effects related to short-term ultrafine particle exposures. However, the Policy Assessment concluded that this evidence was still very limited and largely focused on exposure to diesel exhaust, for which the Integrated Science Assessment concluded it was unclear whether the effects observed are due to ultrafine particles, larger particles within the PM$_{2.5}$ mixture, or the gaseous components of diesel exhaust. In addition, the Integrated Science Assessment noted uncertainties associated with the controlled human exposure studies using concentrated ambient particle systems, which have been shown to modify the composition of ultrafine particles.*~~
>
> ~~*The Policy Assessment recognized that there are relatively few epidemiological studies that have examined potential cardiovascular and respiratory effects associated with short-term exposures to ultrafine particles. These studies have reported inconsistent and mixed results.*~~
>
> ~~*Collectively, in considering the body of scientific evidence available in this review, the Integrated Science Assessment concluded that the currently available evidence was suggestive of a causal relationship between short-term exposures to ultrafine particles and cardiovascular and respiratory effects. Furthermore, the Integrated Science Assessment concluded that evidence was inadequate to infer a causal relationship between short-term exposure to ultrafine particles and mortality as well as long-term exposure to ultrafine particles and all outcomes evaluated" (EPA 2013, page 3121).*~~

~~The Integrated Science Assessment for Particulate Matter concluded that evidence is inadequate to determine a causal relationship between short-term exposures of ultrafine particles to mortality or~~

~~[1] U.S. Environmental Protection Agency. 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf. Accessed December 17, 2013.~~

~~central nervous system effects, but that the evidence is suggestive of short-term (24-hour) exposures causing cardiovascular and respiratory effects. The assessment also concluded that there is inadequate evidence linking long-term exposure (typically measured in terms of an annual concentration) of ultrafine particles to health effects, including respiratory, developmental, cancer, and mortality. Overall, epidemiological studies of atmospheric PM suggest that cardiovascular effects are associated with smaller particles, but there are few reports that make a clear link between ultrafine particle exposures and increased mortality. In January 2015, a new study[1] on the relationship of mortality to long-term exposure to fine and ultra-fine particles was released. The study found there was a relationship between morality and both fine and ultra-fine particles exposure.~~

~~In its Quantitative Health Risk Assessment for Particulate Matter, the EPA did not assess ultrafine particles, stating " that there was insufficient data to support a quantitative risk assessment for other size fractions (e.g., ultrafine particles)."[2]~~

~~The availability of measurements of ultrafine particles to support health studies is also limited:~~

> ~~*With respect to our understanding of ambient ultrafine particle concentrations, at present, there is no national network of ultrafine particle samplers; thus, only episodic and/or site-specific data sets exist. Therefore, the Policy Assessment recognized a national characterization of concentrations, temporal and spatial patterns, and trends was not possible at this time, and the availability of ambient ultrafine measurements to support health studies was extremely limited. In general, measurements of ultrafine particles are highly dependent on monitor location and, therefore, more subject to exposure error than accumulation mode particles. Furthermore, the number of ultrafine particles generally decreases sharply downwind from sources, as ultrafine particles may grow into the accumulation mode by coagulation or condensation. Limited studies of ambient ultrafine particle measurements have suggested that these particles exhibit a high degree of spatial and temporal heterogeneity driven primarily by differences in nearby source characteristics. Internal combustion engines and, therefore, roadways are a notable source of ultrafine particles, so concentrations of these particles near roadways are generally expected to be elevated. Concentrations of ultrafine particles have been reported to drop off much more quickly with distance from roadways than fine particles (EPA 2013, page 3121).*~~

~~In addition, it was hypothesized that chemical composition of PM may be a better predictor of health effects than particle size:~~

> ~~*In addressing the issue of particle composition, the Integrated Science Assessment concluded that, '[f]rom a mechanistic perspective, it is highly plausible that the chemical composition of PM would be a better predictor of health effects than particle size.' Heterogeneity of ambient concentrations of* $PM_{2.5}$ *constituents (e.g., elemental carbon, organic carbon, sulfates, nitrates) observed in different geographical regions as well as regional heterogeneity in* $PM_{2.5}$*-related health effects reported in a number of epidemiological studies are consistent with this hypothesis (EPA 2013, page 3122).*~~

~~The SCAQMD's Multiple Air Toxics Exposure Study (MATES-IV) states, "the health impact caused by exposure to UFPs [ultrafine particles] is still not well-understood." MATES-IV presents measurements of black carbon and ultrafine particles at 10 fixed sites within the Basin. The results indicate that the highest black carbon levels were at more urban sites located near major roadways. Black carbon was not measured in the previous MATES-III; however, elemental carbon levels decreased about 35~~

~~[1] Environmental Health Perspectives, January 2015. Associations of Mortality with Long-Term Exposures to Fine and Ultrafine Particles, Species and Sources: Results from the California Teachers Study Cohort.~~

~~[2] U.S. Environmental Protection Agency. 2010. Quantitative Health Risk Assessment for Particulate Matter. EPA-452/R-10-005. Website: http://www.epa.gov/nscep/index.html. (Search for the document.) Accessed December 20, 2013.~~

~~percent during from 2005 to 2012. Black carbon is a term used for elemental and graphitic components of soot.~~

~~The SCAQMD's 2012 Air Quality Management Plan (AQMP) contains a detailed chapter on near roadway exposure and ultrafine particles. The AQMP summarizes current health effect research on ultrafine particles. The potential health effects from ultrafine particle exposure are similar to those of~~ ~~$PM_{2.5}$ and PM_{10}: such as adverse cardio-respiratory responses including elevated blood pressure, and mild inflammatory and prothrombotic (obstruction of circulation) responses. The AQMP indicated that future research and assessment is needed in the following areas:~~

- ~~*Chemical Composition*. Chemical composition of ultrafine particles depends on many factors, including vehicle technology, fuel, and atmospheric chemical reactions after being emitted. Particle composition may be a factor determining particle toxicity; therefore, knowledge regarding the chemistry is important.~~
- ~~*Formation*. More research is needed regarding the processes leading to ultrafine particle formation.~~
- ~~*Standardized Measurement Methods and Procedures*. Currently, there is no standard method for conducting size-classified or particle-number measurements. Characteristics measured in ambient and emission-testing studies are highly dependent on the measurement instrument/protocol used and its setting.~~
- ~~*Measurements at Hot Spot Locations*. More measurements should be taken at "hot spots" where large numbers of vehicles are operated.~~
- ~~*Emissions Inventories*. Vehicle emission factors for different particle size ranges and for particle numbers are highly uncertain, and there are no emission inventories for ultrafine particles from motor vehicles. New estimations of ultrafine particle levels should not be derived solely from vehicle emission factors (i.e., EMFAC), but have to include predictions for formation near the tailpipe and in the atmosphere.~~
- ~~*Air Quality Modeling*. Modeling tools will need to be developed to simulate the formation and transport over a wide range of atmospheric conditions and emissions scenarios. The dispersion near the first few hundred meters of the roadway needs to be better understood.~~
- ~~*Health Effects*. New toxicological and epidemiological studies targeting exposure to controlled and uncontrolled emissions from gasoline and diesel vehicles are needed to better characterize the exposure-response relationships to ultrafine particles and to help develop health guidelines and potential regulations. The health effects of inorganic ultrafine particle emissions from vehicles are only now starting to receive significant attention.~~
- ~~*Other Sources*. More work is needed to better understand size, composition, and health impact of particles near stationary sources and other processes (rather than just motor vehicles).~~

~~**Children and Air Pollution.** Numerous studies have shown strong links between air pollution exposures and a range of health outcomes. One particular study was carried out over a 10-year experimental time period by the University of Southern California, the Children's Health Study (Gaulderman, 2000)[1]. The Children's Health Study, which began in 1992, is a large, long-term, study of the effects of chronic air pollution exposures on the health of children living in Southern California. Children may be more strongly affected by air pollution because their lungs and their bodies are still developing. Children are also exposed to more air pollution than adults since they breathe faster and spend more time outdoors in strenuous activities. About 5,500 children in twelve communities were enrolled in the study; two-thirds of them were enrolled as fourth-graders. Data on the children's~~

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[1] ~~Gauderman, W, et. al. Peters: Association between Air Pollution and Lung Function Growth in Southern California Children. American Journal of Respiratory and Critical Medicine. Vol 162. Page 1383. 2000. Accessed October 22, 2013.~~

~~health, their exposures to air pollution, and many factors that affected their responses to air pollution were gathered annually until they graduated from high school. The major conclusions reached in the University of Southern California's Children's Health Study are shown below. Note however, that the conclusions provided below were developed based on measurements made in the 1990's when levels of air pollution in the Basin were substantially higher than current levels as shown earlier in Figures 4.3.1 to 4.3.6 and as noted further in Section 4.3.1.4 below and new technology diesel vehicles had not yet been introduced.~~

- ~~Children exposed to higher levels of particulate matter, nitrogen dioxide, acid vapor and elemental carbon, had significantly lower lung function at age 18, an age when the lungs are nearly mature and lung function deficits are unlikely to be reversed.~~
- ~~Children who were exposed to current levels of air pollution had significantly reduced lung growth and development when exposed to higher levels of acid vapor, ozone, nitrogen dioxide, and particulate matter, which is made up of very small particles that can be breathed deeply into the lungs.~~
- ~~Children living in communities with higher concentrations of nitrogen dioxide, particulate matter, and acid vapor had lungs that both developed and grew more slowly and were less able to move air through them. This decreased lung development may have permanent adverse effects in adulthood.~~
- ~~Children who moved away from study communities had increased lung development if the new communities had lower particulate matter levels, and had decreased lung development if the new communities had higher particulate matter levels.~~
- ~~Days with higher ozone levels resulted in significantly higher school absences due to respiratory illness. Children with asthma who were exposed to higher concentrations of particulate matter were much more likely to develop bronchitis.~~

- ~~In the most recent update to the Children's Health Study , researchers discovered that improvements in regional air quality contributed to improved children's lung function. Specifically, combined exposure to two harmful pollutants, nitrogen dioxide (NO2) and fine particulate matter, fell approximately 40 percent for children in the third study group (2007-2011) compared to the first study group (1994-98). The study followed children from Long Beach, Mira Loma, Riverside, San Dimas and Upland.~~
- ~~Children's lungs grew faster as air quality improved. Lung growth from age 11 to 15 was more than 10 percent greater for children breathing the lower levels of NO2 from 2007 to 2011 compared to those breathing higher levels from 1994 to 1998.~~
- ~~The percentage of children in the study with abnormally low lung function at age 15 dropped from nearly 8 percent for the 1994-98 group, to 6.3 percent in 1997-2001, to just 3.6 percent for children followed between 2007 and 2011.~~

~~4.3.1.3 Air Pollution Constituents and Attainment Status~~

~~The CARB has many responsibilities with respect to air quality, including the following:~~

- ~~Coordination and oversight of State and Federal air pollution control programs in California;~~
- ~~Oversight activities of local air quality management agencies (e.g., the SCAQMD);~~
- ~~Responsibility for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval; and~~
- ~~Maintaining air quality monitoring stations throughout the State in conjunction with local air districts.~~

~~The CARB has divided the State into 15 air basins based on meteorological and topographical factors that affect air pollution. An air basin generally has similar meteorological and geographic conditions throughout. The CARB and EPA use the data collected at monitoring stations to classify air basins as attainment, nonattainment, nonattainment transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the AAQS. Nonattainment areas are imposed with additional restrictions, as required by the EPA to attain and maintain air quality standards. The air quality data are also used to monitor progress in attaining and maintaining air quality standards.~~

~~Significant authority for air quality control within the various air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans. Table 4.3.D identifies the attainment status[1] for the criteria pollutants in the Basin. The State AAQS are more stringent than the Federal AAQS.~~

~~Table 4.3.D: Attainment Status of Criteria Pollutants in the South Coast Air Basin~~

~~Pollutant~~	~~State~~	~~Federal~~
~~O_3 1-hour~~	~~Nonattainment~~	~~N/A~~
~~O_3 8-hour~~	~~Nonattainment~~	~~Extreme Nonattainment~~
~~PM_{10}~~	~~Nonattainment~~	~~Maintenance – serious (San Bernardino County is in nonattainment)~~
~~$PM_{2.5}$~~	~~Nonattainment~~	~~Nonattainment~~
~~CO~~	~~Attainment~~	~~Attainment/Maintenance~~
~~NO_2~~	~~Attainment~~	~~Attainment/Maintenance~~
~~SO_2~~	~~Attainment~~	~~Attainment~~
~~Pb~~	~~Attainment~~	~~Attainment~~
~~All others~~	~~Attainment/Unclassified~~	~~Attainment/Unclassified~~

~~Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.~~

~~Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period.~~

~~Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015~~

~~4.3.1.4 Regional Air Quality Improvements~~

~~The SCAQMD website (aqmd.gov) includes historical air quality data dating back to 1994; the year after air pollution emissions thresholds were established. As described on the SCAQMD website,[2] in 1994 pollutant concentrations in the Basin exceeded three of the six Federal ambient air quality standards. The state sulfate standard was exceeded in some Basin areas. The state lead standard was exceeded in one localized area immediately adjacent to a source of lead emissions. No areas of the Basin exceeded standards for nitrogen dioxide or sulfur dioxide. The Los Angeles and Riverside County areas of the Southeast Desert Air Basin (SEDAB) served by the District exceeded standards for ozone and PM_{10}. No other standards were exceeded in the District SEDAB areas. The Federal standards were exceeded at one or more locations in the Basin during 142 days in 1994.~~

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[1] ~~Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment; Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period. Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.~~

[2] ~~Historical Air Quality, Summary of 1994 Air Quality, http://aqmd.gov/smog/AirQualityStandardsComplianceReport/AirQualitySummary94.html, website accessed December 17, 2012.~~

~~Although both Federal and State standards were exceeded for three criteria pollutants during 1994, current air quality represents substantial improvement over historical air quality. Between 1982–1984 and 1992–1994, the number of days on which the Federal ozone standard was exceeded dropped by one third, from 33 percent to 22 percent of days, in the East San Gabriel Valley area, which is exceeded most frequently. Exceedances of the Federal carbon monoxide standard decreased from 11 percent of days in 1982–1984 to 7 percent of days in 1992–1994. A comparison for the same periods cannot be made for PM$_{10}$ since the first full year of monitoring was 1985. However, between 1985–1987 and 1992–1994, the percent of days exceeding the Federal 24-hour standard decreased from 13 percent to 3 percent.[1]~~

~~Exceedances of the State nitrogen dioxide standard decreased from 1 percent of days in 1982–1984 to 0.1 percent of days in 1992–1994. The Federal nitrogen dioxide standard has not been exceeded in any area since 1991. There have been no exceedances of lead standards at regular air monitoring stations in the Basin since 1982. The State and Federal sulfur dioxide standards were not exceeded in any of the Basin monitoring areas during either period. Exceedances of the State sulfate standard decreased from 2 percent to 0 percent at the long-term site used in this analysis, though a few sites were exceeded in 1994. The areas of the Basin recording the highest pollutant concentrations have shown a significant decrease in exceedances of the Federal standards over the past decade.~~

~~As described in the SCAQMD *December 2000 Air Quality Standards Report*, in a continuing trend of significant long-term improvement in air quality, the Basin did not experience a Stage 1 Episode for the second year in a row in the year 2000. Also, the year 2000 was the second year in the history of ambient air monitoring that the Basin was not the location recording the highest ozone concentration in the nation. Nonetheless, maximum pollutant concentrations in the region still exceed the Federal standards for ozone, carbon monoxide and particulate matter (PM$_{10}$ and PM$_{2.5}$) by a wide margin.~~

~~Maximum 1-hour average and 8-hour average ozone concentrations in 2000 (0.184 ppm and 0.159 ppm) were 147 percent and 187 percent of the Federal 1-hour and 8-hour standards, respectively. The highest 8-hour average carbon monoxide concentration of 2000 (10.0 ppm) was 105 percent of the Federal standard. Maximum 24-hour average and annual average PM$_{10}$ concentrations (139 µg/m^3 and 60.1 µg/m^3) were 92 percent and 119 percent of the Federal 24-hour and annual standards, respectively. Maximum 24-hour average and annual average PM$_{2.5}$ concentrations (119.6 µg/m^3 and 28.2 µg/m^3) were, respectively, 183 percent and 182 percent of the Federal 24-hour and annual standards.~~

~~In 2000, the Federal nitrogen dioxide standard was not exceeded, with a maximum concentration (0.0435 ppm), which was 81 percent of the Federal standard. The maximum 1-hour average nitrogen dioxide concentration (0.21 ppm) was 81 percent of the State standard. State standard for sulfate was exceeded on one day at one location. The maximum 24-hour concentration (26.7 µg/m^3) was 107 percent of the State standard. (There is no Federal sulfate standard.) Sulfur dioxide and lead concentrations continued to remain well below the Federal and State standards in 2000.[2]~~

~~As identified in the SCAQMD *December 2000 Air Quality Standards Report*, the number of exceedances recorded in 2000 shows that air quality trends through 2000 are consistent with a continuation of the downtrends reported in previous years. Figure 4.3.8 shows the trend in the percentage exceeding the Federal standards in the Basin. In 2000, there were 43 days on which one or more Federal standards were exceeded somewhere in the Basin, most of which (40 days) were for ozone alone. Between 1976–1978 and 1998–2000, the three-year average number of days exceeding any of the Federal standards for 1-hour ozone, 8-hour carbon monoxide or 24-hour PM$_{10}$ in the Basin was reduced by 80 percent. ("All Standards" does not include PM$_{10}$ until 1985.) The~~

~~[1] Air Quality Trends Through 1994, http://aqmd.gov/smog/trends_8494.html, website accessed May 9, 2012.~~

~~[2] *December 2000 Air Quality Standards Compliance Report*, SCAQMD, http://aqmd.gov/smog/AQSCR2000/aq00web.pdf, website accessed December 17, 2012.~~

~~three-year average number of days exceeding the carbon monoxide Federal standard was reduced by 94 percent for the same period. The number of sampling days exceeding the Federal 24-hour PM_{10} standard decreased 93 percent between 1985–1987 and 1998–2000. (Three-year averages were used to minimize the effect of year-to-year variations due to changes in meteorological conditions.)~~

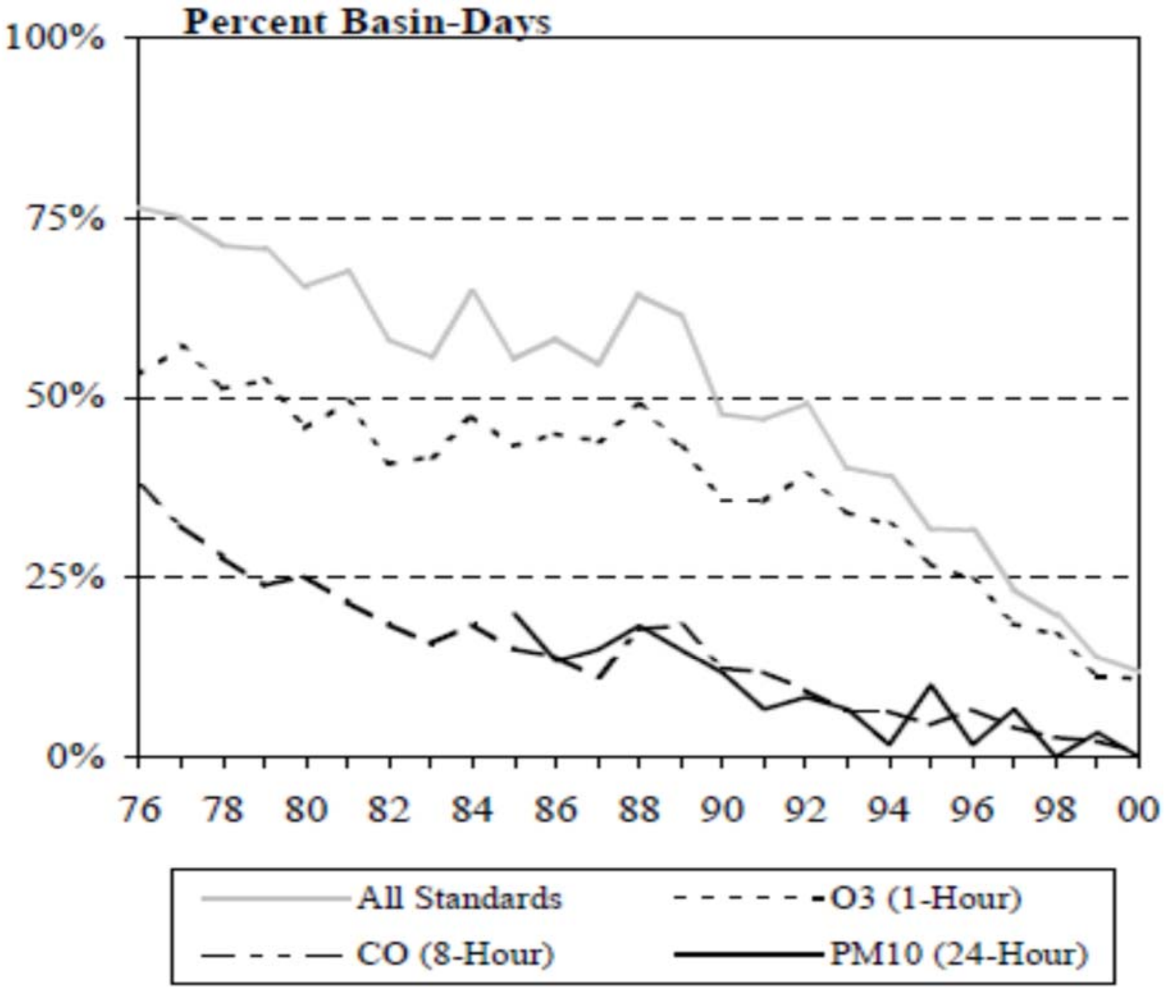

~~Figure 4.3.8: Percent of Days Basin Exceeds Federal AAQS~~

~~Between the periods 1976–1978 and 1998–2000, Stage 1 Episodes decreased 96 percent and health advisories decreased 86 percent. Exceedances of 1-hour and 8-hour Federal standards decreased 76 percent and 47 percent, and State standard exceedances decreased 49 percent as shown in Figure 4.3.9.~~

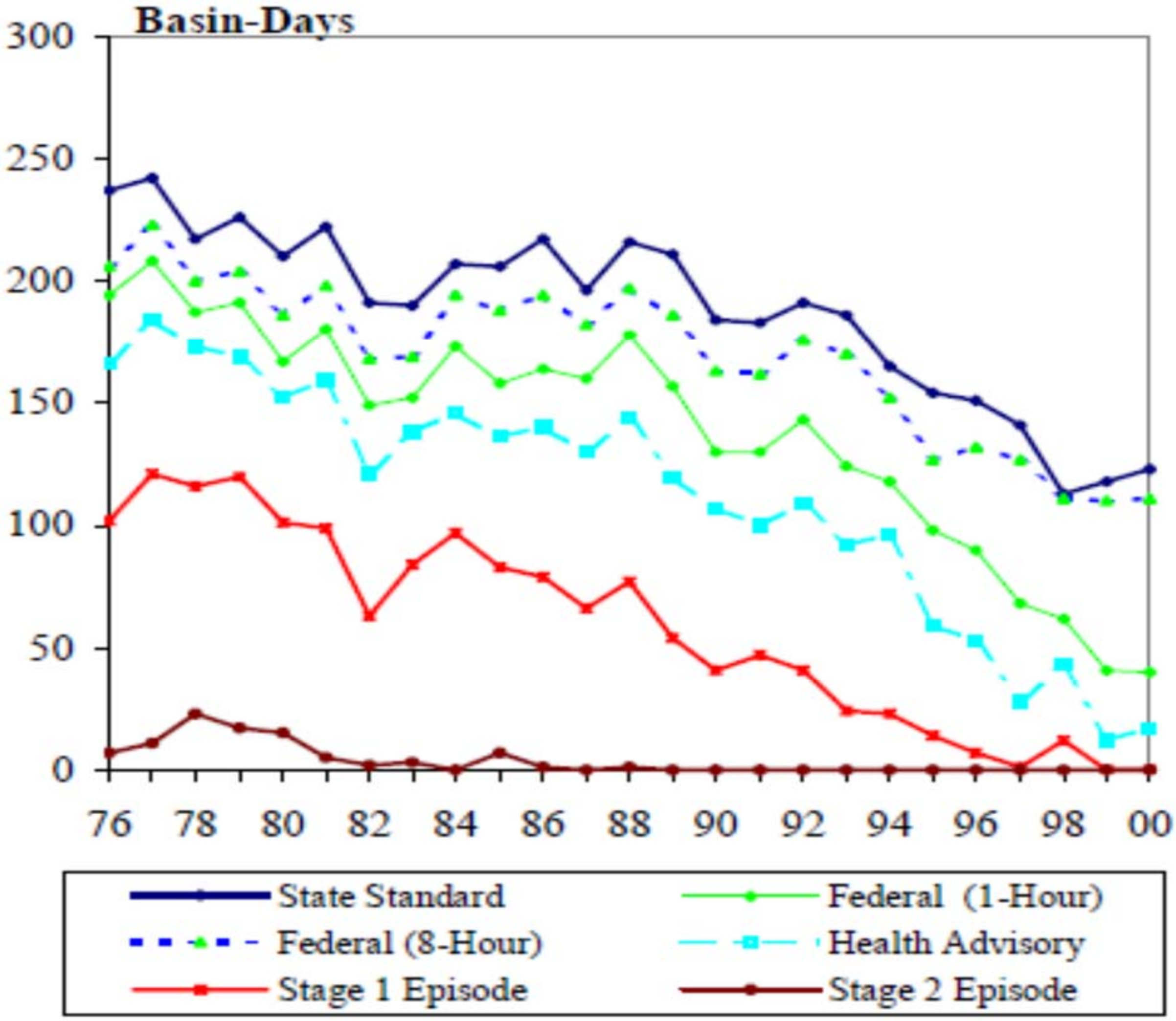

~~Figure 4.3.9: Exceedances of 1-Hour and 8-Hour Federal Standards~~

~~Figure 4.3.10 shows the number of days per month exceeding the Federal ozone standard for the period of 1976–2000. Up until the early 1990s, it was common to have days exceeding the Federal ozone standard as early as February and as late as November and December. Since the mid-1990s there have been no Federal standard exceedances recorded in the months of January–March and November–December. Also, the frequency of exceedances in fall (September and October) has been reduced significantly in recent years.~~

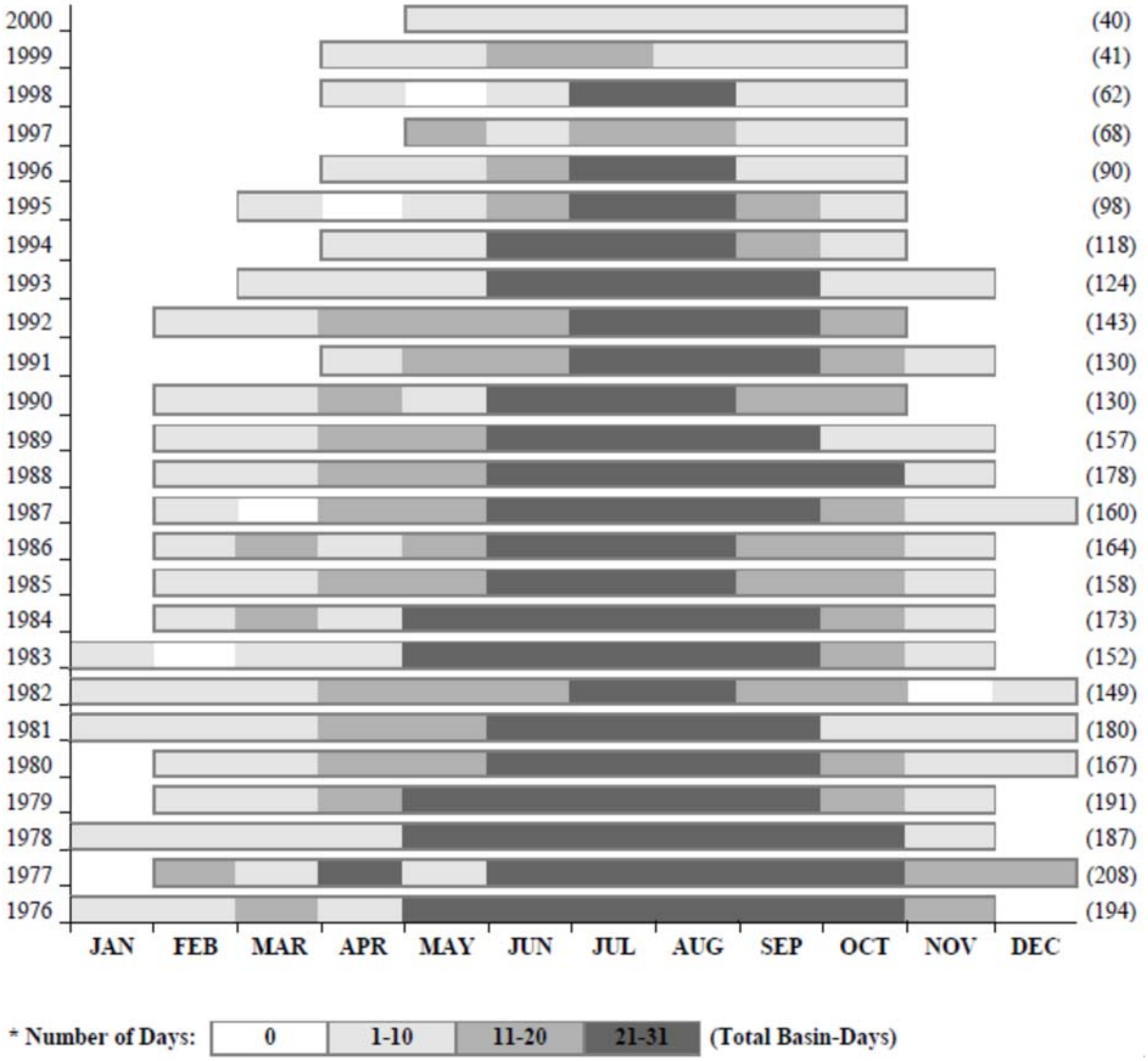

~~Figure 4.3.10: Number of Days per Month Federal Ozone Standard Exceeded, 1976–2000~~

~~The monthly distribution of the Federal ozone standard exceedances shows the trend toward shorter duration of the period of the year that high ozone concentrations occur (smog season). Although weather conditions contributed to the lower ozone concentrations, weather-adjusted trend studies have indicated that the significant downtrend in ozone concentration and shorter smog season in the Basin are mainly attributed to emission reduction and reduced reactivity of emitted organic compounds in the region.~~

~~As described in the SCAQMD *November/December 2006 Air Quality Standards Report*, the maximum 8-hour and 1-hour average ozone concentrations in the Basin (0.142 ppm and 0.175 ppm, recorded in the Central San Bernardino Mountains and East San Gabriel Valley areas) were 167 percent and 140 percent of the 8-hour and former 1-hour Federal standards, respectively. Maximum 24-hour average and annual average PM_{10} concentrations in the Basin (142 µg/m^3 and 64.0 µg/m^3, recorded in the Central San Bernardino Valley and Metropolitan Riverside County areas) were 94 percent of the Federal 24-hour standard and 125 percent of the former annual PM_{10} standards. Maximum 24-hour average $PM_{2.5}$ concentration (72.2 µg/m^3 recorded in the South San Gabriel Valley area) was 203 percent of the new Federal 24-hour standard (35 µg/m^3) and 110 percent of the former~~

~~standard (65 µg/m^3). Maximum annual average $PM_{2.5}$ concentration (20.6 µg/m^3 recorded in the Metropolitan Riverside County area) was 136 percent of the Federal annual $PM_{2.5}$ standard.~~

~~Nitrogen dioxide maximum annual average concentration (0.031 ppm recorded in the Northwest San Bernardino Valley area) was 58 percent of the Federal standard. (The annual average concentration was 103% of the proposed new annual State standard for NO_2.) Carbon monoxide concentrations have not exceeded the standards in the Basin since 2002. The highest 8-hour average carbon monoxide concentration in 2006 (6.4 ppm, recorded in the South Central Los Angeles County area) was 70 percent of the Federal standard. Sulfur dioxide, sulfate and lead concentrations remained well below the State and Federal standards in 2006.[1]~~

~~The American Lung Association website (lung.org) includes data collected from State air quality monitors that are used to compile an annual *State of the Air* report. These reports have been published over the last 13 years. The latest *State of the Air Report* compiled for the Basin was in 2010.[2] As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area's average number of high ozone days dropped from 189.5 day per year in the initial 2000 State of the Air report (1996–1998) to 141.8 in the 2006–2008 report. The region has seen dramatic reduction in particle pollution since the initial State of the Air report (2000). While the 2010 *State of the Air Report* shows a slight uptick in the number of days of unhealthy air for ozone and annual particle pollution since the 2009 report, it is important to note that pollution levels measured in this latter report were affected by fluctuations in weather conditions in 2010 and the addition of several new particulate monitoring stations in areas in San Bernardino known to be particularly problematic for particulate matter given local conditions.~~

~~The 2012 Air Quality Management Plan states, "The remarkable historical improvement in air quality since the 1970s is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs" (South Coast Air Quality Management District 2012). As shown in Figure 4.3.11, ozone, NO_X, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020 (CARB 2009). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy.~~

~~Figure 4.3.11 also displays ozone contour maps, which show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period.~~

~~[1] *November/December 2006 Air Quality Compliance Report*, SCAQMD, http://aqmd.gov/smog/AQSCR2006/2006_AirQuality.pdf, website accessed December 17, 2012.~~

~~[2] *State of the Air 2010 South Coast Air Basin*, American Lung Association, *http://www.lung.org/associations/states/california/assets/pdfs/sota/south-coast-fact-sheet.pdf,* website accessed December 17, 2012.~~

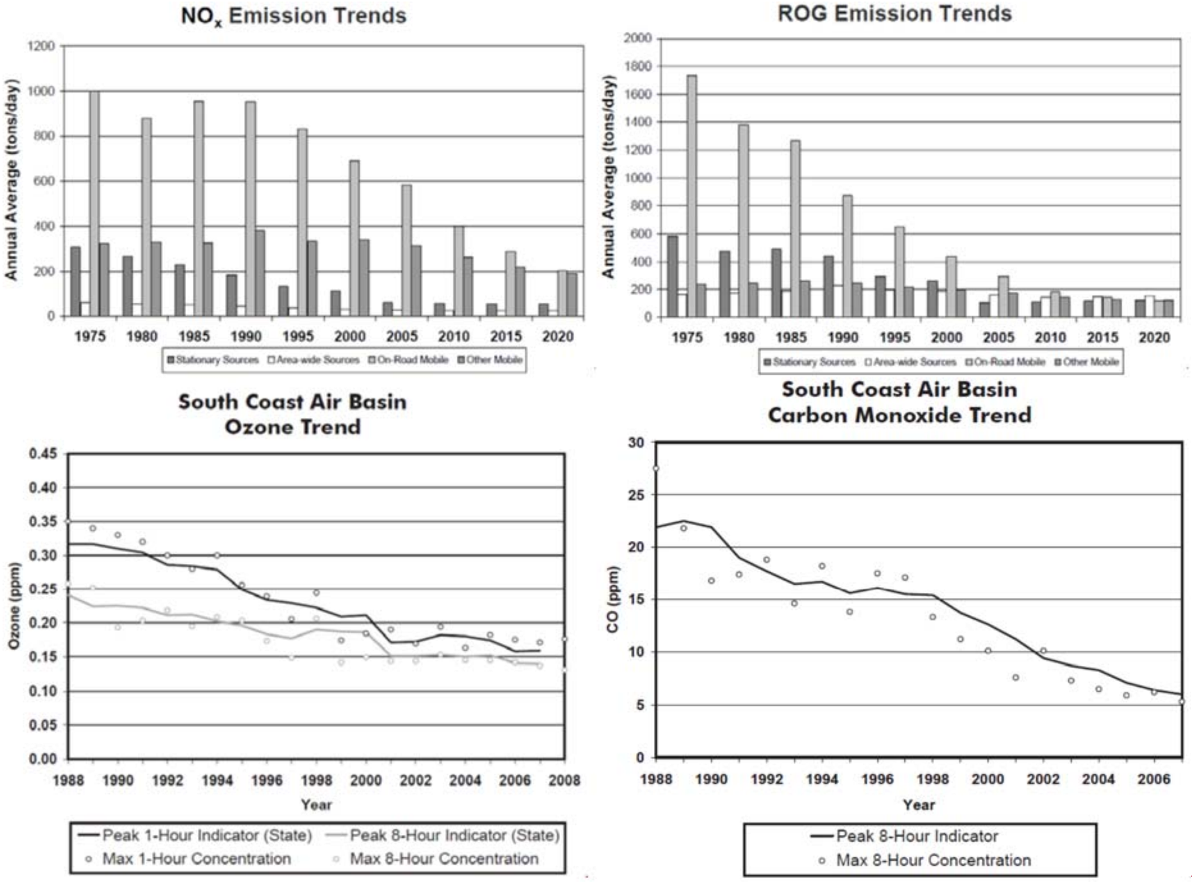

~~**Ozone Contour Maps – 3 year Average of National 8-hour Exceedance Days**~~

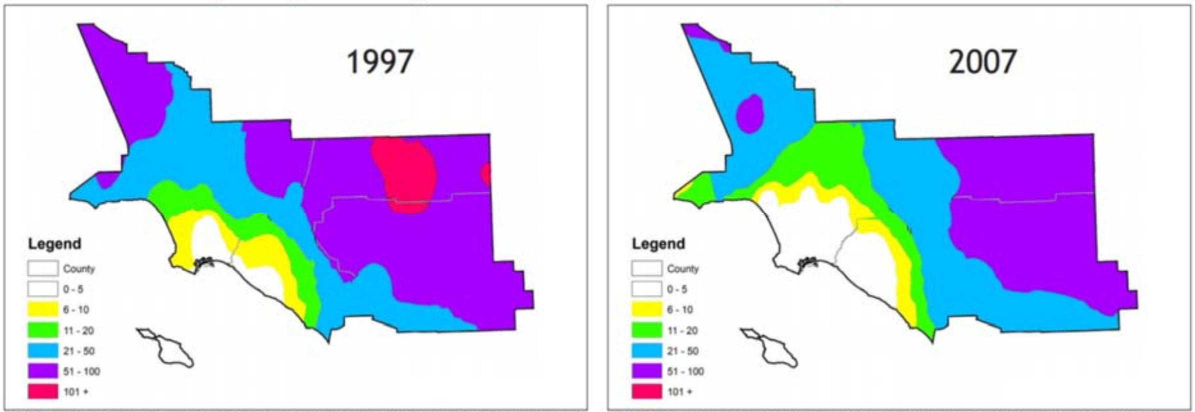

NOTE: Values used in these maps are for long-term sites only. Long-term sites are used to more accurately represent a trend over a period, by comparing the same or similar sites over a long period.

~~Note: ROG (reactive organic gases) and VOC (volatile organic compounds) are used interchangeably in this analysis.~~
~~Source: CARB, California Almanac of Emissions and Air Quality, 2009 Edition.~~

~~Figure 4.3.11: NOx, VOC, CO, and Ozone Trends in the South Coast Air Basin~~

~~As shown in the top portion of Figure 4.3.12, the overall trends of PM_{10} and $PM_{2.5}$ in the air (not emissions) show an overall improvement since 1975. As shown in the bottom portion of Figure 4.3.12, direct emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area-wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.~~

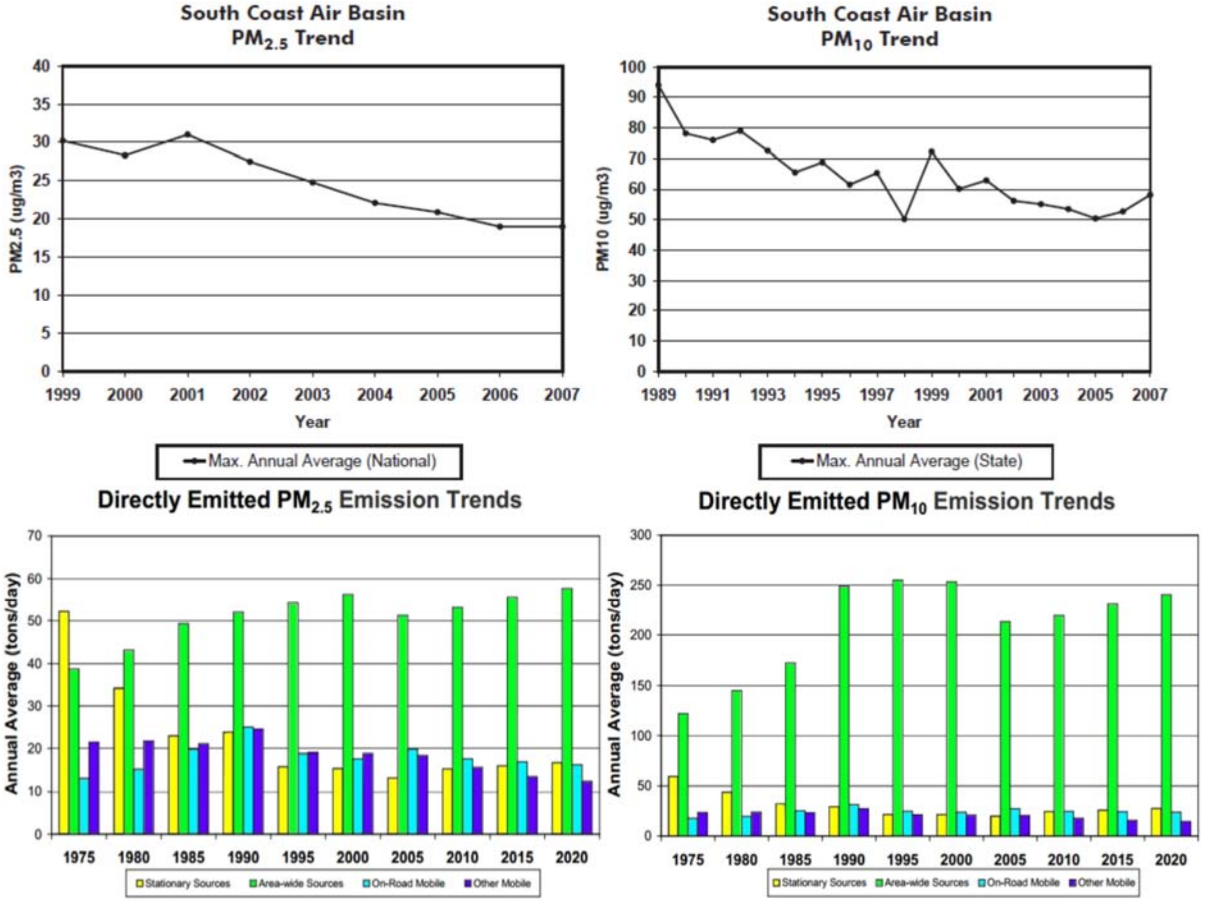

~~Source: CARB, California Almanac of Emissions and Air Quality, 2009 Edition.~~

~~Figure 4.3.12: Particulate Matter Trends in the South Coast Air Basin~~

~~The reduction in air pollution levels experienced in the Basin is attributable to multiple factors. First, Federal and State regulatory strategies requiring the use of cleaner fuels and use of emissions control technology in the transportation and energy production industries have proven to greatly reduce the amount of tailpipe emission (vehicles) and point source (power plants) pollutants (e.g., NO_X and ROG). Second, the SCAQMD's rules and regulatory programs have proven to be instrumental in improving the air quality in the Basin. As an example, the SCAQMD has adopted multiple rules regarding fugitive dust (PM_{10} and $PM_{2.5}$) and construction emissions that have resulted in reduced emission levels. Third, the SCAQMD's creation of the 1993 CEQA review handbook has resulted in lead agencies throughout the air basin employing uniform CEQA analyses and methodologies. The use of uniform CEQA review has allowed the SCAQMD and lead agencies that rely on the 1993 SCAQMD Air Quality Handbook to perform CEQA analysis to better track progress and to employ uniform mitigation and design feature strategies. Fourth, the use of the SCAQMD thresholds of significance to determine a project's direct and cumulative impact has allowed the SCAQMD to make tremendous progress toward achieving air quality attainment. The discussion above (pertaining to the air quality improvements achieved over the past 20 years) demonstrates that~~

~~the SCAQMD's rules and procedures, including the uniform utilization of the thresholds of significance recommended in the SCAQMD *CEQA Air Quality Handbook* are contributing toward the achievement of improved air quality in the Basin.~~

~~It is for this reason that this EIR and the City have chosen to rely on the thresholds of significance established by the SCAQMD in its 1993 CEQA Handbook and subsequent additions to the Handbook. These thresholds of significance (which serve as both direct and cumulative thresholds) have been uniformly utilized by lead agencies throughout the Basin for the past 20 years and the improvement of air quality within the Basin throughout this time period has demonstrated the efficacy of these thresholds, along with the other regional and statewide regional programs discussed above, in improving air quality throughout the Basin.~~

~~4.3.1.5 Local Air Quality~~

~~The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station most representative of the project site are the Riverside-Magnolia and Riverside-Rubidoux stations. These stations monitor CO, SO_2, NO_2, O_3, PM_{10}, and $PM_{2.5}$. . Some monitoring data for SO_2 has been omitted as attainment is regularly met for this pollutant within the Basin. These stations characterize the air quality representative of the ambient air quality in the project area. The ambient air quality data in Table 4.3.E identify that CO and NO_2 levels are consistently below the relevant State and Federal standards in the project vicinity. O_3, PM_{10}, and $PM_{2.5}$ levels all exceed State and/or Federal standards regularly. Figure 4.3.13 identifies the locations of the monitoring stations relative to the proposed project site.~~

~~4.3.1.6 Sensitive Land Uses in the Project Vicinity~~

~~Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses where people sensitive to air pollutants may be located (i.e., the ill, elderly, pregnant women, and children). There are currently seven occupied single-family homes and associated ranch/farm buildings in various locations on the proposed project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the proposed project site are the residences located along Bay Avenue, Merwin Street, west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Nearby sensitive land uses are depicted in Figure 4.3.14.~~

~~4.3.1.7 Existing Project Area Emissions~~

~~The project area is largely vacant undeveloped marginal agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. Much of the site is currently used for dry farming. San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) also operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. Existing air quality conditions at the proposed project site reflect ambient[1] monitored conditions as presented in Table 4.3.E.~~

~~Table 4.3.E: Ambient Air Quality Monitored in the Project Vicinity~~

~~Pollutant~~	~~Standard~~	~~2009~~	~~2010~~	~~2011~~	~~2012~~
~~Carbon Monoxide (CO)~~					

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[1] ~~Ambient: of or related to the immediate surroundings of something; in this context it means "in the air"~~

~~Table 4.3.E: Ambient Air Quality Monitored in the Project Vicinity~~

~~Pollutant~~	~~Standard~~	~~2009~~	~~2010~~	~~2011~~	~~2012~~
~~Maximum 1-hr concentration (ppm)~~		~~2.64~~	~~2.63~~	~~ND~~	~~ND~~
~~Number of days exceeded:~~	~~State: > 20 ppm~~	~~0~~	~~0~~	~~ND~~	~~0~~
	~~Federal: > 35 ppm~~	~~0~~	~~0~~	~~ND~~	~~0~~
~~Maximum 8-hr concentration (ppm)~~		~~1.85~~	~~1.84~~	~~1.35~~	~~1.59~~
~~Number of days exceeded:~~	~~State: ≥ 9.0 ppm~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Federal: ≥ 9 ppm~~	~~0~~	~~0~~	~~0~~	~~0~~
~~**Ozone (O_3)**~~					
~~Maximum 1-hr concentration (ppm)~~		~~0.116~~	~~0.128~~	~~0.128~~	~~0.126~~
~~Number of days exceeded:~~	~~State: > 0.09 ppm~~	~~25~~	~~31~~	~~52~~	~~27~~
~~Maximum 8-hr concentration (ppm)~~		~~0.101~~	~~0.099~~	~~0.115~~	~~0.102~~
~~Number of days exceeded:~~	~~State: > 0.070 ppm~~	~~57~~	~~74~~	~~92~~	~~70~~
	~~Federal: > 0.075 ppm~~	~~36~~	~~47~~	~~67~~	~~47~~
~~**Coarse Particulates (PM_{10})**~~					
~~Maximum 24-hr concentration (µg/m^3)~~		~~86.8~~	~~75.0~~	~~82.7~~	~~82.6~~
~~Number of days exceeded:~~	~~State: > 50 µg/m^3~~	~~120~~	~~43~~	~~30~~	~~52~~
	~~Federal: > 150 µg/m^3~~	~~0~~	~~0~~	~~0~~	~~0~~
~~Annual arithmetic mean concentration (µg/m^3)~~		~~41.9~~	~~33.8~~	~~32.5~~	~~33.4~~
~~Exceeded for the year~~	~~State: > 20 µg/m^3~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~
~~**Fine Particulates ($PM_{2.5}$)**~~					
~~Maximum 24-hr concentration (µg/m^3)~~		~~62.0~~	~~58.5~~	~~73.7~~	~~39.9~~
~~Number of days exceeded:~~	~~Federal: > 35 µg/m^3~~	~~15~~	~~4~~	~~5~~	~~7~~
~~Annual arithmetic mean (µg/m^3)~~		~~17.1~~	~~13.9~~	~~13.8~~	~~13.6~~
~~Exceeded for the year~~	~~State: > 12 µg/m^3~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~
	~~Federal: > 12.0 µg/m^3~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~
~~**Nitrogen Dioxide (NO_2)**~~					
~~Maximum 1-hr concentration (ppm)~~		~~0.078~~	~~0.065~~	~~0.063~~	~~0.062~~
~~Number of days exceeded:~~	~~State: > 0.18 ppm~~	~~0~~	~~0~~	~~0~~	~~0~~
~~Annual arithmetic mean concentration (ppm)~~		~~0.017~~	~~0.017~~	~~0.017~~	~~0.016~~
~~Exceeded for the year~~	~~State: > 0.030 ppm~~	~~No~~	~~No~~		
	~~Federal: > 0.053 ppm~~	~~No~~	~~No~~	~~ID~~	~~ID~~
~~**Sulfur Dioxide (SO_2)**~~					
~~Maximum 24-hr concentration (ppm)~~		~~0.003~~	~~0.005~~	~~0.001~~	~~ID~~
~~Number of days exceeded:~~	~~State: > 0.04 ppm~~	~~0~~	~~0~~	~~ND~~	~~ND~~
~~Annual arithmetic average concentration (ppm)~~		~~0.001~~	~~0.001~~	~~<0.001~~	~~ID~~
~~Exceeded for the year:~~	~~Federal: > 0.030 ppm~~	~~No~~	~~No~~	~~ND~~	~~ND~~

~~µg/m^3 = micrograms per cubic meter~~ ~~EPA = United States Environmental Protection Agency~~
~~ID = Insufficient data~~ ~~ND = No data~~
~~ppm = parts per million~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015~~

~~Figure 4.3.13: Air Quality Monitoring Stations~~

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~~Figure 4.3.14: Existing Sensitive Receptors~~

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~~4.3.2 Policies and Regulations~~

~~4.3.2.1 Federal Regulations~~

~~**Clean Air Act.** Pursuant to the Federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.~~

~~The EPA established national air quality standards for ground-level O_3 and $PM_{2.5}$ in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way that the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The Justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O_3 and soot in 1997. Nevertheless, the Court threw out the EPA's policy for implementing new O_3 rules, stating that the EPA ignored a section of the law that restricts its authority to enforce such rules.~~

~~In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the eight-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the eight-hour O_3 standard in April 2003. The EPA completed final eight-hour nonattainment status on April 15, 2004. The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The EPA issued final designations on December 14, 2004.~~

~~Effective January 22, 2010, the EPA strengthened the standard for NO_2 by setting a new 1-hour standard at the level of 100 parts per billion (ppb). This standard defines the maximum allowable concentration anywhere in an area and will protect against adverse health effects associated with short-term exposure to NO_2. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb. On January 25, 2010, the EPA issued the final rule setting the one-hour maximum standard for NO_2 at 100 parts per billion (ppb). The agency retained the annual standard of 53 ppb.~~

~~Additionally, effective June 2, 2010, the EPA revised the primary standard for SO_2 by establishing a new 1-hour standard at a level of 75 ppb. The EPA revoked the two existing primary standards of 140 ppb evaluated over 24 hours and 30 ppb evaluated over an entire year as they would not provide additional public health protection given a 1-hour standard at 75 ppb. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.~~

~~4.3.2.2 State Regulations~~

~~**Mulford-Carrell Act.** The State began to set California Ambient Air Quality Standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.~~

~~Originally, there were no attainment deadlines for CAAQS; however, the CCAA of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if~~

~~CAAQS attainment could not be conclusively demonstrated at all. The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.~~

~~**California Clean Air Act (CCAA).** The CCAA was passed into law in 1988. The CCAA provides the basis for air quality planning and regulation independent of federal regulations. A major element of the CCAA is the requirement that local air districts in violation of the CAAQS must prepare attainment plans that identify air quality problems, causes, trends and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date. The CCAA provides air districts with the authority to manage transportation activities at indirect sources that individually are minor but collectively emit a substantial amount of pollution such as motor vehicles at intersections, malls, and on highways. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.~~

~~**CARB Airborne Toxic Control Measure/Asbestos.** Asbestos is listed as a toxic air contaminant by CARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in surface deposits of several types of rock formations. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Crushing or breaking these rocks, through construction or other means, can release asbestoform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. In July 2001, the CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project. There is no asbestos in the project area (U.S. Geological Survey 2011).~~

~~4.3.2.3 Regional Regulations~~

~~**Lewis Air Quality Management Act.** The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The Federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the Federal standards in nonattainment areas of the State.~~

~~The CARB is responsible for incorporating air quality management plans for local air basins into an SIP for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.~~

~~**Carl Moyer Memorial Air Quality Standards Attainment Program.** Since 1998, the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) has provided funding to encourage the voluntary purchase of cleaner engines, equipment, and emission reduction technologies. The Carl Moyer Program plays a complementary role to California's regulatory program by funding emission reductions that are surplus, i.e., early and/or in excess of what is required by~~

~~regulation. The Carl Moyer Program accelerates the turnover of old highly-polluting engines, speeds the commercialization of advanced emission controls, and reduces air pollution impacts on environmental justice communities. Emission reductions achieved through the Carl Moyer Program are an important component of the California State Implementation Plan.~~

~~**Regional Air Quality Management Plan (AQMP).** The SCAQMD and the SCAG are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the Federal and/or California ambient air quality standards. The SCAQMD and SCAG must update the AQMP every three years. The current regional air quality plan is the Final 2012 Air Quality Management Plan (AQMP) adopted by the SCAQMD on December 7, 2012.~~

~~**2003 AQMP.** One of the purposes of the 2003 AQMP is to lead the Basin and portions of the Salton Sea Air Basin under SCAQMD jurisdiction into compliance with the 1-hour ozone and PM_{10} Federal standards (SCAQMD 2003).~~

~~The 2003 AQMP also replaced the 1997 attainment demonstration for the Federal CO standard, provided a basis for a maintenance plan for CO for the future, and updated the maintenance plan for the Federal nitrogen dioxide standard that the Basin has met since 1992 (2003 AQMP, page 1-1).~~

~~The 2003 AQMP also incorporated new scientific data in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP utilized complex modeling to show that with the control measures, the Basin would be in compliance with the Federal and State standards for all pollutants by 2010, except for the State ozone and PM_{10} standards and the State ozone and PM_{10} standards after 2010 or by the earliest practicable date, as mandated by the California Health and Safety Code Section 40462. The CARB approved the 2003 AQMP on August 1, 2003. The EPA's adequacy finding on the emissions budgets for conformity determination in the Basin was published in the Federal Register (69 FR 15325-15326).~~

~~**2007 AQMP.** One of the purposes of the 2007 AQMP is to lead the Basin into compliance with the Federal 8-hour ozone and $PM_{2.5}$ standards. The 2007 AQMP was adopted by the SCAQMD on June 1, 2007 (SCAQMD 2007b). On July 13, 2007, the SCAQMD Board adopted the 2007 Final AQMP Transportation Conformity Budgets and directed the Executive Officer to forward them to the CARB for approval and subsequent submittal to the EPA. On September 27, 2007, the CARB adopted the State Strategy for the 2007 State Implementation Plan and the 2007 AQMP as part of the State Implementation Plan. On January 15, 2009, the EPA's regional administrator signed a final rule to approve in part and disapprove in part the SCAQMD 2003 1-hour ozone plan and the nitrogen dioxide maintenance plan. The parts of the plan that were approved strengthen the State Implementation Plan. The Clean Air Act does not require the disapproved portions of the plan, and the disapprovals do not start sanctions clocks.~~

~~The 2007 AQMP outlines a detailed strategy for meeting the Federal health-based standards for $PM_{2.5}$ by 2015 and 8-hour ozone by 2024 while accounting for and accommodating future expected growth. The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. Most of the reductions will be from mobile sources, which are currently responsible for about 75 percent of all smog and particulate-forming emissions. The 2007 AQMP includes 37 control measures proposed for adoption by the SCAQMD, including measures to reduce emissions from new commercial and residential developments, more reductions from industrial facilities, and reductions from wood-burning fireplaces and restaurant char broilers.~~

~~**2012 AQMP.** The 2012 AQMP was adopted December 7, 2012 (SCAQMD 2012b). The purpose of the 2012 AQMP for the Basin is to set forth a program that will lead the Basin into compliance with~~

~~the Federal 24-hour PM$_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The AQMP was adopted by the SCAQMD Board; therefore, it was submitted to the EPA as the State Implementation Plan (SIP) . Specifically, the AQMP will serve as the official SIP submittal for the Federal 2006 24-hour PM$_{2.5}$ standard . In addition, the AQMP will update specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory, and 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.~~

~~The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."~~

~~The 2012 AQMP proposes Basin-wide PM$_{2.5}$ measures that will be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high PM$_{2.5}$ days), Section 182(e)(5) implementation measures (to maintain progress toward meeting the 2023 8-hour ozone national standard), and transportation control measures. Most of the control measures focus on incentives, outreach, and education.~~

~~Proposed PM$_{2.5}$ reduction measures in the 2012 AQMP include the following:~~

- ~~Further NO$_X$ reductions from the SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program. The RECLAIM program was adopted by the SCAQMD in October 1993 and set an emissions cap and declining balance for many of the largest facilities emitting NOx and SOx in the South Coast Air Basin. RECLAIM includes over 350 participants in its NOx market and about 40 participants in its SOx market. RECLAIM has the longest history and practical experience of any locally designed and implemented air emissions cap and trade program. RECLAIM allows participating facilities to trade air pollution while meeting clean air goals.~~
- ~~Further reductions from residential wood-burning devices.~~
- ~~Further reductions from open burning.~~
- ~~Emission reductions from under-fired char broilers.~~
- ~~Further ammonia reductions from livestock waste.~~
- ~~Backstop measures for indirect sources of emissions from ports and port-related sources.~~
- ~~Further criteria pollutant reductions from education, outreach, and incentives.~~

~~There are multiple VOC and NO$_X$ reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, and mold release products.~~

~~The 2012 AQMP also contains proposed mobile source implementation measures for the deployment of zero and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There are measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.~~

~~The 2012 AQMP proposes the following mobile source implementation measures:~~

- ~~On-road mobile sources:~~
  - ~~Accelerated penetration of partial zero-emission and zero-emission vehicles. This measure proposes to continue incentives for the purchase of zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode. The state Clean Vehicle Rebate Pilot program is proposed to continue from 2015 to 2023 with a proposed~~

~~funding for up to $5,000 per vehicle. The measure seeks to provide funding assistance for up to 1,000 zero-emission or partial-zero emission vehicles per year.~~

- ~~Accelerated penetration of partial zero-emission and zero-emission light-heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles. The objective of the proposed action is to accelerate the introduction of advanced hybrid and zero-emission technologies for Class 4 through 6 heavy-duty vehicles. The state is currently implementing a Hybrid Vehicle Incentives Project program to promote zero-emission and hybrid heavy-duty vehicles. The proposed measure seeks to continue the program from 2015 to 2023 to deploy up to 1,000 zero- and partial-zero emission vehicles per year with up to $25,000 funding assistance per vehicle. Zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode would be given the highest priority.~~
- ~~Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives.~~
- ~~Further emission reductions from heavy-duty vehicles serving near-dock rail yards This proposed control measure calls for a requirement that any cargo container moved between the ports of Los Angeles and Long Beach to the nearby rail yards be with zero-emission technologies. The measure would be fully implemented by 2020 through the deployment of zero-emission trucks or any alternative zero-emission container movement system such as a fixed guideway system. The measure calls for the CARB to either adopt a new regulation or amend an existing regulation to require such deployment by 2020.~~

- ~~Off-road mobile sources:~~
  - ~~Extension of the Surplus Off-Road Opt-In for NOx (SOON) provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment.~~
  - ~~Further emission reductions from freight and passenger locomotives calls for an accelerated use of Tier 4 locomotives in the Basin.~~
  - ~~Further emission reductions from ocean-going marine vessels while at berth.~~
  - ~~Emission reductions from ocean-going marine vessels.~~

~~The 2012 AQMP also relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program, which contains the following sections:~~

1. ~~Linking regional transportation planning to air quality planning and making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.~~
2. ~~Regional transportation strategy and transportation control measures: The RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.~~
3. ~~Reasonably available control measure analysis.~~

~~**Diesel Regulations.** The Ports of Long Beach and Los Angeles and the CARB have adopted regulations aimed at reducing the amount of diesel particulate. These programs are the Ports of Los~~

~~Angeles and Long Beach "Clean Truck Program,[1] the CARB Drayage Truck Regulation,[2] and the CARB statewide On-road Truck and Bus Regulation.[3] Each of these regulatory programs will require an accelerated introduction of "clean trucks" into the statewide truck fleet that will result in substantially lower diesel emissions during the 2008 to 2020 timeframe.~~

- ~~*Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 horsepower and Greater.* Effective February 19, 2011, each fleet shall comply with weighted reduced particulate matter emission fleet averages by compliance dates listed in the regulation.~~
- ~~*CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling* adopts new Section 2485 within Chapter 10, Article 1, Division 3, Title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles (i.e., commercial trucks over 10,000 pounds) to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than five minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).~~
- ~~*CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks,* requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to 'neutral' or 'park,' and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to neutral or park." There are a few conditions where the engine shutdown system can be overridden to prevent engine damage. Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.~~
- ~~*CARB Regulation for In-Use Off-Road Diesel Vehicles.* On July 26, 2007, the CARB adopted a regulation to reduce diesel particulate matter and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. All self-propelled off-road diesel vehicles over 25 horsepower (hp) used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to this regulation. This includes vehicles that are rented or leased (rental or leased fleets). Such vehicles are used in construction, mining, and industrial operations. The regulation:~~
  - ~~imposes limits on idling to no more than five consecutive minutes,~~
  - ~~restricts adding of older equipment (such as Tier 0 and Tier 1) into fleets,~~
  - ~~requires reporting and labeling, and~~
  - ~~requires disclosure of the regulation upon vehicle sale.~~

  ~~The CARB is enforcing that with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_X emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).~~

~~[1] http://www.portoflosangeles.org/ctp/idx_ctp.asp.~~
~~[2] http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm.~~
~~[3] http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.~~

~~**Toxic Air Contaminants.** A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality (death) or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Hazardous Air Pollutants (HAPs) and TACs are used interchangeably in this discussion. HAPs are regulated by the EPA under the Federal Clean Air Act. TAC is the term used under the California Clean Air Act to regulate the same hazardous pollutants. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for periods of several years. Many of these contaminants originate from human activities, such as fuel combustion and solvent use.~~

~~In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants carbon dioxide, nitrogen dioxide, particulate matter, and ozone for which acceptable levels of exposure can be determined and for which the State and federal governments have set ambient air quality standards. For this reason, thresholds for TAC impacts for regulatory purposes and for CEQA thresholds have been set based on the increase in risk of cancer of a specific amount at sensitive receptors located near the source of TAC emissions.~~

~~The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, paradichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM).~~

~~TAC measurements, available at the SCAQMD Riverside Rubidoux monitoring station (14 miles northwest of the project site) can be used to characterize the “background” health risks from regional TAC emission sources. Table 4.3.F provides this summary of TAC levels in the project area and health risk information. This table lists the air concentration levels and associated health cancer risks for eight of the nine TACs reported by the CARB in its Almanac as measured at the Riverside-Rubidoux air monitoring station. Note that since diesel PM cannot be measured directly, the table does not provide estimates of either measured diesel PM or the cancer risk associated with diesel PM.~~

~~Past studies have indicated that diesel PM poses the greatest health risk among the TACs listed in Table 4.3.F. The principal concern regarding exposures to diesel PM lies in its small size and thus its ability to penetrate deep into lung tissues when inhaled. Diesel exhaust has been found to cause health effects from short-term or acute exposures and from long-term chronic exposures, such as repeated occupational exposures. The type and severity of health effects depends upon several factors including the amount of chemical you are exposed to and the length of time you are exposed. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.~~

~~Long-term (chronic) exposure to diesel exhaust is likely to occur when a person works in a field where diesel is used regularly or experiences repeated exposure to diesel fumes over a long period of time. Human health studies demonstrate a correlation between exposure to diesel exhaust and increased lung cancer rates in occupational settings. Experimental animal inhalation studies of chronic exposure to diesel exhaust have shown that a range of doses causes varying levels of inflammation and cellular changes in the lungs. Human and laboratory studies have also provided considerable evidence that diesel exhaust is a likely carcinogen.~~

~~Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in~~

~~assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.~~

~~In 2008, the SCAQMD released the third iteration of the Multiple Air Toxics Exposure Study (MATES-III). The MATES-III report includes monitoring of various air toxic compounds in the Basin, establishes and updates existing baseline toxic air contaminants, and simulates cancer risk in the Basin. The study focuses on the carcinogenic risk from exposure to air toxics. It does not estimate mortality or other health effects from particulate exposures. The SCAQMD MATES-III report indicates that overall in the Basin, diesel PM contributes 83.6 percent of the risk.~~

~~In 2014, the SCAQMD released the fourth iteration of the Multiple Air Toxics Exposure Study (MATES-IV). The MATES-IV is a follow up to the previous MATES studies and included an updated toxics air emission inventory, new air toxics air dispersion modeling, and enhanced air toxics monitoring. A key conclusion reached in the MATES-IV study was that the population weighted cancer risk in the Basin decreased by 57 percent from the MATES-III period in 2005 to the MATES-IV period in 2012 indicating that overall, cancer risks are declining in the Basin as a result of the implementation of emission controls principally on large diesel trucks. The MATES-IV study also concluded that diesel PM contributed 68 percent to the total cancer risk in the Basin with benzene and 1.3 Butadiene also making important contributions to cancer risk. Figure 4.2.15 summarizes the basin-wide cancer risks as derived from the MATES-IV study.~~

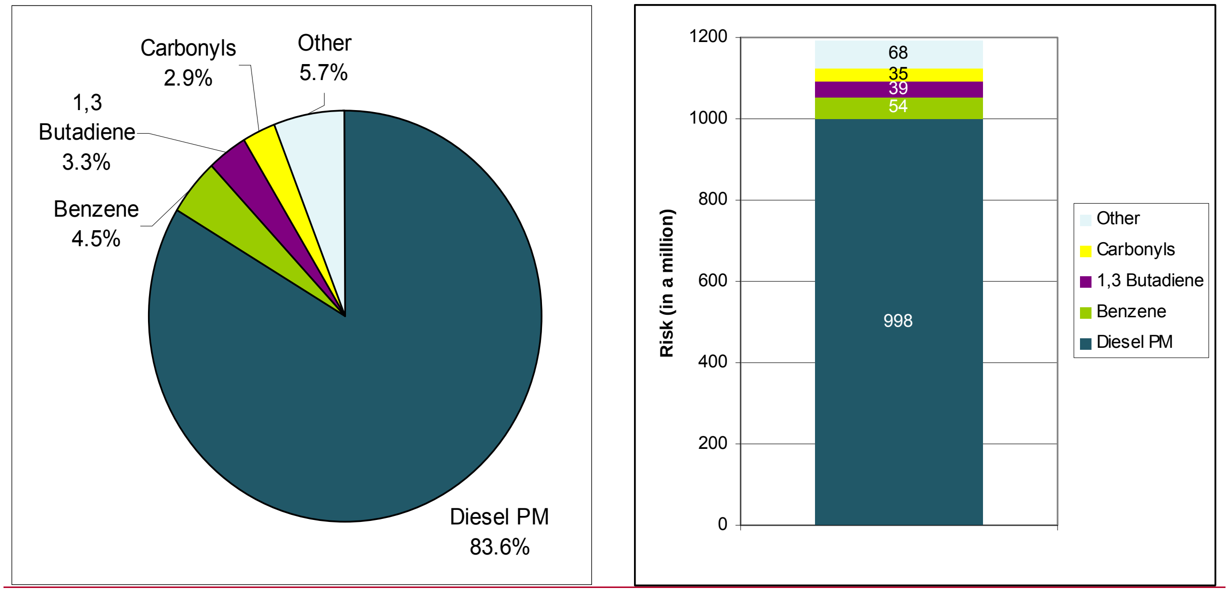

~~Figure 4.3.15: Summary of MATES IV Cancer Risks~~

~~Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)~~

~~TAC~~	~~Concentration[A] / Health Risk[B]~~	~~2007~~	~~2008~~	~~2009~~	~~Health Effects~~
~~Acetaldehyde~~	~~Mean~~	~~1.08~~	~~0.99~~	~~1.22~~	~~Acetaldehyde is a carcinogen that also causes chronic non-cancer toxicity in the respiratory system. Symptoms of chronic intoxication of acetaldehyde in humans resemble those of alcoholism.~~ ~~The primary acute effect of inhalation exposure to acetaldehyde is irritation of the eyes, skin, and respiratory tract in humans. At higher exposure levels, erythema, coughing, pulmonary edema, and necrosis may also occur. Acute inhalation of acetaldehyde resulted in a depressed respiratory rate and elevated blood pressure in experimental animals.~~
	~~Health Risk~~	~~5~~	~~5~~	~~5~~	
~~Benzene~~	~~Mean~~	~~0.40~~	~~0.33~~	~~ID~~	~~Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness.~~ ~~Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness in humans. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions in humans. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract in humans. Redness and blisters may result from dermal exposure to benzene.~~ ~~Chronic inhalation of certain levels of benzene causes disorders in the blood in humans. Benzene specifically affects bone marrow (the tissues that produce blood cells). Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.~~
	~~Health Risk~~	~~37~~	~~30~~	~~ID~~	
~~Chromium Hex~~	~~Mean~~	~~0.35~~	~~ID~~	~~ID~~	~~In California, hexavalent chromium has been identified as a carcinogen. There is epidemiological evidence that exposure to inhaled hexavalent chromium may result in lung cancer. The principal acute effects are renal toxicity, gastrointestinal hemorrhage, and intravascular hemolysis.~~ ~~The respiratory tract is the major target organ for chromium (VI) following inhalation exposure in humans. Other effects noted from acute inhalation exposure to very high concentrations of chromium (VI) include gastrointestinal and neurological effects, while dermal exposure causes skin burns in humans. Chronic inhalation exposure to chromium (VI) in humans results in effects on the respiratory tract, with perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness reported. Chronic human exposure to high levels of chromium (VI) by inhalation or oral exposure may produce effects on the liver, kidneys, gastrointestinal and immune systems, and possibly the blood.~~
	~~Health Risk~~	~~52~~	~~ID~~	~~ID~~	

~~Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)~~

~~TAC~~	~~Concentration[A] / Health Risk[B]~~	~~2007~~	~~2008~~	~~2009~~	~~Health Effects~~
~~Para-Dichlorobenzene~~	~~Mean~~	~~ID~~	~~ID~~	~~ID~~	~~In California, para-dichlorobenzene has been identified as a carcinogen. Acute exposure to 1,4-dichlorobenzene via inhalation results in irritation to the eyes, skin, and throat in humans. In addition, long-term inhalation exposure may affect the liver, skin, and central nervous system in humans (e.g., cerebellar ataxia, dysarthria, weakness in limbs, and hyporeflexia).~~
	~~Health Risk~~	~~ID~~	~~ID~~	~~ID~~	
~~Formaldehyde~~	~~Mean~~	~~2.88~~	~~2.88~~	~~3.12~~	~~The major toxic effects caused by acute formaldehyde exposure via inhalation are eye, nose, and throat irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Chronic exposure to formaldehyde by inhalation in humans has been associated with respiratory symptoms and eye, nose, and throat irritation. Animal studies have reported effects on the nasal respiratory epithelium and lesions in the respiratory system from chronic inhalation exposure to formaldehyde. Occupational studies have noted statistically significant associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer. This evidence is considered "limited" rather than "sufficient" due to possible exposure to other agents that may have contributed to the excess cancers. EPA considers formaldehyde to be a probable human carcinogen (cancer-causing agent) and has ranked it in EPA's Group B1. In California, formaldehyde has been identified as a carcinogen.~~
	~~Health Risk~~	~~21~~	~~21~~	~~23~~	
~~Methylene Chloride~~	~~Mean~~	~~0.19~~	~~0.2~~	~~ID~~	~~Case studies of methylene chloride poisoning during paint-stripping operations have demonstrated that inhalation exposure to extremely high levels can be fatal to humans. Acute inhalation exposure to high levels of methylene chloride in humans has resulted in effects on the central nervous system, including decreased visual, auditory, and psychomotor functions, but these effects are reversible once exposure ceases. Methylene chloride also irritates the nose and throat at high concentrations. The major effects from chronic inhalation exposure to methylene chloride in humans are effects on the central nervous system, such as headaches, dizziness, nausea, and memory loss. In addition, chronic exposure can lead to bone marrow, hepatic, and renal toxicity. EPA considers methylene chloride to be a probable human carcinogen and has ranked it in EPA's Group B2. California considers methylene chloride to be carcinogenic.~~
	~~Health Risk~~	~~0.7~~	~~0.7~~	~~ID~~	
~~Perchloroethylene~~	~~Mean~~	~~0.035~~	~~0.024~~	~~ID~~	~~In California, perchloroethylene has been identified as a carcinogen. Perchloroethylene vapors are irritating to the eyes and respiratory tract. Following chronic exposure, workers have shown signs of liver toxicity, as well as kidney dysfunction and neurological disorders.~~
	~~Health Risk~~	~~1~~	~~1~~	~~ID~~	
~~Diesel PM~~	~~Mean~~	~~No Monitoring Data Available~~			~~In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases~~
	~~Health Risk~~				

~~Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)~~

~~TAC~~	~~Concentration[A] / Health Risk[B]~~	~~2007~~	~~2008~~	~~2009~~	~~Health Effects~~
					~~the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. This research was based on studies prio to the advent of modern diesel engines with high efficiency emissions controls.~~ ~~Note: Since then the Health Effects Institute study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.~~

~~ID = Insufficient data~~
~~A = Concentrations for Hexavalent Chromium are expressed as $\mu g/m^3$, and concentrations for Diesel PM are expressed as $\mu g/m^3$. Concentrations for all other TACs are expressed as ppb.~~
~~B = Health Risk represents the number of excess cancer cases per million people based on a lifetime (70-year) exposure to the annual average concentration. Total Health Risk represents only those compounds listed in this table and only those with data for the year. There may be other significant compounds for which monitoring and/or health risk information are not available~~
~~Source: CARB 2011 for the SCAQMD Riverside-Rubidoux air monitoring station.~~

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~~The risk basin-wide population weighted cancer risk is 367 per million based on average at fixed monitoring sites estimated during the MATES-IV study. This level of risk means that on average an estimated 367 individuals in the basin could contract cancer out of a population of one million individuals exposed to all sources of toxic air contaminants over a lifetime of 70 years. A comprehensive air dispersion model and a detailed air toxics emission inventory were then used to estimate cancer risks at other locations where no monitoring sites were deployed. A 10-year research program (CARB 1998) demonstrated that diesel PM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to diesel PM poses a chronic health risk.~~

~~In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust has been major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.~~

~~Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. Within the Basin, in addition to diesel PM, there are emissions of benzene, formaldehyde, acetaldehyde, naphthalene, ethylbenzene, acrolein, toluene, hexane, propylene, and xylene from a variety of sources located within the Basin that contribute to health risks.~~

~~The average cancer risk in the project area is estimated to be 213 in a million based on the MATES-IV and ranges from 198 in a million at the southeast corner of the project to 239 in a million in the northern portion of the project as shown in Figure 4.3.16.~~

~~As shown in Figure 4.3.17, nearly all areas of the Basin experienced decreases in cancer risk during the time period from MATES–III time period of 2005 to the MATES-IV time period of 2012. The project area also experienced a decrease in cancer risk of between 100 and 400 in one million from the years 2005 to 2012.~~

~~Figure 4.3.17 depicts the cancer risk estimates as a "snapshot in time." That is, the cancer risks are derived from air dispersion models and are based on the emissions of various TACs during the years 2005 and 2012. The basic tenet used to estimate cancer risk assumes that the public will be exposed to these TAC emissions during an entire 70-year lifetime of continuous exposure. However, the SCAQMD, CARB, and the EPA have adopted numerous regulations that have resulted in significant reductions in pollutant emissions with the attendant reductions in prevailing air quality levels since 2012 as noted earlier. The benefits of substantial additional emission reductions derived from the adoption and application of SCAQMD, CARB, and EPA regulations are not reflected in the estimate of 70-year lifetime cancer risks referred to in Figure 4.3.17.~~

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~~Figure 4.3.16: Mates IV Cancer Risk in Area~~

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~~Figure 4.3.17: Change in Air Toxics Simulated Risk from 1998–99 to 2005 to 2012~~

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~~Additionally, in January 2015, a major new study[1] evaluated the health impacts of “new technology diesel exhaust” (NTDE). Beginning in 2001, USEPA and CARB begin issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.~~

~~Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found chronic exposure to NTDE did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue in laboratory rats. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine. Rats are the most sensitive laboratory animal species for evaluation of older technology diesel engines (pre-model year 2007), because of their sensitivity to high concentrations of particles (present in older technology diesel engines), compared with other species (including humans).~~

~~The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.~~

~~Conservative Nature of Health Risk Assessments.~~ ~~Moreover, the current methodological protocols required by the SCAQMD and CARB when studying the health risk posed by diesel PM assume the following (from the California Air Pollution Control Officers Association 2009): (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 70 years. These are overly conservative assumptions that are not replicated in reality. Most people are indoors for 18–20 hours a day (at their place of employment or home) and most people do not live in the same location for a 70-year period. In fact, less than 10 percent of the population has a continuous residency at the same location of greater than 30 years (American Community Survey 2011). Thus, the health risk assessments prepared pursuant to the current protocols overestimate the risk of cancer associated with diesel PM exposure.~~

~~Alternate Views on Diesel PM Risk.~~ ~~Some researchers, such as Dr. James E. Enstrom (2008), believe that the risk from diesel PM is exaggerated. Enstrom calls into question some of the basic research on the declaration of diesel exhaust as a toxic air contaminant. In particular, the article states the following:~~

> *~~There is substantial new epidemiologic evidence relevant to the health effects of diesel exhaust that was not considered when the 1998 toxic air contaminant declaration was made. For instance,~~*

~~[1] Health Effects Institute, 2015: HEI Research Report 184, Advanced Collaborative Emissions Study (ACES): Lifetime Cancer and Non-Cancer Assessment in Rats Exposed to New-Technology Diesel Exhaust, published in January. Website: http://pubs.healtheffects.org/getfile.php?u=1067~~

> ~~*the 2007 paper by Francine Laden et al. measured death rates during 1985–2000 among 54,000 members of the unionized U.S. trucking industry. … This cohort, which included 36,000 diesel truck drivers, had death rates from all causes and all cancer that were substantially below the rates among US males. Furthermore, unlike earlier evidence that was used in the TAC declaration, this cohort did not have a substantially elevated lung cancer death rate.*~~

~~Dr. Enstrom also indicates that the premature mortality calculation in the report, "Quantification of the Health Impacts and Economic Valuation of Air Pollution from Ports and Goods Movement in California," is exaggerated. Dr. Enstrom's analysis "found no relationship between $PM_{2.5}$ and mortality in elderly Californians during 1983–2002."~~

~~4.3.2.4 Local Policies~~

~~**City of Moreno Valley General Plan Policies.** Chapter 9 of the City's General Plan defines goals and policies related to air quality within the City of Moreno Valley. The specific policies of the General Plan that are relevant to the proposed project are as follows:~~

~~**Objective 6.7**~~	~~Reduce mobile and stationary source air pollutant emissions.~~
~~**Policy 6.7.1**~~	~~Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.~~
~~**Policy 6.7.2**~~	~~Encourage the financing and construction of park and ride facilities.~~
~~**Policy 6.7.4**~~	~~Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors.~~
~~**Policy 6.7.5**~~	~~Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.~~
~~**Policy 6.7.6**~~	~~Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.~~

~~4.3.3 Methodology~~

~~The *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* for the DEIR (Michael Brandman Associates, January 2013)[1] evaluated the air quality impacts associated with the development of the proposed project including the following:~~

- ~~Determine the short-term construction air quality impacts on both on-site and off-site sensitive receptors based on SCAQMD assessment methodologies and significance thresholds;~~
- ~~Determine the long-term air quality impacts, including vehicular traffic, on both on-site and off-site sensitive uses based on SCAQMD assessment methodologies and significance thresholds; and~~
- ~~Determine the required mitigation measures to reduce short-term and long-term on-site air quality impacts from all sources.~~

~~A revised Air Quality, Greenhouse Gas, and Health Risk Assessment Report (revised analysis) was prepared by Michael Brandman Associates – FirstCarbon Solutions (MBA-FCS) in 2015, which estimated the impacts from the reduced size of the project and also refined and updated the methodology used in the analysis, as discussed below.~~

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[1] ~~*Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Michael Brandman Associates, January 2013.~~

~~4.3.3.1 Construction~~

~~Construction-related emissions are expected from various activities associated with the construction of the project such as rough grading, infrastructure construction, asphalt paving, building construction, architectural coatings, and construction workers commuting. Construction emissions for construction worker vehicles traveling to and from the project site, in addition to vendor trips (construction materials delivered to the project site) and haul trips (dump trucks and concrete trucks) were also accounted for in the analysis. Localized air quality in the project area would be affected by both heavy-duty construction equipment usage on site as well as local traffic due to the equipment delivery and construction worker commuting. The anticipated construction equipment and construction schedule are identified in Section 3.0,~~ ~~*Project Description*~~~~, in Table 3.C. The SCAQMD CEQA methodology[1] was used to analyze the criteria pollutant emissions from these activities.~~

~~*Note: In response to comments received on the DEIR, the following revisions have been made to the construction emissions analysis:*~~

- ~~*New Version of CalEEMod*~~~~. The construction emissions in the DEIR were estimated with the approved model at the time, CalEEMod version 2011.1.1, which uses emission factors from the outdated OFFROAD2007 and EMFAC2007 emission models. Since publication of the DEIR, a new version of CalEEMod has been released, version 2013.2, uses construction emission factors from OFFROAD2011 and mobile source emissions from EMFAC2011. The new version of CalEEMod has lower construction equipment load factors, which are also used in this revised analysis.~~
- ~~*Extended Construction Period.*~~ ~~In the DEIR, construction was assumed to occur over 10 years; in response to comments to reduce emissions, the revised analysis construction schedule is assumed to occur over 15 years.~~
- ~~*Refined Building Phasing.*~~ ~~The DEIR had all building construction activities lumped together. For better understanding and clarification, building construction activity was subdivided in this revised analysis into the following sub-phases: building-concrete; building-wet utilities; building-electrical; and building-landscaping to more accurately describe construction activities.~~
- ~~*Mass Grading Duration.*~~ ~~In the DEIR, grading covered 12 months (for the unmitigated version) and 24 months (for the mitigated version). For the revised analysis, each planning area is graded separately over a total of approximately 58 months to reflect a more realistic grading plan.~~
- ~~*On-Site On-road Vehicle Emissions.*~~ ~~On-site travel and idling emissions from concrete trucks, haul trucks, service/support trucks, and delivery trucks were not included in the DEIR but are included for the revised analysis.~~
- ~~*Equipment for Grading.*~~ ~~The construction equipment and haul truck deliveries for the mass excavation and fine grading phases now vary per planning area (since there are varying sizes of each planning area), whereas in the DEIR, one equipment fleet was assumed for the mass grading and finish grading phases. In addition, because the grading duration has been extended and due to variations in the grading fleet based on the size of the planning area, less equipment is required. The overall construction equipment horsepower-hours per day has decreased in the revised analysis.~~
- ~~*Onsite Equipment Fleet for Non-Grading Phases.*~~ ~~The duration for construction has been extended; therefore, the peak number of equipment has decreased. In addition, the types and daily horsepower hours for the equipment has changed.~~
- ~~*Onsite Equipment Hours per Day.*~~ ~~The revised analysis assumes that the onsite equipment are in the on position for 10 hours per day as a project design feature. The analysis in the DEIR~~

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[1] ~~*CEQA Air Quality Handbook*~~~~, April 1993 and subsequent additions to the Handbook.~~

~~assumed 15 hours per day for the unmitigated version and 10 hours per day for the mitigated version. Because construction has been spread out over more time, there is no need for the equipment to operate 15 hours per day; therefore, the equipment hours per day has been added as a project design feature that sets the maximum hours per day is 10 hours per day for the onsite equipment. This means that each piece of construction equipment is assumed to be on for 10 hours per day. This would also apply to the onsite equipment used during concrete pouring, which would most likely occur during the night. This is a conservative scenario as the CalEEMod default assumes construction equipment would be on for 6 to 8 hours per day. This is used to calculate maximum daily emissions which are required for the regional analysis, because project emissions can occur on any day of the week. However, in order to calculate annual average emissions, it is necessary to base emissions upon a realistic work schedule. The revised analysis assumes a more realistic annual average use of construction equipment by assuming that the maximum equipment would occur for five days per week (instead of six days per week as in the DEIR). In this way, an annual average and daily emission inventories were estimated.~~

- ~~*Tier 4 Equipment.* The analysis in the DEIR assumed the CalEEMod default construction equipment tier levels for the unmitigated version and for the mitigated version, assumed Tier 3 engines for years prior to 2017 and Tier 3 with diesel particulate matter filters for years after 2017. The revised analysis assumes that for the mitigated emissions, all equipment over 50 horsepower Tier 4 as required by a revised mitigation measure.~~
- ~~*VOC Emissions from Striping Pavement.* The DEIR did not include these emissions because these emissions have been recently integrated within CalEEMod.~~

~~4.3.3.2 Operation~~

~~Air quality in the project area would be affected by long-term air emissions from stationary sources and mobile sources related to the proposed project once it commences operations. The stationary source emissions would come from consumption of natural gas and emergency generators while mobile source emissions would come from vehicular emissions from automobiles and trucks traveling to, from, and within the project site and from on-site forklifts and yard trucks.~~

~~A key piece of information required to estimate the project's operational emissions deals with an estimate of the number of trips and types of vehicles (i.e., cars and trucks) generated by the project during a peak hour and on a daily basis. To determine mobile source emissions associated with the project, the trip generation rates were derived from the *Traffic Impact Analysis Report* for the project prepared by Parsons Brinckerhoff .~~

~~Appendix E of the CalEEMod Manual states the following regarding trip rates for large warehouses and distribution centers, and demonstrates that the trip rate applied for this project is appropriate, since the project is a Specific Plan containing more than 10 warehouse buildings:~~

> ~~*In the case that air quality is evaluated for multiple warehouses (>10), such as in an analysis for a general plan, the average rate of 1.44 trips per TSF [thousand square feet] from the ITE [Institute of Transportation Engineers] 8th Edition Trip Generation manual is acceptable. This lower value may be more appropriate as on average, a small portion of warehouses can be expected to operate at varying levels of service, including some warehouses experiencing temporary partial or complete vacancy.* (SCAQMD 2013, CalEEMod manual,[1] pages 14-15)~~

~~Additionally, the SCAQMD is currently working with the Institute of Transportation Engineers to provide enhanced information and guidance regarding vehicle trips associated with warehouse~~

~~[1] South Coast Air Quality Management District. 2013. CalEEMod, Appendix E, Technical Source Documentation. Website: http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixe.pdf?sfvrsn=2http~~

~~operations. SCAQMD staff is recommending truck trip rates from the Institute of Transportation Engineers for high cube warehouse projects located in SCAQMD. Consistent with CEQA Guidelines, the SCAQMD states that an EIR may use a non-default trip rate if there is substantial evidence indicating another rate is more appropriate for the air quality analysis. The trip generation rate applied in this assessment for high cube warehouses (1.68 trips per thousand square feet) is greater than the average rate of 1.44 trips per thousand square feet recommended in CalEEMod thereby providing a more conservative estimate of vehicle trips (i.e., larger number of trips) and hence higher estimate of air quality impacts than the SCAQMD-recommended trip rate.~~

~~The EPA AERMOD air dispersion model, the Caltrans CALINE4 model, the CalEEMod, and the CARB EMFAC 2014 mobile source emission factor model were used to assess the project's impact on air pollutant emissions and concentrations.~~

~~Emission factors for the year 2012 are used for the "worst-case" scenario. Phase 1 of the project used emission factors from the year 2022, and Phase 2 of the project used emission factors for the year 2035. For the mitigated version, the emission factors were modified to reflect the mitigation measure that requires the use of model year 2010 or newer trucks for all diesel trucks associated with the project.~~

~~*Note: In response to comments received on the DEIR, the following revisions have been made to the regional operational emissions analysis:*~~

- ~~*Trip Lengths for Motor Vehicle Emissions*. Forecasted traffic volumes contained in the revised Traffic Impact Analysis were used to estimate the project's motor vehicle emissions instead of an arbitrary 50 miles per truck trip length and the CalEEMod default trip lengths for local trips used in the DEIR. The traffic model provided estimates of project traffic volumes for nearly 500 individual freeway and surface street roadway segments segregated by vehicle class as passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks. This revised methodology provides a much more accurate estimate of the project's operational mobile source vehicle miles traveled and resulting emissions.~~
- ~~*Updated Emission Factors for Motor Vehicles.* In the DEIR, regional motor vehicle emissions were estimated by CalEEMod using the EMFAC2007 mobile source emission model and EMFAC2011 emission model for the localized and health risk analysis. On December 30, 2014, the CARB released an updated version of its emission factor model, EMFAC2014. The CARB indicates that the EMFAC2014 mobile source emission model will be used henceforth to estimate on-road mobile source emissions in California. The EMFAC2014 model is an updated version of the EMFAC2014 model that was used in the DEIR. The EMFAC2011 mobile source emission model was applied to all vehicle classes in the revised analysis.~~
- ~~*Decrease in Operational Square Footage.* The number of vehicle trips was revised to reflect a reduction of the project size from 41.6 million square feet to 40.6 million square feet and the redistribution of land use building square footage between the high cube logistics warehouse and light logistics land uses. In addition, a fire station land use was also added.~~
- ~~*Additional On-site Emissions Sources.* Additional sources of operational emissions were also accounted for in this revised analysis including standby diesel generators, fork lifts, and yard trucks.~~
- ~~*On-site Existing Emissions Estimated.* The existing agricultural emissions were estimated in the revised analysis; they were not estimated in the DEIR.~~

~~4.3.3.3 Localized Construction/Operation~~

~~SCAQMD has developed the Localized Significance Threshold (LST) methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts that substantially affect sensitive receptors. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable Federal or State AAQS and are developed based on the ambient concentrations of that pollutant for each source receptor area identified by the SCAQMD. SCAQMD's current guidelines, *Final Localized Significance Threshold Methodology* (June 2003) and subsequent additions, were adhered to in the assessment of local air quality impacts from the proposed project. The local emissions of concern from construction and operational activities as defined by the SCAQMD are~~ ~~NO_X, CO, PM_{10}, and $PM_{2.5}$~~ ~~combustion emissions from construction equipment and fugitive~~ ~~PM_{10}~~ ~~dust from construction site preparation activities.~~

~~*Note: In response to comments received on the DEIR, the following revisions have been made to the localized significance threshold analysis:*~~

- ~~*Revisions to the Traffic Volumes.* The operational assessment of localized impacts reflects the changes in traffic volumes associated with the reduction in the project size and realignment of roadway segments that are within and border the project's boundaries.~~
- ~~*Changes in Construction Schedule.* The analysis in the DEIR assumed a construction schedule of 10 years, whereas the revised assessment is based on a 15-year construction schedule. The changes in construction schedule both by year and location within the project were accounted for under the revised, extended project development schedule for estimating the emissions subject to the LST assessment.~~
- ~~*Emission Source Configuration.* The analysis in the DEIR of the off-road construction equipment exhaust was represented in the air dispersion model as a large area source that covered the construction area. The revised analysis represents the off-road construction exhaust emission source as a series of contiguous volume sources, which is consistent with the SCAQMD methodology for LST assessments.~~
- ~~*Operational Truck Idling.* The analysis in the DEIR assumed that each heavy-duty truck that accessed the site during operation idled for a total of 15 minutes per day. In the revised analysis, each truck was assumed to idle for 5 minutes per day consistent with the California Air Resources Board's Air Toxic Control Measure that limits such idling to 5 minutes and requirements specified in the World Logistics Center Specific Plan. For the mitigated assessment, each truck was assumed to idle for 3 minutes per day.~~

~~The localized significance threshold analysis evaluated three conditions:~~

- ~~Project Phase 1 (2012): this condition assumes that Phase 1 of the project is fully built out in 2012, the year that the Notice of Preparation for the project was published.~~
- ~~Project Phase 1 and Phase 2 Full Build Out (2012): this condition assumes that Phase 1 and Phase 2 of the project are fully built out in 2012, the year that the Notice of Preparation for the project was published.~~
- ~~Proposed Development Schedule: this condition examines the proposed development schedule of the two-phased project three analysis years were examined under this condition for potential localized air quality impacts:~~
    - ~~2021, the year when the projected construction schedule would result in construction activities in the western portion of the project adjacent to and across from the existing residential areas along Redlands Boulevard and when a substantial portion of Phase I operations would occur (approximately 56 percent of entire project floor space);~~

- ~~2027, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road and~~
- ~~2035[1] when the Phase 1 and Phase 2 of the project are fully operational.~~

~~Project Phase 1 (2012) represents an interim step during which Phase 1 of the project (approximately 56 percent of the total size of the project) is completely built out in 2012. This analysis simply looks at the situation of what would happen if Phase 1 of the project were built in its entirety with no reductions in motor vehicle emissions that would occur in the future as a result of emission control programs that have already been adopted. This assessment also provides consistency with the project traffic impact analysis and noise reports which examine the Project Phase 1 (2012) condition. The project impact results are compared to the existing air quality levels in 2012 and only consider the project's operational emissions and not construction emissions.~~

~~Project Phase 1 and 2 Full Build Out 2012 represents a worst-case scenario since the project could not be physically built out in its entirety in a single year and does not reflect the fact that the project would be developed over a time period of 15 years depending on market demands for warehouse space. This assumption also does not account for the fact that emissions from mobile sources, prior to mitigation, particularly from heavy duty diesel trucks are expected to decline significantly over the next 10 to 15 years as a result of emission controls already mandated by the CARB specifically for these vehicles. This assessment also provides consistency with the project traffic impact analysis and noise reports which examine the full Project Phase 1 and Phase 2 (2012) Build Out (2012) condition. The project impact results are compared to the existing air quality levels in 2012 and only consider the project's operational emissions and not construction emissions.~~

~~The Proposed Project Development condition represents the proposed project development including the localized impacts during construction and operation over the time period of 2015 to 2035. These results are compared to the existing air quality levels in 2012.~~

~~4.3.3.4 Health Risk Assessment~~

~~A Health Risk Assessment (HRA) is a guide that helps to determine whether current or future exposures to a chemical or substance in the environment could affect the health of a population. In general, risk depends on the following factors:~~

- ~~How much of a chemical is present in an environmental medium (e.g., air);~~
- ~~How much contact (exposure) a person has with the contaminated environmental medium; and~~
- ~~The inherent toxicity of the chemical.~~

~~The assessment of health impacts is a continuing evolution of science and regulation. Since December 2014, three major scientific and regulatory activities have come forward that will affect how such assessments are performed and what such impacts mean to society as described below.~~

- ~~On December 30, 2014, the ARB released its update to the Emissions Factor Model, EMFAC2014, which is used to estimated emissions from motor vehicles in California. The~~

~~[1] In some circumstances, references are made to the year 2035. The year 2031 is the proposed first year the project is fully built out. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2035. For purposes of this assessment, project traffic volumes in 2031 were assumed to be the same as the forecast volumes in 2035.~~

~~EFAC2014 model represents the ARB's current understanding of motor vehicle technologies and regulatory implementation of rules aimed at reducing air emissions from motor vehicles. Of significance in this regard are the new projections of air emissions from heavy duty diesel engines. Based on the results of the EMFAC2014 model, emissions of diesel particulate matter range from 50 to 80 percent lower than previously estimated using the previous version of the EMFAC model, EMFAC2011. Since heavy duty trucks constitute nearly all of the project's diesel PM emissions, the incorporation of the emission information from the EMFAC2014 model is important in estimating the amount of diesel PM and in assessing the project's health risk impacts resulting from these emissions~~

- ~~On January 27, 2015, the Health Effects Institute (HEI), a joint private-government partnership, released a major peer-reviewed scientific report entitled *Effects of Lifetime Exposure to Inhaled New-Technology Diesel Exhaust in Rats*. This is the first study to conduct a comprehensive evaluation of lifetime inhalation exposure to emissions from heavy-duty 2007-compliant engines (referred to as "new technology diesel exhaust," or NTDE). The study evaluated the long-term effects of multiple concentrations of inhaled NTDE, which has greatly reduced particle emissions compared with "traditional-technology diesel exhaust" (TDE) in male and female rats on more than 100 different biologic endpoints, including tumor development, and compared the results with biologic effects seen in earlier studies in rats after exposure to TDE. Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE. The importance of this study is that diesel PM emissions from new technology diesel engines does not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals that, in fact are more sensitive to toxics exposures than humans. While this study focused on heavy duty truck emissions, the new clean diesel technology has the potential for impacting all sectors, including passenger cars, agriculture, construction, maritime and transportation. Previous studies directed at studying the effects of diesel PM on health were based on exposure studies that date 15 to 20 years ago when diesel emissions were significantly higher than the NTDE. It is also important to highlight that the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, the U.S. Department of Energy (DOE) and the U.S. Federal Highway Administration are sponsors and/or reviewers of this study in conjunction with the manufacturers of emissions control equipment.~~

- ~~On March 6, 2015, the California Office of Environmental Health Hazards Assessment (OEHHA) adopted a new guidance for estimating health risks from toxic air contaminants that incorporated the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. Within the context of this assessment, this new assessment guidance is referred to as the "Current OEHHA Guidance". The new guidance updates earlier guidance recommended by OEHHA and SCAQMD referred to in this assessment as the "Former OEHHA Guidance", which was used in the DEIR. The "Former OEHHA Guidance" is based on a lifetime exposure of 70 years and does not incorporate early-in-life age sensitivity factors. The importance of the "Current OEHHA Guidance" is that the guidance produces much more conservative estimates of cancer risks from toxic air contaminant exposures than the "Former OEHHA Guidance".~~

- ~~The HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study.~~

~~The following information is from the Health Risk Assessment contained in the revised *Air Quality, Greenhouse Gas, and Health Risk Assessment* (2015) contained in Appendix D. The text in this section is supported by references and discussion that can be found in the report in Appendix D.~~

~~*Note: In response to comments received on the DEIR, the following revisions have been made to the health risk assessment:*~~

- ~~*Revisions to the Construction Emissions.* This revised analysis reflected the numerous changes in construction equipment, load factors, schedule, and sequencing of construction by location within the project as discussed above.~~
- ~~*Revisions to Traffic Volumes.* The revised analysis made use of the revised traffic volume forecasts along nearly 500 individual roadway segments.~~
- ~~*Expanded Model Extent.* The geographic extent of the air dispersion model domain was expanded to include freeway segments to the ports of Los Angeles and Long Beach.~~
- ~~*Organic Gas Emissions Included.* The assessment of acute non-cancer hazards was expanded to examine the impacts of the toxic components of the project's total organic gas emissions from gasoline and diesel vehicles. The analysis in the DEIR focused on diesel PM to derive health impacts from the project.~~
- ~~*Calculated Cancer Population Burden.* The health risk assessment was extended to include the computation of cancer population burden attributed to the project's diesel PM emissions.~~
- ~~*Maximum Exposure Duration for Sensitive/Residential Receptors*. The analysis contained in the DEIR assumed a cancer risk exposure time period of 70 years for sensitive/residential receptors as representative of the "Former OEHHA Guidance" in estimating cancer risks. In this revised assessment, the cancer risk are presented using the "Current OEHHA Guidance." The "Current OEHHA Guidance" incorporates early-in-life exposure sensitivities and recommends an exposure duration of 30-year; the "Current OEHHA Guidance" reflects early age sensitivities[1] (i.e., weighting the effects of exposure more heavily for infants and teenagers than for adults) to toxic compounds and the US Census data showing that 90 percent of individuals live in their residence for 30 years or less; overall the "Current OEHHA Guidance" results in a more conservative analysis of cancer risks than "Former OEHHA Guidance" on performing health risk assessments.~~
- ~~*Maximum Exposure Duration for Worker Receptors.* The analysis contained in the DEIR assumed a cancer risk exposure time period of 40 years for workers as recommended in the "Former OEHHA Guidance." In this revised assessment, the cancer risk impacts are presented for the "Current OEHHA Guidance" which assumes an exposure duration of 25 years for worker receptors, which is based on labor statistics showing 95 percent of workers stay in the same job for 25 years or less.~~
- ~~*Include School Receptors.* The assessment of cancer risks at local school receptors was included in the revised analysis based on the "Current OEHHA Guidance", including the new proposed high school site #5 located north of SR-60.The analysis for the high school #5 is included in the Revised Air Quality Report (Appendix D).~~
- ~~*Buffer Analysis.* The mitigated analysis includes assessment of cancer risks with a buffer of 250 feet (the project design) and 1,000 feet between the project's operational emissions and the centerlines of Redlands Boulevard, Gilman Springs Road, Bay Avenue, and Merwin Street. This assessment is included as a response to comments on the DEIR. The analysis found that a 1,000 foot buffer would result in no substantial reduction in the cancer risk impacts.~~

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[1] ~~Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 8.2. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf~~

~~The HRA examines the regional nature of the project's potential health risk impacts over a multi-year time period. The HRA methodology applies a risk characterization model to the results from an air dispersion model to estimate potential health risks at each sensitive receptor location. Because of the pervasive nature of diesel particulate matter (diesel PM) in contributing to estimated health risks in California, the focus of this assessment is on estimating the health risks from diesel PM. While the project activities may result in the emission of other TACs (e.g., Total Organic Gases (TOG) from diesel and gasoline-powered vehicles), diesel PM from the project was found to contribute approximately 98 percent of the total cancer risk from project operations (see the revised *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Appendix D of this EIR). TOG emissions from diesel and gasoline vehicles were, however, included in the assessment of acute non-cancer hazards.~~

~~The HRA process involves four main steps: hazard identification, dose-response assessment, exposure assessment, and risk characterization.~~

- ~~**Hazard Identification**: Hazard identification is the process by which contaminants of concern are selected for investigation in the risk assessment, and includes a review of the chemicals that are potentially released to the atmosphere from the equipment of concern. This assessment is responsive to the emissions of various toxic air contaminants from the construction and operation of the project. The main toxic air contaminants associated with the project include diesel PM from diesel-fueled equipment and total organic gases (TOG) from both gasoline and diesel vehicles.~~
- ~~**Dose-Response Assessment**: The dose-response assessment develops relationships between exposures to a given chemical and the corresponding potential health effects associated with exposure to that chemical. In general, data are limited regarding adverse effects associated with direct exposure to humans to a particular chemical. Therefore, animal experiments have often been performed to assess a chemical's toxicity. These experiments are conducted to determine the organs that are adversely affected by a toxic chemical and the amount of the chemical needed to produce an adverse effect on the organ. Two types of adverse health effects are generally considered in health risk assessments: carcinogenic and non-carcinogenic. Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Any exposure, therefore, will have some associated risk. Chemicals that potentially produce carcinogenic effects have been shown or are suspected to produce tumors in animals or humans. Non-carcinogenic effects, such as liver or kidney damage, may be either reversible or permanent. In these situations, it is assumed that there is a level of exposure at which these chemicals produce no adverse effects in the human body. In other words, exposure to these chemicals in amounts less than a threshold level will result in no adverse health effects. The toxicity assessment characterizes the relationship between the magnitude of exposure and the nature and magnitude of adverse health effects that may result from such exposure~~
- ~~**Exposure Assessment** identifies potential exposure pathways, estimates chemical concentrations at potential exposure points, and calculates expected doses of emitted substances. An exposure pathway is defined as the means by which an individual or a population is exposed to contaminants that originate from a source. Each pathway represents a different mechanism for exposure. An exposure pathway is defined as the means by which an individual or a population is exposed to contaminants that originate from a source. For this purpose, an air dispersion model (the USEPA AERMOD regulatory model), is used to estimate the toxic air concentrations at locations within and surrounding the project.~~
- ~~**Risk Characterization** is the process of combining dose-response information with the estimates of human exposure in order to derive a quantitative estimate of the likelihood that humans will experience any adverse health effects for the given exposure assumptions. Two general types of health effects are generally considered: potential carcinogenic risks after chronic (long-term)~~

> ~~exposure and potential non-carcinogenic health impacts following chronic (long-term) and acute (short-term) exposure. Each of these health effects was evaluated in this report.~~

~~**Estimation of Cancer Risks.** Excess cancer risks[1] are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unit-less probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time.~~

~~The health risk assessment methodology that was included in the DEIR for estimating cancer risks is described below. This methodology, taken from the AB2588 Hot Spot program, estimates cancer risks over a 70-year lifetime of exposure and includes assumptions concerning individual rates of the inhalation of air. This methodology is referred to as the “Former OEHHA Guidance” since it is has been updated by OEHHA since the circulation of the DEIR. The “Former OEHHA Guidance” also provides for an estimate of off-site worker exposures over a 40-year duration.~~

~~On March 6, 2015, the OEHHA released its final version of the document. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments.*” This Guidance Manual has been developed by OEHHA, in conjunction with CARB, for use in implementing the Air Toxics Hot Spots Program (Health and Safety Code Section 44360). OEHHA is required to develop guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360 (b) (2)). OEHHA earlier developed three Technical Support Documents (TSDs) in response to this statutory requirement, which provided the scientific basis for values used in assessing risk from exposure to facility emissions. The three TSDs describe non-cancer risk assessment (derivation of acute, 8-hour and chronic reference exposure levels), derivation of cancer potency factors, and exposure assessment methodology including stochastic risk assessment. The Guidance incorporates the awareness of the sensitivity of early-in-life exposures to toxic air contaminants for sensitive receptors. The methodology is referred to in this document as the “Current OEHHA Guidance.”~~

~~The “Current OEHHA Guidance” provides for a 30-year lifetime exposure for sensitive receptors along with assumptions on age-specific sensitivity factors, daily breathing inhalation rates, and time at home estimates. The “Current OEHHA Guidance” also provides for a 25-year exposure duration for off-site worker receptors. To date, the technical support documents relative to the “Current OEHHA Guidance” have been finalized by the OEHHA relative to the AB2588 Hot Spots program; the CARB and SCAQMD have initiated the process to adopt the guidance for AB2588 assessments and application to CEQA air quality impact assessments. This revised assessment estimates the project’s health risk impacts under the “Current OEHHA Guidance”. The changes in the “Current OEHHA Guidance” result in a more conservative estimate of cancer risks resulting from the incorporation of early-in-life exposures compared to the “Former OEHHA Guidance”. This HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The estimation of cancer risk involves the specification of several parameters including the concentration level of the toxic air contaminant (for purposes of this assessment diesel PM10 exhaust), the rate of inhalation of the toxic, the exposure frequency (number of days per year), the exposure duration in years, the time period over which the exposure takes place, what is termed a slope factor that represents an upper bound on the increased cancer risk from a lifetime exposure to a toxic by~~

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[1] ~~Excess cancer risk is the risk from exposure to a source of air toxics that is over and above any cancer risk borne by a person not exposed to these air toxics.~~

~~ingestion or inhalation and early-in-life age sensitivity factors. The values of these parameters depend on the type of receptor, i.e., sensitive/residential, worker, and student as discussed below.~~

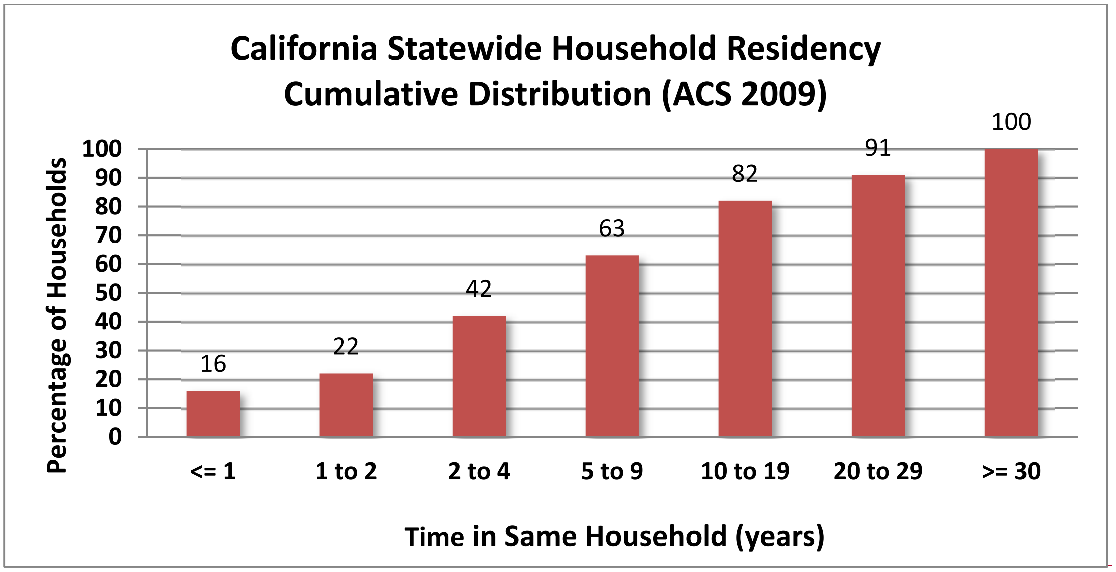

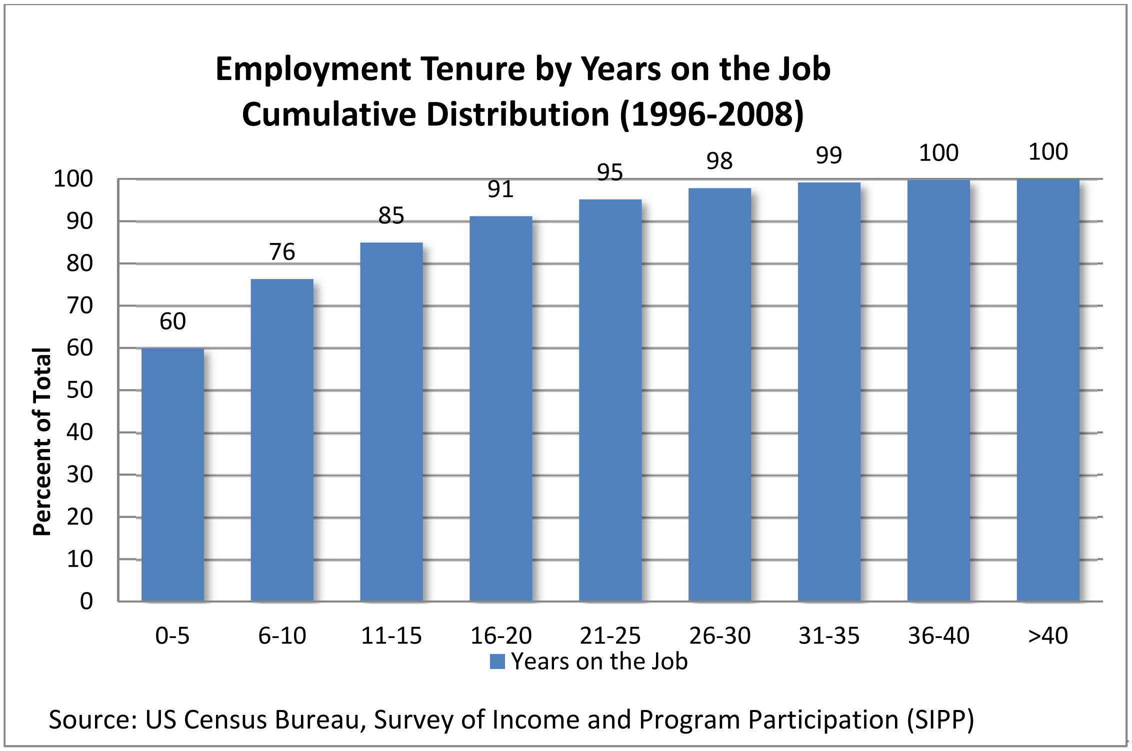

Source: US Census Bureau, Survey of Income and Program Participation (SIPP)

~~*Cancer Risk Exposure Assumptions.* The principal focus of this HRA is on the potential health impacts to sensitive/residential receptors located within and surrounding the project site, based on the assumption that diesel exhaust can cause cancer. Sensitive receptors include hospitals, schools, daycare facilities, elderly housing and convalescent facilities. Residences are also considered sensitive receptors. An important parameter necessary to estimate cancer risk requires the specification of the duration of exposure of an individual to toxic air contaminants. An assessment of~~

~~population mobility can assist in determining the length of time a residential receptor is exposed in a particular location. For example, the duration of exposure to a source of toxic air contaminants will be directly related to the period of time residents live near the source of the emissions.~~

~~Table 4.3.G summarizes the primary exposure assumptions used to calculate individual cancer risk by receptor type for the "Current OEHHA Guidance."~~

~~Table 4.3.G: Exposure Assumptions for Cancer Risk for "Current OEHHA Guidance" (new table)~~

~~Type of Guidance~~	~~Receptor Type~~	~~Exposure Frequency~~		~~Exposure Duration (years)~~	~~Age Sensitivity Factors~~	~~Time at Home Factor (%)~~	~~Daily Breathing Rate (L/kg-day)~~
		~~Hours/ day~~	~~Days/ year~~				
~~Current OEHHA Guidance~~	~~Sensitive/Residential:~~						
	~~3rd Trimester~~	~~24~~	~~350~~	~~0.25~~	~~10~~	~~85~~	~~361~~
	~~0-2 years~~	~~24~~	~~350~~	~~2~~	~~10~~	~~85~~	~~1090~~
	~~3-16 years~~	~~24~~	~~350~~	~~14~~	~~3~~	~~72~~	~~745~~
	~~Older than 16 years~~	~~24~~	~~350~~	~~14~~	~~1~~	~~73~~	~~290~~
	~~Student~~	~~8~~	~~180~~	~~9~~	~~3~~	~~NA~~	~~745~~
	~~Worker~~	~~8~~	~~250~~	~~25~~	~~1~~	~~NA~~	~~230~~

~~(L/kg-day) = liters per kilogram body weight per day; NA = not applicable~~
~~The daily breathing rates shown are the 95th percentile rate as recommended by the OEHHA.~~
~~Source: OEHHA 2014~~

~~The underlying factors used in the analysis exemplify the conservative nature of utilizing the exposure scenarios and the underlying assumptions:~~

- ~~The residential cancer risk calculation assumes that each resident will be exposed to diesel particulate matter (diesel PM) and organic gases for 24 hours a day for 350 days a year at the location of his or her home throughout the entire 30 year residential exposure period.~~
- ~~The worker cancer risk calculation assumes that workers are exposed to diesel PM for 8 hours a day for 250 days a year, next to, but outside of the buildings in which they work.~~
- ~~The atmospheric dispersion model and traffic model that are used to estimate risks generally provide impact estimates that are over-estimates based on the use of conservative model assumptions.~~

~~Other Factors that Influence Health Risk Estimates: Conservative Trip Estimates.~~ ~~It should also be noted that the traffic analysis used a conservative estimate of the number of truck trips after the project begins operation. This is important because diesel PM emissions are directly related to both the number of trucks and the vehicle miles traveled.~~

~~The traffic analysis in the EIR used the traffic generation rate for high-cube warehouses suggested by the Institute of Traffic Engineers ("ITE") which is based on traffic counts from a number of large warehouses located in California and elsewhere in the United States. This rate was also compared to the trip generation rate actually resulting from the Skechers warehouse immediately adjacent to the project. The Skechers warehouse is representative of the warehouses planned for the project. The ITE trip generation rate is three times greater than the Skechers warehouse traffic counts (see Table 4.15.K in the revised EIR). Because the project analysis used a higher trip generation rate, the vehicle miles traveled are also higher. The combination of the conservative forecasts of traffic and of the miles traveled means that the calculation of the cancer risk in the EIR overstates the extent of that risk regardless of the exposure period used.~~

~~Cancer Burden~~~~. Whereas cancer risk represents the probability of an individual to develop cancer, cancer burden multiplies the cancer risk by the exposed population to estimate the number of~~

~~individuals that would be expected to contract cancer from the project. The exposed population is defined as the number of persons within a facility's zone of impact, which is typically the area exposed to an incremental cancer risk of one in a million from the project. Consistent with this definition, cancer burden was calculated by first identifying all population census tracts[1] located within the project's zone of impact, multiplying the estimated incremental project cancer risk impact in the census tract by the population of the census tract and then summing all of products of population times estimated cancer risk in the zone of impact. Note that each census tract contributes to the cancer burden in proportion to its population and risk. For example, if a census tract has a relatively high estimated cancer risk, but no people living there, it will not contribute to the estimation of the cancer burden. As provided in the "Current OEHHA Guidance", the cancer burden is calculated assuming a 70-year exposure duration along with the appropriate exposure frequency, daily breathing rates, age sensitivity factors, and time at home factors appropriate to each age group[2].~~

~~**Non-cancer Hazards.** Separate from cancer risk impacts, exposures to TACs such as diesel PM can also cause chronic (long-term) and acute (short-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health risks from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL). This is a separate and distinct analysis from the analysis conducted for cancer risk. A significant risk is defined by the SCAQMD as an HI of 1 or greater. The California OEHHA has assigned a chronic non-cancer REL of 5 µg/m^3 for diesel PM (OEHHA 2011). Diesel PM has effects on the respiratory system, which accounts for essentially all of its potential chronic non-cancer hazards. Therefore, the only HI calculated was for the respiratory system.~~

~~Exposures to toxics air contaminants can also have short-term or acute non-cancer effects, typically dealing with exposures over an hour or so. The California OEHHA has not defined a reference exposure level for diesel PM appropriate for estimating acute non-cancer hazards from diesel PM. Therefore, to estimate the potential acute non-cancer impacts from the project, it was necessary to examine the various individual chemical components (or chemical species) that comprise the emissions from both diesel vehicles and gasoline vehicles. For this purpose, use was made of emission source profiles that provide estimates of the various chemical components that comprise the exhaust from diesel and gasoline vehicles. From this information, an estimate can be made of the maximum one-hour average concentration levels of the project's various chemical species from which an acute non-cancer hazard index can be determined.~~

~~**Morbidity and Mortality.** Respirable particulate matter is a public health concern as it is known to impact both the respiratory and cardiovascular systems. Respirable particulate matter deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne particulate matter (PM_{10} and $PM_{2.5}$) include children, the elderly, smokers, and people of all ages with low pulmonary/cardiovascular function. The CARB reviewed and summarized the toxic health effects (i.e., mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify~~

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[1] ~~A census tract is a geographic region defined for the purpose of taking a census. Usually these regions coincide with the limits of cities, towns, or other administrative areas. Each tract has a unique numeric code and averages about 4,000 inhabitants. The census tract centroid is the geographic center of the tract based on a weighted distribution of the population within the tract using the census blocks that comprise the tract. A census block is the smallest geographic unit used to tabulate population and each tract can be comprised of several blocks.~~

[2] ~~Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 8.1. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf~~

~~these impacts based on concentration-response functions (C-R functions). This CARB model has been used, for example, to estimate the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement in California.~~

~~The CARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity, however, such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions, baseline rates of mortality and morbidity that are entered into C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and O_3 that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted.~~

~~Despite a number of uncertainties in the analysis methodology, the expected increase in mortality and morbidity was calculated for the project's toxic air emissions.~~

~~**Geographic Scope of the Health Risk Assessment.** The HRA is characterized by two important differences from the localized significance threshold assessment for criteria pollutants. According to the SCAQMD localized significance threshold assessment methodology, the assessment of localized impacts addresses only those emissions that are generated "onsite", that is for the purposes of this project, emissions generated from within or along the boundaries of the Specific Plan. However, for the HRA, both the universe of the project's emission sources and air dispersion model receptors were greatly expanded to assess the regional impact of the project's emissions of toxics. For this purpose, the project's toxics emission sources included over 500 individual arterial road and freeway mainline segments in the region that extended from North Palm Springs to Long Beach in the east-west direction and from Rancho Cucamonga to Hemet/San Jacinto in the north-south direction, roughly an area of 3,500 square miles. The study area for the arterial roads covered all intersections in the City of Moreno Valley of a collector or higher classification street with another collector street or higher classification street at which the project would add 50 or more peak hour trips. The study area included the main arterial routes between the project and neighboring communities of Riverside, Perris, Beaumont, San Jacinto, Hemet, and Redlands.~~

~~The study area for freeways was selected to cover the freeway routes radiating from the project site to the north, south, east, and west. The analysis covered major portions of the following freeways from North Palm Springs to the ports of Los Angeles and Long Beach: Interstate 10, State Route 60, State Route 91, Interstate 215, and Interstate 710.~~

~~The generation of emissions from traffic traveling along the various arterial and freeway mainline roadway segments requires information on traffic volumes, length of segment, and emission factors. The emission factors, in turn, depend on vehicle type, speed, calendar year, and fuel type. Estimates of daily and peak hour vehicle volumes and types (passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks) were provided by the traffic consultant for each roadway segment analyzed. The physical length and width of each roadway segment were estimated using the segment location as provided by the traffic consultant and aerial photographs available from Google Earth. Vehicle speeds for each roadway segment and vehicle type were estimated based on posted speed limits and peak morning and afternoon average speeds taken from the 2012 Regional Transportation Plan for the years 2008 and 2035 (Southern California Association of Governments 2012). Segment speeds were adjusted to account for stop signs and traffic lights and other stoppages by reducing the prevailing vehicle speeds by 5 to 10 mph. The various roadway parameters are provided in Appendix D.~~

~~The expanded geographic scope of the assessment also necessitated an expansion in the locations of the receptors where the project's impacts were calculated. This expanded network included locations of individual schools within the Moreno Valley School District and over 2,300 census tract centroid locations.~~

~~Finally, it is recognized that because of the large geographical extent of the region covered in this HRA, meteorological conditions differ for different portions of the study region. The most frequent wind direction patterns in the Riverside and Moreno Valley areas are from the northwest direction at as represented by the SCAQMD Riverside air monitoring station. In contrast, the most frequent wind directions along the SR-60 and SR-91 west of SR-71 in the La Habra and Anaheim areas are generally from the southwest. Because of these wind differences, it was necessary to separate the air dispersion modeling into two separate pieces as follows. Those emission sources located east of SR-71 were assumed to be influenced by the meteorological conditions represented by the Riverside meteorological data. Those emission sources located west of SR-71 were assumed to be influenced by the meteorological conditions represented by the Anaheim meteorological data. The air dispersion modeling was done separately for the region east of SR-71 and for the region west of SR-71. The air pollutant concentrations at each receptor location were then comprised as the sum of the emission impacts from those sources located east of SR-71 and west of SR-71 as influenced by their respective meteorological conditions.~~

~~The health risk analysis examined the following condition:~~

- ~~Proposed Project Development condition which examines the effect of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2015, build out of Phase 1 in 2022, and the final full build out in 2035. This condition forms the basis for quantifying the incremental impacts from the project.~~

~~Annual average diesel PM emissions and impacts were calculated for each year starting from 2015 based on the assumption that diesel exhaust can cause cancer. Specifically, annual average diesel PM concentrations were estimated from the diesel PM construction emissions for each year of construction from 2015 to 2030 according to the construction schedule and equipment usage projected for each year of construction. Proposed Project Development examines project impacts resulting from the proposed construction and operation of the project from the commencement of construction in 2015 for a 30-year duration for sensitive/residential receptors, 25-year for worker receptors, and 9-year exposure time periods for school-site student receptors. Annual average diesel PM emissions and impacts during operation were estimated for the years 2022 and 2035, years for which detailed traffic information was available from the traffic impact report. The annual average operational diesel PM impacts were then interpolated among three calculation years: 2015 (operational emissions were assumed to be zero in this year), 2022 and 2035 based on the amount of square-footage of buildings brought online during each year. Annual average diesel PM concentrations for the years beyond 2035 were set to the year 2035 levels.~~

~~During years when both construction and operations occur simultaneously (2016 to 2030), the annual diesel PM concentrations at the sensitive receptors from construction were added to the annual diesel PM concentrations from operations to provide a total impact assessment of all diesel PM emissions from the project during each year. The resulting total annual average diesel PM concentrations calculated each year for the exposure time period (individual annual averages) multiplied by the requisite daily breathing rates, age sensitivity factors, and time-at-home factors for each year of exposure assuming the a child of age zero (within the mother's womb) commences its lifetime exposure in year 2015. The HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The revised mitigation conditions require that all diesel~~

~~trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.~~

~~4.3.4 Thresholds of Significance~~

~~Based on Appendix G of the *CEQA Guidelines*, air quality impacts would occur if the proposed project would:~~

- ~~Conflict with or obstruct implementation of the applicable air quality plan;~~
- ~~Violate any air quality standard or contribute substantially to an existing or projected air quality violation;~~
- ~~Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);~~
- ~~Expose sensitive receptors to substantial pollutant concentrations; and/or~~
- ~~Create objectionable odors affecting a substantial number of people.~~

~~In addition to the Federal and State AAQS, there are daily emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook*[1] and subsequent additions to the Handbook were used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution related to air quality and health risks.~~

~~4.3.4.1 Thresholds for Construction Emissions~~

~~The following CEQA significance thresholds for construction emissions have been established by the SCAQMD for the Basin:~~

- ~~75 pounds per day of VOC, also known as reactive organic compounds (ROC).~~
- ~~100 pounds per day of NO_X.~~
- ~~550 pounds per day of CO.~~
- ~~150 pounds per day of PM_{10}.~~
- ~~150 pounds per day of SO_X.~~
- ~~55 pounds per day of $PM_{2.5}$.~~

~~Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA.~~

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[1] ~~*CEQA Air Quality Handbook*, April 1993.~~

~~4.3.4.2 Thresholds for Operational Emissions~~

~~Projects with operation-related emissions that exceed any of the emission thresholds listed below are considered significant under the SCAQMD guidelines.~~

- ~~55 pounds per day of VOC, also known as ROC.~~
- ~~55 pounds per day of NO_X.~~
- ~~550 pounds per day of CO.~~
- ~~150 pounds per day of PM_{10}.~~
- ~~150 pounds per day of SO_X.~~
- ~~55 pounds per day of $PM_{2.5}$.~~

~~4.3.4.3 Air Pollutant Standards for CO with Localized Effects~~

~~The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards (previously referenced Table 4.2.A). If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more. The Basin meets State and Federal attainment standards for CO; therefore, the proposed project would have a significant CO impact if project emissions result in an exceedance of State or Federal one-hour or eight-hour standard. The following emission concentration standards for CO, based on the SCAQMD *CEQA Air Quality Handbook* (1993), apply to the proposed project:~~

- ~~California State one-hour CO standard of 20.0 ppm.~~
- ~~California State eight-hour CO standard of 9.0 ppm.~~

~~4.3.4.4 Localized Significance Thresholds~~

~~The SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003, revised July 2008) and *Final Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds* (October 2006), recommending that all air quality analyses include a localized assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of Federal or State AAQS. LSTs are based on the ambient concentrations of that pollutant within the Source Receptor Area (SRA) where a project is located and the distance to the nearest sensitive receptor. The project site is located in the northern portions of SRAs 24 (Moreno Valley) and 28 (San Jacinto).~~

~~In the case of CO and NO_2, if ambient levels are below the air standards for these pollutants, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are nonattainment pollutants in the Basin. For these latter two pollutants, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 $\mu g/m^3$ applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 $\mu g/m^3$ applies to non-aggregate handling operational activities.~~

~~Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. There are currently seven occupied single-family homes and associated ranch/ farm buildings in various locations on the proposed project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the proposed project site are the residences located along Bay Avenue, Merwin Street, and west of Redlands Boulevard, and scattered residences along Gilman Springs Road.~~

~~Following the SCAQMD LST methodology, for sites larger than 5 acres, air dispersion modeling needs to be conducted. Because the project site greatly exceeds 5 acres, the localized significance for project air pollutant emissions was determined by performing dispersion modeling to determine if the pollutant concentrations would exceed relevant significance thresholds established by the SCAQMD.~~

~~The following LSTs were applied to the construction and operation of the project:~~

- ~~0.18 ppm (State 1-hour); 0.100 ppm (Federal 1-hour); and 0.03 ppm (Annual) of NO$_2$ for construction or operations.~~
- ~~20 ppm (1-hour) and 9.0 ppm (8-hour) of CO for construction or operation.~~
- ~~10.4 µg/m^3 (24-hour) and 1 µg/m^3 of PM$_{10}$ (Annual) for construction.~~
- ~~2.5 µg/m^3 (24-hour) and 1.0 ppm (Annual) of PM$_{10}$ for operations.~~
- ~~10.4 µg/m^3 (24-hour) of PM$_{2.5}$ for construction.~~
- ~~2.5 µg/m^3 (24-hour) of PM$_{2.5}$ for operation.~~

- ~~Note that when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operation apply in determining emission significance~~

~~4.3.4.5 Health Risk Significance Thresholds~~

~~For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), "substantial" is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level.~~
~~The SCAQMD has defined several health risk significance thresholds that it recommends to Lead Agencies in assessing a project's health risk impacts. The City of Moreno Valley has not adopted its own set of thresholds. Therefore, the following SCAQMD thresholds were adopted for the project.~~

- ~~**Maximum Individual Cancer Risk and Cancer Burden (MICR).** MICR is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to TACs over the applicable exposure period.~~

  ~~A significant impact would occur for:~~

  ~~(A) An increased MICR greater than 10 in 1 million at any receptor location; or~~

  ~~(B) A cancer burden greater than 0.5~~

- ~~**Chronic Hazard Index.** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. A reference exposure level is the exposure level below which an adverse health effect will not occur as determined by health professionals The Chronic Hazard Index calculations include multi-pathway consideration, when applicable.~~

~~A significant impact would occur if the increase in total chronic hazard index for any target organ system due to exposures to total TAC emissions from the project exceeds 1.0 at any receptor location.~~

- ~~**Acute Hazard Index.** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level, the exposure level below which an adverse health effect will not occur as determined by health professionals.~~

  ~~A significant impact would occur if the increase in total acute Hazard Index for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.~~

~~4.3.5 Less than Significant Impacts~~

~~The following impacts were determined to be less than significant. For each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.~~

~~4.3.5.1 Odors~~

~~Threshold~~	~~Would the proposed project create objectionable odors affecting a substantial number of people?~~

~~The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.~~

~~Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain land uses typically associated with emitting objectionable odors.~~

~~SCAQMD Rule 402 dictates that air pollutants discharged from any source shall not cause injury, nuisance, or annoyance to the health, safety, or comfort of the public. With the exception of short-term construction-related odors (e.g., equipment exhaust, paint, and asphalt odors), the proposed uses that would be developed on the proposed site do not include uses that are generally considered to generate offensive odors (e.g., agricultural uses, wastewater treatment plants, or landfills). While the application of architectural coatings and installation of asphalt may generate odors, these odors are temporary and not likely to be noticeable beyond the project boundaries. SCAQMD Rules 1108 and 1113 identify standards regarding the application of asphalt and architectural coatings, respectively.~~

~~SCAQMD Rule 1108 sets limitations on ROG (reactive organic gases), which are similar to and for the purposes of this EIR equivalent to and therefore interchangeable with volatile organic compounds (VOC) content in asphalt. This rule is applicable to any person who supplies, sells, offers for sale, or manufactures any asphalt materials for use in the Basin. Rule 1113 of the SCAQMD deals with the selling and application of architectural coatings. Rule 1113 is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use in the Basin that is intended to be applied to buildings, pavements, or curbs. This rule is also applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of VOC emissions allowed for all types of architectural coatings, along with a time table for tightening the emissions standards in the future. Compliance with Rule 1113 means that architectural~~

~~coatings used during construction would have VOC emissions that comply with these limits. In addition, pursuant to Mitigation Measure 4.3.6.2C, the project would be required to use low VOC paints.~~

~~The SCAQMD indicates that the number of overall complaints has been declining. Between 2003 and 2007, odor complaints made up 50 to 55 percent of the total nuisance complaints. Over the past decade, odor complaints from paint and coating operations have decreased from 27 to 7 percent and odor complaints from refuse collection stations have increased from 9 to 34 percent.~~

~~Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Diesel exhaust would also be emitted during operation of the project from the long-haul trucks that would visit the project site. However, the concentrations would not be at a level to result in a negative odor response at nearby sensitive or worker receptors. In addition, modern emission control systems on diesel vehicles since 2007 virtually eliminate diesel's characteristic odor.~~

~~During blow-down maintenance activities, natural gas odors will be present around the SDG&E Compressor Plant located on the project site. When this portion of the WLC Specific Plan is developed, these odors will occasionally be detectable from the industrial warehouse properties adjacent to the SDG&E facility. These odors will be infrequent and odorized natural gas will not be present in high concentrations. Therefore, potential odor impacts from on-site natural gas operations are considered to be less than significant and do not require mitigation.~~

~~Adherence to applicable provisions of these rules is standard for all development within the Basin. In addition, conditions for the design of waste storage areas on the proposed site would be established through the permit process to ensure enclosures are appropriately designed and maintained to prevent the proliferation of odors. Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on-site uses would be adequately managed. Therefore, impacts associated with this issue would be less than significant and no mitigation is required.~~

~~4.3.5.2 Long-Term Microscale (CO Hot Spot) Emissions~~

~~Threshold~~	~~Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?~~
	~~For CO, the applicable thresholds are:~~
	~~- California State one-hour CO standard of 20.0 ppm; and~~
	~~- California State eight-hour CO standard of 9.0 ppm.~~

~~Vehicular trips associated with the development of the proposed project could contribute to congestion at intersections and along roadway segments in the project vicinity resulting in potential local CO "hot spot" impacts. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle travel speeds and idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, schoolchildren, etc.). High CO concentrations are typically associated with roadways or intersections operating at unacceptable levels of service or with very high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.~~

~~Carbon monoxide (CO) "hot spot" thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecast regional traffic do not exceed State or Federal standards for CO at any traffic intersection affected by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the State CO 1-hour standard of 20 ppm, State CO 8-hour standard of 9 ppm, Federal CO 1-hour standard of 35 ppm, or Federal CO 8-hour standard of 9 ppm.~~

~~A CO hot spot is a localized concentration of CO that is above the State or Federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections where the concentrations would be the greatest.~~

~~This analysis follows guidelines recommended by the CO Protocol (University of California, Davis 1997) and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The LOS for intersections is determined in the project Traffic Impact Analysis (refer to Section 4.15 of this EIR, Traffic and Circulation). The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: (1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or (2) the project decreases LOS at an intersection from C to D. A decrease in LOS, i.e., from C to D, means that there is more traffic and more delay at the intersection.~~

~~For this project analysis, the intersections with the highest traffic volumes and the LOS E or F before mitigation were identified for 2022 using information from the table in the traffic study "Intersection LOS under 2022 Plus Phase 1 Conditions." The intersections with the greatest LOS before mitigation were also identified for 2035 using information from the table in the traffic study "Intersection LOS under 2035 Plus Build-out Conditions."~~

~~The CO concentrations were estimated using the CALINE4 model using 2012 emission factors. The emission factors are for "all" vehicle classes and are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project mitigation reductions from requiring that all diesel trucks are model year 2010 or newer.~~

~~Table 4.3.H shows estimated CO concentrations at year 2022 plus project traffic conditions. The estimated CO concentrations at year 2035 are shown in Table 4.3.I. As shown in the tables, the estimated 1-hour and 8-hour average CO concentrations from project-generated and cumulative traffic plus the background concentrations are below the State and Federal standards. No CO hot spots are anticipated because of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact. No mitigation is required.~~

~~Note: The following tables were edited because the revised Traffic Impact Analysis revised traffic volumes and LOS. CO hotspot analyses are dependent of traffic volumes through specific intersections; changes in a traffic analysis may result in changes to the intersections that require analysis in order to determine the location of greatest impact. That occurred in this analysis with changing transportation analysis requiring a modified CO hotspot analysis.~~

~~Table 4.3.H: Carbon Monoxide Concentrations at Intersections, 2022~~

~~Intersection~~	~~Peak Hour~~	~~CO Concentration (ppm)~~		~~Significant Impact?~~
		~~1 Hour~~	~~8 Hour~~	
~~Cactus Avenue at Graham Street~~	~~PM~~	~~5.2~~	~~3.4~~	~~No~~
~~Cactus Avenue at Elsworth Street~~	~~PM~~	~~4.9~~	~~3.2~~	~~No~~
~~Alessandro Blvd at Sycamore Canyon Road~~	~~PM~~	~~4.8~~	~~3.1~~	~~No~~
~~Alessandro Blvd at Chicago Avenue~~	~~AM~~	~~5.2~~	~~3.4~~	~~No~~
~~Alessandro Blvd at Chicago Avenue~~	~~PM~~	~~5.4~~	~~3.5~~	~~No~~

- ~~ppm = parts per million~~
- ~~A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.I: Carbon Monoxide Concentrations at Intersections, 2035~~

~~Intersection~~	~~Peak Hour~~	~~CO Concentration (ppm)~~		~~Significant Impact?~~
		~~1 Hour~~	~~8 Hour~~	
~~Alessandro Blvd at Mission Grove Pkwy~~	~~PM~~	~~5.1~~	~~3.3~~	~~No~~
~~Alessandro Blvd at Chicago Avenue~~	~~AM~~	~~5.3~~	~~3.5~~	~~No~~
~~Alessandro Blvd at Chicago Avenue~~	~~PM~~	~~5.4~~	~~3.5~~	~~No~~
~~Alessandro Blvd at Canyon Crest Drive~~	~~AM~~	~~5.4~~	~~3.5~~	~~No~~
~~Alessandro Blvd at Canyon Crest Drive~~	~~PM~~	~~5.6~~	~~3.7~~	~~No~~

- ~~ppm = parts per million~~
- ~~A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~4.3.6 Significant Impacts~~

~~The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.~~

~~4.3.6.1 Air Quality Plan Management Plan Consistency~~

~~**Impact 4.3.6.1:** *Implementation of the proposed project has the potential to conflict with implementation of the SCAQMD 2012 AQMP.*~~

~~Threshold~~	~~Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?~~

~~According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the Air Quality Management Plan (AQMP):~~

1. ~~Indicator: Whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.~~
2. ~~Indicator: A project would conflict with the AQMP if it would exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase. The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used in the Regional Transportation Model run by the Southern California Association of Governments~~

> ~~that generated the mobile inventory used by the SCAQMD for AQMP are not available and assumed not to include the proposed project; therefore, the SCAQMD's significance thresholds are used to determine if the project exceeds the assumptions in the AQMP.~~

~~Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis utilizes the following criteria to address this potential impact:~~

- ~~Project's contribution to air quality violations (SCAQMD's first indicator, 1 as listed above);~~
- ~~Assumptions in AQMP (SCAQMD's second indicator, 2, as listed above); and~~
- ~~Compliance with applicable emission control measures in the AQMPs.~~

~~**Project's Contribution to Air Quality Violations and Assumptions in AQMP.** According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD 1993, page 12-3). As shown in analyses in Impact 4.3.6.3, the project could violate an air quality standard and therefore could contribute substantially to an existing or projected air quality violation.~~

~~If a project's emissions exceed the SCAQMD regional thresholds for NO_X, VOC, PM_{10}, or $PM_{2.5}$, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the Basin is in nonattainment (ozone, PM_{10}, and $PM_{2.5}$) at a monitoring station in the Basin.~~

~~The thresholds are criteria for determining environmental significance and are discussed in the SCAQMD's 1993 Handbook for Air Quality Analysis and are updated in the SCAQMD's most recent thresholds published online in 2012.[4] An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP to achieve attainment of pollutants.~~

~~As discussed in the analyses below (Impact 4.3.6.2, Construction Emissions, and Impact 4.3.6.4, Long-Term Operational Emissions), the project would exceed the regional emission significance thresholds for VOC, NO_X, CO, PM_{10}, and/or $PM_{2.5}$ prior to the application of mitigation. (Refer specifically to Table 4.3.J for construction emissions and Table 4.3.Y for operational emissions.) This means that project emissions of VOC and NO_X could combine with other sources and could result in an ozone, PM_{10}, or $PM_{2.5}$ exceedance at a nearby monitoring station. The Basin in which the project is located is in nonattainment for these pollutants; therefore, according to this criterion, the project would not be consistent with the AQMP. The regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. The project does not meet this criterion.~~

~~*Note: The project comparison with the Moreno Highlands Specific Plan was removed because it is assumed that there would be a zero baseline for the existing emissions, instead of assuming that the existing conditions are emissions from the Moreno Highlands Specific Plan. Please see the paragraphs above for a discussion. Note that a comparison to the Moreno Highlands Specific Plan is still part of the No Project analysis of the EIR and can be found in the Alternatives Section 6.0.*~~

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[4] ~~The most recent SCAQMD significance thresholds are located at the following website.http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2~~

~~**Compliance with Emission Control Measures.** The second indicator of whether the project could conflict with or obstruct implementation of the AQMP is by assessing the project's compliance with the control measures in the AQMPs and the State Implementation Plan (SIP).~~

~~**2003 AQMP.** The 2003 AQMP contains a number of land use and transportation control measures including the following: the SCAQMD's Stationary and Mobile Source Control Measures; State Control Measures proposed by the CARB; and SCAG Transportation Control Measures (TCMs). The CARB's strategy for reducing mobile source emissions includes the following approaches: new engine standards; reduction of emissions from in-use fleet; requiring clean fuels; supporting alternative fuels and reduction of petroleum dependency; working with the EPA to reduce emissions from Federal and State sources; and pursuit of long-term advanced technology measures (AQMP 2003, page 4-25). SCAG TCMs include those contained in the Regional Transportation Plans (RTPs), the most current version of which is the 2008 RTP, which has control measures to reduce emissions from on-road sources by incorporating strategies such as high occupancy vehicle interventions, transit, and information-based technology interventions (AQMP 2003, page 4-19). The project would comply with the control measures and regulation set by the CARB and SCAG.~~

~~**2007 AQMP.** The focus of the 2007 AQMP is to demonstrate attainment of the Federal $PM_{2.5}$ ambient air quality standard by 2015 and the Federal 8-hour ozone standard by 2024, while making expeditious progress toward attainment of State standards. This is to be accomplished by building upon improvements from the previous plans and incorporating all feasible control measures while balancing costs and socioeconomic impacts. The 2007 AQMP indicates that $PM_{2.5}$ is formed mainly by secondary reactions of precursor gases. Therefore, instead of reducing fugitive dust (a primary source), the strategy for reducing $PM_{2.5}$ focuses on reducing precursor emissions of SO_X, directly emitted $PM_{2.5}$, NO_X, and VOC.~~

~~The 2007 AQMP control measures consist of four components: The first component is SCAQMD's Stationary and Mobile Source Control Measures. The Final 2007 AQMP includes 30 short-term and mid-term stationary and seven mobile source control measures for SCAQMD implementation. A complete listing of the measures is in the 2007 AQMP and includes measures such as VOC reductions from gasoline transfer and dispensing facilities, further NO_X reductions from space heaters, localized control program for PM emission hot spots, urban heat island, energy efficiency and conservation, etc. Some of the measures will become new rules and some will be amendments to existing rules. When the rules pass, the owner-operator will follow the applicable rules.~~

~~The second component is the CARB's Proposed State Strategy, which includes short- and mid-term control measures aimed at reducing emissions from sources that are primarily under State jurisdiction, including on-road and off-road mobile sources, and consumer products. These measures are required in order to achieve the remaining emission reductions necessary for $PM_{2.5}$ attainment. The CARB's strategy includes measures such as improvements to California's Smog Check Program, expanded passenger vehicle retirement, cleaner in-use heavy-duty trucks, reductions from port-related sources, cleaner off-road equipment, evaporative and exhaust strategies, pesticide strategies, etc. When these measures are implemented by the CARB, the project would be required to follow them.~~

~~The third component is the SCAQMD Staff's Proposed Policy Options to Supplement CARB's Control Strategy. SCAQMD staff believes that a combination of regulatory actions and public funding is the most effective means of achieving emission reductions. As such, the 2007 Final AQMP proposes three policy options for the lead agency to consider in achieving additional reductions. The first option is to incorporate the SCAQMD-proposed additional control measures as a menu of selections further reducing emissions from sources primarily under State and Federal jurisdiction. The second option is to have the State fulfill its NO_X emission reduction obligations under the 2003 AQMP by 2010 for its short-term defined control measures plus additional reductions needed to meet the NO_X emission target between 2010 and 2014. The third option is based on the same rate of progress under Policy Option 1 (the first option discussed above), but it relies heavily on public funding assistance to~~

~~achieve the needed NO_X reductions via accelerated fleet turnover to post-2010 on-road emission standards or the cleanest off-road engine standards in effect today (or after 2010). This third component, the CARB's Control Strategy does not directly apply to the project. However, Mitigation Measure 4.3.6.3B requires that all diesel trucks accessing the project during operation be model year 2010 or newer, which is consistent with the third option under CARB's Strategy.~~

~~The fourth component consists of Regional Transportation Strategy and Control Measures provided by SCAG. Transportation plans within the Basin are statutorily required to conform to air quality plans in the region, as established by the 1990 Federal Clean Air Act and reinforced by other Acts. The region must demonstrate that its transportation plans and programs conform to the mandate to meet the Federal ambient air quality standards in a timely manner. The SCAG RTP is developed every 4 years with a 20-year planning horizon to meet the long-term transportation planning requirements for emission reductions from on-road mobile sources within the Basin. The Regional Transportation Improvement Program (RTIP) requires that SCAG meet the short-term implementation requirements of the Transportation Conformity Rule. The first 2 years of the program are fiscally constrained and demonstrate timely implementation of a special category of transportation projects called Transportation Control Measures (TCMs). In general, TCMs are those projects that provide emission reductions from on-road mobile sources, based on changes in the patterns and modes by which the regional transportation system is used. Strategies are grouped into three categories: high occupancy vehicle strategy, transit and systems management, and information-based technology (traveling during a less congested time of day). SCAG approved the transportation measures in the RTP, which have been included in the region's air quality plans. The TCMs will be implemented by the appropriate agencies and will subsequently reduce emissions in the Basin.~~

~~**2012 AQMP.** The 2012 AQMP was adopted in December 2012. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."~~

~~Similar to the prior AQMPs, the project would comply with all applicable rules and regulations enacted as part of the AQMP. In addition, the AQMP relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program. Included in the RTP/SCS are transportation control measures including active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.~~

~~The project would be involved in goods movement. The heavy-duty trucks would access local highways and arterials.~~

~~**State Implementation Plans.** Geographical areas in the State that exceed the Federal air quality standards are called nonattainment areas. The project area is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. SIPs show how each area will attain the Federal standards. To do this, the SIPs identify the amount of pollutant emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions. On September 27, 2007, the CARB adopted its State Strategy for the 2007 SIP. In 2009, the SIP was revised to account for emissions reductions from regulations adopted in 2007 and 2008 and clarifies CARB's legal commitment. Additional recent revisions to the SIP are as follows:~~

- ~~In 2008, the EPA revised the lead[1] national ambient air quality standard by reducing it to 0.15 µg/m^3. On December 31, 2010, the Los Angeles County portion of the Basin was designated as nonattainment for the 2008 lead national standard as a result of exceedances measured near a large lead-acid battery recycling facility. The 2012 Lead SIP for Los Angeles County was prepared by the SCAQMD and addresses the recent revision to the lead national standard, and outlines the strategy and pollution control activities that demonstrate attainment of the lead national standard before December 31, 2015. The 2012 Lead SIP was approved May 4, 2012.~~
- ~~A SIP revision for the federal nitrogen dioxide standard was prepared in 2012, to address the new 1-hour federal ambient air quality standard for nitrogen dioxide.~~
- ~~The proposed California Infrastructure SIP revision was considered by the CARB on January 23, 2014. The proposed Infrastructure SIP revision is administrative in nature and covers the National Ambient Air Quality Standards (federal standards) for ozone (1997 and 2008), fine particulate matter (PM2.5; 1997, 2006, and 2012), lead (2008), nitrogen dioxide (2010), and sulfur dioxide (2010). The proposed revision describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce these federal standards. It does not contain any proposals for emission control measures.~~

~~The SIP takes into account CARB rules and regulations. The project will comply with applicable rules and regulations as identified in the AQMPs and SIPs. Because the project would comply with all applicable rules and regulations, the project complies with this criterion.~~

~~**Summary.** Although the project would be consistent with the policies, rules, and regulations in the AQMPs and SIPs, the project must meet all the criteria listed above to be consistent with the AQMPs. The project could impede AQMP attainment because its construction and operation emissions exceed the SCAQMD regional significance thresholds, so the project is considered to be inconsistent with the AQMP.~~

~~**Mitigation Measures.** To facilitate monitoring and compliance, applicable SCAQMD regulatory requirements are restated in the mitigation identified below in Section 4.3.6.2 and 4.3.6.3. These measures shall be incorporated in all project plans, specifications, and contract documents. Typical mitigation measures identified to reduce the level of emissions of criteria pollutants include those identified below in Section 4.3.6.2 and 4.3.6.3. **Mitigation Measures 4.3.6.2A, 4.3.6.2B, 4.3.6.2C, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A** are required.~~

~~**Level of Significance After Mitigation.** As noted above, implementation of the proposed project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures, emissions associated with the proposed project cannot be reduced below the applicable thresholds. In the absence of feasible mitigation to reduce the proposed project's emission of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from exhaust from construction equipment will remain significant and unavoidable.~~

~~4.3.6.2 Construction Emissions~~

~~**Impact 4.3.6.2:** *Construction of the proposed project has the potential to exceed applicable daily thresholds that may affect sensitive receptors.*~~

~~**Threshold**~~	~~Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?~~
	~~For construction operations, the applicable daily thresholds are:~~

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[1] ~~Lead referred to here is a chemical element; a heavy metal.~~

~~- 75 pounds per day of ROC/VOC;~~
~~- 100 pounds per day of NO$_X$;~~
~~- 550 pounds per day of CO;~~
~~- 150 pounds per day of PM$_{10}$;~~
~~- 150 pounds per day of SO$_X$; and~~
~~- 55 pounds per day of PM$_{2.5}$.~~

~~Grading and other construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions during these construction activities will vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Activity during peak grading days typically generates a greater amount of air pollutants than other project construction activities.~~

~~While the actual details of the future construction schedule are not known, it is expected that project construction would occur in two phases with seven discrete activities in Phase 1 and eight discrete activities in Phase 2. For Phase 1, the following activities are assumed to occur over the course of seven years in the analysis: 1) rough grading, which includes mass site grading; 2) finish grading; 3) building construction; 4) infrastructure construction which includes utility installation; 5) curb, gutter, sidewalk, subgrade preparation, drop rock, and paving activities; 6) asphalt paving; and 7) landscaping. For Phase 2, the same activities are assumed to occur over the course of nine years in the analysis, Phase 1 includes interchange construction as the eighth activity. Within the "building construction" phase, it is assumed that there would also be subphases of concrete pouring, installation of wet utilities, electrical installation, and landscaping. Appendix D of this EIR includes details of the emission factors and other assumptions.~~

~~Table 4.3.J identifies projected emissions resulting from grading and construction activities for the proposed project and shows the estimated maximum daily construction emissions over the course of project construction prior to the application of mitigation.~~

~~The construction emissions estimates summarized in Table 4.3.J are based on the assumed construction scenario described in Section 3.0, *Project Description*, of this EIR. Using emission factors from the CalEEMod model, Table 4.3.J indicates that construction emissions of criteria pollutants would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM$_{10}$, and PM$_{2.5}$), with the exception of SO$_X$.[1] This is a significant impact requiring mitigation.~~

~~Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, and cut-and-fill grading operations. Dust generated during construction varies substantially by project, depending on the level of activity, the specific operations and equipment, local soils, and weather conditions at the time of construction. The proposed project will be required to comply with SCAQMD Rules 402 and 403 to control fugitive dust. There are a number of feasible control measures that can be reasonably implemented to significantly reduce PM$_{10}$ emissions from construction.~~

~~As identified in Table 4.3.J, fugitive dust and exhaust emissions during the anticipated peak construction day for the proposed project would exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM$_{10}$ is an average of 70 percent dust and 30 percent exhaust. PM$_{2.5}$ has an average of 29 percent dust and 71 percent exhaust.~~

~~[1] The project would emit SO$_X$ from construction equipment exhaust; however, the maximum emissions (6.8 pounds per day) are less than significant as they are far below the threshold of 150 pounds per day.~~

~~Table 4.3.J: Short-Term Regional Construction Emissions–Without Mitigation (Table Revised)~~

~~Year~~	~~Maximum Daily Pollutant Emissions (lbs/day)~~								
	~~VOC~~	~~NO_x~~	~~CO~~	~~PM_{10} dust~~	~~PM_{10} exhaust~~	~~PM_{10} Total~~	~~$PM_{2.5}$ dust~~	~~$PM_{2.5}$ exhaust~~	~~$PM_{2.5}$~~
~~2015~~	~~128~~	~~1,463~~	~~871~~	~~124~~	~~69~~	~~193~~	~~20~~	~~64~~	~~84~~
~~2016~~	~~267~~	~~841~~	~~530~~	~~82~~	~~44~~	~~126~~	~~9~~	~~41~~	~~50~~
~~2017~~	~~314~~	~~1,432~~	~~849~~	~~125~~	~~68~~	~~193~~	~~20~~	~~62~~	~~82~~
~~2018~~	~~267~~	~~841~~	~~530~~	~~82~~	~~44~~	~~126~~	~~9~~	~~41~~	~~50~~
~~2019~~	~~371~~	~~2,116~~	~~1,226~~	~~173~~	~~93~~	~~266~~	~~38~~	~~86~~	~~124~~
~~2020~~	~~277~~	~~961~~	~~596~~	~~86~~	~~50~~	~~137~~	~~11~~	~~46~~	~~57~~
~~2021~~	~~303~~	~~1,259~~	~~774~~	~~122~~	~~62~~	~~184~~	~~19~~	~~57~~	~~76~~
~~2022~~	~~286~~	~~1,057~~	~~668~~	~~116~~	~~53~~	~~169~~	~~17~~	~~49~~	~~66~~
~~2023~~	~~317~~	~~1,389~~	~~885~~	~~141~~	~~66~~	~~207~~	~~26~~	~~61~~	~~87~~
~~2024~~	~~298~~	~~1,174~~	~~754~~	~~125~~	~~57~~	~~183~~	~~20~~	~~53~~	~~73~~
~~2025~~	~~311~~	~~1,289~~	~~854~~	~~141~~	~~62~~	~~203~~	~~26~~	~~57~~	~~83~~
~~2026~~	~~267~~	~~841~~	~~530~~	~~82~~	~~44~~	~~126~~	~~9~~	~~41~~	~~50~~
~~2027~~	~~263~~	~~729~~	~~750~~	~~140~~	~~28~~	~~168~~	~~26~~	~~26~~	~~52~~
~~2028~~	~~252~~	~~607~~	~~667~~	~~126~~	~~23~~	~~149~~	~~20~~	~~21~~	~~41~~
~~2029~~	~~223~~	~~318~~	~~456~~	~~82~~	~~12~~	~~94~~	~~9~~	~~11~~	~~20~~
~~2030~~	~~245~~	~~420~~	~~571~~	~~124~~	~~16~~	~~140~~	~~20~~	~~15~~	~~35~~
~~SCAQMD Threshold~~	**~~75~~**	**~~100~~**	**~~550~~**	**~~NA~~**	**~~NA~~**	**~~150~~**	**~~NA~~**	**~~NA~~**	**~~55~~**
~~Exceeds Threshold?~~	**~~Yes~~**	**~~Yes~~**	**~~Yes~~**	**~~NA~~**	**~~NA~~**	**~~Yes~~**	**~~NA~~**	**~~NA~~**	**~~Yes~~**

~~- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2.5 pounds per day, substantially under the threshold of 150 pounds per day.~~
~~- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.~~
~~- Emissions assume compliance with SCAQMD Rule 403.~~
~~VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter~~
~~NA = not applicable as there is no separate threshold for dust/exhaust~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~The proposed project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. The applicable Rule 403 measures are as follows:~~

- ~~All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions.~~
- ~~The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.~~

- ~~Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114.~~
- ~~The contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions.~~

~~As previously discussed, SCAQMD Rule 1113 regulates the sale and application of architectural coatings. Rule 1113 is applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of ROG or VOC emissions allowed for all types of architectural coatings. Compliance with Rule 1113 means that architectural coatings used during construction would have ROG or VOC emissions that comply with these limits.~~

~~**Mitigation Measures.** The following measures are recommended to reduce the level of emissions of criteria pollutants:~~

~~**4.3.6.2A**~~ ~~Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley.~~

~~a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.~~

~~b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer specifications.~~

~~d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour.~~

~~e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used~~

~~f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.~~

~~g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles.~~

~~h) Construction on-road haul trucks shall be model year 2007 or newer.~~

~~i) Information on ridesharing programs shall be made available to construction employees.~~

~~j) During construction, lunch options shall be provided onsite.~~

~~k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Only non-diesel material handling equipment may be used in any logistics building in the WLC.~~

~~m) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.~~

~~**4.3.6.2B** Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using Theodore Street, Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer.~~

~~**4.3.6.2C** The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC):~~

~~a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per Liter or lower for both interior and exterior surfaces shall be used.~~

~~b) Leftover paint shall be taken to a designated hazardous waste center.~~

~~c) Paint containers shall be closed when not in use~~

~~d) Low VOC cleaning solvents shall be used to clean paint application equipment.~~

~~e) Paint and solvent-laden rags shall be kept in sealed containers.~~

~~**4.3.6.2D** No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).~~

~~As shown in Table 4.3.K, construction emissions are still significant after mitigation, with the exception of~~ ~~$PM_{2.5}$~~~~. The reduction in~~ ~~$PM_{2.5}$~~ ~~emissions is by a reduction in exhaust from the application of Tier 4 off-road equipment.~~ ~~PM_{10}~~ ~~emissions are still significant because emissions in 2019 exceed the threshold; however, emissions of~~ ~~PM_{10}~~ ~~during all other years of construction are less than significant. Although mitigation reduces emissions of all pollutants during construction, potential air quality impacts resulting from exhaust from construction equipment and fugitive dust will remain significant and unavoidable.~~

~~Table 4.3.K: Mitigated Short-Term Regional Construction Emissions (revised)~~

~~Year~~	~~Maximum Daily Pollutant Emissions (lbs/day)~~				
	~~VOC~~	~~NO_X~~	~~CO*~~	~~PM_{10}~~	~~$PM_{2.5}$~~
~~2015~~	~~31~~	~~523~~	~~871~~	~~130~~	~~26~~
~~2016~~	~~134~~	~~371~~	~~530~~	~~86~~	~~14~~
~~2017~~	~~143~~	~~529~~	~~849~~	~~130~~	~~26~~
~~2018~~	~~134~~	~~371~~	~~530~~	~~86~~	~~14~~
~~2019~~	~~158~~	~~764~~	~~1226~~	~~181~~	~~45~~
~~2020~~	~~135~~	~~401~~	~~596~~	~~91~~	~~16~~
~~2021~~	~~142~~	~~515~~	~~774~~	~~128~~	~~25~~
~~2022~~	~~140~~	~~460~~	~~668~~	~~122~~	~~22~~

~~Table 4.3.K: Mitigated Short-Term Regional Construction Emissions (revised)~~

	~~Maximum Daily Pollutant Emissions (lbs/day)~~				
~~Year~~	~~VOC~~	~~NO$_X$~~	~~CO*~~	~~PM$_{10}$~~	~~PM$_{2.5}$~~
~~2023~~	~~148~~	~~605~~	~~885~~	~~147~~	~~32~~
~~2024~~	~~143~~	~~522~~	~~754~~	~~131~~	~~26~~
~~2025~~	~~148~~	~~605~~	~~854~~	~~148~~	~~32~~
~~2026~~	~~134~~	~~371~~	~~530~~	~~86~~	~~14~~
~~2027~~	~~145~~	~~571~~	~~750~~	~~146~~	~~31~~
~~2028~~	~~142~~	~~519~~	~~667~~	~~131~~	~~25~~
~~2029~~	~~132~~	~~368~~	~~456~~	~~86~~	~~13~~
~~2030~~	~~139~~	~~470~~	~~571~~	~~129~~	~~25~~
~~Average Emissions from revised analysis (for informational purposes)~~	~~134~~	~~498~~	~~719~~	~~122~~	~~24~~
~~Average Emissions from Draft EIR (for informational purposes)~~	~~233~~	~~1,100~~	~~1217~~	~~87~~	~~49~~
~~SCAQMD Threshold~~	**~~75~~**	**~~100~~**	**~~550~~**	**~~150~~**	**~~55~~**
~~Exceeds Threshold?~~	**~~Yes~~**	**~~Yes~~**	**~~Yes~~**	**~~Yes~~**	**~~No~~**

~~* There is an error in the way CalEEMod estimates the effect of a higher tier (such as Tier 3 or 4) on mitigated CO; therefore, the unmitigated values are reported for CO. This was confirmed by the SCAQMD by a personal communication. The SCAQMD is currently preparing a work around for this; however, it was not available as of the date of this analysis.~~

- ~~Sulfur oxide (SOx) emissions are contained in the CalEEMod output in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report; the maximum emissions would be approximately 2 pounds per day after mitigation, substantially under the threshold of 150 pounds/day.~~
- ~~Mitigation Measure 4.3.6.2A(a) was estimated by CalEEMod using its mitigation module by assuming Tier 4 off road equipment.~~
- ~~Mitigation Measure 4.3.6.2A(b) restricts equipment from operating more than 10 hours per day in the on position, which is estimated in CalEEMod in both the unmitigated and mitigated estimates.~~
- ~~Mitigation Measures 4.3.6.2A(c) through (e), 4.3.6.2A(g) through (m), 4.3.6.2B, and 4.3.6.2D are not quantified.~~
- ~~Mitigation Measure 4.3.6.2A(f) is assumed in the unmitigated and mitigated estimates (Rule 403).~~
- ~~Mitigation Measure 4.3.6.2A(i) requires that construction haul trucks be 2007 model year or greater. CalEEMod does not have a mitigation measure embedded in the model to quantify the reduction from this measure. Therefore, this reduction quantification was not provided.~~
- ~~Mitigation Measure 4.3.6.2C reduces VOC emissions during painting and is calculated as demonstrated in the spreadsheets in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.~~

~~VOC = volatile organic compounds NO$_X$ = nitrogen oxides CO = carbon monoxide PM$_{10}$ and PM$_{2.5}$ = particulate matter~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Comparing the emissions to those as estimated in the DEIR, average daily emissions of VOC, NOx, CO and PM$_{2.5}$ have decreased by approximately 100, 600, 500 and 25 pounds per day, respectively. This is primarily because 1) the construction period for the project increased from 10 years to 15 years, resulting in decreased construction activity levels (if market conditions further slow project development, impacts would be no greater than those described in this analysis); 2) Tier 4 equipment is applied as mitigation; and 3) a newer version of CalEEMod was used to estimate construction emissions. The average PM$_{10}$ emissions increased slightly by approximately 35 pounds per day, primarily because of the inclusion of unpaved road dust.~~

~~The results of this regional construction analysis indicate that during construction, the South Coast Air Basin may experience the following cumulative health effects from ozone exposure:[1]~~

~~[1] Although carbon monoxide emissions are over the threshold, it is primarily a localized pollutant. The localized analyses demonstrated that concentrations would not exceed the ambient air quality standards for carbon monoxide; therefore, less than significant health effects are anticipated.~~

~~Ozone can cause the following health effects: Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increased mortality risk.~~

~~4.3.6.3 Localized Construction and Operational Air Quality Impacts~~

~~**Impact 4.3.6.3:** *Construction and operation of the proposed project has the potential to exceed localized daily thresholds that may affect sensitive receptors.*~~

~~**Threshold**~~	~~Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?~~
	~~The applicable localized thresholds are:~~
	~~- 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction or operation;~~
	~~- 0.18 ppm (State 1 hour), 0.100 ppm (National 1 hour), and 0.030 ppm (Annual) of NO_X during construction or operation;~~
	~~- 10.4 $\mu g/m^3$ (24 hours) 1.0 $\mu g/m^3$ (Annual) of PM_{10} during construction~~
	~~- 2.5 $\mu g/m^3$ (24 hours) and 1.0 $\mu g/m^3$ (Annual) of PM_{10}; during operation and~~
	~~- 2.5 $\mu g/m^3$ (24 hours) of $PM_{2.5}$ during operation~~
	~~- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operations to assess the significance of the activities~~

~~*Note: Section 4.3.6.3 in the original DEIR was replaced in its entirety in this revised DEIR section. The reader is referred to the original DEIR section 4.3.6.3 for the text of that section.*~~

~~The localized analysis focused on three analysis conditions:~~

1. ~~Project Phase 1 (2012), which evaluates what air quality impacts the project-related emissions would have if Phase 1 of the project (approximately 56 percent of the square footage) was built out in full in 2012[1] and no other changes occurred to land uses or the roadway system;~~
2. ~~Project Phase 1 and Phase 2 Full Build Out (2012), which evaluates what air quality impacts the project-related emissions would have if the entire project, both Phase 1 and Phase 2, were build out in full in 2012 and no other changes occurred to land uses or the roadway system; and~~
3. ~~Proposed Project Development Schedule, which evaluates the air quality impacts from the construction and operation of the project as a 2-phase development with the construction commencing in 2015, build out of Phase 1 in 2022 and the final Phase 1 and Phase 2 build out in 2035.~~

~~The Project Phase 1 (2012) and Project Phase 1 and Phase 2 Full Build Out (2012) conditions represents worst-case conditions in that the project physically could not be built-out in 2012 or, in fact, in any single year due to the size of the project. These conditions have been included in this assessment to correspond to the analysis scenarios examined in the project traffic impact report. These conditions also do not account for the fact that vehicle emissions are expected to decline significantly over the next ten years in response to mandated motor vehicle emission controls adopted by the CARB and EPA as~~

~~[1] 2012 is the CEQA Baseline year for this project.~~

~~the project develops in the future. Thus, consideration of these conditions will significantly overestimate the project's potential air quality impacts. The Proposed Project Development condition represents the logical and realistic development of the project over a period of 15 years as represented by the project applicant. The LST analysis is presented for each condition below.~~

~~Pursuant to the SCAQMD's LST methodology, only emissions generated from emission sources located within and along the project boundaries are included in the LST assessment. These emission sources include vehicle travel on the roadway network within and along the borders of the project and emissions from support equipment including forklifts, yard/hostler trucks, and emergency standby electric generators.~~

~~The project's emissions then served as input into the AERMOD air dispersion model to derive estimate of the project's localized air quality impacts for each condition.~~

~~Project Phase 1 (2012) LST Assessment~~

~~The project's on-site emissions were estimated from the traffic-generated by the various project vehicles as provided by the traffic impact report. Vehicle emissions were assumed to be representative of the calendar year 2012 vehicle fleet. Also included were emissions from various support equipment including forklifts, yard trucks, and standby emergency generators. The localized assessment results for the Project Phase 1 (2012) condition are provided in Table 4.3.L for receptors located within the project boundaries and in Table 4.3.M for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.~~[1]

~~Table 4.3.L: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)~~

			~~Air Concentration~~[2]			
~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Project Local Impact~~	~~Total (Background + Project)~~	~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold~~
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.14~~	~~2.78~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.04~~	~~1.88~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.068~~	~~0.146~~	~~0.18~~	~~No~~
	~~National 1 hour, ppm~~	~~0.060~~	~~0.012~~	~~0.113~~	~~0.100~~	~~Yes~~
	~~Annual, ppm~~	~~0.017~~	~~0.012~~	~~0.029~~	~~0.030~~	~~Yes~~
~~PM$_{10}$~~	~~24 hour, µg/m^3~~	~~NA~~	~~5.4~~	~~5.4~~	~~2.5~~	~~Yes~~
	~~Annual, µg/m^3~~	~~NA~~	~~3.4~~	~~3.4~~	~~1.0~~	~~Yes~~
~~PM$_{2.5}$~~	~~24 hour, µg/m^3~~	~~NA~~	~~2.2~~	~~2.2~~	~~2.5~~	~~No~~

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[1] ~~In keeping with the SCAQMD recommendations, the highest air quality measurement for the years 2009, 2010, 2011, and 2012 served as a measure of the existing background air quality data for NO_2 and CO.~~

~~Table 4.3.L: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~[2]		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		

~~$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$~~
~~[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012~~
~~[2] Highest impacts generally occur at the existing residences within the project boundaries.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.M: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Outside of the Project Boundaries (without mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~[2]		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.07~~	~~2.71~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.02~~	~~1.86~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.038~~	~~0.116~~	~~0.18~~	~~No~~
	~~National 1 hour, ppm~~	~~0.058~~	~~0.031~~	~~0.089~~	~~0.100~~	~~No~~
	~~Annual, ppm~~	~~0.017~~	~~0.004~~	~~0.021~~	~~0.030~~	~~No~~
~~PM_{10}~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~2.1~~	~~2.1~~	~~2.5~~	~~No~~
	~~Annual, $\mu g/m^3$~~	~~NA~~	~~1.1~~	~~1.1~~	~~1.0~~	~~Yes~~
~~$PM_{2.5}$~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~0.8~~	~~0.8~~	~~2.5~~	~~No~~

~~$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$~~
~~[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012~~
~~[2] Highest impacts generally occur at the existing residences along Redlands Boulevard to the west of the project.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~As noted from Table 4.3.L, the project would exceed the SCAQMD's localized significance thresholds for nitrogen dioxide and PM_{10} at receptors located within the project boundaries, realizing again however, that this scenario reflects an impossible situation that assumes that Phase 1 of the project is built out in its entirety in 2012 and that the existing receptors located within the project boundaries remain in place. As shown in Table 4.3.M, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries except for the annual PM_{10} project impact.~~

~~The Project Phase 1 and Phase 2 Full Build Out (2012) LST Assessment~~

~~The localized assessment results for the Project Phase 1 and Phase 2 Full Build Out (2012) condition are provided in Table 4.3.N for receptors located within the project boundaries and in Table 4.3.O for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived~~

~~from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.~~

~~Table 4.3.N: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~[2]		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.18~~	~~2.82~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.05~~	~~1.89~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.093~~	~~0.171~~	~~0.18~~	~~No~~
	~~National 1 hour, ppm~~	~~0.058~~	~~0.075~~	~~0.133~~	~~0.100~~	~~Yes~~
	~~Annual, ppm~~	~~0.017~~	~~1.012~~	~~0.029~~	~~0.030~~	~~No~~
~~PM$_{10}$~~	~~24 hour, μg/m^3~~	~~NA~~	~~7.2~~	~~7.2~~	~~2.5~~	~~Yes~~
	~~Annual, μg/m^3~~	~~NA~~	~~4.8~~	~~4.8~~	~~1.0~~	~~Yes~~
~~PM$_{2.5}$~~	~~24 hour, μg/m^3~~	~~NA~~	~~2.9~~	~~2.9~~	~~2.5~~	~~Yes~~

~~μg/m^3 = micrograms per cubic meter (a concentration unit)~~

~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$~~

~~[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012~~

~~[2] Highest impacts generally occur at the existing residences within the project boundaries.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.O: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2012) Emissions Maximum Impacts Outside the Project Boundaries (without mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~[2]		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.09~~	~~2.73~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.02~~	~~1.86~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.054~~	~~0.132~~	~~0.18~~	~~No~~
	~~National 1 hour, ppm~~	~~0.058~~	~~0.045~~	~~0.103~~	~~0.100~~	~~Yes~~
	~~Annual, ppm~~	~~0.017~~	~~0.004~~	~~0.021~~	~~0.030~~	~~No~~
~~PM$_{10}$~~	~~24 hour, μg/m^3~~	~~NA~~	~~2.3~~	~~2.3~~	~~2.5~~	~~No~~
	~~Annual, μg/m^3~~	~~NA~~	~~1.2~~	~~1.2~~	~~1.0~~	~~Yes~~
~~PM$_{2.5}$~~	~~24 hour, μg/m^3~~	~~NA~~	~~0.9~~	~~0.9~~	~~2.5~~	~~No~~

~~μg/m^3 = micrograms per cubic meter (a concentration unit)~~

~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$~~

~~[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012~~

~~[2] Highest impacts generally occur at the existing residences along Redlands Boulevard to the west of the project.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~As noted from the above tables, the project would exceed the SCAQMD's significance thresholds for NO_2, PM_{10}, and $PM_{2.5}$ for receptors located within the project's boundaries and NO_2 and PM_{10} at receptors located outside of the project's boundaries.~~

~~It is important to note the Project Phase 1 (2012) and Project Phase 1 and Phase 2 Full Build Out (2012) conditions assume that the project's emissions are at the levels that would occur in 2012. The majority of the project's operational emissions are from on-road mobile sources, more particularly, heavy-duty trucks that contribute a disproportionate amount of emissions compared to passenger vehicles. Emissions from on-road mobile sources are regulated at the State and Federal levels and, therefore, are outside of the control of local agencies such as the City and the SCAQMD. For example, the CARB is working closely with the EPA, engine and vehicle manufacturers, and other interested parties to identify programs that will reduce emissions from heavy-duty diesel vehicles in California. In its "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles," the CARB presented a blueprint for achieving a 75 percent reduction in diesel particulates by 2010 and an 85 percent reduction by 2020 from the 2000 baseline. The emission reductions would arise from a combination of measures including the use of ultra-low sulfur diesel fuel, new emission standards for large diesel engines, restrictions on diesel engine idling, addition of post-combustion filter and catalyst equipment, and retrofits for business and government diesel truck fleets. The implementation of these emission reductions will also result in reductions of other pollutants such as NO_X, VOC, and CO. As these emission reduction programs are implemented and there is a turnover in the use of older vehicles with newer and cleaner vehicles, the project's operational emissions are expected to decline significantly in the future.~~

~~Emission controls on mobile source vehicles already adopted by the CARB particularly dealing with NO_X and PM_{10} controls on heavy duty trucks will reduce truck emissions significantly over the next 10 years. As an example, in the South Coast Air Basin, the per-mile running exhaust rate of NO_X emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 11.4 grams/mile in 2012 to 3.9 grams/mile by 2022, a decline of 66 percent from 2012 levels and to 1.8 grams/mile in 2035, a decrease of 84 percent from 2012 levels. Similarly, the per-mile running exhaust rate of PM_{10} emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 0.34 gram/mile in 2012 to 0.02 gram/mile in 2022, a decline of 94 percent from 2012 levels and decline to 0.006 grams/mile in 2035, a decline of 98 percent from 2012 levels. Thus, two Project (2012) conditions represent highly conservative estimates, in terms of overestimating of the project's operational impacts.~~

~~Proposed Project Development Schedule LST Assessment~~

~~The final localized threshold assessment condition examined potential local project impacts considering the proposed construction and build out schedule of the project over a time period of 15 years from the commencement of construction in 2015 to the final build out in 2035. This condition examined three specific time periods:~~

- ~~The year 2021: the year 2021 was selected to determine the potential localized impacts from the project's construction and operational emissions to the existing residences located to the west of the project across Redlands Boulevard. These residences are the closest sensitive receptors outside of the project's boundaries. According to the conceptual construction schedule provided by the applicant, extensive building construction is expected to take place within the project site along and to the east of Redlands Boulevard in 2021. The year 2021 also corresponds to the completion of approximated 88 percent of the Phase 1 operation (50 percent of the entire project) and the attendant operational emissions. The project's onsite maximum daily and annual construction emissions were estimated using the CalEEMod land use emission model and the construction equipment inventory and activities provided by the applicant (see discussion in Appendix D). The project's onsite operational emissions, principally from the project's mobile sources, were derived from detailed traffic volume data provided by the project's traffic impact~~

~~analysis. The traffic impact analysis applied a comprehensive regional transportation model to develop daily and peak hour traffic volumes for 2022 and 2035 from the project's mobile sources. Peak hour and daily project traffic volumes were developed for each year from 2015 to 2035 for roadway segments within and along the boundaries of the project using the following assumptions:~~

  - ~~Project operational traffic volumes were assumed to be zero in 2015, the year that project construction would commence.~~
  - ~~Traffic volumes for the years 2016 to 2022 (the completion year for Phase 1 operations) were interpolated from 2015 to 2022 by applying the annual project occupancy schedule to the 2022 traffic volumes.~~
  - ~~Traffic volumes for the years 2023 to 2035 were interpolated from the provided traffic volumes in 2022 and 2035 by applying the annual project occupancy schedule.~~

- ~~The year 2027, when the project's total daily on-site construction and operational emissions would be the highest for several air pollutants and construction and operations would occur along the eastern portion of the project potentially impacting the existing residences across from the project along Gilman Springs Road; and~~
- ~~The year 2035, which is the long term planning year analyzed in the project traffic impact report and representative of the complete build out of both Phases 1 and 2.~~

~~**Localized Impact Analysis, 2021.** The localized impacts for the short-term construction and operational activities were analyzed using an air dispersion model (EPA AERMOD Model) to simulate the transport and dispersion of project-related emissions through the air. These impacts were then compared to the applicable SCAQMD localized concentration thresholds.~~

~~The estimated maximum localized air quality impacts from the construction and operation of the project in 2021 are summarized in Table 4.3.P for locations within the project's boundaries. These maximum impacts were found at the locations of the existing residences within the project boundaries. Table 4.3.Q summarizes the highest air quality impacts for sensitive receptors located outside of the project boundaries. As noted from these two tables, project impacts would exceed the significance thresholds for nitrogen dioxide, PM_{10} and $PM_{2.5}$ for locations within the project boundaries and nitrogen dioxide and PM_{10} at receptors located outside the project boundaries, and thus represents a significant impact without mitigation.~~

~~**Table 4.3.P: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)**~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~ ~~[1]~~	~~Air Concentration~~[2]		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.34~~	~~2.98~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.08~~	~~1.93~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.086~~	~~0.164~~	~~0.18~~	~~No~~
	~~Annual, ppm~~	~~0.017~~	~~0.016~~	~~0.033~~	~~0.030~~	~~Yes~~
~~PM_{10}~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~18.9~~	~~8.9~~	~~2.5~~[3]	~~Yes~~
	~~Annual, $\mu g/m^3$~~	~~NA~~	~~2.7~~	~~2.7~~	~~1.0~~	~~Yes~~
~~$PM_{2.5}$~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~3.7~~	~~3.7~~	~~2.5~~[3]	~~Yes~~

~~Table 4.3.P: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~ [1]	~~Air Concentration~~[2]		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		

~~$\mu g/m^3$ = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$~~
~~[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012~~
~~[2] Highest impacts generally occur at the existing residences within the project boundaries~~
~~[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM$_{10}$ and PM$_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM$_{10}$ and PM$_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.Q: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Outside the Project Boundaries (without Mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~ [1]	~~Air Concentration~~[2]		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.32~~	~~2.96~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.08~~	~~1.93~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.083~~	~~0.161~~	~~0.18~~	~~No~~
	~~Annual, ppm~~	~~0.017~~	~~0.015~~	~~0.032~~	~~0.030~~	~~Yes~~
~~PM$_{10}$~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~3.5~~	~~3.5~~	~~2.5~~[3]	~~Yes~~
	~~Annual, $\mu g/m^3$~~	~~NA~~	~~0.9~~	~~0.9~~	~~1.0~~	~~No~~
~~PM$_{2.5}$~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~2.4~~	~~2.4~~	~~2.5~~[3]	~~No~~

~~$\mu g/m^3$ = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$~~
~~[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012.~~
~~[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the west of the project across Redlands Boulevard.~~
~~[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM$_{10}$ and PM$_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM$_{10}$ and PM$_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~**Localized Air Quality Impact Analysis, 2027.** The year 2027 was selected for the LST Analysis for two principal reasons: 1) the year 2027 corresponds to the year with the highest combined total onsite construction and operational emissions of NO$_x$ and CO and the third or fourth highest onsite emissions of PM$_{10}$ and PM$_{2.5}$ during the time period of 2015 to 2035; and 2) the location of the building construction in 2027 places the construction emissions adjacent to the existing residences located on the eastern side of the project across Gilman Springs Road.~~

~~The project's maximum combined impacts from construction and operations during 2027 are shown in Table 4.3.R for the existing sensitive receptors located within the project boundaries along with the SCAQMD-recommended significance thresholds. Table 4.3.S shows the maximum combined impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the east of the project across Gilman Springs Road. As shown~~

~~in these tables, the project would exceed the SCAQMD's significance thresholds for PM_{10} at locations within the project boundary and no thresholds outside of the project boundary.~~

~~Table 4.3.R: Localized Assessment – Construction and Operation, Year 2027 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~[2] ~~Project Local Impact~~	~~Air Concentration~~[2] ~~Total (Background + Project)~~	~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.21~~	~~2.85~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.05~~	~~1.89~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.072~~	~~0.150~~	~~0.18~~	~~No~~
	~~Annual, ppm~~	~~0.017~~	~~0.008~~	~~0.025~~	~~0.030~~	~~No~~
~~PM_{10}~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~5.5~~	~~5.57~~	~~2.5~~[3]	~~Yes~~
	~~Annual, $\mu g/m^3$~~	~~NA~~	~~3.3~~	~~3.3~~	~~1.0~~	~~Yes~~
~~$PM_{2.5}$~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~1.6~~	~~1.6~~	~~2.5~~[3]	~~No~~

~~$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$~~
[1] ~~Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4 year time period of 2009 to 2012~~
[2] ~~Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road~~
[3] ~~During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.S: Localized Assessment – Construction and Operation, Year 2027 Maximum Impacts Outside the Project Boundaries (without Mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~[2] ~~Project Local Impact~~	~~Air Concentration~~[2] ~~Total (Background + Project)~~	~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.18~~	~~2.82~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.05~~	~~1.89~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.071~~	~~0.149~~	~~0.18~~	~~No~~
	~~Annual, ppm~~	~~0.017~~	~~0.003~~	~~0.020~~	~~0.030~~	~~No~~
~~PM_{10}~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~2.2~~	~~2.2~~	~~2.5~~[3]	~~No~~
	~~Annual, $\mu g/m^3$~~	~~NA~~	~~0.8~~	~~0.8~~	~~1.0~~	~~No~~
~~$PM_{2.5}$~~	~~24 hour, $\mu g/m^3$~~	~~NA~~	~~1.1~~	~~1.1~~	~~2.5~~[3]	~~No~~

~~$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$~~
[1] ~~Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4 year time period of 2009 to 2012~~
[2] ~~Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road~~
[3] ~~During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.~~
~~Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, 2015.~~

~~**Localized Air Quality Impact Analysis, 2035.** The year 2035 represents a long-term planning year when both phases of the project would be fully in operation. Operational emissions during 2035 were estimated based on the project's trip generation and project-related travel along the local roadway network within and along the project boundaries. Table 4.3.T shows the maximum localized air quality impacts for 2035 relative to the background air quality levels at the existing sensitive receptors located within the project boundaries. Table 4.3.U identifies the highest localized impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the west of the project across Redlands Boulevard. As shown in Table 4.3.T, the concentrations of PM_{10} exceed the SCAQMD's significance thresholds due principally to the inclusion of entrained road dust in the impact assessment and would, therefore, represent a significant impact without mitigation. Table 4.3.U indicates that no receptor located outside of the project boundary would exceed any significance threshold.~~

~~Table 4.3.T: Localized Assessment – Project Operation Full Build Out, Year 2035 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.06~~	~~2.70~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.02~~	~~1.87~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.036~~	~~0.114~~	~~0.18~~	~~No~~
	~~National 1 hour, ppm~~	~~0.060~~	~~0.031~~	~~0.089~~	~~0.100~~	~~No~~
	~~Annual, ppm~~	~~0.017~~	~~0.006~~	~~0.023~~	~~0.030~~	~~No~~
~~PM_{10}~~	~~24 hour, µg/m^3~~	~~NA~~	~~5.5~~	~~5.5~~	~~2.5~~	~~Yes~~
	~~Annual, µg/m^3~~	~~NA~~	~~3.7~~	~~3.7~~	~~1.0~~	~~Yes~~
~~$PM_{2.5}$~~	~~24 hour, µg/m^3~~	~~NA~~	~~1.5~~	~~1.5~~	~~2.5~~	~~No~~

~~µg/m^3 = micrograms per cubic meter (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$~~
~~[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.U: Localized Assessment – Project Operation, Year 2035 Maximum Impacts Outside of the Project Boundaries (without Mitigation) (revised)~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[1]	~~Air Concentration~~		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
~~Carbon Monoxide~~	~~1 hour, ppm~~	~~2.64~~	~~0.04~~	~~2.68~~	~~20~~	~~No~~
	~~8 hour, ppm~~	~~1.84~~	~~0.01~~	~~1.85~~	~~9.0~~	~~No~~
~~Nitrogen Dioxide~~	~~State 1 hour, ppm~~	~~0.078~~	~~0.027~~	~~0.105~~	~~0.18~~	~~No~~
	~~National 1 hour, ppm~~	~~0.058~~	~~0.022~~	~~0.080~~	~~0.100~~	~~No~~
	~~Annual, ppm~~	~~0.017~~	~~0.002~~	~~0.019~~	~~0.030~~	~~No~~
~~PM_{10}~~	~~24 hour, µg/m^3~~	~~NA~~	~~2.0~~	~~2.0~~	~~2.5~~	~~No~~

~~**Table 4.3.U: Localized Assessment – Project Operation, Year 2035 Maximum Impacts Outside of the Project Boundaries (without Mitigation) (revised)**~~

~~Pollutant~~	~~Averaging Time, Units~~	~~Existing Background~~[~~1~~]	~~Air Concentration~~		~~Standard/ Threshold~~	~~Total Impact Exceeds Threshold?~~
			~~Project Local Impact~~	~~Total (Background + Project)~~		
	~~Annual, µg/m^3~~	~~NA~~	~~0.9~~	~~0.9~~	~~1.0~~	~~No~~
~~PM$_{2.5}$~~	~~24 hour, µg/m^3~~	~~NA~~	~~0.7~~	~~0.7~~	~~2.5~~	~~No~~

~~µg/m^3 = micrograms per cubic meter (a concentration unit)~~
~~NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM$_{10}$ or PM$_{2.5}$~~
~~[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~**Summary.** The localized significance analysis demonstrates that without mitigation, the project would exceed the localized significance thresholds for NO$_2$, PM$_{10}$, or PM$_{2.5}$ for one or more of the LST assessment years (2021, 2027, or 2035) analyzed under this revised LST assessment. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the ambient air quality standards for NO$_2$, PM$_{10}$, and PM$_{2.5}$.~~

~~**Mitigation Measures.** Mitigation measures identified previously under Impact 4.3.6.2 (**Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, and **4.3.6.2D**) to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403. Additionally, the following mitigation measures are required to reduce emissions of criteria pollutants during project operations.~~

~~**4.3.6.3A**~~ ~~Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.~~

~~**4.3.6.3B**~~ ~~The following shall be implemented as indicated:~~

~~**Prior to Issuance of a Certificate of Occupancy**~~

~~a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations, and the prohibition of parking in residential areas.~~

~~b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations.~~

~~c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.~~

~~**On an Ongoing Basis**~~

~~d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.~~

~~e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.~~

~~f) Tenants shall be encouraged to become a SmartWay Partner.~~

~~g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers.~~

~~h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.~~

~~i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center.~~

~~j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet.~~

~~k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.~~

~~l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.~~

~~m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel.~~

~~n) Truck and vehicle idling shall be limited to three (3) minutes.~~

~~**4.3.6.3C** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.~~

~~**4.3.6.3D** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.~~

~~**4.3.6.3E** Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such~~

~~environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).~~

~~**Level of Significance After Mitigation.** Significant and unavoidable. Table 4.3.V compares the project impacts before and after mitigation for those assessment conditions and pollutants that indicated a significant impact before mitigation. After application of mitigation, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual) all assessment conditions. Mitigation does reduce impacts from NO_2 emissions. The project's localized impacts would not exceed any significance thresholds for receptors located outside of the project boundaries.~~

~~In summary, those residents inside the project boundaries could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:~~

- ~~Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.~~
- ~~Particulate matter can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.~~

~~**Table 4.3.V: Comparison of Local Project Air Quality Impacts Before and After Mitigation**~~

~~**Assessment Condition**~~	~~**Location**~~	~~**Pollutant, Averaging Time, Units**~~	~~**Total Impact Before Mitigation(1)**~~	~~**Total Impact After Mitigation**~~	~~**Significance Threshold**~~	~~**Exceeds Threshold After Mitigation?**~~
~~Project Phase 1 (2012)~~	~~Inside Project Boundaries~~	~~National NO_2 1-hour, ppm~~	~~0.113~~	~~0.089~~	~~0.100~~	~~No~~
		~~PM_{10} 24-hour, µg/m^3~~	~~5.4~~	~~4.4~~	~~2.5~~	~~Yes~~
		~~PM_{10}, Annual, µg/m^3~~	~~3.4~~	~~2.8~~	~~1.0~~	~~Yes~~
	~~Outside~~	~~PM_{10}, Annual, µg/m^3~~	~~1.1~~	~~0.9~~	~~1.0~~	~~No~~
~~Project Phase 1 and Phase 2 Full Build Out (2012)~~	~~Inside Project Boundaries~~	~~National NO_2 1-hour, ppm~~	~~0.133~~	~~0.094~~	~~0.100~~	~~No~~
		~~PM_{10} 24-hour, µg/m^3~~	~~7.2~~	~~6.9~~	~~2.5~~	~~Yes~~
		~~PM_{10}, Annual, µg/m^3~~	~~4.8~~	~~4.6~~	~~1.0~~	~~Yes~~
		~~$PM_{2.5}$ 24-hour, µg/m^3~~	~~2.9~~	~~1.6~~	~~2.5~~	~~No~~
	~~Outside~~	~~National NO_2 1-hour, ppm~~	~~0.103~~	~~0.076~~	~~0.100~~	~~No~~
		~~PM_{10}, Annual, µg/m^3~~	~~1.2~~	~~0.8~~	~~1.0~~	~~No~~
~~Project Development Schedule Year 2021~~	~~Inside Project Boundaries~~	~~NO_2, Annual, ppm~~	~~0.033~~	~~0.027~~	~~0.030~~	~~No~~
		~~PM_{10} 24-hour, µg/m^3~~	~~8.9~~	~~7.6~~	~~2.5~~	~~Yes~~
		~~PM_{10}, Annual, µg/m^3~~	~~2.7~~	~~2.5~~	~~1.0~~	~~Yes~~
		~~$PM_{2.5}$ 24-hour, µg/m^3~~	~~3.7~~	~~1.4~~	~~2.5~~	~~No~~
	~~Outside Project Boundaries~~	~~NO_2, Annual, ppm~~	~~0.032~~	~~0.026~~	~~0.030~~	~~No~~
		~~PM_{10} 24-hour, µg/m^3~~	~~3.5~~	~~2.3~~	~~2.5~~	~~No~~
~~Project~~	~~Inside~~	~~PM_{10} 24-hour, µg/m^3~~	~~5.5~~	~~5.4~~	~~2.5~~	~~Yes~~

~~Table 4.3.V: Comparison of Local Project Air Quality Impacts Before and After Mitigation~~

~~Assessment Condition~~	~~Location~~	~~Pollutant, Averaging Time, Units~~	~~Total Impact Before Mitigation~~(1)	~~Total Impact After Mitigation~~	~~Significance Threshold~~	~~Exceeds Threshold After Mitigation?~~
~~Development Schedule Year 2027~~	~~Project Boundaries~~	~~PM$_{10}$ Annual, µg/m^3~~	~~3.3~~	~~1.9~~	~~1.0~~	~~Yes~~
~~Project Development Schedule Year 2035 Build Out~~	~~Inside Project Boundaries~~	~~PM$_{10}$ 24 hour, µg/m^3~~	~~5.5~~	~~5.5~~	~~2.5~~	~~Yes~~
		~~PM$_{10}$ Annual, µg/m^3~~	~~3.7~~	~~3.7~~	~~1.0~~	~~Yes~~

~~Notes: µg/m^3 = micrograms per cubic meter (a unit of concentration); ppm = parts per million (a unit of concentration)~~

~~(1) Total Impacts include the incremental impacts from the project plus the pollutant background; see Tables 4.3.M to 4.3.U for the total impacts for the various assessment conditions prior to the application of mitigation.~~

~~Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, 2015.~~

~~Table 4.3.W: Operational Regional Air Pollutant Emissions (Worst-Case Scenario)~~

~~Scenario~~	~~Source~~	~~Emissions (pounds per day)~~				
		~~VOC~~	~~NO$_X$~~	~~CO~~	~~PM$_{10}$~~	~~PM$_{2.5}$~~
~~Phase 1 2012 emission factors~~	~~Mobile~~	~~377~~	~~5,141~~	~~3,144~~	~~746~~	~~311~~
	~~Architectural Coatings~~	~~146~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Consumer Products~~	~~117~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Natural Gas~~	~~<1~~	~~2~~	~~2~~	~~<1~~	~~<1~~
	~~Onsite equipment~~	~~5~~	~~138~~	~~51~~	~~1~~	~~1~~
	~~Total~~	**~~645~~**	**~~5,281~~**	**~~3,197~~**	**~~747~~**	**~~312~~**
~~Buildout 2012 emission factors~~	~~Mobile~~	~~666~~	~~9,057~~	~~5,531~~	~~1,308~~	~~547~~
	~~Architectural Coatings~~	~~258~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Consumer Products~~	~~207~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Natural Gas~~	~~<1~~	~~4~~	~~3~~	~~0~~	~~<1~~
	~~Onsite equipment~~	~~9~~	~~245~~	~~90~~	~~2~~	~~2~~
	~~Total~~	**~~1,140~~**	**~~9,306~~**	**~~5,624~~**	**~~1,310~~**	**~~549~~**
~~Significance Threshold~~		~~55~~	~~55~~	~~550~~	~~150~~	~~55~~
~~Significant Impact?~~		~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~

~~Notes: VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide~~
~~PM10 and PM2.5 = particulate matter <1 = less than one~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~4.3.6.4 Long-Term Operational Emissions~~

~~Impact 4.3.6.4:~~ ~~*Implementation of the proposed project may have the potential to exceed applicable daily thresholds for operational activities.*~~

~~Threshold~~ ~~Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?~~

~~For long-term operations, the applicable daily thresholds are:~~

~~- 55 pounds of VOC;~~
~~- 55 pounds of NO$_X$;~~

~~- 550 pounds of CO;~~
~~- 150 pounds of PM_{10};~~
~~- 55 pounds of $PM_{2.5}$; and~~
~~- 150 pounds of SO_X.~~

~~Long-term air pollutant emission impacts that would result from the proposed project are those associated with stationary sources and mobile sources involving any project-related change (e.g., emissions from the use of motor vehicles by project-generated traffic). This analysis assesses the mobile source emissions generated by vehicles driving to and from the proposed land uses, as well as area source emissions generated by project maintenance operations.~~

~~**Worst-Case Scenario.** Projected emissions resulting from operational activities of the proposed project under the worst-case scenario are identified in Table 4.3.W.~~

~~Emissions from the existing on-site residences and fugitive dust are not included in the worst-case analysis. In addition, there may be minor emissions of VOC from the fueling station, depending on what type of fuel is used. However, details regarding the fueling station are currently unknown so the emission source is not estimated. This is a worst-case analysis because it assumes that the entire project would be built-out in 2012. The motor vehicle and truck emission factors are from 2012, which assumes a "dirtier" fleet than would be the case in later years. In addition, no reductions are taken for mitigation measures.~~

~~As identified in Table 4.3.W, operational emissions for the proposed project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the "worst-case" 2012 scenario.~~

~~**Operational Regional Emissions.** Table 4.3.X shows the detailed operational emission sources generated both on site and off site for Phase 1 (2022) and buildout. The table shows particulate matter (PM_{10} and $PM_{2.5}$) divided into dust and exhaust sources. As shown in the table, emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout.~~

~~Table 4.3.Y shows the operational emissions year by year using future year emission factors: year 2022 for Phase 1 (2016 to 2022) and year 2035 for Phase 2 (2023 to buildout). The VOC, NOx, CO, PM10, and PM2.5 emissions would be over the SCAQMD's significance thresholds. The emissions demonstrate that although the number of vehicles and trucks would increase year by year, the emissions do not increase dramatically because the per-vehicle emission factors decrease over time as cleaner vehicles enter the fleet over time.~~

~~**Combined Construction and Operation.** There would be overlapping of construction and operational emissions with project implementation. The maximum daily operational emissions as shown in Table 4.3.Y were added to the maximum daily construction emissions (from Table 4.3.K) and are shown in Table 4.3.Z, which shows all pollutants for all years exceed the SCAQMD thresholds, with the exception of SO_X emissions. SO_X are not shown in the table as they are far below the significance threshold of 150 pounds per day.~~

~~As identified in the preceding tables, project-related air quality impacts for all criteria pollutants, with the exception of SO_X, would be significant and mitigation measures are required.~~

~~**Mitigation Measures.** The mitigation measures previously identified under Impact 4.3.6.3 (**Mitigation Measures 4.3.6.3A** through **4.3.6.3E**) would reduce operational emissions of criteria pollutants associated with the project. Additionally, the following mitigation measure is required:~~

~~Table 4.3.X: Operational Regional Air Pollutant Emissions (Detail, Unmitigated)~~

		~~Emissions (pounds/day)~~								
~~Phase~~	~~Source~~	~~VOC~~	~~NO_X~~	~~CO~~	~~PM_{10} Dust~~	~~PM_{10} Exh.~~	~~PM_{10} Total~~	~~$PM_{2.5}$ Dust~~	~~$PM_{2.5}$ Exh.~~	~~$PM_{2.5}$ Total~~
~~Existing~~	~~Tractor, dust~~	~~<1~~	~~5~~	~~3~~	~~352~~	~~<1~~	**~~352~~**	~~77~~	~~<1~~	**~~77~~**
~~Phase 1~~	~~Mobile~~	~~106~~	~~1,591~~	~~1,068~~	~~612~~	~~9~~	~~620~~	~~164~~	~~8~~	~~172~~
	~~Architectural Coatings~~	~~146~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Consumer Products~~	~~117~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Natural Gas~~	~~<1~~	~~2~~	~~2~~	~~0~~	~~<1~~	~~<1~~	~~0~~	~~<1~~	~~0~~
	~~On-site Equipment~~	~~5~~	~~138~~	~~51~~	~~0~~	~~1~~	~~1~~	~~0~~	~~1~~	~~1~~
	~~Total~~	**~~374~~**	**~~1,731~~**	**~~1,121~~**	**~~612~~**	**~~10~~**	**~~621~~**	**~~164~~**	**~~9~~**	**~~173~~**
~~Buildout~~	~~Mobile~~	~~120~~	~~1,031~~	~~1,286~~	~~1,114~~	~~6~~	~~1,120~~	~~298~~	~~6~~	~~303~~
	~~Architectural Coatings~~	~~258~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Consumer Products~~	~~207~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Natural Gas~~	~~<1~~	~~4~~	~~3~~	~~0~~	~~<1~~	~~<1~~	~~0~~	~~<1~~	~~<1~~
	~~On-site Equipment~~	~~9~~	~~245~~	~~90~~	~~0~~	~~2~~	~~2~~	~~0~~	~~2~~	~~2~~
	~~Total~~	**~~594~~**	**~~1,280~~**	**~~1,379~~**	**~~1,114~~**	**~~8~~**	**~~1,122~~**	**~~298~~**	**~~8~~**	**~~305~~**
	~~Net increase~~	**~~594~~**	**~~1,275~~**	**~~1,376~~**	**~~762~~**	**~~8~~**	**~~770~~**	**~~221~~**	**~~8~~**	**~~228~~**
~~Significance Threshold~~		~~55~~	~~55~~	~~550~~	~~None~~	~~None~~	~~150~~	~~None~~	~~None~~	~~55~~
~~Significant Impact?~~		~~Yes~~	~~Yes~~	~~Yes~~	~~--~~	~~--~~	~~Yes~~	~~--~~	~~--~~	~~Yes~~

~~Notes: VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter Exh. = exhaust <1 = less than 1 Net increase = total buildout minus existing~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.Y: Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)~~

~~Year~~	~~VOC~~	~~NO$_X$~~	~~CO~~	~~SO$_2$~~	~~PM$_{10}$~~	~~PM$_{2.5}$~~
~~2016~~	~~34~~	~~159~~	~~103~~	~~*~~	~~57~~	~~16~~
~~2017~~	~~69~~	~~317~~	~~205~~	~~*~~	~~114~~	~~32~~
~~2018~~	~~114~~	~~528~~	~~342~~	~~*~~	~~190~~	~~53~~
~~2019~~	~~160~~	~~740~~	~~479~~	~~*~~	~~266~~	~~74~~
~~2020~~	~~245~~	~~1,132~~	~~733~~	~~*~~	~~407~~	~~114~~
~~2021~~	~~330~~	~~1,525~~	~~987~~	~~*~~	~~547~~	~~153~~
~~2022~~	~~374~~	~~1,732~~	~~1,121~~	~~*~~	~~622~~	~~174~~
~~2023~~	~~395~~	~~1,690~~	~~1,145~~	~~*~~	~~669~~	~~186~~
~~2024~~	~~415~~	~~1,647~~	~~1,169~~	~~*~~	~~715~~	~~199~~
~~2025~~	~~445~~	~~1,587~~	~~1,203~~	~~*~~	~~782~~	~~216~~
~~2026~~	~~478~~	~~1,519~~	~~1,242~~	~~*~~	~~858~~	~~236~~
~~2027~~	~~511~~	~~1,450~~	~~1,281~~	~~*~~	~~934~~	~~256~~
~~2028~~	~~544~~	~~1,382~~	~~1,321~~	~~*~~	~~1,010~~	~~276~~
~~2029~~	~~566~~	~~1,337~~	~~1,346~~	~~*~~	~~1,059~~	~~289~~
~~2030~~	~~588~~	~~1,292~~	~~1,372~~	~~*~~	~~1,109~~	~~302~~
~~Buildout~~	~~594~~	~~1,280~~	~~1,379~~	~~*~~	~~1,123~~	~~306~~
~~SCAQMD Threshold~~	~~55~~	~~55~~	~~550~~	~~150~~	~~150~~	~~55~~
~~Significant?~~	~~Yes~~	~~Yes~~	~~Yes~~	~~No~~	~~Yes~~	~~Yes~~

- ~~Emissions are from local vehicles, trucks, natural gas, emergency generators, forklifts, yard trucks, painting, and consumer products. There is no reduction from existing onsite emissions.~~
- ~~Emissions for Phase 1 are years 2016-2022. Emissions for Phase 2 are year 2023-buildout operational emissions are assumed to be zero in 2015 when project construction commences.~~
- ~~PM$_{10}$ and PM$_{2.5}$ emissions include exhaust and road dust.~~
- ~~Landscaping emissions are negligible.~~

~~*~~ ~~Sulfur dioxide emissions as estimated in the Draft EIR were substantially less than the threshold of 150 pounds per day. Thus, emissions reflecting decreased vehicle miles traveled would also be less than significant.~~

~~VOC = volatile organic compounds; NO$_X$ = nitrogen oxides; SO$_2$ = sulfur dioxide; CO = carbon monoxide; PM$_{10}$ and PM$_{2.5}$ = particulate matter~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.Z: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)~~

~~Year~~	~~VOC~~	~~NO_X~~	~~CO~~	~~PM_{10}~~	~~$PM_{2.5}$~~
~~2015 (construction)~~	~~128~~	~~1,463~~	~~871~~	~~193~~	~~84~~
~~2016~~	~~301~~	~~1,000~~	~~633~~	~~183~~	~~66~~
~~2017~~	~~382~~	~~1,749~~	~~1,054~~	~~306~~	~~114~~
~~2018~~	~~381~~	~~1,369~~	~~872~~	~~316~~	~~103~~
~~2019~~	~~531~~	~~2,855~~	~~1,705~~	~~532~~	~~198~~
~~2020~~	~~522~~	~~2,093~~	~~1,329~~	~~543~~	~~171~~
~~2021~~	~~633~~	~~2,784~~	~~1,761~~	~~731~~	~~229~~
~~2022~~	~~661~~	~~2,789~~	~~1,789~~	~~791~~	~~240~~
~~2023~~	~~712~~	~~3,079~~	~~2,030~~	~~876~~	~~273~~
~~2024~~	~~713~~	~~2,822~~	~~1,923~~	~~898~~	~~272~~
~~2025~~	~~756~~	~~2,876~~	~~2,057~~	~~986~~	~~299~~
~~2026~~	~~744~~	~~2,360~~	~~1,772~~	~~984~~	~~286~~
~~2027~~	~~774~~	~~2,179~~	~~2,031~~	~~1,102~~	~~308~~
~~2028~~	~~796~~	~~1,989~~	~~1,987~~	~~1,159~~	~~318~~
~~2029~~	~~789~~	~~1,655~~	~~1,803~~	~~1,153~~	~~309~~
~~2030~~	~~833~~	~~1,712~~	~~1,942~~	~~1,249~~	~~337~~
~~Buildout (operation only)~~	~~594~~	~~1,280~~	~~1,379~~	~~1,123~~	~~306~~
~~SCAQMD Threshold~~	~~55~~	~~55~~	~~550~~	~~150~~	~~55~~
~~Significant?~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~

- ~~Year 2015 contains construction emissions only; buildout contains operational emissions only~~
- ~~Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day~~
- ~~Reduction from existing onsite emissions are not included.~~

~~VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

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~~**4.3.6.4A** The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:~~

~~a) All tenants shall be required to participate in Riverside County's Rideshare Program.~~

~~b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.~~

~~c) Class II bike lanes shall be incorporated into the design for all project streets.~~

~~d) The project shall incorporate pedestrian pathways between on-site uses.~~

~~e) Site design and building placement shall provide pedestrian connections between internal and external facilities.~~

~~f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.~~

~~g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction.~~

~~h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.- Each building shall provide a minimum of two shower and changing facilities for employees.~~

~~i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.~~

~~j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.~~

~~It is important to note that, in addition to the operational activity mitigation measures identified previously, future development would need to incorporate physical attributes and operational programs that will act to generally reduce operational-source pollutant emissions including GHG emissions. These project characteristics are identified in Section 4.7, *Climate Change and Greenhouse Gas Emissions*, of this EIR.~~

~~**Level of Significance after Mitigation.** Mitigated operational emissions for full buildout are shown in Table 4.3.AA. Also shown in the table are existing emissions from the onsite agricultural activities. When those emissions are subtracted from the project emissions, emissions are still over the significance thresholds. Note that the emissions are based on conservative assumptions such as truck trips and miles traveled. Even with mitigation, emissions are still significant. Despite implementation of mitigation measures, emissions of criteria pollutants would still exceed SCAQMD significance thresholds resulting in a significant and unavoidable operational air quality impact. Therefore,~~

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~~Table 4.3.AA: Operational Regional Air Pollutant Emissions (Mitigated) (Revised)~~

~~Scenario~~	~~Source~~	~~Emissions (pounds per day)~~				
		~~VOC~~	**~~NO$_X$~~**	**~~CO~~**	**~~PM$_{10}$~~**	**~~PM$_{2.5}$~~**
~~Buildout~~	~~Vehicles: Local and trucks~~	~~119~~		~~1,286~~	~~1,120~~	~~303~~
	~~Architectural Coatings~~	~~258~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Consumer Products~~	~~207~~	~~0~~	~~0~~	~~0~~	~~0~~
	~~Natural Gas~~	~~<1~~	~~4~~	~~3~~	~~<1~~	~~<1~~
	~~Onsite Equipment~~	~~8~~	~~91~~	~~107~~	~~<1~~	~~<1~~
	~~Subtotal – Project Emissions~~	**~~592~~**	**~~1,096~~**	**~~1,396~~**	**~~1,120~~**	**~~303~~**
	~~Existing~~	*~~<1~~*	*~~5~~*	*~~3~~*	*~~352~~*	*~~77~~*
	~~Net Increase~~	**~~592~~**	**~~1,091~~**	**~~1,393~~**	**~~768~~**	**~~226~~**
	~~Significance Threshold~~	~~55~~	~~55~~	~~550~~	~~150~~	~~55~~
	~~Significant Impact?~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~

~~- PM$_{10}$ and PM$_{2.5}$ emissions include exhaust and road dust.~~
~~- Landscaping emissions are negligible.~~
~~- Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout would be less than 23 pounds per day.~~
~~VOC = volatile organic compounds NO$_X$ = nitrogen oxides CO = carbon monoxide PM$_{10}$ and PM$_{2.5}$ = particulate matter~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

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~~there could be cumulative health effects from ozone, PM$_{10}$, and PM$_{2.5}$ as described earlier in this section and summarized as follows:~~

- ~~Ozone can cause the following health effects: irritate respiratory system; reduce lung function; breathing pattern changes; reduce breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increase mortality risk.~~
- ~~Particulate matter (PM$_{10}$ and PM$_{2.5}$) can cause the following health effects from short-term (hours/days) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.~~
- ~~Particulate matter can cause the following health effects from long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.~~

~~Operational emissions (not including construction emissions) at buildout in this revised analysis as compared with the estimates in the DEIR are as follows:~~

- ~~Emissions of VOC have decreased slightly by 140 pounds/day, in accordance with a reduction in square feet for the project and a revision of emission factors.~~
- ~~For the unmitigated emissions, NOx, CO, and PM$_{10}$ in the revised analysis are about 1,800, 2,200, and 600 pounds per day lower than in the DEIR, respectively. For the mitigated emissions, NOx, CO, and PM$_{10}$ in the revised analysis are about 2,000, 2,000, and 600 lower than in the DEIR, respectively. The revised emissions are lower because the emission factors for the mobile trucks and vehicles have been revised and because the vehicle miles traveled (VMT) has decreased. In the DEIR, the VMT at buildout for heavy duty trucks was 730,100 miles per day and in the revised analysis, the diesel vehicles is 420,400 miles per day; therefore, the VMT for diesel vehicles decreased by approximately 309,700 miles per day. The VMT decreased because the analysis in the DEIR assumed a conservative, but arbitrary 50 miles per trip for all heavy duty trucks and in the revised analysis the VMT is based on actual model results for all trips as estimated in the Traffic Impact Analysis for nearly 500 freeway and roadway segments. The VMT for light duty vehicles increased by approximately 64,600 miles: in the DEIR, the VMT for light duty vehicles was 549,700 miles per day and in the revised analysis, the VMT for gasoline vehicles is 614,300 miles per day.~~
- ~~Emissions of PM$_{2.5}$ in the revised analysis have increased by approximately 150 pounds per day because of the use of updated emission factors.~~

~~During overlap of construction and operation, VOC, NO$_X$, CO, PM$_{10}$, and PM$_{2.5}$ would continue to exceed SCAQMD significance thresholds after mitigation, as shown in Table 4.3.AB. Therefore, impacts are significant and unavoidable. The emissions do not take into account the existing onsite agricultural emissions.~~

~~Table 4.3.AB: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day) – Mitigated (revised)~~

~~Year~~	~~VOC~~	~~NO$_X$~~	~~CO~~	~~PM$_{10}$~~	~~PM$_{2.5}$~~
~~2015~~	~~31~~	~~523~~	~~871~~	~~130~~	~~26~~
~~2016~~	~~167~~	~~465~~	~~631~~	~~143~~	~~29~~
~~2017~~	~~209~~	~~716~~	~~1,052~~	~~243~~	~~57~~
~~2018~~	~~243~~	~~683~~	~~868~~	~~275~~	~~65~~
~~2019~~	~~311~~	~~1,200~~	~~1,699~~	~~444~~	~~117~~
~~2020~~	~~371~~	~~1,069~~	~~1,319~~	~~495~~	~~127~~
~~2021~~	~~459~~	~~1,414~~	~~1,748~~	~~671~~	~~174~~

~~Table 4.3.AB: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day) – Mitigated (revised)~~

~~Year~~	~~VOC~~	~~NO$_x$~~	~~CO~~	~~PM$_{10}$~~	~~PM$_{2.5}$~~
~~2022~~	~~500~~	~~1,482~~	~~1,774~~	~~739~~	~~192~~
~~2023~~	~~530~~	~~1,633~~	~~2,018~~	~~812~~	~~214~~
~~2024~~	~~547~~	~~1,558~~	~~1,914~~	~~843~~	~~220~~
~~2025~~	~~583~~	~~1,651~~	~~2,53~~	~~926~~	~~245~~
~~2026~~	~~603~~	~~1,428~~	~~1,773~~	~~941~~	~~247~~
~~2027~~	~~650~~	~~1,639~~	~~2,036~~	~~1,077~~	~~285~~
~~2028~~	~~682~~	~~1,599~~	~~1,997~~	~~1,138~~	~~299~~
~~2029~~	~~695~~	~~1,455~~	~~1,815~~	~~1,431~~	~~300~~
~~2030~~	~~725~~	~~1,562~~	~~1,958~~	~~1,236~~	~~325~~
~~Buildout~~	~~593~~	~~1,097~~	~~1,396~~	~~1,121~~	~~304~~
~~SCAQMD Threshold~~	~~55~~	~~55~~	~~550~~	~~150~~	~~55~~
~~Significant?~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~

- ~~Year 2015 contains construction emissions only; buildout contains operational emissions only~~
- ~~Sulfur oxide (SOx) emissions for construction are contained in the CalEEMod output in Appendix A; the emissions are substantially under the threshold of 150 pounds per day.~~
- ~~Emissions do not include existing onsite emissions.~~

~~VOC = volatile organic compounds NO$_X$ = nitrogen oxides CO = carbon monoxide PM$_{10}$ and PM$_{2.5}$ = particulate matter~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015~~

~~4.3.6.5 Impacts to Sensitive Receptors~~

~~**Impact 4.3.6.5:** *Implementation of the proposed project may have the potential to result in impacts to sensitive receptors.*~~

~~Threshold~~ ~~Would the proposed project expose sensitive receptors to substantial pollutant concentrations?~~

~~For localized air quality impacts, the applicable thresholds are:~~

- ~~20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction and operation;~~
- ~~0.18 ppm (State 1 hour), 0.100 ppm National 1 hour), and 0.030 ppm (Annual) of NO$_X$ during construction and operation;~~
- ~~10.4 µg/m^3 (24-hours) and 1 µg/m^3 (Annual) of PM$_{10}$ during construction~~
- ~~2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM$_{10}$ during operations; and~~
- ~~2.5 µg/m^3 (24 hours) of PM$_{2.5}$ during operations.~~
- ~~During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance threshold for operations.~~

~~For health risk impacts, the applicable thresholds are:~~

- ~~Maximum Individual Cancer Risk: An increased cancer risk greater than 10 in 1 million at any receptor location;~~
- ~~Cancer burden: An increase in cancer burden of 0.5 or~~
- ~~Non-cancer chronic hazard indices (HI): A cumulative increase for any target organ system exceeding 1.0 at any receptor location.~~

~~**Localized Air Quality Impacts.** The construction and operation of the project would result in the emissions of carbon monoxide, oxides of nitrogen, and particulate matter. As noted in the discussion of Impact 4.3.6.3, construction and operation of the proposed project have the potential to exceed localized air quality significance thresholds for oxides of nitrogen (NO_x) and particulate matter (PM_{10} and $PM_{2.5}$) that may expose sensitive receptors to substantial pollutant concentrations. These impacts are shown in Impact 4.3.6.3.~~

~~**Acute and Chronic Health Risk Impacts.** Acute and chronic health risk impact analysis examines the increased risk associated with air pollution for non-cancer health outcomes. Since these are non-cancer health impacts, as described below, the impacts are analyzed separately from increased cancer risk associated with air pollution.~~

~~Past studies have indicated that exposures to diesel PM can have both short-term and long term non-cancer health effects. The construction and operation of the project would not emit any toxic chemicals in any significant quantity other than vehicle exhaust. While there may be other toxic substances in use on site, compliance with State and Federal handling regulations will bring these emissions to below a level of significance.~~

~~Exposure to diesel exhaust can have immediate (acute) health effects, such as irritation of the eyes, nose, throat, and lungs, and can cause coughs, headaches, light headedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (CARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer health risk guidance value.~~

~~The revised analysis, however, does derive an estimate of acute non-cancer risks by examining the acute health effects of the various toxic components that comprise diesel and gasoline emissions. There is specific guidance for estimating the acute non-cancer hazards from these toxic components based on chemical profiles established by the CARB which was used in the revised analysis to determine the project's acute non-cancer hazards.~~

~~To determine the project's *chronic* non-cancer hazard impact, the highest annual diesel PM concentration was determined covering the years 2015 (the commencement of project construction) to 2035 (the full build out of the project). In this regard, the highest annual average diesel PM concentration prior to mitigation determined through air dispersion modeling was 1.02 ug/m^3, at an existing residence located within the project boundaries. This diesel PM concentration was due to the impacts of diesel PM emissions from the off-road construction equipment and operation equipment. This level of diesel PM impact results in a chronic non-hazard index of 0.20. This hazard index is less than the SCAQMD's significance level of 1.0, and is, therefore, less than significant.~~

~~The estimation of the *acute* non-cancer hazard index requires the estimation of the maximum 1-hour impacts of total organic gases (TOG). Estimates of the project's maximum 1-hour TOG emissions were derived from the project's peak hour traffic data along the nearly 500 roadway segments contained within the assessment and then speciated or broken down into the various toxic air contaminant components by fuel type, gasoline and diesel. The acute non-cancer hazard index was determined for a worst-case condition that assumed the project would be completely built out in 2012 with the project's attendant traffic and emission estimates as they would exist in 2012. This condition is the same as the Project Phase 1 and Phase 2 Full Build Out (2012) condition assumed in the Localized Significance Threshold assessment provided earlier. Based on this information, the maximum acute non-cancer hazard index found at any receptor within the model domain was 0.07, which is less than the SCAQMD's non-cancer hazard index of 1.0, and, therefore, is less than significant.~~

~~Therefore, the potential for short-term acute and chronic exposure from diesel exhaust are considered to be less than significant and no mitigation is required.~~

~~**Cancer Risks.** As noted in Section 4.3.3, *Methodology*, the project health risk assessment examined the following condition for impacts to both sensitive/residential and worker receptors:~~

> ~~*Proposed Project Development condition which evaluates the impacts of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2015, build out of Phase 1 in 2022, and the full build out in 2035.*~~

~~This HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.~~

~~*Cancer Risk for Sensitive/Residential Receptors.* To provide context with the methodology shown in the DEIR, Table 4.3.AC presents the results of the health risk assessment as presented in the DEIR. The cancer risk estimated applied the “Former OEHHA Guidance” and the now out-of-date EMFAC2011 mobile source emission model at several receptor locations inside and outside of the project boundary. For reference, a risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration of diesel PM over the duration of the exposure. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.[1]~~

~~Table 4.3.AD presents the estimated cancer risks applying the “Current OEHHA Guidance” and the use of the EMFAC2014 mobile source emission model. The results are provided separately for project construction diesel PM emissions, operational diesel PM emissions, and the total project diesel PM emissions prior to the application of emission mitigation. As noted therein, the estimated cancer risks are far greater than the corresponding risks estimated using the “Former OEHHA Guidance”. This is because of the use of the age-specific factors (e.g., age-sensitivity factors and daily breathing rates) used in the “Current OEHHA Guidance” during the first 16 years, and in particular the first 2 years, of the 30-year exposure duration that greatly influence the risks over the entire 30-year exposure duration. The “Former OEHHA Guidance” used a 70-year exposure but did not make use of any age-specific factors. Because of the use of the age-specific early-in-life factors under the “Current OEHHA Guidance”, the estimated cancer risks would result in an exceedance of the 10 in a million cancer risk significance threshold in the first year of the project construction in 2015 alone. As can be seen from Table 4.3.AD the construction impacts contribute the greatest proportion of the total impact particularly under the “Current OEHHA Guidance”.~~

~~On the basis of the results shown in Table 4.3.AD based on the application of the “Current OEHHA Guidance”, the project would exceed the SCAQMD’s cancer risk significance threshold of 10 in a~~

~~[1] Definition of a 1 in a million cancer risk from the US EPA, Technology Transfer Network Air Toxics, Glossary of Key Terms, Website: www.epa.gov/ttn/atw/natamain/gloss1.html.~~

~~Table 4.3.AC: Estimated Cancer Risks, 70-Year Exposure Duration for Sensitive/Residential Receptors as Shown in the Draft EIR~~

	~~Unmitigated~~			~~Mitigated~~		
~~Receptor Location~~	~~Total Incremental Cancer Risk(1) (risk/million)~~	~~SCAQMD Cancer Risk Significance Threshold (risk/million)~~	~~Exceeds Threshold?~~	~~Total Incremental Cancer Risk(1) (risk/million)~~	~~SCAQMD Cancer Risk Significance Threshold (risk/million)~~	~~Exceeds Threshold?~~
~~Maximum risk anywhere in the modeling domain(2)~~	~~100.7~~	~~10~~	~~Yes~~	~~76.8~~	~~10~~	~~Yes~~
~~Maximum risk at existing residences within the project boundaries~~	~~100.7~~	~~10~~	~~Yes~~	~~76.8~~	~~10~~	~~Yes~~
~~Maximum risk at any existing residential area outside of the project boundaries(3)~~	~~22.2~~	~~10~~	~~Yes~~	~~20.9~~	~~10~~	~~Yes~~

~~Notes:~~

~~(1) 70-year average exposures from 2015 to 2084 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2011 emission model and "Former OEHHA Guidance" for estimating cancer risks as presented in the Draft EIR~~

~~(2) Location is at the existing residences within the boundaries of the project~~

~~(3) Location is at the southwest corner of the project~~

~~(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~Table 4.3.AD: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance," Without Mitigation~~

~~Receptor Location~~	~~Incremental Cancer Risk During Project Construction (risk/million)~~	~~Incremental Cancer Risk During Project Operation (risk/million)~~	~~Total Incremental Cancer Risk(1) (risk/million)~~	~~SCAQMD Cancer Risk Significance Threshold (risk/million)~~	~~Exceeds Threshold?~~
~~Maximum risk anywhere in the modeling domain(2)~~	~~180.8~~	~~6.7~~	~~187.5~~	~~10~~	~~Yes~~
~~Maximum risk at existing residences within the project boundaries(3)~~	~~180.8~~	~~6.7~~	~~187.5~~	~~10~~	~~Yes~~
~~Maximum risk at any existing residential area outside of the project boundaries(4)~~	~~47.2~~	~~2.5~~	~~49.7~~	~~10~~	~~Yes~~
~~Maximum risk at any undeveloped residentially zoned property outside of the project boundaries(5)~~	~~40.5~~	~~2.7~~	~~43.2~~	~~10~~	~~Yes~~

~~Notes:~~

~~(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks~~

~~(2) Location is at the existing residences within the boundaries of the project~~

~~(3) Location is at the existing residences within the boundaries of the project~~

~~(4) Location is at the southwest corner of the project~~

~~(5) Location is at an undeveloped property zoned for residential at the southwest corner of the project~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~million prior to the application of mitigation and would represent a significant impact. However, this analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.~~

~~Figures 4.3.18a and 4.3.18b show the incremental cancer risks for the project location as calculated based on the EMFAC2014 emission model and the application of the "Current OEHHA Guidance" cancer risk estimation methodology and based on the assumption that diesel exhaust from old technology engine diesel emissions can cause cancer. The figures show the results prior to the application of mitigation.~~

~~*Estimates of Cancer Risk for School Site Receptors.* Cancer risk at school sites in the area with the application of the "Current OEHHA Guidance" is provided in Appendix D. Prior to the application of the mitigation, the maximum cancer risk is 3.2 in a million at Ridgecrest Elementary School. The cancer risk at the proposed high school at Ironwood Avenue and Quincy Street is 3.4 in a million. Impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.~~

~~*Estimates of Cancer Risk for Worker Receptors*. Estimates of worker exposures were prepared based on the assumption of a 25-year exposure duration for 250 days per year and 8 hours per day as described in the methodology section above and in the revised Air Quality, Greenhouse Gas, and Health Risk Assessment Report (Appendix D). Note that the OEHHA early-in-life age factors do not apply to worker receptors. The highest worker cancer risk estimates prior to the application of mitigation are greater than the SCAQMD cancer risk threshold of 10 in a million at 10.1 in a million inside the project boundaries and 4.1 in a million outside the project boundaries.~~

~~However, this analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.~~

~~*Estimates of Cancer Burden.* In response to comments received on the DEIR, an estimate of cancer burden was developed in this revised analysis. The cancer burden calculation provides an estimate of the increased number of cancer cases as a result of exposures to TAC emissions. The total cancer burden is the product of the number of persons in a population area (such as a census tract) and the estimated individual risk from TACs in that population area and then summed over all population areas. The SCAQMD indicates that the burden calculation include those population units having an incremental cancer risk of 1 in a million or greater.~~

~~Cancer risks were estimated at the geographical center (centroid) of 2,360 census tracts that spanned the Basin from Palm Springs to the City of Los Angeles. For the 70-year exposure duration with the inclusion of the "Current OEHHA Guidance", the cancer burden is estimated to be 1.6 out of a population of about 880,000 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.~~

~~*Informational Purposes: Morbidity and Mortality*. There is no established threshold or approved methodology for calculating morbidity and mortality. For purposes of this assessment, morbidity is a term for describing how an external effect such as air pollution would exacerbate an existing illness and other health effect. Mortality is another term for death. The following represents the result of the calculations for long-term mortality and various morbidity health endpoints due to diesel PM for the project prior to the application of mitigation. The locations for the morbidity/mortality estimations were at the location with the highest combined annual diesel PM concentration and census tract population such that the change in diesel PM would affect the greatest number of people. A cumulative total of each mortality/morbidity health endpoint was also calculated that totals the number of added cases of an identified health endpoint at each census tract location within the entire region potentially impacted by the project emissions.~~

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~~Figure 4.3.18a: Incremental Project Cancer Risk – No Mitigation "Current OEHHA Guidance"~~

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~~Figure 4.3.18b: Incremental Project Cancer Risk – “Current OEHHA Guidance” Close-In View~~

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~~The estimates of mortality and morbidity impacts are based on the application of concentration-response functions (C-R functions) that relate the change in the number of adverse health effect incidences in a population to a change in air pollutant concentration experienced by that population. However, such estimations are subject to great uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, form of C-R functions, baseline rates of mortality and morbidity that are entered into the C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions.~~

~~Exposure to the Project's diesel PM emissions prior to mitigation would result in an increase in mortality of approximately 0.002 additional cases per year at the location where the project has its maximum impact from diesel PM emissions or 0.2 additional cases over all of the census tracts contained In the modeling domain.~~

~~Table 4.3.AE summarizes the estimates of the various morbidity health endpoints due to the emissions from the project. As shown in this table, the project would not result in a single new added case of a quantified health endpoint either at either the location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment (approximately 3,500 square miles, potentially impacted by the project).~~

~~Table 4.3.AE: Estimates of Various Morbidity Health Endpoints from Project Emissions Without Mitigation (new table)~~

~~Health Endpoint~~	**~~Maximum Added Occurrences (cases/year)~~**	**~~Cumulative Occurrences over the Entire Modeling Region (cases/year)~~**
~~Long-term Mortality (Ages 30+)~~	~~0.0022~~	~~0.22~~
~~Chronic Illness: Chronic Bronchitis (Age 27+)~~	~~0.010~~	~~0.99~~
~~Hospitalization: Chronic Obstructive Pulmonary Disease Age 65+)~~	~~0.00002~~	~~0.002~~
~~Hospitalization: Pneumonia (Age 65+)~~	~~0.00003~~	~~0.003~~
~~Hospitalization: Cardiovascular (Age 65+)~~	~~0.00005~~	~~0.005~~
~~Hospitalization: Asthma (Age 0-64)~~	~~0.00001~~	~~0.001~~
~~Hospitalization: Asthma-related Emergency Visits (Ages 0-64)~~	~~0.00003~~	~~0.004~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~**City of Moreno Valley General Plan.** The project is consistent with the following City of Moreno Valley General Plan (2006) policies to help reduce air quality impacts to sensitive receptors:~~

- ~~Policy 6.7.4 Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors. Project consistency: The project would not contain heavy industrial and extraction facilities (such as a gravel mine). The project would contain warehousing, distribution, and light logistics. Therefore, the project is consistent with this policy. Nonetheless, the proposed plan places this development at the eastern end of the City, reducing the potential residential/development interface.~~
- ~~Policy 6.7.5 Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust. Project consistency: The project would~~

~~comply with all applicable rules and regulations. Mitigation Measure 4.3.6.2A requires that the project demonstrate compliance with Rule 403.~~

~~**Mitigation Measures.** The mitigation measures previously identified under other impact sections are required (**Mitigation Measures 4.1.6.1A, 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.3E**) to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project.~~

~~**Level of Significance after Mitigation for Worker and School Children Cancer Risk**. Less than Significant. The cancer risk impacts are less than the threshold of 10 in a million for workers 1.3 in one million onsite; 0.5 in one million offsite) and school children (0.7 in one million). More importantly, HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study.~~

~~**Level of Significance after Mitigation for Localized Particulate Matter Impacts.** Significant and unavoidable. In summary, those residents inside the project boundaries could be exposed to significant short-term and long-term PM10 concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:~~

- ~~Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.~~

- ~~Particulate matter (PM_{10}) can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.~~

~~**Level of Significance after Mitigation for Sensitive Receptor Cancer Risk.** Less than significant.~~

~~**Mitigation Measure 4.3.6.3B** would require that all diesel trucks that access the project site be model year 2010 or later and limits truck and vehicle idling to 3 minutes. **Mitigation Measure 4.3.6.2A** would require that Tier 4 construction equipment be used on the project site. These mitigation measures would reduce the cancer risk from the project.~~

~~**Mitigation Measure 4.3.6.3C** may encourage alternative fueled vehicles and trucks on the project site; however, no reduction is taken. **Mitigation Measure 4.3.6.3D** may reduce vehicle miles traveled to food establishments; however, no direct reduction is taken. **Mitigation Measure 4.3.6.3E** requires that if transportation refrigeration units are to be used, electrical hookups would be required. In addition, refrigerated space is prohibited unless the impacts do not exceed any environmental impacts identified in the EIR. Therefore, it is assumed in the unmitigated and mitigated estimates that there would be no transportation refrigeration units.~~

~~Table 4.3.AF shows the cancer risks estimated with the “Current OEHHA Guidance” after application of mitigation. As noted, the cancer risks are substantially less after mitigation. However, the SCAQMD cancer risk significance threshold would continue to be exceeded at locations within the project boundaries but not at any residential areas outside of the project boundary. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM attributed to mitigation such as the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when the “Current OEHHA Guidance” assigns large age sensitivity factors to the first few years of the 30-year exposure duration. Figure 4.3.19a and Figure 4.3.19b provided a regional and close-in view of the risks, respectively after the application of mitigation. Even so, this HRA is being provided to allow decision makers to see the cancer-related~~

~~Table 4.3.AF: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance," With Mitigation~~

~~Receptor Location~~	~~Incremental Cancer Risk During Project Construction (risk/million)~~	~~Incremental Cancer Risk During Project Operation (risk/million)~~	~~Total Incremental Cancer Risk(1) (risk/million)~~	~~SCAQMD Cancer Risk Significance Threshold (risk/million)~~	~~Exceeds Threshold?~~
~~Maximum risk anywhere in the modeling domain(2)~~	~~11.4~~	~~5.6~~	~~17.0~~	~~10~~	~~Yes~~
~~Existing residences within the project boundaries~~					
~~13100 Theodore St~~	~~11.2~~	~~4.5~~	~~15.7~~	~~10~~	~~Yes~~
~~13200 Theodore St~~	~~11.1~~	~~4.5~~	~~15.6~~	~~10~~	~~Yes~~
~~13241 Theodore St~~	~~11.4~~	~~5.6~~	~~17.0~~	~~10~~	~~Yes~~
~~30220 Dracaea Ave~~	~~5.0~~	~~3.6~~	~~8.6~~	~~10~~	~~No~~
~~30240 Dracaea Ave~~	~~5.0~~	~~3.6~~	~~8.6~~	~~10~~	~~No~~
~~29080 Dracaea Ave~~	~~3.0~~	~~1.5~~	~~4.5~~	~~10~~	~~No~~
~~29140 Dracaea Ave~~	~~4.8~~	~~1.7~~	~~6.5~~	~~10~~	~~No~~
~~Maximum risk at any existing residential area outside of the project boundaries(3)~~	~~2.7~~	~~1.6~~	~~4.3~~	~~10~~	~~No~~
~~Maximum risk at any undeveloped residentially zoned property outside of the project boundaries(4)~~	~~2.1~~	~~1.9~~	~~4.0~~	~~10~~	~~No~~

~~Notes:~~

~~(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks~~

~~(2) Location is at the existing residences within the boundaries of the project~~

~~(3) Location is at the southwest corner of the project~~

~~(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

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~~Figure 4.3.19a: Incremental Project Cancer Risk – ”Current OEHHA Guidance” With Mitigation~~

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~~Figure 4.3.19b: Incremental Project Cancer Risk – "Current OEHHA Guidance" With Mitigation Close-In View~~

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~~impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study, as discussed in more detail below. Through mitigation, new technology diesel engines are required for the WLC project. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.~~

~~The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.~~

~~Mitigation measures 4.3.6.2A and 4.3.6.3B require 2010-compliant trucks for operation and Tier 4 equipment for construction, both of which rely on diesel particulate filters similar to those tested in the HEI study. These vehicles reduce emissions by 90% when compared to 2006 vehicles and by 99% when compared to uncontrolled diesel engines. Recent emissions testing by CARB revealed that these diesel engines are cleaner than originally estimated. These findings, which are reflected in the latest CARB emissions factor model EMFAC2014, are 70% cleaner than previously estimated.~~

~~Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from equipment equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.~~

~~Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found that lifetime exposure to new technology diesel exhaust (NTDE) did not cause carcinogenic lung tumors. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine.~~

~~As a result of the very low emissions from new technology diesel engines and the research conducted by HEI, it is projected that the project would not result in any new cancer risks from the project's diesel emissions. Therefore, the project would have a less than significant health risk impact.~~

~~As discussed above, there are no significant health risk impacts associated with the project. However, under a very conservative application of the "Current OEHHA Guidance" to the proposed project (which was provided for informational purposes), three homes within the Specific Plan area could be identified as having a health risk in excess of the SCAQMD threshold. Although air quality significance thresholds have been established for outdoor environments, a significant portion of human exposure to air pollutants occurs indoors where people spend more than 90 percent of their time (USEPA 2011). One approach to reduce exposure is the installation of high efficiency panel filters inside the HVAC system. Air filters and other air-cleaning devices are designed to remove~~

~~pollutants from indoor air. Some are installed in the ductwork of a home's central heating, ventilating, and air-conditioning (HVAC) system to clean the air in the entire house. In studies of the effectiveness of air filtration systems in classrooms (SCAQMD 2009) and by the EPA in residences (USEPA 2009b), the combination of an HVAC system with a high performance panel filter reduced indoor levels of fine particulate matter, PM2.5 and smaller particles by 70 to 90 percent.~~

~~The use of a filtration system consisting of the application of filters with a rating of ASHRSE Standard 52.2 MERV-13 is sufficient to capture a significant portion of the diesel particulate matter. However, the filtration system would not remove the smallest of particles (less than approximately 0.01 to 0.2 micron in diameter). MERV-13 filters would, however, reduce particles in the range of 0.3 to 1 micron by up to 75 percent and particles larger than 1 micron by 90 percent (see Table 1 of the Addendum to CARB 2012). Based on measurement studies of the size distribution of the collected DPM, approximately 0.1 to 10 percent of the total DPM mass includes particles between 0.01 and 0.2 micrometer in diameter, particles between 0.3 and 1 micrometer in diameter comprise 70 percent of the total DPM mass, and particles above 1 micrometer comprise 5 to 20 percent of the total DPM mass (DieselNet.com 2002).~~

~~Since the cancer risk from DPM is calculated from the mass of DPM emitted, the quantity of DPM reduced by the action of air filters would thus equate to a reduction in cancer risk. The application of MERV-13 air filter filtration system would result in a reduction of DPM exposures by approximately 70 percent.~~

~~DPM Size: 0.01 to 0.2 micrometers   0.3 to 1 micrometers   Greater than 1 micrometer~~

~~(10% total mass × 0% reduction + 70% total mass × 75% reduction + 20% total mass × 90% reduction)~~

~~Attributing an adjustment for time that windows might be open, residents would be outside, or for different compounds that result in the cancer risk would reduce the efficacy of the filters by about 20 percent, bringing the total cancer risk reduction from the filters to 50 percent.~~

~~Absent the results of the HEI study, installation of air filters meeting the requirements discussed above on the three identified homes within the WLCSP area would reduce the OEHHA-calculated risk to below 10 in one million. The use of the filters would bring the OEHHA-calculated risk below the SCAQMD threshold eliminating any possible risk from the project on those three homes within the Specific Plan area. However, based upon the results of the HEI study, health risk impacts are less than significant and no further mitigation is required.~~

~~In summary, the implementation of all the recommended mitigation measures, including the requirement to use 2010 diesel engine emissions standards and Tier 4 construction equipment, will reduce the OEHHA-calculated cancer risk to below 10 in one million on all but three existing residences within the WLCSP boundary. However, the HEI study indicates the use of 2010 diesel engines and TIER 4 equipment will eliminate the project cancer risk, therefore, there will be no impacts to the three homes and no mitigation is required.~~

~~Finally, note further that after application of mitigation, the cancer risk burden is estimated at 0.10 based on the "Current OEHHA Guidance" which is less than the SCAQMD cancer burden significance threshold of 0.5, based on the assumption that diesel exhaust can cause cancer. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold.~~

~~As requested in comments received during the DEIR comment period, an analysis was conducted to compare cancer risks for a design buffer area of 250 feet from the project boundaries (this is the current project design) to a buffer area of 1,000 feet from the property boundary based on the "Current OEHHA Guidance." As shown in Table 4.3.AG, the results for the maximum incremental~~

~~cancer risk are nearly identical for the 250-foot buffer and the 1,000-foot buffer. The 1,000-foot buffer would not appreciably reduce air quality impacts. More importantly, as result of revised mitigation measures such as 4.3.6.2.A that commits to cleaner construction equipment, there is no significant health impact outside the project boundaries for residents, workers, or other sensitive receptors that would be affected by an increased buffer area. That analysis assumes that traditional diesel equipment would be used as opposed to new technology diesel (which does not contribute to cancer~~

~~Table 4.3.AG: Estimated Cancer Risks, 70-year Exposure Duration for Sensitive/Residential Receptors, With Mitigation~~

~~Receptor Location~~	~~Incremental Cancer Risk[1] (risk/million)~~		~~SCAQMD Cancer Risk Significance Threshold (risk/million)~~	~~Exceeds Threshold?~~
	~~250-Foot Buffer~~	~~1000-Foot Buffer~~		
~~Maximum risk anywhere in the modeling domain~~[2]	~~17.0~~	~~16.5~~	~~10~~	~~Yes~~
~~Maximum risk at existing residences within the project boundaries~~	~~17.0~~	~~16.5~~	~~10~~	~~Yes~~
~~Maximum risk at any existing residential area outside of the project boundaries~~[3]	~~4.3~~	~~3.9~~	~~10~~	~~No~~
~~Maximum risk at any undeveloped residentially zoned property outside of the project boundaries~~[4]	~~4.0~~	~~3.7~~	~~10~~	~~No~~

~~Notes:~~

(1) ~~30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation)~~

(2) ~~Location is at the existing residences within the boundaries of the project~~

(3) ~~Location is at the southwest corner of the project along Bay Avenue~~

(4) ~~Location is at an undeveloped property zoned for residential at the southwest corner of the project~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

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~~risk), as required by project mitigation measures. As shown in Figure 4.3.20, the locations of the 10 in one million cancer risk contour line for the project design and the 1,000 foot buffer under the “Current OEHHA Guidance” exposure duration are coincident and overlap each other.~~

~~*Risk in Perspective.* To better understand cancer risk, even though new technology diesel exhaust does not cause cancer according to the HEI study, it helps to understand risk in other contexts. For instance, SCAQMD estimates that the risk of developing cancer from all sources of air pollution in Southern California is approximately 367 in one million. According to the National Cancer Institute, Americans face an overall risk of developing cancer from all causes of 408,000 in one million. Figure 4.3.21 presents the project risk in perspective with other lifetime risks in the United States based on mortality statistics. As shown in the figure, the project cancer risk (the risk of developing cancer, not dying of cancer) has a slightly higher risk than dying from a lightning strike and lower risk than accidental drowning.~~

~~4.3.7 Cumulative Impacts~~

~~4.3.7.1 Short-Term Air Quality Impacts~~

~~The cumulative area for air quality impacts is the Basin. It is generally accepted that if a project exceeds the regional threshold for a nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact. The Basin is currently in nonattainment for ozone, PM_{10} and $PM_{2.5}$. The implementation of the project would contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction would result in substantial short-term increases in air pollutants. Each project would be required to comply with the SCAQMD’s standard construction measures; however, despite adherence to SCAQMD’s standard construction measures and **Mitigation Measures 4.3.6.2A** through **4.3.6.2D** identified previously, project-related emissions would still exceed applicable SCAQMD regional thresholds for VOC, NOx, and CO. Therefore, cumulative impacts associated with short-term air quality impacts would be significant and unavoidable.~~

~~4.3.7.2 CO Hot Spot Impacts~~

~~As identified in Section 4.3.5.2, no significant CO hot spot impacts would occur. It is anticipated that CO emissions in the future will decrease with advances in technology. As previously identified, background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions. Based on the analysis, because no CO hot spot impacts would occur, it is reasonable to assume that a less than significant cumulative CO impact would occur.~~

~~4.3.7.3 Long-Term Regional Air Quality Impacts~~

~~As previously identified in Tables , 4.3.AA and 4.3.AB, the long-term operation and the combined construction and operational emissions of the project would contribute to long-term regional air pollutants despite implementation of mitigation measures. The Basin is in nonattainment for ozone, PM_{10} and $PM_{2.5}$ at the present time; therefore, the operation of the proposed project would exacerbate nonattainment of air quality standards within the Basin and contribute to adverse cumulative air quality impacts. Implementation of the proposed project would unavoidably contribute to significant long-term cumulative air quality impacts.~~

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~~Figure 4.3.20: Cancer Risk Buffer Analysis – "Current OEHHA Guidance" with Mitigation~~

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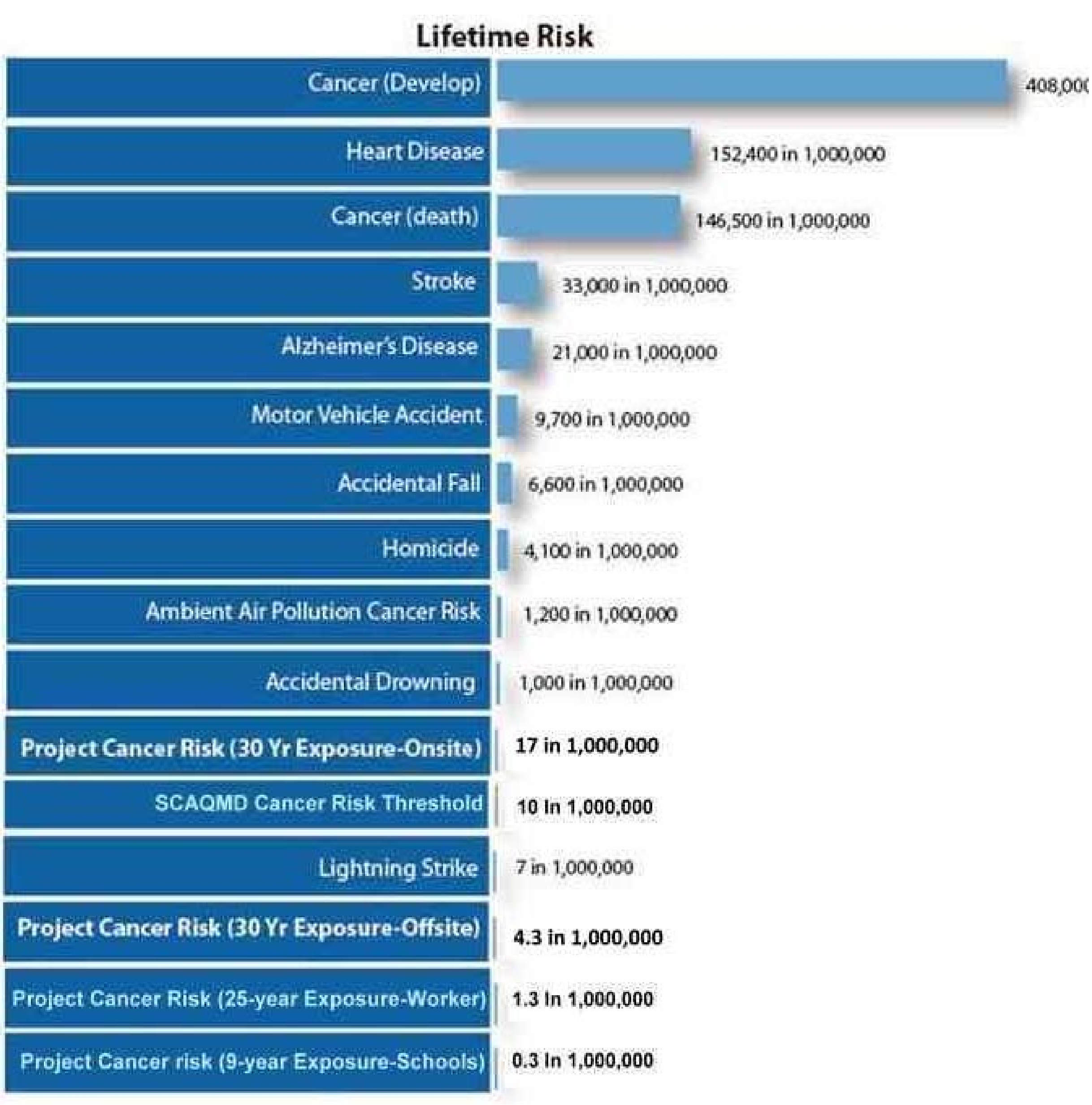

~~Figure 4.3.21: Lifetime Risk Comparison~~

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~~4.3.7.4 Cumulative Health Risk Impacts~~

~~**Cancer Risks to Sensitive Receptors and Cancer Burden.** SCAQMD recommends that any given project's potential contribution to cumulative cancer risk impacts should be assessed using the same significance criteria as for project-specific impacts. Therefore, a project that has the potential to exceed any significance threshold on its own would also result in a cumulatively considerable significant impact. As noted from the results shown in previously discussed in Impact 4.3.6.5 in the subsection *Cancer Risks*, since the project would implement mitigation measures resulting in the cleanest on-road and off-road diesel equipment and such equipment has been shown though extensive health effects studies to not result in cancer. Therefore, the project would not result in a cumulatively considerable impact.~~

~~**Non-Cancer Acute and Chronic Hazards Impacts.** As previously identified, the maximum non-cancer chronic hazard index and acute non-cancer hazard index from the operation of the project are estimated to be less than 0.13 and 0.06, respectively. These values are less than the SCAQMD's significance threshold of 1.0. Therefore, the project would also have a less than significant cumulative non-cancer hazard impact.~~

~~Summary of Project-Related Air Quality Impacts~~

~~Based on the preceding analyses in Sections 4.3.5.1 through 4.3.6.5, the WLC project will have the following direct and cumulative air quality impacts:~~

~~Table 4.3.AH: Summary of Project-Related Air Quality Impacts (new table)~~

~~Impact~~	~~Air Quality Topic/Issue~~	~~Impact Conclusion~~
~~Project Impacts~~		
~~4.3.5.1~~	~~Odors~~	~~Less than Significant No Mitigation Required~~
~~4.3.5.2~~	~~Long-Term Micro-Scale CO Hotspot Emissions~~	~~Less than Significant No Mitigation Required~~
~~4.3.6.1~~	~~Air Quality Management Plan Consistency~~	~~Significant (inconsistent) and Unavoidable with Mitigation~~
~~4.3.6.2~~	~~Regional Construction Emissions~~	~~Significant and Unavoidable with Mitigation (VOC, NOx, CO, and PM_{10}; regional health effects from ozone)~~
~~4.3.6.3~~	~~Localized Construction and Operation (LSTs)~~	~~Significant and Unavoidable with Mitigation (onsite)~~ ~~Less than Significant with Mitigation (offsite)~~
~~4.3.6.4~~	~~Regional Long-Term Operational Emissions~~	~~Significant and Unavoidable with Mitigation (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; regional health effects from ozone, PM_{10}, and $PM_{2.5}$)~~
~~4.3.6.5~~	~~Sensitive Receptors~~ ~~(a) Localized PM_{10}~~	~~Significant and Unavoidable for PM_{10} with Mitigation (onsite)~~ ~~Less than Significant with Mitigation (offsite)~~
	~~(b) Non-Cancer Acute and Chronic Health Risks~~	~~Less than Significant~~
	~~(c) Cancer Risks– Sensitive Receptors~~	~~Less than Significant with Mitigation~~
	~~(d) Cancer Burden~~	~~Less than Significant with Mitigation~~
	~~(e) Cancer Risks –Workers~~	~~Less than Significant with Mitigation~~
	~~(f) Cancer Risks – School Sites~~	~~Less than Significant~~
~~Cumulative Impacts~~		
~~4.3.7.1~~	~~Cumulative Short-Term Air Quality Impacts~~	~~Significant and Unavoidable~~
~~4.3.7.2~~	~~Cumulative CO Hot Spots~~	~~Less than Significant~~

~~Table 4.3.AH: Summary of Project-Related Air Quality Impacts (new table)~~

~~Impact~~	~~Air Quality Topic/Issue~~	~~Impact Conclusion~~
~~4.3.7.3~~	~~Cumulative Long-Term Regional Impacts~~	~~Significant and Unavoidable~~
~~4.3.7.4~~	~~Cumulative Health Risk Impacts~~ ~~(a) Cancer Risks and Cancer Burden to Sensitive Receptors~~ ~~(b) Cancer Risks – Worker Exposure~~ ~~(c) Non-Cancer Acute and Chronic Impacts~~	 ~~Less than Significant with Mitigation~~ ~~Less than Significant with Mitigation~~ ~~Less than Significant~~

~~4.4 BIOLOGICAL RESOURCES: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

~~**NOTE TO READERS.** *The following revisions have been made due to changes in the proposed WLC project, responses to comments on the Programmatic DEIR and revisions and updates to the project biological resources assessment.*~~

~~4.4 BIOLOGICAL RESOURCES~~

~~***Changes from December 2012 Biological Resource Analysis***~~

- ~~*At the request of Metropolitan Water District of Southern California (Letter C-2) information about the Inland Feeder was added to the Section 4.4.1.*~~
- ~~*Additional details about existing setting Section 4.4.1 were added in response to the revised survey area and comments made on the DEIR. The format of this section was revised to follow the format and organization that was used in the revised MSHCP report. However, the information is conceptually the same.*~~
- ~~*Table 4.4.A: Summary of Vegetation was updated based on the revised MSHCP report and moved to Section 4.4.1.4.*~~
- ~~*Table 4.4.B was divided into two separate tables based on the updated biological resources report in addition to comments regarding the presence of sensitive plants and wildlife in the area.*~~
- ~~*Additional discussion of burrowing owl was added to Sections 4.4.1.13 and 4.4.1.14 due to a burrowing owl being identified within the project site during the 2013 focus survey.*~~
- ~~*Table 4.4.D Special Interest Species was incorporated into Tables 4.4.B Sensitive Plant Species in the WLC Project Area and 4.4.C Sensitive Wildlife Species in the WLC Project Area.*~~
- ~~*The discussion of riparian habitat and potential wildlife species was expanded in section 4.4.1.14 due to the updated MSHCP report.*~~
- ~~*Detailed information about on-site drainages has been excerpted from the Jurisdictional Delineation Report and added to Section 4.4.1.19. A discussion of on-site drainages was also added to Section 4.4.6.3.*~~
- ~~*The updated MSHCP report determined that Section 4.4.5.1 Jurisdictional Waters/Wetlands required mitigation to be less than significant. This section was added to 4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive natural Communities. The existing mitigation was revised to mitigate potential jurisdictional impacts to less than significant levels.*~~
- ~~*All mitigation measures in Section 4.4.6 were updated based on the revised the MSHCP report.*~~
- ~~*In response to a comment made on the DEIR a nitrogen deposition section of added to section 4.4.6.2.*~~
- ~~*Mitigation Measures 4.4.6.1A through 4.4.6.1C were revised based on comments from the U.S. Fish and Wildlife Service.*~~
- ~~*Additional discussion of burrowing owl impacts was added to Section 4.4.6.4 due to the burrowing owl being identified within the project site during the 2013 focus survey. Burrowing Owl mitigation was also expanded.*~~

NOTE TO READERS: This portion of the Revised Sections of the FEIR entirely replaces Section 4.4 of the FEIR. The cumulative portion of Section 4.4 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.4 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.4 means that the corresponding portion of Section 4.4 in the FEIR remains unchanged or has been deleted.

4.4 BIOLOGICAL RESOURCES

The Superior Court ruling requires the following actions with regards to Biological Resources:

> "The FEIR should remove all references to and consideration of the 910 acres of SJWA and MSHCP land as "buffer zone" or "CDFW Conservation Buffer Area" in the Biological Resources and Habitat Impacts analysis, and the potential environmental impacts on Biological Resources should be re-analyzed without and consideration of said buffer". The Biological Resources and Sensitive Species Survey Results Technical Memorandum is included in Appendix B.

The following text and figures from the FEIR has been amended to address the above outlined requirements. In particular, the text has been amended to ensure that the "buffer" concept was eliminated and not considered, and this document does not consider or evaluate any part of the San Jacinto Wildlife Area (SJWA) as a buffer area, and instead, the analyses below evaluate whether or not the WLC Project would have any potential impacts on biological resources.

This section discusses the potential impacts of development of the ~~proposed~~WLC project on biological resources. In 2012, Michael Brandman Associates (MBA) conducted a Habitat Assessment, Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis, Habitat Acquisition and Negotiation Strategy (HANS) Report, and California Environmental Quality Act (CEQA) Biological Resources Assessment to comply with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) requirements. The 2012 MBA report summarized the results of several focused surveys conducted since 2004 on the WLC property. In 2014, the various WLC project studies were updated to reflect the most current information about the ~~project area.~~World Logistics Center (WLC) site. ESA completed updated biological resource assessments in 2018 to document any changes to the results from the previous surveys conducted by MBA. Information to evaluate and analyze the ~~proposed~~ project's impacts to biological resources is derived from the following references and studies included in Appendix E:

- 2018 focused surveys for Los Angeles pocket mouse, burrowing owl and coastal California gnatcatcher conducted by ESA.
- *Habitat Assessment, MSHCP Consistency, and HANS Report*, MBA, original dated December 20, 2012, revised September 2014~~.~~ and May 2018. (This includes the focused surveys included as separate documents in the previous version.)
- *Jurisdictional Delineation of the World Logistics Center,* MBA, original dated October 29, 2012, revised dated December 19, 2013.
- *World Logistics Center – Jurisdictional Delineation Update,* ESA, December 19, 2016 letter to Highland Fairview.
- Determination of Biologically Equivalent or Superior Preservation (DBESP), MBA, December 5, 2013, revised September 2014 and May 2018.

In addition, the analysis contained in this section is based on the following reference documents:

- Western Riverside County Regional Conservation Authority – World Logistics Center Joint Project Review (JPR) Consistency Determination 13-12-12-01, dated October 17, 2014.
- *Conservation Element*, City of Moreno Valley General Plan, adopted in July 2006.
- Western Riverside County MSHCP, adopted October 2003.
- MSHCP Final EIR, certified October 2003.

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

For the reader's reference, this ~~EIR~~portion of the Revised Sections of the FEIR and each of the technical reports and analyses contained herein have been written to address ~~a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are~~the court ruling summarized ~~below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (this project September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included~~ in Section ~~3.4~~1.0 of this Revised Sections of the ~~EIR, *Project Characteristics.*~~ FEIR.

The MBA report included an assessment of the WLC Specific Plan (~~WLCSP)~~WLC site) (2,610 acres), the ~~910-acre CDFW Conservation Buffer Area within~~northern portion of the San Jacinto Wildlife Area (SJWA), the SDG&E Moreno Compressor Plant (194 acres), an "indirect impact zone" surrounding portions of the ~~WLCSP~~WLC site property (502 acres, all off-site within the SJWA and east of Gilman Springs Road), potential offsite infrastructure facilities (~~304~~104 acres) and modified survey areas to match the reduced ~~project area~~WLC site of the specific plan from the original 2005 MBA surveyed areas. In this section, the combined areas described in this paragraph total 5,972 acres and are hereafter referred to in this section as the survey area. This area has been resurveyed by ESA in March/April, 2018, except for the "indirect impact zone."

The information presented in this section is based on surveys of various ~~portions~~areas of the project site conducted by MBA from 2005 to 2013 as referenced above~~.~~ and by ESA in 2018. Development is only proposed on the ~~Specific Plan property~~WLC site; the ~~CDFW~~SJWA and public facilities property are not proposed for development and are expected to remain in their present condition. The habitat assessment information summarized in this section was collected during several site visits to the ~~project area~~WLC site, the ~~CDFW buffer area~~northern portion of the SJWA, the public facilities property, and the off-site improvement area at various times from 2005 to ~~2013~~2018.

4.4.1 Existing Setting

The WLC site is located on the fringe of the urbanized development area of the City of Moreno Valley. The majority of the WLC site has been used for agricultural purposes for decades. Various portions of the area contain structures associated with previous agricultural activities, including residential structures, farm buildings, concrete pads, and fences. There are two small portions of relatively undisturbed vegetation on site, one in the northeastern portion of the site on land owned by Metropolitan Water District, and the second in the southwestern portion of the site in the rocky hills south of Alessandro Road and west of World Logistics Center Parkway. Many of the off-site facilities such as water and sewer lines and access to potential water reservoirs are proposed along existing rights-of-way in the City of Moreno Valley. Debris basins are proposed along the eastern side of Gilman Springs Road to prevent debris and sediment from the Badlands from disrupting traffic on Gilman Springs Road after significant storm events. The northern portion of the SJWA south of the Specific Plan area is similar in history and conditions to the project site. The northernmost portion of the SJWA has been plowed for decades and portions of it were recently farmed. A portion of the northernmost portion of the SJWA contains areas of non-native grasslands, although aerial photographs show that the area has been intermittently tilled over last 80 years.

The entire ~~project area~~WLC site is regulated by the MSHCP, which is a regional conservation plan adopted by Riverside County in 2003. The MSHCP establishes core areas identifying important land that supports listed or sensitive species. The MSHCP also establishes criteria cells for land with important resources that need to be protected as part of the overall plan. The MSHCP identifies these critical lands for preservation or for relatively passive open space and utility uses. The MSHCP serves as a regional habitat conservation plan. The MSHCP was created, studied, and adopted by the County, the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW~~,~~), and fourteen cities in Riverside County~~ along with the County~~. A more complete discussion of the MSHCP is provided in Section 4.4.1.6.

4.4.1~~ Existing Setting~~

~~The project area is located on the fringe of the urbanized development area of the City of Moreno Valley. The majority of the project area has been used for agricultural purposes for decades. Various portions of the area contain structures associated with previous agricultural activities, including residential structures, farm buildings, concrete pads, and fences. There are two small portions of relatively undisturbed vegetation on site, one in the northeastern portion of the site on land owned by Metropolitan Water District, and the second in the southwestern portion of the site in the rocky hills south of Alessandro Road and west of Theodore Street. Many of the off-site facilities such as water and sewer lines and access to potential water reservoirs are proposed along existing rights-of-way in the City of Moreno Valley. Debris basins are proposed along the eastern side of Gilman Springs Road to prevent debris and sediment from the Badlands from disrupting traffic on Gilman Springs Road after significant storm events. The CDFW Conservation Buffer Area south of the Specific Plan area is similar in history and conditions to the project site. The ~~.1~~,104-acre area has been plowed for decades and portions of it are being actively farmed. The southwestern portion of the Conservation Buffer contains areas of non-native grasslands, although aerial photographs show that the area has been intermittently tilled over last 80 years.~~

~~*Note: The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding the Inland Feeder. A figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.*~~

> ~~“Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road.”~~

~~4.4.1.1 Topography and Soils~~

~~The project area is located in Rancho Belago, in the eastern portion of the City of Moreno Valley, in western Riverside County. The site is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area (SJWA). The project site gently slopes down from north to south, and contains 15 identifiable drainages, as outlined in the jurisdictional delineation.[1]~~

~~The soils in the project area have been mapped by the *Soil Survey of Western Riverside Area, California* (1971)[2] and include San Emigdio loam (SgA and SgC) and San Emigdio fine sandy loam (SeC2), with smaller inclusions of Arbuckle loam (AkC), Badland (BaG), Gorgonio loamy sand (GhC), Greenfield sandy loam (GyA, GyC2, GyD2), Hanford coarse sandy loam (HcC and HcD2), Metz loamy sand (MdC and MeD), Metz loamy fine sand (MfA), Metz gravelly sandy loam (MlD), Ramona sandy loam (RdD2), Rockland (RtF), San Emigdio fine sandy loam (SeA and SeD2), and San Timoteo loam (SmE2).~~

~~The observed surface soils in the area contain evidence of heavy repeated disturbance from agriculture-related activities. None of the soils present in the project area is considered sensitive pursuant to the MSHCP, which includes all of Moreno Valley (i.e., the City is a signatory to the MSHCP).~~

~~4.4.1.2 Land Uses~~

~~Agricultural fields including dry-land grain farming dominate the project area. Some rural residences are located in the central portion of the area along Theodore Street, and areas of open space are located throughout the southern and northeastern portions of the site. General land uses around the project area include suburban residential development to the west, vacant land and scattered rural residences to the north and east (across SR-60 and Gilman Springs Road, respectively), the SJWA and natural gas distribution facilities to the south, and the Lake Perris State Recreation Area (LPSRA) to the southwest.~~

~~4.4.1.3~~ Vegetation, General

The ~~following~~vegetation data~~ on vegetation~~ in the study area are from the City's *General Plan Final Program EIR*[3] and the *MSHCP Consistency Analysis Report*[4] for the ~~project area~~WLC site. The following describes the vegetation within various WLC ~~project areas~~sites, including the Specific Plan area, Offsite Improvement Area, ~~CDFW Conservation Buffer~~northern portion of the SJWA adjacent to WLC, Indirect Impact Zone, and Additional Survey Areas. Table 4.4~~.A~~-1 provides a numerical summary of the various types of vegetation within the WLC planning area. For this Revised Sections of the FEIR acreages are limited to the Specific Plan area and the Offsite Improvement Area.

~~*Note: Table*~~ 4.4.~~*A: Summary of*~~ 1.2 Vegetation ~~*with the WLC Study Area has been removed in its entirety. To see original table please refer to FEIR Volume IV Section 4.4.1.3, Table 4.4.A.*~~

~~*Note: The following changes are the result of modifications to the WLCSP project area and updates to the various biological technical studies, and in response to a number of comments recommending the biological site surveys be updated. In addition, some paragraphs in this section were moved and only new information is shown in double underline.*~~

~~[1] *Jurisdictional Delineation of the World Logistics Center,* Michael Brandman Associates, December 19, 2013.~~
~~[2] *Soil Survey of Western Riverside Area, California,* United States Department of Agriculture, November 1971.~~
[3] City of Moreno Valley Final Program EIR Conservation Element, City of Moreno Valley, October 2006.
[4] *Habitat Assessment, MSHCP Consistency Analysis, and HANS report*, Michael Brandman Associates, September 2014.

~~4.4.1.4 Vegetation (MBA ~~(Project Survey Area)

There are eleven (11) plant communities/vegetation types that occur within the~~ MBA~~ project survey area: extensive agriculture (e.g., dry-land farming), non-native grassland, urban/developed, disturbed, Riversidean sage scrub, mule fat scrub, non-vegetated channel, open water, ornamental, southern willow scrub, and northern mixed chaparral (see Figure 4.4.1). Figure 4.4.2 depicts the location of drainage features and Riparian/Riverine areas. The following acreages are for approximately 5,972 acres including the ~~WLCSP~~WLC site (2,610 acres) plus off-site improvements and the existing Highland Fairview Corporate Park (Skechers) property, which was included in some of the historical vegetation surveys for this area. The vegetation of the ~~CDFW~~SJWA/public facilities lands and the Off-site Analysis Zone are addressed following the information on the ~~Project Area~~WLC site (i.e., areas of proposed or existing development).

Almost all (5,815 acres or 97.4 percent) of the ~~MBA~~project survey area (5,972 acres) is disturbed by human activity,[1] mainly dryland farming, with only 157 acres or 2.6 percent consisting of native plant communities. The nature and extent of the existing plant communities are discussed below in the order of their presence on the property.

a. Extensive Agriculture

This disturbed plant association covers ~~3,434~~2,837.0 acres or ~~57~~47.5 percent of the ~~MBA~~project survey area, and includes areas where vegetative cover comprises less than 10 percent of the surface area and where there is evidence of intense soil surface disturbance associated with agricultural uses. There are approximately 2,200 acres of extensive agriculture found within the WLC site and there is no extensive agriculture in the Offsite Improvement Areas. This community is generally dominated by winter wheat (*Triticum aestivum*), but also has small inclusions of non-native vegetation along the margins of the fields. Non-native vegetation within disturbed land will have a high predominance of invasive or weedy species that are indicators of heavy, soil disturbance, such as horse nettle (*Solanum elaeagnifolium*), bindweed (*Convolvulus arvensis*), and short-pod mustard (*Hirschfeldia incana*). There was no modification to this mapped plant association made after the 2018 update survey.

The extensive agriculture community in the ~~project area~~WLC site also contains various interstitial ditches that are excluded from regular heavy-agricultural equipment disturbances, such as disking. These areas are less frequently disturbed and contain larger, more established, ruderal vegetation, such as tree tobacco (*Nicotiana glauca*) and tree of heaven (*Ailanthus altissima*), in addition to the fast-growing Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), lamb's quarters (*Chenopodium album*), sow thistle (*Sonchus oleraceus*), and short-pod mustard. The interstitial ditch areas do not occupy enough area nor are continuous enough to constitute a separate plant community and are therefore considered part of the extensive agricultural plant community. The majority of the ~~project area~~WLC site is occupied by extensive agriculture and recently disked or heavily grazed, such as in the pasturelands in the northwestern portion of the ~~project area~~WLC site. Most of these areas are disked at least once each year and planted with winter wheat.

b. Non-Native Grassland

Non-native grassland is characterized by a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season. Dominant plants include brome (*Bromus* spp.), wild oat (*Avena* spp.), Russian thistle, London rocket (*Sisymbrium irio*), cheeseweed (*Malva parviflora*), wild radish (*Raphanus raphanistrum*), short-pod mustard, stinknet (*Oncosiphon piluliferum*), Jimson weed (*Datura stramonium*), and common sunflower~~.~~ (*Helianthus annuus*). Non-native grassland occupies ~~1,729~~2,326.0 acres or ~~29.0~~38.9 percent of the ~~MBA~~project survey area,

---

[1] Includes agriculture, non-native grassland, urban/developed, disturbed, and ornamental categories.

mainly in the Badlands area east of Gilman Springs Road and the ~~southern~~northern portion ~~as part~~ of the ~~CDFW Conservation Buffer land~~SJWA lands to the south of the WLC site. There are 219 acres of non-native grassland found within the WLC site and there are 9 acres of non-native grassland in the Offsite Improvement Areas. There was no modification to this mapped plant association made after the 2018 update survey.

Table 4.4-1: Summary of Onsite and Offsite Improvement Area Vegetation

Vegetation Community	**WLC Site**	**Offsite Improvements Area**
Extensive Agriculture	2,193	0
Non-Native Grassland	219	95.0
Urban/Developed	92	4.0
Disturbed	48	3.0
Riversidean Sage Scrub	48	0
Mule Fat Scrub	5	0
Southern Willow Scrub	1	0
Non-Vegetated Channel	0	2.0
Ornamental	3	0
Northern Mixed Chaparral	1	0
Totals	**2,610.0**	**104.0**

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~~**Table 4.4.A: Summary of Vegetation within the WLC Study Area**~~

~~Vegetation Community~~	~~WLCSP~~	~~Off-site Improvements~~	~~CDFW Conservation Buffer~~	~~SDG&E Moreno Compressor Station~~	~~Indirect Impact Zone~~	~~Additional Survey Areas~~	~~Totals~~
~~Extensive Agriculture~~	~~2,193~~	~~71~~	~~732~~	~~166~~	~~105~~	~~167~~	~~3,434~~
~~Non-Native Grassland~~	~~219~~	~~110~~	~~151~~	~~0~~	~~349~~	~~900~~	~~1,729~~
~~Urban/Developed~~	~~92~~	~~100~~	~~1~~	~~14~~	~~5~~	~~280~~	~~492~~
~~Disturbed~~	~~48~~	~~17~~	~~9~~	~~11~~	~~19~~	~~46~~	~~150~~
~~Riversidean Sage Scrub~~	~~48~~	~~0~~	~~11~~	~~0~~	~~21~~	~~17~~	~~97~~
~~Mule Fat Scrub~~	~~5~~	~~4~~	~~0~~	~~0~~	~~2~~	~~30~~	~~41~~
~~Southern Willow Scrub~~	~~1~~	~~0~~	~~6~~	~~0~~	~~0~~	~~7~~	~~14~~
~~Non-Vegetated Channel~~	~~0~~	~~2~~	~~0~~	~~0~~	~~1~~	~~4~~	~~7~~
~~Ornamental~~	~~3~~	~~0~~	~~0~~	~~3~~	~~0~~	~~0~~	~~6~~
~~Open Water~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~1~~	~~1~~
~~Northern Mixed Chaparral~~	~~1~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~1~~
~~**Totals**~~	~~**2,610.0***~~	~~**304.0***~~	~~**910.0***~~	~~**194.0***~~	~~**502.0***~~	~~**1,452.0***~~	~~**5972.0***~~

~~Note:~~
~~* Rounded to the nearest whole number.~~

Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014. Acreages corroborated by ESA in April 2018.

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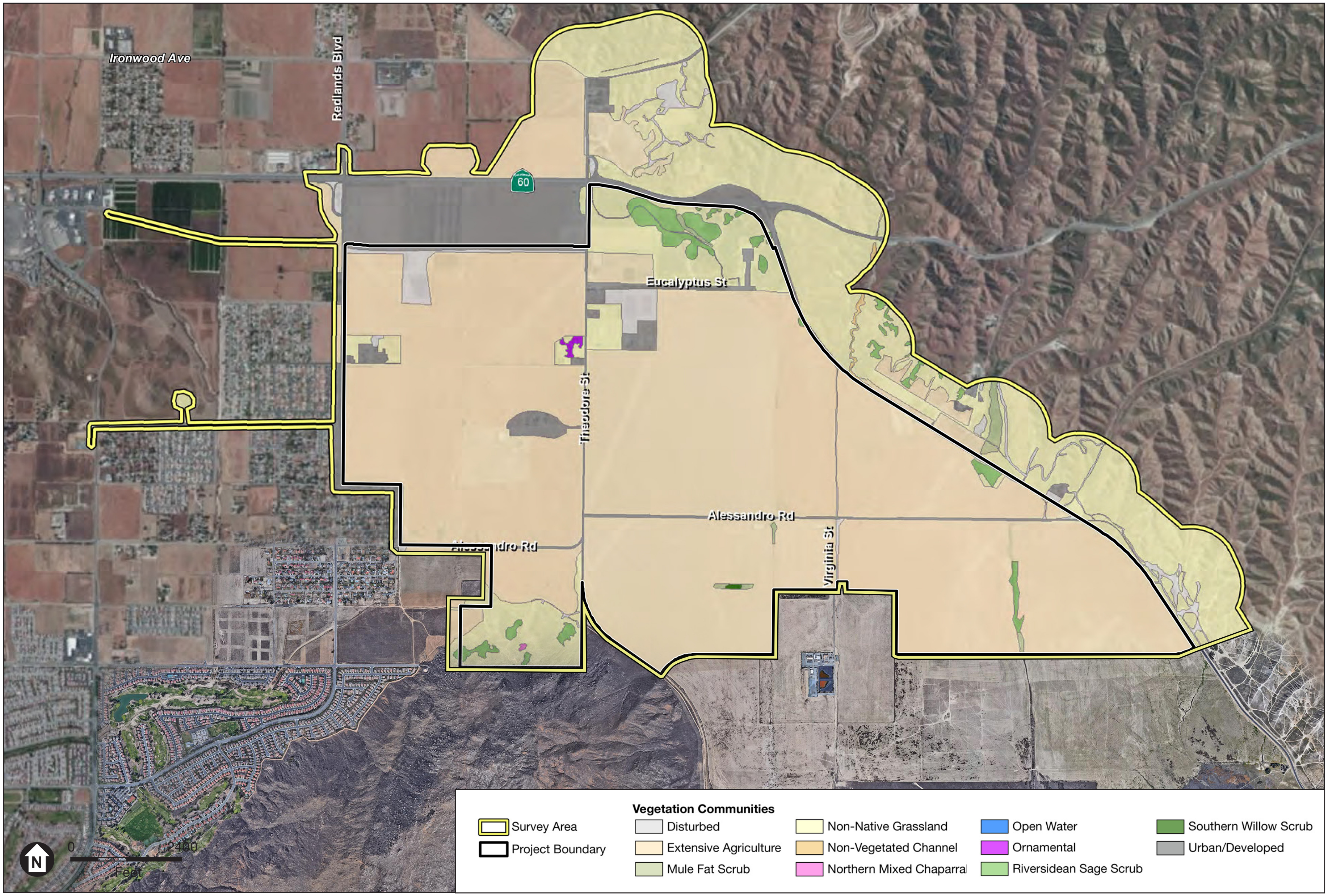

SOURCE: LSA 2013; ESA, 2018

World Logistics Center

Figure 4.4-1
Vegetation Communities

ESA

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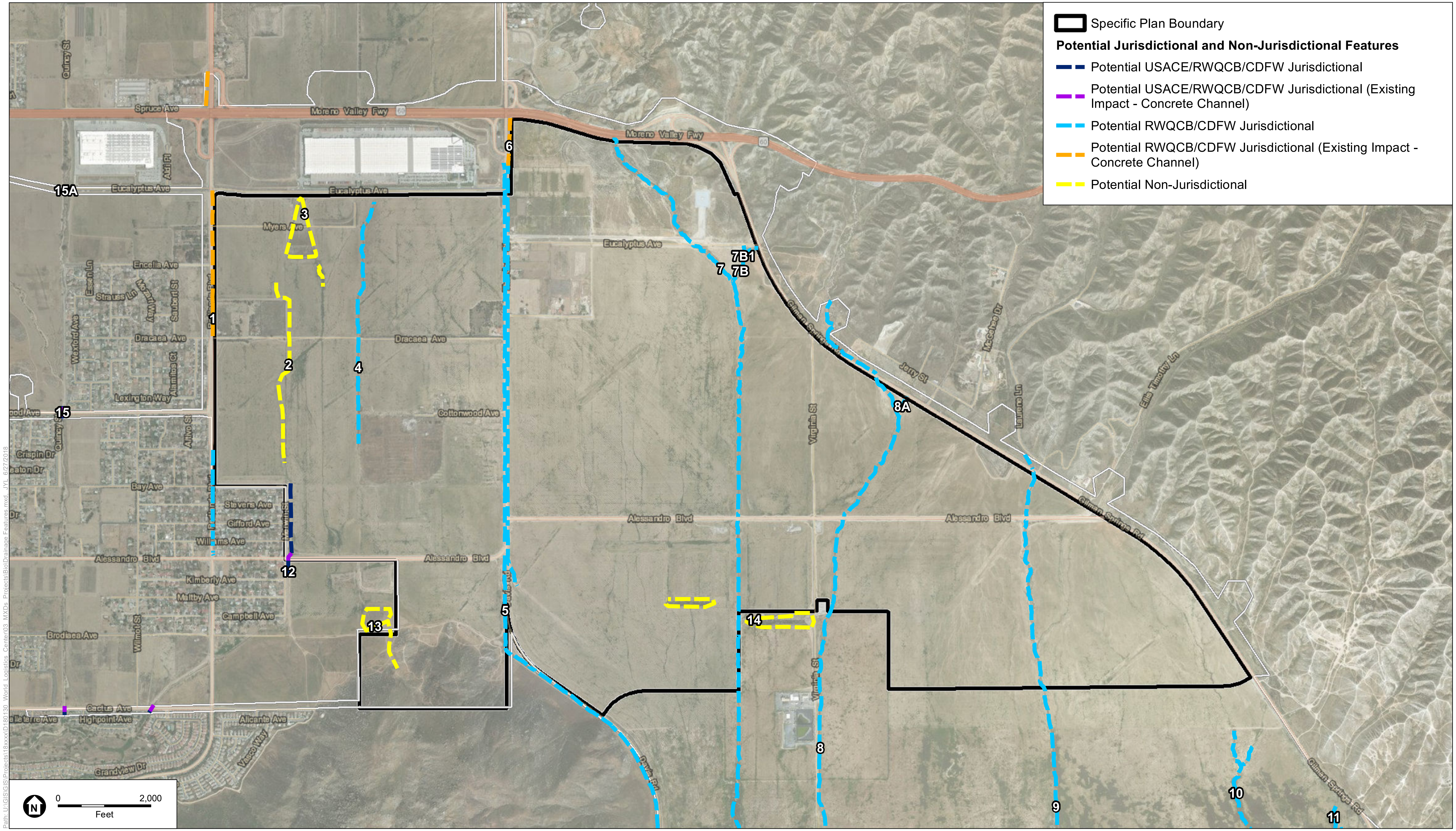

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.4-2
Drainage Features

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c. Urban/Developed

The urban/developed area includes any form of human disturbance associated with the development of rural residences that has resulted in permanent impacts to natural communities. This land use type comprises ~~approximately492~~approximately 492.0 acres ~~or8~~or 8.2 percent of the ~~MBA~~project survey area. By definition, urban/developed areas include roads, buildings and structures, pavement, concrete, landscape vegetation, and windrow vegetation. There are 92 acres of urban/developed found within the WLC site and there are 4 acres of urban/developed in the Offsite Improvement Areas. The isolated occurrences of the urban/developed community occur throughout the study area. The urban/developed area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with human activity. The largest area of Urban/Developed land occurs in the northwestern corner of the survey area and is associated with the existing Skechers building. There was no modification to this mapped land use type made after the 2018 update survey.

d. Disturbed Areas

These areas support sparse ruderal vegetation and an occasional scattering of native plant species. This type of “habitat” is not a plant community and is considered to be of little or no value to wildlife. Disturbed areas include an area in the northern portion of the project site associated with the adjacent rural residences. These areas have been cleared of vegetation. The remaining disturbed areas are associated with dirt access roads and the area surrounding the existing natural gas compressor station. This category occupies 150 acres or ~~25~~2.5 percent of the project survey area. There are 48 acres of disturbed areas found within the WLC site and there are 3 acres of disturbed areas in the Offsite Improvement Areas. There was no modification to this mapped habitat made after the 2018 update survey.

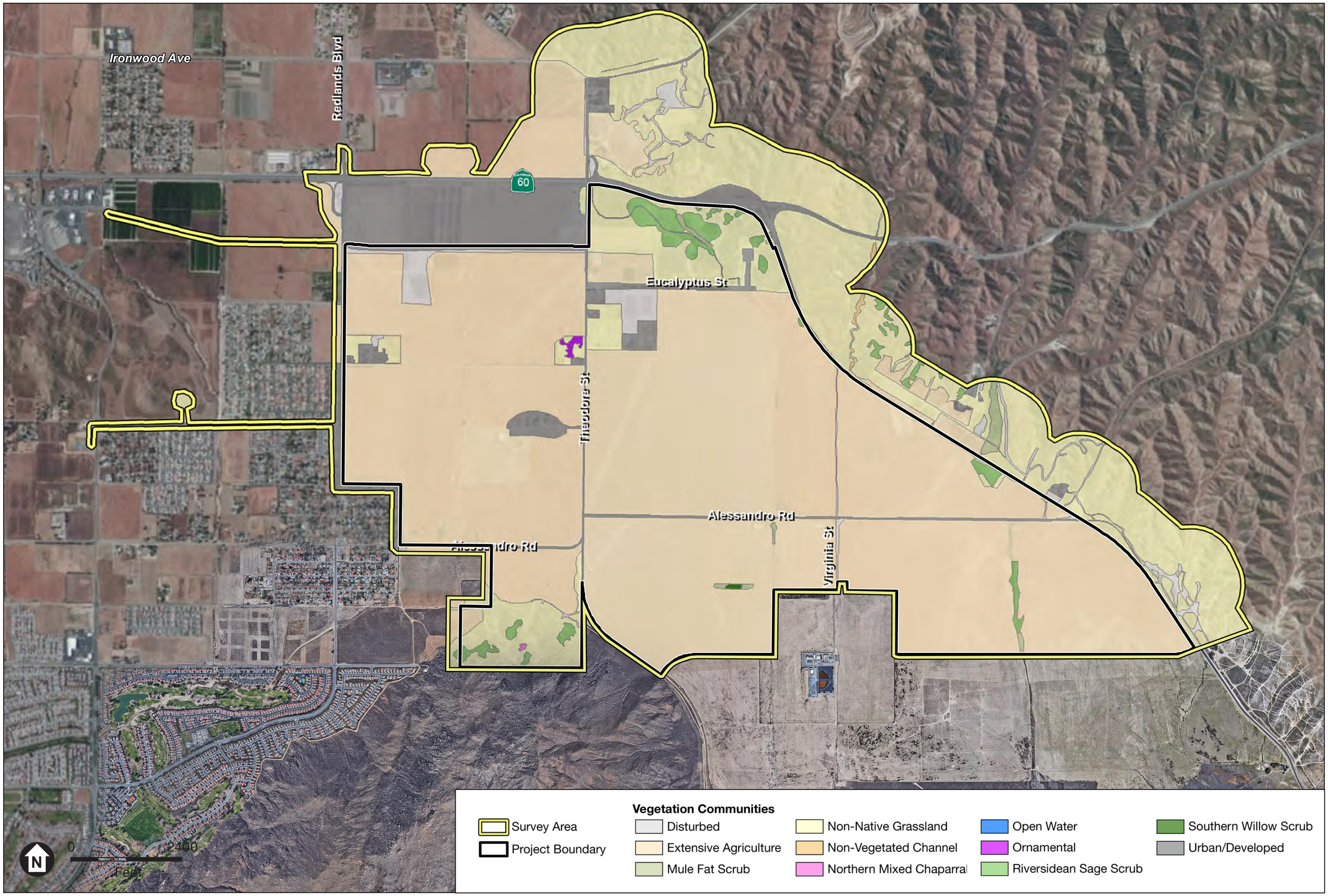

SOURCE: LSA 2013; ESA, 2018

World Logistics Center

Figure 4.4-1
Vegetation Communities

ESA

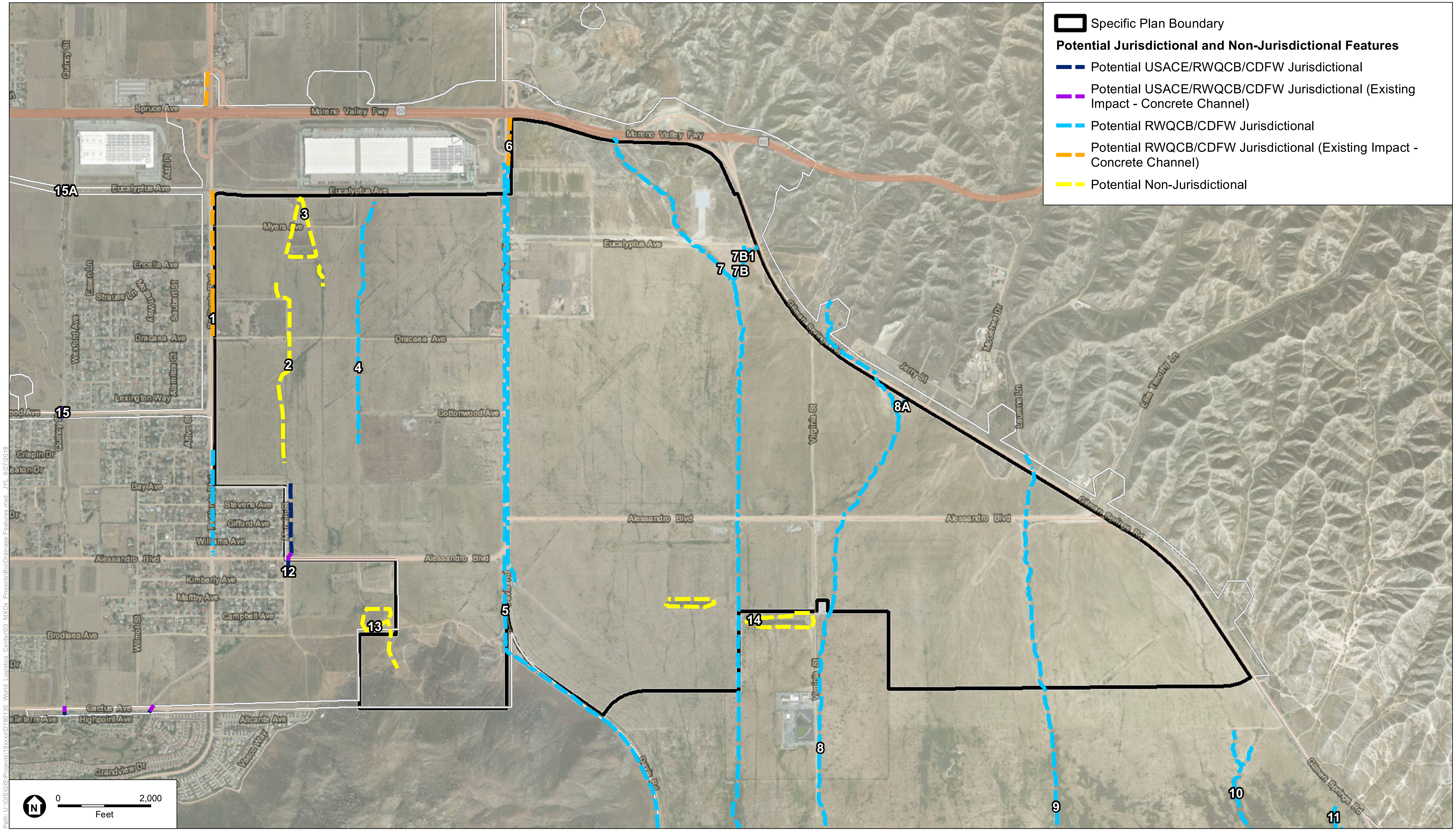

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 4.4-2
Drainage Features

ESA

e. Riversidean Sage Scrub

Stands of Riversidean sage scrub (RSS) range from fairly open to dense with dominant species including brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), and coastal goldenbush (*Isocoma menziesii*). Other species observed include four-winged saltbush (*Atriplex canescens*), scalebroom (*Lepidospartum squamatum*), and California aster (~~*Lessingia*~~*Corethrogyne* *filaginifolia*), in addition to non-native grasses such as ripgut brome (*Bromus diandrus*), slender oat (*Avena barbata*), red brome (*Bromus madritensis* ssp. *rubens*), and non-native weedy species such as short-pod mustard. There ~~are97~~are 97.0 acres (1.6%) of RSS located within the main drainage feature on the eastern side of the ~~WLC~~ project ~~site~~survey area (Drainage Feature 9, see Figure 4.4.2). There are 48 acres of RSS found within the WLC site and there is no RSS in the Offsite Improvement Areas. The quality of the habitat on site can generally be considered moderate based on vegetation characteristics such as plant density, diversity of species, and level of disturbance. The stand within Drainage Feature 9 is of low quality due to high levels of disturbance, low density of native species, and sparse coverage. There are small patches of RSS in the northeastern and southwestern corners of the ~~MBA survey area~~project survey area. There was no modification necessary for this mapped plant association after the 2018 update survey.

f. Mule Fat Scrub

Mule fat scrub is a widespread natural community throughout California and usually occurs below 2,000 feet. Mule fat scrub occupies approximately 41.0 acres or ~~07~~0.7 percent of the ~~MBA~~project survey area within a portion of Drainage Feature 9 in the southeastern portion of the ~~the~~ WLC Specific Plan area and the ~~CDFW Conservation Buffer~~northern portion of the SJWA lands~~.~~ to the south. There are 5 acres of mule fat scrub found within the WLC site and there is no mule fat scrub in the Offsite Improvement Areas. The mule fat scrub in the ~~project area~~WLC site is generally characterized by dense stands of mule fat (*Baccharis salicifolia*) with various shrubs, weeds, and non-native grasses sparsely intermixed. There was no modification necessary for this mapped plant association after the 2018 update survey.

All areas of mule fat scrub within the drainage feature on the site are relatively undisturbed and contain little trash dumping, agricultural activities, or the presence of domesticated animals. The mule fat scrub plant community provides moderate quality habitat for a number of species. The dominant species observed within the mule fat scrub community were mule fat and tree tobacco. Other species observed include cheeseweed~~ (*Malva parviflora*),~~, wild radish~~ (*Raphanus raphanistrum*),~~, Russian thistle, common sunflower~~ (*Helianthus annuus*),~~, and short-pod mustard, in addition to non-native grasses such as ripgut brome, slender oat, and red brome. Drainage Feature 9 also contains scattered occurrences of scalebroom and four-winged saltbush.

g. Southern Willow Scrub

The southern willow scrub community is characterized by dense, broad-leafed, winter deciduous riparian thickets of vegetation, and is dominated by several species of willow tree. Scattered emergent ~~Freemont~~Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*) are most closely associated with this community. Most stands are too dense for understory development. This plant community is typically found on loose, sandy, or fine gravelly alluvium soils near stream channels during flood flows. It requires repeated flooding to prevent it from converting to a more mature Southern Cottonwood-Sycamore Riparian Forest community. The CDFW lists it as a sensitive plant community. Plant species identified within the community include sandbar willow (*Salix exigua*), black willow (*Salix goodingii*), mule fat, ~~Freemont's~~Fremont cottonwood, Mexican fan palm (*Washingtonia robusta*), olive (*Olea europea*), phacelia (*Phacelia sp.*), and common sunflower. There was no modification necessary for this mapped plant association after the 2018 update survey.

There is a single patch of southern willow scrub ~~hat~~that comprises approximately 0.9 acre within the central portion of the ~~WLCSP~~WLC site. There is no southern willow scrub in the Offsite Improvement Areas. This community is composed of a single isolated stand within a human-made, catch basin that occurs south of Alessandro Boulevard and west of Virginia Street (see Figure 4.4.2). This stand was a direct result of nuisance flow and agricultural runoff from concrete cattle containment areas adjacent to the catch basin. This area no longer receives runoff from the previous cattle facility and habitat quality is progressively getting worse due to a lack of available moisture. Therefore, this patch of habitat is considered of low-habitat value. The remainder of the southern willow scrub habitat is either within additional survey area or within the ~~CDFW Conservation Buffer~~northern portion of the SJWA to the south.

h. Non-Vegetated Channel

The non-vegetated channel community occurs within the northeastern portion of the site (east of Gilman Springs Road) and the southwestern corner of the survey area, west of ~~Theodore Street~~World Logistics Center Parkway and south of Alessandro Road and accounts for 7 acres (0.1%) of habitat within the survey area. There is no non-vegetated channel found within the WLC site and there are 2 acres of non-vegetated channel in the Offsite Improvement Areas. This habitat contains mainly cobbles and boulders along the channel bottom and banks. The substrate contains sparse sandy deposits with limited vegetative cover and therefore provides low quality habitat for sensitive plant and wildlife species. There was no modification necessary for this mapped community after the 2018 update survey.

i. Ornamental

This plant community occupies 6.0 acres or 0.1 percent of the ~~MBA~~project survey area. There are 3 acres of ornamental found within the WLC site and there is no ornamental in the Offsite Improvement Areas. There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of ~~Theodore Street~~World Logistics Center Parkway and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within a human-made catch basin in the center of the ~~WLCSP~~WLC site and is likely naturally occurring and likely began growing several decades ago. The area with this vegetation previously contained southern willow scrub, but has naturally converted to a dense stand of salt cedar. Wildlife that uses this area has adapted to urban, agricultural, or other disturbed areas associated with human activity. The other catch basin is discussed relative to the southern willow scrub community above. The ornamental area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds. There was no modification to this mapped plant community made after the 2018 update survey.

An ornamental plant community is typically described as a large stand of non-native ornamental trees or shrubs. These areas are often artificially created, but can be naturally occurring. Plant species vary from project site to project site, but are generally non-native and are often associated with landscape plants.

There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of ~~Theodore Street~~World Logistics Center Parkway and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within a human-made catch basin in the center of the ~~WLCSP~~WLC site and is likely naturally occurring and likely began growing several decades ago.

The ornamental areas are not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with development. This land use type comprises approximately six acres of the survey area.

j. Open Water

Open water is characterized by ponded or flowing water with little to no vegetative cover. These areas are specifically associated with freshwater drainage features and typically provide habitat for aquatic plant and wildlife species. There is a 1.0-acre area or less than 0.1 percent of open water located in the northern portion of the SJWA. The open water areas within the survey area are artificially created ponded areas and none exists within the WLC site or the Offsite Improvement Areas. There was no modification to this mapped land cover made after the 2018 update survey.

k. Northern Mixed Chaparral

The northern mixed chaparral community is characterized by broad-leaved shrubs forming dense, often nearly impenetrable vegetation dominated by scrub oak (*Quercus dumosa*), chamise (*Adenostoma fasciculatum*), and any one of several species of manzanitas (*Arctostaphylos)* and California lilacs (*Ceanothus*). Plants are typically deep-rooted and little or no understory vegetation is present. This vegetation community is adapted to repeated fires, to which many species respond by stump sprouting. A dense cover of annual herbs may appear during the first growing season after a fire, followed in subsequent years by perennial herbs, short-lived shrubs, and reestablishment of dominance by the original shrub species. There is 1.0 acre or less than 0.1 percent of northern mixed chaparral located on a north-facing slope of the hills at the southwestern corner of the ~~project area~~WLC site. This one (1) acre of northern mixed chaparral occurs within the WLC site. There is no northern mixed chaparral in the Offsite Improvement Areas. There was no modification necessary for this mapped plant association after the 2018 update survey.

4.4.1.~~5~~3 Vegetation in the ~~CDFW Conservation Buffer~~Northern Portion of the San Jacinto Wildlife Area (SJWA)

Six plant communities/land use types occur within the ~~1,104-acre CDFW Conservation Buffer Area~~northern portion of the SJWA to the south: extensive agriculture (e.g., dryland farming), non-native grassland, Riversidean sage scrub, disturbed, southern willow scrub, and urban/developed. The ~~CDFW Conservation Buffer~~northern portion of the SJWA consists of the ~~910 acres of land~~fallow farmland that was placed into conservation in 2001 and surrounding portions of the 194-acre SDG&E facility. ~~The CDFW Conservation Buffer Area~~This northern portion of the SJWA has been used for agricultural pursuits over many years, but ~~there are a few isolated areas that have~~it has been left fallow for several years now and these have ~~begun to return to~~become non-native grassland and Riversidean sage scrub. See Table 4.4~~.A~~-1 for a listing of plant associations in the ~~CDFW Conservation Buffer~~SJWA within the Survey Area.

4.4.1.~~6~~4 Vegetation in the Indirect Impact Zone

Seven plant communities/land use types occur within the 1,636.6-acre off-site analysis zone. This area was evaluated as an additional 1,000-foot zone beyond the boundaries of the ~~project area~~WLC site to consider potential off-site indirect impacts associated with noise, light, water quality, and air quality concerns beyond the boundary of the actual ~~project area. Plan~~WLC site. Plant communities associated with the Indirect Impact Zone include non-native grassland, extensive agriculture, RSS, disturbed, urban/developed, mule fat scrub, and non-vegetated channel (see Figure 4.4.1). This area contains land that has been previously disturbed as a result of development and off-road vehicle trails east of Gilman Springs Road and general open space areas in the southwestern portion of the survey area.

4.4.1.~~7~~5 Wildlife in the Specific Plan Area

Despite the disturbed nature of the WLC planning area (i.e., 97% non-native vegetation), common wildlife species that have adapted to human-modified landscapes are present and were observed on site, including the red-tailed hawk (*Buteo jamaicensis*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaidia macroura*), common raven (*Corvus corax*), coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*). A complete list of species observed on site is included in Appendix B of the *MSHCP Consistency Analysis* contained ~~in Appendix E~~as an appendix to this ~~EIR~~Revised Sections of the FEIR. Utilization of agricultural areas by wildlife varies greatly depending upon the type of crop and the time of the year. Due to the amount of agricultural activities over the past decades, there is a limited number of species that are present although many species discussed above occur along the margins of the agricultural fields and along the limited drainage areas. In addition to the more common species discussed above, the San Diego gopher snake (*Pituophis cantenifer annectens*), white-tailed kite (*Elanus leucurus*), barn owl (*Tyto alba*), loggerhead shrike (*Lanius ludovicianus*), and Botta's pocket gopher (*Thomomys bottae*) were recorded to occur within the ~~WLCSP~~WLC site and the off-site facility areas. There is a robust passerine bird population at the site during the growing season with a severely limited number of mammals following the harvest, largely due to the extensive disking activities.

4.4.1.~~8~~6 Wildlife in the ~~CDFW Conservation Buffer Area~~Northern Portion of the SJWA

The adjacent ~~San Jacinto Wildlife Area (~~SJWA~~)~~ to the south of the WLC site has a very high diversity and abundance of bird species, and is recognized nationally and internationally for its bird population. The amount and diversity of birds in the SJWA contributes to a large degree to the number of different kinds of birds observed in the agricultural areas on the project site~~ and within the CDFW Conservation Buffer Area.~~. Numerous bird and mammal species occur within these agricultural areas and fallow fields may provide foraging opportunities for raptors. The number of passerine birds is high and includes both year-round species and transitory birds associated with the SJWA. The number of mammals is limited probably due to the extensive agricultural pursuits of the past.

4.4.1.~~9~~7 Wildlife in the ~~Off-site Analysis~~ Indirect Impact Zone

MBA evaluated this area using direct observations, literature reviews, and information from studies performed on adjacent areas. The area adjacent to Gilman Springs Road on the south end of the planning area was examined by MBA biologists in 2007 (unpublished Burrowing Owl Survey Report, MBA). The distribution of wildlife species at this adjacent area was similar to the ~~WLCSP~~WLC site and the ~~CDFW Conservation Buffer Area~~SJWA, with a very limited distribution of mammals (primarily burrowing mammals) and a high incidence of passerine birds.

4.4.1.~~10~~8 Wildlife in the SJWA and Mystic Lake

The SJWA is 20,000 acres of man-made wetlands and open water ponds and is the first state wildlife area to utilize reclaimed water to enhance its wetlands. It is located south of the ~~project area~~WLC site and the ~~CDFW Conservation Buffer~~northern portion of the SJWA adjacent to the WLC site was included in the Survey Area. This northern portion of the SJWA is included in the Survey Area because it is adjacent to the WLC site. The SJWA contains several habitat areas, including wetlands, restored riparian habitat, grasslands, sage scrub, and marshes and provides habitat for the several threatened and endangered wildlife species including Stephens' kangaroo rat, Swainson's hawk, and bald eagle. The SJWA contains an important inland wetland, which provides habitat for many wetland plant species and wildlife species including aquatic birds, amphibians, and fish. According to the CDFW:

> *"The San Jacinto Wildlife Area public lands currently total about 20,000 acres. The Wildlife Area shares a common boundary with the 8,800-acre Lake Perris State Recreation Area. The majority of the Wildlife Area is located in unincorporated Riverside County. The northern portion of the Wildlife Area is included within the city limits of Incorporated City of Moreno Valley. Davis Road, an unimproved dirt road, bisects the Wildlife Area in a north-south direction. This roadway is maintained by DFG on the north and the County of Riverside on the south. Surrounding land users are primarily involved in agriculture principally dry land wheat farming and dairy operations. The private lands immediately north of the Wildlife Area are currently farmed and are included within the City of Moreno Valley jurisdiction. The 150~~-~~-acre Double Bar "S" Horse Ranch represents the only substantial in-holding within the current Wildlife Area boundary. To the east lies Mystic Lake bed, the most northern portion of which has recently been Incorporated into the Wildlife Area. The south eastern parts of the lake bed remain in private ownership and are used for agriculture when not inundated with*

> *flood waters from the San Jacinto River. Numerous privately owned hunt clubs (waterfowl and game bird hunting clubs) are also located on the current eastern boundary of the Wildlife Area. The unincorporated rural communities of Lakeview and Nuevo are located to the south. Much of the land on the immediate southern boundary of the Wildlife Area is currently farmed by the Amway Corporation Nutrilite Division."*

The SJWA is a significant resource for avian species and other wildlife. In 1981–82, the State Wildlife Conservation Board initially purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project (SWP). ~~This area was designated as the SJWA. In 1995, the Board acquired an additional 921 acres of upland farmland within the southern portion of the Moreno Highlands Specific Plan property to incorporate into the SJWA. In 2001, the Board acquired an additional 274 acres in this same area. This land was purchased to provide a buffer between the land surrounding Mystic Lake and the planned urban development within Moreno Valley. The Board action on this purchase indicated the land was to "facilitate restoration of historic water flows back into the lakebed and allow for reversion back to wetlands during wet years, and areas of low vegetation cover during dry years, all providing significant habitat for species using the SJWA, including a number of state and federally listed species."[1]~~

~~**CDFW Conservation Buffer Area.** The entirety of the State-owned land south of the project area is referred to as the SJWA. However, the land purchased out of the Moreno Highlands Specific Plan is referred to in this EIR as the CDFW Conservation Buffer Area to denote the reason for its original purchase. The 1,195 acres acquired by the Wildlife Board during the past twenty years was intended to serve as an effective buffer between the SJWA and the development expected to occur north of the SJWA area (the present mixed-use Moreno Highlands Specific Plan). Currently, this acreage provides not only a buffer area, but also provides open space for raptor and bird foraging habitat, and is actively farmed under CDFW contract. Approximately 909 acres of the land within the project area are identified as Conservation Area (total 1,085 acres) and are owned by the CDFW and support vegetation identified as "Extensive Agriculture" in Section 4.4.1.3, *Vegetation*. The proposed project will permanently designate this CDFW Conservation Buffer Area as Open Space under the City General Plan. It is anticipated the State would maintain its function as a buffer and also as foraging habitat for raptors as long as it is regularly tilled. There are no plans to alter the current agricultural activities on this property.~~

Mystic Lake. This is a large crescent-shaped, intermittent water body within the SJWA, which serves as a significant wetland habitat for numerous birds including migratory waterfowl such as ducks, grebes, and occasional geese. Seasonal upland game hunting is allowed within the SJWA and Lake Perris State Recreation Area. Other uses of the SJWA include wildlife observation, nature study, fishing, hiking, photography, field trials, hunting dog training classes, and conservation of wildlife and wildlife habitat. Bird species commonly found at various times of the year in the SJWA include a wide variety of ducks, shore birds and gulls, upland game species, and a variety of passerine birds including those found in the ~~project area and the CDFW Conservation Buffer area~~WLC site.

4.4.1.~~11~~ ~~**Sensitive Biological Resources**~~

~~Special status species are plant and animal species or subspecies for which there is concern for population sustainability or that are otherwise considered worthy of consideration for protection by the CDFW, USFWS, local agencies, or special interest groups, such as the California Native Plant Society (CNPS). In addition to species federally or State listed as endangered or threatened, these include species that are Candidates or Proposed for listing as endangered or threatened, plant species that are State listed as Rare, animal species designated as Fully Protected or Species of Special Concern by the State of California, and plant species designated as California Rare Plant Rank (RPR) 1A, 1B, or 2. California Rare Plant Ranks are assigned by a committee of government agency and non-governmental botanical experts, including experts from CNPS, and are not official State designations~~

~~[1] Wildlife Conservation Board minutes from May 18, 2001.~~

~~of rarity status. Legal protection for sensitive species varies widely, from the comprehensive protection extended to federally listed threatened and/or endangered species to species without legal protection at the current time.~~

~~4.4.1.12~~9 Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP for western Riverside County is an element of the Riverside County Integrated Project (RCIP), which is an integration of land use, transportation, and conservation planning and implementation to develop a consensus for the future development of Riverside County. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres of land in western Riverside County. The MSHCP was conceived, developed, and is being implemented specifically to address the direct, indirect, cumulative, and growth-related effects on covered species resulting from build out of planned land use and infrastructure, including the ~~proposed~~ project.

The MSHCP involves efforts by the County, State, and Federal governments, the fourteen cities in western Riverside County, and private and public entities engaged in construction activities that potentially affect the species covered under the MSHCP. The plan specifies an obligation of local projects, both public and private, to mitigate their impacts on species. The MSHCP includes incentives for conservation or the purchase of properties from willing sellers and will eventually result in a Conservation Area in excess of 500,000 acres, focusing on conservation of 146 species. The MSHCP Conservation Area includes approximately 347,000 acres of existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land.

The MSHCP Conservation Area~~[1]~~ is made up of existing and proposed “Core” areas, or large assemblages of public land that contain important habitat and listed or sensitive species populations. The core areas are connected by a series of “linkages” or “corridors” identified across public and private lands to allow wildlife movement and genetic connectivity and diversity among the core areas. The MSHCP identifies conservation areas through a series of “criteria cells” within which certain biological resources (i.e., vegetation and/or physical features) should be preserved over the long term. The MSHCP also establishes various processes to evaluate land development proposals in light of its goals and requirements. The MSHCP also identifies when studies need to be performed within certain criteria cells to determine the presence or absence of listed or otherwise sensitive species of plants or animals.

The project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP. Portions of the ~~project area~~WLC site occur in ~~14 criteria~~3criteria cells of the MSHCP. Therefore, the project applicant, the City, and the County[2] are required to use the Habitat Acquisition Negotiation Strategy (HANS) process established in the MSHCP to identify and acquire habitat as part of the development review process. The HANS process involves negotiations between a landowner and the Western Riverside County Regional Conservation Authority (RCA) so the County can acquire land with important habitat or other biological resources while providing fair compensation and/or reasonable development opportunities on the remaining land for the landowner.

~~The southern portion of the project area (910 acres owned by the CDFW) is the northern portion of the SJWA, which is classified as “Public Conserved Land” under the MSHCP.~~ MSHCP Proposed Core 3 is located to the north and east of the ~~project area~~WLC site, and Existing Core H is located to the south. Small portions of the ~~project area~~WLC site fall within both Core Areas (see Figure 4.4.3). No existing or proposed linkage or constrained linkage areas are within or adjacent to the ~~project area~~WLC site.

The 2013 ~~MBA report~~habitat assessment and DBESP focused on sensitive resources that could potentially occur in the overall planning area, including nine Criteria Area plant species, burrowing owl (*Athene cunicularia*), and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*).

~~[1] Not to be confused with the Conservation Area within the WLC planning area~~

[2] Western Riverside County Regional Conservation Authority (RCA)

4.4.1.~~13~~10 Endangered, Threatened, and Special Status Species

It is typical to base the presence or likelihood of presence of sensitive species within a specific area on the following criteria:

- Direct observation of the species or its sign in the ~~project area~~WLC site or immediate vicinity during site-specific surveys or reported in previous biological studies;
- Sighting by other qualified observers;
- Record reported by the Natural Diversity Data Base (NDDB) published by the CDFW; and/or
- Presence or location of specific species lists provided by private groups (e.g., California Native Plant Society - CNPS).

Threatened and Endangered Species. The USFWS and the CDFW list species as threatened or endangered under the Federal and California Endangered Species Acts (FESA and CESA, respectively). An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future.

The USFWS may designate “critical habitat” that identifies specific areas, both occupied and unoccupied, that are often necessary to the conservation of a listed species. To make a determination of Critical Habitat, biologists consider physical and biological habitat features needed for life and successful reproduction of the species which include:

- Space for individual and population growth and for normal behavior;
- Cover or shelter;
- Food, water, air, light, minerals, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitats that are protected from disturbances or are representative of the historic geographical and ecological distributions of a species.

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~~Figure 4.4.3: MSHCP Areas~~

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Critical Habitat areas may require special management considerations or protections.

The project site is not located within any USFWS designated Critical Habitat area, and no threatened or endangered species were observed within the project site during the ~~field~~previous field surveys. However, the threatened coastal California gnatcatcher was observed in the northeastern portion of the project survey area during the 2018 focused surveys.

Table 4.4~~.B~~-2 identifies special status plant species identified in the City's *General Plan Final EIR,* and in searches of the CDFW's *California Natural Diversity Data Base* (CNDDB) and the CNPS's *Electronic Inventory of Rare and Endangered Vascular Plants of California* that may potentially occur in the project survey area, and a statement as to whether they were identified onsite.

~~*Note: Table 4.4.B was divided into two separate tables based on the updated biological resources report and various comments regarding the presence of sensitive plants and wildlife in the area. For the original Table 4.4.B please refer to Final EIR Volume IV, Section 4.4, Table 4.4.B.*~~

~~*Note: The following sections were reorganized from the original DEIR to be more consistent with the updated biological resource reports, but the data has not substantially changed.*~~

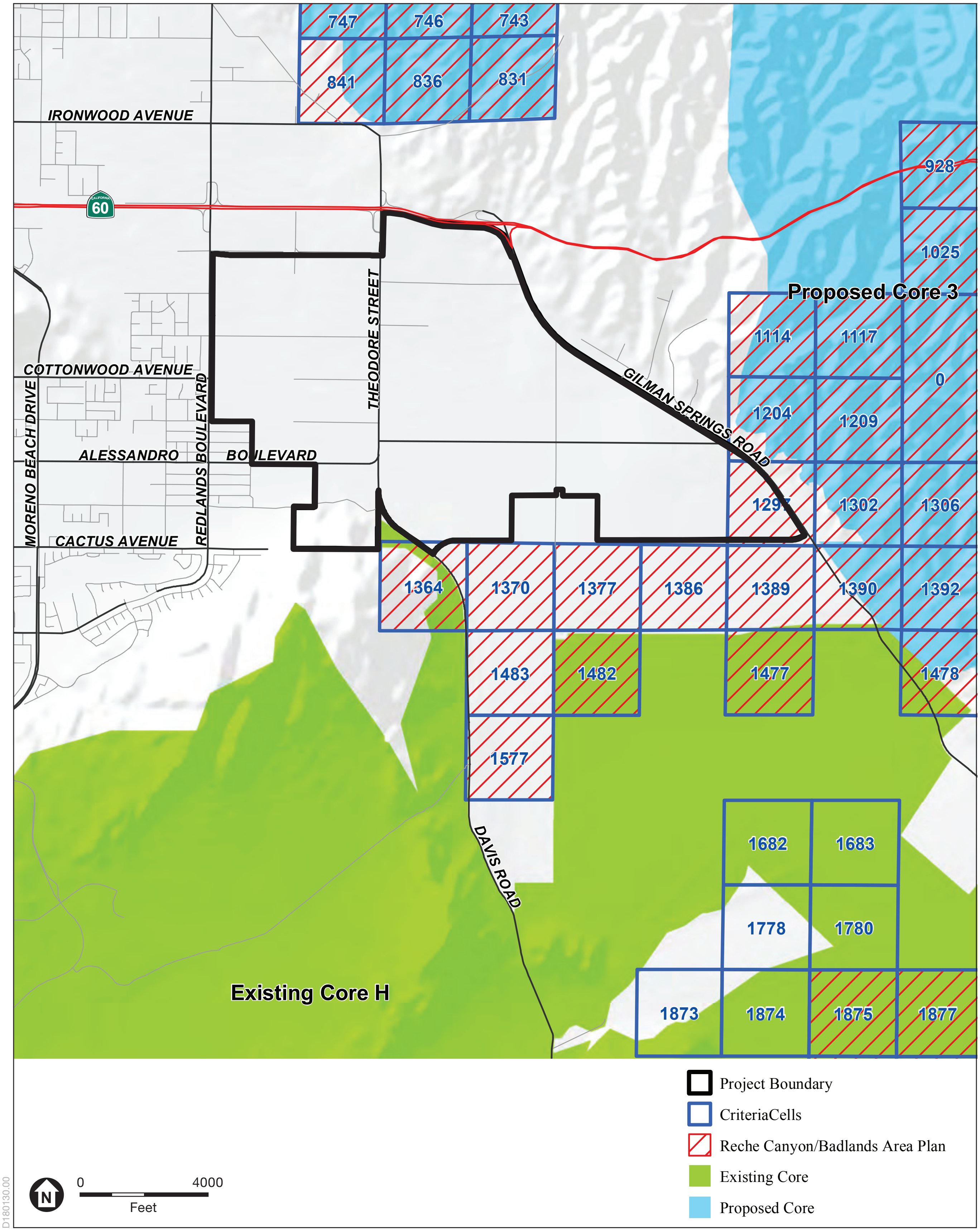

SOURCE: County of Riverside GIS 2017

World Logistics Center Project

Figure 4.4-3
MSHCP Areas

Federally Endangered Plant Species. As shown in Table 4.4~~.B-~~2, two federally endangered plant species, San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) and slender-horned spineflower (*Dodecahema leptoceras*), were analyzed for their potential to occur in the ~~project area~~WLC site and the off-site facilities. No evidence of these plant species was found during reconnaissance-level surveys. In addition, no suitable habitat for this species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native, low-quality vegetation. No additional federally endangered plant species were analyzed for potential to occur in the ~~project area~~WLC site and off-site facilities because no additional federally endangered plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the ~~project area~~WLC site or off-site facilities to support other federally endangered plant species. Therefore, federally endangered plant species are not likely to occur in the ~~project area~~WLC site or off-site facilities.

Federally Threatened Plant Species. As shown in Table 4.4~~.B-~~2, one federally threatened plant species, thread-leaved brodiaea (*Brodiaea filifolia*), was analyzed for its potential to occur in the ~~project area~~WLC site. No evidence of this federally threatened plant species was found and no suitable habitat for this federally threatened plant species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally threatened plant species were analyzed for their potential to occur in the ~~project area~~WLC site because no additional federally threatened plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found during the site surveys to support other federally threatened plant species. Therefore, federally threatened plant species are not likely to occur in the ~~project area~~WLC site.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Plant Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status.

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~~Table 4.4.B: Sensitive Plant Species in the WLC Project Area~~

~~Species~~		~~Status~~							
~~Scientific Name~~	~~Common Name~~	~~USFWS~~		~~CNPS~~	~~Preferred Habitat~~	~~Life Form~~	~~Bloom Period~~	~~MSHCP Coverage~~	~~Potential to Occur/Known Occurrence/Suitable Habitat~~
~~*Atriplex coronata* var. *notatior*~~	~~San Jacinto valley crownscale~~	~~FE~~	~~—~~	~~1B.1~~	~~Occurs in playas, chenopod scrub, grasslands, and vernal pools. Specifically found in dry alkali flats in the San Jacinto River Valley. Elevation limits: 1,200 to 1,500 feet.~~	~~Annual herb~~	~~Apr to Aug~~	~~Covered~~	~~**Not Likely to Occur.** No alkali flats occur in the WLCSP. Recorded approximately 2.5 miles southeast of the WLCSP (CNDDB 2012) and 1.5 miles south of the study area boundary (RCA 2013).~~
~~*Brodiaea filifolia*~~	~~Thread-leaved brodiaea~~	~~FT~~	~~SE~~	~~1B.1~~	~~Occurs in coastal scrub, cismontane woodland, grasslands, and vernal pools. Usually associated with annual grassland and vernal pools in clay soils. Elevation limits: 75 to 2,500 feet.~~	~~Perennial herb bulbiferous~~	~~Mar to Jun~~	~~Covered~~	~~**Not Likely to Occur.** No clay soils or vernal pools occur in the WLCSP. Recorded approximately 5 miles south of the WLCSP (CNDDB 2012) and 4 miles south according to the BMP (RCA 2013).~~
~~*Calochortus plummerae*~~	~~Plummer's mariposa lily~~	~~—~~	~~—~~	~~4.2~~	~~Occurs in coastal scrub, chaparral, grasslands, cismontane woodlands, and lower montane coniferous forests. Found in rocky and sandy soils, usually of granitic or alluvial material. Very common after fire. Elevation limits: 300 to 4,500 feet.~~	~~Bulbiferous herb~~	~~May to Jul~~	~~Not Covered~~	~~**Moderate Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 2 miles east of the WLCSP. (CNDDB 2012)~~

~~Table 4.4.B: Sensitive Plant Species in the WLC Project Area~~

~~Species~~		~~Status~~							
~~Scientific Name~~	~~Common Name~~	~~USFWS~~		~~CNPS~~	~~Preferred Habitat~~	~~Life Form~~	~~Bloom Period~~	~~MSHCP Coverage~~	~~Potential to Occur/Known Occurrence/Suitable Habitat~~
~~*Centromadia pungens* ssp. *laevis*~~	~~Smooth tarplant~~	~~—~~	~~—~~	~~1B.1~~	~~Occurs in grasslands, chenopod scrub, meadows, playas, and riparian woodland. Prefers alkali meadow and alkali scrub. Elevation limits: 0 to 1,500 feet.~~	~~Annual herb~~	~~Apr to Sep~~	~~Covered~~	~~**Not Likely to Occur.** No alkali soils occur in the WLCSP. Recorded approximately 3 miles west of the WLCSP (CNDDB 2012) and 2.5 miles south by the BMP (RCA 2013).~~
~~*Chorizanthe parryi* var. *parryi*~~	~~Parry's spineflower~~	~~—~~	~~—~~	~~1B.1~~	~~Occurs in coastal scrub and chaparral. Found on dry slopes and flats, sometimes at interface of two vegetation types, on dry, sandy soils. Elevation limits: 150 to 5,000 feet.~~	~~Annual herb~~	~~Apr to Jun~~	~~Covered~~	~~**Moderate Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4.5 miles northwest of WLCSP. (CNDDB 2012)~~
~~Dodecahema leptoceras~~	~~Slender-horned spineflower~~	~~FE~~	~~SE~~	~~1B.1~~	~~Occurs in chaparral and alluvial fan sage scrub. Prefers flood deposited terraces and washes. Elevation limits: 600 to 2,300 feet.~~	~~Annual herb~~	~~Apr to Jun~~	~~Covered~~	~~**Low Potential to Occur.** The WLCSP contains several natural drainages; one contains a mixture of RSS and mule fat scrub. The remaining drainages are generally devoid of vegetation. Recorded approximately 7 miles northwest of the WLCSP. (CNDDB 2012)~~
~~*Lasthenia glabrata* ssp. *coulteri*~~	~~Coulter's goldfields~~	~~—~~	~~—~~	~~1B.1~~	~~Occurs in coastal salt marshes, playas, grasslands, and vernal pools. Usually found on alkali soils in playas, sinks, and grasslands. Elevation limits: 1 to 4,500 feet.~~	~~Annual herb~~	~~Feb to Jun~~	~~Covered~~	~~**Not Likely to Occur.** No alkali soils, marshes, or vernal pools occur in the WLCSP. Observed approximately 2 miles south of WLCSP (CNDDB 2012) and as close as 0.75 mile to the south of the WLCSP study area according to the BMP (RCA 2013).~~

~~**Table 4.4.B: Sensitive Plant Species in the WLC Project Area**~~

~~**Species**~~		~~**Status**~~							
~~**Scientific Name**~~	~~**Common Name**~~	~~**USFWS**~~		~~**CNPS**~~	~~**Preferred Habitat**~~	~~**Life Form**~~	~~**Bloom Period**~~	~~**MSHCP Coverage**~~	~~**Potential to Occur/Known Occurrence/Suitable Habitat**~~
~~*Lepidium virginicum* var. *robinsonii*~~	~~Robinson's pepper-grass~~	—	—	~~4.3~~	~~Occurs in chaparral and coastal scrub on dry soils. Elevation limits: 1 to 3,000 feet.~~	~~Annual herb~~	~~Jan to Jul~~	~~Not Covered~~	~~**Low Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 7 miles northwest of WLCSP. (CNDDB 2012)~~
~~*Nama stenocarpum*~~	~~Mud nama~~	—	—	~~2B.2~~	~~Occurs in marshes, swamps, lakeshores, riverbanks, and intermittently wet areas. Elevation limits: 15 to 1,500 feet.~~	~~Annual/ perennial herb~~	~~Jan to Jul~~	~~Covered~~	~~**Not Likely to Occur.** No lakes, marshes or riverine areas occur in the WLCSP. The drainage features onsite do not remain wet long enough to be considered suitable habitat. Recorded approximately 2.5 miles southeast of WLCSP. (CNDDB 2012)~~
~~*Symphyotrichum defoliatum*~~	~~San Bernardino aster~~	—	—	~~1B.2~~	~~Occurs in meadows, seeps, marshes, swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grasslands. Found in vernally mesic areas near ditches, streams, and springs. Elevation limits: 6 to 6,000 feet.~~	~~Rhizomatous herb~~	~~Jul to Nov~~	~~Not Covered~~	~~**Not Likely to Occur.** The ditches and erosion features in the WLCSP are heavily disturbed. Recorded 2.5 miles northeast of the WLCSP. (CNDDB 2012)~~

~~Table 4.4.B: Sensitive Plant Species in the WLC Project Area~~

~~Species~~		~~Status~~							
~~Scientific Name~~	~~Common Name~~	~~USFWS~~		~~CNPS~~	~~Preferred Habitat~~	~~Life Form~~	~~Bloom Period~~	~~MSHCP Coverage~~	~~Potential to Occur/Known Occurrence/Suitable Habitat~~
~~*Trichocoronis wrightii* var. *wrightii*~~	~~Wright's trichocoronis~~	~~—~~	~~—~~	~~2B.1~~	~~Occurs in marshes and swamps, riparian forest, meadows, seeps, and vernal pools. Found in mud flats of vernal lakes, drying riverbeds, and alkali meadows. Elevation limits: 10 to 1,300 feet.~~	~~Annual herb~~	~~May to Sep~~	~~Covered~~	~~**Not Likely to Occur.** No marshes, riverine or vernal pool areas occur in the WLCSP. Recorded approximately 4 miles south of the WLCSP. (CNDDB 2012)~~

~~**U.S. Fish and Wildlife Service**~~
~~FE Federal Endangered~~
~~FT Federal Threatened~~
~~PE Proposed Endangered~~
~~PT Proposed Threatened~~
~~FC Federal Candidate~~
~~FSC Species of Concern*~~
~~*No longer recognized as a Federal designation.~~

~~California Department of Fish and Game~~
~~CE California Endangered~~
~~CT California Threatened~~
~~CR California Rare~~

~~**California Native Plant Society**~~
~~1A Plants presumed extinct in California.~~
~~1B Plants rare, threatened, or endangered in California and elsewhere.~~
~~2 Plants rare, threatened, or endangered in California, but more common elsewhere.~~
~~3 Plants about which we need more information.~~
~~4 Plants of limited distribution.~~

~~**Not Likely to Occur** - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLCSP and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.~~
~~**Low Potential to Occur** - There is a historical record of the species in the vicinity of the WLCSP and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.~~
~~**Moderate Potential to Occur** - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLCSP, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.~~
~~**High Potential to Occur** - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLCSP (within 3 miles).~~
~~**Species Present** - The species was observed in the WLCSP at the time of the survey or during a previous biological survey.~~

~~Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014.~~

Federally Protected Plant Species. As shown in Table 4.4~~.B-~~2, no Federal plant species of concern were analyzed for their potential to occur in the ~~WLCSP~~WLC site and off-site facilities because no evidence of any Federal plant species of concern was found in the ~~project area~~WLC site, nor was any suitable habitat found due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation.

Federally Endangered Wildlife Species. As shown in Table 4.4~~.C-~~3, four federally endangered wildlife species were analyzed for potential to occur in the ~~project area~~WLC site or off-site facilities: Riverside fairy shrimp (*Streptocephalus woottoni*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and Stephens' kangaroo rat (*Dipodomys stephensi*). No evidence of any federally endangered wildlife species was found in the ~~project area~~WLC site or off-site facilities. Stephens' kangaroo rat is the only federally listed wildlife species potentially occurring on site. Although no sign of Stephens' kangaroo rat was identified during the site surveys, it was determined that this species may range through the general area. This species is commonly found in ruderal and minimally disturbed areas. Low quality habitat was observed along existing roadsides.

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	Common Name	USFWS		CNPS	Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Atriplex coronata var. *notatior*	San Jacinto valley crownscale	FE	—	1B.1	Occurs in playas, chenopod scrub, grasslands, and vernal pools. Specifically found in dry alkali flats in the San Jacinto River Valley. Elevation limits: 1,200 to 1,500 feet.	Annual herb	Apr to Aug	Covered	**Not Likely to Occur.** No alkali flats occur in the WLC site. Recorded approximately 2.5 miles southeast of the WLC site (CNDDB 2012) and 1.5 miles south of the study area boundary (RCA 2013).
Brodiaea filifolia	Thread-leaved brodiaea	FT	SE	1B.1	Occurs in coastal scrub, cismontane woodland, grasslands, and vernal pools. Usually associated with annual grassland and vernal pools in clay soils. Elevation limits: 75 to 2,500 feet.	Perennial herb bulbiferous	Mar to Jun	Covered	**Not Likely to Occur.** No clay soils or vernal pools occur in the WLC site. Recorded approximately 5 miles south of the WLC site (CNDDB 2012) and 4 miles south according to the BMP (RCA 2013).
Calochortus plummerae	Plummer's mariposa lily	—	—	4.2	Occurs in coastal scrub, chaparral, grasslands, cismontane woodlands, and lower montane coniferous forests. Found in rocky and sandy soils, usually of granitic or alluvial material. Very common after fire. Elevation limits: 300 to 4,500 feet.	Bulbiferous herb	May to Jul	Not Covered	**Moderate Potential to Occur.** The portion of the WLC site that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 2 miles east of the WLC site. (CNDDB 2012)
Centromadia pungens ssp. *laevis*	Smooth tarplant	—	—	1B.1	Occurs in grasslands, chenopod scrub, meadows, playas, and riparian woodland. Prefers alkali meadow and alkali scrub. Elevation limits: 0 to 1,500 feet.	Annual herb	Apr to Sep	Covered	**Not Likely to Occur.** No alkali soils occur in the WLC site. Recorded approximately 3 miles west of the WLC site (CNDDB 2012) and 2.5 miles south by the BMP (RCA 2013).

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	Common Name	USFWS		CNPS	Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Chorizanthe parryi var. *parryi*	Parry's spineflower	—	—	1B.1	Occurs in coastal scrub and chaparral. Found on dry slopes and flats, sometimes at interface of two vegetation types, on dry, sandy soils. Elevation limits: 150 to 5,000 feet.	Annual herb	Apr to Jun	Covered	**Moderate Potential to Occur.** The portion of the WLC site that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4.5 miles northwest of WLC site. (CNDDB 2012)
Dodecahema leptoceras	Slender-horned spineflower	FE	SE	1B.1	Occurs in chaparral and alluvial fan sage scrub. Prefers flood deposited terraces and washes. Elevation limits: 600 to 2,300 feet.	Annual herb	Apr to Jun	Covered	**Low Potential to Occur.** The WLC site contains several natural drainages; one contains a mixture of RSS and mule fat scrub. The remaining drainages are generally devoid of vegetation. Recorded approximately 7 miles northwest of the WLC site. (CNDDB 2012)
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	—	—	1B.1	Occurs in coastal salt marshes, playas, grasslands, and vernal pools. Usually found on alkali soils in playas, sinks, and grasslands. Elevation limits: 1 to 4,500 feet.	Annual herb	Feb to Jun	Covered	**Not Likely to Occur.** No alkali soils, marshes, or vernal pools occur in the WLC site. Observed approximately 2 miles south of WLC site (CNDDB 2012) and as close as 0.75 mile to the south of the WLC site study area according to the BMP (RCA 2013).
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	—	—	4.3	Occurs in chaparral and coastal scrub on dry soils. Elevation limits: 1 to 3,000 feet.	Annual herb	Jan to Jul	Not Covered	**Low Potential to Occur.** The portion of the WLC site that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 7 miles northwest of WLC site. (CNDDB 2012)

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	Common Name	USFWS		CNPS	Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Nama stenocarpum	Mud nama	—	—	2B.2	Occurs in marshes, swamps, lakeshores, riverbanks, and intermittently wet areas. Elevation limits: 15 to 1,500 feet.	Annual/ perennial herb	Jan to Jul	Covered	**Not Likely to Occur.** No lakes, marshes or riverine areas occur in the WLC site. The drainage features onsite do not remain wet long enough to be considered suitable habitat. Recorded approximately 2.5 miles southeast of WLC site. (CNDDB 2012)
site	San Bernardino aster	—	—	1B.2	Occurs in meadows, seeps, marshes, swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grasslands. Found in vernally mesic areas near ditches, streams, and springs. Elevation limits: 6 to 6,000 feet.	Rhizomatous herb	Jul to Nov	Not Covered	**Not Likely to Occur.** The ditches and erosion features in the WLC site are heavily disturbed. Recorded 2.5 miles northeast of the WLC site. (CNDDB 2012)
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	—	—	2B.1	Occurs in marshes and swamps, riparian forest, meadows, seeps, and vernal pools. Found in mud flats of vernal lakes, drying riverbeds, and alkali meadows. Elevation limits: 10 to 1,300 feet.	Annual herb	May to Sep	Covered	**Not Likely to Occur.** No marshes, riverine or vernal pool areas occur in the WLC site. Recorded approximately 4 miles south of the WLC site. (CNDDB 2012)

Table 4.4-2: Sensitive Plant Species in the WLC site

Species		Status							
Scientific Name	Common Name	USFWS		CNPS	Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat

U.S. Fish and Wildlife Service
FE Federal Endangered
FT Federal Threatened
PE Proposed Endangered
PT Proposed Threatened
FC Federal Candidate
FSC Species of Concern*
*No longer recognized as a Federal designation.

California Department of Fish and Wildlife
CE California Endangered
CT California Threatened
CR California Rare

California Native Plant Society
1A Plants presumed extinct in California.
1B Plants rare, threatened, or endangered in California and elsewhere.
2A Plants presumed extinct in California, but more common elsewhere.
2B Plants rare, threatened, or endangered in California, but more common elsewhere.
3 Plants about which we need more information.
4 Plants of limited distribution.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLC site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the WLC site.
Low Potential to Occur - There is a historical record of the species in the vicinity of the WLC site and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLC site, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLC site (within 3 miles).
Species Present - The species was observed in the WLC site at the time of the survey or during a previous biological survey.

Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014 and ESA, May 2018.

Since the ~~project area~~WLC site is within the known range of this species and low quality habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the WLC ~~project area~~site or off-site facilities.

No suitable habitat for Riverside fairy shrimp, southwestern willow flycatcher, and least Bell's vireo, occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally endangered wildlife species were analyzed in Table 4.4C for their potential to occur in the ~~project area~~WLC site because no additional federally endangered wildlife species are known to occur on, or in the vicinity of, the site.

Federally Threatened Wildlife Species. As shown in Table 4.4~~.C~~-3, Coastal California gnatcatcher (*Polioptila californica californica*) is known to occur within moderate to high quality coastal sage scrub in the general area and some suitable habitat occurs on site for coastal California gnatcatcher. There is marginal Riversidean sage scrub in the ~~north~~northern portion of the project site near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the Lake Perris State Recreation Area (LPSRA) south of Brodiaea Avenue, west of ~~Theodore Street~~World Logistics Center Parkway and east of Redlands Boulevard. Coastal California gnatcatcher was observed by ESA on the WLC site in coastal sage scrub habitat south of SR-60 near Gilman Springs Road in 2018. No additional federally threatened wildlife species were analyzed for their potential to occur in the WLC ~~project area~~site.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status. The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is the only Federal Candidate Species with a potential to occur in this area, but this species is not likely to occur in the ~~WLCSP~~WLC site and off-site facilities. In addition, it is a covered species under the MSHCP.

Federally Protected Wildlife Species. There was only one Federal wildlife species of concern analyzed for its potential to occur in the ~~WLCSP~~WLC site and off-site facilities (see the western yellow-billed cuckoo discussed above). No evidence of any other Federal wildlife species of concern was found in the ~~project area~~WLC site nor does any suitable habitat occur due to historic agricultural activities, regular
disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional Federal wildlife species of concern were analyzed for potential to occur in the WLC site because no additional Federal wildlife species of concern are known to occur on, or in the vicinity of, the site.

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California State Endangered Plant Species. As shown in Table 4.4-2, two California State endangered plant species were analyzed for their potential to occur in the WLC site and off-site facilities: slender-horned spine-flower and thread-leaved brodiaea. No evidence of these State-listed plant species was found in the WLC site nor is there any suitable habitat for these State-listed plant species due to regular disking of the site and dominance of sparse, non-native low-quality vegetation. No additional State-listed plant species were analyzed for potential to occur in the WLC site because no additional State-listed plant species are known to occur on, or in the vicinity of, the site, nor was any suitable habitat found to support other State-listed plant species. Therefore, State-listed plant species are not likely to occur in the WLC site and there is no potential impact to State endangered plant species.

Table 4.4~~.C-~~3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	**Common Name**	**Federal**	**State**	**Other**			
Branchiopods							
Streptocephalus woottoni	Riverside fairy shrimp	FE	—	CDFW: CSC	Occurs in tectonic swales and earth slump basins in grassland and coastal sage scrub. Inhabits seasonally astatic pools filled by winter/spring rains. Hatches in warm water later in the season.	Covered	**Not Likely to Occur.** No vernal pools occur in the ~~WLCSP~~WLC site. Observed farther than 5 miles south of the ~~WLCSP~~WLC site.
Reptiles and Amphibians							
Aspidoscelis hyperythra	Orange-throated whiptail	—	—	CDFW: CSC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Also near perennial plants where termites, its major food, can be found.	Covered	**Low Potential to Occur.** Limited coastal scrub is present in the ~~WLCSP~~WLC site. Woody vegetation onsite is very sparse and is not considered sufficient to support the species. The nearest occurrence of the species was recorded approximately 0.3 mile north of the ~~WLCSP~~WLC site; however, in the eighteen years since the observation, the previous site conditions have changed to become unsuitable habitat (CNDDB 2012).
Crotalus ruber ruber	Northern red-diamond rattlesnake	—	—	CDFW: CSC	Inhabits chaparral, woodland, grassland, and desert habitats. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	Covered	**Not Likely to Occur.** No rocky areas and dense native plant communities occur in the ~~WLCSP~~WLC site and the site is regularly disturbed. Recorded approximately 1 mile south of the ~~WLCSP~~WLC SITE; however, the observation occurred over 80 years ago (CNDDB 2012). The BMP has recently found the species in the same area as the CNDDB sighting (RCA 2013)
Phrynosoma ~~coronatum~~ blainvillei	Coast horned lizard	—	—	CDFW: CSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climates. Prefers friable, rocky, or shallow sandy soils.	Covered	**Low Potential to Occur.** The portion of the ~~WLCSP~~WLC site that contains sandy soils or rocky soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4 miles northwest of the ~~WLCSP~~WLC site (CNDDB 2012)

Table 4.4~~.C~~-3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Spea hammondii	Western spadefoot	—	—	CDFW: CSC	Occurs primarily in grassland habitats, but also found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Covered	**Not Likely to Occur.** No vernal pools or native woodlands occur in the ~~WLCSP~~WLC site. Recorded approximately 2 miles south and west of the ~~WLCSP~~WLC site (CNDDB 2012). The BMP studies have occurrences approximately 0.7 mile south of the study area boundary (RCA 2013)
Birds							
Agelaius tricolor	Tricolored blackbird	—	—	CDFW: CSC	Highly colonial species. Requires open water, protected nesting substrate, and foraging areas with insect prey within a few miles of the colony.	Covered	**Low Potential to Occur.** No open water or protected nesting habitat is located in the ~~WLCSP~~WLC site. Numerous nesting pairs were recorded within the wheat fields on the southeastern portion of the ~~WLCSP~~WLC site in 1995. The wheat has since been removed and no suitable nesting vegetation remains (CNDDB 2012).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	—	—	CDFW: CSC	Resident in coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Covered	**Low Potential to Occur.** While sparse RSS and chaparral are present within the ~~WLCSP~~WLC site, no steep slopes are present in the ~~WLCSP~~WLC site. Recorded approximately 4 miles west of the ~~WLCSP~~WLC site (CNDDB 2012). The BMP database has the species less than 1.0 mile from the ~~WLCSP~~WLC SITE study area boundary (RCA 2013).
Amphispiza belli belli	Bell's sage sparrow	—	—	CDFW: CSC	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in southern portion of range. Nests typically located on the ground beneath shrub or in shrub 6 to 18 inches above ground.	Covered	**Not Likely to Occur.** No dense stands chaparral or coastal sage scrub vegetation occurs in the ~~WLCSP~~WLC site. Recorded approximately 4 miles northwest of the ~~WLCSP~~WLC site (CNDDB 2012) and according to the BMP 4 miles south of the ~~WLCSP~~WLC site study area (RCA 2013).

Table 4.4~~.C~~-3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		**Status**					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
~~*Athene cunicularia*~~site	Burrowing owl	—	—	CDFW: CSC	Occupies burrows in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Covered	**Present.** Despite the heavy disturbance the ~~WLCSP~~WLC site contains flat topography with sparse, low-lying vegetation and various California ground squirrel burrows. Observed within the ~~WLCSP~~WLC site in 2005; however, focused surveys conducted in 2010 and 2012 found the ~~WLCSP~~WLC site and surroundings to be unoccupied. The 2013 survey of the ~~WLCSP~~WLC site again found a pair of owls (MBA 2013b~~)~~); however, the 2018 ESA survey found only a single owl.
Aquila chrysaetos	Golden eagle	—	—	CDFW: FP	Open mountains, foothills, plains.	Covered	**Low Potential to Occur.** The ~~WLCSP~~WLC site contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the ~~WLCSP~~WLC site (RCA 2013)
Buteo swainsonii	Swainson's hawk	—	ST	—	Grasslands and riparian areas	Covered	**Low Potential to Occur.** The ~~WLCSP~~WLC site contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the ~~WLCSP~~WLC site (RCA 2013)
Buteo regalis	Ferruginous hawk	—	—	CDFW: CSC	Winters in open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats.	Covered	**Low Potential to Occur.** The ~~WLCSP~~WLC site contains open flat area that is considered marginally suitable foraging habitat, but ~~not~~no suitable nesting habitat. Recorded approximately 1 mile northeast of the ~~WLCSP~~WLC site (CNDDB 2012) and 2 miles south of the ~~WLCSP~~WLC site according to BMP records (RCA 2013).

Table 4.4~~.C~~-3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	**Common Name**	**Federal**	**State**	**Other**			
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	FC	SE	—	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Specifically nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the ~~WLCSP~~WLC site. Recorded approximately 5.5 miles northwest of the ~~WLCSP (CNDDB~~WLC site (CNIDDB 2012).
Elanus leucurus	White-tailed kite	—	—	CDFW: FP	Nests in rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodlands. Prefers open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Covered	**Present.** The ~~WLCSP~~WLC site contains suitable foraging habitat, but few dense-topped trees occur in the vicinity of the site. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates that the species is found 1.0 mile from the ~~WLCSP~~WLC site study area boundary (2013). Species was observed foraging within the southern portion of the survey area adjacent to the SJWA~~.~~ and was observed in the western portion of the survey area in 2018.
Empidonax traillii extimus	Southwestern willow flycatcher	FE	SE	—	Nests in riparian woodlands in southern California.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the ~~WLCSP~~WLC site. Recorded approximately 6.5 miles east of the ~~WLCSP~~WLC site (CNDDB 2012).
Eremophila alpestris actia	California horned lark	—	—	CDFW: CSC	Inhabits short-grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	Covered	**Present.** The ~~WLCSP~~WLC SITE contains flat, fallow grain fields that constitute suitable nesting habitat. Observed in the ~~WLCSP~~WLC site during the reconnaissance-level surveys (MBA 2012~~).~~) but not seen in 2018.

Table 4.4~~.C~~-3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Falco columbarius	Merlin	—	—	CDFW: CSC	Winters in seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Covered	**Low Potential to Occur.** Portions of the ~~WLCSP~~WLC site contain windbreak trees and open farmland. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP database has the species less than a mile south of the ~~WLCSP~~WLC site study area (RCA 2013).
Falco mexicanus	Prairie falcon	—	—	CDFW: CSC	Inhabits dry, open terrain, either flat or hilly. Breeding sites located on cliffs.	Covered	**Low Potential to Occur.** The ~~WLCSP~~WLC site contains marginally suitable foraging habitat but no suitable nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012).
Falco peregrinus anatum	Peregrine falcon	FD	SE	CDFW: FP	Nests near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds, and human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	Covered	**Low Potential to Occur.** The ~~WLCSP~~WLC site contains marginal nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates the species is within 1.0 mile of the southern boundary of the study area (RCA 2013).
Icteria virens	Yellow-breasted chat	—	—	CDFW: CSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Specifically nests in low, dense riparian vegetation, consisting of willow, blackberry, wild grape. Forages and nests within 10 feet of ground.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the ~~WLCSP~~WLC site. Recorded approximately 5.5 miles northwest of the ~~WLCSP~~WLC site (CNDDB 2012).

Table 4.4~~.C~~-3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		Status					
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Required Habitat**	**MSHCP Coverage**	**Potential to Occur/Known Occurrence/Suitable Habitat**
Lanius ludovicianus	Loggerhead shrike	—	—	CDFW: CSC	Inhabits broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Covered	**Present.** The ~~WLCSP~~WLC site contains flat, open area that is suitable foraging habitat but not suitable nesting habitat. Observed by MBA during previous surveys, approximately within the ~~WLCSP~~WLC site (MBA 2012~~).~~) but not observed by ESA in 2018.
Plegadis chihi	White-faced ibis	—	—	CDFW: CSC	Rookery sites include shallow freshwater marshes. Nests in dense tule thickets interspersed with areas of shallow water for foraging.	Covered	**Not Likely to Occur.** No marshes or bodies of water occur in the ~~WLCSP~~WLC site. Recorded approximately 3 miles southeast of the ~~WLCSP~~WLC site (CNDDB 2012).
Polioptila californica californica	Coastal California gnatcatcher	FT	—	CDFW: CSC	Obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California. Prefers low coastal sage scrub in arid washes and on mesas and slopes.	Covered	~~**Low Potential to Occur.**~~**Present.** There is limited and sparse coastal sage scrub vegetation ~~occurs~~occurring in the ~~WLCSP. Recorded~~WLC site. Previously recorded approximately 4 miles northwest of the ~~WLCSP~~WLC site (CNDDB 2012) and less ~~that~~than 0.5 mile of the ~~WLCSP~~WLC site study area according to BMP (RCA 2013). Observed within the WLC site by ESA during 2018 update surveys.
Vireo bellii pusillus	Least Bell's vireo	FE	SE	—	Summer resident in low riparian vegetation in the vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, and mesquite.	Covered	**Not Likely to Occur.** No riparian plant communities or significant riparian vegetation occur in the ~~WLCSP~~WLC site. Recorded approximately 3 miles northeast of the ~~WLCSP~~WLC site (CNDDB 2012) and was recorded by the BMP at 2 miles from the closest ~~WLCSP~~WLC site border (RCA 2013).

Table 4.4~~.C~~-3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	**Common Name**	**Federal**	**State**	**Other**			
Mammals							
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	—	—	CDFW: CSC	Inhabits coastal scrub, chaparral, and grasslands. Prefers sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Covered	**Present.** Sandy to loamy soils occur in the ~~WLCSP~~WLC site. There are limited areas of RSS and chaparral and herbaceous areas are severely limited due to agricultural activities. Species was ~~caught~~trapped within Drainage 9 (MBA 2013).
Dipodomys stephensi	Stephens' kangaroo rat	FE	ST	—	Primarily found in annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass, and filaree. Will burrow into firm soil.	Covered under SKRHCP	**Moderate Potential to Occur.** The ~~WLCSP~~WLC site contains areas similar to grasslands with very sparse canopy, but is heavily disturbed. Recorded approximately adjacent to the general ~~WLCSP~~WLC site on the west and south (CNDDB 2012).
Lasiurus xanthinus	Western yellow bat	—	—	CDFW: CSC	Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats below 1,800 feet. Roosts in trees.	Not Covered	**Not Likely to Occur.** No riparian or native plant communities occur in the ~~WLCSP~~WLC site. Recorded approximately 3.5 miles southwest of the ~~WLCSP~~WLC site (CNDDB 2012).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	—	—	CDFW: CSC	Inhabits coastal sage scrub habitats. Specifically, intermediate canopy stages of shrub, open shrub, herbaceous and tree, and herbaceous edge habitats.	Covered	**Present** Recorded within the MWD lands in the northern portion of the ~~WLCSP~~WLC site during burrowing owl surveys (MBA 2013~~).~~) but not observed in 2018.
Onychomys torridus ramona	Southern grasshopper mouse	—	—	CDFW: CSC	Inhabits desert areas, especially scrub habitats with friable soils. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Not Covered	**Not Likely to Occur.** No shrub or scrub habitat occurs in the ~~WLCSP~~WLC site. Additionally, the site is regularly disturbed by disking. Recorded approximately 4 miles southeast of the ~~WLCSP~~WLC site (CNDDB 2012).

Table 4.4~~.C~~-3: Sensitive Wildlife Species in the WLC ~~Project Area~~Site

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Perognathus longimembris brevinasus	Los Angeles pocket mouse	—	—	CDFW: CSC	Inhabits lower elevation grasslands and coastal sage communities. Prefers open ground with fine sandy soils.	Covered	**Low Potential to Occur.** The sandy soils that occur in the ~~WLCSP~~WLC site are limited to existing drainages with the proper coastal sage communities. Three years of trapping did not produce any Los Angeles pocket mice. Recorded approximately 3 miles south of the ~~WLCSP~~WLC site (CNDDB 2012). It was observed in BMP trapping within 2 miles of the study area (RCA 2013).
Taxidea taxus	American badger	—	—	CDFW: CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents.	Not covered	**Low potential to occur.** The ~~WLCSP~~WLC site contains limited amounts of vegetation and the ground is cultivated. Recorded approximately 8.5 miles northwest of the ~~WLCSP~~WLC site (CNDDB 2012). RCA data lists the closest recorded occurrence~~, just outside the 1,000-foot buffer area. Most likely limited to~~ within the badlands area north and east of the project site.

Federal		**State**		**Other**	
FE	Federal Endangered	SE	State Endangered	CDFW: CSC	California Species of Special Concern
FT	Federal Threatened	ST	State Threatened	CDFW: FP	Fully Protected Species
FSC	Federal Species of Concern			CDFW: P	Protected Species
PFT	Proposed Federal Threatened				
FC	Candidate for Federal Listing				
FD	Delisted				

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the ~~WLCSP~~WLC site and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.

Low Potential to Occur - There is a historical record of the species in the vicinity of the ~~WLCSP~~WLC site and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the ~~WLCSP~~WLC site, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the ~~WLCSP~~WLC site (within 3 miles).

Species Present - The species was observed in the ~~WLCSP~~WLC site at the time of the survey or during a previous biological survey.

Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014~~.~~

~~disking of the site,~~ and ~~dominance of sparse, non-native low-quality vegetation. No additional Federal wildlife species of concern were analyzed for potential to occur in the project area because no additional Federal wildlife species of concern are known to occur on, or in the vicinity of, the site~~ESA, May 2018.

~~**California State Endangered Plant Species.** As shown in Table 4.4.B, two California State endangered plant species were analyzed for their potential to occur in the WLCSP and off-site facilities: slender-horned spine-flower and thread-leaved brodiaea. No evidence of these State-listed plant species was found in the project area nor is there any suitable habitat for these State-listed plant species due to regular disking of the site and dominance of sparse, non-native low-quality vegetation. No additional State-listed plant species were analyzed for potential to occur in the project area because no additional State-listed plant species are known to occur on, or in the vicinity of, the site, nor was any suitable habitat found to support other State-listed plant species. Therefore, State-listed plant species are not likely to occur in the project area and there is no potential impact to State endangered plant species.~~

California State Threatened Plant Species. As shown in Table 4.4~~.B~~-2, no California State threatened plant species are known to occur on, or in the vicinity of, the project site and no suitable habitat occurs within the project are for any California State threatened plant species. Therefore, California State threatened plant species are not likely to occur in the ~~project area~~WLC site and there is no potential impact to State threatened plant species.

California State Endangered Wildlife Species. As shown in Table 4.4~~.B~~.-3, four California State endangered wildlife species were analyzed for their potential to occur in the ~~WLCSP~~WLC site and off-site facilities: western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, and peregrine falcon (*Falco peregrinus anatum*). No evidence of these California State endangered wildlife species was found in the ~~project area~~WLC site. In addition, no suitable habitat for these species occurs within the ~~project area~~WLC site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional California State endangered wildlife species were analyzed for potential to occur in the ~~project area~~WLC site because no additional California State endangered wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the ~~project area~~WLC site to support other California State endangered wildlife species. Therefore, California State endangered wildlife species are not likely to occur in the ~~project area~~WLC site and there is no potential impact to State endangered wildlife species.

California State Threatened Wildlife Species. As shown in Table 4.4~~.C~~-3, two California State threatened wildlife species was analyzed for its potential to occur in the ~~project area~~WLC site: Swainson's hawk (*Buteo swainsonii*) and Stephens' kangaroo rat. There is little to no nesting habitat within the ~~WLCSP~~WLC SITE for Swainson's hawk and ~~marginally~~marginal quality foraging habitat. This species is known to occur ~~with~~within the adjacent SJWA and has a low potential to occur within the ~~WLCSP~~WLC site project site. Although no sign of Stephens' kangaroo rat was identified in the ~~project area, MBA~~WLC site, it is concluded that this species may range through the general area. This species is known to occur in ruderal and minimally disturbed areas. Marginal habitat for Stephens' kangaroo rat was observed along existing roadsides and within active pasture areas. Since the ~~project area~~WLC site is within the known range of this species, and marginal habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the area.

No ~~additional~~other California State threatened wildlife species are known to occur on, or in the vicinity of, the WLC site. No suitable habitat was found in the ~~project area~~WLC site to support other California State threatened wildlife species. Therefore, except for the Stephens' kangaroo rat, California State threatened wildlife species are not likely to occur in the ~~project area~~WLC site and there is no potential impact to California State threatened wildlife species.

California State Fully Protected Species. The classification of Fully Protected was California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. The list of fully protected species included fish, mammals, amphibians, reptiles, birds, and mammals. Most fully protected species are currently listed as threatened or endangered species under the more recent endangered species laws and regulations.

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

~~**California State Fully Protected Species.**~~ As shown in Table 4.4~~.C~~-3, three California State Fully Protected species were analyzed for their potential to occur in the ~~project area~~WLC site: golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*) and peregrine falcon. No suitable nesting habitat for golden eagle, white-tailed kite or peregrine falcon occurs within the area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. However, agricultural land does represent marginal quality foraging habitat within the ~~WLCSP~~WLC site project site and adjacent ~~CDFW Conservation Areas~~SJWA. No additional California State fully protected wildlife species were analyzed for their potential to occur in the ~~project area~~WLC site because no additional California State fully protected wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the ~~WLCSP~~WLC site and off-site facilities to support other California State fully protected wildlife species. Therefore, California State fully protected wildlife species are not likely to occur in the ~~project area~~WLC site and there is no impact to California State fully protected wildlife species.

California Rare Plants Species and California Species of Concern. California Species of Concern (CSC) applies to animals not listed under the FESA or CESA, but are declining at a rate that could result in Federal or State listing or historically occur in low numbers and known threats to their persistence currently exist.

California Rare Plant Species. No California rare plant species are known to occur on, or in the vicinity of, the ~~project area~~WLC site nor is any suitable habitat known to occur within the area. Therefore, no California rare plant species were analyzed for their potential to occur in the ~~project area~~WLC site. Eleven special status plant species, as determine by the California Native Plant Society, were identified as potentially occurring within the ~~project area~~WLC site. Three of the species (Plummer's mariposa lily [*Calochortus plummerae*], Robinson's pepper-grass [*Lepidium virginicum* var. *robinsonii*], and San Bernardino aster [*Symphyotrichum defoliatum*]) are not covered by the MSHCP. Plummer's mariposa lily and Robinson' pepper-grass have a moderate to low potential to occur based on habitat type and soils requirements. These species were not identified during sensitive plant surveys (MBA 2010; ESA 2018).

The 2010 sensitive plant survey was conducted based on the 2010 site boundary and the then-current existing conditions. Several areas within the current ~~WLCSP~~WLC site were not surveyed because they were either not included in the proposed development footprint (such as the Off-site Improvement Areas) or were not within areas of suitable habitat. Therefore, areas that contained suitable habitat, but are outside of the proposed development footprint, or areas that were not accessible during the survey, were not included. Since all areas of the ~~WLCSP~~WLC site were not surveyed, additional plant surveys are recommended on a project-by-project basis. There has been below-average rainfall in the area since the 2010 plant surveys were conducted. Project-level surveys will be required prior to submittal of the CEQA documents as part of the project-specific environmental review process.

The Sensitive Plant Focused Survey Report only discusses the plant communities in which focused plant surveys were conducted. Many of the areas within the Extensive Agricultural Areas and the Urban/Developed areas contain elements of Riversidean sage scrub, non-native grasslands, and riparian habitat, but not in a sufficient amount to be considered a separate plant community. The remaining nine plant communities found within the ~~WLCSP~~WLC site, either do not provide suitable habitat or are not within the ~~proposed~~ project impact area; these plant communities will not be directly or indirectly impacted by project development.

Updated focused plant surveys will likely be warranted on a project-level basis, especially if existing site conditions change over time. However, updated focused plant surveys in 2018 did not observe any special-status plant species. If the agricultural fields are left fallow, suitable habitat for a number of sensitive plant species may develop. Therefore, additional focused plant surveys will be required on a project-by-project basis as specific developments are proposed and subsequent or supplemental CEQA documentation is prepared.

The potential habitat for these species is confined to RSS and sandy-rocky soils, which are confined to the proposed open space area in the southwestern portion of the Specific Plan area.

California Species of Concern. Twenty-one California Wildlife Species of Concern were analyzed for their potential to occur in the ~~WLCSP~~WLC site and off-site facilities:

- Orange-throated whiptail (*Aspidoscelis hyperythra*)
- Coast horned lizard (*Phrynosoma coronatum*)
- Tricolored blackbird (*Agelaius tricolor*)
- Bell's sage sparrow (*Amphispiza belli belli*)
- Ferruginous hawk (*Buteo regalis*)
- Merlin (*Falco columbarius*)
- Yellow-breasted chat (*Icteria virens*)
- White-faced ibis (*Plegadis chihi*)
- Western yellow bat (*Lasiurus xanthinus*)
- Southern grasshopper mouse (*Onychomys torridus ramona*)
- American badger (*Taxidea taxus*)
- Northern red-diamond rattlesnake (*Crotalus ruber ruber*)
- Western spadefoot (*Spea hammondii*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Burrowing owl (*Athene cunicularia hypugaea*)
- California horned lark (*Eremophila alpestris actia*)
- Prairie falcon (*Falco mexicanus*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)

The ~~project area~~WLC site contains suitable foraging habitat for loggerhead shrike, ferruginous hawk, merlin, prairie falcon, California horned lark, and burrowing owl but no suitable nesting habitat for ferruginous hawk, merlin, or prairie falcon. Suitable ground-nesting habitat occurs for burrowing owl and California horned lark. No sign of burrowing owl was identified during focused surveys conducted in 2012. However, burrowing owl was identified within the southern portion of in the ~~WLCSP~~WLC project site and offsite facilities during focused surveys conducted in 2013 and in 2018, and, it was determined that this species may range through the general area. Several California horned larks and loggerhead shrikes were observed foraging within the area. No suitable habitat for western spadefoot, Bell's sage sparrow, yellow-breasted chat, white-faced ibis, western yellow bat, southern grasshopper mouse, and American badger occurs within the ~~project area~~WLC site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. The western yellow bat, southern grasshopper mouse and American badger are not covered under the MSHCP. However, since there is no suitable habitat for these species, no impact is expected to occur. The remaining species are covered under the MSHCP.

There is limited suitable habitat for orange-throated whiptail, northern red-diamond rattlesnake, coast horned lizard, southern rufous-crowned sparrow, northwestern San Diego pocket mouse, San Diego jackrabbit, and Los Angeles pocket mouse in the ~~project area~~WLC site. These species are generally associated with RSS, which is limited to the north near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the LPSRA between ~~Theodore Street~~World Logistics Center Parkway and Redlands Boulevard, just south of Brodiaea Avenue. Focused surveys for Los Angeles pocket mouse in 2005, 2010, 2012, and 2013 were negative. The orange-throated whiptail is not covered under the MSHCP. There is limited habitat for the orange-throated whiptail in an area that is currently proposed for open space in the southwestern corner of the Specific Plan area. The other species mentioned are covered under the MSHCP. There is a low potential for these species to occur.

No additional California wildlife species of concern were analyzed for potential to occur in the ~~project area~~WLC site because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the ~~project area~~WLC site to support other California Wildlife Species of Concern. Therefore, except for the burrowing owl, loggerhead shrike, and California horned lark, California Wildlife Species of Concern are not likely to occur in the ~~WLCSP~~WLC site and off-site facilities.

California Native Plant Society (CNPS). The CNPS is a non-profit organization whose collaborative efforts in research helps maintain an inventory of rare and endangered plants that occur throughout California. The CNPS has developed its own classification system in defining the degree of endangerment for sensitive plant species that models that of the FESA and CESA. Plants considered to be rare, threatened, or endangered in California are designated as ~~List~~CRPR 1B or List ~~2~~2B plant species. Plants for which more information is needed to determine their status are designated ~~List~~CRPR 3 species. Plants with limited distribution are designated as ~~List~~CRPR 4 species.

CNPS ~~Listed~~Ranked Plant Species. Eight CNPS ~~List~~CRPR 1B plant species were analyzed for potential to occur in the ~~project area~~WLC site: San Jacinto Valley crownscale, thread-leaved brodiaea, Plummer's mariposa lily, smooth tarplant (*Centromadia pungens* ssp. *laevis*), slender-horned spineflower, Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Robinson's peppergrass, and San Bernardino aster.

Two CNPS ~~List 2~~CRPR 2B plant species, mud nama (*Nama stenocarpum*) and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), were analyzed for potential to occur in the ~~project area~~WLC site.

One CNPS ~~List~~CRPR 3 plant species, Parry's spineflower (*Chorizanthe parryi* var. *parryi*), was also analyzed for potential to occur in the ~~project area~~WLC site.

No evidence of any CNPS ~~List~~CRPR 1B, List ~~2~~2B, or List 3 plant species were observed in the ~~project area~~WLC site. In addition, no suitable habitat for any of these species occurs due to historic agricultural activities, regular disking of the site, and dominance of sparse, low quality non-native vegetation.

No additional CNPS ~~List~~CRPR plant species were analyzed for potential to occur in the ~~WLCSP~~WLC site and off-site facilities because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the ~~project area~~WLC site to support other CNPS ~~List~~CRPR plant species. Therefore, CNPS ~~List~~CRPR plant species are not likely to occur in the ~~project area~~WLC site.

Migratory Bird Treaty Act and Section 3503 of the State Fish and Game Code. The ~~project area~~WLC site contains suitable nesting habitat for ground-nesting birds such as burrowing owl and horned lark. The few large trees on the site provide suitable habitat for other migratory birds.

Raptor Foraging Habitat. The ~~project area~~WLC site contains flat, open areas with sparse vegetation, which provides marginal foraging habitat for some raptors species. Due to the regular, heavy disturbance associated with the various agricultural activities in the area, and the limited size of the site in relation to the expansive foraging habitat in the vicinity including the ~~CDFW Conservation Buffer Area and the~~ SJWA, LPSRA, and the Badlands to the east, the foraging habitat on site is considered marginally suitable and of poor quality (MBA 2013, pages 94-95).

4.4.1.~~14~~11 MSHCP Consistency Analysis

a. Burrowing Owl

The burrowing owl is an avian species of special concern that is protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3503. This species typically occurs in grassland and scrub habitats characterized by low-growing vegetation with an abundance of small mammal burrows, including the California ground squirrel. It often prefers areas with moderate disturbance and/or berms or drainage features. Reasons for burrowing owl population decline include habitat destruction, insecticide poisoning, rodenticide (particularly squirrel eradication), and shooting.

The ~~project area~~WLC site contains potentially suitable habitat for burrowing owl, such as flat, open, valley floor plains occupied by non-native grasslands, fallow fields, and agricultural lands. Details of the methodologies for the focused surveys are discussed in Appendix D, Burrowing Owl Focused Surveys. Details for these focused surveys for burrowing owl may not match exactly with the ~~project area~~WLC site as the boundaries of the various studies have evolved over time. The 2012 studies for burrowing owl encompassed ~~the~~ 3,300 acres ~~of the project area~~.

Burrowing owl was identified within the southern portion of the ~~WLCSP project~~WLC site during focused surveys conducted in 2013~~,~~ by MBA and in 2018 by ESA, and the species may continue to range through the general area. Focused surveys for burrowing owl conducted in June–July 2012 did not locate any owls (MBA 2012b). However, burrowing owl was observed on the WLC site in 2018. During focused surveys conducted by MBA in 2005 (covering approximately 1,778 acres of the ~~project area~~WLC site), a single breeding pair of burrowing owls was observed within an ephemeral drainage feature (Drainage 4) that longitudinally traverses the western portion of the survey area. The owls were observed perching and in flight along the western bank of the drainage feature, immediately south of its intersection with Dracaea Avenue. Conditions in this area have changed over the 6-year period and ~~this~~there was no longer suitable habitat due to changes in land use.

In addition, focused burrow and burrowing owl surveys conducted by MBA in 2006 (750 acres), 2007 (2,904 acres), 2010 (3,714 acres), and 2012 (3,300 acres) did not determine the presence of any burrowing owls. (Appendix D, Burrowing Owl Focused Surveys). Burrowing owls were recorded in 2008 (246 acres) just south of the Skecher's Logistic Center (Fierro, personal communication). A single burrowing owl was observed within the temporary detention basin located south of the Skecher's building during the March 2012 site visit. Burrowing owl was observed in the southeastern portion of the WLC site in 2018, just north of the SJWA.

The disked and fallow fields within the ~~project area~~WLC site continue to provide suitable foraging habitat for burrowing owl. The area contains numerous California ground squirrel and desert cottontail burrows, which are potentially suitable for burrowing and nesting by the owls. Therefore, this species appears to be present within portions of the ~~project area~~WLC site and the ~~CDFW Conservation Buffer Area~~SJWA to the south, although it may not be a permanent resident.

b. Los Angeles Pocket Mouse

Los Angeles pocket mouse (LAPM) is a California species of special concern that inhabits lower elevation grasslands and scrub communities within Los Angeles, San Bernardino, and Riverside Counties. Los Angeles pocket mouse is the smallest of the pocket mice subspecies and is adapted for arid or semi-arid environments and nocturnal activity. The primary habitat requirement for the subspecies is a suitable burrowing substrate of fine sandy soils. LAPM is commonly found in low elevation open grasslands, coastal sage scrub, and alluvial fan sage scrub. The subspecies is recorded to have been observed approximately 2 miles southeast of the study area (CDFW 2012).

The majority of the ~~project area~~WLC site does not contain suitable habitat for LAPM due to regular disturbance associated with agriculture, and the absence of fine sand soils. Drainage Feature 9, however, is not subject to regular agricultural disturbance and contains Riversidean sage scrub appropriate soils; therefore, this drainage feature contains marginally suitable habitat for LAPM.

MBA conducted surveys for LAPM in 2005, 2010, 2012, and 2013. ESA conducted LAPM surveys in 2018. In 2005, MBA conducted focused trapping surveys for LAPM in the south-central and southeastern portions of the ~~project area~~WLC site. A total of 121 traps were set throughout the drainage features. In 2010, MBA conducted focused trapping surveys in the same location as in 2005 and in two additional drainage features. A total of 122 traps were set among the three drainage features in 2010. Only Drainage Feature 9 has suitable RSS and soils, and the other two drainage features only contained suitable soils. The 2012 trapping effort was conducted in the same area as in 2010. No LAPM were trapped. No LAPM were trapped during the focused surveys in any of the ~~three~~MBA trapping sessions (2005, 2010, 2012, and 2013); therefore, ~~MBA has~~it was determined that this species is absent from the ~~project area~~WLC site and no additional trapping ~~is~~were required. However, ESA conducted trapping in 2018 but found no LAPM.

c. Criteria Area Species

The following ten Criteria Area Species were assessed for their potential to occur in the ~~project area~~WLC site:

- Mud nama (*Nama stenocarpum*);
- Little mousetail (*Myosurus minimus* ssp. *apus*);
- Coulter's goldfields (*Lasthenia glabrata* ~~sub~~ssp. *coulteri*);
- Thread-leafed brodiaea (*Brodiaea filifolia*);
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*);
- Parish's brittlescale (*Atriplex parishii*);
- San Jacinto valley crownscale (*Atriplex coronata* var. *notatior*);
- Round-leafed filaree (~~*Erodium*~~*California macrophyllum*);
- Smooth tarplant (~~*Hemizonia*~~*Centromadia pungens* ssp. *laevis*) and
- Nevin's Barberry (~~*Mahonia*~~*Berberis nevinii*).

The thread-leafed brodiaea typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline mudflats; therefore, it is not likely to occur within the WLC ~~planning area~~site.

Most of these species are associated with in highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association. In Riverside County, vernal pool plant species are most closely associated with the Willows soil series.

According to the biological assessment, San Jacinto valley crownscale, Parish's brittlescale, Davidson's saltscale, smooth tarplant, Coulter's goldfields, and little mousetail are not likely to occur on the project site due to the absence of vernal pools or vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation).

The ~~project~~WLC site does not contain friable clay soils, so round-leafed filaree is not expected to occur. Although small areas of the site contain sage scrub and chaparral vegetation, no alluvial scrub or rocky chaparral slopes occur; therefore, Nevin's barberry is not likely to occur on the project site.

Mud nama is associated with ponds, lakes, or regularly muddy embankments. Since these conditions are not present, it is unlikely this species occurs on the ~~project~~WLC site.

d. Narrow Endemic Plant Species

The following six Narrow Endemic Plant Species were assessed for their potential to occur on the ~~project area~~WLC site:

- San Diego ambrosia (*Ambrosia pumila*);
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*);
- California Orcutt grass (*Orcuttia californica*);
- spreading navarretia (*Navarretia fossalis*);
- many-stemmed dudleya (*Dudleya multicaulis*); and
- Munz's onion (*Allium munzii*).

As with the Criteria Area species, San Diego ambrosia, Wright's trichocoronis, California Orcutt grass, and spreading navarretia are not likely to occur on the WLC site due to the absence of vernal pools, vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation). In addition, no clay soils occur within the ~~project area~~WLC site; therefore, many-stemmed dudleya and Munz's onion are not likely to occur. Rare plant surveys conducted by ESA in 2018 did not result in observations of any Criteria Area nor Narrow Endemic Plant Species.

e. Riparian/Riverine Habitat and Vernal Pools

The ~~project area~~WLC site contains two types of riparian vegetation: mule fat scrub and southern willow scrub. Both plant communities are isolated, disturbed, low in vegetative cover, and generally of poor habitat quality. Three drainage features and one catch basin contain riparian/riverine areas (see previously referenced Figure 4.4.2). One of these drainage features is outside of the ~~project area~~WLC site on the east side of Gilman Springs Road, within one of the proposed debris basins.

The mule fat scrub community on site occurs intermittently within Drainage Feature 9; a small patch within Drainage Feature 7; and within the debris basin associated with Drainage Feature 8. Drainage Feature 9 and the catch basin are both narrow and bordered on each side by disked agricultural fields. Drainage Feature 9 also contains a narrow band of mule fat scrub, but is bordered by relatively undisturbed Riversidean sage scrub. Over time, the drainage feature has fragmented and currently contains isolated patches of riparian vegetation. Within the mule fat scrub community, tree tobacco and other non-native plant species, have established in approximately equal quantity as mule fat.

Drainage Feature 8 has a proposed debris basin across Gilman Springs Road. This small drainage has an area of mule fat scrub that is probably surviving based on the blockage of the drainage at the road. The mule fat scrub portions of the ~~project area~~WLC site are poor in habitat quality due to the small size of the stands, the sparse vegetative cover within the communities, the isolation of the individual stands, and the disturbance from the adjacent agricultural uses. Given the above characteristics, riparian wildlife species have a low potential to occur. Despite the absence of suitable habitat for federally and State listed threatened or endangered species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo that commonly occur in riparian habitat, this drainage feature is considered riparian/riverine areas under the MSHCP because of the presence of mule fat and the subsurface connectivity to off-site riparian areas downstream.

Southern willow scrub occurs in a single isolated catch basin in the ~~project area~~WLC site (Figure 4.4.2, Drainage Feature 14). The catch basin contains marginal vegetative characteristics and no hydrological characteristics that fit the MSHCP description for riverine/riparian areas. It exists as isolated, human-made, catch basin that receives nuisance flows and agricultural runoff from concrete cattle containment areas adjacent to the basin, which have subsequently been removed. It is located south of Alessandro Road and does not contain any upstream or downstream connection to any other drainage features. There is no evidence of prolonged ponding within this basin. Due to the high percolation rate, this area does not hold water long enough to provide the necessary hydrology associated with the creation and maintenance of a vernal pool. There are no drainage features that convey natural flows into these basins. Therefore, the basins only source of hydrology is from natural rainfall within the limits of the basin. Vegetation in the catch basin consists of southern willow scrub and includes plant species such as Freemont's cottonwood, black willow, sandbar willow, and mule fat. The plant community primarily consists of a moderate density of trees with a few understory plants.

Southern willow scrub is typically considered suitable habitat for a number of wildlife species that commonly occur in riverine/riparian habitats throughout southern California. These wildlife species include sensitive avian species such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. The southern willow scrub associated with Drainage 14 does not contain hydric soils or wetland hydrology indicators. This basin is considered low in habitat quality because it is isolated, small in size, and lacks significant vegetation density. The vegetation within the basin is sparse, with a 30- to 40- percent canopy cover of native willows. The small patch of riparian habitat also contains about 50 percent native willows and 50 percent non-native ornamental trees such as Peruvian pepper tree (*Schinus molle*). The southern willow scrub habitat is 0.86 acre in size (rounded up to 1 acre in the document). There is no suitable habitat for any riparian/riverine avian species, such as least Bell's vireo (*Vireo bellii pusillus),* southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), due to the limited size of the basin. There is also no suitable habitat within the immediate vicinity (approximately 2 miles) and there is no direct habitat connection to any suitable offsite habitat. Based on these factors, there is no suitable nesting habitat and limited resting habitat for the listed riparian species covered under the MSHCP. Given these characteristics, riparian wildlife species have a low potential to occur.

The term "functioning riparian habitat" describes a patch or area of riparian habitat that functions as a riparian habitat. It provides suitable habitat for plant and wildlife species that are commonly found in riparian habitats. Even low-quality riparian habitat may provide functional riparian habitat if it supports a population of riparian species. The riparian habitat onsite is extremely small and completely isolated from riparian habitat in the eastern portion of the City of Moreno Valley.

The riparian vegetation onsite does not support wildlife species commonly found within riparian habitat such as common yellow-throat (*Geothlypis trichas sinuosa*), yellow warbler (*Dendroica petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and summer tanager (*Piranga rubra*), as described in the Birds as Indicators of Riparian Vegetation (no date) condition in the western U.S. Bureau of Land Management, Partners in Flight, Boise, Idaho. Therefore, even though the ~~WLCSP~~WLC site contains small patches of riparian vegetation, it does not function as a riparian habitat for common riparian bird species. A few plants in an isolated area do not create a functional habitat.

MBA also conducted a vernal pool habitat assessment within the ~~WLCSP~~WLC site and off-site facilities. As defined by the MSHCP, vernal pools are "seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season." No vernal pools or ephemeral ponds were observed in the ~~WLCSP~~WLC site or any of the off-site areas during the habitat assessment survey. In addition, no suitable habitat for any fairy shrimp species was identified within any of the ~~project area~~WLC site.

f. Urban/Wildlands Interface Analysis

This section addresses the indirect effects associated with locating development in proximity to MSHCP Conservation Areas. The ~~project area~~WLC site is bordered to the east by Proposed Core 3 (MSHCP Section 6.1.1) and to the south by the SJWA and Existing Core H. Moreover, portions of the ~~project area~~WLC site fall within the boundaries of these Conservation Areas.

The portion of the ~~project~~study area within the SJWA ~~(i.e., Conservation Area) is currently~~was previously used for agricultural land, but is owned by the ~~CDFW~~State of California and operated as ~~conservation land as~~ part of the SJWA. No development will occur in this area. The remaining portions of the ~~project area~~WLC site that are ~~on~~within or adjacent to conservation areas will incorporate the design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development discussed below. These measures will make the~~ proposed~~ project consistent with the MSHCP, Section 6.1.4, Guidelines Pertaining to the Urban/Wildlands Interface. A detailed description of recommendations pertaining to an urban/wildlands interface is provided below for adjacency issues identified in the MSHCP. Additional discussion of indirect impacts of the project on the SJWA and Conservation Areas is included in Section 4.4.1.12, *Other Issues*, later in this section. This information is from Section 6.1.4 of the MSHCP, *Guidelines Pertaining to the Urban/Wildland Interface.*

Drainage Features. Development of the ~~project area~~WLC site will include a comprehensive system of storm drains to handle runoff from the ~~proposed~~ project. The project drainage plan shows that drainage from the ~~project area~~WLC site will be directed to the regional storm drain system and away from the adjacent open space, or treated by water quality and retention basins to maintain historical runoff rates and patterns onto downstream land, such as the Mystic Lake area.

The conceptual drainage plan for the ~~WLCSP~~WLC site development consists of a series of collection basins throughout the development that will treat the first flush storm events and convey storm flows to a series of detention basins along the southern boundary of the ~~WLCSP~~WLC site. The basins will be designed to provide a water quality treatment as well as provide an area for creation of riparian habitat. Based on the size of the proposed detention basins, only the inlet and outlet structures will require routine maintenance. This allows the majority of the detention basins to remain undisturbed, which allows for long-term conservation of the riparian habitat. The design, operation, and maintenance of the drainage system for the ~~proposed~~ project will be designed to regulate the discharge of water into any MSHCP Conservation Area under either of these design scenarios. No water quality impact to downstream properties will result with implementation of the project.

~~All development within the project area will be required to obtain a statewide general National Pollutant Discharge Elimination System (NPDES) construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program. The NPDES requirements are discussed in greater detail in Section 4.9, *Hydrology and Water Quality*.~~

Proposed Developments in proximity to the MSHCP Conservation Area will be required to incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures will be required to be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems will be required to be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

Barriers. The ~~WLCSP~~WLC project will incorporate special edge treatments designed to separate development areas from MSHCP open space areas both to the south and across Gilman Springs Road (i.e., fencing). The Specific Plan ~~indicates~~requires that native landscaping and fencing~~ will~~ be installed to minimize unauthorized public access to the south and across Gilman Springs Road, which will also help minimize impacts related to domestic animal predation and illegal trespass and dumping. Impacts to adjacent native areas across Gilman Springs Road will therefore be minimized. In addition, the landscaping palette for the Specific Plan uses native species and precludes invasive plants as shown in the MSHCP invasive species list (MSHCP Table 6-2). The Specific Plan shows a 250-foot setback along the SJWA boundary to the south, as well as walls/fencing and controls on lighting that will comply with the City's new Municipal Code section 9.08.100 to preclude light spillage off site greater than 0.25 foot-candles per square meter. Warehousing will have a minimum 11-foot solid wall along the SJWA boundary with landscaping to soften the appearance and which may eventually provide roosting or nesting opportunities for native birds. There will be no public pedestrian or vehicular access from the development onto the SJWA land to the south, and private access to MSHCP areas to the east across Gilman Springs Road will be limited by fencing along private property lines within the project site.

Access. The project will prohibit public access into all MSHCP conservation areas including those contained within SJWA and Existing Core H to the south of the ~~project area~~WLC site. Private access to Proposed Core 3 (Section 6.1.1, Proposed Core 3) ~~to~~in the ~~east~~eastern portion of the WLC ~~project area~~site will be limited by fencing of private property limits, but the public may still be able to access these areas from public roads, including Gilman Springs Road.

Grading/Land Development. Project grading will not encroach into conservation land that will be designated as open space located within Existing Core H to the south or Proposed Core 3 (Section 6.1.1, *Proposed Core 3*) to the east of the WLC ~~project area~~site.

Fuels Management. Fuels management focuses on hazard reduction for humans and their property (MSHCP, p. 6-72). According to the Fuels Management Guidelines, for new development planned adjacent to all MSHCP conservation areas or other undeveloped areas, brush management shall be incorporated in the development boundaries and shall not encroach into the MSHCP conservation areas (MSHCP, p. 6-72). Any areas planted with fire-resistant, non-invasive plants must not encroach into the MSHCP conservation area. Accordingly, with implementation of these measures, the ~~WLCSP~~WLC SITE project will be consistent with the MSHCP Fuels Management Guidelines.

g. Migratory Corridors/Linkages

The ~~project area~~WLC site is adjacent to an existing migratory corridor across Gilman Springs Road (i.e., Criteria Cells 1290, 1389, and 1390) as designated by the MSHCP. While the open agricultural fields that presently occupy much of the ~~project area~~WLC site are not designated as corridors or linkages in the MSHCP, the ~~project~~WLC site, ~~including~~and the ~~CDFW property~~SJWA, supports extensive agricultural fields, which do not constitute native vegetation, but do provide some foraging value and may allow for migration or movement of wildlife through the general area even considering the level of repeated disturbance by agricultural activities. Wildlife movement through this area is generally planned to take place across the Mystic Lake property to the south. The northern (upland) portion of the SJWA~~ (i.e., the CDFW Conservation Buffer Area)~~ and the southern portion of the Specific Plan area do not provide suitable habitat or resources to support wildlife migration or regular wildlife movement.

4.4.1.~~15~~12 MSHCP Conservation Criteria Areas

Figure 4.4.4 shows the location and relationship of the MSHCP conservation areas described in this section, as well as their relationship to the ~~project area~~WLC site.

a. Core 3

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

The MSHCP establishes a number of “core” areas that contain or support important biological habitat or species. Some of the core areas are existing reserves, while others are proposed for preservation. This section analyzes the ~~proposed ~~project in relation to the nearby MSHCP core areas. The ~~project area~~WLC site is located within the Reche Canyon/Badlands Area Plan and falls within both the Badlands North Area Plan Subunit and the SJWA/Mystic Lake Area Plan Subunit. No existing or proposed linkage, or constrained linkage areas are in the vicinity of the project. Proposed Core 3 (MSHCP Section 6.1.1) is located to the north and east of the ~~project area~~WLC site and Existing Core H is located to the south (see previously referenced Figure 4.4.~~3~~4). As shown in Table 4.4~~.D~~-4, portions of the ~~project area~~WLC site fall within ~~12~~3 Criteria Cells ~~that are all ~~associated with existing or proposed core areas. ~~However, the following analysis ~~No development will ~~show that almost all criteria cells are~~take place within ~~the CDFW-owned Conservation Buffer Area and thus~~any of the three Criteria Cells nor will ~~not~~there be ~~directly affected by the development within the Specific Plan. The project also proposes no~~any development within the 74.3-acre Open Space area in the southwestern corner of the ~~Specific Plan~~WLC site.

Table 4.4~~.D-~~4: MSHCP Criteria Cells within the ~~Project~~WLC Site Study Area

Area Plan Subunit within MSHCP	Cell Group	Criteria Cells
Badlands North Area Plan Subunit 3	Cell Group E	1390
	Cell Group X	1297
		1204
San Jacinto Wildlife Area/Mystic Lake Area Plan Subunit 4	Cell Group D	1364
		1370
		1377
		1386
		1389
		1482
		1483
		1477
		1577

~~The~~

No portions of the ~~project area~~WLC site occur within Cell Group D~~ are~~, which is within the SJWA/Mystic Lake Area Plan Subunit 4. This Cell Group supports Existing Core H. Approximately 929 acres of the ~~project area~~SJWA site are within Cell Group D. This ~~portion within Cell Group D is located within the SJWA. This area is currently~~area is owned by the State of California through a purchase in 2001 and is ~~now~~ designated as Public/Quasi-Public Conserved Land under the MSHCP (see Figure 4.4.~~3). Although this~~ 4). This land ~~is not considered to be mitigation for the proposed development, it does provide~~ consists of more than 900 acres of ~~buffer between the project and the high quality habitat areas of the SJWA~~non-native grassland.

~~As shown in Figure 4.4.4, the CDFW-owned portion of the project area overlaps Cell Groups E and X, which are within the Badlands North Area Plan Subunit 3. These Cell Groups support Proposed Core 3. Approximately 52 acres of the CDFW area overlap Cell Group E, and approximately 114 acres of the CDFW Area occurs within Cell Group X. The project will not conflict with MSHCP Conservation Criteria because no development is planned within the CDFW area of the project (which is part of the SJWA). However, any development adjacent to the SJWA will need to address edge effects.~~

Minimizing edge effects is considered a significant goal of Proposed Core 3.~~ Approximately 56 acres of the project area occur within the western extent of Proposed Core 3.~~ The portions of the Core along Gilman Springs Road are currently subject to edge effects associated with existing traffic, and the development of the project may incrementally increase these edge effects. All development in the southern portion of the project will need to implement measures that minimize edge effects associated with urban development in wildlands. The minimization efforts are addressed in Section 4.4.1.8g, *Urban/Wildlands Interface Analysis*, of this report.

The ~~CDFW-owned~~SJWA land~~ within the project area~~ is located adjacent to the junction of Proposed Core 3 and Existing Core H. Development of the WLC project will not impede the movement of wildlife or reduce the continuous area of the two cores, which are both goals of Proposed Core 3. Additionally, the portion of the ~~project area~~WLC site located adjacent to the Core 3/Core H junction will remain undeveloped, facilitating connectivity between the two Cores.

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~~Figure 4.4.4: MSHCP Conservation Areas~~

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The ~~project area~~WLC site occupies less than 0.1 percent of Proposed Core 3 and the goals of the Proposed Core 3 will be maintained.

b. Existing Core H

Existing Core H consists of the Lake Perris State Recreation Area (LPSRA), SJWA, private lands, and lands with pre-existing conservation agreements (see Figure 4.4.4). It provides resident habitat for several species, contains soils suitable for some Narrow Endemic plant species, supports vernal pool complexes and may provide a connection to Core Areas in the Badlands and the middle reach of the San Jacinto River. Maintenance of habitat quality, floodplain processes along the San Jacinto River, and conservation of vernal pool complexes are important for species covered by the MSHCP. The Core Area provides potentially suitable live-in habitat for small rodents and common mammals.

~~Approximately 113.1 acres of the project area are located within the northern extent of Existing Core H. The CDFW-owned Area~~The SJWA in Existing Core H contains potentially suitable habitat for small rodents, common mammals, and burrowing owl. No vernal pool complexes or floodplain conditions occur on the project site and there is no suitable habitat for any narrow endemic plant species. ~~The portion of the project area within Existing Core H will not be developed (i.e., the Conservation Buffer Area) because it is part of the SJWA. The WLC planning area occupies less than 0.2 percent of~~The WLC site is not located within Existing Core H and the goals of this core area will be maintained.

c. Reche Canyon/Badlands Area Plan

The Reche Canyon/Badlands Area Plan of the MSHCP is in the northern portion of western Riverside County, south of the City of San Bernardino, west of The Pass Area Plan and the San Jacinto Valley Area Plan, north of the Mead Valley Area Plan and the Lakeview/Nuevo Area Plan, and east of the Highgrove Area Plan, the Cities of Norco and Riverside Area Plan, and the March Area Plan. The City of Moreno Valley sits entirely within the Reche Canyon/Badlands Area Plan. The Area Plan incorporates lands within the LPSRA and SJWA, and is separated into 4 Area Plan Subunits. The ~~project area~~WLC site is located within portions of Area Plan Subunit 3: Badlands North and Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake (see Figure 4.4.4).

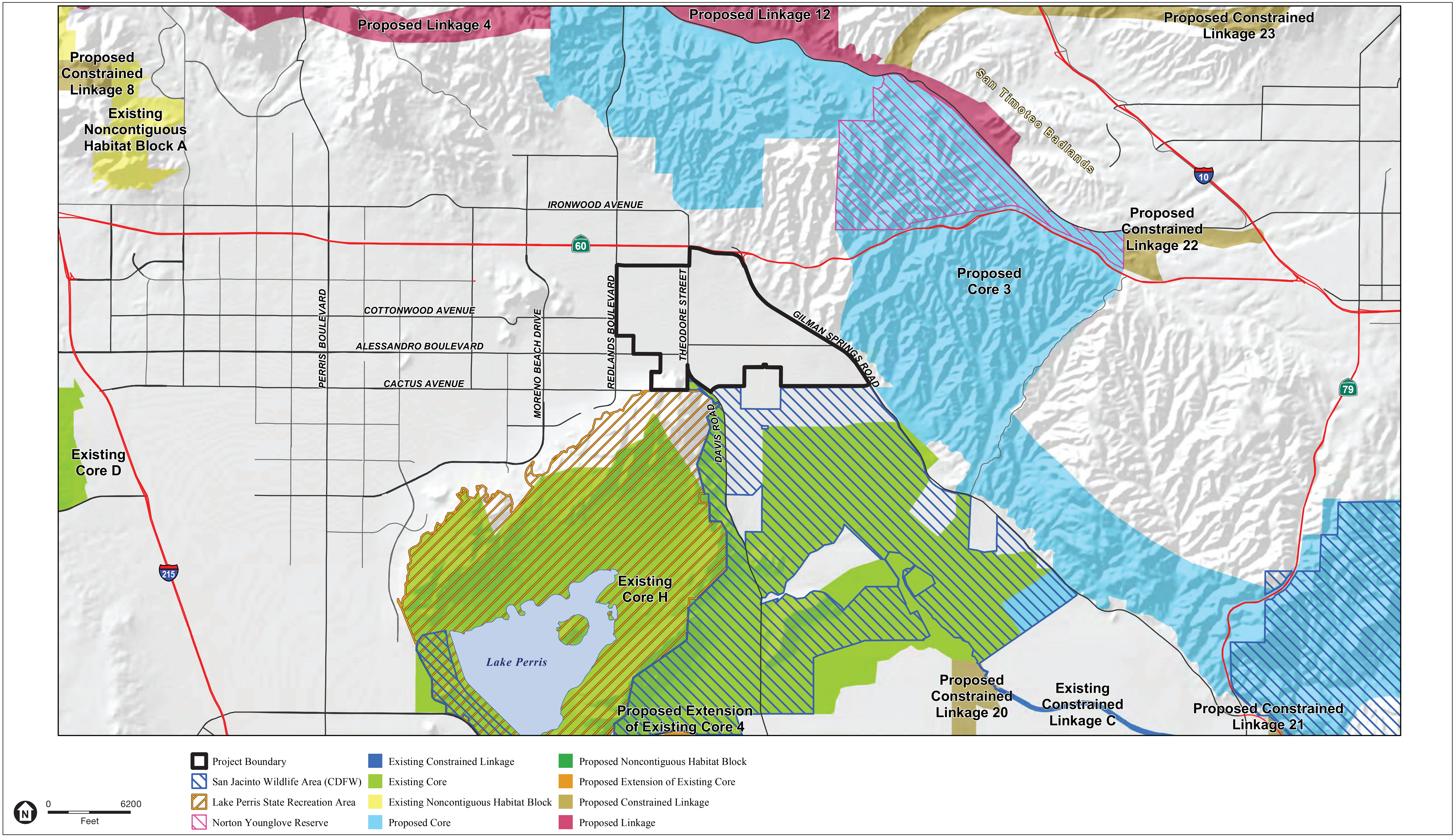

SOURCE: County of Riverside, 2003 & 2011; California Dept. of Fish and Game, 2011

World Logistics Center Project

Figure 4.4-4
MSHCP Conservation Areas

The target conservation acreage range for the Reche Canyon/Badlands Area Plan is 30,815 to 35,905 acres; it is composed of approximately 20,295 acres of existing Public/Quasi-Public Lands and 10,520 to 15,610 acres of Additional Reserve Lands. The target acreage range within the City of Moreno Valley is 80 to 130 acres. The City of Moreno Valley target acreage is included within the 10,520 to 15,610~~-~~-acre target conservation range on Additional Reserve Lands for the entire Area Plan.

The ~~Conservation Buffer Area portion~~SJWA immediately south of the WLC ~~planning area includes approximately 910 acres of the SJWA, which~~site, is designated as Additional Reserve Land. All of this area is within the City of Moreno Valley, and ~~preservation of~~will not be impacted by the ~~Conservation Area of the~~WLC project~~ will~~, which would fulfill the MSHCP's target acreage range for the City.

d. Area Plan Subunit 3: Badlands, North

Area Plan Subunit 3 of the Reche Canyon/Badlands Area Plan includes lands within the northeastern and eastern portions of the Area Plan within the Badlands (see Figure 4.4.4). Area Plan Subunit 3 contains a total of 88 Criteria Cells organized into 16 Cell Groups and 4 independent cells. The MSHCP conservation objectives for Area Plan Subunit 3 include conserving land within the Badlands area, north to the vicinity of SR-60, south to southeastern extent of the SJWA, west to the eastern boundary of the SJWA, and east to the Laborde Canyon vicinity. Target acreage range required for Additional Reserve Lands within Area Plan Subunit 3 is 8,270 to 10,895 acres. Plant and Wildlife Planning Species within Area Plan Subunit 3 include:

- Nevin's barberry;
- Bell's sage sparrow;
- Cactus wren;
- Loggerhead shrike;
- Southern California rufous-crowned sparrow;
- Los Angeles pocket mouse;
- San Bernardino kangaroo rat;
- Stephens' kangaroo rat;
- Bobcat; and
- Mountain lion.

Under the MSHCP, additional biological issues and considerations are proposed for conservation for each Area Plan Subunit. The biological issues and considerations emphasized in Area Plan Subunit 3 include:

- Conserving large habitat blocks in the Badlands.
- Maintain Core Area for bobcat.
- Maintaining Core and Linkage Areas for mountain lion.
- Determining potential for populations of San Bernardino kangaroo rat along San Timoteo Creek.
- Maintain Linkage Area to SJWA for Stephens' kangaroo rat.
- Determine presence of potential Core Area for Los Angeles pocket mouse in San Timoteo Creek and tributaries to the Badlands.
- Maintain Core Area for Nevin's barberry.

The eastern boundary of the ~~project area~~WLC site (i.e., Gilman Springs Road) is within Area Plan Subunit 3, the main focus of which is protection of bobcat and mountain lion habitat. The portions of the ~~project area~~WLC site within Area Plan Subunit 3 are along the southwestern edge of the Subunit and collectively comprise approximately one percent of the target acreage range proposed for conservation. Since the ~~project area~~WLC site encroaches on a limited portion of the boundary of the Area Plan Subunit, and since these portions of the ~~project area~~WLC site are already subject to existing edge effects, impacts from development under the ~~WLCSP~~WLC site does not conflict with the long-term conservation goals for bobcat or mountain lion habitat. It should be noted that the ~~project~~WLC site is across a major roadway (Gilman Springs Road) from the Badlands and the sensitive habitat contained in this Area Plan Subunit.

e. Cell Group E and Criteria Cell 1390

Conservation within Cell Group E will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, grassland, and Riversidean alluvial fan sage scrub habitat. Areas conserved within this Cell Group will be connected to habitat proposed for conservation in Cell Group X to the north, habitat proposed for conservation in Cell Group C also to the north, and to habitat proposed for conservation in Cell Group F to the south. Conservation within Cell Group E will range from 45 percent to 55 percent of the Cell Group focusing in the western portion (see Figure 4.4.4).

~~Within the westernmost portion of Cell Group E, and specifically within Criteria Cell 1390, the project area encroaches on 51.9 acres. This portion of the project area is already in public ownership, is within the northeastern portion of the SJWA which is Public/Quasi-Public Conserved Land and is designated to be conserved by the CDFW. The project proposes no development on this land, so it would be consistent with the MSHCP (see Figure 4.4.3). It should be noted that this area is already part of the SJWA and is not proposed for any development under the proposed project.~~

f. Cell Group X: Criteria Cells 1204 and 1297

Conservation within Cell Group X will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, and grassland habitat. Areas conserved within Cell Group X will be connected to habitat proposed for conservation in Cell Groups C to the east, V to the northeast, and to chaparral and grassland habitat proposed for conservation in Cell Group E to the south. Conservation within Cell Group X will range from 65 percent to 75 percent of the Cell Group focusing in the northeastern portion of the Cell Group (see Figure 4.4.4).

Within the southwestern portion of Cell Group X, and specifically within Criteria Cells 1204 and 1297, the ~~project area~~WLC site encroaches on 114.2 acres. Under the MSHCP, conservation for Cell Group X is proposed for the northeastern portions of the Cell Group. The ~~project area~~WLC site is not within the targeted conservation areas and, therefore, will not adversely affect the County's ability to achieve the goals of the MSHCP (see Figure 4.4.4). In addition, no development is proposed within Criteria Cells 1204 and 1297.

g. Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake

Area Plan Subunit 4 of the Reche Canyon/Badlands Area Plan includes lands within the southeastern portions of the Area Plan within the SJWA. Area Plan Subunit 4 contains 26 Criteria Cells organized into 3 Cell Groups and 12 independent cells. The MSHCP conservation objectives for Area Plan Subunit 4 include conserving land within the SJWA and Mystic Lake (see Figure 4.4.4). The target acreage range required for Additional Reserve Lands within Area Plan Subunit 4 is 860 to 1,750 acres.

Plant and Wildlife Planning Species within Area Plan Subunit 4 include:

- California Orcutt grass
- Coulter's goldfields

- Los Angeles pocket mouse
- Smooth tarplant~~ (*Hemizonia pungens*)~~
- Thread-leaved brodiaea
- Wright’s trichocoronis
- Stephens’ kangaroo rat
- Loggerhead shrike
- Northern harrier (*Circus cyaneus*)
- Peregrine falcon~~ (*Falco peregrinus*)~~
- Tricolored blackbird~~ (*Agelaius tricolor*)~~
- White-tailed kite~~ (*Elanus leucurus*)~~
- Black-crowned night heron (*Nycticorax nycticorax*)
- California horned-lark~~ (*Eremophila alpestris actia*)~~
- San Jacinto Valley crownscale
- Spreading navarretia
- Vernal barley (*Hordeum intercedens*)
- American bittern (*Botaurus lentiginosus*)
- Burrowing owl
- Bobcat
- Mountain plover (*Charadrius montanus*)
- Osprey (*Pandion haliaetus*)
- Prairie falcon~~ (*Falco mexicanus*)~~
- White-faced ibis~~ (*Plegadis chihi*)~~
- Davidson’s saltscale~~ (*Atriplex serenana var. davidsonii*)~~
- Double-crested cormorant (*Phalacrocorax auritus*)

The biological issues and considerations emphasized in Area Plan Subunit 4 include:

- Conservation of alkali playa and other habitat to augment existing conservation in the SJWA and Mystic Lake.
- Conservation of existing vernal pool complexes associated with the San Jacinto River floodplain in the SJWA and Mystic Lake area. Conservation should focus on vernal pool surface area and supporting watersheds.
- Provide for a connection of intact habitat between the SJWA and the adjacent Badlands to the north.
- Conservation of Willow-Domino-Travers soils supporting sensitive plants such as San Jacinto Valley crownscale, Davidson saltscale, Coulter’s goldfields, spreading navarretia, vernal barley and Wright’s trichocoronis.
- Provide for and maintain a continuous linkage along the San Jacinto River from the southern to the southeastern boundary of the Reche Canyon/Badlands Area Plan.
- Maintain Linkage Area for bobcat.
- Maintain a Linkage Area for Stephens’ kangaroo rat to SJWA.
- Determine the potential presence of potential Core Area for Los Angeles pocket mouse in connection between the Badlands and the SJWA.

The ~~southern portion~~SJWA south of the ~~project area (i.e., the CDFW-owned Conservation Buffer Area)~~WLC site includes grasslands and agricultural lands~~ that will be conserved as part of the northern portion of the SJWA.~~. The ~~project area~~WLC site is not within or along the San Jacinto River floodplain, and does not contain any alkali playa habitat or vernal pool complexes under the definition provided by the MSHCP.

There is no Willow-Domino-Travers soil within the ~~project area~~WLC site; therefore, San Jacinto Valley crownscale, Davidson saltscale, Coulter's goldfields, spreading navarretia, vernal barley and/or Wright's trichocoronis are not likely to occur in the ~~project area~~WLC site.

The ~~project area~~WLC site is located immediately north of the Stephens' kangaroo rat preserve within the SJWA. ~~The CDFW-owned~~Only a small portion of the ~~project area adjacent to~~northern portion of the SJWA ~~is~~(about 135 acres along the northern boundary) has been subject to regular disking and other disturbances associated with agricultural uses, while the remainder has converted to non-native grassland. The regular disturbances have resulted in an absence of suitable habitat for Stephens' kangaroo rat within the ~~project area.~~northern portion of the SJWA. The presence of a habitat linkage for this species within the ~~project area~~WLC site is unlikely and population fragmentation is not anticipated.

Small portions of the ~~project area~~WLC site contain suitable habitat for Los Angeles pocket mouse and burrowing owl; however, ~~MBA's~~ focused surveys by MBA and ESA concluded that the ~~project area~~WLC site does not support the Los Angeles pocket mouse. The population of burrowing owl on site fluctuates from year to year, but they have been observed on site in the past and ~~this EIR concludes this species may be present, especially in areas with suitable habitat or where agricultural fields become fallow for~~in the recent 2018 survey, and extended periods of time.

h. Cell Group D: Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577

Conservation within Cell Group D will contribute to assembly of areas proposed for conservation for Existing Core H (see Figures 4.4.4 and 4.4.3). Conservation within Cell Group D will focus on agricultural land. Conservation within this Cell Group will be approximately five percent of Cell Group D focused on the southern and western portion of the Cell Group. This cell group is already part of the SJWA and is being maintained ~~as~~for possible agricultural ~~land by the CDFW (i.e., it constitutes the CDFW-owned Conservation Buffer Area).~~use.

~~Within Cell Group E, and specifically within Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577, the project area encroaches on 928.5 acres. Under the MSHCP, conservation for Cell Group D is proposed for the southern and western portions of the Cell Group. The project area includes approximately 60 percent of the northern portion of the Cell Group; therefore, future development of the project area is consistent with the conservation goals for this cell group. The majority of Cell Group D is within the northern extent of SJWA, a Public/Quasi-Public Conserved Land. This area is part of the SJWA and designated as conserved by the CDFW. It is designated as the Conservation Area and is not proposed for development under the project. Any development within land adjacent to Cell Group D (and the SJWA) must incorporate urban edge design features to minimize any potential impacts to the SJWA.~~

Cell Group D, which includes Criteria Cells 1364, 1370, 1377, 1386, 1477, 1482, 1483 and 1577, is proposed for conservation under the MSHCP. All of the Criteria Cells are within the SJWA except for approximately 5 acres of the WLC site within Criteria Cell 1364 on which no development will be allowed.

4.4.1.~~16~~13 Federal Migratory Bird Act and California Department of Fish and Wildlife Protection

a. Nesting Birds

The extensive agriculture plant communities in the ~~project area~~WLC site provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the ~~project area~~WLC site as well as isolated, remnant patches of vegetation in undisturbed portions of the ~~project area~~WLC site. Therefore, portions of the ~~project area~~WLC site provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

b. Stephens' Kangaroo Rat

The ~~project area~~WLC site is located just north of the Core Reserve Area for the Stephen's Kangaroo Rat Habitat Conservation Plan (HCP), but is not located within a core area. However, the ~~project~~entire study area is located within the fee area of the HCP. The project would have to comply with the HCP's Implementing Agreement (IA) and pay the County's per-acre mitigation fee.

~~The CDFW-owned portion of the project area is located immediately north of Core Reserve Area for Stephens' kangaroo rat and is not proposed for development as it is owned by the State and is already part of the SJWA. Therefore, incorporating this area into the Core Reserve Area for Stephen's kangaroo rat will provide a setback from the areas proposed for development within the project.~~

c. USFWS Designated Critical Habitat

No USFWS designated Critical Habitat for any species is present within the ~~project area~~WLC site.

d. Other Special Status Species

Based on the CDFW and CNPS database searches mentioned above, 26 special status species that are not listed as Threatened or Endangered have the potential to occur in the project vicinity (previously referenced Tables 4.4~~.B~~-2 and 4.4~~.C~~-3). Species that are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time are also included in those tables.

4.4.1.~~17~~14 Special-Status Species Not Covered by the MSHCP

The vast majority of special-status species considered in this analysis are "covered" species under the MSHCP. However, 18 special-status species have the potential to occur in the general project vicinity and are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time. Details regarding the potential occurrence of these non-covered species are included in the General Biological Resources and MSHCP Compliance Report prepared by MBA and included as Appendix E-1. Due to unsuitable habitat and conditions within the project limits, none of these 18 non-covered species is expected to occur in the ~~project area~~WLC site (see previously referenced Tables 4.4~~.B~~-2 and 4.4~~.C~~-3). Neither additional surveys nor additional conservation measures will be required for the project to address these species.

~~*Note: Table 4.4.D has been deleted in its entirety. Please refer to Volume IV of the Final EIR to see original Table 4.4.D in section 4.4.1.17.*~~

a. Special-Status Wildlife

~~*Note: The following changes have been made in response to the revised Habitat Assessment MSHCP Consistency Analysis and in response to Comment F-7A-34 in Letter F-7A from Lozeau Drury LLP.*~~

The revised MBA report (2013) states that no special-status wildlife species were observed during field surveys. However, raptors are numerous in the agricultural fields on the ~~project~~WLC site and off site in the SJWA. None of the other special-status wildlife species was determined to be present within the WLC planning area because their habitat requirements are not present on the site; therefore, no further survey or study is required to determine likely presence, absence, or to assess project-related effects to these species.

While none of the bat species identified in the MSHCP Compliance Report (Appendix E-1) is expected to roost in the ~~project area~~WLC site, the site does contain suitable foraging habitat for bat species that may roost in the surrounding region. The incremental loss of bat foraging habitat on the site would be compensated by participation in the MSHCP because the MSHCP mitigation fees are meant to purchase conservation lands to support species throughout western Riverside County.

b. Raptors and Other Avian Species

California Fish and Game Code, Sections 3503, 3503.5, 3505, and 3513, and the California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey). Furthermore, the MBTA protects the nests of migratory birds and raptors. There are a limited number of tall trees within the project site that would provide roosting or nesting habitat for raptors, such as hawks and owls, among other resident and migratory bird species. Two raptor species, red-shouldered hawk and American kestrel, have been observed in the area on a regular basis, suggesting at least these raptors may be roosting on site or nearby. The extensive open land within the ~~project area~~WLC site provides foraging habitat for raptors and other avian species.

~~*NOTE: The following changes have been made in response to the revised Habitat Assessment MSHCP Consistency Analysis and in response to Comment F-7A-34 in Letter F-7A from Lozeau Drury LLP.*~~

Thirteen species have a low-to-moderate potential to occur on the site based on existing habitat quality. Burrowing owl is assumed to be present on site, especially in areas of suitable habitat and in agricultural fields that are left fallow for extended periods of time. Burrowing owl was observed on-site in 2018.

As previously indicated, the project site is within the MSHCP burrowing owl survey area, and habitat assessments and focused surveys were conducted. During the focused survey in 2005, one location within the ~~project~~WLC site contained burrowing owl sign (i.e., whitewash and bone fragments) and a pair was observed in this same area. Field surveys also identified suitable burrows in the ~~project area~~WLC site that may provide habitat for the western burrowing owl. Therefore, the species is considered to be present due to the presence of suitable habitat on site.

To confirm presence or absence of the burrowing owl in specific development areas of the ~~project area~~WLC site, an MSHCP 30-day pre-construction protocol survey for burrowing owl will need to be conducted prior to any ground-disturbing activities. Figure 4.4.5 shows the location of burrowing owl habitat on the ~~project~~WLC site.

Of the species with potential to occur on the site, none is listed as threatened or endangered under State or Federal law, all are relatively widespread, and the ~~project area~~WLC site does not contain high quality habitat for any of these species.

4.4.1.~~18~~15 Other Issues

a. Setbacks

The MSHCP's urban/wildlands interface analysis encourages ~~buffers or~~ setbacks between proposed development areas and areas with sensitive biological resources. The WLC project has been designed to incorporate setbacks from sensitive biological resources pursuant to MSHCP requirements. The SJWA is considered an important resource due to the large number and diversity of birds that utilize it. Available research and MSHCP guidelines recommend a setback ~~or buffer~~ between the north boundary of the SJWA and the south boundary of development within the ~~proposed~~WLC project. Existing scientific and academic literature can provide guidance on the appropriate width of such a ~~buffer~~setback under these types of conditions. Typical setbacks to protect wildlife from human presence (though not warehousing) ranges from 50 to 500 feet, but 200–250 feet appears adequate for the most sensitive ~~or~~

~~valuable wetlands.[1] As an example, Placer County has setback guidelines in its General Plan of a setback range of 100–400 feet between field crops and natural areas, and a setback range of 50–200 feet between rangeland/pastures and natural areas[2].~~species.[3] In addition, the MSHCP and adopted guidelines of the USFWS and CDFW include a setback of 200 feet or more from nesting birds during construction activities. For example, typical burrowing owl mitigation says, “To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season.”

~~In evaluating the potential impacts of project development on the SJWA and Mystic Lake, it will be important to consider that the CDFW Conservation Buffer Area was originally purchased by the State to provide a buffer between SJWA/Mystic Lake and future development within the Moreno Highlands Specific Plan (now the proposed project area).~~

Note: The following information has been excerpted from the Jurisdictional Delineation Report prepared by MBA which was updated in 2014 to respond to comments from the resource agencies. ESA prepared an update in 2016. The reports are available for review at the City of Moreno Valley

4.4.1.~~19~~16 On-site Drainages

A formal jurisdictional delineation (JD) was conducted within the ~~WLCSP~~WLC site and offsite facilities by MBA in September 2007 and again in March 2012. ESA conducted an updated JD in 2016 that corroborated the MBA JD. A total of 15 primary drainage features were identified during these combined surveys. A number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB~~,~~), respectively; the Porter Cologne Act as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by CDFW.

~~[1] *Setting Buffer Sizes for Wetlands.* J. McElfish 2008.~~

~~[2] Placer County General Plan, Land Use Element, Table I-4, 1994.~~

[3] *Setting Buffer Sizes for Wetlands.* J. McElfish 2008.

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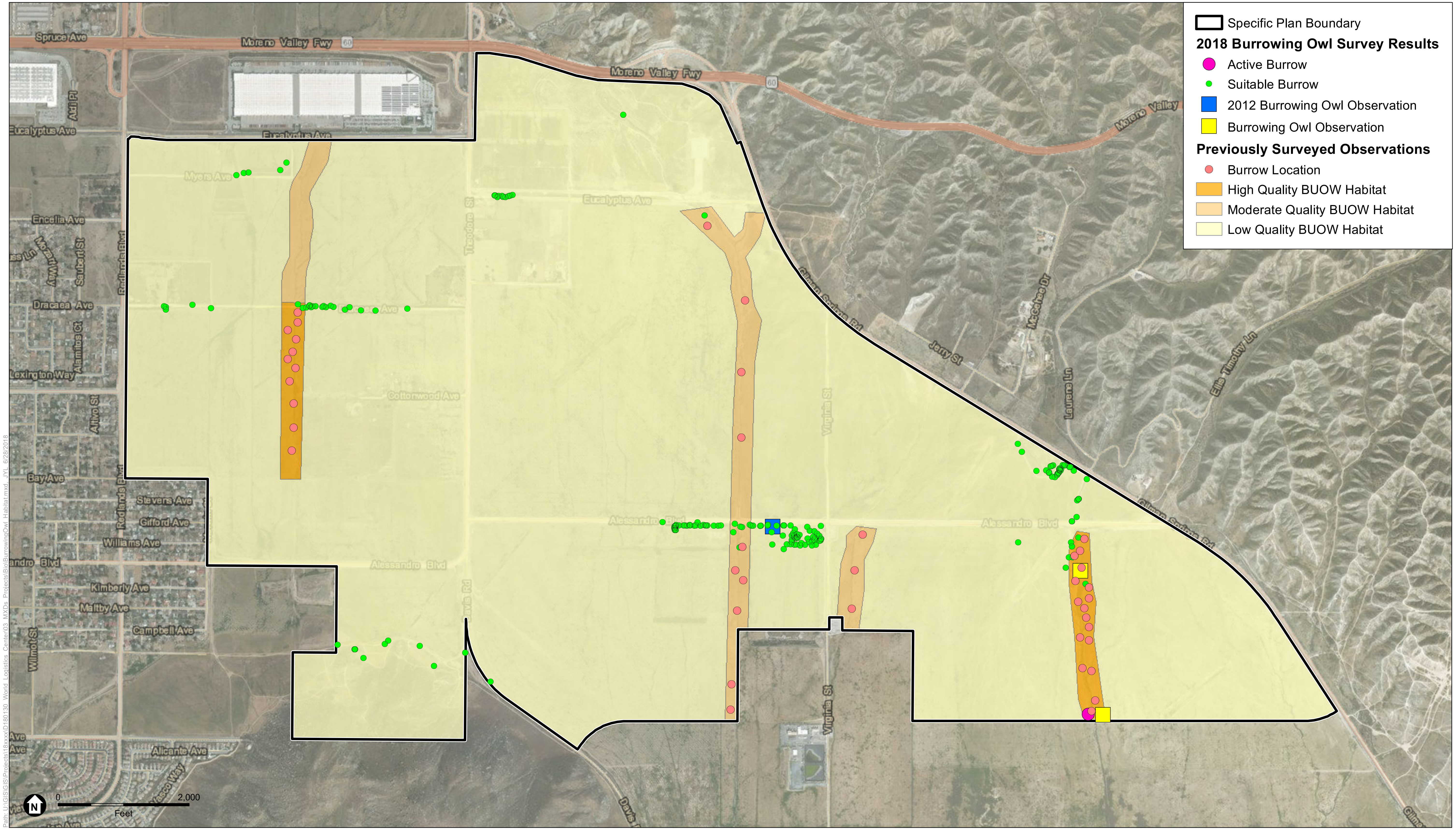

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SOURCE: ESRI 2016; Michael Brandman Associates 2010; ESA 2018

World Logistics Center

Figure 4.4-5
Burrowing Owl Habitat Suitability

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Based on comments received from the resource agencies, the 2013 JD report concludes that two drainage features (Drainage 12 and 15) have been determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the Clean Water Act (CWA~~.~~). Drainage 15 is included in this discussion because it may occur within two offsite utility improvements. Approximately 500 linear feet of the drainage feature was included in the survey area. Approximately 5,430 linear feet of Drainage 12 is included in the survey area (0.5 acres). This includes approximately 1,300 linear feet within the ~~WLCSP~~WLC site, and the remaining 4,130 linear feet will be part of the offsite improvements. The remaining 13 drainage features are considered isolated features with no direct connectivity to downstream traditional navigable waters or have no significant nexus. Drainage features 1, 5, and 6 are roadside ditches that are also isolated features. Drainage features 3, 4, 10, 11, and 13 are upland swales with evidence of periodic erosion but no evidence of annual flows and no clearly defined bed and bank feature. No jurisdictional wetlands were identified within the entire ~~WLCSP~~WLC site. However, the regulatory agencies make all final jurisdictional determinations.

Drainage features 3, 4, 10, 11, and 13 do not have a clearly defined bed and bank feature and do not have any riparian habitat or evidence of flows. These features are better described as upland swales with occasional eroded areas. Under the Porter Cologne Act, the RWQCB takes jurisdiction of drainage features that would normally be under USACE jurisdiction, but are considered isolated. Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. The jurisdictional limits of waters of the state are not required to have downstream connectivity. There are approximately 3.0 acres of waters of the state, which includes areas with a clearly defined bed and bank feature within the ~~WLCSP~~WLC site and offsite facilities. However, the CDFW makes all final Section 1600 jurisdictional determinations.

Drainage 1: This feature is a roadside ditch that conveys nuisance flows on the east side of Redlands Boulevard. Currently the ditch is contained within a concreted-lined swale and has intermittent areas with an earthen bed and bank. This ditch has no vegetation and leaves the site in an underground storm drain facility. This roadside ditch typically conveys flows during any storm event because most of the drainage is currently paved. This feature does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature~~ (see Photos 9 and 10).~~.

Drainage 2: This feature is an upland swale that conveys nuisance flows within an actively disked agricultural field and only receives flows every 5 to 7 years. This swale contains periodic sign of erosion, but is mostly an unvegetated swale with minimal evidence of flows. This drainage begins to sheet flow just north of Bay Avenue and has no hydrologic connection to any downstream drainage feature. This feature does not contribute to the function or value of any downstream drainage and is not considered a riparian/riverine feature~~ (see Photos 11 and 12).~~.

Drainage 3: This feature is a temporary detention basin used to treat nuisance flow from the adjacent Skechers logistic facility. The flows within this feature are completely contained within the facility and there is no downstream connection to any other drainage features. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature ~~(see Photo 13).~~.

Drainage 4: The drainage feature previously originated from an underground storm drain beneath SR-60. The previous flows from this feature have been redirected into the detention basin associated with Drainage 3. Drainage 4 currently conveys flows from local runoff within the ~~WLCSP~~WLC site footprint and only receives flows every 5 to 7 years. This feature has evidence of a historic channel near the intersection of Dracaea Avenue and Sinclair Street. However, this feature sheet flows just south of Cottonwood Avenue and has no hydrologic connection to any downstream drainage features. This drainage does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature~~ (see Photos 14 and 15).~~.

Drainage 5: This drainage is a roadside ditch located along the western side of ~~Theodore Street.~~World Logistics Center Parkway. This drainage originates at the eastbound ~~Theodore Street~~World Logistics

Center Parkway off-ramp from SR- 60. This feature conveys nuisance flows from Theodore Street and immediate vicinity during large storm events and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates just north of Alessandro Boulevard. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature ~~(see Photos 16 and 17).~~.

Drainage 6: This feature is also a roadside ditch located along the eastern side of ~~Theodore Street~~World Logistics Center Parkway. This drainage originates from an underground storm drainage beneath SR- 60. It conveys nuisance flow from ~~Theodore Street~~World Logistics Center Parkway and immediate vicinity and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates southeast of Alessandro Boulevard within an active agricultural field. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature~~ (see Photos 18 and 19).~~.

Drainage 10: This drainage is an isolated feature that contains some evidence of erosion and is caused by a change in slope within highly erosive soils. This feature terminates as the topography levels resulting in sheet flows. This feature contains a few scattered tree tobacco, but otherwise has no change in soils or vegetation. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature~~ (see Photo 20).~~.

Drainage 11: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with Gilman Springs Road. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature~~ (see Photo 21).~~.

Drainage 13: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with the steep hillsides to the south. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature~~ (see Photo 22).~~.

Drainages 1, 2, 3, 4, 5, 6, 10, 11, and 13 do not provide any function or value as drainage features and do not meet the minimum criteria to be designated as Riparian/Riverine areas. All of the above-mentioned drainage features, with the exception of Drainage 13, flow in a north-to-south direction and in a straight-line channel. Drainage 13 flows in a south-to-north orientation. All of these channels terminate as sheet-flow within the ~~WLCSP~~WLC site or immediately offsite and do not reappear further downstream. These features have a parallel flow pattern and are artificially created to minimize flooding impacts to the surrounding agricultural lands within the ~~WLCSP~~WLC site. None of these features has any downstream hydrologic connectivity to any downstream drainage features.

Project components affecting streambed and bank subject to CDFW jurisdiction, including riparian habitat, would require a Streambed Alteration Agreement (SAA) from CDFW.

When impacts are identified during project-specific applications, the proponent will apply for appropriate permits. Mitigation ratios will be determined following standard guidelines and mitigation will include a mixture of onsite habitat creation, offsite habitat creation, or the purchase of offsite mitigation credits at an established mitigation bank. Compensatory mitigation will be no less than a 1:1 replacement ratio to guarantee a no net loss of riparian habitat, but this mitigation ratio is negotiated during the permit ~~the~~ acquisition process on a project-by-project basis.

The ~~WLCSP~~WLC site also incorporates a number of potential offsite improvements. All offsite improvements east of Redlands Boulevard may potentially impact drainage features likely considered jurisdictional by USACE, RWQCB, and CDFW. Once these offsite improvements have been finalized, a project specific jurisdictional delineation will be required in order to document the existing conditions, potential impacts, and recommended mitigation measures.

The previous jurisdictional delineation report[1] conducted in 2012 concluded that the ~~project area~~WLC site contained 14 drainage features including four roadside ditches, seven isolated drainage features, and three isolated features. All 14 drainage features lack direct connectivity to any downstream Traditional Navigable Waters (TNWs) or any other Relatively Permanent Waters (RPW). The four roadside ditches lack riparian vegetation and only convey nuisance flows from localized runoff from the adjacent road. These flows eventually revert to sheet flow within the survey area and have no direct connectivity.

According to the ~~previous~~ 2012 report, the three isolated features include an abandoned water quality detention basin and two abandoned basins associated with previous cattle activities. The water quality basin is a temporary facility that was constructed to treat drainage flows resulting from the construction of the Skechers facility. The two isolated basins were previously used to collect polluted runoff from the associated cattle facility. The facility included concrete-lined areas to contain cattle in a dairy operation. Animal waste would be collected in the basins to protect downstream water quality. The livestock facilities have been removed and the basins are no longer functioning.

The 2012 report determined that the on-site features did not meet the minimum requirements to be considered jurisdictional by regulatory agencies due to the following:

- Lack of connectivity to any downstream waters of the US or waters of the State.
- Absence of a consistent bed and bank and/or ordinary high water mark (OHWM).
- Low biological resource value.
- The roadside ditches and agricultural drainages drain only upland areas and do not carry relatively permanent water flows.
- No jurisdictional wetlands occur within the ~~project area~~WLC site.

Important Note. Although the ~~previous~~ JD report from 2012 concluded the onsite drainages were not jurisdictional, the 2013 JD report has amended that conclusion based on comments by the state and Federal resource agencies. The 2013 JD report concludes there are two (2) drainage channels on the WLC site (Drainages 12 and 15) that are considered jurisdictional by both Federal and state agencies, while drainages 7, 8, and 9 are considered jurisdictional by the CDFW and the RWQCB. The location and extent of these on-site drainages in relation to the project site are illustrated in previously referenced Figure 4.4.2.

~~4.4.1.20 NOP/Scoping Comments~~

~~Local residents and representatives of several conservation groups related the biological resources of the San Jacinto Wildlife Preserve expressed concern about impacts of the project on the Preserve, including diesel particulates and other air pollutants, noise, night lighting, etc. At least one conservation group representative felt that project impacts should be identified~~

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[1] *Jurisdictional Delineation Report*, Michael Brandman Associates, April 23, 2012.

~~for every species present in the area (see Section 2.6.1, *Notice of Preparation*). Copies of NOP comment correspondence is included in Appendix A.~~

~~The discussion of potential environmental impacts of the project on biological resources and the MSHCP that was requested by conservation groups has been addressed in previous sections, including indirect effects of diesel air pollutant emissions, lighting, noise, etc.~~

4.4.2 Existing Policies and Regulations

4.4.2.1 Federal Regulations

Federal Endangered Species Act (FESA). The FESA was enacted to protect any species of plant or animal that is endangered or threatened with extinction. Section 9 of the FESA prohibits “take” of federally threatened or endangered wildlife. Take, as defined under the FESA, means to harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct (16 USC 1532[19]). Section 9 also prohibits the removal and reduction of endangered plants from lands under Federal jurisdiction, and the removal, cutting, digging, damage, or destruction of endangered plants on any other area in “knowing violation of State law or regulation.”

Section 9 of the FESA (16 USC 1538) prohibits take of a federally listed endangered species of fish or wildlife except pursuant to a permit and HCP approved under Section 10(a) of the FESA (16 USC 1539). The FESA prohibitions and requirements are different, however, for endangered species of plants. Section 9 prohibits the take of endangered plants only from areas under Federal jurisdiction, or if such take would violate state law.

Development ~~proposed by~~of the WLC ~~project~~ site is located on private land. For listed plants located on private land, formal consultation with the USFWS is required when a project has a Federal “nexus” (i.e., a Federal permit is required or Federal funding is involved). In the absence of a Federal nexus, a project does not require a permit under the FESA for impacts to listed plants on private lands.

Clean Water Act. The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the Federal Clean Water Act (CWA) is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high water mark (OHWM). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met.

In 2006, the United States Supreme Court in ~~the consolidated cases~~ *Rapanos v. United States* ~~and *Caravell v. United States*, Nos. 04-1034 and 04-1384 (*Rapanos*: June 19,~~ 574 U.S. 715 (2006) addressed CWA jurisdiction over wetlands adjacent or abutting navigable, non-navigable and ephemeral tributaries and jurisdiction over permanent and relatively permanent non-navigable tributaries. According to the United Sates Supreme Court, the CWA does not assert jurisdiction over upland erosional features, gullies, and roadside ditches that have infrequent, low volume, and short duration of water flow. The USACE uses a significant nexus analysis. A water body is considered to have a “significant nexus” with a traditional navigable water (TNW)[1] if its flow characteristics and

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[1] A “traditional navigable water” includes all of the “navigable waters of the United States,” defined in 33 C.F.R. § 329 and by numerous decisions of the Federal courts, plus all other waters that are navigable-in-fact.

functions in combination with the ecologic and hydrologic functions performed by all wetlands adjacent to such a tributary, affect the chemical, physical, and biological integrity of a downstream traditional navigable water. Additional information is provided in the Environmental Protection Agency (EPA) memorandum titled "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *~~Caravell~~Carabell v. United States*," dated June 5, 2007 (USACE 2007), and also the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (USACE and EPA 2007).

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA, through water quality certification of any activity that may result in a discharge to jurisdictional waters of the U.S. The RWQCB may also regulate discharges to "waters of the State," including wetlands, under the California Porter-Cologne Water Quality Control Act.

4.4.2.2 State Regulations

California Endangered Species Act (CESA). The CESA is similar to the FESA in that its intent is to protect species of fish, wildlife, and plants that are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of overexploitation, disease, predation, or other factors.

"Take" as defined under CESA means hunt, pursue, capture, or kill, or attempt to hunt, pursue, capture, or kill. Under certain conditions, CESA has provisions for take through a 2081 Permit or a Section 2081 Memorandum of Understanding. The impacts of the authorized take must be minimized and fully mitigated. No permit may be issued if the issuance of the permit would jeopardize the continued existence of the species.

California Environmental Quality Act. Section 15380(b) of the *CEQA Guidelines* provides that a species not listed on the Federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet specified criteria. These criteria have been modeled after the definitions in FESA and CESA and § 2780–2781 of Article 1 of the California Fish and Game Code dealing with the California Wildlife Protection Act of 1990. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

California Fish and Game Code Section 3503 and the Migratory Bird Treaty Act. Section 3503 of the California Fish and Game Code prohibits the destruction of bird nests except as otherwise provided for in the Fish and Game Code. The MBTA similarly protects the nests of migratory birds. These regulations apply to the individual nests of these species, but do not regulate impacts to the species' habitats.

Raptor Protection. The California Fish and Game Code (Fish and Game Code, Sections 3503, 3503.5, 3505 and 3513), and California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey).

Streambed Alteration Agreements. Sections 1600 et seq. of the California Fish and Game Code define the responsibilities of the CDFW and require public and private applicants to obtain an agreement for projects that would "divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by the CDFW in which there is at any time an existing fish or wildlife resource or from which those resources derive benefit, or would use material from the streambed designated by the department." CDFW wardens and/or unit biologists typically have the responsibility for formulating and issuing Streambed Alteration Agreements. The CDFW, through provisions of the Code (Sections 1601–1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The

CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW.

Native Plant Protection Act (NPPA). Sections 1900–1913 of the California Fish and Game Code (Native Plant Protection Act) direct the CDFW to carry out the Legislature's intent to "… preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

4.4.2.3 Regional Regulations

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The continued loss of habitat to new development and the cumbersome process of environmental review and habitat mitigation on a project-by-project basis led to preparation of the MSHCP. The MSHCP is a multi-jurisdictional effort that provides a regional conservation solution to species and habitat issues. The underlying goal of the MSHCP is to protect multiple species by preserving a variety of habitat and providing linkages between different habitat areas and other undeveloped lands. The MSHCP allows Riverside County and its cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of CESA and FESA. The overall goal of the MSHCP is to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth.

The MSHCP was adopted on June 17, 2003. The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the long-term conservation of species and their habitats in western Riverside County. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of FESA as well as the Natural Communities Conservation Plan (NCCP) under the State of California. ~~The USWFS issued a Biological Opinion for the MSHCP on June 22, 2004.~~ The CDFW also issued the NCCP Approval and Take Authorization for the MSHCP. As long as adherence to the policies and requirements of the MSHCP is maintained, participants in the MSHCP, which include the County of Riverside and fourteen cities (including the City of Moreno Valley), are allowed to authorize "incidental take" of plant and wildlife species of concern.

The MSHCP will eventually result in an MSHCP Conservation Area in excess of 500,000 acres and focuses on conservation of 146 species including amphibians, reptiles, birds, mammals, invertebrates, and plants. The MSHCP Conservation Area includes approximately 347,000 acres on existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles); it includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. It provides a coordinated MSHCP Conservation Area and implementation program to preserve biological diversity and maintain the region's quality of life.

The MSHCP serves as a HCP pursuant to Section 10(a)(1)(B) of FESA, as well as an NCCP under the NCCP Act of 2001. The MSHCP allows the City of Moreno Valley as well as other signatories of the Plan to authorize "Take" of plant and wildlife species identified within the Plan Area. The USFWS and CDFW have authority to regulate the Take of Threatened, Endangered, and rare Species. Under the MSHCP, the USFWS and CDFW can grant "Take Authorization" for otherwise lawful actions—such as public and private development that may incidentally Take or harm individual species or their habitat outside of the MSHCP Conservation Area—in exchange for the assembly and management of a coordinated MSHCP Conservation Area.

Of the 1.26 million acres covered by the MSHCP, 500,000 acres have been designated for preservation: 347,000 acres are already conserved as public or quasi-public land and another 45,270 acres have been acquired as habitat by the Regional Conservation Authority (RCA). According to the most recent

RCA-MSHCP Annual Report, the City of Moreno Valley has a high-end goal of conserving 130 acres within its sphere of influence of the MSHCP; the City has already conserved 943 acres (RCA Annual Report 2010, Table 3). Altogether, Riverside County has reached 77 percent of the goal in the MSHCP.

Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP). The USFWS issued a permit to the Riverside County Habitat Conservation Agency on May 3, 1996, for incidental take of Stephens' kangaroo rat (*Dipodomys stephensi*). The 30-year plan is designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions (including the City of Moreno Valley), and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied Stephens' kangaroo rat habitat in 7 Core Reserves encompassing over 41,000 acres. Currently 12,460 acres of occupied habitat exists within the Core Reserves.

4.4.2.4 City of Moreno Valley General Plan Policies

The specific policies outlined in the City's General Plan Conservation Element related to biological resources include:

Conservation Element

Policy 7.4.1 Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate ~~buffers~~setbacks to mitigate impacts to such areas.

Policy 7.4.3 Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.

Policy 7.4.5 The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.

4.4.3 Methodologies

The ~~project area~~WLC site was assessed to determine consistency with the MSHCP focusing on conservation of species and their associated habitats in western Riverside County. The Riverside County Integrated Project (RCIP) Conservation Summary Report was first reviewed to determine habitat assessment and potential survey requirements for the study area. Geographic Information Systems (GIS) software was used to map the site in relation to MSHCP areas including Criteria Cells; conservation areas and linkages; Criteria Area Species Survey Areas for plant, bird, mammal, and amphibian species; Narrow Endemic Plants Survey Area; and survey requirements for inadequately covered species.

4.4.3.1 Literature Search

Prior to each field visit, a literature review to determine environmental conditions occurring on the study area and the surrounding area was conducted. The primary objective of the review is to evaluate the potential for suitable habitat for sensitive plant and wildlife species, as well as to determine the applicability of other MSHCP and CEQA requirements as they pertain to the ~~proposed~~ project. A compilation of sensitive plant and wildlife species recorded in the vicinity of the study area was derived from the CDFW's California Natural Diversity Data Base (CDFW 2012), a sensitive species and plant community account database. Additional recorded occurrences of plant species found on or near the planning area were derived from the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California database. The CNDDB and CNPS search was based on the *Lakeview, Sunnymead*, and *El Casco, California* USGS 7.5-minute topographic quadrangles, encompassing 126 square miles. Additional recorded occurrences of these species found on or near the study area were derived from biota studies conducted for the MSHCP as well as studies conducted by MBA biologists for other projects over the years.

The MSHCP and CEQA also require an assessment to determine the potentially significant effects of the project on riparian/riverine areas and vernal pools. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in the MSHCP's Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. This assessment is independent from considerations given to waters of the U.S. and waters of the State under the Clean Water Act (CWA) and California Fish and Game Code. This assessment has been completed for all of the study area but not in the zone of potentially indirect effects.

As part of the MSHCP requirements, an Urban/Wildlands Interface Analysis is required to address the indirect effects associated with locating proposed development in proximity to MSHCP conservation areas. The development may result in edge effects, which could potentially affect biological resources within the MSHCP Conservation Area. According to the MSHCP, the analysis should include an assessment of the potential indirect project impacts that may result from drainage features, toxics, noise, invasive species, barriers, access, and grading/development, as listed and described in the MSHCP's Section 6.1.4, *Guidelines Pertaining to Urban/Wildlands Interface*. For this study, the Urban/ Wildlands Interface Analysis was extended eastward to include indirect effects adjacent to Gilman Springs Road.

4.4.3.2 Habitat Assessment Survey

MBA originally assessed the planning area in 2005 and has conducted numerous additional surveys since then. Details of the survey dates and specific survey areas are provided in the 2012 MBA report (DEIR Appendix E). The ~~planning area, including the~~WLC site, off-site facilities and the ~~CDFW Conservation land, was~~adjacent SJWA, were surveyed to determine the plant communities present, the suitability for Narrow Endemic and Criteria Area plant species, the presence of riparian areas, and the presence of suitable habitat for burrowing owl and Los Angeles pocket mouse. Parameters assessed included soil conditions, presence of indicator species, slope, aspect, and hydrology. ESA conducted update surveys in 2018 for Narrow Endemic plant species, burrowing owl, coastal California gnatcatcher, and Los Angeles pocket mouse.

4.4.3.3 Plants

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photographs. The plant communities within the planning area were classified according to the CDFW's List of Terrestrial Natural Communities (2003) and cross-referenced to descriptions provided in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986) and Oberbauer's Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions (1996). Common plant species observed during reconnaissance-level surveys in the planning area were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified off site using taxonomical guides. A list of all species observed on the study area was compiled from the survey data, shown in Appendix A of the MBA 2012 report (DEIR Appendix E).

ESA conducted a rare plant survey in 2018 focusing on three plant species having a moderate to high potential to occur based on the existing habitats within the Plan Area and known occurrences within the Project vicinity. These three species include thread-leaf brodiaea, smooth tarplant, and Coulter's goldfields. No special-status plant species were observed during the 2018 focused survey effort.

4.4.3.4 Wildlife

Wildlife species detected during field surveys in the planning area by sight, calls, tracks, scat, or other sign recorded during surveys in a field notebook by all biologists working on the project. Field guides were used to assist with identification of species during surveys. Although common names of wildlife species are fairly well standardized, scientific names are used in this report and are provided in Appendix A of the 2013 MBA report (DEIR Appendix E).

4.4.3.5 Riparian/Riverine and Vernal Pool Habitat

Aerial photography was reviewed prior to conducting general surveys to identify any potential natural drainage features and water bodies that may qualify as riparian/riverine. In general, the surface drainage features indicated as blue-line streams on USGS topographic quadrangle maps that were observed or expected to exhibit evidence of flow, can potentially support riparian/riverine areas. The ~~planning area~~WLC site was evaluated for any riparian/riverine and vernal pool habitat in 2005, 2007, 2012, 2013, and ~~2013~~2016.

4.4.3.6 Burrowing Owl

The ~~project~~WLC site is within the MSHCP burrowing owl survey area, and habitat assessments for burrowing owl (*Athene cunicularia hypugea*) were conducted 2005, 2006, 2010, 2012, 2013, and ~~2013~~2018 on various portions of the ~~project~~WLC site. Areas of suitable habitat, if present, were mapped onto an aerial photograph. Potential owl burrows, such as abandoned small mammal burrows, as well as manmade structures including earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles, or openings beneath cement or asphalt pavement are generally mapped onto an aerial photograph. The site was determined to have suitable habitat in a number of widespread locations, and owls were observed in various locations during the MSHCP fieldwork, so a focused survey was recently conducted in ~~2013~~2018.

A focused western burrowing owl survey was conducted for the proposed ~~project~~WLC site on seven separate days in 2013 and on four days in 2018. Under the MSHCP, the focused survey protocol was divided into two parts: 1) a Focused Burrow Survey; and 2) a Focused Burrowing Owl Survey. The focused survey was conducted during the breeding season (March 1–August 31) as defined under the MSHCP,[1] and also in accordance with the California Burrowing Owl Consortium's (CBOC) *Burrowing Owl Survey Protocol and Mitigation Guidelines*.[2] ~~Although the~~The species was ~~not~~ observed during the most recent survey~~, it~~ in 2018 conducted by ESA, and the species has been observed at other times in the past, and is assumed to be present due to the presence of suitable habitat and the fact they can occupy fallow agricultural fields relatively quickly. The MSHCP requires that pre-construction surveys be completed in areas of suitable habitat.

4.4.3.7 Los Angeles Pocket Mouse

Focused surveys for the Los Angeles pocket mouse (LAPM) (*Perognathus longimembris brevinasus*) were conducted in August 2005, June 2010, June 2012, ~~and~~ July 2013, and May 2018 (see DEIR Appendix E). The surveys were conducted according to the established USFWS protocols for Pacific pocket mouse (*Perognathus longimembris longimembris*), a similar species. The current protocol requires trapping for 5 consecutive nights: conducted when the animal is active aboveground at night, during a new moon phase, if possible. No LAPM were observed in the ~~project area~~WLC site during the focused surveys, ~~but~~although there is marginal habitat located in Drainages 7 and 9. MBA and ESA concluded that the ~~project area~~WLC site was not occupied by LAPM. However, future surveys may be needed for development in areas of the site that contain suitable habitat for the project to be consistent with the long-term conservation goals of the MSHCP.

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[1] Western Riverside County Multiple Species Habitat Conservation Plan, Volume I, Dudek & Associates, June 17, 2003.

[2] Burrowing Owl Survey Protocol and Mitigation Guidelines, California Burrowing Owl Consortium, 1993.

4.4.3.8 Jurisdictional Determination Report

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the ~~project area~~WLC site and the previously cited USGS topographic maps were examined to determine the locations of potential areas of USACE/CDFW/RWQCB jurisdiction. Potential jurisdictional areas were field-checked for the presence of definable channels[1] and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the *U.S. Army Corps of Engineers 1987 Wetland Delineation Manual*[2] (Wetland Manual) and the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0).[3] The limits of USACE/CDFW/RWQCB jurisdiction were recorded using sub-meter GPS technology while in the field.

4.4.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, biological resource impacts would occur if the ~~proposed~~ project would:

- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.4.5 Less than Significant Impacts

4.4.5.1 Adopted Policies and/or Ordinances

~~Threshold~~	~~Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?~~

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[1] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) ion the Arid West Region of the United States: A Delineation Manual. ERDC/CRREL TR-08-12: Cold Regions Research and Engineering Laboratory, U.S. Army Engineer Research and Development Center, Hanover NH.

[2] Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[3] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Threshold Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Table 4.4~~.E~~-5 summarizes the City's General Plan and Municipal Code policies regarding biological resources and their consistency with the ~~WLCSP~~WLC site.

Table 4.4~~.E~~-5: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		**Project Consistency**
City of Moreno Valley General Plan		
Objective 7.4	Maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance.	No significant riparian or other biologically sensitive habitat is on or adjacent to the ~~study area~~WLC site. The project is consistent with this objective.
Policy 7.4.1	Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.	No significant riparian or other biologically sensitive habitat is on or adjacent to the ~~study area~~WLC site. The project is consistent with this policy.
Policy 7.4.2	Limit the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.	Limited stands of natural plant communities or stands of native vegetation occur in the ~~study area~~WLC site within hillside areas. These areas are proposed as open space under the proposed action. The project is consistent with this policy.
Policy 7.4.3	Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.	The study area contains 14 drainages and/or basins. As specific projects are designed within the ~~WLCSP~~WLC site, consistency with the policy will have to be determined.
Policy 7.4.4	Incorporate significant rock formations into the design of hillside developments.	The ~~study area~~WLC site is generally not a hillside area. Limited natural rock formations occur in a proposed open space area. The project is consistent with this policy,
Policy 7.4.5	The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.	See Consistency with Chapter 3.48 of the City of Moreno Valley Municipal Code below.
City of Moreno Valley Municipal Code		
Title 3 Revenue and Finance		
Chapter 3.48 MSHCP Fee Program (Ordinance 742 Section 1.1, 2007)	Establish a local development mitigation fee to assist in the maintenance of biological diversity and the natural ecosystem processes that support this diversity; the protection of vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species; the maintenance of economic development within the city by providing a streamlined regulatory process from which development can proceed in an orderly process; and the protection of the existing character of the city and	MBA conducted an MSHCP Consistency Analysis for the ~~proposed~~ project in 2012 and found that the ~~study~~WLC site area is within the MSHCP fee area. Impacts are potentially ~~significant and~~consistent; however, mitigation is provided.

Table 4.4~~.E~~-5: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		Project Consistency
	the region through the implementation of a system of reserves which will provide for permanent open space, community edges, and habitat conservation for species covered by the MSHCP.	
Title 8 Buildings and Construction		
Chapter 8.60 Threatened and Endangered Species (Ordinance 502 Section 2.1, 1996)	Adopt and require certain implementation measures as required by the Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP), the Section 10(a) Permit and the Management Authorization; and to adopt and impose an impact and mitigation fee to provide funds to the Riverside County Habitat Conservation Authority to implement the terms of the SKRHCP.	The ~~study area~~WLC site is located within the known range of SKR. The study area is also located within the SKRHCP fee area and not in the SKRHCP Core Reserve Area. Impacts are potentially not consistent; however mitigation is provided.

Sources: City of Moreno Valley General Plan, 2006; City of Moreno Valley Municipal Code.

This analysis indicates the ~~proposed~~ project is consistent with local policies and ordinances protecting biological resources that apply to the ~~project area~~WLC site. Compliance with State and Federal regulations to ensure protection and preservation of significant biological resources, and the implementation of the MSHCP are the applicable policies/programs that the project must implement. As there are no other local policies or ordinances regarding the protection of biological resources identified by the City or other local jurisdiction applicable to the ~~project~~WLC site, no impact would occur and no mitigation is required.

4.4.5.2 Adopted Habitat Conservation Plans

Threshold	Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is subject to the provisions of two HCPs: the SKR HCP and the MSHCP. Impacts related to these HCPs are discussed in this section.

a. Stephens' Kangaroo Rat Habitat Conservation Plan

TheWLC site is within the SKR HCP Fee Area. The SKR is relatively widespread throughout the SKR HCP Fee Area, but the main blocks of occupied habitat are concentrated in several Core Areas that must be conserved. The WLC site is not within an SKR Core Area. The SKR also requires species-specific monitoring and management to ensure its long-term viability in the SKR HCP, including tracking population densities and maintaining sparse, open grassland habitats. The recently released Draft Land Management Plan for the San Jacinto Wildlife Area proposes an SKR resource area in the northeast portion of the SJWA, adjacent to Gilman Springs Road and the WLC site.[1]

The long-term SKR HCP provides Take Authorization for the SKR within its boundaries. The core reserves established by the SKR HCP will be managed as part of the MSHCP Conservation Area consistent with the provisions of the SKR HCP. Focused surveys for Stephens' kangaroo rat will not be required for this project because the project lies within the SKR Fee Area; therefore, no requirements under the SKR HCP other than payment of a local fair share mitigation fee to acquire additional SKR conservation lands are required.

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[1] "Draft Land Management Plan for the San Jacinto Wildlife Area." Department of Fish and Wildlife, 2017.

b. Summary of Western Riverside County Multiple Species Habitat Conservation Plan Impacts

The WLC site is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the WLC site would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H.

The WLC site and the proposed offsite facilities occur immediately adjacent to the vicinity of Core H and proposed Core 3. RCA staff commented that they believed any increase in truck traffic associated with the ed project along Gilman Springs Road could significantly affect wildlife movement between Core H and proposed Core 3 and requested mitigation to offset those impacts. However, the appropriate mitigation for increased traffic on Gilman Springs Road is payment of the project's fair share of the improvements to Gilman Springs Road, including provisions for wildlife movement or crossings. The design and improvement of Gilman Springs Road is a County project that is not under the control of the project applicant or the city. In addition, the WLC project site supports limited habitat suitable to promote wildlife movement because of the lack of vegetative cover.

No development will be allowed within 250 feet of the SJWA. However, development that will be near the SJWA may cause significant indirect impacts to species within the SJWA, which will require mitigation that may include a fair share contribution toward safety improvements along Gilman Springs Road.

The WLC site is adjacent to Cell Group D and Proposed Core 3, it is not near any Linkages identified in the MSHCP. However, it is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). The project is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP.

The WLC project does not propose to alter land use in any way that would adversely affect Cores, Linkages, or Reserve Assembly within the Reche Canyon/Badlands Area Plan.

The WLC project is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA).

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project prior to the issuance of building permits. The MSHCP provides that payment of the fee completely mitigates a project's environmental impacts.

From available information, potential indirect impacts to avian and other biological resources within the SJWA will be reduced to less than significant levels by the creation of a 250-foot on-site setback in **Mitigation Measure 4.4.6.1A**. Project design features and associated setbacks previously described will reduce project impacts to adjacent biological resources to less than significant levels. As required by the October 17, 2014 JPR, the WLC Project must implement the guidelines contained in MSHCP Section 6.1.4 related to controlling adverse effects for development adjacent to the MSHCP Conservation Area, of which there are seven specific conditions. Therefore, the WLC project would have a less than significant impact in regard to the MSHCP.

Participation in the MSHCP and contribution of MSHCP provides compensation for the loss of raptor foraging habitat due to approved projects. A project proponent is required to participate as outlined in the MSHCP, so that loss of raptor foraging habitat is considered to be less than significant and no mitigation is required.

Narrow Endemic Plant Species. No Narrow Endemic plant species are anticipated to occur in the WLC site, but compliance with **Mitigation Measure 4.4.5.2A** will assure there will be no significant impacts to these plant species.

Criteria Area Plant Species. No Criteria Area plant species are anticipated to occur on the WLC site, but compliance with **Mitigation Measure 4.4.5.2A** will assure there will be no significant impacts to these plant species.

Riparian/Riverine Areas and Vernal Pools. Drainage Features 7, 8, 9, 12, and 15 contain riparian/riverine areas, as designated by the MSHCP. The WLC site does not contain habitat suitable for covered riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. No vernal pools or ephemeral ponds were observed on the WLC site and no suitable habitat for any fairy shrimp species was identified on site. No additional mitigation regarding vernal pools or vernal pool species is required. A programmatic-level DBESP was prepared by MBA in 2013 to outline specific requirements for project related impacts to these features in the future. A project-specific DBESP will be required for each development project within the WLC.

c. Nitrogen Deposition

Nitrogen deposition is the term used to describe nitrogen-based pollutants that are deposited as a result of emissions from future project related activities. The pollutants are typically in the form of nitrogen oxide (NO_x) and ammonia (NH_3)-derived pollutants, primarily nitric acid (HNO_3). Although there are many types of nitrogen-based pollutants resulting from project-related emissions, HNO3 is typically the easiest to measure and is used in determining nitrogen deposition rates. Mechanisms by which nitrogen deposition can lead to impacts on sensitive species include (1) direct toxicity, (2) changes in species composition among native plants, and (3) enhancement of invasive species (Fenn et al. 2003; Weiss 2006a). Direct toxicity refers to impacts associated with direct contact with the nitrogen pollutants. There is no scientific documentation that links direct toxicity to impacts associated with sensitive plant and wildlife species. Therefore, direct toxicity is not considered a significant impact.

An increase in available nitrogen promotes the growth of non-native weedy species, which alone is not considered a significant impact. The increased dominance and growth of invasive annual grasses is especially prevalent in low-biomass vegetation communities that are naturally nitrogen-limited, such vegetation communities that occur in the project vicinity include coastal sage scrub and vernal pools (Weiss 2006a). An increase in nitrogen deposition does not inhibit the growth of native plants, but promotes the rapid growth of non-native invasive species that could out-compete native plants for available water and nutrients. If the increase of non-native plant species is detrimental to the growth of native plants, the result may be a conversion from a native plant community to a non-native plant community. This change in habitat is only considered a significant impact if that change occurs in suitable habitat for a federally threatened or endangered species within USFWS-designated critical habitat.

In addition, vernal pools were identified by Weiss (2006a) as a California ecosystem that may be sensitive to nitrogen deposition. Nitrogen deposition in vernal pools stimulates plant growth (including non-native species in adjacent uplands) and the nitrogen is rapidly assimilated by plants and invertebrates within the pools (biomass and dissolved organic nitrogen) (Hobson and Dahlgren 1998). Because of the isolated nature of vernal pools, the nitrogen pollutants accumulate over time and provide a more concentrated level of nitrogen for non-native plants. Since vernal pools are known to provide suitable habitat for a number of federally threatened or endangered species, impacts to vernal pools caused by nitrogen deposition may be considered a significant impact. There are no vernal pools within the WLC site.

Although non-native plant invasions have affected the vernal pools in the region (the closest recorded occurrence of vernal pool habitat is approximately 3.5 miles to the south), these invasions generally occur in years when precipitation is sparse. In wetter years, the number of non-native plants is reduced since the non-native upland species are intolerant of inundation and the invasion cycle may be reset in some cases. This means that the established non-native plants are not adaptable to an aquatic habitat and die-off during prolonged periods of inundation. Even though the non-native plant species will have an abundance of available nitrogen and optimum growing conditions, the prolonged inundation periods prohibit non-native invasive species growth.

The WLC will consist of mobile, non-point pollution sources (diesel trucks), which will result in a highly random dispersion of emissions that will occur in a broad, regional fashion. Because of the way in which nitrogen is generated by the WLC project, its overall patterns for dispersion, and the multi-variant parameters that would need to be taken into consideration for such an analysis, there is no established scientific basis or standards to study the effects of nitrogen dispersion for non-point pollution sources; hence, project-specific conclusions or mitigation would be overly speculative for the purposes of this Revised Sections of the FEIR.

Specific Plan Design Features. The project is consistent with the MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the WLC project complies with the MSHCP guidelines for urban/wildland interface, riparian/riverine areas, or related buffers (with implementation of **Mitigation Measure 4.4.6.1A**). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects.

Regulatory Compliance. Stephens' kangaroo rats have a low potential to occur within the study area. While the study area is not within the SKR Core Reserve Area, the SKR HCP Implementing Agreement requires payment for loss of habitat within defined areas. The entire WLC site lies within the fee area. An assessment of individual actions for development within the WLC site would be required prior to any implementation. The number of acres of disturbance associated with the development and any off-site improvements will require payment to comply with the SKR HCP. In addition, prior to issuance of a grading permit on each project, applicants will be required to pay the mandatory mitigation fee for the MSHCP. The mitigation fee is a per acre fee for commercial or industrial development. Payment of the fee is considered complete mitigation of a project's environmental impacts.

Mitigation Measures. In addition to payment of SKR and MSHCP impact fees, the following measures are recommended to ensure that potential impacts to sensitive species are reduced to less than significant levels:

4.4.5.2A Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.

4.4.5.2B Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").

In addition, the **Mitigation Measures 4.4.6.1A and 4.4.6.1B** described below will also help reduce potential direct and indirect impacts to biological resources covered by the MSHCP.

Potential impacts related to MSHCP consistency will be less than significant. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2B, 4.4.5.2A,** and **4.4.5.2B**, the less than significant impacts related to MSHCP consistency will be further reduced.

4.4.5.3 Habitat Fragmentation/Wildlife Movement

~~Threshold~~	~~Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?~~

Threshold	Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Habitat fragmentation occurs when a single, contiguous habitat area is divided into two or more areas, or where an action isolates the two or more new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or to/from one habitat type to another. Habitat fragmentation may occur when a portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning. Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging. Examples of migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

The ~~project area~~WLC site contains no significant cover of native plant communities and currently experiences heavy disturbance associated with agricultural activities. Additionally, the ~~project area~~WLC site is adjacent to SR-60 and Gilman Springs Road on the north and east and is bordered by urban development on the west. The nearest linkage area as identified under the MSHCP is Proposed Linkage 5 and is located approximately 3 miles north of the project and approximately 3.6 miles south of the project is Proposed Constrained Link 20. The development of the ~~project area~~WLC site will not impede the movement of any wildlife; therefore, the~~ proposed~~ project will not affect any wildlife movement corridor.

The ~~Conservation Buffer Area located in the southern portion of the project area is owned by the CDFW and currently regularly disked as part of the SJWA's agricultural operations. It~~SJWA currently provides foraging habitat for various resident and migratory wildlife species. The southern portion of the ~~project area~~WLC site adjacent to the SJWA lands has been actively farmed for decades and is regularly disked. The ~~Conservation Buffer Area~~northern portion of the SJWA is designated as open space ~~in the proposed project~~ and no development is proposed for this area.

Although the ~~project area~~WLC site does not contain any designated wildlife movement corridors or MSHCP linkages (i.e., MSHCP, City General Plan, etc.), it is likely that wildlife moves through adjacent properties such as the SJWA and the Mystic Lake area to the south, the Badlands area to the east and the Lake Perris State Recreation Area to the southwest. The MBA project biological report concluded, which was confirmed in the 2018 surveys by ESA, that development of the project as ~~proposed~~WLC site would not directly have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas~~.~~ because the WLC site contains limited vegetation cover and minimal resource value for wildlife moving between habitat blocks. The biological report also determined that the ~~proposed project~~WLC site would not impede or minimize any significant wildlife corridor for the target species associated within the Reche Canyon/Badlands Area plan, which include Bell's sage sparrow (*Amphispiza belli belli*), cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), loggerhead shrike (*Lanius ludovicianus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), bobcat (*Lynx rufus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), mountain lion (*Puma concolor*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Stephens' kangaroo rat (*Dipodomys stephensi*), and Nevin's barberry (*Berberis nevinii*). In addition, although not required, Drainage 9, comprising the most suitable habitat in the eastern portion of the WLC site, is being ~~designed~~retained to allow for wildlife movement between the Badlands and the SJWA (e.g., relatively natural channel conditions with 50-foot setbacks on either side of the channel through the ~~WLCSP~~WLC site property. These project design features will maintain a wildlife travel path along Drainage 9. Therefore, impacts related to wildlife movement are less than significant, and no mitigation is needed.

4.4.6 Significant Impacts

4.4.6.1 Endangered and Threatened Species

Impact 4.4.6.1: *The project may have significant impacts on listed species.*

~~Threshold~~	~~Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?~~

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Of the special-status plant and animal species that have the potential to occur within the general vicinity of the ~~project area~~WLC site, 17 plant and animal species are designated as endangered or threatened by State and/or Federal authorities (Table 4.4~~.F). None~~-6). One of these species, coastal California gnatcatcher, was observed ~~or is~~but none of the other species are believed to be present on the ~~project~~WLC site; it is possible the listed birds may utilize the SJWA on a seasonal basis.

~~Table 4.4.F: Endangered/Threatened Species Within the Project Area~~

The potential for occurrence determination was based on the results of focused biological resource surveys, and/or the lack of suitable habitat in the project limits for the referenced species. One Federal or State endangered/threatened species, coastal California gnatcatcher, was detected on the WLC site during the focused biological resource surveys, for which mitigation is included. It is also reasonable to conclude that, at a minimum, indirect impacts to listed species may be significant, and mitigation is required.

Coastal California gnatcatcher is a Covered Species in the MSHCP and is considered Adequately Conserved. Consistent with the MSHCP requirements, Mitigation Measure **4.4.6.3A** prevents suitable habitat from disturbance during the breeding season. Active bird nests are protected by both the Migratory Bird Treaty Act and sections of the California Fish and Game Code.

Table 4.4-6: Endangered/Threatened Species Within the WLC site

Species	Status Designation	Potential for Occurrence
Munz's onion *Allium munzii*	Federal: Endangered State: Threatened	Not Expected
San Diego ambrosia *Ambrosia pumila*	Federal: Endangered State: None	Not Expected
Marsh sandwort *Arenaria paludicola*	Federal: Endangered State: Endangered	Low
Nevin's barberry *Berberis nevinii*	Federal: Endangered State: Endangered	Not Expected
Thread-leaved brodiaea *Brodiaea filfolia*	Federal: Endangered State: Threatened	Not Expected
Slender-horned spineflower *Dodecahema leptoceras*	Federal: Endangered State: Endangered	Not Expected
Spreading navarretia *Navarretia fossalis*	Federal: Threatened State: None	Not Expected
California Orcutt grass *Orcuttia californica*	Federal: Endangered State: Endangered	Not Expected
Vernal pool fairy shrimp *Brachinecta lynchi*	Federal: Threatened State: Special Animal	Not Expected
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: Endangered State: Special Animal	Not Expected
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: Endangered State: Special Animal	Not Expected
California tiger salamander *Ambystoma californiense*	Federal: Threatened State: Species of Special Concern	Not Expected
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: Endangered State: Special of Special Concern	Not Expected
Coastal California gnatcatcher *Polioptila californica californica*	Federal: Threatened State: Special of Special Concern	~~Not Expected~~Present
Least Bell's vireo *Vireo belli pusillus*	Federal: Threatened State: Special of Special Concern	Not Expected
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: Threatened State: Special of Special Concern	Not Expected
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: Endangered State: Threatened	Not Expected

Source: *MSHCP Compliance Report,* Michael Brandman Associates. April 23, 2012 Appendix E-1.

~~The potential for occurrence determination was based on the results of focused biological resource surveys, and/or the lack of suitable habitat in the project limits for the referenced species. No Federal or State endangered/threatened species were detected on the project site during the focused biological resource surveys. However, to err on the side of caution, it is reasonable to conclude that, at a minimum, indirect impacts to listed species may be significant, and mitigation is required.~~

Project or Specific Plan Design Features. The ~~proposed~~ World Logistics Center Specific Plan provides for a number of project design features to address the interface between the ~~project~~WLC site and the SJWA. These features include enhanced landscaping along the southern boundary, restrictions on site lighting, restrictions on native/drought-tolerant landscape materials, the installation of special drainage facilities, restrictions on public access, special architectural standards for building elevations facing the SJWA, restrictions on the orientation of adjacent buildings, signage restrictions, and other development guidelines intended to create an interface area that is sensitive to the unique relationship between the project and the SJWA.

The Specific Plan establishes a 250-foot wide development setback from the southernmost property line along the SJWA boundary, and an additional 150-foot building setback ~~(i.e., in addition to~~from the development setback~~ provided by the CDFW Conservation Area)~~ to help minimize potential impacts on biological resources of the SJWA.

~~It is important to note that the 910-acre area immediately south of the project was purchased by the State of California largely to serve as a buffer between the habitat area and future development to the north (at that time, the Moreno Highlands Specific Plan). The acquisition of this buffer area created a State-owned 3,000-foot wide separation between the project and the SJWA at that time.~~

The Specific Plan includes development restrictions that may affect off-site areas such as the SJWA, including architecture and building design, landscaping, and off-site lighting:

- *Architecture and Building Restrictions (Specific Plan Section 4.1).* Sections 4.1.2 and 4.1.3 require ground- and roof-mounted equipment to be screened from off-site view.

- *Landscaping Restrictions (Specific Plan Section 4.2).* Section 4.2.4 provides “Special Edge Treatment Areas” in terms of adjacent land uses, including the SJWA (Section 4.2.4.3) and Gilman Springs Road (Section 4.2.4.4).

- *Off-site Lighting (Specific Plan Section 4.3).* Section 4.3.1 indicates one of the main objectives of the project lighting is “… all lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area” (page 4-42). The project will also have to comply with the City’s new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines.

- *Setbacks -* The Specific Plan provides for a 250-foot development setback and an additional 150-foot building setback adjacent to the ~~CDFW Conservation Buffer Area~~SJWA. The development setback area would include landscape areas, drainage facilities, site fencing and walls, etc. According to available research previously presented in Section 4.4.1.18a, a 250-foot development setback is adequate for a project-SJWA ~~buffer~~separation and is supported by a compilation of available academic and scientific literature and studies on wildlife impacts from diesel emissions, and also the distance established in nesting bird surveys for setbacks from human activity. In addition, the Specific Plan requires solid walls along the property line, which will help provide an additional a buffer from building lighting and noise and effectively mitigate potential direct and indirect impacts on the SJWA.

Roadkill. As development occurs within the ~~WLCSP~~WLC site, some local wildlife will be injured or killed by the additional vehicles and trucks on SR-60, Gilman Springs Road, Redlands Boulevard north of Eucalyptus Avenue, and all internal ~~WLCSP~~WLC site roads. There is no accurate way to quantify this impact, since there are no data on existing roadkill on these roadways. However, it is reasonable to assume this impact will increase linearly (from current levels) as project-related traffic increases. It should be noted that development within the ~~Specific Plan~~WLC site along the west side of Gilman Springs Road will be separated from the roadway by fencing or walls as appropriate; this will help restrict human access to Gilman Springs Road and native areas along the east side of the roadway, and may incrementally reduce roadkill along Gilman Springs Road. Native wildlife will still experience incremental adverse impacts from roadkill along Gilman Springs Road as the WLC project develops in the future, but these impacts would be less than significant as long as the County coordinates with the RCA and takes wildlife movement between Core H and proposed Core 3 into account when designing and improving Gilman Springs Road.

Operational Noise. The northern portion of the SJWA will experience increased, fluctuating sound levels during construction and operation (e.g., vehicle traffic and truck loading and unloading), but truck traffic and human activity will result in an incremental increase in overall ambient sound over the long term. In addition, it is possible construction activities on the ~~project~~WLC site, including areas adjacent to the SJWA, may be subject to construction activity on a 24-hour-per-day, 7-day-per-week schedule. The calculations in Table 4.4~~.G-~~7 were provided by the project noise consultant (Mestre Greve Associates) specifically for the southern boundary area of the project.

The portion of the SJWA immediately south of the ~~Specific Plan~~WLC site ~~(i.e., the Conservation Buffer Area)~~ is vacant and the northern 135 acres immediately adjacent to the WLC site has been regularly disked for dry farming. This area is quiet, with L_{eq} levels during the day of ~~35~~40.8 dB and nighttime levels of ~~40~~35.8 dB. ~~Noise~~Existing noise levels in ~~this north~~the northern SJWA area are affected by road noise from Gilman Springs Road to the east and from noise generated at the existing natural gas facilities.

Table 4.4~~.G-~~7: Noise Levels along the ~~Project~~WLC Site Southern Boundary

Noise Conditions	Daytime (dB)			Nighttime (dB)		
	L_{min}	L_{eq}	L_{max}	L_{min}	L_{eq}	L_{max}
Ambient Noise	35.9	40.8	50.3	30.0	35.8	51.1
Warehousing Noise						
50 feet	38.3	48.6	63.1	38.3	48.6	63.1
100 feet	37.5	47.8	62.3	37.5	47.8	62.3
250 feet	34.4	44.7	59.2	34.4	44.7	59.2
500 feet	30.6	40.9	55.4	30.6	40.9	55.4
Warehousing Noise Plus Ambient[1]						
50 feet	38.3	49.3	63.1	38.3	48.8	63.1
100 feet	37.5	48.6	62.3	37.5	48.1	62.3
250 feet	35.9	46.2	59.2	34.4	45.2	59.2
500 feet	35.9	43.9	55.4	30.6	42.1	55.4
Change in Ambient Noise Levels[2]						
50 feet	2.4	8.5	12.8	8.3	13.0	12.0
100 feet	1.6	7.8	12.0	7.5	12.3	11.2
250 feet	0.0	5.4	8.9	4.4	9.4	8.1
500 feet	0.0	3.1	5.1	0.6	6.3	4.3

1 Distances are in feet, noise levels are in dBA.
2 L_{eq} noise added logarithmically, L_{max} and L_{min} will not add in this situation.
Highest L_{max} and highest L_{min} were used.
3 ~~Source: Project noise report and tabular noise data email, Mestre Greve Associates, May 2012.~~Ambient Noise levels reported by ESA in March 2018.
Please refer to Section 4.12 for a description of noise measurement terms. .

The noise data in Table 4.4~~.G-~~7 indicate that warehousing activity would raise ambient noise levels (measured at 50 feet) by 8.5 dB during the day and 13 dB at night. ~~If a~~The physical setback ~~or buffer were implemented in this area to reduce impacts such as noise,~~of the project ~~noise consultant has~~design would separate the warehouse structures from the SWJA reducing noise impacts, with the estimated ~~the~~ noise levels ~~for distances from 50 to 500 feet~~ shown in Table 4.4~~.G.~~-7. The project design separation of warehouse structures from the SWJA would be 400 feet at the SWJA boundary (the combined 250-foot wide development setback from the southernmost property line with the additional 150-foot building setback).

These calculations show that the increase in noise levels from development would be close to 3 dB at a distance of 500 feet, resulting in overall noise levels (ambient plus development) of 43.9 dB measured at a distance of 500 feet (L_{eq}) during the day and ~~45.2 dB at 500 feet at night~~42.1 dB at 500 feet at night. Recent noise modeling by ESA (2018) concludes that nighttime operational noise levels would not exceed 55 dB at the WLC site boundary and the highest noise level expected at the SJWA boundary during construction would be 52 dB.

In addition to regular background noise contributions from traffic on Gilman Springs Road and the compressors at the SDG&E plant that run 24 hours per day, the SDG&E compressor plant has regular “blow-down” events, which is an automatic pipeline pressure relief process. When these occur, noise levels in the ~~CDFW Conservation Buffer Area~~SJWA adjacent to the compressor plant property lines may reach 130 dB or higher, which is equivalent to a jet plane landing or a train horn at 100 feet. For more information on “blow-down” effects to humans, see Section 4.12, *Noise*, and 4.8, *Hazards and Hazardous Materials*. It should be noted that the pump noise and the blow-down events have been occurring regularly for many years, along with their potential impacts on SJWA wildlife; however, these utility facilities already exist and are not part of any development proposed within the WLC ~~project~~site.

Based on available information, it is reasonable to conclude that increased noise from human activity (project construction, traffic on local roads, loading and unloading of trucks, etc.) related to the ~~proposed~~ project will not have significant impacts on local wildlife in the SJWA area. Available research indicates that increased noise levels near wildlife areas can contribute to behavioral changes such as increased startling in birds, which can be especially harmful during nesting periods, hunting pattern changes or avoidance which decrease habitat value and use, sleep pattern disruption, and decreased overall health from noise stress. These impacts can affect mammals, birds, and other species present within the SJWA. For these reasons, human activity should be set back from the SJWA to help minimize these impacts. The WLCSP ~~indicates~~requires there ~~will~~ be a 250-foot minimum development setback and an additional 150-foot building setback along the southern boundary of the ~~Specific Plan area~~WLC site to act as a buffer between the ~~WLCSP~~WLC SITE and the SJWA. With implementation of the two setback areas (total 400 feet) and proposed solid walls along the SJWA boundary, the anticipated increase in noise from the ~~proposed~~ project will not have a significant impact on wildlife and would not require mitigation.

Construction Noise. Development within the ~~WLCSP~~WLC site and off-site facilities must incorporate landscape elements including trees, shrubs, and groundcover, which would assist in off-site noise reduction. A noise analysis has been prepared for the project to quantify potential short-term and long-term noise impacts that could occur as a result of development of the parcel adjacent to open space areas. Based on ~~recent~~past studies (Landrum and Brown 2012), noise contours would exceed 60 dBA (L_{eq}) roughly 1,000 feet into the ~~CDFW Conservation Buffer Area~~SJWA during construction of the southernmost areas of Phase 2. ~~There is no projected change in noise contours associated with the operation of the facility over those of the no project condition. Therefore, any~~ Any noise-related impacts would be temporary in nature and generally limited to construction of Phase 2 facilities along the southern boundary of the WLC site. Recent noise studies by ESA (2018) conclude that construction noise levels would not exceed 60 dB within the SJWA, with the highest construction noise level projected to be 52 dB at the SJWA boundary with the incorporation of the Specific Plan 250-foot setback.

Invasive Species. The WLCSP landscaping palette does not include any of the invasive plant species listed in Section 6.1.4 of the MSHCP (Table 6-2), but there should be mitigation to ensure that no on-site landscaping along the southern boundary of the site conflicts with MSHCP invasive plant guidelines.

Lighting. Lighting associated with planned warehouse development of the eastern and southern portions of the ~~WLCSP~~WLC site would have various direct and indirect impacts on local wildlife, depending on the species and the nature of light exposure. There is some scientific and academic research on the effects of night lighting on various species, even though the subject species and lighting conditions vary widely. This section generally compares the results of this research to the relationship of the project and the SJWA.

Some available research[1] states that night lighting can have a wide range of adverse effects on wildlife, including mammals, birds, bats, amphibians, insects, fish, even plants. Effects range from reduced health by upsetting diurnal rhythms, reduced clutch size, egg size, or survival success of nesting birds, to actual mortality from increased predation under higher ambient light levels. Bats and certain insects are also attracted to outdoor night lighting, which may adversely affect their survival or cause them to become dependent on the lighting. Small mammals would also be attracted to these areas and might suffer increased predation or roadkill crossing streets.

Future development within the ~~Specific Plan~~WLC site will have to comply with the off-site lighting restrictions outlined in Section 4.3 of the Specific Plan, including the requirement that direct light rays from all lighting fixtures be directed downward, illuminate only the building or space intended, and do not spill onto adjacent properties (Section 9.08.100 Lighting 5.5.2.1). This will also apply to project-related development in Planning Areas 10 and 12, which will help minimize lighting impacts on biological species in the adjacent SJWA land.

All on-site lighting will also have to comply with the new night lighting guidelines in Section 9.08.100 of the City's Municipal Code, which limits off-site impacts to 0.25 foot-candles per square meter. As development occurs within the Specific Plan, adherence to these design guidelines and restrictions will help ensure that night lighting increases will not result in significant indirect lighting impacts on native wildlife within the SJWA.

For example, the Specific Plan requires that streetlights, parking lot lighting, and other project-related illumination sources be positioned, directed, and shielded to avoid "direct light spill" into MSHCP conservation areas including those contained within Existing Core H to the south of the ~~project area~~WLC site, and Proposed Core 3 (Section 6.1.1, Proposed Core 3) to the east of the ~~project area~~WLC site. Lighting installed according to the WLC Specific Plan will be consistent with MSHCP guidelines. The project will also have to comply with the City's new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines. However, due to the size of the WLC project and its proximity to the SJWA, additional mitigation may be necessary for cumulative lighting impacts on the SJWA.

In addition to night lighting issues associated with construction and operation, the proposed facilities are to include roof-mounted photovoltaic panels to provide electricity for the facilities and aid in the sustainability of the project and reduce additional GHG emissions. There is a potential for glare from these panels to confuse migratory birds into attempting to land in the area of the panels. However, the project design calls for the use of low glare and high solar transmission films to increase solar capacity and prevent unnecessary glare, so this impact would be less than significant.

Toxics~~,~~ Water~~.~~ Quality Development plans for the WLC project will include Water Quality Best Management Practices (BMPs) such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. The BMPs recommended for the proposed ~~WLCSP~~WLC site are described in more detail in Section 4.9.6.1, *Construction-Related Water Quality Impacts,* and Section 4.9.6.2*, Operational Water Quality Impacts*. (Detention basins will be designed to filter potential toxics from storm water. Section 4.9.6.2, *Operational Water Quality Impacts*, also requires the regular removal of any contaminated materials from the detention basins to protect downstream water quality.) These BMPs will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

Development of the WLC project will result in the additional use of hazardous materials in limited quantities associated with normal logistics use such as janitorial and cleaning products, solvents,

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[1] *Ecological Consequences of Artificial Night Lighting.* C. Rich and T. Longcore (ed), 2006.

herbicides, and insecticides. However, compliance with regulations, standards, and guidelines established by the Environmental Protection Agency (EPA), State, County, and local agencies relating to the storage, use, and disposal of hazardous waste will reduce the potential risk of hazardous materials exposure.

Development plans for the WLC project will include Water Quality BMPs such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. Detention basins will be designed to filter potential toxics from storm water. These BMPs will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

~~Toxics, Air Pollution and Diesel Exhaust.~~Emissions Local wildlife (i.e., within the SJWA) may be exposed to vehicular exhaust and diesel particulates and toxic air contaminants from truck exhaust as the WLC project builds out. New development will produce significant amounts of diesel-related air pollutants that will be released into the atmosphere, including gases and particles of various sizes.

Most of the available (and most applicable) research is on diesel pollutant impacts on humans. Although the physiology of many animals is very different than humans, data on health effects from diesel pollution may nonetheless be somewhat instructive when attempting to assess diesel impacts on wildlife. Potential health effects on wildlife obviously depend on the species involved,[1] but in general health effects from air pollution/diesel exhaust include impaired cardiac and lung or respiratory function,[2] reduced heart function or longevity, decreased clutch size or hatching success, increased incidence of cancer and other mutagenic or teratogenic effects, ingestion of air deposited particulates, reduction in overall biodiversity, reproductive failure, etc. In general, impacts on higher animals are most commonly attributed to food loss and reproductive effects, rather than to direct toxic effects on adults. There are relatively few examples of higher animals suffering direct toxic effects from either atmospheric acidity or gaseous air pollution. However, a number of mammals are known to build up high levels of heavy metals and other pollutants in their systems from air pollution.[3]

A recent study of the health effects on rats from diesel particulates concludes that exposure to new technology diesel exhaust would not cause an increase in tumor formation or substantial toxic health effects in rats, although some biological effects might occur. The overall conclusion was that chronic exposure of rats to new technology diesel exhaust did not produce tumors in the lung; these observations are in marked contrast to the effects of chronic exposure to traditional technology diesel exhaust observed in multiple previous rat studies, in which lung tumors, as well as inflammation and the deposition of soot in the lung, were observed.[4]

Diesel emissions[5] contain thousands of pollutant species, and the composition depends on the fuel, vehicle, and driving conditions. The main public health concerns are from fine and ultrafine particulate matter, black or elemental carbon, polyaromatic hydrocarbons (PAHs) like phenanthrene, metallic ashes, gases like nitrogen dioxide, aldehydes like acetaldehyde, acrolein, and crotonaldehyde, volatile organic compounds like benzene and 1,3-butadiene, etc. One of the research limitations is that some health effects from these pollutants take a long time, in some cases even a lifetime, to exhibit themselves. These pollutant species can also be emitted from other sources, so in complex urban environments, it can be difficult to trace individual sources of air pollution. In this case, air quality is relatively good and the only major activity is agriculture, so the increase in most of these pollutant species would predominantly be the result of new warehouse uses within the project. Research[6] suggests that wildlife may be more susceptible to air pollutant impacts than humans, due to their smaller

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[1] "Air Pollution and Biodiversity: A Review." 1995.
[2] "Cardiovascular and thermoregulatory responses of unrestrained rats exposed to filtered or unfiltered diesel exhaust." C. Gordon et al, Inhalation Toxicology, 2012.
[3] Ibid.
[4] "The Advanced Collaborative Emissions Study (ACES)." Health Effects Institute, 2015
[5] "Diesel Emissions, Toxics, and Health Implications." M. Costantini, 2006.
[6] "*Exhausted by Diesel.*" NRDC 1998.

size, higher respiration rates, smaller lung capacities, ingestion of local plant materials that have also been exposed, higher metabolic rates, etc., although some factors like shorter lifespans would reduce the length of exposure over time. For these reasons and for the purposes of this analysis, it is assumed that animals within the SJWA would be at least as susceptible to health effects from air pollution, including diesel exhaust ~~compared to~~, as humans.

In 2002, the EPA compiled a wide range of scientific studies on the health effects of diesel exhaust, including non-carcinogenic effects[1] of diesel exhaust on laboratory animals. Studies found that diesel particulate matter (diesel PM) had a limited effect on the survival and growth of rats and mice when exposed to diesel PM for short periods of time. However, rats, mice and hamsters all experienced increased lung to body-weight ratios when exposed to 1.5 mg/m^3 diesel PM concentrations for extended periods of time. Several studies looked at behavior effects in animals, and found that juvenile rats exposed to diesel emissions (DE) exhibited a decreased ability to move around on their own, and negatively affected their learning in adulthood.

Extended exposure to diesel emissions caused negative effects on the pulmonary functions of rats, hamsters, cats and monkeys. Depending on the species, DE levels of 1.5–11.7 mg/m^3 affected lung mechanical properties, diffusing capacity, lung volumes, and ventilator performance of the subject animal. The ability of rats to clear their airways was also severely impaired by diesel PM concentrations of 1 mg/m^{3}or greater. Data on the effect of diesel PM on airway clearance in other animals were limited, but the pathological effects of diesel PM seemed to be dependent on the relative rates of pulmonary deposition and clearance (rate of breathing) of the subject animal. The studies also showed that diesel PM can reduce an animal's resistance to respiratory infections. Diesel PM can begin to impair an animal's immune system in as little as 2–6 hours with exposures of 5–8 mg/m^3 of diesel PM. The testing data also suggested that diesel PM may be a factor in increased allergic reactions in animals.

When comparing filtered versus non-filtered DE, studies found that diesel particulates are the main cause of noncancerous health effects. However, they could not determine if diesel PM acts additively with the gas, or whether it combines with the gases to create different effects. The studies also found that other airborne contaminants (e.g., criteria pollutants) can be altered by diesel PM when absorbed by the diesel particles and increase the physical health effects caused by the diesel PM and other contaminants. These increased health risks were only found in laboratory settings. There was no evidence for DE interacting with other contaminants in normal urban atmospheric settings except for the impaired ability of animals to resist respiratory tract infections. No other noncancerous effects were found in any of the studies.

Chapter 7 of the EPA document includes studies that concluded diesel emissions also have carcinogenic effects on animals. Studies indicated that DE and/or diesel PM did result in increased cases of cancer in laboratory animals as well as humans. Rats experienced a trend of increased tumor growth when exposed to concentrations of DE exceeding 1×10^4 mg × hr/m^3. Because tumors were induced at high concentrations it is believed that they are caused by the lungs experiencing particle overload. The studies also examined the effect of filtered exhaust and discovered that it did not cause tumors. They concluded that filtered exhaust either was not a carcinogenic or had low cancer potency.

In addition to pollutants associated with diesel trucks, passenger vehicles produce additional air pollutants including carbon monoxide, nitrogen oxides, particulates,[2] etc. These pollutants will also have indirect impacts on wildlife resources of the SJWA. Two impacts of most concern would be ozone degradation (e.g., plants having an unusual dry or "burned" look) and the deposition of additional nitrogen, both of which can disrupt plant growth cycles.

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[1] "*Health Assessment Document for Diesel Engine Exhaust."* United States EPA. March 2002.

[2] "Pulmonary and cardiovascular of traffic-related particulate matter from roadside and diesel engine exhaust particles." M. Gerlofs-Nijland et al. Inhalation Toxicology, 2010.

Direct air pollutant impacts on wildlife within the northern end of the SJWA will be reduced somewhat because prevailing winds are mainly to the southeast with the remainder mostly to the east (i.e., very little to the south), based on data from the project air quality study (MBA 2012). However, some diesel and other project-related air pollutants will still be expected to disperse toward the SJWA, including gases and particulates, from trucks and passenger vehicles, when prevailing winds are absent.

There appears to be little academic or scientific research on the specific impacts of diesel air pollutant emissions on wildlife (i.e., not laboratory animals) in natural settings, or specific setbacks for wildlife protection areas from warehouse distribution centers or other sources of diesel pollution. Most available research is too limited or specific regarding the type of pollutant and/or the species considered to be affected (e.g., impacts of one pollutant on one species). The portion of the SJWA adjacent to the ~~WLCSP~~WLC site property ~~is~~has been upland agricultural fields which may be used by foraging birds. ~~Indeed, the~~The northern portion of the SJWA land ~~serves as an existing buffer and it was acquired by the CDFW in 1994 for that purpose. Additional buffer areas imposed as mitigation are discussed below.~~is currently non-native grassland with predominantly non-native or invasive species.

Based on available scientific data, it is reasonable to conclude that the ~~proposed~~ project, due to its size and expected amount of truck traffic, will have potentially significant impacts on wildlife within the SJWA and east across Gilman Springs Road from project air pollution, including diesel truck exhaust.

Research by the California Air Resources Board (CARB)[1] indicates that 80 percent of the particulates generally settle out of the atmosphere within 1,000 feet of emission sources. Therefore, diesel particulate deposition may occur within approximately 1,000 feet of truck activities within the project, which would extend part way into the ~~CDFW Conservation Buffer Area. This demonstrates one benefit of the State acquiring this Conservation Buffer Area (i.e., to reduce potential impacts of future development to the north from the SJWA and Mystic Lake to the south). In addition, the Specific Plan establishes an additional 250-foot setback along the SJWA boundary, which provides additional buffering from potential air pollutant impacts.~~northern portion of the SJWA.

Toxics, Health Risk Assessment. A Health Risk Assessment (HRA) (ESA 2018/MBA 2012) was completed for the project primarily prepared for human health risks associated with airborne hazards. An HRA is a guide that helps to determine if current or future exposure to a chemical or substance could affect the health of a population. The State of California Office of Environmental Health Hazard Assessment (OEHHA) develops methods for conducting health risk assessments. As defined under the Air Toxics "Hotspots" Information and Assessment Act of 1987 ["AB 2588" (Chapter 1252, Statutes of 1987), California Health and Safety Code Section 44306], "A health risk assessment means a detailed comprehensive analysis prepared pursuant to Section 44361 to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure" (Office of Environmental Health Hazard Assessment 1987).

The HRA of toxic air contaminants builds upon the assessment methodology described above but requires one additional step beyond that for *assessment* of the local pollutants. This step involves applying a risk characterization model to the results from the air dispersion model to estimate potential health risks at each sensitive receptor location.

Table 4 in the HRA (ESA 2018/MBA 2012) provides a discussion on the air pollutants that could potentially be present as a result of the construction and/or operation of the proposed facilities and the most relevant effects from pollutant exposure to humans. No standards for impacts to wildlife have been established. Since air is not stationary, there is a potential that air quality concerns associated with the project will not be confined to the ~~project~~WLC site itself and thus would disperse into "wildland" areas. The primary wind direction near the ~~project~~WLC site is to the southeast, as shown in ~~Exhibit 5~~

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[1] *Air Quality and Land Use Handbook.* CARB and EPA. 2005.

~~in~~ the HRA (ESA 2018/MBA 2012). The wind direction would send any air hazards toward the Badlands MSHCP Criteria Cells and points to the east across Gilman Springs Road.

Health risks within the context of this analysis are represented as the increase in cancer risk associated with exposure to diesel particulate matter emissions from project operations. These diesel particulate matter emissions arise from both exhaust and idling of diesel trucks while operating on and near the project site. The methodology applied in calculating cancer risk from diesel particulate matter has been published by the SCAQMD and the California OEHHA.

~~The methodology basically assumes that a person is exposed continuously to a project's emissions for a period of 350 days per year, 24 hours per day over a 70-year lifetime period.~~The Current OEHHA Guidance incorporates the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. In this regard, cancer risk is expressed as the probability of an individual developing cancer due to exposure to diesel particulate matter emissions at the above-referenced durations from the project, out of a population of 1 million individuals. Thus, a receptor calculated to have a cancer risk of 1 in one million means that this receptor has a probability of 1 in 1 million of developing cancer from the continuous exposure to diesel particulate matter. The SCAQMD has established a significance threshold of 10 in 1 million for cancer risk attributable to exposure to a project's emissions. No such threshold exists for wildlife and a number of factors vary from the criteria established for human populations. The average life of migratory waterfowl ranges from 10 to 20 years. This might represent the most long-lived of the species in the vicinity of the project site. These species are also not present year round and may spend as little at 100 days in the ~~project area on the SJWA.~~WLC site on the SJWA. Based upon the available information, the effect of emissions on wildlife is less than significant.

Specific Plan Design Features. The Specific Plan requires a 250-foot development setback and an additional 150-foot building setback along the southern boundary of ~~project development~~The WLC site and the ~~CDFW Conservation Buffer Area~~SJWA. In addition, the Specific Plan calls for native landscaping in the setback area and a wall along the north side of the 250-foot setback zone. The separation between planned development along the east side of Gilman Springs Road will be set back from the roadway. This setback, plus the width of the roadway and related shoulder areas, will be sufficient to separate the ~~proposed~~ project from the MSHCP criteria cell areas east of Gilman Springs Road, so no additional setback is needed in that area.

Mitigation Measures. The following measures are proposed to mitigate potential direct and indirect impacts to listed species due to the ~~project's~~WLC site's proximity to the SJWA~~ site,~~, even with the presence of the ~~CDFW Conservation Buffer Area~~proposed approximately 400-foot setback along the WLC site boundary along the SJWA:

4.4.6.1A All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area.

In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area.

Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.

A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the ~~California Department of Fish and Wildlife property.~~SJWA. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.

4.4.6.1B Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City ~~Engineer.~~of Moreno Valley and RWQCB requirements. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.

~~The~~Based upon the previously described information, the 250-foot setback identified in **Mitigation Measure 4.4.6.1A**~~, and the presence of the CDFW Conservation Buffer Area~~, will effectively mitigate potential indirect impacts of air pollutants, including diesel particulate matter, on wildlife within the SJWA. Compliance with the off-site lighting guidelines of the Specific Plan, compliance with the night lighting standards in Section 9.08.100 of the City Municipal Code, and implementation of Aesthetics **Mitigation Measure 4.1.6.4A** will help reduce lighting impacts on the SJWA to less than significant levels.

In addition, **Mitigation Measure 4.4.~~6~~5.2A** will help assure that potential impacts to listed or sensitive plant species remain at less than significant levels.

Level of Impact After Mitigation. Compliance with the Specific Plan, Municipal Code, and implementation of the recommended **Mitigation Measures 4.4.6.1A** and **4.4.61B** will help reduce project impacts to listed species to less than significant levels.

4.4.6.2 ~~Adopted Habitat Conservation Plans~~

~~**Impact 4.4.6.2:** *Implementation of the project may conflict with portions of the MSHCP for Western Riverside County.*~~

~~Threshold~~	~~Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?~~

~~The project site is subject to the provisions of two HCPs: the SKR HCP and the MSHCP. Impacts related to these HCPs are discussed in this section.~~

~~a. Stephens' Kangaroo Rat Habitat Conservation Plan~~

~~The project site is within the SKR HCP Fee Area. The SKR is relatively widespread throughout the SKR HCP Fee Area, but the main blocks of occupied habitat are concentrated in several Core Areas that must be conserved. The proposed project site is not within an SKR Core Area. The SKR also requires~~

~~species-specific monitoring and management to ensure its long-term viability in the SKR HCP, including tracking population densities and maintaining sparse, open grassland habitats.~~

~~The long-term SKR HCP provides Take Authorization for the SKR within its boundaries. The core reserves established by the SKR HCP will be managed as part of the MSHCP Conservation Area consistent with the provisions of the SKR HCP. Focused surveys for Stephens' kangaroo rat will not be required for this project because the project lies within the SKR Fee Area; therefore, no requirements under the SKR HCP other than payment of a local mitigation fee are required.~~

~~b. Summary of Western Riverside County Multiple Species Habitat Conservation Plan Impacts~~

~~The project area is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project area would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H.~~

~~The WLCSP and the proposed offsite facilities occur immediately adjacent and within the vicinity of Core H and proposed Core 3. RCA staff commented that they believed any increase in truck traffic associated with the proposed project along Gilman Springs Road could significantly affect wildlife movement between Core H and proposed Core 3 and requested mitigation to offset those impacts. However, the appropriate mitigation for increased traffic on Gilman Springs Road is payment of the project's fair share of the improvements to Gilman Springs Road, including provisions for wildlife movement or crossings. The design and improvement of Gilman Springs Road is a County project that is not under the control of the project applicant.~~

~~No development is proposed within the portion of the project area that lies within Cell Group D and the SJWA. This area is already owned by the State and managed by the CFDW. However, development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA, which will require mitigation (i.e., designing an appropriate buffer along this "urban edge" will help minimize potential impacts on the SJWA).~~

~~The project area is not adjacent to any Cores or Linkages identified in the MSHCP. However, it is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). The project is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP.~~

~~The project does not propose to alter land use in any way that would adversely affect Cores, Linkages, or Reserve Assembly within the Reche Canyon/Badlands Area Plan.~~

~~The project is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA).~~

~~The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project prior to the issuance of building permits.~~

~~From available information, potential indirect impacts to avian and other biological resources within Mystic Lake and the SJWA will be reduced to less than significant levels by the creation of a 250-foot~~

~~on-site setback or buffer area in **Mitigation Measure 4.4.6.1A**, which will be in addition to the existing setback provided by the CDFW Conservation Buffer Area just south of the proposed development area.~~

~~Participation in the MSHCP and contribution of MSHCP provides compensation for the loss of raptor foraging habitat due to approved projects. Typically, a project proponent would participate as outlined in the MSHCP, so that loss of raptor foraging habitat is typically considered to be less than significant and no mitigation is required.~~

~~**Narrow Endemic Plant Species.** No Narrow Endemic plant species are anticipated to occur in the project area, but compliance with **Mitigation Measure 4.4.6.2A** will assure there will be no significant impacts to these plant species.~~

~~**Criteria Area Plant Species.** No Criteria Area plant species are anticipated to occur on the project area, but compliance with **Mitigation Measure 4.4.6.2A** will assure there will be no significant impacts to these plant species.~~

~~**Riparian/Riverine Areas and Vernal Pools.** Drainage Features 7, 8, 9, 12, and 15 contain riparian/riverine areas, as designated by the MSHCP. The project area does not contain habitat suitable for covered riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. No vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site. No additional mitigation regarding vernal pools or vernal pool species is required. A programmatic-level DBESP was prepared by MBA in 2013 to outline specific requirements for project related impacts to these features in the future. A project-specific DBESP will be required during each development project.~~

~~c. Nitrogen Deposition~~

~~Nitrogen deposition is the term used to describe nitrogen-based pollutants that are deposited as a result of emissions from future project related activities. The pollutants are typically in the form of nitrogen oxide (NO_x) and ammonia (NH_3)-derived pollutants, primarily nitric acid (HNO_3). Although there are many types of nitrogen-based pollutants resulting from project-related emissions, HNO3 is typically the easiest to measure and is used in determining nitrogen deposition rates. Mechanisms by which nitrogen deposition can lead to impacts on sensitive species include (1) direct toxicity, (2) changes in species composition among native plants, and (3) enhancement of invasive species (Fenn et al. 2003; Weiss 2006a). Direct toxicity refers to impacts associated with direct contact with the nitrogen pollutants. There is no scientific documentation that links direct toxicity to impacts associated with sensitive plant and wildlife species. Therefore, direct toxicity is not considered a significant impact.~~

~~An increase in available nitrogen promotes the growth of non-native weedy species, which alone is not considered a significant impact. The increased dominance and growth of invasive annual grasses is especially prevalent in low-biomass vegetation communities that are naturally nitrogen-limited, such vegetation communities that occur in the project vicinity include coastal sage scrub and vernal pools (Weiss 2006a). An increase in nitrogen deposition does not inhibit the growth of native plants, but promotes the rapid growth of non-native invasive species that could out-compete native plants for available water and nutrients. If the increase of non-native plant species is detrimental to the growth of native plants, the result may be a conversion from a native plant community to a non-native plant community. This change in habitat is only considered a significant impact if that change occurs in suitable habitat for a federally threatened or endangered species within USFWS-designated critical habitat.~~

~~In addition, vernal pools were identified by Weiss (2006a) as a California ecosystem that may be sensitive to nitrogen deposition. Nitrogen deposition in vernal pools stimulates plant growth (including non-native species in adjacent uplands) and the nitrogen is rapidly assimilated by plants and invertebrates within the pools (biomass and dissolved organic nitrogen) (Hobson and Dahlgren 1998). Because of the isolated nature of vernal pools, the nitrogen pollutants accumulate over time and provide a more concentrated level of nitrogen for non-native plants. Since vernal pools are known to provide suitable habitat for a number of federally threatened or endangered species, impacts to vernal pools caused by nitrogen deposition may be considered a significant impact. There are no vernal pools within the project site.~~

~~Although non-native plant invasions have affected the vernal pools in the region (the closest recorded occurrence of vernal pool habitat is approximately 3.5 miles to the south), these invasions generally occur in years when precipitation is sparse. In wetter years, the number of non-native plants is reduced since the non-native upland species are intolerant of inundation and the invasion cycle may be reset in some cases. This means that the established non-native plants are not adaptable to an aquatic habitat and die-off during prolonged periods of inundation. Even though the non-native plant species will have an abundance of available nitrogen and optimum growing conditions, the prolonged inundation periods prohibit non-native invasive species growth.~~

~~The WLC will consist of mobile, non-point pollution sources (diesel trucks), which will result in a highly random dispersion of emissions that will occur in a broad, regional fashion. Because of the way in which nitrogen is generated by the WLC project, its overall patterns for dispersion, and the multi-variant parameters that would need to be taken into consideration for such an analysis, there is no established scientific basis or standards to study the effects of nitrogen dispersion for non-point pollution sources; hence, project-specific conclusions or mitigation would be overly speculative for the purposes of this EIR.~~

~~**Specific Plan Design Features.** The project is consistent with the major MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the project complies with the MSHCP guidelines for urban/wildland interface, riparian/riverine areas, or related buffers (with implementation of **Mitigation Measure 4.4.6.1A**). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects.~~

~~**Regulatory Compliance.** Stephens' kangaroo rats have a low potential to occur within the study area. While the study area is not within the SKR Core Reserve Area, the SKR HCP Implementing Agreement requires payment for loss of habitat within defined areas. The entire study area lies within the fee area. An assessment of individual actions for development within the WLCSP would be required prior to any implementation. The number of acres of disturbance associated with the development and any off-site improvements shall require payment to comply with the SKR HCP. In addition, prior to issuance of a grading permit on each project, applicants will be required to pay the mandatory mitigation fee for the MSHCP. The mitigation fee is a per acre fee for commercial or industrial development.~~

~~**Mitigation Measures.** In addition to payment of SKR and MSHCP impact fees, the following measures will help ensure that potential impacts to sensitive species are reduced to less than significant levels:~~

~~**4.4.6.2A** Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate~~

~~conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.~~

~~**4.4.6.2B** Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").~~

~~In addition, the previously outlined **Mitigation Measures 4.4.6.1A and 4.4.6.1B** will also help reduce potential direct and indirect impacts to biological resources covered by the MSHCP.~~

~~**Level of Impact After Mitigation.** With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2A,** and **4.4.6.2B**, potential impacts related to MSHCP consistency will be reduced to less than significant levels.~~

~~4.4.6.3~~ Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities

Impact 4.4.6.~~3~~2: The project has the potential to result in significant impacts to jurisdictional land, riparian habitat and sensitive natural communities and may require subsequent permits from various resource agencies.

~~Threshold~~	~~Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?~~
	~~Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?~~

Threshold	Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
	Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Drainages in the ~~project area~~WLC site were investigated and delineated by MBA in March 2012 and updated in 2013. A total of 15 primary drainage features were identified during this survey and a number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; Porter Cologne as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by the CDFW.

All 15 drainage features identified in the 2013 document were assessed to determine the jurisdictional limits. Based on current conditions, two of the 15 features are subject to the jurisdiction of the USACE and/or RWQCB. In addition, no jurisdictional wetlands or isolated wetlands were identified. Drainage

Features 1, 2, 4, 12, and 13 flow to the south and then southwest of the ~~project area~~WLC site. These drainage features are contained in roadside ditches or otherwise sheet flow prior to leaving the ~~project area~~WLC site.

Drainage Feature 12 and 15 are likely subject to USACE jurisdiction. However, if any portion of Drainage Features 12 and 15 are affected by WLC project construction activities or flood control improvements in the future, then regulatory permitting may be required.

There are two drainage features that are completely isolated, Drainage Features 3 and 14. Drainage Feature 3 is an isolated temporary water quality facility serving the new Skechers building. This feature was created in an existing upland area and will eventually be converted into an underground storm drainage system. The second feature (consisting of two small basins) was created in an upland area to contain polluted runoff from a now-abandoned cattle operation. The eastern feature (Feature 14) is dominated by non-native tree species and contains no native riparian habitat. The western feature contains a mix of non-native trees and native riparian habitat. There is no evidence of ponding and the basin is no longer in use. These basins no longer serve any water quality function and are therefore not considered to be isolated waters of the State under the Porter Cologne Act.

The remaining seven features flow to the south and eventually revert to sheet flow conditions before reaching the San Jacinto Wildlife Area. Each drainage feature was walked until neither an ordinary high water mark (OHWM) nor a clearly defined bed and bank feature was present and the drainage course reverted to sheet flow onto open land. There was no evidence of flows downstream of the drainage where the OHWM was no longer present. Therefore, these features are hydrologically and physically isolated from any downstream RPW or TNW. Surface flows from the ~~project area~~WLC site will eventually be conveyed into the SJWA. The SJWA's system of ponded areas was surveyed to document any downstream connectivity to any RPW or TNW. Based on current site conditions, the water within the SJWA is completely contained within the ponded area system with a large overflow area that conveys flows over a spillway in the southwest corner of the facility. There is no evidence of active flows within the spillway channel and all upstream flows are likely maintained within the SJWA exclusive of major flood events (50- to 100-year floods).

The MBA 2013 report concludes that two of the drainages on the project site are under the jurisdiction of the USACE (Drainages 12 and 15), and several additional drainages are under the jurisdiction of the CDFW and RWQCB (Drainages 7, 8, 9, 12, and 15).

Riparian or riverine areas are lands that contain habitat dominated by trees, shrubs, and persistent emergents, which occur close to or depend upon soil moisture from a nearby water source; or areas with fresh water flowing during all or a portion of the year. Unvegetated drainages (ephemeral streams) may be included if alterations to that drainage have the potential to affect Covered Species and Conservation Areas.

Drainage Feature 7, 8, 9, 12, and 15 within the WLC project are considered riparian/riverine areas, as defined by MSHCP. If impacts to any of these areas cannot be avoided, a DBESP report and relevant mitigation will be required by the RCA.

The ~~project area~~WLC site does not contain habitat suitable for sensitive riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Additionally, no vernal pools or ephemeral ponds were observed on the ~~project area~~WLC site and no suitable habitat for any fairy shrimp species was identified ~~on site~~onsite.

Raptor Foraging Habitat. The ~~WLCSP~~WLC site and off-site facilities contain flat, open areas with sparse vegetation, which could be considered foraging habitat for some raptor species. Due to the regular, heavy disturbance associated with the various agricultural activities in the ~~WLCSP~~WLC site and off-site facilities resulting in a rather limited prey base, and the limited size of the site in relation to the expansive foraging habitat in the near vicinity including ~~both the CDFW Conservation Buffer Area~~

~~and~~ the SJWA, LPSRA and the extensive Badlands to the east, the foraging habitat on site is considered marginally suitable and an adverse but not significant impact to raptor foraging habitat is anticipated. No mitigation is necessary or proposed.

Project or Specific Plan Design Features. The ~~WLCSP~~WLC site does not contain any design features related to riparian habitat or other sensitive natural communities.

~~*NOTE: The following changes have been made in responses to Comments A-1-1 in Letter A-1 from the U.S. Army Corps of Engineers, and A-6-12 in Letter A-6 from the U.S. Fish and Wildlife Service and et al.*~~

Mitigation Measures. The JD prepared for the project in 2013 is programmatic in nature because no specific development activity or building plans are proposed at this time. The 2012 JD determined the on-site drainages were not under the jurisdiction of the USACE, but one or more may be under the jurisdiction of the CDFW. Therefore, **Mitigation Measure 4.4.6.~~3A~~2A** will help ensure there will be no significant impacts to riparian areas associated with Waters of the U.S. or Waters of the State as a result of future development within the project.

In addition to the previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.1C**, the following measures have been identified to reduce the significance of potential impacts to riparian/riverine habitat:

4.4.6.~~3A~~2A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant ~~will~~shall secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation ~~will~~shall be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins ~~will~~shall be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins ~~will~~shall be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation ~~will~~shall be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan ~~will~~shall be prepared for all unavoidable impacts and ~~will~~shall be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.

The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.

Mitigation ~~will~~shall consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat ~~will~~shall be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat ~~will~~shall be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation ~~will~~shall include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).

4.4.6.~~3B~~2B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project grading permit approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.

If impacts to riparian habitat within the ~~World Logistics Center Specific Plan (WLCSP)~~WLC site cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.~~3A~~2A.

A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. ~~Therefore, mitigation~~Mitigation required for compensation for impacts to riparian/ riverine areas ~~will~~shall require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.

As outlined in the WLC programmatic DBESP, erosion control improvements ~~will~~shall be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat ~~will~~shall be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).

~~*Note: The following Mitigation Measure has been added in response to Comment F-1-6 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society.*~~

4.4.6.~~3C~~2C Prior to issuance of any grading permit for any offsite improvements that support development within the ~~World Logistics Center Specific Plan~~WLC site, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the ~~2012~~2013 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions~~.~~ with a minimum1:1 mitigation ratio. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.

Level of Significance after Mitigation. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, ~~4.4.6.3A,~~ and 4.4.6.~~3A~~2A** through **4.4.6.~~3C~~2C**, potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, will be reduced to less than significant levels.

4.4.6.~~4~~3 Candidate, Non-listed Sensitive, or Special-Status Species

Impact 4.4.6.~~4:~~ 3: *The ~~proposed~~ project has the potential to affect the burrowing owl, designated "species of special concern" by the California Department of Fish and Wildlife.*

~~Threshold~~	~~Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?~~

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Critical Habitat. No USFWS designated Critical Habitat for any species is located within the ~~project area~~WLC site; therefore, no further action with regard to Critical Habitat is necessary.

Los Angeles Pocket Mouse. Focused surveys for the LAPM were conducted in August 2005, June 2010, June 2012, ~~and~~ July 2013, and May 2018. Suitable habitat was found within Drainage Feature 9, one of the main drainage features located in the eastern end of the ~~project area~~WLC site. In its MSHCP Consistency Report, MBA concluded that LAPM is absent from the ~~project area.~~WLC site, which is substantiated by the ESA May 2018 surveys. However, the WLC Specific Plan indicates this drainage will remain in its present natural condition, except for the southern end as it becomes the Street H channel and outlets to the SJWA land to the south. Extensive surveys were completed in 2005, 2010, 2012, 2013, and ~~2013~~2018, which concluded that Los Angeles pocket mouse was not present. In addition, there is no suitable habitat between the known occurrence of Los Angeles pocket mouse and the ~~WLCSP~~WLC SITE. The known populations of Los Angeles pocket mouse are located within the southern portion of the SJWA, which is more than 2 miles from the southern ~~WLCSP~~WLC site boundary. The area between the known recorded occurrences of Los Angeles pocket mouse and the ~~WLCSP is~~WLC site have been actively disked farmland in the past and a 500-foot wide area along the southern WLC site boundary continues to be actively disked. Therefore, there is no habitat connectivity between the known occurrences of Los Angeles pocket mouse and the ~~WLCSP~~WLC site. However, to ensure that no impacts occur**, Mitigation Measure 4.4.6.~~4E~~3E** has been added below.

Migratory or Nesting Birds. The 2013 MBA report found the extensive agriculture plant communities in the ~~WLCSP~~WLC site and offsite facilities provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the ~~WLCSP~~WLC site and offsite facilities as well as isolated, remnant patches of vegetation in undisturbed portions of the ~~WLCSP~~WLC site and ~~offsite~~off-site facilities. Therefore, portions of the ~~WLCSP~~WLC site and offsite facilities and immediately adjacent to the ~~WLCSP~~WLC site and off-site facilities provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

The ~~project area~~WLC site contains suitable nesting habitat for several tree-, shrub-, and ground-nesting avian species. Therefore, MBA recommends construction activities avoid the avian nesting season, from February to August, if possible. If construction activity must take place during the nesting season, a pre-construction nesting bird survey should be conducted prior to any ground disturbance activities. The survey can be conducted in conjunction with the pre-construction survey for burrowing owl.

If passerine birds are found to be nesting or if there is evidence of nesting behavior within 250 feet of the impact area, a 250-foot setback will be required around the nest where no vegetation disturbance will be permitted. For raptor species such as hawks and owls, this buffer should be expanded to 500 feet. A qualified biologist will be required to closely monitor nests until it is determined that they are no longer active, at which time construction activity in the vicinity of nests could continue. Construction activity may proceed within the buffer area at the discretion of the biological monitor.

Burrowing Owl. For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. While no burrowing owls were identified within the project's proposed area of disturbance, because suitable habitat is present within the ~~project area~~WLC site for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. The species was documented in 2018 within the proposed 250-foot setback area along the southern WLC site boundary. This is a potentially significant impact requiring mitigation.

All burrowing owl observations within the project site prior to 2018 are associated with artificially created berms. The recorded sightings have been within a bank of an existing drainage feature, a berm within the recently constructed detention basin associated with the Skechers Building (Drainage 3), and a roadside berm just south of Alessandro Boulevard. Burrowing owl was observed in 2018 in the eastern drainage within the proposed 250-foot setback area.

The proposed detention basins will be constructed with similar manufactured berms. Based on historic observations of burrowing owl within the ~~project~~WLC site, it is reasonable to assume that construction of similar berms will continue to provide optimum burrow habitat for resident burrowing owls.

In addition, since there have been no recorded occurrences of burrowing owl in the northern portion of the SJWA there is no concern for competition with other burrowing owls. It is reasonable to assume that the created detention basins will provide more than a sufficient amount of foraging habitat to support a single pair of burrowing owl. Since the southern 250~~-~~-feet of the ~~WLCSP~~WLC site will not contain any building development and construction activities will be restricted to detention basins and associated access roads, it would be more appropriate to include the ~~buffer~~setback area in a deed restriction rather than a conservation easement.

Plant Survey Areas. The project limits are within MSHCP Survey Area 10 of the NEPSSA and MSHCP Survey Area 9 of the CASSA for plant species. The MSHCP requires that a habitat site assessment (HSA) be conducted for all proposed developments within Narrow Endemic Plant Species' (NEPSSAs) and Criteria Area Sensitive Plant Species' (CASSAs). The HSA for most NEPSSA and CASSA plants must be done during a normal rainfall year and/rainy season. If it is determined during the HSA that suitable soils and/or growing conditions are present on site to support identified NEPSSA species, a focused plant survey is required during the plant species blooming period.

Habitat suitability of the site for NEPSSA and CASSA species is detailed in the General Biological Resources and MSHCP Compliance Report (~~EIR~~ Appendix E). None of the species analyzed in the NEPSSA or CASSAs is anticipated to occur on the WLC ~~project site.~~site and none were observed during 2018 rare plant surveys. The implementation of the WLC project would not affect the habitat or result in a direct impact for any special status plant species.

~~Project~~WLC or Specific Plan Design Features. The ~~WLCSP~~WLC Specific Plan does not contain any design features relative to sensitive species or birds, other than the landscape palette that contains all native and/or drought-tolerant plants that may be utilized by birds tolerant of human activity.

~~*The following mitigation measures have been changed in response to Comments A-6-17 in Letter A-6 from the U.S. Fish and Wildlife Service, and Comment B-3-33 in Letter B-3 from the California Department of Fish and Wildlife.*~~

Mitigation Measures. The following measures have been identified to reduce the significance of potential impacts to special status bird species:

Listed or Sensitive Species:

The previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.~~1D~~1B** will reduce potential impacts on listed or otherwise sensitive plant or animal species or critical habitat to less than significant levels, other than the following which are addressed with additional measures:

Migratory/Nesting Birds

4.4.6.~~4A~~3A Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the ~~developer~~applicant shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the ~~buffer~~setback area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.~~4B~~3B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.~~4B~~3B If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.~~4A~~3A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.~~4C~~3C The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped ~~buffer~~setback area adjacent to the ~~San Jacinto Wildlife Area~~SJWA property~~ (SJWA).~~. First, the payment of the Western Riverside County Multiple ~~species~~Species Habitat Conservation Plan fee ~~will~~shall be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A ~~will~~shall be established within the ~~World Logistics Center Specific Plan area~~WLC site. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.

Burrowing Owl

4.4.6.~~4D~~3D A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the ~~project area~~WLC site.

In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500~~-~~-foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan ~~will~~shall outline the basic process and provides options for avoidance ~~and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics Center Specific Plan~~. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW.

A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot ~~buffer~~setback area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.

Los Angeles Pocket Mouse

4.4.6.~~4E~~3E Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the ~~project~~WLC site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division.

Resource Management

4.4.6.~~4F~~3F Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan ~~will~~shall identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan ~~will~~shall also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.~~6~~5.2A, 4.4.6.~~4D~~3D, and 4.4.6.~~4E~~3E.

The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division.

4.4.6.~~4G~~3G Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the ~~California Department of Fish and Wildlife (CDFW)~~ San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8).

During construction, the runoff leaving construction areas ~~will~~shall be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the ~~WLCSP will~~WLC site shall be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat ~~will~~shall be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).

4.4.6.~~4H~~3H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the ~~buffer~~setback area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.

4.4.6.~~4I~~3I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.

4.4.6.~~4J~~3J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the ~~World Logistics Center Specific Plan~~WLC site adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project ~~proponent~~applicant and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following:

- A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area.
- A list of non-native invasive plants that are prohibited from installation.
- Maintenance activities and a maintenance schedule.

Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.

4.4.6.~~4K~~3K Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.

Level of Significance after Mitigation. Implementation of the above-listed mitigation measures would reduce impacts to burrowing owl, migratory bird species, and Los Angeles pocket mouse to less than significant levels.

~~4.4.7~~ **Note to reader:** Cumulative Impacts

~~The cumulative area for biological resources is the Western Riverside County MSHCP area. The MSHCP establishes a comprehensive, multi-jurisdictional program focused on the conservation of 146 species and their habitats in western Riverside County. As stated in its Conservation Element, the City reviews all public and private development and construction projects and other land use plans/activities within the MSHCP area to ensure compliance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP. As a signatory~~ to ~~the MSHCP Implementing Agreement, the City has been issued "Take Authorization," which allows the implementation of land use decisions consistent with the MSHCP without individual authorization by State or Federal authorities. As required by the MSHCP, focused biological resource studies have been conducted to assess potential impacts associated with development of the proposed uses. Where impacts to special status bird species and jurisdictional areas have been identified, mitigation has been identified to reduce the project specific impacts to a less than significant level. Additionally, the MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the RCA. These fees~~Biological Resources are ~~in turn used to acquire lands which are suitable for habitat preservation for species covered by the MSHCP. In fact, habitat lands created by the MSHCP also have biological benefits for species technically not covered by the MSHCP, such~~

~~as the burrowing owl. Habitat acquired by the MSHCP may be suitable as owl habitat. The latest adjustment of the MSHCP fee mitigation (July 1, 2009) allows the collection of fees of $~~discussed in Section 6~~,597 per acre of industrial development. The payment of required MSHCP is a standard requirement for all development occurring within the MSHCP area.~~

~~This EIR determined that indirect impacts of the project on the SJWA would be less than significant with mitigation, and the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning. For example, future development that impacts Drainage 9 would be required to prepare a DBESP report consistent with MSHCP requirements. Through the implementation of the stated mitigation for project-specific impacts, and the payment of required MSHCP mitigation fees, no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures.~~

~~**THIS PAGE INTENTIONALLY LEFT BLANK**~~.4 Biological Resources.

~~4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES: TABLE OF CONTENTS~~

~~FIGURE~~

~~TABLE~~

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NOTE TO READERS. *The cumulative portion of Section 4.5 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.5 of this Revised Sections of the FEIR. All other portions of Section 4.5 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.5 means that the corresponding portion of Section 4.5 in the FEIR remains unchanged or has been deleted.*~~*This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies, and revisions to DEIR sections and proposed Mitigation Measures.*~~

4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section identifies and evaluates the potential of the project to have adverse effects on archaeological, historical, and paleontological resources. The resources of concern include, but are not limited to, prehistoric and historic artifacts, burials, sites of religious or cultural significance to Native American groups, and historic structures. This section provides a detailed discussion of impacts potentially attributable to the project, and criteria used to determine impact significance to cultural resources.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the development. ~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following technical study prepared for the project:

- Cultural Resources Assessment, Michael Brandman Associates, original dated April 12, 2012, updated September 2014 (Appendix F).
- Copies of City correspondence illustrating City compliance with SB 18 tribal consultation requirements (Appendix A).

In addition to this technical study, the analysis contained in this section is also based on the following reference documents:

- Moreno Valley General Plan Conservation Element, adopted October, 2006.
- Moreno Valley General Plan Environmental Impact Report, certified July, 2006.

4.5.1 Existing Setting

4.5.1.1 Archaeological Resources

Archaeological resources are those associated with prehistoric cultural sites, prehistoric isolates, and the remnants of historic cultural sites that lack substantive building remnants (termed "historic archaeological sites") such as roads and trails. Prehistoric cultural resources consist of those physical properties that predate the advent of written records in a particular region that are considered important to a culture, subculture, or community for scientific or humanistic reasons. These include geographic districts, structures, sites, objects, and other physical evidence of past human activity. Similar to prehistoric cultural resources, historic cultural resources in a particular geographic region are considered important to a culture, subculture, or community, and postdate the advent of written records. An archaeological records search was conducted through the Eastern Information Center (EIC) at the University of California, Riverside by the project archaeologist, Michael Brandman Associates (MBA).

The results of this records search indicated that the project site and surrounding area contain a number of Native American (NA) sites, mainly milling features and slicks associated with the uplands of the nearby Mount Russell Range. The area also contains several historic sites mainly remnant artifacts and foundations of historic homestead/farmstead buildings and/or ranch complexes.

4.5.1.2 Historic Resources

The following is excerpted and summarized from Viola Hamner's "In the Beginning," a history of life in Moreno Valley (Hamner 2003):

> *Our valley was once called San Jacinto Plains. It was so named because the land was considered a part of the huge Rancho San Jacinto, dating back to mission times. It has been described as part of the tableland that stretches between Box Springs and the San Jacinto Mountains, and between the Badlands and Temecula.*
>
> *Great bands of sheep and herds of cattle from the rancho roamed our valley and munched the grasses and weeds. Indian made trails and camped near the hills. Just as new, the hills turned brown during the summer months and into the spring, the undisturbed land became a billowy lake of blossoms…*

> *When the huge Alessandro Tract on the western part of our valley was recorded in August 1887, and the town of Alessandro was established, our valley became known as Alessandro Valley or Alessandro Plains. After 1890 when the town of Moreno was established, it became known as Moreno Valley as well as Alessandro Valley.*
>
> *Then in 1890 appeared Frank E. Brown and his Bear Valley and Alessandro Development Company, coming in like a great wind, and in one big swoop, changed our valley forever… Brown and his partner Edward Judson, devised a plan to build a dam and transport water to their land from Big Bear Mountain. They then founded the successful colony of Redlands. They concluded that if they built the Bear Valley Dam higher, there would be enough water in the big reservoir to establish another colony in what is now Moreno Valley.*
>
> *Brown and his investors bought and subdivided thousands of acres of land throughout the valley.*
>
> *In April 1891, the precious Bear Valley water finally arrived. It traveled down the mountain and through pipelines, tunnels, and ditches for a distance of forty miles… With only a promise of water, the excited settlers started to improve their parcels.*
>
> *For several years, there was great hope and planting activity in the valley. Then, in 1894, a series of misfortunes befell the valley, including several years of drought and a lack of irrigation water as a result of losing a water rights decision with Redlands. It turned out the Big Bear Dam had not been built large enough to handle drought conditions.*
>
> *The drought continued and by 1898, Big Bear Lake was virtually dry. Depopulation of Moreno Valley began, and some settlers moved to nearby towns, taking their houses with them. An English writer described it as a “Valley on Wheels.” Even the three-story Hotel de Moreno (at the corner of Alessandro Avenue and Redlands Boulevard). “Some businesses continued to operate in the town of Moreno. The General Store and Post Office continued on for over 100 years. The town may have withered, but it never died.*
>
> *Over the years, other settlers who could afford it, dug their own wells and continued to raise citrus. In the spring, the sweet smell of orange blossoms gave delightful encouragement. Olives and other crops were planted, but most of the acreage in Moreno Valley was filled with “amber fields of grain.” The dry-land farming had only the winter rains to sustain them.*

The author then refers to the “second coming or the second spurt of development. This began with the subdivision of the Sunnymead Orchard Tract in 1912, the establishment of Alessandro Flying Field (March Field) in 1918, and the subdivision of the Edgemont Tract in 1923.”

Finally, the author refers to the “third coming when huge parcels of open land were turned into housing tracts, starting in the 1960’s, resulting in an explosion of population. The city of Moreno Valley was founded in November 1984. It encompassed the Moreno, Sunnymead, and Edgemont areas. It became the 20th City in Riverside County and the second largest in population at that time.”

4.5.1.3 Paleontological Resources

The project site is located at the northern end of the Peninsular Range Geomorphic Province California Geologic Survey (2002), a 900-mile long northwest-southeast trending structural block that extends from the tip of Baja California to the Transverse Ranges and includes the Los Angeles Basin. This region is characterized by a series of mountain ranges separated by northwest-trending valleys sub-parallel to faults branching from the San Andreas Fault. The trend of topography is similar to that of the Coast Ranges Geomorphic Province located to the north, but the geology is more like that of the Sierra Nevada, with granitic rock intruding on the older metamorphic rocks. It contains extensive pre-Cretaceous (greater than 65 million years ago) igneous and metamorphic rocks covered by limited exposures of post-Cretaceous sedimentary deposits.

Specifically, the project site is located on the Perris Block, which extends from the southern foot of the San Gabriel and San Bernardino Mountains southeast to the vicinity of Bachelor Mountain and Poly Butte. It is bounded on the southwest by the Elsinore Fault Zone and on the northeast by the San Jacinto Fault. The surface of the Perris Block consists of granitic exposures that have been tectonically tilted eastward, leaving granitic outcrops elevated and exposed on the west side of the Perris Block (Jurupa Hills) and allowing Pleistocene sediments to cover the east side, filling the eastern San Bernardino, Lakeview, Perris, and San Jacinto Valleys.

The project site lies between the plutonic batholith of Mt. Russell, the San Jacinto fault zone and the Pliocene-era non-marine sedimentary rocks of The Badlands.[1] Within the project limits, Holocene alluvial sediments and isolated Pleistocene alluvial sediments have been mapped across much of the site, with a small outcrop of Cretaceous granitic bedrock on the surface in the southwestern portion of the site. It is possible that deposits of middle to late Pleistocene (300,000 to 10,000 years ago) alluvium are present just below the surface in isolated locations of the site, but there are no surface expressions of this older formation on the surface within the project site.

Artificial Fill. Artificial fill consists of sediments that have been removed from one location and transported to another by human activity. Artificial fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and plant material. Artificial fill can contain fossils, but since these fossils have been removed from their original location, it is unlikely to contain in-situ fossils. Artificial fill can be found in isolated areas on the project site, mainly associated with former ranch/farm sites or existing residences and farms.

Holocene Alluvial Fan Deposits. Holocene Alluvial Fan Deposits are also known as Recent to Young Alluvial Fan Deposits. They are found at the mouths of canyons or along the sides of hills that flank river and stream valleys (e.g., the Badlands to the east and northeast). They represent deposition by small streams that flow out of mountains and hills. They were deposited during the early to late Holocene and range in age from the recent to 10,000 years before the present. Although Holocene alluvium can contain remains of plants and animals, generally not enough time has passed for the remains to become fossilized. In addition, the remains are contemporaneous with modern species, and these remains are usually not considered to be significant. These deposits are too young to contain in-situ fossils and have low paleontological sensitivity; however, it should be noted that although an area may be mapped with younger alluvium on the surface, deposits of older alluvium are often encountered at shallow depths below the surface, and these older sediments can and do contain fossils.

Pleistocene Alluvial Fan Deposits. Pleistocene Alluvial Fan Deposits are also known as Old Alluvial Fan Deposits and Very Old Alluvial Fan Deposits. Like the Holocene Alluvial Fan Deposits described above, they are found at the mouths of canyons and along the sides of hills that flank river and stream valleys, they are older than the Holocene deposits. The Old Alluvial Fan Deposits were deposited during the late to middle Pleistocene (10,000–300,000 years ago) and the Very Old Alluvial Fan Deposits were deposited during the middle to Early Pleistocene (300,000–1.8 million years ago). Within the subsurface of the project area, sediments from the middle to late Pleistocene likely exist at depths (i.e., possibly as shallow as 5 feet). In addition, as early to middle Pleistocene alluvial sediments are mapped as occurring just to the east and west of the project area, it is also likely that these older sediments may be encountered as well. Fossils are known in similar Pleistocene deposits from excavations for roads, housing developments, and quarries within the Southern California area. These sediments have the potential to contain in-situ fossils and have a high paleontological sensitivity.

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[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

Heterogeneous Granitic Rocks. Heterogeneous mixtures of granitic rocks contain some metamorphic rocks such as schist and gneiss. Granitic rocks range in composition from hornblende-rich quartz diorite to leucocratic tonalite and from potassium feldspar-free rocks to granodiorite and quartz diorite. Because of its igneous origin, granitic rocks do not contain paleontological resources. Surface bedrock deposits are found in the upland areas near the southwest portion of the project site, associated with the Mount Russell Range surrounding Lake Perris.

Summary. A paleontological locality search indicated that there was a low potential for significant paleontological resources to be encountered by construction excavation on the project site at the depths planned for the project, although it is possible that Pleistocene alluvial deposits, which have a higher potential to contain fossils, may be found in some locations during project grading.

4.5.1.4 Ethnographic Context

The Moreno Valley General Plan EIR states that the Luiseño and Cahuilla peoples occupied the region during the Late Prehistoric period. Unfortunately, there is a lack of definitive archaeological evidence linking the prehistoric site complexes located within the City limits of Moreno Valley to any single modern tribal group. It is likely that northern Luiseño and western Cahuilla peoples accessed this area during the late prehistoric period for resource gathering. Areas located at the base of Mt. Russell would have been a logical place for a trade route, as it would link prehistoric site complexes at the north end of the City with the marshy areas at the north end of the San Jacinto Valley. Serrano peoples may have also used the San Jacinto Valley to link with their more southern groups.

a. Cahuilla

The Cahuilla Indians occupied the San Timoteo valley prior to contact with Spanish Mission padres and military personnel, which places the project area near their traditional use areas. Of all the southern California Indians, the Cahuilla existed within the most geographically diverse region, constrained only by water supplies and topography. Currently, it is thought that a migration of Shoshonean peoples from the Great Basin occurred approximately 1,000 to 600 years ago, with populations moving into much of desert and coastal Southern California. Included among these migrants were the forbearers to the modern Cahuilla. The prehistoric Cahuilla were characterized by the occupation of sedentary villages in subsistence territories that permitted them to reach the majority of their resources within a day’s walk. Villages were commonly located near reliable sources of water. During October to November, much of the village population moved to temporary camps in the mountains to harvest acorns and hunt game.

Inland groups also had fishing and gathering spots on the coast that they visited annually. In comparison with the Gabrielino and Luiseño, the Cahuilla appear to have had a lower population density and a less rigid social structure. The Cahuilla patterns may have been relatively stable until mission secularization in 1834, due to the policy of the Catholic Mission fathers or padres to maintain imported European traditional style settlement and economic patterns.

b. Luiseño

The Luiseño, belong to the Shoshonean linguistic family, which is also shared by Cahuilla, Gabrielino, and Serrano among others.[1] Luiseño villages could be found from the Pacific Ocean inland to the western base of the San Jacinto River and near Fallbrook. The villages were typically established near defined water and food sources and in good defensive locations, so these villages were commonly located along valley bottoms, streams, or coastal strands. The Luiseño characteristically lived in

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[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

sedentary villages, therefore one clan or family occupied several food-gathering locations and aggressively guarded these areas against other clans.

c. Serrano

The project area is considered to be in an area historically used by the Serrano. All indigenous groups adjacent to the eastern San Bernardino Mountains were decimated by the Spanish, but some Serrano survived for many years thereafter in the far eastern San Bernardino Mountains due to the ruggedness of the terrain and the dispersed population. It is believed Serrano families inhabited the *Guachama Ranchería* or *Politana* in the early 1800s. This village apparently housed the Rancho San Bernardino *estancia* after about 1819. Their range is generally thought to have been located in and east of the Cajon Pass area of the San Bernardino Mountains, north of Yucaipa, west of Twentynine Palms and south of Victorville. Like all prehistoric Californians, the range of this group was determined by reliable water sources. A Serrano village typically consisted of a collection of families centered about a ceremonial house, with individual families inhabiting willow-framed huts with tule thatching. Considered hunter-gatherers, the Serrano exhibited a sophisticated technology devoted to hunting small animals and gathering roots, tubers, and seeds of various kinds. Today, Serrano descendants are found mostly on the Morongo and San Manuel reservations.

4.5.1.5 Local History

a. Spanish Period (A.D. 1769 to 1821)

The earliest record of exploration of the Moreno Valley area is from the journal of Juan Bautista de Anza, a Spanish explorer who traveled from Mexico City through the San Jacinto Valley, passing by Mystic Lake and through the Moreno Valley area, on his way to Monterrey and San Francisco in 1774.

Father Junipero Serra was sent to Alta California to create a chain of Missions and Mission outposts to bring Christianity to the indigenous population, and create a foundation for colonization of the region. Located between the previously established presidios in Monterey and San Diego, Serra had military assistance in his quest and the San Bernardino area came under the early control of Spanish soldier Pedro Fages and Father Francisco Garces. In 1819, Rancho San Bernardino was established. This followed a decision by the heads of the mission system to expand their agricultural holdings into the interior and later establish a chain of additional Missions in the desert interior. A decision was made to create an *estancia*, or a ranch headquarters with a chapel that was occasionally visited by padres at the *Guachama Ranchería*. Work on the San Bernardino *Asistencia* was started about 1830, and it was not yet finished when the project was abandoned in 1834. The rancho traditions were kept once Mexico established control over the area, but without the original authority of the Mission padres.

b. Mexican Period (A.D. 1821 to 1848)

After years of internal fighting, Mexico achieved its independence from Spain in 1821 and Alta California became the northern frontier of the State of Mexico. The Mission padres were then forced to swear allegiance to Mexico in 1822. Secularization of the missions took place over the next decade and the former mission lands were transferred to the large Mexican families that had settled in the area. Affiliated with Mission San Luis Rey, the Rancho San Jacinto was formed on December 21, 1842 and granted to Jose Antonio Estudillo. This rancho provided Estudillo with twice as much land, 8 square leagues, or 46,080 acres, as he had petitioned for the previous August. Lands north of the modern Alessandro Boulevard were not claimed by any family, probably because little reliable water existed in the area, except for the Mystic Lake cienega, and because it was a two-day ride from the closest Missions, San Gabriel, and San Luis Rey. The property was petitioned for division by Estudillo's brother-in-law Miguel de Pedrorena, soon after and a small portion of The Badlands north of Hemet was added to form the Rancho San Jacinto Nuevo y Potrero.

There is historical evidence a road led from the Rancho San Jacinto headquarters northwest along the base of The Badlands to the springs in the Box Springs Mountains east of what is now Riverside, then over to roads near the Santa Ana River. The route, which likely followed the current alignment of Gilman Springs Road, has been used for travel for over 160 years. The primary purpose of the interior ranchos was to raise cattle and sheep; however, beyond the Mystic Lake *cienega* west of Eden Hot Springs, little reliable water was found north of San Jacinto. The trail likely brought travelers along the base of Mt. Russell as this would shorten the trip to Box Springs. The upper San Jacinto Valley proved marginal in terms of food production for Native Americans, a factor that limited agricultural growth expansion well into the 1950s.

c. Moreno Valley Before 1893

Theodore Street was the eastern border of the old Bear Valley and Alessandro Development Company (BV&A) development. BV&A conceptualized the town of Moreno and the community of Alessandro in 1889. Frank Elwood Brown, an engineer who moved to California in 1876, was the co-founder with Edward Judson of the town of Redlands. In 1890, Brown and other investors formed the BV&A to “plat out new towns, bring Bear Valley water to the [Moreno] Valley, and open another large area to agricultural and town site development.”[1] Brown and Judson began growing citrus in Redlands between 1878 and 1882 using meager local water supplies. Brown formed the Bear Valley Land and Water Company (BVLWC) in the early 1880s and constructed the Big Bear Dam in 1883. After successfully creating Big Bear Lake, at that time the largest man-made reservoir in the world, water began flowing from the dam through a series of flumes and canals to Redlands orchards in 1885. This demonstration led locals to believe that the area could be successfully irrigated using water brought in from the mountains to the north.

The potential for Big Bear Lake seemed enormous because the winters between 1875 and 1885 were some of the wettest winters on record. Brown assumed that the abundance of water stored in the reservoir in those years was typical and would continue as such. With little knowledge of precipitation fluctuations in southern California, water supplies appeared unlimited and Brown and others fostered grandiose schemes for attracting moneyed investors. Between 1889 and 1890, Brown began trading stocks from his own companies to develop land south of Redlands and consolidate his water rights. After organizing the BV&A in 1889, Brown and his associates bought all of the BVLWC stock individually. They then incorporated the Bear Valley Irrigation Company (BVIC), which bought all of the original BVLWC stock, including the dam, from the BV&A.[2]

Frank Brown hoped to duplicate the success of the City of Redlands, which by 1890 was a thriving commercial citrus center located along an established railroad right-of-way. Turning his attention to the valley south of Redlands, a 280-acre town site was named the Town of Moreno. Initially, the town was to have been named New Haven, after New Haven, Connecticut where many of the investors, including Brown, were from. However, to honor Brown, the name Moreno, which is the Spanish word for “brown,” was chosen. North-south streets in the BV&A development in Moreno and Alessandro were named for the corporation leaders, while east-west streets were named for plant and tree species common in California at the time. Hopes were high that Moreno would prosper and local newspapers in 1891 declared that “Moreno will be a rail road town in the future [which has] every advantage of the most favored locality in Southern California and the disadvantages of none.”

In April 1891, it was estimated that between 1,500 and 2,000 people went to the new town site of Moreno to purchase town lots being sold at public auction. In the following eight months, a Congregational Church, four brick commercial buildings, a lumberyard, two brickyards, a cement pipe works, and a school were constructed with as many as “thirty houses being built at one time.”

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[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., September 2014.
[2] Ibid.

By 1893, the Hotel de Moreno, three stories high and encompassing an entire city block, was operational and doing a brisk business with people needing a place to stay while developing their land. Investors interested in Moreno Valley land were from nearby locations, Los Angeles, San Diego, San Bernardino, and from as far away as Wisconsin, Pennsylvania, and New York. A map was created to show potential buyers what types of irrigation systems would be built and where the land was located.[1]

d. Moreno Valley After 1893

Moreno had become a small boomtown with new businesses developing, and orchards and crops being planted on nearby fields. The success for both local businesses and the farmers depended on the availability and consistency of water. Although Brown had studied the feasibility of bringing water into the Valley and had initially been successful piping water from Bear Valley, by 1893 Brown and others realized that without a higher dam, the reservoir could not hold enough water to meet the irrigation needs of Redlands and Moreno. To worsen the situation for Moreno, Redlands was the town for whom the reservoir was initially built and therefore had first rights to the water. A legal suit won by Redlands in 1894, in effect permanently shut off the water to Moreno, although a local judge ordered that domestic water to Moreno homes must be reinstated.[2]

In addition to the lack of water, it is likely that the Recession (Panic) of 1893 forced many potential farmers in southern California to reconsider their options, and new farmers went out of business. The Panic was caused by railroad overbuilding and speculation, much of which was driven by westward expansion into California. According to several sources, over 15,000 businesses and 500 banks failed during this period, many of them in California. The Northern Pacific Railway, the Union Pacific Railroad, and the Atchison, Topeka & Santa Fe Railroad all failed. The resultant depression lasted for three years and farmers went bankrupt nationwide; good economic times did not resurface until about 1899. By that time, the speculative land boom in this part of Southern California was over.

The City remained a rural agricultural community for many decades, until after World War II. The expansion of the Federal freeway system and housing boom following the war led to the start of suburbanization in the Moreno Valley area that slowly converted agricultural land to new homes, shopping centers, etc. In the 1990s at one time, Moreno Valley was one of the fastest-growing communities in the nation. The older agriculture-oriented towns of Alessandro and Moreno gave way to suburban residential neighborhoods. By 2010, “Moreno” had suburban development to the west and agricultural fields to the east.

Alessandro Boulevard. In connection with the development of the Town of Moreno in the 1890s as part of the Bear Valley and Alessandro Development Company’s real estate venture, Alessandro Boulevard was constructed across much of the project site. The roadway has been in continuous use in largely its same location since that time. In 1988, the City adopted Resolution CPAB 88-2 recognizing the landmark status of this roadway and providing for the preservation of its 120-foot right-of-way through the City.

4.5.1.6 NOP/Scoping Comments

The Sierra Club expressed concern about how the project would affect Native American sites in this area, as well as the agricultural history of this area. In addition, Susan Nash provided information about the route that Juan Bautista de Anza took through the San Jacinto Valley and the project site on his travels from San Diego to points north. These comments are addressed in this section of the EIR.

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[1] Ibid.
[2] Ibid.

4.5.2 Existing Policies and Regulations

4.5.2.1 Federal Regulations

National Historic Preservation Act (NHPA) of 1966 (as amended), Section 106. The NHPA declares a national policy of historic preservation to protect, rehabilitate, restore, and reuse districts, sites, buildings, structures, and objects significant in American architecture, history, archaeology, and culture. The NHPA established the National Register of Historic Places (National Register), State Historic Preservation Offices (SHPOs) and programs, and the Advisory Council on Historic Preservation. This Act applies to all properties on or eligible for inclusion in the National Register. The Section 106 review process requires consultation to mitigate damage to “historic properties” (defined per 36 CFR 800.16[1] as places that qualify for the National Register), including Native American traditional cultural places (TCPs). Evaluation of cultural resources consists of determining whether it is significant (i.e., whether it meets one or more of the criteria for listing in the National Register). These eligibility criteria are defined in 36 CFR 60.4 as follows:

> The quality of significance in America history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association:
>
> A. That is associated with events that have made a significant contribution to the broad patterns of our history;
>
> B. That is associated with the lives of persons significant in our past;
>
> C. That embodies the distinctive characteristics of a type, period or method of construction, or that represents the work of a master, or possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; and/or
>
> D. That has yielded, or may be likely to yield, information important to prehistory or history.

4.5.2.2 State Regulations

California Environmental Quality Act. An “historic resource” includes, but is not limited to, any object, building, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.[1] CEQA mandates that lead agencies consider a resource “historically significant” if it meets the criteria for listing in the California Register of Historic Resources (California Register). Such resources meet this requirement if they (1) are associated with events that have made a significant contribution to the broad patterns of California history, (2) are associated with the lives of important persons in the past, (3) embody distinctive characteristics of a type, period, region, or method of construction, and/or (4) represent the work of an important creative individual or possesses high artistic value.[2] These criteria mimic the criteria utilized to determine eligibility for the National Register.

In addition, Public Resources Code Section 21083.2 and *CEQA Guidelines* Section 15064.5(f) recognize that historical or unique archaeological resources other than potential Native American burials may be accidentally discovered during project construction. This guideline recommends that immediate evaluation defined by qualified archaeologists be included in mitigation measures. This guideline also recommends that if the find is determined to be a historical or unique archaeological

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[1] Public Resources Code, Section 5020.1(j).

[2] Public Resources Code, Section 5024.1(c).

resource, that contingency funding and time allotments sufficient to allow for implementation and avoidance measures be available.

Senate Bill 18. Signed into law in September 2004, and effective March 1, 2005, SB 18 permits California Native American tribes recognized by the Native American Heritage Commission (NAHC) to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term “California Native American tribe” is defined as “a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC.”

The bill also requires that, prior to the adoption or amendment of a city or county’s general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county’s jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

California Health and Safety Code. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on site, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. This regulation is applicable to any project where ground disturbance would occur.

4.5.2.3 City of Moreno Valley General Plan Policies

The General Plan defines goals and policies related to cultural resources within the City of Moreno Valley. The Chapter 9 Goals and Policies section provides the following guidelines to City staff:

Objective 7.6: Identify and preserve Moreno Valley’s unique historical and archaeological resources for future generations.

Policies in Response to Objective 7.6:

7.6.1) Historical, cultural and archaeological resources shall be located and preserved, or mitigated consistent with their intrinsic value.

7.6.2) Implement appropriate mitigation measures to conserve cultural resources that are uncovered during excavation and construction activities.

7.6.3) Minimize damage to the integrity of historic structures when they are altered.

7.6.4) Encourage restoration and adaptive reuse of historical buildings worthy of preservation.

7.6.5) Encourage documentation of historic buildings when such buildings must be demolished.

To help define when a cultural resource becomes “significant” within the context of Moreno Valley history, a professional cultural resource manager must conduct an assessment with consideration of an appropriate threshold. Certain cultural resources will have an intrinsic value to the City. City policy suggests that significant cultural resources uncovered during project-related excavation and construction activities should be preserved and/or mitigated to the extent feasible consistent with their intrinsic value.

Prehistoric sites on Mount Russell are located within lands under the jurisdiction of the City and the County of Riverside are part of an unofficial prehistoric district known as the Wolfskill Ranch North Complex, and its general location has been published in the Moreno Valley General Plan Final EIR.[1] Page 5.10-14 of the Moreno Valley General Plan Final EIR notes that the North Complex is located on Open Space and that a project's potential effect to all prehistoric cultural resources in the City, including those of the Wolfskill complex, is considered a significant impact.

4.5.3 Methodology

4.5.3.1 Phase 1 Research

a. Cultural Resource Assessment

Over the past ten years, a number of cultural resource assessments have been conducted on the project site and in surrounding areas. The following information summarizes the results of those surveys as described in Tables 1 and 2 from the Cultural Resources Assessment conducted for the project. There are 45 archaeological Native American and historical resource sites in the general area of the project, with most being milling features or slicks in the Mount Russell area.[2]

Table 4.5.A lists 11 sites were identified in the southwest portion of the project site, which is designated "Open Space" in the Specific Plan and will not be disturbed. These sites are all milling features associated with the Mount Russell Range and will not be affected by development of the project.

Table 4.5.A: Cultural Resources Identified in the Southwest Portion of the Project Site

CA-RIV-610	CA-RIV-3238	CA-RIV-3345	CA-RIV-8006
CA-RIV-860	CA-RIV-3343	CA-RIV-3346*	CA-RIV-8007**
CA-RIV-2993	CA-RIV-3344	CA-RIV-3347	

* Includes a midden.
** Renamed from CA-RIV-2775, 2776, and 2777.

It should be noted that the cultural assessments for the project do not show the specific locations of the cultural resource sites. This information is restricted from the public, and is considered confidential and protected under CEQA, to protect the resources from illegal or inappropriate damage or theft. The project's Cultural Resources Assessment fulfills the requirements of CEQA as outlined in Section 4.5.6.2, *Significant Impacts*. (*See, e.g. Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200.)

The project's cultural assessments also found five sites within the project area during previous excavations for the MWD pipeline (four sites) and the EMWD Gilman tunnel (the fifth site CA-RIV-6200) that will not be affected by development within the project:[3]

- CA-RIV-6065 (P33-8168);
- CA-RIV-6066 (P33-8169);
- CA-RIV-6067 (P33-8170);
- CA-RIV-6068 (P33-8171); and
- CA-RIV-6200 (P33-8709).

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[1] City of Moreno Valley General Plan EIR, 2006
[2] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., September 2014.
[3] Ibid.

All of these sites are buried prehistoric Native American artifacts found during trench work except CA-RIV-6200, which was a deeply buried hearth (21 feet below ground surface). All of these resources remain in their original locations and will not be disturbed by the development of the project.

Four (4) historic-era cultural resource sites were identified within the project site in areas that could be affected by development as outlined in Tables 1 and 2 from the project cultural assessment:[1]

- CA-RIV-4201H (historic foundation remnants and trash);
- CA-RIV-4210H (old farm location);
- CA-RIV-5862 (historic era 2-room farmhouse); and
- P33-11621 (historic farmstead in the open space area of the project).

CA-RIV-4201H consists of historic foundation remnants and historical trash (e.g., bottles, nails, and broken dishes) along Virginia Street. Old topographic maps and photographs show a historic farm complex here. This site was Phase 2 tested by MBA in 2011 and found to be not significant according to CEQA criteria. CA-RIV-4210H consists of a historic structure, foundations, and trash deposits. Old topographic maps and photographs show a farm complex at this location. The MBA report indicates this site was Phase II-tested and found to be not significant under CEQA. CA-RIV-5862 consists of a historic era two-room farm structure, but it is on MWD property and is not considered a significant cultural resource under CEQA. P33-11621 is a historic farmstead but is within the open space property in the southern portion of the project site and will not be directly affected by construction within the project.[2]

In addition, there are seven rural residential properties within the project site that may contain historic buildings or resources, but these are private property and MBA staff did not access them and no detailed assessment was conducted. The Specific Plan designates these properties as “Light Logistics” and they will eventually be developed. There is evidence that at least one structure located east of Redlands Boulevard and north of Brodiaea Avenue was built around 1900. These sites will be investigated in connection with any development proposals affecting these properties.

In November 1988, the Cultural Preservation Advisory Board (CPAB) of the City of Moreno Valley designated the entire length of Alessandro Boulevard as a City Historical Landmark (Resolution CPAB 88-2). At that time, the CPAB made the alignment, right-of-way, and name of Alessandro part of the historical designation. Alessandro Boulevard was first established in 1890 and over the years has served as a San Bernardino County Road, Riverside County Road, a California State Highway, part of the transcontinental U.S. Route 60, part of the “Jack Rabbit Trail,” and a City boulevard (Hamner 2003). Resolution CPAB 88-2 was adopted to ensure the maintenance, enhancement, or protection of a street of historical significance. Over the years, various portions of Alessandro Boulevard have been modernized to enhance traffic flow throughout the City, but the original routing has remained unchanged.

4.5.3.2 Phase II Testing

Based on the results of Phase I survey work on a portion of project-related lands (i.e., plowed and vacant parcels) performed in August and September of 2005, Phase II testing of certain prehistoric cultural resources, located in the southwest portion of the site, was undertaken in the summer of 2006. A monitor representing the Soboba Band of Luiseño Indians was in attendance. Additional properties in the Specific Plan were surveyed in the summer and fall of 2007. The last pieces of agricultural land within the Specific Plan boundary were surveyed in July 2011. Known as the Lee Property, these

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[1] Ibid.

[2] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

exhibited two previously recorded historic-era cultural resources. MBA also re-located prehistoric archaeological site CA-RIV-3347 during the July 2011 survey. The Phase I surveys had revealed three historic-era cultural resource sites, ten prehistoric-era cultural resource sites, and six isolated artifacts located within the boundaries of the project, but not in areas planned for development within the Specific Plan. Each resource was recorded.

In early 2006, a subsurface significance-testing program (Phase II testing) on a series of nine prehistoric cultural resources located at the southwest portion of the project site was conducted to determine if these resources should be considered significant under CEQA. The Phase II-tested sites included:

- CA-RIV-610
- CA-RIV-860
- CA-RIV-3238
- CA-RIV-3343
- CA-RIV-3344
- CA-RIV-3345
- CA-RIV-3346
- CA-RIV-8006
- CA-RIV-8007

NOTE: The following changes have been made due to revision to the Specific Plan project size.

All of these sites are milling features, and CA-RIV-8006 and -8007 are milling slicks. The testing work revealed that only one of these sites exhibited evidence of intact subsurface cultural resources (CA-RIV-3346). For this reason, CA-RIV-3346 should be considered a significant cultural resource for the purposes of CEQA.[1] MBA also determined that the other eight prehistoric sites lacked additional subsurface resources.[2] The MBA report concluded that development of the Specific Plan would not impact the nine prehistoric sites, so no further research on these sites was recommended unless the project created proposed physical disturbance (grading) of these areas.[3] The 74.3 acres of open space shown in the Specific Plan (previously referenced Figure 3.8) encompasses all of the nine prehistoric sites identified by MBA. Therefore, development under the project will not have a significant impact on archaeological resources.

Several buried and isolated prehistoric resources were detected during the monitoring phase of the Highland Fairview Corporate Park Project,[4] located adjacent to the northern edge of the Specific Plan. Likewise, several buried sites adjacent to Davis Road were detected in connection with the 1998 Inland Feeder Project by MWD. Given previous finds in the project area, MBA concluded that certain portions of the project site have a “high” and “moderate” probability of containing significant buried cultural resources, while other areas of the project site have a “low” probability of containing significant buried cultural resources. The high probability areas are within 1,000 feet of the base of the southwestern foothills, while the moderate probability areas are within 2,000 feet of the same area

4.5.3.3 Native American Consultation (SB 18)

MBA contacted the NAHC in March 2011 requesting a Sacred Lands File search for the project area in order to determine if there were records of cultural resources in the area. The response from the NAHC was received on March 25, 2011, indicating that no sacred lands or traditional cultural properties are known to the NAHC within the 3,714 acres of the project area, including the Specific Plan area, Conservation Areas, and Public Facilities. However, other cultural sites have been found in the uplands outside of the project area (i.e., Lake Perris National Recreation Area to the southwest and the San Jacinto Wildlife Area to the south).

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[1] Ibid.
[2] Ibid.
[3] Ibid.
[4] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

Pursuant to SB 18, on February 29, 2012, MBA sent information-request letters to each of the 11 tribal entities identified by the NAHC (see previously referenced Table 2.C for a summary of the correspondence in this regard). In response, two tribes requested government-to-government consultation under SB 18 during the 90-day notification period (Pechanga and Soboba). The City met with the Pechanga Tribe on May 30, 2012, and with the Soboba Tribe on November 27, 2012. No other Native American entities requested a government-to-government consultation meeting. In addition, several tribes provided information to the City regarding cultural resources to be included in the EIR but did not include a consultation request.

4.5.3.4 Paleontological Contacts

MBA contacted Eric Scott of the Division of Geological Sciences of the San Bernardino County Museum on June 2005 requesting a paleontological records check of the original Moreno Highlands Specific Plan area. Mr. Scott's paleontological review showed that the project area rests entirely on exposures of Holocene (Recent) alluvium and granitic bedrock. Both the alluvium and the bedrock have low potential for fossil deposits to be uncovered during grading. However, the Holocene alluvium rests upon a veneer of Older Pleistocene alluvium and San Timoteo Formation deposits, both of which are highly sensitive for fossil resources.

MBA's monitoring work at the Highland Fairview Corporate Park project, located north and adjacent to this project area, included monitoring for paleontological resources. During construction of the Highland Fairview Corporate Park, it was shown that shallow soils (0 to 20 feet) did not contain paleontological resources. Therefore, MBA recommends that full-time paleontological monitoring on this project should take place only in those portions of the project where earthmoving occurs 20 feet or more below existing grade.

4.5.4 Thresholds of Significance

4.5.4.1 Importance of Cultural Resources

Prior to determining whether a cultural resource is significant under *CEQA Guidelines* and therefore subject to mitigation, a threshold of significance must be developed prior to testing/evaluation. This procedure is recommended by the Office of Historic Preservation (OHP)/State Prehistoric Preservation Officer (SHPO). The threshold of significance is simply a point where the qualities of significance are defined during the analysis such that the resource can be defined as a historical resource. An adverse effect to a historic resource is regarded as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced such that it no longer meets the significance criteria. In lay terms, should an analysis show that future development will destroy elements that make the cultural resource historical, but leave non-unique elements intact, then the significance of the resource will be lost and there must be mitigation for that loss.

CEQA Section 15064.5, Determining the Significance of Impacts to Archaeological and Historical Resources, states that:

> "Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:
>
> (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
>
> (B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history."

If a prehistoric cultural resource is tested, it is traditionally held that buried features such as hearths, burials, and middens could hold analytical information that will pass the significance threshold and make the site eligible for the cultural resource under Criterion D alone (listed above) For resources created after the historic period began (post-1769 AD) and which are at least 45 years old, analysis of the condition and integrity of exposed features may cause the resource to pass Criterion A, B, C, and/or D thresholds (shown above).

For buildings and other structures at least 45 years old, the completeness and integrity of the structural architecture may cause the site to pass Criterion A, B, and/or C thresholds. The threshold should be associated with the site context or theme. If sets of unusual artifacts, buried but unusual buildings, or human remains are detected during tests of cultural resources in the project site, or if a historical review of the resource finds that it was once associated with a person and/or event of historical significance at the State/National level, such resources will likely be considered potentially significant for California Register/National Register listing. In the event that the significance of the historical resource will be reduced below the threshold because of development, feasible mitigation must be developed.

4.5.4.2 Definition of Cultural Resource Sites and Isolates

Prehistoric and historic cultural resources can vary in form and function from area to area, but it is a "site" as opposed to isolated artifacts and certain features that must be considered significant. Prehistoric and historic cultural resource sites are defined in this study as three or more items, such as lithics, stone tools, glass, cans, etc., that are not from a single source or material found within a 10 square meter area. There is no limit to the physical size of a site.

Sites that could qualify as significant are typically more than 45 years old or have the potential to be more than 45 years old. These definitions assume that items found in an area with a diversity of materials can represent more than a single activity at a location. Discrete components of a site may be identified to represent repeated activity, such as milling stations, hearths, or isolated structures. Isolated artifacts and certain isolated features do not meet these minimal criteria. Isolates could consists of one or two cans, stone flakes, one metate fragment or fence posts, brass section markers, or well heads. Potential impacts to isolates need not be mitigated.

4.5.4.3 CEQA Thresholds

Based on Appendix G of the *CEQA Guidelines*, the effects of a project on cultural resources are considered to be significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- Result in any disturbance of human remains, including those interred outside of formal cemeteries.

4.5.5 Less than Significant Impacts

The following impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.5.5.1 Human Remains

Threshold	Would the project disturb any human remains, including those interred outside of formal cemeteries?

The project site is currently undeveloped. No evidence suggesting the project site has been utilized in the past for human burials has been identified. In the unlikely event that human remains are discovered during grading or construction activities within the project site, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would be required. These requirements are imposed on any construction activity in which human remains are detected, and include the following provisions:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
  - The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required; and
  - If the coroner determines the remains to be Native American:
    - The coroner shall contact the Native American Heritage Commission within 24 hours.
    - The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
    - The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code § 5097.98 (PRC § 5097.98), or
  - Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further and future subsurface disturbance pursuant to PRC § 5097.98(e).
    - The NAHC is unable to identify a most likely descendant.
    - The most likely descendant is identified by the NAHC, fails to make a recommendation within 48 hours of being granted access to the site; or
    - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

There is a small possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. Compliance with existing State law would ensure that impacts related to the discovery of buried human remains would be less than significant and no mitigation is required.

4.5.6 Significant Impacts

The following potential impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of impacts.

4.5.6.1 Archaeological Resources

Impact 4.5.6.1: *The project has the potential to affect known or previously undetected subsurface archaeological resources.*

Threshold	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

Review of all cultural resource factors in and near the project site suggests that the project site is sensitive for archaeological resources in the southwestern portion of the site and the Specific Plan has set aside these 74.3 acres as open space (Planning Area 30) to permanently protect these resources. There is no evidence that any other cultural resources are located in or near the project area; however, two tribes indicated a desire to consult with the City under SB 18 regarding the potential of such resources on the site.

The nine prehistoric cultural resources located near the southwestern portion of the project site were Phase II tested for significance: CA-RIV-610, CA-RIV-860, CA-RIV-3238, CA-RIV-3343, CA-RIV-3344, CA-RIV-3345, CA-RIV-3346, CA-RIV-8006, and CA-RIV-8007. Of these nine sites, only CA-RIV-3346 (milling features and a "midden") is considered a significant resource under *CEQA Guidelines* because it exhibited evidence of intact subsurface cultural resources (MBA 2014). The project cultural assessment concluded that all the identified prehistoric sites are outside of the development area of the Specific Plan and thus there would be no significant impact to archaeological resources from the development.

Unknown Cultural Resources. It is possible that unknown cultural resources could be discovered during project-related construction. The land within 1,000 feet of exposed granitic bedrock outcrop areas in the southwesterly corner of the project is considered to have "high" sensitivity, while areas located within 2,000 feet of this area are considered to have "moderate" sensitivity. The remainder of the site is considered to have "low" sensitivity for cultural resources. As set forth below, a qualified archaeologist should be retained by the City to monitor any earthmoving in the areas of high and moderate sensitivity.

In addition, a number of project-related improvements, including the SR-60/Theodore Street / World Logistics Center Parkway interchange, SR-60/Gilman Springs Road interchange, three reservoir sites, water, sewer, and storm drain connections, debris basins, etc. are off site and cultural surveys will be conducted when specific sites are identified for these off-site improvements.

Project or Specific Plan Design Features. The 74.3-acre open space area in the southwest corner of the WLCSP encompasses the entire foothill area some of which is considered sensitive for archaeological resources. This area is designated as Open Space in the Specific Plan and only the extension of Cactus Avenue and passive open space uses will be permitted in this area. The updated cultural report by MBA determined that potential impacts to cultural resources from constructing Cactus Avenue through this area could be reduced to less than significant levels by the implementation of the mitigation measures already proposed for project grading (MM 4.5.6.1C through 4.5.6.1E).

~~*The following mitigation measure had been revised in response to Comments A-3-23 in Letter A-3 from the Pechanga Temecula Band of Luiseño Mission Indians, A-5-6 in Letter A-5 from Soboba Band of Luiseño Indians, et al.*~~

Mitigation Measures. The following measures are proposed to help reduce potential impacts on known, unknown, or potential archaeological or historical resources to less than significant levels. The wording of the measures has been changed from the Original DEIR to address specific comments made by the Pechanga Tribe. The Tribe did request that the survey area limitations outlined in Measures 4.5.6.1C and 4.5.6.1D be removed. After consultation with the project archaeologist the measures have been modified to refer to specific planning areas within the WLC Specific Plan as shown below:

4.5.6.1A Prior to the approval of any grading permit for any of the “Light Logistics” parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the “Light Logistics” parcel to determine if significant archaeological or historical resources are present.

A Phase 2 significance evaluation shall be completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg.74).

4.5.6.1B Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg.74).

Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment.

If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official.

If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary.

Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3,Table 3, pg.74).

Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg.74).

4.5.6.1C Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg.74):

1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected;
2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative.
3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A setback~~buffer~~ of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular find are investigated; and
4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if necessary, the museum where any recovered artifacts have been curated.
5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official.

4.5.6.1D Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the Planning Official.

4.5.6.1E It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City.

No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

Level of Significance After Mitigation. Adherence to **Mitigation Measures 4.5.6.1A** through **4.5.6.1E** will reduce potential impacts to archaeological resources to less than significant levels.

4.5.6.2 Historic Resources

Impact 4.5.6.2: *The project has the potential to directly or indirectly affect local historical resources.*

Threshold	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the *State CEQA Guidelines*?

The California Register of Historical Resources. The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion in the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The California Register requires that a resource possess integrity, which is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation 1999). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing (California Office of Historic Preservation 1999).

The prehistoric sites recorded within or adjacent to the project boundaries are typical example of common resource type; a prehistoric milling complex lacking temporally diagnostic artifacts or a "single-use resource extraction and processing location." Although broadly associated with prehistoric Native American occupation, the sites do not represent unique archaeological information. The sites are not associated with significant events or persons, and do not embody distinctive characteristics of a type, period, or method of construction, nor do they appear to have the potential to yield information important in prehistory. Therefore, they do not meet any of the above criteria and are not eligible for listing in the California Register. However, they do constitute locally important examples of Native American activity and are not considered a historical resource under CEQA. Impacts to these sites relative to Native American resources are addressed in more detail in Section 4.5.6.1, *Archaeological Resources*.

The project site contains two previously identified historic sites: CA-RIV-4201H and CA-RIV-4210H. Both of these are historic-era homesteads and previously contained farm buildings and related out-buildings. They were located in the eastern portion of the Specific Plan, but MBA could find no remains of these facilities or related artifacts. The MBA report concludes the buildings were demolished and/or their materials removed for disposal or reuse at some point in the past.

There are seven rural residential structures and associated out-buildings currently present on the project site, and one (APN 478-220-009) near Redlands Boulevard contains a farm building that was built around 1900 and may be one of the oldest surviving buildings of the historic Moreno community.[1] No other evidence of past structures or unique features was identified; however, access to the seven rural residential properties was not available at the time of survey, and it appears from general observations, historical aerial photographs, and historical records that one or more of these buildings may be older than 40 years. Without more information, there is a possibility that removal of these buildings could represent a significant impact to historic structures, features, or resources, and mitigation is required.

Local Historical Resources: Alessandro Boulevard. In connection with the development of the Town of Moreno in the 1890s as part of the Bear Valley and Alessandro Development Company's real estate venture, Alessandro Boulevard was constructed across much of the project site. The roadway has been in continuous use in largely its same location since that time. In 1988, the City adopted Resolution CPAB 88-2 recognizing the landmark status of this roadway and providing for the preservation of its 120-foot right-of-way through the City. Alessandro Boulevard was designated as a City Historic Landmark in 1988 "assure the maintenance, enhancement, or protection of a street of historical significance." Over the years, various portions of Alessandro Boulevard have been modernized to enhance traffic flow throughout the City, but the original routing has remained unchanged. Alessandro Boulevard within the WLCSP would retain its original alignment but the roadway would be enhanced to serve modern traffic needs.

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[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

This has been done in multiple areas along Alessandro Boulevard in the past to better serve the needs of the community (i.e., Streets C and E originally indicated in the DEIR and Specific Plan that circulated for public review). See Figure 4.5.1. Based on these project revisions, the proposed WLCSP will not affect the integrity of the landmark status, as the significance of the Landmark status is associated with the original location of the boulevard since 1890 and the retention of the original name of the boulevard across the City. These aspects would remain and the impacts would not be considered significant since the California Register requires that a resource possess integrity, which is defined as “the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance” (California Office of Historic Preservation 1999). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing (California Office of Historic Preservation 1999). Alessandro Boulevard integrity is retained in the original location; however, design, setting, materials feeling have changed over time through modifications to the road throughout the City, and thus the impacts of the WLCSP would not be significant in the context of the overall conditions of Alessandro Boulevard.

Approximately 1,350 feet of Alessandro Boulevard east of Merwin Street would be closed to through traffic to keep trucks from using Alessandro Boulevard through the residential neighborhoods to the west of the WLC. Eliminating vehicular use of this portion of Alessandro Boulevard would not have a significant impact on the landmark status of the road, as the name and the original routing would be retained. These are the two key characters of the landmark status. This portion of road would be designed to keep access open to non-vehicular users, including pedestrians and bicyclists. Both the original route and name would be retained in keeping with the main aspects of the landmark designation.

In recognition of the historical significance of Alessandro Boulevard and in compliance with Resolution CPAB 88-2, the project will retain and protect the Alessandro Boulevard right-of-way through the project. The conceptual circulation plan for the WLC contained in the Specific Plan (Exhibit 3-1) incorporates nearly all of the current Alessandro alignment. Where the ultimate roadway right-of-way varies from the historic right-of-way, the historic right-of-way will be retained and may be improved with walks, trails, landscaping or similar compatible improvements. Prior to approval of any development including or adjacent to the historic Alessandro Boulevard right-of-way, a concept plan for its entire length shall be submitted to and approved by the Planning Commission. These requirements are contained in the Specific Plan in Section 12.9 “Alessandro Boulevard – Historical Landmark.” Retaining Streets C and E as proposed in the DEIR would have resulted in a potentially significant impact to a historical resource (Alessandro Boulevard), Mitigation Measure 4.5.6.2C has been introduced to keep Alessandro Boulevard in its original alignment. Therefore, any impact is less than significant.

In addition, historical evidence indicates Juan Bautista de Anza traveled through the project area (i.e., along the base of Mt. Russell from south to northwest), which should be acknowledged as part of the trail proposed within the Specific Plan.

Specific Plan Design Features. The Specific Plan was revised to show the realignment of Streets C and E to follow the historical alignment of Alessandro Boulevard and the eastern extension of Cactus Avenue through a part of the on-site Open Space area.

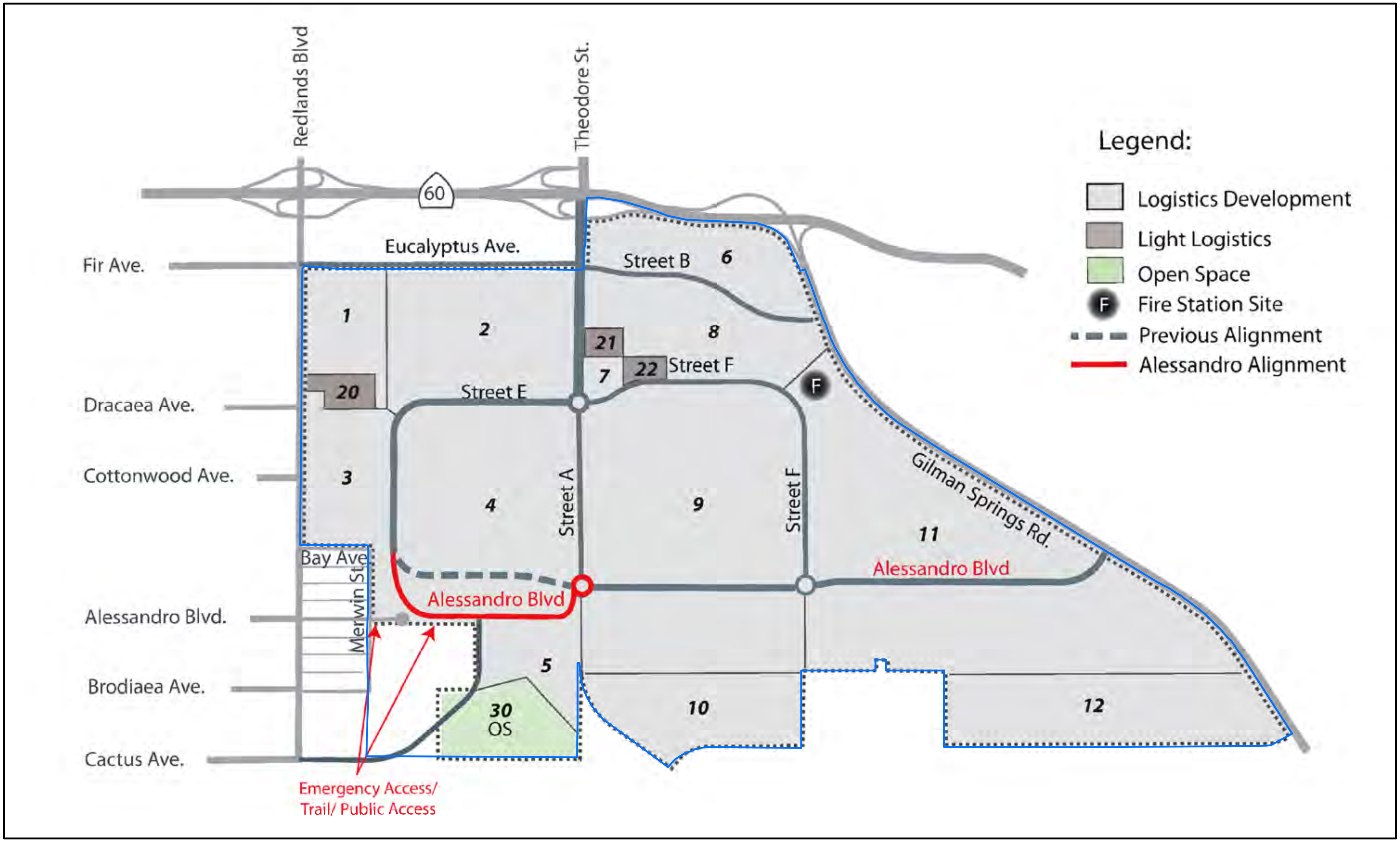

LSA

FIGURE 4.5.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Alessandro Historical Street Alignment

SOURCE: World Logistics Center Specific Plan, Highlandfairview, September, 2014.

I:\HFV1201\Reports\EIR\fig4-5-1_AlessandroHistoricalStAlignment.mxd (9/23/2014)

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The following mitigation measure had been revised in response to Comments A-3-23, A-5-6, et al (see FEIR Volume 1, Table 2.A).

Mitigation Measures. Mitigation Measure 4.5.6.1A requires surveying the seven occupied parcels for archaeological resources since these properties could not be surveyed at the time the EIR was prepared. These surveys will identify the potential for significant historical resources on these properties. In addition, the following measure will further reduce the potential impacts of the project on historical resources:

4.5.6.2A If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance.

In addition, the following measure is proposed to acknowledge the route of Juan Bautista de Anza through the project area as an important historical event:

4.5.6.2B As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society.

4.5.6.2C Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.

Level of Impact After Mitigation. Implementation of the Specific Plan as revised and **Mitigation Measures 4.5.6.1A, 4.5.6.2A,** and, **4.5.6.2B 4.5.6.2C** will help reduce potential impacts to historical resources to less than significant levels.

4.5.6.3 Paleontological Resources

Impact 4.5.6.3: *The project has the potential to affect previously undetected subsurface paleontological resources.*

Threshold	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As described in the *Paleontological Resources Assessment*, no paleontological resources were observed during the field survey. The majority of the project site is underlain by a thin veneer of Holocene alluvium that caps Pleistocene alluvial sediments. In addition, there is a small outcrop of Cretaceous granite that is exposed on the surface, and likely within the subsurface in some areas as well. The results of the assessment indicate that there are no known paleontological resources located within the project limits or within a one mile radius around the project site. The Holocene Alluvium that is exposed on the surface has a low sensitivity for containing paleontological resources. The Cretaceous granitic rocks that are exposed in a small area of the project have no sensitivity for containing paleontological resources. However, the Pleistocene Alluvium that exists in the subsurface of the project has produced paleontological resources in many areas of the Inland Empire and Southern California area.

The portions of the site underlain by older Pleistocene alluvium and San Timoteo Formation rock units should be assigned a “moderate” paleontological sensitivity because these deposits have yielded paleontological resources in other areas in the past. Overall, the project site is considered to have a moderate paleontological sensitivity; therefore, impacts are considered potentially significant and mitigation is required.

Specific Plan Design Features. The Specific Plan does not contain any policies regarding paleontological resources.

Mitigation Measures. The following mitigation measures have been identified to address potential impacts to paleontological resources that may be located within the project limits:

4.5.6.3A Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions:

1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations.
2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed.
3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens.
4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources . This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg.76).

4.5.6.3B Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures:

1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations.
2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed.
3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens.

4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.

Level of Significance After Mitigation. Adherence to **Mitigation Measures 4.5.6.3A** and **4.5.6.3B** will reduce potential impacts to paleontological resources to less than significant levels.

~~4.5.7 Cumulative Impacts~~

~~The cumulative area for cultural resources is the City of Moreno Valley and the western portion of Riverside County. Implementation of the proposed project and related off-site improvements would require measures to identify, recover, and/or record any cultural and/or paleontological resource that may occur within the project limits. Although unlikely to occur, potential impacts associated with human remains would be reduced to a less than significant level through adherence to existing State law. With implementation of the recommended mitigation measures, potential impacts to archaeological or paleontological resources from future development will be reduced to less than significant levels. Since this region contains archaeological, historical, and paleontological resources that have been found in the past, future development in the surrounding region may impact these resources as well. However, implementation of the mitigation measures outlined in this document, and other CEQA documents for development projects in the area, will help reduce potential impacts to cultural resources to less than significant levels. With implementation of the project-level mitigation for future development identified in Section 4.5.6, the proposed project will not have significant impacts related to cultural resources, and will also not make any significant contributions to cumulatively considerable impacts relative to cultural resources. Therefore, no additional mitigation is required.~~

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~~4.6 GEOLOGY AND SOILS: TABLE OF CONTENTS~~

~~FIGURE~~

~~TABLE~~

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NOTE TO READERS. *The cumulative portion of Section 4.6 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.6 of this Revised Sections of the FEIR. All other portions of Section 4.6 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.6 means that the corresponding portion of Section 4.6 in the FEIR remains unchanged or has been deleted.*~~*This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies and revisions to EIR sections and proposed Mitigation Measures.*~~

4.6 GEOLOGY AND SOILS

This section describes the location of the project relative to the known geologic features and soil conditions and qualitatively evaluates potential impacts. Additionally, this chapter evaluates whether development on the project site would significantly be affected by fault rupture, seismic shaking, erosion or unstable slopes, liquefaction, settlement, expansive soils, or other soil or geologic conditions.

~~*NOTE: The following changes have been made due to revision of the Specific Plan project size.*~~

For the reader's reference, this EIR been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the development. ~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The following documents were prepared to analyze the geologic impacts of the WLC project:

- *Preliminary Geotechnical Evaluation for Environmental Impact Report the World Logistics Center Specific Plan South of Highway 60 Between Redlands Boulevard and Gilman Springs Road City of Moreno Valley, California.* Leighton and Associates, Inc. original dated January 23, 2013 updated September 2014. (Appendix G).
- *Response to NOP Comments for the World Logistics Center Specific Plan.* Leighton and Associates, Inc. May 2012 (Appendix G).
- *"Preliminary Geotechnical Report, Tentative Parcel Map 35629, Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. June 15, 2007.*
- *"Update Preliminary Geotechnical Report, Tentative Parcel Map 35629, Highland Fairview Corporate Park, City of Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. April 30, 2008.*
- *"Update Geotechnical Report, Moreno Highlands Specific Plan Area, Southeast Corner of Highway 60 and Redlands Boulevard, City of Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. July 21, 2008.*
- *"Preliminary Geotechnical Evaluation for Environmental Impact Report, "The Highlands Specific Plan," South of Highway 60 between Redlands Boulevard and Gilman Springs Road, City of Moreno Valley, California, Project No. 111061-127", by Leighton and Associates, Inc. December 13, 2011.*

In addition, the analysis contained in this section is based on the following reference documents:

- Moreno Valley General Plan, Safety Element, July 11, 2006;
- U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) database for Western Riverside Area, California, September 15, 2003; and
- Geotechnical reports, comments, and responses to comments on geotechnical issues from the Westridge, Skechers, and ProLogis Environmental Impact Reports (various dates).

4.6.1 Existing Setting

The City lies within the Perris Block, a structural unit that is located within the Peninsular Range Geomorphic Province, one of the major geologic provinces of southern California. The Perris Block is a large mass of granitic rock generally bounded by the San Jacinto Fault, the Elsinore Fault, the Santa Ana River, and a non-defined southeast boundary. The Perris Block has had a history of vertical land movements of several thousand feet due to shifts in the Elsinore and San Jacinto Faults. The materials within the valley area are characterized by Pliocene-Pleistocene-aged alluvium ranging from relatively thin (20 feet to 200 feet) to intermediate thickness (up to 2,000 feet), which overlies the older granitic bedrock. The rocky, mountainous areas, including the Box Springs Mountains and the Mount Russell/Lake Perris State Recreation area, have underlying granitic bedrock that consists of quartz diorite, and displays granite rock outcrops and large boulders. The Badlands range, at the eastern end of the area, comprises deposits of what was once an inland sea later elevated and deformed by geologic processes, before becoming severely eroded to its present state. This area consists of folded semi-consolidated sedimentary sandstone, siltstone, and shale. The project is located within the northern portion of the San Jacinto Valley, a fault-bounded tectonic basin that has evolved from movement along the San Jacinto fault system resulting in a down-dropped northwest-trending trough.

The existing setting for geology and soils includes faulting and seismicity, soils, and geologic and seismic hazards, which are discussed below.

4.6.1.1 Faulting and Seismicity

Pursuant to Public Resources Code Section 2690 *et seq*. Leighton & Associates prepared a geotechnical report that analyzes the seismic hazards underlying the project site. Much of the information set forth below and throughout this document is taken from that report. The project site, like the rest of Southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity is movement along the northwest-trending regional fault systems such as the San Andreas, San Jacinto, and Elsinore Fault Zones. Currently, these fault systems accommodate up to approximately 55 millimeters per year (mm/yr) of slip between the plates. The on-site San Jacinto Fault Zone is estimated to accommodate slip of approximately 12 mm/yr. However, geodetic measurements between 1973 and 1981 show that the San Jacinto and San Andreas Faults currently have comparable strain rates. It has been estimated that an average slip rate of as much as 20 mm/yr occurs for the San Jacinto Fault. The San Jacinto Fault zone presents a substantial seismic hazard in Southern California.

By definition of the California Geological Survey, an active fault is a fault, which has had surface displacement within Holocene time (about the last 11,000 years). This definition is used in delineating Earthquake Fault Zones as mandated by the Alquist-Priolo Geologic Hazards Zones Act of 1972 and as most recently revised in 2007 as the Alquist-Priolo Earthquake Fault Zoning Act and Earthquake Fault Zones. The intent of this act is to require fault investigations on sites located within Earthquake Fault Zones to ensure that certain inhabited structures are not constructed across the traces of active faults. The nearest Alquist-Priolo zoned “active faults” is the on-site Claremont Segment of the San Jacinto Fault Zone (see Figure 4.6.1). The western portion of the site is crossed by the City of Moreno Valley Seismic Zone and the postulated trace of the Casa Loma Fault. The nearest off-site fault zones include Casa Loma Segment of the San Jacinto Fault Zone, located 1.6 miles to the south, the San Andreas Fault Zone, located 12.7 miles northeast, and the Glen Ivy Segment of the Elsinore Fault is located approximately 22.7 miles to the southwest of the site.

4.6.1.2 Soils

Based on the *Soil Survey of Western Riverside County,* the project area contains 20 different soil-mapping units belonging to 10 different soil series. (See Table 4.6.A below and Figure 4.2.1 in Section 4.2.) A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other distinct characteristics. The project site is dominated by San Emigdio loam (SgA and SgC) and San Emigdio fine sandy loam (SeC2), with smaller inclusions of Arbuckle loam (AkC), Badland (BaG), Gorgonio loamy sand (GhC), Greenfield sandy loam (GyA, GyD2), Hanford coarse sandy loam (HcC and HcD2), Metz loamy sand (MdC and MeD), Metz loamy fine sand (MfA), Metz gravelly sandy loam (MID), Ramona sandy loam (RdD2), Rockland (RtF), San Emigdio fine sandy loam (SeA and SeD2), and San Timoteo loam (SmE2).[1]

4.6.1.3 Geologic and Seismic Hazards

Geologic and seismic hazards discussed in this subsection include the following:

- Surface rupture;
- Ground shaking;
- Liquefaction;
- Subsidence and seismic settlement;
- Landslides/slope stability; and
- Compressible, expansive and collapsible soils.

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[1] Habitat Assessment, MSHCP Consistency Analysis, and HANS Review Highland Fairview Specific Plan City of Moreno Valley, Riverside County, California, November 10, 2011.

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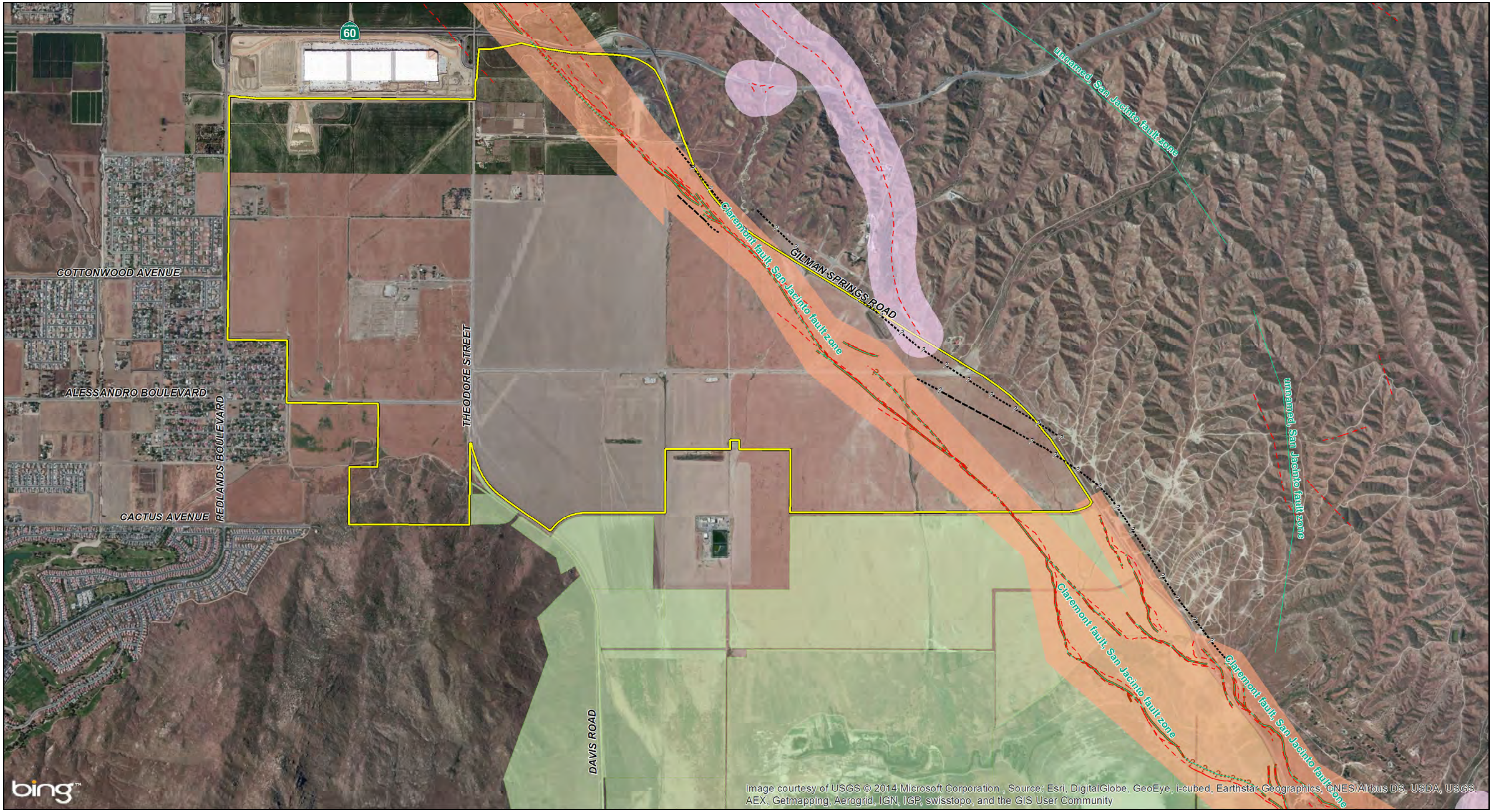

Image courtesy of USGS © 2014 Microsoft Corporation , Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

L S A

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0 1,000 2,000
FEET

☐ Project Boundary

🟩 CDFW Land

Alquist-Priolo Fault Zone

🟧 Alquist-Priolo Zone

Fault, Concealed

Fault, Inferred

Fault, Approximate

Fault, Certain

CGS Faults (2005)

Riverside County Fault

Riverside County Fault Zone

Approximate Location of Dibblee Mapped Fault Trace

Approximate

? Concealed

FIGURE 4.6.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Alquist-Priolo Zones and Earthquake Faults

SOURCE: County of Riverside, 2011; ESRI World Imagery & Bing Imagery, 2010; California Geological Survey, 2002 & 2005; Riverside County, 2011; Thomas Dibblee, 2003; California Dept of Fish & Wildlife. 2011.

I:\HFV1201\Reports\EIR\fig4-6-1_Faults.mxd (1/30/2014)

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Table 4.6.A: Major On-site Soil Types

Soil Name	Map Symbol	Shrink-Swell Potential	Runoff Potential	Permeability	Erosion Hazard
San Emigdio loam	SgA, SgC	Low	Slow (SgA) Moderate (SgC)	Moderate	Slight (SgA) Moderate (SgC)
San Emigdio fine sandy loam	SeC2	Low	Medium	Moderately rapid	Moderate
San Emigdio fine sandy loam	SeA, SeD2	Low	Very slow (SeA) Medium (SeD2)	Moderate	Slight(SeA) Moderate (SeD2)
Arbuckle loam	AkC	Moderate	Medium	Moderately slow	Moderate
Badland	BaG	NI	NI	NI	NI
Gorgonio loamy sand	GhC	Low	Slow	Rapid	Slight
Greenfield sandy loam	GyA, GyD2	Low	Slow (GyA) Medium (GyD2)	Moderate	Slight (GyA) Moderate (GyD2)
Hanford coarse sandy loam	HcC, HcD2	Low	Slow to Medium (HcC) Medium (HcD2)	Moderate	Slight to Moderate (HcC) Moderate (HcD2)
Metz loamy sand	MdC, MeD	Low	Slow	Rapid	Slight (MdC) High (MeD)
Metz loamy fine sand	MfA	Low	Slow	Rapid	Slight
Metz gravelly sandy loam	MID	Low	Slow to Medium	Moderately rapid	Slight to Moderate
Ramona sandy loam	RdD2	Low	Medium	Moderately slow	Moderate
Rockland	RtF	-	Slow	Slow	Moderate to High
San Timoteo loam	SmE2	Low	Rapid	Moderate	High

NI = no information
Source: Soil Survey of Western Riverside County, U.S. Soil Conservation Service

Surface Rupture. Surface rupture occurs where displacement or fissuring occurs along a fault zone. While primary ground damage due to earthquake fault rupture typically results in a relatively small percentage of the total damage in an earthquake, the location of structures or facilities too close to a rupturing fault can cause profound damage. It is difficult to reduce the hazards of surface rupture through structural design. The primary method to avoid this hazard is to either set structures and facilities away from active faults, or avoid their construction in close proximity to an active fault.

Faults throughout southern California have formed over millions of years. Some of these faults are considered inactive under present geologic conditions, and other faults are known to be active.[1] Such faults have either generated earthquakes in historic times (200 years), or show geologic and geomorphic indications of movement within the last 11,000 years. Faults that have moved in the relatively recent geological past are generally presumed to be the most likely candidates to generate

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[1] The Alquist-Priolo Earthquake Fault Zoning Act defines *active faults* as those that show proven displacement of the ground surface within about the last 11,000 years. *Potentially active faults* are those that show evidence of movement within the last 1.6 million years.

damaging earthquakes in the lifetimes of residents, buildings, or communities. As previously identified, the Claremont Segment of the San Jacinto Fault Zone is located on the eastern portion of the site; therefore, ground surface rupture is an identified seismic hazard within the project limits.

Ground Shaking. The vast majority of earthquake damage is caused by ground shaking. Source effects include earthquake size, location, and distance. The bigger and closer the earthquake is, the more severe the damage will be. The exact way that rocks and other earth materials move along the fault can also influence shaking, as can the subsurface orientation of the fault.

Path effects are caused by seismic waves that change direction as they travel through the earth's contrasting layers, just as light bounces (reflects) and bends (refracts) as it moves from air to water. Sometimes this can focus seismic energy at one location, and cause damage in unexpected areas.

Site effects are brought about by seismic waves that slow down in the loose sediments and weathered rock at the surface of the earth. As they slow, their energy converts from speed to amplitude, which increases shaking. This is identical to the behavior of ocean waves. As the waves slow down near shore, their crests grow higher. Sometimes, too, seismic waves get trapped at the surface and resonate. Whether resonance will occur depends on the period (the length) of the incoming waves. Waves, soils and buildings all have resonant periods. When these match, tremendous damage can occur.

The primary threat associated with on-site and the nearby faults previously identified is the intensity of ground shaking that could be generated at the project site.

Liquefaction. Liquefaction occurs primarily in saturated, loose, fine-to-medium-grained soils in areas where the groundwater table is within 50 feet of the surface. Shaking suddenly causes soils to lose strength and behave as a liquid. Excess water pressure is vented upward through fissures and soil cracks, and a water-soil slurry bubbles onto the ground surface. The resulting features are called “sand boils,” “sand blows,” or “sand volcanoes.” Liquefaction-related effects include loss of bearing strength, ground oscillations, lateral spreading, and flow failures or slumping. Based on Figure 6-3 of the Safety Element of the City’s General Plan, the project site is not located in an area identified as having a liquefaction potential. Site-specific geotechnical studies by Leighton have concluded the project site has a very low potential for liquefaction.

Subsidence and Seismic Settlement. Ground subsidence is typically a gradual settling or sinking of the ground surface with little or no horizontal movement, although fissures (cracks and separations) can result from lowering of the ground surface.

The common causes of subsidence that can produce small or local collapses to broad regional subsidence include:

- Dewatering of peat or organic soils;
- Dissolution in limestone aquifers;
- First-time wetting of moisture-deficient, low-density soils (hydrocompaction);
- Natural compaction;
- Liquefaction;
- Crustal deformation;
- Ground shaking;

- Subterranean mining; and
- Withdrawal of fluids (groundwater, petroleum, or geothermal).

Most of the damage caused by subsidence is the result of oil, gas, or groundwater extraction from below the ground surface, or the organic decomposition of peat deposits. Ground subsidence may occur as a response to natural forces such as earthquake movements, which can cause abrupt elevation changes of several feet or densification of low density granular soils during an earthquake event that may cause several inches of settlement.

Landslides/Slope Stability. Significant factors that contribute to slope failure include slope height and steepness, shear strength and orientation of weak layers in the underlying geologic units, and pore water pressures. There are no known landslides within the project area; however, a large older landslide has been mapped primarily off site on the northeasterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes (off site) and moved northeast, partially onto the subject property.

Alluvial Soil. Alluvial soil was encountered in all exploratory borings, fault trenches, and test pits excavated at the site.[1] The alluvial soils were deposited as part of a complex depositional environment and generally include interbedded fine sands and silts with varying amounts of clay. The yellow-brown to medium gray recent alluvial soils (younger alluvium) are found in drainages and believed to constitute the upper surficial materials (upper 3 to 10 feet). The deeper materials (older alluvium and older fan-deposits) are generally dark yellow-brown to dark gray and consist of silty fine sand to sandy silt with interbedded lenses of silt clay and sandy gravel. The alluvium along the southeastern side of the site is significantly denser and contains considerable amounts of coarser sands and gravel. Pertinent engineering characteristics of the encountered alluvium are summarized below:

- **Compressibility Characteristics.** The alluvium is generally loose in the upper 10 to 15 feet in most areas. At depths greater than 15 feet, the alluvium is generally medium dense. The results of testing by Leighton also indicate a high rebound potential during unloading for some of the tested alluvium. This rebound affect may cause some elevation rise in areas of significant excavation.
- **Expansive Soils.** Expansive soils generally have a significant amount of clay particles that can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The extent of shrink/swell is influenced by the amount and kind of clay in the soil. The occurrence of these soils is often associated with geologic units having marginal stability. The majority of the site materials are expected to have a low expansive potential; however, expansive soils are known to exist on site. The more expansive soils are expected to be localized and associated with interbedded silt and clay layers.
- **Collapse Potential.** Hydroconsolidation, or soil collapse, typically occurs in recently deposited Holocene (less than 10,000 years before present time) soils that were deposited in an arid or semi-arid environment. Soils prone to collapse are commonly associated with man-made fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. Particles of these soils, which typically contain minute pores and voids, may be partially supported by clay or silt, or chemically cemented with carbonates. When saturated, collapsible soils undergo a rearrangement of their grains and the water removes the cohesive (or cementing) material, and a rapid, substantial settlement may occur. An increase in surface water infiltration (such as from irrigation) or a rise in the groundwater table, combined with the weight of a building or structure, may initiate settlement, causing foundations and walls to crack. Soil borings and laboratory testing

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[1] *Preliminary Geotechnical Evaluation for Environmental Impact Report World Logistics Center Specific Plan South of Highway 60 Between Redlands Boulevard and Gilman Springs Road City of Moreno Valley, California.* Leighton and Associates, Inc. January 2013.

conducted by Leighton determined that on-site soils have low to moderate potential for collapse with the exemption of dispersed areas just south of the extension of Eucalyptus Avenue.[1]

4.6.1.4 Off-site Improvements

After the approximate locations of the various project-related off-site improvements were identified (e.g., reservoirs, and the World Logistics Center /Theodore Street/SR-60 interchange), the project geologist (Leighton) conducted a brief geotechnical assessment of the various off-site areas to identify the potential for geotechnical constraints (see Appendix G). Leighton concluded that none of the off-site improvement areas had substantial seismic or seismically related constraints, but did recommend additional testing and evaluation for localized soil constraints once specific improvement footprints had been established.

4.6.1.5 NOP/Scoping Comments

Several members of the public said the EIR should examine potential seismic and other impacts related to the San Jacinto Fault Zone, as well as the Casa Loma and Farm Road Faults. These comments were addressed by the project geologist and geotechnical consultant (Leighton) and are addressed in Sections 4.6.5 and 4.6.6 in relation to project impacts.

4.6.2 Policies and Regulations

4.6.2.1 State Regulations

Alquist-Priolo Earthquake Fault Zoning Act. The major State legislation regarding earthquake fault zones is the *Alquist-Priolo Earthquake Fault Zoning Act* (A-P Act). In 1972, the State of California began delineating “Earthquake Fault Zones” (called Special Studies Zones prior to 1994) around and along faults that are “sufficiently active” and “well defined” to reduce fault-rupture risks to structures for human occupancy (California Public Resources Code Sections 2621–2630). The boundary of an “Earthquake Fault Zone” is generally 500 feet from major active faults and from 200 to 300 feet from well-defined minor faults. The mapping of active faults has been completed by the State Geologist, and these maps are distributed to all affected cities, counties, and State agencies for their use in developing planning policies and controlling renovation or new construction.

Before a project can be permitted within an identified Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. A site-specific evaluation and written report must be prepared by a licensed geologist. If an active fault is identified, a structure intended for human occupancy cannot be placed over the trace of the fault and must be set back from the fault.

The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The Seismic Hazards Mapping Act. Passed in 1990, the Seismic Hazards Mapping Act (SHMA) addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The California Geological Survey (CGS) is the principal State agency charged with implementing the 1990 SHMA. Pursuant to the SHMA, the CGS is directed to provide local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The goal is to minimize loss of life and property by identifying and mitigating seismic hazards. The seismic hazard zones

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[1] Ibid.

delineated by the CGS are referred to as "zones of required investigation." Site-specific geotechnical hazard investigations are required by SHMA when construction projects fall within these areas.

Natural Hazards Disclosure Act. Effective June 1, 1998, the Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more State-mapped hazard areas. If a property is located in a Seismic Hazard Zone as shown on a map issued by the State Geologist, the seller or the seller's agent must disclose this fact to potential buyers.

4.6.2.2 Local Policies

City of Moreno Valley General Plan Policies. The City of Moreno Valley General Plan includes policies and goals related to geologic and seismic hazards. The following goals and policies are applicable to the WLC project.

Safety Element

Goal 6.1 To achieve acceptable levels of protection from natural and man-made hazards to life, health and property.

Goal 6.2 To have emergency services which are adequate to meet minor emergency and major catastrophic situations.

Safety Element Objectives and Policies

Objective 6.1

Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic ground shaking and secondary effects.

Policies:

6.1.1 Reduce the effects from fault rupture and liquefaction hazards through the identification and recognition of potentially hazardous conditions and areas as they relate to the San Jacinto fault zone and the high and very high liquefaction hazard zones. During the review of future development projects, the City shall require geologic studies and mitigation for fault rupture hazards in accordance with the Alquist-Priolo Special Study Zones Act. Additionally, future geotechnical studies shall contain calculations for seismic settlement on all alluvial sites identified as having high or very high liquefaction potential. Should the calculations show a potential for liquefaction, appropriate mitigation shall be identified and implemented.

6.1.2 Require all new developments, existing critical and essential facilities and structures to comply with the most recent Uniform Building Code seismic design standards.

4.6.3 Methodology

The analysis of potential geologic and soil-related impacts is based upon the preliminary site specific geotechnical study prepared by Leighton and Associates, the City's Safety Element of the General Plan, literature prepared by the California Department of Mines and Geology (CDMG), information from the federal Natural Resources Conservation Service (NRCS), mapping published by the United States Geological Survey (USGS), and other documents such as the City's Building Code, and the City's Standard Design Guidelines, which were reviewed and summarized to establish existing conditions. In determining the level of significance, the analysis assumes that construction and operation of the project would comply with relevant Federal and State laws and regulations, as well as City General Plan policies.

4.6.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to geology and soils are based on *CEQA Guidelines* (2011). A project would have a significant impact related to geology and soils if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction.
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994 or most current edition), creating substantial risks to life or property; and/or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

4.6.5 Less than Significant Impacts

The following impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards and policies would reduce potential impacts to a less than significant level.

4.6.5.1 Landslides and Rockfalls

Threshold	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes off site, and moved northeast, partially onto the subject property. The Specific Plan designates 74.3 acres in the southwestern portion of the property as open space. This 74.3 acres includes the steepest slopes on site (i.e., the Mount Russell foothills), which will reduce the potential for significant landslide or rockfall impacts on the project to less than significant levels; therefore, no mitigation is needed.

4.6.5.2 Soil Erosion or Loss of Topsoil

Threshold	Would the project result in substantial soil erosion or the loss of topsoil?

The project includes the grading of approximately 2,684 acres for the construction of the proposed logistics buildings. In addition, the project proposes the construction of various infrastructure improvements both on site and off site. These improvements include the construction of on-site and off-site water, sewer, freeway interchange and roadway/intersection improvements, debris basins, reservoirs, water and sewer lines, utility substations, etc. These activities have the potential to cause erosion both on site and off site.

Development of the site would require the movement of on-site soils. Portions of the site have been and are being used for dry farming, and several rural residences are present. Prior to the issuance of grading permits, the project proponent will be required to prepare and submit detailed grading plans as each phase is developed. These plans will be prepared in conformance with applicable standards of the City's Grading Ordinance. Construction of off-site utility and roadway improvements will also result in the movement of soil. Plans are not available at this time for off-site improvements but that construction will be subject to the same permitting and plan checking processes.

Development of the site and related off-site improvements would involve the disturbance of more than one acre; therefore, the project is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit. A Storm Water Pollution Prevention Plan (SWPPP) will also be required to address erosion and discharge impacts associated with the proposed on-site grading. Compliance with storm water regulations include minimizing storm water contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site. The following SWPPP components will reduce potential impacts of soil erosion or loss of topsoil to less than significant levels:

- Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- Prevent erosion by implementing one or more of the following soil stabilization practices: mulching, surface roughening, permanent or temporary seeding.
- Limit vehicular access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- Phase grading operations to limit disturbed areas and duration of exposure.
- Perform major maintenance and repairs of vehicles and equipment off site.
- Wash out concrete mixers only in designated washout areas at the construction site.
- Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- Clean up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas.
- Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- Cover open dumpsters with secured tarps or plastic sheeting. Clean out dumpsters only in approved locations on the construction site.
- Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

A preliminary WQMP was prepared for the WLCSP and is included in Appendix J-2. The preliminary WQMP contains the following post-construction measures, which will help reduce potential impacts to soil erosion to less than significant levels and identifies measures to treat and/or limit the entry of contaminants into the storm drain system:

- *Maximize the permeable area.* A significant portion of the project will remain pervious for the purposes of landscaping, water quality treatment, and flood detention. By incorporating more pervious, lower Runoff Coefficient (C factor) surfaces into the project, lower volumes of runoff will be produced.
- *Incorporate landscaped ~~buffer~~setback areas between sidewalks and streets.* Bioretention areas between sidewalks and streets will be incorporated and serve the dual purpose of landscaping and water quality treatment.
- *Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought-tolerant trees and large shrubs.* Although most of the project area will require mass grading, some existing native trees and shrubs will be preserved where feasible.
- *Use natural drainage systems.* The majority of the project site currently sheet flows to small earthen ditches. Under the proposed condition, most of these natural ditches will be removed, with the exception of one natural drainage course. This natural drainage path, located at the eastern portion of the project, will be maintained under the proposed condition.
- *Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.* Infiltration basins will be proposed where soil conditions are appropriate.
- *Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.* Detention basins and/or infiltration basins will be provided on site. The locations of these facilities will be shown in the project-specific WQMP.
- *Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.* Street, sidewalk, and parking design will incorporate minimum street widths that still meet City requirements and emergency access requirements.
- *Reduce widths of street where off-street parking is available.* Street design will incorporate minimum street widths that still meet City requirements and emergency access requirements.
- *Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.* The use of impervious surfaces for decorative purposes will be minimized where possible.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

- *Conserve natural areas.* There are 1,205 acres of natural areas that will be designated as undisturbed open space. The project designates 1,086 acres of CDFW land, and an additional 44 acres of natural areas maintained by utility companies, and 74.3 acres within the WLC Specific Plan, for Open Space use.
- *Development sites will be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or ~~buffer~~setback areas, where feasible.* Runoff from impervious areas will sheet flow or be directed to Treatment Control BMPs.
- *Where landscaping is proposed, impervious sidewalks, walkways, and trails will be designed to drain into adjacent landscaping.* Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas.

- *Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.* Runoff from impervious areas will sheet flow to vegetated swales, bioretention areas, infiltration basins, and/or detention basins.
- *Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.* Streets will sheet flow to adjacent landscaping/bioretention areas.
- *Urban curb/swale system; street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter.* Streets will sheet flow to adjacent landscaping/bioretention areas.
- *Design driveways to drain into landscaping prior to discharging to the MS4.* Driveways will sheet flow to adjacent landscaping/bioretention areas.
- *Uncovered parking may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4.* Parking lots will sheet flow to adjacent landscaping/bioretention areas.

The WQMP is incorporated by reference and/or attached to the project's SWPPP as the Post-Construction Management Plan.

As soils covering the project site have a slight-to-high erosion hazard potential and because the project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, and prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.

Grading for off-site improvements would require subsequent grading permits or related approvals from both the City and County of Riverside, depending on the improvement and its location. Most roadway and intersection improvements will occur within existing rights-of-way or on land that has been previously disturbed. The SWPPP and the WQMP establish performance standards for future development, and implementation the identified measures in those plans will reduce potential erosion impacts to less than significant levels (See also Section 4.9, *Hydrology and Water Quality*, for a discussion of potential issues associated with soil erosion during construction and project operations).

4.6.5.3 Septic Tanks

Threshold	Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

All buildings within the project will be connected to existing wastewater facilities (sewer) owned and operated by the Eastern Municipal Water District. Septic tanks will not be used anywhere within the project. No mitigation is required.

4.6.5.4 Seismic-Related Ground Failure

Threshold	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic ground failure?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Development of the project will result in the construction of up to 40.6 million square feet of logistics warehouse uses. The project site is located within Seismic Zone 4 as defined by the Uniform Building

Code (UBC). Exhibit S4 of the Safety Element of the City's General Plan indicates that the project site is not located in an area susceptible to landslides or slope instability.

The project site lies on relatively flat terrain (±2% grade) and no landslide areas or mass movement were observed on site. The only steep topographical features are located in the southwest corner of the project area (see Section 4.6.6.3 below). This area is designated for Open Space uses and is not proposed for development.

The project does not propose any activity known to cause damage by subsidence (e.g., oil, gas, or groundwater extraction). Settlement generally occurs within areas of loose, granular soils with relatively low density. The project site is underlain by relatively dense alluvial and dense sedimentary bedrock materials at depth and the potential for settlement is considered low. Because the project site does not exhibit characteristics of a high potential for subsidence or settlement, impacts are considered less than significant. No mitigation is required.

The potential for liquefaction generally occurs during strong ground shaking within relatively cohesionless loose sediments where the groundwater is typically less than 50 feet below the surface. Because the project site does not exhibit characteristics of a high potential for liquefaction induced settlement (i.e., relatively dense soils with groundwater levels in excess of 100 feet), impacts are considered less than significant. No mitigation is required.

4.6.6 Significant Impacts

The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.

4.6.6.1 Fault Rupture

Impact 4.6.6.1: *Future development permitted by the project would locate development in an area susceptible to fault rupture.*

Threshold	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.

Surface rupture occurs where displacement or fissuring occurs along a fault zone. While primary ground damage due to earthquake fault rupture typically results in a relatively small percentage of the total damage in an earthquake, the location of structures or facilities too close to a rupturing fault can cause profound damage. The primary method to avoid this hazard is to either set structures and facilities away from active faults, or avoid their construction in close proximity to an active fault.

Faults throughout southern California have formed over millions of years. Some of these faults are generally considered inactive under present geologic conditions and other faults are known to be active.[1] Such faults have either generated earthquakes in historic times (within the last 200 years) or show geologic and geomorphic indications of movement during the last 11,000 years. Faults that have

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[1] The Alquist-Priolo Earthquake Fault Zoning Act defines *active faults* as those that show proven displacement of the ground surface within about the last 11,000 years. *Potentially active faults* are those that show evidence of movement within the last 1.6 million years.

moved in the relatively recent geological past are generally presumed to be the most likely candidates to generate damaging earthquakes in the lifetimes of residents, buildings, or communities.

The Seismic Hazards Mapping Act establishes a statewide public safety standard for mitigation of earthquake hazards. According to the Act the minimum level of mitigation for a project "should reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of a building intended for human occupancy," though generally not to a level of no ground failure to all. Moreover, the California Building Code 2010 (CBC) establishes standards for seismic safety in the design and construction of buildings, and includes "significant building design and construction criteria that have been tailored for California earthquake conditions." It "provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction." Chapter 18 of the UBC specifies the required level of soil investigation. It contains requirements applicable to buildings and foundations, which take into consideration reduction of potential seismic hazards.

The CBC requires geologic and earthquake engineering reports for all proposed construction, prepared by a California-certified engineering geologist in consultation with a California-registered geotechnical engineer, the purpose of which is to identify geologic and seismic conditions that may require project mitigations. (Cal. Code Regs., Title 24, §§ 1802.7.1, 1802.7.2.) The report must contain data which provide an assessment of the nature of the site and potential for earthquake damage based on appropriate investigations of the regional and site geology, project foundation conditions and the potential seismic shaking at the site. (Cal. Code Regs., Title. 24, § 1802.7.2.) The CBC also requires a geotechnical report, which would provide evaluations of the soil conditions of the site and the potential geologic/seismic hazards affecting the site. The report must include site-specific evaluations of design criteria related to the nature and extent of foundation materials, groundwater conditions, liquefaction potential, settlement potential, slope stability, and potential site ground motion. (Cal. Code Regs., Title. 24, § 1802.81.)”

City Ordinance 9.08.160 states “In accordance with provisions of the Alquist-Priolo Special Studies Zone Act (Division 2, Chapter 7.5 of the Public Resource Code) and the Public Health and Safety Element of the City General Plan, a geologic investigation shall be required for any development proposal involving structures for human occupancy within the special study zone for the San Jacinto Fault, as identified on the special studies zone maps prepared by the state of California Department of Conservation, or the Casa Loma Fault, as identified on the seismic zone map in the City General Plan. Geologic investigations shall be prepared by a geologist registered in the state of California and shall be reviewed for acceptance by a geologist registered in the state of California who is either an employee or under contract to the City. Geologic investigations shall consider ground shaking as the greatest potential risk and include a thorough evaluation of potential hazards based upon soils types, slope stability, proximity to fault lines and expected magnitude. Copies of all geologic investigations shall be kept on file in the office of the City building official.”

The western portion of the site is crossed by the City of Moreno Valley Seismic Zone, a postulated trace of the Casa Loma Fault and the Farm Road Strand. A detailed fault investigation was performed by Leighton for these projected faults. Although no active faulting was observed, some local discontinuous fracturing was observed and documented. Because of the potential for ground movements in this area, mitigation is required.

Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. State law prohibits the construction and placement of habitable structures[1] over the trace of an active fault pursuant to the Alquist-Priolo Act. The A-P Earthquake Fault Zone is located on the eastern border of the project site (refer to Figure 4.6.1). Trenching conducted by Leighton across the Claremont Segment of the San Jacinto Fault in the eastern area of the project site identified the location of a portion of the fault; however, the entire length of the fault through the project site was not trenched. Although no habitable structure can be located on an active fault per State law, fault rupture hazard represents a potential significant seismic hazard on site that would require mitigation. To ensure fault rupture impacts are appropriately mitigated, the following measures has been identified:

4.6.6.1A Prior to approval of any projects for development between Redlands Boulevard and ~~Theodore Street~~World Logistics Center Parkway, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

4.6.6.1B Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a “special foundation or grading remediation zone” for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet

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[1] California Code of Regulations, Section 3601 states, “A structure for human occupancy is any structure used or intended for supporting or sheltering any use of occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year.”

current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.

This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

4.6.6.1C Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be implemented to the satisfaction of the City Engineer

Level of Impact After Mitigation. Adherence to the measures identified in the geotechnical investigations, as well as other requirements identified and required by the City, will ensure fault rupture hazards are reduced to a less than significant level.

4.6.6.2 Ground Shaking

Impact 4.6.6.2: *Future development permitted by the project would locate development in an area susceptible to strong seismic ground shaking.*

Threshold	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong ground shaking?

Southern California is a seismically active area and, therefore, will continue to be subject to ground shaking resulting from seismic activity on regional faults. Ground shaking from earthquakes associated with nearby and more distant faults is expected to occur during the lifetime of the project. The level of potential ground motion is considered moderate to high in the City of Moreno Valley and, therefore, in the project area.

Project or Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. In accordance with the City's General Plan Safety Element (Objective 6.1),[1] project development will require geological and geotechnical investigations by State-licensed professionals. The geotechnical investigations will provide design considerations and earthwork recommendations to ensure that ground shaking impacts are appropriately mitigated. In addition,

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[1] Moreno Valley General Plan, Chapter 9 Goals and Objectives, pg. 9-30.

California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, contains building design and construction requirements relating to fire and life safety, and structural safety. The CBC also includes standards designed to ensure that structures within California are built to withstand expected levels of seismic activity for each earthquake region throughout the State. Specifically, Part 2 of Title 24, including Chapters 4, 16-18, and Appendix J provide guidance regarding grading, soils, and construction techniques related to seismic protection. These codes are provided to protect public safety and ensure that all structures built in the State can withstand anticipated seismic ground shaking and other related geotechnical and soils constraints.

To ensure ground shaking impacts are appropriately mitigated, the following measure is recommended:

4.6.6.2A Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City , which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report shall also determine the final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. In addition, adherence to **Mitigation Measure 4.6.6.1C** addresses impacts of off-site improvements in this regard.

Level of Significance After Mitigation. Adherence to the measures identified in the geotechnical investigations, as well as other requirements identified and required by the City, will ensure ground shaking hazards are reduced to a less than significant level.

4.6.6.3 Unstable Soils

Impact 4.6.6.3: *Future development permitted by the project may locate development in an area with expansive soils.*

Threshold	Would the project be located on expansive soil, creating substantial risks to life or property?

As previously identified, expansive soils generally have a substantial amount of clay particles, which can give up water (shrink) or absorb water (swell). The change in the volume exerts stress on buildings and other loads placed on these soils. The extent or range of the shrink/swell is influenced by the amount and kind of clay present in the soil. Expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins. On-site soils (Dv and Wb soils) are identified as having a moderate to low shrink-swell potential. Because the potential exists to locate development on moderately expansive soils, impacts are considered significant and mitigation is required.

Project or Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. In accordance with the City's General Plan Safety Element (Implementation Measure I.E.1) and as indicated previously, development of the project will require geological and geotechnical investigations by State-licensed professionals. To ensure impacts from expansive soils are addressed for specific development sites, adherence to **Mitigation Measures 4.6.6.3A** through **4.6.6.3C** will be required.

4.6.6.3A Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site. The report shall determine:

1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults.
2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements.

Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.

Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer.

4.6.6.3B Any cut slopes in excess of five (5) feet in vertical height shall be constructed as "replacement fill slopes" per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist.

4.6.6.3C During all grading activities, a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

Level of Impact After Mitigation. Implementation of **Mitigation Measures 4.6.6.3A** through **4.6.6.3C**, and adherence to actions identified in subsequent geotechnical investigations, as well as other requirements identified and required by the City, will ensure that the potential impact from expansive soils are reduced to a less than significant level.

~~4.6.7 Cumulative Impacts~~

~~The cumulative area for geologic issues is the City of Moreno Valley and western Riverside County, within the larger context of southern California due to regional seismicity. The project area has potential geotechnical and soils constraints, as the entire southern California area contains a number of major regional and local faults, including the San Andreas, San Jacinto, and Elsinore Faults.~~

~~The presence of regional faults creates the potential for damage to structures or injury to persons during seismic events. However, City, County, and State regulations provide guidelines for development in areas with geologic constraints and ensure that the design of buildings is in accordance with applicable CBC standards and other applicable standards, which reduces potential property damage and human safety risks to less than significant levels. Anticipated development in the City and surrounding area in general will not have a cumulatively considerable impact on earth resources, nor will regional geotechnical constraints have a cumulatively considerable impact on the proposed WLC project or cumulative projects, as long as proper design and engineering are implemented based on available seismic and other geotechnical data. The proposed WLC project represents an incremental portion of this potential impact, so the project will not have cumulatively significant impacts in this regard.~~

~~Because it is reasonable to conclude that all development within seismically active areas will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies, a less than significant cumulative impact would occur with implementation of the proposed WLC project.~~

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~~4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND SUSTAINABILITY: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

NOTE TO READERS. *This portion of the Revised Sections of the FEIR replaces portions of Section 4.7 of the FEIR. The cumulative portion of Section 4.7 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.7 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.7 means that the corresponding portion of Section 4.7 in the FEIR remains unchanged or has been deleted.*~~*This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies and revisions to EIR sections and proposed Mitigation Measures.*~~

4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND SUSTAINABILITY

Although not required by the Judge's ruling, portions of the Traffic and Circulation analysis have been revised to: (1) Show the effect of using the trip generation rates shown in the most recent edition of the Institute of Transportation Engineer's Trip Generation Manual. (2) Show the effect of the inclusion of the over 300 projects that cumulatively contribute to traffic impacts. As a result, Section 4.7 Greenhouse Gas Emissions, Climate Change, and Sustainability, Section 6.7 Greenhouse Gas Emissions, Climate Change, and Sustainability Cumulative, along with Appendix A, Air Quality, Greenhouse Gas, and Health Risk Assessment Report, have also been revised to show the effect of incorporating the applicable data from the revised traffic analysis.

This section provides a discussion of global climate change, existing regulations pertaining to global climate change, and an analysis of greenhouse gas (GHG) emissions associated with the World Logistics Center project. This analysis examines the short-term construction and long-term operational impacts and evaluates the effectiveness of measures incorporated as part of the project design.

This section analyzes the World Logistics Center project's potential climate impacts based on the following technical studies:

Air Quality, Greenhouse Gas, and Health Risk Assessment Report World Logistics Center Specific Plan (ESA, 2018) contained in Appendix A of this Revised Sections of the FEIR.

World Logistics Center (WLC) Transportation Energy Technical Study, May 2018, Environmental Science Associates.

World Logistics Center (WLC) Comparison of Renewable Energy Technologies report, May 2018, WSP.

4.7.1 EXISTING SETTING

4.7.1.1 Global Climate Change

Global climate change is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policy makers to "global warming" because it helps convey the notion that there are other changes in addition to rising temperatures.

Climate change refers to any significant change in measures of climate such as temperature, precipitation, or wind, lasting for decades or longer (U.S. Environmental Protection Agency [EPA], 2007). Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation); and/or
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).

The primary observed effect of global climate change has been a rise in the average global tropospheric[1] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and increased intensity of tropical cyclones (hurricanes). Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.

Human activities, such as fossil fuel combustion and land use changes release carbon dioxide (CO_2) and other compounds, cumulatively termed greenhouse gases (GHGs). GHGs are effective in trapping infrared radiation that otherwise would have escaped the atmosphere, thereby warming the atmosphere, the oceans, and earth's surface (USEPA, 2007). Many scientists believe that "most of the warming observed over the last 50 years is attributable to human activities" (Intergovernmental Panel on Climate Change [IPCC], 2007d). The increased amounts of CO_2 and other GHGs are alleged to be the primary causes of the human-induced component of warming.

GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO_2, methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). In the last 200 years, substantial quantities of GHGs have been released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, enhancing the natural greenhouse effect, which is believed to be causing global climate change. While human-made GHGs include CO_2, CH_4, and N_2O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere.

GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons of "CO_2 equivalents" (mt CO_2e or $MTCO_2e$).

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Human-made sources include the mining and burning of fossil fuels; digestive processes in ruminant animals such as cattle; rice paddies; and the burying of waste in landfills. As for CO_2, the major removal process of atmospheric CH_4—chemical

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[1] The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Worldwide emissions of GHGs in 2010 were approximately 47,351 million mt CO_2e (World Resources Institute [WRI], 2018). Emissions from the top five countries and the European Union accounted for approximately 57 percent of the total global GHG emissions, according to the most recently available data. The United States was the number two producer of GHG emissions, contributing 13 percent of the emissions. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 82 percent of total GHG emissions. CO_2 from fossil fuel combustion, the largest source of GHG emissions, accounted for approximately 85 percent of the GHG emissions (WRI, 2018).

In 2016, the United States emitted approximately 5.3 billion mt CO_2e or approximately 16.5 tons per year (tpy) per person. Of the six major sectors nationwide (electric power industry, transportation, industry, agriculture, commercial, and residential), the electric power industry and transportation sectors combined account for approximately 72 percent of the GHG emissions; the majority of the electrical power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Between 1990 and 2016, total United States GHG emissions rose approximately 2.8 percent (USEPA, 2018b).

World carbon dioxide emissions are expected to increase by 1.9 percent annually between 2001 and 2025 (USEIA, 2017). Much of the increase in these emissions is expected to occur in the developing world where emerging economies, such as China and India, fuel economic development with fossil energy. Developing countries' emissions are expected to grow above the world average at 2.7 percent annually between 2001 and 2025; and surpass emissions of industrialized countries near 2018.

The California Air Resources Board (CARB) is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted into and removed from the atmosphere by human activities within the State of California and supports the Assembly Bill (AB) 32 Climate Change Program. The most recent inventory of GHG emissions in California estimated 440.4 million mt CO_2e in 2015 (CARB, 2017d). This is a 2.2 percent increase in GHG emissions from 1990. The top contributor of emissions in 2015 was transportation, which contributed 37 percent of the emissions. The second highest sector was industrial (21 percent), which includes sources from refineries, general fuel use, oil and gas extraction, and cement plants. According to CARB, California is on track to meet the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32) (CARB, 2016a).

4.7.1.2 Effects of Global Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use these data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The International Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean surface temperature change for 2081-2100 relative to the period from 1986 to 2005 , given six scenarios, could range from 0.3 degrees Celsius (°C) to 4.8 °C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC, 2007c). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels. However, the scientific literature is not consistent regarding many of the aspects of global warming or climate change, including actual temperature changes during the 20th century, the accuracy of the IPCC report, and contributions of human versus non-human activities.

Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

Additionally, the following climate change effects, which are based on trends established by the IPCC, can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State's water supply. If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier.
- A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the project area as it is a significant distance away from coastal areas.)
- An increase in temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- Increased risk of large wildfires if rain increases as temperatures rise. Precipitation, winds, temperature, and vegetation influence wildfire risk; therefore, wildfire risk is not uniform throughout the state. Changes in current precipitation patterns could influence that risk. As an example, wildfires in the grasslands and chaparral ecosystems of *southern* California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more *northern* California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas (see below).
- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.

- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.
- Increased electricity demand, particularly in the hot summer months.
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

Consequences of Climate Change in Moreno Valley. The figure below displays a chart of measured historical and projected annual average temperatures in the Moreno Valley area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios.

Water for the project would be provided by the Eastern Municipal Water Department (EMWD). The EMWD 2015 Urban Water Management Plan considered the impact of climate change on water supplies as part of its long-term strategic planning. One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long-term planning focuses on the development of reliable local resources and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area.

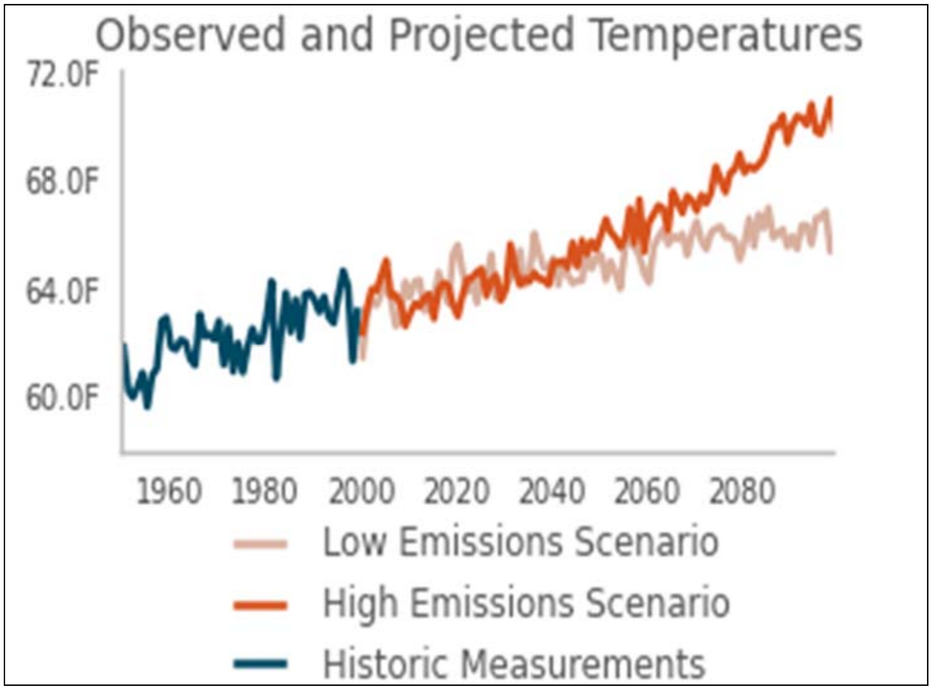

The figure below displays the fire risk in Moreno Valley relative to 2010 levels. The figure displays the projected increase in potential area burned given three different 30-year averaging periods ending in 2020, 2050, and 2085 and two different scenarios (A2, B1). The data are modeled solely on climate projections and do not take landscape and fuel sources into account (there is very little combustible material in the project area). The data modeled the ratio of additional fire risk for an area as compared to the expected burned area. The data are shown in the figure below and indicate that under the low-emissions scenario, the additional wildfire risk is about 1, which means that wildfire risk is expected to remain about the same. Under the high-emission scenario, additional risk is variable with a slight increase.

Wildfire Risk in Moreno Valley

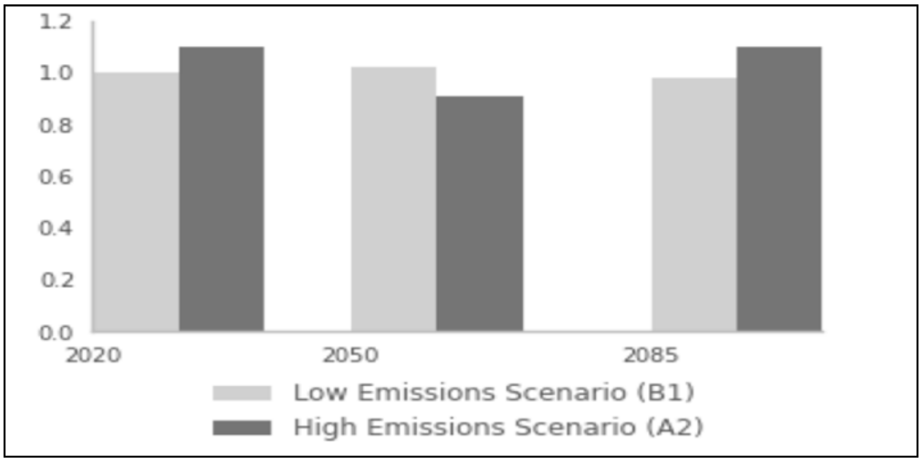

4.7.2 REGULATORY SETTING

4.7.2.1 Federal Regulations/Standards

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles had to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards were designed to cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle (EPA 2012).

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses (also known as "Phase 1"). For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year. Building on the success of the standards, the EPA and U.S. Department of Transportation jointly finalized additional standards (called “Phase 2”) for medium- and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons.

4.7.2.2 State Regulations/Standards

California Code of Regulations Title 24, Part 6. The California Energy Code (Title 24, Section 6) was created as part of the California Building Standards Code (Title 24 of the California Code of Regulations) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California’s energy consumption. These standards include provisions applicable to all buildings, residential and nonresidential, which describe requirements for documentation and certificates that the building meets the standards. These provisions include mandatory requirements for efficiency and design of energy systems, including space conditioning (cooling and heating), water heating, and indoor and outdoor lighting systems and equipment, and appliances. California’s Building Energy Efficiency Standards are updated on an approximately three-year cycle as technology and methods have evolved. The 2016 Standards, effective January 1, 2017, focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations. The next code update (2019) is expected to focus on integrating solar photovoltaic (PV) and other renewables with energy storage, taking Title 24 another step closer toward the state’s zero net energy (ZNE) goals as spelled out in the California Energy Efficiency Strategic Plan (CEC, 2011), calling for all new residential construction to be ZNE by 2020 and all new commercial construction to be ZNE by 2030.

California Code of Regulations Title 24, Part 11. The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development in 2008. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017.

Renewable Electricity Standards. There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewables Portfolio Standard (RPS) target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state’s load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.

Senate Bill 350: The Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 2015) was approved by Governor Brown on October 7, 2015. SB 350 (1) increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provides for the evolution of the Independent System Operator (ISO) into a regional organization; and (4) requires the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the Legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

Pavley Regulation, Advanced Clean Cars (ACC), and the California Mobile Source Strategy. Assembly Bill 1493 (2002) requires CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emission standards; however, California is allowed to set its own standards with a federal waiver from the USEPA, granted in 2009. Known as the Pavley Clean Car Standards, AB 1493 regulated GHG emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016.

In January 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2015 through 2025. The program includes components to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. The zero emissions vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEV) in the 2018 to 2025 model years (CARB, 2017f).

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years, through a transition to zero-emission vehicles (ZEVs), cleaner transit systems and reduction of vehicle miles traveled. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 “last mile” delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels (CARB, 2016c).

Executive Order B-16-2012 (Zero-Emission Vehicles). This executive order indicates that all State entities under the Governor’s control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:

- By 2015: The State’s major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State’s manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector’s investment in zero-emission vehicle infrastructure; and the State’s academic and research institutions contributing to zero-emission vehicle research, innovation and education.
- By 2020: The State’s zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles;

zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.

- By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.

Sustainable Freight Action Plan. Executive Order B-32-15 directed the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system. The targets are not mandates, but rather aspirational measures of progress towards sustainability for the State to meet and try to exceed. The targets include:

- System Efficiency Target: Improve freight system efficiency by 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030.
- Transition to Zero Emission Technology Target: Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- Increased Competitiveness and Economic Growth Targets: Establish a target or targets for increased State competitiveness and future economic growth within the freight and goods movement industry based on a suite of common-sense economic competitiveness and growth metrics and models developed by a working group comprised of economists, experts, and industry. These targets and tools will support flexibility, efficiency, investment, and best business practices through State policies and programs that create a positive environment for growing freight volumes and jobs, while working with industry to mitigate potential negative economic impacts. The targets and tools will also help evaluate the strategies proposed under the Action Plan to ensure consideration of the impacts of actions on economic growth and competitiveness throughout the development and implementation process.

California Transportation Plan 2040. The California Transportation Plan (CTP) 2040 provides a long-range policy framework to meet future mobility needs and reduce GHG emissions. The CTP defines goals, performance-based policies, and strategies to achieve maximum feasible emission reductions in order to attain a statewide reduction in GHG emissions.

The CTP 2040 recognizes that the Governor is committed to reduce by one-half current petroleum use in cars and trucks; increase from one-third to one-half the electricity derived from renewable sources; double the efficiency savings of existing buildings and make heating fuels cleaner; reduce the release of methane, black carbon, and other short-lived climate pollutants; and manage farm and rangelands, forests, and wetlands to store more carbon.

Transportation GHG reduction strategies within the CTP 2040 include demand management (including telecommuting/working at home, increased carpoolers, and increase car sharing), mode shift (including transit service improvements, high-speed rail, bus rapid transit, expanded bike and pedestrian facilities, carpool land occupancy requirements, and increased HOV lanes), travel cost (implement expanded pricing policies), and operational efficiency (incident/emergency management, Caltrans' Master Plan, ITS/TSM, and eco-driving).

Low Carbon Fuel Standard, Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandated that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental

Protection to coordinate the actions of the California Energy Commission (CEC), the CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard requires producers of petroleum based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against the CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration. With the adoption of the 2017 Scoping Plan Update, the Low Carbon Fuel Standard has been increased to an 18 percent reduction in carbon intensity by 2030.

Senate Bill 1383. This bill creates goals for short-lived climate pollutant (SLCP) reductions in various industry sectors. The SLCPs included under this bill – including methane, fluorinated gases, and black carbon – are GHGs that are much more potent than carbon dioxide and can have detrimental effects on human health and climate change. SB 1383 requires the CARB to adopt a strategy to reduce methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. The methane emission reduction goals include a 75% reduction in the level of statewide disposal of organic waste from 2014 levels by 2025. **Executive Order S-3-05.** Executive Order S-3-05 was signed by Governor Schwarzenegger in 2005 proclaiming California is vulnerable to the impacts of climate change. It states that increased temperatures could reduce the Sierra Nevada's snowpack, worsen California's air quality problems, and potentially cause a rise in sea levels. The Executive Order establishes total GHG emission targets including emissions reductions to the 2000 level by 2010, and the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target.

Assembly Bill 32 (AB 32). California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The original 2020 GHG emissions limit was 427 million mt CO_2e. The current 2020 GHG emissions limit is 431 million mt CO_2e. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change.

The Scoping Plan was approved by the CARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures (CARB, 2008b). The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The CARB rule-making process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by a CARB hearing and rule adoption.

Pursuant to AB 32, the CARB and the Climate Action Team (CAT)[2] did the following:

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[2] CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of CARB's jurisdiction.

- Adopted a list of discrete early action measures;
- Established a statewide GHG emissions cap for 2020 based on 1990 emissions and adopted mandatory reporting rules for significant sources of GHG;
- Indicated how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions; and
- Adopted regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The CARB adopted additional early action measures in October 2007 (CARB, 2007a) that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and sulfur hexafluoride (SF_6) reductions from the non-electricity sector. The combination of early action measures was estimated to reduce statewide GHG emissions by nearly 16 million mt CO_2e (CARB, 2007b).

AB 32 codifies Executive Order S-3-05's[3] year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020.

The first AB 32 Scoping Plan, published in 2008, identified a future cap-and-trade program covering refineries, power plants, industrial facilities, and transportation fuels as a central element of California's overall strategy to reduce GHG emissions to 1990 levels. More information on the Scoping Plan and California's Cap and Trade program is provided below.

Amendments to California Global Warming Solutions Act of 2006: Emission Limit (Senate Bill 32): Signed into law on September 8, 2016, Senate Bill (SB) 32 (Amendments to California Global Warming Solutions Act of 2006: Emission Limit) amends HSC Division 25.5 and codifies the 2030 target in the recent Executive Order B-30-15 (40 percent below 1990 levels by 2030). The 2030 target is intended to ensure that California remains on track to achieve the goal set forth by Executive Order B-30-15 to reduce statewide GHG emissions by 2050 to 80 percent below 1990 levels. SB 32 states the intent of the legislature to continue to reduce GHGs for the protection of all areas of the state and especially the state's most disadvantaged communities, which are disproportionately impacted by the deleterious effects of climate change on public health (California Legislative Information Website 2017). SB 32 was passed with companion legislation AB 197, which provides additional direction for developing the Scoping Plan. In 2016, the California State Legislature adopted SB 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030, while AB 197 includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

California Cap and Trade Program. Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the cap-and-trade program is a core strategy that California is using to meet its statewide GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by

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[3] Executive Order S-3-05 establishes greenhouse gas emission reduction targets for California.

setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020 (CA, 2013a). Under the Cap-and-Trade program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, fuel suppliers, and large industrial facilities that emit more than 25,000 metric tons CO2e per year) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions throughout the Program's duration (CA, 2013b). On July 17, 2017 the California legislature passed Assembly Bill 398, extending the Cap-and-Trade program through 2030.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 and 2030 statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not direct GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are assured on a State-wide basis.

Since 2015, fuels, such as gasoline, diesel, and natural gas, have been covered under the Cap-and-Trade Program. Fuel suppliers are required to reduce GHG emissions by supplying low carbon fuels or purchasing pollution permits, called "allowances," to cover the GHGs produced when the conventional petroleum-based fuel they supply is combusted.

2008 Scoping Plan. The California State Legislature adopted AB 32 in 2006 which focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.

The Scoping Plan (CARB, 2008b) contains the following 18 strategies to reduce the State's emissions:

1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. *California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. *Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.
4. *Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.
5. *Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.
6. *Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.
7. *Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.

8. *Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. *Million Solar Roofs Program.* Install 3,000 MW of solar-electric capacity under California's existing solar programs.
10. *Medium/Heavy-Duty Vehicles.* Adopt medium and heavy-duty vehicle efficiency measures.
11. *Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
12. *High Speed Rail.* Support implementation of a high-speed rail system.
13. *Green Building Strategy.* Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. *High Global Warming Potential Gases.* Adopt measures to reduce high global warming potential gases.
15. *Recycling and Waste.* Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.
16. *Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.
17. *Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.
18. *Agriculture.* In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

2014 Scoping Plan Update. This First Update to California's Climate Change Scoping Plan (2014 Scoping Plan Update) was developed by the CARB in collaboration with the Climate Action Team and reflects the input and expertise of a range of state and local government agencies. The Update reflects public input and recommendations from business, environmental, environmental justice, utilities and community-based organizations provided in response to the release of prior drafts of the Update, a Discussion Draft in October 2013, and a draft Proposed Update in February 2014.

This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The First Update includes recommendations for establishing a mid-term emissions limit that aligns with the State's long-term goal of an emissions limit 80 percent below 1990 levels by 2050 and sector-specific discussions covering issues, technologies, needs, and ongoing State activities to significantly reduce emissions throughout California's economy through 2050. The focus areas include energy, transportation, agriculture, water, waste management, and natural and working lands (CARB, 2014a). With respect to the transportation sector, California has outlined several steps in the State's zero emission vehicle (ZEV) Action Plan to further support the market and accelerate its growth. Committed implementation of the actions described in the plan will help meet Governor Brown's 2012 Executive Order (EO) B-16-2012, which—in addition to establishing a more specific 2050 GHG target for the transportation sector of 80 percent from 1990 levels—called for 1.5 million ZEVs on California's roadways by 2025.

Achieving such an aggressive 2050 target will require innovation and unprecedented advancements in energy demand and supply (CARB, 2014a). Emissions from 2020 to 2050 will have to decline at more than twice the rate of that which is needed to reach the 2020 statewide emissions limit. In addition to our climate objectives, California also must meet federal clean air standards. Emissions of criteria air pollutants, including ozone precursors (primarily oxides of nitrogen, or NOX) and particulate matter, must be reduced by an estimated 90 percent by 2032 to comply with federal air quality standards. The scope and scale of emission reductions necessary to improve air quality is similar to that needed to meet long-term climate targets. Achieving both objectives will align programs and investments to leverage limited resources for maximum benefit.

2017 Scoping Plan Update. On December 14, 2017, CARB approved the final version of California's 2017 Climate Change Scoping Plan (2017 Scoping Plan Update), which outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels (CARB, 2017e). The 2017 Scoping Plan Update identifies key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the target Statewide 2030 emissions limit is 260 MMTCO2e, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO2e beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2050 limit set forth by E.O. B-30-15.

The 2017 Scoping Plan Update's strategy for meeting the 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030. These include:

- Extending the low carbon fuel standard (LCFS) beyond 2020 and increasing the carbon intensity reduction requirement to 18 percent by 2030;
- SB 350, which increase renewables portfolio standard (RPS) to 50 percent and requires a doubling of energy efficiency for existing buildings by 2030;
- The 2016 Mobile Source Strategy is estimated to reduce emissions from mobile sources including an 80 percent reduction in smog-forming emissions and a 45 percent reduction in diesel particulate matter from 2016 level in the South Coast Air Basin, a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels;
- The Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies (described in more detail below);
- SB 1383, which requires a 50 percent reduction in anthropogenic black carbon and a 40 percent reduction in hydrofluorocarbon and methane emissions below 2013 levels by 2030; and
- Assembly Bill 398, which extends the state Cap-and-Trade Program through 2030.

With respect to project-level GHG reduction actions and thresholds for individual development projects, the 2017 Scoping Plan Update Indicates,

> *Beyond plan-level goals and actions, local governments can also support climate action when considering discretionary approvals and entitlements of individual projects through CEQA. Absent conformity with an adequate geographically-specific GHG reduction plan as described in the preceding section above, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development (CARB, 2017e).*

4.7.2.3 Regional Regulations

Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) within Regional Transportation Plan (RTP) demonstrates the region's ability to attain and exceed the GHG emission reduction targets set by the CARB. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint Demonstration Projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network, which emphasizes system preservation, active transportation, and transportation demand management measures.

The RTP/SCS exceeds its greenhouse gas emission-reduction targets set by the CARB by achieving an 8 percent reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. Table 4.7-1 shows the assumptions regarding Moreno Valley that SCAG used in its 2016 analysis.

Table 4.7-1: SCAG Assumptions for Moreno Valley

Year	Population	Households	Employment
2012	197,600	51,800	31,400
2040	256,600	73,000	83,200

Source: Southern California Association of Governments 2016
(http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf)

The RTP also includes an appendix on Goods Movement, which describes a process to develop and deploy needed technologies for improving efficiency of goods movement, along with key action steps for public sector agencies to help move the region to that objective. The 2016 RTP/SCS reaffirms zero- and near zero-emission technologies as a priority, and establishes the regional path forward towards improving the goods movement system.

4.7.2.4 City of Moreno Valley Climate Action Strategy

The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The Strategy contains the following policies to reduce greenhouse gas emissions in 2010 by 15 percent by 2020:

R2-T1	*Land Use Based Trips and VMT Reduction Policies.* Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.
R2-T3	*Employment-Based Trip Reductions.* Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.
R2-E1	*New Construction Residential Energy Efficiency Requirements.* Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.
R2-E2	*New Construction Residential Renewable Energy.* Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.

R2-E5	*New Construction Commercial Energy Efficiency Requirements.* Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.
R3-E1	*Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining.* Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.
R3-L2	*Heat Island Plan.* Develop measures that address “heat islands.” Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.
R2-W1	*Water Use Reduction Initiative.* Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.
R3-W1	*Water Efficiency Training and Education.* Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.
R2-S1	*City Diversion Program.* For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

4.7.3 METHODOLOGY

Bearing in mind that CEQA does not require “perfection” but instead “adequacy, completeness, and a good faith effort at full disclosure,” the analysis of project GHG emissions and climate change is based on methodologies and information available at the time this Revised Sections of the FEIR was prepared. Many uncertainties exist regarding the precise relationship between specific levels of GHG emissions and the ultimate impact on global climate. Significant uncertainties also exist regarding the reduction potential of mitigation strategies. Thus, while information is presented below to assist the public and the City’s decision-makers in understanding the project’s potential contribution to global climate change impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.

The recommended approach for GHG analysis included in the California Governor’s Office of Planning and Research (OPR’s) June 2008 release is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below a level of significance (Governor’s Office of Planning and Research, 2008). Neither the CEQA statute nor Guidelines prescribe quantitative thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: “CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government lead agencies, adoption of General Plan policies and certification of General Plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews.”

Pursuant to SB 97, the OPR must develop guidelines for analysis of the effects of GHG emissions. As part of this process, the OPR asked CARB technical staff to recommend statewide interim thresholds of significance for GHGs. The CARB released a preliminary draft staff proposal in October 2008 that included initial suggestions for significance criteria related to industrial, commercial, and residential projects. However, CARB's staff did not adopt or suggest any new statewide thresholds. The OPR finalized its revised *CEQA Guidelines* without reference to CARB's draft proposal.

In March 2010, *CEQA Guidelines* amendments were adopted and include the following direction regarding determination of significant impacts from GHG emissions (Section 15064.4):

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

    (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or

    (2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:

    (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

    (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

    (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

The analysis takes into account the following:

- *CalEEMod.* The latest version of CalEEMod (Version 2016.3.2) was utilized to calculate GHG emissions from the following source categories: construction energy, waste, land use change, architectural coatings and water. For a detailed description of the assumptions used to estimate the GHG emissions, refer to the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

- *Operational Mobile Assumptions***.** Operational mobile GHG emissions were estimated using the same procedures for the air quality analysis (which includes using EMFAC2014), which is consistent with updated Traffic Impact Analysis. Please refer to Section 4.3.3.2 in the Air Quality Section of this Revised Sections of the FEIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2018) for a list of those changes.
- *Vehicle Fuel Assumptions:* Mobile emissions in this analysis utilizes EMFAC2014's projected vehicle fuel mix for Phase 1 buildout year 2025 and project buildout year 2040. EMFAC2014 does not include population assumptions for electric or natural gas-fueled trucks. Section 4.17, Energy, of this Revised Sections of the FEIR addresses the potential penetration of electric trucks and potential use in association with the project. Although the State has set targets for zero-emission vehicles, it would be speculative to assume that the High Penetration scenario discussed in Section 4.17 would be practicable or feasible by 2025 or by 2040. The Low and Medium Penetration scenarios discussed in Section 4.17 are possible; however, as a worst-case analysis, the greenhouse gas analysis included herein does not factor in any potential emissions reductions provided by electric or natural gas-fueled trucks. For informational purposes only, emissions associated with the Medium Penetration scenario has been taken into account to show further emissions reduction potential.

For a detailed discussion of GHG emissions source and methodology, refer to Appendix A of this Revised Sections of the FEIR.

4.7.4 THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the *CEQA Guidelines*, climate change/greenhouse gas emissions impacts would occur if the World Logistics Center project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., exceeds the SCAQMD's 10,000 mt CO_2e emissions screening threshold of significance); and/or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Global climate change may result in significant adverse effects to the environment that will be experienced worldwide, with some specific effects observed in California. AB 32 requires statewide GHG emissions reductions to 1990 levels by 2020, and SB 32 requires statewide GHG emissions reductions to 40 percent below 1990 levels by 2030. Although these statewide reductions are now mandated by law, no generally applicable GHG emission threshold has yet been established.

State CEQA Guidelines Section 15064(b) provides that "…the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." The *State CEQA Guidelines* further indicate that even when thresholds are established, they may include "identifiable quantitative, qualitative or performance level of a particular environmental effect" (*State CEQA Guidelines*, Section 15064.7).

Some policymakers and regulators suggest that a zero emissions threshold would be appropriate when evaluating GHGs and their potential effect on climate change. Such a rule appears inconsistent with the State's approach to mitigation of climate change impacts. AB 32 and SB 32 do not prohibit all new GHG emissions; rather, they require a reduction in statewide emissions to a given level. Thus, AB 32 and SB 32 recognize that GHG emissions will continue to occur; increases will result from certain activities, but reductions must occur elsewhere.

Individual projects incrementally contribute toward the potential for global climate change (GCC) on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect GCC, each of these projects incrementally contributes toward the potential for GCC on a cumulative basis, in concert with all other past, present, and probable future projects. This analysis examines whether the project's emissions should be considered cumulatively significant.

In order to evaluate the significance of a proposed project's environmental impacts related to GHG emissions, it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As previously described, while project-related GHG emissions can be estimated the direct impact of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that the World Logistics Center project would directly affect GCC. The SCAQMD has adopted a quantitative GHG emission significance threshold to assess direct impacts from industrial projects where the SCAQMD is the lead agency. The SCAQMD and other air quality agencies agree that GHG and GCC should be assessed as a potentially significant cumulative impact rather than a project-specific impact.

The following is an excerpt from the SCAQMD (Draft Guidance Document – Interim CEQA Greenhouse Gas [GHG] Significance Threshold, October 2008):

> *"The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimate contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.*
>
> *As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level."*

This project utilizes Tier 3 of the SCAQMD's draft threshold and compares the project's uncapped greenhouse gas emissions to the SCAQMD's threshold for industrial projects, 10,000 mt CO_2e per year. Therefore, the threshold used for this project was based on the goal in Executive Order S-3-05. If the project's uncapped emissions are under the threshold, then the project would be in compliance with Executive Order S-3-05.

In September 2013, the SCAQMD adopted two Negative Declarations stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue a step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:

- "Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."
- "The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."
- "[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."
- "[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."

The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.

The consideration of only uncapped GHG emissions to determine the significance of those emissions under CEQA used by the SCAQMD and the SJVAPCD was validated in Association of Irritated Residents v. Kern County Board of Supervisors, 17 Cal. App. 5th 708 (2017). The EIR's GHG analysis properly relied on compliance with California's cap-and-trade program to conclude that GHG emissions would be less than significant.

4.7.5 LESS THAN SIGNIFICANT IMPACTS

Due to the size of the project, all potential impacts related to greenhouse gas emissions are considered to be potentially significant.

4.7.6 SIGNIFICANT IMPACTS

4.7.6.1 Greenhouse Gas Emissions

Impact	Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Future development that could occur within the World Logistics Center project site could generate GHG emissions during both construction and operation activities. The following activities are associated with the World Logistics Center project and could directly or indirectly contribute to the generation of GHG emissions:

- **Removal of Vegetation (Land Use Change) and Sequestration:** Carbon sequestration is the process of capture and storage of carbon dioxide; trees, vegetation, and soil store carbon in their tissues and wood. The net removal of vegetation for construction from land use change results in a loss of the carbon sequestration in plants. However, planting additional vegetation (sequestration) would result in additional carbon sequestration and would lower the carbon footprint of the project.
- **Construction Activities:** During construction of the World Logistics Center project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Leaks from installation of refrigeration equipment for air conditioning may occur.

- **Gas, Electric, and Water Use:** Natural gas use results in the emissions of CH_4 (the major component of natural gas) and CO_2 from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. Conveying water to the project and treating wastewater also uses electricity.
- **Solid Waste Disposal:** Solid waste generated by the World Logistics Center project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is approximately 21 times more potent than CO_2. Landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the World Logistics Center project would result in GHG emissions from the combustion of fossil fuels and the use of electricity in daily automobile and truck trips.
- **On-site Equipment:** During operation of the World Logistics Center project, there would be on-site equipment operating, including yard trucks, emergency generators, and forklifts.

Construction Emissions. The World Logistics Center project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment, as shown in Table 4.7-2. The GHG emissions are from all phases of construction. The SCAQMD recommends that construction emissions be averaged over a 30-year period.

Table 4.7-2: Construction Greenhouse Gas Emissions (without mitigation)

Year	Annual Emissions (mt CO_2e)
2020	11,783
2021	11,447
2022	15,056
2023	11,036
2024	20,704
2025	12,384
2026	14,241
2027	11,982
2028	14,057
2029	12,930
2030	15,605
2031	11,894
2032	17,188
2033	15,872
2034	11,839
2035	14,082
Total	222,098
Averaged over 30 years	**7,403**
Capped: Fuel-Based Emission Sources Averaged over 30 years	**7,334**
Uncapped: Refrigerant Installation and Construction Waste Averaged over 30 years	**34**

Table 4.7-2: Construction Greenhouse Gas Emissions (without mitigation)

Year	Annual Emissions (mt CO_2e)

mt CO_2e = metric tons of carbon dioxide equivalents.
Note: The SCAQMD recommends that construction emissions be averaged over a 30-year period.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018
Sources include onsite construction equipment, worker trips, haul trips, vendor trips, refrigerant installation for the air conditioning in the offices, construction waste, and water use. Values presented in the table may not equal the sum due to rounding.

Total Emissions, Worst-Case Scenario. Operational or long-term emissions occur over the life of the project. Included for informational purposes, operational emissions for a worst-case buildout condition are shown in Table 4.7-3. This is a worst-case analysis because it assumes that the entire project would be built-out in 2018. The emissions are presented by greenhouse gas (in tons per year), which was also converted to metric tons of carbon dioxide equivalents (mt CO_2e). The vehicle emissions in the table represent travel within the South Coast Air Basin. The emissions do not take into account mitigation measures to reduce emissions, such as the use of model year 2010 and later diesel trucks on the project site. As shown in the table, the project's uncapped emissions are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.

The analysis presented in Table 4.7-3 also represents a worst-case analysis because the emission factors do not take into account implementation of California's Mobile Source Strategy and the full reductions expected from newer trucks and cars as a result of the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. The emissions are estimated using emission factors from EMFAC2014, CARB's emission factor model, for the year 2018.

Table 4.7-3: Annual Project Operational GHG Emissions (Worst-Case 2018 Analysis at Buildout)

Source	Individual Emissions (tons)					Greenhouse Gas Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	Hydrofluoro-carbons	Black Carbon	
AB 32/SB 32 Capped Emissions						
Mobile (net)	285,523	3.17	1.56	0.00	6.27	263,840
Other	81,599	71.50	185.20	0.00	0.70	126,199
Total	367,122	74.67	186.77	0.00	6.97	390,039
Uncapped Emissions	**9,804**	**504.67**	**0.00**	**1.95**	**0.00**	**22,974**
					Threshold	**10,000**
					Significant?	**Yes**

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
The "other" emissions include the non-mobile capped emissions as presented in Table 4.7-4. below.
Source: *ESA*, 2018

Total Project Emissions. Table 4.7-4 shows the unmitigated project emissions at buildout, including estimates of the project's mobile emissions estimates for future years based on EMFAC emission factors for the actual year assessed, which take into account the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. Emissions are shown by individual GHG (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and black carbon) and totaled used the common unit of metric tons CO2e based on the global warming potential of each gas. Emissions estimates for electricity and natural gas do not account for Project Design Features (described in

Energy Section 4.17.5) that improve building energy efficiency and maximize the use of on-site renewable energy

Table 4.7-4 shows project emissions separated into capped and uncapped sectors, as defined by California's cap-and-trade program. California's cap-and-trade program is enforceable and meets the requirements of AB 32 and SB 32. The program began on January 1, 2012, placing GHG emissions limits on capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MT CO2e per year), and enforcing compliance obligations beginning with 2013 emissions. Vehicle fuels were placed under the cap in 2015, and with the passage of AB 398, the program was extended through 2030. The Cap-and-Trade Program allocates emissions permits across covered entities in each sector.

As shown in Table 4.7-4, the majority of the project's GHG emissions are from sources that are subject to the requirements of the Cap-and-Trade Program. AB 32/SB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold.

Table 4.7-4: Project GHG Emissions at Buildout by GHG (Unmitigated)

Source	**Emissions (tons per year)**					**GHG Emissions (mt CO_2e)**
	Carbon Dioxide	**Methane**	**Nitrous Oxide**	**HFCs**	**Black Carbon**	
AB 32/SB 32 Capped Emissions						
On-road vehicles	*231,254*	*1.05*	*1.70*	*0.00*	*0.63*	*210,708*
Electricity[1]	*60,348*	*62.33*	*158.06*	*0.00*	*0.00*	*54,947*
Construction[2]	*7,550*	*1.36*	*<0.01*	*0.00*	*0.66*	*7,334*
Yard trucks	*5,631*	*0.00*	*0.00*	*0.00*	*0.00*	*5,109*
Electricity-convey water	*2,664*	*5.43*	*0.15*	*0.00*	*0.00*	*2,580*
Natural gas[1]	*4,942*	*2.37*	*26.99*	*0.00*	*0.12*	*4,510*
Generator	*267*	*0.01*	*0.00*	*0.00*	*0.04*	*267*
Forklifts	*197*	*0.00*	*0.00*	*0.00*	*0.01*	*183*
Total AB 32/SB 32 Capped	**312,853**	**72.55**	**186.90**	**0.00**	**1.33**	**285,639**
Significant?	*--*	*--*	*--*	*--*	*--*	*No*
Uncapped Emissions						
Waste	8,540	504.67	0.00	0.00	0.00	19,193
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Refrigerants	0	0.00	0.00	1.89	0.00	2,572
Construction*	115	0.00	0.00	0.06	0.00	166
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total Uncapped	**9,804**	**504.67**	**0.00**	**1.95**	**0.00**	**22,974**
Threshold	--	--	--	--	--	10,000
Significant impact?	--	--	--	--	--	Yes

Table 4.7-4: Project GHG Emissions at Buildout by GHG (Unmitigated)

Source	Emissions (tons per year)					GHG Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	HFCs	Black Carbon	

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons [HFC] – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072. <0.01 = less than 0.01

1 – Electricity and natural gas emissions estimates are based on minimum compliance with 2016 Title 24 building standards

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction emissions are amortized over 30 years.

Source: *ESA, 2018*

The total emissions estimates for the project, summarized in Table 4.7-5, include both construction and operations emissions, and do not account for Project Design Features (described in Energy Section 4.17.5) that improve building energy efficiency and maximize the use of on-site renewable energy; nor do they account for the project's mitigation measures. Table 4.7-5 shows a summary of AB 32/SB 32 capped and uncapped project emissions (unmitigated) for each year between 2020 and buildout. As shown in the table, the uncapped emissions in the year 2026 and after are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant, and mitigation is required.

Table 4.7-5: Project GHG Emissions (Year by Year without Mitigation)

Source	GHG Unmitigated Emissions (mt CO_2e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,688	29,376	48,960	68,544	104,914	126,417	137,770
Electricity[1]	0	4,696	9,393	15,654	21,916	33,545	37,895	40,192
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	133	267	445	623	953	1,283	1,458
Natural gas	0	381	763	1,271	1,779	2,723	3,087	3,278
Generator	0	14	28	46	64	99	133	151
Forklifts	0	9	19	32	44	68	91	104
Total AB 32 Capped Emissions	11,669	31,520	55,289	78,184	114,676	156,342	185,550	197,724
Uncapped Emissions								
Waste	0	992	1,985	3,308	4,632	7,089	9,547	10,844
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction refrigerants and waste[2]	114	114	140	140	231	231	198	132
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**114**	**1,293**	**2,499**	**4,072**	**5,735**	**8,656**	**11,543**	**13,019**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	Yes	Yes

Source	GHG Unmitigated Emissions (mt CO_2e/year)								
	2028	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Buildout**
AB 32/SB 32 Capped Emissions									
On-road vehicles	144,593	151,416	161,152	172,192	183,233	194,274	201,510	208,747	210,708
Electricity[1]	41,572	42,952	44,922	47,155	49,389	51,622	53,086	54,550	54,947
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,562	1,667	1,817	1,986	2,156	2,326	2,437	2,548	2,580
Natural gas	3,394	3,509	3,673	3,860	4,046	4,233	4,355	4,478	4,510
Generator	162	173	188	206	223	241	252	264	267
Forklifts	111	118	129	141	153	165	173	181	183
Total AB 32 Capped Emissions	208,448	215,943	230,949	241,233	260,523	273,238	278,378	289,842	285,638
Uncapped Emissions									
Waste	11,624	12,404	13,517	14,779	16,040	17,302	18,129	18,956	19,193
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	132	174	193	193	193	138	138	64	166
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**13,946**	**14,915**	**16,256**	**17,756**	**19,255**	**20,700**	**21,683**	**22,591**	**22,974**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates are based on minimum compliance with 2016 Title 24 building standard; includes electricity use by on-site EV chargers.

2 – Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years.

Source: *ESA, 2018*

Project Design Features. The WLCSP incorporates site and building designs (Project Design Features) that emphasize conservation of water and energy, which in turn help reduce greenhouse gas emissions (WLCSP September 2014, Section 1.3.2, Green Building-Sustainable Development). The revised Project Design Features, as outlined in the *Comparison of Renewable Energy Technologies* report (WSP, 2018) and explained in detail in Energy Section 4.17.5, go substantially beyond that previous commitment with energy conservation measures (ECMs) that exceed minimal compliance with current (2016) Title 24 requirements by about 17 percent at Phase 1 and 16 percent at full buildout, and a commitment to maximize the use of onsite rooftop solar PV generation,.

Mitigation Measures. The following mitigation measures would reduce the GHG emissions impact of the WLC project. Mitigation measures 4.7.6.1B, 4.7.6.1C, and 4.7.5.1D were previously included in the 2015 FEIR as Utilities Mitigation Measures 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C to address building energy, but energy impacts have now been removed from the Utilities section and considered in the standalone Energy section of this Revised Sections of the FEIR (Section 4.17).

4.7.6.1A The World Logistics Center project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development:

a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.

c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.

d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan.

e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.

f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.

g) The property owner shall advise all tenants of the availability of community recycling and composting services.

h) Existing onsite street material shall be recycled for new project streets to the extent feasible.

4.7.6.1B (Previously Included as Utilities Mitigation Measure 4.16.4.6.1A for building energy). Each application for a building permit shall include energy calculations to demonstrate compliance with California Energy Efficiency Standards (Title 24, Part 6). Plans shall show the following:

- Energy-efficient roofing systems, such as "cool" roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning.
- Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment.
- Energy-efficient appliances that achieve the 2016 California Appliance Energy Efficiency Standards (e.g.,EnergyStar® Appliances) and use of sunlight-filtering window coatings or double-paned windows

4.7.6.1C (Previously Included as Utilities Mitigation Measure 4.16.4.6.1B building energy). Prior to the issuance of any building permits within the WLC site, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards, for each new structure. Plans may include but are not necessarily limited to implementing the following as appropriate:

- High-efficiency air-conditioning with electronic management system (computer) control.
- Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.
- Use of Energy Star ® exit lighting or exit signage.

4.7.6.1D (Previously Included as Utilities Mitigation Measure 4.16.4.6.1C building energy; now modified). Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

- Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building or up to the limit allowed by MVU's restriction on distributed solar PV connecting to their grid, whichever is greater;

- Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and
- Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.

Additionally, the following mitigation measures from other sections of the Revised Sections of the FEIR help reduce GHG emissions. The complete air quality and utilities mitigation measures can be found in the executive summary.

Air Quality Mitigation Measure 4.3.6.2A (construction fuel) would require that construction equipment greater than 50 horsepower be USEPA Tier 4 emissions compliant and limits on-site idling of all diesel-powered construction equipment, delivery vehicles, and delivery trucks to three minutes in any one hour.

AQ Mitigation Measure 4.3.6.3B (long haul trucks). Require the operation of model year 2010 diesel trucks or later.

AQ Mitigation Measure 4.3.6.4A: The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

- All tenants shall be required to participate in Riverside County's Rideshare Program.
- Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.
- Class II bike lanes shall be incorporated into the design for all project streets.
- The project shall incorporate pedestrian pathways between on-site uses.
- Site design and building placement shall provide pedestrian connections between internal and external facilities.
- The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.
- A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 200 parking spaces or more shall be designed and constructed so that at least six percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Sizing of conduit and service capacity at the time of construction shall be sufficient to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater.
- Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code. Each building shall provide a minimum of two shower and changing facilities for employees.
- Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.
- The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

Utilities Mitigation Measure 4.16.1.6.1A would reduce outdoor water usage which in turn reduces energy use associated with the conveyance of that water.

Utilities Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.

Utilities Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.

Figure 4.7.1 displays the unmitigated and mitigated uncapped GHG emissions. As shown in the figure, the mitigated uncapped emissions are less than the significance threshold and are therefore less than significant.

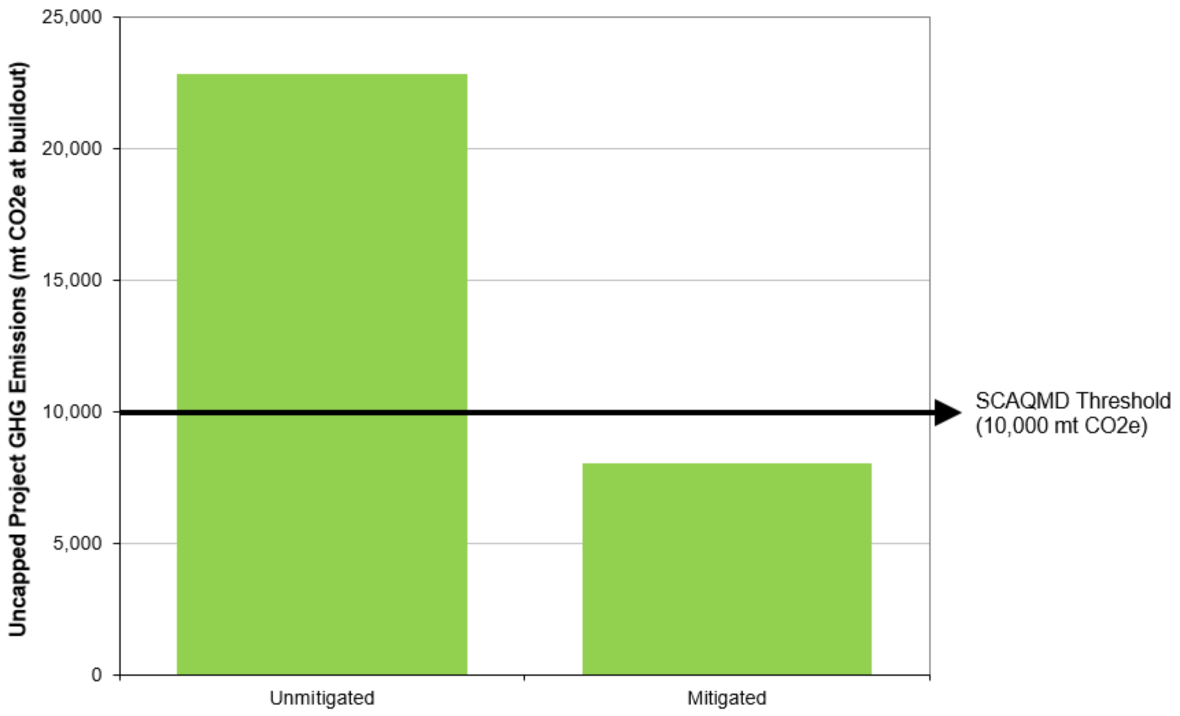

Figure 4.7.1: Uncapped Project GHG Emissions at Buildout

Table 4.7-6 evaluates to what degree the mitigation measures (including the various PDFs of the project as described in Energy Section 4.17.5) will reduce potential GHG emissions.

Table 4.7-7 shows the project GHG emissions with implementation of Project Design Features and mitigation measures, at buildout only. Table 4.7-8 shows the mitigated GHG emissions for each year between 2020 and buildout.

AB 32/SB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold. The tables indicate that with mitigation, the uncapped emissions would not exceed the significance threshold. GHG emissions are less than significant after mitigation.

Level of Impact After Mitigation. Less than significant.

Table 4.7-6: Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
Construction Fuel	**Mitigation Measure 4.3.6.2A** would require that construction equipment be Tier 4.	This reduction was estimated in CalEEMod. Tier 4 construction equipment would have fewer PM2.5 emissions, and therefore black carbon emissions.
Construction Waste	Regulation in the California Green Building Standards require that projects divert (reduce or recycle) at least 50 percent of waste.	This reduction was estimated using the U.S. EPA's Waste Reduction Model (WARM) version 13.
On-road Vehicles: Local	*Project Design Feature:* Local bus service to the area is provided by the Riverside Transit Agency. Local bus routes would typically be extended into the project area when adequate demand is generated from this employment center. Future bus routes could circulate on available looped routes with adequate right-of-way along the major arterial roadways of Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Likewise, the industrial collector roadways provide access to locations nearest building front entrances. Due to building scale, bus stops may be spread out by grouped entrances or centralized gateway drive areas as compared to individual business entries.	The California Air Pollution Control Officer's Association (CAPCOA) report's reduction measure TRT-1 indicates a 5.2 percent reduction in commute vehicle miles traveled for low-density suburbs for inclusion of a commute trip reduction program. However, this reduction is not used in this analysis. In this Revised Sections of the FEIR, no reductions are taken for these measures in order to provide a conservative analysis.
	Mitigation Measure 4.3.6.4A: Class II bike lanes.	
	Mitigation Measure 4.3.6.4A: Participate in Riverside County's rideshare program	
	Mitigation Measure 4.3.6.4A: Lockers for employees.	
	Mitigation Measure 4.3.6.4A: Bicycle storage and changing rooms	
	Project Design Features: The project would have pedestrian circulation, sidewalks, and a multiuse trail.	
	Mitigation Measure 4.3.6.4A*:* Safe pedestrian connections	
	Mitigation Measure 4.3.6.4A: Parking for fuel-efficient vehicles	
On-road Vehicles: Long haul trucks	**Mitigation Measure 4.3.6.3B:** Require model year 2010 diesel trucks or later.	This was implemented by utilizing the emission factors for medium-heavy duty and heavy-heavy duty trucks from EMFAC2014 for year 2010 and after.

Table 4.7-6: Greenhouse Gas Emissions Reduction Analysis

Category	**Operational Mitigation Measure or Project Design Feature[1]**	**Calculation Method and Reductions**
On-road Vehicles: all	*Pavley-I Regulation:* A clean-car standard to reduce greenhouse gas emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016. *Low Carbon Fuel Standard:* A fuel standard that requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. *California Mobile Source Strategy:* This 2016 plan includes targets for zero emission vehicles (ZEVs) that exceed assumptions included in EMFAC 2014. Project design includes supporting infrastructure to accommodate future EV populations consistent with targets in the Mobile Source Strategy.	EMFAC2014 provides emission factors for carbon dioxide that include these regulations. Therefore, both the unmitigated and mitigated emissions account for these regulations.
Electricity and Natural Gas: Title 24	**Mitigation Measures 4.7.6.1B** and **4.7.6.1C** would reduce electricity related emissions. In addition, the project would be LEED certified for buildings and Mitigation Measure 4.7.6.1D would require buildings to exceed Title 24 (2008 version) by 10 percent or comply with the current version in place. Project design includes energy conservation measures that would enable the project to exceed 2016 Title 24 energy standards by approximately 17 percent at Phase 1 and 16 percent at Full Buildout, by lowering electrical demand with implementation of sustainability measures such as high efficiency appliances and skylights.	Reductions from exceeding the requirements of Title 24 (2016) were accounted for in calculations.
Electricity: Lighting	**Mitigation Measures 4.7.6.1C** (lighting efficiency) and **4.7.6.1D** (Title 24) would reduce electricity from lighting. Project design includes energy conservation measures that lower electrical demand with implementation of sustainability measures such as high efficiency lighting and motion sensors.	Reductions due to efficient lighting were accounted for in calculations.
Electricity: Solar	**Mitigation Measure 4.7.6.1D** requires that the project install solar panels. Project design includes on-site solar panel installation.	The estimated electricity generation from onsite solar is 24,083 MWh per year, which is 5.0 percent of the electricity demand at buildout. Therefore, 5.0 percent of the unmitigated electricity-related GHG emissions are reduced by solar generation.
Water	**Mitigation Measure 4.16.1.6.1A** would reduce outdoor water usage	CalEEMod mitigation for water-efficient irrigation systems (6.1% reduction, CalEEMod default)

Table 4.7-6: Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
	Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.	CalEEMod mitigation for: - low-flow toilet (20% reduction in flow, CalEEMod default) - low flow bathroom faucet (32% reduction in flow, CalEEMod default) - low-flow kitchen faucet (18% reduction in flow, CalEEMod default) - low-flow shower (20% reduction in flow, CalEEMod default)
	Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.	No reductions are taken for the potential use of reclaimed water.
Waste	**Mitigation Measure 4.7.6.1A***:* Recycling and composting to divert construction and operational waste by at least 50 percent before 2020 and 75 percent thereafter.	The project would commit to reducing construction and operational waste by 50 percent prior to 2020 and 75 percent after; therefore, a 75 percent reduction is applied.
	Project Design Feature: Specific Plan (Section 5.1.6) requires that all development within the project provide enclosures or compactors for trash and recyclable materials.	

[1] Project design features are from the WLC Project Description and WLC Sustainable Energy Plan (WSP, 2018); mitigation measures are shown in Section 1.0, Table 1.B.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018

Table 4.7-7: GHG Reductions at Buildout (with Mitigation)

Type of Emissions	Source	GHG Emissions (CO_2e) at Buildout (mt)		
		Unmitigated	Reductions from Mitigation	With Reductions (Mitigated)
AB 32/SB 32 Capped Emissions	On-road vehicles	210,708	-112	210,596
	Electricity[1]	54,947	-4,579	50,368
	Construction[2]	7,334	0	7,334
	Yard trucks	5,109	0	5,109
	Electricity to convey water	2,580	-271	2,308
	Natural Gas[1]	4,510	-4,510	0
	Generator	267	19	286
	Forklifts	183	0	183
	Solar PV	0	-3,386	-3,386
	Total	**285,638**	**-12,840**	**272,799**
	Significant?	No	—	—
Uncapped Emissions	Waste	19,193	-14,395	4,798
	Land use change	1,154	0	1,154

Table 4.7-7: GHG Reductions at Buildout (with Mitigation)

Type of Emissions	Source	GHG Emissions (mt CO_2e) at Buildout		
		Unmitigated	Reductions from Mitigation	With Reductions (Mitigated)
	Refrigerants	2,572	0	2,572
	Construction waste and refrigerants[2]	166	-17	149
	Sequestration	-111	0	-111
	Total	**22,974**	**-14,412**	**8,563**
	Threshold	10,000	—	10,000
	Significant?	Yes	—	No

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
1 - Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.
2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction would no longer occur at buildout; however, according to SCAQMD recommendations, construction emissions are included as amortized over 30 years.

Source: *ESA, 2018*

Table 4.7-8: Project GHG Emissions (Year by Year with Mitigation)

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,601	29,202	48,670	68,138	104,293	125,899	137,307
Electricity[1]	0	4,235	8,469	14,116	19,762	30,248	34,337	36,496
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	119	239	398	557	853	1,148	1,304
Natural gas[1]	0	0	0	0	0	0	0	0
Generator	0	15	30	49	69	106	142	161
Forklifts	0	9	19	32	44	68	91	104
Solar PV	0	-179	-357	-595	-834	-1,276	-1,705	-1,931
Total AB 32/SB 32 Capped Emissions	11,669	30,399	53,046	74,446	109,443	148,331	176,557	188,213
Uncapped Emissions								

Table 4.7-8: Project GHG Emissions (Year by Year with Mitigation)

Source	GHG Mitigated Emissions (mt CO$_2$e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
Waste	0	248	496	827	1,158	1,772	2,387	2,711
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction waste and refrigerants[2]	97	97	123	123	214	214	181	115
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**97**	**532**	**993**	**1,574**	**2,245**	**3,322**	**4,366**	**4,869**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

Source	GHG Mitigated Emissions (mt CO$_2$e/year)								
	2028	2029	2030	2031	2032	2033	2034	2035	Buildout
AB 32/SB 32 Capped Emissions									
On-road vehicles	144,163	151,018	160,801	171,895	182,989	194,083	201,354	208,625	210,596
Electricity[1]	37,794	39,091	40,943	43,043	45,143	47,242	48,619	49,995	50,368
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,398	1,492	1,626	1,778	1,929	2,081	2,181	2,280	2,308
Natural gas[1]	0	0	0	0	0	0	0	0	0
Generator	173	185	201	220	239	258	270	282	286
Forklifts	111	118	129	141	153	165	173	181	183
Solar PV	-2,068	-2,204	-2,398	-2,618	-2,838	-3,059	-3,203	-3,347	-3,386
Total AB 32/SB 32 Capped Emissions	198,626	205,810	220,371	230,152	248,938	261,149	265,958	277,092	272,799
Uncapped Emissions									
Waste	2,906	3,101	3,379	3,695	4,010	4,326	4,532	4,739	4,798
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	115	147	176	176	176	121	121	47	149

Source	**GHG Mitigated Emissions (mt CO_2e/year)**								
	2028	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Buildout**
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**5,211**	**5,595**	**6,102**	**6,655**	**7,208**	**7,706**	**8,069**	**8,357**	**8,563**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No	No

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 - Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

Source: *ESA, 2018*

Operational Emissions, Scoping Plan Scenario (Included for informational purposes only). The emissions presented under the Scoping Plan scenario (Table 4.7-10) assume successful implementation of the 2017 Scoping Plan Update, which included the Mobile Source Strategy in addition to the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. The mobile emissions estimates for future years are based on emission factors that account for higher penetrations of electric vehicles (EVs) than assumed by EMFAC.

The Scoping Plan Scenario assumes that California's 2016 Mobile Source Strategy (MSS) would be implemented as a key strategy in the 2017 Scoping Plan Update for meeting the state's 2030 GHG target (presented in the Energy section as Vehicle Scenario B: Medium EV Penetration). The MSS has a target of 4.2 million zero emission vehicles (ZEVs) in operation statewide by 2030. As explained in the Energy Section, after 2025 the sales and penetration of ZEVs under the MSS start to exceed the numbers assumed by EMFAC 2014. Table 4.7-9 shows that under the MSS approximately 8.4 percent of the passenger vehicle (LDA) and light truck (LDT) fleet is expected to powered by electricity or other zero emission engines by 2025 in the South Coast AQMD region, compared to 6.2 percent using EMFAC 2014 assumptions. By 2040, 42.2 percent of cars and light trucks are expected to be ZEVs in the South Coast AQMD region, compared to 13.7 percent using EMFAC 2014 assumptions.

Table 4.7-9: California and SCAQMD Electric Vehicle (EV) Penetration Estimates

Jurisdiction	Year	EMFAC 2014				Mobile Source Strategy	
		Total LDA + LDT Population	EV Population	% EV	EV Sales in year as % of total	EV Population	% EV
SCAQMD	2020	6,970,018	139,875	2.0%	4.9%	139,875	2.0%
	2025	7,700,136	475,480	6.2%	9.6%	646,695	8.4%
	2030	8,467,075	841,661	9.9%	9.6%	1,797,448	21.2%
	2040	9,634,507	1,316,666	13.7%	9.6%	4,064,551	42.2%
Statewide	2020	16,052,322	307,181	1.9%	4.9%	307,181	1.9%
	2025	17,860,364	1,075,826	6.0%	9.9%	1,500,000	8.4%
	2030	19,784,562	1,959,302	9.9%	9.6%	4,200,000	21.2%
	2040	22,755,593	3,133,990	13.8%	9.6%	9,600,000	42.2%

LDA = Passenger cars (EMFAC category)
LDT = Light Duty Trucks (EMFAC category)
Sources: CARB, 2014b - based on EMFAC2011 Categories, and EMFAC2014 Volume III - Technical Documentation

For informational purposes only, emissions associated with the Scoping Plan Scenario (the Medium EV Penetration scenario) are shown in Table 4.7-10.

Table 4.7-10: Project GHG Emissions (Year by Year with Mitigation and Medium EV Penetration) – Scoping Plan Scenario, For Informational Purposes Only

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,622	29,245	48,741	68,238	104,445	124,584	135,216
Electricity[1]	0	4,302	8,605	14,341	20,078	30,731	37,945	41,815
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	119	239	398	557	853	1,148	1,304
Natural gas[1]	0	0	0	0	0	0	0	0
Generator	0	15	30	49	69	106	142	161
Forklifts	0	9	19	32	44	68	91	104
Solar PV	0	-179	-357	-595	-834	-1,276	-1,705	-1,931
Total AB 32/SB 32 Capped Emissions	11,669	30,488	53,224	74,742	109,858	148,966	178,890	191,441
Uncapped Emissions								
Waste	0	248	496	827	1,158	1,772	2,387	2,711
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction refrigerants and waste[2]	97	97	123	123	214	214	181	115
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**97**	**532**	**993**	**1,573**	**2,245**	**3,321**	**4,366**	**4,868**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

Source	**GHG Mitigated Emissions (mt CO_2e/year)**								
	2028	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Buildout**
AB 32/SB 32 Capped Emissions									
On-road vehicles	141,606	147,996	157,114	167,455	177,795	188,135	194,912	201,689	203,526
Electricity[1]	44,117	46,418	49,703	53,427	57,152	60,877	63,318	65,759	66,421
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,398	1,492	1,626	1,778	1,929	2,081	2,181	2,280	2,308
Natural gas[1]	0	0	0	0	0	0	0	0	0
Generator	173	185	201	220	239	258	270	282	286
Forklifts	111	118	129	141	153	165	173	181	183
Solar PV	-2,068	-2,204	-2,398	-2,618	-2,838	-3,059	-3,203	-3,347	-3,386
Total AB 32/SB 32 Capped Emissions	202,392	210,115	225,444	236,096	255,753	268,835	274,216	285,920	281,781
Uncapped Emissions									
Waste	2,906	3,101	3,379	3,695	4,010	4,326	4,532	4,739	4,798
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	115	157	176	176	176	121	121	47	149
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**5,211**	**5,594**	**6,101**	**6,655**	**7,207**	**7,707**	**8,067**	**8,357**	**8,562**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 - Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

Source: *ESA, 2018*

4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency

Impact	Would the proposed project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

This impact assesses whether the project would conflict with any applicable plans, policies, or regulations, as discussed below.

Federal and State Reduction Strategies. Table 4.7-11 evaluates the consistency of the World Logistics Center project with the various Federal and State energy conservation strategies and other regulations related to GHG emissions.

Table 4.7-11: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Mandatory Codes	
California Green Building Code. The Cal Green Code (Title 24, Part 11) prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business as Usual Scenario (California Building Code). The mandatory measures that are applicable to nonresidential projects include site selection, energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures.	**Consistent.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code.
Energy Efficiency Measures	
Energy Efficiency. Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Consistent with Mitigation Incorporated.** The project will comply with current California Building Code (CBC) requirements for building construction. **Mitigation Measures 4.7.6.1B** and **4.7.6.1C** would increase energy efficiency. **Mitigation Measure 4.7.6.1D** would require that the project exceed Title 24 (2008 version) by 10 percent or comply with the current version. The WLC Project Design Features (explained in detail in Energy Section 4.17.5) go further by committing the project to energy conservation measures that will enable the project to exceed the more rigorous 2016 Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout.
Renewables Portfolio Standard. Achieve a 50 percent renewable energy mix statewide by 2050. Qualifying renewable energy sources under the RPS include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not Applicable.** The project is not part of the State's power generation grid, but would install solar photovoltaic panels on project roofs pursuant to **Mitigation Measure 4.7.6.1D**. The solar PV would reduce the project's electricity related emissions by approximately 5.0 percent. In addition, Moreno Valley Electric Utility is subject to the Renewable Portfolio Standard.
Water Conservation and Efficiency Measures	
Water Use Efficiency. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The CalGreen Code, including the California Plumbing Code (Part 5), promotes water conservation. Title 20 and includes appliance and fixture efficiency standards that promote water conservation.	**Consistent with Mitigation Incorporated.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code and the Specific Plan outlines a number of water conservation measures, and **Mitigation Measures 4.16.1.6.1A** through **4.16.1.6.1C** will help reduce potential water use even further.

Table 4.7-11: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Solid Waste Reduction Measures	
Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste. AB 341 mandates commercial recycling and sets a goal that 75 percent of the state's solid waste generated be reduced, recycled, or composted by 2020. AB 1826 adds requirements regarding mandatory commercial organics recycling. SB 1383 requires methane emissions reduction from landfills and sets statewide disposal targets to reduce landfilling of organic waste by 50 percent from the 2014 level by 2020, and 75 percent from the 2014 level by 2025.	**Consistent with Mitigation Incorporated.** Data available from the California Integrated Waste Management Board (CIWMB) indicate that the City of Moreno Valley has not achieved the 50 percent diversion rate. The project will comply with **Mitigation Measure 4.7.6.1A** to help increase solid waste diversion, composting, and recycling. The measure would also require 50 percent diversion of construction waste prior to 2020 and 75 percent diversion starting in 2020.
Transportation and Motor Vehicle Measures	
Pavley Regulations and Vehicle Fuel Efficiency Standards. AB 1493 (Pavley) and the Advanced Clean Car (ACC) program require the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004 and expanded with the ACC program in 2012.	**Consistent.** The project does not involve the manufacture of vehicles or production of vehicle fuels. However, vehicles that are purchased and used within the project site would comply with any vehicle and fuel standards that the CARB adopts or has adopted. In addition, the project would require that all diesel trucks be 2010 or newer (**Mitigation Measure 4.3.6.3B**) and would be built to support the charging of future electric-powered vehicles anticipated by the Mobile Source Strategy. The Project design also includes supporting infrastructure to accommodate future EV populations consistent with targets in the Mobile Source Strategy.
Light-Duty Vehicle Efficiency Measures. Implement additional measures that could reduce light-duty vehicle GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency.	
Heavy- and Medium-Duty Fuel and Engine Efficiency Measures. Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased engine efficiency of vehicles.	
Mobile Source Strategy. This 2016 plan includes a target of 4.2 million zero emission vehicles (ZEVs) by 2030, and GHG reductions from medium-duty and heavy-duty vehicles, and transit. It also includes reductions in GHGs from medium-duty and heavy-duty vehicles via the Phase 2 Medium and Heavy-Duty GHG Standards.	
Low Carbon Fuel Standard. The CARB identified this measure as a Discrete Early Action Measure in the 2008 Scoping Plan. As included in the Mobile Source Strategy, this measure would reduce the carbon intensity of California's transportation fuels by at least 18 percent by 2030.	
Sustainable Freight Action Plan. The 2016 plan directs the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system.	

Table 4.7-11: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Regional Transportation-Related GHG Targets. Develop regional GHG emissions reduction targets for passenger vehicles, as required by SB 375. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.	**Not Applicable.** Specific regional emission targets for transportation emissions do not directly apply to the WLC project; regional GHG reduction target development is outside the scope of this project. The project will comply with any plans developed by the City of Moreno Valley.
Measures to Reduce High Global Warming Potential (GWP) Gases.	
Short-Lived Climate Pollutant Strategy. SB 1383 (2016) requires the CARB to approve and implement Short-Lived Climate Pollutant strategy to reduce high GWP GHGs to achieve a statewide reduction in methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030.	**Not Applicable.** New products used or serviced on the WLC project site (after implementation of the reduction of GHG gases) would comply with future CARB rules and regulations, as would vehicles (with their refrigerants used in air conditioning systems) visiting the site.

AB = Assembly Bill CARB = California Air Resources Board
GHG = greenhouse gas
Source: based on analysis in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2018

With implementation of applicable strategies/measures, project design features, and mitigation measures, the project's contribution to cumulative GHG emissions would be reduced. In order to ensure that the World Logistics Center project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32 and SB 32, the Mitigation Measures and Project design Features listed in the above table shall be implemented.

The project will comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting. The warehouse buildings will be built in compliance with the California Building Code to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices. In addition, **Mitigation Measure 4.7.6.1D** requires that the project will exceed the Title 24 energy conservation standards (2008 version) by 10 percent or comply with the current version, while the WLC Project Design Features go even further by committing the project to energy conservation measures that will enable the project to exceed the more rigorous 2016 Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout.

CARB Scoping Plan and the California Cap and Trade Program. AB 32 focuses on reducing GHG emissions to 1990 levels by the year 2020, while SB 32 has a target of 40 percent below 1990 levels by 2030. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which contains a variety of strategies to reduce the State's emissions. The First Update to the Scoping Plan was approved in 2014 and the Second Update was approved in 2017 following the passage of SB 32. As described in Section 4.7.2.2 – State Regulations/Standards, AB 398 extended California's cap-and-trade program through 2030 and the program is adopted as a core strategy in the 2017 Scoping Plan Update for meeting the state's GHG reduction targets for 2020 and 2030. The 2017 Scoping Plan Update incorporates all of the state's GHG reduction strategies included in Table 4.7-11. Table 4.7-12 considers the strategies in 2017 Scoping Plan Update that are not included in Table 4.7-11, indicating that all are either consistent with or not applicable to the project; therefore, the project does not conflict with the Scoping Plan.

Table 4.7-12: Analysis of Additional Measures in the 2017 Scoping Plan Update

Scoping Plan Reduction Measure	Consistency Analysis
1. **California Cap-and-Trade Program Linked to Western Climate Initiative.** Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable.** California's cap-and-trade system covers products or services (such as electricity) and the cost of the cap-and-trade system would be transferred to the consumers. Large industrial uses are the most likely source of participants for this program, and it is not likely individual logistics warehousing will be an active participant in this program. Under AB 32 and SB 32, emissions from natural gas use, transportation fuel use, and electricity generation are covered under the cap-and-trade program and subject to the program's emission reduction requirements.
16. **Carbon Sequestration in Natural and Working Lands**. Natural and working lands – including forests and agricultural lands – are a key sector in the State's climate change strategy. Storing carbon in trees, other vegetation, soils, and aquatic sediment is an effective way to remove carbon dioxide from the atmosphere. The 2017 Scoping Plan Update describes policies and programs that prioritize protection and enhancement of California's landscapes, and commits the State to finalizing a carbon sequestration and GHG emissions reduction goal for natural and working lands by September 2018	**Not Applicable.** No forested lands exist on site. As reported in the Agriculture and Forestry Resources section 4.2.1, approximately 2,200 acres of the 2,610-acre Specific Plan area is currently dry farmed, mainly with winter wheat. However, the state's Natural and Working Lands Climate Change Implementation Plan has not been adopted, and there is no protection currently in place to preserve the site for agriculture. Further, as described in the Agriculture and Forestry Resources section, the conversion of the existing agricultural lands to urban uses is supported by the City's General Plan policies, and the entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City. The Agriculture and Forestry Resources section concludes that project implementation will result in less than significant impacts to conversion of Farmland of Local Importance.

Source: CARB, 2017e

City General Plan Policies. The project must also be evaluated against the City's General Plan policies that relate to greenhouse gas emissions, as shown in Table 4.7-13. This analysis shows that the project is consistent with the applicable General Plan objectives and policies, or the particular objective or policy is not applicable to the proposed WLC project.

Table 4.7-13: Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Objective 6.6. Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** The project is providing employment opportunities to Moreno Valley and the surrounding area.
Policy 6.6.1. Provide sites for new neighborhood commercial facilities within close proximity to the residential areas they serve.	**Not Applicable.** The project does not propose the development of neighborhood commercial facilities or residential dwellings.
Policy 6.6.2. Provide multifamily residential development sites in close proximity to neighborhood commercial centers in order to encourage pedestrian instead of vehicular travel.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Policy 6.6.3. Locate neighborhood parks in close proximity to the appropriate concentration of residents in order to encourage pedestrian and bicycle travel to local recreation areas.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.

Table 4.7-13: Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Objective 6.7. Reduce mobile and stationary source air pollutant emissions.	**Consistent.** The project would be implementing feasible Mitigation Measures to reduce mobile and stationary emissions (**Mitigation Measures 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A**).
Policy 6.7.1. Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.	**Not Applicable.** This measure is beyond the scope of the project; the City will continue to work with the SCAQMD in regional planning efforts.
Policy 6.7.2. Encourage the financing and construction of park-and-ride facilities.	**Not Applicable.** The project consists of industrial uses; a park and ride on the project would not be feasible.
Policy 6.7.3. Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.	**Not Applicable.** No express mass transit facilities are designated on the project site or planned on the project site; therefore, this measure is beyond the scope of the project.
Policy 6.7.6. Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.	**Consistent.** The project will comply with Title 24 requirements.

Policies 6.7.4 and 6.7.5 are discussed in the air quality EIR section, Section 4.3).
Source of objectives and policies: Moreno Valley General Plan (2006).

City Climate Action Strategy. Finally, Table 4.7-14 evaluates the consistency of the World Logistics Center project with the policies of the City's Climate Action Strategy approved in October 2012. As shown below, the project is consistent with the requirements of the Strategy for non-residential development with implementation of project design features and mitigation measures.

Table 4.7-14: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.	**Not Applicable.** A Transit Priority Project is one that has at least 50 percent residential use based on area, at least 20 units per acre and is within a ½ mile of a major transit stop or High Quality Transit Corridor. A High Quality Transit Corridor is defined as one with 15-minute frequencies during peak commute hours. The project does not include a residential component and is not along a High Quality Transit Corridor nor are there any High Quality Transit Corridors or major transit stops in the vicinity of the project area. As a result, the strategy is not applicable.
R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.	**Consistent** with implementation of **Mitigation Measure 4.3.6.4A.**
R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.	**Not Applicable.** This measure applies to residential projects.

Table 4.7-14: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.	**Not Applicable.** This measure applies to residential projects.
R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards.	**Consistent** with **Mitigation Measure 4.7.6.1D.**
R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.	**Not Applicable.** This refers to updating building and zoning codes and does not apply to this warehousing development plan.
R3-L2: Heat Island Plan. Develop measures that address “heat islands.” Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.	**Consistent.** The Specific Plan indicates that vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).
R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.	**Consistent.** California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. The Specific Plan also contains a variety of water conservation features. **Mitigation Measures 4.16.1.6.1A, B,** and **C** also provide water reduction measures.
R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.	**Consistent.** Tenants and owners within the WLC site will provide water conservation information from EMWD and other sources to workers on a regular basis.
R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.	**Consistent.** The project would incorporate standard City waste reduction features and **Mitigation Measure 4.7.6.1A** (has a target to reduce waste by 75 percent by 2020).
C11: Require that developer recycle existing street material for use as base for new streets.	**Consistent.** Project will implement **Mitigation Measure 4.7.6.1A** where feasible.

Executive Order S-3-05. As discussed in Section 4.7.4, the SCAQMD developed its thresholds based on consistency with California Executive Order S-3-05. As shown in Impact 4.7.6.1, the project’s uncapped GHG emissions would not exceed the SCAQMD’s industrial threshold. Therefore, the project would not conflict with Executive Order S-3-05. This impact is less than significant.

Specific Plan Design Features. The WLCSP contains a sustainability section that emphasizes water and energy conservation throughout the project design, which in turn will help reduce GHG emissions (Section 1.3.2, Green Building-Sustainable Development). The revised WLC Project Design Features (described in detail in Energy Section 4.17.5) go beyond the WLSCP with energy conservation measures that exceed minimal compliance with current (2016) Title 24 requirements by about 17 percent at Phase 1 and 16 percent and full buildout.

Mitigation Measures. Implementation of previously referenced Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C will help reduce project-related GHG emissions and therefore make it more consistent with GHG reduction plans, policies, and/or regulations.

As previously identified, implementation of the WLC project could result in the development of an approximately 40.6 million square foot high cube-logistics distribution logistics. The project includes a variety of physical attributes and operational programs that would help reduce operational-source pollutant emissions from worker commuting, including GHG emissions. Future development that would occur under the project would be consistent with greenhouse gas emission reduction strategies and policies, including the City's Climate Change Strategy. The project would implement the Mitigation Measures listed above to reduce its contribution to GHG emissions and to ensure it does not conflict with or impede implementation of reduction goals identified in AB 32, SB 32, Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. In addition, the project would also be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. Therefore, the project would not conflict with any applicable plan, program, policy, or regulation related to the reduction of GHG emissions. Impacts are considered less than significant.

Similar to the discussion of cumulative air quality impacts, the project may employ workers locally from the City. This has the benefit of improving the local jobs/housing balance leading to air quality benefits in terms of shorter trip lengths, which lead to lower emissions than if the workforce was derived from distant locations.

The State of California has adopted a number of policies, including AB 32, SB 32, Governor's Executive Order S-3-05, the Pavley vehicle standards, the Advanced Clean Car program, and the Mobile Source Strategy, which collectively provide the structure and commitment to address California's contribution to global climate change. Since the project is consistent with these policies, including being below the SCAQMD threshold for greenhouse gases that was structured in accordance with these State policies, the project is consistent with greenhouse gas plans, policies, and regulations and impacts are less than significant after mitigation.

Level of Impact After Mitigation. Less than significant.

~~This section provides a discussion of global climate change, existing regulations pertaining to global climate change, and an analysis of greenhouse gas (GHG) emissions associated with the proposed project. This analysis examines the short-term construction and long-term operational impacts and evaluates the effectiveness of measures incorporated as part of the project design.~~

~~For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone~~

~~1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.~~

~~This section analyzes the proposed project's potential climate impacts based on the following technical study:~~

- ~~*Air Quality, Greenhouse Gas, and Health Risk Assessment Report World Logistics Center Specific Plan* (Michael Brandman Associates/FirstCarbon Solutions, original dated January 2013 revised dated April 2015) contained in Appendix D of this EIR.~~

~~4.7.1 Existing Setting~~

~~4.7.1.1 Global Climate Change~~

~~Global climate change is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policy makers to "global warming" because it helps convey the notion that there are other changes in addition to rising temperatures.~~

~~Climate change refers to any significant change in measures of climate such as temperature, precipitation, or wind, lasting for decades or longer (U.S. Environmental Protection Agency [EPA], 2007). Climate change may result from:~~

- ~~Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;~~
- ~~Natural processes within the climate system (e.g., changes in ocean circulation); and/or~~
- ~~Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).~~

~~The primary observed effect of global climate change has been a rise in the average global tropospheric[1] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and increased intensity of tropical cyclones (hurricanes). Specific effects in~~

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[1] ~~The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.~~

~~California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.~~

~~Human activities, such as fossil fuel combustion and land use changes release carbon dioxide (CO_2) and other compounds, cumulatively termed greenhouse gases (GHGs). GHGs are effective in trapping infrared radiation that otherwise would have escaped the atmosphere, thereby warming the atmosphere, the oceans, and earth's surface (EPA, 2007). Many scientists believe that "most of the warming observed over the last 50 years is attributable to human activities."[1] The increased amounts of CO_2 and other GHGs are alleged to be the primary causes of the human-induced component of warming.~~

~~GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO_2, methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). In the last 200 years, substantial quantities of GHGs have been released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, enhancing the natural greenhouse effect, which is believed to be causing global climate change. While human-made GHGs include CO_2, CH_4, and N_2O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere.~~

~~GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons of "CO_2 equivalents" (mt CO_2e or $MTCO_2e$).~~

~~Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Human-made sources include the mining and burning of fossil fuels; digestive processes in ruminant animals such as cattle; rice paddies; and the burying of waste in landfills. As for CO_2, the major removal process of atmospheric CH_4—chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.~~

~~Worldwide emissions of GHGs in 2010 were approximately 47,183 million mt CO_2e[2] Emissions from the top five countries and the European Union accounted for approximately 55 percent of the total global GHG emissions, according to the most recently available data. The United States was the number two producer of GHG emissions, contributing 14 percent of the emissions. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 84 percent of total GHG emissions. CO_2 from fossil fuel combustion, the largest source of GHG emissions, accounted for approximately 80 percent of the GHG emissions.[3]~~

~~In 2009, the United States emitted approximately 6.6 billion mt CO_2e or approximately 25 tons per year (tpy) per person. Of the six major sectors nationwide (electric power industry, transportation, industry, agriculture, commercial, and residential), the electric power industry and transportation sectors combined account for approximately 62 percent of the GHG emissions; the majority of the electrical~~

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[1] ~~Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical Science Basis*, http://www.ipcc.ch.~~

[2] ~~World Resources Institute, CAIT 2.0. 2013. Climate Analysis Indicators Tool: WRI's Climate Data Explorer. Washington, DC. Available at: http://cait2.wri.org. Accessed February 11, 2014.~~

[3] ~~Ibid.~~

~~power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Between 1990 and 2006, total United States GHG emissions rose approximately 14.7 percent.[1]~~

~~World carbon dioxide emissions[2] are expected to increase by 1.9 percent annually between 2001 and 2025. Much of the increase in these emissions is expected to occur in the developing world where emerging economies, such as China and India, fuel economic development with fossil energy. Developing countries' emissions are expected to grow above the world average at 2.7 percent annually between 2001 and 2025; and surpass emissions of industrialized countries near 2018.~~

~~The California Air Resources Board (CARB) is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted into and removed from the atmosphere by human activities within the State of California and supports the Assembly Bill (AB) 32 Climate Change Program. The most recent inventory of GHG emissions in California estimated 458.68 million mt CO_2e in 2012.[3] This is a 1.7 percent increase in GHG emissions from 2011 and the first emissions increase since 2007. This increase was driven primarily by strong economic growth, the unexpected closure of the San Onofre Nuclear Generating Station, and drought conditions that limited instate hydropower generation. Since 2000, GHG emissions have decreased by 1.6 percent (from 466 to 459 million mt CO_2e) after reaching a peak of 493 million mt CO_2e in 2004. The top contributor of emissions in 2012 was transportation, which contributed 37 percent of the emissions. The second highest sector was industrial (22 percent), which includes sources from refineries, general fuel use, oil and gas extraction, and cement plants. The CARB staff has projected statewide GHG emissions for the year 2020 to be 509.4 million mt CO_2e.~~[4]

~~The methodology used to estimate the GHG emissions from transportation differs from that used to estimate the GHG emissions for the project. The California inventory is based on fuel sales in California, while the project inventory is based on trip generation rates provided by the Traffic Impact Analysis for the project and are conservative due to the fact that conservative trip generation rates were used to estimate vehicle trips.~~

~~4.7.1.2 Effects of Global Climate Change~~

~~Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use these data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.~~

~~The International Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4 °C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels. However, the scientific literature is not consistent regarding many of~~

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[1] ~~U.S. Environmental Protection Agency (EPA). 2011. *Inventory of U.S. Greenhouse Gas Emissions And Sinks: 1990 – 2009*. http://www.epa.gov/climatechange/emissions/usinventoryreport.html. Accessed July 2011.~~

[2] ~~http://www.eia.gov/oiaf/1605/ggccebro/chapter1.html.~~

[3] ~~California Air Resources Board. California Greenhouse Gas Inventory: 2000-2012. 2014 edition. www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf~~

[4] ~~California Air Resources Board. Forecast for Updated Scoping Plan. May 27, 2014. www.arb.ca.gov/cc/inventory/data/tables/2020_bau_forecast_by_scoping_category_2014-05-22.pdf~~

~~the aspects of global warming or climate change, including actual temperature changes during the 20th century, the accuracy of the IPCC report, and contributions of human versus non-human activities.~~

~~Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.~~

~~Additionally, the following climate change effects, which are based on trends established by the IPCC, can be expected in California over the course of the next century:~~

- ~~A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State's water supply. If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier.~~
- ~~A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the project area as it is a significant distance away from coastal areas.)~~
- ~~An increase temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.~~
- ~~Increased risk of large wildfires if rain increases as temperatures rise. Precipitation, winds, temperature, and vegetation influence wildfire risk; therefore, wildfire risk is not uniform throughout the state. Changes in current precipitation patterns could influence that risk. As an example, wildfires in the grasslands and chaparral ecosystems of *southern* California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more *northern* California fires by the end of the century by drying out and increasing the flammability of forest vegetation.~~
- ~~Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas (see below).~~
- ~~Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.~~
- ~~Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.~~
- ~~Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.~~
- ~~A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.~~

- ~~Increased electricity demand, particularly in the hot summer months.~~
- ~~Increased ground-level ozone formation due to higher reaction rates of ozone precursors.~~

~~*Note: The following text regarding specific consequences of climate change in Moreno Valley was in the 2013 report; minor revisions were made and it has been added to this section.*~~

~~**Consequences of Climate Change in Moreno Valley.** The figure below displays a chart of measured historical and projected annual average temperatures in the Moreno Valley area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios.~~

~~Water for the project would be provided by the Eastern Municipal Water Department (EMWD). The EMWD 2010 Urban Water Management Plan considered the impact of climate change on water supplies as part of its long-term strategic planning. One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long-term planning focuses on the development of reliable local resources and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area.~~

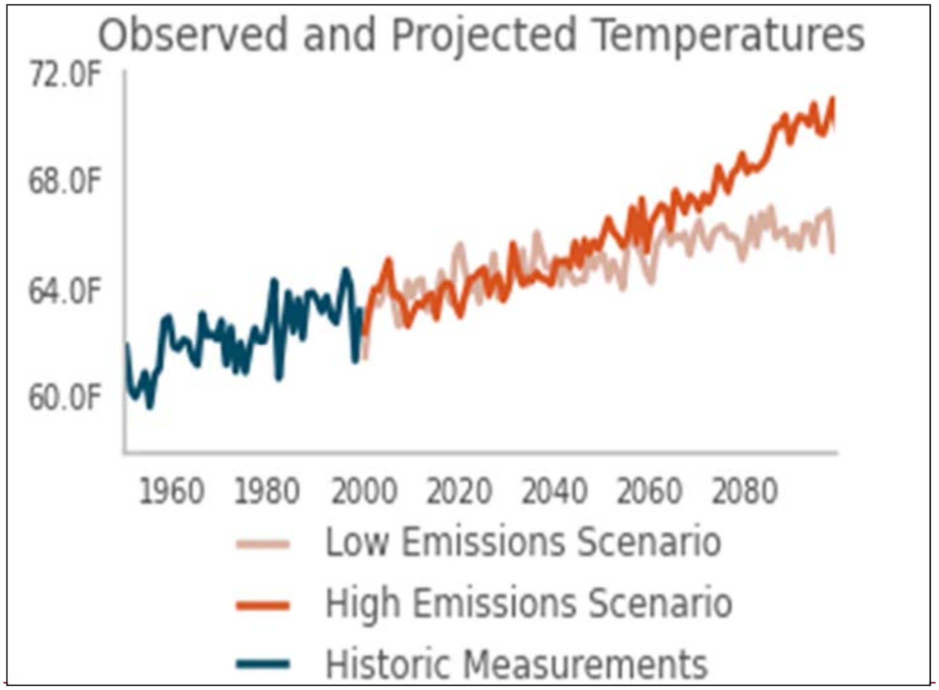

~~The figure below displays the fire risk in Moreno Valley relative to 2010 levels. The figure displays the projected increase in potential area burned given three different 30-year averaging periods ending in 2020, 2050, and 2085 and two different scenarios (A2, B1). The data are modeled solely on climate projections and do not take landscape and fuel sources into account (there is very little combustible material in the project area). The data modeled the ratio of additional fire risk for an area as compared to the expected burned area. The data are shown in the figure below and indicate that under the low-emissions scenario, the additional wildfire risk is about 1, which means that wildfire risk is expected to remain about the same. Under the high-emission scenario, additional risk is variable with a slight~~

~~increase. Other areas in California, such as the area near the border with Oregon, are projected to have a 9-fold increase in potential area burned.~~

~~Wildfire Risk in Moreno Valley~~

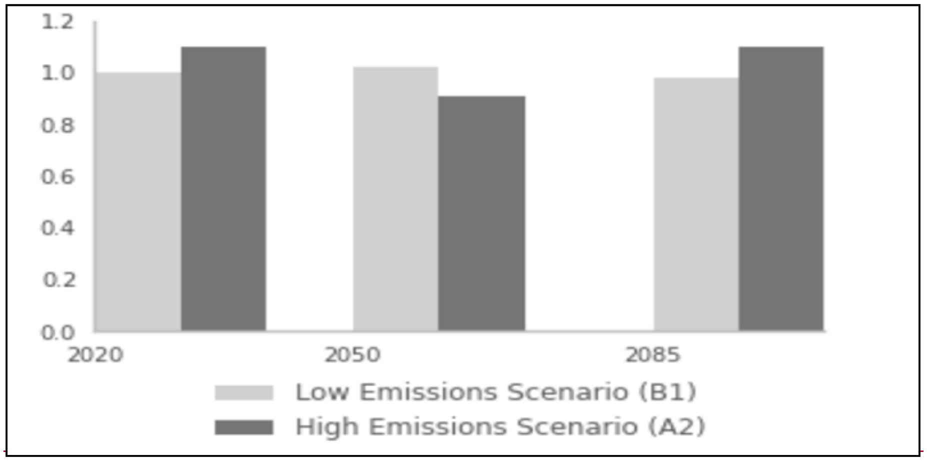

~~4.7.1.3 Greenhouse Gases~~

~~The most common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Greenhouse gases defined by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.~~

~~Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. Many scientists believe that emissions from human activities, such as electricity production and vehicle use, have led to elevated concentrations of these gases in the atmosphere beyond the level of naturally occurring concentrations. Table 4.7.A lists greenhouse gases, the effects of each greenhouse gas, and some of the sources for each of the greenhouse gases.~~

~~Climate change is driven by radiative forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. In other terms, radiative forcing is the energy absorbed by the greenhouse gas that would otherwise be lost to space. Positive forcing tends to warm the surface while negative forcing tends to cool it. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath, which absorbs more radiation and causes more warming.~~

~~In order to attempt to quantify the impact of greenhouse gases, the gases are assigned global warming potentials. Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a potential of a gas or aerosol to trap heat in the atmosphere compared to the reference gas, carbon dioxide, and is a measurement of the radiative forcing of a gas. There are positive (warming) and negative (cooling) forcings. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. Carbon dioxide as a molecule has a certain potential for warming; other molecules have a different potential. For example, methane's~~

~~warming potential of 21 indicates that methane has 21 times greater warming effect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential.~~

~~*Note: The following information is added in response to comments received on the Draft EIR. In addition, black carbon is now estimated in the GHG inventory.*~~

~~**Black Carbon.** A specific aerosol of concern is black carbon. Black carbon is a light absorbing component of particulate matter and is formed by the incomplete combustion of fossil fuels, biofuels, and biomass. The following is additional information on black carbon:~~

- ~~Black carbon is emitted directly into the atmosphere in the form of fine particles ($PM_{2.5}$).~~
- ~~Black carbon contributes to the adverse impacts on human health, ecosystems, and visibility associated with $PM_{2.5}$.~~
- ~~Black carbon influences climate by: 1) directly absorbing light, 2) reducing the reflectivity (“albedo”) of snow and ice through deposition, and 3) interacting with clouds.~~
- ~~The direct and snow/ice albedo effects of black carbon are widely understood to lead to climate warming. However, the globally averaged net climate effect of black carbon also includes the effects associated with cloud interactions, which are not well quantified and may cause either warming or cooling. Therefore, though most estimates indicate that black carbon has a net warming influence, a net cooling effect cannot be ruled out.~~

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~~Table 4.7.A: Greenhouse Gas Properties, Effects, and Sources~~

~~Constituent~~	**~~Description and Physical Properties~~**	**~~Health Effects~~**	**~~Sources~~**
~~Water Vapor~~	~~Water vapor (H_2O) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization.~~	~~There are no health effects from water vapor. When some pollutants come in contact with water vapor, they can dissolve and then the water vapor can be a transport mechanism to enter the human body.~~	~~The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.~~
~~Carbon Dioxide~~	~~Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas.~~	~~Outdoor levels of carbon dioxide are not high enough to result in negative health effects.~~	~~Carbon dioxide is emitted from natural and anthropocentric (human) sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.~~
~~Methane~~	~~Methane (CH_4) is an extremely effective GHG with a global warming potential of 21, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10–12 years) compared to other greenhouse gases.~~	~~There are no health effects from methane.~~	~~Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.~~
~~Nitrous Oxide~~	~~Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.~~	~~Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses it is harmless. In some cases, heavy and extended use can cause Olney's Lesions (brain damage).~~	~~Concentrations of nitrous oxide also began to rise at the beginning of the Industrial Revolution. In 1998, the global concentration was 314 ppb. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, e.g., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars.~~
~~Chloro-fluorocarbons~~	~~Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.~~	~~In confirmed indoor locations, working with CFC-113 or other CFCs is thought to have resulted in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.~~	~~CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.~~
~~Hydro-fluorocarbons~~	~~Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential (depending on the gas, ranges from 140 to 11,700). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant.~~	~~None.~~	~~HFCs are man-made for applications such as automobile air conditioners and refrigerants.~~
~~Per-fluorocarbons~~	~~Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Global warming potentials range from 6,500 to 9,200.~~	~~None.~~	~~The two main sources of PFCs are primary aluminum production and semiconductor manufacture.~~
~~Sulfur Hexafluoride~~	~~Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated, 23,900. Concentrations in the 1990s were about 4 ppt. It has a lifetime of 3,200 years.~~	~~In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.~~	~~Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.~~
~~Aerosols~~	~~Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols.~~	~~Similar health effects associated with particulate matter (see Section 4.3, Air Quality, for a description of the health effects of particulate matter).~~	~~Sulfate aerosols are emitted when fuel containing sulfur is burned. Another source of aerosols (in the form of black carbon or soot) is the result of incomplete combustion or the incomplete burning of fossil fuels. Although particulate matter regulation has been lowering aerosol concentrations in the United States, global concentrations are likely increasing as a result of other sources around the world.~~

~~Source: LSA Associates 2012 as summarized from the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

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- ~~Sensitive regions such as the Arctic and the Himalayas are particularly vulnerable to the warming and melting effects of black carbon.~~
- ~~Black carbon is emitted with other particles and gases, many of which exert a cooling influence on climate. Therefore, estimates of the net effect of black carbon emissions sources on climate should include the offsetting effects of these co-emitted pollutants. This is particularly important for evaluating mitigation options.~~
- ~~Black carbon's short atmospheric lifetime (days to weeks), combined with its strong warming potential, means that targeted strategies to reduce black carbon emissions can be expected to provide climate benefits within the next several decades.~~
- ~~The different climate attributes of black carbon and long-lived GHGs make it difficult to interpret comparisons of their relative climate impacts based on common metrics.~~
- ~~Based on recent emissions inventories, the majority of global black carbon emissions come from Asia, Latin America, and Africa. Emissions patterns and trends across regions, countries and sources vary significantly.~~
- ~~Control technologies are available to reduce black carbon emissions from a number of source categories.~~
- ~~Black carbon mitigation strategies, which lead to reductions in $PM_{2.5}$, can provide substantial public health and environmental benefits.~~

~~4.7.1.4 Greenhouse Gas Inventories~~

~~The City of Moreno Valley estimated greenhouse gas emissions for the community for 2007 and 2010 and projected emissions for 2020 are shown in Table 4.7.B, which shows the reduced 2020 emissions are below the reduction target. The emissions shown are not actual emissions but are estimated using calculations and assumptions. The emissions represent emissions from the community of Moreno Valley (as opposed to the city government operations). Only select years were estimated based on data available.~~

~~Table 4.7.B: City of Moreno Valley Projected Greenhouse Gas Emissions~~

~~Source Category~~	~~Moreno Valley Greenhouse Gas Emissions (mt CO_2e per year)~~			
	~~2007~~	~~2010~~	~~BAU 2020~~	~~Reduced 2020~~
~~Transportation~~	~~517,098~~	~~513,581~~	~~788,267~~	~~421,561~~
~~Energy~~	~~287,261~~	~~277,230~~	~~356,192~~	~~251,372~~
~~Area~~	~~69,390~~	~~69,437~~	~~84,665~~	~~73,046~~
~~Water and Wastewater~~	~~21,595~~	~~16,831~~	~~20,216~~	~~14,158~~
~~Solid Waste~~	~~44,294~~	~~43,633~~	~~49,203~~	~~38,000~~
~~Total~~	**~~939,638~~**	**~~920,712~~**	**~~1,298,543~~**	**~~798,137~~**
~~Reduction Target~~	—	—	**~~798,693~~**	**~~798,693~~**

~~Notes: mt CO_2e = metric tons of carbon dioxide equivalents BAU = business as usual~~
~~Source: Table 9, City of Moreno Valley Greenhouse Gas Analysis, 2012.~~

~~The existing WLC project site is largely vacant with scattered dry farming that generates minimal greenhouse gas emissions. For the purposes of this analysis, a zero baseline will be assumed to identify the "worst case" emissions (i.e., GHG emissions from the entire WLC project without removal of any existing GHG emissions).~~

~~4.7.2 Regulatory Setting~~

~~4.7.2.1 International Regulation of Climate Change~~

~~**Intergovernmental Panel on Climate Change (IPCC).** In 1988, the United Nations created the IPCC to provide independent scientific information regarding climate change to policymakers. The IPCC does not conduct research itself, but rather compiles information from a variety of sources into reports regarding climate change and its impacts. The IPCC has thereafter periodically released reports on climate change, and in 2007 released its Fourth Assessment Report which concluded most global climate change was the result of human activity, mainly the burning of fossil fuels (see Section 4.7.1.1).~~

~~**United Nations Framework Convention on Climate Change.** On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (Convention). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.~~

~~**Kyoto Protocol.** The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at average of five per cent against 1990 levels over the five-year period 2008-2012. The Convention (discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." The United States has not entered into force of the Kyoto Protocol.~~

~~Moreover, since the United States declined to ratify the Kyoto Protocol in 1995, it has become increasingly clear that global climate change cannot be addressed without limiting GHG emissions from developing, as well as developed, countries. According to many sources, China has already surpassed the United States as the world's largest GHG emitter and is building new coal-fired power plants at a rate of approximately one per week. A recent study conducted by economists at the UC Berkeley and UC San Diego estimated that China's CO_2 emissions are growing by as much as 11 percent annually. In 2007, China released its first national plan on climate change, which includes goals related to increasing energy efficiency and increasing use of renewable resources. The plan, however, makes no commitments regarding reduction of GHG emissions.~~

~~Like China, India is already one of the top emitters of GHGs and continues to grow rapidly. India has recently pledged to take more action to fight global warming, for example, by pursuing solar energy, urging energy efficiency, and conservation, but it has not set any concrete goals in these areas, let alone pledged to reduce its carbon emissions. To the contrary, India's emissions are projected to increase fourfold by 2030 (see "Melting Asia," *The Economist*, June 5, 2008). Similarly, Brazil, the largest economy in South America, and another rapidly developing country, has no national policy requiring it to reduce carbon emissions. Brazil's carbon emissions increased by more than 60 percent between 1990 and 2004, and are projected to continue to rise at a similar pace (see International Energy Agency, World Energy Outlook 2006).~~

~~The Kyoto Protocol expired in 2012. Formal negotiations to replace the protocol officially began in December 2007 at the UNFCCC Climate Change Conference in Bali, Indonesia (http://unfccc.int/.php). Whether a workable agreement can be reached, however, remains to be seen, as the United States~~

~~continues to press for an agreement that requires firm commitments from developing nations, and countries like China and India continue to oppose binding targets (see http://news.bbc.co.uk/////.stm).~~

~~In addition, it should be noted that most mitigation measures that address greenhouse gas reduction typically parallel those that reduce the consumption of energy (i.e., electricity and natural gas). Reducing energy use in a market economy typically reduces the cost of energy. However, a reduced cost of energy can release pent-up demand (latent demand) for energy use, particularly in less developed portions of the world, such as Africa and Asia. As such, it is not clear how much energy use reduction in California or the U.S. would actually reduce worldwide energy use. The same would apply to measures to reduce greenhouse gas emissions.~~

~~4.7.2.2 Federal Regulations/Standards~~

~~Prior to the last decade, there have been no concrete Federal regulations of greenhouse gases or major planning for climate change adaptation. The following are actions regarding the Federal government, greenhouse gases, and fuel efficiency.~~

~~**Greenhouse Gas Endangerment.** *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the EPA Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:~~

- ~~*Endangerment Finding:* The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.~~
- ~~*Cause or Contribute Finding:* The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.~~

~~These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section “Clean Vehicles” below.~~

~~In September 2011, the EPA Office of Inspector General evaluated the EPA’s compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.~~

~~In June 2012, a Federal appeals court rejected a lawsuit against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations IPCC rather than doing its own research or testing data according to Federal standards. The U.S. Chamber of Commerce and the National Association of Manufacturers (with others) filed petitions to the U.S. Court of Appeals – D.C. Circuit to rehear the case. The EPA and Department of Justice provided a response on October 12, 2012.~~

~~**Clean Vehicles.** Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.~~

~~The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles must meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration are working on a second-phase rule to establish national standards for light-duty vehicles for model years 2017 and beyond.~~

~~On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year.~~

~~**Mandatory Reporting of GHG.** The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases rule. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions, are required to submit annual reports to the EPA.~~

~~This rule does not apply to high cube logistics developers within the WLC Project because, although the project would emit more than 25,000 mt CO_2e per year of GHGs, the rule only applies to the following categories: fossil fuel suppliers and industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and engines. The EPA's Applicability Tool was used to determine if the project developer would need to report the GHG emissions. The source categories that are required to report GHG emissions (i.e., production, manufacturing, electricity generation, and industrial waste landfills) did not apply to the project.~~

~~**New Source Review Prevention of Significant Deterioration (GHG Tailoring Rule).** The EPA issued a final rule on May 13, 2010, that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Operating permits are legally enforceable documents that permitting authorities issue to air pollution sources after the source has~~

~~begun to operate. Title V Operating Permits are required from Title V of the Clean Air Act. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:~~

> *~~This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.~~*

~~EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.~~

~~On December 23, 2010, the EPA issued a series of rules that put the necessary regulatory framework in place to ensure that 1) industrial facilities can get Clean Air Act permits covering their GHG emissions when needed and 2) facilities emitting GHGs at levels below those established in the Tailoring Rule do not need to obtain Clean Air Act permits.~~

~~**Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units.** As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatt would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour.~~

~~**Cap and Trade.** Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the~~ ~~NO_X~~ ~~Budget Trading Program in the northeast. There is no Federal cap and trade program currently and no pending legislation exists to establish a cap and trade program.~~

~~**Energy Policy and Conservation Act.** The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance. Please also refer to the subsection, "Clean Vehicles," above.~~

~~**Energy Policy Act of 1992.** The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the Act to consider a variety of incentive programs to help promote AFVs.~~

~~**Energy Policy Act of 2005.** The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.~~

~~4.7.2.3 State Regulations/Standards~~

~~**California Code of Regulations Title 24, Part 6.** Enacted in 1978, this part of the California Code established energy efficiency standards for residential and nonresidential buildings in response to a legislative mandate to reduce California's energy consumption. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards (2013 Building Energy Efficiency Standards) were adopted and went into effect went into effect July 1, 2014.[1] Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs, and lighting power limits. These standards are expected to reduce the growth in electricity use of residential and non-residential buildings. Continual updates to Title 24 along with the State's implementation of AB 1493 and SB 1368 will have a major impact on the State's attainment of the AB 32 goals.~~

~~**California Code of Regulations Title 24, Part 11.** This part of the California Code is known as the California Green Building Standards Code (CALGreen Code) and was enacted to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts with positive environmental impacts and through encouragement of sustainable construction practices. The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). This update to Part 11 of Title 24 of the California Code of Regulations was effective January 1, 2011. Key provisions of the CALGreen Code that apply to the type of new non-residential development proposed for the project site are as follows:~~

~~Division 5.1—Planning and Design~~

~~Section 5.106 Site Development~~

~~5.106.4 Bicycle Parking and Changing Rooms:~~

> ~~*Short-term bicycle parking*. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1).~~

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[1] ~~*2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings,* California Energy Commission, effective July 1, 2014, http://www.energy.ca.gov/title24/2013standards/~~

~~*Long-term bicycle parking*. For buildings with over 10 tenant-occupants or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of tenant vehicular parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet the following: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers (5.106.4.2).~~

~~5.106.5 Clean Air Vehicle Parking: For new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles [201 spaces and over require at least 8 percent] (5.106.5.2).~~

~~5.106.8 Light Pollution Reduction (specific backlight, uplight, and glare ratings)~~

~~5.106.10 Grading and Paving: Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.~~

~~Division 5.2—Energy Efficiency~~

~~Section 5.201.1 Energy Efficiency (Mandatory energy efficiency standards through California Code of Regulations, Title 24, Part 6)~~

~~Division 5.3—Water Efficiency and Conservation~~

~~Section 5.303 Indoor Water Use~~

~~5.303.1 Meters: Separate water meters for buildings in excess of 50,000 sq. ft or buildings projected to consume more than 1,000 gallons per day.~~

~~5.303.2 Twenty Percent Savings: Use of plumbing fixtures and fittings that will reduce the overall use of potable water within the building by 20 percent, based on the maximum allowable water use per fixture and fitting as required by the California Building Code (California Code of Regulations, Title 24, Part 2)~~

~~5.304.3 Irrigation design: Automatic irrigation system controllers installed at the time of final inspection shall be weather- or soil moisture-based controllers that adjust irrigation in response to changes in plant needs; weather-based controllers.~~

~~5.303.4 Wastewater Reduction: Each building shall reduce by 20 percent wastewater by one of the following methods: 1. The installation of water-conserving fixtures or 2. Use of non-potable water systems (5.303.4).~~

~~5.303.6 Plumbing Fixtures and Fittings~~

~~Section 5.304 Outdoor Water Use~~

~~5.304.1 Water Budget: A water budget shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance where no local ordinance is applicable.~~

~~5.304.2 Outdoor Water Use (separate submeters or metering devices)~~

~~5.304.3 Irrigation Design (irrigation controllers and sensors)~~

~~Division 5.4—Material Conservation and Resource Efficiency~~

~~Section 5.407 Water Resistance and Moisture Management~~

~~Section 5.408 Construction Waste Reduction, Disposal and Recycling~~

~~5.408.1 and 5.408.3 Construction Waste Diversion: Recycle and/or salvage for reuse a minimum 50 percent of the nonhazardous construction and demolition waste. 100 percent of~~

~~trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.~~

~~5.408.2 Construction Waste Management Plan~~

~~Section 5.410 Building Maintenance and Operation~~

~~5.410.1 and 5.713.10 Recycling by Occupants: Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling.~~

~~Division 5.5—Environmental Quality~~

~~Section 5.504 Pollutant Control~~

~~5.504.3 Covering of Duct Openings and Protection of Mechanical Equipment During Construction~~

~~5.504.4 Finish Material Pollutant Control: Low-pollutant emitting interior finish materials such as adhesives, paints, carpet, and flooring~~

~~5.404.5.3 Filters: Minimum Efficiency Reporting Value (MERV) of 8 or higher in mechanically ventilated buildings.~~

~~**California Code of Regulations Titles 14 and 27.** These parts of the California Code require energy-efficient practices as part of solid and hazardous waste handling and disposal.~~

~~**Pavley Regulations and Fuel Efficiency Standards.** California AB 1493, enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the CARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. On September 8, 2009, the U.S. Chamber of Commerce and the National Automobile Dealers Association sued the EPA to challenge its granting of the waiver to California for its standards. California assisted the EPA in defending the waiver decision. The U.S. District Court for the District of Columbia denied the Chamber's petition on April 29, 2011.~~

~~The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009–2012) standards will result in about a 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.~~

~~**Low Carbon Fuel Standard, Executive Order S-01-07.** The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard requires producers of petroleum based fuels to reduce~~

~~the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against the CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration.~~

~~**Senate Bill (SB) 1368.** In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas power plants. Accordingly, the new law will effectively prevent California's utilities from investing in, financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368. The CPUC adopted the regulations required by SB 1368 on August 29, 2007.~~

~~**SB 97 and the *CEQA Guidelines* Update.** Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the California Governor's Office of Planning and Research (OPR) pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010, for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of greenhouse gases would not violate CEQA.~~

~~On April 13, 2009, the OPR submitted to the Secretary for Natural Resources its recommended amendments to the *CEQA Guidelines* for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the *CEQA Guidelines* amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.~~

~~The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.~~

~~A new section, *CEQA Guidelines* Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, the *CEQA Guidelines* offer little guidance on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.~~

~~Also amended were *CEQA Guidelines* Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable; however, it does not answer the question of how to determine whether emissions are cumulatively considerable.~~

~~Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering. A tiered project is a project that was addressed in a certified program document, such as an EIR or Mitigated Negative Declaration. The *CEQA Guidelines* state the following:~~

> ~~Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions (Section 15183.5(a)).~~

~~Compliance with plans for the reduction of GHG emissions can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).~~

~~In addition, the amendments revised Appendix F of the *CEQA Guidelines*, which focuses on energy conservation. The sample environmental checklist in the *CEQA Guidelines'* Appendix G was amended to include greenhouse gas impact questions, which are used in this analysis (see Section 4.7.4).~~

~~**Executive Order S-3-05.** Executive Order S-3-05 was signed by Governor Schwarzenegger in 2005 proclaiming California is vulnerable to the impacts of climate change. It states that increased temperatures could reduce the Sierra Nevada's snowpack, worsen California's air quality problems, and potentially cause a rise in sea levels. The Executive Order establishes total GHG emission targets including emissions reductions to the 2000 level by 2010, and the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target.~~

~~**Assembly Bill 32 (AB 32).** California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The original 2020 GHG emissions limit was 427 million mt CO_2e. The current 2020 GHG emissions limit is 431 million mt CO_2e. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change.~~

~~The Scoping Plan was approved by the CARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and~~

~~solid waste, among other measures.[1] The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The CARB rule-making process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by a CARB hearing and rule adoption.~~

~~Pursuant to AB 32, the CARB and the Climate Action Team (CAT)[2] did the following:~~

- ~~Adopted a list of discrete early action measures;~~
- ~~Established a statewide GHG emissions cap for 2020 based on 1990 emissions and adopted mandatory reporting rules for significant sources of GHG;~~
- ~~Indicated how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions; and~~
- ~~Adopted regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.~~

~~In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The CARB adopted additional early action measures in October 2007[3] that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and sulfur hexafluoride (SF_6) reductions from the non-electricity sector. The combination of early action measures was estimated to reduce statewide GHG emissions by nearly 16 million mt CO_2e.~~[4]

~~AB 32 codifies Executive Order S-3-05's[5] year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020.~~

~~The AB 32 Scoping Plan identifies a cap-and-trade program as one of the strategies California will employ to reduce the GHG emissions that cause climate change. The program is a central element of AB 32 and covers major sources of GHG emissions in the State such as refineries, power plants, industrial facilities, and transportation fuels. The regulation includes an enforceable GHG cap that will decline over time. The CARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap. The program started on January 1, 2012, with the first offset credit auctions in November 2012 and an enforceable compliance obligation beginning with 2013 GHG emissions. For the first two years of the program, large industrial emitters will receive 90 percent of their allowances for free in a soft start meant to give companies time to reduce emissions through new technologies or other means. The cap, or number of allowances, will decline over time in an effort to drastically reduce greenhouse gas emissions by 2050.~~

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[1] ~~CARB, *Climate Change Proposed Scoping Plan: a Framework for Change*, October 2008.~~

[2] ~~CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of CARB's jurisdiction.~~

[3] ~~CARB. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.~~

[4] ~~CARB. 2007. "ARB approves tripling of early action measures required under AB 32." News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.~~

[5] ~~Executive Order S-3-05 establishes greenhouse gas emission reduction targets for California.~~

~~The California Chamber of Commerce filed suit[1] challenging the validity of the state's cap-and-trade program. The suit challenges the California Air Resources Board's authority as stated under AB 32 to sell the permits, called "allowances," for the purpose of generating revenue for the state. It is also challenging the sale of allowances as an illegal tax, arguing that taxes need a two-thirds vote by the Legislature. The suit was rejected on November 12, 2013, by the California Superior Court.~~

~~**Scoping Plan.** The California State Legislature adopted AB 32 in 2006 which focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.~~

~~The Scoping Plan[2] contains the following 18 strategies to reduce the State's emissions:~~

- ~~*California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.~~
- ~~*California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.~~
- ~~*Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.~~
- ~~*Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.~~
- ~~*Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.~~
- ~~*Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.~~
- ~~*Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.~~
- ~~*Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.~~
- ~~*Million Solar Roofs Program.* Install 3,000 MW of solar-electric capacity under California's existing solar programs.~~
- ~~*Medium/Heavy-Duty Vehicles.* Adopt medium and heavy-duty vehicle efficiency measures.~~
- ~~*Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive~~

~~[1] The Huffington Post, November 14, 2012, http://www.huffingtonpost.com////s-cap-and-trade_n_2131251.html).~~
~~[2] Scoping Plan Reduction Measures from California Air Resources Board 2008.~~

~~emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.~~

~~*High Speed Rail.* Support implementation of a high-speed rail system.~~

~~*Green Building Strategy.* Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.~~

~~*High Global Warming Potential Gases.* Adopt measures to reduce high global warming potential gases.~~

~~*Recycling and Waste.* Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.~~

~~*Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.~~

~~*Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.~~

~~*Agriculture.* In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.~~

~~The First Update to the Scoping Plan was approved by the CARB on May 22, 2014. The First Update builds upon the initial Scoping Plan with new strategies and recommendations. The Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The Update defines CARB's climate change priorities for the next five years and sets the groundwork to reach California's post-2020 climate goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. It will also evaluate how to align the State's longer-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.~~

~~**Executive Order B-16-2012 (Zero-Emission Vehicles).** This executive order indicates that all State entities under the Governor's control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:~~

- ~~By 2015: The State's major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State's manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector's investment in zero-emission vehicle infrastructure; and the State's academic and research institutions contributing to zero-emission vehicle research, innovation and education.~~
- ~~By 2020: The State's zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles; zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.~~
- ~~By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part~~

~~of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.~~

~~**Greenhouse Gas Emissions Performance Standard for Power Plants.** On January 25, 2007, the CPUC adopted an interim GHG emissions performance standard. This standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers with power plants that have emissions no greater than a combined cycle gas turbine plant. The established level is 1,100 pounds of~~ ~~CO_2~~ ~~per megawatt-hour.~~

~~**Senate Bill 375.** SB 375 was signed into law on October 1, 2008. SB 375 provides emissions-reduction goals around which regions can plan, integrates disjointed planning activities, and provides incentives for local governments and developers to implement "smart growth" planning and development strategies, including reducing the average VMT to reduce commuting distances and reduce criteria and greenhouse gas air pollutant emissions. SB 375 has three major components:~~

- ~~Using the regional transportation planning process to achieve reductions in GHG emissions consistent with AB 32's goals;~~
- ~~Offering CEQA incentives to encourage projects that are consistent with a regional plan that achieves GHG emission reductions; and~~
- ~~Coordinating the regional housing needs allocation process with the regional transportation process while maintaining local authority over land use decisions.~~

~~SB 375 requires each Metropolitan Planning Organization (MPO) to include a Sustainable Communities Strategy (SCS) in the regional transportation plan that demonstrates how the region will meet the greenhouse gas emission targets and creates CEQA streamlining incentives for projects that are consistent with the regional SCS. The focus of SB 375 is on placement of new residential projects and coordinated transportation planning.~~

~~**Renewable Electricity Standards.** There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.~~

~~**SmartWay Partners.** SmartWay effectively refers to aerodynamic and rolling resistance requirements geared toward reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. CARB's Tractor-Trailer Greenhouse Gas Regulation requires that all 2010 and older model year tractors that pull 53-foot or longer box type trailers must use SmartWay verified low rolling resistance tires beginning January 1, 2013.~~

~~The EPA has evaluated the fuel saving benefits of various devices through emissions and fuel economy testing, demonstration projects and technical literature review. As a result, EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications:~~

- ~~**Idle Reduction Technologies** allow engine operators to refrain from long-duration idling of the main propulsion engine by using an alternative technology. An idle reduction technology is generally defined as the installation of a technology or device that:~~
    - ~~Reduces unnecessary main engine idling of the vehicle or equipment; and/or~~
    - ~~Is designed to provide services (e.g., heat, air conditioning, and/or electricity) to the vehicle or equipment that would otherwise require the operation of the main drive engine while the vehicle or equipment is temporarily parked or remains stationary.~~
- ~~**Aerodynamic Technologies** minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.~~
- ~~**Low Rolling Resistance Tires:** Certain tire models can reduce NO$_X$ emissions and fuel use by 3 percent or more, relative to the best-selling new tires for line haul class 8 tractor trailers. These improvements are achieved under the following conditions:~~
    - ~~Tires are used on the axle positions stated on the list below.~~
    - ~~Verified low rolling resistance tires are installed on all of the axle positions of the tractor and trailer.~~
    - ~~All tires must be properly inflated according to the manufacturer's specifications.~~
- ~~**Retrofit Technologies:** Diesel retrofit technologies that the EPA has approved or conditionally approved, such as:~~
    - ~~Diesel Particulate Filter (DPF);~~
    - ~~CMX Catalyst Muffler;~~
    - ~~Selective Catalytic Reduction (SCR) System;~~
    - ~~Diesel Oxidation Catalyst (DOC); and~~
    - ~~Diesel Oxidation Catalyst (DOC) plus CDTi Closed Crankcase Ventilation (CCV) System.~~

~~Within each of these categories, the EPA has verified specific products and continues to evaluate and verify new products. Although the EPA has verified the fuel saving and/or emission reducing benefits of the listed products, it does not endorse the purchase of products or services from any specific vendor.~~

~~4.7.2.4 Regional Regulations~~

~~*Note: the subsection "Scoping Plan" was moved from this section to the California Regulation section following AB 32, because it is not a regional plan but a state plan.*~~

~~**Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) within Regional Transportation Plan (RTP)** demonstrates the region's ability to attain and exceed the GHG emission reduction targets set by the CARB. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint Demonstration Projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation~~

~~network, which emphasizes system preservation, active transportation, and transportation demand management measures.~~

~~The RTP/SCS exceeds its greenhouse gas emission-reduction targets set by the CARB by achieving a 9 percent reduction by 2020 and 16 percent reduction by 2035 compared to the 2005 level on a per capita basis. Table 4.7.C shows the assumptions regarding Moreno Valley that SCAG used in its analysis.~~

~~Table 4.7.C: SCAG Assumptions for Moreno Valley~~

~~Year~~	~~Population~~	~~Households~~	~~Employment~~
~~2008~~	~~187,400~~	~~51,100~~	~~32,300~~
~~2020~~	~~213,700~~	~~60,000~~	~~48,000~~
~~2035~~	~~255,200~~	~~72,800~~	~~64,400~~

~~Source: Southern California Association of Governments 2012 and the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015.~~

~~The RTP also includes an appendix on the Goods Movement, which provides an overview of the regional goods movement and initiatives to facilitate it. Strategies in the RTP that include the Local Jurisdiction as a responsible party, that could be applicable to the project, and that pertain to air quality or greenhouse gases are shown in Table 4.7.D. Many of the strategies are similar to the project's mitigation measures (see Section 4.7.6.1) and project design features.~~

~~Table 4.7.D: Select Regional Transportation Plan Strategies~~

~~Strategy~~	~~Responsible Party*~~	~~Project Consistency~~
~~Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and electric (and other alternative fuel) vehicle supply equipment in public parking lots.~~	~~Local Jurisdictions, COGs, SCAG, CTCs~~	~~Consistent with **Mitigation Measures 4.3.6.3B** (non-diesel yard trucks), **4.3.6.3C** (alternative fuel station), and **4.3.6.4A** (electric vehicle charging stations).~~
~~Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.~~	~~Local Jurisdictions and CTCs~~	~~Consistent with **Mitigation Measure 4.3.6.4A** (bicycle lanes, storage lockers, and pedestrian connections/pathways).~~
~~Engage in a strategic planning process to determine the critical components and implementation steps for identifying and addressing open space resources, including increasing and preserving park space, specifically in park-poor communities.~~	~~Local Jurisdictions and CTCs~~	~~The project is consistent with City's goal of conserving open space. As compared to the Moreno Highlands Specific Plan, the proposed project would change the zoning on 910 acres of the CDFW Conservation Buffer Area from residential to open space. In addition, the proposed project preserves the zoning of 74 acres of open space in the southwest corner of the project site for passive open space and recreation uses. Finally, a network of trails has been proposed within the project site to provide public trail access to the Lake Perris Recreational Area and the San Jacinto Wildlife Area.~~

~~Table 4.7.D: Select Regional Transportation Plan Strategies~~

~~**Strategy**~~	~~**Responsible Party***~~	~~**Project Consistency**~~
~~Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other zero emission vehicle options.~~	~~Local Jurisdictions and CTCs~~	~~Consistent with **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program), bicycle lanes, and pedestrian access.~~
~~Encourage transit fare discounts and local vendor product and service discounts for residents and employees of transit oriented development/high quality transit areas or for a jurisdiction's local residents in general who have fare media~~	~~Local Jurisdictions~~	~~Not applicable. This measure is for areas in transit-oriented development.~~
~~Encourage the implementation of a Complete Streets policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, neighborhood electric vehicle (NEVs) users, movers of commercial goods, pedestrians, users of public transportation and seniors for safe and convenient travel in a manner that is suitable to the suburban and urban contexts within the region.~~	~~Local Jurisdictions, COGs, SCAG, CTCs~~	~~Although the project is not implementing what is labeled as a "Complete Streets" policy, the project would include bicycle lanes and pedestrian access (**Mitigation Measure 4.3.6.4A**) and would implement handicapped access pursuant to current regulations.~~
~~Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.~~	~~SCAG, Local Jurisdictions~~	~~Consistent through **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program; designated parking for carpool/van pools).~~
~~Develop infrastructure plans and educational programs to promote active transportation options and other alternative fueled vehicles, such as neighborhood electric vehicles, and consider collaboration with local public health departments, walking/biking coalitions, and/or Safe Routes to School initiatives, which may already have components of such educational programs in place.~~	~~Local Jurisdictions~~	~~Consistent with **Mitigation Measures 4.3.6.4A** (bicycle lanes, pedestrian access, electric vehicle charging) and **4.3.6.3C** (alternative fueling infrastructure).~~
~~Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.~~	~~Local Jurisdictions and CTCs~~	~~Not applicable. Tenants may choose to implement telecommuting if feasible.~~
~~Emphasize active transportation and alternative fueled vehicle projects as part of complying with the Complete Streets Act (AB 1358).~~	~~State, SCAG, Local Jurisdictions~~	~~Consistent with **Mitigation Measure 4.3.6.3C** (alternative fueling station) and **Mitigation Measure 4.3.6.4A** (electric vehicle charging stations)~~

~~* Abbreviations:~~
~~SCAG = Southern California Association of Governments~~
~~CTCs = county transportation commissions~~
~~COGs = subregional councils of governments~~
~~Source: Southern California Association of Governments 2012 and the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.~~

~~SB 375 took effect in 2009 and required regional municipal planning organizations to develop regional land use plans that demonstrate how the regions will achieve compliance with the GHG reduction goals~~

~~of AB 32. Cities located within these regions are then required, in turn, to update their General Plans in accordance with the regional plans. Non-compliance with SB 375 will result in transportation funds being withheld from the regional and/or local agency. To date, the regional municipal planning organization for Riverside County (the Western Riverside Council of Governments, or WRCOG) has not adopted a regional plan that is in compliance with SB 375.~~

~~**South Coast Air Quality Management District.** In April 2008, the SCAQMD, in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group."[1] The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until the CARB (or some other State agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.~~

~~Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential, non-residential, industrial, etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects in which it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons (mt) of carbon dioxide equivalent (CO_2e) as a screening numerical threshold.~~

~~In September 2010, the Working Group released additional revisions, which recommended a project-level efficiency target of 4.8 mt CO_2e per service population (SP) as a 2020 target and 3.0 mt CO_2e, per SP as a 2035 target. The recommended plan-level target for 2020 was 6.6 mt CO_2e and the plan level target for 2035 was 4.1 mt CO_2e. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board.~~

~~The SCAQMD has also adopted Rules 2700, 2701, and 2702 to establish a voluntary program to encourage, quantify, and certify voluntary GHG emission reductions in the SCAQMD's jurisdiction. The CARB adopted a resolution regarding the adoption of GHG accounting protocols that distinguishes between the offset certification programs that were developed for the voluntary market, and the program that must be developed to certify offsets to be used under CARB's cap-and-trade rule. This resolution withdrew CARB approval of voluntary protocols but would not impact the use of these protocols for voluntary purposes. Protocols in Rules 2701 and 2702 are voluntary protocols, which no longer have CARB's approval.~~

~~4.7.2.5 City of Moreno Valley General Plan Policies~~

~~The City adopted its General Plan in 2006. The General Plan does not contain policies directly related to greenhouse gases; however, it does have some air quality[2] policies applicable to the proposed project that are related to reducing greenhouse gases, as shown below:~~

~~**Objective 6.6**~~	~~Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.~~
~~**Objective 6.7**~~	~~Reduce mobile and stationary source air pollutant emissions.~~
~~**Policy 6.7.1**~~	~~Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.~~
~~**Policy 6.7.2**~~	~~Encourage the financing and construction of park-and-ride facilities.~~

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[1] ~~For more information see: http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html.~~

[2] ~~Policies 6.7.4 and 6.7.5 are discussed in the Air Quality EIR Section, 4.3.~~

~~**Policy 6.7.3**~~ ~~Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.~~

~~**Policy 6.7.6**~~ ~~Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.~~

~~4.7.2.6 City of Moreno Valley Climate Action Strategy~~

~~The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The Strategy contains the following policies to reduce greenhouse gas emissions in 2010 by 15 percent by 2020:~~

~~R2-T1~~ ~~*Land Use Based Trips and VMT Reduction Policies.* Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.~~

~~R2-T3~~ ~~*Employment-Based Trip Reductions.* Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.~~

~~R2-E1~~ ~~*New Construction Residential Energy Efficiency Requirements.* Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.~~

~~R2-E2~~ ~~*New Construction Residential Renewable Energy.* Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.~~

~~R2-E5~~ ~~*New Construction Commercial Energy Efficiency Requirements.* Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.~~

~~R3-E1~~ ~~*Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining.* Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.~~

~~R3-L2~~ ~~*Heat Island Plan.* Develop measures that address “heat islands.” Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.~~

~~R2-W1~~ ~~*Water Use Reduction Initiative.* Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.~~

~~R3-W1~~ ~~*Water Efficiency Training and Education.* Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.~~

~~R2-S1~~ ~~*City Diversion Program.* For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.~~

~~4.7.3 Methodology~~

~~Bearing in mind that CEQA does not require “perfection” but instead “adequacy, completeness, and a good faith effort at full disclosure,” the analysis of project GHG emissions and climate change is based on methodologies and information available at the time this EIR was prepared. Many uncertainties exist regarding the precise relationship between specific levels of GHG emissions and the ultimate impact on global climate. Significant uncertainties also exist regarding the reduction potential of mitigation~~

~~strategies. Thus, while information is presented below to assist the public and the City's decision-makers in understanding the project's potential contribution to global climate change impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.~~

~~The recommended approach for GHG analysis included in the California Governor's Office of Planning and Research (OPR's) June 2008 release is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below a level of significance.[1] Neither the CEQA statute nor Guidelines prescribe quantitative thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.~~

~~The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: "CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government lead agencies, adoption of General Plan policies and certification of General Plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."~~

~~Pursuant to SB 97, the OPR is in the process of developing guidelines for analysis of the effects of GHG emissions. As part of this process, the OPR has asked CARB technical staff to recommend statewide interim thresholds of significance for GHGs. The CARB released a preliminary draft staff proposal in October 2008 that included initial suggestions for significance criteria related to industrial, commercial, and residential projects.~~

~~In March 2010, *CEQA Guidelines* amendments were adopted and include the following direction regarding determination of significant impacts from GHG emissions (Section 15064.4):~~

> ~~(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:~~
>
> > ~~(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or~~
> >
> > ~~(2) Rely on a qualitative analysis or performance based standards.~~
>
> ~~(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:~~
>
> > ~~(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.~~

~~[1] State of California, 2008. Governor's Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review*. June 19.~~

~~(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.~~

~~(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.~~

~~*CEQA Guidelines* Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."~~

~~On February 3, 2011 the SCAQMD released the California Emissions Estimator Model (CalEEMod) Emissions Inventory Model. CalEEMod was updated in July 2013, after publication of the Draft EIR; therefore, the emissions were remodeled using the new version for the Final EIR. The latest version of CalEEMod was utilized to calculate GHG emissions from the following source categories: construction, energy, waste, land use change, and water. For a detailed description of the assumptions used to estimate the GHG emissions, refer to the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.~~

~~As a result of comments on the Draft EIR, the GHG inventory was revised as follows:~~

- ~~**Revisions to Construction Assumptions.** Construction related GHG emissions were estimated using the same procedures as for air quality. For a list of the changes to the construction emissions methodology, please refer to Section 4.3.3.1 in the Air Quality Final EIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2015).~~
- ~~**Revisions to Operational Mobile Assumptions**. Operational mobile GHG emissions were estimated using the same procedures for the air quality analysis. The new emission factors model was used (EMFAC2014). Please refer to Section 4.3.3.2 in the Air Quality Final EIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2015) for a list of those changes.~~
- ~~**Addition of Onsite Equipment Emissions.** During operation of the project, there would be on-site equipment operating on the project site. Yard trucks are trucks that are used in moving trailers and containers short distances around the warehouses. Emergency generators would be run for testing purposes. Fuel powered forklifts are assumed for the light industrial uses; however, the warehouse and distribution centers would use electric forklifts, which would not have emissions.~~
- ~~**Addition of Black Carbon Emissions Estimation.** The analysis in the Draft EIR did not estimate black carbon emissions, which may contribute to climate change. This analysis includes an estimate of black carbon emissions for both construction and operation.~~
- ~~**New Waste Generation Factors**. The new version of CalEEMod has revised operational waste generation factors, which results in less estimated waste generated during operation and less greenhouse gas emissions.~~
- ~~**Land Use Change.** In the Draft EIR, the GHG emissions from the land use change (conversion of dry farming to a built up environment), was included as a one-time occurrence in the construction emissions. For the Final EIR, these emissions are operational and occur every year.~~

~~4.7.4 Thresholds of Significance~~

~~Based on Appendix G of the *CEQA Guidelines*, climate change/greenhouse gas emissions impacts would occur if the proposed project would:~~

- ~~Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., exceeds the SCAQMD's 10,000 mt CO_2e emissions screening threshold of significance); and/or~~
- ~~Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.~~

~~Global climate change may result in significant adverse effects to the environment that will be experienced worldwide, with some specific effects observed in California. AB 32 requires statewide GHG emissions reductions to 1990 levels by 2020. Although these statewide reductions are now mandated by law, no generally applicable GHG emission threshold has yet been established.~~

~~*State CEQA Guidelines Section* 15064(b) provides that "…the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." The *State CEQA Guidelines* further indicate that even when thresholds are established, they may include "identifiable quantitative, qualitative or performance level of a particular environmental effect" (*State CEQA Guidelines*, Section 15064.7).~~

~~Some policymakers and regulators suggest that a zero emissions threshold would be appropriate when evaluating GHGs and their potential effect on climate change. Such a rule appears inconsistent with the State's approach to mitigation of climate change impacts. AB 32 does not prohibit all new GHG emissions; rather, it requires a reduction in statewide emissions to a given level. Thus, AB 32 recognizes that GHG emissions will continue to occur; increases will result from certain activities, but reductions must occur elsewhere.~~

~~Individual projects incrementally contribute toward the potential for global climate change (GCC) on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect GCC, each of these projects incrementally contributes toward the potential for GCC on a cumulative basis, in concert with all other past, present, and probable future projects. This analysis examines whether the project's emissions should be considered cumulatively significant.~~

~~In order to evaluate the significance of a proposed project's environmental impacts related to GHG emissions, it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As previously described, while project-related GHG emissions can be estimated the direct impact of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that the proposed project would directly affect GCC. The SCAQMD has adopted a quantitative GHG emission significance threshold to assess direct impacts from industrial projects where the SCAQMD is the lead agency. The SCAQMD and other air quality agencies agree that GHG and GCC should be assessed as a potentially significant cumulative impact rather than a project-specific impact.~~

~~The following is an excerpt from the SCAQMD (*Draft Guidance Document – Interim CEQA Greenhouse Gas [GHG] Significance Threshold,* October 2008):~~

> ~~*"The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or*~~

> ~~*target GHG reduction objective that will ultimate contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.*~~
>
> ~~*As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level."*~~

~~This project utilizes Tier 3 of the SCAQMD's draft threshold and compares the project's uncapped greenhouse gas emissions to the SCAQMD's threshold for industrial projects, 10,000 mt CO_2e per year. Therefore, the threshold used for this project was based on the goal in Executive Order S-3-05. If the project's uncapped emissions are under the threshold, then the project would be in compliance with Executive Order S-3-05.~~

~~In September 2013, the SCAQMD adopted two Negative Declarations last year stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:~~

- ~~"Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."~~
- ~~"The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."~~
- ~~"[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."~~
- ~~"[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."~~

~~The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.~~

~~In the IPCC Assessment Report (IPCC 2007b, Synthesis Report), the IPCC acknowledges that man-made warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedback even if GHG concentration were to be stabilized. The IPCC further found that both past and future man-made CO_2 emissions will continue to contribute to warming and~~

~~sea level rise for more than a millennium, due to the time scales required for the removal of CO_2 from the atmosphere. Furthermore, the IPCC assessment noted that the definition of what is a dangerous man-made interference with the climate system and, consequently, the limits to be set for policy purposes are complex tasks that can only be partially based on science, as such definitions inherently involve normative judgments (IPCC 2007b – Working Group III).~~

~~4.7.5 Less than Significant Impacts~~

~~Due to the size of the project, all potential impacts related to greenhouse gas emissions are considered to be potentially significant.~~

~~4.7.6 Significant Impacts~~

~~4.7.6.1 Greenhouse Gas Emissions~~

~~Threshold~~	~~Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?~~

~~Future development that could occur within the proposed project site could generate GHG emissions during both construction and operation activities. The following activities are associated with the proposed project and could directly or indirectly contribute to the generation of GHG emissions:~~

- ~~**Removal of Vegetation (Land Use Change) and Sequestration:** Carbon sequestration is the process of capture and storage of carbon dioxide; trees, vegetation, and soil store carbon in their tissues and wood. The net removal of vegetation for construction from land use change results in a loss of the carbon sequestration in plants. However, planting additional vegetation (sequestration) would result in additional carbon sequestration and would lower the carbon footprint of the project.~~
- ~~**Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O.~~
- ~~**Gas, Electric, and Water Use:** Natural gas use results in the emissions of CH_4 (the major component of natural gas) and CO_2 from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. Conveying water to the project and treating wastewater also uses electricity.~~
- ~~**Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is approximately 21 times more potent than CO_2. Landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.~~
- ~~**Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.~~
- ~~**On-site Equipment:** During operation of the project, there would be on-site equipment operating, including yard trucks, emergency generators, and forklifts.~~

~~**Construction Emissions.** The project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment, as shown in Table 4.7.E. The GHG emissions are from all phases of construction.~~

~~Table 4.7.E: Construction Greenhouse Gas Emissions (without mitigation)~~

~~**Year**~~	~~**Annual Emissions (mt CO_2e)**~~
~~2015~~	~~14,315~~
~~2016~~	~~14,396~~
~~2017~~	~~19,052~~
~~2018~~	~~14,515~~
~~2019~~	~~25,605~~
~~2020~~	~~16,655~~
~~2021~~	~~18,318~~
~~2022~~	~~15,582~~
~~2023~~	~~18,028~~
~~2024~~	~~16,792~~
~~2025~~	~~18,041~~
~~2026~~	~~14,491~~
~~2027~~	~~17,097~~
~~2028~~	~~15,686~~
~~2029~~	~~11,789~~
~~2030~~	~~14,500~~
~~**Total**~~	~~264,861~~
~~**Averaged over 30 years**~~	~~**8,829**~~
~~**Capped: Fuel-Based Emission Sources Averaged over 30 years**~~	~~**8,823**~~
~~**Uncapped: Refrigerant Installation and Construction Waste Averaged over 30 years**~~	~~**6**~~

~~mt CO_2e = metric tons of carbon dioxide equivalents.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~
~~Sources include onsite construction equipment, worker trips, haul trips, vendor trips, refrigerant installation for the air conditioning in the offices, construction waste, and water use.~~

~~**Operational Emissions, Worst-Case Scenario.** Operational or long-term emissions occur over the life of the project. Operational emissions for a worst-case buildout condition are shown in Table 4.7.F. The emissions are presented by greenhouse gas (in tons per year), which was also converted to metric tons of carbon dioxide equivalents (mt CO_2e). The vehicle emissions in the table represent travel within the South Coast Air Basin. The emissions do not take into account mitigation measures to reduce emissions, such as the use of model year 2010 and later medium and heavy-heavy duty trucks on the project site. As shown in the table, the project's uncapped emissions are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.~~

~~The analysis presented in Table 4.7.F also represents a worst-case analysis because the emission factors do not take into account full reductions from regulation or reductions from newer trucks and cars. The emissions are estimated using emission factors from EMFAC2014, CARB's emission factor model, for the year 2012.~~

~~Table 4.7.F: Project Operational GHG Emissions (Worst-Case 2012 Analysis at Buildout)~~

~~Source~~	~~Individual Emissions (tons/year)~~					~~Greenhouse Gas Emissions (mt CO$_2$e)~~
	~~Carbon Dioxide~~	~~Methane~~	~~Nitrous Oxide~~	~~Hydrofluoro-carbons~~	~~Black Carbon~~	
~~AB 32 Capped Emissions~~						
~~Mobile~~	~~370,445~~	~~9.75~~	~~2.18~~	~~0.00~~	~~37.19~~	~~362,507~~
~~Other~~	~~137,884~~	~~8.11~~	~~1.16~~	~~0.00~~	~~2.65~~	~~127,503~~
~~Total~~	~~508,329~~	~~17.86~~	~~3.34~~	~~0.00~~	~~39.84~~	~~490,010~~
~~Uncapped Emissions~~	**~~9,689~~**	**~~504.08~~**	**~~0.00~~**	**~~0.62~~**	**~~0.00~~**	**~~19,237~~**
					~~Threshold~~	**~~10,000~~**
					~~Significant?~~	**~~Yes~~**

~~Notes:~~
~~mt CO$_2$e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.~~
~~The “other” emissions include the non-mobile capped emissions as presented in Table 4.7.G below.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

~~**Operational Emissions, Annual Reasonable Scenario.** The emissions presented herein are a reasonable scenario, because unlike the worst-case scenario displayed above, the mobile emissions use emission factors for the actual year assessed. The motor vehicle and truck emissions for Phase 1 (2016 to 2022) use emission factors for the year 2022, whereas motor vehicle and truck emissions for Phase 2 (2023 to buildout, 2031) use emission factors for the year 2035.~~

~~CARB has designed a California cap-and-trade program that is enforceable and meets the requirements of AB 32. The program began on January 1, 2012, with an enforceable compliance obligation beginning with its 2013 GHG emissions inventory. Some of the project’s GHG emissions are subject to the requirements of the AB 32 Cap and Trade Program and will have a GHG allocation based on current GHG emissions levels. The AB32 Cap-and-Trade Program has divided allocations into sectors. The transportation and electricity sectors would be covered by the cap-and-trade program.~~

~~Table 4.7.G shows the unmitigated project emissions at buildout by individual GHG (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and black carbon). Those emissions are converted to mt CO$_2$e based on the global warming potential of the gas/aerosol. The table also shows the emissions divided by AB 32 capped and uncapped emissions. AB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD’s significance threshold. As shown in the table, the uncapped emissions exceed the threshold and are significant.~~

~~Table 4.7.G: Project GHG Emissions at Buildout by GHG (Unmitigated)~~

~~Source~~	~~Emissions (tons per year)~~					~~GHG Emissions (mt CO$_2$e)~~
	~~Carbon Dioxide~~	~~Methane~~	~~Nitrous Oxide~~	~~HFCs~~	~~Black Carbon~~	
~~AB 32 Capped Emissions~~						
~~Mobile~~	*~~297,342~~*	*~~1.54~~*	*~~2.17~~*	*~~0.00~~*	*~~0.66~~*	*~~270,846~~*
~~Electricity~~	*~~118,844~~*	*~~5.46~~*	*~~1.13~~*	*~~0.00~~*	*~~0.00~~*	*~~108,237~~*
~~Construction fuel~~*	*~~8,325~~*	*~~2.12~~*	*~~<0.01~~*	*~~0.00~~*	*~~1.78~~*	*~~8,823~~*
~~Yard trucks~~	*~~5,631~~*	*~~0.00~~*	*~~0.00~~*	*~~0.00~~*	*~~0.00~~*	*~~5,108~~*
~~Electricity-convey water~~	*~~2,346~~*	*~~0.11~~*	*~~0.02~~*	*~~0.00~~*	*~~0.00~~*	*~~2,136~~*

~~Table 4.7.G: Project GHG Emissions at Buildout by GHG (Unmitigated)~~

~~Source~~	**~~Emissions (tons per year)~~**					**~~GHG Emissions (mt CO_2e)~~**
	~~Carbon Dioxide~~	**~~Methane~~**	**~~Nitrous Oxide~~**	**~~HFCs~~**	**~~Black Carbon~~**	
~~*Natural gas*~~	~~*885*~~	~~*0.02*~~	~~*0.01*~~	~~*0.00*~~	~~*0.02*~~	~~*823*~~
~~*Generator*~~	~~*266*~~	~~*0.01*~~	~~*0.00*~~	~~*0.00*~~	~~*0.50*~~	~~*583*~~
~~*Forklifts*~~	~~*213*~~	~~*0.00*~~	~~*0.00*~~	~~*0.00*~~	~~*0.01*~~	~~*198*~~
~~*Total AB 32 Capped*~~	~~*433,852*~~	~~*9.26*~~	~~*3.33*~~	~~*0.00*~~	~~*2.97*~~	~~*396,754*~~
~~*Significant?*~~	~~*--*~~	~~*--*~~	~~*--*~~	~~*--*~~	~~*--*~~	~~*No*~~
~~***Uncapped Emissions***~~						
~~Waste~~	~~8,539~~	~~504.66~~	~~0.00~~	~~0.00~~	~~0.00~~	~~17,361~~
~~Land use change~~	~~1,272~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~1,154~~
~~Refrigerants~~	~~0~~	~~0.00~~	~~0.00~~	~~0.61~~	~~0.00~~	~~827~~
~~Construction*~~	~~0~~	~~-0.58~~	~~0.00~~	~~0.01~~	~~0.00~~	~~6~~
~~Sequestration~~	~~-122~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~-111~~
~~**Total Uncapped**~~	~~**9,689**~~	~~**504.08**~~	~~**0.00**~~	~~**0.62**~~	~~**0.00**~~	~~**19,237**~~
~~Threshold~~	~~--~~	~~--~~	~~--~~	~~--~~	~~--~~	~~10,000~~
~~Significant impact?~~	~~--~~	~~--~~	~~--~~	~~--~~	~~--~~	~~Yes~~

~~mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons [HFC] – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072. <0.01 = less than 0.01~~

~~* Construction emissions are the average over 30 years. Construction uncapped emissions are from refrigerants and construction waste.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

~~Table 4.7.H shows a summary of AB 32 capped and uncapped project emissions for each year between 2015 and buildout. The emissions do not take into account the project design features or mitigation. As shown in the table, the uncapped emissions in the year 2022 and after are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.~~

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~~Table 4.7.H-a: Project Operational GHG Emissions (Year by Year without Mitigation)~~

~~Source~~	~~GHG Unmitigated Emissions (mt CO_2e/year)~~							
	~~2015~~	~~2016~~	~~2017~~	~~2018~~	~~2019~~	~~2020~~	~~2021~~	~~2022~~
~~AB 32 Capped Emissions~~								
~~Mobile~~	~~0~~	~~15,982~~	~~31,964~~	~~53,274~~	~~74,584~~	~~114,159~~	~~153,734~~	~~174,629~~
~~Electricity~~	~~0~~	~~5,598~~	~~11,197~~	~~18,662~~	~~26,126~~	~~39,989~~	~~54,119~~	~~61,183~~
~~Construction fuel~~	~~14,306~~	~~14,388~~	~~19,040~~	~~14,503~~	~~25,584~~	~~16,633~~	~~18,307~~	~~15,578~~
~~Yard trucks~~	~~0~~	~~264~~	~~528~~	~~881~~	~~1233~~	~~1,887~~	~~2,554~~	~~2,888~~
~~Electricity to convey water~~	~~0~~	~~110~~	~~221~~	~~368~~	~~516~~	~~789~~	~~1,068~~	~~1,207~~
~~Natural gas~~	~~0~~	~~43~~	~~85~~	~~142~~	~~199~~	~~304~~	~~411~~	~~465~~
~~Generator~~	~~0~~	~~30~~	~~60~~	~~101~~	~~141~~	~~216~~	~~292~~	~~330~~
~~Forklifts~~	~~0~~	~~10~~	~~20~~	~~34~~	~~48~~	~~73~~	~~99~~	~~112~~
~~Total AB 32 Capped Emissions~~	~~14,306~~	~~36,425~~	~~63,115~~	~~87,965~~	~~128,431~~	~~174,050~~	~~230,584~~	~~256,392~~
~~Uncapped Emissions~~								
~~Waste~~	~~0~~	~~898~~	~~1,796~~	~~2,993~~	~~4,191~~	~~6,414~~	~~8,681~~	~~9,814~~
~~Land use change~~	~~0~~	~~60~~	~~119~~	~~199~~	~~279~~	~~426~~	~~577~~	~~652~~
~~Refrigerants~~	~~0~~	~~43~~	~~86~~	~~143~~	~~200~~	~~306~~	~~414~~	~~467~~
~~Construction refrigerant install and waste*~~	~~9~~	~~9~~	~~11~~	~~11~~	~~21~~	~~22~~	~~11~~	~~4~~
~~Sequestration~~	~~0~~	~~-6~~	~~-11~~	~~-19~~	~~-27~~	~~-41~~	~~-56~~	~~-63~~
~~Total Uncapped Emissions~~	**~~9~~**	**~~1,004~~**	**~~2,001~~**	**~~3,327~~**	**~~4,664~~**	**~~7,127~~**	**~~9,627~~**	**~~10,874~~**
~~Threshold~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~
~~Significant impact?~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~Yes~~

~~Notes:~~
~~mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015~~

~~Table 4.7.H-b: Project Operational GHG Emissions (Year by Year without Mitigation)~~

~~**Source**~~	~~**Emissions (mt CO**~~$_2$~~**e/year)**~~								
	~~**2023**~~	~~**2024**~~	~~**2025**~~	~~**2026**~~	~~**2027**~~	~~**2028**~~	~~**2029**~~	~~**2030**~~	~~**Buildout**~~
~~**AB 32 Capped Emissions**~~									
~~Mobile~~	~~183,616~~	~~192,604~~	~~205,429~~	~~219,972~~	~~234,515~~	~~249,059~~	~~258,591~~	~~268,123~~	~~270,846~~
~~Electricity~~	~~64,116~~	~~69,981~~	~~76,246~~	~~83,364~~	~~90,455~~	~~97,573~~	~~102,239~~	~~106,904~~	~~108,237~~
~~Construction fuel*~~	~~18,019~~	~~16,783~~	~~18,030~~	~~14,480~~	~~17,086~~	~~15,679~~	~~11,782~~	~~14,497~~	~~8,823~~
~~Yard trucks~~	~~3,026~~	~~3,303~~	~~3,599~~	~~3,935~~	~~4,269~~	~~4,605~~	~~4,825~~	~~5,046~~	~~5,108~~
~~Electricity to convey water~~	~~1,265~~	~~1,381~~	~~1,505~~	~~1,645~~	~~1,785~~	~~1,926~~	~~2,018~~	~~2,110~~	~~2,136~~
~~Natural gas~~	~~487~~	~~532~~	~~580~~	~~634~~	~~688~~	~~742~~	~~777~~	~~813~~	~~823~~
~~Generator~~	~~346~~	~~377~~	~~411~~	~~449~~	~~488~~	~~526~~	~~551~~	~~576~~	~~583~~
~~Forklifts~~	~~117~~	~~128~~	~~139~~	~~152~~	~~165~~	~~178~~	~~187~~	~~196~~	~~198~~
~~Total AB 32 Capped Emissions~~	~~270,992~~	~~285,089~~	~~305,939~~	~~324,631~~	~~349,451~~	~~370,288~~	~~380,970~~	~~398,265~~	~~396,754~~
~~**Uncapped Emissions**~~									
~~Waste~~	~~10,284~~	~~11,225~~	~~12,230~~	~~13,371~~	~~14,509~~	~~15,651~~	~~16,399~~	~~17,147~~	~~17,361~~
~~Land use change~~	~~684~~	~~746~~	~~813~~	~~889~~	~~964~~	~~1040~~	~~1,090~~	~~1,140~~	~~1,154~~
~~Refrigerants~~	~~490~~	~~535~~	~~583~~	~~637~~	~~691~~	~~746~~	~~781~~	~~817~~	~~827~~
~~Construction refrigerant install and waste*~~	~~9~~	~~10~~	~~11~~	~~11~~	~~11~~	~~7~~	~~7~~	~~2~~	~~6~~
~~Sequestration~~	~~-66~~	~~-72~~	~~-78~~	~~-85~~	~~-93~~	~~-100~~	~~-105~~	~~-110~~	~~-111~~
~~**Total Uncapped Emissions**~~	~~**11,401**~~	~~**12,444**~~	~~**13,559**~~	~~**14,823**~~	~~**16,082**~~	~~**17,344**~~	~~**18,172**~~	~~**18,996**~~	~~**19,237**~~
~~Threshold~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~
~~Significant impact?~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~

~~Notes:~~

~~mt CO~~$_2$~~e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.~~

~~* Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

~~Compared with emissions as estimated in the DEIR, motor vehicle emissions at buildout were reduced by about 164,000 mt CO$_2$e/year (435,000 to 271,000) for the following reasons. First, the emission factors used in the revised analysis are from EMFAC2014 instead of EMFAC2007 (as used in the DEIR). Secondly, the unmitigated emissions in the revised analysis include reductions from current regulation; in the DEIR, only the mitigated emissions accounted for regulation. Finally, the total vehicle miles traveled decreased from 1,249,400 miles per day to 1,034,800 miles per day (a reduction of 214,600 miles/day). This decrease reflects more realistic vehicle and truck patterns provided by the revised Traffic Impact Analysis which modeled the expected vehicle trips and volumes from the project instead of a general average of 50 miles per truck trip.~~

~~Waste emissions were reduced by approximately 136,000 mt CO$_2$e/year because the new version of CalEEMod (2013) lowered its waste generation rates for warehouse development.~~

~~**Use of Cap-and-Trade Program Benefits for Project Impacts.** The SCAQMD issued Negative Declarations last year stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:~~

- ~~"Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."~~
- ~~"The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."~~
- ~~"[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."~~
- ~~"[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."~~

~~The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.~~

~~**Specific Plan Design Features.** The WLCSP incorporates site and building designs that emphasize conservation of water and energy, which in turn help reduce greenhouse gas emissions (WLCSP September 2014, Section 1.3.2, Green Building-Sustainable Development). Table 4.7.I evaluates to what degree various design features of the proposed project will reduce potential GHG emissions.~~

~~**Mitigation Measures.** Table 4.7.I evaluates to what degree the mitigation measures recommended in other impact sections will reduce potential GHG emissions. The only mitigation measure that is required is the following.~~

~~**4.7.6.1A** The project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development:~~

~~a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.~~

~~b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.~~

~~Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.~~

~~c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.~~

~~d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan.~~

~~e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.~~

~~f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.~~

~~g) The property owner shall advise all tenants of the availability of community recycling and composting services.~~

~~h) Existing onsite street material shall be recycled for new project streets to the extent feasible.~~

~~**Level of Impact After Mitigation.** Less than significant (original DEIR conclusion was significant).~~

~~Figure 4.7.1 displays the unmitigated and mitigated uncapped GHG emissions. As shown in the figure, the mitigated uncapped emissions are less than the significance threshold and are less than significant.~~

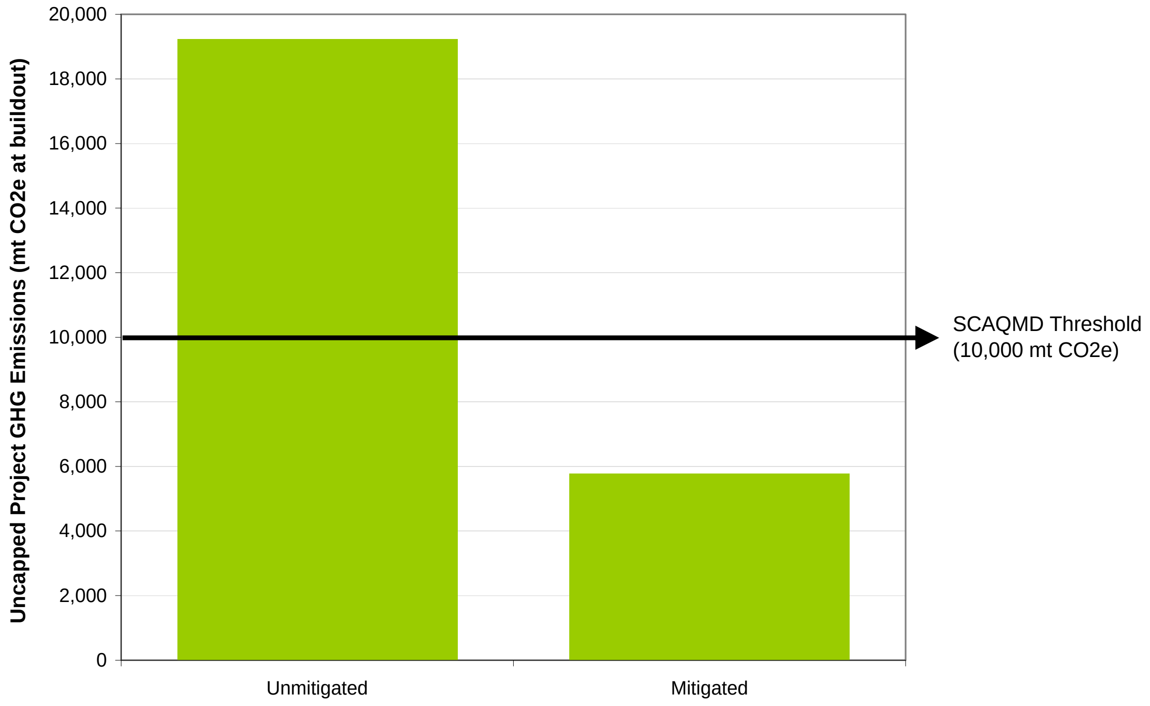

~~Figure 4.7.1: Uncapped Project GHG Emissions at Buildout~~

~~Table 4.7.J shows the GHG emissions and mitigation reductions after implementation of mitigation at buildout only. Table 4.7.K shows the mitigated GHG emissions through construction of the project to buildout.~~

~~AB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold. The tables indicate that after implementation of **Mitigation Measure 4.7.6.1A**, the uncapped emissions would not exceed the significance threshold. GHG emissions are less than significant after mitigation.~~

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~~**Table 4.7.I: Greenhouse Gas Emissions Reduction Analysis**~~

~~**Category**~~	~~**Operational Mitigation Measure or Project Design Feature[1]**~~	~~**Calculation Method and Reductions**~~
~~Construction Fuel~~	~~**Mitigation Measure 4.3.6.2A** would require that construction equipment be Tier 4.~~	~~This reduction was estimated in CalEEMod. Tier 4 construction equipment would have fewer PM2.5 emissions, and therefore black carbon emissions.~~
~~Construction Waste~~	~~Regulation in the California Green Building Standards require that projects divert (reduce or recycle) at least 50 percent of waste.~~	~~This reduction was estimated using the U.S. EPA's Waste Reduction Model (WARM) version 13.~~
~~Vehicles: Local~~	~~*Project Design Feature:* Local bus service to the area is provided by the Riverside Transit Agency. Local bus routes would typically be extended into the project area when adequate demand is generated from this employment center. Future bus routes could circulate on available looped routes with adequate right-of-way along the major arterial roadways of Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Likewise, the industrial collector roadways provide access to locations nearest building front entrances. Due to building scale, bus stops may be spread out by grouped entrances or centralized gateway drive areas as compared to individual business entries.~~	~~The California Air Pollution Control Officer's Association (CAPCOA) report's reduction measure TRT-1 indicates a 5.2 percent reduction in commute vehicle miles traveled for low-density suburbs for inclusion of a commute trip reduction program. However, this reduction is not used in this analysis.~~ ~~The trip generation rates for which the unmitigated emissions were based are not necessarily based on development with pedestrian connections. Therefore, CalEEMod includes pedestrian connections as part of its mitigation module.~~ ~~In the Draft EIR, the measures shown to the left were estimated to reduce local vehicle emissions by 3 percent. However, with the revised methods for estimating the motor vehicle and truck emissions (calculations are now based on more realistic trip lengths), this reduction would be more difficult to quantify. Therefore, no reductions are taken for these measures in order to provide a conservative analysis.~~
	~~**Mitigation Measure 4.3.6.4A:** Class II bike lanes.~~	
	~~**Mitigation Measure 4.3.6.4A:** Participate in Riverside County's rideshare program~~	
	~~**Mitigation Measure 4.3.6.4A:** Lockers for employees.~~	
	~~**Mitigation Measure 4.3.6.4A:** Bicycle storage and changing rooms~~	
	~~*Project Design Features:* The project would have pedestrian circulation (, sidewalks, and a multiuse trail.~~	
	~~**Mitigation Measure 4.3.6.4A***:* Safe pedestrian connections~~	
	~~**Mitigation Measure 4.3.6.4A:** Parking for fuel-efficient vehicles~~	
~~Long haul trucks~~	~~**Mitigation Measure 4.3.6.3B:** Require model year 2010 medium-heavy duty and heavy-heavy duty trucks or later.~~	~~This was implemented by changing the emission factors for medium-heavy duty and heavy-heavy duty trucks from the CalEEMod default to the EMFAC2014 for year 2010 and after.~~
~~Vehicles and Trucks~~	~~*Pavley I Regulation:* A clean-car standard to reduce greenhouse gas emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016.~~ ~~*Low Carbon Fuel Standard:* A fuel standard that requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020.~~	~~EMFAC2014 provides emission factors for carbon dioxide that include these regulations. Therefore, both the unmitigated and mitigated emissions account for these regulations.~~

~~**Table 4.7.I: Greenhouse Gas Emissions Reduction Analysis**~~

~~Category~~	~~Operational Mitigation Measure or Project Design Feature[1]~~	~~Calculation Method and Reductions~~
~~Electricity and Natural Gas: Title 24~~	~~**Mitigation Measures 4.16.4.6.1A** and **4.16.4.6.1B** would reduce electricity related emissions. In addition, the project would require LEED certification for buildings and would require buildings to exceed Title 24 (2008 version) by 10 percent or comply with the current version in place.~~	~~This measure was applied in CalEEMod through its mitigation measure module (10 percent beyond Title 24 checkbox).~~
~~Electricity, Lighting~~	~~**Mitigation Measures 4.16.4.6.1B** (lighting efficiency) and **4.16.4.6.1C** (Title 24) would reduce electricity from lighting.~~	~~These measures are accounted for in CalEEMod by using its mitigation measure module, "Install High Efficiency Lighting," with a reduction of 10 percent.~~
~~Solar~~	~~**Mitigation Measure 4.16.4.6.1C** requires that the project install solar panels.~~	~~The estimated electricity generation from onsite solar is 19,739 MWh per year, which is 5.2 percent of the electricity demand at buildout (376,426 MWh). Therefore, 5.2 percent of the unmitigated GHG emissions are reduced by solar generation.~~
~~Water~~	~~**Mitigation Measure 4.16.1.6.1A** would reduce outdoor water usage~~	~~CalEEMod mitigation for water-efficient irrigation systems (6.1% reduction, CalEEMod default)~~
	~~**Mitigation Measure 4.16.1.6.1B** would reduce interior water usage, including low flow fittings, fixtures and equipment.~~	~~CalEEMod mitigation for:~~ ~~- low-flow toilet (20% reduction in flow, CalEEMod default)~~ ~~- low flow bathroom faucet (32% reduction in flow, CalEEMod default)~~ ~~- low-flow kitchen faucet (18% reduction in flow, CalEEMod default)~~ ~~- low-flow shower (20% reduction in flow, CalEEMod default)~~
	~~**Mitigation Measure 4.16.1.6.1C** would allow reclaimed water to be used for irrigation.~~	~~No reductions are taken for the potential use of reclaimed water.~~
~~Waste~~	~~**Mitigation Measure 4.7.6.1A**: Recycling and composting availability and reduce operational waste by at least 25 percent before 2020 and 75 percent after.~~	~~The project would commit to reducing operational waste by 25 percent prior 2020 and 75 percent after; therefore, a percent reduction is applied.~~
	~~*Project Design Feature:* Specific Plan (Section 5.1.6) requires that all development within the project provide enclosures or compactors for trash and recyclable materials.~~	

~~[1] Project design features are from the Project Description, mitigation measures are shown in Section 1.0, Table 1.B.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

~~Table 4.7.J: GHG Reductions at Buildout~~

~~Type of Emissions~~	~~Source~~	~~GHG Emissions (mt CO_2e) at Buildout~~		
		~~Unmitigated~~	~~Reductions from Mitigation~~	~~With Reductions (Mitigated)~~
~~AB 32 Capped Emissions~~	~~Mobile~~	~~270,846~~	~~-466~~	~~270,380~~
	~~Electricity~~	~~108,237~~	~~-9,131~~	~~99,106~~
	~~Construction fuel*~~	~~8,823~~	~~-1,072~~	~~7,751~~
	~~Yard trucks~~	~~5,108~~	~~0~~	~~5,108~~
	~~Electricity to convey water~~	~~2,136~~	~~-207~~	~~1,929~~
	~~Natural Gas~~	~~823~~	~~-80~~	~~743~~
	~~Generator~~	~~583~~	~~-298~~	~~285~~
	~~Forklifts~~	~~198~~	~~0~~	~~198~~
	~~Solar (electricity)~~	~~0~~	~~-5,676~~	~~-5,676~~
	~~Total~~	**~~396,754~~**	**~~-16,930~~**	**~~379,824~~**
	~~Significant?~~	~~No~~	~~—~~	~~—~~
~~Uncapped Emissions~~	~~Waste~~	~~17,361~~	~~-13,021~~	~~4,340~~
	~~Land use change~~	~~1,154~~	~~0~~	~~1,154~~
	~~Refrigerants~~	~~827~~	~~0~~	~~827~~
	~~Construction*~~	~~6~~	~~-441~~	~~-435~~
	~~Sequestration~~	~~-111~~	~~0~~	~~-111~~
	~~Total~~	**~~19,237~~**	**~~-13,462~~**	**~~5,775~~**
	~~Threshold~~	~~10,000~~	~~—~~	~~10,000~~
	~~Significant?~~	~~Yes~~	~~—~~	~~No~~

~~Notes:~~

~~mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.~~

~~* Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included as the average over 30 years. Construction uncapped emissions include emissions from refrigerant installation and construction waste.~~

~~For information on the regulation and mitigation calculations, please refer to Table 4.7.I.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

~~Table 4.7.K-a: Project Operational GHG Emissions (Year by Year with Mitigation)~~

~~Source~~	~~GHG Mitigated Emissions (mt CO_2e/year)~~							
	~~2015~~	~~2016~~	~~2017~~	~~2018~~	~~2019~~	~~2020~~	~~2021~~	~~2022~~
~~AB 32 Capped Emissions~~								
~~Mobile~~	~~0~~	~~15,596~~	~~31,193~~	~~51,988~~	~~72,783~~	~~111,403~~	~~150,023~~	~~170,413~~
~~Electricity~~	~~0~~	~~5,126~~	~~10,252~~	~~17,087~~	~~23,922~~	~~36,616~~	~~49,553~~	~~56,022~~
~~Construction fuel*~~	~~12,267~~	~~12,227~~	~~16,203~~	~~12,343~~	~~22,003~~	~~14,126~~	~~15,647~~	~~13,279~~
~~Yard trucks~~	~~0~~	~~264~~	~~528~~	~~881~~	~~1233~~	~~1,887~~	~~2,554~~	~~2,888~~
~~Electricity to convey water~~	~~0~~	~~100~~	~~200~~	~~333~~	~~466~~	~~713~~	~~965~~	~~1,090~~
~~Natural gas~~	~~0~~	~~38~~	~~77~~	~~128~~	~~179~~	~~274~~	~~371~~	~~420~~
~~Generator~~	~~0~~	~~15~~	~~30~~	~~49~~	~~69~~	~~105~~	~~143~~	~~161~~
~~Forklifts~~	~~0~~	~~10~~	~~20~~	~~34~~	~~48~~	~~73~~	~~99~~	~~112~~
~~Solar (electricity)~~	~~0~~	~~-294~~	~~-587~~	~~-979~~	~~-1,370~~	~~-2,097~~	~~-2,838~~	~~-3,208~~
~~Total AB 32 Capped Emissions~~	~~12,267~~	~~33,082~~	~~57,916~~	~~81,864~~	~~119,333~~	~~163,100~~	~~216,517~~	~~241,177~~
~~Uncapped Emissions~~								
~~Waste~~	~~0~~	~~673~~	~~1,347~~	~~2,245~~	~~3,143~~	~~1,603~~	~~2,170~~	~~2,453~~
~~Land use change~~	~~0~~	~~60~~	~~119~~	~~199~~	~~279~~	~~426~~	~~577~~	~~652~~
~~Refrigerants~~	~~0~~	~~43~~	~~86~~	~~143~~	~~200~~	~~306~~	~~414~~	~~467~~
~~Construction refrigerants and waste*~~	~~-675~~	~~-675~~	~~-900~~	~~-900~~	~~-1,671~~	~~-1,704~~	~~-852~~	~~-354~~
~~Sequestration~~	~~0~~	~~-6~~	~~-11~~	~~-19~~	~~-27~~	~~-41~~	~~-56~~	~~-63~~
~~Total Uncapped Emissions~~	**~~-675~~**	**~~95~~**	**~~641~~**	**~~1,668~~**	**~~1,924~~**	**~~590~~**	**~~2,253~~**	**~~3,155~~**
~~Threshold~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~
~~Significant impact?~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~

~~mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.~~

~~* Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

~~Table 4.7.K-b: Project Operational GHG Emissions (Year by Year with Mitigation)~~

~~Source~~	~~GHG Mitigated Emissions (mt CO_2e/year)~~								
	~~2023~~		~~2023~~		~~2023~~		~~2023~~		~~2023~~
~~AB 32 Capped Emissions~~									
~~Mobile~~	~~179,751~~	~~189,088~~	~~202,413~~	~~217,523~~	~~232,633~~	~~247,743~~	~~257,647~~	~~267,550~~	~~270,380~~
~~Electricity~~	~~58,707~~	~~64,077~~	~~69,814~~	~~76,331~~	~~82,824~~	~~89,342~~	~~93,614~~	~~97,885~~	~~99,106~~
~~Construction fuel*~~	~~15,497~~	~~14,405~~	~~15,580~~	~~12,320~~	~~16,251~~	~~14,981~~	~~11,396~~	~~14,006~~	~~7,751~~
~~Yard trucks~~	~~3,026~~	~~3,303~~	~~3,599~~	~~3,935~~	~~4,269~~	~~4,605~~	~~4,825~~	~~5,046~~	~~5,108~~
~~Electricity to convey water~~	~~1,143~~	~~1,247~~	~~1,359~~	~~1,486~~	~~1,612~~	~~1,739~~	~~1,822~~	~~1,905~~	~~1,929~~
~~Natural gas~~	~~440~~	~~480~~	~~523~~	~~572~~	~~621~~	~~669~~	~~701~~	~~733~~	~~743~~
~~Generator~~	~~169~~	~~184~~	~~201~~	~~220~~	~~238~~	~~257~~	~~269~~	~~282~~	~~285~~
~~Forklifts~~	~~117~~	~~128~~	~~139~~	~~152~~	~~165~~	~~178~~	~~187~~	~~196~~	~~198~~
~~Solar~~	~~-3,362~~	~~-3,670~~	~~-3,998~~	~~-4,371~~	~~-4,743~~	~~-5,117~~	~~-5,361~~	~~-5,606~~	~~-5,676~~
~~Total AB 32 Capped Emissions~~	~~255,488~~	~~269,242~~	~~289,630~~	~~308,168~~	~~333,870~~	~~354,397~~	~~365,100~~	~~381,997~~	~~379,824~~
~~Uncapped Emissions~~									
~~Waste~~	~~2,571~~	~~2,806~~	~~3,057~~	~~3,343~~	~~3,627~~	~~3,912~~	~~4,099~~	~~4,287~~	~~4,340~~
~~Land use change~~	~~684~~	~~746~~	~~813~~	~~889~~	~~964~~	~~1,040~~	~~1,090~~	~~1,140~~	~~1,154~~
~~Refrigerants~~	~~490~~	~~535~~	~~583~~	~~637~~	~~691~~	~~746~~	~~781~~	~~817~~	~~827~~
~~Construction refrigerants and waste*~~	~~27 707~~	~~29 755~~	~~33 858~~	~~33 855~~	~~33 858~~	~~21 562~~	~~21 562~~	~~6 161~~	~~17 435~~
~~Sequestration~~	~~-66~~	~~-72~~	~~-78~~	~~-85~~	~~-93~~	~~-100~~	~~-105~~	~~-110~~	~~-111~~
~~Total Uncapped Emissions~~	**~~2,972~~**	**~~3,260~~**	**~~3,517~~**	**~~3,929~~**	**~~4,331~~**	**~~5,036~~**	**~~5,303~~**	**~~5,973~~**	**~~5,775~~**
~~Threshold~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~	~~10,000~~

~~mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.~~

~~* Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~

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~~4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency~~

~~Threshold~~	~~Would the proposed project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?~~

~~This impact assesses whether the project would conflict with any applicable plans, policies, or regulations, as discussed below.~~

~~**Federal and State Reduction Strategies.** Table 4.7.L evaluates the consistency of the proposed project with the various Federal and State energy conservation and other regulations related to GHG emissions.~~

~~Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies~~

~~Strategy~~	~~Project Compliance~~
~~Mandatory Codes~~	
~~**California Green Building Code.** The Cal Green Code prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business as Usual Scenario (California Building Code). The mandatory measures that are applicable to nonresidential projects include site selection, energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures.~~	~~**Compliant.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code.~~
~~Energy Efficiency Measures~~	
~~**Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).~~	~~**Compliant with Mitigation Incorporated.** The proposed project will comply with current California Building Code (CBC) requirements for building construction, including the Title 24 energy conservation standards, which will help reduce GHG emissions. In addition, the project will include various energy-efficient building design features and mitigation (**Mitigation Measures 4.16.4.6.1A, B,** and **C**) to help further reduce GHG emissions.~~
~~**Renewables Portfolio Standard.** Achieve a 33 percent renewable energy mix statewide. This means that 33 percent of the electricity sold in California must be generated by renewable energy (solar, wind, etc.).~~	~~**Not applicable.** The project is not part of the State's power generation grid, but would install solar photovoltaic panels on project roofs pursuant to **Mitigation Measure 4.16.4.6.1C**. The solar would reduce the project's electricity related emissions by approximately 5.2 percent. In addition, Moreno Valley Electric Utility purchases its power from Southern California Edison, which is subject to the Renewable Portfolio Standard.~~
~~**Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.~~	~~**Compliant.** The proposed project will comply with current CBC requirements for building construction, including the Title 24 energy conservation standards.~~

~~Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies~~

~~Strategy~~	~~Project Compliance~~
~~Water Conservation and Efficiency Measures~~	
~~**Water Use Efficiency.** Continue efficiency programs and use cleaner energy sources to move and treat water. Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.~~	~~**Compliant with Mitigation Incorporated.** The Specific Plan outlines a number of water conservation measures, and **Mitigation Measures 4.16.1.6.1A** through **4.16.1.6.1C** will help reduce potential water use even further.~~
~~Solid Waste Reduction Measures~~	
~~**Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste.** Increase waste diversion from landfills beyond the 50 percent mandate to provide for additional recovery of recyclable materials. Composting and commercial recycling could have substantial GHG reduction benefits. In the long term, zero-waste policies that would require manufacturers to design products to be fully recyclable may be necessary.~~	~~**Compliant with Mitigation Incorporated.** Data available from the California Integrated Waste Management Board (CIWMB) indicate that the City of Moreno Valley has not achieved the 50 percent diversion rate. The project will comply with **Mitigation Measure 4.7.5.1A** to help increase solid waste diversion, composting, and recycling. The measure would also have a goal to reduce waste by 75 percent by 2020.~~
~~Transportation and Motor Vehicle Measures~~	
~~**Vehicle Climate Change Standards.** AB 1493 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004.~~	~~**Compliant.** The project does not involve the manufacture of vehicles. However, vehicles that are purchased and used within the project site would comply with any vehicle and fuel standards that the CARB adopts or has adopted. In addition, the project would require medium-heavy and heavy-heavy duty trucks be 2010 or newer (**Mitigation Measure 4.3.6.3B**).~~
~~**Light-Duty Vehicle Efficiency Measures.** Implement additional measures that could reduce light-duty vehicle GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency.~~	
~~**Adopt Heavy- and Medium-Duty Fuel and Engine Efficiency Measures.** Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased engine efficiency of vehicles.~~	
~~**Low Carbon Fuel Standard.** The CARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.~~	

~~Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies~~

~~Strategy~~	~~Project Compliance~~
~~**Regional Transportation-Related Greenhouse Gas Targets.** Develop regional GHG emissions reduction targets for passenger vehicles. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.~~	~~**Compliant.** Specific regional emission targets for transportation emissions do not directly apply to this project; regional GHG reduction target development is outside the scope of this project. The project will comply with any plans developed by the City.~~
~~**Measures to Reduce High Global Warming Potential (GWP) Gases.** The CARB has identified Discrete Early Action measures to reduce GHG emissions from the refrigerants used in car air conditioners, semiconductor manufacturing, and consumer products. The CARB has also identified potential reduction opportunities for future commercial and industrial refrigeration, changing the refrigerants used in auto air conditioning systems, and ensuring that existing car air conditioning systems do not leak.~~	~~**Compliant.** New products used or serviced on the project site (after implementation of the reduction of GHG gases) would comply with future CARB rules and regulations.~~

~~AB = Assembly Bill CARB = California Air Resources Board GHG = greenhouse gas~~
~~Source: based on analysis in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015~~

~~With implementation of applicable strategies/measures project design features, and mitigation measures, the project's contribution to cumulative GHG emissions would be reduced. In order to ensure that the proposed project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32, the Mitigation Measures listed in the above table shall be implemented.~~

~~**CARB Scoping Plan.** AB 32 focuses on reducing GHG emissions (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which contains a variety of strategies to reduce the State's emissions. The First Update to the Scoping Plan was approved in 2014. The project will comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting. The warehouse buildings will be built in compliance with the California Building Code to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices. In addition, **Mitigation Measure 4.16.4.6.1A** states the project will exceed the Title 24 energy conservation standards (2008 version) by 10 percent or comply with the current version. As shown in Table 4.7.M, the strategies are either consistent with or not applicable to the project; therefore, the project does not conflict with the Scoping Plan.~~

~~**Table 4.7.M: Analysis of Scoping Plan Reduction Measures**~~

~~**Scoping Plan Reduction Measure**~~	~~**Consistency Analysis**~~
~~1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.~~	~~**Not Applicable.** This cap-and-trade system covers products or services (such as electricity) and the cost of the cap-and-trade system would be transferred to the consumers. Large industrial uses are the most likely source of participants for this program, and it is not likely individual logistics warehousing will be an active participant in this program. Under AB 32, emissions from natural gas use, transportation fuel use, and electricity generation are covered under the cap-and-trade program and subject to the program's emission reduction requirements.~~
~~2. *California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.~~	~~**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.~~
~~3. *Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.~~	~~**Applicable.** This is a measure for the state to increase its energy efficiency standards. However, the project will increase its energy efficiency through existing regulation and project design by implementing current Title 24 energy standards and green building characteristics. In addition, **Mitigation Measures 4.16.4.6.1A** and **B** would increase energy efficiency and **Mitigation Measures 4.16.4.6.1C** would require exceeding Title 24 (2008 version) by 10 percent or comply with the version in place at the time.~~
~~4. *Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.~~	~~**Partially Applicable.** This is a measure applicable to the utility provider for the project. However, the project would provide on-site solar (**Mitigation Measure 4.16.4.6.1C**).~~
~~5. *Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.~~	~~**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. However, when this measure is initiated, the standard would be applicable to the fuel used by vehicles that would access the project site.~~
~~6. *Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.~~	~~**Applicable.** The project is not directly related to developing greenhouse gas emission reduction targets. However, this project will improve the jobs/ratio for the City and thereby help reduce commuter-related emissions. For a discussion of the Regional Transportation Plan and the Sustainable Communities Strategy, refer to Table 4.7.D above.~~
~~7. *Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.~~	~~**Applicable.** When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.~~

~~**Table 4.7.M: Analysis of Scoping Plan Reduction Measures**~~

~~Scoping Plan Reduction Measure~~	~~Consistency Analysis~~
~~8. *Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.~~	~~**Not Applicable.** The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation. However, the project is related to goods movement and provides logistics warehousing away from port areas.~~
~~9. Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.~~	~~**Applicable.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. Pursuant to **Mitigation Measure 4.16.4.6.1C**, the project will be incorporating onsite solar panels.~~
~~10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.~~	~~**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. However, when this measure is initiated, the standards would be applicable to the vehicles that access the project site. In addition**, Mitigation Measure 4.3.6.3B** requires that trucks be model year 2010 or newer.~~
~~11. *Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.~~	~~**Not Applicable.** This measure would apply to the direct greenhouse gas emissions at major industrial facilities emitting more than 0.5 million mt CO_2e (500,000 mt CO_2e) per year. It is not anticipated that the project would emit more than 500,000 mt CO_2e per year; however, the project is not considered a single facility but would consist of multiple warehouse buildings. The project is a "project" under CEQA but not one facility, which is why a programmatic EIR is being prepared. This measure would be applicable to power plants, refineries, cement plants, and other related sources. In addition, most emissions from the project are indirect since the majority of the emissions are from trucks and motor vehicles.~~
~~12. High Speed Rail. Support implementation of a high-speed rail system.~~	~~**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency.~~
~~13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.~~	~~**Applicable.** The State now requires development to use various green building practices. The project will implement green building strategies through existing regulation. In addition, **Mitigation Measures 4.16.4.6.1A** and **B** would increase energy efficiency. **Mitigation Measure 4.16.4.6.1C** would require that the project exceed Title 24 (2008 version) by 10 percent or comply with the current version.~~
~~14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.~~	~~**Applicable.** When this measure is initiated, it would be applicable to the high global warming potential gases that would be used by the project (such as in air conditioning).~~

~~**Table 4.7.M: Analysis of Scoping Plan Reduction Measures**~~

~~Scoping Plan Reduction Measure~~	~~Consistency Analysis~~
~~15. Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.~~	~~**Not Applicable.** The project would not contain a landfill. The State wishes to help increase waste diversion, and the project would reduce waste with implementation of mitigation.~~
~~16. *Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.~~	~~**Not Applicable.** No forested lands exist on site.~~
~~17. *Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.~~	~~**Not Applicable.** This is a measure for State and local agencies. However, the project would reduce water through project design (i.e., implementation of the Specific Plan) and **Mitigation Measures 4.16.6.1A** through **4.16.6.1C**.~~
~~18. *Agriculture.* In the near term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.~~	~~**Not Applicable.** No grazing, feedlot, or other agricultural activities that generate manure occur on site or are proposed to be implemented by the project.~~

~~Sources: California Air Resources Board 2008, *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015~~

~~**City General Plan Policies.** The project must also be evaluated against the City's General Plan policies that relate to greenhouse gas emissions, as shown in Table 4.7.N. This analysis shows that the project is consistent with the applicable General Plan objectives and policies, or the particular objective or policy is not applicable to the proposed WLC project.~~

~~**Table 4.7.N: Consistency with City General Plan Air Quality Policies**~~

~~Objective or Policy~~	~~Project Consistency~~
~~**Objective 6.6.** Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.~~	~~**Consistent.** The project is providing employment opportunities to Moreno Valley and the surrounding area.~~
~~**Policy 6.6.1.** Provide sites for new neighborhood commercial facilities within close proximity to the residential areas they serve.~~	~~**Not Applicable.** The project does not propose the development of neighborhood commercial facilities or residential dwellings.~~
~~**Policy 6.6.2.** Provide multifamily residential development sites in close proximity to neighborhood commercial centers in order to encourage pedestrian instead of vehicular travel.~~	~~**Not Applicable.** The project is industrial and does not propose the development of residential uses.~~
~~**Policy 6.6.3.** Locate neighborhood parks in close proximity to the appropriate concentration of residents in order to encourage pedestrian and bicycle travel to local recreation areas.~~	~~**Not Applicable.** The project is industrial and does not propose the development of residential uses.~~
~~**Objective 6.7.** Reduce mobile and stationary source air pollutant emissions.~~	~~**Consistent.** The project would be implementing feasible Mitigation Measures to reduce mobile and stationary emissions (**Mitigation Measures 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A**).~~
~~**Policy 6.7.1.** Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.~~	~~**Not Applicable.** This measure is beyond the scope of the project; the City will continue to work with the SCAQMD in regional planning efforts.~~
~~**Policy 6.7.2.** Encourage the financing and construction of park-and-ride facilities.~~	~~**Not Applicable.** The project consists of industrial uses; a park and ride on the project would not be feasible.~~

~~Table 4.7.N: Consistency with City General Plan Air Quality Policies~~

~~**Objective or Policy**~~	~~**Project Consistency**~~
~~**Policy 6.7.3.** Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.~~	~~**Not Applicable.** No express mass transit facilities are designated on the project site or planned on the project site; therefore, this measure is beyond the scope of the project.~~
~~**Policy 6.7.6.** Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.~~	~~**Consistent.** The project will comply with Title 24 requirements.~~

~~Policies 6.7.4 and 6.7.5 are discussed in the air quality EIR section, Section 4.3).~~
~~Source of objective and policy: Moreno Valley General Plan (2006).~~
~~Source of project consistency: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015~~

~~**City Climate Action Strategy.** Finally, Table 4.7.O evaluates the consistency of the proposed project with the policies of the City's Climate Action Strategy approved in October 2012. As shown below and in Appendix D of the revised Air Quality, Greenhouse Gas, and Health Risk Assessment, the project is consistent with the requirements of the Strategy for non-residential development with implementation of project design features and mitigation measures.~~

~~Table 4.7.O: Consistency with City Climate Action Strategy~~

~~**Strategy Items**~~	~~**Project Consistency**~~
~~**R2-T1:** Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.~~	~~**Not Applicable.** A Transit Priority Project is one that has at least 50 percent residential use based on area, at least 20 units per acre and is within a ½ mile of a major transit stop or High Quality Transit Corridor. A High Quality Transit Corridor is defined as one with 15-minute frequencies during peak commute hours. The proposed project does not include a residential component and is not along a High Quality Transit Corridor nor are there any High Quality Transit Corridors or major transit stops in the vicinity of the project area. As a result, the strategy is not applicable.~~
~~**R2-T3:** Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.~~	~~**Consistent** with implementation of **Mitigation Measure 4.3.6.4A.**~~
~~**R2-E1:** New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.~~	~~**Not Applicable.** This measure applies to residential projects.~~
~~**R2-E2:** New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.~~	~~**Not Applicable.** This measure applies to residential projects.~~
~~**R2-E5:** New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards.~~	~~**Consistent** with **Mitigation Measure 4.16.4.6.1C.**~~

~~**Table 4.7.O: Consistency with City Climate Action Strategy**~~

~~**Strategy Items**~~	~~**Project Consistency**~~
~~**R3-E1:** Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.~~	~~**Not Applicable.** This refers to updating building and zoning codes and does not apply to this warehousing development plan.~~
~~**R3-L2:** Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.~~	~~**Consistent.** The Specific Plan indicates that vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).~~
~~**R2-W1:** Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.~~	~~**Consistent.** California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. The Specific Plan also contains a variety of water conservation features. **Mitigation Measures 4.16.1.6.1A, B,** and **C** also provide water reduction measures.~~
~~**R3-W1:** Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.~~	~~**Consistent.** Tenants and owners within the WLCSP will provide water conservation information from EMWD and other sources to workers on a regular basis.~~
~~**R2-S1:** City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.~~	~~**Consistent.** The project would incorporate standard City waste reduction features and **Mitigation Measure 4.7.6.1A** (has a target to reduce waste by 75 percent by 2020).~~
~~**C11:** Require that developer recycle existing street material for use as base for new streets.~~	~~**Consistent.** Project will implement **Mitigation Measure 4.7.6.1A** where feasible.~~

~~**Executive Order S-3-05.** As discussed in Section 4.7.4, the SCAQMD developed its thresholds based on consistency with California Executive Order S-3-05. As shown in Impact 4.7.6.1, the project's uncapped GHG emissions would not exceed the SCAQMD's industrial threshold. Therefore, the project would not conflict with Executive Order S-3-05. This impact is less than significant.~~

~~**Specific Plan Design Features.** The WLCSP contains a sustainability section that emphasizes water and energy conservation throughout the project design, which in turn will help reduce GHG emissions (Section 1.3.2, Green Building-Sustainable Development).~~

~~**Mitigation Measures.** Implementation of previously referenced **Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B,** and **4.16.4.6.1C** will help reduce project-related GHG emissions and therefore make it more consistent with GHG reduction plans, policies, and/or regulations.~~

~~**Level of Significance After Mitigation.** Less than significant (original DEIR conclusion was significant). As previously identified, implementation of the proposed project could result in the~~

~~development of an approximately 40.6 million square foot high cube-logistics distribution logistics. The proposed project includes a variety of physical attributes and operational programs that would help reduce operational-source pollutant emissions from worker commuting, including GHG emissions. Future development that would occur under the proposed project would be consistent with greenhouse gas emission reduction strategies and policies, including the City's Climate Change Strategy. The project would implement the Mitigation Measures listed above to reduce its contribution to GHG emissions and to ensure it does not conflict with or impede implementation of reduction goals identified in AB 32, Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. In addition, the project would also be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. Therefore, the proposed project would not conflict with any applicable plan, program, policy, or regulation related to the reduction of GHG emissions. Impacts are considered less than significant.~~

~~Similar to the discussion of cumulative air quality impacts, the project may employ workers locally from the City. This has the benefit of improving the local jobs/housing balance leading to air quality benefits in terms of shorter trip lengths, which lead to lower emissions than if the workforce was derived from distant locations.~~

~~The analysis in the EIR concluded that the Project's contributions to climate change are less than significant. Given (i) the global nature of climate change; (ii) uncertainty regarding the extent to which anthropogenic sources are the true causes of any increase in the earth's temperatures; and (iii) the lack of emissions controls being imposed by the world's most rapidly developing nations, even if there is a causal relationship between anthropogenic emissions and an increase in the world's temperature, it is difficult to argue that an individual Project's cumulative contribution to climate change is foreseeable and cumulatively considerable. Nonetheless, the State of California has adopted a number of policies, including AB32, Governor's Executive Order S-3-05, and Pavley I, that provide the structure and commitment to address California's contribution to global climate change. Since the proposed project is consistent with these policies, including being below the SCAQMD threshold for greenhouse gases that was structured in accordance with these State policies, the project is consistent with greenhouse gas plans, policies and regulations.~~

~~4.7.7 Cumulative Impacts~~

~~Given the findings of AB 32, of SB 97, and the requirements of CEQA, the Lead Agency must determine whether a project will or will not have a cumulatively considerable contribution to greenhouse gas emissions and global climate change. Due to the lack of guidance for determining the significance of cumulative impacts to climate change from projects, and out of an overabundance of caution, the project has been evaluated to determine whether emissions of greenhouse gases have been minimized to the extent feasible with current technology and measures.~~

~~While it is not possible for any one development project to have a significant impact on global warming or climate change, the proposed project will contribute to cumulative GHG emissions in California. Cumulatively, the buildout of the proposed project would contribute approximately from 12,000 metric tons of CO_2e in its first year of construction up to 386,000 mt CO_2e per year at buildout (with mitigation). Of those emissions at buildout, the majority, 98 percent, are within the AB 32 cap meaning that total emissions will not increase due to the cap-and-trade program. The remainder, approximately 6,000 mt CO_2e per year at buildout, represents an increase in uncapped emissions, which is 0.001 percent of California's total emissions of 458.68 million mt of CO_2e in 2012 for the entire State. Comparing the state inventory to the project's inventory is not a straightforward comparison because different methods are utilized in each inventory. The mitigation measures discussed above will reduce the project's emissions of GHGs to below significance. The~~

~~CARB is currently in the process of designing regulations to monitor, limit, and ultimately reduce California GHG emissions, but there are as yet no adopted numerical or quantifiable standards for assessing the significance of cumulative impacts from projects in the South Coast Air Basin.~~

~~Cumulatively, the emissions from electricity production (which are capped under the requirements of AB 32) would comprise approximately 26 percent of the project's total CO_2e emissions. Water usage and solid waste disposal emissions comprise approximately 2 percent of the project's total CO_2e emissions while the emissions from vehicle exhaust would comprise approximately 70 percent of the project's total CO_2e emissions. The emissions from vehicle exhaust are controlled by the State and Federal governments and are outside the control of the City. The remaining CO_2e emissions are primarily associated with building systems. The proposed project is required to comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting, which would reduce the project's electricity demand. The new buildings constructed in accordance with current energy efficiency standards would be more energy-efficient than older buildings.~~

~~With implementation of the strategies and programs described previously, the project is consistent with the strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05. In addition, emissions not covered or capped by AB 32 are below the significance threshold. Therefore, cumulative impacts are less than significant.~~

~~4.8 HAZARDS AND HAZARDOUS MATERIALS: TABLE OF CONTENTS~~

~~TABLE~~

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NOTE TO READERS. *The cumulative portion of Section 4.8 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.8 of this Revised Sections of the FEIR. All other portions of Section 4.8 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.8 means that the corresponding portion of Section 4.8 in the FEIR remains unchanged or has been deleted.*~~*A number of comments were made regarding hazardous materials, mainly potential pesticide contamination*[1]*. In response, the mitigation measures in this section have been revised. Otherwise, no major revisions have been made to this section in response to comments.*~~

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes and analyzes the potential impact to human health and the environment due to the exposure to hazardous materials or conditions that could be encountered as a result of the construction activities within the WLC project area and also the operational activities of the project. Potential effects include those associated with the routine transport, use, or disposal of hazardous materials; reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; safety hazards associated with the project's existing agricultural use, impairment/interference with adopted emergency response plans or emergency evacuation plans, and exposure of people or structures to risks involving wildland fires.

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

For the reader's reference, this EIR has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the development.

~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland~~

~~[1] *Letters F-7A and F-7B from Lozeau Drury LLP (Comments F-7A-18, -21 and -22 and F-7B-2) and in Letter F-8 from Shute Mihaly.*~~

~~Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The evaluation was based on review of available information included with the application, review of previous Phase I Environmental Site Assessments for the WLC project area, and review of other published materials. This section is based in part on the following reports, which are included as Appendix I of this EIR:

- *Phase I Environmental Site Assessment Reports,* World Logistic Center Specific Plan WLC project area—approximately 3,820 acres in the WLC planning area, south of State Route 60 (SR-60) between Redlands Boulevard and Gilman Springs Road, extending to the southerly City Limit, LOR Geotechnical Group, Inc., 18 reports for various locations within the WLC project area prepared between June 10, 2003–May 28, 2008, plus one comprehensive Phase 1 as recent as January 2013.

4.8.1 Existing Setting

4.8.1.1 Project Site History

The project area is approximately 3,714 acres and is located in Rancho Belago, the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The area is bounded by State Route 60 (SR-60) to the north, Gilman Springs Road to the east, Redlands Boulevard to the west, and the City boundary to the south.

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

Within the project area, 2,610 acres will be covered by the World Logistics Center Specific Plan, which is planned to be developed with up to 40.6 million square feet of modern logistics facilities. The remainder of the project area, approximately 1,104 acres is owned by the State and by existing utility facilities. This area will be designated as permanent open space and will allow the continued operation of the utility facilities.

The majority of the project area is vacant undeveloped land. There are seven existing single-family homes with associated ranch/farm buildings located throughout the project area. The project area has been historically used for dry-farming and livestock grazing, and portions of it are currently being dry farmed. There are currently no flood control facilities that are owned, operated, or maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD). Over the years, 18 separate Phase I Environmental Site Assessments (ESAs) have been conducted covering a large majority of the property (Table 4.8.A).

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
Group A Properties consisting of 352 acres located between Redlands Boulevard and Gilman Hot Springs Road to the east and west and Eucalyptus and Davis Roads to the north and south.	6/10/03	*No Further Action:* No recognized environmental conditions associated with the site.

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
Colville Property, 17.8 acres (2 parcels, APNs 478-240-006 and 007) located on the southwest corner of Alessandro Boulevard and World Logistics Center Parkway~~Theodore Street~~.	2/23/04	*No Further Action:* No recognized environmental conditions associated with the site.
13241 Theodore Street.	2/11/05	Clean up of one empty 55-gallon metal drum and trash and debris for disposal in a Class III municipal landfill; no further remedial action necessary.
Kerr Stock Farm Properties: 12600 and 12560 Sinclair Street; 4 parcels, 120± acres, located southeast of Redlands Boulevard and SR-60; *Triana Property*, 12540 Sinclair Street (APN: 477-090-001), southeast of Redlands Boulevard and SR-60; *Smith Property*, 0.88-acre property at 12550 Sinclair Street (APN 477-090-013).	5/5/03	Several 55-gallon and smaller containers of paint, both latex and oil base containers, and waste oil found; containers and stained soil are to be removed and properly disposed of. Dumped green waste and household trash and debris to be removed; two aboveground fuel tanks to be removed. Based on the age of structures, an asbestos and lead-based paint survey should be conducted prior to demolition. No further remedial action necessary upon removal of above-noted items.
Sanindon Property, 19± acres (APNs 477-090-004 and 006) located southeast of Sinclair Street and SR-60.	9/10/03	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 478-240-011, 017, 026, 027, and 030, 46.5+-acre vacant property, located on the southeast corner of Brodiaea Avenue and Sinclair Street.	4/30/04	*No Further Action:* No recognized environmental conditions associated with the site.
Chehade Property, 2 parcels (APNs 478-240-24 and 29) 18.75 acres, southwest of Alessandro Boulevard and World Logistics Center Parkway~~Theodore Street~~.	12/29/04	Removal of one 55-gallon waste oil drum. Surface-stained surrounding soil to be removed and properly disposed of. No further remediation necessary.
APNs 478-240-019, 025, and 028.	4/11/05	Significant illegal dumping of trash and debris, but all appears suitable for disposal in a Class III municipal landfill; ten tires present, additional disposal fees may be incurred; metal 5-gallon bucket about half full with racing fuel, located in the southeast portion of Parcel 028 west of the east boundary and southeast of the old borrow pit quarry area; bucket should be lawfully transported off site and properly disposed of or recycled. No further remedial action required.
Mabon Property (APN 477-080-042) 8.8+ acres.	2/28/05	*No Further Action:* No recognized environmental conditions associated with the site.

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
APNs 477-090-008 through 012 and 477-100-011 through 014, 69.5± acres.	11/30/04	Trash and debris present appeared suitable for disposal in a Class III municipal landfill, but forty tires, including some large-sized tires, may require special disposal fees. A black 5-gallon bucket, approximately one-third full of waste oil, observed at north end of the drainage channel. Very minor oil-stained soil and organic debris was noted. The oil stained soil is insignificant in extent and is of no environmental concern, the 5-gallon bucket of waste oil should be properly disposed of or recycled. No further remedial action required.
APN 477-090-007, northeast corner of Sinclair Street and Fir Avenue.	4/25/07	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 477-080-027, 028, 029, and 030, 36.7+ acres of vacant land, southeast corner of Ironwood Avenue and Sinclair Street.	3/24/05	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 478-240-005 and 008.	3/1/06	Illegal dumping of trash and debris, especially on the south end near the boundary. All of the trash and debris observed appear to be suitable for disposal in a Class Ill municipal landfill. No further remedial action required.
Himada Property, 30050 Dracaea Avenue, (APN 422-070-033)	7/9/07	Significant amounts of trash and debris are present and appear suitable for disposal in a Class Ill municipal landfill. No drums, barrels, or other containers were observed; one partially crushed vehicle battery and minor oil-stained soils were observed, battery should be properly transported off site for recycling or disposal. The minor oil stained soils is a *de minimis* condition and should be mitigated as a result of normal grading activities. No further remedial action required.
Sunnymead Poultry Group "C" Properties consisting of 421 acres east of World Logistics Center Parkway~~Theodore Street~~ and north of Alessandro Boulevard.	5/5/03	A former chicken ranch made up 75 acres and the remainder was dry-farmed. Former underground storage tanks (USTs) converted to aboveground storage tanks (ASTs) were present at the chicken ranch, which was undergoing demolition. Soil samples collected during and after demolition activities confirmed the removal of hydrocarbon-affected soil. Soil samples collected from beneath the location of the two former USTs at 6, 8, and 10 feet deep had no reported concentrations of petroleum hydrocarbons. Pesticide sampling (42 samples) indicated all results below residential limits. No further action.

Source: Phase 1 Environmental Site Assessment Reports (various), LOR Geotechnical.

Historic land uses noted for the WLC project area included tree farms (olives/citrus), rural residential uses, a horse ranch, minor auto repair related to residential users, two dairies, and a chicken ranch. However, the tree orchards were not sustained and the horse, dairy, and chicken ranches ceased operating several years ago as well. Present land use is limited to dry farming, undeveloped vacant land, and seven residential structures. In 1992, the City approved a master-planned, mixed-use community called “Moreno Highlands” on most of the project site but no uses within this community were ever built.

Dry-land farming does not typically apply pesticides or other agricultural chemicals. The ESAs did not find significant residual pesticides within the project area. Soil sampling conducted within limited site characterizations revealed trace concentrations of pesticides present in the near-surface soils at some of the sampling locations. However, the sample results showed concentrations of pesticides to be below the Environmental Protection Agency’s (EPA’s) Preliminary Remediation Goals for residential properties, which indicated that no further sampling was necessary and unrestricted use of the property was allowed.

~~*NOTE: The following information was added to clarify or expand on the issue of agricultural chemicals raised in Letter F-7A, F-7B, and F-8.*~~

The commenters all expressed the opinion that the Phase 1 documents for the project site did not provide an accurate assessment of current soil conditions. The many Phase 1 reports done on many parcels throughout the WLC property and over a long period of time constitute an extensive random sampling of the on-site soils, and demonstrate the site does not contain widespread soil contamination from pesticides. Dry farming does not use a variety of agricultural chemicals because it relies on ambient rainfall and other conditions to support the limited crops grown on the site. Many of the organo-chloro-phosphate (OCP) based chemicals used for more intensive irrigated crops are not used in dry farming due to their cost and lack of irrigation to distribute the chemicals. In addition, the chemicals used in dry farming typically break down quickly in the soil and are not broadcast but rather applied by hand sprayers, so any applications would be necessarily limited. There is no practical reason why intense crop herbicides or pesticides like DDT would be used in conjunction with dry farming in general, and there is no evidence such chemicals were used on the WLC site in the past. In fact, onsite soil sampling conducted for the Phase 1 reports found no evidence of significant OCP contamination on the WLC site. The chicken ranch and related facilities that were on the site for a time are in the process of being removed, including any surficial materials with waste products. There has been no empirical evidence presented that would demonstrate there is actual contamination by agricultural chemicals or wastes on the WLC site.

According to records from the State Department of Toxic Substances Control (DTSC), dry farmed agricultural properties of the WLC project site have had pesticides like 2,4-Dichlorophenoxyacetic acid, commonly called 2, 4, D applied in the past. 2, 4 D is the 3rd most common herbicide used in the US and can be purchased at retailers like Home Depot and Lowes. 2,4 D has a half-life of a few days to two weeks, depending on site conditions (available water, sun etc.). Within a few months after application, the residual amount of pesticide is less than 1 percent. Dry farming operations, and any pesticide application, will have ceased well before the actual grading of the site, and any current pesticide application, will have biodegraded to less than significant levels. 2,4 D was the most common pesticide applied to the site, often combined with Agri-Dex (as indicated in the DTSC records) which is used as a wetting agent to increase absorption of the 2, 4 D. The DTSC records indicate these chemicals were applied to grapes on the site, but there are no areas of cultivated grapes at present on the WLC site. It is possible some of these materials were used on the rural residences on the site, however the 2, 4 D and Agri-Dex were by far the most common chemical used on the site by weight in 2010, which accounted for almost a thousand pounds of chemical applied. Other chemicals applied to properties within the WLC site during that time include pyrethrins, spinosad, beta-cyfluthrin, sulfur, “Roundup” (glyphosate), “scythe, and rimsuffuron mainly as herbicides and fungicides, but less than one pound of each of these materials was typically applied at a given time, so the overall potential exposure is considered to be relatively minor at present. Therefore, there is no evidence there will be adverse environmental impacts on adjacent property owners or WLC site workers from past pesticide applications at the site, including 2, 4 D. However, to err on the side of caution, Mitigation Measure 4.8.6.1A has been modified to include soil sampling for agricultural chemicals prior to grading of the 7 rural residential lots where it is possible more chemical materials were applied in more concentrated locations than broadcast on large wheat fields.

The Phase I ESAs noted some illegal dumping of trash and debris, including paints, tires and trash, which has occurred on and around the project area. Most of the trash and debris observed appeared to be suitable for disposal in a Class Ill municipal landfill. Prior to development, all containers of hazardous materials and waste will need to be lawfully transported off site for disposal or recycling by a licensed hazardous waste transporter.

Former aboveground and belowground fuel storage tanks associated with the former chicken ranch were removed. Hydrocarbon-affected soil associated with the aboveground storage tanks (ASTs) and other chicken ranch operations were removed during demolition activities at the site. During the demolition activities, hazardous waste in 55-gallon drums and smaller, and hydrocarbon-affected soil were removed and transported off site by a licensed hazardous waste hauler for proper disposal.

Given that some of the residential and rural farming-related structures date back to the 1930s and 1940s, it is likely that some of them contain asbestos and lead-based paint. Therefore, it is recommended that the demolition of the structures at the site be performed in accordance with all applicable regulations for the handling of such materials.

The Phase I ESAs revealed no evidence of recognized environmental conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the WLC project area. A recognized environmental condition is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

Several natural gas pipelines (16-inch to 36-inch diameter) cross the site (see also Section 4.16, *Utilities and Service Systems*). At present, the San Diego Gas and Electric Company (SDG&E) company and the Southern California Gas Company (SCGC) maintain these natural gas pipelines under medium and high pressure across the central and southern portions of the site. None of the rural residences on site is located adjacent to any of these existing regional gas lines.

4.8.1.2 Surrounding Area

Major access to the project area is from State Route 60, Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and World Logistics Center Parkway~~Theodore Street~~. Redlands Boulevard, World Logistics Center Parkway~~Theodore Street~~, and Gilman Springs Road are north-south roadways that intersect with SR-60.

There is little development adjacent to the eastern and southern boundaries of the project area. The area to the east of the project area is commonly referred to as the Badlands, a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Due to its steep slopes and canyons, the Badlands area has experienced little development; however, there are approximately ten single-family homes in the area east of Gillman Springs Road adjacent to the project site. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeast of the WLC project area. The area south of the project area is known as the San Jacinto Wildlife Area (SJWA), which includes an “Upland Game Hunting Area”. The SJWA is owned and operated by the California Department of Fish and Wildlife (CDFW) and contains approximately 20,000 acres of restored wetlands and ponds. Hunting is allowed, with the proper state hunting license. Depending on the time of year, hunting in this area includes jackrabbits, rabbits, waterfowl as well as pheasants, chukar, and quail. The SJWA is accessed from Davis Road, off of

Ramona Expressway. In addition to the hunting allowed at the SJWA, there are private hunting clubs that abut the SJWA, including the Mystic Lake Duck Club and the Four Winds Pheasant Club.

The Lake Perris State Recreation Area is immediately southwest of the project site and is owned and operated by the California State Parks Department. It contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

A large logistics facility (1.8 million-square foot Skechers facility) is located northwest of the project area. Other developed properties include residential neighborhoods along Redlands Boulevard along the western boundary of the project area. An area of the City known as Old Moreno is adjacent to the southwest portion of the project site (at the intersection of Redlands Boulevard and Alessandro Boulevard). The homes along Merwin Street and Bay Street and east of Redlands Boulevard are the closest sensitive receptors to the project site.

There are two future commercial sites located immediately north of the project area. One is located at the northwest corner of World Logistics Center Parkway~~Theodore Street~~ and Eucalyptus Avenue (approved for 80,000 square feet), and the other is at the northeast corner of Redlands Boulevard and Eucalyptus Avenue (approved for 120,000 square feet). The nearest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive, approximately 1.25 miles to the west of the project. This shopping complex includes Walmart and Target along with restaurants and ancillary commercial and service uses, as well as the Moreno Valley Auto Center. The central core of Moreno Valley, which includes other residential neighborhoods and commercial activity, is located approximately three miles west of the project area.

There are no airports in the vicinity of the project area. The nearest airport is March Air Reserve Base (MARB) located approximately seven miles southwesterly of the project area. The MARB is under the authority of the March Joint Powers Authority (MJPA), which acts as the land use authority, in addition to the Redevelopment Agency as well as the March Inland Port Airport Authority are involved in the reuse of the former March Air Force Base. The March Air Field is a joint-use airport, used both for military and civilian purposes. March Inland Port (MIP)[1] is the civilian portion of the airport. The project area is not located within the Airport Influence Area.

There are no existing school facilities within one-quarter of a mile of the project area. Calvary Chapel Christian School is the closest existing school, located approximately 1.17 miles northwest of the project area, north of SR-60. There is a site for a proposed public elementary school, Wilmot Elementary School, located approximately one-quarter of a mile from the project area located on Bay Avenue at Wilmot Street. A Preliminary Environmental Assessment Report (PEA) was prepared for the proposed elementary school site in July 2007.

4.8.1.3 NOP/Scoping Comments

Several residents commented during the NOP period that there are major natural gas facilities located on the WLCSP project site, and were concerned about safety during construction, relocation, and operation of the pipelines. During the scoping meeting, a conservation group representative encouraged the City to look at freeway accident data involving trucks and expressed concern that accidents on the freeway would cause truck drivers to divert off the freeway and onto local streets in Moreno Valley. The WLC project biology report also warned of risks to new project buildings and employees from errant gunfire from the Mystic Lake area (i.e., hunting clubs) (MBA 2013). Several

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[1] March Inland Port was previously called March Air Reserve Base.

residents also commented that there are major natural gas facilities and pipelines located on the WLCSP project site. These comments are addressed in the following analysis of potential hazards.

4.8.2 Existing Policies and Regulations

4.8.2.1 Federal Regulations

Comprehensive Environmental Response, Compensation, and Liability Act. Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). The purpose of the CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

Superfund Amendments and Reauthorization Act. The Superfund Amendments and Reauthorization Act (SARA) pertain primarily to emergency management of accidental releases. It requires formation of State and local emergency planning committees, which are responsible for collecting, material handling, and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large under the “right-to-know” provision of the law. In addition, SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory (TRI).

Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act (RCRA) Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to the RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

Hazardous Materials Transportation Act. The Hazardous Materials Transportation Act is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, in the sky, or in pipelines. It includes provisions for materials classification, packaging, marking, labeling, placarding, and shipping documentation.

4.8.2.2 State Regulations

California Code of Regulations. Most State and Federal regulations and requirements that apply to generators of hazardous waste are spelled out in the California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators, transporters, treatment, storage, and disposal facilities. Because California is a fully authorized State according to RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substance Control (DTSC) regulates hazardous waste more stringently than the U.S. EPA, the integration of California and Federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than do the

RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the hazardous materials, waste and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR, Title 26 "Toxics." However, the California hazardous waste regulations are still commonly referred to as Title 22. For the purposes of clarity, because of the extensive reach of Title 22 and Title 26, many common household products sold in grocery stores and home improvement warehouses qualify as hazardous materials. These items include household cleaners, detergents, paint, motor oil, lubricants, glues, pesticides, etc. The term "hazardous materials" is also defined to include many on site materials as well, such as lubricants, fuel, etc. Thus, when this section of the EIR discusses the transport and storage of "hazardous materials," it is referring to the potential transport of bulk products to the project locations and to the temporary storage of such materials at the project sites prior to re-package and transport to subsequent destinations.

Cortese List: Section 65962.5(a). Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Hazardous Waste and Substances Sites list (Cortese List). The Cortese List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Release sites include or hazardous materials release sites may include the following:

- All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
- All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
- All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
- All sites listed pursuant to Section 25356 of the Health and Safety Code.
- All sites included in the Abandoned Site Assessment Program.

The California DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The California Hazardous Material Management Act. The Hazardous Materials Management Act (HMMA) requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan (HMBEP), which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program. An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy Federal and State Community Right-to-Know laws and to provide detailed information for use by emergency responders.

Per the California Health and Safety Code (HSC), Chapter 6.95, Section 25500–25532, an HMBEP must be submitted by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than:

- A total weight of 500 pounds or a total volume of 55 gallons;
- 200 cubic feet of a compressed gas at standard temperature and pressure; and/or

- A radioactive material handled in quantities for which an emergency plan is required pursuant to Parts 30, 40, or 70 of Chapter 10, Title 10, CFR, or equal to or greater than the amounts specified above, whichever amount is less.

An HMBEP must be prepared prior to facility operation. Any business subject to HMBEP requirements shall submit an amendment of its HMBEP to the local implementing agency when there is:

- A 100 percent or more increase in the quantity of a previously disclosed hazardous material;
- Any handling of a previously undisclosed hazardous material subject to the inventory requirements;
- Change of business address;
- Change of ownership;
- Change of business name; and/or
- Change of contact information.

In addition, any business subject to HMBEP requirements is also required to certify the inventory of hazardous materials handled at the business every year. Businesses are also required to review their HMBEP at least once every three years to determine if a revision is necessary. Once the review has been conducted, the business must certify in writing to the local implementing agency that a review has been completed and necessary changes were made. For businesses within the City of Moreno Valley, HMBEPs are submitted to and approved by the County of Riverside Community Health Agency, Department of Environmental Health.

The California Hazardous Waste Control Law. The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. The HWCL requires a hazardous waste generator, which stores or accumulates hazardous waste for periods greater than 90 days at an on-site facility or for periods greater than 144 hours at an off-site or transfer facility, which treats, or transports hazardous waste, to obtain a permit to conduct such activities. The HWCL implements RCRA as a “cradle-to-grave” waste management system in the State of California. HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds Federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates the number of types of wastes and waste management activities that are not covered by federal law with RCRA.

State Aeronautics Act (Public Utilities Code Section 21670, et seq.). The Public Utilities Code (PUC) establishes the requirement for the creation of airport land use commissions for every county in which there is located an airport that is served by a scheduled airline. Additionally, these sections of the Code mandate the preparation of Comprehensive Land Use Plans (CLUP) to provide for the orderly growth of each public airport and the area surrounding the airport. The purpose of CLUPs includes the protection of the general welfare of inhabitants within the vicinity of the airport and the general public.

California Emergency Services Act. Government Code 8550–8692 provides for the assignment of functions to be performed by various agencies during an emergency so that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency that may occur. The coordination of all emergency services is recognized by the State to mitigate the effects of natural, man-made, or war-caused emergencies which result in conditions of disaster or extreme peril to life, property, and the resources of the State, and generally, to protect the health and safety and preserve the lives and property of the people of the State.

State Fire Plan. The State Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive update of the State Fire Plan for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis.

4.8.2.3 County of Riverside Regulations

Riverside County Department of Community Health. The Department of Environmental Health (DEH) of the Riverside County Community Health Agency is responsible for regulation the operations of businesses and institutions that handle hazardous materials or generate hazardous wastes in the City of Moreno Valley.[1] As part of the State-mandated Certified Unified Programs administered by the CalEPA, the DEH coordinates regulatory and enforcement of the following programs: Household Hazardous Waste, Hazardous Waste Minimization, Underground Storage Tanks (USTs), Hazardous Waste Generator Permits, and Hazardous Materials Handlers Program.

Riverside County Airport Land Use Plan. The Riverside County Airport Land Use Commission (ALUC) assists local agencies by ensuring the development of compatible land uses in the vicinity of existing airports. The ALUC adopted the Airport Land Use Plan (ALUP) for MIP on April 26, 1984. A new ALUC is currently in the process of updating the 1984 ALUP for MIP;[2] however, the portion of this document that pertains to MARB is not available for public review at this time. The ALUP specifies land use restrictions for areas falling within an airport's Influence Area boundaries.

2005 Air Installation Compatible Use Zone (AICUZ) Study. March Air Field is a joint-use airport, used for both military and civilian (MIP) purposes. The airport is owned and regulated by the military. Military installations prepare AICUZ studies to protect vicinity land uses from hazard and noise impacts associated with military airports. The Air Force Reserve (AFRES) completed a new AICUZ for March Air Field in 2005. The AICUZ delineates the clear zones and accident potential zones for the joint use airfield, as well as the noise contours based upon the project flight operations and use of the aviation field. The noise contours include both military and civilian use, as projected in the Federal Aviation Administration (FAA) conformity determination.

4.8.2.4 City of Moreno Valley

General Plan Policies. The Safety Element and the Land Use Element of the General Plan define the following issues and opportunities related to hazards that are relevant to the project:

- **Safety Element**
  - **Issues and Opportunities Section 6.2.8:** Acknowledge natural topography, terrain, volatile fuel types, and local climatic conditions that have resulted in large and damaging wildfires, particularly when the Santa Ana winds blow, increasing the potential for wildland fires. Consider

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[1] *Section 5.5 Hazards,* Moreno Valley General Plan, Final Program EIR, July 2006.

[2] Riverside County Airport Land Use Commission New Compatibility Plans, http://www.rcaluc.org/plan_new.asp, website accessed April 23, 2012.

these factors during the planning phases of devolvement and include mitigation measures to reduce potential life safety and other consequences of these types of fires.

  - **Issues and Opportunities Section 6.2.10:** Require the use of automatic sprinkler systems in new and existing structures to control future demand for fire protection services, and to reduce fire losses. Continue annual fire inspections of all occupancies by the Fire Prevention Bureau to reduce the potential for fire code violations and to inspect sprinkler systems.
  - **Issues and Opportunities Section 6.2.13:** Emphasize planning, training, disaster drills and public education and awareness programs to prepare for emergency and disaster response.
  - **Issues and Opportunities Section 6.9.2:** The City has the ability to establish land use patterns that minimize the hazards associated with the use, storage and transport of hazardous materials. The Household Hazardous Waste Element and the Hazardous Waste Management Plan for the City of Moreno Valley contains programs on the reduction of hazardous waste and criteria for the siting of hazardous waste facilities. These plans should be updated from time to time to reflect changing conditions.

- **Land Use Element**
  - **Issues and Opportunities Section 2.8.2:** Fees will need to be collected in conjunction with new development to ensure that new development pays its fair share toward the future expansion of City facilities.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

- **Safety Element Goal**

Goal 6.1 To achieve acceptable levels of protection from natural and man-made hazards to life, health, and property

Local Hazard Mitigation Plan. The City of Moreno Valley prepared a Local Hazard Mitigation Plan (LHMP) to develop an understanding of the natural and man-made hazards to the City and to determine ways to reduce those risks, prioritize and implement mitigation strategies.

4.8.3 Methodology

Evaluation of hazards and hazardous material impacts associated with the project included a focus on the use, generation, management, transport, and disposal of hazardous or potentially hazardous materials on the project site. Phase I ESAs were prepared to document existing site conditions involving the presence or absence of hazardous materials that may have been deposited through previous land uses. In addition, the City of Moreno Valley's LHMP was consulted to identify existing known hazards that may affect the project area. For airport hazards, the County of Riverside ALUC was consulted to determine if the WLC project would increase air hazards. In determining the level of significance, the analysis assumes that construction and operation of the project would be in compliance with relevant local, State, and Federal laws and regulations pertaining to the use, storage, and disposal of hazardous materials.

4.8.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the WLC project would result in a significant adverse impact with regard to hazards if it were to:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;
- For a project located within the vicinity of a private airstrip, result in a safety hazard for people working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation; and/or
- Result in the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.8.5 Less than Significant Impacts

In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.8.5.1 Within Two Miles of a Private Airport or Within an Airport Land Use Plan or Within Two Miles of a Public Airport

Threshold	For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? Would the project be located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, resulting in a safety hazard for people residing or working in the project area?

The nearest airport to the project area is MARB, approximately 7 miles to the southwest. The airfield is operated by two entities, March Air Reserve Base (military) and March Inland Port Airport Authority (quasi-governmental/private). In addition, Perris Valley Airport is located approximate 15 miles southwest of the project area. Perris Valley Airport is a private airport that is open to the public, and is utilized for skydiving and ballooning activities. The WLC project area is not located within the Airport Influence Area for either airport. Given the distance of the WLC project area to both airports in the vicinity, the development of the WLC project area as proposed would not result in private airport safety hazards for people working in the WLC project area. No impacts associated with this issue would occur and no mitigation is required.

4.8.5.2 Existing or Proposed School

Threshold	Would the project emit hazardous emissions or handle acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no existing school facilities within one-quarter of a mile of the project area. The nearest existing school is Calvary Chapel Christian School which is located approximately 1.17 miles northwest of the project. There is one proposed elementary school site that is located within one-quarter mile of the WLC project area. The site for proposed Wilmot Elementary School is located on Bay Avenue at Wilmot Street, approximately 0.25 mile west of the project area. A PEA was prepared for the proposed elementary school in 2007; however, there has been no further discussion by the Moreno Valley Unified School District (MVUSD) since then.[1] The City does not have jurisdiction with respect to the location, design, or construction of school facilities. The City works with each school district concerning the design of roads and other public improvements in and around school sites. The City also notifies any school district of development proposals that might affect school facilities.[2]

The amount and type of materials that would be used during project construction (building and infrastructure) or stored in the high-cube logistics distribution center after construction is unknown at this time. The emission of air pollutants is discussed in the Air Quality Section of the EIR. While the warehouse facilities themselves are not expected to utilize acutely hazardous materials, the possibility exists that such materials could be stored or transported to and from the project site. For the purposes of this analysis, it is assumed that the project will handle substances that may be acutely hazardous. The handling of hazardous materials or emission of hazardous substances in accordance with the Hazardous Materials Business Emergency Plan (HMBEP) as required by applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools are less than significant and no mitigation is required.

4.8.5.3 Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions

Threshold	Would the project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials? Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident?

The project area includes the development of 40.6 million square feet of high-cube logistics warehouse space. These warehouses would be used primarily for the storage and/or consolidation of manufactured goods, with minimal assembly and no manufacturing activities, prior to their distribution to secondary retail outlets.

Truck-Related Risks. Truck activities would frequently occur during off-peak hours. Deliveries to the project area would come from the Ports of Long Beach and Los Angeles as well as from other locations. Goods sorted for re-distribution would then be delivered via truck to both in and out of state locations. The exact tenants of the warehouse buildings are unknown at this time and will likely change over time so there is the potential that hazardous materials such as petroleum products, pesticides, fertilizer, and other household hazardous products such as paint products, solvents, and cleaning products may be stored and transported in conjunction with the proposed warehouse uses. These hazardous materials would only be stored and transported to and from the site. Manufacturing and other chemical processing

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[1] Moreno Valley Unified School District, Minutes for Regular Meeting of the Board of Education, July 17, 2007.
[2] City of Moreno Valley General Plan, Land Use Element, Section 2.5.0.

will not be permitted under the provisions of the Specific Plan. Exposure to hazardous materials during the operation of the proposed on-site uses may result from (1) the improper handling or use of hazardous substances; (2) transportation accidents; or (3) an unforeseen event (e.g., fire, flood, or earthquake). The severity of any such exposure is dependent upon the type and amount of the hazardous material involved; the timing, location, and nature of the event; and the sensitivity of the individual or environment affected.

The City of Moreno Valley has no direct authority to regulate the transport of hazardous materials on State highways.[1] This activity is governed by the United States Department of Transportation (USDOT), as described in Title 49 of the Code of Federal Regulations[2] and by Title 13 of the California Code of Regulations. The State Office of Hazardous Materials Safety enforces regulations for the safe transportation of hazardous materials. It is possible that vendors may bring hazardous materials to and from the project site. Appropriate documentation for all hazardous waste that is transported in connection with project site activities would be provided as required by hazardous materials regulations. Hazardous waste produced on site is subject to requirements associated with accumulation time limits, proper storage locations and containers, and proper labeling. Additionally, for removal of hazardous waste from the site, hazardous waste generators are required to use a certified hazardous waste transportation company, which must ship hazardous waste to a permitted facility for treatment, storage, recycling, or disposal. Compliance with applicable regulations would reduce impacts associated with the use, transport, storage, and sale of hazardous materials. For example, the California Hazardous Materials Management Act requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan, which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program.

The enforcement of applicable local, State, and Federal standards, ordinances, and regulations will ensure that potential impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant and no mitigation is required.

Freeway Accident Risks. The following information is provided in response to NOP/Scoping comments regarding freeway accidents. According to the California Department of Transportation's Traffic Accident Surveillance and Analysis System (TASAS) report, there are approximately 105 accidents per year along a 3.75-mile stretch of SR-60 between Nason Street and Gilman Springs Road in the general vicinity of the project area. The data were derived for the three-year span of January 1, 2008, to December 31, 2010[3]. During this period, there were 316 accidents (average of 105 per year) along SR-60 (both westbound and eastbound). Of the 316 accidents, approximately 15.8 percent involved trucks (tractor/trailer). There were 127 eastbound accidents (19 or 15% involving trucks) and 189 westbound accidents (31 or 16.4% involving trucks). It is possible that congestion on the freeway might result in some WLCSP-related trucks exiting the freeway at off-ramps other than World Logistics Center Parkway~~Theodore Street~~, or attempting to enter the freeway at on-ramps if the drivers see or hear on their radios that the freeway is congested. In most instances, drivers will use the shortest route indicated on GPS system maps or the route(s) they have used previously, regardless of traffic conditions at the time. In addition, due to the type of uses planned within the WLCSP, much of the project-related traffic will be accessing the WLC site during off-peak times, so the changes of congestion or accidents occurring during the time they are accessing the site would be reduced. The accident database contains no information on whether the truck was the cause of a particular accident or the time of day, the vehicles involved, if hazmat spills occurred, if trucks or other vehicles detoured off the freeway, etc. Without these data, it is overly speculative to extrapolate any particular conclusions.

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[1] Moreno Valley General Plan, Safety Element, 6.9.1

[2] Code of Federal Regulations, Title 49—Transportation, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, http://ecfr.gpoaccess.gov/cgi/t/text/text idx?c=ecfr&tpl=/ecfrbrowse/Title49/49tab_02.tpl, site accessed April 23, 2012.

[3] California Department of Transportation, TSAR – Accident Summary 1/1/08-12/31/10.

Despite the lack of specific evidence regarding freeway accidents, it is reasonable to conclude that potential environmental impacts in this regard will be less than significant given the regulation of truck traffic on freeways according to State and Federal laws, and truck restrictions on local streets according to City municipal code (i.e., truck route enforcement) and no mitigation is necessary.

Land Use-Related Hazmat Risks. Both the Federal Government and the State of California require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, to submit an HMBEP to the local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the City of Moreno Valley is the County of Riverside Community Health Agency, Department of Environmental Health.[1] The HMBEP must include an inventory of the hazardous materials used in the facility, and emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. The HMBEP must also include the Material Safety Data Sheet for each hazardous and potentially hazardous substance used. The Material Safety Data Sheets summarize the physical and chemical properties of the substances and their health impacts. The plan also requires immediate notification to all appropriate agencies and personnel of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information of all company emergency coordinators of the business, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

HMBEPs are designed to be used by responding agencies, such as the Moreno Valley Fire Department, to allow for a quick and accurate evaluation of each situation for an appropriate response. HMBEPs are also used during a fire to quickly assess the types of chemical hazards that firefighting personnel may have to deal with, and to make decisions as to whether or not the surrounding areas need to be evacuated. Compliance with existing law will ensure that no significant impacts pertaining to the creation of hazards affecting the public will occur. The handling of hazardous materials in accordance with the HMBEP as required by applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant and no mitigation is required.

The Moreno Valley Fire Department will likely be first responders in the event of the release of hazard materials. The City of Moreno Valley contracts with the Riverside County Fire Department for fire services. The Riverside County Fire Department is administered and operated by the California Department of Forestry and Fire Protection (CalFire) per an agreement with the County of Riverside. The Fire Department has indicated it will need one or more fire stations in the area, and the project will mitigate impacts in this regard to less than significant levels (see Section 4.14, *Public Services and Facilities*).

Though the uses in the project area are not expected to utilize acutely hazardous materials in their daily operation, a potential for an accidental release of hazardous materials into the environment is present at the project site as it is at any commercial, retail, or industrial site. Compliance with the identified State and Federal transportation safety standards will govern the handling of hazardous materials during truck and freight transfer operations. These standards include procedures to contain, report, and remediate any accidental spill or release of hazardous materials. The handling of hazardous materials in accordance with all applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials at the project site will be less than significant and no mitigation is required.

Hazardous On-site Facilities. The project site contains a regional natural gas compressor station operated by SDG&E. The Moreno Compressor Plant has been in operation for many years in the

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[1] *CUPA Directory Search,* http://www.calepa.ca.gov/CUPA/Directory/default.aspx, website accessed April 24, 2012.

southeastern portion of the project area (see Section 4.16, *Utilities and Service Systems* and Section 4.5, *Biological Resources*). At present, the plant occupies a 19-acre site, surrounded by 174 acres of SDG&E-owned open space. There is additional open space around the plant, consisting of land owned by the CDFW as part of the SJWA. There are no plans to expand or otherwise modify the plant and/or its open space zone, which is considered adequate at this time to protect public health and safety, including users of the SJWA and new employees and users of the new warehouses associated with the WLCSP.

There will be sufficient setback from the plant to future warehouse uses (e.g., 1,000 feet). No development or change in operation has been announced for the property within the SJWA. Existing safety conditions will continue relative to the gas facility as it relates to the SJWA. Compliance with established safety laws and regulations regarding the natural gas facilities will reduce the potential impact to a less than significant level and no mitigation is required.

SCGC operates a natural gas metering station on a one-acre site located one-quarter mile north of the Moreno Compressor Plant. The land plan will provide 1,000 feet setback from the SCGC station as an additional setback between these uses. These setbacks appear sufficient to protect future uses/users within the WLCSP if upset conditions were to occur at this station. Compliance with established safety laws and regulations regarding natural gas plants is expected to reduce this potential impact to a less than significant level and no mitigation is required.

The site also contains two natural gas lines that cross the central and southern portions of the site in an east-west direction (Figure 3.17). They range in size from 16 to 36 inches in diameter and carry natural gas under medium and high pressure. The high pressure lines are managed by SDG&E while the moderate pressure lines are managed by SCGC. The utility companies that own and/or maintain these pipelines are responsible for the physical conditions of the pipelines. As development occurs in areas with buried natural gas lines, the project proponent will be required to negotiate with the involved utility provider as to whether these pipelines can be relocated or need to be protected in place. Future development is required to maintain clearance for pipelines depending on their contents and size, in consultation with the serving utility provider. As long as these design restrictions are implemented during the site design and construction process, no significant impacts are expected. However, if a catastrophic accident were to occur involving one or more natural gas lines on site, there could be property damage and loss of life. While the chance of occurrence is low, there are potential safety risks, mainly to project employees, if such an accident were to occur. Compliance with established safety laws and regulations regarding pipelines is expected to reduce this potential impact to a less than significant level and no mitigation is required.

Off-site Improvements. A number of off-site improvements will be needed to serve the project, including three reservoirs, various water, sewer, and drainage improvements within existing rights-of-way, and the SR-60/Theodore Street/ World Logistics Center Parkway interchange. None of these facilities is expected to create significant hazards or risks to public health or safety. These facilities will require standard improvement plan approvals through the City of Moreno Valley and/or County of Riverside. Based on these plan reviews, no significant hazard-related impacts are expected and no mitigation is required.

Hunting Accidents. Based on comments received during the NOP/Scoping period, this section explores the possible hazards or risks that could result from stray gunfire from hunters on the adjacent SJWA property as a result of the proposed change in land use from dry-land farming to high-cube logistics warehouses. Immediately south of the project area is the SJWA, where limited hunting is permitted. Hunting in the area is generally pheasant hunting, but also includes waterfowl (such as ducks) as well as jackrabbits, rabbits and quail. Hunting in these areas requires a hunting license issued by the State. The Fish and Game Code provides strict regulations on hunting, including limits on hours, time of year, quantity, and firearms. Hunting on State lands, such as the SJWA, can only be done with shotguns that are smaller in size (higher in gauge) than 10-gauge shotguns. In addition, Federal law allows no more than three shells in the chamber of the shotgun at any given time during hunting. The SJWA is patrolled by CDFW wardens to ensure that all hunting rules and regulations are followed. The private hunt clubs are also governed by similar rules and regulations to ensure the safety of their members and the general public.

Given the proximity of the project area to the nearby hunting areas, it is appropriate to consider the possibility of stray gunfire as a possible risk to future employees, visitors, and facilities on the project site. Accident conditions that could arise from the nearby hunting activities are expected to be less than significant for the following reasons: the most intensive operations at the high-cube logistics center would be during off-peak hours when there is no hunting; the hunting on the adjacent areas to the south of the WLC project area is in accordance with all applicable local, State, and Federal standards and regulations; and the range for the allowed firearms (shotguns smaller than 10-gauge) would be 60 yards or less providing a safe distance for development to occur in the WLC project area, which would be a safe distance from the actual hunting areas. It should also be noted that the Specific Plan provides for a minimum 250-foot setback along the southern boundary of the Specific Plan property, which is greater than the minimum safe distance described above.

Valley Fever. During processing of the Highland Fairview Corporate Park EIR, a local resident expressed concern regarding Valley Fever (*Coccidiomycosis*), a disease caused by fungus spores (*Coccidioides immitis*). Since the project site is adjacent to the Highland Fairview Corporate Park site, this issue will be addressed in this EIR as well. These fungal spores most typically lie dormant in relatively undisturbed soil with native vegetation cover in the Central Valley of California.

The likelihood of these spores to occur at this site is remote. The soil at the project site is not undisturbed and has little, if any, native vegetation cover. The site consists primarily of disturbed agricultural soils (i.e., regularly tilled and occasionally irrigated) and had virtually no native vegetative cover. The local soils will be extensively disturbed during grading and would be regularly watered to control dust. Erosion control measures will be implemented immediately following grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores would survive in the soil. This potential impact appears minimal and no mitigation is required.

4.8.5.4 Located on a List of Hazardous Materials Sites

Threshold	Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

As detailed in the *Phase I Environmental Site Assessment Reports*, the project area is not listed in any of the searched regulatory databases provided by Environmental Data Resources (EDR). This included a review of Federal, State, and local environmental databases for information pertaining to documented and/or suspected contaminated sites, known handlers or generators of hazardous waste, waste disposal facilities, releases of regulated hazardous substances and/or petroleum products within specified search distances. Analysis of soil samples obtained during the limited site characterizations conducted as part of the Phase I ESAs, indicated there were trace concentrations of pesticides present in near surface soils at some of the sample locations. However, the pesticide concentrations were below the EPA’s Preliminary Remediation Goals, for residential properties. No further sampling was deemed necessary and unrestricted use of the property is warranted. Since neither the project site nor areas in the vicinity of the project site are listed on any of the hazardous materials sites as defined by Government Code Section 65962.5, there would be a less than significant impact and no mitigation is required.

4.8.5.5 Conflict with Emergency Response Plans

Threshold	Would the project impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation?

The City of Moreno Valley adopted its Local Hazard Mitigation Plan (LHMP) on October 4, 2011. This document identifies known hazards throughout the community and identifies strategies for which to prepare for and respond to these hazards if and when it is necessary. Figure 12-2 of the LHMP maps primary and alternative evacuations routes out of Moreno Valley. There are three (3) routes that either run through or along the project area that are identified as primary evacuation routes: Redlands Boulevard, World Logistics Center Parkway~~Theodore Street~~, and Alessandro Boulevard. The project will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation will be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Compliance with existing regulations for emergency access and evacuation will ensure that impacts related to this issue are less than significant and no mitigation is required.

4.8.5.6 Wildland Fire Risks

Threshold	Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The City of Moreno Valley is subject to both wildland and urban fires. Wildfires in particular pose a threat to the northern and eastern portions of the City, near the WLC project area. Moreno Valley's LHMP documents that three wildland fires have occurred within the WLC project area since 2003. Although the project area is not within a mapped fire hazard area, the Badlands directly east of the project area are considered a High Fire Hazard Area.[1] Development of the eastern portion of the project could expose persons or property to wildland fire risks given the proximity of the project area adjacent to a High Fire Hazard Area. Regardless of this proximity, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period. In addition, no development will be allowed within the San Jacinto Fault Zone, which runs parallel and just west of Gilman Springs Road; this area of limited development will provide a fuel or fire break to help protect future occupied uses within the WLCSP.

Six fire stations presently serve the City of Moreno Valley. Station No. 58, the Moreno Beach station, is the closest station to the project area (approximately a quarter of a mile directly west). Given the proximity of Station No. 58 and with all new structures constructed in compliance with Fire and Building Code regulations, the susceptibility and exposure of the project to wildland fires would be limited. **Mitigation Measures 4.14.2.6A** and **4.14.2.6B** in the Public Services and Facilities section will address potential impacts related to future fire protection services for this area. Implementation of these measures will help reduce potential wildland fire risks to a less than significant level, and no additional mitigation is required.

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[1] City of Moreno Valley General Plan, Final Program EIR, Section 5.5 Hazards, Figure 5.5-2.

4.8.6 Significant Impacts

4.8.6.1 On-site Conditions Involving Hazardous Materials

Impact 4.8.6.1A: *Demolition of the existing on-site rural residential structures may involve hazardous materials (ACM and LBP) and possibly soil contamination from past agricultural chemical use.*

Impact 4.8.6.1B: *Demolition of the existing on-site rural residential structures may involve hazardous materials (LNG/CNG).*

Threshold	Would the project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials?

Due to the suspected age of the rural residential structures on the site, it is possible that demolition of these structures may involve asbestos-containing materials (ACMs) and/or lead-based paint (LBP). Demolition of these structures may need to be supervised or conducted by contractors certified to remove and dispose of ACMs and/or LBP.

During the comment period on the DEIR, several commenters suggested there may be soil contamination on the WLC site, and evidence from the State Department of Toxic Substances Control (DTSC) indicates organo-phosphate based herbicide and pesticide materials may have been applied on or near the 7 existing rural residences on the site. Prior to grading, soil testing should be performed to determine if in fact these areas contain any significant levels of agricultural chemicals in the soil, and, if so, they should be remediated by a licensed contractor.

In addition, the Specific Plan proposes a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station to be constructed on approximately 3,000 square feet somewhere in the eastern portion of the Logistics Development (LD) land use area of the Specific Plan. This LNG/CNG facility is referred to as "logistics support" in the Specific Plan land uses. It would provide natural gas to fuel heavy and light-duty trucks serving the project.

Since this facility would store natural gas under liquefied and compressed conditions, there is a potential for fire and/or explosion involving natural gas. Therefore, this is a potentially significant hazards impact requiring mitigation.

~~*NOTE: The following changes were made based on the revised WLC Specific Plan.*~~

Project or Specific Design Features. It is anticipated that the LNG/CNG fueling facility proposed in the LD zone will be constructed in Planning Area 7, in the northeastern portion of the project area.

The Specific Plan does not provide any design specifications for this facility. Eventually, the seven existing rural residences are developed into some industrial use consistent with the LL designation. Until they are all converted, it is possible the construction of an alternative fueling station in Planning Area 7 could be proximate to one or more rural residences. This is a potentially significant impact requiring mitigation (see Mitigation Measure 4.8.6.1B).

~~*NOTE: The following mitigation measures have been revised in response to Comment F-7B-2 in letter F-7B from Lozeau Drury and Comment F-8-79 in Letter F-8 from Shute, Mihaly & Weinberger.*~~

Mitigation Measures. Implementation of the following measure will ensure there will be no significant impacts from demolition of on-site buildings as a result of hazardous materials:

4.8.6.1A Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint

(LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations.

The following measure is proposed to help ensure that the LNG/CNG natural gas fueling facility proposed in the "logistics support" area of the Specific Plan is constructed in a safe location to protect public health and safety:

4.8.6.1B Prior to the issuance of any discretionary permits associated with the proposed fueling facility ("logistic support" site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.

4.8.6.1C Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.

4.8.6.1D Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.

Level of Impact After Mitigation. With implementation of **Mitigation Measures 4.8.6.1A** through **4.8.6.1D**, impacts associated with potential hazardous materials in existing rural residential structures or from the proposed natural gas fueling facility will be reduced to less than significant levels.

~~4.8.7 Cumulative Impacts~~

~~The cumulative impact analysis considers development of the proposed project in conjunction with other development in the City and this portion of Riverside County. Significant cumulative impacts associated with the routine transport, use, and disposal of hazardous materials would occur as the proposed project would increase the amount of truck traffic in the area as well as the number of trucks potentially transporting hazardous materials. The proposed project, in combination with other projects of a similar nature, has the potential to create a significant cumulative impact related to this issue. Some of these risks are site-specific and localized, such as businesses that handle hazardous materials within their facilities (i.e., on site); these types of hazmat impacts are generally limited to the project site. It is also possible there will be incrementally increased impacts by the transport and disposal of hazardous~~

~~materials related to warehouse operations on the project site. For example, the substantial increase in trucks in and around the WLC site would incrementally increase the risks of accidents involving truck-related fuels (e.g., fire or explosion).[1] However, the number of trucks containing hazardous materials on the road in a given area at any given time would be difficult if not impossible to calculate, and it would be likewise difficult to estimate the number and/or location of accidental spills and leaks, which, by their nature, are accidental or unplanned occurrences, it would be impossible to predict the specific occurrence of such events on the project site. Despite these uncertainties, it is reasonable to assume that with an increase in vehicles transporting hazardous materials would incrementally increase the potential for accidents on a regional basis.~~

~~As anticipated in the City's General Plan, demographic increases, and the availability of vacant property in the City would lead to the new industrial development in the City and surrounding area. While the project-specific hazardous material impacts of individual development projects will be addressed separately in future CEQA documents, anticipated future development will contribute, through increases in population and the number of outlets that transport, or dispose of hazardous materials, to a cumulative increase in risk for hazardous material incidents. Although each project has unique hazardous materials considerations, it is anticipated that future cumulative projects would comply with the local, State, and Federal regulations and requirements as these are required for all development projects. As a result, cumulative impacts associated with hazardous materials would be less than significant.~~

~~Cumulative impacts involving wildfires consists of future development adjacent to a High Fire Hazard Area. The risk to each future project is based on the location and interface between urbanized area and wildland areas. The risks associated with development in these area can only be reduced through conformance with Fire and Building Code regulations, it is anticipated that cumulative development within the project area would not create a significant and cumulative impact associated with wildland fire hazards.~~

~~[1] *Statement added in response to Comment F-13-74 in Letter F-13 from the Sierra Club et al.*~~

~~4.9 HYDROLOGY AND WATER QUALITY: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

NOTE TO READERS. *The cumulative portion of Section 4.9 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.9 of this Revised Sections of the FEIR. All other portions of Section 4.9 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.9 means that the corresponding portion of Section 4.9 in the FEIR remains unchanged or has been deleted. The Hydrology/Water Quality Technical Memorandum is included in Appendix C.*~~*Various small revisions in this section have been made due to changes in the project description, related changes to the Draft Master Plan of Drainage Report, the Preliminary WQMP,[1] and in response to comments B-3-39 Letter B-3 from the California Department of Fish and Wildlife, and Comment B-6-5 from Letter B-6 from the Santa Ana Regional Water Quality Control Board.*~~

4.9 HYDROLOGY AND WATER QUALITY

This section describes the hydrologic conditions on and adjacent to the project site and evaluates potential impacts to surface and groundwater resources associated with the project.

For the reader's reference, this EIR has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the development.

~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

~~[1] FEIR Volume 2 Appendix J-1 and J-2).~~

The analysis contained in this section is based on the following technical studies prepared for the WLC project:

- *Draft Drainage Report for World Logistics Center Specific Plan and Environmental Impact Import,* CH2M HILL, September 2014 (Appendix J-1 of this EIR).
- *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan,* CH2M HILL, September 2014 (Appendix J-2 of this EIR).
- *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012 (Appendix M-1 of this EIR).

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- 2012 Water Quality Management Plan – A Guidance Document for the Santa Ana Region of Riverside County.
- 2011 Design Handbook for Low Impact Development Best Management Practices.
- 2009 California Stormwater Quality Association [CASQA] Construction Best Management Practices (BMP) Handbook, effective July 1, 2010.

A detailed discussion of jurisdictional waters and riparian/wetland impacts as it relates to the WLC project is included in Section 4.4 (Biological Resources).

4.9.1 Existing Setting

The project site is located in Rancho Belago in the eastern portion of the City of Moreno Valley in Riverside County. Geologically, the project area is located in the Peninsular Ranges Geomorphic Province of southern California, which extends southeastward from the San Bernardino and San Gabriel Mountains to the tip of the Baja California peninsula and is composed of alluvial deposits resulting from the erosion of nearby granitic mountain ranges.

The project site is located in the Santa Ana River Basin, which includes the upper and lower Santa Ana River watersheds, the San Jacinto watershed, and several other small drainage areas. The Santa Ana region covers parts of southwestern San Bernardino County, western Riverside County, and northeastern Orange County. Of the approximately 2,610 acres within the project area, over 90 percent consists of dry-farmed agricultural fields.

NOTE: The following changes have been made in response to Comments B-3-38 in Letter B-3 from the California Department of Fish and Wildlife, B-6-5 in Letter B-6 from the Santa Ana Regional Water Quality Control Board, et al.

4.9.1.1 Drainage

The area is generally undeveloped with storm water runoff from the project area generally flowing in a southerly direction to the San Jacinto River. As illustrated in Figure 4.9.1, a topographic divide generally located west of World Logistics Center Parkway~~Theodore Street~~ separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows through the San Jacinto Valley at a gradient ranging from 1 to 2 percent to the San Jacinto Wildlife Area (SJWA). Ultimately these flows drain to the Gilman Hot Springs Hydrologic Subarea (HSA). Runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent. This runoff ultimately drains toward the Perris Valley HSA. Both the Gilman Hot Springs and Perris Valley HSAs eventually flow to the San Jacinto River, approximately 10 miles south of the project site. Flows are then conveyed through the

San Jacinto River, Canyon Lake, again to the San Jacinto River (Reach 1), and ultimately to Lake Elsinore. In the event Lake Elsinore is at or beyond capacity, flows would continue through Temescal Creek, the Santa Ana River (Reaches 1–3), and then to the Pacific Ocean.

As illustrated in Figure 4.9.1, off-site flows tributary to the project area originate from the upstream foothill area known as the Badlands as well as a small portion of moderately developed area and open space. Flows from the upstream watershed collect in natural drainage courses and flow southerly across SR-60 and Gilman Springs Road through existing drainage culverts and onto the project site. These natural drainage courses are tributary to six (6) sub watersheds, named Watershed “A,” Watershed “B,” Watershed “C,” Watershed “D,” Watershed “E,” and Watershed “F” as

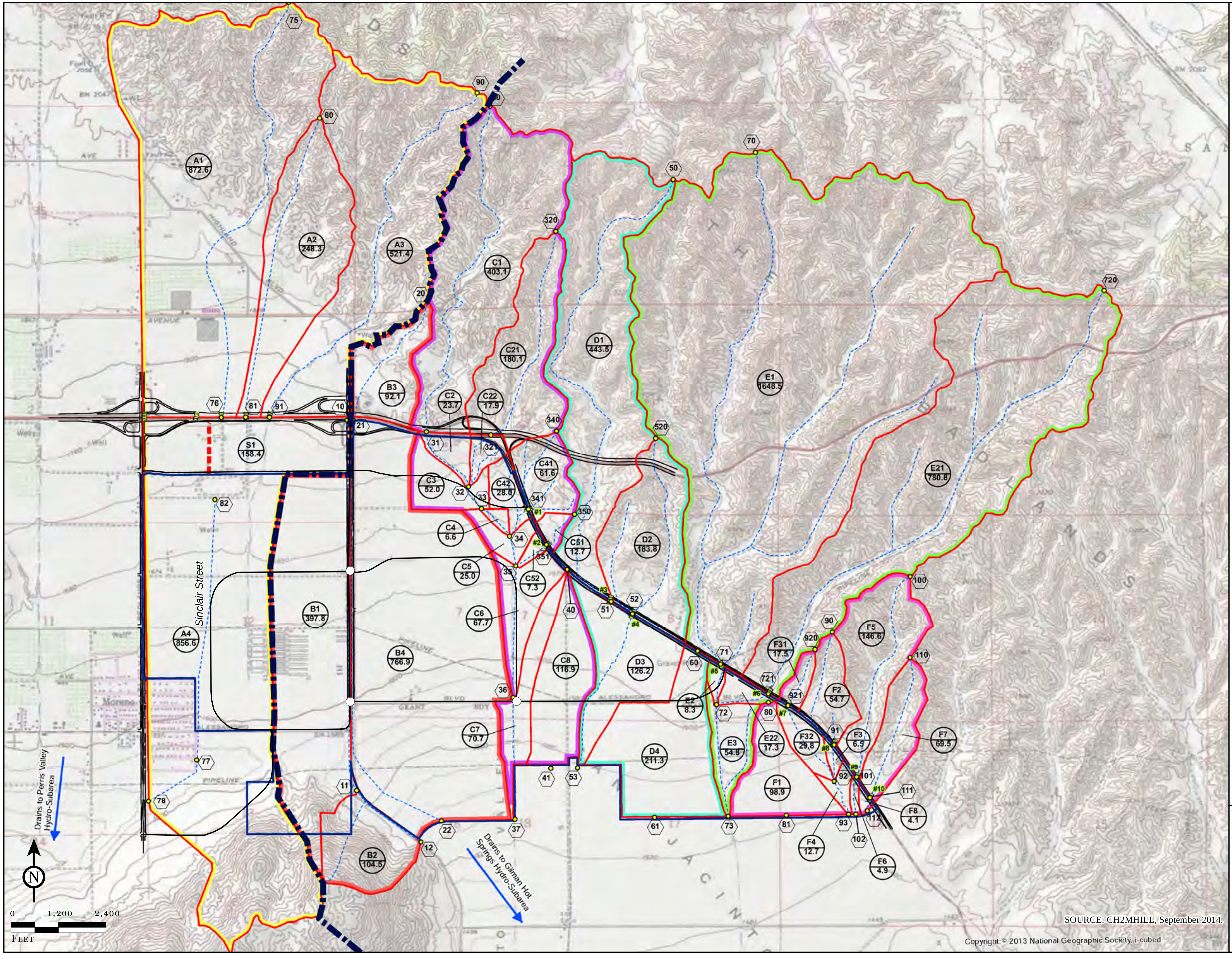

SOURCE: CH2MHILL, September 2014.

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LSA

FIGURE 4.9.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Drainage Subareas

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shown on Figure 4.9.1. As identified in the hydrology and drainage report prepared for the project, the tributary drainage area includes the drainage area north of SR-60. The project site receives flow from SR-60 and culverts crossing the freeway. The project drainage plan takes into account this flow entering the project site and appropriate mitigation to downstream drainage facilities is provided. The existing capacity of the SR-60 culverts and drainage systems will not be affected by the project since the project is located downstream of these facilities. The following paragraphs describe the natural drainage courses and existing conditions of each sub watershed and capacities of the existing culverts at the SR-60 and Gilman Springs Road.

Watershed "A"

Watershed "A" is located within Riverside County Flood Control and Water Conservation District (RCFCWCD) Moreno Master Drainage Plan (MMDP) area. RCFCWCD is currently preparing a revised MMDP. The MMDP indicates that storm flows north of SR-60 will be routed to the proposed Sinclair Basin and Quincy Basin. Flows released from the proposed basins will pass under SR-60 and be conveyed to MMDP Line "F." Because it is unknown as to when these basins will be constructed, this study is prepared with the assumption that the basins are not in place prior to this project, and the offsite flows will be conveyed to MMDP Line "F" directly.

Downstream of SR-60 MMDP Line "F" is a 12-foot wide by 8-foot high reinforced concrete box (RCB) that conveys runoff from the existing culverts under SR-60: one triple 4-foot × 2-foot RCB, two double 48-inch corrugated metal pipe (CMP), one double 72-inch CMP, and one 42-inch reinforced concrete pipe (RCP) (with a 36-inch Riser). The capacity of the existing culverts are summarized in Table 4.9.A. Runoff north of SR-60, in excess of the capacities of the existing culverts, ponds north of SR-60 and flows towards the intersection of SR-60 and Redlands Boulevard. An existing 42-inch RCP conveys the runoff into the existing ditch along Redlands Boulevard. Since the 42-inch RCP does not have enough capacity to convey all of the offsite flows, the flows then sheet flow to the south. As a result, the interchange of SR-60 and Redlands Boulevard may be flooded. Ultimately the flows upstream of SR-60 will be less once RCFC&WCD constructs the master plan detention basins located north of SR-60.

Table 4.9.A: SR-60 Culverts

Culvert	Size/Material	Node	Capacity* (cfs)	100-year Flow (cfs)	Adequate to Convey 100-year flow
1	Triple 4' by 2' RCB	91	265	213	Yes
2	Double 48" CMP	76	250	715	No
3	Double 48" CMP	81	300	285	Yes
4	Double 72" CMP	81	805	557	Yes
5	42" RCP (36" Riser)		177	**	
Total			1797	1770	Yes

* Hydrology calculations based on a 100-year Water Surface Elevation of 1768.7 for all 5 culverts. ** Excess flows from Culvert 2 will pond at Culvert 2.

Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

The outflow from Line "F" south of Eucalyptus Avenue sheet flows via a spreading area into the agricultural land downstream. Flows then sheet flow across the agricultural land to the southwest corner of the project at Alessandro Boulevard and Merwin Street. Flows leave the project boundary via a culvert under Alessandro Boulevard which outlets to an existing ditch, as shown on Figure 4.9.1.

The capacity of the existing ditch south of Alessandro Boulevard was evaluated and varies from 75 cubic feet per second (cfs) to 390 cfs. Just south of the culvert at Alessandro Blvd, the existing ditch is trapezoidal with a depth of approximately 4 feet and capacity of 390 cfs. The capacity of the ditch is 75 cfs about 70 feet south of the Alessandro culvert where the ditch is 2 feet deep. The ditch capacity remains at 75 cfs with a depth of 2 feet until after it crosses Cactus Avenue. About 160 feet downstream of the culvert, the ditch transitions to a v-ditch 3 feet deep with a capacity of 165 cfs. The v-ditch extends southwest for approximately 100 feet and crosses Redlands Blvd. Flows unable to be contained in the ditch will overtop the ditch into the agricultural area on the east and along Merwin Street on the west. Flows will flow south in Merwin Street and turn west into the residential area. Further downstream, the runoff flows to the Greenbelt Channel located south of Cactus Avenue. The Greenbelt channel ultimately drains to the Perris Valley Storm Drain.

Watershed "B"

Watershed "B" drains a total of 1,361 acres, of which 92 acres is offsite flow from north of SR-60 and 104 acres is offsite flow at the southerly end of the project. The total onsite area is 1,165 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub areas by World Logistics Center Parkway~~Theodore Street~~. Flows to the west of World Logistics Center Parkway~~Theodore Street~~, consisting of 398 acres of onsite area and 104 acres of offsite area, drain to the ditch on the west side of World Logistics Center Parkway~~Theodore street~~. The 92 acres of offsite area flows to the ditch along the east side of World Logistics Center Parkway~~Theodore Street~~. Onsite flows on the east side of World Logistics Center Parkway~~Theodore Street~~ sheet flow in a southerly direction through the project area. The ditches are vegetated with bottom widths varying from 1 to 2 feet and depths varying from 1 to 3 feet. The existing capacity of the ditch at the project boundary is 55 cfs. Flows greater than 55 cfs will sheet flow through the project area and leave the project boundary in a sheet flow condition.

Watershed "C"

Watershed "C" drains a total of 1,061 acres, of which 658 acres is offsite flow from north of SR-60 and Gilman Springs Road. The total onsite area is 403 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two watershed areas. The majority of the watershed, 944 acres, drains to a watercourse which exits the project area. A small portion of onsite flow, 117 acres, sheet flows offsite. The natural drainage course in Watershed "C" is vegetated, with an average bottom width of approximately 3 feet and a depth of approximately 2 feet. The existing capacity of the drainage course is 165 cfs. Flows greater than 165 cfs will sheet flow across the area. The drainage course drains southerly through the project boundary.

Watershed "D"

Watershed "D" drains a total of 965 acres, of which 627 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 338 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub watersheds. The majority of the watershed, 754 acres, drains to a watercourse which exits the project area. A portion of onsite flow, 211 acres, sheet flows offsite. The natural drainage course in Watershed "D" is also vegetated. Its bottom width varies from approximately 1 to 3 feet, and its depth varies from approximately 1 to 2 feet. The existing capacity of the drainage course is 65 cfs. Flows greater than 65 cfs will sheet flow across the area. The drainage course ends east of the existing gas facility. It is estimated that when significant storm events occur, the runoff ponds locally and eventually drains southwest.

Watershed "E"

Watershed "E" drains a total of 2,510 acres, of which 2,430 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 80 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The natural drainage course in Watershed "E" has a bottom width varying from approximately 20 to 30 feet and depths varying from approximately 10 to 15 feet. The majority of this channel is vegetated, with a few locations of erosion. Approximately 1,500 feet north of the southerly project boundary, another natural drainage course confluences with the earthen channel forming a "V" shape junction. The junction is moderately eroded.

Watershed "F"

Watershed "F" drains a total of 445 acres, of which 288 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 157 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into four sub areas. The first sub area, 99 acres consists entirely of onsite flow which sheet flows off site. The second sub area drains 121 acres, of which 72 acres is offsite area. The third subarea drains 151 acres, including 146 acres of offsite area. The last sub area drains 74 acres, of which 70 is offsite area. The flow from these sub areas will ultimately drain to the San Jacinto Wildlife Area. The main natural drainage course in Watershed "F" is located approximately 500 feet west of Gilman Springs Road. The drainage course is vegetated, with bottom widths varying from approximately 5 to 10 feet, and depths varying from approximately 1 to 3 feet. The capacity of the existing water course is 70 cfs. The remaining flow sheet flows offsite.

These natural drainage courses in Watersheds "B" through "F" drain into the San Jacinto Wildlife Area downstream. The majority of the project site sheet flows through the project's southerly boundary.

Existing Culverts along Gilman Springs Road

Within the project vicinity, there are ten (10) existing cross culverts located in Gilman Springs Road, as shown on Figure 4.9.2. Field visits by CH2M HILL staff found that most of the existing culverts were partially or completely blocked by sediment and debris allowing little flow from the culverts to enter the project site. In order to confirm if the existing culverts are sized appropriately to convey the offsite flow, the existing culvert capacities were analyzed using the inlet control capacity analysis chart. The results of the analysis are included in Appendix J of the DEIR, and summarized in Table 4.9.B. The analysis indicated that many of these culverts are undersized to convey the tributary 100-year flows even with proper maintenance, exclusive of culverts No. 2 and No. 7. Storm water unable to be conveyed by the culverts will flow to the existing ditches along the road, overtop the road and flow into the downstream natural drainage courses. The detailed flow patterns at these culverts were analyzed and summarized in Table 4.9.C and shown on Figure 4.9.2.

At Culvert No. 1, there is no existing ditch on either side of road. A total of 60 cfs offsite flow is tributary to the culvert, 20 cfs of the flow is conveyed through the 24-inch CMP, and 40 cfs overtops the road and flows to the natural drainage channel downstream. The impact to the downstream ditch is negligible due to the small amount of flow.

At Culvert No. 3, a total of 370 cfs flow is generated from offsite, 40 cfs is conveyed through the 36-inch CMP, and 330 cfs is conveyed along the existing ditch on the north side of the road, eventually flowing to Culvert No. 4.

At Culvert No. 4, a total of 170 cfs of flow comes from the offsite tributary area. One hundred (100) cfs is conveyed through the 48-inch CMP. The remaining 70 cfs combines with the 330 cfs of flow from Culvert No. 3 and 400 cfs overtops the road, draining to the natural channel downstream. The natural channel has a capacity of 365 cfs, therefore the flow will be spread beyond the top of bank.

At Culvert No. 5, a total of 1,370 cfs is generated from offsite, 370 cfs is conveyed through the 7-foot × 6-foot RCB, 52 cfs flow south within the existing ditch towards Culvert No. 6, and 938 cfs overtop the road draining to the natural channel downstream. The natural channel has a capacity of 330 cfs, the additional flow will overtop the channel at Alessandro Boulevard, and then sheet flow to the south.

Table 4.9.B: Gilman Springs Road Culvert Capacity Analysis

Culvert	Size/Material	Node	100-yr Flow (cfs)	Culvert Capacity * (cfs)	Adequate to Convey the 100-year flow?
1	24” CMP	341	60	20	No
2	36” CMP	351	15	50	Yes
3	36” CMP	51	370	40	No
4	48” CMP	52	170	100	No
5	7’×6’ RCB	71	1,360	370	No
6	4’×4’ RCB	721	650	130	No
7	36” CMP	921	20	70	Yes
8	36” CMP	91	55	45	No
9	24” CMP	101	140	20	No
10	24” CMP	111	70	20	No

Note: see Figure 4.9.1 for the locations of existing culverts.
* Assuming culverts cleared of sediment and debris.
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

Table 4.9.C: Gilman Springs Road Flow Analysis

Culvert	Size/ Material	100-yr Flow (cfs)	Culvert Capacity[1] (cfs)	Delta flow[2] (cfs)	Flow in Ditch @ North Side of Road (cfs)	Flow @ South Side of Road (cfs)	Flow over Road (cfs)
1	24” CMP	60	20	40	—	—	40
2	36” CMP	15	50	—	—	—	—
3	36” CMP	370	40	330	330	—	—
4	48” CMP	170	100	400[2]	—	—	400
5	7’×6’ RCB	1360	370	990	52	65	938
6	4’×4’ RCB	650	130	572[2]	24	—	548
7	36” CMP	20	70	—	24	—	—
8	36” CMP	55	45	10	-	—	10
9	24” CMP	140	20	120	112	—	8
10	24” CMP	70	20	162[2]	—	6	162

[1] Assuming culverts cleared of sediment and debris.
[2] Includes flow in ditch at north side of road from upstream culvert
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

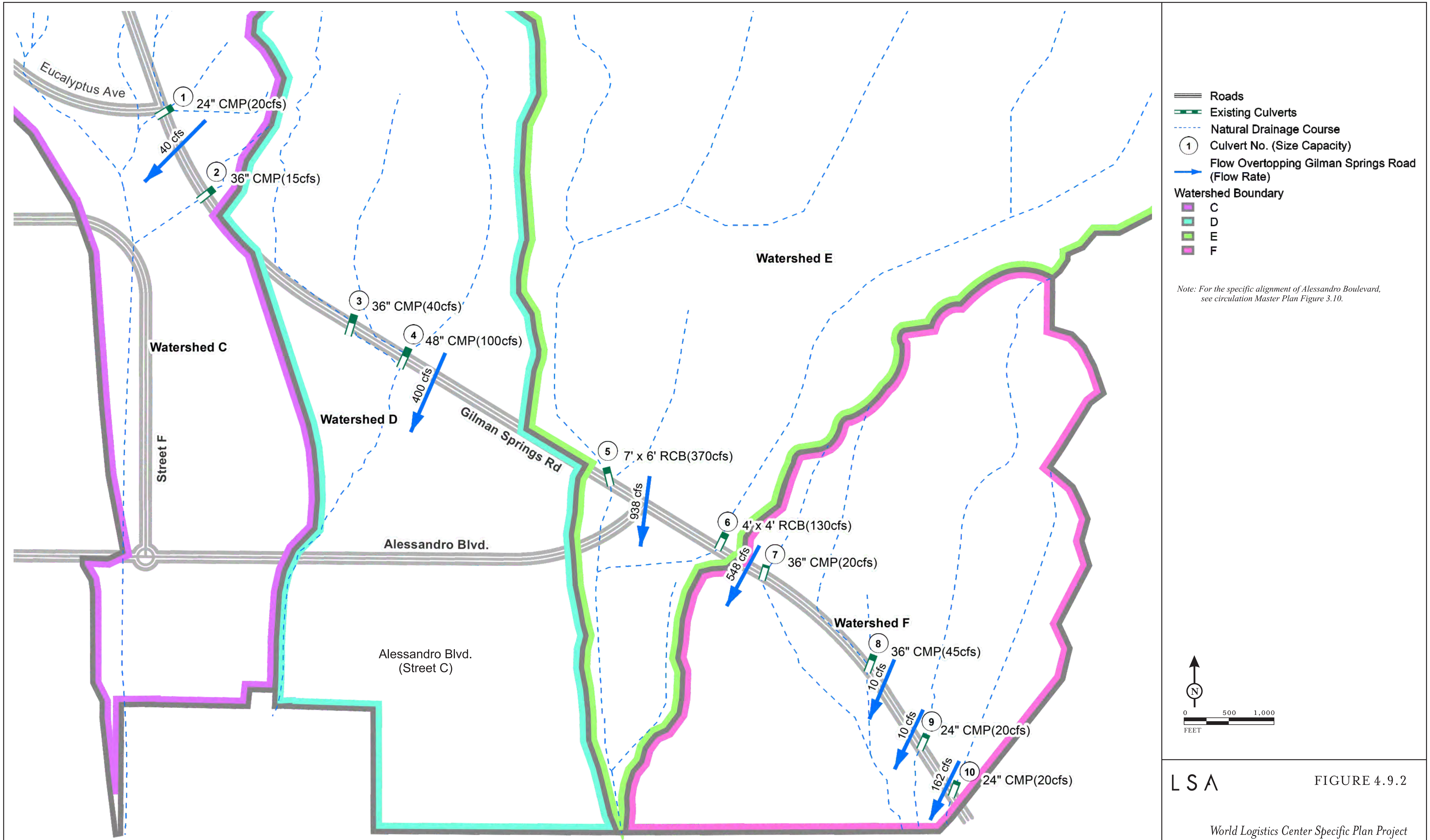

Note: For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

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FIGURE 4.9.2

World Logistics Center Specific Plan Project
Environmental Impact Report

Gilman Springs Road
Culvert Flow Pattern

SOURCE: HF, 2014.

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At Culvert No. 6, with a total of 650 cfs offsite flow, 130 cfs is conveyed through the 4-foot × 4-foot RCB, and 24 cfs is conveyed along the existing ditch along the road. The remaining flow combines with the flow of 52 cfs from Culvert No. 5 and 548 cfs overtop the road flowing to the downstream channel. Due to the large amount of offsite flow and small capacity of the existing channel, the flow will overtop the existing Alessandro Boulevard.

At Culvert No. 8, with a total of 55 cfs offsite flow, 45 cfs is conveyed through the 24-inch CMP, and 10 cfs overtop the road draining to the downstream natural channel. The downstream channel has a capacity of 75 cfs. Therefore the excess flow will be contained within the natural channel.

At Culvert No. 9, with a total of 140 cfs offsite flow, 20 cfs flow is conveyed through the 24-inch CMP, 112 cfs is conveyed along the existing ditch on the north side of the street, and 8 cfs overtop the road and drain to the existing natural channel downstream. The channel has a capacity of 1,600 cfs; therefore the impact of 8 cfs is considered negligible.

At Culvert No. 10, with a total of 70 cfs offsite flow, 20 cfs are conveyed through the 24-inch CMP, the remaining 50 cfs combine with the 112 cfs flow from the upstream ditch which overtop the road, 6 cfs drains to the existing ditch on the south side of the road, and the remaining flows to the natural drainage channel downstream, which has a capacity of 1,000 cfs. When larger storm events occur, Gilman Springs Road may be flooded. Even with proper maintenance to remove the existing sediment and debris to operate at full capacities, there will be excessive offsite flow overtopping the road and entering the project site in a 100-year storm.

4.9.1.2 Water Quality

The project area is within Region 8 (Santa Ana Region) of the Regional Water Quality Control Board (RWQCB), which encompasses the watersheds of the Santa Ana and San Jacinto Rivers. The 24-mile long San Jacinto River flows into southern Moreno Valley from the San Jacinto Mountains, across the San Jacinto Valley, through a portion of the City of Moreno Valley, to Railroad Canyon Reservoir, and finally to its terminus in Lake Elsinore, southwest of Moreno Valley. Table 4.9.D identifies receiving waters that receive urban storm water runoff from the project area.

NOTE: The following changes have been made to in response to Comment F-7A-59 in Letter F-7A from Lozeau Drury.

Table 4.9.D: Receiving Waters from the Project Site

Receiving Water	303(d) List Impairments	Designated Beneficial Use	Proximity to RARE Use* Designation
San Jacinto River Reach 3 (Hydrologic Units 802.11, 802.14 and 802.21)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Approximately 2 miles to RARE designated San Jacinto Wildlife Area
Canyon Lake (Railroad Canyon Reservoir), San Jacinto River Reach 2 (Hydrologic Unit 802.11)	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare
San Jacinto River Reach 1 (Hydrologic Units 802.32 and 802.31)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare

Table 4.9.D: Receiving Waters from the Project Site

Receiving Water	303(d) List Impairments	Designated Beneficial Use	Proximity to RARE Use* Designation
Lake Elsinore (Hydrologic Unit 802.31)	Nutrients, Organic Enrichment/ Low Dissolved Oxygen, PCBs (polychlorinated biphenyls), sediment toxicity Unknown Toxicity	MUN, REC1, REC2, WARM, WILD	Not Rare

* Rare, Threatened or Endangered Species (RARE) waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.

Source: *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, September 2014.

According to the Santa Ana Region Basin Plan, water quality in the project area is affected by a number of factors including but not limited to consumptive use, importation of water high in dissolved solids, runoff from urban and agricultural areas, and the recycling of water within the basin. In general, water quality in the Santa Ana Region becomes progressively poorer as water moves along hydraulic flow-paths. The highest quality water is typically associated with tributaries flowing from surrounding mountains and groundwater recharged by these streams. As indicated in the Preliminary Water Quality Management Plan (WQMP)[1] prepared for the project, two receiving waters downstream of the project site are included in the most recent Federal Clean Water Act (CWA) Section 303(d) list of impaired water bodies. Canyon Lake is listed for pathogens and nutrients while Lake Elsinore is listed for nutrients, organic enrichment/low dissolved oxygen, polychlorinated biphenyls (PCBs), and unknown toxicity. As indicated in Table 4.9.D, each of the receiving waters has multiple designated beneficial uses. These designations provide a description of how the water is used and what beneficial purposes it serves. Table 4.9.E provides a description of each of these beneficial water uses.

Table 4.9.E: Beneficial Uses of Receiving Waters

Designated Beneficial Use	Description of Beneficial Use
Agricultural Supply (AGR)	Waters used for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, and support of vegetation.
Groundwater Recharge (GWR)	Waters used for natural or artificial recharge of groundwater proposed for future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
Municipal and Domestic Supply (MUN)	Waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply.
(RARE)	Waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.
Water Contact Recreation (REC1)	Waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. Uses include, but are not limited to, swimming, water-skiing, whitewater activities, fishing, and use of natural hot springs.
Non-contact Water Recreation (REC2)	Waters used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water is reasonably possible. Uses include, but are not limited to, picnicking, sunbathing, hiking, camping, boating, hunting, sightseeing, and aesthetic enjoyment.

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[1] *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL,September 2014.

Table 4.9.E: Beneficial Uses of Receiving Waters

Designated Beneficial Use	Description of Beneficial Use
Warm Freshwater Habitat (WARM)	Waters that support warm water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.
Wildlife Habitat (WILD)	Water that support wildlife habitats including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl.

Source: Water Quality Control Plan for the Santa Ana River Basin, 1995.

4.9.1.3 Water Sources

Water resources in the City and throughout Riverside County are sustained by substantial groundwater basins, which are used as reservoirs to store water during wet years. These underground reservoirs are tapped throughout the year according to the demand for water. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage, and ephemeral stream flow within the watershed areas. The project site lies within the Perris North and San Jacinto Lower Pressure Management Zones of the West San Jacinto Groundwater Management Plan (Plan) area, which covers approximately 164,200 acres.[1] This Plan area is bounded by the San Jacinto Mountains on the east, the San Timoteo Badlands on the northeast, the Box Mountains on the north, the Santa Rosa Hills and Bell Mountain on the south, and unnamed hills on the west. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage, and ephemeral stream flow within the watershed areas. Currently, the City does not identify any major groundwater recharge areas within the project site.[2]

4.9.1.4 Water Supply

The project area is located within the service boundary of the Eastern Municipal Water District (EMWD), which serves the eastern portion of the watershed in Riverside County. The EMWD has a 555-square mile service area that provides water for a population of about 630,000. Without easy access to an ocean outfall for effluent, the EMWD has developed into one of the State's largest reclaimed water providers, having a combined capacity from its five sewage treatment plants of more than 43 million gallons per day (mgd). Reclaimed water has become extremely important in managing local water resources, and helps extend potable supplies by substituting reclaimed water for potable water typically used by certain facilities (e.g., golf courses and landscape irrigation). The EMWD utilizes an aggressive program of developing local groundwater resources, including desalination, water harvesting, and additional storage of surplus imported and reclaimed water.

The EMWD adopted the West San Jacinto Groundwater Basin Management Plan (Plan) in June 1995. The Plan serves to protect the interests of existing groundwater producers and to provide a framework for new water supply projects within the 256-square mile Management Plan area. This plan encompasses more than 164,200 acres and includes the groundwater management zones, as well as essentially non-water bearing areas such as the Lakeview Mountains, the Bernasconi Hills around Lake Perris, the Double Butte area near Winchester, and areas in the extreme northern, western, and southern portions of the EMWD.[3]

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[1] The West San Jacinto Groundwater Management Plan identifies groundwater areas as "management zones" which may not match the area or configuration of subbasins.

[2] *Section 5.7 Hydrology/Water Quality*, City of Moreno Valley General Plan Final Program EIR, City of Moreno Valley, July 2006.

[3] *West San Jacinto Groundwater Basin Management Plan 2010 Annual Report*, Eastern Municipal Water District, June 2011.

A Water Supply Assessment (WSA) was prepared for this project and approved by the EMWD on February 21, 2012, which indicated that water service to the project site will be provided by the EMWD and that the EMWD has the supplies available to provide water to the project.

The water supply available to the EMWD in 2010 totals approximately 154,700 acre-feet (AF).[1] Water sources for the EMWD include imported water purchased from the Metropolitan Water District of Southern California (Metropolitan), groundwater sources, desalted groundwater, and recycled water from the EMWD's five regional water reclamation facilities. Imported water from Metropolitan is delivered in three ways: as potable water, as raw water and treated at two local EMWD filtration plants, or as raw water for non-potable use.

EMWD has four (4) sources of water supply: imported water purchased from MWD, local potable groundwater, local desalted groundwater and recycled water. Imported water accounts for approximately 65 percent, local potable groundwater is approximately 11 percent, desalted groundwater is 3 percent, and recycled water is 21 percent of supply (page 5, project WSA).

In June 2011, the EMWD adopted its *2010 Urban Water Management Plan* (UWMP), which details the reliability of its current and future water supply. The document found that with all of its existing and planned supplies, the EMWD can meet 100 percent of projected supplemental demand through 2035, even with a repeat of a severe drought. In addition, the UWMP addresses conservation, local supplies and reliability of imported supplies. Table 4.16.A (q.v.) identifies EWMD's projected water supplies and demand.

The water supply demands of the project have been assessed in the WSA and a determination was made that there is adequate water to serve the WLC project. More information on this topic is provided in Section 4.16, *Utilities and Service Systems*, of the DEIR.

4.9.1.5 Storm Drain Infrastructure

The following revisions have been made in response to on Comment G-95-70 in Letter G-95 from Thomas Thornsley.

A portion of the project site is located within the Moreno Master Drainage Plan (MMDP) of the Riverside County Flood Control and Water Conservation District (RCFCWCD). The MMDP provides guidance for the construction of the master plan drainage system, and regional retention/detention basins. RCFCWCD is currently preparing a revised MMDP. The existing 12-foot wide by 8-foot high reinforced concrete box (RCB) east of Redlands Boulevard is owned by RCFCWCD and is designated as Line "F" in the MMDP. This facility conveys runoff from the existing culverts under SR-60 and through developed property to its current terminus immediately south of Eucalyptus Avenue. (Note: This RCB is located farther west than depicted on the MMDP to accommodate the existing logistics building south of SR-60.) The existing MMDP provides for storm flows north of SR-60 to be routed to the proposed Sinclair Detention Basin. Flows released from the proposed basin would pass under SR-60 through the existing culverts and be conveyed to the drainage systems identified as Line "F" in the MMDP.

4.9.1.6 NOP/Scoping Comments

A number of residents and representatives of local conservation groups expressed concerns regarding impacts the project might have on local drainage, especially historic localized flooding, groundwater quantity and quality, and water quality, especially related to the San Jacinto Wildlife Area immediately

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[1] An acre-foot covers one acre to a depth of one foot. An acre foot is approximately 326,000 gallons, which is enough to meet the needs of two average southern California households a year.

south of the project site to serve as a transition area or buffer. Sections 4.9.5 and 4.9.6 of the DEIR thoroughly analyze these issues.

4.9.2 Existing Policies and Regulations

In the past, the effort to control the discharge of storm water has focused on managing the quantity of storm water (e.g., flood control) and only to a limited extent on managing the quality of storm water. In recent years, awareness of the need to improve water quality has increased. With this awareness, an extensive body of Federal, State, and local laws and regulatory programs has been established to pursue the goal of reducing pollutants contained in storm water discharges to waterways. The emphasis of these programs is to promote the concept and the practice of preventing pollution at the source, before it can cause environmental harm.

4.9.2.1 Federal Regulations

Clean Water Act. The CWA was amended in 1972 to prevent discharge of pollutants to waters of the United States from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which establishes the NPDES, a permitting system for the regulation of discharges of any pollutant into waters of the United States. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. In November 1990, the EPA published final regulations that establish application requirements for storm water permits. The regulations require NPDES permits for discharges of storm water from industrial/construction and Municipal Separate Storm Sewer Systems (MS4s). To comply with the permits, storm water pollution controls must be implemented for construction and industrial activity that discharges either directly to surface waters or indirectly through separate municipal storm drains. Pollution control is achieved by establishing engineering measures that have been designed, tested and successfully implemented throughout the past decades, such as detention basins and sediment traps, during both the construction period and the operational phases of a project.

Pursuant to the requirements of the State Water Resources Control Board (SWRCB), the NPDES General Permit No. CAS000002 applies to all construction activities that result in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. General Permit No. CAS000002 is issued by the SWRCB as part of the Federal delegation responsibilities under this section of the CWA. The RWQCB regulates hydromodification[1] as well as surface and groundwater quality through adoption of water quality plans and standards, and issuance of water quality permits and waivers. The NPDES permit deals with both the construction phase and operational phase of development projects. For the construction phase of a project, the NPDES permit identifies the preparation of an SWPPP.

The implementation of NPDES permits ensures that the state's mandatory standards for the maintenance of clean water and the Federal minimum standards are met. Coverage under an NPDES permit regulates sedimentation and soil erosion through implementation of an SWPPP and periodic inspections by RWQCB staff. An SWPPP is a written document that describes the construction operator's activities to comply with the requirements in the NPDES permit. The SWPPP establishes a process whereby the operator evaluates potential pollutant sources at the site and implements Best Management Practices (BMPs) designed to prevent or control the discharge of pollutants in storm water runoff.

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[1] Hydromodification is the alteration of the hydrologic characteristics of coastal and non-coastal waters, which, in turn, could cause degradation of water resources.

Storm water control measures during construction and grading will be outlined in the construction NPDES permit and SWPPP prepared for each proposed phase of the project. Examples of such BMP control measures include but are not limited to the following:

- Temporary detention basins for runoff and silt containment;
- Regular street-sweeping and truck washing prior to exiting construction areas;
- Covering of soil hauling trucks to minimize dust generation (and silt buildup on project roads;
- Dirt rockers at project exits to reduce soil transported out of construction areas;
- Monitoring of runoff and protection devices during storm events;
- Use of silt fencing, gravel bags, and/or straw bales to channel runoff to temporary basins; and
- Identification of emergency procedures in case of hazardous materials spills.

The project proponent will be required to obtain a construction NPDES permit prior to any site grading. In addition, the NPDES permit will require the identification of post-construction BMPs to be incorporated into the project WQMP and any subsequent site-specific WQMP. The WQMP identifies measures to control the post-construction entry of contaminants into storm flows.

In addition, pursuant to Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high water mark (OHWM). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met. A project-specific discussion regarding Section 404 issues is provided in Section 4.4, *Biological Resources*, of this EIR.

National Flood Insurance Program. The National Flood Insurance Program (NFIP) is a relatively recent Federal program. The Federal government has been actively involved in flood control since 1927 following major floods on the Mississippi River. Beginning with the Flood Control Act of 1936, Congress assigned the USACE the responsibility for flood control engineering works and later for floodplain information services. Flood control was provided through the construction of dams and reservoirs. Despite these programs and rapidly rising Federal expenditures for flood control, flood losses continued to rise. In 1968, Congress passed the National Flood Insurance Act, which created the NFIP. The Flood Disaster Protection Act of 1973, which amended the 1968 Act, required the purchase of flood insurance by property owners who were located in special flood hazard areas and were being assisted by Federal programs, or by federally supervised, regulated, or insured agencies or institutions.

National Flood Insurance Program Reform Act of 1994. In 1994, the National Flood Insurance Program Reform Act went through its first major revision since its inception. Included in this revision were provisions that if a lender were to escrow an account and if the structure were in the floodplain, then the lender *must* escrow for flood insurance. The revised legislation also included increased flood insurance limits and the elimination of the 1962 buy-out program. However, the legislation did initiate the Hazard Mitigation Fund as part of the flood insurance policy. Also included in this legislation was the increase from a 5-day to a 30-day waiting period for a new policy to become effective. It also prohibits the waiver of flood insurance purchase requirements as a condition of receiving Federal disaster assistance. If the flood insurance policy were not maintained, in the event of another disaster, no disaster assistance would be made available for that structure.

Executive Order 11988, Floodplain Management. Executive Order 11988 requires the USACE to provide leadership and to take action to:

- Reduce the hazards and risk associated with floods;
- Minimize the impact of floods on human health, safety, and welfare; and
- Restore and preserve the natural and beneficial values of the current floodplain.

To comply with Executive Order 11988, the policy of the USACE is to develop projects that, to the extent possible, avoid or minimize adverse effects associated with use of the floodplain and that avoid development (or the inducement of development) in an existing floodplain unless there is no practicable alternative.

4.9.2.2 State Regulations

Porter-Cologne Water Quality Control Act. The California Water Code (CWC) is the principal state law regulating water quality in California. The CWC contains provisions regulating water and its use. This portion of the CWC, Division 7 (Porter-Cologne Act), establishes a program to protect water quality and beneficial uses of the State water resources and includes groundwater and surface water. The SWRCB is the principal State agency responsible for control of water quality. It establishes waste discharge requirements, water quality control planning and monitoring, enforcement of discharge permits, and ground and surface water quality objectives. It also prevents waste and unreasonable use of water, and adjudicates water rights.

Pursuant to requirements of the SWRCB, the NPDES Construction General Permit (CGP) No. CAS000002 applies to all construction activities that result in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. The CGP is issued by the SWRCB as part of the Federal delegation responsibilities under Section 402 of the CWA. For all projects subject to the CGP, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP. The CGP separates projects into Risk Levels 1, 2, or 3. Risk Levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined.

The BMPs for this project contained in the Preliminary Water Quality Management Plan (PWQMP, see DEIR Appendix J) have been developed by the project engineers to address project-specific water quality impacts. See Section 4.9.2.3 for more information on the MS4 Permit System as it applies to the project. For additional information on the major BMPs recommended in the PWQMP prepared by CH2MHill for the project that are consistent with these regulations, see Section 4.9.6.2, *Construction-Related Water Quality Impacts*, and Section 4.9.6.3, *Operational Water Quality Impacts*. The BMPs for the project are described in Section 4.9.3.2 and 4.9.6.3 for treatment control BMPs, and in Section 4.9.6.2 for construction site BMPs.

California Fish and Game Code. The California Fish and Game Code has provisions to prevent unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life. The California Department of Fish and Wildlife (CDFW), through provisions of the California Fish and Game Code (§1601 through §1603), is empowered to regulate any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. The presence of a channel bed and banks, and at least an intermittent flow of water define streams (and rivers), is one of the most important factor in establishing CDFW jurisdiction. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW. Discussion of jurisdictional waters and riparian/wetland resources is provided in Section 4.4, *Biological Resources*, of this EIR.

California Code of Regulations. The California Code of Regulations (CCR) contains administrative procedures for the State and the nine Regional Water Quality Control Boards (RWQCBs) in Title 23, and for water quality for domestic uses, wastewater reclamation, and hazardous waste management in Title 22.

Health and Safety Code. The Health and Safety Code provides for protection of ground and surface waters from hazardous waste and other toxic substances.

Groundwater Management Act (AB 3030) [Sections 10750–10756 of the California Water Code]. The availability of groundwater and issues involving the adequacy of recharge capability are regional in nature. The Groundwater Management Act[1] (AB 3030) provides a systematic procedure for an existing local agency to develop a groundwater management plan. AB 3030 allows a local agency whose service includes a groundwater basin that is not already subject to groundwater management pursuant to law or court order to adopt and implement a groundwater management plan and includes plans to mitigate overdraft conditions, control brackish water, and to monitor and replenish groundwater.

There are currently few domestic uses for groundwater in the project area as the City of Moreno Valley primarily relies upon imported water from the EMWD for domestic use. Water sources for the EMWD include imported water purchased from Metropolitan, groundwater sources, and recycled water from the EMWD’s five regional water reclamation facilities. Approximately two thirds of the EMWD’s water is imported from Metropolitan, with the remaining water supplied by groundwater wells.[2] Groundwater supplies are drawn from the EMWD wells located in the Hemet, San Jacinto, Moreno Valley, Perris Valley, and Murrieta areas.

Cobey-Alquist Flood Plain Management Act (California Water Code Section). This Act states that a large portion of land resources of the State of California is subject to recurrent flooding. The public interest necessitates sound development of land use, as land is a limited, valuable, and irreplaceable resource, and the floodplains of the State are a land resource to be developed in a manner that, in conjunction with economically justified structural measures for flood control, would result in prevention of loss of life and of economic loss caused by excessive flooding. The primary responsibility for planning, adoption, and enforcement of land use regulations to accomplish floodplain management rests with local levels of government. It is policy of the State of California to encourage local government to plan land use regulations to accomplish floodplain management and to provide state assistance and guidance. As part of its discretionary review process, the City must determine how the project will comply with this Act and not create flooding impacts on new occupied land uses.

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[1] Sections 10750–10756 of the California Water Code.

[2] EMWD History and Mission, http://www.emwd.org, Eastern Municipal Water District, website accessed April 20, 2012.

California Toxics Rule. On May 18, 2000, the State Environmental Protection Agency (CalEPA) promulgated numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards to be applied to waters in the State of California. The CalEPA promulgated this rule based on the Administrator's determination that the numeric criteria are necessary in California to protect human health and the environment. The rule fills a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. Thus, the State of California has been without numeric water quality criteria for many priority toxic pollutants as required by the CWA, necessitating this action by CalEPA. These Federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA.

4.9.2.3 Local Regulations

Municipal Separate Storm Sewer System (MS4) Permit System. The City of Moreno Valley is a co-permittee under the NPDES MS4 Permit No. CAS 618033, adopted on January 29, 2010. The NPDES MS4 permit is intended to regulate the discharge of urban runoff from the MS4 within Riverside County. Under the NPDES MS4 permit, the City is responsible for the management of storm drain systems within its jurisdiction. Cities are required to implement management programs, monitoring programs, implementation plans, and all BMPs outlined in the Riverside County Water Drainage Area Management Plan (DAMP) and Riverside County Water Quality Management Plan for Urban Runoff (WQMP). The current approved WQMP, dated October 22, 2012, addresses the 2010 MS4 NPDES permit.

Projects identified as a 'Priority Development Project' will be required to prepare a Project-Specific WQMP. The 2010 MS4 Permit mandates a Low Impact Development (LID) approach to storm water treatment and management of runoff discharges. The project site should be designed to minimize imperviousness, detain runoff, and infiltrate, reuse or evapotranspirate runoff where feasible. LID BMPs should be used to infiltrate, evapotranspirate, harvest and use, or treat runoff from impervious surfaces, in accordance with the Design Handbook for Low Impact Development Practices. The project must ensure that runoff does not create a hydrologic condition of concern. The RWQCB continuously updates impairments as studies are completed. The most current version of impairment data will be reviewed and implemented prior to the preparation of Preliminary and Final Project-Specific WQMPs for future phases of the project. As part of its discretionary review process, the City must ensure that each phase of the project complies with the MS4 requirements.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is an element of the Riverside County Integrated Project (RCIP), which is an integration of land use, transportation, and conservation planning and implementation to develop a consensus for the future development of Riverside County. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres of land in western Riverside County. The MSHCP was adopted in 2003 and is being implemented specifically to address the direct, indirect, cumulative, and growth-related effects on covered species resulting from build out of planned land use and infrastructure, including the project. The MSHCP involves efforts by the county, State, and Federal governments, the fourteen cities in western Riverside County, and private and public entities engaged in construction activities that potentially affect the species covered under the MSHCP. The plan specifies an obligation of local projects, both public and private, to mitigate their impacts on species. The MSHCP includes incentives for conservation or the purchase of properties from willing sellers and will eventually result in a Conservation Area in excess of 500,000 acres, focusing on conservation of 150 species. The MSHCP Conservation Area includes approximately 347,000 acres of existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land. The MSHCP requires a proposed development project to evaluate any impacts to riparian or riverine resources on the project site, as well as what is referred to as the "urban/wildlands interface" when present. This analysis includes design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development.

The MSHCP requires new development to determine if a project site contains riparian or riverine resources/processes prior to development. If they are present, the MSHCP requires projects to protect these resources to the extent possible with creative project design, setbacks, etc. If such resources, or any other important resources identified in the MSHCP will be affected by development, the developer is required to submit a Determination of Biologically Equivalent or Superior Preservation (DBESP) report indicating how impacts to these resources will be mitigated or compensated for by the developer. For more information on the MSHCP and DBESP processes, see Section 4.4, *Biological Resources*.

4.9.2.4 City of Moreno Valley General Plan Policies

The following General Plan objectives, policies, and programs are applicable to the project:

Objectives, Policies, and Programs

Objective 6.2	Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage, and to minimize nuisances due to flooding.
Policy 5.5.11	Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting water resources.
Objective 7.2	Maintain surface water quality and the supply and quality of groundwater.
Program 7-2	Advocate for natural drainage channels to the Riverside County Flood Control District, in order to assure the maximum recovery of local water, and to protect riparian habitats and wildlife.
Policy 7.4.3	Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

Ultimate Goals

VII	Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.

4.9.3 Methodology

Evaluation of hydrology and water quality impacts associated with the project includes the following:

- Determine the construction phase water quality impacts based on NPDES standards;
- Determine the construction impacts on drainage patterns and drainage capacity;
- Determine the operational water quality impacts based on NPDES standards;
- Determine the operational impacts on drainage patterns and drainage capacity; and
- Determine the impacts on local groundwater table levels.

A PWQMP (included as Appendix J-2 of this EIR) has been prepared for the project and evaluates impacts associated with operational activities. Drainage pattern and capacity impacts were evaluated by calculating existing and proposed flow condition rates using the rational method in accordance with the methods described in the Riverside County Flood Control and Water Conservation District Hydrology Manual. The peak 100-year storm runoff was utilized to preliminarily size storm drain pipes as indicated in the Draft Drainage Report conducted for this project (Appendix J-1 of this EIR).

Due to the land use change associated with the land development, a number of drainage systems are proposed to mitigate the changes of hydrologic characteristics of the watershed. The design guidelines for this project are in accordance with RCFCWCD requirements and City of Moreno Valley guidelines. The design guidelines and local flood protection requirements are summarized as the following:

- Drainage facilities shall be designed in accordance with the Riverside County Hydrology Manual and Design Manual Standard Drawings. The drainage systems shall be designed to provide 100-year level of flood protection through a combined hydraulic conveyance of the underground storm drains and detention basins;
- Proposed drainage systems, which are connecting to the existing downstream facilities, shall be designed properly so the proposed discharge does not exceed the existing discharge to the downstream facilities; and
- Provisions for maintenance and/or easement shall be incorporated in the proposed drainage systems.

4.9.3.1 Pollutants of Concern and Assessment Methodology

The pollutants of concern for the water quality analysis have been identified based on the previously described regulations and the pollutants identified by regulatory agencies that potentially could be generated by the project. The potential pollutants associated with the project are reflected in Table 4.9.F. Table 4.9.G describes these pollutants (bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash & debris, and oil & grease) and their general impact on water quality and aquatic habitat.

The project's priority pollutants of concern are defined as the pollutants associated with the project that are also present in impaired receiving waters. Based on the WQMP prepared for the project, impaired receiving waters downstream from the project include Canyon Lake and Lake Elsinore. Canyon Lake is impaired for nutrients and pathogens, and Lake Elsinore is impaired for nutrients, organic enrichment/low dissolved oxygen, PCBs, and unknown toxicity. Therefore, the priority pollutants of concern for this project include pathogenic indicators, nutrients, pesticides, and toxic organic compounds.

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Table 4.9.F: Anticipated and Potential Pollutants Generated by Land Use Type

Priority Project Categories	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
Commercial/Industrial Development	P[3]	P	P[1]	P[1]	P[5]	P[1]	P	P
Parking Lots (>5,000 ft^2)	P[6]	P	P[1]	P[1]	P[4]	P[1]	P	P
Retail Gasoline Outlets	N	P	N	N	P	N	P	P

P = Potential N= Not Potential

[1] A potential pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected.

[2] A potential pollutant if the project includes uncovered parking areas; otherwise not expected.

[3] A potential pollutant if land use involves animal waste.

[4] Specifically petroleum hydrocarbons.

[5] Specifically solvents.

[6] Bacterial indicators are routinely detected in pavement runoff

Source: *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan (2014)*

Table 4.9.G: Pollutants and General Water Quality Impacts

Pollutant	Water Quality Impact
Bacterial Indicators	May result in water body impairments, can exceed public health standards for water contact recreation, creating a harmful environment. Can alter the aquatic habitat and create a harmful environment for aquatic life.
Metals	Bio-available forms of trace metals are toxic to aquatic life, potential of groundwater contamination, bio-accumulation in aquatic life, affect beneficial uses of a water body.
Nutrients	Elevated nutrient levels in surface waters cause algal blooms, excessive vegetative growth, and dissolved oxygen levels, which is detrimental to aquatic life.
Pesticides	Elevated levels can indirectly or directly constitute a hazard to life or health. During cleaning activities, these compounds can be washed off into storm drains creating runoff containing toxic levels of the pesticides active component. Dirt, grease, and grime may adsorb concentrations that are harmful or hazardous to aquatic life.
Toxic Organic Compounds	May contain levels that are harmful or hazardous to aquatic life.
Sediments	Excessive sediment can be detrimental to aquatic life by interfering with photosynthesis, respiration, growth, and reproduction.
Trash and Debris	Detrimental effect on recreational value of a water body and aquatic habitat; interferes with aquatic life respiration and can be harmful or hazardous to aquatic animals that mistakenly ingest floating debris.
Oil and Grease	Can accumulate in aquatic life from contaminated water, sediments, and food and are toxic at low concentrations. Can persist in sediments for long periods of time and result in adverse impacts on the diversity and abundance of existing bio-communities and can affect the aesthetic value of a water body.

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4.9.3.2 Treatment Control BMPs and Assessment Methodology

The treatment control BMP strategy is to select Low Impact Development (LID) BMPs that promote infiltration and evapotranspiration, including infiltration basins, bioretention facilities, and extended detention basins. Generally infiltration BMPs have advantages over other types of BMPs, including reduction of the volume and rate of runoff, as well as full treatment of all potential pollutants potentially contained in the storm water runoff. It is recognized however that infiltration may not be feasible on sites with low infiltration rates, or located on compacted engineered fill. If the BMP is considered in a fill condition, and the infiltration surface of the BMP cannot extend down into native soils, or if the BMP is considered in a cut condition, and there is no practicable way to verify infiltration rates at the final BMP elevation, infiltration BMPs will not be used. Prior to final design of each phase of the project, infiltration tests shall be performed within the boundaries of the proposed infiltration BMP and at the bottom elevation (infiltration surface) of the proposed infiltration BMP to confirm the suitability of infiltration. In situations where infiltration BMPs are not appropriate, bioretention and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration will be considered. Harvest and use BMPs will also be considered as a treatment control BMP to store runoff for later non-potable uses.

Proprietary BMPs combined with traditionally accepted BMPs may assist with the treatment of project pollutants. Proprietary BMPs combined with traditionally accepted BMPs may be employed on a site-specific basis as approved by the City of Moreno Valley. The appropriate BMP(s) for each phase of the project will be determined based on the size of the project area, the types of pollutants that would be found in the development runoff, and pollutants of concern. Table 4.9.H describes these BMPs (infiltration basins, biofilters, detention basins, water quality inlets, and hydrodynamic separators) and their general characteristics.

Table 4.9.H: BMP Characteristics

BMP	General Characteristics
Biofilters	Includes grass swales, grass strips, wetland vegetation swales, and bioretention. Pollutants are removed by bioretention or biofiltration, and provide opportunity for evapotranspiration and incidental infiltration.
Water Quality Inlet	Pollutants are removed through sedimentation and separation as the design flow passes through one or more chambers. Generally used for pretreatment before discharging into another type of BMP.
Extended Detention Basin	Basin sized to detain and slowly release the design volume of urban runoff, allowing particles and associated pollutants to settle out. Maintenance efforts would need to be directed toward vegetation management, vector control, and removal of debris accumulations.
Infiltration Basins	Basin sized to detain and infiltrate runoff, allowing particles and associated pollutants to settle out. Maintenance efforts would be directed toward vegetation management, vector control, and removal of debris accumulations. This BMP may require groundwater monitoring.
Hydrodynamic Separator System	Device treats storm water by creating a whirlpool of water within a concrete chamber in which solids fall to the bottom of the chamber while buoyant debris, oil, and grease rise to the surface, allowing water to pass through a flow control opening.

4.9.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to hydrology and water quality are based on *CEQA Guidelines* (2012). A project would have a significant impact on surface hydrology, water quality, and/or groundwater if it would:

- Result in violations of any water quality standards or waste discharge requirements of the City of Moreno Valley or the Regional Water Quality Control Board;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation on site or off site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff which would result in on-site or off-site flooding;
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and/or
- Expose people or structures to inundation by seiche, tsunami, or mudflow.

4.9.5 No Impacts/Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.9.5.1 Seismic Flooding-Related Impacts

Threshold	Would the project expose people or structure to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project site and the off-site improvement areas are not identified as being located within the City's mapped inundation area;[1] therefore, the project would not result in the exposure of people or structures to risk of loss, injury, or death involving flooding as a result of failure of either the Poorman Reservoir (Pigeon Pass Dam) or Lake Perris Dam. Impacts related to this issue would be less than significant, and no mitigation is required.

4.9.5.2 Seismic-Related Impacts

Threshold	Would the project expose people or structure to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

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[1] *Figure 5.5-2 Floodplains and Fire Hazard Areas*, City of Moreno Valley General Plan Final Program EIR. July 2006.

A tsunami is a series of waves generated in a body of water by a pulsating or abrupt disturbance that vertically displaces water. Seiches are oscillations in enclosed bodies of water that are caused by a number of factors, most often wind or seismic activity. Lakes in seismically active areas such as Lake Perris are at risk from seiches. A mudslide (also known as a mudflow) occurs when there is fast-moving water and a great volume of sediment and debris that surges down a slope, stream, canyon, arroyo, or gulch. Mudslides are similar to flash floods and can occur suddenly without time for adequate warning. Mudflows can ruin substantial improvements with the force of the flow itself and the burying or erosion of improvements by mud and debris.

The project area is not at risk of inundation by a tsunami as it is located approximately 56 miles from the Pacific Ocean. The project area is located approximately 2.5 miles northeast of Lake Perris. Lake Perris is an enclosed body of water and could be subject to a seiche during a seismic event. However, a seiche event would not affect the project area because water levels in the lake are not high enough to overtop the Perris Dam in the event of a seiche.[1] The Perris Dam has been designed to prevent seiche phenomena due to the region’s high seismicity. In addition, the topography between the Specific Plan area and Lake Perris has multiple hills and valleys. Given these factors, impacts associated with seiche events are less than significant for the WLC project.

Except for the far southwest corner, the project site is located in a gently sloping area where landslides and mudslides would not occur. No development is proposed on the steep slopes of Mount Russell in the southwesterly portion of the property, which is included in the 74.3 acres of open space designated within the WLCSP other than the eastern extension of Cactus Avenue. Therefore, a less than significant impact associated with landslides, rockfalls, or mudslides would occur, and no mitigation is required.

4.9.5.3 Groundwater

Threshold	Would the WLC project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

Based on the WSA prepared for the project by the EMWD, water demand for the proposed on-site uses would total approximately 1,991.25 acre-feet per year (AFY).[2] The EMWD considers this a worst-case estimate based on the total acres and amount of square footage of high cube logistics uses proposed by the project. This estimate does not take into account the project landscaping design with xeriscape drought-tolerant landscaping and on-site collection of runoff and channeling it to landscaped areas to minimize irrigation on the interior of the project site. Thus, the water demand analysis conducted by the EMWD and in this EIR is somewhat conservative in its estimate of the actual water usage of the project as it builds out. For the purposes of analysis in this EIR, the EMWD’s estimate of 1,991 AFY figure will be used relative to water consumption.

As identified in Section 4.16, *Utilities and Service Systems*, of this EIR, the project will obtain water service from the EMWD. It is anticipated that the project would primarily utilize imported water purchased from Metropolitan. In the event that the supply of imported water is reduced, it would be supplemented with new local supply projects during multiple dry years, if needed.

The WSA prepared for the project indicates that development of the project will not include groundwater for water supply. Rather, this project, as well as other new developments in the EMWD’s service area,

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[1] The existing earthen wall is approximately 128 feet high with the highest elevation at 1,628 feet. Normal operating water levels for Lake Perris are at 1,588 feet (leaving 40 feet of excess height between the water level and the top of the dam). Restricted operating water levels for Lake Perris are at 1,563 feet (leaving 65 feet of excess height between the water level and the top of the dam).

[2] *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

will be supplied exclusively with imported water provided by MWD. The imported water may be treated by MWD, provided by Metropolitan as untreated water and subsequently treated by the EMWD, or recharged into the basin for later withdrawal.

NOTE: The following changes were made in Responses to Comments F-5-10 and F-5-23 in Letter F-5 from the Inland Empire Waterkeeper.

The project will not substantially interfere with groundwater recharge due to the project implementation of bioretention areas and detention basins with infiltration capacity that mitigates the impact of reduced pervious areas. Bioretention areas and detention basins will be implemented in addition to the remaining impervious areas. The only use of groundwater may be to support continued agriculture on portions of the WLCSP property that have not yet been developed. The EMWD developed the West San Jacinto Groundwater Basin Management Plan to help ensure that local groundwater resources are conserved and groundwater overdraft does not occur, based on projections of future growth and expected water supply conditions. The Plan projects the water consumption demands of existing and future development based on rates of growth assumed by regional planning organizations (i.e., SCAG and WRCOG) and estimates water demand versus available supply under different water supply scenarios (e.g., multiple dry years).

The Specific Plan requires future development to minimize water use by installing drought-tolerant landscaping (Specific Plan Section 4.2, Offsite Landscaping, and Section 5.4, Onsite Landscaping), by designing buildings and hardscape areas to capture and reuse water on-site for landscape irrigation (Specific Plan Section 5.4, *On-Site Landscaping*), and installing water-conserving building fixtures such as sinks, toilets, etc. (Specific Plan Section 6.0, *Sustainability*).

State Water Supply Reliability. Based on the Water Allocation analysis released by the California Department of Water Resources (DWR) on March 22, 2010, export restriction could reduce Metropolitan deliveries by 150 to 200 thousand acre-feet (TAF) under mean hydrologic conditions, and operations could remain restricted until a long-term solution is found to improve the stability of the Bay-Delta region.

The State Water Project (SWP) and Central Valley Project (CVP) are the responsible partners for operation of the DWR and Bureau of Reclamation (Reclamation), respectively. In November 1986, DWR and Reclamation signed the Coordinated Operations Agreement (COA). The COA was subsequently authorized and approved by the California State Legislature and Congress. Under COA, DWR and Reclamation agree to operate the SWP and CVP in a balanced manner to coordinate releases from upstream reservoirs and unregulated flows to meet Sacramento Valley in-basin and in-Delta uses, including water quality standards established by the SWRCB.

Reclamation, as a Federal agency is required to consult with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA) to determine if a Federal action that they authorize, fund, or implement could jeopardize the continued existence of a listed species in the wild, or destroy or modify the species' critical habitat. Because the SWP and CVP are operated in a balanced manner, the findings under Section 7 of the FESA affect operations of both the SWP and CVP.

The initial biological opinions related to long-term operations of the SWP and CVP were issued in 1993 by NMFS for protection of the winter-run Chinook salmon and by USFWS for protection of delta smelt. Operations of the SWP and CVP were modified to reduce potential adverse impacts to these species primarily through:

1) Increased storage volumes of water in upstream reservoirs to provide adequate flows with appropriate temperatures for the winter-run Chinook salmon and adequate flows in the Delta for both species;
2) Flows released from upstream reservoirs to provide adequate in-Delta flows and Delta outflows for these species; and
3) Modification of periods of time when water can be diverted at the SWP and CVP south Delta intakes to reduce the potential for reverse flows, reduce the potential for high salinity in the south Delta, and reduce the potential for entrainment and entrapment of fish in the SWP and CVP south Delta intake facilities.

The biological opinions were modified as DWR and Reclamation modified operations of the SWP and CVP and new information related to aquatic resources became available. During this period, NMFS redesignated the Sacramento River winter-run Chinook salmon as “endangered” and designated two species as “threatened” (i.e., Central Valley spring-run Chinook salmon and Central Valley steelhead). Therefore, the consultations under Section 7 of the FESA were modified and new biological opinions were issued between 2000 and 2004. In 2005, the Department of the Interior was sued with respect to the 2004 biological opinion issued by USFWS. Subsequently, USFWS re-issued the biological opinion in 2005; however, the Department of the Interior was sued in 2005 with respect to the reissued biological opinion. The 2005 USFWS biological opinion was invalidated and the United States District Court for the Eastern District of California (the Court) ordered a new biological opinion and issued interim operations orders to protect delta smelt until a new biological opinion could be issued in 2008. The interim operations criteria included limitations for operation of the SWP and CVP south Delta intakes to protect delta smelt.

In response to these actions, Reclamation requested consultation with USFWS and NMFS in August 2008 with respect to the coordinated long-term operation of the SWP and CVP. In December 2008, the USFWS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to delta smelt. In June 2009, the NMFS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to currently listed species (e.g., Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale). Reclamation provisionally accepted and then implemented the Reasonable and Prudent Alternatives included in these biological opinions. The operational criteria included in the Reasonable and Prudent Alternatives resulted in changes to operations of upstream reservoirs, stream flows, Delta outflow, and SWP and CVP south Delta intakes.

Several lawsuits were filed in the Court related to various aspects of the USFWS and NMFS biological opinions, and to the acceptance and implementation of the associated Reasonable and Prudent Alternatives by Reclamation. Between 2009 and 2010, the Court ruled that Reclamation failed to conduct an environmental analysis under the National Environmental Policy Act (NEPA) of potential impacts to the human environment before provisionally accepting and implementing the Biological Opinion Reasonable and Prudent Alternatives. In 2010, the Court found certain portions of the USFWS biological opinion to be arbitrary and capricious, and remanded those portions of the biological opinion to the USFWS. The Court ordered Reclamation to review the biological opinion and Reasonable and Prudent Alternative in accordance with NEPA. In 2011, the Court remanded the biological opinion to the NMFS.

Reclamation has continued the consultation with USFWS and NMFS for modification of the biological opinions, and has initiated the NEPA process through publication of the Notice of Intent on March 28, 2012. The Court order required completion by Reclamation of the Environmental Impact Statement (EIS) and the USFWS biological opinion related to delta smelt by December 1, 2013. The Court order also required completion by Reclamation of the EIS and the NMFS biological opinion related to Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of

North American green sturgeon, and Southern Resident killer whale by February 1, 2016. The Court did not vacate the biological opinions, and therefore, SWP and CVP operations are analyzed each year with respect to the Reasonable and Prudent Alternatives.

The most recent Metropolitan Regional Urban Water Management Plan (RUWMP) (Metropolitan November 2010, page 1-18) indicates that operational constraints similar to the most recent biological opinions and associated Reasonable and Prudent Alternatives would likely be continued until future long-term plans, such as the Bay Delta Conservation Plan (BDCP), would be implemented. A similar discussion was included in the EMWD Urban Water Management Plan (UWMP) (2010, page 38).

To address potential constraints on the SWP, Metropolitan has developed near and long-term action plans to increase water supply reliability. Metropolitan is also working with stakeholders throughout the state to develop and implement long term solution to the problem in the Bay Delta. The BDCP developed by State and Federal resource agencies, aimed at addressing ecosystem needs and securing long-term operating permits for the SWP. A working draft of the BDCP was released in November of 2010 and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provides for improved water supply and reliability.

Conclusion. Based on this analysis, the WLC project is not expected to interfere with groundwater recharge activities or groundwater supplies. Impacts associated with this issue are less than significant, and no mitigation is required.

4.9.5.4 100-Year Flooding-Related Impacts

Threshold	Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows? Would the WLC project place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) identify areas subject to flooding during the 100-year storm.[1] Based on these FIRM maps, the project site does not fall within a 100-year flood zone.[2] Because the project site does not lie within a 100-year floodplain, impacts related to this issue are less than significant. No further discussion or mitigation is required.

4.9.6 Significant Impacts

4.9.6.1 Drainage Pattern and Capacity-Related Impacts

Impact 4.9.6.1: *The project may significantly increase off-site runoff.*

Threshold	Would the WLC project substantially alter the existing local drainage patterns of the site and substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion, siltation, or flooding on site or off site?

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[1] The term “100-year” is a measure of the size of the flood, not how often it occurs. The “100-year flood” is a flooding event that has a one percent chance of occurring in any given year.

[2] FEMA DFIRM Data, 2008.

Would the WLC project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

In general, runoff from the western portion of the site flows west toward the Perris Valley Storm Drain, while runoff from the eastern portion of the WLC site flows south into Mystic Lake, and (during times of high storm flow), reaches the San Jacinto River south of the San Jacinto Wildlife Area. As previously illustrated in Figure 4.9.1, the Specific Plan area is divided into six off-site and on-site HSAs. In general, existing storm water flows coming onto the Specific Plan area from the Badlands (Drainage Subarea A) are conveyed through a 12 foot by 8 foot reinforced concrete box (RCB). The RCB drains to the south through the existing Highland Fairview Corporate Park site (a 36-inch and 42-inch storm drain underlying Eucalyptus Avenue outlets to the RCB). Flows from the RCB sheet flow into a spreading area south of Eucalyptus Avenue and is dispersed onto the downstream agricultural land in its historical pattern. Further south, flows coming from the adjacent agricultural land are routed to an existing RCFCWCD earthen channel, identified as Line “F” in the MMDP, located along Redlands Boulevard and ultimately routed to the Perris Valley Storm Drain.

For the eastern portion of the Specific Plan Area (Drainage Subareas B, C, D, E, and F), there currently is no master plan of drainage. Open ditches and drainage culverts along World Logistics Center Parkway~~Theodore Street~~ and Gilman Springs Road convey off-site runoff from adjacent areas to the north and east. The drainage culverts along Gilman Springs Road drain into the San Jacinto Wildlife Area. The land uses and roadway facilities proposed under the Specific Plan would require modifications to the existing hydrologic patterns within the project vicinity to accommodate and manage these flows.

As part of the Specific Plan, a Master Plan of Drainage for the project area was developed (see Drainage Report). Table 4.9.I provides a summary of each of the proposed drainage subareas. Figure 4.9.3 outlines the drainage areas identified in this Master Plan of Drainage and indicates that, with implementation of the project, the Specific Plan area would be divided into six drainage subareas.

As identified in Table 4.9.I, the majority of the existing Line “E” will remain as is; with four exceptions:

1) Where Line “E” crosses the proposed Alessandro Boulevard, a bridge or culvert will be provided at the crossing;
2) Where the proposed Lateral E-1 will connect with Line E.
3) Removal of the concrete at Alessandro Boulevard and lowering the grade above to match the downstream portion.
4) Installation of energy dissipating devices to slow water flow in order to reduce erosion and increase available moisture.

Storm water flows from the westerly portion of the project will be routed to Line “F” of the RCFCWCD MMDP similar to existing drainage patterns in the project area. Line “F” flows in a southwesterly direction and joins the Kitching Street Channel near Iris Avenue and Lasselle Street. Kitching Street Channel flows in a southerly direction and joins the Perris Valley Storm Drain south of Krameria Avenue. Once the storm water flows reach the Perris Valley Storm Drain, they will travel approximately 5.4 miles until joining Reach 3 of the San Jacinto River. This river travels 5.6 miles to Canyon Lake (Reach 2) and another 7.1 miles through Canyon Lake to Lake Elsinore (Reach 1). Lake Elsinore is essentially the terminus for the San Jacinto River and the San Jacinto Watershed. Although Temescal Creek and the Santa Ana River were included in the ultimate flow path from the project site, flows that reach Lake Elsinore rarely spill into Temescal Creek or into the Santa Ana River due to local topography.

Table 4.9.I: Summary of Drainage Areas

Watershed	Area (acres)		HSA	Description
	Without Project	With Project		
A	2,657	2,746	Perris Valley	Storm water runoff coming from north of SR-60 would be routed to the proposed Sinclair Detention Basin. Since the proposed Sinclair Detention Basin is not expected to be constructed prior to the WLC project, the existing 12-foot by 8-foot RCB will need to be extended southerly as proposed Line “F” (referred as Line “F” in MMDP) to convey the off-site flow. The project also proposes one on-site detention basin to mitigate on-site flows and then outlet to Line “F.” Ultimately, Line “F” would flow to the discharge point Node 4 at Redlands Boulevard and eventually drain to the RCFCWCD regional facility.
B	1,361	1,147	Gilman Hot Springs	Storm water runoff coming from north of SR-60 would be conveyed to the proposed Line “B” along World Logistics Center Parkway~~Theodore Street~~. The WLCSP proposes three (3) detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line “B” and routed to the proposed spreading area.
C	1,061	1,149	Gilman Hot Springs	Storm water runoff coming from north of SR-60 and north of Gilman Springs Road would be conveyed to the proposed Line “C” and routed to the proposed spreading area. The project proposes two (2) detention basins to mitigate the on-site flows. The outflow from the detention basin along with the off-site flow will sheet flow through the spreading area and then exit the project boundary.
D	965	1,013	Gilman Hot Springs	Off-site storm water runoff from north of Gilman Springs Road would be conveyed to the proposed Line “D.” The WLCSP proposes two detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line “D” and the spreading area.
E	2,510	2,545	Gilman Hot Springs	Off-site runoff from north of SR-60 would be routed to the existing earthen channel Line “E.” The majority of Line “E” will be protected in place. Easement on either side of the channel is provided for the floodplain. Where Line “E” crosses the proposed Street C a bridge or culvert will be provided. Line “E-1” conveys flows to and from one (1) detention basin. Line “E-1” within proposed Street C, will connect to Line “E”. The concrete portion of Alessandro Boulevard will be removed and grades lowered to match downstream, and energy dissipating devices will be installed. The runoff exits the project southerly boundary at discharge point Node 73.
F	445	399	Gilman Hot Springs	Off-site runoff from north of Gilman Springs Road would be conveyed to the proposed Line “F.” The WLCSP proposes two (2) detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line “F” and exit the project southerly boundary at discharge point Node 3.
Total	**8,999 acres**	**8,999 acres**		

Source: Table 4.1, Master Plan of Drainage Report, CH2M HILL, September 2014.

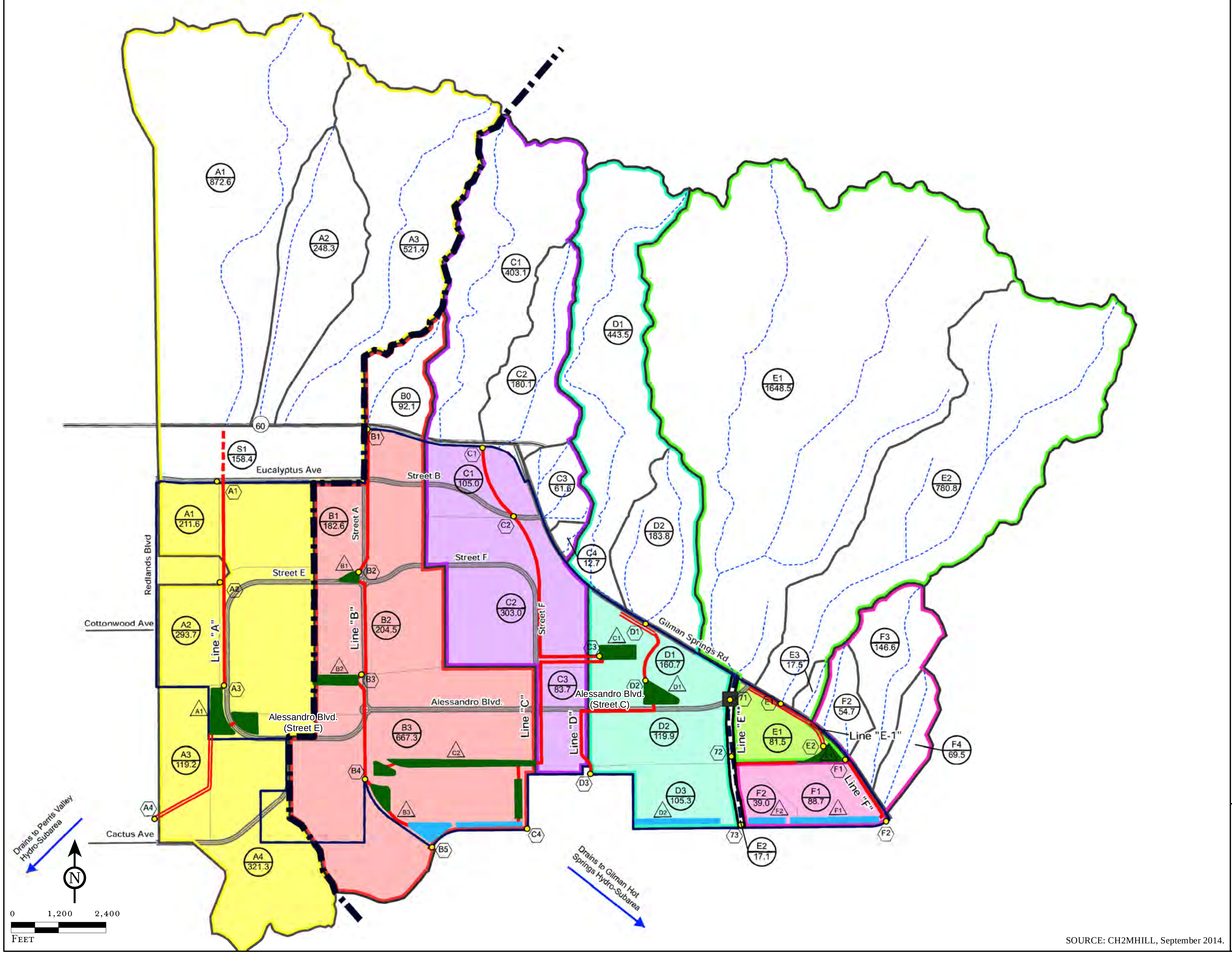

Subarea Designation / Subarea Area (acres)
Hydrology Node
Proposed Basin Number
Roads
Offsite Existing Natural Drainage Course
Existing RCB
Flood Control Easement
Project Boundary
Proposed Storm Drain
Proposed Open Channel
Hydro-Subarea Boundary
Proposed Basin
Proposed Spreading Basin
Bridge/Culvert

Watershed Boundary
A
B
C
D
E
F

*Note:
1. Line "E" (Exist Natural Drainage Course) will be protected in place.

For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

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FIGURE 4.9.3

World Logistics Center Specific Plan Project
Environmental Impact Report

Proposed Drainage Subareas

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The Perris Valley Storm Drain Master Plan identifies future improvement needs of the channel based on future growth, including development of the WLCSP area. The backbone of the regional storm drainage system south of the City is the 250-foot wide earthen Perris Valley Storm Channel (PVSC). The PVSC is the primary collector of storm water in the northern part of Perris and the southern end of Moreno Valley. The PVSC was built and is currently owned and maintained by the RCFCWCD. The PVSC collects runoff from this area and transports the flows through Perris Valley and to the San Jacinto River. The 24-mile long San Jacinto River enters southern Perris from the east, at approximately the intersection of I-215 and Ellis Avenue, and runs approximately six miles to the extreme southwesterly boundary of the City. The PVSC is a major part of the Master Drainage Plan adopted as part of the Perris Valley Commerce Center Specific Plan.

The PVSC is part of the regional flood control system intended to convey regional flood flows from the upper watershed in Moreno Valley to the confluence with the San Jacinto River in the southern portion of the City. The Perris Valley Storm Channel Specific Plan (PVSCSP) Master Drainage Plan reduces the 100-year floodplain and accommodates 100-year flood events in the area. The PVSC regional system consists of several miles of open channel, several bridge crossings, and a number of retention basins to help capture storm water during seasonal and peak storm events. Historically, flooding in this part of the Perris Valley has been a longstanding issue. To manage seasonal, peak, and 100-year flooding events, in the late 1980s and early 1990s, Riverside County and the RCFCWCD adopted several Master Drainage Plans that were periodically refined. However, these Master Drainage Plans were adopted during the time period in which the land areas covered by the Master Drainage Plans were utilized primarily for agricultural uses. In the late 1990s, increasing urban development occurred in these areas and it became evident that variations to the precise Master Drainage Plans adopted by the County and RCFCWCD would be required to facilitate the construction of needed infrastructure. The adoption of the PVSCSP in 2012 by the City of Perris included refinements to the facilities necessary to control flooding in the PVSCSP planning area.

Engineering of these ultimate PVSC improvements has been designed to handle storm water flows from 100-year storm events. Within the City of Perris, the majority of the PVSC flood control system is not constructed to the ultimate condition envisioned by the PVSCSP. As a result, the reduced capacity within the existing channel causes regional flood flows to exceed the banks of the channel and flood the surrounding area. With the construction of the ultimate system, the 100-year storm floodplain will be reduced by several hundred acres, and the surrounding properties and roadways will be protected from flooding.

Although the PVSC has not yet been widened to its ultimate width, expected runoff from the WLC project will not exceed current levels because on site detention and infiltration basins will be provided to mitigate and control runoff and drainage patterns to pre-project levels in accordance with **Mitigation Measure 4.9.6.1A**. Flow characteristics and locations of the detention and infiltration basins are outlined in the project hydrology study prepared by CH2MHill (see Appendix J). See Table 4.9.I and Figure 4.9.4. These proposed basins will be located and designed such that the existing sub-watersheds and the existing drainage pattern and flows leaving the project boundary mimic existing conditions. Therefore, development of the WLC project will not have significant impacts on regional flood control, even prior to ultimate buildout of the PVSC.

The development of this project will include the construction of buildings, parking areas, sidewalks, roads and other infrastructure such as storm water, water, and sewer facilities. Because the development of the project will substantially increase the amount of impervious surfaces, the post-development flow volumes that will be generated on site are anticipated to be substantially higher than the pre-development flows.

Conditions resulting from this change will include increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and

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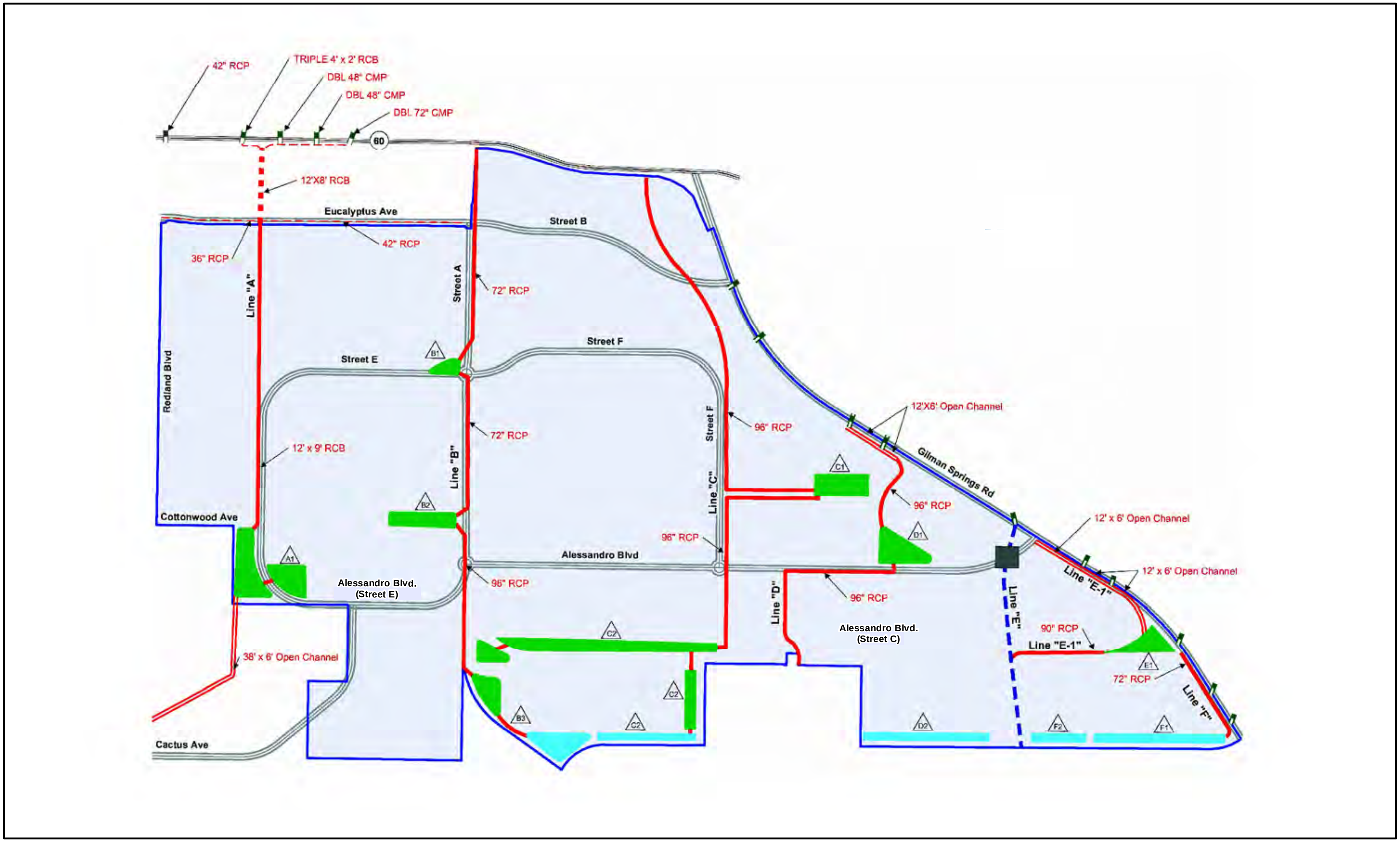

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N

0 1,130 2,260

Feet

△ Proposed Basin Number

Exist Culvert

■ Bridge/Culvert

🟩 Proposed Basin

🟦 Proposed Spreading Basin

Existing Storm Drain

Existing RCB

Proposed Storm Drain

Proposed Open Channel; LINE D OPEN CHAN

Natural Flow (Line "E")

Project Boundary

Note: For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

FIGURE 4.9.4

World Logistics Center Specific Plan Project
Environmental Impact Report

Proposed Drainage System

SOURCE: World Logistics Center Specific Plan, Highlandfairview, September, 2014.

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degradation in water quality. The project site currently has a low runoff coefficient, meaning that runoff during storms represents a relatively small portion of the total rainfall. The majority of the precipitation, particularly in smaller storms, infiltrates into the subsurface. The development of the Specific Plan area with impervious surfaces (such as roadways, parking lots, and buildings) would result in a condition in which nearly all rainfall becomes runoff.

NOTE: The following changes have been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife and Comment B-6-5 from Letter B-6 from the Santa Ana Regional Water Quality Control Board.

A significant impact would be deemed to have occurred in the event that post-development storm water flows, volumes or velocities are greater than pre-development storm water flows leaving the site. However, flows, volumes, and velocities will not increase because volume is stored in the basins and infiltrated or released at a controlled rate after the storms (CH2MHill 2014). Each detention basin has 2 feet of dead storage so that flows will infiltrate in the ground. Table 4.9.J presents the sizes of each of the basins. Figures 4.9.5 and 4.9.6 show typical sections for the basins. Two separate analyses were performed for the detention and infiltration basins. The first analysis was part of the drainage system analysis to size the basins to mitigate the flow from the 100-year 3 and 24-hour storms. In this analysis the bottom 2 feet of the basins (identified as Basin Infiltration Depth in Table 4.9.J) is infiltration storage and assumed to be full prior to the storm. The second analysis was performed to analyze the pre and post project infiltration for the project. This is a water balance model analysis of historical daily runoff.

The project hydrology study used local hydrographs and flood routing models to simulate the proposed condition. Based on the modeling results, the 100-year, 3-hour storm provides the highest peak flows, and the 100-year, 24-hour storm provides the highest flow volumes. The 100-year, 3-hour peak flows are used to preliminarily size the proposed drainage systems. Table 4.9.K provides the modeled peak flows for the 100-year, 3-hour storm scenario.

Flows at Project Boundary. Flows exiting the project's boundary in the proposed condition will mimic existing conditions. There are six watershed areas and drainage courses that deliver flow through the project area. These are identified as watershed areas "A" through "F" on Figure 4.9.3. The existing capacity of these drainage courses at the project boundary was determined. Flows in excess of this capacity would flow overland and sheet flow across the project boundary in the existing condition. Detention Basins and spreading area facilities are proposed to reduce the proposed conditions flow to pre-project conditions at the project boundary. Table 4.9.L identifies the existing and proposed 100-year flow, the drainage course capacity, and the sheet flow at the project boundary.

Flow Velocities at Project Boundary. This project proposes a number of open space, detention basins and spreading areas to mitigate the increased runoff, volumes and flow velocities. As a result, the flow velocities at the project boundary for the proposed condition are less than the existing condition, as illustrated in Table 4.9.M. For the watersheds "A" and "E" in the proposed condition, the runoff will flow to the existing Green Belt Channel and existing earth channel, respectively. Therefore, sheet flow would not occur at the project boundary. The flow velocities in the watersheds "B," "C," "D," and "F" for the proposed and existing conditions were analyzed. For the proposed condition, the runoff will flow to the basins and spreading areas, then weir flow over a level curb, and eventually flow to the existing channels downstream of the project's boundary. Flows in excess of channel capacity would flow overland and sheet flow across the project's boundary. For the existing condition, the runoff would flow in to the existing drainage channels, and the flow in excess of channel capacity would flow overland and sheet flow across the project's boundary.

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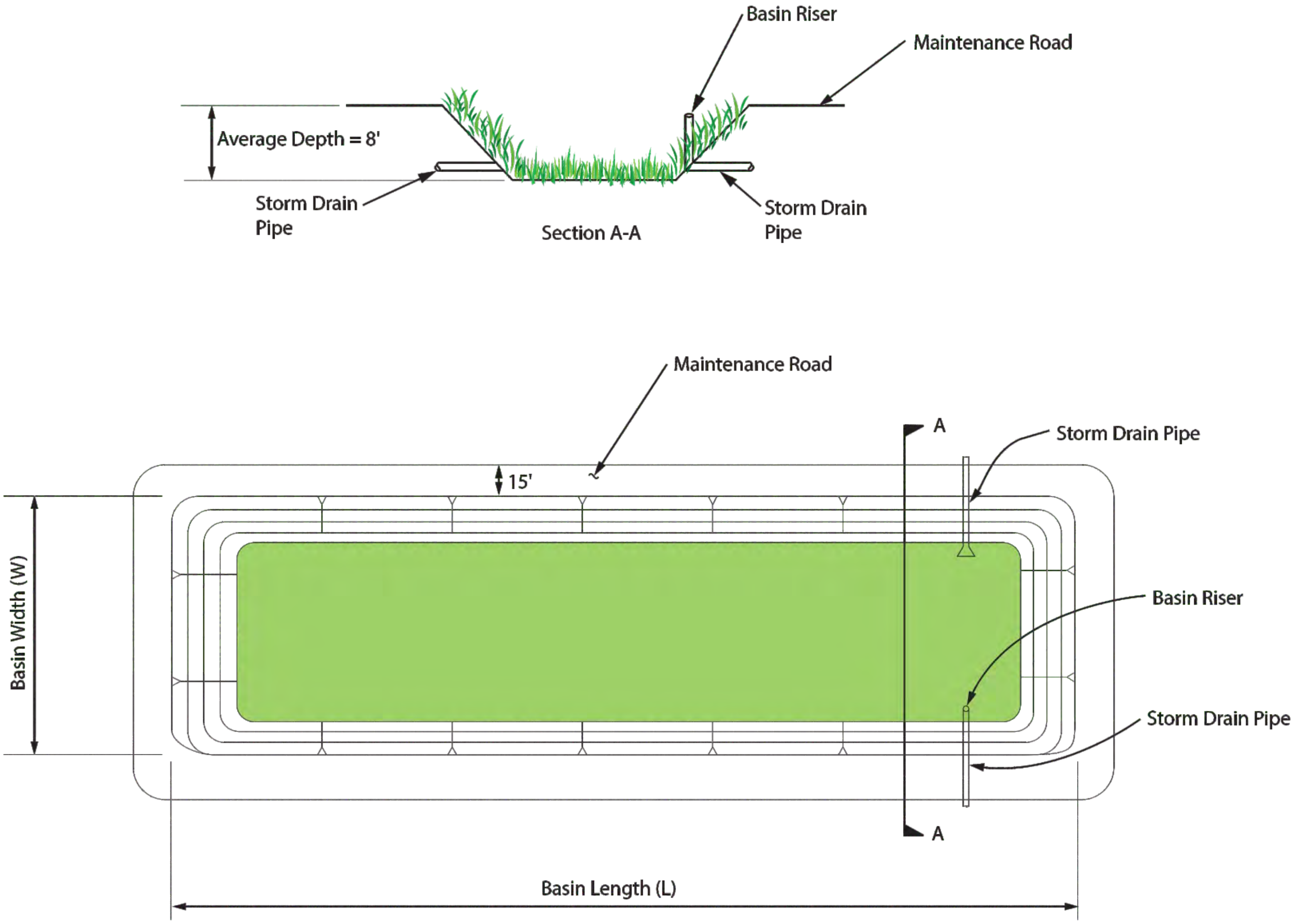

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FIGURE 4.9.5

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Basin Sections

SOURCE: HF, 2014.

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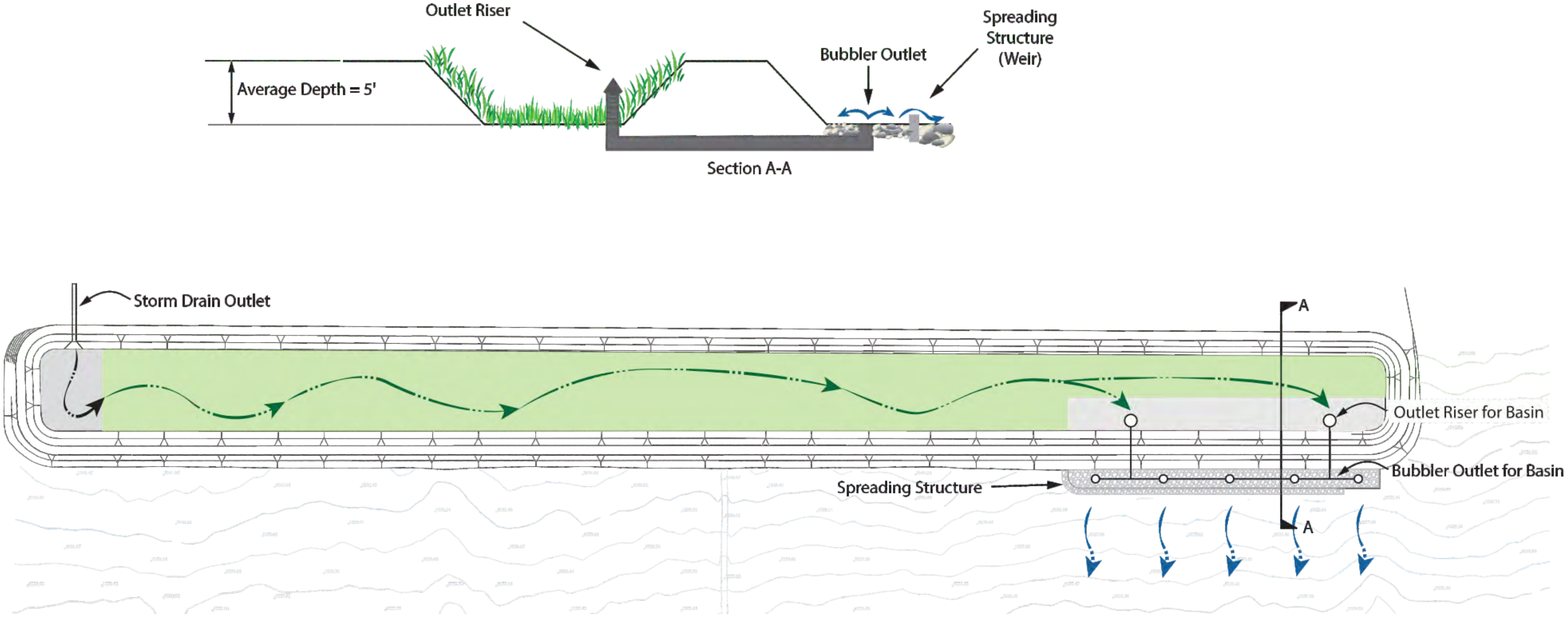

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FIGURE 4.9.6

World Logistics Center Specific Plan Project
Environmental Impact Report

Basin Cross Sections

SOURCE: HF, 2014.

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Table 4.9.J: Proposed Basins

Basin No.	Approx. Basin Length (ft)	Basin Top Width (ft)	Basin Depth (ft)	Basin Detention Depth (ft)	Basin Infiltration Depth (ft)	Side Slope	Basin Detention Volume (ac-ft)	Basin Infiltration Volume (ac-ft)	Total Basin Volume (ac-ft)
A1	1,200	1,260	8	6	2	2	97	32	129
B1	540	240	8	6	2	2	12	4	16
B2	1,140	240	8	6	2	2	41	14	55
B3*	2,520	360	5	3	2	2	45	30	75
C1	1100	360	8	6	2	2	80	27	107
C2*	6,120	120	5	3	2	2	73	49	122
D1	960	600	6	4	2	2	42	14	56
D2*	2200	120	5	3	2	2	28	18	46
E1	960	480	6	4	2	2	26	8	34
F1*	2300	120	5	3	2	2	18	12	30
F2*	840	120	5	3	2	2	7	4	11

**spreading basin*
Source: *Master Plan of Drainage Report,* CH2MHILL, September 2014.

Table 4.9.K: Existing and Proposed Storm Water Runoff for 100-Year, 3-Hour Storm Event

Watershed	Peak Flow (cfs)	
	Existing	Proposed[1]
A	2,470	2,170
B	1,130	930
C	820	750
D	815	795
E	1,990	1,800
F	495	390

Source: *Master Plan of Drainage Report,* CH2MHILL, September 2014.

Table 4.9.L: Comparison of Existing and Proposed Flows at Project Boundary

Watershed	Existing Conditions at Project Boundary			Proposed Conditions at Project Boundary		
	Existing 100-year Flow (cfs)	Existing Drainage Course Capacity (cfs)	Existing 100-year sheet flow (cfs)	Proposed 100-year Flow (cfs)	100-year flow from Basin to Drainage Course (cfs)	Proposed 100-year sheet flow from Basin (cfs)
A[1]	2,470	2,200	270	2,170	N/A	N/A
B	1,130	55	1,075	930	55	875
C	820	165	655	750	165	585
D	815	65	750	795	65	730
E[2]	1,990	6,220	0	1,800	N/A	N/A
F	495	70	425	390	70	320

[1] Flows to improved channel - No sheet flow proposed in proposed conditions.
[2] Existing facility has capacity for flow – No detention basin proposed.
Source: *Master Plan of Drainage Report,* CH2MHILL, September 2014.

Table 4.9.M: Comparison of Existing and Proposed Flow Velocities at Project Boundary

Existing Watershed	Node*	Velocity (fps)	Prop Watershed	Node*	Velocity (fps)
B	12	5.16	B	B5	2.19
	22	4.40			2.19
C	37	8.80	C	C4	2.01
	41	3.60			2.01
D	53	4.77	D	D3	2.10
	61	4.45			2.10
F	81	3.33	F	F2	1.78
	83	6.29			1.78
	102	3.61			1.78
	112	3.83			1.78

Source: *Master Plan of Drainage Report, CH2MHILL*, September 2014.

Runoff and Infiltration Volumes Comparison. An analysis and comparison of the volume of runoff and infiltration for the pre and post project conditions was performed. A total of three scenarios were analyzed, baseline plus the following two project scenarios:

- Baseline or Pre Project conditions, where most of the land use is agricultural and the crop is considered to be dry wheat.
- Scenarios of Post Project Conditions, where the development of the site will happen and the impervious area will increase. Two scenarios were considered under the Post development conditions, those are:

Scenario 1) Detention Basins and bioretention areas with 0.15 in/hr infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The lower end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and total dead storage currently assumed at 212 acre-feet (AF). In reality the amount of dead storage needed will be a function of the measured infiltration rate at the site. The bioretention areas are areas where the runoff is directed to prior to the detention basins. The bioretention areas consist of landscaped areas that provide treatment and infiltration.

Scenario 2) Detention Basins and bioretention areas with 0.3 in/hr infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The higher end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and dead storage is assumed at 212 acre-feet.

The results are summarized in Table 4.9.N

Table 4.9.N: Model Results for Runoff and Infiltration and the Percentage Change from Baseline Conditions

Scenario	Runoff		Infiltration	
	1990-2012 Average(AF/yr)	Percent Change from Baseline	1990-2012 Average(AF/yr)	Percent Change from Baseline
Baseline	59	—	1,649	—
Scenario 1	125	110%	1,850	12%
Scenario 2	40	-33%	1,945	18%

Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

The project's impacts will be mitigated with the implementation of Scenario 2. The volume of runoff after the project is constructed will be less than the existing volume of runoff and the amount of infiltration will increase. Infiltration tests to refine Scenarios 1 and 2 will be performed in final design so runoff and infiltration will mimic existing conditions.

To the degree possible, the project will site basins in areas of cut that do not require over excavation, this should result in acceptable infiltration rates. In the event the soil at a basin site does not meet the required infiltration rate, dry wells, hybrid bioretention/dry wells or infiltration trenches will be used to achieve the target infiltration rate. All three of these BMP's will reach past impervious clay or compacted fill area to deeper more pervious soils. Dry wells are considered Class V wells and require submission of an "Inventory Form" to the EPA. Infiltration tests will be done prior to design of basins so that the proper BMP's can be incorporated into the basins. It should also be noted that groundwater levels in the project area are in excess of 100 feet below ground surface (DEIR Section 4.6.5.4, Geology and Soils).

Due to the construction of impervious surfaces on the project site, post-development flows will be higher than the pre-development flows. To avoid a significant impact to the existing drainage capacity, the post-development flows, volumes, and velocities coming from the project site must be managed to be equal to or less than pre-development flows, volumes, and velocities.[1] As required by **Mitigation Measure 4.9.6.1A**, flows will be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. The existing storm water runoff discharge rate for the undeveloped project site is 7,720 cubic feet per second (cfs). With the installation of the on-site detention basins, culverts, and energy dissipaters included in the project, expected discharges would be at a rate of 6,835 cfs, which is less than the existing condition. With the installation of the storm drain system facilities outlined in *C*H2M Hill's hydrology reports (see Appendix J) and implementation of the recommended mitigation measures, the buildout of the project will convey storm flows safely through the region in accordance with Riverside County Flood Control requirements and will not result in flooding or additional erosion within the project area or any downstream areas, including the Perris Valley Storm Drain Channel.

For additional analysis regarding anticipated construction and operational pollutants, please refer to Section 4.9.6.2, *Construction-Related Water Quality Impacts,* and Section 4.9.6.3, *Operational-Related Water Quality Impacts*.

Development of the WLC project site will increase impervious surfaces on the project site due to the construction of the project's buildings, roadways, and associated improvements. While the resultant increase in impervious surfaces would contribute to a greater volume and higher velocities of storm flow, **Mitigation Measure 4.9.6.1A** requires the WLC project site's drainage system be designed to accept and accommodate runoff that would result from the project construction at or better than historic, or pre-development, conditions, as outlined in the project's Master Plan of Drainage shown in previously referenced Figure 4.9.4. **Mitigation Measure 4.9.6.1B** provides for the operation and maintenance of these facilities to ensure that they will be maintained.

Ultimately, for the proposed condition, the peak flows at downstream discharge points where the flows exiting the southerly project boundary, will not exceed the peak flows for the existing condition. As the WLC project develops and regional drainage improvements are installed as anticipated (e.g., Perris Valley Storm Drain Master Plan), there should be no long-term significant impacts related to storm drainage or flood control. Overall, current experiences with flooding in the general project vicinity should decrease as on-site drainage is contained or controlled in planned improvements and detention basins. Section 4.16, *Utilities and Service Systems,* provides additional analysis of on-site drainage capacity relative to planned storm drain improvements.

NOTE: The following changes have been made in response to Comment F-1-77 in Letter F-1 from Center for Biological Diversity/San Bernardino Valley Audubon Society and Comment F-11-44 in Letter F-11 from the Sierra Club.

Project or Specific Plan Design Features. The Drainage Master Plan (DMP) and creation and maintenance of the proposed combined detention and infiltration basins in the southern portion of the project according to the DMP will help ensure that there will be no significant off-site impacts related to runoff from the project. These facilities will be designed based on the most up–to-date hydrology based on the latest rainfall to runoff patterns in compliance with local, state, and federal regulations. The design of the drainage facilities include a factor of safety in the form of freeboard to account for uncertainties due to climate change, rainfall patterns, friction factors and other uncertainties. One foot of freeboard was included in the detention basins and drainage facilities to account for these

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[1] As part of the MS4 Permit issuance requirements, projects must identify any Hydrologic Conditions of Concern and demonstrate that changes to hydrology are minimized to ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, sedimentation or stream habitat.

uncertainties. At the time of final design the amount of freeboard to account for these uncertainties will be finalized. The facilities are being designed to provide both detention and infiltration to mitigate increases in runoff volume, velocity and peak discharge as outlined in the following mitigation measure.

The changes to the following mitigation measures have been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife, Comment F-1-77 in Letter F-1 from Center for Biological Diversity/San Bernardino Valley Audubon Society, Comments F-5-13 and –F-5-23 in Letter F-5 from the Inland Empire Waterkeeper, Comment F-11-41 in Letter F-11 from the Sierra Club et al, and other related comments.

Mitigation Measures. The following measure is proposed to help ensure that runoff from the project site does not have significant impacts on downstream off-site properties, including the SJWA:

4.9.6.1A Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term “construct” shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

4.9.6.1B The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale).

For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours.

For the detention/infiltration basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).

Level of Significance after Mitigation. Implementation of the Master Drainage Plan of the Specific Plan and **Mitigation Measures 4.9.6.1A** and **4.9.6.1B** will reduce potential impacts associated with runoff from the project site to less than significant levels.

4.9.6.2 Construction-Related Water Quality Impacts

Impact 4.9.6.2: *The project may cause surface water pollution during construction.*

Threshold	Would the project violate any water quality standards or waste discharge requirements during construction phases of the project in form of increased soil erosion, sedimentation, or storm water discharges?

The grading phases of any portion of the project will require temporary disturbance of surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation, major visible water quality impacts attributable to construction activities. Stockpiles and excavated areas would be susceptible to high rates of erosion from wind and rain and, if not managed properly, could result in increased sedimentation in local watercourses.

By volume, sediment is the principal component in most storm runoff. The delivery, handling, and storage of construction materials and wastes, as well as the use of on-site construction equipment will also introduce a risk for storm water contamination. Spills and leaks could occur from the use of construction equipment and could originate from construction staging areas. Once released, substances such as fuels, oils, paints, and solvents can be transported to nearby surface waterways and/or to groundwater in storm water runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters. The anticipated and potential pollutants in storm water or urban runoff for various land uses are reflected in previously referenced Table 4.9.F.

Short-term storm water pollutant discharges from each development site within the project will be mitigated through compliance with the required NPDES permits, resulting in a less than significant impact. The NPDES permit program was established under Section 402 of the CWA, which prohibits the unauthorized discharge of pollutants, including municipal, commercial, and industrial wastewater discharges, from point sources to U.S. waters. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports. An NPDES permit specifies an acceptable level of a pollutant or pollutant parameter in a discharge (for example, a certain level of bacteria) and the permittee selects an appropriate process or technology to achieve that level. Some permits, however, do contain certain generic BMPs. Table 4.9.O lists possible construction site BMPs for runoff control, sediment control, erosion control, and housekeeping that may be used during the construction phases of the WLC project. These construction site BMPs are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed.

The implementation of NPDES permits, including the General Construction permit, ensures that the Federal and State standards for clean water are met. Enforcement of required NPDES permit requirements will prevent sedimentation and soil erosion through implementation of an SWPPP and periodic inspections by RWQCB staff. An SWPPP is a written document that describes the construction operator's activities to comply with the requirements in the NPDES General Construction permit. Required elements of an SWPPP include (1) site description addressing the elements and characteristics specific to the project site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; and (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements. The SWPPP establishes a plan whereby the operator evaluates potential pollutant sources at the site and selects and implements BMPs designed specifically to prevent or control the discharge of the identified pollutants into storm water runoff.

Table 4.9.O: General Construction Site Best Management Practices

Runoff Control	Sediment Control	Erosion Control	Good Housekeeping
• Minimize clearing • Preserve natural vegetation • Stabilize drainage ways • Install check dams • Install diversion dikes	• Install perimeter controls (e.g., silt fences) • Install sediment trapping devices (e.g. straw wattles, hay bales, gravel bags) • Inlet protection (e.g. check dams) • Install fiber rolls	• Stabilize exposed soils (e.g., hydroseed, soil binders) • Protect steep slopes(e.g., geotextiles, compost blankets) • Cover stockpiles with blankets • Complete construction in phases	• Create waste collection area • Put lids on containers • Clean up spills immediately

Source: National Pollutant Discharge Elimination System, *Construction Site Storm Water Runoff Control*, http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm, site accessed April 20, 2012.

Project or Specific Plan Design Features. The Specific Plan itself does not contain any features that address water quality issues related to construction, but the WQMP (see Appendix J), the DMP, and the landscaping plan will help reduce long-term water consumption and water quality impacts within the project. However, additional information has been added to the *Hydrology and Water Quality Master Plan of Drainage Report* (FEIR Volume 2 Appendix J) to provide specific and detailed plans for the drainage systems to include the size, capacity, design, function and maintenance requirements of the detention basins. The detention basins have been modified to combine detention and infiltration. Additional analysis has been performed to detail the infiltration capacity of the basins and indicates that runoff leaving the project site will be less than or equal to the existing condition. Infiltration after the project will be greater than the existing condition. Additional details on the spreading areas and mitigation of flow volumes and velocities at the project boundary have been added to the *Master Plan of Drainage Report* and are summarized in the Response to Comment B-3-37 from the CDFW to address similar comments regarding drainage and water quality impacts of the project.

Mitigation Measures. Although adherence to NPDES requirements is required of all development within the City, the incorporation of these requirements as **Mitigation Measures 4.9.6.2A** and **4.9.6.2B** are designed to ensure that any future development within the WLC Specific Plan area obtains coverage under the NPDES General Construction permit, and to track compliance with these requirements as part of the Mitigation Monitoring and Reporting Plan or Program (MMRP):

4.9.6.2A Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant

Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer.

4.9.6.2B Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may include (but shall not be limited to) the following:

(a) Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required.

(b) Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas.

(c) All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps.

(d) The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase.

(e) Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan.

(f) The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time.

The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.

Level of Significance after Mitigation. While on-site grading and development activities will increase the potential for the erosion of soils, adherence to the BMPs mandated by **Mitigation Measures 4.9.6.2A** and **4.9.6.2B** will reduce impacts associated with short-term (construction) storm water discharges during project construction to a less than significant level.

4.9.6.3 Operational-Related Water Quality Impacts

Impact 4.9.6.3: *The project may result in surface water pollution during operation.*

Threshold	Would the project violate any water quality standards or waste discharge requirements during the operational phases of the project in the form of increased soil erosion, sedimentation, or urban runoff?

During the operational phase of any urban use, the major source of pollution in storm water runoff will be contaminants that have accumulated on the land surface over which runoff passes. Storm runoff from the roadways, parking lots, and commercial and industrial buildings can carry a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron, which may lead to the degradation of storm water in downstream channels. Runoff from landscaped areas may contain elevated levels of phosphorus, nitrogen, and suspended solids. Oil and other hydrocarbons from vehicles are also expected in storm water runoff.

Pollutant concentrations in urban runoff are variable depending on storm intensity, land use, elapsed time since previous storms, and the volume of runoff generated in a given area that reaches receiving waters. Pollutant concentrations are typically highest during the first major rainfall event after the dry season, known as the “first-flush.” The WQMP prepared for the project identifies pollutants and hydrologic conditions of concern that may be associated with the implementation of the project. Table 4.9.P identifies the receiving waters for post-development runoff from the site and states if the receiving water is listed as impaired or has a total maximum daily load (TMDL) adopted for a certain type of pollutant. Table 4.9.Q provides a summary of pollutants associated with proposed land uses within the Specific Plan area.

Table 4.9.P: Pollutant Stressors in Receiving Waters

Receiving Waters	Receiving Water Classification	303(d) Listing		Adopted TMDL Pollutants
	Proximate	Listed?	Pollutant Causing Impairment	
San Jacinto River	Yes	No	None	None
Canyon Lake (Railroad Canyon Reservoir)	No	Yes	Nutrients, Pathogens	Phosphorus, Nitrogen
Lake Elsinore	No	Yes	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, Sediment Toxicity, Unknown Toxicity	Phosphorus, Nitrogen, Dissolved Oxygen

Source: *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, September 2014.

As identified in Table 4.9.Q, pollutants associated with the operations of the proposed logistics land uses include sediments, nutrients, toxic organic compounds, trash and debris, bacterial indicators, oil and grease, pesticides, and metals. Based on the WQMP, all downstream receiving waters to which a project directly or indirectly discharges have been identified. The selection of treatment controls for the project shall be based primarily on the potential pollutants associated with the project that are also present in impaired receiving waters.

As specific developments within the project are developed, updates to the Master WQMP for the World Logistics Center Specific Plan will be required to ensure that water quality treatment is being maintained per City requirements.

Table 4.9.Q: WLC Specific Plan Potential Pollutants

Pollutants	Specific Plan Land Use	Is/Does the Pollutant? Have a Potential to Occur?	Is/Does the Pollutant? Impaired in Receiving Waters?
Sediments	Landscape/Open Areas	Yes	No
Nutrients	Industrial/Commercial Areas	Yes	Yes
Toxic Organic Compounds	Industrial/Commercial Areas	Yes	Yes
Trash and Debris	Industrial/Commercial Areas	Yes	No
Bacterial Indicators	Industrial/Commercial Areas	Yes	Yes
Oil and Grease	Industrial/Commercial Areas	Yes	No
Pesticides	Industrial/Commercial Areas	Yes	Yes
Metals	Industrial/Commercial Areas	Yes	No

Source: *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, September 2014.

The WQMP prepared for the project (Appendix J) identifies the following BMPs to be implemented that will minimize the project's effects on site hydrology, urban runoff flow rates, and pollutant loads. This comprehensive water quality approach will be implemented throughout the project and will establish a three-tier program for achieving water quality goals through the enforcement of site design, source control, and treatment control BMPs. These project-specific site design, source control, and treatment control BMPs are listed below.

Site Design BMPs. Site design BMPs are implemented to create a hydrologically-functional project design that attempts to mimic the natural hydrologic regime. In accordance with the Riverside County WQMP, projects shall implement site design concepts that achieve each of the following:

1. Minimize Urban Runoff
   a. Maximize the permeable area.
   b. Incorporate landscaped buffer areas between sidewalks and streets.
   c. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
   d. Use natural drainage systems.
   e. Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
   f. Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
2. Minimize Impervious Footprint
   a. Maximize the permeable area.
   b. Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walk able environment for pedestrians are not compromised.
   c. Reduce widths of street where off-street parking is available.
   d. Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.
3. Conserve Natural Areas

   a. Conserve natural areas.
   b. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
   c. Use natural drainage systems.

4. Minimize Directly Connected Impervious Areas (DCIAs)
   a. Runoff from impervious areas will sheet flow or be directed to treatment control BMPs.
   b. Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas.

Source Control BMPs. Source control BMPs are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural.

1. Non-structural operational source control BMPs include:
   a. Education for property owners, operator, tenants, occupants, or employees;
   b. Activity restrictions;
   c. Irrigation system and landscape maintenance;
   d. Common area litter control;
   e. Street sweeping private streets and parking lots; and
   f. Drainage facility inspection and maintenance.
2. Structural source control BMPs include:
   a. MS4 stenciling and signage;
   b. Landscape and irrigation system design;
   c. Protect slopes and channels; and
   d. Properly design fueling areas, refuse areas, loading docks, and outdoor material storage areas.

Treatment Control BMPs. Treatment control BMPs supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control BMP strategy for the project is to select LID BMPs that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration BMPs are not appropriate, bioretention, and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and use BMPs (i.e., storage pods) may be used as a treatment control BMP to store runoff for later non-potable uses.

NOTE: The following changes have been made in response to Comment F-1-78 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society and F-11-44 in Letter F-11 from the Sierra Club.

Site-specific WQMPs have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, BMPs will be implemented consistent with the goals contained in the master WQMP. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master WQMP's water quality requirements identified previously. This would include the design based on the appropriate pollutant loads for the project from all sources including climate change.

The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of Low Impact Development (LID) BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by **Mitigation Measure 4.9.6.1A**, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area.

The Water Quality Management Plan Guidance Document for the Santa Ana Region of Riverside County discusses water quality impacts and the use of LID BMPs:

> "LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted TMDLs in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives."

The project will comply with the Nutrient TMDL for Lake Elsinore and Canyon Lake by implementing LID-based BMPs. According to the *Comprehensive Nutrient Reduction Plan for Lake Elsinore and Canyon Lake* (prepared for Riverside County Flood Control and Water Conservation District by CDM Smith, January 28, 2013 in compliance with Order No. R8-2010-0033, NPDES Permit No. CAS618033), "Post construction LID based BMPs required for new development and significant redevelopment projects are the only structural watershed based BMPs currently included in the CNRP. The newly developed WQMP requirements ensure that a portion of the wet weather runoff will be contained onsite for all future development projects subject to WQMP requirements. Implementation of WQMP requirements over time coupled with the in lake remediation projects are expected to provide sufficient mitigation of nutrients."

Specific Plan Design Features. Long-term water quality design is addressed in Section 5.4, *On-site Landscaping*, of the Specific Plan and encourages (a) minimization of urban runoff; (b) minimization of impervious footprint of development; (c) conservation of natural areas; and (d) minimization of directly connected impervious areas. The previous section outlined the BMPs from the Specific Plan that include the following:

1. Maximize the permeable area;
2. Incorporate landscaped buffer areas between sidewalks and streets;
3. Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs;
4. Use natural drainage systems;
5. Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration;
6. Construct ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives;
7. Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design;
8. Sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible;

9. Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping;
10. Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales;
11. Parking areas may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4; and
12. Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.

Figure 4.9.7 summarizes how protection of water quality is incorporated into the project design.

NOTE: The changes to the following mitigation measures have been made in response to Comment B-6-3 in Letter B-6 from the Santa Ana Regional Water Quality Control Board.

Mitigation Measures. To address potential impacts to water quality during the project's long-term operations, the following measures have been identified:

4.9.6.3A Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate:

Site Design Best Management Practices

(a) Minimize urban runoff.
(b) Maximize the permeable area.
(c) Incorporate landscaped buffer areas between sidewalks and streets.
(d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
(e) Use natural drainage systems.
(f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
(g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.

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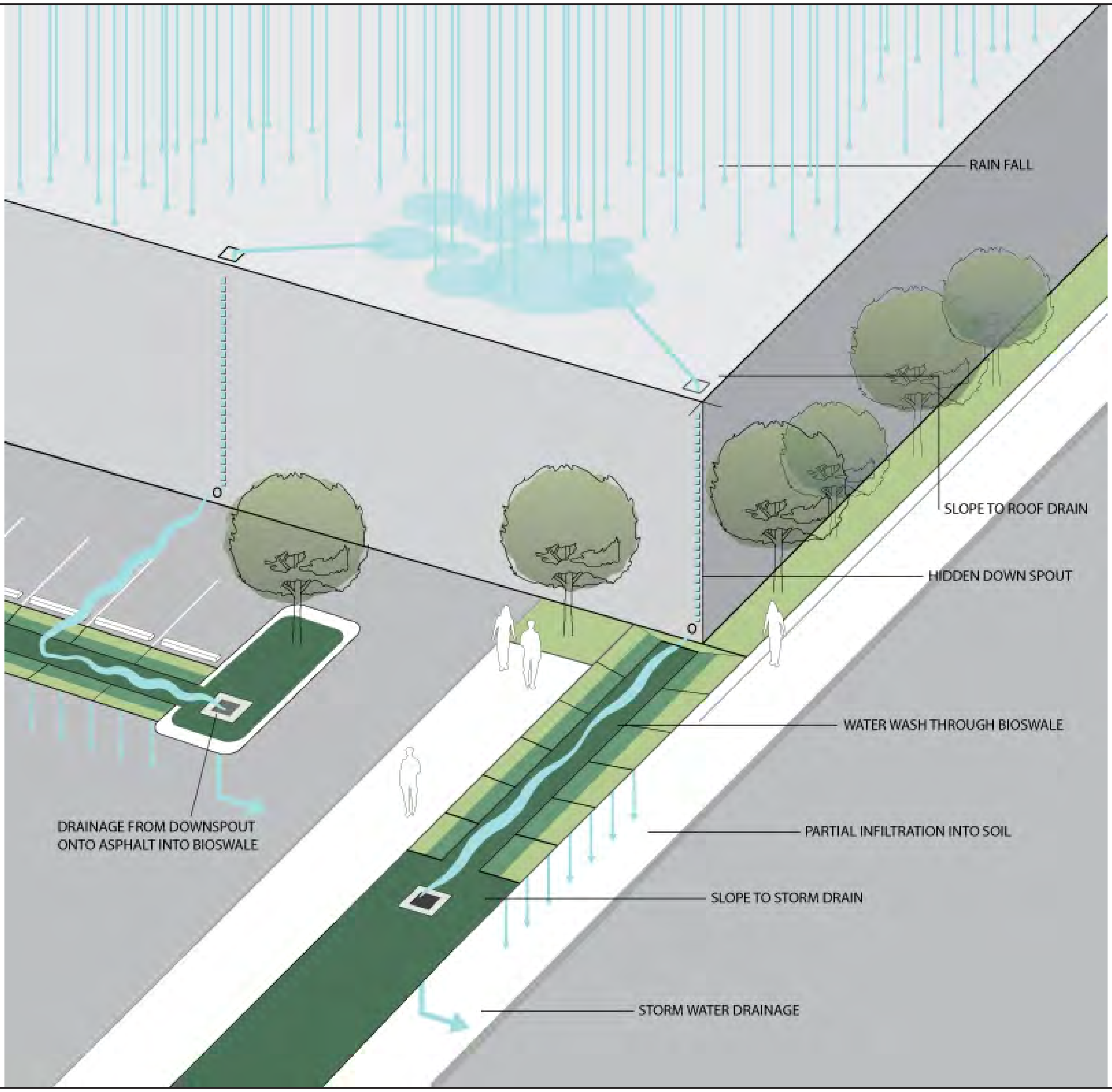

LSA

FIGURE 4.9.7

World Logistics Center Specific Plan Project
Environmental Impact Report

Conceptual Project Water Quality Design

SOURCE: World Logistics Center Specific Plan, Highlandfairview, November, 2012.

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(i) Minimize impervious footprint.
(j) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
(k) Reduce widths of street where off-street parking is available.
(l) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.
(m) Conserve natural areas.
(n) Minimize Directly Connected Impervious Areas (DCIAs).
(o) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices.
(p) Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas that are planted with native or drought tolerant trees and large shrubs.

Source Control Best Management Practices

Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural:

Non-structural source control Best Management Practices include:

(a) Education for property owners, operator, tenants, occupants, or employees;
(b) Activity restrictions;
(c) Irrigation system and landscape maintenance;
(d) Common area litter control;
(e) Street sweeping private streets and parking lots; and
(f) Drainage facility inspection and maintenance.

Structural source control Best Management Practices include:

(g) MS4 stenciling and signage;
(h) Landscape and irrigation system design;
(i) Protect slopes and channels; and
(j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas.

Treatment Control Best Management Practices

Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store runoff for later non-potable uses.

Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan’s water quality requirements identified previously.

4.9.6.3B The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.

The changes to the following mitigation measure has been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife, Comment B-6-3 in Letter B-6 from the Santa Ana Regional Water Quality Control Board, and other similar comments.

4.9.6.3C Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site.

The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.

Level of Significance After Mitigation. The project incorporates on-site drainage control structures and programs sufficient to meet the applicable Federal, State, and local water quality requirements. Through the use of site design BMPs, source control BMPs (e.g., street and parking lot sweeping and vacuuming), and treatment control BMPs (e.g., infiltration basins, bioretention areas, and pervious pavement), the resulting pollutant loads coming from the project will be reduced, thereby reducing pollutants discharged from urban storm water runoff to surface water bodies. Compliance with the requirements of the NPDES permit, which include implementation of the BMPs outlined in the WQMP, will be enforced by the City during the ongoing operation of the project. Implementation of **Mitigation**

Measures 4.9.6.3A through **4.9.6.3C** will help to reduce potential water quality impacts resulting from storm water and urban runoff to less than significant levels.

~~4.9.7 Cumulative Impacts~~

~~Cumulatively, development within the watershed will result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology and increase potential pollutant loads. However, all future development in the City and throughout the Santa Ana RWQCB will be required to comply with the requirements of the NPDES permit program. Continued growth is anticipated to occur in the City and surrounding areas and all new development and significant redevelopment will be required to minimize its individual impacts to water quality and pollutant transport through implementation of BMPs. Therefore, since all new developments will be required to mitigate for impacts to water quality, a less than significant cumulative impact to water quality will occur.~~

~~Cumulatively, continued development within the West San Jacinto Groundwater Management Plan area will result in an increase in demand on water sources, including both surface and groundwater supplies. Since the majority of the projects within the Plan area obtain water service from the EMWD, most of the cumulative development will rely on imported water purchased from Metropolitan with supplements from local groundwater sources. As stated in the previous Section 4.9.5.3, there has been a shift in the water demand patterns in the last 15 years, as a residential market has replaced an agricultural market, with a resulting incremental increase in urban-related surface and groundwater pollution. The proposed project will make an incremental contribution to production of urban pollutants, but the site-specific water quality Best Management Practices will help ensure that these contributions will not make a significant contribution to any cumulatively considerable regional water quality impacts.~~

~~The EMWD's Urban Water Management Plan (UWMP) concludes that the EMWD has sufficient supplies of local groundwater and imported surface water to accommodate existing and planned development, including the proposed project, as documented in the project's Water Supply Assessment (see Appendix M). For these reasons, the proposed project will not make a significant contribution to any cumulatively considerable surface water or groundwater supply impacts.~~

~~The drainage system for the proposed project will be designed so that peak flows from post-development runoff are equal to or less than historic conditions at any given off-site discharge location and no additional mitigation measures are proposed for cumulative impacts. This same requirement will be placed on all other development in the vicinity of the project site by the City of Moreno Valley. The proposed project, including implementation of its master drainage plan, will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality on a local or regional basis.~~

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~~4.10 LAND USE AND PLANNING: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

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~~***NOTE TO READERS.*** *Although there were numerous questions about potential impacts to the City Housing Element, no major revisions have been made to this section based on the response to comments in Final Programmatic EIR Volume 1.*~~

4.10 LAND USE AND PLANNING

This section of the EIR addresses the land use impacts that will result from the change from the existing on-site land uses to the proposed land uses. In addition, this section analyzes the consistency of the WLC project with the goals and policies of the City of Moreno Valley General Plan, applicable community plans, and the Zoning Code, and compatibility within local and regional plans. This section also identifies and evaluates the compatibility of the WLC project with existing land uses and the potential land use impacts that may result during or subsequent to development of the proposed on-site uses.

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

~~For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the~~ The project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements~~. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The following technical study was prepared to support the analysis of potential impacts in this section:

- David Taussig and Associates, Inc. (DTAA). *Fiscal and Economic Impact Study*, Draft dated March 13, 2012, revised report dated September 2014.

The analysis contained in this section is also based on the following reference documents:

- *City of Moreno Valley General Plan*, City of Moreno Valley, 2006;

- *Updated and Certified City of Moreno Valley Housing Element,* 2011;
- *Municipal Code*, City of Moreno Valley, codified through February 12, 2012;
- *Final Sustainable Communities Strategies Plan,* Southern California Association of Governments (SCAG), April 2012;
- *Final 2008 Regional Comprehensive Plan,* SCAG, October 2008;
- *Final 2012 Regional Transportation Plan*, SCAG, adopted April 2012;
- *Final 2010 Urban Water Management Plan*, Eastern Municipal Water District (EMWD), approved December 2010;
- *Riverside County Airport Land Use Compatibility Plan, Volume 1,* Riverside County Airport Land Use Commission (ALUC), October 14, 2004;
- *Water Quality Control Plan Santa Ana River Basin (8),* California Regional Water Quality Control Board (RWQCB), approved January 24, 1995;
- *Western Riverside County Multiple Species Habitat Conservation Plan*, Volume I, Part I, Dudek & Associates, June 17, 2003; and
- *Draft Environmental Impact Report, Highland Fairview Corporate Park*. (Skechers), Michael Brandman Associates, August 4, 2008.

4.10.1 Existing Setting

~~The project area includes two adjacent areas, the WLC Specific Plan Area and the General Plan Amendment Area. The two areas combined make up most of the older Moreno Highlands Specific Plan.~~

4.10.1.1 Project Location

The WLC project area is located in the northwestern Riverside County, within the eastern portion of the City of Moreno Valley. The WLC project is situated generally south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly City limit), extending to the southerly City limit. Previously referenced Figure 1.2 in Section 1.0, *Executive Summary*, depicts the WLC project boundary on the applicable U.S. Geological Survey (USGS) Quad sheets.

4.10.1.2 Existing On-site Land Uses

The WLC project area is largely undeveloped land and Figure 4.10.1 shows an aerial view of existing land uses. Presently, there are ~~seven~~ six single-family homes in various locations on the property along with associated ranch/farm buildings. Most of the site has been used for dry farming at one time or another since the early 1900s, and much of the site continues to be used for dry farming at the present time. San Diego Gas & Electric (SDG&E) operates a natural gas compressor station, known as the Moreno Compressor Station, on 18 acres in the southern portion of the site. Southern California Gas Company (SCGC) operates a valving, metering, and pipe cleaning station on a one-acre parcel in the south-central portion of the site.

4.10.1.3 Existing Roadways

The major roadways that currently provide access to the WLC project area are SR-60 (the Moreno Valley Freeway), Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and ~~Theodore Street~~World Logistics Center Parkway. Redlands Boulevard and ~~Theodore Street~~World Logistics

Center Parkway are north-south collector roadways that intersect

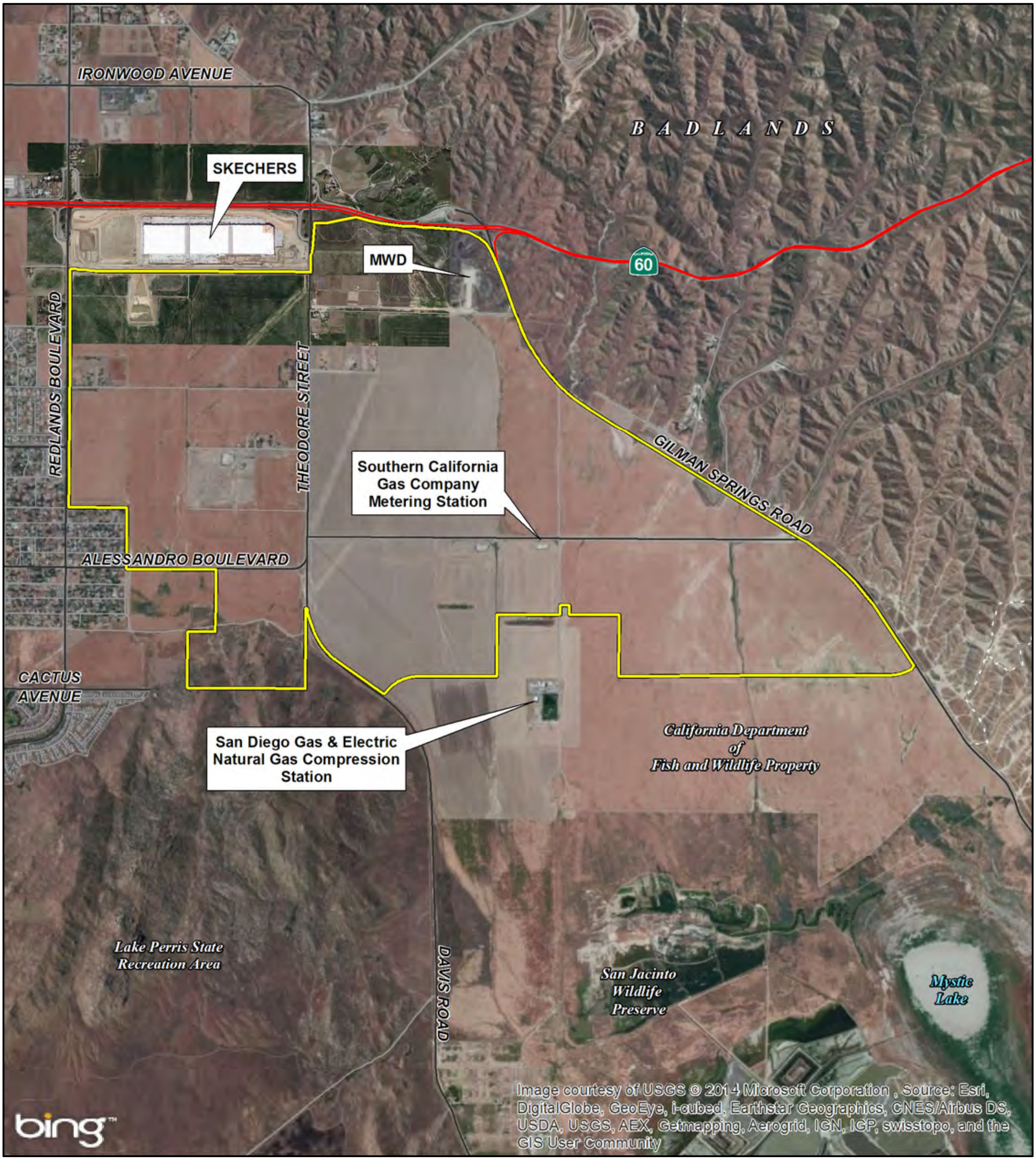

LSA

FIGURE 4.10.1

N

0 1,500 3,000

FEET

🟨 Project Boundary

World Logistics Center Specific Plan Project
Environmental Impact Report

Aerial Photograph

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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with SR-60. Alessandro Boulevard is an east-west thoroughfare that runs through Moreno Valley from Interstate 215 (I-215) on the west to Gilman Springs Road on the east. Gilman Springs Road runs in a northwesterly-southeasterly direction connecting SR-60 to the Hemet-San Jacinto area and State Route 79 (SR-79).

4.10.1.4 General Surrounding Land Uses

To the west of the WLC project area are more developed portions of the City of Moreno Valley. Near the southern and western boundaries of the project are existing residential neighborhoods along the west sides of Redlands Boulevard and Merwin Street; a small market and a Post Office are also located near Redlands and Alessandro Boulevards. A new industrial warehouse project (Westridge) was recently approved just west of Redlands Boulevard and south of SR-60 but it has been challenged in court. Another large warehouse project (ProLogis Eucalyptus Industrial Park) is currently being processed by the City just west of the Westridge project and is due to be considered by the City Council in December 2014. Farther to the west, there is a variety of commercial and auto sales uses along Moreno Beach Drive.

Highland Fairview Corporate Park (HFCP), located north and west of the project area between Redlands Boulevard and Theodore Street, is currently under development and the first phase was completed in late 2011 (Skechers). The area north of SR-60 is largely undeveloped with clusters of low-density residential development within the Moreno Valley city limits.

There is little development adjacent to the east and south boundaries of the project area. The area easterly of the project, commonly referred to as the Badlands, is a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Most of the Badlands area north of SR-60 is incorporated into the Norton Younglove Reserve. Due to its reserve status, steep slopes and canyons, the Badlands area has experienced little development; however, there are scattered single-family homes in the area east of Gilman Springs Road. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeasterly of the project area in the Badlands.

The area south of the project site is the San Jacinto Wildlife Area (SJWA), which includes an Upland Game Hunting Area and is adjacent to the Lake Perris State Recreation Area. These lands are State-owned and access to these areas is restricted. The SJWA is owned and operated by the California Department of Fish and Wildlife (CDFW) and contains approximately 9,000 acres of restored wetland and ponds. The Lake Perris State Recreation Area is owned and operated by the California State Parks Department and contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

In 1981–82, the State Wildlife Conservation Board initially purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project. This area was designated as the SJWA. In 1995, the Board acquired an additional 921 acres of upland farmland within the southern portion of the Moreno Highlands Specific Plan (MHSP) property to incorporate into the SJWA. ~~In 2001, the Board acquired an additional 274 acres in this same area. This land was purchased to provide a buffer between the land surrounding Mystic Lake and the planned urban development within Moreno Valley.~~ The Board action on this purchase indicated the land was to "facilitate restoration of historic water flows back into the lake bed and allow for reversion back to wetlands during wet years, and areas of low vegetation cover during dry years, all providing significant habitat for species using the SJWA, including a number of state and federally listed species."[1]

~~Most of the State-owned land south of the project area is referred to as the SJWA. However, the land purchased out of the Moreno Highlands Specific Plan is referred to in this EIR as the CDFW~~

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[1] Wildlife Conservation Board minutes from May 18, 2001.

~~Conservation Buffer Area to denote the reason for its original purchase. The 1,195 acres acquired by the Wildlife Board during the past 20 years was intended to serve as an effective buffer between the SJWA and the development expected to occur north of the SJWA area (the present mixed-use Moreno Highlands Specific Plan). Currently, this acreage provides not only a buffer area, but also provides open space for raptor and bird foraging habitat, and is actively farmed under CDFW contract. The proposed project will permanently designate this CDFW Conservation Buffer Area as Open Space under the City General Plan. It is anticipated the State would maintain its function as a buffer and also as foraging habitat for raptors as long as it is regularly tilled. There are no plans to alter the current agricultural use of the property.~~

There are two future commercial areas located immediately north of the project area. The first is located at the northwest corner of ~~Theodore Street~~World Logistics Center Parkway and Eucalyptus Avenue (proposed 80,000 square feet) and the second is at the northeast corner of Redlands Boulevard and Eucalyptus Avenue (proposed 120,000 square feet). The nearest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive approximately 1.25 miles to the west of the WLC project; this shopping complex includes Walmart and Target along with restaurants and ancillary commercial and service uses, as well as the Moreno Valley Auto Center. The central core of Moreno Valley, which includes residential neighborhoods and commercial activity, is located approximately three miles west of the project area.

March Air Reserve Base (MARB) is located approximately seven miles southwesterly of the WLC planning area. The MARB is under the authority of the March Joint Powers Authority, which acts as the land use authority, the Redevelopment Agency and Airport Authority (the March Inland Port Airport Authority) for reuse of the former March Air Force Base.

4.10.1.5 Existing General Plan, Specific Plan, and Zoning Land Use Designations Applicable to the WLC Project Site

The World Logistics Center site currently has a General Plan designation of Business Park/Light Industrial and zoning land use designations of WLSP-LD (World Logistics Center Specific Plan – Logistics Development) and WLCSP – LL (World Logistics Center Specific Plan – Light Logistics). The zoning land use designations are shown on Figure 4.10.3 in the FEIR. Development of the site is controlled by the World Logistics Center Specific Plan which authorizes the construction and operation of 40,600,000 square feet of logistics facilities and associated infrastructure, The land use plan in the Specific Plan is show on Figure 4.10.4 and in Section 3.0 of the Revised Sections of the FEIR. ~~The Community Development Element of the City's General Plan currently designates the project area as a mix of residential and associated uses, commercial, business park, and open space land uses. In 1992, the City approved the 3,038-acre Moreno Highland Specific Plan (MHSP) as a master planned, mixed-use community, consisting of up to 7,763 residential dwelling units and associated uses (on approximately 2,435 acres) and approximately 603 acres of business, retail, institutional, and other uses. The Moreno Highland Specific Plan is incorporated into the City's General Plan (Table 4.10.A).~~

~~Table 4.10.A: Moreno Highlands Specific Plan (Current Land Use Designations)~~

~~Land Use~~	~~Acreage~~
~~Residential Community~~	
~~Residential (7,763 dwelling units)~~	~~1,359.3~~
~~Parks and Open Space~~	~~701.9~~
~~Neighborhood Commercial~~	~~10.0~~
~~Cemetery~~	~~16.5~~
~~Public Facilities~~	~~347.7~~
~~Planned Business Center~~	
~~Business Park~~	~~360.8~~

~~Table 4.10.A: Moreno Highlands Specific Plan (Current Land Use Designations)~~

~~Land Use~~	~~Acreage~~
~~Mixed Use~~	~~80.5~~
~~Community Commercial~~	~~16.0~~
~~Parks and Open Space~~	~~77.9~~
~~Public Facilities~~	~~67.4~~
~~Project Total~~	**~~3,038~~**

~~Adopted by City Council March 17, 1992~~

~~The MHSP called for the development of an approximately 7,300 new residential units in the City of Moreno Valley. However, as discussed below, the City of Moreno Valley already has a very low jobs-to-housing ratio, meaning that the City has a surplus of housing as compared to jobs. This reduces the demand for new housing in the area, and implementation of the MHSP would further lower the jobs/housing ratio. In addition, the 2008–2009 recession resulted in a substantial reduction of housing prices in the Inland Empire, the State of California, and throughout most of the U.S. As is well documented in the press, foreclosure rates became very high, and the demand for newly constructed housing has been greatly reduced. Therefore, the current demand for housing development on the site is greatly limited. As such, none of the MHSP has been implemented.~~

~~In February 2011, the City adopted an updated Housing Element that identified the MHSP project area as a potential location for future jobs-producing land uses, rather than residential uses. In April 2011, the City adopted its Economic Development Action Plan, which identified eastern Moreno Valley as a potential area for major job-producing land uses. The proposed WLC Specific Plan project is consistent with this planning prerogative, and seeks to comprehensively plan the project area for jobs-producing land uses.~~

4.10.1.6 Surrounding Land Uses

South of SR-60/East of Redlands Boulevard. The HFCP project is currently under development. Phase 1 (Skechers North American Operational Headquarters) was completed in late 2011. HFCP is located immediately north and west of the project area, on the north side of Eucalyptus Avenue between Redlands Boulevard and ~~Theodore Street~~World Logistics Center Parkway. The HFCP project was approved by the City of Moreno Valley in 2009. The City General Plan land use designation for the site is Commercial (C) and Business Park/Light Industrial (BP/LI).

North of SR-60. The land located on the north side of SR-60 and westerly of Theodore Street is within the City of Moreno Valley and has a land use designation of Office (O) and Residential (R1-density of one dwelling unit per acre). The area easterly of ~~Theodore Street~~World Logistics Center Parkway is unincorporated within the County of Riverside with land use designations of Scenic Highway Commercial (C-P-S) and Controlled Development Area (W-2). The W-2 area allows single-family residential and light agriculture (the suffix indicates a 2-acre minimum parcel size); and the C-P-S district allows certain wholesale and retail commercial uses. This County territory is within the City's Sphere of Influence; the City land use designation for the area is Rural Residential (RR) and Residential (R1).

East of Gilman Springs Road. The Badlands area, easterly of Gilman Springs Road, is unincorporated within the jurisdiction of the County of Riverside and has a land use designation of Controlled Development Area (W-2, W-2-1, and W-2-20); allowed uses include single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). This County territory is also within the City's Sphere of Influence and the City land use designation for the area is Rural Residential (RR).

Southern Boundary. The land area to the south of the project is within the SJWA and the Lake Perris State Recreation Area. Portions of these facilities are within the City limits and have a City General Plan land use designation of Open Space (OS).

West of Redlands Boulevard. The City land use designations for the residential areas west of Redlands Boulevard are Residential R2 and R3 (maximum density of 2 and 3 dwelling units per acre, respectively). Residential areas southerly of the site along Alessandro Boulevard are subject to City land use designations of R2 and R5 (maximum density of 2 and 5 dwelling units per acre).

4.10.1.7 Project Components

The WLC project components are described in detail in Section 3.4, *Project Characteristics*. The City of Moreno Valley is the Lead Agency for the WLC project. The only land use approvals currently needed for the development of the World Logistics Center site are subdivision maps, and Local Agency Formation Commission (LAFCO) action to transfer 85 acres from unincorporated Riverside County to the City of Moreno Valley and into the City' Community Services District. The entitlements necessary for the WLC project include approval of the following:

- ~~General Plan Amendment(s) for the former MHSP site to Business Park/Light Industrial (BP/LI);~~
- ~~World Logistics Center Specific Plan with Logistics Development (LD) and Light Logistics (LL) zones;~~
- ~~Corresponding Zone Change to Specific Plan for the WLCSP and redesignate the CDFW Conservation Buffer Area as Open Space and the natural gas facilities as Public Facilities~~
- ~~Development Agreement for parcels owned by the project applicant;~~
- Tentative Parcel Map (for financing purposes only); and
- Annexation of an 85-acre parcel along Gilman Springs Road.

In addition, the WLC project will require other associated actions and approvals by other public entities in order to construct and operate the WLC project.

~~**General Plan Amendment.** The General Plan Amendment proposes a revision to the City General Plan land use designations for the entire MHSP area, including the project area as set forth in the proposed WLC Specific Plan. The General Plan Amendment also includes amendments to the following elements: (a) Community Development; (b) Parks, Recreation and Open Space; (c) Circulation; (d) Environmental Safety; and (e) Conservation. With these amendments, these elements will be modified to authorize the World Logistics Center Specific Plan and designate the WLC property for Business Park/Light Industrial (BP/LI) land uses.~~

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

~~**Specific Plan.** The proposed WLC project includes the 2,610-acre World Logistics Specific Plan to implement the logistics and industrial portion of the General Plan Amendment and to set forth comprehensive land use regulations governing the proposed WLC project. The World Logistics Center Specific Plan is a master plan for the development of approximately 40.6 million square feet of modern high-cube logistics warehouse distribution facilities and up to 200,000 square feet of light logistics uses.~~

~~The Specific Plan establishes the master plan of development for the project area, including development standards and use regulations, a master plan for circulation and infrastructure, architectural, landscape and design guidelines and sustainability goals, all of which will be applicable to all development within the developable project area.~~

~~Within the Specific Plan, the primary land use category will be Logistics Development. This use will provide for high-cube logistics warehouse space consisting of buildings of 500,000 square feet or greater, with ceiling heights of approximately 60–80 feet. Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted within this category. Ancillary office and maintenance space will be permitted, along with the outdoor storage of trucks, trailers, and shipping containers.~~

~~**Change of Zone.** The Change of Zone will establish the World Logistics Center Specific Plan, which will replace most of the Moreno Highlands Specific Plan and rezone several other properties. It will also redesignate the CDFW Conservation Buffer Area as Open Space and the natural gas facilities as Public Facilities. The WLCSP property will have two new land use zones, Logistics Development (LD) and Light Logistics (LL).~~

Annexation. The WLC project includes the annexation by the City of an 85-acre parcel located on the north side of Alessandro Boulevard at Gilman Springs Road. This parcel is already within the City's Sphere of Influence. The City has requested annexation of the 85 acres. ~~proposed project includes pre-annexation General Plan land use designations and zoning for this parcel, and the~~The EIR will be the environmental documentation used by the Local Agency Formation Commission (LAFCO) to complete the annexation process. The County's land use designation currently applicable to this parcel is W-2-2½. The W-2 area allows single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). ~~and the~~The City's current General Plan land use designation for the 85 acres ~~site~~ is Business Park (BP) and is subject to the WLC Specific Plan. ~~This project proposes to incorporate this property into the World Logistics Center Specific Plan.~~

4.10.1.8 General Plan and Zoning Designations

Table 4.10.B compares the existing and proposed land uses in the project vicinity.

Table 4.10.B: Existing and Proposed Land Uses in the Project Vicinity

Location	Current Land Uses	Existing General Plan Land Uses	Proposed General Plan and Specific Plan/Zoning Designations
On-site	Agricultural/ undeveloped	~~Moreno Highlands Specific Plan with Residential, Commercial, Public Facilities~~, Business Park, Light Industrial, Open Space,WLC SP ~~Mixed Use~~	~~Business Park/Light Industrial (BP/LI) with the World Logistics Center Specific Plan Specific Plan including Logistics Development (LD), Light Logistics (LL), and Open Space (OS).~~No Change
North of Site/South of SR-60	Highland/ Fairview Corporate Park	Commercial/Light Industrial	No Change
North of Site/North of SR-60	Low Density Residential/ Agriculture	Low Density Residential/ Office Strip along freeway	No Change
South	Open Space	Open Space	No Change
East	Open Space	Open Space	No Change

Table 4.10.B: Existing and Proposed Land Uses in the Project Vicinity

Location	Current Land Uses	Existing General Plan Land Uses	Proposed General Plan and Specific Plan/Zoning Designations
West	Residential/ Undeveloped	Residential	No Change

4.10.2 Applicable Regulations

The following goals, objectives, and policies of the City of Moreno Valley General Plan are applicable to the WLC project:

Section 9.2.2 Community Development

Goal 2.1 A pattern of land uses which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.

Goal 2.2 An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.

Goal 2.3 Achieves an overall design statement that will establish a visually unique image throughout the City.

Objective 2.1 Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the northeastern portion of the community.

Objective 2.5 Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.

Policy 2.5.1 The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.

Policy 2.5.2 Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.

Policy 2.5.3 Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.

Policy 2.5.4 Design industrial development to discourage access through residential areas.

Section 9.6.2 Safety Element

Objective 6.6 Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.

4.10.3 Methodology

The focus of the land use analysis is on land use impacts that would result from implementation of the WLC project. Land use conflicts are identified and evaluated based on existing land uses, land uses ~~proposed~~ as part of the project, land use designations, and standards and policies related to land use. Land use compatibility is based on the intensity and patterns of land use to determine whether a project would result in incompatible uses or nuisance impacts to sensitive receptors (e.g., residences, medical facilities, or schools).

An evaluation of the potential land use impacts associated with implementation of the WLC project is based on review of the Moreno Valley General Plan and associated Final EIR, the Moreno Valley Municipal Code, SCAG Regional Comprehensive Plan, SCAG Regional Transportation Plan, SCAG Compass Growth Vision, SCAQMD Air Quality Management Plan, Santa Ana Water Quality Control Plan, Riverside County Drainage Area Management Plan, and the EMWD Urban Water Management Plan. Compatibility of the WLC project with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is discussed in Section 4.4, *Biological Resources*.

4.10.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to land use. Based on these significance thresholds, potential impacts to land use could be considered significant if the WLC project would result in the following:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.10.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.10.5.1 Conflict with Any Applicable Habitat or Natural Community Conservation Plan

Threshold	Would the WLC project conflict with any applicable habitat conservation plan or natural community conservation plan?

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The WLC project site is located within the MSHCP area, Mead Valley and Reche Canyon/Badlands Plan Area.[1] The MSHCP is a comprehensive, multi-jurisdictional effort that includes Riverside County and fourteen cities to provide a regional approach to conservation planning. Portions of the project area occur in 14 criteria cells of the MSHCP. The project site is not located within any special linkage areas identified by the MSHCP. The project applicant, the City, and the County[2] are required to use the Joint Project Review (JPR) process established in the MSHCP to identify and acquire habitat as part of the development review process. The JPR process involves negotiations between a landowner and the

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[1] *Multiple Species Habitat Conservation Plan Compliance Report*, Michael Brandman Associates. September 20, 2014.
[2] Western Riverside County Regional Conservation Authority (RCA)

Western Riverside County Regional Conservation Authority (RCA) so the County can acquire land with important habitat or other biological resources while providing fair compensation and/or reasonable development opportunities on the remaining land for the landowner.

The WLC project site is located within areas requiring burrowing owl surveys, within the MSHCP Criteria Area Species Survey Area (CASSA), and Narrow Endemic Plant Species Survey Area (NEPSSA).

Because the WLC project site is within an MSHCP CASSA and is considered to be a covered activity, the project is subject to provisions of the MSHCP. In particular, the project proponent will be required to provide payment of mitigation fees and adhere to the BMPs found in Appendix C of the MSHCP. Pursuant to agreements with the U.S. Fish and Wildlife Service (USFWS) and the CDFW, the payment of the mitigation fees and compliance provisions of the MSHCP provides full mitigation under CEQA, the Federal Endangered Species Act (FESA), and the California Endangered Species Act (CESA) for impacts to the species and habitats covered by the MSHCP. Since the City has adopted the MSHCP and its requirements and provisions, and since the project is within Moreno Valley, the WLC project would be required to adhere to applicable MSHCP requirements and fees. Therefore, the WLC project was determined to be consistent with the MSHCP WLC project (see Section 4.4, *Biological Resources*).

4.10.5.2 Conflict with Applicable Land Use Plans, Policies, or Regulations (Regional)

Threshold	Conflict with any applicable regional land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Section 15125 (d) of the *CEQA Guidelines* requires EIRs to “discuss any inconsistencies between the proposed project and applicable general plans and regional plans.” The objective of such a discussion is to find ways to modify a project, if warranted, to eliminate any identified inconsistencies with relevant plans and policies, and thereby avoid creating an impact to the environment that consistency with the plan would otherwise mitigate. Pursuant to *CEQA Guidelines* Section 15125 (d), this EIR section includes an evaluation of the consistency of the WLC project with pertinent goals and policies of relevant adopted local and regional plans. Because certain plans are more specifically tailored to other issue areas, such as air quality, transportation, biology, hazards, water quality, and water supply, the local and regional plans identified below are addressed in detail in other sections of this EIR. The following analysis evaluates the project against all the applicable regional planning documents and processes, while the following Section 4.10.6.1 evaluates the project relative to the City of Moreno Valley General Plan.

Airport Regulations. **March Air Force Base (**MARB) is a joint-use airport, used for military and civilian purposes, located seven miles west of the WLC project site. The project area is outside of any Federal or State regulation related to MARB. The project is also outside of any areas regulated by the Riverside County Airport Land Use Plan (ALUP). Therefore, the project does not have a conflict with the ALUP and no impact will occur.

SCAG Applicable Regional Plans. On April 4, 2012, the SCAG approved the year 2012 Regional Transportation Plan (RTP)/Sustainable Communities Plan (SCS). This section evaluates consistency with both the SCAG 2008 RTP and the SCAG 2012 RTP.

SCAG 2008 Regional Comprehensive Plan (RCP), Regional Transportation Plan (RTP), and Compass Growth Vision (Compass): The SCAG (the designated Metropolitan Planning Organization

[MPO] for the Counties of Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles) is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. With its members and other regional planning entities, the SCAG prepared the 2008 RCP to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated in the region for the 2008–2012 timeframe. The RCP is a major advisory plan prepared by the SCAG that addresses important regional issues like housing, traffic/transportation, water, and air quality. The RCP serves as an advisory document to local agencies in the Southern California region for their information and voluntary use for preparing local plans and handling local issues of regional significance.

The RCP identifies voluntary best practices to approach growth and infrastructure challenges in an integrated and comprehensive way. It also includes goals and outcomes to measure progress toward a more sustainable region. The RCP includes nine chapters, each based on specific areas of planning or resource management. Each of the nine chapters contains goals, policies, implementation, and strategies to achieve the SCAG's overall goals of improving the standard of living for all; improving the quality of life for all; and enhancing equity and access to government. Local governments are required to use the RCP as the basis for their own plans and are required to discuss the consistency of projects of "regional significance" with the RCP.

Regional Comprehensive Plan: The RCP's overall goal is to reinvigorate the region's economy, avoid social and economic inequities and the geographical dislocation of communities, and to maintain the region's quality of life. The document is described as a regional policy framework for future land use decisions in the SCAG area that respects the need for strong local control, but that also recognizes the importance of regional comprehensive planning for issues of regional significance. The RCP is laid out much like a General Plan and organizes recommended policies into nine chapters. The highlight of each chapter is the regional strategy that addresses the RCP's vision for that resource area. As such, each chapter includes three levels of recommendations for the region:

- *Goals.* Each goal will help define how sustainability is defined for that resource area.
- *Outcomes.* These focus on quantitative targets that define progress toward meeting the RCP's Goals. Where possible, they are clearly defined (e.g., a 20% reduction in greenhouse gas emissions from 2007 levels), capable of being monitored with existing or reasonably foreseeable resources, and have a strong link to sustainability goals.
- *Action Plan.* This critical part of the RCP lays out a comprehensive implementation strategy that recommends how the region can systematically move to meet the RCP's quantitative Outcomes and achieve its Goals, Guiding Principles, and Vision. Each Action Plan contains:
    - *Constrained Policies.* This includes a series of recommended near-term, feasible policies that stakeholders should consider for implementation. For example, the RCP calls on the SCAG to adopt policies that reflect its role as a planning agency, council of governments, and metropolitan planning organization. The RCP also recommends voluntary policies for consideration by local governments and other key stakeholders.
    - *Strategic Initiatives.* This encompasses longer-term strategies that require significant effort to implement but are necessary to achieve the RCP's desired Goals and Outcomes. For example, identifying technological breakthroughs that can reduce air pollution from the transportation sector requires both commitment and time. Most of these initiatives are not constrained and will require political will, enabling legislation, new funding sources, and other key developments to become a reality. In most cases, this tier of strategies is the key to achieving the region's sustainability Goals and Outcomes.

Other policies contained within the 2008 RCP were either not applicable to the WLC project or are directed at the SCAG and actions that the SCAG would undertake at the regional level that would not pertain directly to the WLC project. Policies within the 2008 RCP that are applicable to the WLC project were identified and are discussed below.

Land Use and Housing Chapter

Goal *Focusing growth in existing and emerging centers and along major transportation corridors.*

Consistent. The WLC project site is currently either underdeveloped or used for agriculture. Regional access to the City and project area is provided from SR-60, which runs east-west just north of the project site. SR-60 provides direct access to the site via interchanges at Redlands Boulevard, ~~Theodore Street~~World Logistics Center Parkway, and Gilman Springs Road.

According to the City's "Rancho Belago Development Strategy" adopted in 2011, the WLC project would occur in an area acknowledged by the City as appropriate for this type of development. The existing roadway system and infrastructure surrounding the project site will be utilized to the maximum extent possible, and the WLC project will install improvements and/or pay necessary fees to facilitate the continuation of satisfactory operation. The WLC project is consistent with this SCAG policy in that it exists along a major transportation corridor of the City and will be connecting to the existing utilities underlying the arterial roadways.

Goal *Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations.*

Consistent. The WLC project would comply with all City development policies, standards, and programs pertaining to supporting alternative modes of transportation included in the General Plan Circulation Element. In addition, the WLC project is located within an urbanizing area of the City. As provided in the discussion on cumulative projects (Section 4.10.7), the approved and planned development in the project area includes residential, commercial, and industrial uses. As such, the project site is in an area that is developing with projects that have already been approved and constructed, or are in the various stages of the planning process.

Transit service in Moreno Valley is provided by the Riverside Transit Authority (RTA), which provides two routes in the vicinity of the development:

- Route 35, which runs along Eucalyptus Street, Moreno Beach Boulevard, and SR-60; while this route does not directly serve the project site, it could be readily rerouted through the site.
- Route 20, which runs along the southerly portion of Moreno Beach Boulevard, approximately one mile west of the site.

Because the WLC project site is located in close proximity existing RTA routes,[1] the WLC project could be accessible to existing transit systems. As the project site is located adjacent to an area where commercial, residential, and industrial uses are planned or approved, and because the project site is readily accessible from SR-60 and from existing RTA bus routes, the WLC project would be consistent with this SCAG Policy.

Goal *Inject new life into underused areas by creating vibrant new business districts, redeveloping old buildings, and building new businesses and housing on vacant lots.*

Consistent. The WLC project site is currently used for agriculture. The WLC project would introduce new high-cube logistics warehouse uses on vacant lots.

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[1] Riverside Transit Agency, http://www.riversidetransit.com, website accessed April 15, 2012.

Outcome *Significantly increase the number and percentage of new housing units and jobs created within the Compass Blueprint 2% Strategy Opportunity Areas by 2012 and improve the regional jobs-housing balance. (Tracking the number of new units will measure the region's progress in accommodating forecast growth. The percentage of housing and jobs developed within the Opportunity Areas will indicate the locational efficiency of growth.)*

Consistent. The project is designed to address the City of Moreno Valley jobs/housing imbalance; the City has a scarcity of jobs compared to the number of residents.

Direct population increases are generally associated with residential developments and as there are no residential uses proposed for the WLC project, there would be no direct increase in population. As most of the new employment opportunities are anticipated to be filled by existing local area residents, a large influx of new residents to the City would not occur. The City's current population per the 2010 Census is 195,216 and the SCAG projects the City's population will grow by 59,984 persons by the year 2035 (+31%). A City or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. The 2011 estimated jobs-to-housing ratios for the City, County, and SCAG region are 0.45, 0.69, and 1.14, respectively. These ratios indicate that both Western Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below that of the Southern California region (as defined by SCAG).

It is anticipated that any new employment opportunities created by the development of the WLC project would be filled by persons already residing in the local area. The WLC project would serve the existing and continuing growth in the City and would not result in any direct increase to the population or households not previously anticipated in the City of Moreno Valley. In fact, it would result in a decrease in projected population in favor of an increase in anticipated job growth. As such, the WLC project would be within the SCAG and Western Riverside Council of Governments (WRCOG) growth projection forecasts and would be consistent with this SCAG policy.

Outcome *Reduce total regional vehicle miles traveled (VMT) to 1990 levels by 2020. (The Land Use and Housing Action Plan can be expected to result in a 10% reduction in VMT in 2035 when compared to current trends. VMT serves as a proxy for jobs/housing balance, urban design, transit accessibility, and other urban form issues. VMT per household will decrease with Compass Blueprint implementation.)*

Consistent. As previously identified, the WLC project would comply with all City development policies, standards, and programs pertaining to supporting alternative modes of transportation included in the General Plan Circulation Element. In addition, the WLC project would result in the development of employment opportunities in fairly close proximity to existing residential development. The type of uses proposed and their proximity to each other allow for increased pedestrian and bicycle activity, limiting the need for vehicle travel. Because the project site is located adjacent to existing RTA Route 35[1] the WLC project would be accessible to existing transit systems. Through consultation with the RTA, the project applicant will coordinate and facilitate the use of public transit to access the project site. The provision of additional employment options in proximity to existing residential development has the potential to reduce VMT; therefore, the WLC project is consistent with this policy.

Section 4.15 of the EIR, *Traffic and Transportation*, indicates that Moreno Valley currently has a jobs/housing imbalance resulting in long westbound commutes for thousands of City residents every workday. The WLC Specific Plan would eventually create approximately 25,000 new jobs, nearly

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[1] Riverside Transit Agency, http://www.riversidetransit.com, website accessed April 15, 2012.

doubling the number of jobs in Moreno Valley. This would have several effects on commute patterns over the long-term:

- Many existing and future residents of Moreno Valley would be able to work locally with very short commute trips.
- Residents of neighboring cities who work within the WLC Specific Plan area would have short commutes and be able to access the site using the local arterial road network rather than the freeway. This is consistent with the policies of the WRCOG and the Riverside County Transportation Commission (RCTC) to promote use of the arterial road network as an alternative to freeways. The traffic study indicates that nearly half of auto traffic associated with the project would be on surface streets (i.e., not on freeways).
- Workers coming from more distant residences would, in most cases, be traveling on freeways in the off-peak direction; i.e. commuters traveling to the project from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of facilities that were sized for flows in the peak direction. The traffic study determined that, although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction (Figure 40, TIA 2014). In the evening, this pattern would reverse, with the project relieving traffic in the congested eastbound direction (Figure 41, TIA 2014). Therefore, it appears the project will have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of the SCAG, WRCOG, and other regional bodies to encourage better jobs/housing balances as a way to reduce peak flow on the freeway system. It will also help the project and City comply with the requirements of SB 375 regarding long-term land use patterns to achieve a better regional balance of jobs/housing, which in turn will help reduce traffic congestion on regional freeways.

It should also be noted that ~~this~~ the WLC project will help reduce VMT within the City of Moreno Valley over the long term since it will add thousands of new jobs to the local workforce instead of new housing, thus improving the City's jobs to housing ratio.

Policy LU-6.2 *Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program.*

Consistent. According to Section 1.3.2 of the WLC Specific Plan, the project will be in conformance with California's CALGreen building regulations. The Specific Plan states that 1) these are "the most stringent, environmentally friendly building codes in the U.S.;" and 2) "CALGreen is a comprehensive, far-reaching set of regulations which mandate environmentally advanced building practices and regulations designed to conserve natural resources and reduce greenhouse gas emissions, energy use, and water use."

In addition to compliance with the CALGreen building regulations, WLCSP Section 1.3.2, *Green Building – Sustainable Development*, indicates the project proposes to incorporate the following sustainable design features to further reduce its environmental footprint, including:

- Allow the installation of solar photovoltaic panels on each building (i.e., Mitigation Measure 4.16.4.6.1C requires that the project install solar panels to provide electricity for the office demands.) to help offset each building's annual electrical demand;
- The project would require LEED certification for buildings and would require buildings to exceed Title 24 by 10 percent;
- Channelizing street runoff into landscape areas instead of storm drains;

- Use of recycled and/or locally sourced building materials to the extent feasible;
- Reduction in the use of impervious surfaces throughout the project;
- The WLCSP provides for an alternative fueling station on the site;
- Provide for site access via existing transit systems (WLCSP Section 3.3.4, Mass Transit Circulation); and
- Provide for internal circulation via bicycles and walking (WLCSP Section 3.4, Non-Vehicular Circulation).

Therefore, the WLC project is consistent with this SCAG policy.

Open Space and Habitat Chapter

Policy OSC-8 *Local governments should encourage patterns of urban development and land use, which reduce costs of infrastructure and make better use of existing facilities.*

Consistent. The WLC project is adjacent to existing developed in areas that are presently served by various existing water, sewer, storm drainage, electrical, natural gas, and transportation services. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The supply of electricity and natural gas is demand-responsive and the project proponent would be required to meet the service requirements of these utility providers. By maximizing the use of existing facilities, the costs of expanding infrastructure would be minimized. Because the WLC project would be located in close proximity to existing industrial, commercial, and residential structures requiring a similar type of infrastructure, it is consistent with this growth management policy.

Policy OSC-12 *Developers and local governments should promote water-efficient land use and development.*

Consistent. As identified in Section 4.17 of this EIR, pursuant to Assembly Bill 325 (AB 325), the City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which establishes water conservation requirements for new or rehabilitated landscapes.[1] The WLC project is subject to this ordinance and will be required to implement water-efficient landscaping design (i.e., drought-tolerant landscaping) within the project site. In addition, a major design concept of the Specific Plan is water conservation through the careful selection and maintenance of drought-tolerant native plants. For example, Section 1.3.1 of the Specific Plan indicates a major goal of the project will be to minimize water consumption as outlined in Specific Plan Section 5.2.3 *Sustainable Design*, Section 5.4, *Onsite Landscaping,* and Section 6.0, *Sustainability*. All of these sections call for the project to minimize water use through installation of drought-tolerant landscaping and irrigating with runoff from building roofs and ground-level hardscape areas. Therefore, the WLC project would be consistent with this SCAG policy.

Water Chapter

Policy WA-11 *Developers and local governments should encourage urban development and land uses to make greater use of existing and upgraded facilities prior to incurring new infrastructure costs.*

Consistent. Existing warehousing development is located in the immediate vicinity of the WLC project site where infrastructure for water, sewer, storm drainage, electrical, natural gas, and transportation facilities currently exist. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The utility and roadway improvements will facilitate future growth in the

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[1] *City of Moreno Valley Municipal Code.*

surrounding area. The availability of this infrastructure would reduce the cost to public agencies that would provide services to the project area. The WLC project would be developed in an area where such infrastructure is accessible. Furthermore, the project applicant would pay all applicable development fees for the necessary infrastructure and public service improvements, including those associated with water, sewer, drainage, roadways, fire, and police; therefore, the WLC project is consistent with this policy.

Policy WA-12 *Developers and local governments should reduce exterior uses of water in public areas, and should promote reduced use in private homes and businesses by shifting to drought-tolerant native landscape plants (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives.*

Consistent. As identified in earlier in this section, pursuant to Assembly Bill 325 (AB 325), the City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which establishes water conservation requirements for new or rehabilitated landscapes.[1] The WLC project is subject to this ordinance and will be required to implement water-efficient landscaping design (i.e., drought-tolerant landscaping) within the project site. Therefore, the WLC project would be consistent with this SCAG policy.

Energy Chapter

Policy EN-10 *Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Energy-saving measures that should be explored for new and remodeled buildings include:*

- *Using energy-efficient materials in building design, construction, rehabilitation, and retrofit.*
- *Encouraging new development to exceed Title 24 energy efficiency requirements.*
- *Developing Cool Communities measures including tree planting and light-colored roofs. These measures focus on reducing ambient heat, which reduces energy consumption related to air conditioning and other cooling equipment.*
- *Utilizing efficient commercial/residential space and water heaters. This could include the advertisement of existing and/or development of additional incentives for energy-efficient appliance purchases to reduce excess energy use and save money. Federal tax incentives are provided online at http://www.energystar.gov/index.cfm?c=Products.pr_tax_credits.*
- *Encouraging landscaping that requires no additional irrigation; utilizing native, drought-tolerant plants can reduce water usage up to 60 percent compared to traditional lawns.*
- *Encouraging combined heating and cooling (CHC), also known as cogeneration, in all buildings.*
- *Encouraging neighborhood energy systems, which allow communities to generate their own electricity.*
- *Orienting streets and buildings for best solar access.*

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[1] *City of Moreno Valley Municipal Code*.

- *Encouraging buildings to obtain at least 20 percent of their electric load from renewable energy.*

Consistent. According to Section 5.2.3 of the WLC Specific Plan (Sustainable Design), the project will be in conformance with California's "CALGreen" building regulations which are considered the most stringent, environmentally friendly building codes in the U.S. In addition to compliance with the CALGreen building regulations, the project proposes to incorporate the following additional sustainable design features to further reduce its environmental footprint, including:

- The project would require LEED certification for buildings and would require buildings to exceed Title 24 by 10 percent;
- Allow the future installation of solar photovoltaic panels on each building (i.e., Mitigation Measure 4.16.4.6.1C requires that the project install solar panels to provide electricity with a minimum capacity equal to office electrical demand.) to help offset annual electrical energy consumption;
- Substantially reduced water use for landscape irrigation;
- Channelizing street runoff into landscape areas instead of storm drains;
- Use of recycled and/or locally sourced building;
- Reduction in the use of impervious surfaces throughout the project;
- The WLCSP provides for an alternative fueling station on the site;
- Provide for site access via existing transit systems (WLCSP Section 3.3.4, Mass Transit Circulation); and
- Provide for internal circulation via bicycles and walking (WLCSP Section 3.4, Non-Vehicular Circulation).

In addition, the strategies listed in Section 4.7, *Greenhouse Gases and Global Climate Change*, of this EIR are considered to be greenhouse gas emission reduction strategies, which include green building measures. These strategies are either part of the WLC project, required mitigation measures, or requirements under local or State ordinances. Since the project would implement these strategies into project design and operation, the project would be consistent with this SCAG policy.

Solid Waste Chapter

Policy SW-14 *Developers and local governments should integrate green building measures into project design and zoning including, but not limited to, those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Construction reduction measures to be explored for new and remodeled buildings include:*

- *Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.*
- *An ordinance that requires the inclusion of a waste management plan that promotes maximum C&D diversion.*
- *Source reduction through (1) use of building materials that are more durable and easier to repair and maintain, (2) design to generate less scrap material through dimensional planning, (3) increased recycled content, (4) use of reclaimed building materials, and (5) use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings).*
- *Reuse of existing building structure and shell in renovation projects.*

Building lifetime waste reduction measures that should be explored for new and remodeled buildings include:

- *Development of indoor recycling program and space;*
- *Design for deconstruction; and*
- *Design for flexibility through use of moveable walls, raised floors, modular furniture, moveable task lighting, and other reusable components.*

Consistent. As noted above, according to Section 5.2.3 of the WLC Specific Plan, *Sustainable Design*, the project will be in conformance with California's "CALGreen" building regulations. In addition to compliance with the CALGreen building regulations, the project proposes to incorporate the following additional sustainable design features to further reduce its environmental footprint, including:

- Substantially reduced water use for landscape irrigation;
- Channelizing street runoff into landscape areas instead of storm drains;
- Use of recycled and/or locally sourced building materials to the extent feasible;
- Reduction in the use of impervious surfaces throughout the project;
- Provide for site access via existing transit systems; and
- Provide for internal circulation via bicycles and walking.

The strategies listed in Section 4.7 *Greenhouse Gases and Global Climate Change* of this EIR are considered to be greenhouse gas emission reduction strategies, which include green building measures. These strategies are either part of the WLC project, required mitigation measures, or requirements under local or State ordinances. With implementation of these strategies/measures, the project would be consistent with this SCAG policy.

Transportation Chapter

Goal *A more efficient transportation system that reduces and better manages vehicle activity.*

Consistent. The WLC project would result in the development of employment opportunities in close proximity to housing. In addition, the project proposes sidewalks, bicycle routes, and landscaping treatments to provide for pedestrian and bicycle access throughout the project site. The type of uses proposed and their proximity to each other allow for increased pedestrian and bicycle activity, limiting the need for vehicle travel. At present, Moreno Valley has a jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately 24,000[1] permanent new jobs within the City (20,307 direct jobs and 3,693 indirect jobs); nearly doubling the number of jobs in Moreno Valley. This would have several effects on commute patterns:

- Many existing and future residents of Moreno Valley would be able to work locally with very short commute trips.
- Residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the WRCOG and the RCTC to promote use of the arterial road network as an alternative to freeways. Tests with the Riverside County Traffic Analysis Model (RivTAM) model suggest that nearly half of auto traffic associated with the WLC would be on surface streets (i.e., not on freeways).

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[1] *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., original dated January 2012, updated September, 2014.*

- Workers coming from more distant residences would, in most cases, be traveling on freeways in the off-peak direction; i.e. commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of facilities that were sized for flows in the peak direction. Although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction. In the evening, the pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore the WLC project will have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of SCAG, WRCOG, and other regional bodies to encourage better jobs/housing balances as a way to reduce peak flow on the freeway system.

Therefore, ~~this~~ the WLC project is consistent with this transportation goal.

Security and Emergency Preparedness Chapter

Goal *Ensure transportation safety, security, and reliability for all people and goods in the region.*

Consistent. The WLC project is consistent with this goal in that the WLC project would be required to adhere to the City of Moreno Valley's General Plan. The General Plan contains goals and policies that aim to provide adequate and reliable transportation facilities. The goals and policies identified in the City's General Plan resemble those of the RCP that address mobility, traffic safety, environmental concerns, and land use consistency as the major traffic study factors to identify existing traffic conditions and to assess the future effects on area traffic patterns/flow.

Economy Chapter

Goal *Enable business to be profitable and competitive (locally, regionally, nationally, and internationally).*

Consistent. The WLC project would add to the City's portfolio of industrial and logistics services. Through the addition of the WLC project, the City would also expand its economic competitiveness with other areas in the region. Therefore, the WLC project is consistent with this policy.

Goal *Promote sustained economic health through diversifying the region's economy, strengthening local self-reliance and expanding competitiveness.*

Consistent. As previously stated, the WLC project would add to the City's portfolio of industrial and logistic services, which would enable the City to be more self-reliant through the provision of goods and services to residents within the City. Through the addition of the WLC project, the City would also expand its economic competitiveness with other areas in the region. Therefore, the WLC project is consistent with this policy.

Goal *Ensure a healthy, flourishing economy that provides sufficient employment opportunities to decrease poverty and meet the basic needs of all the people who participate in our economy by promoting education and workforce training policies that give residents an opportunity to compete for the full range of jobs available with good wages and benefits.*

Consistent. The WLC project would provide additional employment opportunities in a community with a low jobs/housing ratio. In addition, the WLC project would meet the basic needs of those who participate in the economy through the use of training in the workforce. Therefore, the WLC project is consistent with this policy.

Outcome *Increase job growth to add three million jobs to the regional economy by 2035.*

Consistent. The WLC project would result in additional jobs in the City and indirect jobs in the County and City, which would contribute to job growth in the regional economy. Therefore, the WLC project is consistent with this policy.

Outcome *Increase the region's economic vitality and attractiveness by focusing housing and job additions in urban centers, employment centers, and transportation corridors, such that there will be a minimum of 35 percent of the region's household growth and 32 percent of employment growth in these areas from their levels in 2005 by 2035.*

Consistent. Development of the on-site uses would increase the number of jobs in the City by approximately 24,000 at full development. The 2011 estimated jobs-to-housing ratios for the City, sub-region, and region are 0.45, 0.69, and 1.14, respectively. The 2035 future jobs-to-housing ratios for the City, sub-region, and region are 0.88, 1.14, and 1.29, respectively. These ratios indicate that both western Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below the Southern California region (as defined by SCAG). A city or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. Since the WLC project would add jobs to a "jobs poor" region, the WLC project would increase the region's economic vitality and attractiveness by job additions in urban centers and along transportation corridors. Therefore, the WLC project is consistent with this SCAG policy.

2008 Regional Transportation Plan: The 2008 RTP adopted by the SCAG in May 2008 contains a set of existing socioeconomic projections used as the basis for the SCAG's transportation planning efforts. They include projections of population, housing, and employment at the regional, county, sub-regional, jurisdictional, Census tract, and transportation analysis zone levels. The RTP includes policies and regulations set forth to ensure development within the SCAG regional area is within planned and forecast socioeconomic projections. Goals established within the RTP include the following:

- Maximize mobility and accessibility for all people and goods in the region (discussed in Section 4.15, *Traffic and Circulation*);
- Ensure travel safety and reliability for all people and goods in the region (discussed in Section 4.15, *Traffic and Circulation*);
- Preserve and ensure a sustainable regional transportation system (discussed in Section 4.15, *Traffic and Circulation*);
- Maximize the productivity of our transportation system (discussed in Section 4.15, *Traffic and Circulation*);
- Protect the environment, improve air quality, and promote energy efficiency (discussed in Section 4.3, *Air Quality*);
- Encourage land use and growth patterns that complement our transportation investments and improve the cost-effectiveness of expenditures (discussed in Section 4.15, *Traffic and Circulation*); and
- Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies (discussed in Section 4.15, *Traffic and Circulation*).

The WLC project is consistent with the RTP in that it would be required to adhere to the City of Moreno Valley's General Plan. The General Plan contains goals and policies that aim to minimize traffic congestion, provide adequate transportation facilities, and require development to pay its share of costs. The goals and policies identified in the City's General Plan resemble those of the RTP that address mobility, traffic safety, environmental concerns, and land use consistency as the major traffic study factors to identify existing traffic conditions and to assess the future effects on area traffic patterns/flow.

Compass Growth Vision: The Compass Growth Vision plan provides a framework for local and regional decision-making regarding growth, transportation, land use, and economic development. The framework includes principles and a specific set of strategies intended to achieve and improve a quality of life that promotes and sustains for future generations the region's mobility, livability, and prosperity. The main objective of the Compass Growth Vision is to manage the forecast growth while improving future living conditions for all people within the SCAG area, including live, work, and play activities.

The following discussion includes the principles within the Compass Growth Vision plan and their association to the WLC project.

- ***Principle 1:*** Improve mobility for all residents.
- ***Principle 2:*** Foster livability in all communities.
- ***Principle 3:*** Enable prosperity for all people.
- ***Principle 4:*** Promote sustainability for future generations.

The WLC project is consistent with the four principles identified above. The nature of the WLC project allows the transport of commodities from a single area rather than multiple areas, minimizing vehicle trip generation. The WLC project supports the prosperity for all people by providing employment opportunities close to existing housing within the City of Moreno Valley. The WLC project is located in an area that is already developing with urban uses and where existing infrastructure (freeway, sewer, electrical, water, etc.) is accessible. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The utility and roadway improvements will facilitate future growth in the surrounding area. The development of the WLC project is consistent with the land use vision for the site and will augment existing services available in the City and region.

SCAG 2012 Regional Transportation Plan and Sustainable Communities Plan. As part of the adoption of the 2012 RTP, SCAG developed an SCS, which was required as part of SB 375. According to SB 375, each metropolitan planning organization shall prepare a sustainable communities strategy, including the requirement utilizing the most recent planning assumptions considering local general plans and other factors. The Sustainable Communities Strategy shall:

1. Identify the general location of uses, residential densities, and building intensities within the region;
2. Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth;
3. Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region;
4. Identify a transportation network to service the transportation needs of the region;
5. Gather and consider the best practically available scientific information regarding resource areas and farmland in the region;
6. Consider the State housing goals specified in Sections 65580 and 65581;
7. Set forth a forecast development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse

gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the State Board; and

8. Allow the regional transportation plan to comply with the Federal Clean Air Act.

The SCS and the 2012 RTP contain new regional growth projections for each city in the Southern California region. Table 4.10.C contains the population and employment forecasts for the City of Moreno Valley.

Table 4.10.C: SCAG Population and Employment Projections, 2008–2035

Population			Employment			Increase 2008–2035	
2008 per Census	2020 Projection	2035 Projection	2008 per Census	2020 Projection	2035 Projection	Population	Employment
187,400	213,700	255,200	32,300	48,000	64,400	36%	99%

Source: SCAG 2012 RTP

The 2012–2035 RTP/SCS contains a number of "Outcome and Performance Measures/Indicators"[1] that are used to evaluate various regional land use plan alternatives, with the objective being an improvement over the No Project (i.e., no SCS) baseline. These measures are applied on a regional basis, and are not necessarily applicable to individual projects like the World Logistics Center. However, the following general discussion of consistency with the relevant measures shown in Table 4.10.D can be provided.

Table 4.10.D: Discussion of RTP Outcomes and Performance Measures/Indicators

Performance Measure/Indicator	Definition	Consistency of WLC project
Share of growth in High Quality Transit Areas (HQTAs)	Increase share of the region's growth in households and employment in HQTAs	**Consistent.** The WLC project is not currently located in an SCAG-defined HQTA. However, the project is located adjacent to existing transit routes and makes provisions for future bus service through the relocation of existing routes. By developing a focused employment center, the project can attract more frequent transit service to the area. Given the potential for readily providing transit service to the site, the project is generally consistent with this goal.
Land consumption	Reduce additional land needed for development that has not previously been developed or otherwise affected, including agricultural land, forest land, desert land, and other virgin sites.	**Consistent.** The SCAG plan calls for reducing the amount of virgin land converted to development, as compared to the "No Project" condition. The WLC project would develop land long planned for suburban level development, ~~but would replace the approved mixed-use residential project~~ with a logistics warehousing project that would add employment instead of housing to the City which has long been considered by SCAG to be "housing rich." The EIR does note that the WLC project would convert agricultural land to other uses.

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[1] http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_PerformanceMeasures.pdf, Table 2.

Table 4.10.D: Discussion of RTP Outcomes and Performance Measures/Indicators

Performance Measure/Indicator	Definition	Consistency of WLC project
Average distance for work or non-work trips	Decrease the average distance traveled for work or non-work trips separately.	**Consistent.** The City of Moreno Valley is "jobs-poor," which forces many Moreno Valley residents to commute long distances from their homes to work. By providing employment opportunities closer to existing population centers, the WLC project should reduce the length of work related trips.*
Percentage of work trips less than 3 miles.	Increase the share of total work trips that are fewer than 3 miles.	**Consistent.** As noted above, the City of Moreno Valley needs additional jobs for its residents. The project will increase the ability of Moreno Valley residents to find work closer to home and thereby reduce travel times. Approximately 50% of the City of Moreno Valley is within three miles of the project site. To the extent that Moreno Valley residents are employed at the project site, the share of work-related trips less than three miles should increase.
Work trip length distribution.	Reduce the statistical distribution of work trip length in the region.	**Consistent.** In addition to the discussion above, the project traffic study indicates that nearly half of auto traffic associated with the WLC project would be on surface streets (i.e., not on freeways). The traffic study determined that, although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction. In the evening, this pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore, it appears the project will have a net beneficial impact on the regional freeway auto traffic.
Criteria pollutants and greenhouse gas emissions.	Reduce CO, NO_X, $PM_{2.5}$, PM_{10}, VOC, and per capita greenhouse gas emissions (CO_2).	**Consistent.** To the extent that total work-related trip lengths are reduced, the WLC project would reduce such emissions.
Annual household transportation cost.	Reduce annual household spending on transportation costs of vehicle ownership, operation, and maintenance, and public transportation.	**Consistent.** To the extent that total work-related trip lengths are reduced, the WLC project would reduce such costs.
Percentage of jobs within 15 minutes' walk of transit.	Increase the number of jobs within 15 minutes' walk of public transportation.	**Consistent.** Assuming the bus service revisions as described above, all of the WLCSP site would be within 15 minutes' walk of public transportation.

* Market conditions at the time that employers move into the site will determine the actual match of jobs within the project to the then current employment needs of Moreno Valley residents.

Source: http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_PerformanceMeasures.pdf

As Table 4.10.D shows, the project is generally consistent with the SCAG RTP/SCS Performance measures. It should be noted that the WLCSP project will significantly improve the jobs/housing ratio for the City, which will assist SCAG in achieving its regional RTP growth goals, as well as a number of RTP performance standards regarding sub-regional jobs/housing ratios (i.e., regional goal is to add housing in jobs rich areas and add jobs in housing rich areas like Moreno Valley). Additional information and analysis in this regard is provided in Section 4.13, *Population, Housing, and Employment.*

Santa Ana Water Quality Control Plan (Basin Plan). The Santa Ana Basin Plan, which is implemented by the Santa Ana RWQCB, specifically (1) designates beneficial uses for surface and ground waters, (2) sets qualitative and quantitative objectives that must be attained and maintained at that level in order to protect the designated beneficial uses and conform to the State's anti-degradation policy, and (3) describes implementation policies and programs to protect all waters in the region. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Storm water runoff from approximately the western half of the project drains toward the west, into the Perris Valley Storm Drain, then flows into the San Jacinto River and eventually into Canyon Lake and Lake Elsinore. The eastern half of the project drains south into Mystic Lake when flows are high, and runoff eventually makes its way to the San Jacinto River. Because the WLC project is required to comply with all applicable water quality standards and requirements established by the RWQCB, and is therefore in compliance with the NPDES permitting system, the WLC project would be consistent with the Basin Plan.

Riverside County Drainage Area Management Plan (DAMP). Like the Basin Plan, the Drainage Area Management Plan deals primarily with the Santa Ana Region. The DAMP describes a wide range of continuing and enhanced Best Management Practices (BMPs) and control techniques for development projects within a municipality and are being implemented during the five-year terms of the third-term MS4 permits. In essence, the DAMP describes the overall urban runoff management strategies planned by the permittees in the Santa Ana Region. The WLC project is required to comply with all applicable drainage standards and requirements designed to protect water resources and enhance water quality and would therefore, be consistent with the DAMP.

Eastern Municipal Water District Urban Water Management Plan (EMWD UWMP). A UWMP is required of every urban water supplier in order to be in compliance with the Urban Water Management Plan Act. The UWMP includes assessment of current and projected water supplies, evaluation of water demand, customer types, and reliability of water supplies, description of conservation measures, a response plan for water shortage, and a comparison of demand and supply projections. The WLC project is required to comply with all applicable standards and requirements designed to conserve water supplies and ensure water source reliability for future years prior to the approval of the project. As such, the WLC project would be consistent with the EMWD UWMP. A comprehensive Water Supply Assessment (WSA) was prepared for this project by the EMWD that determined there were sufficient water supplies, including during multiple drought years, to supply the WLCSP project.

Summary of Impact 4.10.5.2: Conflict with Applicable Regional Land Use Plans, Policies, or Regulations. The preceding analysis demonstrates that the WLC project is generally consistent with the goals of SCAG's Regional Comprehensive Plan, Compass Plan and Regional Transportation Plan in that it seeks to add employment in an area that has historically been "jobs poor," which will help reduce worker commute trips from Moreno Valley over the long term. The WLCSP project ~~is generally consistent with these plans because the WLCSP will generate fewer emissions than the currently approved Moreno Highland Specific Plan, and it~~ will provide for a better balance of jobs versus housing in Moreno Valley, which will incrementally improve regional commuting directions and distances by providing almost 24,000 new jobs in an area currently planned for housing.

4.10.5.3 Conflict with Applicable Land Use Plans, Policies, or Regulations (Local)

Threshold	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific

Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Section 15125 (d) of the *CEQA Guidelines* requires EIRs to “discuss any inconsistencies between the proposed project and applicable general plans and regional plans.” The objective of such a discussion is to find ways to modify a project, if warranted, to eliminate any identified inconsistencies with relevant plans and policies, and thereby avoid creating an impact to the environmental that consistency with the plan would otherwise mitigate. Pursuant to *CEQA Guidelines* Section 15125 (d), this EIR section includes an evaluation of the consistency of the project with pertinent goals and policies of the adopted City of Moreno Valley General Plan (see Figure 4.10.2).

~~The project proposes to amend the existing City of Moreno Valley General Plan Land Use Plan for the project area. By definition, the project is inconsistent with the existing General Plan and approval of the project would correct the inconsistency by amending the General Plan Land Use and other Elements to be consistent with the WLC project and Specific Plan. Figures 4.10.2 and 4.10.3 show the existing General Plan land uses and the proposed land uses. Table 4.10.E compares the land uses allowed under the current General Plan with those allowed under the proposed amended General Plan.~~

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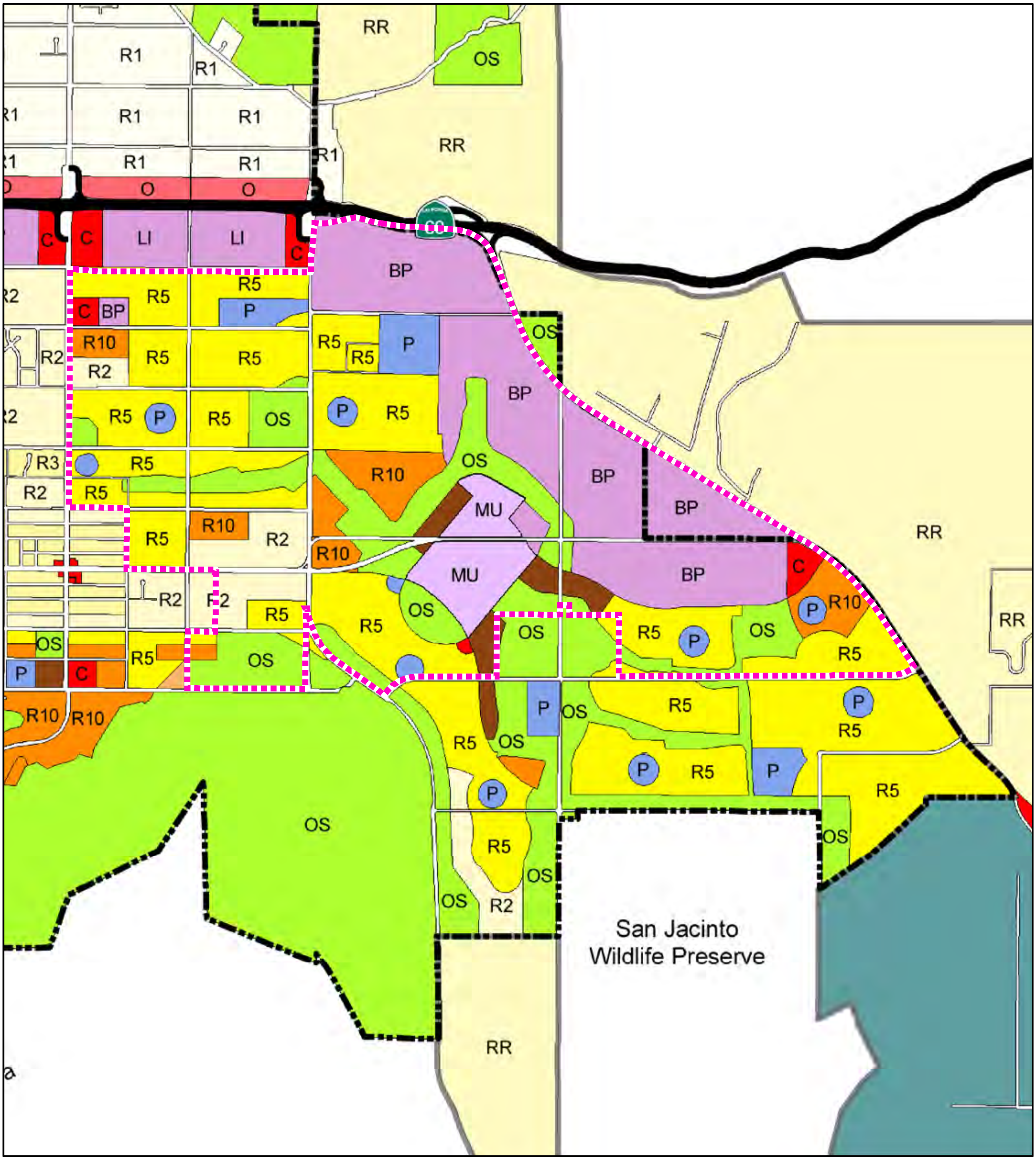

FIGURE 4.10.2

World Logistics Center Specific Plan Project
Environmental Impact Report

Existing General Plan Land Uses

SOURCE: Riverside County and City of Moreno Valley, August, 2010.

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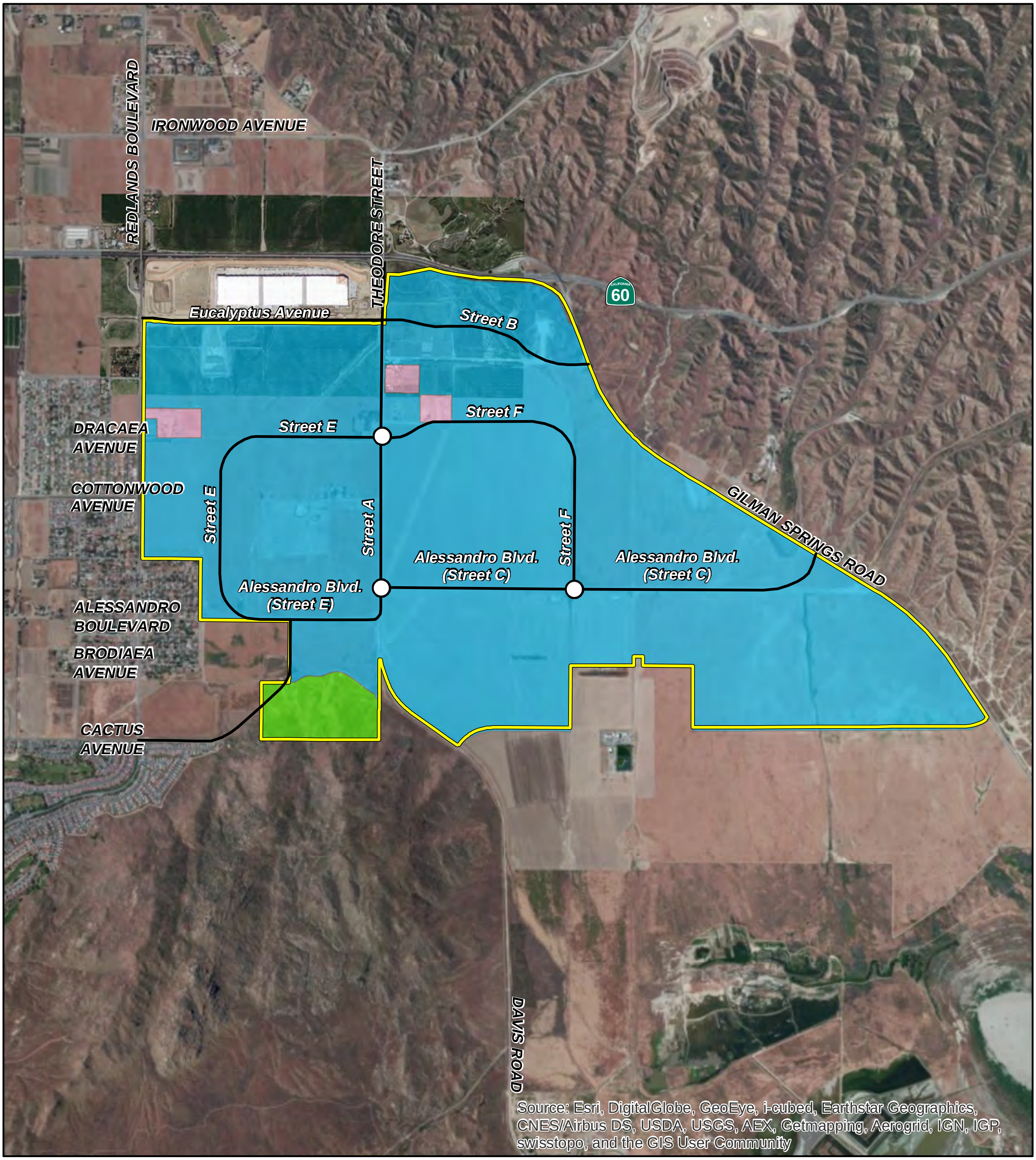

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LSA

FIGURE 4.10.3

N

0 1,500 3,000

FEET

☐ Project Boundary
🟪 Light Logistics
🟦 Logistics Development
🟩 Open Space

World Logistics Center Specific Plan Project
Environmental Impact Report

Proposed Project Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

I:\HFV1201\Reports\EIR\fig4-10-3_SP_LandUse.mxd (9/29/2014)

Table 4.10.E: City of Moreno Valley General Plan Consistency Analysis

Goals, Policies and Objectives	Project Consistency Analysis
Ultimate Goal IV: Enjoys a healthy economic climate that benefits both residents and businesses.	**Consistent:** The City has determined that its low jobs/ housing ratio limits the job opportunities for local residents, and creates economic challenges for the City. By increasing employment opportunities and potentially increasing the jobs/housing ratio, the WLC project will enhance the economic climate for both businesses and residents.
Ultimate Goal VI: Enjoys a circulation system that fosters traffic safety and the efficient movement of motor vehicles, bicycles, and pedestrians.	**Consistent:** The WLCSP circulation will be designed to modern safety standards, and provide for efficient movement and motor vehicles, both on the local streets and freeway. To the extent that the WLC project increases job opportunities for local residents, it should decrease the length of employment trips, increasing the efficiency of the local transportation system. However, it will result in substantial additional traffic, including trucks, on SR-60 and Gilman Springs Road. The project will make various roadway and intersection improvements, and pay ~~make fair share contributions to local Development Impact Fee (DIF) and~~ regional Transportation Uniform Mitigation Fee (TUMF) traffic mitigation programs.
Community Development Goal 2.1: Develop a pattern of land uses, which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.	**Consistent:** The WLC project proposes a major industrial/logistics center on agricultural land in the eastern end of the City. With proposed mitigation, these land uses will have adequate setbacks or be buffered from adjacent residential land uses. ~~The property was planned for a mixed use residential master planned community (i.e. Moreno Highlands Specific Plan) and so the proposed WLCSP project will require a General Plan Amendment.~~ In addition, ~~although this is a fundamental change from previous planned land uses,~~ it will provide a substantial amount of new employment consistent with the City's Economic Development Strategy and the 2011 Housing Element. Therefore, the WLC project is considered to be consistent with the General Plan in this regard.
Objective 2.1: Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the northeastern portion of the community.	**Consistent:** The proposed WLCSP will provide logistics-related employment to help balance out the historical abundance of housing developed in the City. It would not affect the northeastern portion of the City (i.e., north of SR-60).
Community Development Objective 2.5: Promote a mix of industrial uses that provides a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.	~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~ **Consistent:** The WLC project will provide 40.6 million square feet of logistics-related warehousing and supporting office space. This development will enhance the economic base and provide increased employment opportunities for the citizens of Moreno Valley in a limited number of worker categories. The project site has direct access to two interchanges on SR-60, along with arterial access to the balance of Moreno Valley, and access to the San Jacinto/Hemet Valley via Gilman Springs Road. It is therefore consistent with the General Plan.

Table 4.10.E: City of Moreno Valley General Plan Consistency Analysis

Goals, Policies and Objectives	Project Consistency Analysis
Community Development Policy 2.5.1: The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.	**Consistent**: The WLC project is consistent with policies applicable to the Business Park/Industrial designation. The project will primarily provide opportunities for warehousing/logistics distribution, along with additional opportunities for manufacturing and research and development, along with associated office space. The Specific Plan ~~will become~~provides the zoning regulations for the site, and designates the land uses allowed on each parcel. The net Floor Area Ratio is estimated to be 0.5, which is considered significantly less that the General Plan maximum of 1.0.
Community Development Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	**Consistent:** The WLC project proposes to locate logistics warehouses in the far eastern portion of the City, and residential uses are adjacent to the southwest portion of the project site. The Specific Plan addresses these adjacency impacts with setbacks and landscaping, berms, walls, etc. so the project will be compatible with surrounding uses.
Community Development Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.	**Consistent:** The WLC Specific Plan will provide visual and physical screening where planned uses are adjacent to existing residential uses.
Community Development Policy 2.5.4: Design industrial developments to discourage access through residential areas.	**Consistent:** The proposed circulations network provides primary project access directly from SR-60, and does not rely on residential streets. Trucks will generally access the WLC site off SR-60 by using the ~~Theodore Street~~WLC Pkwy Interchange. Truck access along the Cactus Avenue Extension to Cactus Avenue and along Redlands Boulevard south of Eucalyptus Avenue will be prohibited.
Community Development Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.	**Consistent:** The WLC Specific Plan includes contemporary design standards, which will provide a pleasant working environment.
Community Development Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	**Consistent:** Section 5.0 of the WLC Specific Plan provides the architectural theme for the development.
Community Development Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).	**Consistent:** Section 6.0 of the WLC Specific Plan provides for mounding and screening of parking lots.

~~While the project would amend the General Plan Land Use Map, the project also needs to be assessed against the Goals, Policies, and Objectives of the adopted General Plan, as contained in Section 9 of the General Plan. The potentially relevant policies have been extracted in Table 4.10.E, and the project's consistency with said policies is assessed.~~

~~With the implementation of the General Plan amendment that is part of the project approvals being sought, the project will be consistent with the City's General Plan.~~

In summary, the project is consistent with the goals, objectives, and policies of the City of Moreno Valley General Plan, except Objective 2.1 and Community Development Policy 2.5.2. ~~As proposed, the Specific Plan represents a fundamental land use change for the Rancho Belago area, the eastern portion of Moreno Valley. The land is currently planned for a mixed-use residential community, but the~~The WLC project will introduce 40.6 million square feet of logistics warehousing onto existing agricultural land that is adjacent to existing residential uses to the west and the San Jacinto Wildlife Area to the south.

~~NOTE: The following changes have been made due to revision to the Specific Plan project size.~~

Moreno Valley. ~~The land is currently planned for a mixed-use residential community, but the~~The WLC project will introduce 40.6 million square feet of logistics warehousing onto existing agricultural land that is adjacent to existing residential uses to the west and the San Jacinto Wildlife Area to the south.

~~Housing Element.~~ ~~During the NOP period, several group representatives expressed concern that the WLCSP would eliminate 7,700 housing units in the Moreno Highlands Specific Plan that would have to be replaced elsewhere in the City. The City adopted an updated Housing Element in February 2011 identifying the Moreno Highlands area as a potential location for future jobs-producing land uses rather than housing (affordable or otherwise).The 2011 Housing Element update indicated the Moreno Highlands area would likely be rezoned to support employment-generating uses rather than housing. It also stated that "pursuing any land use changes with the Moreno Highlands Specific Plan area will not hinder the City's ability to meet its RHNA obligations." The term RHNA refers to the Regional Housing Needs Allocation (affordable housing allocations) from the SCAG. The State Department of Housing and Community Development (HCD) certified the City's Housing Element on May 31, 2011.~~

~~In April 2011, the City adopted its Economic Development Action Plan, which also identified the eastern part of the City as a potential area for major job-producing land uses. The~~ *~~Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California~~* ~~("Study") prepared by David Taussig & Associates, Inc., in 2014 concluded that the proposed WLC project would generate 24,000 jobs/employees to the area, which includes the creation of direct, indirect, and induced jobs/employees to the City.~~

~~The City's 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. However, in 2011 the City updated its Housing Element and (i) anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City, and (ii) concluded that redesignating the entire land east of Redlands to the eastern City border for warehouse uses would not impede the City's Housing Element Objectives. As stated in the City's Housing Element:~~

> *~~The City will likely consider undertaking future planning efforts to achieve an improved jobs-housing balance. These future planning efforts could include the consideration of future proposals to re-designate areas south of SR 60 and east of Redlands Boulevard to the City's eastern border to jobs-producing commercial and/or industrial-type uses.~~*
>
> *~~The Moreno Highlands Specific Plan is an older, mixed use residential and industrial land use plan originally conceived and approved nearly twenty years ago and therefore may not be representative of the current economic environment and may not be viable. The plan does not specify unit types, thus allowing the City and the developer to tailor the unit mix to the community's needs at the time the project is actually developed.~~*
>
> *~~Moreno Highlands does make provisions for the phasing of the residential units. The plan does not specifically address the phasing of the affordable units, but merely notes the total number of units that will be developed in each of the three phases.~~*

~~As noted above, the current economic recession has severely and negatively affected the residents of the City. Unemployment in the City is extraordinarily high, and many City residents have expressed a desire that the City consider job-producing land uses that create an improved jobs-housing balance.~~

~~As shown in Table 8-19.5, even with the elimination of all residential uses from the land area approximately south of SR 60 and east of Redlands Boulevard and extending to the City's eastern and southern boundaries, the City is still fully capable of and is expected to achieve its RHNA obligations for the 2008-2014 planning period.~~

~~Table 8-19.5~~

~~AFTER removing sites south of SR 60 and east of Redlands, the Amended Inventory accommodates:~~

~~4,100 Low and Very Low Income units which is 1.3 times the RHNA number (3,045) (deleting sites south of SR 60 and east of Redlands has no effect on low and very low income housing opportunities)~~

~~2,600 Moderate Income units which is 2.1 times the RHNA number (1,239)~~

~~7,828 Above Moderate Income units which is 2.5 times the RHNA number (3,068)~~

~~14,528 total identified units which is 1.94 times the total RHNA number (7,474)~~

~~The HCD certified the City's Housing Element as compliant with State law on May 31, 2011. This means that approval of the proposed project will not impede the City's housing goals as set forth in its Housing Element, and no mitigation is required.~~

4.10.6 Significant Impacts

4.10.6.1 Physically Divide an Established Community

Impact 4.10.6.1: *The project may adversely affect existing rural residences on the project site.*

Threshold	Would the WLC project physically divide an established community?

The adjacent properties surrounding the WLC project are residential, light industrial, open space and undeveloped. Essentially, the project site is located along the eastern urban boundary of the City of Moreno Valley with development only adjacent to the western boundary and northwest corner of the site. As it is located at the edge of the community, its development could not physically divide the community and no impact would occur relative to residences near the southwest corner of the site.

At present, there are ~~seven~~ six rural residences on the project site. These properties vary in size from 0.5 to 5 acres and are located on the east side of Redlands Boulevard and ~~Theodore Street~~World Logistics Center Parkway. The WLC Specific Plan designates these properties as "Light Logistics" and allows various logistics-related uses but not actual development of logistics warehousing since none of the properties are large enough to support a warehouse building of 500,000 square feet or more. It is believed these properties are currently occupied. It is possible that, as development of the project site occurs according to the WLCSP, large warehouse buildings may eventually be located in close proximity to existing residences. It would be ineffective and inefficient to try to incorporate these residences into the WLCSP land plan of large logistics warehouses to accommodate these residences. In addition, logistics operations would cause air pollutant, noise, lighting, and health risk impacts on residents living in these units if they were adjacent to operating warehouses. This is a significant land use impact.

Specific Plan Design Features. The WLCSP currently shows a 250-foot buffer or setback along the western boundary of the site to separate existing residences from the warehouse buildings. However, it would be similarly ineffective and inefficient to try incorporate residences with similar buffers or setbacks into the WLCSP land plan.

Mitigation Measures. Installation of solid block walls around the warehouse building or the existing residences would help reduce noise and lighting impacts, but they would not help reduce air pollutant or health risk impacts. Therefore, there is no effective mitigation available to protect or separate these existing residences from future warehousing buildings and operations.

Level of Impact After Mitigation. Since there is no effective means of mitigating these onsite residences from the planned logistics warehouses, this land use impact is significant and unavoidable.

~~4.10.7 Cumulative Impacts~~

~~As discussed in this section, the WLC project would not have significant project-related impacts related to conflicts with applicable land use plans, policies, or regulations with approval of the proposed GPA, or conflict with an approved habitat conservation plan. While the project would represent a shift in land use policy for the eastern portion of the City, this policy shift does not represent a significant cumulative land use impact under CEQA. Section 4.10.6 determined the proposed project would have significant land use impacts on existing rural residences ("dividing an established community"), but this conflict does not rise to the level of a cumulative impact since the potential land use impacts to all adjacent residences will be less than significant, as discussed in Section 4.10.5.~~

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~~4.11 MINERAL RESOURCES: TABLE OF CONTENTS~~

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NOTE TO READERS. *The cumulative portion of Section 4.11 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.11 of this Revised Sections of the FEIR. All other portions of Section 4.11 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.11 means that the corresponding portion of Section 4.11 in the FEIR remains unchanged or has been deleted.*~~*No major revisions have been made to this section in response to comments.*~~

4.11 MINERAL RESOURCES

This chapter evaluates potential impacts related to known mineral resources that may result from the project.

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

For the reader's reference, this EIR has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the development.

~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

This chapter is based in part on the following document, which is incorporated by reference:

- *City of Moreno Valley General Plan*, City of Moreno Valley, adopted July 2006.

4.11.1 Existing Setting

There are no lands within the City of Moreno Valley designated by the California Department of Conservation as known significant resource areas, defined by the State as Mineral Resources Zone 2 areas. As identified in the City's General Plan, lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4, which are not defined as significant mineral resource areas.

4.11.1.1 NOP/Scoping Comments

No comments were received from public agencies or the public regarding mineral resources.

4.11.2 Policies and Regulations

4.11.2.1 State Regulations

Surface Mining and Reclamation Act. The Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into mineral resource zones (MRZs) according to the known or inferred mineral potential of the area. Construction aggregate resources (sand and gravel) deposits were the first commodity selected for classification by the State Mining and Geology Board. Once mapped, the State Mining and Geology Board is required to designate for future use those areas that contain aggregate deposits that are of prime importance in meeting the region's future need for construction-quality aggregates. There are three key objectives of SMARA regulations:

- Adverse environmental effects are prevented or minimized, and mined lands are reclaimed to a usable condition that is readily adaptable for alternative uses;
- The production and conservation of minerals are encouraged, while consideration is given to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment; and
- Residual hazards to the public health and safety are eliminated.

The primary objective of the SMARA is for each jurisdiction to develop policies that will conserve important mineral resources, where feasible, that might otherwise be unavailable when needed. The SMARA requires that once policies are adopted, local agency land use decisions must be in accordance with its mineral resource management policies. These decisions must also balance the mineral value of the resource to the market region as a whole, not just their importance to the local jurisdiction. Under SMARA, areas are categorized into four MRZs as follows:

MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their production.
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
MRZ-3	Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ zone.

4.11.2.2 City of Moreno Valley General Plan Policies

No policies related to mineral resources are identified within the City's General Plan.

4.11.3 Methodology

The California Geological Survey (CGS) provides objective geologic information about California's diverse non-fuel mineral resources. Maps, reports, and other data products developed by CGS were used to locate mineral extraction areas in the project area. In addition, the City of Moreno Valley's General Plan was used to determine the location of possible mineral extraction areas in the project area.

4.11.4 Thresholds of Significance

Appendix G of the *State CEQA Guidelines* recognizes the following thresholds related to mineral resources. Based on these significance thresholds, potential impacts to mineral resources could be considered significant if the proposed project:

- Resulted in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State;
- Resulted in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plans.

4.11.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In both of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In both instances, no mitigation is required.

4.11.5.1 Loss of Statewide, Regional, or Locally Important Mineral Resources

Thresholds	Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plans?

Lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4, which are not defined as significant mineral resource areas. No sites have been designated as locally-important mineral resource recovery sites on any local plan.[1] In addition, Figure OS-5 of the Riverside County General Plan shows that the project area is also located within MRZ-3. The development of the project site would not result in the loss of identified regional or local mineral resources, conversion of an identified mineral resource use, or conflict with existing mineral resource extraction activities. Therefore, the development of the project site would not result in a loss of statewide, regional, or locally important mineral resources. No impacts associated with this issue would occur and no mitigation is required.

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[1] *Section 6.10 Mineral Resources, Section 6.0 Issues Found Not To Be Significant*, Draft Environmental Impact Report for City of Moreno Valley General Plan 2030, State Clearinghouse #2004031135, City of Moreno Valley, October 2004.

4.11.6 Significant Impacts

Based on the analysis in Section 4.11.5, the project will have no significant impacts related to mineral resources, and no mitigation is required.

~~4.11.7 Cumulative Impacts~~

~~CEQA requires that an EIR discuss the project's incremental effects to determine if they are cumulatively considerable. The discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. The discussion must demonstrate practicality and reasonableness.~~

~~The cumulative area for mineral resources is the City of Moreno Valley and this part of western Riverside County. As population levels increase in the region, greater demand for aggregate and other mineral materials will be placed on mineral resources, especially sand and gravel. Similarly, development pressures in areas where these materials are known or expected to occur would result in the loss of availability of these mineral resources. However, because the project site is not identified as a significant source of sand/gravel deposits and development subsequent to the adoption of the proposed land use actions on any of the sites would not decrease the local or regional availability of mineral resources, potential future development of any of the sites would have no significant cumulative mineral resources impact.~~

~~4.12 NOISE: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

~~***NOTE TO READERS.*** *This section has been revised due to the following changes from the project characteristics analyzed in the original DEIR:*~~

- ~~*Loss of 100 acres from the Specific Plan (in the southwest corner);*~~
- ~~*Changes to the Traffic Impact Assessment (TIA, see Section 4.15); and*~~

~~*Change in project*~~ **NOTE TO READERS:** This portion of the Revised Sections of the FEIR replaces portions of Section 4.12 of the FEIR. Tables and figures included herein are numbered sequentially as they appear for ease of reading and do not account for any tables or figures included in the unchanged portions of Section 4.12 of the FEIR. The cumulative portion of Section 4.12 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.12 of this Revised Sections of the FEIR. The absence of reference to a portion of Section 4.12 means that the corresponding portion of Section 4.12 in the FEIR remains unchanged or has been deleted.

4.12 NOISE

The Superior Court ruling requires the follow actions with regards to Noise:

- “The FEIR must provide an analysis of construction ~~*phasing (from 10 to 15 years).*~~

~~*These changes also resulted in updates to*~~ noise over ambient levels; provide adequate analysis on construction noise impacts on nearby homes; address the ~~*traffic impact assessment and proposed*~~ inadequacy of mitigation measures~~*. In addition, this section has been revised in response*~~, which fail to include performance standards or ways to ~~*public comments received on the Programmatic DEIR.*~~

~~The original DEIR determined that 14 road or freeway segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation. These 14 segments were included in the original noise study, and all other impacts identified in the original~~reduce construction noise~~ study are unchanged except as noted below.~~.”

~~*Revisions have been made to this section to address changes in the Specific Plan, revisions to the project noise study (assessment tables), and in responses to comments mainly regarding mitigation.*~~[1] ~~*Three street names have changed (Street C, D, and E) and may still be referenced in the section. For correct street names see Circulation Master Plan Figure 3.10. Due to a reduction in size of the Specific Plan, some impacts in this section have been reduced to less than significant levels.*~~

~~4.12 NOISE~~

~~*Changes from January 24, 2013, Noise Analysis*~~

~~*The Noise Assessment report included in the Programmatic Draft EIR was issued in January 2013. Comments have been received from various public and private groups and individuals. The Noise Assessment report has been modified in response to these comments and to clarify the description of the analysis. In addition, the Traffic Impact Analysis contained in the Draft EIR has been revised to reflect a downsizing of the project and other factors, resulting in a reduction in associated traffic volumes for the “with project scenarios.” The updated traffic volumes were used in the revised Noise Assessment report. The noise analysis procedures and significance thresholds have not been changed from the January 2013 noise assessment.*~~

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[1] ~~*Mainly Comments C-4-2 and F-13-9 and F-13-84.*~~

~~*In the Noise Assessment report included in the Draft EIR, 33 roadway segments were identified where a significant noise impact would occur for at least one of the impact scenarios. In the revised Noise Assessment report for the Final EIR, 21 roadway segments have been identified as having a significant noise impact. The reduction in noise impact areas is a direct result of the revised traffic analysis which reflects a downsizing of the project and associated traffic volumes for the "plus project" traffic scenarios.*~~

~~*The roadway links that were previously identified as being impacted in the January 2013 noise analysis contained in the Draft EIR and are not directly affected in the revised noise analysis for the Final EIR are listed below:*~~

- ~~*Day Street between Cottonwood Avenue and Alessandro Boulevard (#109);*~~
- ~~*Fir Avenue between Quincy Drive and Redlands Boulevard (#62);*~~
- ~~*Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56);*~~
- ~~*Perris Boulevard between John F. Kennedy Drive and Iris Avenue (#303);*~~
- ~~*Placentia Avenue from El Nido Avenue to Evans Road and on to Water Avenue (#431, #432);*~~
- ~~*Quincy Drive from Cactus Avenue to Alessandro Boulevard and to Cottonwood Avenue (#502, #503);*~~
- ~~*Reche Canyon Road from Keissel Road to Reche Vista Drive and on to High Country Drive (#205, #206);*~~
- ~~*Redlands Boulevard from Eucalyptus Avenue to Dracaea Avenue (#12); and*~~
- ~~*State Route 60 from Perris Boulevard to Nason Street (#31).*~~

~~*There are five roadway segments that were previously identified in the January 2013 noise analysis contained in the Draft EIR that had a direct and cumulative impact. In the revised noise analysis for the Final EIR, these five roadway segments do not have a direct impact but have a cumulative impact only. These roadways are as follows:*~~

- ~~*Fir Avenue between Quincy Drive and Redlands Boulevard (#62);*~~
- ~~*Gilman Springs Road between Eucalyptus Avenue and Street C (#31); and between Jack Rabbit Trail and Bridge Street (#191);*~~
- ~~*Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56); and*~~
- ~~*State Route 60 from Perris Boulevard to Nason Street (#31).*~~

~~*The roadway link that was previously identified in the January 2013 noise analysis contained in the Draft EIR as being impacted and mitigation was considered infeasible is mitigated below a level of significance with feasible mitigation as shown in the revised noise analysis for the Final EIR:*~~

- ~~*Cactus Avenue west of Redlands Boulevard.*~~

The Noise technical report is included in Appendix D.

This section of the ~~EIR~~Revised Sections of the FEIR is intended to satisfy the City's requirements for a project-specific noise impact analysis by examining ~~the short-term and long-term noise~~ construction impacts of the ~~proposed~~ project on sensitive land uses adjacent to the ~~proposed~~World Logistics Center project area, noise generated by project-related traffic, and by evaluating the effectiveness of mitigation measures. This analysis includes the potential for the ~~proposed~~ project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the project area; and exposure of people to ~~excessive~~ noise levels~~, groundborne vibration, or groundborne~~ exceeding noise ~~levels~~standards.

~~CEQA requires an analysis of the proposed project's impacts on the existing environment; not an analysis on the existing environment's impacts on the proposed project. The occasional blow downs that occur at the Southern California Gas Company (SCGC) are part of the existing conditions and have been part of the existing conditions for years. Thus, for purposes of clarity, it should be noted that the impact analysis below goes beyond the requirements of CEQA and provided as part of an analysis to ensure worker safety. All mitigation measures imposed in this analysis are the responsibility of future developers and not SCGC.~~

~~*Note: The following changes have been made due to revision to the Specific Plan project size.*~~

~~For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.~~

The analysis contained in this section is based on the following technical study prepared for the ~~proposed~~ project:

- *Noise Assessment for the World Logistic Center Specific Plan,* ~~Mestre Greve~~ESA Associates, ~~original~~ dated ~~January 24, 2013, revised dated September 2014~~July 2018 (Appendix ~~K~~D of this Revised ~~DEIR~~Sections of the FEIR).

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- *California Noise Insulation Standards,* California Code of Regulations, Title 24, Part 2, §3501;
- *Highway Traffic Noise Prediction Model (FHWA-RD-77-108)*, Federal Highway Administration (FHWA);
- *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006;

- *Moreno Valley Municipal Code,* City of Moreno Valley, current through Ordinance 836 and the February 2012 code supplement; and
- *State of California General Plan Guidelines*, Governor's Office of Planning and Research, October 2003, pages 249 and 250.
- *Traffic Impact Analysis Report for The World Logistics Center,* WSP USA Inc., dated June 2018 (Appendix F of this Revised FEIR).

4.12.1 Existing Setting

4.12.1.1 Background

Characteristics of Noise. To the human ear, sound is technically described in terms of its loudness (amplitude) and pitch (frequency). Pitch is generally an annoyance, while loudness can affect our ability to hear. Noise is usually defined as unwanted sound; it consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

Measurement of Noise. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on a logarithmic scale. The logarithmic scale compresses the wide range in sound levels resulting in a more usable range of sound level values, similar to the Richter scale used to measure earthquakes. To humans, a sound 10 dB higher than another is considered to be twice as loud; a sound 20 dB higher than another is considered four times as loud; etc. Typical daily sounds in the environmental range from 30 dB (very quiet) to 100 dB (very loud).

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the dBA. Figure 4.12~~.~~-1 shows examples of various noises sources and their typical dBA noise level.

There are two categories of noise that are measured to characterize noise conditions: single event noise and community or cumulative noise. Single event measurements describe the noise levels from an individual event such as a passing airplane or a heavy-duty truck. Cumulative measurements average the total noise in a community over a specific time period, which is typically 1 or 24 hours.

The noise impact analysis performed for this Revised Final EIR is based on assessment of both single event noise and community or cumulative noise. Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on humans; (2) the variety of noises found in the environment; (3) the variations in noise levels that occur as a person moves through the environment; and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to affect people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominant noise scales are the Equivalent Noise Level (L_{eq}) and the Community Noise Equivalent Level (CNEL). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is the "energy" average noise level during the time period of the sample. L_{eq} can be measured for any time period, but is typically measured for 1 hour. This 1-hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL is the predominant rating scale now in use in California for land use noise compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the dBA. Time weighted refers to the inclusion of penalties for noise that occurs during certain noise-sensitive time periods. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA, reflecting people's increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a CNEL of 60 dBA, 60 dBA CNEL, or simply 60 CNEL.

L(%) is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example, since 5 minutes is 25 percent of 20 minutes, L(25) is the noise level that is equal to or exceeded for five minutes in a twenty-minute measurement period. It is L(%) that is used for most Noise Ordinance standards. For example, most daytime County, State and City noise ordinances use a standard of 55 dBA for 30 minutes per hour, or an L(50) level of 55 dBA. In other words, the noise ordinance may state that no noise level should exceed 55 dBA for more than fifty percent of a given period.

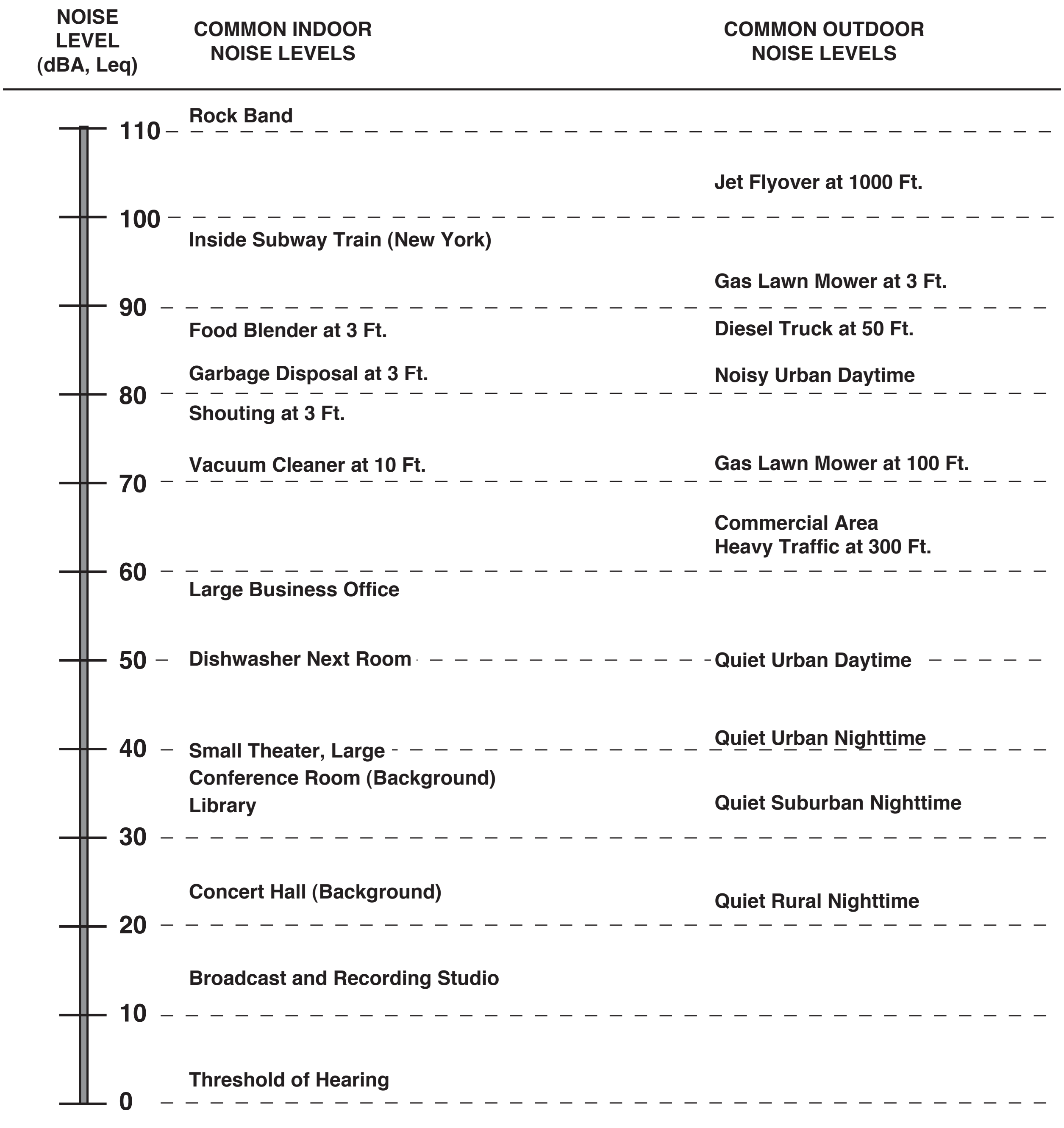

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SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf

World Logistics Center Project

Figure 4.12-1

Typical A-weighted Noise Levels

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The maximum noise level (L_{max}) is the highest exponential time averaged sound level that occurs during a stated time period. The noise levels discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak noise conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

~~**Fundamentals of Groundborne Vibration.** Vibration refers to groundborne noise and perceptible motion of the earth. Similar to noise, vibration is transmitted in noise-like waves through the earth and solid objects.~~

~~There are several ways to categorize vibration sources. One way is to divide vibration into natural sources (e.g., earthquakes, volcanic eruptions, sea waves, and landslides) and human sources (e.g., explosions, machinery, traffic, trains, and construction equipment). Similar to noise sources, vibration sources can also be described as continuous (e.g., operating factory machinery) or transient (e.g., explosions).~~
~~As with noise, ground vibrations can be described by amplitude and frequency. Vibration amplitude is characterized by its displacement, velocity, and acceleration. Displacement is the distance that soil particles travel from their original location as a result of vibration, as measured in inches or millimeters. Velocity is the speed of the soil particles measured in inches per second or millimeters per second. Acceleration is the acceleration of the soil particles measured in inches per second per second or millimeters per second per second. Particle velocity is the most commonly used vibration attribute used to describe vibration. Table 4.12.A presents the human reaction to various levels of peak particle velocity. Vibrations also vary in frequency. Traffic vibrations generally range in frequencies from 10 to 30 hertz (Hz), and tend to average around 15 Hz. As a point of reference, city buses often generate frequencies around 3 Hz at high vehicle speeds, due to their suspension systems.~~

~~**Table 4.12.A: Human Reaction to Typical Vibration Levels**~~

~~**Vibration Level Peak Particle Velocity (inches/second)**~~	~~**Human Reaction**~~
~~0.0059–0.0188~~	~~Threshold of perception, possibility of intrusion.~~
~~0.0787~~	~~Vibrations readily perceptible.~~
~~0.0984~~	~~Level at which continuous vibrations begin to annoy people.~~
~~0.1968~~	~~Vibrations annoying to people in buildings.~~
~~0.3937–0.5905~~	~~**Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.**~~

~~Source: Caltrans 1992.~~

~~Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable. However, without the effects associated with the shaking of a building, there is less adverse reaction. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction or mining. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by up to 10 decibels. This is an order of magnitude below the damage threshold for normal buildings.~~

~~Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to within about 100 feet of the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 feet, as described in the FTA Transit Noise and Vibration Impact Assessment (FTA, May 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible.~~

~~Factors that influence groundborne vibration and noise include the following:~~

- ~~*Vibration Source:* Vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source.~~
- ~~*Vibration Path:* Soil type, rock layers, soil layering, depth to water table, and frost depth.~~
- ~~*Vibration Receiver:* Foundation type, building construction, and acoustical absorption.~~

~~Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground versus at ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface and can result in groundborne vibration problems at a great distance from the track. Factors such as layering of the soil and depth to water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.~~

4.12.1.2 Sensitive Land Uses in the Project Vicinity

Certain land uses are considered more sensitive to noise than others. Examples include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The World Logistics Center project vicinity and ~~Specific Plan area~~World Logistics Center site are characterized by a mix of developed and undeveloped properties. Developed properties in the vicinity include an industrial/warehouse building in Moreno Valley to the northwest (Skechers~~) and~~), several residential neighborhoods along Redlands Boulevard along the western boundary of the project site~~.~~, and scattered residential uses along Gilman Springs Road to the east of the project site. An area of the City known as "Old Moreno" is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Merwin Street, east of Redlands Boulevard, constitute the closest sensitive receptors to the project site (i.e., they are adjacent to the property). Additionally, there are currently six occupied residential uses located within the northwestern portion of the World Logistics Center site.

4.12.1.3 Existing Noise Measurements

Existing noise levels in the vicinity of the ~~proposed~~World Logistics Center project are used to establish baseline noise levels in key areas. Noise measurements within the project site and in the surrounding area were ~~taken~~conducted. The noise measurement locations were selected to provide coverage of the project's potential noise impact area. The noise measurement locations are shown Figure 4.12~~.~~-2.

~~Noise measurements were taken at sixteen sites in the project vicinity during the daytime hours (between 7 a.m. and 10 p.m.) and during nighttime hours (between 10 p.m. and 7 a.m.). For each measurement site and time period, noise levels were measured for 15 minutes and calibrated to ensure~~

~~that the measured sound level readings were accurate. The measurements were used to calculate existing L_{eq}, L_{min}, L_{max}, $L_{1.7}$, $L_{8.3}$, L_{25} and L_{50} values for the measurement locations. Table 4.12.B shows the results for the daytime measurements, and Table 4.12.C shows the nighttime measurements.~~

Noise measurements were conducted at 14 sites in the World Logistics Center project vicinity. Long-term (24-hour) measurements were conducted at locations R1 and R3 through R5, a 13-hour measurement was conducted at location R2, and short-term (15-minute) noise measurements were conducted at locations R6 through R14. Short-term ambient noise measurements were conducted between 8:00 A.M. to 12:00 P.M. on Thursday, March 15, 2018, and long-term ambient noise measurements were conducted from Thursday, March 15 through Friday, March 16, 2018 to characterize the existing noise environment in the project vicinity. Long-term measurements (typically 24 hours a day for several days) are used to characterize the diurnal traffic noise pattern at selected locations in the project area. This data can be used to identify the worst noise hour and to develop relationships between non-worst-hour and worst-hour noise levels. Long-term noise measurement locations were selected to represent the existing 24-hour noise environment at residential uses adjacent to the western boundary of the project site and short-term measurement locations were selected to represent each major developed area within the World Logistics Center site and serve as representative modeling locations. This information can be used to estimate worst-hour noise levels from levels measured during non-worst hour times. A summary of the noise measurements collected is provided in Table 4.12-1.

Table 4.12-1: Existing Ambient Noise Measurements (dBA L_{eq})

Site	Date	Start Time/ Measurement Period	Daytime (7 a.m. to 10 p.m.) Hourly L_{eq}	Daytime Average Hourly Leq	Nighttime (10 P.M. to 7 A.M.) Hourly Leq	Nighttime Average Hourly Leq	dBA CNEL
Off-Site Measurement Locations							
R1	3-15 to 3-16-18	8 a.m. / 24 hours	32.0 – 47.2	41.2	29.8 – 39.2	34.0	43
R2	3-15-18	9 a.m. / 13 hours	52.8 – 82.7	75.6	52.8	52.8	N/A
R3	3-15 to 3-16-18	9 a.m. / 24 hours	38.8 – 58.0	51.6	39.1 – 63.3	54.4	61
R4	3-15 to 3-16-18	11 a.m. / 24 hours	62.2 – 68.3	66.4	56.2 – 69.7	64.7	72
R5	3-15 to 3-16-18	11 a.m. / 24 hours	66.4 – 71.5	69.6	60.3 – 71.2	66.9	74
R6	3-15-18	9:16 a.m. / 15 minutes	65.4	N/A	N/A	N/A	N/A
R7	3-15-18	9:39 a.m. / 15 minutes	72.0	N/A	N/A	N/A	N/A
R8	3-15-18	10:02 a.m. / 15 minutes	53.4	N/A	N/A	N/A	N/A
R9	3-15-18	10:23 a.m. / 15 minutes	51.0	N/A	N/A	N/A	N/A
R10	3-15-18	10:44 a.m. / 15 minutes	71.7	N/A	N/A	N/A	N/A
R11	3-15-18	8:53 a.m. / 15 minutes	74.2	N/A	N/A	N/A	N/A
On-Site Measurement Locations							
R12	3-15-18	10:07 a.m. / 15 minutes	54.4	N/A	N/A	N/A	N/A
R13	3-15-18	10:32 a.m. / 15 minutes	47.0	N/A	N/A	N/A	N/A
R14	3-15-18	10:54 a.m. / 15 minutes	50.7	N/A	N/A	N/A	N/A

4.12.1.4 Existing Traffic Noise Environment

The primary existing noise sources in the World Logistics Center project area are transportation facilities. Traffic on SR-60, Redlands Boulevard, Theodore Street, World Logistics Center Parkway, Gilman Springs Road, and other local streets is the dominant source contributing to the ambient noise levels in the project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Table 4.12~~.D~~-2 identifies the existing (~~2012~~2018) traffic noise levels adjacent to roadway segments in the project vicinity without consideration of existing noise barriers.

~~4.12.1.5 Existing SDG&E and SCGC Facilities~~

~~The proposed World Logistics Center Specific Plan area is currently occupied by one San Diego Gas and Electric Company (SDG&E) compressor station and two Southern California Gas Company (SCGC) facilities. These facilities are located within the boundaries of the Specific Plan as shown in previously referenced Figure 4.12.2. The SDG&E compressor station recompresses natural gas received from interstate gas pipelines and delivers the gas to Southern California via transmission pipelines. The two SCGC facilities contain flow valve and metering equipment facilities. The southern SCGC facility contains a maintenance functions as well. All of these facilities contain gas pipeline blow-down equipment. This equipment includes exhaust stacks that vent the high pressure gas into the atmosphere occur during emergencies, scheduled maintenance, and annual testing of the blow-down systems.~~

~~The SDG&E and SCGC facilities produce noise from three different sources that could affect future development within the proposed project: 1) the operation of the compressor station; 2) blow-down events at the compressor station; and 3) blow-down events at the SCGC facilities. The blow-down events generate infrequent high noise levels for relatively short periods. The compressor station generates a relatively constant noise level, although noise levels vary slightly when the compressors are turned on and off when the gas is conveyed to the transmission pipelines.~~

~~The SDG&E compressors are the primary source of operational noise generated by the compressor station. The facility contains two sets of three reciprocating natural gas combustion engines and one set of four natural gas-fired turbines, for a total of ten compressors with power ranging from 995 to 3,400 horsepower. The compressors are located within noise attenuation structures and are equipped with intake and exhaust silencers. The facility routinely operates at maximum capacity 24 hours per day. It is anticipated that demand on the compressor station will increase in the future to the point where the facility operates 24 hours a day, year round.~~

~~The CNEL levels for the SDG&E compressor station presented in Figure 4.12.3 are based on a worst-case assumption that the compressor station is in full operation 24 hours a day. Figure 4.12.4 presents the average (L_{eq}) noise levels generated by the compressor station during full operation. Both the CNEL and L_{eq} metrics are used to assess the noise impacts from the facility.~~

~~There are several blow-down points within the SDG&E compressor station. As stated previously, these blow-down points allow for the release of pressurized gas during emergencies, scheduled maintenance, and annual testing. Blow-down events at the compressor station vent gas and last between 30 and 90 seconds. The maximum sound levels (L_{max} dBA) generated by the blow-down events is presented in Figure 4.12.5.~~

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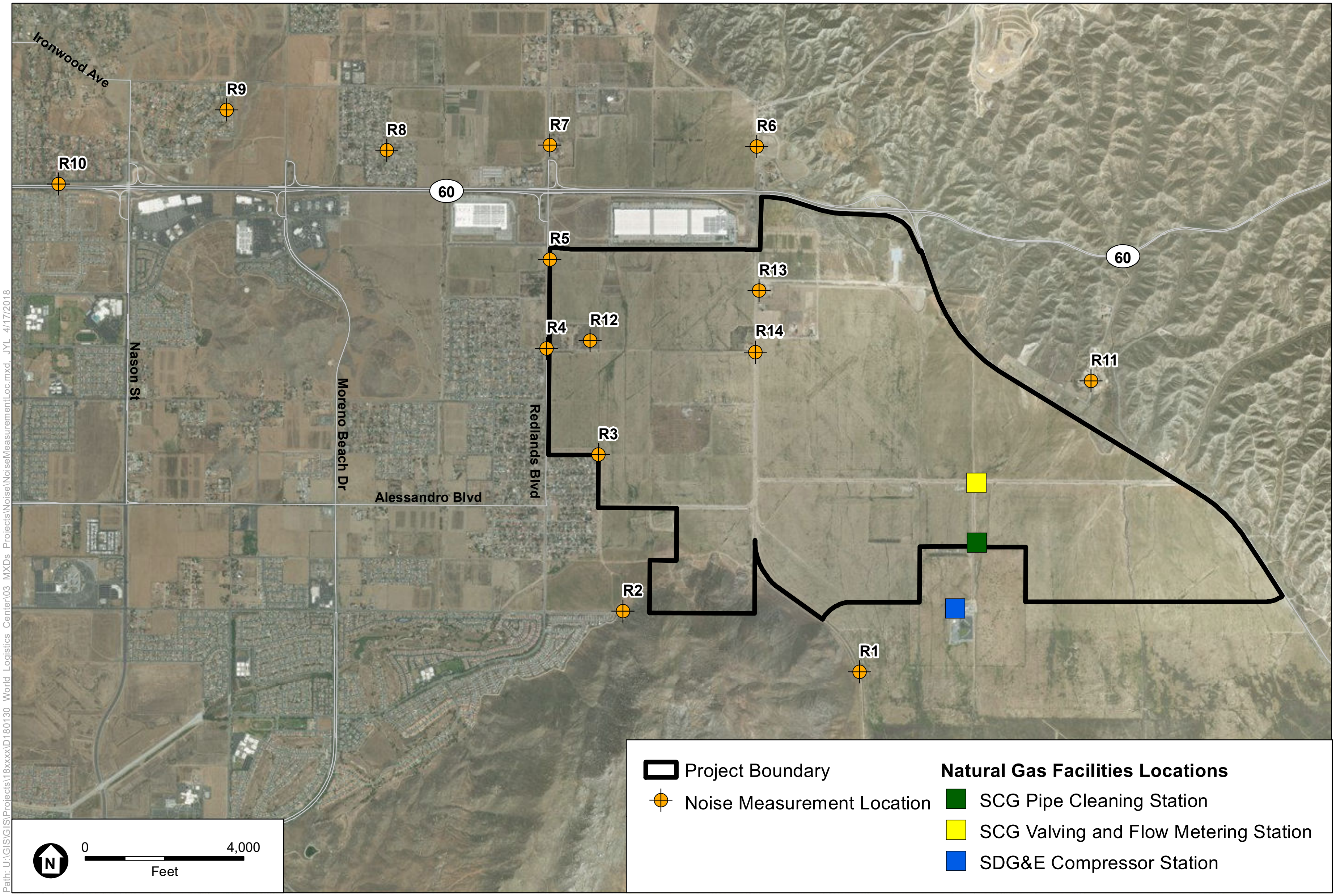

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\Noise\NoiseMeasurementLoc.mxd, JYL 4/17/2018

SOURCE: ESRI

World Logistics Center

Figure 4.12-2
Noise Measurement Locations

ESA

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Figure 4.12-2 Noise Measurements Locations

Table 4.12~~.B:~~-2: Existing ~~Daytime~~Traffic Noise ~~Measurements (~~Levels (CNEL dBA)

~~Site~~	~~Date~~	~~Start Time~~	~~L_{eq}~~	~~L_{max}~~	~~$L_{1.7}$~~	~~$L_{8.3}$~~	~~L_{25}~~	~~L_{50}~~	~~L_{min}~~
~~1~~	~~1-25-12~~	~~9:38 a.m.~~	~~55.4~~	~~72.0~~	~~63.0~~	~~56.5~~	~~54.0~~	~~53.0~~	~~48.7~~
~~2~~	~~1-25-12~~	~~10:15 a.m.~~	~~53.6~~	~~68.8~~	~~61.0~~	~~57.0~~	~~53.5~~	~~50.5~~	~~44.0~~
~~3~~	~~1-25-12~~	~~10:42 a.m.~~	~~66.3~~	~~73.7~~	~~73.0~~	~~71.5~~	~~68.0~~	~~61.5~~	~~43.5~~
~~4~~	~~1-25-12~~	~~11:04 a.m.~~	~~40.8~~	~~50.3~~	~~46.0~~	~~43.5~~	~~41.0~~	~~39.5~~	~~35.9~~
~~5~~	~~1-25-12~~	~~11:27 a.m.~~	~~40.4~~	~~56.9~~	~~48.0~~	~~44.5~~	~~39.5~~	~~36.0~~	~~31.4~~
~~6~~	~~1-25-12~~	~~11:48 a.m.~~	~~46.1~~	~~68.3~~	~~51.5~~	~~41.0~~	~~37.5~~	~~34.0~~	~~30.0~~
~~7~~	~~1-25-12~~	~~12:08 p.m.~~	~~57.7~~	~~75.3~~	~~66.5~~	~~63.0~~	~~55.5~~	~~47.5~~	~~34.8~~
~~8~~	~~1-25-12~~	~~12:30 p.m.~~	~~65.1~~	~~85.5~~	~~73.5~~	~~70.0~~	~~63.0~~	~~56.5~~	~~39.0~~
~~9~~	~~1-25-12~~	~~12:50 p.m.~~	~~42.9~~	~~55.8~~	~~53.0~~	~~46.0~~	~~41.5~~	~~37.5~~	~~33.5~~
~~10~~	~~1-25-12~~	~~1:48 p.m.~~	~~49.2~~	~~68.0~~	~~56.0~~	~~48.0~~	~~46.5~~	~~45.0~~	~~40.5~~
~~11~~	~~1-25-12~~	~~2:10 p.m.~~	~~60.4~~	~~73.0~~	~~66.5~~	~~64.5~~	~~61.0~~	~~58.0~~	~~47.2~~
~~12~~	~~1-25-12~~	~~2:32 p.m.~~	~~51.2~~	~~58.4~~	~~55.5~~	~~53.5~~	~~51.5~~	~~50.5~~	~~44.7~~
~~13~~	~~1-25-12~~	~~2:52 p.m.~~	~~45.8~~	~~59.8~~	~~52.0~~	~~48.0~~	~~45.5~~	~~44.0~~	~~39.9~~
~~14~~	~~1-25-12~~	~~3:15 p.m.~~	~~65.5~~	~~73.3~~	~~70.0~~	~~68.5~~	~~66.5~~	~~64.5~~	~~54.4~~
~~15~~	~~1-25-12~~	~~3:39 p.m.~~	~~52.6~~	~~72.1~~	~~59.5~~	~~55.5~~	~~51.5~~	~~49.5~~	~~42.9~~
~~16~~	~~1-25-12~~	~~4:08 p.m.~~	~~58.7~~	~~75.2~~	~~67.0~~	~~59.0~~	~~57.0~~	~~55.0~~	~~50.5~~

~~**Table 4.12.C: Existing Nighttime Noise Measurements (dBA)**~~

~~Site~~	~~Date~~	~~Start Time~~	~~L_{eq}~~	~~L_{max}~~	~~$L_{1.7}$~~	~~$L_{8.3}$~~	~~L_{25}~~	~~L_{50}~~	~~L_{min}~~
~~1~~	~~2-8-12~~	~~11:51 p.m.~~	~~50.6~~	~~64.5~~	~~59.0~~	~~54.5~~	~~50.5~~	~~45.5~~	~~36.0~~
~~2~~	~~2-6-12~~	~~10:30 p.m.~~	~~47.4~~	~~65.1~~	~~52.5~~	~~50.0~~	~~48.0~~	~~45.5~~	~~37.5~~
~~3~~	~~2-6-12~~	~~10:55 p.m.~~	~~61.8~~	~~75.9~~	~~71.0~~	~~67.5~~	~~58.0~~	~~54.0~~	~~45.9~~
~~4~~	~~2-6-12~~	~~11:33 p.m.~~	~~35.8~~	~~51.1~~	~~44.0~~	~~39.0~~	~~34.5~~	~~32.0~~	~~30.0~~
~~5~~	~~2-9-12~~	~~12:15 a.m.~~	~~36.4~~	~~46.6~~	~~42.5~~	~~39.5~~	~~36.0~~	~~35.0~~	~~31.5~~
~~6~~	~~2-7-12~~	~~12:15 a.m.~~	~~43.2~~	~~51.0~~	~~49.5~~	~~46.5~~	~~44.0~~	~~41.5~~	~~35.3~~
~~7~~	~~2-7-12~~	~~12:35 a.m.~~	~~51.5~~	~~66.9~~	~~64.0~~	~~54.0~~	~~41.5~~	~~37.5~~	~~32.6~~
~~8~~	~~2-7-12~~	~~12:55 a.m.~~	~~56.0~~	~~74.1~~	~~68.0~~	~~57.0~~	~~42.5~~	~~38.5~~	~~33.6~~
~~9~~	~~2-9-12~~	~~12:35 a.m.~~	~~41.5~~	~~57.1~~	~~50.5~~	~~44.5~~	~~38.0~~	~~36.0~~	~~30.4~~
~~10~~	~~2-9-12~~	~~1:01 a.m.~~	~~46.7~~	~~63.8~~	~~50.5~~	~~48.5~~	~~46.5~~	~~45.0~~	~~38.1~~
~~11~~	~~2-9-12~~	~~1:25 a.m.~~	~~59.6~~	~~68.3~~	~~67.5~~	~~64.5~~	~~60.5~~	~~54.0~~	~~46.3~~
~~12~~	~~2-9-12~~	~~1:48 a.m.~~	~~51.8~~	~~63.9~~	~~58.0~~	~~55.0~~	~~52.0~~	~~50.0~~	~~39.2~~
~~13~~	~~2-9-12~~	~~2:09 a.m.~~	~~48.0~~	~~59.7~~	~~55.5~~	~~52.0~~	~~47.5~~	~~45.0~~	~~38.6~~
~~14~~	~~2-9-12~~	~~2:33 a.m.~~	~~60.8~~	~~72.3~~	~~68.0~~	~~65.5~~	~~61.0~~	~~57.5~~	~~44.9~~
~~15~~	~~2-9-12~~	~~2:56 a.m.~~	~~48.2~~	~~59.9~~	~~54.5~~	~~52.5~~	~~49.0~~	~~45.0~~	~~35.4~~
~~16~~	~~2-9-12~~	~~3:20 a.m.~~	~~54.3~~	~~62.7~~	~~60.0~~	~~58.5~~	~~55.5~~	~~52.0~~	~~38.8~~

~~**Table 4.12.D: Existing Traffic Noise Levels (dBA)**~~

Roadway Segment	CNEL (dBA) at 100 feet
Alessandro Boulevard (Lasselle Street and Morrison Street)	~~55.5~~65.3
Alessandro Boulevard (Morrison Street to Nason Street)	~~56.8~~66.1
Alessandro Boulevard (Nason Street to Oliver Street)	64.~~4~~5
Cactus Avenue (Nason Street to Oliver Street)	64.~~3~~0
Cactus Avenue (Oliver Street to Moreno Beach Drive)	~~58~~63.2
Cactus Avenue (Redlands Boulevard to Street D/Cactus Avenue Extension)	~~50.2~~51.9
Cactus Avenue (west of Redlands Boulevard)	~~57.5~~60.2
Canyon Crest Drive (Alessandro Boulevard to Sandtrack Road)	~~41.8~~49.0
Canyon Crest Drive (Central Avenue to Country Club Drive)	67.~~0~~8
Country Club Drive (Chicago Avenue to Canyon Crest Drive)	55.4~~57.5~~
Crescent Avenue (west of Alessandro Road)	~~57.1~~56.2
Day Street (Cottonwood Avenue to Alessandro Boulevard)	~~57.7~~59.5
Elsworth Street (Cottonwood Avenue to Alessandro Boulevard)	~~62.9~~58.6
Evans Road (Marbella Gate to Ramona Expressway)	~~56.9~~68.2
Gilman Springs Road (Bridge Street to Beaumont Avenue)	~~61.0~~67.4
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	~~61.0~~67.2
Gilman Springs Road (Eucalyptus Avenue to Street C/Alessandro Boulevard)	~~46.1~~67.2
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	~~62.7~~67.8
Gilman Springs Road (south of Street C/Alessandro Boulevard)	~~56.1~~68.0
Gilman Springs Road (SR-79 Northbound Ramps to Record Road)	~~60.7~~66.5
Heacock Street (Alessandro Boulevard to Cactus Avenue)	~~59.7~~66.3
Heacock Street (Cactus Avenue to John F Kennedy Drive)	69.2~~62.6~~
Indian Street (Alessandro Boulevard to Cactus Avenue)	~~59.9~~65.0
Indian Street (Cactus Avenue to John F Kennedy Drive)	65.4~~59.3~~
Iris Avenue (Kitching Street to Lasselle Street)	~~6031~~67.7
Iris Avenue (Lasselle Street to Nason Street)	~~57.0~~68.6
Iris Avenue (Nason Street to Oliver Street)	~~60~~67.0
Iris Avenue (Perris Boulevard to Kitching Street)	~~60.8~~67.5
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4~~55.6~~
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	~~46.3~~50.7
John F Kennedy Drive (south of Cactus Avenue)	~~61.5~~63.8
Kitching Street (Alessandro Boulevard to Cactus Avenue)	~~58.2~~63.5
Kitching Street (Cactus Avenue to John F Kennedy Drive)	~~59~~64.1
Kitching Street (Iris Avenue to Ivory Avenue)	~~61.1~~64.0
Kitching Street (Krameria Avenue to Lurin Avenue)	~~62.4~~61.9
Krameria Avenue (Perris Boulevard to Lasselle Street)	~~57.5~~63.8
Lasselle Street (Cahuilla Drive to Krameria Avenue)	~~60.5~~68.2
Lasselle Street (Cottonwood Avenue to Alessandro Boulevard)	64.~~4~~1
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	~~56.4~~68.2
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	~~56.5~~62.8
Lochmoor Drive (Central Avenue to Fair Isle Drive)	~~52.1~~60.5
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	~~55.7~~54.6
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	~~46.2~~42.1
Mission Grove Parkway (Alessandro Boulevard to Northrop Drive)	65.2~~58.1~~

~~Table 4.12.D: Existing Traffic Noise Levels (dBA)~~

Roadway Segment	CNEL (dBA) at 100 feet
Mission Grove Parkway (Cannon Road to Alessandro Boulevard)	~~62.5~~59.3
Moreno Beach Drive (John F Kennedy Drive to Cactus Avenue)	~~57.6~~65.8
Moreno Beach Drive (John F Kennedy Drive to Oliver Street)	~~55.2~~62.7
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1~~55.3~~
Old 215 Frontage Road (Eucalyptus Avenue to Alessandro Boulevard)	~~61.4~~65.5
Orange Avenue (Evans Road to Foothill Drive)	~~55.3~~72.9
Perris Boulevard (Alessandro Boulevard to Cactus Avenue)	~~61.0~~68.3
Perris Boulevard (Alessandro Boulevard to Cottonwood Avenue)	~~61.9~~68.7
Perris Boulevard (Cactus Avenue to John F Kennedy Drive)	~~62.0~~68.4
Perris Boulevard (Iris Avenue to Krameria Avenue)	~~60.8~~68.6
Perris Boulevard (John F Kennedy Drive to Iris Avenue)	~~67~~68.2
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	~~60.7~~70.0
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	~~59~~69.6
Perris Boulevard (Sunnymead Boulevard to Fir Avenue)	69.~~0~~4
Ramona Expressway (Evans Road to Rider Street)	~~59~~71.2
Reche Canyon Road (Keissel Road to Reche Vista Drove)	~~62.7~~67.1
Reche Vista Drive (Heacock Street to Reche Canyon Road)	~~66.7~~63.8
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	~~67~~69.8
Redlands Boulevard (Ironwood Avenue to SR-60)	~~68~~69.3
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	~~58.8~~65.6
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	~~62.0~~66.1
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	67.1~~62.7~~
~~Street A~~World Logistics Center Parkway (Eucalyptus Avenue to Street F)	~~47.0~~52.6
Sunset Drive (Alessandro Road to Cameo Drive)	~~52.5~~50.3
Sunset Drive (Crown Street to Alessandro Road)	~~49.0~~47.4
Sycamore Canyon Boulevard (Central Avenue to College Boulevard)	~~62.8~~64.4
Theodore Street (SR-60 to ~~Highland Boulevard~~Ironwood Avenue)	~~53~~59.6
Freeways	
SR-60 (Heacock Street to Perris Boulevard)	79.9~~65.2~~
SR-60 (Moreno Beach Drive to Redlands Boulevard)	~~62.5~~77.9
SR-60 (Perris Boulevard to Nason Street)	~~64.6~~80.1
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	~~66.5~~81.2
SR-60 (Redlands Boulevard to ~~Theodore Street~~World Logistics Center Parkway, South of SR 60)	~~60.2~~77.0

Source: ~~Mestre Greve Associates, September 2014~~ESA, 2018.

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~~Figure 4.12.3: Existing CNEL Noise Contours for the SDG&E Compressor Station~~

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~~Figure 4.12.4: Existing L_{eq} Noise Levels for the SDG&E Compressor Station~~

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~~Figure 4.12.5: Existing L_{max} Noise Levels for the SDG&E Blow-Down Event~~

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~~There are blow-down points in the SCGC facilities. Blow-down events at the SCGC facilities vent gas from miles of pipeline and are much longer than those at the compressor station, and can last up to 90 minutes. Approximately four blow-down events occur annually at the SCGC facilities. L_{max} noise levels (dBA) are shown in in Figure 4.12.6. The noise level will be at or near the L_{max} level during the entire blow-down event. It should also be noted that blow-down events generate ground vibrations and natural gas odors in the vicinity in the surrounding area when events occur. Again, it must be noted that these blow-down events are part of the existing conditions of the project site, and any impacts caused by development of new warehousing near these facilities, and any mitigation necessary, are not the responsibility of SCGC or SDG&E.~~

4.12.2 Existing Policies and Regulations

The applicable noise standards governing the ~~project~~World Logistics Center site are the criteria in the City of Moreno Valley General Plan Safety Element (Environmental Safety, Noise) and Municipal Code (Noise Ordinance). The City's Safety Element of the General Plan does not contain specific noise standards or significance thresholds. However, the General Plan does cite applicable State standards including the California Administrative Code, Section 1092 of Title 25, Chapter 1, Subchapter 1, Article 4 and Section 5014 of Title 21, Subchapter 6, Article 2. In addition, other applicable standards identified in the California Code of Regulations, Title 24, Part 2, Section 3501, the *California Noise Insulation Standards*~~[1]~~ and the *State of California Vehicular Code*~~[2] are included below.~~ (Governor's Office of Planning and Research, 2003). The following sections list the City of Moreno Valley General Plan policies, City of Moreno Valley Municipal Code, and State standards relevant to noise for the ~~proposed~~ project. Construction- and traffic-related noise could potentially impact uses in neighboring jurisdictions. Therefore, General Plan goals and policies and Noise Ordinance standards for the City of Perris, City of Riverside, and County of Riverside have also been included herein.

4.12.2.1 City of Moreno Valley General Plan Policies

Chapter 9 of the *City of Moreno Valley General Plan*~~[3]~~ (COMV, 2006g) defines goals, objectives, policies, and action items related to noise conditions in the City. The specific policies related to noise that are relevant to the ~~proposed~~ project are as follows:

Objective 6.3	Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.
Policy 6.3.5	Enforce the California Administrative Code, Title 24 noise insulation standards for new multi-family housing developments, motels and hotels.
Policy 6.3.6	Building shall be limited in areas of sensitive receptors.
Objective 6.4	Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.
Policy 6.4.1	Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.
Objective 6.5	Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.
Policy 6.5.1	New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.
Policy 6.5.2	Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

~~[1] California Code of Regulations, Title 24, Part 2, §3501, *California Noise Insulation Standards*.~~

~~[2] Governor's Office of Planning and Research, *State of California General Plan Guidelines*, October 2003, pages 249 and 250.~~

~~[3] *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006.~~

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~~Figure 4.12.6: Existing L_{max} Noise Levels for the SCE Blow-Down Event~~

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4.12.2.2 City of Moreno Valley Municipal Code

The *Moreno Valley Municipal Code*~~[1]~~ (COMV, 2018) establishes a Noise Ordinance that describes the noise standards within the City. Chapter 11.80.030 (Title 11) lists specific prohibited acts.

~~The City's residential site development standards, as identified in Chapter 9.03.040 of the City's Planning and Zoning Code, state that in all residential districts, air conditioners, heating, cooling, and ventilating equipment and all other mechanical lighting or electrical devices shall be operated so that noise levels do not exceed 60 dBA (L_{dn}) at the property line.~~

The City's Municipal Code, Section 6.04.030.J states that "to create, allow or maintain any loud or unusual noise or operate or maintain any device, instrument, vehicle, or machinery in such a manner as to create loud or unusual noise, cause vibrations, or unreasonable light spillage or glare which causes discomfort or annoyance to reasonable persons of normal sensitivity, or which endangers the comfort, repose, health or peace of the public or of any person using or occupying other property in the vicinity" is prohibited.

The City's Municipal Code, Section 9.10.140, specifies that all commercial and industrial uses shall be operated so that noise created by any loudspeaker, bells, gongs, buzzers, or other noise attenuation or attracting devices shall not exceed 55 dBA at any one time beyond the boundaries of the property.

Chapter 11.80.030 of the City's Municipal Code also states:

> *Based on statistics from the Center for Disease Control and Prevention and the National Institute for Occupational Safety and Health, Table 1 and Table 1-A specify sound level limits which, if exceeded, will have a high probability of producing permanent hearing loss in anyone in the area where the sound levels are being exceeded. No sound shall be permitted within the City which exceeds the parameters set forth in Table 11.80.030-1* [Table 4.12~~.E~~-3] *and 11.80.030-~~1-A~~1A* [Table 4.12~~.F~~-4] *of this chapter.*
>
> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2* [Table 4.12~~.F~~-5] *when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.*
>
> *The following uses and activities shall be exempt from the sound level regulations except the maximum sound levels provided in Tables 11.80.030-1* [Table 4.12~~.E~~-3] *and 11.80.030-1A* [Table 4.12~~.F~~-4]*:*
>
> 1. *Sounds resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of an emergency.*
> 2. *Sounds resulting from emergency work as defined in Section 11.80.020.*
> 3. *Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations and air traffic control instruction used pursuant to and within the duly adopted federal air regulations; and any aircraft operating under technical difficulties in any kind of distress, under emergency orders or air traffic control, or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations.*

~~[1] *Moreno Valley Municipal Code*, City of Moreno Valley, current through Ordinance 836 and the November 2012 code supplement.~~

4. *All sounds coming from the normal operations of interstate motor and rail carriers, to the extent that local regulation of sound levels of such vehicles has been preempted by the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) or other applicable federal laws or regulations.*
5. *Sounds from the operation of motor vehicles, to the extent they are regulated by the California Vehicle Code.*
6. *Any constitutionally protected noncommercial speech or expression conducted within or upon any public right-of-way, public space or other publicly owned property constituting an open or a designated public forum in compliance with any applicable reasonable time, place and manner restriction on such speech or expression or otherwise pursuant to legal authority.*
7. *Sounds produced at otherwise lawful and permitted city-sponsored events, organized sporting events, school assemblies, school playground activities, by permitted fireworks, and by permitted parades on public right-of-way, public space, or other publicly owned property.*
8. *An event for which a temporary use permit or special event permit has been issued under other provisions of this code, where the provision of Section 11.80.010 are met, the permit granted expressly grants an exemption from specific standards contained in this chapter, and the permittee and all persons under the permittee's reasonable control actually comply with all conditions of such permit. Violation of any condition of such permit related to sound or sound equipment shall be in violation of this chapter and punishable as such.*

Table 4.12~~.E~~-3 and Table 4.12~~.F~~-4 show the maximum sound levels that are permitted in the City for continuous and impulsive sounds, respectively.

Table 4.12~~.E:~~-3: Maximum Continuous Sound Levels*

Duration Per Day Continuous Hours	Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

* When the daily sound exposure is composed of two or more periods of sound exposure at different levels, the combined effect of all such periods shall constitute a violation of this section if the sum of the percentage of allowed period of sound exposure at each level exceeds 100 percent.

~~Source: Chapter 11.80.030 Table 11.80.030-1, City of Moreno Valley Municipal Code, City of Moreno Valley.~~Source: COMV, 2018.

Table 4.12~~.F:~~-4: Maximum Impulsive Sound Levels

Number of Repetitions Per 24-Hour Period	Sound Level (dBA)
1	145
10	135
100	125

Source: Chapter 11.80.030 Table 11.80.030-1A, City of Moreno Valley Municipal Code, City of Moreno Valley.

The City also restricts the sound levels for non-impulsive sound on lands designated for residential and commercial land uses during the daytime and nighttime time periods. These levels are shown in Table

4.12~~.G~~-5. Section 11.80.050 (3) clearly identifies the measurement as an “average” noise level, and therefore, the noise limits shown in Table 4.12~~.G~~-5 are interpreted as the L_{eq} noise level.

Table 4.12~~.G:~~-5: Maximum Non-Impulsive Sound Levels (in dBA) ~~for Source Land Uses~~

Residential		Commercial	
Daytime (8:00 a.m. – 10:00 p.m.)	**Nighttime (10:01 p.m. – 7:59 a.m.)**	**Daytime (8:00 a.m. – 10:00 p.m.)**	**Nighttime (10:01 p.m. – 7:59 a.m.)**
60	55	65	60

~~Source: Chapter 11.80.030 Table 11.80.030-2, City of Moreno Valley Municipal Code, City of Moreno Valley.~~Source: COMV, 2018.

~~The~~Should a noise disturbance occur during construction, the City prohibits all construction and demolition activities between the hours of 8:00 p.m. and 7:00 a.m. the day following ~~a~~the noise disturbance; with the exception of emergency work by public service utilities or for other work approved by the city manager or designee. A noise disturbance is defined as any sound which that disturbs a reasonable person of normal sensitivities, exceeds the sound level limits set forth in the Noise Ordinance, or is plainly audible. A noise disturbance is defined as plainly audible measured at a distance of 200 feet from the real property line of the source of the sound if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property.

4.12.2.~~3 State~~5 City of ~~California Vehicle Code~~Perris General Plan Policies

~~Recent studies have shown that the most objectionable feature of traffic noise is the sound produced by vehicles equipped with illegal or faulty exhaust systems. In addition, such vehicles are often operated in a manner that causes tire squeal and excessively loud exhaust noise. A number of California State vehicle noise regulations can be enforced by local authorities as well as the California Highway Patrol. These include § 27150 (mufflers) of the California Vehicle Code (CVC), as well as excessive speed laws, which may be applied to curtail traffic noise. The California Highway Patrol and the Department of Health Services (through local health departments) are available to aid local authorities in code enforcement and training pursuant to proper vehicle sound level measurements.~~

~~4.12.2.4 State of California Noise Compatibility Guidelines~~

~~The State of California Noise Compatibility Guidelines, published by the Department of Health, Services provides guidance for use when siting~~The Noise Element of the *City of Perris General Plan* (COP, 2016) defines goals, policies, and implementation measures related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Goal II Roadway improvements compatible with existing noise-sensitive land uses. ~~The compatibility guidelines are shown in Figure 4.12.7. The guidelines will be used~~

Policy II.A Appropriate measures shall be taken in the design phase of future roadway widening projects to ~~evaluate the compatibility of the proposed~~ minimize impacts on existing sensitive noise receptors.

Goal V Future non-residential land uses compatible with ~~the~~ noise ~~environment. The guidelines show compatibility of various~~sensitive land uses ~~with different noise environments. The guidelines show that~~ .

Policy V.A New large scale commercial or industrial facilities located within 160 feet of sensitive and uses ~~are normally~~shall mitigate noise impacts to attain an acceptable ~~in~~ level as required by the State of California Noise/Land use Compatibility Criteria.

4.12.2.6 City of Riverside General Plan Policies

The Noise Element of the *City of Riverside General Plan* (COR, 2018) defines objectives and policies related to noise ~~environments up to 75 CNEL.~~conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Objective N-1 Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.

Policy N-1.5 Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.

Policy N-1.7 Evaluate noise impacts from roadway improvement projects by using the City's Acoustical Assessment Procedure.

Policy N-1.8 Continue to consider noise concerns in evaluating all proposed development decisions and roadway projects.

Objective N-4 Minimize ground transportation-related noise impacts.

Policy N-4.1 Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (e.g., earthen berms, landscaped walls, lowered streets, improved technology).

Policy N-4.2 Investigate and pursue innovative approaches to reducing noise from railroad sources.

Policy N-4.3 Identify and aggressively pursue funding sources to provide grade separations and sound walls along train routes as noise reduction measures.

Policy N-4.5 Use speed limit controls on local streets as appropriate to minimize vehicle traffic noise.

4.12.2.7 County of Riverside General Plan Policies

The Noise Element of the *County of Riverside General Plan* (COR, 2015) defines policies related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

N.1.1 Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

N.1.2 Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of any adjacent airports.

N.1.4 Determine if existing land uses will present noise compatibility issues with projects by undertaking site surveys.

N.1.5 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

N.1.6 Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or noise-sensitive uses.

N.1.8 Limit the maximum permitted noise levels that cross property lines and impact adjacent land uses, except when dealing with noise emissions from wind turbines.

N.2.3 Mitigate exterior and interior noises to the levels listed in Table 4.12-6 below to the extent feasible.

Table 4.12-6: Stationary Source Land Use Standards

Land Use	Interior Standards	Exterior Standards
Residential		
10:00 p.m. to 7:00 a.m.	40 L_{eq} (10 minute)	45 L_{eq} (10 minute)
7:00 a.m. to 10:00 p.m.	55 L_{eq} (10 minute)	65 L_{eq} (10 minute)

Source: COR, 2015.

N.3.3 Ensure compatibility between industrial development and adjacent land uses. To achieve compatibility, industrial development projects may be required to include noise mitigation measures to avoid or minimize project impacts on adjacent uses.

N.3.5 Require that a noise analysis be conducted by an acoustical specialist for all proposed projects that are noise producers. Include recommendations for design mitigation if the project is to be located either within proximity of a noise-sensitive land use, or land designated for noise-sensitive land uses.

N.3.6 Discourage projects that are incapable of successfully mitigating excessive noise.

N.3.7 Encourage noise-tolerant land uses such as commercial or industrial, to locate in areas already committed to land uses that are noise-producing.

N.4.1 Prohibit facility-related noise received by any sensitive use from exceeding the following worst-case noise levels:

a. 45 dBA-10-minute Leq between 10:00 p.m. and 7:00 a.m.

b. 65 dBA-10-minute Leq between 7:00 a.m. and 10:00 p.m.

N.4.3 Ensure any use determined to be a potential generator of significant stationary noise impacts be properly analyzed and ensure that the recommended mitigation measures are implemented.

N.4.4 Require that detailed and independent acoustical studies be conducted for any new or renovated land uses or structures determined to be potential major stationary noise sources.

N.4.5 Encourage major stationary noise-generating sources throughout the County of Riverside to install additional noise buffering or reduction mechanisms within their facilities to reduce noise generation levels to the lowest extent practicable prior to the renewal of conditional use permits or business licenses or prior to the approval and/or issuance of new conditional use permits for said facilities.

N.4.8 Require that the parking structures, terminals, and loading docks of commercial or industrial land uses be designed to minimize the potential noise impacts of vehicles on the site as well as on adjacent land uses.

N.6.3 Require commercial or industrial truck delivery hours be limited when adjacent to noise-sensitive land uses unless there is no feasible alternative or there are overriding transportation benefits.

N.9.2 Ensure the inclusion of noise mitigation measures in the design of new roadway projects in the county.

N.9.3 Require development that generates increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses to provide for appropriate mitigation measures.

N.9.4 Require that the loading and shipping facilities of commercial and industrial land uses, which abut residential parcels be located and designed to minimize the potential noise impacts upon residential parcels.

N.9.5 Employ noise mitigation practices when designing all future streets and highways, and when improvements occur along existing highway segments. These mitigation measures will emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.

N.12.1 Utilize natural barriers such as hills, berms, boulders, and dense vegetation to assist in noise reduction.

N.12.2 Utilize dense landscaping to effectively reduce noise. However, when there is a long initial period where the immaturity of new landscaping makes this approach only marginally effective, utilize a large number of highly dense species planted in a fairly mature state, at close intervals, in conjunction with earthen berms, setbacks, or block walls.

N.13.1 Minimize the impacts of construction noise on adjacent uses within acceptable practices.

N.13.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

N.13.4 Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

4.12.3 Methodology

Evaluation of noise impacts associated with the ~~proposed~~ project includes the following:

- Determination of the short-term construction noise impacts on on-site and off-site noise-sensitive uses;
- Determination of the long-term noise impacts, ~~including~~of vehicular traffic~~ and stationary noise sources~~, on on-site and off-site noise-sensitive uses; and
- Determination of the required mitigation measures to reduce ~~long-term~~construction and traffic noise ~~impacts from all sources~~.

Because of the location of noise-sensitive receptors, the noise analysis evaluates the noise effects of the industrial development on the existing residential development (sensitive receptors) near the ~~southwest portion of the proposed~~ project area.

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~~Figure 4.12.7: California Noise Compatibility Guidelines~~

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~~There are no Federal Highway Administration (FHWA), State, or local standards for vibration. According to the FHWA, highway traffic and construction vibrations pose no threat to buildings and structures; and annoyance to people is not considered any worse than other discomforts experienced from living near highways. However, a substantial amount of research has been completed to compare vibrations from single events such as dynamite blasts with architectural and structural damage. The U.S. Bureau of Mines has set a safe limit of 0.5 inch per second peak particle velocity to avoid structure damage in residential structures (U.S. Bureau of Mines 1980). Below this level, there is virtually no risk of building damage.~~

Analysis of the project's temporary construction noise effects is based on estimates of construction equipment units and duration of use consistent with the air quality analysis. The analyses accounted for attenuation of noise levels due to distances that would be between the construction activity and the nearest sensitive land uses. Construction noise levels at nearby sensitive land uses were estimated using the FHWA's Roadway Construction Noise Model (FHWA, 2006a) assuming two of the loudest pieces of construction equipment would operate at the closest location point to the nearest sensitive receptor. Modeled construction noise levels at nearby sensitive receptors were compared to the City of Moreno Valley noise ordinance and to ambient noise levels.

The City of Moreno Valley prohibits construction from occurring outside of the hours of 8:00 p.m. to 7:00 a.m. that creates a noise disturbance. The project is anticipated to require limited nighttime construction activity, subject to the City's approval. Therefore, for this analysis, residences that are exposed to noise levels exceeding those identified in Chapter 11.80.030, Table 11.80.030-2 of the City of Moreno Valley Municipal Code (see Table 4.12-5) during project construction (60 dBA L_{eq} between 8:00 a.m. and 10:00 p.m. and 55 dBA L_{eq} between 10:01 p.m. and 7:59 a.m.) would result in violation of the City's noise ordinance.

Construction noise impacts are also assessed relative to the increase in noise levels that could result from the operation of specified construction equipment compared to existing noise level conditions. The City of Moreno Valley General Plan and noise ordinance does not specify an incremental increase threshold for construction. For this analysis, substantial temporary or periodic increases in ambient noise would occur and it would be considered a significant impact in cases where sensitive land uses are exposed to construction noise levels that increase ambient noise levels by 10 dB. A 10 dB increase in noise is considered a doubling of loudness to the average person (Caltrans, 2013).

Roadway noise impacts were evaluated using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) method (FHWA 2006b) based on the roadway traffic volume data provided in the Traffic Study prepared for the project and included in Appendix D of this Revised Final EIR. This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels that would occur under the "Without Project" condition.

4.12.4 Thresholds of Significance

A project would have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or if it would conflict with adopted environmental plans and goals of the community in which it is located.

The applicable noise standards and guidelines governing the project are those specified previously in ~~Sections~~Section 4.12.2.~~1 through 4.12.2.4.~~ In summary, these criteria are contained within the Safety Element of the General Plan, the Municipal Code, the California Vehicle Code, and the State Noise Compatibility Guidelines.

For the purpose of this ~~project~~Revised Sections of the FEIR, a noise impact is considered significant if the project would result in:

- ~~Exposure of~~ Construction noise would expose persons to ~~or generation of~~ noise levels in excess of standards established in the *City of Moreno Valley General Plan*, City of *Moreno Valley Municipal Code*, or applicable standards of other agencies; and/or
- ~~Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;~~
- A substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project~~;~~.
- ~~For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; and/or~~
- ~~For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.~~

The standards within the *City of Moreno Valley General Plan* and City of *Moreno Valley Municipal Code* determine the acceptable noise environment for ~~proposed~~ project and its vicinity. The standards are as follows:

- ~~To the extent feasible, ensure through the design review process that exterior noise levels at commercial and industrial areas do not exceed 75 dBA CNEL.~~
- Consider the following uses noise-sensitive and discourage them in areas where exterior noise levels exceed 65 dBA CNEL unless measures are implemented that reduce the noise exposure below this level: single-family and multiple-family residential uses, group homes, hospitals, schools and other learning institutions, and parks and open space areas where quiet is a basis for use.
- Noise from construction and demolition activities exceeding those identified in Chapter 11.80.030, Table 11.80.030-2 of the City of Moreno Valley Municipal Code (60 dBA L_{eq} between 8:00 a.m. and 10:00 p.m. and 55 dBA L_{eq} between 10:01 p.m. and 7:59 a.m.) at sensitive uses during project construction would result in violation of the City's noise ordinance (see Table 4.12-5).
- Construction activity that would increase ambient noise levels at sensitive land uses by 10 dB or more would result in substantial temporary or periodic increases in ambient noise and be considered significant.

Long-term impacts from the project's traffic noise that affect existing sensitive land uses are considered to be substantial and, therefore, constitute a significant noise impact if the project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

~~The project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:~~

- ~~Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;~~
- ~~Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or~~

- ~~Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.~~

4.12.5 No Impact/Less than Significant Impacts

~~The following impacts were identified as having a less than significant impact or no impact on the environment with implementation of the proposed project.~~

~~4.12.5.1 Groundborne Vibration Impacts~~

~~Threshold~~	~~Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?~~

~~Roadways in the vicinity of the project area are either paved or would be paved as the area develops, and would not result in project traffic driving over rough or dirt roads. Well maintained roads typically do not result in substantial vibration levels. Even roads with irregularities typically only generate substantial levels of vibration very near, less than 50 feet from the irregularity. Construction activities that would occur within the WLCSP area are not anticipated to require blasting or pile driving. Roadway vibrations are typically not perceptible more than 50 feet from the roadway except in very unusual circumstances. Generally, the interface between the soft tire of a truck or automobile will not generate significant vibration unless the road is in poor shape (e.g., potholes or pavement joints) Therefore, impacts associated with this issue are anticipated to be less than significant, and no mitigation is required.~~

~~4.12.5.2 Airport Noise Impacts~~

~~Threshold~~	~~For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, results in exposure of people residing or working in the project area to excessive noise levels.~~
	~~For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.~~

~~The project area is located approximately 5.5 miles northeast of the March Airfield (MAF) and is not located within two miles of a private airstrip. The MAF is a joint-use airport, used for both military and civilian purposes. The March Air Reserve Base (MARB) is the military operator of the MAF and March Inland Port (MIP) is the civilian operator of the airport. This facility is anticipated to play an increasingly important role in the transportation of goods and cargo for the Southern California region. Existing flight patterns affect a large portion of the City of Moreno Valley, along a path that affects the western portion of the City in a northwest/southeast alignment. Aircraft operations from the airport currently contribute intermittent single-event noise.~~

~~There is potential for single-event noise exposure levels from MAF activity to affect the proposed project. The exposure levels will vary dependent upon the type of aircraft and flight track flown for each operation at MAF. However, the proposed project is not identified as being within the noise or safety contours delineated for the MARB Airport.[1] In addition, the proposed project is not considered to contain sensitive receivers and, therefore, the impacts from these single-event noise levels are considered to be below the level of significance. The City's exterior noise standard for industrial uses is 70 dBA CNEL. MAF noise levels are less than 60 dB CNEL within the project area. Therefore, the proposed project would not have the potential to expose people to excessive noise levels from airport operations.~~

~~[1] *Figure 5.4-1 March Reserve Air Base Noise Impact Area*, City of Moreno Valley General Plan EIR, July 2006.~~

~~Therefore, no significant noise impacts would occur regarding these issues from implementation of the proposed project, and no mitigation is required.~~

Section 4.12.5 of the 2015 FEIR remains unchanged.

4.12.6 Significant Impacts

4.12.6.1 Short-Term Construction Noise Impacts

Impact 4.12.6.1A: *The project could expose persons to noise levels in excess of standards established in the City of Moreno Valley General Plan, City of Moreno Valley Municipal Code, or applicable standards of other agencies.*

Threshold	Would the project result in ~~a substantial temporary, periodic, ~~the exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, City of Moreno Valley Municipal Code, or applicable standards of other agencies?

Construction noise levels in and~~/or permanent increase in ~~ around the project area would fluctuate depending on the type, number, and duration of use of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels ~~in the project vicinity above levels existing without the project?~~along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as pile driving or blasting), which can be particularly disruptive. Pile driving and blasting, however, is not proposed during project construction. Table 4.12-7 shows typical noise levels produced by the types of construction equipment that would likely be used during project construction.

Table 4.12-7: Reference Construction Equipment Noise Levels

Type of Equipment	L_{max}, dBA (50 Feet from Source)	Hourly L_{eq}, dBA/percent Use[1] (50 Feet from Source)
Bore/Drill Rigs	85	78/20
Cement and Mortar Mixers	85	81/40
Cranes	85	77/16
Excavators	85	81/40
Forklifts	85	78/20
Graders	85	81/40
Pavers	85	82/50
Pumps	77	74/50
Rollers	85	78/20
Dozers	85	81/40
Scrapers	85	81/40
Skid Steer Loaders	85	81/40
Tractors	84	80/40
Loaders	80	76/40
Backhoes	80	76/40
Trenchers	85	78/20

NOTES:

1. Percent used during the given time period (usually an hour – hourly L_{eq}) were obtained from the FHWA Roadway Construction Noise Model User's Guide.

SOURCE: FHWA, 2006a.

As ~~Short-term noise would occur during the construction of the WLCSP. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed WLC project would incrementally increase noise levels on access roads in the WLC planning area. In addition, noise would be generated during excavation, grading, and building construction on various portions of the Specific Plan site. Construction is completed in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment, which includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Implementation of the Specific Plan would result in construction activities that would require the use of scrapers, bulldozers, and water and pickup trucks within the WLCSP area.~~

~~Figure 4.12.8 presents construction noise levels measured at 50 feet. The peak noise level for the majority of the equipment that~~ previously discussed in the *Methodology* discussion in Section 4.12.3, the City of Moreno Valley Noise Ordinance prohibits construction from occurring outside of the hours of 8:00 p.m. to 7:00 a.m. that creates a noise disturbance. Construction occurring within the allowable hours of 7:00 a.m. and 8:00 p.m. would not result in the violation of the City's Noise Ordinance. For this analysis, residences that are exposed to noise levels exceeding those identified in Table 4.12-5 during daytime or nighttime project construction would result in violation of the City's Noise Ordinance.

Construction operations would occur in two general areas; on-site and off-site. The on-site construction activities will be ~~used during construction of the proposed project will range from 70 to 95 dBA. Based on the fact that noise levels dissipate with increases in distance from the noise source due to noise divergence, noise levels at greater distances are less than those presented in Figure 4.12.8. Noise measurements made by Mestre Greve Associates demonstrate that the noise levels generated by commonly used grading equipment (e.g., loaders, graders, and trucks) generate noise levels that typically do not exceed the middle of the range shown in Figure 4.12.8.[1] However, the noise levels shown in Figure 4.12.8 have been used as the basis for the noise analysis estimates presented in this EIR.~~

~~[1] *Noise Assessment for the World Logistic Center Specific Plan*, page 27, Mestre Greve Associates, Division of Landrum & Brown, September 2014.~~

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~~Figure 4.12.8: Typical Construction Equipment Noise Levels~~

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~~Construction activities that are associated with the proposed WLCSP project would occur in two general areas: on-site and off-site.~~ more intense. Some phases of the on-site construction ~~would~~ are expected to occur for 24~~-~~-hours a day~~ for~~, 7~~-~~-days ~~a~~per week. ~~It is~~ For the purpose of this analysis, construction is anticipated ~~that on-site construction would occur~~ to begin in 2020, periodically~~ over a nine-year period with~~ , for a ~~potential start year of 2015 and ending in 2030.~~total of 16-years. Off-site construction ~~(which~~ would ~~involve~~be much less intense and consist of minor grading, drainage, interchange, utility~~,~~ and roadway improvements~~) is anticipated to~~ . Off-site construction activities would be of shorter duration and would only occur on weekdays during ~~the~~ daytime ~~weekday~~ hours. Both on-site and ~~would have a shorter~~off-site construction ~~duration~~are discussed in more detail below.

~~**On-site Construction.** Sensitive receptors that would be potentially affected by on-site construction activities would include residences located within and adjacent to the WLCSP area as well as residences located on the north side of SR-60. For residences on the opposite side of SR-60, existing daytime and nighttime freeway noise is anticipated to be greater than the noise generated by the construction activities that would occur within the WLCSP area. Although certain conditions at night, such as low inversions and very calm conditions, can increase the ability of construction noise to travel to the residences north of the freeway, these same conditions would also amplify the noise generated on the freeway. Since freeway noise would continue to be the dominant noise source in the area for these residences along SR-60, construction noise impacts on the residents north of the freeway will be less than significant and no mitigation is required.~~

~~Existing residences within the WLCSP area or adjacent to the Specific Plan area may be located within 50 feet or less from areas where intense construction (24 hours a day, 7 days a week) would occur. Although residential properties located within the WLCSP would be rezoned as Light Logistics, the existing residences are considered to be noise-sensitive uses that would be affected by intense construction activities. Similarly, residences located adjacent to the project site (i.e., along Redlands Boulevard, Merwin Street, Bay Avenue, Cactus Avenue, and Gilman Springs Road) would also be affected by intense construction activities. Based on a 50-foot noise attenuation distance, these residences may experience worst-case unmitigated peak construction noise levels (L_{max}) up to 97 dBA. The average noise levels are typically 5 to 15 dB lower than the peak noise levels. Average noise levels (L_{eq}) at 50 feet could easily be in the range of 82 to 92 dBA during most phases of construction.~~

~~The City of Moreno Valley Municipal Code does not include any exemptions for construction noise. Therefore, construction would be subject the limitations of 60 dBA during daytime and 55 dBA at nighttime measured at residential areas. According to Section 3.4.14, *Project Description*, WLC project construction may occur 24 hours a day, 7 days a week for certain activities. Significant noise impacts would be expected, especially if work with high noise levels occurs between 8:00 p.m. and 6:00 a.m.~~

On-site construction activities are expected to occur outside of the allowed construction hours specified in the City of Moreno Valley Noise Ordinance. The operation of each piece of off-road equipment within the on-site construction areas (i.e., Plots 1 through 22) would not be constant throughout the day, as equipment would be turned off when not in use. Most of the time over a typical work day, the equipment would be operating at different locations within the various plots of the project site and would not likely be operating concurrently. However, for a more conservative approximation of construction noise levels to which the nearest sensitive receptor would be exposed, it is assumed that two of the loudest pieces of construction equipment would be operating at the same time and located within the project plots nearest to a sensitive receptor. The nearest sensitive receptors are the existing on-site residences, which would be located approximately 25 feet from construction activity of various Plots. As a worst case scenario, it has been assumed that all existing on-site residences will remain onsite throughout construction.

Based on the list of the construction equipment that would be used at each of the plots, it was assumed that the two loudest pieces of off-road equipment (a paver and scraper) would have a combined noise level of 85 dBA L_{eq} from a distance of 50 feet (FHWA, 2006a). Using this reference noise level and a

7.5 dB per doubling of distance attenuation rate, the noise exposure level at representative locations around the project site were calculated and presented in Table 4.12-8. The location of the modeled receptor locations is presented in Figure 4.12-3. As shown in Figure 4.12-3 and Table 4.12-8, noise generated during construction of the plots, in some cases construction of various plots occurring concurrently, would expose sensitive receptors to noise levels that would exceed the City's 60 dBA L_{eq} daytime and 55 dBA L_{eq} nighttime exterior noise standard. Specifically, impacts would occur at existing residences located within and to the west of the project area. Affected receptors are all located within City of Moreno Valley boundaries.

Based on these projections, anticipated worst-case construction noise levels would regularly be exceeded ~~during daytime and nighttime hours~~ at residences within and near the ~~Specific Plan~~project area. Based on an L_{eq} noise level of ~~90~~85 dBA L_{eq} at 50 feet and an attenuation rate of 7.5 dB per doubling of distance, an observer would need to be ~~1,580~~at a distance of 500 feet from ~~the~~ an active project construction area to experience a noise level of 60 dBA ~~(~~L_{eq}~~),~~, or ~~2,~~800 feet for a noise level of 55 dBA ~~(~~L_{eq}~~).~~. Therefore, ~~a residence within 1,580 feet during active~~ the on-site construction ~~during~~of the ~~daytime~~project would ~~be affected. Similarly, a residence within 2,800 feet during~~result in the ~~nighttime~~exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley Noise Ordinance would ~~be affected by construction noise~~result in a significant impact.

~~As set forth in Section 3.4.14 and as stated by the project applicant, construction could occur 24 hours per day, 7 days per week for these construction activities. Therefore, noise levels at the nearest residences would exceed the City's exterior noise standard of the 60 dBA[1] CNEL daytime standard and 55 dBA CNEL nighttime standard for residential uses. This is a significant impact requiring mitigation.~~

~~**Off-site Construction.** Construction activities associated with off-site construction include road improvements along Cactus Avenue and Redlands Boulevard, water and utility improvements, construction of a detention basin, debris basins, and interchange improvements. Roadway and interchange improvements are planned along Cactus Avenue, Redlands Boulevard, State Route 60, and Gilman Springs Road. Often the loudest pieces of equipment associated with this type of construction are the graders/scraper equipment. Peak noise levels at 50 feet can reach 96 dBA, with average noise levels (~~L_{eq}~~) in the 85 dBA range. Noise levels of 60 dBA (~~L_{eq}~~) could be exceeded for up to 900 feet from the construction area. Existing residences are located within 900 feet of the off-site construction areas and would be exposed to noise levels that would exceed of the Moreno Valley noise criteria for residential uses.~~

~~Other off-site construction improvements such as drainage, sewer, water, and utility features would also generate noise in close proximity to existing sensitive uses. However, these activities typically utilize less construction equipment, which results in lower noise levels. These construction activities may commonly employ a backhoe as the loudest piece of equipment. A backhoe may have a peak noise level that exceeds 90 dBA at 50 feet, but has an average noise level around 80 dBA (~~L_{eq}~~) at 50 feet. However, at this noise level one would need to be more than 500 feet away to experience a noise level (~~L_{eq}~~) of less than 60 dBA. This noise level would exceed the City's daytime criteria at the nearest existing residences and mitigation measures would be required.~~

~~**Specific Plan Design Features.** The WLCSP does not contain any design features that specifically address noise. Other features, such as perimeter setback requirements, will have the effect of reducing noise to certain residential areas.~~

~~[1] *Chapter 11.80.030 Table 11.80.030-2, City of Moreno Valley Municipal Code,* City of Moreno Valley.~~

Off-site construction activities would occur within the allowed construction hours identified in the City's Noise Ordinance and would be consistent with the City's code. The nearest sensitive receptors are located at approximately 25 feet from off-site construction areas. Based on the operation of the two loudest pieces of equipment simultaneously at 25 feet, off-site construction could expose sensitive receptors to a noise level of 93 dBA L_{eq}, which would exceed the City's allowable daytime exterior noise level of 60 dBA L_{eq}. Therefore, the off-site construction activities would result in the exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley Noise Ordinance would result in a significant impact.

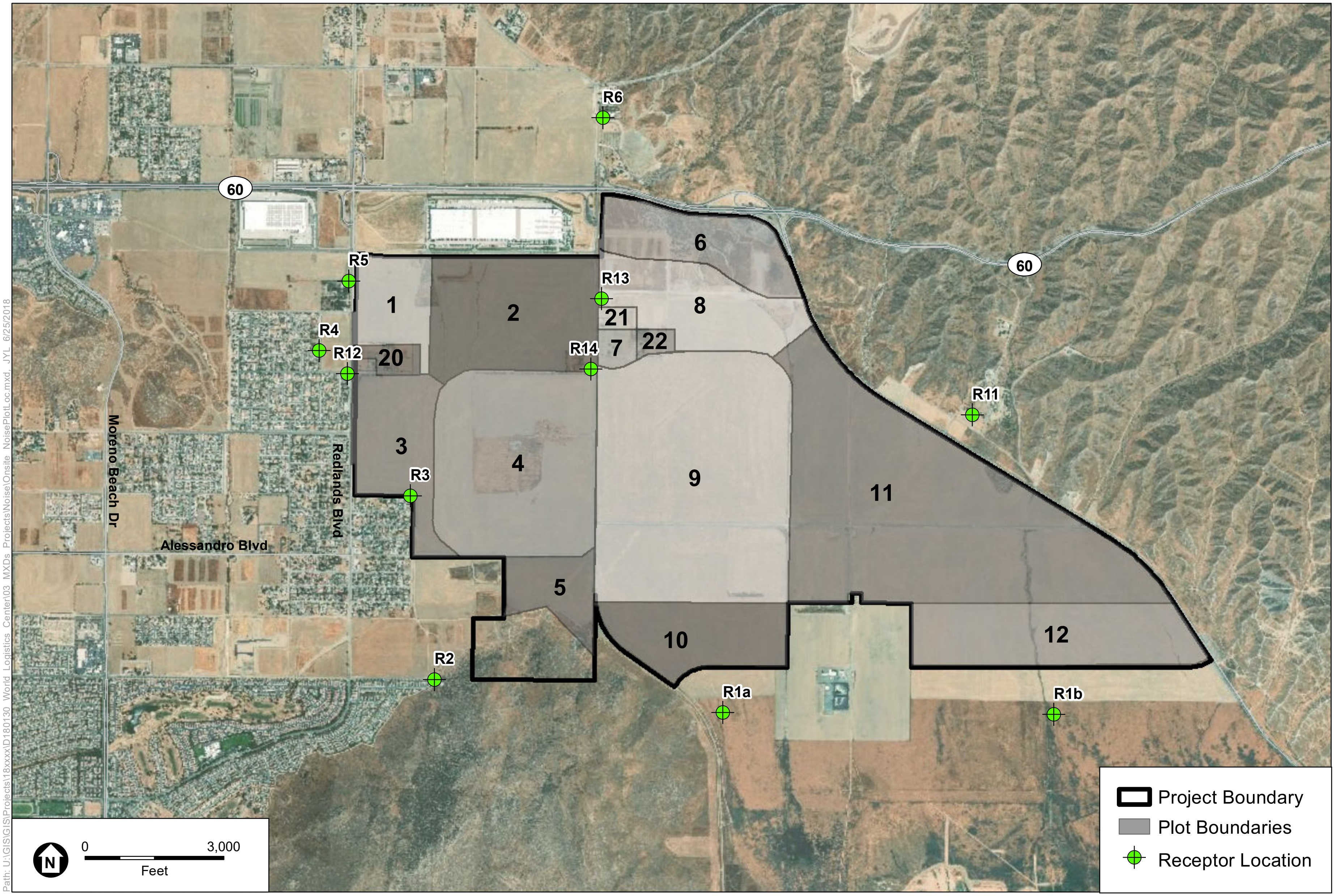

SOURCE: ESRI

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\Noise\Onsite_NoisePlotLoc.mxd, JYL 6/25/2018

World Logistics Center

Figure 4.12-3
Onsite Plot Locations

ESA

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Noise Level Day/Night (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)**	**Unmitigated Increase Over Ambient Day/Night (dB)**	**Mitigated Increase Over Ambient Day/Night (dB)**
Plot 2								
1a	8,185	41	30	20	41	41	0	0
1b	12,584	41	25	15	41	41	0	0
2	6,885	76	32	22	76	76	0	0
3	2,670	52	42	32	52	52	0	0
4	2,260	66	44	34	66	66	0	0
5	1,575	70	48	38	70	70	0	0
6	3,000	65	41	31	65	65	0	0
11	8,325	74	29	19	74	74	0	0
12	1,700	54	47	37	55	54	1	0
13	120	47	75	65	75	65	**29**	**19**
14	25	51	93	83	93	83	**42**	**32**
Plot 4								
1a	4,580	41	36	26	42	41	1	0
1b	10,410	41	27	17	41	41	0	0
2	2,750	76	41	31	76	76	0	0
3	500	52	60	50	61	54	9	2
4	2,655	66	42	32	66	66	0	0
5	2,940	70	41	31	70	70	0	0
6	5,740	65	34	24	65	65	0	0
11	8,140	74	30	20	74	74	0	0
12	1,880	54	46	36	55	54	1	0
13	1,500	47	48	38	51	48	4	1
14	25	51	93	83	93	83	**42**	**32**
Plot 9								
1a	3,990	41	37	27	43	41	2	0
1b	6,915	41	31	21	41	41	0	0
2	4,815	76	35	25	76	76	0	0
3	3,930	52	38	28	52	52	0	0
4	6,060	66	33	23	66	66	0	0
5	5,700	70	34	24	70	70	0	0
6	5,175	65	35	25	65	65	0	0
11	3,600	74	39	29	74	74	0	0

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night (dB)
12	5,350	54	34	24	54	54	0	0
13	950	47	53	43	54	48	7	1
14	400	51	62	52	62	55	**12**	4
Plot 1, 3, and 20								
1a	7035 – 9915	41	34	24	42	41	1	0
1b	13530 – 15620	41	28	18	41	41	0	0
2	2745 – 7365	76	42	32	76	76	0	0
3	25 – 2670	52	93	83	93	83	**41**	**31**
4	835 – 1000	66	59	49	67	66	1	0
5	120 – 1875	70	79	69	80	73	9	2
6	5010 – 6840	65	38	28	65	65	0	0
11	11290 – 12100	74	31	21	74	74	0	0
12	150 – 730	54	74	64	74	64	**20**	**10**
13	3650 – 4230	47	42	32	48	47	1	0
14	3400 – 3775	51	43	33	52	51	1	0
Plot 5 and 10								
1a	1030 – 3375	41	52	42	52	45	**11**	4
1b	5750 – 10100	41	34	24	42	41	1	0
2	1735 – 3790	76	47	37	76	76	0	0
3	1930 – 4740	52	46	36	53	52	1	0
4	5575 – 8270	66	35	25	66	66	0	0
5	6465 – 8810	70	34	24	70	70	0	0
6	9440 – 10480	65	31	21	65	65	0	0
11	5750 – 8765	74	35	25	74	74	0	0
12	7380 – 45800	54	31	21	54	54	0	0
13	4550 – 5570	47	38	28	48	47	1	0
14	3980 – 5130	51	39	29	51	51	0	0
Plot 7, 8, 21, and 22								
1a	7718 – 8610	41	36	26	42	41	1	0
1b	9290 – 12360	41	32	22	42	41	1	0
2	7540 – 8750	76	36	26	76	76	0	0
3	4840 – 6075	52	40	30	52	52	0	0
4	6030 – 6850	66	38	28	66	66	0	0

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night (dB)
5	5265 – 5955	70	40	30	70	70	0	0
6	2960 – 4745	65	44	34	65	65	0	0
11	3640 – 7650	74	40	30	74	30	0	0
12	5230 – 6900	54	39	29	54	29	0	0
13	25 – 1550	47	97	87	97	87	**50**	**40**
14	200 – 1370	51	70	60	70	60	**19**	**10**
Plot 11								
1a	4,475	41	36	26	42	41	1	0
1b	4,100	41	37	27	42	41	1	0
2	8,560	76	29	19	76	76	0	0
3	8,435	52	29	19	52	52	0	0
4	10,190	66	27	17	66	66	0	0
5	9,655	70	28	18	70	70	0	0
6	6,725	65	32	22	65	65	0	0
11	675	74	57	47	74	74	0	0
12	9,770	54	28	18	54	54	0	0
13	4,240	47	37	27	47	47	0	0
14	4,460	51	36	26	51	51	0	0
Plot 12								
1a	4,160	41	37	27	43	41	1	0
1b	1,050	41	52	42	52	45	**11**	3
2	10,250	76	27	17	76	76	0	0
3	11,110	52	26	16	52	52	0	0
4	13,920	66	24	14	66	66	0	0
5	13,960	70	24	14	70	70	0	0
6	12,400	65	25	15	65	65	0	0
11	4,000	74	37	27	74	74	0	0
12	13,130	54	25	15	54	54	0	0
13	9,330	47	28	18	47	47	0	0
14	8,540	51	29	19	51	51	0	0
Plot 6								
1a	8,870	41	29	19	41	41	0	0
1b	10,300	41	27	17	41	41	0	0

Table 4.12-8: Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)		
2	9,975	76	28	18	76	76	0	0
3	6,730	52	32	22	52	52	0	0
4	6,515	66	32	22	66	66	0	0
5	5,435	70	34	24	70	70	0	0
6	1,610	65	47	37	65	65	0	0
11	4,340	74	37	27	74	74	0	0
12	6,100	54	33	23	54	54	0	0
13	960	47	53	43	54	49	7	1
14	2,440	51	43	33	52	51	1	0

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.

2. Mitigation assumed a 10 dB reduction from a temporary noise barrier and equipment exhaust mufflers.

Source: ESA, 2018; FHWA, 2006a

Specific Plan Design Features. ~~*Note: The following changes to the mitigation measures were made as a result of the revised project noise assessment (Appendix K in FEIR Volume 2) and in responses to Comments C-4-2 in Letter C-4 from Sempra Energy and Comments F-13-9 and F-13-84 in Letter F-13 from Johnson & Sedlack on behalf of the Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.*~~

The WLCSP does not contain any design features that specifically address noise. Other features, such as perimeter setback requirements, will have the effect of reducing noise to certain residential areas.

Mitigation Measures. Construction of the ~~proposed~~World Logistics Center project would result in noise levels at the closest residences exceeding the maximum noise level allowed under the City's Municipal Code. The following measures~~[1]~~ would reduce short-term construction-related noise impacts associated with the proposed WLC project:

4.12.6.1A Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. ~~The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per Noise Study MM N-2, pg. 51).~~The NRCP shall be prepared by a qualified acoustical consultant describing how noise reduction measures shall be implemented to reduce the noise exposure on sensitive receptors adjacent to onsite and offsite construction areas. The noise reduction measures shall be implemented so that construction activities do not exceed the City's daytime and nighttime average hourly noise standard of 60 dBA L_{eq} and 55 dBA L_{eq}, respectively. The construction noise reduction measures shall include, but not be limited to, the following measures:

- ~~**4.12.6.1B**~~ All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.
- ~~**4.12.6.1C**~~ Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the ~~Specific Plan (per Noise Study MM N-1, pg. 51).~~project.
- ~~**4.12.6.1D**~~ No ~~grading~~construction activity shall occur within ~~2,~~800 feet of residences ~~south of State Route 60~~ between 8 p.m. and ~~6~~7 a.m. on weekdays and ~~between 8 p.m. and 7 a.m. on~~ weekends. ~~These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51)~~
- ~~**4.12.6.1E**~~ ~~As an alternative to Mitigation Measure 4.12.6.1D, a~~A 12-foot tall temporary construction sound barrier ~~may be installed for residences~~blocking the line-of-sight of construction activity to any residential receptor located within ~~1,580~~800 feet of active ~~nighttime~~ construction areas~~.~~ shall be installed prior to commencement of any construction activity. The temporary sound barrier shall be constructed of plywood with a total thickness of ~~15~~1.5 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. ~~This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52).~~

~~**4.12.6.1F** As an alternative to Mitigation Measure 4.12.6.1D and 4.12.6.1E, on-site noise measurements of construction areas may be taken by qualified personnel and specific~~

~~[1] Measures 4.12.6.1B-F corresponds to the noise study measures N-1 through N-5.~~

~~buffer distances between construction activities and existing residences may be proposed based on actual noise levels. These measurements will be incorporated into the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2, pg. 51).~~

~~**4.12.6.1G** Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).~~

~~**4.12.6.1H** All material stockpiles in connection with any grading operations shall be located at least 1,200 feet from existing residences (per Noise Study MM N-5, pg. 52).~~

~~**4.12.6.1I** All project-related off-site construction shall be limited to 6 a.m. and 8 p.m. on weekdays only. Construction during weekends and City holidays shall not be permitted (per Noise Study MM N-6, pg. 53) to the satisfaction of the Land Development Division/Public Works.~~

~~**4.12.6.1J** Prior to issuance/approval of any grading permits, off-site construction activities adjacent to residential uses shall provide for installation of 12-foot temporary sound barriers for construction activities lasting more than one month. The sound barrier will reduce noise levels by approximately 10 dB. The temporary sound barrier may be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, the curtains must have a Sound Transmission Class (STC) rating of 27 or greater. No off-site construction is permitted during weekday nighttime hours (8 p.m. to 6 a.m.) or during weekends and City holidays except for emergencies (per Noise Study MM N-7, pg. 53).~~

~~**Level of Significance after Mitigation.** *On-site Construction*. Elimination of nighttime construction within 2,800 feet of residences would lower the noise levels to 55 dBA (L_{eq}) at the closest residences. The noise levels would just meet the 55 dBA (L_{eq}) nighttime criteria contained in the Moreno Valley Noise Ordinance resulting in a less than significant impact. With the implementation of **Mitigation Measures 4.12.6.1A** through **4.12.6.1J**, the loudest noise level that would be experienced at any developed residential parcel would be less than the 55 dBA (L_{eq}) nighttime threshold and would be consistent with the limits established in the City's Noise Ordinance resulting in a less than significant impact. In addition, implementation of **Mitigation Measure 4.12.6.1H**, would reduce the noise experienced at existing residences, resulting in a less than significant impact.~~

~~As previously stated, construction within 1,580 feet of residential areas south of the freeway has the potential to exceed the daytime Moreno Valley Noise Ordinance criteria of 60 dBA (L_{eq}). With implementation of **Mitigation Measure 4.12.6.1E**, any existing residences within 1,580 feet of a construction area would be shielded from construction noise with a 12-foot temporary sound barrier. A sound barrier will reduce the noise levels by about 10 dB resulting in a reduction of noise below City thresholds at residences 500 feet or further from the construction area. Although the installation of the temporary sound barrier would reduce noise levels experienced at the closest residences, those residences that are located within 500 feet of a construction area would still be exposed to noise levels greater than 60 dBA (L_{eq}). Therefore, impacts associated with this issue would remain significant and unavoidable.~~

~~*Off-site Construction*. With the implementation of **Mitigation Measure 4.12.6.1I**, off-site construction activities would be limited to daytime hours while **Mitigation Measure 4.12.6.1J** would require the installation of a temporary sound barrier. With these mitigation measures in place, residences adjacent to construction activities (depending on the loudness of the construction equipment) could experience~~

~~noise levels greater than 60 dBA (L_{eq}) for off-site construction projects lasting less than one month. These impacts would only occur during weekday daytime hours. However, even with implementation of these mitigation measures, noise levels experienced at these residences would be above the City's threshold. Therefore, impacts would remain significant and unavoidable.~~

- Distribute to the potentially affected residences and other sensitive receptors within 500 feet of project construction boundary a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The distribution shall identify a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute feasible actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The distribution shall also notify residents adjacent to the project site of the construction schedule. Records of any complaints and corrective action shall be stored at the site and available to the City upon request.

Level of Significance after Mitigation. Implementation of Mitigation Measure 4.12.6.1A would reduce construction noise levels at nearby sensitive receptors through implementation of a NRCP, which is expected to attenuate construction noise levels by a minimum of 10 dB. Table 4.12-8 shows mitigated construction noise levels at sensitive receptors in the vicinity of on-site construction areas. In addition, Mitigation Measure 4.12.6.1A prohibits construction activity within 800 feet of any sensitive receptor outside of the allowable hours of 7:00 a.m. to 8:00 p.m. As shown in Table 4.12-8, at distances greater than 800 feet, construction noise would not exceed the City's nighttime exterior noise standard of 55 dBA L_{eq}. Therefore, impacts would be less than significant with mitigation incorporated for nighttime construction. With regard to daytime construction, sensitive receptors located within and to the west of the project would continue to be exposed to construction noise levels that would exceed the City's daytime exterior noise standard of 60 dBA L_{eq} even with implementation of mitigation. Additionally, with a 10 dB reduction, off-site construction activity would continue to expose the sensitive receptors at 25 feet to noise levels up to 83 dBA L_{eq}. Therefore, this would result in a significant and unavoidable impact with mitigation.

Impact 4.12.6.1B: The project could result in a substantial temporary and/or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Threshold	Would the project result in a substantial temporary and/or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The project has the potential of exposing sensitive receptors within the vicinity of on- and off-site construction areas to noise levels that could temporarily elevate the existing ambient noise level above the applied 10 dB substantial temporary increase threshold. As previously discussed in the *Methodology* discussion in Section 4.12.3, the City of Moreno Valley noise ordinance and general plan does not contain an incremental increase threshold for construction. Therefore, for purposes of this analysis, it would be considered a significant impact in cases where sensitive receptors are exposed to construction noise levels that increase ambient noise levels by 10 dB.

Construction crew commutes and the transport of construction equipment and materials to the site for the project would incrementally increase noise levels on access roads in the planning area. Using algorithms from the FHWA's TNM Technical Manual and the estimated work, vendor and haul truck volumes, project peak hour construction traffic noise levels were estimated for anticipated construction years and compared to measured daytime ambient noise levels along Redlands Boulevard and World Logistics Center Parkway, South of SR 60. The results of the modeling are shown in Table 4.12-9. As shown in Table 4.12-9, project construction traffic would not elevate existing ambient noise levels above the applied substantial temporary increase threshold of 10 dB.

As previously discussed, two of the loudest pieces of construction equipment running at the same time and place was used to model project-related construction noise levels at sensitive receptors nearest to on- and off-site construction areas. The modeled receptor locations for on- and off-site construction areas are shown in Figure 4.12-3 and Figure 4.12-4, respectively. These modeled construction noise levels were compared to ambient noise measurements conducted by ESA in March 2018 to evaluate whether project-related construction activities could elevate the existing ambient noise level above the applied 10 dB substantial temporary increase threshold. Table 4.12-8 and Table 4.12-10 compares the highest on-site and off-site, respectively, project construction-related L_{eq} noise levels to which sensitive receptors could be exposed against the applicable temporary substantial increase in ambient noise threshold.

As shown in Table 4.12-8, construction activities within the project area (i.e., plots 1 through 22) would elevate existing ambient noise levels by as much as 50 dB. The existing sensitive receptors that would be most affected by on-site construction activities are located within, to the west, and to the southwest of the project area. The project-related construction activities could also have the potential to expose wildlife located within the undeveloped land located south of the project area to construction noise levels that would elevate the existing ambient to above the applied 10 dB substantial temporary increase threshold. Transient construction noise consisting of worker trips and construction equipment and materials delivery would not occur along the southern boundary of the site, adjacent to the wildlife corridor. Therefore, noise generated during onsite construction activities would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project and would result in a significant impact.

Table 4.12-9: Increase Over Ambient Along Local Roadways During Project Construction

Project Construction Year	Construction Areas	Construction On-Road Traffic Noise from 100 feet L_{eq}	Range of Existing Daytime Ambient Noise Levels along Local Roadways (dBA L_{eq})	Project Construction Noise Plus Measured Existing Noise Levels (dBA L_{eq})
2020	Plot 2	52	47 - 68	0 - 6
2021	Plot 2	54	47 - 68	0 - 8
2022	Plot 4	52	47 - 68	0 - 6
2023	Plot 4	54	47 - 68	0 - 8
2024	Plot 9	55	47 - 68	0 - 9
2025	Plot 9	54	47 - 68	0 - 8
2026	Plots 1, 3, 20	51	47 - 68	0 - 5
2027	Plots 5, 10	52	47 - 68	0 - 6
2028	Plots 5, 10	55	47 - 68	0 - 8
2029	Plots 7, 8, 21, 22	54	47 - 68	0 - 8
2030	Plot 11	55	47 - 68	0 - 8
2031	Plot 11	54	47 - 68	0 - 8
2032	Plot 11	52	47 - 68	0 - 7
2033	Plot 12	52	47 - 68	0 - 6
2034	Plot 12	54	47 - 68	0 - 8
2035	Plot 6	52	47 - 68	0 - 6

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction traffic noise levels were modeled using estimated work, vendor and haul trips from a distance of 100 feet from center of roadway. Construction traffic noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.

Table 4.12-9: Increase Over Ambient Along Local Roadways During Project Construction

Project Construction Year	Construction Areas	Construction On-Road Traffic Noise from 100 feet L_{eq}	Range of Existing Daytime Ambient Noise Levels along Local Roadways (dBA L_{eq})	Project Construction Noise Plus Measured Existing Noise Levels (dBA L_{eq})

Source: ESA, 2018

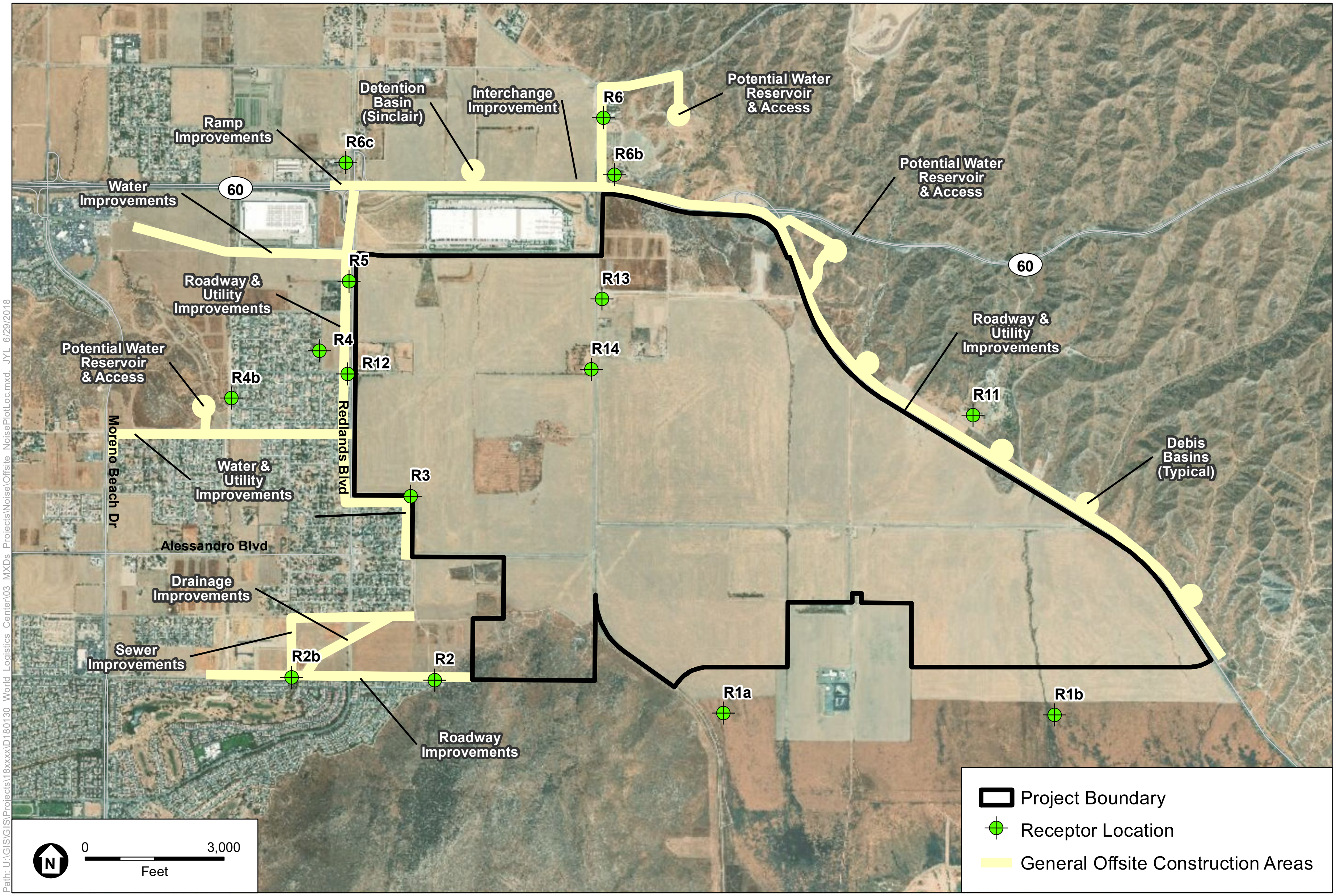

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\Noise\Offsite_NoisePlotLoc.mxd, JYL 6/29/2018

SOURCE: ESRI

World Logistics Center

Figure 4.12-4
Offsite Construction Locations

ESA

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)		
Roadway Improvements								
1a	6,140	41	33	23	42	41	1	0
1b	13,320	41	24	14	41	41	0	0
2	25	76	93	83	93	84	**17**	8
2b	25	76	93	83	93	84	**17**	8
3	1,260	52	50	40	54	52	2	0
4a	675	66	57	47	67	66	0	0
4b	2,600	66	42	32	66	66	0	0
5	25	70	93	83	93	83	**23**	**13**
6a	4,845	65	35	25	65	65	0	0
6b	5,125	65	35	25	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	640	74	57	47	74	74	0	0
12	25	54	93	83	93	83	**38**	**28**
13	4,220	47	37	27	47	47	0	0
14	5,000	51	35	25	51	51	0	0
Drainage Improvements								
1a	7,530	41	31	21	41	41	0	0
1b	14,560	41	23	13	41	41	0	0
2	1,680	76	47	37	76	76	0	0
2b	25	76	93	83	93	84	**17**	8
3	2,700	52	42	32	52	52	0	0
4	6,000	66	33	23	66	66	0	0
4b	5,765	66	33	23	66	66	0	0
5	7,400	70	31	21	70	70	0	0
6	11,700	65	26	16	65	65	0	0
6b	11,030	65	26	16	65	65	0	0
6c	9,810	65	28	18	65	65	0	0
11	13,400	74	24	14	74	74	0	0
12	5,313	54	34	24	54	54	0	0
13	8,230	47	30	20	47	47	0	0
14	6,890	51	32	22	51	51	0	0
Sewer Improvements								
1a	7,000	41	31	21	41	41	0	0
1b	14,010	41	24	14	41	41	0	0
2	1,370	76	49	39	76	76	0	0
2b	25	76	93	83	93	84	**17**	8
3	2,610	52	42	32	52	52	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
4	6,130	66	33	23	66	66	0	0
4b	5,150	66	35	25	66	66	0	0
5	7,360	70	31	21	70	70	0	0
6	11,630	65	26	16	65	65	0	0
6b	10,525	65	27	17	65	65	0	0
6c	9,810	65	28	18	65	65	0	0
11	12,710	74	25	15	74	74	0	0
12	5,300	54	34	24	54	54	0	0
13	7,900	47	30	20	47	47	0	0
14	6,530	51	32	22	51	51	0	0
Water Utility Improvements								
1a	7,500	41	31	21	41	41	0	0
1b	14,255	41	24	14	41	41	0	0
2	2,660	76	42	32	76	76	0	0
2b	3,745	76	38	28	76	76	0	0
3	25	52	93	83	93	83	**41**	**31**
4	1,770	66	46	36	66	66	0	0
4b	2,525	66	42	32	66	66	0	0
5	3,240	70	40	30	70	70	0	0
6	8,670	65	29	19	65	65	0	0
6b	8,072	65	30	20	65	65	0	0
6c	5,800	65	33	23	65	65	0	0
11	13,500	74	24	14	74	74	0	0
12	1,275	54	50	40	56	54	1	0
13	6,170	47	33	23	47	47	0	0
14	5,380	51	34	24	51	51	0	0
Potential Water Reservoir & Access								
1a	13,550	41	24	14	41	41	0	0
1b	20,000	41	20	10	41	41	0	0
2	8,316	76	29	19	76	76	0	0
2b	6,780	76	32	22	76	76	0	0
3	5,370	52	34	24	52	52	0	0
4	2,885	66	41	31	66	66	0	0
4b	925	66	53	43	66	66	0	0
5	4,082	70	37	27	70	70	0	0
6	10,590	65	27	17	65	65	0	0
6b	10,180	65	27	17	65	65	0	0
6c	6,120	65	33	23	65	65	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)		
11	16,900	74	22	12	74	74	0	0
12	3,420	54	39	29	54	54	0	0
13	9,100	47	28	18	47	47	0	0
14	8,690	51	29	19	51	51	0	0
Roadway & Utility Improvements								
1a	6,140	41	33	23	42	41	1	0
1b	13,320	41	24	14	41	41	0	0
2	25	76	93	83	93	84	**17**	8
2b	25	76	93	83	93	84	**17**	8
3	1,260	52	50	40	54	52	2	0
4	675	66	57	47	67	66	0	0
4b	2,600	66	42	32	66	66	0	0
5	25	70	93	83	93	83	**23**	**13**
6	4,845	65	35	25	65	65	0	0
6b	5,125	65	35	25	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	640	74	57	47	74	74	0	0
12	25	54	93	83	93	83	**38**	**28**
13	4,220	47	37	27	47	47	0	0
14	5,000	51	35	25	51	51	0	0
Water Improvements								
1a	12,830	41	25	15	41	41	0	0
1b	18,245	41	21	11	41	41	0	0
2	9,400	76	28	18	76	76	0	0
2b	9,230	76	28	18	76	76	0	0
3	3,690	52	38	28	52	52	0	0
4	2,045	66	45	35	66	66	0	0
4b	3,792	66	38	28	66	66	0	0
5	560	70	59	49	70	70	0	0
6	6,190	65	33	23	65	65	0	0
6b	5,840	65	33	23	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	13,900	74	24	14	74	74	0	0
12	2,685	54	42	32	54	54	0	0
13	5,465	47	34	24	47	47	0	0
14	5,765	51	33	23	51	51	0	0
Ramp Improvements								
1a	13,760	41	24	14	41	41	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only		Project plus Ambient		Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
			Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)		
1b	19,000	41	21	11	41	41	0	0
2	10,750	76	27	17	76	76	0	0
2b	10,686	76	27	17	76	76	0	0
3	6,780	52	32	22	52	52	0	0
4	3,660	66	38	28	66	66	0	0
4b	4,930	66	35	25	66	66	0	0
5	1,933	70	45	35	70	70	0	0
6	5,600	65	34	24	65	65	0	0
6b	5,570	65	34	24	65	65	0	0
6c	350	65	64	54	68	65	2	0
11	14,260	74	24	14	74	74	0	0
12	3,990	54	37	27	54	54	0	0
13	5,935	47	33	23	47	47	0	0
14	6,610	51	32	22	51	51	0	0
Detention Basin (Sinclair)								
1a	12,900	41	25	15	41	41	0	0
1b	17,125	41	22	12	41	41	0	0
2	11,145	76	26	16	76	76	0	0
2b	11,740	76	26	16	76	76	0	0
3	7,315	52	31	21	52	52	0	0
4	5,225	66	35	25	66	66	0	0
4b	7,010	66	31	21	66	66	0	0
5	3,790	70	38	28	70	70	0	0
6	2,755	65	41	31	65	65	0	0
6b	2,880	65	41	31	65	65	0	0
6c	2,760	65	41	31	65	65	0	0
11	11,915	74	26	16	74	74	0	0
12	5,320	54	34	24	54	54	0	0
13	3,870	47	38	28	47	47	0	0
14	4,940	51	35	25	51	51	0	0
Interchange Improvement								
1a	11,750	41	26	16	41	41	0	0
1b	15,150	41	23	13	41	41	0	0
2	11,300	76	26	16	76	76	0	0
2b	12,560	76	25	15	76	76	0	0
3	7,865	52	30	20	52	52	0	0
4	6,980	66	31	21	66	66	0	0
4b	9,060	66	29	19	66	66	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level (dBA Leq)	Mitigated Attenuated Construction Noise Level (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
5	5,805	70	33	23	70	70	0	0
6	1,455	65	48	38	65	65	0	0
6b	85	65	79	69	79	70	**14**	5
6c	5,230	65	35	25	65	65	0	0
11	9,570	74	28	18	74	74	0	0
12	6,770	54	32	22	54	54	0	0
13	2,450	47	43	33	49	47	1	0
14	3,995	51	37	27	51	51	0	0
Potential Water Reservoir & Access								
1a	12,600	41	25	15	41	41	0	0
1b	15,800	41	23	13	41	41	0	0
2	12,070	76	25	15	76	76	0	0
2b	13,300	76	24	14	76	76	0	0
3	8,635	52	29	19	52	52	0	0
4	7,310	66	31	21	66	66	0	0
4b	9,400	66	28	18	66	66	0	0
5	5,975	70	33	23	70	70	0	0
6	25	65	93	83	93	83	**27**	**17**
6b	333	65	64	54	68	65	3	0
6c	5,440	65	34	24	65	65	0	0
11	9,885	74	28	18	74	74	0	0
12	7,200	54	31	21	54	54	0	0
13	3,085	47	40	30	48	47	1	0
14	4,545	51	36	26	51	51	0	0
Potential Water Reservoir & Access								
1a	9,945	41	28	18	41	41	0	0
1b	10,880	41	27	17	41	41	0	0
2	12,365	76	25	15	76	76	0	0
2b	14,665	76	23	13	76	76	0	0
3	10,400	52	27	17	52	52	0	0
4	11,245	66	26	16	66	66	0	0
4b	13,235	66	24	14	66	66	0	0
5	10,445	70	27	17	70	70	0	0
6	5,915	65	33	23	65	65	0	0
6b	5,065	65	35	25	65	65	0	0
6c	11,300	65	26	16	65	65	0	0
11	4,300	74	37	27	74	74	0	0
12	10,775	54	27	17	54	54	0	0

Table 4.12-10: Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB)

			Project Only		Project plus Ambient			
Sensitive Receptor	**Range of Distances to Nearest Plot**	**Existing Daytime Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level (dBA Leq)**	**Mitigated Attenuated Construction Noise Level (dBA Leq)**	**Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)**	**Unmitigated Increase Over Daytime Ambient (dB)**	**Mitigated Increase Over Daytime Ambient (dB)**
13	5,100	47	35	25	47	47	0	0
14	5,635	51	34	24	51	51	0	0
Debris Basins (Typical)								
1a	4,280	41	37	27	43	41	2	0
1b	10,250	41	27	17	41	41	0	0
2	16,090	76	22	12	76	76	0	0
2b	19,250	76	20	10	76	76	0	0
3	10,375	52	27	17	52	52	0	0
4	12,000	66	25	15	66	66	0	0
4b	13,935	66	24	14	66	66	0	0
5	11,385	70	26	16	70	70	0	0
6	7,755	65	30	20	65	65	0	0
6b	6,890	65	32	22	65	65	0	0
6c	12,200	65	25	15	65	65	0	0
11	1,680	74	47	37	74	74	0	0
12	11,255	54	26	16	54	54	0	0
13	6,000	47	33	23	47	47	0	0
14	6,065	51	33	23	51	51	0	0

Notes:

Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.

1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.
2. Mitigation assumed a 10 dB reduction from a temporary noise barrier and equipment exhaust mufflers.

Source: ESA, 2018; FHWA, 2006a

As shown in Table 4.12-10, off-site construction (e.g., roadway improvements, drainage improvements, etc.) in some areas, would elevate ambient noise levels by as much as 45 dB over existing ambient noise levels. The existing sensitive receptors located adjacent to Redlands Boulevard, Cactus Avenue and near the intersections of World Logistics Center Parkway, South of SR 60/Highway 60 and Redlands Boulevard/Highway 60 would be most affected by offsite construction activities. Therefore, noise generated during off-site construction activities would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project and would result in a significant impact.

Specific Plan Design Features. The WLCSP does not contain any design features that specifically address noise. Other features, such as perimeter setback requirements, will have the effect of reducing noise to certain residential areas.

Mitigation Measures. Construction activities occurring on- and off-site would expose nearby sensitive receptors to noise levels that would exceed the applied 10 dB substantial temporary increase threshold. Mitigation Measure 4.12.6.1A would reduce short-term construction-related noise impacts associated with the proposed WLC project.

Level of Significance after Mitigation. Implementation of Mitigation Measure 4.12.6.1A would reduce construction noise levels at nearby sensitive receptors through implementation of a NRCP, which is expected to attenuate construction noise levels by 10 dB and prohibit construction activities within 800 feet of residences during nighttime hours. As shown in Table 4.12-8 and Table 4.12-10, even with implementation of Mitigation Measure 4.12.6.1A, sensitive receptors located near on-site and off-site construction areas would be exposed to construction noise levels that would elevate the existing ambient noise levels above the applied 10 dB substantial temporary increase threshold. Therefore, this would result in a significant and unavoidable impact with mitigation.

4.12.6.2 Long-Term Traffic Noise Impacts

Impact 4.12.6.2: *The project could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.*

Threshold	Would the project result in a substantial ~~temporary, periodic, and/or~~ permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

~~The January 2013 noise analysis contained in the Draft EIR identified 33 roadway segments where a significant noise impact would occur for at least one of the impact scenarios. In the revised noise analysis for the Final EIR, 21 roadway segments have been identified as having a significant noise impact. The reduction in noise impact areas is a direct result of the revised traffic analysis which reflects a downsizing of the project and associated traffic volumes for the "plus project" traffic scenarios. The roadway links that were previously identified as being impacted in the January 2013 noise analysis contained in the Draft EIR and are not impacted in the revised noise analysis for the Final EIR are listed below:~~

- ~~Day Street between Cottonwood Avenue and Alessandro Boulevard (#109);~~
- ~~Fir Avenue between Quincy Drive and Redlands Boulevard (#62);~~
- ~~Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56);~~
- ~~Perris Boulevard between John F. Kennedy Drive and Iris Avenue (#303);~~
- ~~Placentia Avenue from El Nido Avenue to Evans Road and on to Water Avenue (#431, #432);~~

- ~~Quincy Drive from Cactus Avenue to Alessandro Boulevard and to Cottonwood Avenue (#502, #503);~~
- ~~Reche Canyon Road from Keissel Road to Reche Vista Drive and on to High Country Drive (#205, #206);~~
- ~~Redlands Boulevard from Eucalyptus Avenue to Dracaea Avenue (#12); and~~
- ~~State Route 60 from Perris Boulevard to Nason Street (#31).~~

~~The noise analysis for the proposed~~The noise analysis for the World Logistics Center project is based on the traffic volume data contained in the revised Traffic Impact Analysis (TIA) prepared for the project (contained in its entirety as ~~EIR~~Revised Sections of the FEIR Appendix ~~L~~D). The TIA addressed the intersections of surface streets in Moreno Valley of a collector or higher classification street with another collector or higher classification street, at which the ~~proposed~~ project will add 50 or more peak hour trips. The study area also included the main travel routes between the project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area extended west to the nearest ramps on SR-91 and as far south as the I-215 ramps at Redlands Avenue in Perris. The study area for freeways was selected to ~~cover~~encompass the freeway routes radiating from the project site to the north, south, east, and west. The traffic analysis covered SR-60 from ~~SR-62~~I-10 in the east to SR-71 in the west, SR-91/I-215 from I-~~215~~210 in the east to I-15 in the west, ~~and~~ I-215 from ~~SR-210~~Redlands Avenue in the north to the Scott Road interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west.

Three hundred and thirty~~-~~-nine (339) roadway links and eighty~~-~~-nine (89) freeway segments were analyzed in the noise analysis. The change in noise level was calculated for all 428 roadway and freeway links with and without the World Logistics Center project for the existing case (~~2012), 2022~~2018), 2025, and ~~2035 time horizons. Links~~2040 buildout scenarios. Segments with noise increases less than 1.5 dB would not have a substantial noise increase and were not presented in the main body of the noise report (i.e., the tables~~ and figures~~). Similarly, any ~~links~~segments that do not have sensitive receptors (e.g., residential uses or schools) were also not presented in the main body of the noise report. Based on this filtering process, of the 428 ~~links~~segments analyzed, ~~44 links~~21 segments have sensitive receptors and an increase of 1.5 dB for at least one ~~time horizon~~buildout scenario and were therefore addressed in the analysis.

The projected future ~~daily~~ traffic volumes (~~Parsons Brinckerhoff, Inc., September 2014~~WSP USA, June 2018) for roadway segments in the World Logistics Center project vicinity were used in the ~~traffic noise impact analysis~~TIA. Modeled noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. As previously identified, long-term impacts from the ~~threshold for~~project's traffic noise ~~is 65 dBA CNEL for~~that affect existing sensitive ~~receptors.~~land uses are considered to be substantial and, therefore, constitute a significant noise impact if the project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

Operation of development that could occur within the ~~proposed~~World Logistics Center project area would generate traffic along roadways in the project vicinity. Table 4.12~~.H~~-11 identifies existing ~~with project~~With Project roadway traffic noise levels~~ with the project.~~

~~*Note: Table 4.12.H has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.H, which can be found in section 4.12.6.2*~~.

Table 4.12~~.H:~~-11: Existing Year (~~2012~~2018) Plus Project Buildout Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
~~Alessandro Road (Crescent Avenue to Sunset Drive)~~	~~63.3~~	~~65.1~~	~~1.8~~	~~No~~
~~Alessandro Road (Sunset Drive to San Timoteo Canyon Road)~~	~~63.3~~	~~65.3~~	~~2.0~~	~~No~~
~~Cactus~~World Logistics Center Pkwy (Eucalyptus Avenue ~~(Oliver~~to Street ~~to Moreno Beach Drive~~F)	~~58.2~~52.6	~~59.7~~71.1	~~1~~18.5	~~No~~Yes
Alessandro Boulevard (Cactus Avenue ~~(Redlands Boulevard~~ Extension to ~~Street D~~World Logistics Center Pkwy)	51.~~3~~9	~~68.3~~64.4	~~17.0~~12.5	Yes
Cactus Avenue ~~(west of Redlands~~Extension (Alessandro Boulevard to Cactus Avenue)	~~60.5~~0.0	~~62~~65.7	~~2.2~~65.7	~~No~~Yes
~~Crescent~~John F Kennedy Drive (south of Cactus Avenue ~~(west of Alessandro Boulevard~~)	~~57.1~~63.8	~~59.6~~65.7	~~2.6~~1.9	No
~~Fir Avenue (Quincy Drive to~~ Redlands Boulevard (SR-60 to Eucalyptus Avenue)	~~0.0~~65.6	~~0.0~~68.4	~~0.0~~2.8	~~No~~Yes
~~Gilman Springs Road (Bridge~~ Street ~~to Beaumont Avenue~~F (east of World Logistics Center Parkway)	~~61~~0.0	~~62~~69.2	~~1~~69.2	~~No~~Yes
~~Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)~~	—	~~73.9~~	~~1.2~~	~~No~~
~~Gilman Springs Road (Eucalyptus Avenue to Street C)~~	~~49.6~~	~~55.0~~	~~5.4~~	~~Yes~~
~~Gilman Springs Road (Jack Rabbit Trail to Bridge Street)~~	~~62.7~~	~~63.9~~	~~1.2~~	~~No~~
~~Iris Avenue (Kitching Street to Lasselle Street)~~	~~60.1~~	~~61.6~~	~~1.6~~	~~No~~
~~Iris~~Cactus Avenue (~~Lasselle Street to Nason Street~~west of Redlands Boulevard)	60.~~0~~2	62.~~4~~3	2.~~4~~1	No
~~Iris Avenue (Nason Street to Oliver Street)~~	~~63.0~~	~~65.9~~	~~2.9~~	~~No~~
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	~~46.3~~50.7	~~57.3~~56.2	~~11.0~~5.5	Yes
~~John F Kennedy Drive (south of Cactus~~Theodore Street (SR-60 to Ironwood Avenue)	~~61.5~~59.6	~~66.9~~61.5	~~5.4~~1.9	~~Yes~~No
~~Krameria~~Ironwood Avenue (~~Perris~~Moreno Beach Drive to Redlands Boulevard ~~to Lasselle Street~~)	~~57.5~~60.4	~~60.6~~62.1	~~3.~~1.7	No
~~Lasselle Street (Krameria~~Cactus Avenue (Redlands Boulevard to ~~Arroyo Park Drive~~Cactus Avenue Extension)	~~56.4~~51.9	~~58.9~~64.4	~~2~~12.5	~~No~~Yes
~~Live Oak Canyon Road (north of San Timoteo Canyon Road)~~	~~63.2~~	~~65.2~~	~~2.1~~	~~No~~
~~Live Oak Canyon Road (San Timoteo Canyon Road to I-10)~~	~~56.5~~	~~58.5~~	~~2.0~~	~~No~~
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	~~46.2~~42.1	~~46~~47.2	~~0~~5.1	~~No~~Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	~~55.7~~54.6	~~58.9~~60.3	~~3.2~~5.7	~~No~~Yes
~~Moreno Beach Drive (John F Kennedy to Oliver Street)~~	~~55.2~~	~~58.7~~	~~3.5~~	~~No~~
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	~~55.3~~54.1	57.~~2~~9	~~1.9~~3.8	No
~~Oliver Street (Alessandro Boulevard to Cactus Avenue)~~	~~54.1~~	~~56.4~~	~~2.2~~	~~No~~
~~Redlands Boulevard (Eucalyptus Avenue to Dracaea Avenue)~~	~~47.1~~	~~48.8~~	~~1.7~~	~~No~~
~~Redlands Boulevard (Ironwood Avenue to SR-60)~~	~~68.3~~	~~71.0~~	~~2.7~~	~~Yes~~
~~Redlands Boulevard (Ironwood Avenue to San Timoteo)~~	~~67.8~~	~~70.0~~	~~2.2~~	~~Yes~~

Table 4.12~~.H:~~-11: Existing Year (~~2012~~2018) Plus Project Buildout Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
~~Redlands Boulevard (SR-60 to Eucalyptus Avenue)~~	~~60.9~~	~~64.5~~	~~3.4~~	~~Yes~~
~~San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)~~	~~62.0~~	~~65.1~~	~~3.1~~	~~Yes~~
~~San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)~~	~~62.7~~	~~65.7~~	~~3.0~~	~~Yes~~
Kitching Street ~~A (Eucalyptus~~(Krameria Avenue to ~~Street F~~Lurin Avenue)	~~50.2~~61.9	~~73.2~~65.1	~~22.9~~3.2	Yes
~~Street D (Street E to Cactus Avenue)~~	~~0.0~~	~~69.5~~	~~69.5~~	~~Yes~~
~~Street E (north of Alessandro Boulevard)~~	~~0.0~~	~~65.4~~	~~65.4~~	~~Yes~~
~~Street F (east of Street A)~~	~~0.0~~	~~68.4~~	~~68.4~~	~~Yes~~
~~Sunset Drive (Alessandro Road to Cameo Drive)~~	~~52.5~~	~~55.2~~	~~2.7~~	~~No~~
Sunset Drive (Crown Street to Alessandro Road)	~~49.0~~47.4	~~51.4~~49.0	~~2.3~~1.6	No
~~Theodore Street~~SR-60 EB Ramps (SR-60 to ~~Highland Boulevard~~Central Avenue)	57.~~8~~4	65.0	7.~~1~~6	Yes
Freeways				
~~SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)~~	~~66.5~~	~~68.0~~	~~1.5~~	~~Yes~~
~~SR-60 (Heacock Street to Perris Boulevard)~~	~~65.2~~	~~66.9~~	~~1.7~~	~~Yes~~
SR-60 (Perris Boulevard to Nason Street)	~~64.6~~80.1	~~66.7~~81.6	~~2.~~1.5	~~No~~Yes
~~SR-60 (Nason Street to Moreno Beach Drive)~~	~~52.0~~	~~54.3~~	~~2.3~~	~~No~~
SR-60 (Moreno Beach Drive to Redlands Boulevard)	~~62.5~~77.9	~~65.5~~80.3	~~3.1~~2.4	Yes
SR-~~60 (Redlands Boulevard~~215 (Mill Street to ~~Theodore~~2nd Street)	~~60.2~~82.9	83.0~~63.5~~	~~3.4~~0.1	~~Yes~~No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	80.4	0.0	No

Source: ~~Mestre Greve Associates, September 2014.~~ESA, 2018

As identified in Table 4.12~~.H~~-11, build out of the proposed WLC project under 2018 conditions would result in ~~relatively minor changes~~ substantial increases in traffic noise levels in the Existing plus Project Build Out scenario case. The largest project-related increase in traffic noise would be along ~~Streets D, E, and~~Cactus Avenue Extension and Street F where increases of greater than 65 dBA are predicted. ~~The increase~~However, the increases associated with these roadway segments is attributable in part to ~~Streets D, E and~~Cactus Avenue Extension and Street F being new roads that will be constructed by the ~~proposed~~ project. A total of ~~18~~13 road or freeway segments would result in a ~~significant~~substantial noise increase attributable to the project, resulting in a significant ~~project direct~~ impact requiring mitigation.

Year ~~2022~~2025 (Phase I) ~~with~~With and ~~without~~Without World Logistics Center project scenarios projected ~~daily~~ traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected ~~daily~~ traffic volumes in the area were taken from the TIA prepared for the ~~proposed~~ project. Table 4.12~~.I~~-12 identifies year ~~2022 without project~~2025 Without Project and ~~with project~~With Project traffic noise levels.

~~*Note: Table 4.12.I has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.I, which can be found in section 4.12.6.2.*~~

Table 4.12~~.I:~~-12: Phase I (~~2022~~2025) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
~~Alessandro Road (Crescent Avenue to Sunset Drive)~~	~~64.6~~	~~65.4~~	~~0.8~~	~~No~~
~~Alessandro Road (Sunset Drive to San Timoteo Canyon Road)~~	~~65.0~~	~~65.8~~	~~0.8~~	~~No~~
~~Cactus~~World Logistics Center Pkwy (Eucalyptus Avenue ~~(Oliver~~to Street ~~to Moreno Beach Drive~~F)	~~58~~52.9	~~59.8~~69.5	~~0.9~~16.6	~~No~~Yes
Alessandro Boulevard (Cactus Avenue ~~(Redlands Boulevard~~ Extension to ~~Street D~~World Logistics Center Pkwy)	~~51~~54.3	~~66.8~~63.5	~~15.5~~9.2	Yes
Cactus Avenue ~~(west of Redlands~~Extension (Alessandro Boulevard to Cactus Avenue)	~~61.3~~0.0	~~62.5~~63.9	~~1.2~~63.9	~~No~~Yes
~~Crescent Avenue (west of Alessandro Boulevard)~~	~~58.5~~	~~59.8~~	~~1.3~~	~~No~~
~~Fir~~John F Kennedy Drive (south of Cactus Avenue ~~(Quincy Drive to Redlands Boulevard~~)	~~0~~65.0	~~0.0~~65.5	0.~~0~~5	No
~~Gilman Springs Road (Bridge Street to Beaumont Avenue)~~	~~61.2~~	~~62.1~~	~~0.9~~	~~No~~
~~Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)~~	~~72.9~~	~~73.8~~	~~0.9~~	~~No~~
~~Gilman Springs Road (~~Redlands Boulevard (SR-60 to Eucalyptus Avenue ~~to Street C~~)	~~49.9~~67.5	~~49.9~~67.6	0.~~0~~1	No
~~Gilman Springs Road (Jack Rabbit Trail to Bridge Street)~~	~~63.0~~	~~63.9~~	~~1.0~~	~~No~~
~~Iris Avenue (Kitching~~ Street ~~to Lasselle Street~~F (east of World Logistics Center Parkway)	~~61~~0.0	~~61.7~~58.1	~~0.7~~58.1	~~No~~Yes
~~Iris~~Cactus Avenue (~~Lasselle Street to Nason Street~~west of Redlands Boulevard)	~~61.1~~60.4	~~62.3~~61.4	1.~~2~~0	No
~~Iris Avenue (Nason Street to Oliver Street)~~	~~63.8~~	~~65.5~~	~~1.6~~	~~No~~
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	51.~~9~~5	~~56.1~~54.3	~~4.~~2.8	No
~~John F Kennedy Drive (south of Cactus~~Theodore Street (SR-60 to Ironwood Avenue)	59.3~~62.8~~	~~66.1~~60.5	~~3.3~~1.2	~~Yes~~No
~~Krameria~~Ironwood Avenue (~~Perris~~Moreno Beach Drive to Redlands Boulevard ~~to Lasselle Street~~)	~~60.5~~62.1	~~61.2~~62.1	0.~~7~~0	No
~~Lasselle Street (Krameria~~Cactus Avenue (Redlands Boulevard to ~~Arroyo Park Drive~~Cactus Avenue Extension)	~~59.2~~54.3	63.5~~60.1~~	~~0.~~9.2	~~No~~Yes
~~Live Oak Canyon Road (North of San Timoteo Canyon Road)~~	~~64.9~~	~~65.7~~	~~0.9~~	~~No~~
~~Live Oak Canyon Road (San Timoteo Canyon Road to I-10)~~	~~58.0~~	~~59.2~~	~~1.2~~	~~No~~
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	~~46~~47.2	~~46~~47.2	0.0	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	~~60.7~~56.4	~~61.4~~56.2	-0.~~7~~2	No
~~Moreno Beach Drive (John F Kennedy to Oliver Street)~~	~~56.1~~	~~58.2~~	~~2.1~~	~~No~~
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	~~58.8~~55.1	~~59.3~~55.0	-0.~~5~~1	No
~~Oliver Street (Alessandro Boulevard to Cactus Avenue)~~	~~58.9~~	~~59.1~~	~~0.2~~	~~No~~
~~Redlands Boulevard (Eucalyptus~~Kitching Street (Krameria Avenue to ~~Dracaea~~Lurin Avenue)	~~49.1~~64.9	~~47.1~~64.9	~~-2~~0.0	No
~~Redlands Boulevard (Ironwood Avenue to SR-60)~~	~~69.2~~	~~70.7~~	~~1.5~~	~~No~~
~~Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)~~	~~69.1~~	~~70.5~~	~~1.4~~	~~No~~

Table 4.12~~.I:~~-12: Phase I (~~2022~~2025) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
~~Redlands Boulevard (SR-60 to Eucalyptus Avenue)~~	~~62.9~~	~~65.3~~	~~2.4~~	~~No~~
~~San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)~~	~~63.4~~	~~65.3~~	~~1.9~~	~~No~~
~~San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)~~	~~64.2~~	~~66.0~~	~~1.8~~	~~No~~
~~Street A (Eucalyptus Avenue to Street F)~~	~~52.5~~	~~72.1~~	~~19.6~~	~~Yes~~
~~Street D (Street E to Cactus Avenue)~~	~~0.0~~	~~68.0~~	~~68.0~~	~~Yes~~
~~Street E (north of Alessandro Boulevard)~~	~~0.0~~	~~65.9~~	~~65.9~~	~~Yes~~
~~Street F (east of Street A)~~	~~0.0~~	~~43.6~~	~~43.6~~	~~Yes~~
~~Sunset Drive (Alessandro Road to Cameo Drive)~~	~~55.3~~	~~56.3~~	~~1.0~~	~~No~~
Sunset Drive (Crown Street to Alessandro Road)	49.0	49.0	0.0	No
~~Theodore Street~~SR-60 EB Ramps (SR-60 to ~~Highland Boulevard~~Central Avenue)	~~60.7~~65.2	~~63.8~~65.5	0.3~~.1~~	~~Yes~~No
Freeways				
~~SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)~~	~~67.2~~	~~67.9~~	~~0.7~~	~~No~~
~~SR-60 (Heacock Street to Perris Boulevard)~~	~~66.1~~	~~66.9~~	~~0.8~~	~~No~~
SR-60 (Perris Boulevard to Nason Street)	~~65.6~~80.8	~~66~~81.6	~~1.~~0.8	No
~~SR-60 (Nason Street to Moreno Beach Drive)~~	~~53.1~~	~~54.2~~	~~1.1~~	~~No~~
SR-60 (Moreno Beach Drive to Redlands Boulevard)	~~63.8~~79.2	~~65.3~~80.4	1.~~5~~2	No
SR-~~60 (Redlands Boulevard~~215 (Mill Street to ~~Theodore~~2nd Street)	~~61.7~~83.1	~~63.2~~83.1	~~1.5~~0.0	No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.5	80.6	0.1	No

Source: ~~Mestre Greve Associates, September 2014.~~ESA, 2018

Increases in noise levels associated with Buildout Year (2040) traffic conditions on area roadways range up to 68.3 dBA. As identified in the Table 4.12.~~I, implementation of the proposed WLC project would result in relatively minor changes in traffic noise levels in Year 2022 (Phase I). The largest project-related~~13, the greatest increase in ~~traffic~~ noise levels would be along ~~Street D (Street E to~~ Cactus Avenue~~)~~ Extension and Street ~~E (north of Alessandro Boulevard~~F (east of World Logistics Center Parkway), where increases of ~~greater than 65 dBA~~66.8 dBA and 68.3 dBA, respectively, are predicted for the ~~2022~~Buildout Year 2040 With Project scenario over the Buildout Year ~~2022 without project~~2040 Without Project scenario. ~~The increase~~However, the increases associated with these roadway segments is attributable in part to ~~Streets D~~Cactus Avenue Extension and ~~E~~Street F being new roads that will be constructed by the ~~proposed~~ project. A total of ~~7~~eight road and freeway segments would result in a ~~significant~~substantial noise increase attributable to the project, resulting in a significant ~~cumulative~~ impact requiring mitigation.

~~*Note: Table 4.12.J has been deleted in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.J, which can be found in section 4.12.6.2.*Operation of the proposed project would generate traffic along roadways in the surrounding area during the buildout year (2035) scenario. Buildout Year (2035) with and without project scenarios projected daily traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the proposed project. Table 4.12J identifies the Buildout Year (2035) without project and with project traffic noise levels.~~

~~*Note: Table 4.12.K (now table 4.12.J) has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.K, which can be found in section 4.12.6.2.*~~

Table 4.12-13: Buildout Year (2040) Plus Project Traffic Noise Levels (dBA)
~~Table 4.12.J: Buildout Year (2035) Plus Project Traffic Noise Levels (dBA)~~

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	54.2	71.0	16.8	Yes
Alessandro ~~Road (Crescent~~Boulevard (Cactus Avenue Extension to ~~Sunset Drive~~World Logistics Center Pkwy)	55.3~~64.6~~	~~65.4~~66.7	~~0.9~~11.4	~~No~~Yes
Cactus Avenue Extension (Alessandro ~~Road (Sunset Drive~~Boulevard to ~~San Timoteo Canyon Road~~Cactus Avenue)	~~65~~0.0	66.~~0~~8	~~1.0~~66.8	~~No~~Yes
John F Kennedy Drive (south of Cactus Avenue ~~(Oliver Street to Moreno Beach Drive~~)	~~60~~66.5	~~62~~67.0	~~1~~0.5	No
~~Cactus Avenue (~~Redlands Boulevard (SR-60 to ~~Street D~~Eucalyptus Avenue)	~~55.1~~69.2	69.2	~~14.1~~0.0	~~Yes~~No
Street F (east of World Logistics Center Parkway)	0.0	68.3	68.3	Yes
Cactus Avenue (west of Redlands Boulevard~~.)~~)	~~62~~61.0	~~66.2~~64.9	~~4.2~~3.9	Yes
~~Crescent Avenue (west of Alessandro Boulevard)~~	~~58.9~~	~~60.1~~	~~1.2~~	~~No~~
~~Fir~~Ironwood Avenue (~~Quincy Drive to~~ Redlands Boulevard to Highland Boulevard)	~~64.7~~55.9	58.2~~67.1~~	2.~~4~~3	No
~~Gilman Springs Road (Bridge Street to Beaumont Avenue)~~	~~63.5~~	~~65.2~~	~~1.7~~	~~No~~
~~Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)~~	~~75.4~~	~~77.1~~	~~1.6~~	~~Yes~~
~~Gilman Springs Road (Eucalyptus Avenue to Street C)~~	~~55.2~~	~~57.6~~	~~2.4~~	~~No~~
~~Gilman Springs Road (Jack Rabbit Trail to Bridge Street)~~	~~65.8~~	~~67.6~~	~~1.8~~	~~Yes~~
~~Iris Avenue (Kitching Street to Lasselle Street)~~	~~63.2~~	~~64.1~~	~~0.9~~	~~No~~

~~Table 4.12.J: Buildout Year (2035) Plus Project Traffic Noise Levels (dBA)~~

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
~~Iris Avenue (Lasselle Street to Nason Street)~~	~~63.1~~	~~64.3~~	~~1.2~~	~~No~~
~~Iris Avenue (Nason~~Theodore Street (SR-60 to ~~Oliver Street~~Ironwood Avenue)	~~64.7~~65.3	66.~~6~~0	~~2.~~0.7	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard ~~to Highland Boulevard~~)	~~58.7~~64.4	~~60.8~~64.6	0.2~~.1~~	No
~~John F Kennedy Drive (south of~~ Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	~~64.5~~55.3	~~67.5~~66.7	~~3.0~~11.4	Yes
~~Krameria Avenue (Perris Boulevard to Lasselle Street)~~	~~57.6~~	~~58.5~~	~~0.9~~	~~No~~
~~Lasselle Street (Krameria Avenue to Arroyo Park Drive)~~	~~60.0~~	~~61.0~~	~~0.9~~	~~No~~
~~Live Oak Canyon Road (North of San Timoteo Canyon Road)~~	~~64.9~~	~~65.9~~	~~1.0~~	~~No~~
~~Live Oak Canyon Road (San Timoteo Canyon Road to I-10)~~	~~57.5~~	~~59.0~~	~~1.5~~	~~No~~
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	~~65~~61.4	~~66.9~~61.3	-0.1~~.5~~	~~Yes~~No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	60.~~9~~7	~~62~~60.9	0.2~~.0~~	No
~~Moreno Beach Drive (John F Kennedy to Oliver Street)~~	~~56.9~~	~~59.4~~	~~2.6~~	~~No~~
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	~~63.4~~62.8	63.0~~65.1~~	~~1.7~~0.2	No
~~Oliver Street (Alessandro Boulevard to Cactus Avenue)~~	~~54.1~~	~~54.3~~	~~0.2~~	~~No~~
~~Redlands Boulevard (Eucalyptus~~Kitching Street (Krameria Avenue to ~~Dracaea~~Lurin Avenue)	~~46~~68.5	~~48.1~~68.4	-0.1~~.6~~	No
~~Redlands Boulevard (Ironwood Avenue to SR-60)~~	~~69.5~~	~~71.0~~	~~1.5~~	~~Yes~~
~~Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)~~	~~68.8~~	~~70.9~~	~~2.1~~	~~Yes~~
~~Redlands Boulevard (SR-60 to Eucalyptus Avenue)~~	~~63.8~~	~~67.4~~	~~3.6~~	~~Yes~~
~~San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)~~	~~63.6~~	~~66.2~~	~~2.7~~	~~No~~
~~San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)~~	~~64.2~~	~~66.7~~	~~2.5~~	~~No~~
~~Street A (Eucalyptus Avenue to Street F)~~	~~57.2~~	~~73.1~~	~~16.0~~	~~Yes~~
~~Street D (Street E to Cactus Avenue)~~	~~0.0~~	~~70.6~~	~~70.6~~	~~Yes~~
~~Street E (north of Alessandro Boulevard)~~	~~0.0~~	~~65.7~~	~~65.7~~	~~Yes~~
~~Street F (east of Street A)~~	~~0.0~~	~~69.1~~	~~69.1~~	~~Yes~~
~~Sunset Drive (Alessandro Road to Cameo Drive)~~	~~57.0~~	~~58.2~~	~~1.2~~	~~No~~
Sunset Drive (Crown Street to Alessandro Road)	~~50.7~~49.0	~~51.3~~49.0	0.~~6~~0	No
~~Theodore Street~~SR-60 EB Ramps (SR-60 to ~~Highland Boulevard~~Central Avenue)	65.~~2~~5	66.~~3~~5	1.~~2~~0	No
Freeways				
~~SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)~~	~~67.6~~	~~68.6~~	~~1.0~~	~~No~~
~~SR-60 (Heacock Street to Perris Boulevard)~~	~~66.6~~	~~67.7~~	~~1.1~~	~~No~~
SR-60 (Perris Boulevard to Nason Street)	~~66.5~~81.6	~~67.8~~82.4	~~1.3~~0.8	No
~~SR-60 (Nason Street to Moreno Beach Drive)~~	~~54.3~~	~~55.6~~	~~1.3~~	~~No~~

~~**Table 4.12.J: Buildout Year (2035) Plus Project Traffic Noise Levels (dBA)**~~

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
SR-60 (Moreno Beach Drive to Redlands Boulevard)	~~65~~80.5	~~67.1~~81.6	1.~~6~~1	~~Yes~~No
SR-~~60 (Redlands Boulevard~~215 (Mill Street to ~~Theodore~~2nd Street)	~~63.7~~82.9	~~65.1~~84.8	1.~~4~~9	~~No~~Yes
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	82.1	1.7	Yes

Source: ~~Mestre Greve Associates, September 2014.~~ESA, 2018

~~Increases in noise levels associated with Buildout Year (2035) traffic conditions on area roadways range from 0.1 to 68.0 dBA. As identified in the Table 4.12.J, the greatest increase in noise levels would be along Street D (Street E to Cactus Avenue), Street E (north of Alessandro Boulevard), and Street F west (of Street A), where increases of greater than 65 dBA are predicted for the Buildout Year 2035 With Project scenario over the Buildout Year 2035 Without Project scenario. The increase associated with these roadway segments is attributable in part to Streets D, E, and F being new roads that will be constructed by the proposed project.~~

~~Note: A total of 14 road or freeway segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation. These 14 segments were included in the original noise study, and all other impacts identified in the original noise study are unchanged except as noted below.~~

Tables 4.12.~~H~~-11 through 4.12.~~J~~-13 identify the noise increases directly caused by the ~~proposed~~ project. These numbers represent the distance from the centerline of the road to the contour value shown. Note that the values given in Tables 4.12.~~H~~-11 through 4.12.~~J~~-13 do not take into account the effect of any existing noise attenuation in the form of barriers, soundwalls, or topography that may affect ambient noise levels.

~~For the reader's convenience, the significance threshold for a project-specific roadway noise impact as defined previously is:~~

- ~~Project induced increase in noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;~~
- ~~Project induced increase in noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or~~
- ~~Project induced increase in noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.~~

~~For the reader's convenience, the significance threshold for a project's incremental contribution to a cumulative noise increase as defined previously is:~~

- ~~A project increase of the ambient (cumulative without project) noise level by 1 dB or more, and the predicted future cumulative with project noise levels cause the following cumulative increases:~~
    - ~~Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;~~
    - ~~Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or~~
    - ~~Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.~~

It should be noted that the same noise increase occurs at all locations along a roadway link. In addition, the noise contours for the With Project scenarios cover a wider area around the local roadways than ~~does the~~what was evaluated for existing ~~condition~~conditions. State Route 60, however, continues to be the dominant noise source in the area.

In general, the World Logistics Center project proposes logistics uses and will not be affected by these noise increases. However, there are a few scattered residences within the project area and adjacent to the ~~WLCSP area~~World Logistics Center site that would be affected by the proposed logistics uses.

Within the ~~Specific Plan Area.~~ ~~Existing~~**World Logistics Center Site.** Six occupied noise-sensitive uses within the ~~WLCSP area~~World Logistics Center site include ~~three groups of~~ residences that may remain with the implementation of the ~~proposed~~ project. The Specific Plan would rezone the properties as Light Logistics, but it is anticipated that the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered sensitive land uses.

- ~~*Redlands Boulevard (north of Brodiaea Avenue).* The first group of homes is located east of Redlands Boulevard north of the intersection with Brodiaea Avenue. The traffic on Redlands Boulevard will not increase significantly as a result of the project. Future Street E is proposed to be constructed west of these existing residences. However, as stated in the Noise Study conducted for the Specific Plan, it is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways. Therefore, impacts are anticipated to be less than significant and no mitigation is required.~~
- *Street A/~~Theodore Street~~ World Logistics Center* Parkway, South of SR 60 *(Street B/Eucalyptus Avenue to Street F).* ~~The second group of~~ Three residences ~~within the Specific Plan area is~~are located ~~on the east side of~~ along Street A (~~Theodore Street) midway~~World Logistics Center Parkway, South of SR 60) between the future Street B and Street F. ~~There are currently two residences in this area.~~ These residences are anticipated to experience noise increases up to ~~16~~18.5 dB due to the implementation of the ~~Specific Plan~~project. As a result, existing noise levels at these ~~two~~ residences will be changed significantly. ~~The exact alignment of the roadway is yet to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. As identified in Table 4.12.J, at this distance, the noise level by future year (2035) could be as high as 73.1 CNEL. This level of noise~~ Therefore, this would be ~~above the 65 CNEL threshold and would result in a greater than 1.5 dB noise increase when compared to without project conditions. This is~~ a significant impact requiring mitigation.
- *Street F/Dracaea Avenue (east of ~~Theodore Street).~~* ~~The third area is a~~ *Street A/* World Logistics Center Parkway, South of SR 60*). A* single residence is located east of ~~Theodore Street~~World Logistics Center Parkway, South of SR 60 along what is currently Dracaea Avenue (future Street F). Existing conditions identify low levels of traffic noise on Dracaea Avenue. With build out of the project~~, noise levels would reach as high as 68.1 CNEL. This level of noise would be above the 65 CNEL threshold and result in a greater than 1.5 dB noise increase when compared to without project conditions.~~ in year 2040, this residence would experience noise increases up to 69.2 dB during the 2018 buildout year. Therefore, this ~~is~~would be a significant impact requiring mitigation.

- *Street E/Dracaea Avenue (east of Redlands Boulevard).* Two residences are located along Dracaea Avenue east of Redlands Boulevard. These residences would be most affected by traffic along Redlands Boulevard between Eucalyptus Avenue and Cottonwood Avenue, where no significant noise increase has been identified. Additionally, although the alignment of future Street E is not yet known, it is not anticipated that the future Street E centerline would be located less than 100 feet from these residences. Therefore, impacts would be less than significant and no mitigation is required.

Off-Site Areas Adjacent to the ~~Specific Plan Area.~~World Logistics Center Site. For areas adjacent to the ~~Specific Plan area, 18~~World Logistics Center site, 13 segments would experience a noise increase that would be greater than significance criteria specified previously. These~~ seven~~ areas are described below.

- ~~*Cactus Avenue (Redlands Boulevard to Street D).* This area is occupied by a small group of single-family homes along Cactus Avenue between the future Street D and Redlands Boulevard. A significant noise increase is projected for all time horizons. Currently, there is no soundwall along these homes. Therefore, this is a significant impact requiring mitigation.~~

- ~~*Cactus Avenue (west of Redlands Boulevard).* As identified in the noise study, this area shows noise increases ranging from 0.7 dB to 4.2 dB depending on the time horizon. Only the 2035 case results in a significant noise increase.~~

  ~~Existing residences are located along Redlands Boulevard with rear yards facing Cactus Avenue. Existing 6-foot high soundwalls are located along the residences and rear yard areas are approximately 60 feet from the centerline of the roadway. In buildout year (2035), the noise levels projected for the yard area including the effects of the soundwall are projected to be 66.2 CNEL. This is above the City criteria of 65 CNEL, resulting in a significant impact and mitigation is required.~~

- ~~*Gilman Springs Road (between Eucalyptus Avenue and Street C, between Jack Rabbit Trail and Bridge Street, and between Bridge Street and SR-79 SB Ramps).* There are three single-family homes scattered along these roadway segments. All of the houses are set back from the roadway, but none has soundwalls. A significant noise increase is projected for at least one of these segments in all time horizons. Therefore, this is a significant impact requiring mitigation.~~

- ~~*Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase is projected for 2012 with full project build out. Therefore, this is a significant impact requiring mitigation.~~

- ~~*John F. Kennedy Drive (south of Cactus Avenue).* The residences along John F. Kennedy Drive south of Cactus Avenue will experience significant noise increases in all four time horizons. Similar to the area along Cactus Avenue, this noise increase will be due to cars and light vehicles, and not heavy trucks. The residences along the west side of the roadway are generally depressed with respect to the road and have existing 6-foot soundwalls. Due to the presence of the existing soundwalls and slope conditions, noise levels would be reduced by 6 to 10 dB. This would result in noise levels being below the City threshold of 65 CNEL for residential uses. Therefore, residences on the west side of the street will not be affected. Impacts are considered to be less than significant and no mitigation is required.~~

- ~~The residences on the east side of the roadway are elevated with respect to the roadway and do not have soundwalls. Rear yards areas on both sides of the street are approximately 60 to 90 feet from the centerline of the roadway and are bordered by wrought iron fencing. As identified in Tables 4.12.H through 4.12.J, the greatest noise levels that would be experienced at these residences would range up to 67.5 CNEL, which is above the City threshold of 65 CNEL. This is a significant impact requiring mitigation.~~

- ~~*Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.5 dB, bringing the noise level to 66.9 CNEL. This is a significant impact requiring mitigation.~~

- ~~*Redlands Boulevard (from Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2012 and 2035 time horizons result in a significant noise increase for this area. This is a significant impact requiring mitigation.~~

- ~~*Redlands Boulevard (from Ironwood Avenue to State Route 60 and Ironwood Avenue to San Timoteo Canyon Road).* There are approximately 28 homes along this roadway that would be affected. The single-family homes are scattered and generally front the roadway. All time horizons result in a significant noise increase for this area. The increases in noise are around 2 dB with a resultant noise level in the 70 to 71 CNEL range. This is a significant impact requiring mitigation.~~

- ~~*San Timoteo Canyon Road (from Alessandro Road to Live Oak Canyon Road to Redlands Boulevard).* There are about four scattered residences along this roadway that would be affected. The existing baseline plus project time horizon results in a significant noise increase for this area. The noise increases by up to 3.1 dB with resultant noise levels in the 65 to 66 CNEL range. This is a significant impact requiring mitigation.~~

- ~~*Theodore Street (State Route 60 to Highland Boulevard).* There are four existing homes on Theodore Street that front onto the roadway. Implementation of the Specific Plan would result in a 7.1 dB increase over baseline conditions (2012), and a 3.1 dB increase in Opening Year (2022). By Buildout Year (2035), the noise increase associated with the proposed project is anticipated to be 1.2 dB, which would not be significant. These existing residences could experience noise levels of 65.0 CNEL in the baseline and 66.3 CNEL in the Year 2035 time horizons which is above the City threshold of 65 CNEL. This is a significant impact requiring mitigation.~~

- ~~*Street A from Eucalyptus Avenue to Street F; Street E north of Alessandro Boulevard; and Street F east of Street A (2, 4, 19).* There are three groups of homes that may remain within the project area. The analysis shows significant noise increases for all four cases. The proposed Specific Plan designates these properties for Light Logistics uses, but the residences may remain indefinitely. The future Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain as a non-conforming use, must be considered as a sensitive land use. The first group of homes is east of Redlands Boulevard north of the intersection with Brodiaea Avenue. Street E will be constructed west of these homes. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways.~~

  ~~The second group of homes is on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are two homes in this area. Their noise environment will be changed significantly. The exact alignment of the roadway is to be determined, but noise levels could exceed 70 CNEL at the residences. The noise levels at these homes would be unacceptable to the residents, and a significant impact would occur.~~

  ~~The third area is a single home and lies east of Street A and along Street F. Currently there is essentially no traffic on this street. There is one residence in this area. Depending on the alignment for the street noise levels could exceed 70 CNEL. Since this home will experience a substantial noise increase, this is considered a significant impact.~~

  ~~It should be noted these homes were evaluated in the original DEIR and their impacts were disclosed on DEIR page 4.12-47.~~

- *Street D/Cactus Avenue Extension (~~from Street E~~Alessandro Boulevard to Cactus Avenue).* Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the World Logistics Center project parallel to Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. ~~There would be limited or no heavy trucks using this roadway. The 65 CNEL contour will lie 114 feet from the centerline of Cactus Avenue Extension. If the centerline of Cactus Avenue Extension is located closer than 114 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. This is a significant impact requiring mitigation.~~These homes would experience noise level increases of up to 66.8 dB during the 2040 buildout year. Therefore, this would be a significant impact requiring mitigation.

- *Redlands Boulevard (from Eucalyptus Avenue to* State Route 60*).* There are homes located at the northwestern corner of Redlands Boulevard and Eucalyptus Avenue. The 2018 buildout scenario results in a significant noise increase of 2.8 dB. Therefore, this would be a significant impact requiring mitigation.
- *Cactus Avenue (west of Redlands Boulevard).* Existing residences are located along Cactus Avenue with rear yards facing Cactus Avenue with soundwalls located long the rear yards of the residences. The 2018 and 2040 buildout scenarios result in significant noise increases of 2.1 dB and 3.9 dB, respectively. Therefore, this would be a significant impact requiring mitigation.
- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase of 5.5 dB is projected for 2018 with full project build out. Therefore, this would be a significant impact requiring mitigation.
- *Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension).* This area is occupied by a small group of single-family homes along Cactus Avenue between the future Street D/Cactus Avenue Extension and Redlands Boulevard. A significant noise increase is projected for all buildout scenarios. Currently, there is no soundwall along these homes. Therefore, this would be a significant impact requiring mitigation.
- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2018 buildout scenario results in a significant noise increase for this area. In 2018, the project will increase noise levels by 5.1 dB. Therefore, this would be a significant impact requiring mitigation.
- *Locust Avenue (between Moreno Beach Drive and Redlands Boulevard).* There are single-family homes along this roadway with front, rear, and side yards facing Locust Avenue. With project buildout in 2018, the project will increase noise levels by 5.7 dB. Therefore, this would be a significant impact requiring mitigation.
- *Kitching Street (between Krameria Avenue and Lurin Avenue).* There are single-family homes along this roadway with rear yards facing Kitching Street. Existing 6-foot high soundwalls are located along the residences and rear yard areas. Under the 2018 buildout scenario, the noise level is projected to increase by 3.2 dB. Therefore, this would be a significant impact requiring mitigation.
- *State Route 60 eastbound ramps (between SR-60 and Central Avenue).* Single-family homes are located south of SR-60 eastbound ramps. Under the project buildout scenario in year 2018, a noise level increase of 7.6 dB is anticipated. Therefore, this would be a significant impact requiring mitigation.
- *State Route 60 (from ~~Pigeon Pass Road to~~ Perris Boulevard to Nason Street).* All residential areas along this stretch of freeway have soundwalls in place. The ~~2012 time horizon~~2018 buildout scenario results in a significant noise increase ~~for this area. The noise levels are projected to increase by~~of 1.5 ~~to 1.7~~ dB ~~in this area with resultant noise levels in the 66.9 to 68.0 CNEL range. This is~~. Therefore, this would be a significant impact requiring mitigation.
- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* There are soundwalls in place for all residences in this area. The existing ~~2012 and 2035 time horizons result~~2018 buildout scenario results in a significant noise increase ~~for~~of 2.4 dB. Therefore, this ~~area, reaching 67.1 CNEL by 2035. This is~~would be a significant impact requiring mitigation.
- *State Route ~~60~~215 (from ~~Redlands Boulevard to Theodore~~Mill Street~~). No~~ to 2nd Street).* There are four residential uses located to the west of SR-215 south of 2nd Street with no soundwalls ~~are present in this area.~~. The residential ~~area is~~uses are set back from the freeway and ~~is clustered along Redlands Boulevard north of~~ are located at a lower grade than the freeway. The ~~existing~~

~~2012 time horizon~~2040 buildout scenario results in a significant noise increase ~~for~~ of 1.9 dB. Therefore, this would be a significant impact requiring mitigation.

- *State Route 215 (from Baseline Road to Highland Avenue/SR-210).* There are residential uses on the west and east sides of SR-215. There are soundwalls in place along this ~~area.~~segment of the SR-215 alignment. The ~~resultant~~2040 buildout scenario results in a significant noise ~~level will be 63.5 CNEL with an~~ increase ~~due to the project~~ of ~~3.4~~1.7 dB. ~~This is~~Therefore, this would be a significant impact requiring mitigation.

Specific Plan Design Features. The WLCSP indicates there will be a 250-foot setback from existing housing along Redlands Boulevard. No additional design features to attenuate noise impacts are planned as part of the WLCSP.

~~*Note: Due to changes in the Specific Plan, Project Traffic Impact Assessment, Project Noise Study, and in response to comments in Letter C-4-2 and F-13-9 and F-13-84, the following mitigation measures have been revised.*~~

Mitigation Measures. Construction of the proposed WLC project would result in noise levels at the closest residences within and adjacent to the WLCSP area exceeding the maximum noise level allowed under the City's Municipal Code. The following measures would reduce long-term traffic related noise impacts associated with the ~~proposed~~ project:

4.12.6.2A When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development:

Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the Revised Sections of the FEIR ~~prepared for the programmatic level entitlement~~ remain valid. These ~~procedure~~procedures used to conduct these noise analyses shall be consistent with the noise analysis conducted in the ~~programmatic~~Revised Sections of the FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings.

Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the ~~specific plan area~~World Logistics Center site, the Applicant shall implement the appropriate level of mitigation, identified in the ~~WLC~~Revised Sections of the FEIR~~.~~ to reduce the identified impacts to comply with the Moreno Valley Municipal Code, which sets maximum sound levels reaching residential uses at 60 dBA Leq during the daytime hours (8:00 a.m. – 10:00 p.m.) and 55 dBA Leq during nighttime hours (10:01 p.m. – 7:59 a.m.). Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.

If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote.

At the completion of the vote at the end of the 45~~-~~-day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next

15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public.

Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement~~ (per Noise Study MM N-8, pg.53).~~.

4.12.6.2B Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than ~~114~~49 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road~~ (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50).~~.

4.12.6.2C Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D~~ (per Noise Study MM N-9, pg. 62).~~.

4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a ~~buffer~~setback with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary~~-~~, and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12~~-~~-foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, “All manufacturing and industrial uses adjacent to residential land uses shall include a ~~buffer~~setback zone and/or noise attenuation wall to reduce outside noise levels~~" (per Noise Study MM N-10, pg.62).~~”.

Level of Significance after Mitigation. *Within the WLC ~~Specific Plan Area.~~Site.* For areas within the ~~WLCSP area, three groups of~~World Logistics Center site, noise levels at on-site residences may exceed the noise standard with the implementation of the ~~proposed ~~project. The level of significance after mitigation is provided for each of the two areas for which a significant impact has been identified.

- ~~*Redlands Boulevard (north of Brodiaea Avenue).* A group of homes is located east of Redlands Boulevard north of the intersection with Brodiaea Avenue. The traffic on Redlands Boulevard will not increase significantly as a result of the project. Future ~~*Street* ~~E is proposed to be constructed west of these existing~~*A/* World Logistics Center Parkway *(Street B/Eucalyptus Avenue to Street F).* Three residences~~. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways. Therefore, impacts are anticipated to be less than significant and no mitigation is required.~~

- ~~*Theodore Street/*~~ are located along Street A (World Logistics Center Parkway) between the future Street B ~~*to*~~and Street F~~*)*. There are two residences in this area~~. These residences are anticipated to experience noise increases up to ~~16~~18.5 dB due to the implementation of the ~~Specific~~

~~Plan~~project. As a result, existing noise levels at these ~~two~~ residences will be changed significantly. The exact alignment of the roadway is to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. ~~One residence fronts~~Two residences front onto Street A (~~Theodore Street~~World Logistics Center Parkway), and the driveway access would make a soundwall ineffective. The other residence is on ~~to~~ Street A~~. It~~ (World Logistics Center Parkway) and it is difficult to determine where an outdoor living area is for this residence. However, since it is a single residence, a soundwall would have a limited effectiveness. Since mitigation is not feasible, impacts remain significant and unavoidable.

- *Street F/Dracaea Avenue~~/Street F~~ (east of ~~Theodore~~ Street A/ World Logistics Center Parkway).* There is one residence in this area fronting onto the future alignment of Street F (currently Dracaea Avenue). Existing conditions identify low levels of traffic noise on Dracaea Avenue. The 65 CNEL contour is projected to lie ~~84~~114 feet from the centerline of Street F and it is likely that the one residence would lie within this zone. With build out of the project, noise levels would reach as high as 68.~~1~~3 CNEL, which exceeds the City's 65 CNEL threshold. Installation of a soundwall would not be effective in reducing noise levels due to the opening for the driveway. Since mitigation is not feasible, impacts remain significant and unavoidable.

Off-Site Areas Adjacent to the ~~Specific Plan Area.~~World Logistics Center Site. For areas adjacent to the ~~WLCSP area, seven~~World Logistics Center site, two areas would experience noise increases that would be mitigated to a less than significant level with implementation of **Mitigation Measures 4.12.6.2A** ~~and~~through **4.12.6.2D**. These areas are as follows:

- ~~Cactus Avenue west of Redlands Boulevard;~~
- Cactus Avenue from Redlands Boulevard to ~~Street D;~~
- ~~John F. Kennedy Drive, south of Cactus Avenue;~~
- ~~Moreno Beach Drive between Locust Avenue and Ironwood Avenue (15 of 18 homes);~~
- ~~State Route 60 from Redlands Boulevard to Theodore Street;~~
- ~~Iris Avenue from Nason Street to Oliver Street; and~~
- ~~Street D from Street E to Cactus Avenue (8).~~

- ~~For the remaining noise impact locations adjacent to the WLCSP area for which significant noise impacts have been identified, mitigation measures are not feasible or will not fully reduce the impact to less than significant levels. Each location that will remain significant and unavoidable with *Gilman Springs Road (between Eucalyptus Avenue and Street C, and between Jack Rabbit Trail and Bridge Street).* There are three single-family homes scattered along these roadway segments. All of the houses are set back from the roadway, but none has soundwalls. A significant noise increase is projected for at least one of these segments in three of the four case years. Homes that are widely separated from other homes cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~

- ~~*Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase is projected for the 2012 time horizon. In 2035, the project is projected to increase noise levels by2.1 dB, bringing the noise level to 60.8 CNEL. Land uses that are widely separated from one another cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~

- ~~*Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.5 dB, bringing the noise level to 66.9 CNEL. As discussed above, homes that are scattered and front~~

~~onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~

- ~~*Redlands Boulevard (Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2012 and 2035 time horizons result in a significant noise increase for this area. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- ~~*Redlands Boulevard (State Route 60 to San Timoteo Canyon Road).* There are approximately 28 homes along this roadway that would be affected. The single-family homes are scattered and generally front the roadway. The 2012, 2022, and 2035 time horizons result in a significant noise increase for this area. The increases in noise are around 2 dB with a resultant noise level in the 70 to 71 CNEL range. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- ~~*San Timoteo Canyon Road (from Alessandro Road to Live Oak Canyon Road to Redlands Boulevard).* There are approximately four scattered residences along this roadway that would be affected. The existing baseline plus project time horizon results in a significant noise increase for this area. The noise increases by a little over 3.0 dB with resultant noise levels in the 65 to 66 CNEL range. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- ~~*Theodore Street (State Route 60 to Highland Boulevard).* The noise analysis indicates that the project will cause a 1.2 dB increase in the year 2035 with a resulting noise level of 66.3 CNEL. There are four existing homes on Theodore Street that front onto the roadway. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- ~~*Street A from Eucalyptus Avenue to Street F; Street E north of Alessandro Boulevard; and Street F east of Street A (2, 4, 19).* There are three groups of homes that may remain within the project area. The analysis shows significant noise increases for all four cases. The project would rezone these residences as Light Logistics, but the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered as a sensitive land use. The first homes are east of Redlands Boulevard north of the intersection with Brodiaea Avenue. Street E will be constructed west of these homes. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways.~~

  ~~The second group of homes is on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are two homes in this area. Their noise environment will be changed significantly. The exact alignment of the roadway is to be determined. The noise levels at these homes would be unacceptable to the residents, and a significant impact would occur. As discussed above homes, that front onto a street or scattered homes cannot be effectively mitigated with a soundwall. Therefore, there is no feasible mitigation and this impact would remain significant and unavoidable.~~

  ~~The third area is a single home and lies east of Street A and along Street F. Currently there is essentially no traffic on this street. There is one residence in this area. Since this home will experience a substantial noise increase, this is considered a significant impact. All of these homes will either front onto the roadway or are scattered. As discussed above homes, that front onto a street or scattered homes cannot be effectively mitigated with a soundwall. Therefore, there is no feasible mitigation and this impact would remain significant and unavoidable.~~

- Cactus Avenue Extension ~~(Street D)~~; and

- Cactus Avenue Extension from ~~*Street E*~~Alessandro Boulevard to Cactus Avenue.

Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the ~~project~~World Logistics Center site parallel to Merwin Street and roughly 1,250 feet from Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. ~~There would be essentially no heavy trucks using this roadway.~~ There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. The noise forecast for buildout year 2040 shows that the 65 CNEL contour will lie ~~114~~49 feet from the centerline of Cactus Avenue Extension. If the centerline of Cactus Avenue Extension is located closer than ~~114~~49 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. Due to the distance ~~from the~~ currently envisioned between Merwin Street and Cactus Avenue Extension, it is most likely that no soundwall will be needed. If a soundwall ~~was~~is needed, a preliminary estimate indicates that the soundwall along Cactus Avenue Extension would need to be roughly 2,000 feet long. The soundwall shall reduce traffic noise to 65 dBA CNEL measured at the boundary of residences along Merwin Street.

~~4.12.6.3 Long-Term Operational Noise Impacts~~

~~Threshold~~	~~Would the project cause exposure of persons to or generation of~~ For the remaining noise ~~levels in excess of standards established in the *City of Moreno Valley General Plan, Moreno Valley Municipal Code*, or applicable standards of other agencies?~~

~~Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. Logistics facility uses would generate noise from truck delivery, loading/unloading activities at the loading areas, heating, ventilation, and air-conditioning (HVAC) equipment and other noise-producing activities within the parking lot (e.g., doors slamming, vehicle engine start-ups, and conversing in the parking lot). These activities are potential point sources of noise that could affect noise-sensitive receptors~~impact locations adjacent to the ~~loading areas and parking lots. As noise spreads from a source, it loses energy; therefore, the farther away the noise receiver is from the noise source, the lower the perceived noise level would be.~~

~~Noise levels were measured at similar facilities to determine representative noise levels that might be generated by this type of activity. Noise measurements were made at two facilities; specifically, Lowes Distribution Center (3984 Indian Avenue, Perris, CA) and Ross Distribution Center (3404 Indian Avenue, Perris, CA). Based on these representative noise measurements, Table 4.12.K provides the noise levels for various distances from the warehouse property line with no noise barrier in place and with an assumed 12-foot noise barrier.~~

~~Table 4.12.K: Representative Noise Levels for Warehousing Activities~~

~~Distance from Facility (feet)~~	~~Noise Level (dBA L_{eq})~~	
	~~No Barrier~~	~~With 12-foot barrier~~
~~50~~	~~56.9~~	~~48.6~~
~~100~~	~~54.9~~	~~47.8~~
~~250~~	~~50.8~~	~~44.7~~
~~500~~	~~46.6~~	~~40.9~~

~~Source: Mestre Greve Associates, September 2014.~~

~~The City of Moreno Valley Noise Ordinance requires that noise levels remain below 55 dBA (L_{eq}) during nighttime hours. To achieve this noise level, the warehouse property line would only need to be 100 feet from the nearest residential property and no soundwall would need to be present.~~

~~Another consideration is whether the proposed activity levels will be substantially higher than current ambient conditions. No matter what is developed in the Specific Plan area, ambient conditions would be higher in future years due to higher levels of traffic and activity. Ambient noise levels were measured at seven sites that could border the~~ World Logistics Center ~~(i.e., Measurement Sites 3 through 9). The nighttime ambient noise levels (L_{eq}) ranged from 35.8 to 61.8 dBA with an average for the sites of 46.6 dBA. To keep the noise levels at nearby residential areas less than typical ambient conditions, the logistics property line should be located a minimum distance of 250 feet and a 12-foot soundwall should be located along the perimeter of the property that faces any residential areas. This would keep the logistic use noise to less than 45 dBA (L_{eq}) at the residences. The implementation of this buffer between logistics uses and noise sensitive uses has been included as **Mitigation Measure 4.1.6.1A**.~~

site for which ~~**Specific Plan Design Features.** The WLCSP indicates there will be a 250-foot building setback from residentially zoned property along Redlands Boulevard, Bay Avenue, and Merwin Street.~~

~~**Level of Significance after Mitigation.** Implementation of **Mitigation Measure 4.1.6.1A** would eliminate any noise impacts on residential areas due to the operation of logistic activities. Through the provision of a 250-foot buffer, berms, and/or soundwalls, noise levels at the nearest residences would be reduced to below the City's thresholds. Therefore, with adherence to the identified mitigation measure, impacts associated with this issue would be less than~~ significant~~.~~

~~4.12.6.4 Long-Term Utility Noise Impacts~~

~~Threshold~~	~~Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the *City of Moreno Valley General Plan, Moreno Valley Municipal Code*, or applicable standards of other agencies?~~

~~As illustrated in previously referenced Figure 4.12.3 and Figure 4.12.6, there is one existing SDG&E compressor station and two existing SCGC facilities located within the WLC Specific Plan area.~~

~~Based on preliminary calculations as illustrated in Figure 4.12.3, the worst-case compressor station operational characteristics will result in a maximum noise level just above 65 CNEL within the project area proposed for development (i.e., not open space). Typical commercial construction results in buildings that achieve at least a 20 dB reduction of outdoor noise levels. Therefore, an office use exposed to the highest noise level from the compressor station will be just above 45 CNEL and below the 50 CNEL limit prescribed by the City's General Plan, resulting in a less than significant impact and no mitigation is required.~~

~~As illustrated in previously referenced Figure 4.12.4, the L_{eq} noise level generated by the compressor station does not exceed 60 dBA L_{eq} beyond the property lines of the facility. Therefore, the compressor station is not considered a noise disturbance based on City criteria. Operation of the compressor station would not result in any interior noise levels exceeding the limits established by the City in the General Plan. Therefore, noise impacts associated with the operation of the compressor station would be less than significant and no mitigation is required.~~

~~As identified in previously referenced Figure 4.12.5, the maximum noise level from a blow-down at the SDG&E compressor station within the WLCSP area proposed for development (i.e., the Logistics Development land use) is 100 dBA. A person would need to be exposed to this level for more than two~~

~~hours in a day before permanent hearing loss would be expected. As discussed above, blow-down events at the SDG&E compressor station typically do not last longer than 90 seconds. Therefore, the SDG&E blow-down events will not result in a significant impact to the uses proposed within the WLCSP area, and no mitigation is required.~~

~~For SCGC blow-down events, noise generated could reach as high as 130 dBA just outside the fence line of the southern facility and in excess of 135 dB just outside the fence line of the northern facility. People within approximately 250 feet of the blow-down points would be exposed to noise levels greater than 115 dBA, which would likely cause permanent hearing damage regardless of the exposure time. The SCGC blow-downs could last as long as 90 minutes. It is anticipated that people exposed to noise levels greater than 102 dBA, within approximately 1,300 feet from the blow-down point could experience permanent hearing loss based on this event duration. Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.~~

~~SCGC blow-down events also~~ noise impacts have ~~the potential to produce groundborne vibration. However, the effect of the blow-down groundborne vibration would be limited to within 100 feet of the equipment and would not be perceived beyond the facility fenceline, resulting in a less than significant impact and no mitigation is required.~~

~~**Specific Plan Design Features.** The WLCSP provides a setback of open space and a street between the SCGC facility and planned warehouse buildings in the WLCSP. However, the separation may not be sufficient to prevent significant noise impacts during blow-down events. According to the project noise assessment, a 40 dB reduction in existing noise levels from the blow-down facilities would be needed to ensure there would be no significant noise impacts on workers or other persons within 1,300 feet of the blow-down facilities (FEIR Volume 2 Appendix K).~~

~~*Note: The changes to the following mitigation measure have been made in response to Comment C-4-2 in Letter C-4 from Semper Energy, and the revised noise study.*~~

~~**Mitigation Measures.** Operation of the proposed WLC project could result in exposure of people to noise levels as high as 130 dBA or greater during SCGC blow-down events. The following measure would reduce long-term utility related noise impacts associated with the proposed WLC project:~~

~~**4.12.6.4A** Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).~~

~~**Level of Significance after Mitigation.** The SCGC blow-down equipment does not currently include a permanent silencer system. A review of the literature of a leading manufacturer of specialty silencer~~

~~systems (Industrial Acoustics Company) determined that a specialty silencer system added to the blow-down equipment could reduce noise levels by about 40 dB. With a silencer system providing 40 dB of noise reduction, blow-down noise levels would be less than 102 dBA approximately 30 feet from the blow-down point, which is within the property line of these facilities. 102 dBA is the noise level that could be experienced for up to 90 minutes without causing permanent hearing loss. Therefore, while occupants within the WLCSP in close proximity to the SCGC facilities would be subject to high noise levels during these infrequent noise events, they would not be subject to any permanent hearing damage. With implementation of **Mitigation Measure 4.12.6.4A**, SCGC blow-down events would not result in noise levels that could cause permanent hearing loss and the project would not be significantly affected by noise from the SCGC facilities, resulting in a less than significant impact.~~

~~4.12.7 Cumulative Impacts~~

~~The cumulative area for noise impacts is the City of Moreno Valley. Implementation of the Specific Plan would result in the introduction of new noise sources and levels from on-site activities and from increased traffic volumes on vicinity roadway and freeways.~~

~~Construction crew commutes and the transport of construction equipment, and materials to the WLCSP area would incrementally increase noise levels on access roads leading to the site. Secondary sources of noise would include noise generated during excavation, grading, and building erection on the project site. The net increase in project site noise levels generated by these activities and other sources has been quantitatively estimated and compared to the applicable noise standards and thresholds of significance. Although it is not possible to predict if contiguous properties may be constructed at the same time and create cumulative noise impacts that would be greater than if developed at separate times, it is unlikely that adjacent properties will be developed at the same time as the Specific Plan area. However, in the unlikely event that adjacent properties are developed at the same time as the proposed WLC project, adherence to the City's Municipal Code provisions that regulate construction activities and other development standards would render the cumulative impacts of the proposed project to less than significant levels.~~

~~The noise analysis contained in this section also provides an assessment of on-site operational noise level impacts on adjacent sensitive uses, both existing and future. Additionally, on-site operational noises are individual noise occurrences and are not typically additive in nature. It is extremely unlikely that adjacent properties will generate noises that would be additive in nature because of two important reasons. First, the noise sources would have to be adjacent or in close proximity to one another in order for the noises to intermingle. Second, the sensitive receptor or receptors would also have to be adjacent to or in close proximity to the noise generators. Although it is not possible to predict if contiguous or proximate properties may generate noise at the same time that would be additive in nature and thus create a significant cumulative noise impact at sensitive receptors, adherence to the City's Municipal Code provisions that regulate nuisance noise from land uses and other development standards would render the cumulative impacts of the proposed project to less than significant levels.~~

~~Cumulative traffic volumes contained in the TIA were developed for the Future Year 2022 and Buildout 2035 analysis time horizons. Traffic volumes for each time horizon were developed utilizing a combination of various future traffic growth methods as follows. For Future Year 2022, traffic volumes were developed by interpolating year 2035 traffic volume projections from the Riverside County Transportation and Analysis Model (RivTAM) to year 2022 plus traffic from a list of past, present, and reasonably foreseeable projects. For Buildout Year 2035, traffic volumes were developed by utilizing the year 2035 traffic volume projections from the RivTAM plus traffic from a list of past, present, and reasonably foreseeable projects.~~

~~Cumulative noise impacts associated with roadway noise have been addressed based on the cumulative traffic volumes. Previously referenced Table 4.12.J provides a comparison of Buildout Year~~

~~(2035) without and with project noise levels, and if a significant impact (project-specific or cumulatively significant) occurs.~~

~~The project calls for improvements to several of the roadways around the project area in order to accommodate the projected increase in project traffic volumes. There are no new noise-sensitive land uses proposed to be constructed within the area of analysis. However the presence of residential uses occurs within the WLCSP project and nearby area. These roadway segments are analyzed against the thresholds for determining significant impacts defined previously in Section 4.12.6.2. As described previously in Section 4.12.4, the project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the proposed project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:~~

- ~~Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;~~
- ~~Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or~~
- ~~Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.~~

~~Cumulative noise impacts associated with roadway noise have been addressed based on the 2022 and 2035 time horizons analyses contained in Section 4.12.6.2. As identified in the preceding analysis, Table 4.12.J shows the Buildout Year 2035 CNEL values without and with the proposed project and if a significant impact would be produced based on the project-specific significance criteria identified in Section 4.12.4 and the cumulatively significant significance criteria identified in Section 4.12.4 and repeated above. Traffic noise level increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative (i.e., past, present, and reasonably foreseeable projects) development projects in the project vicinity and region as well as the proposed project. As indicated in Section 4.12.6.2, roadway noise impacts have been identified and **Mitigation Measures 4.12.6.2A** and **4.12.62D** have been presented to reduce roadway noise impacts to the greatest extent feasible. As disclosed in Section 4.12.6.2, there are numerous instances in which there is no feasible means to reduce roadway noise impacts because of the existing developed nature of the affected roadway segment and/or the scattered nature of the sensitive receptors (i.e., residences), which prohibits the effectiveness of a soundwall. Therefore, no significant cumulative noise impacts would occur after implementation of the proposed~~been identified, mitigation measures~~. For those segments at which there is a cumulatively considerable impact and there is no~~ are not feasible ~~means to provide mitigation,~~or will not fully reduce the impact to less than significant ~~cumulative impact~~levels. Each location that will remain significant and unavoidable is discussed below.

- *Redlands Boulevard (Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2018 buildout scenario results in a significant noise increase for this area. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Cactus Avenue (west of Redlands Boulevard).* Existing residential uses are located along Redlands Boulevard with rear yards facing Cactus Avenue. Existing 6-foot high soundwalls are located along the rear yard areas. Soundwalls are already present on the west side of the roadway. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. Land uses that are widely separated from one another cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. ~~.~~Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Locust Avenue (between Moreno Beach Drive and Redlands Boulevard).* There are single-family homes along this roadway with front, rear, and side yards facing Locust Avenue. The homes located on the north side of Locust Avenue mostly front onto the roadway, making erecting a soundwall infeasible. A majority of the homes on the south side of the street either already have soundwalls in place or front onto Locust Avenue. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Kitching Street (between Krameria Avenue and Lurin Avenue).* There are single-family homes along this roadway with rear yards facing Kitching Street. Existing soundwalls are located along the rear years. Soundwalls are already present on the west side of the roadway. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 eastbound ramps (between SR-60 and Central Avenue).* Single-family homes are located south of SR-60 eastbound ramps. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 (from Perris Boulevard to Nason Street).* Residential uses along this stretch of the freeway have soundwalls in place. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* Residential uses along this stretch of the freeway do not have soundwalls in place. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 215 (from Mill Street to 2nd Street).* Residential uses along this stretch of the freeway do not have soundwalls in place. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 215 (from Baseline Road to Highland Avenue/SR-210).* The freeway has soundwalls in place. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

~~4.13 POPULATION, HOUSING, AND EMPLOYMENT: TABLE OF CONTENTS~~

~~TABLES~~

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Note to Reader: *The cumulative portion of Section 4.13 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.13 of this Revised Sections of the FEIR. All other portions of Section 4.13 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.13 means that the corresponding portion of Section 4.13 in the FEIR remains unchanged or has been deleted.*~~*The following Section 4.13 has been revised based on revisions to the Specific Plan project size. The section has also been revised to provide clarification in response to comments made about data consistency.*[1]~~

4.13 POPULATION, HOUSING, AND EMPLOYMENT

This section identifies population and housing conditions within the City of Moreno Valley and addresses potential impacts that may result from the construction and operation of the WLC project. The analysis is based in part on population and housing projections identified by the California Department of Finance (DOF), Southern California Association of Governments (SCAG), as well as information contained in the City's General Plan.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the development. ~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~[1] Mainly *Letter G-95 from Thomas Thornsley.*~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based in part on the following reference documents:

- *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, David Taussig & Associates, Inc., original dated January 2012, updated September, 2014.
- *Moreno Valley Economic Development Strategy,* John Husing, Ph.D., presentation to City Council January 18, 2012.
- *City of Moreno Valley Draft Housing Element 2008 – 2014,* City of Moreno Valley, February 2011.
- *Economic Impacts the World Logistics Center, PowerPoint presentation to the City Council,* Beacon Economics, January 2013.

4.13.1 Existing Setting

4.13.1.1 Population Characteristics

The U.S. Census as reported by the DOF estimates the City's current (2011) population at 194,451 persons.[1] SCAG projections estimate the population of the City, Riverside County, and southern California (SCAG) regions will continue to grow. The SCAG projects the City's population will grow to 213,700 persons by the year 2020 and 255,200 persons by the year 2035 (Table 4.13.A).

Table 4.13.A: Population, Housing, and Employment Forecasts

	2011	2020	2035
Population [2]			
City of Moreno Valley	194,451	213,700	255,200
Riverside County	2,205,731	2,592,000	3,324,000
SCAG	18,163,664	19,663,000	22,091,000
Housing Units [2]			
City of Moreno Valley	55,635	60,000	72,800
Riverside County	804,913	834,000	1,092,000
SCAG	6,348,741	6,458,000	7,325,000
Employment[1]			
City of Moreno Valley	25,120	48,000	64,400
Riverside County	551,492	939,000	1,243,000
SCAG	7,224,670	8,414,000	9,441,000

Sources:

1 2011 Employment data for the City and County is based on the *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, September 2014.

2 *2011 Employment and Housing data for City and County based on the E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, website accessed February 7, 2014. Draft 2012 RTP Growth Forecast*, Southern California Association of Governments, http://www.scag.ca.gov/forecast/index.htm, date accessed March 15, 2012

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[1] E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, May 2011, website accessed February 7, 2014.

4.13.1.2 Housing Characteristics

The number of housing units in the City has increased to accommodate the City's growing population (Table 4.13.B). Currently, the DOF identifies that over three-quarters of the existing housing units in the City are single-family detached units (Table 4.13.C). Multiple-unit dwellings comprise approximately 15 percent of the City's current housing stock.

Table 4.13.B: City of Moreno Valley Housing Units, 1990, 2000, and 2010

Year	Housing Units	Increase (%)
1990	37,945[1]	—
2000	41,462[2]	9.3
2010	55,559[3]	25.4

[1] City of Moreno Valley Draft Housing Element 2008 – 2014. City of Moreno Valley. February 2011.

[2] California Department of Finance: California State Data Center. Data derived from Housing Characteristics, 2000 Census of Population and Housing

[3] State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011–2013, with 2000 Benchmark. Sacramento, California, May 2013.

Table 4.13.C: Composition of the Housing Stock, 2010

	City of Moreno Valley	
Housing Type	Number of Units	Percentage
Single-Family, Detached	44,842	80.7%
Single-Family, Attached	1,127	2.0%
2- to 4-Unit Structure/ 5- or More Unit Structure	8,226	14.8%
Mobile Home	1,364	2.5%
Total	**55,559**	**100%**

Source: *State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011–2013, with 2000 Benchmark. Sacramento, California, May 2010*.

4.13.1.3 Employment Characteristics

As identified in Table 4.13.A, approximately 25,120 jobs were located within the City in 2011. Based on available data from 2012 (SCAG 2013), the largest share of Moreno Valley's jobs were in the education sector (41.5%). The top four employment sectors, education (41.5%), retail trade (17.8%), leisure/hospitality (10.8%), and professional and management (6.0%) accounted for three-fourths of jobs in the City. Table 4.13.D provides a breakdown of the percentage by job type for the most recent available data (2013). The Husing Report presented to the City Council in January 2012 also indicated that medical services and logistics were two of the few employment categories to show significant growth during the economic downturn starting in 2008 (Husing 2012).

NOTE: This table had been updated based upon the updated Profile of the City of Moreno Valley, by the Southern California Association of Governments 2013.

Table 4.13.D: City of Moreno Valley 2012 Employment Percentage by Sector

Job Sector	Percentage of Employees
Education	41.5%
Retail Trade	17.8%
Leisure/Hospitality	10.8%
Professional and Management	6.0%

Table 4.13.D: City of Moreno Valley 2012 Employment Percentage by Sector

Job Sector	Percentage of Employees
Public Administration	5.0%
Manufacturing	3.7%
Finance/Insurance/Real Estate	3.2%
Other Services	3.6%
Construction	3.1%
Transportation/Warehousing/Utilities	2.7%
Wholesale	1.6%
Information	0.8%
Agriculture	0.3%
TOTAL	100%

Source: *Profile of the City of Moreno Valley,* Southern California Association of Governments, *http://www.scag.ca.gov/Documents/MorenoValley.pdf,* date accessed February 7, 2014.

The jobs-to-housing ratio measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. This ratio identifies the number of jobs available in a given region compared to the number of housing units in the same region. For example, a region with a jobs-to-housing factor of 1.5 would indicate that 1.5 jobs exist for every housing unit within that region. The standard used for comparison is the jobs-to-housing ratio of the SCAG region, is currently 1.24 jobs for every household. This standard is used because most residents of the region are employed somewhere in the SCAG region. A City or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a “jobs poor” area, indicating that many of the residents must commute to places of employment outside the sub-area. Table 4.13.E shows the current and potential jobs/housing ratios for the City, Riverside County, and SCAG.

Table 4.13.E: Existing and Future Jobs/Housing Ratios1

	2011 Jobs/Housing Ratio	2035 Jobs/Housing Ratio
City	0.45	0.88
Riverside County	0.69	1.14
SCAG	1.14	1.29

[1] Ratios calculated from values listed in Table 4.13.A

The 2011 estimated jobs-to-housing ratios for the City, County, and SCAG region are 0.45, 0.69, and 1.14, respectively. The 2035 future jobs-to-housing ratios for the City, County, and SCAG region are 0.88, 1.14, and 1.29, respectively. These ratios indicate that both Riverside County and the City of Moreno Valley are “jobs poor” because the jobs-to-housing ratios are below the Southern California region (as defined by SCAG). The Husing Report presented to the City Council in January 2012 indicated that the jobs to housing ratio for Southern California had actually declined from 1.25 to 1.04 from 2007 to 2010 as a result of the economic downturn (Slide 7, Husing 2012).

A low jobs/housing ratio results in longer distances that residents of Moreno Valley must drive to and from work. This factor may contribute to the City’s property values which are currently about half of the regional average (Source: *Profile of the City of Moreno Valley*, SCAG, May 2013). For example, the median home sales price in Moreno Valley in 2010 was $155,000 compared to the regional average of $291,000. One result of a jobs/housing imbalance is a weaker or lower tax base with which to support public services. The City also experiences a large “leakage” of potential sales tax revenue due to the resident workers’ absence during workdays, as well as the lack of business and industry taxes compared to other jurisdictions of similar size.

4.13.1.4 City Economic Conditions

Moreno Valley is Riverside County's second largest city with a population of nearly 200,000 people (2012) and a land area of more than 50 square miles. The City incorporated in 1984. The majority of the land in the City was designated for residential development. Over the years, the plan for Moreno Valley has remained overwhelmingly residential in character. Little of the City's area (approximately 9%) is allocated for job producing land uses today. More than 90 percent of the City is designated for non-commercial land uses such as residential, open space and parks[1]see figure below:

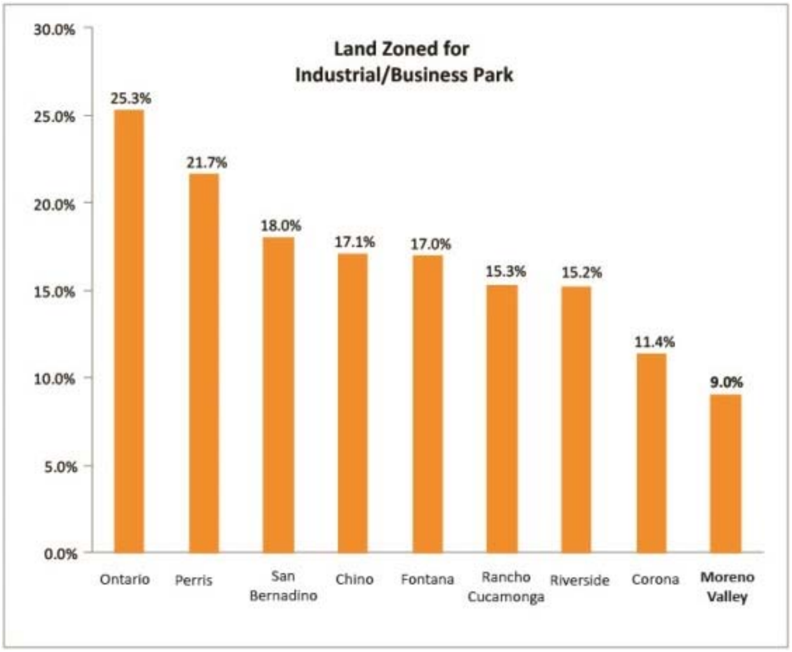

Comparison of Land Zoned for Industrial/Business Park
(Moreno Valley Economic Development Action Plan, 2011)

Moreno Valley has less than one job for every two homes (0.47), which is about one-third of Riverside's rate and about one-fifth of Ontario's, see figure below:[2]

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[1] City of Moreno Valley Economic Development Action Plan, 2011

[2] SCAG City Profiles, May 2013; Fiscal and Economic Impact Study, David Taussig & Associates, September 2014

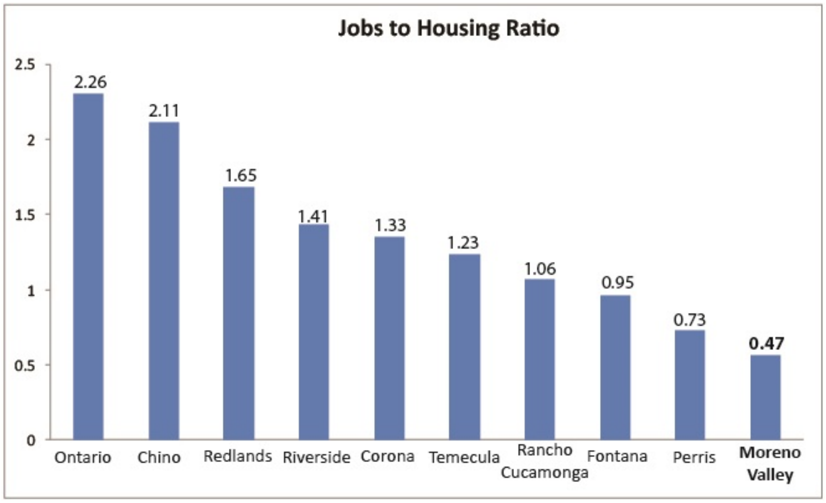

Comparison of Jobs to Housing Ratios *(SCAG City Profiles, May 2013; Fiscal and Economic Impact Study, David Taussig & Associates, 2014)*

This has created a significant jobs-housing imbalance which resulted in chronically difficult economic and social conditions. As a result, a large majority of Moreno Valley's workforce commutes to jobs outside the City, with an average daily commute of 76 minutes.[1] The City has a very limited tax base from which to generate tax dollars to fund expensive residential services. In 1996, the City enacted a utility tax to offset operational deficits resulting from the slowdown in residential development and the development fees which they provided.

> "The city became burdened with too much residential development, which does not generate enough property tax revenue to pay for the city services such development demands. Every new home constructed drained the city's coffers over time, and the city needed the more lucrative tax base of commerce and industry—which hasn't developed—to make up the difference." *Los Angeles Times*, October 28, 1996

Average household income in Moreno Valley is $56,000, well below the Riverside County average. Nearly one person in five or 20 percent of Moreno Valley is living below the poverty level.[2] Fifty percent of the population has a high-school education or less and Moreno Valley has one of the highest high-school drop-out rate in the county.

Unemployment in Moreno Valley remains the highest in the region at 9.7 percent[3] and median house prices are among the lowest in the Inland Empire at $158,000.[4] See figures below:

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[1] SCAG, Profile of the City of Moreno Valley, May 2013
[2] Husing, Press Enterprise Letter to the Editor, May 15, 2014
[3] California Employment Development Department, April 2014
[4] *(SCAG City Profiles, May 2013)*

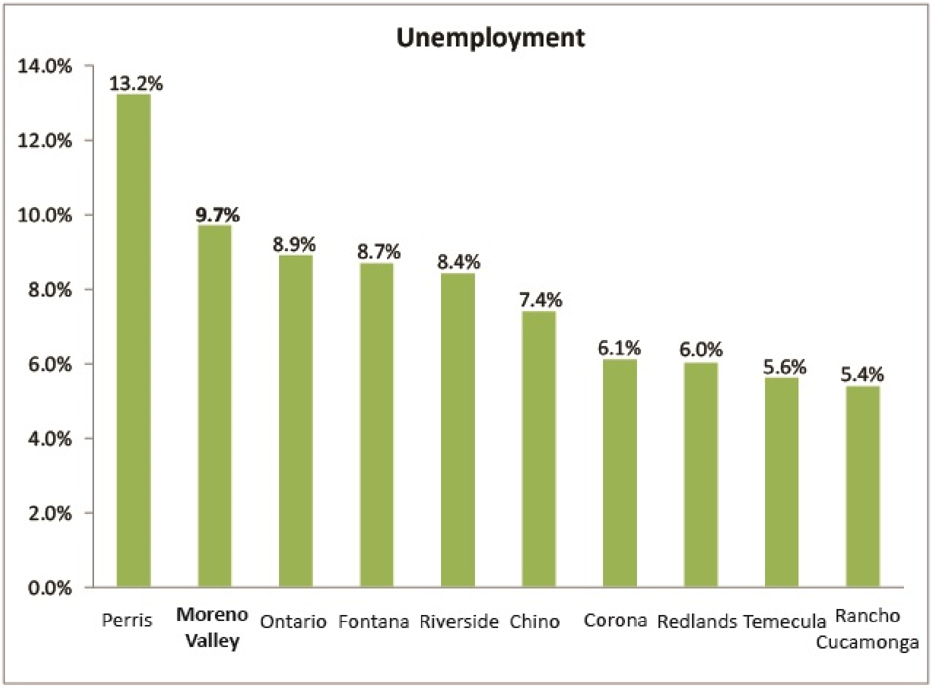

Comparison of Unemployment Rates *(Monthly Labor Force Data for Cities, California Employment Development Department, April 2014)*

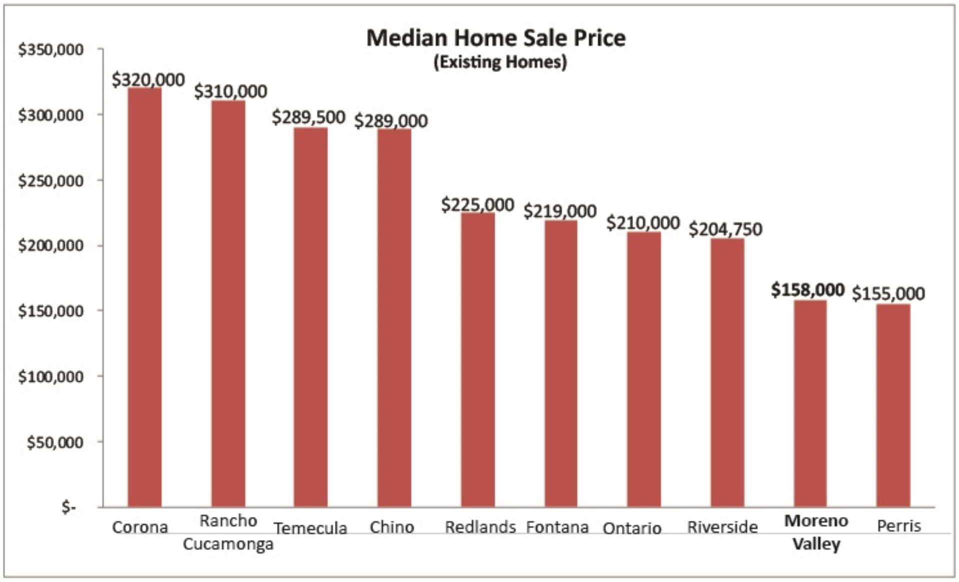

Comparison of Median Home Sale Prices
(SCAG City Profiles, May 2013)

In April of 2011, the City adopted a 2-year Economic Development Action Plan as a short-term and long-term approach to the difficult economic conditions facing the City. The logistics and healthcare industries were identified as the two primary areas of opportunity for the City. The Action Plan focused on five areas of opportunity in the City and established key initiatives for each one. In April 2013 the City conducted additional public hearings and adopted a 3-year Action Plan which established fourteen objections aimed at increasing the City’s overall economic development efforts and expanded these efforts to nine areas in the City. The World Logistics Center project is identified as one of the Action Plan's goals for eastern Moreno Valley. The World Logistics Center project directly responds to the City's Action Plan, representing a major shift in the City's approach to long-range community planning and economic stability.

4.13.1.5 Economic Assessment Factors

The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* (David Taussig & Associates, Inc. (DTA), 2014) prepared for the WLC project evaluates the likely fiscal and economic impacts of the WLC project within the City. The following information is from the Executive Summary of the DTA study:

> The purpose of the study is to estimate the net fiscal impacts of the WLC project and construction of the project on the City's General Fund. The fiscal impacts identified in the study include recurring municipal revenues and costs to the City General Fund that result from the land use scenario analyzed. City General Fund revenues are generated from a variety of sources including property taxes, sales taxes, fees, and fines. Costs to the City's General Fund are associated with a variety of services, such as police protection, fire protection, public works maintenance, and general government services. While the City also expends revenues from a series of other special funds outside of the General Fund, these revenues include a Moreno Valley Library property tax, Community Services District and Community Facilities District assessments and special taxes, and various enterprise funds. As these revenues are generally equal to the cost of the services that they finance, they are essentially break-even and are not typically included in a fiscal analysis for a municipality. As a result, most fiscal analyses focus on the General Fund, where any shortfalls or surpluses can be easily identified, and such is the case for this Study.
>
> However, in preparing the World Logistics Center's (the Center) fiscal analysis, DTA did notice certain anomalies occurring related to the Moreno Valley Fire property tax, in that the revenues generated by this special fund appear to be greater than the fund's expenditures on fire services to be provided by the City to the Center. While the projected fiscal surplus generated by the Moreno Valley Fire property tax fund was not included in the General Fund analysis, DTA felt that a brief discussion of this revenue source within the text of the Study would better inform the public regarding the entire fiscal impact of the Center on the City.
>
> The fiscal analysis focuses on the impacts of the Center on the General Fund if it were built during fiscal year 2012-13, based on cost and revenue criteria and assumptions existing during that fiscal year. As is the case for most General Fund fiscal analyses, it would be speculative to *Fiscal & Economic Impact Study May 21, 2014 World Logistics Center – City of Moreno Valley Page II* project future cost and revenue factors because there is no certainty regarding what those factors will be. For example, while the City will be increasing its annual costs as it eliminates a furlough program that it established during the Great Recession, the Center itself is expected to generate additional revenues in future fiscal years due to increases in logistics facilities property values above the $90 per square foot assumed in the Study. Based on a recent appraisal prepared by Coldwell Banker, the Center site's property valuation has already increased by more than 10%. Assumptions made regarding the relative levels of cost and revenue increases for factors such as these in future years would typically create a bias in the fiscal analysis that could in itself invalidate the results of the Study.

The DTA study also identifies the general economic impacts on the City that would occur and quantifies these impacts wherever possible. General economic impacts include additions to the City's employment, economic output, and earnings. The study also distinguishes between one-time impacts and permanent impacts. One-time impacts include benefits to the City that occur on a non-recurring basis as a result of construction activity, while permanent impacts refer to benefits that occur on a continuing basis, year after year. An examination of these conditions relative to potential population, housing and employment impacts is provided in Section 4.13.5.1, *Population Growth*.

4.13.1.6 NOP/Scoping Comments

A representative of a conservation group and several individuals said the EIR should address the loss or transfer of 7,700 housing units from the Moreno Highlands Specific Plan to other locations in the City. Some residents commented that fiscal commitments by the City on other local projects by this developer have resulted in expenditures of funds that could otherwise have been used for City services. It should be noted the analysis of this change was largely addressed in the updated (2011) Housing Element that recognized the Moreno Highlands Specific Plan would probably not be built.

4.13.2 Existing Policies and Regulations

4.13.2.1 Federal Regulations

The Federal Community Development Block Grant (CDBG) monies are part of Federal housing assistance programs at the local level. Housing and Urban Development (HUD) and CDGB monies are a function of the potential change in the jobs and housing mix (http://www.hud.gov/offices/cpd/about/conplan/). The HUD's Office of Community and Planning Development's (CPD's) Consolidated Plan is designed to help states and local jurisdictions to assess their affordable housing and community development needs and market conditions, and to make data-driven, place-based investment decisions. The consolidated planning process serves as the framework for a communitywide dialogue to identify housing and community development priorities that align and focus funding from the four CPD formula block grant programs: the CDBG, the HOME Investment Partnership (HOME), the Emergency Solutions Grant (ESG) program, and the Housing Opportunities for Persons with AIDS (HOPWA) program.

CPD Maps is an online data mapping tool for place-based planning. Grantees and the public can use CPD Maps to analyze and compare housing and economic conditions across their jurisdictions. The CPD Maps tool is publicly available, giving all community stakeholders access to the same data. The Consolidated Plan template allows grantees to insert maps and data tables from CPD Maps with ease, throughout their plans.

4.13.2.2 State Regulations

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The most recently completed RHNA planning period is January 1, 2006, to June 30, 2014. Due to the requirements of SB 375, SCAG is preparing the next RHNA planning cycle, which will cover October 1, 2013, to September 30, 2021.

4.13.2.3 Regional and Local Regulations

County of Riverside Housing and Land Use Policies. The Housing Element is one of the seven General Plan elements mandated by the State of California as articulated in Sections 65580 and 65589.8 of the Government Code. Each city and county is required to discuss how it will meet its fair share of the housing need in the State.

The County of Riverside has a relevant policy in the Land Use Element of the County General Plan. To support future growth of the population and housing stock in the County of Riverside, the Land Use Element contains policies to ensure adequate utilities for new development (County of Riverside 2003). Specifically the policy LU 1.6 states…"Coordinate with local agencies, such as the Local Agency Formation Commission (LAFCo), service providers, and utilities to ensure adequate service provision for new development."

City of Moreno Valley General Plan. The City's General Plan Chapter 9 (Goals and Objectives) establishes goals and objectives to guide the development, redevelopment, and preservation of a balanced housing inventory within the City. Specific policies relevant to the WLC project include:

Objective 2.5	Promote a mix of industrial uses which provides a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.
Goal 2.2	An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.
Goal 2.4	A supply of housing in sufficient numbers suitable to meet the diverse needs of future residents and to support healthy economic development without creating an oversupply of any particular type of housing.

4.13.3 Methodology

To determine the potential for impacts related to population and housing, the current uses, overall condition of the project site, historic and current population and housing characteristics, and future projections for population, housing, and employment were identified. This analysis is based on data published by the DOF and SCAG, as well as information presented in the City's General Plan and the County of Riverside General Plan.

As identified in the study prepared by David Taussig & Associates, Inc. (DTA), fiscal impacts arising from a land development project can be broadly categorized as one of two types: one-time and recurring impacts. Each of these broad types can be divided into a revenue component and a cost component. The study assumes that one-time revenues would directly offset one-time costs; therefore, the fiscal impacts considered focus on ongoing, or recurring, fiscal impacts of the WLC project on the City's General Fund. Revenues generated outside of the City's General Fund (e.g., special district revenue) or costs incurred by the City outside of the General Fund (e.g., costs financed through a special district) are not included in this analysis.

This methodology involves calculating the average citywide revenues/costs per Persons Served,[1] utilizing the fiscal year 2012–2013 City budget, and applying these revenue/cost factors to the specific number of Persons Served projected for the WLC project. For analysis purposes, all recurring revenues and costs are stated in constant (uninflated) 2012 dollars based on the assumption that the relative impacts of inflation in future years will be the same for both of these fiscal impact categories.

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[1] A service population comprising all residents and 50% of employees.

Direct economic impacts reflect the initial or first-round increases in jobs, earnings, and output, all of which occur directly on site. Indirect/induced economic impacts are the secondary and other additional rounds of economic activity that occur as a consequence of the direct impacts, and can occur elsewhere within the City. The indirect impacts represent the economic activity (buying and selling of goods and services) of suppliers to the proposed land uses. The induced impacts represent the economic activity that results from household spending by employees of all companies directly and indirectly affected by the construction and operation of the WLC project. The study estimated the number of direct employees in the WLC project based upon an average employee per square foot ratio for similar land uses in the region. Additionally, all economic impacts are stated in constant (uninflated) 2012 dollars, based on the assumption that the relative impacts of inflation in future years may be difficult to gauge.

4.13.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts related to population and housing are based on *CEQA Guidelines* (2011). A project would have a significant impact on population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) that may lead to fiscal or economic impacts;
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

4.13.5 No Impact/Less than Significant Impacts

4.13.5.1 Population Growth

Threshold	Would the WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure)? Would the WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?

Growth-Related Impacts. CEQA requires a discussion of ways in which the WLC project could be growth inducing (see also Section 5.0, *Other CEQA Topics*). The *CEQA Guidelines* identify a project as growth inducing if it fosters economic or population growth, or the construction of additional housing either directly or indirectly in the surrounding environment (*CEQA Guidelines* Section 15126.2[d]). New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. However, a project's potential to induce growth does not automatically result in growth. Growth can only happen through capital investment in new economic opportunities by the private or public sectors. Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, the growth-inducing potential of a project would be considered substantial if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies (e.g., SCAG). Substantial growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with the increase in project population and thus reducing or removing the barriers to growth. This occurs in suburban or rural areas where population growth results in increased demand for service and commodity markets responding to the new population. This type of growth is, however, a regional phenomenon resulting from introduction of a major employment center or regionally significant housing project. Additional commercial uses may be drawn to the area by the increased number of residents in the area as a result of a project; however, it is expected that any such development would occur consistent with planned growth identified in the General Plan or applicable specific plans.

As shown in previously referenced Tables 4.13.A and 4.13.B, the City's population has grown steadily over the past decades. Population projections developed by SCAG estimate the City's population will reach approximately 213,700 persons by the year 2020 and approximately 255,200 persons by the year 2035.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

The extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-inducing effect of a project. Construction of the WLC project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the WLC project will not generate a permanent increase in population within the project area. Development envisioned under the proposed WLCSP consists of approximately 40.6 million square feet of logistics warehouse and general warehouse facilities (WLCSP, September 2014).

An economic study of the project prepared by DTA concluded that the WLC project could directly generate up to 20,300 new jobs within the City.[1] In addition to the projected on-site job creation, the DTA study estimates the WLC project could generate new off-site jobs (i.e., indirect/induced employment) in all industries of the economy. The DTA study also estimated that an additional 7,386 indirect/induced jobs could be created in the County, of which 3,693 jobs were projected to be within the City as a result of project implementation. This estimate is derived from the Impact Analysis for Planning (IMPLAN) Input/Output Modeling System, which is a quantitative economic model that provides an approximate measure of the "multiplier effect" of a firm's spending on payroll and purchase of goods and services. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that some percentage of these jobs will be support service jobs and are likely to be located in the WLC project vicinity, and therefore the City.

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[1] Table B, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California (David Taussig & Associates, Inc., September 2014.

The WLC project does not include a residential component. The WLC project is located within an area that is currently largely vacant and planned for mix of residential, commercial, business park, and open space land uses in accordance with the General Plan Community Development Element. The WLC project includes a General Plan Amendment to change the existing mix of land use designations to Logistics Development and Light Logistics.

If approved, the WLCSP would supplant the approved Moreno Highlands Specific Plan (MHSP) project that did have a residential component. The EIR for that project indicated it would have increased the City's population by 17,019 persons over 15 years (7,736 units × 2.2 persons/unit). However, because the City is considered housing rich (and jobs poor) by SCAG, the loss of that projected population growth is not considered a significant impact and, in fact, a number of State policies (e.g., SB 375) encourage the creation and development of jobs-producing development in areas with poor jobs/housing numbers such as that which exists in the City.

Most of the site has been used for dry farming since the early 1900s and much of the WLC project site continues to be used for dry farming at the present time. Currently, there are seven single-family homes in various locations on the property along with associated ranch/farm buildings. Streets, water and sewer utilities, and municipal services would be extended to serve the WLC project. The WLC project may benefit other development projects in the project area by the installation of infrastructure (e.g., roads and utilities), but is not expected to induce substantial population growth into the area since there would be no large areas of vacant land left in the east end of the City (south of SR-60) that could be developed with residential uses.

Development of high-cube logistics warehouse and general warehouse facilities will create jobs in the local economy. However, it is difficult to predict exactly how many new jobs would be generated by the proposed WLCSP. One concern expressed during the NOP/scoping period was the amount of new employment that would actually be generated by the WLC project. Table 4.13.F provides several sources for estimating potential new direct employment for the project, which could range from 16,240 to 21,315 jobs, depending on what data source is selected to predict future employment within the WLCSP.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size and to clarify the discussion on projected jobs by the Skechers and HF Corporate Park.

Table 4.13.F: Comparison of Direct Employment Projections for Other High-Cube Logistics Projects

Source/Project (Jurisdiction)	Jobs / 1000 ft^2)	Square Feet/ Employee	Square Feet of Building	Projected Direct Jobs
World Logistics Center[1] Specific Plan (City of Moreno Valley)	0.5:1,000	2,000:1	40,600,000	20,300
Stratford Ranch[3] (City of Perris)	0.4:1,000	2,500:1	1,712,880	685
Skechers Only (City of Moreno Valley)	0.5:1,000	2,000:1	1,820,000	910[4]
Husing Logistics Report[5] (City of Moreno Valley)	0.525:1,000	1,906:1	NA	NA
Vogel Industrial Project[6] (City of Moreno Valley)	0.4:1,000	2,500:1	1,616,133	646

Table 4.13.F: Comparison of Direct Employment Projections for Other High-Cube Logistics Projects

Source/Project (Jurisdiction)	Jobs / 1000 ft^2)	Square Feet/ Employee	Square Feet of Building	Projected Direct Jobs

[1] DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 20110).

[3] Inland Empire Distribution Center Operations Profile, WCL Consulting, June 10, 2008. 2,500 square feet per employee is an average of the Inland Empire rates.

[4] Total projected direct employment.

[5] From Husing report to the City Council in January 2012 based on 2003 study by U.S. Energy Information Agency shipping and distribution centers increase by 5% making it 1 employee/ 2,000 square feet.

[6] Inland Empire Distribution Center Operations Profile, WCL Consulting, June 10, 2008. 2,500 square feet per employee is an average of the Inland Empire rates.

It should be understood that the actual eventual number of employees generated by the project will vary depending on a variety of economic factors (e.g., actual companies that relocate and current hiring conditions). The projected employment estimate also does not take into account relocation of existing employees from other jurisdictions as a result of existing businesses relocating into the WLC project. However, these would be counted as "new" employees for the City of Moreno Valley. For the purposes of this analysis, the EIR will use 20,300 employees working at the WLC or one employee per 2,000 square feet as a conservative estimate (in terms of environmental impacts) for future employment growth from WLCSP development.

The new employment opportunities resulting from development of the proposed high-cube logistics warehouse and general warehouse uses will raise the City's current jobs-to-housing ratio by providing additional jobs to local residents. While the place of residence of the persons accepting employment provided by the proposed uses is uncertain, due to the City's projected jobs/housing ratio, it is reasonable to assume and therefore expect that some percentage of these jobs would be filled by persons already living within the City or project area. Therefore, no significant increase in population of the City would result from the development or operation of the WLC project, resulting in a less than significant impact associated with growth inducement and no mitigation is required.

The second threshold for significance is "Would the WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?" In that regard, the following provides an analysis of the projected fiscal effects of the proposed WLCSP project.

Indirect City Population Impacts Related to Fiscal and Economic Changes. If the MHSP project is not built, it could be argued the City may experience a financial impact from the loss of property tax, sales tax, and other revenues related to growth and development. The following analysis demonstrates that the City will benefit financially by employment and development of logistics warehousing as a result of the WLCSP project.

As detailed in the DTA study, recurring municipal revenues available to the City include those listed in Table 4.13.G. Total recurring revenues available to the City are estimated at approximately $11,257,466 per year. As shown in Table 4.13.G, the greatest percentage of revenue is attributed to the Property Tax In-Lieu of Vehicle License Fee (40.2%), followed by Secured Property Tax (29.1%), and Business Receipts Tax and Licenses (10.8%).

Table 4.13.G: Recurring Fiscal Revenues City of Moreno Valley (City General Fund)

Source	Amount	Percent[1]
Property Tax In-Lieu of Vehicle License Fee	$ 4,522,818	40.2%

Table 4.13.G: Recurring Fiscal Revenues City of Moreno Valley (City General Fund)

Source	Amount	Percent[1]
Secured Property Tax	$ 3,276,191	29.1%
Business Receipts Tax & Licenses	$ 1,210,847	10.8%
Tax Revenues	$ 607,657	5.4%
Indirect Sales Tax	$ 423,144	3.8%
Charges for Services	$ 386,032	3.4%
Unsecured Property Tax	$327,619	2.9%
Franchises	$ 251,896	2.2%
Property Transfer Tax	$ 100,495	0.9%
Intergovernmental Revenues	$ 60,918	0.5%
Licenses/Permits	$ 57,771	0.5%
Direct Sales Tax	6,000	0.1%
Other Revenues	$ 12,285	0.1%
Fines and Forfeitures	$ 6,498	0.1%
Transfers In	$ 3,757	0.0%
Use of Money & Property	$ 2,538	0.0%
Total	**$ 11,257,466**	**100.0%**

[1] Numbers may not sum correctly due to rounding to the nearest hundredth.
Source: Table 3A, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates, September 2014.

Recurring municipal services costs to the City include those listed in Table 4.13.H. Total recurring costs to the City are estimated at approximately $5,557,674 per year. As shown in Table 4.13.H, the greatest percentage of cost is attributed to the Police Services (35.8%), followed by Infrastructure and Parks Maintenance Costs (34.1%), and Fire Services (13.3%).

Table 4.13.H: Recurring Fiscal Costs City of Moreno Valley (City General Fund)

Source	Amount	Percent[1]
Police	$ 1,992,019	35.8%
Infrastructure & Parks Maintenance Costs	$ 1,895,474	34.1%
Fire Services	$ 739,545	13.3%
General Government	$ 391,715	7.0%
Development Services	$ 211,893	3.8%
Public Works	$ 109,551	2.0%
Transfers Out	$ 63,761	1.1%
Other Uses	$ 63,659	1.1%
Animal Services	$ 47,719	0.9%
Community Development	$ 42,338	0.8%
Total	**$ 5,557,674**	**100.00%**

[1] Numbers may not sum correctly due to rounding to the nearest hundredth.
Source: Table 3B, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September, 2014.

Table 4.13.I provides an overall summary of the fiscal impact to the City based on projected revenues generated by the WLC project. As shown in Table 4.13.I, project recurring annual fiscal surplus that would be available to the City is estimated at $5,699,792, which is equal to 2.03 times the project annual City General Fund costs.

Table 4.13.I: Net Fiscal Impact City of Moreno Valley (City General Fund)

Category	Amount
Total Recurring Revenues	$ 11,257,466
Total Recurring Costs	$ 5,557,674
Annual Recurring Surplus/(Deficit)	**$ 5,699,792**
Total Annual Revenue/Cost Ratio	2.03

Source: Table 3C, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September 2014.

Table 4.13.J presents the project characteristics that are the basis for the fiscal impact assessment. The locations of the additional indirect jobs that will be created within the County cannot be specifically determined; however, some percentage of these jobs will be support service jobs and are likely to be located in the general project vicinity. Based on experience with similar types of projects, DTA estimated that half of these indirect jobs would be located within the City. The study also considers Total Output (i.e., total expenditures including sales or gross receipts, or other operating income) based on the different types of development projected to occur. For gross receipts, the study considers the initial or first-round increase in output (e.g., total spending/gross receipts, including payroll), all of which would occur directly on site. Indirect impacts represent the economic activity of supplier and/or supporting businesses. Induced impacts represent the economic activity that results from household spending by employees that may result from direct and direct employment generation of the WLC project.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size.

Table 4.13.J: Project-Related Economic Characteristics

Land Use Assumptions	**Square Feet**
Logistics Development (LD)	40,397,000
Light Logistics (LL)	200,000
“logistics support” fueling station	3,000
Employment Assumptions[1]	**Employees Per 1,000 Square Feet**
Logistics (LD/LL)	0.50
Retail (“light logistics”)	2.50
Wage Assumptions[2]	**Annual $**
Warehousing/Transportation (Logistics)[3]	$ 40,926
Construction	$ 48,825
Retail (“light logistics” fueling station)[4]	$22,885
Riverside County Average (2010)	$ 40,602

[1] Source: DTA Public Works Database; confirmed by “Employment Density Study,” SCAG (2001), and “Logistics Trends and Specific Industries,” NAIOP Research Foundation (March 20110).

[2] Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics Reports (California, 2010) for Riverside-San Bernardino-Ontario Metropolitan Area and Riverside County; confirmed by Bureau of Labor Statistics (May 2010).

[3] Standard Warehousing/Transportation Salary ($41,229) plus a small salary increase for 10% of employees to account for presence of high-level management and related office personnel.

[4] Reflects blended average by employee count of local “retail” and “food service/accommodation” salary codes

Source: Table 4A, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September 2014.

As previously noted, potential economic impacts that may occur with project implementation include permanent employment (direct on site and indirect/induced), permanent output (gross receipts; total direct output plus output produced by suppliers and employee spending), and one-time construction impacts. Table 4.13.K summarizes the permanent (recurring) employment, wage, and gross receipts values associated with the WLC project.

Table 4.13.K: Project Permanent (Recurring) Employment, Wages ,and Gross Receipts

Recurring Impact	Direct	Indirect/Induced	Total
Employees			
Countywide	20,307	7,387	27,693
Within City	20,307	3,693	24,000
Employee Wages			
Countywide	$831 Million	$ 300 Million	$ 1.13 Billion
Within City	$ 831 Million	$150 Million	$ 981 Million
Overall Output			
Countywide	$1.5 Billion	$ 870 Million	$2.37 Billion
Within City	$1.5 Billion	$435 Million	$1.94 Billion

Source: Tables 4B and 4C, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September 2014.

The DTA study indicates that the creation of new jobs to the City will lead to more consumer spending by employees in existing retail establishments within the City, as well as new retail development that will be attracted to the City as a result of this spending. Job creation also results in increased tax revenues to the City through increased property taxes and sales taxes associated with development of the WLC project. However, it is important to note that because of the difference in timing of the development of the various phases of the WLC project, the number of employees summarized above will not be realized at the same time.

Table 4.13.L summarizes the construction (one-time) employment, wages, and gross receipts values associated with the WLC project.

Table 4.13.L: Project Construction (One-Time) Employment and Wages and Gross Receipts

Recurring Impact	Direct	Indirect/Induced	Total
Construction Employees			
Countywide	12,807	7,426	20,233
Within City	12,807	3,714	16,521
Construction Wages			
Countywide	$625 Million	$301 Million	$ 927 Million
Within City	$625 Million	$151 Million	$776 Million
Total Output from Construction Jobs			
Countywide	$ 1.67 Billion	$ 932 Million	$ 2.6 Billion
Within City	$ 1.67 Billion	$ 466 Million	$ 2.14 Billion

Source: Tables 4D and 4E Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig and Associates, September 2013.

As summarized in Table 4.13.L, development of the WLC project is projected to create approximately 16,521 construction-related full-time equivalent (FTE) jobs within the City. Similar to recurring employment (i.e., permanent), it is likely that some percentage of these jobs will be associated with support services and are likely to be located in the vicinity of the WLC project and therefore within the City.

The WLC project does not include a residential component, so it would not directly generate additional new housing. Employees of the project that choose to live in the City would likely utilize the existing supply of housing within the City.

Based on the potential increase in jobs (additional 20,307 direct jobs) within the City and no substantial increase in population as a result of the project, the City's jobs-to-housing ratio would improve from the existing (2011) ratio of 0.45 to 0.82, thus achieving a greater jobs-to-housing balance within the City. Similarly, the potential new County employees that may be generated by the WLC project would increase the total County employment to 571,799 from 551,492 resulting in a ratio of 0.71 from 0.69.

As development of the WLC project is expected to occur over the course of many years, the jobs-to-housing ratio will not significantly change immediately. The City's current jobs-to-housing ratio is exceptionally low when compared to SCAG standards; therefore, the need for employment is immediate. A balance between jobs and housing within the City would have a positive impact by decreasing costs associated with commuting and traffic congestion. It also provides savings to consumers in the operation and maintenance of automobiles, and saving to local public agencies in terms of the need to construct and maintain new road improvements.

Summary of Impacts. Based on the foregoing discussion and as evidenced in Tables 4.13.I, 4.13.K, and 4.13.L, implementation of the WLC project would not result in a deficit in the City's General Fund. The estimated surplus is $5,699,792, which is equal to 2.03 times the projected annual City General Fund costs. Additionally, the WLC project is expected to generate sizeable, substantial, and lasting employment, wages, output, and revenues for the City and region. Therefore, potential fiscal and economic changes that could affect the City's population or housing are considered to be less than significant, and no mitigation is required.

4.13.5.2 Displace Substantial Housing/People

Threshold	Would the WLC project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?

Displace Existing People/Housing. The WLC project site currently contains seven rural residences. At the City Council meeting on May 22, 2012, some of the existing residents stated that they did not want to be included in the Specific Plan. After deliberation, the Council decided to include the rural properties in the Specific Plan in the interest of comprehensive land planning for the WLC property. Upon approval of the Specific Plan, these properties can continue as non-conforming uses, and the WLC Specific Plan designates these properties as "Light Logistics" (LL), which allows for future industrial-related uses (vehicle storage, light assembly, etc.). In this way, the WLCSP will not remove or displace any of the existing residents or residences from the project site. As large warehouse buildings are developed near or adjacent to these residences, it may become less desirable to reside within the WLCSP area; however, the project itself does not cause housing displacement.

Therefore, impacts to the seven on-site residences would not be considered a significant housing impact. For these reasons, the WLCSP will not have significant population or housing impacts related to displacing substantial numbers of people or existing housing.

Displace Potential Future People/Housing. The City of Moreno Valley has been housing "rich" for many years, with much more housing stock than jobs according to data available from the SCAG. In addition, the recent economic downturn and related foreclosure/short sale conditions have left Moreno Valley, as with many housing rich communities, with an overabundance of housing stock. Section 4.10, *Land Use and Planning*, examines the potential environmental impacts related to the "loss" of 388 affordable housing units from the MHSP, as outlined in the City's 2011 Housing Element. The Element acknowledges that the MHSP property may have to be used for employment-generating uses, and that "land use changes with the Moreno Highlands Specific Plan area will not hinder the City's ability to meet its RHNA obligations."[1] The 2011 Housing Element therefore documents that the City has an abundant supply of housing and can meet its RHNA requirements without relying on any units from the MHSP.

During the NOP/scoping process, several residents commented that development of the proposed WLCSP would result in the loss of 7,700 housing units from the project site that would have to be "made up" elsewhere in the City. The 2006 City Housing Element identified a potential for 5,240 units of the potential 7,700 housing units in the Moreno Highlands Specific Plan. However, an updated Housing Element adopted by the City in February 2011 indicated the Moreno Highlands area would be rezoned to support employment-generating uses rather than housing. It also concluded that "pursuing any land use changes with the Moreno Highlands Specific Plan area will not hinder the City's ability to meet its RHNA obligations." The term RHNA refers to the Regional Housing Needs Allocation (affordable housing allocations) from the SCAG.

Table 8-19.5 in the 2011 Housing Element states that after removing sites south of SR 60 and east of Redlands Boulevard, the Amended Inventory throughout the City west of Redlands accommodates:

- 4,100 Low and Very Low Income units, which is 1.3 times the RHNA number (3,045) (deleting sites south of SR-60 and east of Redlands Boulevard has no effect on low and very low income housing opportunities);
- 2,600 Moderate Income units, which is 2.1 times the RHNA number (1,239);
- 7,828 Above Moderate Income units, which is 2.5 times the RHNA number (3,068); and
- 14,528 total identified units, which is 1.94 times the total RHNA number (7,474).

Therefore, removal of the 388 affordable units originally identified in the MHSP (Table 8-19, page 40 of the Housing Element), including 233 "Very Low" and 155 "Low" units, will not have a significant impact on the City's Housing Element or its ability to achieve its RHNA allocation.

The State Housing and Community Development Department (HCD) certified the City's Housing Element as compliant with State law on May 31, 2011. This State HCD certification reinforces the conclusion that approval of the project will not impede the City's housing goals as set forth in the City's Housing Element.

In April 2011, the City adopted its Economic Development Action Plan, which also identified the eastern part of the City as a potential area for major job-producing land uses. The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* ("Study") prepared by DTA in 2014 concluded that the WLC project would generate 20,307 direct jobs/employees to the City. Section 4.10.5.3 determined that the WLC project is consistent with the 2011 Housing Element, and it will not displace substantial numbers of existing housing or necessitate the construction of replacement housing elsewhere. Therefore, no significant displacement impacts relative to people or housing are expected to occur, and no mitigation is required.

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[1] Page 41, City of Moreno Valley Housing Element, February 2, 2011.

4.13.6 Significant Impacts

Based on the analysis in Section 4.13.5, the WLC project will not have any significant impacts relative to population, housing, or employment. Therefore, no mitigation is required. However, in response to Comment F-8-94 and other related comments, the Final EIR Volume 1 recommends the City add the following text to the WLCSP Development Agreement approval with the concurrence of the applicant:

> "*Highland Fairview will establish a WLC Local Hiring Program to actively encourage the hiring of Moreno Valley residents for job opportunities at the World Logistics Center. Highland Fairview will encourage its contractors, suppliers and tenants to be active participants in a Moreno Valley Employment Resource Center (ERC) job opportunity announcement program.*
>
> *World Logistics Center employers will be encouraged to submit all job announcements to the Moreno Valley Employment Resource Center at least one week prior to providing such announcements to other agencies or to the general public. Potential employers will be urged to provide information regarding job opportunities to the ERC including details regarding job titles, minimum qualifications, application processes, and employer contact information.*"

~~4.13.7 Cumulative Impacts~~

~~The cumulative area for the discussion of population and housing impacts is the City of Moreno Valley. The proposed WLC project would require a General Plan Amendment and Zone Change to re-designate the site from a mix of land uses and zoning designations to Logistics Development and Public Utility land uses and a Specific Plan zoning designation. The project would not contribute to substantial population growth and therefore would not result in an increased demand on the current or future housing in the region. In addition, the Moreno Valley area is considered housing rich and jobs poor by SCAG, so the loss of population (and planned housing) would actually be a regional benefit according to the Regional Transportation Plan. The project may result in an influx of new workers who would need to locate temporarily or permanently in the area, but the City has an overabundance of existing housing stock due to current market conditions. Implementation of the proposed WLC project would actually benefit population and housing conditions relative to employment and jobs/housing ratio and, therefore, not result in cumulatively adverse impacts to population or housing. The WLC project would also not significantly induce growth into areas where growth was not previously anticipated since the WLC project area represents the last largest remaining vacant land in the City of Moreno Valley.~~

~~4.14 PUBLIC SERVICES AND FACILITIES: TABLE OF CONTENTS~~

~~FIGURES~~

~~TABLES~~

NOTE TO READERS. *The cumulative portion of Section 4.14 has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.14 of this Revised Sections of the FEIR. All other portions of Section 4.14 of the FEIR remain unchanged. The absence of reference to a portion of Section 4.14 means that the corresponding portion of Section 4.14 in the FEIR remains unchanged or has been deleted.~~No major revisions have been made to this section in response to comments other than changes related to the revised Specific Plan~~.*

4.14 PUBLIC SERVICES AND FACILITIES

This EIR discussion includes an evaluation of police and fire services, as well as schools and parks. The analysis considers these public services in the project vicinity and evaluates the impacts to service providers that would result from the construction and operation of the proposed uses as described in the Specific Plan. The analysis contained in this section is based on the following reference documents:

- City of Moreno Valley General Plan, City of Moreno Valley, July 11, 2006;
- City of Moreno Valley General Plan Final EIR, City of Moreno Valley, July 2006;
- Letter from Joel Ontiveros, Moreno Valley Police Department Chief, July 10, 2012;
- Letter from City Fire Chief Abdul R. Ahmad dated June 27, 2012;
- Moreno Valley School District website information on Developer Impact School Fees; and
- San Jacinto Unified School District website May 2012.

~~NOTE: The following changes have been made due to revision to the Specific Plan project size~~.

For the reader's reference, this EIR has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the development. ~~and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

This section describes the existing public services within the City of Moreno Valley. The project site consists of the lands within the project boundaries and the project vicinity. The project vicinity consists of areas adjacent to the project site. This section differs slightly from other sections in that it is organized by the public service provider so continuity is maintained. Police Service is found in Section 4.14.1, Fire Protection is found in Section 4.14.2, Schools are found in Section 4.14.3, Parks are found in Section 4.14.4, and Cumulative Impacts are found in Section 4.14.5.

4.14.1 Police Protection

4.14.1.1 Existing Setting

The City of Moreno Valley contracts with the Riverside County Sheriff's Department (RCSD) for police services. Through this contract, the RCSD staffs the Moreno Valley Police Department (MVPD). The MVPD Chief provided a letter on July 10, 2012, that provided the following information on police service in the City. The MVPD has a service area of 51.5 square miles and a service population of 196,495 people. The main police station is located in the City Public Safety Building (PSB) at 22850 Calle San Juan De Los Lagos in Moreno Valley. In addition, the MVPD operates four storefront substations throughout the City. The MVPD occupies 44,800 square feet or 98 percent of the 45,900-square foot PSB with the remainder used by the City Fire Department. The MVPD also utilizes 405 parking spaces in the PSB secured lot. The MVPD Chief has indicted the PSB and parking lot are already at or near full capacity at this time. The MVPD maintains five operational divisions: Patrol, Detective, Special Enforcement, Traffic, and Administrative.

The MVPD handles a service demand of more than 130,000 calls for service (CFS) each year. The MVPD has a current demand of 657 CFS per year per sworn officer, and each deputy on patrol averages 8 CFS per 10-hour shift. There are no set response time goals, but the current response times average 6.15 minutes for Priority 1 calls (emergency), 13.8 minutes for Priority 2 (service need) calls, and 32.4 minutes for Priority 3 (business) calls.

Police services are paid for out of the City of Moreno Valley General Fund. There are currently 255 employees working at the MVPD and 198 of them are sworn peace officers. The MVPD maintains 166 vehicles to support its operations but does not have any commercial vehicle enforcement equipment or personnel at this time.

According to the Federal Bureau of Investigation, Uniform Crime Reporting Program, the national average for police department staffing is 2.3 officers per 1,000 residents. By comparison, the nationwide average for cities of comparable size to Moreno Valley is 1.8 officers per 1,000 residents, while the average for "west coast" area cities of comparable size is 1.2 officers per 1,000 residents. The police service ratio within the City is 1.0 officer per 1,000 citizens, and the City has indicated a commitment to maintain that ratio.

The PSB is approximately 6.5 miles from the project site and would be the closest station to service the project site. The WLC site is located within City Beat 46 (MV46) but there are few calls from the project site at present.

NOP/Scoping Comments. Several residents asked during the scoping process what the impact of the project would be on existing and future public services like police and fire.

4.14.1.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

Safety Element Policies

6.8.1 Explore the most effective and economical means of providing responsive and adequate law enforcement protection in the future.

6.9.2 Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.

6.9.3 Incorporate "defensible space" concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.

6.11.1 Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.

6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.

~~*NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.*~~

Ultimate Goals

VII Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.

City of Moreno Valley Municipal Code. Pursuant to Moreno Valley Municipal Code Section 3.42.070, the project is subject to Police Facilities Commercial and Industrial Development Impact Fees. These fees contribute to the police services facilities provided for in the Existing General Plan area and Capital Improvement Projects. The fees provide financing for the acquisition of land for police and fire facilities as well as design, construction, improvements, and maintenance to the extent permitted by law.

4.14.1.3 Methodology

Based on discussion with City staff and previous environmental documents prepared by the City, the evaluation of impacts associated with the project on police services includes the following:

- Determine the existing police response time for the City based on RCSD goals;
- Determine the length of time for police services to arrive at the project site based on average travel time;
- Compare existing police response time and potential police response time; and
- Determine funding mechanism for future police services, staff, and facilities.

Police service funding impacts were evaluated by identifying compliance with local and RCSD goals and policies. Response time impacts were evaluated by comparing existing and anticipated average responses through RCSD response time goals.

4.14.1.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines,* police protection impacts would be considered significant if the following condition resulted from the construction or operation of the project:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

4.14.1.5 Less than Significant Impacts

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services?

The development and operation of the project would increase demand for police protection services. In addition, the MVPD Chief has indicated the department would not be able to maintain current service levels if the WLC project were built. Initially, crimes of grand theft and malicious mischief during construction would be the potential major crime issue. However, it is anticipated that private security would be utilized during the construction process, similar to other private security services that are utilized for other construction projects in the City. Typical operational police protection services involved with warehouse uses include after-hours patrol. Potential impacts would take the form of a need for expanded police protection services routinely associated with industrial growth, including routine patrols, responding to calls for service such as graffiti or vandalism, robbery, etc. In addition, commercial enforcement will be needed on surrounding streets. The number of additional service calls and call response times would slowly increase, and overall service levels would decrease incrementally as more warehouse buildings were built on the project site. The proposed warehouse uses would generate new employment opportunities. The new jobs that would be created by the project would probably not induce substantial population growth within the City, because most of the new jobs would either be filled by residents of the City and surrounding areas or transfer from existing jobs to the project site for existing warehousing that relocates to the WLC project site.

In his July 10 letter, the City Police Chief concluded that buildout of the WLC project would create a need for 15 full-time sworn officers, 4 classified staff, 2,635 square feet of new police building area, 11 police vehicles, and 24 more secured parking spaces. The Chief also concluded buildout of the WLC project would generate a need for two additional commercial enforcement vehicles and all the related equipment, the addition of two full-time sworn commercial enforcement police officers, and training for those officers.

According to the 2004 City of Moreno Valley Community and Economic Profile, a majority of funding for police protection services is funded through sales tax revenue. In addition, the project will be subject to all applicable impact fees at the time specific development is proposed.

The City collects fees from developers to offset police-related service impacts associated with new development. These development impact fees (DIFs) are one-time charges applied to new development and are imposed to raise revenue for the construction or expansion of capital facilities. DIFs enable the City to collect fair-share fees from new development projects to fund new infrastructure and services. In the City, developers are also required to pay development fees per square foot of development to offset impacts associated with increased demand on law enforcement services. DIFs are collected for specific infrastructure needs and are deposited into different accounts representing these requirements. The project would be designed and operated per applicable standards required by the City for new development in regard to public safety. In addition, the project would be required to pay development fees used to fund capital costs associated with constructing new public safety structures and purchasing equipment for new public safety structures.

The proposed WLCSP project will result in an increased need for police services as the project builds out. Serving the WLCSP project would initially require additional patrol and service time from existing staff, but would require additional personnel and/or equipment as new development is added.

Building security is a critical component of contemporary logistics facility design. Site design features routinely include restricted vehicular and pedestrian access, perimeter fencing and walls, and full-coverage cameras and monitoring systems. Tenants typically employ full-time security personnel and sophisticated internal security and monitoring systems. Facilities that operate as “Free Trade Zones,” as established by the U.S. Customs Service, are required to install and maintain extensive internal and external security facilities and systems.

General Plan and Municipal Code Consistency. Table 4.14.A evaluates whether the project is consistent with the City’s General Plan policies and Municipal Code requirements relative to police service

~~*NOTE: The following analysis was added to the table in response to Comment F-13-32 in Letter F-13 from the Sierra Club et al.*~~

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies		Project Consistency
Ultimate Goals		
VII	Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.	**Consistent.** The project will be consistent with this goal regarding public services by providing future sites and/or facilities for fire and police facilities as development occurs. The project will also protect onsite and offsite uses from flooding and other hazards. The revised air quality study indicates the project will not result in significant offsite health risks for adjacent land uses based on the SCAQMD ten in one million threshold for cancer risks.

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies	Project Consistency
Community Design Element Policies	
2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** Initial project construction can be accommodated by existing police service. As development continues, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including police. As development occurs within the project, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
Safety Element Policies	
6.8.1 Explore the most effective and economical means of providing responsive and adequate law enforcement protection in the future.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including police. As development occurs within the project, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
6.9.2 Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.	**Consistent.** The Specific Plan provides site and building lighting guidelines for future development to discourage crime. In addition, many of the on-site uses will have gated access and private security, reducing the need for additional City police services.
6.9.3 Incorporate “defensible space” concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.	**Consistent.** The Specific Plan provides site and building design guidelines, including fencing and walls, lighting, security cameras, to discourage crime. In addition, many of the uses will have gated access and private security, reducing the need for additional City police services.
6.11.1 Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.	**Consistent.** Development according to the Specific Plan will allow full emergency access to this portion of the City as new buildings are constructed.
6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.	**Consistent.** Development according to the Specific Plan will allow regional emergency access to this portion of the City from SR-60 and Gilman Springs Road.

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies	Project Consistency
City of Moreno Valley Municipal Code	
Pursuant to Moreno Valley Municipal Code Section 3.42.070, the project is subject to Police Facilities Commercial and Industrial Development Impact Fees. These fees contribute to the police services facilities provided for in the Existing General Plan area and Capital Improvement Projects. The fees provide financing for the acquisition of land for police and fire facilities as well as design, construction, improvements, and maintenance to the extent permitted by law.	**Consistent.** All development within the Specific Plan will pay applicable Development Impact Fees to the City.

The project is consistent with the City General Plan policies and Municipal Code requirements relative to police services.

The WLCSP requires building and site design characteristics that specifically support police services by encouraging buildings that are safe and can be secured by design, fencing, security services, etc. The proposed WLCSP design guidelines are consistent with the goals of the General Plan relative to police protection and site design, as outlined in Section 4.14.1.2. In addition, future development within the WLCSP will be required to comply with the City's Development Impact Fee (DIF) requirements as new development is constructed. It is anticipated that DIF revenues will help fund additional equipment needs and increased property taxes would help fund increased service or staffing needs. Therefore, the project will have less than significant impacts relative to police service, and no mitigation is required.

4.14.1.6 Significant Impacts

Based on the analysis in Section 4.14.1.5, the project will have no significant impacts relative to police protection.

4.14.2 Fire Protection

4.14.2.1 Existing Setting

The following information is based in part on a letter from the City Fire Chief dated June 27, 2012. The City of Moreno Valley Fire Department (MVFD) contracts with the Riverside County Fire Department (RCFD) to provide fire protection, fire prevention, and emergency services. The RCFD is administered and operated by the California Department of Forestry and Fire Protection (CalFire). Within the City, the objective of the MVFD is to have an engine company arrive on the scene of a fire or emergency medical aid situation within four minutes of a notification (i.e., dispatch) 90 percent of the time and a complete first alarm assignment within eight minutes[1] 90 percent of the time. Moreno Valley is served by six fire stations and a one-minute preparation time plus a four-minute travel time to fire incidents and emergency medical aid calls (90% of the time) is considered to be the maximum time standard for serving urban and suburban uses in accordance with the National Fire Protection Association (NFPA) 1710 standard. The City requires any new developments to provide adequate fire suppression water flows. The MVFD responds to medical aid calls with advance life support services.

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[1] Station assigned to respond after first responder assesses situation.

The MVFD participates in the Regionalized Cooperative Fire Protection Delivery System of Riverside County Fire/CalFire. This system ensures that the closest and most appropriate resources are dispatched to all requests for fire department emergency services regardless of jurisdiction.

The MVFD main office is located in the City PSB at 22850 Calle San Juan De Los Lagos in Moreno Valley. The MVFD occupies 1,100 square feet or 2 percent of the 45,900-square foot PSB, plus parking in the PSB secured lot. The City Police Chief has indicted the PSB and parking lot are already at or near full capacity at this time, so it is assumed this conclusion also applies to the Fire Department as well.

The City of Moreno Valley has six existing fire stations and one proposed fire station within the City limits as summarized in Table 4.14.B. Fire Station 58, Moreno Beach Station, is located at 28040 Eucalyptus Avenue and is the closest station to the project site. This station is approximately 1.25 miles northwest of the western limits of project site. The station is staffed on a 24/7 basis by three firefighters, one engine, one reserve aerial ladder truck, and a rescue squad.

Municipal Code Section 3.42.060 provides for the collection of Fire Facilities Commercial and Industrial DIFs and states that these fees shall be paid by applicants for commercial and industrial projects prior to the issuance of applicable building or occupancy permits.

NOP/Scoping Comments. During the NOP period, a comment was made about a future fire station planned at Redlands Boulevard/Brodiaea Avenue. Fire Chief Abdul R. Ahmad's letter (June 27, 2012) cites potential fire danger from the project being within both a high fire risk category and a non-fire high hazard risk category from building types, from emergency incidents (both fire and non-fire) during construction of the various phases of the project, and from being partially within a State-designated Very High Fire Hazard Severity Zone.

Table 4.14.B: Moreno Valley Fire Stations

Fire Station	Address	Personnel	Equipment
Station 2 (Sunnymead)	24935 Hemlock Avenue	7 Firefighters	1 Engine 1 Aerial Ladder Truck (100 foot) 1 Urban Search and Rescue Trailer
Station 6 (Towngate)	22250 Eucalyptus Avenue	3 Firefighters	1 Engine 1 Reserve Engine
Station 48 (Sunnymead Ranch)	10511 Village Road	3 Firefighters	1 Engine 1 Reserve Engine
Station 65 (Kennedy Park)	15111 Indian Street	3 Firefighters	1 Engine 1 Reserve Engine
Station 58 (Moreno Beach)	28040 Eucalyptus Avenue	3 Firefighters	1 Engine 1 Reserve Aerial Ladder Truck 1 Rescue Squad
Station 91 (College Park)	16110 Lasselle Street	7 Firefighters	1 Engine 1 Rescue Squad 1 Aerial Ladder Truck (75 foot)
Station 99 (Morrison Park) *Opened October 2012*	13400 Morrison Street	3 Firefighters	1 Engine

Source: Table 5.13-1 City of Moreno Valley General Plan Final EIR, July 2006; Moreno Valley Fire Department, 2012.

4.14.2.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

Safety Element Policies

6.11.1 Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.

6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.

6.13.1 Provide fire safety education to residents of appropriate age.

6.14.2 Relate the timing of fire station construction to the rise of service demand in surrounding areas.

6.15.1 Encourage programs to minimize the fire hazard, including but not limited to the prevention of fuel build-up where wildland areas are adjacent to urban development.

6.15.2 Tailor fire prevention measures implemented in wildland areas to both the aesthetic and functional needs of the natural environment.

6.16.1 Ensure that ordinances, resolutions and policies relating to urban development are consistent with the requirements of acceptable fire safety, including requirements for smoke detectors, emergency water supply and automatic fire sprinkler systems.

6.16.2 Encourage the systematic mitigation of existing fire hazards related to urban land development or patterns of urban development as they are identified and as resources permit.

6.16.3 Ensure that adequate emergency ingress and egress is provided for each development.

City of Moreno Valley Municipal Code. Municipal Code Section 3.42.060 provides for the collection of Fire Facilities and Commercial and Industrial Development Impact Fees and states that fees shall be paid by applicants for commercial and industrial projects prior to the issuance of applicable building or occupancy permits.

4.14.2.3 Methodology

Based on discussion with City staff and previous environmental documents prepared by the City, the evaluation of fire service impacts associated with the project includes the following:

- Determine the existing fire response time for the City based on Moreno Valley Fire Department goals identified in the Moreno Valley Fire Department Strategic Plan 2012–2022;[1]

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[1] *Moreno Valley Fire Department Strategic Plan 2012–2022*, Moreno Valley Fire Department, December 2011.

- Determine the length of time for fire services to arrive at the project site based on average travel time;
- Compare existing fire response time and potential fire response time; and
- Determine the funding mechanism for future fire services and facilities.

Fire service funding impacts were evaluated by estimating compliance with local and RCFD goals and policies as indicated in the Moreno Valley Fire Department Strategic Plan 2012–2022. Response time impacts were evaluated by comparing existing and anticipated average responses with MVFD response time goals.

4.14.2.4 Threshold of Significance

Based on Appendix G of the *CEQA Guidelines*, impacts to fire protection services would be considered significant if the following condition resulted from the construction or operation of the project:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

4.14.2.5 Less than Significant Impacts

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire-fighting facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire services?

The majority of the project site is currently undeveloped. The development and operation of the project would increase the demand for fire protection, prevention, and emergency medical services. Time is the critical component in fire/medical emergencies. Reductions in the emergency response time or the distance between fire/medical facilities and the site of an emergency would result in improved service and saved lives and property.

Construction materials for the warehouse buildings would likely be reinforced concrete and steel. Although fire occurring during the construction period for such buildings is rare, when they do occur they tend to be catastrophic due to a lack of completed fire protection and detection systems and the presence of considerable amounts of combustible materials that are normally on site during the construction phases. California Fire Code Section 8704 establishes fire safety standards for sites during the construction phase. All on-site construction as well as the use and storage of construction materials is required to conform to fire prevention/protection standards established by the RCFD, MVFD, and/or the City, which mirror standards prescribed in the California Fire Code. Adherence to safety standards required for sites during the construction phase established by the MVFD and/or the City would ensure that potential impacts during construction remain less than significant. Since portions of the project site are located within a State-designated Very High Fire Hazard Severity Zone, development within these zones is required to implement special construction features set forth in Chapter 7A of the California Building Code (CBC). Adherence to these specific requirements would ensure that potential impacts during construction remain less than significant.

All new development within the project would be required to pay DIFs to the City. These fees are determined by the City Council, in consultation with the Fire Prevention Bureau, based on an assessment of the activity occurring within the City as well as the needs of the City. Such fees would be used to fund capital costs associated with land acquisition, construction, purchasing equipment, and providing for additional staff.

The project will require that fire services be extended to the project site. In consultation with the MVFD through a letter dated June 27, 2012, submitted by Fire Chief Ahmad, the MVFD has identified that the estimated travel time from Fire Station 58 (the closest station to the project site) to the middle of the project site would exceed the NFPA 1710 standard for fire response time in the event of an emergency incident. Additionally, the MVFD identifies that buildings under construction are susceptible to fire and are likely to have a high rate of fire spread due to the absence of fire protection systems, fire detection systems, and fire protection features. Buildings under construction also lack compartmentalization of the interior to slow the rate of fire spread. The MVFD letter also notes that Fire Station 99 is expected to open in October of 2012;[1] however, the opening of an additional fire station would still result in service levels at the project site being below the NFPA 1710 standard.

The project would increase the need for fire services and would potentially affect the MVFD's ability to maintain current service levels within the City. Additional service would be needed in the form of new facilities, personnel, and/or equipment. The City of Moreno Valley does not set a ratio of personnel per population, nor does it set equipment and staffing levels; rather, additional personnel and equipment are based on assessment of the activity occurring in the City, including but not limited to, calls for service and response times in order to meet or exceed the NFPA 1710 standard, the California Fire Code, and City Municipal Code Amendments. According to the 2004 City of Moreno Valley Community and Economic Profile, a majority of funding for fire protection services is from sales tax revenue. The project will be subject to all applicable development impact fees.

In his June 27, 2012, letter, the Fire Chief indicated the Fire Department would require "construction of a fire station during the first phase of this project. The fire station shall be located on 1.5 acres of land and the facility shall be approximately 11,000 square feet in size. This location shall be identified by the Fire Chief prior to the approval of the specific plan for the World Logistics Center. Initially, this station will require the purchase of an aerial ladder truck, which will be staffed daily by four Fire Department personnel for a total of twelve personnel to provide seven-day-a-week, twenty-four-hour-a-day coverage of the aerial ladder truck. During the final phase of construction, the Fire Department will require an additional fire apparatus to be purchased and staffed. This shall consist of a fire engine with a daily staffing of three Fire Department personnel for a total of nine personnel to provide seven-day-a-week, twenty-four-hour-a-day coverage."

As previously described, the project would be designed, constructed, and operated per applicable fire prevention/protection standards established by the City. Such requirements include (but shall not be limited to) provisions for smoke alarms; sprinklers; building and emergency access; adequate emergency notification; and hydrant sizing, pressure, and siting. Due to the size and nature of the project and the potential for increased emergency incidents resulting from increased development and truck traffic will increase as development occurs, but payment of DIF fees and increased property taxes will offset increased service costs for this type of project. In addition, the Section 2.2.6 of the WLC Specific Plan indicates a future 1.5-acre urban fire station site will be dedicated to the City to help offset increased fire service needs. With these provisions, the project will have a less than significant impact on fire services.

General Plan and Municipal Code Consistency. Table 4.14.C evaluates whether the project is consistent with the City's General Plan policies and Municipal Code requirements relative to fire service.

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[1] Fire Station 99 (Morrison Park) opened in October 2012.

Table 4.14.C: Project Consistency with General Plan Policies and Municipal Code Requirements for Fire Service

General Plan Policies		Project Consistency
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** Initial project construction can be accommodated by existing fire protection service. As development continues, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including fire protection. As development occurs, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
Safety Element Policies		
6.11.1	Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.	**Consistent.** Development according to the Specific Plan will allow emergency access to this portion of the City as new industrial warehouses are constructed.
6.12.1	Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.	**Consistent.** Development according to the Specific Plan will allow regional emergency access to this portion of the City from SR-60 and Gilman Springs Road.
6.13.1	Provide fire safety education to residents of appropriate age.	**Consistent.** The project is for industrial warehouses and this policy generally applies to residential uses; however, warehouse operators will provide fire safety instruction and information to employees as encouraged by the Fire Department.
6.14.2	Relate the timing of fire station construction to the rise of service demand in surrounding areas.	**Consistent.** Initial project construction can be accommodated by existing fire protection service. As development continues, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
6.15.1	Encourage programs to minimize the fire hazard, including but not limited to the prevention of fuel build-up where wildland areas are adjacent to urban development.	**Consistent.** The Specific Plan provides site and building lighting guidelines for future development to discourage crime. Landscape palettes designed to reflect fuel modification criteria in wildland areas.
6.15.2	Tailor fire prevention measures implemented in wildland areas to both the aesthetic and functional needs of the natural environment.	**Consistent.** A portion of the project is in a High Fire Hazard Severity Zone and special construction features of the California Building Code will apply.
6.16.1	Ensure that ordinances, resolutions and policies relating to urban development are consistent with the requirements of acceptable fire safety, including requirements for smoke detectors, emergency water supply and automatic fire sprinkler systems.	**Consistent.** Future development will be required to comply with applicable fire protection requirements of the California Building Code.

Table 4.14.C: Project Consistency with General Plan Policies and Municipal Code Requirements for Fire Service

General Plan Policies		Project Consistency
6.16.2	Encourage the systematic mitigation of existing fire hazards related to urban land development or patterns of urban development as they are identified and as resources permit.	**Consistent.** Future warehouse development will have fire access lanes, building sprinkler systems and other fire suppression equipment and personnel to minimize fire-related risks.
6.16.3	Ensure that adequate emergency ingress and egress is provided for each development.	**Consistent.** Development according to the Specific Plan will allow emergency access to this portion of the City as new industrial warehouses and roadways are constructed.
City of Moreno Valley Municipal Code		
Pursuant to Moreno Valley Municipal Code section 3.42.060, Fire Facilities and Commercial and Industrial Development Impact Fees, states that fees shall be paid by applicants for commercial and industrial projects in the amounts adopted by the City Council by resolution from time to time. Neither building permit nor occupancy permit will be issued for any new commercial, industrial, or other non-residential building or structure unless the specified fees are paid.		**Consistent.** Future development within the Specific Plan will pay applicable Development Impact Fees to the City for fire-related services.

The project is consistent with the City General Plan policies and Municipal Code requirements relative to fire protection services.

~~*NOTE: The following information was added as a result of revisions to the WLC Specific Plan.*~~

The WLCSP will dedicate a new 1.5-acre urban fire station site within its boundaries to allow for expansion of fire protection services as the project develops (see WLCSP Section 2.2.4). The revised WLCSP indicates the new fire station will be at the north end of Planning Area 11, and it is required to be built during Phase I. Placement of the fire station is subject to review and approval by the Fire Chief (WLCSP Section 2.2.4 First Station Site).The WLCSP also requires building and site design characteristics that specifically support fire services by encouraging buildings that are safe and can be secured by design, fencing, security services, etc. The proposed WLCSP design guidelines are consistent with the goals of the General Plan relative to fire protection and site design, as outlined in Section 4.14.2.2. Finally, future development within the WLCSP will be required to comply with the City's DIF requirements as new development is constructed. Therefore, the project will have less than significant impacts relative to fire protection service, and no mitigation is required.

4.14.2.6 Significant Impacts

Based on the analysis in Section 4.14.2.5, the project will have no significant impacts relative to fire protection.

4.14.3 Schools

4.14.3.1 Existing Setting

The project area is served by two school districts, the Moreno Valley Unified School District (MVUSD) and the San Jacinto Unified School District (SJUSD) and is home to the Moreno Valley campus of Riverside Community College (RCC). The MVUSD operates a total of 30 schools; 20 elementary, six middle, and four high schools. The SJUSD encompasses the far southeastern portion of the project site (approximately 30 acres) and operates seven elementary schools, three middle schools, and two high schools.

NOP/Scoping Process. A number of residents were concerned about the WLC project only bringing in a small number of blue collar workers in a limited field (logistics warehousing), and that it would not help diversity or benefit to the workforce of the City (or their level of education) as a whole.

4.14.3.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

City of Moreno Valley Municipal Code. The project will be located mainly within the MVUSD with a small part in SJUSD. These school districts currently impose fees of $0.51 and $0.47, respectively, per square foot on new industrial construction to offset the cost of providing new school facilities. The project will be subject to these fees at the time of building permit issuance. However, no homes and no significant generation of school-aged children would be developed as part of the project.

4.14.3.3 Methodology

Evaluation of school service impacts associated with the project includes the following:

- Potential for student generation of the project in ways that would have direct or indirect impacts on local school districts;
- Cause other indirect educational impacts; and
- Cause negative impacts on existing or future school facilities or programs.

School impacts were evaluated by estimating compliance with local school district impact fee programs.

4.14.3.4 Thresholds of Significance

According to Appendix G of the *CEQA Guidelines*, a project would have a significant impact to schools if it would result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives.

4.14.3.5 Less than Significant Impacts

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Section 4.13.5.1 indicates the project is expected to generate from 15,000 to 25,000 new jobs for the City and surrounding areas; however, it is speculative to estimate how many of those workers will actually live within the City and how many will commute from other areas. Although the exact number is speculative, any increase is not expected to be substantial and will not generate significant new demands related to need for new or altered school facilities. The project is an industrial project and not a residential project that would have a direct impact on school services by accommodating additional residents within the City. Construction of the project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the project will not generate a permanent increase in population within the project area.

California Government Code (§65995[b]) establishes the base amount of allowable developer fees imposed by school districts. These base amounts are commonly referred to as “Level 1 fees” and are subject to inflation adjustment every two years. School districts are placed into a specific “level” based on school impact fee amounts that are imposed on the development.

Unlike residential development, where it is possible to ascertain impacts to a particular school or school district, because employees at a warehouse facility could reside in any number of school districts with their children attending a collection of schools, it is difficult to determine with any level of certainty what the potential impacts to a particular school or school district would be.

The project site is located within the jurisdictional boundaries of the MVUSD and SJUSD. The MVUSD imposes development fees of $0.51 per square foot of industrial development.[1] The SJUSD imposes development fees of $0.47 per square foot of industrial development.[2] These development fees are equal to the minimum fee established by the State (Level 1 fees). Per California Government Code (§ 65995[h]), “The payment or satisfaction of a fee, charge, or other requirement levied or imposed … are hereby deemed to be full and complete mitigation of the impacts … on the provision of adequate school facilities.”

It is anticipated that most of the new employment opportunities generated by the project will be filled by persons already residing in the community and surrounding areas. Because employees of the proposed on-site uses would be drawn from the local area, no substantial increase in population or corresponding increase in students attending local schools will occur. In addition, the project proponent would be required to pay these development fees in accordance with Government Code 65995 and Education Code 17620.

The project contains no residential development, so it would not cause a significant increase in the local population that would increase the number of students attending local schools (see Section 4.13, *Population and Housing*). Since payment of the school impact fees is required of all projects within MVUSD and SJUSD boundaries, impacts to school services and facilities would not occur. The WLC project is also consistent with the applicable General Plan policies in Section 4.13.3.2 as it will assist in the provision of adequate school facilities by providing legally required DIFs. Accordingly, impacts to

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[1] *School Developer Impact Fees,* Moreno Unified School District, 2012. http://www.mvusd.net/apps/pages/index.jsp?uREC_ID=24969&type=d&pREC_ID=55535, accessed April 16, 2012.

[2] http://www.sanjacinto.k12.ca.us/districtPages/facilities/developerInfo.html, website accessed April 16, 2012.

the environment resulting from new or expanded school facilities would not occur, resulting in a less than significant impact and no mitigation is required.

General Plan and Municipal Code Consistency. Table 4.14.D evaluates whether the project is consistent with the City's General Plan policies and Municipal Code requirements relative to school services.

Table 4.14.D: Project Consistency with General Plan Policies and Municipal Code Requirements for School Services

General Plan Policies		Project Consistency
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** The project consists of logistics warehousing and supporting uses and does not propose any residential uses that would add housing units or substantial numbers of new students to local schools.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including schools.
City of Moreno Valley Municipal Code		
The project will be located mainly within the MVUSD with a small part in SJUSD which currently impose fees of $0.51 and $0.47, respectively, per square foot on new industrial construction to offset the cost of providing new school facilities. The project will be subject to these fees at the time of building permit issuance. However, no homes and no significant generation of school-aged children would be developed as part of the project.		**Consistent.** Future development within the Specific Plan will pay applicable School Impact Fees for non-residential uses.

The project is consistent with the City General Plan policies and Municipal Code requirements relative to school services. In addition, future development within the WLCSP will be required to comply with the City's DIF requirements as new development is constructed. Therefore, the project will have less than significant impacts relative to schools, and no mitigation is required.

4.14.3.6 Significant Impacts

Based on the analysis in Section 4.14.3.5, the project will not produce any significant school-related impacts, so no mitigation is required.

4.14.4 Parks, Recreation, and Trails

4.14.4.1 Existing Setting

The Moreno Valley Parks and Community Services Department (Department) maintains over 358 acres of parks and park facilities, and 10 miles of trails. See Figure 4.14.1 for De Anza Trail in the surrounding area. The Department also maintains and operates 39 parks and facilities; including senior recreation centers and conference centers as well as 20 lighted sports fields and lighted sports fields at three schools. The nearest park to the project site is Ridgecrest Park located on John F. Kennedy Drive less than a mile southwest of the project site.

Open space land can be classified into lands for preservation of natural resources (e.g., wildlife habitat), production of resources (e.g., farming), public health and safety (e.g., floodplains), low-density residential development, and outdoor recreation (e.g., parks). Open space for outdoor recreation includes public and private outdoor recreation facilities. Public recreation facilities in Moreno Valley include State, County, and City parks as well as public golf courses. Private outdoor recreation facilities include private golf courses, driving ranges, and other private outdoor recreation facilities. Two private outdoor recreation facilities are owned and operated by homeowner's associations in Sunnymead Ranch and Moreno Valley Ranch.

A large amount of the City's open space lands is managed for the preservation of natural resources. These areas include the Box Springs Mountain Reserve, the San Timoteo Canyon Park property, the Lake Perris State Recreation Area, and the San Jacinto Wildlife Area. These areas are also used for hiking, horseback riding, fishing, boating, and other uses.

The Box Springs Mountain Reserve and the San Timoteo Canyon Park property are owned and operated by Riverside County Regional Park and Open Space District. They are primarily mountainous natural open space parks. The Box Springs Mountain Reserve is located at the northwest corner of Moreno Valley. The Reserve consists of three noncontiguous land areas, two of which are within the City's Sphere of Influence. San Timoteo Canyon Park property is located east of the City's Sphere of Influence along the north side of SR-60. Approximately 1,100 acres of the property, including the Badlands Landfill is jointly owned by the Regional Park and Open Space District and Riverside County Waste Management District.

Lake Perris State Recreation Area, located south of Moreno Valley, is approximately 8,000 acres. It contains a major reservoir, natural open space and facilities for boating and fishing, picnicking and camping. About 1,600 acres of the property were dedicated to the State of California as mitigation for loss of wildlife habitat due to development of the Moreno Valley Ranch Specific Plan. The Lake Perris State Recreation Area serves as one of several habitat reserves for the endangered Stephens' kangaroo rat (*Dipodomys stephensi*).

The San Jacinto Wildlife Area in the southeastern corner of the study area consists of gently sloping grasslands, sage scrub and natural and man-made wetlands that support migratory birds and resident wildlife. Bird watching and hunting are popular activities. Some of the adjoining property is owned by private organizations dedicated to hunting and wildlife conservation.

Several open space areas are located along soft-bottomed drainage courses within the planned communities of Sunnymead Ranch and Hidden Springs. The City also owns two natural open space areas. One open area is adjacent to the Moreno Valley Equestrian Center, located at the northeast corner of Redlands Boulevard and Locust Avenue. A second natural open space area is located north of Sunnymead Ranch Parkway, on the east side of Perris Boulevard.

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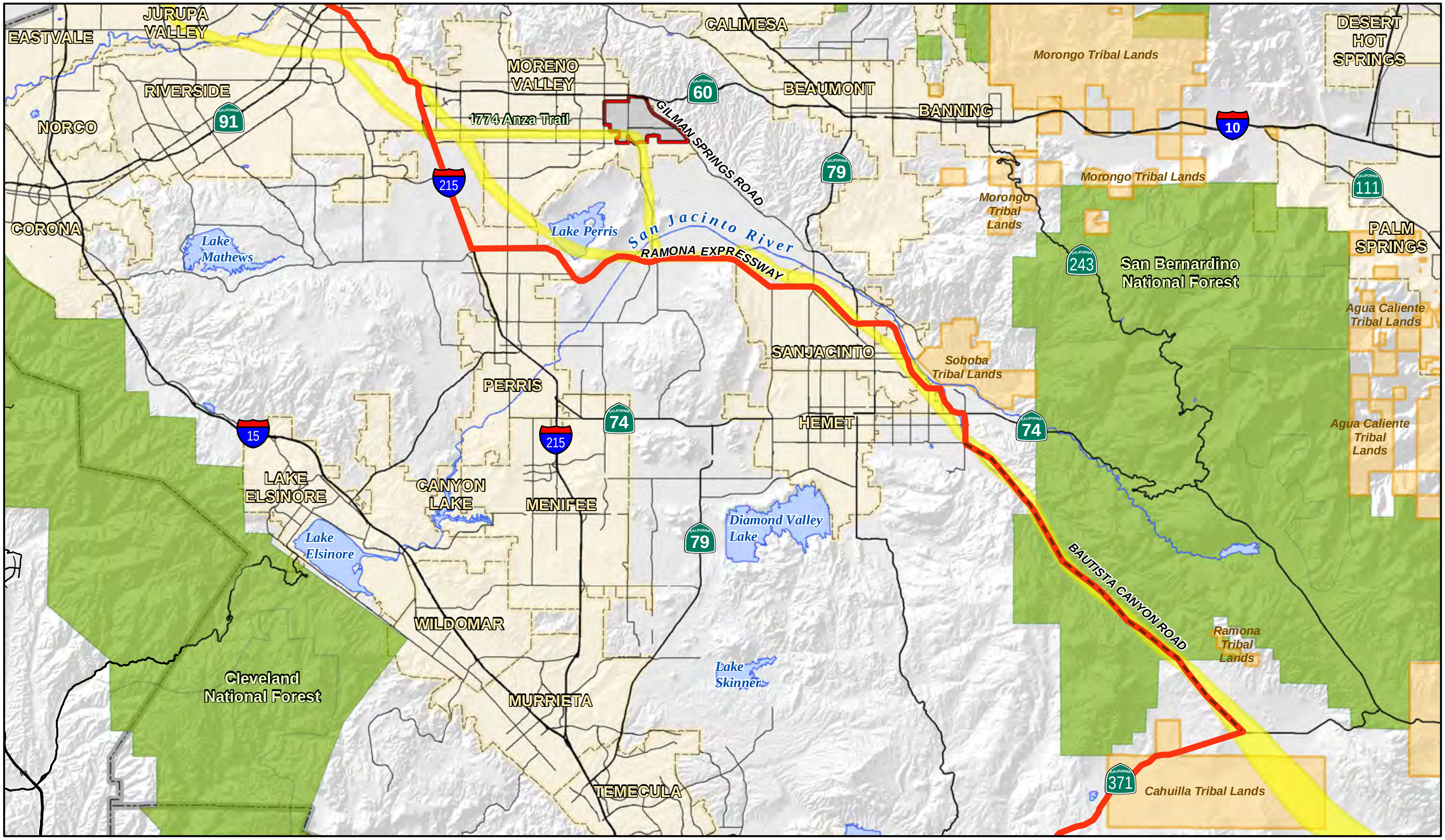

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FIGURE 4.14.1

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MILES

🟥 Project Location

━ Auto Tour Route

- - - Recreational Trail

🟨 Historic Trail Corridor

⬚ Cities

🟧 Tribal Lands

🟩 National Forest

World Logistics Center Specific Plan Project
Environmental Impact Report

National Trails

SOURCE: Riverside County, 2011; National Park Service; Thomas Bros, 2009.

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Natural open space can also be found within the steeply sloping areas designated Rural Residential and Hillside Residential on the General Plan land use map. These areas contain wildlife habitat, watershed benefits and scenic values that can be conserved even as these areas are developed. Natural open space can be conserved because these areas are planned for low-density residential development. Low-density development requires a minimal amount of land disturbance.

The City's General Plan also discusses trail facilities. The City owns and maintains about 10 miles of developed trails. Multiuse trails are popular with the equestrian community. The Moreno Valley Equestrian Center, dedicated in 2003, provides additional facilities of interest to equestrians. This 45-acre park is located at the northeast corner of Redlands Boulevard and Locust Avenue. The park features equestrian facilities, including an arena, with bleachers, a water trough, night lighting and parking for horse trailers.

Multiuse trails should be designed with considerations for safety, accessibility, proper design and construction, signage and relative location. The City's trail network should also connect to the County and State regional trail systems.

There is one existing multiuse trail adjacent to the project limits, located along Redlands Boulevard and Cottonwood Avenue. There are several proposed trails shown on the current General Plan within the project area along Redlands Boulevard, Cottonwood Avenue, Brodiaea Avenue, Dracaea Avenue, World Logistics Center Parkway~~Theodore Street~~, Fir Avenue, Sinclair Street, and Davis Road.

NOP/Scoping Comments. One written comment was received specifically about park impacts. The State requested that the WLCSP project not have any adverse impacts on the Lake Perris Recreational Area. In addition, at least one resident urged the City to provide an integrated network of trails that would connect to other trails planned in the region (e.g., Juan Bautista de Anza trail).

4.14.4.2 Policies and Regulations

a. State Regulations

Quimby Act (California Government Code 66477). This State policy requires the dedication of land and/or imposes a requirement of fees for park and recreational purposes as a condition of approval of tentative map or parcel map.

b. Local Regulations, City of Moreno Valley General Plan

Parks, Recreation and Open Space Element Policies

4.2.7 The City level of service standard is 3 acres of developed parkland for every 1,000 new residents. Exceptions from this ratio may be made in exchange for extraordinary amenities of comparable economic value. Land not suitable for active recreation purposes may not be counted toward fulfilling parkland dedication requirements.

4.2.8 Encourage the development of recreational facilities within private developments, with appropriate mechanisms to ensure that such facilities are properly maintained and that they remain available to residents in perpetuity.

4.2.17 Require new development to contribute to the park needs of the City.

4.3.1 The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities, and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.

4.3.3 All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails.

4.3.4 In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.

4.3.5 In conjunction with the review and approval of non-residential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.

4.3.7 Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.

4.3.8 The City should facilitate the development of a multiuse regional trail system.

4.3.9 Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.

4.3.10 Where firefighting access is required, trails shall be 20’ wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.

4.3.11 In unusual situations where legal or topographical barriers exist (e.g., excessive slope, the configuration of right-of-way, existing vegetation, etc.), the City shall have the discretion to amend the trail requirement as needed to accomplish the goals of this General Plan.

4.3.14 Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.

4.14.4.3 Methodology

The potential impacts of the project on recreation and park resources were evaluated based on whether implementation of the project could result in increased use of existing recreation and park resources, or whether implementation of the project could necessitate the construction or expansion of recreation and park facilities.

4.14.4.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to recreational facilities and resources are based on questions contained in Appendix G of the *CEQA Guidelines*. The project would result in a significant impact on recreation resources if any of the following occurs:

- The project increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or
- The project includes recreational facilities or requires the construction or expansion of recreational facilities that have an adverse physical effect on the environment.

4.14.4.5 Less than Significant Impacts

Threshold	Would the project result in increased use of existing neighborhood and regional parks or other recreational facilities (e.g., trails) where substantial physical deterioration would occur or be accelerated?

The WLC project proposes the development of a master-planned logistics center; no residential development is proposed. There is a potential for the project to indirectly generate new residents in the City, although predicting the exact number would be too speculative. Increases in the City's population from future residential development will help fund new parks and trails through dedications of land and the payment of Development Impact Fees.

The WLCSP project proposes a General Plan Amendment to the Master Plan of Trails to reduce the extent of trail systems in the area to reflect the change from a residential neighborhood (Moreno Highlands) to a non-residential neighborhood (World Logistics Center). Trail linkages are provided in the WLC project to extend existing trail routes from the western edge of the project to the east, providing for future linkages to Gilman Springs Road, to the Lake Perris State Recreation Area, and to the San Jacinto Wildlife Area.

Implementation of these new trails and the General Plan Amendment (i.e., revised Master Plan of Trails) will allow the project to be consistent with the General Plan policies relative to trails (4.3.1 and 4.3.8).

General Plan and Municipal Code Consistency. Table 4.14.E evaluates whether the project is consistent with the City's General Plan policies and Municipal Code requirements relative to parks, recreation, and open space:

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
Parks, Recreation and Open Space Element Policies		
4.2.7	The City level of service standard is 3 acres of developed parkland for every 1,000 new residents. Exceptions from this ratio may be made in exchange for extraordinary amenities of comparable economic value. Land not suitable for active recreation purposes may not be counted toward fulfilling parkland dedication requirements.	**Not Applicable.** The project consists of logistics warehousing and supporting uses, and does not propose any residential uses that would add new housing units or residents who would use local parks.
4.2.8	Encourage the development of recreational facilities within private developments, with appropriate mechanisms to ensure that such facilities are properly maintained and that they remain available to residents in perpetuity.	*The following changes have been made due to revision to the Specific Plan project size.* **Not Applicable.** The project does not generate a need for new active recreational facilities, so no maintenance costs will be involved. However, the project does provide 74.3 acres of Open Space in the southwestern corner of the site adjacent to Mount Russell to be dedicated to the City of Moreno Valley.
4.2.17	Require new development to contribute to the park needs of the City.	*The following changes have been made due to revision to the Specific Plan project size.* **Not Applicable.** The project consists of logistics warehousing and supporting uses, and does not propose any residential uses that would add new housing units or residents who would use local parks. However, the project does provide 74.3 acres of Open Space in the southwestern corner of the site adjacent to Mount Russell.

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
4.3.1	The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities, and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.	**Consistent.** The Specific Plan proposes a trail along the southwestern portion of the site to tie into an existing trail along the west side of Redlands Boulevard and an existing trail west along Cactus Avenue. The project will also provide a trail connection from the southwest corner of the project around the Open Space area and a trailhead that will allow a future connection to the SJWA property that would be installed and maintained by the CDFW.
4.3.3	All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard. The project entails a General Plan Amendment to modify the Master Plan of Trails consistent with the proposed Specific Plan trails.
4.3.4	In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.	**Consistent.** See discussion under Policy 4.3.1 above.
4.3.5	In conjunction with the review and approval of non-residential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.7	Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.8	The City should facilitate the development of a multiuse regional trail system.	**Consistent.** The proposed trail connections within the Specific Plan would connect to existing regional trails to the west and future regional trails to the southeast through the SJWA property.
4.3.9	Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.10	Where firefighting access is required, trails shall be 20' wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.11	In unusual situations where legal or topographical barriers exist (e.g., excessive slope, the configuration of right-of-way, existing vegetation, etc.), the City shall have the discretion to amend the trail requirement as needed to accomplish the goals of this General Plan.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
4.3.14	Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.	**Consistent.** The proposed trails will allow for connections to existing and future trails as outlined in Policy 4.3.1 above.

The project is consistent with the City General Plan policies relative to parks, recreation, and trails.

The WLCSP will provide connections to existing trails to the west and southwest, and a connection to and trailhead for a future planned trail in the San Jacinto Wildlife Area south of the site, as outlined in Specific Plan Section 3.4.2, *Multi-Use Trails*, and as shown on Figure 3-11 of the Specific Plan. In addition, future development within the WLCSP will pay applicable DIFs to offset any potential impacts to parks or recreational services. Based on this, the project will not create significant impacts on parks, recreation, or trails.

Threshold	Would the project result in construction or expansion of recreational facilities that would have an adverse physical effect on the environment?

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

The WLC project proposes development of up to approximately 40.6 million square feet of high-cube logistics warehouse facilities. It does not include the construction or expansion of a recreational facility since it would not create any substantial demands on recreational facilities. Section 4.13.5 concluded that the project would have a less than significant impact on population or housing; therefore, no new demand on existing park facilities would occur, and no expansion of existing parks or the construction of new parks would be required.

~~*NOTE: The following changes have been made due to revision to the Specific Plan project size.*~~

As noted in the Specific Plan, the project includes an Open Space (OS) designation covering 74.3 acres on the lower elevations of Mount Russell in the southwestern portion of the WLCSP project site.

4.14.4.6 Significant Impacts

The analysis in Section 4.14.4.5 determined that all impacts of the WLC project relative to parks and recreation are less than significant, therefore, no mitigation is required.

~~4.14.5 Cumulative Impacts~~

~~The cumulative areas for police and fire protection services are the service areas for the RCSD and RCFD. The need for the public services and associated facilities is measured by service area population, or the number of residents and workers within the City's service area. Service population, as well as the type and density of development, determines the need for new or expanded police and services. Utilizing statistical information, local planning policies, and by interacting with other agencies, fire and police service providers can delineate past patterns, emerging trends, and future issues of concern. Once identified, service providers can redeploy resources to meet future needs.~~

~~Sections 4.14.1.6 and 4.14.2.6 identified the possible need for new fire station within the WLC project. Payment of DIFs and provision of a new fire station site within the WLCSP is expected to fully mitigate potential impacts of the WLC project relative to fire services. In addition, payment of DIFs is expected to fully mitigate potential impacts of the WLC project relative to police services.~~

~~As additional development occurs in the City of Moreno Valley and region, there may be an overall increase in the demand for law enforcement and fire protection services, including personnel, equipment, and/or facilities. Increases in demand are routinely assessed by these agencies as part of the annual monitoring and budgeting process. New development within the service areas of the RCSD and RCFD would be required to adhere to conditions established by fire and police service providers, and pay applicable DIFs to ensure adequate staffing and equipment levels. Therefore, there would be no cumulative impact on police and fire services in the City. Accordingly, cumulative impacts to the environment resulting from new or expanded police and fire protection facilities would not occur, resulting in a less than significant impact and no mitigation is required.~~

~~The cumulative area for school-related issues encompasses the two school district(s) that provide school services/facilities in the project area. While no significant population increase is anticipated to result from the construction and operation of the proposed project, future development (particularly residential development) forecast in the City's General Plan will increase the demand for school facilities and services. New school facilities are currently being constructed to accommodate the growth in the local student population. Additionally, school districts are engaged in planning new facilities in anticipation of future local and regional growth. Each district requires the payment of development fees to provide for new school services and/or facilities. As every new development is mandated to provide the fees applicable to the school district affected, there would be no cumulative impact on school services in the City. Accordingly, cumulative impacts to the environment resulting from new or expanded school facilities would not occur, resulting in a less than significant impact and no mitigation is required.~~

~~Implementation of the proposed project will not increase the use of existing parks and recreation facilities. As future residential development is proposed, the City will require developers to provide the appropriate amount of parkland or payment of in-lieu fees, which will contribute to future recreational facilities. Payment of these fees and/or implementation of facilities on a project-by-project basis would offset cumulative parkland impacts by providing funding for new and/or renovated parks equipment and facilities. As such, the cumulative impact of buildout associated with the implementation of the proposed project, when considered with cumulative projects in the area, would be less than significant with implementation of the WLC project.~~

4.15 TRAFFIC AND CIRCULATION: TABLE OF CONTENTS

FIGURES

TABLES

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~~***NOTE TO READERS.*** *This section has been revised based on changes to the WLC Specific Plan, the project traffic study, and in response to comments on the original DEIR. Three street names have also changed (Street C now named Alessandro Boulevard, D now named Cactus Avenue, and E a portion of which is now named Alessandro Boulevard) and may still be referenced in the section. For correct street names see Circulation Master Plan Figure 3.10. In addition, Streets E and C have been realigned to follow the historical alignment of Alessandro Boulevard.*~~

~~*Large amounts of text, tables, and/or graphics were removed or heavily modified from those in the original DEIR. The changed text is shown in underline/strikeout wherever possible. To maintain readability, however, some sections have notes that refer the reader to the original DEIR for the complete text, table, or graphic from the original DEIR.*~~

4.15 TRAFFIC AND CIRCULATION

~~*Revisions to this section have been made due to changes to the revised*~~

A. PURPOSE OF THE TRAFFIC IMPACT ANALYSIS

The purpose of this Traffic Impact Analysis (TIA) ~~*Report for the*~~ is to fully analyze the local and regional traffic impacts of the proposed World Logistics Center ~~*prepared by Parsons Brinckerhoff and dated September 2014 (FEIR Volume 2, Appendix L-1). The vast majority of the changes to the TIA, and in turn replicated in the following Final EIR traffic section, are associated with:*~~

~~*1) Project Reduction. A reduction in the project area in the amount of 100 acres that occurred between the Draft EIR and this Final EIR. The reduced project area would result in a reduction in the proposed quantity of high-cube warehouse development in the WLC by one million square feet and an increase in the quantity of background (i.e., non-project related) development in year 2035 by 220 dwelling units. The area of land that was eliminated is*~~ (WLC) located in ~~*the southwest corner of the previous WLC site that was analyzed in the previous TIA and Draft EIR.*~~

~~*2) Baseline Plus Phase 1 Analysis. Added an Existing Plus Phase 1 (only) scenario that was added to the revised TIA and Final EIR, in order to provide a "baseline plus Phase 1 analysis."*~~

~~*3) Revised Project Schedule. A revision to the WLC implementation schedule so that Phase 1 is scheduled for completion in year 2022 as analyzed in the revised TIA and Final EIR, rather than in Year 2017 as analyzed in the previous TIA and Draft EIR. The scenarios for Year 2017 were revised to Year 2022 and include analysis of Phase 1 only and not full buildout of the WLC in the revised TIA and Final EIR, while the analysis of the previous Year 2022 scenarios were dropped from the revised TIA and Final EIR.*~~

~~*Additional revisions to this section have been made due to comments received on the Draft EIR and previous TIA. In summary, these changes include:*~~

~~*4) Truck Trips to Ports of Los Angeles and Long Beach. Analysis of freeway impacts from WLC trucks was extended to the Ports of Los Angeles and Long Beach. The extended analysis, covering more than 60 additional centerline miles of freeway, did not find any new impacts that were not already identified in the Draft TIA (see TIA Chapter 12, Section F) and replicated in this Final EIR traffic section (see Section 4.15.6.5 of this Final EIR). These changes have been made in response to: Comment F-1-49 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society; Comment F-3-4 in Letter F-3 from the California Clean Energy Committee; Appendix 78 in Letter F-3 from the California Clean Energy Committee; Comment F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comments F-9C-2, 4, 5, 6, and 7 in Letter F-9C from Sustainable Systems Research, LLC; Comment F-11-23 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment F-13-11 in Letter F-13 from the Sierra Club and Friends for a Livable*~~ Moreno Valley~~*; and Comment G-51-45 in Letter G-51 from Michael McCoy.*~~

~~*5) Rail Analysis. Analysis of the feasibility of shipping cargos between the WLC and the Ports of Los Angeles and Long Beach by rail instead of by truck was added. The analysis found that this was not feasible for a variety of reasons, including the cost and environmental impacts of a new rail alignment, the high fixed handling costs for rail cargo that makes short hauls uneconomical, and system constraints with the rail system itself. This analysis is provided in the revised TIA (see TIA Chapter 4, Section F) and replicated in this Final EIR traffic section (see end of Section 4.15.3.2 of this Final EIR). These changes have been made in response to: Comments F-3-5, 11, and Appendix 176 in Letter F-3 from the California Clean Energy*~~

~~*Committee; Comments F-6-1, 2, and 3 in Letter F-6 from the Endangered Habitats League; Comment F-9A-45 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comment F-9B-45 in Letter F-9B from Tom Brohard and Associates; Comment F-11-29 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment G-2-7 in Letter G-2 from Perry Johnson; Comment G-17-2 in Letter G-17 from Joanne Lindgren; Comment G-18-1 in Letter G-18 from Sam Zaidy; Comment G-34-5 in Letter G-34 from Lindsay Robinson; Comment G-35-4 in Letter G-35 from Peggy Hadaway and John Neal; Comment G-49-18 in Letter G-49 from Karen Jakpor; Comment G-50-2 in Letter G-50 from Ann McKibben; Comment G-51-5 in Letter G-51 from Michael McCoy; Comments G-52-1 and 2 in Letter G-52 from Steve Jiannino; Comment G-53-4 in Letter G-53 from Deanna Reader and Kenny Bell; Comment G-57-1 in Letter G-57 from Tracy Hodge; Comment G-68-3 in Letter G-68 from Craig and Joan Givens; Comment G-96-3 in Letter G-96 from Margie Breikreuz; and Comment G-97-1 in Letter G-97 from Otana Jakpor.*~~

~~*6) Project Traffic Near Schools. Analysis of the potential safety impacts of WLC traffic on local schools was added, including the new proposed high school #5 located north of SR-60. The traffic analysis for this proposed school can be found in the Tech Memo on High school # 5 Appendix L. The analysis found that the project would pose little safety risk and that appropriate safety features were already present on roads*~~, California. The TIA identifies the specific near ~~*local schools. This analysis is provided in the revised TIA (see TIA Chapter 12, Section B) and replicated in this Final EIR traffic section (see Section 4.15.5.2 of this Final EIR). These changes have been made in response to: Comment E-3-13 in Letter E-3 from the Moreno Valley Unified School District; Comment F-11-36 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; and Comment G-96-4 in Letter G-96 from Margie Breikreuz.*~~

~~*7) Additional Changes. Additional changes have been made to the revised TIA and replicated in the Final EIR traffic section based on comments received on analytical details contained in the Draft EIR and/or previous TIA. These changes have been made in response to: Comments B-2-2 through B-2-14 in Comment Letter B-2 from the California Department of Transportation District 8; Comment B-5-12 in Letter B-5 from the California Air Resources Board; Comment C-3-17 in Letter C-3 from the South Coast Air Quality Management District; Comments E-2A-2 through E-2A-12 in Comment Letter 2A from the City of Riverside; Comments E-2B-1 through E-2B-23 in Appendix 1 to Comment Letter 2-A from the City of Riverside; Comment E-3-5 in Letter E-3 from the Moreno Valley Unified School District; Comments E-5-1 through E-5-5 in Comment Letter E-5 from the City of Redlands; Comments F-3-3, F-3-4, and F-3-6 to F-3-10 in Letter F-3 from the California Clean Energy Committee; Comments F-8-68 and F-8-69 in Comment Letter F-8 from Shute, Mihaly & Weinberger LLP; Comments F-9A-3 and F-9A-7 through F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comments F-9B-1 and F-9B-2, F-9B-4 through F-9B-47 in Letter F-9B from Tom Brohard and Associates; Comments F-13-9, F-13-26, and F-13-89 through F-13-98 in Letter F-13 from the Sierra Club and Friends for a Livable Moreno Valley; Comment G-17-1 in Letter G-17 from Joanne Lindgren; Comments G-51-19, G-51-28 through G-51-30, G-51-47, and G-51-61 through G-51-65 in Letter G-51 from Michael McCoy; Comments G-57-5 through G-57-7 in Letter G-57 from Tracy Hodge; and Comments G-90-7 and G-90-14 in Letter G-90 from Mr. and Mrs. H.W. Wolterbeek.*~~

~~*Note: As a result of these various changes, the level of significance of traffic impacts has not changed in comparison to the Draft EIR. However, the following changes to individual roadway, intersection, and/or freeway impacts and the reason for these changes are as follows:*~~

~~*Intersections*~~

~~*Indian Street/Cactus Avenue (IN-64). Although this intersection exceeds the level of service standard in the Year 2035 Cumulative Plus Project analysis, the revised project does not increase the delay in comparison to the No Project condition. Consequently, no mitigation is required.*~~

~~*Ellsworth Street/Alessandro Boulevard (IN-71). Due to the reduction in the project size, this intersection does not exceed the level of service standard and therefore no*~~ -term and longer ~~*requires mitigation.*~~

~~*Ellsworth Street/Cactus Avenue (IN-74). The Draft EIR TIA identified required mitigation for the Ellsworth Street/Cactus Avenue intersection (IN-74) in Table 69 (page 325). The mitigation included widening the northbound approach to provide three left-turn lanes, one through lane, and one right-turn lane, and adding a westbound left-turn lane and eastbound right-turn lane. This mitigation was inadvertently omitted from the mitigations chapter text and Table 80 in the Draft EIR TIA. This mitigation has been corrected in the Final EIR TIA and added to the mitigation discussion in the Final EIR.*~~

~~*Bridge Street/Ramona Expressway (IN-122). Mitigation for this intersection was included in the Draft EIR for project direct impacts (Existing Plus Project). Upon further review, it was determined that the mitigation was not warranted because the intersection will be eliminated and replaced by a grade separation. A discussion of this has been included in the Revised Draft EIR, however, the impact remains significant and unavoidable.*~~

~~*Roadway Segments*~~

~~*Theodore Street from SR-60 Westbound Ramps to Ironwood Avenue (S-1). Due to the reduction in the project size, this roadway segment does not exceed the level of service standard and therefore no longer requires mitigation.*~~

~~*Freeway Segments*~~

~~*Southbound I-215 from SR-74 to Ellis Avenue (F-71). In the Draft EIR, this freeway segment was listed as "I-215 SR-74/Case Road to Redlands Avenue" and shown as having an impact. In the Final EIR TIA, the segment where the level of service exceedance will occur (between SR-74 and Ellis Avenue) is listed as "I-215 SR-74 to Redlands Ave" in Table 76 for project direct impacts but as "I-215 SR-74 to Ellis Ave" in Table 79 for cumulative impacts. In each table, however, the same identification number (F-71) was used. In summary, this is not a new impact; as it was already identified in the Draft EIR. A footnote has been added to the Revised EIR as follows: "I-215 currently runs unbroken between SR-74 and Redlands Avenue. The RTP includes a project (3M0731) that would split this freeway mainline section by adding a new interchange at Ellis Avenue. For this reason, this freeway section is listed as "I-215 SR-74 to Redlands" on the tables in the TIA and EIR describing conditions prior to construction of the Ellis Avenue interchange."*~~

-term circulation

~~Southbound~~ ~~*I-215 from Baseline Road to Highland Avenue (F-83). This freeway segment was identified as a significant and unavoidable project direct impact (Existing Plus Project). Upon further review, it was determined that the significant and unavoidable impact will occur in the Year 2035 Cumulative Plus Project scenario. For this reason, the impact has been moved to the Year 2035 Cumulative Plus Project analysis. Regarding F-83, the WLC would have a direct impact which was identified in the analysis of the Existing Plus Project scenario. However, the identified mitigation for this is already under construction. As a result, the direct impact will never exist. In the Cumulative scenario, F-83 would be deficient with or without WLC, even with the new lane currently under construction. Since the WLC is adding to a deficient condition it would have a cumulative impact on this segment. The solution to this would be to add yet another lane, but this is not feasible given the constraints at the site.*~~

~~This section of the EIR assesses traffic impacts by examining the proposed project's impacts on Existing Baseline 2012, Opening Year 2022, and Year 2035 Cumulative traffic analysis time horizons. The impact of the entire proposed project has been assessed in the Baseline 2012 and Buildout Year 2035 time horizons, while the Baseline 2012 and Future Year 2022 analyses assess impacts of Phase 1 of the proposed project.~~

~~For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements, which affect several separate, adjacent and related properties. The following information is summarized from Section 3.0, *Project Description*. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes the WLC Specific Plan Area (2,610 acres), the CDFW Conservation Buffer Area (910 acres), the Public Facilities Lands area (194 aces), plus 104 acres of land affected by off-site~~ improvements ~~needed to support the proposed development. The proposed entitlements are summarized below~~that would be required to mitigate project impacts and maintain acceptable peak hour and daily levels of service (LOS) on surface streets and freeways affected by the project. As part of this comprehensive analysis special attention was paid to analyzing truck access routes, safety issues relating to trucks, and the effects of truck traffic on traffic operations.

~~*Note: The following changes have been made due to revision to the Specific Plan project size*.~~

~~For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.~~

~~The analysis contained in this section is based on the following technical studies prepared for the proposed project:~~

- ~~*Traffic Impact Analysis Report for the World Logistics Center*, Parsons Brinckerhoff, September 2014 (Appendix L-1 of this EIR).~~
- ~~*Trip Generation Analysis for High-Cube Warehouse Distribution Center Land Use for the NAIOP Inland Empire*, Kunzman Associates, Inc., December 20, 2011 (Appendix L-2 of this EIR).~~
- ~~*Assessment of Available High-Cube Trip Generation Rates*, Memorandum from Aric Evatt, Urban Crossroads, Inc., to Ahmad Ansari, City of Moreno Valley, February 1, 2012 (Appendix L-3 of this EIR).~~
- ~~Letter from George Rhyner, Crain & Associates, to Mr. Robert Evans, NAIOP Inland Empire, regarding Response to the South Coast Air Quality Management District White Paper, dated December 1, 2011 (Appendix L-4 of this EIR).~~

~~In addition to these technical studies, the analysis contained in this section is also based on the following reference document:~~

- ~~Moreno Valley General Plan Circulation Element, adopted July 2006.~~

~~The TIA for the proposed project has been prepared in accordance with accepted standards and practices of the traffic engineering industry as summarized in a scoping agreement with the City of Moreno Valley. The TIA analyzes roadway segments, intersections, freeway mainline segments, freeway weaving areas, and freeway ramp merge/diverge locations and complies with the TIA Guidelines of the City and Caltrans. Figures 4.15.1, 4.15.2, 4.15.3, and 4.15.4 illustrate the locations of analysis roadway segments, intersections, freeway mainline segments, freeway weaving segments, and freeway ramp merge/diverge locations.~~

~~THE STUDY AREA FOR ROADWAY SEGMENTS INCLUDED THE ROADWAYS THAT WILL BE AFFECTED BY THE PROPOSED GENERAL PLAN AMENDMENT.~~ B. SCOPE OF STUDY

The study considers seven development scenarios, namely:

1) Existing baseline conditions (2018) without the WLC project
2) Existing baseline conditions plus Phase 1 (only) of the WLC project
3) Existing baseline conditions plus the Full Build-out of the WLC project
4) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2025, without the WLC project
5) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2025, plus Phase 1 (only) of the WLC project
6) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2040, including full build-out of the City of Moreno Valley General Plan, except that existing conditions remain on the site of the WLC project. The horizon year 2040 corresponds with the long-term planning horizon in the Southern California Association of Governments (SCAG) regional forecasts.
7) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2040, including full build-out of the City of Moreno Valley General Plan except for the WLC site, where full build-out of the WLC project was assumed.

2040 was selected for the horizon year because it corresponds to the horizon year used by agencies in the SCAG region for the most recent Sustainable Communities Strategy. The interim year analysis shows the Project when it is approximately half built out. 2025 was selected for the interim year based on SCAG's projection that 222 million square feet of logistics warehouses would be built in the region between 2016 and 2025[1], and the assumption that the WLC would attract approximately 10% of the regional total (around 22 million square feet).

Most of the LOS analyses focused on the morning and evening peak hours because that is when capacity problems most frequently occur. An analysis was performed using daily traffic volumes to determine if the proposed circulation element amendment would achieve City LOS goals.

The study area for ~~intersections in Moreno Valley~~surface streets covered all intersections ~~between streets classified as~~ in Moreno Valley of collector or higher ~~and~~functional classification with another collector or higher classification street, at which the proposed project would add 50 or more peak hour trips~~. This~~[2]. The study area ~~criterion was~~ also ~~applied to~~included the main routes between the project and the neighboring ~~cities~~communities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area also extended west to the nearest ramps to ~~State Route (~~SR-91~~)~~ and as far south as the I-215 ramps at Redlands ~~Avenue~~Ave. in Perris. These limits represent the extreme range of the RIVTAM model's capacity to accurately predict real differences between the No-Project and Plus-Project scenarios. **Error! Reference source not found.**~~**Error! Reference source not found.**~~ shows the study area for surface street intersections.

The study area for freeways ~~included~~was selected to encompass the freeway routes extending from the project site to the north, south, east, and west. The analysis covered SR-60 from I-10 in the east to SR-71 in the west, SR-91/~~I~~I-215 from I-210 in the east to I-15 in the west, I-215 from Redlands ~~Avenue (4th Street)~~Ave. in the north to the Scott ~~Road~~Rd. interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west. (see **Error! Reference source not found.**). These limits represent the extreme range of the RIVTAM model's capacity to accurately predict differences between No-Project and Plus-Project scenarios. In addition, the two main routes to the ~~Ports~~ports of Los Angeles and Long Beach were ~~assessed~~studied (see **Error! Reference source not found.**). For these corridors, trips from the WLC were manually added to forecasts for the No-Project scenario taken from the SCAG model[3].

Any freeway ramp where the project added 100 or more peak-hour trips was also studied. These included:

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[1] See Table 3.2 in *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities (Task Report 5)*, SCAG, June 2010

[2] City of Moreno Valley Traffic Impact Preparation Guide, 2007

[3] The modeling data in the SCAG model is based upon modeling information originally developed by the Southern California Association of Governments (SCAG), which has been modified by WSP. The modeling data used in this study does not necessarily reflect the official views or policies of SCAG. WSP is wholly responsible for the modeling results and the content of the documentation.

- All ramps ~~at~~of the SR-60/Theodore ~~Street~~ Interchange~~;~~
- All ramps ~~at~~of the SR-60/Gilman Springs ~~Road~~Rd. Interchange~~;~~
- All ramps ~~at~~of the SR-60/Redlands ~~Boulevard~~Blvd. Interchange~~;~~
- ~~The westbound~~Westbound off- and eastbound on-ramps to the SR-60/Central ~~Avenue~~Ave. Interchange~~;~~, and
- ~~The westbound~~Westbound off- and eastbound on-ramps to the SR-60/Martin Luther King ~~Boulevard Interchange~~Blvd. interchange.

~~*Note: The following figures (3 of which were in the original DEIR) were modified or added in this revised DEIR section - the reader is referred to the original DEIR for the original graphic.*~~

~~Figure 4.15.1: Study Roadway Segment Locations (replaced)~~

~~Figure 4.15.2: Study Intersection Locations (replaced)~~

~~Figure 4.15.3: Freeway Segment Locations (remains the same)~~

~~Figure 4.15.4: Freeway Segment Locations to the Ports of Los Angeles & Long Beach (new graphic)~~

CHANGES SINCE 2014

In 2012 an application was made to the City of Moreno Valley for the World Logistics Center (WLC), a new plan for the area that had been subject to the Moreno Highlands Specific Plan. A notice of preparation for the WLC environmental impact report (EIR) was issued in February 2012. A traffic impact analysis (TIA) was prepared as one of several technical studies in support of the EIR and submitted to the City in September 2014. The full Draft EIR, including traffic sections based on the TIA, was submitted for public comment in February 2013 and was the subject of public hearings held in June 2015. The General Plan Amendment, zoning change, and the WLC Specific Plan, were adopted by the City Council in August 2015 and adopted again by ballot initiative in November 2015.

In the time since the 2014TIA, a number of developments have occurred that effect the forecast of traffic impacts from the WLC. These changes include:

- The most important new development was the completion in October 2016 of *High-Cube Warehouse Vehicle Trip Generation Analysis*, a major trip generation study for high-cube warehouses, the predominant form of land use in the WLC. This study was jointly sponsored by the South Coast Air Quality Management District (SCAQMD) and the National Association of Industrial and Office Properties (NAIOP), and was conducted by the Institute of Transportation Engineers (ITE). The results were incorporated into the 10th edition of ITE's *Trip Generation Manual*.

  This study replaces the multitude of earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the WLC. The 2016 study found that on average, warehouses generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis). However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed.

- The trip generation rates for other land uses (light logistics, convenience market, etc.) were also updated to those in the 10th edition of ITE's *Trip Generation Manual*.
- The study analysis years were updated so that 2018 is used for Existing Conditions, 2025 is used for Phase 1, and 2040 is used for the Cumulative Scenarios.
- The assumptions regarding background (i.e. non-WLC) land development have been updated to reflect the Sustainable Community Strategy adopted by SCAG in 2016. The list of reasonably foreseeable projects was also updated to account for projects that have been completed or have dropped out, and for proposed projects that have been added to the pipeline.
- The assumptions regarding changes to the transportation network have been updated to reflect the Regional Transportation Plan adopted by SCAG in 2016. The existing conditions network was also updated to account for projects completed since the base year of the previous TIA (2012).
- New traffic counts were performed for all study intersections and roadway segments, and new data was collected for volumes on the study freeway segments.
- An analysis of the effect of the Project on regional vehicle-miles of travel (VMT) has been added. This analysis was done primarily to provide data needed for the air quality analysis. Readers may be aware that, as a result of Senate Bill 743 (Steinberg, 2013), CEQA analysis of traffic impacts is likely to change at some point in the future from LOS-based to VMT-based. This change will not take effect before January 1st 2020 at the earliest, so the LOS approach that is the primary focus of the current study accords with current state law. The VMT analysis is therefore included in this traffic study for informational purposes only.

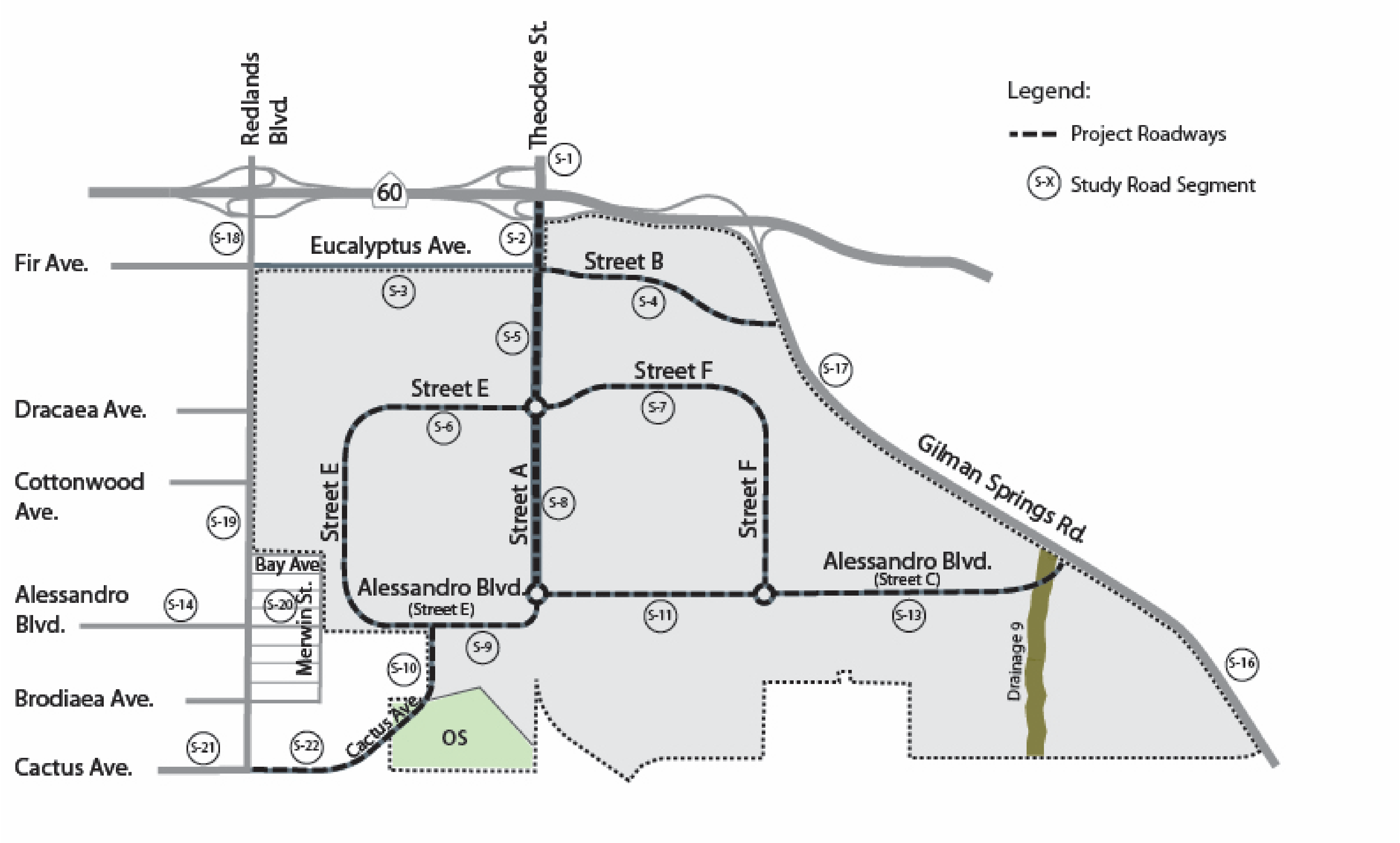

Figure 4.15.1: Study Roadway Segment Locations

Source: Traffic Impact Analysis Report for the World Logistics Center, ~~Parsons Brinckerhoff, September 2014~~WSP, July 2018.

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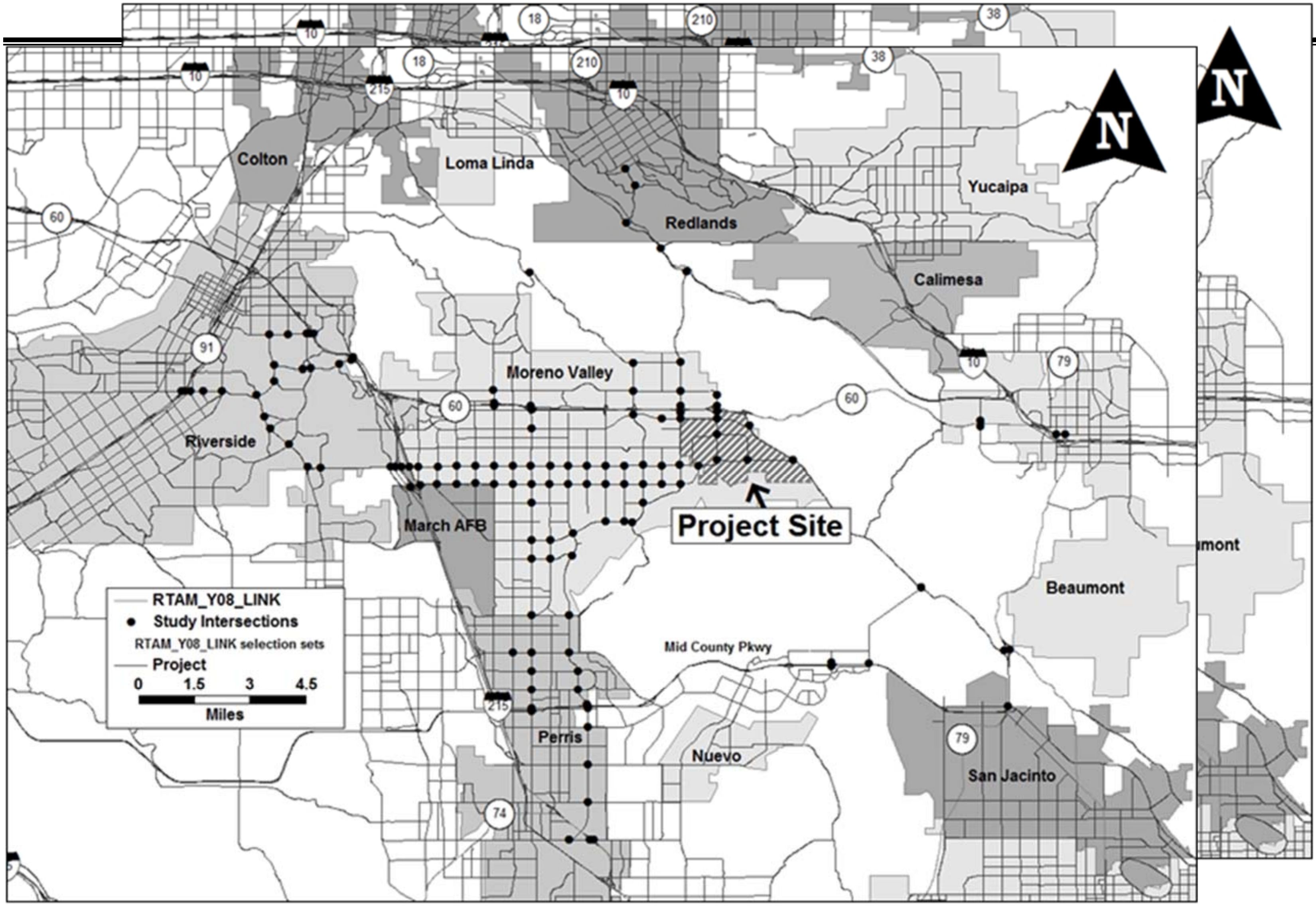
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Riverside
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Study Intersections
RTAM_Y08_LINK selection sets
Project
0 1.5 3 4.5
Miles
Mid County Pkwy
215
79
Perris
Nuevo
San Jacinto
74

Figure 4.15.2: Study Intersection ~~Locations~~LocationsSource: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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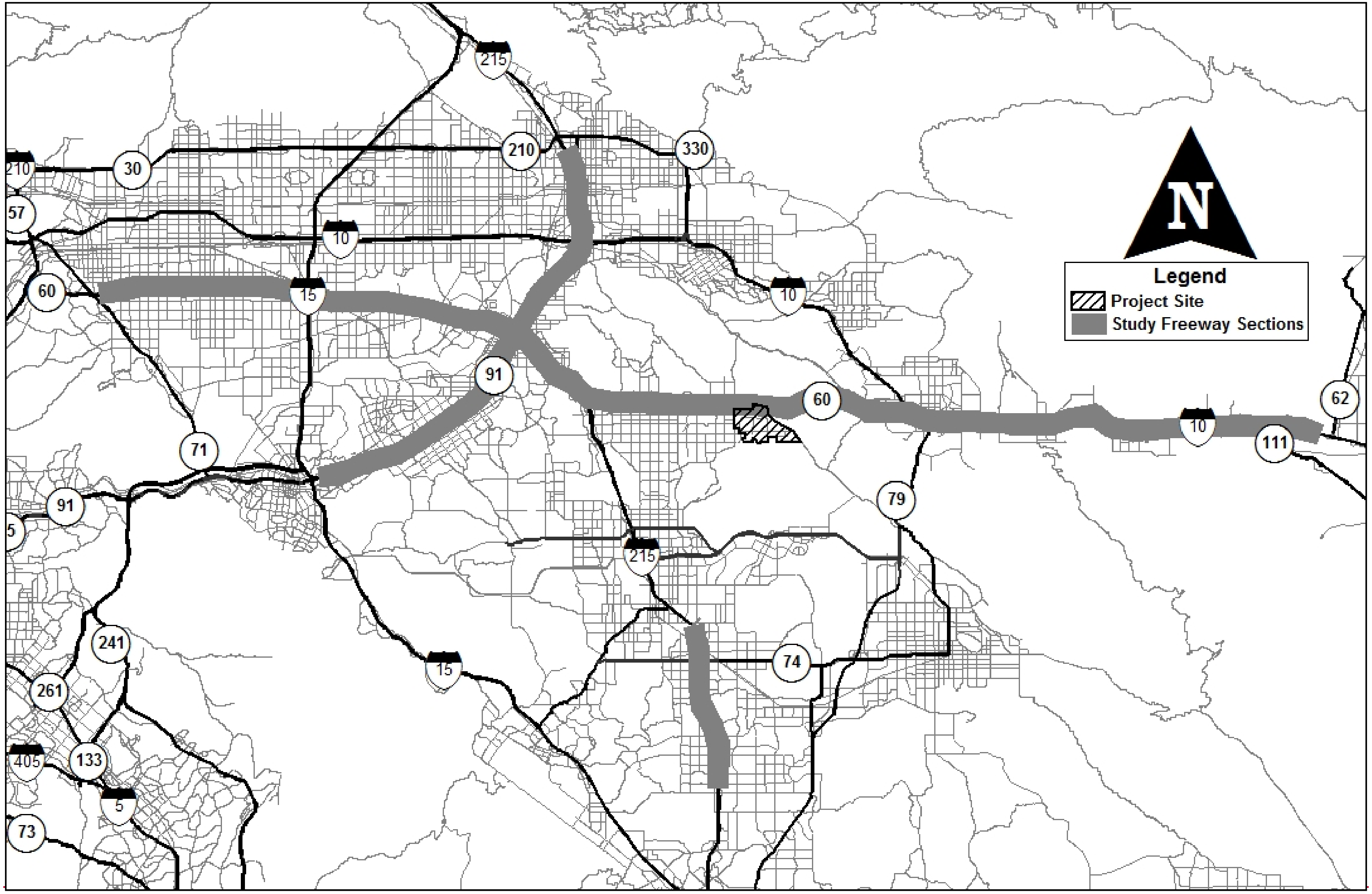
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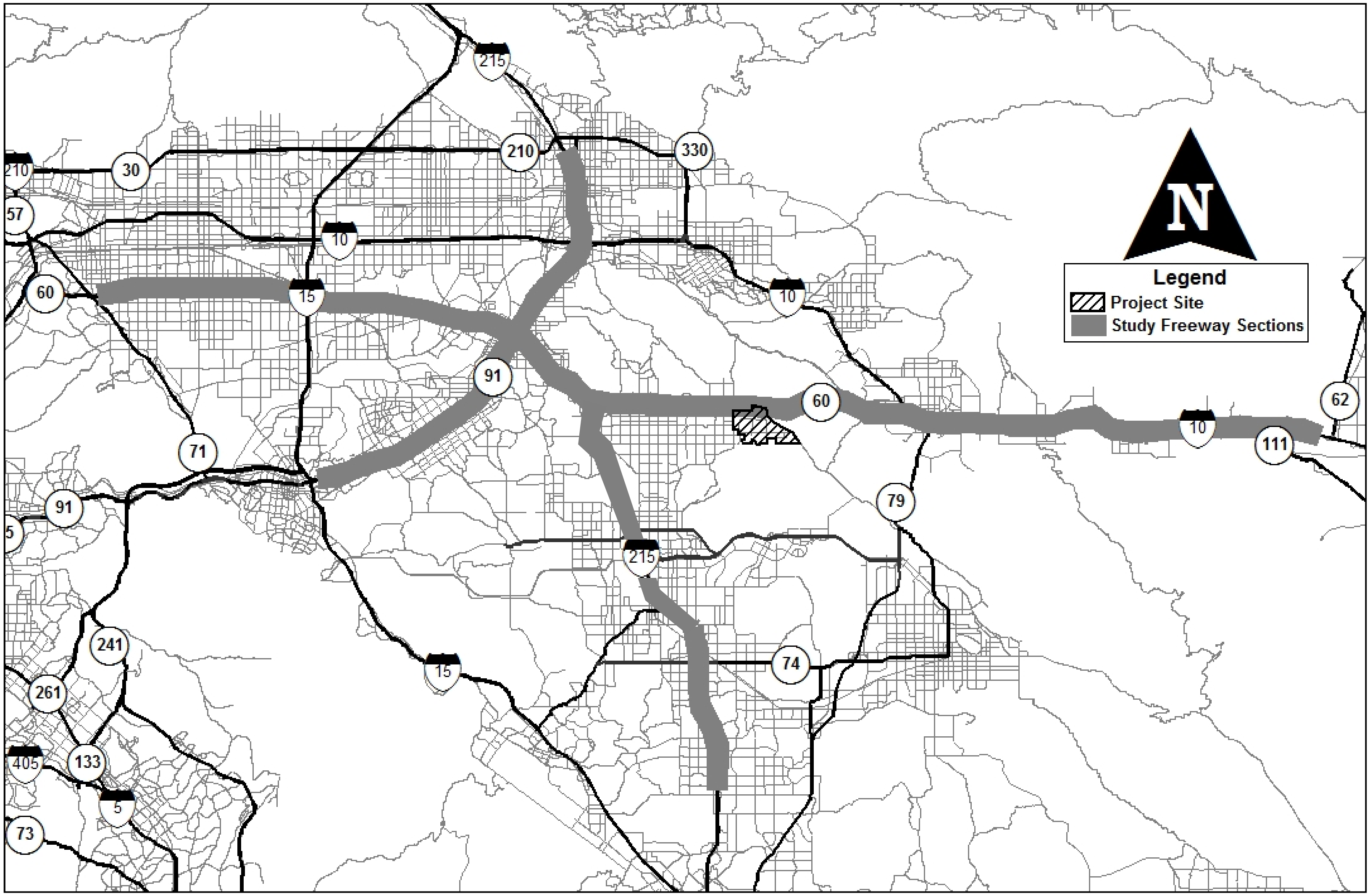

Figure 4.15.3: Freeway Segment ~~Locations~~LocationsSource: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018
~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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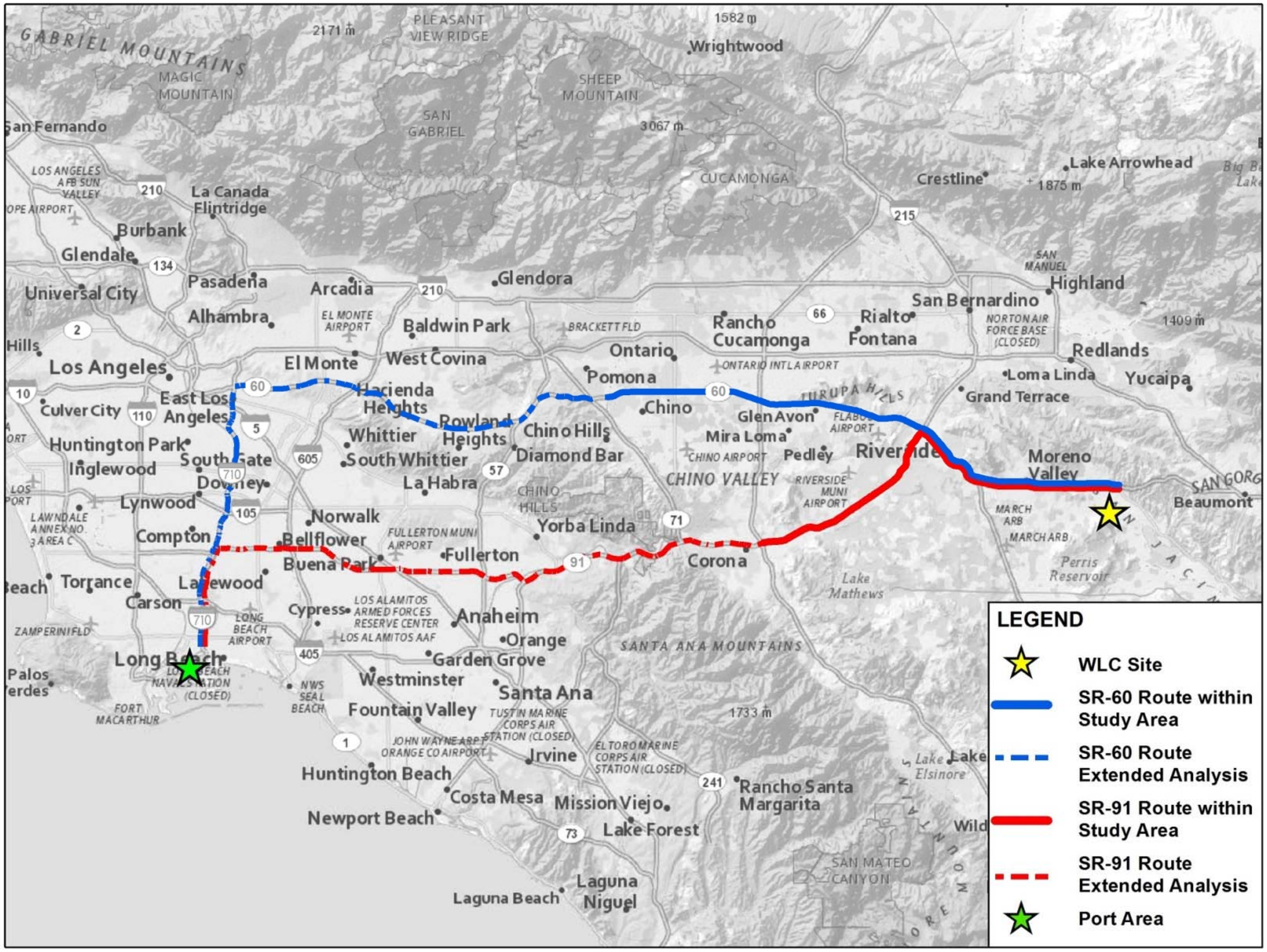

Figure 4.15.4: Freeway Segment Locations to the Ports of Los Angeles and Long Beach
Source: Traffic Impact Analysis Report for the World Logistics Center, ~~Parsons Brinckerhoff, September 2014.~~WSP July 2018

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4.15.1 Existing Setting

4.15.1.1 Traffic Level of Service Definitions

Level of Service (LOS) is an expression of a transportation facility's operations and is dictated by the relationship between capacity and traffic volumes. LOS is generally defined using the letter grades A through F (Table 4.15.A). These levels reflect the reality that conditions rapidly deteriorate as traffic approaches the absolute capacity of a thoroughfare.

Table 4.15.A: Traffic Level of Service Definitions

Level of Service	Description
A	~~No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.~~Volume-tocapacity ratio is low and either the progression is exceptionally favorable or the cycle length is short. If due to favorable progression, most vehicles during the green indication and travel through the intersection without stopping.
B	~~This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.~~Volume to capacity ratio is low and either the progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A
C	~~This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.~~Progression is favorable or the cycle length is moderate. Individual cycle failures (i.e. one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	~~This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.~~Volume-to-capacity ratio is high and either progression is ineffective or cycle length is long. Most vehicles stop and individual cycle failures are noticeable.
E	~~Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.~~Volume-to-capacity ratio is high, progression is unfavorable and the cycle length is long. Individual cycle failures are frequent.
F	~~This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.~~Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: *Highway Capacity Manual, Special Report 209,* Transportation Research Board, Washington, D.C., ~~2000.~~2010

Roadway Segment Level of Service Methodology. Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element as shown in Table 4.15.B.

Table 4.15.B: City of Moreno Valley Level of Service Criteria for Roadway Segments

Roadway Classification	Level of Service*				
	A	B	C	D	E
6-Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
4-Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
4-Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
2-Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
2-Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

*Maximum Average Daily Traffic (ADT)

Source: City of Moreno Valley *Traffic Impact Analysis Preparation Guide*, 2007.

Riverside County's LOS thresholds for surface streets were used for the assessment of impacts to Gilman Springs Road, as shown in Table 4.15.C.

Table 4.15.C: Riverside County LOS Thresholds for Surface Streets

Type of Roadway	Level of Service(1)		
	LOS C	LOS D	LOS E
8-Lane Urban Arterial	57,400	64,600	71,800
6-Lane Urban Arterial	43,100	48,500	53,900
4-Lane Urban Arterial	28,700	32,300	35,900
2-Lane Collector	10400	11700	13,000

Notes: All capacity figures are based on optimum conditions and are intended as guidelines for planning purpose only.

(1) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.

Source: County of Riverside General Plan, Circulation Element, 2008

Intersection Level of Service Methodologies. LOS criteria for signalized intersections are identified in Table 4.15.D. Levels of service at signalized intersections were calculated using the methodology described in Chapter 16 of the *Highway Capacity Manual* (HCM) and generated by the Synchro analysis software. Signalized intersection LOS are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.15.D.

Table 4.15.D: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection and Roundabouts Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Table 4.15.D: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection and Roundabouts Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)

Source: *Highway Capacity Manual,* Transportation Research Board, Washington, DC, ~~2000.~~2010

LOS criteria for unsignalized intersections are also identified in Table 4.15.D. The City of Moreno Valley requires unsignalized intersection analysis based on the methodology described in Chapter 17 of the HCM.

Freeway Level of Service Methodology. Caltrans LOS criteria for freeway mainline segments, freeway weave segments, and freeway ramp merge/diverge locations are expressed in terms of density (passenger cars/mile/lane). Table 4.15.E shows the correlation between density and LOS for freeway segments and ramps.

Table 4.15.E: Level of Service Criteria for Freeway Segments

Level of Service	Freeway Segment Density (passenger cars/mile/lane)	Freeway Weaving Segment Density (pc/mi/lane)	Freeway Ramp Density (passenger cars/mile/lane)
A	0–11.0	≤ 10.0	≤ 10.0
B	11.0–18.0	> 10.0 and ≤ 20.0	> 10.0 and ≤ 20.0
C	18.0–26.0	> 20.0 and ≤ 28.0	> 20.0 and ≤ 28.0
D	26.0–35.0	> 28.0 and ≤ 35.0	> 28.0 and ≤ 35.0
E	35.0–45.0	>35.0 and ≤ 43.0	>35
F	> 45.0	>43.0	Exceeds Capacity

Source: (Table 11, PB 2013) *Highway Capacity Manual,* Transportation Research Board, Washington, DC, 2000.

4.15.1.2 Baseline Conditions

The project is located within the eastern portion of the City of Moreno Valley. The project site is located south of SR-60 and west of Gilman Springs Road. Tables 4.15.F and 4.15.G show existing intersection control types and roadway through lanes for the study area intersections and roadways, respectively. LOS and volumes are discussed below for existing (~~2012~~2018) without project conditions (otherwise known as the "baseline" condition).

Baseline Levels of Service. Existing (~~2012~~2018) traffic operations have been evaluated for study area intersections. The analysis was performed for the a.m. and p.m. peak hours. Existing traffic volumes at study area intersections are based on peak hour intersection turn movement counts. An intersection level of service analysis was conducted to determine current intersection performance for existing baseline conditions. The levels of service for existing baseline conditions at study area intersections are summarized in Table 4.15.F, which shows the following ~~12~~21 study intersections currently operate at an unsatisfactory level of service during either the a.m. and p.m. peak hour:

- N-10 Redlands ~~Boulevard/~~Blvd./Locust ~~Avenue (a.m. and p.m.);~~Ave. (AM, PM)
- ~~Redlands Boulevard/SR-60 Westbound ramps (a.m. and p.m.);~~
- IN-20 Oliver ~~Street/~~St./Alessandro ~~Boulevard (a.m.);~~Blvd. (AM)
- IN-23 Redlands Blvd./Alessandro Str. (PM)

- IN-37 Moreno Beach ~~Drive/~~Dr./SR-60 ~~Eastbound~~EB Ramps (~~p.m.);~~PM)
- ~~Lasselle Street/~~IN-39 Iris Ave./Perris Blvd. (PM)
- IN-65 Perris Blvd./Cactus ~~Avenue (a.m. and p.m.);~~Ave. (AM)
- ~~Alessandro Boulevard/~~IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago ~~Avenue. (p.m.);~~Ave. (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs ~~Road/~~Rd./Bridge ~~Street (a.m.);~~St. (AM, PM)
- IN-124 SR-79 (Sanderson ~~Avenue) Northbound~~Ave.) NB/Gilman Springs ~~Road (a.m. and p.m.);~~Rd. (AM)
- IN-125 SR-79 (Sanderson ~~Avenue) Southbound~~Ave) SB/Gilman Springs ~~Road (a.m. and p.m.);~~Rd. (AM, PM)
- IN-132 San Timoteo Canyon ~~Road/~~Rd./Alessandro ~~Road (a.m. and p.m.);~~Rd. (AM)
- IN-133 San Timoteo Canyon ~~Road/~~Rd./Live Oak Canyon ~~Road (a.m. and p.m.); and~~Rd. (AM, PM)
- IN-134 Redlands ~~Boulevard/~~Blvd./San Timoteo Canyon ~~Road (a.m. and p.m.).~~Rd. (AM, PM)

- A roadway segment analysis was conducted to determine current roadway system performance for existing baseline conditions for the roadway segments that would be affected by the ~~proposed General Plan Amendment.~~ WLC project. Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element and summarized in previously referenced Table 4.15.B. The roadway segment levels of service are summarized in Table 4.15.G. The following two roadway segments currently exceed the threshold of significance established in the General Plan.

- Gilman Springs Road: Alessandro to Bridge Street
- ~~Between~~Gliman Springs Road: SR60 to Alessandro ~~Boulevard and Bridge Street; and~~Blvd
- ~~Between~~Redlands Blvd: SR- 60 ~~and Alessandro Boulevard~~to Eucalyptus Ave.

A freeway analysis was conducted for existing baseline conditions to determine current freeway performance on SR-60, SR-91, I-215, and I-10 basic freeway segments where the project would add 100 or more peak-hour trips and on the freeway routes to the Ports of Los Angeles and Long Beach. A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Existing baseline freeway mainline and weaving section levels of service are summarized in Tables 4.15.H and 4.15.I, respectively, which show the following ~~17~~34 freeway mainline segments and ~~six~~7 weaving segments are currently operating at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

North or Eastbound

- SR-60~~, South Reservoir Street to~~ Ramona ~~Avenue (Westbound a.m.);~~
- ~~SR-60, Ramona Avenue~~Ave. to Central ~~Avenue (Westbound a.m., Eastbound p.m.);~~Ave. (AM, PM)
- SR-60~~,~~ Central ~~Avenue~~Ave. to Mountain ~~Avenue (Eastbound p.m.);~~Ave. (PM)
- SR-60~~,~~ Mountain Ave. to Euclid ~~Avenue~~Ave. (PM)
- SR-60 Euclid Ave. to Grove ~~Avenue (Eastbound p.m.);~~Ave. (PM)
- SR-60~~,~~ Grove ~~Avenue~~Ave. to Vineyard ~~Avenue (Eastbound p.m.);~~Ave. (PM)
- SR-60~~,~~ Vineyard ~~Avenue~~Ave. to Archibald ~~Avenue (Eastbound p.m.);~~Ave. (PM)
- SR-60~~,~~ Market ~~Street~~St. to Main ~~Street (Eastbound p.m.);~~St. (PM)
- SR-60~~,~~ Martin Luther King ~~Boulevard~~Blvd. to Central ~~Avenue (Eastbound p.m.);~~Ave. (AM, PM)
- SR-60~~, I-215~~ Pigeon Pass Rd. to ~~Day Street (Westbound a.m.);~~Heacock St. (PM)
- SR-91~~, I-15 to McKinley Street (Eastbound p.m.);~~
- ~~SR-91,~~ Pierce ~~Street~~St. to Magnolia ~~Avenue (Westbound p.m.);~~Ave. (AM, PM)
- SR-91~~, Magnolia Avenue~~ Tyler St. to ~~La Sierra Avenue (Westbound p.m.);~~Van Buren Blvd. (PM)
- ~~I-215, SR-74/Case Road to Redlands Boulevard (Westbound a.m., Eastbound p.m.);~~
- ~~I-215, Barton Road~~SR-91 Adams St. to Madison St. (AM, PM)
- SR-91 ~~to Mt. Vernon Avenue/Washington Street (Northbound a.m.);~~
- ~~I-215, Baseline Road to Highland Avenue/SR-210 (Southbound a.m., Southbound p.m.);~~
- ~~SR-60, SR-71/Garey Avenue to Reservoir Street (Eastbound p.m.);~~
- ~~SR-60, SR-91 to Blaine Street/3rd Street (Eastbound p.m.);~~
- ~~SR-60, Blaine Street/3rd Street to University Avenue (Eastbound p.m.);~~
- ~~SR-60,~~ Central ~~Avenue~~Ave. to 14th St. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave./Washington St. (AM)
- I-215 Auto Plaza Dr. to Mill St. (PM)

Southbound or Westbound

- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (PM)
- SR-60 Market St. to Main St. (AM)
- SR-60 Main St. to SR-91 (AM)

- SR-60 Fair Isle ~~Drive/~~Dr./Box Springs ~~Road (Westbound a.m.);~~Rd. to I-215 (PM)
- ~~SR-91,~~SR-60 I-215 to Day St. (AM)
- SR-60 Pigeon Pass Rd. to Heacock St. (AM)
- SR-91 McKinley St. to Pierce St. (AM, PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Magnolia Ave. to La Sierra Ave. (AM, PM)
- SR-91 La Sierra Ave. to Tyler St. (PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Van Buren Blvd. to Adams St. (PM)
- SR-91 Madison St. to Arlington ~~Avenue to Central Avenue (Eastbound a.m.); and~~Ave. (AM, PM)
- ~~SR-91, 14th Street to University Avenue (Westbound p.m.).~~

~~Table 4.15.F: Existing (2012) Intersection Levels of Service~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~AM Peak Hour~~		~~PM Peak Hour~~	
				~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~2~~	~~Cactus Ave Extension/Street E~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~3~~	~~Theodore St/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~9.7~~	~~A~~	~~10.1~~	~~B~~
~~4~~	~~Street C/Street F~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~CSS~~	~~10.3~~	~~B~~	~~15.7~~	~~C~~
~~9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~26.7~~	~~D~~	~~42.8~~	~~E~~
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~40.9~~	~~D~~	~~37.3~~	~~D~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~9.7~~	~~A~~	~~9.8~~	~~A~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~42.2~~	~~E~~	~~54.0~~	~~F~~
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~9.6~~	~~A~~	~~14.4~~	~~B~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~9.0~~	~~A~~	~~9.6~~	~~A~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~9.2~~	~~A~~	~~9.4~~	~~A~~
~~17~~	~~Quincy Str/Fir Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~9.2~~	~~A~~	~~9.8~~	~~A~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~25.9~~	~~D~~	~~14.7~~	~~B~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.0~~	~~C~~	~~28.2~~	~~C~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~20.5~~	~~C~~	~~13.8~~	~~B~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~23.8~~	~~C~~	~~17.3~~	~~B~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~16.0~~	~~B~~	~~17.0~~	~~B~~

~~Table 4.15.F: Existing (2012) Intersection Levels of Service~~

				~~AM Peak Hour~~		~~PM Peak Hour~~	
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~11.4~~	~~B~~	~~8.2~~	~~A~~
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~16.2~~	~~B~~	~~13.8~~	~~B~~
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~29.6~~	~~C~~	~~31.9~~	~~C~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~21.5~~	~~C~~
~~31~~	~~Heacock Str/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~12.5~~	~~B~~	~~15.9~~	~~B~~
~~32~~	~~Sunnymead Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.4~~	~~C~~	~~36.0~~	~~D~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~22.0~~	~~C~~	~~19.7~~	~~B~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~22.8~~	~~C~~	~~23.4~~	~~C~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~8.6~~	~~A~~	~~8.6~~	~~A~~
~~36~~	~~Moreno Beach Drive/Ironwood Avenue~~	~~D~~	~~SIGNAL~~	~~50.3~~	~~D~~	~~40.0~~	~~D~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~38.0~~	~~D~~	~~76.6~~	~~E~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~37.0~~	~~D~~	~~31.2~~	~~C~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~41.5~~	~~D~~	~~36.5~~	~~D~~
~~40~~	~~Kitching Str/Iris Ave~~	~~C~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~17.5~~	~~B~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~25.4~~	~~C~~	~~26.6~~	~~C~~
~~42~~	~~Nason Str/Iris Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~22.1~~	~~C~~	~~15.8~~	~~B~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~6.5~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~34.6~~	~~C~~	~~29.3~~	~~C~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~21.7~~	~~C~~	~~19.4~~	~~B~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~37.9~~	~~D~~	~~13.5~~	~~B~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~24.7~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~31.7~~	~~C~~	~~26.6~~	~~C~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~8.8~~	~~A~~	~~7.8~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~20.5~~	~~C~~	~~16.9~~	~~B~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~33.3~~	~~C~~	~~22.6~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~47.2~~	~~D~~	~~38.6~~	~~D~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~22.5~~	~~C~~	~~21.0~~	~~C~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.5~~	~~B~~	~~25.6~~	~~C~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.8~~	~~B~~	~~24.2~~	~~C~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.8~~	~~C~~	~~23.6~~	~~C~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~27.9~~	~~C~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~32.4~~	~~C~~	~~42.3~~	~~D~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~9.8~~	~~A~~	~~11.7~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~12.9~~	~~B~~	~~17.4~~	~~B~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.1~~	~~C~~	~~20.3~~	~~C~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~24.4~~	~~C~~	~~19.6~~	~~B~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~26.9~~	~~C~~	~~30.7~~	~~C~~

~~Table 4.15.F: Existing (2012) Intersection Levels of Service~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~AM Peak Hour~~		~~PM Peak Hour~~	
				~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~25.8~~	~~C~~	~~18.0~~	~~B~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~6.4~~	~~A~~	~~12.6~~	~~B~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.4~~	~~B~~	~~24.1~~	~~C~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~18.2~~	~~B~~	~~18.6~~	~~B~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~4.6~~	~~A~~	~~8.2~~	~~A~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.2~~	~~B~~	~~27.6~~	~~C~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~12.1~~	~~B~~	~~19.7~~	~~B~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~11.1~~	~~B~~	~~3.7~~	~~A~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~26.7~~	~~C~~	~~29.5~~	~~C~~
~~75~~	~~Central Ave/Lochmoor Dr~~	~~D~~	~~SIGNAL~~	~~10.9~~	~~B~~	~~6.7~~	~~A~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~22.2~~	~~C~~	~~17.6~~	~~B~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~7.3~~	~~A~~	~~10.3~~	~~B~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~6.8~~	~~A~~	~~8.2~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd~~	~~D~~	~~SIGNAL~~	~~28.4~~	~~C~~	~~14.8~~	~~B~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~18.8~~	~~B~~	~~34.9~~	~~C~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~43.2~~	~~D~~	~~36.5~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~9.0~~	~~A~~	~~13.0~~	~~B~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~43.2~~	~~D~~	~~28.0~~	~~C~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~8.6~~	~~A~~	~~4.7~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~24.3~~	~~C~~	~~12.2~~	~~B~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~23.1~~	~~C~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~12.0~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~27.8~~	~~C~~	~~35.2~~	~~D~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~6.3~~	~~A~~	~~4.9~~	~~A~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~31.3~~	~~C~~	~~30.7~~	~~C~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~21.0~~	~~C~~	~~20.8~~	~~C~~
~~92~~	~~Arlington Ave/Maude Str~~	~~D~~	~~SIGNAL~~	~~13.8~~	~~B~~	~~11.1~~	~~B~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~12.3~~	~~B~~	~~7.2~~	~~A~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~54.8~~	~~D~~	~~30.9~~	~~C~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~40.7~~	~~D~~	~~65.9~~	**~~E~~**
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~16.7~~	~~B~~	~~7.6~~	~~A~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~18.9~~	~~B~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~20.4~~	~~C~~	~~17.9~~	~~B~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~15.4~~	~~B~~	~~15.1~~	~~B~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~101~~	~~Ramona Expy/Indian Str~~	~~E~~	~~SIGNAL~~	~~3.3~~	~~A~~	~~8.5~~	~~A~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~31.7~~	~~C~~	~~34.6~~	~~C~~

~~Table 4.15.F: Existing (2012) Intersection Levels of Service~~

				~~AM Peak Hour~~		~~PM Peak Hour~~	
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~54.5~~	~~D~~	~~28.8~~	~~C~~
~~104~~	~~Perris Blvd/Morgan Str~~	~~D~~	~~SIGNAL~~	~~11.8~~	~~B~~	~~6.7~~	~~A~~
~~105~~	~~Evans Rd/Morgan Str~~	~~C~~	~~SIGNAL~~	~~32.5~~	~~C~~	~~20.6~~	~~C~~
~~106~~	~~Perris Blvd/Rider Str~~	~~C~~	~~SIGNAL~~	~~24.5~~	~~C~~	~~23.0~~	~~C~~
~~107~~	~~Evans Rd/Rider Str~~	~~C~~	~~SIGNAL~~	~~34.2~~	~~C~~	~~28.3~~	~~C~~
~~108~~	~~Perris Blvd/Mid County Pkwy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~109~~	~~Perris Blvd/Mid County Pkwy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~110~~	~~Evans Rd/Mid County Pkwy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~111~~	~~Evans Rd/Mid County Pkwy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~30.1~~	~~C~~	~~14.0~~	~~B~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~12.5~~	~~B~~	~~10.1~~	~~B~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~23.3~~	~~C~~	~~22.6~~	~~C~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~122~~	~~Bridge Str/Ramona Expy~~	~~C~~	~~CSS~~	~~22.4~~	~~C~~	~~20.6~~	~~C~~
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~26.6~~	~~D~~	~~20.8~~	~~C~~
~~124~~	~~SR-79 (Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~34.7~~	~~D~~	~~30.7~~	~~D~~
~~125~~	~~SR-79 (Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~29.2~~	~~D~~	~~48.2~~	~~E~~
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~27.1~~	~~C~~	~~20.8~~	~~C~~
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~129~~	~~W 6th Str/California Ave~~	~~C~~	~~AWS~~	~~16.6~~	~~C~~	~~18.0~~	~~C~~
~~130~~	~~W 6th Str/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~13.2~~	~~B~~	~~12.8~~	~~B~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~18.9~~	~~B~~	~~6.3~~	~~A~~
~~132~~	~~San Timoteo Canyon Rd/ Alessandro Blvd~~	~~D~~	~~AWS~~	~~77.2~~	~~F~~	~~23.9~~	~~C~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~50.9~~	~~F~~	~~60.2~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~81.8~~	~~F~~	~~80.5~~	~~F~~
~~135~~	~~W Crescent Ave/Alessandro Blvd~~	~~C~~	~~CSS~~	~~14.0~~	~~B~~	~~11.5~~	~~B~~
~~136~~	~~W Sunset Dr/Alessandro Blvd~~	~~C~~	~~AWS~~	~~8.9~~	~~A~~	~~9.0~~	~~A~~

~~Table 4.15.F: Existing (2012) Intersection Levels of Service~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~AM Peak Hour~~		~~PM Peak Hour~~	
				~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~

▨ ~~denotes LOS exceeding the target threshold~~

~~"CSS" means cross-street is stop-controlled~~	~~"NB" and "SB" denote northbound and southbound, respectively~~
~~"AWS" means all-way stop~~	~~"EB" and "WB" denote eastbound and westbound, respectively~~
~~"RABT" means roundabout~~	~~"LT" and "RT" denote left turn and right turn, respectively~~

- I-215 Harley Knox Blvd. to Van Buren Blvd. (PM)
- I-215 Alessandro Blvd. to Eucalyptus Ave. (PM)
- I-215 Center St. to La Cadena Dr. (AM, PM)
- I-215 La Cadena Dr. to Barton Rd. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave. (PM)

Most of the freeway basic sections currently exceeding the target LOS involve congestion in the peak direction. That is why regional agencies stress the importance of promoting reverse commuting; to move some traffic from the congested side of the freeway to the uncongested side.

Table 4.15.F: Existing (2018) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		Non-Existent	
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Non-Existent	
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	10.2	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	29.4	D
IN-9	Gilman Springs Rd/Eucalyptus Ave	-	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	73.0	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	28.5	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	21.2	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	17.8	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	9.1	A
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	9.0	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	2.6	A
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	9.0	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	19.3	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	29.3	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	33.7	**D**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	17.1	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	15.4	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	10.6	B
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	18.7	B
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	33.4	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	20.8	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	13.9	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	36.3	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	18.5	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	18.5	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	41.8	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	61.8	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	31.1	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	56.6	**E**
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	17.2	B
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	34.4	C
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	19.4	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	15.0	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	10.7	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	20.7	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	14.6	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	19.5	B
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	20.0	C

Table 4.15.F: Existing (2018) Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	22.5	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	7.5	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	19.4	B
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	19.9	B
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	28.8	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	18.8	B
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	26.3	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	27.9	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	36.7	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	26.6	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	34.5	C
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	9.3	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	21.0	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	31.8	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	23.1	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	35.5	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	29.0	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	9.0	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	13.0	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	17.4	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	14.5	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	20.8	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	14.4	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	7.0	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	26.5	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	8.8	A
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	53.6	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	15.8	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	9.4	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	15.8	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	27.8	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	51.6	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	10.9	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	34.2	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	7.4	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	91.4	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	15.8	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	39.6	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	5.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	24.2	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	6.4	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	27.1	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	5.9	A
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	39.0	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	78.5	**E**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	11.1	B

Table 4.15.F: Existing (2018) Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	22.8	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	34.4	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	29.9	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	20.1	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	27.9	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	36.1	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	16.7	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	21.3	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	22.8	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	28.4	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	11.9	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	39.0	**E**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	23.8	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	111.0	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	84.5	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	146.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	115.4	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	29.7	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	31.4	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	14.0	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	17.5	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	23.1	C
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	104.8	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	178.9	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	12.5	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	9.6	A

Notes:

"NB" and "SB" denote northbound and southbound respectively	"CSS" means cross-street is stop-controlled
"EB" and "WB" denote eastbound and westbound respectively	"AWS" means all-way stop
▢ Indicates LOS exceeds the target level	"RABT" means roundabout

Source: Traffic Impact Analysis Report for the World Logistics Center, ~~Parsons Brinckerhoff, September 2014.~~WSP, July 2018

~~Table 4.15.G: Existing (2012) Roadway Segment Levels of Service~~

~~Roadway~~		~~From~~	~~To~~	~~Roadway Section*~~	~~LOS Standard~~	~~Daily Volume~~	~~LOS~~
~~S-1~~	~~Theodore Street (A)~~	~~SR-60 WB Ramps~~	~~Ironwood Avenue~~	~~2U~~	~~D~~	~~771~~	~~A~~
~~S-2~~	~~Theodore Street (A)~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave~~	~~2U~~	~~D~~	~~2,046~~	~~A~~
~~S-3~~	~~Fir (Eucalyptus) Ave~~	~~Redlands Blvd~~	~~Theodore Street (A)~~	~~2U**~~	~~D~~	~~1,339~~	~~A~~
~~S-4~~	~~Eucalyptus Ave (B)~~	~~Theodore Street (A)~~	~~Gilman Springs Rd~~	~~Future Road~~			
~~S-5~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave~~	~~Street E~~	~~2U~~	~~D~~	~~641~~	~~A~~
~~S-6~~	~~Street E~~	~~Theodore Street (A)~~	~~Cactus Ave Extension~~	~~Future Road~~			
~~S-7~~	~~Street F~~	~~Theodore Street (A)~~	~~Alessandro Blvd (Street C)~~	~~Future Road~~			
~~S-8~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave~~	~~Alessandro Blvd (Street C)~~	~~2U~~	~~D~~	~~641~~	~~A~~
~~S-9~~	~~Alessandro Blvd (Street E)~~	~~Merwin Street~~	~~Theodore Street (A)~~	~~2U~~	~~D~~	~~2,537~~	~~A~~
~~S-10~~	~~Cactus Ave Extension~~	~~Alessandro Blvd (Street E)~~	~~Cactus Ave~~	~~Future Road~~			
~~S-11~~	~~Alessandro Blvd (Street C)~~	~~Theodore Street (A)~~	~~Street F~~	~~2U~~	~~D~~	~~1,896~~	~~A~~
~~S-13~~	~~Alessandro Blvd (Street C)~~	~~Street F~~	~~Gilman Springs Rd~~	~~2U~~	~~D~~	~~1,896~~	~~A~~
~~S-14~~	~~Alessandro Blvd~~	~~Moreno Beach Drive~~	~~Redlands Blvd~~	~~2U~~	~~D~~	~~3,877~~	~~A~~
~~S-16~~	~~Gilman Springs Rd~~	~~Alessandro Blvd (Street C)~~	~~Bridge Street~~	~~2U~~	~~D~~	~~14,407~~	~~F~~
~~S-17~~	~~Gilman Springs Rd~~	~~SR-60~~	~~Alessandro Blvd (Street C)~~	~~2U~~	~~D~~	~~11,973~~	~~E~~
~~S-18~~	~~Redlands Blvd~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave.~~	~~2U~~	~~D~~	~~7,338~~	~~A~~
~~S-19~~	~~Redlands Blvd~~	~~Fir (Eucalyptus) Ave.~~	~~Alessandro Blvd~~	~~2U~~	~~C~~	~~6,786~~	~~A~~
~~S-20~~	~~Alessandro Blvd~~	~~Redlands Blvd~~	~~Merwin Street~~	~~2U~~	~~C~~	~~2,537~~	~~A~~
~~S-21~~	~~Redlands Blvd~~	~~Alessandro Blvd~~	~~Cactus Ave.~~	~~2U~~	~~C~~	~~6,786~~	~~A~~
~~S-22~~	~~Cactus Ave.~~	~~Redlands Blvd~~	~~Cactus Ave. Extension~~	~~2U**~~	~~C~~	~~472~~	~~A~~

~~* Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways~~

~~** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.~~

~~*** LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways~~

▨ ~~Indicates LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.H: Existing (2012) Freeway Segment Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-2~~	~~SR-60~~	~~Reservoir St to Ramona Ave~~	~~6,024~~	~~24.5~~	~~C~~	~~7,822~~	~~33.0~~	~~D~~	~~8,762~~	~~41.4~~	~~E~~	~~6,381~~	~~25.6~~	~~C~~
~~F-3~~	~~SR-60~~	~~Ramona Ave to Central Ave~~	~~5,687~~	~~22.8~~	~~C~~	~~9,400~~	~~47.3~~	~~F~~	~~8,283~~	~~37.1~~	~~E~~	~~5,925~~	~~23.4~~	~~C~~
~~F-4~~	~~SR-60~~	~~Central Ave to Mountain Ave~~	~~6,339~~	~~26.2~~	~~D~~	~~9,338~~	~~46.6~~	~~F~~	~~6,336~~	~~24.7~~	~~C~~	~~6,076~~	~~24.1~~	~~C~~
~~F-5~~	~~SR-60~~	~~Mountain Ave to Euclid Ave~~	~~6,205~~	~~25.4~~	~~C~~	~~6,664~~	~~26.1~~	~~D~~	~~6,259~~	~~24.4~~	~~C~~	~~6,495~~	~~26.3~~	~~D~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~7,650~~	~~34.7~~	~~D~~	~~9,091~~	~~43.8~~	~~E~~	~~6,461~~	~~25.4~~	~~C~~	~~6,302~~	~~25.2~~	~~C~~
~~F-7~~	~~SR-60~~	~~Grove Ave to Vineyard Ave~~	~~6,923~~	~~29.6~~	~~D~~	~~9,400~~	~~47.3~~	~~F~~	~~6,274~~	~~24.3~~	~~C~~	~~6,699~~	~~27.4~~	~~D~~
~~F-8~~	~~SR-60~~	~~Vineyard Ave to Archibald Ave~~	~~6,823~~	~~28.7~~	~~D~~	~~9,400~~	~~47.3~~	~~F~~	~~7,658~~	~~32.1~~	~~D~~	~~6,245~~	~~25.0~~	~~C~~
~~F-9~~	~~SR-60~~	~~Archibald Ave to Haven Ave~~	~~6,268~~	~~25.6~~	~~C~~	~~6,471~~	~~25.1~~	~~C~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-10~~	~~SR-60~~	~~Haven Ave to Milliken Ave~~	~~6,096~~	~~19.1~~	~~C~~	~~6,864~~	~~20.6~~	~~C~~	~~5,804~~	~~17.4~~	~~B~~	~~5,698~~	~~17.5~~	~~B~~
~~F-11~~	~~SR-60~~	~~Milliken Ave to I-15~~	~~4,234~~	~~16.5~~	~~B~~	~~4,529~~	~~16.9~~	~~B~~	~~5,456~~	~~20.5~~	~~C~~	~~5,111~~	~~19.5~~	~~C~~
~~F-12~~	~~SR-60~~	~~I-15 to Etiwanda Ave/Van Buren Blvd~~	~~2,593~~	~~10.2~~	~~A~~	~~2,910~~	~~10.8~~	~~A~~	~~4,490~~	~~13.4~~	~~B~~	~~4,275~~	~~13.0~~	~~B~~
~~F-13~~	~~SR-60~~	~~Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd~~	~~3,026~~	~~11.9~~	~~B~~	~~3,968~~	~~14.8~~	~~B~~	~~4,220~~	~~15.7~~	~~B~~	~~3,881~~	~~14.8~~	~~B~~
~~F-14~~	~~SR-60~~	~~Mission Blvd/Country Village Rd to Pedley Rd~~	~~2,596~~	~~10.2~~	~~A~~	~~3,061~~	~~11.4~~	~~B~~	~~4,172~~	~~15.5~~	~~B~~	~~3,963~~	~~15.1~~	~~B~~
~~F-15~~	~~SR-60~~	~~Pedley Rd to Pyrite St~~	~~2,813~~	~~11.1~~	~~B~~	~~3,334~~	~~12.4~~	~~B~~	~~3,216~~	~~12.0~~	~~B~~	~~3,068~~	~~11.7~~	~~B~~

~~Table 4.15.H: Existing (2012) Freeway Segment Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-16~~	~~SR-60~~	~~Pyrite St to Valley Way~~	~~3,348~~	~~13.2~~	~~B~~	~~3,642~~	~~13.6~~	~~B~~	~~2,653~~	~~9.9~~	~~A~~	~~2,567~~	~~9.8~~	~~A~~
~~F-17~~	~~SR-60~~	~~Valley Way to Rubidoux Blvd~~	~~4,398~~	~~23.7~~	~~C~~	~~4,252~~	~~21.4~~	~~C~~	~~4,532~~	~~23.1~~	~~C~~	~~4,725~~	~~24.9~~	~~C~~
~~F-18~~	~~SR-60~~	~~Rubidoux Blvd to Market St~~	~~4,943~~	~~27.6~~	~~D~~	~~4,706~~	~~24.3~~	~~C~~	~~3,568~~	~~17.7~~	~~B~~	~~3,868~~	~~19.7~~	~~C~~
~~F-19~~	~~SR-60~~	~~Market St to Main St~~	~~4,498~~	~~24.4~~	~~C~~	~~7,050~~	~~47.8~~	~~F~~	~~5,631~~	~~30.9~~	~~D~~	~~5,109~~	~~27.6~~	~~D~~
~~F-20~~	~~SR-60~~	~~Main to SR-91~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~5,248~~	~~27.9~~	~~D~~	~~4,720~~	~~24.9~~	~~C~~
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~5,865~~	~~24.6~~	~~C~~	~~8,976~~	~~45.7~~	~~F~~	~~7,050~~	~~30.6~~	~~D~~	~~5,800~~	~~24.1~~	~~C~~
~~F-26~~	~~SR-60~~	~~Fair Isle Dr/Box Springs Rd to I-215~~	~~4,332~~	~~16.9~~	~~B~~	~~6,795~~	~~26.6~~	~~D~~	~~7,461~~	~~31.1~~	~~D~~	~~6,376~~	~~25.6~~	~~C~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~7,050~~	~~47.9~~	~~F~~	~~3,093~~	~~15.9~~	~~B~~
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd to Heacock St~~	~~2,702~~	~~21.6~~	~~C~~	~~3,713~~	~~30.2~~	~~D~~	~~3,013~~	~~23.1~~	~~C~~	~~3,254~~	~~26.5~~	~~D~~
~~F-30~~	~~SR-60~~	~~Heacock St to Perris Blvd~~	~~2,349~~	~~18.6~~	~~C~~	~~3,355~~	~~26.1~~	~~D~~	~~2,638~~	~~19.9~~	~~C~~	~~2,671~~	~~20.8~~	~~C~~
~~F-31~~	~~SR-60~~	~~Perris Blvd to Nason St~~	~~1,812~~	~~14.3~~	~~B~~	~~2,344~~	~~17.4~~	~~B~~	~~1,910~~	~~14.3~~	~~B~~	~~2,045~~	~~15.8~~	~~B~~
~~F-32~~	~~SR-60~~	~~Nason St to Moreno Beach Dr~~	~~1,619~~	~~12.8~~	~~B~~	~~2,038~~	~~15.1~~	~~B~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-33~~	~~SR-60~~	~~Moreno Beach Dr to Redlands Blvd~~	~~1,326~~	~~10.5~~	~~A~~	~~1,397~~	~~10.4~~	~~A~~	~~988~~	~~7.4~~	~~A~~	~~1,336~~	~~10.3~~	~~A~~
~~F-34~~	~~SR-60~~	~~Redlands Blvd to Theodore St~~	~~1,614~~	~~12.7~~	~~B~~	~~1,920~~	~~14.2~~	~~B~~	~~1,193~~	~~8.9~~	~~A~~	~~1,498~~	~~11.6~~	~~B~~
~~F-35~~	~~SR-60~~	~~Theodore St to Gilman Springs Rd~~	~~1,521~~	~~12.0~~	~~B~~	~~1,915~~	~~14.2~~	~~B~~	~~1,183~~	~~8.9~~	~~A~~	~~1,393~~	~~10.8~~	~~A~~

~~Table 4.15.H: Existing (2012) Freeway Segment Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-36~~	~~SR-60~~	~~Gilman Springs Rd to Jack Rabbit Trail~~	~~1,213~~	~~11.2~~	~~B~~	~~1,484~~	~~12.3~~	~~B~~	~~837~~	~~7.0~~	~~A~~	~~1,002~~	~~9.1~~	~~A~~
~~F-37~~	~~SR-60~~	~~Jack Rabbit Trail to I-10~~	~~1,215~~	~~9.6~~	~~A~~	~~1,482~~	~~11.0~~	~~A~~	~~837~~	~~6.3~~	~~A~~	~~1,002~~	~~7.7~~	~~A~~
~~F-39~~	~~SR-91~~	~~I-15 to McKinley St~~	~~5,914~~	~~22.6~~	~~C~~	~~9,400~~	~~53.3~~	~~F~~	~~6,402~~	~~25.1~~	~~C~~	~~5,971~~	~~24.1~~	~~C~~
~~F-40~~	~~SR-91~~	~~McKinley St to Pierce St~~	~~5,382~~	~~29.1~~	~~D~~	~~5,427~~	~~31.4~~	~~D~~	~~4,788~~	~~25.0~~	~~C~~	~~5,183~~	~~29.3~~	~~D~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~4,888~~	~~25.5~~	~~C~~	~~4,922~~	~~27.2~~	~~D~~	~~4,629~~	~~23.9~~	~~C~~	~~7,050~~	~~53.3~~	~~F~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~4,894~~	~~25.7~~	~~C~~	~~7,050~~	~~53.3~~	~~F~~
~~F-43~~	~~SR-91~~	~~La Sierra Ave to Tyler St~~	~~4,585~~	~~23.5~~	~~C~~	~~4,939~~	~~27.3~~	~~D~~	~~4,467~~	~~22.9~~	~~C~~	~~5,167~~	~~29.2~~	~~D~~
~~F-44~~	~~SR-91~~	~~Tyler St to Van Buren Blvd~~	~~5,704~~	~~21.7~~	~~C~~	~~5,851~~	~~23.5~~	~~C~~	~~5,769~~	~~22.1~~	~~C~~	~~6,661~~	~~27.8~~	~~D~~
~~F-45~~	~~SR-91~~	~~Van Buren Blvd to Adam St~~	~~5,841~~	~~22.3~~	~~C~~	~~4,999~~	~~19.6~~	~~C~~	~~5,342~~	~~20.2~~	~~C~~	~~6,401~~	~~26.3~~	~~D~~
~~F-46~~	~~SR-91~~	~~Adam St to Madison St~~	~~6,531~~	~~26.1~~	~~D~~	~~4,742~~	~~18.7~~	~~C~~	~~4,939~~	~~18.6~~	~~C~~	~~5,453~~	~~21.5~~	~~C~~
~~F-47~~	~~SR-91~~	~~Madison St to Arlington Ave~~	~~5,879~~	~~22.8~~	~~C~~	~~4,530~~	~~17.9~~	~~B~~	~~4,218~~	~~21.4~~	~~C~~	~~4,711~~	~~25.5~~	~~C~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~6,021~~	~~34.8~~	~~D~~	~~5,391~~	~~30.8~~	~~D~~	~~4,737~~	~~24.7~~	~~C~~	~~4,940~~	~~27.2~~	~~D~~
~~F-51~~	~~SR-91~~	~~University Ave to Spruce St~~	~~7,244~~	~~22.1~~	~~C~~	~~6,394~~	~~20.0~~	~~C~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-52~~	~~I-10~~	~~SR-60 to Beaumont Ave~~	~~3,037~~	~~11.9~~	~~B~~	~~4,252~~	~~16.4~~	~~B~~	~~4,288~~	~~18.1~~	~~C~~	~~3,675~~	~~13.8~~	~~B~~
~~F-53~~	~~I-10~~	~~Beaumont Ave to Pennsylvania Ave~~	~~3,087~~	~~12.1~~	~~B~~	~~4,322~~	~~16.7~~	~~B~~	~~4,358~~	~~18.4~~	~~C~~	~~3,736~~	~~14.0~~	~~B~~

~~Table 4.15.H: Existing (2012) Freeway Segment Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-54~~	~~I-10~~	~~Pennsylvania Ave to Highland Springs Ave~~	~~3,236~~	~~12.6~~	~~B~~	~~4,531~~	~~17.5~~	~~B~~	~~4,569~~	~~19.4~~	~~C~~	~~3,916~~	~~14.7~~	~~B~~
~~F-55~~	~~I-10~~	~~Highland Springs Ave to Sunset Ave~~	~~3,112~~	~~12.2~~	~~B~~	~~4,357~~	~~16.8~~	~~B~~	~~4,393~~	~~18.6~~	~~C~~	~~3,766~~	~~14.1~~	~~B~~
~~F-56~~	~~I-10~~	~~Sunset Ave to 22nd St~~	~~3,037~~	~~11.9~~	~~B~~	~~4,252~~	~~16.4~~	~~B~~	~~4,288~~	~~18.1~~	~~C~~	~~3,675~~	~~13.8~~	~~B~~
~~F-57~~	~~I-10~~	~~22nd St to 8th St~~	~~2,987~~	~~11.7~~	~~B~~	~~4,182~~	~~16.2~~	~~B~~	~~4,218~~	~~17.8~~	~~B~~	~~3,615~~	~~13.5~~	~~B~~
~~F-58~~	~~I-10~~	~~8th St to Hargrave St~~	~~2,987~~	~~11.7~~	~~B~~	~~4,182~~	~~16.2~~	~~B~~	~~4,218~~	~~17.8~~	~~B~~	~~3,615~~	~~13.5~~	~~B~~
~~F-59~~	~~I-10~~	~~Hargrave St to Field Rd~~	~~2,689~~	~~10.5~~	~~A~~	~~3,764~~	~~14.5~~	~~B~~	~~3,796~~	~~16.0~~	~~B~~	~~3,254~~	~~12.2~~	~~B~~
~~F-60~~	~~I-10~~	~~Field Rd to Morongo Trail~~	~~2,564~~	~~10.0~~	~~A~~	~~3,590~~	~~13.9~~	~~B~~	~~3,620~~	~~15.3~~	~~B~~	~~3,103~~	~~11.6~~	~~B~~
~~F-61~~	~~I-10~~	~~Morongo Trail to Main St~~	~~2,265~~	~~8.8~~	~~A~~	~~3,172~~	~~12.3~~	~~B~~	~~3,198~~	~~13.5~~	~~B~~	~~2,741~~	~~10.3~~	~~A~~
~~F-62~~	~~I-10~~	~~Main St to Haugen-Lehmann Way~~	~~2,265~~	~~8.8~~	~~A~~	~~3,172~~	~~12.3~~	~~B~~	~~3,198~~	~~13.5~~	~~B~~	~~2,741~~	~~10.3~~	~~A~~
~~F-64~~	~~I-10~~	~~SR-111 to Tipton Rd~~	~~1,967~~	~~7.7~~	~~A~~	~~2,753~~	~~10.6~~	~~A~~	~~2,777~~	~~11.7~~	~~B~~	~~2,380~~	~~8.9~~	~~A~~
~~F-65~~	~~I-10~~	~~Tipton Rd to SR-62~~	~~1,967~~	~~7.7~~	~~A~~	~~2,753~~	~~10.6~~	~~A~~	~~2,777~~	~~11.7~~	~~B~~	~~2,380~~	~~8.9~~	~~A~~
~~F-66~~	~~I-215~~	~~Scott Rd to Newport Rd~~	~~2,739~~	~~22.0~~	~~C~~	~~3,285~~	~~25.8~~	~~C~~	~~2,294~~	~~17.2~~	~~B~~	~~2,318~~	~~17.2~~	~~B~~
~~F-68~~	~~I-215~~	~~Newport Rd to McCall Blvd~~	~~1,900~~	~~15.0~~	~~B~~	~~2,047~~	~~15.3~~	~~B~~	~~2,528~~	~~19.0~~	~~C~~	~~3,111~~	~~23.7~~	~~C~~
~~F-69~~	~~I-215~~	~~McCall Blvd to Ethanac Rd~~	~~2,457~~	~~19.5~~	~~C~~	~~3,293~~	~~25.8~~	~~C~~	~~3,069~~	~~23.6~~	~~C~~	~~2,539~~	~~18.9~~	~~C~~
~~F-70~~	~~I-215~~	~~Ethanac Rd to SR-74~~	~~3,787~~	~~34.5~~	~~D~~	~~3,150~~	~~24.4~~	~~C~~	~~2,882~~	~~21.9~~	~~C~~	~~3,854~~	~~32.0~~	~~D~~

~~Table 4.15.H: Existing (2012) Freeway Segment Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-71~~	~~I-215~~	~~SR-74 to Redlands Blvd~~	~~3,350~~	~~28.5~~	~~D~~	~~4,181~~	~~37.4~~	~~E~~	~~4,539~~	~~44.2~~	~~E~~	~~3,710~~	~~30.1~~	~~D~~
~~F-74~~	~~I-215~~	~~Columbia Ave to Center St~~	~~5,587~~	~~33.5~~	~~D~~	~~5,150~~	~~27.3~~	~~D~~	~~5,191~~	~~27.6~~	~~D~~	~~4,917~~	~~25.4~~	~~C~~
~~F-75~~	~~I-215~~	~~Center St to La Cadena Dr~~	~~5,474~~	~~32.4~~	~~D~~	~~5,034~~	~~26.5~~	~~D~~	~~5,541~~	~~30.4~~	~~D~~	~~5,235~~	~~27.6~~	~~D~~
~~F-76~~	~~I-215~~	~~La Cadena Dr to Barton Rd~~	~~5,341~~	~~31.2~~	~~D~~	~~5,164~~	~~27.5~~	~~D~~	~~5,414~~	~~29.4~~	~~D~~	~~5,196~~	~~27.3~~	~~D~~
~~F-77~~	~~I-215~~	~~Barton Rd to Mt. Vernon Ave~~	~~5,738~~	~~35.1~~	~~E~~	~~5,533~~	~~30.3~~	~~D~~	~~5,435~~	~~29.5~~	~~D~~	~~5,256~~	~~27.7~~	~~D~~
~~F-78~~	~~I-215~~	~~Mt. Vernon Ave to I-10~~	~~5,582~~	~~22.5~~	~~C~~	~~5,420~~	~~20.5~~	~~C~~	~~5,776~~	~~22.0~~	~~C~~	~~5,606~~	~~21.0~~	~~C~~
~~F-80~~	~~I-215~~	~~Auto Plaza Dr to Mill St~~	~~4,319~~	~~17.1~~	~~B~~	~~4,533~~	~~17.0~~	~~B~~	~~4,022~~	~~15.1~~	~~B~~	~~4,090~~	~~15.2~~	~~B~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave~~	~~3,023~~	~~24.8~~	~~C~~	~~3,355~~	~~26.5~~	~~D~~	~~4,537~~	~~44.1~~	~~E~~	~~4,700~~	~~46.7~~	~~F~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

Table 4.15.~~I~~G: Existing (~~2012) Freeway Weaving~~2018) Roadway Segment Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	E	6,125	21.4	C	5,892	20.8	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,288	23.5	C	6,071	23.5	C
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	E	7,729	28.6	D	7,211	27.2	C
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	E	5,714	20.1	C	6,204	23.0	C
W-23	SR-60	University Ave to Martin Luther King Blvd	4,528	20.4	C	5,932	25.7	C	5,601	28.0	C	5,876	28.0	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	3,856	14.5	B	7,840	32.4	D	7,050	37.0	E	6,026	29.3	D
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	4,700	31.0	D	4,197	27.2	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			1,609	9.2	A	1,753	10.2	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	E	4,073	19.6	B	4,642	21.1	C	5,118	23.8	C
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	5,179	24.1	C	7,050	35.5	E
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			5,075	14.4	B	8,804	26.9	C
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	5,877	26.4	C	5,495	24.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,890	16.8	B	4,591	16.3	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,442	19.6	B	4,380	19.4	B
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,607	15.6	B	3,481	15.1	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	3,198	11.8	B	2,741	10.3	B

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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~~Freeway ramp merge and diverge operations were also evaluated for existing baseline conditions. The results of this analysis are presented in Table 4.15.J, which shows all ramp merge and diverge areas analyzed are currently operating at satisfactory LOS D or better with the exception of:~~

~~SR-60 Eastbound On-~~

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road		
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	**F**
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	**E**
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.
▒ Indicates LOS exceeds the target level

Table 4.15.H: Existing (2018) Freeway Mainline Levels of Service

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6,638	26.3	D	6,223	24.8	C
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	**E**	9,400	47.3	**F**	6,167	24.4	C	6,459	26.1	D
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	**E**	6,751	28.4	D	6,489	26.9	D
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	**E**	6,859	28.8	D	6,883	29.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	**E**	7,108	29.3	D	7,527	32.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	**F**	6,656	26.2	D	9,400	51.0	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	**F**	7,821	34.9	D	9,400	53.0	**F**
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,339	22.4	C	5,698	17.5	B
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	5,456	20.8	C	5,111	19.6	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	4,888	14.7	B	4,648	14.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	2,913	11.5	B	3,567	13.3	B	5,070	19.2	C	5,970	23.7	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	2,437	9.8	A	2,959	11.3	B	4,277	16.3	B	4,958	19.3	C
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	4,296	16.3	B	4,981	19.4	C
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	4,326	16.4	B	5,020	19.6	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,515	23.2	C	5,262	29.2	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,697	24.1	C	5,477	30.6	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	**E**	6,485	40.3	**E**	5,115	27.9	D
F-20	SR-60	Main St to SR-91	See Weaving Analysis			See Weaving Analysis			7,050	47.9	**F**	4,062	21.0	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	**F**	9,400	51.1	**F**	7,050	33.3	D	6,885	30.5	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	7,385	30.6	D	8,085	36.9	**E**
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			4,328	41.6	**E**	3,251	26.8	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	**F**	4,700	49.0	**F**	2,786	21.9	C
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	3,192	25.1	C	3,003	24.0	C
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,592	19.5	C	2,695	21.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,817	14.0	B	1,882	14.7	B
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,481	11.6	B	1,504	11.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	1,460	11.4	B	1,486	11.7	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,121	13.4	B	1,165	12.7	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,121	9.0	A	1,165	9.3	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	6,576	26.3	D	7,158	31.4	D
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	7,050	49.6	**F**	7,050	55.5	**F**
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	**E**	7,050	54.7	**F**	7,050	48.4	**F**	7,050	53.3	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			7,050	48.4	**F**	7,050	53.3	**F**
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	5,943	34.3	D	7,050	53.3	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	**E**	6,106	23.6	C	7,990	37.2	**E**

Table 4.15.H: Existing (2018) Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	6,381	25.0	C	7,990	37.2	**E**
F-46	SR-91	Adam St to Madison St	7,451	57.6	**F**	8,209	96.0	**F**	5,931	22.8	C	7,582	33.9	D
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,050	48.4	**F**	7,050	52.6	**F**
F-49	SR-91	Central Ave to 14th St	7,050	52.1	**F**	5,797	35.9	**E**	5,166	19.5	C	7,050	30.0	D
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	5,166	19.5	C	7,050	30.0	D
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,294	11.5	B	2,318	11.5	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	2,528	12.6	B	3,111	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,528	12.6	B	3,111	15.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	2,882	14.4	B	3,854	19.1	C
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	4,515	23.2	C	4,700	24.1	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	2,538	12.7	B	2,634	13.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,380	12.7	B	3,249	12.1	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,515	23.2	C	5,262	28.0	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,913	27.7	D	5,947	34.3	D	2,658	13.3	B	5,310	28.1	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	3,802	19.7	C	7,050	46.7	**F**
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	3,572	13.4	B	6,195	23.6	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	5,031	26.7	D	6,129	35.5	**E**
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	7,050	29.6	D	7,050	28.4	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	7,050	50.2	**F**	7,050	47.3	**F**
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	7,050	49.6	**F**	7,050	46.7	**F**
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	**E**	5,640	32.0	D	5,974	34.6	D	7,050	46.7	**F**
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	5,726	22.1	C	5,432	20.5	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	**F**	6,123	23.7	C	5,837	22.0	C
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	4,700	17.6	B	3,704	13.7	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	4,888	20.9	C	4,190	15.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	4,968	21.5	C	4,259	16.3	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	5,209	22.7	C	4,465	17.0	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	5,009	21.7	C	4,293	16.4	B
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	4,888	16.7	B	4,190	12.8	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	4,808	20.7	C	4,121	15.7	B
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	4,808	20.7	C	4,121	15.7	B
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	4,327	18.6	C	3,709	14.2	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	4,127	17.7	B	3,537	13.6	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	3,646	15.4	B	3,125	11.8	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	3,646	15.4	B	3,125	11.7	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	3,165	13.4	B	2,713	10.2	A
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	3,165	13.4	B	2,713	10.3	A

▨ Indicates that the LOS exceeds the target level

Table 4.15.I: Existing (2018) Freeway Weaving Segment Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,466	19.6	B	5,871	21.3	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,671	26.3	C	7,844	33.1	D
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	E	5,660	21.3	C	5,717	21.6	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,568	22.6	C	6,273	22.6	C
W-23	SR-60	University Ave to Martin Luther King Blvd	5,965	22.6	C	7,050	24.6	C	7,050	38.2	E	7,050	44.9	F
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	5,979	25.0	C	8,119	31.6	D	7,050	34.2	D	7,050	34.5	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	E	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,197	14.4	B	7,050	32.7	D	4,700	30.6	D	3,279	20.4	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,207	12.1	B	2,252	12.5	B
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	7,050	33.4	D	7,050	36.0	E
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			8,102	29.2	D	11,750	> Capacity	F
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	5,036	23.0	C	6,139	28.5	D
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			6,019	21.4	C	7,017	25.6	C
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	F	4,317	22.0	C	7,050	35.1	E	7,050	34.9	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	6,311	21.8	C	6,261	21.9	C
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	7,050	24.5	C	6,421	22.7	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	7,050	22.5	C	5,762	18.0	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	3,646	13.9	B	3,125	11.7	B

▨ Indicates that the LOS exceeds the target level

- ~~—~~Table 4.15.J: Existing (2018) Freeway Ramp ~~from Central Avenue (p.m. peak hour).~~

~~4.15.1.3 Responses to NOP Comments~~

~~During the NOP comment period, the City received comments on the project. The comments pertaining to traffic and circulation and responses to those comments are provided below:~~

~~**Caltrans Comment Letter Dated February 29, 2012** (DEIR Appendix B)~~

~~A Traffic Impact Study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities and to propose appropriate mitigation measures. The study should be based on Caltrans'~~ *~~Guide for the Preparation of Traffic Impact Studies (TIS),~~* ~~which is located at http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf. Minimum contents~~Levels of ~~the traffic impact study are listed in Appendix "A" of the TIS guide.~~Service

~~Response~~

~~1) A traffic impact assessment (TIA) has been performed for the project. The study has been prepared to cover the subjects required under Caltrans TIS guidelines.~~

~~It should be noted that the project proposes to move the Alessandro Boulevard access from Gilman Springs Road, which could potentially improve the operation of Alessandro Boulevard/Gilman Springs Road.~~

~~3) Any existing inadequacies of freeways and roads cannot be attributed to this proposed project, but are considered in the TIA. While it is true that a portion of the City near I-215 has been designated for industrial development, it is also true that much of the project site was designated for business park development in the current General Plan. Initial studies suggest that the traffic attributable to the proposed project will be substantially less than the traffic generated by the site under the uses proposed in the General Plan. The adequacy of the Theodore Street interchange to accommodate future traffic has been studied as part of the TIA.~~

~~4) Any existing inadequacies of freeways and roads cannot be attributed to this proposed project. The proposed project does not include any land north of SR-60, so the need for schools, fire stations, hospitals, and other public facilities north of SR-60 would need to be addressed through some mechanism other than this project. The need for the on-site road system to accommodate through traffic has been studied as part of the TIA.~~

~~5) One goal of the WLCSP Circulation Plan is to separate project-related trucks from passenger vehicle traffic on surrounding local streets. Much of the project traffic will access SR-60 via a new interchange at Theodore Street, and project truck traffic will be prohibited on Redlands Boulevard south of Eucalyptus Avenue and on Street D to Cactus Avenue southwest of the project.~~

~~6) The adequacy of the new proposed Theodore Street interchange to accommodate future (cumulative) traffic has been studied as part of the TIA.~~

~~7) The TIA takes into consideration known projects in neighboring jurisdictions to examine cumulative traffic impacts.~~

~~8) The TIA studied the number of lanes needed for the study roadways that are significantly affected by the project. The number of mid-block lanes and intersection approach geometry needed will depend on a combination of traffic volumes and anticipated turning movements, which will differ by location.~~

~~Table 4.15.J: Existing (2012) Freeway Ramp Levels of Service~~

				~~AM Peak Hour~~				~~PM Peak Hour~~			
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~	~~Ramp No. of Lanes~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-1~~	~~SR-60 EB~~	~~On-Ramp from Martin Luther King Blvd~~	~~1~~	~~4,110~~	~~242~~	~~16.9~~	~~B~~	~~5,678~~	~~906~~	~~26.5~~	~~C~~
~~R-2~~	~~SR-60 EB~~	~~On-Ramp from Central Ave~~	~~1~~	~~5,796~~	~~349~~	~~18.5~~	~~B~~	~~8,868~~	~~904~~	~~31.8~~	~~F~~
~~R-3~~	~~SR-60 EB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~1,326~~	~~207~~	~~3.3~~	~~A~~	~~1,397~~	~~434~~	~~3.2~~	~~A~~
~~R-4~~	~~SR-60 EB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~1,119~~	~~26~~	~~12.2~~	~~B~~	~~963~~	~~25~~	~~10.3~~	~~B~~
~~R-5~~	~~SR-60 EB~~	~~Direct On-Ramp from Redlands Blvd~~	~~0~~	~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~			
~~R-6~~	~~SR-60 EB~~	~~Off-Ramp to Theodore St~~	~~1~~	~~1,614~~	~~119~~	~~17.3~~	~~B~~	~~1,920~~	~~30~~	~~19.1~~	~~B~~
~~R-7~~	~~SR-60 EB~~	~~Loop On-Ramp from Theodore St~~	~~1~~	~~1,495~~	~~70~~	~~17.3~~	~~B~~	~~1,890~~	~~71~~	~~19.8~~	~~B~~
~~R-8~~	~~SR-60 EB~~	~~Direct On-Ramp from Theodore St~~	~~0~~	~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~			
~~R-9~~	~~SR-60 EB~~	~~Off-Ramp to Gilman Springs Rd~~	~~1~~	~~1,521~~	~~330~~	~~16.4~~	~~B~~	~~1,915~~	~~385~~	~~19.0~~	~~B~~
~~R-10~~	~~SR-60 EB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~1,191~~	~~7~~	~~14.2~~	~~B~~	~~1,530~~	~~8~~	~~16.3~~	~~B~~

~~Table 4.15.J: Existing (2012) Freeway Ramp Levels of Service~~

				~~AM Peak Hour~~				~~PM Peak Hour~~			
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~	~~Ramp No. of Lanes~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-11~~	~~SR-60 WB~~	~~Off-Ramp to Gilman Springs Rd~~	~~1~~	~~837~~	~~11~~	~~9.6~~	~~A~~	~~1,002~~	~~9~~	~~11.3~~	~~B~~
~~R-12~~	~~SR-60 WB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~826~~	~~357~~	~~13.5~~	~~B~~	~~993~~	~~306~~	~~14.6~~	~~B~~
~~R-13~~	~~SR-60 WB~~	~~Off-Ramp to Theodore St~~	~~1~~	~~1,183~~	~~24~~	~~12.7~~	~~B~~	~~1,393~~	~~26~~	~~14.9~~	~~B~~
~~R-14~~	~~SR-60 WB~~	~~On-Ramp from Theodore St~~	~~1~~	~~1,159~~	~~34~~	~~12.1~~	~~B~~	~~1,367~~	~~131~~	~~14.8~~	~~B~~
~~R-15~~	~~SR-60 WB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~1,193~~	~~49~~	~~12.8~~	~~B~~	~~1,498~~	~~38~~	~~15.9~~	~~B~~
~~R-16~~	~~SR-60 WB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~1,144~~	~~329~~	~~14.3~~	~~B~~	~~1,460~~	~~361~~	~~17.4~~	~~B~~
~~R-17~~	~~SR-60 WB~~	~~Direct On-Ramp from Redlands Blvd~~	~~0~~	~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~			
~~R-18~~	~~SR-60 WB~~	~~Off-Ramp to Central Ave~~	~~2~~	~~7,050~~	~~384~~	~~32.6~~	~~D~~	~~6,026~~	~~439~~	~~28.5~~	~~D~~
~~R-19~~	~~SR-60 WB~~	~~Off-Ramp to Martin Luther King Blvd~~	~~1~~	~~7,050~~	~~474~~	~~21.0~~	~~C~~	~~5,800~~	~~337~~	~~15.9~~	~~B~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Bush Letter Dated March 13, 2012~~ ~~(Scoping Meeting Cards 2, DEIR Appendix B)~~

~~1) The adequacy of Alessandro Boulevard and Gilman Springs Road to accommodate project-related traffic has been studied as part of the TIA.~~

~~2) Moreno Valley's current General Plan calls for a realignment of Alessandro Boulevard and the relocation of its intersection with Gilman Springs Road. This has been studied as part of the TIA.~~

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	F	8,384	1,016	34.3	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C

▨ Indicates that the LOS exceeds the target level

4.15.2 Existing Policies and Regulations

The City of Moreno Valley's current General Plan was approved in July 2006, and the following goals and policies are extracted from the Circulation Element of the current General Plan.

Community Development

Policy 2.2.17	Discourage nonresidential uses on local residential streets that generate traffic, noise, or other characteristics that would adversely affect nearby residents.

Circulation Element

Objective 5.1	**Create a safe, efficient, and neighborhood-friendly street system.**
Policy 5.1.1	Plan access and circulation of each development project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.
Policy 5.1.2	Plan the circulation system to reduce conflicts between vehicular, pedestrian and bicycle traffic.
Policy 5.1.3	Require adequate off-street parking for all developments.
Policy 5.1.4	Driveway placement shall be designed for safety and to enhance circulation wherever possible.
Policy 5.1.5	Incorporate American Disability Act (ADA) and Title 24 requirements in roadway improvements as appropriate.
Policy 5.1.6	Design new developments to provide opportunity for access and circulation to future adjacent developments.
Objective 5.2	**Implement access management policies.**
Policy 5.2.1	Locate residential units with access from local streets. Minimize direct residential access from collectors. Prohibit direct single-family driveway access on arterials and higher classification roadways.
Policy 5.2.2	Feed short local street into collectors.
Policy 5.2.3	Encourage the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds.
Policy 5.2.4	Design new subdivisions to minimize the disruptive impact of motor vehicles on local streets. Long, broad and linear streets should be avoided. Residential streets should be no wider than 40 feet, and should have an uninterrupted length of less than one half mile. Curvilinear streets and cul-de-sacs are preferred. Streets within the subdivision should be designed to facilitate access to residences and to discourage through traffic.
Objective 5.3	**Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers.**
Policy 5.3.1	Obtain right-of-way and construct roadways in accordance with the designation shown on the General Plan Circulation Element Map and the City street improvement standards.
Policy 5.3.2	Wherever feasible, promote the development of roadways in accordance with the City standard roadway cross-sections, as shown in Figure 9-3. Cross-sections range from two-lane undivided roadways to 8-lane divided facilities.

Policy 5.3.3	Create new roadway classifications to accommodate future traffic demand, including; Divided Major Arterial – Reduced Cross-Section, and Divided Arterial – 6-lane. These cross-sections are shown on Figure 9-3.
Policy 5.3.4	For planning purposes, utilize LOS standards shown on Table 5 –1 to determine recommended roadway widths.
Policy 5.3.5	Ensure that new development pays a fair-share cost to provide local and regional transportation improvements and to mitigate cumulative traffic impacts. For this purpose, require new developments to participate in Transportation Uniform Mitigation Fee (TUMF), the Development Impact Fee Program (DIF), and any other applicable transportation fee programs and benefit assessment districts.
Policy 5.3.6	Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements.
Policy 5.3.7	Provide consideration to projects that have overriding regional or local benefits that would be desirable even though the LOS standards cannot be met. These projects would be required to analyze traffic impacts and mitigate such impacts to the extent that it is deemed feasible.
Policy 5.3.8	Pursue arterial improvements that link and/or cross the State Route 60 (SR-60) Freeway, including an additional over-crossing at Graham Street.
Policy 5.3.9	Address additional widenings at arterials providing access to SR-60 at Day Street, Frederick Street/Pigeon Pass Road, and Perris Boulevard.
Objective 5.4	**Maximize efficiency of the regional circulation system through close coordination with State and regional agencies and implementation of regional transportation policies.**
Policy 5.4.1	Coordinate with Caltrans and the Riverside County Transportation Commission (RCTC) to identify and protect ultimate rights-of-way, including those for freeways, regional arterial projects, transit, bikeways, and interchange expansion.
Policy 5.4.2	Coordinate with Caltrans and RCTC regarding the integration of Intelligent Transportation Systems (ITS) consistent with the principles and recommendations of the Inland Empire Regional ITS Architecture Project.
Policy 5.4.3	Work with property owners, in cooperation with RCTC, to reserve rights-of-way for potential Community and Environmental Transportation Acceptability Process (CETAP) corridors through site design, dedication, and land acquisition, as appropriate.
Policy 5.4.4	The City Council will commit to establishing ongoing relationships with all agencies that play a role in the development of the City's transportation system. Council members who are appointed to these agencies as City representatives shall seek out leadership roles to maximize their effectiveness on behalf of the City. Council will strive to maintain continuity in their appointments of representatives.
Policy 5.4.5	Work with RCTC, WRCOG, and the TUMF Central Zone Committee to facilitate the expeditious construction of TUMF Network projects, especially projects that directly benefit Moreno Valley.

Policy 5.4.6	Cooperatively participate with SCAG, RCTC, and WRCOG in the planning for a transportation system that anticipates regional needs for the safe and efficient movement of goods and people.
Policy 5.4.7	Utilizing a combination of regional, state and federal funds, development impact fees, and other locally generated funds, provide needed improvements along SR 60 and the associated interchanges, including interchange and grade separation improvements.
Policy 5.4.8	Reserve rights-of-way to accomplish future improvements as specified in the Caltrans District 8 Route Concept Fact Sheet for SR-60. Specifically, SR-60 shall be built to six general purpose lanes and two High Occupancy Vehicle (HOV) lanes through Moreno Valley. Additional auxiliary lanes may be required between interchanges. The need for auxiliary lanes will be determined from future studies.
Policy 5.4.9	Lobby the State Legislature to keep triple trailer trucks off highways in developed areas of California.
Objective 5.5	**Maximize efficiency of the local circulation system by using appropriate policies and standards to design, locate, and size roadways.**
Policy 5.5.1	Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.
Policy 5.5.2	Provide dedicated left-turn lanes at all major intersections on minor arterials and higher classification roadways.
Policy 5.5.3	Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.
Policy 5.5.4	Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.
Policy 5.5.5	Design streets and intersections in accordance with the Moreno Valley Municipal Code.
Policy 5.5.6	Consider the overall safety, efficiency and capacity of street designs as more important than the location of on-street parking.
Policy 5.5.7	For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.
Policy 5.5.8	Whenever possible, require private and public land developments to provide on-site and off-site improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system. The City may require developers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.
Policy 5.5.9	Design curves and grades to permit safe movement of vehicular traffic per applicable Caltrans and Moreno Valley standards.
Policy 5.5.10	Provide adequate sight distances for safe vehicular movement at all intersections and driveways.

Policy 5.5.11	Implement National Pollutant Discharge Elimination System (NPDES) Best Management Practices (BMPs) relating to construction of roadways to control runoff contamination from affecting water resources.
Objective 5.6	**Support development of a ground access system to March Inland Port in accordance with its development plan as a major cargo airport.**
Policy 5.6.1	Ensure that City arterials that provide access to and from March Inland Port are properly designed to accommodate projected traffic volumes, including truck traffic.
Policy 5.6.2	Ensure that traffic routes to March Inland Port are planned to minimize impacts to City residential communities.
Objective 5.7	**Design roads to meet the needs of the residents of the community without detracting from the “rural” atmosphere in designated portions of Moreno Valley. (Designated “rural” areas include those encompassed by the Residential Agriculture 2, Residential 1, Rural Residential and Hillside Residential zoning districts. “Urban” areas encompass all other zoning districts.)**
Policy 5.7.1	Pursue development of modified sidewalk standards for local and collector roads within low density areas to reflect the rural character of those areas.
Policy 5.7.2	Provide sidewalks on arterials in designated low density areas that provide access to schools and bus stops.
Objective 5.8	**Encourage development of an efficient public transportation system for the entire community.**
Policy 5.8.1	Support the development of high-speed transit linkages, or express routes, that would benefit the citizens and employers of Moreno Valley.
Policy 5.8.2	Support the efforts of the March Joint Powers Authority in its pursuit of a Transit Center.
Policy 5.8.3	Encourage public transportation opportunities that address the particular needs of transit dependent individuals in the City such as senior citizens, the disabled and low-income residents.
Policy 5.8.4	Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.
Policy 5.8.5	Continue ongoing coordination with transit authorities toward the expansion of transit facilities into newly developed areas.
Objective 5.9	**Support and encourage development of safe, efficient and aesthetic pedestrian facilities.**
Policy 5.9.1	Encourage walking as an alternative to single occupancy vehicle travel, and help ensure the safety of the pedestrian as follows: (a) All new developments shall provide sidewalks in conformance with the City’s streets cross-section standards, and applicable policies for designated urban and rural areas. (b) The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.

Policy 5.9.2	Walkways shall be designed to minimize conflicts between vehicles and pedestrians.
Policy 5.9.3	Where appropriate, provide amenities such as, but not limited to, enhanced paving, seating, and landscaping to enhance the pedestrian experience.
Policy 5.9.4	Require the provision of convenient and safe pedestrian access to buildings from the public sidewalk.
Objective 5.10	**Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.**
Policy 5.10.1	Bikeways shall link residential neighborhood areas with parks, employment centers, civic and commercial areas, and schools.
Policy 5.10.2	Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.
Policy 5.10.3	Support bicycle safety programs, and active enforcement of laws relating to the safe operation of bicycles on City streets.
Policy 5.10.4	Link local bikeways with existing and planned regional bikeways.
Objective 5.11	**Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.**
Policy 5.11.1	Landscaping adjacent to City streets, sidewalks and bikeways shall be designed, installed and maintained so as not to physically or visually impede public use of these facilities. (a) The removal or relocation of mature trees, street trees and landscaping may be necessary to construct safe pedestrian, bicycle and street facilities. (b) New landscaping, especially street trees shall be planted in such a manner to avoid overhang into streets, obstruction of traffic control devices or sight distances, or creation of other safety hazards.
Policy 5.11.2	Driveways shall be designed to avoid conflicts with pedestrian and bicycle travel.
Objective 5.12	**Promote efficient circulation planning for all school sites that will maximize pedestrian safety, and minimize traffic congestion and neighborhood impacts.**
Policy 5.12.1	Coordinate with school districts to identify suggested pedestrian routes within existing and new subdivisions for school children to walk to and from schools and/or bus stops.
Program 5-1	Periodically review current traffic volumes, traffic collision data, and the pattern of urban development to coordinate, program, and as necessary revise the planning and prioritization of road improvements.
Program 5-2	Periodically reassess the goals, objectives and policies statements of the Circulation Element and propose amendments, as necessary.
Program 5-3	Develop a comprehensive strategy to ensure full funding of the circulation system. The strategy will include the DIF, TUMF, and other funding sources that may be available to the City. In addition, the creation of benefit assessment districts, and road and bridge fee districts may be considered where appropriate.

Program 5-4	Develop a multi-year transportation infrastructure improvement program that, to the extent feasible, phases the construction of new projects in advance of new development.
Program 5-5	The above-referenced program will prioritize circulation improvement projects to be funded from DIF, TUMF and other sources. Prioritization to consider the following factors: (a) Traffic safety; (b) Congestion relief; (c) Access to new development; and (d) Equitable benefit.
Program 5-6	Conduct studies of specified arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan buildout for at least one of the reasons discussed below: (a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities. (b) Segments will need improvements but require inter-jurisdictional coordination. (c) Segments would require significant encroachment on existing adjacent development if built out to their Circulation Element designations.
Program 5-7	Establish traffic study guidelines to deal with development projects in a consistent manner. The traffic study guidelines shall include criteria for projects that propose changes it the approved General Plan land uses.
Program 5-13	Implement Transportation demand management (TDM) strategies that reduce congestion in the peak travel hours. Examples include carpooling, telecommuting, and flexible work hours.

4.15.3 Methodology

This section summarizes: i) the traffic volume scenarios analyzed in this EIR and methods of traffic volume projection; ii) the proposed project's trip generation, distribution and assignment~~; ~~, and iii) opening year~~, 2022 background and Year 2035 Cumulative background levels of service.~~

4.15.3.1 Traffic Volume Scenarios

Existing Baseline, Existing Baseline Plus Phase 1, and Existing Baseline Plus Project Conditions. The existing year (~~2012~~2018) represents the baseline traffic conditions as they existed at the time the ~~Notice~~Revised Sections of ~~Preparation~~the FEIR was issued to represent pre-project approval (existing physical conditions). The existing baseline plus project analysis determines direct project-related traffic impacts that would occur on the existing roadway system in a theoretical scenario in which the project is placed upon existing baseline conditions.

Within the WLC project site, the~~ proposed~~ Phase 1 land uses were used for the "Plus Phase 1" scenarios, the proposed project buildout land uses were used for the "Plus Project" scenarios, while the existing land uses were used for the "No Project" scenarios. The Existing Plus Phase 1 and Existing plus Project analyses are intended to identify the project-specific impacts associated solely with the development of the ~~proposed~~ project and the corresponding mitigation measures necessary to mitigate the project-related impacts.

Year ~~2017~~2025 and Year ~~2017 Plus Project Conditions.~~ ~~This analysis was removed from the revised TIA and DEIR sections – the reader is referred to Section 4.15.3.1 of the original DEIR for that text, tables, etc.~~

~~Year 2022 and Year 2022~~2025 Plus Phase 1 Conditions. The year ~~2022~~2025 analysis determines the project's cumulative contribution to near-term traffic impacts based on a comparison of year ~~2022~~2025 conditions to year ~~2022~~2025 plus Phase 1 of the project conditions. Within the site, the proposed Phase 1 land uses were used for the "Plus Phase 1" scenarios while the existing land uses were used for the "No Project" scenarios.

The opening year ~~2022~~2025 cumulative analysis has been utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF) program and the City of Moreno Valley Development Impact Fee (DIF) program, can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the regionally funded improvements can provide the target LOS, and the payment of such funds for such improvements is foreseeable, then the project's payment into the established fee programs will be considered as mitigation for cumulative impacts through the conditions of approval. Other improvements needed beyond the regionally funded improvements (such as localized improvements to non-TUMF, or non-DIF) are identified in the impacts section (Section 4.15.5).

The circulation system assumed in the analysis includes transportation improvement projects that are either under construction or are funded and planned for implementation in the short-term. These improvement projects are identified in SCAG's 2012-2035 Regional Transportation Plan (RTP). The RTP is a long-range transportation plan based on 20-year growth projections that is developed and updated by SCAG every four years. The Federal Transportation Improvement Program (FTIP) is a capital listing of all transportation improvement projects proposed over a six-year period for the SCAG region. The FTIP implements the transportation projects and programs listed in the RTP in compliance with state and federal requirements. For the ~~2022~~2025 scenarios, only the projects in the FTIP and the RTP's financially constrained[1] project list were assumed to be completed. The projects in the RTP's Strategic Plan were not included because funding for them is too uncertain. Also, the proposed East-West Freight Corridor included in the financially constrained plan was not included because the freight corridor is expected to be funded through tolls to be collected by a process that has not yet been established and whose future efficacy is unknown. If it is constructed, then traffic impacts would be less than those described in this EIR. The ~~2022~~2025 improvements are shown in Figure 4.15.5.

~~*Note: Figure 4.15.5 was added to the revised DEIR section.*~~

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[1] These are the projects for which funds are committed or have reasonably available revenue sources, and are probable for implementation.

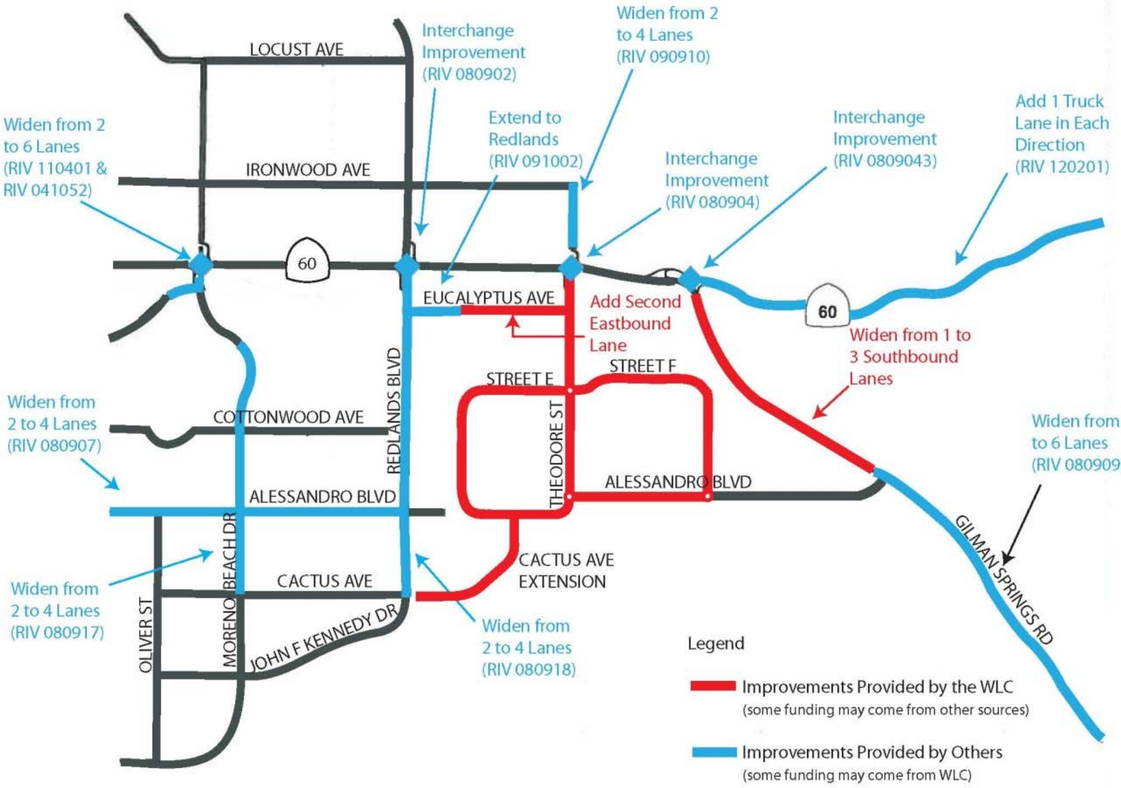
LOCUST AVE
IRONWOOD AVE
60
EUCALYPTUS AVE
COTTONWOOD AVE
ALESSANDRO BLVD
CACTUS AVE
JOHN F KENNEDY DR
OLIVER ST
MORENO BEACH DR
REDLANDS BLVD
THEODORE ST
STREET E
STREET F
ALESSANDRO BLVD
CACTUS AVE EXTENSION
GILMAN SPRINGS RD
60
Interchange Improvement (RIV 080902)
Widen from 2 to 4 Lanes (RIV 090910)
Extend to Redlands (RIV 091002)
Interchange Improvement (RIV 080904)
Interchange Improvement (RIV 0809043)
Add 1 Truck Lane in Each Direction (RIV 120201)
Widen from 2 to 6 Lanes (RIV 110401 & RIV 041052)
Add Second Eastbound Lane
Widen from 1 to 3 Southbound Lanes
Widen from 2 to 4 Lanes (RIV 080907)
Widen from 2 to 6 Lanes (RIV 080909)
Widen from 2 to 4 Lanes (RIV 080917)
Widen from 2 to 4 Lanes (RIV 080918)
Legend
🟥 Improvements Provided by the WLC (some funding may come from other sources)
🟦 Improvements Provided by Others (some funding may come from WLC)

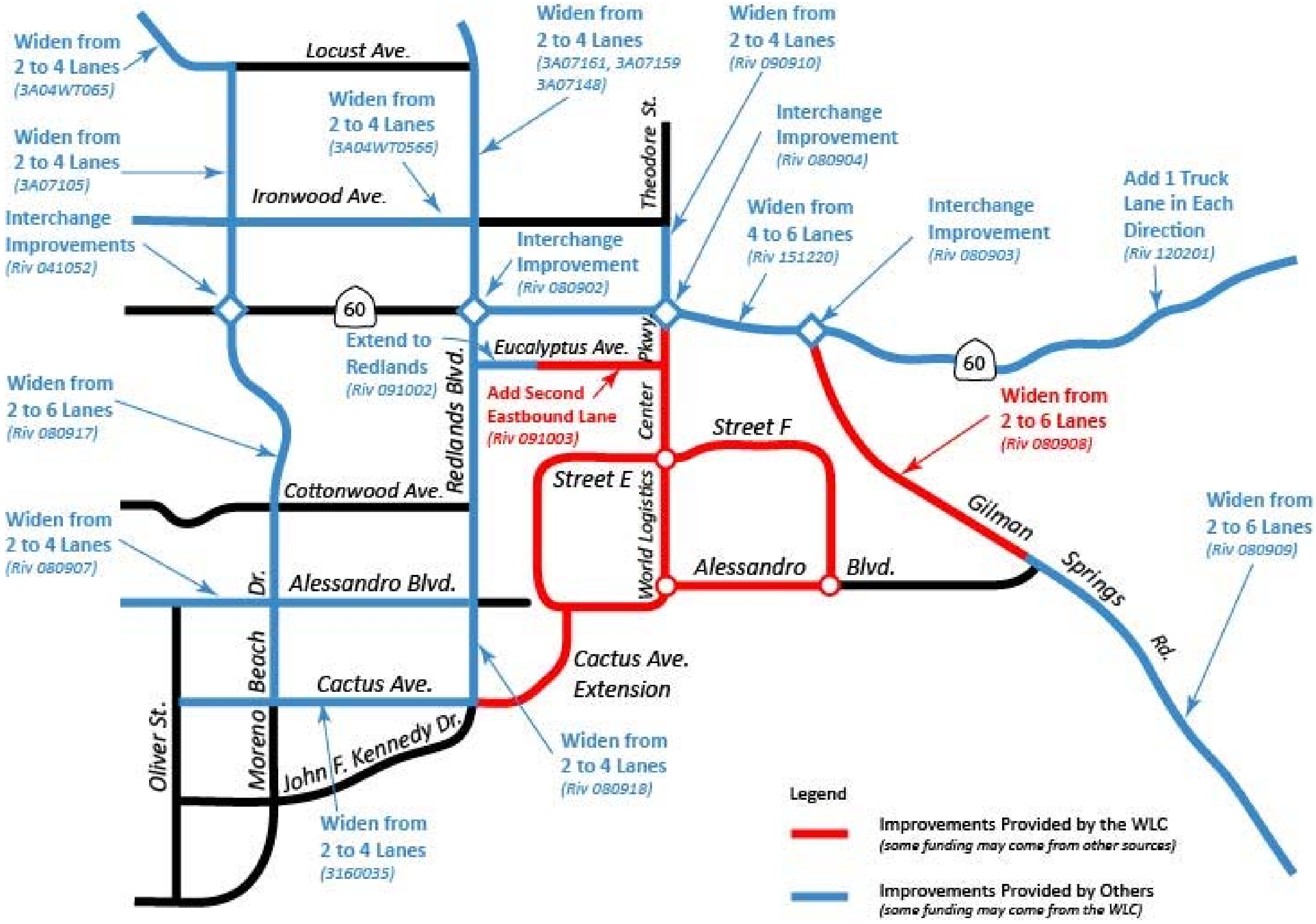

Figure 4.15.5: Roadway Improvements Assumed for ~~2022~~2025

Source: Traffic Impact Analysis Report for the World Logistics Center, ~~Parsons Brinckerhoff, September 2014.~~WSP, July 2018

Phase 1 of the proposed project will be completed in ~~2022~~2025 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue extension and Streets C and E. ~~Theodore Street~~World Logistics Center Parkway would serve north-south traffic as it does today.

Traffic projections for year ~~2022~~2025 conditions were derived from the RivTAM using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing (~~2012~~2018) baseline conditions and horizon year (~~2022~~2025) conditions. Specifically, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project were included in the socioeconomic inputs for the year ~~2022 traffic volume scenario as shown on Figure 4 and Table 1 in the Traffic Impact Analysis Report, dated September 2014 (Appendix L-1). As noted previously, because some of the cumulative development projects may not be constructed at the anticipated time, or at all due to economic conditions, the cumulative impact analysis contained within the TIA is inherently conservative and would tend to overstate cumulative impacts. A detailed summary of the volume development methodology is included~~

~~in the project Traffic Impact Analysis Report, dated September 2014 (Appendix L-1).~~2025 traffic volume scenario as shown in the Traffic Impact Analysis Report, dated July 2018.

~~Project traffic volumes at study locations were the added to opening year cumulative volumes to develop opening year cumulative plus project traffic volumes.~~

~~**Year 2035 Cumulative and Year 2035 Cumulative Plus Project Conditions.** Year 2035 Cumulative conditions determine the project's cumulative contribution to long-term traffic impacts under year 2035 with buildout of the land uses and circulation system in the General Plan. Within the project site, the proposed project buildout land uses were used for the "Plus Project" scenarios while the existing land uses were used for the "No Project" scenarios. This analysis has also been utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the TUMF program and the City of Moreno Valley DIF program, can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the regionally funded improvements can provide the target LOS, and the payment of such funds for such improvements is foreseeable, then the project's payment into the established fee programs will be considered as cumulative mitigation through the conditions of approval. Other improvements needed beyond the regionally funded improvements (such as localized improvements to non-TUMF, or non-DIF) are identified in the impacts section (Section 4.15.5).~~

~~For the 2035 scenarios, the roadway projects from the FTIP and RTP included in the year 2022 network were also included in the 2035 network. The future circulation network from the City of Moreno Valley General Plan was also incorporated into the year 2035 network. The General Plan identifies future circulation improvements that are funded through the City's DIF, Western Riverside Council of Governments' TUMF, and improvements made directly by developers. It is reasonable to assume that these improvements will be in place parallel with buildout of the General Plan land uses, because most of the improvements will be funded through fees on the new developments. If other sites do not fully build out per the General Plan, then the LOS on the study streets and intersection would likely be better than shown in the TIA. The 2035 improvements are shown in Figure 4.15.6.~~

~~*Note: Figure 4.15.6 was added to the revised DEIR section.*~~

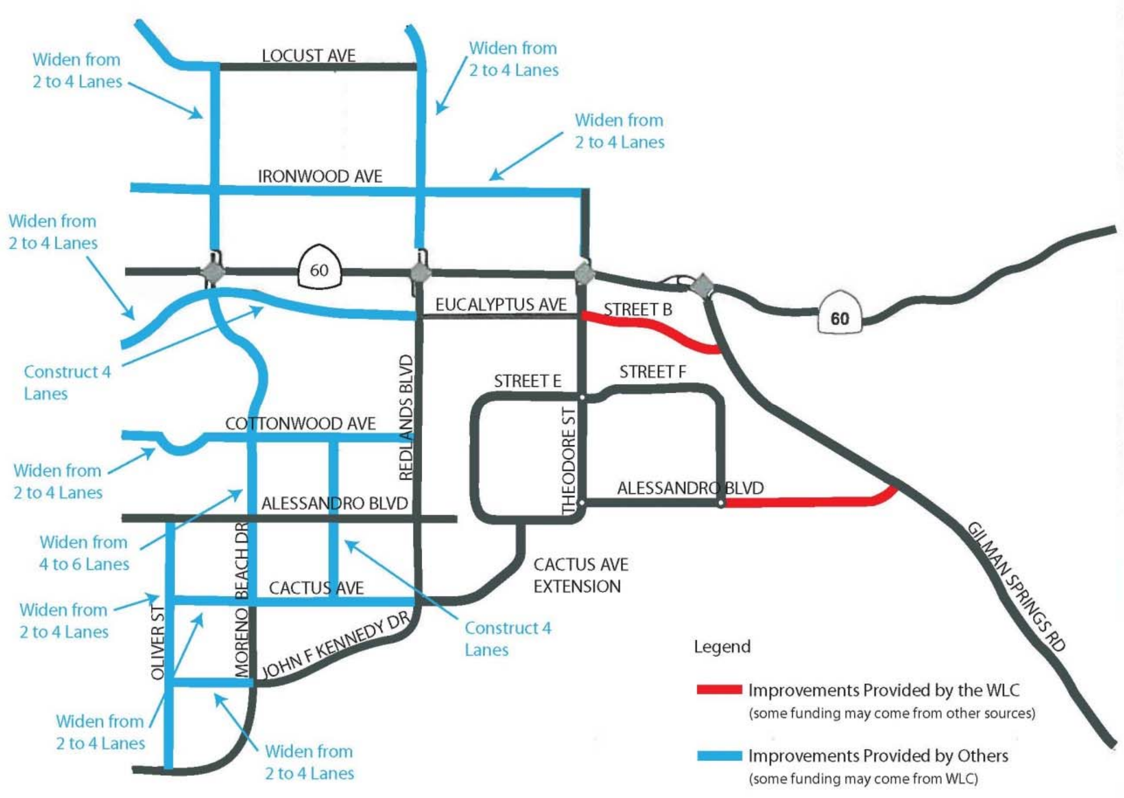

~~Figure 4.15.6: Roadway Improvements Assumed for 2035~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Traffic projections for Year 2035 Cumulative conditions were derived from the RivTAM using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing (2012) baseline conditions and horizon year (2035) conditions. Specifically, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project were included in the socioeconomic inputs to the RIVTAM for the Year 2035 Cumulative traffic volume scenario as shown in Figure 4 and Tables 1 and 2 in the Traffic Impact Analysis Report, dated September 2014 (Appendix L-1). As noted above, because some of the developments contained within the cumulative analysis may not be constructed at the anticipated time, or at all due to economic conditions, the cumulative impact analysis contained within the TIA is inherently conservative and would tend to overstate cumulative impacts. A detailed summary of the volume development methodology is included in the project Traffic Impact Analysis Report, dated September 2014 (Appendix L-1).~~

~~Project traffic volumes at study locations were to added Year 2035 Cumulative traffic volumes to develop Year 2035 Cumulative plus project traffic volumes.~~

Table 4.15.K summarizes the forecast years as well as each development scenario analyzed.

Table 4.15.K: Analysis Scenarios

Forecast Year	Scenarios Analyzed
~~2012~~2018	• Existing (~~2012~~2018) Baseline Conditions. • Existing (~~2012~~2018) Baseline Plus Phase 1 Conditions Project (21,450,000 square feet). • Existing Baseline plus Project Conditions.
~~2022~~2025	• Year ~~2022~~2025 without Project Conditions Analysis based on data from the RivTAM plus cumulative projects. • Year (~~2022~~2025) plus Phase 1 Project (21,450,000 square feet).
~~2035~~2040	• Year ~~2035~~2040 Cumulative, without Project: Analysis based on data from the RivTAM plus cumulative projects. • Year ~~2035~~2040 Cumulative plus Project.

4.15.3.2 Project Trip Generation, Distribution, and Assignment

~~*Note: The following changes have been made in response to: Comments F-3-5, 11, and Appendix 176 in Letter F-3 from the California Clean Energy Committee; Comments F-6-1, 2, and 3 in Letter F-6 from the Endangered Habitats League; Comment F-9A-45 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comment F-9B-45 in Letter F-9B from Tom Brohard and Associates; Comment F-11-29 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment G-2-7 in Letter G-2 from Perry Johnson; Comment G-17-2 in Letter G-17 from Joanne Lindgren; Comment G-18-1 in Letter G-18 from Sam Zaidy; Comment G-34-5 in Letter G-34 from Lindsay Robinson; Comment G-35-4 in Letter G-35 from Peggy Hadaway and John Neal; Comment G-49-18 in Letter G-49 from Karen Jakpor; Comment G-50-2 in Letter G-50 from Ann McKibben; Comment G-51-5 in Letter G-51 from Michael McCoy; Comments G-52-1 and 2 in Letter G-52 from Steve Jiannino; Comment G-53-4 in Letter G-53 from Deanna Reader and Kenny Bell; Comment G-57-1 in Letter G-57 from Tracy Hodge; Comment G-68-3 in Letter G-68 from Craig and Joan Givens; Comment G-96-3 in Letter G-96 from Margie Breikreuz; and Comment G-97-1 in Letter G-97 from Otana Jakpor.*~~

~~Trip generation represents the amount of traffic that is attracted and produced by a development project. The amount of traffic generated by a specific project is based on the specific land uses being proposed. Traffic engineers utilize different yet similar methodologies to anticipate trip generations. Many times, average trip generation rates as published by the Institute of Transportation Engineers (ITE) are used to forecast trip rates. In some circumstances, however, use of the ITE trip generation rates is not deemed to be the most accurate methodology of forecasting trip generation because more precise data are available. Therefore, in an effort to forecast the number of vehicle trips potentially generated by the proposed project accurately, the TIA examined and compared the results of four different trip generation sources: (1) the ITE *Trip Generation*, 9th Edition; (2) the Fontana Truck Trip Generation Study (2003); (3) the 2011 NAIOP trip generation study for high-cube logistics warehouses in Riverside and San Bernardino Counties; and (4) Skechers Trip Generation Study (2011). The City's TIA guidelines specify use of a combination of the first two sources, with the ITE Trip Generation Manual being the source of the trip generation rate and the City of Fontana Truck Trip Generation Study being the source of the vehicle mix percentages. Table 4.15.L summarizes the trip rates from each source.~~

~~Table 4.15.L: Trip Generation Rate Comparison *(Skechers Data Added)*~~

~~Source of Trip Generation Rates~~	~~A.M. Peak Hour~~			~~P.M. Peak Hour~~			~~Daily~~
	~~In~~	~~Out~~	~~Total~~	~~In~~	~~Out~~	~~Total~~	
~~ITE *Trip Generation Manual*~~	~~0.0759~~	~~0.0341~~	~~0.1100~~	~~0.0372~~	~~0.0828~~	~~0.1200~~	~~1.68~~
~~Fontana *Truck Trip Generation Study*~~	~~0.0357~~	~~0.0343~~	~~0.0700~~	~~0.0224~~	~~0.0506~~	~~0.0730~~	~~1.97~~
~~NAIOP 2011 *Trip Generation Study*~~	~~0.030~~	~~0.017~~	~~0.047~~	~~0.022~~	~~0.048~~	~~0.070~~	~~0.99~~
~~Skechers Traffic Counts~~	~~0.022~~	~~0.013~~	~~0.035~~	~~0.004~~	~~0.033~~	~~0.037~~	~~0.567~~

~~Source: Tables 3, 4 and 5, Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~The trip generation rates derived from existing driveway traffic counts collected at the Skechers Warehouse Facility in November 2011 showed that for all time periods the traffic generated by the Skechers building was only about one-third of what the ITE trip generation rates would have predicted. Furthermore, the actual truck traffic was less than half (41%) of what the methodology mandated in the City of Moreno Valley's traffic impact guidelines (ITE trip generation rates with the vehicle mix from the Fontana Truck Trip Generation Study) would predict.~~

~~Several comments received on the Draft EIR suggested that the trip generation for the proposed project use a combination of a very high overall trip generation rate with a high heavy truck percentage to estimate the number of project truck trips. The City has found that this approach produces unreasonable trip generation rates when compared to actual field conditions. For example, the EIR for the Skechers high-cube warehouse building used this unreasonable approach and found the forecasts to be three times the actual post-construction trip generation for car trips and nearly eight times the actual trip generation for trucks[1]. This approach could result in the construction of oversized and unnecessary roadway infrastructure with its own environmental consequences, creating an undue burden on development, and could ultimately discredit the City's project review process in the eyes of the business community and members of the public. For these reasons, this approach was not used to estimate trips for the proposed project and the City's Traffic Impact Guidelines was appropriately used instead.~~

~~The 2011 NAIOP provides the more accurate trip generation for the proposed project as the NAIOP study is the most comprehensive trip study performed for high-cube logistics warehouses. As shown in previously referenced Table 4.15.L, when using the NAIOP and derived trip generation rates, project trips are forecast to be lower than if the ITE trip generation rates where used. However, in order to be conservative, this EIR and the TIA utilize the ITE 9th Edition trip rates, which have the effect of overestimating project impacts because high-cube logistics warehousing would comprise 99.4 percent of the overall project building area. Therefore, as determined in the TIA, trip generation rates for high-cube warehouse uses (Land Use 152) as published in the 9th Edition of ITE's *Trip Generation* manual, and currently widely accepted throughout Riverside and San Bernardino Counties, are the trip rates being utilized to determine the project's traffic impacts. For this reason, the actual traffic impacts of the proposed project are expected to be much less than those identified in the TIA and by extension this EIR. The project trip generation rates for the proposed project and existing land uses on the site are shown in Table 4.15.M.~~

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[1] ~~These figures are based on traffic counts taken at the Skechers building after it had been fully operational for over a year. See Technical Memorandum *Traffic Generated by the Skechers Warehouse*, Parsons Brinckerhoff to the City of Moreno Valley, November 14, 2012.~~

~~Table 4.15.M: Project Trip Generation Rates for Proposed and Existing Land Uses~~

		~~AM Peak Hour~~			~~PM Peak Hour~~			
~~Land Use Type~~	~~Unit~~	~~In~~	~~Out~~	~~Total~~	~~In~~	~~Out~~	~~Total~~	~~ADT~~
~~Proposed Land Uses~~								
~~High-Cube Logistics Center (ITE 152)~~	~~KSF~~	~~0.076~~	~~0.034~~	~~0.110~~	~~0.037~~	~~0.083~~	~~0.120~~	~~1.680~~
~~Light Logistics (ITE 150)~~	~~KSF~~	~~0.237~~	~~0.063~~	~~0.300~~	~~0.080~~	~~0.240~~	~~0.320~~	~~3.560~~
~~Utilities Servicing Station (ITE 170)*~~	~~KSF~~	~~0.720~~	~~0.080~~	~~0.800~~	~~0.342~~	~~0.418~~	~~0.760~~	~~8.000~~
~~Fire Station**~~	~~Site~~	~~20~~	~~8~~	~~28~~	~~10~~	~~20~~	~~29~~	~~137~~
~~Gas Station w Convenience Store (ITE 945)~~	~~Pumps~~	~~5.08~~	~~5.08~~	~~10.16~~	~~6.76~~	~~6.76~~	~~13.51~~	~~162.78~~
~~Convenience Store (ITE 851)~~	~~KSF~~	~~33.52~~	~~33.52~~	~~67.030~~	~~26.73~~	~~25.68~~	~~52.41~~	~~737.99~~
~~Existing Land Uses~~								
~~Single-Family Dwellings (ITE 210)~~	~~DU~~	~~0.188~~	~~0.563~~	~~0.750~~	~~0.630~~	~~0.370~~	~~1.000~~	~~9.520~~
~~Utilities Servicing Station (ITE 170)*~~	~~KSF~~	~~0.720~~	~~0.080~~	~~0.800~~	~~0.342~~	~~0.418~~	~~0.760~~	~~8.000~~

~~* Note: A.M. directionality taken from table for trips/employee. Daily is assumed to be ten time peak-hour rates~~

~~** Fire Station rate is based on the average of the following three traffic studies:~~

~~Fehr and Peers, *Loyola Marymount University Master Plan Project*, City of Los Angeles Department of Transportation, 2009, Table 5.~~

~~LLG Engineers, *Peaceful Valley Ranch*, County of San Diego, 2007, page 11.~~

~~McMahon, *Upper Dublin Fire House*, Montgomery County, Pennsylvania, 2010, page 15.~~

~~KSF = Thousand Square Feet~~ ~~DU = Dwelling Unit~~

~~ADT = Average Daily Trips~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~The project trip generation for the proposed project and existing land uses on the site is shown in Table 4.15.N.~~

~~Table 4.15.N: Project Trip Generation for Proposed and Existing Land Uses~~

			~~AM Peak Hour~~			~~PM Peak Hour~~			
~~Land Use Type~~	~~Unit~~	~~Amount~~	~~In~~	~~Out~~	~~Total~~	~~In~~	~~Out~~	~~Total~~	~~ADT~~
~~Proposed Land Uses~~									
~~High-Cube Logistics Center (ITE 152)~~ ~~40,400 KSF~~	~~KSF~~	~~40,400~~	~~3,066~~	~~1,378~~	~~4,444~~	~~1,503~~	~~3,345~~	~~4,848~~	~~67,872~~
~~Light Logistics (ITE 150)~~ ~~200 KSF~~	~~KSF~~	~~200~~	~~47~~	~~13~~	~~60~~	~~16~~	~~48~~	~~64~~	~~712~~
~~SCG Valve/Metering Station (ITE 170)~~ ~~0.15 KSF~~	~~KSF~~	~~0.15~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~1~~
~~SDG&E Gas Compression Station (ITE 170)~~ ~~30.8 KSF~~	~~KSF~~	~~30.8~~	~~22~~	~~2~~	~~25~~	~~11~~	~~13~~	~~23~~	~~247~~
~~Fire Station~~ ~~1 Site~~	~~Site~~	~~1~~	~~20~~	~~8~~	~~28~~	~~10~~	~~20~~	~~29~~	~~137~~
~~Gas Station w Convenience Store (ITE 945)~~ ~~12 Pumps~~	~~Pumps~~	~~12~~	~~5~~	~~5~~	~~11~~	~~10~~	~~10~~	~~21~~	~~219~~
~~Convenience Store (ITE 851)~~ ~~3 KSF~~	~~KSF~~	~~3~~	~~11~~	~~11~~	~~22~~	~~13~~	~~12~~	~~25~~	~~354~~
~~TOTAL PROPOSED~~			~~3,172~~	~~1,417~~	~~4,590~~	~~1,563~~	~~3,449~~	~~5,010~~	~~69,542~~
~~Existing Land Uses~~									
~~Single Family Dwellings (ITE 210)~~ ~~7 DU~~	~~DU~~	~~7~~	~~1~~	~~4~~	~~5~~	~~4~~	~~3~~	~~7~~	~~67~~
~~SCG Valve/Metering Station (ITE 170)~~ ~~0.15 KSF~~	~~KSF~~	~~0.15~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~1~~
~~SDG&E Gas Compression Station (ITE 170)~~ ~~30.8 KSF~~	~~KSF~~	~~30.8~~	~~22~~	~~2~~	~~25~~	~~11~~	~~13~~	~~23~~	~~247~~
~~TOTAL EXISTING~~			~~24~~	~~6~~	~~30~~	~~15~~	~~16~~	~~31~~	~~314~~

~~Table 4.15.N: Project Trip Generation for Proposed and Existing Land Uses~~

			~~AM Peak Hour~~			~~PM Peak Hour~~			
~~Land Use Type~~	~~Unit~~	~~Amount~~	~~In~~	~~Out~~	~~Total~~	~~In~~	~~Out~~	~~Total~~	~~ADT~~

~~* Note: A.M. directionality taken from table for trips/employee. Daily is assumed to be ten time peak-hour rates.~~
~~KSF = Thousand Square Feet~~ ~~DU = Dwelling Unit~~
~~ADT = Average Daily Trips~~
~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, March September 2014.~~

~~Figure 4.15.7 compares the trip generation estimate for the proposed project as used in this EIR to the trip generation assuming implementation of the NAIOP and Sketchers survey-derived rates. As shown in the figure, the trip generation estimate for the proposed project is much higher in comparison to the estimates using either the NAIOP or Sketchers rates, thus meeting CEQA's standard of substantial evidence.~~

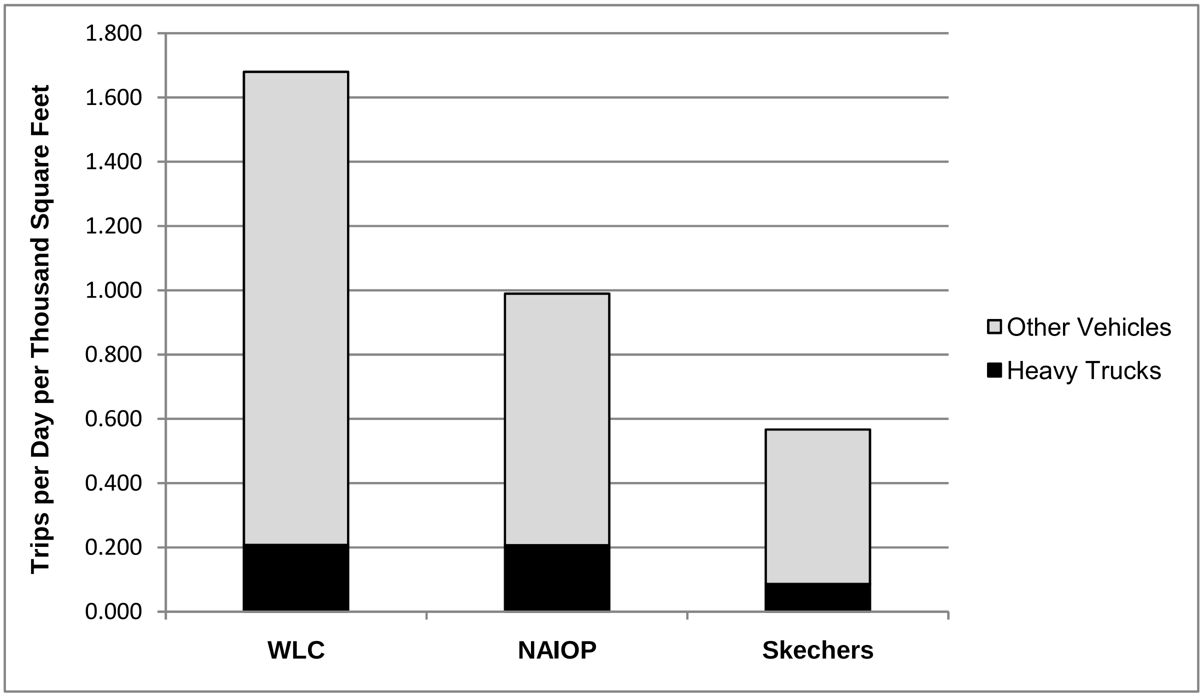

~~Figure 4.15.7: Comparison of Trip Generation from Southern California Sources~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~As shown in previously referenced Table 4.15.N, the project is estimated to generate a net total of approximately 69,542 daily trips with approximately occurring during a.m. peak hour and 5,010 occurring during the p.m. peak hour. Daily and hourly trip counts take into account only the trips generated by the project. Refinements to raw trip generation estimated using the ITE rates have been made to provide a more detailed breakdown of trips by vehicle mix, similar to the existing baseline count data. Per City of Moreno Valley standard practice, vehicle mix percentages were obtained from the City of Fontana Truck Trip Generation Study, which is the recognized source throughout the County of Riverside and the County of San Bernardino for estimating the vehicle mix associated with industrial and warehouse uses. For this reason, the vehicle-mix from the Fontana Truck Trip Generation Study has been applied to ITE trip generation rates in order to determine the proposed project's passenger car and truck trip generation mix. Table 4.15.O shows the project trips by vehicle type. The PCE project trips by vehicle type differ between the surface street and freeway analyses because the freeway analysis uses a PCE factor of 1.5 for~~

~~medium and heavy trucks while the surface street analysis uses PCE factors of 2.0 and 3.0 for medium and heavy trucks, respectively.~~

~~Table 4.15.O: Project Trips by Vehicle Type~~

~~Vehicle Type~~	~~AM Peak Hour~~			~~PM Peak Hour~~			~~Vehicles~~	~~Surface Street PCEs~~	~~Freeway PCEs~~
	~~In~~	~~Out~~	~~Total~~	~~In~~	~~Out~~	~~Total~~			
~~PHASE 1~~									
~~Autos~~	~~1,197~~	~~466~~	~~1,663~~	~~412~~	~~1,396~~	~~1,807~~	~~30,879~~	~~30,879~~	~~30,879~~
~~Light Trucks~~	~~97~~	~~55~~	~~152~~	~~77~~	~~90~~	~~167~~	~~1,340~~	~~2,009~~	~~2,009~~
~~Medium Trucks~~	~~130~~	~~74~~	~~204~~	~~103~~	~~121~~	~~223~~	~~1,792~~	~~3,585~~	~~2,689~~
~~Heavy Trucks~~	~~345~~	~~197~~	~~542~~	~~273~~	~~320~~	~~594~~	~~4,760~~	~~14,279~~	~~7,140~~
~~Total~~	~~1,769~~	~~792~~	~~2,561~~	~~866~~	~~1,927~~	~~2,792~~	~~38,771~~	~~50,753~~	~~42,717~~
~~PHASE 2~~									
~~Autos~~	~~923~~	~~356~~	~~1,279~~	~~313~~	~~1,075~~	~~1,388~~	~~23,835~~	~~23,835~~	~~23,835~~
~~Light Trucks~~	~~75~~	~~43~~	~~118~~	~~60~~	~~70~~	~~130~~	~~1,046~~	~~1,569~~	~~1,569~~
~~Medium Trucks~~	~~100~~	~~57~~	~~157~~	~~79~~	~~93~~	~~173~~	~~1,389~~	~~2,778~~	~~2,083~~
~~Heavy Trucks~~	~~266~~	~~151~~	~~418~~	~~211~~	~~248~~	~~459~~	~~3,680~~	~~11,040~~	~~5,520~~
~~Total~~	~~1,365~~	~~606~~	~~1,971~~	~~663~~	~~1,486~~	~~2,149~~	~~29,950~~	~~39,222~~	~~33,007~~
~~FULL PROJECT BUILD-OUT~~									
~~Autos~~	~~2,120~~	~~821~~	~~2,941~~	~~726~~	~~2,471~~	~~3,195~~	~~54,714~~	~~54,714~~	~~54,714~~
~~Light Trucks~~	~~172~~	~~98~~	~~271~~	~~137~~	~~160~~	~~297~~	~~2,385~~	~~3,578~~	~~3,578~~
~~Medium Trucks~~	~~230~~	~~131~~	~~361~~	~~182~~	~~214~~	~~396~~	~~3,181~~	~~6,363~~	~~4,772~~
~~Heavy Trucks~~	~~611~~	~~348~~	~~959~~	~~484~~	~~568~~	~~1,052~~	~~8,440~~	~~25,319~~	~~12,660~~
~~Total~~	~~3,134~~	~~1,398~~	~~4,532~~	~~1,529~~	~~3,413~~	~~4,941~~	~~68,721~~	~~89,975~~	~~75,724~~

~~PCE = passenger car equivalent.~~
~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~The City of Moreno Valley Transportation Engineering Division performed their own survey of trip generation at six warehouses in the City to address concerns over unrealistically high trip generation forecasts for warehouse oriented projects. This study used counts collected in Fall 2013, after the Draft EIR for the proposed project had been sent out for public review in February 2013. The City study confirmed that the vehicle mix for the Heavy Warehouse category in the Fontana *Truck Trip Generation Study* (i.e. the data used for the WLC TIA) produces a good, but conservative (i.e. somewhat high), estimate of truck trips percentages for high-cube warehouses while the Fontana Truck Terminal category produces an obvious over-estimate of truck traffic (see Figure 4.15.8).~~

~~For comparative purposes, the trip generation estimate for the proposed project was compared to the trip generation for existing approved land uses for the project area as shown in the final traffic study for the Moreno Highlands Specific Plan. The Moreno Highlands Specific Plan would generate 178,608 average vehicle trips per day, or more than two-and-a-half times as many trips (256%) as are forecast for the WLC (69,542 average vehicle trips per day). The Moreno Highlands traffic studies did not distinguish between car and truck traffic, and so did not provide a forecast in terms of PCEs. However, even if the Moreno Highlands plan were to generate no truck trips at all (only auto trips), it would still generate nearly twice as many PCEs trips as the WLC. Thus, the World Logistics Center would generate substantially less traffic than the existing approved land uses for the project area as envisioned in the existing Moreno Highlands Specific Plan.~~

~~Trip distribution represents the probable starting and ending locations of traffic generated by a project. Trip distribution is heavily influenced by the geographical location of a project site in relation to local and regional land uses (i.e., the starting and ending locations), and access to a project site from the~~

~~local and regional transportation system. The proposed project's trip distribution was developed for both passenger cars and trucks.~~

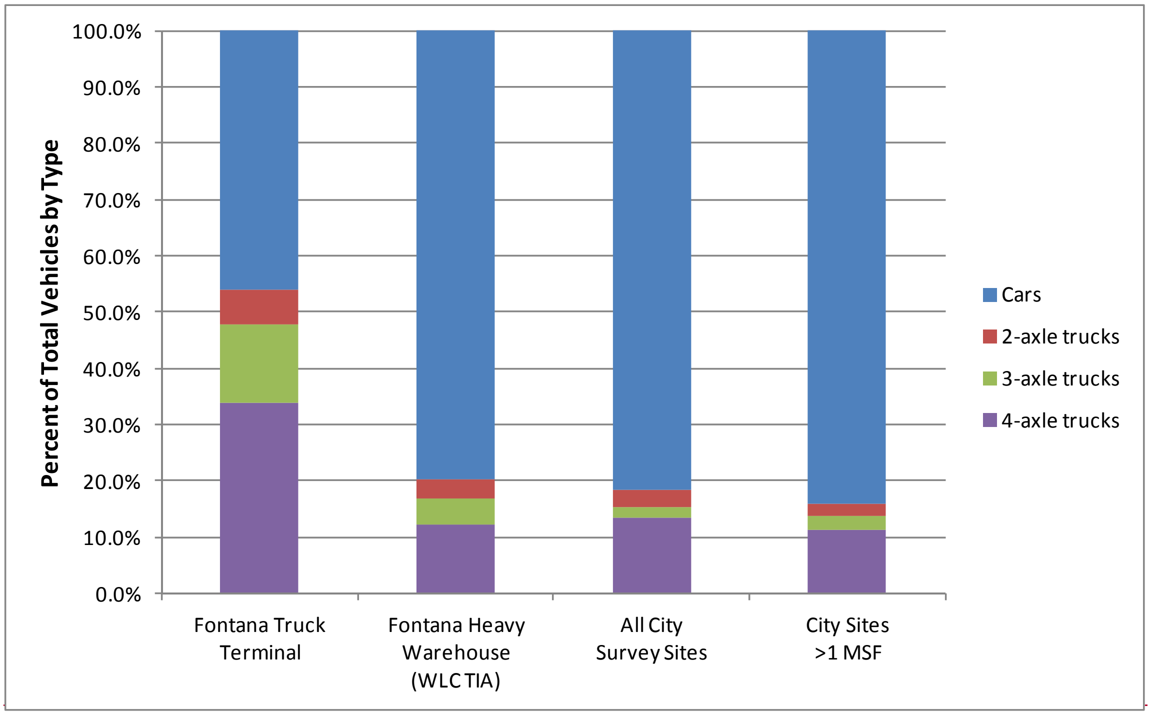

~~Figure 4.15.8: Comparison of Vehicle Mixes from the City Survey and the Fontana Study~~
~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~The Fontana Truck Trip Generation Study[1] found that 80 percent of the vehicles entering or leaving warehouse sites are passenger cars, nearly all of which are used for commute trips by employees of the warehouses. Most of these trips are local trips resulting from current and future residents of Moreno Valley who would be afforded the opportunity to work locally with very short commutes as wells as residents of neighboring cities who would access the project site using the local arterial network. Other passenger car trips would be generated by workers coming from more distant areas. In most cases, these trips would access the project site via SR-60 in the off-peak direction (i.e., commuters traveling to the project site from Los Angeles or Orange Counties).~~

Based on the proposed WLC Specific Plan, high-cube logistics warehousing would comprise 99.4% of the floor space of the WLC, so a considerable amount of deliberation and study went into the selection of the most appropriate trip generation rate for this particular type of building. In the 2014 TIA four possible sources of trip generation rates were identified and evaluated, with a combination of two sources eventually being used. These were ITE's *Trip Generation Manual 9th Edition* being the source of the overall trip generation rate and the City of Fontana *Truck Trip Generation Study* being the source of the vehicle mix percentages.

Given the growing importance of high-cube logistics to southern California and plethora of small, conflicting studies of trip-generation rates for that type of building, a consensus formed on the need for a single, comprehensive survey that would provide definitive trip-gen rates for use in TIAs going forward. Accordingly, the South Coast Air Quality Management

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~~[1] Truck Trip Generation Study, City of Fontana, August 2003.~~

District (SCAQMD), a leading environmental agency for Riverside County, and the National Association of Industrial and Office Properties (NAIOP), representing developers, jointly sponsored a study to be conducted by a highly respected neutral party, ITE. The findings of this very large[1] study were released in October 2016 as a report entitled *High-Cube Warehouse Vehicle Trip Generation Analysis*.

The 2016 ITE study found that on average high-cube transload and short-term storage warehouses, the type of warehouse proposed for the WLC, generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis). However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed. These results have been incorporated into the 10th edition of ITE's *Trip Generation Manual* in a new land use code (Code 154). SCAQMD has indicated its acceptance of these results on its website[2],

> *"Draft final results for the Warehouse Truck Trip Study were completed and were lower than SCAQMD recommended truck trip rates in the California Emissions Estimator Model (CalEEMod). Staff recommends truck trip rates from the Institute of Transportation Engineers (ITE) for high cube warehouse projects located in SCAQMD. Consistent with CEQA Guidelines, a CEQA document may use a non-default trip rate if there is substantial evidence in the recording supporting another rate is more appropriate for the air quality analysis."*

Based on the substantial evidence collected by ITE and presented in the 10th edition of ITE's *Trip Generation Manual* and in *High-Cube Warehouse Vehicle Trip Generation Analysis*, the data from these two sources were used in the current analysis of WLC traffic impacts. Specifically, the trip generation rates and directionality (percent of vehicle entering and leaving the site) were taken from the 10th edition of *Trip Generation Manual*, while the percentage of vehicles in each vehicle class was taken from *High-Cube Warehouse Vehicle Trip Generation Analysis*. A mixture was required because Trip Generation Manual reported the directional split but not the vehicle mix while High-Cube Warehouse Vehicle Trip Generation Analysis reported the vehicle mix but not the directional mix.

High-Cube Warehouse Vehicle Trip Generation Analysis classified vehicles into three classes, namely passenger vehicles, 2- to 4-axle trucks, and 5+ axle trucks. The "passenger vehicles" category corresponds directly with the "passenger vehicle" category used in the RIVTAM model, and all of the vehicles in the "5+ axle trucks" fall within RIVTAM's "Heavy Truck" category. However, ITE's middle category, 2- to 4-axle trucks, covers three different categories used in RIVTAM. Specifically, 2-axle trucks correspond with RIVTAM's "Light Truck" category, 3-axle trucks correspond with RIVTAM's "Medium Truck" category, and 4-axle trucks fall within RIVTAM's "Heavy Truck" category along with 5+ axle trucks. Vehicle mix data from NAIOP's survey of 31 southern California warehouses was used to disaggregate ITE's middle category into the corresponding RIVTAM vehicle classes.

Using these rates, the trips that would be generated by the WLC are shown in Table 4.15N.

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[1] Counts were taken at 107 sites

[2] http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/high-cube-warehouse accessed 2/16/2018

Table 4.15.M: Trip Generation Rates Proposed and Existing Land Uses

Vehicle Class	Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
		In	Out	In	Out	
High-Cube Logistics (per KSF)	Pass Veh	0.029	0.028	0.024	0.055	0.963
	Light Trucks	0.002	0.002	0.002	0.003	0.074
	Medium Trucks	0.001	0.002	0.002	0.003	0.097
	Heavy Trucks	0.007	0.009	0.005	0.006	0.266
	Total	0.039	0.041	0.034	0.066	1.400
Light Logistics (per KSF)	Pass Veh	0.105	0.031	0.041	0.111	1.397
	Light Trucks	0.007	0.002	0.003	0.007	0.090
	Medium Trucks	0.006	0.002	0.002	0.006	0.078
	Heavy Trucks	0.013	0.004	0.005	0.014	0.174
	Total	0.131	0.039	0.051	0.139	1.740
Utilities (per KSF)	Pass Veh	1.426	0.357	0.350	1.401	10.217
	Light Trucks	0.211	0.053	0.052	0.207	1.511
	Medium Trucks	0.048	0.012	0.012	0.047	0.341
	Heavy Trucks	0.163	0.041	0.040	0.161	1.171
	Total	1.848	0.462	0.454	1.816	13.240
Gas Station w Mart (Pumps)	Heavy Trucks	1.160	1.114	0.899	0.864	31.613
Fire Station (site)	Pass Veh	20.000	8.000	10.000	20.000	137.000
Convenience Market (KSF)	Pass Veh	13.209	13.209	10.580	10.165	321.873

Notes: 1) Trips for gas station and convenience market are net of pass-by and diverted trips
2) Trucks using the fueling stations are all non-diesel

Table 4.15.N: Project Trips Generated by Proposed and Existing Land Uses

	Unit	Amount	AM Peak Hour			PM Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Proposed Land Uses									
High-Cube Logistics Center	KSF	40,400	1,589	1,643	3,232	1,370	2,673	4,043	56,560
Light Logistics	KSF	200	26	8	34	10	28	38	348
SCG Valve/Metering Station (Utilities)	KSF	0.15	0.3	0.1	0.3	0.1	0.3	0	2.0
SDG&E Gas Compression Station (Utilities)	KSF	30.8	57	14	71	14	56	70	408
Fire Station	Site	1.0	20	8	28	10	20	30	137
Gas Station with Convenience Store	Pumps	12	14	13	27	11	10	21	379
Convenience Store	KSF	3	40	40	79	32	30	62	966
Total			1,746	1,726	3,472	1,447	2,818	4,265	58,800
Existing Land Uses									
Single-Family Dwellings (ITE Code 210)	DU	7	1	4	5	4	3	7	66
SCG Valve/Metering Station (Utilities)	KSF	0.15	0.3	0.1	0.3	0.1	0.3	0.3	2
SDG&E Gas Compression Station (Utilities)	KSF	30.8	57	14	71	14	56	70	408
Total			58	18	77	18	59	77	476
Difference			1,688	1,708	3,395	1,429	2,759	4,188	58,324

Table 4.15.O: Project Trips by Vehicle Type

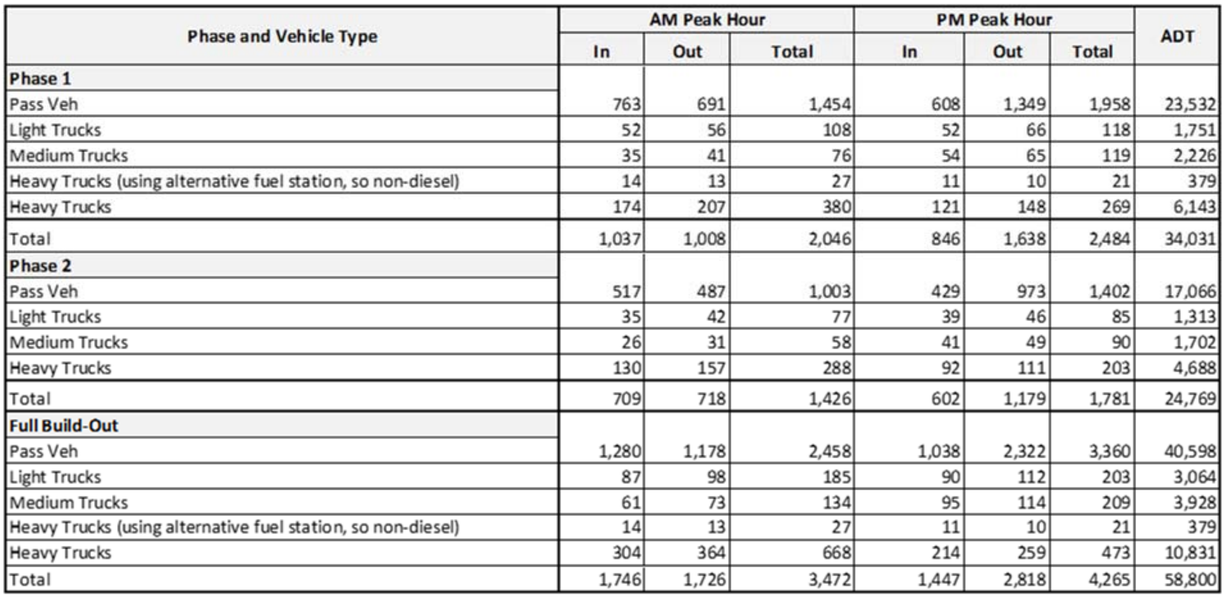

Phase and Vehicle Type	AM Peak Hour			PM Peak Hour			ADT
	In	Out	Total	In	Out	Total	
Phase 1							
Pass Veh	763	691	1,454	608	1,349	1,958	23,532
Light Trucks	52	56	108	52	66	118	1,751
Medium Trucks	35	41	76	54	65	119	2,226
Heavy Trucks (using alternative fuel station, so non-diesel)	14	13	27	11	10	21	379
Heavy Trucks	174	207	380	121	148	269	6,143
Total	1,037	1,008	2,046	846	1,638	2,484	34,031
Phase 2							
Pass Veh	517	487	1,003	429	973	1,402	17,066
Light Trucks	35	42	77	39	46	85	1,313
Medium Trucks	26	31	58	41	49	90	1,702
Heavy Trucks	130	157	288	92	111	203	4,688
Total	709	718	1,426	602	1,179	1,781	24,769
Full Build-Out							
Pass Veh	1,280	1,178	2,458	1,038	2,322	3,360	40,598
Light Trucks	87	98	185	90	112	203	3,064
Medium Trucks	61	73	134	95	114	209	3,928
Heavy Trucks (using alternative fuel station, so non-diesel)	14	13	27	11	10	21	379
Heavy Trucks	304	364	668	214	259	473	10,831
Total	1,746	1,726	3,472	1,447	2,818	4,265	58,800

Truck Distribution. The truck trip distribution patterns have been developed based on the anticipated travel patterns for the proposed project's high-cube logistics warehousing trucks. Since the internal trips, the port-related trips, and the majority of external trips (all but those on I-10) use routes west of the project site, it is anticipated that a large majority of the WLC truck traffic will be oriented to the west of the project, with a much smaller amount to and from the east. In addition, the majority of project truck traffic would use the freeway system to enter and leave the project area due to truck routing restrictions. Based on these factors, truck trips generated by the proposed project would be oriented in the following manner~~:~~ (See Figure 37 of the WLC TIA):

- 82 percent to/from the west via one or more freeways;
- 6 percent to/from the north via surface streets;
- 9 percent to/from the east utilizing SR-60 and I-10; and
- 3 percent to/from the southeast via surface streets.

Auto Distribution. Figure ~~29~~32 of the WLC TIA indicates that daily passenger vehicle traffic will distribute in the following directions:

- 44 percent to/from the west on SR-60;
- 9 percent to/from the east on SR-60 (east of Gilman Springs Road);
- 11 percent to/from the southeast on Gilman Springs Road;
- 29 percent to/from the south on Cactus Avenue; and

- 7 percent to/from the north along Theodore Street.

Moreno Valley currently has a jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately 25,000 new jobs; nearly doubling the number of jobs in Moreno Valley. This would have four effects on commute patterns. First, many current and future residents of Moreno Valley would be able to work locally with very short commute trips.

Second, residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the Western Riverside Council of Governments and the Riverside County Transportation Commission to promote use of the arterial road network as an alternative to freeways. Tests with the RIVTAM model (see Figure ~~29~~32 of the WLC TIA) suggest that nearly half of auto traffic associated with the WLC would be on surface streets; i.e., not on freeways.

Third, workers coming from more distant locations would, in most cases, be traveling on freeways in the off-peak direction; i.e., commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of freeways, since the freeways were sized for flows in the peak direction.

Fourth, because the RIVTAM model assumes that WLC employees would work elsewhere if the WLC project were not implemented, then the availability of jobs at the east end of Moreno Valley would reduce the number of workers driving long commutes to distant jobsites to the west and southwest. Although the project would increase freeway auto traffic eastbound in the morning, it would also decrease the traffic in the more congested westbound direction. In the evening the pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore, the WLC project would have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of SCAG, WRCOG, and other regional governments and agencies to encourage better jobs/housing balances as a way to reduce peak directional flows on the regional freeway system.

The assignment of traffic from the project area to the adjoining roadway system is based upon the project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the project. For more information on project trip generation and distribution for both trucks and passenger vehicles over and above the summary above, see ~~Sections 4.C, 4.D, and 4.E in~~ the project TIA (~~PB 2013, EIR~~WSA July 2018, Revised Sections of the FEIR Appendix ~~L~~). It is important to note that all trucks must use established truck routes within the City of Moreno Valley by the Municipal Code, while passenger vehicles will distribute onto the freeway and local streets depending on their destinations.

It should be noted that all technical studies based all or in part on traffic (i.e., air quality, greenhouse gases, and noise) have used these same assumptions regarding trip generation, trip length, etc. from the project TIA for their assessments of project impacts.

Passenger Car Equivalents. The analytical methods used to forecast traffic impacts must take into account the driving characteristics of different classes of vehicles. This is typically done through the use of passenger car equivalent (PCE) factors, which convert the number of heavy vehicles in the traffic stream into an equivalent number of passenger cars. The term PCE was first used in the 1965 *Highway Capacity Manual* (HCM), and was determined by comparing the relative number of passing of trucks by passenger cars in relation to number of passing of passenger car by passenger cars. According to the *HCM 2000*:

> *The entry of heavy vehicles-that is, vehicles other than passenger cars (a category that includes small trucks and vans)-into the traffic stream affects the number of vehicles that can be served. Heavy vehicles are vehicles that have more than four tires touching the pavement.*
>
> *Trucks, buses, and recreational vehicles (RVs) are the three groups of heavy vehicles addressed by the methods in this manual. Heavy vehicles adversely affect traffic in two ways:*
>
> - *They are larger than passenger cars and occupy more roadway space; and*
> - *They have poorer operating capabilities than passenger cars, particularly with respect to acceleration, deceleration, and the ability to maintain speed on upgrades.*
>
> *The second impact is more critical. The inability of heavy vehicles to keep pace with passenger cars in many situations creates large gaps in the traffic stream, which are difficult to fill by passing maneuvers. The resulting inefficiencies in the use of roadway space cannot be completely overcome. This effect is particularly harmful on sustained, steep upgrades, where the difference in operating capabilities is most pronounced, and on two-lane highways, where passing requires use of the opposing travel lane.*

Grade is by far the most important determinant in the PCE factor to be used. The HCM's recommended PCE for trucks ranges from 1.5 for places with slopes of less than 2 percent up to 7.0 for places with steep grades more than a mile long. HCM's recommended PCE factors were used for the freeway analysis.

For the analysis of surface streets, the City's TIA guidelines mandate the use of PCE factors taken from the San Bernardino County CMP, 2003 Update. These are more precise and on average somewhat higher than the HCM rates~~; for example,~~, because HCM recommends ~~2~~two PCEs per heavy truck while the San Bernardino County CMP uses ~~3.~~three (see PCE Factors table below). This means that ~~use of~~ the San Bernardino County CMP PCE rates ~~represents~~used in the WLC analysis represent a deliberately conservative approach in the sense that the analysis will tend to over-state the impact of trucks on traffic conditions.

~~4.15.3.3 Year 2017 Conditions~~

~~Note: Due to a change in project conditions and phasing, the Year 2017 analysis was eliminated from the revised TIA and DEIR section.~~ ~~*The reader is referred to the original DEIR section for that analysis and related tables and figures.*~~

~~***Note: The following analysis of potential rail service to the project site was added in response to comments on the Draft EIR.***~~ PCE Factors for Surface Streets

Vehicle Class	HCM	San Bernardino CMP
Passenger Cars	1.0	1.0
2-Axle Trucks	2.0	1.5
3-Axle Trucks		2.0
4 or more-Axle Trucks		3.0

Potential Rail Alternative. This section describes why rail service is not considered a viable option for reducing the traffic impacts of the WLC. This conclusion is based on several factors, including the physical constraints to bringing rail service to the WLC site, the cost of cargo movement by rail relative to movement by truck, capacity constraints in the rail system that the WLC branch line would tie into, and the minimal effect that rail service would have even if all other factors could be overcome. These factors are discussed in turn below.

The Possible Alignments for Bringing Rail Service to the WLC Site. The WLC site is not currently served by rail. The rail lines nearest the site are the Union Pacific Yuma Line (single-track in this area), the Riverside County Transportation Commission's San Jacinto Branch Line (single-track, currently inactive), and the BNSF double-track line through the City of Riverside (see TIA Figure 36).

There are four general alignment possibilities for a branch line to the WLC. Each alignment is inherent with significant problems as follows:

- Western Alignment – Alignments running from the BNSF line in Riverside to the WLC, an approximate distance of 15 miles, would have to run through built-up areas of the Cities of Riverside and Moreno Valley. The cost of acquiring right-of-way through these areas, and the impacts to the community (noise, traffic disruption, safety, division of the community, etc.) render such alignments unviable. Moreover, trains using the at-grade rail crossings in the City of Riverside already impose substantial delays on road traffic. In fact, in recent years the City of Riverside has sued the ports over the issue of traffic impacts from additional trains passing through the city. Adding more crossings and more trains would exacerbate this problem.

- Southern Alignment – It would be possible to avoid densely populated and built-out areas by connecting to the San Jacinto Branch Line south of March Air Reserve Base. However, the only way to avoid established communities would be to pass along the northern portion of the Lake Perris State Recreation Area. The alignment, approximately 10 miles in length, would be a major impact as it would require constructing and operating a rail line along the slopes of the Lake Perris State Recreation Area and potentially the San Jacinto Wildlife Area. There would also be traffic impacts at road crossings, potential grade issues, and grade separated crossings needed for drainage channels and I-215. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways (which will be discussed in a later section).
- Northern Alignment – The shortest alignment to an existing rail line is to the north in the vicinity of Redlands Boulevard and connecting to the UP Yuma line near the intersection of Redlands Boulevard and San Timoteo Canyon Road, approximately five miles from the project site. This alignment would require extensive ROW acquisition, encounter very serious grade issues that would increase the length of track needed, result in environmental impacts on the Badlands, and require a grade separated crossing of SR-60. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways.
- Eastern Alignment – The final possibility would be to connect to the UP Yuma line along an alignment parallel to SR-60. This alignment would connect to the existing rail network near the Morongo Golf Club at Tukwet Canyon, approximately five miles to the east of the WLC site. The eastern alignment would be affected by the same drawbacks as the northern alignment, with the addition of the need to construct a bridge over San Timoteo Creek.

As can be seen from the discussion above, providing rail service to the WLC along any of the possible alignments would in itself create serious environmental impacts.

Relative Costs of Truck and Rail Service. The loading and unloading of rail cargos requires special equipment and handling and can only be performed at specialized places, which adds to the cost of shipping goods by rail. On the other hand, the actual movement of goods by rail is more energy-efficient and less expensive than movement by truck. This combination of relatively high fixed costs at each end of a trip with low variable costs for the distance traveled means rail can be a less expensive way to ship cargo than truck, but only if the shipping distance is sufficiently long.

The break-even distance between rail and truck shipping has been the subject of several studies. The industry rule-of-thumb is that the rail becomes economically viable when cargos are shipped more than 500 miles. For example, the National Rail Plan, a nationwide guiding document from the U.S. Department of Transportation Federal Railroad Administration, has set the freight rail goal to, “Develop strategies to attract 50 percent of all shipments 500 miles or greater to intermodal rail.” In addition, the Plan highlights the importance that trucks have in conjunction with rail when moving freight, as trucks “excel in providing time-sensitive delivery services for high-value goods being transported over medium and short haul distances.” A local example is the Ports of Long Beach/Los Angeles Rail Master Planning Study, which indicates that rail loaded with two levels of shipping containers, “traditionally competes well with trucks at distances greater than 500 miles.” The San Pedro Bay Ports Rail Market Study shows the break-even point between truck and rail freight transport beginning east of Las Vegas and Phoenix, and north of the Bay Area. For shipments between the Ports of Los Angeles and Long Beach and the WLC, a distance of about 70 miles, shipping by rail would be far more expensive than by truck. Even if a rail line were built to the WLC, it would be uneconomical to use it for trips to and from the ports.

Capacity Constraints in the Rail System. If a rail line could be built to the WLC site and tenants could be induced to use it despite higher costs, this would only be helpful if the regional rail system had sufficient capacity to accommodate WLC freight without detriment to other users.

In fact, there are serious capacity constraints in the rail network in the Los Angeles Basin. Among other things, both BNSF and UP rail operations are already capacity-constrained on the lines between the ports and western Riverside County. Two studies, completed in the early 2000s and using the year 2000 as the existing condition, found that many of the rail lines were already operating near capacity. The studies evaluated 10 and 25 years of projected growth on the network and found that within 10 years (of the date of the study) the network would be over capacity. Without capacity increasing improvements, 10 years of train traffic growth was forecast to increase delay more than six-fold. This did not include additional delays that would be caused by trains serving the WLC.

The Los Angeles-Inland Empire Railroad Main Line Advanced Planning Study from October 2002 found that the "region's rail system is inadequate for forecast train traffic." The study presented other findings that illustrate the near-capacity state of the rail network, for example, "… just 25 percent of the forecast 2010 traffic is sufficient to roughly double the average delay per train, to 67.6 minutes for BNSF freight and 54.4 minutes for UP freight." This occurs because small increases in train traffic result in disproportionate delays as the network nears capacity.

Several minor improvements to the rail network have been made since the 2002 study. However, accommodating estimated future demand in the year 2025 by providing capacity improvements alone would be costly; to meet future demand without rerouting would require capacity of some segments to be increased from two to four tracks. Therefore, an approach has been developed to revise train routing on the existing rail network and make limited capacity-increasing improvements. Even the limited improvements are estimated to cost over $2 billion.

The fact that the rail system has limited capacity to accommodate additional traffic means that potential users have to be prioritized so that the capacity can be allocated efficiently. Highest priority would be for long-distance rail service direct from the ports. Short-distance cargo trips between the ports and the WLC would receive much lower priority than long-distance shipments. If regional passenger trains (e.g., Metrolink) share the tracks with freight trains, as is the case for some lines, then service to WLC would drop even further on the priority list. Based on existing capacity of the rail network and projected growth, the studies indicated that the rail network would be over capacity without further capital investments, which is beyond the scope of the WLC project.

Minimal Reduction in Traffic. Assuming that a rail line could be built to the WLC site and assuming that WLC freight could be accommodated by the rail network and that the costs for these things could be covered by subsidies or by increasing the prices on goods moved through the WLC, the question must be asked, "how much of a reduction in truck traffic impacts would be achieved?"

The answer is, "very little." As was discussed earlier, the economics of freight shipment make rail viable only for trips of 500 miles or more. As is described in the TIA prepare for this EIR (Chapter 12, Section F), between 2 and 7 percent (depending on the year) of the truck trips beginning or ending in WLC go to the ports and these trips have no significant impact on freeway LOS for most of their lengths. So the effect of rail service on reducing truck impacts would be very small.

Conclusions About the Rail Alternative. This analysis of the rail alternative found that bringing rail service to the site would be very costly, result in serious environmental impacts, create major disruption to existing communities, and take many years to design, acquire right-of-way, and construct. Even if a line were built, both economics and system constraints would deter its use for cargos between the WLC and the ports. Even if built and used, rail service would have very little effect on reducing the traffic impacts of the WLC. Based on these considerations, rail service was not included in the design of the WLC and is not discussed further in this EIR.

4.15.3.4 Year ~~2022~~2025 Conditions

~~*Note: The analysis of Year 2022 conditions in the original DEIR was based on different project characteristics (i.e., +1 million square feet of warehousing) and different phasing. Therefore, the previous Year 2022 has been removed in its entirety and replaced with the following updated analysis. The reader is referred to the original DEIR section for the previous Year 2022 analysis.*~~

Levels of service are discussed below for year ~~2022~~2025. As noted above, Phase 1 of the proposed project will be completed in ~~2022~~2025 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue Extension and Streets C and E. ~~Theodore Street~~World Logistics Center Parkway would serve north-south traffic as it does today. As discussed previously, roadway projects that are either under construction or are funded and planned for implementation in the short-term (i.e., improvement projects on the FTIP and the RTP's Financially Constrained Project list) and therefore reasonably assured of being constructed within the scenario timeframe were added.

Year ~~2022~~2025 Without Project Levels of Service. An intersection level of service analysis was conducted to determine intersection performance under opening year ~~2022~~2025 cumulative conditions. Table 4.15.P summarizes the levels of service for opening year cumulative conditions at study area intersections. As shown on Table 4.15.P, the ~~same 12~~number of intersections that exceeded the ~~City's~~ LOS ~~standards~~target in the AM peak hour, PM peak hour, or both, rose from 19 under Existing ~~No Project~~ Conditions ~~also exceed the LOS standards~~to 30 under ~~2022 No Project conditions. In addition, 20 other intersections were forecast to operate at LOS D or worse.~~the 2025 No-Project Scenario due to population and employment growth.. The intersections that were forecast to exceed the City's LOS standards under opening year ~~2022~~2025 cumulative conditions were:

- IN-10 Redlands ~~Boulevard~~Blvd/Locust ~~Avenue (a.m. and p.m.);~~Ave (AM, PM)
- ~~Redlands Boulevard/SR-60 Westbound ramps (a.m. and p.m.);~~
- ~~Theodore Avenue/Fir Avenue (p.m.);~~
- IN-20 Oliver ~~Street~~St/Alessandro ~~Boulevard (a.m. and p.m.);~~Blvd. (AM, PM)
- IN-23 Redlands ~~Boulevard/~~Blvd./Alessandro ~~Boulevard (a.m.);~~Blvd. (AM, PM)
- ~~Moreno Beach Drive/Ironwood Avenue (a.m.);~~
- ~~Moreno Beach Drive/SR-60 Eastbound ramps (a.m.);~~
- IN-41 Lasselle ~~Street~~St/Iris ~~Avenue (p.m.);~~Ave (PM)
- ~~Krameria Avenue; Perris Boulevard (a.m. and p.m.);~~
- IN-53 Lasselle ~~Street/~~St./Cactus ~~Avenue (a.m. and p.m.);~~Ave. (PM)
- ~~Frederick Street/~~IN-65 Perris Blvd./Cactus Ave. (AM, PM)
- IN-66 Alessandro ~~Boulevard (p.m.);~~
- ~~Graham Street/Alessandro Boulevard (p.m.);~~
- ~~Perris Boulevard/Alessandro Boulevard (p.m.);~~

- ~~Graham Street/Cactus Avenue (a.m. and p.m.);~~
- ~~Alessandro Boulevard/~~Blvd./Sycamore Canyon ~~Boulevard (p.m.);~~Blvd. (AM)
- ~~I-215 Southbound ramps/Cactus Avenue (p.m.);~~
- ~~Elsworth Street/Cactus Avenue (p.m.);~~
- IN-75 Central Ave./Lochmoor Dr. (AM, PM)
- IN-76 Sycamore Canyon Blvd/Central Ave (AM, PM)
- IN-80 Alessandro Blvd./Mission Grove Pkwy. (AM, PM)
- IN-83 Martin Luther King ~~Boulevard/~~Blvd./Canyon Crest ~~Drive (a.m.);~~Dr. (AM, PM)
- IN-85 Martin Luther King ~~Boulevard/~~Blvd./I-215 ~~Northbound ramps (a.m.);~~NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (PM)
- IN-94 Arlington ~~Avenue/~~Ave./Victoria ~~Avenue (a.m. and p.m.);~~Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-96 Alessandro Blvd./Century Ave. (AM)
- IN-97 Alessandro ~~Boulevard/Chicago Avenue (a.m. and p.m.);~~Blvd./Via Vista Dr. (AM, PM)
- ~~Ramona Expressway/~~IN-98 Alessandro Blvd./Canyon Crest Dr. (AM, PM)
- IN-107 Evans ~~Road (a.m.);~~Rd./Rider St. (AM)
- IN-114 Evans ~~Road/Rider Street (a.m.);~~Rd./Orange Ave. (AM, PM)
- ~~Placentia Avenue/Perris Boulevard (p.m.);~~
- IN-123 Gilman Springs ~~Road/~~Rd./Bridge ~~Street (a.m.);~~St. (AM, PM)
- IN-124 SR-79 (Sanderson ~~Avenue) Northbound~~Ave.) NB/Gilman Springs ~~Road (a.m. and p.m.);~~Rd. (AM, PM)
- IN-125 SR-79 (Sanderson ~~Avenue) Southbound~~Ave.) SB/Gilman Springs ~~Road (a.m. and p.m.);~~Rd. (AM, PM)
- IN-126 Ramona Expy./Sanderson Ave. (AM, PM)
- IN-129 W~~.~~ 6th ~~Street~~St/California ~~Avenue (a.m. and p.m.);~~Ave (PM)
- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM)
- IN-132 San Timoteo Canyon ~~Road/~~Rd./Alessandro ~~Road (a.m. and p.m.);~~Rd. (AM, PM)
- IN-133 San Timoteo Canyon ~~Road/~~Rd./Live Oak Canyon ~~Road (a.m. and p.m.);~~Rd. (AM, PM)
- IN-134 Redlands ~~Boulevard/~~Blvd./San Timoteo Canyon ~~Road (a.m. and p.m.); and~~Rd. (AM, PM)

Table 4.15.P: Year 2025 Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		Non-Existent	
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Non-Existent	
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.0	A	10.3	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	6.2	A	9.5	A

Table 4.15.P: Year 2025 Without Project Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.1	C	22.3	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.0	A	6.6	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	25.2	C	23.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	28.7	C	24.2	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	30.3	C	36.9	**D**
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	34.8	C	32.9	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	27.9	C	42.2	D
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	26.0	C	49.7	D
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	30.1	C	34.5	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	23.2	C	32.0	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	38.6	D	40.4	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	11.5	B	10.2	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	22.3	C	23.6	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.4	D	52.3	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.5	C	30.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	79.0	**E**	42.0	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	61.2	**E**	42.0	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	5.4	A	10.3	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	29.0	C	15.6	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	32.6	C	22.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.7	B	15.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.6	C	22.1	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.4	A	24.8	C
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	46.7	D	13.2	B
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	27.9	C	34.7	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.9	**E**	72.3	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	63.6	**E**	83.8	**F**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	9.1	A	23.5	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	24.0	C	9.1	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	37.7	D	22.7	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	72.1	**E**	56.9	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	32.8	C	54.3	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	23.9	C	13.7	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	107.5	**F**	57.3	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	23.5	C	7.9	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.2	**E**	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	25.2	C	33.6	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	44.6	D	88.1	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.3	A	9.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	26.1	C	42.6	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.0	B	27.7	C
IN-92	Arlington Ave/Maude St	D	SIGNAL	34.5	C	53.5	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	24.3	C	11.5	B
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	175.9	**F**	>180	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	122.6	**F**	151.6	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	133.9	**F**	19.8	B

Table 4.15.P: Year 2025 Without Project Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	120.7	**F**	114.3	**F**
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	60.9	**E**	85.6	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	37.5	D	37.5	D
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	24.0	C	62.8	E
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	46.0	D	27.2	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	59.4	E	68.1	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	15.5	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.8	C	24.7	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	25.6	C	18.4	B
IN-107	Evans Rd/Rider St	C	SIGNAL	40.1	**D**	30.2	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	40.4	D	35.2	D
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	33.5	C	30.4	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	88.9	**F**	97.4	**F**
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	24.7	C	37.1	**D**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	15.6	B	20.2	C
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	51.4	**D**	21.3	C
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	>180	**F**	171.9	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	19.6	C	20.3	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.8	B	11.1	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- ~~W. Crescent Avenue/Alessandro Road (a.m. and p.m.).~~

~~Table 4.15.P: Year 2022 Without Project Intersection Levels of Service~~

				~~AM Peak Hour~~		~~PM Peak Hour~~	
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~2~~	~~Cactus Avenue Extension/Street E~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~3~~	~~Theodore Str/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~10.0~~	~~A~~	~~10.3~~	~~B~~
~~4~~	~~Alessandro Blvd (Street C)/Street F~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~SIGNAL~~	~~5.8~~	~~A~~	~~7.9~~	~~A~~
~~9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~34.9~~	~~C~~	~~31.7~~	~~C~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~13.0~~	~~B~~	~~17.8~~	~~C~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~8.9~~	~~A~~	~~15.9~~	~~B~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~12.2~~	~~B~~	~~19.2~~	~~C~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~12.2~~	~~B~~	~~23.2~~	~~C~~
~~17~~	~~Quincy Str/Fir Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~9.8~~	~~A~~	~~41.7~~	~~E~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~81.3~~	~~F~~	~~67.7~~	~~F~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~18.5~~	~~B~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~30.2~~	~~D~~	~~14.1~~	~~B~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~32.5~~	~~C~~	~~25.7~~	~~C~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~18.5~~	~~B~~	~~18.9~~	~~B~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~13.4~~	~~B~~	~~9.5~~	~~A~~
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~19.8~~	~~B~~	~~18.9~~	~~B~~
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~30.9~~	~~C~~	~~36.9~~	~~D~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~33.7~~	~~C~~	~~47.5~~	~~D~~
~~31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~21.1~~	~~C~~	~~24.7~~	~~C~~
~~32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.9~~	~~C~~	~~39.2~~	~~D~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~31.8~~	~~C~~	~~21.7~~	~~C~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~27.7~~	~~C~~	~~33.4~~	~~C~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~9.2~~	~~A~~	~~9.6~~	~~A~~
~~36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~SIGNAL~~	~~90.2~~	~~F~~	~~51.0~~	~~D~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~88.7~~	~~F~~	~~37.8~~	~~D~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~50.8~~	~~D~~	~~53.5~~	~~D~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~54.0~~	~~D~~	~~38.6~~	~~D~~
~~40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~28.9~~	~~C~~	~~23.9~~	~~C~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~32.8~~	~~C~~	~~68.7~~	~~E~~
~~42~~	~~Nason Str/Iris Ave~~	~~C~~	~~SIGNAL~~	~~8.2~~	~~A~~	~~11.7~~	~~B~~
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~28.9~~	~~C~~	~~22.0~~	~~C~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~8.8~~	~~A~~	~~8.3~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~29.2~~	~~C~~	~~40.0~~	~~D~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~32.9~~	~~C~~	~~15.3~~	~~B~~

~~Table 4.15.P: Year 2022 Without Project Intersection Levels of Service~~

				~~AM Peak Hour~~		~~PM Peak Hour~~	
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.5~~	~~C~~	~~25.7~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~56.1~~	~~E~~	~~41.9~~	~~D~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~9.3~~	~~A~~	~~9.2~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~31.5~~	~~C~~	~~29.5~~	~~C~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~32.2~~	~~C~~	~~26.2~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~64.0~~	~~E~~	~~52.8~~	~~D~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.6~~	~~C~~	~~32.8~~	~~C~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~30.4~~	~~C~~	~~61.7~~	~~E~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~32.4~~	~~C~~	~~76.8~~	~~E~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~41.8~~	~~D~~	~~48.9~~	~~D~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.7~~	~~C~~	~~33.5~~	~~C~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~50.5~~	~~D~~	~~113.4~~	~~F~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~19.1~~	~~B~~	~~15.6~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~148.3~~	~~F~~	~~66.6~~	~~E~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~42.5~~	~~D~~	~~32.9~~	~~C~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~22.0~~	~~C~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~35.7~~	~~D~~	~~32.7~~	~~C~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~38.2~~	~~D~~	~~58.3~~	~~E~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~10.9~~	~~B~~	~~8.9~~	~~A~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.5~~	~~C~~	~~23.3~~	~~C~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.3~~	~~B~~	~~35.4~~	~~D~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~10.7~~	~~B~~	~~43.0~~	~~D~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~20.7~~	~~C~~	~~34.7~~	~~C~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.5~~	~~C~~	~~89.5~~	~~F~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~10.8~~	~~B~~	~~12.6~~	~~B~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~31.3~~	~~C~~	~~175.7~~	~~F~~
~~75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~19.6~~	~~B~~	~~30.3~~	~~C~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~27.8~~	~~C~~	~~29.8~~	~~C~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~10.9~~	~~B~~	~~11.7~~	~~B~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~6.6~~	~~A~~	~~7.4~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~29.8~~	~~C~~	~~15.5~~	~~B~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~33.2~~	~~C~~	~~48.3~~	~~D~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~34.6~~	~~C~~	~~48.4~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~9.2~~	~~A~~	~~16.7~~	~~B~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~100.0~~	~~F~~	~~41.2~~	~~D~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~9.6~~	~~A~~	~~5.6~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~27.4~~	~~D~~	~~15.0~~	~~C~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~34.5~~	~~C~~	~~40.8~~	~~D~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~13.2~~	~~B~~	~~17.3~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~36.3~~	~~D~~	~~51.2~~	~~D~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~9.4~~	~~A~~	~~7.1~~	~~A~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~36.9~~	~~D~~	~~35.4~~	~~D~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~22.1~~	~~C~~	~~31.3~~	~~C~~
~~92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~14.3~~	~~B~~	~~13.5~~	~~B~~

~~Table 4.15.P: Year 2022 Without Project Intersection Levels of Service~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~AM Peak Hour~~		~~PM Peak Hour~~	
				~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~19.7~~	~~B~~	~~10.1~~	~~B~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~84.2~~	~~F~~	~~83.7~~	~~F~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~64.5~~	~~E~~	~~114.7~~	~~F~~
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~32.5~~	~~C~~	~~14.9~~	~~B~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~29.5~~	~~C~~	~~20.5~~	~~C~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~30.6~~	~~C~~	~~30.2~~	~~C~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~33.3~~	~~C~~	~~25.5~~	~~C~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~18.6~~	~~B~~	~~39.7~~	~~D~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~34.3~~	~~C~~	~~31.2~~	~~C~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~139.7~~	~~F~~	~~41.6~~	~~D~~
~~104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~14.6~~	~~B~~	~~12.7~~	~~B~~
~~105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~32.8~~	~~C~~	~~29.7~~	~~C~~
~~106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~18.3~~	~~B~~	~~22.7~~	~~C~~
~~107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~34.4~~	~~C~~	~~30.3~~	~~C~~
~~108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~29.2~~	~~C~~	~~20.8~~	~~C~~
~~109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~19.2~~	~~B~~	~~32.4~~	~~C~~
~~110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~38.0~~	~~D~~	~~32.2~~	~~C~~
~~111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~14.6~~	~~B~~	~~25.9~~	~~C~~
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~40.8~~	~~D~~	~~60.0~~	~~E~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~22.1~~	~~C~~	~~16.9~~	~~C~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~32.0~~	~~C~~	~~32.2~~	~~C~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~122~~	~~Bridge St/Ramona Expy~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~22.3~~	~~C~~	~~25.7~~	~~D~~
~~124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~108.0~~	~~F~~
~~125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~123.3~~	~~F~~
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~35.7~~	~~D~~	~~24.4~~	~~C~~
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~31.8~~	~~D~~	~~55.0~~	~~F~~
~~130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~15.7~~	~~B~~	~~25.3~~	~~C~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~13.7~~	~~B~~	~~6.3~~	~~A~~
~~132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~> 180.0~~	~~F~~	~~125.1~~	~~F~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~169.8~~	~~F~~	~~> 180.0~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~

~~Table 4.15.P: Year 2022 Without Project Intersection Levels of Service~~

				~~AM Peak Hour~~		~~PM Peak Hour~~	
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~27.7~~	~~D~~	~~16.2~~	~~C~~
~~136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~10.9~~	~~B~~	~~11.1~~	~~B~~

~~Notes:~~ ~~"CSS" means cross-street is stop-controlled~~ ~~"AWS" means all-way stop~~

~~"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported~~

▨ ~~denotes LOS exceeding the target threshold~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

The year ~~2022~~2025 without project roadway levels of service are based on daily V/C ratios for the study area roadway segments. Table 4.15.Q summarizes the results of this analysis and shows ~~the following two study area roadway~~all segments ~~are projected to operate with unsatisfactory daily V/C ratios under year 2022 without project conditions. These same roadway segments also operate with unsatisfactory~~would meet the general plan LOS ~~in the existing condition:~~target.

- ~~Gilman Springs Road:~~
  - ~~Between Alessandro Boulevard and Bridge Street; and~~
  - ~~Between SR-60 and Alessandro Boulevard.~~

Table 4.15.Q: Year 2025 Without Project Roadway Levels of Service

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	1,174	A
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	906	A
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road		
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,524	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	5,484	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	22,365	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	20,260	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	16,194	B
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	11,586	A
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,885	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	10,282	A
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	990	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

A freeway segment level of service analysis was conducted to determine freeway performance under year ~~2022~~2025 conditions. Table 4.15.R summarizes the levels of service at study area segments under year ~~2022~~2025 no project conditions. As shown in Table 4.15.R, the following ~~33~~40 study freeway segments are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- ~~Northbound~~ North or Eastbound~~:~~
  - SR-60 ~~Reservoir Street to~~ Ramona ~~Avenue (p.m.);~~
- ~~SR-60 Ramona Avenue~~Ave. to Central ~~Avenue (p.m.);~~Ave. (AM, PM)
- SR-60 Central ~~Avenue~~Ave. to Mountain ~~Avenue (p.m.);~~Ave. (AM, PM)
- SR-60 Mountain Ave. to Euclid Ave. (AM, PM)
- SR-60 Euclid ~~Avenue~~Ave. to Grove ~~Avenue (p.m.);~~Ave. (AM, PM)
- SR-60 Grove ~~Avenue~~Ave. to Vineyard ~~Avenue (p.m.);~~Ave. (PM)
- SR-60 Vineyard ~~Avenue~~Ave. to Archibald ~~Avenue (p.m.);~~Ave. (PM)
  - SR-60 ~~Valley Way to~~ Rubidoux ~~Boulevard (p.m.);~~
- ~~SR-60 Rubidoux Boulevard~~Blvd. to Market ~~Street (a.m.);~~St. (PM)
- SR-60 Market ~~Street~~St. to Main ~~Street (p.m.);~~St. (AM, PM)
- SR-60 Martin Luther King ~~Boulevard~~Blvd. to Central ~~Avenue (a.m. and p.m.);~~Ave. (AM, PM)
- SR-60 Pigeon Pass ~~Road/Frederick Street~~Rd. to Heacock ~~Street (p.m.);~~St. (PM)
  - ~~SR-60 Heacock Street to Perris Boulevard (p.m.);~~
- SR-91 ~~I-15 to~~ McKinley ~~Street (p.m.);~~St. to Pierce St. (PM)
- SR-91 Pierce ~~Street~~St. to Magnolia ~~Avenue (p.m.)~~Ave. (AM, PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Adams St. to Madison St. (AM, PM)
- SR-91 Central Ave. to 14th St. (AM, PM)
  - I-215 ~~La Cadena Drive to~~ Barton ~~Road (p.m.); and~~
- ~~I-215 Barton Road~~Rd. to Mt. Vernon ~~Avenue (a.m. and p.m.).~~Ave./Washington St. (AM, PM)

~~Table 4.15.Q: Year 2022 Without Project Roadway Levels of Service~~

~~Roadway~~		~~From~~	~~To~~	~~LOS Standard*~~	~~Roadway Section**~~	~~Daily Volume~~	~~LOS~~
~~S-1~~	~~Theodore Street (A)~~	~~SR-60 WB Ramps~~	~~Ironwood Avenue~~	~~D~~	~~2U~~	~~3,133~~	~~A~~
~~S-2~~	~~Theodore Street (A)~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave.~~	~~D~~	~~2U~~	~~6,689~~	~~A~~
~~S-3~~	~~Fir (Eucalyptus) Ave.~~	~~Redlands Blvd~~	~~Theodore Street (A)~~	~~D~~	~~2U***~~	~~6,542~~	~~A~~
~~S-4~~	~~Eucalyptus Ave (B)~~	~~Theodore Street (A)~~	~~Gilman Springs Rd~~	~~Future Road~~			
~~S-5~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave.~~	~~Street E~~	~~D~~	~~2U~~	~~1,116~~	~~A~~
~~S-6~~	~~Street E~~	~~Theodore Street (A)~~	~~Cactus Ave Extension~~	~~Future Road~~			
~~S-7~~	~~Street F~~	~~Theodore Street (A)~~	~~Alessandro Blvd (Street C)~~	~~Future Road~~			
~~S-8~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave.~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~2U~~	~~1,116~~	~~A~~
~~S-9~~	~~Alessandro Blvd (Street E)~~	~~Merwin Street~~	~~Theodore Street (A)~~	~~D~~	~~2U~~	~~3,778~~	~~A~~
~~S-10~~	~~Cactus Ave Extension~~	~~Alessandro Blvd (Street E)~~	~~Cactus Ave.~~	~~Future Road~~			
~~S-11~~	~~Alessandro Blvd (Street C)~~	~~Theodore Street (A)~~	~~Street F~~	~~D~~	~~2U~~	~~2,321~~	~~A~~
~~S-13~~	~~Alessandro Blvd (Street C)~~	~~Street F~~	~~Gilman Springs Rd~~	~~D~~	~~2U~~	~~2,321~~	~~A~~
~~S-14~~	~~Alessandro Blvd~~	~~Moreno Beach Dr~~	~~Redlands Blvd~~	~~D~~	~~2U~~	~~4,796~~	~~A~~
~~S-16~~	~~Gilman Springs Rd~~	~~Alessandro Blvd (Street C)~~	~~Bridge Street~~	~~D~~	~~2U~~	~~15,512~~	~~F~~
~~S-17~~	~~Gilman Springs Rd~~	~~SR-60~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~2U~~	~~12,819~~	~~F~~
~~S-18~~	~~Redlands Blvd~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave.~~	~~D~~	~~2U~~	~~11,042~~	~~D~~
~~S-19~~	~~Redlands Blvd~~	~~Fir (Eucalyptus) Ave.~~	~~Alessandro Blvd~~	~~C~~	~~2U~~	~~8,416~~	~~B~~
~~S-20~~	~~Alessandro Blvd~~	~~Redlands Blvd~~	~~Merwin Street~~	~~C~~	~~2U~~	~~3,886~~	~~A~~
~~S-21~~	~~Redlands Blvd~~	~~Alessandro Blvd~~	~~Cactus Ave.~~	~~C~~	~~2U~~	~~8,583~~	~~B~~
~~S-22~~	~~Cactus Ave.~~	~~Redlands Blvd~~	~~Cactus Ave Extension~~	~~C~~	~~2U***~~	~~472~~	~~A~~

~~* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways~~
~~** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways~~
~~*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.~~

▨ ~~Indicates LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-2~~	~~SR-60~~	~~Reservoir St to Ramona Ave~~	~~7,210~~	~~30.5~~	~~D~~	~~7,830~~	~~35.1~~	~~E~~	~~8,770~~	~~43.3~~	~~E~~	~~7,150~~	~~30.1~~	~~D~~
~~F-3~~	~~SR-60~~	~~Ramona Ave to Central Ave~~	~~6,850~~	~~28.2~~	~~D~~	~~9,380~~	~~51.4~~	~~F~~	~~8,290~~	~~38.7~~	~~E~~	~~6,750~~	~~27.7~~	~~D~~
~~F-4~~	~~SR-60~~	~~Central Ave to Mountain Ave~~	~~7,590~~	~~33.0~~	~~D~~	~~9,350~~	~~51.0~~	~~F~~	~~6,340~~	~~25.4~~	~~C~~	~~6,990~~	~~29.1~~	~~D~~
~~F-5~~	~~SR-60~~	~~Mountain Ave to Euclid Ave~~	~~7,520~~	~~32.5~~	~~D~~	~~6,690~~	~~27.5~~	~~D~~	~~6,260~~	~~25.0~~	~~C~~	~~7,440~~	~~32.0~~	~~D~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~8,990~~	~~45.8~~	~~F~~	~~9,280~~	~~50.0~~	~~F~~	~~6,470~~	~~26.1~~	~~D~~	~~7,310~~	~~31.1~~	~~D~~
~~F-7~~	~~SR-60~~	~~Grove Ave to Vineyard Ave~~	~~8,170~~	~~37.6~~	~~E~~	~~9,530~~	~~53.6~~	~~F~~	~~6,330~~	~~25.4~~	~~C~~	~~7,920~~	~~35.5~~	~~E~~
~~F-8~~	~~SR-60~~	~~Vineyard Ave to Archibald Ave~~	~~8,080~~	~~36.5~~	~~E~~	~~9,470~~	~~52.7~~	~~F~~	~~7,670~~	~~33.6~~	~~D~~	~~7,550~~	~~32.8~~	~~D~~
~~F-9~~	~~SR-60~~	~~Archibald Ave to Haven Ave~~	~~7,590~~	~~32.8~~	~~D~~	~~6,630~~	~~27.2~~	~~D~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-10~~	~~SR-60~~	~~Haven Ave to Miliken Ave~~	~~7,400~~	~~23.2~~	~~C~~	~~7,040~~	~~22.1~~	~~C~~	~~5,850~~	~~18.0~~	~~B~~	~~7,110~~	~~22.3~~	~~C~~
~~F-11~~	~~SR-60~~	~~Miliken Ave to I-15~~	~~5,280~~	~~20.3~~	~~C~~	~~4,530~~	~~17.4~~	~~B~~	~~5,550~~	~~21.6~~	~~C~~	~~7,050~~	~~29.2~~	~~D~~
~~F-12~~	~~SR-60~~	~~I-15 to Etiwanda Ave~~	~~4,580~~	~~17.6~~	~~B~~	~~3,440~~	~~13.3~~	~~B~~	~~4,490~~	~~13.7~~	~~B~~	~~5,850~~	~~17.9~~	~~B~~
~~F-13~~	~~SR-60~~	~~Etiwanda Ave to Mission Blvd/Country Village Rd~~	~~5,070~~	~~19.6~~	~~C~~	~~4,460~~	~~17.2~~	~~B~~	~~4,220~~	~~16.2~~	~~B~~	~~5,830~~	~~22.8~~	~~C~~
~~F-14~~	~~SR-60~~	~~Mission Blvd/Country Village Rd to Pedley Rd~~	~~4,600~~	~~17.7~~	~~B~~	~~3,560~~	~~13.8~~	~~B~~	~~4,240~~	~~16.3~~	~~B~~	~~5,850~~	~~22.9~~	~~C~~
~~F-15~~	~~SR-60~~	~~Pedley Rd to Pyrite St~~	~~4,620~~	~~17.8~~	~~B~~	~~3,710~~	~~14.4~~	~~B~~	~~3,290~~	~~12.6~~	~~B~~	~~5,010~~	~~19.2~~	~~C~~

~~Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-16~~	~~SR-60~~	~~Pyrite St to Valley Way~~	~~5,190~~	~~20.1~~	~~C~~	~~3,990~~	~~15.5~~	~~B~~	~~2,740~~	~~10.6~~	~~A~~	~~4,510~~	~~17.2~~	~~B~~
~~F-17~~	~~SR-60~~	~~Valley Way to Rubidoux Blvd~~	~~6,280~~	~~39.4~~	~~E~~	~~4,530~~	~~24.1~~	~~C~~	~~4,630~~	~~24.4~~	~~C~~	~~6,530~~	~~42.2~~	~~E~~
~~F-18~~	~~SR-60~~	~~Rubidoux Blvd to Market St~~	~~6,920~~	~~48.7~~	~~F~~	~~4,950~~	~~27.2~~	~~D~~	~~3,630~~	~~18.6~~	~~C~~	~~5,660~~	~~32.5~~	~~D~~
~~F-19~~	~~SR-60~~	~~Market St to Main St~~	~~6,450~~	~~41.6~~	~~E~~	~~7,260~~	~~56.8~~	~~F~~	~~5,890~~	~~34.4~~	~~D~~	~~6,820~~	~~46.5~~	~~F~~
~~F-20~~	~~SR-60~~	~~Main to SR-91~~	~~See Weaving Analysis~~		~~See Weaving Analysis~~				~~5,450~~	~~30.6~~	~~D~~	~~6,610~~	~~42.9~~	~~E~~
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~8,440~~	~~41.5~~	~~E~~	~~9,140~~	~~53.5~~	~~F~~	~~7,060~~	~~23.7~~	~~C~~	~~7,680~~	~~25.5~~	~~C~~
~~F-26~~	~~SR-60~~	~~Fair Isle Dr/Box Springs Rd to I-215~~	~~6,450~~	~~25.7~~	~~C~~	~~7,270~~	~~30.8~~	~~D~~	~~7,390~~	~~31.9~~	~~D~~	~~8,510~~	~~40.3~~	~~E~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St.~~	~~See Weaving Analysis~~		~~See Weaving Analysis~~				~~7,250~~	~~54.3~~	~~F~~	~~3,880~~	~~20.0~~	~~C~~
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd/Frederick St to Heacock St~~	~~3,520~~	~~29.2~~	~~D~~	~~4,200~~	~~39.3~~	~~E~~	~~3,460~~	~~28.5~~	~~D~~	~~3,860~~	~~34.0~~	~~D~~
~~F-30~~	~~SR-60~~	~~Heacock St to Perris Blvd~~	~~3,160~~	~~25.0~~	~~C~~	~~4,050~~	~~36.7~~	~~E~~	~~3,300~~	~~26.6~~	~~D~~	~~3,360~~	~~27.5~~	~~D~~
~~F-31~~	~~SR-60~~	~~Perris Blvd to Nason St~~	~~2,590~~	~~19.8~~	~~C~~	~~3,070~~	~~24.3~~	~~C~~	~~2,790~~	~~21.6~~	~~C~~	~~2,550~~	~~19.6~~	~~C~~
~~F-33~~	~~SR-60~~	~~Moreno Beach Dr to Redlands Blvd~~	~~1,910~~	~~14.5~~	~~B~~	~~2,370~~	~~18.0~~	~~C~~	~~1,810~~	~~13.8~~	~~B~~	~~1,750~~	~~13.4~~	~~B~~
~~F-34~~	~~SR-60~~	~~Redlands Blvd to Theodore St~~	~~2,460~~	~~18.8~~	~~C~~	~~3,240~~	~~25.8~~	~~C~~	~~2,280~~	~~17.3~~	~~B~~	~~2,200~~	~~16.8~~	~~B~~

~~Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-36~~	~~SR-60~~	~~Gilman Springs Rd to Jack Rabbit Trail~~	~~2,310~~	~~19.2~~	~~C~~	~~2,770~~	~~23.6~~	~~C~~	~~2,180~~	~~18.0~~	~~C~~	~~1,850~~	~~15.3~~	~~B~~
~~F-37~~	~~SR-60~~	~~Jack Rabbit Trail to I-10/Potrero Blvd~~	~~2,070~~	~~15.8~~	~~B~~	~~2,820~~	~~21.8~~	~~C~~	~~2,190~~	~~16.7~~	~~B~~	~~1,690~~	~~12.9~~	~~B~~
~~F-39~~	~~SR-91~~	~~I-15 to McKinley St~~	~~7,190~~	~~22.3~~	~~C~~	~~10,400~~	~~38.6~~	~~E~~	~~7,280~~	~~30.9~~	~~D~~	~~7,330~~	~~31.0~~	~~D~~
~~F-40~~	~~SR-91~~	~~McKinley St to Pierce St~~	~~6,500~~	~~26.1~~	~~D~~	~~5,950~~	~~23.5~~	~~C~~	~~5,440~~	~~31.0~~	~~D~~	~~6,330~~	~~39.6~~	~~E~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~5,970~~	~~35.2~~	~~E~~	~~5,410~~	~~30.5~~	~~D~~	~~5,210~~	~~29.0~~	~~D~~	~~8,080~~	~~77.6~~	~~F~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~See Weaving Analysis~~		~~See Weaving Analysis~~				~~5,450~~	~~31.1~~	~~D~~	~~8,040~~	~~76.1~~	~~F~~
~~F-43~~	~~SR-91~~	~~La Sierra Ave to Tyler St~~	~~5,490~~	~~30.9~~	~~D~~	~~5,230~~	~~29.0~~	~~D~~	~~4,800~~	~~25.9~~	~~C~~	~~5,980~~	~~35.6~~	~~E~~
~~F-44~~	~~SR-91~~	~~Tyler St to Van Buren Blvd~~	~~6,600~~	~~26.6~~	~~D~~	~~5,980~~	~~23.6~~	~~C~~	~~6,170~~	~~24.7~~	~~C~~	~~7,420~~	~~31.6~~	~~D~~
~~F-45~~	~~SR-91~~	~~Van Buren Blvd to Adam St~~	~~6,700~~	~~27.2~~	~~D~~	~~5,250~~	~~20.3~~	~~C~~	~~5,810~~	~~22.9~~	~~C~~	~~7,160~~	~~29.9~~	~~D~~
~~F-46~~	~~SR-91~~	~~Adam St to Madison St~~	~~7,310~~	~~31.4~~	~~D~~	~~4,970~~	~~19.4~~	~~C~~	~~5,420~~	~~21.2~~	~~C~~	~~6,210~~	~~24.5~~	~~C~~
~~F-47~~	~~SR-91~~	~~Madison St to Indiana Ave/ Arlington Ave~~	~~6,710~~	~~27.6~~	~~D~~	~~4,970~~	~~19.4~~	~~C~~	~~4,780~~	~~25.8~~	~~C~~	~~5,550~~	~~31.2~~	~~D~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~5,910~~	~~34.9~~	~~D~~	~~5,070~~	~~27.7~~	~~D~~	~~4,340~~	~~16.8~~	~~B~~	~~4,530~~	~~17.3~~	~~B~~
~~F-51~~	~~SR-91~~	~~University Ave to Spruce St (off-ramp)~~	~~8,270~~	~~26.6~~	~~D~~	~~7,700~~	~~24.2~~	~~C~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~		

~~Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-52~~	~~I-10~~	~~SR-60 to Beaumont Ave~~	~~4,390~~	~~16.8~~	~~B~~	~~6,080~~	~~24.1~~	~~C~~	~~5,610~~	~~21.9~~	~~C~~	~~5,370~~	~~20.7~~	~~C~~
~~F-53~~	~~I-10~~	~~Beaumont Ave to Pennsylvania Ave~~	~~4,450~~	~~17.1~~	~~B~~	~~6,240~~	~~24.9~~	~~C~~	~~5,470~~	~~21.3~~	~~C~~	~~5,270~~	~~20.3~~	~~C~~
~~F-54~~	~~I-10~~	~~Pennsylvania Ave to Highland Springs Ave~~	~~4,640~~	~~17.8~~	~~B~~	~~6,480~~	~~26.2~~	~~D~~	~~5,920~~	~~23.3~~	~~C~~	~~5,480~~	~~21.2~~	~~C~~
~~F-55~~	~~I-10~~	~~Highland Springs Ave to Sunset Ave~~	~~4,560~~	~~17.5~~	~~B~~	~~6,210~~	~~24.8~~	~~C~~	~~5,690~~	~~22.3~~	~~C~~	~~5,200~~	~~20.1~~	~~C~~
~~F-56~~	~~I-10~~	~~Sunset Ave to 22nd St~~	~~4,470~~	~~17.2~~	~~B~~	~~5,960~~	~~23.5~~	~~C~~	~~5,450~~	~~21.2~~	~~C~~	~~5,090~~	~~19.7~~	~~C~~
~~F-57~~	~~I-10~~	~~22nd St to 8th St~~	~~4,380~~	~~16.8~~	~~B~~	~~5,800~~	~~22.8~~	~~C~~	~~5,320~~	~~20.6~~	~~C~~	~~5,110~~	~~19.6~~	~~C~~
~~F-58~~	~~I-10~~	~~8th St to Hargrave St~~	~~4,370~~	~~16.8~~	~~B~~	~~5,730~~	~~22.4~~	~~C~~	~~5,250~~	~~20.3~~	~~C~~	~~5,250~~	~~20.2~~	~~C~~
~~F-59~~	~~I-10~~	~~Hargrave St to Fields Rd~~	~~4,100~~	~~15.8~~	~~B~~	~~5,350~~	~~20.8~~	~~C~~	~~4,810~~	~~18.5~~	~~C~~	~~5,020~~	~~19.3~~	~~C~~
~~F-60~~	~~I-10~~	~~Fields Rd to Morongo Trail~~	~~3,770~~	~~14.5~~	~~B~~	~~5,080~~	~~19.6~~	~~C~~	~~4,600~~	~~17.7~~	~~B~~	~~4,830~~	~~18.6~~	~~C~~
~~F-61~~	~~I-10~~	~~Morongo Trail to Main St~~	~~3,410~~	~~13.1~~	~~B~~	~~4,670~~	~~18.0~~	~~B~~	~~4,110~~	~~15.8~~	~~B~~	~~4,240~~	~~16.3~~	~~B~~
~~F-62~~	~~I-10~~	~~Main St to Haugen-Lehmann Way~~	~~3,280~~	~~12.6~~	~~B~~	~~4,720~~	~~18.1~~	~~C~~	~~4,230~~	~~16.3~~	~~C~~	~~4,300~~	~~16.5~~	~~B~~
~~F-64~~	~~I-10~~	~~SR-111 to Tipton Rd~~	~~2,950~~	~~11.3~~	~~B~~	~~4,140~~	~~15.9~~	~~B~~	~~3,680~~	~~14.1~~	~~B~~	~~3760~~	~~14.4~~	~~B~~
~~F-65~~	~~I-10~~	~~Tipton Rd to SR-62~~	~~2,810~~	~~10.8~~	~~A~~	~~4,170~~	~~16.0~~	~~B~~	~~3,700~~	~~14.2~~	~~B~~	~~3,770~~	~~14.4~~	~~B~~

~~Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-66~~	~~I-215~~	~~Scott Rd to Newport Rd~~	~~2,850~~	~~14.5~~	~~B~~	~~4,330~~	~~22.4~~	~~C~~	~~3,670~~	~~18.6~~	~~C~~	~~2,500~~	~~12.7~~	~~B~~
~~F-68~~	~~I-215~~	~~Newport Rd to MacCall Blvd~~	~~2,100~~	~~10.8~~	~~A~~	~~3,140~~	~~15.9~~	~~B~~	~~3,820~~	~~19.6~~	~~C~~	~~3,520~~	~~18.0~~	~~B~~
~~F-69~~	~~I-215~~	~~MacCall Blvd to Ethanac Rd~~	~~2,750~~	~~14.0~~	~~B~~	~~4,380~~	~~22.7~~	~~C~~	~~4,380~~	~~22.8~~	~~C~~	~~2,950~~	~~15.0~~	~~B~~
~~F-70~~	~~I-215~~	~~Ethanac Rd to SR-74~~	~~4,200~~	~~21.7~~	~~C~~	~~4,100~~	~~21.0~~	~~C~~	~~4,110~~	~~21.2~~	~~C~~	~~4,250~~	~~21.9~~	~~C~~
~~F-71~~	~~I-215~~	~~SR-74/Case Rd to Redlands Blvd~~	~~3,490~~	~~17.7~~	~~B~~	~~4,800~~	~~25.4~~	~~C~~	~~5,730~~	~~33.1~~	~~D~~	~~3,860~~	~~19.7~~	~~C~~
~~F-74~~	~~I-215~~	~~Columbia Ave to Center St~~	~~6,090~~	~~36.8~~	~~E~~	~~6,030~~	~~36.2~~	~~E~~	~~6,390~~	~~40.0~~	~~E~~	~~5,330~~	~~29.6~~	~~D~~
~~F-75~~	~~I-215~~	~~Center St to Iowa Ave/La Cadena Dr~~	~~5,830~~	~~34.1~~	~~D~~	~~5,800~~	~~33.8~~	~~D~~	~~6,880~~	~~46.9~~	~~F~~	~~5,560~~	~~31.6~~	~~D~~
~~F-76~~	~~I-215~~	~~Iowa Ave/La Cadena Dr to Barton Rd~~	~~5,690~~	~~32.7~~	~~D~~	~~6,130~~	~~37.3~~	~~E~~	~~6,700~~	~~44.2~~	~~E~~	~~5,570~~	~~31.7~~	~~D~~
~~F-77~~	~~I-215~~	~~Barton Rd to Mt Vernon Ave~~	~~5,980~~	~~35.6~~	~~E~~	~~6,550~~	~~42.5~~	~~E~~	~~6,720~~	~~44.4~~	~~E~~	~~5,610~~	~~32.0~~	~~D~~
~~F-78~~	~~I-215~~	~~Mt Vernon Ave/Washington St to I-10~~	~~5,770~~	~~22.5~~	~~C~~	~~6,660~~	~~27.0~~	~~D~~	~~7,080~~	~~29.2~~	~~D~~	~~5,890~~	~~23.1~~	~~C~~
~~F-80~~	~~I-215~~	~~Auto Plaza Dr/ Orange Show Rd to Mill St~~	~~4,490~~	~~17.2~~	~~B~~	~~5,500~~	~~21.2~~	~~C~~	~~4,790~~	~~18.2~~	~~C~~	~~4,140~~	~~15.8~~	~~B~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave/SR-210~~	~~3,030~~	~~15.4~~	~~B~~	~~4,060~~	~~20.8~~	~~C~~	~~5,280~~	~~29.0~~	~~D~~	~~4,700~~	~~24.9~~	~~C~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

- ~~Southbound and Westbound:~~
  - ~~SR-60 Reservoir Street to Ramona Avenue (a.m.);~~
  - ~~SR-60 Ramona Avenue to Central Avenue (a.m.);~~
  - ~~SR-60 Grove Avenue to Vineyard Avenue (p.m.);~~
  - ~~SR-60 Valley Way to Rubidoux Boulevard (p.m.);~~
  - ~~SR-60 Market Street to Main Street (a.m. and p.m.);~~
  - ~~SR-60 Main Street to SR-91 (p.m.);~~
  - ~~SR-60 Fair Isle Drive/Box Springs Road to I-215 (a.m. and p.m.);~~
  - ~~SR-60 I-215 to Day Street (a.m.);~~
- ~~SR-91 McKinley Street to~~I-215 Auto Plaza Dr. to Mill St. (PM)

Southbound or Westbound

- SR-60 Euclid Ave. to Grove Ave. (PM)
- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (AM, PM)
- SR-60 Valley Way to Rubidoux Blvd. (PM)
- SR-60 Rubidoux Blvd. to Market St. (PM)
- SR-60 Market St. to Main St. (AM)
- SR-60 Main St. to SR-91 (AM)
- SR-60 Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 Fair Isle Dr./Box Springs Rd. to I-215 (PM)
- SR-60 I-215 to Day St. (AM)
- SR-60 Pigeon Pass Rd. to Heacock St. (AM)
- SR-91 McKinley St. to Pierce St. (AM, PM)
- SR-91 Pierce ~~Street (p.m.);~~St. to Magnolia Ave. (AM, PM)
  - SR-91 ~~Pierce Street to~~ Magnolia ~~Avenue (p.m.);~~
- ~~SR-91 Magnolia Avenue~~Ave. to La Sierra ~~Avenue (p.m.);~~Ave. (AM, PM)
- SR-91 La Sierra ~~Avenue to~~Ave. to Tyler St. (AM, PM)
- SR-91 Tyler ~~Street (p.m.);~~St. to Van Buren Blvd. (PM)
  - ~~I-215 Columbia Avenue to Center Street (a.m.);~~
- SR-91 Van Buren Blvd. to Adams St. (PM)
- SR-91 Adams St. to Madison St. (PM)
- SR-91 Madison St. to Arlington Ave. (AM, PM)
- I-215 Harley Knox Blvd. to Van Buren Blvd. (PM)
- I-215 Center ~~Street~~St. to ~~Iowa Avenue/~~La Cadena ~~Drive (a.m.);~~Dr. (AM, PM)
- I-215 ~~Iowa Avenue/~~La Cadena ~~Drive~~Dr. to Barton ~~Road (a.m.); and~~Rd. (AM, PM)
- I-215 Barton ~~Road~~Rd. to Mt. Vernon ~~Avenue (a.m.).~~Ave. (PM)

Table 4.15.R: Year 2025 Without Project Freeway Mainline Levels of Service

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,520	29.7	D	6,580	28.2	D	6,700	26.6	D	6,540	26.5	D
F-3	SR-60	Ramona Ave to Central Ave	8,600	43.5	**E**	9,500	48.5	**F**	6,250	24.9	C	6,780	28.0	D
F-4	SR-60	Central Ave to Mountain Ave	7,710	35.2	**E**	8,390	37.3	**E**	6,850	29.0	D	6,860	29.3	D
F-5	SR-60	Mountain Ave to Euclid Ave	8,040	38.0	**E**	8,390	37.3	**E**	6,970	29.5	D	7,260	31.7	D
F-6	SR-60	Euclid Ave to Grove Ave	7,960	37.3	**E**	8,560	38.7	**E**	7,250	30.4	D	7,930	35.6	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	7,320	32.2	D	9,460	48.0	**F**	6,820	27.1	D	9,890	58.8	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,210	31.2	D	9,610	49.9	**F**	7,980	36.2	**E**	9,930	62.2	**F**
F-9	SR-60	Archibald Ave to Haven Ave	7,290	32.0	D	6,980	27.8	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	8,240	28.2	D	7,640	23.5	C	7,510	23.0	C	6,280	19.4	C
F-11	SR-60	Milliken Ave to I-15	4,670	18.6	C	5,430	20.5	C	5,640	21.6	C	5,880	23.0	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,210	16.7	B	4,820	18.0	B	5,200	15.7	B	5,290	16.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,640	14.4	B	3,970	14.9	B	5,480	20.9	C	6,690	27.5	D
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	3,120	12.6	B	3,430	13.1	B	4,790	18.2	C	5,670	22.4	C
F-15	SR-60	Pedley Rd to Pyrite St	3,290	13.2	B	3,760	14.3	B	4,760	18.1	C	5,670	22.4	C
F-16	SR-60	Pyrite St to Valley Way	3,940	15.8	B	4,170	15.8	B	4,940	18.8	C	5,650	22.3	C
F-17	SR-60	Valley Way to Rubidoux Blvd	5,110	29.1	D	5,840	32.7	D	5,170	27.7	D	5,930	35.7	**E**
F-18	SR-60	Rubidoux Blvd to Market St	5,320	30.9	D	6,110	35.6	**E**	5,340	28.6	D	6,210	38.2	**E**
F-19	SR-60	Market St to Main St	5,780	35.5	**E**	6,910	45.6	**F**	7,070	48.8	**F**	5,810	34.2	D
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			7,450	56.0	**F**	4,820	26.1	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,930	74.8	**F**	10,270	66.4	**F**	7,770	38.8	**E**	7,500	35.8	**E**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,300	21.0	C	6,590	25.5	C	7,540	31.6	D	8,230	38.5	**E**
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			4,740	50.7	**F**	3,260	26.9	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,020	25.3	C	5,100	59.6	**F**	5,080	59.8	**F**	2,860	22.7	C
F-30	SR-60	Heacock St to Perris Blvd	2,770	22.5	C	3,740	30.5	D	3,730	31.3	D	3,160	25.6	C
F-31	SR-60	Perris Blvd to Nason St	2,530	20.2	C	3,410	26.7	D	3,340	26.2	D	2,920	23.2	C
F-32	SR-60	Nason St to Moreno Beach Dr	2,270	12.1	B	3,140	15.5	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,120	11.3	B	2,910	14.4	B	2,780	21.4	C	2,410	18.8	C
F-34	SR-60	Redlands Blvd to Theodore St	1,800	9.6	A	2,790	13.8	B	2,500	12.7	B	2,050	10.7	A
F-35	SR-60	Theodore St to Gilman Springs Rd	1,930	7.7	A	3,050	11.3	B	2,530	9.7	A	2,040	8.0	A
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,380	8.0	A	2,220	11.5	B	1,810	10.1	A	1,580	9.0	A
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	1,500	12.1	B	2,270	16.8	B	1,460	11.5	B	1,390	11.1	B
F-38	SR-60	Potero Blvd to I-10	1,420	11.5	B	1,340	10.0	A	1,940	14.4	B	1,720	13.3	B
F-39	SR-91	I-15 to McKinley St	4,670	17.5	B	6,840	28.9	D	6,700	27.0	D	7,610	34.7	D
F-40	SR-91	McKinley St to Pierce St	5,230	27.9	D	5,840	35.5	**E**	7,250	53.3	**F**	7,330	62.3	**F**
F-41	SR-91	Pierce St to Magnolia Ave	6,760	44.9	**E**	7,590	68.9	**F**	7,260	52.2	**F**	7,260	57.8	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			7,410	55.1	**F**	7,330	59.6	**F**
F-43	SR-91	La Sierra Ave to Tyler St	7,390	30.6	D	7,530	33.8	D	6,320	38.3	**E**	7,390	61.1	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	7,410	30.5	D	8,330	40.3	**E**	6,470	25.4	C	8,280	39.8	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,950	18.6	C	5,280	20.8	C	6,760	27.0	D	8,230	39.3	**E**
F-46	SR-91	Adam St to Madison St	7,670	63.0	**F**	8,550	120.9	**F**	6,320	24.7	C	7,790	35.5	**E**

Table 4.15.R: Year 2025 Without Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,440	55.8	F	7,240	56.6	F
F-49	SR-91	Central Ave to 14th St	7,300	56.6	F	6,200	40.8	E	5,650	21.6	C	7,260	31.3	D
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	5,650	21.6	C	7,260	31.3	D
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,030	11.3	B	2,500	9.3	A
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	2,990	11.2	B	2,930	10.9	A
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	3,170	11.9	B	3,680	13.6	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,170	11.9	B	3,680	13.6	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	3,700	13.9	B	4,350	16.1	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	5,200	19.8	C	5,000	18.7	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	3,160	11.9	B	2,640	9.8	A
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,020	12.1	B	3,250	9.7	A
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,430	13.4	B	4,080	12.3	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,830	14.6	B	5,980	17.8	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,440	14.2	B	5,920	17.9	B	2,790	8.5	A	5,460	16.3	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	3,770	19.8	C	6,720	42.4	E
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,000	15.1	B	6,260	24.1	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	5,410	29.5	D	5,950	34.0	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	7,630	33.2	D	7,220	29.4	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	7,710	64.0	F	7,280	51.2	F
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	7,720	64.3	F	7,400	52.7	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	E	6,150	36.7	E	6,570	41.4	E	7,460	53.9	F
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,350	25.1	C	5,840	22.3	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	F	6,460	25.4	C	6,020	22.8	C
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	4,930	18.5	C	3,740	13.9	B
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	5,750	25.3	C	5,190	19.6	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	5,880	26.4	D	5,330	20.4	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	6,330	29.3	D	5,480	21.1	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	5,810	26.0	D	5,150	19.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	5,580	19.1	C	5,060	15.5	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	5,460	24.0	C	4,960	19.0	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	5,390	23.6	C	4,980	19.1	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	4,830	20.9	C	4,660	17.8	B
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	4,620	19.9	C	4,560	17.4	B
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	4,110	17.4	B	4,150	15.6	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	4,100	17.4	B	4,200	15.8	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	3,570	15.2	B	3,570	13.4	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	3,590	15.2	B	3,580	13.5	B

▨ Indicates that the LOS exceeds the target level

A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Table 4.15.S summarizes the levels of service at weaving segments under ~~opening year cumulative~~ 2025 conditions. As shown on Table 4.15.S, the following ~~six northbound or eastbound sections and one southbound or westbound~~thirteen sections are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- ~~Northbound~~ North or Eastbound~~:~~
  - ~~o~~ SR-60 ~~SR-71/ Garey Avenue to Reservoir Street (p.m.);~~
  - ~~o~~•~~SR-60~~from Main ~~Street~~St. to SR-91 (~~a.m. and p.m.);~~AM, PM)
  - ~~o~~•SR-60 from SR-91 to Blaine ~~Street/~~St./3rd ~~Street (p.m.);~~St. (PM)
  - ~~o~~•SR-60 from Central ~~Avenue~~Ave. to Fair Isle ~~Drive/~~Dr./Box Springs ~~Road (p.m.);~~Rd. (PM)
  - ~~o SR-91 Arlington Avenue to Central Avenue (a.m.); and~~
  - • SR-60 from I-215 to Day St. (PM)
  - ~~o~~•SR-60 from Day St. to ~~Columbia Avenue (a.m. and p.m.).~~Pigeon Pass Rd./Frederick St. (PM)
  - • ~~Southbound~~SR-91 from Magnolia Ave. to La Sierra Ave. (PM)
  - • I-215 from I-10 to Auto Plaza Dr./Orange Show Rd. (PM)
- South or Westbound~~:~~
  - • SR-60 from Haven Ave. to Archibald Ave. (PM)
  - • SR-60 from University Ave. to Martin Luther King Blvd. (AM, PM)
  - • SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd. (AM, PM)
  - ~~o~~•SR-91 ~~to Blaine Street/3rd Street (p.m.).~~from Arlington Ave. to Central Ave. (AM, PM)
  - • SR-91 from SR-60 to Mission Inn Ave./University Ave. (PM)
  - • I-215 from SR-60 to Columbia Ave. (AM, PM)

Table 4.15.S: Year 2025 Without Project Freeway Freeway Weaving Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,820	23	C	6,930	26	C	5,570	20.1	C	6,240	22.9	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,840	27.1	C	8,360	35.6	**E**
W-20	SR-60	Main St to SR-91	7,350	37.6	**E**	7,570	37.4	**E**	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,600	27.1	C	9,810	43.8	**F**	6,460	24.6	C	6,350	24.4	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,460	25.4	C	7,490	31.3	D	7,390	25.8	C	7,010	25.8	C
W-23	SR-60	University Ave to Martin Luther King Blvd	6,400	24.7	C	7,750	27.4	C	7,710	42.4	**E**	7,610	> Capacity	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	6,480	27.4	C	9,050	35.6	**E**	7,900	39.1	**E**	7,550	38.0	**E**
W-27	SR-60	I-215 to Day St	3,320	12.9	B	10,550	47.4	**F**	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,400	15.4	B	7,590	35.6	**E**	5,080	34.3	D	3,460	21.9	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,720	15.1	B	2,340	13.2	B
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	7,320	34.2	D	7,590	38.0	**E**	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,300	27.8	C	5,250	20.6	C	7,550	36.4	**E**	7,320	38.0	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			8,690	31.7	D	12,040	> Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	4,500	23.4	C	5,370	25.1	C	5,490	23.8	C	6,300	26.9	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			6,110	22.0	C	6,800	25.8	C
W-73	I-215	SR-60 to Columbia Ave	4,590	25.2	C	4,680	23.9	C	7,530	38.0	**E**	7,240	36.0	**E**
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,570	24.5	C	9,930	37.5	**E**	6,750	23.5	C	6,540	23.0	C
W-81	I-215	Mill St to 2nd St	6,060	23.0	C	7,480	28.4	D	7,430	26.0	C	6,600	23.4	C
W-82	I-215	5th St to Baseline Rd	4,370	12.9	B	7,510	23.4	C	7,460	23.9	C	5,970	18.7	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,280	11.2	B	4,260	14.4	B	4,100	16.0	B	4,190	16.2	B

▨ Indicates that the LOS exceeds the target level

Freeway ramp merge and diverge operations have been evaluated for year ~~2022~~2025 conditions. Table 4.15.T summarizes the levels of service under year ~~2022~~2025 no project conditions and shows the following~~ three~~ freeway ramp junction is forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- SR-60 eastbound On-Ramp from ~~Central Avenue (p.m.).~~

~~4.15.3.5 Year 2035 Cumulative without the Project~~

~~*Note: Due to a change in project conditions and phasing, the Year 2035 analysis was completely revised in the updated TIA and this DEIR section. The reader is referred to the original DEIR section for that analysis and related tables and figures.*~~

~~An intersection level of service analysis was conducted to determine intersection performance under Year 2035 Cumulative without project conditions. For the 2035 scenarios, the roadway projects from the FTIP and RTP included in the year 2022 network were also included in the 2035 network. The future circulation network from the City of Moreno Valley General Plan was also incorporated into the year 2035 network that are funded through the City's Development Impact Fee (DIF), Western Riverside Council of Governments' Transportation Uniform Mitigation Fee (TUMF), and improvements made directly by developers. It is reasonable to assume that these improvements will be in place parallel with buildout of the General Plan land uses, because most of the improvements will be funded through fees on the new developments. If other sites do not fully build out per the General Plan, then the LOS on the study streets and intersection would likely be better than shown in the TIA. Table 4.15.U summarizes the levels of service at study intersections under Year 2035 Cumulative without project conditions.~~

~~Table 4.15.U summarizes the levels of service at study intersections under Year 2035 Cumulative without project conditions and shows the following 36 study intersections are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:~~

- ~~Theodore Street/Ironwood Avenue (p.m.);~~
- ~~Theodore Street/SR-60 Westbound ramps (a.m. and p.m.);~~
- ~~Theodore Street/SR-60 Eastbound ramps (p.m.);~~
- ~~Theodore Avenue/Fir (Eucalyptus) Avenue (p.m.);~~
- ~~Redlands Boulevard/Alessandro Boulevard (a.m. and p.m.);~~
- ~~Moreno Beach Drive/Locust Avenue (a.m. and p.m.);~~
- ~~Moreno Beach Drive/SR-60 Eastbound Ramps (a.m. and p.m.);~~
- ~~Iris Avenue/Perris Boulevard (a.m. and p.m.);~~
- ~~Kitching Street/Iris Avenue (a.m. and p.m.);~~
- ~~Lasselle Street/Iris Avenue (p.m.);~~
- ~~Lasselle Street/Cactus Avenue (a.m.);~~
- ~~Graham Street/Alessandro Boulevard (p.m.);~~
- ~~Indian Street/Cactus Avenue (p.m.);~~

- ~~Alessandro Boulevard/Sycamore Canyon Boulevard (p.m.);~~
- ~~I-215 Southbound Ramps/Cactus Avenue (p.m.);~~
- ~~I-215 Northbound Ramps/Cactus Avenue (a.m. and p.m.);~~
- ~~Elsworth Street/Cactus Avenue (a.m. and p.m.);~~
- ~~Central Avenue/Lochmoor Drive (p.m.);~~
- ~~Alessandro Boulevard/Mission Grove Parkway (p.m.);~~
- Martin Luther King ~~Boulevard/I-215 Northbound Ramps (a.m.);~~Blvd (a.m./p.m.).

Table 4.15.~~S~~T: Year ~~2022~~2025 Without Project ~~Weaving Segment~~Freeway Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,500	430	41.9	F	9,220	1,050	39.9	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,960	520	15.6	B	7,620	1,430	25.3	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,120	570	6.2	A	2,910	860	10.3	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,680	120	9.1	A	2,470	320	13.8	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,800	90	12.3	B	2,790	70	17.0	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,870	60	7.3	A	2,940	110	12.2	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,930	340	7.2	A	3,050	760	13.5	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,370	10	9.9	A	2,210	10	13.5	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,810	10	14.1	B	1,580	50	13.0	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	2,010	520	10.6	B	1,650	390	7.9	A
R-13	SR-60 WB	Off-Ramp to Theodore St	1	2,530	90	7.0	A	2,040	40	4.4	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	2,430	70	12.9	B	1,990	60	10.9	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	2,500	220	7.1	A	2,050	150	4.6	A
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	2,090	690	15.2	B	1,810	600	13.3	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,900	710	5.9	A	7,550	540	5.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,770	650	25.2	C	7,500	1,010	27.6	C

▨ Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	7,150	29.2	D	8,640	37.6	E	6,130	21.9	C	6,720	24.3	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,330	24.4	C	7,330	29.3	D
W-20	SR-60	Main St to SR-91	7,350	36.6	E	7,370	38.0	E	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,010	24.2	C	9,760	42.3	E	7,720	29.4	D	9,290	36.9	E
W-22	SR-60	Blaine St/3rd St to University Ave	5,710	21.6	C	7,210	31.3	D	5,700	21.1	C	8,280	32.0	D
W-23	SR-60	University Ave to Martin Luther King	6,620	23.8	C	6,060	21.4	C	5,600	22.6	C	7,620	30.7	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	6,580	27.3	C	8,400	38.9	E	7,110	30.7	D	7,890	32.7	D
W-27	SR-60	I-215 to Day St	4,000	14.6	B	5,280	19.9	B	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,890	16.6	B	5,130	23.2	C	4,970	34.3	D	4,860	32.7	D
W-32	SR-60	Moreno Beach Dr to Nason St	2,330	14.2	B	2,880	18.1	B	2,410	14.5	B	2,190	13.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	2,320	12.7	B	3,370	19.3	B	2,360	13.6	B	2,030	11.4	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,400	30.3	D	5,950	28.5	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,220	39.0	E	3,680	17.9	B	4,510	21.2	C	5,050	24.1	C
W-50	SR-91	14th St to University Ave	5,030	25.1	C	4,810	24.6	C	5,090	19.6	B	7,020	27.9	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			5,020	14.7	B	8,850	26.7	C
W-73	I-215	SR-60 to Columbia Ave	6,840	37.8	E	6,540	35.8	E	7,040	33.4	D	6,110	28.8	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,610	16.8	B	5,210	19.0	B	5,830	20.8	C	4,870	18.0	B
W-81	I-215	Mill St to 2nd St	5,090	17.8	B	5,910	21.1	C	5,300	19.0	B	4,410	15.9	B
W-82	I-215	5th St to Baseline Rd	3,760	12.7	B	4,450	15.2	B	4,540	16.0	B	3,490	12.3	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,300	11.0	B	4,710	15.9	B	4,210	14.8	B	4,310	17.2	B

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.T: Year 2022 Without Project Freeway Ramp Levels of Service~~

~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~	~~Ramp No. of Lanes~~	~~AM Peak Hour~~				~~PM Peak Hour~~			
				~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-1~~	~~SR-60 EB~~	~~On-Ramp from Martin Luther King Blvd~~	~~1~~	~~6,190~~	~~710~~	~~27.4~~	~~C~~	~~5,780~~	~~1,320~~	~~30.9~~	~~D~~
~~R-2~~	~~SR-60 EB~~	~~On-Ramp from Central Ave~~	~~1~~	~~8,170~~	~~710~~	~~28.8~~	~~D~~	~~9,010~~	~~1,120~~	~~35.1~~	~~F~~
~~R-3~~	~~SR-60 EB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~1,910~~	~~220~~	~~8.3~~	~~A~~	~~2,370~~	~~520~~	~~12.5~~	~~B~~
~~R-4~~	~~SR-60 EB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~1,690~~	~~90~~	~~17.1~~	~~B~~	~~1,850~~	~~210~~	~~19.4~~	~~B~~
~~R-5~~	~~SR-60 EB~~	~~Direct On-Ramp from Redlands Blvd~~	~~0~~	~~Does not exist in this Scenario~~				~~Does not exist in this Scenario~~			
~~R-6~~	~~SR-60 EB~~	~~Off-Ramp to Theodore St~~	~~1~~	~~2,460~~	~~250~~	~~24.5~~	~~C~~	~~3,240~~	~~150~~	~~31.7~~	~~D~~
~~R-7~~	~~SR-60 EB~~	~~Loop On-Ramp from Theodore St~~	~~1~~	~~2,210~~	~~110~~	~~23.1~~	~~C~~	~~3,090~~	~~270~~	~~31.7~~	~~D~~
~~R-8~~	~~SR-60 EB~~	~~Direct On-Ramp from Theodore St~~	~~0~~	~~Does not exist in this Scenario~~				~~Does not exist in this Scenario~~			
~~R-9~~	~~SR-60 EB~~	~~Off-Ramp to Gilman Springs Rd~~	~~2~~	~~2,320~~	~~330~~	~~14.5~~	~~B~~	~~3,370~~	~~650~~	~~21.0~~	~~C~~
~~R-10~~	~~SR-60 EB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~1,990~~	~~270~~	~~14.7~~	~~B~~	~~2,720~~	~~140~~	~~19.8~~	~~B~~
~~R-11~~	~~SR-60 WB~~	~~Off-Ramp to Gilman Springs Rd~~	~~2~~	~~2,210~~	~~230~~	~~13.8~~	~~B~~	~~1,880~~	~~190~~	~~11.8~~	~~B~~
~~R-12~~	~~SR-60 WB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~1,980~~	~~380~~	~~15.5~~	~~B~~	~~1,690~~	~~310~~	~~12.6~~	~~B~~
~~R-13~~	~~SR-60 WB~~	~~Off-Ramp to Theodore St~~	~~1~~	~~2,360~~	~~180~~	~~12.4~~	~~B~~	~~2,030~~	~~120~~	~~9.3~~	~~A~~
~~R-14~~	~~SR-60 WB~~	~~On-Ramp from Theodore St~~	~~1~~	~~2,180~~	~~100~~	~~21.0~~	~~C~~	~~1,910~~	~~290~~	~~20.2~~	~~C~~
~~R-15~~	~~SR-60 WB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~2,280~~	~~170~~	~~22.9~~	~~C~~	~~2,200~~	~~100~~	~~22.3~~	~~C~~
~~R-16~~	~~SR-60 WB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~2,110~~	~~440~~	~~23.3~~	~~C~~	~~2,100~~	~~380~~	~~22.8~~	~~C~~
~~R-17~~	~~SR-60 WB~~	~~Direct On-Ramp from Redlands Blvd~~	~~0~~	~~Does not exist in this Scenario~~				~~Does not exist in this Scenario~~			
~~R-18~~	~~SR-60 WB~~	~~Off-Ramp to Central Ave~~	~~2~~	~~7,110~~	~~410~~	~~26.5~~	~~C~~	~~7,890~~	~~530~~	~~29.8~~	~~D~~
~~R-19~~	~~SR-60 WB~~	~~Off-Ramp to Martin Luther King Blvd~~	~~1~~	~~7,060~~	~~510~~	~~16.3~~	~~B~~	~~7,680~~	~~430~~	~~17.6~~	~~B~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014~~

~~Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service~~

				~~AM Peak Hour~~		~~PM Peak Hour~~	
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~IN-1~~	~~Theodore St/Street F~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~IN-2~~	~~Street D/Street E~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~IN-3~~	~~Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~20.9~~	~~C~~	~~19.6~~	~~C~~
~~IN-4~~	~~Alessandro Blvd (Street C)/Street F~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~IN-6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~37.7~~	~~D~~
~~IN-9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~NA~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~IN-10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~SIGNAL~~	~~5.4~~	~~A~~	~~16.6~~	~~B~~
~~IN-11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~45.0~~	~~D~~	~~48.2~~	~~D~~
~~IN-12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~22.9~~	~~C~~	~~> 180.0~~	~~F~~
~~IN-13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~SIGNAL~~	~~5.7~~	~~A~~	~~7.5~~	~~A~~
~~IN-14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~5.1~~	~~A~~	~~7.3~~	~~A~~
~~IN-15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~62.2~~	~~F~~	~~173.7~~	~~F~~
~~IN-16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~13.5~~	~~B~~	~~> 180.0~~	~~F~~
~~IN-17~~	~~Quincy Str/Fir Ave~~	~~D~~	~~CSS~~	~~9.6~~	~~A~~	~~12.6~~	~~B~~
~~IN-18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~SIGNAL~~	~~7.2~~	~~A~~	~~15.6~~	~~B~~
~~IN-19~~	~~Theodore Ave/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~10.5~~	~~B~~	~~68.9~~	~~F~~
~~IN-20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~20.0~~	~~C~~	~~21.6~~	~~C~~
~~IN-21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.3~~	~~B~~	~~20.2~~	~~C~~
~~IN-22~~	~~Quincy Str/Alessandro Blvd~~	~~C~~	~~SIGNAL~~	~~4.2~~	~~A~~	~~3.7~~	~~A~~
~~IN-23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~137.4~~	~~F~~	~~74.7~~	~~F~~
~~IN-24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~22.3~~	~~C~~	~~20.2~~	~~C~~
~~IN-25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~20.3~~	~~C~~	~~29.7~~	~~C~~
~~IN-26~~	~~Quincy Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~3.9~~	~~A~~	~~3.7~~	~~A~~
~~IN-27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~14.3~~	~~B~~	~~13.5~~	~~B~~
~~IN-28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~23.5~~	~~C~~	~~16.6~~	~~B~~
~~IN-29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~31.6~~	~~C~~	~~35.2~~	~~D~~
~~IN-30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~30.5~~	~~C~~	~~23.1~~	~~C~~
~~IN-31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~12.3~~	~~B~~	~~19.4~~	~~B~~
~~IN-32~~	~~Sunnymead Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~31.8~~	~~C~~	~~39.7~~	~~D~~
~~IN-33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~22.5~~	~~C~~	~~17.1~~	~~B~~
~~IN-34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~21.8~~	~~C~~	~~24.7~~	~~C~~
~~IN-35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~29.4~~	~~D~~	~~37.9~~	~~E~~
~~IN-36~~	~~Moreno Beach Dr/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~46.6~~	~~D~~	~~50.4~~	~~D~~
~~IN-37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~113.9~~	~~F~~	~~155.8~~	~~F~~
~~IN-38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~31.6~~	~~C~~
~~IN-39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~58.6~~	~~E~~	~~63.8~~	~~E~~
~~IN-40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~65.8~~	~~E~~	~~126.3~~	~~F~~
~~IN-41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~35.0~~	~~C~~	~~79.2~~	~~E~~
~~IN-42~~	~~Nason Str/Iris Ave~~	~~C~~	~~SIGNAL~~	~~18.5~~	~~B~~	~~21.7~~	~~C~~
~~IN-43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~24.5~~	~~C~~	~~25.1~~	~~C~~

~~Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~AM Peak Hour~~		~~PM Peak Hour~~	
				~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~IN-44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~7.0~~	~~A~~	~~7.2~~	~~A~~
~~IN-45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~27.8~~	~~C~~	~~52.6~~	~~D~~
~~IN-46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~35.3~~	~~D~~	~~41.7~~	~~D~~
~~IN-47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~32.2~~	~~C~~	~~14.5~~	~~B~~
~~IN-48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~26.5~~	~~C~~	~~28.1~~	~~C~~
~~IN-49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.8~~	~~B~~	~~23.7~~	~~C~~
~~IN-50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.5~~	~~C~~	~~26.2~~	~~C~~
~~IN-51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~31.1~~	~~C~~	~~28.3~~	~~C~~
~~IN-52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~28.5~~	~~C~~
~~IN-53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~38.5~~	~~D~~	~~34.8~~	~~C~~
~~IN-54~~	~~Morrison Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~6.1~~	~~A~~	~~8.6~~	~~A~~
~~IN-55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~36.1~~	~~D~~	~~47.6~~	~~D~~
~~IN-56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.2~~	~~B~~	~~34.5~~	~~C~~
~~IN-57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~35.6~~	~~D~~	~~88.9~~	~~F~~
~~IN-58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~29.6~~	~~C~~	~~29.5~~	~~C~~
~~IN-59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~21.7~~	~~C~~	~~37.1~~	~~D~~
~~IN-60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~32.8~~	~~C~~	~~41.4~~	~~D~~
~~IN-61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~9.7~~	~~A~~	~~12.5~~	~~B~~
~~IN-62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~22.7~~	~~C~~	~~42.1~~	~~D~~
~~IN-63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~31.6~~	~~C~~	~~27.2~~	~~C~~
~~IN-64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~32.6~~	~~C~~	~~36.3~~	~~D~~
~~IN-65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~39.2~~	~~D~~	~~32.5~~	~~C~~
~~IN-66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~37.5~~	~~D~~	~~81.2~~	~~F~~
~~IN-67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~6.6~~	~~A~~	~~11.5~~	~~B~~
~~IN-68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~21.9~~	~~C~~	~~32.8~~	~~C~~
~~IN-69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~15.1~~	~~B~~	~~16.4~~	~~B~~
~~IN-70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~28.2~~	~~C~~
~~IN-71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.4~~	~~C~~	~~52.4~~	~~D~~
~~IN-72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~37.6~~	~~D~~	~~144.8~~	~~F~~
~~IN-73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~71.1~~	~~E~~	~~122.6~~	~~F~~
~~IN-74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~
~~IN-75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~16.2~~	~~B~~	~~77.5~~	~~E~~
~~IN-76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~28.6~~	~~C~~	~~26.8~~	~~C~~
~~IN-77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~18.1~~	~~B~~	~~12.4~~	~~B~~
~~IN-78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~7.0~~	~~A~~
~~IN-79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~32.2~~	~~C~~	~~16.1~~	~~B~~
~~IN-80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~28.0~~	~~C~~	~~73.7~~	~~E~~
~~IN-81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~27.0~~	~~C~~	~~41.5~~	~~D~~
~~IN-82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~11.3~~	~~B~~	~~14.8~~	~~B~~
~~IN-83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~40.2~~	~~D~~	~~52.4~~	~~D~~
~~IN-84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~11.2~~	~~B~~	~~12.2~~	~~B~~
~~IN-85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~45.1~~	~~E~~	~~20.7~~	~~C~~
~~IN-86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~46.8~~	~~D~~	~~79.0~~	~~E~~

~~Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~AM Peak Hour~~		~~PM Peak Hour~~	
				~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~IN-87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~20.0~~	~~B~~
~~IN-88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~45.4~~	~~D~~	~~106.3~~	~~F~~
~~IN-89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~11.2~~	~~B~~	~~12.9~~	~~B~~
~~IN-90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~38.4~~	~~D~~	~~68.0~~	~~E~~
~~IN-91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~20.5~~	~~C~~	~~26.8~~	~~C~~
~~IN-92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~14.1~~	~~B~~	~~10.7~~	~~B~~
~~IN-93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~37.4~~	~~D~~	~~25.5~~	~~C~~
~~IN-94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~124.5~~	~~F~~	~~87.2~~	~~E~~
~~IN-95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~57.4~~	~~E~~	~~111.2~~	~~F~~
~~IN-96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~19.2~~	~~B~~	~~11.8~~	~~B~~
~~IN-97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~17.9~~	~~B~~	~~22.2~~	~~C~~
~~IN-98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~56.6~~	~~E~~	~~131.0~~	~~F~~
~~IN-99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~33.5~~	~~C~~	~~48.0~~	~~D~~
~~IN-100~~	~~Harley Knox Blvd/Evan Rd~~	~~D~~	~~SIGNAL~~	~~16.1~~	~~B~~	~~23.8~~	~~C~~
~~IN-101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~110.4~~	~~F~~	~~> 180.0~~	~~F~~
~~IN-102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~49.2~~	~~D~~	~~58.5~~	~~E~~
~~IN-103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~60.6~~	~~E~~	~~46.2~~	~~D~~
~~IN-104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~11.9~~	~~B~~	~~9.9~~	~~A~~
~~IN-105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~28.1~~	~~C~~	~~21.8~~	~~C~~
~~IN-106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~30.1~~	~~C~~
~~IN-107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~36.3~~	~~D~~	~~34.5~~	~~C~~
~~IN-108~~	~~Perris Blvd/Mid County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~32.7~~	~~C~~	~~22.6~~	~~C~~
~~IN-109~~	~~Perris Blvd/Mid County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~28.3~~	~~C~~	~~36.2~~	~~D~~
~~IN-110~~	~~Evans Rd/Mid County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~25.7~~	~~C~~	~~21.3~~	~~C~~
~~IN-111~~	~~Evans Rd/Mid County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~18.1~~	~~B~~	~~24.9~~	~~C~~
~~IN-112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.3~~	~~C~~	~~34.2~~	~~C~~
~~IN-113~~	~~Evans Rd/Placentia Ave~~	~~D~~	~~SIGNAL~~	~~7.3~~	~~A~~	~~7.4~~	~~A~~
~~IN-114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~SIGNAL~~	~~25.5~~	~~C~~	~~25.3~~	~~C~~
~~IN-115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~31.8~~	~~C~~	~~31.2~~	~~C~~
~~IN-116~~	~~Evans Rd/Ellis Ave~~	~~D~~	~~SIGNAL~~	~~12.7~~	~~B~~	~~13.6~~	~~B~~
~~IN-117~~	~~Ellis Ave/I-215 SB Ramps~~	~~E~~	~~SIGNAL~~	~~26.5~~	~~C~~	~~28.3~~	~~C~~
~~IN-118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~E~~	~~SIGNAL~~	~~22.2~~	~~C~~	~~34.3~~	~~C~~
~~IN-119~~	~~Evans Rd/San Jacinto Ave~~	~~D~~	~~SIGNAL~~	~~21.1~~	~~C~~	~~22.7~~	~~C~~
~~IN-120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~D~~	~~CSS~~	~~11.8~~	~~B~~	~~15.3~~	~~C~~
~~IN-121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~D~~	~~CSS~~	~~11.6~~	~~B~~	~~23.1~~	~~C~~
~~IN-122~~	~~Bridge St/Ramona Expy~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~Non-Existent~~	
~~IN-123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~
~~IN-124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~

~~Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~AM Peak Hour~~		~~PM Peak Hour~~	
				~~Delay~~	~~LOS~~	~~Delay~~	~~LOS~~
~~IN-125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~> 180.0~~	~~F~~
~~IN-126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~43.9~~	~~D~~	~~39.9~~	~~D~~
~~IN-127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~21.3~~	~~C~~	~~15.3~~	~~B~~
~~IN-128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~20.3~~	~~C~~	~~31.3~~	~~C~~
~~IN-129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~146.4~~	~~F~~	~~178.3~~	~~F~~
~~IN-130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~35.5~~	~~D~~	~~94.4~~	~~F~~
~~IN-131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~42.2~~	~~D~~	~~100.9~~	~~F~~
~~IN-132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~26.4~~	~~D~~	~~22.2~~	~~C~~
~~IN-133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~127.6~~	~~F~~	~~127.7~~	~~F~~
~~IN-134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~140.5~~	~~F~~	~~> 180.0~~	~~F~~
~~IN-135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~17.6~~	~~C~~	~~14.7~~	~~B~~
~~IN-136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~10.2~~	~~B~~	~~10.4~~	~~B~~

~~Notes: "NB" and "SB" denote northbound and southbound, respectively~~

~~"EB" and "WB" denote eastbound and westbound, respectively~~ ~~"CSS" means cross-street is stop-controlled~~

▨ ~~Indicates LOS exceeds the target level~~ ~~"AWS" means all-way stop~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

- ~~Central Avenue/Chicago Avenue (p.m.);~~
- ~~Central Avenue/Canyon Crest Drive (p.m.);~~
- ~~Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps (p.m.);~~
- ~~Arlington Avenue/Victoria Avenue (a.m. and p.m.);~~
- ~~Alessandro Boulevard/Chicago Avenue (a.m. and p.m.);~~
- ~~Alessandro Boulevard/Canyon Crest Drive (a.m. and p.m.);~~
- ~~Ramona Expressway/Indian Street (a.m. and p.m.);~~
- ~~Evans Road/Rider Street (a.m.);~~
- ~~Gilman Springs Road/Bridge Street (a.m. and p.m.);~~
- ~~SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road (a.m. and p.m.);~~
- ~~SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road (a.m. and p.m.);~~
- ~~W. 6th Street/California Avenue (a.m. and p.m.);~~
- ~~W 6th Street/Beaumont Avenue (a.m. and p.m.);~~
- ~~Reche Canyon Road/Reche Vista Drive (a.m. and p.m.);~~
- ~~San Timoteo Canyon Road/Live Oak Canyon Road (a.m. and p.m.); and~~
- ~~Redlands Boulevard/San Timoteo Canyon Road (a.m. and p.m.).~~

~~Year 2035 Cumulative without project roadway levels of service are based on daily V/C ratios for the study area roadway segments. Table 4.15.V summarizes the results of this analysis. In this scenario, Gilman Springs Road and Redlands Boulevard are assumed to have been widened in accordance with General Plan policy to six and four lanes, respectively. As shown in Table 4.15.V, all study area~~

~~roadway segments are projected to operate at acceptable daily V/C ratios under Year 2035 Cumulative without project conditions.~~

~~A freeway segment level of service analysis was conducted to determine freeway performance under Year 2035 Cumulative without project conditions. Table 4.15.W summarizes the levels of service at study area freeway mainline segments under Year 2035 Cumulative without project conditions and shows the following 56 study segments are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:~~

- ~~Northbound or Eastbound:~~
  - ~~SR-60 Reservoir Street to Ramona Avenue (a.m. and p.m.);~~
  - ~~SR-60 Ramona Avenue to Central Avenue (a.m. and p.m.);~~
  - ~~SR-60 Central Avenue to Mountain Avenue (a.m. and p.m.);~~
  - ~~SR-60 Mountain Avenue to Euclid Avenue (a.m.);~~
  - ~~SR-60 Euclid Avenue to Grove Avenue (a.m. and p.m.);~~
  - ~~SR-60 Grove Avenue to Vineyard Avenue (a.m. and p.m.);~~
  - ~~SR-60 Vineyard Avenue to Archibald Avenue (a.m. and p.m.);~~
  - ~~SR-60 Archibald Avenue to Haven Avenue (a.m.);~~
  - ~~SR-60 Valley Way to Rubidoux Boulevard (a.m.);~~
  - ~~SR-60 Rubidoux Boulevard to Market Street (a.m.);~~
  - ~~SR-60 Market Street to Main Street (a.m. and p.m.);~~
  - ~~SR-60 Martin Luther King Boulevard to Central Avenue (a.m. and p.m.);~~
  - ~~SR-60 Pigeon Pass Road/Frederick Street to Heacock Street (p.m.);~~
  - ~~SR-60 Heacock Street to Perris Boulevard (p.m.);~~
  - ~~SR-60 Redlands Boulevard to Theodore Street (p.m.);~~
  - ~~SR-60 Gilman Springs Road to Jack Rabbit Trail (p.m.);~~
  - ~~SR-91 I-15 to McKinley Street (p.m.);~~
  - ~~SR-91 Pierce Street to Magnolia Avenue (a.m. and p.m.);~~
  - ~~SR-91 La Sierra Avenue to Tyler Street (a.m. and p.m.);~~
  - ~~SR-91 Adam Street to Madison Street (a.m.);~~
  - ~~SR-91 Central Avenue to 14th Street (a.m.);~~
  - ~~I-10 SR-60 to Beaumont Avenue (p.m.);~~
  - ~~I-10 Beaumont Avenue to Pennsylvania Avenue (p.m.);~~
  - ~~I-10 Pennsylvania Avenue to Highland Springs (p.m.);~~
  - ~~I-10 Highland Springs Avenue to Sunset Avenue (p.m.);~~
  - ~~I-10 S. Hargrave Street to Field Road (p.m.);~~
  - ~~I-10 Morongo Trail to Main Street (p.m.);~~
  - ~~I-215 Scott Road to Newport Road (p.m.);~~

- ~~I-215 SR-74 to Redlands Boulevard (p.m.); and~~
- ~~I-215 Ellis Avenue to Redlands Boulevard (p.m.);~~

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~~Table 4.15.V: Year 2035 Cumulative Without Project Roadway Levels of Service~~

~~Roadway~~	~~From~~	~~To~~	~~LOS Standard*~~	~~Roadway Section**~~	~~Daily Volume~~	~~LOS~~
~~Theodore Street (A)~~	~~SR-60 WB Ramps~~	~~Ironwood Avenue~~	~~D~~	~~2U~~	~~9,774~~	~~C~~
~~Theodore Street (A)~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave.~~	~~D~~	~~2U~~	~~8,726~~	~~B~~
~~Fir (Eucalyptus) Ave.~~	~~Redlands Blvd~~	~~Theodore Street (A)~~	~~D~~	~~2U~~	~~6,847~~	~~A~~
~~Eucalyptus Ave (B)~~	~~Theodore Street (A)~~	~~Gilman Springs Rd~~	~~N/A~~	~~Future Road~~		
~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave.~~	~~Street E~~	~~D~~	~~2U~~	~~3,295~~	~~A~~
~~Street E~~	~~Theodore Street (A)~~	~~Cactus Ave Extension~~	~~N/A~~	~~Future Road~~		
~~Street F~~	~~Theodore Street (A)~~	~~Alessandro Blvd (Street C)~~	~~N/A~~	~~Future Road~~		
~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave.~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~2U~~	~~3,437~~	~~A~~
~~Alessandro Blvd (Street E)~~	~~Merwin Street~~	~~Theodore Street (A)~~	~~D~~	~~2U~~	~~10,854~~	~~D~~
~~Cactus Ave Extension~~	~~Alessandro Blvd (Street E)~~	~~Cactus Ave.~~	~~N/A~~	~~Future Road~~		
~~Alessandro Blvd (Street C)~~	~~Theodore Street (A)~~	~~Street F~~	~~D~~	~~2U~~	~~7,437~~	~~A~~
~~Alessandro Blvd (Street C)~~	~~Street F~~	~~Gilman Springs Rd~~	~~D~~	~~2U~~	~~7,437~~	~~A~~
~~Alessandro Blvd~~	~~Moreno Beach Drive~~	~~Redlands Blvd~~	~~D~~	~~4U~~	~~6,373~~	~~A~~
~~Gilman Springs Rd~~	~~Alessandro Blvd (Street C)~~	~~Bridge Street~~	~~D~~	~~6D~~	~~49,434~~	~~D~~
~~Gilman Springs Rd~~	~~SR-60~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~6D~~	~~41,537~~	~~C~~
~~Redlands Blvd~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave.~~	~~D~~	~~4U~~	~~13,411~~	~~A~~
~~Redlands Blvd~~	~~Fir (Eucalyptus) Ave.~~	~~Alessandro Blvd~~	~~C~~	~~4U~~	~~7,665~~	~~A~~
~~Alessandro Blvd~~	~~Redlands Blvd~~	~~Merwin Street~~	~~C~~	~~4U~~	~~11,038~~	~~A~~
~~Redlands Blvd~~	~~Alessandro Blvd~~	~~Cactus Ave.~~	~~C~~	~~4U~~	~~11,511~~	~~A~~
~~Cactus Ave.~~	~~Redlands Blvd~~	~~Cactus Ave Extension~~	~~C~~	~~4U~~	~~1,144~~	~~A~~

~~* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways~~ - - -

~~** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways~~ - - - -

▨ - ~~-Indicates volume-to-capcity (V/C) ratio greater than 1.00~~ - - - - -

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service~~

~~ID~~	~~Freeway~~	~~Segment~~	~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
			~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-2~~	~~SR-60~~	~~S Reservoir St to Ramona Ave~~	~~8,560~~	~~41.2~~	~~E~~	~~8,750~~	~~43.6~~	~~E~~	~~8,770~~	~~43.3~~	~~E~~	~~7,840~~	~~34.6~~	~~D~~
~~F-3~~	~~SR-60~~	~~Ramona Ave to Central Ave~~	~~8,190~~	~~37.8~~	~~E~~	~~10,230~~	~~66.5~~	~~F~~	~~8,080~~	~~37.2~~	~~E~~	~~7,720~~	~~33.7~~	~~D~~
~~F-4~~	~~SR-60~~	~~Central Ave to Mountain Ave~~	~~8,900~~	~~44.8~~	~~E~~	~~10,210~~	~~66.0~~	~~F~~	~~6,340~~	~~25.4~~	~~C~~	~~7,580~~	~~32.7~~	~~D~~
~~F-5~~	~~SR-60~~	~~Mountain Ave to Euclid Ave~~	~~8,780~~	~~43.4~~	~~E~~	~~7,590~~	~~33.3~~	~~D~~	~~6,230~~	~~25.2~~	~~C~~	~~8,250~~	~~37.9~~	~~E~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~9,920~~	~~59.3~~	~~F~~	~~9,680~~	~~56.0~~	~~F~~	~~6,470~~	~~26.1~~	~~D~~	~~7,950~~	~~35.5~~	~~E~~
~~F-7~~	~~SR-60~~	~~Grove Ave to Vineyard Ave~~	~~9,210~~	~~48.5~~	~~F~~	~~10,050~~	~~62.7~~	~~F~~	~~6,280~~	~~25.0~~	~~C~~	~~8,150~~	~~37.1~~	~~E~~
~~F-8~~	~~SR-60~~	~~Vineyard Ave to Archibald Ave~~	~~9,080~~	~~46.3~~	~~F~~	~~10,210~~	~~66.0~~	~~F~~	~~7,660~~	~~33.3~~	~~D~~	~~7,640~~	~~33.1~~	~~D~~
~~F-9~~	~~SR-60~~	~~Archibald Ave to Haven Ave~~	~~8,430~~	~~39.5~~	~~E~~	~~7,330~~	~~31.5~~	~~D~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-10~~	~~SR-60~~	~~Haven Ave to Miliken Ave~~	~~8,430~~	~~27.5~~	~~D~~	~~8,110~~	~~26.4~~	~~D~~	~~6,510~~	~~20.3~~	~~C~~	~~7,970~~	~~25.6~~	~~C~~
~~F-11~~	~~SR-60~~	~~Miliken Ave to I-15~~	~~5,160~~	~~19.8~~	~~C~~	~~4,530~~	~~17.4~~	~~B~~	~~5,460~~	~~21.0~~	~~C~~	~~7,180~~	~~29.8~~	~~D~~
~~F-12~~	~~SR-60~~	~~I-15 to Etiwanda Ave~~	~~4,140~~	~~15.9~~	~~B~~	~~2,740~~	~~10.6~~	~~A~~	~~4,840~~	~~14.9~~	~~B~~	~~6,360~~	~~19.4~~	~~C~~
~~F-13~~	~~SR-60~~	~~Etiwanda Ave to Mission Blvd/ Country Village Rd~~	~~4,950~~	~~19.1~~	~~C~~	~~4,170~~	~~16.1~~	~~B~~	~~4,220~~	~~16.1~~	~~B~~	~~5,620~~	~~21.6~~	~~C~~
~~F-14~~	~~SR-60~~	~~Mission Blvd/ Country Village Rd to Pedley Rd~~	~~4,380~~	~~16.8~~	~~B~~	~~3,150~~	~~12.2~~	~~B~~	~~4,140~~	~~15.9~~	~~B~~	~~5,660~~	~~21.8~~	~~C~~
~~F-15~~	~~SR-60~~	~~Pedley Rd to Pyrite St~~	~~4,620~~	~~17.8~~	~~B~~	~~3,610~~	~~13.9~~	~~B~~	~~3,260~~	~~12.5~~	~~B~~	~~4,820~~	~~18.3~~	~~C~~
~~F-16~~	~~SR-60~~	~~Pyrite St to Valley Way~~	~~5,060~~	~~19.5~~	~~C~~	~~3,880~~	~~15.0~~	~~B~~	~~2,470~~	~~9.5~~	~~A~~	~~3,930~~	~~14.9~~	~~B~~

~~Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-17~~	~~SR-60~~	~~Valley Way to Rubidoux Blvd~~	~~6,160~~	~~38.0~~	~~**E**~~	~~3,850~~	~~19.9~~	~~C~~	~~4,560~~	~~24.1~~	~~C~~	~~6,360~~	~~39.6~~	~~**E**~~
~~F-18~~	~~SR-60~~	~~Rubidoux Blvd to Market St~~	~~6,490~~	~~42.1~~	~~**E**~~	~~4,210~~	~~22.2~~	~~C~~	~~3,410~~	~~17.5~~	~~B~~	~~5,120~~	~~27.7~~	~~D~~
~~F-19~~	~~SR-60~~	~~Market St to Main St~~	~~6,020~~	~~36.4~~	~~**E**~~	~~6,620~~	~~44.9~~	~~**E**~~	~~5,530~~	~~31.5~~	~~D~~	~~6,280~~	~~38.7~~	~~**E**~~
~~F-20~~	~~SR-60~~	~~Main to SR-91~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~5,320~~	~~29.7~~	~~D~~	~~6,310~~	~~39.0~~	~~**E**~~
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~9,500~~	~~59.8~~	~~**F**~~	~~9,860~~	~~70.8~~	~~**F**~~	~~8,330~~	~~30.8~~	~~D~~	~~8,980~~	~~33.0~~	~~**D**~~
~~F-26~~	~~SR-60~~	~~Fair Isle Dr/Box Springs Rd to I-215~~	~~6,090~~	~~24.2~~	~~C~~	~~5,790~~	~~22.9~~	~~C~~	~~7,500~~	~~33.2~~	~~D~~	~~8,970~~	~~46.6~~	~~**F**~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St.~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~7,050~~	~~50.4~~	~~**F**~~	~~3,590~~	~~18.6~~	~~C~~
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd/Frederick St to Heacock St~~	~~3,330~~	~~27.3~~	~~D~~	~~4,120~~	~~38.2~~	~~**E**~~	~~3,650~~	~~31.3~~	~~D~~	~~3,910~~	~~35.0~~	~~**E**~~
~~F-30~~	~~SR-60~~	~~Heacock St to Perris Blvd~~	~~3,020~~	~~24.1~~	~~C~~	~~4,200~~	~~39.6~~	~~**E**~~	~~3,560~~	~~30.1~~	~~D~~	~~3,410~~	~~28.3~~	~~D~~
~~F-31~~	~~SR-60~~	~~Perris Blvd to Nason St~~	~~2,670~~	~~20.9~~	~~C~~	~~3,520~~	~~29.4~~	~~D~~	~~3,330~~	~~27.3~~	~~D~~	~~2,780~~	~~21.9~~	~~C~~
~~F-33~~	~~SR-60~~	~~Moreno Beach Dr to Redlands Blvd~~	~~2,480~~	~~19.2~~	~~C~~	~~3,130~~	~~25.0~~	~~C~~	~~3,150~~	~~25.2~~	~~C~~	~~2,680~~	~~20.9~~	~~C~~
~~F-34~~	~~SR-60~~	~~Redlands Blvd to Theodore St~~	~~3,200~~	~~25.9~~	~~C~~	~~4,500~~	~~45.4~~	~~**F**~~	~~4,010~~	~~36.3~~	~~**E**~~	~~3,530~~	~~29.7~~	~~D~~
~~F-36~~	~~SR-60~~	~~Gilman Springs Rd to Jack Rabbit Trail~~	~~2,420~~	~~20.1~~	~~C~~	~~4,430~~	~~53.0~~	~~**F**~~	~~3,350~~	~~30.5~~	~~D~~	~~2,920~~	~~25.2~~	~~C~~
~~F-37~~	~~SR-60~~	~~Jack Rabbit Trail to I-10/Potrero Blvd~~	~~2,500~~	~~19.5~~	~~C~~	~~4,750~~	~~51.8~~	~~F~~	~~3,690~~	~~31.6~~	~~D~~	~~3,010~~	~~24.0~~	~~C~~
~~F-38~~	~~SR-60~~	~~Potrero Blvd to I-10~~	~~2,300~~	~~17.8~~	~~B~~	~~3,620~~	~~30.6~~	~~D~~	~~2,360~~	~~18.2~~	~~C~~	~~1,930~~	~~15.0~~	~~B~~

~~Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-39~~	~~SR-91~~	~~I-15 to McKinley St~~	~~8,140~~	~~26.3~~	~~D~~	~~11,870~~	~~52.4~~	~~F~~	~~8,590~~	~~28.6~~	~~D~~	~~8,630~~	~~28.6~~	~~D~~
~~F-40~~	~~SR-91~~	~~McKinley St to Pierce St~~	~~6,990~~	~~29.1~~	~~D~~	~~6,910~~	~~29.0~~	~~D~~	~~6,550~~	~~26.9~~	~~D~~	~~7,440~~	~~32.0~~	~~D~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~6,430~~	~~41.3~~	~~E~~	~~6,360~~	~~41.2~~	~~E~~	~~6,260~~	~~39.9~~	~~E~~	~~9,000~~	~~144.5~~	~~F~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~6,130~~	~~38.3~~	~~E~~	~~8,600~~	~~107.0~~	~~F~~
~~F-43~~	~~SR-91~~	~~La Sierra Ave to Tyler St~~	~~6,170~~	~~38.1~~	~~E~~	~~6,250~~	~~39.8~~	~~E~~	~~5,460~~	~~31.4~~	~~D~~	~~6,390~~	~~40.8~~	~~E~~
~~F-44~~	~~SR-91~~	~~Tyler St to Van Buren Blvd~~	~~7,250~~	~~30.7~~	~~D~~	~~6,950~~	~~29.2~~	~~D~~	~~6,880~~	~~28.8~~	~~D~~	~~7,970~~	~~35.9~~	~~E~~
~~F-45~~	~~SR-91~~	~~Van Buren Blvd to Adam St~~	~~7,270~~	~~30.8~~	~~D~~	~~6,290~~	~~25.5~~	~~C~~	~~6,590~~	~~27.1~~	~~D~~	~~7,720~~	~~34.0~~	~~D~~
~~F-46~~	~~SR-91~~	~~Adam St to Madison St~~	~~7,980~~	~~36.6~~	~~E~~	~~6,030~~	~~24.3~~	~~C~~	~~6,270~~	~~25.4~~	~~C~~	~~6,970~~	~~29.0~~	~~D~~
~~F-47~~	~~SR-91~~	~~Madison St to Indiana Ave~~	~~7,000~~	~~29.6~~	~~D~~	~~5,390~~	~~21.4~~	~~C~~	~~5,540~~	~~32.1~~	~~D~~	~~6,290~~	~~39.5~~	~~E~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~6,400~~	~~40.9~~	~~E~~	~~5,730~~	~~33.4~~	~~D~~	~~5,290~~	~~20.8~~	~~C~~	~~5,460~~	~~21.2~~	~~C~~
~~F-51~~	~~SR-91~~	~~University Ave to Spruce St (off-ramp)~~	~~8,160~~	~~26.4~~	~~D~~	~~7,420~~	~~23.4~~	~~C~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-66~~	~~I-215~~	~~Scott Rd to Garbani Rd~~	~~3,350~~	~~17.2~~	~~B~~	~~6,010~~	~~36.0~~	~~E~~	~~5,470~~	~~30.8~~	~~D~~	~~4,160~~	~~21.5~~	~~C~~
~~F-84~~	~~I-215~~	~~Garbani Rd to Newport Rd~~	~~3,150~~	~~16.1~~	~~B~~	~~5,680~~	~~32.9~~	~~D~~	~~4,950~~	~~26.6~~	~~D~~	~~4,040~~	~~20.9~~	~~C~~
~~F-68~~	~~I-215~~	~~Newport Rd to MacCall Blvd~~	~~2,910~~	~~15.0~~	~~B~~	~~4,610~~	~~24.4~~	~~C~~	~~5,020~~	~~27.2~~	~~D~~	~~5,240~~	~~28.9~~	~~D~~
~~F-69~~	~~I-215~~	~~MacCall Blvd to Ethanac Rd~~	~~3,530~~	~~18.1~~	~~C~~	~~5,570~~	~~31.9~~	~~D~~	~~5,400~~	~~30.4~~	~~D~~	~~4,800~~	~~25.6~~	~~C~~
~~F-70~~	~~I-215~~	~~Ethanac Rd to SR-74~~	~~5,240~~	~~29.1~~	~~D~~	~~5,650~~	~~32.6~~	~~D~~	~~5,390~~	~~30.3~~	~~D~~	~~6,220~~	~~38.3~~	~~E~~

~~Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-71~~	~~I-215~~	~~SR-74/Ellis Ave~~	~~5,200~~	~~28.7~~	~~D~~	~~6,760~~	~~46.1~~	~~F~~	~~7,170~~	~~53.3~~	~~F~~	~~5,980~~	~~35.6~~	~~E~~
~~F-85~~	~~I-215~~	~~Ellis Ave to Redlands Ave~~	~~4,820~~	~~25.9~~	~~C~~	~~6,200~~	~~38.4~~	~~E~~	~~6,560~~	~~43.1~~	~~E~~	~~5,490~~	~~31.2~~	~~D~~
~~F-74~~	~~I-215~~	~~Columbia Ave to Center St~~	~~4,110~~	~~21.6~~	~~C~~	~~3,350~~	~~17.5~~	~~B~~	~~5,000~~	~~27.4~~	~~D~~	~~3,680~~	~~19.1~~	~~C~~
~~F-75~~	~~I-215~~	~~Center St to La Cadena Dr~~	~~4,940~~	~~26.9~~	~~D~~	~~4,270~~	~~22.7~~	~~C~~	~~5,970~~	~~35.8~~	~~E~~	~~4,690~~	~~25.1~~	~~C~~
~~F-76~~	~~I-215~~	~~La Cadena Dr to Barton Rd~~	~~4,880~~	~~26.5~~	~~D~~	~~4,310~~	~~22.8~~	~~C~~	~~5,060~~	~~27.8~~	~~D~~	~~3,780~~	~~19.7~~	~~C~~
~~F-77~~	~~I-215~~	~~Barton Rd to Mt Vernon Ave~~	~~5,320~~	~~29.9~~	~~D~~	~~4,700~~	~~25.4~~	~~C~~	~~5,540~~	~~31.6~~	~~D~~	~~4,210~~	~~22.2~~	~~C~~
~~F-78~~	~~I-215~~	~~Mt Vernon Ave to I-10~~	~~5,110~~	~~19.8~~	~~C~~	~~5,720~~	~~22.5~~	~~C~~	~~6,480~~	~~26.2~~	~~D~~	~~5,210~~	~~20.3~~	~~C~~
~~F-80~~	~~I-215~~	~~Auto Plaza Dr to Mill St~~	~~4,680~~	~~18.0~~	~~B~~	~~5,980~~	~~23.6~~	~~C~~	~~5,600~~	~~21.7~~	~~C~~	~~4,540~~	~~17.4~~	~~B~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave~~	~~3,260~~	~~16.8~~	~~B~~	~~4,890~~	~~26.4~~	~~D~~	~~6,910~~	~~48.0~~	~~F~~	~~5,450~~	~~30.8~~	~~D~~
~~F-52~~	~~I-10~~	~~SR-60 to Beaumont Ave~~	~~5,030~~	~~19.7~~	~~C~~	~~8,170~~	~~38.3~~	~~E~~	~~7,820~~	~~35.3~~	~~E~~	~~6,060~~	~~24.5~~	~~C~~
~~F-53~~	~~I-10~~	~~Beaumont Ave to Pennsylvania Ave~~	~~5,100~~	~~20.1~~	~~C~~	~~8,030~~	~~37.1~~	~~E~~	~~7,660~~	~~34.1~~	~~D~~	~~5,840~~	~~23.5~~	~~C~~
~~F-54~~	~~I-10~~	~~Pennsylvania Ave to Highland Springs~~	~~5,240~~	~~20.7~~	~~C~~	~~8,170~~	~~38.3~~	~~E~~	~~8,180~~	~~38.4~~	~~E~~	~~5,920~~	~~23.9~~	~~C~~
~~F-55~~	~~I-10~~	~~Highland Springs Ave to Sunset Ave~~	~~5,350~~	~~21.2~~	~~C~~	~~8,240~~	~~38.9~~	~~E~~	~~7,990~~	~~36.7~~	~~E~~	~~5,590~~	~~22.3~~	~~C~~
~~F-56~~	~~I-10~~	~~Sunset Ave to 22nd St~~	~~4,970~~	~~19.6~~	~~C~~	~~7,670~~	~~34.5~~	~~D~~	~~7,620~~	~~33.8~~	~~D~~	~~5,420~~	~~21.5~~	~~C~~
~~F-57~~	~~I-10~~	~~22nd St to 8th St~~	~~4,880~~	~~19.3~~	~~C~~	~~7,480~~	~~33.0~~	~~D~~	~~7,680~~	~~34.5~~	~~D~~	~~5,130~~	~~20.3~~	~~C~~
~~F-58~~	~~I-10~~	~~8th St to S Hargrave St~~	~~5,000~~	~~19.7~~	~~C~~	~~7,770~~	~~34.9~~	~~D~~	~~7,790~~	~~35.4~~	~~E~~	~~5,370~~	~~21.4~~	~~C~~

~~Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service~~

			~~Northbound / Eastbound~~						~~Southbound / Westbound~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-59~~	~~I-10~~	~~S Hargrave St to Fields Rd~~	~~4,770~~	~~18.8~~	~~C~~	~~7,970~~	~~36.9~~	~~E~~	~~7,610~~	~~34.0~~	~~D~~	~~5,000~~	~~19.8~~	~~C~~
~~F-60~~	~~I-10~~	~~Fields Rd to Morongo Tr~~	~~3,990~~	~~15.8~~	~~B~~	~~7,490~~	~~33.1~~	~~D~~	~~7,150~~	~~30.7~~	~~D~~	~~4,620~~	~~18.3~~	~~C~~
~~F-61~~	~~I-10~~	~~Morongo Tr to Main St~~	~~4,320~~	~~17.1~~	~~B~~	~~7,800~~	~~35.2~~	~~E~~	~~7,040~~	~~30.0~~	~~D~~	~~5,040~~	~~20.0~~	~~C~~
~~F-62~~	~~I-10~~	~~Main St to Haugen-Lehmann Way~~	~~4,080~~	~~16.1~~	~~B~~	~~7,530~~	~~33.1~~	~~D~~	~~7,070~~	~~30.2~~	~~D~~	~~4,410~~	~~17.4~~	~~B~~
~~F-64~~	~~I-10~~	~~SR-111 to Tipton Rd~~	~~3,660~~	~~14.5~~	~~B~~	~~7,320~~	~~31.7~~	~~D~~	~~6,420~~	~~26.2~~	~~D~~	~~4,860~~	~~19.2~~	~~C~~
~~F-65~~	~~I-10~~	~~Tipton Rd to SR-62~~	~~3,700~~	~~14.6~~	~~B~~	~~7,330~~	~~31.7~~	~~D~~	~~6,430~~	~~26.2~~	~~D~~	~~4,870~~	~~19.2~~	~~C~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

- ~~Southbound or Westbound:~~
  - ~~SR-60 Reservoir Street to Ramona Avenue (a.m.);~~
  - ~~SR-60 Ramona Avenue to Central Avenue (a.m.);~~
  - ~~SR-60 Mountain Avenue to Euclid Avenue (p.m.);~~
  - ~~SR-60 Euclid Avenue to Grove Avenue (p.m.);~~
  - ~~SR-60 Grove Avenue to Vineyard Avenue (p.m.);~~
  - ~~SR-60 Valley Way to Rubidoux Boulevard (p.m.);~~
  - ~~SR-60 Market Street to Main Street (p.m.);~~
  - ~~SR-60 Main Street to SR-91 (p.m.);~~
  - ~~SR-60 Fair Isle Drive/Box Springs Road to I-215 (p.m.);~~
  - ~~SR-60 I-215 to Day Street (a.m.);~~
  - ~~SR-60 Pigeon Pass Road to Heacock Street (p.m.)~~
  - ~~SR-60 Redlands Boulevard to Theodore Street (a.m.);~~
  - ~~SR-91 Pierce Street to Magnolia Avenue (a.m. and p.m.);~~
  - ~~SR-91 Magnolia Avenue to La Sierra Avenue (a.m. and p.m.);~~
  - ~~SR-91 La Sierra Avenue to Tyler Street (p.m.);~~
  - ~~SR-91 Tyler Street to Van Buren Boulevard (p.m.);~~
  - ~~SR-91 Madison Street to Indiana Avenue (p.m.);~~
  - ~~I-10 SR-60 to Beaumont Avenue (a.m.);~~
  - ~~I-10 Pennsylvania Avenue to Highland Springs Avenue (a.m.);~~
  - ~~I-10 Highland Springs Avenue to Sunset Avenue (a.m.);~~
  - ~~I-10 8th Street to S. Hargrave Street (a.m.);~~
  - ~~I-215 Ethanac Road to SR-74 (p.m.);~~
  - ~~I-215 SR-74 to Ellis Avenue (a.m. and p.m.);~~
  - ~~I-215 Ellis Avenue to Redlands Boulevard (a.m.);~~
  - ~~I-215 Center Street to Iowa Avenue/La Cadena Drive (a.m.); and~~
  - ~~I-215 Baseline Road to Highland Avenue (a.m.).~~

~~A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Table 4.15.X summarizes the levels of service at weaving segments under Year 2035 Cumulative without project conditions and shows the following seven northbound or eastbound and six southbound or westbound freeway weaving segments are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:~~

- ~~Northbound or Eastbound:~~
  - ~~SR-60 SR-71/Garey Avenue to Reservoir Street (a.m. and p.m.);~~
  - ~~SR-60 Main Street to SR-91 (p.m.);~~

  - ~~SR-60 SR-91 to W. Blaine Street/3rd Street (p.m.);~~
  - ~~SR-60 W. Blaine Street/3rd Street to University Avenue (a.m. and p.m.);~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (a.m. and p.m.);~~
  - ~~SR-60 Theodore Street to Gilman Springs Road (p.m.); and~~
  - ~~SR-91 Arlington Avenue to Central Avenue (a.m.).~~
- ~~Southbound or Westbound:~~
  - ~~SR-60 Haven Avenue to Archibald Avenue (p.m.);~~
  - ~~SR-60 SR-91 to W. Blaine Street/3rd Street (p.m.);~~
  - ~~SR-60 W. Blaine Street/3rd Street to University Avenue (p.m.);~~
  - ~~SR-60 University Avenue to Martin Luther King Boulevard (a.m. and p.m.);~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (a.m. and p.m.); and~~
  - ~~I-10 Haugen-Lehmann Way to SR-111 (p.m.).~~

~~Freeway ramp merge and diverge operations have been evaluated for Year 2035 Cumulative without project conditions. Table 4.15.Y summarizes the levels of service at under Year 2035 Cumulative without project conditions and shows the following 9 freeway ramp junctions are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:~~

- ~~SR-60 Eastbound On-Ramp from Central Avenue (a.m. and p.m.);~~
- ~~SR-60 Eastbound Off-Ramp to Theodore Street (p.m.);~~
- ~~SR-60 Eastbound Loop On-Ramp from Theodore Street (p.m.);~~
- ~~SR-60 Eastbound Off-Ramp to Gilman Springs Road (p.m.);~~
- ~~SR-60 Eastbound On-Ramp from Gilman Springs Road (p.m.);~~
- ~~SR-60 Westbound On-Ramp from Gilman Springs Road (a.m.);~~
- ~~SR-60 Westbound Off-Ramp to Theodore Street (a.m.);~~
- ~~SR-60 Westbound On-Ramp from Theodore Street (a.m.); and~~
- ~~SR-60 Westbound Loop On-Ramp from Redlands Boulevard (a.m.).~~

~~Table 4.15.X: Year 2035 Cumulative Without Project Weaving Segment Levels of Service~~

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	8,630	39.7	E	9,700	46.8	E	6,130	22.0	C	7,510	27.6	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,910	28.7	D	8,180	36.4	E
W-20	SR-60	Main St to SR-91	7,060	34.1	D	7,110	35.1	E	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,280	32.4	D	10,640	>Capacity	F	8,490	33.7	D	9,970	40.9	E
W-22	SR-60	Blaine St/3rd St to University Ave	7,120	28.9	D	8,460	38.7	E	6,320	24.3	C	8,890	35.8	E
W-23	SR-60	University Ave to Martin Luther King	7,960	30.0	D	7,040	26.4	C	6,750	28.2	D	8,830	36.9	E
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,890	37.0	E	8,640	40.5	E	8,340	38.1	E	9,200	39.2	E
W-27	SR-60	I-215 to Day St	3,980	16.3	B	6,210	27.7	C	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,760	16.2	B	5,660	26.5	C	4,790	33.5	D	4,790	32.4	D
W-32	SR-60	Moreno Beach Dr to Nason St	2,640	16.5	B	3,480	22.6	C	3,310	20.5	C	2,680	16.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	3,070	17.5	B	5,710	37.9	E	4,560	32.0	D	3,680	24.2	C
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,970	33.7	D	6,930	34.2	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,620	41.0	E	4,370	21.3	C	5,160	24.9	C	5,760	27.4	C
W-50	SR-91	14th St to University Ave	5,310	26.4	C	5,060	26.1	C	6,070	23.7	C	8,010	33.0	D
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			6,500	20.6	C	10,130	32.5	D
W-73	I-215	SR-60 to Columbia Ave	5,330	28.4	D	4,610	24.6	C	6,660	33.8	D	5,570	28.2	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,590	16.9	B	5,640	20.9	C	6,200	22.5	C	4,950	18.8	B
W-81	I-215	Mill St to 2nd St	5,190	18.3	B	6,460	23.5	C	6,360	23.4	C	4,980	18.3	B
W-82	I-215	5th St to Baseline Rd	3,900	13.5	B	4,980	17.7	B	5,610	20.3	C	4,060	14.6	B
W-63	I-10	Haugen-Lehmann Way to SR-111	4,170	14.4	B	8,420	33.1	D	7,270	29.0	D	5,500	>Capacity	F

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.Y: Year 2035 Cumulative Without Project Freeway Ramp Levels of Service~~

				~~AM Peak Hour~~				~~PM Peak Hour~~			
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~	~~Ramp No. of Lanes~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-1~~	~~SR-60 EB~~	~~On-Ramp from Martin Luther King Blvd~~	~~1~~	~~7,410~~	~~580~~	~~30.6~~	~~D~~	~~6,430~~	~~1,400~~	~~33.8~~	~~D~~
~~R-2~~	~~SR-60 EB~~	~~On-Ramp from Central Ave~~	~~1~~	~~7,890~~	~~1,220~~	~~32.2~~	~~F~~	~~8,630~~	~~970~~	~~32.9~~	~~F~~
~~R-3~~	~~SR-60 EB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~2,480~~	~~220~~	~~13.8~~	~~B~~	~~3,130~~	~~440~~	~~19.7~~	~~B~~
~~R-4~~	~~SR-60 EB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~2,260~~	~~90~~	~~22.1~~	~~C~~	~~2,690~~	~~60~~	~~25.4~~	~~C~~
~~R-5~~	~~SR-60 EB~~	~~Direct On-Ramp from Redlands Blvd~~	~~1~~	~~2,350~~	~~110~~	~~19.9~~	~~B~~	~~2,750~~	~~480~~	~~26.0~~	~~C~~
~~R-6~~	~~SR-60 EB~~	~~Off-Ramp to Theodore St~~	~~1~~	~~3,200~~	~~270~~	~~25.0~~	~~C~~	~~4,500~~	~~150~~	~~36.7~~	~~F~~
~~R-7~~	~~SR-60 EB~~	~~Loop On-Ramp from Theodore St~~	~~1~~	~~2,930~~	~~150~~	~~22.0~~	~~C~~	~~4,350~~	~~1,350~~	~~42.9~~	~~F~~
~~R-8~~	~~SR-60 EB~~	~~Direct On-Ramp from Theodore St~~	~~0~~	~~Does not exist in this Scenario~~				~~Does not exist in this Scenario~~			
~~R-9~~	~~SR-60 EB~~	~~Off-Ramp to Gilman Springs Rd~~	~~2~~	~~3,070~~	~~840~~	~~19.4~~	~~B~~	~~5,710~~	~~1,570~~	~~35.8~~	~~E~~
~~R-10~~	~~SR-60 EB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~2,230~~	~~260~~	~~16.9~~	~~B~~	~~4,140~~	~~470~~	~~34.3~~	~~F~~
~~R-11~~	~~SR-60 WB~~	~~Off-Ramp to Gilman Springs Rd~~	~~2~~	~~3,350~~	~~240~~	~~20.9~~	~~C~~	~~2,920~~	~~560~~	~~18.2~~	~~B~~
~~R-12~~	~~SR-60 WB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~3,110~~	~~1,330~~	~~32.2~~	~~D~~	~~2,360~~	~~1,140~~	~~24.6~~	~~C~~
~~R-13~~	~~SR-60 WB~~	~~Off-Ramp to Theodore St~~	~~1~~	~~4,560~~	~~640~~	~~32.7~~	~~F~~	~~3,680~~	~~380~~	~~24.8~~	~~C~~
~~R-14~~	~~SR-60 WB~~	~~On-Ramp from Theodore St~~	~~1~~	~~3,920~~	~~90~~	~~35.5~~	~~E~~	~~3,300~~	~~230~~	~~31.5~~	~~D~~
~~R-15~~	~~SR-60 WB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~4,010~~	~~310~~	~~32.4~~	~~D~~	~~3,530~~	~~370~~	~~28.1~~	~~D~~
~~R-16~~	~~SR-60 WB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~3,700~~	~~200~~	~~36.5~~	~~E~~	~~3,160~~	~~110~~	~~31.4~~	~~D~~
~~R-17~~	~~SR-60 WB~~	~~Direct On-Ramp from Redlands Blvd~~	~~1~~	~~3,900~~	~~350~~	~~34.7~~	~~D~~	~~3,270~~	~~280~~	~~29.0~~	~~D~~
~~R-18~~	~~SR-60 WB~~	~~Off-Ramp to Central Ave~~	~~2~~	~~8,340~~	~~480~~	~~32.0~~	~~D~~	~~9,200~~	~~540~~	~~35.0~~	~~D~~
~~R-19~~	~~SR-60 WB~~	~~Off-Ramp to Martin Luther King Blvd~~	~~1~~	~~8,330~~	~~710~~	~~32.5~~	~~D~~	~~8,980~~	~~660~~	~~34.1~~	~~D~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

4.15.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the proposed project would create potentially significant traffic impacts if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.
- Cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the without project condition. The adopted LOS standards are as follows:
    - Roadway segments and intersections: LOS C; and LOS D as outlined in previously referenced Table 4.15.E.
    - Freeway mainline: LOS D.
    - Freeway Ramp Merge/Diverge: LOS D.
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks.
- Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Moreno Valley General Plan Circulation Element, adopted July 2006, defines a preferred performance standard of LOS C (where feasible) for City roads (including intersections). However, the circulation element also allows peak hour levels of service in the LOS D range at certain locations. These locations include areas of high employment concentration or north/south roads in the vicinity of the SR-60. Therefore, if a roadway segment or intersection is projected to operate at an acceptable level of service (i.e., LOS C/D or better) without the project, and the project is expected to cause the intersection to operate at an unacceptable level of service, the project impact is considered significant.

The study area includes intersections and roadways in six cities besides Moreno Valley. Table 4.15.Z shows the various level of service standards for intersections within each jurisdiction. A project's impact on an intersection is considered significant if it causes the LOS to exceed the target level set by the jurisdiction or, if the LOS in the no project condition already exceeds the LOS level, if the project causes an increase in traffic delay beyond the no project condition.

~~Table 4.15.Z: Intersection LOS Standards by Jurisdiction~~

~~Jurisdiction~~	~~Type of Facility~~	~~# of Study Intersections~~	~~LOS Standard~~
~~Moreno Valley~~	~~Intersections adjacent to freeways or employment centers~~	~~57~~	~~D~~
	~~All other intersections~~	~~14~~	~~C~~
~~Beaumont~~	~~Most intersections~~	~~2~~	~~C~~
	~~Intersections with major highways~~	~~2~~	~~D~~
~~Perris~~	~~Intersections with SR-74, Ramona Expr, or I-215~~	~~5~~	~~E~~
	~~Expressway/arterial intersections~~	~~10~~	~~D~~
	~~All other intersections~~	~~6~~	~~C~~
~~Redlands~~	~~Intersections currently operating at "D" or worse~~	~~1~~	~~Existing LOS~~
	~~All other intersections~~	~~2~~	~~C~~
~~Riverside (County)~~	~~Most intersections*~~	~~7~~	~~C~~
	~~Intersections with Ramona Expressway~~	~~2~~	~~D~~
~~Riverside (City)~~	~~Intersections of collectors or higher roads~~	~~27~~	~~D~~
~~San Jacinto~~	~~Arterial intersections~~	~~1~~	~~D~~
~~Caltrans~~	~~State highway facilities currently operating at LOS "E" or "F"~~		~~Existing Density~~
	~~State highway facilities~~		~~D~~

~~* Intersections between arterials, highways, expressways, and freeway ramps within community development areas are allowed LOS "D" as an exception.~~
~~Source: Table 12, Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

Table 4.15.Z: Intersection LOS Standards by Jurisdiction

Jurisdiction	Type of Facility	# of Study Intersections	LOS Standard	Source
Moreno Valley	Intersections adjacent to freeways or employment centers	57	D	Moreno Valley General Plan, Chapter 5: Circulation element; Adopted July 2006
	All other intersections	14	C	
Beaumont	Intersections (during peak hours)	4	D	City of Beaumont General Plan; Section 3.0: Circulation Element; Approved March 2007
Perris	Intersections with SR-74, Ramona Exp, or I-215	5	E	City of Perris General Plan, Circulation Element; Amended August 2008
	All other intersections	16	D	
Redlands	Intersections currently operating at "D" or worse	1	Existing LOS	City of Redlands General Plan 2035, Chapter 5: Connected City; Adopted December 2017
	All other intersections	2	C	
Riverside (County)	Intersections in area plans near WLC*	9	D	County of Riverside General Plan, Chapter 4: Circulation Element; Revised December 2016
Riverside (City)	Intersections of collectors or higher roads	27	D	
San Jacinto	Arterial intersections	1	D	San Jacinto General Plan, Circulation Element; Adopted May 2006
Caltrans	State highway facilities currently operating at LOS "E" or "F"		Existing Density	Guide for the Preparation of Traffic Impact Studies, Chapter I; December 2002
	State highway facilities		D	

* LOS D applies to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans. LOS C applies at all other locations in unincorporated Riverside County.

All freeway mainline segments and freeway ramps are under the jurisdiction of Caltrans. LOS D has been established by Caltrans as the operating standard for freeway mainline segments and freeway ramps. Therefore, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS D or better) without the project, and the project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS E or F), the impact is considered significant. Previously referenced Table 4.15.E shows level of service criteria for freeway segments and ramps.

4.15.5 Less than Significant Impacts

Air traffic patterns, design hazard features, emergency access, and alternative transportation policies, plans, or programs are considered to have either no impact or less than significant impacts.

4.15.5.1 Air Traffic Patterns

Threshold	Would the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Airport facilities within the vicinity of the project site include the March Air Field, which is part of the March Air Reserve Base (MARB). The MARB encompasses approximately 6,500 acres of the Air Force Reserve's 452nd Air Mobility Wing, which provides host base support for numerous tenant active military units. It is also the home of 4th Air Force and multiple units of the California Air National Guard. When March Air Force Base (March AFB) was converted from an active duty base to a Reserve Base in 1996, the decision resulted in approximately 4,400 acres of property and facilities being declared surplus and available for disposal actions, as well as joint use of the airfield. With the realignment of March AFB, the MARB Redevelopment Project Area was established. The MARB Redevelopment Project Area includes the entire 6,500-acre former active duty base area, and approximately 450 acres adjacent to the base in the industrial area of the City of Moreno Valley.

To implement the MARB Redevelopment Project Area and to facilitate the transition of a portion of the MARB from military to civilian uses, the March Joint Powers Authority, (March JPA) consisting of the County of Riverside and the Cities of Moreno Valley, Perris, and Riverside, was formed. The March JPA along with the U.S. Air Force pursued the establishment of March Air Field as a joint use airport.

The Air Force defines a "joint use airport" as one where the facilities which are owned and operated by the Air Force are made available for use by civil aviation. A joint use agreement between these parties was executed May 7, 1997, along with land leases for over 300 acres as the civilian airport name MIP. Under the agreement, the civilian (March JPA) and the military (AFRC) entities share essential aviation facilities such as the control towers and runways, as well as maintenance of facilities, under this joint use arrangement. Under the provisions of the Joint Use Agreement, the MIP is the civilian facility that is managed and operated by the MIP Airport Authority (MIPAA). The MIP includes air cargo operations such as the March Global Port, a 350-acre commercial air cargo and distribution center.

The Department of the Defense (Air Force) completed an Air Installation Compatible Use Zone (AICUZ) study for MARB in 1998. The AICUZ study was designed and is intended to aid in the development of compatible land uses in non-government areas surrounding military airfields to protect public safety and health. The study established three zones based on potential crash patterns: a Clear Zone and two Accident Potential Zones (APZs). The Clear Zone reaches from along the extended runway centerline to a distance of 3,000 feet, APZ 1 extends from 3,000 feet to 8,000 feet, and APZ II extends from 8,000 feet to 15,000 feet. According to the AICUZ, outside of the Clear Zone and APZs "the risk of aircraft accidents is not significant enough to warrant special consideration in land use planning." The proposed project site is not located within a Clear Zone, APZ 1, or APZ 2 for MARB as designated by the Air Force 2005 AICUZ Study. In addition to the AICUZ, Airport Influence Area boundaries around MARB have been adopted by County of Riverside Airport Land Use Commission (ALUC) in its Airport Land Use Plan (ALUP). The proposed project site is located within Influence Area III.

The project site is approximately 1.5 miles east of the March Air Field and is entirely within Airport Influence Area III of the MIP. As part of the standard process for development within Airport Influence Areas for MARB, proposed projects are required to be reviewed by the ALUC for consistency with the ALUP. As a standard condition imposed during ALUC reviews, development located within the boundaries of Influence Area III is required to provide navigation easements. Development that is allowed to occur within Airport Influence III of the MIP would not include any features that would alter air traffic patterns or the level of air traffic at the MIP; therefore, a less than significant air safety impact would occur and no mitigation is required.

4.15.5.2 Design Hazard Features

~~*NOTE: The following changes have been made in response to: Comment E-3-13 in Letter E-3 from the Moreno Valley Unified School District; Comment F-11-36 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; and Comment G-96-4 in Letter G-96 from Margie Breikreuz.*~~

Threshold	Would the proposed project substantially increase hazards due to a design feature or incompatible use?

The design of roadways must provide adequate sight distance and traffic control measures. This provision is normally realized through roadway design to facilitate roadway traffic flows. Roadway improvements in and around the project site would be designed and constructed to satisfy all City and Caltrans requirements for street widths, corner radii, intersection control as well as incorporate design standards tailored specifically to project access requirements. Adherence to applicable City requirements would ensure the proposed project would not include any sharp curves or dangerous intersections.

~~During the project review process, City staff expressed a concern about the intersection of D Street and the eastern end of Cactus Avenue, east of Redlands Boulevard. Early designs showed it as a skewed “T” intersection, but the Specific Plan now shows it extending further west through the Open Space area, then turning north and connecting to Alessandro Boulevard. With this design change, no significant road design hazards are expected.~~

Temporary impacts associated with the construction of infrastructure improvements included as a part this project may temporarily restrict vehicular traffic or cause temporary hazards. The construction of infrastructure would coincide with roadway improvements, which would include road or lane closures as well as the presence of construction workers and equipment on public roads. Construction operations would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road or lane closures. Site-specific activities, such as temporary construction activities, are finalized on a project-by-project basis by the City and are required to ensure adequate traffic flow. At the time of approval of any site-specific plans required for the construction of infrastructure as a part of typical conditions of approval, the project would be required to implement measures that would maintain traffic flow and access. In the absence of a roadway design hazard, no impact would occur; therefore, no mitigation is required.

An analysis of safety impacts resulting from potential conflicts between project traffic and local schools was performed for this EIR. As identified in the project TIA (Appendix L-1 of this EIR), the project would not produce a significant safety risk and appropriate safety features are already present on roads near local schools. Other than Perris Boulevard, which would experience a small number of project trucks (22 and 25 medium and heavy duty trucks in the a.m. and p.m. peak hours, respectively), none of the other truck routes would result in project trucks traveling near local schools. The safety impact of project-related passenger cars along streets near local schools was also evaluated by reviewing existing pedestrian facilities and collecting pedestrian counts at the intersections along project truck routes. All pedestrian crossings at signalized intersections near schools are protected. Crosswalks near schools are striped in yellow (per the California Manual on Traffic Control Devices page 1,282). In most cases, sidewalks exist along roadways and lead to the striped, protected crosswalks at the intersections. Intersection and roadway features along project truck routes were reviewed and it was determined that adequate pedestrian amenities already exist in the form of protected crossings, crosswalks, curb ramps, and pedestrian signals. For these reasons, project passenger cars and trucks would not create unsafe conflicts with pedestrians.

~~In addition, the new proposed high school #5 was analyzed in a technical memorandum (Tech Memo on High School #5, July 2014, Revised DEIR Appendix L). It was determined that if both the proposed school and the proposed WLCSP were approved the mitigation measures proposed in the DEIR would reduce all potential impacts to less than significant levels.~~

4.15.5.3 Emergency Access

Threshold	Would the proposed project result in inadequate emergency access?

Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road closures. Site-specific activities such as temporary construction activities are finalized on a project-by-project basis by the City and are required to ensure adequate emergency access.

The roadway improvements that will take place as a part of this project will improve the traffic circulation in the area. For example, emergency vehicles that currently pass through the site using either ~~Theodore Street~~World Logistics Center Parkway or Alessandro Boulevard would continue to have those routes available to them, and these roads will be upgraded to arterial standards within the proposed project limits. Access to Alessandro Boulevard would be provided by a connection to Redlands Boulevard at Cactus Avenue instead, of a direct extension to Alessandro Boulevard. The change would not lengthen the distance between Gilman Springs Road and the Riverside Community Regional Medical Center on Cactus Avenue or the route to and from the Kaiser Moreno Valley Community Hospital on Iris Avenue. The extension of Eucalyptus Avenue through the project area would improve access between the project site and the nearest existing fire station (the Moreno Beach fire station). As a condition of approval, the proposed project will also be required to construct a fire station on site.

These improvements would enhance the ability of emergency vehicles to access the project as well as the surrounding properties. Access to the project site is designed to accommodate large trucks with trailers used for the distribution of goods to and from the warehouses. This would provide ample vehicular access for emergency vehicles. During the operational phase of the proposed project, on-site access would be required to comply with standards established by the City Public Works Department. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to Fire Department standards. As required of all development in the City, the operation of the proposed project would conform to applicable Uniform Fire Code standards. The submittal of such plans would be considered a condition of approval, which would be part of the permitting process initiated by the applicant and approved by the City in accordance with City standards. As with any development, access to and through the project would be required to comply with the required street widths, as determined in the California Building Code (CBC), Master Plan of Streets, and the Uniform Fire Code. Therefore, implementation of the proposed project would not significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no mitigation is required.

4.15.5.4 Alternative Transportation Policies, Plans, or Programs

Threshold	Would the proposed project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project would result in the development of employment opportunities and would therefore reduce vehicle miles traveled. Currently, approximately 70 percent of workers residing in the City of Moreno Valley commute to jobs outside the City. According to the U.S. Census Bureau, 21.7 percent of Moreno Valley workers commute more than 50 miles one-way to work, and another 20.8 percent drive 25 to 50 miles one way. Nearly four out of five Moreno Valley workers drive to work alone. The City is in need of employment opportunities to serve City and regional residents. A better jobs/housing balance results in shorter commute times, reduced vehicle miles traveled, and reduced traffic congestion. Locating jobs in areas such as the City is a public policy prerogative of the City, regional governmental entities such as SCAG, and the State of California as manifested by recent legislation such as SB 375. The project is consistent with these policies because it will provide approximately 20,000[1] new jobs; nearly doubling the number of jobs in Moreno Valley. As a result, the percentage of Moreno Valley residents that need to commute regionally would be reduced.

An updated Housing Element, adopted by the City in February 2011, identified the Moreno Highlands area as a potential location for future jobs-producing land uses. In April 2011, the City adopted its Economic Development Action Plan, which identified eastern Moreno Valley as a potential area for

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[1] Based on a ratio of 0.5 employees per 1000 square feet of logistics. This ratio is taken from: *DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010).San Bernardino Planning Department.*

major job-producing land uses. The proposed World Logistics Center project is consistent with this planning objective, as it provides a comprehensive plan for jobs-producing land uses.

The WLC Specific Plan provides for Class II bicycle lanes on all project streets (see WLCSP Section 3.4.3 and WLCSP Figure 3-18). In addition, WLCSP Section 6.0, Sustainability, Item 2 indicates showers and changing rooms will be available which will facilitate people using bicycles to get to and from work.

As stated previously, the proposed project would generate jobs for approximately 20,000 employees working in the eastern portion of the City that would help reduce the number of workers driving long commutes to distant jobsites, primarily to the west and southwest. This finding is supported by the results of the RivTAM traffic model projections used in the TIA. The provision of additional employment options in proximity to existing residential development in the City will help reduce local vehicle miles traveled as the employment generated by the project slowly improves the City's job/housing ratio, and more local jobs are created for City residents. Therefore, the proposed project is consistent with City policies encouraging alternative transportation. Since the project will not create any significant impacts related to non-vehicular transportation, no mitigation is required.

Although there is currently no transit service in the project area, the proposed project would be designed to accommodate bus access on all project streets. Bus turnouts and shelters would be provided at all active bus stops. It is expected that transit service would be provided once the project reaches a transit-supportable level of operations. Candidate streets for future bus routes within the project limits are Eucalyptus Avenue, Street C, Street E, and Street F as shown in WLCSP Figure 3-14.

The WLCSP provides for connections to existing trails to the west along Redlands Boulevard, and to the southwest along Cactus Avenue. In addition, the plan provides for a new trail connection from the southwest corner of the site around the land designated as open space under the WLCSP, to connect to a future planned "trailhead" at the northwest corner of the state-owned property to the south. The WLCSP also includes a "loop" trail segment through the WLCSP along Street F to Eucalyptus Avenue and back to Redlands Boulevard (see EIR Figure 3-12, *Non-Vehicular Circulation*). In addition, the project will be conditioned to provide sidewalks and landscaping treatments to allow for pedestrian access throughout the site. With these planned improvements, the WLCSP will have less than significant impacts regarding non-vehicular circulation and no mitigation is required.

4.15.6 Significant Impacts

The following potential impacts were determined to be significant, either because the project would contribute to an intersection, roadway segment or freeway facility already exceeding the LOS threshold, or because the project would cause the intersection, roadway segment or freeway to exceed the LOS threshold. The project would be required to make required on-site and adjacent off-site improvements, contribute to local and regional circulation improvement through the payment of ~~the DIFs and~~ TUMFs, and would therefore contribute to improvements that may mitigate the direct project impact or cumulative impact of the project. Mitigation of direct project impacts can be in the form of improvements to the intersection, or payment of the fees if projects funded by the fee would mitigate the project impact to a less than significant level.

Planned Improvements. As part of the analysis of project traffic impacts, it is important to note that development within the WLCSP will make a number of roadway and intersection improvements that are within or adjacent to project property (i.e., on-site improvements). These improvements include:

- Gilman Springs/Alessandro Boulevard Intersection;

- Gilman Springs/Eucalyptus Avenue Intersection;
- SR-60 Westbound Ramp/~~Theodore Street~~World Logistics Center Parkway Intersection;
- SR-60 Eastbound Ramp/~~Theodore Street~~World Logistics Center Parkway Intersection;
- Redlands Boulevard/Eucalyptus Avenue Intersection;
- ~~Theodore Street~~World Logistics Center Parkway/Eucalyptus Avenue Intersection;
- ~~Theodore Street~~World Logistics Center Parkway (Street A)/Alessandro Boulevard (Streets C and E) Roundabout;
- ~~Theodore Street~~World Logistics Center Parkway (Street A)/Streets E and F Roundabout;
- Street F/Street C Roundabout;
- Eucalyptus Avenue from Redlands Boulevard to ~~Theodore Street~~World Logistics Center Parkway (south side); and
- Cactus Avenue Extension from the existing Redlands Boulevard/Cactus Avenue intersection to internal loop Street "E".
- Internal Streets A, B, C, E, and F shown on WLCSP Circulation Plan (EIR Figure 3-10).

4.15.6.1 Existing (~~2012~~2018) With Phase 1 Conditions Traffic and Level of Service

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (year ~~2012~~2018) with Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.15.AA-1 and 4.15.AA-2, which shows there are ~~15~~19 study intersections where Phase 1 of the project would have a significant impact. ~~Twelve~~

Would Exceed Threshold of ~~these intersections already exceed the threshold of significance under existing conditions~~Significance Under Both the Existing Conditions and ~~would therefore be considered cumulative impacts and mitigation is required.~~the Existing Plus Phase 1 ~~of the project would cause a direct project impact at the other three intersections and mitigation is required.~~Scenario

~~Phase 1 of the project would worsen the existing LOS deficiency at the following 12 intersections under existing with Phase 1 conditions:~~

- IN-10 Redlands ~~Boulevard/~~Blvd./Locust ~~Avenue;~~Ave. (AM, PM)
- ~~Redlands Boulevard/SR-60 Westbound Ramps;~~
- IN-20 Oliver ~~Street/~~St./Alessandro ~~Boulevard;~~Blvd. (PM)
- ~~Lasselle Street/~~IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-65 Perris Blvd./Cactus ~~Avenue;~~Ave. (AM)
- IN-83 Martin Luther King Blvd/Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd/I-215 NB Ramps (AM, PM)
- IN-86 Central Ave/Chicago Ave (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs ~~Road/~~Rd./Bridge ~~Street;~~St. (AM, PM)
- IN-124 SR-79 (Sanderson ~~Avenue) Northbound~~Ave.) NB/Gilman Springs ~~Road;~~Rd. (AM)
- IN-125 SR-79 (Sanderson ~~Avenue) Southbound~~Ave) SB/Gilman Springs ~~Road;~~Rd. (AM, PM)
- IN-132 San Timoteo Canyon ~~Road/~~Rd./Alessandro ~~Boulevard;~~Rd. (AM)
- IN-133 San Timoteo Canyon ~~Road/~~Rd./Live Oak Canyon ~~Road;~~Rd. (AM, PM)
- IN-134 Redlands ~~Boulevard/~~Blvd./San Timoteo Canyon ~~Road;~~Rd. (AM, PM)
- ~~Moreno Beach Drive/SR-60 EB Ramps; and~~
- ~~Alessandro Boulevard/Chicago Avenue.~~

~~A project-specific significant impact would occur at the following three intersections under existing with Phase 1 conditions:~~

- ~~Redlands Boulevard/Cactus Avenue;~~
- ~~Arlington Avenue/Victoria Avenue; and~~
- ~~Moreno Beach Drive/John Kennedy Drive.~~

~~Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~9.5~~	~~A~~
~~2~~	~~Cactus Avenue Extension/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~AWS~~	~~12.3~~	~~B~~
~~3~~	~~Theodore Str/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~9.7~~	~~A~~	~~RABT~~	~~10.4~~	~~B~~
~~4~~	~~Street C/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~AWS~~	~~9.5~~	~~A~~
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~CSS~~	~~10.3~~	~~B~~	~~SIGNAL~~	~~20.9~~	~~C~~
~~9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~26.7~~	~~D~~	~~CSS~~	~~44.8~~	~~E~~
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~40.9~~	~~D~~	~~SIGNAL~~	~~37.5~~	~~D~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~9.7~~	~~A~~	~~CSS~~	~~12.6~~	~~B~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~42.2~~	~~E~~	~~CSS~~	~~70.5~~	~~F~~
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~9.6~~	~~A~~	~~SIGNAL~~	~~12.9~~	~~B~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~9.0~~	~~A~~	~~CSS~~	~~13.3~~	~~B~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~9.2~~	~~A~~	~~CSS~~	~~2.4~~	~~A~~
~~17~~	~~Quincy Str/Fir Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~12.9~~	~~B~~
~~19~~	~~Theodore Str/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~9.2~~	~~A~~	~~SIGNAL~~	~~12.4~~	~~B~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~25.9~~	~~D~~	~~CSS~~	~~40.5~~	~~E~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.0~~	~~C~~	~~SIGNAL~~	~~27.9~~	~~C~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~20.5~~	~~C~~	~~AWS~~	~~17.6~~	~~C~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~23.8~~	~~C~~	~~SIGNAL~~	~~26.2~~	~~C~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~16.0~~	~~B~~	~~SIGNAL~~	~~17.9~~	~~B~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~11.4~~	~~B~~	~~AWS~~	~~37.9~~	~~E~~
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~16.2~~	~~B~~	~~SIGNAL~~	~~17.0~~	~~B~~
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~29.6~~	~~C~~	~~SIGNAL~~	~~29.9~~	~~C~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~SIGNAL~~	~~23.4~~	~~C~~
~~31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~12.5~~	~~B~~	~~SIGNAL~~	~~13.9~~	~~B~~
~~32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.4~~	~~C~~	~~SIGNAL~~	~~30.7~~	~~C~~

~~Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~22.0~~	~~C~~	~~SIGNAL~~	~~24.6~~	~~C~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~22.8~~	~~C~~	~~SIGNAL~~	~~23.8~~	~~C~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~8.6~~	~~A~~	~~CSS~~	~~8.8~~	~~A~~
~~36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~SIGNAL~~	~~50.3~~	~~D~~	~~SIGNAL~~	~~51.8~~	~~D~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~38.0~~	~~D~~	~~SIGNAL~~	~~42.0~~	~~D~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~37.0~~	~~D~~	~~SIGNAL~~	~~37.6~~	~~D~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~41.5~~	~~D~~	~~SIGNAL~~	~~43.0~~	~~D~~
~~40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~SIGNAL~~	~~25.0~~	~~C~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~25.4~~	~~C~~	~~SIGNAL~~	~~28.5~~	~~C~~
~~42~~	~~Nason Str/Iris Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~22.1~~	~~C~~	~~SIGNAL~~	~~25.6~~	~~C~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~SIGNAL~~	~~8.0~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~34.6~~	~~C~~	~~SIGNAL~~	~~35.1~~	~~D~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~21.7~~	~~C~~	~~SIGNAL~~	~~23.9~~	~~C~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~37.9~~	~~D~~	~~SIGNAL~~	~~40.8~~	~~D~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~SIGNAL~~	~~29.6~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~31.7~~	~~C~~	~~SIGNAL~~	~~32.2~~	~~C~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~8.8~~	~~A~~	~~SIGNAL~~	~~8.8~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~20.5~~	~~C~~	~~SIGNAL~~	~~20.7~~	~~C~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~33.3~~	~~C~~	~~SIGNAL~~	~~34.3~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~47.2~~	~~D~~	~~SIGNAL~~	~~47.3~~	~~D~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~22.5~~	~~C~~	~~SIGNAL~~	~~22.6~~	~~C~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.5~~	~~B~~	~~SIGNAL~~	~~19.5~~	~~B~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.8~~	~~B~~	~~SIGNAL~~	~~20.4~~	~~C~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.8~~	~~C~~	~~SIGNAL~~	~~26.3~~	~~C~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~SIGNAL~~	~~19.2~~	~~B~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~32.4~~	~~C~~	~~SIGNAL~~	~~32.7~~	~~C~~

~~Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~9.8~~	~~A~~	~~SIGNAL~~	~~10.3~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~12.9~~	~~B~~	~~SIGNAL~~	~~13.7~~	~~B~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.1~~	~~C~~	~~SIGNAL~~	~~30.9~~	~~C~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~24.4~~	~~C~~	~~SIGNAL~~	~~25.3~~	~~C~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~26.9~~	~~C~~	~~SIGNAL~~	~~26.8~~	~~C~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~25.8~~	~~C~~	~~SIGNAL~~	~~26.1~~	~~C~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~6.4~~	~~A~~	~~SIGNAL~~	~~6.7~~	~~A~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.4~~	~~B~~	~~SIGNAL~~	~~19.9~~	~~B~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~18.2~~	~~B~~	~~SIGNAL~~	~~18.4~~	~~B~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~4.6~~	~~A~~	~~SIGNAL~~	~~6.2~~	~~A~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.2~~	~~B~~	~~SIGNAL~~	~~19.6~~	~~B~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~12.1~~	~~B~~	~~SIGNAL~~	~~18.7~~	~~B~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~11.1~~	~~B~~	~~SIGNAL~~	~~10.3~~	~~B~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~26.7~~	~~C~~	~~SIGNAL~~	~~30.6~~	~~C~~
~~75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~10.9~~	~~B~~	~~SIGNAL~~	~~11.4~~	~~B~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~22.2~~	~~C~~	~~SIGNAL~~	~~23.9~~	~~C~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~7.3~~	~~A~~	~~SIGNAL~~	~~8.3~~	~~A~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~6.8~~	~~A~~	~~SIGNAL~~	~~6.9~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~28.4~~	~~C~~	~~SIGNAL~~	~~28.4~~	~~C~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~18.8~~	~~B~~	~~SIGNAL~~	~~20.7~~	~~C~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~43.2~~	~~D~~	~~SIGNAL~~	~~43.8~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~9.0~~	~~A~~	~~SIGNAL~~	~~9.2~~	~~A~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~43.2~~	~~D~~	~~SIGNAL~~	~~47.8~~	~~D~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~8.6~~	~~A~~	~~SIGNAL~~	~~8.8~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~24.3~~	~~C~~	~~AWS~~	~~26.9~~	~~D~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~SIGNAL~~	~~23.7~~	~~C~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~SIGNAL~~	~~12.9~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~27.8~~	~~C~~	~~SIGNAL~~	~~28.6~~	~~C~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~6.3~~	~~A~~	~~SIGNAL~~	~~6.7~~	~~A~~

~~Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~31.3~~	~~C~~	~~SIGNAL~~	~~31.6~~	~~C~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~21.0~~	~~C~~	~~SIGNAL~~	~~21.1~~	~~C~~
~~92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~13.8~~	~~B~~	~~SIGNAL~~	~~14.1~~	~~B~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~12.3~~	~~B~~	~~SIGNAL~~	~~13.0~~	~~B~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~54.8~~	~~D~~	~~SIGNAL~~	~~55.8~~	~~E~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~40.7~~	~~D~~	~~SIGNAL~~	~~42.9~~	~~D~~
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~16.7~~	~~B~~	~~SIGNAL~~	~~17.8~~	~~B~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~SIGNAL~~	~~30.6~~	~~C~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~20.4~~	~~C~~	~~SIGNAL~~	~~25.3~~	~~C~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~15.4~~	~~B~~	~~SIGNAL~~	~~16.5~~	~~B~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~3.3~~	~~A~~	~~SIGNAL~~	~~4.5~~	~~A~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~31.7~~	~~C~~	~~SIGNAL~~	~~32.5~~	~~C~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~54.5~~	~~D~~	~~SIGNAL~~	~~58.1~~	~~E~~
~~104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~11.8~~	~~B~~	~~SIGNAL~~	~~13.6~~	~~B~~
~~105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~32.5~~	~~C~~	~~SIGNAL~~	~~32.5~~	~~C~~
~~106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~24.5~~	~~C~~	~~SIGNAL~~	~~24.5~~	~~C~~
~~107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~34.2~~	~~C~~	~~SIGNAL~~	~~34.4~~	~~C~~
~~108~~	~~Perris Blvd/Mid County Pkwy WB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~109~~	~~Perris Blvd/Mid County Pkwy EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~110~~	~~Evans Rd/Mid County Pkwy WB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~111~~	~~Evans Rd/Mid County Pkwy EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~30.1~~	~~C~~	~~SIGNAL~~	~~29.9~~	~~C~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~12.5~~	~~B~~	~~AWS~~	~~13.6~~	~~B~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~23.3~~	~~C~~	~~SIGNAL~~	~~23.5~~	~~C~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	

~~Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~		~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~122~~	~~Bridge St/Ramona Expy~~	~~C~~	~~CSS~~	~~22.4~~	~~C~~	~~CSS~~	~~26.2~~	~~C~~
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~26.6~~	~~D~~	~~CSS~~	~~37.9~~	~~E~~
~~124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~34.7~~	~~D~~	~~CSS~~	~~56.8~~	~~F~~
~~125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~29.2~~	~~D~~	~~CSS~~	~~36.6~~	~~E~~
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~27.1~~	~~C~~	~~SIGNAL~~	~~28.2~~	~~C~~
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~16.6~~	~~C~~	~~AWS~~	~~20.2~~	~~C~~
~~130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~13.2~~	~~B~~	~~SIGNAL~~	~~12.7~~	~~B~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~18.9~~	~~B~~	~~SIGNAL~~	~~21.5~~	~~C~~
~~132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~77.2~~	~~F~~	~~AWS~~	~~145.4~~	~~F~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~50.9~~	~~F~~	~~AWS~~	~~110.2~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~81.8~~	~~F~~	~~AWS~~	~~142.8~~	~~F~~
~~135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~14.0~~	~~B~~	~~CSS~~	~~16.9~~	~~C~~
~~136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~8.9~~	~~A~~	~~AWS~~	~~9.7~~	~~A~~

▨ ~~denotes LOS exceeding the target threshold~~

~~Notes:~~ ~~"CSS" means cross-street is stop-controlled~~ ~~"NB" and "SB" denote northbound and southbound respectively~~ ~~"RABT" means roundabout~~
~~"AWS" means all-way stop~~ ~~"EB" and "WB" denote eastbound and westbound respectively~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~12.1~~	~~B~~

~~Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2012 No Project~~			~~2012 With Phase 1~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~2~~	~~Street D/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~AWS~~	~~13.2~~	~~B~~
~~3~~	~~Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~10.1~~	~~B~~	~~RABT~~	~~10.5~~	~~B~~
~~4~~	~~Street C/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~AWS~~	~~8.4~~	~~A~~
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~CSS~~	~~15.7~~	~~C~~	~~SIGNAL~~	~~31.2~~	~~C~~
~~9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~42.8~~	**~~E~~**	~~CSS~~	~~> 180.0~~	**~~F~~**
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~37.3~~	~~D~~	~~SIGNAL~~	~~35.2~~	~~D~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~9.8~~	~~A~~	~~CSS~~	~~15.9~~	~~C~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~54.0~~	**~~F~~**	~~CSS~~	~~> 180.0~~	**~~F~~**
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~14.4~~	~~B~~	~~SIGNAL~~	~~20.3~~	~~C~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~9.6~~	~~A~~	~~CSS~~	~~13.7~~	~~B~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~9.4~~	~~A~~	~~CSS~~	~~1.5~~	~~A~~
~~17~~	~~Quincy Str/Fir Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~10.6~~	~~B~~
~~19~~	~~Theodore Ave/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~9.8~~	~~A~~	~~SIGNAL~~	~~27.1~~	~~C~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~14.7~~	~~B~~	~~CSS~~	~~18.6~~	~~C~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.2~~	~~C~~	~~SIGNAL~~	~~38.6~~	~~D~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~13.8~~	~~B~~	~~AWS~~	~~14.9~~	~~B~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~17.3~~	~~B~~	~~SIGNAL~~	~~18.1~~	~~B~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~17.0~~	~~B~~	~~SIGNAL~~	~~18.9~~	~~B~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~8.2~~	~~A~~	~~AWS~~	~~103.0~~	**~~F~~**
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~13.8~~	~~B~~	~~SIGNAL~~	~~66.5~~	**~~E~~**
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~31.9~~	~~C~~	~~SIGNAL~~	~~32.0~~	~~C~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~21.5~~	~~C~~	~~SIGNAL~~	~~21.7~~	~~C~~
~~31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~15.9~~	~~B~~	~~SIGNAL~~	~~16.8~~	~~B~~
~~32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~SIGNAL~~	~~36.0~~	~~D~~	~~SIGNAL~~	~~36.4~~	~~D~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~19.7~~	~~B~~	~~SIGNAL~~	~~21.5~~	~~C~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~SIGNAL~~	~~23.9~~	~~C~~

~~Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~8.6~~	~~A~~	~~CSS~~	~~8.9~~	~~A~~
~~36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~SIGNAL~~	~~40.0~~	~~D~~	~~SIGNAL~~	~~41.6~~	~~D~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~76.6~~	~~E~~	~~SIGNAL~~	~~98.0~~	~~F~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~31.2~~	~~C~~	~~SIGNAL~~	~~31.8~~	~~C~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~36.5~~	~~D~~	~~SIGNAL~~	~~37.0~~	~~D~~
~~40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~17.5~~	~~B~~	~~SIGNAL~~	~~20.1~~	~~C~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~26.6~~	~~C~~	~~SIGNAL~~	~~28.4~~	~~C~~
~~42~~	~~Nason Str/Iris Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~15.8~~	~~B~~	~~SIGNAL~~	~~18.3~~	~~B~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~6.5~~	~~A~~	~~SIGNAL~~	~~7.3~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.3~~	~~C~~	~~SIGNAL~~	~~33.7~~	~~C~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~19.4~~	~~B~~	~~SIGNAL~~	~~20.2~~	~~C~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~13.5~~	~~B~~	~~SIGNAL~~	~~13.7~~	~~B~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.7~~	~~C~~	~~SIGNAL~~	~~25.4~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~26.6~~	~~C~~	~~SIGNAL~~	~~29.5~~	~~C~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~7.8~~	~~A~~	~~SIGNAL~~	~~8.1~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~16.9~~	~~B~~	~~SIGNAL~~	~~18.2~~	~~B~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~SIGNAL~~	~~22.7~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~38.6~~	~~D~~	~~SIGNAL~~	~~38.6~~	~~D~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~21.0~~	~~C~~	~~SIGNAL~~	~~21.8~~	~~C~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.6~~	~~C~~	~~SIGNAL~~	~~26.5~~	~~C~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.2~~	~~C~~	~~SIGNAL~~	~~26.0~~	~~C~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~23.6~~	~~C~~	~~SIGNAL~~	~~24.1~~	~~C~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~27.9~~	~~C~~	~~SIGNAL~~	~~28.7~~	~~C~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~42.3~~	~~D~~	~~SIGNAL~~	~~44.2~~	~~D~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~SIGNAL~~	~~13.8~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~17.4~~	~~B~~	~~SIGNAL~~	~~17.9~~	~~B~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~20.3~~	~~C~~	~~SIGNAL~~	~~22.9~~	~~C~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~19.6~~	~~B~~	~~SIGNAL~~	~~19.3~~	~~B~~

~~Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~SIGNAL~~	~~30.6~~	~~C~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~18.0~~	~~B~~	~~SIGNAL~~	~~18.1~~	~~B~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~12.6~~	~~B~~	~~SIGNAL~~	~~12.7~~	~~B~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.1~~	~~C~~	~~SIGNAL~~	~~25.0~~	~~C~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~18.6~~	~~B~~	~~SIGNAL~~	~~20.0~~	~~B~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~8.2~~	~~A~~	~~SIGNAL~~	~~9.9~~	~~A~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~27.6~~	~~C~~	~~SIGNAL~~	~~29.0~~	~~C~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~19.7~~	~~B~~	~~SIGNAL~~	~~40.1~~	~~D~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~3.7~~	~~A~~	~~SIGNAL~~	~~4.1~~	~~A~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~29.5~~	~~C~~	~~SIGNAL~~	~~29.2~~	~~C~~
~~75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~SIGNAL~~	~~7.7~~	~~A~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~SIGNAL~~	~~18.6~~	~~B~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~10.3~~	~~B~~	~~SIGNAL~~	~~10.6~~	~~B~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~8.2~~	~~A~~	~~SIGNAL~~	~~8.3~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~14.8~~	~~B~~	~~SIGNAL~~	~~14.8~~	~~B~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~34.9~~	~~C~~	~~SIGNAL~~	~~36.9~~	~~D~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~36.5~~	~~D~~	~~SIGNAL~~	~~38.3~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~13.0~~	~~B~~	~~SIGNAL~~	~~13.4~~	~~B~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~28.0~~	~~C~~	~~SIGNAL~~	~~28.9~~	~~C~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~4.7~~	~~A~~	~~SIGNAL~~	~~5.5~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~12.2~~	~~B~~	~~AWS~~	~~13.0~~	~~B~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~23.1~~	~~C~~	~~SIGNAL~~	~~26.7~~	~~C~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~12.0~~	~~B~~	~~SIGNAL~~	~~12.6~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~35.2~~	~~D~~	~~SIGNAL~~	~~36.5~~	~~D~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~4.9~~	~~A~~	~~SIGNAL~~	~~4.9~~	~~A~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~SIGNAL~~	~~30.9~~	~~C~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~20.8~~	~~C~~	~~SIGNAL~~	~~20.9~~	~~C~~
~~92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~11.1~~	~~B~~	~~SIGNAL~~	~~11.6~~	~~B~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~7.2~~	~~A~~	~~SIGNAL~~	~~7.6~~	~~A~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~30.9~~	~~C~~	~~SIGNAL~~	~~32.5~~	~~C~~

~~Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2012 No Project~~			~~2012 With Phase 1~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~65.9~~	~~E~~	~~SIGNAL~~	~~70.0~~	~~E~~
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~7.6~~	~~A~~	~~SIGNAL~~	~~8.7~~	~~A~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~18.9~~	~~B~~	~~SIGNAL~~	~~18.7~~	~~B~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~17.9~~	~~B~~	~~SIGNAL~~	~~17.7~~	~~B~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~15.1~~	~~B~~	~~SIGNAL~~	~~15.5~~	~~B~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~8.5~~	~~A~~	~~SIGNAL~~	~~11.1~~	~~B~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~34.6~~	~~C~~	~~SIGNAL~~	~~34.8~~	~~C~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~SIGNAL~~	~~28.7~~	~~C~~
~~104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~SIGNAL~~	~~8.7~~	~~A~~
~~105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~20.6~~	~~C~~	~~SIGNAL~~	~~20.4~~	~~C~~
~~106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~22.9~~	~~C~~	~~SIGNAL~~	~~26.8~~	~~C~~
~~107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~28.3~~	~~C~~	~~SIGNAL~~	~~27.8~~	~~C~~
~~108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~14.0~~	~~B~~	~~SIGNAL~~	~~15.1~~	~~B~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~10.1~~	~~B~~	~~AWS~~	~~10.7~~	~~B~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~SIGNAL~~	~~22.5~~	~~C~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~122~~	~~Bridge St/Ramona Expy~~	~~C~~	~~CSS~~	~~20.6~~	~~C~~	~~CSS~~	~~25.5~~	~~C~~
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~20.8~~	~~C~~	~~CSS~~	~~23.7~~	~~C~~
~~124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~30.7~~	~~D~~	~~CSS~~	~~41.0~~	~~E~~

~~Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~48.2~~	~~E~~	~~CSS~~	~~63.6~~	~~F~~
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~20.8~~	~~C~~	~~SIGNAL~~	~~21.0~~	~~C~~
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~—~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~18.0~~	~~C~~	~~AWS~~	~~20.9~~	~~C~~
~~130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~12.8~~	~~B~~	~~SIGNAL~~	~~11.9~~	~~B~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~6.3~~	~~A~~	~~SIGNAL~~	~~6.5~~	~~A~~
~~132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~23.9~~	~~C~~	~~AWS~~	~~68.8~~	~~F~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~60.2~~	~~F~~	~~AWS~~	~~135.8~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~80.5~~	~~F~~	~~AWS~~	~~170.0~~	~~F~~
~~135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~11.5~~	~~B~~	~~CSS~~	~~13.5~~	~~B~~
~~136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~9.0~~	~~A~~	~~AWS~~	~~9.8~~	~~A~~

▨ ~~denotes LOS exceeding the target threshold~~

~~Notes:~~

~~"CSS" means cross-street is stop-controlled~~

~~"AWS" means all-way stop~~

~~"RABT" means roundabout~~

~~"NB" and "SB" denote northbound and southbound, respectively~~

~~"EB" and "WB" denote eastbound and westbound, respectively~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario

			Existing Conditions			**Existing Plus Phase 1**		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.8	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	10.7	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.0	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	10.9	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	CSS	16.7	C
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	86.8	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	SIGNAL	29.1	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	SIGNAL	22.7	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	SIGNAL	16.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	SIGNAL	14.9	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	SIGNAL	3.6	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	16.9	B
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	SIGNAL	8.4	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	57.6	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	SIGNAL	28.8	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	AWS	16.2	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	SIGNAL	22.0	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	16.5	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	AWS	17.0	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	SIGNAL	23.2	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	SIGNAL	32.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	SIGNAL	25.8	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	SIGNAL	21.7	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	SIGNAL	27.9	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	SIGNAL	19.6	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	SIGNAL	20.9	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	CSS	8.9	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	53.1	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	42.3	D
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	SIGNAL	31.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	SIGNAL	40.1	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	SIGNAL	23.3	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	SIGNAL	43.1	D
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	SIGNAL	17.0	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	SIGNAL	22.8	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	SIGNAL	12.3	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	SIGNAL	30.7	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	21.3	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	SIGNAL	22.9	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	SIGNAL	24.7	C

Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario~~Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario~~ (CONTINUED)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	SIGNAL	32.0	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	SIGNAL	9.6	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	SIGNAL	22.9	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	SIGNAL	28.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	SIGNAL	27.6	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	SIGNAL	27.1	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.6	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.0	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	SIGNAL	28.0	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	22.7	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	SIGNAL	35.3	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	SIGNAL	10.6	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	SIGNAL	21.2	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	SIGNAL	40.7	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	SIGNAL	28.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	SIGNAL	66.3	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	SIGNAL	30.2	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	SIGNAL	4.7	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	SIGNAL	23.7	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.0	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	SIGNAL	16.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	SIGNAL	18.8	B
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	SIGNAL	6.2	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	SIGNAL	38.1	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	SIGNAL	20.9	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	SIGNAL	26.1	C
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	SIGNAL	26.7	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	SIGNAL	13.3	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	SIGNAL	21.4	C
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	SIGNAL	24.5	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	SIGNAL	44.8	D
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	SIGNAL	41.3	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	SIGNAL	17.5	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	75.4	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	SIGNAL	18.7	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.3	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	50.4	D
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	SIGNAL	15.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	SIGNAL	33.1	C
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	SIGNAL	8.6	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	SIGNAL	32.6	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	SIGNAL	13.6	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	SIGNAL	20.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	SIGNAL	12.6	B

Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario~~Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario~~ (CONTINUED)

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Phase 1		
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	SIGNAL	62.9	**E**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	SIGNAL	46.4	D
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	SIGNAL	28.3	C
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	SIGNAL	30.5	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	SIGNAL	54.8	D
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	SIGNAL	32.4	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	SIGNAL	14.1	B
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	SIGNAL	37.7	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	SIGNAL	57.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	SIGNAL	8.9	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	SIGNAL	28.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	SIGNAL	28.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	SIGNAL	41.3	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	SIGNAL	20.0	C
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	SIGNAL	44.5	**D**
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	CSS	53.0	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	CSS	101.7	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	CSS	44.4	**E**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	SIGNAL	40.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	SIGNAL	18.3	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	SIGNAL	12.4	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	SIGNAL	18.0	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	AWS	73.1	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	AWS	116.2	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	AWS	109.1	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	CSS	14.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	AWS	9.4	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means the cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario~~Table 4.15AA-2: Intersection LOS under Existing Plus Phase 1 Scenario~~ (CONTINUED)

ID	Study Intersection	LOS Standard	Existing Conditions Traffic Control	Existing Conditions PM Peak Hour Delay	Existing Conditions PM Peak Hour LOS	Existing Plus Phase 1 Traffic Control	Existing Plus Phase 1 PM Peak Hour Delay	Existing Plus Phase 1 PM Peak Hour LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	11.2	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	6.5	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	10.0	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	29.4	D	CSS	33.7	D
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	73.0	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	37.2	D
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.9	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	21.2	C	SIGNAL	22.6	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	17.8	B	SIGNAL	20.9	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.1	A	SIGNAL	12.6	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.0	A	SIGNAL	2.4	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	2.6	A	SIGNAL	19.7	B
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.0	A	SIGNAL	8.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	19.3	C	CSS	25.1	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	29.3	C	SIGNAL	35.2	D
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	33.7	**D**	AWS	20.4	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	17.1	B	SIGNAL	18.0	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	15.4	B	SIGNAL	15.9	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	10.6	B	AWS	20.2	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.7	B	SIGNAL	19.6	B
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	33.4	C	SIGNAL	41.4	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	20.8	C	SIGNAL	18.8	B
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	13.9	B	SIGNAL	22.4	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	36.3	D	SIGNAL	37.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	18.5	B	SIGNAL	19.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	19.4	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.9	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	41.8	D	SIGNAL	44.8	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	61.8	**E**	SIGNAL	66.6	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.1	C	SIGNAL	32.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	56.6	**E**	SIGNAL	54.2	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	17.2	B	SIGNAL	18.8	B
IN-41	Lasselle St/Iris Ave	D	SIGNAL	34.4	C	SIGNAL	36.3	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	15.5	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	15.0	B	SIGNAL	15.9	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	10.7	B	SIGNAL	11.5	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	20.7	C	SIGNAL	24.1	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	14.6	B	SIGNAL	15.5	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	20.1	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	20.0	C	SIGNAL	20.6	C

Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario~~Table 4.15AA-2: Intersection LOS under Existing Plus Phase 1 Scenario~~ (CONTINUED)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.5	C	SIGNAL	23.1	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	7.5	A	SIGNAL	7.9	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	20.4	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	19.9	B	SIGNAL	20.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	29.4	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	18.8	B	SIGNAL	19.7	B
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	26.3	C	SIGNAL	27.1	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	29.9	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	36.7	D	SIGNAL	38.6	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	27.7	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	36.3	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	9.3	A	SIGNAL	9.4	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	31.8	C	SIGNAL	33.0	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	23.1	C	SIGNAL	22.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	35.5	D	SIGNAL	35.9	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.0	C	SIGNAL	30.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.8	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	13.0	B	SIGNAL	14.0	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.4	B	SIGNAL	18.2	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.5	B	SIGNAL	15.5	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.1	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	14.4	B	SIGNAL	14.6	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	7.0	A	SIGNAL	7.7	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	26.5	C	SIGNAL	27.8	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	8.8	A	SIGNAL	10.6	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	53.6	D	SIGNAL	48.4	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	15.8	B	SIGNAL	24.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.4	A	SIGNAL	8.3	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.8	B	SIGNAL	16.0	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	27.8	C	SIGNAL	27.8	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	51.6	D	SIGNAL	48.8	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	10.9	B	SIGNAL	11.1	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	34.2	C	SIGNAL	32.6	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.4	A	SIGNAL	8.2	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	91.4	**F**	SIGNAL	94.8	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	15.8	B	SIGNAL	16.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	39.6	D	SIGNAL	51.5	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	5.9	A	SIGNAL	6.0	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	24.2	C	SIGNAL	23.9	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	6.4	A	SIGNAL	6.9	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	27.1	C	SIGNAL	27.5	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	5.9	A	SIGNAL	6.5	A

Table 4.15AA-1: Intersection LOS under Existing Plus Phase 1 Scenario~~Table 4.15AA-2: Intersection LOS under Existing Plus Phase 1 Scenario~~ (CONTINUED)

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Phase 1		
			Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	39.0	D	SIGNAL	40.9	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	78.5	**E**	SIGNAL	66.2	**E**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	11.1	B	SIGNAL	11.9	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	22.8	C	SIGNAL	28.3	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	34.4	C	SIGNAL	35.7	D
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	20.1	C	SIGNAL	20.9	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.9	C	SIGNAL	28.5	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	36.1	D	SIGNAL	36.4	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	16.7	B	SIGNAL	18.0	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	21.3	C	SIGNAL	24.9	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	22.8	C	SIGNAL	23.2	C
IN-107	Evans Rd/Rider St	C	SIGNAL	28.4	C	SIGNAL	28.9	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	11.9	B	SIGNAL	13.2	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	39.0	**E**	AWS	41.5	**E**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	23.8	C	SIGNAL	23.3	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	111.0	**F**	CSS	140.5	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	84.5	**F**	CSS	94.1	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	146.0	**F**	CSS	141.9	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	115.4	**F**	CSS	138.6	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	29.7	C	SIGNAL	29.0	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	31.4	C	SIGNAL	34.8	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	14.0	B	SIGNAL	15.1	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	17.5	B	SIGNAL	18.3	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.1	C	AWS	30.5	D
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	104.8	**F**	AWS	127.8	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	178.9	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	12.5	B	CSS	13.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.6	A	AWS	10.0	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Roadway Analysis. Existing baseline (year ~~2012~~2018) with Phase 1 roadway segment levels of service for the study area are summarized in Table 4.15.AB, which shows ~~two~~three roadway segments would operate at unsatisfactory levels of service. ~~Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at the two roadway segments and, therefore, have a significant cumulative impact at these locations.~~

Phase 1 of the project would worsen the existing LOS deficiency at the following ~~two~~three roadway segments under existing with Phase 1 conditions:

- Gilman Springs ~~Road between Alessandro Boulevard and Bridge Street; and~~
  - ~~Gilman Springs Road~~Rd. between SR-60 and Alessandro ~~Boulevard.~~Blvd. would exceed the threshold of significance under both Existing Conditions and under the Existing Plus Phase 1 Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.
  - Gilman Springs Rd. from Alessandro Blvd. to Bridge St. would exceed the threshold of significance under both Existing Conditions and under the Existing Plus Phase 1 Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.
  - Redlands Boulevard from Eucalyptus Avenue to the SR-60 eastbound ramps. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.

Table 4.15.AB: Existing Plus Phase 1 Road Segment Impacts and Mitigations

					Existing Conditions			Existing Plus Phase 1 Conditions					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Project Impact Significant?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A	2U	2,438	A			
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	6D	11,196	A			
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A	4D	1,822	A			
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	4D	21,762	A			
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			2U	3,415	A			
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	869	A			
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	10,705	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A	4U	6,181	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	10,044	A			
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	2,895	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	4,563	A			
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A	2U	5,456	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	F	2U	21,882	F	Yes	Widen to 4 lanes	D
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	F	2U	17,491	F	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	E	2U	12,135	E	Yes	Widen to 4 lanes	A
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C	2U	8,083	B			
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A	2U	300	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B	2U	6,847	A			
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A	4U	8,353	A			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

Freeway Segment Analysis. Existing (~~2012~~2018) with Phase 1 freeway segment levels of service for the study area are summarized in Tables 4.15.AC-1 and 4.15.AC-2, which show ~~seventeen~~twenty-four freeway segments already operate at unsatisfactory levels of service~~. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at sixteen locations and, therefore, have a cumulative impact at these locations and mitigation is required. Phase 1 of the project would create a significant impact and mitigation is required at the other location, since the project would decrease the LOS from satisfactory to unsatisfactory~~.

~~Phase 1 of the project would worsen the existing LOS deficiency at the following sixteen freeway segments under existing with Phase 1 conditions:~~

Northbound or Eastbound ~~Sections (Table 4.15.AC-1):~~

- ~~o~~SR-60 from Ramona ~~Avenue~~Ave. to Central ~~Avenue;~~Ave.
- ~~o~~SR-60 ~~Central Avenue to~~ from Mountain ~~Avenue;~~Ave. to Euclid Ave.
- ~~o~~SR-60 ~~Euclid Avenue~~from Martin Luther King Blvd. to ~~Grove Avenue;~~Central Ave.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Barton Rd. to Mt. Vernon Ave.
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- ~~o~~SR-60 from Grove ~~Avenue~~Ave. to Vineyard ~~Avenue;~~Ave.
- ~~o~~SR-60 from Vineyard ~~Avenue~~Ave. to Archibald ~~Avenue;~~Ave.
- ~~o~~ SR-60 ~~Market Street~~from Fair Isle Dr./Box Springs Rd. to ~~Main Street;~~
- ~~o SR-60 Martin Luther King Boulevard to Central Avenue;~~
- ~~o SR-91 I-15 to McKinley Street;~~
- ~~o~~I-215 ~~SR-74 to Redlands Avenue.~~

~~• Southbound or Westbound Sections (Table 4.15.AC-2):~~

- ~~o SR-60 Reservoir Street to Ramona Avenue;~~
- ~~o~~ SR-60 ~~Ramona Avenue to Central Avenue~~
- ~~o~~~~SR-60~~from I-215 to Day ~~Street;~~St.
- SR-~~91~~60 from Pigeon Pass Rd. to Heacock St.
- ~~o~~SR-91 from McKinley St. to Pierce ~~Street to Magnolia Avenue;~~St.
- SR-91 from Pierce St. to Magnolia ~~Avenue~~Ave.
- ~~o~~SR-91 from Magnolia Ave. to La Sierra ~~Avenue;~~Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- SR-91 from Madison St. to Arlington Ave.
- ~~o~~I-215 ~~SR-74~~from Center St. to ~~Redlands Avenue; and~~La Cadena Dr.
- ~~o~~I-215 ~~Baseline Road~~from La Cadena Dr. to ~~Highland Avenue~~Barton Rd.

~~A direct significant project impact would occur at the following one freeway segment under existing with Phase 1 conditions (Table 4.15.AC-1):~~

- ~~Northbound or Eastbound Sections:~~
  - ~~SR-91 Central Avenue to 14th Street.~~

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- I-215 from Barton Rd. to Mt. Vernon Ave.

Table 4.~~15.AB~~15AC-1: Existing ~~(2012) Plus Phase 1 Roadway Segment Levels of Service~~

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6170	27.6	D	6,400	27.3	D
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	E	9,400	47.3	F	8,280	40.6	E	9,310	46.7	F
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	E	7,370	32.9	D	8,180	35.9	E
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	E	7,690	35.3	E	8,130	35.5	E
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	E	7,600	34.6	D	8,240	36.4	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	F	6,980	30.2	D	9,140	44.8	E
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	F	6,830	29.0	D	9,290	46.5	F
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	6,890	29.4	D	6,660	26.2	D
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,840	26.3	D	7,250	22.2	C
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	4,380	17.5	B	5,090	19.2	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	3,740	14.9	B	4,220	15.9	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village	2,913	11.5	B	3,567	13.3	B	3,160	12.6	B	3,440	13.0	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,437	9.8	A	2,959	11.3	B	2,680	10.9	A	2,870	11.2	B
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	2,910	11.8	B	3,070	11.9	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	3,620	14.5	B	3,520	13.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,740	26.2	D	5,160	27.6	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,790	26.6	D	5,370	29.4	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	E	5,200	29.9	D	6,260	37.6	E
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	F	9,400	51.1	F	9,740	69.7	F	9,320	51.9	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	5,540	22.2	C	6,060	23.3	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	F	2,960	25.3	C	4,690	49.9	F
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	2,770	23.2	C	3,290	26.3	D
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,480	20.4	C	2,830	22.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	2,110	11.6	B	2,500	12.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,860	10.4	A	2,140	11.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,850	15.5	B	1,850	14.5	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,270	13.8	B	1,280	12.5	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,270	10.3	A	1,280	9.8	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	4,270	16.1	B	6,340	26.2	D

	Roadway	From	To	LOS Standard*	Existing Conditions			Existing Plus Phase 1 Conditions			Project Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
					Roadway Section**	Daily Volume	LOS	Roadway Section*	Daily Volume	LOS			
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	771	A	2U	2,709	A			
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	2,046	A	6D	26,532	A			
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	1,339	A	4D	2,102	A			
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	641	A	6D	27,883	A			
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	14,240	A			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	2,242	A			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	641	A	4D	10,443	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	2,537	A	4U	5,761	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	D	Future Road			4U	9,250	A			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	1,896	A	4U	4,006	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	1,896	A	4U	3,799	A			
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	2U	3,877	A	2U	3,367	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	14,407	**F**	2U	14,970	**F**	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	11,973	**E**	2U	11,973	**E**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	7,338	A	2U	9,634	C			
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	6,786	A	2U	4,146	A			
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	2,537	A	2U	565	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	6,786	A	2U	3,415	A			
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	9,250	C			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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~~Table 4.15.AC-1: Existing (2012)~~ Plus Phase 1 Freeway Mainline ~~Levels of Service (Northbound/Eastbound Directions)~~LOS

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	6,200	25.7	C	7,770	32.9	D
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	F	5,880	24.0	C	9,330	47.0	F
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	F	6,540	27.6	D	9,280	46.4	F
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,410	26.9	D	6,590	26.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	E	7,860	36.7	E	9,010	43.4	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	F	7,130	31.2	D	9,320	46.9	F
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	F	7,030	30.3	D	9,310	46.7	F
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	6,480	27.1	D	6,370	24.9	C
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	6,310	20.0	C	6,750	20.5	C
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	4,430	17.6	B	4,430	16.7	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	2,840	11.4	B	2,770	10.5	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,026	11.9	B	3,968	14.8	B	3,290	13.2	B	3,850	14.5	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	2,860	11.6	B	2,950	11.2	B
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,100	12.5	B	3,160	12.0	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	3,640	14.6	B	3,460	13.1	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,690	26.2	D	4,080	20.8	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	5,250	30.7	D	4,600	24.0	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	F	4,800	27.0	D	6,940	47.1	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	F	6,280	29.7	D	8,860	48.9	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	4,680	18.9	C	6,750	26.9	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,050	26.8	D	3,770	32.6	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	2,840	24.6	C	3,420	28.3	D
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	2,340	19.8	C	2,460	19.4	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	2,070	17.7	B	2,160	17.0	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	1,930	16.7	B	1,660	13.5	B
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	2,310	19.7	C	2,260	18.0	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,480	11.8	B	1,900	14.3	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	1,190	11.7	B	1,590	14.4	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	1,200	9.6	A	1,590	12.0	B
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	F	6,030	23.3	C	9,350	52.5	F
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	5,510	30.4	D	5,370	31.1	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	5,020	26.8	D	4,860	26.9	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,700	24.6	C	4,890	27.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,810	22.3	C	5,810	23.4	C

~~Table 4.15.AC-1: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound Directions)~~

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	5,930	22.8	C	4,970	19.6	C
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	6,620	26.7	D	4,720	18.7	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	5,960	23.4	C	4,510	17.9	B
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	6,070	35.6	E	5,400	31.2	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	7,280	22.3	C	6,410	20.2	C
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,700	21.8	C	3,280	25.7	C
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	1,860	14.8	B	2,050	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	2,400	19.1	C	3,290	25.8	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	3,730	33.9	D	3,160	24.5	C
F-71	I-215	SR-74 to Redlands Ave	3,350	28.5	D	4,181	37.4	E	3,290	27.9	D	4,210	37.9	E
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,550	33.1	D	5,230	27.9	D
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,440	32.1	D	5,100	27.0	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,300	30.8	D	5,230	27.9	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	E	5,533	30.3	D	5,680	34.5	D	5,620	31.1	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,510	22.1	C	5,510	20.8	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,240	16.7	B	4,580	17.1	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	2,970	24.2	C	3,400	27.0	D
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	3,040	11.9	B	4,320	16.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	3,080	12.1	B	4,370	17.0	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	3,220	12.6	B	4,580	17.8	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	3,080	12.1	B	4,390	17.0	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	3,000	11.8	B	4,290	16.7	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	2,950	11.6	B	4,220	16.4	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	2,940	11.5	B	4,210	16.3	B
F-59	I-10	Hargrave St to Fields Rd	2,689	10.5	A	3,764	14.5	B	2,640	10.4	A	3,800	14.8	B
F-60	I-10	Fields Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	2,510	9.9	A	3,620	14.1	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	2,220	8.7	A	3,210	12.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	2,220	8.7	A	3,210	12.5	B
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	1,920	7.5	A	2,780	10.8	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	1,940	7.6	A	2,780	10.8	A

▨ Indicates that the LOS exceeds the target level

~~Table 4.15.AC-2: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound Directions)~~

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,762	41.4	E	6,381	25.6	C	8,670	40.9	E	6,490	26.4	D
F-3	SR-60	Ramona Ave to Central Ave	8,283	37.1	E	5,925	23.4	C	8,170	36.5	E	6,040	24.1	C
F-4	SR-60	Central Ave to Mountain Ave	6,336	24.7	C	6,076	24.1	C	6,220	24.3	C	6,200	24.9	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,259	24.4	C	6,495	26.3	D	6,150	24.0	C	6,620	27.1	D
F-6	SR-60	Euclid Ave to Grove Ave	6,461	25.4	C	6,302	25.2	C	6,350	25.0	C	6,430	26.1	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,274	24.3	C	6,699	27.4	D	6,150	23.8	C	6,830	28.3	D
F-8	SR-60	Vineyard Ave to Archibald Ave	7,658	32.1	D	6,245	25.0	C	7,510	31.4	D	6,380	26.0	C
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,804	17.4	B	5,698	17.5	B	5,640	17.0	B	5,850	18.2	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.5	C	5,111	19.5	C	5,240	19.7	C	5,270	20.4	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.4	B	4,275	13.0	B	4,300	12.9	B	4,460	13.8	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	4,220	15.7	B	3,881	14.8	B	4,010	15.1	B	4,110	15.9	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,172	15.5	B	3,963	15.1	B	3,970	14.9	B	4,190	16.2	B
F-15	SR-60	Pedley Rd to Pyrite St	3,216	12.0	B	3,068	11.7	B	3,010	11.4	B	3,280	12.7	B
F-16	SR-60	Pyrite St to Valley Way	2,653	9.9	A	2,567	9.8	A	2,460	9.3	A	2,790	10.9	A
F-17	SR-60	Valley Way to Rubidoux Blvd	4,532	23.1	C	4,725	24.9	C	4,320	22.0	C	4,950	27.0	D
F-18	SR-60	Rubidoux Blvd to Market St	3,568	17.7	B	3,868	19.7	C	3,390	17.1	B	4,120	21.5	C
F-19	SR-60	Market St to Main St	5,631	30.9	D	5,109	27.6	D	5,440	29.8	D	5,350	30.2	D
F-20	SR-60	Main to SR-91	5,248	27.9	D	4,720	24.9	C	5,100	27.2	D	4,920	26.8	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	30.6	D	5,800	24.1	C	6,910	30.9	D	6,150	28.0	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,461	31.1	D	6,376	25.6	C	7,280	30.4	D	6,740	28.4	D
F-27	SR-60	I-215 to Day St	7,050	47.9	F	3,093	15.9	B	7,020	49.1	F	3,340	18.0	B
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,013	23.1	C	3,254	26.5	D	2,990	23.7	C	3,550	31.8	D
F-30	SR-60	Heacock St to Perris Blvd	2,638	19.9	C	2,671	20.8	C	2,680	21.0	C	3,040	25.8	C
F-31	SR-60	Perris Blvd to Nason St	1,910	14.3	B	2,045	15.8	B	2,030	15.9	B	2,490	20.5	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	988	7.4	A	1,336	10.3	A	1,270	10.4	A	1,900	16.0	B
F-34	SR-60	Redlands Blvd to Theodore St	1,193	8.9	A	1,498	11.6	B	1,560	12.5	B	2,110	17.3	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,183	8.9	A	1,393	10.8	A	1,170	9.0	A	1,350	10.6	A
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	837	7.0	A	1,002	9.1	A	970	9.4	A	990	10.0	A
F-37	SR-60	Jack Rabbit Trail to I-10	837	6.3	A	1,002	7.7	A	970	7.4	A	990	7.8	A
F-39	SR-91	I-15 to McKinley St	6,402	25.1	C	5,971	24.1	C	6,310	24.8	C	6,080	24.8	C
F-40	SR-91	McKinley St to Pierce St	4,788	25.0	C	5,183	29.3	D	4,690	24.5	C	5,290	30.4	D
F-41	SR-91	Pierce St to Magnolia Ave	4,629	23.9	C	7,050	53.3	F	4,540	23.5	C	7,150	56.2	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	4,894	25.7	C	7,050	53.3	F	4,800	25.2	C	7,140	55.9	F
F-43	SR-91	La Sierra Ave to Tyler St	4,467	22.9	C	5,167	29.2	D	4,370	22.5	C	5,260	30.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,769	22.1	C	6,661	27.8	D	5,690	21.9	C	6,740	28.5	D

~~Table 4.15.AC~~

Error! Reference source not found.~~Table 4.15AC-1: Existing Plus Phase 1 Freeway Mainline LOS~~ (continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,710	33.6	D	5,370	21.6	C
F-49	SR-91	Central Ave to 14th St	7,050	52.1	F	5,797	35.9	E	7,000	51.8	F	5,800	36.3	E
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	4,570	17.2	B	4,240	16.5	B
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	5,880	17.9	B	5,500	17.4	B
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,730	14.4	B	3,270	16.3	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	1,840	9.7	A	2,040	10.2	A
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,350	12.4	B	3,280	16.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	3,670	19.4	C	3,140	15.7	B
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	3,200	17.1	B	4,180	21.3	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	4,290	23.1	C	3,190	16.0	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,360	13.3	B	4,780	18.0	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,520	24.8	C	5,230	28.1	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,913	27.7	D	5,947	34.3	D	4,920	27.8	D	5,940	34.3	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	5,070	28.8	D	4,430	23.0	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	4,770	19.0	C	4,210	15.8	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	4,450	24.4	C	5,350	29.1	D
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	4,820	27.0	D	6,010	35.0	D
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	6,660	28.8	D	7,100	28.9	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	5,120	29.4	D	5,310	28.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	5,160	29.6	D	4,980	26.1	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	E	5,640	32.0	D	5,690	35.5	E	5,700	32.5	D
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	6,070	25.7	C	5,880	22.8	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	F	5,190	20.7	C	9,440	48.3	F
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	3,140	12.5	B	4,730	17.7	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	3,490	13.7	B	4,740	18.3	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	3,530	14.1	B	4,890	19.2	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	3,700	14.7	B	5,120	20.2	C
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	3,540	14.1	B	4,960	19.5	C
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	3,450	11.0	A	4,850	15.2	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	3,390	13.5	B	4,770	18.7	C
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	3,380	13.5	B	4,770	18.7	C
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	3,040	12.2	B	4,300	16.9	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	2,890	11.6	B	4,110	16.2	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	2,560	10.1	A	3,630	14.1	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	2,560	10.0	A	3,640	14.1	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	2,230	8.8	A	3,160	12.2	B
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	2,230	8.8	A	3,160	12.2	B

▨ Indicates that the LOS exceeds the target level

Error! Reference source not found.~~Table 4.15AC-1: Existing Plus Phase 1 Freeway~~

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	**Freeway**	**Segment**	**Freeway Volume**	**Density (pc/mi/ln)**	**LOS**	**Freeway Volume**	**Density (pc/mi/ln)**	**LOS**	**Freeway Volume**	**Density (pc/mi/ln)**	**LOS**	**Freeway Volume**	**Density (pc/mi/ln)**	**LOS**
F-2	SR-60	Reservoir St to Ramona Ave	6,638	26.3	D	6,223	24.8	C	6,560	26.0	D	6,330	25.5	C
F-3	SR-60	Ramona Ave to Central Ave	6,167	24.4	C	6,459	26.1	D	6,090	24.3	C	6,560	26.8	D
F-4	SR-60	Central Ave to Mountain Ave	6,751	28.4	D	6,489	26.9	D	6,650	28.0	D	6,600	27.7	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,859	28.8	D	6,883	29.0	D	6,770	28.5	D	6,990	29.9	D
F-6	SR-60	Euclid Ave to Grove Ave	7,108	29.3	D	7,527	32.6	D	7,020	29.0	D	7,630	33.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,656	26.2	D	9,400	51.0	**F**	6,570	25.9	C	9,510	53.3	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,821	34.9	D	9,400	53.0	**F**	7,710	34.4	D	9,510	54.7	**F**
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,339	22.4	C	5,698	17.5	B	7,220	22.1	C	5,820	18.0	B
F-11	SR-60	Milliken Ave to I-15	5,456	20.8	C	5,111	19.6	C	5,330	20.4	C	5,240	20.3	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,888	14.7	B	4,648	14.3	B	4,680	14.2	B	4,780	14.8	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village	5,070	19.2	C	5,970	23.7	C	5,000	19.1	C	6,120	24.6	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,277	16.3	B	4,958	19.3	C	4,150	15.9	B	5,090	20.0	C
F-15	SR-60	Pedley Rd to Pyrite St	4,296	16.3	B	4,981	19.4	C	4,160	16.0	B	5,120	20.1	C
F-16	SR-60	Pyrite St to Valley Way	4,326	16.4	B	5,020	19.6	C	4,170	16.0	B	5,100	20.0	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	23.2	C	5,262	29.2	D	4,520	23.5	C	5,400	30.8	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	24.1	C	5,477	30.6	D	4,520	23.2	C	5,610	32.3	D
F-19	SR-60	Market St to Main St	6,485	40.3	**E**	5,115	27.9	D	6,310	38.6	**E**	5,220	29.1	D
F-20	SR-60	Main to SR-91	7,050	47.9	**F**	4,062	21.0	C	6,830	45.5	**F**	4,330	22.9	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	33.3	D	6,885	30.5	D	6,940	34.0	D	6,970	32.4	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,385	30.6	D	8,085	36.9	**E**	7,270	30.3	D	8,230	38.8	**E**
F-27	SR-60	I-215 to Day St	4,328	41.6	**E**	3,251	26.8	D	4,320	43.2	**E**	3,230	27.5	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	4,700	49.0	**F**	2,786	21.9	C	4,740	52.6	**F**	2,800	22.7	C
F-30	SR-60	Heacock St to Perris Blvd	3,192	25.1	C	3,003	24.0	C	3,240	26.6	D	3,070	25.5	C
F-31	SR-60	Perris Blvd to Nason St	2,592	19.5	C	2,695	21.0	C	2,700	21.3	C	2,810	23.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,817	14.0	B	1,882	14.7	B	2,000	16.2	B	1,960	16.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,481	11.6	B	1,504	11.8	B	1,770	14.6	B	1,670	13.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,460	11.4	B	1,486	11.7	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,121	13.4	B	1,165	12.7	B	1,140	13.9	B	1,120	12.8	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,121	9.0	A	1,165	9.3	A	1,140	9.2	A	1,120	9.0	A
F-39	SR-91	I-15 to McKinley St	6,576	26.3	D	7,158	31.4	D	6,480	26.0	C	7,220	32.0	D
F-40	SR-91	McKinley St to Pierce St	7,050	49.6	**F**	7,050	55.5	**F**	6,960	48.6	**F**	7,100	56.6	**F**
F-41	SR-91	Pierce St to Magnolia Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,960	47.5	**F**	7,100	55.1	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,990	48.0	**F**	7,090	54.8	**F**
F-43	SR-91	La Sierra Ave to Tyler St	5,943	34.3	D	7,050	53.3	**F**	5,870	33.9	D	7,100	55.1	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	6,106	23.6	C	7,990	37.2	**E**	6,040	23.5	C	8,020	37.8	**E**
F-45	SR-91	Van Buren Blvd to Adam St	6,381	25.0	C	7,990	37.2	**E**	6,310	24.8	C	8,010	37.7	**E**
F-46	SR-91	Adam St to Madison St	5,931	22.8	C	7,582	33.9	D	5,870	22.7	C	7,590	34.2	D

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			Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,050	48.4	F	7,050	52.6	F	7,000	48.2	F	7,030	52.9	F
F-49	SR-91	Central Ave to 14th St	5,166	19.5	C	7,050	30.0	D	5,150	19.6	C	7,020	30.0	D
F-50	SR-91	14th St to University Ave	5,805	22.2	C	7,050	30.0	D	5,830	22.5	C	6,990	29.8	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	11.5	B	2,318	11.5	B	2,290	11.4	B	2,270	11.2	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	12.6	B	3,111	15.4	B	2,530	12.6	B	3,020	14.9	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,528	12.6	B	3,111	15.4	B	2,530	12.6	B	3,020	14.9	B
F-70	I-215	Ethanac Rd to SR-74	2,882	14.4	B	3,854	19.1	C	2,900	14.5	B	3,760	18.6	C
F-71	I-215	SR-74 to Redlands Ave	4,515	23.2	C	4,700	24.1	C	4,540	23.4	C	4,610	23.5	C
F-86	I-215	Redlands Blvd to D St	2,538	12.7	B	2,634	13.1	B	2,570	13.0	B	2,550	12.7	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,380	12.7	B	3,249	12.1	B	3,410	12.8	B	3,160	11.8	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	23.2	C	5,262	28.0	D	4,550	23.4	C	5,240	27.8	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	2,658	13.3	B	5,310	28.1	D	2,680	13.4	B	5,260	27.8	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,802	19.7	C	7,050	46.7	F	3,850	20.0	C	7,000	45.9	F
F-92	I-215	Van Buren Blvd to Cactus Ave	3,572	13.4	B	6,195	23.6	C	3,600	13.5	B	6,170	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,031	26.7	D	6,129	35.5	E	5,110	27.2	D	6,070	34.9	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,050	29.6	D	7,050	28.4	D	7,070	29.7	D	6,990	28.0	D
F-75	I-215	Center St to La Cadena Dr	7,050	50.2	F	7,050	47.3	F	7,070	50.6	F	7,010	47.2	F
F-76	I-215	La Cadena Dr to Barton Rd	7,050	49.6	F	7,050	46.7	F	7,100	50.5	F	7,030	46.4	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,974	34.6	D	7,050	46.7	F	6,010	35.3	E	7,040	46.6	F
F-78	I-215	Mt. Vernon Ave to I-10	5,726	22.1	C	5,432	20.5	C	5,780	22.4	C	5,420	20.4	C
F-80	I-215	Auto Plaza Dr to Mill St	6,123	23.7	C	5,837	22.0	C	6,110	23.6	C	5,830	22.0	C
F-83	I-215	Baseline Rd to Highland Ave	4,700	17.6	B	3,704	13.7	B	4,670	17.5	B	3,700	13.7	B
F-52	I-10	SR-60 to Beaumont Ave	4,888	20.9	C	4,190	15.8	B	4,910	21.0	C	4,160	15.7	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,968	21.5	C	4,259	16.3	B	4,970	21.5	C	4,200	16.0	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,209	22.7	C	4,465	17.0	B	5,190	22.6	C	4,440	17.0	B
F-55	I-10	Highland Springs Ave to Sunset Ave	5,009	21.7	C	4,293	16.4	B	5,010	21.7	C	4,270	16.3	B
F-56	I-10	Sunset Ave to 22nd St	4,888	16.7	B	4,190	12.8	B	4,900	16.7	B	4,160	12.7	B
F-57	I-10	22nd St to 8th St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,090	15.6	B
F-58	I-10	8th St to Hargrave St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,080	15.6	B
F-59	I-10	Hargrave St to Fields Rd	4,327	18.6	C	3,709	14.2	B	4,350	18.7	C	3,660	14.0	B
F-60	I-10	Fields Rd to Morongo Trail	4,127	17.7	B	3,537	13.6	B	4,150	17.8	B	3,490	13.5	B
F-61	I-10	Morongo Trail to Main St	3,646	15.4	B	3,125	11.8	B	3,670	15.5	B	3,080	11.6	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,646	15.4	B	3,125	11.7	B	3,680	15.5	B	3,080	11.5	B
F-64	I-10	SR-111 to Tipton Rd	3,165	13.4	B	2,713	10.2	A	3,190	13.5	B	2,680	10.0	A
F-65	I-10	Tipton Rd to SR-62	3,165	13.4	B	2,713	10.3	A	3,190	13.5	B	2,680	10.1	A

▨ Indicates that the LOS exceeds the target level

Table 4.15AC-2: Existing ~~(2012)~~ Plus Phase 1 Freeway Mainline ~~Levels of Service (Southbound/Westbound Directions)~~Impacts and Mitigations

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,342	20.2	C	6,401	26.3	D	5,280	20.1	C	6,490	27.0	D
F-46	SR-91	Adam St to Madison St	4,939	18.6	C	5,453	21.5	C	4,890	18.5	C	5,530	22.0	C
F-47	SR-91	Madison St to Arlington Ave	4,218	21.4	C	4,711	25.5	C	4,170	21.3	C	4,780	26.3	D
F-49	SR-91	Central Ave to 14th St	4,737	24.7	C	4,940	27.2	D	4,720	24.7	C	4,990	27.7	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	17.2	B	2,318	17.2	B	2,280	17.1	B	2,280	17.0	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	19.0	C	3,111	23.7	C	2,530	19.0	C	3,070	23.4	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,069	23.6	C	2,539	18.9	C	3,070	23.6	C	2,510	18.7	C
F-70	I-215	Ethanac Rd to SR-74	2,882	21.9	C	3,854	32.0	D	2,890	22.0	C	3,850	31.9	D
F-71	I-215	SR-74 to Redlands Ave	4,539	44.2	E	3,710	30.1	D	4,570	44.9	E	3,680	29.7	D
F-74	I-215	Columbia Ave to Center St	5,191	27.6	D	4,917	25.4	C	5,260	28.4	D	4,890	25.2	C
F-75	I-215	Center St to La Cadena Dr	5,541	30.4	D	5,235	27.6	D	5,630	31.4	D	5,210	27.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,414	29.4	D	5,196	27.3	D	5,480	29.9	D	5,170	27.1	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,435	29.5	D	5,256	27.7	D	5,500	30.1	D	5,230	27.5	D
F-78	I-215	Mt. Vernon Ave to I-10	5,776	22.0	C	5,606	21.0	C	5,850	22.3	C	5,580	20.9	C
F-80	I-215	Auto Plaza Dr to Mill St	4,022	15.1	B	4,090	15.2	B	4,080	15.4	B	4,040	15.0	B
F-83	I-215	Baseline Rd to Highland Ave	4,537	44.1	E	4,700	46.7	F	4,590	45.3	F	4,650	45.6	F
F-52	I-10	SR-60 to Beaumont Ave	4,288	18.1	C	3,675	13.8	B	4,320	18.3	C	3,710	14.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,358	18.4	C	3,736	14.0	B	4,400	18.7	C	3,740	14.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,569	19.4	C	3,916	14.7	B	4,610	19.7	C	3,910	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	4,393	18.6	C	3,766	14.1	B	4,430	18.8	C	3,750	14.1	B
F-56	I-10	Sunset Ave to 22nd St	4,288	18.1	C	3,675	13.8	B	4,330	18.4	C	3,660	13.8	B
F-57	I-10	22nd St to 8th St	4,218	17.8	B	3,615	13.5	B	4,260	18.1	C	3,600	13.5	B
F-58	I-10	8th St to Hargrave St	4,218	17.8	B	3,615	13.5	B	4,250	18.1	C	3,590	13.5	B
F-59	I-10	Hargrave St to Fields Rd	3,796	16.0	B	3,254	12.2	B	3,830	16.3	B	3,220	12.1	B
F-60	I-10	Fields Rd to Morongo Trail	3,620	15.3	B	3,103	11.6	B	3,660	15.5	B	3,070	11.6	B
F-61	I-10	Morongo Trail to Main St	3,198	13.5	B	2,741	10.3	A	3,240	13.8	B	2,710	10.2	A
F-62	I-10	Main St to Haugen-Lehmann Way	3,198	13.5	B	2,741	10.3	A	3,240	13.8	B	2,710	10.2	A
F-64	I-10	SR-111 to Tipton Rd	2,777	11.7	B	2,380	8.9	A	2,810	11.9	B	2,360	8.9	A
F-65	I-10	Tipton Rd to SR-62	2,777	11.7	B	2,380	8.9	A	2,810	11.9	B	2,360	8.9	A

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

ID	Freeway	Segment	Northbound / Eastbound											
			Determination of Impact					Existing Plus Phase 1 & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-3	SR-60	Ramona Ave to Central Ave	E	E	F	F	Yes	8,280	28.0	D	9,310	30.7	D	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	D	E	E	E	Yes	7,690	25.3	C	8,130	25.4	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	F	F	F	F	Yes	9,740	39.0	E	9,320	32.9	D	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	C	C	F	F	Yes	2,960	16.2	B	4,690	24.8	C	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	E	E	F	F	Yes	6,450	25.8	C	7,030	30.5	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison	[illegible]	[illegible]	[illegible]	[illegible]	Yes	7,500	32.1	D	8,190	39.7	[illegible]	Add 1 mixed flow lane

Freeway Weaving Analysis. Existing (~~2012~~2018) with Phase 1 freeway weaving segment levels of service for the study area are summarized in Table 4.15.AD, which ~~shows that sixfreeway weaving segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at these six freeway weaving segments and, therefore, would have a cumulative impact at these locations~~identifies five weaving sections where the Project would have a significant impact.

~~Phase 1 of the project would worsen the existing LOS deficiency at the following six freeway weaving segments under existing with Phase 1 conditions:~~

- ~~Northbound or Eastbound:~~
  - ~~SR-60 SR-71/S. Garey Avenue to S. Reservoir Road;SR-60 SR-91 to W. Blaine St/3rd Street;~~
  - ~~SR-60 Blaine Street/3rd Street to University Avenue; and~~
  - ~~SR-91 Arlington Avenue to Central Avenue.~~
- ~~Southbound or Westbound:~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and~~
  - ~~SR-91 14th Street to University Avenue.~~

~~Table 4.15.AD: Existing (2012) Plus Phase 1 Freeway Weaving Segments Levels of Service~~

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	E	6,160	25.1	C	8,550	35.5	E
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	5,690	27.7	C	6,970	33.6	D
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	E	4,280	16.9	B	9,330	39.0	E
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	E	4,260	22.5	C	6,980	38.4	E
W-23	SR-60	University Ave to Martin Luther King	4,528	20.4	C	5,932	25.7	C	4,890	22.9	C	5,830	25.7	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	3,856	14.5	B	7,840	32.4	D	4,330	18.0	B	7,830	33.8	D
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	3,480	14.9	B	4,770	19.8	B
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	3,400	15.1	B	4,740	21.1	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	5,560	25.3	C	5,630	27.2	C
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	E	4,073	19.6	B	7,150	36.2	E	4,080	19.8	B
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	4,670	22.1	C	4,450	22.1	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	6,240	34.3	D	5,610	28.5	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,320	16.1	B	4,200	15.0	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,970	22.6	C	5,140	22.7	C
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,700	16.2	B	3,640	15.2	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	2,220	7.4	A	3,210	10.7	B

▨ Indicates that the LOS exceeds the target level

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,125	21.4	C	5,892	20.8	C	6,020	21.1	C	6,000	21.4	C
W-9	SR-60	Haven Ave to Archibald Ave	6,288	23.5	C	6,071	23.5	C	6,130	23.0	C	6,210	24.4	C
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,729	28.6	D	7,211	27.2	C	7,520	28.1	D	7,530	29.2	D
W-22	SR-60	Blaine St/3rd St to University Ave	5,714	20.1	C	6,204	23.0	C	5,520	20.2	C	6,550	25.9	C
W-23	SR-60	University Ave to Martin Luther King	5,601	28.0	C	5,876	28.0	C	5,430	27.4	C	6,200	31.0	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	37.0	E	6,026	29.3	D	6,940	37.7	E	6,300	32.6	D
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,700	31.0	D	4,197	27.2	C	4,630	30.2	D	4,520	30.6	D
W-32	SR-60	Moreno Beach Dr to Nason St	1,609	9.2	A	1,753	10.2	B	1,780	10.7	B	2,170	13.5	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,642	21.1	C	5,118	23.8	C	4,570	20.8	C	5,190	24.4	C
W-50	SR-91	14th St to University Ave	5,179	24.1	C	7,050	35.5	E	5,210	24.4	C	7,070	35.9	E
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,075	14.4	B	8,804	26.9	C	5,100	14.6	B	8,820	27.1	C
W-73	I-215	SR-60 to Columbia Ave	5,877	26.4	C	5,495	24.5	C	5,950	26.9	C	5,460	24.4	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,890	16.8	B	4,591	16.3	B	4,940	17.0	B	4,530	16.2	B
W-81	I-215	Mill St to 2nd St	4,442	19.6	B	4,380	19.4	B	4,500	19.9	B	4,330	19.1	B
W-82	I-215	5th St to Baseline Rd	3,607	15.6	B	3,481	15.1	B	3,660	15.9	B	3,440	14.9	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,198	11.8	B	2,741	10.3	B	3,240	12.0	B	2,710	10.1	B

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~**Freeway Ramp Analysis.** Existing (2012) with Phase 1 freeway ramp levels of service for the study area are summarized in Table 4.15.AE, which shows the SR-60 eastbound on-ramp from Central Avenue currently operates at LOS F in the p.m. peak hour and would also operate at LOS F under Existing Plus Phase 1 conditions, but with a higher traffic density. This would be considered a significant cumulative impact.~~

~~4.15.6.2 Year 2017 With Project Conditions Traffic and Level of Service~~ Phase 1 of the~~Impacts~~

~~Note: This scenario was evaluated in the original Draft EIR but project phasing has changed since that time, so it is not included in this version of the Draft EIR. The reader is referred to the original Draft EIR to review this previous analysis.~~

~~The following analysis was added in response to comments based on revisions to the project Traffic Impact Assessment (TIA) and the phasing of the proposed WLC Specific Plan. It has been prepared to address issues raised by other CEQA court cases that required an EIR to show the traffic impacts of developing the entire proposed project at the time of baseline or existing conditions. The following provides that analysis.~~

~~Table 4.15.AE: Existing (2012) Plus Phase 1 Freeway Ramp Levels of Service~~

				Existing Conditions								Existing Plus Phase 1 Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C	4,460	290	19.1	B	5,560	1,290	29.6	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	F	6,190	440	21.1	C	8,740	930	32.0	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	119	3.3	A	1,397	30	3.2	A	1,930	350	10.8	B	1,660	440	6.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,207	26	12.9	B	1,367	25	13.6	B	1,580	80	17.9	B	1,220	90	13.9	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	207	17.3	B	1,920	434	19.1	B	2,310	940	16.1	B	2,260	580	14.8	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,407	70	16.5	B	1,486	71	16.5	B	1,370	10	16.7	B	1,680	20	18.6	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				1,360	90	17.3	B	1,660	200	20.1	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B	1,480	380	16.1	B	1,900	410	19.2	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B	1,100	20	13.6	B	1,490	37	16.4	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B	970	59	11.0	B	990	21	11.4	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B	911	384	14.7	B	969	397	15.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B	1,170	190	7.4	A	1,350	70	8.7	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B	980	560	15.9	B	1,280	800	20.7	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B	1,560	90	17.1	B	2,110	50	22.8	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B	1,470	340	18.0	B	2,060	550	25.3	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D	6,940	390	32.6	D	6,300	440	30.4	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B	6,910	490	20.9	C	6,150	350	17.9	B

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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~~4.15.6.2 Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service~~

~~Threshold:~~ ~~Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.~~

~~A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:~~

- ~~Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.~~
- ~~Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.~~
- ~~Freeway mainline: LOS D.~~
- ~~Freeway Ramp Merge/Diverge: LOS D.~~

~~Impacts~~

~~Intersection Analysis.~~ ~~Existing baseline (2012) with project buildout intersection levels of service for the study area intersections are summarized in Table 4.15.AF-1 and 4.15.AF-2, which shows there are 17 study intersections where the project would contribute to a significant impact and mitigation is required. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts. The project would cause a direct project impact at another five intersections.~~

~~The project would worsen the existing LOS deficiency at the following 12 intersections under existing with project conditions:~~

- ~~Redlands Boulevard/Locust Avenue;~~
- ~~Redlands Boulevard/SR-60 Westbound Ramps;~~
- ~~Oliver Street/Alessandro Boulevard;~~
- ~~Moreno Beach Drive/SR-60 Eastbound Ramps;~~
- ~~Lasselle Street/Cactus Avenue;~~
- ~~Alessandro Boulevard/Chicago Avenue;~~
- ~~Gilman Springs Road/Bridge Street;~~
- ~~SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;~~
- ~~SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;~~
- ~~San Timoteo Canyon Road/Alessandro Road;~~
- ~~San Timoteo Canyon Road/Live Oak Canyon Road; and~~
- ~~Redlands Boulevard/San Timoteo Canyon Road.~~

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~~Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~26.3~~	~~C~~
~~2~~	~~Cactus Ave Extension/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~10.3~~	~~B~~
~~3~~	~~Theodore St/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~9.7~~	~~A~~	~~RABT~~	~~11.3~~	~~B~~
~~4~~	~~Alessandro Blvd (Street C)/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~7.2~~	~~A~~
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~CSS~~	~~10.3~~	~~B~~	~~SIGNAL~~	~~17.9~~	~~B~~
~~9~~	~~Gilman Springs Rd/ Eucalyptus Ave~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~6.4~~	~~A~~
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~26.7~~	~~D~~	~~CSS~~	~~92.2~~	~~F~~
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~40.9~~	~~D~~	~~SIGNAL~~	~~36.0~~	~~D~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~9.7~~	~~A~~	~~CSS~~	~~16.4~~	~~C~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~42.2~~	~~E~~	~~CSS~~	~~48.0~~	~~E~~
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~9.6~~	~~A~~	~~SIGNAL~~	~~18.0~~	~~B~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~9.0~~	~~A~~	~~SIGNAL~~	~~15.2~~	~~B~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~9.2~~	~~A~~	~~SIGNAL~~	~~2.3~~	~~A~~
~~17~~	~~Quincy Str/Fir Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~18.3~~	~~B~~
~~19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~9.2~~	~~A~~	~~SIGNAL~~	~~14.7~~	~~B~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~25.9~~	~~D~~	~~CSS~~	~~69.7~~	~~F~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.0~~	~~C~~	~~SIGNAL~~	~~30.0~~	~~C~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~20.5~~	~~C~~	~~AWS~~	~~21.7~~	~~C~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~23.8~~	~~C~~	~~SIGNAL~~	~~28.2~~	~~C~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~16.0~~	~~B~~	~~SIGNAL~~	~~18.2~~	~~B~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~11.4~~	~~B~~	~~AWS~~	~~106.3~~	~~F~~
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~16.2~~	~~B~~	~~SIGNAL~~	~~22.1~~	~~C~~
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~29.6~~	~~C~~	~~SIGNAL~~	~~29.9~~	~~C~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~SIGNAL~~	~~23.8~~	~~C~~
~~31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~12.5~~	~~B~~	~~SIGNAL~~	~~13.9~~	~~B~~
~~32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.4~~	~~C~~	~~SIGNAL~~	~~30.7~~	~~C~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~22.0~~	~~C~~	~~SIGNAL~~	~~25.1~~	~~C~~

~~Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2012 No Project~~			~~2012 With Project~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~22.8~~	~~C~~	~~SIGNAL~~	~~23.7~~	~~C~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~8.6~~	~~A~~	~~CSS~~	~~8.9~~	~~A~~
~~36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~SIGNAL~~	~~50.3~~	~~D~~	~~SIGNAL~~	~~55.8~~	~~E~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~38.0~~	~~D~~	~~SIGNAL~~	~~46.0~~	~~D~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~37.0~~	~~D~~	~~SIGNAL~~	~~37.8~~	~~D~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~41.5~~	~~D~~	~~SIGNAL~~	~~45.3~~	~~D~~
~~40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~SIGNAL~~	~~25.1~~	~~C~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~25.4~~	~~C~~	~~SIGNAL~~	~~30.9~~	~~C~~
~~42~~	~~Nason Str/Iris Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~22.1~~	~~C~~	~~SIGNAL~~	~~25.7~~	~~C~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~SIGNAL~~	~~8.7~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~34.6~~	~~C~~	~~SIGNAL~~	~~36.0~~	~~D~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~21.7~~	~~C~~	~~SIGNAL~~	~~48.5~~	~~D~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~37.9~~	~~D~~	~~SIGNAL~~	~~42.8~~	~~D~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~SIGNAL~~	~~29.7~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~31.7~~	~~C~~	~~SIGNAL~~	~~32.4~~	~~C~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~8.8~~	~~A~~	~~SIGNAL~~	~~8.7~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~20.5~~	~~C~~	~~SIGNAL~~	~~21.4~~	~~C~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~33.3~~	~~C~~	~~SIGNAL~~	~~34.2~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~47.2~~	~~D~~	~~SIGNAL~~	~~49.2~~	~~D~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~22.5~~	~~C~~	~~SIGNAL~~	~~22.4~~	~~C~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.5~~	~~B~~	~~SIGNAL~~	~~19.5~~	~~B~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.8~~	~~B~~	~~SIGNAL~~	~~20.2~~	~~C~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.8~~	~~C~~	~~SIGNAL~~	~~26.5~~	~~C~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~SIGNAL~~	~~19.2~~	~~B~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~32.4~~	~~C~~	~~SIGNAL~~	~~33.9~~	~~C~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~9.8~~	~~A~~	~~SIGNAL~~	~~10.3~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~12.9~~	~~B~~	~~SIGNAL~~	~~13.6~~	~~B~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.1~~	~~C~~	~~SIGNAL~~	~~30.8~~	~~C~~

~~Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~24.4~~	~~C~~	~~SIGNAL~~	~~25.4~~	~~C~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~26.9~~	~~C~~	~~SIGNAL~~	~~26.6~~	~~C~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~25.8~~	~~C~~	~~SIGNAL~~	~~25.9~~	~~C~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~6.4~~	~~A~~	~~SIGNAL~~	~~6.7~~	~~A~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.4~~	~~B~~	~~SIGNAL~~	~~19.7~~	~~B~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~18.2~~	~~B~~	~~SIGNAL~~	~~18.2~~	~~B~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~4.6~~	~~A~~	~~SIGNAL~~	~~6.1~~	~~A~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~19.2~~	~~B~~	~~SIGNAL~~	~~19.5~~	~~B~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~12.1~~	~~B~~	~~SIGNAL~~	~~18.8~~	~~B~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~11.1~~	~~B~~	~~SIGNAL~~	~~10.2~~	~~B~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~26.7~~	~~C~~	~~SIGNAL~~	~~30.5~~	~~C~~
~~75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~10.9~~	~~B~~	~~SIGNAL~~	~~11.6~~	~~B~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~22.2~~	~~C~~	~~SIGNAL~~	~~24.3~~	~~C~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~7.3~~	~~A~~	~~SIGNAL~~	~~8.3~~	~~A~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~6.8~~	~~A~~	~~SIGNAL~~	~~7.3~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~28.4~~	~~C~~	~~SIGNAL~~	~~29.1~~	~~C~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~18.8~~	~~B~~	~~SIGNAL~~	~~20.8~~	~~C~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~43.2~~	~~D~~	~~SIGNAL~~	~~43.6~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~9.0~~	~~A~~	~~SIGNAL~~	~~9.2~~	~~A~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~43.2~~	~~D~~	~~SIGNAL~~	~~47.5~~	~~D~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~8.6~~	~~A~~	~~SIGNAL~~	~~8.9~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~24.3~~	~~C~~	~~AWS~~	~~27.4~~	~~D~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~SIGNAL~~	~~25.0~~	~~C~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~SIGNAL~~	~~12.8~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~27.8~~	~~C~~	~~SIGNAL~~	~~28.9~~	~~C~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~6.3~~	~~A~~	~~SIGNAL~~	~~6.8~~	~~A~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~31.3~~	~~C~~	~~SIGNAL~~	~~31.9~~	~~C~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~21.0~~	~~C~~	~~SIGNAL~~	~~21.1~~	~~C~~
~~92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~13.8~~	~~B~~	~~SIGNAL~~	~~14.1~~	~~B~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~12.3~~	~~B~~	~~SIGNAL~~	~~13.0~~	~~B~~

~~Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~54.8~~	~~D~~	~~SIGNAL~~	~~56.2~~	~~E~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~40.7~~	~~D~~	~~SIGNAL~~	~~45.0~~	~~D~~
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~16.7~~	~~B~~	~~SIGNAL~~	~~17.8~~	~~B~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~SIGNAL~~	~~30.5~~	~~C~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~20.4~~	~~C~~	~~SIGNAL~~	~~25.2~~	~~C~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~15.4~~	~~B~~	~~SIGNAL~~	~~16.6~~	~~B~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~3.9~~	~~A~~	~~SIGNAL~~	~~5.0~~	~~A~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~31.7~~	~~C~~	~~SIGNAL~~	~~33.1~~	~~C~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~54.5~~	~~D~~	~~SIGNAL~~	~~63.5~~	~~E~~
~~104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~11.9~~	~~B~~	~~SIGNAL~~	~~13.4~~	~~B~~
~~105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~32.5~~	~~C~~	~~SIGNAL~~	~~32.5~~	~~C~~
~~106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~24.5~~	~~C~~	~~SIGNAL~~	~~24.3~~	~~C~~
~~107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~34.2~~	~~C~~	~~SIGNAL~~	~~34.2~~	~~C~~
~~108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~30.1~~	~~C~~	~~SIGNAL~~	~~29.6~~	~~C~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~12.5~~	~~B~~	~~AWS~~	~~13.6~~	~~B~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~23.3~~	~~C~~	~~SIGNAL~~	~~23.5~~	~~C~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~122~~	~~Bridge St/Ramona Expy~~	~~C~~	~~CSS~~	~~22.4~~	~~C~~	~~CSS~~	~~29.5~~	~~D~~
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~26.6~~	~~D~~	~~CSS~~	~~49.6~~	~~E~~

~~Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~34.7~~	~~D~~	~~CSS~~	~~65.5~~	~~F~~
~~125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~29.2~~	~~D~~	~~CSS~~	~~40.6~~	~~E~~
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~27.1~~	~~C~~	~~SIGNAL~~	~~28.6~~	~~C~~
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~13.5~~	~~B~~	~~AWS~~	~~20.9~~	~~C~~
~~130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~13.2~~	~~B~~	~~SIGNAL~~	~~12.7~~	~~B~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~9.4~~	~~A~~	~~SIGNAL~~	~~21.2~~	~~C~~
~~132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~77.2~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~50.9~~	~~F~~	~~AWS~~	~~135.6~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~81.8~~	~~F~~	~~AWS~~	~~174.1~~	~~F~~
~~135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~14.0~~	~~B~~	~~CSS~~	~~18.5~~	~~C~~
~~136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~8.9~~	~~A~~	~~AWS~~	~~10.1~~	~~B~~

▨ ~~denotes LOS exceeding the target threshold~~

~~Notes:~~
~~"CSS" means cross-street is stop-controlled~~
~~"AWS" means all-way stop~~
~~"LT" and "RT" denote left turn and right turn respectively~~
~~"NB" and "SB" denote northbound and southbound respectively~~
~~"EB" and "WB" denote eastbound and westbound respectively~~
~~"RABT" means roundabout~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~53.5~~	~~D~~
~~2~~	~~Cactus Ave Extension/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~14.2~~	~~B~~
~~3~~	~~Theodore St/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~10.1~~	~~B~~	~~RABT~~	~~11.0~~	~~B~~
~~4~~	~~Street C/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~6.9~~	~~A~~
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~CSS~~	~~15.7~~	~~C~~	~~SIGNAL~~	~~28.4~~	~~C~~
~~9~~	~~Gilman Springs Rd/ Eucalyptus Ave~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~6.3~~	~~A~~
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~42.8~~	~~E~~	~~CSS~~	~~> 180.0~~	~~F~~

~~Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2012 No Project~~			~~2012 With Project~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~37.3~~	~~D~~	~~SIGNAL~~	~~34.8~~	~~C~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~9.8~~	~~A~~	~~CSS~~	~~28.7~~	~~D~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~54.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~14.4~~	~~B~~	~~SIGNAL~~	~~49.0~~	~~D~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~9.6~~	~~A~~	~~SIGNAL~~	~~13.0~~	~~B~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~9.4~~	~~A~~	~~SIGNAL~~	~~1.4~~	~~A~~
~~17~~	~~Quincy Str/Fir Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~14.4~~	~~B~~
~~19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~9.8~~	~~A~~	~~SIGNAL~~	~~18.5~~	~~B~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~14.7~~	~~B~~	~~CSS~~	~~20.2~~	~~C~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.2~~	~~C~~	~~SIGNAL~~	~~41.6~~	~~D~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~13.8~~	~~B~~	~~AWS~~	~~19.3~~	~~C~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~17.3~~	~~B~~	~~SIGNAL~~	~~18.3~~	~~B~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~17.0~~	~~B~~	~~SIGNAL~~	~~19.5~~	~~B~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~8.2~~	~~A~~	~~AWS~~	~~102.7~~	~~F~~
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~13.8~~	~~B~~	~~SIGNAL~~	~~105.1~~	~~F~~
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~31.9~~	~~C~~	~~SIGNAL~~	~~32.3~~	~~C~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~21.5~~	~~C~~	~~SIGNAL~~	~~22.1~~	~~C~~
~~31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~15.9~~	~~B~~	~~SIGNAL~~	~~16.2~~	~~B~~
~~32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~SIGNAL~~	~~36.0~~	~~D~~	~~SIGNAL~~	~~36.3~~	~~D~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~19.7~~	~~B~~	~~SIGNAL~~	~~22.3~~	~~C~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~23.4~~	~~C~~	~~SIGNAL~~	~~23.8~~	~~C~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~8.6~~	~~A~~	~~CSS~~	~~9.1~~	~~A~~
~~36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~SIGNAL~~	~~40.0~~	~~D~~	~~SIGNAL~~	~~43.8~~	~~D~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~76.6~~	~~E~~	~~SIGNAL~~	~~98.8~~	~~F~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~31.2~~	~~C~~	~~SIGNAL~~	~~32.3~~	~~C~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~36.5~~	~~D~~	~~SIGNAL~~	~~37.1~~	~~D~~
~~40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~17.5~~	~~B~~	~~SIGNAL~~	~~27.9~~	~~C~~

~~Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~26.6~~	~~C~~	~~SIGNAL~~	~~31.3~~	~~C~~
~~42~~	~~Nason Str/Iris Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~15.8~~	~~B~~	~~SIGNAL~~	~~18.1~~	~~B~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~6.5~~	~~A~~	~~SIGNAL~~	~~7.3~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.3~~	~~C~~	~~SIGNAL~~	~~35.4~~	~~D~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~19.4~~	~~B~~	~~SIGNAL~~	~~22.5~~	~~C~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~13.5~~	~~B~~	~~SIGNAL~~	~~13.7~~	~~B~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.7~~	~~C~~	~~SIGNAL~~	~~25.6~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~26.6~~	~~C~~	~~SIGNAL~~	~~29.5~~	~~C~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~7.8~~	~~A~~	~~SIGNAL~~	~~8.2~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~16.9~~	~~B~~	~~SIGNAL~~	~~18.7~~	~~B~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~SIGNAL~~	~~22.4~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~38.6~~	~~D~~	~~SIGNAL~~	~~38.5~~	~~D~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~21.0~~	~~C~~	~~SIGNAL~~	~~22.7~~	~~C~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.6~~	~~C~~	~~SIGNAL~~	~~25.9~~	~~C~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.2~~	~~C~~	~~SIGNAL~~	~~26.2~~	~~C~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~23.6~~	~~C~~	~~SIGNAL~~	~~23.8~~	~~C~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~27.9~~	~~C~~	~~SIGNAL~~	~~28.2~~	~~C~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~42.3~~	~~D~~	~~SIGNAL~~	~~45.9~~	~~D~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~SIGNAL~~	~~13.7~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~17.4~~	~~B~~	~~SIGNAL~~	~~18.3~~	~~B~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~20.3~~	~~C~~	~~SIGNAL~~	~~22.5~~	~~C~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~19.6~~	~~B~~	~~SIGNAL~~	~~19.6~~	~~B~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~SIGNAL~~	~~30.7~~	~~C~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~18.0~~	~~B~~	~~SIGNAL~~	~~18.2~~	~~B~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~12.6~~	~~B~~	~~SIGNAL~~	~~12.6~~	~~B~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.1~~	~~C~~	~~SIGNAL~~	~~25.2~~	~~C~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~18.6~~	~~B~~	~~SIGNAL~~	~~21.2~~	~~C~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~8.2~~	~~A~~	~~SIGNAL~~	~~10.3~~	~~B~~

~~Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~27.6~~	~~C~~	~~SIGNAL~~	~~29.3~~	~~C~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~19.7~~	~~B~~	~~SIGNAL~~	~~39.0~~	~~D~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~3.7~~	~~A~~	~~SIGNAL~~	~~4.2~~	~~A~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~29.5~~	~~C~~	~~SIGNAL~~	~~29.6~~	~~C~~
~~75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~SIGNAL~~	~~7.9~~	~~A~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~SIGNAL~~	~~19.0~~	~~B~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~10.3~~	~~B~~	~~SIGNAL~~	~~10.9~~	~~B~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~8.2~~	~~A~~	~~SIGNAL~~	~~8.3~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~14.8~~	~~B~~	~~SIGNAL~~	~~14.7~~	~~B~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~34.9~~	~~C~~	~~SIGNAL~~	~~40.5~~	~~D~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~36.5~~	~~D~~	~~SIGNAL~~	~~38.7~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~13.0~~	~~B~~	~~SIGNAL~~	~~13.5~~	~~B~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~28.0~~	~~C~~	~~SIGNAL~~	~~29.2~~	~~C~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~4.7~~	~~A~~	~~SIGNAL~~	~~5.6~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~12.2~~	~~B~~	~~AWS~~	~~13.4~~	~~B~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~23.1~~	~~C~~	~~SIGNAL~~	~~27.5~~	~~C~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~12.0~~	~~B~~	~~SIGNAL~~	~~12.6~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~35.2~~	~~D~~	~~SIGNAL~~	~~36.7~~	~~D~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~4.9~~	~~A~~	~~SIGNAL~~	~~4.9~~	~~A~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~30.7~~	~~C~~	~~SIGNAL~~	~~30.8~~	~~C~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~20.8~~	~~C~~	~~SIGNAL~~	~~20.9~~	~~C~~
~~92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~11.1~~	~~B~~	~~SIGNAL~~	~~11.6~~	~~B~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~7.2~~	~~A~~	~~SIGNAL~~	~~7.6~~	~~A~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~30.9~~	~~C~~	~~SIGNAL~~	~~33.2~~	~~C~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~65.9~~	**~~E~~**	~~SIGNAL~~	~~70.0~~	**~~E~~**
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~7.6~~	~~A~~	~~SIGNAL~~	~~8.7~~	~~A~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~18.9~~	~~B~~	~~SIGNAL~~	~~18.6~~	~~B~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~17.9~~	~~B~~	~~SIGNAL~~	~~17.7~~	~~B~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~15.1~~	~~B~~	~~SIGNAL~~	~~15.4~~	~~B~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	

~~Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~7.8~~	~~A~~	~~SIGNAL~~	~~12.5~~	~~B~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~34.6~~	~~C~~	~~SIGNAL~~	~~35.0~~	~~D~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~SIGNAL~~	~~28.8~~	~~C~~
~~104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~6.7~~	~~A~~	~~SIGNAL~~	~~8.6~~	~~A~~
~~105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~20.6~~	~~C~~	~~SIGNAL~~	~~20.2~~	~~C~~
~~106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~23.0~~	~~C~~	~~SIGNAL~~	~~26.5~~	~~C~~
~~107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~28.3~~	~~C~~	~~SIGNAL~~	~~27.6~~	~~C~~
~~108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~14.0~~	~~B~~	~~SIGNAL~~	~~14.9~~	~~B~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~10.1~~	~~B~~	~~AWS~~	~~10.7~~	~~B~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~22.6~~	~~C~~	~~SIGNAL~~	~~22.6~~	~~C~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~122~~	~~Bridge St/Ramona Expy~~	~~C~~	~~CSS~~	~~20.6~~	~~C~~	~~CSS~~	~~27.3~~	**~~D~~**
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~20.8~~	~~C~~	~~CSS~~	~~25.1~~	**~~D~~**
~~124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~30.7~~	**~~D~~**	~~CSS~~	~~48.8~~	**~~E~~**
~~125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~48.2~~	**~~E~~**	~~CSS~~	~~70.4~~	**~~F~~**
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~20.8~~	~~C~~	~~SIGNAL~~	~~21.1~~	~~C~~
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~18.0~~	~~C~~	~~AWS~~	~~20.9~~	~~C~~
~~130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~12.8~~	~~B~~	~~SIGNAL~~	~~11.9~~	~~B~~

~~Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2012 No Project~~			~~2012 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~5.6~~	~~A~~	~~SIGNAL~~	~~6.4~~	~~A~~
~~132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~23.9~~	~~C~~	~~AWS~~	~~98.1~~	~~F~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~60.2~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~80.5~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~11.5~~	~~B~~	~~CSS~~	~~14.6~~	~~B~~
~~136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~9.0~~	~~A~~	~~AWS~~	~~10.1~~	~~B~~

▨ ~~denotes LOS exceeding the target threshold~~

~~Notes:~~
~~"CSS" means cross-street is stop-controlled~~
~~"AWS" means all-way stop~~
~~"RABT" means roundabout~~
~~"NB" and "SB" denote northbound and southbound respectively~~
~~"EB" and "WB" denote eastbound and westbound respectively~~
~~"LT" and "RT" denote left turn and right turn respectively~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~A project-specific significant impact would occur at the following 5 intersections under existing with project conditions:~~

- ~~Redlands Boulevard/Cactus Avenue;~~
- ~~Moreno Beach Drive/John Kennedy Drive;~~
- ~~Moreno Beach Drive/Ironwood Avenue;~~
- ~~Arlington Avenue/Victoria Avenue; and~~
- ~~Bridge Street/Ramona Expressway.~~

~~**Roadway Analysis.** Existing baseline (year 2012) with project roadway segment levels of service for the study area are summarized in Table 4.15.AG, which shows three roadway segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at two roadway segments and, therefore, have a significant cumulative impact at these locations and mitigation is required. At one roadway segment, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory conditions and mitigation is required.~~

~~The project would worsen the existing LOS deficiency at the following two roadway segments under existing with project conditions:~~

- ~~Gilman Springs Road between Alessandro Boulevard and Bridge Street; and~~
- ~~Gilman Springs Road between SR-60 and Alessandro Boulevard.~~

~~A project-specific significant impact would occur at the following roadway segment under existing with project conditions:~~

- ~~Cactus Avenue Redlands Boulevard to Street D.~~

~~**Freeway Segment Analysis.** Existing (2012) with project freeway segment levels of service for the study area are summarized in Table 4.15.AH, which shows 10 freeway segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at eight locations and, therefore, have a cumulative impact at these locations. At two freeway segments, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory.~~

~~The project would worsen the existing LOS deficiency at the following eight freeway segments under existing with project conditions:~~

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~~Table 4.15.AG: Existing (2012) plus Project Roadway Segment Levels of Service~~

					Existing Conditions			Existing Plus Build-out Conditions					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section*	Daily Volume	LOS	Project Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	771	A	2U	4,017	A			
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	2,046	A	6D	35,138	B			
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	1,339	A	4D	3,136	A			
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			4D	2,413	A			
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	641	A	6D	36,806	B			
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	13,319	A			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	4,587	A			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	641	A	4D	16,641	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	2,537	A	4U	10,660	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	D	Future Road			4U	14,426	A			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	1,896	A	4U	15,216	B			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	1,896	A	4U	10,395	A			
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	2U	3,877	A	2U	4,242	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	14,407	**F**	2U	15,180	**F**	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	11,973	**E**	2U	14,125	**F**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	7,338	A	2U	10,407	D			
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	6,786	A	2U	4,037	A			
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	2,537	A	2U	565	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	6,786	A	2U	3,210	A			
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	14,381	**E**	Yes	Widen to 4 lanes	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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~~Table 4.15.AH-1: Existing (2012) plus Project Freeway Mainline Levels of Service~~

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	6,340	26.7	D	7,720	32.8	D
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	**F**	6,020	24.9	C	9,280	46.9	**F**
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	**F**	6,690	28.7	D	9,230	46.3	**F**
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,560	28.0	D	6,540	25.9	C
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	**E**	8,010	38.4	**E**	8,950	43.2	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	**F**	7,290	32.5	D	9,260	46.7	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	**F**	7,180	31.8	D	9,240	46.5	**F**
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	6,650	28.3	D	6,290	24.7	C
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	6,480	20.7	C	6,670	20.3	C
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	4,580	18.3	C	4,350	16.5	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	3,030	12.4	B	2,670	10.3	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,026	11.9	B	3,968	14.8	B	3,490	14.2	B	3,770	14.5	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	3,060	12.5	B	2,870	11.1	B
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,320	13.5	B	3,030	11.7	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	3,860	15.7	B	3,320	12.8	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,920	28.3	D	3,950	20.3	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	5,490	33.5	D	4,510	23.7	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	**F**	5,040	29.3	D	6,850	46.7	**F**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	**F**	6,600	34.2	D	8,760	50.9	**F**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	4,950	20.4	C	6,710	27.2	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,330	32.0	D	3,820	34.6	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	3,220	30.3	D	3,480	30.2	D
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	2,750	25.0	C	2,540	20.9	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	2,420	21.7	C	2,260	18.6	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	2,140	19.3	C	1,750	14.8	B
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	2,590	23.1	C	2,380	19.6	C
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,550	12.7	B	1,830	14.0	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	1,180	12.2	B	1,680	15.6	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	1,180	9.5	A	1,680	12.7	B
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	**F**	6,120	23.8	C	9,310	52.6	**F**
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	5,610	31.5	D	5,320	30.9	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	5,110	27.6	D	4,820	26.8	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,790	25.3	C	4,860	27.1	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,890	22.8	C	5,780	23.4	C

			Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
ID	Freeway	Segment	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	6,010	23.3	C	4,940	19.6	C
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	6,690	27.3	D	4,700	18.8	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	6,020	23.8	C	4,500	17.9	B
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	6,100	36.2	E	5,410	31.5	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	7,300	22.5	C	6,420	20.2	C
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,660	21.4	C	3,280	25.9	C
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	1,840	14.7	B	2,040	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	2,360	18.8	C	3,290	26.0	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	3,690	33.3	D	3,160	24.7	C
F-71	I-215	SR-74 to Redlands Ave	3,350	28.5	D	4,181	37.4	E	3,240	27.3	D	4,230	38.6	E
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,520	33.1	D	5,290	28.6	D
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,410	32.0	D	5,160	27.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,260	30.7	D	5,290	28.6	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	E	5,533	30.3	D	5,640	34.0	D	5,680	31.8	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,450	21.9	C	5,580	21.3	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,190	16.6	B	4,620	17.4	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	2,920	23.9	C	3,440	27.6	D
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	3,050	12.0	B	4,380	17.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	3,070	12.0	B	4,400	17.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	3,200	12.6	B	4,610	17.9	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	3,060	12.0	B	4,420	17.2	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	2,970	11.7	B	4,310	16.7	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	2,920	11.5	B	4,240	16.5	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	2,910	11.4	B	4,240	16.5	B
F-59	I-10	Hargrave St to Fields Rd	2,689	10.5	A	3,764	14.5	B	2,600	10.2	A	3,820	14.8	B
F-60	I-10	Fields Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	2,480	9.7	A	3,650	14.2	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	2,190	8.6	A	3,230	12.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	2,180	8.6	A	3,230	12.5	B
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	1,890	7.4	A	2,810	10.9	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	1,920	7.5	A	2,810	10.9	A

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AH-2: Existing (2012) plus Project Freeway Mainline Levels of Service~~

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,762	41.4	E	6,381	25.6	C	8,590	40.2	E	6,580	27.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,283	37.1	E	5,925	23.4	C	8,080	35.8	E	6,140	24.9	C
F-4	SR-60	Central Ave to Mountain Ave	6,336	24.7	C	6,076	24.1	C	6,120	24.0	C	6,300	25.7	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,259	24.4	C	6,495	26.3	D	6,060	23.7	C	6,710	27.8	D
F-6	SR-60	Euclid Ave to Grove Ave	6,461	25.4	C	6,302	25.2	C	6,260	24.7	C	6,520	26.9	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,274	24.3	C	6,699	27.4	D	6,050	23.5	C	6,930	29.1	D
F-8	SR-60	Vineyard Ave to Archibald Ave	7,658	32.1	D	6,245	25.0	C	7,400	30.9	D	6,490	26.7	D
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,804	17.4	B	5,698	17.5	B	5,510	16.7	B	5,960	18.6	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.5	C	5,111	19.5	C	5,070	19.2	C	5,390	21.2	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.4	B	4,275	13.0	B	4,160	12.6	B	4,600	14.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	4,220	15.7	B	3,881	14.8	B	3,850	14.6	B	4,290	16.7	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,172	15.5	B	3,963	15.1	B	3,820	14.5	B	4,360	17.0	B
F-15	SR-60	Pedley Rd to Pyrite St	3,216	12.0	B	3,068	11.7	B	2,860	10.9	A	3,440	13.5	B
F-16	SR-60	Pyrite St to Valley Way	2,653	9.9	A	2,567	9.8	A	2,310	8.9	A	2,960	11.7	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,532	23.1	C	4,725	24.9	C	4,150	21.3	C	5,120	28.7	D
F-18	SR-60	Rubidoux Blvd to Market St	3,568	17.7	B	3,868	19.7	C	3,260	16.6	B	4,320	23.1	C
F-19	SR-60	Market St to Main St	5,631	30.9	D	5,109	27.6	D	5,290	28.8	D	5,540	32.4	D
F-20	SR-60	Main to SR-91	5,248	27.9	D	4,720	24.9	C	4,990	26.7	D	5,070	28.3	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	30.6	D	5,800	24.1	C	6,800	31.5	D	6,420	31.6	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,461	31.1	D	6,376	25.6	C	7,140	29.9	D	7,030	30.8	D
F-27	SR-60	I-215 to Day St	7,050	47.9	F	3,093	15.9	B	7,000	50.0	F	3,530	19.5	C
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,013	23.1	C	3,254	26.5	D	2,980	24.3	C	3,770	36.9	E
F-30	SR-60	Heacock St to Perris Blvd	2,638	19.9	C	2,671	20.8	C	2,710	21.9	C	3,320	30.3	D
F-31	SR-60	Perris Blvd to Nason St	1,910	14.3	B	2,045	15.8	B	2,120	17.2	B	2,830	24.8	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	988	7.4	A	1,336	10.3	A	1,330	11.3	B	2,070	18.1	C
F-34	SR-60	Redlands Blvd to Theodore St	1,193	8.9	A	1,498	11.6	B	1,660	13.8	B	2,300	19.4	C
F-35	SR-60	Theodore St to Gilman Springs Rd	1,183	8.9	A	1,393	10.8	A	1,100	8.6	A	1,510	12.3	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	837	7.0	A	1,002	9.1	A	1,070	10.9	A	980	10.7	A
F-37	SR-60	Jack Rabbit Trail to I-10	837	6.3	A	1,002	7.7	A	1,070	8.3	A	980	7.8	A
F-39	SR-91	I-15 to McKinley St	6,402	25.1	C	5,971	24.1	C	6,240	24.4	C	6,170	25.4	C
F-40	SR-91	McKinley St to Pierce St	4,788	25.0	C	5,183	29.3	D	4,620	24.2	C	5,370	31.4	D
F-41	SR-91	Pierce St to Magnolia Ave	4,629	23.9	C	7,050	53.3	F	4,470	23.2	C	7,230	58.8	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	4,894	25.7	C	7,050	53.3	F	4,740	25.0	C	7,210	58.4	F
F-43	SR-91	La Sierra Ave to Tyler St	4,467	22.9	C	5,167	29.2	D	4,290	22.1	C	5,330	31.0	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,769	22.1	C	6,661	27.8	D	5,630	21.7	C	6,810	29.1	D

			Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,342	20.2	C	6,401	26.3	D	5,230	20.0	C	6,560	27.6	D
F-46	SR-91	Adam St to Madison St	4,939	18.6	C	5,453	21.5	C	4,840	18.4	C	5,590	22.4	C
F-47	SR-91	Madison St to Arlington Ave	4,218	21.4	C	4,711	25.5	C	4,140	21.2	C	4,830	26.9	D
F-49	SR-91	Central Ave to 14th St	4,737	24.7	C	4,940	27.2	D	4,700	24.7	C	5,030	28.5	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	17.2	B	2,318	17.2	B	2,270	17.1	B	2,240	16.7	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	19.0	C	3,111	23.7	C	2,530	19.1	C	3,040	23.2	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,069	23.6	C	2,539	18.9	C	3,080	23.9	C	2,490	18.6	C
F-70	I-215	Ethanac Rd to SR-74	2,882	21.9	C	3,854	32.0	D	2,900	22.2	C	3,840	32.0	D
F-71	I-215	SR-74 to Redlands Ave	4,539	44.2	E	3,710	30.1	D	4,600	45.5	F	3,650	29.6	D
F-74	I-215	Columbia Ave to Center St	5,191	27.6	D	4,917	25.4	C	5,320	28.8	D	4,870	25.2	C
F-75	I-215	Center St to La Cadena Dr	5,541	30.4	D	5,235	27.6	D	5,690	31.9	D	5,180	27.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,414	29.4	D	5,196	27.3	D	5,530	30.5	D	5,160	27.2	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,435	29.5	D	5,256	27.7	D	5,550	30.7	D	5,210	27.6	D
F-78	I-215	Mt. Vernon Ave to I-10	5,776	22.0	C	5,606	21.0	C	5,900	22.7	C	5,550	20.8	C
F-80	I-215	Auto Plaza Dr to Mill St	4,022	15.1	B	4,090	15.2	B	4,120	15.5	B	4,000	14.9	B
F-83	I-215	Baseline Rd to Highland Ave	4,537	44.1	E	4,700	46.7	F	4,630	46.7	F	4,610	45.2	F
F-52	I-10	SR-60 to Beaumont Ave	4,288	18.1	C	3,675	13.8	B	4,340	18.5	C	3,730	14.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,358	18.4	C	3,736	14.0	B	4,430	18.8	C	3,750	14.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,569	19.4	C	3,916	14.7	B	4,630	19.8	C	3,910	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	4,393	18.6	C	3,766	14.1	B	4,460	19.0	C	3,750	14.1	B
F-56	I-10	Sunset Ave to 22nd St	4,288	18.1	C	3,675	13.8	B	4,350	18.5	C	3,640	13.7	B
F-57	I-10	22nd St to 8th St	4,218	17.8	B	3,615	13.5	B	4,280	18.2	C	3,580	13.5	B
F-58	I-10	8th St to Hargrave St	4,218	17.8	B	3,615	13.5	B	4,280	18.2	C	3,570	13.4	B
F-59	I-10	Hargrave St to Fields Rd	3,796	16.0	B	3,254	12.2	B	3,860	16.4	B	3,190	12.0	B
F-60	I-10	Fields Rd to Morongo Trail	3,620	15.3	B	3,103	11.6	B	3,680	15.6	B	3,040	11.4	B
F-61	I-10	Morongo Trail to Main St	3,198	13.5	B	2,741	10.3	A	3,260	13.8	B	2,680	10.1	A
F-62	I-10	Main St to Haugen-Lehmann Way	3,198	13.5	B	2,741	10.3	A	3,270	13.9	B	2,680	10.1	A
F-64	I-10	SR-111 to Tipton Rd	2,777	11.7	B	2,380	8.9	A	2,840	12.1	B	2,340	8.8	A
F-65	I-10	Tipton Rd to SR-62	2,777	11.7	B	2,380	8.9	A	2,840	12.1	B	2,340	8.8	A

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Northbound or Eastbound Sections:~~

  - ~~SR-60 Euclid Avenue to Grove Avenue;~~
  - ~~SR-60 Martin Luther King Boulevard to Central Avenue; and~~
  - ~~I-215 SR-74/Case Road to Redlands Avenue;~~

- ~~Southbound or Westbound Sections:~~
  - ~~SR-60 I-215 to Day Street;~~
  - ~~SR-91 Pierce Street to Magnolia Avenue;~~
  - ~~SR-91 Magnolia Avenue to La Sierra Avenue;~~
  - ~~I-215 SR-74/Case Road to Redlands Avenue; and~~
  - ~~I-215 Baseline Road to Highland Avenue/SR-210.~~

~~A significant direct project impact would occur at the following two freeway segments under existing with project conditions:~~

- ~~Northbound or Eastbound Sections:~~
  - ~~SR-91 Central Avenue to 14th Street.~~
- ~~Southbound and Westbound Sections:~~
  - ~~SR-60 Pigeon Pass Road/Frederick Street to Heacock Street.~~

~~**Freeway Weaving Analysis.** Existing (2012) with project freeway weaving segment levels of service for the study area are summarized in Table 4.15.AI, which shows six freeway weaving segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at five freeway weaving segments and, therefore, have a cumulative impact at these locations. At the other freeway weaving segment, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory.~~

~~The~~ project would worsen the existing LOS deficiency at the following five freeway weaving segments under existing with ~~project~~Phase 1 conditions:

- Northbound or Eastbound~~:~~
  - I-215 from SR-60 ~~SR-91~~ to ~~Blaine St/3rd Street;~~Columbia Ave.
  - I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

  - SR-60 ~~W Blaine Street/3rd Street to~~ from University ~~Avenue; and~~Ave. to Martin Luther King Blvd.
  - SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
  - SR-91 from Arlington Ave. to Central Ave.

Table 4.15.AD: Existing Plus Phase 1 Freeway Weaving Section LOS

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,480	22	C	6,760	25	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	6,890	34.8	D	6,940	33.9	D
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	**E**	6,350	26.5	C	9,150	41.2	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,240	24.4	C	6,880	28.4	D
W-23	SR-60	University Ave to Martin Luther King	5,965	22.6	C	7,050	24.6	C	6,190	23.7	C	6,980	24.7	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	5,979	25.0	C	8,119	31.6	D	6,260	27.2	C	8,010	31.9	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	**E**	3,280	13.1	B	9,230	41.5	**E**
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,197	14.4	B	7,050	32.7	D	3,330	15.2	B	7,010	32.7	D
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			1,600	9.6	A	1,600	9.0	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	7,170	32.8	D	7,970	34.8	D
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	4,570	26.9	C	4,240	19.1	B
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	5,120	23.2	C	5,310	24.4	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	**F**	4,317	22.0	C	6,070	>Capacity	**F**	5,880	22.4	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	4,670	23.2	C	3,700	35.2	**E**
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	7,040	22.1	C	6,390	26.7	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	6,110	12.5	B	5,830	21.9	C
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	2,230	8.6	A	3,160	12.2	B

▨ Indicates that the LOS exceeds the target level

Table 4.15.AD: Existing Plus Phase 1 Freeway Weaving Section LOS~~Table 4.15.AD: Existing Plus Phase 1 Freeway Weaving Section LOS~~ (continued)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,466	19.6	B	5,871	21.3	C	6,247	19.5	B	7,109	22.0	C
W-9	SR-60	Haven Ave to Archibald Ave	6,671	26.3	C	7,844	33.1	D	6,570	26.0	C	9,510	33.8	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	5,660	21.3	C	5,717	21.6	C	6,310	21.3	C	5,220	22.3	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,568	22.6	C	6,273	22.6	C	6,830	22.6	C	4,330	23.2	C
W-23	SR-60	University Ave to Martin Luther King	7,050	38.2	E	7,050	44.9	F	5,580	37.9	E	5,820	45.7	F
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	34.2	D	7,050	34.5	D	6,940	34.5	D	7,100	36.1	E
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,700	30.6	D	3,279	20.4	C	7,270	31.1	D	8,230	21.4	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,207	12.1	B	2,252	12.5	B	3,240	13.3	B	3,070	13.0	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,000	7.2	A	1,960	8.1	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	33.4	D	7,050	36.0	E	5,870	33.2	D	7,590	36.4	E
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	8,102	29.2	D	11,750	> Capacity	F	5,150	29.5	D	7,020	>Capacity	F
W-93	I-215	Cactus Ave to Alessandro Blvd	5,036	23.0	C	6,139	28.5	D	3,410	23.4	C	3,160	28.2	D
W-95	I-215	Eucalyptus Ave to SR-60	6,019	21.4	C	7,017	25.6	C	2,680	21.8	C	5,260	25.2	C
W-73	I-215	SR-60 to Columbia Ave	7,050	35.1	E	7,050	34.9	D	3,850	35.0	E	7,000	34.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,311	21.8	C	6,261	21.9	C	7,070	21.7	C	6,990	21.7	C
W-81	I-215	Mill St to 2nd St	7,050	24.5	C	6,421	22.7	C	7,100	24.5	C	7,030	22.6	C
W-82	I-215	5th St to Baseline Rd	7,050	22.5	C	5,762	18.0	B	6,010	22.5	C	7,040	18.0	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,646	13.9	B	3,125	11.7	B	3,670	14.1	B	3,080	11.5	B

▨ Indicates that the LOS exceeds the target level

Table 4.15.AD: Existing Plus Phase 1 Freeway Weaving Impacts and Mitigations

			Northbound / Eastbound												
ID	**Freeway**	**Weaving Segment**	**Determination of Impact**					**Existing Plus Phase 1 & Mitigations**							
			AM Peak Hour		**PM Peak Hour**		**Project Impact?**	**Sgement type**	**AM Peak Hour**			**PM Peak Hour**			**Mitigation Measures Required to Reduce Impact to Less-Than-Significant**
			No-Project LOS	**Plus Phase 1 LOS**	**No-Project LOS**	**Plus Phase 1 LOS**			**Freeway / Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	**Freeway / Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	
W-73	I-215	SR-60 to Columbia Ave	**F**	**F**	C	C	Yes	Basic	4,280	17.1	B	4,370	16.5	B	Extend auxillary lane beyond off-ramp
								On-Ramp	2,020	20.4	C	1,690	18.4	B	
								Off-Ramp	330	21.2	C	540	21.7	C	
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	D	**E**	Yes	Weaving	4,670	19.1	B	3,700	28.7	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound												
ID	**Freeway**	**Weaving Segment**	**Determination of Impact**					**Existing Plus Phase 1 & Mitigations**							
			AM Peak Hour		**PM Peak Hour**		**Project Impact?**	**Sgement type**	**AM Peak Hour**			**PM Peak Hour**			**Mitigation Measures Required to Reduce Impact to Less-Than-Significant**
			No-Project LOS	**Plus Phase 1 LOS**	**No-Project LOS**	**Plus Phase 1 LOS**			**Freeway / Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	**Freeway / Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	
W-23	SR-60	University Ave to Martin Luther King	**E**	**E**	**F**	**F**	Yes	Weaving	5,580	29.5	D	5,820	35.4	**E**	Add 1 mixed flow lane
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	D	D	D	**E**	Yes	Weaving	6,940	26.8	C	7,100	28.0	D	Add 1 mixed flow lane
W-48	SR-91	Arlington Ave to Central Ave	D	D	**E**	**E**	Yes	Weaving	5,870	25.8	C	7,590	28.3	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Ramp Analysis. Existing (2018) with Phase 1 freeway ramp levels of service for the study area are summarized in Table 4.15.AE, which identifies the one ramp segment where the Project would have a significant impact.

- SR-60 eastbound On-Ramp from Martin Luther King Blvd.

Table 4.15.AE: Existing Plus Phase 1 Freeway Ramp LOS

				Existing Conditions								Existing Plus Phase 1 Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	F	8,384	1,016	34.3	F	9,360	380	40.4	F	8,280	1,040	34.3	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C	5,760	500	15.1	B	6,780	1,230	22.3	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A	1,860	430	4.9	A	2,140	560	5.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B	1,740	110	17.7	B	1,730	120	16.6	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B	1,850	410	21.1	C	1,850	420	19.9	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B	1,580	20	18.0	B	1,580	20	17.1	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B	1,260	10	14.2	B	1,270	10	13.6	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B	1,770	10	13.5	B	1,670	10	13.3	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B	1,660	680	15.8	B	1,840	410	15.0	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B	2,340	150	20.0	B	2,250	90	19.0	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B	2,290	410	18.0	B	2,300	510	17.8	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A	6,940	670	2.6	A	7,100	520	3.9	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C	6,490	600	22.1	C	6,370	980	25.4	C

▨ Indicates that the LOS exceeds the target level

Table 4.15AE: Existing Plus Phase 1 Freeway Ramp Impacts and Mitigations

				Determination of Impact					Existing Plus Phase 1 & Mitigations								
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	F	F	F	F	Yes	9,360	380	26.6	C	8,280	1,040	26.5	C	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

4.15.6.2 Existing (2018) With Project (Buildout) Conditions Traffic and Level of Service

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (2018) with project buildout intersection levels of service for the study area intersections are summarized in Table 4.15.AF-1 and 4.15.AF-2, which shows there are 25 study intersections where the LOS would exceed the general plan target. In 20 of these locations the LOS would have been worse than the target for at least one peak hour (AM or PM) even in the No Project scenario. The Project would cause the LOS to exceed the target in 2 locations that would otherwise have met the target in both peak hours, and in 3 cases the Project would case the LOS to exceed the target in both peak hours when it would otherwise have exceeded the target in only one of the peak hours (AM or PM). The intersections with poor LOS under the Existing Plus Buildout Scenario are:

Would Exceed Threshold of Significance Under Both the Existing Conditions and the Existing Plus Buildout Scenario

- IN-10 Redlands Blvd./Locust Ave. (AM, PM)
- IN-20 Oliver St./Alessandro Blvd. (AM)
- IN-23 Redlands Blvd/Alessandro Blvd (PM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-83 Martin Luther King Blvd/Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd/I-215 NB Ramps (AM, PM)
- IN-86 Central Ave/Chicago Ave (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)

- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave) SB/Gilman Springs Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Would Exceed Threshold of Significance Under the Existing Plus Buildout Scenario (only)

- IN-18 Redlands Blvd/Eucalyptus Ave (PM)
- IN-36 Moreno Beach Drive & Ironwood Avenue (AM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (AM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (PM),

Table 4.15.AF-1: Existing (2018) Plus Project Intersection Levels of Service

			Existing Conditions			Existing Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.6	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.3	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.4	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.7	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	SIGNAL	13.6	B
IN-9	Gilman Springs Rd/Eucalyptus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	SIGNAL	29.4	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	SIGNAL	28.0	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	SIGNAL	23.2	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	SIGNAL	24.1	C
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	SIGNAL	4.0	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	22.8	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	SIGNAL	28.9	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	74.5	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	SIGNAL	34.1	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	AWS	17.6	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	SIGNAL	22.3	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	16.5	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	AWS	22.7	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	SIGNAL	26.1	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	SIGNAL	32.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	SIGNAL	28.9	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	SIGNAL	22.2	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	SIGNAL	27.7	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	SIGNAL	19.8	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	SIGNAL	21.0	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	CSS	9.2	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	59.5	**E**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	58.2	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	SIGNAL	35.7	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	SIGNAL	46.0	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	SIGNAL	25.0	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	SIGNAL	38.5	D
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	SIGNAL	17.3	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	SIGNAL	25.0	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	SIGNAL	12.4	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	SIGNAL	33.1	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	22.3	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	SIGNAL	23.3	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	SIGNAL	24.6	C

Table 4.15.AF-1: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	SIGNAL	31.4	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	SIGNAL	9.1	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	SIGNAL	23.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	SIGNAL	28.6	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	SIGNAL	28.3	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	SIGNAL	27.4	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.9	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.3	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	SIGNAL	28.3	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	22.6	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	SIGNAL	35.6	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	SIGNAL	11.0	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	SIGNAL	21.2	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	SIGNAL	40.9	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	SIGNAL	28.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	SIGNAL	62.7	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	SIGNAL	30.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	SIGNAL	6.5	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	SIGNAL	20.0	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	SIGNAL	16.1	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	SIGNAL	18.8	B
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	SIGNAL	6.8	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	SIGNAL	37.7	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	SIGNAL	20.8	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	SIGNAL	27.0	C
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	SIGNAL	24.8	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	SIGNAL	13.5	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	SIGNAL	26.3	C
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	SIGNAL	24.4	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	SIGNAL	40.7	D
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	SIGNAL	39.2	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	SIGNAL	17.4	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	77.8	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	SIGNAL	19.8	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.4	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	41.4	D
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	SIGNAL	15.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	SIGNAL	33.6	C
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	SIGNAL	8.6	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	SIGNAL	39.0	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	SIGNAL	15.1	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	SIGNAL	24.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	SIGNAL	13.2	B

Table 4.15.AF-1: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	SIGNAL	62.7	**E**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	SIGNAL	39.6	D
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	SIGNAL	27.9	C
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	SIGNAL	30.2	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	SIGNAL	30.0	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	SIGNAL	33.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	SIGNAL	14.2	B
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	SIGNAL	41.6	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	SIGNAL	58.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	SIGNAL	9.7	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	SIGNAL	28.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	SIGNAL	28.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	SIGNAL	41.3	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	SIGNAL	20.4	C
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	SIGNAL	42.9	**D**
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	CSS	64.1	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	CSS	90.3	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	CSS	67.9	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	SIGNAL	35.8	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	SIGNAL	18.7	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	SIGNAL	12.4	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	SIGNAL	18.4	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	AWS	87.8	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	AWS	136.3	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	AWS	124.1	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	CSS	14.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	AWS	9.5	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 4.15.AF-1: Existing (2018) Plus Project Intersection Levels of Service (Continued)

ID	Study Intersection	LOS Standard	Existing Conditions: Traffic Control	Existing Conditions: PM Peak Hour Delay	Existing Conditions: PM Peak Hour LOS	Existing Plus Build-out: Traffic Control	Existing Plus Build-out: PM Peak Hour Delay	Existing Plus Build-out: PM Peak Hour LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.2	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.6	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.4	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	29.4	D	SIGNAL	18.8	B
IN-9	Gilman Springs Rd/Eucalyptus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	73.0	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	47.0	D
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	9.2	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	21.2	C	SIGNAL	22.7	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	17.8	B	SIGNAL	20.9	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.1	A	SIGNAL	14.7	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.0	A	SIGNAL	2.3	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	2.6	A	SIGNAL	64.6	**E**
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.0	A	SIGNAL	20.4	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	19.3	C	CSS	24.9	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	29.3	C	SIGNAL	36.3	D
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	33.7	**D**	AWS	29.7	**D**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	17.1	B	SIGNAL	18.0	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	15.4	B	SIGNAL	16.4	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	10.6	B	AWS	22.5	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.7	B	SIGNAL	20.2	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	33.4	C	SIGNAL	41.9	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	20.8	C	SIGNAL	21.1	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	13.9	B	SIGNAL	14.2	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	36.3	D	SIGNAL	37.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	18.5	B	SIGNAL	18.9	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	19.3	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	9.2	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	41.8	D	SIGNAL	50.6	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	61.8	**E**	SIGNAL	88.8	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.1	C	SIGNAL	34.3	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	56.6	**E**	SIGNAL	53.9	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	17.2	B	SIGNAL	21.1	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	34.4	C	SIGNAL	38.8	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	15.8	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	15.0	B	SIGNAL	15.9	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	10.7	B	SIGNAL	11.5	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	20.7	C	SIGNAL	26.0	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	14.6	B	SIGNAL	16.0	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	20.1	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	20.0	C	SIGNAL	20.8	C

Table 4.15.AF-1: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.5	C	SIGNAL	23.3	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	7.5	A	SIGNAL	7.5	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	20.3	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	19.9	B	SIGNAL	20.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	29.9	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	18.8	B	SIGNAL	20.0	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	26.3	C	SIGNAL	27.0	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	30.5	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	36.7	D	SIGNAL	39.6	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	28.0	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	36.6	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	9.3	A	SIGNAL	9.5	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	31.8	C	SIGNAL	33.3	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	23.1	C	SIGNAL	22.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	35.5	D	SIGNAL	35.6	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.0	C	SIGNAL	31.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.4	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	13.0	B	SIGNAL	14.5	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.4	B	SIGNAL	18.4	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.5	B	SIGNAL	17.4	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	14.4	B	SIGNAL	14.4	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	7.0	A	SIGNAL	7.8	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	26.5	C	SIGNAL	28.2	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	8.8	A	SIGNAL	14.0	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	53.6	D	SIGNAL	53.2	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	15.8	B	SIGNAL	25.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.4	A	SIGNAL	8.1	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.8	B	SIGNAL	15.8	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	27.8	C	SIGNAL	27.3	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	51.6	D	SIGNAL	45.8	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	10.9	B	SIGNAL	11.2	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	34.2	C	SIGNAL	33.7	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.4	A	SIGNAL	8.0	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	91.4	**F**	SIGNAL	93.4	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	15.8	B	SIGNAL	16.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	39.6	D	SIGNAL	37.0	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	5.9	A	SIGNAL	6.0	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	24.2	C	SIGNAL	23.8	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	6.4	A	SIGNAL	6.9	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	27.1	C	SIGNAL	27.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	5.9	A	SIGNAL	6.5	A

Table 4.15.AF-1: Existing (2018) Plus Project Intersection Levels of Service (Continued)

			Existing Conditions			Existing Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	39.0	D	SIGNAL	41.6	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	78.5	E	SIGNAL	67.7	E
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	11.1	B	SIGNAL	11.9	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	22.8	C	SIGNAL	28.3	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	34.4	C	SIGNAL	29.8	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	20.1	C	SIGNAL	22.1	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.9	C	SIGNAL	28.7	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	36.1	D	SIGNAL	36.6	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	16.7	B	SIGNAL	15.2	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	21.3	C	SIGNAL	24.9	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	22.8	C	SIGNAL	23.6	C
IN-107	Evans Rd/Rider St	C	SIGNAL	28.4	C	SIGNAL	28.9	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	11.9	B	SIGNAL	13.5	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	39.0	E	AWS	41.3	E
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	23.8	C	SIGNAL	22.4	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	111.0	F	CSS	143.6	F
IN-123	Gilman Springs Rd/Bridge St	C	CSS	84.5	F	CSS	126.3	F
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	146.0	F	CSS	146.8	F
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	115.4	F	CSS	134.4	F
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	29.7	C	SIGNAL	29.3	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	31.4	C	SIGNAL	34.1	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	14.0	B	SIGNAL	15.2	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	17.5	B	SIGNAL	18.9	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.1	C	AWS	37.0	E
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	104.8	F	AWS	133.0	F
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	178.9	F	AWS	90.7	F
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	12.5	B	CSS	13.5	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.6	A	AWS	10.0	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 4.15.AF-2: Existing (2018) Plus Project Intersection Impacts and Mitigations

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Build-out			Existing Conditions			Existing Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1 & Mitigations				
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level																				
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	D	CSS	>180	F	CSS	73.0	F	CSS	>180	F	Signalize. Add 1 EB LT and 1 WB LT.	SIGNAL	7.7	A	10.6	B
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	22.8	C	SIGNAL	2.6	A	SIGNAL	64.6	E	Add WB RT pocket.	SIGNAL	21.1	C	31.5	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	E	CSS	74.5	F	CSS	19.3	C	CSS	24.9	C	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	CSS	21.2	C	14.9	B
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	59.5	E	SIGNAL	41.8	D	SIGNAL	50.6	D	Add 1 NB RT lane.	SIGNAL	38.0	D	27.9	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	58.2	E	SIGNAL	61.8	E	SIGNAL	88.8	F	Add 1 SB LT Change Phasing to Prot.	SIGNAL	16.2	B	30.3	C
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)																				
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	E	SIGNAL	77.8	E	SIGNAL	34.2	C	SIGNAL	33.7	C	change 1 NBT to NBT-R	SIGNAL	34.3	C	40.3	D
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	E	AWS	40.4	E	AWS	>180	F	AWS	>180	F	Signalize.	AWS	1.0	A	0.9	A
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	41.4	D	SIGNAL	91.4	F	SIGNAL	93.4	F	Change WBT to WBT-R and NBT to NBT-R	SIGNAL	28.4	C	45.6	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	E	SIGNAL	62.7	E	SIGNAL	39.0	D	SIGNAL	41.6	D	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage)	SIGNAL	47.4	D	32.7	C
IN-114	Evans Rd/Orange Ave	C	AWS	>180	F	AWS	>180	F	AWS	39.0	E	AWS	41.3	E	Signalize	SIGNAL	92.1	F	13.5	B
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	E	CSS	64.1	F	CSS	111.0	F	CSS	143.6	F	Signalize.	SIGNAL	13.4	B	14.6	B
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	F	CSS	90.3	F	CSS	84.5	F	CSS	126.3	F	Signalize.	SIGNAL	7.6	A	21.1	C
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	F	CSS	>180	F	CSS	146.0	F	CSS	146.8	F	Signalize.	SIGNAL	8.2	A	7.2	A
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	E	CSS	67.9	F	CSS	115.4	F	CSS	134.4	F	Signalize.	SIGNAL	8.6	A	8.0	A
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	F	AWS	87.8	F	AWS	19.8	C	AWS	37.0	E	Signalize.	SIGNAL	11.2	B	7.9	A
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	F	AWS	136.3	F	AWS	26.9	D	AWS	133.0	F	Signalize.	SIGNAL	17.7	B	12.8	B
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	F	AWS	124.1	F	AWS	55.0	F	AWS	90.7	F	Signalize. Add 1 EB Right Turn and 1 NB Left Turn.	SIGNAL	8.9	A	10.0	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

Roadway Analysis. Existing baseline (year 2018) with project roadway segment levels of service for the study area are summarized in Table 4.15.AG, which shows three roadway segments would operate at unsatisfactory levels of service.

The project would worsen the existing LOS deficiency at the following three roadway segments under existing with project conditions:

- Gilman Springs Rd. between SR-60 and Alessandro Blvd. exceeds the target LOS under both Existing Conditions and under the Existing Plus Build-out Scenario.
- Gilman Springs Rd. from Alessandro Blvd. to Bridge St. exceeds the threshold of significance under both Existing Conditions and under the Existing Plus Build-out Scenario.

- ~~o~~ Redlands Boulevard from Eucalyptus Avenue to ~~Central Avenue~~the SR-60 eastbound ramps.

~~Southbound~~**Freeway Segment Analysis.** Existing (2018) with project freeway segment levels of service for the study area are summarized in Table 4.15.AH, which shows 24 freeway segments would operate at unsatisfactory levels of service. The Project would have impacts at:

- Northbound or ~~Westbound:~~Eastbound
  - ~~o~~SR-60 from Ramona Ave. to Central ~~Avenue to Fair Isle Drive/Box Springs Road; and~~Ave.
  - SR-60 from Mountain Ave. to Euclid Ave.
  - SR-60 from Euclid Ave. to Grove Ave.
  - SR-60 from Martin Luther King Blvd. to Central Ave.
  - SR-60 from Pigeon Pass Rd. to Heacock St.
  - SR-60 from Pierce St. to Magnolia Ave.
  - SR-91 from Adams St. to Madison St.
  - ~~o~~SR-91 from Central Ave. to 14th ~~Street to University Avenue~~St.
  - ~~A project-specific significant impact would occur at the following~~ I-215 from Eucalyptus Ave. to SR-60
  - I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

  - SR-60 from Grove Ave. to Vineyard Ave.
  - SR-60 from Vineyard Ave. to Archibald Ave.
  - SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
  - SR-60 from I-215 to Day St.
  - SR-60 from Pigeon Pass Rd. to Heacock St.
  - SR-91 from McKinley St. to Pierce St.
  - SR-91 from Pierce St. to Magnolia Ave.
  - SR-91 from Magnolia Ave. to La Sierra Ave.
  - SR-91 from La Sierra Ave. to Tyler St.
  - SR-91 from Tyler St. to Van Buren Blvd.
  - SR-91 from Van Buren Blvd. to Adams St.
  - I-215 from Center St. to La Cadena Dr.
  - I-215 from La Cadena Dr. to Barton Rd.
  - I-215 from Barton Rd. to Mt. Vernon Ave.

Table 4.15.AG: Existing (2018) plus Project Roadway Segment Levels of Service

					Existing Conditions			Existing Plus Build-out Conditions			
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Projec Impac Significa
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A	2U	3,670	A	
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	4D	32,466	D	
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A	2U	3,712	A	
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road			
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	6D	33,184	A	
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			4U	3,448	A	
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	8,262	B	
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	13,283	A	
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A	4U	11,714	A	
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	15,602	B	
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	7,503	A	
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	8,746	A	
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A	2U	6,512	A	
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	**F**	2U	21,405	**F**	Yes
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	**F**	2U	18,693	**F**	Yes
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	**E**	2U	13,002	**F**	Yes
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C	2U	7,890	B	
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A	2U	300	A	
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B	2U	6,857	A	
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A	4U	13,902	A	

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.
▨ Indicates LOS exceeds the target level

Table 4.15.AH-1: Existing (2018) plus Project Freeway Mainline Levels of Service

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6280	28.5	D	6,330	27.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	E	9,400	47.3	F	8,380	41.6	E	9,240	45.9	F
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	E	7,480	33.7	D	8,120	35.4	E
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	E	7,810	36.3	E	8,060	35.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	E	7,720	35.5	E	8,180	35.9	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	F	7,080	30.8	D	9,080	44.2	E
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	F	6,950	29.7	D	9,210	45.6	F
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	7,010	30.4	D	6,560	25.9	C
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,970	27.1	D	7,150	22.0	C
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	4,500	18.0	C	5,000	18.9	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	3,890	15.6	B	4,100	15.5	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	2,913	11.5	B	3,567	13.3	B	3,340	13.4	B	3,400	12.9	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	2,437	9.8	A	2,959	11.3	B	2,860	11.7	B	2,770	10.9	A
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	3,020	12.3	B	3,130	12.2	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	3,750	15.1	B	3,520	13.6	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,900	27.6	D	5,130	27.5	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,950	28.0	D	5,310	29.1	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	E	5,310	31.1	D	6,220	37.5	E
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	F	9,400	51.1	F	9,870	77.2	F	9,250	52.7	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	5,530	22.5	C	6,190	24.2	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	F	2,990	26.3	D	4,690	51.1	F
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	2,880	24.7	C	3,190	25.9	C
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,550	21.5	C	2,750	21.8	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	2,100	11.9	B	2,430	12.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,780	10.3	A	2,050	10.9	A
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,910	16.3	B	1,870	15.2	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,260	14.4	B	1,240	12.5	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,270	10.4	A	1,240	9.5	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	4,380	16.6	B	6,300	25.9	C
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	4,950	26.1	D	5,210	29.7	D
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	E	7,050	54.7	F	6,520	42.0	E	7,010	54.6	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	7,180	29.5	D	7,010	30.4	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	E	7,200	29.4	D	7,950	37.2	E
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	4,810	18.2	C	4,940	19.5	C
F-46	SR-91	Adam St to Madison St	7,451	57.6	F	8,209	96.0	F	7,530	60.3	F	8,190	97.1	F

Table 4.15.AH-1: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,720	33.6	D	5,370	21.6	C
F-49	SR-91	Central Ave to 14th St	7,050	52.1	F	5,797	35.9	E	6,970	51.2	F	5,810	36.4	E
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	4,550	17.1	B	4,280	16.7	B
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	5,850	17.8	B	5,530	17.4	B
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,670	14.1	B	3,270	16.3	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	1,790	9.5	A	2,030	10.2	A
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,280	12.1	B	3,280	16.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	3,590	19.0	C	3,140	15.7	B
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	3,090	16.6	B	4,190	21.5	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	4,210	22.6	C	3,220	16.2	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,290	13.1	B	4,800	18.1	C
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,460	24.4	C	5,240	28.2	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,913	27.7	D	5,947	34.3	D	4,870	27.4	D	5,950	34.4	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	5,030	28.5	D	4,460	23.2	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	4,740	18.8	C	4,230	15.9	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	4,400	24.1	C	5,400	29.7	D
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	4,770	26.6	D	6,110	36.0	E
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	6,650	28.7	D	7,100	28.9	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	5,110	29.6	D	5,330	28.7	D
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	5,150	29.5	D	5,010	26.3	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	E	5,640	32.0	D	5,650	35.0	E	5,740	32.9	D
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	6,040	25.5	C	5,930	23.1	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	F	5,150	20.5	C	9,480	48.9	F
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	3,130	12.5	B	4,760	17.8	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	3,500	13.8	B	4,730	18.4	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	3,520	14.1	B	4,860	19.2	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	3,670	14.6	B	5,080	20.0	C
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	3,500	14.0	B	4,960	19.5	C
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	3,410	10.9	A	4,850	15.2	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	3,350	13.4	B	4,770	18.8	C
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	3,340	13.4	B	4,780	18.9	C
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	2,980	12.0	B	4,310	17.0	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	2,840	11.4	B	4,120	16.3	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	2,500	10.0	A	3,650	14.2	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	2,500	9.8	A	3,660	14.2	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	2,190	8.6	A	3,180	12.3	B
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	2,190	8.6	A	3,180	12.3	B

▨ Indicates that the LOS exceeds the target level

Table 4.15.AH-1: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,638	26.3	D	6,223	24.8	C	6,470	25.7	C	6,410	26.1	D
F-3	SR-60	Ramona Ave to Central Ave	6,167	24.4	C	6,459	26.1	D	6,000	24.0	C	6,640	27.4	D
F-4	SR-60	Central Ave to Mountain Ave	6,751	28.4	D	6,489	26.9	D	6,580	27.7	D	6,690	28.5	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,859	28.8	D	6,883	29.0	D	6,700	28.2	D	7,080	30.7	D
F-6	SR-60	Euclid Ave to Grove Ave	7,108	29.3	D	7,527	32.6	D	6,940	28.7	D	7,720	34.3	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,656	26.2	D	9,400	51.0	F	6,480	25.6	C	9,600	54.7	F
F-8	SR-60	Vineyard Ave to Archibald Ave	7,821	34.9	D	9,400	53.0	F	7,620	34.0	D	9,590	56.8	F
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,339	22.4	C	5,698	17.5	B	7,140	22.0	C	5,920	18.4	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.8	C	5,111	19.6	C	5,200	20.0	C	5,350	20.9	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,888	14.7	B	4,648	14.3	B	4,630	14.2	B	4,940	15.4	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	5,070	19.2	C	5,970	23.7	C	4,880	18.8	C	6,290	25.7	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	4,277	16.3	B	4,958	19.3	C	4,060	15.7	B	5,270	20.9	C
F-15	SR-60	Pedley Rd to Pyrite St	4,296	16.3	B	4,981	19.4	C	4,040	15.6	B	5,310	21.0	C
F-16	SR-60	Pyrite St to Valley Way	4,326	16.4	B	5,020	19.6	C	4,070	15.8	B	5,340	21.2	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	23.2	C	5,262	29.2	D	4,400	23.1	C	5,550	32.4	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	24.1	C	5,477	30.6	D	4,270	22.0	C	5,760	34.0	D
F-19	SR-60	Market St to Main St	6,485	40.3	E	5,115	27.9	D	6,050	36.3	E	5,380	30.7	D
F-20	SR-60	Main to SR-91	7,050	47.9	F	4,062	21.0	C	6,610	42.8	E	4,500	24.1	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	33.3	D	6,885	30.5	D	6,870	34.9	D	7,000	34.1	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,385	30.6	D	8,085	36.9	E	7,170	30.1	D	8,340	40.2	E
F-27	SR-60	I-215 to Day St	4,328	41.6	E	3,251	26.8	D	4,280	43.6	E	3,220	28.1	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	4,700	49.0	F	2,786	21.9	C	4,740	54.0	F	2,850	23.9	C
F-30	SR-60	Heacock St to Perris Blvd	3,192	25.1	C	3,003	24.0	C	3,280	27.8	D	3,120	26.9	D
F-31	SR-60	Perris Blvd to Nason St	2,592	19.5	C	2,695	21.0	C	2,740	22.2	C	2,890	24.4	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,817	14.0	B	1,882	14.7	B	1,980	16.6	B	1,890	16.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,481	11.6	B	1,504	11.8	B	1,860	15.8	B	1,630	13.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,460	11.4	B	1,486	11.7	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,121	13.4	B	1,165	12.7	B	1,130	14.4	B	1,090	13.0	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,121	9.0	A	1,165	9.3	A	1,130	9.2	A	1,090	8.9	A
F-39	SR-91	I-15 to McKinley St	6,576	26.3	D	7,158	31.4	D	6,470	25.9	C	7,290	32.5	D
F-40	SR-91	McKinley St to Pierce St	7,050	49.6	F	7,050	55.5	F	6,950	48.5	F	7,140	58.4	F
F-41	SR-91	Pierce St to Magnolia Ave	7,050	48.4	F	7,050	53.3	F	6,950	47.4	F	7,140	55.9	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	7,050	48.4	F	7,050	53.3	F	6,970	47.7	F	7,130	55.7	F
F-43	SR-91	La Sierra Ave to Tyler St	5,943	34.3	D	7,050	53.3	F	5,860	33.8	D	7,140	55.9	F
F-44	SR-91	Tyler St to Van Buren Blvd	6,106	23.6	C	7,990	37.2	E	6,050	23.5	C	8,050	38.1	E
F-45	SR-91	Van Buren Blvd to Adam St	6,381	25.0	C	7,990	37.2	E	6,310	24.8	C	8,020	37.8	E
F-46	SR-91	Adam St to Madison St	5,931	22.8	C	7,582	33.9	D	5,870	22.7	C	7,590	34.2	D

Table 4.15.AH-1: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

Table 4.15.AH-1: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,050	48.4	F	7,050	52.6	F	7,010	48.3	F	7,010	52.5	F
F-49	SR-91	Central Ave to 14th St	5,166	19.5	C	7,050	30.0	D	5,140	19.6	C	6,970	29.7	D
F-50	SR-91	14th St to University Ave	5,166	19.5	C	7,050	30.0	D	5,140	19.6	C	6,970	29.7	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	11.5	B	2,318	11.5	B	2,290	11.5	B	2,220	11.0	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	12.6	B	3,111	15.4	B	2,530	12.7	B	2,950	14.6	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,528	12.6	B	3,111	15.4	B	2,530	12.7	B	2,950	14.6	B
F-70	I-215	Ethanac Rd to SR-74	2,882	14.4	B	3,854	19.1	C	2,910	14.6	B	3,660	18.2	C
F-71	I-215	SR-74 to Redlands Ave	4,515	23.2	C	4,700	24.1	C	4,560	23.6	C	4,540	23.2	C
F-86	I-215	Redlands Blvd to D St	2,538	12.7	B	2,634	13.1	B	2,600	13.1	B	2,490	12.4	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,380	12.7	B	3,249	12.1	B	3,450	13.0	B	3,110	11.6	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	23.2	C	5,262	28.0	D	4,580	23.8	C	5,230	27.7	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	2,658	13.3	B	5,310	28.1	D	2,690	13.5	B	5,230	27.5	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,802	19.7	C	7,050	46.7	F	3,890	20.2	C	6,990	45.8	F
F-92	I-215	Van Buren Blvd to Cactus Ave	3,572	13.4	B	6,195	23.6	C	3,640	13.7	B	6,180	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,031	26.7	D	6,129	35.5	E	5,180	27.7	D	6,060	34.9	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,050	29.6	D	7,050	28.4	D	7,090	29.8	D	7,000	28.1	D
F-75	I-215	Center St to La Cadena Dr	7,050	50.2	F	7,050	47.3	F	7,090	51.0	F	6,950	46.2	F
F-76	I-215	La Cadena Dr to Barton Rd	7,050	49.6	F	7,050	46.7	F	7,150	51.4	F	7,020	46.2	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,974	34.6	D	7,050	46.7	F	6,060	35.8	E	7,050	46.7	F
F-78	I-215	Mt. Vernon Ave to I-10	5,726	22.1	C	5,432	20.5	C	5,840	22.7	C	5,410	20.4	C
F-80	I-215	Auto Plaza Dr to Mill St	6,123	23.7	C	5,837	22.0	C	6,130	23.7	C	5,810	21.9	C
F-83	I-215	Baseline Rd to Highland Ave	4,700	17.6	B	3,704	13.7	B	4,680	17.5	B	3,680	13.6	B
F-52	I-10	SR-60 to Beaumont Ave	4,888	20.9	C	4,190	15.8	B	4,830	20.7	C	4,170	15.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,968	21.5	C	4,259	16.3	B	4,920	21.2	C	4,210	16.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,209	22.7	C	4,465	17.0	B	5,170	22.5	C	4,400	16.8	B
F-55	I-10	Highland Springs Ave to Sunset Ave	5,009	21.7	C	4,293	16.4	B	5,010	21.7	C	4,270	16.3	B
F-56	I-10	Sunset Ave to 22nd St	4,888	16.7	B	4,190	12.8	B	4,900	16.7	B	4,160	12.7	B
F-57	I-10	22nd St to 8th St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,050	15.5	B
F-58	I-10	8th St to Hargrave St	4,808	20.7	C	4,121	15.7	B	4,830	20.8	C	4,050	15.5	B
F-59	I-10	Hargrave St to Fields Rd	4,327	18.6	C	3,709	14.2	B	4,360	18.7	C	3,620	13.9	B
F-60	I-10	Fields Rd to Morongo Trail	4,127	17.7	B	3,537	13.6	B	4,170	17.9	B	3,450	13.3	B
F-61	I-10	Morongo Trail to Main St	3,646	15.4	B	3,125	11.8	B	3,690	15.6	B	3,040	11.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,646	15.4	B	3,125	11.7	B	3,700	15.6	B	3,040	11.4	B
F-64	I-10	SR-111 to Tipton Rd	3,165	13.4	B	2,713	10.2	A	3,210	13.6	B	2,640	9.9	A
F-65	I-10	Tipton Rd to SR-62	3,165	13.4	B	2,713	10.3	A	3,210	13.6	B	2,640	10.0	A

▨ Indicates that the LOS exceeds the target level

Table 4.15.AH-1: Existing (2018) plus Project Freeway Mainline Levels of Service (Continued)

			Northbound / Eastbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-3	SR-60	Ramona Ave to Central Ave	E	E	F	F	Yes	8,380	28.4	D	9,240	30.4	D	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	D	E	E	D	Yes	7,810	25.8	C	8,060	25.1	C	Add 1 mixed flow lane
F-6	SR-60	Euclid Ave to Grove Ave	D	E	E	E	Yes	7,720	25.4	C	8,180	25.6	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	F	F	F	F	Yes	9,870	41.2	E	9,250	33.2	D	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	C	D	F	F	Yes	2,990	16.6	B	4,690	25.1	C	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	E	E	F	F	Yes	6,520	26.2	D	7,010	30.6	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison St	F	F	F	F	Yes	7,530	32.3	D	8,190	40.1	E	Add 1 mixed flow lane
F-49	SR-91	Central Ave to 14th St	F	F	E	E	Yes	6,970	29.5	D	5,810	23.8	C	Add 1 mixed flow lane
F-95	I-215	Eucalyptus Ave to SR-60	D	D	D	E	Yes	4,770	19.0	C	6,110	23.6	C	Add 1 mixed flow lane
F-80	I-215	Auto Plaza Dr to Mill St	C	C	F	F	Yes	5,150	16.3	B	9,480	31.7	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-7	SR-60	Grove Ave to Vineyard Ave	D	C	F	F	Yes	6,480	19.7	C	9,600	34.0	D	Add 1 mixed flow lane
F-8	SR-60	Vineyard Ave to Archibald Ave	D	D	F	F	Yes	7,620	24.6	C	9,590	34.8	D	Add 1 mixed flow lane
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	D	D	E	E	Yes	7,170	22.4	C	8,340	27.8	D	Add 1 mixed flow lane
F-27	SR-60	I-215 to Day St	E	E	D	D	Yes	4,280	23.1	C	3,220	17.5	B	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	F	F	C	C	Yes	4,740	25.8	C	2,850	15.5	B	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	F	F	F	F	Yes	6,950	28.6	D	7,140	31.7	D	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	F	F	F	F	Yes	6,950	28.2	D	7,140	31.0	D	Add 1 mixed flow lane
F-42	SR-91	Magnolia Ave to La Sierra Ave	F	F	F	F	Yes	6,970	28.3	D	7,130	30.9	D	Add 1 mixed flow lane
F-43	SR-91	La Sierra Ave to Tyler St	D	D	F	F	Yes	5,860	22.6	C	7,140	31.0	D	Add 1 mixed flow lane
F-44	SR-91	Tyler St to Van Buren Blvd	C	C	E	E	Yes	6,050	18.3	C	8,050	26.7	D	Add 1 mixed flow lane
F-45	SR-91	Van Buren Blvd to Adam St	C	C	E	E	Yes	6,310	19.1	C	8,020	26.6	D	Add 1 mixed flow lane
F-75	I-215	Center St to La Cadena Dr	F	F	F	F	Yes	7,090	29.4	D	6,950	27.8	D	Add 1 mixed flow lane
F-76	I-215	La Cadena Dr to Barton Rd	F	F	F	F	Yes	7,150	29.6	D	7,020	27.8	D	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	D	E	F	F	Yes	6,060	23.6	C	7,050	28.0	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

Freeway Weaving Analysis. Existing (2018) with project freeway weaving segment ~~under existing with project conditions:~~

- ~~Northbound or Eastbound:~~
  - ~~SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road.~~

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levels of service for the study area are summarized in Table 4.15.AI, which shows five freeway weaving segments would operate at unsatisfactory levels of service.

The project would worsen the existing LOS deficiency at the following five freeway weaving segments under existing with project conditions:

Northbound or Eastbound

- I-215 from Main St. to SR-91
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

- SR-60 from University Ave. to Martin Luther King Blvd.
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
- SR-91 from Arlington Ave. to Central Ave

Table 4.15.AI: Existing (~~2012~~2018) plus Project Freeway Weaving Segments Levels of Service

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	**E**	6,300	26.0	C	8,500	35.6	**E**
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	5,890	29.0	D	6,910	33.6	D
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	**E**	4,590	18.8	B	9,270	39.4	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	**E**	4,520	25.4	C	6,930	39.3	**E**
W-23	SR-60	University Ave to Martin Luther King	4,528	20.4	C	5,932	25.7	C	5,170	24.8	C	5,760	25.6	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	3,856	14.5	B	7,840	32.4	D	4,700	20.8	C	7,820	35.0	**E**
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	3,870	17.7	B	4,810	19.5	B
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	3,710	16.9	B	4,730	21.3	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	5,640	25.8	C	5,590	27.1	C
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	**E**	4,073	19.6	B	7,220	36.9	**E**	4,080	19.9	B
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	4,690	22.3	C	4,460	22.1	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	6,230	34.7	D	5,670	29.4	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,270	15.9	B	4,240	15.1	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,920	22.5	C	5,180	23.0	C
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,660	16.1	B	3,670	15.4	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	2,180	7.2	A	3,230	10.8	B

▨ Indicates that the LOS exceeds the target level

			Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
ID	Freeway	Weaving Segment	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,125	21.4	C	5,892	20.8	C	5,950	21.0	C	6,090	21.9	C
W-9	SR-60	Haven Ave to Archibald Ave	6,288	23.5	C	6,071	23.5	C	6,010	22.6	C	6,320	25.0	C
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,729	28.6	D	7,211	27.2	C	7,360	27.7	C	7,770	30.7	D
W-22	SR-60	Blaine St/3rd St to University Ave	5,714	20.1	C	6,204	23.0	C	5,360	20.3	C	6,820	27.9	C
W-23	SR-60	University Ave to Martin Luther King	5,601	28.0	C	5,876	28.0	C	5,300	26.9	C	6,440	32.9	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	37.0	**E**	6,026	29.3	D	6,860	38.1	**E**	6,500	35.2	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,700	31.0	D	4,197	27.2	C	4,580	30.9	D	4,760	33.4	D
W-32	SR-60	Moreno Beach Dr to Nason St	1,609	9.2	A	1,753	10.2	B	1,910	11.7	B	2,480	16.0	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,642	21.1	C	5,118	23.8	C	4,520	20.7	C	5,250	25.0	C
W-50	SR-91	14th St to University Ave	5,179	24.1	C	7,050	35.5	**E**	5,230	24.6	C	7,080	36.2	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,075	14.4	B	8,804	26.9	C	5,120	14.8	B	8,840	27.3	C
W-73	I-215	SR-60 to Columbia Ave	5,877	26.4	C	5,495	24.5	C	6,000	27.3	C	5,440	24.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,890	16.8	B	4,591	16.3	B	4,970	17.2	B	4,490	16.1	B
W-81	I-215	Mill St to 2nd St	4,442	19.6	B	4,380	19.4	B	4,540	20.1	C	4,290	19.0	B
W-82	I-215	5th St to Baseline Rd	3,607	15.6	B	3,481	15.1	B	3,710	16.2	B	3,400	14.8	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,198	11.8	B	2,741	10.3	B	3,270	12.2	B	2,680	10.1	B

▨ Indicates that the LOS exceeds the target level

			Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,590	22	C	6,680	25	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	6,920	35.2	**E**	6,770	33.1	D
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	**E**	6,410	26.9	C	9,130	41.3	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,310	24.7	C	6,850	28.5	D
W-23	SR-60	University Ave to Martin Luther King	5,965	22.6	C	7,050	24.6	C	6,260	24.2	C	6,900	24.5	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	5,979	25.0	C	8,119	31.6	D	6,440	28.4	D	8,000	32.3	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	**E**	3,370	13.6	B	9,230	41.7	**E**
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,197	14.4	B	7,050	32.7	D	3,340	15.4	B	6,980	32.8	D
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			1,580	9.5	A	1,410	8.2	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	7,070	33.0	D	6,980	34.6	D
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	7,050	26.9	C	4,900	19.0	B
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	4,470	23.1	C	5,350	24.7	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	**F**	4,317	22.0	C	4,260	>Capacity	**F**	4,380	22.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	6,250	23.1	C	9,460	35.3	**E**
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	5,840	22.1	C	7,100	26.8	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	4,220	12.5	B	7,110	22.0	C
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	2,500	8.4	A	3,660	12.3	B

▨ Indicates that the LOS exceeds the target level

Table 4.15.AI: Existing (2018) plus Project Freeway Weaving Segments Levels of Service (Continued)

			Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,466	19.6	B	5,871	21.3	C	5,320	19.2	B	6,060	22.4	C
W-9	SR-60	Haven Ave to Archibald Ave	6,671	26.3	C	7,844	33.1	D	6,480	25.7	C	8,040	34.2	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	5,660	21.3	C	5,717	21.6	C	5,480	21.0	C	5,840	22.5	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,568	22.6	C	6,273	22.6	C	6,390	22.5	C	6,410	23.6	C
W-23	SR-60	University Ave to Martin Luther King	7,050	38.2	**E**	7,050	44.9	**F**	6,850	37.7	**E**	7,160	46.6	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	34.2	D	7,050	34.5	D	6,890	35.2	**E**	7,160	37.2	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,700	30.6	D	3,279	20.4	C	4,690	31.4	D	3,350	21.9	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,207	12.1	B	2,252	12.5	B	2,370	13.8	B	2,220	13.1	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			1,030	6.0	A	1,370	8.3	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	33.4	D	7,050	36.0	**E**	6,940	33.0	D	7,030	36.3	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	8,102	29.2	D	11,750	> Capacity	**F**	8,140	29.5	D	11,670	>Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	5,036	23.0	C	6,139	28.5	D	5,160	23.7	C	6,060	28.2	D
W-95	I-215	Eucalyptus Ave to SR-60	6,019	21.4	C	7,017	25.6	C	6,220	22.1	C	6,860	25.0	C
W-73	I-215	SR-60 to Columbia Ave	7,050	35.1	**E**	7,050	34.9	D	7,010	35.1	**E**	6,990	34.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,311	21.8	C	6,261	21.9	C	6,310	21.8	C	6,200	21.8	C
W-81	I-215	Mill St to 2nd St	7,050	24.5	C	6,421	22.7	C	7,060	24.6	C	6,370	22.6	C
W-82	I-215	5th St to Baseline Rd	7,050	22.5	C	5,762	18.0	B	7,060	22.5	C	5,740	17.9	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,646	13.9	B	3,125	11.7	B	3,700	14.2	B	3,040	11.4	B

▨ Indicates that the LOS exceeds the target level

Table 4.15.AI: Existing (2018) plus Project Freeway Weaving Segments Levels of Service

			Northbound / Eastbound												
			Determination of Impact					Existing Plus Project& Mitigations							
			AM Peak Hour		PM Peak Hour				AM Peak Hour			PM Peak Hour			
ID	Freeway	Weaving Segment	No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Sgement type	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
W-20	SR-60	Main St to SR-91	D	E	D	D	Yes	Weaving	6,920	27.4	C	6,770	25.8	C	Add 1 mixed flow lane
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	D	E	Yes	Weaving	6,250	19.0	B	9,460	28.8	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound												
			Determination of Impact					Existing Plus Project& Mitigations							
			AM Peak Hour		PM Peak Hour				AM Peak Hour			PM Peak Hour			
ID	Freeway	Weaving Segment	No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Sgement type	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
W-23	SR-60	University Ave to Martin Luther King	E	E	F	F	Yes	Weaving	6,850	29.3	D	7,160	36.0	E	Add 1 mixed flow lane
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	D	E	D	E	Yes	Weaving	6,890	27.4	C	7,160	28.9	D	Add 1 mixed flow lane
W-48	SR-91	Arlington Ave to Central Ave	D	D	E	E	Yes	Weaving	6,940	25.7	C	7,030	28.2	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, ~~Parsons Brinckerhoff, September 2014.~~WSP, July 2018

Freeway Ramp Analysis. Existing (~~2012~~2018) with project freeway ramp levels of service for the study area are summarized in Table 4.15.AJ~~, which shows the SR-60 eastbound on-ramp from Central Avenue currently operates at LOS F in the p.m. peak hour and would also operate at LOS F under Existing Plus Project conditions, but with a higher traffic density. This would be considered~~. The table identifies the one ramp segment where the Project would have a significant ~~cumulative~~ impact~~.~~, namely:

- SR-60 eastbound On-Ramp from Martin Luther King Blvd.

Table 4.15.AJ: Existing (2018) plus Project Freeway Ramps Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Existing Conditions								Existing Plus Project Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	F	8,384	1,016	34.3	F	9,134	266	41.9	F	8,384	1,016	34.1	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C	5,529	450	15.6	B	6,913	1,206	22.2	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A	1,757	278	4.7	A	2,053	543	5.7	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B	1,575	96	18.5	B	1,609	99	17.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B	1,671	133	22.1	C	1,708	40	20.7	C
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B	1,569	31	18.0	B	1,703	35	15.8	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B	1,264	7	14.2	B	1,310	9	13.4	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B	1,121	10	13.5	B	1,165	10	13.1	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B	1,422	59	17.2	B	1,457	47	14.9	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B	1,481	73	21.5	C	1,504	73	19.0	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B	1,427	390	18.4	B	1,448	434	17.7	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A	7,050	606	2.7	A	7,050	498	4.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C	7,050	595	22.1	C	6,885	976	25.7	C

▨ Indicates that the LOS exceeds the target level

The following table shows the mitigation measure needed to reduce the impacts of the WLC to a less-than-significant level. While this measure is feasible in the sense that, if it could be constructed it would achieve the target LOS, this does not necessarily mean that it passes other tests of feasibility. The physical and financial feasibility of mitigation measures and the means to fund them are discussed in greater depth in the Traffic Impact Analysis of the Revised Sections of the FEIR.

Table 4.15.AJ: Existing (2018) plus Project Freeway Ramps Levels of Service (Continued)

				Determination of Impact					**Existing Plus Project & Mitigations**								
				AM Peak Hour		**PM Peak Hour**			**AM Peak Hour**				**PM Peak Hour**				
ID	**Freeway / Direction**	**Ramp Segment**	**Ramp No. of Lanes**	**No-Project LOS**	**Plus Project LOS**	**No-Project LOS**	**Plus Project LOS**	**Project Impact?**	**Mainline Volume**	**Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	**Mainline Volume**	**Ramp Volume**	**Density (pc/mi/ln)**	**LOS**	**Mitigation Measures Required to Reduce Impact to Less-Than-Significant**
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	**F**	**F**	**F**	**F**	Yes	9,134	266	27.2	C	8,384	1,016	26.3	C	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

4.15.6.3 Year ~~2022~~2025 With Phase 1 Conditions Traffic and Level of Service Impacts

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Intersection Analysis. Year ~~2022~~2025 with Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.15.AK-1 and 4.15.AK-2, which shows ~~34~~26 study intersections would operate at unsatisfactory LOS in the ~~2022~~2025 with Phase 1 condition. ~~Twenty-eight of these intersections would exceed the threshold of significance under 2022 No Project conditions and would therefore be considered significant cumulative impacts requiring mitigation. At six of these intersections the level of service would drop from satisfactory to unsatisfactory with the addition of Phase 1 traffic, which would also be considered a significant cumulative impact requiring mitigation.~~

Phase 1 of the project would have a significant cumulative impact at the following ~~28~~26 intersections under year ~~2022~~2025 with Phase 1 conditions:

Would Exceed Threshold of Significance Under Both the 2025 No-Project Scenario and the 2025 Plus Phase 1 Scenario

- IN-10 Redlands ~~Boulevard~~Blvd/Locust ~~Avenue;~~Ave. (AM, PM)
- ~~Redlands Boulevard/SR-60 Westbound Ramps;~~
- IN-20 Oliver ~~Street~~St/Alessandro ~~Boulevard;~~Blvd. (AM, PM)
- ~~Moreno Beach Drive/Ironwood Avenue;~~
- ~~Moreno Beach Drive/SR-60 Eastbound Ramps;~~

- IN-53 Lasselle ~~Street/Iris Avenue;~~St./Cactus Ave. (PM)
- ~~Krameria Avenue/~~IN-65 Perris ~~Boulevard;~~Blvd./Cactus Ave. (AM)
- ~~Lasselle Street/~~IN-66 Alessandro ~~Boulevard;~~Blvd./Sycamore Canyon Blvd. (AM)
- ~~Lasselle Street/Cactus Avenue;~~
- ~~Frederick Street/~~IN-75 Central Ave./Lochmoor Dr. (AM)
- IN-76 Sycamore Canyon Blvd/Central Ave (PM)
- IN-80 Alessandro ~~Boulevard;~~Blvd./Mission Grove Pkwy. (AM, PM)
- ~~Graham Street/Alessandro Boulevard;~~
- IN-83 Martin Luther King ~~Boulevard/~~Blvd./Canyon Crest ~~Drive;~~Dr. (AM)
- ~~Perris Boulevard/~~IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-98 Alessandro ~~Boulevard;~~Blvd./Canyon Crest Dr. (PM)
- ~~Graham Street/Cactus Avenue;~~
- ~~Alessandro Boulevard/Sycamore Canyon Boulevard;~~
- ~~Elsworth Street/Cactus Avenue;~~
- ~~Arlington Avenue/Victoria Avenue;~~
- ~~Alessandro Boulevard/Chicago Avenue;~~
- ~~Ramona Expressway/~~IN-107 Evans ~~Road;~~Rd./Rider St. (AM)
- ~~Placentia Avenue/Perris Boulevard;~~
- IN-114 Evans Rd./Orange Ave. (AM)
- IN-123 Gilman Springs ~~Road/~~Rd./Bridge ~~Street;~~St. (AM, PM)
- IN-124 SR-79 (Sanderson ~~Avenue) Northbound~~Ave.) NB/Gilman Springs ~~Road;~~Rd. (AM, PM)
- IN-125 SR-79 (Sanderson ~~Avenue) Southbound~~Ave.) SB/Gilman Springs ~~Road;~~Rd. (AM, PM)
- ~~W. 6th Street/California Avenue;~~
- ~~Ramona Expressway/Sanderson Avenue;~~
- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM)
- IN-132 San Timoteo Canyon ~~Road/~~Rd./Alessandro ~~Road;~~Rd. (AM, PM)
- IN-133 San Timoteo Canyon ~~Road/~~Rd./Live Oak Canyon ~~Road;~~Rd. (AM, PM)
- IN-134 Redlands ~~Boulevard/~~Blvd./San Timoteo Canyon ~~Road; and~~Rd. (AM, PM)
- ~~W. Crescent Avenue/Alessandro Boulevard.~~

~~A significant cumulative impact would also occur at~~
Would exceed the ~~following six intersections~~target LOS under ~~year 2022 with~~the 2025 Plus Phase 1 ~~conditions~~Scenario, but not under the 2025 No Project Scenario:

- IN-27 Redlands ~~Boulevard/~~Blvd./Cactus ~~Avenue;~~Ave. (PM)
- ~~Kitching Street/Iris Avenue;~~
- ~~Perris Boulevard/John F. Kennedy Drive;~~
- ~~Iris Avenue/Perris Boulevard;~~

- ~~Heacock Street/Alessandro Boulevard; and~~
- ~~Day Street/Alessandro Boulevard.~~

  - IN-123 Gilman Springs Rd./Bridge St. (PM)

~~Table 4.15.AJ: Existing (2012) plus Project Freeway Ramp Levels of Service~~

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Existing Conditions								Existing Plus Build-out Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C	4,740	350	20.9	C	5,480	1,300	29.6	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	F	6,510	480	22.9	C	8,630	1,000	32.5	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	119	3.3	A	1,397	30	3.2	A	2,140	390	13.9	B	1,750	450	8.6	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,207	26	12.9	B	1,367	25	13.6	B	1,750	80	20.1	C	1,300	110	15.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	207	17.3	B	1,920	434	19.1	B	2,590	1,160	18.5	B	2,380	810	16.0	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,407	70	16.5	B	1,486	71	16.5	B	1,430	10	17.5	B	1,570	10	18.0	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				1,420	120	18.4	B	1,560	250	20.1	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B	1,550	419	17.2	B	1,830	431	18.8	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B	1,131	30	14.2	B	1,399	59	16.1	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B	1,070	97	12.0	B	980	30	11.4	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B	973	405	15.5	B	950	466	16.2	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B	1,100	210	7.1	A	1,510	90	10.1	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B	890	740	17.1	B	1,420	850	22.8	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B	1,660	100	18.7	B	2,300	60	25.2	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B	1,560	350	19.3	B	2,240	590	28.0	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D	6,860	400	32.5	D	6,500	450	31.8	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B	6,800	510	20.8	C	6,420	370	19.5	B

▨ Indicates that the LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

Table 4.15.AK-1: Year ~~2022~~2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

			~~2022 No Project~~	~~2022 With Phase 1~~				
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~	~~RABT~~	~~9.8~~	~~A~~	
~~2~~	~~Cactus Ave Extension/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~	~~CSS~~	~~12.7~~	~~B~~	
~~3~~	~~Theodore St/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~10.0~~	~~A~~	~~RABT~~	~~10.5~~	~~B~~
~~4~~	~~Alessandro Blvd (Street C)/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~	~~CSS~~	~~9.9~~	~~A~~	
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~SIGNAL~~	~~5.8~~	~~A~~	~~SIGNAL~~	~~7.9~~	~~A~~
~~9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~34.9~~	~~C~~	~~SIGNAL~~	~~31.9~~	~~C~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~13.0~~	~~B~~	~~CSS~~	~~17.9~~	~~C~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~8.9~~	~~A~~	~~SIGNAL~~	~~12.6~~	~~B~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~12.2~~	~~B~~	~~SIGNAL~~	~~14.0~~	~~B~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~12.2~~	~~B~~	~~SIGNAL~~	~~2.6~~	~~A~~
~~17~~	~~Quincy Str/Fir Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~N/A~~	~~Non-Existent~~	~~SIGNAL~~	~~10.9~~	~~B~~	
~~19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~9.8~~	~~A~~	~~SIGNAL~~	~~13.6~~	~~B~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~81.3~~	~~F~~	~~CSS~~	~~129.7~~	~~F~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~SIGNAL~~	~~17.5~~	~~C~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~30.2~~	~~D~~	~~AWS~~	~~18.7~~	~~C~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~32.5~~	~~C~~	~~SIGNAL~~	~~37.0~~	~~D~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~18.5~~	~~B~~	~~SIGNAL~~	~~18.9~~	~~B~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~13.4~~	~~B~~	~~AWS~~	~~52.8~~	~~F~~
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~19.8~~	~~B~~	~~SIGNAL~~	~~29.0~~	~~C~~
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~30.9~~	~~C~~	~~SIGNAL~~	~~31.1~~	~~C~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~33.7~~	~~C~~	~~SIGNAL~~	~~34.7~~	~~C~~

Table 4.15.AK-1: Year ~~2022~~2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

			~~2022 No Project~~	~~2022 With Phase 1~~				
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~21.1~~	~~C~~	~~SIGNAL~~	~~21.6~~	~~C~~
~~32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~SIGNAL~~	~~29.9~~	~~C~~	~~SIGNAL~~	~~30.2~~	~~C~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~31.8~~	~~C~~	~~SIGNAL~~	~~33.7~~	~~C~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~27.7~~	~~C~~	~~SIGNAL~~	~~28.8~~	~~C~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~9.2~~	~~A~~	~~CSS~~	~~9.3~~	~~A~~
~~36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~SIGNAL~~	~~90.2~~	~~F~~	~~SIGNAL~~	~~97.5~~	~~F~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~88.7~~	~~F~~	~~SIGNAL~~	~~102.3~~	~~F~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~50.8~~	~~D~~	~~SIGNAL~~	~~55.7~~	~~E~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~54.0~~	~~D~~	~~SIGNAL~~	~~55.5~~	~~E~~
~~40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~28.9~~	~~C~~	~~SIGNAL~~	~~30.5~~	~~C~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~32.8~~	~~C~~	~~SIGNAL~~	~~42.1~~	~~D~~
~~42~~	~~Nason Str/Iris Ave~~	~~C~~	~~SIGNAL~~	~~8.2~~	~~A~~	~~SIGNAL~~	~~7.7~~	~~A~~
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~28.9~~	~~C~~	~~SIGNAL~~	~~28.2~~	~~C~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~8.8~~	~~A~~	~~SIGNAL~~	~~9.6~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~> 180.0~~	~~F~~	~~SIGNAL~~	~~> 180.0~~	~~F~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~29.2~~	~~C~~	~~SIGNAL~~	~~41.2~~	~~D~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~32.9~~	~~C~~	~~SIGNAL~~	~~33.6~~	~~C~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~28.5~~	~~C~~	~~SIGNAL~~	~~28.5~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~56.1~~	~~E~~	~~SIGNAL~~	~~57.6~~	~~E~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~9.3~~	~~A~~	~~SIGNAL~~	~~9.3~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~31.5~~	~~C~~	~~SIGNAL~~	~~32.3~~	~~C~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~32.2~~	~~C~~	~~SIGNAL~~	~~32.8~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~64.0~~	~~E~~	~~SIGNAL~~	~~69.7~~	~~E~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.6~~	~~C~~	~~SIGNAL~~	~~31.1~~	~~C~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~30.4~~	~~C~~	~~SIGNAL~~	~~30.7~~	~~C~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~32.4~~	~~C~~	~~SIGNAL~~	~~32.7~~	~~C~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~41.8~~	~~D~~	~~SIGNAL~~	~~43.3~~	~~D~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~24.7~~	~~C~~	~~SIGNAL~~	~~24.4~~	~~C~~

Table 4.15.AK-1: Year ~~2022~~2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

			~~2022 No Project~~	~~2022 With Phase 1~~				
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~50.5~~	~~D~~	~~SIGNAL~~	~~51.5~~	~~D~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~19.1~~	~~B~~	~~SIGNAL~~	~~19.9~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~148.3~~	~~F~~	~~SIGNAL~~	~~154.7~~	~~F~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~42.5~~	~~D~~	~~SIGNAL~~	~~41.2~~	~~D~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~28.8~~	~~C~~	~~SIGNAL~~	~~28.9~~	~~C~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~35.7~~	~~D~~	~~SIGNAL~~	~~35.6~~	~~D~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~38.2~~	~~D~~	~~SIGNAL~~	~~36.8~~	~~D~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~10.9~~	~~B~~	~~SIGNAL~~	~~11.0~~	~~B~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.5~~	~~C~~	~~SIGNAL~~	~~25.7~~	~~C~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~17.3~~	~~B~~	~~SIGNAL~~	~~17.5~~	~~B~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~10.7~~	~~B~~	~~SIGNAL~~	~~10.7~~	~~B~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~20.7~~	~~C~~	~~SIGNAL~~	~~20.9~~	~~C~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~30.5~~	~~C~~	~~SIGNAL~~	~~31.8~~	~~C~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~10.8~~	~~B~~	~~SIGNAL~~	~~12.7~~	~~B~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~31.3~~	~~C~~	~~SIGNAL~~	~~31.2~~	~~C~~
~~75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~19.6~~	~~B~~	~~SIGNAL~~	~~20.7~~	~~C~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~27.6~~	~~C~~	~~SIGNAL~~	~~32.6~~	~~C~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~10.9~~	~~B~~	~~SIGNAL~~	~~10.8~~	~~B~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~6.6~~	~~A~~	~~SIGNAL~~	~~7.1~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~29.8~~	~~C~~	~~SIGNAL~~	~~30.2~~	~~C~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~33.2~~	~~C~~	~~SIGNAL~~	~~36.0~~	~~D~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~34.6~~	~~C~~	~~SIGNAL~~	~~36.7~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~9.2~~	~~A~~	~~SIGNAL~~	~~9.3~~	~~A~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~100.0~~	~~F~~	~~SIGNAL~~	~~102.2~~	~~F~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~9.6~~	~~A~~	~~SIGNAL~~	~~9.8~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~27.4~~	~~D~~	~~AWS~~	~~28.0~~	~~D~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~34.5~~	~~C~~	~~SIGNAL~~	~~39.0~~	~~D~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~13.2~~	~~B~~	~~SIGNAL~~	~~13.2~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~36.3~~	~~D~~	~~SIGNAL~~	~~37.6~~	~~D~~

Table 4.15.AK-1: Year ~~2022~~2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

			~~2022 No Project~~	~~2022 With Phase 1~~				
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~9.4~~	~~A~~	~~SIGNAL~~	~~9.8~~	~~A~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~36.9~~	~~D~~	~~SIGNAL~~	~~37.3~~	~~D~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~22.1~~	~~C~~	~~SIGNAL~~	~~22.1~~	~~C~~
~~92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~14.3~~	~~B~~	~~SIGNAL~~	~~14.3~~	~~B~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~19.7~~	~~B~~	~~SIGNAL~~	~~21.6~~	~~C~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~84.2~~	~~F~~	~~SIGNAL~~	~~88.4~~	~~F~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~64.5~~	~~E~~	~~SIGNAL~~	~~69.8~~	~~E~~
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~32.5~~	~~C~~	~~SIGNAL~~	~~32.9~~	~~C~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~29.5~~	~~C~~	~~SIGNAL~~	~~29.9~~	~~C~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~30.6~~	~~C~~	~~SIGNAL~~	~~30.9~~	~~C~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~33.3~~	~~C~~	~~SIGNAL~~	~~43.8~~	~~D~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~18.6~~	~~B~~	~~SIGNAL~~	~~21.4~~	~~C~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~34.3~~	~~C~~	~~SIGNAL~~	~~36.0~~	~~D~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~139.7~~	~~F~~	~~SIGNAL~~	~~145.0~~	~~F~~
~~104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~14.6~~	~~B~~	~~SIGNAL~~	~~14.4~~	~~B~~
~~105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~32.8~~	~~C~~	~~SIGNAL~~	~~32.4~~	~~C~~
~~106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~17.6~~	~~B~~	~~SIGNAL~~	~~18.4~~	~~B~~
~~107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~34.4~~	~~C~~	~~SIGNAL~~	~~34.7~~	~~C~~
~~108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~29.2~~	~~C~~	~~SIGNAL~~	~~30.1~~	~~C~~
~~109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~19.2~~	~~B~~	~~SIGNAL~~	~~30.8~~	~~C~~
~~110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~38.0~~	~~D~~	~~SIGNAL~~	~~37.9~~	~~D~~
~~111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~14.6~~	~~B~~	~~SIGNAL~~	~~14.9~~	~~B~~
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~40.8~~	~~D~~	~~SIGNAL~~	~~41.7~~	~~D~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~22.1~~	~~C~~	~~AWS~~	~~22.1~~	~~C~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~32.0~~	~~C~~	~~SIGNAL~~	~~32.0~~	~~C~~

Table 4.15.AK-1: Year ~~2022~~2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

			~~2022 No Project~~	~~2022 With Phase 1~~				
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~118~~	~~Ellis Ave/SR 215 NB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~122~~	~~Bridge St/Ramona Expy~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~22.3~~	~~C~~	~~CSS~~	~~25.4~~	~~D~~
~~124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~125~~	~~SR 79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~35.7~~	~~D~~	~~SIGNAL~~	~~40.6~~	~~D~~
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~	~~N/A~~	~~Non-Existent~~		
~~129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~31.8~~	~~D~~	~~AWS~~	~~40.9~~	~~E~~
~~130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~15.7~~	~~B~~	~~SIGNAL~~	~~16.0~~	~~B~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~13.7~~	~~B~~	~~SIGNAL~~	~~13.2~~	~~B~~
~~132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~> 180.0~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~169.8~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~> 180.0~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~135~~	~~W Crescent Ave/Alessandro Blvd~~	~~C~~	~~CSS~~	~~27.7~~	~~D~~	~~CSS~~	~~40.9~~	~~E~~
~~136~~	~~W Sunset Dr/Alessandro Blvd~~	~~C~~	~~AWS~~	~~10.9~~	~~B~~	~~AWS~~	~~11.9~~	~~B~~

~~Notes:~~ ~~"CSS" means cross-street is stop-controlled~~ ~~"AWS" means all-way stop~~ ~~"RABT" means roundabout~~

~~"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported~~

▨ ~~denotes LOS exceeding the target threshold~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2022 No Project~~			~~2022 With Phase 1~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~12.8~~	~~B~~
~~2~~	~~Cactus Ave Extension/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~CSS~~	~~13.9~~	~~B~~
~~3~~	~~Theodore St/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~10.3~~	~~B~~	~~RABT~~	~~10.6~~	~~B~~
~~4~~	~~Alessandro Blvd (Street C)/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~CSS~~	~~9.4~~	~~A~~
~~6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~SIGNAL~~	~~7.9~~	~~A~~	~~SIGNAL~~	~~10.9~~	~~B~~
~~9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~31.7~~	~~C~~	~~SIGNAL~~	~~26.1~~	~~C~~
~~12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~17.8~~	~~C~~	~~CSS~~	~~25.5~~	~~D~~
~~13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~SIGNAL~~	~~15.9~~	~~B~~	~~SIGNAL~~	~~18.5~~	~~B~~
~~15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~19.2~~	~~C~~	~~SIGNAL~~	~~17.4~~	~~B~~
~~16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~23.2~~	~~C~~	~~SIGNAL~~	~~2.6~~	~~A~~
~~17~~	~~Quincy Str/Fir Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~SIGNAL~~	~~17.0~~	~~B~~
~~19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~41.7~~	~~E~~	~~SIGNAL~~	~~37.9~~	~~D~~
~~20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~67.7~~	~~F~~	~~CSS~~	~~98.9~~	~~F~~
~~21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~18.5~~	~~B~~	~~SIGNAL~~	~~20.8~~	~~C~~
~~22~~	~~Quincy Str/Alessandro Blvd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~14.1~~	~~B~~	~~AWS~~	~~15.8~~	~~C~~
~~24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~25.7~~	~~C~~	~~SIGNAL~~	~~27.2~~	~~C~~
~~25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~18.9~~	~~B~~	~~SIGNAL~~	~~19.7~~	~~B~~
~~26~~	~~Quincy Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~9.5~~	~~A~~	~~AWS~~	~~105.0~~	~~F~~
~~28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~18.9~~	~~B~~	~~SIGNAL~~	~~44.7~~	~~D~~
~~29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~36.9~~	~~D~~	~~SIGNAL~~	~~38.0~~	~~D~~
~~30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~47.5~~	~~D~~	~~SIGNAL~~	~~49.5~~	~~D~~

~~Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

			~~2022 No Project~~			~~2022 With Phase 1~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~24.7~~	~~C~~	~~SIGNAL~~	~~25.4~~	~~C~~
~~32~~	~~Sunnymead Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~39.2~~	~~D~~	~~SIGNAL~~	~~39.3~~	~~D~~
~~33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~SIGNAL~~	~~21.7~~	~~C~~	~~SIGNAL~~	~~23.7~~	~~C~~
~~34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~SIGNAL~~	~~33.4~~	~~C~~	~~SIGNAL~~	~~34.1~~	~~C~~
~~35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~9.6~~	~~A~~	~~CSS~~	~~9.8~~	~~A~~
~~36~~	~~Moreno Beach Dr/Ironwood Ave~~	~~D~~	~~SIGNAL~~	~~51.0~~	~~D~~	~~SIGNAL~~	~~54.9~~	~~D~~
~~37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~SIGNAL~~	~~37.8~~	~~D~~	~~SIGNAL~~	~~45.5~~	~~D~~
~~38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~SIGNAL~~	~~53.5~~	~~D~~	~~SIGNAL~~	~~55.9~~	~~E~~
~~39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~38.6~~	~~D~~	~~SIGNAL~~	~~38.4~~	~~D~~
~~40~~	~~Kitching St/Iris Ave~~	~~C~~	~~SIGNAL~~	~~23.9~~	~~C~~	~~SIGNAL~~	~~49.8~~	~~D~~
~~41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~68.7~~	~~E~~	~~SIGNAL~~	~~89.5~~	~~F~~
~~42~~	~~Nason Str/Iris Ave~~	~~C~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~SIGNAL~~	~~12.9~~	~~B~~
~~43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~SIGNAL~~	~~22.0~~	~~C~~	~~SIGNAL~~	~~23.0~~	~~C~~
~~44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~SIGNAL~~	~~8.3~~	~~A~~	~~SIGNAL~~	~~8.1~~	~~A~~
~~45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~> 180.0~~	~~F~~	~~SIGNAL~~	~~> 180.0~~	~~F~~
~~46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~40.0~~	~~D~~	~~SIGNAL~~	~~47.6~~	~~D~~
~~47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~SIGNAL~~	~~15.3~~	~~B~~	~~SIGNAL~~	~~15.7~~	~~B~~
~~48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~25.7~~	~~C~~	~~SIGNAL~~	~~26.0~~	~~C~~
~~49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~41.9~~	~~D~~	~~SIGNAL~~	~~42.9~~	~~D~~
~~50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~9.2~~	~~A~~	~~SIGNAL~~	~~9.3~~	~~A~~
~~51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~29.5~~	~~C~~	~~SIGNAL~~	~~31.5~~	~~C~~
~~52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~26.2~~	~~C~~	~~SIGNAL~~	~~26.5~~	~~C~~
~~53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~52.8~~	~~D~~	~~SIGNAL~~	~~56.6~~	~~E~~
~~54~~	~~Morrison Str/Cactus Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~32.8~~	~~C~~	~~SIGNAL~~	~~35.3~~	~~D~~
~~56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~61.7~~	~~E~~	~~SIGNAL~~	~~74.8~~	~~E~~
~~57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~76.8~~	~~E~~	~~SIGNAL~~	~~77.6~~	~~E~~
~~58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~48.9~~	~~D~~	~~SIGNAL~~	~~59.7~~	~~E~~
~~59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~33.5~~	~~C~~	~~SIGNAL~~	~~39.6~~	~~D~~
~~60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~113.4~~	~~F~~	~~SIGNAL~~	~~120.7~~	~~F~~
~~61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~15.6~~	~~B~~	~~SIGNAL~~	~~16.3~~	~~B~~
~~62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~66.6~~	~~E~~	~~SIGNAL~~	~~69.9~~	~~E~~

~~**Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)**~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2022 No Project~~			~~2022 With Phase 1~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~32.9~~	~~C~~	~~SIGNAL~~	~~33.6~~	~~C~~
~~64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~SIGNAL~~	~~22.0~~	~~C~~	~~SIGNAL~~	~~22.1~~	~~C~~
~~65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~32.7~~	~~C~~	~~SIGNAL~~	~~33.5~~	~~C~~
~~66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~SIGNAL~~	~~58.3~~	~~E~~	~~SIGNAL~~	~~76.7~~	~~E~~
~~67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~8.9~~	~~A~~	~~SIGNAL~~	~~8.6~~	~~A~~
~~68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~23.3~~	~~C~~	~~SIGNAL~~	~~33.5~~	~~C~~
~~69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~35.4~~	~~D~~	~~SIGNAL~~	~~42.1~~	~~D~~
~~70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~43.0~~	~~D~~	~~SIGNAL~~	~~76.5~~	~~E~~
~~71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~SIGNAL~~	~~34.7~~	~~C~~	~~SIGNAL~~	~~36.3~~	~~D~~
~~72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~89.5~~	~~F~~	~~SIGNAL~~	~~89.5~~	~~F~~
~~73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~12.6~~	~~B~~	~~SIGNAL~~	~~40.4~~	~~D~~
~~74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~SIGNAL~~	~~175.7~~	~~F~~	~~SIGNAL~~	~~> 180.0~~	~~F~~
~~75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~SIGNAL~~	~~30.3~~	~~C~~	~~SIGNAL~~	~~52.8~~	~~D~~
~~76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~SIGNAL~~	~~29.8~~	~~C~~	~~SIGNAL~~	~~31.1~~	~~C~~
~~77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~11.7~~	~~B~~	~~SIGNAL~~	~~11.9~~	~~B~~
~~78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~SIGNAL~~	~~7.4~~	~~A~~	~~SIGNAL~~	~~7.8~~	~~A~~
~~79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~SIGNAL~~	~~15.5~~	~~B~~	~~SIGNAL~~	~~15.5~~	~~B~~
~~80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~SIGNAL~~	~~48.3~~	~~D~~	~~SIGNAL~~	~~50.0~~	~~D~~
~~81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~48.4~~	~~D~~	~~SIGNAL~~	~~51.7~~	~~D~~
~~82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~SIGNAL~~	~~16.7~~	~~B~~	~~SIGNAL~~	~~17.5~~	~~B~~
~~83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~41.2~~	~~D~~	~~SIGNAL~~	~~42.7~~	~~D~~
~~84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~SIGNAL~~	~~5.6~~	~~A~~	~~SIGNAL~~	~~5.7~~	~~A~~
~~85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~15.0~~	~~C~~	~~AWS~~	~~15.6~~	~~C~~
~~86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~40.8~~	~~D~~	~~SIGNAL~~	~~43.4~~	~~D~~
~~87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~SIGNAL~~	~~17.3~~	~~B~~	~~SIGNAL~~	~~17.6~~	~~B~~
~~88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~51.2~~	~~D~~	~~SIGNAL~~	~~53.0~~	~~D~~
~~89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~SIGNAL~~	~~7.1~~	~~A~~	~~SIGNAL~~	~~7.0~~	~~A~~
~~90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~SIGNAL~~	~~35.4~~	~~D~~	~~SIGNAL~~	~~36.6~~	~~D~~
~~91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~SIGNAL~~	~~31.3~~	~~C~~	~~SIGNAL~~	~~31.3~~	~~C~~
~~92~~	~~Arlington Ave/Maude St~~	~~D~~	~~SIGNAL~~	~~13.5~~	~~B~~	~~SIGNAL~~	~~13.6~~	~~B~~
~~93~~	~~Horace St/Arlington Ave~~	~~D~~	~~SIGNAL~~	~~10.1~~	~~B~~	~~SIGNAL~~	~~10.3~~	~~B~~
~~94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~SIGNAL~~	~~83.7~~	~~F~~	~~SIGNAL~~	~~92.9~~	~~F~~

~~Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2022 No Project~~			~~2022 With Phase 1~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~SIGNAL~~	~~114.7~~	~~F~~	~~SIGNAL~~	~~121.2~~	~~F~~
~~96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~SIGNAL~~	~~14.9~~	~~B~~	~~SIGNAL~~	~~15.0~~	~~B~~
~~97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~SIGNAL~~	~~20.5~~	~~C~~	~~SIGNAL~~	~~20.9~~	~~C~~
~~98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~SIGNAL~~	~~30.2~~	~~C~~	~~SIGNAL~~	~~30.2~~	~~C~~
~~99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~25.5~~	~~C~~	~~SIGNAL~~	~~28.4~~	~~C~~
~~100~~	~~Harley Knox Blvd/Evan Rd~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~101~~	~~Ramona Expy/Indian St~~	~~E~~	~~SIGNAL~~	~~39.7~~	~~D~~	~~SIGNAL~~	~~41.8~~	~~D~~
~~102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~SIGNAL~~	~~31.2~~	~~C~~	~~SIGNAL~~	~~31.5~~	~~C~~
~~103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~SIGNAL~~	~~41.6~~	~~D~~	~~SIGNAL~~	~~45.1~~	~~D~~
~~104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~SIGNAL~~	~~12.7~~	~~B~~	~~SIGNAL~~	~~12.6~~	~~B~~
~~105~~	~~Evans Rd/Morgan St~~	~~C~~	~~SIGNAL~~	~~29.7~~	~~C~~	~~SIGNAL~~	~~29.0~~	~~C~~
~~106~~	~~Perris Blvd/Rider St~~	~~C~~	~~SIGNAL~~	~~22.7~~	~~C~~	~~SIGNAL~~	~~23.4~~	~~C~~
~~107~~	~~Evans Rd/Rider St~~	~~C~~	~~SIGNAL~~	~~30.3~~	~~C~~	~~SIGNAL~~	~~30.0~~	~~C~~
~~108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~20.8~~	~~C~~	~~SIGNAL~~	~~21.2~~	~~C~~
~~109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~32.4~~	~~C~~	~~SIGNAL~~	~~34.6~~	~~C~~
~~110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~D~~	~~SIGNAL~~	~~32.2~~	~~C~~	~~SIGNAL~~	~~32.1~~	~~C~~
~~111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~D~~	~~SIGNAL~~	~~25.9~~	~~C~~	~~SIGNAL~~	~~26.3~~	~~C~~
~~112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~SIGNAL~~	~~60.0~~	~~E~~	~~SIGNAL~~	~~61.4~~	~~E~~
~~113~~	~~Evans Rd/Placentia Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~AWS~~	~~16.9~~	~~C~~	~~AWS~~	~~17.7~~	~~C~~
~~115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~SIGNAL~~	~~32.2~~	~~C~~	~~SIGNAL~~	~~32.2~~	~~C~~
~~116~~	~~Evans Rd/Ellis Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~117~~	~~Ellis Ave/I-215 SB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~119~~	~~Evans Rd/San Jacinto Ave~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~122~~	~~Bridge St/Ramona Expy~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~25.7~~	~~D~~	~~CSS~~	~~26.7~~	~~D~~
~~124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~108.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~123.3~~	~~F~~	~~CSS~~	~~145.4~~	~~F~~
~~126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~SIGNAL~~	~~24.4~~	~~C~~	~~SIGNAL~~	~~24.8~~	~~C~~

~~Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)~~

			~~2022 No Project~~			~~2022 With Phase 1~~		
~~ID~~	**~~Study Intersection~~**	**~~LOS Standard~~**	**~~Traffic Control~~**	**~~Delay~~**	**~~LOS~~**	**~~Traffic Control~~**	**~~Delay~~**	**~~LOS~~**
~~127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~55.0~~	~~F~~	~~AWS~~	~~64.0~~	~~F~~
~~130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~SIGNAL~~	~~25.3~~	~~C~~	~~SIGNAL~~	~~28.0~~	~~C~~
~~131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~SIGNAL~~	~~6.3~~	~~A~~	~~SIGNAL~~	~~6.2~~	~~A~~
~~132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~125.1~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~> 180.0~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~> 180.0~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~135~~	~~W Crescent Ave/Alessandro Blvd~~	~~C~~	~~CSS~~	~~16.2~~	~~C~~	~~CSS~~	~~18.5~~	~~C~~
~~136~~	~~W Sunset Dr/Alessandro Blvd~~	~~C~~	~~AWS~~	~~11.1~~	~~B~~	~~AWS~~	~~11.5~~	~~B~~

~~Notes~~ ~~"CSS" means cross-street is stop-controlled~~ ~~"AWS" means all-way stop~~ ~~"RABT" means roundabout~~

~~"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported~~

▨ ~~denotes LOS exceeding the target threshold~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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~~**Roadway Analysis.** Year 2022 with Phase 1 roadway segment levels of service for the study area intersections are summarized in Table 4.15.AL, which shows three roadway segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at two roadway segments and, therefore, have a significant cumulative impact at these locations and mitigation is required. One roadway segment would drop from satisfactory to unsatisfactory level of service with the addition of Phase 1 traffic, which would also be considered a significant cumulative impact and mitigation is required.~~

~~Phase 1 of the project would have a significant cumulative impact at the following roadway segments under year 2022 with Phase 1 conditions:~~

- ~~Gilman Springs Road between Alessandro Boulevard to Bridge Street; and~~
- ~~Gilman Springs Road between SR-60 and Alessandro Boulevard.~~

~~Phase 1 of the project would also create a significant cumulative impact at the following roadway segment under year 2022 with Phase 1 conditions:~~

- ~~Redlands Boulevard from Fir (future Eucalyptus) Avenue to the SR-60 Eastbound Ramps.~~

			2025 No Project			2025 Plus Phase 1		
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
ID	**Study Intersection**	**LOS Standard**		**Delay**	**LOS**		**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.8	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	10.8	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.0	A	RABT	7.1	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	11.3	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	6.2	A	SIGNAL	8.4	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	28.1	C
IN-12	Theodore St/Ironwood Ave	D	CSS	9.0	A	CSS	9.1	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	26.5	C	SIGNAL	27.8	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.3	B	SIGNAL	11.0	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	10.4	B	SIGNAL	14.6	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.7	A	SIGNAL	3.9	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	26.1	C	SIGNAL	28.2	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	SIGNAL	7.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	31.9	**D**	CSS	34.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	15.6	B	SIGNAL	16.3	B
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	46.2	**E**	AWS	12.0	B
IN-24	Oliver St/Cactus Ave	D	SIGNAL	26.2	C	SIGNAL	27.2	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.1	B	SIGNAL	17.9	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.0	A	SIGNAL	2.9	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	15.1	C	AWS	23.1	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	SIGNAL	27.7	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	34.3	C	SIGNAL	33.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	30.7	C	SIGNAL	31.5	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	22.2	C	SIGNAL	22.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.8	C	SIGNAL	25.6	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	17.2	B	SIGNAL	18.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	18.6	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	9.0	A	CSS	9.0	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	37.6	D	SIGNAL	34.1	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	16.6	B	SIGNAL	16.6	B
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	34.8	C	SIGNAL	40.2	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	44.3	D	SIGNAL	55.0	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	24.5	C	SIGNAL	24.3	C

Table 4.15.AK-1: Year 2025 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour) (Continued)

			2025 No Project			2025 Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	28.7	C	SIGNAL	28.8	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	30.3	C	SIGNAL	29.5	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	34.8	C	SIGNAL	35.4	D
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	27.2	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	26.0	C	SIGNAL	25.3	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	30.1	C	SIGNAL	29.9	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	23.2	C	SIGNAL	22.9	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	38.6	D	SIGNAL	38.1	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	11.5	B	SIGNAL	11.8	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	22.3	C	SIGNAL	22.0	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.4	D	SIGNAL	50.5	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.5	C	SIGNAL	29.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	79.0	**E**	SIGNAL	73.9	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	61.2	**E**	SIGNAL	56.6	**E**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	5.4	A	SIGNAL	7.6	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	29.0	C	SIGNAL	24.1	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	32.6	C	SIGNAL	30.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.7	B	SIGNAL	15.7	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.6	C	SIGNAL	20.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.4	A	SIGNAL	5.0	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	46.7	D	SIGNAL	38.7	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	27.9	C	SIGNAL	26.5	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.9	**E**	SIGNAL	61.0	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	63.6	**E**	SIGNAL	35.3	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	9.1	A	SIGNAL	13.1	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	24.0	C	SIGNAL	14.3	B
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	37.7	D	SIGNAL	33.0	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	72.1	**E**	SIGNAL	72.8	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	32.8	C	SIGNAL	33.7	C
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	23.9	C	SIGNAL	25.1	C
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	107.5	**F**	SIGNAL	107.4	**F**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	23.5	C	SIGNAL	23.1	C
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.2	**E**	AWS	46.8	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	158.1	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	25.2	C	SIGNAL	24.2	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	44.6	D	SIGNAL	42.2	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.3	A	SIGNAL	9.4	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	26.1	C	SIGNAL	26.4	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.0	B	SIGNAL	14.8	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	34.5	C	SIGNAL	46.4	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	24.3	C	SIGNAL	22.1	C
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	175.9	**F**	SIGNAL	166.0	**F**

Table 4.15.AK-2: Year 2025 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

			2025 No Project			2025 Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	11.3	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.3	B	RABT	6.4	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	11.0	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	9.5	A	SIGNAL	9.7	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.0	C	SIGNAL	26.5	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.8	A	CSS	9.0	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	23.2	C	SIGNAL	21.6	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	19.1	B	SIGNAL	19.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.3	A	SIGNAL	15.3	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.5	A	SIGNAL	2.5	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	25.1	C	SIGNAL	24.2	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	SIGNAL	8.7	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	27.0	**D**	CSS	31.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.8	B	SIGNAL	29.9	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	36.2	**E**	AWS	14.5	B
IN-24	Oliver St/Cactus Ave	D	SIGNAL	19.7	B	SIGNAL	19.5	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.5	B	SIGNAL	18.9	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.2	A	SIGNAL	3.1	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	14.2	B	AWS	36.4	**E**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	SIGNAL	24.5	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	47.3	D	SIGNAL	47.5	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	21.2	C	SIGNAL	21.0	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	23.3	C	SIGNAL	23.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	42.4	D	SIGNAL	43.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	19.1	B	SIGNAL	19.2	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.0	B	SIGNAL	18.7	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	20.9	C	SIGNAL	21.0	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	25.2	C	SIGNAL	27.1	C
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.4	D	SIGNAL	50.3	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	42.3	D	SIGNAL	38.1	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	22.9	C	SIGNAL	23.2	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	58.7	**E**	SIGNAL	52.9	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	19.5	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	25.7	C	SIGNAL	26.2	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.8	B	SIGNAL	11.8	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	35.9	D	SIGNAL	37.0	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	18.7	B	SIGNAL	19.1	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	24.2	C	SIGNAL	22.7	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.8	C	SIGNAL	24.7	C
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.3	C	SIGNAL	22.1	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	6.6	A	SIGNAL	6.7	A

Table 4.15.AK-2: Year 2025 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour) (Continued)

Table 4.15.AK-2: Year 2025 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour) (C

			2025 No Project			2025 Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	151.6	**F**	SIGNAL	158.4	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	19.8	B	SIGNAL	18.8	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	114.3	**F**	SIGNAL	54.8	D
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	85.6	**F**	SIGNAL	54.8	**D**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	37.5	D	SIGNAL	40.2	D
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	62.8	E	SIGNAL	71.3	E
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.2	C	SIGNAL	27.2	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	68.1	E	SIGNAL	56.2	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	15.5	B	SIGNAL	12.8	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	24.7	C	SIGNAL	24.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	18.4	B	SIGNAL	18.5	B
IN-107	Evans Rd/Rider St	C	SIGNAL	30.2	C	SIGNAL	30.3	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	35.2	D	SIGNAL	38.6	D
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	30.4	C	SIGNAL	28.0	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	97.4	**F**	SIGNAL	53.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	37.1	**D**	SIGNAL	37.4	**D**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	20.2	C	SIGNAL	21.1	C
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	21.3	C	SIGNAL	21.0	C
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	171.9	**F**	AWS	175.8	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	20.3	C	CSS	20.0	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	11.1	B	AWS	10.9	B

ID	Study Intersection	LOS Standard	2025 No Project Traffic Control	Delay	LOS	2025 Plus Phase 1 Traffic Control	Delay	LOS
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	36.9	**D**	SIGNAL	36.8	**D**
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	32.9	[illegible]	SIGNAL	32.9	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	42.2	D	SIGNAL	40.3	D
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	49.7	D	SIGNAL	45.7	D
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	34.9	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	32.0	C	SIGNAL	30.4	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	40.4	D	SIGNAL	40.8	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.2	B	SIGNAL	10.1	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	23.6	C	SIGNAL	23.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.3	D	SIGNAL	51.3	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.9	C	SIGNAL	28.2	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	42.0	D	SIGNAL	39.8	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	42.0	D	SIGNAL	44.0	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	10.3	B	SIGNAL	11.7	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	15.6	B	SIGNAL	18.8	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	21.8	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.0	B	SIGNAL	15.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	22.1	C	SIGNAL	21.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	24.8	C	SIGNAL	21.3	C
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	13.2	B	SIGNAL	10.9	B
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	34.7	C	SIGNAL	36.0	D
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.3	**E**	SIGNAL	49.1	D
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	83.8	**F**	SIGNAL	55.5	**E**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	23.5	C	SIGNAL	25.9	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.1	A	SIGNAL	9.9	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	22.7	C	SIGNAL	24.1	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	56.9	**E**	SIGNAL	55.2	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	54.3	[illegible]	SIGNAL	51.4	[illegible]
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	13.7	[illegible]	SIGNAL	13.0	[illegible]
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	57.3	[illegible]	SIGNAL	51.0	D
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.9	A	SIGNAL	8.0	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	33.6	C	SIGNAL	22.2	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	88.1	**F**	SIGNAL	71.0	**E**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.9	A	SIGNAL	9.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	42.6	[illegible]	SIGNAL	45.7	[illegible]
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	27.7	[illegible]	SIGNAL	24.5	[illegible]
IN-92	Arlington Ave/Maude St	D	SIGNAL	53.5	D	SIGNAL	36.8	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.5	B	SIGNAL	11.0	B
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	SIGNAL	179.3	**F**

Notes:

"NB" and "SB" denote northbound and southbound respectively	"CSS" means cross-street is stop-controlled
"EB" and "WB" denote eastbound and westbound respectively	"AWS" means all-way stop
▨ Indicates LOS exceeds the target level	"RABT" means roundabout

Roadway Analysis. Table 4.15.AL compares the average daily traffic (ADT) volumes for study roadway segments for the 2025 No-Project Scenario and to their threshold of significance under the City's General Plan policies. The Project would have no impacts on roadway segments provided that the improvements in the RTP are implemented.

Table 1~~48~~: 2025 Plus Phase 1 Road Segment Impacts and Mitigations

					2025 No-Project Conditions			2025 Plus Phase 1 Conditions			
	Roadway	From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Project Impact Significant?
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	1,174	A	4U	2,267	A	
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	6D	24,242	A	
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	906	A	4D	1,668	A	
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road			
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	6D	22,164	A	
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			4U	3,342	A	
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	1,164	A	
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	10,947	A	
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,524	A	4U	6,214	A	
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	9,706	A	
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	3,719	A	
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	5,951	A	
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	5,484	A	4U	6,690	A	****
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	22,365	C	6D	23,267	C	
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	20,260	C	6D	18,028	C	
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	16,194	B	4U	15,793	B	
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	11,586	A	4U	10,950	A	
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,885	A	2U	350	A	
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	10,282	A	4U	8,351	A	
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	990	A	4U	8,819	A	

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

**** Due to the severing of Alessandro Blvd. and the diversion of traffic to other routes, there would be no need to widen this section beyond the current 2U configuration

▨ Indicates LOS exceeds the target level

Freeway Segment Analysis. Year ~~2022~~2025 with Phase 1 freeway segment levels of service for the study area are summarized in Table 4.15.AM, which shows ~~33~~34 freeway segments would operate at unsatisfactory levels of service in the year ~~2022~~2025 with Phase 1 condition. ~~Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at 29 freeway segments and, therefore, have a significant cumulative impact at these locations. At four freeway segments, Phase 1 of the project would create a decrease in the LOS from satisfactory to unsatisfactory, resulting in a significant cumulative impact.~~

- Northbound or Eastbound Sections:

~~Phase 1 of the project would have a significant cumulative impact at the following 29 freeway segments under year 2022 with Phase 1 conditions:~~

- ~~Northbound or Eastbound Sections:~~
  - SR-60 ~~S. Reservoir Street to~~ from Ramona ~~Avenue;~~
- ~~SR-60~~Ave. to Central ~~Avenue~~Ave.
- SR-60 from Central Ave. to Mountain ~~Avenue;~~Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Market St. to Main St.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Eucalyptus Ave. to SR-60
- I-215 from Barton Rd. to Mt. Vernon Ave.
- I-215 from Auto Plaza Dr. to Mill St.

- Southbound ~~Avenue~~or Westbound
- SR-60 from Euclid Ave. to Grove ~~Avenue;~~Ave.
- SR-60 from Grove ~~Avenue~~Ave. to Vineyard ~~Avenue;~~Ave.
- SR-60 from Vineyard ~~Avenue~~Ave. to Archibald ~~Avenue;~~Ave.
- SR-60 from Valley Way to Rubidoux ~~Boulevard;~~Blvd.
- SR-60 from Rubidoux ~~Boulevard~~Blvd. to Market ~~Street;~~St.
- SR-60 from Market ~~Street~~St. to Main ~~Street;~~St.
- SR-60 from Martin Luther King ~~Boulevard~~Blvd. to Central ~~Avenue;~~Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215

- SR-60 from I-215 to Day St.
- ~~o~~ SR-60 from Pigeon Pass ~~Road/Frederick Street~~Rd. to Heacock ~~Street;~~St.
- ~~o~~ SR-60 ~~Heacock Street~~from I-15 to ~~Perris Boulevard;~~McKinley St.
- SR-91 from McKinley St. to Pierce ~~Street~~St.
- ~~o~~ SR-91 from Pierce St. to Magnolia ~~Avenue;~~Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- SR-91 from Adams St. to Madison St.
- SR-91 from Madison St. to Arlington Ave.
- ~~o~~ I-215 ~~Columbia Avenue to~~ from Center ~~Street;~~St. to La Cadena Dr.

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- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.

Table 4.15.~~AL: Year 2022 plus~~AM: 2025 Plus Phase 1 ~~Roadway Levels~~Freeway Mainline Level of Service

ID	Freeway	Segment	2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,520	29.7	D	6,580	28.2	D	6640	30.5	D	6,530	28.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,600	43.5	**E**	9,500	48.5	**F**	8,730	45.5	**F**	9,460	48.5	**F**
F-4	SR-60	Central Ave to Mountain Ave	7,710	35.2	**E**	8,390	37.3	**E**	7,850	36.6	**E**	8,350	37.3	**E**
F-5	SR-60	Mountain Ave to Euclid Ave	8,040	38.0	**E**	8,390	37.3	**E**	8,190	39.7	**E**	8,340	37.2	**E**
F-6	SR-60	Euclid Ave to Grove Ave	7,960	37.3	**E**	8,560	38.7	**E**	8,110	39.0	**E**	8,500	38.6	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	7,320	32.2	D	9,460	48.0	**F**	7,480	33.7	D	9,390	47.7	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,210	31.2	D	9,610	49.9	**F**	7,360	32.5	D	9,530	49.5	**F**
F-9	SR-60	Archibald Ave to Haven Ave	7,290	32.0	D	6,980	27.8	D	7,440	33.1	D	6,900	27.5	D
F-10	SR-60	Haven Ave to Milliken Ave	8,240	28.2	D	7,640	23.5	C	8,390	28.9	D	7,520	23.2	C
F-11	SR-60	Milliken Ave to I-15	4,670	18.6	C	5,430	20.5	C	4,820	19.3	C	5,310	20.1	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,210	16.7	B	4,820	18.0	B	4,430	17.6	B	4,700	17.7	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,640	14.4	B	3,970	14.9	B	3,830	15.3	B	3,810	14.3	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	3,120	12.6	B	3,430	13.1	B	3,370	13.7	B	3,340	12.9	B
F-15	SR-60	Pedley Rd to Pyrite St	3,290	13.2	B	3,760	14.3	B	3,520	14.2	B	3,670	14.1	B
F-16	SR-60	Pyrite St to Valley Way	3,940	15.8	B	4,170	15.8	B	4,240	17.0	B	4,060	15.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	5,110	29.1	D	5,840	32.7	D	5,400	31.9	D	5,700	32.0	D
F-18	SR-60	Rubidoux Blvd to Market St	5,320	30.9	D	6,110	35.6	**E**	5,450	32.4	D	5,970	34.5	D
F-19	SR-60	Market St to Main St	5,780	35.5	**E**	6,910	45.6	**F**	5,890	36.7	**E**	6,870	45.5	**F**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,930	74.8	**F**	10,270	66.4	**F**	10,310	87.7	**F**	10,130	66.5	**F**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,300	21.0	C	6,590	25.5	C	5,540	22.2	C	6,340	24.6	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,020	25.3	C	5,100	59.6	**F**	3,140	27.4	D	4,980	58.0	**F**
F-30	SR-60	Heacock St to Perris Blvd	2,770	22.5	C	3,740	30.5	D	3,010	25.5	C	3,690	30.8	D
F-31	SR-60	Perris Blvd to Nason St	2,530	20.2	C	3,410	26.7	D	2,790	23.2	C	3,400	27.3	D
F-32	SR-60	Nason St to Moreno Beach Dr	2,270	12.1	B	3,140	15.5	B	2,490	13.6	B	3,120	15.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,120	11.3	B	2,910	14.4	B	2,380	13.1	B	2,900	14.8	B
F-34	SR-60	Redlands Blvd to Theodore St	1,800	9.6	A	2,790	13.8	B	2,320	12.8	B	2,880	14.7	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,930	7.7	A	3,050	11.3	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,380	8.0	A	2,220	11.5	B	1,330	7.7	A	2,150	11.5	B
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	1,500	12.1	B	2,270	16.8	B	1,440	11.6	B	2,230	16.7	B
F-38	SR-60	Potero Blvd to I-10	1,420	11.5	B	1,340	10.0	A	1,360	11.0	A	1,400	10.6	A
F-39	SR-91	I-15 to McKinley St	4,670	17.5	B	6,840	28.9	D	4,790	18.0	C	6,730	28.2	D
F-40	SR-91	McKinley St to Pierce St	5,230	27.9	D	5,840	35.5	**E**	5,350	28.9	D	5,720	34.2	D
F-41	SR-91	Pierce St to Magnolia Ave	6,760	44.9	**E**	7,590	68.9	**F**	6,880	46.8	**F**	7,490	65.8	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,390	30.6	D	7,530	33.8	D	7,460	31.3	D	7,450	33.5	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,410	30.5	D	8,330	40.3	**E**	7,480	31.0	D	8,320	40.2	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,950	18.6	C	5,280	20.8	C	5,010	18.9	C	5,280	20.8	C
F-46	SR-91	Adam St to Madison St	7,670	63.0	**F**	8,550	120.9	**F**	7,720	64.3	**F**	8,560	121.9	**F**

~~Roadway~~		~~From~~	~~To~~	~~LOS Standard *~~	~~2022 No-Project Conditions~~			~~2022 Phase 1 Conditions~~			~~Project Significant Impact?~~	~~Mitigation Measures Required to Reduce Impacts to Less-Than-Significant~~	~~LOS after Mitigation~~
					~~Roadway Section**~~	~~Daily Volume~~	~~LOS~~	~~Roadway Section**~~	~~Daily Volume~~	~~LOS~~			
~~S-1~~	~~Theodore Street (A)~~	~~SR-60 WB Ramps~~	~~Ironwood Ave~~	~~D~~	~~2U~~	~~3,133~~	~~A~~	~~2U~~	~~4,243~~	~~A~~	~~No~~		
~~S-2~~	~~Theodore Street (A)~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave~~	~~D~~	~~2U~~	~~6,689~~	~~A~~	~~6D~~	~~29,448~~	~~A~~	~~No~~		
~~S-3~~	~~Fir (Eucalyptus) Ave~~	~~Redlands Blvd~~	~~Theodore Street (A)~~	~~D~~	~~2U***~~	~~6,542~~	~~A~~	~~4D~~	~~7,234~~	~~A~~	~~No~~		
~~S-4~~	~~Eucalyptus Ave (B)~~	~~Theodore Street (A)~~	~~Gilman Springs Rd~~	~~N/A~~	~~Future Road~~			~~Future Road~~			~~No~~		
~~S-5~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave~~	~~Street E~~	~~D~~	~~2U~~	~~1,116~~	~~A~~	~~6D~~	~~30,318~~	~~A~~	~~No~~		
~~S-6~~	~~Street E~~	~~Theodore Street (A)~~	~~Cactus Ave Extension~~	~~D~~	~~Future Road~~			~~4U~~	~~14,908~~	~~A~~	~~No~~		
~~S-7~~	~~Street F~~	~~Theodore Street (A)~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~Future Road~~			~~2U~~	~~2,242~~	~~A~~	~~No~~		
~~S-8~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~2U~~	~~1,116~~	~~A~~	~~4D~~	~~11,017~~	~~A~~	~~No~~		
~~S-9~~	~~Alessandro Blvd (Street E)~~	~~Merwin Street~~	~~Theodore Street (A)~~	~~D~~	~~2U~~	~~3,778~~	~~A~~	~~4U~~	~~7,226~~	~~A~~	~~No~~		
~~S-10~~	~~Cactus Ave Extension~~	~~Alessandro Blvd (Street E)~~	~~Cactus Ave~~	~~D~~	~~Future Road~~			~~4U~~	~~9,699~~	~~A~~	~~No~~		
~~S-11~~	~~Alessandro Blvd (Street C)~~	~~Theodore Street (A)~~	~~Street F~~	~~D~~	~~2U~~	~~2,321~~	~~A~~	~~4U~~	~~4,768~~	~~A~~	~~No~~		
~~S-13~~	~~Alessandro Blvd (Street C)~~	~~Street F~~	~~Gilman Springs Rd~~	~~D~~	~~2U~~	~~2,321~~	~~A~~	~~4U~~	~~4,347~~	~~A~~	~~No~~		
~~S-14~~	~~Alessandro Blvd~~	~~Moreno Beach Drive~~	~~Redlands Blvd~~	~~D~~	~~4U~~	~~4,796~~	~~A~~	~~4U~~	~~4,675~~	~~A~~	~~No~~	~~****~~	
~~S-16~~	~~Gilman Springs Rd~~	~~Alessandro Blvd (Street C)~~	~~Bridge Street~~	~~D~~	~~2U~~	~~15,512~~	~~F~~	~~2U~~	~~16,492~~	~~F~~	~~Yes~~	~~Widen to 4 lanes~~	~~C~~
~~S-17~~	~~Gilman Springs Rd~~	~~SR-60~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~2U~~	~~12,819~~	~~F~~	~~2U~~	~~12,829~~	~~F~~	~~Yes~~	~~Widen to 4 lanes~~	~~C~~
~~S-18~~	~~Redlands Blvd~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave~~	~~D~~	~~2U~~	~~11,042~~	~~D~~	~~2U~~	~~15,071~~	~~E~~	~~Yes~~	~~Widen to 4 lanes~~	~~A~~
~~S-19~~	~~Redlands Blvd~~	~~Fir (Eucalyptus) Ave~~	~~Alessandro Blvd~~	~~C~~	~~2U~~	~~8,416~~	~~B~~	~~2U~~	~~6,575~~	~~A~~	~~No~~		
~~S-20~~	~~Alessandro Blvd~~	~~Redlands Blvd~~	~~Merwin Street~~	~~C~~	~~2U~~	~~3,886~~	~~A~~	~~2U~~	~~772~~	~~A~~	~~No~~		
~~S-21~~	~~Redlands Blvd~~	~~Alessandro Blvd~~	~~Cactus Ave~~	~~C~~	~~2U~~	~~8,583~~	~~A~~	~~2U~~	~~4,755~~	~~A~~	~~No~~		
~~S-22~~	~~Cactus Ave~~	~~Redlands Blvd~~	~~Cactus Ave Extension~~	~~C~~	~~2U***~~	~~472~~	~~A~~	~~2U~~	~~9,699~~	~~C~~	~~No~~		

~~* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.~~

~~** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.~~

~~*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.~~

~~**** Due to the severing of Alessandro Blvd and the diversion of traffic to other routes, there is no need to widen this section beyond the current 2U configuration.~~

▨ ~~Indicates LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AM-1: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound)~~

			~~2022 No Project~~						~~2022 Plus Phase 1~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-2~~	~~SR-60~~	~~Reservoir St to Ramona Ave~~	~~7,210~~	~~30.5~~	~~D~~	~~7,830~~	~~35.1~~	~~E~~	~~7,400~~	~~32.0~~	~~D~~	~~7,810~~	~~35.3~~	~~E~~
~~F-3~~	~~SR-60~~	~~Ramona Ave to Central Ave~~	~~6,850~~	~~28.2~~	~~D~~	~~9,380~~	~~51.4~~	~~F~~	~~7,010~~	~~29.4~~	~~D~~	~~9,340~~	~~50.8~~	~~F~~
~~F-4~~	~~SR-60~~	~~Central Ave to Mountain Ave~~	~~7,590~~	~~33.0~~	~~D~~	~~9,350~~	~~51.0~~	~~F~~	~~7,750~~	~~34.5~~	~~D~~	~~9,320~~	~~51.2~~	~~F~~
~~F-5~~	~~SR-60~~	~~Mountain Ave to Euclid Ave~~	~~7,520~~	~~32.5~~	~~D~~	~~6,690~~	~~27.5~~	~~D~~	~~7,690~~	~~34.0~~	~~D~~	~~6,640~~	~~27.4~~	~~D~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~8,990~~	~~45.8~~	~~F~~	~~9,280~~	~~50.0~~	~~F~~	~~9,190~~	~~48.8~~	~~F~~	~~9,240~~	~~50.1~~	~~F~~
~~F-7~~	~~SR-60~~	~~Grove Ave to Vineyard Ave~~	~~8,170~~	~~37.6~~	~~E~~	~~9,530~~	~~53.6~~	~~F~~	~~8,370~~	~~39.7~~	~~E~~	~~9,480~~	~~52.8~~	~~F~~
~~F-8~~	~~SR-60~~	~~Vineyard Ave to Archibald Ave~~	~~8,080~~	~~36.5~~	~~E~~	~~9,470~~	~~52.7~~	~~F~~	~~8,280~~	~~38.6~~	~~E~~	~~9,410~~	~~52.5~~	~~F~~
~~F-9~~	~~SR-60~~	~~Archibald Ave to Haven Ave~~	~~7,590~~	~~32.8~~	~~D~~	~~6,630~~	~~27.2~~	~~D~~	~~7,810~~	~~34.7~~	~~D~~	~~6,560~~	~~27.0~~	~~D~~
~~F-10~~	~~SR-60~~	~~Haven Ave to Milliken Ave~~	~~7,400~~	~~23.2~~	~~C~~	~~7,040~~	~~22.1~~	~~C~~	~~7,630~~	~~24.2~~	~~C~~	~~6,950~~	~~21.9~~	~~C~~
~~F-11~~	~~SR-60~~	~~Milliken Ave to I-15~~	~~5,280~~	~~20.3~~	~~C~~	~~4,530~~	~~17.4~~	~~B~~	~~5,500~~	~~21.5~~	~~C~~	~~4,440~~	~~17.2~~	~~B~~
~~F-12~~	~~SR-60~~	~~Etiwanda Ave to Van Buren Blvd~~	~~4,580~~	~~17.6~~	~~B~~	~~3,440~~	~~13.3~~	~~B~~	~~4,840~~	~~18.8~~	~~C~~	~~3,380~~	~~13.3~~	~~B~~
~~F-13~~	~~SR-60~~	~~Etiwanda Ave/Van Buren Blvd to Mission Blvd/ Country Village Rd~~	~~5,070~~	~~19.6~~	~~C~~	~~4,460~~	~~17.2~~	~~B~~	~~5,300~~	~~20.8~~	~~C~~	~~4,380~~	~~17.2~~	~~B~~
~~F-14~~	~~SR-60~~	~~Mission Blvd/Country Village Rd to Pedley Rd~~	~~4,600~~	~~17.7~~	~~B~~	~~3,560~~	~~13.8~~	~~B~~	~~4,850~~	~~19.0~~	~~C~~	~~3,480~~	~~13.7~~	~~B~~
~~F-15~~	~~SR-60~~	~~Pedley Rd to Pyrite St~~	~~4,620~~	~~17.8~~	~~B~~	~~3,710~~	~~14.4~~	~~B~~	~~4,880~~	~~19.1~~	~~C~~	~~3,640~~	~~14.3~~	~~B~~
~~F-16~~	~~SR-60~~	~~Pyrite St to Valley Way~~	~~5,190~~	~~20.1~~	~~C~~	~~3,990~~	~~15.5~~	~~B~~	~~5,460~~	~~21.5~~	~~C~~	~~3,910~~	~~15.3~~	~~B~~
~~F-17~~	~~SR-60~~	~~Valley Way to Rubidoux Blvd~~	~~6,280~~	~~39.4~~	~~E~~	~~4,530~~	~~24.1~~	~~C~~	~~6,530~~	~~43.6~~	~~E~~	~~4,450~~	~~24.0~~	~~C~~
~~F-18~~	~~SR-60~~	~~Rubidoux Blvd to Market St~~	~~6,920~~	~~48.7~~	~~F~~	~~4,950~~	~~27.2~~	~~D~~	~~7,180~~	~~54.3~~	~~F~~	~~4,860~~	~~26.9~~	~~D~~
~~F-19~~	~~SR-60~~	~~Market St to Main St~~	~~6,450~~	~~41.6~~	~~E~~	~~7,260~~	~~56.8~~	~~F~~	~~6,810~~	~~48.0~~	~~F~~	~~7,230~~	~~56.9~~	~~F~~
~~F-20~~	~~SR-60~~	~~Main to SR-91~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~8,440~~	~~41.5~~	~~E~~	~~9,140~~	~~53.5~~	~~F~~	~~8,980~~	~~53.0~~	~~F~~	~~9,210~~	~~59.2~~	~~F~~
~~F-26~~	~~SR-60~~	~~Fair Isle Dr/Box Springs Rd to I-215~~	~~6,450~~	~~25.7~~	~~C~~	~~7,270~~	~~30.8~~	~~D~~	~~6,900~~	~~29.0~~	~~D~~	~~7,320~~	~~31.7~~	~~D~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd to Heacock St~~	~~3,520~~	~~29.2~~	~~D~~	~~4,200~~	~~39.3~~	~~E~~	~~3,930~~	~~37.2~~	~~E~~	~~4,170~~	~~41.0~~	~~E~~
~~F-30~~	~~SR-60~~	~~Heacock St to Perris Blvd~~	~~3,160~~	~~25.0~~	~~C~~	~~4,050~~	~~36.7~~	~~E~~	~~3,780~~	~~35.0~~	~~E~~	~~4,070~~	~~39.1~~	~~E~~
~~F-31~~	~~SR-60~~	~~Perris Blvd to Nason St~~	~~2,590~~	~~19.8~~	~~C~~	~~3,070~~	~~24.3~~	~~C~~	~~3,270~~	~~28.1~~	~~C~~	~~3,140~~	~~26.3~~	~~D~~
~~F-33~~	~~SR-60~~	~~Moreno Beach Dr to Redlands Blvd~~	~~1,910~~	~~14.5~~	~~B~~	~~2,370~~	~~18.0~~	~~C~~	~~2,780~~	~~23.4~~	~~C~~	~~2,540~~	~~20.7~~	~~C~~
~~F-34~~	~~SR-60~~	~~Redlands Blvd to Theodore St~~	~~2,460~~	~~18.8~~	~~C~~	~~3,240~~	~~25.8~~	~~C~~	~~3,300~~	~~28.9~~	~~D~~	~~3,350~~	~~28.7~~	~~D~~
~~F-36~~	~~SR-60~~	~~Gilman Springs Rd to Jack Rabbit Trail~~	~~2,310~~	~~19.2~~	~~C~~	~~2,770~~	~~23.6~~	~~C~~	~~2,240~~	~~18.6~~	~~C~~	~~2,780~~	~~23.6~~	~~C~~
~~F-37~~	~~SR-60~~	~~Jack Rabbit Trail to I-10~~	~~2,070~~	~~15.8~~	~~B~~	~~2,820~~	~~21.8~~	~~C~~	~~2,040~~	~~15.7~~	~~B~~	~~2,850~~	~~22.3~~	~~C~~
~~F-39~~	~~SR-91~~	~~I-15 to McKinley St~~	~~7,190~~	~~22.3~~	~~C~~	~~10,400~~	~~38.6~~	~~E~~	~~7,330~~	~~22.9~~	~~C~~	~~10,350~~	~~38.6~~	~~E~~
~~F-40~~	~~SR-91~~	~~McKinley St to Pierce St~~	~~6,500~~	~~26.1~~	~~D~~	~~5,950~~	~~23.5~~	~~C~~	~~6,620~~	~~26.8~~	~~D~~	~~5,900~~	~~23.4~~	~~C~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~5,970~~	~~35.2~~	~~E~~	~~5,410~~	~~30.5~~	~~D~~	~~6,070~~	~~36.6~~	~~E~~	~~5,350~~	~~30.2~~	~~D~~

~~Table 4.15.AM-1: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound)~~

			~~2022 No Project~~						~~2022 Plus Phase 1~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-43~~	~~SR-91~~	~~La Sierra Ave to Tyler St~~	~~5,490~~	~~30.9~~	~~D~~	~~5,230~~	~~29.0~~	~~D~~	~~5,600~~	~~32.2~~	~~D~~	~~5,200~~	~~29.0~~	~~D~~
~~F-44~~	~~SR-91~~	~~Tyler St to Van Buren Blvd~~	~~6,600~~	~~26.6~~	~~D~~	~~5,980~~	~~23.6~~	~~C~~	~~6,700~~	~~27.4~~	~~D~~	~~5,950~~	~~23.6~~	~~C~~
~~F-45~~	~~SR-91~~	~~Van Buren Blvd to Adam St~~	~~6,700~~	~~27.2~~	~~D~~	~~5,250~~	~~20.3~~	~~C~~	~~6,780~~	~~27.8~~	~~D~~	~~5,220~~	~~20.3~~	~~C~~
~~F-46~~	~~SR-91~~	~~Adam St to Madison St~~	~~7,310~~	~~31.4~~	~~D~~	~~4,970~~	~~19.4~~	~~C~~	~~7,380~~	~~32.1~~	~~D~~	~~4,940~~	~~19.3~~	~~C~~
~~F-47~~	~~SR-91~~	~~Madison St to Arlington Ave~~	~~6,710~~	~~27.6~~	~~D~~	~~4,970~~	~~19.4~~	~~C~~	~~6,770~~	~~28.2~~	~~D~~	~~4,950~~	~~19.4~~	~~C~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~5,910~~	~~34.9~~	~~D~~	~~5,070~~	~~27.7~~	~~D~~	~~5,940~~	~~35.5~~	~~E~~	~~5,070~~	~~27.7~~	~~D~~
~~F-51~~	~~SR-91~~	~~University Ave to Spruce St~~	~~8,270~~	~~26.6~~	~~D~~	~~7,700~~	~~24.2~~	~~C~~	~~8,350~~	~~27.1~~	~~D~~	~~7,700~~	~~24.4~~	~~C~~
~~F-52~~	~~I-10~~	~~SR-60 to Beaumont Ave~~	~~4,390~~	~~16.8~~	~~B~~	~~6,080~~	~~24.1~~	~~C~~	~~4,360~~	~~16.8~~	~~B~~	~~6,080~~	~~24.1~~	~~C~~
~~F-53~~	~~I-10~~	~~Beaumont Ave to Pennsylvania Ave~~	~~4,450~~	~~17.1~~	~~B~~	~~6,240~~	~~24.9~~	~~C~~	~~4,430~~	~~17.0~~	~~B~~	~~6,260~~	~~25.0~~	~~C~~
~~F-54~~	~~I-10~~	~~Pennsylvania Ave to Highland Springs Ave~~	~~4,640~~	~~17.8~~	~~B~~	~~6,480~~	~~26.2~~	~~D~~	~~4,620~~	~~17.8~~	~~B~~	~~6,510~~	~~26.3~~	~~D~~
~~F-55~~	~~I-10~~	~~Highland Springs Ave to Sunset Ave~~	~~4,560~~	~~17.5~~	~~B~~	~~6,210~~	~~24.8~~	~~C~~	~~4,530~~	~~17.4~~	~~B~~	~~6,240~~	~~24.9~~	~~C~~
~~F-56~~	~~I-10~~	~~Sunset Ave to 22nd St~~	~~4,470~~	~~17.2~~	~~B~~	~~5,960~~	~~23.5~~	~~C~~	~~4,430~~	~~17.0~~	~~B~~	~~5,990~~	~~23.7~~	~~C~~
~~F-57~~	~~I-10~~	~~22nd St to 8th St~~	~~4,380~~	~~16.6~~	~~B~~	~~5,800~~	~~22.8~~	~~C~~	~~4,340~~	~~16.7~~	~~B~~	~~5,840~~	~~23.0~~	~~C~~
~~F-58~~	~~I-10~~	~~8th St to Hargrave St~~	~~4,370~~	~~16.8~~	~~B~~	~~5,730~~	~~22.4~~	~~C~~	~~4,330~~	~~16.6~~	~~B~~	~~5,770~~	~~22.6~~	~~C~~
~~F-59~~	~~I-10~~	~~Hargrave St to Fields Rd~~	~~4,100~~	~~15.8~~	~~B~~	~~5,350~~	~~20.8~~	~~C~~	~~4,040~~	~~15.5~~	~~B~~	~~5,390~~	~~20.9~~	~~C~~
~~F-60~~	~~I-10~~	~~Fields Rd to Morongo Tr~~	~~3,770~~	~~14.5~~	~~B~~	~~5,080~~	~~19.6~~	~~C~~	~~3,720~~	~~14.3~~	~~B~~	~~5,130~~	~~19.8~~	~~C~~
~~F-61~~	~~I-10~~	~~Morongo Tr to Main St~~	~~3,410~~	~~13.1~~	~~B~~	~~4,670~~	~~18.0~~	~~B~~	~~3,360~~	~~12.9~~	~~B~~	~~4,710~~	~~18.1~~	~~C~~
~~F-62~~	~~I-10~~	~~Main St to Haugen-Lehmann Way~~	~~3,280~~	~~12.6~~	~~B~~	~~4,720~~	~~18.1~~	~~C~~	~~3,230~~	~~12.4~~	~~B~~	~~4,770~~	~~18.3~~	~~C~~
~~F-64~~	~~I-10~~	~~SR-111 to Tipton Rd~~	~~2,950~~	~~11.3~~	~~B~~	~~4,140~~	~~15.9~~	~~B~~	~~2,900~~	~~11.1~~	~~B~~	~~4,180~~	~~16.1~~	~~B~~
~~F-65~~	~~I-10~~	~~Tipton Rd to SR-62~~	~~2,810~~	~~10.8~~	~~A~~	~~4,170~~	~~16.0~~	~~B~~	~~2,780~~	~~10.7~~	~~A~~	~~4,220~~	~~16.2~~	~~B~~
~~F-66~~	~~I-215~~	~~Scott Rd to Newport Rd~~	~~2,850~~	~~14.5~~	~~B~~	~~4,330~~	~~22.4~~	~~C~~	~~2,830~~	~~14.5~~	~~B~~	~~4,330~~	~~22.4~~	~~C~~
~~F-68~~	~~I-215~~	~~Newport Rd to McCall Blvd~~	~~2,100~~	~~10.8~~	~~A~~	~~3,140~~	~~15.9~~	~~B~~	~~2,090~~	~~10.7~~	~~A~~	~~3,120~~	~~15.8~~	~~B~~
~~F-69~~	~~I-215~~	~~McCall Blvd to Ethanac Rd~~	~~2,750~~	~~14.0~~	~~B~~	~~4,380~~	~~22.7~~	~~C~~	~~2,730~~	~~14.0~~	~~B~~	~~4,360~~	~~22.7~~	~~C~~
~~F-70~~	~~I-215~~	~~Ethanac Rd to SR-74~~	~~4,200~~	~~21.7~~	~~C~~	~~4,100~~	~~21.0~~	~~C~~	~~4,170~~	~~21.6~~	~~C~~	~~4,080~~	~~21.0~~	~~C~~
~~F-71~~	~~I-215~~	~~SR-74 to Redlands Ave~~	~~3,490~~	~~17.7~~	~~B~~	~~4,800~~	~~25.4~~	~~C~~	~~3,470~~	~~17.7~~	~~B~~	~~4,780~~	~~25.5~~	~~C~~
~~F-74~~	~~I-215~~	~~Columbia Ave to Center St~~	~~6,090~~	~~36.8~~	~~E~~	~~6,030~~	~~36.2~~	~~E~~	~~6,060~~	~~36.5~~	~~E~~	~~6,060~~	~~36.5~~	~~E~~
~~F-75~~	~~I-215~~	~~Center St to La Cadena Dr~~	~~5,830~~	~~34.1~~	~~D~~	~~5,800~~	~~33.8~~	~~D~~	~~5,810~~	~~33.9~~	~~D~~	~~5,840~~	~~34.2~~	~~D~~
~~F-76~~	~~I-215~~	~~La Cadena Dr to Barton Rd~~	~~5,690~~	~~32.7~~	~~D~~	~~6,130~~	~~37.3~~	~~E~~	~~5,680~~	~~32.7~~	~~D~~	~~6,190~~	~~38.0~~	~~E~~
~~F-77~~	~~I-215~~	~~Barton Rd to Mt. Vernon Ave~~	~~5,980~~	~~35.6~~	~~E~~	~~6,550~~	~~42.5~~	~~E~~	~~5,960~~	~~35.4~~	~~E~~	~~6,610~~	~~43.3~~	~~E~~
~~F-78~~	~~I-215~~	~~Mt. Vernon Ave to I-10~~	~~5,770~~	~~22.5~~	~~C~~	~~6,660~~	~~27.0~~	~~D~~	~~5,740~~	~~22.4~~	~~C~~	~~6,750~~	~~27.5~~	~~D~~
~~F-80~~	~~I-215~~	~~Auto Plaza Dr to Mill St~~	~~4,490~~	~~17.2~~	~~B~~	~~5,500~~	~~21.2~~	~~C~~	~~4,440~~	~~17.0~~	~~B~~	~~5,530~~	~~21.4~~	~~C~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave~~	~~3,030~~	~~15.4~~	~~B~~	~~4,060~~	~~20.8~~	~~C~~	~~3,020~~	~~15.4~~	~~B~~	~~4,110~~	~~21.2~~	~~C~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AM-2: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound)~~

			~~2022 No Project~~						~~2022 Plus Phase 1~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-2~~	~~SR-60~~	~~Reservoir St to Ramona Ave~~	~~8,770~~	~~43.3~~	~~E~~	~~7,150~~	~~30.1~~	~~D~~	~~8,690~~	~~43.0~~	~~E~~	~~7,260~~	~~31.0~~	~~D~~
~~F-3~~	~~SR-60~~	~~Ramona Ave to Central Ave~~	~~8,290~~	~~38.7~~	~~E~~	~~6,750~~	~~27.7~~	~~D~~	~~8,210~~	~~38.3~~	~~E~~	~~6,860~~	~~28.5~~	~~D~~
~~F-4~~	~~SR-60~~	~~Central Ave to Mountain Ave~~	~~6,340~~	~~25.4~~	~~C~~	~~6,990~~	~~29.1~~	~~D~~	~~6,260~~	~~25.2~~	~~C~~	~~7,100~~	~~30.0~~	~~D~~
~~F-5~~	~~SR-60~~	~~Mountain Ave to Euclid Ave~~	~~6,260~~	~~25.0~~	~~C~~	~~7,440~~	~~32.0~~	~~D~~	~~6,190~~	~~24.8~~	~~C~~	~~7,560~~	~~33.1~~	~~D~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~6,470~~	~~26.1~~	~~D~~	~~7,310~~	~~31.1~~	~~D~~	~~6,390~~	~~25.9~~	~~C~~	~~7,420~~	~~32.1~~	~~D~~
~~F-7~~	~~SR-60~~	~~Grove Ave to Vineyard Ave~~	~~6,330~~	~~25.4~~	~~C~~	~~7,920~~	~~35.5~~	~~E~~	~~6,250~~	~~25.1~~	~~C~~	~~8,060~~	~~37.0~~	~~E~~
~~F-8~~	~~SR-60~~	~~Vineyard Ave to Archibald Ave~~	~~7,670~~	~~33.6~~	~~D~~	~~7,550~~	~~32.8~~	~~D~~	~~7,580~~	~~33.2~~	~~D~~	~~7,680~~	~~34.0~~	~~D~~
~~F-9~~	~~SR-60~~	~~Archibald Ave to Haven Ave~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-10~~	~~SR-60~~	~~Haven Ave to Milliken Ave~~	~~5,850~~	~~18.0~~	~~B~~	~~7,110~~	~~22.3~~	~~C~~	~~5,740~~	~~17.7~~	~~B~~	~~7,270~~	~~23.0~~	~~C~~
~~F-11~~	~~SR-60~~	~~Milliken Ave to I-15~~	~~5,550~~	~~21.6~~	~~C~~	~~7,050~~	~~29.2~~	~~D~~	~~5,430~~	~~21.2~~	~~C~~	~~7,230~~	~~30.6~~	~~D~~
~~F-12~~	~~SR-60~~	~~I-15 to Etiwanda Ave/Van Buren Blvd~~	~~4,490~~	~~13.7~~	~~B~~	~~5,850~~	~~17.9~~	~~B~~	~~4,360~~	~~13.4~~	~~B~~	~~6,080~~	~~18.7~~	~~C~~
~~F-13~~	~~SR-60~~	~~Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd~~	~~4,220~~	~~16.2~~	~~B~~	~~5,830~~	~~22.8~~	~~C~~	~~4,110~~	~~15.9~~	~~B~~	~~6,050~~	~~24.0~~	~~C~~
~~F-14~~	~~SR-60~~	~~Mission Blvd/Country Village Rd to Pedley Rd~~	~~4,240~~	~~16.3~~	~~B~~	~~5,850~~	~~22.9~~	~~C~~	~~4,130~~	~~15.9~~	~~B~~	~~6,130~~	~~24.4~~	~~C~~
~~F-15~~	~~SR-60~~	~~Pedley Rd to Pyrite St~~	~~3,290~~	~~12.6~~	~~B~~	~~5,010~~	~~19.2~~	~~C~~	~~3,150~~	~~12.2~~	~~B~~	~~5,260~~	~~20.5~~	~~C~~
~~F-16~~	~~SR-60~~	~~Pyrite St to Valley Way~~	~~2,740~~	~~10.6~~	~~A~~	~~4,510~~	~~17.2~~	~~B~~	~~2,620~~	~~10.2~~	~~A~~	~~4,740~~	~~18.3~~	~~C~~
~~F-17~~	~~SR-60~~	~~Valley Way to Rubidoux Blvd~~	~~4,630~~	~~24.4~~	~~C~~	~~6,530~~	~~42.2~~	~~E~~	~~4,510~~	~~23.9~~	~~C~~	~~6,810~~	~~46.9~~	~~F~~
~~F-18~~	~~SR-60~~	~~Rubidoux Blvd to Market St~~	~~3,630~~	~~18.6~~	~~C~~	~~5,660~~	~~32.5~~	~~D~~	~~3,520~~	~~18.2~~	~~C~~	~~5,940~~	~~35.5~~	~~E~~
~~F-19~~	~~SR-60~~	~~Market St to Main St~~	~~5,860~~	~~34.4~~	~~D~~	~~6,820~~	~~46.5~~	~~F~~	~~5,680~~	~~32.9~~	~~D~~	~~7,090~~	~~51.8~~	~~F~~
~~F-20~~	~~SR-60~~	~~Main St to SR-91~~	~~5,450~~	~~30.6~~	~~D~~	~~6,610~~	~~42.9~~	~~E~~	~~5,290~~	~~29.7~~	~~D~~	~~6,880~~	~~48.0~~	~~F~~
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~7,060~~	~~23.7~~	~~C~~	~~7,680~~	~~25.5~~	~~C~~	~~7,000~~	~~24.3~~	~~C~~	~~8,050~~	~~28.7~~	~~D~~
~~F-26~~	~~SR-60~~	~~Fair Isle Dr/Box Springs Rd to I-215~~	~~7,390~~	~~31.9~~	~~D~~	~~8,510~~	~~40.3~~	~~E~~	~~7,310~~	~~31.8~~	~~D~~	~~8,900~~	~~45.8~~	~~F~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St~~	~~7,250~~	~~54.3~~	~~F~~	~~3,880~~	~~20.0~~	~~C~~	~~7,210~~	~~55.7~~	~~F~~	~~4,210~~	~~22.8~~	~~C~~
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd to Heacock St~~	~~3,460~~	~~28.5~~	~~D~~	~~3,860~~	~~34.0~~	~~D~~	~~3,460~~	~~29.5~~	~~D~~	~~4,320~~	~~45.2~~	~~F~~
~~F-30~~	~~SR-60~~	~~Heacock St to Perris Blvd~~	~~3,300~~	~~26.6~~	~~D~~	~~3,360~~	~~27.5~~	~~D~~	~~3,370~~	~~28.4~~	~~D~~	~~3,900~~	~~36.7~~	~~D~~
~~F-31~~	~~SR-60~~	~~Perris Blvd to Nason St~~	~~2,790~~	~~21.6~~	~~C~~	~~2,550~~	~~19.6~~	~~C~~	~~2,900~~	~~23.4~~	~~C~~	~~3,210~~	~~27.4~~	~~D~~
~~F-33~~	~~SR-60~~	~~Moreno Beach Dr to Redlands Blvd~~	~~1,810~~	~~13.8~~	~~B~~	~~1,750~~	~~13.4~~	~~B~~	~~2,060~~	~~16.5~~	~~B~~	~~2,620~~	~~21.7~~	~~C~~
~~F-34~~	~~SR-60~~	~~Redlands Blvd to Theodore St~~	~~2,280~~	~~17.3~~	~~B~~	~~2,200~~	~~16.8~~	~~B~~	~~2,580~~	~~20.7~~	~~C~~	~~2,920~~	~~24.2~~	~~C~~
~~F-36~~	~~SR-60~~	~~Gilman Springs Rd to Jack Rabbit Trail~~	~~2,180~~	~~18.0~~	~~C~~	~~1,850~~	~~15.3~~	~~B~~	~~2,250~~	~~20.6~~	~~C~~	~~1,770~~	~~14.6~~	~~B~~
~~F-37~~	~~SR-60~~	~~Jack Rabbit Trail to I-10~~	~~2,190~~	~~16.7~~	~~B~~	~~1,690~~	~~12.9~~	~~B~~	~~2,290~~	~~17.6~~	~~B~~	~~1,660~~	~~12.9~~	~~B~~
~~F-39~~	~~SR-91~~	~~I-15 to McKinley St~~	~~7,280~~	~~30.9~~	~~D~~	~~7,330~~	~~31.0~~	~~D~~	~~7,230~~	~~30.8~~	~~D~~	~~7,400~~	~~31.5~~	~~D~~
~~F-40~~	~~SR-91~~	~~McKinley St to Pierce St~~	~~5,440~~	~~31.0~~	~~D~~	~~6,330~~	~~39.6~~	~~E~~	~~5,400~~	~~30.6~~	~~D~~	~~6,400~~	~~40.9~~	~~E~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~5,210~~	~~29.0~~	~~D~~	~~8,080~~	~~77.6~~	~~F~~	~~5,180~~	~~28.8~~	~~D~~	~~8,150~~	~~80.4~~	~~F~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~5,450~~	~~31.1~~	~~D~~	~~8,040~~	~~76.1~~	~~F~~	~~5,410~~	~~30.7~~	~~D~~	~~8,120~~	~~80.9~~	~~F~~
~~F-43~~	~~SR-91~~	~~La Sierra Ave to Tyler St~~	~~4,800~~	~~25.9~~	~~C~~	~~5,980~~	~~35.6~~	~~E~~	~~4,760~~	~~25.8~~	~~C~~	~~6,050~~	~~36.7~~	~~E~~
~~F-44~~	~~SR-91~~	~~Tyler St to Van Buren Blvd~~	~~6,170~~	~~24.7~~	~~C~~	~~7,420~~	~~31.6~~	~~D~~	~~6,170~~	~~24.7~~	~~C~~	~~7,490~~	~~32.3~~	~~D~~
~~F-45~~	~~SR-91~~	~~Van Buren Blvd to Adam St~~	~~5,810~~	~~22.9~~	~~C~~	~~7,160~~	~~29.9~~	~~D~~	~~5,810~~	~~22.9~~	~~C~~	~~7,230~~	~~30.6~~	~~D~~
~~F-46~~	~~SR-91~~	~~Adam St to Madison St~~	~~5,420~~	~~21.2~~	~~C~~	~~6,210~~	~~24.5~~	~~C~~	~~5,420~~	~~21.2~~	~~C~~	~~6,280~~	~~25.0~~	~~C~~
~~F-47~~	~~SR-91~~	~~Madison St to Arlington Ave~~	~~4,780~~	~~25.8~~	~~C~~	~~5,550~~	~~31.2~~	~~D~~	~~4,790~~	~~26.0~~	~~D~~	~~5,610~~	~~32.0~~	~~D~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~4,340~~	~~16.8~~	~~B~~	~~4,530~~	~~17.3~~	~~B~~	~~4,310~~	~~16.7~~	~~B~~	~~4,570~~	~~17.6~~	~~B~~
~~F-51~~	~~SR-91~~	~~University Ave to Spruce St~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-52~~	~~I-10~~	~~SR-60 to Beaumont Ave~~	~~5,610~~	~~21.9~~	~~C~~	~~5,370~~	~~20.7~~	~~C~~	~~5,620~~	~~21.9~~	~~C~~	~~5,380~~	~~20.9~~	~~C~~
~~F-53~~	~~I-10~~	~~Beaumont Ave to Pennsylvania Ave~~	~~5,470~~	~~21.3~~	~~C~~	~~5,270~~	~~20.3~~	~~C~~	~~5,510~~	~~21.5~~	~~C~~	~~5,260~~	~~20.4~~	~~C~~

~~Table 4.15.AM-2: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound)~~

			~~2022 No Project~~						~~2022 Plus Phase 1~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-54~~	~~I-10~~	~~Pennsylvania Ave to Highland Springs Ave~~	~~5,920~~	~~23.3~~	~~C~~	~~5,480~~	~~21.2~~	~~C~~	~~5,960~~	~~23.5~~	~~C~~	~~5,430~~	~~21.1~~	~~C~~
~~F-55~~	~~I-10~~	~~Highland Springs Ave to Sunset Ave~~	~~5,690~~	~~22.3~~	~~C~~	~~5,200~~	~~20.1~~	~~C~~	~~5,740~~	~~22.6~~	~~C~~	~~5,180~~	~~20.0~~	~~C~~
~~F-56~~	~~I-10~~	~~Sunset Ave to 22nd St~~	~~5,450~~	~~21.2~~	~~C~~	~~5,090~~	~~19.7~~	~~C~~	~~5,490~~	~~21.5~~	~~C~~	~~5,080~~	~~19.6~~	~~C~~
~~F-57~~	~~I-10~~	~~22nd St to 8th St~~	~~5,320~~	~~20.6~~	~~C~~	~~5,110~~	~~19.6~~	~~C~~	~~5,370~~	~~20.9~~	~~C~~	~~5,110~~	~~19.7~~	~~C~~
~~F-58~~	~~I-10~~	~~8th St to S Hargrave St~~	~~5,250~~	~~20.3~~	~~C~~	~~5,250~~	~~20.2~~	~~C~~	~~5,300~~	~~20.6~~	~~C~~	~~5,230~~	~~20.2~~	~~C~~
~~F-59~~	~~I-10~~	~~Hargrave St to Field Rd~~	~~4,810~~	~~18.5~~	~~C~~	~~5,020~~	~~19.3~~	~~C~~	~~4,860~~	~~18.8~~	~~C~~	~~4,980~~	~~19.2~~	~~C~~
~~F-60~~	~~I-10~~	~~Fields Rd to Morongo Tr~~	~~4,600~~	~~17.7~~	~~B~~	~~4,830~~	~~18.6~~	~~C~~	~~4,650~~	~~18.0~~	~~B~~	~~4,790~~	~~18.4~~	~~C~~
~~F-61~~	~~I-10~~	~~Morongo Tr to Main St~~	~~4,110~~	~~15.8~~	~~B~~	~~4,240~~	~~16.3~~	~~B~~	~~4,170~~	~~16.1~~	~~B~~	~~4,210~~	~~16.2~~	~~B~~
~~F-62~~	~~I-10~~	~~Main St to Haugen-Lehmann Way~~	~~4,230~~	~~16.3~~	~~B~~	~~4,300~~	~~16.5~~	~~B~~	~~4,290~~	~~16.6~~	~~B~~	~~4,270~~	~~16.4~~	~~B~~
~~F-64~~	~~I-10~~	~~SR-111 to Tipton Rd~~	~~3,680~~	~~14.1~~	~~B~~	~~3,760~~	~~14.4~~	~~B~~	~~3,740~~	~~14.4~~	~~B~~	~~3,750~~	~~14.4~~	~~B~~
~~F-65~~	~~I-10~~	~~Tipton Rd to SR-62~~	~~3,700~~	~~14.2~~	~~B~~	~~3,770~~	~~14.4~~	~~B~~	~~3,760~~	~~14.5~~	~~B~~	~~3,750~~	~~14.4~~	~~B~~
~~F-66~~	~~I-215~~	~~Scott Rd to Newport Rd~~	~~3,670~~	~~18.6~~	~~C~~	~~2,500~~	~~12.7~~	~~B~~	~~3,640~~	~~18.5~~	~~C~~	~~2,520~~	~~12.8~~	~~B~~
~~F-68~~	~~I-215~~	~~Newport Rd to McCall Blvd~~	~~3,820~~	~~19.6~~	~~C~~	~~3,520~~	~~18.0~~	~~B~~	~~3,790~~	~~19.4~~	~~C~~	~~3,520~~	~~18.0~~	~~B~~
~~F-69~~	~~I-215~~	~~McCall Blvd to Ethanac Rd~~	~~4,380~~	~~22.8~~	~~C~~	~~2,950~~	~~15.0~~	~~B~~	~~4,360~~	~~22.7~~	~~C~~	~~2,940~~	~~15.0~~	~~B~~
~~F-70~~	~~I-215~~	~~Ethanac Rd to SR-74~~	~~4,110~~	~~21.2~~	~~C~~	~~4,250~~	~~21.9~~	~~C~~	~~4,100~~	~~21.1~~	~~C~~	~~4,250~~	~~22.0~~	~~C~~
~~F-71~~	~~I-215~~	~~SR-74 to Redlands Ave~~	~~5,730~~	~~33.1~~	~~D~~	~~3,860~~	~~19.7~~	~~C~~	~~5,730~~	~~33.1~~	~~D~~	~~3,870~~	~~19.8~~	~~C~~
~~F-74~~	~~I-215~~	~~Columbia Ave to Center St~~	~~6,390~~	~~40.0~~	~~E~~	~~5,330~~	~~29.6~~	~~D~~	~~6,420~~	~~40.8~~	~~E~~	~~5,310~~	~~29.4~~	~~D~~
~~F-75~~	~~I-215~~	~~Center St to La Cadena Dr~~	~~6,880~~	~~46.9~~	~~F~~	~~5,560~~	~~31.6~~	~~D~~	~~6,920~~	~~48.1~~	~~F~~	~~5,540~~	~~31.4~~	~~D~~
~~F-76~~	~~I-215~~	~~La Cadena Dr to Barton Rd~~	~~6,700~~	~~44.2~~	~~E~~	~~5,570~~	~~31.7~~	~~D~~	~~6,750~~	~~45.4~~	~~F~~	~~5,550~~	~~31.5~~	~~D~~
~~F-77~~	~~I-215~~	~~Barton Rd to Mt. Vernon Ave~~	~~6,720~~	~~44.4~~	~~E~~	~~5,610~~	~~32.0~~	~~D~~	~~6,770~~	~~45.7~~	~~F~~	~~5,580~~	~~31.7~~	~~D~~
~~F-78~~	~~I-215~~	~~Mt. Vernon Ave to I-10~~	~~7,080~~	~~29.2~~	~~D~~	~~5,890~~	~~23.1~~	~~C~~	~~7,150~~	~~29.9~~	~~D~~	~~5,870~~	~~23.0~~	~~C~~
~~F-80~~	~~I-215~~	~~Auto Plaza Dr to Mill St~~	~~4,790~~	~~18.2~~	~~C~~	~~4,140~~	~~15.8~~	~~B~~	~~4,810~~	~~18.4~~	~~C~~	~~4,120~~	~~15.8~~	~~B~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave~~	~~5,280~~	~~29.0~~	~~D~~	~~4,700~~	~~24.9~~	~~C~~	~~5,330~~	~~29.6~~	~~D~~	~~4,700~~	~~24.9~~	~~C~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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  - ~~I-215 Iowa Avenue/La Cadena Drive to Barton Road; and~~
  - ~~I-215 Barton Road to Mt. Vernon Avenue.~~
- ~~Southbound or Westbound Sections:~~
  - ~~SR-60 Grove Avenue to Vineyard Avenue;~~
  - ~~SR-60 Valley Way to Rubidoux Boulevard;~~
  - ~~SR-60 Market Street to Main Street;~~
  - ~~SR-60 Main Street to SR-91;~~
  - ~~SR-60 Fair Isle Drive/Box Springs Road to I-215;~~
  - ~~SR-60 I-215 to Day Street;~~
  - ~~SR-91 McKinley Street to Pierce Street;~~
  - ~~SR-91 Pierce Street to Magnolia Avenue;~~
  - ~~SR-91 Magnolia Avenue to La Sierra Avenue;~~
  - ~~SR-91 La Sierra Avenue to Tyler Street;~~
  - ~~I-215 Columbia Avenue to Center Street;~~
  - ~~I-215 Center Street to Iowa Avenue/La Cadena Drive;~~
  - ~~I-215 Iowa Avenue/La Cadena Drive to Barton Road; and~~
  - ~~I-215 Barton Road to Mt. Vernon Avenue.~~

~~Phase 1 of the project would create a significant cumulative impact at the following four freeway segments under year 2022 with Phase 1 conditions:~~

- ~~Northbound or Eastbound Section:~~
  - ~~SR-91 Central Avenue to 14th Street.~~
- ~~Southbound or Westbound Sections:~~
  - ~~SR-60 Rubidoux Boulevard to Market Street;~~
  - ~~SR-60 Pigeon Pass Road/Frederick Street to Heacock Street; and~~
  - ~~SR-60 Heacock Street to Perris Boulevard.~~

~~**Freeway Weaving Analysis.** Year 2022 with Phase 1 freeway weaving segment levels of service for the study area intersections are summarized in Table 4.15.AN-1 and 4.15.AN-2, which shows 10 freeway weaving segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at seven of the freeway weaving segments and, therefore, would have a cumulative impact at these locations. Phase 1 of the project would have a significant direct project impact at three freeway weaving segments under year 2022 with Phase 1 conditions.~~

~~Phase 1 of the project would have a cumulative impact at the following seven freeway weaving segments under year 2022 with Phase 1 conditions:~~

- ~~Northbound or Eastbound:~~

  - ~~SR-60 SR-71/S. Garey Avenue to Reservoir Street;~~
  - ~~SR-60 Main Street to SR-91;~~
  - ~~SR-60 SR-91 to W. Blaine Street/3rd Street;~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road;~~
  - ~~SR-91 Arlington Avenue to Central Avenue; and~~
  - ~~I-215 SR-60 to Columbia Avenue.~~
- ~~Southbound or Westbound:~~
  - ~~SR-60 SR-91 to W. Blaine Street/3rd Street;~~

~~Phase 1 of the project would also create a significant cumulative impact at the following three freeway weaving segments under year 2022 with Phase 1 conditions:~~

- ~~Southbound or Westbound:~~
  - ~~SR-60 Blaine Street/3rd Street to University Avenue;~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road.~~
  - ~~SR-60 Day Street to Pigeon Pass Road/Frederick Street.~~

~~**Freeway Ramp Analysis:** Year 2022 with Phase 1 freeway ramp merge/diverge levels of service are summarized in Table 4.15.AO, which shows one freeway ramp that would operate at unsatisfactory level of service. Phase 1 of the project would contribute toward the worsening of an unsatisfactory LOS at this freeway ramp and, therefore, would have a significant cumulative impact on the following ramp:~~

- ~~SR-60 Eastbound On-Ramp from Central Avenue.~~

~~Phase 1 of the project would not create a significant cumulative impact to any freeway ramps in the year 2022 plus Phase 1 condition.~~

~~Table 4.15.AN-1: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Northbound/Eastbound)~~

			~~2022 No-Project Conditions~~						~~2022 Plus Phase 1 Conditions~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~W-1~~	~~SR-60~~	~~SR-71/Garey Ave to Reservoir St~~	~~7,150~~	~~29.2~~	~~D~~	~~8,640~~	~~37.6~~	~~E~~	~~7,340~~	~~30.5~~	~~D~~	~~8,620~~	~~37.7~~	~~E~~
~~W-9~~	~~SR-60~~	~~Haven Ave to Archibald Ave~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-20~~	~~SR-60~~	~~Main St to SR-91~~	~~7,350~~	~~36.6~~	~~E~~	~~7,370~~	~~38.0~~	~~E~~	~~7,620~~	~~38.5~~	~~E~~	~~7,380~~	~~38.2~~	~~E~~
~~W-21~~	~~SR-60~~	~~SR-91 to Blaine St/3rd St~~	~~6,010~~	~~24.2~~	~~C~~	~~9,760~~	~~42.3~~	~~E~~	~~6,440~~	~~26.7~~	~~C~~	~~9,720~~	~~42.6~~	~~E~~
~~W-22~~	~~SR-60~~	~~Blaine St/3rd St to University Ave~~	~~5,710~~	~~21.6~~	~~C~~	~~7,210~~	~~31.3~~	~~D~~	~~6,140~~	~~25.0~~	~~C~~	~~7,250~~	~~32.5~~	~~D~~
~~W-23~~	~~SR-60~~	~~University Ave to Martin Luther King Blvd~~	~~6,620~~	~~23.8~~	~~C~~	~~6,060~~	~~21.4~~	~~C~~	~~7,140~~	~~26.3~~	~~C~~	~~6,130~~	~~22.0~~	~~C~~
~~W-25~~	~~SR-60~~	~~Central Ave to Fair Isle Dr/Box Springs Rd~~	~~6,580~~	~~27.3~~	~~C~~	~~8,400~~	~~38.9~~	~~E~~	~~7,240~~	~~32.8~~	~~D~~	~~8,360~~	~~39.7~~	~~E~~
~~W-27~~	~~SR-60~~	~~I-215 to Day St~~	~~4,000~~	~~14.6~~	~~B~~	~~5,280~~	~~19.9~~	~~B~~	~~4,650~~	~~19.0~~	~~B~~	~~5,320~~	~~21.1~~	~~C~~
~~W-28~~	~~SR-60~~	~~Pigeon Pass Rd/Frederick St~~	~~3,890~~	~~16.6~~	~~B~~	~~5,130~~	~~23.2~~	~~C~~	~~4,350~~	~~19.3~~	~~B~~	~~5,120~~	~~23.6~~	~~C~~
~~W-32~~	~~SR-60~~	~~Moreno Beach Dr to Nason St~~	~~2,330~~	~~14.2~~	~~B~~	~~2,880~~	~~18.1~~	~~B~~	~~2,960~~	~~19.1~~	~~B~~	~~2,940~~	~~19.0~~	~~B~~
~~W-35~~	~~SR-60~~	~~Theodore St to Gilman Springs Rd~~	~~2,320~~	~~12.7~~	~~B~~	~~3,370~~	~~19.3~~	~~B~~	~~2,350~~	~~13.5~~	~~B~~	~~3,280~~	~~19.4~~	~~B~~
~~W-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~6,400~~	~~30.3~~	~~D~~	~~5,950~~	~~28.5~~	~~D~~	~~6,550~~	~~31.1~~	~~D~~	~~5,920~~	~~28.5~~	~~D~~
~~W-48~~	~~SR-91~~	~~Arlington Ave to Central Ave~~	~~7,220~~	~~39.0~~	~~E~~	~~3,680~~	~~17.9~~	~~B~~	~~7,300~~	~~39.9~~	~~E~~	~~3,660~~	~~17.8~~	~~B~~
~~W-50~~	~~SR-91~~	~~14th St to University Ave~~	~~5,030~~	~~25.1~~	~~C~~	~~4,810~~	~~24.6~~	~~C~~	~~5,100~~	~~25.7~~	~~C~~	~~4,840~~	~~24.9~~	~~C~~
~~W-51~~	~~SR-91~~	~~SR-60 to Mission Inn Ave/University Ave~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-63~~	~~I-10~~	~~Haugen-Lehmann Way to SR-111~~	~~3,300~~	~~11.0~~	~~B~~	~~4,710~~	~~15.9~~	~~B~~	~~3,260~~	~~10.9~~	~~B~~	~~4,760~~	~~16.1~~	~~B~~
~~W-73~~	~~I-215~~	~~SR-60 to Columbia Ave~~	~~6,840~~	~~37.8~~	~~E~~	~~6,540~~	~~35.8~~	~~E~~	~~6,810~~	~~37.7~~	~~E~~	~~6,580~~	~~36.4~~	~~E~~
~~W-79~~	~~I-215~~	~~I-10 to Auto Plaza Dr/Orange Show Rd~~	~~4,610~~	~~16.8~~	~~B~~	~~5,210~~	~~19.0~~	~~B~~	~~4,590~~	~~16.8~~	~~B~~	~~5,250~~	~~19.3~~	~~B~~
~~W-81~~	~~I-215~~	~~Mill St to 2nd St~~	~~5,090~~	~~17.8~~	~~B~~	~~5,910~~	~~21.1~~	~~C~~	~~5,070~~	~~17.7~~	~~B~~	~~5,940~~	~~21.3~~	~~C~~
~~W-82~~	~~I-215~~	~~5th St to Baseline Rd~~	~~3,760~~	~~12.7~~	~~B~~	~~4,450~~	~~15.2~~	~~B~~	~~3,750~~	~~12.7~~	~~B~~	~~4,490~~	~~15.4~~	~~B~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AN-2: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Southbound/Westbound)~~

			~~2022 No-Project Conditions~~						~~2022 Plus Phase 1 Conditions~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~W-1~~	~~SR-60~~	~~SR-71/Garey Ave to Reservoir St~~	~~6,130~~	~~21.9~~	~~C~~	~~6,720~~	~~24.3~~	~~C~~	~~6,060~~	~~21.7~~	~~C~~	~~6,850~~	~~25.0~~	~~C~~
~~W-9~~	~~SR-60~~	~~Haven Ave to Archibald Ave~~	~~6,330~~	~~24.4~~	~~C~~	~~7,330~~	~~29.3~~	~~C~~	~~6,230~~	~~24.1~~	~~C~~	~~7,480~~	~~30.1~~	~~D~~
~~W-20~~	~~SR-60~~	~~Main St to SR-91~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-21~~	~~SR-60~~	~~SR-91 to Blaine St/3rd St~~	~~7,720~~	~~29.4~~	~~D~~	~~9,290~~	~~36.9~~	~~E~~	~~7,640~~	~~29.4~~	~~D~~	~~9,670~~	~~39.1~~	~~E~~
~~W-22~~	~~SR-60~~	~~Blaine St/3rd St to University Ave~~	~~5,700~~	~~21.1~~	~~C~~	~~8,280~~	~~32.0~~	~~D~~	~~5,620~~	~~21.3~~	~~C~~	~~8,670~~	~~35.2~~	~~E~~
~~W-23~~	~~SR-60~~	~~University Ave to Martin Luther King Blvd~~	~~5,600~~	~~22.6~~	~~C~~	~~7,620~~	~~30.7~~	~~D~~	~~5,500~~	~~22.3~~	~~C~~	~~7,980~~	~~32.8~~	~~D~~
~~W-25~~	~~SR-60~~	~~Central Ave to Fair Isle Dr/Box Springs Rd~~	~~7,110~~	~~30.7~~	~~D~~	~~7,890~~	~~32.7~~	~~D~~	~~7,120~~	~~31.3~~	~~D~~	~~8,330~~	~~36.1~~	~~E~~
~~W-27~~	~~SR-60~~	~~I-215 to Day St~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-28~~	~~SR-60~~	~~Pigeon Pass Rd/Frederick St~~	~~4,970~~	~~34.3~~	~~D~~	~~4,860~~	~~32.7~~	~~D~~	~~4,950~~	~~34.7~~	~~D~~	~~5,270~~	~~37.1~~	~~E~~
~~W-32~~	~~SR-60~~	~~Moreno Beach Dr to Nason St~~	~~2,410~~	~~14.5~~	~~B~~	~~2,190~~	~~13.2~~	~~B~~	~~2,560~~	~~15.8~~	~~B~~	~~2,840~~	~~18.2~~	~~B~~
~~W-35~~	~~SR-60~~	~~Theodore St to Gilman Springs Rd~~	~~2,360~~	~~13.6~~	~~B~~	~~2,030~~	~~11.4~~	~~B~~	~~2,310~~	~~13.5~~	~~B~~	~~1,980~~	~~11.8~~	~~B~~
~~W-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-48~~	~~SR-91~~	~~Arlington Ave to Central Ave~~	~~4,510~~	~~21.2~~	~~C~~	~~5,050~~	~~24.1~~	~~C~~	~~4,510~~	~~21.3~~	~~C~~	~~5,120~~	~~24.6~~	~~C~~

~~Table 4.15.AN-2: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Southbound/Westbound)~~

			~~2022 No-Project Conditions~~						~~2022 Plus Phase 1 Conditions~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~W-50~~	~~SR-91~~	~~14th St to University Ave~~	~~5,090~~	~~19.6~~	~~B~~	~~7,020~~	~~27.9~~	~~C~~	~~5,070~~	~~19.5~~	~~B~~	~~7,010~~	~~28.1~~	~~D~~
~~W-51~~	~~SR-91~~	~~SR-60 to Mission Inn Ave/University Ave~~	~~5,020~~	~~14.7~~	~~B~~	~~8,850~~	~~26.7~~	~~C~~	~~5,010~~	~~14.7~~	~~B~~	~~8,850~~	~~26.9~~	~~C~~
~~W-63~~	~~I-10~~	~~Haugen-Lehmann Way to SR-111~~	~~4,210~~	~~14.8~~	~~B~~	~~4,310~~	~~17.2~~	~~B~~	~~4,280~~	~~15.2~~	~~B~~	~~4,280~~	~~17.1~~	~~B~~
~~W-73~~	~~I-215~~	~~SR-60 to Columbia Ave~~	~~7,040~~	~~33.4~~	~~D~~	~~6,110~~	~~28.8~~	~~D~~	~~7,070~~	~~33.7~~	~~D~~	~~6,070~~	~~28.6~~	~~D~~
~~W-79~~	~~I-215~~	~~I-10 to Auto Plaza Dr/Orange Show Rd~~	~~5,830~~	~~20.8~~	~~C~~	~~4,870~~	~~18.0~~	~~B~~	~~5,850~~	~~20.9~~	~~C~~	~~4,830~~	~~17.9~~	~~B~~
~~W-81~~	~~I-215~~	~~Mill St to 2nd St~~	~~5,300~~	~~19.0~~	~~B~~	~~4,410~~	~~15.9~~	~~B~~	~~5,330~~	~~19.2~~	~~B~~	~~4,390~~	~~15.8~~	~~B~~
~~W-82~~	~~I-215~~	~~5th St to Baseline Rd~~	~~4,540~~	~~16.0~~	~~B~~	~~3,490~~	~~12.3~~	~~B~~	~~4,570~~	~~16.1~~	~~B~~	~~3,470~~	~~12.2~~	~~B~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AO: Year 2022 plus Phase 1 Freeway Ramp Levels of Service~~

					~~2022 No-Project Conditions~~								~~2022 Plus Phase 1 Conditions~~							
					~~AM Peak Hour~~				~~PM Peak Hour~~				~~AM Peak Hour~~				~~PM Peak Hour~~			
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~		~~Ramp No. of Lanes~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-1~~	~~SR-60 EB~~	~~On-Ramp from Martin Luther King Blvd~~	~~EB SR-60 On-Ramp from Martin Luther King Blvd~~	~~1~~	~~6,190~~	~~710~~	~~27.4~~	~~C~~	~~5,780~~	~~1,320~~	~~30.9~~	~~D~~	~~6,710~~	~~740~~	~~29.7~~	~~D~~	~~5,840~~	~~1,340~~	~~31.5~~	~~D~~
~~R-2~~	~~SR-60 EB~~	~~On-Ramp from Central Ave~~	~~EB SR-60 On-Ramp from Central Ave~~	~~1~~	~~8,170~~	~~710~~	~~28.8~~	~~D~~	~~9,010~~	~~1,120~~	~~35.1~~	~~F~~	~~8,700~~	~~820~~	~~31.9~~	~~F~~	~~9,080~~	~~1,120~~	~~35.6~~	~~F~~
~~R-3~~	~~SR-60 EB~~	~~Off-Ramp to Redlands Blvd~~	~~EB SR-60 Off-Ramp to Redlands Blvd~~	~~1~~	~~1,910~~	~~220~~	~~8.3~~	~~A~~	~~2,370~~	~~520~~	~~12.5~~	~~B~~	~~2,780~~	~~430~~	~~18.2~~	~~B~~	~~2,540~~	~~560~~	~~15.4~~	~~B~~
~~R-4~~	~~SR-60 EB~~	~~Loop On-Ramp from Redlands Blvd~~	~~EB SR-60 Loop On-Ramp from Redlands Blvd~~	~~1~~	~~1,690~~	~~90~~	~~17.1~~	~~B~~	~~1,850~~	~~210~~	~~19.4~~	~~B~~	~~2,350~~	~~90~~	~~24.1~~	~~C~~	~~1,980~~	~~250~~	~~21.7~~	~~C~~
~~R-5~~	~~SR-60 EB~~	~~Direct On-Ramp from Redlands Blvd~~	~~EB SR-60 Direct On-Ramp from Redlands Blvd~~	~~0~~	~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~			
~~R-6~~	~~SR-60 EB~~	~~Off-Ramp to Theodore St~~	~~EB SR-60 Off-Ramp to Theodore St~~	~~2~~	~~2,460~~	~~250~~	~~24.5~~	~~C~~	~~3,240~~	~~150~~	~~31.7~~	~~D~~	~~3,300~~	~~910~~	~~21.9~~	~~C~~	~~3,350~~	~~540~~	~~21.8~~	~~C~~
~~R-7~~	~~SR-60 EB~~	~~Loop On-Ramp from Theodore St~~	~~EB SR-60 Loop On-Ramp from Theodore St~~	~~1~~	~~2,210~~	~~110~~	~~23.1~~	~~C~~	~~3,090~~	~~270~~	~~31.7~~	~~D~~	~~2,390~~	~~40~~	~~25.4~~	~~C~~	~~2,810~~	~~70~~	~~28.8~~	~~D~~
~~R-8~~	~~SR-60 EB~~	~~Direct On-Ramp from Theodore St~~	~~EB SR-60 Direct On-Ramp from Theodore St~~	~~1~~	~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~				~~2,350~~	~~200~~	~~18.6~~	~~B~~	~~2,740~~	~~410~~	~~23.3~~	~~C~~
~~R-9~~	~~SR-60 EB~~	~~Off-Ramp to Gilman Springs Rd~~	~~EB SR-60 Off-Ramp to Gilman Springs Rd~~	~~2~~	~~2,320~~	~~330~~	~~14.5~~	~~B~~	~~3,370~~	~~650~~	~~21.0~~	~~C~~	~~2,350~~	~~432~~	~~14.9~~	~~B~~	~~3,280~~	~~537~~	~~20.7~~	~~C~~
~~R-10~~	~~SR-60 EB~~	~~On-Ramp from Gilman Springs Rd~~	~~EB SR-60 On-Ramp from Gilman Springs Rd~~	~~1~~	~~1,990~~	~~270~~	~~14.7~~	~~B~~	~~2,720~~	~~140~~	~~19.8~~	~~B~~	~~1,918~~	~~288~~	~~14.5~~	~~B~~	~~2,743~~	~~211~~	~~20.8~~	~~C~~
~~R-11~~	~~SR-60 WB~~	~~Off-Ramp to Gilman Springs Rd~~	~~WB SR-60 Off-Ramp to Gilman Springs Rd~~	~~2~~	~~2,210~~	~~230~~	~~13.8~~	~~B~~	~~1,880~~	~~190~~	~~11.8~~	~~B~~	~~2,250~~	~~326~~	~~14.7~~	~~B~~	~~1,770~~	~~233~~	~~11.7~~	~~B~~

~~Table 4.15.AO: Year 2022 plus Phase 1 Freeway Ramp Levels of Service~~

					~~2022 No-Project Conditions~~								~~2022 Plus Phase 1 Conditions~~							
					~~AM Peak Hour~~				~~PM Peak Hour~~				~~AM Peak Hour~~				~~PM Peak Hour~~			
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~		~~Ramp No. of Lanes~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-12~~	~~SR-60 WB~~	~~On-Ramp from Gilman Springs Rd~~	~~WB SR-60 On-Ramp from Gilman Springs Rd~~	~~1~~	~~1,980~~	~~380~~	~~15.5~~	~~B~~	~~1,690~~	~~310~~	~~12.6~~	~~B~~	~~1,924~~	~~406~~	~~16.2~~	~~B~~	~~1,537~~	~~452~~	~~13.5~~	~~B~~
~~R-13~~	~~SR-60 WB~~	~~Off-Ramp to Theodore St~~	~~WB SR-60 Off-Ramp to Theodore St~~	~~2~~	~~2,360~~	~~180~~	~~12.4~~	~~B~~	~~2,030~~	~~120~~	~~9.3~~	~~A~~	~~2,310~~	~~310~~	~~14.6~~	~~B~~	~~1,980~~	~~170~~	~~12.6~~	~~B~~
~~R-14~~	~~SR-60 WB~~	~~On-Ramp from Theodore St~~	~~WB SR-60 On-Ramp from Theodore St~~	~~1~~	~~2,180~~	~~100~~	~~21.0~~	~~C~~	~~1,910~~	~~290~~	~~20.2~~	~~C~~	~~2,000~~	~~560~~	~~24.1~~	~~C~~	~~1,810~~	~~790~~	~~24.7~~	~~C~~
~~R-15~~	~~SR-60 WB~~	~~Off-Ramp to Redlands Blvd~~	~~WB SR-60 Off-Ramp to Redlands Blvd~~	~~1~~	~~2,280~~	~~170~~	~~22.9~~	~~C~~	~~2,200~~	~~100~~	~~22.3~~	~~C~~	~~2,580~~	~~250~~	~~26.7~~	~~C~~	~~2,920~~	~~160~~	~~30.2~~	~~D~~
~~R-16~~	~~SR-60 WB~~	~~Loop On-Ramp from Redlands Blvd~~	~~WB SR-60 Loop On-Ramp from Redlands Blvd~~	~~1~~	~~2,110~~	~~440~~	~~23.3~~	~~C~~	~~2,100~~	~~380~~	~~22.8~~	~~C~~	~~2,330~~	~~470~~	~~26.3~~	~~C~~	~~2,760~~	~~700~~	~~32.3~~	~~D~~
~~R-17~~	~~SR-60 WB~~	~~Direct On-Ramp from Redlands Blvd~~	~~WB SR-60 Direct On-Ramp from Redlands Blvd~~	~~0~~	~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~			
~~R-18~~	~~SR-60 WB~~	~~Off-Ramp to Central Ave~~	~~WB SR-60 Off-Ramp to Central Ave~~	~~2~~	~~7,110~~	~~410~~	~~26.5~~	~~C~~	~~7,890~~	~~530~~	~~29.8~~	~~D~~	~~7,120~~	~~480~~	~~27.3~~	~~C~~	~~8,330~~	~~540~~	~~31.8~~	~~D~~
~~R-19~~	~~SR-60 WB~~	~~Off-Ramp to Martin Luther King Blvd~~	~~WB SR-60 Off-Ramp to Martin Luther King Blvd~~	~~1~~	~~7,060~~	~~510~~	~~16.3~~	~~B~~	~~7,680~~	~~430~~	~~17.6~~	~~B~~	~~7,000~~	~~520~~	~~16.4~~	~~B~~	~~8,050~~	~~430~~	~~19.2~~	~~B~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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~~4.15.6.4 Year 2035 Cumulative With Project Conditions Traffic and~~

~~Threshold:~~ ~~Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.~~

~~Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?~~

~~A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:~~

- ~~Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.~~
- ~~Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.~~
- ~~Freeway mainline: LOS D.~~
- ~~Freeway Ramp Merge/Diverge: LOS D.~~

Table 4.15.AM: 2025 Plus Phase 1 Freeway Mainline Level of Service (Contiued)

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
ID	Freeway	Segment	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,870	34.5	D	5,730	23.2	C
F-49	SR-91	Central Ave to 14th St	7,300	56.6	F	6,200	40.8	E	7,310	57.6	F	6,200	40.8	E
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	4,770	18.0	B	4,630	18.0	C
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	6,090	18.5	C	5,920	18.7	C
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,410	13.5	B	4,610	17.3	B
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	3,120	12.3	B	4,110	15.4	B
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	2,450	9.7	A	3,030	11.3	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,040	12.0	B	4,280	16.0	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	4,130	16.4	B	4,050	15.2	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	3,490	14.0	B	4,900	18.6	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	4,760	18.8	C	4,010	15.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,040	12.8	B	5,570	16.8	B
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,020	12.8	B	4,930	14.9	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,860	15.4	B	5,850	17.7	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,440	14.2	B	5,920	17.9	B	4,370	13.9	B	5,900	17.8	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	4,470	24.5	C	4,340	22.7	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,840	19.4	C	4,420	16.7	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	4,430	24.4	C	5,530	30.8	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	4,720	26.4	D	6,170	37.0	E
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	6,950	30.5	D	7,410	30.8	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	5,380	31.8	D	5,660	31.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	5,450	32.2	D	5,460	29.7	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	E	6,150	36.7	E	5,910	37.6	E	6,220	37.9	E
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,330	27.2	D	6,460	25.7	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	F	5,420	21.7	C	9,970	55.8	F
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	3,200	12.7	B	5,050	19.0	C
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	4,060	15.9	B	5,330	20.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	4,180	16.6	B	5,800	23.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	4,370	17.4	B	6,040	24.5	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	4,270	17.0	B	5,900	23.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	4,170	13.3	B	5,690	17.8	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	4,070	16.2	B	5,550	22.1	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	4,050	16.1	B	5,490	21.9	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	3,720	14.9	B	4,980	19.7	C
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	3,560	14.2	B	4,760	18.8	C
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	3,190	12.6	B	4,270	16.7	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	3,220	12.6	B	4,280	16.6	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	2,740	10.8	A	3,740	14.5	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	2,690	10.6	A	3,770	14.6	B

▨ Indicates that the LOS exceeds the target level

Table 4.15.AM: 2025 Plus Phase 1 Freeway Mainline Level of Service (Contiued)

ID	Freeway	Segment	2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,870	34.5	D	5,730	23.2	C
F-49	SR-91	Central Ave to 14th St	7,300	56.6	F	6,200	40.8	E	7,310	57.6	F	6,200	40.8	E
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	4,770	18.0	B	4,630	18.0	C
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	6,090	18.5	C	5,920	18.7	C
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,410	13.5	B	4,610	17.3	B
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	3,120	12.3	B	4,110	15.4	B
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	2,450	9.7	A	3,030	11.3	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,040	12.0	B	4,280	16.0	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	4,130	16.4	B	4,050	15.2	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	3,490	14.0	B	4,900	18.6	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	4,760	18.8	C	4,010	15.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,040	12.8	B	5,570	16.8	B
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,020	12.8	B	4,930	14.9	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,860	15.4	B	5,850	17.7	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,440	14.2	B	5,920	17.9	B	4,370	13.9	B	5,900	17.8	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	4,470	24.5	C	4,340	22.7	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,840	19.4	C	4,420	16.7	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	4,430	24.4	C	5,530	30.8	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	4,720	26.4	D	6,170	37.0	E
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	6,950	30.5	D	7,410	30.8	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	5,380	31.8	D	5,660	31.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	5,450	32.2	D	5,460	29.7	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	E	6,150	36.7	E	5,910	37.6	E	6,220	37.9	E
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,330	27.2	D	6,460	25.7	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	F	5,420	21.7	C	9,970	55.8	F
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	3,200	12.7	B	5,050	19.0	C
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	4,060	15.9	B	5,330	20.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	4,180	16.6	B	5,800	23.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	4,370	17.4	B	6,040	24.5	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	4,270	17.0	B	5,900	23.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	4,170	13.3	B	5,690	17.8	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	4,070	16.2	B	5,550	22.1	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	4,050	16.1	B	5,490	21.9	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	3,720	14.9	B	4,980	19.7	C
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	3,560	14.2	B	4,760	18.8	C
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	3,190	12.6	B	4,270	16.7	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	3,220	12.6	B	4,280	16.6	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	2,740	10.8	A	3,740	14.5	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	2,690	10.6	A	3,770	14.6	B

▨ Indicates that the LOS exceeds the target level

Table 4.15.AM: 2025 Plus Phase 1 Freeway Mainline Level of Service ~~Impacts~~(Contiued)

~~**Intersection Analysis.** Year 2035 Cumulative with project (buildout) intersection levels of service for the study area intersections are summarized in Tables 4.15.AP-1 and 4.15.AP-2, which shows 35 intersections that would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at 30 intersections and, therefore, have a significant cumulative impact. At five intersections, the project would create a significant cumulative impact since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.~~

~~The project would contribute to a significant cumulative impact at the following 30 intersections under Year 2035 with project conditions:~~

- ~~Theodore Street/Ironwood Avenue;~~
- ~~Moreno Beach Drive/Locust Avenue;~~
- ~~Moreno Beach Drive/SR-60 Eastbound Ramps;~~
- ~~Iris Avenue/Perris Boulevard;~~
- ~~Kitching Street/Iris Avenue;~~
- ~~Lasselle Street/Iris Avenue;~~
- ~~Lasselle Street/Cactus Avenue;~~
- ~~Graham Street/Alessandro Boulevard;~~
- ~~Alessandro Boulevard/Sycamore Canyon Boulevard;I-215 Southbound Ramps/Cactus Avenue;~~
- ~~Central Avenue/Lochmoor Drive;~~

~~**Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)**~~

			~~2035 No Project~~			~~2035 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~10.2~~	~~B~~
~~IN-2~~	~~Cactus Avenue Extension/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~Signal~~	~~12.3~~	~~B~~
~~IN-3~~	~~Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~20.9~~	~~C~~	~~RABT~~	~~11.0~~	~~B~~
~~IN-4~~	~~Alessandro Blvd (Street C)/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~7.9~~	~~A~~
~~IN-6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~Signal~~	~~11.7~~	~~B~~	~~Signal~~	~~44.3~~	~~D~~
~~IN-9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~Signal~~	~~10.5~~	~~B~~
~~IN-10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~Signal~~	~~5.4~~	~~A~~	~~Signal~~	~~10.7~~	~~B~~
~~IN-11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~Signal~~	~~45.0~~	~~D~~	~~Signal~~	~~46.4~~	~~D~~
~~IN-12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~22.9~~	~~C~~	~~CSS~~	~~44.3~~	~~E~~
~~IN-13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~Signal~~	~~5.7~~	~~A~~	~~Signal~~	~~6.7~~	~~A~~
~~IN-14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~Signal~~	~~5.1~~	~~A~~	~~Signal~~	~~5.4~~	~~A~~
~~IN-15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~62.2~~	~~F~~	~~Signal~~	~~14.1~~	~~B~~
~~IN-16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~13.5~~	~~B~~	~~Signal~~	~~2.2~~	~~A~~
~~IN-17~~	~~Quincy Str/Fir Ave~~	~~D~~	~~CSS~~	~~9.6~~	~~A~~	~~CSS~~	~~10.6~~	~~B~~
~~IN-18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~Signal~~	~~7.2~~	~~A~~	~~Signal~~	~~21.8~~	~~C~~
~~IN-19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~10.5~~	~~B~~	~~Signal~~	~~18.5~~	~~B~~

~~Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)~~

			~~2035 No Project~~			~~2035 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~20.0~~	~~C~~	~~CSS~~	~~21.0~~	~~C~~
~~IN-21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~Signal~~	~~17.3~~	~~B~~	~~Signal~~	~~17.4~~	~~B~~
~~IN-22~~	~~Quincy Str/Alessandro Blvd~~	~~C~~	~~Signal~~	~~4.2~~	~~A~~	~~Signal~~	~~4.2~~	~~A~~
~~IN-23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~137.4~~	~~F~~	~~AWS~~	~~13.4~~	~~B~~
~~IN-24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~Signal~~	~~22.3~~	~~C~~	~~Signal~~	~~23.9~~	~~C~~
~~IN-25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~Signal~~	~~20.3~~	~~C~~	~~Signal~~	~~22.0~~	~~C~~
~~IN-26~~	~~Quincy Str/Cactus Ave~~	~~C~~	~~Signal~~	~~3.9~~	~~A~~	~~Signal~~	~~3.5~~	~~A~~
~~IN-27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~14.3~~	~~B~~	~~AWS~~	~~128.4~~	~~F~~
~~IN-28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~Signal~~	~~23.5~~	~~C~~	~~Signal~~	~~29.1~~	~~C~~
~~IN-29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~Signal~~	~~31.6~~	~~C~~	~~Signal~~	~~31.6~~	~~C~~
~~IN-30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~Signal~~	~~30.5~~	~~C~~	~~Signal~~	~~31.4~~	~~C~~
~~IN-31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~Signal~~	~~12.3~~	~~B~~	~~Signal~~	~~12.7~~	~~B~~
~~IN-32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~Signal~~	~~31.8~~	~~C~~	~~Signal~~	~~32.1~~	~~C~~
~~IN-33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~Signal~~	~~22.5~~	~~C~~	~~Signal~~	~~24.0~~	~~C~~
~~IN-34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~Signal~~	~~21.8~~	~~C~~	~~Signal~~	~~21.5~~	~~C~~
~~IN-35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~29.4~~	~~D~~	~~CSS~~	~~31.0~~	~~D~~
~~IN-36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~Signal~~	~~46.6~~	~~D~~	~~Signal~~	~~52.9~~	~~D~~
~~IN-37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~Signal~~	~~113.9~~	~~F~~	~~Signal~~	~~147.6~~	~~F~~
~~IN-38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~Signal~~	~~28.8~~	~~C~~	~~Signal~~	~~33.5~~	~~C~~
~~IN-39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~Signal~~	~~58.6~~	~~E~~	~~Signal~~	~~65.7~~	~~E~~
~~IN-40~~	~~Kitching St/Iris Ave~~	~~C~~	~~Signal~~	~~65.8~~	~~E~~	~~Signal~~	~~78.3~~	~~E~~
~~IN-41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~Signal~~	~~35.0~~	~~C~~	~~Signal~~	~~38.7~~	~~D~~
~~IN-42~~	~~Nason Str/Iris Ave~~	~~C~~	~~Signal~~	~~18.5~~	~~B~~	~~Signal~~	~~17.1~~	~~B~~
~~IN-43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~Signal~~	~~24.5~~	~~C~~	~~Signal~~	~~23.7~~	~~C~~
~~IN-44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~Signal~~	~~7.0~~	~~A~~	~~Signal~~	~~6.8~~	~~A~~
~~IN-45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~Signal~~	~~27.8~~	~~C~~	~~Signal~~	~~29.1~~	~~C~~
~~IN-46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~Signal~~	~~35.3~~	~~D~~	~~Signal~~	~~37.4~~	~~D~~
~~IN-47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~Signal~~	~~32.2~~	~~C~~	~~Signal~~	~~34.4~~	~~C~~
~~IN-48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~26.5~~	~~C~~	~~Signal~~	~~26.7~~	~~C~~
~~IN-49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~19.8~~	~~B~~	~~Signal~~	~~20.5~~	~~C~~
~~IN-50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~25.5~~	~~C~~	~~Signal~~	~~25.6~~	~~C~~
~~IN-51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~31.1~~	~~C~~	~~Signal~~	~~31.3~~	~~C~~
~~IN-52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~Signal~~	~~30.7~~	~~C~~	~~Signal~~	~~30.5~~	~~C~~
~~IN-53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~Signal~~	~~38.5~~	~~D~~	~~Signal~~	~~38.8~~	~~D~~
~~IN-54~~	~~Morrison Str/Cactus Ave~~	~~D~~	~~Signal~~	~~6.1~~	~~A~~	~~Signal~~	~~6.4~~	~~A~~
~~IN-55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~Signal~~	~~36.1~~	~~D~~	~~Signal~~	~~36.6~~	~~D~~
~~IN-56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~19.2~~	~~B~~	~~Signal~~	~~19.3~~	~~B~~
~~IN-57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~35.6~~	~~D~~	~~Signal~~	~~35.6~~	~~D~~
~~IN-58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~29.6~~	~~D~~	~~Signal~~	~~29.2~~	~~C~~
~~IN-59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~21.7~~	~~C~~	~~Signal~~	~~21.3~~	~~C~~
~~IN-60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~Signal~~	~~32.8~~	~~C~~	~~Signal~~	~~33.6~~	~~C~~

~~Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2035 No Project~~			~~2035 With Project~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~Signal~~	~~9.7~~	~~A~~	~~Signal~~	~~9.6~~	~~A~~
~~IN-62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~Signal~~	~~22.7~~	~~C~~	~~Signal~~	~~23.4~~	~~C~~
~~IN-63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~Signal~~	~~31.6~~	~~C~~	~~Signal~~	~~31.9~~	~~C~~
~~IN-64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~Signal~~	~~32.6~~	~~C~~	~~Signal~~	~~32.6~~	~~C~~
~~IN-65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~Signal~~	~~39.2~~	~~D~~	~~Signal~~	~~38.8~~	~~D~~
~~IN-66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~Signal~~	~~37.5~~	~~D~~	~~Signal~~	~~39.7~~	~~D~~
~~IN-67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~Signal~~	~~6.6~~	~~A~~	~~Signal~~	~~6.7~~	~~A~~
~~IN-68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~Signal~~	~~21.9~~	~~C~~	~~Signal~~	~~21.8~~	~~C~~
~~IN-69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~Signal~~	~~15.1~~	~~B~~	~~Signal~~	~~15.0~~	~~B~~
~~IN-70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~22.6~~	~~C~~	~~Signal~~	~~23.4~~	~~C~~
~~IN-71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~28.4~~	~~C~~	~~Signal~~	~~29.5~~	~~C~~
~~IN-72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~Signal~~	~~37.6~~	~~D~~	~~Signal~~	~~41.6~~	~~D~~
~~IN-73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~Signal~~	~~71.1~~	~~E~~	~~Signal~~	~~75.5~~	~~E~~
~~IN-74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~Signal~~	~~> 180.0~~	~~F~~	~~Signal~~	~~> 180.0~~	~~F~~
~~IN-75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~Signal~~	~~16.2~~	~~B~~	~~Signal~~	~~18.5~~	~~B~~
~~IN-76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~Signal~~	~~28.6~~	~~C~~	~~Signal~~	~~29.9~~	~~C~~
~~IN-77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~Signal~~	~~18.1~~	~~B~~	~~Signal~~	~~23.1~~	~~C~~
~~IN-78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~Signal~~	~~6.7~~	~~A~~	~~Signal~~	~~6.7~~	~~A~~
~~IN-79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~Signal~~	~~32.2~~	~~C~~	~~Signal~~	~~34.3~~	~~C~~
~~IN-80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~Signal~~	~~28.0~~	~~C~~	~~Signal~~	~~29.6~~	~~C~~
~~IN-81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~Signal~~	~~27.0~~	~~C~~	~~Signal~~	~~28.2~~	~~C~~
~~IN-82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~Signal~~	~~11.3~~	~~B~~	~~Signal~~	~~11.3~~	~~B~~
~~IN-83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~Signal~~	~~40.2~~	~~D~~	~~Signal~~	~~43.2~~	~~D~~
~~IN-84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~Signal~~	~~11.2~~	~~B~~	~~Signal~~	~~11.6~~	~~B~~
~~IN-85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~45.1~~	~~E~~	~~AWS~~	~~48.5~~	~~E~~
~~IN-86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~Signal~~	~~46.8~~	~~D~~	~~Signal~~	~~60.7~~	~~E~~
~~IN-87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~Signal~~	~~17.6~~	~~B~~	~~Signal~~	~~17.8~~	~~B~~
~~IN-88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~Signal~~	~~45.4~~	~~D~~	~~Signal~~	~~49.7~~	~~D~~
~~IN-89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~Signal~~	~~11.2~~	~~B~~	~~Signal~~	~~11.7~~	~~B~~
~~IN-90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~Signal~~	~~38.4~~	~~D~~	~~Signal~~	~~39.4~~	~~D~~
~~IN-91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~Signal~~	~~20.5~~	~~C~~	~~Signal~~	~~20.8~~	~~C~~
~~IN-92~~	~~Arlington Ave/Maude St~~	~~D~~	~~Signal~~	~~14.1~~	~~B~~	~~Signal~~	~~14.3~~	~~B~~
~~IN-93~~	~~Horace St/Arlington Ave~~	~~D~~	~~Signal~~	~~37.4~~	~~D~~	~~Signal~~	~~38.8~~	~~D~~
~~IN-94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~Signal~~	~~124.5~~	~~F~~	~~Signal~~	~~138.7~~	~~F~~
~~IN-95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~Signal~~	~~57.4~~	~~E~~	~~Signal~~	~~64.9~~	~~E~~
~~IN-96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~Signal~~	~~19.2~~	~~B~~	~~Signal~~	~~19.1~~	~~B~~

~~Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2035 No Project~~			~~2035 With Project~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~Signal~~	~~17.9~~	~~B~~	~~Signal~~	~~17.9~~	~~B~~
~~IN-98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~Signal~~	~~56.6~~	~~E~~	~~Signal~~	~~60.6~~	~~E~~
~~IN-99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~Signal~~	~~33.5~~	~~C~~	~~Signal~~	~~35.4~~	~~D~~
~~IN-100~~	~~Harley Knox Blvd/Evan Rd~~	~~D~~	~~Signal~~	~~16.1~~	~~B~~	~~Signal~~	~~16.6~~	~~B~~
~~IN-101~~	~~Ramona Expy/Indian St~~	~~E~~	~~Signal~~	~~110.4~~	~~F~~	~~Signal~~	~~112.0~~	~~F~~
~~IN-102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~Signal~~	~~49.2~~	~~D~~	~~Signal~~	~~52.3~~	~~D~~
~~IN-103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~Signal~~	~~60.6~~	~~E~~	~~Signal~~	~~66.1~~	~~E~~
~~IN-104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~Signal~~	~~11.9~~	~~B~~	~~Signal~~	~~11.9~~	~~B~~
~~IN-105~~	~~Evans Rd/Morgan St~~	~~C~~	~~Signal~~	~~28.1~~	~~C~~	~~Signal~~	~~28.1~~	~~C~~
~~IN-106~~	~~Perris Blvd/Rider St~~	~~C~~	~~Signal~~	~~23.4~~	~~C~~	~~Signal~~	~~23.1~~	~~C~~
~~IN-107~~	~~Evans Rd/Rider St~~	~~C~~	~~Signal~~	~~36.3~~	~~D~~	~~Signal~~	~~36.5~~	~~D~~
~~IN-108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~D~~	~~Signal~~	~~32.7~~	~~C~~	~~Signal~~	~~33.7~~	~~C~~
~~IN-109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~D~~	~~Signal~~	~~28.3~~	~~C~~	~~Signal~~	~~29.8~~	~~C~~
~~IN-110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~D~~	~~Signal~~	~~25.7~~	~~C~~	~~Signal~~	~~25.6~~	~~C~~
~~IN-111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~D~~	~~Signal~~	~~18.1~~	~~B~~	~~Signal~~	~~18.1~~	~~B~~
~~IN-112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~Signal~~	~~29.3~~	~~C~~	~~Signal~~	~~29.3~~	~~C~~
~~IN-113~~	~~Evans Rd/Placentia Ave~~	~~D~~	~~Signal~~	~~7.3~~	~~A~~	~~Signal~~	~~7.2~~	~~A~~
~~IN-114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~Signal~~	~~25.5~~	~~C~~	~~Signal~~	~~25.4~~	~~C~~
~~IN-115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~Signal~~	~~31.8~~	~~C~~	~~Signal~~	~~31.9~~	~~C~~
~~IN-116~~	~~Evans Rd/Ellis Ave~~	~~D~~	~~Signal~~	~~12.7~~	~~B~~	~~Signal~~	~~13.5~~	~~B~~
~~IN-117~~	~~Ellis Ave/I-215 SB Ramps~~	~~E~~	~~Signal~~	~~26.5~~	~~C~~	~~Signal~~	~~26.2~~	~~C~~
~~IN-118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~E~~	~~Signal~~	~~22.2~~	~~C~~	~~Signal~~	~~21.9~~	~~C~~
~~IN-119~~	~~Evans Rd/San Jacinto Ave~~	~~D~~	~~Signal~~	~~21.1~~	~~C~~	~~Signal~~	~~21.5~~	~~C~~
~~IN-120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~D~~	~~CSS~~	~~11.8~~	~~B~~	~~CSS~~	~~13.3~~	~~B~~
~~IN-121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~D~~	~~CSS~~	~~11.6~~	~~B~~	~~CSS~~	~~13.5~~	~~B~~
~~IN-122~~	~~Bridge St/Ramona Expy~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~IN-123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~Signal~~	~~43.9~~	~~D~~	~~Signal~~	~~48.4~~	~~D~~
~~IN-127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~D~~	~~Signal~~	~~21.3~~	~~C~~	~~Signal~~	~~27.0~~	~~C~~
~~IN-128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~D~~	~~Signal~~	~~20.3~~	~~C~~	~~Signal~~	~~21.1~~	~~C~~
~~IN-129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~146.4~~	~~F~~	~~AWS~~	~~148.1~~	~~F~~
~~IN-130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~Signal~~	~~35.5~~	~~D~~	~~Signal~~	~~36.7~~	~~D~~
~~IN-131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~Signal~~	~~42.2~~	~~D~~	~~Signal~~	~~47.0~~	~~D~~
~~IN-132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~26.4~~	~~D~~	~~AWS~~	~~40.8~~	~~E~~

~~Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)~~

			~~2035 No Project~~			~~2035 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~127.6~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~IN-134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~140.5~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~IN-135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~17.6~~	~~C~~	~~CSS~~	~~19.9~~	~~C~~
~~IN-136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~10.2~~	~~B~~	~~AWS~~	~~10.7~~	~~B~~

~~Notes:~~
~~"NB" and "SB" denote northbound and southbound respectively~~
~~"EB" and "WB" denote eastbound and westbound respectively~~ ~~"CSS" means cross-street is stop-controlled~~
~~"LT" and "RT" denote left turn and right turn respectively~~ ~~"AWS" means all-way stop~~
▨ ~~Indicates LOS exceeds the target level~~ ~~"RABT" means roundabout~~
~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2035 No Project~~			~~2035 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-1~~	~~Theodore St/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~53.0~~	~~D~~
~~IN-2~~	~~Cactus Ave Extension/Street E~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~Signal~~	~~15.2~~	~~B~~
~~IN-3~~	~~Theodore St/Alessandro Blvd (Str A/Str C/Str E)~~	~~D~~	~~CSS~~	~~19.6~~	~~C~~	~~RABT~~	~~11.3~~	~~B~~
~~IN-4~~	~~Alessandro Blvd (Street C)/Street F~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~RABT~~	~~8.0~~	~~A~~
~~IN-6~~	~~Alessandro Blvd (Street C)/Gilman Springs Rd~~	~~D~~	~~Signal~~	~~37.7~~	~~D~~	~~Signal~~	~~36.7~~	~~D~~
~~IN-9~~	~~Gilman Springs Rd/Eucalyptus Ave~~	~~D~~	~~N/A~~	~~Non-Existent~~		~~Signal~~	~~14.3~~	~~B~~
~~IN-10~~	~~Redlands Blvd/Locust Ave~~	~~C~~	~~Signal~~	~~16.6~~	~~B~~	~~Signal~~	~~20.3~~	~~C~~
~~IN-11~~	~~Redlands Blvd/Ironwood Ave~~	~~D~~	~~Signal~~	~~48.2~~	~~D~~	~~Signal~~	~~72.3~~	~~E~~
~~IN-12~~	~~Theodore Street/Ironwood Avenue~~	~~D~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~D~~	~~Signal~~	~~7.5~~	~~A~~	~~Signal~~	~~10.9~~	~~B~~
~~IN-14~~	~~Redlands Blvd/SR-60 EB ramps~~	~~D~~	~~Signal~~	~~7.3~~	~~A~~	~~Signal~~	~~10.0~~	~~A~~
~~IN-15~~	~~Theodore Str/SR-60 WB ramps~~	~~D~~	~~CSS~~	~~173.7~~	~~F~~	~~Signal~~	~~17.0~~	~~B~~
~~IN-16~~	~~Theodore Str/SR-60 EB ramps~~	~~D~~	~~CSS~~	~~> 180.0~~	~~F~~	~~Signal~~	~~31.2~~	~~C~~
~~IN-17~~	~~Quincy Str/Fir Ave~~	~~D~~	~~CSS~~	~~12.6~~	~~B~~	~~CSS~~	~~15.7~~	~~C~~
~~IN-18~~	~~Redlands Blvd/Eucalyptus Ave (Fir)~~	~~D~~	~~Signal~~	~~15.6~~	~~B~~	~~Signal~~	~~52.3~~	~~D~~
~~IN-19~~	~~Theodore St/Fir Ave (Eucalyptus)~~	~~D~~	~~CSS~~	~~68.9~~	~~F~~	~~Signal~~	~~54.5~~	~~D~~
~~IN-20~~	~~Oliver Str/Alessandro Blvd~~	~~C~~	~~CSS~~	~~21.6~~	~~C~~	~~CSS~~	~~23.5~~	~~C~~
~~IN-21~~	~~Moreno Beach Dr/Alessandro Blvd~~	~~D~~	~~Signal~~	~~20.2~~	~~C~~	~~Signal~~	~~22.7~~	~~C~~
~~IN-22~~	~~Quincy Str/Alessandro Blvd~~	~~C~~	~~Signal~~	~~3.7~~	~~A~~	~~Signal~~	~~3.7~~	~~A~~
~~IN-23~~	~~Redlands Blvd/Alessandro Blvd~~	~~C~~	~~AWS~~	~~74.7~~	~~F~~	~~AWS~~	~~24.1~~	~~C~~
~~IN-24~~	~~Oliver Str/Cactus Ave~~	~~D~~	~~Signal~~	~~20.2~~	~~C~~	~~Signal~~	~~21.5~~	~~C~~
~~IN-25~~	~~Moreno Beach Dr/Cactus Ave~~	~~C~~	~~Signal~~	~~29.7~~	~~C~~	~~Signal~~	~~37.1~~	~~D~~
~~IN-26~~	~~Quincy Str/Cactus Ave~~	~~C~~	~~Signal~~	~~3.7~~	~~A~~	~~Signal~~	~~3.6~~	~~A~~
~~IN-27~~	~~Redlands Blvd/Cactus Ave~~	~~C~~	~~AWS~~	~~13.5~~	~~B~~	~~AWS~~	~~> 180.0~~	~~F~~
~~IN-28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~D~~	~~Signal~~	~~16.6~~	~~B~~	~~Signal~~	~~18.5~~	~~B~~

~~Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)~~

~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~2035 No Project~~			~~2035 With Project~~		
			~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-29~~	~~Heacock Str/Ironwood Ave~~	~~D~~	~~Signal~~	~~35.2~~	~~D~~	~~Signal~~	~~35.5~~	~~D~~
~~IN-30~~	~~Heacock Str/SR-60 WB Ramps~~	~~D~~	~~Signal~~	~~23.1~~	~~C~~	~~Signal~~	~~24.0~~	~~C~~
~~IN-31~~	~~Heacock St/SR-60 EB Ramps~~	~~D~~	~~Signal~~	~~19.4~~	~~B~~	~~Signal~~	~~20.0~~	~~B~~
~~IN-32~~	~~Sunnymead Blvd & Perris Blvd~~	~~D~~	~~Signal~~	~~39.7~~	~~D~~	~~Signal~~	~~45.3~~	~~D~~
~~IN-33~~	~~Perris Blvd/SR-60 WB Ramps~~	~~D~~	~~Signal~~	~~17.1~~	~~B~~	~~Signal~~	~~19.5~~	~~B~~
~~IN-34~~	~~Perris Blvd/Eucalyptus Ave~~	~~D~~	~~Signal~~	~~24.7~~	~~C~~	~~Signal~~	~~24.6~~	~~C~~
~~IN-35~~	~~Moreno Beach Dr/Locust Ave~~	~~C~~	~~CSS~~	~~37.9~~	~~E~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~D~~	~~Signal~~	~~50.4~~	~~D~~	~~Signal~~	~~61.9~~	~~E~~
~~IN-37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~D~~	~~Signal~~	~~155.8~~	~~F~~	~~Signal~~	~~> 180.0~~	~~F~~
~~IN-38~~	~~Perris Blvd/John F. Kennedy Dr~~	~~D~~	~~Signal~~	~~31.6~~	~~C~~	~~Signal~~	~~37.3~~	~~D~~
~~IN-39~~	~~Iris Ave/Perris Blvd~~	~~D~~	~~Signal~~	~~63.8~~	~~E~~	~~Signal~~	~~80.4~~	~~F~~
~~IN-40~~	~~Kitching St/Iris Ave~~	~~C~~	~~Signal~~	~~126.3~~	~~F~~	~~Signal~~	~~169.8~~	~~F~~
~~IN-41~~	~~Lasselle Str/Iris Ave~~	~~D~~	~~Signal~~	~~79.2~~	~~E~~	~~Signal~~	~~89.5~~	~~F~~
~~IN-42~~	~~Nason Str/Iris Ave~~	~~C~~	~~Signal~~	~~21.7~~	~~C~~	~~Signal~~	~~32.8~~	~~C~~
~~IN-43~~	~~Oliver Str/Iris Ave~~	~~D~~	~~Signal~~	~~25.1~~	~~C~~	~~Signal~~	~~24.9~~	~~C~~
~~IN-44~~	~~Via Dell Lago/Iris Ave~~	~~C~~	~~Signal~~	~~7.2~~	~~A~~	~~Signal~~	~~6.6~~	~~A~~
~~IN-45~~	~~Krameria Ave/Perris Blvd~~	~~D~~	~~Signal~~	~~52.6~~	~~D~~	~~Signal~~	~~53.2~~	~~D~~
~~IN-46~~	~~Kitching Str/Krameria Ave~~	~~D~~	~~Signal~~	~~41.7~~	~~D~~	~~Signal~~	~~52.4~~	~~D~~
~~IN-47~~	~~Lasselle Str/Krameria Ave~~	~~D~~	~~Signal~~	~~14.5~~	~~B~~	~~Signal~~	~~15.8~~	~~B~~
~~IN-48~~	~~Kitching Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~28.1~~	~~C~~	~~Signal~~	~~29.3~~	~~C~~
~~IN-49~~	~~Lasselle Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~23.7~~	~~C~~	~~Signal~~	~~24.3~~	~~C~~
~~IN-50~~	~~Morrison Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~26.2~~	~~C~~	~~Signal~~	~~26.8~~	~~C~~
~~IN-51~~	~~Nason Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~28.3~~	~~C~~	~~Signal~~	~~29.1~~	~~C~~
~~IN-52~~	~~Kitching Str/Cactus Ave~~	~~C~~	~~Signal~~	~~28.5~~	~~C~~	~~Signal~~	~~28.3~~	~~C~~
~~IN-53~~	~~Lasselle Str/Cactus Ave~~	~~C~~	~~Signal~~	~~34.8~~	~~C~~	~~Signal~~	~~38.2~~	~~D~~
~~IN-54~~	~~Morrison Str/Cactus Ave~~	~~D~~	~~Signal~~	~~8.6~~	~~A~~	~~Signal~~	~~9.7~~	~~A~~
~~IN-55~~	~~Nason Str/Cactus Ave~~	~~D~~	~~Signal~~	~~47.6~~	~~D~~	~~Signal~~	~~51.1~~	~~D~~
~~IN-56~~	~~Frederick Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~34.5~~	~~C~~	~~Signal~~	~~36.7~~	~~D~~
~~IN-57~~	~~Graham Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~88.9~~	~~F~~	~~Signal~~	~~93.7~~	~~F~~
~~IN-58~~	~~Heacock Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~29.5~~	~~C~~	~~Signal~~	~~30.5~~	~~C~~
~~IN-59~~	~~Indian Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~37.1~~	~~D~~	~~Signal~~	~~36.7~~	~~D~~
~~IN-60~~	~~Perris Blvd/Alessandro Blvd~~	~~D~~	~~Signal~~	~~41.4~~	~~D~~	~~Signal~~	~~44.5~~	~~D~~
~~IN-61~~	~~Frederick Str/Cactus Ave~~	~~D~~	~~Signal~~	~~12.5~~	~~B~~	~~Signal~~	~~13.0~~	~~B~~
~~IN-62~~	~~Graham Str/Cactus Ave~~	~~D~~	~~Signal~~	~~42.1~~	~~D~~	~~Signal~~	~~43.3~~	~~D~~
~~IN-63~~	~~Heacock Str/Cactus Ave~~	~~D~~	~~Signal~~	~~27.2~~	~~C~~	~~Signal~~	~~27.5~~	~~C~~
~~IN-64~~	~~Indian Str/Cactus Ave~~	~~C~~	~~Signal~~	~~36.3~~	~~D~~	~~Signal~~	~~36.3~~	~~D~~
~~IN-65~~	~~Perris Blvd/Cactus Ave~~	~~D~~	~~Signal~~	~~32.5~~	~~C~~	~~Signal~~	~~36.1~~	~~D~~
~~IN-66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~D~~	~~Signal~~	~~81.2~~	~~F~~	~~Signal~~	~~94.9~~	~~F~~
~~IN-67~~	~~I-215 SB Ramps/Alessandro Blvd~~	~~D~~	~~Signal~~	~~11.5~~	~~B~~	~~Signal~~	~~11.6~~	~~B~~
~~IN-68~~	~~I-215 NB Ramps/Alessandro Blvd~~	~~D~~	~~Signal~~	~~32.8~~	~~C~~	~~Signal~~	~~35.6~~	~~D~~
~~IN-69~~	~~Old 215 Frontage Rd/Alessandro Blvd~~	~~D~~	~~Signal~~	~~16.4~~	~~B~~	~~Signal~~	~~16.5~~	~~B~~
~~IN-70~~	~~Day Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~28.2~~	~~C~~	~~Signal~~	~~27.8~~	~~C~~

~~Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2035 No Project~~			~~2035 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-71~~	~~Elsworth Str/Alessandro Blvd~~	~~D~~	~~Signal~~	~~52.4~~	~~D~~	~~Signal~~	~~53.6~~	~~D~~
~~IN-72~~	~~I-215 SB Ramps/Cactus Ave~~	~~D~~	~~Signal~~	~~144.8~~	~~F~~	~~Signal~~	~~144.8~~	~~F~~
~~IN-73~~	~~I-215 NB Ramps/Cactus Ave~~	~~D~~	~~Signal~~	~~122.6~~	~~F~~	~~Signal~~	~~133.6~~	~~F~~
~~IN-74~~	~~Elsworth Str/Cactus Ave~~	~~D~~	~~Signal~~	~~> 180~~	~~F~~	~~Signal~~	~~> 180~~	~~F~~
~~IN-75~~	~~Central Ave/Lochmoor Dr.~~	~~D~~	~~Signal~~	~~77.5~~	~~E~~	~~Signal~~	~~104.9~~	~~F~~
~~IN-76~~	~~Sycamore Canyon Blvd/Central Ave~~	~~D~~	~~Signal~~	~~26.8~~	~~C~~	~~Signal~~	~~29.7~~	~~C~~
~~IN-77~~	~~SR-60 EB Ramps/Central Ave~~	~~D~~	~~Signal~~	~~12.4~~	~~B~~	~~Signal~~	~~13.2~~	~~B~~
~~IN-78~~	~~SR-60 WB Ramps/Central Ave~~	~~D~~	~~Signal~~	~~7.0~~	~~A~~	~~Signal~~	~~6.9~~	~~A~~
~~IN-79~~	~~Alessandro Blvd/Trautwein Rd.~~	~~D~~	~~Signal~~	~~16.1~~	~~B~~	~~Signal~~	~~16.2~~	~~B~~
~~IN-80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~D~~	~~Signal~~	~~73.7~~	~~E~~	~~Signal~~	~~84.3~~	~~F~~
~~IN-81~~	~~Martin Luther King Blvd/Chicago Ave~~	~~D~~	~~Signal~~	~~41.5~~	~~D~~	~~Signal~~	~~43.5~~	~~D~~
~~IN-82~~	~~Martin Luther King Blvd/Iowa Ave~~	~~D~~	~~Signal~~	~~14.8~~	~~B~~	~~Signal~~	~~15.1~~	~~B~~
~~IN-83~~	~~Martin Luther King Blvd/Canyon Crest Dr~~	~~D~~	~~Signal~~	~~52.4~~	~~D~~	~~Signal~~	~~53.3~~	~~D~~
~~IN-84~~	~~Martin Luther King Blvd/I-215 SB Ramps~~	~~D~~	~~Signal~~	~~12.2~~	~~B~~	~~Signal~~	~~12.5~~	~~B~~
~~IN-85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~D~~	~~AWS~~	~~20.7~~	~~C~~	~~AWS~~	~~22.0~~	~~C~~
~~IN-86~~	~~Central Ave/Chicago Ave~~	~~D~~	~~Signal~~	~~79.0~~	~~E~~	~~Signal~~	~~102.9~~	~~F~~
~~IN-87~~	~~Central Ave/El Cerrito Dr~~	~~D~~	~~Signal~~	~~20.0~~	~~B~~	~~Signal~~	~~20.8~~	~~C~~
~~IN-88~~	~~Central Ave/Canyon Crest Dr~~	~~D~~	~~Signal~~	~~106.3~~	~~F~~	~~Signal~~	~~118.0~~	~~F~~
~~IN-89~~	~~Chicago Ave/Country Club Dr~~	~~D~~	~~Signal~~	~~12.9~~	~~B~~	~~Signal~~	~~14.4~~	~~B~~
~~IN-90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~D~~	~~Signal~~	~~68.0~~	~~E~~	~~Signal~~	~~69.8~~	~~E~~
~~IN-91~~	~~Arlington Ave/Indiana Ave/SR-91 NB Ramps~~	~~D~~	~~Signal~~	~~26.8~~	~~C~~	~~Signal~~	~~29.8~~	~~C~~
~~IN-92~~	~~Arlington Ave/Maude St~~	~~D~~	~~Signal~~	~~10.7~~	~~B~~	~~Signal~~	~~11.2~~	~~B~~
~~IN-93~~	~~Horace St/Arlington Ave~~	~~D~~	~~Signal~~	~~25.5~~	~~C~~	~~Signal~~	~~33.7~~	~~C~~
~~IN-94~~	~~Arlington Ave/Victoria Ave~~	~~D~~	~~Signal~~	~~87.2~~	~~E~~	~~Signal~~	~~97.9~~	~~F~~
~~IN-95~~	~~Alessandro Blvd/Chicago Ave~~	~~D~~	~~Signal~~	~~111.2~~	~~F~~	~~Signal~~	~~123.3~~	~~F~~
~~IN-96~~	~~Alessandro Blvd/Century Ave~~	~~D~~	~~Signal~~	~~11.8~~	~~B~~	~~Signal~~	~~12.3~~	~~B~~
~~IN-97~~	~~Alessandro Blvd/Via Vista Dr~~	~~D~~	~~Signal~~	~~22.2~~	~~C~~	~~Signal~~	~~22.0~~	~~C~~
~~IN-98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~D~~	~~Signal~~	~~131.0~~	~~F~~	~~Signal~~	~~142.1~~	~~F~~
~~IN-99~~	~~Harley Knox Blvd/Perris Blvd~~	~~D~~	~~Signal~~	~~48.0~~	~~D~~	~~Signal~~	~~51.9~~	~~D~~
~~IN-100~~	~~Harley Knox Blvd/Evan Rd~~	~~D~~	~~Signal~~	~~23.8~~	~~C~~	~~Signal~~	~~24.3~~	~~C~~
~~IN-101~~	~~Ramona Expy/Indian St~~	~~E~~	~~Signal~~	~~> 180.0~~	~~F~~	~~Signal~~	~~> 180.0~~	~~F~~
~~IN-102~~	~~Ramona Expy/Perris Blvd~~	~~E~~	~~Signal~~	~~58.5~~	~~E~~	~~Signal~~	~~60.9~~	~~E~~
~~IN-103~~	~~Ramona Expy/Evans Rd~~	~~E~~	~~Signal~~	~~46.2~~	~~D~~	~~Signal~~	~~49.2~~	~~D~~
~~IN-104~~	~~Perris Blvd/Morgan St~~	~~D~~	~~Signal~~	~~9.9~~	~~A~~	~~Signal~~	~~11.0~~	~~B~~
~~IN-105~~	~~Evans Rd/Morgan St~~	~~C~~	~~Signal~~	~~21.8~~	~~C~~	~~Signal~~	~~21.8~~	~~C~~
~~IN-106~~	~~Perris Blvd/Rider St~~	~~C~~	~~Signal~~	~~30.1~~	~~C~~	~~Signal~~	~~30.6~~	~~C~~
~~IN-107~~	~~Evans Rd/Rider St~~	~~C~~	~~Signal~~	~~34.5~~	~~C~~	~~Signal~~	~~34.6~~	~~C~~
~~IN-108~~	~~Perris Blvd/Mid-County Pkwy WB Ramps~~	~~D~~	~~Signal~~	~~22.6~~	~~C~~	~~Signal~~	~~25.3~~	~~C~~

~~Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)~~

			~~2035 No Project~~			~~2035 With Project~~		
~~ID~~	~~Study Intersection~~	~~LOS Standard~~	~~Traffic Control~~	~~Delay~~	~~LOS~~	~~Traffic Control~~	~~Delay~~	~~LOS~~
~~IN-109~~	~~Perris Blvd/Mid-County Pkwy EB Ramps~~	~~D~~	~~Signal~~	~~36.2~~	~~D~~	~~Signal~~	~~38.4~~	~~D~~
~~IN-110~~	~~Evans Rd/Mid-County Pkwy WB Ramps~~	~~D~~	~~Signal~~	~~21.3~~	~~C~~	~~Signal~~	~~22.0~~	~~C~~
~~IN-111~~	~~Evans Rd/Mid-County Pkwy EB Ramps~~	~~D~~	~~Signal~~	~~24.9~~	~~C~~	~~Signal~~	~~24.9~~	~~C~~
~~IN-112~~	~~Placentia Ave/Perris Blvd~~	~~D~~	~~Signal~~	~~34.2~~	~~C~~	~~Signal~~	~~34.6~~	~~C~~
~~IN-113~~	~~Evans Rd/Placentia Ave~~	~~D~~	~~Signal~~	~~7.4~~	~~A~~	~~Signal~~	~~7.4~~	~~A~~
~~IN-114~~	~~Evans Rd/Orange Ave~~	~~C~~	~~Signal~~	~~25.3~~	~~C~~	~~Signal~~	~~25.2~~	~~C~~
~~IN-115~~	~~Evans Rd/Nuevo Rd~~	~~C~~	~~Signal~~	~~31.2~~	~~C~~	~~Signal~~	~~31.1~~	~~C~~
~~IN-116~~	~~Evans Rd/Ellis Ave~~	~~D~~	~~Signal~~	~~13.6~~	~~B~~	~~Signal~~	~~14.3~~	~~B~~
~~IN-117~~	~~Ellis Ave/I-215 SB Ramps~~	~~E~~	~~Signal~~	~~28.3~~	~~C~~	~~Signal~~	~~28.0~~	~~C~~
~~IN-118~~	~~Ellis Ave/SR-215 NB Ramps~~	~~E~~	~~Signal~~	~~34.3~~	~~C~~	~~Signal~~	~~35.0~~	~~C~~
~~IN-119~~	~~Evans Rd/San Jacinto Ave~~	~~D~~	~~Signal~~	~~22.7~~	~~C~~	~~Signal~~	~~22.6~~	~~C~~
~~IN-120~~	~~Park Center Blvd/Ramona Expy WB Ramps~~	~~D~~	~~CSS~~	~~15.3~~	~~C~~	~~CSS~~	~~16.9~~	~~C~~
~~IN-121~~	~~Park Center Blvd/Ramona Expy EB Ramps~~	~~D~~	~~CSS~~	~~23.1~~	~~C~~	~~CSS~~	~~34.9~~	~~D~~
~~IN-122~~	~~Bridge St/Ramona Expy~~	~~N/A~~	~~N/A~~	~~Non-Existent~~		~~N/A~~	~~Non-Existent~~	
~~IN-123~~	~~Gilman Springs Rd/Bridge Str~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~C~~	~~CSS~~	~~> 180.0~~	~~F~~	~~CSS~~	~~> 180.0~~	~~F~~
~~IN-126~~	~~Ramona Expy/Sanderson Ave~~	~~D~~	~~Signal~~	~~39.9~~	~~D~~	~~Signal~~	~~41.9~~	~~D~~
~~IN-127~~	~~Potrero Blvd/SR-60 WB Ramps~~	~~D~~	~~Signal~~	~~15.3~~	~~B~~	~~Signal~~	~~16.4~~	~~B~~
~~IN-128~~	~~Potrero Blvd/SR-60 EB Ramps~~	~~D~~	~~Signal~~	~~31.3~~	~~C~~	~~Signal~~	~~33.5~~	~~C~~
~~IN-129~~	~~W 6th St/California Ave~~	~~C~~	~~AWS~~	~~178.3~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~IN-130~~	~~W 6th St/Beaumont Ave~~	~~C~~	~~Signal~~	~~94.4~~	~~F~~	~~Signal~~	~~106.8~~	~~F~~
~~IN-131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~C~~	~~Signal~~	~~100.9~~	~~F~~	~~Signal~~	~~109.5~~	~~F~~
~~IN-132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~D~~	~~AWS~~	~~22.2~~	~~C~~	~~AWS~~	~~38.3~~	~~E~~
~~IN-133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~C~~	~~AWS~~	~~127.7~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~IN-134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~C~~	~~AWS~~	~~> 180.0~~	~~F~~	~~AWS~~	~~> 180.0~~	~~F~~
~~IN-135~~	~~W Crescent Ave/Alessandro Rd~~	~~C~~	~~CSS~~	~~14.7~~	~~B~~	~~CSS~~	~~15.1~~	~~C~~
~~IN-136~~	~~W Sunset Dr/Alessandro Rd~~	~~C~~	~~AWS~~	~~10.4~~	~~B~~	~~AWS~~	~~10.8~~	~~B~~

~~Notes:~~
~~"NB" and "SB" denote northbound and southbound respectively~~
~~"EB" and "WB" denote eastbound and westbound respectively~~
~~"LT" and "RT" denote left turn and right turn respectively~~
▨ ~~Indicates LOS exceeds the target level~~
~~"CSS" means cross-street is stop-controlled~~
~~"AWS" means all-way stop~~
~~"RABT" means roundabout~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

- ~~Elsworth Street/Cactus Avenue;~~
- ~~I-215 Northbound Ramps/Cactus Avenue;~~

- ~~Martin Luther King Boulevard/I-215 Northbound Ramps;~~
- ~~Central Avenue/Chicago Avenue;~~
- ~~Central Avenue/Canyon Crest Drive;~~
- ~~Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps;~~
- ~~Arlington Avenue/Victoria Avenue;~~
- ~~Alessandro Boulevard/Chicago Avenue;~~
- ~~Alessandro Boulevard/Canyon Crest Drive;~~
- ~~Ramona Expressway/Indian Street;~~
- ~~Evans Road/Rider Street;~~
- ~~Gilman Springs Road/Bridge Street;~~
- ~~SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;~~
- ~~SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;~~
- ~~W. 6th Street/California Avenue;~~
- ~~W. 6th Street/Beaumont Avenue;~~
- ~~Reche Canyon Road/Reche Vista Drive;~~
- ~~San Timoteo Canyon Road/Live Oak Canyon Road; and~~
- ~~Redlands Boulevard/San Timoteo Canyon Road.~~

~~The project would create a significant cumulative impact at the following five intersections under Year 2035 Cumulative with project conditions since the project would cause a decrease in the LOS from satisfactory to unsatisfactory:~~

- ~~Redlands Boulevard/Ironwood Avenue;~~
- ~~Moreno Beach Drive/Cactus Avenue;~~
- ~~Redlands Boulevard/Cactus Avenue;~~
- ~~Moreno Beach Drive/Ironwood Avenue; and~~
- ~~San Timoteo Canyon Road/Alessandro Road.~~

~~**Roadway Segment Analysis.** 2035 Cumulative plus project roadway segment levels of service for the study area roadway segments are summarized in Table 4.15.AQ, which shows the project would create a significant cumulative impact on the following roadway segment:~~

- ~~Gilman Springs Road between Alessandro Boulevard and Bridge Street.~~

~~**Freeway Segment Analysis.** Year 2035 Cumulative with project freeway segment levels of service for the study area intersections are summarized in Tables 4.15.AR-1 and 4.15.AR-2, which shows 52 freeway mainline segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at 48 of the freeway segments and, therefore, have a significant cumulative impact at these locations. At four freeway segments, a significant cumulative impact would occur since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.~~

~~The project would have a significant cumulative impact at the following 48 freeway segments under Year 2035 Cumulative with project conditions:~~

- ~~Northbound or Eastbound Sections:~~
    - ~~SR-60 Reservoir Street to Ramona Avenue;~~
    - ~~SR-60 Ramona Avenue to Central Avenue;~~
    - ~~SR-60 Central Avenue to Mountain Avenue;~~
    - ~~SR-60 Mountain Avenue to Euclid Avenue;~~
    - ~~SR-60 Euclid Avenue to Grove Avenue;~~
    - ~~SR-60 Grove Avenue to Vineyard Avenue;~~
    - ~~SR-60 Vineyard Avenue to Archibald Avenue;~~
    - ~~SR-60 Archibald Avenue to Haven Avenue;~~
    - ~~SR-60 Valley Way to Rubidoux Boulevard;~~
    - ~~SR-60 Rubidoux Boulevard to Market Street;~~
    - ~~SR-60 Market Street to Main Street;~~
    - ~~SR-60 Martin Luther King Boulevard to Central Avenue;~~
    - ~~SR-60 Pigeon Pass Road/Frederick Street to Heacock Street;~~
    - ~~SR-60 Heacock Street to Perris Boulevard;~~
    - ~~SR-60 Gilman Springs Road to Jack Rabbit Trail;~~
    - ~~SR-60 Jack Rabbit Trail to I-10/Potrero Boulevard;~~
    - ~~SR-91 Pierce Street to Magnolia Avenue;~~
    - ~~SR-91 La Sierra Avenue to Tyler Street;~~
    - ~~SR-91 Adam Street to Madison Street;~~

~~Table 4.15.AQ: Year 2035 Cumulative plus Project Roadway Levels of Service~~

~~Roadway~~		~~From~~	~~To~~	~~LOS Standard *~~	~~2035 No-Project Conditions~~			~~2035 Plus Build-out Conditions~~			~~Project Significant Impact?~~	~~Mitigation Measures Required to Reduce Impacts to Less-Than-Significant~~	~~LOS after Mitigation~~
					~~Roadway Section**~~	~~Daily Volume~~	~~LOS~~	~~Roadway Section**~~	~~Daily Volume~~	~~LOS~~			
~~S-1~~	~~Theodore Street (A)~~	~~SR-60 WB Ramps~~	~~Ironwood Ave~~	~~D~~	~~2U~~	~~9,774~~	~~C~~	~~2U~~	~~10,267~~	~~D~~	~~No~~		
~~S-2~~	~~Theodore Street (A)~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave~~	~~D~~	~~2U~~	~~8,726~~	~~B~~	~~6D~~	~~33,082~~	~~A~~	~~No~~		
~~S-3~~	~~Fir (Eucalyptus) Ave~~	~~Redlands Blvd~~	~~Theodore Street (A)~~	~~D~~	~~2U~~	~~6,847~~	~~A~~	~~4D~~	~~10,513~~	~~A~~	~~No~~		
~~S-4~~	~~Eucalyptus Ave (B)~~	~~Theodore Street (A)~~	~~Gilman Springs Rd~~	~~N/A~~	~~Future Road~~			~~4D~~	~~6,565~~	~~A~~	~~No~~		
~~S-5~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave~~	~~Street E~~	~~D~~	~~2U~~	~~3,295~~	~~A~~	~~6D~~	~~35,374~~	~~B~~	~~No~~		
~~S-6~~	~~Street E~~	~~Theodore Street (A)~~	~~Cactus Ave Extension~~	~~D~~	~~Future Road~~			~~4U~~	~~13,862~~	~~A~~	~~No~~		
~~S-7~~	~~Street F~~	~~Theodore Street (A)~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~Future Road~~			~~2U~~	~~5,009~~	~~A~~	~~No~~		
~~S-8~~	~~Theodore Street (A)~~	~~Fir (Eucalyptus) Ave~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~2U~~	~~3,437~~	~~A~~	~~4D~~	~~13,001~~	~~A~~	~~No~~		
~~S-9~~	~~Alessandro Blvd (Street E)~~	~~Merwin Street~~	~~Theodore Street (A)~~	~~D~~	~~2U~~	~~10,854~~	~~D~~	~~4U~~	~~13,486~~	~~A~~	~~No~~		
~~S-10~~	~~Cactus Ave Extension~~	~~Alessandro Blvd (Street E)~~	~~Cactus Ave~~	~~D~~	~~Future Road~~			~~4U~~	~~17,423~~	~~B~~	~~No~~		
~~S-11~~	~~Alessandro Blvd (Street C)~~	~~Theodore Street (A)~~	~~Street F~~	~~D~~	~~2U~~	~~7,437~~	~~A~~	~~4U~~	~~14,680~~	~~A~~	~~No~~		
~~S-13~~	~~Alessandro Blvd (Street C)~~	~~Street F~~	~~Gilman Springs Rd~~	~~D~~	~~2U~~	~~7,437~~	~~A~~	~~4U~~	~~21,164~~	~~D~~	~~No~~		
~~S-14~~	~~Alessandro Blvd~~	~~Moreno Beach Drive~~	~~Redlands Blvd~~	~~D~~	~~4U~~	~~6,373~~	~~A~~	~~4U~~	~~5,416~~	~~A~~	~~No~~		
~~S-16~~	~~Gilman Springs Rd~~	~~Alessandro Blvd (Street C)~~	~~Bridge Street~~	~~D~~	~~6D~~	~~49,434~~	~~D~~	~~6D~~	~~54,288~~	~~F~~	~~Yes~~	~~Widen to 8 lanes~~	~~C~~
~~S-17~~	~~Gilman Springs Rd~~	~~SR-60~~	~~Alessandro Blvd (Street C)~~	~~D~~	~~6D~~	~~41,537~~	~~C~~	~~6D~~	~~47,958~~	~~D~~	~~No~~		
~~S-18~~	~~Redlands Blvd~~	~~SR-60 EB Ramps~~	~~Fir (Eucalyptus) Ave~~	~~D~~	~~4U~~	~~13,411~~	~~A~~	~~4U~~	~~17,626~~	~~C~~	~~No~~		
~~S-19~~	~~Redlands Blvd~~	~~Fir (Eucalyptus) Ave~~	~~Alessandro Blvd~~	~~C~~	~~4U~~	~~7,665~~	~~A~~	~~4U~~	~~5,037~~	~~A~~	~~No~~		
~~S-20~~	~~Alessandro Blvd~~	~~Redlands Blvd~~	~~Merwin Street~~	~~C~~	~~4U~~	~~11,038~~	~~A~~	~~4U~~	~~1,677~~	~~A~~	~~No~~		
~~S-21~~	~~Redlands Blvd~~	~~Alessandro Blvd~~	~~Cactus Ave~~	~~C~~	~~4U~~	~~11,511~~	~~A~~	~~4U~~	~~5,653~~	~~A~~	~~No~~		
~~S-22~~	~~Cactus Ave~~	~~Redlands Blvd~~	~~Cactus Ave Extension~~	~~C~~	~~4U~~	~~1,144~~	~~A~~	~~4U~~	~~16,916~~	~~B~~	~~No~~		

~~* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.~~

~~** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.~~

~~*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.~~

▨ ~~Indicates LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AR-1: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)~~

~~ID~~	~~Freeway~~	~~Segment~~	~~2035 No Project~~						~~2035 Plus Buildout~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
			~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-2~~	~~SR-60~~	~~Reservoir St to Ramona Ave~~	~~8,560~~	~~41.2~~	~~E~~	~~8,750~~	~~43.6~~	~~E~~	~~8,740~~	~~43.5~~	~~E~~	~~8,640~~	~~42.8~~	~~E~~
~~F-3~~	~~SR-60~~	~~Ramona Ave to Central Ave~~	~~8,190~~	~~37.8~~	~~E~~	~~10,230~~	~~66.5~~	~~F~~	~~8,370~~	~~39.7~~	~~E~~	~~10,140~~	~~65.6~~	~~F~~
~~F-4~~	~~SR-60~~	~~Central Ave to Mountain Ave~~	~~8,900~~	~~44.8~~	~~E~~	~~10,210~~	~~66.0~~	~~F~~	~~9,100~~	~~47.6~~	~~F~~	~~10,110~~	~~65.0~~	~~F~~
~~F-5~~	~~SR-60~~	~~Mountain Ave to Euclid Ave~~	~~8,780~~	~~43.4~~	~~E~~	~~7,590~~	~~33.3~~	~~D~~	~~8,990~~	~~46.3~~	~~F~~	~~7,480~~	~~33.0~~	~~D~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~9,920~~	~~59.3~~	~~F~~	~~9,680~~	~~56.0~~	~~F~~	~~10,120~~	~~64.1~~	~~F~~	~~9,580~~	~~55.1~~	~~F~~
~~F-7~~	~~SR-60~~	~~Grove Ave to Vineyard Ave~~	~~9,210~~	~~48.5~~	~~F~~	~~10,050~~	~~62.7~~	~~F~~	~~9,410~~	~~51.8~~	~~F~~	~~9,960~~	~~61.9~~	~~F~~
~~F-8~~	~~SR-60~~	~~Vineyard Ave to Archibald Ave~~	~~9,080~~	~~46.3~~	~~F~~	~~10,210~~	~~66.0~~	~~F~~	~~9,290~~	~~49.6~~	~~F~~	~~10,100~~	~~64.7~~	~~F~~
~~F-9~~	~~SR-60~~	~~Archibald Ave to Haven Ave~~	~~8,430~~	~~39.5~~	~~E~~	~~7,330~~	~~31.5~~	~~D~~	~~8,650~~	~~42.5~~	~~E~~	~~7,220~~	~~31.2~~	~~D~~
~~F-10~~	~~SR-60~~	~~Haven Ave to Milliken Ave~~	~~8,430~~	~~27.5~~	~~D~~	~~8,110~~	~~26.4~~	~~D~~	~~8,690~~	~~29.1~~	~~D~~	~~7,980~~	~~26.2~~	~~D~~
~~F-11~~	~~SR-60~~	~~Milliken Ave to I-15~~	~~5,160~~	~~19.8~~	~~C~~	~~4,530~~	~~17.4~~	~~B~~	~~5,420~~	~~21.3~~	~~C~~	~~4,460~~	~~17.4~~	~~B~~
~~F-12~~	~~SR-60~~	~~I-15 to Etiwanda Ave/Van Buren Blvd~~	~~4,140~~	~~15.9~~	~~B~~	~~2,740~~	~~10.6~~	~~A~~	~~4,380~~	~~17.1~~	~~B~~	~~2,640~~	~~10.5~~	~~A~~
~~F-13~~	~~SR-60~~	~~Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd~~	~~4,950~~	~~19.1~~	~~C~~	~~4,170~~	~~16.1~~	~~B~~	~~5,190~~	~~20.4~~	~~C~~	~~3,990~~	~~15.7~~	~~B~~

~~Table 4.15.AR-1: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)~~

			~~2035 No Project~~						~~2035 Plus Buildout~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-14~~	~~SR-60~~	~~Mission Blvd/Country Village Rd to Pedley Rd~~	~~4,380~~	~~16.8~~	~~B~~	~~3,150~~	~~12.2~~	~~B~~	~~4,650~~	~~18.2~~	~~C~~	~~2,970~~	~~11.7~~	~~B~~
~~F-15~~	~~SR-60~~	~~Pedley Rd to Pyrite St~~	~~4,620~~	~~17.8~~	~~B~~	~~3,610~~	~~13.9~~	~~B~~	~~4,870~~	~~19.0~~	~~C~~	~~3,400~~	~~13.4~~	~~B~~
~~F-16~~	~~SR-60~~	~~Pyrite St to Valley Way~~	~~5,060~~	~~19.5~~	~~C~~	~~3,880~~	~~15.0~~	~~B~~	~~5,310~~	~~20.9~~	~~C~~	~~3,650~~	~~14.4~~	~~B~~
~~F-17~~	~~SR-60~~	~~Valley Way to Rubidoux Blvd~~	~~6,160~~	~~38.0~~	~~E~~	~~3,850~~	~~19.9~~	~~C~~	~~6,410~~	~~42.3~~	~~E~~	~~3,790~~	~~20.1~~	~~C~~
~~F-18~~	~~SR-60~~	~~Rubidoux Blvd to Market St~~	~~6,490~~	~~42.1~~	~~E~~	~~4,210~~	~~22.2~~	~~C~~	~~6,710~~	~~46.8~~	~~F~~	~~4,140~~	~~22.2~~	~~C~~
~~F-19~~	~~SR-60~~	~~Market St to Main St~~	~~6,020~~	~~36.4~~	~~E~~	~~6,620~~	~~44.9~~	~~E~~	~~6,240~~	~~40.0~~	~~E~~	~~6,610~~	~~46.2~~	~~F~~
~~F-20~~	~~SR-60~~	~~Main to SR-91~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~9,500~~	~~59.8~~	~~F~~	~~9,860~~	~~70.8~~	~~F~~	~~9,980~~	~~82.8~~	~~F~~	~~10,060~~	~~91.4~~	~~F~~
~~F-26~~	~~SR-60~~	~~Fair Isle Dr/Box Springs Rd to I-215~~	~~6,090~~	~~24.2~~	~~C~~	~~5,790~~	~~22.9~~	~~C~~	~~6,540~~	~~27.2~~	~~D~~	~~6,010~~	~~24.4~~	~~C~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd to Heacock St~~	~~3,330~~	~~27.3~~	~~D~~	~~4,120~~	~~38.2~~	~~E~~	~~3,590~~	~~33.6~~	~~D~~	~~4,110~~	~~41.4~~	~~E~~
~~F-30~~	~~SR-60~~	~~Heacock St to Perris Blvd~~	~~3,020~~	~~24.1~~	~~C~~	~~4,200~~	~~39.6~~	~~E~~	~~3,540~~	~~32.9~~	~~D~~	~~4,240~~	~~44.2~~	~~E~~
~~F-31~~	~~SR-60~~	~~Perris Blvd to Nason St~~	~~2,670~~	~~20.9~~	~~C~~	~~3,520~~	~~29.4~~	~~D~~	~~3,210~~	~~28.9~~	~~D~~	~~3,610~~	~~33.4~~	~~D~~
~~F-33~~	~~SR-60~~	~~Moreno Beach Dr to Redlands Blvd~~	~~2,480~~	~~19.2~~	~~C~~	~~3,130~~	~~25.0~~	~~C~~	~~2,910~~	~~25.4~~	~~C~~	~~3,240~~	~~28.5~~	~~D~~
~~F-34~~	~~SR-60~~	~~Redlands Blvd to Theodore St~~	~~3,200~~	~~25.9~~	~~C~~	~~4,500~~	~~45.4~~	~~F~~	~~3,630~~	~~34.0~~	~~D~~	~~4,280~~	~~43.8~~	~~E~~
~~F-36~~	~~SR-60~~	~~Gilman Springs Rd to Jack Rabbit Trail~~	~~2,420~~	~~20.1~~	~~C~~	~~4,430~~	~~53.0~~	~~F~~	~~2,320~~	~~19.3~~	~~C~~	~~4,580~~	~~58.2~~	~~F~~
~~F-37~~	~~SR-60~~	~~Jack Rabbit Trail to Potrero Blvd~~	~~2,500~~	~~19.5~~	~~C~~	~~4,750~~	~~51.8~~	~~F~~	~~2,400~~	~~18.7~~	~~C~~	~~4,950~~	~~59.8~~	~~F~~
~~F-38~~	~~SR-60~~	~~Potrero Blvd to I-10~~	~~2,300~~	~~17.8~~	~~B~~	~~3,620~~	~~30.6~~	~~D~~	~~2,190~~	~~16.9~~	~~B~~	~~3,810~~	~~33.8~~	~~D~~
~~F-39~~	~~SR-91~~	~~I-15 to McKinley St~~	~~8,140~~	~~26.3~~	~~D~~	~~11,870~~	~~52.4~~	~~F~~	~~8,300~~	~~27.2~~	~~D~~	~~11,740~~	~~51.6~~	~~F~~
~~F-40~~	~~SR-91~~	~~McKinley St to Pierce St~~	~~6,990~~	~~29.1~~	~~D~~	~~6,910~~	~~29.0~~	~~D~~	~~7,110~~	~~30.1~~	~~D~~	~~6,870~~	~~29.0~~	~~D~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~6,430~~	~~41.3~~	~~E~~	~~6,360~~	~~41.2~~	~~E~~	~~6,550~~	~~43.9~~	~~E~~	~~6,310~~	~~41.0~~	~~E~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-43~~	~~SR-91~~	~~La Sierra Ave to Tyler St~~	~~6,170~~	~~38.1~~	~~E~~	~~6,250~~	~~39.8~~	~~E~~	~~6,250~~	~~39.8~~	~~E~~	~~6,210~~	~~39.7~~	~~E~~
~~F-44~~	~~SR-91~~	~~Tyler St to Van Buren Blvd~~	~~7,250~~	~~30.7~~	~~D~~	~~6,950~~	~~29.2~~	~~D~~	~~7,350~~	~~31.6~~	~~D~~	~~6,920~~	~~29.3~~	~~D~~
~~F-45~~	~~SR-91~~	~~Van Buren Blvd to Adam St~~	~~7,270~~	~~30.8~~	~~D~~	~~6,290~~	~~25.5~~	~~C~~	~~7,360~~	~~31.7~~	~~D~~	~~6,260~~	~~25.5~~	~~C~~
~~F-46~~	~~SR-91~~	~~Adam St to Madison St~~	~~7,980~~	~~36.6~~	~~E~~	~~6,030~~	~~24.3~~	~~C~~	~~8,060~~	~~38.0~~	~~E~~	~~6,000~~	~~24.4~~	~~C~~
~~F-47~~	~~SR-91~~	~~Madison St to Arlington Ave~~	~~7,000~~	~~29.6~~	~~D~~	~~5,390~~	~~21.4~~	~~C~~	~~7,030~~	~~30.2~~	~~D~~	~~5,370~~	~~21.4~~	~~C~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~6,400~~	~~40.9~~	~~E~~	~~5,730~~	~~33.4~~	~~D~~	~~6,410~~	~~41.5~~	~~E~~	~~5,580~~	~~32.2~~	~~D~~
~~F-51~~	~~SR-91~~	~~University Ave to Spruce St~~	~~8,160~~	~~26.4~~	~~D~~	~~7,420~~	~~23.4~~	~~C~~	~~8,110~~	~~26.2~~	~~D~~	~~7,290~~	~~22.9~~	~~C~~
~~F-52~~	~~I-10~~	~~SR-60 to Beaumont Ave~~	~~5,030~~	~~19.7~~	~~C~~	~~8,170~~	~~38.3~~	~~E~~	~~5,060~~	~~19.9~~	~~C~~	~~8,230~~	~~39.2~~	~~E~~
~~F-53~~	~~I-10~~	~~Beaumont Ave to Pennsylvania Ave~~	~~5,100~~	~~20.1~~	~~C~~	~~8,030~~	~~37.1~~	~~E~~	~~5,130~~	~~20.3~~	~~C~~	~~7,990~~	~~37.0~~	~~E~~
~~F-54~~	~~I-10~~	~~Pennsylvania Ave to Highland Springs Ave~~	~~5,240~~	~~20.7~~	~~C~~	~~8,170~~	~~38.3~~	~~E~~	~~5,260~~	~~20.8~~	~~C~~	~~8,200~~	~~38.9~~	~~E~~
~~F-55~~	~~I-10~~	~~Highland Springs Ave to Sunset Ave~~	~~5,350~~	~~21.2~~	~~C~~	~~8,240~~	~~38.9~~	~~E~~	~~5,340~~	~~21.3~~	~~C~~	~~8,230~~	~~39.2~~	~~E~~
~~F-56~~	~~I-10~~	~~Sunset Ave to 22nd St~~	~~4,970~~	~~19.6~~	~~C~~	~~7,670~~	~~34.5~~	~~D~~	~~4,950~~	~~19.6~~	~~C~~	~~7,680~~	~~34.5~~	~~D~~
~~F-57~~	~~I-10~~	~~22nd St to 8th St~~	~~4,880~~	~~19.3~~	~~C~~	~~7,480~~	~~33.0~~	~~D~~	~~4,870~~	~~19.2~~	~~C~~	~~7,500~~	~~33.2~~	~~D~~
~~F-58~~	~~I-10~~	~~8th St to S Hargrave St~~	~~5,000~~	~~19.7~~	~~C~~	~~7,770~~	~~34.9~~	~~D~~	~~4,970~~	~~19.7~~	~~C~~	~~7,810~~	~~35.5~~	~~E~~
~~F-59~~	~~I-10~~	~~Hargrave St to Fields Rd~~	~~4,770~~	~~18.8~~	~~C~~	~~7,970~~	~~36.9~~	~~E~~	~~4,730~~	~~18.6~~	~~C~~	~~8,020~~	~~37.3~~	~~E~~
~~F-60~~	~~I-10~~	~~Fields Rd to Morongo Tr~~	~~3,990~~	~~15.8~~	~~B~~	~~7,490~~	~~33.1~~	~~D~~	~~3,950~~	~~15.7~~	~~B~~	~~7,520~~	~~33.3~~	~~D~~
~~F-61~~	~~I-10~~	~~Morongo Tr to Main St~~	~~4,320~~	~~17.1~~	~~B~~	~~7,800~~	~~35.2~~	~~E~~	~~4,310~~	~~17.0~~	~~B~~	~~7,850~~	~~35.9~~	~~E~~
~~F-62~~	~~I-10~~	~~Main St to Haugen-Lehmann Way~~	~~4,080~~	~~16.1~~	~~B~~	~~7,530~~	~~33.1~~	~~D~~	~~4,060~~	~~16.1~~	~~B~~	~~7,600~~	~~33.9~~	~~D~~
~~F-64~~	~~I-10~~	~~SR-111 to Tipton Rd~~	~~3,660~~	~~14.5~~	~~B~~	~~7,320~~	~~31.7~~	~~D~~	~~3,640~~	~~14.4~~	~~B~~	~~7,420~~	~~32.6~~	~~D~~
~~F-65~~	~~I-10~~	~~Tipton Rd to SR-62~~	~~3,700~~	~~14.6~~	~~B~~	~~7,330~~	~~31.7~~	~~D~~	~~3,680~~	~~14.6~~	~~B~~	~~7,440~~	~~32.7~~	~~D~~
~~F-66~~	~~I-215~~	~~Scott Rd to Garbani Rd~~	~~3,350~~	~~17.2~~	~~B~~	~~6,010~~	~~36.0~~	~~E~~	~~3,370~~	~~17.3~~	~~B~~	~~5,980~~	~~35.6~~	~~E~~
~~F-84~~	~~I-215~~	~~Garbani Rd to Newport Rd~~	~~3,150~~	~~16.1~~	~~B~~	~~5,680~~	~~32.9~~	~~D~~	~~3,200~~	~~16.5~~	~~B~~	~~5,650~~	~~32.6~~	~~D~~
~~F-68~~	~~I-215~~	~~Newport Rd to McCall Blvd~~	~~2,910~~	~~15.0~~	~~B~~	~~4,610~~	~~24.4~~	~~C~~	~~2,980~~	~~15.3~~	~~B~~	~~4,580~~	~~24.2~~	~~C~~
~~F-69~~	~~I-215~~	~~McCall Blvd to Ethanac Rd~~	~~3,530~~	~~18.1~~	~~C~~	~~5,570~~	~~31.9~~	~~D~~	~~3,600~~	~~18.5~~	~~C~~	~~5,540~~	~~31.6~~	~~D~~

~~Table 4.15.AR-1: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)~~

			~~2035 No Project~~						~~2035 Plus Buildout~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-70~~	~~I-215~~	~~Ethanac Rd to SR-74~~	~~5,240~~	~~29.1~~	~~D~~	~~5,650~~	~~32.6~~	~~D~~	~~5,290~~	~~29.5~~	~~D~~	~~5,610~~	~~32.3~~	~~D~~
~~F-71~~	~~I-215~~	~~SR-74 to Ellis Ave~~	~~5,200~~	~~28.7~~	~~D~~	~~6,760~~	~~46.1~~	~~F~~	~~5,200~~	~~28.7~~	~~D~~	~~6,740~~	~~45.8~~	~~F~~
~~F-85~~	~~I-215~~	~~Ellis Ave to Redlands Ave~~	~~4,820~~	~~25.9~~	~~C~~	~~6,200~~	~~38.4~~	~~E~~	~~4,840~~	~~26.0~~	~~D~~	~~6,170~~	~~38.1~~	~~E~~
~~F-74~~	~~I-215~~	~~Columbia Ave to Center St~~	~~4,110~~	~~21.6~~	~~C~~	~~3,350~~	~~17.5~~	~~B~~	~~4,090~~	~~21.4~~	~~C~~	~~3,410~~	~~17.8~~	~~B~~
~~F-75~~	~~I-215~~	~~Center St to La Cadena Dr~~	~~4,940~~	~~26.9~~	~~D~~	~~4,270~~	~~22.7~~	~~C~~	~~4,930~~	~~27.0~~	~~D~~	~~4,350~~	~~23.2~~	~~C~~
~~F-76~~	~~I-215~~	~~La Cadena Dr to Barton Rd~~	~~4,880~~	~~26.5~~	~~D~~	~~4,310~~	~~22.8~~	~~C~~	~~4,900~~	~~26.6~~	~~D~~	~~4,400~~	~~23.5~~	~~C~~
~~F-77~~	~~I-215~~	~~Barton Rd to Mt. Vernon Ave~~	~~5,320~~	~~29.9~~	~~D~~	~~4,700~~	~~25.4~~	~~C~~	~~5,280~~	~~29.6~~	~~D~~	~~4,760~~	~~25.8~~	~~C~~
~~F-78~~	~~I-215~~	~~Mt. Vernon Ave to I-10~~	~~5,110~~	~~19.8~~	~~C~~	~~5,720~~	~~22.5~~	~~C~~	~~5,070~~	~~19.7~~	~~C~~	~~5,870~~	~~23.4~~	~~C~~
~~F-80~~	~~I-215~~	~~Auto Plaza Dr to Mill St~~	~~4,680~~	~~18.0~~	~~B~~	~~5,980~~	~~23.6~~	~~C~~	~~4,600~~	~~17.8~~	~~B~~	~~6,030~~	~~24.0~~	~~C~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave~~	~~3,260~~	~~16.8~~	~~B~~	~~4,890~~	~~26.4~~	~~D~~	~~3,250~~	~~16.7~~	~~B~~	~~5,000~~	~~27.4~~	~~D~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AR-2: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Southbound/Westbound)~~

			~~2035 No Project~~						~~2035 Plus Buildout~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-2~~	~~SR-60~~	~~Reservoir St to Ramona Ave~~	~~8,770~~	~~43.3~~	~~E~~	~~7,840~~	~~34.6~~	~~D~~	~~8,670~~	~~42.7~~	~~E~~	~~7,920~~	~~35.8~~	~~E~~
~~F-3~~	~~SR-60~~	~~Ramona Ave to Central Ave~~	~~8,080~~	~~37.2~~	~~E~~	~~7,720~~	~~33.7~~	~~D~~	~~7,970~~	~~36.5~~	~~E~~	~~7,790~~	~~34.8~~	~~D~~
~~F-4~~	~~SR-60~~	~~Central Ave to Mountain Ave~~	~~6,340~~	~~25.4~~	~~C~~	~~7,580~~	~~32.7~~	~~D~~	~~6,260~~	~~25.2~~	~~C~~	~~7,630~~	~~33.6~~	~~D~~
~~F-5~~	~~SR-60~~	~~Mountain Ave to Euclid Ave~~	~~6,230~~	~~25.2~~	~~C~~	~~8,250~~	~~37.9~~	~~E~~	~~6,120~~	~~24.8~~	~~C~~	~~8,310~~	~~39.2~~	~~E~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~6,470~~	~~26.1~~	~~D~~	~~7,950~~	~~35.5~~	~~E~~	~~6,390~~	~~25.9~~	~~C~~	~~8,050~~	~~36.9~~	~~E~~
~~F-7~~	~~SR-60~~	~~Grove Ave to Vineyard Ave~~	~~6,280~~	~~25.0~~	~~C~~	~~8,150~~	~~37.1~~	~~E~~	~~6,200~~	~~24.7~~	~~C~~	~~8,240~~	~~38.6~~	~~E~~
~~F-8~~	~~SR-60~~	~~Vineyard Ave to Archibald Ave~~	~~7,660~~	~~33.3~~	~~D~~	~~7,640~~	~~33.1~~	~~D~~	~~7,570~~	~~32.9~~	~~D~~	~~7,720~~	~~34.3~~	~~D~~
~~F-9~~	~~SR-60~~	~~Archibald Ave to Haven Ave~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-10~~	~~SR-60~~	~~Haven Ave to Milliken Ave~~	~~6,510~~	~~20.3~~	~~C~~	~~7,970~~	~~25.6~~	~~C~~	~~6,380~~	~~19.9~~	~~C~~	~~8,100~~	~~26.3~~	~~D~~
~~F-11~~	~~SR-60~~	~~Milliken Ave to I-15~~	~~5,460~~	~~21.0~~	~~C~~	~~7,180~~	~~29.8~~	~~D~~	~~5,350~~	~~20.8~~	~~C~~	~~7,320~~	~~31.2~~	~~D~~
~~F-12~~	~~SR-60~~	~~I-15 to Etiwanda Ave/Van Buren Blvd~~	~~4,840~~	~~14.9~~	~~B~~	~~6,360~~	~~19.4~~	~~C~~	~~4,690~~	~~14.6~~	~~B~~	~~6,520~~	~~20.2~~	~~C~~
~~F-13~~	~~SR-60~~	~~Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd~~	~~4,220~~	~~16.1~~	~~B~~	~~5,620~~	~~21.6~~	~~C~~	~~4,080~~	~~15.8~~	~~B~~	~~5,790~~	~~22.9~~	~~C~~
~~F-14~~	~~SR-60~~	~~Mission Blvd/Country Village Rd to Pedley Rd~~	~~4,140~~	~~15.9~~	~~B~~	~~5,660~~	~~21.8~~	~~C~~	~~4,010~~	~~15.6~~	~~B~~	~~5,750~~	~~22.7~~	~~C~~
~~F-15~~	~~SR-60~~	~~Pedley Rd to Pyrite St~~	~~3,260~~	~~12.5~~	~~B~~	~~4,820~~	~~18.3~~	~~C~~	~~3,110~~	~~12.1~~	~~B~~	~~4,860~~	~~18.8~~	~~C~~
~~F-16~~	~~SR-60~~	~~Pyrite St to Valley Way~~	~~2,470~~	~~9.5~~	~~A~~	~~3,930~~	~~14.9~~	~~B~~	~~2,330~~	~~9.2~~	~~A~~	~~4,000~~	~~15.5~~	~~B~~
~~F-17~~	~~SR-60~~	~~Valley Way to Rubidoux Blvd~~	~~4,560~~	~~24.1~~	~~C~~	~~6,360~~	~~39.6~~	~~E~~	~~4,420~~	~~23.5~~	~~C~~	~~6,390~~	~~41.2~~	~~E~~
~~F-18~~	~~SR-60~~	~~Rubidoux Blvd to Market St~~	~~3,410~~	~~17.5~~	~~B~~	~~5,120~~	~~27.7~~	~~D~~	~~3,280~~	~~17.1~~	~~B~~	~~5,420~~	~~31.0~~	~~D~~
~~F-19~~	~~SR-60~~	~~Market St to Main St~~	~~5,530~~	~~31.5~~	~~D~~	~~6,280~~	~~38.7~~	~~E~~	~~5,400~~	~~30.8~~	~~D~~	~~6,430~~	~~41.7~~	~~E~~
~~F-20~~	~~SR-60~~	~~Main to SR-91~~	~~5,320~~	~~29.7~~	~~D~~	~~6,310~~	~~39.0~~	~~E~~	~~5,300~~	~~30.0~~	~~D~~	~~6,480~~	~~42.4~~	~~E~~
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~8,330~~	~~30.8~~	~~D~~	~~8,980~~	~~33.3~~	~~D~~	~~8,240~~	~~31.6~~	~~D~~	~~9,380~~	~~39.7~~	~~E~~
~~F-26~~	~~SR-60~~	~~Fair Isle Dr/Box Springs Rd to I-215~~	~~7,500~~	~~33.2~~	~~D~~	~~8,970~~	~~46.6~~	~~F~~	~~7,420~~	~~33.6~~	~~D~~	~~9,250~~	~~52.1~~	~~F~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St~~	~~7,050~~	~~50.4~~	~~F~~	~~3,590~~	~~18.6~~	~~C~~	~~7,080~~	~~53.6~~	~~F~~	~~3,810~~	~~20.8~~	~~C~~
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd to Heacock St~~	~~3,650~~	~~31.3~~	~~D~~	~~3,910~~	~~35.0~~	~~E~~	~~3,590~~	~~32.1~~	~~D~~	~~4,120~~	~~42.4~~	~~E~~
~~F-30~~	~~SR-60~~	~~Heacock St to Perris Blvd~~	~~3,560~~	~~30.1~~	~~D~~	~~3,410~~	~~28.3~~	~~D~~	~~3,610~~	~~32.4~~	~~D~~	~~3,730~~	~~35.3~~	~~E~~
~~F-31~~	~~SR-60~~	~~Perris Blvd to Nason St~~	~~3,330~~	~~27.3~~	~~D~~	~~2,780~~	~~21.9~~	~~C~~	~~3,430~~	~~30.1~~	~~D~~	~~3,140~~	~~27.6~~	~~D~~
~~F-33~~	~~SR-60~~	~~Moreno Beach Dr to Redlands Blvd~~	~~3,150~~	~~25.2~~	~~C~~	~~2,680~~	~~20.9~~	~~C~~	~~3,270~~	~~28.1~~	~~D~~	~~3,010~~	~~26.1~~	~~D~~
~~F-34~~	~~SR-60~~	~~Redlands Blvd to Theodore St~~	~~4,010~~	~~36.3~~	~~E~~	~~3,530~~	~~29.7~~	~~D~~	~~4,290~~	~~44.0~~	~~E~~	~~3,780~~	~~35.0~~	~~E~~
~~F-36~~	~~SR-60~~	~~Gilman Springs Rd to Jack Rabbit Trail~~	~~3,350~~	~~30.5~~	~~D~~	~~2,920~~	~~25.2~~	~~C~~	~~3,450~~	~~31.9~~	~~D~~	~~2,680~~	~~23.5~~	~~C~~

~~Table 4.15.AR-2: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Southbound/Westbound)~~

			~~2035 No-Project~~						~~2035 Plus Buildout~~					
			~~AM Peak Hour~~			~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~		
~~ID~~	~~Freeway~~	~~Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~F-37~~	~~SR-60~~	~~Jack Rabbit Trail to Potrero Blvd~~	~~3,690~~	~~31.6~~	~~D~~	~~3,010~~	~~24.0~~	~~C~~	~~3,840~~	~~34.3~~	~~D~~	~~2,820~~	~~22.4~~	~~C~~
~~F-38~~	~~SR-60~~	~~Potrero Blvd to I-10~~	~~2,360~~	~~18.2~~	~~C~~	~~1,930~~	~~15.0~~	~~B~~	~~2,450~~	~~19.3~~	~~C~~	~~1,810~~	~~14.1~~	~~B~~
~~F-39~~	~~SR-91~~	~~I-15 to McKinley St~~	~~8,590~~	~~28.6~~	~~D~~	~~8,630~~	~~28.6~~	~~D~~	~~8,430~~	~~28.0~~	~~D~~	~~8,850~~	~~29.8~~	~~D~~
~~F-40~~	~~SR-91~~	~~McKinley St to Pierce St~~	~~6,550~~	~~26.9~~	~~D~~	~~7,440~~	~~32.0~~	~~D~~	~~6,430~~	~~26.4~~	~~D~~	~~7,630~~	~~33.6~~	~~D~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~6,260~~	~~39.9~~	~~E~~	~~9,000~~	~~144.5~~	~~F~~	~~6,160~~	~~39.0~~	~~E~~	~~9,170~~	~~177.2~~	~~F~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~6,130~~	~~38.3~~	~~E~~	~~8,600~~	~~107.0~~	~~F~~	~~6,050~~	~~37.7~~	~~E~~	~~8,720~~	~~119.7~~	~~F~~
~~F-43~~	~~SR-91~~	~~La Sierra Ave to Tyler St~~	~~5,460~~	~~31.4~~	~~D~~	~~6,390~~	~~40.8~~	~~E~~	~~5,380~~	~~30.9~~	~~D~~	~~6,510~~	~~43.3~~	~~E~~
~~F-44~~	~~SR-91~~	~~Tyler St to Van Buren Blvd~~	~~6,880~~	~~28.8~~	~~D~~	~~7,970~~	~~35.9~~	~~E~~	~~6,810~~	~~28.6~~	~~D~~	~~8,080~~	~~37.2~~	~~E~~
~~F-45~~	~~SR-91~~	~~Van Buren Blvd to Adam St~~	~~6,590~~	~~27.1~~	~~D~~	~~7,720~~	~~34.0~~	~~D~~	~~6,540~~	~~27.0~~	~~D~~	~~7,830~~	~~35.1~~	~~E~~
~~F-46~~	~~SR-91~~	~~Adam St to Madison St~~	~~6,270~~	~~25.4~~	~~C~~	~~6,970~~	~~29.0~~	~~D~~	~~6,250~~	~~25.5~~	~~C~~	~~7,080~~	~~29.8~~	~~D~~
~~F-47~~	~~SR-91~~	~~Madison St to Arlington Ave~~	~~5,540~~	~~32.1~~	~~D~~	~~6,290~~	~~39.5~~	~~E~~	~~5,560~~	~~32.6~~	~~D~~	~~6,360~~	~~40.8~~	~~E~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~5,290~~	~~20.8~~	~~C~~	~~5,460~~	~~21.2~~	~~C~~	~~5,270~~	~~20.9~~	~~C~~	~~5,580~~	~~22.0~~	~~C~~
~~F-51~~	~~SR-91~~	~~University Ave to Spruce St~~	~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~			~~See Weaving Analysis~~		
~~F-52~~	~~I-10~~	~~SR-60 to Beaumont Ave~~	~~7,820~~	~~35.3~~	~~E~~	~~6,060~~	~~24.5~~	~~C~~	~~7,880~~	~~36.1~~	~~E~~	~~6,040~~	~~24.5~~	~~C~~
~~F-53~~	~~I-10~~	~~Beaumont Ave to Pennsylvania Ave~~	~~7,660~~	~~34.1~~	~~D~~	~~5,840~~	~~23.5~~	~~C~~	~~7,680~~	~~34.3~~	~~D~~	~~5,820~~	~~23.4~~	~~C~~
~~F-54~~	~~I-10~~	~~Pennsylvania Ave to Highland Springs Ave~~	~~8,180~~	~~38.4~~	~~E~~	~~5,920~~	~~23.9~~	~~C~~	~~8,250~~	~~39.4~~	~~E~~	~~5,860~~	~~23.7~~	~~C~~
~~F-55~~	~~I-10~~	~~Highland Springs Ave to Sunset Ave~~	~~7,990~~	~~36.7~~	~~E~~	~~5,590~~	~~22.3~~	~~C~~	~~8,060~~	~~37.7~~	~~E~~	~~5,550~~	~~22.2~~	~~C~~
~~F-56~~	~~I-10~~	~~Sunset Ave to 22nd St~~	~~7,620~~	~~33.8~~	~~D~~	~~5,420~~	~~21.5~~	~~C~~	~~7,720~~	~~34.9~~	~~D~~	~~5,430~~	~~21.7~~	~~C~~
~~F-57~~	~~I-10~~	~~22nd St to 8th St~~	~~7,680~~	~~34.5~~	~~D~~	~~5,130~~	~~20.3~~	~~C~~	~~7,680~~	~~34.5~~	~~D~~	~~5,120~~	~~20.4~~	~~C~~
~~F-58~~	~~I-10~~	~~8th St to S Hargrave St~~	~~7,790~~	~~35.4~~	~~E~~	~~5,370~~	~~21.4~~	~~C~~	~~7,860~~	~~36.0~~	~~E~~	~~5,350~~	~~21.4~~	~~C~~
~~F-59~~	~~I-10~~	~~Hargrave St to Fields Rd~~	~~7,610~~	~~34.0~~	~~D~~	~~5,000~~	~~19.8~~	~~C~~	~~7,720~~	~~34.9~~	~~D~~	~~4,980~~	~~19.8~~	~~C~~
~~F-60~~	~~I-10~~	~~Fields Rd to Morongo Tr~~	~~7,150~~	~~30.7~~	~~D~~	~~4,620~~	~~18.3~~	~~C~~	~~7,270~~	~~31.6~~	~~D~~	~~4,590~~	~~18.3~~	~~C~~
~~F-61~~	~~I-10~~	~~Main St (Cabazon) to Main St~~	~~7,040~~	~~30.0~~	~~D~~	~~5,040~~	~~20.0~~	~~C~~	~~7,190~~	~~31.0~~	~~D~~	~~5,010~~	~~19.9~~	~~C~~
~~F-62~~	~~I-10~~	~~Main St to Haugen-Lehmann Way~~	~~7,070~~	~~30.2~~	~~D~~	~~4,410~~	~~17.4~~	~~B~~	~~7,230~~	~~31.3~~	~~D~~	~~4,560~~	~~18.0~~	~~C~~
~~F-64~~	~~I-10~~	~~SR-111 to Tipton Rd~~	~~6,420~~	~~26.2~~	~~D~~	~~4,860~~	~~19.2~~	~~C~~	~~6,560~~	~~27.1~~	~~D~~	~~4,830~~	~~19.1~~	~~C~~
~~F-65~~	~~I-10~~	~~Tipton Rd to SR-62~~	~~6,430~~	~~26.2~~	~~D~~	~~4,870~~	~~19.2~~	~~C~~	~~6,570~~	~~27.2~~	~~D~~	~~4,840~~	~~19.1~~	~~C~~
~~F-66~~	~~I-215~~	~~Scott Rd to Garbani Rd~~	~~5,470~~	~~30.8~~	~~D~~	~~4,160~~	~~21.5~~	~~C~~	~~5,380~~	~~29.8~~	~~D~~	~~4,170~~	~~21.7~~	~~C~~
~~F-84~~	~~I-215~~	~~Garbani Rd to Newport Rd~~	~~4,950~~	~~26.6~~	~~D~~	~~4,040~~	~~20.9~~	~~C~~	~~4,880~~	~~26.1~~	~~D~~	~~4,030~~	~~20.9~~	~~C~~
~~F-68~~	~~I-215~~	~~Newport Rd to McCall Blvd~~	~~5,020~~	~~27.2~~	~~D~~	~~5,240~~	~~28.9~~	~~D~~	~~4,930~~	~~26.5~~	~~D~~	~~5,230~~	~~29.0~~	~~D~~
~~F-69~~	~~I-215~~	~~McCall Blvd to Ethanac Rd~~	~~5,400~~	~~30.4~~	~~D~~	~~4,800~~	~~25.6~~	~~C~~	~~5,300~~	~~29.6~~	~~D~~	~~4,790~~	~~25.7~~	~~C~~
~~F-70~~	~~I-215~~	~~Ethanac Rd to SR-74~~	~~5,390~~	~~30.3~~	~~D~~	~~6,220~~	~~38.3~~	~~E~~	~~5,320~~	~~29.5~~	~~D~~	~~6,220~~	~~38.3~~	~~E~~
~~F-71~~	~~I-215~~	~~SR-74 to Ellis Ave~~	~~7,170~~	~~53.3~~	~~F~~	~~5,980~~	~~35.6~~	~~E~~	~~7,110~~	~~51.5~~	~~F~~	~~6,000~~	~~35.8~~	~~E~~
~~F-85~~	~~I-215~~	~~Ellis Ave to Redlands Ave~~	~~6,560~~	~~43.1~~	~~E~~	~~5,490~~	~~31.2~~	~~D~~	~~6,510~~	~~42.0~~	~~E~~	~~5,510~~	~~31.4~~	~~D~~
~~F-74~~	~~I-215~~	~~Columbia Ave to Center St~~	~~5,000~~	~~27.4~~	~~D~~	~~3,680~~	~~19.1~~	~~C~~	~~4,970~~	~~27.2~~	~~D~~	~~3,680~~	~~19.2~~	~~C~~
~~F-75~~	~~I-215~~	~~Center St to La Cadena Dr~~	~~5,970~~	~~35.8~~	~~E~~	~~4,690~~	~~25.1~~	~~C~~	~~6,010~~	~~36.6~~	~~E~~	~~4,740~~	~~25.6~~	~~C~~
~~F-76~~	~~I-215~~	~~La Cadena Dr to Barton Rd~~	~~5,060~~	~~27.8~~	~~D~~	~~3,780~~	~~19.7~~	~~C~~	~~5,100~~	~~28.2~~	~~D~~	~~3,790~~	~~19.8~~	~~C~~
~~F-77~~	~~I-215~~	~~Barton Rd to Mt. Vernon Ave~~	~~5,540~~	~~31.6~~	~~D~~	~~4,210~~	~~22.2~~	~~C~~	~~5,590~~	~~32.3~~	~~D~~	~~4,220~~	~~22.2~~	~~C~~
~~F-78~~	~~I-215~~	~~Mt. Vernon Ave to I-10~~	~~6,480~~	~~26.2~~	~~D~~	~~5,210~~	~~20.3~~	~~C~~	~~6,570~~	~~26.7~~	~~D~~	~~5,190~~	~~20.3~~	~~C~~
~~F-80~~	~~I-215~~	~~Auto Plaza Dr to Mill St~~	~~5,600~~	~~21.7~~	~~C~~	~~4,540~~	~~17.4~~	~~B~~	~~5,500~~	~~21.4~~	~~C~~	~~4,570~~	~~17.6~~	~~B~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave~~	~~6,910~~	~~48.0~~	~~F~~	~~5,450~~	~~30.8~~	~~D~~	~~6,930~~	~~48.3~~	~~F~~	~~5,490~~	~~31.4~~	~~D~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

  - ~~SR-91 Central Avenue to 14th Street;~~
  - ~~I-10 SR-60 to Beaumont Avenue;~~
  - ~~I-10 Pennsylvania Avenue to Highland Springs Avenue;~~
  - ~~I-10 Highland Springs Avenue to Sunset Avenue;~~
  - ~~I-10 S. Hargrave Street to Field Road; and~~
  - ~~I-10 Main Street (Cabazon) to Main Street.~~
- ~~Southbound or Westbound Sections:~~
  - ~~SR-60 Reservoir Street to Ramona Avenue;~~
  - ~~SR-60 Mountain Avenue to Euclid Avenue;~~
  - ~~SR-60 Euclid Avenue to Grove Avenue;~~
  - ~~SR-60 Grove Avenue to Vineyard Avenue;~~
  - ~~SR-60 Valley Way to Rubidoux Boulevard;~~
  - ~~SR-60 Market Street to Main Street;~~
  - ~~SR-60 Main Street to SR-91;~~
  - ~~SR-60 Martin Luther King Boulevard to Central Avenue;~~
  - ~~SR-60 Fair Isle Drive/Box Springs Road to I-215;~~
  - ~~SR-60 I-215 to Day Street;~~
  - ~~SR-60 Redlands Boulevard to Theodore Street;~~
  - ~~SR-91 Pierce Street to Magnolia Avenue;~~
  - ~~SR-91 Magnolia Avenue to La Sierra Avenue;~~
  - ~~SR-91 La Sierra Avenue to Tyler Street;~~
  - ~~SR-91 Tyler Street to Van Buren Boulevard;~~
  - ~~SR-91 Madison Street to Arlington Avenue;~~
  - ~~I-10 SR-60 to Beaumont Avenue;~~
  - ~~I-10 Pennsylvania Avenue to Highland Springs Avenue;~~
  - ~~I-10 Highland Springs Avenue to Sunset Avenue;~~
  - ~~I-10 8th Street to S. Hargrave Street;~~
  - ~~I-215 SR-74 to Ellis Avenue;~~
  - ~~I-215 Center Street to Iowa Avenue/La Cadena Drive; and~~
  - ~~I-215 Baseline Road to Highland Avenue.~~

~~The project would create a significant cumulative impact at the following four freeway segments under Year 2035 Cumulative with project conditions:~~

- ~~Northbound or Eastbound Sections:~~
  - ~~I-10 8th Street to S. Hargrave Street.~~

- ~~Southbound or Westbound Sections:~~
  - ~~SR-60 from Martin Luther King Boulevard to Central Avenue;~~
  - ~~SR-60 from Heacock Street to Perris Boulevard; and~~
  - ~~SR-91 from Van Buren Boulevard to Adam Street.~~

~~Freeway Weaving Analysis.~~ ~~Year 2035 Cumulative with project freeway weaving segment levels of service are summarized in Tables 4.15.AS-1 and 4.15.AS-2, which shows 14 freeway weaving segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at 10 of the freeway weaving segments and, therefore, would have a cumulative impact at these locations. The project would create a significant cumulative impact at one freeway weaving segment since the project would cause a decrease in the LOS from satisfactory to unsatisfactory. The project would have a cumulative impact at the following 14 freeway weaving segments under Year 2035 Cumulative with project conditions:~~

- ~~Northbound or Eastbound:~~
  - ~~SR-60 SR-71/S. Garey Avenue to Reservoir Street;~~
  - ~~SR-60 Main Street to SR-91;~~
  - ~~SR-60 SR-91 to W. Blaine Street/3rd Street;~~
  - ~~SR-60 W. Blaine Street/3rd Street to University Avenue;~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and~~
  - ~~SR-91 Arlington Avenue to Central Avenue.~~
- ~~Southbound or Westbound:~~
  - ~~SR-60 Haven Avenue to Archibald Avenue;~~
  - ~~SR-60 SR-91 to W. Blaine Street/3rd Street;~~
  - ~~SR-60 W. Blaine Street/3rd Street to University Avenue;~~
  - ~~SR-60 University Avenue to Martin Luther King Boulevard;~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road;~~
  - ~~SR-60 Day Street to Pigeon Pass Road/Frederick Street;~~
  - ~~SR-91 14th Street to University Avenue; and~~
  - ~~I-10 Haugen-Lehmann Way to SR-111.~~

~~The project would create a significant cumulative impact at the following freeway weaving segment under Year 2035 Cumulative with project conditions:~~

- ~~Southbound or Westbound Sections:~~
  - ~~SR-60 Day Street to Pigeon Pass Road/Frederick Street.~~

~~Freeway Ramp Analysis.~~ ~~Year 2035 Cumulative with project freeway ramp merge/diverge levels of service are summarized in Table 4.15.AT, which shows ten freeway ramps would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already~~

~~unsatisfactory LOS at three freeway ramps and, therefore, have a significant cumulative impact at~~

~~Table 4.15.AS-1: Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Northbound/Eastbound)~~

			~~2035 No–Project Conditions~~						~~2035 Plus Buildout Conditions~~					
			~~A.M. Peak Hour~~			~~P.M. Peak Hour~~			~~A.M. Peak Hour~~			~~P.M. Peak Hour~~		
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~W-1~~	~~SR-60~~	~~SR-71/S Garey Ave to Reservoir St~~	~~8,630~~	~~39.7~~	~~E~~	~~9,700~~	~~46.8~~	~~E~~	~~8,820~~	~~41.2~~	~~E~~	~~9,570~~	~~46.5~~	~~E~~
~~W-9~~	~~SR-60~~	~~Haven Ave to Archibald Ave~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-20~~	~~SR-60~~	~~Main St to SR-91~~	~~7,060~~	~~34.1~~	~~D~~	~~7,110~~	~~35.1~~	~~E~~	~~7,280~~	~~35.8~~	~~E~~	~~7,040~~	~~35.2~~	~~E~~
~~W-21~~	~~SR-60~~	~~SR-91 to Blaine St/3rd St~~	~~7,280~~	~~32.4~~	~~D~~	~~10,640~~	~~>Capacity~~	~~F~~	~~7,540~~	~~34.3~~	~~D~~	~~10,640~~	~~>Capacity~~	~~F~~
~~W-22~~	~~SR-60~~	~~Blaine St/3rd St to University Ave~~	~~7,120~~	~~28.9~~	~~D~~	~~8,460~~	~~38.7~~	~~E~~	~~7,460~~	~~31.9~~	~~D~~	~~8,570~~	~~40.9~~	~~E~~
~~W-23~~	~~SR-60~~	~~University Ave to Martin Luther King Blvd~~	~~7,960~~	~~30.0~~	~~D~~	~~7,040~~	~~26.4~~	~~C~~	~~8,310~~	~~32.0~~	~~D~~	~~7,160~~	~~27.4~~	~~C~~
~~W-25~~	~~SR-60~~	~~Central Ave to Fair Isle Dr/Box Springs Rd~~	~~7,890~~	~~37.0~~	~~E~~	~~8,640~~	~~40.5~~	~~E~~	~~8,370~~	~~43.9~~	~~E~~	~~8,760~~	~~44.5~~	~~E~~
~~W-27~~	~~SR-60~~	~~I-215 to Day St~~	~~3,980~~	~~16.3~~	~~B~~	~~6,210~~	~~27.7~~	~~C~~	~~4,460~~	~~21.4~~	~~C~~	~~6,200~~	~~30.8~~	~~D~~
~~W-28~~	~~SR-60~~	~~Day St to Pigeon Pass Rd/Frederick St~~	~~3,760~~	~~16.2~~	~~B~~	~~5,660~~	~~26.5~~	~~C~~	~~4,190~~	~~18.9~~	~~B~~	~~5,690~~	~~27.2~~	~~C~~
~~W-32~~	~~SR-60~~	~~Moreno Beach Dr to Nason St~~	~~2,640~~	~~16.5~~	~~B~~	~~3,480~~	~~22.6~~	~~C~~	~~3,150~~	~~21.0~~	~~C~~	~~3,650~~	~~24.9~~	~~C~~
~~W-35~~	~~SR-60~~	~~Theodore St to Gilman Springs Rd~~	~~3,070~~	~~17.5~~	~~B~~	~~5,710~~	~~37.9~~	~~E~~	~~3,080~~	~~18.3~~	~~B~~	~~5,360~~	~~36.2~~	~~E~~
~~W-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~6,970~~	~~33.7~~	~~D~~	~~6,930~~	~~34.2~~	~~D~~	~~7,080~~	~~34.4~~	~~D~~	~~6,900~~	~~34.2~~	~~D~~
~~W-48~~	~~SR-91~~	~~Arlington Ave to Central Ave~~	~~7,620~~	~~41.0~~	~~E~~	~~4,370~~	~~21.3~~	~~C~~	~~7,660~~	~~41.6~~	~~E~~	~~4,220~~	~~20.6~~	~~C~~
~~W-50~~	~~SR-91~~	~~14th St to University Ave~~	~~5,310~~	~~26.4~~	~~C~~	~~5,060~~	~~26.1~~	~~C~~	~~5,260~~	~~26.2~~	~~C~~	~~4,930~~	~~25.4~~	~~C~~
~~W-51~~	~~SR-91~~	~~SR-60 to Mission Inn Ave/University Ave~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-63~~	~~I-10~~	~~Haugen-Lehmann Way to SR-111~~	~~4,170~~	~~14.4~~	~~B~~	~~8,420~~	~~33.1~~	~~D~~	~~4,140~~	~~14.3~~	~~B~~	~~8,550~~	~~34.1~~	~~D~~
~~W-73~~	~~I-215~~	~~SR-60 to Columbia Ave~~	~~5,330~~	~~28.4~~	~~D~~	~~4,610~~	~~24.6~~	~~C~~	~~5,300~~	~~28.3~~	~~D~~	~~4,670~~	~~25.0~~	~~C~~
~~W-79~~	~~I-215~~	~~I-10 to Auto Plaza Dr/Orange Show Rd~~	~~4,590~~	~~16.9~~	~~B~~	~~5,640~~	~~20.9~~	~~C~~	~~4,570~~	~~16.8~~	~~B~~	~~5,730~~	~~21.3~~	~~C~~
~~W-81~~	~~I-215~~	~~Mill St to 2nd St~~	~~5,190~~	~~18.3~~	~~B~~	~~6,460~~	~~23.5~~	~~C~~	~~5,160~~	~~18.2~~	~~B~~	~~6,560~~	~~23.9~~	~~C~~
~~W-82~~	~~I-215~~	~~5th St to Baseline Rd~~	~~3,900~~	~~13.5~~	~~B~~	~~4,980~~	~~17.7~~	~~B~~	~~3,880~~	~~13.4~~	~~B~~	~~5,050~~	~~18.0~~	~~B~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AS-2: Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Southbound/Westbound)~~

			~~2035 No-Project Conditions~~						~~2035 Plus Buildout Conditions~~					
			~~A.M. Peak Hour~~			~~P.M. Peak Hour~~			~~A.M. Peak Hour~~			~~P.M. Peak Hour~~		
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~W-1~~	~~SR-60~~	~~SR-71/S Garey Ave to Reservoir St~~	~~6,130~~	~~22.0~~	~~C~~	~~7,510~~	~~27.6~~	~~C~~	~~6,040~~	~~21.8~~	~~C~~	~~7,620~~	~~28.4~~	~~D~~
~~W-9~~	~~SR-60~~	~~Haven Ave to Archibald Ave~~	~~6,190~~	~~28.7~~	~~D~~	~~8,180~~	~~36.4~~	~~E~~	~~6,800~~	~~28.5~~	~~D~~	~~8,270~~	~~37.1~~	~~E~~
~~W-20~~	~~SR-60~~	~~Main St to SR-91~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-21~~	~~SR-60~~	~~SR-91 to Blaine St/3rd St~~	~~8,490~~	~~33.7~~	~~D~~	~~9,970~~	~~40.9~~	~~E~~	~~8,380~~	~~33.5~~	~~D~~	~~10,290~~	~~>Capacity~~	~~F~~
~~W-22~~	~~SR-60~~	~~Blaine St/3rd St to University Ave~~	~~6,320~~	~~24.3~~	~~C~~	~~8,890~~	~~35.8~~	~~E~~	~~6,320~~	~~25.3~~	~~C~~	~~9,220~~	~~39.6~~	~~E~~
~~W-23~~	~~SR-60~~	~~University Ave to Martin Luther King Blvd~~	~~6,750~~	~~28.2~~	~~D~~	~~8,830~~	~~36.9~~	~~E~~	~~6,670~~	~~28.3~~	~~D~~	~~9,130~~	~~39.2~~	~~E~~
~~W-25~~	~~SR-60~~	~~Central Ave to Fair Isle Dr/Box Springs Rd~~	~~8,340~~	~~38.1~~	~~E~~	~~9,200~~	~~39.2~~	~~E~~	~~8,170~~	~~38.5~~	~~E~~	~~9,560~~	~~43.8~~	~~E~~
~~W-27~~	~~SR-60~~	~~I-215 to Day St~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-28~~	~~SR-60~~	~~Day St to Pigeon Pass Rd/Frederick St~~	~~4,790~~	~~33.5~~	~~D~~	~~4,790~~	~~32.4~~	~~D~~	~~4,820~~	~~34.5~~	~~D~~	~~5,100~~	~~36.1~~	~~E~~
~~W-32~~	~~SR-60~~	~~Moreno Beach Dr to Nason St~~	~~3,310~~	~~20.5~~	~~C~~	~~2,680~~	~~16.2~~	~~B~~	~~3,460~~	~~22.2~~	~~C~~	~~3,040~~	~~19.5~~	~~B~~
~~W-35~~	~~SR-60~~	~~Theodore St to Gilman Springs Rd~~	~~4,560~~	~~32.0~~	~~D~~	~~3,680~~	~~24.2~~	~~C~~	~~4,220~~	~~27.3~~	~~C~~	~~3,470~~	~~22.5~~	~~C~~

~~Table 4.15.AS-2: Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Southbound/Westbound)~~

			~~2035 No-Project Conditions~~						~~2035 Plus Buildout Conditions~~					
			~~A.M. Peak Hour~~			~~P.M. Peak Hour~~			~~A.M. Peak Hour~~			~~P.M. Peak Hour~~		
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~W-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~			~~See Basic Analysis~~		
~~W-48~~	~~SR-91~~	~~Arlington Ave to Central Ave~~	~~5,160~~	~~24.9~~	~~C~~	~~5,760~~	~~27.4~~	~~C~~	~~5,140~~	~~24.9~~	~~C~~	~~5,830~~	~~28.0~~	~~D~~
~~W-50~~	~~SR-91~~	~~14th St to University Ave~~	~~6,070~~	~~23.7~~	~~C~~	~~8,010~~	~~33.0~~	~~D~~	~~6,020~~	~~23.6~~	~~C~~	~~8,050~~	~~33.3~~	~~D~~
~~W-51~~	~~SR-91~~	~~SR-60 to Mission Inn Ave/University Ave~~	~~6,500~~	~~20.6~~	~~C~~	~~10,130~~	~~32.5~~	~~D~~	~~6,460~~	~~20.7~~	~~C~~	~~10,140~~	~~32.7~~	~~D~~
~~W-63~~	~~I-10~~	~~Haugen-Lehmann Way to SR-111~~	~~7,270~~	~~29.0~~	~~D~~	~~5,500~~	~~>Capacity~~	~~F~~	~~7,440~~	~~30.0~~	~~D~~	~~5,460~~	~~>Capacity~~	~~F~~
~~W-73~~	~~I-215~~	~~SR-60 to Columbia Ave~~	~~6,660~~	~~33.8~~	~~D~~	~~5,570~~	~~28.2~~	~~D~~	~~6,640~~	~~33.8~~	~~D~~	~~5,580~~	~~28.3~~	~~D~~
~~W-79~~	~~I-215~~	~~I-10 to Auto Plaza Dr/Orange Show Rd~~	~~6,200~~	~~22.5~~	~~C~~	~~4,950~~	~~18.8~~	~~B~~	~~6,240~~	~~22.7~~	~~C~~	~~4,970~~	~~18.9~~	~~B~~
~~W-81~~	~~I-215~~	~~Mill St to 2nd St~~	~~6,360~~	~~23.4~~	~~C~~	~~4,980~~	~~18.3~~	~~B~~	~~6,370~~	~~23.5~~	~~C~~	~~5,020~~	~~18.5~~	~~B~~
~~W-82~~	~~I-215~~	~~5th St to Baseline Rd~~	~~5,610~~	~~20.3~~	~~C~~	~~4,060~~	~~14.6~~	~~B~~	~~5,620~~	~~20.3~~	~~C~~	~~4,060~~	~~14.6~~	~~B~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.AT: Year 2035 Cumulative plus Project Freeway Ramp Levels of Service~~

				~~2035 No-Project Conditions~~								~~2035 Plus Buildout Conditions~~							
				~~AM Peak Hour~~				~~PM Peak Hour~~				~~AM Peak Hour~~				~~PM Peak Hour~~			
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~	~~Ramp No. of Lanes~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-1~~	~~SR-60 EB~~	~~On-Ramp from Martin Luther King Blvd~~	~~1~~	~~7,410~~	~~580~~	~~30.6~~	~~D~~	~~6,430~~	~~1,400~~	~~33.8~~	~~D~~	~~7,760~~	~~680~~	~~33.0~~	~~D~~	~~6,530~~	~~1,460~~	~~35.1~~	~~E~~
~~R-2~~	~~SR-60 EB~~	~~On-Ramp from Central Ave~~	~~1~~	~~7,890~~	~~1,220~~	~~32.2~~	~~F~~	~~8,630~~	~~970~~	~~32.9~~	~~F~~	~~8,370~~	~~1,360~~	~~35.5~~	~~F~~	~~8,760~~	~~970~~	~~33.9~~	~~F~~
~~R-3~~	~~SR-60 EB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~2,480~~	~~220~~	~~13.8~~	~~B~~	~~3,130~~	~~440~~	~~19.7~~	~~B~~	~~2,910~~	~~280~~	~~20.0~~	~~C~~	~~3,240~~	~~680~~	~~22.6~~	~~C~~
~~R-4~~	~~SR-60 EB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~2,260~~	~~90~~	~~22.1~~	~~C~~	~~2,690~~	~~60~~	~~25.4~~	~~C~~	~~2,630~~	~~110~~	~~27.2~~	~~C~~	~~2,560~~	~~70~~	~~25.8~~	~~C~~
~~R-5~~	~~SR-60 EB~~	~~Direct On-Ramp from Redlands Blvd~~	~~1~~	~~2,350~~	~~110~~	~~19.9~~	~~B~~	~~2,750~~	~~480~~	~~26.0~~	~~C~~	~~2,740~~	~~140~~	~~25.3~~	~~C~~	~~2,630~~	~~480~~	~~26.4~~	~~C~~
~~R-6~~	~~SR-60 EB~~	~~Off-Ramp to Theodore St~~	~~2~~	~~3,200~~	~~270~~	~~25.0~~	~~C~~	~~4,500~~	~~150~~	~~36.7~~	~~F~~	~~3,630~~	~~850~~	~~24.3~~	~~C~~	~~4,280~~	~~410~~	~~27.8~~	~~C~~
~~R-7~~	~~SR-60 EB~~	~~Loop On-Ramp from Theodore St~~	~~1~~	~~2,930~~	~~150~~	~~22.0~~	~~C~~	~~4,350~~	~~1,350~~	~~42.9~~	~~F~~	~~2,780~~	~~50~~	~~27.6~~	~~C~~	~~3,870~~	~~350~~	~~38.5~~	~~E~~
~~R-8~~	~~SR-60 EB~~	~~Direct On-Ramp from Theodore St~~	~~1~~	~~Does not Exist in this Scenario~~				~~Does not Exist in this Scenario~~				~~2,830~~	~~260~~	~~23.5~~	~~C~~	~~4,220~~	~~1,400~~	~~43.6~~	~~F~~
~~R-9~~	~~SR-60 EB~~	~~Off-Ramp to Gilman Springs Rd~~	~~2~~	~~3,070~~	~~840~~	~~19.4~~	~~B~~	~~5,710~~	~~1,570~~	~~35.8~~	~~E~~	~~3,080~~	~~980~~	~~19.8~~	~~B~~	~~5,360~~	~~1,240~~	~~34.0~~	~~D~~
~~R-10~~	~~SR-60 EB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~2,230~~	~~260~~	~~16.9~~	~~B~~	~~4,140~~	~~470~~	~~34.3~~	~~F~~	~~2,100~~	~~300~~	~~16.5~~	~~B~~	~~4,120~~	~~690~~	~~36.4~~	~~F~~
~~R-11~~	~~SR-60 WB~~	~~Off-Ramp to Gilman Springs Rd~~	~~2~~	~~3,350~~	~~240~~	~~20.9~~	~~C~~	~~2,920~~	~~560~~	~~18.2~~	~~B~~	~~3,450~~	~~450~~	~~21.5~~	~~C~~	~~2,680~~	~~530~~	~~16.8~~	~~B~~
~~R-12~~	~~SR-60 WB~~	~~On-Ramp from Gilman Springs Rd~~	~~1~~	~~3,110~~	~~1,330~~	~~32.2~~	~~D~~	~~2,360~~	~~1,140~~	~~24.6~~	~~C~~	~~3,000~~	~~1,050~~	~~29.3~~	~~D~~	~~2,150~~	~~1,130~~	~~23.2~~	~~C~~

~~Table 4.15.AT: Year 2035 Cumulative plus Project Freeway Ramp Levels of Service~~

				~~2035 No-Project Conditions~~								~~2035 Plus Buildout Conditions~~							
				~~AM Peak Hour~~				~~PM Peak Hour~~				~~AM Peak Hour~~				~~PM Peak Hour~~			
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~	~~Ramp No. of Lanes~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~
~~R-13~~	~~SR-60 WB~~	~~Off-Ramp to Theodore St~~	~~2~~	~~4,560~~	~~640~~	~~32.7~~	~~F~~	~~3,680~~	~~380~~	~~24.8~~	~~C~~	~~4,220~~	~~710~~	~~26.9~~	~~C~~	~~3,470~~	~~420~~	~~22.2~~	~~C~~
~~R-14~~	~~SR-60 WB~~	~~On-Ramp from Theodore St~~	~~1~~	~~3,920~~	~~90~~	~~35.5~~	~~E~~	~~3,300~~	~~230~~	~~31.5~~	~~D~~	~~3,510~~	~~520~~	~~36.8~~	~~E~~	~~3,050~~	~~640~~	~~34.1~~	~~D~~
~~R-15~~	~~SR-60 WB~~	~~Off-Ramp to Redlands Blvd~~	~~1~~	~~4,010~~	~~310~~	~~32.4~~	~~D~~	~~3,530~~	~~370~~	~~28.1~~	~~D~~	~~4,290~~	~~420~~	~~36.1~~	~~E~~	~~3,780~~	~~540~~	~~31.6~~	~~D~~
~~R-16~~	~~SR-60 WB~~	~~Loop On-Ramp from Redlands Blvd~~	~~1~~	~~3,700~~	~~200~~	~~31.8~~	~~E~~	~~3,160~~	~~110~~	~~26.7~~	~~D~~	~~3,870~~	~~210~~	~~34.3~~	~~E~~	~~3,240~~	~~150~~	~~28.6~~	~~D~~
~~R-17~~	~~SR-60 WB~~	~~Direct On-Ramp from Redlands Blvd~~	~~1~~	~~3,900~~	~~350~~	~~34.7~~	~~D~~	~~3,270~~	~~280~~	~~29.0~~	~~D~~	~~4,080~~	~~390~~	~~37.6~~	~~F~~	~~3,390~~	~~630~~	~~34.2~~	~~D~~
~~R-18~~	~~SR-60 WB~~	~~Off-Ramp to Central Ave~~	~~2~~	~~8,340~~	~~480~~	~~32.0~~	~~D~~	~~9,200~~	~~540~~	~~35.0~~	~~D~~	~~8,170~~	~~480~~	~~31.8~~	~~D~~	~~9,560~~	~~540~~	~~37.0~~	~~E~~
~~R-19~~	~~SR-60 WB~~	~~Off-Ramp to Martin Luther King Blvd~~	~~1~~	~~8,330~~	~~710~~	~~32.5~~	~~D~~	~~8,980~~	~~660~~	~~34.1~~	~~D~~	~~8,240~~	~~720~~	~~32.5~~	~~D~~	~~9,380~~	~~670~~	~~36.0~~	~~E~~

▨ ~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~these locations. The project would create a significant cumulative impact at five freeway ramp locations~~

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,440	55.8	F	7,240	56.6	F	7,440	55.8	F	7,240	57.4	F
F-49	SR-91	Central Ave to 14th St	5,650	21.6	C	7,260	31.3	D	5,680	21.7	C	7,260	31.6	D
F-50	SR-91	14th St to University Ave	5,650	21.6	C	7,260	31.3	D	5,680	21.7	C	7,260	31.6	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	3,030	11.3	B	2,500	9.3	A	1,420	5.5	A	1,320	5.0	A
F-67	I-215	Gambroni Rd to Newport Rd	2,990	11.2	B	2,930	10.9	A	3,010	11.3	B	2,450	9.1	A
F-68	I-215	Newport Rd to McCall Blvd	3,170	11.9	B	3,680	13.6	B	3,180	12.0	B	3,630	13.5	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,170	11.9	B	3,680	13.6	B	3,180	12.0	B	3,630	13.5	B
F-70	I-215	Ethanac Rd to SR-74	3,700	13.9	B	4,350	16.1	B	3,700	13.9	B	4,250	15.8	B
F-71	I-215	SR-74 to Redlands Ave	5,200	19.8	C	5,000	18.7	C	5,210	19.8	C	4,900	18.3	C
F-86	I-215	Redlands Blvd to D St	3,160	11.9	B	2,640	9.8	A	3,170	12.0	B	2,630	9.8	A
F-87	I-215	D St to Nuevo St/Harvil Ave	4,020	12.1	B	3,250	9.7	A	4,040	12.2	B	3,250	9.7	A
F-88	I-215	Nuevo St to Mid-County Pkwy	4,430	13.4	B	4,080	12.3	B	4,430	13.5	B	4,120	12.4	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,830	14.6	B	5,980	17.8	B	4,870	14.7	B	6,010	17.9	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	2,790	8.5	A	5,460	16.3	B	2,840	8.6	A	5,420	16.1	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,770	19.8	C	6,720	42.4	E	3,840	20.1	C	6,720	42.4	E
F-92	I-215	Van Buren Blvd to Cactus Ave	4,000	15.1	B	6,260	24.1	C	4,020	15.2	B	6,150	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,410	29.5	D	5,950	34.0	D	5,470	30.2	D	5,800	32.6	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,630	33.2	D	7,220	29.4	D	7,650	33.4	D	7,230	29.4	D
F-75	I-215	Center St to La Cadena Dr	7,710	64.0	F	7,280	51.2	F	7,770	65.8	F	7,320	51.9	F
F-76	I-215	La Cadena Dr to Barton Rd	7,720	64.3	F	7,400	52.7	F	7,770	65.8	F	7,380	52.4	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	6,570	41.4	E	7,460	53.9	F	6,620	42.0	E	7,430	53.3	F
F-78	I-215	Mt. Vernon Ave to I-10	6,350	25.1	C	5,840	22.3	C	6,410	25.4	C	5,810	22.1	C
F-80	I-215	Auto Plaza Dr to Mill St	6,460	25.4	C	6,020	22.8	C	6,520	25.7	C	6,010	22.8	C
F-83	I-215	Baseline Rd to Highland Ave	4,930	18.5	C	3,740	13.9	B	5,000	18.8	C	3,750	13.9	B
F-52	I-10	SR-60 to Beaumont Ave	5,750	25.3	C	5,190	19.6	C	5,710	25.3	C	5,160	19.5	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,880	26.4	D	5,330	20.4	C	5,840	26.2	D	5,300	20.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	6,330	29.3	D	5,480	21.1	C	6,290	29.0	D	5,440	20.9	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,810	26.0	D	5,150	19.8	C	5,800	26.0	C	5,100	19.6	C
F-56	I-10	Sunset Ave to 22nd St	5,580	19.1	C	5,060	15.5	B	5,590	19.1	C	5,020	15.3	B
F-57	I-10	22nd St to 8th St	5,460	24.0	C	4,960	19.0	C	5,470	24.2	C	4,930	18.9	C
F-58	I-10	8th St to Hargrave St	5,390	23.6	C	4,980	19.1	C	5,400	23.8	C	4,930	18.9	C
F-59	I-10	Hargrave St to Fields Rd	4,830	20.9	C	4,660	17.8	B	4,860	21.1	C	4,600	17.6	B
F-60	I-10	Fields Rd to Morongo Trail	4,620	19.9	C	4,560	17.4	B	4,650	20.1	C	4,510	17.3	B
F-61	I-10	Morongo Trail to Main St	4,110	17.4	B	4,150	15.6	B	4,140	17.6	B	4,090	15.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	4,100	17.4	B	4,200	15.8	B	4,130	17.5	B	4,140	15.6	B
F-64	I-10	SR-111 to Tipton Rd	3,570	15.2	B	3,570	13.4	B	3,600	15.3	B	3,540	13.3	B
F-65	I-10	Tipton Rd to SR-62	3,590	15.2	B	3,580	13.5	B	3,620	15.4	B	3,550	13.4	B

▨ Indicates that the LOS exceeds the target level

4.15.6.5 Freeway Impacts from Truck Trips to the Ports of Los Angeles and Long Beach

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Several comments received on the Draft EIR indicated confusion regarding the volume of truck traffic between the WLC and the Ports of Los Angeles and Long Beach. In general, the DEIR commenters seemed to believe that the truck traffic between the WLC and the ports will be much higher than will actually occur. This section responds to these comments by 1) describing the current share of port-related use of warehouse space, 2) estimating the truck traffic between the WLC and the ports using three different methods, 3) estimating the growth in WLC truck traffic to the port over time, and 4) determining whether WLC trucks would impose significant impacts on the freeways to the ports beyond those identified in previous chapters.

***Current Share of Port-Related Warehouse Space*.** The DEIR commenters referred to SCAG's study titled *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities*. This study states that 13 percent of the occupied warehouse space in the SCAG region in 2009 was port-related. This indicates that while the ports are important sources of demand for warehouse space, the great majority of warehouse space serves other demands. In a large regional economy such as southern California this other demand amounted to 578 million square feet in 2009, and is growing over time.

The SCAG study also shows wide differentiation in the markets served. Riverside County serves only a small percentage of port-related demand while playing a much more important role in serving non-port demand. This differentiation reflects the tendency of warehouse tenants whose operations rely on the ports to self-select locations close to the port.

The information provided in the report indicates that only 5 percent of the warehouse space in Riverside County serves port-related demand, which suggests that the volume of truck traffic between the ports and warehouses in Riverside County, including those in WLC, will be relatively small.

The study also reached two conclusions regarding the regional supply of warehouse space, taken from the report's Executive Summary (pages ES-1 and ES-2):

> *"According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet.*
>
> *During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available."*

In other words, according to the SCAG study cited by the commenters, even if all of the land currently zoned for warehouse space were developed, there would still be a massive shortfall of warehouse space by ~~2035~~2040 unless projects like the WLC are approved and built.

Estimating Truck Trips between WLC and the Ports. In order to ensure that a reasonable worst-case scenario was used for the impact analysis, the number of truck trips between the WLC and the ports was forecast using three different methods, all based on data provided by regional planning agencies, with the highest of the three forecasts used for the analysis. The three methods were as follows:

- *Method 1: RivTAM Model.* The first method for estimating truck trips to the port was to use the RivTAM model. As described in Chapter 2, RivTAM is the standard traffic forecasting tool used by agencies in Riverside County to analyze the regional effects of proposed projects. Like most other traffic models, RivTAM assigns trips to destinations using a gravity model where the number of trips between each origin/destination pair increases in proportion to the number of trips generated at each end, but decreases in proportion to the distance between the origin and destination. The effect of distance on the likelihood of travel between origin-destination pairs is determined by the trip length distribution which in turn is based on survey data.

  The WLC's proposed land uses were input into the RivTAM model as described in Chapter 2, the model was run, and the outputs were checked to find how many truck trips were assigned between the ports TAZs and the WLC. Using the RivTAM model to estimate truck trips yields 82 truck trips per day between the ports and the WLC if the WLC were built today (i.e., the ~~2012~~2018 Plus Full Build-Out scenario).

- *Method 2: Based on Port Truck Study.* The best information currently available on truck trips from the ports comes from the Ports of Los Angeles and Long Beach Year 2010 Marine Terminal Gate Surveys. These surveys found that 1.5 percent of truck trips entering the ports came from Riverside County and 1.7 percent of trucks leaving the ports went to Riverside County. These finding are consistent with an earlier study that found 1 percent of truck trips entering the ports came from Riverside County and 2 percent of truck trips leaving the ports went to Riverside County (the numbers are rounded in the study). Applying the percentages from the 2010 survey to the approximately ~~50,000~~54,700 truck trips per day generated by the ports yields a total of approximately 800 trucks per day between the ports and Riverside County.

  If we make the conservative assumption that every one of these ~~800~~875 truck trips goes to a warehouse rather than to a factory, store, or some other destination, and divide these trips among the 136 million square feet of occupied warehouse space in Riverside County, we find an average of ~~5.9 truck~~6.5truck trips to or from the ports per million square feet of warehouse space per day.

Applying this rate to the 40.6 million square feet of warehouse space proposed for the WLC yields ~~240~~261 truck trips per day between the ports and the WLC if the WLC were built today (the ~~2012~~2018 Plus Full Build-Out scenario).

- *Method 3: Based on Truck Flows from Riverside County.* The best information currently available on regional truck traffic patterns comes from SCAG's Goods Movement Study that was done in preparation for the ~~2012~~2016 RTP/SCS.

  Applying the ports' ~~1.5~~0.8 percent share of Riverside County truck trips applies to WLC's ~~11,600~~15,138 medium and heavy truck trips per day yields ~~174~~125 truck trips per day between the ports and the WLC if the WLC were built today (the ~~2012~~2018 Plus Full Build-Out scenario).

  This analysis shows that a reasonable estimate of truck traffic between WLC and the ports would be in the range of ~~84~~82 to ~~240~~261 truck trips per day. The higher figure of ~~240~~261 truck trips per day was used as a reasonable worst-case scenario.

***Growth in Truck Trips to the Port*.** Some comments suggested that the analysis should consider the possibility that the share of warehouse space in the Inland Empire, and by extension the WLC, may grow over time. This section addresses those comments.

As discussed previously, currently only ~~1.5~~0.8 percent of the truck trips in Riverside County are to or from the ports. In the future, port-related uses are anticipated to require a greater share of warehouse space. For Riverside County, SCAG estimates that the percentage of warehouse space devoted to port uses would more than triple between ~~2012~~2018 and 2035, from ~~5.0~~6.6 percent to 16.3 percent.

~~The SCAG estimates show that the percentage of warehouse space devoted to port-related cargo will always be larger than the percentage of trucks going to and from the port. That is because the cargo that has come from the port to the warehouse then leaves the warehouse in trucks going to non-port destinations. There may also be inbound truck trips to warehouses from places other than the ports, delivering shipments of packaging material and other items which might be combined with port-related cargo, thus further reducing the proportion of trucks that come from the ports.~~

The estimated percentage of WLC trucks going to the ports is ~~2.07~~1.72% for the Year ~~2012~~2018 scenario, ~~3.86~~2.54% for the Year ~~2022~~2025 scenario, ~~and 6.76~~4.24% for the Year 2035 scenario~~.~~ and 5.09% for Year 2040 scenario. These estimates are based on ~~240~~261 project truck trips per day to the port compared to ~~11,621~~15,138 total medium and heavy truck trips to and from the WLC in the year ~~2012~~2018 scenario.

These percentages were then applied to the trip generation rates to obtain the number of WLC trucks to and from the port for each analysis period. The estimated quantity of WLC trucks going to the ports per day is ~~242~~261 for the Year ~~2012~~2018 scenario, ~~254~~222 for the Year ~~2022~~2025 scenario, and ~~786~~770 for the Year ~~2035~~2040 scenario. Tests with the SCAG traffic model showed that these trips would split approximately evenly between SR-60 and SR-91 routes.

***Determination of Whether Impacts are Significant*.** The potential for traffic impacts along the SR-60 and SR-91 corridors was assessed by manually adding the forecasts for WLC trucks to and from the port to the No-Project condition from the SCAG model. Because the ports and the freeways leading to them are in Los Angeles County, the threshold of significance for the analysis was taken from the Los Angeles County Congestion Management Program (CMP). The CMP states that a significant impact would be deemed to occur if the project increased demand on a highway by at least 2 percent causing LOS F or, if the highway facility already operates at LOS F, then a significant impact would be deemed to occur if the project increases traffic demand by 2 percent or more of capacity.

Analysis of the project's impacts to each section of the SR-60 and SR-91 corridors and in each direction, for both the a.m. and p.m. peak periods, was conducted for the ~~2012, 2022~~2018, 2025, and ~~2035~~2040 scenarios. The addition of the WLC traffic would increase freeway traffic volume ranging from 0.~~05~~03 percent to ~~1.17~~0.48 percent of non-project traffic, would not cause a significant impact on any segment of these freeways.

4.15.7 Mitigation of Significant Impacts

As described in detail in Section 4.15.4, the level of service performance standards used in this EIR are as follows:

- Roadway segments and intersections: LOS C, LOS D, or LOS E as outlined in previously referenced Tables 4.15.B, 4.15.C, and 4.15.D.
- Freeway mainline: LOS D (or existing density if currently operating at LOS E or F).
- Freeway Ramp Merge/Diverge: LOS D.

The methodology used to identify mitigation measures included:

1) Determining whether the LOS exceeded the target threshold in the Plus Project condition.
2) If so, then determining whether the appropriate measure of effectiveness under Plus Project conditions was below that under No Project conditions. Some study freeway segments were found to exceed the threshold of significance under Plus Project conditions but the traffic density was lower under Plus Project conditions than No Project conditions. This could happen because the project would cause some commuters to switch from the peak direction to the off-peak direction, thus reducing congestion at some locations. The project's impacts (both project direct and cumulative impacts) were considered significant only when the Plus Project condition was worse than the No-Project condition.
3) If the project had a significant impact, capacity-increasing improvements were then added incrementally until the LOS was within the target threshold of significance.
4) For cumulative impacts, determining whether the mitigations could be funded as part of an established fee program such as TUMF or DIF. If so, then payment into the TUMF or DIF program constitutes mitigation of impacts to the TUMF and DIF facilities.
5) For improvements that would not be funded from an established fee program the project's fair-share contribution was computed using the formula in Caltrans' *Guide for the Preparation of Traffic Impact Studies - Appendix "B"*. This formula defines the project's fair-share as the project-related traffic's percentage share of overall traffic growth, not including new traffic attributable to projects that have already been approved. Where there were significant impacts in both the a.m. and p.m. peak periods, the period with the higher share of project traffic was used to determine the fair-share contribution.

Potential mitigation measures were analyzed to determine whether they were feasible or not. Improvements were deemed to be infeasible if they would require the acquisition of existing homes or businesses, if they would result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or would create safety impacts that could be considered less acceptable than a reduced traffic LOS. In cases where feasibility is uncertain, the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities (i.e. "conservative" in the sense that the project's responsibilities would not be under-estimated).

In cases where a proposed modification to an existing intersection would result in the elimination of an existing bus stop or bicycle lane the proposed mitigation would include the replacement of the bicycle lane or bus stop even if not explicitly stated. This is also true of the replacement of existing curbs, gutters, sidewalks, lights, and other existing design features.

Timing of Improvements. It is important to note that the specific timing of installation of the various identified improvements will occur as indicated by subsequent traffic studies when specific development is proposed in the future, as outlined in Mitigation Measure 4.15.7.4A. It is therefore not possible at this time, in this programmatic document, to identify the specific timing of roadway or other circulation improvements identified in this document.

4.15.7.1 The TUMF Program

In 1988, the voters of Riverside County approved Measure A, a half-cent sales tax to fund transportation projects. In 2002, voters approved a 20-year extension of Measure A, this time including a Transportation Uniform Mitigation Fee or TUMF. The rationale behind TUMF was that having a single uniform fee program to mitigate the cumulative regional impacts of new development on the area's arterial highway system would be more effective than having multiple and potentially uncoordinated fee programs with varying policies, fee amounts, and project lists. Under the TUMF, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required as a result of the growth the projects create. The program is recognition by voters that residents and employees in all of Western Riverside County's jurisdictions benefit from arterials located not just in their own city, but also in nearby cities as well.

The TUMF program is designed to provide a network of roads, bridges, interchanges, and railroad grade separations, known as the Regional System of Highways and Arterials (RSHA), needed to accommodate future growth in the area through 2035. The RSHA was developed by the Public Works Directors of the Western Riverside Council of Governments (WRCOG) member jurisdiction. A "Nexus Study" was then prepared in accordance with the California Mitigation Fee Act, which requires that a reasonable relationship exist between the impact fee collected and the proposed improvements for which a fee is used. The study determined the proportion of the cost of the improvements should be borne by different types of development based on the trip generating characteristics of each land use type. The Nexus Study was updated in 2010 and the RSHA was revised to reflect the most current transportation needs and costs for Western Riverside County. The new network reflected several changes due to completed projects and recommendations from the WRCOG Public Works Committee (PWC) to better represent the transportation needs of Western Riverside County.

TUMF is administered by the WRCOG. As administrator, WRCOG receives all fees generated from the TUMF as collected by the local jurisdictions. TUMF funds are programmed by WRCOG's partner agencies, which are responsible for prioritizing projects and overseeing their development.

The TUMF program uses six categories of land uses: two residential categories and four non-residential categories. The two residential types are single-family residential and multifamily residential. Non-residential uses are industrial, retail, service commercial, and high-cube warehouse, with fees assessed at different rates depending on the category. The high-cube warehouses in the WLC would fall into the "high-cube" category of non-residential development. As this fee level, if the WLC builds out completely, it would potentially pay more than $70 million in TUMFs.

TUMF revenues are collected when a development reaches the Building Permit stage. Once collected and administrative costs and a mitigation allocation made to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), TUMF revenues are allocated as follows:

- 46.39 percent is allocated for regional improvements. These revenues are programmed by the RCTC pursuant to an agreement with WRCOG.
- 46.39 percent is allocated to the geographic zone from which the fees are collected. Project prioritization and programming are undertaken by the jurisdictions in each of the five zones.
- 1.64 percent is allocated for regional transit projects. WRCOG administers the funds on behalf of the RTA which prioritizes and programs capital transit projects.
- 1.59 percent is allocated to the Multiple Species Habitat Conservation Plan.
- 4.0 percent is used for program administration.

Since its inception, TUMF has collected more than $~~554~~686 million in revenues, making it the largest multi-jurisdictional fee program in the nation. It has completed ~~46~~85 projects with several dozen more under development. The projects successfully funded by the program include a variety of road widening, intersection improvements, and freeway interchanges, including:

- Widening Pigeon Pass Road from 2 lanes to 4 lanes from Climbing Rose Drive to Hidden Springs Drive;
- Widening the Ramona Expressway from 2 lanes to 6 lanes from I-215 to Evans Road;
- Improvements to the Ironwood Avenue/Moreno Beach Drive intersection;
- Improvements to the Ironwood Avenue/Nason Street intersection;
- Adding a northbound lane to Lasselle Street from John F Kennedy Drive to Alessandro Boulevard;
- Widening Oleander Avenue from Perris Boulevard to Indian Avenue;
- The Van Buren Boulevard/SR-91 Interchange Project;
- Widening State Street in Hemet from 2 to 4 lanes with a center turn lane; and
- Widening Sanderson Avenue from Menlo Avenue to Ramona Expressway.

This track record of success is a key reason why the TUMF projects have a good probability of being implemented. Between now and ~~2035~~2040, when the program is scheduled for completion, the TUMF program is forecast to provide nearly $~~1~~2.9 billion towards a total of $~~4.2~~3.7 billion in arterial road, bridge, intersection, and interchange improvements in Western Riverside County. Those components of infrastructure that are subject to and included in the TUMF program are identified in the TIA and this Traffic and Circulation section of the EIR.

4.15.7.2 The City of Moreno Valley Development Impact Fee Program

The City of Moreno Valley's Development Impact Fee (DIF) program is used to fund road and intersection improvements needed to accommodate new residential, commercial, and industrial development. The program collects fees from three categories of residential development (single-family, ~~multifamily~~multi-family, and mobile homes) and five categories of commercial development (general commercial, regional commercial, general industrial, high-cube warehouse, and office) based on their respective trip generating characteristics. In many cases~~,~~ developers dedicate right-of-way and/or construct improvements that are part of the TUMF or DIF programs in lieu of paying the fees. These facilities are typically part of a project's direct frontage or are necessary to accommodate traffic ~~capacities~~needs in the immediate area of the project. DIF fees on high-cube warehouses are currently set at $~~0.9955~~1.016 per square foot, which means that the WLC would ~~potentially pay~~ more than $~~40~~41 million in DIF fees if the project builds out ~~completely as planned. Like the TUMF Program, the City's DIF Program is a bona-fide Mitigation Fee Program that has been created in accordance with AB 1600. All development~~ and is required to pay ~~into the DIF Program; funds raised pursuant to the DIF Program are held in a separate interest-bearing account; an infrastructure capital improvement program is adopted that funds transportation improvements as they are needed to maintain targeted levels of service; and the capital improvement program is implemented as development occurs and DIF fees are collected~~DIF[10].

DIF funds are overseen by the City's Public Works Department. Department staff monitors traffic volumes and periodically develops a capital improvement program designed to ensure that improvements are installed to help maintain the City's target LOS threshold. The CIP is reviewed and approved by the city council. Examples of projects successfully completed using DIF funds include:

- Iris Ave. from Indian St. to Perris Blvd.
- Lasselle St./Bay Ave. traffic signal
- Lasselle St./Cottonwood Ave. traffic signal
- Cactus Ave. eastbound improvements from I-215 to Veterans Way

Similar to the TUMF, this track record of success is a key reason why the DIF projects have a good probability of being implemented. The DIF program supplements the TUMF program by funding elements of the City's General Plan Circulation Element not covered by TUMF and, in some projects, by providing funds for additional capacity beyond what the TUMF project will provide. The DIF program has been updated several times, most recently in January 2013, to reflect changes in priorities as development occurs in different parts of the City.

Table 4.15.AU shows a sample of transportation improvement projects from the City's Capital Improvement Program that used DIF and/or TUMF funds in combination with other funding sources.

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[10] Section 4.8 of the Development Agreement requires Highland Fairview to fully fund or construct all needed improvements within Moreno Valley in lieu of paying the traffic DIF. However, if the court sets aside the Development Agreement then Highland Fairview would pay into DIF.

Table 4.15.AU: Projects Using DIF and TUMF in Combination with Other Funding Sources

Project	DIF Funds	TUMF Funds	Other Funds	Sources of Other Funds
Iron Avenue / Heacock Street to Perris Boulevard	$1,509,420	$72,413	$57,358	2005 Lease Revenue Bonds
Nason Street / Cactus Avenue Street Improvements	$9,272,000		$15,910,845	Measure "A"; State-Local Partnership Program; General Fund; General City C.P.; Successor Agency Tax Revenue; Redevelopment Agency Cap. Proj.; Eastern Municipal Water District; Riverside County Flood Control; 2007 Taxable Lease Revenue Bonds
SR-60 / Moreno Beach Drive South Side of Interchange (Phase 1)		$3,500,000	$6,110,735	Successor Agency; Redevelopment Agency
SR-60 / Nason Street Interchange	$740,000		$13,285,777	Measure "A"; Federal Demonstration Funds; Demo Toll Credit - Const.; Surface Transportation Program Local (construction); Surface Transportation Program Local Toll Credit - Const.
Heacock Street South Extension		$300,000	$564,172	Measure "A"
Emergency Vehicle Pre-emption at 117 Traffic Signals	$93,534		$840,000	Highway Safety Improvement Program
Nason Street / Riverside County Regional Medical Center Main Driveway Traffic Signal	$250,000		$50,000	Measure "A"
Transportation Management Center	$316,578		$214,646	Air Quality Management
Lasselle Street / John F. Kennedy Drive to Alessandro Boulevard		$2,757,886	$1,058,143	2005 Lease Revenue Bonds
Kitching Street / Alessandro Boulevard to Gentian Avenue	$11,903		$1,639,854	2005 Lease Revenue Bonds
Pigeon Pass Road Widening / Climbing Rose Drive to North City Limits	$462,239	$679,953	$22,664	Measure "A"
Total	$12,655,674	$7,310,252	$39,754,194	
Percentage of Total	21%	12%	67%	

Source: Traffic Impact Analysis Report for the World Logistics Center, ~~Parsons Brinckerhoff, September 2014.~~WSP, July 2018

4.15.7.3 Required Improvements

Existing plus Project Direct and Cumulative Project Impacts. As individual projects within the WLC are processed, the City will require that each project do a traffic impact assessment in accordance with City guidelines. These project-level assessments will determine the timing of each transportation improvement measure and will ensure that the impact assumptions made in this programmatic EIR document are consistent with the analysis of potential impacts at the project-specific implementation stage.

This section is devoted to disclosing project impacts and identifying required improvements to improve the impacted location to within the applicable level of service standard. Each impacted facility is discussed in the text and the results are summarized in Tables AV through AY. These tables all follow a similar format which includes the following data fields (columns):

(A) This field identifies the location of the impact.

(B) This field identifies which agency has jurisdiction over the facility in question.

(C) This field shows the agency's target LOS for the facility in question.

(D) This field shows the LOS under Existing conditions. This is used to determine whether or not there is an existing deficiency.

(E) This field shows the LOS under Existing Plus Project conditions. This is used to determine whether or not the project has a significant impact.

(F) This field shows whether there is a significant impact. It is based on the thresholds of significance described in Chapter 4.

(G) This field describes what improvements would be required to achieve the target LOS under Existing Plus Project conditions.

(H) This field states whether the measure described in Column G is feasible or not. In some cases the needed improvements may not be feasible. For example, it may be infeasible to widen a road because doing so would cause major negative impacts to an adjacent neighborhood.

(I) This field shows the LOS after all feasible mitigations have been implemented. If mitigation is infeasible then Column I will be the same as Column E.

(J) This field states whether the impact would still be significant after all feasible mitigation measures have been implemented. For those facilities under the jurisdiction of the City of Moreno Valley (see Column B) a “No” in Column J indicates that the impact will be mitigated to a less than significant level. For those facilities outside the jurisdiction of the City of Moreno Valley, Column J indicates what would happen if the jurisdiction that controls the facility implements the recommended feasible mitigations. However, because the City of Moreno Valley cannot guarantee that the other agency will implement the needed improvement the City cannot guarantee that the impact will be mitigated to a less than significant level.

(K) This field shows whether or not there is an existing deficiency. Generally speaking, under state law a developer is responsible for mitigating the impacts of their project but is not responsible for rectifying existing deficiencies that are the result of earlier projects. They need only pay a fair-share representing the portion of the deficiency that is attributable to their own project.

(L) This field reports the action that the developers of the WLC will be required to take as a condition of approval.

PROJECT DIRECT IMPACTS (SHORT-TERM)

The direct impacts of the WLC project were determined by comparing the LOS of study facilities under Existing and Existing Plus Project conditions. The direct impacts of the project and the associated improvements necessary to obtain the target LOS are as follows.

Road Section Direct Impacts. The project’s direct impacts on road sections are summarized in Table 4.15.AV. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ~~***Cactus Avenue from Redlands Boulevard to Street D (S-22)*** currently has one westbound lane and two eastbound lanes. The WLC would involve the reconstruction of Alessandro Boulevard along a new alignment that ends Cactus Avenue Extension, which would connect Cactus Avenue and Alessandro Boulevard (Street E) as the main route for east-west through traffic. Cactus Avenue would need to be widened to four lanes in conjunction with this change. The City will require the developer to pay a fair share for this improvement as a condition of approval.~~
- ***Gilman Springs Road from Alessandro Boulevard to Bridge Street (S-16)*** is already deficient and needs to be widened to four lanes and will need to be widened to six lanes in the future. In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project’s fair share contribution.

  However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to four lanes between Alessandro Boulevard and Bridge Street, or even preclude any widening at all. The project's impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

- ***Gilman Springs Road from SR-60 to Alessandro Boulevard (S-17)*** is already deficient and needs to be widened to four lanes. In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair share contribution.

  However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. The project's impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County to find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

  Redlands Boulevard between Eucalyptus Avenue and the SR-60 eastbound ramps (S-18) is already deficient and needs to be widened to four lanes. This project is in the City's Capital Improvement Program with planned funding from the TUMF and DIF programs. Mitigation is for the developer to pay into the TUMF and to pay a fair-share contribution towards this improvement as a condition of approval.

Intersection Direct Impacts. The project's direct impacts on study intersections are summarized in Table 4.15.AW. These impacts and the associated improvements necessary to obtain the target LOS would be:

~~•~~ **Redlands ~~*Boulevard/*~~Blvd./Locust ~~*Avenue Intersection*~~ Ave. intersection** (IN-10) already exceeds the LOS threshold in both the ~~a.m.~~AM and ~~p.m.~~PM peak hours and traffic using the intersection would experience longer delays ~~resulting in an impact in~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Signalizing the intersection and adding ~~left turn lanes on the~~ an eastbound left-turn and westbound ~~approaches to the intersection~~ left-turn lanes would reduce project impacts to a less~~-~~-than~~-~~-significant level. ~~The City will require the developer to pay a fair share contribution towards~~ Improvements to this ~~improvement as a condition of approval.~~

~~Table 4.15.AV: Existing plus Project Direct Impacts and Mitigation Measures on Roadway Segments~~

~~Study Roadway~~		~~From~~	~~To~~	~~Jurisdiction~~	~~LOS Standard*~~	~~Existing LOS~~	~~Existing Plus Project LOS~~	~~Does the Project Have a Significant Impact?~~	~~Mitigation Measures Required to Reduce Project Impacts to Less than significant~~	~~Is Mitigation Feasible?~~	~~LOS After Feasible Mitigations are Implemented~~	~~Impact Significant After Mitigation?~~	~~Is There an ExistingDeficiency?~~	~~Developer Action Required~~
		~~(A)~~		~~(B)~~	~~(C)~~	~~(D)~~	~~(E)~~	~~(F)~~	~~(G)~~	~~(H)~~	~~(I)~~	~~(J)~~	~~(K)~~	~~(L)~~
~~Road Section Direct Impacts that can be Mitigated to a Less than significant Level~~														
~~S-22~~	~~Cactus Ave.~~	~~Redlands Blvd~~	~~Cactus Avenue Extension~~	~~Moreno Valley~~	~~C~~	~~A~~	~~E~~	~~Yes~~	~~Widen to 4 lanes~~	~~Yes~~	~~A~~	~~No~~	~~No~~	~~Pay fair share (95.9%)~~
~~Road Section Cumulative Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)~~														
~~S-16~~	~~Gilman Springs Rd~~	~~Alessandro Blvd (Street C)~~	~~Bridge Street~~	~~Riverside County~~	~~D~~	~~F~~	~~E~~	~~Yes~~	~~Widen to 4 lanes~~	~~Yes~~	~~C~~	~~No~~	~~Yes~~	~~Pay fair share (12.2%)~~
~~S-17~~	~~Gilman Springs Rd~~	~~SR-60~~	~~Alessandro Blvd (Street C)~~	~~Riverside County~~	~~D~~	~~E~~	~~E~~	~~Yes~~	~~Widen to 4 lanes~~	~~Yes~~	~~C~~	~~No~~	~~Yes~~	~~Pay fair share (17.8%)~~

~~* LOS standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.~~

▨ ~~Indicates LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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- ***~~Redlands Boulevard/SR-60 Westbound Ramps Intersection (IN-13)~~*** ~~already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the~~ intersection ~~would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing the intersection and adding a right turn lane on the northbound approach to the intersection would reduce project impacts to a less than significant level. It should be noted that the National Bridge Inventory 2012 Inspection Database[11] indicates that the Redlands Boulevard bridge over SR-60 was designed for MS18/HS20 design loads and has a sufficiency rating for 94.5. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval~~are already programmed in the RTP, so no action is required by the developer.
- **Redlands Blvd./Eucalyptus Avenue** (IN-18) would exceed the LOS threshold in the PM peak hour under the Existing Plus Build-out Scenario. Adding a westbound right-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.

~~[11] http://nationalbridges.com/ Federal Highway Administration, searchable database last updated 2012~~

Table 4.15.AV Existing plus Project Direct Impacts and Mitigation Measures on Roadway Segments

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Impacts that can be Mitigated to a Less-Than-Significant Level														
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	Moreno Valley	C	**E**	**F**	Yes	Widen to 4 lanes	Yes	A	No	Yes	Pay fair share (7.9%)
Road Section Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	Riverside County	D	**F**	**F**	Yes	Widen to 4 lanes	No	**F**	Yes	Yes	N/A**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	Riverside County	D	**F**	**F**	Yes	Widen to 4 lanes	No	**F**	Yes	Yes	N/A**

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Not applicable because mitigation is infeasible

▨ Indicates LOS exceeds the target level

- **Oliver ~~*Street/*~~St./Alessandro ~~*Boulevard Intersection*~~Blvd. intersection** (IN-20) already exceeds the LOS threshold in the ~~a.m.~~AM peak hour and traffic using the intersection would experience longer delays ~~resulting in an impact in~~under the Existing Plus ~~Project scenario. Changing~~Build-out Scenario. Adding a receiving lane for left turns from ~~side-street stop control to all-way stop control~~Oliver Street would reduce project impacts to a less~~-~~-than~~-~~-significant level. The City will require the developer to pay a fair~~-~~-share contribution towards this improvement as a condition of approval.
- ~~***Redlands Boulevard/Cactus Avenue Intersection (IN-27)*** currently operates within the LOS threshold but would exceed the threshold in both the a.m. and p.m. peak hour under Existing Plus Project conditions. Signalizing the intersection and adding left turn lanes on the eastbound and westbound approaches to the intersection would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.~~

~~•~~**Moreno Beach** ~~***Drive/John Kennedy Drive Intersection (IN-28)*** currently operates within the LOS threshold but would exceed the threshold in the p.m. peak hour under Existing Plus Project conditions. Adding a westbound left-turn lane would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.~~

- **~~*Moreno Beach Drive/*~~Dr./Ironwood ~~*Avenue Intersection*~~Ave.** (IN-36) ~~currently operates within the LOS threshold but~~ would exceed the LOS threshold in the ~~a.m.~~AM peak hour under the Existing Plus ~~Project conditions~~Build-out Scenario. Adding a northbound right-turn lane would reduce ~~direct~~ project impacts to a less~~-~~-than~~-~~-significant level. The City will require the developer to pay a fair~~-~~-share contribution towards this improvement as a condition of approval.
- **Moreno Beach ~~*Drive/*~~Dr./SR-60 ~~*Eastbound*~~EB Ramps ~~*Intersection*~~intersection** (IN-37) already exceeds the LOS threshold in the ~~p.m.~~PM peak hour and traffic using the intersection would experience longer delays ~~resulting in an impact in~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding ~~an eastbound right~~a southbound left-turn lane and changing the phasing to protected would reduce project impacts to a less~~-~~-than~~-~~-significant level. At ~~the~~ time of publication, the needed improvements were already being made to the intersection.
- ~~***Lasselle Street/Cactus Avenue Intersection***~~**Martin Luther King Blvd./Canyon Crest Dr.** (IN-~~*53*~~83) already exceeds the LOS threshold in ~~both~~ the ~~a.m. and p.m.~~AM peak ~~hours~~hour and traffic using the intersection would experience longer delays ~~resulting in an impact in~~ under the Existing Plus ~~Project scenario. Constructing an additional lane for the westbound left turn,~~Build-out Scenario. Changing a northbound ~~left turn, and southbound left turn, and modifying the traffic signal to provide overlap phasing for northbound~~ through lane to a shared through-right~~ turns and eastbound right turns~~-turn lane would reduce ~~cumulative~~ project impacts to a less~~-~~-than~~-~~-significant level. ~~The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.~~
- ~~***Arlington Avenue/Victoria Avenue Intersection (IN-94)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. peak hour under Existing Plus Project conditions. Adding an additional westbound left-turn lane would reduce direct project impacts to a less than significant level.~~

This intersection is under the jurisdiction of the City of Riverside. The City ~~of Moreno Valley~~ will require the developer to pay a fair~~-~~-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because ~~the~~this intersection is outside the jurisdiction of the City of Moreno Valley~~ and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds~~, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection

- **Martin Luther King Blvd./I-215 northbound ramps** (IN-85) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ~~***Alessandro Boulevard/***~~**Central Ave./Chicago** ~~***Avenue intersection***~~**Ave.** (IN-~~*95)* is~~86) already ~~built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this, it already operates at LOS "E" in the p.m. peak period~~exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays ~~resulting in an impact in~~ under the Existing Plus ~~Project scenario. To achieve the target LOS under Existing Plus Project conditions, the addition of another northbound left~~Build-out Scenario. Changing a westbound through lane to a shared through-right-turn lane ~~(with adjusted signal timing) would be required.~~and changing a northbound through lane to a shared through-right-turn lane would reduce project impacts to a less-than-significant level.

~~•~~

This intersection is under the jurisdiction of the City of Riverside. The City ~~of Moreno Valley~~ will require the developer to pay a fair-share contribution towards this improvement as a condition of approval~~. However, because this intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made.~~ if~~The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with~~ the City of Riverside ~~to develop a mechanism for implementing improvements~~has a fair share program in effect at the time of approval that would provide ~~an acceptable LOS at this intersection.~~

- ~~***Bridge Street/Ramona Expressway Intersection (IN-122)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. and p.m. peak hours under Existing Plus Project conditions. Signalizing the intersection would reduce direct project impacts to a less than significant level. However, there is a plan~~ the remaining funds needed to ~~close this intersection in the future and replace it with a grade-separated crossing west of the current location as part of the Villages of Lakeview project. It may not be worthwhile to signalize this intersection for only a few years before closing it.~~

  ~~This intersection is under the jurisdiction of the Riverside County. However, because the~~construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Victoria Ave.** (IN-94) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Re-configuring the westbound approach to one left-turn lane, two through lanes, and one right-turn lane would reduce project impacts to a less-than-significant level.
  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Evans Rd./Orange Ave.** (IN-114) already exceeds the LOS threshold in both the AM and PM peak hours and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Perris has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Bridge St./Ramona Expy.** (IN-122) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection will be eliminated as part of planned improvements to the Ramona Expressway. Therefore no action is required by the developer.

- **Gilman Springs Rd./Bridge St.** (IN-123) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.
  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **SR-79 (Sanderson Ave.) NB/Gilman Springs** ~~***Road/Bridge Street Intersection***~~ **Rd. intersection** (IN-~~*123*~~124) already exceeds the LOS threshold in ~~a.m.~~both the AM and PM peak ~~hour~~hours and traffic using the intersection would experience longer delays ~~resulting in an~~

~~impact in~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Signalizing this intersection would reduce project impacts to a less~~-~~-than~~-~~-significant level.

This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair~~-~~-share contribution towards ~~this~~ improvement of this intersection as a condition of approval~~.~~ if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because ~~the~~this intersection is outside the jurisdiction of the City of Moreno Valley ~~and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds~~, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **SR-79 (Sanderson Ave.) SB/Gilman Springs Rd.** (IN-125) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.
  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **San Timoteo Canyon Rd./Alessandro Rd. intersection** (IN-132) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.
  This intersection is under the jurisdiction of the City of Redlands. The City will require the developer to pay for a fair share of this improvement as a condition of approval if the City of Redlands has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Redlands to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **San Timoteo Canyon Rd./Live Oak Canyon Rd. intersection** (IN-133) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.
  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- **Redlands Blvd./San Timoteo Canyon Rd. intersection** (IN-134) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection and adding an eastbound right turn and a northbound left turn lane would reduce project impacts to a less-than-significant level.

This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

Table 4.15.AW : Existing plus Project Direct Impacts and Mitigation Measures on Intersections

ID	Study Intersection	Jurisdiction	LOS Standard	Existing LOS		Existing Plus Buildout LOS		Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented ?	Is There an Existing Deficiency?	Developer Action Required
				AM	PM	AM	PM				AM	PM			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level															
IN-10	Redlands Blvd/Locust Ave	Moreno Valley	C	D	F	F	F	Yes	Signalize. Add 1 EB LT and 1 WB LT.	Yes			No	Yes	No action required. Improvement is already in RTP
IN-18	Redlands Blvd/Eucalyptus Ave	Moreno Valley	D	A	A	C	E	Yes	Add WB RT pocket. Perm / Ovlp phasing.	Yes			No	No	Implement improvement, with reimbursement agreement based on fair share contribution (19.4%)
IN-20	Oliver St/Alessandro Blvd	Moreno Valley	C	E	C	F	C	Yes	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	Yes			No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (9.8%)
IN-36	Moreno Beach Dr/Ironwood Ave	Moreno Valley	D	D	D	E	D	Yes	Add 1 NB RT lane.	Yes			No	No	Implement improvement, with reimbursement agreement based on fair share contribution (11.3%)
IN-37	Moreno Beach Dr/SR-60 EB Ramps	Moreno Valley	D	C	E	E	F	Yes	Add 1 SB LT Change Phasing to Prot.	Yes			No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (10.6%)
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)															
IN-83	Martin Luther King Blvd/Canyon Crest Dr	Riverside (City)	D	E	C	E	C	Yes	change 1 NBT to NBT-R	Yes			No	Yes	Pay fair share (0.9%)
IN-85	Martin Luther King Blvd/I-215 NB Ramps	Riverside (City)	D	E	F	E	F	Yes	Signalize.	Yes			No	Yes	Pay fair share (0.6%)
IN-86	Central Ave/Chicago Ave	Riverside (City)	D	D	F	D	F	Yes	Change WBT to WBT-R and NBT to NBT-R	Yes			No	Yes	Pay fair share (3.7%)
IN-94	Arlington Ave/Victoria Ave	Riverside (City)	D	E	D	E	D	Yes	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage)	Yes			No	Yes	Pay fair share (2.1%)
IN-114	Evans Rd/Orange Ave	Perris	C	F	E	F	E	Yes	Signalize	Yes			No	Yes	Pay fair share (1.5%)
IN-122	Bridge St/Ramona Expy	Riverside County	C	E	F	F	F	Yes	Signalize.	Yes			No	Yes	No Actions required. Intersection eliminated in the future.
IN-123	Gilman Springs Rd/Bridge St	Riverside County	C	F	F	F	F	Yes	Signalize.	Yes			No	Yes	Pay fair share (2.2%)
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	Riverside County	C	F	F	F	F	Yes	Signalize.	Yes			No	Yes	Pay fair share (3.9%)
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	Riverside County	C	E	F	F	F	Yes	Signalize.	Yes			No	Yes	Pay fair share (3.2%)
IN-132	San Timoteo Canyon Rd/Alessandro Rd	Redlands	D	F	C	F	E	Yes	Signalize.	Yes			No	Yes	Pay fair share (13.1%)
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	Riverside County	C	F	D	F	F	Yes	Signalize.	Yes			No	Yes	Pay fair share (11.5%)
IN-134	Redlands Blvd/San Timoteo Canyon Rd	Riverside County	C	F	F	F	F	Yes	Signalize. Add 1 EB Right Turn and 1 NB Left Turn.	Yes			No	Yes	Pay fair share (5.4%)

Notes:

"NB" and "SB" denote northbound and southbound respectively	"CSS" means cross-street is stop-controlled
"EB" and "WB" denote eastbound and westbound respectively	"AWS" means all-way stop
▨ Indicates LOS exceeds the target level	"RABT" means roundabout

~~Study Intersection~~		~~Jurisdiction~~	~~LOS Standard~~	~~Existing Conditions~~		~~Existing Plus Build-out~~		~~Does the Project Have a Significant Impact?~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~	~~Is Mitigation Feasible?~~	~~LOS After Feasible Mitigations are Implemented~~		~~Impact Significant After Feasible Mitigations are Implemented?~~	~~Is There an Existing Deficiency?~~	~~Developer Action Required~~
				~~AM~~	~~PM~~	~~AM~~	~~PM~~				~~AM LOS~~	~~PM LOS~~			
~~(A)~~		~~(B)~~	~~(C)~~	~~(D)~~		~~(E)~~		~~(F)~~	~~(G)~~	~~(H)~~	~~(I)~~		~~(J)~~	~~(K)~~	~~(L)~~
~~Intersection Direct Impacts that can be Mitigated to a Less-Than-Significant Level~~															
~~IN-10~~	~~Redlands Blvd/Locust Ave~~	~~Moreno Valley~~	~~C~~	~~D~~	~~E~~	~~F~~	~~F~~	~~Yes~~	~~Signalize. Add 1 EB LT and 1 WB LT.~~	~~Yes~~	~~A~~	~~A~~	~~No~~	~~Yes~~	~~Implement improvement, with reimbursement agreement based on fair share contribution (34.8%)~~
~~IN-13~~	~~Redlands Blvd/SR-60 WB ramps~~	~~Moreno Valley~~	~~D~~	~~E~~	~~F~~	~~E~~	~~F~~	~~Yes~~	~~Signalize. Add 1 NB RT.~~	~~Yes~~	~~B~~	~~B~~	~~No~~	~~Yes~~	~~Implement improvement, with reimbursement agreement based on fair share contribution (49.6%)~~
~~IN-20~~	~~Oliver Str/Alessandro Blvd~~	~~Moreno Valley~~	~~C~~	~~D~~	~~B~~	~~F~~	~~C~~	~~Yes~~	~~Change to AWS.~~	~~Yes~~	~~C~~	~~B~~	~~No~~	~~Yes~~	~~Implement improvement, with reimbursement agreement based on fair share contribution (11.5%)~~
~~IN-27~~	~~Redlands Blvd/Cactus Ave~~	~~Moreno Valley~~	~~C~~	~~B~~	~~A~~	~~F~~	~~F~~	~~Yes~~	~~Signalize. Add 1 EB LT, 1 WB LT.~~	~~Yes~~	~~B~~	~~B~~	~~No~~	~~No~~	~~Implement improvement, with reimbursement agreement based on fair share contribution (60.7%)~~

~~IN-28~~	~~Moreno Beach Dr/John Kennedy Dr~~	~~Moreno Valley~~	~~D~~	~~B~~	~~B~~	~~C~~	~~F~~	~~Yes~~	~~Add 1 WB LT Lane.~~	~~Yes~~	~~B~~	~~B~~	~~No~~	~~No~~	~~Implement improvement, with reimbursement agreement based on fair share contribution (36.3%)~~
~~IN-36~~	~~Moreno Beach Dr/Ironwood Ave~~	~~Moreno Valley~~	~~D~~	~~D~~	~~D~~	~~E~~	~~D~~	~~Yes~~	~~Add 1 NB RT lane.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~No~~	~~Implement improvement, with reimbursement agreement based on fair share contribution (14.9%)~~
~~IN-37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~Moreno Valley~~	~~D~~	~~D~~	~~E~~	~~D~~	~~F~~	~~Yes~~	~~Add 1 EB RT lane.~~	~~Yes~~	~~C~~	~~C~~	~~No~~	~~Yes~~	~~N/A*~~
~~IN-53~~	~~Lasselle Str/Cactus Ave~~	~~Moreno Valley~~	~~C~~	~~D~~	~~D~~	~~D~~	~~D~~	~~Yes~~	~~Add 1 WB LT, 1 NB LT, 1 SB LT, Add overlap phase for NB and EB RT.~~	~~Yes~~	~~D~~	~~C~~	~~No~~	~~Yes~~	~~Implement improvement, with reimbursement agreement based on fair share contribution (46.2%)~~
~~Intersection Direct Impacts that are Considered Significant and Unavoidable (either because they are not under the control of the City of Moreno Valley or because mitigation is infeasible)~~															
~~IN-94~~	~~Arlington Ave/Victoria Ave~~	~~City of Riverside~~	~~D~~	~~D~~	~~C~~	~~E~~	~~C~~	~~Yes~~	~~Add WB LT lane~~	~~Yes~~	~~D~~	~~C~~	~~No~~	~~No~~	~~Pay fair share (7.5%)~~
~~IN-95~~	~~Alessandro Blvd/Chicago Ave~~	~~City of Riverside~~	~~D~~	~~D~~	~~E~~	~~D~~	~~E~~	~~Yes~~	~~Add NB LT lane; adjust signal timings.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~Pay fair share (10.3%)~~
~~IN-122~~	~~Bridge St/Ramona Expy~~	~~Riverside County~~	~~C~~	~~C~~	~~C~~	~~D~~	~~D~~	~~This intersection is due to be closed in the near future and replaced by a grade separated intersection further west. No improvements are warranted~~							
~~IN-123~~	~~Gilman Springs Rd/Bridge Str~~	~~Riverside County~~	~~C~~	~~D~~	~~C~~	~~E~~	~~D~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~A~~	~~A~~	~~No~~	~~Yes~~	~~Pay fair share (25.7%)~~
~~IN-124~~	~~SR-79(Sanderson Ave) NB/Gilman Springs Rd~~	~~Riverside County~~	~~C~~	~~D~~	~~D~~	~~F~~	~~E~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~A~~	~~A~~	~~No~~	~~Yes~~	~~Pay fair share (13.6%)~~
~~IN-125~~	~~SR-79(Sanderson Ave) SB/Gilman Springs Rd~~	~~Riverside County~~	~~C~~	~~D~~	~~E~~	~~E~~	~~F~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~A~~	~~A~~	~~No~~	~~Yes~~	~~Pay fair share (20.7%)~~
~~IN-132~~	~~San Timoteo Canyon Rd/Alessandro Rd~~	~~Redlands~~	~~D~~	~~F~~	~~C~~	~~F~~	~~F~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~D~~	~~B~~	~~No~~	~~Yes~~	~~Pay fair share (33.6%)~~
~~IN-133~~	~~San Timoteo Canyon Rd/Live Oak Canyon Rd~~	~~Riverside County~~	~~C~~	~~F~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~B~~	~~B~~	~~No~~	~~Yes~~	~~Pay fair share (32.1%)~~
~~IN-134~~	~~Redlands Blvd/San Timoteo Canyon Rd~~	~~Riverside County~~	~~C~~	~~F~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~Signalize. Add 1 EB RT. Also add EB RT overlap phase.~~	~~Yes~~	~~A~~	~~A~~	~~No~~	~~Yes~~	~~Pay fair share (34.1%)~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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- ***SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road Intersection (IN-124)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of the Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the County of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road Intersection (IN-125)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***San Timoteo Canyon Road/Alessandro Road Intersection (IN-132)*** already exceeds the LOS threshold in the a.m. peak hour and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Redlands. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Redlands to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***San Timoteo Canyon Road/Live Oak Canyon Road Intersection (IN-133)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***Redlands Boulevard/San Timoteo Canyon Road Intersection (IN-134)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection and adding an eastbound right-turn storage lane with an overlap phase would reduce project impacts to a less than significant level.

This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

Freeway Direct Impacts. Unlike the surface streets, where intersection improvements are generally both feasible and desirable, the strategic situation for freeways in western Riverside County is such that major freeway improvements are becoming increasingly problematic over time. A key problem is that the rights-of way are essentially built out in many locations and cannot be expanded without severe impacts to existing communities (loss of homes and businesses, visual intrusion, increased noise and air quality impacts, etc.) and high costs to replace overcrossing structures. Moreover, there is a growing consensus that over-provision of freeway capacity facilitates long-distance commuting by car and leads to more auto-oriented residential development on the urban fringe, which in turn increases greenhouse gas emissions. This has resulted in a policy shift away from continued expansion of the freeway system, as reflected, for example, in the Riverside County Transportation Commission Ordinance No. 02-001 which reads in part:

> *"State Routes 91 and 60 and Interstate Routes 15 and 215 cannot cost effectively be widened enough to provide for the traffic expected as Riverside County continues to grow. In addition to the specific highway improvements listed in Section 1 above, congestion relief for these highways will require that new north–south and east-west transportation corridors will have to be developed to provide mobility within Riverside County and between Riverside County and its neighboring Orange and San Bernardino Counties."*

In other words, as a matter of policy, with the exception of spot improvements in some specific locations, the overall strategy to relieve congestion on SR-60 and SR-91 is to improve the capacity of surface streets that could serve as alternate routes to freeways. The policy to forego further widening of some sections of SR-60 and SR-91 is also noted in the Riverside County Congestion Management Program (CMP) which permits LOS F for some of the study freeway sections because those sections already operated at LOS F when the CMP was established in 1991. For these reasons, some of the identified mitigation measures may not be pursued even if they are deemed feasible in an engineering sense. In such cases, the project's payment into the TUMF and DIF programs and funding for the surface street improvements would constitute their mitigation because they help create viable alternative routes that would substitute for freeway travel for some trips. For the purposes of this EIR, however, impacts to freeways were treated as significant and unavoidable.

The project's direct impacts on the regional freeway system are summarized in Table 4.15.AX. ~~These impacts and the associated improvements necessary to obtain the target LOS would be:~~

The freeways studied in this report are state facilities outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvements of these freeways as a condition of approval. However, because the freeways are outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place either for collecting fees from

WLC or for ensuring the availability of the non-project portion of the needed funds[12], the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Direct Impacts on Freeway Mainline Basic Sections***

- **Eastbound SR-60 from ~~*Euclid Avenue*~~Ramona Ave. to ~~*Grove Avenue*~~Central Ave.** (F-~~6~~3) already exceeds the LOS threshold in the ~~p.m.~~AM and PM peak ~~hour~~hours and traffic density would increase ~~resulting in an impact in~~ under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Eastbound SR-60 from Mountain Ave. to Euclid Ave.** (F-5) currently operates at an acceptable LOS in the AM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Eastbound SR-60 from Euclid Ave. to Grove Ave.** (F-6) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Eastbound SR-60 from Martin Luther King Blvd. to Central Ave.** (F-24) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.

  - ~~o~~ **Eastbound SR-60 from Pigeon Pass Rd./Frederick St. to Heacock St.** (F-29) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.~~[13]~~ SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the

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[12] The City and Highland Fairview are providing funds for a study, currently underway, to determine the feasibility of establishing a freeway impact fee to mitigate the effects of truck traffic from new logistics warehouses in Riverside County.

~~[13] A transportation concept report is Caltrans' analysis of long-range demand for a highway.~~

non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ~~o~~ **Eastbound SR-**~~*60*~~**91 from** ~~*Martin Luther King Boulevard*~~**Pierce St. to** ~~*Central Avenue*~~**Magnolia Ave.** (F-~~*24*~~41) already exceeds the LOS threshold in the ~~p.m.~~AM and PM peak ~~hour~~hours and traffic density would increase ~~resulting in an impact in~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. ~~The Transportation Concept Report does not call for further widening of this section, because further widening could only be accomplished by eliminating the existing shoulder resulting in no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.~~
- ~~o *Westbound SR-60 from I-215 to Day Street (F-27)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~SR-60~~SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ~~*Westbound*~~**Eastbound SR-**~~*60*~~**91 from** ~~*Pigeon Pass Road/Frederick Street*~~**Adams St. to** ~~*Heacock Street*~~**Madison St.** (F-~~*29) currently operates at an acceptable LOS but would exceed*~~46) already exceeds the LOS threshold in the ~~p.m.~~AM and PM peak ~~hour~~hours and traffic density would increase under the Existing Plus ~~Project conditions.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.
    - ~~The addition of~~**Eastbound SR-91 from Central Ave. to 14th St.** (F-49) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a ~~lane is~~mixed-flow lane would bring the LOS to within the target threshold.

SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified ~~in the Transportation Concept Report~~improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from Eucalyptus Ave. to SR-60** (F-95) currently operates at an acceptable LOS but would exceed the LOS threshold in the PM peak hour under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from Auto Plaza Dr. to Mill St.** (F-80) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Grove Ave. to Vineyard Ave.** (F-7) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Westbound SR-60 from Vineyard Ave. to Archibald Ave.** (F-8) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Westbound SR-60 from Fair Isle Dr./Box Springs Rd. to I-215** (F-26) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

~~o~~ **Westbound SR-~~*91*~~60 from ~~*Pierce Street*~~I-215 to ~~*Magnolia Avenue*~~Day St.** (F-~~*41*~~27) already exceeds the LOS threshold in the ~~p.m.~~AM peak hour and traffic density would increase ~~resulting in an impact in~~ under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

~~SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.~~

- ~~*Westbound SR-91 from Magnolia Avenue to La Sierra Avenue (F-42)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow~~ The addition of a lane ~~would bring the LOS to within~~

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~~Table 4.15.AX: Existing Plus Project Freeway Impacts and Mitigations (note: this is a completely new table to replace previous Tables 4.15.AW, 4.15.AX, and 4.15.AY)~~

Study Facility		Juris-diction	LOS Standard	Determination of Impact: Existing AM	Existing PM	Existing Plus Build-out AM	Existing Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-6	EB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (11.6%)
F-24	EB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	C	**F**	D	**F**	Yes	Add one mixed flow lane.	No	D	**F**	Yes	Yes	N/A*
F-27	WB SR-60 I-215 to Day St	Caltrans	D	**F**	B	**F**	C	Yes	Add one mixed flow lane.	Yes	D	B	No	Yes	Pay fair share (52.7%)
F-29	WB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	C	D	C	**E**	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (36.8%)
F-41	WB SR-91 Pierce St to Magnolia Ave	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (9.4%)
F-42	WB SR-91 Magnolia Ave to La Sierra Ave	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	No	C	**F**	Yes	Yes	N/A*
F-49	EB SR-91 Central Ave to 14th St	Caltrans	D	D	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (3.3%)
F-71	NB I-215 SR-74 to Redlands Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A**
F-71	SB I-215 SR-74 to Redlands Ave	Caltrans	D	**E**	D	**F**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A**
F-83	SB I-215 Baseline Rd to Highland Ave	Caltrans	D	**E**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A**
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-21	EB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	B	**E**	B	**E**	Yes	Add one mixed flow lane.	No	B	**E**	Yes	Yes	N/A*
W-22	EB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	B	**E**	C	**E**	Yes	Add a second off-ramp lane.	Yes	B	D	No	Yes	Pay fair share (10.1%)
W-25	EB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	B	D	C	**E**	Yes	Add one mixed flow lane.	No	C	**E**	Yes	No	N/A*
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	**E**	D	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	N/A**
W-48	EB SR-91 Arlington Ave to Central Ave	Caltrans	D	**E**	B	**E**	B	Yes	Add a second off-ramp lane.	Yes	D	B	No	Yes	Pay fair share (6.3%)
W-50	WB SR-91 14th to University Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add a second off-ramp lane.	Yes	C	D	No	Yes	Pay fair share (6.0%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-2	SR-60 EB On-Ramp from Central Ave	Caltrans	D	B	**F**	C	**F**	Yes	Add one mixed flow lane.	No	C	**F**	Yes	Yes	N/A*

▨ Indicates LOS exceeds the target level

** Improvement identified in the current RTP and planned to be completed independent of the WLC project

* Not applicable because mitigation is infeasible

- ~~Source: Traffic Impact Analysis~~is identified in the Transportation Concept Report~~ for the World Logistics Center, Parsons Brinckerhoff, September 2014~~.

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~~the target threshold. However, this could only be accomplished by eliminating the existing shoulder resulting in no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.~~

~~o *Eastbound*~~ SR-~~*91 from Central Avenue to 14th Street (F-49)* currently operates at an acceptable LOS but would exceed the LOS threshold in the a.m. peak hour under Existing Plus Project conditions. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~SR-91~~60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution ~~toward~~towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ~~*Northbound I-215*~~**Westbound SR-60 from** ~~*SR-74/Case Road*~~**Pigeon Pass Rd. to** ~~*Redlands Boulevard*~~**Heacock St.** (F-~~*71*~~29) already exceeds the LOS threshold in the ~~p.m.~~AM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  ~~resulting in an impact~~SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from McKinley St. to Pierce St.** (F-40) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Pierce St. to Magnolia Ave.** (F-41) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ~~o~~ **Westbound SR-91 from Magnolia Ave. to La Sierra Ave.** (F-42) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. ~~The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.~~

  ~~*Southbound I-215 from SR-74/Case Road to Redlands Boulevard (F-71*~~SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ~~o~~ **Westbound SR-91 from La Sierra Ave. to Tyler St.** (F-43) already exceeds the LOS threshold in the ~~a.m.~~PM peak hour and traffic density would increase ~~resulting in an impact in~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. ~~The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.~~
- ~~o *Southbound I-215 from Baseline Road to Highland Avenue (F-83)* already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the impact to a less than significant level. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.~~

~~• ***Direct Impacts on Freeway Weaving Sections***~~

- ~~o *Eastbound SR-60 from SR-91 to W. Blaine Street/3rd Street (W-21)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.~~
- ~~o *Eastbound SR-60 from W Blaine Street/3rd Street to University Avenue (W-22)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a second off-ramp lane would bring the LOS to within the target threshold.~~

  ~~SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.~~
- ~~o *Eastbound SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road (W-25)* currently operates near capacity and the addition of the project would increase traffic above the target LOS threshold. Adding a mixed-flow lane would reduce the impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.~~

~~*Westbound SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road (W-25)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level and bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.~~

~~o *Eastbound SR-91: Arlington Avenue to Central Avenue (W-48)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase, resulting in an impact in the Existing Plus Project scenario. Adding a second off-ramp lane would bring the LOS to within the target threshold.~~

SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

~~o~~• **Westbound SR-91 from** ~~*14th Street*~~**Tyler St.** **to** ~~*University Avenue (W-50*~~**Van Buren Blvd.** (F-44) already exceeds the LOS threshold in the ~~p.m.~~PM peak hour and traffic density would increase ~~resulting in an impact in~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a ~~second off-ramp~~mixed-flow lane would ~~reduce~~bring the ~~impact~~LOS to ~~a less than significant level.~~within the target threshold.

SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

~~• ***Direct Impacts on Freeway Ramps***~~

~~o~~ ~~*Eastbound*~~**Westbound SR-**~~*60*~~**91 from** ~~*On-Ramp from Central Avenue (R-2)*~~ **Van Buren Blvd. to Adams St.** (F-45) already exceeds the LOS threshold in the ~~p.m.~~PM peak hour and traffic density would increase ~~resulting in an impact in~~under the Existing Plus ~~Project scenario. Adding a mixed-flow lane would reduce the impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.~~

~~PROJECT CUMULATIVE IMPACTS (LONG-TERM)~~

~~The long-term cumulative impacts of the WLC project were determined by comparing the LOS of study facilities under 2035 No Project and 2035 Plus Project conditions.~~

~~The long-term cumulative impacts of the project and the associated improvement measures necessary to obtain the target LOS are described below. In cases where the facility had mitigation measures identified for direct (Existing Plus Project) impacts and requires additional improvements under cumulative conditions, the improvements described below are the improvements required beyond those described in the previous section on direct impacts.~~

~~**Cumulative Impacts on Road Sections.** The project's direct impacts on road sections are summarized in Table 4.15.AY. These impacts would be:~~

- ~~***Gilman Springs Road from Alessandro Boulevard to Bridge Street (S-16)*** should be widened from 2 lanes to 4 lanes in the short term (see previous section on direct impacts) and may need to be further widened from 4 lanes to 8 lanes sometime in the 2022–2035 timeframe. Gilman Springs Road is a TUMF facility. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to six lanes between Alessandro Boulevard and Bridge Street, or even preclude any widening at all. The project's impacts on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS on this road to the extent feasible.~~

~~**Cumulative Impacts on Study Intersections.** The WLC project's cumulative impacts on study intersections are summarized in Table 4.15.AZ, and described in detail below:~~

- ~~***Redlands Boulevard/Ironwood Avenue Intersection (IN-11)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second southbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~
- ~~***Theodore Street/Ironwood Avenue Intersection (IN-12)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~
- ~~***Moreno Beach Drive/Cactus Avenue Intersection (IN-25)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second eastbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~
- ~~***Redlands Boulevard/Cactus Avenue intersection (IN-27)*** requires signalization and the installation of eastbound and westbound left-turn lanes in the short term (see previous section on direct impacts) and may exceed the target LOS threshold at some point in the 2022-to 2035 period. Constructing a westbound left-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.~~

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~~Table 4.15.AY: Year 2035 Cumulative Impacts and Mitigation Measures on Roadway Segments (note: this is a completely new table to replace previous Tables 4.15.AZ)~~

Roadway		From	To	Jurisdiction	LOS Standard*	2035 No-Project LOS	2035 Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Cumulative Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	D	**F**	Yes	Widen to 8 lanes	Partially (to 6 lanes)	**F**	**Yes**	**Yes**	Pay Fair Share (12.2%)

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** WLC's impacts would already be mitigated with the measures identified for direct impacts.

▨ Indicates LOS exceeds the target level

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

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~~Table 4.15.AZ: Year 2035 Cumulative Intersection Impacts and Mitigation~~

~~Study Intersection~~		~~Jurisdiction~~	~~LOS Standard~~	~~2035 No-Project~~		~~2035 Plus Build-out~~		~~Does the Project Have a Significant Impact?~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~	~~Is Mitigation Feasible?~~	~~LOS After Feasible Mitigations are Implemented~~		~~Impact Significant After Feasible Mitigations are Implemented?~~	~~TUMF Facility?~~	~~DIF Facility?~~	~~Developer Action Required~~
				~~AM~~	~~PM~~	~~AM~~	~~PM~~				~~AM LOS~~	~~PM LOS~~				
~~(A)~~		~~(B)~~	~~(C)~~	~~(D)~~		~~(E)~~		~~(F)~~	~~(G)~~	~~(H)~~	~~(I)~~		~~(J)~~	~~(K)~~	~~(L)~~	~~(M)~~
~~Intersection Cumulative Impacts that can be Mitigated to a Less-Than-Significant Level~~																
~~IN-11~~	~~Redlands Blvd/Ironwood Ave~~	~~Moreno Valley~~	~~D~~	~~D~~	~~D~~	~~D~~	~~E~~	~~Yes~~	~~Add 1 SB LT lane.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~Yes~~	~~Pay DIF~~
~~IN-12~~	~~Theodore Street/Ironwood Avenue~~	~~Moreno Valley~~	~~D~~	~~C~~	~~F~~	~~E~~	~~F~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~A~~	~~A~~	~~No~~	~~No~~	~~Yes~~	~~Pay DIF~~
~~IN-25~~	~~Moreno Beach Dr/Cactus Ave~~	~~Moreno Valley~~	~~C~~	~~C~~	~~C~~	~~C~~	~~D~~	~~Yes~~	~~Add 1 EB LT lane.~~	~~Yes~~	~~B~~	~~C~~	~~No~~	~~No~~	~~Yes~~	~~Pay DIF~~
~~IN-27~~	~~Redlands Blvd/Cactus Ave~~	~~Moreno Valley~~	~~C~~	~~B~~	~~B~~	~~F~~	~~F~~	~~Yes~~	~~Add 1 WB LT lane.~~	~~Yes~~	~~B~~	~~C~~	~~No~~	~~No~~	~~No~~	~~Pay fair share (60.7%)~~
~~IN-35~~	~~Moreno Beach Dr/Locust Ave~~	~~Moreno Valley~~	~~C~~	~~D~~	~~E~~	~~D~~	~~F~~	~~Yes~~	~~Signalize. Add 1 WB LT lane.~~	~~Yes~~	~~A~~	~~B~~	~~No~~	~~Yes~~	~~Yes~~	~~Pay DIF~~
~~IN-36~~	~~Moreno Beach Drive & Ironwood Avenue~~	~~Moreno Valley~~	~~D~~	~~D~~	~~D~~	~~D~~	~~E~~	~~Yes~~	~~Change N/S from split to protected LT phase. Add NB and SB LT lanes.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~Yes~~	~~Pay DIF~~
~~IN-37~~	~~Moreno Beach Dr/SR-60 EB Ramps~~	~~Moreno Valley~~	~~D~~	~~F~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~Change EB from 1 shared LT/TH to 1 LT and 1 TH. Add 1 SB LT lane. Change split phasing on E/W movement to protected LT phasing.~~	~~Yes~~	~~C~~	~~D~~	~~No~~	~~Yes~~	~~Yes~~	~~Pay DIF~~
~~IN-39~~	~~Iris Ave/Perris Blvd~~	~~Moreno Valley~~	~~D~~	~~E~~	~~E~~	~~E~~	~~F~~	~~Yes~~	~~Add 1 WB LT and 1 SB LT lane.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~Yes~~	~~Pay DIF~~
~~IN-40~~	~~Kitching St/Iris Ave~~	~~Moreno Valley~~	~~C~~	~~E~~	~~F~~	~~E~~	~~F~~	~~Yes~~	~~Add 1 WB LT and change NB shared TH/RT to RT lane and add another RT lane. Provide overlap phase for NB RT. Add 1 EB TH lane.~~	~~Yes~~	~~C~~	~~C~~	~~No~~	~~No~~	~~No~~	~~Pay fair share (16%)~~
~~IN-41~~	~~Lasselle Str/Iris Ave~~	~~Moreno Valley~~	~~D~~	~~C~~	~~E~~	~~D~~	~~F~~	~~Yes~~	~~Add 1 WB LT lane (resulting 3 turn lanes), and 1 EB RT~~ ~~Need to widen Lasselle in the SB to have 3 receiving lanes.~~	~~Yes~~	~~C~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-57~~	~~Graham Str/Alessandro Blvd~~	~~Moreno Valley~~	~~D~~	~~D~~	~~F~~	~~D~~	~~F~~	~~Yes~~	~~Add 1 NB LT and 1 WB LT lanes.~~	~~Yes~~	~~C~~	~~D~~	~~No~~	~~Yes~~	~~Yes~~	~~Pay DIF~~
~~IN-74~~	~~Elsworth Str/Cactus Ave~~	~~Moreno Valley~~	~~D~~	~~F~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~Widen NB approach and change NB lane geometry from: 1 LT and 1 shared LT/TH/RT lanes to 3 LTs and 1 TH and 1 RT. Add 1 WB LT and EB RT lanes.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~Yes~~	~~Pay DIF~~
~~Intersection Cumulative Impacts that are Considered Significant and Unavoidable (because they are not feasible, not under the control of the City of Moreno Valley, or are not part of an existing fee program)~~																
~~IN-66~~	~~Alessandro Blvd/Sycamore Canyon Blvd~~	~~City of Riverside~~	~~D~~	~~D~~	~~F~~	~~D~~	~~F~~	~~Yes~~	~~Add SB RT overlap.~~	~~Yes~~	~~C~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-73~~	~~I-215 NB Ramps/Cactus Ave~~	~~March AFB~~	~~D~~	~~E~~	~~F~~	~~E~~	~~F~~	~~Yes~~	~~Add 1 EB RT, 1 WB RT, 1 NB LT, and 1 SB LT lanes.~~	~~Yes~~	~~B~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-75~~	~~Central Ave/Lochmoor Dr.~~	~~City of Riverside~~	~~D~~	~~B~~	~~E~~	~~B~~	~~F~~	~~Yes~~	~~Change NB approach to 1 LT and 1 shared LT/RT lane.~~	~~Yes~~	~~B~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-80~~	~~Alessandro Blvd/Mission Grove Pkwy~~	~~City of Riverside~~	~~D~~	~~C~~	~~E~~	~~C~~	~~F~~	~~Yes~~	~~Add EB LT lane. Add WB LT lane. Add NB TH lane.~~	~~Yes~~	~~C~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-85~~	~~Martin Luther King Blvd/I-215 NB Ramps~~	~~City of Riverside~~	~~D~~	~~E~~	~~C~~	~~E~~	~~C~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~B~~	~~A~~	~~No~~	~~No~~	~~No~~	~~Pay fair share (6.2%)~~
~~IN-86~~	~~Central Ave/Chicago Ave~~	~~City of Riverside~~	~~D~~	~~D~~	~~E~~	~~E~~	~~F~~	~~Yes~~	~~Add NB RT overlap.~~	~~Yes~~	~~C~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-88~~	~~Central Ave/Canyon Crest Dr~~	~~City of Riverside~~	~~D~~	~~D~~	~~F~~	~~D~~	~~F~~	~~Yes~~	~~Change EB approach to 1 LT, 2 THs and 1 RT. Add WB LT lane. Add NB LT lane. Change SB approach to 2 LTs, 2 THs and 1 RT lane. Adjust splits.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-90~~	~~Arlington Ave/Riverside Ave/SR-91 SB Ramps~~	~~City of Riverside~~	~~D~~	~~D~~	~~E~~	~~D~~	~~E~~	~~Yes~~	~~Add SB LT lane.~~	~~Yes~~	~~C~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-94~~	~~Arlington Ave/Victoria Ave~~	~~City of Riverside~~	~~D~~	~~F~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~Add EB TH lane. Add WB LT and RT. Adjust timings.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-95~~	~~Alessandro Blvd/Chicago Ave~~	~~City of Riverside~~	~~D~~	~~E~~	~~F~~	~~E~~	~~F~~	~~Yes~~	~~Add EB TH lane. Add WB LT lane. Add WB TH lane. Add NB LT lane. Reconfigure SB approach to 3 LTs, 3 THs and 1 RT.~~	~~No~~	~~E~~	~~F~~	~~Yes~~	~~Yes~~	~~Yes~~	~~N/A*~~
~~IN-98~~	~~Alessandro Blvd/Canyon Crest Dr~~	~~City of Riverside~~	~~D~~	~~E~~	~~F~~	~~E~~	~~F~~	~~Yes~~	~~Reconfigure EB approach to 1 LT, 1 TH and 2 RTs. Add WB TH lane. Add NB LT and NB RT lane. Reconfigure SB approach to 1 LT, 3 THs and 1 shared TH/RT lane.~~	~~Yes~~	~~D~~	~~D~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~

~~**Table 4.15.AZ: Year 2035 Cumulative Intersection Impacts and Mitigation**~~

~~Study Intersection~~		~~Jurisdiction~~	~~LOS Standard~~	~~2035 No-Project~~		~~2035 Plus Build-out~~		~~Does the Project Have a Significant Impact?~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~	~~Is Mitigation Feasible?~~	~~LOS After Feasible Mitigations are Implemented~~		~~Impact Significant After Feasible Mitigations are Implemented?~~	~~TUMF Facility?~~	~~DIF Facility?~~	~~Developer Action Required~~
				~~AM~~	~~PM~~	~~AM~~	~~PM~~				~~AM LOS~~	~~PM LOS~~				
~~(A)~~		~~(B)~~	~~(C)~~	~~(D)~~		~~(E)~~		~~(F)~~	~~(G)~~	~~(H)~~	~~(I)~~		~~(J)~~	~~(K)~~	~~(L)~~	~~(M)~~
~~IN-101~~	~~Ramona Expy/Indian St~~	~~Perris~~	~~E~~	~~F~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~Add 1 EB RT lane. Add 2nd NB LT and 1 NB RT. Provide signal phase overlap for all RTs.~~	~~Yes~~	~~E~~	~~E~~	~~No**~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-107~~	~~Evans Rd/Rider St~~	~~Perris~~	~~C~~	~~D~~	~~C~~	~~D~~	~~C~~	~~Yes~~	~~Reconfigure SB approach to include 1 LT, 2 THs and 1 RT.~~	~~Yes~~	~~C~~	~~C~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-129~~	~~W 6th St/California Ave~~	~~Beaumont~~	~~C~~	~~F~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~Signalize.~~	~~Yes~~	~~B~~	~~C~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-130~~	~~W 6th St/Beaumont Ave~~	~~Beaumont~~	~~C~~	~~D~~	~~F~~	~~D~~	~~F~~	~~Yes~~	~~Reconfigure EB approach to 2 LTs, 2 THs and 1 RT. Make EB/WB LT protected phasing. Add 1 WB LT and 1 WB TH lane. Reconfigure NB approach to 1 LT, 2 THs and 1 RT. Add SB LT.~~	~~Yes~~	~~C~~	~~C~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~
~~IN-131~~	~~Reche Canyon Rd/Reche Vista Dr~~	~~Riverside County~~	~~C~~	~~D~~	~~F~~	~~D~~	~~F~~	~~Yes~~	~~Adjusted NB approach to a dedicated LT and a shared LT/RT lane.~~	~~Yes~~	~~B~~	~~C~~	~~No~~	~~Yes~~	~~No~~	~~Pay TUMF~~

~~Notes:~~ ~~"CSS" means cross-street is stop-controlled~~ ~~"RABT" means roundabout~~ ~~"NB" and "SB" denote northbound and southbound respectively~~ ~~"LT" and "RT" denote left turn and right turn respectively~~

~~"AWS" means all-way stop~~ ~~* Not applicable because mitigation is infeasible~~ ~~"EB" and "WB" denote eastbound and westbound respectively~~ ~~"TH" denotes through lanes~~

▨ ~~Indicates LOS exceeds the target level~~ ~~** The "Plus Build-out and Mitigations" condition is better than the "No Project" condition~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~***Moreno Beach Drive/Locust Avenue Intersection (IN-35)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection and constructing a westbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~

- ~~***Moreno Beach Drive/Ironwood Avenue Intersection (IN-36)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Adding northbound and southbound left-turn lanes and changing north/south lefts from split to protected left-turn phase would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF fees in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~
- ~~***Moreno Beach Drive/SR-60 EB Ramps Intersection (IN-37)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a southbound left-turn lane and changing the eastbound approach to one left-turn lane and one through lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~
- ~~***Iris Avenue/Perris Boulevard Intersection (IN-39)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second westbound left-turn lane and a second southbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~
- ~~***Kitching Street/Iris Avenue Intersection (IN-40)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a third eastbound through lane, a second westbound left-turn lane, widening and reconfiguring the northbound approach to provide one left-turn lane, one through lanes, and two right-turn lanes, and modifying the traffic signal to provide overlap phasing for the northbound right-turn movement would reduce cumulative impacts to a less than significant level. The City will impose as a condition of approval that the WLC will provide fair-share funds to cover the cost of this improvement, which the City will use to construct the needed improvements.~~
- ~~***Lasselle Street/Iris Avenue Intersection (IN-41)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Adding a third westbound left-turn lane and an eastbound right-turn lane would reduce cumulative impacts to a less than significant level. This improvement is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.~~
- ~~***Graham Street/Alessandro Boulevard Intersection (IN-57)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a northbound left-turn lane and a westbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~
  - ~~***Alessandro Boulevard/Sycamore Canyon Boulevard Intersection (IN-66)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Providing a southbound right-turn overlap phase at the signal would reduce cumulative impacts to a less than significant level.~~Build-out Scenario.

~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and~~

~~payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***I-215 NB Ramps/Cactus Avenue Intersection (IN-73)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing an eastbound right-turn lane, a westbound right-turn lane, a second northbound left-turn lane, and a second southbound left-turn lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the March AFB Joint Powers Authority. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the March AFB Joint Powers Authority and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Elsworth Street/Cactus Avenue Intersection (IN-74)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Widening the northbound approach to provide three left-turn lanes, one through lane, and one right-turn lane, and adding a westbound left-turn lane and eastbound right-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.~~

- ~~***Central Avenue/Lochmoor Drive Intersection (IN-75)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Converting the northbound approach to one left-turn lane and a shared left-right-turn lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Alessandro Boulevard/Mission Grove Parkway Intersection (IN-80)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Modifying the traffic signal to provide an additional eastbound left-turn, westbound left-turn, and northbound through lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Martin Luther King Boulevard/I-215 Northbound Ramps Intersection (IN-85)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Riverside. It is not eligible for TUMF funding. The City will work with the City of Riverside to establish a mechanism for collecting and distributing payments from developers for inter-jurisdictional impacts not covered by the TUMF program. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.~~

    - ~~***Central Avenue/Chicago Avenue. Intersection (IN-86)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Modifying the traffic signal to provide overlap phasing for the northbound right-turn movement would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Central Avenue/Canyon Crest Drive Intersection (IN-88)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a southbound right-turn lane (and adjust signal timings), an eastbound right-turn lane, a second westbound left-turn lane, and a second northbound left-turn lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps Intersection (IN-90)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a third southbound left-turn lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Arlington Avenue/Victoria Avenue Intersection (IN-94)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a fourth eastbound through lane, a second westbound left-turn lane, and a second westbound right-turn lane would reduce cumulative impacts to a less than significant level.~~

~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Alessandro Boulevard/Chicago Avenue Intersection (IN-95).*** This intersection is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this, it already operates at LOS F in the p.m. peak period. To achieve the target LOS in 2035 would require the addition of lanes to the eastbound through, westbound left-turn, westbound though, northbound left-turn, southbound left-turn, and southbound right-turn movements. There are established residential communities on each corner that would be impacted by such a widening or by grade separation. These mitigation measures are thus likely to be infeasible, and the project impact at this location is therefore considered to be a significant and unavoidable.~~

- ~~***Alessandro Boulevard/Canyon Crest Drive Intersection (IN-98)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Widening and reconfiguring the eastbound approach to provide one left-turn lane, one through lane, and two right-turn lanes; adding an additional westbound through lane; adding an additional northbound left-turn and northbound right-turn lane; and reconfiguring the southbound approach to one left-turn lane, three through lanes, and one shared through-right-turn lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Ramona Expressway/Indian Street Intersection (IN-101)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing one eastbound right-turn lane, a second northbound left-turn lane, and one northbound right-turn lane, and modifying the traffic signal to provide overlap phasing for all right-turn movements would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***Evans Road/Rider Street Intersection (IN-107)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing an exclusive right-turn lane on the southbound approach would reduce cumulative impacts to a less than significant level.~~

~~This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ~~***W. 6th Street/California Avenue Intersection (IN-129)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing this intersection would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the City of Beaumont. Although it is a TUMF facility, signalization is not currently eligible for TUMF funding. The City will work with the City of Beaumont to establish a mechanism for collecting and distributing payments from developers for inter-jurisdictional impacts not covered by the TUMF program. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.~~

- ~~***W. 6th Street/Beaumont Avenue Intersection (IN-130)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a northbound right-turn lane, an eastbound right-turn lane, a second southbound left-turn lane, a second westbound left-turn lane, removing on-street parking and restriping to provide a second westbound through lane, modifying the traffic signal to provide protected phasing for eastbound and westbound left-turn movements, and overlap phasing for northbound and eastbound right-turn movements would reduce cumulative impacts to a less than significant level.~~

  ~~There are established commercial buildings on the corners on the northern part of the intersection that would be impacted by such a widening. These mitigation measures are thus infeasible, and the project impact at this location is therefore considered to be significant and unavoidable.~~

- ~~***Reche Canyon Road/Reche Vista Drive Intersection (IN-131)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Converting the existing right-turn lane into a shared left-turn-and-right-turn lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the Riverside County. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

~~**Cumulative Freeway Mainline Mitigations.** The WLC's cumulative impacts on the freeways system are summarized in Table 4.15.BA, and described in detail below:~~

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~~Table 4.15.BA: Year 2035 Cumulative Impacts and Mitigation Measures on Freeway Facilities~~

Study Facility		Juris-diction	LOS Standard	Determination of Impact: 2035 No-Project AM	2035 No-Project PM	2035 Plus Build-out AM	2035 Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-2	EB SR-60 Reservoir St to Ramona Ave	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	D	No	No	Pay fair share (9.5%)
F-2	WB SR-60 Reservoir St to Ramona Ave	Caltrans	D	E	D	E	E	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (7.9%)
F-3	EB SR-60 Ramona Ave to Central Ave	Caltrans	D	E	F	E	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (9.5%)
F-4	EB SR-60 Central Ave to Mountain Ave	Caltrans	D	E	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (10.1%)
F-5	EB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	E	D	F	D	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (10.6%)
F-5	WB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (6.9%)
F-6	WB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.0%)
F-7	EB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (11.3%)
F-7	WB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.5%)
F-8	EB SR-60 Vineyard Ave to Archibald Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (11.9%)
F-9	EB SR-60 Archibald Ave to Haven Ave	Caltrans	D	E	D	E	D	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (14.2%)
F-17	EB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (19.1%)
F-17	WB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (9.42%)
F-18	EB SR-60 Rubidoux Blvd to Market St	Caltrans	D	E	C	F	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (22.7%)
F-19	EB SR-60 Market St to Main St	Caltrans	D	E	E	E	F	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (20.9%)
F-19	WB SR-60 Market St to Main St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.7%)
F-20	WB SR-60 Main to SR-91	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.9%)
F-24	WB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (18.3%)
F-26	WB SR-60 Fair Isle Dr/Box Springs Rd to I-215	Caltrans	D	D	F	D	F	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (9.0%)
F-29	EB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (19.5%)
F-30	EB SR-60 Heacock St to Perris Blvd	Caltrans	D	C	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (13.1%)
F-30	WB SR-60 Heacock St to Perris Blvd	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (37.2%)
F-34	WB SR-60 Redlands Blvd to Theodore St	Caltrans	D	E	D	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (12.5%)
F-36	EB SR-60 Gilman Springs Rd to Jack Rabbit Trail	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (4.9%)
F-37	EB SR-60 Jack Rabbit Trail to Potrero Blvd	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (7.0%)
F-41	EB SR-91 Pierce St to Magnolia Ave	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (12.4%)
F-43	EB SR-91 La Sierra Ave to Tyler St	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (10.0%)
F-43	WB SR-91 La Sierra Ave to Tyler St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (10.9%)
F-44	WB SR-91 Tyler St to Van Buren Blvd	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.7%)

▨ Indicates LOS exceeds the target level

** Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

* Not applicable because mitigation is infeasible

*** The mitigation measures are in addition to the mitigation measure needed for direct Project impacts (see Table 76)

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

~~Table 4.15.BA: Year 2035 Cumulative Impacts and Mitigation Measures on Freeway Facilities (continued)~~

Study Facility		Juris-diction	LOS Standard	Determination of Impact					Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
				2035 No-Project		2035 Plus Build-out		Does the Project Have a Significant Impact?							
				AM	PM	AM	PM				AM LOS	PM LOS			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
F-45	WB SR-91 Van Buren Blvd to Adam St	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (8.2%)
F-46	EB SR-91 Adam St to Madison St	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	No	**E**	C	Yes	No	N/A*
F-47	WB SR-91 Madison St to Arlington Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (4.9%)
F-75	SB I-215 Center St to La Cadena Dr	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	No	**E**	C	Yes	No	N/A*
F-52	EB I-10 SR-60 to Beaumont Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (2.5%)
F-52	WB I-10 SR-60 to Beaumont Ave	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (2.9%)
F-54	EB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.9%)
F-54	WB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (3.2%)
F-55	EB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (0.7%)
F-55	WB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (3.3%)
F-58	EB I-10 8th St to Hargrave St	Caltrans	D	C	D	C	**E**	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (2.1%)
F-58	WB I-10 8th St to Hargrave St	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	C	B	No	No	Pay fair share (2.1%)
F-59	EB I-10 Hargrave St to Fields Rd	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.2%)
F-61	EB I-10 Morongo Trail to Main St	Caltrans	D	B	**E**	B	**E**	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (1.9%)
F-71	SB I-215 SR-74 to Ellis Ave	Caltrans	D	**F**	**E**	**F**	**E**	Yes	Add one mixed flow lane.***	Yes	D	C	No	Yes	Pay fair share (0.8%)
F-83	SB I-215 Baseline Rd to Highland Ave	Caltrans	D	**F**	D	**F**	D	Yes	Add one mixed flow lane.***	No	**F**	D	Yes	Yes	N/A*
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-1	EB SR-60 SR-71/Garey Ave to Reservoir St	Caltrans	D	**E**	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	**E**	No**	Yes	Pay fair share (8.3%)
W-9	WB SR-60 Haven Ave to Archibald Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (6.1%)
W-20	EB SR-60 Main St to SR-91	Caltrans	D	D	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (19.1%)
W-21	WB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	D	**E**	D	**F**	Yes	Add one mixed flow lane.	No	D	**F**	Yes	No	N/A*
W-22	WB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	No	C	**E**	Yes	No	N/A*
W-23	WB SR-60 University Ave to Martin Luther King Blvd	Caltrans	D	D	**E**	D	**E**	Yes	Add a second off-ramp lane.	Yes	C	**E**	No**	No	Pay fair share (10.4%)
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	**E**	**E**	**E**	**E**	Yes	Add one mixed flow lane.***	Yes	D	**E**	No**	Yes	Pay fair share (16.6%)
W-28	WB SR-60 Day St to Pigeon Pass Rd/Frederick St	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (35.6%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-1	SR-60 EB On-Ramp from Martin Luther King Blvd	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	No	D	**E**	Yes	No	N/A*
R-10	SR-60 EB On-Ramp from Gilman Springs Rd	Caltrans	D	B	**F**	B	**F**	Yes	Add one mixed flow lane.	Yes	A	C	No	No	See F-36
R-14	SR-60 WB On-Ramp from Theodore St	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	See F-34
R-15	SR-60 WB Off-Ramp to Redlands Blvd	Caltrans	D	D	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	B	No	No	See F-34
R-16	WB SR-60 Loop On-Ramp from Redlands Blvd	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (14.0%)
R-17	SR-60 WB Direct On-Ramp from Redlands Blvd	Caltrans	D	D	D	**F**	D	Yes	Add one mixed flow lane.****	Yes	C	C	No	No	Pay fair share (14.0%)
R-18	SR-60 WB Off-Ramp to Central Ave	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See W-25 (Table 74)
R-19	SR-60 WB Off-Ramp to Martin Luther King Blvd	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See F-24

▨ Indicates LOS exceeds the target level

** Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

* Not applicable because mitigation is infeasible

*** The mitigation measures are in addition to the mitigation measure needed for direct Project impacts (see Table 76)

**** The additional lane needed between Redlands Blvd. and Moreno Beach Dr. as mitigation for R-16 is the same lane that is needed to mitigate impacts to R-17. Only one lane is needed; not one for R-16 and a second for R-17.

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.~~

- ~~***Eastbound SR-60 from Reservoir Street to Ramona Avenue (F-2)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario.~~ Adding a mixed-flow lane would bring the LOS to within the target threshold.
  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

~~The state freeway system is owned and operated by Caltrans and is thus outside the jurisdiction of the City of Moreno Valley. The City will work with Caltrans to establish a mechanism for collecting funds~~ **Southbound I-215 from** ~~developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, this and all other freeway impacts must be considered as significant and unavoidable.~~

- ~~***Westbound SR-60 from Reservoir Street to Ramona Avenue***~~**Center St. to La Cadena Dr.** (F-~~2~~75) already exceeds the ~~target~~ LOS threshold in the AM and PM peak hours and traffic density would increase ~~resulting in a cumulative impact in the Year 2035~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold~~, resulting in a less than significant impact.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Ramona Avenue to Central Avenue (F-3)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Central Avenue to Mountain Avenue (F-4)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Mountain Avenue to Euclid Avenue (F-5)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~

~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Mountain Avenue to Euclid Avenue (F-5)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~

  ~~The existing freeway right-of-way in this section cannot accommodate additional lanes and the right-of-way cannot be expanded without severe impacts to the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.~~

- ~~***Westbound SR-60 from Euclid Avenue to Grove Avenue (F-6)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~

  ~~The existing freeway right-of-way in this section cannot accommodate additional lanes and the right-of-way cannot be expanded without severe impacts to the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.~~

- ~~***Eastbound SR-60 from Grove Avenue to Vineyard Avenue (F-7)*** already exceeds the LOS threshold and traffic density would increase and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Grove Avenue to Vineyard Avenue (F-7)*** will exceed the target LOS threshold at some point in the 2022–2035 period this intersection. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Vineyard Avenue to Archibald Avenue (F-8)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less-than-significant level.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Archibald Avenue to Haven Avenue (F-9)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~

~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Valley Way to Rubidoux Boulevard (F-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Valley Way to Rubidoux Boulevard (F-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means to either widen the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Rubidoux Boulevard to Market Street (F-18)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

  - ~~***Eastbound SR-60 from Market Street to Main Street (F-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Market Street to Main Street (F-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Main Street to SR-91 (F-20)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Martin Luther King Boulevard to Central Avenue (F-24)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Fair Isle Drive/Box Springs Road to I-215 (F-26)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Pigeon Pass Road/Frederick Street to Heacock Street (F-29)*** currently operates at an acceptable LOS but will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Heacock Street to Perris Boulevard (F-30)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Heacock Street to Perris Boulevard (F-30)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some~~

~~other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Redlands Boulevard to Theodore Street (F-34)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Gilman Springs Road to Jack Rabbit Trail (F-36)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~Caltrans already has plans to build a truck climbing lane in this area. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60 from Jack Rabbit Trail to Potrero Road (F-37)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less-than-significant level.~~

  ~~Caltrans already has plans to build a truck climbing lane in this area. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-91 from Pierce Street to Magnolia Avenue (F-41)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-91 from La Sierra Avenue to Tyler Street (F-43)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-91 from La Sierra Avenue to Tyler Street (F-43)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-91 from Tyler Street to Van Buren Boulevard (F-44)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-91 from Van Buren Boulevard to Adam Street (F-45)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-91 from Adam Street to Madison Street (F-46)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level~~. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent ~~residential community.~~frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ~~***Westbound SR-91***~~**Southbound I-215 from** ~~***Madison Street***~~**La Cadena Dr. to** ~~***Indiana Avenue***~~**Barton Rd.** (F-~~***47)*** will exceed~~76) already exceeds the ~~target~~ LOS threshold ~~at some point~~ in the ~~2022–2035 period~~AM and PM peak hours and traffic density would increase ~~resulting in a cumulative impact in~~under the ~~Year 2035~~Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

~~As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound I-10 from SR-60 to Beaumont Avenue (F-52)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound I-10 from SR-60 to Beaumont Avenue (F-52)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound I-10 from Pennsylvania Avenue to Highland Springs Avenue (F-54)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound I-10 from Pennsylvania Avenue to Highland Springs Avenue (F-54)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound I-10 from Highland Springs Avenue to Sunset Avenue (F-55)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound I-10 from Highland Springs Avenue to Sunset Avenue (F-55)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound I-10 from 8th Street to S. Hargrave Street (F-58)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound I-10 from 8th Street to S. Hargrave Street (F-58)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative~~

~~impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound I-10 from S. Hargrave Street to Field Road (F-59)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound I-10 from Main Street (Cabazon) to Main Street (F-61)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Southbound I-215 from SR-74 to Ellis Avenue (F-71[14])*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

  ~~As explained above, because~~ I-215 is a state facility outside the jurisdiction of the City of Moreno Valley~~, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Southbound I-215 from Center Street to Iowa Avenue/La Cadena Drive (F-75)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~. The ~~existing freeway right-of-way in~~ City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ~~accommodate an additional lane and cannot be widened without impacting the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.~~

  - ~~***Southbound I-215 from Baseline Road to Highland Avenue (F-83)*** will exceed the target LOS threshold at some point in the 2022-to-2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a~~

~~[14] I-215 currently runs unbroken between SR-74 and Redlands Avenue. The RTP includes a project (3M0731) that would split this freeway mainline section by adding a new interchange at Ellis Avenue. For this reason, this freeway section is listed as "I-215 SR-74 to Redlands" on tables describing conditions prior to construction of the Ellis Avenue interchange.~~

~~mixed-flow lane would reduce the cumulative impact to a less than-significant level. The freeway right-of-way in~~ensure that the identified improvements would be made. The project's impacts on this section ~~cannot accommodate an additional lane (beyond the lane already identified in the current SCAG RTP) and cannot be widened without impacting the adjacent railroad. Since widening the freeway is infeasible, this impact is~~must therefore be considered significant and unavoidable.

~~**Cumulative Freeway Weaving Mitigations**~~

- ~~***Eastbound SR-60***~~**Southbound I-215** **from** ~~***SR-71/Garey Avenue***~~**Barton Rd.** **to** ~~***Reservoir Street (W-1***~~**Mt. Vernon Ave.** (F-77) already exceeds the ~~target~~ LOS threshold in the PM peak hour and traffic density would increase ~~resulting in a cumulative impact in the Year 2035~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would ~~reduce~~bring the ~~cumulative impact~~LOS to ~~a less than significant level.~~within the target threshold.

  ~~SR-60~~I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's ~~impact~~impacts on this section must therefore be considered significant and unavoidable.

  ~~**Westbound SR-60 from Haven Avenue to Archibald Avenue (W-9)** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035~~

Table 4.15.AX: Existing Plus Project ~~scenario.~~Freeway Impacts and Mitigations

Study Facility		Juris-diction	LOS Standard	Determination of Impact: Existing AM	Existing PM	Existing Plus Project AM	Existing Plus Project PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-3	EB SR-60 Ramona Ave to Central Ave	Caltrans	D	E	F	E	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	N/A*
F-5	EB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	D	E	E	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A*
F-6	EB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	E	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A*
F-24	EB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	No	F	F	Yes	Yes	N/A**
F-29	EB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	C	F	D	F	Yes	Add one mixed flow lane.	Yes	B	C	No	Yes	Pay fair share (6.9%)
F-41	EB SR-91 Pierce St to Magnolia Ave	Caltrans	D	E	F	E	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (3.1%)
F-46	EB SR-91 Adams St to Madison St	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	No	F	F	Yes	Yes	N/A**
F-49	EB SR-91 Central Ave to 14th St	Caltrans	D	F	E	F	E	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (1.4%)
F-95	NB I-215 Eucalyptus Ave to SR-60	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (3.1%)
F-80	NB I-215 Auto Plaza Dr to Mill St	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (0.7%)
F-7	WB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	D	F	C	F	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A*
F-8	WB SR-60 Vineyard Ave to Archibald Ave	Caltrans	D	D	F	D	F	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A*
F-26	WB SR-60 Fair Isle Dr/Box Springs Rd to I-215	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (5.7%)
F-27	WB SR-60 I-215 to Day St	Caltrans	D	E	D	E	D	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (7.1%)
F-29	WB SR-60 Pigeon Pass Rd to Heacock St	Caltrans	D	F	C	F	C	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (7.3%)
F-40	WB SR-91 McKinley St to Pierce St	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.9%)
F-41	WB SR-91 Pierce St to Magnolia Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (2.0%)
F-42	WB SR-91 Magnolia Ave to La Sierra Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (2.0%)
F-43	WB SR-91 La Sierra Ave to Tyler St	Caltrans	D	D	F	D	F	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (2.2%)
F-44	WB SR-91 Tyler St to Van Buren Blvd	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.8%)
F-45	WB SR-91 Van Buren Blvd to Adam St	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.5%)
F-75	SB I-215 Center St to La Cadena Dr	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	No	F	F	Yes	Yes	N/A**
F-76	SB I-215 La Cadena Dr to Barton Rd	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.4%)
F-77	SB I-215 Barton Rd to Mt. Vernon Ave	Caltrans	D	D	F	E	F	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (2.7%)
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-20	EB SR-60 Main St to SR-91	Caltrans	D	D	D	E	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	Pay fair share (5.4%)
W-79	NB I-215 I-10 to Auto Plaza Dr/Orange Show Rd	Caltrans	D	C	C	D	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (0.5%)
W-23	WB SR-60 University Ave to Martin Luther King Blvd	Caltrans	D	E	F	E	F	Yes	Add one mixed flow lane.	Yes	D	E	No	Yes	Pay fair share (4.7%)
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	D	D	E	E	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (4.9%)
W-48	WB SR-91 Arlington Ave to Central Ave	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.1%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-1	SR-60 EB On-Ramp from Martin Luther King Blvd	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	No	F	F	Yes	Yes	N/A**

▨ Indicates LOS exceeds the target level

* Project is in the current RTP and is planned to be completed independent of the WLC project

** Not applicable because mitigation is infeasible

Source: Traffic Impact Analysis Report for the World Logistics Center, WSP, July 2018

- ***Direct Impacts on Freeway Weaving Sections***

- **Eastbound SR-60 from Main St. to SR-91** (W-20) currently operates at an acceptable LOS in the AM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

~~As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Eastbound SR-60***~~**Northbound I-215** **from** ~~***Main Street***~~**SR-60** **to** ~~***SR-91***~~**Columbia Ave.** (W-~~***20)*** will exceed~~73) already exceeds the ~~target~~ LOS threshold ~~at some point~~ in the ~~2022–2035 period~~AM peak hour and traffic density would increase ~~resulting in a cumulative impact in the Year 2035~~under the Existing Plus ~~Project scenario. Adding a mixed-flow~~Build-out Scenario. Extending the auxiliary lane beyond the off-ramp would bring the LOS to within the target threshold.

~~As explained above, because SR-60~~I-215 is a state facility outside the jurisdiction of the City of Moreno Valley~~, the~~. The City ~~has no means for either widening the freeway itself or for guaranteeing that some other agency~~ will ~~widen the freeway. This impact must therefore be considered significant and unavoidable.~~

~~•~~ ~~***Westbound SR-60 from SR-91***~~require the developer to ~~***W. Blaine Street/3rd Street (W-21)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in~~ pay a ~~cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-~~fair-share contribution towards improvement of~~-way in~~ this section ~~cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening~~ as a condition of approval. However, because the freeway is ~~infeasible, this impact is significant and unavoidable.~~

~~• ***Westbound SR-60 from W Blaine Street/3rd Street to University Avenue (W-22)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.~~

~~• ***Westbound SR-60 from University Avenue to Martin Luther King Boulevard (W-23)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a second on-ramp lane would reduce the cumulative impact to a less than significant level.~~

~~As explained above, because SR-60 is a state facility~~ outside the jurisdiction of the City of Moreno Valley~~, the City has no means for either widening the freeway itself or for guaranteeing that some~~

~~other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Central Avenue to Faire Isle Drive/Box Springs Road (W-25)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~

  ~~As explained above, because SR-60 is a state facility outside the jurisdiction~~ and because no mechanism is in place for ensuring the availability of the ~~City~~non-project portion of ~~Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact~~the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ~~***Westbound SR-60***~~**Northbound I-215** **from** ~~***Day Street***~~**I-10** **to** ~~***Pigeon Pass Road/Frederick Street***~~**Auto Plaza Dr./Orange Show Rd.** (W-~~*28)* will~~ 79) currently operates at an acceptable LOS in the PM peak hour but would exceed the ~~target~~ LOS threshold ~~at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in~~under the ~~Year 2035~~Existing Plus ~~Project scenario~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  ~~As explained above, because SR-60~~I-215 is a state facility outside the jurisdiction of the City of Moreno Valley~~, the City has no means for either widening~~. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway ~~itself or for guaranteeing~~is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that ~~some other agency will widen the freeway. This impact~~the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

~~Cumulative Freeway Ramp Mitigations~~

- ~~***Eastbound***~~**Westbound SR-60 from** ~~***On-Ramp from***~~**University Ave. to Martin Luther King** ~~***Boulevard (R-1)*** will exceed~~**Blvd.** (W-23) already exceeds the ~~target~~ LOS threshold ~~at some point~~ in the ~~2022–2035 period~~AM and PM peak hours and traffic density would increase ~~resulting in a cumulative impact in the Year 2035~~under the Existing Plus ~~Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.~~ ~~The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.~~

- ~~***Eastbound SR-60 from On-Ramp from Gilman Springs Road (R-10)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the AM peak hour LOS to within the target threshold~~. (This improvement is already identified as the mitigation for freeway mainline segment~~ and reduce the PM peak hour from "F~~-36.)~~

  - ~~Caltrans has plans~~" to ~~re-configure the SR-60/Gilman Springs Road interchange in the future. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for~~

~~guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~“E”.

- ~~***Westbound SR-60 from On-Ramp from Theodore Street (R-14)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway mainline segment F-34.)~~

  ~~The City has a study underway to develop alternative designs for this interchange. The City will collect a fair-share contribution from the developer to implement this improvement in conjunction with the reconfiguration of the SR-60/Theodore Street Interchange. It should be noted the National Bridge Inventory 2012 Inspection Database~~[15] ~~indicates that the Theodore Street `bridge over SR-60 was designed for MS18 design loads and has a sufficiency rating for 97.9.~~

- ~~***Westbound SR-60 from Off-Ramp to Redlands Boulevard (R-15)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold, resulting in a less than significant impact. (This improvement is already identified as the mitigation for freeway mainline segment F-34.)~~

  ~~As explained above, because~~ SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City ~~has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact~~cannot ensure that the identified improvements would be made. The project’s impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from** ~~***Direct On-Ramp from Redlands Boulevard (R-17)*** will exceed~~**Central Ave. to Fair Isle Dr./Box Springs Rd.** (W-25) already exceeds the ~~target~~ LOS threshold ~~at some point~~ in the ~~2022–2035 period~~PM peak hour and traffic density would increase ~~resulting in a cumulative impact in~~under the ~~Year 2035~~Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. ~~Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.~~

~~As explained above, because~~ SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley~~,~~. The City will require the ~~City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.~~

- ~~***Westbound SR-60 from Off-Ramp to Central Avenue (R-18)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS~~developer to ~~within the target threshold. (This~~pay a fair-share contribution towards improvement ~~is already identified~~ of this section as ~~the mitigation for freeway weaving segment W-25 in the direct impacts and mitigation list, Table 4.15.AX.)~~

  ~~As explained above~~a condition of approval. However, because ~~SR-60~~the freeway is ~~a state facility~~ outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City ~~has no means for either widening the freeway itself or for guaranteeing that some other agency~~

~~[15] http://nationalbridges.com/ Federal Highway Administration, searchable database last updated 2012~~

~~will widen the freeway. This impact~~cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-*~~60~~*91 from *~~Off-Ramp~~*Arlington Ave. to *~~Martin Luther King Boulevard (R-19)~~*** ~~will exceed the target~~ **Central Ave.** (W-48) already exceeds the LOS threshold ~~at some point~~ in the ~~2022–2035 period~~PM peak hour and traffic density would increase ~~resulting in a cumulative impact in the Year 2035~~under the Existing Plus ~~Project scenario.~~Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. ~~(This improvement is already identified as the mitigation for freeway mainline segment F-24.)~~

  ~~As explained above, because~~ SR-~~60~~91 is a state facility outside the jurisdiction of the City of Moreno Valley~~, the~~. The City ~~has no means for either widening~~ will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the ~~freeway itself or for guaranteeing~~jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that ~~some other agency will widen the freeway. This impact~~ the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ***Direct Impacts on Freeway Ramps***

- **Eastbound SR-60 on-ramp from Martin Luther King Blvd.** (R-1) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.

4.15.7.4 Mitigation Measures

4.15.7.4A: A traffic impact analysis (“TIA~~”)~~”), conforming to the guidelines for ~~traffic impact analysis~~TIAs adopted by the City shall be submitted in conjunction with each Plot Plan application within the ~~World Logistics Center Specific Plan.~~WLCSP. Prior to the approval of ~~the~~ Plot ~~Plan~~Plans, the City shall review the ~~traffic impact analysis~~Revised TIA to determine if any of the traffic improvements listed in ~~Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79)~~the above tables need to be implemented as part of the ~~traffic impact analysis~~plot plan. The TIA prepared for the ~~Program Environmental Impact Report~~Revised Sections of the FEIR are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to ~~credit/~~reimbursement agreement for those ~~DIF and/or TUMF eligible~~ costs that exceed the fair share contribution determined for the specific Plot Plan application. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in ~~Mitigation Measure~~MM 4.15.~~7.4G~~7F prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the ~~Program Environmental Impact Report~~Revised TIA, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

4.15.7.4B: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way, where feasible, consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map~~, as shown in this Program EIR Figure 3-10 (or Figure 22 in the TIA prepared for this Program EIR).~~ Required dedications shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4C: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require ~~each project~~ the Applicant to ~~pay the Development Impact Fee (DIF~~construct or to fully fund the transportation measures identified in the development’s TIA (see MM4.15.7.4A) as ~~set forth in Municipal Code Chapter 3.42. Required DIF payments~~needed to mitigate the transportation impacts within the city of the Plot Plan development. The payment or construction shall be made prior to the issuance of occupancy permits for the requested development. This condition shall apply only to mitigation measures where a mechanism has been established to collect funds from the project and any other funds to needed to complete the improvements.

4.15.7.4D As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code ~~Sections~~Chapter 3.~~55.050 and 3.55.060~~44. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4E: In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the ~~World Logistic Center Specific Plan~~Revised Traffic Impact Analysis ~~(~~, i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to ~~Mitigation Measure~~MM 4.15.7.4F~~).~~. As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. Mitigation measures are summarized in Tables 4.15-1 to 4.15-13.

~~For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:~~

~~Amount Due~~	~~=~~	~~Total cost of Improvement~~	~~×~~	~~Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis~~	~~×~~	~~% attributable to the building that is subject to the certificate of occupancy (5%)~~

~~A × B × C = D~~
~~A= % attributable to the building that is subject to the certificate of occupancy (5%)~~ ~~B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis~~ ~~C= Total cost of Improvement~~ ~~D= Amount Due~~

~~A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F.~~

~~**4.15.7.4F** The Applicant shall pay a~~**4.15.7.4F** The Applicant shall pay its portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the ~~project~~Project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the ~~World Logistics Center~~WLC project as a whole has a significant impact identified in the ~~Programmatic Environmental Impact Report~~Revised Sections of the FEIR) as determined by the Revised Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the ~~Programmatic Environmental Impact Report~~Revised Sections of the FEIR will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection IN-85) in the City of Riverside was identified as a place where the WLC contributes to cumulatively significant impacts, and where the fair share contribution of the WLC project as a whole was computed to be 0.6%. If the City of Riverside establishes a fair share contribution program consistent with this MM to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million sq. ft. high-cube warehouse in the WLC (approximately 5% of the entire WLC project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due	=	Total cost of Improvement	*	Total WLC fair Share (0.6%) as determined by TIA	* % attributable to the building that is subject to the certificate of occupancy (5%)

A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire WLC to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with MM 4.15.7.4F.

4.15.7.4G~~—~~: City shall work directly with ~~Western Riverside Council of Governments~~WRCOG to request that ~~Transportation Uniform Mitigation Fee~~TUMF funding priorities be shifted to align with the needs of the City, including improvements identified in ~~the World Logistics Center Specific Plan traffic impact analysis.~~this TIA. Toward this end, City shall meet regularly with ~~Western Riverside Council of Governments.~~WRCOG.

Congestion Management

In addition to and in concert with the mitigation measures defined above for or traffic impacts, the World Logistics Center would incorporate a number of measures that reduce single occupancy vehicle trips as part of design features and required mitigation measures to reduce air quality impacts. These design features and measures, described in more detail in Section 4.3 Air Quality, would create alternatives to single occupancy vehicle trips for those individuals that would be employed at the World Logistics Center. These measures include:

- Participation in Riverside County's Rideshare Program
- Class II bike lanes for all project streets
- Pedestrian pathways throughout the project site
- Pedestrian connections to nearby residential areas
- Provision of bicycle storage space
- Preferential carpool/vanpool parking

In addition, the World Logistics Center Specific Plan requires that mass transit features, such as bus stops, be incorporated into the project, based on consultation with the Riverside Transit Agency.

4.15.7.5 Level of Significance after Mitigation

Even with implementation of **Mitigation Measures 4.15.7.4.A through 4.15.7.4.G**, and implementation of all the improvements identified in Tables 4.15.AV through 4.15.BA, direct and cumulative impacts on study area roadway segments, intersections, and freeway facilities would not be reduced to less than significant levels, including all improvement locations not under the control of the lead agency (i.e., outside of the City of Moreno Valley). This is because the primary determinant of the level of significance after mitigation is the agency responsible for the transportation facility in question. The City has no means for controlling when transportation improvements are made outside of its jurisdiction, and therefore, cannot guarantee when such improvements would be made. These roadways, intersections, and freeway facilities are grouped into four categories based on the jurisdiction the transportation facility is located and are summaries as follows.

On-Site Improvements. These are improvements and changes to the road system within the WLC project site that are being undertaken as part of the WLC project. The developer shall be responsible for constructing the improvements described in the TIA (Chapter 4, "Proposed Road Network") in accordance with City standards for roadway construction and the roadway cross-sections in the proposed Specific Plan. Completion of these improvements shall constitute the developer's mitigation of the project's on-site impacts. When these improvements are completed, the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

Off-Site Improvements for Non-TUMF Roads Under the Jurisdiction of the City of Moreno Valley. These are improvements and changes to public streets in Moreno Valley that are outside the area covered by the proposed WLC Specific Plan~~ Amendment~~. The developer shall be responsible for paying ~~the DIF as set forth in Municipal Code Chapter 3.42~~its fair share contribution which the City shall use to implement the mitigation measures identified in Tables 4.15.AV, 4.15.AW~~, 4.15.AY,~~ and 4.15.~~AZ (TIA Tables 74, 75, 77, and 78)~~AX pertaining to ~~DIF~~ facilities~~. The developer shall also be required to pay its fair share of the improvements to City streets that are not in the DIF program where there are significant project impacts~~ under the City's jurisdiction. These payments shall constitute the developer's mitigation of project impacts on this category of roads. When these improvements are completed, the project's impacts on the City roadway and intersection system will be mitigated to a less-than-significant level.

Off-Site Improvements to TUMF Facilities. These are improvements and changes to roads and intersections that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads and intersections.

The City shall implement the mitigation measures identified in Tables 4.15.AV, 4.15.AW~~, 4.15.AY,~~ and 4.15.~~AZ~~AX pertaining to TUMF facilities under the City's jurisdiction. When these improvements are completed, the project's impacts on the roadway and intersection system within the WLC project site will be mitigated to a less than-significant level.

The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in 4.15.AV, 4.15.AW~~, 4.15.AY,~~ and 4.15.~~AZ~~AX pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable.

Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program. This category includes all of the recommended mitigation measures that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials.

At this time, the City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. The City shall therefore work with the ~~City~~Cities of Beaumont, Perris, Redlands and Riverside, and with Riverside County to collect funds from the developer and to implement the ~~signalization of the San Timoteo Road/Alessandro Road intersection and the San Timoteo Road/Live Oak Canyon intersection (respectively). The City shall also work with the City of Riverside to collect a fair-share contribution from the developer to signalize the Martin Luther King Boulevard/I-215 northbound ramp intersection~~mitigations measures identified in 4.15.AV, 4.15.AW and 4.15.AX that are in these jurisdictions. To the extent that the City is able to establish such a mechanism (as described in Mitigation Measure 4.15.7.4F) and the other jurisdiction constructs the recommended improvement, the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. Thus, at this point the project's impacts on these facilities must be considered significant and unavoidable.

Similarly, the City has not entered into an agreement with Caltrans for the collection of developer payments for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in Tables 4.15.AX and 4.15.BA. Instead, Caltrans has traditionally relied on other means to fund freeway improvements; means involving multiple stages of review and input from other agencies, with priorities and constraints applied at each stage, that preclude a direct connection between developer-provided fair-share funds and specific highway improvements.

Decisions on funding for improvements to the state highway system are made by four bodies, namely:

- **Legislature:** Establishes overall policies, including determining funding sources and distribution, and spending priorities through state statutes such as Revenue and Taxation Code, Streets and Highways Code, and Government Code. The Legislature appropriates funds through the annual budget for transportation projects and has authority to designate transportation projects statutorily.
- **California Transportation Commission (CTC):** The nine-member CTC, appointed by the Governor, reviews and adopts the state transportation programs and approves projects nominated by Caltrans and regional agencies for funding. The CTC recommends policy and funding priorities to the Legislature and is also responsible for project delivery oversight.
- **California Department of Transportation (Caltrans):** Caltrans owns, operates and maintains the state highway system. Caltrans plans, designs, and nominates interregional capital improvement projects on the state highway system and also manages the intercity rail operation.
- **Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs):** MPOs and RTPAs are responsible for planning, coordinating and administering funds for regional transportation systems. In California, 17 MPOs and 48 RTPAs develop 20-year Regional Transportation Plans (RTPs) as well as 5-year Regional Transportation Improvement Program (RTIP), which identify projects for the regional portion of the State Transportation Improvement Program (STIP). SCAG is the MPO for Riverside County.

Most funds for improvements to the state highway system come through the State Highway Account (SHA), which receives funding from a variety of sources including:

- Motor vehicle fuel taxes, part of which goes into the Highway Users Tax Account, a portion of which goes to the SHA and the rest goes to cities and counties according to a statutory formula.
- The fuel tax swap, enacted in 2011 (Fuel Tax Swap Fix), reenacted the provisions of the Fuel Tax Swap of 2010 addressing issues raised by the passage of Propositions 22 and 26. The Fuel Tax Swap eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ (July 2010). The increase in the excise tax would generate revenues equivalent to what would have been collected from the state sales tax on gasoline. These revenues are intended for new road construction (STIP), highway maintenance and operations (SHOPP), and local roadways.
- The federal fuel tax, which goes into the Highway Trust fund for use on the portions of the system that are designated ad federal aid highways.

In addition, local sales tax measures, such as Measure A in Riverside County, and the proceeds of Proposition 1B provide funding for improvements to certain portions of the state highway system.

The key feature of this system pertaining to the recommended freeway mitigation measures is that this system is outside the control of the City of Moreno Valley. The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.

4.15.8 Summary of Project-Related Traffic Impacts

Based on the preceding analyses in Sections 4.15.5.1 through 4.15.6.4, the WLC project will have the following direct and cumulative air quality impacts:

Table 4.15.BB: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.5.1	Air Traffic Patterns	Less than Significant No Mitigation Required
4.15.5.2	Design Hazard Features	Less than Significant No Mitigation Required
4.15.5.3	Emergency Access	Less than Significant No Mitigation Required
4.15.5.4	Alternative Transportation Policies, Plans, or Programs	Less than Significant No Mitigation Required
4.15.6.1	Existing (~~2012~~2018) With Phase 1 Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in ~~DIF within~~ City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)
4.15.6.2	Existing (~~2012~~2018) With Project (Buildout) Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in ~~DIF within~~ City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)

Table 4.15.BB: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.6.3	Year ~~2022~~2025 With Phase 1 Conditions Traffic and Level of Service Impacts	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in ~~DIF within~~ City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)
~~4.15.6.4~~	~~Year 2035 Cumulative With Project Conditions Traffic and Level of Service Impacts~~	~~Less than Significant with Mitigation (on-site roads and intersections)~~ ~~Less than Significant with Mitigation (roads and intersections included in DIF within City)~~ ~~Less than Significant with Mitigation (roads and intersections included in TUMF within City)~~ ~~Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City)~~ ~~Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City)~~ ~~Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)~~

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FIGURES

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NOTE TO READERS. *Revisions have been made to this section to address changes in the Specific Plan, revisions to the project hydrology study, and in response to comments regarding drainage and mitigation.*

4.16 UTILITIES AND SERVICE SYSTEMS

This section analyzes the existing and planned water supply, wastewater facilities, drainage or storm water facilities (as they relate to water), solid waste facilities, and natural gas and electrical facilities for the project site and the surrounding area, and evaluates the impacts to utility providers that could result from the construction and operation of the proposed on-site uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this has been written to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the proposed 40.6 million square feet World Logistics Center Specific Plan, as well as its associated infrastructure. The World Logistic Center Specific Plan covers 2,610 acres and associated off-site infrastructure covers 104 acres of land needed to support the proposed development. ~~EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.~~

~~A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.~~

~~A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.~~

~~In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.~~

~~The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.~~

~~Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements.~~ The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

This section is based on information obtained from utility providers serving the proposed WLC project site, most of which are included in Appendix J of this EIR:

- *City of Moreno Valley General Plan;*[1]

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[1] *City of Moreno Valley General Plan*, City of Moreno Valley, adopted by City Council Resolution No. 2006-83, July 11, 2006.

- Eastern Municipal Water District's *2010 Urban Water Management Plan;*[1]
- *Water Supply Assessment* (WSA) approved by the Eastern Municipal Water District Board of Directors on March 21, 2012);
- *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, Utilities Specialists, October 24, 2013; and
- *Sanitary Sewer Analysis Memorandum,* CH2MHill, October 18, 2013.

This section differs slightly from other sections in that it is organized by utility/service system type so continuity is maintained. Water Supply is found in Section 4.16.1, Wastewater Services are discussed in Section 4.16.2, Solid Waste Services are found in Section 4.16.3, and Energy Consumption is addressed in Section 4.16.4.

4.16.1 Water Supply

4.16.1.1 Existing Setting

The project site is located within the service area of the Eastern Municipal Water District (EMWD),[2] which owns, operates, and maintains the water system within the limits of the City and will be the purveyor of water to the proposed WLC project site. As illustrated in Figure 4.16.1, the EMWD's service area encompasses approximately 555 square miles. The water supply available to the EMWD in 2010 totals approximately 154,700 acre-feet (AF).[3] Water sources for the EMWD include imported water purchased from the Metropolitan Water District of Southern California (Metropolitan), groundwater sources, desalted groundwater, and recycled water from the EMWD's five regional water reclamation facilities. Imported water from Metropolitan is delivered to EMWD in several ways: directly as potable water; as raw water and treated at two local EMWD filtration plants; or as raw water for non-potable use. Approximately 80 percent of the EMWD's water is imported from Metropolitan and the remaining 20 percent is supplied by groundwater wells. Approximately 33 percent of the water produced by EMWD is recycled water. Groundwater supplies are drawn from the EMWD wells located in the Hemet, San Jacinto, Moreno Valley, Perris Valley, and Murrieta areas.

The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding their Inland Feeder facility. The figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

In June of 2011, the EMWD adopted its *2010 Urban Water Management Plan* (UWMP), which details the EMWD's current and future water supply. The document found that with all of its existing and planned supplies, the EMWD can meet 100 percent of projected supplemental demand through 2035, even with a repeat of a severe drought. In addition, the UWMP addresses conservation, local supplies

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[1] *EMWD 2010 Urban Water Management Plan,* Eastern Municipal Water District*,* June 2011.

[2] *Eastern Municipal Water District Service Area,* Eastern Municipal Water District, http://www.emwd.org/.aspx?page=59, website accessed April 2, 2012.

[3] An acre-foot covers one acre to a depth of one foot. An acre-foot is approximately 326,000 gallons which is enough to meet the needs of two average southern California households a year.

and reliability of imported supplies. Table 4.16.A identifies the EMWD's projected water supplies and demand.

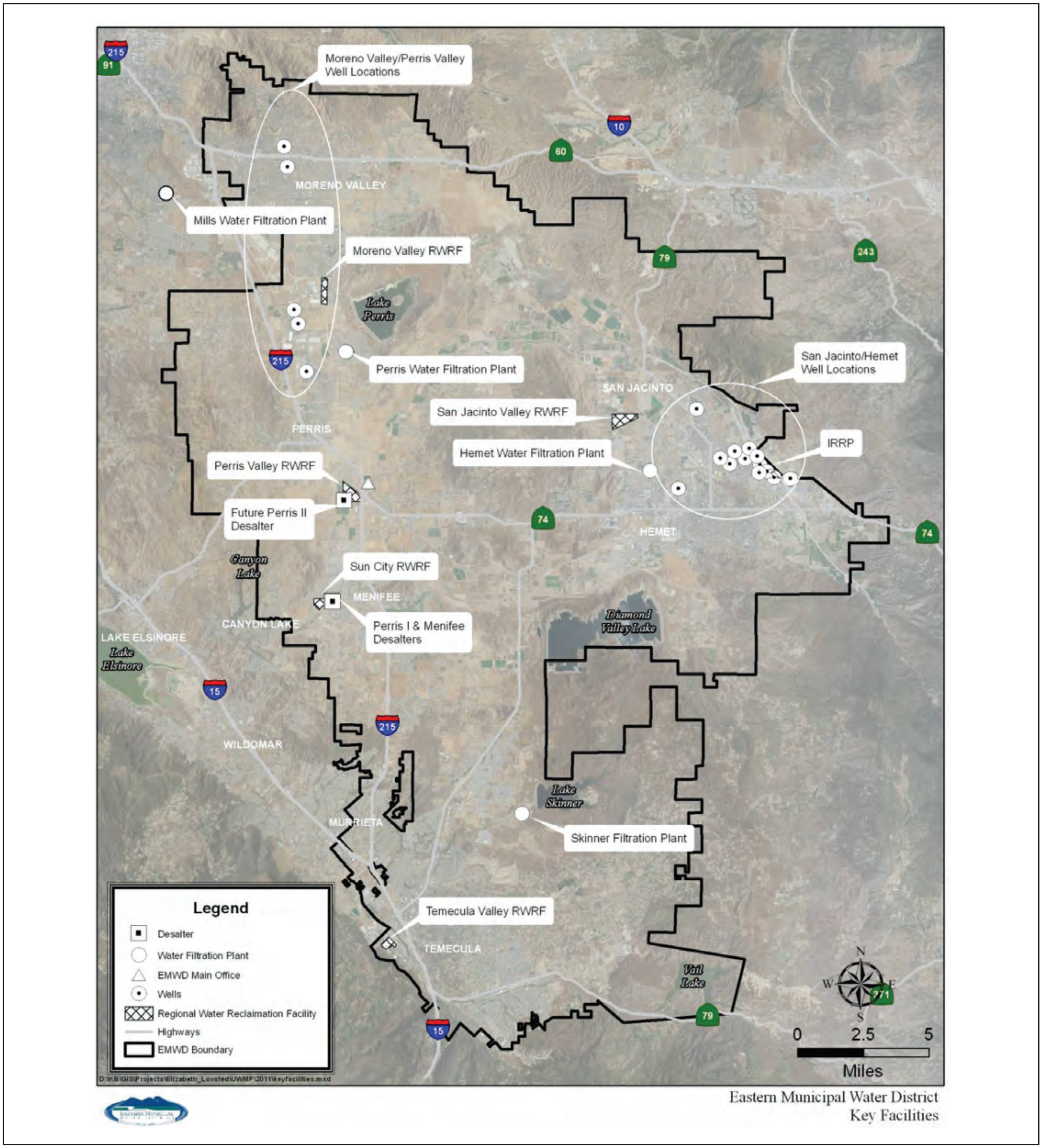

L S A

FIGURE 4.16.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Location of Eastern Municipal Water District Supplies

SOURCE: Eastern Municipal Water District 2010 Urban Water Management Plan, 2011

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Table 4.16.A: EMWD Water Supplies and Demand for Average Year Hydrology

		2015	2020	2025	2030	2035
EMWD Water Supplies						
Supply Type	**Supply Source**	**acre-feet per year**				
Imported	Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Imported-Locally Treated	Metropolitan Water District					
Groundwater	West San Jacinto Management Area	13,200	13,200	13,200	13,200	13,200
Desalination	West San Jacinto Management Area	7,500	7,500	7,500	7,500	7,500
Recycled	EMWD Regional Water Reclamation Facilities	43,900	50,000	53,900	54,900	55,300
	Supply Total	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
EMWD Water Demands						
Demand Source		**acre-feet per year**				
Retail Potable Water Sales		113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies		47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses		52,500	59,100	64,200	66,300	67,600
	Demand Total	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Source: *EMWD 2010 Urban Water Management Plan*, Eastern Municipal Water District, June 2011 (Tables 3 and 9, WSA 2012).

The proposed WLC project site is located within EMWD Pressure Zones (PZ) 1764 and 1900. Water is supplied to the project area via a pump station (1900 PZ pump station) located north of the intersection of Redlands Boulevard and Cottonwood Avenue. This pump station also delivers water to areas north of State Route 60 (SR-60). A 20-inch transmission main underlying Redlands Boulevard (Redlands Transmission Pipeline) delivers the pumped water from the 1900 PZ pump station to the 2080 PZ pump station located at Redlands Boulevard and Ironwood Avenue. The nearest recycled water line is a 24-inch transmission main located approximately 0.25 mile southwest of the project site, at the intersection of Redlands Boulevard and Cactus Avenue. Although there are no active recycled water lines adjacent to the project site, in the future, it may be possible to serve this project site with recycled water.

Water imported by the EMWD is treated at two facilities owned and operated by Metropolitan, the Mills and Skinner Filtration Plants, which serve the northwest and southern areas of the EMWD service area. Treated water is supplied north of the EMWD service area by the Mills Metropolitan Water Treatment Facility and in the southeastern portion of the EMWD service area by the Lake Skinner Water Treatment Facility. The City is located within the area served by the Mills Filtration Plant, which has a treatment capacity of 326 million gallons per day (mgd). The EMWD also utilizes untreated water delivered by Metropolitan from the State Water Project (SWP) pipeline running through the EMWD's jurisdiction. The EMWD currently treats the raw water for potable use or uses it raw for agriculture and for recharge. Treatment of raw water occurs at water filtration plants in Perris and in Hemet. The Hemet microfiltration plant has a capacity to filter 8,800 acre-feet per year (AFY) and the Perris microfiltration plant has the capacity to filter 17,600 AFY.

The EMWD constructed the Menifee Desalter and Perris Desalter facilities to recover high total dissolved solids (TDS) groundwater for potable use. In addition to being a source of water, the desalter facilities play a part in managing the groundwater subbasins by addressing the migration of brackish groundwater into areas of good quality groundwater. Additionally, the EMWD is currently in the process of constructing a third desalter facility, the Perris II Desalter.[1] This additional facility will increase the production of desalinated water to approximately 12,000 AFY.

Based on the Water Allocation analysis released by the California Department of Water Resources (DWR) on March 22, 2010, export restriction could reduce Metropolitan deliveries by 150 to 200 thousand acre-feet (TAF) under mean hydrologic conditions, and operations could remain restricted until a long-term solution is found to improve the stability of the Bay-Delta region.

The SWP and Central Valley Project (CVP) are the responsible partners for operation of the DWR and Bureau of Reclamation (Reclamation), respectively. In November 1986, DWR and Reclamation signed the Coordinated Operations Agreement (COA). The COA was subsequently authorized and approved by the California State Legislature and Congress. Under COA, DWR and Reclamation agree to operate the SWP and CVP in a balanced manner to coordinate releases from upstream reservoirs and unregulated flows to meet Sacramento Valley in-basin and in-Delta uses, including water quality standards established by the State Water Resources Control Board (SWRCB).

Reclamation, as a Federal agency is required to consult with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA) to determine if a Federal action that it authorizes, funds, or implements could jeopardize the continued existence of a listed species in the wild, or destroy or modify the species' critical habitat. Because the SWP and CVP are operated in a balanced manner, the findings under Section 7 of the FESA affect operations of both the SWP and CVP.

The initial biological opinions related to long-term operations of the SWP and CVP were issued in 1993 by NMFS for protection of the winter-run Chinook salmon and by USFWS for protection of delta smelt. Operations of the SWP and CVP were modified to reduce potential adverse impacts to these species primarily through:

- Increased storage volumes of water in upstream reservoirs to provide adequate flows with appropriate temperatures for the winter-run Chinook salmon and adequate flows in the Delta for both species;
- Flows released from upstream reservoirs to provide adequate in-Delta flows and Delta outflows for these species; and
- Modification of periods of time when water can be diverted at the SWP and CVP south Delta intakes to reduce the potential for reverse flows, reduce the potential for high salinity in the south Delta, and reduce the potential for entrainment and entrapment of fish in the SWP and CVP south Delta intake facilities.

The biological opinions were modified as DWR and Reclamation modified operations of the SWP and CVP and new information related to aquatic resources became available. During this period, NMFS redesignated the Sacramento River winter-run Chinook salmon as "endangered" and designated two species as "threatened" (i.e., Central Valley spring-run Chinook salmon and Central Valley steelhead). Therefore, the consultations under Section 7 of the FESA were modified and new biological opinions were issued between 2000 and 2004. In 2005, the Department of the Interior was sued with respect to 2004 biological opinion issued by USFWS. Subsequently, USFWS re-issued the biological opinion in 2005; however, the Department of the Interior was sued in 2005 with respect to the re-issued biological opinion. The 2005 USFWS biological opinion was invalidated and United States District Court for the Eastern District of California (the Court) ordered a new biological opinion and issued interim operations orders to protect delta smelt until a new biological opinion could be issued in 2008. The interim

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[1] *Water Supply Desalination Infrastructure South Perris Project, Perris II Desalter,* http://www.emwd.org/modules/ .aspx?documentid=90, website accessed April 2, 2012.

operations criteria included limitations for operation of the SWP and CVP south Delta intakes to protect delta smelt.

In response to these actions, Reclamation requested consultation with USFWS and NMFS in August 2008 with respect to the coordinated long-term operation of the SWP and CVP. In December 2008, the USFWS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to delta smelt. In June 2009, the NMFS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to currently listed species (e.g., Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale). Reclamation provisionally accepted and then implemented the Reasonable and Prudent Alternatives included in these biological opinions. The operational criteria included in the Reasonable and Prudent Alternatives resulted in changes to operations of upstream reservoirs, stream flows, Delta outflow, and SWP and CVP south Delta intakes.

Several lawsuits were filed in the Court related to various aspects of the USFWS and NMFS biological opinions, and to the acceptance and implementation of the associated Reasonable and Prudent Alternatives by Reclamation. Between 2009 and 2010, the Court ruled that Reclamation failed to conduct an environmental analysis under the National Environmental Policy Act (NEPA) of potential impacts to the human environment before provisionally accepting and implementing the Biological Opinion Reasonable and Prudent Alternatives. In 2010, the Court found certain portions of the USFWS biological opinion to be arbitrary and capricious, and remanded those portions of the biological opinion to USFWS. The Court ordered Reclamation to review the biological opinion and Reasonable and Prudent Alternative in accordance with NEPA. In 2011, the Court remanded the biological opinion to NMFS.

Reclamation has continued the consultation with USFWS and NMFS for modification of the biological opinions, and has initiated the NEPA process through publication of the Notice of Intent on March 28, 2012. The Court order required completion by Reclamation of the Environmental Impact Statement (EIS) and the USFWS biological opinion related to delta smelt by December 1, 2013. The Court order also required completion by Reclamation of the EIS and the NMFS biological opinion related to Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale by February 1, 2016. The Court did not vacate the biological opinions and, therefore, SWP and CVP operations are analyzed each year with respect to the Reasonable and Prudent Alternatives.

The most recent Metropolitan Regional Urban Water Management Plan (RUWMP) (Metropolitan November 2010, page 1-18) indicates that operational constraints similar to the most recent biological opinions and associated Reasonable and Prudent Alternatives would likely be continued until future long-term plans, such as the Bay Delta Conservation Plan (BDCP), would be implemented. A similar discussion was included in the EMWD Urban Water Management Plan (UWMP) (2010, page 38).

To address potential constraints on the SWP, Metropolitan is working with stakeholders throughout the State to develop and implement long-term solutions to the problem in the Bay Delta. The BDCP developed by State and Federal resource agencies, addresses ecosystem needs and securing long-term operating permits for the SWP. A working draft of the BDCP was released in November 2010 and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provide for improved water supply and reliability.

The Metropolitan RUWMP also indicates that the SWP supplies with these considerations plus other water supplies (e.g., conservation, local and regional supplies, and Colorado River) would be adequate to meet Metropolitan water demands during dry years when water supplies generally are restricted

(Metropolitan November 2010, page 1-34, Figure 1-9). A similar discussion was included in the EMWD UWMP (2010, page 30, Table 3.3).

In evaluating the supply reliability for the 2010 RUWMP, Metropolitan assumed a new Delta conveyance would be fully operational by 2022, bringing supply reliability close to 2005 levels prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with Metropolitan's long-term Delta action plan approved in 2007, and supported by recently passed legislation that included a roadmap for establishing governance structures and financing approaches to implement and manage a Delta solution. In response to the recent developments in the Delta, Metropolitan is engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, it will ensure a reliable long-term water supply for its member agencies. In the near term, Metropolitan will continue to rely on the plans and policies outlined in its RUWMP and Integrated Resources Plan (IRP) to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary conservation and recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. Metropolitan is maximizing supplies from existing agreements for water supply from its Palo Verde Crop Management and Water Supply Program and working with the State of Arizona in withdrawing water previously stored in that state's groundwater basin.

Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035.[1]

NOP/Scoping Comments. A few residents asked how much water the project would use and if there was enough if we had another drought.

4.16.1.2 Existing Policies and Regulations

Policies and regulations for water sources include the following:

- Federal Water Pollution Control Act;
- Water Conservation in Landscaping Act;
- Water Recycling in Landscaping Act;
- Sections 13550–13556 of the State Water Code;
- Urban Water Management Planning Act;
- Senate Bill 901;
- Senate Bill 610; and
- City of Moreno Valley General Plan.

Federal Water Pollution Control Act. The Federal Water Pollution Control Act requires discharges (from point and non-point sources) into navigable water to meet stringent National Pollutant Discharge Elimination System (NPDES) permit standards. The U.S. Environmental Protection Agency (EPA) has

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[1] *Eastern Municipal Water District 2010 Urban Water Management Plan,* Eastern Municipal Water District, June 2011.

published regulations establishing requirements for application of storm water permits for specified categories of industries, municipalities, and certain construction activities. The regulations require that discharges of storm water from construction activity of 1.0 acre or more must be regulated and covered by an NPDES permit. When a construction area exceeds 1.0 acre in size, the applicant must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). Additional analysis and information regarding NPDES requirements and regulations is provided in Section 4.9, *Hydrology and Water Quality*, of this EIR.

Water Conservation in Landscaping Act. To ensure adequate supplies are available for future uses and to promote the conservation and efficient use of water, local agencies are required to adopt water-efficient landscape ordinances. When such an ordinance has not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary must be adopted. In the absence of such, an ordinance drafted by the State of California applies within the affected jurisdiction. The City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which address the proper maintenance of landscaping or irrigation systems.[1]

Water Recycling in Landscaping Act. The Water Recycling in Landscaping Act requires that a water producer capable of providing recycled water that meets certain conditions notify local agencies eligible to receive the recycled water. It also requires necessary infrastructure be provided to support the delivery of recycled water. The EMWD enforces Ordinance No. 68.2 *Amended Rules and Regulations Governing the Provision of Recycled Water System Facilities and Service,* to promote the conservation and reuse of water resources and to ensure maximum public benefit from the use of the EMWD's recycled water supply by regulating its use in accordance with applicable Federal, State, and local regulations. Upon the determination that the EMWD is capable of providing recycled water services to the proposed site, the project applicant must submit an application form for the EMWD to review. The EMWD may prescribe requirements in writing to the applicant as to the off-site or on-site facilities necessary to be constructed, the manner of connection, the financial responsibility, and the use of the recycled water. Prior to receiving recycled water service, the proposed use shall be approved by the DHS. The EMWD will inspect on-site recycled water facilities to ensure initial and future continued compliance with the EMWD's regulations and other applicable requirements.

Sections 13550–13556 of the State Water Code. These sections of the State Water Code state that local, regional, or state agencies shall not use water from any quality source of potable water for non-potable uses if suitable recycled water is available as provided in Section 13550 of the Water Code.

Urban Water Management Planning Act (Cal. Water Code Section 10631). Since 1984, the Urban Water Management Planning Act, has required "urban water suppliers" to develop written "urban water management plans." While generally aimed at encouraging water suppliers to implement water conservation measures, it also created long-term planning obligations.

In preparing urban water management plans, urban water suppliers must describe the following:

- Existing and planned water supply and demand;
- Water conservation measures and a schedule for implementing and evaluating such measures; and

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[1] *Landscape Requirements City of Moreno Valley, California,* City of Moreno Valley.

- Water shortage contingency measures.

The Urban Water Management Planning Act requires that urban water suppliers use a 20-year planning horizon and update the data in the urban water plans every five years.

In preparing their 20-year management plans, water suppliers must directly address the subject of future population growth. The suppliers must also identify sources of supply to meet demand. The plan must "identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier." In identifying these future water sources, the suppliers need not conduct environmental review.

Senate Bill 901: Water Supply and Demand Reliability Assessment (Cal. Water Code Section 10910). Signed into law on October 16, 1995, Senate Bill 901 (SB 901) requires every urban water supplier to identify as part of its UWMP the existing and planned sources of water available to the supplier over a prescribed five-year period. SB 901 requires additional information to be included as part of an urban water management plan if groundwater is identified as a source of water available to the supplier. Provisions of SB 901 would require an urban water supplier to include in the plan a description of all water supply projects and programs that may be undertaken to meet total project water use. A city or county shall request each public water system serving a project to assess the projected water demand associated with said project and an assessment of whether the projected water demand associated with selected projects was included as part of the most recent UWMP. As part of this assessment, the public water system is required to indicate whether its total projected water supplies available during normal, single-dry, and multiple-dry water years will meet the project demand associated with the proposed WLC project, in addition to the public water system's existing and planned uses.

Pursuant to Section 10912 of the State Water Code, a "project" is specifically defined as development meeting any of the following criteria:

- 500 or more dwelling units;
- Commercial center employing more than 1,000 persons or having more than 500,000 square feet;
- Office building employing more than 1,000 persons or having more than 250,000 square feet;
- A hotel/motel with 500 or more rooms;
- An industrial, manufacturing, processing plant, or industrial park employing more than 1,000 persons or occupying more than 40 acres, or having more than 650,000 square feet of floor area;
- A mixed-use project that would demand an amount of water equal to the amount of water required by a 500-dwelling unit project; or
- In areas where the public water system has fewer than 5,000 service connections, any development that would increase water demand by 10 percent or greater in the number of existing service connections, or in the case of a mixed-use development, an increase in water required by residential development representing a 10 percent or greater increase in the number of existing service connections.

After receiving such information, cities and counties may agree or disagree with the conclusions of the water purveyors, but cannot approve projects in the face of documented water shortfalls without first making certain findings.

The proposed WLC project is an Industrial Specific Plan that would meet the definition of a "project" and the water purveyor (EMWD) is therefore required to conduct a Water Supply Assessment (included as Appendix J) to indicate a reliable supply of water for the proposed WLC project.

Senate Bill 610: Water Supply Planning (Cal. Water Code Section Sections 10910 through 10915). Signed into law October 9, 2001, Senate Bill 610 (SB 610) resulted in amendments to Section 21151.9 of the Public Resources Code. Additionally, several sections of the Water Code were amended, one was repealed, while portions of one section were added and/or repealed. Revising provisions established by SB 901 and SB 610 requires that any city or county having determined that a project is subject to CEQA identify any public water systems that may supply water for the project and to request those public water systems to prepare a specified water supply assessment if the project exceeds the specified threshold for a water supply assessment (WSA). Such an assessment would include, among other information, the following:

- Identification of existing water entitlements, water rights, or water service contracts relevant to the water supply identified for a proposed WLC project; and
- The amount of water received pursuant to such entitlements, rights, or contracts.

SB 610 requires the public water system, city, or county to submit plans for acquiring the required water supply for the proposed WLC project if the WSA concludes that water supplies are or will become insufficient. Any such WSA and other information would be included in the environmental document prepared for the project pursuant to CEQA. A WSA[1] was prepared for the proposed WLC project to identify existing water entitlements, water rights, and/or water service contracts relevant to the water supply as it relates to the operation of the proposed WLC project.

City of Moreno Valley General Plan. The following policies within the *Community Development Element* and *Conservation Element* of the *City of Moreno Valley General Plan* pertain to utilities and are applicable to the proposed WLC project.

Community Development Element Policies

Policy 2.11.1 Permit new development only where and when adequate water services can be provided.

Policy 2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

Policy 2.13.2 Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.

Policy 2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to ensure that all necessary infrastructure improvements (including system-wide improvements) needed to support project development are available at the time that they are needed.

The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

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[1] *Water Supply Assessment for the World Logistics Center Specific Plan*, EMWD, March 21, 2012.

Conservation Element Policies and Objectives

Policy 7.3.1	Require water-conserving landscape and irrigation systems through development review. Minimize the use of lawn within private development, and within parkway areas. The use of mulch and native and drought-tolerant landscaping shall be encouraged.
Policy 7.3.2	Encourage the use of reclaimed wastewater, stored rainwater, or other legally acceptable non-potable water supply for irrigation.
Objective 7.5	Encourage efficient use of energy resources.
Policy 7.5.5	Encourage the use of solar power and other renewable energy systems.

4.16.1.3 Methodology

The WSA is based on evaluating the existing water supply available to the City, future water supply that is anticipated to be available to the City, and the identification of existing water demand and future demand with the development of the proposed WLC project. The analysis also identifies water conservation measures that would be incorporated by the proposed WLC project to reduce the project's total water demand, with special reference to outdoor water usage and associated landscaping systems.

4.16.1.4 Thresholds of Significance

The following thresholds of significance regarding impacts to utilities and service systems are based on the recommended questions contained in *Guidelines for California Environmental Quality Act* (as amended through January 1, 2011). A project would have a significant impact on the provision of utilities or service systems related to water supply if it would result in any of the following:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and/or
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.

For the purpose of this EIR, significant and unavoidable impacts would occur if the aforementioned conditions cannot be overcome by reasonable design, construction, and maintenance practices.

4.16.1.5 Less than Significant Impacts

4.16.1.5.1 Construction or Expansion of Water Treatment Facilities

Threshold	Would the proposed WLC project require the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

As previously identified, Metropolitan currently does not have surplus water available, due in part to pumping restrictions imposed on the SWP to avoid and minimize impacts to Federal- and State-protected fish species in the Delta. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. Metropolitan and the EMWD have analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035. Based on the WSA prepared for the proposed WLC project, water demand for the proposed on-site uses would total approximately 1,991.25 AFY.[1] As identified in previously referenced Table 4.16.A, anticipated water supplies for the EMWD total 213,900 and 302,200 AFY in 2015 and 2035. The water demand required for the proposed WLC project totals 0.93 and 0.66 percent of the 2015 and 2035 projected EMWD supplies.

The EMWD's *2010 Urban Water Management Plan* and Metropolitan's *2010 Regional Urban Water Management Plan*[2] have stated that, with the addition of all existing and planned water supplies, it would have the ability to meet all of its member agencies' projected supplemental demand through 2035, despite the latest ruling regarding the allocation of SWP water. This is based on continued commitment to conservation programs, water recycling, and development of local water resources.

While the EMWD is capable of meeting all of its member agencies' projected demand through 2035, other efforts are taken to further reduce the retail demand due to demographics change and population growth. Passive conservation efforts already implemented by the EMWD include adherence to the plumbing code and installation of low-flow toilets and showerheads in all new construction. In addition to passive programs, active conservation programs/measures are also implemented. The EMWD has implemented all of the California Urban Water Conservation Council (CUWCC) and Best Management Practices (BMPs). The CUWCC was created to increase efficient water use throughout the State through partnership with urban water agencies (including the EMWD), public interest organizations, and private entities. In 1992, the EMWD signed the CUWCC's Memorandum of Understanding (MOU) Regarding Water Conservation in California and committed to developing and implementing fourteen comprehensive BMPs for urban water management.

The BMPs correspond to the fourteen Demand Management Measures (DMMs) listed in the Water Code Section 10631 (f) and include the following:

- Water survey programs for single-family residential and multifamily customers;
- Plumbing retrofits;
- Distribution system water audits, leak detection, and repair;
- Metering with commodity rates;
- Large landscape water audits and incentives;
- High-efficiency washing machine rebates;
- Public information;
- School education;
- Commercial, industrial, and institutional water conservation;
- Wholesale agency programs;
- Conservation pricing;
- Conservation corridor;
- Water waste prohibition; and
- Ultra-low flush toilet replacements.

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[1] 0.75 acre-foot per acre × 2,655 acres = 1,991.25 acre-feet per year.

[2] *The Metropolitan Water District of Southern California Regional Urban Water Management Plan,* Metropolitan Water District of Southern California, November 2010.

With implementation of passive and active conservation measures, the EMWD can significantly reduce its retail water demand and continue to do so in the future.

As previously identified, Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035.

The amount of water demand would be within the existing available supply even with a reduction in deliveries from the SWP. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency, and implementation of aggressive conservation measures by the EMWD. The proposed WLC project would not require the construction of new water treatment facilities or expansion of existing facilities, which could cause significant environmental effects.

Annually, a 5-year Capital Improvement Plan (CIP) is prepared by the EMWD. The EMWD's CIP outlines specific projects and their funding sources. Each project is also submitted individually to the Board for authorization and approval. This allows the EMWD to match needed facilities with development trends accurately. Funding for the EMWD's microfiltration plants, distribution pipes, and the recharge and recovery program is listed in the most recent EMWD CIP.

All necessary water distribution facilities would be installed simultaneously with required roadway frontage improvements for each phase of development of the proposed WLC project. Therefore, the connection to the existing water delivery system would not result in substantial disturbance of existing roadways or water facilities. As previously identified, the potable water demand that would be required for the proposed WLC project would total 1,991.25 AFY. The amount of water demand would be within the existing available supply even with a reduction in deliveries from the SWP. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency, and implementation of aggressive conservation measures by the EMWD. The proposed WLC project would not require the construction of new water treatment facilities or expansion of existing facilities, which could cause significant environmental effects.

It should be noted that the water consumption estimates in this section for future logistics uses within the WLCSP are likely overestimated by a significant factor, as a result of the emphasis on xeriscape or low-impact development (i.e., water conserving) design in the WLCSP. Sections 1.3.2 and 5.4) of the Specific Plan indicates that project design will incorporate features such as low-flow faucets and fixtures, rainwater harvesting systems for irrigation (where practical), and native non-irrigated landscaping to reduce the project's reliance on water. The size and composition of the landscape palette and the landscaping plan of the Specific Plan were developed in consultation with Robert Perry, a well-known horticultural scientist with many years of experience with drought-tolerant and low-water maintenance landscaping. Although water consumption on the WLC property will likely be much lower than anticipated, the analysis of environmental impacts relative to water consumption used a "worst-case" scenario as outlined in the WSA prepared by the EMWD (March 21, 2012).

Adherence to standard requirements identified by EMWD and the City associated with the design and installation of new water infrastructure, including the additional water storage tanks and connections to existing and future water infrastructure, would ensure that no significant impacts would result from the construction or operation of the proposed WLC project. Therefore, impacts related to this issue would be less than significant and no mitigation measures would be required other than those measures recommended in other sections addressing potential impacts of off-site improvements (e.g., cultural resources and biological resources).

In summary, development of the proposed WLC project will not result in the need for the construction of new water treatment facilities by the Eastern Municipal Water District, Metropolitan Water District of Southern California, or others. However, it will result in the need for several new water storage reservoirs, as shown in previously referenced Figure 3.7, *Offsite Improvement Areas*, and Figure 3.13, *Water System*.

4.16.1.6 Significant Impacts

4.16.1.6.1 Adequate Water Supply

Threshold	Would the proposed WLC project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

A project-specific WSA[1] was prepared for the proposed WLC project to assess the water supply availability to the project site to satisfy the requirements under SB 610 and to make a determination that adequate water supplies are and will be available to meet the water demand associated with the proposed WLC project. In accordance with Water Code Section 10910(d) – (f), the WSA identifies:

- Any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed WLC project, and provides a description of the quantities of water received in prior years by the public water system, under existing water supply entitlements, water rights, or water service contracts.
- If no water has been received in prior years by the public water system, identify other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts to the same source of water as the public water system.
- If groundwater is included in the proposed supply, identify the groundwater basin or basins from which the proposed WLC project will be supplied, and include any applicable documentation of adjudicated rights to pump. If the basin is not adjudicated, regardless of whether the basin has been identified as over-drafted, provide a detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin from which the proposed WLC project will be supplied, and provide a detailed description and analysis of the amount and location of groundwater from the basin or basins from which the proposed WLC project will be supplied to meet the projected water demand associated with the proposed WLC project.

There has been a shift in the water demand patterns in the last 15 years, as the residential market has replaced the agricultural market as the largest local consumer of water. Metropolitan, based on its 2010 RUWMP,[2] has stated that, with the addition of all water supplies existing and planned, it would have the ability to meet all of its member agencies' projected supplemental demand through 2035 even under a repeat of a worst drought scenario. Based on this assertion, the EMWD has stated it is able to meet an increased demand for water over the next 20 years, even during drought conditions. This is based on continued commitment to conservation programs, additional water recycling, and continued development of local water resources.

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[1] *Water Supply Assessment for the World Logistics Center Specific Plan*, EMWD, March 21, 2012.

[2] IRPSIM is a sophisticated water supply and demand-balancing model that utilizes 77 sequential hydrologies to determine variations in supply and demand due to changes in weather conditions.

It should be noted that the project site currently contains several non-potable agricultural water wells, but no yields from these wells were used to calculate water supply or demand related to the proposed project.

The EMWD continues to work closely with Metropolitan in the implementation of water management plans as a means of ensuring the reliability of the EMWD's water supplies. Efforts to ensure reliable water supplies include the preparation and/or implementation of Groundwater Management Plans, Desalination Program, Seasonal Storage, and Conjunctive Use Water Recycling. The EMWD's 2010 UWMP presents fifteen DMMs related to water conservation and water recycling programs split into two types (Foundational and Programmatic).

The potable water demand estimated for the proposed WLC project is within the limit of retail growth projected by the EMWD. Table 4.16.B presents the EMWD's total water use. To develop the projections used in the WSA, the EMWD used a development-tracking database that assesses future water demands for specific projects. The EMWD uses this database to help plan for future water supply and infrastructure needs by monitoring new projects through various stages of development. Changes in density and land use are also tracked in this database for planning purposes.

Table 4.16.B: EMWD Average Water Demand (2010–2035)

Demand Sources (acre-feet/year)	Actual	Projected				
	2010	**2015**	**2020**	**2025**	**2030**	**2035**
Retail Potable Water Sales	77,700	113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies	27,100	47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses	49,900	52,500	59,100	64,200	66,300	67,600
Total Average Demand	**154,700**	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Source: *Water Supply Assessment, Table 9*, EMWD, March 21, 2012.

The EMWD's *2010 UWMP* also discusses the supply reliability for the EMWD during dry years. The supply for dry years is driven by demand. Demand increases slightly (less than 2%) during dry years, primarily due to the increased demand in winter for landscaping or agricultural water, and can be decreased up to 10 percent due to conservation as dry periods are extended. Tables 4.16.C, 4.16.D, and 4.16.E present estimates of demand from 2015 to 2035 in five-year increments for an average year, single dry year, and multiple dry years, respectively.

Neither groundwater production nor recycled water deliveries are expected to increase or decrease significantly during dry years. The EMWD depends on Metropolitan to supply additional water during dry years. Based on Metropolitan's 2010 RUWMP, the EMWD is confident of its ability to meet customer demands beyond the next 20 years in all reasonably predictable hydrological scenarios. For water shortages and interruptions, the plans and policies outlined in the RUWMP will be implemented.

Table 4.16.C: EMWD Water Resources, Average Year Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled Water	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Total Projected Demand	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

[1] based on a repeat of 2004–2009 conditions
Source: *Water Supply Assessment, Table 11*, EMWD, March 21, 2012.

Table 4.16.D: EMWD Water Resources, Single Dry Year Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	155,300	177,600	198,300	218,300	235,100
Recycled Water	45,500	51,800	55,800	56,900	57,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Total Projected Demand	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**

[1] based on a repeat of 1977 conditions
Source: *Water Supply Assessment, Table 12*, EMWD, March 21, 2012.

Table 4.16.E: EMWD Water Resources, Multiple Dry Years Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	156,600	179,000	199,800	219,900	236,900
Recycled Water	45,800	52,200	56,200	57,300	57,700
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Total Projected Demand	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**

[1] based on a repeat of 1990–1992 conditions
Source: *Water Supply Assessment, Table 13*, EMWD, March 21, 2012.

NOTE: The following revision has been added in response to Comment F-1-74 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society and F-11-44 in Letter F-11 from the Sierra Club.

The Water Supply Assessment considered the impact of climate change on water supplies. Climate change has the potential to affect not only local demand and supplies, but to reduce the amount of water available for import. Potential changes that may impact water supply include:

- Warmer temperatures leading to higher demand for water within EMWD’s service area and throughout California;
- Reduction in the Sierra Nevada snow pack;
- Increased intensity and frequency of extreme weather events; and
- Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.

One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD’s long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD’s service area. The project developer is committed to water use efficiency and minimizing the use of potable water for landscape irrigation by using low water use fixtures, drought tolerant plants and recycled water where available as outlined in Mitigation Measure 4.16.1.6.1B.

It is anticipated that the majority of water for future development would be supplied by imported water from Metropolitan, recognizing the following conditions:

- The ability of Metropolitan to meet the demands of member agencies as described in the 2010 RUWMP as the majority of EMWD's current and future supply rely on Metropolitan's supplies. This assessment is based on representations by Metropolitan that it will provide the water requested by the EMWD for the next 20 years under the conditions set forth in Water Code Section 10910 as authorized by Water Code Section 10631(k). This assessment is subject to review, modification, or rescission in the event that regulations, court decisions, or other events reduce or impair Metropolitan's ability to provide such water.
- The cost of new water supplies will continue to increase. The developer of this project is required to help fund the acquisition of new water supplies, new treatment or recycled water facilities, and water efficiency measures for existing customers to develop new water supplies.
- New customers may also be required to pay a higher commodity rate for water used than existing customers to offset the rising costs to the EMWD for new water supplies.
- The developer will install water-efficient devices such as low-flow toilets and landscaping according to the requirements of the EMWD's water use efficiency ordinance(s) at the time of construction to reduce the impact of this project on water supplies.

Metropolitan does not place imported water limits on a member agency, but predicts the future water demand based on regional growth information. Metropolitan stated in its 2010 RUWMP that, with the addition of all water supplies, existing and planned, Metropolitan would have the ability to meet all of its member agencies' projected supplemental demand through 2035 even under a repeat of historic drought scenarios. For any short-term water shortages and interruptions caused by disaster or unprecedented drought, the plans and policies outlined in the 2010 RUWMP will be implemented.

The proposed WLC project may be conditioned by the City to construct off-site and on-site water facilities needed to distribute water throughout the project area. A plan of service for the proposed WLC project would be approved by the EMWD that would identify specific on-site improvements. The nearest recycled water line is a 24-inch transmission main located approximately 0.25 mile southwest of the project site, at the intersection of Redlands Boulevard and Cactus Avenue. Although currently active recycled water lines are not adjacent to the project site, in the future, it may be possible to serve this project site with recycled water. Irrigated landscaped areas of the proposed WLC project site will be designed to connect to the recycled water system and would utilize recycled water in landscape areas to the extent feasible. EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, green-belts, open space common areas, commercial landscaping, and supply for aesthetic impoundment or other water features. The majority of irrigated landscaped areas within the project site will be designed to use recycled water to the greatest extent possible when it becomes available.

Water Demand Based on the Existing General Plan Land Uses for the Project Site. As noted in Section 3.0, *Project Description*, the Community Development Element[1] of the City's General Plan currently designates the project site as a mix of residential, commercial, business park, and open space land uses. These land use designations are based on the previously approved (1992) Moreno Highlands Specific Plan (MHSP) and were used in developing EMWD's 2010 UWMP. Table 4.16.F summarizes the current land use designations at the project site, their associated acreages, and expected water demand from the 1992 MHSP EIR. The EIR prepared for the MHSP indicated that

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[1] *City of Moreno Valley General Plan Community Development Element,* City of Moreno Valley, July 11, 2006.

project would consume 11.8 million[1] gallons per day (mgd) or 9,840 acre-feet/year (AFY) of water at buildout of all the residential and non-residential uses.

Table 4.16.F: Moreno Highland Specific Plan Land Use Designations and Acreages

Land Use Designation	Acreage	Demand (AFY)
Residential Community		
Residential (7,763 dwelling units)	1,359.3	4,315
Parks and Open Space	701.9	3,159
Neighborhood Commercial	10.0	22
Cemetery	16.5	74
Public Facilities	347.7	1,168
Planned Business Center		
Business Park	360.8	271
Mixed Use	80.5	218
Community Commercial	16.0	36
Parks and Open Space	77.9	351
Public Facilities	67.4	226
Total	**3,038**	**9,840**

Source: Moreno Highlands Specific Plan, 1992.

The WSA prepared for the proposed project by the EMWD concluded that the water demand for the proposed on-site uses would be approximately 1,991.25 AFY.[2] The EMWD considers this a “worst-case” estimate based on the total acres and amount of square footage of warehousing proposed by the project. This estimate does not take into account the proposed project landscaping design with xeriscape (drought-tolerant plants) and on-site collection of runoff and channeling it to landscaped areas to minimize irrigation on the interior of the project site. For example, the “Water Budget Technical Memorandum’ prepared by CH2MHill (see Appendix N) in September 2011 for the WLC project indicates that actual water usage of on-site buildings, based on the specific development characteristics of the WLC Specific Plan, would be on the order of 450 AFY, which is less than a quarter of the amount estimated by EMWD; however, this estimate does not include on-site irrigation of landscaping and could only be achieved if all on-site landscaping was irrigated by collection and distribution of on-site runoff from roofs and hardscape areas.

Taking into account the proposed water xeriscape landscaping plan, it is likely that actual water use for development within the WLC Specific Plan will be substantially less than the worst-case EMWD estimate. Therefore, for the purposes of analysis in this EIR, both the CH2MHill figure of 450 AFY and the EMWD’s worst-case estimate of 1,991 AFY figure will be used relative to water consumption. Under either scenario, the anticipated water demand for the proposed WLC project is substantially less than what is identified above for the General Plan land uses and what was used in the formulation of the 2010 UWMP. As identified in previously referenced Table 4.16.A, anticipated water supplies in the EMWD total 213,900 and 302,200 AFY in 2015 and 2035, respectively. The water demand required for the proposed WLC project would total 0.93 and 0.66 percent of the EMWD’s 2015 and 2035 supplies under worst-case conditions. The demand estimated for this project is substantially less and therefore still within the limit of growth projected in the 2010 UWMP.

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[1] Based on 27,015 population times 200 gallons/person/day and 24,019 jobs at buildout

[2] *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

When compared to the currently approved MHSP, there would be an 80 percent decrease in projected water demand (7,849 AFY) with the development of the proposed WLC project. The site's water usage would decrease under the current development plan for the proposed WLC project and it would remain lower than what is anticipated in the General Plan and the 2010 UWMP. Additionally, the increased water demand for the site has been analyzed by the WSA, which determined that a suitable water supply exists for the proposed WLC project well into the future.

The project's water consumption represents substantially less than 1 percent of the consumption yearly capacity and because the EMWD indicates that water to service the project's proposed industrial uses is available, no significant water supply impacts would occur with implementation of the industrial use, and no mitigation would be necessary.

Metropolitan is currently engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, the EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project in addition to existing and future users. However, until these supplies are secured, potential impacts of the proposed project on regional water supplies may be significant, and mitigation is required.

Specific Plan Design Features. Section 6.0 of the Specific Plan requires the careful use of xeriscape or drought-tolerant vegetation with minimal mechanical irrigation to minimize water use for landscaping. Sections 4.2 and 5.4 require implementation of water-conserving landscaping and Section 5.2.3 provides architectural design guidelines that will help minimize the consumption of water for landscape irrigation.

Mitigation Measures. The following measures are recommended to help ensure that the proposed WLC project will have less than significant impacts on long-term regional water supplies.

4.16.1.6.1A Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following:

- Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan;
- Use of vacuums, sweepers, and other "dry" cleaning equipment to reduce the use of water for wash down of exterior areas;
- Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors);
- Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest;
- Use of recirculation systems in any outdoor water features, fountains, etc.;
- Use of low-flow sprinkler heads in irrigation system;

- Provide information to the public in conspicuous places regarding outdoor water conservation; and
- Use of reclaimed water for irrigation if it becomes available.

4.16.1.6.1B All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development/Public Works. These design features shall include, but not be limited to the following:

- Instantaneous (flash) or solar water heaters;
- Automatic on and off water facets;
- Water-efficient appliances;
- Low-flow fittings, fixtures and equipment;
- Use of high efficiency toilets (1.28 gallons per flush [gpf] or less);
- Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);
- Use of self-closing valves for drinking fountains;
- Infrared sensors on drinking fountains, sinks, toilets and urinals;
- Low-flow showerheads;
- Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances;
- Cooling tower recirculating system where applicable;
- Provide information to the public in conspicuous places regarding indoor water conservation; and
- Use of reclaimed water for wash down if it becomes available.

4.16.1.6.1C Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.

Level of Impact After Mitigation. With implementation of the recommended mitigation measures, expected impacts to water supply over the long term will be reduced to less than significant levels.

4.16.1.6.2 Storm Water Drainage Requirements

Threshold	Would the proposed WLC project result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As identified in the *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*[1] (Draft Drainage Report) and Section 4.9, *Hydrology and Water Quality*, the proposed WLC project storm water flows from the project site eventually drain into the Perris Valley Storm Channel (PVSC) then into Reach 3 of the San Jacinto River. The storm channel is owned and maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD). Flows routed to the PVSC are transported through Perris Valley and ultimately to the San Jacinto River. Flows are then conveyed through the San Jacinto River, Canyon Lake, again to the San Jacinto River (Reach 1), and ultimately to Lake Elsinore. In the event Lake Elsinore is at or beyond capacity, flows continue through Temescal Creek, the Santa Ana River (Reaches 1–3) and then to the Pacific Ocean.

It is anticipated that the development of these logistics warehouse facilities would include the construction of buildings, parking areas, sidewalks, roads and other infrastructure such as water, recycled water, and sewer infrastructure features. Because the development of the proposed WLC project would introduce a greater percentage of impervious surfaces, the post-development flow volumes generated on site are anticipated to be substantially higher than the pre-development flows.

Conditions resulting from this change would include increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. The majority of the proposed WLC project area currently has a low runoff coefficient, meaning that runoff during storms represents a relatively small portion of the total rainfall. The majority of the precipitation, particularly in smaller storms, infiltrates into the subsurface. The development of the proposed WLC project with impervious surfaces (such as roadways, parking lots, and buildings) would result in a condition in which nearly all rainfall becomes runoff. A significant impact would occur in the event that post-development storm water flows are greater than pre-development storm water flows leaving the site.

As detailed in the *Draft Master Plan of Drainage Report,*[2] the storm water runoff from the proposed WLC project site generally flows in a southerly direction toward the San Jacinto River. A topographic divide generally located west of Theodore Street separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows at a gradient ranging from 1 to 2 percent toward the San Jacinto Wildlife Area (SJWA) and ultimately drains toward the Gilman Hot Springs hydro-subarea; and runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent and ultimately drains toward the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site. The project site is located in the Moreno Valley drainage area and is tributary to the San Jacinto River.

The westerly portion of the proposed WLC project site is located within the Moreno Master Drainage Plan (MMDP). The existing MMDP indicates that storm flows north of SR-60 will be routed to the proposed Sinclair Detention Basin. Flows released from the proposed basin will pass under SR-60 through the existing culverts and be conveyed to the drainage system identified as Line “F” in MMDP. The proposed basin will not be constructed prior to the proposed WLC project; therefore, this analysis assumes that the Sinclair Detention Basin is not in place prior to construction and operation of the proposed WLC project.

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[1] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*, CH2M Hill, September 2014.

[2] *Ibid.*

As detailed in the *Draft Master Plan of Drainage Report*, storm flows originating from the Badlands reaching SR-60 are conveyed through a series of five culverts under SR-60 between Redlands Boulevard and Theodore Street, to earthen ditches that flow in a southerly direction. Based on the Logistic Building Runoff Management Plan (LBRMP) prepared by RBF in 2008, some of the culverts were partially blocked by sediment and debris allowing little flow from the culverts to enter the proposed WLC project site thus attenuating the flow during a 100-year storm event. Drainage peak flow rates from water ponds north of SR-60 are reduced due to the capacity of the existing culverts. As part of the construction of the Highland Fairview Corporate Park (HFCP) project, these existing culverts were combined into a 12-foot by 8-foot reinforced concrete box (RCB).[1] The RCB drains to the south along the west side of the logistics building within the HFCP project. A 36-inch and 42-inch storm drain underlying Eucalyptus Avenue join the RCB. The outflow from the drainage system sheet flows via a spreading area in to the agricultural land downstream. Farther south, the agricultural land drains to a RCFCWCD earthen channel at Redlands Boulevard, which flows to a Greenbelt Channel located south of Cactus Avenue and East of Redlands Boulevard and ultimately drains to the Perris Valley Storm Drain. Along the east side of Redlands Boulevard from Dracaea Street to the earthen channel collects flows from the west side of the project boundary. The v-ditch also outlets to the existing RCFCWCD earthen channel.

Open ditches along the Theodore Street convey runoff from adjacent areas. A series of existing drainage culverts crosses Gilman Springs Road conveying off-site runoff from the Badlands area onto the project site. Four of these culverts drain into somewhat defined natural drainage courses and drain into the SJWA. The existing culverts along Gilman Springs Road are undersized and therefore inadequate. The culverts provide some level of peak flow mitigation under a 100-year storm event; however, runoff will pond and overtop the road crossing onto the eastern portion of the proposed WLC project site. Therefore, the existing drainage courses in this area are undersized for the 100-year flow.

Previously referenced Tables 4.9.L, 4.9.M and 4.9.N (Section 4.9, *Hydrology and Water Quality*) identify changes in the flows, velocities, and volume of storm water runoff that would result from the development of buildings and impermeable surfaces without and with the development of the on-site basins. Due to the installation of impervious surfaces on the project site, the post-development flows would be higher than the pre-development flows. To avoid a significant impact to the existing drainage capacity, the post-development flows coming from the proposed WLC project site are required to be equal to or less than pre-development flows.[2] To reduce flows to below or equal to pre-development conditions, the on-site storm water flows would be routed to a series of on-site detention and infiltration basins[3] by phase before flows are routed off site. While the increase in impervious surfaces attributable to the proposed WLC project would contribute to a greater volume and higher velocity of storm water flows, the proposed WLC project's detention and infiltration basins would accept and accommodate runoff that would result from project construction at pre-project conditions (previously referenced Tables 4.9.L, 4.9.M, and 4.9.N).

As identified in the *Draft Master Plan of Drainage Report*[4] prepared for the project, the hydrology analysis consisted of dividing the area into six existing and proposed off-site and on-site tributary areas (A through F; refer to previously referenced Figure 4.9.1). There are five proposed drainage systems to be constructed as part of the proposed WLC project and are identified as Line A (consistent with Line

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[1] The drainage facilities planned in the RCFCWCD MMDP (dated April 1991) were considered and incorporated in to the RCB storm drain system.

[2] As part of the MS4 Permit issuance requirements, projects must identify any Hydrologic Conditions of Concern and demonstrate that changes to hydrology are minimized to ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, sedimentation or stream habitat.

[3] A detention basin is an area where excess storm water is stored or held temporarily and then slowly drains when water levels in the receiving channel recede. In essence, the water in a detention basin is temporarily detained until additional room becomes available in the receiving channel.

[4] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*, CH2M Hill, September 2014.

F in the MMDP), Line B, Line C, Line D, and Line F as depicted in previously referenced Figure 4.9.4. Hydrologic modeling results identify that the 100-year 3-hour storm provides the highest peak flows.

The land uses and roadway facilities proposed under the Specific Plan would require modifications to the existing sub watersheds of the project vicinity. Table 4.16.G provides a comparison of the existing and proposed drainage areas and shows the proposed modifications to the existing sub watersheds would not substantially alter the existing drainage pattern of the project vicinity. A comparison of the total area in acres shows no change.

Table 4.16.G: Comparison of Existing and Proposed Drainage Areas

Existing Condition			Proposed Condition		
Watershed	**Area (acres)**	**Hydro-subarea**	**Watershed**	**Area (acres)**	**Hydro-subarea**
A	2,657	Perris Valley	A	2,746	Perris Valley
B	1,361	Gilman Hot Springs	B	1,147	Gilman Hot Springs
C	1,061	Gilman Hot Springs	C	1,149	Gilman Hot Springs
D	965	Gilman Hot Springs	D	1,013	Gilman Hot Springs
E	2,510	Gilman Hot Springs	E	2,545	Gilman Hot Springs
F	445	Gilman Hot Springs	F	399	Gilman Hot Springs
Total	**8,999**			**8,999**	

Source: Table 4.1, Draft Master Plan of Drainage Report, CH2MHILL, September 2014

To adequately contain and store the greatest volume that would be generated during the 2-year, 5-year, 10-year, and 100-year storm events (i.e., 100-year 3-hour storm event), the project site would require the construction of on-site detention and infiltration basins, on-site culverts, and on-site energy dissipaters. Table 4.16.H provides a comparison of the existing and proposed storm water runoff for the 100-year 3-hour storm events. As shown in Table 4.16.H, the proposed WLC project site in the existing condition currently discharges at a rate of 2,470 cfs to the Perris Valley Hydro-Subarea and 5,250 cfs to the Gilman Hot Springs Hydro-Subarea. With the installation of the on-site detention basins, culverts, and energy dissipaters, expected discharges that would occur as a result of development of the site under the Specific Plan would discharge at a rate of 2,170 cfs to the Perris Valley Hydro-Subarea and 4,665 cfs to the Gilman Hot Springs Hydro-Subarea, which is less than the existing condition.

Table 4.16.H: Comparison of Existing and Proposed Storm Water Runoff for 100-Year 3-Hour Storm Event

		Existing Condition	Proposed Condition
Hydro-Subarea	**Watershed**	**Peak Discharge (cfs)**	
Perris Valley	A	2,470	2,170
Gilman Hot Springs	B	1,130	930
	C	820	750
	D	815	795
	E	1,990	1,800
	F	495	390
	Total	**5,250**[1]	**4,665**

Source: Table 4-2 Draft Drainage Report, CH2MHill, September 2014

Specific Plan Design Features. The preceding information has outlined the Drainage Master Plan (DMP) for the proposed WLCSP. The DMP is designed to retain increased on-site runoff that will occur due to the presence of more impervious surfaces (e.g., roofs, parking lots, and streets) and channel it to landscaped areas. The DMP is also designed to prevent off-site runoff from exceeding that which occurs under existing conditions. Section 6.0 of the Specific Plan requires the careful use of xeriscape or drought-tolerant vegetation with minimal mechanical irrigation to minimize water use for landscaping. Sections 4.2 and 5.4 require implementation of water-conserving landscaping, and Section 5.2.3 provides architectural design guidelines that will help minimize the consumption of water for landscape irrigation.

In addition to the Specific Plan design features, the following mitigation is recommended to ensure that impacts associated with project-related drainage capacity are reduced to less significant levels.

Mitigation Measures. Implementation of **Mitigation Measure 4.16.1.6.2A** would ensure that the proposed WLC project would not result in storm water drainage flows that would require the construction of new storm water drainage facilities or expansion of existing storm water drainage facilities that would in turn cause significant environmental effects.

4.16.1.6.2A Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.

Level of Significance after Mitigation. Adherence to **Mitigation Measure 4.16.1.6.2A** would result in the project's compliance with the City's existing storm water infrastructure requirements, reducing the potential impact associated with storm water drainage capacity to a less than significant level. Discussion of hydrological impacts from construction and operation of the WLC project are addressed in Section 4.9.6.1, *Construction-Related Water Quality Impacts,* and Section 4.9.6.2, *Operational Water Quality Impacts.*

~~4.16.1.7 Cumulative Impacts to Water Supply Services~~

~~The cumulative area for water supply-related issues is the EMWD service area (previously referenced Figure 4.16.1). Existing and future development within the EMWD's service area would demand additional quantities of water. The adopted UWMP (2010) projects population within the EMWD service area to increase to 1,111,729 persons by the year 2035. Increases in population, square footage, and intensity of uses would contribute to increases in the overall regional water demand. The anticipated conversion of water-intensive uses (i.e., agriculture) and the implementation of existing water conservation measures and recycling programs would reduce the need for increased water supply.~~

~~As previously identified, Metropolitan will continue to rely on the plans and policies outlined in its RUWMP and IRP to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary conservation and recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. As previously stated, Metropolitan currently does not have surplus water available, due in part to pumping restrictions imposed on the SWP in place to avoid and minimize impacts to Federal- and State-protected fish species in the Delta. However, Metropolitan~~

~~has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035. The EMWD would have water supplies for projected growth through 2035 in wet, dry, and multiple-dry years, so cumulative impacts to water supply would be less than significant. The proposed WLC project would connect to existing conveyance infrastructure and adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.~~

~~With implementation of the WLC Specific Plan as proposed and **Mitigation Measures 4.16.6.1A** through **4.16.6.1C**, potential cumulative impacts to regional long-term water supplies will not be cumulatively considerable.~~

4.16.2 Wastewater Services

4.16.2.1 Existing Setting

The EMWD and the Edgemont Community Services District (ECSD) provides wastewater (sewer) services in the City of Moreno Valley. The EMWD provides wastewater treatment, collection, and disposal service to most of the City and surrounding area and the ECSD provides sewer service to a small area in the southwestern portion of the City limits. The EMWD owns, operates, and maintains four regional water reclamation facilities including the Moreno Valley Regional Water Reclamation Facility (MVRWRF). The MVRWRF facility is located south of the City limits and east of Perris Boulevard, south and adjacent to Mariposa Avenue. The MVRWRF treats domestic, commercial, and industrial wastewater, and currently accepts an average daily flow of approximately 11.2[1] mgd, with an existing capacity of approximately 16 mgd.[2] Reclaimed water from the MVRWRF is primarily used to irrigate agriculture lands, greenbelts, and median strip areas. The existing development on the site (seven residences and associated farming facilities) is served by private septic tank systems. An existing sewer pipeline is located underlying Redlands Boulevard along the western perimeter of the project limits and Fir Avenue along the northern perimeter of the project limits.

NOP/Scoping Comments. No comments were received during the scoping period specifically regarding wastewater service.

4.16.2.2 Existing Policies and Regulations for Wastewater Services

Federal Water Pollution Control Act The major piece of Federal legislation dealing with wastewater is the Federal Water Pollution Control Act, which is designed to restore and preserve the integrity of the nation's waters. In addition to the Federal Water Pollution Control Act, other Federal environmental laws have a bearing on the location, type, planning, and funding of wastewater treatment facilities.

Regional Water Quality Control Board. Operation of the MVRWRF is subject to regulations set forth by the California Department of Health Services (DHS) and the Regional Water Quality Control Board (RWQCB). NPDES permits are required for operators of publically owned treatment works, municipal

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[1] Plus 0.4 mgd diverted to the Perris Valley Regional Water Reclamation Facility.

[2] Eastern Municipal Water District Moreno Valley Regional Water Reclamation Facility, http://www.emwd.org/modules/.aspx?documentid=1423, website accessed April 3, 2012.

separate storm sewer systems (MS4s), construction, projects, and industrial facilities who discharge to surface waters within the City.

City of Moreno Valley General Plan. The following are policies in the City's General Plan that pertain to wastewater services and are applicable to the proposed WLC project:

Community Development Element

Policy 2.12.1 Prior to the approval of any new development application, ensure that adequate septic or sewer service capacity exists or will be available in a timely manner.

Policy 2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

Policy 2.13.2 Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.

Policy 2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to ensure that all necessary infrastructure improvements (including system-wide improvements) needed to support project development are available at the time that they are needed.

4.16.2.3 Methodology

The methodology of determining wastewater service impacts is based on evaluating the existing wastewater infrastructure and capacity available to the City, future wastewater demand and capacity that is anticipated to be available to the City, and the identification of existing wastewater demands and future wastewater demands with the development of the proposed WLC project.

4.16.2.4 Wastewater Services Thresholds of Significance

The proposed WLC project is considered to have a significant impact on wastewater services if any of the following occurs:

- The project would exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board;
- The project would result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; and/or
- The project would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4.16.2.5 Less than Significant Impacts

4.16.2.5.1 Wastewater Treatment Requirements

Threshold	Would the proposed WLC project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Local governments and water districts are responsible for complying with Federal regulations, both for wastewater plant operation and the collection systems (e.g., sanitary sewers) that convey wastewater to the wastewater treatment facility. Proper operation and maintenance is critical for sewage collection and treatment as impacts from these processes can degrade water resources and affect human health. For these reasons, publicly owned treatment works (POTWs) receive Waste Discharge Requirements (WDRs) to ensure that such wastewater facilities operate in compliance with water quality regulations set forth by the State. WDRs, issued by the State, establish effluent limits on the kinds and quantities of pollutants that POTWs can discharge. These permits also contain pollutant monitoring, recordkeeping, and reporting requirements. POTWs that intend to discharge into the nation's waters must obtain a WDR prior to initiating discharge.

The proposed WLC project would result in a connection to the sewer line underlying Redlands Boulevard in the vicinity of the intersection of Redlands Boulevard and Brodiaea Avenue. It is anticipated that all wastewater generated by the proposed WLC project would be routed to and treated by the MVRWRF. The MVRWRF is considered to be a POTW, so operational discharge flows treated at the MVRWRF would be required to comply with waste discharge requirements contained within the WDRs for that facility. Compliance with condition or permit requirements established by the City, and waste discharge requirements at the MVRWRF would ensure that discharges into the wastewater treatment facility system from the operation of the proposed WLC project would not exceed applicable Santa Ana RWQCB wastewater treatment requirements. Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant, so no significant impact related to this issue would occur and no mitigation would be required.

4.16.2.5.2 Wastewater Treatment Capacity and/or New or Expanded Wastewater Treatment Facilities

Threshold	Would the proposed WLC project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
Threshold	Would the proposed WLC project require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As previously noted, the proposed WLC project would connect to the existing sewer pipeline underlying Redlands Boulevard in the vicinity of the intersection of Redlands Boulevard and Brodiaea Avenue. Wastewater flows from the proposed WLC project site would be handled by the EMWD and would be conveyed to the MVRWRF located in the southwestern portion of the City, southwest of the proposed WLC project site. Current capacity at this facility is 16 mgd[1] with an existing average inflow of approximately 11.2 mgd.[2] Under current conditions, the average daily surplus treatment capacity is approximately 4.5 mgd. Generally, water use and wastewater flows are related in that wastewater is generated from indoor water uses.

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[1] *5.13 Public Services and Utilities*, City of Moreno Valley General Plan Final EIR, July 2006.

[2] Eastern Municipal Water District Moreno Valley Regional Water Reclamation Facility, http://www.emwd.org/modules/.aspx?documentid=1423, website accessed April 2, 2012.

Flow from the Logistics Development is based on a factor of water use equivalent to 0.01 gpd/sf. These values were determined based on a water demand analysis and benchmarking study conducted to determine water generation factors for similar facilities as outlined in the Technical Memorandum titled *World Logistics Center Water Demands and Waste Water Generation for Buildings* dated March 13, 2012. Since this study is for Specific Plan purposes and because these wastewater generation factors are less than rates used to cover the broad spectrum of light industrial uses, a facility sizing factor was added. This factor is 2.0 times the 0.01 gpd/sf for a wastewater generation factor of 0.02 gpd/sf. Based on a square footage of 40.6 million, the wastewater generated from the logistics uses on the site is 812,000 gpd. An additional 5,100 gpd of flow was added to account for the in-project fueling station. Thus, the total wastewater generated from the site is 817,100 (0.82 mgd). The additional wastewater treatment demand of 0.82 mgd resulting from development of the proposed WLC project totals approximately 18.2 percent of current surplus treatment capacity. Improvements planned for the MVRWRF facility would increase capacity at this facility from 16 mgd to 18 mgd with an ultimate expansion of this facility of 41 mgd. The planned expansion of the MVRWRF to increase capacity from 16 mgd to 18 mgd was completed in December 2013.[1] Impacts associated with wastewater facilities would be less than significant because the amount of wastewater generated by the project would be within the existing surplus treatment capacity at the MVRWRF. The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects. Therefore, impacts associated with wastewater facilities would be less than significant and no mitigation is required.

4.16.2.6 Significant Impacts

No impacts related to wastewater services or facilities have been identified as significant for the proposed WLC project.

~~4.16.2.7 Cumulative Impacts to Wastewater Facilities~~

~~The cumulative area for wastewater-related issues is the MVRWRF service area (previously referenced Figure 4.16.1). Cumulative population increases and development within the area serviced by the MVRWRF would increase the overall regional demand for wastewater treatment service. The previous treatment capacity at the MVRWRF was 16 mgd. Improvements to this facility have increased capacity at this facility to 21 mgd. Ultimate expansion of this facility is expected to be 41 mgd. The MVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Any proposed changes to capacity of the MVRWRF or any facility maintained by EMWD are reviewed throughout the year. EMWD has a funding and construction mechanism in place that ensures improvements to EMWD facilities occurs in a timely manner. This funding mechanism is referred to as EMWD's Sewer Financial Participation Charge Program. For all new development within the EMWD service area, the Sewer Financial Participation Charge is allocated to assist in the financing of any future collection and disposal facilities and any future sewer treatment plant facilities. Cumulative development would not exceed the capacity of the wastewater treatment system because the MVRWRF would expand as growth occurred.~~

~~The proposed WLC project would not have a cumulatively significant impact on wastewater infrastructure because the proposed WLC project would not require the expansion of existing infrastructure, only connections to existing infrastructure would be required by the project. By adhering to the wastewater treatment requirements established by the Santa Ana RWQCB through the NPDES permit, wastewater from the project site that is processed through the MVRWRF would meet established standards. As the wastewater from all development within the service area of the MVRWRF~~

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[1] Approval and Authorize an Amendment (246,044) to the Agreement with Carollo Engineers for Constuction Management and Engineering Support Services During Construction of the MVRWRF, Eastern Municipal Water District, July 2, 2014, http://www.emwd.org/home/showdocument?id=10415.

~~would be similarly treated under the NPDES, no cumulatively significant exceedance of Santa Ana RWQCB wastewater treatment requirements would occur.~~

4.16.3 Solid Waste Services

4.16.3.1 Existing Setting for Solid Waste Services

Solid waste disposal and recycling services for the proposed WLC project site would be provided by Waste Management of the Inland Empire.[1] Waste Management of the Inland Empire separates and markets recyclable materials collected within its service area. Solid wastes would primarily be transported to the Badlands Sanitary Landfill located at 31125 Ironwood Avenue in Moreno Valley. Additionally, Waste Management of the Inland Empire will also use other County landfills in the area, such as the Lamb Canyon Landfill on County land near the City of Beaumont and the El Sobrante Landfill in the City of Corona. The Badlands Sanitary Landfill is designated a Class III landfill run by the County of Riverside.[2] Waste types accepted at the Badlands Sanitary Landfill include agricultural, construction/demolition, industrial, mixed municipal, and tires.

The Badlands Sanitary Landfill currently has a permitted capacity of 33.5 million cubic yards with a remaining capacity of 14.7 million cubic yards.[3] The tonnage of any mass of solid waste is dependent on the material (e.g., metals, paper, and green waste) and its density (compacted or uncompacted). Utilizing conversion factors from various jurisdictions, one cubic yard of compacted municipal solid waste typically weighs 750 pounds (0.37 ton).[4] Based on this conversion factor, remaining space at the Badlands Sanitary Landfill totals approximately 5.45 million tons with an estimated closure date of January 2024. The maximum daily permitted throughput of this facility is 4,000 tons/day. The Badlands Sanitary Landfill currently accepts approximately 1,683 tons/day.[5]

Recyclable materials collected by Waste Management of the Inland Empire are handled at the Moreno Valley Transfer Station owned and operated by Waste Management, Inc. The Moreno Valley Transfer Station is a large volume transfer and processing facility that accepts the following waste types: construction and demolition materials, green materials, metals, and mixed municipal waste. The Moreno Valley Transfer Station currently has a permitted capacity of 2,600 tons per day and currently accepts 2,000 tons per day. This facility currently has the capacity to accept an additional 600 tons per day.

NOP/Scoping Comments. No comments were received during the scoping period specifically regarding solid waste service.

4.16.3.2 Existing Policies and Regulations

Assembly Bill 939 (AB 939) California Integrated Waste Management Act. AB 939 was signed into law in 1989 and established a 50 percent waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be

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[1] Trash service in the City of Moreno Valley is mandatory and Waste Management of Inland Valley is the only solid waste service provider.

[2] Class III landfills are required to be located where adequate separation can be provided between non-hazardous solid waste and surface and subsurface waters. This class of landfill is not permitted to accept hazardous waste.

[3] *Badlands Sanitary Landfill Facility/Site Summary Details,* CalRecycle website, http://www.calrecycle.ca.gov///AA-0006//, website accessed April 2, 2012.

[4] http://www.recyclemaniacs.org/doc/measurement-tracking/CURC-profile-input-form-with-conversion-guide.xls, website accessed December 21, 2011.

[5] Based on 2011 average; e-mail correspondence with John Farrar, Administrative Services Assistant, County of Riverside Waste Management Department, December 21, 2011.

diverted. Jurisdictions select and implement the combination of waste prevention, reuse, recycling, and composting that best meets the needs of their residents while achieving the diversion requirements of the Act. Cities and counties also have the flexibility to work cooperatively toward the 50 percent goal by forming a regional agency. According to the provisions of the Act, in the year 2000, waste-to-energy or biomass conversions may contribute 10 percent toward the goal, with the remaining 40 percent accomplished through source reduction, recycling, and composting. The statute also allows a time extension to meet these goals for cities and counties that experience adverse market or economic conditions.

Assembly Bill 1327 (AB 1327) California Solid Waste Reuse and Recycling Access Act of 1991. Signed into law in 1991, AB 1327 added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. Chapter 18 required the California Integrated Waste Management Board (CIWMB) to develop a model ordinance for adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or ordinances of their own, in order to govern adequate areas for collection and loading of recyclable materials in development projects by September 1, 1993. If a local agency had not adopted a model ordinance by that date, the CIWMB model would be adopted and enforced by the local agency.

Senate Bill 1016 (SB 1016). As previously identified, the California Integrated Waste Management Act of 1989 (AB 939) requires each jurisdiction to divert 50 percent of its solid waste from being disposed in landfills. The new per capita disposal measurement system (SB 1016, Wiggins, Chapter 343, Statutes of 2008) became effective January 1, 2009. It builds on AB 939 compliance requirements by implementing a simplified measure of local jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator: the per capita disposal rate, which uses only two factors: a jurisdiction's population and its disposal as reported by disposal facilities. SB 1016 changes how each jurisdiction's progress is measured to reach the 50 percent goal for diverting waste from landfills. This measurement is no longer determinative of compliance. In order for the CIWMB and jurisdictions to more properly focus on successful program implementation, SB 1016 shifts from the historical emphasis on using calculated generation and estimated diversion to using annual disposal as a factor when evaluating jurisdictions' program implementation.

Riverside County Integrated Waste Management Plan. The Riverside Countywide Integrated Waste Management Plan (RCIWMP), adopted by the Riverside County Board of Supervisors on January 14, 1997, and approved by the CIWMB on September 23, 1998, outlines the goals, policies, and programs the County and its cities, including the City of Moreno Valley, would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The RCIWMP is composed of the Riverside Countywide Summary Plan, the Source Reduction and Recycling Element (SRRE) for the County and each of its cities, the Nondisposal Facility Element (NDFE) for the County and each of its cities, the Household Hazardous Waste Element (HHWE) for the County and each of its cities, and the Riverside Countywide Siting Element.

City of Moreno Valley General Plan. The following are policies and programs in the City's General Plan that pertain to solid waste and are applicable to the proposed WLC project:

Conservation Element

Policy 7.8.1 Encourage recycling projects by individuals, non-profit organizations, or corporations and local businesses, as well as programs sponsored through government agencies.

Program 7-1 Support regional solid waste disposal efforts by the County of Riverside.

4.16.3.3 Methodology

The solid waste analysis is based on evaluating the existing capacity of nearby landfills that serve the City, future solid waste capacity that would be available to the City, and the identification of existing solid waste demand and future solid waste demand associated with the development of the proposed WLC project. The analysis also identifies existing City goals, policies, and programs that the City implements to reduce generated waste.

4.16.3.4 Solid Waste Services Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines,* a project is considered to have a significant impact on solid waste services if it results in either of the following:

- The project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- The project would fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste.

4.16.3.5 Less than Significant Impacts

The following solid waste impacts were determined to be less than significant. Adherence to established regulations, standards, and policies would reduce potential solid waste impacts to a less than significant level.

4.16.3.5.1 Solid Waste Facilities

Threshold	Would the proposed WLC project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Solid waste collection is a "demand-responsive" service and current service levels can be expanded and funded through user fees without difficulty. The proposed WLC project is anticipated to generate approximately 104.6 tons of solid waste per day (38,164 tons/year).[1] Solid waste from the proposed WLC project would be hauled by Waste Management of Inland Valley and transferred to the Badlands Sanitary Landfill, located in Moreno Valley. The Badlands Sanitary Landfill has a daily permitted throughput of 4,000 tons per day, a remaining capacity of 14,730,025 cubic yards, and an estimated closure date of 2024.[2] The average daily throughput at the Badlands Sanitary Landfill for 2011 is estimated at 1,683 tons/day[3] with a current surplus capacity totaling 2,317 tons/day.

The volume of solid waste generated by the proposed WLC project per day represents 2.6 percent of the current permitted throughput and 4.5 percent of the current surplus capacity at the Badlands Sanitary Landfill. As adequate daily surplus capacity exists at the receiving landfill, development of the proposed WLC project would not significantly affect current operations or the expected lifetime of the

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[1] South Coast Air Quality Management District. CalEEMod Manual, Appendix D, Table 10.1, Solid Waste Disposal Rate for Unrefrigerated Warehouse. http://www.aqmd.gov/caleemod/user's-guide. Calculation: 0.94 tons/thousand square feet/year × 40,600 thousand square feet = 38,164 tons per year.

[2] *Badlands Sanitary Landfill Facility/Site Summary Details,* CalRecycle website, http://www.calrecycle.ca.gov/SWFacilities//AA-0006//, website accessed April 2, 2012.

[3] Based on 2011 average; e-mail correspondence with John Farrar, Administrative Services Assistant, County of Riverside Waste Management Department, December 2, 2012.

landfill serving the project area. No significant solid waste disposal impact would occur and no mitigation is required.

4.16.3.5.2 Solid Waste Reduction

Threshold	Would the proposed WLC project fail to comply with applicable federal, state, and local statutes and regulations related to solid waste?

Federal, State and local governments have enacted a variety of laws and established programs to deal with the transport, use, storage, and disposal of hazardous materials to reduce the risks to public health and the environment. These laws and programs supplement existing regulations designed to control the contamination of air and water resources. There are no active landfills operating in Riverside County that accept hazardous wastes. Hazardous wastes generated within the County are disposed of at distant "Class I" landfills. The DHS regulates companies that haul hazardous waste. The California Highway Patrol (CHP) is responsible for the inspection of motor carriers that haul hazardous wastes. Inspections are made on roadways, at freeway truck scales and truck yards. The shipment of hazardous materials by truck or rail is regulated by Federal safety standards under the jurisdiction of the USDOT. Federal safety standards are also included in the California Administrative Code, Environmental Health Division. The EPA ensures that containers of hazardous materials are properly labeled with instructions for use. The California Department of Industrial Relations, Cal-OSHA Division regulates the use of hazardous materials in the workplace. Regulations governing the storage and use of hazardous materials are also contained in the Uniform Building Code and the Uniform Fire Code. The Hazardous Materials Branch (HMB) of the Environmental Health Services Division of the Riverside County Health Department operates a hazardous waste program. The HMB inspects those involved in generating, hauling, storage, treating, and disposing of these wastes. The HMB also operates mobile household hazardous waste roundups and checks loads at local landfills for hazardous wastes.

The City of Moreno Valley is responsible for meeting the requirements of AB 939 and SB 1016, which includes a 50 percent reduction in disposal by the start of 2000 and preparation of a solid waste reduction plan to help reduce the amount of solid waste disposed of at the landfills. Programs implemented by the City of Moreno Valley to satisfy the mandated reduction in solid waste include, but are not limited to, the following:

- Public outreach via print and electronic media (public education);
- Municipal solid waste ordinances and product and landfill bans (policy incentives); and
- Operation of material recovery and composting facilities (facility recovery).

The proposed WLC project would be required to coordinate with the waste hauler to develop collection of recyclable materials for the project on a common schedule as set forth in applicable local, regional, and State programs. Recyclable materials that would be recycled by the project include paper products, glass, aluminum, and plastic.

Additionally, the proposed WLC project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations. Impacts are considered less than significant and require no mitigation.

4.16.3.6 Significant Impacts

No impacts related to solid waste services or facilities have been identified as significant for the proposed WLC project; therefore, no mitigation is required.

~~4.16.3.7 Cumulative Impacts to Solid Waste Services~~

~~AB 939 mandates the reduction of solid waste disposal in landfills. While the Badlands Sanitary Landfill has an estimated closure date of 2024, as previously identified, the City's waste hauler will also use other County landfills in the area (e.g., Lamb Canyon Landfill and El Sobrante Landfill). The estimated closure date of the Lamb Canyon Landfill is 2023 and the estimated closure date of the El Sobrante Landfill is 2030. With planned expansion activities of landfills in the project vicinity and projected growth rates contained in the City's General Plan EIR, sufficient landfill capacity would exist to accommodate future disposal needs through City buildout in 2030. Therefore, buildout of the City General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered less than significant.~~

~~4.16.4 Energy Consumption~~

~~This section discusses the conditions that exist on the project site and the regulatory framework that governs the supply and demand for direct and indirect energy requirements. Appendix F of the *CEQA Guidelines* describes the energy conservation information and analyses that should be included in an EIR, including emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Energy conservation is defined in terms of decreased reliance on natural gas and oil, decreased per capita energy consumption, and increased reliance on renewable energy sources.~~

~~4.16.4.1 Existing Setting~~

~~**Electricity.** Southern California Edison (SCE) currently has two existing 115 kilovolt (kV) overhead power transmission lines within the proposed WLC project limits. One is located along Gilman Springs Road from the south to Eucalyptus Avenue, then east on Eucalyptus Avenue to Theodore Street and then north on Theodore Street across SR-60. The second 115 kV transmission line is located along Brodiaea Avenue from the west to Davis Road then southeast into the San Jacinto Wildlife Area. In the project area, SCE also maintains 12 kV overhead distribution lines along Redlands Boulevard, Theodore Street, and Alessandro Boulevard just west of the project site.~~

~~The proposed WLC project would be supplied electricity by Moreno Valley Electric Utility (MVEU). MVEU currently has an existing electrical substation west of the project area at the southwest corner of Moreno Beach Drive and Cottonwood Avenue. This substation currently has a capacity to distribute 28 megawatts (MW) of electricity based on two existing 28 MW units (i.e., if one unit goes off, the other unit still maintains capacity to handle the demand). Ultimate capacity of this substation is 90 MW based on four 28 MW units. The current peak load for this substation is 22 to 26 MW; therefore, there is an existing 2 to 6 MW surplus capacity available. MVEU has underground 12 kV distribution lines along Cottonwood Avenue from the west to Redlands Boulevard, then north along Redlands Boulevard to Fir Street (now Eucalyptus Avenue), and then east along Eucalyptus Avenue to Theodore Street. The existing underground conduit underlying Eucalyptus Avenue currently serves the existing Skechers warehouse, office, and factory store. It should be noted that the MVEU indicated these assumptions are valid at this time, but could change if other development occurs before the proposed project.~~

~~**Natural Gas.** The proposed WLC project would be supplied natural gas by the Southern California Gas Company (SCGC). SCGC currently maintain a 4-inch medium-pressure service line underlying Redlands Boulevard that runs from SR-60 on the north to Cactus Avenue on the south and then runs west along Cactus Avenue with a stub-out to the north at Merwin Street. SCGC has low-pressure facilities that serve the residential areas located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue.~~

~~Throughout the proposed WLC project area, there are existing high-pressure natural gas transmission mains ranging in diameters of 16 inches up to 36 inches. SCGC currently maintains two 30-inch diameter transmission pipelines traversing the project site that run in an east-west direction and are located north and south of Alessandro Boulevard. There are also three transmission pipelines (a 16-inch, 30-inch, and 36-inch diameters) that run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter pipeline also runs east from Virginia Street parallel with the 30-inch pipeline that runs south of Alessandro Boulevard.~~

~~Within the proposed WLC project site, SCGC maintains a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Further south on Virginia Street, the San Diego Gas and Electric Company (SDG&E) maintains a natural gas compression station, known as the Moreno Compressor Station, which supplies gas to San Diego via 16-inch, 30-inch, and 36-inch transmission pipelines that continue to the south. SCGC has a gas transmission regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the proposed WLC project site.~~

~~Questar currently maintains a 16-inch gas transmission pipeline that underlies Alessandro Boulevard from Gilman Springs Road to Theodore Street, where it heads south to the Maltby Avenue alignment and then heads west toward Redlands Boulevard.~~

~~**NOP/Scoping Comments.** There were no specific comments regarding energy systems during the scoping process.~~

~~4.16.4.2 Existing Policies and Regulations~~

~~*4.16.4.2.1 Federal Regulations*~~

~~**Energy Policy and Conservation Act.** The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.~~

~~**Energy Policy Act of 1992.** The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a~~

~~percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.~~

~~**Energy Policy Act of 2005.** The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.~~

~~*4.16.4.2.2 State Regulations*~~

~~**California Code of Regulations Title 24, Part 6.** Enacted in 1978, this part of the California Code established energy efficiency standards for residential and nonresidential buildings in response to a legislative mandate to reduce California's energy consumption. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards were adopted and went into effect January 1, 2010.[1] Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs, and lighting power limits. These standards are expected to reduce the growth in electricity use of residential and non-residential buildings. Continual updates to Title 24 along with the State's implementation of AB 1493 and SB 1368 will have a major impact on the State's attainment of the AB 32 goals.~~

~~**California Code of Regulations Title 24, Part 11.** This part of the California Code is known as the California Green Building Standards Code (CALGreen Code) and was enacted to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts with positive environmental impacts and through encouragement of sustainable construction practices. The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). This update to Part 11 of Title 24 of the California Code of Regulations was effective January 1, 2011.~~

~~**California Code of Regulations Titles 14 and 27.** These parts of the California Code require energy efficient practices as part of solid and hazardous waste handling and disposal.~~

~~*4.16.4.2.3 Regional and Local Regulations*~~

~~**City of Moreno Valley General Plan.** The City's General Plan Chapter 9 (Goals and Objectives) establishes goals and objectives to guide development within the City. Specific policies associated with energy facilities relevant to the proposed WLC project include:~~

~~Objective 7.5~~	~~Encourage efficient use of energy resources.~~
~~Policy 7.5.1~~	~~Encourage building, site design, and landscaping techniques that provide passive heating and cooling to reduce energy demand.~~
~~Policy 7.5.5~~	~~Encourage the use of solar power and other renewable energy systems.~~

~~[1] *Nonresidential Compliance Manual for California's 2008 Energy Efficiency Standards*, California Energy Commission, effective January 1, 2010, http://www.energy.ca.gov/title24/2008standards/index.html, website accessed on March 4, 2010.~~

~~Policy 7.7.2 Require new electrical and communication lines to be placed underground.~~

~~4.16.4.3 Methodology~~

~~The energy analysis is based on evaluating the existing energy supply available to the City, future energy supply that is anticipated to be available to the City, and the identification of existing electricity and natural gas demand and future demand with the development of the proposed WLC project. The analysis also identifies energy conservation measures that would be incorporated by the proposed WLC project to reduce the project's total energy demand.~~

~~4.16.4.4 Thresholds of Significance~~

~~Appendix G of the *CEQA Guidelines* (2011) does not include thresholds to determine potential environmental impacts resulting from project-related electrical and natural gas demand and use. However, Appendix F of the *CEQA Guidelines* (2011) provides guidance on what should be considered in an EIR's discussion of energy impacts. This includes but is not limited to energy-consuming equipment and processes operation; total energy requirements of the project by fuel type and end use; energy conservation equipment and design features; and identification of energy supplies that would serve the project. Consideration of environmental impacts includes an evaluation of the project's energy requirements and energy use during operation and the degree to which the project complies with current energy standards. The guidance suggests that particular emphasis be placed on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b) (3)).~~

~~4.16.4.5 Less Than Significant Impacts~~

~~Based its size, energy impacts of the WLC project are potentially significant.~~

~~4.16.4.6 Significant Impacts~~

~~Impact 4.16.4.6.1 Construction or Expansion of Electrical and Natural Gas Facilities~~

~~Threshold~~	~~Would the proposed WLC project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?~~

~~Based on calculations contained Tables 4.16.I and 4.16.J, the proposed WLC project would consume approximately 376,426 megawatt-hours (MWh) of electricity and almost 14.6 million cubic feet of natural gas per year. The estimated electrical demand assumes no on-site electrical generation by photovoltaic panels.~~

~~Table 4.16.I: Electrical Demand and Consumption~~

~~Land Use Type~~	**~~% of Total Square Footage~~**	**~~Building Area (sf)~~**	**~~Electrical Demand Factor (w/sf)~~[1]**	**~~Electrical Demand (MW)~~**	**~~Electrical Consumption (MWh/Yr)~~[2]**
~~Logistics (including offices)~~	~~100~~	~~40.6 million~~	~~1.68~~	~~68.2~~	~~376,426.3~~
~~Total~~	**~~100~~**	**~~40,600,000~~**	**~~—~~**	**~~68.2~~**	**~~376,426.3~~**

~~**Table 4.16.I: Electrical Demand and Consumption**~~

~~Land Use Type~~	~~% of Total Square Footage~~	~~Building Area (sf)~~	~~Electrical Demand Factor (w/sf)[1]~~	~~Electrical Demand (MW)~~	~~Electrical Consumption (MWh/Yr)[2]~~

~~[1] Electric demand factors based on electric utility demand information from Moreno Valley Electric Utility~~

~~[2] Assumes a 63% load factor for all use types. Assumes Logistics and Office Space will operate 24 hours per day 7 days per week or 8,760 hours per year.~~

~~sf = square feet, w = watts, MW = Megawatts MWh = megawatt-hours~~

~~Source: Technical Memorandum – Dry Utilities, Utility Specialists, October 24, 2013.~~

~~**Table 4.16.J: Natural Gas Demand and Consumption**~~

~~Land Use Type~~	~~% of Total Square Footage~~	~~Building Area (sf)~~	~~Natural Gas Consumption Factor (cf/yr/sf)[1]~~	~~Natural Gas Consumption (cf/yr)~~
~~Logistics~~	~~97~~	~~39,382,000~~	~~—~~	~~—~~
~~Office Space~~	~~3~~	~~1,218,000~~	~~12.00~~	~~14,616,000~~
~~**Total**~~	~~**100**~~	~~**40,600,000**~~	~~**—**~~	~~**14,616,000**~~

~~cf = cubic feet.~~

~~Source: Technical Memorandum – Dry Utilities, Utility Specialists, October 24, 2013.~~

~~The WLC Specific Plan requires future installation of solar photovoltaic panels on the roof of each warehouse building to offset the energy demands of the office portion of the building. The following utility improvements are based on a "worst-case" assumption that on-site solar electrical generation is not available and electrical service would have to be provided by MVEU. In addition, partial or complete connection to the existing electrical grid may be necessary even with roof-mounted solar photovoltaic panels so there is redundancy (backup) in case of an emergency or during nighttime when no on-site power is being generated (i.e., some warehouses may operate 24/7). At this time, it is not anticipated that any uses will install sufficient on-site power generation and storage to be totally independent of the existing electrical grid.~~

~~A number of SCE facilities would still require relocation and expansion of MVEU facilities in order to provide network backup (i.e., if the solar generation equipment were to fail) and accommodate the potential increase in electrical demand no matter the contribution of project alternative energy generated. Power poles, guy poles, and guy anchors for the existing overhead 115 kV line along Theodore Street and Gilman Springs Road will need to be relocated at the time these roadways are widened. The portion of the existing 115 kV line along Eucalyptus Avenue may also need to be relocated into the new Eucalyptus Avenue alignment between Theodore Street and Gilman Springs Road at the time the roadway is constructed. The existing 115 kV line along Brodiaea Avenue may be able to be protected in place except for a few hundred feet where the transmission line intersects with the new Merwin Street, which will need to be relocated to accommodate street and storm drain channel improvements.~~

~~The existing 12 kV overhead power distribution lines along Redlands Boulevard will need to be undergrounded when the roadway is developed to its ultimate width. The existing 12 kV overhead power feeder lines located along Theodore Street and Alessandro Boulevard will need to be relocated and undergrounded as these roadway improvements take place during the development of the proposed WLC project. The existing 12 kV overhead power feeder line running south along Virginia Street to the Moreno Compressor Station (planned as Open Space) will be protected in place. The existing overhead service lines from the Theodore Street 12 kV line along Dracaea Avenue to the east and along Cottonwood Avenue to the west can be abandoned when existing on-site residences served by these facilities are abandoned. Per SCE requirements, SCE 12 kV undergrounded lines cannot be in a common trench with MVEU facilities and require a separate underground facility with a minimum 6 feet from other utility lines.~~

~~Based on the *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, (Utility Specialists, October 24, 2013) prepared for the proposed WLC project, construction of the first three logistics buildings that would occur during the initial phase of construction can be served by the existing MVEU substation at Cottonwood Avenue and Moreno Beach Drive, as long as capacity is still available at that station. Subsequent buildings in Phase 1 of construction will require the expansion of this substation. The expansion that would occur to meet this demand would be the addition of two new 28 MW transformer units which can be accommodated within the existing substation property. New 12 kV underground feeder circuits, including trenching, conduit, electrical vaults, and conductors will need to be installed from the substation to the proposed WLC project site. These improvements will occur along Cottonwood Avenue, along Moreno Beach Drive, and along Alessandro Boulevard, Brodiaea Avenue, and Cactus Avenue. These improvements are expected to take place concurrently with roadway construction.~~

~~To meet the proposed WLC project's ultimate annual demand of 376,426 MW, a new 112 MW substation will be constructed within the project limits at a central location near one of SCE's 115 kV transmission lines that will feed power to the substation. The *Dry Utilities* memo for the project indicates two potential locations; the first adjacent to the SCE transmission lines along Gilman Springs Road, and the other adjacent to the SCE transmission lines along Brodiaea Avenue. Impacts of constructing the new station at either of these on-site locations may be the same.~~

~~SCE will require approximately 2 acres for a switching station near the new 112 kV substation proposed by MVEU to serve the proposed WLC project. All MVEU primary distribution conductors within the project will be installed within underground conduits and vaults within the public roadway rights-of-way or within easements as a joint trench with telephone, cable television, and natural gas. Since the installation or relocation of electrical facilities would take place concurrently with roadway construction and/or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Previously referenced Figure 3.16 depicts the proposed electrical facilities assuming 100 percent backup electrical service to the WLC site.~~

~~SCGC has indicated that the existing 4-inch medium-pressure line underlying Redlands Boulevard and Cactus Avenue can be extended into and looped around the proposed WLC project roadway alignments to serve the proposed development. New two-inch gas lines will also be installed to accommodate the proposed WLC project's demand. No gas lines will be installed on Gilman Springs Road since all buildings will be served from the interior gas lines. Natural gas facilities will be installed in the public street rights-of-way and easements as a joint trench with telephone, cable TV and electrical services. The gas main in Eucalyptus Avenue will be on the south side of the street and in its own trench as it was not included in the common trench installed to serve the Skechers building.~~

~~Relocation of natural gas transmission lines within the proposed WLC project into public street rights-of-way and easements will be necessary to support site development and grading. These include 11,100 feet of the 30-inch gas pipeline in Cottonwood Avenue from Redlands Boulevard to Theodore Street and then southeast to Virginia Street and Alessandro Road intersection; 1,900 feet of 30-inch gas line from Gilman Springs Road at Lisa Lane southwest to Alessandro Boulevard; 1,000 feet of 16-inch gas line owned by Questar from Gilman Springs Road southwest to Alessandro Road and 4,000 feet of 16-inch gas line owned by Questar on the Maltby Avenue alignment from Merwin Street to Theodore Street. The remaining transmission gas lines are anticipated to be protected in place within the proposed streets or easements between buildings. The regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the proposed WLC project will need to be relocated as part of the widening of this road. The gas facility on Alessandro Boulevard and Virginia Street will remain in place as the project develops in this area. The SDG&E natural gas compression station on Virginia Street south of the project site, known as the Moreno Compressor Station, along with a smaller facility on Virginia Street at Boadicea Avenue will be protected in place. Since the installation or relocation of natural gas facilities would take place concurrently with roadway~~

~~construction and or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Previously referenced Figure 3.16 depicts the proposed natural gas facilities.~~

~~The supply of natural gas and electricity is demand-responsive. The project proponent would be required to meet the service requirements of these utility providers, which would ensure that a less than significant impact related to the provision of power would result from development of the proposed logistics uses.~~

~~Additionally, the proposed WLC project would be required to adhere to Title 24, Part 6, of the California Code of Regulations, which identifies energy efficiency standards for residential and nonresidential buildings. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards were adopted and went into effect January 1, 2011. The 2011 standards for residential and non-residential buildings are expected to reduce the growth in electricity use and reduce the growth in natural gas use. Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs and lighting power limits.~~

~~**Specific Plan Design Features.** As noted in Section 3.5.9.1 of the Project Description, the project intends to achieve applicable elements of certification from the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED), and encourages LEED Certification. The project will encourage sophisticated construction techniques that will provide pollution prevention and control such as noise, air quality, erosion and sediment controls. Both site planning and future building design will encourage current best practices for use of recycled materials and products, such as recycled steel, and crushed concrete and pavement materials. The use low-emitting VOC building materials will be used on site.~~

~~Compliance with such standards would be reviewed before the issuance of a building permit by the City. Because the proposed WLC project would be required to adhere to standards contained in Title 24 in addition to requirements set forth by the respective utility providers, development of the proposed WLC project would not result in the wasteful, inefficient or unnecessary consumption of energy.~~

~~*NOTE: The following addition is in response to Comment F-13-32 in Letter F-13 from the Sierra Club et al.*~~

~~The WLCSP will require extensive energy conservation measures, solar energy systems, and underground utilities to be installed on future development. In these ways, the WLC project is consistent with General Plan Objective 7.5 and Policies 7.5.1, 7.5.5, and 7.7.2.~~

~~*NOTE: The following measures include many of the mitigation recommendations in Comment E-2A-25 in Letter E-2A from the City of Riverside.*~~

~~**Mitigation Measures.** Even with implementation of the WLCSP design measures regarding energy conservation, the following specific measures are recommended to help ensure that potential impacts of the WLC project relative to energy use will remain at less than significant levels:~~

~~**4.16.4.6.1A**~~ ~~Each application for a building permit shall include energy calculations to demonstrate compliance with the California Energy Efficiency Standards confirming that each new structure meets applicable Building and Energy Efficiency Standards. The plans shall also ensure that buildings are in conformance with the State Energy Conservation Efficiency Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California~~

~~Administrative Code). This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions. Plans shall show the following:~~

- ~~Energy-efficient roofing systems, such as "cool" roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning.~~
- ~~Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment.~~
- ~~Energy-efficient appliances that achieve the 2008 Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows.~~

~~**4.16.4.6.1B**~~ ~~Prior to the issuance of any building permits within the World Logistics Center Specific Plan, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards to the Building and Safety and Planning Divisions that shows each new structure meets the applicable Building and Energy Efficiency Standards. Plans may include but are not necessarily limited to implementing the following as appropriate:~~

- ~~High-efficiency air-conditioning with electronic management system (computer) control.~~
- ~~Variable Air Volume air distribution.~~
- ~~Outside air (100 percent) economizer cycle.~~
- ~~Staged compressors or variable speed drives to flow varying thermal loads.~~
- ~~Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.~~
- ~~Specification of premium-efficiency electric motors (i.e., compressor motors, air handling units, and fan-coil units).~~
- ~~Use of occupancy sensors in appropriate spaces.~~
- ~~Use of compact fluorescent lamps in place of incandescent lamps.~~
- ~~Use of cold cathode fluorescent lamps.~~
- ~~Use of Energy Star exit lighting or exit signage.~~
- ~~Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified.~~
- ~~Use of lighting power controllers in association with metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots.~~
- ~~Use of skylights (may conflict with installation of solar panels in some instances).~~
- ~~Consideration of thermal energy storage air conditioning for spaces or hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods.~~

~~**4.16.4.6.1C**~~ ~~Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:~~

~~1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building;~~

2) ~~Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and~~

3) ~~Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.~~

~~This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.~~

~~4.16.4.7 Cumulative Impacts to Energy Facilities~~

~~As indicated in Section 4.16.4.6.1, the proposed WLC project would not result in significant impacts related to energy consumption with implementation of the WLC Specific Plan as proposed, and with the recommended project-specific mitigation measures. The project will adhere to Title 24, Part 6, of the CCR, which identifies state energy efficiency standards. Adherence to these energy efficiency standards would reduce the amount of energy consumed by the proposed WLC project. The WLCSP will require future development to install solar photovoltaic panels on the roof of each building to meet the electrical demand of the office portion of each warehouse building. The proposed WLC project will implement "green building" characteristics and its design will help reduce energy consumption. With these measures, the WLC project will not make a significant contribution to cumulative energy facility impacts.~~

NOTE TO READERS: This portion of the Revised Sections of the FEIR entirely replaces the energy discussion in Section 4.16.4, *Energy Consumption,* of the FEIR. The portion of Section 4.16.4.7, *Cumulative Impact to Energy Facilities*, has been deleted from the FEIR to allow for its reanalysis to include the impacts expected from other past, present and reasonably foreseeable future projects. The revised cumulative analysis can be found in Section 6.17 of this Revised Sections of the FEIR. The Renewable Energy technical report is included in Appendix E.

4.17 Energy

Pursuant to Appendix F of the CEQA Guidelines, this section discusses the energy requirements of the WLC project and addresses the court's ruling that "the FEIR must provide a comparison of feasible, cost-effective renewable energy technologies in the Energy Impacts analysis." This section discusses existing regulations pertaining to energy and provides an analysis of energy use associated with the project, with an emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. This analysis examines the short-term construction and long-term operational impacts and evaluates the effectiveness of Energy Conservation Measures (ECMs) incorporated as part of the project design. It also evaluates prospective renewable energy supply technologies, their feasibility within the project and an evaluation of which supply technology option provides the best renewable energy supply strategy.

The project will incorporate Project Design Features (PDFs) and ECMs that minimize energy consumption and are expected to deliver energy performance that exceeds the current minimum Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout. The project will be designed to eliminate the need for natural gas in building systems, positioning the WLC to become an all-electric development with the future potential to operate 100% on renewable electricity.

Pursuant to the World Logistics Center Specific Plan (WLCSP), WLC buildings will include rooftop solar photovoltaic (PV) systems sized, at minimum, to offset the power demands of office space contained in the building. In addition, the project will provide on-site rooftop solar generating capacity up to the maximum level currently permitted by Moreno Valley Electric Utility (MVU), which is currently defined as one-half the minimum electric demand a building experiences during daytime hours. As described herein, this would be more than sufficient to satisfy 100% of the office energy needs. In anticipation of increased electricity loads in the future that could result from a growing electric vehicle fleet, the project will provide solar ready roofs that could accommodate expanded rooftop solar installations in the future.

This section analyzes the project's potential energy impacts based on the following technical studies:

Air Quality, Greenhouse Gas, and Health Risk Assessment Report World Logistics Center Specific Plan April 2018, Environmental Science Associates

World Logistics Center (WLC) Transportation Energy Technical Study, May 2018, Environmental Science Associates and CALSTART.

World Logistics Center (WLC) Comparison of Renewable Energy Technologies Report, May 24, 2018, WSP

4.17.1 Existing Setting

4.17.1.1 Existing Site Energy Use

The existing project Site is largely vacant with a few residences and scattered dry farming that generates minimal demand for electricity, natural gas, and transportation fuels. With implementation of the project, these uses would largely cease and be replaced. For the purposes of this analysis, a "zero demand" baseline was assumed; thus, the net change from baseline calculated for these analyses are conservative, representing a hypothetical "worst case".

4.17.1.2 Existing Electricity Supply and Transmission

Southern California Edison (SCE) currently has two existing 115 kilovolt (kV) overhead power transmission lines within the WLC site limits. One is located along Gilman Springs Road from the south to Eucalyptus Avenue, then east on Eucalyptus Avenue to World Logistics Parkway and then north on World Logistics Parkway across SR-60. The second 115 kV transmission line is located along Brodiaea Avenue from the west to Davis Road then southeast into the San Jacinto Wildlife Area. In the project area, SCE also maintains 12 kV overhead distribution lines along Redlands Boulevard, World Logistics Parkway, and Alessandro Boulevard just west of the project site.

The WLC project would be supplied electricity by Moreno Valley Electric Utility (MVEU). MVEU currently has an existing electrical substation west of the project area at the southwest corner of Moreno Beach Drive and Cottonwood Avenue. This substation currently has a capacity to distribute 28 megawatts (MW) of electricity based on two existing 28 MW units (i.e., if one unit goes off, the other unit still maintains capacity to handle the demand). Ultimate capacity of this substation is 90 MW based on four 28 MW units. The current peak load for this substation is 22 to 26 MW; therefore, there is an existing 2 to 6 MW surplus capacity available. MVEU has underground 12 kV distribution lines along Cottonwood Avenue from the west to Redlands Boulevard, then north along Redlands Boulevard to Fir Street (now Eucalyptus Avenue), and then east along Eucalyptus Avenue to World Logistics Parkway. The existing underground conduit underlying Eucalyptus Avenue currently serves the existing Skechers warehouse, office, and factory store. It should be noted that the MVEU indicated these assumptions are valid at this time, but could change if other development occurs before the project.

4.17.1.3 Existing Natural Gas Supply and Transmission

The WLC project would be supplied natural gas by the Southern California Gas Company (SCGC). SCGC currently maintain a 4-inch medium-pressure service line underlying Redlands Boulevard that runs from SR-60 on the north to Cactus Avenue on the south and then runs west along Cactus Avenue with a stub-out to the north at Merwin Street. SCGC has low-pressure facilities that serve the residential areas located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue.

Throughout the WLC site, there are existing high-pressure natural gas transmission mains ranging in diameters of 16 inches up to 36 inches. SCGC currently maintains two 30-inch diameter transmission pipelines traversing the project site that run in an east-west direction and are located north and south of Alessandro Boulevard. There are also three transmission pipelines (a 16-inch, 30-inch, and 36-inch diameters) that run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter pipeline also runs east from Virginia Street parallel with the 30-inch pipeline that runs south of Alessandro Boulevard.

Within the WLC site, SCGC maintains a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Further south on Virginia Street, the San Diego Gas and Electric Company (SDG&E) maintains a natural gas compression station, known as the Moreno Compressor Station, which supplies gas to San Diego via 16-inch, 30-inch, and 36-inch transmission pipelines that continue to the south. SCGC has a gas transmission regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the WLC project site.

Questar currently maintains a 16-inch gas transmission pipeline that underlies Alessandro Boulevard from Gilman Springs Road to World Logistics Parkway, where it heads south to the Maltby Avenue alignment and then heads west toward Redlands Boulevard.

4.17.1.4 Existing Regional Electricity Demand

The MVU is the primary utility provider for the residences and businesses of Moreno Valley and is the utility provider to the WLC project. Southern California Edison does provide electrical service to a portion of the City and has existing facilities running through the project. The annual electricity sale to all customers in the MVU service area for the 2015-2016 fiscal year was approximately 185 million kilowatt hours (kWh).[1]

4.17.1.5 Existing Regional Natural Gas Demand

Southern California Gas Company (SoCal Gas) is responsible for providing natural gas to 21.6 million consumers through 5.9 million meters in more than 500 communities throughout Central and Southern California and is regulated by the California Public Utilities Commission and other state agencies.[2] The annual natural gas sale to customers in 2017 was approximately 311,535 million kilo British thermal units (kBtu).[3] The consumption of natural gas by residences and businesses exclusively within Moreno Valley is not known.

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[1] City of Moreno Valley, Moreno Valley Utility, 2015/16 Annual Report, 2016 http://www.moreno-valley.ca.us/resident_services/utilities/pdfs/mvuAnnualReport0217.pdf Accessed April 2018.

[2] Southern California Gas Company, https://www.socalgas.com/about-us/company-profile Accessed April 2018.

[3] Sempra Energy, 2017 Annual Report, (2018). Available at: http://www.sempra.com/sites/default/files/content/files/node-page/file-list/2018/2017_annualreport_sre.pdf. Accessed April 2018. Converted from 294 billion cubic feet and a conversion factor of 1,035

4.17.1.4 Existing Regional Transportation Energy Demand

According to the California Energy Commission (CEC), transportation accounts for nearly 37 percent of California's total energy consumption.[4] Based on available fuel consumption data from the CEC, in 2016, Riverside County consumed a total of 1,035,000,000 gallons of gasoline for transportation.[5] California consumed a total of 273,000,000 gallons of diesel fuel for transportation.[6] Transportation fuels, primarily gasoline and diesel, are provided by local or regional suppliers and vendors.

According to the California Air Resources Board on-road vehicle emissions factor (EMFAC2014) model, the average fuel economy for the fleet-wide mix of vehicles operating in the South Coast Air Basin region is approximately 20.17 miles per gallon for gasoline-fueled vehicles and approximately 7.81 miles per gallon for diesel-fueled vehicles. Gasoline-fueled vehicles account for approximately 96 percent of the total vehicles and diesel-fueled vehicles account for approximately 3.6 percent of the total vehicles.[7] Electric vehicles account for approximately 0.3 percent of the total vehicle registration in California.

4.17.2 Regulatory Setting

4.17.2.1 Federal

Energy Policy Act of 1992. The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the Act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005. The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and

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Btu per cubic foot based on USEIA data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, April 28, 2017. Available: https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed April 2018).

[4] California Energy Commission, 2015 Integrated Energy Policy Report, CEC-100-2015-001-CMF, 2016, page 153, http://www.energy.ca.gov/2015_energypolicy. Accessed April 2018.

[5] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018.

[6] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[7] Based on the California Air Resources Board on-road vehicle emissions model, EMFAC2014 (Modeling input: South Coast Area Air Basin; LDA, LDT1, LDT2; Annual; 2020). The modeling input values are considered generally representative of project buildout conditions for the region and representative of the majority of vehicles associated with project-related VMT.

rural community electrification; and establishes a Federal purchase requirement for renewable energy.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles had to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards were designed to cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[8]

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies proposed engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies proposed separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies proposed engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year. Building on the success of the standards, the EPA and U.S. Department of Transportation jointly finalized additional standards for medium- and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution.

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[8] United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, (August 2012). Available at: http://www.epa.gov/oms/climate/documents/420f12051.pdf. Accessed April 2018.

4.17.2.2 State

California Code of Regulations Title 24, Part 6. The California Energy Code (Title 24, Section 6) was created as part of the California Building Standards Code (Title 24 of the California Code of Regulations) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy consumption. These standards include provisions applicable to all buildings, residential and nonresidential, which describe requirements for documentation and certificates that the building meets the standards. These provisions include mandatory requirements for efficiency and design of energy systems, including space conditioning (cooling and heating), water heating, and indoor and outdoor lighting systems and equipment, and appliances. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle as technology and methods have evolved. The 2016 Standards, effective January 1, 2017, focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations. The next code update (2019) is expected to focus on integrating solar photovoltaic (PV) and other renewables with energy storage, taking Title 24 another step closer toward the state's zero net energy (ZNE) goals as spelled out in the California Energy Efficiency Strategic Plan (CEC, 2011), calling for all new residential construction to be ZNE by 2020 and all new commercial construction to be ZNE by 2030.

California Code of Regulations Title 24, Part 11. The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development in 2008. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017.

2016 Title 24, Part 11 includes construction requirements for non-residential projects that are designed to facilitate installation of future electric vehicle supply equipment (EVSE) to support electric vehicle (EV) charging. Under section 5.106.5.3, construction plans and specifications for large (projects with more than 200 total parking spaces) must include raceways for future EVSE at a minimum of 6 percent of the total parking spaces.

Renewable Electricity Standards. There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewables Portfolio Standard (RPS) target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by

July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.

Senate Bill 350: The Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 2015) was approved by Governor Brown on October 7, 2015. SB 350 (1) increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provides for the evolution of the Independent System Operator (ISO) into a regional organization; and (4) requires the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the Legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

Pavley Regulation, Advanced Clean Cars (ACC), and the California Mobile Source Strategy. Assembly Bill 1493 (2002) requires CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. The federal Clean Air Act ordinarily preempts state regulation of motor vehicle emission standards; however, California is allowed to set its own standards with a federal waiver from the USEPA, granted in 2009. Known as the Pavley Clean Car Standards, AB 1493 regulated GHG emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016.

In January 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2015 through 2025. The program includes components to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. The zero emissions vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEV) in the 2018 to 2025 model years (CARB, 2017).

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years, through a transition to ZEVs, cleaner transit systems and reduction of vehicle miles traveled. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 "last mile" delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels (CARB, 2016).

Transportation Electrification. Complementing the Mobile Source Strategy and the state's push toward zero carbon electricity, SB 350 orders the CPUC to direct the six investor-owned electric utilities in the state to file Applications for programs that "accelerate widespread transportation electrification." These programs are required to reduce dependence on petroleum, increase the adoption of zero-emission vehicles, help meet air quality standards, and reduce GHG emissions.

On January 11, 2018, the CPUC approved the first transportation electrification applications under SB 350 from the three large investor-owned utilities. The decision approves 15 projects with combined budgets of $42 million. In SCE territory, $16 million was approved for projects that help expand residential and transit bus EV charging infrastructure, including in or adjacent to disadvantaged communities, as well as crane and heavy duty vehicle electrification at the Port of Long Beach. In PG&E and San Diego Gas and Electric territories, projects are similar but also include electrification of delivery vehicles and commercial shuttle fleets, and demonstration projects for electrification of school buses and medium- or heavy-duty vehicles fleets (CPUC, 2018).

Executive Order B-16-2012 (Zero-Emission Vehicles). This executive order indicates that all State entities under the Governor's control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:

- By 2015: The State's major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State's manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector's investment in zero-emission vehicle infrastructure; and the State's academic and research institutions contributing to zero-emission vehicle research, innovation and education.
- By 2020: The State's zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles; zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.
- By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.

Sustainable Freight Action Plan. Executive Order B-32-15 directed the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system. The targets are not mandates, but rather aspirational measures of progress towards sustainability for the State to meet and try to exceed. The targets include:

- System Efficiency Target: Improve freight system efficiency by 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030.
- Transition to Zero Emission Technology Target: Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- Increased Competitiveness and Economic Growth Targets: Establish a target or targets for increased State competitiveness and future economic growth within the freight and goods movement industry based on a suite of common-sense economic competitiveness and growth metrics and models developed by a working group comprised of economists, experts, and industry. These targets and tools will support flexibility, efficiency, investment, and best business practices through State policies and programs that create a positive environment for growing freight volumes and jobs, while working with industry to mitigate potential negative economic impacts. The targets and tools will also help evaluate the strategies proposed under the Action Plan to ensure consideration of the impacts of actions on economic growth and competitiveness throughout the development and implementation process.

California Transportation Plan 2040. The California Transportation Plan (CTP) 2040 provides a long-range policy framework to meet future mobility needs and reduce GHG emissions. The CTP defines goals, performance-based policies, and strategies to achieve maximum feasible emission reductions in order to attain a statewide reduction in GHG emissions.

The CTP 2040 recognizes that the Governor is committed to reduce by one-half current petroleum use in cars and trucks; increase from one-third to one-half the electricity derived from renewable sources; double the efficiency savings of existing buildings and make heating fuels cleaner; reduce the release of methane, black carbon, and other short-lived climate pollutants; and manage farm and rangelands, forests, and wetlands to store more carbon.

Transportation GHG reduction strategies within the CTP 2040 include demand management (including telecommuting/working at home, increased carpoolers, and increase car sharing), mode shift (including transit service improvements, high-speed rail, bus rapid transit, expanded bike and pedestrian facilities, carpool land occupancy requirements, and increased HOV lanes), travel cost (implement expanded pricing policies), and operational efficiency (incident/emergency management, Caltrans' Master Plan, ITS/TSM, and eco-driving).

Low Carbon Fuel Standard, Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandated that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, the CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The LCFS requires producers of petroleum based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The LCFS was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against the CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration. With the adoption of the 2017 Scoping Plan Update, the LCFS has been increased to an 18 percent reduction in carbon intensity by 2030.

2017 Scoping Plan Update. On December 14, 2017, CARB approved the final version of *California's 2017 Climate Change Scoping Plan* (2017 Scoping Plan Update), which outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels.[9] The 2017 Scoping Plan Update identifies key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. As of 2015, California's emissions totaled approximately 440 MMTCO$_2$e. The emissions breakdown is as follows: 37 percent from transportation, 21 percent from industrial sources, 11 percent from in-state electricity generation, 9 percent from commercial and residential, 8 percent from imported electricity generation, 8 percent from agriculture, 4 percent from high global warming potential gases, and 2 percent from recycling and waste. Through a combination of data synthesis and modeling, CARB determined that the target Statewide 2030 emissions limit is 260 MMTCO$_2$e, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO2e beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2050 limit set forth by Executive Order B-30-15.

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[9] CARB, *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*, November, 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf; Accessed April 2018.

The 2017 Scoping Plan Update's strategy for meeting the 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030. These include:

- Extending the LCFS beyond 2020 and increasing the carbon intensity reduction requirement to 18 percent by 2030;
- Senate Bill 350, which increases the RPS to 50 percent and requires a doubling of energy efficiency for existing buildings by 2030;
- The 2016 Mobile Source Strategy targets for more ZEVs and much cleaner trucks and transit (described in more detail below);
- The Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies (described in more detail below);
- Senate Bill1383, which requires a 50 percent reduction in anthropogenic black carbon and a 40 percent reduction in hydrofluorocarbon and methane emissions below 2013 levels by 2030; and
- Assembly Bill 398, which extends the state Cap-and-Trade Program through 2030.

California's climate stabilization strategy relies on contributions from all sectors of the economy, which includes continued investment in renewable energy such as solar roofs, wind, and other types of distributed generation. In addition to being an integral factor in meeting GHG reduction goals, shifting to clean, local, and efficient use of energy also reinvests energy expenditures on local economies and reduces risks associated with exposure to volatile global and national oil and gas commodity prices (CARB, 2017).

California Cap and Trade Program. Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the cap-and-trade program is a core strategy in the Scoping Plan for the state to meet its reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020.[10] Under the Cap-and-Trade program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 metric tons CO_2e per year) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions throughout the Program's duration.[11] On July 17, 2017 the California legislature passed Assembly Bill 398, extending the Cap-and-Trade program through December 31, 2030.

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[10] 17 CCR §§ 95800 to 96023.

[11] See generally 17 CCR §§ 95811, 95812.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 and 2030 statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not direct GHG emissions reductions to occur in any discrete location or by any particular source. Rather, GHG emissions reductions are assured on a State-wide basis.

CARB Low NOx Regulation. CARB has identified that reductions of up to 90 percent are needed for heavy-duty trucks to meet NOx reduction targets. In 2013, California established an optional low-NOx standard to pave the way for a future mandatory standard. A more stringent low-NOx regulation is expected in the 2021/2023 timeframe. When implemented, this regulation will continue to drive the deployment of zero or near-zero emissions truck solutions. This development has been taken into consideration in estimating the number of zero emission trucks projected in this study.

CARB Advanced Clean Local Truck Rule. The goal with the Advanced Clean Local Truck Rule is to accelerate the early market adoption of zero emission trucks that are usually centrally fueled, have duty cycles with low average speed and stop-and-go operation. The rule focuses on urban, mostly vocational trucks, but includes heavy truck (class 7-8) urban goods movement as well. The proposed regulatory schedule begins with the 2023 vehicle model year with early action credits given for pre-2023 vehicle models. The regulation is scheduled for CARB board consideration in November 2018.

The Clean Port Plan 2.0 for Ports of Long Beach and Los Angeles. The ports of Long Beach and Los Angeles have set goals to drastically reduce air pollution over the next decades and move towards zero emissions solutions. It is anticipated that new fee structures will be implemented in 2021 that favors low-NOx engine and zero emission solutions.

SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In April, 2016, the Southern California Association of Governments (SCAG) adopted the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which provides a vision for transportation throughout the region for the next 25 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The 2016 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by achieving an 8 percent reduction by 2020, 18 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level on a per capita basis.

The 2016 RTP/SCS includes $70.7 billion in goods movement strategies, and a Goods Movement Appendix that addresses the region's challenges in moving freight while reducing harmful emissions generated by trucks and other goods movement sources.

SCAG Comprehensive Regional Goods Movement Plan and Implementation Plan. This report from SCAG, issued in 2012, presents a long-range comprehensive plan for the goods movement system in Southern California. The Plan is designed to ensure that the region continues to play a vital role in the global supply chain while meeting regional economic goals, addressing critical mobility challenges, preserving the environment, and contributing to community livability and quality of life goals. The Plan is the final product of the SCAG Comprehensive Regional Goods Movement Plan and

Implementation Strategy, a four-year effort to collect data, conduct analyses, and engage with regional, statewide and national stakeholders covering various aspects of the region's goods movement system

CARB Heavy-Duty On-Road and Off-Road Vehicle Regulations. In 2004, the CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

In addition to limiting exhaust from idling trucks, CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007 aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel efficient engines.

4.17.2.5 City of Moreno Valley

City of Moreno Valley General Plan Policies. The City adopted its General Plan in 2006. The General Plan's Conservation Element contains policies directly related to energy efficiency and renewable energy listed below:

Objective 7.5	Encourage efficient use of energy resources
Policy 7.5.1	Encourage building, site design, and landscaping techniques that provide passive heating and cooling to reduce energy demand.
Policy 7.5.2	Encourage energy efficient modes of transportation and fixed facilities, including transit, bicycle, equestrian, and pedestrian transportation. Emphasize fuel efficiency in the acquisition and use of City-owned vehicles.
Policy 7.5.5	Encourage the use of solar power and other renewable energy systems.

City of Moreno Valley Climate Action Strategy. The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and GHG emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and GHG emissions. The Strategy contains the following policies to reduce GHG emissions in 2010 by 15 percent by 2020:

R2-T1	*Land Use Based Trips and VMT Reduction Policies.* Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.
R2-T3	*Employment-Based Trip Reductions.* Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.
R2-E1	*New Construction Residential Energy Efficiency Requirements.* Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.
R2-E2	*New Construction Residential Renewable Energy.* Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.
R2-E5	*New Construction Commercial Energy Efficiency Requirements.* Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.
R3-E1	*Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining.* Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.
R3-L2	*Heat Island Plan.* Develop measures that address “heat islands.” Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.
R2-W1	*Water Use Reduction Initiative.* Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.
R3-W1	*Water Efficiency Training and Education.* Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.
R2-S1	*City Diversion Program.* For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

Moreno Valley Utility 2015 Integrated Resource Plan (IRP). MVU provides electrical services to approximately 6,000 customers. MVU’s main guidance document to plan for future growth and development is the 2015 IRP which forecasts a 10-year planning period from 2015 to the horizon year of 2024. The purpose of the IRP is to identify key considerations to meet future energy demand, increase local renewable energy projects, and plan for large-scale logistics and distribution centers that are increasingly prevalent in the region. As stated above, electricity sales for 2015 totaled 185 million kWh and the IRP forecasts growth in sales to be 352,044 million kWh by the horizon year of 2024.

MVU previously offered a solar net energy metering program to their customers, but in MVU's latest Electric Rates Schedule for Net Energy Metering, adopted April 17, 2018, this schedule is closed to new applicants effective April 2018 . Furthermore, per *Resolution No. 2017-20* the "maximum solar generating capacity that will be approved to be connected to each meter is up to 50% of the meter minimum daytime load." This limits the amount of on-site solar generation that can be installed at WLC buildings.

4.17.3 Methodology

The analysis addresses the project's potential impacts related to energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. The potential for on-site generation of renewable energy is also assessed. Specific analysis methodologies are discussed below. Calculations are provided in Appendix E.

4.17.3.1 Construction

Construction activities can vary substantially from day to day, depending on the specific type of construction activity and the number of workers and vendors traveling to the Site. This analysis considers these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Energy use during construction is forecasted by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). The energy usage required for project construction has been estimated based on the number and type of construction equipment that would be used during project construction, the extent that various equipment is utilized in terms of equipment operating hours or miles driven, and the estimated duration of construction activities. Energy for construction worker commuting trips has been estimated based on the predicted number of workers for the various phases of construction and the estimated VMT.

The heavy duty construction equipment would likely be diesel-fueled (with the exception of construction worker commute vehicles, which would primarily be gasoline-fueled). For the purposes of this assessment, it is conservatively assumed heavy-duty construction equipment and haul trucks would be diesel-fueled and construction equipment would be in operation for the entire construction day. This represents the maximum potential energy use during construction since some equipment could feasibly be electric or gasoline powered and be less energy intensive and since it is unlikely that equipment would be in operation for the entire construction day. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB off-road vehicle (OFFROAD) emissions model, which is a state-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB EMFAC emissions model, which is a state-approved model for estimating emissions for on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into the California Emissions Estimator Model (CalEEMod), which is a state-approved emissions model used for the project's air quality and GHG emissions assessment. Therefore, this energy assessment is consistent with the modeling approach used for other environmental analyses in the EIR and consistent with general CEQA standards.

4.17.3.2 Operation

The WLC project would require energy in the form of electricity and natural gas for the operation of buildings and infrastructure (heating, cooling, lighting, water demand and wastewater treatment, consumer electronics, and other energy needs) and gasoline, diesel, natural gas, and electricity (to charge plug-in EVs) for vehicles traveling to and from the project site. The project would also require energy from natural gas use for on-site forklifts and yard trucks associated with warehousing activities.

The project's estimated building and infrastructure energy consumption was calculated in the WLC *Comparison of Renewable Energy Technologies* report (WSP, 2018). The energy usage required for project building and infrastructure operations is estimated based on the net change in energy demand from the new buildings and facilities compared to the existing uses (as described above, the existing energy usage is conservatively assumed to be zero). project building and infrastructure operations will consume energy directly through electricity used to power equipment and appliances on-site, and indirectly, through the demand for water. On-site energy usage takes into account building energy standards pursuant to the 2016 Title 24 Building Standards Code and CALGreen Code, the sustainability measures in the WLCSP for which the effect can be quantified, and Mitigation Measures prescribed in the Revised Sections of the FEIR. Refrigerated warehouse space is not an allowed use within the WLC site (see Mitigation Measure 4.3.6.3E in the Revised Sections of the FEIR). Energy usage from water demand (e.g., electricity used to supply, convey, treat, and distribute) is based on predicted annual water demand rates (which in turn are based on the size and type of future land uses) and state-wide averages regarding the amount of electricity needed to pump, treat, and transport each gallon of potable water and sewage.

Energy for transportation from increased activities to, from, and on the WLC site is estimated based on the predicted number of trips and the estimated VMT per trip. Trip types include employees commuting to and from home, vendors and deliveries associated with operation of the future uses, trucks bringing goods to and from the proposed warehousing facilities, and off-road mobile equipment needed for cargo/material handling (fork lifts, etc.). The estimated fuel economy for on-road vehicles is based on fuel consumption factors from the CARB EMFAC emissions model. As discussed above, EMFAC is incorporated into CalEEMod, which is a state-approved emissions model used for the project's air quality and GHG emissions assessment. Therefore, this energy assessment is consistent with the modeling approach used for other environmental analyses in the Revised Sections of the FEIR and consistent with general CEQA standards. However, additional analysis was required to quantify the increased electricity use and decreased fuel use associated with higher fleet penetration of electric vehicles (EVs) expected with implementation of California's 2016 Mobile Source Strategy, which is not incorporated into EMFAC 2014 (for more information see next section on Technology Development).

CNG/LNG station fuel use was estimated based on assumptions outlined in the traffic study. The traffic study assumed all visits to the station were from trucks. The estimated number of CNG/LNG trucks visiting the station each day was multiplied by the typical tank size of a CNG/LNG truck and then calculated over the span of a year to result in annual fueling demand.

4.17.3.3 Renewable Energy

To supply the project with electricity, the *Comparison of Renewable Energy Technologies* report considered on-site and off-site options for integrating the use of renewable energy and optimizing onsite energy management. A comprehensive list of prospective energy resources was evaluated, and a screening process was applied to winnow the options down to those that hold the greatest potential for being successfully implemented at WLC. Screening criteria causing certain energy supply options to be discarded involved safety considerations, regulatory barriers, air emissions concerns, and technical impracticalities. Several on-site supply options were deemed infeasible for WLC, including the use of biomass energy, biogas/landfill gas, district energy system, microgrid, in-line hydroelectric turbines in water transmission pipelines, natural gas pressure recovery, and local wind generation.

Onsite energy supply options considered feasible include ground-source heat pumps (GSHPs); combined cooling, heat, and power (CCHP); and solar photovoltaic (PV) with and without battery storage:

- GSHP is not recommended in the WLC location due to the cooling requirements within the building being much greater than the building heating needs as a result of year-round weather conditions at the WLC site. Such an imbalance would cause the geoexchange field (where excess heat removed from the building by the cooling process is transferred via piping into the ground) to grow increasingly warmer over time. This, in turn, would degrade GSHP performance in providing building space cooling.
- CCHP produces air emissions, resulting from the combustion of fossil fuels, that exacerbate the poor air quality of Moreno Valley and the entire South Coast Air Quality Basin. Furthermore, CCHP increases the project's GHG emissions since it produces more GHG emissions than California's increasingly green grid.
- On-site solar PV generation is scalable and is becoming more cost competitive as project size increases.

As described in Section 4.17.5 (Project Design Features), the *Comparison of Renewable Energy Technologies* report (WSP, 2018) found that onsite rooftop PV systems without energy storage were determined to be the project's best sustainable clean energy supply option. Pursuant to the WLCSP, the rooftop solar PV generating capacity for the project will be designed at minimum to offset the power demands of office space contained in the building. In addition, the project proponent is committed to requiring on-site rooftop solar generating capacity up to the maximum level currently permitted by MVU, which is defined as one-half the minimum electric demand a building experiences during daytime hours.

To determine the specific allowable PV capacity at the WLC site, the *Comparison of Renewable Energy Technologies* report analyzed the hourly electric loads using energy simulation software. Phase 1 building simulation produced a minimum daytime electric load of about 600 kW. The minimum daytime electric load at buildout was simulated to be about 1,600 kW. The offices in each typical WLC building would consume about 474,120 kWh/yr in Phase 1 and experience a peak electric demand of about 280 kW. At buildout, the offices in each building would consume about 417,230 kWh/yr and experience a peak demand of about 270 kW. At the maximum solar PV generating capacity allowed by MVU, Phase 1 buildings could provide up to 300 kW (one-half the 600 kW minimum daytime electric load) and Phase 2 buildings could provide up to 800 kW (one-half the 1,600 kW minimum daytime electric load). This would generate approximately 512,275 kWh/yr and 1,366,400 kWh/yr per building for Phase 1 and Phase 2, respectively, which is more than sufficient to power 100% of the office energy needs.

4.17.3.4 Technology Advancement

Section 15144 of the CEQA Guidelines states "*Drafting an EIR or preparing a Negative Declaration necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can*." This essentially limits the requirement for forecasting to that which could be reasonably expected under the circumstances and is part of the effort to provide a general "rule of reason" for EIR contents. The following discussion, in conjunction with the regulatory drivers listed above, seeks to establish what is reasonably foreseeable with respect to technology advancements that may influence transportation energy use contemporaneous with development of the WLC project.

As spelled out in the California Energy Efficiency Strategic Plan, the state has ambitious goals for the development of zero net energy (ZNE) buildings (zero net energy consumption), including a goal for all new commercial construction to be ZNE by 2030. Most zero-energy buildings rely on the electrical grid during times when local demand exceeds supply, and return the same amount of power or more at other times. Some ZNE buildings utilize on-site energy storage and are thus independent of the grid. ZNE buildings usually harvest some amount of energy on-site using technologies like solar and wind, while reducing the overall use of energy with highly efficient HVAC and lighting technologies.

The ZNE goal for commercial buildings is becoming more practical as the costs of alternative energy technologies decrease, grids become "smarter" and the costs of traditional fossil fuels increase. As pointed out by the California Public Utilities Commission (CPUC) in their draft *Commercial ZNE Action Plan* (CPUC, 2017), the current commercial ZNE market is extremely small, with approximately 190 currently verified or designed ZNE commercial buildings in California, but is positioned to grow. As described in Section 4.17.5 *Project Design Features,* future updates to the Title 24 building standards are expected to require ZNE commercial buildings by the year 2030. By proactively embracing an all-electric building design and committing to solar-ready roof construction, WLC would be net-zero-ready and in a stronger position for compliance with future Title 24 updates.

Zero emission vehicle (ZEV) technology is developing rapidly for both light-duty and heavy-duty vehicles. ZEVs can be powered by grid electricity stored in a battery, by electricity produced onboard the vehicle through a fuel cell, or through electricity provided by sources outside the vehicle such as overhead catenary wires that are currently used for light rail and some transit buses. ZEVs achieve zero tailpipe emissions by utilizing electric drive to power the vehicle instead of fuel combustion, and achieve higher system efficiency compared to fossil fuel powered vehicles. Additionally, Low Carbon Fuels, such as biodiesel and natural gas, have achieved relatively high rates of market penetration in some specific commercial applications, such as fleet delivery trucks, public buses, and waste hauling.

Because the project is proposed to be developed over a long period of time, the assessment of future energy demand by fuel type may consider likely achievements related to the development and improvement of technologies to reduce or displace traditional fossil fuel energy consumption. The following scenarios were developed in the WLC Transportation Energy Technical Report (ESA, 2018) based on varying degrees of electric vehicles projected to be in use at the time of the project's Phase 1 development in 2025 and full buildout in 2040 and their effects on overall project energy use. These scenarios form the basis for considering the project's potential impacts to energy consumption and generation in Section 4.17.7 Impacts Analysis:

Vehicle Scenario A: Low EV Penetration

Scenario A reflects the vehicle technology assumptions built into the EMFAC model that is the standard for use in CEQA analysis to calculate emission rates from motor vehicles operating on highways, freeways and local roads in California. It also reflects the requirements of current state building code, which stipulates that 6 percent of parking spaces be constructed to accommodate the future installation of EV charging stations (see Table 4.17-1). This scenario assumes no increase in the stringency of the construction requirement, as any change in the regulatory minimums would be purely speculative at this time. Scenario A also assumes that charging stations would be installed for charging passenger vehicles, and that there would be no charging of light duty truck EVs (or any other size trucks). The number of EV stations needed for 2025 and 2040 were determined using the following data and assumptions.

Table 4.17-1 EV Charging Station Requirements at WLC

Stage of Development	WLC WAREHOUSE BUILDINGS			WLC PARKING REQUREMENTS		
	Total Bldg SF	Avg Bldg SF (approximate)	# Bldgs	Avg per Bldg	WLC Total	EV Charging Equipped (6%)
Phase 1 - 2025	22,946,000	1,500,000	15.3	584	8,781	527

Full build out - 2040	40,600,000	1,500,000	27.1	575	15,536	932

For determining the breakdown of vehicle types and fuels powering the fleet, Scenario A relies on EMFAC 2014, which forecasts a statewide EV population of 1.08 million zero emission passenger vehicles by 2025 (4.6% of total) and 3.14 million by 2040 (10.5%).[12] For the South Coast Air Basin, the EMFAC 2014 forecasts very similar percentages of passenger EV populations at 4.6% by 2025 and 10.5% by 2040. Using these figures for the South Coast Air Basin, the number of passenger EVs estimated to access the project site daily under Scenario A were determined to be 533 for Phase 1 (2025) and 2,058 for full build-out in 2040. For Phase 1 under Scenario A there would be approximately the same number of parking spaces pre-constructed for installing EV charging stations as there would be EVs visiting the site each day. At full buildout, the number of EVs expected each day would be approximately double the parking spaces pre-constructed for charging stations.

Scenario A energy demand calculations assume that passenger EVs would have an average battery size of 100 kWh in the year 2025, equating to an average charge capacity of 80 kWh (80 %). Passenger cars in 2040 would have an average battery size of 200 kWh, equating to an average charge capacity of 160 kWh (80 %).

Scenario A assumes that half of the passenger EV population on site each day would charge their batteries to full capacity. If Level 2 AC chargers with a minimum charging rate of 19.2 kW (highest rate currently available) were provided, it would take approximately 4 hours to fully charge a vehicle with a 100 kWh battery. If the site was served by DC power blocks that spread the power delivery across multiple vehicles simultaneously in response to site energy management requirements, the charging time could be much faster. DC power blocks provide power at up to 500 kW, but it is reasonable to assume an average charging rate would be 100 kW, resulting in a charging time of approximately 48 minutes for a vehicle with a 100 kWh battery. At that rate, 932 charging stations at full buildout could charge thousands of vehicles per day, assuming vehicles move in and out of the EV charging parking spaces throughout the day.

Peak electricity loads for servicing the EVs were provided by WSP in their World Logistics Center *Comparison of Renewable Energy Technologies* report (WSP, 2018).[13]

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[12] As interpreted by the project traffic modeling, passenger vehicles include all Light Duty Automobile (LDA) and Light Duty Truck (LDT) category vehicles in EMFAC

[13] As explained in the WSP report, peak EV charging rate was estimated by allocating the annual electricity consumption of EVs according to the building operating schedules. The resulting peak electric load imposed by EV charging is about 25% of the aggregate nameplate capacity of all charging stations. This result agrees quite well with industry expectations that charging blocks managed with automated 'smart' controls will reduce the coincident peak demand to 20-25% of the aggregate capacity of the individual charging stations.

Vehicle Scenario B: Medium EV Penetration (Scoping Plan Scenario)

This scenario reflects the same assumption regarding electric vehicle charging infrastructure as used in Scenario A (EV charging stations will be installed at 6 percent of parking spaces by the completion of Phase 1) but with higher electric vehicle populations consistent with the goals of California's 2017 Scoping Plan Update and 2016 Mobile Source Strategy, which are both designed to enable statewide attainment of the SB 32 GHG Target of 40 percent below 1990 levels by 2030. For Scenario B, the higher numbers of EVs include passenger vehicles and light trucks, and result in a higher vehicle charging load for the project.

The passenger EV population estimates are aligned with Governor Brown's Executive Order calling for 1.5 million ZEVs by 2025 (5.8 percent of total passenger vehicles), and the Mobile Source Strategy calling for 4.2 million ZEVs by 2030 (16.1 percent of total passenger vehicles). The passenger EV population estimate for 2040 is based on the conservative assumption that the EV population increase from 2025 to 2030 due to the Mobile Source Strategy (448,000 more EVs per year than assumed by EMFAC 2014) continues after 2030 through the year 2040. Based on that rate, as described in the WLC Transportation Energy Technical Study, there would be approximately 8.7 million ZEVs in operation statewide by 2040 (29 percent of total). Assuming the passenger EV percentages would be the same in the South Coast Air Basin, the project would be visited by 659 passenger EVs per day by 2025 and 5,795 passenger EVs by 2040.

The light duty truck EV populations estimates for 2025 and 2040 were provided by CALSTART, based on CARB's *Proposed Fiscal Year 2017-18 Funding Plan for Clean Transportation Incentives*,[14] and CALSTART's analysis of existing and potential regulations related to zero emission trucks (for more details please refer to the *WLC Vehicle Energy Technology Report*). CALSTART's Zero Emission Transformation model was used as a basis in estimating that 10 percent of the light duty trucks will be electric by 2025 and that the population would grow to 25 percent by 2040. Scenario B assumes there would be no medium duty or heavy duty EV trucks associated with the project.

Charging loads for the light truck category were determined using the daily mileage estimates and average kWh/mile consumption for each vehicle category, using data from the U.S. Department of Energy's Alternative Fuels Data Center.[15]

Like Scenario A, Scenario B assumes that passenger EVs in 2025 would have an average battery size of 100 kWh, and by 2040 they would have an average battery size of 200 kWh. Due to the higher EV populations the demand for fast charging will be higher, and it is reasonably assumed that DC power blocks, which manage power delivery across multiple vehicles simultaneously in response to site energy requirements, would be the appropriate chargers at the site to handle the increased loads. Like Scenario A, it is assumed that the average charging rate for DC power block chargers would be 100 kW. At that rate a 200 kWh battery (160 kWh capacity) would take approximately 96 minutes to

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[14] Available at: https://www.arb.ca.gov/msprog/aqip/fundplan/proposed_1718_funding_plan_final.pdf

[15] https://www.afdc.energy.gov/

charge. 932 charging stations at full buildout could charge thousands of vehicles per day, assuming vehicles move in and out of the EV charging parking spaces throughout the day.

Peak electricity loads for servicing the EVs were provided by WSP in their World Logistics Center *Comparison of Renewable Energy Technologies* report (WSP, 2018).

Vehicle Scenario C: High EV Penetration

Scenario C is the same as Scenario B with respect to passenger and light truck EVs, but includes estimates for medium duty and heavy duty EV trucks based on CALSTART's zero-emission transformation model that takes into account how nascent zero emission solutions, namely technologies from the transit bus segment, evolve and transition into other medium- and heavy-duty categories. As with the light duty truck estimates, the projections take into account funding programs, sales trends, technology development, and upcoming regulations. In addition, the estimates consider regulatory and commercialization studies completed by CALSTART, including potential regulations related to zero emission drayage trucks and access by zero emission trucks to city centers.

CALSTART's zero emission transformation model indicates that 10 percent of medium-duty and 20 percent of heavy-duty trucks servicing the South Coast Air Basin could feasibly be EVs by 2025; by 2040, the forecasts indicate that 40 percent medium-duty and heavy-duty trucks could be EVs. Charging loads for the light truck category were determined using the daily mileage estimates and average kWh/mile consumption for each vehicle category, using data from the U.S. Department of Energy's Alternative Fuels Data Center.[16]

4.17.4 Thresholds of Significance

4.17.4.1 Appendix F of the State CEQA Guidelines

Appendix G of the State CEQA Guidelines does not provide specific thresholds for the evaluation of impacts related to energy resources. Appendix F of the CEQA Guidelines was prepared in response to the requirement in Public Resources Code Section 21100(b)(3), which states that and EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy."

- A project would result in significant impacts with regard to energy use and consumption if it would cause wasteful, inefficient, and unnecessary consumption of energy. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:
    1) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or

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[16] https://www.afdc.energy.gov/

removal. If appropriate, the energy intensiveness of materials may be discussed (Appendix F Section II C-1).

2) The effects of the project on local and regional energy supplies and on requirements for additional capacity (Appendix F Section II C-2).

3) The effects of the project on peak and base period demands for electricity and other forms of energy (Appendix F Section II C-3).

4) The effects of the project on energy resources (Appendix F Section II C-5).

5) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives (Appendix F Section II C-6).

- A project would result in significant impacts with regard to energy use and consumption if it would require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.
- A project would result in significant impacts with regard to energy use and consumption if it would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:

  1) The degree to which the project complies with existing energy standards (Appendix F Section II C-4).

4.17.5 Project Design Features

The WLCSP incorporates Project Design Features (PDFs) including sustainable development standards that minimize energy consumption, conserve water, and use recycled or sustainable building materials, where feasible. The WLCSP provides developers with a specific framework for identifying and implementing a variety of practicable and measurable green building measures into the design, construction, operations, and maintenance of each development. Pursuant to the WLCSP, all new development within the project site will be required to meet the California Building Energy Standards in effect at the time construction commences or be 10% more stringent than 2008 standards, whichever results in lowest energy use. In addition, WLC buildings will be designed to be "solar ready" (i.e., structural upgrades to allow the installation of solar photovoltaic systems on the roof of each building), and the WLCSP includes a commitment that the energy requirements of all office space will be supplied with rooftop solar energy systems.

Building Energy

As outlined in the WLCSP, the project will incorporate sustainable design features to save energy and reduce its environmental footprint, including but not limited to:

- Reduced water use for landscape irrigation,
- Street designs that harvest and channel runoff into landscape areas instead of storm drains,

- Accommodate the use of alternative means of transportation,
- Use recycled building materials to the extent feasible,
- Use local sources of building materials to the extent feasible,
- Support waste management reduction identified in AB 341.
- Minimize the use of impervious paved surfaces throughout the project,
- Incorporate on-site storm water capture and infiltration within landscape areas,
- Support alternative fuel use through the provision of an on-site alternative fueling site, and
- Provide for the use of roof-mounted solar systems or other alternative power systems.

The WLCSP specifies that all buildings of at least 500,000 square feet (representing more than 99 percent of total project square footage at buildout) shall be designed to meet or exceed the LEED Certified Building Standards and that buildings will be designed to accommodate renewable energy systems. The design of the WLC will pursue these goals by incorporating design features such as, but not limited to, the following:

Building Design and Construction Features:

- Construct “Solar ready” rooftops for buildings;
- Implement design and construction techniques will be employed to reduce the heat island effect, including the use of materials that have a low solar reflectance index such as white roofs and light-colored pavements;
- High performance glazing, overhangs, and landscaping to capture and control natural daylight;
- Use of atriums, skylights and internal courtyards to provide additional daylighting;
- Use of renewable materials and building materials with recycled content where feasible;
- Develop waste management plan and a comprehensive recycling and management program to divert at least 50 percent of waste from landfill, including storage and collection of recyclables, building and material reuse, and careful construction waste management;
- Incorporate the use of passive heating and cooling into the design or modification of the high-cube warehouse development (e.g., white building colors and roof insulation to minimize heat gain, and landscaping to help shade buildings);
- Install outdoor electric outlets to accommodate the use of electrical property maintenance equipment (Section 12.4 of the WLCSP);
- Install advanced irrigation systems, drought-tolerant plants, the use of mulch, recycled and other permissible alternative sources of water, and turfless plantings with decorative hardscape materials such as rock and other materials that do not require potable water sources.

Transportation Features:

- Accommodate alternate forms of transportation including, public transportation (bus), charging stations for electric cars, carpooling, and bicycles.
- Construct sidewalks and a multiuse trail for pedestrian circulation;
- Promote the riding of bicycles, through the provision of bike racks/storage, showers and changing rooms; and
- Design streets to accommodate bus service – Riverside Transit Agency (RTA) does not currently operate any routes in the immediate vicinity of the WLC. RTA will determine if and when bus service will be provided.

Solid Waste Diversion Features:

- Require that all development within the project provide enclosures or compactors for trash and recyclable materials per Specific Plan (Section 5.1.6).

In addition to the prescriptive Building Design and Construction Features, Transportation Features, and Solid Waste Diversion Features listed above, the Applicant commissioned the WLC *Comparison of Renewable Energy Technologies* report (WSP, 2018) to compare feasible, cost-effective renewable energy technologies that could be incorporated into the project design. The report evaluates additional project design options for the WLC that could improve energy performance and increase the use of renewable energy. The screening criteria used to evaluate feasibility include GHG emissions, resiliency, financial constraints, technical constraints, and regulatory constraints. Both on-site and off-site sources of renewable energy were considered.

As an overall strategy, the report recommends eliminating the need for natural gas in building systems and maximizing onsite renewable electricity generation to position the WLC to become an all-electric development that has the future potential to operate 100% on renewable electricity.[17]

Recognizing that energy efficiency is the least-cost sustainable energy resource available, the *Comparison of Renewable Energy Technologies* report recommends implementing all feasible and cost-effective energy conservation measures (ECMs) before determining the feasibility and cost-effectiveness of renewable energy supply options. In addition to reducing energy demand associated with the project, improving the energy efficiency of the buildings will reduce the additional electrical distribution capacity that must be built to supply the project, and help minimize expansion of the electricity distribution infrastructure (e.g., substation and transformer) and the associated local distribution capital costs. To that end, the report identifies feasible and cost-effective ECMs that go beyond the PDFs in the WLCSP and can further reduce building energy consumption beyond the minimum requirements of the current (2016) Title 24 energy code, and help achieve or exceed LEED Certified Building Standards. The ECMs address internal loads, such as lighting and equipment, as well as the energy required to provide heating, cooling, and domestic hot water. Key ECMs in the

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[17] The State of California is expected to require net-zero energy (ZNE) buildings in future updates to Title 24 building standards. By proactively embracing an all-electric building design and committing to solar-ready roof construction, WLC would be net-zero-ready and in a stronger position for compliance with future Title 24 updates.

recommended package that go beyond the PDFs in the WLCSP are variable refrigerant flow (VRF) heat pumps providing heating and cooling to the office spaces, direct evaporative cooling as the first cooling stage and VRF as the supplemental cooling stage for air-conditioned warehouse spaces, LED lighting throughout the offices and warehouses, and LED exterior and parking lot lighting. If fully implemented by the project, the ECMs in combination with the WLCSP PDFs are expected to deliver energy performance that exceeds the current minimum Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout:

Building Envelope:

- Optimal Vertical Fenestration Construction
- Optimal Skylight Construction
- Optimal Window to Wall Ratio
- Optimal Skylight to Roof Ratio

Exterior Loads:

- LED exterior lighting
- Daylight sensor based exterior lighting

Internal Equipment Loads:

- Automatic Receptacle Control
- Highest Efficiency Office Equipment
- Highest Efficiency Other Internal Loads

Lighting:

- Multi-Level Switching
- High Performance Lighting (LED)
- Use separate controls for lighting areas near windows
- Occupant sensors

Daylighting:

- High-on-wall continuous daylighting windows/clerestory windows
- Optimal Daylighting Control
- Dimming daylight controls

HVAC:

- Thermostat setback/setup
- Shut off outdoor air and exhaust air dampers during unoccupied periods
- Supply air temperature reset

- High Performance Fans
- Variable Speed Fans
- High efficiency pumps
- Variable Speed Pump motors
- Reduce service water consumption
- Efficient service water pumping
- Integrated and optimized air side economizer
- Direct Evaporative Cooling
- Variable refrigerant flow heat pump & cooling
- Dedicated Outside Air System Ventilation with Heat Recovery
- Demand controlled ventilation/CO2 controls

On-Site Renewable Energy

The WLC Specific Plan commits the WLC project to meeting the annual energy requirements of all office spaces with PV, thereby effectively achieving net-zero energy (NZE) office operations. The *Comparison of Renewable Energy Technologies* report estimates that the offices in each typical WLC building would consume about 474,120 kWh/yr in Phase 1 and experience a peak electric demand of about 280 kW. At buildout, the offices in each building would consume about 417,230 kWh/yr and experience a peak demand of about 270 kW. The report also found that the maximum allowed amount of PV capacity/building in Phase 1 (300 kW) will generate about 512,275 kWh/yr at the WLC location. The maximum allowed amount of PV capacity/building at buildout (800 kW) will generate about 1,366,400 kWh/yr. These maximum allowed PV capacities are sufficient in both Phase 1 and buildout to satisfy 100% of the office energy needs, thereby meeting the NZE objective for WLC office space.

A system that combines PV with battery storage of excess solar generation was considered, but the MVU solar sizing limitations and the estimated WLC project demands do not result in excess solar generation that could be used to charge a battery. In addition, MVU's Time-of-Use rate structure is not compatible with the project's peak electrical usage (load curve) making the use of batteries to deliver any meaningful reduction an unviable option.

Considering the air emissions constraints, MVU rate structures, project electric load curves, and MVU PV sizing rules, rooftop PV systems without energy storage were determined to be the project's best sustainable clean energy supply option. The use of PV in each phase of the WLC project would cover both the peak electric load generated by the offices and the annual energy usage of the offices. Utilizing the maximum permitted amount of rooftop PV would enable the project office spaces to achieve effectively ZNE operations. Project Design Features include roofs with the structural integrity that can accommodate the possibility of future solar installation over the entire roof of each building. At a minimum, the project will install enough solar power in both phases to meet energy needs of the project's office spaces.

The *Comparison of Renewable Energy Technologies* report found that the use of on-site battery storage and vehicle-to-grid (V2G) technology[18] are not viable under current regulatory and economic conditions. MVU currently has no policies or rules that would allow WLC to use battery storage to increase usage of solar electricity. V2G technology is not yet commercialized, and MVU rules and rate structures would need to change to accommodate V2G technology and to incentivize EV owners to make their vehicle's batteries available while the vehicle is parked.

Off-Site Renewable Energy Procurement

While WLC tenants are expected to purchase electricity from MVU, there are multiple off-site renewable electricity procurement options available to them, if they are willing to incur the associated price premium. Understanding the risk profiles, market credibility, and regulatory implications of different renewable energy procurement options is paramount to making an informed decision. WSP evaluated the following options:

- Unbundled renewable energy certificates (RECs);
- Power purchase agreements (PPAs);
- Community choice aggregation (CCA);
- Green tariffs.

There is no one-size-fits-all recommendation for WLC tenant procurement of off-site renewable energy. Each tenant's circumstances are likely to be unique, so the best off-site procurement option for one tenant may very well not be the best option for another tenant.

To meet the Project Objectives and the City's Economic Development Objectives (see Section 1.3.1 of the WLC Specific Plan), WLC must establish and maintain a competitive position in the marketplace. The price premium associated with off-site renewable energy procurement would increase WLC tenant utility costs and thus run counter to the Project Objectives and the City's Economic Development Objectives. It would therefore be counterproductive to require WLC tenants to procure renewable energy from off-site sources. For these reasons, the concept of requiring a tenant to procure off-site renewable energy was not considered a viable sustainable supply option to impose on the project.

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[18] A V2G system uses the on-board battery packs of parked electric vehicles as distributed energy resources to store electricity for use during peak electricity demand periods. In the future, it is expected that smart controls on EV charging stations will enable each EV owner to decide whether or not to allow V2G charging and discharging of the EV's battery pack.

Transportation Energy

For transportation energy, the *Transportation Energy Technical Study* (ESA, 2018) was conducted to compare feasible, cost-effective options for integrating the use of renewable energy and improving the overall energy performance of transportation operations associated with the WLC project. The *Transportation Energy Technical Study* considered a wide range of fuel and vehicle options across all vehicle classes, and assessed feasibility based on applicability to the project, relative cost, commercial readiness, funding availability, policy and regulatory support, potential industry partners, and other factors.

The *Transportation Energy Technical Study* found that zero emission vehicle (ZEV) technology is steadily developing for both light-duty and heavy-duty vehicles, driven by both regulatory developments and market forces. ZEVs encompass a range of technologies including battery electric vehicles (BEVs), hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and range extended electric vehicles (REEVs) that utilize a fuel cell as an additional energy source. As outlined in the *Transportation Energy Technical Study* and summarized in the Vehicle Scenarios above, commercialization of passenger vehicles is occurring rapidly. A significant population of passenger EVs is expected at the site by Phase 1 (2025) and that number will increase substantially by full buildout of the project (2040), representing a potential significant demand for on-site charging. The study also found that development of electric medium- or heavy-duty vehicles is still in the pilot or demonstration phase and it is not possible to predict when they will become commercially available.

Although it is speculative to state what the regional fleet mix will be as each phase of the project is completed, and the adoption of ZEVs by WLC employees and customers will be beyond the direct control of the WLC, all EV types should be anticipated in planning for the onsite charging infrastructure. To that end, the project will construct the WLC parking areas with cable raceways for installing future EV charging stations, which will enable WLC to more readily and cost effectively provide this service to future tenants if and when demand dictates.

4.17.6 Mitigation Measures

In addition to the PDFs regarding energy conservation and renewable energy, the Revised Sections of the FEIR include the following mitigation measures for other environmental impacts that reduce potential impacts of the WLC project relative to energy use. The complete mitigation measures below can be found in the Executive Summary.

Air Quality Mitigation Measure 4.3.6.2A (construction fuel) would require that construction equipment greater than 50 horsepower be USEPA Tier 4 emissions compliant and limits on-site idling of all diesel-powered construction equipment, delivery vehicles, and delivery trucks to three minutes in any one hour.

AQ Mitigation Measure 4.3.6.3B (long haul trucks). Require model year 2010 medium-heavy duty and heavy-heavy duty trucks or later.

AQ Mitigation Measure 4.3.6.4A: Includes several measures related to bicycle and pedestrian facilities and infrastructure, electric vehicle infrastructure, and ridesharing as conditions to any Plot Plan approval within the WLC site.

Utilities Mitigation Measure 4.16.1.6.1A would reduce outdoor water usage which in turn reduces energy use associated with the conveyance of that water.

Utilities Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.

Utilities Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.

Greenhouse Gas Mitigation Measure 4.7.6.1A (waste diversion). Recycling and composting availability and reduce operational waste by at least 50 percent before 2020 and 75 percent after.

Greenhouse Gas Mitigation Measure 4.7.6.1B (Previously Included as Utilities Mitigation Measure 4.16.4.6.1A for building energy). Each application for a building permit shall include energy calculations to demonstrate compliance with California Energy Efficiency Standards (Title 24, Part 6).

Greenhouse Gas Mitigation Measure 4.7.6.1C (Previously Included as Utilities Mitigation Measure 4.16.4.6.1B building energy). Prior to the issuance of any building permits within the WLC site, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards, for each new structure.

Greenhouse Gas Mitigation Measure 4.7.6.1D (Previously Included as Utilities Mitigation Measure 4.16.4.6.1C building energy; now modified). Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

- Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building or up to the limit allowed by MVU's restriction on distributed solar PV connecting to their grid, whichever is greater;
- Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and
- Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

4.17.7 Less than Significant Impacts

4.17.7.1 Energy Consumption and Generation

Threshold	Would the proposed project result in energy use and consumption that would cause wasteful, inefficient, and unnecessary consumption of energy?

4.17.7.1.1 Construction

Electricity

Electrical power would be consumed to construct the project. Electricity would be supplied by MVU, with electrical service extended to specific construction sites from existing infrastructure throughout the WLC site area, as warranted. Specifically, construction offices and security lighting are expected to be powered by MVU- provided electricity. However, diesel powered generators are expected to be used to power tools in remote portions of the construction sites (diesel use discussed below). The City's noise ordinance generally restricts construction during nighttime hours (See Section 4.12.3, the City of Moreno Valley Noise Ordinance as well as Section 4.12, *Noise*, in the Revised Sections of the FEIR), which would minimize the need for nighttime lighting.

However, on-site construction activities are expected to occur outside of the allowed construction hours specified in the City of Moreno Valley Noise Ordinance. The operation of each piece of off-road equipment within the on-site construction areas (i.e., Plots 1 through 22) would not be constant throughout the day, as equipment would be turned off when not in use. Most of the time over a typical work day, the equipment would be operating at different locations within the various plots of the project site and would be largely intermittent. Should 24-hour concrete pouring occur, the project would use light carts powered by diesel to illuminate pouring areas. The light carts used for continuous pouring are included in the construction transportation energy analysis below.

The project would require electricity for water conveyance during ground-moving activities. The project site spans 2,600+ acres and would require a relatively large amount of water to cover the affected construction areas. Electrical consumption due to the conveyance of water used for dust control is presented in **Table 4.17-2**, below.

Table 4.17-2: WLC Project Construction Electricity Use

Source	**Electricity (MWh per year)**
Water Conveyance from Dust Control and Grading (Annual Average over 15-16 year construction period)[b]	1,496
2020 MVU Electricity Sales (MVU 2016)	**312,786**
% of MVU Electricity Usage	**0.48%**

SOURCE: ESA 2018; MVU 2016

NOTES:

[a] Moreno Valley Utility, 2015/16 Annual Report (2016). Available at: http://www.moreno-valley.ca.us/resident_services/utilities/pdfs/mvuAnnualReport0217.pdf. Accessed April 2018.

[b] Derived from estimated construction water use in CalEEMod runs from 2015 FEIR.

Water use related to dust control is regulated under SCAQMD's Rules 402 and 403 and is required to limit fugitive particulate matter generated by construction activities. The project would be in compliance with Rules 402 and 403 and would require a relatively large amount of water to cover the entire acreage of the project site. However, the expected electricity consumption associated with water use equates to only 0.48 percent of MVU's forecasted sales for 2020 (expected starting year of construction).

The electrical demand would vary throughout the construction period based on the construction activities being conducted. Additionally, when not in use, electrical equipment would be powered off to avoid unnecessary energy consumption.

Therefore, since electricity from water conveyance represents a relatively negligible percentage of total electricity use, and night construction activities would be intermittent and would not require electricity, construction activities would not result in the wasteful, inefficient, and unnecessary consumption of electricity, and impacts would be less than significant.

Natural Gas

Natural gas is not expected to be consumed in any substantial quantities during construction of the WLC project. Therefore, related to the consumption of natural gas during construction, the project would have no impact.

Transportation Energy

The estimated fuel usage for off-road equipment is based on the number and type of equipment that would be used during construction activities, hour usage estimates, the total duration of construction activities, and hourly equipment fuel consumption factors from the OFFROAD model. On-road equipment would include trucks to haul material to and from the project site, vendor trucks to deliver supplies necessary for project construction, and fuel used for construction worker commute trips. A summary of the annual fuel consumption during construction of the project is provided in **Table 4.17-3**, *WLC Project Construction Fuel Usage*. As shown in Table 4.17-3, on- and off-road vehicles would consume an estimated annual average of 1,375,582 gallons of diesel fuel and 36,139 gallons of gasoline for each year of project construction.

Table 4.17-3: WLC Project Construction Fuel Usage

Source	**Diesel Fuel (gallons per year)**	**Gasoline Fuel (gallons per year)**
Construction:		
Heavy-Duty Construction Equipment	1,212,964	—
Haul Trucks	94,155	—
Vendor Trucks	68,463	—
Worker Trips	—	36,169
Annual Average (approximately up to a 15-16 year construction duration)	**1,375,582**	**36,169**
2016 Riverside County Fuel Sales (CEC 2016)	**273,000,000**[a]	**1,035,000,000**[b]
% of County Usage	**0.50%**	**0.0035%**

SOURCE: ESA 2018; CEC 2016

NOTES:

[a] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[b] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

Compliance with the anti-idling regulation and the use of cleaner, more energy efficiency construction equipment would reduce the project's annual average diesel fuel usage. As discussed previously, construction of the project would utilize fuel efficient equipment consistent with state and federal regulations, and would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy. While these regulations are intended to reduce construction emissions, compliance with them would also result in energy savings.

In addition, the project would implement a construction waste management plan to divert 50 percent of mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the AB 341. Implementation of the construction waste management plan will likely reduce truck trips to landfills and/or material recovery facilities and increase the amount recycling and reuse of materials.

Based on the available data, construction would utilize energy for necessary on-site activities and to transport construction materials and demolition debris to and from the project site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and thus result in the efficient use of the project's construction-related energy.

Construction of the WLC project would benefit from California's Pavley/ACC standards that are designed to result in more efficient use of transportation fuels, because they would affect the vehicles used by workers and any light duty trucks used by vendors or haulers. These vehicle efficiency standards are the most stringent in the nation and among the most stringent in the world. In addition, the project would reduce fuel use by requiring that construction equipment greater than 50 horsepower be USEPA Tier 4 emissions compliant and by limiting on-site idling of all diesel-powered construction equipment, delivery vehicles, and delivery trucks to three minutes in any one hour, as specified in Mitigation Measure 4.3.6.2A.

As shown in Tables 4.17-3 above, transportation fuel usage during construction represents approximately 0.0035 percent of annual gasoline usage and 0.50 percent of annual diesel usage within Riverside County, respectively, representing a small fraction of the County's total fuel demand. In conjunction with California's stringent vehicle efficiency standards, the project would not result in the wasteful, inefficient, and unnecessary consumption of energy.

4.17.7.1.2 Operation

Electricity

The WLC project would increase demand for electricity due to consumption by buildings, water supply and conveyance, and EV charging. The project's operational electricity demand was estimated for Phase 1 and Full Buildout by considering a Baseline scenario (minimum Title 24 compliance) and three project scenarios based on the Electric Vehicle Scenarios presented earlier. The project scenarios (Low, Medium, and High EV Penetration) all incorporate the energy conservation PDFs. The following assumptions were incorporated into the scenarios:

- The Title 24 Baseline scenario is based on the project's annual energy use being in minimum compliance with Title 24, including the Title 24 Part 6 requirement for the building energy efficiency and the Part 11 requirement that 6 percent of employee and visitor parking spaces be constructed to accommodate electric vehicle supply equipment (EVSE) for future electric vehicle charging. The Baseline scenario assumes that EV charging stations will be installed at 6 percent of the parking spaces by the time the project becomes operational.

- The project incorporates the Energy Conservation Measures (ECMs) from the WLC *Comparison of Renewable Energy Technologies* report[19] that would enable the project to exceed Title 24 energy standards by approximately 17 percent at Phase 1 and 16 percent at full buildout. As with the Title 24 Baseline Scenario, the project also assumes that EV charging stations will be installed at 6 percent of the parking spaces by the time the project becomes operational.

- The project implements the commitment to install rooftop solar PV generation designed so as to produce an amount of electricity equal to the power needs for the projected ancillary office portion of the warehouse buildings or up to the limit allowed by MVU's restriction on distributed solar PV connecting to the grid, whichever is greater.

The project's estimated operational electricity demand is provided in **Table 4.17-4**, *WLC Project Operational Electricity Usage* the for the Title 24 Baseline Scenario and the three Electric Vehicle Scenarios.

As discussed above and shown on Table 4.17-4, the project implements commitments and strategies to lower electricity consumption needed for buildings (e.g. lighting, cooling, power equipment, and water conveyance). In 2025, electrical demand will be lowered with implementation of sustainability measures such as high efficiency lighting and appliances, skylights, and motion sensors, etc. As discussed above, the project would comply with and exceed the applicable provisions of Title 24 and the CALGreen Code in effect at the time of building permit issuance and buildings over 500,000 sf (representing more than 99 percent of total project square footage at buildout) will be LEED certified. Reliance on grid-supplied power is further offset by the generation of 12 MW of power through on-site rooftop solar PV. Thus, the Project + Low EV Penetration (Scenario A) uses approximately 14 percent less electricity than the baseline demand scenario. In 2040, the Project + Low EV Penetration Scenario would use approximately 15 percent less electricity than the 2040 Baseline Scenario.

Although the Project + Medium EV Penetration Scenario would require more power than the Project + Low EV Penetration Scenario, the net electrical demand on MVU would still be 12 percent less than the Baseline Scenario for 2025 due to the ECMs and on-site solar PV generation. For 2040, electricity use would be 15 percent more than the Baseline Scenario due to the much higher EV penetration rates for light duty passenger cars consistent with the 2016 Mobile Source Strategy.

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[19] Referred to as Energy Conservation Measures (ECMs) in the *Comparison of Renewable Energy Technologies* report.

Table 4.17-4 WLC Project Operational Electricity Usage

Source	**Phase 1 - 2025 (MWh/yr)**	**Full Buildout - 2040 (MWh/yr)**
MVU Electricity Forecast Sales (2024)[a,b,c]	**352,044**	**-**
Title 24 Baseline Scenario		
Building annual electricity [d]	194,287	330,649
EV charging annual electricity [e]	7,775	60,116
Total	**202,062**	**390,765**
% of MVU Forecast	**57%**	**-**
Project + Low EV Penetration (Scenario A)		
Building annual electricity [d]	174,423	298,084
EV charging annual electricity [e]	7,775	60,116
Electricity Savings from Solar PV [f]	-7,686	-24,083
Total	**174,512**	**334,117**
Change from Baseline	-27,550	-56,648
% Change from Baseline	**-14%**	**-15%**
% of MVU Forecast	**50%**	**-**
Project + Medium EV Penetration (Scenario B)		
Building annual electricity [d]	174,423	298,084
EV charging annual electricity [e]	10,687	174,279
Electricity Savings from Solar PV [f]	-7,686	-24,083
Total	**177,424**	**448,280**
Change from Baseline	-24,638	+57,515
% Change from Baseline	**-12%**	**+15%**
% of MVU Forecast	**50%**	**-**
Project + High EV Penetration (Scenario C)		
Building annual electricity [d]	174,423	298,084
EV charging annual electricity [e]	96,619	485,017
Electricity Savings from Solar PV [f]	-7,686	-24,083
Total	**263,356**	**759,018**
Change from Baseline	**+61,294**	**+368,253**

% Change from Baseline	**+30%**	**+94%**
% of MVU Forecast	**75%**	**-**

NOTES:

Scenario A through C's building energy is different from the baseline due to Project Design Features that exceed Title 24 energy standards. The baseline scenario complies with but does not exceed standards.

[a] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015.

[b] Electricity sales forecasts only available up to 2024 in MVU's IRP.

[c] Since MVU's forecast only extends until 2024, it is not possible to adequately estimate electricity use in 2040 and compare to future project use.

[d] Source: Evans, 2018; electricity consumption numbers estimated by WSP, as communicated by email (subject: WSP draft inputs – Building electricity) from Evan Evans to Jeff Caton on June 29, 2018.

[e] Source: ESA and CALSTART, 2018

[f] Source: WSP, 2018

In the Project + High EV Penetration Scenario, total electrical demand driven by populations of EV trucks would exceed total electrical demand in the Baseline Scenarios for 2025 and 2040; however, a substantial reduction in the use of liquid transportation fuels (diesel and gasoline) would also be expected (see discussion below). Replacing VMT powered by the combustion of diesel and gasoline fuels with EV-generated VMT, especially as electricity becomes less GHG-intensive under the State's RPS, has the added advantage, or co-benefit, of reducing the emission of harmful air pollutants such as particulate matter (PM) and oxide of nitrogen (NOx) associated with transportation.

The feasibility of using medium and heavy duty EVs for delivery of goods to or from the WLC is, to a great extent, dependent on the nature of the warehousing operations. For example, many warehouses implement the "drop and drag" procedure, where a truck will bring goods to the facility, and the trailer (or sea-going cargo container) will be disconnected and left on-site for the lengthy process of unloading. An empty trailer may be connected and the truck quickly departs to return to its point of origin. Conversely, an out-bound truck is usually scheduled to retrieve a delivery load only once the container/trailer is full. Thus, trucks are not on-site or idle for long enough times to obtain a meaningful battery charge. Medium-duty and heavy-duty zero emission trucks are in the very early stages of commercially market deployment and currently cost substantially more than conventionally fueled trucks, and current funding assistance programs do not fully offset that cost difference (ESA and CALSTART, 2018). Given that the future tenants of the WLC are not known and cannot be identified at this time, it would be speculative to assume the High EV Penetration Scenario would be practicable or feasible by 2025 or by 2040.

In regard to forecasting, such as done with EV penetration rates to generate the scenarios evaluated, the *Laurel Heights* Court commented that an agency is required to forecast only to the extent that an activity could be reasonably expected under the circumstances. The Court recognizes that an agency cannot be expected to predict the future course of governmental regulation or exactly what information scientific advances may ultimately reveal. *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal. 3d 376. Therefore, in light of the changes to market and regulatory drivers that would have to occur to make medium and heavy duty EVs widely implemented and feasible by 2025 or 2040 to the now unknown future tenants of the WLC, the potential for the electrical demand projected under the Project + High EV Penetration Scenario to materialize is highly speculative. CEQA Guidelines Section 15145 advise *"If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact*." Therefore, any effects to energy resources from achieving the Project + High EV Penetration Scenario would be highly speculative, and associated analyses are presented herein for informational purposes only.

MVU forecasts that its peak demand in 2024, the furthest forecasted year in its 2015 IRP, would be approximately 352,044 MWh per year.[20] This is approximately 90 percent higher than the 185,000 MWh that MVU sold to all customers in its area for the 2015-2016 fiscal year. As shown in Table 4.17-4, the WLC project's estimated electrical consumption would account for between 50 and 75 percent of MVU's projected electricity projected sales depending on the EV penetration scenario for Phase 1 (2025). However, MVU's 2015 IRP anticipates growth in the region and specifically considers the electrical demand generated by the project. The IRP states that a portion of the WLC project's demand is incorporated into forecasted growth and MVU will monitor the development progress of the project. Therefore, it is reasonable to assume that MVU's existing and planned electricity supplies could support the project's electricity demand calculated for the Project + Low EV Penetration (Scenario A) and the Project + Medium EV Penetration (Scenario B) by 2025. Any determination of MVU's need for additional capacity beyond what is planned would be speculative and depend on the cumulative demand within MVU's service area.

As stated above, effects attributable to the Project + High EV Penetration Scenarios would be highly speculative, and could be as much as 75 percent of MVU's projected forecast sales in 2024. Since the 2015 IRP only forecasts out to 2024, projecting MVU's electricity use and supply for the full buildout 2040 Scenarios would also be highly speculative. MVU has a considerable amount of time to procure energy resources in anticipation of the project's development, and has committed to taking the WLC project's needs into consideration in future IRP development.

Based on MVU's forecasts, the peak demand for their power grid in 2024 will be 79 MW.[21] The project's annual peak demand from buildings is expected to be 34.9 MW in 2025 and 58.2 MW in 2040, as shown in Table 4.17-5, below. For the Low and Medium EV Penetration Scenarios, the total peak demand including EV loads could be 36 MW and 36.5 MW for 2025, respectively. By the year 2040, the annual peak demand for the Low and Medium EV Penetration Scenarios could total 67.3 KW and 84.6 KW, respectively. However, as stated above, forecasting project peak demand and

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[20] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015.

[21] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015,

MVU's peak demand for 2040 is highly speculative and would depend on cumulative demand. The peak demand for 2040 is included for informational purposes.

Table 4.17-5 WLC Project Annual Peak Demand

Source	**Peak Demand (MW)**	
	2025	**2040**
Building Demand	34.9	58.2
Scenario A Low EV Penetration	1.1	9.1
Total	**36.0**	**67.3**
Building Demand	34.9	58.2
Scenario B Medium EV Penetration	1.6	26.4
Total	**36.5**	**84.6**
Building Demand	34.9	58.2
Scenario C High EV Penetration	14.6	73.4
Total	**49.5**	**131.6**

SOURCE: WSP 2018 and ESA 2018

MVU's electrical generation is derived from a mix of non-renewable and renewable sources such as coal, natural gas, solar, geothermal, wind, and hydropower. MVU's 2015 Power Integrated Resources Plan identifies adequate resources to support future generation capacity, and a new 112 kV substation is proposed to be constructed within the WLC site. With regard to renewable energy sources, the project would use electricity provided by MVU, which MVU is required to meet the 2050 RPS. MVU's current source of renewable resources include wind, solar, and hydroelectric and account for 17 percent of MVU's overall energy mix for 2016 (the most current year data is available for).[22] The project itself is incorporating renewable energy sources with a minimum of 14.1 MW of rooftop solar at buildout to achieve a net-zero energy use for the estimated office demands. At full build-out WLC will feature the equivalent of twenty-seven 60,000 square-foot net-zero office buildings. To put this in context, the entire State of California has about 190 net-zero commercial buildings that are currently verified or designed as of 2017 (CPUC, 2017). This solar commitment would be within the solar PV limitations set by MVU.

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[22] California Energy Commission, Utility Annual Power Content Labels for 2016. http://www.energy.ca.gov/pcl/labels/. Accessed February 2018.

In addition to the solar commitment the WLC project would implement energy performance improvement measures to exceed the current minimum Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent improvement at full buildout. Although the project would result in moderate increases in annual electrical demand compared to MVU's current supply, for the low and medium EV penetration scenarios, MVU is committed to meeting the project's electricity demand through a future IRP update and planning process. Therefore, with the incorporation of these features, operation of the project would not result in the wasteful, inefficient, or unnecessary consumption of electricity, would not cause a need for additional capacity regionally or locally, and would not affect electricity resources to the extent that electricity demand can reasonably be projected and assessed.

Building Natural Gas

The WLC project could increase the demand for natural gas resources through the project's commitment to a CNG/LNG fueling station,[23] but the project's operational natural gas demand from buildings is expected to be zero, as shown in Table 4.17-6. The project would mostly comprise high-cube warehouses that do not require heating from natural gas. The spaces that do require heating are ancillary office spaces. Because all heating and cooling is provided via direct evaporative cooling and heat pumps, natural gas is not required. This allows the project to reduce on-site fossil fuel combustion that would normally be associated with service water and space heating. The Title 24 Baseline scenario assumes compliance but not exceedance of energy standards and includes annual natural gas use equating to 51,274 MMBtu in 2025 and 84,771 MMBtu in 2040. As such, the project would result in a 100 percent decrease in consumption of natural gas from the Title 24 Baseline scenario for both Phase 1 and Full Buildout.

Table 4.17-6 WLC Project Operational Natural Gas Usage in Buildings

Source	**Phase 1 - 2025 (MMBtu/yr)**	**Full Buildout - 2040 (MMBtu/yr)**
SoCal Gas (2016)[a]	304,290	304,290
Title 24 Baseline Scenario:		
Building annual natural gas	51,274	84,771
% of SoCal Gas	**17%**	**28%**
All-Electric Project:		
Building annual natural gas	0	0
% of SoCal Gas	**0%**	**0%**

NOTES:

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[23] For natural gas use from CNG/LNG fueling station, see discussion under Transportation Energy, below.

[a] Total Sempra natural gas sales, from Sempra Energy, 2016 Annual Report, (2017). Available at: https://www.sempra.com/sites/default/files/microsites/2016_annualreport/. Accessed July 2018. Converted from 294 billion cubic feet and a conversion factor of 1,035 Btu per cubic foot based on USEIA data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, April 28, 2017. Available: https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed October 2017).

SOURCE: WSP 2018

Transportation Energy

Like operational electricity discussed above, the transportation energy usage was estimated for three EV penetration scenarios and for two different phases of development (Phase 1 and Full Buildout). In the context of transportation fuels, the Project + Low EV Penetration scenario represents the "baseline" scenario, as it assumes EV penetrations consistent with the EMFAC 2014 transportation model used in standard CEQA analysis. As explained in Section 4.17.3.3 *Technology Advancement*, the Medium EV Penetration and High EV Penetration Scenarios assume statewide attainment of the higher EV targets in the 2016 California Mobile Source Strategy or the 2017 Scoping Plan Update.

The WLC project's estimated operational transportation fuel demand is provided in Table 4.17-7. As discussed previously, the project would support statewide efforts to improve transportation energy efficiency and reduce fossil fuel consumption by private automobiles. The project would also include the installation of electric vehicle supply equipment (EVSE) pursuant to Title 24, part 6 of the CALGreen Code. According to the EMFAC2014 model, electric vehicles should account for approximately 4.7 percent of passenger vehicles[24] in 2025 and 10.3 percent by 2040 in the SoCAB region. The estimated potential fuel savings from the increased population of EVs is provided in Table 4.17-7.

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[24] As defined by the traffic modeling for the project, passenger vehicles include the EMFAC vehicle categories of Light Duty Automobile (LDA) and Light Duty Truck (LDT).

Table 4.17-7 WLC Project Operational Fuel Usage

Source	2025			2040		
	Gallons of Diesel Fuel Per Year (gallons)[a]	Gallons of Gasoline Fuel Per Year (gallons)[b]	Electricity Use Per Year (MWh)	Gallons of Diesel Fuel Per Year (gallons)a	Gallons of Gasoline Fuel Per Year (gallons)b	Electricity Use Per Year (MWh)
County of Riverside (Transportation Sector) 2016/ MVU 2024[c]	**273,000,000**	**1,035,000,000**	**352,044**	**273,000,000**	**1,035,000,000**	**352,044**
Project + Low EV Penetration (Scenario A)						
Low EV Penetration	36,678	22,910	7,789	60,755	30,886	60,105
% of County	**0.013%**	**0.0022%**	**2.2%**	**0.022%**	**0.003%**	**17%**
Project + Medium EV Penetration (Scenario B)						
Medium EV Penetration	36,674	22,607	10,687	60,671	26,036	174,279
% of County	**0.013%**	**0.0022%**	**3%**	**0.022%**	**0.002%**	**50%**
% change from Low EV	**-0.01%**	**-1.3%**	**+37%**	**-0.1%**	**-16%**	**+190%**
Project + High EV Penetration (Scenario C)						
High EV Penetration	29,507	21,663	96,619	36,989	23,142	485,017
% of County	**0.011%**	**0.0021%**	**27%**	**0.014%**	**0.002%**	**138%**
% change from Low EV	**-20%**	**-5%**	**+1,140%**	**-39%**	**-25%**	**+707%**

SOURCE: ESA 2018

NOTES:

[a] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[b] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2016. Available at: http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed April 2018. Diesel is adjusted to account for retail (52%) and non-retail (48%) diesel sales.

[c] Moreno Valley Utility, 2015 Integrated Resource Plan, March 2015,

As discussed under Section 4.17.3, *Methodology*, and presented in Table 4.17-7 above, the WLC project would provide the infrastructure for supporting a higher population of electric vehicles, in direct support of the state's targets of 1.5 million ZEVs by 2025 and 4.2 million ZEVs by 2040. The increase in EV populations will increase demand for electricity but reduce demand for fossil-based vehicle fuels.

Estimates for the number of EVs and the expected annual electricity demand associated with each of the three vehicle scenarios are presented below in Tables 4.17-9 through 4.17-11, based on the information summarized in Section 4.17.3, *Methodology.*

Table 4.17-9: Scenario A: Low EV Penetration Charging Loads

Vehicle Type	**2025**				**2040**			
	Population	**Peak Rate (MW)**	**Avg Daily (MWh)**	**Avg Annual (MWh)**	**Population**	**Peak Rate (MW)**	**Avg Daily (MWh)**	**Avg Annual (MWh)**
Passenger Vehicles	533	1.1	21.3	7,789	2,058	9.1	164.7	60,105
Light Trucks (2 axle)	0	0	0	0	0	0	0	0
Medium Trucks (3 axle)	0	0	0	0	0	0	0	0
Large Trucks (4+ axle)	0	0	0	0	0	0	0	0
Total	**533**	**1.1**	**21.3**	**7,789**	**2,058**	**9.1**	**164.7**	**60,105**

Table 4.17-10: Scenario B: Medium EV Penetration Charging Loads

Vehicle Type	**2025**				**2040**			
	Population	**Peak Rate (MW)**	**Avg Daily (MWh)**	**Avg Annual (MWh)**	**Population**	**Peak Rate (MW)**	**Avg Daily (MWh)**	**Avg Annual (MWh)**
Passenger Vehicles	659	1.4	26.4	9,622	5,795	25.6	464	169,214
Light Trucks (2 axle)	73	0.2	2.9	1,065	346	0.8	13.9	5,065
Medium Trucks (3 axle)	0	0	0	0	0	0	0	0
Large Trucks (4+ axle)	0	0	0	0	0	0	0	0
Total	**732**	**1.6**	**29.3**	**10,687**	**6,141**	**26.4**	**478**	**174,279**

Table 4.17-11: Scenario C: High EV Penetration Charging Loads

Vehicle Type	2025				2040			
	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)	Population	Peak Rate (MW)	Avg Daily (MWh)	Avg Annual (MWh)
Passenger Vehicles	659	1.4	26.4	9,622	5,795	25.6	464	169,214
Light Trucks (2 axle)	73	0.2	2.9	1,065	346	0.8	13.9	5,065
Medium Trucks (3 axle)	111	0.4	6.0	2,189	786	2.4	42.3	15,455
Large Trucks (4+ axle)	614	12.7	229.4	83,743	2,166	44.2	809.0	295,282
Total	**1,457**	**14.6**	**265**	**96,619**	**9,093**	**73.4**	**1,329**	**485,017**

The Project + Low EV Penetration scenario has the lowest population of EVs and only includes passenger vehicle EVs. The annual electricity use would be 2.2 percent of MVU's forecasted demand in 2024.

The Project + Medium EV Penetration scenario includes EV passenger vehicles and light trucks. The annual electricity use would be only slightly more than the Low EV Penetration scenario and would represent 3 percent of MVU's demand. As stated above, this scenario would increase electricity use, however, it would be displacing and reducing gasoline use by 4 percent.

The Project + High EV Penetration scenario analyzes the inclusion of an increased percentage of medium and heavy duty trucks that are EVs. Under this scenario, electricity demand would be 27 percent of MVU's total electricity demand and the EVs would displace a substantial number of fossil fuel burning vehicles.

As shown in Table 4.17-7, the Project + Medium EV Penetration scenario would reduce gasoline use by approximately 1.3 percent and increase electricity use by 37 percent in 2025 compared to the Low EV Penetration scenario. Diesel consumption would be about the same for the two scenarios. By 2040, gasoline use with the Medium EV Penetration scenario would be reduced by 16 percent from the Low EV Penetration scenario and displaced with EVs that would increase electricity by 190 percent from the Low EV Penetration scenario.

The Project + High EV scenario would realize a greater amount of fuel savings (gasoline and diesel) due to the higher percentage of trucks assumed to be EVs. For 2025, diesel use would decrease by approximately 20 percent compared to the Low EV Penetration scenario and gasoline would decrease by approximately 5 percent. By 2040, diesel use would decrease by 39 percent and gasoline would decrease by 25 percent. Electricity demand would increase more than 11 times the Low EV Penetration scenario by 2025, and approximately 7 times by 2040. However, as stated earlier, forecasting demand for 2040 is highly speculative and numbers presented are strictly for informational purposes.

As described earlier, these increases in transportation-related electricity will be offset through implementation of energy conservation measures and installation of on-site rooftop solar PV, resulting in an approximate 16 percent improvement in energy efficiency as compared to the baseline scenario at full buildout. Although the project would result in moderate increases in annual electrical demand from EV charging compared to MVU's current supply (for the low and medium EV penetration scenarios), MVU is committed to meeting the project's electricity demand through a future IRP update and planning process. As mentioned above, MVU's IRP addresses the fact that the project would exceed the utility's current and forecasted demand. However, the IRP states that a portion of the project's demand is incorporated into forecasted growth and MVU will monitor the development progress of the project. Any determination on additional capacity would be speculative considering MVU is aware of the project and its effect on grid electricity. MVU has a considerable amount of time to procure energy resources in anticipation of the project's development.

As shown in Table 4.17-7, the Project + Low EV Penetration scenario would represent a small fraction of the county's overall diesel and gasoline fuel use for 2025, making up 0.013 and 0.0022 percent respectively. By 2040, those numbers increase to 0.022 percent for diesel and 0.003 percent for gasoline. Although the fuel does slightly increase, the Project's fuel use is still negligible when compared to overall county use.

The Project + Medium EV Penetration scenario would account for 0.013 percent of total County diesel use and 0.0022 percent of total County gasoline use in 2025. By 2040, those percentages increase to 0.022 percent for diesel and remain approximately 0.0022 percent for gasoline. This scenario slightly lowers fuel use when compared to the Project + Low EV Penetration because it assumes a greater percentage of car and light truck EVs (See Section 4.17.3.3, *Technology Advancement* for assumptions).

The Project + High EV Penetration scenario would represent 0.011 percent of total County diesel use and 0.0021 percent of total County gasoline use in 2025. By 2040, those percentages increase to 0.014 percent for diesel and remain approximately 0.0020 percent for gasoline. The High EV Penetration scenario assumes light, medium, and heavy trucks would have a higher population of EVs that would reduce diesel fuel use by 7,171 gallons per year from the Low EV Penetration scenario for 2025 and by 23,766 gallons per year for 2040.

Given the evidence presented herein, the WLC project would result in the efficient use of operational transportation fuel consistent with State and City goals. The project would represent between 0.002

to 0.003 percent of the County gasoline use and between 0.011 to 0.022 percent of County diesel use. Diesel and gasoline fuel consumption from the project would be negligible in any of the presented scenarios, however as stated in the electricity analysis above, any effects to energy resources from achieving the Project + High EV Penetration Scenario would be highly speculative, and associated analyses are presented herein for informational purposes only.

Operation of the WLC project would benefit from California's Pavley/ACC standards that are designed to result in more efficient use of transportation fuels. These vehicle efficiency standards are the most stringent in the nation and among the most stringent in the world. As shown in Tables 4.17-7 above, the project's operational activities under the Low EV Penetration Scenario (the most conservative scenario in terms of petroleum-based fuel consumption) would result in the consumption of approximately 0.013 percent of the County's diesel consumption and approximately 0.002 percent of the County's gasoline consumption, representing a very small fraction of the County's total fuel demand. Therefore, these activities would have a negligible effect on the transportation fuel supply. In conjunction with California's stringent vehicle efficiency standards, operation of the WLC project would not result in the wasteful, inefficient, or unnecessary consumption of transportation fuel.

Transportation Natural Gas

The WLC project (all scenarios) would also include regularly operating propane-powered yard trucks and CNG-powered forklifts that are typical of large warehouse facilities. Additionally, the project would include a CNG/LNG fueling station on-site that would be publically available for refueling. Table 4.17-8, below, shows the annual average natural gas use from operational vehicles and CNG/LNG vehicle refueling within the project.

Table 4.17-8: Natural Gas Use from Transportation

Source	**Annual Fuel Use (MMBtu/yr)**
State Natural Gas Consumption [a]	**2,253,678,345**
Yard Trucks[b]	14,543
Forklifts[b]	738
CNG/LNG Fueling Station[b]	805,148
Total Natural Gas Consumption (on- and off-road)	**820,429**
% of State	**0.036%**

NOTES:

[a] All uses; from US Energy Information Administration, California Natural Gas Consumption by Year (2017). Available at: https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm Converted from 2,177,467 million cubic feet using a conversion factor of 1,035 Btu per cubic foot based on USEIA data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, April 28, 2017. Available: https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm. Accessed July 2018).

[b] See Appendix F for detailed calculations of natural gas vehicles and CNG/LNG fueling station

As presented in Table 4.17-8 above, the natural gas use from operational vehicles and the CNG/LNG fueling station would represent approximately 0.036 percent of the statewide natural gas consumption. The analysis assumes a conservative estimate of 204 trucks completely refueling per day based on trip rates presented in the WLC project's traffic study.[25] The traffic study bases trip rates on ITE's code for a gas station with convenience store that has a relatively high trip rate. CNG fueling stations would likely have less daily visits than a traditional gas station, making the analysis even more conservative. The operational vehicles are also based on conservative assumptions of maximum operating hours of 7 hours for propane-powered yard trucks and 4 hours for CNG forklifts. Realistically, all of the yard trucks would not be operating simultaneously or continuously for 7 hours and forklifts would be used intermittently for the unloading and loading of warehousing goods. Furthermore, the analysis above represents additional natural gas use from vehicles and does not account for CNG/LNG trucks displacing diesel- or gasoline-powered vehicles. In actuality, the CNG/LNG trucks may displace fossil-fueled trucks on the project site. Even with the conservative assumptions for trip rates, volumes, non-displacement, and operating hours, and without considering the potential benefit of offsetting other vehicle fuels, the natural gas use from operational vehicles and the CNG/LNG fueling station represent a negligible percent of the State's total natural gas use.

According to SoCal Gas data, natural gas sales have been relatively stable over the past three years with a slight increase from 287 billion cubic feet in 2014 to 294 billion cubic feet in 2016. Southern California's natural gas supply is predominantly sourced from out of state with a small portion originating in California. Sources of natural gas are obtained from locations throughout the western United States as well as Canada.[26] According to the US Energy Information Administration (EIA), the United States has approximately 85 years of natural gas reserves based on consumption in 2015.[27] Statewide compliance with energy efficiency standards is expected to result in more efficient use of natural gas and therefore reduced consumption in future years. It is anticipated that SoCal Gas' existing and planned natural gas supplies would be sufficient to support the project's natural gas use and that the CNG/LNG fueling station would have a negligible effect on the natural gas supply.

Operation of the WLC project would benefit from California's Pavley/ACC standards that are designed to result in more efficient use of transportation fuels. These vehicle efficiency standards are the most stringent in the nation and among the most stringent in the world. Operation of the project would require very small amounts of natural gas to be consumed by vehicles at the site, and in conjunction with California's stringent vehicle efficiency standards, would not result in the wasteful, inefficient, and unnecessary consumption of natural gas.

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[25] Traffic study states an average daily traffic of 408 trips. This accounts for roundtrips of trucks, so the number of trucks visiting to refuel would be half of the average daily traffic volume.

[26] California Gas and Electric Utilities, 2016 California Gas Report. 2016.

[27] EIA. *Frequently asked Questions. https://www.eia.gov/tools/faqs/faq.php?id=58&t=8*. Accessed April 2018.

4.17.7.2 Construction or Expansion of Electrical and Natural Gas Facilities

Threshold	Would the proposed project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Electricity

Through implementation of energy conservation measures the WLC project will exceed Title 24 energy standards by approximately 17 percent at Phase 1 and 16 percent at full buildout. The project would also incorporate renewable energy sources with a minimum of 14.1 MW of rooftop solar at buildout to achieve a net-zero energy use for the estimated office demands. Despite these improvements a number of SCE facilities would require relocation and expansion of MVU facilities would be needed in order to provide network backup (i.e., if the solar generation equipment were to fail) and accommodate the potential increase in electrical demand due to increased EV populations. Power poles, guy poles, and guy anchors for the existing overhead 115 kV line along World Logistic Center Parkway and Gilman Springs Road will need to be relocated at the time these roadways are widened. The portion of the existing 115 kV line along Eucalyptus Avenue may also need to be relocated into the new Eucalyptus Avenue alignment between World Logistic Center Parkway and Gilman Springs Road at the time the roadway is constructed. The existing 115 kV line along Brodiaea Avenue may be able to be protected in place except for a few hundred feet where the transmission line intersects with the new Merwin Street, which will need to be relocated to accommodate street and storm drain channel improvements.

The existing 12 kV overhead power distribution lines along Redlands Boulevard will need to be undergrounded when the roadway is developed to its ultimate width. The existing 12 kV overhead power feeder lines located along World Logistic Center Parkway and Alessandro Boulevard will need to be relocated and undergrounded as these roadway improvements take place during the development of the WLC project. The existing 12 kV overhead power feeder line running south along Virginia Street to the Moreno Compressor Station (planned as Open Space) will be protected in place. The existing overhead service lines from the World Logistic Center Parkway 12 kV line along Dracaea Avenue to the east and along Cottonwood Avenue to the west can be abandoned when existing on-site residences served by these facilities are abandoned. Per SCE requirements, SCE 12 kV undergrounded lines cannot be in a common trench with MVU facilities and require a separate underground facility with a minimum 6 feet from other utility lines.

Based on the *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, (Utility Specialists, October 24, 2013) prepared for the WLC project, construction of the first three logistics buildings that would occur during the initial phase of construction can be served by the existing MVU substation at Cottonwood Avenue and Moreno Beach Drive, as long as capacity is still available at that station. Subsequent buildings in Phase 1 of construction will require the expansion of this substation. The expansion that would occur to meet this demand would be the addition of two new 28 MW transformer units which can be accommodated within the existing substation property. New 12 kV underground feeder circuits, including trenching, conduit, electrical vaults, and conductors will need to be installed from the substation to the WLC project site. These improvements will occur along Cottonwood Avenue, along Moreno Beach Drive, and along Alessandro Boulevard, Brodiaea Avenue, and Cactus Avenue. These improvements are expected to take place concurrently with roadway construction.

To meet the WLC project's ultimate annual electricity demand, a new 112 kV substation will be constructed within the project limits at a central location near one of SCE's 115 kV transmission lines that will feed power to the substation. The *Dry Utilities* memo for the project indicates two potential locations; the first adjacent to the SCE transmission lines along Gilman Springs Road, and the other adjacent to the SCE transmission lines along Brodiaea Avenue. Impacts of constructing the new station at either of these on-site locations may be the same.

SCE will require approximately 2 acres for a switching station near the new 112 kV substation proposed by MVU to serve the WLC project. All MVU primary distribution conductors within the project will be installed within underground conduits and vaults within the public roadway rights-of-way or within easements as a joint trench with telephone, cable television, and natural gas. Since the installation or relocation of electrical facilities would take place concurrently with roadway construction and/or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Connecting the site to existing utility lines is considered part of the project, the impact of which has been analyzed in the Revised Sections of the FEIR. Previously referenced Figure 3.16 depicts the proposed electrical facilities assuming 100 percent backup electrical service to the WLC site.

Natural Gas

Figure 3.17 in the Project Description depicts the existing natural gas pipelines at the site. An existing 3-inch medium pressure line traveling along World Logistics Parkway and Street F could supply the proposed CNG/LNG fuel station. Although there would be no anticipated use of natural gas by the buildings in the WLC project and thus no need for natural gas distribution infrastructure, SCGC has indicated that the existing 4-inch medium-pressure line underlying Redlands Boulevard and Cactus Avenue can be extended into and looped around the WLC project roadway alignments to serve the proposed development. New two-inch gas lines could also be installed to accommodate the WLC project's demand. Natural gas facilities could be installed in the public street rights-of-way and easements as a joint trench with telephone, cable TV and electrical services. The gas main in Eucalyptus Avenue would be on the south side of the street and in its own trench as it was not included in the common trench installed to serve the Sketchers building.

Relocation of natural gas transmission lines within the WLC site into public street rights-of-way and easements will be necessary to support site development and grading. These include 11,100 feet of the 30-inch gas pipeline in Cottonwood Avenue from Redlands Boulevard to World Logistics Parkway and then southeast to Virginia Street and Alessandro Boulevard intersection; 1,900 feet of 30-inch gas line from Gilman Springs Road at Lisa Lane southwest to Alessandro Boulevard; 1,000 feet of 16-inch gas line owned by Questar from Gilman Springs Road southwest to Alessandro Boulevard and 4,000 feet of 16-inch gas line owned by Questar on the Maltby Avenue alignment from Merwin Street to

World Logistics Parkway. The remaining transmission gas lines are anticipated to be protected in place within the proposed streets or easements between buildings. The regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the WLC project will need to be relocated as part of the widening of this road. The gas facility on Alessandro Boulevard and Virginia Street will remain in place as the project develops in this area. The SDG&E natural gas compression station on Virginia Street south of the project site, known as the Moreno Compressor Station, along with a smaller facility on Virginia Street at Boadicea Avenue will be protected in place. Since the installation or relocation of natural gas facilities would take place concurrently with roadway construction and or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects.

4.17.7.3 Energy Standards, Policy, Regulation Consistency

Threshold	The Degree to which the Project Complies with Existing Energy Standards

This impact assesses whether the WLC project would conflict with any applicable standards, policies, or regulations, as discussed below.

The project would comply with applicable CARB regulations restricting the idling of heavy-duty diesel motor vehicles and governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. As discussed in Section 4.7, *Greenhouse Gas Emissions*, CARB has adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. The measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. While intended to reduce construction emissions, compliance with the above anti-idling and emissions regulations would also result in energy savings from the use of more fuel-efficient engines. According to the CARB staff report that was prepared at the time the anti-idling Airborne Toxic Control Measure was being proposed for adoption in late 2004/early 2005, the regulation was estimated to reduce non-essential idling and associated emissions of diesel particulate matter and nitrogen oxide (NO_X) emissions by 64 and 78 percent respectively in analysis year 2009.[28] These reductions in emissions are directly attributable to overall reduced idling times and the resultant reduced fuel consumption. Mitigation Measure 4.3.6.2A includes a stricter provision that would limit idling to no more than three minutes in any one hour. Therefore, fuel savings have the potential to be even more than those estimated from the Airborne Toxic Control Measure.

CARB has also adopted emission standards for off-road diesel construction equipment of greater than 25 hp. The emissions standards are referred to as “tiers,” with Tier 4 being the most stringent (i.e., least polluting). The requirements are phased in, with full implementation for large and medium fleets by 2023 and for small fleets by 2028. The project would accelerate the use of cleaner construction

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[28] CARB, Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, Appendix F, July 2004, https://www.arb.ca.gov/regact/idling/idling.htm, Accessed April 2018.

equipment by using mobile off-road construction equipment greater than 50 horsepower (wheeled or tracked) that meets, at a minimum, the Tier 4 off-road emissions standards as specified in Mitigation Measure 4.3.6.2A. Field testing by construction equipment manufacturers has shown that higher tier equipment results in lower fuel consumption. For example, Tier 4 interim engines have shown a 5 percent reduced fuel consumption compared to a Tier 3 engine.[29] Similar reductions in fuel consumption have been shown for Tier 3 engines compared to a Tier 2 engine.[30]

The project would comply with and exceed (through its PDFs and mitigation measures) the applicable provisions of Title 24 and the CALGreen Code in affect at the time of building permit issuance and buildings over 500,000 square feet will be designed to be LEED certified. According to the CEC, buildings compliant with the Title 24 (2016) standards should use 5 percent less energy for lighting, heating, cooling, ventilation, and water heating than the prior Title 24 (2013) standards for non-residential uses.[31] As specified in the Project's Design Features, the project would include numerous energy and waste reduction features that would allow the project to comply with or exceed the Title 24 standards and achieve energy savings equal to or greater than what is required by state regulations.

With respect to operational transportation-related energy, the WLC project would support statewide efforts to improve transportation energy efficiency and reduce transportation fuel consumption with respect to private automobiles. In particular, the project would provide the infrastructure for supporting a higher population of electric vehicles, in direct support of the state's targets of 1.5 million ZEVs by 2025 and 4.2 million ZEVs by 2040. Thus, the project would comply with existing energy standards.

4.17.8 Significant Impacts

The project has no significant impacts related to energy use, consumption, resources, or standards.

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[29] Businesswire, "Fuel Duel" Confirms 5 Percent Higher Fuel Efficiency for Cummins Tier 4, June 25, 2009, http://www.businesswire.com/news/home/20090625005468/en/%E2%80%9CFuel-Duel%E2%80%9D-Confirms-5-Percent-Higher-Fuel, Accessed April 2018.

[30] John Deere, Engine Performance, Fuel Efficiency, and Clean Air, Emissions Technology for Non-Road Applications, 2006, http://bellpower.com/uploads/product_brochures/15_Exp_EmissionsBrochure%20dswt14%5B1%5D.pdf, Accessed April 2018.

[31] CEC, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015, http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf, Accessed April 2018.

5.0 OTHER CEQA TOPICS: TABLE OF CONTENTS

TABLE

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NOTE TO READERS. *The Revised Sections of the Final EIR (FEIR) sets forth those portions of Section 5.0 that have been revised. Revisions to, and deletions from, the FEIR have been identified in a separate document, available for review at the City of Moreno Valley. The absence of any reference to a portion of Section 5.0 means that the corresponding portion of Section 5.0 in the FEIR remains unchanged. However, where appropriate, unrevised portions of the FEIR have been included for ease of understanding.* ~~*Revisions have been made to this section to reflect changes in Programmatic DEIR Sections 2 through 4 in response to comments on the DEIR and as a result of changes in the WLC project.*~~

OTHER CEQA TOPICS

Section 15126 of the *CEQA Guidelines* requires that all aspects of a project must be considered when evaluating its impacts on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (1) significant environmental effects of the proposed WLC project; (2) significant environmental effects that cannot be avoided if the proposed WLC project is implemented; and (3) growth-inducing impacts.

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED WLC PROJECT IS IMPLEMENTED

Table 5.A illustrates the significant unavoidable impacts anticipated to result from the proposed WLC project, even with implementation of the project-specific mitigation measures identified in the Section 4.0 analyses.

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
Aesthetics	Scenic Vistas	The DEIR originally indicated no feasible mitigation was available to mitigate for the direct impacts associated with the loss of existing viewsheds in the area. Mitigation was modified/added to help reduce these impacts.
Aesthetics	Scenic Resources and Scenic Highways	The DEIR originally indicated no feasible mitigation was available to mitigate the changes to existing viewsheds from SR-60 and from Gilman Springs Road, both considered local scenic roads by the City. Mitigation was modified/added to help reduce these impacts. With this mitigation, these impacts are consistent with relevant General Plan policies regarding views.
Aesthetics	Substantial degradation of the existing visual character or quality of the site and its surroundings	The DEIR originally indicated no feasible mitigation was available to mitigate for the direct impacts associated with the substantial change in visual character from agriculture to high cube warehouse uses with building heights of 60 to 80 feet. Mitigation was modified/added to help reduce these impacts.
Aesthetics	Cumulative Aesthetic Impacts	The cumulative effect of development in the region will continue to result in the modification of existing viewsheds especially along SR-60. Construction of the proposed WLC project, in conjunction with other planned development, would contribute to the obstruction of existing views. Even with the revised mitigation measures, the project's cumulative impact will not be reduced to a less than significant level.
Air Quality	Construction Air Pollutant Emissions	Construction activities would result in exceedance of SCAQMD threshold for VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$. Even after

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
		application of mitigation measures, estimated air pollutant emissions during construction activities would remain significant and unavoidable for NO_X, and PM_{10} and localized PM_{10} concentrations.
Air Quality	Operational Air Pollutant Emissions	No feasible mitigation is available. Estimated air pollutant emissions during operation of the project will remain significant and unavoidable for VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$ and localized PM_{10} concentrations.
Air Quality	Consistency with Air Quality Management Plan (AQMP)	The project will produce significant amounts of air pollutants on a daily and cumulative basis, both during construction and operation. Even with implementation of proposed mitigation, emissions will result in exceedances that are not consistent with implementation of the current AQMP.
Air Quality	Cumulative Air Pollutant Emissions	The Basin is in nonattainment for PM_{10} and ozone at the present time. Construction of the proposed WLC project, in conjunction with other planned developments within the cumulative study area, would contribute to the existing nonattainment status. Therefore, the proposed WLC project would exacerbate nonattainment of air quality standards within the SCAQMD and contribute to adverse cumulative air quality impacts.
Air Quality	Sensitive Receptors	Residents inside the project boundary could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from short-term PM exposure include irritation of the eyes, nose, throat,; coughing, and chest tightness; and aggravation of existing lung diseases. Long-term exposure can reduce lung functions; chronic bronchitis; changes in lung morphology; and/or death. Even with mitigation measures air quality impacts from the project will be significant and unavoidable.
NOTE: Climate change was removed as a cumulative impact because the project can take credit for regional GHG emission reductions from the State's cap-and-trade program involving refineries and diesel truck fuel.		
Land Use and Planning	Divide an existing neighborhood (impacts on existing residences)	The site contains seven rural residences that cannot be effectively buffered against the impacts of adjacent warehouse buildings and operations (i.e., air pollution and health risks). Mitigation was added to help reduce noise, dust and other air pollutant-related impacts on the rural residences.
Noise	Short-Term Construction Noise	Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.
Noise	Long-Term Traffic Noise	Residential land uses along a number of local roadways will experience noise levels that are projected to exceed City standards from project-related traffic. Potential noise attenuation improvements may not be physically or economically feasible due to building and roadway constraints.
Noise	Cumulative Noise Levels	Noise from project-related traffic and cumulative development will eventually exceed City noise standards and the project will make a substantial contribution to that cumulative impact.
Transportation	Off-Site Impacts to TUMF Facilities	These are impacts requiring improvements and changes to roads that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
		of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads. The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in 4.15.~~AT ~~AU through 4.15.AY pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable.
Transportation	Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program	These are impacts requiring improvements to transportation facilities that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials. The City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. To the extent that the City is able to establish such a mechanism and the other jurisdiction constructs the recommended improvement, the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable. Similarly, the City has not entered into an agreement with Caltrans for the collection of developer funds for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in EIR Tables 4.15.AX and ~~4.15.BA~~6.15-1,2 (TIA tables ~~40 ~~74 and ~~68~~77). The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.

1 The DEIR originally indicated there was no mechanism for the mitigation of impacts to the loss of 25 acres of Unique Farmland and/or existing agricultural operations. The acquisition of an offsite agricultural conservation easement was added as mitigation which will reduce the project's impact to State Designated Farmland to a less than significant level.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

Section 15126(c) of the *CEQA Guidelines* mandates that the EIR must address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented. An impact would fall into this category if it resulted in any of the following:

1. The project would involve a large commitment of non-renewable resources;
2. The primary and secondary impacts of the project would generally commit future generations of people to similar uses;
3. The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; and/or
4. The project will consume large amounts of energy that are produced from non-renewable fossil fuels, although the WLC Specific Plan indicates the proposed uses will efficiently consume energy and water resources.

Determining whether the proposed WLC project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. The project site is generally marginal agricultural land; however, as identified within the City's General Plan, the City anticipates the eventual conversion of agricultural uses to urban uses and the proposed WLC project would permanently alter the site by converting predominantly agricultural uses to urban warehousing. This is a significant irreversible environmental change that would occur as a result of project implementation. Because no significant mineral resources were identified within the project limits, no significant impacts related to this issue would result from development of the project site. Natural resources in the form of construction materials would be utilized in the construction of the proposed WLC project and energy resources in the form of electricity and natural gas would be used during the long-term operation of the project; however, their use is not expected to result in a negative impact related to the availability of these resources. Existing scenic vistas were identified as being visible from the project limits. Implementation of the proposed WLC project would result in the obstruction of views of the Badlands, Mt. Russell and Mystic Lake/San Jacinto Wildlife Preserve from the nearest sensitive visual receptors and those traveling along roadways in the project vicinity. This is a significant and irreversible environmental change that would occur as a result of project implementation. Cumulatively, future development along SR-60 would also result in the obstruction of the existing views of surrounding mountains and visual features.

In addition, this logistics warehouse project, in concert with the other built or approved industrial warehouse projects to the north and west, will fundamentally change the character and land use pattern of this portion of the City. Many of the project-specific impacts are addressed, as outlined above, but the land use change represented by this and other industrial projects represents a substantial irreversible change in community character for this area.

5.3 GROWTH-INDUCING IMPACTS

The project area is largely vacant undeveloped land, although there are seven existing single-family homes in various locations on the proposed WLC project site along with associated ranch/farm buildings. The site has been farmed since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming.

The northern side of the proposed WLC project site abuts SR-60 and the eastern side abuts Gilman Hot Springs Road. Additionally, the southwestern portion of the project site is adjacent to existing single-family residential uses at the intersection of Redlands Boulevard and Alessandro Boulevard. With implementation of the General Plan Amendment and new Specific Plan, the project has the potential to induce or create conditions that would accelerate development of vacant parcels in the surrounding area from the creation of new employment opportunities and increasing the demand for goods and services.

The following changes have been made due to revision to the Specific Plan project size.

The City's population has grown steadily over the past decades. Population projections developed by SCAG estimate the City's population will reach approximately 213,700 persons by the year 2020 and approximately 255,200 persons by the year 2035. The extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-inducing effect of a project. Construction of the proposed WLC project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the proposed WLC project will not generate a permanent increase in population within the project area. Development envisioned under the proposed Specific Plan consists of approximately 40.6 million square feet of logistics warehouse and general warehouse facilities.

Development of the proposed high-cube logistics warehouse and general warehouse facilities will create jobs in the local economy. It is estimated that the WLCSP project would result in approximately 27,684 new job opportunities (20,300 on-site jobs plus 7,384 direct/induced jobs). The new employment opportunities resulting from development of the proposed high-cube logistics warehouse and general warehouse uses will raise the City's current jobs-to-housing ratio by providing additional jobs to local residents. While the place of residence of the persons accepting employment provided by the proposed uses is uncertain, due to the City's projected jobs/housing ratio, it is reasonable to assume that a large percentage of these jobs would be filled by persons already living within the City or project area. The project does not include a residential component. The proposed WLC project is located within an area that is currently largely vacant and planned for mix of residential, commercial, business park, and open space land uses in accordance with the General Plan Community Development Element. The proposed WLC project includes a General Plan Amendment to change the existing mix of land use designations to Logistics Development and Light Logistics. Therefore, no significant increase in population of the City would result from the development or operation of the proposed WLC project.

The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* ("Study," DTA 2013) estimates that approximately 7,384 indirect/induced jobs will be created in the County, of which 3,692 jobs are projected to be within the City as a result of project implementation. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that a large percentage of these jobs will be support service jobs and are likely to be located in the proposed WLC project vicinity, and therefore the City. As detailed in the Study, total recurring revenues available to the City are estimated at approximately $11,272,323 per year. The greatest percentage of revenue is attributed to the Property Tax In-Lieu of Vehicle License Fee (40.1%), followed by Secured Property Tax (29.1%), and Business Receipts Tax and Licenses (10.7%). Total recurring costs to the City are estimated at approximately $5,473,736 per year. The greatest percentage of cost is attributed to the Police Services (36.4%), followed by Infrastructure and Parks Maintenance Costs (33.2%), and Fire Services (13.5%).

Project recurring annual fiscal surplus that would be available to the City is estimated at $5,798,587 which is equal to 2.06 times the project annual City General Fund costs.

The following changes have been made due to revision to the Specific Plan project size.

The project proposes to eliminate the potential for 7,700 units of residential housing planned under the Moreno Highlands Specific Plan, although this anticipated change is already included in the City's current Housing Element which has been certified by HCD. This change would incrementally reduce the population and housing growth potential for this property from that projected in the current SCAG regional growth forecast. However, the project would add 40.6 million square feet of logistics warehouse space in the eastern portion of the City. Since the City currently has a jobs-to-housing ratio substantially lower than the region (i.e., SCAG region), it is likely that much of the employment that would be generated by this project can be accommodated by the existing workforce in the City and surrounding area. In that way, the project is growth-inducing in terms of employment. Due to relatively high vacancy rates in the City, it is also likely that the housing needs of new employees that do not already live in the City (i.e., own or rent) could largely be accommodated by the City's existing housing stock. Therefore, the proposed WLC project would only produce modest (i.e., not significant) growth inducement within Moreno Valley.

As previously noted, the specific location of the additional indirect jobs created within the County cannot be specifically determined; however, it is likely that some percentage of these jobs will be support service jobs and are likely to be located in the project vicinity. The Study assumes that one-half of these indirect jobs will be located within the City. The Study indicates that the creation of new jobs to the City will lead to more consumer spending by employees in existing retail establishments within the City, as well as new retail development that will be attracted to the City as a result of this spending. Job creation also results in increased tax revenues to the City through increased property taxes and sales taxes associated with development of the proposed WLC project. However, it is important to note that because of the difference in timing of the development of the various phases of the proposed WLC project, the number of employees summarized above will not be realized at the same time.

Development of the proposed WLC project is projected to create approximately 16,521 construction-related jobs within the City. Similar to recurring employment (i.e., permanent), it is likely that a large percentage of these jobs will be located in the general vicinity of the proposed WLC project and therefore within the City.

The proposed WLC project does not include a residential component; therefore, the jobs generated by the proposed WLC project would not need to support new households as a result of direct employment or indirect employment. Based on the potential increase in jobs (additional 20,300 direct jobs) within the City and no substantial increase in population as a result of the project, the City's jobs-to-housing ratio would improve from the existing (2011) ratio of 0.45 to 0.88, thus achieving a greater jobs-to-housing balance within the City. As development of the proposed WLC project is expected to occur over the course of many years, the jobs-to-housing ratio will not be significantly changed immediately. The City's current jobs-to-housing ratio is exceptionally low when compared to SCAG standards; therefore, the need for employment is immediate. A balance between jobs and housing within the City would have a positive impact by decreasing costs associated with commuting, traffic congestion, air pollution, and improves the standard of living. It also provides savings and a better quality of life to consumers in the operation and maintenance of automobiles, lessening commute times and saving to local public agencies in terms of the need to construct and maintain new road improvements.

Streets, water and sewer utilities, and municipal services would be extended to serve the proposed WLC project. The proposed WLC project will benefit other development projects in the project area, and therefore, could potentially induce additional business and job growth by removing an impediment to growth, such as a lack of basic infrastructure or services. However, the proposed WLC project is located proximate to other existing warehouse, commercial, and residential uses. Therefore, the project will necessitate extension of major infrastructure, however, the project will not result in substantial population growth that has not already been planned for in the City's General Plan. As the type and intensity of use proposed for the project site would be consistent once implementation of the General Plan Amendment and Zone Change take place, and because the improvements necessary for development of the site would not facilitate growth that has not been anticipated in the project area, no significant growth-inducing effect would occur, and no mitigation is required.

5.4 URBAN DECAY

A detailed analysis of potential employment and fiscal impacts of the project is provided in Section 4.13, *Population, Housing, and Employment*. This analysis concludes the proposed project is not expected to cause or contribute to any conditions of urban decay within the City of Moreno Valley.

5.5 ENERGY CONSUMPTION

A detailed analysis of energy consumption, according to Appendix F of the *CEQA Guidelines*, is included in Section 4.17~~6~~, *Utilities and Service Systems*.

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6.0 Cumulative Impacts

Chapter 6.0 is a new Chapter in the Revised Sections of the FEIR which evaluates the cumulative impact of the project in response to the court ruling on the petition for a Writ of Mandate, Superior Court of California, County of Riverside (Case No. RIC1510967) for the World Logistics Center (WLC) project on February 8, 2018. The Court ruling requires that the analysis of cumulative impacts should use the "Project List Method", in addition to the "Summary of Projects Method" to determine the project's cumulative impacts. As indicated in Chapter 4.0 of the Revised Sections of the FEIR, the cumulative analysis that was previously located in that section in the 2015 Final EIR has been expanded and relocated to Section 6.0 of the Revised Sections of the FEIR. The 2015 FEIR utilized a combination of the "Summary of Projections" method and the "Project List Method" to document cumulative projects and to conduct the cumulative impact analysis. The Revised Sections of the FEIR cumulative impact analysis uses the City of Moreno Valley General Plan Land Use Element growth projections and other regional plans (i.e., 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy), in conjunction with other known projects (project list method) to document cumulative impacts. The project list method was utilized for portions of surrounding jurisdictions including the counties of Riverside and San Bernardino, March JPA and the cities of Riverside, Perris, Hemet, San Jacinto, Redlands, Beaumont and Calimesa.

6.0.1 Approach to Cumulative Impact Analysis

In response to the court ruling, both the Summary of Projections method and the Cumulative Project List method has been updated to reflect current cumulative projects. The summary of growth projections for the City of Moreno Valley is provided in Table 6.0-1. Extensive research has been completed to identify past, present and reasonably foreseeable future projects and available associated CEQA documents to assist in the updated analysis of cumulative impacts. A total of 361 cumulative projects have been identified in the City of Moreno Valley and the surrounding cities, and unincorporated areas. These projects that are documented in Table 6.0-2 and Figure 6.0-1 include all cumulative projects that are located in the various cumulative geographic areas defined in Sections 6.1 through Section 6.17. A cumulative project area has been identified for each environmental topic evaluated in the Revised Sections of the FEIR and projects located with the cumulative impact area are summarized in tables and figures for each environmental topic. The CEQA documents listed in Table 6.0-1 are available for review at the City of Moreno Valley.

The land use assumptions for the 361 identified cumulative projects were taken from either the project-specific information contained in the associated CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes more intense cumulative development than is likely to occur and is therefore conservative in the sense that it would slightly over-state cumulative impacts.

6.0.2 Definition of Cumulative Impacts

Section 15130 of the CEQA Guidelines requires that an EIR address cumulative impacts of a project when the project's incremental effect would be cumulatively considerable. "Cumulatively considerable" means that “the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects as defined in Section 15130.”

Section 15355 of the CEQA Guidelines states that “cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” A cumulative impact is not considered significant if the impact can be mitigated to below the level of significance through mitigation, including providing improvements and/or contributing funds through fee-payment programs. The EIR must examine “reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project” (CEQA Guidelines Sections 15130(a)(3) and 15130(b)(5)).

According to Section 15130 of the CEQA Guidelines, the discussion of cumulative effects “... need not provide as great a detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness.” Where a lead agency is examining a project with an incremental effect that is not “cumulatively considerable,” a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR is not required to discuss cumulative impacts for environmental topic areas which have no individual project related impacts.

CEQA defines cumulative effects as “two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts.” (CEQA Guidelines Section 15130). The Guidelines further state that the individual effects can be the various changes related to a single project or the changes involved in a number of other closely-related past, present, and reasonably foreseeable future projects (Section 15335). The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period of time.

With respect to the analysis of cumulative impacts, CEQA requires the following:

(a) Cumulative impacts shall be discussed when the project’s incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as much detail as is provided regarding the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

Pursuant to CEQA Guidelines, Section 15130, the assessment of cumulative impacts contained in EIRs is typically based on either: (i) a list of past, present, and probable future projects, which are either approved or being considered for approval by the City or other municipalities; or (ii) growth projections set forth in local and regional plans, including regional modeling plans. Due to the size of the project and its potential future new land use and employment implications for the City, the cumulative analysis for the Revised Sections of the FEIR use the City’s General Plan growth projections in conjunction with the newly developed cumulative project list. It is expected that the cumulative impact analysis set forth in the Revised Sections of the FEIR will be conservative and would tend to overstate (rather than understate) cumulative impacts because the impacts of some of the listed projects were wholly or partially taken into account by the growth projections summarized in Section 6.0.2 and Section 6.0.3 and because some of the listed projects ultimately may not be approved.

The significance of a cumulative impact may be greater or lesser than the effects resulting from the individual actions depending on whether the effects are additive, synergistic or countervailing. Thus, as set forth above, this section evaluates the project together with (i) the reasonably foreseeable potential effects of other closely related past, present, and reasonably foreseeable or probable future development in the area of the project, and (ii) growth projections set forth in regional plans.

Criteria for evaluating the significance of adverse effects are identified for each environmental topic area in Chapters 3.0 and 6.0. These criteria, which are based on resource sensitivity, quality, and quantity, are also instructive when evaluating whether the environmental effect resulting from implementation of a particular project is cumulatively considerable. The timing and duration of each activity is also an important consideration for evaluating the potential cumulative effects of activities that may occur only for a limited period. In such cases, a cumulative effect may occur only when two or more of the activities are occurring simultaneously.

Because of the nature of individual environmental factors, the cumulative "universe" for every issue addressed in the Revised Sections of the FEIR will not be identical. For example, the cumulative universe for noise impacts is reasonably assumed to be the traffic impact area (portion of Western Riverside County), which is much larger than the cumulative universe for public service impacts (i.e., the service area of the various service providers). The individual cumulative areas for the issues addressed in this Revised Sections of the FEIR are provided within the cumulative impacts discussion in the respective impact sections, but range from specific areas within the City of Moreno Valley to western Riverside County as appropriate .

6.0.3 City of Moreno Valley Growth Projections

The Moreno Valley General Plan establishes policies to guide future development within the City. Its implementation is long-term in nature. The Regional Growth Projections method is an appropriate methodology in evaluating cumulative impacts because it provides general growth projections for the region and considers long-term growth. Table 6.0-1. summarizes the cumulative growth information from the Final Program EIR for the SCAG from 2016 (Section 7, Cumulative Impacts). Table 6.0. shows that the City expects to grow at an average annual rate of 2–3 percent from 2000 to 2030, with a population at that point of 238,703 persons and 71,619 households. The City will comprise approximately seven percent of the County's population and housing stock at that time.

Table 6.0-1: Local and Regional Growth Projections for Moreno Valley and County of Riverside (2012–2040)

Jurisdiction	**Population**		**Households**	
	2012	**2040**	**2012**	**2040**
City of Moreno Valley	197,600	256,600	51,800	73,000
Average Annual Increase	—	+1.1%	—	+1.5%
Riverside County	2,245,000	3,168,000	694,000	1,049,000
Average Annual Increase	—	+1.5%	—	+1.8%
City (Percent of County)	8.7%	8.0%	7.5%	7.0%

Sources: SCAG, 2016 RTP Growth Forecast, Table 7-1, General Plan Final EIR, Section 7.0, Cumulative Impacts.

6.0.4 Local/Regional Summary of Growth Projections

6.0.4.1 Regional Plans

SCAG estimates regional growth for the Riverside County area for the purposes of planning and public policy development. The most recent set of growth projections are provided in the most recent Regional Transportation Plan (RTP) Growth Forecast, based on extensive analyses of the regional economic and demographic conditions. The 2016 RTP Growth Forecast provides estimates and forecasts of employment, population, and housing for the period between 2016 and 2040. Consistent with the projections shown in previously referenced Table 6.0-1 shows that the population, housing, and employment of the City are expected to increase consistent with overall regional trends for that period (i.e., approximately 1%–2% per year).

According to SCAG projections, the population of Moreno Valley is expected to increase by about 59,000 persons or approximately 30 percent between 2016 and 2040 to approximately 256,600 persons. By comparison, the population of Riverside County is projected to increase by 923,000 persons or approximately 41 percent between 2012 and 2040 to approximately 3,168,000 persons. The number of households is estimated to increase approximately 41 percent in Moreno Valley and 51 percent in Riverside County over this same time period.

6.0.5 Cumulative Project List

The cumulative project list has been updated to include past, present and reasonably foreseeable probable future projects in the surrounding jurisdictions that have the potential to result in cumulative impacts. The updated cumulative project list was compiled from available information in the identified geographic cumulative impact area and is current as of Spring 2018 to provide for informed decision-making, informed public participation, and a good faith effort at full disclosure of potential cumulative impacts. Refer to Table 6.0-2 and Figure 6.0 for the listing, description and general location of these projects. The list of cumulative projects in Table 6.0-2 includes all projects that are located in the various cumulative geographic areas, including for the sake of completeness, projects that have been withdrawn or for which no environmental information was reasonably obtainable. Projects that have been withdrawn or otherwise for which potentially contributory impacts would be speculative have not been considered in the resource-specific analyses in Section 6.1 through Section 6.17. The cumulative geographic areas incorporate portions of the cities of Moreno Valley, Riverside, Perris, Redlands, Hemet, San Jacinto, and Beaumont, the March JPA and portions of unincorporated Riverside and San Bernardino counties. CEQA documents reviewed to identify specifics about potentially cumulative projects include Environmental Impact Reports (EIRs), Mitigated Negative Declarations (MNDs), Negative Declarations (NDs), Initial Studies (ISs) and Exemptions (Exempt). In total over 360 projects have been identified within the surrounding jurisdictions that would cause impacts that could combine with those of the project to contribute to cumulative impacts, in conjunction with the summary of projections method. Only those cumulative projects with available CEQA documents have been included in the cumulative project summary tables and figures in Section s 6.1 – 6.17.

Individual project CEQA documents have been collected for projects on the list, to the extent feasible, to assist in the cumulative impact analysis for each environmental topical area. These CEQA documents have been reviewed and incorporated in the cumulative impact analysis for each environmental topic. The cumulative projects that are included in each cumulative impact analysis in Sections 6.1 through 6.17 are included in each section in a table and the specific environmental topic cumulative projects boundary is illustrated in a figure. The composite cumulative projects boundary map is shown in Figure 6.0.

Map Label; Project Name; "OLD_SL"

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SOURCE: ESRI; Highland Fairview 3/29/2018

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Cumulative Projects
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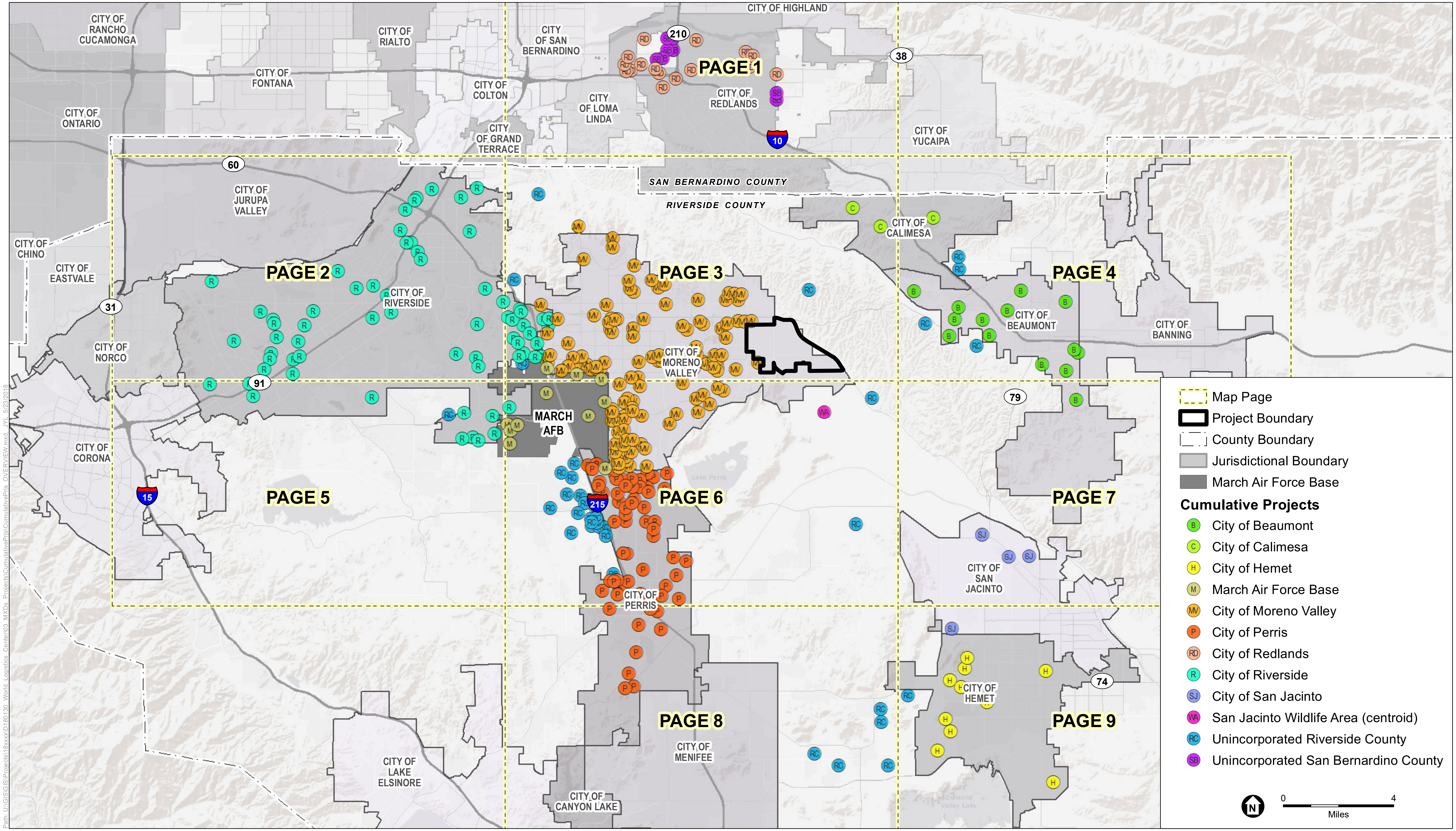

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

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Figure 6.0
Cumulative Projects
Index Map

ESA

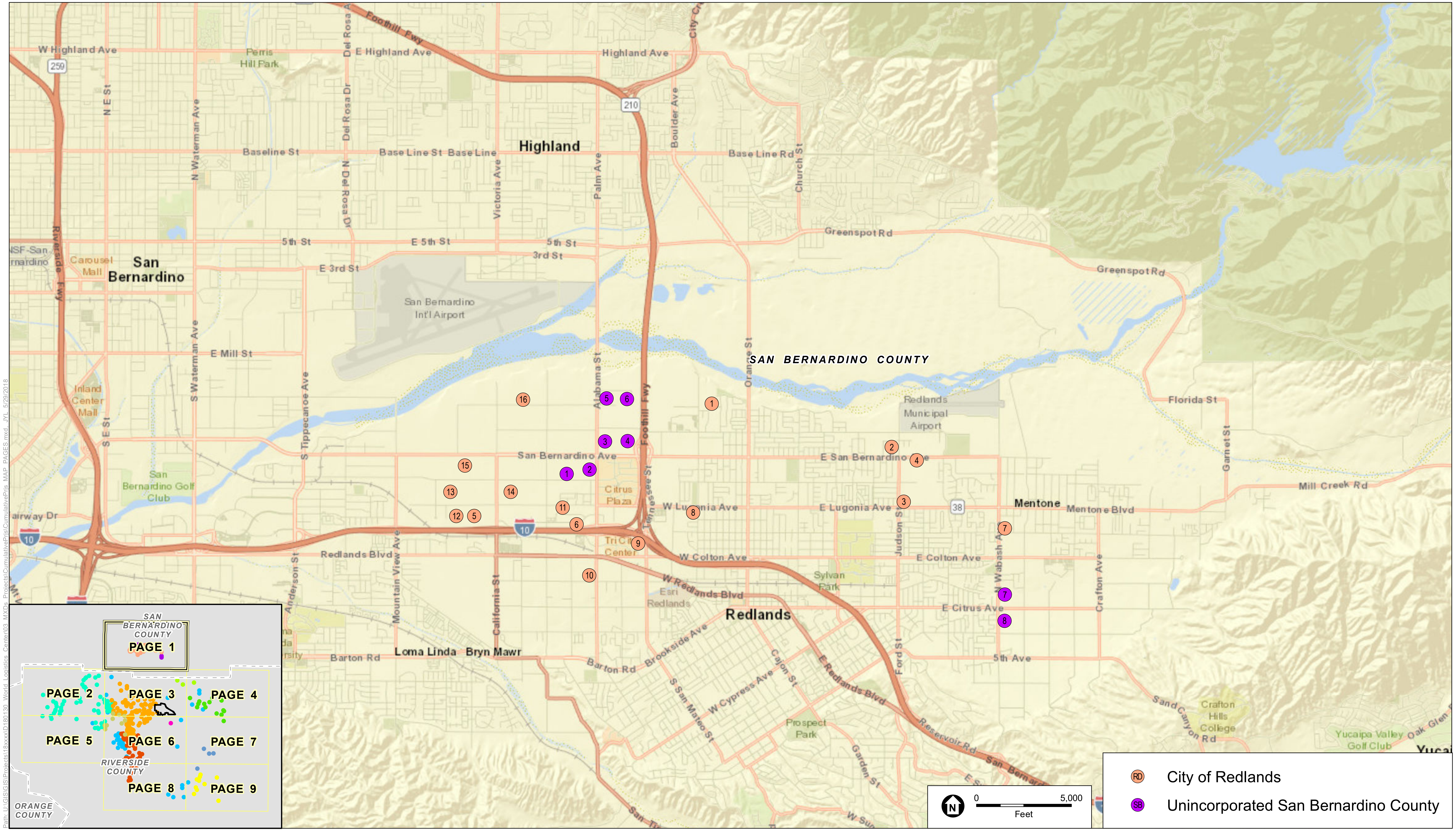

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 6.0
Cumulative Projects
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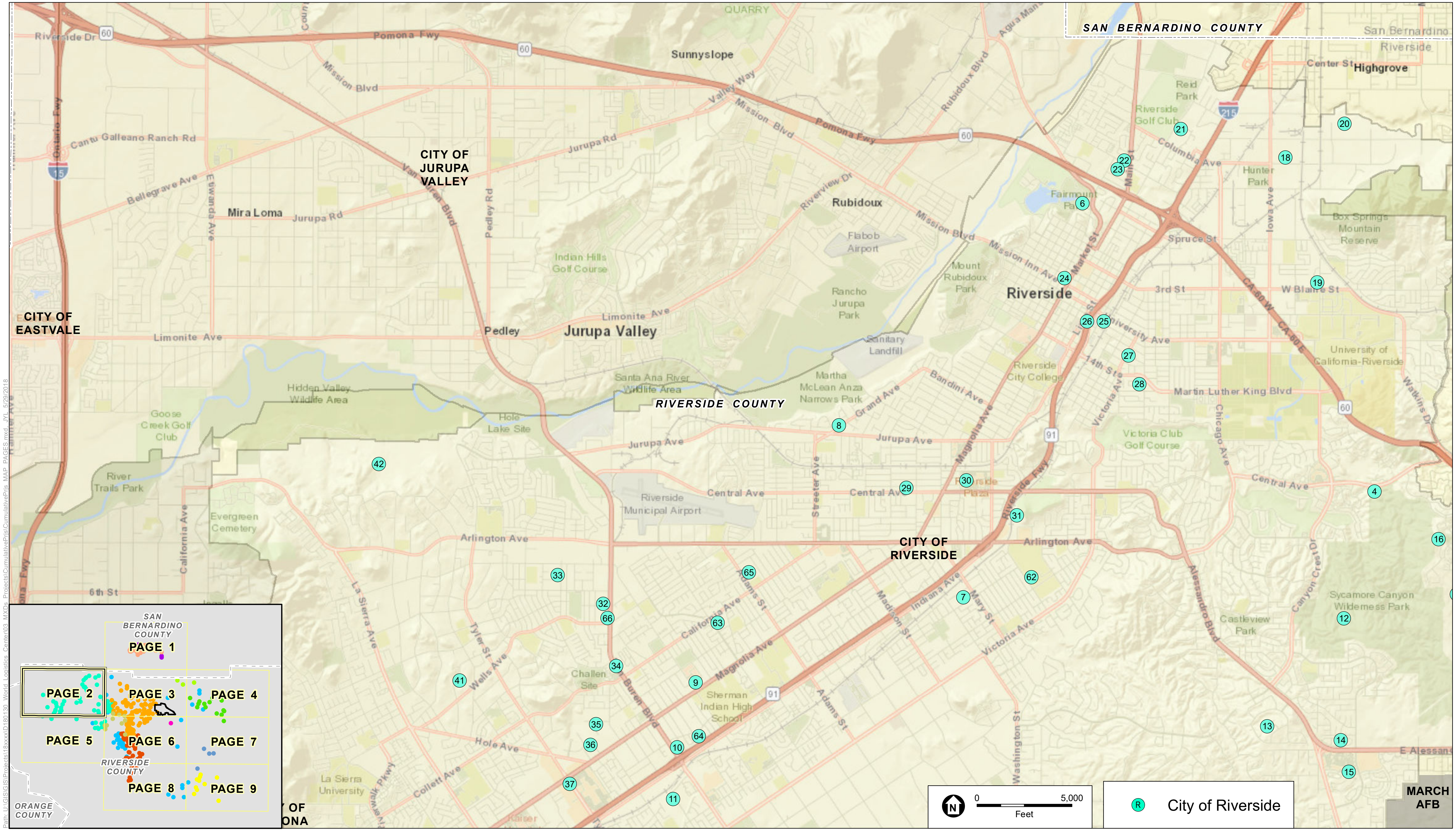

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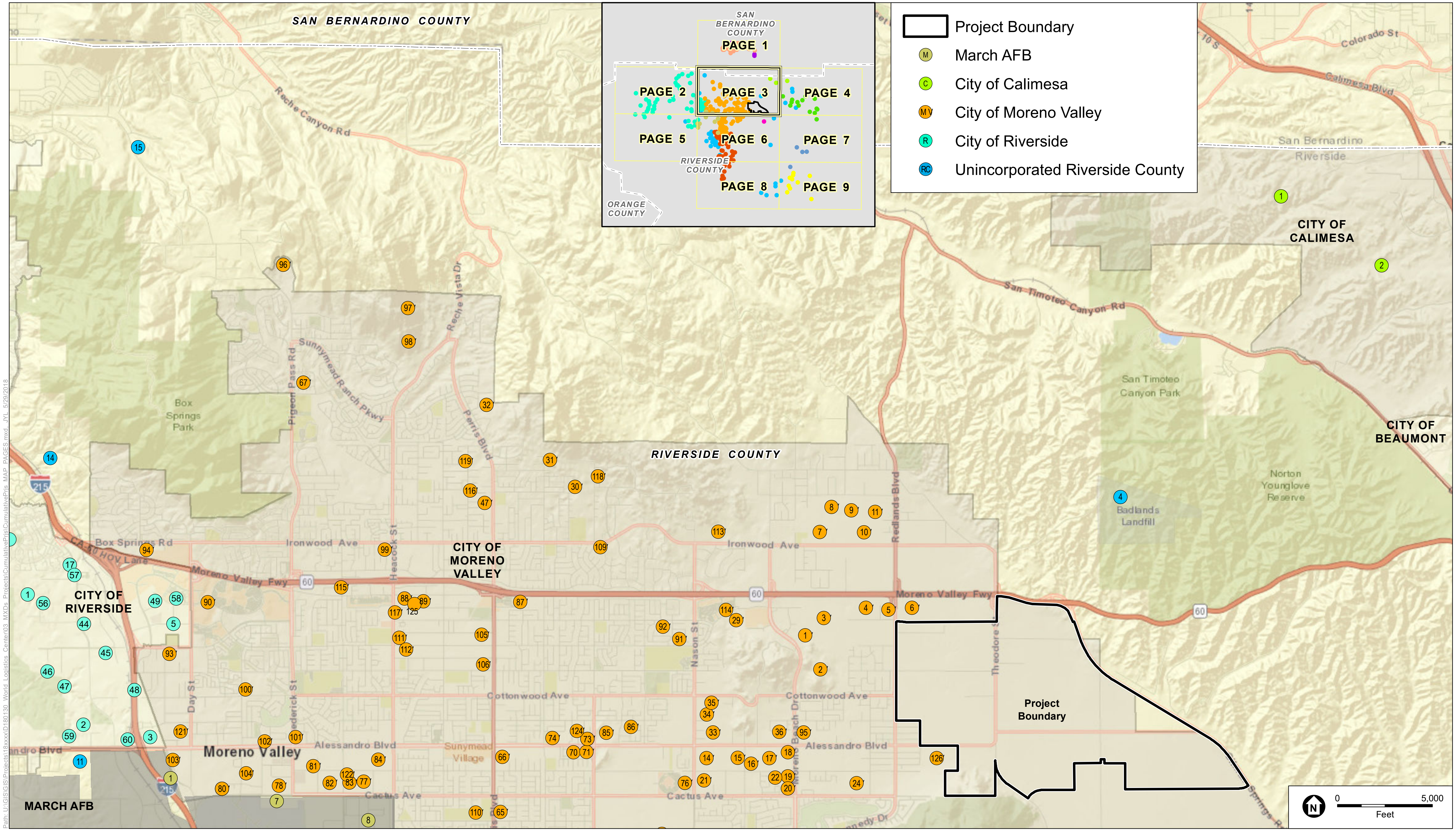

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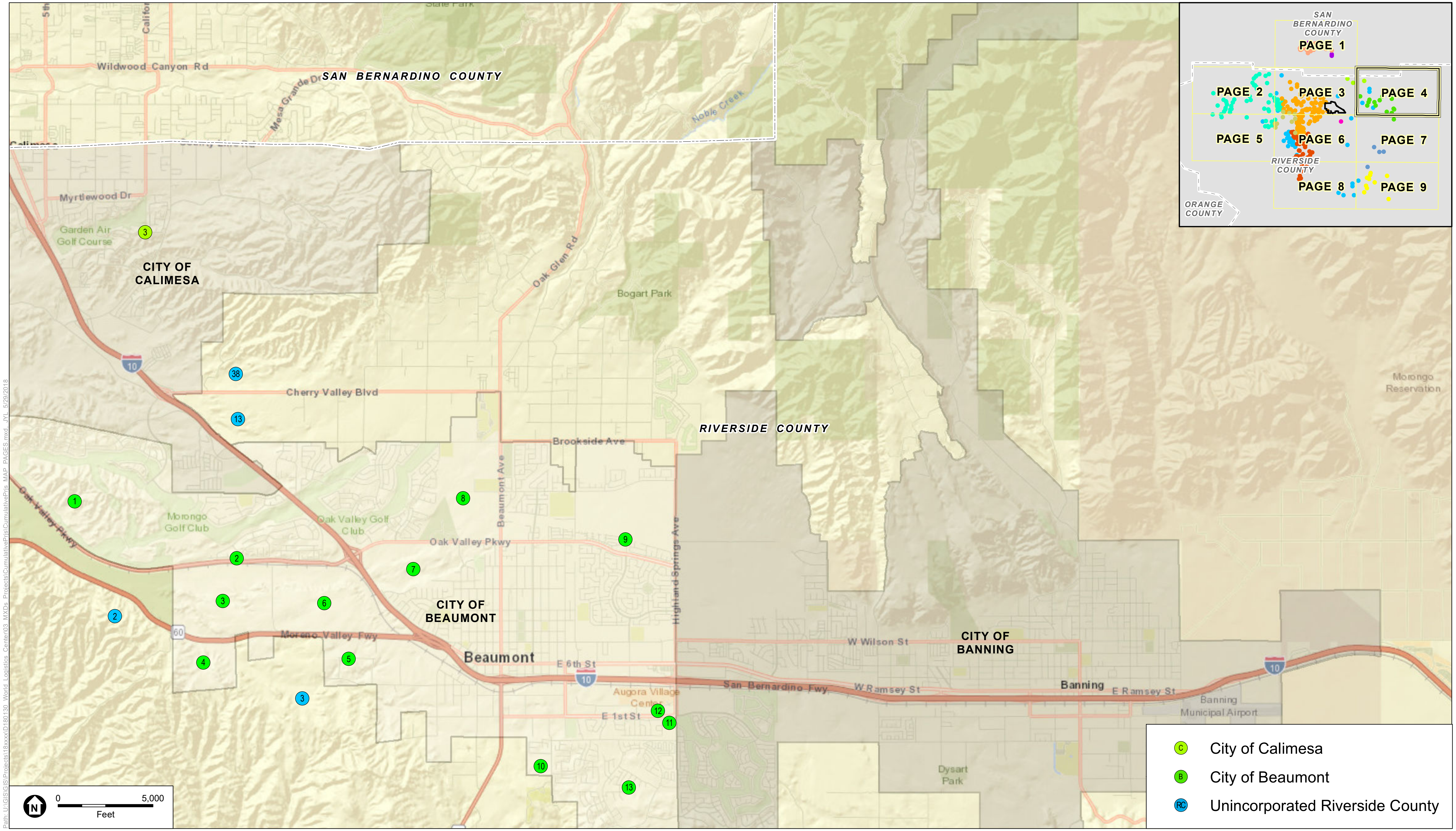

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Figure 6.0
Cumulative Projects
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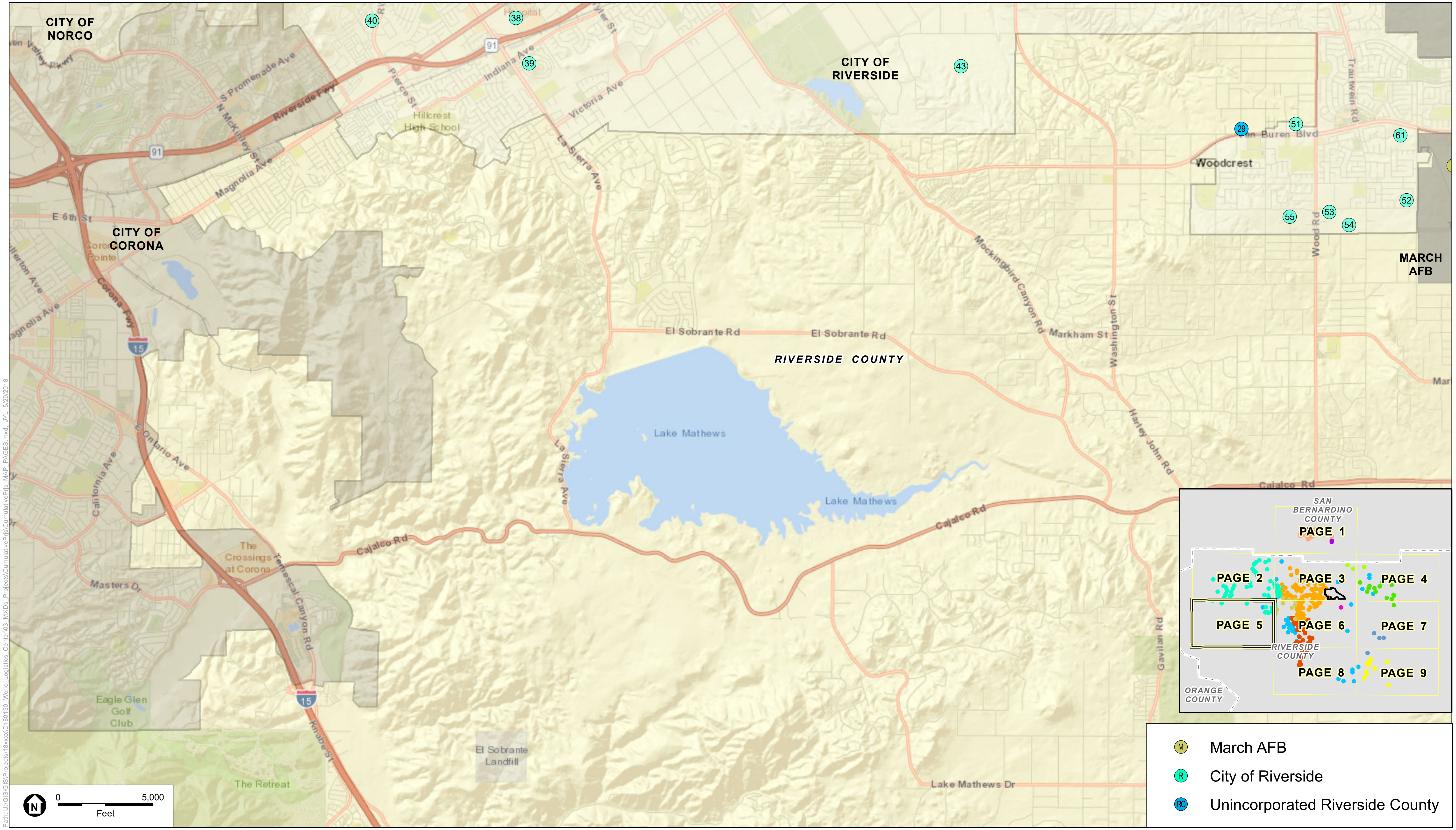

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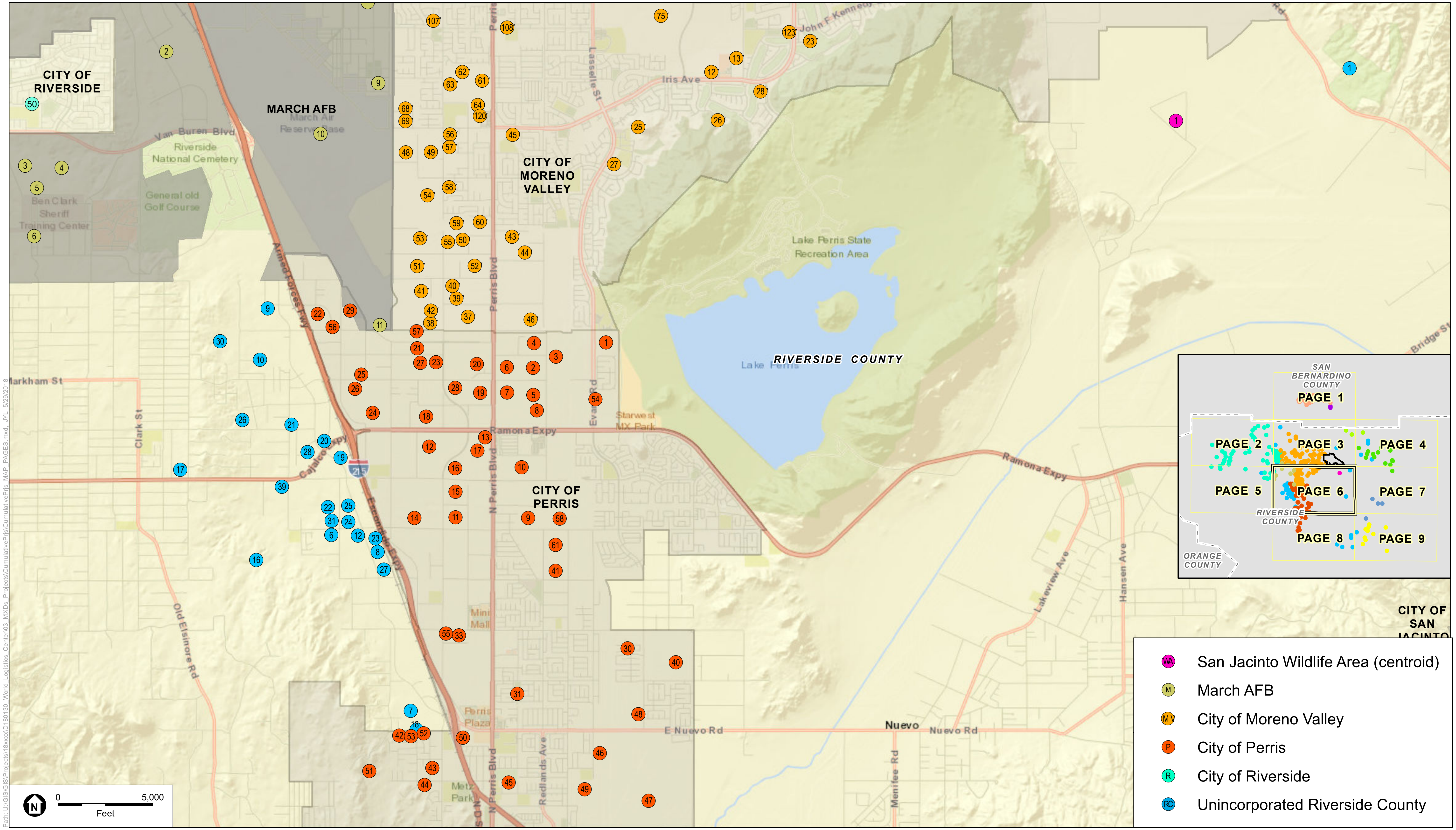

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Figure 6.0
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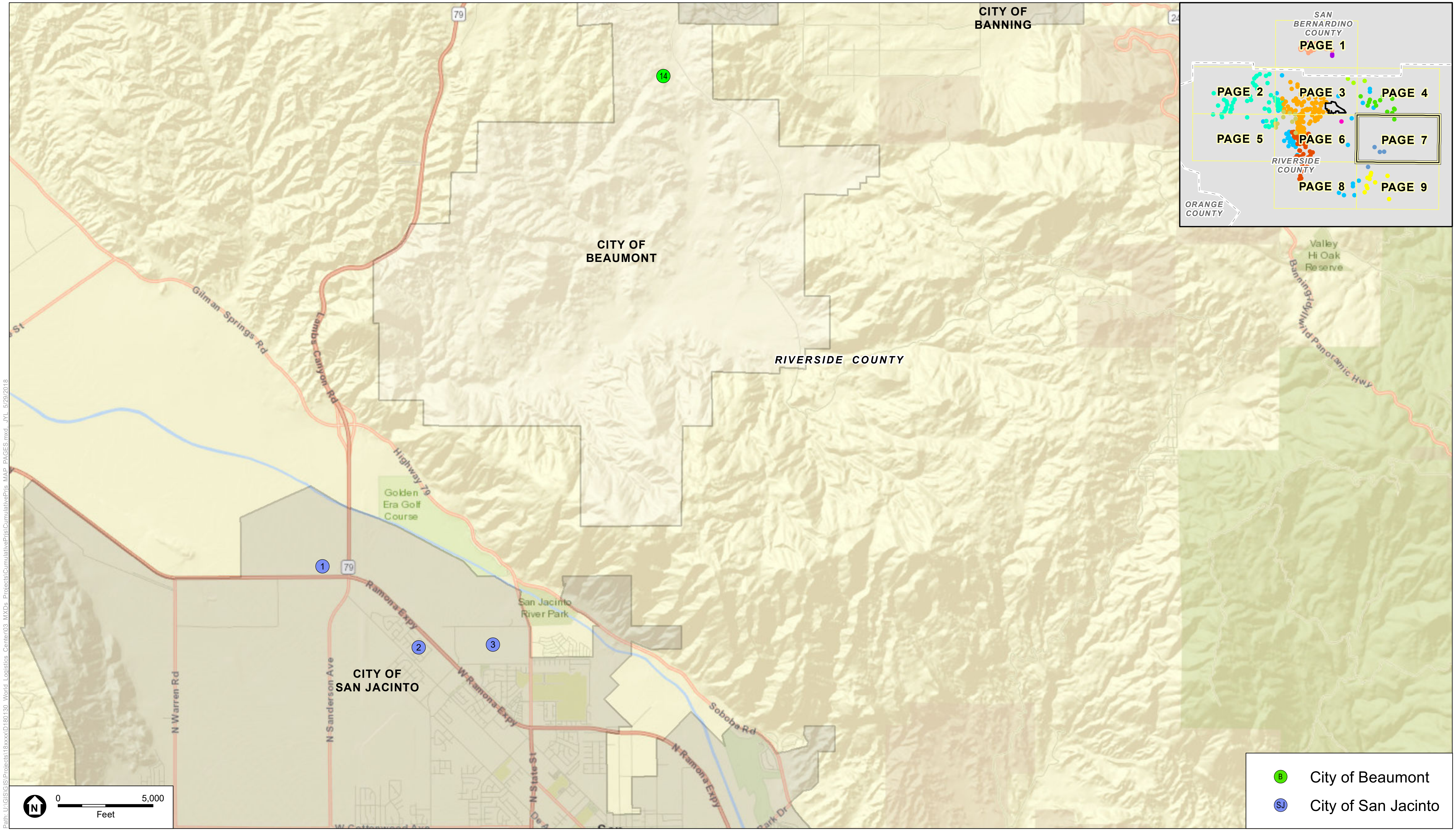

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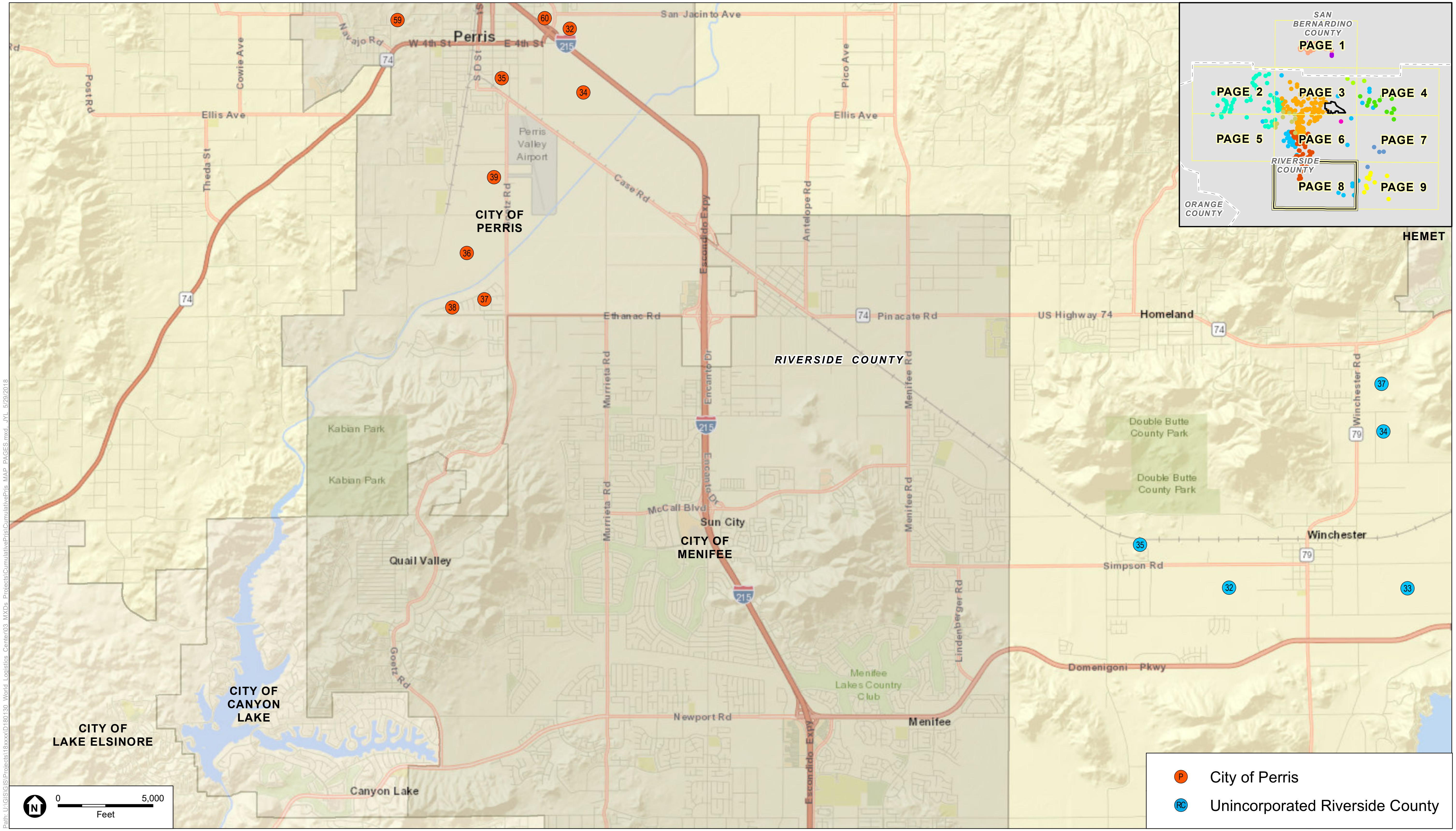

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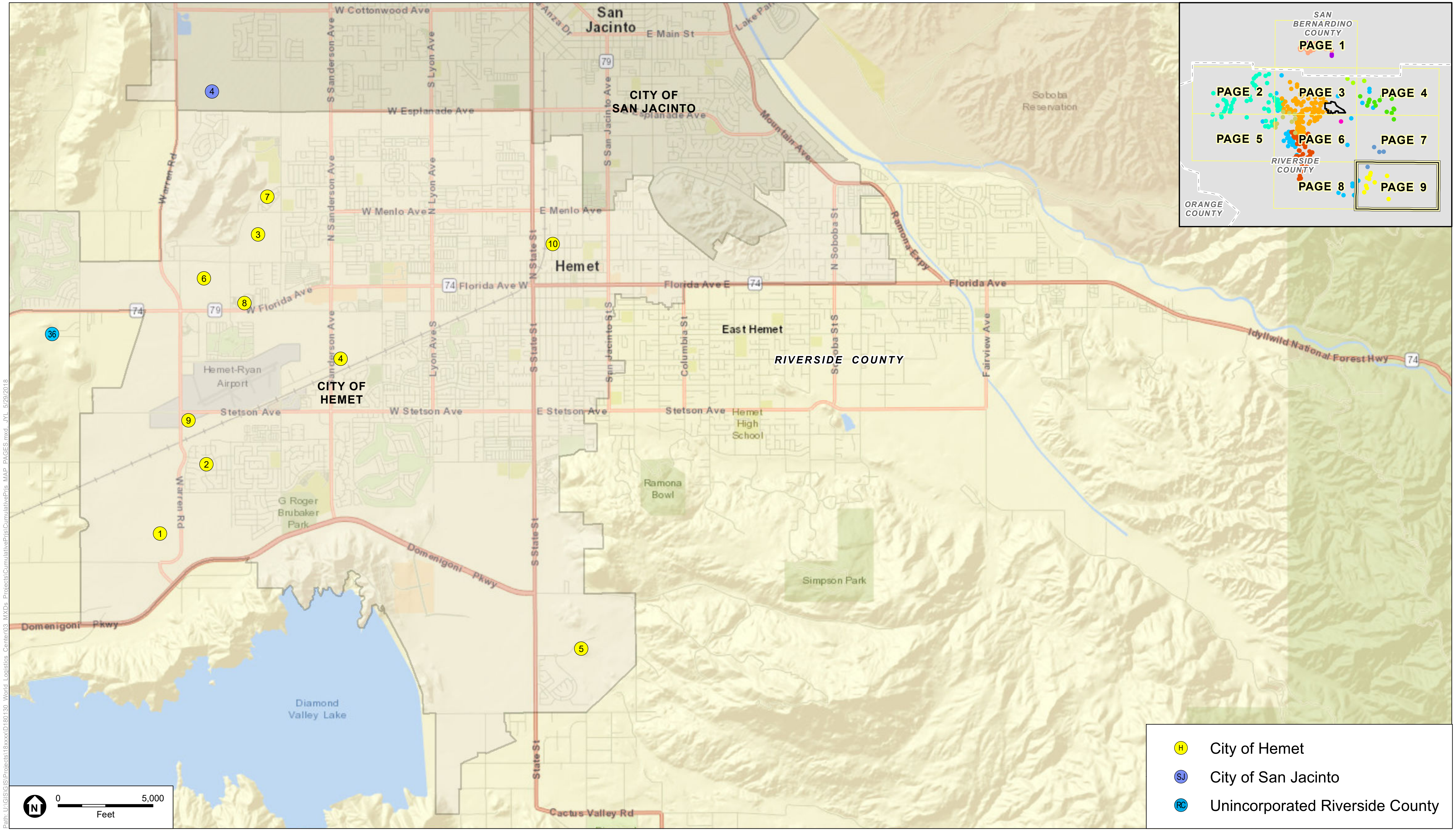

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 6.0
Cumulative Projects
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Table 6.0-2
List of Cumulative Projects

Project ID	Project Name	Project Summary
B-1	Fairway Canyon SCPGA Tract Nos. 31462, 36558, and 36783 (#29)	Project Withdrawn
B-2	Tournament Hills 3	EIR
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park.
B-6	Mountain Bridge Regional Commercial Planned Community	Project Withdrawn
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site.
B-8	Noble Creek Vistas (#10)	No environmental documentation was available for review.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses.
B-13	Four Seasons (#23) Tract Nos. 32260 and 33096	No environmental documentation was available for review.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres.
C-1	TTM 33931 Fiesta Oak Valley/Mesa Verde Estates	No environmental documentation was available for review.
C-2	Summerwind Ranch	No environmental documentation was available for review.
C-3	JP Ranch	No environmental documentation was available for review.
H-1	TTM 36841	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
H-2	Rancho Diamante	No environmental documentation was available for review.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres.
H-8	Florida Promenade Residential	No environmental documentation was available for review.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet’s 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet.
M-1	Amstar/Kaliber Development, PP22925	xx
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park.
M-3	Meridian Business Park - Phase 3	No environmental documentation was available for review.
M-4	March Business Center - South Campus	No environmental documentation was available for review.
M-5	Meridian LNR Phase 5	No environmental documentation was available for review.
M-6	Ben Clark Training Facility	No environmental documentation was available for review.
M-7	Meridian Business Park - Phase K4	No environmental documentation was available for review.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres.
M-9	TM 34748	Per the March Joint Powers Authority’s 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres.
M-10	Airport Master Plan	No environmental documentation was available for review.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power’s Authority’s draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres.
MV-1	Auto Mall Specific Plan Planning Area C	No environmental documentation was available for review.
MV-2	TR35823 / Stowe Passco	Project Closed Before Environmental Review

Project ID	Project Name	Project Summary
	Development	
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres.
MV-5	P06-158 / Gascon	Project Closed Before Environmental Review
MV-6	Highland Fairview, Corporate Park, (Phases 2 and 3)	No environmental documentation was available for review.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres.
MV-12	Moreno Medical Campus	No environmental documentation was available for review.
MV-13	Cresta Bella	No environmental documentation was available for review.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots.
MV-23	PEN16-0129/0130 MV Ranch Apartments	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres.
MV-26	TR 30268 (PA01-0072) Pacific Communities	No environmental documentation was available for review.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots.
MV-31	PA15-0034 TR 36983	Project Closed Before Environmental Review
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-38	Vogel Properties	No environmental documentation was available for review.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-40	PEN17-0036 Warehouse	No environmental documentation was available for review.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site.

Project ID	Project Name	Project Summary
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district.
MV-46	Harley Knox/Redlands Development	No environmental documentation was available for review.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space.
MV-55	MV Commerce Park II (Alere) - Built before 2012	No environmental documentation was available for review.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots.

Project ID	Project Name	Project Summary
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site.
MV-62	Tract Map 22180	No environmental documentation was available for review.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots.
MV-64	TR22180 / Young Homes	No environmental documentation was available for review.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-70	TR32756 / CTK, Inc.	No environmental documentation was available for review.
MV-71	TR34681 / Perris Pacific Co.	No environmental documentation was available for review.
MV-72	35861 Frederick Homes	No environmental documentation was available for review.
MV-73	TR36038 / Alessandro Village Plaza LLC	Project Closed Before Environmental Review
MV-74	TR34216 / Creative Design Associates	No environmental documentation was available for review.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres.
MV-76	Commercial Medical Plaza, PA09-0033 thru 0039, and PA09-0019 & 0020	Project Closed Before Environmental Review
MV-77	Minka Lighting	No environmental documentation was available for review.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone.
MV-82	Centerpointe Bus. Ctr	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
MV-83	Centerpointe Business Park	No environmental documentation was available for review.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots.
MV-87	TR31814 / Moreno Valley Investors	ND
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts.
MV-90	PEN16-0110 Commercial Pad H	No environmental documentation was available for review.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community.
MV-98	33388 SCH Development,	Per the City of Moreno Valley's 2007 ND, project proposes to

Project ID	Project Name	Project Summary
	LLC	subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision.
MV-99	36038 Alessandro Village Plaza, LLC	Project Closed Before Environmental Review
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site.
MV-101	Restaurant	No environmental documentation was available for review.
MV-102	Moreno Valley Professional Center	This project has been completed, with space available.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres.
MV-104	373K Industrial Facility	No environmental documentation was available for review.
MV-105	35369 Tason Myers Property	ND
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres.
MV-107	32711 Isaac Genah	EXEMPT
MV-108	O'Reilly Automotive	MND
MV-109	35530 Moreno Gilman 650, LLC-Quail Ranch	No environmental documentation was available for review.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses.
MV-115	Olivewood Plaza - Office Building	EXEMPT
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes.
MV-120	Moreno Valley Shopping Center	No environmental documentation was available for review.

Project ID	**Project Name**	**Project Summary**
MV-121	Yum Donut Shop	EXEMPT
MV-122	Centerpointe Business Park	No environmental documentation was available for review.
MV-123	Rancho Belago Plaza - Retail	ND
MV-124	Alessandro & Lasselle	No environmental documentation was available for review.
MV-125	32756 Jimmy Lee	No environmental documentation was available for review.
MV-126	TTM 33222	No environmental documentation was available for review.
P-1	TR32707	No environmental documentation was available for review.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses.
P-3	P05-0477	No environmental documentation was available for review.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres.
P-6	Perris Circle Industrial Park	No environmental documentation was available for review.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres.
P-9	Aiere	No environmental documentation was available for review.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility.
P-13	Ridge	No environmental documentation was available for review.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres.
P-17	SRG Perris LC	No environmental documentation was available for review.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to

Project ID	Project Name	Project Summary
		construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site.
P-29	P06-0411	No environmental documentation was available for review.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres.
P-33	Harvest Landing Specific Plan	No environmental documentation was available for review.
P-34	South Perris Industrial Phase 3	No environmental documentation was available for review.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility.
P-36	South Perris Industrial Phase 2	No environmental documentation was available for review.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to

Project ID	Project Name	Project Summary
		amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision.
P-38	Sequoia	No environmental documentation was available for review.
P-39	South Perris Industrial Phase 1	No environmental documentation was available for review.
P-40	TR 32041	No environmental documentation was available for review.
P-41	P 06-0228	No environmental documentation was available for review.
P-42	TR 31650	No environmental documentation was available for review.
P-43	TR 31225	No environmental documentation was available for review.
P-44	TR 33193	No environmental documentation was available for review.
P-45	P 12-05-0013	No environmental documentation was available for review.
P-46	P 06-0378	No environmental documentation was available for review.
P-47	Park West Specific Plan	No environmental documentation was available for review.
P-48	TR 33338	No environmental documentation was available for review.
P-49	TR 31240	No environmental documentation was available for review.
P-50	P 11-09-0011	No environmental documentation was available for review.
P-51	TR 30973	No environmental documentation was available for review.
P-52	TR 31226	No environmental documentation was available for review.
P-53	TR 31659	No environmental documentation was available for review.
P-54	TTM 32708 (50% Complete)	No environmental documentation was available for review.
P-55	Perris Marketplace	No environmental documentation was available for review.
P-56	PM 34199/TPM 34697	No environmental documentation was available for review.
P-57	P 04-0343	No environmental documentation was available for review.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres.
P-59	TR 31407	No environmental documentation was available for review.
P-60	Retail on San Jacinto	No environmental documentation was available for review.
P-61	Investment Development Services (IDS) II	No environmental documentation was available for review.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central

Project ID	Project Name	Project Summary
		energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed.
R-6	2450 Market Streetca (P13-0087; P13-0262)	No environmental documentation was available for review.
R-7	2861 Mary Street (P12-0442; P12-0443; P12-0444)	No environmental documentation was available for review.
R-8	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	No environmental documentation was available for review.
R-9	Magnolia Avenue Specific Plan	No environmental documentation was available for review.
R-10	SR-91/Van Buren Commercial	No environmental documentation was available for review.
R-11	Citrus Business Park Specific Plan	No environmental documentation was available for review.
R-12	Sycamore Canyon Business Park Specific Plan	No environmental documentation was available for review.
R-13	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	No environmental documentation was available for review.
R-14	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	No environmental documentation was available for review.
R-15	Mission Grove Specific Plan	No environmental documentation was available for review.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside’s 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area.
R-17	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-0065)	No environmental documentation was available for review.
R-18	Hunter Business Park	No environmental documentation was available for review.
R-19	807 Blaine Street (P09-0717; P09-0718)	No environmental documentation was available for review.
R-20	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966)	No environmental documentation was available for review.
R-21	1006 & 1008 Clark Street	No environmental documentation was available for review.
R-22	3719 Strong Street (P05-0269; P08-0416; TM 33550)	No environmental documentation was available for review.
R-23	1710 Main Street (P12-0717)	No environmental documentation was available for review.
R-24	Downtown Specific Plan	No environmental documentation was available for review.
R-25	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-0046; P14-0047; P14-0048; P14-0049)	No environmental documentation was available for review.
R-26	Marketplace Specific Plan	No environmental documentation was available for review.
R-27	2586 University avenue (P13-0650; P13-0651)	No environmental documentation was available for review.

Project ID	**Project Name**	**Project Summary**
R-28	2340 Fourteenth Street (P09-0808; P08-0809)	No environmental documentation was available for review.
R-29	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	No environmental documentation was available for review.
R-30	3545 Central Avenue (P12-0741; P12-0743)	No environmental documentation was available for review.
R-31	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	No environmental documentation was available for review.
R-32	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	No environmental documentation was available for review.
R-33	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13-0201)	No environmental documentation was available for review.
R-34	4247 Van Buren Boulevard (P13-0785; P13-0787)	No environmental documentation was available for review.
R-35	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	No environmental documentation was available for review.
R-36	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	No environmental documentation was available for review.
R-37	3705 Tyler Street (P13-0501; P13-0502)	No environmental documentation was available for review.
R-38	Park Sierra Avenue (P14-0026; P14-0027)	No environmental documentation was available for review.
R-39	Riverwalk Vista Specific Plan	No environmental documentation was available for review.
R-40	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	No environmental documentation was available for review.
R-41	4824 Jones Avenue (P13-0181; P13-0182)	No environmental documentation was available for review.
R-42	Rancho La Sierra Specific Plan	No environmental documentation was available for review.
R-43	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087; TM 34509)	No environmental documentation was available for review.
R-44	6465 Sycamore Canyon Boulevard	No environmental documentation was available for review.
R-45	P06-0591	No environmental documentation was available for review.
R-46	Sycamore-Highlands Specific Plan	No environmental documentation was available for review.
R-47	P06-0160/P06-1281	No environmental documentation was available for review.
R-48	P06-1408	No environmental documentation was available for review.
R-49	Canyon Springs Specific Plan	No environmental documentation was available for review.
R-50	Orangecrest Specific Plan	No environmental documentation was available for review.
R-51	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	No environmental documentation was available for review.
R-52	19811 Lurin Avenue (P06-1355; TM 33480)	No environmental documentation was available for review.

Project ID	Project Name	Project Summary
R-53	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	No environmental documentation was available for review.
R-54	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	No environmental documentation was available for review.
R-55	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM 32301)	No environmental documentation was available for review.
R-56	Office, Magnon & Panattoni	No environmental documentation was available for review.
R-57	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608; P0609; P13-0854)	No environmental documentation was available for review.
R-58	Canyon / Valley Springs Parkway	No environmental documentation was available for review.
R-59	Alessandro and Gorgonio	No environmental documentation was available for review.
R-60	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848)	No environmental documentation was available for review.
R-61	Gless Ranch	No environmental documentation was available for review.
R-62	6091 Victoria Avenue (P13-0432)	No environmental documentation was available for review.
R-63	8616 California Avenue (P08-0084; PM 35852)	No environmental documentation was available for review.
R-64	P13-0389; TM36579	No environmental documentation was available for review.
R-65	P13-0723; P13-0724; P13-0725; TM 36654	No environmental documentation was available for review.
R-66	Azar Plaza	No environmental documentation was available for review.
RC-1	TR35530 / Quail Ranch Specific Plan	No environmental documentation was available for review.
RC-2	Jack Rabbit Trail	Project Withdrawn
RC-3	The Preserve / Legacy Highlands SP - Residential	xx
RC-4	Badlands Sanitary Landfill	No environmental documentation was available for review.
RC-5	Villages of Lakeview - Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project.
RC-6	Rider Business Center (Core 5 Industrial Partners)	No environmental documentation was available for review.
RC-7	Nuevo Distribution Center	No environmental documentation was available for review.
RC-8	Trucking DC (Central Freight, LLC)	No environmental documentation was available for review.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings.

Project ID	Project Name	Project Summary
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres.
RC-14	University Highlands	No environmental documentation was available for review.
RC-15	TTM 33410 Box Springs	No environmental documentation was available for review.
RC-16	Rider Street Quarry	No environmental documentation was available for review.
RC-17	PP 24608	No environmental documentation was available for review.
RC-18	TR 32406	No environmental documentation was available for review.
RC-19	CUP 03599	No environmental documentation was available for review.
RC-20	PP 25699	No environmental documentation was available for review.
RC-21	CUP 03527	No environmental documentation was available for review.
RC-22	TR30592	No environmental documentation was available for review.
RC-23	PP 25768	No environmental documentation was available for review.
RC-24	PP 21144	No environmental documentation was available for review.
RC-25	PP 16976	No environmental documentation was available for review.
RC-26	PM 32699	No environmental documentation was available for review.
RC-27	Yocum Baldwin	No environmental documentation was available for review.
RC-28	CUP03315	No environmental documentation was available for review.
RC-29	18580 Van Buren Boulevard (P08-0402; P13-0822)	No environmental documentation was available for review.
RC-30	Knox Logistics	No environmental documentation was available for review.
RC-31	PP23342	No environmental documentation was available for review.
RC-32	TR31537	No environmental documentation was available for review.
RC-33	TR34130	No environmental documentation was available for review.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space.
RC-36	TR36478, TR36480, PP25219	No environmental documentation was available for review.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7

Project ID	**Project Name**	**Project Summary**
		acre lot for a detention/debris basin, and an approximately 18 acre open space lot.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space.
RC-39	Tract 33869	No environmental documentation was available for review.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres.
RD-2	Redlands Pioneer Tract	MND
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally the Project seeks approval to remove 5 acres from an Agricultural Preserve.
RD-5	I-10 Redlands LC - A	MND
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property.
RD-7	RV Storage Facility	No environmental documentation was available for review.
RD-8	Liberty Lane Apartments	No environmental documentation was available for review.
RD-9	Hilton Home2 Suites	No environmental documentation was available for review.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres.
RD-13	Ashley Furniture	MND
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking.
RD-15	2220 Almond Ave	No environmental documentation was available for review.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino's 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet.

Project ID	Project Name	Project Summary
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino's 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85.
SB-3	Prologis #12	Per the County of San Bernardino's 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a "high cube" warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site.
SB-5	Prologis #13	No environmental documentation was available for review.
SB-6	Prologis #8	Per the County of San Bernardino's 2007 IS, the project would result in the construction four industrial buildings to be used a "High Cube" and general warehouse distribution facilities.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots.
SJ-1	Gateway Area Specific Plan	No environmental documentation was available for review.
SJ-2	TR31886 - Under Construction	No environmental documentation was available for review.
SJ-3	TR30598 (SP 1-03)	No environmental documentation was available for review.
SJ-4	TR32955 (SP 1-02)	No environmental documentation was available for review.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking.

6.0.6 Analysis of Cumulative Impacts

The analysis of each environmental issue/topic (Sections 6.1 – 6.17) evaluates the cumulative impacts of the project in conjunction with the identified potentially cumulative projects based on the projects' potential to cause impacts that overlap geographically and temporally. Implementation of the mitigation measures identified in each specific section of the 2015 FEIR in conjunction with new mitigation measures from the Revised Sections of the FEIR will reduce the cumulative impact of the project to the extent feasible. In many cases, the mitigation measures result in reducing the project's cumulative impact to a less than significant level. For other impacts, the implementation of the identified mitigation measures will not avoid a significant cumulative impact. The seventeen subsections of Chapter 6.00 (i.e., 6.1 - 6.17) identify those significant, unavoidable cumulative impacts that will not be reduced to a less than significant level. In addition, the analyses indicate to what degree the project makes a significant (i.e., cumulatively considerable) contribution to significant cumulative impacts for each environmental topic.

This analysis considers the impacts of the project in combination with the potential environmental effects of other projects in the identified area. "Other projects," also referred to as "cumulative projects," include the ongoing impacts of past projects (which are reflected in the resource-specific descriptions of baseline conditions) and anticipated impacts of recently completed projects, projects currently under construction or the City's consideration, and reasonably foreseeable probable future projects currently in development. The potential for projects to have a cumulative impact depends on their geographic location, size, land use type, and development schedule.

6.0.6 Geographic Scope

The project area is located in the eastern portion of the City of Moreno Valley. The potential for specific project-generated impacts to contribute to a significant cumulative impact would occur if the impacts of the project and other potentially cumulative projects are located within the same geographic area. This geographic area varies depending upon the resource area being evaluated (water quality, noise, etc.) and the geographic extent of the potential impact. For example, the geographic area associated with construction noise impacts would be limited to areas where construction noise from the project could be heard at the same time as noise from other projects could be heard. In contrast, the geographic area that could be affected by the project and cumulative construction-related traffic would include the western portion of Riverside County. Each topic evaluated in Section 6.0 of the Revised Sections of the FEIR has developed a specific geographic cumulative project impact area, based on the potential for cumulative impacts to occur, and includes individual tables summarizing the specific cumulative projects and a figure depicting the boundary of the cumulative project evaluation area and the location of the cumulative projects.

6.0.6 Project Timing

In addition to the geographic scope, cumulative impacts are determined by the timing of the generation of similar impacts by other projects relative to the project. Although the timing of the future projects is likely to fluctuate due to schedule changes or other unknown factors, this analysis assumes these individual projects would be developed for implementation through the course of the current planning horizon and could be implemented concurrently with construction of the project. The worst case planning horizon year is 2040.

6.1 Aesthetics

Cumulative effects to aesthetics are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to aesthetics is provided in Section 6.1.1. The geographic and temporal scopes for cumulative impacts to aesthetics are provided in Section 6.1.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the aesthetics issues are discussed in Section 6.1.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.1.3 below as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to aesthetics.

6.1.1 Project Impact Findings

The project's effects to aesthetics are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.1 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Have a substantial adverse effect on a scenic vista? **Significant and Unavoidable with Mitigation, Section 4.1.6.1, Impact 4.1.6.1.**
- Result in substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway and/or local scenic road? **Significant and Unavoidable with Mitigation, Section 4.1.6.2, Impact 4.1.6.2.**
- Result in substantial degradation of the existing visual character or quality of the site and its surroundings? **Significant and Unavoidable with Mitigation, Section 4.1.6.3, Impact 4.1.6.3.**
- Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area? **Less than Significant with Mitigation, Section 4.1.6.4, Impact 4.1.6.4.**

6.1.2 Geographic and Temporal Scope

The cumulative impact geographic area for aesthetics has been identified from the perspective of prominent public vantage points from which viewers could see the project, including public roads within and surrounding the project site, SR-60, Gilman Springs Road, Theodore Street, and Redlands Boulevard . See Figure 6.1. The views within the geographic area that could be altered by the project in combination with other projects include views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area, the Badlands east of Gillman Springs Road, and The San Jacinto Wildlife Area that includes Mystic Lake and associated wetlands. The prominent vantage points include SR-60 to the north, Gilman Springs Road to the east, Moreno Beach Drive to the west and the Lake Perris State Recreation area and San Jacinto Wildlife Area to the south. These prominent vantage points in the vicinity of the project site define the geographic area where public views could be altered. Public views beyond the prominent vantage points do not include the project site and therefore are not part of the cumulative aesthetics impacts geographic area. The geographic area for cumulative aesthetics and views impacts is shown on Figure 6.1. The projects located within the cumulative aesthetics impact area are listed in Table 6.1. The project would contribute to cumulative aesthetic conditions starting with project-related alteration of on-site conditions and lasting for the duration of the project.

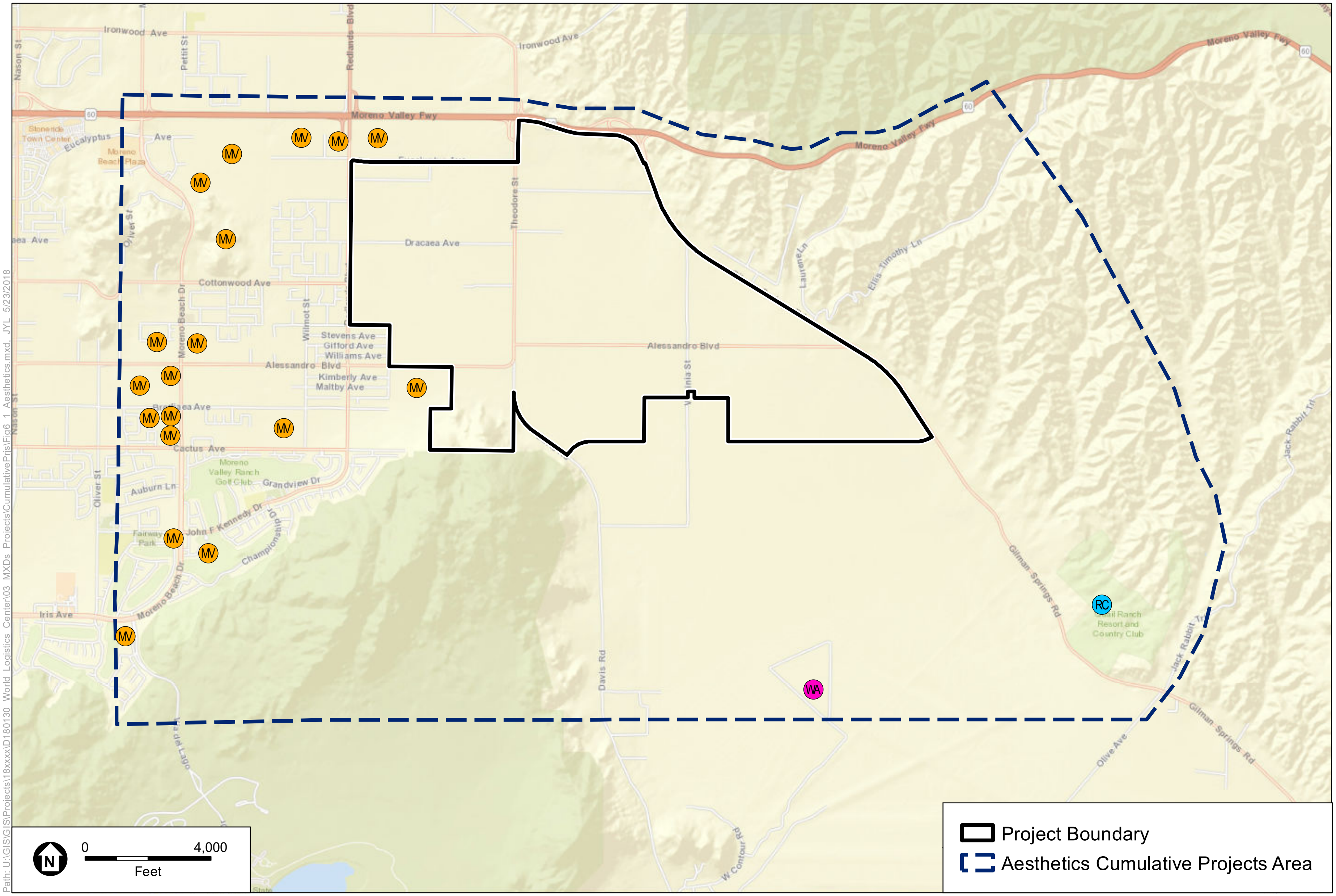

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_1_Aesthetics.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.1-1

Aesthetics Cumulative Projects Geographic Area

ESA

Table 6.1 Aesthetics Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	As described in the project's 2014 EIR, the development of 2,244,638 square feet of distribution warehouse space would have a significant and unavoidable impact on aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) and could contribute to cumulative impacts to aesthetic resources due to the degree of visual change introduced by the project.
MV-4	Westridge Commerce Center	The visual change introduced by the development of a 937,260 square foot warehouse distribution facility could contribute to cumulative impacts on aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare)
MV-17	TR31590 / Winchester Associates	The Project's subdivision of 30 acres for 96 single family homes could contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.
MV-18	Convenience Store/Fueling Station	The Project's construction of a fueling station and convenience store would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.
MV-19	Senior Assisted Living	The Project's building of a 139-unit senior assisted living facility would contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.
MV-20	Moreno Marketplace	The Project's development of 95,905 square foot retail center would contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.
MV-22	TR36882 (PA15-0010) SFR	The Project's subdivision of 9.4 acres into 40 residential lots would

		contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.
MV-24	TM 36436 (PA12-0005)	The Project's subdivision of 43.52 acres into 159 single family residential lots would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.
MV-28	TR34329 / Granite Capitol	The Project's development of 90 condominiums on 10.41 acres would contribute to the cumulative light and glare in the geographic area due to new sources of lighting and reflective surfaces.
MV-36	TM 31618 (PA03-0106)	The Project's subdivision of 18.99 acres into 56 single family residential lots would contribute to cumulative impacts to aesthetic resources in the geographic area (including visual character and light and glare) due to the visual change introduced by the Project
MV-95	Moreno Beach Marketplace/ Lowes	The Project's development of retail space on 14.2 acres would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, visual character, and light and glare) due to the visual change introduced by the Project
SJWA-1	San Jacinto Wildlife Land Management Plan	The Project's development of a land management plan would contribute to cumulative impacts to aesthetic resources in the geographic area (including scenic vistas, scenic resources and highways, visual character, and light and glare) due to the visual change introduced by the Project.

6.1.3 Cumulative Impact Evaluation

6.1.3.1 Scenic Vistas

Impact: The project's contribution to cumulative impacts to scenic vistas would be cumulatively considerable.

Threshold: Would the project have a substantial adverse effect on a scenic vista?

Cumulative Impact Analysis

Scenic vistas adversely impacted by the project include views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area, the Badlands, the San Jacinto Wildlife Area and the valley floor. Features of the existing development landscape that adversely affect views of these resources for travelers eastbound and westbound on SR-60 include the existing Skechers warehouse building located adjacent to the northwestern boundary of the project site.

For travelers eastbound on SR-60, the project together with cumulative projects MV-3, MV-4, MV-6, and MV-95 could potentially reduce views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area, the Badlands, the San Jacinto Wildlife Area and the valley floor. For travelers westbound on SR-60, the project together with cumulative projects MV-3, MV-4, MV-20, MV-95 and the existing Skechers could reduce views of Mount Russell and the foothills surrounding the Lake Perris State Recreation Area. Views from Gilman Springs Road, and other local roadways could be altered by the development of the project in combination with some or all of the cumulative projects. Environmental documents for MV-3 and MV-4 both identified scenic vistas as being significant and unavoidable impacts and that both projects would have cumulative impacts. Both MV-3 or MV-4 identified that there were no feasible measures to reduce impacts on the scenic vistas. MV-3 and MV-4 are considered large warehouse projects with structures and uses that would be similar in character to the structures and uses of the project. Many of the remaining cumulative projects within the cumulative geographic area for aesthetics include residential or commercial type projects, and the associated environmental documents found the impacts to be less than significant. Because there are cumulative projects that would result in significant and unavoidable impacts to scenic vistas, the cumulative development within the cumulative geographic areas for aesthetics would result in significant cumulative impacts associated with scenic vistas.

Views of the project site by the motoring public from SR-60, Gilman Springs Road, and other local roadways will change from open agricultural lands to logistics buildings and associated parking areas, roadways, infrastructure, and landscaping. Specifically, travelers in both directions on SR-60 will have views of the project site until the northernmost portion of the site is developed. If all future buildings of the project proposed along the south side of SR-60 block views to the same degree as the existing logistics building, this would create a significant visual impact as it would impact views of Mount Russell, the foothills surrounding the Lake Perris State Recreation Area, and the Badlands along Gilman Springs Road and the valley floor. Travelers in both directions on Gilman Springs Road have views across the project site. If future WLC buildings along Gilman Springs Road block views to the same degree as the Skechers building impacts views from SR-60, there would be a significant impact to the views of Mount Russell and the Mystic Lake area. Views from nearby residences could change as foreground and mid-ground views would change from vacant marginal agricultural land to trees, ornamental landscaping, and new logistics buildings. Most background views from nearby residences will be affected as well as distant views of the Badlands and Mount Russell. As discussed in Section 4.1.6.1 of the FEIR, the development of the project will substantially affect scenic vistas for residents living within, or in the vicinity of the project, and for travelers on SR-60, Gilman Springs Road, Redland Boulevard, Theodore Street, and Alessandro Boulevard. Because the project would result in significant impacts on scenic vistas, the project’s contribution to cumulative impacts to scenic vistas would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.1.6.1A through 4.1.6.1D is required.

Significance Level After Mitigation: Significant and unavoidable impact. The size, height, and location of buildings within the project site are limited by the standards and guidelines contained in the WLC Specific Plan. Mitigation Measures 4.1.6.1A through 4.1.6.1D are recommended to reduce impacts related to the loss of public and private views. After implementation of the proposed mitigation measures, adverse effects on scenic vistas would remain significant and unavoidable due to the change in views for residents within and surrounding the project site, for travelers on SR-60, Gilman Springs Road, Theodore Street, and Redlands Boulevard. Therefore, the project’s contribution to cumulative impacts to scenic vistas would be considered cumulatively significant and unavoidable.

6.1.3.2 Scenic Resources and Scenic Highways

Impact: *The project's contribution to cumulative impacts on the views of scenic resources for motorists traveling on SR-60 and Gilman Springs Road would be cumulatively considerable.*

Threshold:	Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and/or local scenic road?

Cumulative Impact Analysis

The project in conjunction with the cumulative development could have a substantial effect on scenic resources for motorists traveling on SR-60 and Gilman Springs Road. According to Section 4.1.6.2 of the FEIR, the Caltrans Scenic Highway Program does not identify any scenic highways near the project site. However, the City of Moreno Valley identifies SR-60, Gilman Springs Road, and Moreno Beach Drive as local scenic roads. According to the City's General Plan EIR, major scenic resources within the City are visible from SR-60, Gilman Springs Road, and Moreno Beach Drive. Existing views for motorists traveling eastbound and westbound on SR-60 consist of agricultural fields in the foreground and midground, and the Badlands and Mount Russell in the background. Existing views for motorists on Gilman Springs Road consist of agricultural fields in the foreground, the San Jacinto Wildlife Area and the Badlands in the background. Views for motorists traveling northbound and southbound on Moreno Beach Drive includes agricultural fields and residential uses in the foreground and midground, and the Badlands and Mount Russell and the foothills surrounding the Lake Perris State Recreation Area in the background. The related projects located along SR-60 would alter views of the agricultural fields in the foreground and mid-ground as well as the background views of the Badlands and Mount Russell. This alteration of views along SR-60 from the implementation of the cumulative related projects such as MV-3 and MV-4 could be cumulatively significant, but the environmental document for MV-4 did not identify an individual or cumulative significant visual impact. In addition, alteration of views along Moreno Beach Drive from the implementation of cumulative related projects such as MV-95 could be cumulatively significant. The environmental document for MV-95 found it to be individually and cumulatively less than significant at the time of its publication. Based on a brief review of both projects, these two related projects could result in a significant combined visual impacts along Moreno Beach Drive. In summary, the cumulative projects could result in significant visual impacts for motorists along SR-60, Moreno Beach Drive and Gilman Springs Road.

According to Section 4.1.6.2 of the FEIR, development of the project would significantly alter existing views by introducing new logistics buildings and associated parking areas, roadways, infrastructure, and landscaping adjacent to SR-60 and Gilman Springs Road, but not along Moreno Beach Drive. The project meets the Caltrans' criteria in both the moderate and major visual intrusion categories. The characteristics of a "moderate intrusion" includes increased number of buildings, but complementary to the landscape; smaller setbacks and lack of roadway screening; buildings that do not degrade or obstruct a scenic view. The characteristics of a "major visual intrusion" includes dense and continuous development; highly reflective surfaces; buildings poorly maintained; visible blight; development along ridgelines; or buildings that degrade or obstruct a scenic view. Since the project meets both criteria, the project may create a significant visual impact for motorists traveling along SR-60 and Gilman Springs Road. The project would not be visible from Moreno Beach Drive, and therefore, no impact to motorist's views would occur.

Because the project could result in significant visual impacts for motorists along SR-60, and cumulative projects such as MV-3 and MV-4 could also result in significant visual impacts for motorists along SR-60, the project's contribution to cumulative impact along SR-60 would be cumulatively considerable. In addition, because the project would result in significant visual impacts for motorists along Gilman

Springs Road and the cumulative project RC-1 could also result in significant visual impacts for motorists along SR-60, the project's contribution to cumulative visual impacts along Gilman Springs Road would be cumulatively considerable. Although cumulative related projects MV-1 and MV-95 could result in significant visual impacts to motorists along Moreno Beach Drive, the project would not contribute to any visual impact to motorists' views. Therefore, the project would result in no cumulative impact to visual resources that can be viewed from Moreno Beach Drive.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.1.6.1A through 4.1.6.1D would be required.

Significance Level After Mitigation: Significant and unavoidable impact. The application of the development standards and design guidelines of the WLC Specific Plan, will help to soften the view of future buildings viewed from SR-60, but the project's incremental impact to local views in combination with the incremental impacts of other projects in the cumulative scenario would remain significant. Mitigation Measures 4.1.6.1A through 4.1.6.1D are recommended to reduce project impacts related to scenic resources. However, after implementation of the proposed mitigation measures, the alterations of views from SR-60 and Gilman Springs Road as a result of the project in combination with other cumulative projects would remain a significant and unavoidable impact. The project's contribution to cumulative impacts to scenic resources would be considered cumulatively considerable and significant and unavoidable.

6.1.3.3 Existing Visual Character and Surroundings

Impact: *The project's contribution to cumulative impacts to the existing visual character and surroundings would be cumulatively considerable.*

Threshold: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Cumulative Impact Analysis

The project in conjunction with the cumulative development could have a substantial effect on scenic resources for motorist traveling on SR-60 and Gilman Springs Road. According to Section 4.1.6.2 of the FEIR, the Caltrans Scenic Highway Program does not identify any scenic highways near the project site. However, the City of Moreno Valley identifies SR-60, Gilman Springs Road, and Moreno Beach Drive as local scenic roads. According to the City's General Plan EIR, major scenic resources within the City are visible from SR-60, Gilman Springs Road, and Moreno Beach Drive. Existing views for motorists traveling eastbound and westbound on SR-60 consist of agricultural fields in the foreground and midground, and the Badlands and Mount Russell in the background. Existing views for motorists on Gilman Springs Road consist of agricultural fields in the foreground, the San Jacinto Wildlife Area and the Badlands in the background. Views for motorists traveling northbound and southbound on Moreno Beach Drive includes agricultural fields and residential uses in the foreground and midground, and the Badlands and Mount Russell and the foothills surrounding the Lake Perris State Recreation Area in the background. The related projects located along SR-60 would alter views of the agricultural fields in the foreground and mid-ground as well as the background views of the Badlands and Mount Russell. This alteration of views along SR-60 from the implementation of the cumulative projects such as MV-3 and MV-4 could be cumulatively significant, but the environmental document for MV-4 did not identify an individual or cumulative significant visual impact. In addition, alteration of views along Moreno Beach Drive from the implementation of cumulative related projects such as MV-1 and MV-95 could be cumulatively significant. No environmental document was available to review for MV-1 and the environmental document for MV-95 found it to be individually and cumulatively less than significant at the time of its publication. Based on a brief review of both projects, these two related projects together and in combination with the project could result in a significant visual impacts along Moreno Beach Drive. Although the environmental document for cumulative related project RC-1 is not available, based on a brief review of the project location and project characteristics, RC-1 has the potential to substantially alter views for motorists along Gilman Springs Road, and therefore, could result in significant cumulative impacts. In summary, the cumulative projects could result in significant visual impacts for motorists along SR-60, Moreno Beach Drive and Gilman Springs Road.

According to Section 4.1.6.2 of the FEIR, development of the project would significantly alter existing views by introducing new logistics buildings and associated parking areas, roadways, infrastructure, and landscaping adjacent to SR-60 and Gilman Springs Road, but not along Moreno Beach Drive. The project meets the Caltrans' criteria in both the moderate and major visual intrusion categories. The characteristics of a "moderate intrusion" includes increased number of buildings, but complementary to the landscape; smaller setbacks and lack of roadway screening; buildings that do not degrade or obstruct a scenic view. The characteristics of a "major visual intrusion" includes dense and continuous development; highly reflective surfaces; buildings poorly maintained; visible blight; development along ridgelines; or buildings that degrade or obstruct a scenic view. Since the project meets both criteria, the project may create a significant visual impact for motorists traveling along SR-60 and Gilman Springs Road. The project would not be visible from Moreno Beach Drive, and therefore, could not cause or contribute to any cumulative impact to motorist's views from there.

Because the project could result in significant visual impacts for motorists along SR-60, and cumulative projects such as MV-3 and MV-4 could also result in significant visual impacts for motorists along SR-60, the project's contribution to cumulative impact along SR-60 would be cumulatively considerable. In addition, because the project would result in significant visual impacts for motorists along Gilman Springs Road, the project's contribution to cumulative visual impacts along Gilman Springs Road would be cumulatively considerable. Although cumulative related projects MV-3 and MV-95 could result in significant visual impacts to motorists along Moreno Beach Drive, the project would not contribute to any visual impact to motorists' views. Therefore, the project would result in no cumulative impact to visual resources that can be viewed from Moreno Beach Drive.

6.1.3.4 Light and Glare

Impact: The project's contribution to cumulative impacts to light and glare would be cumulative considerable.

Threshold: Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Cumulative Impact Analysis

The project in conjunction with the cumulative development could significantly degrade the existing visual character (including light and glare) of the project site by development of the project, including both daytime glare and nighttime lighting. Development of cumulative projects within the eastern Moreno Valley area would result in the conversion of open space/vacant land to urbanized land uses. The environmental document for MV-3 identified existing visual character/light and glare, and surroundings as being a significant and unavoidable impact. MV-4 did not identify existing visual character and surroundings as having a significant impact. Both MV-3 and MV-4 are considered large warehouse projects with structures and uses that would be similar in character to the structures and uses of the project. Many of the remaining cumulative projects within the cumulative geographic area for aesthetics include residential or commercial type projects, and the associated environmental documents found the impacts to visual character/light and glare of the area to be less than significant. Because MV-4 identified significant and unavoidable impacts to the existing visual character, cumulative development within the cumulative geographic areas for aesthetics would result in a significant cumulative impact associated with visual character.

The project site is largely vacant marginal agricultural land with six occupied single family homes and associated ranch/farm buildings in various locations on the property. SDG&E operates a natural gas compressor plant on 19 acres south of the project site. The SCGC operates a metering and pipe cleaning station on two separate parcels totaling 1.5 acres also south of the project site. The project site and areas adjacent to the project site contain a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service. Developed properties in the project vicinity include a logistics building to the northwest (Skechers) and several residential neighborhoods along Redlands Boulevard and Cactus Avenue along the western boundary of the project site. Development of the project would include approximately 40.6 million square feet of logistics uses with associated parking areas, ornamental landscaping, roadway and infrastructure on approximately 2,610 acres. Building heights will range from 60 to 80 feet depending on the location within the project site which will substantially impact the views of nearby residents and motorists on adjacent roadways including, but not limited to, SR-60 and Gilman Springs Road. Building roofs are expected to include solar panels which could create glare impacts.

According to Section 4.1.6.4 of the FEIR, development of the project would substantially alter the existing character and create light and glare impacts from conversions of the project site from open space to an urbanized setting with many large logistics buildings. Because the project would result in a significant impact on the visual character and light and glare from development of the area and cumulative development will also result in a significant impact on visual character, the project's contribution to cumulative impacts to the existing visual character and surroundings would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.1.6.1A, 4.1.6.1B, 4.1.6.4A, and 4.1.6.4B would be required.

Significance Level After Mitigation: Less than significant impact. The project shall comply with the City's General Plan, the City's Municipal Code (Section 9.08.100, Lighting) and the WLC Specific Plan's development guidelines for lighting and building materials. Mitigation Measure 4.1.6.1A and 4.1.6.1B would help reduce related visual impacts. Mitigation Measures 4.1.6.4A and 4.1.6.4B will help reduce light and glare associated with the new buildings near the San Jacinto Wildlife Area to the south. Mitigation Measure 4.1.6.4A requires a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of the adjacent residential uses. Mitigation Measure 4.1.6.4B requires an analysis of proposed solar panels demonstrating the glare from the panels will not negatively affect adjacent residential uses or motorist along perimeter roadways. Therefore, with compliance with the City's General Plan, the City's Municipal Code, and implementation of the mitigation measures, the project's contribution to cumulative light and glare impacts would be less than cumulatively considerable.

6.2 Agricultural and Forestry Resources

Cumulative effects to agricultural and forestry resources are described in this section. A summary of the WLC project's incremental contribution to potential cumulative impacts to agricultural and forestry resources is provided in Section 6.2.1. The geographic and temporal scopes of the cumulative analysis are provided in Section 6.2.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the agricultural and forestry resources issues are discussed in Section 6.2.3.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.2 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact. In addition, this section includes an evaluation of the project's contribution to the cumulative impact to agricultural and forestry resources and whether that contribution would be cumulatively considerable.

6.2.1 Project Impact Findings

The project's effects to agricultural and forestry resources are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.2 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? **No Impact, Section 4.2.5.1.**
- Would the project result in the loss of forest land or conversion of forest land to non-forest use? **No Impact, Section 4.2.5.2.**
- Would the project conflict with existing zoning for agricultural use or a Williamson Act contract? **No Impact, Section 4.2.5.3.**
- Would the project result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and

Monitoring Program of the California Resources Agency, to non-agricultural land use? **No Impact, Section 4.2.6.1.**

- Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use? **Less than Significant, Section 4.2.6.2.**

As documented in the FEIR, impacts to 25 acres of Unique Farmland were determined to be significant but were able to be reduced to less than significant with mitigation (Mitigation Measure 4.2.6.1A), which required the recordation of an Agricultural Conservation Easement over equivalent or better agricultural land. Since publication of the FEIR, the California Department of Conservation's "Riverside County Important Farmland 2016" map (published July 2017), re-designated the 25-acre Unique Farmland parcel to "Farmland of Local Importance". With the change in designation for this parcel, there is no longer any "Prime Farmland," "Unique Farmland" or "Farmland of Statewide Importance" anywhere within the project site.

Pursuant to CEQA Guidelines §15130, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." Because the project would result in no impact related to a conflict with zoning for forest land, timberland, or timberland zoned Timberland Production; no impact related to a loss of forest land or conversion of forest land to a non-forest use; no impact related to a conflict with existing zoning for agricultural use or a Williamson Act contract; and no impact related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural land use or of forest land to non-forest use, the project would not cause or contribute to any potential cumulative in any of these respects.

Because development of the project could result in a less-than-significant impact related to the conversion of 25 acres of Farmland of Local Importance, this cumulative effects analysis evaluates whether associated cumulative effects could be significant, and if so, whether the project's contribution would be cumulatively considerable.

6.2.2 Geographic and Temporal Scope

The cumulative impact geographic area for potential impacts to agricultural use of Farmland of Local Importance is Western Riverside County. Portions of the project site have been designated as Farmland of Local Importance by the County of Riverside. Because Riverside County has two geographic regions (western and eastern), it is reasonable to focus the cumulative impact analysis within the region where the project is located. Therefore, the cumulative impact geographic area for agricultural resources is Western Riverside County. The geographic area for cumulative agricultural impacts is shown on Figure 6.2. The projects located within the cumulative agricultural impact area are listed in Table 6.2. The project would contribute to cumulative impacts to agricultural use starting from when the project site's 2,361 acres of Farmland of Local Importance are converted to a non-agricultural use and would last for the duration of the project.

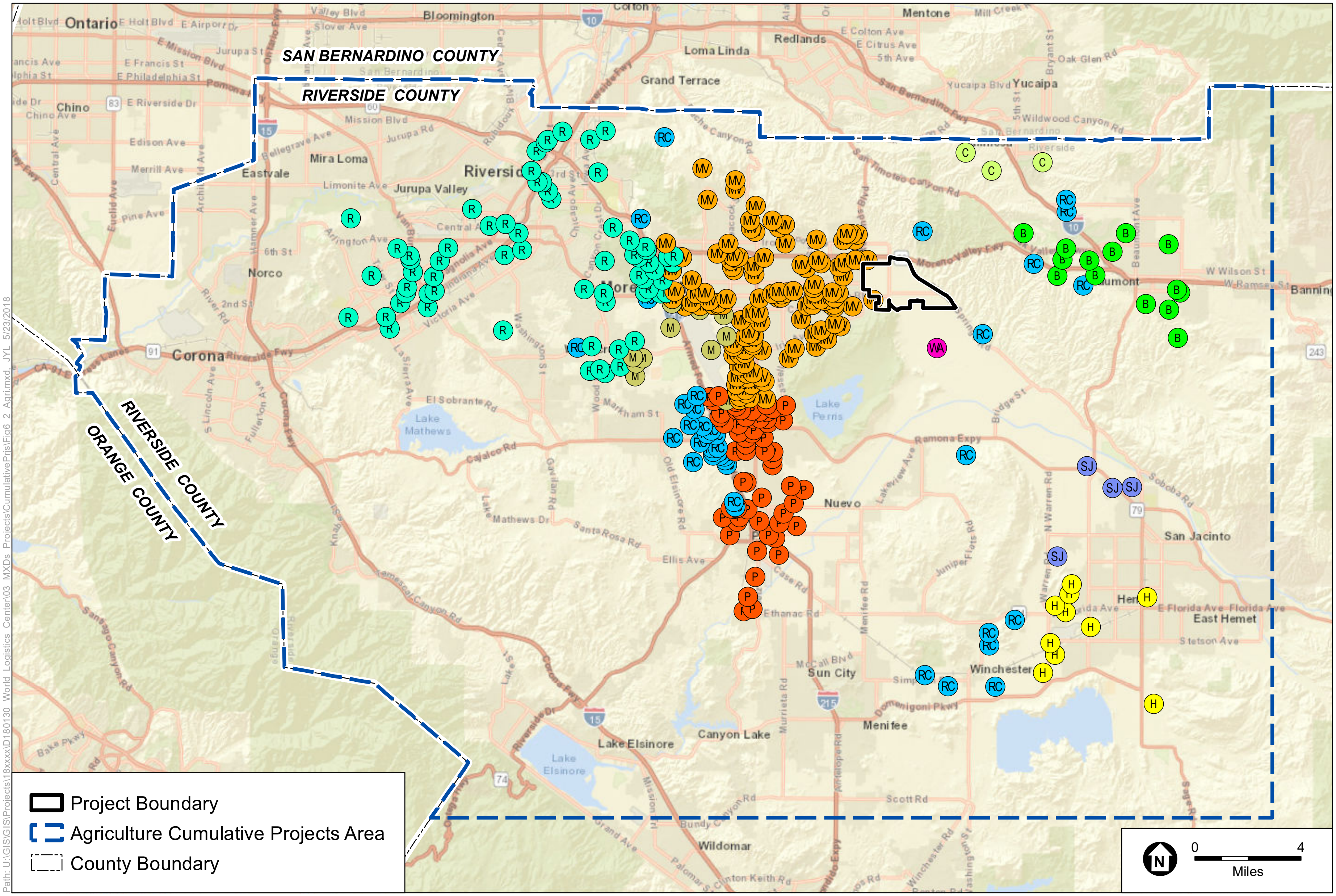

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.2-1

Agriculture and Forestry Resources Cumulative Projects Geographic Area

Table 6.2 – Agricultural and Forestry Resources Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	The Project's development of low and medium density housing on 417.2 acres would result in the loss of 160 acres of soils which are Class II when irrigated and would contribute to cumulative changes in the environment which could result in impacts to agricultural resources.
B-4	Hidden Canyon	The Project would result in the development of 426 residential units, commercial space and open space on 196.5 acres
B-5	ProLogis/Rolling Hills Ranch Industrial	The Project would change the 152,9-acre property's General Plan land use designation from low density residential to Business Park and would result in the eventual conversion of fallow farmland to light industrial use. This conversion of farmland would contribute cumulatively to the conversion of farmland in the geographic area.
B-7	Kirkwood Ranch (#14)	The significant and unavoidable impacts to undeveloped farmland associated with the development of 470 single family detached units and 60 multi-family units on a 128-acre site would contribute cumulatively to the conversion of farmland in the geographic area.
B-9	Sundance (#17)	The Project would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres of land use for dryland farming and grazing. The project would contribute to the cumulative conversion of farmland in the geographic area. .
B-11	San Gorgonio Village, Phase 2 (#45)	The project would result in the development of

Project ID	**Project Name**	**Environmental Document Summary**
		approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres and would contribute to cumulative impacts to agricultural resources in the geographic area.
B-14	Potrero Creek Estates (#26)	This Project would result in the development of 1,028 single family lots on 737 acres.
H-3	Tres Cerritos Specific Plan	The Project would result in the development of 787 residential units, park and open space, on 154.7 acres
H-4	Sanderson Square	The Project would result in the development off commercial and industrial uses on approximately 45 acres designated as farmland and used historically as farmland and would contribute to the cumulative conversion of farmland in the geographic area.
H-5	McSweeny Farms Specific Plan	This Project would result in the development off commercial and industrial uses on approximately 45 acres.
H-6	Ramona Creek Specific Plan	This Project would result in the development of a multiple-use commercial and residential community
H-7	Peppertree Specific Plan	The Project would result in the development of 456 residences, and recreational spaces on 79.2 acres leading to the conversion of 79.2 acres of prime farmland to non – agricultural use. The Project would contribute to the cumulative conversion of farmland in the geographic area.
H-9	Pulte Del Web (TTM 31807 and 31808)	The Project would result in the conversion of 164.77 acres of mostly prime soils and agricultural land to a non-agricultural use and would contribute to the cumulative conversion of farmland within the

Project ID	Project Name	Environmental Document Summary
		geographic area.
M-2	Meridian Business Park Phases I and II	The project would result in the development of a 130 acre business park on farmland of local importance and would contribute to the cumulative conversion of farmland in the geographic area.
M-8	March LifeCare Campus Specific Plan	The project would result in the development of a medical campus on approximately 236 acres and could contribute to the cumulative conversion of farmland within the geographic area.
MV-3	ProLogis	The Project's development of 2,244,638 square feet of distribution warehouse space would result in a significant and unavoidable impact to farmland conversion and would contribute to the cumulative removal or conversion of farmland in the geographic area.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility con land previously used for dryland farming would contribute to the cumulative conversion of farmland and impacts to agricultural resources in the geographic area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the Agricultural and forestry resources in the geographic area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the agricultural and forestry resources in the geographic area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the agricultural and forestry resources in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the agricultural and forestry resources in the geographic area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the agricultural and forestry resources in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the agricultural and forestry resources in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is less than significant impact to no impact on the agricultural and forestry resources in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the agricultural and forestry resources in the

Project ID	**Project Name**	**Environmental Document Summary**
		area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the agricultural and forestry resources in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the agricultural and forestry resources in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the agricultural and forestry resources in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the agricultural and forestry resources in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the agricultural and forestry resources in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is no impact on the agricultural and forestry

Project ID	Project Name	Environmental Document Summary
		resources in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant to impact on the agricultural and forestry resources in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the agricultural and forestry resources in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the agricultural and forestry resources in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the agricultural and forestry resources in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no information on the ND regarding the impact on agricultural and forestry resources in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the

Project ID	Project Name	Environmental Document Summary
		development of 83 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the agricultural and forestry resources in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the agricultural and forestry resources in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the agricultural and forestry

Project ID	**Project Name**	**Environmental Document Summary**
		resources in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the agricultural and forestry resources in the area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the agricultural and forestry resources in the area.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is no impact on the agricultural and forestry resources in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is no impact on the agricultural and forestry resources in the area.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will

Project ID	Project Name	Environmental Document Summary
		build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the agricultural and forestry resources in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is no impact on the agricultural and forestry resources in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the agricultural and forestry resources in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. It does not specifically mention an impact on the agricultural and forestry resources in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is no impact on the agricultural and forestry resources in the area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist,

Project ID	Project Name	Environmental Document Summary
		the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the agricultural and forestry resources in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the agricultural and forestry resources in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is less than significant to no impact on the agricultural and forestry

Project ID	Project Name	Environmental Document Summary
		resources in the geographic area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would result in a significant and unavoidable impact to farmland conversion and would contribute to the cumulative removal or conversion of farmland in the geographic area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the agricultural and forestry resources in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project would not cause significant environmental impacts. The resolution does not specifically mention an effect on the agricultural and forestry resources in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the agricultural and forestry

Project ID	Project Name	Environmental Document Summary
		resources in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the agricultural and forestry resources in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is no impact on the agricultural and forestry resources in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the agricultural and forestry resources in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the agricultural and forestry resources in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the agricultural and forestry resources in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the agricultural and forestry resources in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the agricultural and forestry resources in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the agricultural and forestry resources in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres There is impact on the agricultural and forestry resources in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is no impact on the agricultural and forestry resources in the

Project ID	Project Name	Environmental Document Summary
		area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the agricultural and forestry resources in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the agricultural and forestry resources in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the agricultural and forestry resources in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the agricultural and forestry resources in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12-unit condominium complex on approximately 0.9 acres. The resolution states that the project will not have a significant impact on the environment. It does not specifically mention an impact on the agricultural and forestry resources in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice

Project ID	**Project Name**	**Environmental Document Summary**
		of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. The exemption does not specifically mention impacts on the agricultural and forestry resources in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the agricultural and forestry resources in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the agricultural and forestry resources in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is no impact on the agricultural and forestry resources in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same

Project ID	Project Name	Environmental Document Summary
		approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is no impact on the agricultural and forestry resources in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the agricultural and forestry resources in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the agricultural and forestry resources in

Project ID	**Project Name**	**Environmental Document Summary**
		the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the agricultural and forestry resources in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is less than significant to no impact on the agricultural and forestry resources in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the agricultural resources in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. There is no significant impact on the environment. The resolution did not specifically state an impact on the agricultural and forestry resources in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the agricultural and forestry resources in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this

Project ID	**Project Name**	**Environmental Document Summary**
		tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution stated that there would be no significant impact to the environment. The resolution did not specifically mention an impact on the agricultural and forestry resources in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution did not mention whether or not there would be an environmental impact on the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is no impact on the agricultural and forestry resources in the area.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the agricultural and forestry resources in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the agricultural and forestry resources in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014

Project ID	Project Name	Environmental Document Summary
		Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the agricultural and forestry resources in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the agricultural and forestry resources in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the agricultural and forestry resources in the area.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. There is no impact on the agricultural and forestry resources in the area.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is no impact on the agricultural and forestry resources in the area.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements

Project ID	Project Name	Environmental Document Summary
		on 22.25 acres. There is no impact on the agricultural and forestry resources in the area.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is no impact on the agricultural and forestry resources in the area.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant to no impact on the agricultural and forestry resources in the area.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is no impact on the agricultural and forestry resources in the area.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is no impact on the agricultural and forestry resources in the area.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the project is the expansion of an existing internet/mailorder fulfillment

Project ID	Project Name	Environmental Document Summary
		facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. There is no impact on the agricultural and forestry resources in the area.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is no impact on the agricultural and forestry resources in the area.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is no impact on the agricultural and forestry resources in the area.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. There is no impact on the agricultural and forestry resources in the area.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. After the approval of the EIR for the 2005 General plan which included the conversion of agricultural lands to other uses, it was decided that there is no impact on the agricultural and forestry resources in the area.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed

Project ID	**Project Name**	**Environmental Document Summary**
		development of an approximately 700,000 square foot industrial building on a 40-acre. There is no impact on the agricultural and forestry resources in the area.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is no impact on the agricultural and forestry resources in the area.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant to no impact on the agricultural and forestry resources in the area.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is no impact on the agricultural and forestry resources in the area.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is no impact on the agricultural and forestry resources in the area.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is no impact on the agricultural and forestry resources in the area.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site

Project ID	Project Name	Environmental Document Summary
		encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a less than significant to no impact on the agricultural and forestry resources in the area.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is no impact on the agricultural and forestry resources in the area.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a significant impact on the agricultural and forestry resources in the area. This is mitigated by the converting prime farmland, which is done by moving the top 12 inches of soils from parcels 302-030-003 and 302-030-00 to a farm site with lower quality soil.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is no impact on the agricultural and forestry resources in the area.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is no impact on the agricultural and forestry resources in the area.

Project ID	**Project Name**	**Environmental Document Summary**
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is no impact on the agricultural and forestry resources in the area.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is no impact on the agricultural and forestry resources in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is no impact on the agricultural and forestry resources in the area.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is no impact on the agricultural and forestry resources in the area.
P-38	Sequoia	Summary to be provided.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1

Project ID	Project Name	Environmental Document Summary
		acres. There is a less than significant impact on the agricultural and forestry resources in the area.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is no impact on the agricultural and forestry resources in the area.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is no impact on the agricultural and forestry resources in the area.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres. There is no impact on the agricultural and forestry resources in the area.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is no impact on the agricultural and forestry resources in the area.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent

Project ID	Project Name	Environmental Document Summary
		living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is no impact on the agricultural and forestry resources in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	The Project would result in the conversion of between 551-1,265 acres of prime farmland and farmland of statewide importance and would contribute to the cumulative conversion of farmland in the geographic area.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. There is no mention of agricultural and forestry resources in the area. However, it seems that there may be no impact because agricultural and forestry resources are not mentioned on the slide that discusses significant impacts not mitigated.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial

Project ID	**Project Name**	**Environmental Document Summary**
		warehouse and distribution uses and a 1.62-acre detention basin on 47.25 acres. There is no impact on the agricultural and forestry resources in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is no impact on the agricultural and forestry resources in the area.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There will be no impact on the agricultural and forestry resources in the area.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of

Project ID	Project Name	Environmental Document Summary
		commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is no impact on the agricultural and forestry resources in the area.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is no impact on the agricultural and forestry resources in the area.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is no impact on the agricultural and forestry resources in the area.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant to no impact on the agricultural and forestry resources in the area.

Project ID	Project Name	Environmental Document Summary
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is no impact on the agricultural and forestry resources in the area.

6.2.3 Cumulative Impact Evaluation

6.2.3.1 Conversion of Farmland to Non-Agricultural Uses

Impact: The project's contribution to the cumulative conversion of Farmland of Local Importance to non-agricultural use is cumulatively considerable.

Threshold: Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use?

Cumulative Impact Analysis

The implementation of the cumulative related projects listed in Table 6.2-1 includes farmlands that are proposed to be converted to a non-agricultural use including cumulative related project RC-5 (Villages of Lakeview). Specifically related to cumulative related project RC-5, the mitigation measure proposed to reduce this potential impact includes the conservation of approximately five percent of the agricultural land classified as Prime Farmland, Unique Farmland, Farmland of Statewide Importance and Farmland of Local Importance; however, potential impacts would remain significant and unavoidable. The environmental document for MV-3 identified Farmland Conversion as being a significant and unavoidable impact. MV-4 did not identify Farmland Conversion as having a significant impact. Both MV-3 and MV-4 are considered large warehouse projects with structures and uses that would be similar in character to the structures and uses of the project. Many of the remaining cumulative projects within the cumulative geographic area for agriculture include residential or commercial type projects, and the associated environmental documents found the impacts to be less than significant. Because there are cumulative related projects such as RC-5, MV-3 and MV-4 that would result in significant farmland conversion impacts, the cumulative related projects would result in significant cumulative impacts due to the conversion of an agricultural use to a non-agricultural use.

As discussed in Section 4.2, the WLC project site is currently in agricultural use. Approximately 2,200 acres are currently farmed of the 2,361 acres on the project site that are designated as Farmland of

Local Importance. The implementation of the project would result in a maximum conversion of 2,361 acres to non-agricultural uses, and this conversion, while less than significant by itself, represents a significant contribution to a cumulative impact. As a result, the project's contribution to the cumulative conversion of Farmlands and land designated as Farmlands of Local Importance would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures:

The following mitigation measure has been developed to reduce the project's contribution to the cumulative impacts to agricultural uses and loss of Farmlands of Local Importance.

6.2.1: Prior to the issuance of any grading permit affecting land designated as "Farmland of Local importance" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Farmland of Local Significance" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.

Significance Level After Mitigation: Less than significant

The implementation of Mitigation Measure 6.2.1 would conserve agricultural land that is as productive as the onsite designated Farmland of Local Importance. This measure would conserve land located offsite that has equivalent or better agricultural economic productivity compared to the agricultural economic productivity of the project site. The implementation of this measure would reduce the project's contribution to the cumulative impact on Farmlands and land designated as Farmland of Local Importance to less than cumulatively considerable.

6.3 Air Quality

Cumulative effects to air quality are described in this section. A summary of the project's potential impacts to air quality issues is provided in Section 6.3.1. The cumulative impact geographic areas for air quality issues are provided in Section 6.3.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the air quality issues are discussed in Section 6.3.3. In addition, a brief summary of the significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.3.3 as well as applicable mitigation measures and significance determination after mitigation.

The cumulative projects identified in Table 6.3-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to air quality. These potentially cumulative impacts are documented in the following section.

6.3.1 Project Impact Findings

The project's effects to air quality are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.3 of the Revised Final Programmatic EIR Sections (RPFEIRS) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Conflict with or obstruct implementation of the applicable air quality plan? **Significant and Unavoidable with Mitigation, Section 4.3.6.1.**
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation? **Less than Significant, Section 4.3.5.2.**
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); **Significant and Unavoidable with Mitigation, Section 4.3.6.**
- Expose sensitive receptors to substantial pollutant concentrations? **Significant and Unavoidable with Mitigation, Section 4.3.6.2; Significant and Unavoidable with Mitigation, Section 4.3.6.3; and Significant and Unavoidable with Mitigation, Section 4.3.6.4; Significant and Unavoidable with Mitigation, Section 4.3.6.5;**
- Create objectionable odors affecting a substantial number of people? **Less than Significant, Section 4.3.5.1.**

6.3.2 Geographic and Temporal Scope

The geographic scope of analysis for cumulative air quality impacts is the Air Basin. The SCAQMD recommends using two different methodologies to analyze cumulative air quality impacts: (1) that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality;[1] and (2) that a project's consistency with the current AQMP be used to determine its potential cumulative impacts. Utilizing these two methodologies can determine a project's contribution to cumulative impacts. Should a project result in significant and unavoidable impacts, the project would most likely generate a cumulatively considerable impact, as the project alone is already exceeding respective SCAQMD significance thresholds. If a project's emissions were approaching significance thresholds with mitigation measures, these projects could also have a potential to cause a significant impact when combined with other projects within the project analysis area. Also, if a project was not consistent with AQMP, this could cause a cumulative impact as the AQMP is established to achieving air quality standards within the Basin.

Because the significance thresholds adopted by the SCAQMD are designed to assist the Basin in attaining the applicable NAAQS and CAAQS, the SCAQMD recommends application of the same significance thresholds for Project-level impacts and cumulative impacts. Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[2] Because the Project Site is located in a region that is in non-attainment for ozone, PM10, and PM2.5 under federal and/or state standards, should project specific emissions with mitigation exceed the SCAQMD daily significance thresholds, the Project's construction-related and operational emissions would be cumulatively considerable or contribute to cumulatively significant air quality impacts.

Although the Basin is considered the geographic area relative to cumulative impacts, it would be impracticable and unreasonable to review project-specific data and analyses related to regional emissions, localized impacts, health risks, and odors from all projects contemplated, entitled, and being built within the 6,745 square mile Basin. Instead this cumulative analysis was based on the limits set forth in the cumulative traffic analysis conducted by the project. This area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County, and the March JPA. The geographic area for these basin-wide projects is shown on Figure 6.3-1. For localized impacts, such as LSTs and odors, a geographic map for these cumulative projects are shown on Figure 6.3-2. Approximately 360 projects have been identified in the vicinity of the Project and are listed in Table 6.3-1. Out of those 360 projects, approximately 162 environmental documents were available. All 162 were reviewed to identify quantitative emissions for construction and operation of the respective projects. However, only 35 of the available documents contained construction and operation emissions. A mixture of results was identified for these 35 projects, 28 projects were found to have a less than significant impact, four projects were found to have a significant and unavoidable impact for operations and four projects were found to have a significant and unavoidable impacts for both construction and operations. Despite not having all the emissions from every one of the 360 cumulative projects within SCAB, a determination on the project's cumulative impact could still be assessed based on the SCAQMD's strategies in assessing a cumulatively considerable impact, where projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively

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[1] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

[2] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

considerable.[3] As shown in Section 4.3.6 Significant Impacts (Air Quality), project-specific impacts were found to result in significant and unavoidable impacts with mitigation.

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[3] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

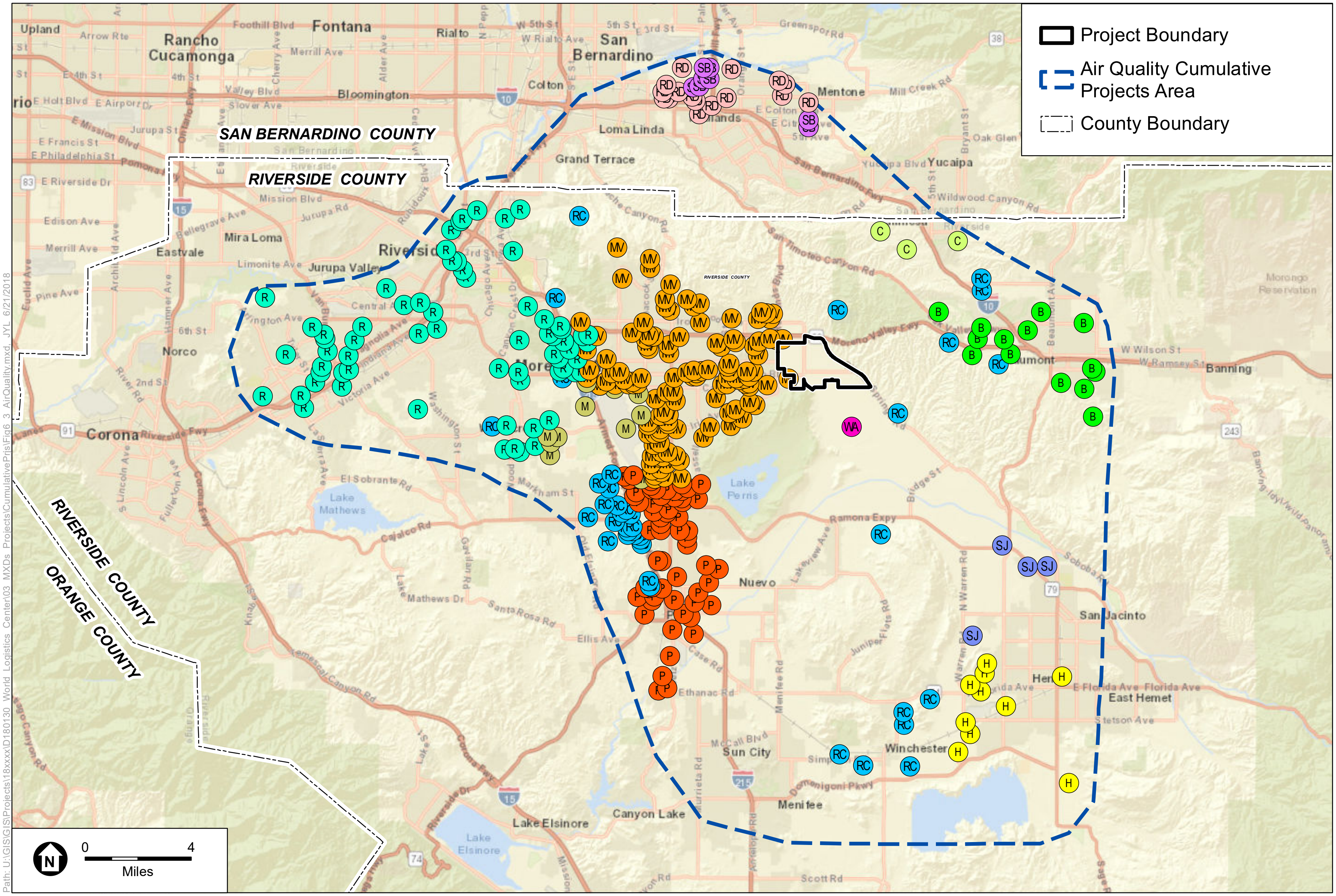

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

Figure 6.3-1
Air Quality Cumulative Projects Area

Table 6.3 - Air Quality Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The construction phase and project operation air quality impacts would exceed thresholds and remain significant after mitigation.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would result in the generation of pollutants both short and long-term and the level of impacts is considered significant, even with mitigation.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. After mitigation, no significant impact would occur to air quality.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The cumulative impacts of this project in conjunction with all other past, current, and future projects will have adverse impacts on regional air quality.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. No significant air quality impacts as compared to the Deutsch Specific Plan.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre

Project ID	**Project Name**	**Environmental Document Summary**
		parcel into 103 single-family residential lots. The project will have no impact on air quality.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on air quality.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on air quality.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would result in no impact to air quality.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's 2008 EIR , the Tres Cerritos Specific Plan would result in the development of 787 residential units, park and open space, on 154.7 acres. The project would result in no impact to air quality.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. The project would have a less than significant impact on air quality.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on air quality.

Project ID	**Project Name**	**Environmental Document Summary**
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The project would have a less than significant impact on air quality and is consistent with SCAG's Regional Comprehensive Plan and Guide.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact with mitigation incorporated on air quality.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. The project would have significant and unavoidable impacts on air quality.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project woul have significant and unavoidable impacts on air qualtiy.
M-9	TM 34748	A Negative Declaration was prepared for the project, therefore, the project would have no significant effect on the environment.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on air

Project ID	**Project Name**	**Environmental Document Summary**
		quality.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. Project would have significant air quality impacts.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project is consistent with the Air Quality Management Plan and impacts to air quality would be less than significant.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative

Project ID	**Project Name**	**Environmental Document Summary**
		Declaration, this project would subdivide 36.24 acres for residential purposes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project would produce excessive volatile organic

Project ID	Project Name	Environmental Document Summary
		compound emissions, but would have a less than significant impact on air quality with mitigation.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project would have a less than significant impact on air quality.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project would have a less than significant impact on air quality with mitigation measures incorporated.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative

Project ID	Project Name	Environmental Document Summary
		Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project would have a less than significant impact on air quality.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. Per the negative declaration, the project would have a less than significant impact on air quality.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have significant and unavoidable impacts to air quality.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. Emissions during project construction would violate air quality standards for VOCs and NO_x and would have a significant direct and cumulative impact on air quality.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project would exceed the South Coast Air Quality Management District recommended regional significance thresholds for NO_x and would have a significant impact on air quality.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project would exceed the South Coast Air Quality Management District recommended regional significance thresholds for NO_x and would have a significant direct and cumulative impact on air quality.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. The project would have a less than significant impact on air quality.

Project ID	**Project Name**	**Environmental Document Summary**
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. The project would have a significant impact on air quality, even with mitigation.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project would have a less than significant impact on air quality with mitigation.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project would have a less than significant impact on air quality.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. The project would have a less than significant impact on air quality with mitigation.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project would have a less than significant impact on air quality with mitigation incorporated.

Project ID	Project Name	Environmental Document Summary
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would have significant direct and cumulative impacts on air quality due to the exposure of sensitive receptors to substantial pollutant concentrations.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. The project would generate NO_x in exceedance of South Coast Air Quality Management District regional thresholds and be inconsistent with the current Air Quality Management Plan. The project would have a

Project ID	Project Name	Environmental Document Summary
		significant impact on air quality.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project would result in significant individual and cumulative impacts to air quality from emissions of CO, PM_{10}, NO_X, and reactive organic gases.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project is not consistent with the Regional Growth Management Strategy or Air Quality Management Plan and would have a significant impact on air quality.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. Per the Negative Declaration, the project would have a less than significant

Project ID	Project Name	Environmental Document Summary
		impact on air quality.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project would have a less than significant impact on air quality.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant

Project ID	Project Name	Environmental Document Summary
		environmental impacts.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. The project would have a less than significant impact on air quality.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project would have a less than significant impact on air quality.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family

Project ID	Project Name	Environmental Document Summary
		residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning

Project ID	Project Name	Environmental Document Summary
		Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project would have a less than significant impact on air quality with mitigation incorporated.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. Per the Negative Declaration, the project would have a less than significant impact on air quality.

Project ID	Project Name	Environmental Document Summary
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a direct a cumulative impact on air quality.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have a less than significant effect on air quality with mitigation incorporated.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would not have a significant impact on air quality.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The Project would contribute to an increase of emissions due to operational NOx, and would have a significant impact on air quality.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have a less than significant impact on air quality.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a significant impact on air quality.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The

Project ID	Project Name	Environmental Document Summary
		project would have a significant impact on air quality and would exceed the SCAQMD daily regional emissions thresholds for VOC and NO_x.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would not have any related long-term air quality impacts.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have a significant impact on air quality.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. Project would have an impact on air quality and regional NO_x emissions would exceed SCAQMD operational threshold after implementation of mitigation measures.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project documentation provided no information on significance of air quality impacts.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a significant impact on air quality.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have a significant impact on air quality.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with

Project ID	Project Name	Environmental Document Summary
		industrial/warehouse buildings for a total of 1,750,000 sf. The project has mitigation measures in place for air quality impacts, no information on if impacts are significant after mitigation implemented.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project will have a less than significant impact on air quality.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project would have a cumulative impact on air quality.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have significant air quality impacts on air pollutant emissions.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on air quality.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project has mitigation measures for air quality impacts, no information given on significance of impacts after mitigation.

Project ID	Project Name	Environmental Document Summary
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project would have significant impacts on air quality.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project would have a less than significant impact on air quality.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. The project would have a less than significant impact on air quality with mitigation incorporated.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. Per the City of Perris' 2009 Initial Study, the project would have a potentially significant impact on air quality.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project would have a less than significant impact on air quality.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. The project would have a less than significant impact on air quality.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would not have a

Project ID	**Project Name**	**Environmental Document Summary**
		significant impact on air quality.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. The project would have cumulatively significant impacts to air quality.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. The project would have significant air quality impacts, even with mitigation incorporated.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres. The project would have significant air quality impacts, even with mitigation incorporated.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. The project would have a less than significant impact on air quality.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project would have significant impacts on air quality.

Project ID	**Project Name**	**Environmental Document Summary**
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. The project would have potentially significant impacts on air quality.
RC-5	Villages of Lakeview - Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project would have significant impacts to air quality.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project would have significant air quality impacts of Short-term and long-term cumulative impacts of VOC, NO_x, CO, PM_{10} and $PM_{2.5}$.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. The project would have no impact on air quality.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking,

Project ID	**Project Name**	**Environmental Document Summary**
		and three detention basins on 54.4 acres. The project would have significant impacts on air qualtiy.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. The project would have a less than significant impact on air quality.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The project would have a significant impact on air quality.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project would have a significant impact on air quality.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project would have a less than significant impact on air quality with mitigation incorporated.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. The project would have a less than significant impact on air quality with mitigation incorporated.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an

Project ID	Project Name	Environmental Document Summary
		approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project would have significant impacts to air quality.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. The project would have less than significant impacts to air quality.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. The project would have a less than significant impact on air quality.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally the Project seeks approval to remove 5 acres from an Agricultural Preserve. The project would have less than significant impacts on air quality. The project would have a less than significant impact on air quality with mitigation incorporated.
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. The project would have a less than significant impact on air quality with mitigation incorporated.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story

Project ID	**Project Name**	**Environmental Document Summary**
		88-room hotel with rooms, suites, and 97 parking spaces. The project would have a less than significant impact on air quality.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. Project would have a less than significant impact on air quality with mitigation incorporated.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking. The project would have a less than significant impact on air quality with mitigation incorporated.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino’s 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino’s 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-3	Prologis #12	Per the County of San Bernardino’s 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a “high cube” warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East

Project ID	**Project Name**	**Environmental Document Summary**
		Valley/General commercial to East Valley/regional industrial on 27.42 acres. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. The project would have a less than significant impact on air quality with mitigation incorporated.
SB-6	Prologis #8	The project would have a less than significant impact on air quality.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. The project would have a less than significant impact on air quality.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. The project would have a less than significant impact on air quality.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project would have a less than significant impact on air quality with mitigation incorporated.

6.3.3 Cumulative Impact Evaluation

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. Because the Air Basin is currently in nonattainment of the Federal ambient air quality standards for ozone, PM_{10}, and $PM_{2.5}$, related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance.

6.3.3.1 Odors

Impact: *The project's contribution to cumulative objectionable odors would be less than cumulatively considerable.*

Threshold:	Would the project create objectionable odors affecting a substantial number of people?

Cumulative Impact Analysis

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

As stated previously in Section 4.3.5.1, diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Currently, there are six occupied single-family homes and associated ranch/farm buildings in various locations on the project site. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Diesel exhaust would also be emitted during operation of the project from the trucks that would visit the project site. However, the concentrations would not be at a level to result in a negative odor response at nearby sensitive or worker receptors. In addition, modern emission control systems on diesel vehicles since 2007 virtually eliminate diesel's characteristic odor. Further, project mitigation requires that 2010 or newer diesel vehicles be used during construction.

During blow-down maintenance activities, natural gas odors will be present around the SDG&E Compressor Plant located south of the project site. When this portion of the WLC Specific Plan is developed, these odors will occasionally be detectable from the industrial warehouse properties adjacent to the SDG&E facility. These odors will be infrequent and odorized natural gas will not be present in high concentrations. Therefore, potential odor impacts from on-site natural gas operations are considered to be less than significant and do not require mitigation.

Adherence to applicable provisions of these rules is standard for all development within the Basin. In addition, conditions for the design of waste storage areas on the proposed site would be established through the permit process to ensure enclosures are appropriately designed and maintained to prevent the proliferation of odors. Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on-site uses would be adequately managed.

Of the 162 environmental documents that were evaluated, all found that the respective projects would not create objectionable odors that will affect a substantial number of people and many projects were found to have a less than significant impact or no impact at all. Furthermore, Project-specific impacts would be less than significant and would not exceed the AQMDs significance threshold for odors.[4] Therefore, impacts associated with this issue would be considered cumulatively less than significant and no mitigation is required.

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[4] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

Significance Level Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant.

6.3.3.2 Long-term Microscale (CO Hot Spot) Emissions

Impact: The project's contribution to cumulative impacts associated with the violation of any air quality standard would be less than cumulatively considerable.

Threshold: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

For CO, the applicable thresholds are:

- California State one-hour CO standard of 20.0 ppm; and

- California State eight-hour CO standard of 9.0 ppm.

Cumulative Impact Analysis

As identified in Section 4.3.5.2, no significant CO hot spot impacts would occur due to project operations. The SCAQMD anticipates that CO emissions in the future will decrease with advances in technology. As previously identified, background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, ambient CO concentrations, from cumulative projects within the Basin, in the future years would generally be lower than existing conditions.

For this project analysis, peak hour traffic volumes, at the intersections with the highest traffic volumes and LOS E or F before mitigation were identified and evaluated for each condition analyzed. In addition, the emission factors for "all" vehicle classes are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project mitigation reductions from requiring that all diesel trucks are model year 2010 or newer. The project evaluation found that no CO hot spot impacts would occur at intersections with the highest traffic volumes and ranged as LOS E or F.

Furthermore, out of the 162 environmental documents within the Basin that were reviewed, all projects found that no hot spot impacts would occur with their respective projects. Similar to the project, intersections with the highest traffic volumes and worst LOS were identified and evaluated. No exceedance of significance thresholds was estimated. Furthermore, Project-specific impacts would be less than significant and would not exceed the AQMDs significance threshold for CO hot spot emissions.[5] Based on the analysis and SCAQMD methodology, it is reasonable to assume that a less than significant cumulative CO impact would occur.

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[5] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

Significance Level Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant.

6.3.3.3 Air Quality Plan Management Plan Consistency

Impact: *The project's contribution to the cumulative conflict with implementation of the applicable air quality plan would be cumulatively considerable.*

Threshold: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Cumulative Impact Analysis

As previously stated in Section 4.3.6, according to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD 1993, page 12-3).

As discussed previously in Section 4.3.6.2 Construction Emissions, construction activities associated with the project would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X.

In addition, out of the 162 environmental documents that were evaluated, 62 were found to be completed with construction or currently undergoing construction. Therefore, 62 potentially cumulative projects are located within the Basin that could undergo construction activities during the project's 15-year construction period. However, even if none of these 62 Basin-wide cumulative projects undergo construction while the project is under construction, a cumulatively considerable impact will occur because projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[6] As previously stated the Project-specific construction emissions presented in Section 4.3.6.2 exceed the applicable SCAQMD significance thresholds for VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; therefore, a cumulatively considerable impact will occur, despite any potential construction activity associated with another Basin-wide project.

The SCAB is classified as nonattainment for the Federal ambient air quality standards for ozone, PM_{10}, or $PM_{2.5}$; therefore, according to this criterion, the project would not be consistent with the AQMP. The regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. The project does not meet this criterion. As previously identified in Section 4.3.6.4 Long-Term Operational Emissions, the long-term operation and combined construction and operational emissions of the project would contribute to long-term regional air pollutants despite implementation of mitigation measures.

Out of the 162 Basin-wide environmental documents, five basin wide cumulative projects were identified as exceeding VOC significance thresholds and seven projects were identified as exceeding

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[6] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

NOX emissions. Those projects that were found to exceed the SCAQMD thresholds were primarily industrial land uses or larger single-family residential developments. The number of each project type is provided in Table 6.3B. As shown, in Table 6.3B, up to 18 multi-family residential projects have been proposed in the Basin, in combination with 43 single-family residences and 36 industrial projects.

The cumulative impacts of all 360 projects have been taken into consideration with the AQMD thresholds. However, a cumulatively considerable impact will occur because projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[7] As previously stated the Project-specific operation emissions presented in Section 4.3.6.4 exceed the applicable SCAQMD significance thresholds for VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; therefore, a cumulatively considerable impact will occur, despite the potential operation of any of the identified Basin-wide cumulative projects.

Table 6.3-2: Air Quality Cumulative Operation Emissions

Type of Project	Number Identified within Moreno Valley
Business Park, Light Industrial	5
Industrial	36
Hotel	1
Medical	2
Mixed Use	4
Office	1
Residential - Assisted Living	1
Mixed Use – Residential	3
Single-Family Residential	43
Multi-Family Residential	18
Retail	11

Source: City of Moreno Valley, 2018
Mixed Use = Retail and residential combined plans
Mixed Use - Residential = Single and Multi-Family Residences

Significance Level Before Mitigation: Project construction would result in cumulatively considerable and potentially significant cumulative air impacts. Implementation of the project would contribute to significant long-term cumulative air quality impacts.

Mitigation Measures: As indicated in Section 4.3.6.1 Air Quality Management Plan Consistency, to facilitate monitoring and compliance, applicable SCAQMD regulatory requirements will be implemented. **Mitigation Measures 4.3.6.2A, 4.3.6.2B, 4.3.6.2C, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A** are required and shall be incorporated in all project plans, specifications, and contract documents.

Significance Level After Mitigation: As noted above, construction and operation of the project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the

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[7] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

implementation of mitigation measures, emissions associated with the project cannot be reduced below the applicable thresholds. The project In the absence of feasible mitigation to reduce the project's emission of criteria pollutants to below SCAQMD construction and operation thresholds, potential air quality impacts resulting from construction and operation will remain significant and unavoidable. Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[8] Even with mitigation the Project-specific emissions in combination with any of the Basin-wide cumulative projects that have been identified, will result in a cumulative considerable impact.

6.3.3.4 Construction Emissions

Impact: *The project's contribution to the cumulative exceedance of applicable daily thresholds that may affect sensitive receptors would be cumulatively considerable.*

Threshold: Would the project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?

For construction operations, the applicable daily thresholds are:

- 75 pounds per day of ROC/VOC;

- 100 pounds per day of NOX;

- 550 pounds per day of CO;

- 150 pounds per day of PM10;

- 150 pounds per day of SOX; and

- 55 pounds per day of PM2.5.

Cumulative Impact Analysis

The construction analysis discussed in Section 4.3.6.2 Construction Emissions found that construction activities associated with the project would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X. Fugitive dust and exhaust emissions during the anticipated peak construction day for the project would also exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM_{10} is an average of 88 percent dust and 12 percent exhaust. $PM_{2.5}$ has an average of 50 percent dust and 50 percent exhaust. Accordingly, projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[9]

In addition, out of the 162 environmental documents that were evaluated, 62 were found to be completed with construction or currently undergoing construction as of May 2018. Therefore, 62

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[8] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

[9] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

potentially cumulative projects are located within the Basin that could undergo construction activities during the project's 15-year construction period. However, even if none of these 62 Basin-wide cumulative projects undergo construction while the project is under construction, a cumulatively considerable impact will occur because projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[10] As previously stated the Project-specific construction emissions presented in Section 4.3.6.2 exceed the applicable SCAQMD significance thresholds for VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; therefore, a cumulatively considerable impact will occur, despite any potential construction activity associated with another Basin-wide project.

Significance Level Before Mitigation: Project construction would result in cumulatively considerable and potentially significant cumulative air impacts.

Mitigation Measures: As identified in Section 4.3.6.2, **Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2C** and **4.3.6.2D** to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403.

Significance Level After Mitigation: Despite the implementation of mitigation measures, emissions associated with construction of the project cannot be reduced below the applicable thresholds. In the absence of feasible mitigation to reduce the project's emission of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from construction of the Project and potential construction of any of the identified Basin-wide cumulative projects will still be considered cumulatively significant.

6.3.3.5 Localized Construction and Operational Air Quality Impacts

Impact: *The project's contribution to the cumulative exceedance of localized daily thresholds that may affect sensitive receptors would be cumulatively considerable.*

Threshold:	Would the project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?
	The applicable localized thresholds are:
	- 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction or operation;
	- 0.18 ppm (State 1 hour), 0.100 ppm (National 1 hour), and 0.030 ppm (Annual) of NOX during construction or operation;
	- 10.4 µg/m3 (24 hours) 1.0 µg/m3 (Annual) of PM10 during construction
	- 2.5 µg/m3 (24 hours) and 1.0 µg/m3 (Annual) of PM10; during operation and
	- 2.5 µg/m3 (24 hours) of PM2.5 during operation
	- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operations to assess the significance of the activities.

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[10] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

Cumulative Impact Analysis

The localized construction and operational analyses provided in Section 4.3.6.3, Localized Construction and Operational Air Quality Impacts, found that without mitigation, the project would exceed the localized significance thresholds for PM_{10} for one or more of the LST assessment years (2025, 2032, or 2040) analyzed under this revised LST assessment. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the ambient air quality standards for PM_{10}. Accordingly, projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[11]

Out of the 35 environmental documents that provided estimated project emissions, seven of those documents provided a quantitative analysis for localized construction thresholds. Of those seven quantitative localized construction threshold analyses, six of the identified projects were found to have a less than significant impact and one project was found to have a significant and unavoidable impact. However, none of these seven projects are within 500 feet of the project site. Despite the results of the environmental document review, due to the findings of the project's localized threshold analysis the air pollutant emissions from the project would result in a significant cumulative impact and could exceed or contribute to an exceedance of the ambient air quality standards for PM_{10}.

Significance Level Before Mitigation: Project construction and operation would result in cumulatively considerable significant air impacts.

Mitigation Measures: As identified in Section 4.3.6.2, **Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2C** and **4.3.6.2D** to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403. Additionally, **Mitigation Measures 4.3.6.3A**, **4.3.6.3B**, **4.3.6.3C**, **4.3.6.3D** and **4.3.6.3E** are required to reduce emissions of criteria pollutants during project operations.

Significance Level After Mitigation: Significant and unavoidable. After application of mitigation, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual) all assessment conditions. In addition, the project would continue to exceed the localized significance thresholds at offsite receptors for PM_{10} (24-hour and annual). Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[12]

In summary, those residents inside and outside the project boundaries could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.

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[11] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

[12] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

Particulate matter can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

6.3.3.6 Long-Term Operational Emissions

Impact: *The project's contribution to the exceedance of cumulative operational thresholds would be cumulatively considerable.*

Threshold: Would the project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants?

For long-term operations, the applicable daily thresholds are:

- 55 pounds of VOC;
- 55 pounds of NOX;
- 550 pounds of CO;
- 150 pounds of PM10;
- 55 pounds of PM2.5; and
- 150 pounds of SOX.

Cumulative Impact Analysis

Long-term air pollutant emission impacts that would result from the project are those associated with stationary sources and mobile sources involving any project-related change (e.g., emissions from the use of motor vehicles by project-generated traffic). Cumulative long-term impacts would take into consideration both the project related emissions and those generated by the 360 Basin-wide cumulative projects that have been identified.

As identified in Section 4.3.6.4 Long-Term Operation Emissions, operational emissions for the project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the "worst-case" 2018 scenario. Furthermore, emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout. However, because the project-specific emissions exceed the SCAQMD significance thresholds, this project is considered by the SCAQMD to be cumulatively considerable, despite the potential operation of any of the identified Basin-wide cumulative projects.

Significance Level Before Mitigation: Operation of the project would result in potentially significant cumulative air impacts.

Mitigation Measures: Section 4.3.6.3 Localized Construction and Operational Air Quality Impacts identified **Mitigation Measures 4.3.6.3A** through **4.3.6.3E** that would reduce operational emissions of criteria pollutants associated with the project. Additionally, **Mitigation Measure 4.3.6.4A**, was provided in Section 4.3.6.4 Long-Term Operational Emissions and is required to further reduce operational emissions.

Significance Level After Mitigation: Even with mitigation, operational emissions generated by the project are still significant. Mitigated operational project emissions in combination with the 360 cumulative projects that have been identified in the Basin, emissions of criteria pollutants will still exceed SCAQMD significance thresholds resulting in a significant and unavoidable cumulative operational air quality impact.

6.3.3.7 Impacts to Sensitive Receptors

Impact: *The project's contribution to the cumulative exposure of substantial pollutant concentrations on sensitive receptors would be cumulatively considerable.*

Threshold: Would the project expose sensitive receptors to substantial pollutant concentrations?

For localized air quality impacts, the applicable thresholds are:

- 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction and operation;

- 0.18 ppm (State 1 hour), 0.100 ppm National 1 hour), and 0.030 ppm (Annual) of NOX during construction and operation;

- 10.4 µg/m3 (24-hours) and 1 µg/m3 (Annual) of PM10 during construction

- 2.5 µg/m3 (24 hours) and 1.0 µg/m3 (Annual) of PM10 during operations; and

- 2.5 µg/m3 (24 hours) of PM2.5 during operations.

- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance threshold for operations.

- For health risk impacts, the applicable thresholds are:

- Maximum Individual Cancer Risk: An increased cancer risk greater than 10 in 1 million at any receptor location;

- Cancer burden: An increase in cancer burden of 0.5 or

- Non-cancer chronic hazard indices (HI): A cumulative increase for any target organ system exceeding 1.0 at any receptor location.

Cumulative Impact Analysis

Project-Specific Localized Risks

Cancer Risk for Sensitive/Residential Receptors. The analysis performed in Section 4.3.6.5 Impacts to Sensitive Receivers, found that the project would exceed the SCAQMD's cancer risk significance threshold of 10 in a million prior to the application of mitigation and would represent a significant impact. Construction impacts contribute the greatest proportion of the total impact presented in the findings presented in Section 4.2.6.5. In addition, the estimated maximum cancer risk anywhere in the model domain is less than the 10 in a million threshold, impact will therefore be less than significant without mitigation. Overall, without mitigation, the project is expected to have a significant impact mainly due to diesel PM emissions from construction activities.

Estimates of Cancer Risk for School Site Receptors. Section 4.3.6.5 found that the maximum cancer risk is at Ridgecrest Elementary School at less than 2 in a million. Therefore, impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.

Estimates of Cancer Risk for Worker Receptors. The highest worker cancer risk estimates, from the project, prior to the application of mitigation is less than 5 in one million and is at an onsite location. Therefore, cancer risk for worker receptors anywhere in the revised HRA's study area is less than the 10 in one million significance threshold. Projected impacts are less than significant without mitigation.

Estimates of Cancer Burden. Cancer risks, from the project, were estimated at the geographical center (centroid) of census tracts that are within the study area of the HRA. For the 70-year exposure duration with the inclusion of the Current OEHHA Guidance, the cancer burden is estimated to be 0.09 out of a population of about 63,090 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.

Regional Freeway Network Risk. The analysis presented in Section 4.3.6.5 found that based on the results for the construction plus operation scenario, without mitigation, only a small segment (approximately one mile) along SR60 that is immediately north of the project boundary will potentially have an incremental cancer risk exceeding the SCAQMD 10 in one million thresholds; at an approximate distance of 2.5 miles away from the project boundary, the potential increment cancer risk along SR60 would be less than 2 in one million. Based on results for 30 years of the full project buildout scenario, without mitigation, no segment along SR60 would exceed the 10 in one million cancer risk threshold; at a distance of less than two miles from the project boundary, the incremental cancer risk is less than 2 in one million.

*Informational Purposes: Morbidity and Mortality***.** Exposure to the Project's DPM emissions prior to mitigation would result in an increase in mortality of approximately 0.00011 additional cases per year at the location where the project has its maximum impact from DPM emissions or 0.001 additional cases over all of the census tracts contained in the modeling domain.

Section 4.3.6.5 summarizes the estimates of the various morbidity health endpoints due to the emissions from the project without mitigation. There is no established threshold or approved methodology for calculating morbidity and mortality; however, the project would not result in a single new added case of a quantified health endpoint either at location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment.

Out of the 360 Basin-wide cumulative projects were identified, seven out of those projects provided a quantified health risk assessment and less than significant impacts were identified for all seven projects. However, because the project-specific emissions exceed the SCAQMD significance thresholds, this project is considered by the SCAQMD to be cumulatively considerable, despite the potential operation of any of the identified Basin-wide cumulative projects.

Significance Level Before Mitigation: Operation of the project would result in potentially significant cumulative air impacts.

Mitigation Measures: The mitigation measures previously identified in Section 4.3 are required (**Mitigation Measures 4.1.6.1A, 4.3.6.2A, 4.3.6.2B, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.3E**) to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project. Additionally, **Mitigation Measure 4.3.6.5A** is required to ensure that significant health risk does not occur at on-site residential receptors.

Significance Level After Mitigation: The cancer risks are substantially lower after mitigation. The SCAQMD cancer risk significance threshold would not be exceeded in any areas outside of the project boundary. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM associated with the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when the "Current OEHHA Guidance" assigns large age sensitivity factors to the first few years of the 30-year exposure duration. The cancer risk value at all sensitive receptor locations will be below the significance threshold after mitigation, the cancer risk impact to sensitive receptors will therefore be less than significant and not result in a cumulatively considerable impact.

6.4 Biological Resources

Cumulative effects to biological resources are described in this section. A summary of the WLC project's potential impacts to biological resource issues is provided in Section 6.4.1. The cumulative impact geographic area for biological resource issues is provided in Section 6.4.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the biological resources issues are discussed in Section 6.4.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.4.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.4-1 and 6.4-2 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to biological resources. These potentially cumulative impacts are documented in the following section.

6.4.1 Project Impact Findings

The project's effects to biological resources are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.4 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Have a substantial adverse effect, either directly or indirectly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS; **Less than Significant with Mitigation, Section 4.4.6.1.**
- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS; **Less than Significant with Mitigation, Section 4.4.6.4.**
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS; **Less than Significant with Mitigation, Section 4.4.6.3.**

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; **Less than Significant with Mitigation, Section 4.4.6.3.**
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites; **Less than Significant, Section 4.4.5.2.**
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. **Less than Significant, Section 4.4.5.1; Less than Significant with Mitigation Section 4.4.6.2.**

As shown there are no unmitigated project-specific significant and unavoidable impacts to biological resources identified in the FEIR.

6.4.2 Geographic and Temporal Scope

The cumulative impact geographic area for biological resources is the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) area, which also includes the San Jacinto Wildlife Area (SJWA). Refer to Figure 6.4 for projects that could potentially result in a cumulative impact to the SJWA. The MSHCP establishes a comprehensive, multi-jurisdictional program focused on the conservation of 146 species and their habitats in western Riverside County. As a permittee, the City of Moreno Valley reviews all public and private development and construction projects and other land use plans/activities within the MSHCP area to ensure compliance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP. The MSHCP is designed to mitigate cumulative impacts to biological resource across the MSHCP planning area through a variety of methods, including fee payment, direct habitat acquisition and conservation easement dedication.

A lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program ... that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.'' [Guidelines § 15064(11) (3).]

The project and the other cumulative projects fall within the jurisdiction of the MSHCP. The MSHCP involves the assembly and management of a 500,000-acre Conservation Area for the conservation of natural habitats and their constituent wildlife populations. The MSHCP permits development of lands and take of species "in exchange for the assembly and management of a coordinated MSHCP Conservation Area" (Riverside County, 2004). The Implementing Agreement authorized the "take of 146 species covered by the MSHCP (termed "covered species"), including state and federally listed species, as well as other identified sensitive species." The "take" authorization includes impacts to the habitats of the covered species. The MSHCP requires any new development to pay fees to support the financing for the MSHCP, to be applied toward acquisition and management of Conservation Area land. The fees are intended to meet mitigation requirements for the California Environmental Quality Act, the federal Endangered Species Act, and the California Endangered Species Act.

Cumulative projects identified within the biological resources cumulative impact area are summarized in Table 6.4 and Figure 6.4.

Table 6.4 – Biological Resource Cumulative Project Summary

Project ID	**Project Name**	**Environmental Document Summary**
B-2	**Tournament Hills 3**	**EIR**
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. There is a significant impact on the biological resources in the area. The loss of Sage grub and a golden eagle habitat is unmitigatable and significant.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. There is a significant impact on the biological resources in the area, even after mitigation measures. The EIR stated that the impact will require a Statement of Considerations.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. There is no significant impact on the biological resources in the area.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would

Project ID	**Project Name**	**Environmental Document Summary**
		develop 470 single family detached units and 60 multi-family units on a 128 acre site. There is no impact on the biological resources in the area.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. There is no impact on the biological resources in the area with mitigation measures.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. There is no impact on the biological resources in the area.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. There is a less than significant to no impact on the biological resources in the area.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. There would be a potentially significant impact unless mitigation is incorporated

Project ID	Project Name	Environmental Document Summary
		on the biological resources in the area.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. There is a significant impact on the biological resources in the area.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. There is no impact on the biological resources in the area.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. There is no impact on the biological resources in the area.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. There is a cumulative impact to the biological resources in the area.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. After mitigation measures, there is no impact on the biological resources in the area.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456

Project ID	**Project Name**	**Environmental Document Summary**
		residences, and recreational spaces of 79.2 acres. There is a less than significant impact on the biological resources in the area.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The supplemental EIR does not mention an impact on the biological resources in the area.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet’s 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. With mitigation measures, there is a less than significant to no impact on the biological resources in the area.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR the project would result in the development of a 130 acre business park . There is no impact on the biological resources in the area.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. There is a less than significant impact on the biological resources in

Project ID	**Project Name**	**Environmental Document Summary**
		the area.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. There is a less than significant impact on the biological resources in the area.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. There is ales than significant to no impact on the on the biological resources in the area.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is no impact on the biological resources in the area with mitigation measures.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the biological resources in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the

Project ID	Project Name	Environmental Document Summary
		project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the biological resources in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the biological resources in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the biological resources in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the biological resources in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the biological resources in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the biological resources in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the biological resources in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
		Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the biological resources in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the biological resources in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is a less than significant to no impact on the biological resources in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the biological resources in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. With mitigation measures, there is no impact on the biological resources in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is no impact on the biological resources in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012

Project ID	**Project Name**	**Environmental Document Summary**
		MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the biological resources in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the biological resources in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the biological resources in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the biological resources in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no biological impact on the resources in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014

Project ID	**Project Name**	**Environmental Document Summary**
		Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the biological resources in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the biological resources in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is less than significant to no impact on the biological resources in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the biological resources in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the biological resources in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately

Project ID	**Project Name**	**Environmental Document Summary**
		71 acres. There is no impact on the biological resources in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the biological resources in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is no impact on the biological resources in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is less than a significant to not impact on the biological resources in the area with mitigation measures.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the biological resources in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically state whether or not that is an impact on the biological resources in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant to no impact on the biological resources in the area with mitigation measures.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped.

Project ID	**Project Name**	**Environmental Document Summary**
		There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the biological resources in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the biological resources in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the biological resources in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the

Project ID	Project Name	Environmental Document Summary
		project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact on the biological resources in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does specifically mention an impact on the biological resources in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is a less than significant to no impact on the biological resources in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states there will be no significant impact to the environment in the area. It does not specifically mention if there is an impact on the biological resources in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the biological resources in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build

Project ID	Project Name	Environmental Document Summary
		three types of residential product for a total of 216 dwelling units. There is no impact on the biological resources in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is no impact on the biological resources in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant to no impact on the biological resources in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the biological resources in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the biological resources in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is a less than significant to no impact on the biological resources in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the resources in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno

Project ID	**Project Name**	**Environmental Document Summary**
		Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the biological resources in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the biological resources in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is a less than significant impact on the biological resources in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant to no impact on the biological resources in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a

Project ID	**Project Name**	**Environmental Document Summary**
		light industrial zone. There is a less than significant to no impact on the biological resources in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the biological resources in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the biological resources in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the biological resources in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution stated that there would be no significant impact on the environment. It did not specifically mention the impact on biological resources in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. The notice states that there will be no significant impact on the environment. It does not

Project ID	Project Name	Environmental Document Summary
		specifically mention an impact on the biological resources in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the biological resources in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the biological resources in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant to no impact on the resources in the biological resources in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from

Project ID	Project Name	Environmental Document Summary
		the original project will be included in the modified project. There is a less than significant impact on the biological resources in the area with mitigation measures
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is no impact on the biological resources in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the biological resources in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the biological resources in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the biological resources in the area.

Project ID	Project Name	Environmental Document Summary
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the biological resources in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the biological resources in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution stated that there was no significant impact on the environment. It did not specifically mention an impact on the biological resources in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the biological resources in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no significant impact on the environment in the area. It does not specifically mention an impact on the biological resources in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this

Project ID	Project Name	Environmental Document Summary
		project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention whether or not there is an impact on the environment in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the biological resources in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the biological resources in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the biological resources in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the biological resources in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact

Project ID	**Project Name**	**Environmental Document Summary**
		on the biological resources in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the biological resources in the area.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. There is a less than significant to no impact on the biological resources in the area.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses

Project ID	Project Name	Environmental Document Summary
		would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is no impact on the biological resources in the area.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. There is a less than significant impact on the biological resources in the area with mitigation

Project ID	**Project Name**	**Environmental Document Summary**
		measures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. There is no impact on the biological resources in the area.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which

Project ID	Project Name	Environmental Document Summary
		would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is a less than significant impact on the biological resources in the area.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a less than significant impact on the biological resources in the area.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed

Project ID	**Project Name**	**Environmental Document Summary**
		construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is a potentially significant impact to the biological resources in the area.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a less than significant impact on the biological resources in the area with mitigation measures.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is a potentially significant impact on the biological resources, including candidate, sensitive, or special status species, in the area.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the biological resources in the area.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the biological resources in the area.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping

Project ID	**Project Name**	**Environmental Document Summary**
		center on 68 acres. There is a potential significant impact on the biological resources in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is no impact on the biological resources in the area.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a potentially significant impact on the biological resources in the area unless mitigation is incorporated
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. There is a potentially significant impact on the biological resources in the area unless mitigation is incorporated.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is a less

Project ID	**Project Name**	**Environmental Document Summary**
		than significant impact on the biological resources in the area.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is a less than significant impact on the biological resources in the area.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is a less than significant impact on the biological resources in the area with mitigation measures.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is a less

Project ID	Project Name	Environmental Document Summary
		than significant impact on the biological resources in the area with mitigation measures.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. There is a less than significant impact on the biological resources in the area with mitigation measures.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a less than significant impact on the biological resources in the area with mitigation measures.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this

Project ID	Project Name	Environmental Document Summary
		project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The public slides do not mention any significant impacts on the biological resources in the area.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is a less than significant impact on the biological resources in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is a less than significant impact on the biological resources in the area with mitigation measures.
RC-12	Cores Industrial Partners	Per Riverside County’s October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There is no impact on the biological resources in the area.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the

Project ID	**Project Name**	**Environmental Document Summary**
		EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The response to late comments do not mention an impact on the biological resources in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is a potentially significant impact on the biological resources in the area.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is a less than significant impact on the biological resources in the area with mitigation measures.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is no impact on the biological resources in the area.
RC-38	San Gorgonio Crossings	Per Riverside County's

Project ID	Project Name	Environmental Document Summary
		May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant impact on the biological resources in the area with mitigation measures.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact on the biological resources in the area with mitigation measures.

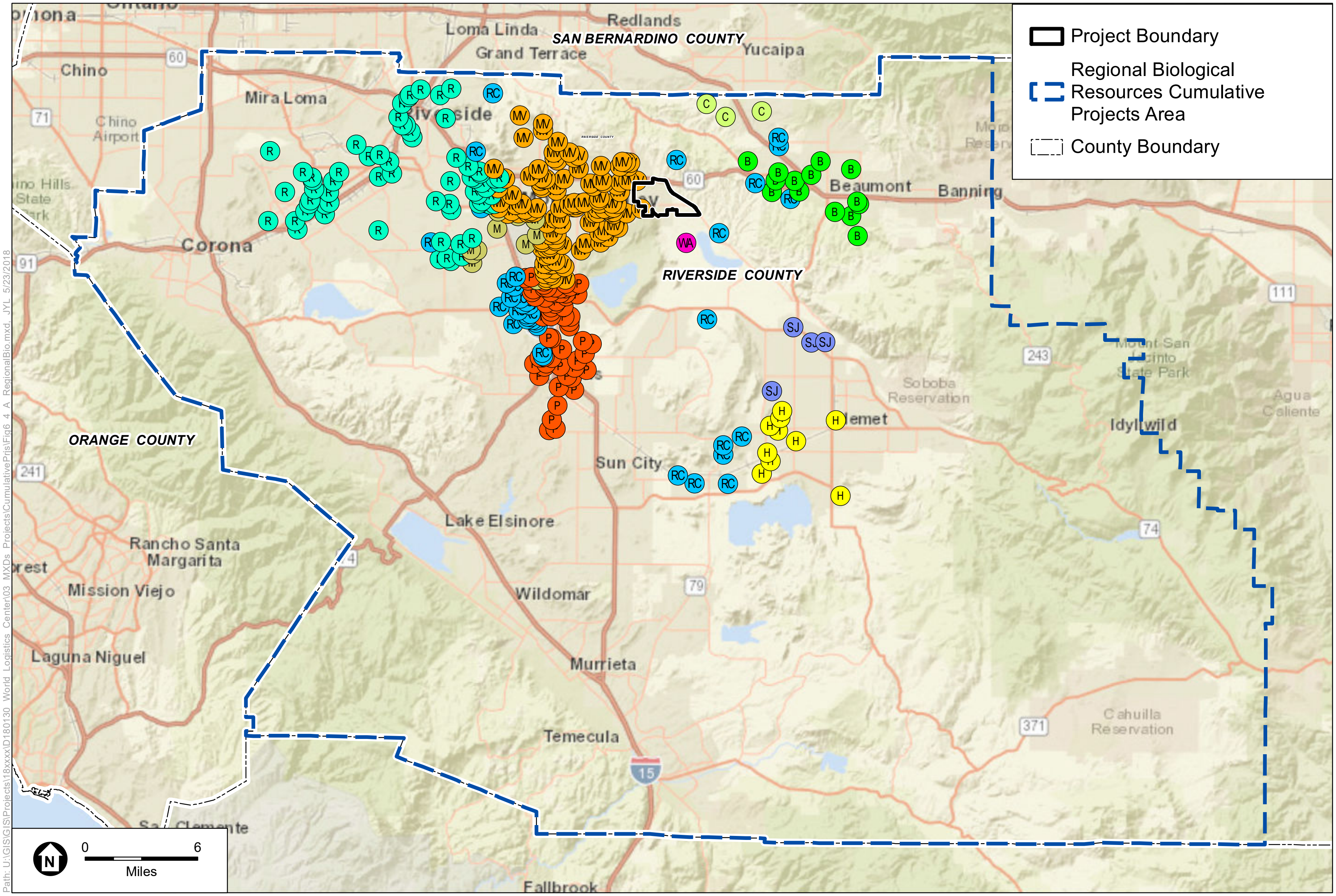

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.4-1

Regional Biological Resources Cumulative Projects Area

ESA

6.4.3 Cumulative Impact Evaluation

There are very few cumulative projects that would directly affect the SJWA. RC-1 and RC-5 have the potential to effect the SJWA. Similar to the project, each of these identified cumulative projects are required to mitigate impacts to biological resources including the MSHCP and the SJWA. A review of available CEQA documents in the identified biological resources cumulative project area indicates that these identified projects mitigate impacts to biological resources through a combination of project design features, mitigation measures and payment of MSHCP fees. The northern portion of the SJWA Area is designated as Agriculture in the San Jacinto Wildlife Area Management Plan and the existing use is fallow agricultural land. As such, sensitive species associated with the San Jacinto Wildlife Area are located in the central and southern portion of the wildlife area, over one-mile south of the WLC project boundary and further away from the identified cumulative projects. Existing ongoing activities within and adjacent to the San Jacinto Wildlife Area include traffic along perimeter roadways and substantial noise associated with the periodic blow-down of the SEMPRA pressurization station and permitted hunting activities, including short gun blasts.

The cumulative impact analysis includes an evaluation of the above identified projects within the identified cumulative impact area, and any associated CEQA documents. The project has the potential to contribute to cumulatively considerable impacts to Endangered, Threatened or Special-Status species, riparian habitats, federally protected Waters of the U.S., and to an adopted conservation plan. With the implementation of the recommended mitigation measures, cumulative impacts to biological resources would not be cumulatively significant or considerable.

The cumulative projects, when considered together with the project, would not result in a cumulatively considerable effect on the MSHCP or the SJWA. Therefore, when considered in addition to the anticipated impacts of other projects in the cumulative scenario, the project's incremental contribution to impacts to biological resources would not be cumulatively considerable, and cumulative impacts to biological resources would be less than significant.

6.4.3.1 Adversely Affect Endangered or Threatened Species

Impact:	*The project contribution to potential cumulative effects on habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS would be cumulatively considerable.*
Threshold:	Would the project have a substantial adverse effect, either directly or indirectly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Cumulative Impact Analysis

There are 17 plant and animal species that are designated as endangered or threatened by State and/or Federal authorities that have the potential to occur within the general vicinity of the project area (Table 4.4-6) and the MSHCP area. Only the coastal California gnatcatcher has been observed within the project site. Coastal California gnatcatcher is a Covered Species in the MSHCP and is considered Adequately Conserved. Consistent with the MSHCP requirements, Mitigation Measure **4.4.6.4A** prevents suitable habitat from disturbance during the breeding season.

Consistency with the MSHCP would provide assurance that the project would be in compliance with the provisions of the federal Endangered Species Act, the California Endangered Species Act, and the Natural Community Conservation Planning Act; and would adequately provide for the conservation and protection of the covered species adequately conserved and their habitats in the MSHCP Plan Area. *State CEQA Guidelines* Section 15064(h)(3) indicates that a lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program ... that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located." In addition, *State CEQA Guidelines* Section 15130(a)(3) concludes that "A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact."

The WLC site and some offsite facilities border the Core Reserve Area for the Stephens' kangaroo rat HCP to the south, but the area itself is not located within a core area. Although this area will be subject to development, it is not close enough to the Core Reserve Area to be directly impacted and is not close enough to have any indirect impacts as well. The project site and offsite facilities are located within the fee area of the SKR HCP. The SKR HCP is managed as part of the MSHCP Conservation Area and significant cumulative impacts to SKR are addressed through adherence to the Stephens' kangaroo rat HCP's Implementing Agreement and payment of the County's per-acre mitigation fee. A lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program ... that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located." In addition, the Moreno Valley Municipal Code section 3.48.040 imposes MSHCP fees and section 8.60.070 imposes SKR fees on all projects within the City.

Cumulative projects that would occur on previously undeveloped land supporting endangered or threatened species would be required to identify and mitigate any potentially significant impacts to those biological resources. Cumulative projects within the MSHCP Plan Area, the purpose of which is to maintain viable populations of covered species, including those listed as endangered or threatened, would be subject to consistency with the MSHCP as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact endangered or threatened species, yet these projects would be required to pay the appropriate MSHCP fees. The combined construction of projects within the vicinity of the project could deprive some species of a significant amount of habitable space.Related projects that would potentially affect threatened or endangered species would also be subject to the same regulatory requirements as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on sensitive species would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on threatened and endangered species would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. Those mitigation measures are specific to the Villages at Lakeview project impacts and would be independent of those required for the WLC project. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.1A, 4.4.6.1B and 4.4.6.4A is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to listed endangered and threatened species would be reduced. Mitigation Measures 4.4.6.1A and 4.4.6.1B includes development setbacks from the SJWA northern boundary and water quality and erosion control facilities to minimize downstream impacts. Mitigation Measures 4.4.6.4A requires avoidance of impacts to nesting birds, including the Federally Threatened coastal California gnatcatcher. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.2 Adversely Affect Candidate, Non-listed Sensitive, or Special-Status Species

Impact:	*The project contribution to potential cumulative effects on habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS would be cumulatively considerable.*
Threshold:	Would the project have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Cumulative Impact Analysis

Consistency with the MSHCP would provide assurance that the project would be in compliance with the provisions of the federal Endangered Species Act, the California Endangered Species Act, and the Natural Community Conservation Planning Act; and would adequately provide for the conservation and protection of the covered species adequately conserved and their habitats in the MSHCP Plan Area. A lead agency may also determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable "if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

The WLC Specific Plan area overlaps with the MSHCP Survey Areas for Narrow Endemic Plant Species as well as Criteria Area Sensitive Plant Species. Focused surveys for these species did not produce positive findings within the project site and these species are not anticipated to occur. The implementation of the WLC project would not affect the habitat or result in a direct impact for any special status plant species.

Focused surveys for Los Angeles pocket mouse did not find this species within the project site and the closest known location for the species is in the southern portion of the SJWA for which there is no suitable habitat connection. However, Mitigation Measure 4.4.6.4E is recommended to prevent impacts to the species from occurring with the implementation of the Specific Plan.

Burrowing owl has been observed within the WLC site on several occasions, most recently in 2018. The MSHCP requires specific protective action for this species; as such, Mitigation Measure 4.4.6.4D provides for pre-construction surveys and the preparation of a relocation plan if burrowing owl is found. In addition, the construction of berms around detention basins where burrowing owls have been observed to use will provide nesting opportunities and the conservation of 74.3 acres within the Specific Plan will provide the potential to construct artificial burrows for use in the relocation plan.

Migratory and nesting birds are known from the project site because suitable nesting habitat is available for several bird species. Mitigation measure 4.4.6.4A is recommended to minimize potential impacts to nesting birds.

Raptor foraging habitat will be lost through the construction of the WLC and cumulative projects. The MSHCP incorporates suitable raptor foraging habitat within the MSHCP conservation areas,. The objective of the long-range planning is to maintain sustainable populations within the MSHCP boundary. As a result of conservation planning within the MSHCP area enabled through the contribution of fees required for approved development, cumulative impacts to raptor foraging habitat will not be considerable.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP fee requirements as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. The combined construction of projects within the vicinity of the project could deprive some species of a significant amount of habitable space. Related projects that would potentially affect local or regional candidate, sensitive, or special status species subject to the same regulatory requirements as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on sensitive species would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on local or regional candidate, sensitive, or special status species would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects reviewed were required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it’s boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.4A through 4.4.6.4K is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to candidate, non-listed sensitive, or special-status species would be reduced. Mitigation Measures 4.4.6.4A through 4.4.6.4K includes protection for nesting birds, including burrowing owl, development of a resource management plan, landscape buffer adjacent to the SJWA, and payment of impact fee to the MSHCP. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.3 Adversely Affect Riparian Habitat or Other Sensitive Natural Communities

Impact: *The project contribution to potential cumulative effects on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS would be cumulatively considerable.*

Threshold: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS?

Cumulative Impact Analysis

Riparian or riverine areas are lands that contain habitat dominated by trees, shrubs, and persistent emergent plants, which occur close to or depend upon soil moisture from a nearby water source; or areas with fresh water flowing during all or a portion of the year. Drainage Feature 7, 8, 9, 12, and 15 within the WLC project are considered riparian/riverine areas, as defined by MSHCP. If impacts to any of these areas cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) report and relevant mitigation will be required.

Mitigation Measure 4.4.6.3A will help ensure there will be no significant impacts to riparian areas associated with Waters of the State as a result of future development within the project. In addition, Mitigation Measure 4.4.6.3B will provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. The intent of the regulatory permitting for Waters of State is a no net loss of these resources and cumulative impacts would be less than considerable.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. Related projects that would potentially affect habitat would also be subject to the same requirements of CEQA as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on riparian habitat or other sensitive natural communities would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. With the implementation of the MSHCP Conservation Areas, sustainable populations for covered species within conserved habitats would result and cumulative impacts would be less than considerable. Therefore, for the reasons described above, cumulative adverse effects on sensitive habitat would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.3A through 4.4.6.3C is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to riparian habitat or other sensitive natural communities would be reduced. Mitigation Measures 4.4.6.3A through 4.4.6.3C includes the requirement to obtain regulatory jurisdictional permits, creation or enhancement of riparian resources, development of a resource management plan, and demonstration that the mitigation resources are equivalent or better than the jurisdictional resources impacted. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.4 Adversely Affect Federally Protected Wetlands or Waters of the U.S.

Impact:	*The project contribution to potential cumulative effects on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means would be cumulatively considerable.*
Threshold:	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Cumulative Impact Analysis

A total of 15 primary drainage features were identified during this survey and a number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the Clean Water Act (CWA) as administered by USACE and RWQCB, respectively. Two of the 15 features are subject to the jurisdiction of the USACE and/or RWQCB. In addition, no jurisdictional wetlands or isolated wetlands were identified within the project site. Mitigation Measure 4.4.6.3A will help ensure there will be no significant impacts to riparian areas associated with Waters of the U.S. as a result of future development within the project. In addition, there would be no net loss of riparian resources.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP as well as subject to consistency for any relevant state and federal wetlands regulations. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. However, it is anticipated that related projects that would potentially affect wetlands would also be subject to the same requirements of the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on wetlands would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on wetlands would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.3A through 4.4.6.3C is required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to federally protected wetlands or waters of the U.S. would be reduced. Mitigation Measures 4.4.6.3A through 4.4.6.3C includes the requirement to obtain regulatory jurisdictional permits, creation or enhancement of riparian resources, development of a resource management plan, and demonstration that the mitigation resources are equivalent or better than the jurisdictional resources impacted. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.4.3.5 Interfere with Wildlife Movement

Impact:	*The project contribution to potential cumulative effects on the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites would be less than cumulatively considerable.*
Threshold:	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Cumulative Impact Analysis

The project area contains no significant cover of native plant communities and currently experiences heavy disturbance associated with agricultural activities. Additionally, the project area is adjacent to SR-60 and Gilman Springs Road on the north and east and is bordered by urban development on the west. The nearest linkage area as identified under the MSHCP is Proposed Linkage 5 and is located approximately 3 miles north of the project and approximately 3.6 miles south of the project is Proposed Constrained Link 20. The development of the project site will not impede the movement of any wildlife; therefore, the project will not affect any wildlife movement corridor.

Native wildlife will experience incremental adverse impacts from traffic along Gilman Springs Road as the WLC project develops in the future, but these impacts would be less than significant when the County coordinates with the Resource Conservation Authority (RCA) and implements wildlife movement corridors between Core H and proposed Core 3 when designing and improving Gilman Springs Road.

Development of the project would not directly have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. It is determined that the project would not impede or minimize any significant wildlife corridor for the target species associated within the Reche Canyon/Badlands Area plan. None of the cumulative projects would interfere with wildlife movement in the region.

Direct and indirect impacts of the project on the MSHCP and SJWA would be less than significant with mitigation, and the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning. Through the implementation of the stated mitigation for project-specific impacts, and the payment of required MSHCP mitigation fees, no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP, including wildlife movement corridors, as well as subject to consistency for any relevant HCPs. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources. The combined construction of projects within the vicinity of the project could result in constrained wildlife movement. Related projects that would potentially affect wildlife movement would also be subject to the same requirements of CEQA as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on wildlife movement would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on wildlife movement would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it’s boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.4.3.6 Conflict with Adopted Policies, Ordinances or Habitat Conservation Plans

Impact: *The project contribution to potential cumulative effects on local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan would be cumulatively considerable.*

Threshold: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Cumulative Impact Analysis

The WLC project site is located within the Stephen's Kangaroo Rat (SKR) Habitat Conservation Plan (HCP). Core Areas have been designated for the conservation of this species. The project site is not located within an SKR Core Area. The SKR HCP is managed as part of the MSHCP Conservation Area. Moreno Valley Municipal Code section 8.60.070 imposes SKR fees on all projects within the City.

Within the MSHCP, the project site is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project site would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H.

No development is proposed within the portion of the project site that lies adjacent to Cell Group D and the SJWA. Development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA. The project site is not adjacent to any Cores or Linkages identified in the MSHCP. However, it is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). The project is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP.

The project is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA). Surveys the CASSA and NEPSSA resulted in the lack of observation of these species. Burrowing owl has been observed within the project site.

The WLC project site is located within the Stephen's Kangaroo Rat (SKR) Habitat Conservation Plan (HCP). Core Areas have been designated for the conservation of this species; however, the project site is not located within an SKR Core Area. The SKR HCP is managed as part of the MSHCP Conservation Area and significant cumulative impacts to SKR are addressed through the compliance with the MSHCP provisions.

The effects of the project, in combination with other cumulative projects in the geographic area, could combine to cause or contribute to significant cumulative effects to biological resources. In particular, identified cumulative projects that are located within or near the northern portion of the San Jacinto Wildlife Area could have significant effects on special status species, sensitive vegetation communities, and wildlife movement documented in the MSHCP and the San Jacinto Wildlife Area Management Plan. It should be noted that cumulative projects are required to adhere to and be consistent with the goals and objectives established in the MSHCP, including the payment of MSHCP fees.

Cumulative projects that would occur on previously undeveloped land would be required to identify and mitigate any potentially significant impacts to biological resources. Cumulative projects within the MSHCP Plan Area would be subject to consistency with the MSHCP as well as subject to consistency for any relevant HCPs and resource protection policies. Projects that would occur on previously developed land or in a highly urbanized area would have less potential to significantly impact biological resources related policies. However, it is anticipated that related projects that would potentially affect resource protection policies would also be subject to the same requirements of these policies as the project. These determinations would be made on a case-by-case basis, and the effects of cumulative development on resource protection policy would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, for the reasons described above, cumulative adverse effects on resource protection policies would be less than significant.

The CEQA documents identified in Tables 6.4-1 and 6.4-2 have been reviewed to determine if the identified cumulative projects in conjunction with the project could result in cumulatively considerable effect on biological resources. All cumulative projects are required to comply with the MSHCP and pay applicable MSHCP fees which are in turn utilized by the RCA to implement programs and habitat acquisition to minimize cumulative impacts to biological resources. In particular, the EIR for the Villages at Lakeview project (RC-5) located in unincorporated Riverside County south of the SJWA was reviewed, as it is the largest project in the biological resources cumulative impact area and is immediately south and west of the SJWA. The Villages at Lakeview project proposes a large mixed-use development that is located within numerous MSHCP Criteria Cells with specific species and habitat conservation requirements within and adjacent to it's boundary. The Villages at Lakeview project is also adjacent to the wetlands portion of the SJWA. The World Logistics Center project does not have any MSHCP conservation requirements and is located a substantial distance from the core wetlands within the SJWA. The Villages at Lakeview EIR proposes several mitigation measures to minimize project and cumulative impacts to the SJWA and comply with the MSHCP. As a result, the Villages at Lakeview project in conjunction with the World Logistics Center project do not constitute a cumulatively considerably effect on the SJWA.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.4.6.2B and 4.4.6.3B is required as provisions of the MSHCP.

Significance Level After Mitigation: Less than significant impact. With the implementation of the mitigation measures, potential impacts to federally protected wetlands or waters of the U.S. would be reduced. Mitigation Measures 4.4.6.2A and 4.4.6.2B includes the requirement to conduct a focused plant survey, and demonstration to the Riverside County Regional Conservation Authority compliance with the provisions of the MSHCP. Through the implementation of the above mitigation measures, the project contribution to potential cumulative impacts would be less than cumulatively considerable.

6.5 Cultural and Paleontological Resources

Cumulative effects to cultural and paleontological resources are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to cultural and paleontological resource issues is provided in Section 6.5.1. The geographic and temporal scopes for cumulative impacts to cultural and paleontological resource issues is provided in Section 6.5.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the cultural and paleontological resources issues are discussed in Section 6.5.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.5.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.5 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts could cause or contribute to a significant cumulative impact to cultural and paleontological resources.

6.5.1 Project Impact Findings

The project's effects to cultural and paleontological resources are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.5 of the Revised Final Programmatic EIR Sections (RFPEIRS) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Result in any disturbance of human remains, including those interred outside of formal cemeteries? **Less than Significant, Section 4.5.5.1.**
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5? **Less than Significant with Mitigation, Section 4.5.6.1, Impact 4.5.6.1.**
- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5? **Less than Significant with Mitigation, Section 4.5.6.2, Impact 4.5.6.2.**
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? **Less than Significant with Mitigation, Section 4.5.6.3, Impact 4.5.6.3.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to cultural and paleontological resources identified in the FEIR.

6.5.2 Geographic and Temporal Scope

Cumulative impacts to cultural and paleontological resources could result from the project in conjunction with other past, present and future projects located within the tribal boundaries that encompass the project site. Although tribal boundaries overlap, it is appropriate to identify the geographic area for cultural and paleontological resources as Western Riverside County because of (1) the area would be expected to contain archaeological, historic, and paleontological resources similar to the area that encompasses the project area, (2) coherence in regional past Native American occupation and land use, (3) similarity in patterns of historic development, and (4) similarity in the geological formations that contain paleontological resources. The cumulative projects geographic boundary for cultural and paleontological resources is shown in Figure 6.5-1. The projects listed within the cultural and paleontological resources impact are is listed in Table 6.5-1.

The project would contribute to cumulative impacts to cultural and paleontological resources starting from when project-related ground disturbance begins and lasting until the conclusion of the construction phase: once construction is complete, operation and maintenance of the project would not disturb the surface of the site in ways that could cause an impact on subsurface resources. The project would contribute to cumulative impacts to historical resources from the initiation of removal activities of the rural residential structures and associated out-buildings that may be of historic-age from the project site.

6.5.3 Cumulative Impact Evaluation

6.5.3.1 Human Remains

Impact: *The project contribution to the potential disturbance of human remains, including those interred outside of formal cemeteries would be less than cumulatively considerable.*

Threshold:	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Cumulative Impact Analysis

Cumulative ground disturbance in Western Riverside County could disturb human burials. Potentially cumulative projects such as RC-5, M-2, M-5 and others would be subject to the State laws that protect human remains such as Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. Because these State laws have been adopted to protect human remains, compliance with them would assure that cumulative impacts related to the disturbance of human remains would be less than significant. Because there is no evidence of human burials on the project site and ground disturbing activities on the project site would be subject to the State laws cited above, the project's less-than-significant incremental contribution to potential cumulative impacts on human burials would not cause or contribute to a significant cumulative effect.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

Figure 6.5-1 Cultural and Paleontological Resources Cumulative Projects Area

Table 6.5-1: Cultural and Paleontological Resources Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-2	Tournament Hills 3	No project description available.
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The project would have a less than significant impact on cultural resources.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would have a less than significant impact on cultural resources.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. The project would have no impact on cultural resources.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The project would have no impact on cultural resources.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. The project would have a less than significant impact on cultural resources with mitigation.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. The project would have no impact on cultural resources.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on cultural resources with mitigation.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would have a potentially significant impact on cultural resources.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. The project will have a less than significant impact on cultural resources.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project would have a less than significant impact on cultural resources with mitigation.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. No information in document related to cultural resources.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. No information in provided documentation on level of impact on cultural resources after mitigation.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMN, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on cultural resources with mitigation.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. No information in provided documentation on impact on cultural resources.

Project ID	**Project Name**	**Environmental Document Summary**
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact on cultural resources with mitigation.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR, the project would result in the development of a 130 acre business park. The project would have a less than significant impact on cultural resources with mitigation.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project would have a significant impact on cultural resources and result in the demolition of one identified historical feature.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. The project would have a less than significant impact on cultural resources.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on cultural resources.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. No information in provided documentation on level of impact on cultural resources after mitigation.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project would have no impact on cultural resources.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. The project would have a less than significant impact on cultural resources.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. The project would have a less than significant impact on cultural resources.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. The project would have a less than significant impact on cultural resources.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. The project would have a less than significant impact on cultural resources.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. The project would have a less than significant impact on cultural resources.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. The project would have a less than significant impact on cultural resources.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. The project would have a less than significant impact on cultural resources.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. The project would have a less than significant impact on cultural resources.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. The project would have a less than significant impact on cultural resources.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. The project would have a less than significant impact on cultural resources.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project would have a less than significant impact on cultural resources with mitigation.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project would have a less than significant impact on cultural resources.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project would have a less than significant impact on cultural resources.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. The project would have a less than significant impact on cultural resources.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. The project would have a less than significant impact on cultural resources.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. The project would have a less than significant impact on cultural resources.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. The project would have a less than significant impact on cultural resources.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. The project would have a less than significant impact on cultural resources.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have a less than significant impact on cultural resources.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project would have a less than significant impact on cultural resources.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. The project would have a less than significant impact on cultural resources with mitigation.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. The project would have a less than significant impact on cultural resources.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project would have a less than significant impact on cultural resources with mitigation.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. The project would have a less than significant impact on cultural resources with mitigation.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. The project would have a less than significant impact on cultural resources with mitigation.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project would have a less than significant impact on cultural resources.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. The project would have a less than significant impact on cultural resources.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space The project would have a less than significant impact on cultural resources.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project would have a less than significant impact on cultural resources.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would have a less than significant impact on cultural resources.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. The project would have a less than significant impact on cultural resources.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project would have a less than significant impact on cultural resources.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. The project would have a less than significant impact on cultural resources.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project would have a less than significant impact on cultural resources with mitigation.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. The project would have a less than significant impact on cultural resources.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. The project would have a less than significant impact on cultural resources.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. The project would have a less than significant impact on cultural resources.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project would have a less than significant impact on cultural resources.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project would have a less than significant impact on cultural resources.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project would have a less than significant impact on cultural resources.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. The project would have a less than significant impact on cultural resources.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project would have a less than significant impact on cultural resources.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. The project would have a less than significant impact on cultural resources.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project would have a less than significant impact on cultural resources.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. The project would have a less than significant impact on cultural resources.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. The project would have a less than significant impact on cultural resources.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. The project would have a less than significant impact on cultural resources.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. The project would have a less than significant impact on cultural resources.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project would have a less than significant impact on cultural resources with mitigation.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project would have no impact on cultural resources.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. The project would have a less than significant impact on cultural resources.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. The project would have a less than significant impact on cultural resources.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. The project would have a less than significant impact on cultural resources.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. The project would have a less than significant impact on cultural resources.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. Project was exempt from environmental review.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. The project would have a less than significant impact on cultural resources.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. Project was exempt from environmental review.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. Project was exempt from environmental review.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project would have a less than significant impact on cultural resources.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. The project would have a less than significant impact on cultural resources.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. The project would have a less than significant impact on cultural resources.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. The project would have a less than significant impact on cultural resources.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. The project would have a less than significant impact on cultural resources.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a less than significant impact on cultural resources with mitigation incorporated.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have a less than significant impact on cultural resources.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would have a less than significant impact on cultural resources.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project would have a less than significant impact on cultural resources with mitigation.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a less than significant impact on cultural resources with mitigation.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	**Project Name**	**Environmental Document Summary**
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would have a less than significant impact on cultural resources.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have a less than significant impact on cultural resources with mitigation.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. No information in provided document on impact significance after mitigation incorporated.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project would have a less than significant impact on cultural resources.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have a less than significant impact on cultural resources.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project has mitigation measures in place for cultural resource impacts, no information on if impacts are significant after mitigation implemented.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on cultural resources.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project would have a less than significant impact on cultural resources.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have a less than significant impact on cultural resources with mitigation.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on cultural resources.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project would have a less than significant impact on cultural resources with mitigation.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project would have a less than significant impact on cultural resources with mitigation.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project would have a less than significant impact on cultural resources.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. The project would have a potentially significant impact on cultural resources.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project would have a less than significant impact on cultural resources with mitigation.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. The project would have a less than significant impact on cultural resources with mitigation.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would have a less than significant impact on cultural resources with mitigation.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. The project would have a less than significant impact on cultural resources with mitigation.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. The project would have a less than significant impact on cultural resources with mitigation.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. The project would have a less than significant impact on cultural resources with mitigation.

Project ID	Project Name	Environmental Document Summary
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project would have a less than significant impact on cultural resources with mitigation.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project would have significant, cumulative impacts on cultural resources.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project would have less than significant impacts on cultural resources.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. The project would have less than significant impacts on cultural resources.

Project ID	**Project Name**	**Environmental Document Summary**
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. The project has mitigation measures in place for cultural resource impacts, no information on if impacts are significant after mitigation implemented.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. The project would have less than significant impacts on cultural resources.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The project would have no impact on cultural resources.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project would have a potentially significant impact on cultural resources.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project would have a less than significant impact on cultural resources with mitigation.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. The project would have a less than significant impact on cultural resources.

Project ID	Project Name	Environmental Document Summary
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project would have a less than significant impact on cultural resources.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project would have a less than significant impact on cultural resources with mitigation.

6.5.3.2 Archaeological Resources

Impact: *The project contribution to potential cumulative effects on known or previously undetected subsurface archaeological resources would be cumulatively considerable.*

Threshold: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Cumulative Impact Analysis

Cumulative projects within Western Riverside County such as RC-5, MV-2, MV-4 and M-8 would involve ground disturbance that could result in a significant impact to archaeological resources. Some of the cumulative projects have incorporated project design features to avoid potential effects to known archaeological resources; however, potential significant cumulative impacts could occur to unknown archaeological resources. Although no known resources are located within the project area, ground disturbing activities could result in a significant impact to unknown archaeological resources. Therefore, the project's contribution to potential significant cumulative impacts would be cumulatively considerable.

Typical mitigation measures implemented by the cumulative projects (such as RC-5, M-2, MV-4 and M-8) to reduce potential impacts to unknown archaeological resources include archeological monitoring, Native American tribal representation during monitoring, and protocols for treatment of discovered resources. These measures typically reduce potential impacts to unknown archaeological resources to less than significant.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.5.6.1A through 4.5.6.1E would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the recommended mitigation measures, potential impacts to archaeological resources would be reduced. Mitigation Measures 4.5.6.1A and 4.5.6.1B includes Phase 1 cultural resources assessments of parcels that have not been assessed, significance evaluation of any resources encountered, and development of appropriate treatment or mitigation. Mitigation measures 4.5.6.1C and 4.5.6.1D include the retention of an archaeological monitor to observe all grading activities, with invitation of a Native American tribal representative to participate in monitoring. Mitigation measure 4.5.6.1E includes protocols to be followed should resources be discovered, including resource evaluation and appropriate treatment for significant resources. Through the implementation of the above mitigation measures, the project's incremental contribution to potential significant cumulative impacts would be less than cumulatively considerable.

6.5.3.3 Historic Resources

Impact:	*The project contribution to potential cumulative direct and indirect effects on local historical resources would be cumulatively considerable.*
Threshold:	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines?

Cumulative Impact Analysis

Cumulative related projects within Western Riverside County (such as RC-5, M-2 and M-8) would involve ground disturbance that could impact above-ground structures that are of historic-age and meet the criteria of historic resources. Ground disturbance could also result in impacts to unknown historic resources that are located below ground. The construction activities associated with cumulative development could result in a potential significant cumulative impact.

The implementation of the project would contribute to potential cumulative impacts to historic resources. Because the project includes the removal of seven rural residential structures and associated out-buildings that may be of historic-age, impacts on these structures, features or resources could be significant. In addition, the project also includes effects on other structures of historic-age such as two previously identified historic sites containing farm buildings and related out-buildings as well as Alessandro Boulevard which was constructed across the site in the 1890s. The project's incremental contribution to cumulative historic impacts would be cumulatively considerable.

Typical mitigation measures implemented by projects in the cumulative scenario to reduce potential impacts to historical resources include proper curation and recordation of the recovered historic resources. These measures typically reduce potential impacts to historical resources to less than significant.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.5.6.2A through 4.5.6.2C would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of the recommended mitigation measures, the project's contribution to historic cumulative impacts would be reduced. The implementation of Mitigation Measure 4.5.6.2A would include the proper curation of recovered historic resources. The implementation of Mitigation Measure 4.5.6.2B would include the installation of a historical marker along a historic trail. Mitigation Measure 4.5.6.2C include an alignment of an onsite road along the historical alignment of Alessandro Boulevard. With the implementation of these mitigation measures, the project's contribution to potentially significant cumulative historic impacts would be less than cumulatively considerable.

6.5.3.4 Paleontological Resources

Impact:	*The project's contribution to potential significant cumulative effects on previously undetected subsurface paleontological resources would be cumulatively considerable.*
Threshold:	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Cumulative Impact Analysis

Cumulative projects within Western Riverside County (such as RC-5, M-2 and RC-34) would involve ground disturbance that could cause adverse impacts to paleontological resources. Potential impacts from projects in the cumulative scenario that could impact the same fossil-bearing geologic units as the project would be considered significant. These units include older Pleistocene alluvium and the San Timoteo formation, both of which have been assigned a moderate paleontological sensitivity because they have yielded paleontological resources in the past. Potential impacts from the implementation of projects in the cumulative scenario (such as RC-5, M-2 and RC-34) could result in significant cumulative impacts.

Because the project would result in ground disturbance that could affect paleontological resources within the Pleistocene alluvium and the San Timoteo formation, the project's contribution to cumulative paleontological resources impacts would be cumulatively considerable.

The typical mitigation measures implemented by the cumulative related projects such as RC-5, M-2 and RC-34 to reduce potential impacts to paleontological resources are paleontological monitoring and properly curating resources that are found. These measures typically reduce potential impacts to paleontological resources to less than significant.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.5.6.3A and 4.5.6.3B would be required.

Significance Level After Mitigation: Less than significant impact. The implementation of the above mitigation measures would reduce the project's contribution to potential cumulative impacts to paleontological resources. The implementation of Mitigation Measure 4.5.6.3A includes the presence of a City-approved paleontologist to monitor excavation activities and salvage/collect fossils. Mitigation Measure 4.5.6.3B provides for the paleontological assessment of off-site improvements area and the implementation of monitoring protocols, where appropriate (MM 4.5.6.3B). Through the implementation of these mitigation measures, the project's contribution to potential significant cumulative impacts to paleontological resources would not be cumulatively considerable.

6.6 Geology and Soils

Cumulative effects to geology and soils are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to geology and soils is provided in Section 6.6.1. The geographic and temporal scopes for cumulative impacts to geology and soils are provided in Section 6.6.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the geology and soil issues are discussed in Section 6.6.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.6.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.6 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to geology and soils. These potentially significant cumulative impacts are documented in the following section.

6.6.1 Project Impact Findings

The project's effects to geology and soils are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.6 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides? **Less than Significant, Section 4.6.5.1.**
- Result in substantial soil erosion or the loss of topsoil; **Less than Significant, Section 4.6.5.2.**
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. **No Impact, Section 4.6.5.3.**
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure. **Less than Significant, Section 4.6.5.4.**

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault; **Less than Significant with Mitigation, Section 4.6.6.1, Impact 4.6.6.1.**
- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. **Less than Significant with Mitigation, Section 4.6.6.2, Impact 4.6.6.2.**
- Be located on expansive soil, creating substantial risks to life or property. **Less than Significant with Mitigation, Section 4.6.6.3, Impact 4.6.6.3.**

Pursuant to CEQA Guidelines §15130, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." Because the project would result in no impact related to the capability of soils to adequately support the use of septic tanks or alternative wastewater disposal systems, it could not cause or contribute to any potential cumulative impact in this respect.

In all remaining respects, the project's impacts would be less than significant or less than significant with mitigation and are evaluated in the cumulative effects analysis below. .

6.6.2 Geographic and Temporal Scope

The geographic area to evaluate potential cumulative impacts to geology and soils is the City of Moreno Valley because the City has adopted specific regulations within their grading regulations and building codes (e.g., City adopted the California Building Code) to reduce potential geology and soils impacts. People and structures within the City are subject to geotechnical and soils issues including faults, seismic ground shaking, liquefaction, landslides, and unstable soils. The geographic area for cumulative geology and soils impacts is shown on Figure 6.6. The projects located within the cumulative geology and soil impact area are listed in Table 6.6.

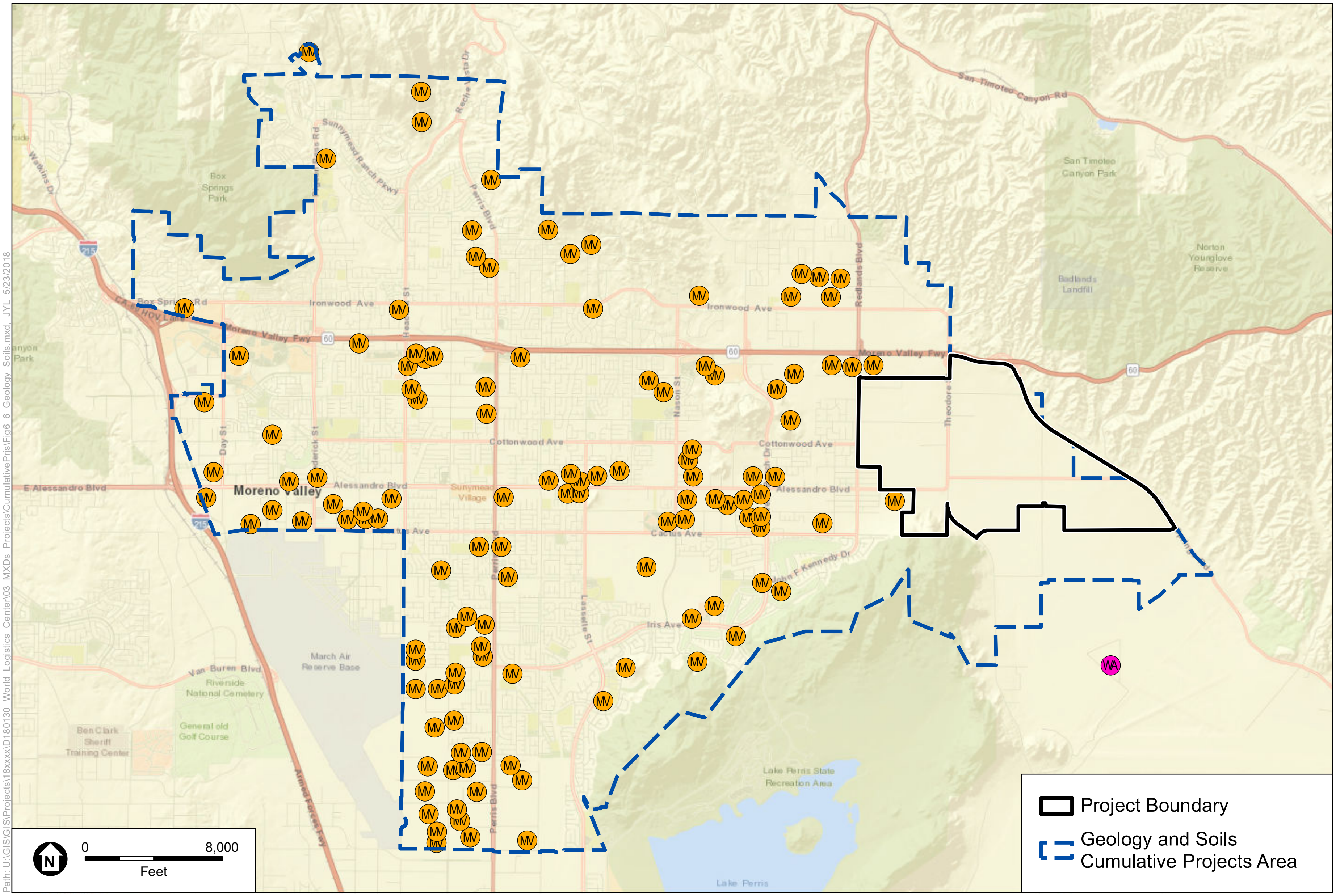

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.6-1

Geology and Soils Cumulative Projects Area

ESA

Table 6.6 – Geology and Soils Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is no impact on the geology and soils in the area.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility would contribute to cumulative impacts from fault rupture, ground shaking, ground failure, soil erosion, expansive soils and landslides.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the geology and soils in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the geology and soils in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the geology and soils in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the geology and soils in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project

Project ID	Project Name	Environmental Document Summary
		would result in 25 single family homes on 30.02 acres. There is no impact on the geology and soils in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the geology and soils in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the geology and soils in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the geology and soils in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the geology and soils in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the geology and soils in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior

Project ID	Project Name	Environmental Document Summary
		assisted living facility on 7.33 acres. There is no impact on the geology and soils in the area.
MV-20	Moreno Marketplace	The Project’s development of 95,905 square foot retail center would contribute to cumulative impacts from, ground shaking, ground failure, soil erosion, expansive soils and landslides.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the geology and soils in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the geology and soils in the area.
MV-24	TM 36436 (PA12-0005)	The Project’s subdivision of 43.52 acres into 159 single family residential lots would contribute to cumulative impacts from ground shaking, ground failure, soil erosion, and landslides.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the geology and soils in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the geology and soils in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project

Project ID	**Project Name**	**Environmental Document Summary**
		would result in the development of 90 condominium units on 10.41 acres. There is no impact on the geology and soils in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the geology and soils in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on eh geology and soils in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the geology and soils in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the geology and soils in the area.
MV-34	TR34397 / Winchester Associates	The Project's subdivision of 19 acres into 50 single family residential lots would contribute to cumulative impacts from fault rupture, ground shaking, ground failure, and soil erosion,
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the

Project ID	Project Name	Environmental Document Summary
		project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the geology and soils in the area.
MV-36	TM 31618 (PA03-0106)	The Project's subdivision of 18.99 acres into 56 single family residential lots would contribute to cumulative impacts from ground shaking, ground failure, and soil erosion.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is no impact on the geology and soils in the area.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build

Project ID	Project Name	Environmental Document Summary
		distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the geology and soils in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the geology and soils in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the geology and sols in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project's subdivision of a 75.05-acre property into four parcels with business center land uses could contribute to cumulative impacts from fault rupture, ground shaking, ground failure, soil erosion, expansive soils and landslides.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare

Project ID	**Project Name**	**Environmental Document Summary**
		an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the geology and soils in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the geology ad soils in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the geology and soils in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the geology and soils in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is no impact on the geology and soils in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno

Project ID	**Project Name**	**Environmental Document Summary**
		Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is no impact on the geology and soils in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. There is no mention on the impact on geology and soils in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the geology and soils in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there is no impact on the environment. It does mention an impact on the geology and soils in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the geology and soils in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no

Project ID	Project Name	Environmental Document Summary
		impact on the geology and soils in the area.
MV-61	Walmart & Gas Station	The Project's development of a 193,000 square-feet of retail/commercial uses on a 22.28-acre site would contribute to cumulative impacts from fault rupture, ground shaking, ground failure, soil erosion, expansive soils and landslides.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the geology and soils in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the geology and soils in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the geology and soils in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the geology and soils in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the geology and soils in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is

Project ID	Project Name	Environmental Document Summary
		no impact on the geology and soils in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the geology and soils in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the geology and soils in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the geology and soils in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the geology and soils in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the geology and soils in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8

Project ID	Project Name	Environmental Document Summary
		industrial buildings and 1 future industrial building on 126 acres. There is no impact on the geology and soils in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the geology and soils in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the geology and soils in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resiolution did state that there was no impact on the environment in the area. It did not specifically mention the impact on the geology and soils.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact on the geology and soils in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as

Project ID	Project Name	Environmental Document Summary
		part of Tract Map No. 27251. There is no impact on the geology and soils in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the geology and soils in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is no impact on the geology and soils in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the geology and soils in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four

Project ID	Project Name	Environmental Document Summary
		applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the geology and soils in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the geology and soils in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the geology and soils in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the geology and soils in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the geology and soils in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of

Project ID	Project Name	Environmental Document Summary
		16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact on the geology and soils in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution stated that there is no impact on the environment in the area. It does not specifically mention whether or not there is an impact on the geology and soils in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the geology and soils in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the geology and soils in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution makes no statements regarding the environment, including the geology and soils, in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would

Project ID	Project Name	Environmental Document Summary
		develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the geology and soils in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the geology and soils in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the geology and soils in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the geology and soils in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is a less than significant impact on the geology and soils in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the geology and soils in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California

Project ID	Project Name	Environmental Document Summary
		Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a potentially significant impact on the geology and soils in the area.

6.6.3 Cumulative Impact Evaluation

6.6.3.1 Landslides and Rockfalls

Impact: *The project would contribute incrementally to a less than significant cumulative impact relating to the exposure of persons or structures to potential substantial adverse landslide or rockfall effects.*

Threshold:	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Cumulative Impact Analysis

Based on a review of the available environmental documentation for projects in the cumulative scenario (such as MV 4, MV 24 and MV 126), none of the potentially cumulative projects has the potential to cause exposure to landslide or rockfall effects particularly adjacent to foothills and steep slopes. Therefore, there would be no significant cumulative landslides or rockfall effects that could adversely affect people or structures with the implementation of the cumulative scenario.

The project site includes one area that encompasses the lower slopes of Mount Russell. The project designates these slope areas as Open Space, which would reduce the potential for landslide or rockfalls that could adversely affect people or structures. With the application of the Open Space designation to this area, the project would reduce this potential effect to less than significant. Because projects in the cumulative scenario would not expose people or structures to landslides or rockfall impacts, the project's incremental less-than-significant contribution to potential cumulative effects would not alone cause or create a significant cumulative effect relating to the exposure of people and structures to landslide or rockfall impacts. A less than significant cumulative effect would result.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.6.3.2 Soil Erosion or Loss of Topsoil

Impact: *The project would contribute incrementally to a less than significant cumulative impact relating to soil erosion or the loss of topsoil.*

Threshold:	Would the project result in substantial soil erosion or the loss of topsoil?

Cumulative Impact Analysis

Projects in the cumulative scenario have the potential to result in short-term erosion of surface soils; however, as appropriate, the cumulative projects include the implementation of erosion control features that comply with National Pollutant Discharge Elimination System (NPDES) requirements and would reduce erosion to less than significant. In addition, those projects include improvements that would not increase long-term erosion of on-site soils and therefore, would result in less than significant impacts. Following is a further discussion of the potential erosion associated with the cumulative projects.

Prior to moving soils during construction activities, the project proponent of each of the cumulative projects would be required to submit detailed grading plans to obtain grading permits. The approval of the permits would require compliance with applicable standards of the City's Grading Ordinance. Projects that would result in the disturbance of more than one acre of land would be required to obtain a NPDES permit and to comply with SCAQMD Rule 403 (fugitive dust). A Storm Water Pollution Prevention Plan (SWPPP) would also be required to reduce potential erosion and surface water discharge impacts. Based on a review of the environmental documentation prepared for each of the cumulative related projects, the SWPPP would include specific erosion control features to reduce potential soil erosion to less than significant. Therefore, the cumulative related projects would result in less than significant impacts associated with soil erosion or the loss of topsoil. The implementation of the proposed project includes specific components to reduce potential impacts of soil erosion or loss of topsoil during construction activities. These components are identified in Section 4.6.5.2 of the FEIR. With the implementation of these construction measures/components, the project would result in a less than significant soil erosion or loss of topsoil impact. In assessing the cumulative projects in conjunction with the project, the implementation of erosion control features that would be required to obtain grading permits would reduce the cumulative soil erosion or loss of topsoil impact to less than significant. Further, the project's incremental less-than-significant contribution to potential cumulative impacts associated with soil erosion or the loss of topsoil alone would not cause one. Thus, cumulative erosion and topsoil impacts would be less than significant during construction.

Long-term operations of projects in the cumulative scenario have the potential to cause soil erosion or loss of topsoil if soil stabilization measures are not incorporated into ongoing operations. However, based on review of the environmental documentation for the cumulative related projects, each project identifies that the implementation of the urban uses on the project site would result in less than significant soil erosion impacts or each project would incorporate soil stabilization measures to reduce soil erosion impacts to less than significant. In assessing the cumulative related projects in conjunction with the project, the implementation of soil stabilization measures for those projects that require those measures such as the project, the potential cumulative long-term soil erosion impact would be less than significant. Because the project includes various detention/retention, treatment and soil stabilization measures to reduce potential long-term soil erosion or the loss of topsoil with the measures identified in Section 4.6.5.2 of the FEIR, the project would not cause a significant cumulative impact. Thus, cumulative erosion and topsoil impacts would be less than significant during operation.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.6.3.3 Seismic-Related Ground Failure

Impact: *The project would contribute incrementally to a less than significant cumulative impact relating to the considerable exposure of people or structures to potential adverse seismic ground failure effects.*

Threshold:	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic ground failure?

Cumulative Impact Analysis

Persons or structures associated with projects in the cumulative scenario could be exposed to geologic conditions that cause ground failure during seismic events (including all "MV" cumulative projects). These potential geologic conditions include landslides, settlement, subsidence, or liquefaction, and potential ground failure that could expose people or structures to these effects. The exposure to these impacts could result in significant impacts; however, each of the cumulative projects would be subject to the City of Moreno Valley's grading requirements and building codes. Compliance with these requirements would reduce potential effects to less than significant.

The project site is located in an area of the City that is not subject to settlement, subsidence or liquefaction. In addition, the majority of the project site lies on relatively flat terrain. There is one portion of the site that includes steep topographic features that could be subject to landslides; however, the project designates this area for Open Space (Planning Area 30). In considering the implementation of the project in combination with the cumulative related projects, no significant cumulative effect of exposing persons and structures to potential seismic ground failure would result.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significant Level After Mitigation: Less than significant impact.

6.6.3.5 Fault Rupture

Impact:	*The project would cause a cumulatively considerable contribution to a significant cumulative effect relating to the exposure of people or structures to potential adverse fault rupture effects.*
Threshold:	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.

Cumulative Impact Analysis

The San Jacinto Fault Zone and its associated fault segments are located within the eastern portion of the City of Moreno Valley. According to the City of Moreno Valley General Plan EIR, no other active fault zone is located within the City. Based on a review of projects in the cumulative scenario, San Jacinto Wildlife Area Land Management Plan is the only related project that is located in the immediate vicinity of the San Jacinto Fault Zone. A portion of the Land Management Plan encompasses the area immediately south of the project site and is located within the City of Moreno Valley. This portion of the Land Management Plan includes a potential for a water storage project that would involve construction of enclosed berms to hold water and an onsite pipeline. However, based on information from the San Jacinto Wildlife Area Land Management Plan EIR, the water storage project would not be located on any of the mapped earthquake fault zones and would thus be unlikely subject to fault rupture. Therefore, no significant cumulative effect would result relating to surface rupture impacts exposing persons and structures to significant effects.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.6.6.1A through 4.6.6.1C is required.

Significance Level After Mitigation: Less than significant impact. The implementation of Mitigation Measures 4.6.6.1A through 4.6.6.1C will require subsurface evaluations to determine the implementation of structural setbacks, remedial earthwork and/or foundation recommendations if site-specific geotechnical investigations confirm the locations of the fault alignments in the areas of proposed land uses. The implementation of these mitigation measures would reduce the project's potential fault rupture impacts to less than cumulatively considerable.

6.6.3.6 Ground Shaking

Impact: *The project would result in a cumulatively considerable exposure of people or structures to potential strong seismic ground shaking.*

Threshold:	Would the project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong ground shaking?

Cumulative Impact Analysis

Projects in the cumulative scenario could be subject to ground shaking resulting from seismic activity on regional and local faults (including all “MV” cumulative projects). The level of potential ground motion from faults is considered moderate to high in the City of Moreno Valley. Based on a review of the environmental documents prepared for the cumulative projects (such as MV-34, MV-36, MV-41 and MV-48), the structures proposed by each project would be required to be designed in accordance with the California Building Code and the City of Moreno Valley Building Code to preclude adverse effects to the structures and persons associated with strong seismic ground-shaking. The amount of ground shaking would be dependent on the earthquake size, location and distance. Ground shaking would be greater with larger and closer earthquakes. Cumulative projects could expose persons and structures to significant cumulative seismic ground shaking impacts.

The implementation of the project could also subject persons and structures to ground shaking from seismic activity on regional and local faults. Section 4.6 identifies that the exposure of the proposed structures and persons to seismic activity would be significant. Therefore, the combination of impacts of the project and other projects in the cumulative scenario would result in a cumulative significant impact. Given the size of the project and the number of people and scope of structures it would include, the project’s contribution to the significant cumulative impact associated with exposing persons and structures to strong seismic ground shaking impacts would be cumulatively considerable.

Significance Level Before Mitigation: Potential significant impact.

Mitigation Measures: Implementation of Mitigation Measure 4.6.6.2A would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of Mitigation Measure 4.6.6.2A, structural design parameters for the proposed improvements in accordance with the California Building Code, including applicable City amendments, would be implemented based on site-specific geotechnical investigations. The implementation of this measure would reduce the project’s contribution to the potential significant cumulative exposure of persons and structures to seismic ground shaking impacts to less than cumulatively considerable.

6.6.3.7 Unstable Soils

Impact: *The project would result in a cumulatively considerable expansive soil impact that could create substantial risks to life or property.*

Threshold:	Would the project be located on expansive soil, creating substantial risks to life or property?

Cumulative Impact Analysis

Projects in the cumulative scenario (such as MV-20, MV-41, and MV-61) would include structural development on soils that have a low to moderate shrink/swell potential that could result in unstable soils. Areas where soils have a moderate shrink/swell potential could result in expansive soil impacts that would be significant. However, based on a review of the cumulative projects such as MV-20, MV-

41 and MV-61, the implementation of special construction techniques and compliance with the California Building Code would reduce expansive soil impacts to less than significant.

The implementation of the project could include structures on soils with moderate shrink/swell and cause potential significant impacts to persons and structures Therefore, the combination of the project's incremental impacts together with the impacts of other projects in the cumulative scenario would result in a cumulative significant expansive soil impact. Given the size of the project and the number of people it would include, the project's contribution to exposing persons and structures to expansive soil impacts would be cumulatively considerable.

Significance Level Before Mitigation: Potential significant impact.

Mitigation Measures: Implementation of Mitigation Measures 4.6.6.3A through 4.6.6.3C would be required.

Significance Level After Mitigation: Less than significant impact. With the implementation of Mitigation Measures 4.6.6.3A through 4.6.6.3C, structural design parameters for the proposed improvements in accordance with the California Building Code, including applicable City amendments, would be implemented based on site-specific geotechnical investigations. The implementation of these measures would reduce the project's contribution to the potential significant cumulative exposure of persons and structures to expansive soil impacts to less than cumulatively considerable.

6.7 Greenhouse Gas Emissions, Climate Change and Sustainability

Cumulative effects to greenhouse gas (GHG) emissions, climate change and sustainability are described in this section. A summary of the project's potential impacts related to GHG emissions and consistency with plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs is provided in Section 6.7.1. The cumulative impact geographic area for GHG emissions, climate change, and sustainability issues is provided in Section 6.7.2. The potential cumulative impacts and the project's contribution to cumulative impacts related to GHG emissions and consistency with plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs are discussed in Section 6.7.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.7.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.7-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to greenhouse gas emissions, climate change and sustainability. These potentially cumulative impacts are documented in the following section.

6.7.1 Project Impact Findings

The project's effects on greenhouse gas emissions, climate change, and sustainability are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.7 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., exceeds the SCAQMD's 10,000 mt CO_2e emissions screening threshold of significance); **Less than Significant with Mitigation, Section 4.7.6.1.**
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. **Less than Significant with Mitigation, Section 4.7.6.2.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to greenhouse gas emissions identified in the revised FEIR.

6.7.2 Geographic and Temporal Scope

CEQA requires that lead agencies consider the cumulative impacts of GHG emissions from even relatively small (on a global basis) increases in GHG emissions. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and therefore significant. In the case of global climate change, the proximity of the project to other GHG emission generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. GHG emission impacts are, by their very nature cumulative, as both the California Natural Resources Agency and CAPCOA have recognized.

For purposes of this analysis, the cumulative impact geographic area for GHG emissions is based on the limits set forth in the cumulative traffic analysis conducted by the project. This area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County, and the March JPA. The primary sources of GHG emissions from this project would be related to energy consumption in buildings and related uses (lighting for streets and parking lots, etc.) and in the transport of goods by future tenants. Regulations applicable to the GHG-intensity of power and petroleum production in California are promulgated at the state level. Regulations, policies, and plans to reduce GHGs potentially applicable to the project are adopted by the State of California, regional governmental agencies (such as SCAG and SCAQMD), and local governments, in support of State laws AB32 and SB32.

As part of the GHG cumulative analysis a review of available environmental documents for projects within the Project vicinity was conducted. Approximately 360 projects have been identified and out of those 360 projects, approximately 162 environmental documents were available. All 162 were reviewed to identify project specific GHG analyses. Out of the 162 environmental documents that were reviewed, 84 were completed in 2008 or earlier, prior to the requirements of AB32 and the mandatory reporting rules for significant sources of GHG emissions. Therefore, those 84 documents did not provide GHG analyses. Out of the 78 documents that were completed after the year 2008, 24 environmental documents provided a GHG analysis. Despite not having a GHG analysis from all 360 cumulative projects, a determination on the project's cumulative impact could still be determined based on the AQMD's strategies in assessing a cumulatively considerable impact, where projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable.[1]

The projects located within the cumulative GHG emissions, climate change and sustainability impact area are shown in Figure 6.7 and listed in Table 6.7.

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[1] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution, White Paper, Appendix D, 1993, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed July 2017.

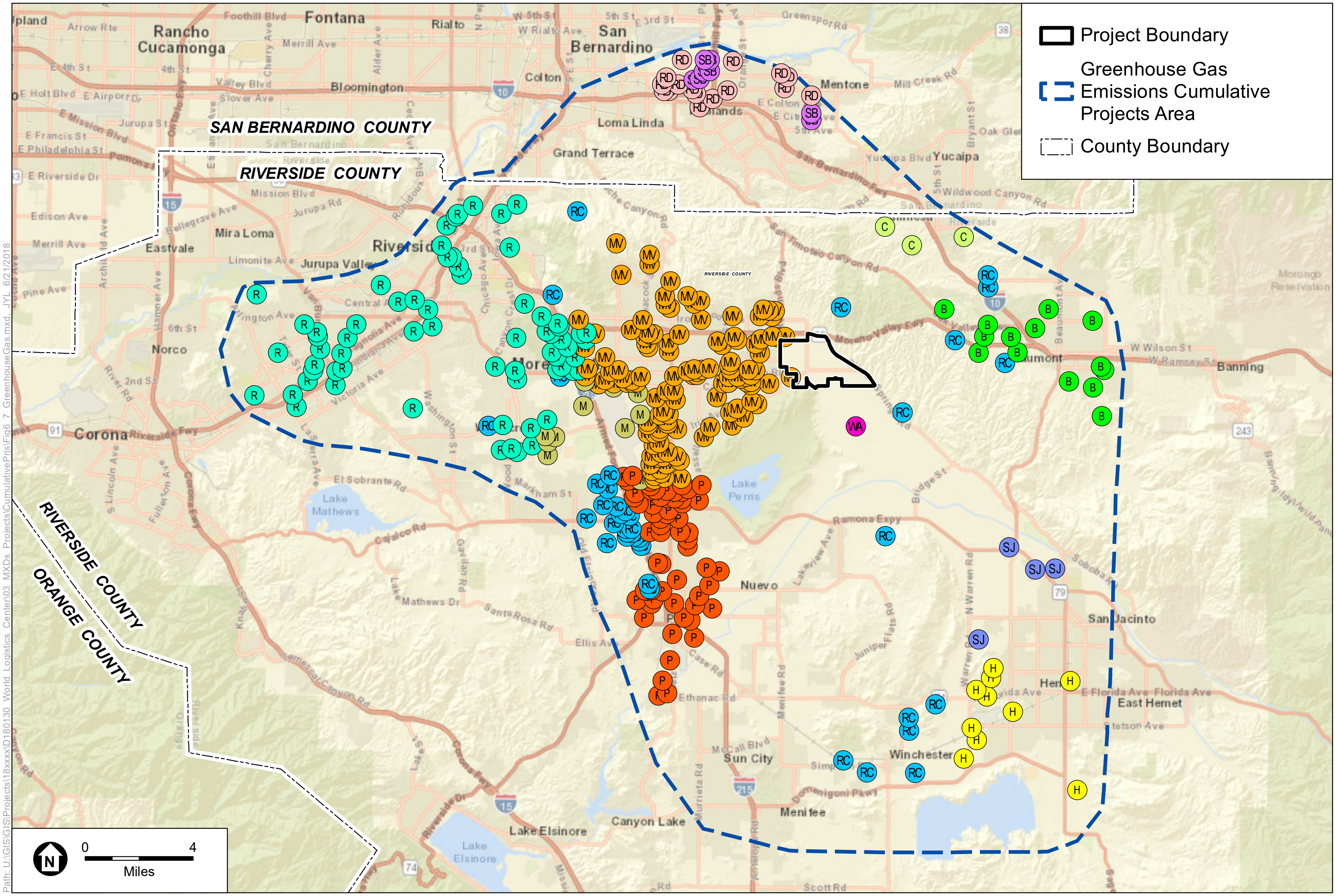

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6 7 GreenhouseGas.mxd, JYL 6/21/2018

World Logistics Center

Figure 6.7-1

Greenhouse Gas Emissions Cumulative Projects Area

Table 6-7 – Greenhouse Gas Emissions, Climate Change and Sustainability Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The project would have a significant impact on GHG emissions.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would have a significant impact on GHG emissions.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. The project would have no significant impacts on GHG emissions.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The project would have a significant impact on GHG emissions.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208

Project ID	Project Name	Environmental Document Summary
		homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. The project would have a less than significant impact on GHG emissions.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. The project would have a less than significant impact on GHG emissions.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on GHG emissions.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on GHG emissions.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would have no impact on GHG emissions.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. The project would

Project ID	Project Name	Environmental Document Summary
		have a less than significant impact on GHG emissions.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project would have a potentially significant impact on air quality.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The EIR provides no information on GHG.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. The project would have a less than significant impact on GHG emissions with mitigation incorporated.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on GHG emissions.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space.

Project ID	Project Name	Environmental Document Summary
		The project would have a less than significant impact on GHG emissions.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact on GHG emissions.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. The project would have significant impacts on GHG emissions associated with consistency with the SCAG RTP/SCS and SB 375.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project would have a less than significant impact on GHG emissions.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. The project would have a less than significant impact on GHG emissions.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on

Project ID	**Project Name**	**Environmental Document Summary**
		GHG emissions.
MV-3	ProLogis	E Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is a less than significant impact on the GHG in the area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the GHG in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the GHG in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the GHG in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the GHG in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project

Project ID	Project Name	Environmental Document Summary
		would result in 25 single family homes on 30.02 acres. There is no impact on the GHG in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the GHG in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the GHG in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the GHG in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the GHG in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the GHG in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is a less than significant impact on the GHG in the area.
MV-20	Moreno Marketplace	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
		Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the GHG in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the GHG in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the GHG in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the GHG in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the GHG in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the GHG in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the GHG in the area.
MV-29	TR36340	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
		Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the GHG in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the GHG in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is a less than significant impact on the GHG in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the GHG in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the GHG in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the GHG in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno

Project ID	**Project Name**	**Environmental Document Summary**
		Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the GHG in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a significant and unavoidable impact on the GHG in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a significant and unavoidable impact on

Project ID	Project Name	Environmental Document Summary
		the GHG in the area.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is a less than significant impact on the GHG in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a significant and unavoidable impact on the GHG in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the GHG in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the GHG in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the GHG in the area with

Project ID	**Project Name**	**Environmental Document Summary**
		mitigation measures.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is no impact on the GHG in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the GHG in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the GHG in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is no impact on the GHG in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the GHG in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the

Project ID	Project Name	Environmental Document Summary
		project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is significant and unavoidable impact on the GHG in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. It does not specifically mention an impact on the GHG in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the GHG in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there will be no impact on the environment in the area. It does not specifically mention an impact on the GHG in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the GHG in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the GHG in the

Project ID	**Project Name**	**Environmental Document Summary**
		area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the GHG in the area with mitigation measures.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the GHG in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the GHG in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the GHG in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the GHG in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the GHG in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is a less than significant impact on the GHG in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the GHG in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the GHG in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the GHG in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the GHG in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the GHG in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the GHG in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the GHG in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the GHG in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact on the GHG in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the GHG in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5

Project ID	Project Name	Environmental Document Summary
		zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the GHG in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact on the GHG in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the GHG in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is no impact on the GHG in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78

Project ID	Project Name	Environmental Document Summary
		single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the GHG in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the GHG in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the GHG in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the GHG in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the GHG in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that

Project ID	**Project Name**	**Environmental Document Summary**
		the project would be exempt from CEQA guidelines. It does not mention specifically anything about an impact on the GHG in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the GHG in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the GHG in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution states that the project is exempt from CEQA guidelines. It does not specifically mention an impact on the GHG in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the GHG in the area.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be

Project ID	**Project Name**	**Environmental Document Summary**
		developed as 563,328 square feet of commercial uses. There is no impact on the GHG in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the GHG in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the GHG in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the GHG in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the GHG in the area.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a less than significant impact on GHG emissions.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have less than significant impacts on GHG emissions.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project

Project ID	**Project Name**	**Environmental Document Summary**
		would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would have less than significant impacts on GHG emissions.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project would have less than significant impacts on GHG emissions with mitigation.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have less than significant impacts on GHG emissions.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a potentially significant impact on air quality.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two

Project ID	**Project Name**	**Environmental Document Summary**
		structures. The project would have a significant impact on GHG emissions.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would have a less than significant impact on GHG emissions.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have cumulatively significant impacts to GHG emissions.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. The project would have a significant impact on GHG emissions.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project would have a potentially significant impact on GHG emissions.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a significant impact on GHG emissions.
P-19	P05-0192	Per the City of Perris' 2006

Project ID	Project Name	Environmental Document Summary
		EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have a significant impact on GHG emissions.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project would have a less than significant impact on GHG emissions with mitigation.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on GHG emissions.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on GHG emissions. The project would have a less than significant impact on GHG emissions.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project would have a less than significant impact on GHG emissions.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project would have a significant impact on GHG emissions.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse

Project ID	**Project Name**	**Environmental Document Summary**
		development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have a less than significant impact on GHG emissions.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on GHG emissions.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project would have a significant impact on GHG emissions.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project would have a significant impact on GHG emissions.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the GHG in the area.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the GHG in the area with mitigation

Project ID	**Project Name**	**Environmental Document Summary**
		measures.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is a potentially significant impact on the GHG in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is a less than significant impact on the GHG in the area.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a less than significant impact on the GHG in the area.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would have a less than significant impact on GHG emissions.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is a less

Project ID	**Project Name**	**Environmental Document Summary**
		than significant impact on the GHG in the area with mitigation measures.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is no impact on the GHG in the area.
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Per the City of Riverside's December 2009 Final EIR, the project would develop a 36.91 acre business park development for light industrial, warehouse distribution, and office uses on 80.07 acres. There is no impact on the GHG in the area.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is a less than significant impact on the GHG in the area.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking

Project ID	**Project Name**	**Environmental Document Summary**
		structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is a less than significant impact on the GHG in the area with mitigation measures.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. There is a major impact on the Air emissions/quality. It does not specifically mention an impact on the GHG in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a significant and unavoidable impact on the GHG in the area.

Project ID	Project Name	Environmental Document Summary
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The slides do not specifically mention an impact from the GHG in the area. However, it is important to note that GHG is excluded from the slide titled: “Significant Impacts not mitigated”.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is no impact on the GHG in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is no impact on the GHG in the area.
RC-12	Cores Industrial Partners	Per Riverside County’s October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There is no impact on the GHG in the area.

Project ID	**Project Name**	**Environmental Document Summary**
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. There is no impact on the GHG in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is a potentially significant impact on the GHG in the area.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is no impact on the GHG in the area.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is a less than significant impact on the GHG in the area with mitigation measures.
RC-38	San Gorgonio Crossings	Per Riverside County's

Project ID	Project Name	Environmental Document Summary
		May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant impact on the GHG in the area with mitigation measures.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. There is no impact on the GHG in the area.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. There is a less than significant impact on the GHG in the area.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally the Project seeks approval to remove 5 acres from an Agricultural Preserve. There is a less than significant on the GHG in the area.
RD-6	Woodsprings Hotel	Per the City of Redlands'

Project ID	Project Name	Environmental Document Summary
		March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property. There is a less than significant impact on the GHG in the area.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. There is a less than significant impact on the GHG in the area.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces. There is a significant cumulative impact on the GHG in the area.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. There is a less than significant impact on the GHG in the area.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking. There is a less than significant impact on GHG in the area.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square

Project ID	**Project Name**	**Environmental Document Summary**
		feet of warehouse uses on 37.4 acres. There is a less than significant impact on the GHG in the area.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino's 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. There is a less than significant impact on the GHG in the area.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino's 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. There is a less than significant impact on the GHG in the area.
SB-3	Prologis #12	Per the County of San Bernardino's 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a “high cube” warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres. There is a less than significant impact on the GHG in the area.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. There is a less than significant

Project ID	Project Name	Environmental Document Summary
		impact on the GHG in the area.
SB-6	Prologis #8	Per the County of San Bernardino's 2007 IS, the project would result in the construction four industrial buildings to be used a "High Cube" and general warehouse distribution facilities. There is a less than significant impact on the GHG in the area.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. There is a less than significant impact on the GHG in the area.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. There is a less than significant impact on the GHG in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact on the GHG in the area.

6.7.3 Cumulative Evaluation

Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis of project GHG emissions and climate change is based on methodologies and information available at the time this EIR was prepared. While information is presented below to assist the public and the City's decision-makers in understanding the project's potential contribution to global climate change impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.

6.7.3.1 Greenhouse Gas Emissions

Impact: *The project's contribution to the generation of cumulative greenhouse gas emissions would not be cumulatively considerable.*

Threshold: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Cumulative Impact Analysis

The project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment. Section 4.7.6.1 Greenhouse Gas Emissions, found that construction of the project would contribute approximately from 11,738 metric tons of CO_2e in its first year of construction and up to approximately 20,659 mt CO_2e per year of construction during the 16-year construction period. Over the 16-year construction period the project would emit a total of 221,381 mt CO_2e. The SCAQMD recommends that construction emissions be averaged over a 30-year period. Average over a 30-year period results in approximately 7,379 mt CO_2e.

Operational or long-term emissions occur over the life of the project. Mobile emissions were calculated using emission factors for the actual year assessed. The motor vehicle and truck emissions for Phase 1 (2018 to 2025) use emission factors for the year 2025, whereas motor vehicle and truck emissions for Phase 2 (2026 to buildout, 2040) use emission factors for the year 2040. CARB has designed a California cap-and-trade program that is enforceable and meets the requirements of AB 32 and SB 32. The program began on January 1, 2012, placing GHG emissions limits on capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MT CO2e per year), and enforcing compliance obligations beginning with 2013 emissions. Vehicle fuels were placed under the cap in 2015, and with the passage of AB 398, the program was extended through 2030. The Cap-and-Trade Program allocates emissions permits across covered entities in each sector. As shown in Section 4.7.6.1 Greenhouse Gas Emissions, the project's unmitigated uncapped emissions of approximately 22,854 mt CO_2e per year are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year.

Out of the 24 environmental documents that evaluated GHG emissions, eight (8) documents provided quantitative operation and construction emissions and utilized the SCAQMD's Interim CEQA GHG Significance Thresholds to determine the respective project's level of significance. All eight (8) of the projects that were identified were either residential or commercial projects; therefore, Tier 3 of the SCAQMD's draft threshold for residential/commercial projects, 3,000 mt CO_2e per year, was used in each of the greenhouse assessments. All eight (8) projects that provided quantitative emissions were found to be less than significant and no cumulative impacts would be generated. Furthermore, the additional 16 projects that provided a qualitative GHG analysis were found to be less than significant and not contribute to a cumulative impact. However, although these 24 projects had less than significant impacts, the geographic cumulative area includes 360 projects, all of which could contribute to a significant cumulative impact. Given that the project would have a potentially significant impact to GHG emissions prior to the application of mitigation, this project's contribution to cumulative impact sis considered to be considerable prior to mitigation.

Significance Level Before Mitigation: Cumulatively considerable significant impact.

Mitigation Measures: As identified in Section 4.7.6.1, **Mitigation Measures 4.7.6.1A** is required to reduce solid waste and greenhouse gas emissions from construction and operation of project development.

Significance Level After Mitigation: Less than significant impact. The project's mitigated uncapped emissions of 8,013 mt CO_2e per year would not exceed the SCAQMD's significance threshold of 10,000 mt CO_2e per year. When considered with the other projects' less than significant impacts, the project would not contribute to a significant cumulative impact.

6.7.3.2 Greenhouse Gas Plan, Policy, Regulation Consistency

Impact: *The project, together with cumulative projects, would not cumulatively contribute to conflicts with applicable plans, policies and regulations to reduce greenhouse gas emissions. The project would not be cumulatively considerable.*

Threshold: Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Cumulative Impact Analysis

Section 4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency, assesses the project's consistency with applicable federal, state, regional, and local GHG reduction strategies. The project would comply with all mandatory reduction strategies such as water conservation, energy efficiency, solid waste reduction, and efficiency measures related to transportation and motor vehicles. In addition, the project would go beyond energy conservation measures and exceed minimal compliance with 2016 Title 24 requirements by approximately 16 percent at full buildout.

Although all cumulative projects are required to comply with mandatory federal, state, regional, and applicable local GHG reduction measures, it would be speculative to assume that all cumulative projects would be consistent with all applicable plans, policies, and regulations related to the reduction of GHG emissions. However, as discussed in Section 4.7.6.2, the project would comply with and would not conflict with applicable GHG reduction measures. Additionally, the project would contribute to further reductions by exceeding minimum compliance with Title 24 requirements by approximately 16 percent at full buildout, incorporating an alternative fuel service station, and supporting infrastructure to accommodate future electric vehicle populations. Therefore, the project's contribution to cumulative impacts would not be cumulatively considerable.

Significance Level Before Mitigation: Cumulatively considerable significant impact.

Mitigation Measures: Implementation of previously referenced **Mitigation Measures 4.3.6.2A, 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.7.6.1B, 4.7.6.1C, 4.7.6.1D, 4.16.1.6.1A, 4.16.1.6.1B,** and **4.16.1.6.1C** will help reduce project-related GHG emissions and therefore make it more consistent with GHG reduction plans, policies, and/or regulations.

Significance Level After Mitigation: Less than significant impact. The 24 environmental documents that evaluated GHG emissions found that their respective projects would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and were found to be less than significant. Because the project's impact would be less than significant with mitigation, and the other projects' impacts were found to be less than significant, the project is not considered to be cumulatively considerable.

6.8 Hazards and Hazardous Materials

Cumulative effects to hazards and hazardous materials are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to hazards and hazardous materials is provided in Section 6.8.1. The geographic and temporal scopes for cumulative impacts to hazards and hazardous materials is provided in Section 6.8.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the hazards and hazardous materials issues are discussed in Section 6.8.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.8.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.8 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to hazards and hazardous materials.

6.8.1 Project Impact Findings

The project's effects to hazards and hazardous materials are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.8 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; **No Impact, Section 4.8.5.1.**
- For a project located within the vicinity of a private airstrip, result in a safety hazard for people working in the project area; **No Impact, Section 4.8.5.1.**
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; **Less than Significant, Section 4.8.5.2.**
- Create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials; **Less than Significant, Section 4.8.5.3.**

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions; **Less than Significant, Section 4.8.5.3.**
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment; **Less than Significant, Section 4.8.5.4.**
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation; **Less than Significant, Section 4.8.5.5.**
- Result in the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. **Less than Significant, Section 4.8.5.6.**
- Create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials; **Less than Significant with Mitigation, Section 4.8.6.1, Impacts 4.8.6.1A and 4.8.6.1B.**

Pursuant to CEQA Guidelines §15130, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." Because the project would result in no impact related to an airport land use plan or people living or working near a public airport, public use airport, or a private airstrip, it could not cause or contribute to any potential cumulative impact in any of these respects.

Because development of the project could result in a less-than-significant impact related to the remaining considerations, the analysis below evaluates whether impacts of the project could combine with the incremental impacts of other projects in the cumulative scenario to cause or contribute to a significant cumulative effect and, if so, whether the project's contribution would be cumulatively considerable.

6.8.2 Geographic and Temporal Scope

The cumulative impact geographic area for hazards and hazardous materials is the City of Moreno Valley because the City has adopted specific safety policies and regulations to reduce potential hazards and hazardous materials impacts. In addition, the geographic area for potential cumulative effects from the routine transport of hazardous materials is also the City of Moreno Valley because the hazardous materials would be transferred by trucks along major roadways and freeways (particularly SR-60) adjacent to land uses within the City of Moreno Valley. Cumulative impacts related to hazards and hazardous materials could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley. The geographic area for cumulative hazards and hazardous materials impacts is shown on Figure 6.8. The projects located within the cumulative hazards and hazardous materials impact area are listed in Table 6.8. The project would contribute to cumulative hazards and hazardous materials conditions starting with the transportation to the project site of project-related hazardous materials and lasting for the duration of onsite construction work and the operation of the project.

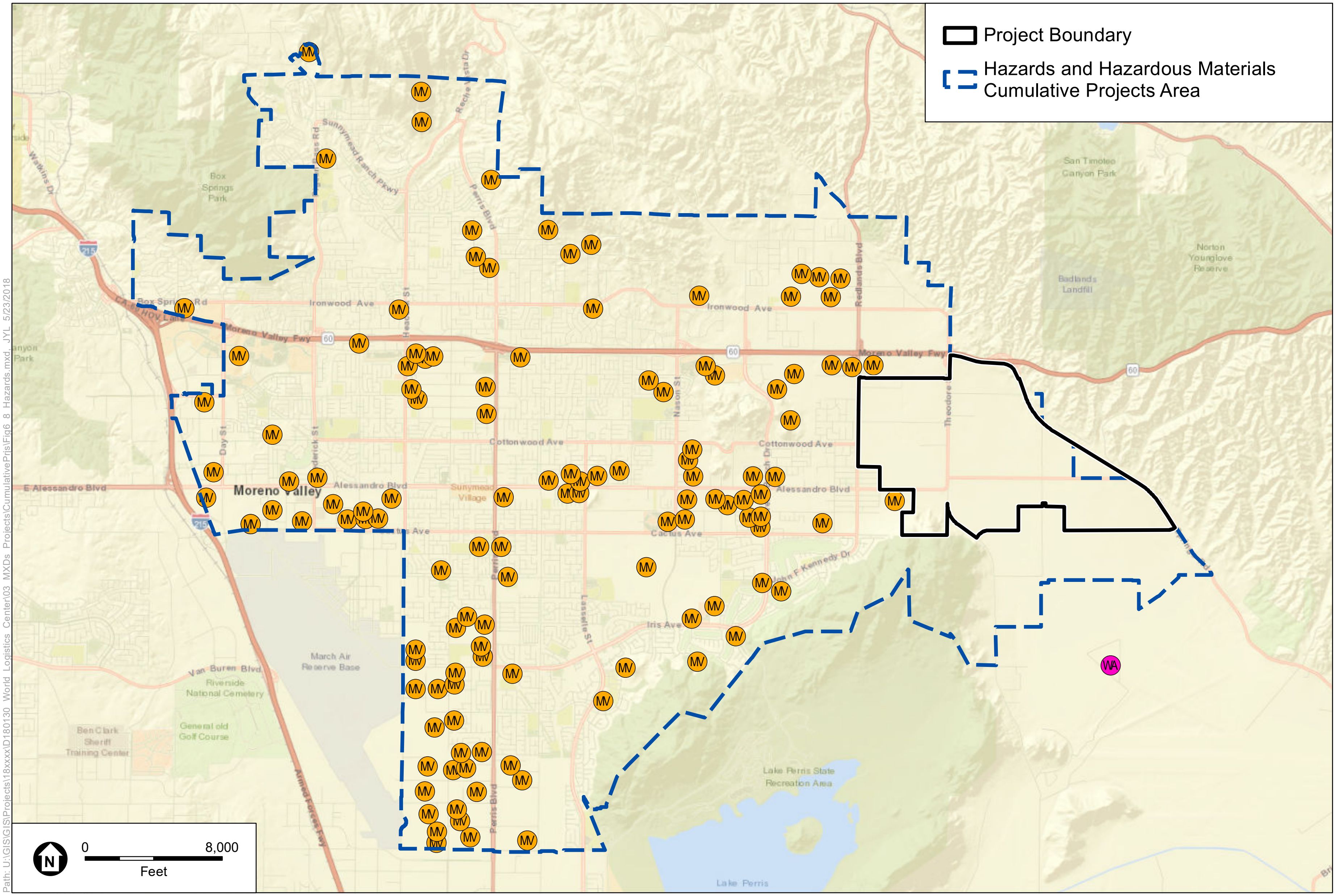

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_8_Hazards.mxd, JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.8-1

Hazards and Hazardous Materials Cumulative Projects Area

ESA

Table 6.8 – Hazards and Hazardous Material Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility would contribute to cumulative impacts from the transport of hazardous materials within the geographic area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact from the hazards and hazardous materials in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact from the hazards and hazardous materials in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact from the hazards and hazardous materials in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact from the hazards

Project ID	**Project Name**	**Environmental Document Summary**
		and hazardous materials in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact from the hazards and hazardous materials in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact from the hazards and hazardous materials in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact from the hazards and hazardous materials in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact from the hazards and hazardous materials in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact from the hazards and hazardous materials in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through

Project ID	Project Name	Environmental Document Summary
		car wash) on 4.17 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact from the hazards an hazardous materials in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact from the hazards and hazardous materials in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3

Project ID	**Project Name**	**Environmental Document Summary**
		acres. There is no impact from the hazards and hazardous materials in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact from the hazards and hazardous materials in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact from the hazards and hazardous materials in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact from the hazards and hazardous materials in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact from the hazards

Project ID	Project Name	Environmental Document Summary
		and hazardous materials in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact from the hazards and hazardous materials in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact from the hazards and hazardous materials in the area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution

Project ID	Project Name	Environmental Document Summary
		warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact from the hazards and hazardous materials in the area.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact from the hazards and hazardous materials in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256

Project ID	Project Name	Environmental Document Summary
		loading bays. There is no impact from the hazards and hazardous materials in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact from the hazards and hazardous materials in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. It does mention an impact from the hazards and hazardous materials in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project's subdivision of a 75.05-acre property into four parcels with business center land uses would contribute to cumulative impacts from the transport of hazardous materials within the geographic area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact from the hazards and hazardous materials in the

Project ID	Project Name	Environmental Document Summary
		area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no new impact from the hazards and hazardous materials in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-56	Tract Map 33810	No environmental documentation was

Project ID	Project Name	Environmental Document Summary
		available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. It does specifically mention an impact from the hazards and hazardous materials in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact from the hazards and hazardous materials in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there will be no impact on the environment. It did not specifically mention the impact from hazards and hazardous material in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact from the hazards and hazardous materials in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on

Project ID	**Project Name**	**Environmental Document Summary**
		the approximately 22.28-acre site. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact from the hazards and hazardous materials in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact from the hazards and hazardous materials in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact from the hazards and hazardous materials in the area.
MV-69	PA07-0039, (Industrial Area SP)	N Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact from the hazards and hazardous materials in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
		Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact from the hazards and hazardous materials in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact from the hazards and hazardous materials in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact from the hazards and hazardous materials in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact from the hazards and hazardous materials in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8

Project ID	Project Name	Environmental Document Summary
		industrial buildings and 1 future industrial building on 126 acres. There is no impact from the hazards and hazardous materials in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact from the hazards and hazardous materials in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact from the hazards and hazardous materials in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution does state that there will be no impact on the environment in the area. It does not specifically mention an impact from the hazards and hazardous materials in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact from the hazards and hazardous materials in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5

Project ID	Project Name	Environmental Document Summary
		zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact from the hazards and hazardous materials in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact from the hazards and hazardous materials in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact from the hazards and hazardous material in the area with mitigation measures.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is no impact from the hazards and

Project ID	Project Name	Environmental Document Summary
		hazardous materials in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is no impact from the hazards and hazardous materials in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact from the hazards and hazardous materials in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact from the hazards and hazardous materials in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact from the hazards and hazardous materials in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned

Project ID	Project Name	Environmental Document Summary
		residential development of 194 residential units on a 26.12-acre site. There is no impact on the hazards and hazardous materials in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact from the hazards and hazardous materials in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact from the hazards and hazardous materials in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact from the hazards and hazardous materials in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this

Project ID	Project Name	Environmental Document Summary
		project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention the impact on the environment in the area. It also does not mention the impact from the hazards and hazardous materials in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact from the hazards and hazardous materials in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact from the hazards and hazardous materials in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact from the hazards and hazardous materials in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
	Associates, Inc.	Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact from the hazards and hazardous materials in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact from the hazards and hazardous materials in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact from the hazards and hazardous materials in the area with mitigation measures.

6.8.3 Cumulative Impact Evaluation

6.8.3.1 Existing or Proposed School

Impact: *The project would not contribute to the exposure of students to potential significant cumulative impacts related to hazardous emissions within one-quarter mile of an existing or proposed school.*

Threshold: Would the project emit hazardous emissions or handle acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Cumulative Impact Analysis

Cumulative developments within the City of Moreno Valley may be located within one-quarter mile of an existing or proposed school and could emit hazardous emissions and/or handle acutely hazardous materials, substances, or waste. Therefore, the increases in potential exposure of school-age children to hazardous emissions or substances could result in significant cumulative impacts associated with exposure. There are no existing school facilities within one-quarter of a mile of the project area. The nearest existing school is Calvary Chapel Christian School which is located approximately 1.17 miles northwest of the project. There is one proposed elementary school site that is located within one-quarter mile of the WLC project area. The site for proposed Wilmot Elementary School is planned to be located on Bay Avenue at Wilmot Street, approximately 0.25 mile west of the project area.

The amount and type of materials that would be used during project construction (building and infrastructure) or stored in the high-cube logistics distribution center after construction is unknown at this time. The emission of air pollutants is discussed in the Air Quality Section of the EIR. While the warehouse facilities themselves are not expected to use acutely hazardous materials, the possibility exists that such materials could be stored or transported to and from the project site. For the purposes of this analysis, it is assumed that the project would handle substances that may be acutely hazardous. The handling of hazardous materials or emission of hazardous substances in accordance with the Hazardous Materials Business Emergency Plan (HMBEP) as required by applicable local, State, and Federal standards, ordinances, and regulations would ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools would be less than significant. The project would not contribute to cumulative safety hazards for school-age children within ¼-mile of the project because the nearest existing school is 1.17 miles from the project site; therefore, the project would not cause or contribute to any potential significant cumulative impacts to existing schools.

Many of the cumulative projects would use, handle, store, and/or transport hazardous materials or require demolition of structures containing such materials within ¼-mile of a proposed school. Cumulative projects would be required to use, store, and transport all potentially hazardous materials in accordance with the manufacturers' instructions and handle materials in accordance with Federal, State, and local health and safety standards and regulations. Compliance with existing standards and regulations would ensure that projects in the cumulative scenario would not result in significant impacts to the public, including school-age children, or the environment through the routine transport, storage, use, or handling of hazardous materials. Some of the cumulative projects may be on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. However, each cumulative project would be required to comply with existing Federal, State, and local regulations related to hazardous material sites, including cleanup sites, and hazardous materials generators. As such, cumulative development would account for clean-up of many existing hazardous conditions and would not result in significant cumulative impacts related to the exposure of students to hazardous emissions within 0.25-mile of a proposed school.

Significance Level Before Mitigation: Less than significant .

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.8.3.2 Routine Transport, Use, Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions

Impact: *The project would contribute incrementally to a less than significant cumulative hazard to the public through the routine transport, use, or disposal of hazardous materials or through* reasonably foreseeable upset and accident conditions.

Threshold: Would the project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials? Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident?

Cumulative Impact Analysis

Cumulative projects (such as MV-4, and MV-48) in the City of Moreno Valley would routinely transport, use, or dispose of hazardous materials. Further, these cumulative projects could create significant hazards to the public or the environment through reasonably foreseeable upset and accident conditions during construction or operation activities. Related projects would be required to use, store, and transport all potentially hazardous materials in accordance with the manufacturers' instructions and handle materials in accordance with Federal, State, and local health and safety standards and regulations. Compliance with existing standards and regulations would ensure that the projects in the cumulative scenario would not result in significant impacts to the public or the environment through the routine transport, storage, use, or handling of hazardous materials. Some of the cumulative projects may be on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. However, each such project would be required to comply with existing Federal, State, and local regulations related to hazardous material sites, including cleanup sites, and hazardous materials generators. As such, cumulative development would account for clean-up of many existing hazardous conditions and would not result in cumulatively significant impacts.

The project's incremental less than significant contribution, in combination with the impacts of other cumulative projects, could create a significant impact related to this issue. Some of these risks are site-specific and localized, such as businesses that handle hazardous materials within their facilities (i.e., on site); these types of hazmat impacts are generally limited to the project site. It is also possible there would be incrementally increased impacts by the transport and disposal of hazardous materials related to warehouse operations on the project site. For example, the substantial increase in trucks in and around the WLC site would incrementally increase the risks of accidents involving truck-related fuels (e.g., fire or explosion). However, the number of trucks containing hazardous materials on the road in a given area at any given time would be difficult if not impossible to calculate, and it would be likewise difficult to estimate the number and/or location of accidental spills and leaks, which, by their nature, are accidental or unplanned occurrences, it would be impossible to predict the specific occurrence of such events on the project site. Despite these uncertainties, it is reasonable to assume that with an increase in vehicles transporting hazardous materials would incrementally increase the potential for accidents on a regional basis. However, the enforcement of applicable local, State, and Federal standards, ordinances, and regulations will ensure that potential cumulative impacts associated with environmental and health hazards related to an accidental release of hazardous materials would be less than significant.

Significance Level Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.8.3.3 Located on a List of Hazardous Material Sites

Impact: *The project's less-than-significant contribution to cumulative hazards to the public or the environment by being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 would not cause or contribute to a significant cumulative effect.*

Threshold: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

Cumulative Impact Analysis

Several cumulative projects could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. However, these projects would be required to comply with existing Federal, State, and local regulations related to hazardous material sites, including cleanup sites, and hazardous materials generators. As such, cumulative development would account for clean-up of many existing hazardous conditions and would not result in cumulatively significant impacts.

The project site is not located on a site compiled pursuant to Government Code Section 65962.5. As a result, the project's contribution to potential cumulative impacts related to development on a hazardous materials site would not cause or contribute to a significant cumulative effect.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.8.3.4 Conflict with Emergency Response Plans

Impact: *The project's less than significant contribution to cumulative interference with an adopted emergency response plan or emergency evacuation would not cause or contribute to a significant cumulative effect.*

Threshold: Would the project impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation?

Cumulative Impact Analysis

Cumulative projects within the City of Moreno Valley could result in interference with an adopted emergency response plan or emergency evacuation plan. However, this would be based on the location of the project and the project-specific design requirements. The risks associated with impairment or physical interference with an adopted emergency response plan or emergency evaluation plan in the City can only be reduced through conformance with police, fire, building code regulations, and the responsible transportation authority. It is anticipated that cumulative projects would request the appropriate approvals and be in conformance with applicable codes and regulations. Therefore, cumulative development would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The project has been designed and would be constructed and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation would be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Compliance with existing regulations for emergency access and evacuation would ensure that impacts related to this issue would be less than significant. As a result, the project's incremental less than significant contribution to any potential cumulative impacts related to emergency response and evacuation would not cause or contribute to a significant cumulative impact.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.8.3.5 Wildland Fire Risks

Impact: *The project's incremental less than significant contribution to cumulative human and structural risks associated with wildland fires would not cause or contribute to a significant cumulative effect.*

Threshold:	Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Cumulative Impact Analysis

The City of Moreno Valley is subject to both wildland and urban fires. Wildfires pose a threat to the northern and eastern portions of the City. Cumulative projects in the City could be located in areas subject to wildland and urban fires. Cumulative impacts involving wildfires consists of future development adjacent to a High Fire Hazard Area. The risk to each future project is based on the location and interface between urbanized area and wildland areas. The risks associated with development in these area can only be reduced through the additional/improved fire stations, equipment, additional personnel, and conformance with Fire and Building Code regulations, it is anticipated that cumulative development within the project area would not create a significant and cumulative impact associated with wildland fire hazards.

Development of the eastern portion of the project site could expose persons or property to wildland fire risks given the proximity of the project area adjacent to a High Fire Hazard Area. Regardless of this proximity, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period. In addition, no development would be allowed within the San Jacinto Fault Zone, which runs parallel to, and west of Gilman Springs Road; this area of limited development would serve as a fuel or fire break to help protect future occupied uses within the project area. Compliance with existing standards, codes and regulations for fire safety would ensure that cumulative impacts related to this issue would be less than significant. The project's incremental less-than-significant contribution, in combination with the impacts of other cumulative projects, would not cause or contribute to significant cumulative impacts related to risks from wildland fires.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.8.3.6 On-site Conditions Involving Hazardous Materials

Impact: *The project's contribution to cumulative hazardous materials impacts from the demolition of existing on-site structures and excavation of potential contaminated soil would be cumulatively considerable.*

Threshold: Would the project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials?

Cumulative Impact Analysis

Cumulative development in the project area could result in the demolition and removal of structures containing hazardous building materials such as asbestos containing materials (ACM) and lead based paint (LBP). As discussed above, cumulative development could result in the routine use, transport, or disposal of hazardous materials.

The project could result in the exposure of onsite workers and the environment to hazardous building materials. This exposure could result in significant impacts. In addition, the Specific Plan proposes an alternative fuels station to be constructed in the Specific Plan area. It would provide fuels for motor vehicles visiting the project. Since this facility would store large volumes of motor fuel including natural gas under liquefied and compressed conditions, there is a potential for fire and/or explosion. This is a potentially significant hazards impact. The project's incremental impacts, together with the incremental impacts of other projects in the cumulative scenario, would result in significant cumulative hazard impacts involving the use, transport, or disposal of hazardous materials. The project's incremental contribution would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Implementation of **Mitigation Measures 4.8.6.1A, 4.8.6.1B, 4.8.6.1C,** and **4.8.6.1D** is required.

Significance Level After Mitigation: Less than significant impact.

6.9 Hydrology and Water Quality

Cumulative effects to hydrology and water quality are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to hydrology and water quality issues is provided in Section 6.9.1. The geographic and temporal scopes for hydrology and water quality issues are provided in Section 6.9.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the hydrology and water quality issues are discussed in Section 6.9.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.9.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.9 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative effect and, if so, whether the project's contribution would be cumulatively considerable.

6.9.1 Project Impact Findings

The project's effects to hydrology and water quality are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.9 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Expose people or structure to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? **Less than Significant, Section 4.9.5.1.**
- Expose people or structure to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow? **Less than Significant, Section 4.9.5.2.**
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level? **Less than Significant, Section 4.9.5.3.**
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows? **Less than Significant, Section 4.9.5.4.**

- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? **Less than Significant, Section 4.9.5.4.**
- Substantially alter the existing local drainage patterns of the site and substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion, siltation, or flooding on site or off site? **Less than Significant with Mitigation, Section 4.9.6.1, Impact 4.9.6.1.**
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? **Less than Significant with Mitigation, Section 4.9.6.1, Impact 4.9.6.1.**
- Violate any water quality standards or waste discharge requirements during construction phases of the project in form of increased soil erosion, sedimentation, or storm water discharges? **Less than Significant with Mitigation, Section 4.9.6.2, Impact 4.9.6.2.**
- Violate any water quality standards or waste discharge requirements during the operational phases of the project in the form of increased soil erosion, sedimentation, or urban runoff? **Section 4.9.6.3, Impact 4.9.6.3.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to hydrology and water quality associated with the project.

6.9.2 Geographic and Temporal Scope

To determine the project’s cumulative impacts to hydrology and water quality, the tributary drainage area, flow direction of stormwater runoff from the project site were considered as were downstream drainage areas and facilities. As outlined in the FEIR, stormwater runoff from the project site flows in a southerly direction to the San Jacinto River. As shown in Figure 6.9-1 and 6.9-2, a topographic divide located west of World Logistics Center Parkway separates stormwater flows from the project site to the San Jacinto River by two routes. Runoff west of the divide flows to the Perris Valley Storm Drain (PVSD) at a gradient also ranging from 1 to 2 percent. Runoff east of the divide flows through the San Jacinto Valley at a gradient also ranging from 1 to 2 percent to the San Jacinto Wildlife Area (SJWA).

The area tributary to the PVSD consists of two subareas, Sunnymead and Moreno, as delineated by the Riverside County Flood Control & Water Conservation District (RCFC&WCD). The PVSD watershed begins in the Badlands to the north and extends to Mariposa Avenue to the south, Ellsworth Street to the west, and the topographic divide within the project site to the east. The area tributary to the SJWA incudes the Middle and Upper San Jacinto River watershed area and extends from the Badlands to the north, the Bernasconi Hills and Lakeview Mountains to the south, the headwaters of the San Jacinto River to the east, and the topographic divide just west of World Logistics Center Parkway. Both the PVSD and the SJWA watershed areas flow to the lower San Jacinto River south of the project site. Flows are then conveyed through the lower San Jacinto River to Canyon Lake, again to the lower San Jacinto River, and ultimately to Lake Elsinore.

For the PVSD area, SJWA, and other portions of the San Jacinto River watershed areas, the past, present, and probable future projects were identified and included in the cumulative impacts analysis. These projects are listed in Table 6.9-1 and shown on Figure 6.9-1. For the area tributary to the PVSD there are a total of 106 projects. These projects consist of a variety of project types and sizes including various commercial areas such as a gas station, a commercial auto mall, a Walmart, and several apartments and single-family developments. For the area tributary to the SJWA, there are 14 planned projects, including four projects adjacent to, within, or near the SJWA. These four projects are the Badlands Landfill Improvement Project, the Quail Ranch Specific Plan, the SJWA Land Management Plan and the Villages of Lakeview Project. For the other portions of the San Jacinto Watershed south of the PVSD area and SJWA there are 120 projects consisting of a variety of commercial, business and residential projects. Each of the projects are required to mitigate their impacts for hydrology and water quality and implement BMPs pursuant to the local agency's regulations such as the Moreno Valley Municipal Code Chapter 8.10 et seq. and § 8.21.170. Per the local regulations, each project is required to prepare a Water Quality Management Plan and comply with the Santa Ana Regional Quality Control Board Order No. R8-2010- 0033, NPDES Permit No. CAS618033 (NPDES Permit). The environmental documents, where available, were reviewed for each project to determine the type of drainage and water quality facilities to be constructed incompliance with the NPDES Permit. Each project was required to construct drainage and water quality facilities to mitigate the impacts. Each project analyzed cumulative impacts and concluded that the impacts would be less than significant since all projects in the watershed are required to comply with the local agency's drainage requirements and NPDES Permit and mitigate their individual impacts. The drainage facilities consisted of construction of storm drains and detention basins to mitigate increased peak flows, velocities and volumes. The types of water quality facilities constructed include extended detention/sedimentation basins, infiltration basins, water quality basins sand filters, vegetated swales, and bioretention areas. For example, the ProLogis project includes on-site extended detention/sedimentation basins, sand filters, and vegetated swales which will treat all of the site's runoff. The Moreno Valley Logistics Center (MV-54) includes on-site, structural source control best management practices (BMPs) consisting of six water quality/detention basins as well as operational source controls prior to water being discharged from the site. The First Nandia Logistics Center includes three detention and water quality basins. The Modular Logistics Center (MV-44) constructed two water quality detention basins. The Villages of Lakeview Project includes construction of two regional water quality basins prior to flows being discharged to the San Jacinto River, although the majority go the project area is downstream of the SJWA. The SJWA Land Management Plan includes construction of source control and low impact development (LID) BMPs including bioretention facilities, infiltration trenches, filter strips, or vegetated buffers to detain and treat runoff before letting it seep away slowly. The Quail Ranch Project does not have an environmental document completed yet. However, the Quail Ranch Project will be required to comply with the local regulations and NPDES permit, as well.

The cumulative projects geographic boundary for hydrology/water quality is shown in Figure 6.9.-1. The projects located within the hydrology and water quality impact area is listed in Table 6.9-1.

The project would contribute to cumulative hydrology and water quality conditions starting with the initiation of onsite work and lasting for the duration of the project.

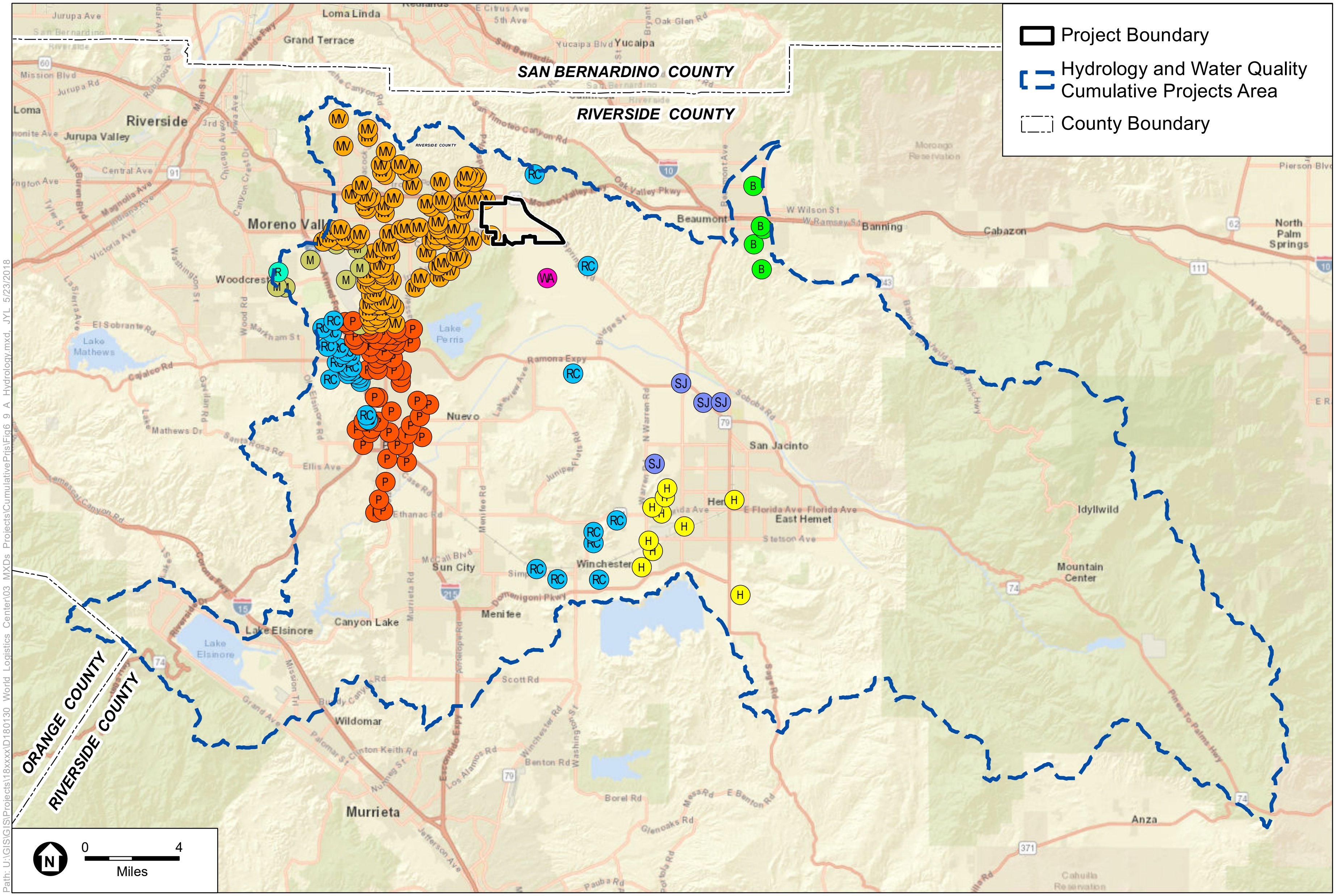

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6 9 A Hydrology.mxd, JYL 5/23/2018

World Logistics Center

Figure 6.9-1

Hydrology and Water Quality Cumulative Projects Area

ESA

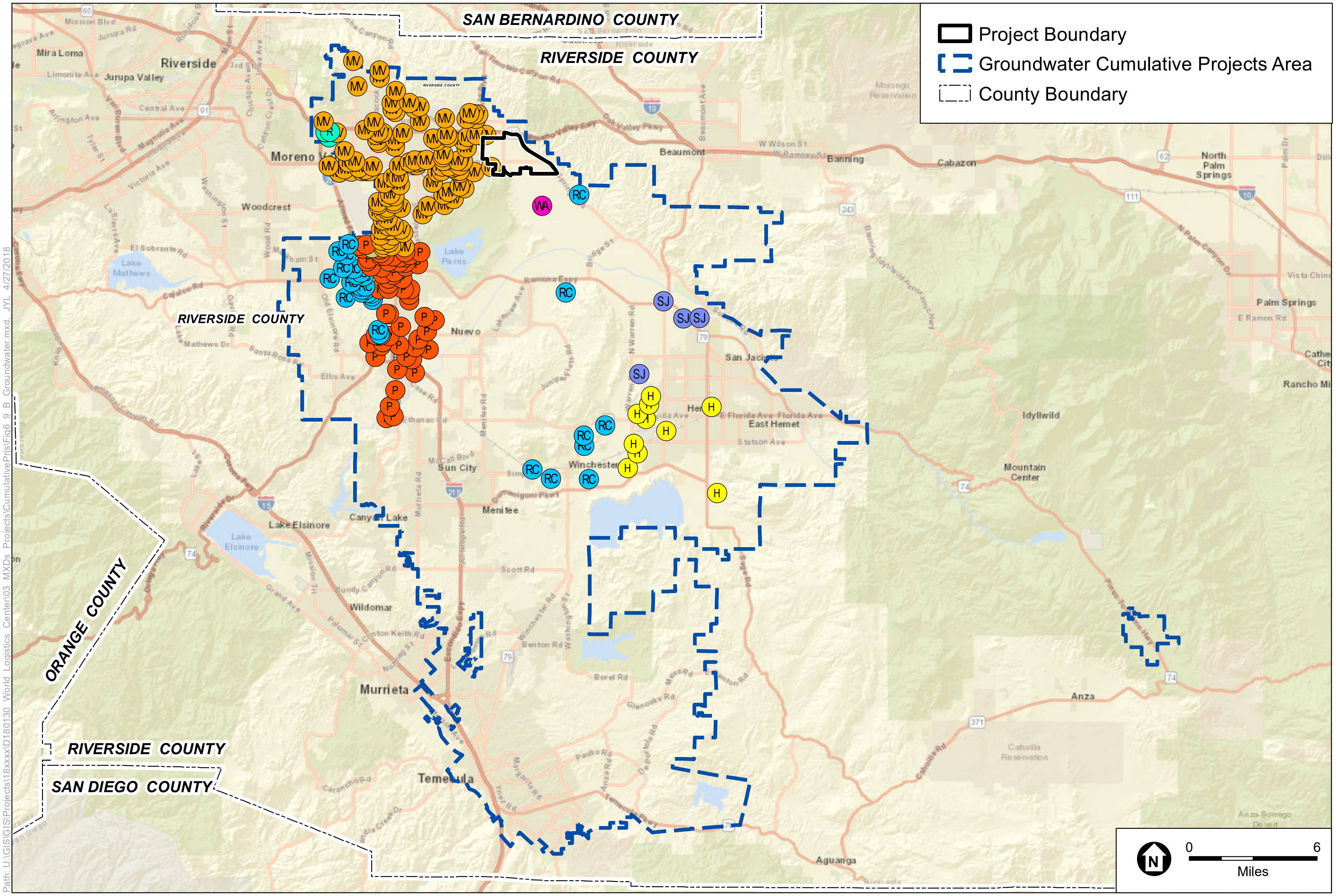

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.9-2

Groundwater Cumulative Projects Area

ESA

Table 6.9-1 – Hydrology and Water Quality Cumulative Projects Summary

Project ID	Project	Environmental Document Summary
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. There is a less than significant impact on the hydrology and water quality in the area.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The EIR states that the water quality is of satisfactory quality. Impact from the project is not

Project ID	Project	Environmental Document Summary
		mentioned.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. There is no impact on the hydrology and water quality in the area.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. There is a less than significant impact on the hydrology and water quality in the area.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The excerpt does not mention an impact on the hydrology and water quality in the area.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. There is no impact on the hydrology and water quality in the area.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. There is a less than significant impact on the hydrology and water quality in the area.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment

Project ID	**Project**	**Environmental Document Summary**
		SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The SEIR does not mention an impact on the hydrology and water quality in the area.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. There is a less than significant impact on the hydrology and water quality in the area.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. There is a less than significant impact on the hydrology and water quality in the area.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. There is no impact on the hydrology and water quality in the area.

Project ID	**Project**	**Environmental Document Summary**
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. There is no impact on the hydrology and water quality in the area.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the hydrology and water quality in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the hydrology and water quality in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned

Project ID	**Project**	**Environmental Document Summary**
		R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the hydrology and water quality in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the hydrology and water quality in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the hydrology and water quality in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the hydrology and water quality in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the hydrology and water quality in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the hydrology and water quality in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the hydrology and water quality in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental

Project ID	Project	Environmental Document Summary
		checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the hydrology and water quality in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the hydrology and water quality in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the hydrology and water quality in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the hydrology and water quality in the area.
MV-25	TR32142	Per the City of Moreno

Project ID	Project	Environmental Document Summary
		Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the hydrology and water quality in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the hydrology and water quality in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the hydrology and water quality in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the hydrology and water quality in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on

Project ID	**Project**	**Environmental Document Summary**
		64.65 acres within an overall project site of 203.52 acres. There is no impact on the hydrology and water quality in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the hydrology and water quality in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.

Project ID	**Project**	**Environmental Document Summary**
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no new impact on the hydrology and water quality in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno

Project ID	Project	Environmental Document Summary
		Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is no impact on the hydrology and water quality in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is a less than significant impact on the hydrology and water quality in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the hydrology and water quality in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the hydrology and water quality in the area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the

Project ID	**Project**	**Environmental Document Summary**
		hydrology and water quality in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the hydrology and water quality in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the hydrology and water quality in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the hydrology and water quality in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the hydrology and water quality in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4)

Project ID	Project	Environmental Document Summary
		buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact on the hydrology and water quality in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does not specifically mention an impact on hydrology and water quality in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the hydrology and water quality in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no

Project ID	Project	Environmental Document Summary
		impact on the hydrology and water quality in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the hydrology and water quality in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the hydrology and water quality in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the hydrology and water quality in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is a less than significant impact on the hydrology and water quality in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the hydrology and water quality in the

Project ID	**Project**	**Environmental Document Summary**
		area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the hydrology and water quality in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the hydrology and water quality in the area with mitigation measures.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the hydrology and water quality in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the hydrology and water quality in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf

Project ID	Project	Environmental Document Summary
		warehouse distribution building on 16.55 acres in a light industrial zone. There is a less than significant impact on the hydrology and water quality in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the hydrology and water quality in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the hydrology and water quality in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the hydrology and water quality in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental

Project ID	**Project**	**Environmental Document Summary**
		impacts. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the hydrology and water quality in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the hydrology and water quality in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact on the hydrology and water quality in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations.

Project ID	Project	Environmental Document Summary
		Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the hydrology and water quality in the area.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the hydrology and water quality in the area.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the hydrology and water quality in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the hydrology and water quality in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision.

Project ID	Project	Environmental Document Summary
		There is no impact on the hydrology and water quality in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the hydrology and water quality in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is no impact on the hydrology and water quality in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the hydrology and water quality in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the hydrology and water quality in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there is no impact on the environment in the area. It does not specifically mention an impact on the

Project ID	Project	Environmental Document Summary
		hydrology and water quality in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution states that the project is exempt from CEQA guidelines. It does specifically mention an impact on the hydrology and water quality in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the hydrology and water quality in the area.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the hydrology and water quality in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the hydrology and water quality in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the hydrology and water quality

Project ID	Project	Environmental Document Summary
		in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the hydrology and water quality in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the hydrology and water quality in the area.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. There is no impact on the hydrology and water quality in the area.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and

Project ID	**Project**	**Environmental Document Summary**
		Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building

Project ID	Project	Environmental Document Summary
		is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. There is a less than significant impact ton the hydrology and water quality in the area with mitigation measures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is no impact on the hydrology and water quality in the area.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project would have a less than significant impact on water quality.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. There is a less

Project ID	**Project**	**Environmental Document Summary**
		than significant impact on the hydrology and water quality in the area with mitigation measures.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is a less than significant impact on the hydrology and water quality in the area.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is a less than significant impact on the hydrology and water quality in the area.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is no impact on the hydrology and water quality in the area.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a

Project ID	**Project**	**Environmental Document Summary**
		less than significant impact on the hydrology and water quality in the area.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is a potentially significant impact on the hydrology and water quality in the area.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a less than significant impact on the hydrology and water quality in the area.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is a potentially significant impact on the hydrology and water quality in the area.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the hydrology and water quality in the area.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the hydrology and water quality in the

Project ID	**Project**	**Environmental Document Summary**
		area with mitigation measures.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is a potentially significant impact on the hydrology and water quality in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a less than significant impact on the hydrology and water quality in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential

Project ID	Project	Environmental Document Summary
		products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The slides do not specifically mention an impact on the hydrology and water quality in the area.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is no impact on the hydrology and water quality in the area.
RC-12	Cores Industrial Partners	Per Riverside County’s October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. There is a less than significant

Project ID	**Project**	**Environmental Document Summary**
		impact on the hydrology and water quality in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is potentially significant impact on the hydrology and water quality in the area with mitigation measures.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is a less than significant impact on the hydrology and water quality in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and

Project ID	Project	Environmental Document Summary
		Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is a less than significant impact on the hydrology and water quality in the area with mitigation measures.

Table 6.9-2 – Water Quality Cumulative Projects Summary

Project ID	Project	Type of Environmental Document
H-3	Tres Cerritos Specific Plan	NOC
H-4	Sanderson Square	IS
H-5	McSweeny Farms Specific Plan	EIR
H-6	Ramona Creek Specific Plan	EIR
H-7	Peppertree Specific Plan	IS
H-9	Pulte Del Web (TTM 31807 and 31808)	SEIR
H-10	Downtown Hemet Specific Plan	MND
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	ND
MV-3	ProLogis	EIR
MV-4	Westridge Commerce Center	EIR
MV-7	TR33962 / Pacific Scene Homes	ND
MV-8	TR32460 / Sussex Capital	ND
MV-9	TR32459 / Sussex Capital	ND
MV-10	TR30998 / Pacific Communities	ND
MV-11	TR30411 / Pacific Communities	ND
MV-14	TR32548 / Gabel, Cook & Associates	ND
MV-15	TR32218 / Whitney	ND
MV-16	TR32284 / 26thCorporation & Granite Capitol	ND
MV-17	TR31590 / Winchester Associates	ND
MV-18	Convenience Store / Fueling Station	ND
MV-19	Senior Assisted Living	ND
MV-20	Moreno Marketplace	ND
MV-21	PEN16-0053 Medical Center	MND
MV-22	TR36882 (PA15-0010) SFR	MND
MV-24	TM 36436 (PA12-0005)	MND
MV-25	TR32142	ND
MV-27	TR32917 / Empire land	ND
MV-28	TR34329 / Granite Capitol	ND
MV-29	TR36340	ND
MV-30	PA03-0168 TR 31517	ND
MV-32	TTM 31592 (P13-078) SFR	ND
MV-33	TR32645 / Winchester Associates	ND
MV-34	TR34397 / Winchester Associates	ND
MV-35	TR31771 / Sanchez	ND
MV-36	TM 31618 (PA03-0106)	EIR

Project ID	Project	Type of Environmental Document
MV-37	Vogel /PA09-004	EIR
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	EIR
MV-41	First Nandina Logistics Center	EIR
MV-42	Indian Street Commerce Center	EIR
MV-43	Ivan Devries / PA06-0017	ND
MV-44	Modular Logistics Center (Kearny RE Co)	EIR
MV-45	Iris Plaza	IS
MV-47	PA07-0129 TR 35606 SFR	EXEMPT
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	EIR
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	MND
MV-50	San Michele Industrial Center, (Industrial Area SP)	ND
MV-51	Nandina Distribution Center IDS	MND
MV-52	First Industrial III & IV, (Industrial Area SP)	MND
MV-53	I-215 Logistics Center (Amazon)	MND
MV-54	Moreno Valley Logistics Center (Prologis)	EIR
MV-56	Tract Map 33810	EXEMPT
MV-57	Tract Map 34151	ND
MV-58	Tract Map 33024	ND
MV-59	Tract Map 31442	ND
MV-60	Tract Map 36401	MND
MV-61	Walmart & Gas Station	EIR
MV-63	PA14-0053 (TTM 36760) Legacy Park	MND
MV-65	TR33607 / TL Group	ND
MV-66	TR34988 / Stratus Properties	ND
MV-67	TR32515	ND
MV-68	PA07-0035	ND
MV-69	PA07-0039, (Industrial Area SP)	ND
MV-75	Aqua Bella Specific Plan	EIR
MV-78	Overton Moore Properties PA08-0072	MND
MV-79	Shaw Development	MND
MV-80	PA15-0032 MV Cactus Center	MND
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	ND
MV-84	PA16-0075 Brodiaea Business Center	ND
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	ND
MV-86	TR32505 / DR Horton	ND
MV-88	TR33771 / Creative Design Associates	EXEMPT
MV-89	TR35663 / Kha	EXEMPT

Project ID	Project	Type of Environmental Document
MV-91	TR31305 / Richmond American	ND
MV-92	TR 33256	ND
MV-93	PA14-0042 Edgemont Apartments	EIR
MV-94	PA15-0002 Box Springs Apartments	MND
MV-95	Moreno Beach Marketplace / Lowes	MND
MV-96	31394 Pigeon Pass, Ltd.	ND
MV-97	32005 Red Hill Village, LLC	ND
MV-98	33388 SCH Development, LLC	ND
MV-100	32215 Winchester Associates "Scottish Village"	ND
MV-103	Gateway Business Park	MND
MV-106	35304 Jimmy Lee	ND
MV-110	TM 33417	ND
MV-111	35769 Michael Chen	EXEMPT
MV-112	PA09-0006 Jim Nydam	EXEMPT
MV-113	Ironwood Residential	MND
MV-114	Stoneridge Town Centre - Vacant Restaurant	ND
MV-116	31621 Peter Sanchez	ND
MV-117	Riverside County Office Building	ND
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	ND
MV-119	32126 Salvador Torres	ND
P-2	TR34716	EIR
P-4	Bookend	NOI
P-5	Markham East	IS
P-7	Duke Warehouse	EIR
P-8	First Perry Logistics Project	MND
P-10	IDS	EIR
P-11	Ridge II	IS
P-12	Starcrest, P011-0005; 08-11-0006	EIR
P-14	Rados Distribution Center	EIR
P-15	Duke Perris Logistics Center I	EIR
P-16	Perris Ridge Commerce Center I	EIR
P-18	P07-07-0029	EIR
P-19	P05-0192	EIR
P-20	P05-0113	EIR
P-21	P07-09-0018	IS
P-22	NICOL	IS
P-23	Westcoast Textiles	IS
P-24	Optimus Logistics Center 1	EIR

Project ID	Project	Type of Environmental Document
P-25	Optimus Logistics Center 2	EIR
P-26	Duke Warehouse	IS
P-27	Perris DC (Industrial Property Trust)/Integra	EIR
P-28	Duke Warehouse	IS
P-30	Avelina	IS
P-31	Perris Family Apartments	IS
P-32	Lewis Retail Center	IS
P-35	Verano Apartments	IS
P-37	Cabrillo	IS
P-38	Sequoia	
P-58	Jordan Distribution	MND
R-5	Canyon Springs Healthcare Campus Specific Plan	EIR
RC-5	Villages of Lakeview -Residential/Commercial Development	EIR
RC-9	Oleander Business Park, PP20699	EIR
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	IS
RC-12	Cores Industrial Partners	ND
RC-34	Emerald Acres SP (SP00381)	IS
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	IS
RC-37	TR36504	IS
RC-38	San Gorgonio Crossings	EIR
SJWA-1	San Jacinto Wildlife Land Management Plan	EIR

This section also addresses potential cumulative impacts to groundwater. The cumulative impact geographic area for groundwater is the area under the jurisdiction of the Eastern Municipal Water District (EMWD) because groundwater within the EMWD is produced from groundwater basins underlying the EMWD service area. These two basins are the West San Jacinto Groundwater Basin Management Plan area and the Hemet/San Jacinto Water Management Plan area. In addition, EMWDD is a key player in the efforts to protect groundwater quality and reliability. Cumulative projects within the EMWD service area will be evaluated with the project to determine if a significant cumulative groundwater impact would occur. The cumulative projects geographic boundary for groundwater is shown in Figure 6.9B. The projects located within the groundwater impact area are listed in Table 6.9-2. The project would contribute to cumulative groundwater conditions starting with project-related alteration of on-site conditions and lasting for the duration of the project.

6.9.3 Cumulative Impact Evaluation

6.9.3.1 Seismic Flooding-Related Impacts

Impact: *The project's incremental impact would not cause or contribute to a significant cumulative effect associated with the exposure of people or structures to potential flooding from the failure of a levee or dam.*

Threshold:	Would the project expose people or structure to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Cumulative Impact Analysis

Cumulative development within the watershed that encompasses the project site and offsite improvement areas could be subject to potential flooding due to a failure of the nearest dam. The nearest dams to the project site are Pigeon Pass Dam at Poorman's Reservoir located approximately five miles northwest of the project site and Lake Perris Dam located approximately four miles southwest of the project site. Although cumulative development could be exposed to inundation flooding, the project is not within anticipated inundation areas of either dam or any other dam as mapped within the City of Moreno Valley General Plan Final Program EIR. Therefore, the implementation of the project would not contribute to the exposure of people or structures to risk of loss, injury, or death involving flooding as a result of failure of either the Poorman Reservoir (Pigeon Pass Dam) or Lake Perris Dam. Therefore, the project would not cause or contribute to any cumulative effect associated with the exposure of people or structures to flooding.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.2 Seismic-Related Impacts

Impact: *The project would not cause or contribute to a significant cumulative impact relating to the exposure of people or structures to potential significant cumulative inundation impacts from seiche, tsunami, or mudflow.*

Threshold:	Would the project expose people or structure to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

Cumulative Impact Analysis

Cumulative development within the watershed that encompasses the project site and offsite improvement areas would not be subject to potential inundation by seiche or tsunami. As described in Section 4.9.5.2, the nearest enclosed body of water that could be subjected to seiche conditions is Lake Perris, but the Perris Dam has been designed to prevent seiche phenomena. The watershed is not located near the Pacific Ocean which is where tsunami risks occur. Therefore, cumulative development would not expose people or structures to inundation flooding due to seiche or tsunamis. As a result, the project would not cause or contribute to any significant cumulative seiche or tsunami inundation impacts.

Cumulative development within the watershed could expose people and structures to mudflow inundation due to the presence of steep slopes within the watershed. This exposure could result in significant cumulative impacts. However, because the project site as well as offsite improvement areas do not have steep slopes, the project's contribution to potential cumulative mudflow inundation impacts would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Not cumulatively considerable.

6.9.3.3 Groundwater

Impact: *The project would not cause or contribute to a significant cumulative depletion of groundwater supplies or the interference with groundwater recharge.*

Threshold: Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

Cumulative Impact Analysis

Cumulative development within the Eastern Municipal Water District (EMWD) service area is planned to be supplied exclusively with imported water provided by the Metropolitan Water District. Therefore, cumulative development would not deplete groundwater supplies from use of groundwater. As a result, the project would not contribute to cumulative impacts to groundwater supplies.

Cumulative development would reduce the amount of pervious surfaces within the EMWD service area. This reduction of potential groundwater infiltration areas could cause a significant impact on groundwater recharge. However, because the project includes the implementation of bioretention areas and detention basins that would provide for infiltration opportunities, the project's contribution to potential significant cumulative groundwater infiltration impacts would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Not cumulatively considerable .

6.9.3.4 100-Year Flooding-Related Impacts

Impact: *The project would not cause or contribute to significant impacts relating ot the placement of structures within a 100-year flood hazard area that would impede or redirect flood flows.*

Threshold: Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Threshold: Would the project place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Cumulative Impact Analysis

Cumulative development within the watershed that encompasses the project site and offsite improvement areas include areas subject to 100-year storms according to the FEMA FIRM maps. Therefore, cumulative development could expose structures or housing to flood hazards and result in significant cumulative flood hazard impacts. However, because the project and offsite improvements would not located in any areas subject to flooding during a 100-year storm, the implementation of the project would not cause or contribute to any potential significant cumulative flood hazard to structures or housing.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.5 Drainage Pattern and Capacity-Related Impacts

Impact: The project's incremental contribution would not cause or contribute to significant cumulative impacts to erosion, siltation, or flooding due to alterations of existing drainages or exceedance of drainage capacities or the addition of pollutant runoff.

Threshold: Would the project substantially alter the existing local drainage patters of the site and substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion, siltation, or flooding on site or off site?

Threshold: Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Cumulative Impact Analysis

Cumulative development within the watershed will result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology by potentially increasing surface water runoff and increase potential pollutant loads. Following are the evaluations of cumulative hydrology and cumulative erosion, siltation and flooding impacts.

Hydrology

To analyze the cumulative impacts for hydrology, the geographic scope was determined based on the watershed area and potential impacts to downstream drainage facilities. As discussed above, the proposed project is located in the San Jacinto River watershed and is tributary to two separate sub-watershed areas, the PVSD Watershed and the SJWA watershed, prior to flows reaching the San Jacinto River. For the area to the west, the PVSD is the most downstream drainage facility that the WLC Project is tributary to before flows reach the San Jacinto River. It is necessary to consider the downstream drainage areas and their facilities when evaluating cumulative impacts for hydrology. The PVSD is a major drainage facility draining a large area including the City of Moreno Valley and any flow impacts to the facility would be important to analyze the effects. For this reason, on the west side, the area tributary to the PVSD was selected as the geographic area for the cumulative impacts analysis. On the east side, flows drain to the SJWA before reaching the San Jacinto River. The SJWA is an important habitat and water feature within the watershed and it is necessary to analyze any potential flow impacts to the area. For this reason, for flows draining to the east, the area tributary to the SJWA was chosen as the geographic area for considering potential cumulative effects. This area includes the upstream portion of the San Jacinto Watershed as the SJWA extends to the south side of the San Jacinto River.

As discussed in Section 4.9 of the FEIR, runoff from the western portion of the project site flows west toward the Perris Valley Storm Drain (PVSD), while runoff from the eastern portion of the project site flows south into Mystic Lake, and (during times of high storm flow), reaches the San Jacinto River south of the San Jacinto Wildlife Area. Table 6.9-1 identifies the cumulative projects that are located in each watershed.

PVSD Watershed Area

The PVSD watershed area is divided into two sub-watersheds, Sunnymead and Moreno, tributary to the PVSD. The RCFC&WCD has adopted Master Drainage Plans (MDPs) for each of the sub-watershed areas, Sunnymead MDP (RCFC&WCD, 1991) and Moreno MDP (RCFC&WCD, 2015) that serve as guides for development in these areas. The Moreno MDP was recently updated to include the hydrology of the WLC development. Potentially cumulative projects (such as MV-39, MV-41 and MV-48) would be required to conform to the MDPs by mitigating any increase in project flows such that any flows leaving the project boundary would be equal to or less than existing conditions. In addition, the cumulative projects would be required to contribute through the MDP Fee Program for the construction of facilities identified in the MDPs. Many of the cumulative projects such as MV-39, MV-41 and MV-48 include infiltration and/or detention basins to reduce offsite flow.

Portions of the proposed project are tributary to Line “F” of the Moreno MDP. As identified in the FEIR, Line “F” from Redlands Blvd to south of Eucalyptus Avenue would be constructed as part of the proposed project. Because it is not known when the proposed Moreno MDP Sinclair Basin north of SR-60 will be constructed, Line “F” was sized without the Sinclair Basin and all flows pass under SR-60. In addition, a detention/infiltration basin would be constructed to detain and infiltrate onsite flows as required by Mitigation Measures 4.9.6.1A and 4.9.6.1B such that flows leaving the project boundary will be less than existing in terms of peak flow, velocities, and volume for each of the 2, 5, 10, 25, and 100-year storms. As such, there would be no impact on downstream drainage facilities as a result of the development of the proposed project and the project would not cause or contribute to any cumulative impacts. In addition, construction of Line “F” by the project would exceed its obligation of MDP fees. An analysis of the volume of runoff and infiltration for the pre- and post- project conditions was performed which included hydrologic modeling. Pre-project conditions consist of agricultural uses. Post-project conditions consist of the development of the project. Post-project detention basins would be constructed not only for storm peak attenuation, but also for infiltration. The analysis showed that the project’s impacts would be fully mitigated with the implementation of the detention/ infiltration basins.

The volume of runoff after the project is constructed would be less than the existing volume of runoff and the amount of infiltration and groundwater recharge would increase by a small amount, which would provide a net benefit to groundwater recharge. The proposed project’s drainage improvements would be designed to have sufficient capacity to accommodate and convey storm water runoff flows generated by the project as well as expected future storm water runoff flows associated with buildout of the Moreno MDP area. All of the cumulative projects in the Moreno MDP and Sunnymead MDP areas would be required to mitigate flows to equal to or less than existing and/or demonstrate that storm drain capacity is available to service their anticipated flows and that their project is consistent with the MDPs. Section 15130 (a) (3) of the CEQA Guidelines states “A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.” The project’s compliance with the Moreno MDP meets this requirement. In addition, there would be zero hydrologic impact on downstream drainage facilities due to the project; therefore, the project would not contribute to any cumulative impacts. As such, cumulative impacts would be less than significant.

SJWA Watershed Area

The portion of the project site located east of the topographic divide drains to the SJWA. In addition to the project, one current and one potential project are tributary to the SJWA. They are the Badlands Landfill Improvements Project located north of the project site and the Quail Ranch Specific Plan located southeast of the project site. Runoff from the Badlands Landfill flows through the project site. The hydrologic study for the project considered flows from the Badlands Landfill. The Badlands Landfill Improvement project does not change the pervious cover of the site. As such, flows from the Landfill Improvements Project would not increase above existing and would be consistent with the existing flows north of the project.

Downstream of the project site, the Quail Ranch Specific Plan Project is proposed. This cumulative project consists of a planned residential community. Currently, there are no specific details on this cumulative project. Stormwater flows generated by the cumulative project site could increase, however, the developer would be required to alleviate any increase in flows leaving a site and demonstrate that the cumulative project does not increase storm flows such as peak flow, velocities, and volume for each of the 2, 5, 10, 25, and 100-year storms. The cumulative project would be required to demonstrate that storm drain capacity is available to service the anticipated flows and that the project is consistent with the MDPs. As such, cumulative downstream capacity impacts within the SJWA watershed area would be less than significant. Because the project would reduce storm flows leaving the project site so that they do not exceed existing flows, the project's contribution to potential cumulative erosion and siltation impacts within the SJWA watershed area would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Although no mitigation measures are required; the applicant has committed to implementing Mitigation Measures 4.9.6.1A and 4.9.6.1B to further reduce the project's less-than-significant contribution to the less than significant cumulative impact to erosion, siltation and flooding.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.6 Construction-Related Water Quality Impacts

Impact:	*The project's incremental contribution would not cause or contribute to a significant cumulative increase in surface water pollution during construction.*
Threshold:	Would the project violate any water quality standards or waste discharge requirements during construction phases of the project in form of increased soil erosion, sedimentation, or storm water discharges?

Cumulative Impact Analysis

Cumulative projects within the watershed would result in disturbance of surface soils and removal of vegetative cover during construction activities that could potentially result in erosion and sedimentation and the degradation of surface water quality. In addition, cumulative construction activities that use on-site construction equipment could introduce a risk of storm water contamination in downstream conveyance facilities. Spills and leaks could occur from the use of construction equipment during construction activities as well as from construction equipment located within staging areas. These spills and leaks could include substances such as fuels, oils, solvents, and paints.

As each cumulative project receives construction approval, compliance with the National Pollutant Elimination System (NPDES) General Construction permit would be required. To comply, construction site BMPs would be required to control runoff, sediment, erosion and ensure that construction waste is adequately handled and disposed. These BMPs are required elements of a Stormwater Pollution Prevention Plan that describes the construction operator's activities to comply with the NPDES General Construction permit. Because cumulative projects would be required to comply with the requirements of the NPDES General Construction permit program, cumulative water quality impacts to downstream areas would be less than significant. The project's less than significant incremental contribution would not combine with the impacts of other projects in the cumulative scenario to cause or contribute to a significant cumulative effect.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Although no mitigation measures are required; the applicant has committed to implementing Mitigation Measures 4.9.6.1A and 4.9.6.1B to further reduce the project's contribution to the less than significant cumulative water quality impacts during construction activities.

Significance Level After Mitigation: Less than significant cumulative impact.

6.9.3.7 Operational-Related Water Quality Impacts

Impact: *The project's contribution to the significant cumulative increase in surface water pollution during operation would be cumulatively considerable.*

Threshold: Would the project violate any water quality standards or waste discharge requirements during the operational phases of the project in the form of increased soil erosion, sedimentation, or urban runoff?

Cumulative Impact Analysis

As discussed previously, the project site is tributary to two sub-watersheds, the Perris Valley Storm Drain and the San Jacinto Wildlife Area. Both sub-watersheds are tributary to the downstream Receiving Waters of the San Jacinto River, Canyon Lake and Lake Elsinore, two of which are impaired water bodies. Below is a discussion of cumulative water quality effects within the San Jacinto watershed. In addition, the water quality of runoff into the SJWA is also discussed.

San Jacinto Watershed

The operational activities associated with the cumulative projects would increase the potential for contaminants to enter stormwater runoff. Storm runoff from the roadways, parking lots, commercial and industrial buildings as well as residential uses can carry a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron, which may lead to the degradation of storm water in downstream channels. Runoff from landscaped areas within cumulative projects may contain elevated levels of phosphorus, nitrogen, and suspended solids. Oil and other hydrocarbons from vehicles are also expected in cumulative stormwater runoff. These pollutants are commonly categorized into eight categories: sediments, nutrients, metals, toxic organic compounds, trash and debris, pathogens, oil and grease and pesticides. Table 2 identifies the downstream receiving waters from the project site and states if the receiving water is listed as impaired on the 303(d) List or has a total maximum daily load (TMDL) adopted for a certain type of pollutant.

Table 6.9.2:Pollutant Stressors in Receiving Waters

Storm Drain/Receiving Waters	303(d) Listing	Adopted TMDL Pollutants
San Jacinto River	None	None
Canyon Lake	Nutrients (Phosphorus & Nitrogen), Pathogens	Phosphorus, Nitrogen
Lake Elsinore	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, Sediment Toxicity, Unknown Toxicity	Phosphorus, Nitrogen, Dissolved Oxygen

The operational activities associated with the cumulative projects within the San Jacinto watershed area have the potential to add pollutants to downstream Receiving Waters. The operational activities associated with the project have the potential to generate similar pollutants as those identified above for cumulative projects. These pollutants include sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron. The addition of these pollutants have the potential to degrade downstream receiving waters. The impacts of the project together with the impacts of other projects in the cumulative scenario could result in significant cumulative water quality impacts during operational activities. Given the size of the project site and scale of the proposed development, the project's contribution to this significant water quality impact would be cumulatively considerable.

San Jacinto Wildlife Area

Cumulative development tributary to the SJWA includes one current and one potential project. They are the Badlands Landfill Improvements Project located north of the project site and the Quail Ranch Specific Plan located southeast of the project site. Runoff from the Badlands Landfill flows through the project site. The hydrologic study for the project considered flows from the Badlands Landfill. The future operational activities of the Quail Ranch Specific Plan could contribute pollutants to the San Jacinto Wildlife Area. The operational activities associated with the project could also contribute pollutants to stormwater runoff conveyed to the San Jacinto Wildlife Area. These pollutants include sediments, nutrients, metals, toxic organic compounds, trash and debris, pathogens, oil and grease and pesticides. The implementation of the cumulative development, including the project, could increase various pollutants into the San Jacinto Wildlife Area, and thus result in significant cumulative water quality impacts during operational activities.

Given the size of the project site and scale of the proposed development, the project's contribution to this significant water quality impact would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: The implementation of Mitigation **Measures 4.9.63A** through **4.9.6.3C** would be required.

Significance Level After Mitigation: Less than cumulatively considerable contribution to the significant cumulative impact. The implementation of specific BMPs would control pollutant runoff from the project site to downstream areas within the San Jacinto Watershed as well as the San Jacinto Wildlife Area. The maintenance of the onsite water quality basins would ensure adequate facilities for stormwater treatment. Lastly, the establishment of a Water Quality Mitigation Monitoring Plan would allow periodic sampling of the quality of the storm flows before conveyance to downstream areas. The implementation of these measures would reduce the project's contribution to potential significant cumulative operational water quality impacts to a less than cumulatively considerable level.

6.10 Land Use and Planning

Cumulative effects to land use and planning are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to land use and planning is provided in Section 6.10.1. The geographic and temporal scopes of cumulative analysis are provided in Section 6.10.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the land use and planning issues are discussed in Section 6.10.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.10.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.10 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact to land use and planning and, if so, whether the propose project's incremental contribution would be cumulatively considerable.

6.10.1 Project Impact Findings

The project's effects to land use and planning are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.10 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Physically divide an established community; **Significant and Unavoidable, Section 4.10.6.**
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; **Less than Significant, Section 4.10.5.2.**
- Conflict with any applicable habitat conservation plan or natural community conservation plan. **Less than Significant, Section 4.10.5.1.**

6.10.2 Geographic and Temporal Scope

The cumulative impact geographic area for land use and planning is the City of Moreno Valley because the project site is located within the jurisdiction of the City of Moreno Valley. The City determines how the local plans and policies are implemented and determines how the regional plans and policies of the Southern California Association of Governments that include the City's jurisdiction are implemented. Cumulative impacts to land use and planning could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley. The project site is currently designated as Business Park in the Moreno Valley General Plan, and development of the project site is subject to the World Logistics Center Specific Plan. The incremental impacts of potentially cumulative projects within the City of Moreno Valley have been evaluated together with the impacts of the project to determine if a significant cumulative impact would occur. The geographic area for cumulative land use and planning impacts is shown on Figure 6.10. The projects located within the cumulative land use and planning impact area are listed in Table 6.10. The project would contribute to cumulative impacts to land use and planning from when development activities commence on the project site and would last for the duration of the project.

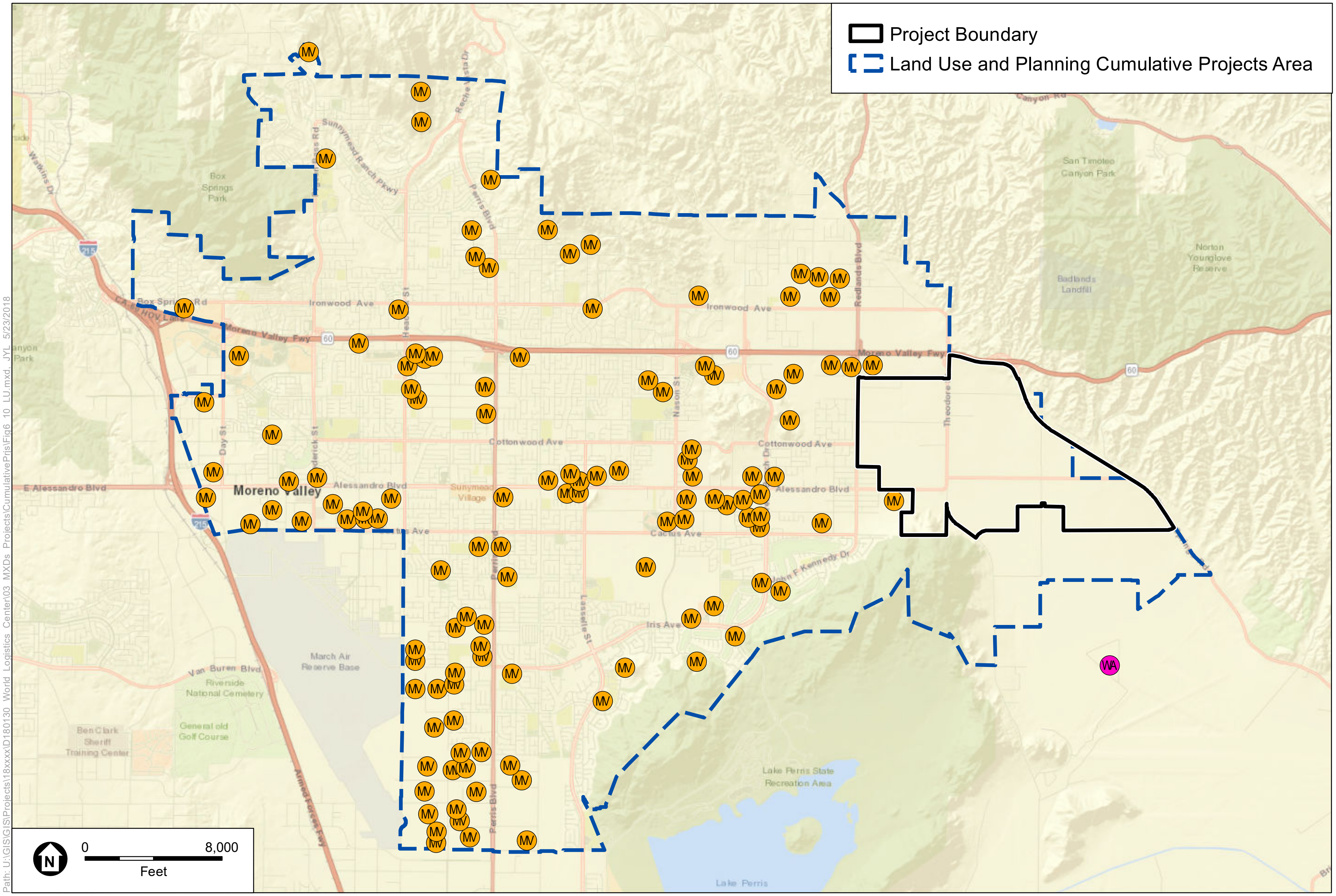

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.10-1

Land Use and Planning Cumulative Projects Area

Table 6.10 - Land Use and Planning Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a significant and unavoidable impact on the land use and planning in the area.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility would contribute to cumulative conflicts with land use policies and habitat conservation plan
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the land use and planning in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the land use and planning in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the land use and planning in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the land use and planning in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the land use and planning in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is a no impact on the land use and planning in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the land use and planning in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the land use and planning in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the land use and planning in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the land use and planning in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is a less than significant impact on the land use and planning in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is no impact on the land use and planning in the area.
MV-24	TM 36436 (PA12-0005)	The Project's subdivision of 43.52 acres into 159 single family residential lots would contribute to cumulative conflicts with land use policies and habitat conservation plan
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the land use and planning in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the land use and planning in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. There is no impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the land use and planning in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the land use and planning in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the land use and planning in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is a less than significant impact on land use and planning in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the land use and planning in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the land use and planning in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the land use and planning in the area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is no impact on the land use and planning in the area.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is no impact on the land use and planning in the area.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is no impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the land use and planning in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is no impact on the land use and planning in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is a less than significant impact on the land use and planning in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on the land use and planning in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the land use and planning in the area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the land use and planning in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the land use and planning in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is no impact on the land use and planning in the area.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a significant and unavoidable cumulatively considerable impact on the land use and planning in the area.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does not mention an impact on the land use and planning in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the land use and planning in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that there is no impact on the environment in the area. It does not mention an impact on the land use and planning in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. There is no impact on the land use and planning in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the land use and planning in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the land use and planning in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the land use and planning in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the land use and planning in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is no impact on the land use and planning in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the land use and planning in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the land use and planning in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the land use and planning in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the land use and planning in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is no impact on the land use and planning in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the land use and planning in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the land use and planning in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the land use and planning the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution states that there will be no impact on the environment in the area. It does not mention an impact on the land use and planning in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. The exemption does not specifically mention an impact on the land use and planning in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the land use and planning in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is no impact on the land use and planning in the area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the land use and planning in the area with mitigation measures.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the land use and planning in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the land use and planning in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the land use and planning in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is no impact on the land use and planning in the area.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact on the land use and planning in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there is no impact on the environment. The resolution does not specifically mention an impact on the land use and planning in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is no impact on the land use and planning in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states there is no impact on the environment in the area. It does not specifically state an impact on the land use and planning in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention an impact on the environment. It also does not mention an impact on the land use and planning in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the land use and planning in the area with mitigation measures.

Project ID	**Project Name**	**Environmental Document Summary**
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is no impact on the land use and planning in the area.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the land use and planning in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the land use and planning in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the land use and planning in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the land use and planning in the area.

Project ID	Project Name	Environmental Document Summary
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is no impact on the land use and planning in the area.

6.10.3 Cumulative Impact Evaluation

6.10.3.1 Conflict with Any Applicable Habitat or Natural Community Conservation Plan

Impact: *The project would not contribute to a significant cumulative effect relating to conflicts with a habitat or natural community conservation plan.*

Threshold: Would the proposed WLC project conflict with any applicable habitat conservation plan or natural community conservation plan?

Cumulative Impact Analysis

Cumulative projects are located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and the Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan (HCP) areas. Based on a review of each of the potentially cumulative projects, each that would be subject to the MSHCP and/or SKR HCP would be required to pay a fee to sustain the plant and wildlife populations within the MSHCP and the species population in the SKR HCP areas.

Projects subject to the MSHCP are required to pay a fee that will eventually result in an MSHCP Conservation Area in excess of 500,000 acres and focuses on conservation of 146 species including amphibians, reptiles, birds, mammals, invertebrates, and plants. Certain species require additional measures to ensure that the population of the species is sustained. Because each of the cumulative projects within the MSHCP area is required to comply with the provisions of the MSHCP, no significant cumulative impact would result. In addition, since the project also would be required to comply with the MSHCP, the project's incremental impact on the species within the MSHCP would not combine with the incremental impacts of the other cumulative projects to cause or contribute to a significant cumulative impact.

Projects subject to the SKR HCP are required to pay a fee so that the funds can be used to acquire and permanently conserve, maintain and fund the conservation, preservation, restoration and enhancement of SKR occupied habitat. The implementation of the HCP has demonstrated the acquisition of habitat and sustaining the population of the SKR. Therefore, implementation of the cumulative projects would not result in a significant cumulative impact. In addition, because the project also would be subject to the SKR HCP, including the requirement to pay a conservation fee, the project's incremental impact on the SKR program would not combine with the incremental impacts of the other cumulative projects to cause or contribute to a significant cumulative impact.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.10.3.2 Conflict with Applicable Land Use Plans, Policies, or Regulations (Regional)

Impact:	*The project would not contribute to potential significant cumulative impacts related to conflicts with regional plans or policies.*
Threshold:	Conflict with any applicable regional land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Cumulative Impact Analysis

Certain goals and policies of regional plans are applicable to certain cumulative projects. The regional plans evaluated in Section 4.10.5.2 of the FEIR included the Riverside County Airport Land Use Plan, the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and the SCAG Regional Comprehensive Plan.

Some among the cumulative projects are located within the Airport Land Use Plan (ALUP) for March Air Reserve Base. Those projects are expected to comply with the ALUP regulations; however, there is a possibility that one or more could be inconsistent with the ALUP in a way that results in potential significant cumulative impacts. Because the project is not located within an ALUP, the project would not cause or contribute to any potential cumulative ALUP impact. Therefore, the project would result in no cumulative impacts to ALUP regulations.

The RTP/SCS includes policies that provide a strong commitment to reduce emissions from traffic and transportation. The RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, play, and how they will move around. Many of the cumulative projects include the development of residential uses within the City of Moreno Valley. These projects are expected to be consistent with some of the policies identified in the RTP/SCS;

however, cumulatively, the cumulative projects are not assisting in reducing potential commute traffic emissions. Therefore, development of the cumulative projects could result in significant cumulative impacts. With the implementation of the project, approximately 25,000 new jobs would be eventually created, which would nearly double the number of jobs within the City. This increase in jobs would positively affect commute patterns for residents within the City as well as within the region by reducing commuter trips. The project is consistent with the applicable policies of the RTP/SCS. Because the project would be consistent with the applicable RTP/SCS policies, the project would not contribute to any adverse cumulative conflicts associated with the RTP/SCS.

The RCP's overall goal is to reinvigorate the region's economy, avoid social and economic inequities and the geographical dislocation of communities, and to maintain the region's quality of life. Because the applicability of the RCP is to projects of "regional significance," the cumulative projects that include warehousing would be applicable. These warehousing projects would result in the creation of employment opportunities that would assist the City in balancing the current housing rich condition. These cumulative projects could modify commuting patterns to reduce overall vehicle miles travelled. These projects of "regional significance" would be consistent with the RCP and therefore would be less than cumulatively significant. The project is also considered a project of "regional significance." The project's anticipated increase of approximately 25,000 new employment opportunities would also modify commuting patterns so that overall vehicle miles travelled could be reduced. Because the project would be consistent with the policies of the RCP, the project would not contribute to potential adverse cumulative impacts to the implementation of the RCP.

In summary, the project would not contribute to potential adverse cumulative impacts related to the implementation of the policies of the applicable regional plans.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.10.3.3 Conflict with Applicable Land Use Plans, Policies, or Regulations (Local)

Impact: *The project would not contribute to potential significant cumulative conflicts with the City of Moreno Valley General Plan.*

Threshold:	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Cumulative Impact Analysis

Cumulative projects (including MV 4, MV 5, and MV 24, for example) were consistent with the City's General Plan as they were proposed; others required amendments to the City's General Plan to become compliant. Based on a review of the available environmental documents for the cumulative projects that included an amendment, the amended land uses were still consistent with the goals, policies and objectives of the City's General Plan. The cumulative projects resulted in less than significant environmental effects related to the City's General Plan land use goals, policies and objectives.

As stated in Section 4.10.5.3 of the FEIR, the project included amendments to the General Plan; however, in November 2015, the City adopted the proposed amendments submitted through the initiative process. Even prior to the adoption, the FEIR identified that the project was consistent with the goals, policies and objectives of the General Plan. Therefore, the project would not contribute to any potential cumulative impacts relating to consistency with the City of Moreno Valley General Plan.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.10.3.4 Physically Divide an Established Community

Impact: *The project's contribution to cumulative impacts related to physically dividing the established existing rural residences on the project site would be cumulatively considerable.*

Threshold: Would the proposed WLC project physically divide an established community?

Cumulative Impact Analysis

A few of the cumulative projects are proposed adjacent to the project site, primarily including residential uses but also including two warehouse uses along SR-60. The area primarily west of Redlands Boulevard includes residential uses as well as vacant land that is designated for residential uses in the City of Moreno Valley General Plan. These cumulative projects would not contribute to project's physical division of the established rural residential uses located on the project site. Because cumulative impacts include the effects of the project in combination with other cumulative projects and the project, as discussed below, would result in a significant physical division of the established onsite residences, there would be a significant cumulative impact. The project's contribution to this significant cumulative impact would be cumulatively considerable.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Because the project's physical division of the established onsite rural residences would be exacerbated by the incremental impacts of adjacent projects in the cumulative scenario, the determination in Section 4.10.6.1 of the Final EIR that there is no effective mitigation available to protect or separate these existing residences from future warehousing buildings and operations is equally applicable to the cumulative condition.

Significance Level After Mitigation: Cumulatively considerable contribution to a significant cumulative impact. Because there is no effective means of reducing the significant impact related to physically dividing the established onsite rural residences, this cumulative impact would be significant and unavoidable.

6.11 Mineral Resources

Pursuant to CEQA Guidelines §15130, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." Because the proposed project would result in no impact related to the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, it could not cause or contribute to any potential cumulative impact in either respect.

6.12 Noise

Cumulative effects to noise are described in this section. A summary of the project's potential impacts to noise issues is provided in Section 6.12.1. The cumulative impact geographic area for noise issues is provided in Section 6.12.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the noise issues are discussed in Section 6.12.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.12.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Figures 6.12-1 and 6.12-2 and Tables 6.12-1 and 6.12-2 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to noise. These potentially cumulative impacts are documented in the following section.

6.12.1 Project Impact Findings

The project's effects to noise are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.12 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Expose people to or cause generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, Moreno Valley Municipal Code, or applicable standards of other agencies; **Significant and Unavoidable, Section 4.12.6.1; Less than Significant, Section 4.12.6.3**
- Exposure people to or cause generation of excessive groundborne vibration or groundborne noise levels; **Less than Significant, Section 4.12.5.1.**
- A substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project; **Significant and Unavoidable with Mitigation, Section 4.12.6.1; Significant and Unavoidable, Section 4.12.6.2.**
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; **No Impact, Section 4.12.5.2.**

- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels. **No Impact, Section 4.12.5.2.**

The standards within the *City of Moreno Valley General Plan* and *Moreno Valley Municipal Code* determine the acceptable noise environment for project and its vicinity. The standards are as follows:

- To the extent feasible, ensure through the design review process that exterior noise levels at commercial and industrial areas do not exceed 65 dBA CNEL.
- Consider the following uses noise-sensitive and discourage them in areas where exterior noise levels exceed 65 dBA CNEL unless measures are implemented that reduce the noise exposure below this level: single-family and multiple-family residential uses, group homes, hospitals, schools and other learning institutions, and parks and open space areas where quiet is a basis for use.

The project's incremental contribution to a cumulative traffic noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when project traffic increases noise levels by 1 dB or more over existing pre-project conditions and the predicted future cumulative with project traffic noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

6.12.2 Geographic and Temporal Scope

Cumulative impacts to noise could result from the project in conjunction with other past, present and future projects located within two cumulative impact project areas: 1) the cumulative traffic noise impact project boundary (this area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County and the March JPA), and: 2) 500' from the proposed limits of construction for cumulative construction impact projects. The cumulative traffic noise impact area is based on the cumulative traffic impact area where past, present, and future projects contribute 50 average daily trips (ADT) or more to the roadway network and therefore to the traffic noise environment. Construction noise and vibration impacts are limited to the immediate area of construction activity. Therefore, the geographic scope of cumulative construction noise impacts encompass cumulative projects located within 500' of the project boundary.

Cumulative projects within the identified operational and construction noise areas will be evaluated with the project to determine if any cumulative impact would occur. The geographic area for cumulative construction noise impacts is shown on Figure 6.12-1. Cumulative operational noise impacts is shown on Figure 6.12-2. There are no projects with CEQA documents located within the cumulative construction noise impact area, although the cumulative projects identified within the cumulative construction noise impact area have been evaluated in this section. The projects located within the cumulative operational noise impact area is listed in Table 6.12.

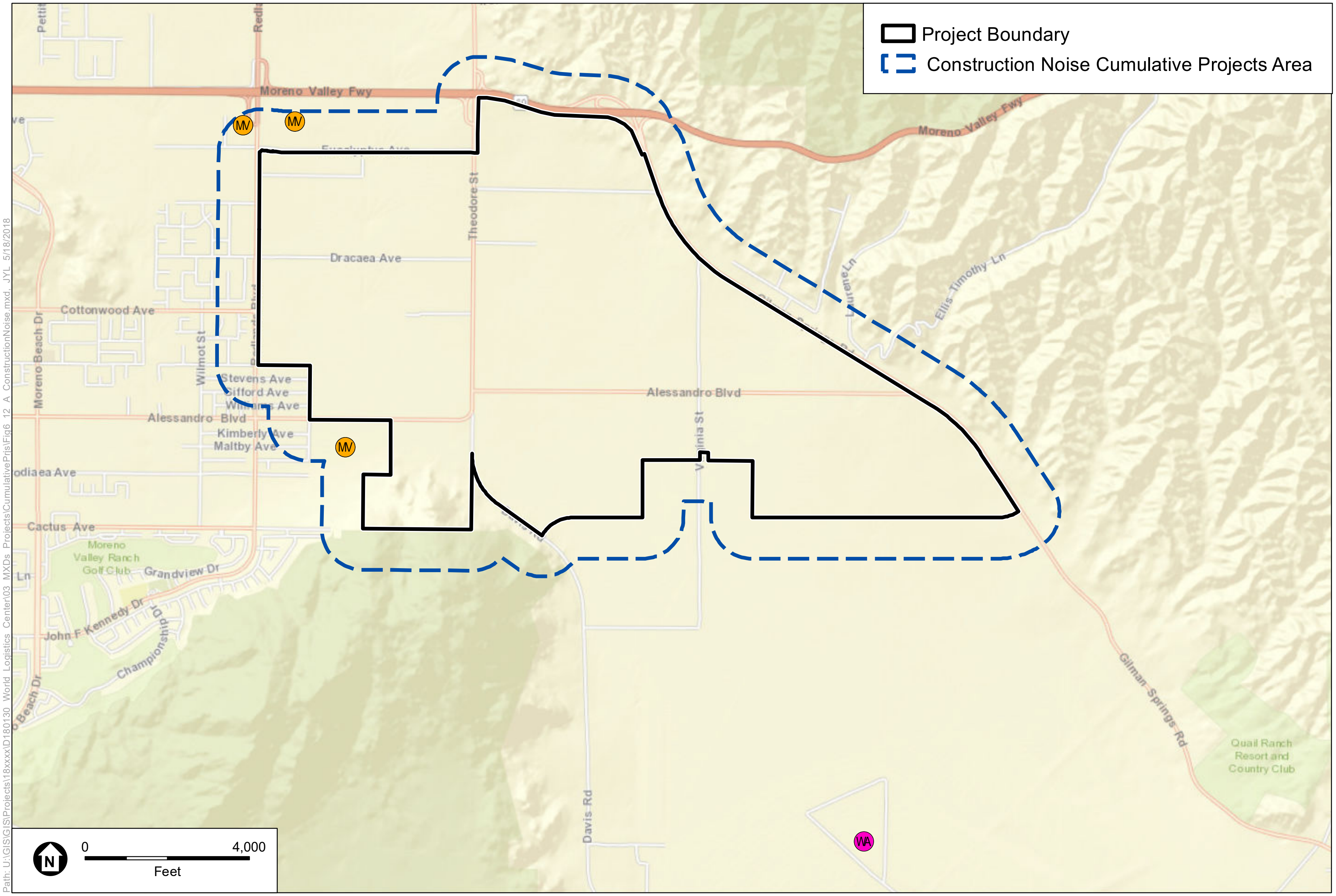

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_12_A_ConstructionNoise.mxd, JYL 5/18/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.12-1

Construction Noise Cumulative Projects Area

ESA

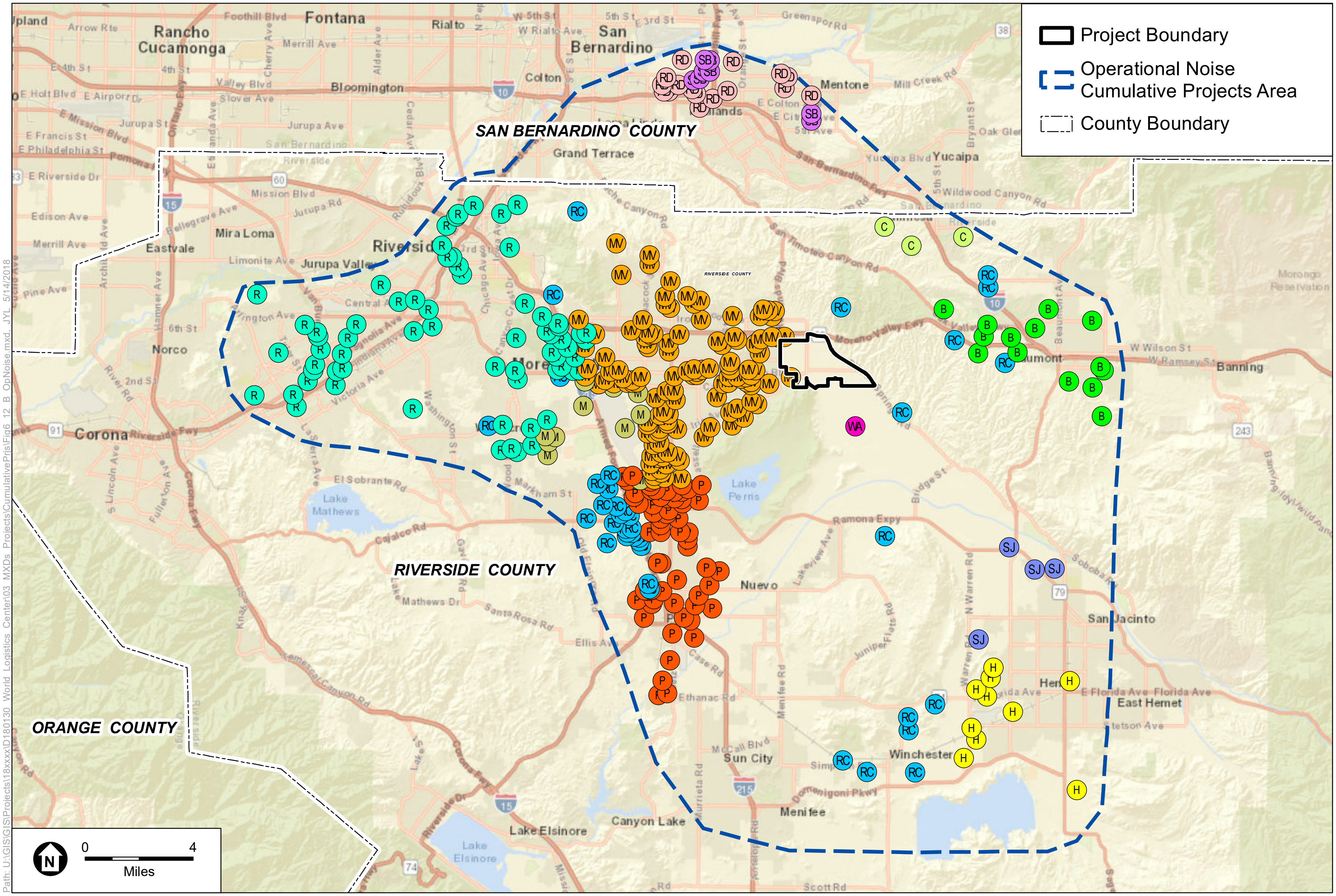

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.12-2

Operational Noise Cumulative Projects Area

Table 6.12 – Noise Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. There is a less than significant impact on the noise in the area with mitigation measures.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. There will be a significant impact on the noise in the area despite mitigation measures.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. There will be a less than significant impact on the noise in the area with mitigation measures.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. In the short term, there is an unavoidable impact on the noise in the area from construction. The long term noise will have a less than significant impact on the noise in the area with mitigation measures.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's

Project ID	**Project Name**	**Environmental Document Summary**
		2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. There will be a less than significant impact on the noise in the area with mitigation measures.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. There is no impact on the noise in the area.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. There is a less than significant impact on the noise in the area with mitigation measures.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. There is a less than significant impact on the noise in the area with mitigation measures.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The EIR does

Project ID	**Project Name**	**Environmental Document Summary**
		not mention if there will be an impact on the noise in the area.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. There is no impact on the noise in the area.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. There is a potentially significant impact on the noise in the area.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The excerpt does not contain information on the impact on noise in the area.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. There is a less than significant impact on the noise in the area with mitigation measures.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. There is a less than significant impact on the noise in the area.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan

Project ID	**Project Name**	**Environmental Document Summary**
		Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The EIR does not mention an impact on the noise in the area.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. There is a less than significant impact on the noise in the area with mitigation measures.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. There is a less than significant impact on the noise in the area with mitigation measures.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. There is a significant and unavoidable impact on noise in the area.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. There is no impact on the noise in the area.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage

Project ID	**Project Name**	**Environmental Document Summary**
		Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. There is no impact on the noise in the area.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. There is no impact on the noise in the area.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. There is no impact on the noise in the area.
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. There is no impact on the noise in the area.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47

Project ID	**Project Name**	**Environmental Document Summary**
		single family lots. There is no impact on the noise in the area.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. There is no impact on the noise in the area.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. There is no impact on the noise in the area.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. There is no impact on the noise in the area.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. There is no impact on the noise in the area.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. There is no impact on the noise in the area.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. There is no impact on the noise in the area.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139

Project ID	**Project Name**	**Environmental Document Summary**
		unit (155 bed) senior assisted living facility on 7.33 acres. There is no impact on the noise in the area.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. There is no impact on the noise in the area.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. There is no impact on the noise in the area. There is no impact on the noise in the area.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. There is a less than significant impact on the noise in the area.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. There is a less than significant impact on the noise in the area.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. There is no impact on the noise in the area.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. There is no impact on the noise in the area.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project

Project ID	**Project Name**	**Environmental Document Summary**
		would result in the development of 90 condominium units on 10.41 acres. There is no impact on the noise in the area.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. There is no impact on the noise in the area.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. There is no impact on the noise in the area.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. There is no impact on the noise in the area.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. There is no impact on the noise in the area.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. There is no impact on the noise in the area.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the

Project ID	**Project Name**	**Environmental Document Summary**
		project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. There is no impact on the noise in the area.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. There is no impact on the noise in the area.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. There is a less than significant impact on the noise in the area with mitigation measures.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the

Project ID	Project Name	Environmental Document Summary
		Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. There is a significant impact to the noise in the area.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. There is no impact on the noise in the area.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. There is a significant and unavoidable direct and cumulative impact (near-term) on the noise in the area.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. There is no impact on the noise in the area.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact. The resolution does not specifically mention an impact on noise in the area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would

Project ID	**Project Name**	**Environmental Document Summary**
		prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. There is a less than significant impact on the noise in the area with mitigation measures.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. There is a less than significant impact on the noise in the area with mitigation measures.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. There is no impact on the noise in the area.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. There is no impact on the noise in the area.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. There is a less than significant impact on the noise in the area with mitigation measures.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist,

Project ID	**Project Name**	**Environmental Document Summary**
		the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. There is a less than significant impact on the noise in the area.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. There is a less than significant impact on the noise in the area with mitigation measures.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines. The resolution does not specifically mention an impact on the noise in the area.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. There is no impact on the noise in the area.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The resolution states that the project will not cause an impact on the environment. It does not mention an impact on the noise in the area.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential

Project ID	Project Name	Environmental Document Summary
		lots. There is no impact on the noise in the area.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. There is no impact on the noise in the area.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. There is a less than significant impact on the noise in the area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. There is a less than significant impact on the noise in the area.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. There is no impact on the noise in the area.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. There is no impact on the noise in the area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. There is a less than significant impact

Project ID	**Project Name**	**Environmental Document Summary**
		on the noise in the area.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the noise in the area.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. There is no impact on the noise in the area.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. There is no impact on the noise in the area.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. There is no impact on the noise in the area.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. There is a less than significant impact on the noise in the area.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. There is a less than significant impact on the noise in the area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to

Project ID	**Project Name**	**Environmental Document Summary**
		build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. There is no impact on the noise in the area.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. There is no impact on the noise in the area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. There is no impact on the noise in the area.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. There is no impact on the noise in the area.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres. The resolution states that there will be no significant impact on the environment. It does not mention an impact on the noise in the area.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts. It does not specifically mention an impact on noise in the area.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the

Project ID	Project Name	Environmental Document Summary
		project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. There is no impact on the noise in the area.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. There is no impact on the noise in the area.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. There is a less than significant impact on the noise in the area with mitigation measures.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. There is a less than significant impact on the noise in the area with mitigation measures.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
		Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. There is a less than significant impact on the noise in the area with mitigation measures.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. There is no impact on the noise in the area.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. There is no impact on the noise in the area.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. There is no impact on the noise in the area.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. There is a less than significant impact on the noise in the area.

Project ID	**Project Name**	**Environmental Document Summary**
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. There is a less than significant impact on the noise in the area.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The resolution states that there would be impact on the environment. It does not mention an impact on the noise in the area.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. There is a less than significant impact on the noise in the area.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The resolution states that there will be no impact on the environment. It does not mention an impact on noise in the area.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. The resolution does not mention whether or not there would be an impact on the environment, including noise, in the area.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family

Project ID	**Project Name**	**Environmental Document Summary**
		home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. There is a less than significant impact on the noise in the area with mitigation measures.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. There is a less than significant impact on the noise in the area with mitigation measures.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. There is no impact on the noise in the area.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. There is no impact on the noise in the area.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. There is no impact on the noise in the area.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. There is no impact on the noise in the area.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse

Project ID	Project Name	Environmental Document Summary
		uses. There is a less than significant impact on the noise in the area with mitigation measures.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. There is no impact on the noise in the area.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. There is no impact on the noise in the area.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. There is a potentially significant impact on the noise in the area.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-10	IDS	Per City of Perris 2005

Project ID	**Project Name**	**Environmental Document Summary**
		Final EIR would result in the Perris Warehouse/Distribution Facility Project. There is a less than significant impact on the noise in the area with mitigation measures.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. There is a less than significant impact on the noise in the area with mitigation measures.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. There is a less than significant impact on the noise in the area with mitigation measures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. There is no impact on the noise in the area.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. There is a less than significant impact on the noise in the area with mitigation measures.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately

Project ID	**Project Name**	**Environmental Document Summary**
		2 million square feet of building area in two structures on 91 acres. The excerpt does not mention an impact on the noise in the area.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. There is a less than significant impact on the noise in the area with mitigation measures.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. There is a less than significant impact on the noise in the area with mitigation measures.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. There is a less than significant impact on the noise in the area.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. There is a less than significant impact on the noise in the area.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. There is a less than significant impact on the noise in the

Project ID	Project Name	Environmental Document Summary
		area with mitigation measures.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. There is a potentially significant impact on the noise in the area.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. There is a less than significant impact on the noise in the area with mitigation measures.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. There is a potentially significant impact on the noise in the area.

Project ID	Project Name	Environmental Document Summary
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. There is a less than significant impact on the noise in the area with mitigation measures.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. There is a less than significant impact on the noise in the area with mitigation measures.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. There is a potentially significant impact on the noise in the area.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. There is a less than significant impact on the noise in the area with mitigation measures.
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. There is a less than significant impact on

Project ID	**Project Name**	**Environmental Document Summary**
		the noise in the area.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. There is a less than significant impact on the noise in the area.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. There is a significant and unavoidable impact on the noise in the area.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. There is a less than significant impact on the noise in the area with mitigation measures.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. There is a less than significant impact on the noise in the area with mitigation measures.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an

Project ID	Project Name	Environmental Document Summary
		approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. There is a less than significant impact on the noise in the area with mitigation measures.
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. There is a significant impact on the noise in the area.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as

Project ID	Project Name	Environmental Document Summary
		water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. There is a significant and unavoidable impact on the noise in the area.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The slides do not mention an impact on the noise in the area.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. There is a less than significant impact on the noise in the area.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. There is a less than significant impact on the noise in the area with mitigation measures.
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications

Project ID	**Project Name**	**Environmental Document Summary**
		facilities in order to ensure high-quality design and compatibility with surrounding uses. There is no impact on the noise in the area.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The response to comments do not mention an impact on the noise in the area.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. There is potentially significant impact on the noise in the area.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. There is a less than significant impact on the noise in the area with mitigation measures.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes

Project ID	**Project Name**	**Environmental Document Summary**
		an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. There is a less than significant impact on the noise in the area.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. There is a less than significant impact on the noise in the area.
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. There is a less than significant impact on the noise in the area with mitigation measures.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. There is a less than significant impact on the noise in the area with mitigation measures.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67

Project ID	**Project Name**	**Environmental Document Summary**
		residential lots and 10 lots as open space. Additionally, the Project seeks approval to remove 5 acres from an Agricultural Preserve. There is a less than significant impact on the noise in the area.
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property. There is a less than significant impact on the noise in the area.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. There is a less than significant impact on the noise in the area with mitigation measures.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces. There is a less than significant impact on the noise in the area.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. There is a less than significant impact on the noise in the area.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution

Project ID	Project Name	Environmental Document Summary
		center on 35.59 acres and related parking. There is a less than significant impact on the noise in the area.
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres. There is a less than significant impact on the noise in the area with mitigation measures.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino's 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. There is a less than significant impact on the noise in the area.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino's 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. There is a less than significant impact on the noise in the area with mitigation measures.
SB-3	Prologis #12	Per the County of San Bernardino's 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a "high cube" warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres. There is a less than significant impact on the

Project ID	**Project Name**	**Environmental Document Summary**
		noise in the area.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. There is a less than significant impact on the noise in the area.
SB-6	Prologis #8	Per the County of San Bernardino's 2007 IS, the project would result in the construction four industrial buildings to be used a "High Cube" and general warehouse distribution facilities. There is a less than significant impact on the noise in the area.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. There is a less than significant impact on the noise in the area with mitigation measures.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. There is a less than significant impact on the noise in the area.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking,

Project ID	**Project Name**	**Environmental Document Summary**
		hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. There is no impact on the noise in the area.

6.12.3 Cumulative Impact Evaluation

6.12.3.1 Groundborne Vibration Impacts

Impact: *The project's contribution to the cumulative exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels would be less than cumulatively considerable.*

Threshold: Could the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Cumulative Impact Analysis

Construction of the Project would generate ground-borne construction vibration during site clearing, grading and shoring activities. Project construction would generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The construction activities that typically generate the most severe vibrations, such as blasting and impact pile driving, would not occur for the Project. As discussed in Section 4.12.5.1, construction activities are not anticipated to generate perceptible vibration velocities. Therefore, impacts would be less than significant.

Three cumulative projects are located at distances that could undergo construction activities during the project's 16-year construction period: MV-5: P06-158/Gascon, MV-6: Highland Fairview Corporate Park, and MV-126: TTM 33222. Due to the rapid attenuation characteristics of ground-borne vibration and distance from each of the Related Projects to the project site, there is no potential for cumulative construction impacts with respect to ground-borne vibration. Therefore, cumulative impacts would be less than significant.

The project's operations would include typical commercial-grade stationary mechanical and electrical equipment, such as air handling units, condenser units, and exhaust fans, which would produce vibration. In addition, the primary sources of transient vibration would include truck circulation within the proposed parking areas and internal drive aisles. Ground-borne vibration generated by each of the above-mentioned activities would generate up to approximately 0.005 in/sec at 50 feet from the source.[1] The potential vibration levels from all Project operational sources at the closest existing sensitive receptor locations would be less than the significance threshold of 0.5 in/sec PPV significance threshold for potential residential building damage and 0.1 in/sec PPV significance threshold for human annoyance. As such, vibration impacts associated with operation of the project would be below the significance threshold and would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

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[1] This vibration estimate is based on data presented in the USDOT Federal Transit Administration, 2006.

Significance Level After Mitigation: Less than significant impact.

6.12.3.2 Airport Noise Impacts

Impact:	*The project is not located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip. No significant impacts would occur.*
Threshold:	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, results in exposure of people residing or working in the project area to excessive noise levels. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Cumulative Impact Analysis

The project is not located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip. The project area is located approximately 5.5 miles northeast of March Airfield (MAF) and is not located within two miles of a private airstrip. MAF is a joint-use airport, used for both military and civilian purposes. March Air Reserve Base (MARB) is the military operator of MAF and March Inland Port (MIP) is the civilian operator of the airport. This facility is anticipated to play an increasingly important role in the transportation of goods and cargo for the Southern California region. Existing flight patterns affect a large portion of the City of Moreno Valley, along a path that affects the western portion of the City in a northwest/southeast alignment. Aircraft operations from the airport currently contribute intermittent single-event noise.

There is potential for single-event noise exposure levels from MAF activity to affect the project. The exposure levels will vary dependent upon the type of aircraft and flight track flown for each operation at MAF. However, the project is not identified as being within the noise or safety contours delineated for MARB Airport and is not subject to Airport Land Use Commission (ALUC) compatibility analyses.[2] In addition, the project is not considered to contain sensitive receivers and, therefore, the impacts from these single-event noise levels are considered to be below the level of significance. The City's exterior noise standard for industrial uses is 70 dBA CNEL. MAF noise levels are less than 60 dB CNEL within the project area. Therefore, the project would not have the potential to expose people to excessive noise levels from airport operations. Therefore, less than significant noise impacts would occur regarding these issues from implementation of the project.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.12.3.3 Short-term Construction Noise Impacts

Impact:	*The project's contribution to short-term construction noise levels in the project vicinity is cumulatively considerable.*
Threshold:	Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

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[2] *Figure 5.4-1 March Reserve Air Base Noise Impact Area*, City of Moreno Valley General Plan EIR, July 2006.

Cumulative Impact Analysis

Construction crew commutes and the transport of construction equipment, and materials to the WLCSP area would incrementally increase noise levels on access roads leading to the site. Secondary sources of noise would include noise generated during excavation, grading, and building erection on the project site. The net increase in project site noise levels generated by these activities and other sources has been quantitatively estimated and compared to the applicable noise standards and thresholds of significance. Three cumulative projects are located at distances that could undergo construction activities during the project's 16-year construction period: MV-5: P06-158/Gascon, MV-6: Highland Fairview Corporate Park, and MV-126: TTM 33222. Construction of the western portion of the project would result in significant and unavoidable impacts. Should any of these three cumulative projects undergo construction while the western portion of the project is under construction, cumulative construction noise impacts would occur, potentially exposing sensitive receptors to cumulative construction noise greater than that experienced from project construction alone. Therefore, project construction would result in cumulatively considerable and potentially significant cumulative noise impacts.

The three cumulative construction projects do not have CEQA documents in which construction noise has been analyzed. Therefore, assuming that construction of Related Projects would consist of similar construction activity and equipment as the project, receptors located nearest both the project and each of the related projects could potentially be exposed to noise level increase of 10.1 dBA L_{eq} and 44.4 dBA L_{eq} as summarized in Table 6.12-2.

Table 6.12-2: Cumulative Construction Noise Impacts - Unmitigated

Related Project	Distance of Nearest Receptor[1] (feet)	Distance of Receptor to Project	Combined Construction Noise Level (dBA Leq) [2]	Existing Ambient (dBA Leq) [3]	Construction Plus Ambient (dBA Leq)	Increase over Ambient (dBA Leq)
MV-5	600	120	79.2	69.6	79.7	10.1
MV-6	600	120	79.7	69.6	79.7	10.1
MV-126	25	25	96.0	51.6	96.0	44.4

Notes:
* Noise levels are added logarithmically.
1 Distance to nearest receptor south of SR-60.
2 Assumes unmitigated project construction noise levels shown in Table 4.12.K and unmitigated construction noise levels for Related Projects.
3 See Table 4.12-1

Significance Level Before Mitigation: Significant impact

Mitigation Measures: As indicated in Section 4.12.6.1, construction noise impacts have been identified and **Mitigation Measure 4.12.6.1A** has presented to reduce construction noise impacts to the greatest extent feasible.

Significance Level After Mitigation: Implementation of Mitigation Measure 4.12.6.1A would reduce construction noise levels at nearby sensitive receptors through implementation of a NRCP, which is expected to attenuate construction noise levels by 10 dB and prohibit construction activities within 800 feet of residences during nighttime hours. A distance of 800 feet is the point at which any project-related construction activity is not expected to exceed the City of Moreno Valley's nighttime noise standard of 55 dBA L_{eq}. As shown in Section 4.12, Table 4.12-8 and Table 4.12-9, even with implementation of Mitigation Measure 4.12.6.1A, sensitive receptors located near on-site and off-site construction areas would be exposed to construction noise levels that would elevate the existing ambient noise levels above the applied 10 dB substantial temporary increase threshold. As shown in Table 6.12-3, with implementation of mitigation measures to project construction noise levels, cumulative construction noise at sensitive receptors nearest Related Project MV-126 is expected to remain significant and unavoidable. Therefore, this would result in a significant and unavoidable cumulative impact with mitigation.

Table 6.12-3: Cumulative Construction Noise Impacts – Mitigated Project

Related Project	Distance of Nearest Receptor[1] (feet)	Distance of Receptor to Project	Combined Construction Noise Level (dBA Leq) [2]	Existing Ambient (dBA Leq) [3]	Construction Plus Ambient (dBA Leq)	Increase over Ambient (dBA Leq)
MV-5	600	120	70.5	69.6	73.1	3.5
MV-6	600	120	70.5	69.6	73.1	3.5
MV-126	25	25	93.4	51.6	93.4	41.8

Notes:
* Noise levels are added logarithmically.
1 Distance to nearest receptor south of SR-60.
2 Assumes mitigated project construction noise levels shown in Table 4.12-8 and unmitigated construction noise levels for Related Projects.
3 See Table 4.12-1.

Significance Level After Mitigation: Significant impact.

6.12.3.4 Long-term Traffic Noise Impacts

Impact: *The project's contribution to long-term traffic noise levels in the project vicinity is cumulatively considerable.*

Threshold: Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Cumulative Impact Analysis

Cumulative traffic volumes contained in the TIA were developed for the Future Year 2025 and Buildout 2040 analysis time horizons. Traffic volumes for each time horizon were developed utilizing a combination of various future traffic growth methods as follows. For Future Year 2025, traffic volumes were developed by interpolating year 2040 traffic volume projections from the Riverside County Transportation and Analysis Model (RivTAM) to year 2025 plus traffic from a list of past, present, and reasonably foreseeable projects (see Table 6.12B). For Buildout Year 2040, traffic volumes were developed by utilizing the year 2040 traffic volume projections from the RivTAM plus traffic from a list of past, present, and reasonably foreseeable projects.

Three hundred and thirty-nine (339) roadway links and eighty-nine (89) freeway segments were analyzed in the noise analysis. The change in noise level was calculated for all 428 roadway and freeway links with and without the project for the existing case (2018), 2025, and 2040 buildout scenarios. Segments with noise increases less than 1.5 dB would not have a substantial noise increase and were not presented in the main body of the noise report (i.e., the tables and figures). Similarly, any segments that do not have sensitive receptors (e.g., residential uses) were also not presented in the main body of the noise report. Based on this filtering process, of the 428 segments analyzed, 21 segments have sensitive receptors and an increase of 1.5 dB for at least one buildout scenario analyzed in Section 4.12 and were therefore addressed in the analysis. Evaluation of all other segments is included in Appendix D of this Revised FEIR.

Cumulative noise impacts associated with roadway noise have been addressed based on the cumulative traffic volumes, analyzing the difference between future plus project traffic noise and existing without project traffic noise to account for cumulative projects as well as ambient growth as a worst-case scenario. Table 6.12-4 provides a comparison of Future Year 2025 with project noise levels and Existing Conditions and if a significant impact (project-specific or cumulatively significant) occurs. Table 6.12-5 provides a comparison of Buildout Year 2040 with project noise levels and Existing Conditions and if a significant impact (project-specific or cumulatively significant) occurs.

Table 6.12-4: Cumulative Impact for Phase 1 (2025) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	**CNEL (dBA) at 100 feet**			
	Existing	**Phase I (2025) Plus Project**	**Cumulative Increment (Project Contribution)**	**Substantial Increase?**
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.6	69.5	16.9	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	51.9	63.5	11.6	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	63.9	63.9	Yes
John F Kennedy Drive (south of Cactus Avenue)	63.8	65.5	1.7	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6	67.6	2.0	Yes
Street F (east of World Logistics Center Parkway)	0.0	58.1	58.1	Yes
Cactus Avenue (west of Redlands Boulevard)	60.2	61.4	1.2	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7	54.3	3.6	No
Theodore Street (SR-60 to Ironwood Avenue)	59.6	60.5	0.9	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4	62.1	1.7	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	51.9	63.5	11.6	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1	47.2	5.1	Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6	56.2	1.6	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1	55.0	0.9	No
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9	64.9	3.0	Yes
Sunset Drive (Crown Street to Alessandro Road)	47.4	49.0	1.6	No
SR-60 EB Ramps (SR-60 to Central Avenue)	57.4	65.5	8.1	Yes
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.1	81.6	1.5	Yes
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9	80.4	2.5	Yes
SR-215 (Mill Street to 2nd Street)	82.9	83.1	0.2	No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	80.6	0.2	No

Source: ESA, 2018

As identified in Table 6.12-4, implementation of the proposed WLC project would contribute to cumulative changes in traffic noise levels in Year 2025 (Phase I). The largest project-related increase in traffic noise would be along Street D/Cactus Avenue Extension (Alessandro Avenue to Cactus Avenue) and along Street F (east of World Logistics Center Parkway), where increases of 63.9 dBA and 58.1 dBA, respectively, are predicted for the 2025 With Project Phase 1 scenario over the 2018 Existing Conditions scenario. However, the increases associated with these roadway segments is attributable in part to Street D/Cactus Avenue Extension and Street F being new roads that will be constructed by the project through open space areas that are currently vacant and don't contribute to the overall ambient noise environment. A total of eleven road segments would result in a substantial noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation.

Table 6.12-5: Cumulative Impact for Buildout (2040) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	**CNEL (dBA) at 100 feet**			
	Existing	**Buildout (2040) Plus Project**	**Cumulative Increment (Project Contribution)**	**Substantial Increase?**
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.6	71.0	18.4	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	51.9	66.7	14.8	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	66.8	66.8	Yes
John F Kennedy Drive (south of Cactus Avenue)	63.8	67.0	3.2	Yes
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6	69.2	3.6	Yes
Street F (east of World Logistics Center Parkway)	0.0	68.3	68.3	Yes
Cactus Avenue (west of Redlands Boulevard)	60.2	64.9	4.7	Yes
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7	58.2	7.5	Yes
Theodore Street (SR-60 to Ironwood Avenue)	59.6	66.0	6.4	Yes
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4	64.6	4.2	Yes
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	51.9	66.7	14.8	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1	61.3	19.2	Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6	60.9	6.3	Yes
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1	63.0	8.9	Yes
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9	68.4	6.5	Yes
Sunset Drive (Crown Street to Alessandro Road)	47.4	49.0	1.6	Yes
SR-60 EB Ramps (SR-60 to Central Avenue)	57.4	66.5	9.1	Yes
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.1	82.4	2.3	Yes
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9	81.6	3.7	Yes
SR-215 (Mill Street to 2nd Street)	82.9	84.8	1.9	Yes
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	82.1	1.7	Yes

Increases in noise levels associated with Buildout Year (2040) traffic conditions on area roadways range up to 68.3 dBA. As identified in the Table 6.12-6, the greatest increase in noise levels would be along Street D/Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue) and along Street F (east of World Logistics Center Parkway), where increases of 66.8 dBA and 68.3 dBA, respectively, are predicted for the Buildout Year 2040 With Project scenario over the 2018 Existing Conditions scenario. However, the increases associated with these roadway segments is attributable in part to Cactus Avenue Extension and Street F, being new roads that will be constructed by the project through open space areas that are currently vacant and don't contribute to the overall ambient noise environment. A total of twenty-one road and freeway segments would result in a substantial noise increase attributable to the project, resulting in a significant impact requiring mitigation.

The project calls for improvements to several of the roadways around the project area in order to accommodate the projected increase in project traffic volumes. The presence of residential uses occurs within the WLCSP project and nearby area. These roadway segments are analyzed against the thresholds for determining significant impacts defined previously in Section 4.12.6.2. As described previously in Section 4.12.4, the project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

Cumulative noise impacts associated with roadway noise have been addressed based on the 2025 and 2040 time horizons analyses for the roadway segments identified for analysis in Section 4.12. Table 6.12-5 and Table 6.12-6 show the Future Year 2025 and Buildout 2040, respectively, CNEL values with the project and if a substantial increase would be produced based on the cumulatively significant significance criteria identified above. Traffic noise level increases from the existing baseline condition and the future (2025 and 2040) time horizons are attributable to the intermingled effects of both the cumulative (i.e., past, present, and reasonably foreseeable projects) development projects in the project vicinity and region as well as the project.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: As indicated in Section 4.12.6.2, roadway noise impacts have been identified and **Mitigation Measures 4.12.6.2A** through **4.12.62D** have been presented to reduce roadway noise impacts to the greatest extent feasible.

Significance Level After Mitigation: Significant impact. As disclosed in Section 4.12.6.2, there are numerous instances in which there is no feasible means to reduce roadway noise impacts because of the existing developed nature of the affected roadway segment and/or the scattered nature of the sensitive receptors (i.e., residences), which prohibits the effectiveness of a soundwall. For those segments at which there is a cumulatively considerable impact and there is no feasible means to provide mitigation, the significant cumulative impact will remain significant and unavoidable.

6.12.3.5 Long-term Operational Noise Impacts

Impact: *The project's contribution to the cumulative exposure of persons to long-term operational noise would not be cumulatively considerable.*

Threshold:	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, Moreno Valley Municipal Code, or applicable standards of other agencies?

Cumulative Impact Analysis

On-site operational noises are individual noise occurrences and are not typically additive in nature. It is extremely unlikely that adjacent properties will generate noises that would be additive in nature because of two important reasons. First, the noise sources would have to be adjacent or in close proximity to one another in order for the noises to intermingle. Second, the sensitive receptor or receptors would also have to be adjacent to or in close proximity to the noise generators. Because the project assumes 24-hour operations, it is conservatively assumed that the geographic limit for cumulative on-site operational noise would include the three cumulative projects located adjacent to the project site. Cumulative project MV-126 consists of residential uses and would therefore not generate noise levels equivalent to the project. Assuming that the remaining two cumulative projects (MV-5 and MV-6) would generate noise at the same time as the project and at distances and levels that would be additive in nature, a significant cumulative noise impact at sensitive receptors could occur.

As discussed in Section 4.12.6.3 of the FEIR, on-site operational activity would include noise from truck delivery, loading/unloading activities at the loading areas, heating, ventilation, and air-conditioning equipment and other noise-producing activities within the parking lot. On-site activity would generate noise levels of up to 56.9 dBA L_{eq} at a distance of 50 feet. Related Projects MV-5 and MV-6 do not have CEQA documents in which on-site operational noise has been analyzed. Therefore, assuming that operation of Related Projects MV-5 and MV-6 would consist of similar on-site activity as the project, Table 6.12-7 summarizes the potential cumulative noise level increases at this receptor (referred to as R5 in Section 4.12). As shown in Table 6.12-7, cumulative on-site noise levels would not result in perceptible increases in ambient noise (3 dBA). Therefore, on-site project operations would not result in cumulatively considerable on-site operational noise impacts.

Table 6.12-7: Cumulative On-Site Operational Noise Impacts – Unmitigated Project

Related Project	**Distance of Nearest Receptor[1] (feet)**	**Distance of Receptor to Project**	**Combined On-site Operational Noise Level (dBA Leq) [2]**	**Existing Ambient Day/Night (dBA Leq) [3]**	**On-Site Operation Plus Ambient Day / Night (dBA Leq)**	**Increase over Ambient (dBA Leq)**
MV-5 + MV-6	600	120	49.5	69.6 / 66.9	69.6 / 67.0	0.0 / 0.1

Notes:
* Noise levels are added logarithmically.
1 Distance to nearest receptor south of SR-60.
2 Assumes a reference noise level of 56.9 dBA L_{eq} at 50 feet.
3 See Table 4.12-1.

With regard to on-site residential uses, the project would result in significant impacts at on-site residential uses. However, the nearest on-site residence to cumulative projects MV-5 and MV-6 is located at a distance greater than 2,400 feet. At this distance on-site operational noise at MV-5 and MV-6 would be negligible. Therefore, cumulative impacts would not occur.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: Mitigation Measure 4.12.62D has been presented to reduce noise impacts from fixed mechanical equipment and internal roadways to the greatest extent feasible. With implementation of **Mitigation Measure 4.12.62D**, mechanical equipment noise and on-site mobile and idling activity would not exceed the City's nighttime exterior noise standard for off-site residential uses.

Significance Level After Mitigation: Less than significant impact. Implementation of **Mitigation Measure 4.12.6.2D** would eliminate any noise impacts on off-site residential areas due to the operation of logistic activities. Through the provision of a 250-foot setback, berms, and/or soundwalls, noise levels at the nearest residences would be reduced to below the City's thresholds. Therefore, with adherence to the identified mitigation measure, off-site impacts associated with this issue would be less than significant and would be less than cumulatively considerable. With respect to on-site residential uses, Section 4.12.6.3 determined that impacts to on-site residential uses would be less than significant with implementation of **Mitigation Measure 4.12.6.2D.** Additionally, the nearest on-site residence to cumulative projects MV-5 and MV-6 is located at a distance greater than 2,400 feet. At this distance on-site operational noise at MV-5 and MV-6 would be negligible. Therefore, cumulative impacts would not occur.

6.12.3.6 Long-term Utility Noise Impacts

Impact: The project's contribution to long-term utility noise impacts in excess of City standards is less than cumulatively considerable.

Threshold:	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, Moreno Valley Municipal Code, or applicable standards of other agencies?

Cumulative Impact Analysis

There is one existing SDG&E compressor station and two existing SCGC facilities located adjacent to the WLC Specific Plan area. No other similar facilities were identified in proximity to the WLC Specific Plan area.

The L_{eq} noise level generated by the compressor station does not exceed 60 dBA L_{eq} beyond the property lines of the facility. For SCGC blow-down events, noise generated could reach as high as 130 dBA just outside the fence line of the southern facility and in excess of 135 dB just outside the fence line of the northern facility. People within approximately 250 feet of the blow-down points would be exposed to noise levels greater than 115 dBA. No sensitive receptors are located such that noise levels from the compressor station and on-site project activity would result in cumulatively considerable impacts. Therefore, noise impacts associated with the operation of the compressor station in conjunction with project operations would not be cumulative considerable and would be less than significant.

SCGC blow-down events also have the potential to produce groundborne vibration. However, the effect of the blow-down groundborne vibration would be limited to within 100 feet of the equipment and would not be perceived beyond the facility fence line, resulting in a less than significant impact and no mitigation is required.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.13 Population, Housing, Employment

Cumulative effects to population, housing, and employment are described in this section. A summary of the project's potential incremental impacts to cumulative population, housing, and employment issues is provided in Section 6.13.1. The geographic and temporal scopes for cumulative impacts to population, housing, and employment issues are provided in Section 6.13.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the population, housing, and employment issues are discussed in Section 6.13.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.13.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.13 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact and, if so, if the project's incremental contribution would cumulatively considerable.

6.13.1 Project Impact Findings

The project's effects to population, housing, and employment are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.13 of the Revised Sections of the FEIR is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Would the project:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); **Less than Significant, Section 4.13.5.1.**
- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) that may lead to fiscal or economic impacts; **Less than Significant, Section 4.13.5.1.**
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; **Less than Significant, Section 4.13.5.2.**

- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. **Less than Significant, Section 4.13.5.2.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to population, housing, and employment identified in the FEIR.

6.13.2 Geographic and Temporal Scope

The cumulative impact geographic area for population, housing, and employment is the City of Moreno Valley. This geographic area was selected to capture growth within the City of Moreno Valley. Cumulative impacts to population, housing, and employment could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley. The geographic area for cumulative population and housing impacts is shown on Figure 6.13. The projects located within the cumulative population and housing impact area are listed in Table 6.13. The project would contribute to cumulative conditions starting as soon as project-generated jobs are created and would continue to contribute for the duration of the project.

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6_13_Pop_Housing_Emp.mxd, JYL 4/27/2018

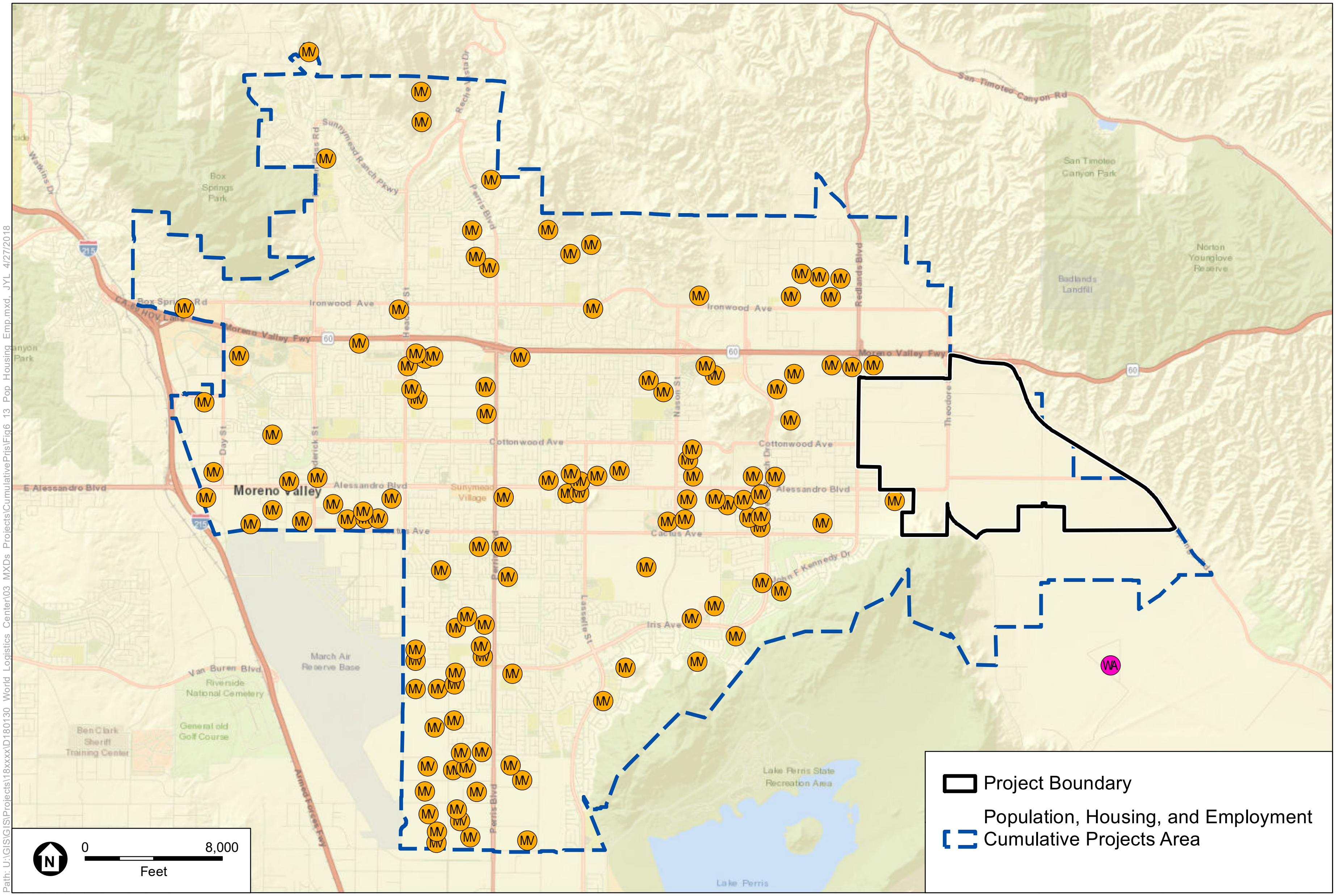

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.13-1

Population, Housing, and Employment Cumulative Projects Area

ESA

Table 6.13 – Population, Housing and Employment Cumulative Project Summary

Project ID	Project	Environmental Document Summary
MV-3	ProLogis	The Project's development of 2,244,638 square feet of distribution warehouse space would contribute to the cumulative increase in population and demand for housing due to the creation of 1,532 job opportunities within the geographic area.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility would contribute to the cumulative increase in population and demand for housing due to the creation of job opportunities within the geographic area.
MV-7	TR33962 / Pacific Scene Homes	The Project's subdivision of a 20-acre parcel into 31 single family lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-8	TR32460 / Sussex Capital	The Project's addition of 57 single family residential units would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-9	TR32459 / Sussex Capital	The Project's addition of 11 single-family residential lots on 13 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-10	TR30998 / Pacific Communities	The Project's subdivision of 60 acres into 47 single family lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-11	TR30411 / Pacific Communities	The Project's development of 25 single- family homes on 30.02 acres would

Project ID	Project	Environmental Document Summary
		contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-18	Convenience Store / Fueling Station	The Project's construction of a fueling station and convenience store would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-19	Senior Assisted Living	The Project's building of a 139-unit senior assisted living facility would contribute to the cumulative increase in population due to the availability of assisted living facilities and the provision of job opportunities within the geographic area.
MV-20	Moreno Marketplace	The Project's development of 95,905 square foot retail center would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-21	PEN16-0053 Medical Center	The Project's development of a medical complex on 18.38 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-24	TM 36436 (PA12-0005)	The Project's subdivision of 43.52 acres into 159 single family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-25	TR32142	The Project's development of 172 multi-family residences on 19.3 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply

Project ID	**Project**	**Environmental Document Summary**
		within the geographic area
MV-27	TR32917 / Empire land	The Project's development of 227 condominiums on 17.9 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-29	TR36340	The Project's development of 276 condominiums on 32 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-37	Vogel /PA09-004	The Project's development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	The Project's development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-41	First Nandina Logistics Center	The Project's development of 1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of distribution warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-42	Indian Street Commerce Center	The Project's development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

Project ID	**Project**	**Environmental Document Summary**
MV-43	Ivan Devries / PA06-0017	The Project's development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-44	Modular Logistics Center (Kearny RE Co)	The Project's development of 1,109,378 of office space 50.84 acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-45	Iris Plaza	The construction of a 109,289 square foot shopping center on 12.4 acres of land would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project's subdivision of a 75.05-acre property into four parcels with business center land uses would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	The Project's development of a 1,560,046 square foot warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-50	San Michele Industrial Center, (Industrial Area SP)	The Project's development of a 414,533 square foot warehouse on a 17.17 acre-site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-51	Nandina Distribution Center IDS	The Project's development of a 770,867 industrial building on a 38 acre-site would contribute to the cumulative increase in

Project ID	Project	Environmental Document Summary
		population due to the provision of job opportunities within the geographic area.
MV-52	First Industrial III & IV, (Industrial Area SP)	The Project's development of a 880,000 square foot warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-53	I-215 Logistics Center (Amazon)	The Project's development of a 1,705,000 square foot distribution warehouse would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-54	Moreno Valley Logistics Center (Prologis)	The Project's development of a 1,736,180 square foot logistics center would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-60	Tract Map 36401	The Project's development of 216 dwelling units on a 19.4 acre site would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area.
MV-61	Walmart & Gas Station	The Project's development of a 193,000 square-feet of retail/commercial uses on a 22.28-acre site would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-63	PA14-0053 (TTM 36760) Legacy Park	The Project's subdivision of 53 acres into 221 single family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-66	TR34988 / Stratus Properties	The Project's construction

Project ID	Project	Environmental Document Summary
		of 271 dwelling units on 3.75 acres of outdoor recreation area would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-67	TR32515	The Project's construction of 174 senior single-family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-68	PA07-0035	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-69	PA07-0039, (Industrial Area SP)	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-75	Aqua Bella Specific Plan	The Project's construction of 2,922 adult community dwelling units on 685 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-78	Overton Moore Properties PA08-0072	The Project's development of a 522,772 square foot industrial warehouse building on 25.96 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-79	Shaw Development	The Project's development of a 366,698 square foot industrial warehouse building on 25.96 acres

Project ID	Project	Environmental Document Summary
		would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-80	PA15-0032 MV Cactus Center	The Project's development of 39,950 square feet of warehouse buildings, and mixed retail uses on 6.3 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	The Project's development of a 353,859 square foot of warehouse on 16.55 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-84	PA16-0075 Brodiaea Business Center	The Project's development of 8 industrial buildings on 126 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	The Project's subdivision of 16.9 acres into 6 pads for commercial retail use would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-89	TR35663 / Kha	The Project's development of mixed use on approximately 2.2 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-93	PA14-0042 Edgemont Apartments	The Project's development of 112 apartment units on approximately 5.89 acres would contribute to the cumulative increase in population but would have

Project ID	**Project**	**Environmental Document Summary**
		a beneficial impact to cumulative housing supply within the geographic area
MV-94	PA15-0002 Box Springs Apartments	The Project's development of 266 apartment units on approximately 12 acres would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-95	Moreno Beach Marketplace / Lowes	The Project's development of retail space on 14.2 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-97	32005 Red Hill Village, LLC	The Project's development of 214 clustered and single-family residential lots would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-100	32215 Winchester Associates "Scottish Village"	The Project's development of 194 clustered and single-family residential lots on 26.12-acre site would contribute to the cumulative increase in population but would have a beneficial impact to cumulative housing supply within the geographic area
MV-103	Gateway Business Park	The Project's development of a business park on 25.3 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area. areas.
MV-114	Stoneridge Town Centre - Vacant Restaurant	The Project's development of 563,328 square feet of commercial uses would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-116	31621 Peter Sanchez	The Project's development of 563,328 square feet of

Project ID	**Project**	**Environmental Document Summary**
		commercial use on 55.45 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
MV-117	Riverside County Office Building	The Project's development of 52,250 square feet of office building use on 5.8 acres would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.
SJWA-1	San Jacinto Wildlife Land Management Plan	The Project's development of a land management plan would contribute to the cumulative increase in population due to the provision of job opportunities within the geographic area.

6.13.3 Cumulative Impact Evaluation

6.13.3.1 Population Growth

Impact: *The project's less than significant contribution to cumulative conditions would not cause or contribute to potential significant cumulative impacts related to substantial population growth in the area. Additionally, the project's less than significant contribution to cumulative conditions would not cause or contribute to a potential significant cumulative impact relating to population growth in the area that may lead to fiscal or economic impacts.*

Threshold: Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure)?

Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?

Cumulative Impact Analysis

As discussed in Section 4.13 of the FEIR, the project would not contribute to substantial population growth and therefore would not result in an increased demand on the current or future housing in the region. It therefore would have a less-than-significant impact on inducing substantial population growth, or inducing substantial population growth that would lead to fiscal or economic impacts.

According to the Southern California Association of Governments (SCAG), the City of Moreno Valley is considered housing rich and jobs poor, with more than 3,000 vacant residential units (SCAG 2017). As the WLC project area represents the last largest remaining vacant land in the City of Moreno Valley, it would not significantly induce growth into areas where growth was not previously anticipated. Further, the project could result in an influx of new workers who would need to locate temporarily or permanently in the area. The City currently has an adequate supply of for-sale and rental housing. Implementation of the proposed project would benefit population and housing conditions relative to employment and jobs/housing ratio. MV 3 and MV 4 CEQA documents evaluated the effect on population housing and employment.

Other projects in the cumulative scenario would bring a mix of residential, employment, retail, medical and recreational uses that collectively would support the planned growth and local and regional population and housing goals within the geographic area of cumulative consideration. The incremental impacts of the proposed project, together with the incremental impacts of other projects in the cumulative scenario, would not cause or contribute to significant cumulative growth inducing impacts.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.13.3.2 Displace Substantial Housing/People

Impact: *The project's contribution to the displacement of substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere is less than cumulatively considerable.*

Threshold: Would the proposed WLC project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?

Cumulative Impact Analysis

Projects in the cumulative scenario are a mix of residential, industrial, retail/commercial, office and medical uses. A majority of these projects, including the project, are proposed on vacant parcels of land and/or would not displace people or housing. Additionally, according to SCAG, the City of Moreno Valley is considered housing rich and jobs poor, with more than 3,000 vacant residential units (SCAG 2017). Therefore, while the cumulative projects, including the project, may result in an influx of new workers who would need to locate temporarily or permanently in the area, they would benefit the population and housing conditions relative to employment and jobs/housing ratio, and would result in cumulatively less than significant impacts on the displacement of people or existing housing.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.14 Public Services and Facilities

Cumulative effects to public services and facilities are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to public services and facilities is provided in Section 6.14.1. The geographic and temporal scopes are provided in Section 6.14.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the public services and facilities issues are discussed in Section 6.14.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.14.3 as well as mitigation measures, if applicable, and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.14 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative ly considerable impact to public services and utilities. These potentially cumulative impacts are documented in the following section.

6.14.1 Project Impact Findings

The project's effects to public services and facilities are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.14 of Revised Sections of the FEIR) is provided as well as a reference to the specific section. All of the public services and facilities that were evaluated were determined to experience a less than significant impact with the implementation of the project.

6.14.1.1 Police Protection

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Police Protection – Less than Significant, Section 4.14.1;**

  As shown, there are no unmitigated project-specific significant and unavoidable impacts to police services and facilities identified in the FEIR.

6.14.1.2 Fire Protection

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Fire Protection – Less than Significant Impact, Section 4.14.2;**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to fire services and facilities identified in the FEIR.

6.14.1.3 Schools

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Schools – Less than Significant, Section 4.14.3;**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to schools identified in the FEIR.

6.14.1.4 Parks, Recreation, and Trails

Would the project:

- Cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for **Parks, Recreation and Trails – Less than Significant, Section 4.14.4;**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to park, recreation and trail facilities identified in the FEIR.

6.14.2 Geographic and Temporal Scope

The cumulative impact geographic area for police, fire, and parks/recreation is the City of Moreno Valley because these services are provided by the City within its jurisdictional boundary. The cumulative impact geographic area for schools is the Moreno Valley Unified School District (MVUSD) and the San Jacinto Unified School District (SJUSD) because these school districts serve portions of the project site. Cumulative impacts to public services and utilities could result from the project in conjunction with other past, present and future projects located within the City of Moreno Valley and within the MVUSD and SJUSD. Cumulative projects within the City and both school districts will be evaluated with the project to determine if any cumulative impact would occur. The geographic area for cumulative police, fire, and parks/recreation impacts is shown on Figure 6.14-1. The geographic area for cumulative school impacts is shown on Figure 6.14-2. The projects located within the cumulative police, fire, and parks/recreation impact area is listed in Table 6.14-1. The projects located within the school impact area is listed in Table 6.14-2. As significant crossover exists between the two impact areas, projects included in both tables are described only once in Table 6.14.

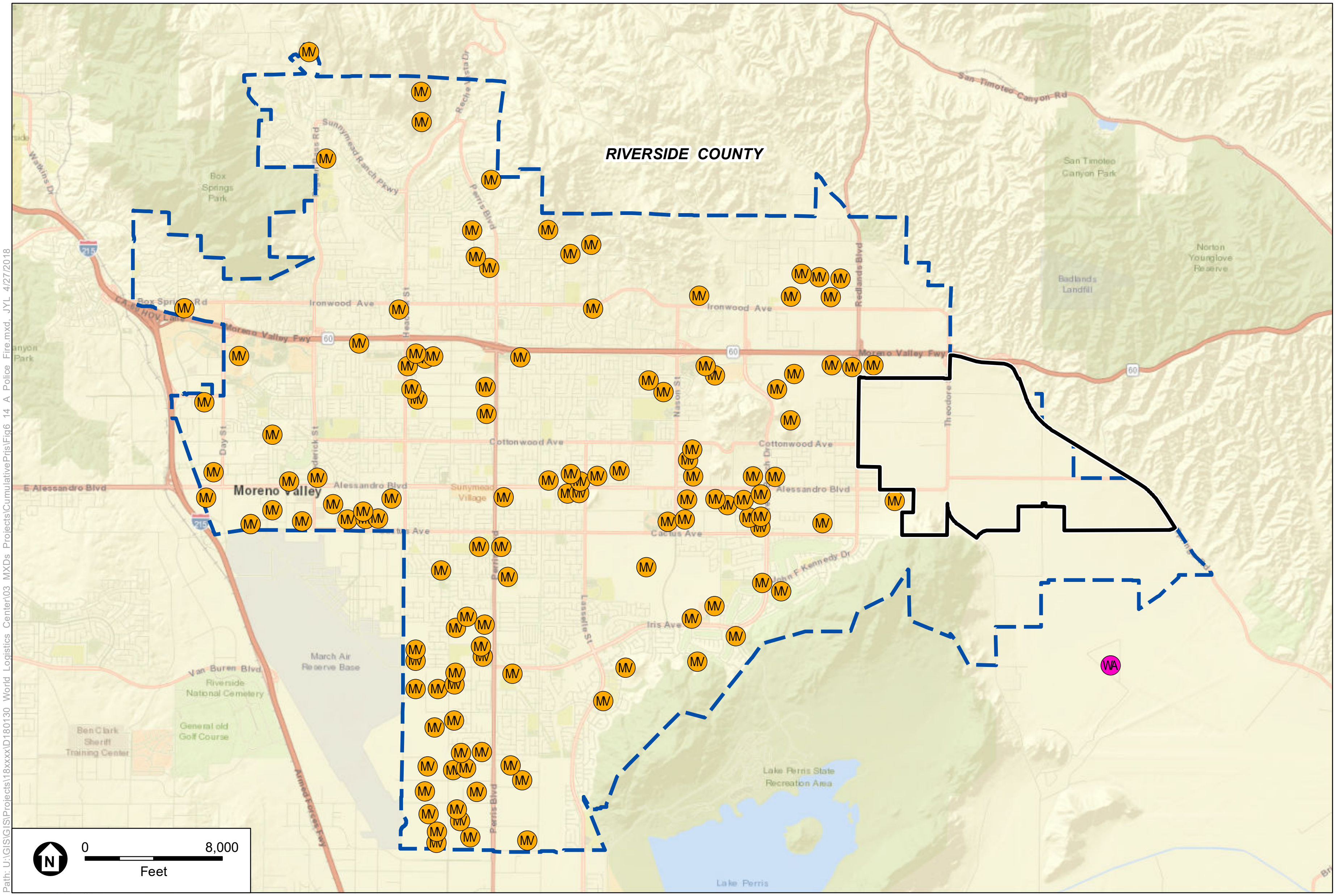

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.14-1

Police, Fire, and Parks/Recreation Cumulative Projects Area

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\CumulativePrjs\Fig6 14 A Police Fire.mxd, JYL 4/27/2018

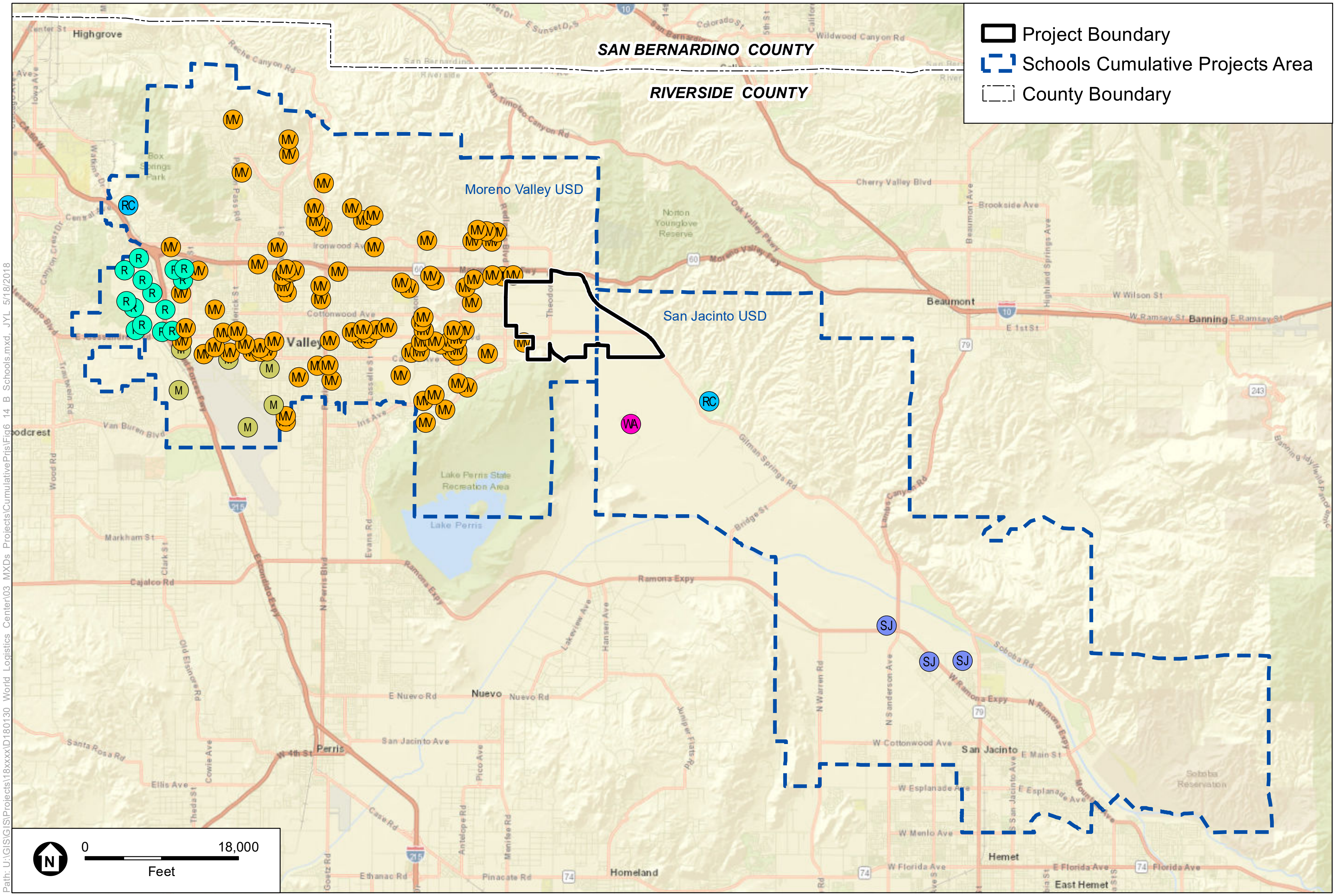

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SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.14-2

Schools Cumulative Projects Area

ESA

Table 6.14-1 Public Services (Police, Fire, and Parks) Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
MV-3	ProLogis	The Project's development of 2,244,638 square feet of distribution warehouse space would contribute to the cumulative demand on public services (including fire, police schools, parks, and others) due to the increase in residents within the affected service areas.
MV-4	Westridge Commerce Center	The Project's development of a 937,260 square foot warehouse distribution facility contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in business activity within the affected service areas.
MV-7	TR33962 / Pacific Scene Homes	The Project's subdivision of a 20-acre parcel into 31 single family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-8	TR32460 / Sussex Capital	The Project's addition of 57 single family residential units would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas..
MV-9	TR32459 / Sussex Capital	The Project's addition of 11 single-family residential lots on 13 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-10	TR30998 / Pacific Communities	The Project's subdivision of 60 acres into 47 single family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-11	TR30411 / Pacific Communities	The Project's development of 25 single-family homes on 30.02 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-14	TR32548 / Gabel, Cook & Associates	The Project's subdivision of 36.24 acres for residential purposes would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.

Project ID	Project Name	Environmental Document Summary
MV-15	TR32218 / Whitney	The Project's subdivision of 17.25 acres for 63 single-family homes and open space would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-16	TR32284 / 26thCorporation & Granite Capitol	The Project's development of 32 residential lots on 8.77 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-17	TR31590 / Winchester Associates	The Project's subdivision of 30 acres for 96 single family homes would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-18	Convenience Store / Fueling Station	The Project's construction of a fueling station and convenience store would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in customer circulation within affected service areas.
MV-19	Senior Assisted Living	The Project's building of a 139-unit senior assisted living facility would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-20	Moreno Marketplace	The Project's development of 95,905 square foot retail center would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-21	PEN16-0053 Medical Center	The Project's development of a medical complex on 18.38 acres would contribute to the cumulative demand on public services (including fire, police schools, parks, and others) due to the increase in residents within the affected service areas.
MV-22	TR36882 (PA15-0010) SFR	The Project's subdivision of 9.4 acres into 40 residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-24	TM 36436 (PA12-0005)	The Project's subdivision of 43.52 acres into 159 single family residential lots would contribute to the cumulative

Project ID	Project Name	Environmental Document Summary
		demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-25	TR32142	The Project's development of 172 multi-family residences on 19.3 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-27	TR32917 / Empire land	The Project's development of 227 condominiums on 17.9 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-28	TR34329 / Granite Capitol	The Project's development of 90 condominiums on 10.41 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-29	TR36340	The Project's development of 276 condominiums on 32 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-30	PA03-0168 TR 31517	The Project's development of 83 single-family residential lots on 31.71 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-32	TTM 31592 (P13-078) SFR	The Project's development of 115 single-family homes would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-33	TR32645 / Winchester Associates	The Project's subdivision of 18.48 acres into 53 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-34	TR34397 / Winchester Associates	The Project's subdivision of 19 acres into 50 single family residential lots would contribute to the cumulative demand on public services (including fire, police,

Project ID	**Project Name**	**Environmental Document Summary**
		schools, parks, and others) due to the increase in residents within the affected service areas.
MV-35	TR31771 / Sanchez	The Project's subdivision of 9.34 acres into 25 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-36	TM 31618 (PA03-0106)	The Project's subdivision of 18.99 acres into 56 single family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-37	Vogel /PA09-004	The Project's development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	The Project's development of 1,616,133 square feet of distribution warehouse space on 71 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-41	First Nandina Logistics Center	The Project's development of 1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of distribution warehouse would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-42	Indian Street Commerce Center	The Project's development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-43	Ivan Devries / PA06-0017	The Project's development of 446,350 square feet of light industrial uses on 19.64 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected

Project ID	**Project Name**	**Environmental Document Summary**
		service areas.
MV-44	Modular Logistics Center (Kearny RE Co)	The Project's development of 1,109,378 of office space 50.84 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-45	Iris Plaza	The construction of a 109,289 square foot shopping center on 12.4 acres of land would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-47	PA07-0129 TR 35606 SFR	The Project's subdivision of a 4.8 acre parcel into 16 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	The Project's subdivision of a 75.05-acre property into four parcels with business center land uses would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	The Project's development of a 1,560,046 square foot warehouse would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-50	San Michele Industrial Center, (Industrial Area SP)	The Project's development of a 414,533 square foot warehouse on a 17.17 acre-site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-51	Nandina Distribution Center IDS	The Project's development of a 770,867 industrial building on a 38 acre-site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-52	First Industrial III & IV, (Industrial Area SP)	The Project's development of a 880,000 square foot warehouse would contribute

Project ID	Project Name	Environmental Document Summary
		to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees, business activity, and customers within the affected service areas.
MV-53	I-215 Logistics Center (Amazon)	The Project's development of a 1,705,000 square foot distribution warehouse would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-54	Moreno Valley Logistics Center (Prologis)	The Project's development of a 1,736,180 square foot logistics center would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-56	Tract Map 33810	The Project's subdivision of 4.62 acres into 16 lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-57	Tract Map 34151	The Project's subdivision of 8.95 acres into 37 single-family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-58	Tract Map 33024	The Project's subdivision of 2.17 acres into 8 single-family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-59	Tract Map 31442	The Project's subdivision of 15.8 acres into 63 single-family lots would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-60	Tract Map 36401	The Project's development of 216 dwelling units on a 19.4 acre site would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in residents within the affected service areas.
MV-61	Walmart & Gas Station	The Project's development of a 193,000 square-feet of retail/commercial uses on a 22.28-acre site would contribute to the cumulative demand on public services

Project ID	Project Name	Environmental Document Summary
		(including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-63	PA14-0053 (TTM 36760) Legacy Park	The Project's subdivision of 53 acres into 221 single family residential lots would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-65	TR33607 / TL Group	The Project's construction of 52 condominiums on 4.28 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-66	TR34988 / Stratus Properties	The Project's construction of 271 dwelling units on 3.75 acres of outdoor recreation area would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-67	TR32515	The Project's construction of 174 senior single-family residential lots would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-68	PA07-0035	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-69	PA07-0039, (Industrial Area SP)	The Project's development of six industrial buildings on a 19.14 acre parcel would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected service areas.
MV-75	Aqua Bella Specific Plan	The Project's construction of 2,922 adult community dwelling units on 685 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-78	Overton Moore Properties PA08-0072	The Project's development of a 522,772 square foot industrial warehouse building on 25.96 acres would contribute to the cumulative demand on public services (including fire, police, schools, parks, and others) due to the increase in employees and business activity within the affected

Project ID	Project Name	Environmental Document Summary
		service areas.
MV-79	Shaw Development	The Project's development of a 366,698 square foot industrial warehouse building on 25.96 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-80	PA15-0032 MV Cactus Center	The Project's development of 39,950 square feet of warehouse buildings, and mixed retail uses on 6.3 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	The Project's development of a 353,859 square foot of warehouse on 16.55 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-84	PA16-0075 Brodiaea Business Center	The Project's development of 8 industrial buildings on 126 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees and business activity within the affected service areas.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	The Project's subdivision of 16.9 acres into 6 pads for commercial retail use would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-86	TR32505 / DR Horton	The Project's subdivision of 18.66 acres into 72 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-88	TR33771 / Creative Design Associates	The Project's construction of 12 condominiums on 0.9 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in residents within the affected service areas.
MV-89	TR35663 / Kha	The Project's development of mixed use on approximately 2.2 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in employees, customers, and business

Project ID	Project Name	Environmental Document Summary
		activity within the affected service areas.
MV-91	TR31305 / Richmond American	The Project's subdivision of 22.9 acres into 87 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-92	TR 33256	The Project's subdivision of 28.6 acres into 99 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-93	PA14-0042 Edgemont Apartments	The Project's development of 112 apartment units on approximately 5.89 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-94	PA15-0002 Box Springs Apartments	The Project's development of 266 apartment units on approximately 12 acres would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-95	Moreno Beach Marketplace / Lowes	The Project's development of retail space on 14.2 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-96	31394 Pigeon Pass, Ltd.	The Project's subdivision of 46 acres into 78 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-97	32005 Red Hill Village, LLC	The Project's development of 214 clustered and single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-98	33388 SCH Development, LLC	The Project's subdivision of 19.5 acres into 16 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.

Project ID	**Project Name**	**Environmental Document Summary**
MV-100	32215 Winchester Associates "Scottish Village"	The Project's development of 194 clustered and single-family residential lots on 26.12-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-103	Gateway Business Park	The Project's development of a business park on 25.3 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-106	35304 Jimmy Lee	The Project's development of 15 dwelling units on 0.9-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-110	TM 33417	The Project's development of 15 dwelling units on 0.9-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-111	35769 Michael Chen	The Project's development of 16 condo units on 1.21-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-112	PA09-0006 Jim Nydam	The Project's development of 15 affordable housing units on 1.57-acre site would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-113	Ironwood Residential	The Project's subdivision of 75 acres into 101 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-114	Stoneridge Town Centre - Vacant Restaurant	The Project's subdivision of 75 acres into 101 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-116	31621 Peter Sanchez	The Project's development of 563,328 square feet of commercial use on 55.45 acres would contribute to the cumulative demand on public services (including fire,

Project ID	**Project Name**	**Environmental Document Summary**
		police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-117	Riverside County Office Building	The Project's development of 52,250 square feet of office building use on 5.8 acres would contribute to the cumulative demand on public services (including fire, police, and others) due to the increase in employees, customers, and business activity within the affected service areas.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	The Project's subdivision of 75 acres into 101 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
MV-119	32126 Salvador Torres	The Project's subdivision of 9 acres into 35 single-family residential lots would contribute to the cumulative demand on public services (including fire, police, schools, and others) due to the increase in residents within the affected service areas.
SJWA-1	San Jacinto Wildlife Land Management Plan	The Project's development of a land management plan would contribute to the cumulative demand for police and fire protection due to the increase in recreational trails and wildfire management activities.

Table 6.14-2 Public Services (Schools) Cumulative Projects Summary

Project ID	**Project Name**	**Type of Environmental Document**
MV-3	ProLogis	EIR
MV-4	Westridge Commerce Center	EIR
MV-7	TR33962 / Pacific Scene Homes	ND
MV-8	TR32460 / Sussex Capital	ND
MV-9	TR32459 / Sussex Capital	ND
MV-10	TR30998 / Pacific Communities	ND
MV-11	TR30411 / Pacific Communities	ND
MV-14	TR32548 / Gabel, Cook & Associates	ND
MV-15	TR32218 / Whitney	ND
MV-16	TR32284 / 26thCorporation & Granite Capitol	ND
MV-17	TR31590 / Winchester Associates	ND
MV-18	Convenience Store / Fueling Station	ND
MV-19	Senior Assisted Living	ND
MV-20	Moreno Marketplace	ND

Project ID	Project Name	Type of Environmental Document
MV-21	PEN16-0053 Medical Center	MND
MV-22	TR36882 (PA15-0010) SFR	MND
MV-24	TM 36436 (PA12-0005)	MND
MV-25	TR32142	ND
MV-27	TR32917 / Empire land	ND
MV-28	TR34329 / Granite Capitol	ND
MV-29	TR36340	ND
MV-30	PA03-0168 TR 31517	ND
MV-32	TTM 31592 (P13-078) SFR	ND
MV-33	TR32645 / Winchester Associates	ND
MV-34	TR34397 / Winchester Associates	ND
MV-35	TR31771 / Sanchez	ND
MV-36	TM 31618 (PA03-0106)	EIR
MV-37	Vogel /PA09-004	EIR
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	EIR
MV-41	First Nandina Logistics Center	EIR
MV-42	Indian Street Commerce Center	EIR
MV-43	Ivan Devries / PA06-0017	ND
MV-44	Modular Logistics Center (Kearny RE Co)	EIR
MV-45	Iris Plaza	IS
MV-47	PA07-0129 TR 35606 SFR	EXEMPT
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	EIR
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	MND
MV-50	San Michele Industrial Center, (Industrial Area SP)	ND
MV-51	Nandina Distribution Center IDS	MND
MV-52	First Industrial III & IV, (Industrial Area SP)	MND
MV-53	I-215 Logistics Center (Amazon)	MND
MV-54	Moreno Valley Logistics Center (Prologis)	EIR
MV-56	Tract Map 33810	EXEMPT
MV-57	Tract Map 34151	ND
MV-58	Tract Map 33024	ND
MV-59	Tract Map 31442	ND
MV-60	Tract Map 36401	MND
MV-61	Walmart & Gas Station	EIR
MV-63	PA14-0053 (TTM 36760) Legacy Park	MND
MV-65	TR33607 / TL Group	ND
MV-66	TR34988 / Stratus Properties	ND

Project ID	Project Name	Type of Environmental Document
MV-67	TR32515	ND
MV-68	PA07-0035	ND
MV-69	PA07-0039, (Industrial Area SP)	ND
MV-75	Aqua Bella Specific Plan	EIR
MV-78	Overton Moore Properties PA08-0072	MND
MV-79	Shaw Development	MND
MV-80	PA15-0032 MV Cactus Center	MND
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	ND
MV-84	PA16-0075 Brodiaea Business Center	ND
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	ND
MV-86	TR32505 / DR Horton	ND
MV-88	TR33771 / Creative Design Associates	EXEMPT
MV-89	TR35663 / Kha	EXEMPT
MV-91	TR31305 / Richmond American	ND
MV-92	TR 33256	ND
MV-93	PA14-0042 Edgemont Apartments	EIR
MV-94	PA15-0002 Box Springs Apartments	MND
MV-95	Moreno Beach Marketplace / Lowes	MND
MV-96	31394 Pigeon Pass, Ltd.	ND
MV-97	32005 Red Hill Village, LLC	ND
MV-98	33388 SCH Development, LLC	ND
MV-100	32215 Winchester Associates "Scottish Village"	ND
MV-103	Gateway Business Park	MND
MV-106	35304 Jimmy Lee	ND
MV-110	TM 33417	ND
MV-111	35769 Michael Chen	EXEMPT
MV-112	PA09-0006 Jim Nydam	EXEMPT
MV-113	Ironwood Residential	MND
MV-114	Stoneridge Town Centre - Vacant Restaurant	ND
MV-116	31621 Peter Sanchez	ND
MV-117	Riverside County Office Building	ND
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	ND
MV-119	32126 Salvador Torres	ND
R-2	Alessandro Business Center (Western Realco)	The Project's development of 662,018 square feet of industrial warehouse space could contribute to the cumulative demand on schools if employees

Project ID	Project Name	Type of Environmental Document
		relocated to the area with school aged children.
R-5	Canyon Springs Healthcare Campus Specific Plan	The Project's development of a healthcare campus on 50.85 acres would contribute to the cumulative demand on schools due to potential population growth as a result of 2,450 new permanent jobs.
M-2	Meridian Business Park Phases I and II	The Project's development of a 130 acre business park would contribute to the cumulative demand on schools due to potential population growth from the addition of new jobs.
M-8	March LifeCare Campus Specific Plan	The development of a medical campus on approximately 236 acres would contribute to the cumulative demand on schools due to potential population growth from the addition of new jobs.
M-9	TM 34748	The Project's subdivision of 40 acres into 135 single-family residential lots would contribute to the cumulative demand on schools due to the increase of residents within the school district.

6.14.3 Cumulative Impact Evaluation

6.14.3.1 Police Protection

6.14.3.1.1 New or Altered Law Enforcement Facilities

Impact: *The project's contribution to significant environmental effects from new or altered law enforcement facilities would be less than cumulatively considerable.*

Threshold: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services?

Cumulative Impact Analysis

The cumulative impact geographic area for police protection services is the City of Moreno Valley. Police protection services for the City, including the project and cumulative development, is provided by the City of Moreno Valley Police Department (MVPD), which contracts police services from the Riverside County Sheriff's Department (RCSD). As such, the City has access to all of the RCSD services which include dispatch, a specials weapons and tactics (SWAT) team, a bomb squad, a dive team, off-highway enforcement team, and a helicopter.

In general, impacts to the MVPD services and facilities during the construction of cumulative development would be addressed as part of each cumulative project's development review process conducted by the City. During construction of cumulative development, equipment and building materials could be temporarily stored on the cumulative project sites, which could result in theft, graffiti, and vandalism. Many cumulative project sites are located in areas of moderate to high vehicular activity from nearby streets. In addition, the construction sites of the cumulative projects would be fenced along the perimeters, when applicable, with the height and fence materials subject to review and approval by the City. Temporary lane closures may be required for right-of-way frontage improvements and utility construction. However, these closures would be temporary in nature and in the event of partial lane closures, both directions of travel on area roadways and access to the cumulative project sites would be maintained. Due to their proximity to the project site, should project construction occur concurrently with the construction of cumulative projects MV-4, MV-5, MV-6, and MV-126, coordination with these construction sites would be implemented through each cumulative project's respective construction traffic management plan, if applicable, which would ensure emergency access and traffic flow are maintained on adjacent right-of-ways. In addition, construction-related traffic generated by the cumulative development would not significantly impact the MVPD responses within the vicinities of the cumulative projects as emergency vehicles normally have a variety of options for avoiding traffic, such using sirens to clear a path of travel or driving in the lanes of opposing traffic.

According to the MVPD, there are no planned improvements for the MVPD facilities.[1],[2] If expanded[i] police facilities were determined warranted by the MVPD, and were foreseeable, the impacts of the construction and operation of such a station would be analyzed at that time under CEQA as a project independent of the cumulative development. Moreover, the expansion of any police station would likely be on an infill lot potentially less than an acre in size. Generally, development associated with typical police stations is unlikely to result in significant unavoidable impacts, and projects involving the construction or expansion of a police station are typically anticipated to be addressed pursuant to CEQA

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[1] Deputy M. Reilly #4695, Community Services Unit, Moreno Valley Police Department, letter correspondence for the Ironwood Residential Project, dated June 7, 2016. Ironwood Residential Project Final Initial Study/Mitigated Negative Declaration, prepared by ESA, dated February 2017.

[2] Ibid.

through the use of a Class 32 categorical infill exemptions (CEQA Guidelines 15332) or (mitigated) negative declarations since they are likely relatively small structures on infill parcels. Accordingly, the need for additional police protection services as part of an unplanned or expanded police station at this time is not an environmental impact of a project or one that a project is required to mitigated.[3]

It is expected that the cumulative projects (particularly those of a larger nature) would be subject to discretionary review by the MVPD on a project-by-project basis to ensure that sufficient security measures are implemented to reduce potential impacts to police protection services. Many of the cumulative projects would also be expected, when applicable, to provide on-site security, personnel and/or design features for their residents and patrons per standard development practices for the given uses. Further, the City would collect development impact fees from the cumulative projects that would be used to fund the MVPD expenditures as necessary to offset any cumulative incremental impact from each cumulative project on police protection services. The protection of public safety is the first responsibility of local government, and local officials have an obligation to give priority to the provision of adequate public safety services, which are typically financed through the City general funds.

With regard to emergency response times, cumulative projects would introduce new uses which would generate additional traffic in the vicinity of the cumulative development. Traffic from the cumulative development could have the potential to affect emergency vehicle response times to the cumulative project sites and surrounding properties due to travel time delays caused by the additional traffic. Emergency vehicles would access the cumulative project sites directly from the surrounding roadways. The drivers of emergency vehicles have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. As such, emergency access to the vicinity of cumulative development would be maintained at all times, and the increase in cumulative traffic generated by cumulative development would not significantly impact emergency vehicle response times. Further, consistent with the *City of Hayward v. Trustees of California State University*,[4] significant impacts under CEQA consist of adverse changes in any of the physical conditions within the area a project, and potential impacts on emergency response times are not an environmental impact that CEQA requires a project to mitigate.

The project is located in an area of high vehicular activity and would provide construction fencing and private security during construction. As such, the project would not cause a significant impact to police protection services during construction. Therefore, the project's contribution to cumulative impacts during construction on the MVPD's emergency response would not be cumulatively considerable.

The project would be designed and operated per applicable standards required by the City for new development in regard to public safety. The project would be required to pay the applicable development impact fees to the City. Similar to cumulative development, the drivers of emergency vehicles would have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. Therefore, the project's contribution to cumulative impacts to MVPD facilities would not be cumulatively considerable.

Based on the above considerations, the project would result in a less than cumulatively considerable contribution to the need for the construction of new, or expanded police facilities and, as such, cumulative impacts on police protection services would be less than significant.

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[3] Court of Appeal of the State of California, First Appellate District, Division Three, Filed 11/30/15; City of Hayward v. Board of Trustees (Alameda County Superior Court No. RG09480852); Hayward Planning Association et al., v. Board of Trustees of the California State University, http://law.justia.com/cases/california/court-of-appeal/2015/a131412a.html, accessed April 2018.

[4] Court of Appeal of the State of California, First Appellate District, Division Three, Filed 11/30/15; City of Hayward v. Board of Trustees (Alameda County Superior Court No. RG09480852); Hayward Planning Association et al., v. Board of Trustees of the California State University, http://law.justia.com/cases/california/court-of-appeal/2015/a131412a.html, accessed April 2018.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.14.3.2 Fire Protection

6.14.3.2.1 New or Altered Fire-Fighting Facilities

Impact: *The project's contribution to significant environmental effects from new or altered fire-fighting facilities would be less than cumulatively considerable.*

Threshold:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire-fighting facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire services?

Cumulative Impact Analysis

The cumulative impact geographic area for fire protection is the City of Moreno Valley. Fire protection for the City, including the project and cumulative development, is provided by the City of Moreno Valley Fire Department (MVFD), which contracts with the Riverside County Fire Department (RCFD).

In general, impacts to the MVFD services and facilities during the construction of cumulative development would be addressed as part of each cumulative project's development review process conducted by the City. Construction activities associated with cumulative development may temporarily increase the demand for fire protection and emergency medical services, and may cause the occasional exposure of combustible materials, such as wood, plastics, sawdust, covering and coatings, to heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings. However, in compliance with the requirements of the California Occupational Safety and Health Administration (OSHA), all construction managers and personnel of cumulative development would be trained in fire prevention and emergency response. Further, fire suppression equipment specific to construction of the cumulative development would be maintained on the cumulative project sites. As applicable, all cumulative construction activities would be required to comply with the 2013 California Building Code (CBC); the 2013 California Fire Code (CFD); and the City's Fire Code.

Construction activities may involve temporary lane closures of right-of-way frontage improvements and utility construction. However, these closures would be temporary in nature and in the event of partial lane closures, both directions of travel on area roadways and access to the cumulative project sites would be maintained. Due to their proximity to the project site, should project construction occur concurrently with the construction of cumulative projects MV-4, MV-5, MV-6, and MV-126, coordination with these construction sites would be implemented through each cumulative project's respective construction traffic management plan, if applicable, which would ensure emergency access and traffic flow are maintained on adjacent right-of-ways. In addition, construction-related traffic generated by the cumulative development would not significantly impact MVFD response within the vicinities of the cumulative projects as emergency vehicles normally have a variety of options for avoiding traffic, such using sirens to clear a path of travel or driving in the lanes of opposing traffic.

During operation, although the cumulative demand on MVFD services would increase, cumulative impacts on fire protection and emergency medical services would be reduced through each cumulative project's regulatory compliance and site-specific design and safety features. Each cumulative project would be subject to the required review by the MVFD for compliance with Fire Code and Building Code regulations related to emergency response, emergency access, fire flow, and fire safety that would reduce potential cumulative impacts to fire protection and emergency services. Further, the City would collect development impact fees from cumulative projects that would be used to fund MVFD expenditures as necessary to offset any cumulative incremental impact from each cumulative project on fire protection services. The protection of public safety is the first responsibility of local government, and local officials have an obligation to give priority to the provision of adequate public safety services, which are typically financed through the City general funds.

With regard to emergency response times, cumulative projects would introduce new uses which would generate additional traffic in the vicinity of the cumulative development. Traffic from the cumulative development could have the potential to affect emergency vehicle response times to the cumulative project sites and surrounding properties due to travel time delays caused by the additional traffic. The drivers of emergency vehicles have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. As such, emergency access would be maintained at all times, and the increase in cumulative traffic generated by cumulative development would not significantly impact emergency vehicle response times to the affected areas. Further, consistent with the *City of Hayward v. Trustees of California State University*,[5] significant impacts under CEQA consist of adverse changes in any of the physical conditions within the area a project, and potential impacts on emergency response times are not an environmental impact that CEQA requires a project to mitigate.

Cumulative project sites which are located in Very High Fire Severity Zone (VHFSZ) and susceptible to wildland fire hazards would adhere to the special construction features set forth in Chapter 7A of the CBC. Further, any significant risk of loss, injury, or death involving wildland fires, would be minimized to the maximum extent feasible through implementation of cumulative project-specific fuel modification plans, if applicable, that would be subject to review and approval by the MVFD.

In compliance with OSHA, the project would require all construction managers and personnel to be trained in fire prevention and emergency response. Fire suppression equipment would be maintained onsite and all construction activities would comply with the 2013 CBC, 2013 CFD, and the City's Fire Code. Therefore, the project's contribution to cumulative impacts during construction on MVFD's emergency response would not be cumulatively considerable.

The project would be subject to the required review of the MVFD for compliance with the Fire Code and Building Code regulations related to emergency response, emergency access, fire flow, and fire safety that would reduce potential impacts to fire protection and emergency services. The project includes a future 1.5-acre urban fire station within its boundaries to be dedicated to the City to help offset increased fire service needs. The new fire station will be located at the north end of Planning Area 11 and is required to be built during Phase I. Placement of the new fire station is subject to review and approval by the Fire Chief. As portions of the project site are located within a State-designated VHFSZ, the project would comply with Chapter 7A of the CBC. Further, the project would be required to pay the applicable development impact fees to the City. Compliance with payment of fees could further offset the cumulative impact from the cumulative projects on the project's proposed fire station. Therefore, the project's contribution to cumulative impacts to MVPD facilities would not be cumulatively considerable.

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[5] Court of Appeal of the State of California, First Appellate District, Division Three, Filed 11/30/15; City of Hayward v. Board of Trustees (Alameda County Superior Court No. RG09480852); Hayward Planning Association et al., v. Board of Trustees of the California State University, http://law.justia.com/cases/california/court-of-appeal/2015/a131412a.html, accessed April 2018.

Based on the above considerations, the project would result in a less than cumulatively considerable contribution to the need for the construction of new, or expanded fire facilities and, as such, cumulative impacts on fire protection services would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.14.3.3 Schools

6.14.3.3.1 New or Altered School Facilities

Impact: *The project's contribution to significant environmental effects from new or altered school facilities would be less than cumulatively considerable.*

Threshold:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Cumulative Impact Analysis

The project and cumulative development would be served by the MVUSD and SJUSD. The MVUSD includes 23 elementary schools, 6 middle schools, 5 high schools, and 9 specialized schools. The SJUSD includes 1 preschool, 7 elementary schools, 2 middle schools, 2 high schools, and 2 specialized schools.

Construction of the cumulative development would require the participation of construction employees who would be hired from a mobile regional construction work force that moves from project to project. Typically, construction workers pass through various development projects on an intermittent bass as their particular trades are required. Given the mobility and short durations of work at a particular site, and a large construction labor pool that can be drawn upon in the region, construction employees would not be expected to relocate their residences within this region or move from other regions as a result of their work on the cumulative development. Accordingly, construction of cumulative development is not anticipated to generate new students needing to attend local schools within the MVUSD or SJUSD.

The MVUSD and SJUSD monitors enrollment numbers at all schools within their districts. Seating shortages can be addressed through changes in attendance boundaries and new/expanded school facilities. Nonetheless, cumulative development is expected to generate students that would attend local schools within the MVUSD and SJUSD. As such, this cumulative development could require new or expanded school facilities. The cumulative projects would be required to pay development fees for schools to the MVUSD or SJUSD prior to the issuance of grading permits pursuant to SB 50. Pursuant to Government Code Section 65995, the payment of developer fees would be considered full and complete mitigation of schools impacts by cumulative development.

Construction of the project is not anticipated to generate new students needing to attend local school within the MVUSD or SJUSD. The project does not include residential uses but is expected to generate approximately 15,000 to 25,000 new jobs in the City. According to Section 4.14.3.5 of the FEIR, it is speculative to estimate how many workers would actually live within the City and how many would commute from the surrounding area. Although the exact number is speculative, any increase is not expected to be substantial and would not generate significant new demands related to the need for new or altered schools. Further, the project would be required to pay development fees pursuant to SB

50. Therefore, the project's contribution to cumulative impacts to school facilities would be less than cumulatively considerable.

Based on the above considerations, the project would result in a less than cumulatively considerable contribution to the need for the construction of new, or expanded school facilities and, as such, cumulative impacts on schools would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

6.14.3.4 Parks Recreation, and Trails

6.14.3.4.1 Deterioration of Existing Park, Recreation and Trail Facilities

Impact: *The project's contribution to the deterioration of existing park, recreation and trail facilities would be less than cumulatively considerable.*

Threshold: Would the project result in increased use of existing neighborhood and regional parks or other recreational facilities (e.g., trails) where substantial physical deterioration would occur or be accelerated?

Cumulative Impact Analysis

The cumulative impact geographic area for parks, recreation, and trails is the City of Moreno Valley. The City maintains over 358 acres of parks and park facilities and approximately 10 miles of trails. This includes 39 parks and facilities including senior recreation centers and conference centers as well as 20 lighted sports fields.

Most park visits originate from residential uses. Typically, employees are engaged in their work during the day and do not contribute substantial demand for parks. If employees use the parks, such usage would occur during the week rather the weekend. Construction workers may visit a park to eat lunch or for recreation after a day of work. Cumulative development would increase the residential and visitor population which could create new demand on parks and recreation space in the vicinities of the cumulative projects. Some cumulative projects could include recreational facilities and open space features that would serve cumulative project residents and guests and would thereby reduce cumulative demand on public parks. Pursuant to the Quimby Act, the City would require the dedication of land, or the payment of fees for park and/or recreational facilities from the cumulative projects to offset any cumulative incremental impact from each cumulative project on parks, recreation, and trails. Therefore, with the dedication of land, or the payment of development fees, cumulative development would not substantially deteriorate or accelerate the deterioration of recreational facilities or resources.

The project includes the development of a master-planned logistics center; no residential development is proposed. There is a potential for the project to indirectly generate new residents in the City, although predicting the exact number would be too speculative. Trail linkages are provided as part of the project for future linkages to Gilman Springs Road, to the Lake Perris State Recreation Area, and to the San Jacinto Wildlife Area. Future development within the project site will pay the applicable development impact fees for parks or recreational services. Therefore, the project's contribution to cumulative impacts to parks, recreation, and trails would be less than cumulatively considerable.

Based on the above considerations, the project would result in less than cumulatively considerable contribution to increased use of existing neighborhood and regional parks or other recreational facilities where substantial physical deterioration would occur or be accelerated. As such, cumulative impacts on parks, recreation, and trails would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

Impact: *The project's contribution to environmental effects associated with the construction or expansion of recreational facilities would be less than cumulatively considerable.*

Threshold: Would the project include recreational facilities or require the construction or expansion of recreational facilities that would have an adverse physical effect on the environment.

Cumulative Impact Analysis

Cumulative development could result in the construction or expansion of recreational facilities that could have an adverse physical effect on the environment. However, to offset the cumulative demand on park facilities and services, the project applicants of each residential cumulative project would be responsible for meeting the parkland dedication or fee requirements pursuant to the Quimby Act. Therefore, with the parkland dedication or payment of development fees, cumulative development would not have an adverse physical effect on the environment.

The project does not include the construction or expansion of a recreational facility since it would not create any substantial demands on recreational facilities. Therefore, the project's contribution to cumulative impacts to parks, recreation, and trails would not be cumulatively considerable.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant impact.

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6.15 Traffic and Circulation

Cumulative effects to traffic and circulation are described in this section. The entire revised traffic study is located in Appendix F. A summary of the project's potential impacts to traffic and circulation issues is provided in Section 6.15.1. The cumulative impact geographic area for traffic and circulation issues is provided in Section 6.15.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the traffic and circulation issues are discussed in Section 6.15.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.15.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis assumes worse case cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.15-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they would contribute to a cumulatively considerable impact to traffic and circulation. These potentially cumulative impacts are documented in the following section.

In 2012 an application was made to the City of Moreno Valley for the World Logistics Center (WLC), a new plan for the area that had been subject to the Moreno Highlands Specific Plan. A notice of preparation for the WLC environmental impact report (EIR) was issued in February 2012. A traffic impact analysis (TIA) was prepared as one of several technical studies in support of the EIR and submitted to the City in September 2014. The full Draft EIR, including traffic sections based on the TIA, was submitted for public comment in February 2013 and was the subject of public hearings held in June 2015. The General Plan Amendment, zoning change, and the WLC Specific Plan, were adopted by the City Council in August 2015 and adopted again through the initiative process in November 2015.

In the time since the 2014 TIA, a number of developments have occurred that affect the forecast of traffic impacts from the WLC. These changes include:

- The most important new development was the completion in October 2016 of *High-Cube Warehouse Vehicle Trip Generation Analysis*, a major trip generation study for high-cube warehouses, the predominant form of land use in the WLC. This study was jointly sponsored by the South Coast Air Quality Management District (SCAQMD) and the National Association of Industrial and Office Properties (NAIOP), and was conducted by the Institute of Transportation Engineers (ITE). The results were incorporated into the 10th edition of ITE's *Trip Generation Manual*.
- This study replaces the multitude of earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the WLC. The 2016 study found that on average, warehouses generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis).

However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed.

- The trip generation rates for other land uses (light logistics, convenience market, etc.) were also updated to those in the 10th edition of ITE's *Trip Generation Manual*.
- The study analysis years were updated so that 2018 is used for Existing Conditions, 2025 is used for Phase 1, and 2040 is used for Cumulative Conditions.
- The assumptions regarding background (i.e. non-WLC) land development have been updated to reflect the Sustainable Community Strategy adopted by SCAG in 2016. The list of reasonably foreseeable projects was also updated to account for projects that have been completed or have dropped out, and for projects that have been added to the pipeline.
- The assumptions regarding changes to the transportation network have been updated to reflect the Regional Transportation Plan adopted by SCAG in 2016. The existing conditions network was also updated to account for projects completed since the base year of the previous TIA (2012).
- New traffic counts were performed for all study intersections and roadway segments, and new data was collected for volumes on the study freeway segments.
- An analysis of the effect of the Project on regional vehicle-miles of travel (VMT) has been added. This analysis was done primarily to provide data needed for the air quality analysis. Readers may be aware that, as a result of Senate Bill 743 (Steinberg, 2013), CEQA analysis of traffic impacts is likely to change at some point in the future from LOS-based to VMT-based. This change will not take effect before January 1st 2020 at the earliest, so the LOS approach that is the primary focus of the current study accords with current state law. The VMT analysis is therefore included in this traffic study for informational purposes only.

  Please note one other change that has no effect on the analysis, which is that Parsons Brinckerhoff Inc. was acquired by WSP USA Inc. So although the company name on the cover of this report is different from that on the previous report, lead traffic engineer and key staff from the previous study also conducted the current study.

6.15.1 Project Impact Findings

The project's effects to traffic and circulation are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project impacts (see Section 4.15 of Revised Final Programmatic EIR Sections (RFPEIRS) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

Could the project:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit; **Significant and Unavoidable, Section 4.15.6.1.**
- Cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the without project condition. The adopted LOS standards are as follows:
  - o Roadway segments and intersections: LOS C; and LOS D as outlined in previously referenced Table 4.15.E. **Significant and Unavoidable, Section 4.15.6.1, Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**

  - Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. **Significant and Unavoidable, Section 4.15.6.1, Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**
  - Freeway mainline: LOS D. **Significant and Unavoidable, Section 4.15.6.1, Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.4, Section 4.15.6.5.**
  - Freeway Ramp Merge/Diverge: LOS D. **Significant and Unavoidable, Section 4.15.6.1, Section 4.15.6.2, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; **Significant and Unavoidable, Section 4.15.6.3, Section 4.15.6.4, Section 4.15.6.5.**
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks; **Less than Significant, Section 4.15.5.1.**
- Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); **Less than Significant, Section 4.15.5.2.**
- Result in inadequate emergency access; **Less than Significant, Section 4.15.5.3.**
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. **Less than Significant, Section 4.15.5.4.**

As shown, there are no unmitigated project-specific significant and unavoidable impacts to traffic and circulation identified in the FEIR.

6.15.2 Geographic and Temporal Scope

Cumulative impacts to traffic and transportation could result from the project in conjunction with other past, present and future projects located within the 50 ADT cumulative projects impact area. This area includes the entire City of Moreno Valley and portions of the Cities of Riverside, Redlands, Beaumont, Perris, San Jacinto, Hemet and Calimesa, as well as portions of unincorporated Riverside and San Bernardino County, and the March JPA. Cumulative projects within the identified overall cumulative project area will be evaluated with the project to determine if any cumulative impact would occur. The geographic area for cumulative transportation and traffic impacts is shown on Figure 6.15-1. The projects located within the cumulative transportation and traffic impact area is listed in Table 6.15-1.

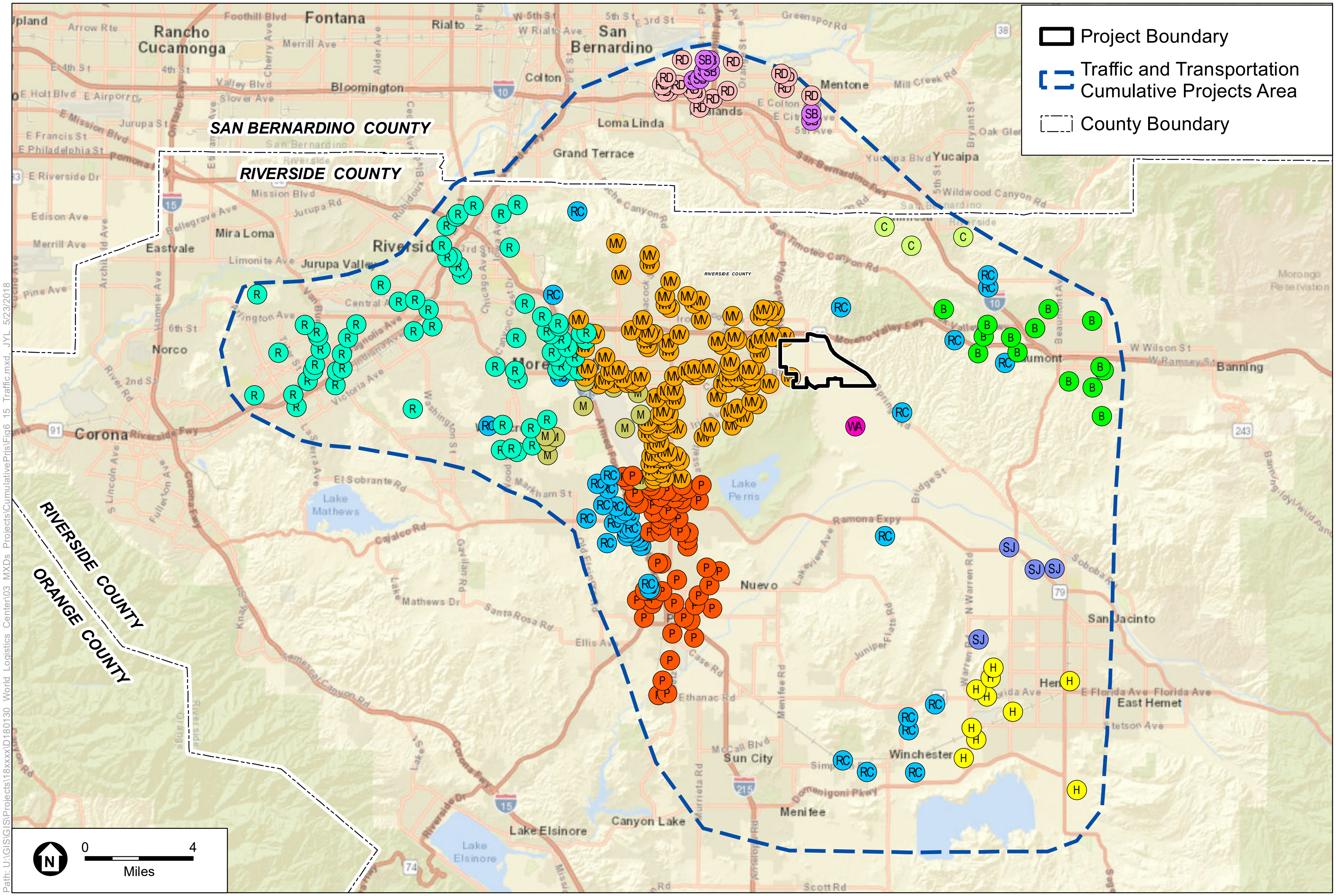

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.15-1

Traffic and Transportation Cumulative Projects Area

Table 6.15-1: Traffic and Circulation Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-2	Tournament Hills 3	No project description available.
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park. The project would have a less than significant impact on traffic and circulation with mitigation.
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site. The project would have a significant impact on traffic and circulation.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's 2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses. The project would have a less than significant impact on traffic and circulation with mitigation.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres. The project would have potentially significant impacts on traffic and circulation.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's NOC, the project proposes to develop 178 single-family homes on 51.2 acres. The project would have a less than significant impact on traffic and circulation.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project would have a potentially significant impact on traffic and circulation.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 excerpt of an EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. No information in document related to traffic and circulation.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. No information in document on level of impact on traffic and circulation after mitigation.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project would have a less than significant impact on traffic and circulation.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. No information in provided documentation on impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project would have a less than significant impact on traffic and circulation with mitigation.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park. The project would have a significant impact on traffic and circulation.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres. The project would have a significant impact on traffic and circulation.
M-9	TM 34748	Per the March Joint Powers Authority's 2010 ND, the project proposes to build a 135 single-family residential lot subdivision on 40 acres. The project would have a less than significant impact on traffic and circulation.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project would have a less than significant impact on traffic and circulation.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. No information in document on level of impact on traffic and circulation after mitigation.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. The project would have a less than significant impact on traffic and circulation.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-9	TR32459 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project is for a single family residential tract with 11 lots on 13 acres and is zoned R1. The lots range from 41,021 sq ft to 59,627 sq ft in size. The project would have a less than significant impact on traffic and circulation.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots. The project would have a less than significant impact on traffic and circulation.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. The project would have a less than significant impact on traffic and circulation.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. The project would have a less than significant impact on traffic and circulation.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. The project would have a less than significant impact on traffic and circulation.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. The project would have a less than significant impact on traffic and circulation.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. The project would have a less than significant impact on traffic and circulation.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. The project would have a less than significant impact on traffic and circulation.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. The project would have a less than significant impact on traffic and circulation.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project would have no impact on traffic and circulation.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. The project would have a less than significant impact on traffic and circulation.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. The project would have a less than significant impact on traffic and circulation.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres. The project would have a less than significant impact on traffic and circulation.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. The project would have a less than significant impact on traffic and circulation.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project would have a less than significant impact on traffic and circulation.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. The project would have a less than significant impact on traffic and circulation.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. No information in document on level of impact on traffic and circulation after mitigation.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. No information in document on level of impact on traffic and circulation after mitigation.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres. The project would have a significant, cumulatively considerable impact on traffic and circulation.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project would have a significant impact on traffic and circulation.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a hat will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project would have a significant impact on traffic and circulation.
MV-45	Iris Plaza	Per the City of Moreno Valley's IS, the project would construct a 109,289 sq. ft. shopping center on approximately 12.4 acres of land within the Community Commercial (CC) land use district. The project would have a less than significant impact on traffic and circulation.
MV-47	PA07-0129 TR 35606 SFR	No environmental documentation was available for review. However, there is a planning commission resolution, which states that the project is not likely to cause substantial environmental impact.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses. The project would have a significant impact on traffic and circulation.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project would have a less than significant impact on traffic and circulation.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site. The project would have a less than significant impact on traffic and circulation.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project would have a less than significant impact on traffic and circulation.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project would have a less than significant impact on traffic and circulation.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project would have a significant impact on traffic and circulation.
MV-56	Tract Map 33810	No environmental documentation was available for review. However, there is a planning commission resolution that states that the project is exempt from the requirements of CEQA guidelines.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots. The project would have a less than significant impact on traffic and circulation.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project would have a less than significant impact on traffic and circulation.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. The project would have a less than significant impact on traffic and circulation.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site. The project would have a significant impact on traffic and circualtion.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. The project would have a less than significant impact on traffic and circulation.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. The project would have a less than significant impact on traffic and circulation.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project would have a less than significant impact on traffic and circulation.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project would have a less than significant impact on traffic and circulation.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project would have a less than significant impact on traffic and circulation.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley’s 2008 ND, the project would build a 522,772 square foot industrial warehouse building on 25.96 acres of land. The project would have a less than significant impact on traffic and circulation.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. The project would have a less than significant impact on traffic and circulation.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2010 ND, the project subdivides 16.9 acres into 6 pads for commercial retail use. The project would have a less than significant impact on traffic and circulation.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. The project would have a less than significant impact on traffic and circulation.
MV-88	TR33771 / Creative Design Associates	No environmental documentation was available for review. However, there is a planning commission resolution for a 12 unit condominium complex on approximately 0.9 acres.
MV-89	TR35663 / Kha	No environmental documentation was available for review. However, there is a notice of exemption for a mixed use development on approximately 2.2 acres, which states that there is no evidence of potential for significant environmental impacts.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. The project would have a less than significant impact on traffic and circulation.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. The project would have a less than significant impact on traffic and circulation.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area. The project would have a less than significant impact on traffic and circulation.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project would have a less than significant impact on traffic and circulation with mitigation.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. The project would have a less than significant impact on traffic and circulation.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. The project would have a less than significant impact on traffic and circulation.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. The project would have a less than significant impact on traffic and circulation.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. The project would have a less than significant impact on traffic and circulation.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project would have a less than significant impact on traffic and circulation.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. Project was exempt from environmental review.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. Project was exempt from environmental review.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres. Project was exempt from environmental review.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project would have a less than significant impact on traffic and circulation.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. The project would have a less than significant impact on traffic and circulation.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes. The project would have a less than significant impact on traffic and circulation.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. The project would have a less than significant impact on traffic and circulation.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. The project would have a less than significant impact on traffic and circulation.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. The project would have a less than significant impact on traffic and circulation.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project would have a significant, cumulative impact on traffic and circulation.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project would have a less than significant impact on traffic and circulation.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project would have a less than significant impact on traffic and circulation with mitigation.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project would have a less than significant impact on traffic and circulation with mitigation.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project would have a less than significant impact on traffic and circulation with mitigation.
P-12	Starcrest, P011-0005; 08-11-0006	Per the City of Perris Final EIR, the proposed project is the expansion of an existing internet/mailorder fulfillment facility to an adjacent property. The existing Starcrest building is approximately 232,215 square feet in size. The expansion would include a 454,008 sf building north of and adjacent to Starcrest's existing facility. The project would have a less than significant impact on traffic and circulation.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, proposed project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Final EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. No information in provided document on impact significance after mitigation incorporated.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 excerpt of an EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. No information in provided document on impact significance after mitigation incorporated. The project would have a less than significant impact on traffic and circulation with mitigation.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project would have potentially significant impacts on traffic and circulation.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project has mitigation measures in place for traffic and circualtion impacts, no information on if impacts are significant after mitigation implemented.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project would have a less than significant impact on traffic and circulation.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project would have a less than significant impact on traffic and circulation.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project has mitigation measures in place for traffic and circulation impacts, no information on if impacts are significant after mitigation implemented.

Project ID	Project Name	Environmental Document Summary
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres. The project would have a less than significant impact on traffic and circulation.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project would have a potentially significant impact on traffic and circulation.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project would result in significant cumulative traffic and circulation impacts.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site.e project would have significant traffic and circulation impacts related to project-generated traffic and freeway segments.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project would have a less than significant impact on traffic and circulation with mitigation.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres. The project would have a less than significant impact on traffic and circulation.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
P-37	Cabrillo	Per the City of Perris' Initial Study, the project proposed to amend the General Plan (GP) and Zoning designation of approximately 36.21 acres of land from R-6,000 to MFR-14 Residential, along with a Text Amendment to narrow the lot frontage from 50-feet to 45-feet for lots greater than 4,500 square feet to facilitate the entitlement of Tentative Tract Map (TTM) 36343, a 184 lot residential subdivision. The project would have a less than significant impact on traffic and circulation with mitigation.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres. The project will result in significant impacts to traffic and circulation.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a 13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space. The project would have a less than significant impact on traffic and circulation with mitigation.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project would have a significant and cumulative impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
R-16	Sycamore Canyon Specific Plan	Per the City of Riverside's 1993 amended Specific Plan/EIR, the Sycamore Canyon Business Park Specific Plan describes a planned industrial park consisting of approximately 920 acres of industrial and commercial uses within a 1,400 acre project area. Approximately 480 acres of the total 1,500 acre Sycamore Canyon Wilderness Park is located within the Plan area. The project would have potential significant impacts on traffic and circulation.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project would have significant and cumulative impacts to traffic and circulation.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project would have significant and cumulative impacts to traffic and circulation.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres. The project would have less than significant impacts on traffic and circulation.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres. The project has mitigation measures in place for traffic and circualtion impacts, no information on if impacts are significant after mitigation implemented.

Project ID	Project Name	Environmental Document Summary
RC-12	Cores Industrial Partners	Per Riverside County's October 2010 ND, the project proposes to bring the Zoning Code into compliance with SB 1627 and to strengthen the development standards for wireless telecommunications facilities in order to ensure high-quality design and compatibility with surrounding uses. The project would have less than significant impacts on traffic and circulation.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres. The project would have less than significant impacts on traffic and circulation with mitigation.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project would have a potentially significant impact on cultural resources.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project would have a less than significant impact on traffic and circulation with mitigation.
RC-37	TR36504	Per Riverside County's IS, the project proposes a Schedule 'A' subdivision of 162.05 acre gross area into 527 single-family residential lots. In addition to 527 residential lots, the subdivision also includes an 8.54 acre lot for a park, a 4.7 acre lot for a detention/debris basin, and an approximately 18 acre open space lot. The project would have a less than significant impact on traffic and circulation with mitigation.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project would have significant impacts to traffic and circulation.

Project ID	Project Name	Environmental Document Summary
RD-1	Tract 18988	Per the City of Redlands' June 2015 MND, the project would widen Pioneer Avenue to preserve existing deodar cedar trees along an approximately 1,100 linear foot segment between Texas Street and Furlow Drive. The project also would develop 82 single-family residential lots on 30.51 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
RD-3	Newland Homes Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the construction of 105 single family detached dwelling units and a neighborhood park on 39.84 acres. The project would have a less than significant impact on traffic and circulation with mitigation.
RD-4	Redlands Pennsylvania Tract	Per the City of Redlands' March 2018 ISMND, the Project would result in the subdivision of a 24.87 acre project site into 67 residential lots and 10 lots as open space. Additionally the Project seeks approval to remove 5 acres from an Agricultural Preserve. The project would have a less than significant impact on traffic and circulation.
RD-6	Woodsprings Hotel	Per the City of Redlands' March 2018 IS, the Project would result in the construction of a 124-room hotel on a 2.68-acre property. The project would have a less than significant impact on traffic and circulation.
RD-10	Park Ave Industrial Center	Per the City of Redlands' March 2014 MND, the project would develop approximately 170,000 square feet of light industrial uses, including 289 parking spaces and 12, 500 square feet of office space. The project would have a less than significant impact on traffic and circulation with mitigation.
RD-11	Marriott Springhill Suites	Per the August 2016 technical memorandum regarding the Trip Generation, Distribution, and Assignment Analysis for the project, the project would develop a four-story 88-room hotel with rooms, suites, and 97 parking spaces. The project would have a less than significant impact on traffic and circulation.
RD-12	I-10 Redlands LC - B	Per the August 2014 letter responding to comments on the proposed MND, the project would develop approximately 1.1 million square feet for warehousing/ fulfillment/distribution center uses on 50.67 acres. The project would have a less than significant impact on traffic and circulation.
RD-14	Redlands DC 772,000 SF (2015)	Per the City of Redlands' September 2013 MND, the project would develop 771,839 square feet of warehouse distribution center on 35.59 acres and related parking. The project would have a less than significant impact on traffic and circulation with mitigation.

Project ID	Project Name	Environmental Document Summary
RD-16	APL Logistics	Per the May 2012 City of Redlands Commission Review and Approval No. 873, the project would develop 809,338 square feet of warehouse uses on 37.4 acres. The project would have a less than significant impact on traffic and circulation.
SB-1	Redlands Gateway Logistics - B	Per the County of San Bernardino's 2009 IS, the project would result in the construction of 5 two-story structures and 7 single-story structures with a maximum floor area of 216,500 square feet, and a three-story hotel with 180 rooms and a floor area of 80,000 square feet. The project would have a less than significant impact on traffic and circulation.
SB-2	Redlands Gateway Logistics - A	Per the County of San Bernardino's 2014 IS, the project proposes to subdivide 42.66 acres into 2 lots. Parcel 1 is 14.81 acres and Parcel 2 is 27.85. The project would have a less than significant impact on traffic and circulation.
SB-3	Prologis #12	Per the County of San Bernardino's 2013 IS, the project would result in a conditional use permit to establish a 593,916 square-foot industrial building to be use as a "high cube" warehouse distribution facility, a tentative parcel map for a one lot subdivision, and a general plan amendment to change the official land use district from East Valley/General commercial to East Valley/regional industrial on 27.42 acres. The project would have a less than significant impact on traffic and circulation.
SB-4	Prologis #17	Per the County of San Bernardino's April 2014 MND, the Project would result in the construction of a 777,620 square foot industrial building and the relocation of an existing telecommunication tower on a 35.98 acre site. The project would have a less than significant impact on traffic and circulation.
SB-6	Prologis #8	Per the County of San Bernardino's 2007 IS, the project would result in the construction four industrial buildings to be used a "High Cube" and general warehouse distribution facilities. The project would have a less than significant impact on traffic and circulation.
SB-7	Sam Redlands Tract	Per the City of Redlands' March 2017 ISMND, the Project would result in the subdivision of an 11.97 acre site into 34 single family residential lots, 4 lettered lots, and the demolition of existing structures. The project would have a less than significant impact on traffic and circulation.
SB-8	Jacinto Tract	Per the City of Redlands' July 2016 ISMND, the Project would result in the subdivision of an 18.54 acre site into 40 residential lots. The project would have a less than significant impact on traffic and circulation.

Project ID	Project Name	Environmental Document Summary
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project would have a less than significant impact on traffic and circulation with mitigation.

6.15.3 Cumulative Impact Evaluation

Cumulative traffic impacts are evaluated in the revised traffic study contained in Appendix F. Identified cumulative traffic impacts and associated mitigation measures are documented in Chapter 11-F of the traffic study, and in the tables identified below. Please refer to Appendix F for the complete discussion of cumulative traffic impacts, mitigation measures, feasibility and level of significance after mitigation.

6.15.3.1 Air Traffic Patterns

Impact: The project would not contribute to cumulative changes in air traffic patterns.

Threshold:	Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Cumulative Impact Analysis

The project would not affect air traffic patterns and therefore, would not contribute to any cumulative changes in air traffic patterns.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.2 Design Hazard Features

Impact: The project would not contribute to the cumulative increases in hazards due to a design feature or incompatible use.

Threshold:	Would the project substantially increase hazards due to a design feature or incompatible use?

Cumulative Impact Analysis

The project roadway system has been designed to conform to all city of Moreno Valley and professional traffic engineering design requirements. The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.3 Emergency Access

Impact: The project would not contribute to the cumulative inadequate emergency access.

Threshold:	Would the project result in inadequate emergency access?

Cumulative Impact Analysis: The project roadway system has been designed to conform to all city of Moreno Valley and professional traffic engineering design requirements.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.4 Alternative Transportation Policies, Plans, or Programs

Impact: *The project would not contribute to any cumulative conflict with adopted policies, plans, or programs supporting alternative transportation.*

Threshold: Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Cumulative Impact Analysis

The project roadway system has been designed to conform to all city of Moreno Valley and professional traffic engineering design requirements. The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section.

Significance Level Before Mitigation: No impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: No impact.

6.15.3.5 Existing with Phase 1 Conditions Traffic and Level of Service

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Existing with Phase 1 Conditions would be cumulatively considerable.*

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.

- Freeway mainline: LOS D.

– Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section. Please refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impacts for certain facilities

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significance Level After Mitigation: Less than significant impact.

6.15.3.6 Existing with Project (Buildout) Conditions Traffic and Level of Service

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Existing with Project (Buildout) Conditions would be cumulatively considerable.*

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

– Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

– Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.

– Freeway mainline: LOS D.

– Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section. Please refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures

Significance Level After Mitigation: Less than significant impact.

6.15.3.7 Year 2025 With Phase 1 Conditions Traffic and Level of Service Impacts

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Year 2025 With Phase 1 Conditions would be cumulatively considerable.*

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

– Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: The majority of the larger cumulative projects identified in the cumulative project impact area evaluated cumulative traffic impacts in their respective CEQA documents. The traffic impact analysis prepared for this Revised Sections of the FEIR includes a comprehensive cumulative traffic impact analysis and associated mitigation measures. These cumulative impact mitigation measures are included in this section. Please refer to Appendix F and Tables 6.15-1 and 6-15-2 for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significance Level After Mitigation: Less than significant impact.

6.15.3.8 Year 2040 Cumulative with Project Conditions Traffic and Level of Service Impacts

Impact: *The project's contribution to onsite and surrounding circulation system impacts under the Year 2040 Cumulative with Project Conditions would be cumulatively considerable.*

Cumulative Impacts to Roadway sections, Intersections and Mitigation Measures are summarized in Tables 6.15-2 and 6.15-3, and in the text following the tables.

Table 6.15-2: Cumulative Impacts to Roadway Sections and Mitigation Measures

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	**F**	**F**	Yes	Widen to 8 lanes	No	**F**	Yes	Yes	N/A**

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

▨ Indicates LOS exceeds the target level

** Not applicable because mitigation is infeasible

Table 6.15-3: Cumulative Intersection Impacts and Mitigation Measures

ID	Study Intersection	LOS Standard	2040 No Project			2040 Plus Build-out			2040 No Project			2040 Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1				
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
IN-12	Theodore Street/Ironwood Avenue	D	CSS	25.8	D	CSS	92.9	**F**	CSS	48.0	**E**	CSS	>180	**F**	Signalize.	SIGNAL	10.7	B	10.9	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	29.5	C	SIGNAL	50.4	**D**	SIGNAL	37.1	**D**	SIGNAL	42.6	**D**	Add 1 EB LT lane. Change NB RT to NB Through-RT.	SIGNAL	28.7	C	36.9	D
IN-27	Redlands Blvd/Cactus Ave	C	AWS	32.3	**D**	AWS	>180	**F**	AWS	26.5	**D**	AWS	>180	**F**	Signalize. Add 1 EB LT and 2 WB LT lanes. Add 1 NB LT and 1 SB LT.	SIGNAL	18.0	B	34.5	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	57.5	**E**	SIGNAL	65.8	**E**	SIGNAL	40.4	D	SIGNAL	34.9	C	Change E/W from protected to split phase. Convert WB Through to WB LT-Through.	SIGNAL	26.4	C	25.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	54.2	D	SIGNAL	37.4	D	SIGNAL	81.1	**F**	SIGNAL	96.1	**F**	Add 1 WB RT pocket.	SIGNAL	36.9	D	63.7	E
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	125.7	**F**	CSS	25.2	D	CSS	16.9	C	CSS	30.4	**D**	Signalize. Add 1 WB LT lane.	SIGNAL	7.1	A	14.4	B
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	64.4	**E**	SIGNAL	64.7	**E**	SIGNAL	51.5	D	SIGNAL	40.4	D	Add 1 WB LT and 1 SB LT lane.	SIGNAL	44.7	D	29.0	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	61.9	**E**	SIGNAL	64.4	**E**	SIGNAL	142.6	**F**	SIGNAL	137.9	F	Add 1 WB LT lane (resulting 3 turn lanes), and 1 EB RT Need to widen Lasselle in the SB to have 3 receiving lanes.	SIGNAL	51.8	D	84.6	F
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	87.5	**F**	SIGNAL	78.7	E	SIGNAL	92.0	**F**	SIGNAL	95.3	**F**	Add permissive / overlap phase for EB RT, SB RT, and WB RT.	SIGNAL	58.5	E	71.4	E
IN-52	Kitching St/Cactus Ave	C	SIGNAL	43.9	**D**	SIGNAL	46.7	**D**	SIGNAL	68.5	**E**	SIGNAL	75.7	**E**	Change SB RT Lane to SB Through-RT Lane	SIGNAL	39.5	D	46.2	D
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.8	C	SIGNAL	33.4	C	SIGNAL	52.9	**D**	SIGNAL	72.7	**E**	Add 1 WB LT lane.	SIGNAL	25.5	C	46.4	D
IN-54	Morrison St/Cactus Ave	D	SIGNAL	39.5	D	SIGNAL	49.1	D	SIGNAL	74.8	**E**	SIGNAL	89.9	**F**	Add 1 WB RT pocket with overlap phasing.	SIGNAL	35.4	D	64.0	E
IN-55	Nason St/Cactus Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Convert 1 SB Through-RT to 1 SB RT, and add permissive / overlap phase at SB RT.	SIGNAL	124.6	F	150.3	F
IN-64	Indian St/Cactus Ave	C	SIGNAL	51.1	**D**	SIGNAL	53.0	**D**	SIGNAL	77.9	**E**	SIGNAL	72.5	E	Add 1 NB LT pocket	SIGNAL	50.7	D	59.4	E
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	64.5	**E**	SIGNAL	65.5	**E**	SIGNAL	60.3	**E**	SIGNAL	62.5	**E**	Add 1 EB RT pocket, 1 SB LT pocket, and NB RT overlap phase.	SIGNAL	64.3	E	55.6	E
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	44.3	D	SIGNAL	42.0	D	SIGNAL	90.4	**F**	SIGNAL	93.3	**F**	Add 1 NB LT pocket	SIGNAL	31.4	C	57.0	E
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	152.3	**F**	SIGNAL	156.8	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Change NB approach to one LT and 1 shared LT/RT lane. Change EB approach to two through and 1 RT lane (150 ft storage)	SIGNAL	48.0	D	44.9	D
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	76.2	**E**	SIGNAL	109.8	**F**	SIGNAL	176.6	**F**	SIGNAL	>180	**F**	Change NB approach to one LT and 1 shared through/RT lane and 1 RT lane. Change EB approach to one LT, 2 through, 1 through/RT and 1 RT lane	SIGNAL	33.8	D	39.7	D

			2040 No Project			2040 Plus Build-out			2040 No Project			2040 Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1				
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	>180	F	SIGNAL	>180	F	SIGNAL	>180	F	SIGNAL	>180	F	Add EB LT. Add NB TH lane. Change WB to 2 LT, 3 Th and RT lane (300 ft storage). Change SB to 1 RT (100 ft storage), 2 Th and 1 LT	SIGNAL	174.4	F	183.6	F
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	106.4	F	SIGNAL	110.3	F	SIGNAL	>180	F	SIGNAL	>180	F	Change EB approach to 1 LT, 2 THs and 1 RT. Change SB approach to 2 LTs, 2 THs and 1 RT. Add one WB LT lane. Add one NB LT lane.	SIGNAL	78.4	E	141.7	F
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	49.8	D	SIGNAL	57.2	E	SIGNAL	48.2	D	SIGNAL	48.3	D	Change NBR to pm+ov	SIGNAL	19.2	B	38.9	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	79.0	E	SIGNAL	77.0	E	SIGNAL	54.2	D	SIGNAL	59.1	E	Change EB approach to 1	SIGNAL	70.8	E	46.3	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	F	SIGNAL	>180	F	SIGNAL	>180	F	SIGNAL	>180	F	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage). Add one more EB LT lnae (195 ft storage)	SIGNAL	185.4	F	215.7	F
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	131.5	F	SIGNAL	137.1	F	SIGNAL	>180	F	SIGNAL	>180	F	Reconfigure SB approach to 1 LT, 3 THs and 1 RT lane.	SIGNAL	119.1	F	209.7	F
IN-101	Ramona Expy/Indian St	E	SIGNAL	137.9	F	SIGNAL	160.6	F	SIGNAL	159.2	F	SIGNAL	163.0	F	Add 1 EB RT. Add 2nd NB LT and 1 NB RT. Provide signal phase overlap for all RTs.	SIGNAL	124.2	F	92.0	F
IN-107	Evans Rd/Rider St	C	SIGNAL	68.3	E	SIGNAL	68.4	E	SIGNAL	39.4	D	SIGNAL	34.0	C	Reconfigure SB approach to include 1 LT, 2 THs and 1 RT.	SIGNAL	63.6	E	29.2	C
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	F	CSS	>180	F	CSS	>180	F	CSS	>180	F	Signalize. Change EB to EB LT and RT (100 ft storage)	SIGNAL	17.0	B	91.6	F
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	F	CSS	133.4	F	CSS	>180	F	CSS	>180	F	Signalize.	SIGNAL	41.7	D	10.7	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	58.9	E	SIGNAL	55.1	E	SIGNAL	167.2	F	SIGNAL	173.6	F	Reconfigure EB approach to 2 LTs, 2 THs and 1 RT. Reconfigure NB approach to 1 LT, 2 THs and 1 RT. change EB & WB lefts to protected.	SIGNAL	63.7	E	105.6	F

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

Cumulative Impacts on Study Intersections and Mitigation Measures

The project's cumulative impacts on study intersections is summarized in Table 6.15.2, and described in detail below:

- **Theodore St./Ironwood Ave. intersection** (IN-12) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Moreno Beach Dr./Cactus Ave. intersection** (IN-25) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a second eastbound left-turn lane and changing a northbound through lane to a shared through-right-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Redlands Blvd./Cactus Ave. intersection** (IN-27) should be signalized and added eastbound and westbound left-turn lanes in the short term (see previous section on direct impacts) and may exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a northbound left-turn lane and a southbound left turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.

- **Moreno Beach Dr./John Kennedy Dr.** (IN-28) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the east/west directions from protected to split phase and converting a westbound through lane to a share through-left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.

- **Sunnymead Blvd./Perris Blvd.** (IN-32) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Moreno Beach Dr./Locust Ave. intersection** (IN-35) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection and constructing a westbound left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Iris Ave./Perris Blvd. intersection** (IN-39) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a second westbound left-turn lane and a second southbound left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Lasselle St./Iris Ave. intersection** (IN-41) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a third westbound left-turn lane and an eastbound right-turn lane would reduce project impacts to a less-than-significant level. This improvement is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.

- **Nason St/Alessandro Blvd.** (IN-51) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a permissive overlap phase for the eastbound right turn, southbound right turn, and westbound right turn would reduce cumulative impacts to a less-than-significant level. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.

- **Kitching St./Cactus Ave.** (IN-52) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the southbound right turn lane into a shared southbound through-right-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Lasselle St./Cactus Ave.** (IN-53) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound left turn lane would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.

- **Morrison St./Cactus Ave.** (IN-54) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound right turn lane with overlap phasing would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Nason St./Cactus Ave.** (IN-55) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the southbound shared through-right-turn lane into a right turn lane with overlap phasing would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Indian St./Cactus Ave.** (IN-64) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a northbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Perris Blvd./Cactus Ave.** (IN-65) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding an eastbound right turn lane, a southbound left turn lane, and a northbound right turn overlap phase would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.

- **Elsworth St./Alessandro Blvd.** (IN-71) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a northbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Central Ave./Lochmoor Dr. intersection** (IN-75) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Converting the northbound approach to one left-turn lane and a shared left-right-turn lane and changing the eastbound approach to two through lanes and one right turn lane would reduce cumulative impacts to a less-than-significant level.

This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Alessandro Blvd./Mission Grove Pkwy. intersection** (IN-80) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding an eastbound left turn lane and a northbound through lane, and changing the westbound approach to have two left turn lanes, three through lanes, and one right turn lane3, and changing the southbound approach to one right turn, two through, and one left turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Central Ave./Canyon Crest Dr. intersection** (IN-88) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the eastbound approach to one left turn, two through, and one right turn lane, changing the southbound approach to two left turn, two through, and one right turn lane, adding a westbound left-turn lane, and a northbound left-turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Indiana Ave./SR-91 northbound ramps** (IN-91) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the northbound right turn to permissive with an overlap phase would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Horace St./Arlington Ave.** (IN-93) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the eastbound approach to one left, two through, and one right turn lane would reduce cumulative impacts to a less-than-significant level.

This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Victoria Ave. intersection** (IN-94) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the westbound approach to one left, two through, and one right turn lane, and adding an eastbound left turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Alessandro Blvd./Chicago Ave. intersection** (IN-95) is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this it already operates at LOS "F" in the PM peak period. Reconfiguring the southbound approach to one left turn, three through, and one right turn would mitigation the Project's cumulative impact but still result in LOS "F" during peak hours. There are established residential communities on each corner that would be impacted by such a widening or by grade separation. These mitigation measures are thus likely to be infeasible, and the project impact at this location is therefore considered to be a significant and unavoidable.

- **Ramona Expwy./Indian St. intersection** (IN-101) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing one eastbound right-turn lane, a second northbound left-turn lane, and one northbound right-turn lane, and modifying the traffic signal to provide overlap phasing for all right-turn movements would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Evans Rd./Rider St. intersection** (IN-107) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Reconfiguring the southbound approach to have one left turn, two through, and one right turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Gilman Springs Rd./Bridge St. intersection** (IN-123) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection and having eastbound left and right turn lanes would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- **SR-79 (Sanderson Ave) SB/Gilman Springs Rd.** (IN-125) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- **W. 6th St./Beaumont Ave. intersection** (IN-130) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Reconfiguring the eastbound approach to two left, two through, and one right turn, and reconfiguring the northbound approach to one left, two through and one right turn, and making the eastbound and westbound left turns protected movements would reduce cumulative impacts to a less-than-significant level.

  There are established commercial buildings on the corners on the northern part of the intersection that would be impacted by such a widening. These mitigation measures are thus infeasible, and the project impact at this location is therefore considered to be significant and unavoidable.

Cumulative Freeway Impacts and Mitigation Measures

The WLC's cumulative impacts on the freeways system are summarized in described in detail below:

Cumulative Impacts on Mainline Basic Sections

- **Eastbound SR-60 from Reservoir St. to Ramona Ave.** (F-2) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under 2040 Plus Build-out conditions. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report. The state freeway system is owned and operated by Caltrans and is thus outside the jurisdiction of the City of Moreno Valley. The City will work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC

The following general mitigation measures apply to the implementation of the above outlined specific mitigation measures:

4.15.7.4A: A traffic impact analysis ("TIA"), conforming to the guidelines for TIAs adopted by the City shall be submitted in conjunction with each Plot Plan application within the WLCSP. Prior to the approval of the Plot Plan, the City shall review the TIA to determine if any of the traffic improvements listed in Tables 72 through 77 of the TIA prepared for the Program EIR are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to reimbursement agreement for those costs that exceed the fair share contribution determined for the specific Plot Plan application. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in MM Trans-6 prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the program EIR, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

4.15.7.4B: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way, where feasible, consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map. Required dedications shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4C: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the Applicant to construct or to fully fund the transportation measures identified in the development's TIA (see MM4.15.7.4A) as needed to mitigate the transportation impacts within the city of the Plot Plan development. The payment or construction shall be made prior to the issuance of occupancy permits for the requested development. This condition shall apply only to mitigation measures where a mechanism has been established to collect funds from the project and any other funds to needed to complete the improvements.

4.15.7.4D: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Chapter 3.44. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4E: In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the Traffic Impact Analysis, i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to MM Trans-6. As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. Mitigation measures are summarized in Tables 4.15-1 to 4.15-13.

4.15.7.4F: The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the Project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the WLC project as a whole has a significant impact identified in the programmatic EIR) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the program EIR will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the WLC contributes to cumulatively significant impacts, and where the fair share contribution of the WLC project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this MM Trans-6 to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million sq.ft. high-cube warehouse in the WLC (approximately 5% of the entire WLC project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due = Total cost of Improvement * Total WLC fair Share (6.2%) as determined by TIA * % attributable to the building that is subject to the certificate of occupancy (5%)

A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire WLC to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with MM Trans-6.

4.15.7.4G: City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the needs of the City, including improvements identified in this TIA. Toward this end, City shall meet regularly with WRCOG.

Level of Significance after Mitigation: The mitigation measures described above can be usefully grouped into four categories based on who is responsible for the facility, which is the primary determinant of the level of significance after mitigation. The four categories are as follows:

On-Site Improvements – These are changes to the road system within the WLC project site that are being undertaken as part of the WLC project. The developer shall be responsible for constructing the improvements described in the section “Proposed Road Network” in Chapter 4 above in accordance with City standards for roadway construction and the roadway cross-sections in the proposed Specific Plan. Completion of these improvements shall constitute the developer's mitigation of the project's on-site impacts. When these improvements are completed the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

Off-Site Improvements for Non-TUMF Roads Under the Jurisdiction of the City of Moreno Valley - These are improvements to public streets in Moreno Valley that are outside the area covered by the proposed WLC Specific Plan Amendment. The developer shall be responsible for paying the DIF as set forth in Municipal Code Chapter 3.42 which the City shall use to implement the mitigation measures identified in Tables 6.15-1 and 6-15-2. The developer shall also be required to pay its fair share of the improvements to City streets that are not in the DIF program where there are significant project impacts. These payments shall constitute the developer's mitigation of project impacts on this category of roads. When these improvements are completed the project's impacts on the City roadway system will be mitigated to a less-than-significant level.

Off-Site Improvements to TUMF Facilities – These are improvements to roads that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads.

The City shall implement the mitigation measures identified in Tables 6.15-1 and 6.15-2. to TUMF facilities under the City's jurisdiction. When these improvements are completed the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. Thus at this point the project's impacts on these facilities must be considered significant and unavoidable.

Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program – This category includes all of the recommended mitigation measures that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials.

At this time the City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. The City shall therefore work with the City of Redlands and Riverside County to collect funds from the developer and to implement the signalization of the San Timoteo Rd./Alessandro Rd. intersection and the San Timoteo Rd./Live Oak Canyon intersection (respectively). The City shall also work with the City of Riverside to collect a fair-share contribution from the developer to signalize the Martin Luther King Blvd./I-215 northbound ramp intersection. To the extent that the City is able to establish such a mechanism (as described in MM Trans-6) and the other jurisdiction constructs the recommended improvement the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. Thus at this point the project's impacts on these facilities must be considered significant and unavoidable.

Similarly, the City has not entered into an agreement with Caltrans for the collection of developer payments for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified instead, Caltrans has traditionally relied on other means to fund freeway improvements; means involving multiple stages of review and input from other agencies, with priorities and constraints applied at each stage, that preclude a direct connection between developer-provided fair-share funds and specific highway improvements.

Decisions on funding for improvements to the state highway system are made by four bodies, namely[1]:

> Legislature: Establishes overall policies, including determining funding sources and distribution, and spending priorities through state statutes such as Revenue and Taxation Code, Streets and Highways Code, and Government Code. The Legislature appropriates funds through the annual budget for transportation projects and has authority to designate transportation projects statutorily.
>
> California Transportation Commission (CTC): The nine-member CTC, appointed by the Governor, reviews and adopts the state transportation programs and approves projects nominated by Caltrans and regional agencies for funding. The CTC recommends policy and funding priorities to the Legislature and is also responsible for project delivery oversight.
>
> California Department of Transportation (Caltrans): Caltrans owns, operates and maintains the state highway system. Caltrans plans, designs, and nominates interregional capital improvement projects on the state highway system and also manages the intercity rail operation.
>
> Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs): MPOs and RTPAs are responsible for planning, coordinating and administering funds for regional transportation systems. In California, 17 MPOs and 48 RTPAs develop 20-year Regional Transportation Plans (RTPs) as well as 5-year Regional Transportation Improvement Program (RTIP), which identify projects for the regional portion of the State Transportation Improvement Program (STIP). SCAG is the MPO for Riverside County.

Most funds for improvements to the state highway system come through the State Highway Account (SHA), which receives funding from a variety of sources including:

- motor vehicle fuel taxes, part of which goes into the Highway Users Tax Account, a portion of which goes to the SHA and the rest goes to cities and counties according to a statutory formula.
- The fuel tax swap, enacted in 2011 (Fuel Tax Swap Fix), reenacted the provisions of the Fuel Tax Swap of 2010 addressing issues raised by the passage of Propositions 22 and 26. The Fuel Tax Swap eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ (July 2010). The increase in the excise tax would generate revenues equivalent to what would have been collected from the state sales tax on gasoline. These revenues are intended for new road construction (STIP), highway maintenance and operations (SHOPP), and local roadways.

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[1] This information came from *Transportation Funding in California*, Caltrans Economic Analysis Branch, 2011, page 2.

- the federal fuel tax, which goes into the Highway Trust fund for use on the portions of the system that are designated ad federal aid highways.

In addition, local sales tax measures, such as Measure A in Riverside County, and the proceeds of Proposition 1B provide funding for improvements to certain portions of the state highway system.

The key feature of this system pertaining to the recommended freeway mitigation measures is that this system is outside the control of the City of Moreno Valley. The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements (as described in MM Trans-6). However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.

- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.

- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: Please refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significance Level After Mitigation: Less than significant impact.

6.15.3.9 Freeway Impacts from Truck Trips to the Ports of Los Angeles and Long Beach

Impact: The project's contribution to freeway impacts from truck trips to the Ports of Los Angeles and Long Beach would be cumulatively considerable.

Cumulative traffic impacts and mitigation measures have been evaluated for the following scenarios:

- Volumes Along Routes to Ports
- Cumulative Impacts – Roadway Sections
- Cumulative Impacts – Intersections
- Cumulative Impacts – Freeway Impacts

Cumulative traffic impacts and mitigation measures are documented in the tables in Appendix F:

- Volumes Along Routes to Ports: Appendix F, Tables 87-98
- Cumulative Impacts – Roadway Sections: Appendix F, Table 74
- Cumulative Impacts – Intersections: Appendix F, Table 75
- Cumulative Impacts – Freeway Impacts: Appendix F, Table 76

All cumulative traffic impacts have been reduced to less than significant levels through the application of the identified mitigation measures. Some mitigation measures may be determined to be infeasible and as a result, cause a significant cumulative impact.

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.2.

- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Cumulative Impact Analysis: Please refer to Appendix F for the cumulative traffic impact analysis.

Significance Level Before Mitigation: Significant impact.

Mitigation Measures: Please refer to Appendix F and below for mitigation measures.

Significant Level After Mitigation: Less than significant impact.

Mitigation Measure Summary

Based on the analysis described above following Mitigation Measures are required:

6.16 Utilities and Service Systems

Cumulative effects to utilities and service systems are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to utilities and service system issues is provided in Section 6.16.1. The geographic and temporal scopes for utilities and service systems is provided in Section 6.16.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the utilities and service systems issues are discussed in Section 6.16.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 6.16.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Tables 6.16-1 and 6.16-2, and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if their impacts would cause or contribute to a significant cumulative impact and, if so, whether the project's incremental impact would be cumulatively considerable.

6.16.1 Project Impact Findings

The project's effects to utilities and service systems are summarized in this section, and the impacts have been evaluated against the following thresholds that were developed based on the CEQA Guidelines Appendix G thresholds, as modified to address potential project impacts. After each threshold, a significance determination for the project's impacts (see Section 4.16 of the Revised Sections of the FEIR) is provided as well as a reference to the specific section and impact number if the impact determination is significant.

6.16.1.1 Water Supply

Would the project:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; **Less than Significant, Section 4.16.1.5.1.**

- Have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements. **Less than Significant with Mitigation, Section 4.16.1.6.1.**

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; **Less than Significant with Mitigation, Section 4.16.1.6.2.**

6.16.1.2 Wastewater

Would the project:

- Exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board; **Less than Significant, Section 4.16.2.5.1.**
- Result in a determination by the wastewater treatment provider, which services or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; **Less than Significant, Section 4.16.2.5.2.**
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. **Less than Significant, Section 4.16.2.5.2.**

6.16.1.3 Solid Waste

Would the project:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; **Less than Significant, Section 4.16.3.5.1.**
- Fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste. **Less than Significant, Section 4.16.3.5.2.**

6.16.2 Geographic and Temporal Scope

The cumulative impact geographic area for utilities and service systems includes the Eastern Municipal Water District (EMWD) and Waste Management Services areas. The geographic area was selected to access the potential impacts to capacity within each service district. Cumulative impacts to utilities and service systems could result from impacts of the project in conjunction with the impacts of other past, present and future projects located within the EMWD and Waste Management service areas. The cumulative projects geographic boundary for Utilities and Service Systems is shown in Figure 6.16-1, Water and Wastewater and Figure 6.16-2B, Solid Waste. The projects located within the utilities and service systems cumulative impact area are listed in Table 6.16-1 and 6.16-2. The project would contribute to cumulative utilities and service system impacts starting with project construction and lasting for the duration of the project.

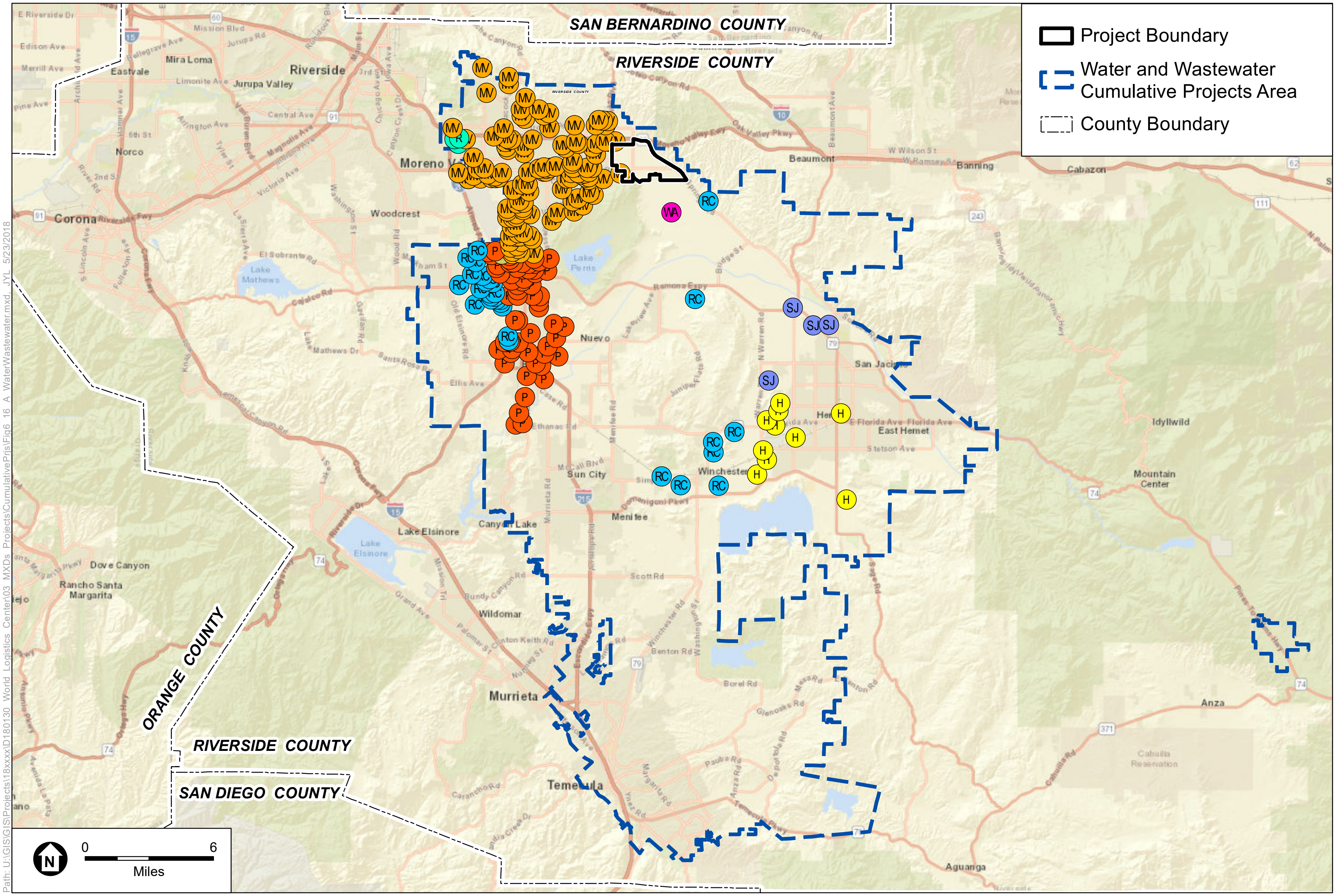

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.16-1

Water and Wastewater Cumulative Projects Area

ESA

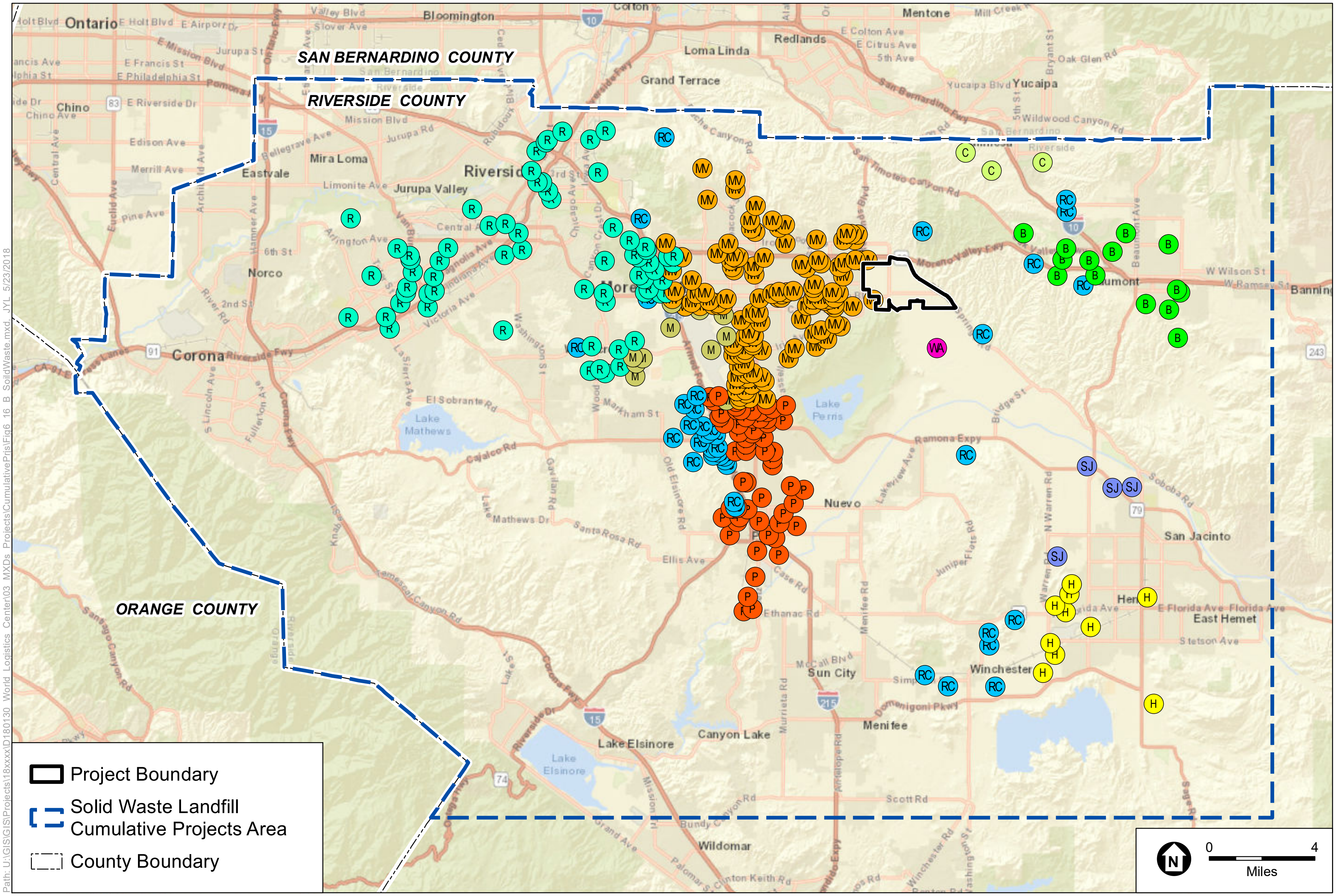

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\CumulativePrjs\Fig6_16_B_SolidWaste.mxd_JYL 5/23/2018

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.16-2

Solid Waste Landfill Cumulative Projects Area

ESA

Table 6.16-1 - Water and Wastewater Cumulative Projects Summary

Project ID	Project	Environmental Document Summary
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's 2008 EIR, the Tres Cerritos Specific Plan would result in the development of 787 residential units, park and open space, on 154.7 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community. The project requires water and wastewater service which could result in cumulative impacts.
H-7	Peppertree Specific Plan	Per the City of Hemet's 2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres. The project requires water and wastewater service which could result in cumulative impacts.
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's

Project ID	Project	Environmental Document Summary
		2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space. The project requires water and wastewater service which could result in cumulative impacts.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet's 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet. The project requires water and wastewater service which could result in cumulative impacts.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power's Authority's draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014 EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres. The project requires water and wastewater service which

Project ID	**Project**	**Environmental Document Summary**
		could result in cumulative impacts.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley’s 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf. The project requires water and wastewater service which could result in cumulative impacts.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley’s 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	**Project**	**Environmental Document Summary**
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space. The project requires water and wastewater service which could result in cumulative impacts.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes. The project requires water and wastewater service which could result in cumulative impacts.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006

Project ID	**Project**	**Environmental Document Summary**
		Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the development of a 227-unit condominium project on 17.9 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial

Project ID	Project	Environmental Document Summary
		study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acres The project requires water and wastewater service which could result in cumulative impacts.
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	**Project**	**Environmental Document Summary**
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins. The project requires water and wastewater service which could result in cumulative impacts.
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-39	VIP Moreno Valley (Sares Regis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres. The project requires water and wastewater service which could result in cumulative

Project ID	**Project**	**Environmental Document Summary**
		impacts.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. The project requires water and wastewater service which could result in cumulative impacts.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land. The project requires water and wastewater service which could result in cumulative impacts.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays. The project requires water and wastewater service which could result in cumulative impacts.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare

Project ID	Project	Environmental Document Summary
		an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped. The project requires water and wastewater service which could result in cumulative impacts.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space. The project requires water and wastewater service which could result in cumulative impacts.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land. The project requires water and wastewater service which could result in cumulative impacts.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno

Project ID	Project	Environmental Document Summary
		Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space. The project requires water and wastewater service which could result in cumulative impacts.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units. The project requires water and wastewater service which could result in cumulative impacts. The project requires water and wastewater service which could result in cumulative impacts. The project requires water and wastewater service which could result in cumulative impacts.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square new retail/commercial uses on the approximately 22.28-acre site. The project requires water and

Project ID	**Project**	**Environmental Document Summary**
		wastewater service which could result in cumulative impacts.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on 4.28 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area. The project requires water and wastewater service which could result in cumulative impacts.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel. The project requires water and wastewater service which could result in cumulative impacts.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project requires water and wastewater service which could result in cumulative impacts.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist, the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone. The project requires water and wastewater service which could result in cumulative impacts.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-85	Retail Center / Winco Foods, PA08-	Per the City of Moreno

Project ID	Project	Environmental Document Summary
	0079/0080/0081	Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots. The project requires water and wastewater service which could result in cumulative impacts.
MV-88	TR33771 / Creative Design Associates	
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251. The project requires water and wastewater service which could result in cumulative impacts.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594. The project requires water and wastewater service which could result in cumulative impacts.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold

Project ID	Project	Environmental Document Summary
		Course Area. The project requires water and wastewater service which could result in cumulative impacts.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No. 2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project. The project requires water and wastewater service which could result in cumulative impacts.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans. The project requires water and wastewater service which could result in cumulative impacts.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's 2006 ND, the project would subdivide a 46 gross acre site into 78 single-family residential lots within area adjacent to city limits. Applicant is proposing Pre-zoning and a GP Amendment to establish an R3 land use district and request the expansion of the Moreno Valley SOI and annex the project into the City. The project requires water and wastewater service which could result in cumulative

Project ID	**Project**	**Environmental Document Summary**
		impacts.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community. The project requires water and wastewater service which could result in cumulative impacts.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision. The project requires water and wastewater service which could result in cumulative impacts.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site. The project requires water and wastewater service which could result in cumulative impacts.
MV-103	Gateway Business Park	Per the City of Moreno Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure. The project requires water and wastewater service which could result in cumulative impacts.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses. The project requires water and wastewater service which could result in cumulative impacts.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as

Project ID	Project	Environmental Document Summary
		12 single family homes. The project requires water and wastewater service which could result in cumulative impacts.
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres. The project requires water and wastewater service which could result in cumulative impacts.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes. The project requires water and wastewater service which could result in cumulative impacts.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes. The project requires water and wastewater service which could result in cumulative impacts.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses. The project requires water and wastewater service which could result in cumulative impacts.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf. The project requires water and wastewater service which could result in cumulative impacts.

Project ID	Project	Environmental Document Summary
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot industrial/warehouse building that includes 19,200 square feet of office space. The project requires water and wastewater service which could result in cumulative impacts.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project. The project requires water and wastewater service which could result in cumulative impacts.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project

Project ID	Project	Environmental Document Summary
		proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures. The project requires water and wastewater service which could result in cumulative impacts.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres. The project requires water and wastewater service which could result in cumulative impacts.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Fina EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street. The project requires water and wastewater service which could result in cumulative impacts.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a 40-acre. The project

Project ID	**Project**	**Environmental Document Summary**
		requires water and wastewater service which could result in cumulative impacts.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf. The project requires water and wastewater service which could result in cumulative impacts.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811

Project ID	**Project**	**Environmental Document Summary**
		square feet in two buildings on 48.4 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site. The project requires water and wastewater service which could result in cumulative impacts.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site. The project requires water and wastewater service which could result in cumulative impacts.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site. The project requires water and wastewater service which could result in cumulative impacts.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units. The project requires water and wastewater service which could result in cumulative impacts.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex

Project ID	Project	Environmental Document Summary
		on 7 vacant acres. The project requires water and wastewater service which could result in cumulative impacts.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres. The project requires water and wastewater service which could result in cumulative impacts.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility. The project requires water and wastewater service which could result in cumulative impacts.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres. The project requires water and wastewater service which could result in cumulative impacts.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical

Project ID	**Project**	**Environmental Document Summary**
		office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed. The project requires water and wastewater service which could result in cumulative impacts.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain, and roadways will also be expanded as part of the Villages of Lakeview project. The project requires water and wastewater service which could result in cumulative impacts.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings. The project requires water and wastewater service which

Project ID	Project	Environmental Document Summary
		could result in cumulative impacts.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements. The project requires water and wastewater service which could result in cumulative impacts.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space. The project requires water and wastewater service which could result in cumulative impacts.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site

Project ID	Project	Environmental Document Summary
		would be included within the developed portion of the project; 84.8 acres would remain natural open space. The project requires water and wastewater service which could result in cumulative impacts.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking. The project requires water and wastewater service which could result in cumulative impacts.

Table 6.16.-2
Solid Waste Cumulative Projects Summary

Project ID	Project Name	Environmental Document Summary
B-3	Heartland	Per the City of Beaumont Planning Department's 1994 EIR, the Heartland Specific Plan would develop low and medium density housing, and supporting land uses on 417.2 acres.
B-4	Hidden Canyon	Per the City of Beaumont Planning Department's 2004 EIR, the Hidden Canyon EIR Addendum to the Beaumont Gateway Specific Plan would result in the development of 426 residential units, commercial space and open space on 196.5 acres
B-5	ProLogis/Rolling Hills Ranch Industrial	Per the City of Beaumont Planning Department's 2004 EIR, the Second Amendment to the Rolling Hills Ranch Specific Plan would change the 152,9 acre property's General Plan land use designation from low density residential to Business Park
B-7	Kirkwood Ranch (#14)	Per the City of Beaumont Planning Department's 1990 EIR, the Kirkwood Ranch Specific Plan would develop 470 single family detached units and 60 multi-family units on a 128 acre site.
B-9	Sundance (#17)	Per the City of Beaumont Planning Department's 2004 EIR, the Sundance Specific Plan Amendment to the Deutsch Specific Plan would result in the development of 1,968 single-family units, 2,208 homes, and 540 condo units, commercial space, and supporting land uses on 1,195 acres
B-10	Tract No. 32850 (#39)	Per the City of Beaumont Planning Department's 2005 ND, the Tract Map 32850 would divide a 29.09 acre parcel into 103 single-family residential lots.
B-11	San Gorgonio Village, Phase 2 (#45)	Per the City of Beaumont Planning Department's

Project ID	**Project Name**	**Environmental Document Summary**
		2007 MND, the San Gregorio Village Specific Plan would provide for the development of approximately 225,000 square feet of commercial and restaurant uses on approximately 23 acres.
B-12	Beaumont Commercial Center	Per the City of Beaumont Planning Department's 2016 IS, the Beaumont Commercial Center would provide for the development of five commercial buildings with 58,603 square feet of retails, service, and restaurant uses.
B-14	Potrero Creek Estates (#26)	Per the City of Beaumont Planning Department's 1988 EIR, the Potrero Creek Estates Specific Plan would result in the residential development of 1,028 single family lots on 737 acres.
H-3	Tres Cerritos Specific Plan	Per the City of Hemet's 2008 EIR , the Tres Cerritos Specific Plan would result in the development of 787 residential units, park and open space, on 154.7 acres.
H-4	Sanderson Square	Per the City of Hemet's 2006 IS, the Sanderson Square Specific Plan would result in the development off commercial and industrial uses on approximately 45 acres.
H-5	McSweeny Farms Specific Plan	Per the City of Hemet's 2003 EIR, the McSweeny Farms Properties Specific Plan would result in the construction of 2,482 residential units within 442 acres.
H-6	Ramona Creek Specific Plan	Per the City of Hemet's 2014 EIR, the Ramona Creek Specific Plan and General Plan Amendment would result in the development of a multiple-use commercial and residential community.
H-7	Peppertree Specific Plan	Per the City of Hemet's

Project ID	Project Name	Environmental Document Summary
		2003 ISMND, the Peppertree Specific Plan would result in the development of 456 residences, and recreational spaces of 79.2 acres
H-9	Pulte Del Web (TTM 31807 and 31808)	Per the City of Hemet's 2005 SEIR, the Tentative Tract Map 31807, Tentative Tract Map 31808, and Specific Plan Amendment SPA 04-1 would result in the amendment of a land use plan for a 10 acre site from commercial to high medium density residential and the division of 154.77 acres into 611 residential lots, an adult community center, and open space.
H-10	Downtown Hemet Specific Plan	Per the City of Hemet’s 2017 ISMND, the proposed Downtown Hemet Specific Plan is a comprehensive plan that features a land use plan, circulation plan, urban design framework, utility infrastructure plan, development standards, design guidelines, and sustainability plan for future development within a 360-acre area in downtown Hemet.
M-2	Meridian Business Park Phases I and II	Per the March Joint Powers Authority's 2017 EIR , the project would result in the development of a 130 acre business park.
M-8	March LifeCare Campus Specific Plan	Per the March Joint Powers Authority's 2009 EIR, the project would result in the development of a medical campus on approximately 236 acres.
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)	Per the March Joint Power’s Authority’s draft ND, the project would construct a Retail/Storage Lumber Yard Complex (approximately 67,800 square feet of total building space) on 11.0 acres.
MV-3	ProLogis	Per the City of Moreno Valley's September 2014

Project ID	Project Name	Environmental Document Summary
		EIR, this project would develop approximately 2,244,638 square feet of distribution warehouse uses on approximately 122.8-acres.
MV-4	Westridge Commerce Center	Per the City of Moreno Valley's April 2011 Final EIR, the project would develop approximately 937,260 square feet of light industrial warehouse/ distribution uses and related infrastructure on 55 acres.
MV-7	TR33962 / Pacific Scene Homes	Per the City of Moreno Valley's 2006 ND, the project would subdivide 20 acres into 31 single-family residential lots ranging in size from 20,001 sf to 27,562 sf.
MV-8	TR32460 / Sussex Capital	Per the City of Moreno Valley's 2006 ND, the project proposes 57 single family residential lots and 2 detention basins on 36.7 acres.
MV-10	TR30998 / Pacific Communities	Per the City of Moreno Valley, the project would subdivide 60 acres into 47 single family lots.
MV-11	TR30411 / Pacific Communities	Per the City of Moreno Valley's 2002 Negative Declaration, this project would result in 25 single family homes on 30.02 acres.
MV-14	TR32548 / Gabel, Cook & Associates	Per the City of Moreno Valley's November 2005 Negative Declaration, this project would subdivide 36.24 acres for residential purposes.
MV-15	TR32218 / Whitney	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 17.25 acres for 63 single-family homes and open space.
MV-16	TR32284 / 26thCorporation & Granite Capitol	Per the City of Moreno Valley's October 2004 Negative Declaration, this project would result in the development of 32 residential lots on 8.77

Project ID	Project Name	Environmental Document Summary
		acres.
MV-17	TR31590 / Winchester Associates	Per the City of Moreno Valley's May 2005 Negative Declaration, this project would subdivide 30acres for 96 single family homes.
MV-18	Convenience Store / Fueling Station	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a gas station (including a 4,000 square foot convenience store and an automated drive through car wash) on 4.17 acres.
MV-19	Senior Assisted Living	Per the City of Moreno Valley's environmental checklist/initial study, this project would develop a 98,434 square foot, 139 unit (155 bed) senior assisted living facility on 7.33 acres.
MV-20	Moreno Marketplace	Per the City of Moreno Valley's June 2006 Negative Declaration, this project would develop a 95,905 square foot retail center on 10.46 acres.
MV-21	PEN16-0053 Medical Center	Per the City of Moreno Valley's November 2017 MND, this project would develop a medical complex on 18.38 acres.
MV-22	TR36882 (PA15-0010) SFR	Per the City of Moreno Valley's June 2015 MND, this project would subdivide 9.4 acres for 40 residential lots.
MV-24	TM 36436 (PA12-0005)	Per the City of Moreno Valley's December 2012 MND, this project would subdivide 43.52 acres for 159 single family residential lots.
MV-25	TR32142	Per the City of Moreno Valley's June 2004 Negative Declaration, this project would result in the development of 172 multi-family residences on 19.3 acres.
MV-27	TR32917 / Empire land	Per the City of Moreno Valley's March 2005 Negative Declaration, this project would result in the

Project ID	Project Name	Environmental Document Summary
		development of a 227-unit condominium project on 17.9 acres.
MV-28	TR34329 / Granite Capitol	Per the City of Moreno Valley's June 2007 initial study/environmental checklist form, this project would result in the development of 90 condominium units on 10.41 acre
MV-29	TR36340	Per the City of Moreno Valley's April 2005 Negative Declaration, this project would develop a 276-unit condominium complex on 32 acres.
MV-30	PA03-0168 TR 31517	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 31.71 acres for the development of 83 single-family residential lots.
MV-32	TTM 31592 (P13-078) SFR	Per the City of Moreno Valley's March 2014 Negative Declaration/Addendum, the project revises downward the level of previously-approved development. As a result, 115 single-family homes would be built on 64.65 acres within an overall project site of 203.52 acres.
MV-33	TR32645 / Winchester Associates	Per the City of Moreno Valley's December 2004 Negative Declaration, the project would subdivide 20 acres for 53 single-family residential lots.
MV-34	TR34397 / Winchester Associates	Per the City of Moreno Valley's April 2007 initial study/environmental checklist form, the project would subdivide 19 acres for 50 single-family residential lots.
MV-35	TR31771 / Sanchez	Per the City of Moreno Valley's April 2006 Negative Declaration, the project would subdivide 9.34 acres for 25 single-family residential lots and two water quality basins.

Project ID	**Project Name**	**Environmental Document Summary**
MV-36	TM 31618 (PA03-0106)	Per the City of Moreno Valley's November 2004 Negative Declaration, the project would subdivide 18.99 acres for 56 single-family residential lots.
MV-37	Vogel /PA09-004	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Per the City of Moreno Valley's June 2012 EIR, the project would develop approximately 1,616,133 square feet of distribution warehouse uses (including business office space and parking) on approximately 71 acres.
MV-41	First Nandina Logistics Center	Based on the City of Moreno Valley's October 2014 Facts, Findings, and Statement of Overriding Considerations, the project would develop approximately1,371,210 square feet of warehouse uses; 12,000 square feet of office space; and 66,790 square feet of mezzanine space on 72.9 acres.
MV-42	Indian Street Commerce Center	Per the City of Moreno Valley's 2016 FEIR, the project would prepare the Indian Street Commerce Center Project which proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site.
MV-43	Ivan Devries / PA06-0017	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare the IS for a project that will build distribution warehouse buildings totaling approximately 569,200 sf on 28.64 acres of land.
MV-44	Modular Logistics Center (Kearny RE Co)	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
		Valley's 2017 FEIR, the project would prepare an EIR that would redevelop 50.84 acres with one logistic warehouse building containing 1,109,378 sf of building space with 256 loading bays.
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Per the City of Moreno Valley's Environmental Checklist, the project would prepare an EIR to subdivide 75.05-acre property into four parcels with business center land uses.
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare an IS for one 1,560,046 sf warehouse building on a project site that is currently vacant and undeveloped.
MV-50	San Michele Industrial Center, (Industrial Area SP)	Per the City of Moreno Valley's 2005 ND, the project would prepare an ND for a 414,533 sf warehouse distribution facility on 17.17-net acre site.
MV-51	Nandina Distribution Center IDS	Per the City of Moreno Valley's 2007 IS and Environmental Checklist, the project would prepare an MND to construct a 770,867 square foot industrial building located on the southeast corner of Heacock Street and San Michele Road on approximately 38 acres.
MV-52	First Industrial III & IV, (Industrial Area SP)	Per the City of Moreno Valley's 2008 IS and Environmental Checklist, the project would prepare an MND for a project that consists of two industrial buildings with a total of approximately 880,000 square feet of warehouse space.
MV-53	I-215 Logistics Center (Amazon)	Per the City of Moreno Valley's IS and Environmental Checklist, the project would prepare a MND for the construction of

Project ID	Project Name	Environmental Document Summary
		two (2) distribution warehouse buildings totaling 1,705,000 sf on approximately 76 acres of land.
MV-54	Moreno Valley Logistics Center (Prologis)	Per the City of Moreno Valley's 2017 MMP, the project would prepare MMP for the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (sf) of total floor space.
MV-57	Tract Map 34151	Per the City of Moreno Valley's 2006 General Plan Resolution, the project would subdivide 8.95 acres into 37 single-family lots.
MV-58	Tract Map 33024	Per the City of Moreno Valley's 2005 General Plan Resolution, the project would subdivide 2.17-net acres into 8 single-family lots.
MV-59	Tract Map 31442	Per the City of Moreno Valley's 2004 MND, the project would subdivide the 15.8-net acres into 63 single-family residential lots.
MV-60	Tract Map 36401	Per the City of Moreno Valley's 2012 ND, the project would subdivide 19.4 acre project site and 9 common areas lot to build three types of residential product for a total of 216 dwelling units.
MV-61	Walmart & Gas Station	Per the City of Moreno Valley's 2015 FEIR, the project would develop approximately 193,000 square feet of new retail/commercial uses on the approximately 22.28-acre site.
MV-63	PA14-0053 (TTM 36760) Legacy Park	Per the City of Moreno Valley's 2017 MND, the project would subdivide the 53 acre site into a total of 221 single family residential lots.
MV-65	TR33607 / TL Group	Per the City of Moreno Valley's 2006 ND, the project would complete a 52-unti condominium on

Project ID	Project Name	Environmental Document Summary
		4.28 acres.
MV-66	TR34988 / Stratus Properties	Per the City of Moreno Valley's 2007 ND, the project would propose 271 units on 3.75 acres of outdoor recreation area.
MV-67	TR32515	Per the City of Moreno Valley's 2005 ND, the project would develop 174 senior single-family residential lots and retain natural open space on a 38.4 acre parcel.
MV-68	PA07-0035	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-69	PA07-0039, (Industrial Area SP)	Per the City of Moreno Valley's 2009 ND, the project would develop six industrial buildings on 19.14 acre parcel.
MV-75	Aqua Bella Specific Plan	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres.
MV-78	Overton Moore Properties PA08-0072	Per the City of Moreno Valley's 2005 EIR, the project would develop a gated active-adult community containing 2,922 dwelling units on 685 acres.
MV-79	Shaw Development	Per the City of Moreno Valley's 2014 IS and Environmental Checklist, the project proposes construction and operation of an approximate 366,698 square-foot warehouse on approximately 16.07 acres.
MV-80	PA15-0032 MV Cactus Center	Per the City of Moreno Valley's 2017 IS and environmental checklist, the project proposes to develop a 39,950 sf warehouse building, gas station, car wash, and 3 fast-food restaurant on 6.3 acres.
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	Per the City of Moreno Valley's 2010 IS and environmental checklist,

Project ID	Project Name	Environmental Document Summary
		the project proposed to build a 353,859 sf warehouse distribution building on 16.55 acres in a light industrial zone.
MV-84	PA16-0075 Brodiaea Business Center	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres.
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	Per the City of Moreno Valley's 2017 IS, the project would develop 8 industrial buildings and 1 future industrial building on 126 acres.
MV-86	TR32505 / DR Horton	Per the City of Moreno Valley's 2007 ND, the project would subdivide 18.66 acres into 72 single-family residential lots.
MV-91	TR31305 / Richmond American	Per the City of Moreno Valley's 2004 ND, the project would subdivide 22.9-net acres in the R5 zone into 87 single-family residential lots. A portion of the subject site was previously subdivided as part of Tract Map No. 27251.
MV-92	TR 33256	Per the City of Moreno Valley's 2005 ND, the project would subdivide 28.6-net acres in the R5 zone into 99 single-family residential lots. The site backs to SR 60. The Tract's northern boundary will change because of the expansion of Caltrans ROW to complete improvements to the eastbound off-ramp. A portion of the site includes approved Tentative Tract Map No. 28594.
MV-93	PA14-0042 Edgemont Apartments	Per the County of Riverside's 2001 Final SP/EIR would result in the development of the Oak Valley & SCPGA Gold Course Area.
MV-94	PA15-0002 Box Springs Apartments	Per the City of Moreno Valley's 2015 Addendum to MND SCH No.

Project ID	Project Name	Environmental Document Summary
		2007101131, the project site will consist of the same approx. 12 acres for the proposed 266-unit multi-family residential development which is an increase of 26 units and a modification to the building designs and locations. Mitigation Measures and Conditions Approval from the original project will be included in the modified project.
MV-95	Moreno Beach Marketplace / Lowes	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans.
MV-96	31394 Pigeon Pass, Ltd.	Per the City of Moreno Valley's IS/Checklist, the project proposes to develop 14.2 acres with approximately 11.58 acres remaining vacant. Project includes a total of four applications, GP Amendment, Zone Change, and 2 Master Plot Plans.
MV-97	32005 Red Hill Village, LLC	Per the City of Moreno Valley's 2005 ND, project includes a tentative tract map to develop a Planned Unit Development consisting of approximately 214 clustered and single-family residential gated community.
MV-98	33388 SCH Development, LLC	Per the City of Moreno Valley's 2007 ND, project proposes to subdivide a 19.5 gross acre parcel into a 16 lot single-family residential subdivision.
MV-100	32215 Winchester Associates "Scottish Village"	Per City of Moreno Valley's 2006 IS/Environmental Checklist Form, project proposes a planned residential development of 194 residential units on a 26.12-acre site.
MV-103	Gateway Business Park	Per the City of Moreno

Project ID	Project Name	Environmental Document Summary
		Valley's 2008 IS and environmental checklist, the project would develop a business park consisting of 16 buildings with office, industrial, and warehouse space and associated parking areas on 25.3 acres.
MV-106	35304 Jimmy Lee	Per the City of Moreno Valley's 2007 Resolution, the project would develop 12 condominiums with 15 dwelling units on 0.9 acres.
MV-110	TM 33417	Per the City of Moreno Valley's Environmental Checklist, the project would propose a 60 unit condominium complex on 7.40 acres.
MV-111	35769 Michael Chen	Per City of Moreno Valley Planning Commission Resolution 2009-21, this tentative tract map is for a 16-unit condominium complex on 1.21 acres.
MV-112	PA09-0006 Jim Nydam	Per City of Moreno Valley Planning Commission Resolution 2009-25, this project would result in the development of a 15-unit affordable housing project on 1.57 acres.
MV-113	Ironwood Residential	Per the City of Moreno Valley's November 2016 MND, this project would develop 101 single family home subdivision on approximately 75 acres, including open space, a park, trails, streets, utility improvements, and related infrastructure.
MV-114	Stoneridge Town Centre - Vacant Restaurant	Per the City of Moreno Valley's March 2006 Negative Declaration, this project would subdivide a 55.45 acre parcel into 25 individual parcels to be developed as 563,328 square feet of commercial uses.
MV-116	31621 Peter Sanchez	Per the City of Moreno Valley's Checklist form, this project would subdivide 3.1 acres to be developed as 12 single family homes.

Project ID	**Project Name**	**Environmental Document Summary**
MV-117	Riverside County Office Building	Per the City of Moreno Valley's September 2014 Negative Declaration, this project would develop a 52,250 square foot office building and 342 parking spaces on 5.8 acres.
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	Per the City of Moreno Valley's December 2003 checklist form, this project would subdivide 46.16 acres for nine single family homes.
MV-119	32126 Salvador Torres	Per the City of Moreno Valley's November 2007 Negative Declaration, this project would subdivide 9 acres for 35 single family homes.
P-2	TR34716	Per the City of Perris' 2013 FEIR, the project involves the construction and operation of up to 600,000 gross square feet (gsf) of light industrial/warehouse uses.
P-4	Bookend	Per the City of Perris' 2015 MND, the project proposed to subdivide an existing vacant parcel into five new industrial parcels with a total building area of 165,000 sf.
P-5	Markham East	Per the City of Perris's June 2007 Notice of Determination, the project would develop 462,692 square feet of light industrial warehouse/distribution uses in a single building with associated roadway and utility infrastructure and landscape improvements on 22.25 acres.
P-7	Duke Warehouse	Per the City of Perris's Facts, Findings and Statement of Overriding Considerations, the project would redesign ate a large portion of the northern part of the City with broad categories of compatible commercial and industrial uses on 34.57 acres. Uses would include a 668,681 square foot

Project ID	Project Name	Environmental Document Summary
		industrial/warehouse building that includes 19,200 square feet of office space.
P-8	First Perry Logistics Project	Per the City of Perris's November 2017 Notice of Determination, the project would develop a 236,961 square foot industrial building on 11.06 acres.
P-10	IDS	Per City of Perris 2005 Final EIR would result in the Perris Warehouse/Distribution Facility Project.
P-11	Ridge II	Per the City of Perris 2007 NOC and Environmental Doc Transmittal, project proposes a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures.
P-14	Rados Distribution Center	Per the City of Perris 2010 Final EIR, project is an approximately 1,191,080 sq ft distribution center on approximately 61.63 gross acres.
P-15	Duke Perris Logistics Center I	Per the City of Perris 2017 Fina EIR, the project would result in the Duke Warehouse at Indian Avenue and Markham Street.
P-16	Perris Ridge Commerce Center I	Per the City of Perris' 2007 EIR, the project proposes the establishment of a new industrial warehouse use, incorporating approximately 2 million square feet of building area in two structures on 91 acres.
P-18	P07-07-0029	Per the City of Perris' 2009 EIR, the project proposed to construct a 1,608,322 sf industrial complex comprised of five buildings on 92.3 acres.
P-19	P05-0192	Per the City of Perris' 2006 EIR, the project proposed development of an approximately 700,000 square foot industrial building on a

Project ID	**Project Name**	**Environmental Document Summary**
		40-acre.
P-20	P05-0113	Per the City of Perris' 2009 EIR, the project proposed subdividing the site into five legal parcels, four of which would be developed with industrial/warehouse buildings for a total of 1,750,000 sf.
P-21	P07-09-0018	Per the City of Perris' 2008 IS, the project proposed the development of a 173,000 sf industrial building on 8.7 acres.
P-22	NICOL	Per the City of Perris' 2016 IS/MND, the project proposed a 380,000 sf warehouse building on 21.63 acres.
P-23	Westcoast Textiles	Per the City of Perris' 2016 IS, the project proposed construction of a 187,850 sf industrial/manufacturing building on 9 acres.
P-24	Optimus Logistics Center 1	Per the City of Perris' 2016 EIR, the project proposed to construct a high-cube warehouse consisting of two buildings totaling 1,455,781 sf on 68.99 acres.
P-25	Optimus Logistics Center 2	Per the City of Perris' 2015 EIR, the project proposed construction of warehouse development site encompassing 1,037,811 square feet in two buildings on 48.4 acres.
P-26	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed construction and operation of approximately 811,620 square feet (sf) of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximate 37.3-acre site.
P-27	Perris DC (Industrial Property Trust)/Integra	Per the City of Perris' 2014 EIR, the project proposed construction and operation of up to 864,000 square feet (sf) of industrial warehouse/distribution uses on the approximate 43.2-acre site.
P-28	Duke Warehouse	Per the City of Perris' 2017 IS, the project proposed

Project ID	Project Name	Environmental Document Summary
		construction and operation of approximately 1,189,860 square feet (sf) of high-cube warehouse/distribution uses on the approximate 55-acre Project site.
P-30	Avelina	Per the City of Perris' 2003 IS, the project proposed to increase residential density on a 158.2 acre property to 475 dwelling units.
P-31	Perris Family Apartments	Per the City of Perris' 2013 IS, the project proposed to construct a 75-unit multi-family apartment complex on 7 vacant acres.
P-32	Lewis Retail Center	Per the City of Perris' 2009 IS, the project proposed to construct 643,000 sf of commercial shopping center on 68 acres.
P-35	Verano Apartments	Per the City of Perris' 2013 IS, the project proposed increasing the number of residential units from 19 to 40 and reducing the commercial component from 17,000 sq. ft. to 1,000 sq. ft. for retail and to allow a 2,000 sq. ft. day care facility.
P-58	Jordan Distribution	Per the City of Perris's June 2008 Notice of Determination, the project would develop a 378,521 square foot tilt-up industrial building for warehouse distribution uses on 17.1 acres.
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Per the City of Riverside's January 2017 Final EIR, the project would develop approximately 1.43 million square feet of business park uses on approximately 920 acres.
R-2	Alessandro Business Center (Western Realco)	Per the City of Riverside's February 2015 Addendum to the Final EIR, the project would develop 662,018 square feet of industrial warehouse uses on 36.7 acres.
R-4	Quail Run	Per the City of Riverside's January 2016 Initial Study, the project would develop a

Project ID	**Project Name**	**Environmental Document Summary**
		13-building apartment complex on approximately 16 acres of a 30.9 acre site that also would include parking structures and spaces, and open space.
R-5	Canyon Springs Healthcare Campus Specific Plan	Per the City of Riverside's July 2017 Draft EIR, the project would develop a healthcare campus on 50.85 acres, including an approximately 234-unit senior housing facility; approximately 310,200-square-foot (267-unit, 290-bed) independent living/memory care, assisted living, and skilled nursing facility; an approximately 324,000-square-foot (180-bed) hospital; approximately 22,000 square-foot central energy plant; approximately 70,000-square-foot medical office building; an additional 300,000-square feet of medical office building uses with retail; multiple multi-level parking structures; and an approximately 180,000-square-foot (100-bed) hospital addition. A helipad/helistop also is proposed.
RC-5	Villages of Lakeview -Residential/Commercial Development	Per Riverside County's August 2016 Draft EIR, the Villages of Lakeview project proposes a master-planned community comprised of approximately 2,800 acres in the Lakeview/Nuevo area of Riverside County. Proposed land uses within the Specific Plan include a wide range of residential products, mixed-uses, retail, schools with joint-use parks, public and private amenities, an array of parks, trails, open space, roads, and other infrastructure. Existing infrastructure such as water, sewer, storm drain,

Project ID	**Project Name**	**Environmental Document Summary**
		and roadways will also be expanded as part of the Villages of Lakeview project.
RC-9	Oleander Business Park, PP20699	Per what appear to be public meeting slides presenting information about Riverside County's May 2008 Final EIR for this project, the project would subdivide approximately 68.8 acres to develop approximately 1,206,710 square feet of industrial buildings.
RC-10	Majestic Freeway Business Center, SP 341 / PP21552	Per Riverside County's December 2006 Initial Study, the project would develop 947,000 square feet of light industrial warehouse and distribution uses and a 1.62 acre detention basin on 47.25 acres.
RC-11	Alessandro Commerce Center	Per Riverside County's April 2009 screencheck draft EIR, the project would develop 409,000 square feet of warehouse, 42,000 square feet of light industrial, 10,000 square feet of retail/restaurant, and 258,000 square feet of office uses, associated parking, and three detention basins on 54.4 acres.
RC-13	Sunny-Cal Specific Plan (#40)	Per the City of Beaumont's June 2007 Response to Late Comments on the EIR, the project would develop a 907-unit housing project on up to 323.3 acres.
RC-34	Emerald Acres SP (SP00381)	Per Riverside County's January 2016 Initial Study, the project would develop the approximately 332.6-acre site as a residential community consisting of a maximum of 355 single family dwelling units on 76.3 acres; 179 multi-family dwelling units on 16.7 acres; 4.88 acres of commercial uses; a

Project ID	Project Name	Environmental Document Summary
		community park on 6.8 acres; 209.7 acres of open space; a 0.9-acre sewer lift station; and roadway improvements.
RC-35	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	Per Riverside County's February 2004 environmental assessment form/initial study, the project would subdivide 6.7 acres of a 71 acre parcel into 8 single-family residential lots, a detention basin, and 2.2 acres of open space.
RC-38	San Gorgonio Crossings	Per Riverside County's May 2017 Recirculated Draft EIR, the project would develop two house high-cube warehouse buildings on an approximately 229 acre site, of which approximately 16 acres are located within the City of Calimesa. Approximately 140.23 acres of the site would be included within the developed portion of the project; 84.8 acres would remain natural open space.
SJWA-1	San Jacinto Wildlife Land Management Plan	Per the California Department of Fish and Wildlife's 2017 Draft PEIR, the project involves the proposed Land Management Plan (LMP) for the approximately 20,126 acre San Jacinto Wildlife Area. Public uses that would continue to be permitted under the draft LMP include waterfowl and upland small game hunting, bird watching, hiking, hunting dog training, fishing, horseback riding, nature study, photography, and mountain biking.

6.16.3 Cumulative Impact Evaluation

6.16.3.1 Water Supply

6.16.3.1.1 Construction of Expansion of Water Treatment Facilities

Impact: The project's incremental contribution to environmental effects associated with the construction of new water treatment facilities or expansion of existing facilities would not cause or contribute to a significant cumulative effect.

Threshold: Would the proposed WLC project require the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Cumulative Impact Analysis

The cumulative impact geographic area for water treatment facilities is the EMWD. Cumulative impacts to water treatment facilities could result from the project in conjunction with other past, present and future projects located within the EMWD resulting in impacts due to construction of water treatment facilities. Water treatment services for the City, including the project site and cumulative project sites, is provided by the EMWD.

According to FEIR Section 4.16, the project would require the construction of new water reservoirs to serve each of three water pressure zones (1967, 1860, and 1764). All three reservoir sites are located outside of the Specific Plan boundary. As development proceeds within the project area, new waterlines, ranging in size from 12 to 24 inches, will be constructed in the existing and future street rights-of-way to connect the future water tanks to the development area. The water system will require a new pump station at the 1764 reservoir and an upgrade to the existing EMWD pump station near Cottonwood Avenue and Redlands Boulevard. All water facilities for the project would be constructed to EMWD standards and would be subject to a Plan of Service approval by EMWD (Specific Plan Section 3.5.1). Potential significant environmental impacts associated with such construction include air quality, traffic, biological resources, cultural resources, noise, hydrology, water quality, and other impacts as identified and analyzed in Chapters 4.0, 5.0 and 6.0 of this FEIR. None of those sections identified construction or operation of the project's new or expanded water facilities as resulting in significant impacts apart from those already analyzed in this FEIR.

Annually, a 5-year Capital Improvement Plan (CIP) is prepared by the EMWD. The EMWD's CIP outlines specific projects and their funding sources. Each project is also submitted individually to the Board for authorization and approval. This allows the EMWD to match needed facilities with development trends accurately. Funding for the EMWD's microfiltration plants, distribution pipes, and the recharge and recovery program is listed in the most recent EMWD CIP. Development and construction of the cumulative scenario would be included in the most recent EMWD CIP. Each applicant also would have to fund the costs of the water-related infrastructure needed to serve a particular site. All new facilities proposed or necessitated by projects in the cumulative scenario would be subject to applicable CEQA review, and would be required to comply with all applicable laws and regulations protecting environmental resources. Cumulative project CEQA documents within the district boundary have been reviewed and the findings have been incorporated into this analysis.

Based on the above considerations, the impacts of the project would not combine with other projects in the cumulative scenario to cause or contribute to a significant cumulative impact. to water treatment facilities.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.2 Adequate Water Supply

Impact: *The project's incremental contribution to cumulative demand on water supplies requiring the need for new or expanded entitlements would not cause or contribute to a significant cumulative effect.*

Threshold:	Would the proposed WLC project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Cumulative Impact Analysis

The cumulative impact geographic area for water supply is the EMWD. The project would involve an increase in demand for water supplies. Cumulative projects also could result in potential water supply impacts, and incrementally increase the long-term demand for water service.

The WSA prepared for the project by the EMWD concluded that the water demand for the proposed on-site uses would be approximately 1,991.25 AFY.[1] The EMWD considers this a "worst-case" estimate based on the total acres and amount of square footage of warehousing proposed by the project. Taking into account the proposed water xeriscape landscaping plan, it is likely that actual water use for development within the WLC Specific Plan would be substantially less than the worst-case EMWD estimate. As identified in Table 4.16.A of the FEIR, anticipated water supplies in the EMWD total 213,900 and 302,200 AFY in 2015 and 2035, respectively. The water demand required for the proposed project would total 0.93 and 0.66 percent of the EMWD's 2015 and 2035 supplies under worst-case conditions. The demand estimated for this project is substantially less and therefore still within the limit of growth projected in the 2015 UWMP.

Existing and future development within the EMWD's service area would demand additional quantities of water. The project, along with any projects in the cumulative scenario , would be required to provide availability and commitment letters demonstrating sufficient water resources and access to available water facilities prior to building permit issuance. The 2015 UWMP addresses the water supply sources, projected demand, and supply reliability for Eastern EMWD service area. The 2015 UWMP estimates population within the EMWD service area to increase to 1,111,729 persons by the year 2035. Increases in population, square footage, and intensity of uses would contribute to increases in the overall regional water demand. The anticipated conversion of water-intensive uses (e.g., agriculture) and the implementation of existing water conservation measures and recycling programs would reduce the need for increased water supply. Demand projections for EMWD were developed using information about planned development and land use (UWMP 2015) and would include the water demand for the cumulative projects listed in Table 6.16-1. CEQA documents for projects in the cumulative scenario have been reviewed and the findings have been incorporated into the cumulative impact analysis.

Based on the information provided in the 2015 UWMP, EMWD has the ability to meet current and projected water demand through 2040 during normal, historic single-dry and historic multiple-dry year periods using imported water from MWD with existing supply resources. Planned local supplies will supplement imported supplies and improve reliability for EMWD and the region. In addition, adherence to regulations would ensure that cumulative projects would not result in a demand for water that exceeds existing entitlements and resources, or any new or expanded water-related infrastructure

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[1] *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

would be funded by the respective applicant. Therefore, projects in the cumulative scenario, together with the project, would not cause significant cumulative impacts associated with adequate water service and supplies.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures are required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.3 Storm Water Drainage Requirements

Impact: *The project's incremental contribution to environmental effects from the construction of new storm water drainage facilities or expansion of existing facilities would not cause or contribute to a significant cumulative effect.*

Threshold: Would the proposed WLC project result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Cumulative Impact Analysis

The cumulative impact geographic area for storm water drainage facilities is the watershed the project site is located in. The Final EIR, Section 4.16 analyzes the storm water drainage facilities necessary to serve the project site. To reduce flows to below or equal to pre-development conditions, the on-site storm water flows would be routed to a series of on-site detention and infiltration basins[2] by phase before flows are routed off site. While the increase in impervious surfaces attributable to the proposed WLC project would contribute to a greater volume and higher velocity of storm water flows, the proposed WLC project's detention and infiltration basins would accept and accommodate runoff that would result from project construction at pre-project conditions.

Potential significant environmental impacts associated with such construction include air quality, traffic, biological resources, cultural resources, noise, hydrology, water quality, and other impacts as identified and analyzed in Chapters 4.0, 5.0 and 6.0 of this FEIR. None of those sections identified construction or operation of the project's new storm water drainage facilities as resulting in significant impacts apart from those already analyzed in this FEIR. All new storm water drainage facilities proposed or necessitated by cumulative projects would be subject to applicable CEQA review, and would be required to comply with all applicable laws and regulations protecting environmental resources. CEQA documents prepared for projects in the cumulative scenario have been reviewed and the findings have been incorporated into this analysis.

Based on the above considerations, the impacts of the project would not combine with the impacts of other projects in the cumulative scenario to cause or contribute to significant cumulative impacts resulting from construction of storm water drainage facilities. As such, cumulative impacts to storm water drainage facilities would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

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[2] A detention basin is an area where excess storm water is stored or held temporarily and then slowly drains when water levels in the receiving channel recede. In essence, the water in a detention basin is temporarily detained until additional room becomes available in the receiving channel.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.4 Wastewater Services

6.16.3.5 Wastewater Treatment Requirements

Impact: *The project's incremental contribution would not cause or contribute to any significant cumulative impact resulting from exceedance of wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board.*

Threshold: Would the proposed WLC project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Cumulative Impact Analysis

The cumulative area for wastewater-related issues is the MVRWRF service area. Cumulative population increases and development within the area serviced by the MVRWRF would increase the overall regional demand for wastewater treatment service. The previous treatment capacity at the MVRWRF was 16 mgd. Improvements to this facility have increased capacity at this facility to 21 mgd. Ultimate expansion of this facility is expected to be 41 mgd. The MVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Any proposed changes to capacity of the MVRWRF or any facility maintained by EMWD are reviewed throughout the year. EMWD has a funding and construction mechanism in place that ensures improvements to EMWD facilities occurs in a timely manner. This funding mechanism is referred to as EMWD's Sewer Financial Participation Charge Program. For all new development within the EMWD service area, the Sewer Financial Participation Charge is allocated to assist in the financing of any future collection and disposal facilities and any future sewer treatment plant facilities. Cumulative development would not exceed the capacity of the wastewater treatment system because the MVRWRF would expand as growth occurred. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been incorporated into this analysis.

The proposed project would not require the expansion of existing wastewater infrastructure: only connections to existing infrastructure would be required by the project. By adhering to the wastewater treatment requirements established by the Santa Ana RWQCB through the NPDES permit, wastewater from the project site that is processed through the MVRWRF would meet established standards. As the wastewater from all development within the service area of the MVRWRF would be similarly treated under the NPDES, no cumulatively significant exceedance of wastewater treatment requirements would occur.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.6 Wastewater Treatment Capacity and/or New or Expanded Wastewater Treatment Facilities

Impact: *The project's incremental contribution to impacts on wastewater treatment capacity would not cause or contribute to a significant cumulative effect.*

The project's contribution to environmental effects from the construction of new wastewater treatment facilities or expansion of existing facilities would be less than cumulatively considerable.

Threshold:	Would the proposed WLC project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
	Would the proposed WLC project require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Cumulative Impact Analysis

The cumulative area for wastewater-related issues is the MVRWRF service area. Cumulative population increases and development within the area serviced by the MVRWRF would increase the overall regional demand for wastewater treatment service. The previous treatment capacity at the MVRWRF was 16 mgd. Improvements to this facility have increased capacity at this facility to 21 mgd. Ultimate expansion of this facility is expected to be 41 mgd. The MVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Any proposed changes to capacity of the MVRWRF or any facility maintained by EMWD are reviewed throughout the year. EMWD has a funding and construction mechanism in place that ensures improvements to EMWD facilities occurs in a timely manner. This funding mechanism is referred to as EMWD's Sewer Financial Participation Charge Program. For all new development within the EMWD service area, the Sewer Financial Participation Charge is allocated to assist in the financing of any future collection and disposal facilities and any future sewer treatment plant facilities. Cumulative development would not exceed the capacity of the wastewater treatment system because the MVRWRF would expand as growth occurred.

The proposed project would not cause or contribute to a cumulatively significant impact on wastewater infrastructure because the proposed project would not combine with the demands of other projects in the cumulative scenario to require the expansion of existing infrastructure. The project would require only connections to existing infrastructure. Potential significant environmental impacts associated with such construction include air quality, traffic, biological resources, cultural resources, noise, hydrology, water quality, and other impacts as identified and analyzed in Chapters 4.0 and 6.0 of this FEIR. None of those sections identified construction or operation of the project's new or expanded wastewater infrastructure as resulting in significant impacts apart from those already analyzed in this FEIR. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been considered in this analysis.

By adhering to the wastewater treatment requirements established by the Santa Ana RWQCB through the NPDES permit, wastewater from the project site that is processed through the MVRWRF would meet established standards. As the wastewater from all development within the service area of the MVRWRF would be similarly treated under the NPDES, no cumulatively significant exceedance of Santa Ana RWQCB wastewater treatment requirements would occur. As such, cumulative impacts to wastewater treatment facilities would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.7 Solid Waste Services

6.16.3.8 Solid Waste Facilities

Impact: *The project's incremental contribution to landfill impacts would not cause or contribute to a significant cumulative effec.*

Threshold:	Would the proposed WLC project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Cumulative Impact Analysis

The cumulative impact geographic area for solid waste services is the City of Moreno Valley. Solid waste disposal and recycling services for the proposed project site would be provided by Waste Management of the Inland Empire.[3] Waste Management of the Inland Empire separates and markets recyclable materials collected within its service area. The project, in combination with other cumulative projects, would increase the amount of solid waste being transferred to landfills within the City. The volume of solid waste generated by the proposed WLC project per day represents 2.6 percent of the current permitted throughput and 4.5 percent of the current surplus capacity at the Badlands Sanitary Landfill. As adequate daily surplus capacity exists at the receiving landfill, development of the proposed project would not significantly affect current operations or the expected lifetime of the landfill serving the project area. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been considered in this analysis.

AB 939 mandates the reduction of solid waste disposal in landfills. While the Badlands Sanitary Landfill has an estimated closure date of 2024, as previously identified, the City's waste hauler will also use other County landfills in the area (e.g., Lamb Canyon Landfill and El Sobrante Landfill). The estimated closure date of the Lamb Canyon Landfill is 2023 and the estimated closure date of the El Sobrante Landfill is 2030. With planned expansion activities of landfills in the project vicinity and projected growth rates contained in the City's General Plan EIR, sufficient landfill capacity would exist to accommodate future disposal needs through City buildout in 2030. Buildout of the City General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Therefore, although the project and cumulative projects would result in an increase in the amount of solid waste sent to landfills, compliance with state and local waste diversion requirements would contribute to the longevity of existing and proposed landfills that would serve the projects and ensure that cumulative impacts would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.16.3.9 Solid Waste Reduction

Impact: *The project's incremental contribution to cumulative solid waste regulation impacts would not cause or contribute to a significant cumulative impact.*

Threshold:	Would the proposed WLC project fail to comply with applicable federal, state, and local statutes and regulations related to solid waste?

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[3] Trash service in the City of Moreno Valley is mandatory and Waste Management of Inland Valley is the only solid waste service provider.

Cumulative Impact Analysis

The project, in combination with other cumulative projects, would increase the amount of solid waste being transferred to landfills within the City. Federal, State and local governments have enacted a variety of laws and established programs to deal with the transport, use, storage, and disposal of hazardous materials to reduce the risks to public health and the environment. AB 939 and SB 1016 mandates the reduction of solid waste disposal in landfills. While the Badlands Sanitary Landfill has an estimated closure date of 2024, as previously identified, the City's waste hauler will also use other County landfills in the area (e.g., Lamb Canyon Landfill and El Sobrante Landfill). Additionally, the proposed project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards. CEQA documents for other projects in the cumulative scenario have been reviewed and the findings have been considered in this analysis. The estimated closure date of the Lamb Canyon Landfill is 2023 and the estimated closure date of the El Sobrante Landfill is 2030. With planned expansion activities of landfills in the project vicinity and projected growth rates contained in the City's General Plan EIR, sufficient landfill capacity would exist to accommodate future disposal needs through City buildout in 2030. Buildout of the City General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Therefore, although the project and cumulative projects would result in an increase in the amount of solid waste sent to landfills, compliance with state and local waste diversion requirements would contribute to the longevity of existing and proposed landfills that would serve the projects and ensure that cumulative impacts would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significance Level After Mitigation: Less than significant cumulative impact.

6.17 Energy

Cumulative effects to energy are described in this section. A summary of the project's incremental contribution to potential cumulative impacts to energy issues is provided in Section 4.17.1. The geographic and temporal scopes of the cumulative analysis are described in Section 4.17.2. The potential cumulative impacts and the project's contribution to cumulative impacts to each of the energy issues are discussed in Section 6.17.3. In addition, a brief summary of the impact significance of the project's contribution to cumulative impacts for each issue is also provided in Section 4.17.3 as well as applicable mitigation measures and significance determination after mitigation.

The land use assumptions for the identified cumulative projects were taken from either the project-specific information contained in the associated cumulative project CEQA documents, the City of Moreno Valley General Plan, and/or the SCAG Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. Where project-specific information was available for the cumulative projects, it was incorporated into the cumulative impact analysis. Where project-specific information was not available, the underlying General Plan or SCAG RTP/SCS land use designations were used. Where project-specific and planned cumulative project land uses were inconsistent, the more intense land use was utilized. Within Moreno Valley, the cumulative analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the City will fully build out by 2040, the cumulative impact analysis assumes a more intense level of cumulative development than is likely to occur and is therefore conservative in the sense that it would over-state cumulative impacts.

The cumulative projects identified in Table 6.17-1 and their respective CEQA documents have been reviewed and evaluated in conjunction with the project to determine if they could contribute to a cumulatively considerable impact to energy. These potentially cumulative impacts are documented in the following section.

6.17.1 Project Impact Findings

Appendix G of the State CEQA Guidelines does not provide specific thresholds for the evaluation of impacts related to energy resources. Appendix F of the CEQA Guidelines was prepared in response to the requirement in Public Resources Code Section 21100(b)(3), which states that and EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy."

- A project would result in significant impacts with regard to energy use and consumption if it would cause wasteful, inefficient, and unnecessary consumption of energy. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:
  1) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed (Appendix F Section II C-1).

  2) The effects of the project on local and regional energy supplies and on requirements for additional capacity (Appendix F Section II C-2).

3) The effects of the project on peak and base period demands for electricity and other forms of energy (Appendix F Section II C-3).

4) The effects of the project on energy resources (Appendix F Section II C-5).

5) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives (Appendix F Section II C-6).

- A project would result in significant impacts with regard to energy use and consumption if it would require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.
- A project would result in significant impacts with regard to energy use and consumption if it would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. In accordance with Appendix F, the following criteria will be considered in determining whether this threshold of significance is met:

  1) The degree to which the project complies with existing energy standards (Appendix F Section II C-4).

The following project-level conclusions are presented in Section 4.17, regarding whether the project would:

- Result in energy use and consumption that would cause wasteful, inefficient, and unnecessary consumption of energy; **Less than Significant**.
- Require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects; **Less than Significant.**
- Comply with existing energy standards: **Less than Significant**

6.17.2 Geographic and Temporal Scope

The geographic area for evaluating potential cumulative energy impacts is the Moreno Valley Electric Utility (MVU) service area for electricity, and the State for natural gas and transportation fuel use, shown on Figure 6.17 and in the cumulative discussion below. Cumulative impacts to energy could result from the project in conjunction with other past, present and future projects located within the applicable service area for each energy sector. The MVU service area covers over half of the City of Moreno Valley and follows the southern, eastern, and portions of the northern city boundary and is generally south of Alessandro Boulevard and easterly of Nason Street. The MVU service boundary is the appropriate cumulative project area boundary for electricity as the project is located within the MVU service area. Cumulative projects within the identified MVU area will be evaluated with the project to determine if any cumulative electricity impact would occur. The projects located within the cumulative electricity impact area are listed in Table 6.17. The project would contribute to cumulative impacts to energy starting when the project begins to demand energy resources and would last for the duration of the project. Very few of the cumulative project CEQA documents identified in Table 6.17 quantify the energy use associated with the specific project. As such, Table 6.17 only includes the energy use for the projects that were quantified in the respective CEQA document.

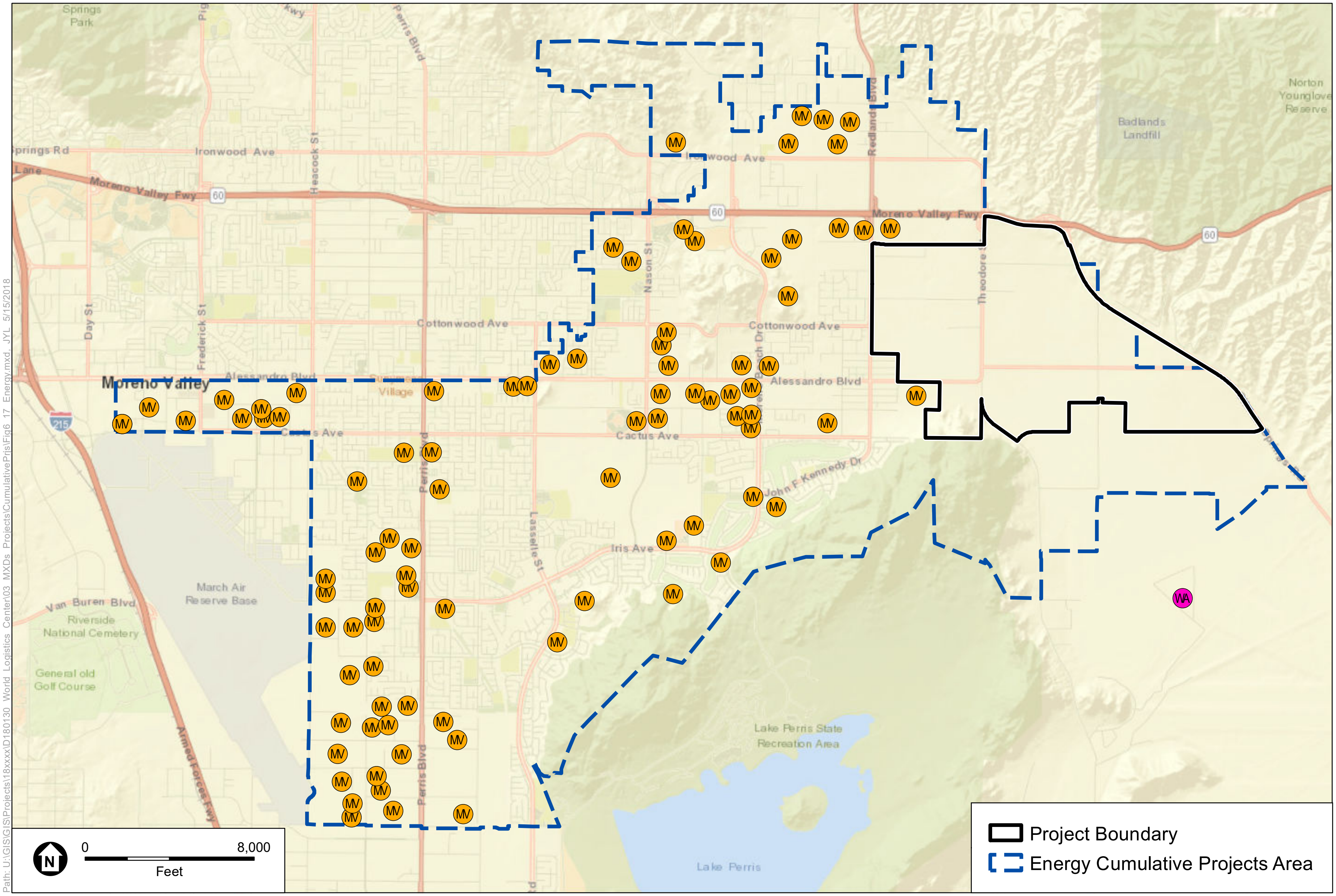

SOURCE: ESRI; ESA; Highland Fairview 3/29/2018

World Logistics Center

Figure 6.17-1

Energy Cumulative Projects Area

ESA

Table 6.17 – Energy Cumulative Projects Summary

Project ID	Project Name	Document Type	Energy Considered	Quantified	Demand (MWh)
MV-3	ProLogis	EIR	No	No	—
MV-4	Westridge Commerce Center	EIR	No	No	—
MV-7	TR33962 / Pacific Scene Homes	ND	No	No	—
MV-8	TR32460 / Sussex Capital	ND	No	No	—
MV-9	TR32459 / Sussex Capital	ND	No	No	—
MV-10	TR30998 / Pacific Communities	ND	No	No	—
MV-11	TR30411 / Pacific Communities	ND	No	No	—
MV-14	TR32548 / Gabel, Cook & Associates	ND	No	No	—
MV-15	TR32218 / Whitney	ND	No	No	—
MV-16	TR32284 / 26thCorporation & Granite Capitol	ND	No	No	—
MV-17	TR31590 / Winchester Associates	ND	No	No	—
MV-18	Convenience Store / Fueling Station	ND	No	No	—
MV-19	Senior Assisted Living	ND	No	No	—
MV-20	Moreno Marketplace	ND	No	No	—
MV-21	PEN16-0053 Medical Center	MND	No	No	—
MV-22	TR36882 (PA15-0010) SFR	MND	No	No	—
MV-24	TM 36436 (PA12-0005)	MND	No	No	—
MV-25	TR32142	ND	No	No	—
MV-27	TR32917 / Empire land	ND	No	No	—
MV-28	TR34329 / Granite Capitol	ND	No	No	—
MV-29	TR36340	ND	No	No	—
MV-30	PA03-0168 TR 31517	ND	No	No	—
MV-32	TTM 31592 (P13-078) SFR	ND	No	No	—
MV-33	TR32645 / Winchester Associates	ND	No	No	—

Project ID	Project Name	Document Type	Energy Considered	Quantified	Demand (MWh)
MV-34	TR34397 / Winchester Associates	ND	No	No	—
MV-35	TR31771 / Sanchez	ND	No	No	—
MV-36	TM 31618 (PA03-0106)	EIR	No	No	—
MV-37	Vogel /PA09-004	EIR	No	No	—
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	EIR	No	No	—
MV-41	First Nandina Logistics Center	EIR	Yes	Yes	4,528
MV-42	Indian Street Commerce Center	EIR	Yes	No	—
MV-43	Ivan Devries / PA06-0017	ND	No	No	—
MV-44	Modular Logistics Center (Kearny RE Co)	EIR	Yes	Yes	3,575
MV-45	Iris Plaza	IS	No	No	—
MV-47	PA07-0129 TR 35606 SFR	Exempt	No	No	—
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	EIR	Yes	No	—
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park, (Industrial Area SP)	MND	No	No	—
MV-50	San Michele Industrial Center, (Industrial Area SP)	ND	No	No	—
MV-51	Nandina Distribution Center IDS	MND	No	No	—
MV-52	First Industrial III & IV, (Industrial Area SP)	MND	No	No	—
MV-53	I-215 Logistics Center (Amazon)	MND	No	No	—
MV-54	Moreno Valley Logistics Center (Prologis)	EIR	Yes	Yes	15,536
MV-55	MV Commerce Park II (Alere) - Built before 2012		No	No	—
MV-56	Tract Map 33810	Exempt	No	No	—
MV-57	Tract Map 34151	ND	No	No	—

Project ID	Project Name	Document Type	Energy Considered	Quantified	Demand (MWh)
MV-58	Tract Map 33024	ND	No	No	—
MV-59	Tract Map 31442	ND	No	No	—
MV-60	Tract Map 36401	MND	No	No	—
MV-61	Walmart & Gas Station	EIR	No	No	—
MV-63	PA14-0053 (TTM 36760) Legacy Park	MND	No	No	—
MV-65	TR33607 / TL Group	ND	No	No	—
MV-66	TR34988 / Stratus Properties	ND	No	No	—
MV-67	TR32515	ND	No	No	—
MV-68	PA07-0035	ND	No	No	—
MV-69	PA07-0039, (Industrial Area SP)	ND	No	No	—
MV-74	TR34216 / Creative Design Associates		No	No	—
MV-75	Aqua Bella Specific Plan	EIR	No	No	—
MV-78	Overton Moore Properties PA08-0072	MND	No	No	—
MV-79	Shaw Development	MND	No	No	—
MV-80	PA15-0032 MV Cactus Center	MND	No	No	—
MV-81	Ridge Property Trust, PA07-0147 & PA 07-0157	ND	No	No	—
MV-84	PA16-0075 Brodiaea Business Center	ND	No	No	—
MV-85	Retail Center / Winco Foods, PA08-0079/0080/0081	ND	No	No	—
MV-86	TR32505 / DR Horton	ND	No	No	—
MV-88	TR33771 / Creative Design Associates	Exempt	No	No	—
MV-89	TR35663 / Kha	Exempt	No	No	—
MV-91	TR31305 / Richmond American	ND	No	No	—
MV-92	TR 33256	ND	No	No	—
MV-93	PA14-0042 Edgemont Apartments	EIR	No	No	—
MV-94	PA15-0002 Box Springs Apartments	MND	No	No	—

Project ID	Project Name	Document Type	Energy Considered	Quantified	Demand (MWh)
MV-95	Moreno Beach Marketplace / Lowes	MND	No	No	—
MV-96	31394 Pigeon Pass, Ltd.	ND	No	No	—
MV-97	32005 Red Hill Village, LLC	ND	No	No	—
MV-98	33388 SCH Development, LLC	ND	No	No	—
MV-100	Scottish Village	ND	No	No	—
MV-103	Gateway Business Park	MND	No	No	—
MV-106	35304 Jimmy Lee	ND	No	No	—
MV-110	TM 33417	ND	No	No	—
MV-111	35769 Michael Chen	Exempt	No	No	—
MV-112	PA09-0006 Jim Nydam	Exempt	No	No	—
MV-113	Ironwood Residential	MND	No	No	—
MV-114	Stoneridge Town Centre - Vacant Restaurant	ND	No	No	—
MV-116	31621 Peter Sanchez	ND	No	No	—
MV-117	Riverside County Office Building	ND	No	No	—
MV-118	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	ND	No	No	—
MV-119	32126 Salvador Torres	ND	No	No	—
SJWA-1	San Jacinto Wildlife Land Management Plan	EIR	Yes	No	—

6.17.3 Cumulative Impact Evaluation

6.17.3.1 Energy Consumption, Supply, Standards and Facilities

Impact: *The Project would not result in environmental impacts related to energy consumption, supply, energy standards and expansion of facilities.*

Threshold: Would the project result in energy use and consumption that would cause wasteful, inefficient, and unnecessary consumption of energy?

Would the project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Would the project comply with Existing Energy Standards?

Cumulative Impact Analysis

Electricity

The geographic context for the cumulative analysis of electricity is MVU's service area. Growth within this geography is anticipated to increase the demand for electricity and the need for infrastructure, such as new or expanded facilities.

Buildout of the Project, the cumulative projects, and additional growth forecasted to occur in the City would increase electricity consumption during Project construction and operation, and may cumulatively increase the need for electricity supplies. MVU forecasts that its peak demand in 2024, the latest available forecast from the IRP, would be approximately 352,044 MWh/year. The Project's estimated net new electrical consumption would account for between 47 to 73 percent of MVU's projected electricity sales in 2025 depending on the EV scenario. As stated in Section 4.17, *Energy*, since the 2015 IRP only forecasts out to 2024, projecting electricity use and supply for the full buildout 2040 Scenarios would also be highly speculative. The utility has a considerable amount of time to procure energy resources in anticipation of the Project's development, and has committed to taking the WLCSP needs into consideration in future IRP development.

As the utility provider for the Project and cumulative projects, MVU has determined that the increased electricity demand would be minor compared to existing supply and infrastructure within its service area and would be consistent with growth expectations for its service area. MVU's 2015 IRP predicts an increase in electricity demand over a 10-year period that is planned to be met by increasing solar, wind, and geothermal power, and supplementing with natural gas as needed. MVU's IRP specifically mentions World Logistics Center and states that, "a portion of the anticipated demand [of the Project] is incorporated in MVU's load forecast. MVU will monitor development progress at the World Logistics Center and other local projects to determine potential impacts to customer energy requirements".[1] MVU forecasts projected growth in the region and with its 2015 IRP already has plans in place that account for future development including the Project and cumulative projects. Many of the identified cumulative project CEQA documents, including MV 2 and MV 3, evaluated the cumulative energy impacts, and that analysis has been incorporated into this assessment.

Furthermore, like the Project, other future development projects would be expected to incorporate energy conservation features, comply, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Although the phrase "rolling blackouts" is a household phrase and heat waves in 2017 registered record-setting elevated temperatures, the electrical grid largely holds strong. As discussed above and based on evidence from MVU, the Project would not have a cumulatively considerable impact on existing energy resources either individually or incrementally when considering the anticipated growth in the service area. Accordingly, the impacts related to electricity consumption would not be cumulatively considerable, and thus would be less than significant.

Natural Gas

The geographic context for the cumulative analysis of natural gas is the State. Growth within this geography is not anticipated to increase the demand for natural gas and the need for infrastructure, such as new or expanded facilities.

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[1] Moreno Valley Utility, Integrated Resource Plan (2015).

Though electricity usage is predicted to rise, natural gas demand is expected to decline overall from 2016-2035 accounting for population and economic growth as well as efficiency improvements and the State's transition away from fossil fuel-generated electricity to increased renewable energy. SoCalGas predicts a decline in every sector (residential, industrial, commercial, electricity generation, and vehicular), with the exception of wholesale and international gas sales to Mexico. The 2016 California Gas Report states, "SoCalGas projects total gas demand to decline at an annual rate of 0.6% from 2016 to 2035. The decline in throughput demand is due to modest economic growth, CPUC-mandated energy efficiency (EE) standards and programs, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI)."[2] Buildout of the Project and cumulative projects in the Statewide service area is not expected to increase natural gas consumption and the need for natural gas supplies from building energy.

Natural gas consumption from the Project was compared to Statewide natural gas fuel consumption since natural gas as a fuel can be procured from anywhere and is not limited to the service provider's resources. Natural gas consumption would primarily be from operation of on-site equipment and the planned CNG/LNG fueling station which will be publicly accessible. The combined annual natural gas use would represent 0.003 percent of the State's total natural gas use.

Although future development projects would result in use of nonrenewable natural gas resources which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with regional and local growth expectations for SoCalGas's service area and would not strain Statewide natural gas resources. Further, like the Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards in Title 24, and incorporate mitigation measures, as necessary. While initially the Project and cumulative projects could result in increased natural gas demand compared to existing uses on each specific project site, the overall demand for natural gas over time is expected to decline due to increases in regional natural gas efficiencies and the transition to renewable energy on a statewide basis displacing fossil fuels including natural gas. Therefore, the Project would not have a cumulatively considerable impact related to natural gas consumption, and impacts would be less than significant.

Transportation Energy

Buildout of the Project and cumulative projects in the region would be expected to increase overall VMT; however, the effect on transportation fuel demand would be minimized by future improvements to vehicle fuel economy pursuant to federal and state regulations. By 2025, vehicles are required to achieve 54.5 mpg (based on USEPA measurements), which is a 54 percent increase from the 2012-2016 standard of 35.5 mpg. As discussed in detail in Section 4.07, *Greenhous Gas Emissions*, the Project would be consistent with the 2016 RTP/SCS for the region. Cumulative projects would need to demonstrate consistency with the goals in the 2016 RTP/SCS and incorporate project design features or mitigation measures as required under CEQA, which would also ensure cumulative projects contribute to transportation energy efficiency. Furthermore, according to the USEIA's International

Many of the identified cumulative project CEQA documents, including MV 2 and MV 3, evaluated the cumulative energy impacts, and that analysis has been incorporated into this assessment.

Energy Outlook 2016, the global supply of crude oil, other liquid hydrocarbons, and biofuels is expected to be adequate to meet the world's demand for liquid fuels through 2040.[3] CARB's analyses and the

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[2] California Gas and Electric Utilities, *2016 California Gas Report.* https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf. Accessed May 2018.

[3] EIA, International Energy Outlook 2016, https://www.eia.gov/outlooks/ieo/pdf/0484(2016).pdf , Accessed April 2018.

State's 2017 Climate Change Scoping Plan show a 45 percent decrease in fossil fuel demand by 2030.[4] The State's Mobile Source Strategy aims to displace fossil fuel reliant vehicles with 1.5 million zero emission vehicles (ZEVs) by 2025 and 4.2 million ZEVs by 2030.[5] Considering the State's goals of displacing transportation fuels, overall fossil fuel use will decrease and the current refining capacity would be sufficient to support the demand of the Project and cumulative projects. Furthermore, the Project's annual gas and diesel consumption from construction and operation would represent approximately 0.04 percent of Statewide diesel sales and 0.0004 percent of Statewide gasoline sales in both 2025 and 2040.[67] Therefore, as the Project would incorporate land use characteristics consistent with state goals for reducing VMT and would represent a small fraction of State transportation sales, the Project would not have a cumulatively considerable impact related to transportation energy, and impacts would be less than significant.

Conclusion

The cumulative condition related to the wasteful, inefficient, and unnecessary consumption of energy during construction or operation does not reflect a significant adverse cumulative impact. As detailed above, the project's incremental contribution to the cumulative condition would not cause or contribute to a significant impact. Accordingly, the Project would not result in cumulative environmental impacts related to energy consumption, supply, energy standards and expansion of facilities, and the cumulative energy impacts would be less than significant.

Significance Level Before Mitigation: Less than significant impact.

Mitigation Measures: No mitigation measures required.

Significant Level After Mitigation: Less than significant impact.

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[4] CARB, *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*, November, 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf; Accessed May 2018.

[5] CARB, *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*, November, 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf; Accessed May 2018.

[6] United States Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2015. Available at: http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA. Accessed May 2018.

[7] United States Energy Information Administration, Table F7: Distillate Fuel Oil Consumption Estimates, 2015. Available at: http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_df.html&sid=CA. Accessed May 2018.

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FIGURE

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NOTE TO READERS. *This section has been revised based on changes to the WLC Specific Plan and in response to comments on the Programmatic DEIR, mainly taking out the CDFW Conservation Buffer Area in the No Project/General Plan Alternative.*[1]

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

6.1 INTRODUCTION

An EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment. In compliance with *CEQA Guidelines* Section 15126.6(a), this Draft EIR must also describe "a range of reasonable alternatives to the project, or to the location of the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives to the project, or to the location of the project, which would avoid or substantially lessen significant effects of the project, even if "these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA *Guidelines Section* 15126.6(b)). The discussion of project alternatives must "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." An EIR must evaluate a "No Project" alternative in order to allow decision-makers to compare the effect of approving the project to the effect of not approving the project.

The City of Moreno Valley (City), acting as the CEQA Lead Agency, is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. The range of alternatives addressed in an EIR is governed by a "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. Of the alternatives considered, the EIR need examine in detail only those the Lead Agency determines could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Per *CEQA Guidelines* Section 15364, "feasible" has been defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

6.1.1 Summary of the Proposed Project

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

The proposed World Logistics Center (WLC) project is generally located in the eastern portion of the City in northwestern Riverside County. The project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. Previously referenced Figure 1.1 in the *Executive Summary* depicts the location of the proposed project within the region and the City. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, Alessandro Boulevard, and Gilman Springs Road.

The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of

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[1] *Comment G-95-83 in Letter G-95 from Thomas Thornsley.*

the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The land owned by the California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game [CDFG]) immediately south of the WLC Specific Plan property is utilized for dry farming agriculture and forms the northern end of the San Jacinto Wildlife Area (SJWA). The SJWA contains a wide diversity of birds and other wildlife in and around Mystic Lake. The project proposes an amendment to the General Plan to designate this area as Open Space from its current residential and industrial land use designations.

6.1.2 Project Objectives

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

The primary purposes of the proposed project are to 1) establish the 2,610–acre WLC Specific Plan land use designations and development standards that will direct the development of a world-class corporate park specifically designed to support the logistics warehouse and operational needs of large companies and corporate users; and 2) designate 1,084 acres of vacant land owned by the CDFW as Open Space in the City's General Plan to ensure the continued and intended purpose of the SJWA. The WLC Specific Plan outlines the following overall objectives for development proposed in the Specific Plan:

- Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.
- Create a major logistics center with good regional and freeway access.
- Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.
- Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly to accommodate the next-generation of logistics buildings.
- Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.

- Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.
- Encourage new development consistent with regional and municipal service capabilities.
- Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities during the project's buildout phase.
- Provide appropriate transitions between on-site and off-site uses.

6.1.3 Summary of Proposed Project Significant Impacts

NOTE: The following changes have been made to the project-related significant impacts due to the revised agricultural and air quality reports (refer to Sections 4.2 and 4.3 in this EIR).

The analysis provided in Section 4.0 determined that, despite the implementation of mitigation measures, significant environmental impacts would result from the construction and operation of the proposed project. To satisfactorily provide the CEQA-mandated alternatives analysis, the alternatives considered must reduce any of the following project-related significant unavoidable impact(s):

- Aesthetics: Loss of views, scenic highways, and visual character;
- Air Quality: Short-term emissions of VOC, NO_X, CO, and PM_{10} in excess of SCAQMD daily limits during construction and localized PM_{10} concentrations;
- Air Quality: Long-term emissions of CO, VOC, $NO_{X,}$ PM_{10}, and $PM_{2.5}$ resulting from increased vehicular trips and operation of the proposed on-site uses and localized PM_{10} concentrations;
- Air Quality: Inconsistent with AQMP due to change in land uses from existing General Plan;
- Air Quality: Short-term emissions from VOC, NOx, CO, and PM_{10} cumulatively exacerbating the nonattainment of air quality standards within the Basin.
- Air Quality: Long-term emissions of ozone, PM_{10} and $PM_{2.5}$ cumulatively exacerbating the nonattainment of air quality standards within the Basin.
- Land Use: Impacts to onsite residences from adjacent warehouse development;
- Noise: On-site and off-site levels of project-related traffic noise; and
- Transportation: Project contributions to cumulatively considerable impacts to various extra-territorial facilities, various TUMF facilities, and State-controlled transportation facilities.

6.2 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD FOR DETAILED ANALYSIS

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

In determining an appropriate range of alternatives to be evaluated in the EIR, three possible alternatives were considered and rejected because they could not accomplish the basic objectives of the project as listed above or they were considered infeasible. Per the *CEQA Guidelines* (Section 15126.6(c)), factors that may be considered when addressing the feasibility of alternatives include failure to meet most of the stated project objectives, infeasibility, or inability to avoid significant environmental effects. The purpose of the proposed project is to establish the 2,610-acre WLC Specific Plan that will result in the development of 40.6 million square feet of high-cube logistics warehouse uses and designation of 1,085 acres of vacant land owned by CDFW as Open Space. The proposed project would provide for and expand employment and revenue opportunities within the City.

The following development scenarios were considered and rejected as potential alternatives to implementation of the proposed project:

- All Residential Use Alternatives; and
- Mixed Use Alternatives that emphasize residential uses.

Based on Section 15126.6 of the *CEQA Guidelines*, these alternatives were rejected based on the criteria of not feasibly attaining most of the basic objectives of the project while reducing or avoiding any of the significant effects of the proposed project. The reason or reasons for not selecting each of the rejected alternatives are discussed below.

6.2.1 All Residential Uses[1]

A number of residential uses, including very low density (2-acre or 5-acre lots) were considered prior to deciding on all warehousing uses, but it was concluded that any residential alternatives, or alternatives that emphasized residential uses, would further exacerbate the City's jobs/housing imbalance and did not meet any of the project goals. In addition, the City's Economic Strategy Plan excludes additional residential development in this area. For these reasons, all Residential Use Alternatives were rejected for further analysis. However, an evaluation of the largely residential Moreno Highlands Specific Plan (MHSP) was provided under the No Project/Existing General Plan alternative (see below).

6.2.2 Mixed Use Alternatives

The EIR examines two Mixed Use Alternatives with varying amounts of residential and non-residential uses. The No Project-Existing General Plan Alternative is based on the approved mixed use MHSP. In addition, Alternative 3 (Mixed Use B) evaluates the impacts of substituting logistics warehouse uses for the non-residential uses currently included in the MHSP. After extensive evaluation, it was concluded that any reasonable combination of residential and non-residential uses (i.e., light industrial, business park, office, commercial) would result in impacts similar to those of the MHSP, Alternative 2 (mixed non-residential uses but no residential uses), or Alternative 3 (Moreno Highlands Specific Plan with logistics warehousing as the main non-residential use). For this reason, no other Mixed Use Alternatives were considered further in this analysis.

6.3 ALTERNATIVES ANALYSIS

NOTE: Changes were made to the project alternatives as a result of the reduction in the proposed project site by 100-acres which resulted in reductions of land uses for certain alternatives as indicated below and shown in Tables 6.A and 6.B, as well as subtraction of 910 acres from the Moreno Highlands Specific Plan due to the purchase of land by the State for conservation purposes.

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[1] Ones that are exclusively residential or ones that emphasize residential uses.

6.3.1 Summary of Alternatives

The following alternatives have been identified and evaluated to provide decision-makers with a reasonable range of alternatives that would eliminate or reduce the impacts of the project. Factors considered in selecting the alternatives include site suitability, availability of infrastructure, other plans or regulatory limitations, economic viability, and whether the project proponent can reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote or speculative. In accordance with *CEQA Guidelines*, the alternatives considered in this EIR include those that 1) could accomplish most of the basic objectives of the project, 2) are reasonably feasible given the nature of the project and surrounding land uses, and 3) could avoid or substantially lessen one or more of the significant effects of the project. It should also be noted that alternatives proposed in the DEIR are theoretical and may never be developed even if approved. The following development scenarios have been identified as potential alternatives to implementation of the proposed project:

- No Project/No Build Alternative;
- No Project/Existing General Plan (modified Moreno Highlands Specific Plan);
- Alternative 1: Reduced Density (28 MSF or 30 percent less logistics warehousing);
- Alternative 2: Mixed Use A – Warehousing/Business Park/Office/Commercial;
- Alternative 3: Mixed Use B – MHSP with logistics warehousing; and
- Alternative Sites: Moving the project to some other available site.

Tables 6.A and 6.B summarize the alternatives. Table 6.C shows the current land use designations.

Table 6.A: Summary of Analyzed Alternatives

Project Alternative	Alternative Description
No Project/No Build (“baseline” conditions)	*The following changes have been made due to revision to the Specific Plan project size.* The proposed WLC Specific Plan would not be developed with 2,610 acres proposed for high-cube logistics warehouse. No development would occur and the majority of the site would remain in dry farming, with a small amount in rural residential uses.
No Project/Existing General Plan (modified Moreno Highlands Specific Plan)	The following changes have been made in response to comments on the DEIR. This alternative would result in development of the project with the land uses currently shown in the City’s General Plan which currently designates the project area as a mix of residential, commercial, business park, and open space land uses. The 3,038-acre Moreno Highlands Specific Plan (MHSP) is a master planned, mixed-use community that originally consisted of 7,763 residential units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. During review of the DEIR, a comment was made that the MHSP could not be built as originally approved because since that time the State had purchased 1000 acres as a buffer for the San Jacinto Wildlife Area. Therefore, the portion of the MHSP that could be built today would consist of up to 4,051 residential dwelling units on approximately 709.3 acres and approximately 603 acres of business, retail, institutional, and other uses. In addition, the 1,085 acres owned by the CDFW are currently designated as Residential, Public Facilities, and Open Space in the City’s General Plan and would be designated as permanent Open Space under this alternative, similar to the proposed project.
Alternative 1 Reduced Density	*The following changes have been made due to revision to the Specific Plan project size.* This alternative would develop approximately 28 million square feet of logistics warehousing (approximately 30% less than under the proposed project) on the 2,610 acres of land under the Specific Plan, including 74.3 acres for open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City’s General Plan, similar to the proposed project.

Table 6.A: Summary of Analyzed Alternatives

Project Alternative	Alternative Description
Alternative 2 Mixed Use A	This alternative would result in development of the entire property with a mix of 1,400 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and 70 acres of open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.
Alternative 3 Mixed Use B	This alternative would develop the project site similar to the land use plan of the MHSP but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.
Alternative Sites	This alternative would relocate development under the proposed project to another site of 2,610 acres in the surrounding region. This analysis included potential sites in nearby cities and several unincorporated sites in the general project area.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size.

Table 6.B: Alternatives to the World Logistics Center Specific Plan

Alternative	Logistics Warehousing	Light Industrial	Retail Commercial	Office	Other
Proposed Project	2,610 acres 40.6 MSF (100%) 0.28 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	74.3 acres Open Space
No Project/No Build (baseline)	0 acres 0 SF (0%)	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	2,610 acres Agriculture
No Project/Plan Modified Moreno Highlands Specific Plan[1]	0 acres 0 SF (0%)	361 acres (BP)	106.5 acres 1.1 MSF (various) 0.23 FAR	0 acres 0 SF	709.3 acres Residential 4,051 units 861 acres Open Space and Public Facilities
Alternative 1 Reduced Density	2,610 acres 28 MSF (70%) 0.25 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	74.3 acres Open Space
Alternative 2 Mixed Use A	1,400 acres 22 MSF (54%) 0.36 FAR	1,000 acres 20 MSF 0.46 FAR	50 acres 0.5 MSF 0.23 FAR	100 acres 1.0 MSF 0.23 FAR	70 acres Open Space
Alternative 3 Mixed Use B[2]	603 acres 10 MSF (25%) 0.38 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	1,146 acres Residential 6,532 units 861 acres Open Space and Public Facilities
Alternative Sites	2,610 acres 40.6 MSF (100%) 0.28 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF

FAR = Floor Area Ratio (gross) M = million SF = square feet MHSP = Moreno Highlands Specific Plan BP = business park

[1] See Table 6.C below ("Other" includes public facilities, cemetery, open space, etc.).

[2] Assumes residential land uses similar to MHSP but with logistics warehousing on land designated for non-residential uses ("Planned Business Center") under the Specific Plan.

NOTE: the following table was revised in response to Comment G-95-83 in Letter G-95 from Thomas Thornsley.

Table 6.C: Moreno Highlands Specific Plan (Land Use Designations) modified table

Land Use	Original Acreage[1]	Modified Acreage[2]
Residential Community		
Residential (dwelling units)	1,359.3 (7,763)	709.3 (4,051)
Parks and Open Space	701.9	352.0
Neighborhood Commercial	10.0	10.0
Cemetery	16.5	16.5
Public Facilities	347.7	347.7
Subtotal Residential	**2,435.5**	**1,435.5**
Planned Business Center		
Business Park	360.8	360.8
Mixed Use	80.5	80.5
Community Commercial	16.0	16.0
Parks and Open Space	77.9	168.7
State Conservation Land (SJWA)	0.0	910.0
Public Facilities	67.4	67.4
Subtotal Non-Residential	**602.6**	**1,602.6**
Project Total	**3,038.0**	**3,038.0**

1 MHSP adopted by City Council March 17, 1992.
2 Based on removal of 910 acres purchased by the State as a buffer for the San Jacinto Wildlife Area.

6.3.2 Environmental Impacts That Are Similar to the Proposed Project

Eight of the seventeen environmental issues for all the alternatives considered would result in a similar level of impact when compared to the project. Rather than repeat a discussion of these non-significant impacts under each alternative, a summary of these impacts is presented below.

- Agricultural Resources
- Biological Resources
- Hydrology and Water Quality
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral and Forestry Resources
- Public Services/Recreation

The level of impact associated with these topics would be similar if developed as proposed by the project or if developed with any of the alternatives. Where impacts related to any of these issues do differ among project alternatives, an appropriate discussion is provided for the respective alternative.

6.3.2.1 Agricultural and Forestry Resources

Development of any of the alternatives, with the exception of the Off-Site Alternative, would have similar agricultural-related impacts. The Moreno Valley General Plan policies and zoning designations support agriculture only as an interim use. No land in the City is designated solely for agricultural use or for agricultural preservation and no property within the City limits is located within a Williamson Act contract area. As such, no impacts related to Williamson Act land would occur with implementation of any of the alternatives. As identified in Sections 4.2.6.1 and 4.2.6.2 of the EIR, the development of the project site with urban uses would result in the conversion of State- and locally-designated Farmland (Unique Farmland and Farmland of Local Importance, respectively). With implementation of the revised mitigation, including acquisition of an offsite conservation easement for the loss of unique farmland, impacts to agricultural resources would be reduced to less than significant levels. Therefore, compared with the proposed project, all on-site alternatives would have less than significant impacts on agricultural resources.

There are no lands within the City of Moreno Valley designated as forest or forestland, according to the Fire and Resource Assessment Program mapping system maintained by the California Department of Forestry and Fire Protection. Therefore no impacts related to forestry resources would occur and no mitigation is required.

6.3.2.2 Biological Resources

All build alternatives would require site development resulting in the grading of the entire project site. According to the project biological report, the project area does not contain any wildlife movement corridors or linkages. The project biological report concluded that development of the project as proposed would not have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. Therefore, all on-site build alternatives would also similarly have a less than significant impact on wildlife movement and corridors.

Burrowing owl, a species of concern, was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013. Based on available research and expected site conditions, the project and all on-site alternatives may create potentially significant impacts on wildlife, including listed species, from diesel particulate emissions and toxic air contaminants related to truck exhaust (although somewhat reduced by prevailing winds), increased roadkill on Gilman Springs Road and new roadkill on future local streets close to the SJWA, and increased indirect impacts from additional lighting and noise. No federal or state endangered/species were detected on the project site during the focused biological resource surveys. However, it is likely that one or more endangered or threatened species or bird or other wildlife may be present on the SJWA property near the project site at various times of the year. With implementation of the recommended Mitigation Measures 4.4.6.1A through 4.4.6.1C, impacts to listed species will be reduced to less than significant levels for all on-site alternatives.

The project site is within the Stephen’s Kangaroo Rat Habitat Conservation Plan (SKR HCP) Fee Area, but is not within a Stephen’s Kangaroo Rat Core Area. Focused surveys for SKR are not required for this project as it lies within the SKR Fee Area; therefore, under the SKR HCP, only payment of a local mitigation fee is required.

The project area is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project area would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H. No development is proposed within the portion of the project area that lies within Cell Group D and the SJWA. This area is already owned by the State and managed by the CFDW. However, development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA, which will require mitigation (i.e., designing an appropriate buffer along this “urban edge” will help minimize potential impacts on the SJWA). The project is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). Development occurring on the project site is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the

MSHCP. The project site is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project site is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA); however, surveys performed for the site confirmed such plants do not exist on the project site. From available information, potential indirect impacts to avian and other biological resources within Mystic Lake and the SJWA will be reduced to less than significant levels by the creation of a 250-foot on-site setback or buffer area in Mitigation Measure 4.4.6.1A, which will be in addition to the existing setback provided by the CDFW Conservation Buffer Area just south of the proposed development area.

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project and all on-site alternatives prior to the issuance of building permits. Participation in the MSHCP and contribution of MSHCP fees provides compensation for the loss of raptor foraging habitat due to approved projects. Typically, a project proponent would participate as outlined in the MSHCP, so that loss of raptor foraging habitat is typically considered to be less than significant and no mitigation is required.

The project is consistent with the major MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the project complies with the MSHCP guidelines for urban/interface, riparian/riverine areas, or related buffers (with implementation of Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2A, and 4.4.6.2B). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects, which shall be implemented through adherence to Mitigation Measures 4.4.6.3A through 4.4.6.3C and 4.4.6.4A through 4.4.6.4J.

With implementation of Mitigation Measures 4.4.6.1A and 4.4.6.1B, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A through 4.4.6.3C, and 4.4.6.4A through 4.4.6.4J, potential impacts related to MSHCP consistency will be reduced to less than significant levels for all on-site alternatives.

A formal jurisdictional delineation (JD) was conducted within the WLCSP and offsite facilities by MBA in September 2007 and again in March 2012. A total of 15 primary drainage features were identified during these combined surveys. The 2013 JD report concludes that two drainage features (Drainage 12 and 15) have been determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the CWA. Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. A number of sub-drainages or tributaries were also identified. Implementation of Mitigation Measures 4.4.6.3A through 4.4.6.3C will ensure there will be no significant impacts to Waters of the U.S. or Waters of the State as a result of future development within the project.

One catch basin and portions of Drainage Feature 7 and 9 on the project site are considered riparian/areas, as defined by the MSHCP. If impacts to any of these areas cannot be avoided, a DBESP report and relevant mitigation will be required by the RCA for the project and all on-site alternatives. The project area does not contain habitat suitable for sensitive riparian species, such as least Bell’s vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Additionally, no vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site. The project area currently contains extensive raptor foraging habitat, which is considered a type of sensitive natural community. Impacts to the large amount of raptor foraging habitat is a significant impact that requires mitigation.

The project may have a potentially significant indirect impact on Mystic Lake from diesel fuel emissions and nitrogen deposition. However, it is anticipated that indirect impacts from diesel fuel emissions and nitrogen deposition would be reduced under all other alternatives as each would result in a reduction in the number of diesel trucks and resultant diesel emissions.

With implementation of Mitigation Measures 4.4.6.1A and 4.4.6.1B, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A through 4.4.6.3C, and 4.4.6.4A through 4.4.6.4J, potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, will be reduced to less than significant levels for all on-site alternatives.

No USFWS designated Critical Habitat for any species is located within the project area; therefore, no further action with regard to Critical Habitat is necessary. Extensive surveys were completed in 2005 2010, 2012, and 2013 and concluded that Los Angeles pocket mouse was not present. However, to ensure that no impacts occur, Mitigation Measure 4.4.6.4E has been recommended.

For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. Burrowing owl, a species of concern, was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013. Because suitable habitat is present within the project area for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. This is a potentially significant impact requiring mitigation. Implementation of Mitigation Measures 4.4.6.4A through 4.4.6.4E would reduce impacts to burrowing owl and migratory bird species, and Los Angeles pocket mouse to less than significant levels for all on-site alternatives.

The only substantial differences among the built alternatives and the No Project/Existing General Plan (Moreno Highlands Specific Plan) is that any residential uses proximate to the San Jacinto Wildlife Area may incrementally increase adverse impacts by introducing domestic dogs and cats into the area that might prey on native wildlife.

6.3.2.3 Cultural Resources

Development of any of the identified build alternatives would result in extensive ground-disturbing activities affecting the entire project site, and similar cultural resource impacts would be anticipated when compared to the proposed project. There is no evidence to suggest that the project site has ever been utilized for human burials. In the unlikely event that human remains are discovered during grading or construction activities within the project site, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would be required. Compliance with existing State law would ensure that impacts related to the discovery of buried human remains would be less than significant and no mitigation is required. The *Cultural Resources Assessment* prepared for the proposed project concluded that it is possible that unknown cultural resources could be discovered during project-related construction. Adherence to Mitigation Measures 4.5.6.1A through 4.5.6.1E will reduce potential impacts to archaeological resources to less than significant levels for all on-site alternatives.

Mitigation Measure 4.5.6.1A requires surveying the seven occupied residential parcels for archaeological resources since these properties could not be surveyed at the time the EIR was prepared. These surveys will identify the potential for significant historical resources on these properties. In addition, Mitigation Measure 4.5.6.2A will further reduce the potential impacts of the project on historical resources for all on-site alternatives.

As described in the *Paleontological Resources Assessment*, no paleontological resources were observed during the field survey. However, the project site is considered to have a moderate paleontological sensitivity; therefore, impacts are considered potentially significant and mitigation is required. Adherence to Mitigation Measures 4.5.6.3A and 4.5.6.3B will reduce potential impacts to paleontological resources to less than significant levels for all on-site alternatives.

6.3.2.4 Geology and Soils

Development of any of the on-site build alternatives would have similar geologic and soil-related impacts. Although no active faulting was observed, some local discontinuous fracturing was observed and documented. The A-P Earthquake Fault Zone is located on the eastern border of the project site (refer to Figure 4.6.1 of the EIR). Adherence to Mitigation Measures 4.6.6.1A through 4.6.6.1C, as well as other requirements identified and required by the City, will ensure fault rupture hazards are reduced to a less than significant level for all on-site alternatives.

The level of potential ground motion is considered moderate to high in the City of Moreno Valley and, therefore, in the project area. In accordance with the City's General Plan Safety Element (Objective 6.1),[1] project development, as well as alternatives, will require geological and geotechnical investigations by State-licensed professionals. The geotechnical investigations will provide design considerations and earthwork recommendations to ensure that ground shaking impacts are appropriately mitigated. In addition, California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, contains building design and construction requirements relating to fire and life safety, and structural safety. The California Building Code (CBC) also includes standards designed to ensure that structures within California are built to withstand expected levels of seismic activity for each earthquake region throughout the State. Adherence to Mitigation Measure 4.6.6.2A, as well as other requirements identified and required by the City, will ensure ground shaking hazards are reduced to a less than significant level for all on-site alternatives.

On-site soils are identified as having a moderate to low shrink-swell potential. Implementation of Mitigation Measures 4.6.6.3A through 4.6.6.3D, and adherence to actions identified in subsequent geotechnical investigations, as well as other requirements identified and required by the City, will ensure that the potential impact from expansive soils are reduced to a less than significant level for all on-site alternatives.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

A large older landslide has been mapped primarily off site on the northeasterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes off site and moved northeast, partially onto the subject property. The Specific Plan designates 74.3 acres in the southwestern portion of the property as open space. This 74.3 acres includes the steepest slopes on site (i.e., the Mount Russell foothills), which will reduce the potential for significant landslide or rockfall impacts on the project to less than significant levels; therefore, no mitigation is needed. Because this condition exists, it is anticipated that all other on-site alternatives would also restrict development within this area resulting in a less than significant impact, similar to the proposed project.

Development of the site would require the movement of on-site soils. Portions of the site have been and are being used for dry farming, and several rural residences are present. Prior to the issuance of grading permits, the project proponent will be required to prepare and submit detailed grading plans as each phase is developed. These plans will be prepared in conformance with applicable standards of the City's Grading Ordinance. Soils covering the project site have a slight-to-high erosion hazard potential and because the project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts

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[1] Moreno Valley General Plan, Chapter 9 Goals and Objectives, pg. 9-30.

associated with soil erosion hazards are considered to be less than significant for all on-site alternatives, and no mitigation is required.

Septic tanks would not be used under any of the on-site alternatives as existing sewer infrastructure is readily available to serve any on-site development.

None of the on-site alternatives propose any activity known to cause damage by subsidence (e.g., oil, gas, or groundwater extraction). The project site is underlain by relatively dense alluvial and dense sedimentary bedrock materials at depth and the potential for settlement is considered low. Because the project site does not exhibit characteristics of a high potential for subsidence or settlement, impacts are considered less than significant. No mitigation is required.

The potential for liquefaction generally occurs during strong ground shaking within relatively cohesionless loose sediments where the groundwater is typically less than 50 feet below the surface. Because the project site does not exhibit characteristics of a high potential for liquefaction induced settlement (i.e., relatively dense soils with groundwater levels in excess of 100 feet), impacts are considered less than significant for all on-site alternatives. No mitigation is required.

6.3.2.5 Hazards/Hazardous Materials

Development of the any of the on-site build alternatives would result in the on-site handling of hazardous substances, both during project construction and operation. It is assumed that, like any current use, these substances would continue to be used in accordance with applicable local, State, and Federal standards. There are no existing or proposed schools within a quarter mile of the proposed project site and the site is not identified on the DTSC's hazardous materials sites. Air traffic-related hazards would not occur at the proposed project site as it is not located within the safety hazard zones of March Air Reserve Base.

A portion of the project area is mapped as a very high fire hazard area, while the Badlands directly east of the project area are considered a High Fire Hazard Area.[1] Development of the eastern portion of the project could expose persons or property to wildland fire risks given the designation of a portion of the project area as a Very High Fire Hazard Area. Regardless of these designations, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period for all on-site alternatives. Given the proximity of Station #58 and with all new structures constructed in compliance with Fire and Building Code regulations, the susceptibility and exposure of the project to wildland fires would be limited. The WLCSP addresses potential impacts related to future fire protection services for this area by including a new fire station site. In addition, buildings will be setback from the western side of Gilman Springs Road due to the location of the San Jacinto Fault through this area, which will further reduce the potential for project fire risks. Implementation of these measures will help reduce potential wildland fire risks to a less than significant level, and no additional mitigation is required.

All on-site alternatives will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation will be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/any required road closures. Compliance with existing regulations for emergency access and

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[1] Letters from Fire Chief dated May 4 and June 27, 2011, and City of Moreno Valley General Plan, Final Program EIR, Section 5.5 Hazards, Figure 5.5-2.

evacuation will ensure that impacts related to this issue are less than significant, and no mitigation is required.

Due to the suspected age of the rural residential structures on the site, it is possible that demolition of these structures may involve asbestos-containing materials (ACMs) and/or lead-based paint (LBP). Demolition of these structures may need to be supervised or conducted by contractors certified to remove and dispose of ACMs and/or LBP.

In addition, Alternatives 1, 2, and 3 include a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station to be constructed somewhere in the Logistics Development (LD) land use area. This LNG/CNG facility is referred to as “logistics support” in the WLC Specific Plan. It would sell natural gas to fuel vehicles serving or visiting the project. This facility is not proposed under the No Project/No Build Alternative or the No Project/Existing General Plan Alternative. Since this facility would store natural gas under liquefied and/or compressed conditions, there is a potential for fire and/or explosion, creating a potentially significant hazards impact requiring mitigation.

With implementation of Mitigation Measures 4.8.6.1A and 4.8.6.1B, impacts associated with potential hazardous materials in existing rural residential structures (all on-site alternatives) or from the proposed fueling facility will be reduced to less than significant levels for Alternatives 1, 2, and 3.

6.3.2.6 Hydrology and Water Quality

As with the proposed project, the development of any of the on-site alternatives would require the modification of the existing on-site pattern of drainage and would require the installation of drainage improvements that may include on-site collection/routing pipes, landscaped swales, sand filters, and porous pavement features.[1] While the extent of the impermeable surfaces (rooftops, driveways, parking areas, etc.) required under each alternative is reduced from that required for the proposed project, the environmental impact of these improvements would be similar. All local, State, and Federal policies and regulations pertaining to surface water and groundwater resources would remain in effect under these alternatives. Sedimentation and erosion from any on-site development has the potential to affect water quality. Similar to the proposed project, the construction of any on-site use would be required to follow applicable NPDES requirements, including the preparation of and adherence to an SWPPP and BMPs.[2] These requirements have been incorporated as Mitigation Measures 4.9.6.1A through 4.9.6.1C (refer to Section 4.9.6.1 of the EIR) and Mitigation Measures 4.9.6.2A through 4.9.6.2C (refer to Section 4.9.6.2 of the EIR). As with the proposed project, runoff from paved surfaces, especially during “first-flush” events, may be contaminated by sediment, debris, and other contaminants. A standard condition with any such development would be preparation and implementation of a Water Quality Management Plan, which would effectively mitigate post-construction water quality impacts from the developed area. This requirement has been incorporated as Mitigation Measure 4.9.6.2A (refer to Section 4.9.6.2 of the EIR). The project site is not identified as a groundwater recharge area, so none of the on-site alternatives would interfere with groundwater recharge. Anticipated on-site flows would be routed to the onsite and off-site water quality features such as vegetated swales, clarifiers, and sand filters to protect downstream water quality.

New development is required to maintain off-site flows to below or equal to pre-development conditions, and this is incorporated as Mitigation Measure 4.9.6.1A (refer to Section 4.9.6.1). The project site is not located within a flood zone and the project site is not susceptible to mudslides, tsunamis, seiches, or flooding as a result of dam or levee failure. Similar to the proposed project,

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[1] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Import,* CH2MHILL, September 2014.

[2] *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan,* CH2MHILL, September 2014.

potential impacts related to hydrology and water quality would be less than significant for all on-site alternatives.

6.3.2.7 Land Use and Planning

Like the proposed project, these alternatives would comply with applicable provisions of local and regional plans (e.g., Water Quality Control Plan and Air Quality Management Plan). However, the proposed project was not included as part of the 2007 AQMP and is considered to not be consistent with the AQMP. This is a significant and unavoidable impact. Compliance with applicable City policies related to development within the project site would ensure that on-site alternative uses would be compatible with existing development in the project area. Land uses associated with less intense alternatives may have less impact on existing on-site land uses compared to the proposed project, depending on the types of uses proposed.

6.3.2.8 Mineral Resources

There are no lands within the City of Moreno Valley designated by the California Department of Conservation as known significant resource areas, defined by the state as Mineral Resources Zone 2 areas. As identified in the City's General Plan, lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4 zones, which are not defined as significant mineral resource areas. Development of the project site with any build alternatives would not result in the loss of or reduce the availability of mineral resources or the resource base from which they would be derived. Compared with the proposed project, no greater impact would occur for any of the on-site project build alternatives.

6.3.2.9 Public Services/Recreation

As with the proposed project, none of the build alternatives would include a residential component (with the exception of the No Project/Existing General Plan Alternative) and potential jobs generated by the build alternatives would be filled to some degree by people already residing in the City, similar to the proposed project. Therefore, there would be no increase in existing population and no increase in demand for park and recreation facilities resulting from development of Alternatives 1 or 2. Alternative 3 would have increased population from new housing under the MHSP land use plan; it would also have parks to serve those new residents. Because no increase in demand for City recreational facilities would occur, impacts associated with recreation for any of the build alternatives would be similar in magnitude as the proposed project. Compared with the proposed project, no greater impact would occur for any of the project build alternatives.

6.3.3 Description and Impact Analysis of Alternatives

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Sections 4.1 through 4.16 of this EIR. A conclusion is provided as to whether each alternative would result in one of the following:

- Reduction or elimination of the impact;
- A greater impact than the project;
- The same impact as the project; or
- A new impact in addition to the impacts of the proposed project impacts.

6.3.4 No Project/No Build Alternative

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Under the No Build Alternative, no development would take place within the project limits. No ground-disturbing activities would take place, nor would any form of structure or facility be erected. Impacts associated with this alternative, when compared to the proposed project, would not occur. In the absence of development, no impacts would occur and this alternative would be the environmentally superior alternative. However, prohibiting development of the site, as suggested by this alternative, would not fulfill any of the primary objectives of the proposed project. Retention of the project site in its current condition would not create a high cube logistics facility consisting of approximately 2,610 acres of high-cube warehouse uses and it would not expand employment opportunities within the City and surrounding area. This alternative provides a baseline comparison to the proposed project.

Impact Analysis. The No Project/No Build Alternative would not result in any new physical environmental effects. However, this alternative would not meet any of the project objectives as identified in Table 6.D.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR, therefore, they are being corrected at this time.

Table 6.D: Comparison of No Project/No Build Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	No
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	No
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	No
Provide thousands of construction job opportunities during the project's buildout phase.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	No

6.3.5 No Project/Existing General Plan Alternative

This section has been revised in response to Comment G-95-83 in Letter G-95 from Thomas Thornsley. The CDFW Conservation Buffer Area (approximately 1,000 acres) has been removed from this alternative analysis. The 1,000 acre CDFW Conservation Buffer Area is approximately 33 percent of the existing General Plan. Therefore, this analysis was revised by reducing impacts estimated in the original DEIR by approximately 33 percent.

Pursuant to CEQA (§15126.6[e][2]), the No Project Alternative should discuss what would reasonably be expected to occur, based on current plans and consistent with available infrastructure and community services, in the foreseeable future. It is reasonable in the event the proposed project were not approved, the site would be developed in accordance with the existing General Plan land uses in the future.

The No Project/Existing General Plan Alternative would result in development of the project with the land uses currently shown in the City's General Plan. The City's General Plan currently designates the project area as a mix of residential, commercial, business park, and open space land uses in accordance with the MHSP. The approved 2,038-acre MHSP (without the CFDW Conservation Buffer Area) is a master planned, mixed-use community, consisting of up to 4,051 residential dwelling units on approximately 1,435 acres and approximately 603 acres of business, retail, institutional, and other uses. The 1,085 acres owned by the CDFW are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan however, as it is owned by the CDFW, this area would not be developed and the property will not remain with these designations as part of this alternative.

The following impact analysis for this alternative evaluates the same seventeen environmental topics addressed for the proposed project as contained in Sections 4.1 through 4.16 of this EIR.

Impact Analysis. Eight environmental issues would have impacts similar to those identified for the proposed project. These include the following:

- Agricultural and Forestry Resources
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Recreation

Impacts associated with these topics would be similar to the proposed project because development of the site under the No Project/Existing General Plan Alternative would result in a similar footprint of development. For this reason, impacts to these land-oriented impact topics would be similar resulting in the same level of impact. The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately.

Aesthetics: The No Project/Existing General Plan Alternative would introduce a variety of residential and non-residential buildings on the site that would be much lower in height than the proposed WLC project in conformance with City Development Code standards. As a result, views of surrounding uplands from adjacent roadways (e.g., Redlands Boulevard, SR-60, and Gilman Springs Road) would not be blocked and aesthetic impacts would likely be less than significant, subject to architectural and design review of actual proposed buildings in the future. Development under this alternative would reduce potential aesthetic impacts to less than significant levels.

Air Quality: The No Project/Existing General Plan Alternative would require site grading and construction similar to that required of the proposed project. As identified in Section 4.3 of this EIR, short-term construction emission impacts associated with construction activities on the project site were significant and unavoidable for all criteria pollutants with the exception of SO_X. Since the No Project/General Plan Alternative would require that the same amount of land be graded, it would require similar grading and construction activities on site. Therefore, it is reasonable to anticipate that short-term construction emission impacts would also be significant and unavoidable for all criteria pollutants, with the exception of SO_X, under this alternative. Air quality impacts associated with the remaining criteria pollutants would significant and unavoidable with this alternative, similar to what was identified for the proposed project.

Under the No Project/Existing General Plan Alternative, the site would be developed with approximately 361 acres of business park uses, 106.5 acres of professional/medical office uses, and up to 4,051 residential units on 709.3 acres. Based on these land uses, the No Project/Existing General Plan Alternative would generate approximately 119,667 daily vehicle trips. The total trip generation associated with this alternative is approximately 72 percent higher than that identified for the proposed project.

Similar to the proposed project, the traffic increase under this alternative contributes to significant and unavoidable emissions of CO, VOC, NO_x, PM_{10}, and $PM_{2.5}$ based on SCAQMD daily air quality significance thresholds. Therefore, this alternative would also have significant and unavoidable impacts on local air quality. The long-term air quality impacts resulting from this alternative would still contribute criteria pollutants to an air basin that is in nonattainment for these criteria pollutants, similar to the proposed project. As identified in Table 6.E, long-term operational air pollutant emissions associated with the No Project/Existing General Plan Alternative would exceed SCAQMD emissions thresholds for all criteria pollutants, with the exception of SO_X.

When compared with the proposed project, emissions of NOx and PM_{10} associated with the No Project/Existing General Plan Alternative would decrease and emissions of CO and VOC would increase. $PM_{2.5}$ emissions are similar for both the project and the No Project. Similar to the proposed project, the generation of these emissions would still result in a cumulative contribution of air pollutants in a nonattainment basin; therefore, impacts remain significant and unavoidable.

Note: The air pollutant and greenhouse gas emissions for this alternative were revised, as the dwelling units assumed in the DEIR (7,283 units), was changed to 4,051 units. In addition, the home-work trip length was increased from 10 miles to 27 miles (see the 2015 Air Quality, Greenhouse Gas, and Health Risk Assessment Report).

Table 6.E: No Project/Existing General Plan Alternative Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project (mitigated; without existing)	1,396	593	1,097	NA	1,121	304
No Project/Existing General Plan	3,494	765	712	14	973	300
Net Change (no project minus proposed)	+2,098	+172	-385	NA	-148	-4
SCAQMD thresholds	**550**	**55**	**55**	**150**	**150**	**55**
Alternative exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, 2015

Global Climate Change: GHG emissions associated with the No Project/Existing General Plan Alternative are correspondingly decreased as this alternative does not include a logistics warehouse component. As identified in Table 6.F, the No Project/Existing General Plan Alternative would generate metric tons of 2,601 uncapped CO_2 equivalent[1] (mt CO_2e), which is approximately 58 percent less than what was identified for the proposed project.

Table 6.F: Comparison of Greenhouse Gas Emissions

Type of Development	AB 32 Capped Annual Mitigated $MTCO_2e$ Emissions	Uncapped Annual Mitigated $MTCO_2e$ Emissions	Change from Uncapped Project Emissions
Proposed Project	372,073	6,210	0%
No Project/No Build[1]	59	0	-100%
No Project/General Plan[2]	264,089	2,601	-58%
Alternative 1: Reduced Density	260,451	4,347	-30%
Alternative 2: Mixed Use A	574,763	6,856	+10%
Alternative 3: Mixed Use B	222,235	2,925	-53%
Alternative Sites	372,073	6,210	0%

$MTCO_2e$ is metric tons of carbon dioxide equivalents, which is a standard unit of measure for greenhouse gases.
[1] Estimated based on existing tractor uses.
[2] Based on approved Moreno Highland Specific Plan.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015 (see Appendix D); construction emissions excluded.

Hazards and Hazardous Materials: Development of the No Project/Existing General Plan Alternative would still result in the on-site handling of hazardous substances, both during project construction and operation. It is reasonable to assume that, like any current use, these substances would continue to be used in accordance with applicable local, State, and Federal standards. Impacts associated with the transport or use of hazardous materials or potential upsets or accidents would not be increased in magnitude because the intensity of development is still below what is envisioned under the proposed project. Therefore, it is not expected that increased quantities of hazardous materials would be present on site. With the adherence to existing hazardous materials regulations, impacts associated with hazards and hazardous materials under the No Project/Existing General Plan Alternative would remain less than significant.

Under this alternative, a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station would not be constructed on the site, so there would be no potential for fire and/or explosion involving natural gas. Therefore, this impact is reduced from that identified under the proposed project.

Noise: The No Project/Existing General Plan Alternative would result in the construction of a mix of residential, commercial, business park, and open space land uses in accordance with the MHSP. As identified in Section 4.12 of this EIR, short-term construction noise impacts associated with the development of the project site were significant and unavoidable for both on-site and off-site uses. Since the No Project/Existing General Plan Alternative would require similar site development during construction, short-term construction noise impacts would also be significant and unavoidable and similar in magnitude compared to the proposed project. The increase in project-related traffic under the No Project/Existing General Plan Alternative would result in an increase in traffic-related noise. When compared to the proposed project, noise impacts associated with the No Project/Existing General Plan Alternative would be increased in magnitude as there would be a reduction in vehicles.

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[1] Carbon dioxide equivalent (CO_2e) is an internationally accepted measure that expresses the amount of other greenhouse gases (e.g., methane and nitrous oxide) in terms of the amount of carbon dioxide (CO_2). The CO_2e measure is used as a way to measure the warming potential of a greenhouse gas as compared to CO_2.

However, impacts would remain significant and unavoidable as some noise would still be generated under this alternative and there is no feasible mitigation to reduce noise impacts.

Population and Housing: The No Project/Existing General Plan Alternative would result in the development of up to 4,051 residential dwelling units on 709.3 acres and approximately 603 acres of business, retail, institutional, and other uses. Based on the California Department of Finance Population and Housing Estimates,[1] the City of Moreno Valley is estimated to have approximately 3.783 persons per household. Based on this figure, the construction of up to 4,051 residential dwelling units is projected to increase the City's population by approximately 15,325 persons resulting in a direct population increase in the City. This level of population growth is not accounted for with the proposed project and potential impacts related to population growth are greater than that identified for the proposed project. Construction of the development envisioned under this alternative would create temporary construction jobs, and some portion of these jobs would be likely filled by people already residing within the City. Utilizing an employment factor of one employee for every 629 square feet of commercial retail/service space,[2] the No Project/Existing General Plan Alternative is anticipated to generate approximately 1,749 commercial service jobs.[3] Utilizing an employment factor of one employee for every 1,548 square feet of business park (light industrial) space,[4] the No Project/Existing General Plan Alternative is anticipated to generate approximately 5,103 business park jobs.[5] Under this alternative, additional jobs would be generated by the introduction of commercial retail/service uses (addition of 1,749 jobs) and business park uses (addition of 5,103). When this alternative is compared to the proposed project, the number of new jobs in the City would be a 72 percent decrease from the proposed project (6,852 jobs opposed to approximately 24,000 jobs).

The No Project/Existing General Plan Alternative would result in a decreased number of jobs created from the development of commercial retail/service and business park uses in comparison to the proposed project. However, a large influx of new residents to the City is anticipated due to the construction of up to 4,051 residential dwelling units envisioned by this alternative. The project would not directly affect population growth as compared with new residential development, because it is not creating homes. While the proposed project would generate employment opportunities, the jobs created are not expected to induce substantial growth in the City or region over and above the growth anticipated by the City's General Plan and the SCAG's regional growth forecasts. Population and housing impacts under this alternative would be greater in magnitude when compared to the proposed project. Therefore, impacts associated with this issue would be greater.

Public Services: Unlike the proposed project, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude as residential uses (impacts to schools and parks) are proposed under this alternative. Like the proposed project, development under this alternative would require payment of development impact fees for schools, police services, and fire services. The payment of development impact fees would be expected to offset impacts to these public services that would result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees and increased property tax revenues.

Unlike the proposed project, the No Project/Existing General Plan Alternative proposes the construction of residential uses. Therefore, implementation of this alternative would result in an

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[1] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark.* Sacramento, California, May 2012.

[2] *Table IIB Average Number Employee per Square Foot, Employment Density Report*, Southern California Association of Governments, Natelson Company, Inc, October 2001.

[3] Utilizing 1 employee/629 square feet of service use × 1,100,000 square feet of commercial retail/service use = 1,749 jobs.

[4] *Table IIB Average Number Employee per Square Foot, Employment Density Report*, Southern California Association of Governments, Natelson Company, Inc, October 2001.

[5] 1 employee/1,548 square feet of business park (light industrial) use × 7,900,000 square feet of service use = 5,103 jobs.

increase in existing population and a corresponding increase in demand for park and recreation facilities resulting from development. Because a potential increase in demand for recreational facilities would occur, impacts associated with recreation for this alternative would be greater in magnitude as compared to the proposed project, but would still be expected to be less than significant with the provision of parkland and open space as part of the alternative project, increased property tax revenues, and payment of park fees as applicable.

Traffic: As indicated in Table 6.G, the No Project/Existing General Plan Alternative would generate approximately 119,668 daily vehicle trips. Compared to the proposed project, the No Project/Existing General Plan Alternative, which assumes development of existing General Plan uses, would result in an increase of 72 percent of daily traffic trips. The increase in traffic may cause an existing intersection or roadway segment to operate at a deficient LOS. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. However, despite the identification of mitigation measures, certain freeway segments and interchange improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, when compared to the proposed project, traffic impacts would be greater due to the additional trip generation. However, the resulting impact significance would be similar and would remain significant and unavoidable until the improvements are in place.

Table 6.G: Comparison of Average Daily Trips

Type of Development	Average Daily Trips	Change
Proposed Project[1]	69,542	
No Project/No Build	314	-99.6%
No Project/Existing General Plan[2]	119,668	+72%
Alternative 1: Reduced Density	48,321	-28%
Alternative 2: Mixed Use A	208,988	+201%
Alternative 3: Mixed Use B	78,985	+14%
Alternative Sites	69,542	0%

[1] Based on WLC project traffic study by Parsons Brinckerhoff dated September 2014.
[2] Based on modified Moreno Highland Specific Plan (see Table 6.C).
Source: Parsons Brinckerhoff estimates based on project traffic study, September 2014 (see Appendix D).

Utilities and Service Systems: Existing utility infrastructure for storm water and wastewater is present in adjacent roadways or parcels. Like the proposed project, the applicant would connect to existing utility infrastructure subject to the terms and conditions of the City, EMWD, and RCFCWCD. As indicated in Table 6.H, the No Project/Existing General Plan Alternative would generate approximately 1,569,083 gallons of wastewater per day, which is almost nine times the amount of wastewater that would be generated by the proposed project. Similar to the proposed project, development under this alternative would be required to pay infrastructure fees and obtain approval from the wastewater treatment provider that would ensure there is excess capacity for the wastewater that would be generated by the proposed development. Therefore, impacts related to wastewater and wastewater treatment would remain less than significant when compared to the proposed project.

Table 6.H: Comparison of Average Wastewater Generation

Type of Development	Gallons per day
Proposed Project	286,459
No Project/No Build	2,156
No Project/Existing General Plan (MHSP)	1,569,083
Alternative 1: Reduced Density	198,376

Table 6.H: Comparison of Average Wastewater Generation

Type of Development	Gallons per day
Alternative 2: Mixed Use A	1,830,000
Alternative 3: Mixed Use B	1,681,656
Alternative Sites	286,459

Source: EIR Section 16 and Sewage Generation Rates, Draft CEQA Thresholds Guide, 2006.

The development of the existing General Plan land uses associated with this alternative would also require the installation of water supply infrastructure to serve the project site. As indicated in Table 6.I, the No Project/Existing General Plan Alternative would require approximately 4,888,456 gallons of water per day, which is almost three times what would be required by the proposed project. When compared to the proposed project, water usage demands would be substantially increased in magnitude.

Table 6.I: Comparison of Average Water Use

Type of Development	Gallons per day
Proposed Project	1,761,260
No Project/No Build	5,569
No Project/Existing General Plan (MHSP)	4,888,456
Alternative 1: Reduced Density	1,202,011
Alternative 2: Mixed Use A	3,420,000
Alternative 3: Mixed Use B	5,196,801
Alternative Sites	1,761,260

Source: DEIR Section 16 and *Water System Planning and Design Principle Guidelines Criteria,* Eastern Municipal Water District, February 2006.

Like the proposed project, the No Project/Existing General Plan Alternative would also generate solid waste. As identified in Table 6.J, this alternative would generate 17,494 tons of solid waste per year, which is 47 percent less than what the proposed project would generate. Therefore, demands on solid waste services and landfill capacity would be decreased in magnitude. Similar to the proposed project, development under the No Project/Existing General Plan Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. When compared to the proposed project, solid waste impacts under this alternative would remain less than significant.

Table 6.J: Comparison of Average Solid Waste Generation

Type of Development	Tons per year
Proposed Project	37,016
No Project/No Build	125
No Project/Existing General Plan	17,494
Alternative 1: Reduced Density	30,786
Alternative 2: Mixed Use A	481,344
Alternative 3: Mixed Use B	116,880
Alternative Sites	37,016

Source of proposed project and alternative sites: Table 10.1 of the CalEEMod manual
Source: DEIR Section 16 and *Estimated Solid Waste Generation Rates,* California Integrated Waste Management Board, http://www.ciwmb.ca.gov/WASTECHAR/WasteGenRates/Commercial.htm, website accessed December 3, 2012.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, air quality operational emissions, short-term and long-term noise impacts, and increased traffic operations on local roadways and at local intersections. Although this alternative would have a greater amount of traffic, the amount of operational emissions would be reduced in magnitude from that identified for the proposed project as this alternative does not include a logistics warehouse component. Because there are no feasible mitigation measures to reduce the cumulative impacts associated with long-term operational air pollutant emissions, noise, and increased traffic, long-term air quality and traffic impacts would remain significant and unavoidable.

Impact Conclusions. Under the No Project/Existing General Plan Alternative, impacts related to short-term construction-related air quality would be similar to the proposed project as the same amount of land would be disturbed and the same mix of equipment would be utilized. Long-term operational-related air quality impacts would be reduced from that identified for the proposed project but would remain significant and unavoidable. Under this alternative, population and housing impacts would be greater in magnitude as residential uses are proposed. Similar to the proposed project, the associated increases in employment are accounted for in the City General Plan and other applicable local and regional plans.

The development of the No Project/Existing General Plan Alternative would have increased demands on public services and recreation facilities due to the residential component and population growth, however, the payment of fees, provision of onsite parkland and open space, higher property tax revenues, and adherence to development requirements would reduce these impacts to a less than significant level. Water supply availability is expected to be available although water demand is increased. Water demand was determined to be available for the proposed project. Because of the increase in vehicle trips achieved under this alternative, impacts to the operation of local roadways and intersections would be proportionally greater that what was identified for the proposed project; therefore, long-term traffic impacts would remain significant and unavoidable. Traffic-related noise would be greater in magnitude and noise impacts would be significant and unavoidable like the proposed project.

Meets Project Objectives. Under this alternative, only some of the proposed project objectives would be met as a variety of uses would be built, as shown in Table 6.K. Development of this alternative would provide new employment opportunities for residents of Moreno Valley but not nearly to the degree as the proposed project.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.K: Comparison of No Project/Existing General Plan Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No

Table 6.K: Comparison of No Project/Existing General Plan Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	Yes
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes
Provide thousands of construction job opportunities during the project's buildout phase.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.6 Alternative 1: Reduced Density

NOTE: The following changes have been made due to revision to the Specific Plan project size.

With the intent of avoiding or substantially reducing significant impacts, and in particular the significant impacts that cannot be reduced to a less than significant level through implementation of mitigation measures created by the project's traffic, air quality, and noise impacts, the City has considered a Reduced Density Alternative. This alternative includes development of the project site with approximately 28 million square feet of logistics warehousing, including 74.3 acres for open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project. Under this alternative, the proposed logistics uses would represent a net decrease of approximately 31 percent (28 million square feet) as compared with the proposed project.

Because of the large area, approximately 2,610 acres, of the proposed project that is proposed for development, public facilities, or off-site improvements, a variety of reduced density alternatives could be considered that might substantially reduce or eliminate one or more of the significant and unavoidable impacts of the proposed project. For example, warehousing development on the site would have to be reduced to approximately one percent of the project site, or 400,000 square feet, of the WLC project's proposed high-cube logistics warehouse building area in order to eliminate significant and unavoidable impacts associated with air quality in order to reduce air pollution emissions to less than applicable SCAQMD thresholds. The only way this could logically occur would be to develop a small portion of the site (i.e., less than one percent) and leave the rest of the site vacant. In addition, even this substantial reduction in the proposed high-cube logistics warehouse building area and/or developable area would not eliminate the proposed project's other significant and unavoidable impacts associated with aesthetics, air quality, noise, and transportation listed above in 6.1.3. Any of the viable alternatives that are examined in this EIR would entail some type of development on all or most of the project site, rather than development of an illogically small portion of the site (i.e., one percent).

Impact Analysis. The following nine environmental issues would have impacts similar to those identified for the proposed project:

- Aesthetics
- Agricultural and Forestry Resources
- Cultural Resources
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources

- Biological Resources
- Geology and Soils
- Recreation

Impacts associated with these topics would be similar to the proposed project because development of the site under Alternative 1 would result in a similar footprint of development but with less square footage for logistics warehouse buildings. For this reason, impacts to these land-oriented impact topics would be similar resulting in the same level of impact.

As identified in Section 4.1 of this EIR, the proposed project would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and cumulatively considerable aesthetic impacts. Implementation of this alternative would result in development of the same high-cube logistics land uses, building heights and mass, but at a level equivalent to 70 percent of the proposed project. For this reason, and in the same exact manner as the proposed project, this alternative would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, individually and on a cumulatively considerable basis.

As identified in Section 4.2 of this revised EIR, the proposed project would not result in significant impacts associated with the loss of unique farmland, the elimination of existing agricultural operations, or cumulatively considerable agricultural resources impacts with implementation of the recommended mitigation, including acquisition of an offsite agricultural conservation easement. Implementation of this alternative would result in development on the same existing agricultural lands, but each development site would be developed at a level equivalent to 70 percent of the proposed project. Therefore, this alternative would not result in significant impacts associated with the loss of unique farmland, the elimination of existing agricultural operations, and on a cumulatively considerable basis.

The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately as follows.

Air Quality: Because the amount of land to be graded with Alternative 1 would be the same to that of the proposed project, the same quantity of construction equipment would be used and a similar quantity of building materials would be used during earthmoving activities. Therefore, construction emissions from the development of Alternative 1 would be similar as the proposed project; perhaps slightly decreased. As identified in Section 4.3 of this EIR, the proposed project would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, and PM_{10} air pollution emissions and localized PM_{10} concentrations. Implementation of this alternative would result in development on the same land areas, but each development site would be developed at a level equivalent to 70 percent of the proposed project. For this reason, and in approximately the same manner as the proposed project, the Reduced Density Alternative would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, and PM_{10} emissions during project construction.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

Under this alternative, average daily traffic volumes would be reduced by approximately 30 percent in comparison with the proposed project. As indicated in Table 6.L, the volume of each operational pollutant emitted during operation of this alternative would be correspondingly reduced. However, operational emissions for CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ would exceed daily SCAQMD thresholds for air pollution emissions as shown in Table 6.L, in the same manner as the proposed project. Although the application of green building design principles may reduce emissions from building operations (such as heating and cooling), such standards and principles would not reduce CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions to below SCAQMD thresholds.

NOTE: The Alternative 1 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.L: Alternative 1 Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	1,396	593	1,097	21	1,121	304
Alternative 1	977	415	768	15	785	213
Net Change (Alternative minus proposed)	-419	-178	-329	-6	-336	-91
SCAQMD thresholds	550	55	55	150	150	55
Alternative 1 exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015.

As shown in Table 6.L, the volume of operational air pollutant emissions would be reduced when compared to the proposed project. As identified in Section 4.3 of this EIR and as stated above, the proposed project would result in air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ operational emissions that cannot be mitigated to below SCAQMD thresholds, resulting in significant and unavoidable impacts. Similarly, the Reduced Density Alternative would result in air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ operational emissions that cannot be mitigated to below SCAQMD thresholds, resulting in significant and unavoidable impacts in approximately the same manner as the proposed project.

Global Climate Change: As identified in Section 4.7 of this EIR, the proposed project would generate approximately 6,200 $MTCO_2e$ per year at buildout from uncapped operational sources after mitigation, resulting in a less than significant impact. As identified in Table 6.F, the Reduced Density Alternative would generate 4,347 $MTCO_2e$ per year of uncapped emissions. GHG emissions resulting from operation of the uses envisioned under the Reduced Density Alternative would be correspondingly reduced in comparison to the proposed project, as this alternative would reduce the number of daily traffic trips and energy consumed by approximately 30 percent. Although the Reduced Density Alternative would generate approximately 30 percent less GHG than the proposed project, impacts associated with cumulative global climate change would remain less than significant in approximately the same manner as the proposed project, since it is assumed that this alternative would incorporate similar mitigation as for the project.

Noise: As identified in Section 4.12 of this EIR, construction-related noise impacts of the proposed project were reduced through mitigation measures. However, construction-related noise impacts within the Specific Plan area and off-site construction area would remain significant and unavoidable, even with implementation of the mitigation measures. Under the Reduced Density Alternative, the same amount of land would be disturbed, the same quantity of construction equipment would be used, and a similar quantity of building materials would be used. Therefore, noise impacts associated with the construction of this alternative would be the same as those identified under the proposed project, but would likely occur over a shorter period of time due to the reduced square footage`. As identified in Section 4.12 of this EIR and as stated above, the proposed project would result in construction-related noise impacts within the Specific Plan area and off-site construction area that cannot be mitigated to below a level of significance. Consequently, impacts would remain significant and unavoidable. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with the Reduced Density Alternative would also remain significant and unavoidable in the same exact manner as the proposed project, as construction noise is not able to be reduced to noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Reduced Density Alternative would also be generated during loading/unloading, truck movements on roadways, and parking lot activities.

As identified in Section 4.12 of this EIR under the proposed project, the increase in future traffic noise along certain local roadway segments would increase beyond the threshold of perception resulting in an impact and the need for mitigation. However, as stated in the EIR, there are no feasible mitigation measures to reduce noise levels to below significant levels. The reduction in project-related traffic under the Reduced Density Alternative (i.e., minus approximately 30%) would result in a similar decrease in long-term traffic noise due to the reduction of traffic trips to the project site. However, under this alternative, the future increases in traffic-related noise would have a similar effect on local roadway segments, resulting in significant impacts in approximately the same manner as the proposed project. Although this alternative's contribution to future traffic noise would be reduced, thereby reducing overall mobile source noise impacts within the area, even with a reduction in overall mobile source noise, roadway noise along certain roadway segments would remain significant and unavoidable in approximately the same manner as the proposed project.

Population and Housing: This alternative would result in the development of approximately 28 million square feet of logistics space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the Reduced Density Alternative is anticipated to generate approximately 16,797 jobs.[2] It is anticipated that most of these jobs would be filled by persons already residing in the area; therefore, no significant population increase would occur with the development of these logistics jobs. When this alternative is compared to the proposed project, the number of new jobs would be approximately 30 percent less than the proposed project. Similar to the proposed project, impacts related to population and housing would remain less than significant as this alternative would continue the existing development trend envisioned by the City. This alternative would not improve the City's jobs/housing ratio to nearly the same degree as the proposed project.

Public Services: Demands on schools, parks, other public facilities, law enforcement, and fire protection services would be incrementally less but in general similar in magnitude as that associated with the proposed project as no residential uses (and corresponding impacts to schools and parks) are proposed under this alternative. Like the proposed project, development under this alternative would require payment of development impact fees for schools, police services, and fire services. The increase in property taxes and payment of development impact fees would offset impacts to public services that may result from the development of the uses envisioned under this alternative. Similar to the proposed project, impacts associated with public services would remain less than significant.

Traffic: As identified in Section 4.15 of this EIR, the proposed project would result in significant impacts to freeways and interchanges in the baseline condition and future year (2022, 2030, and 2035) time horizons. Because improvements to freeways and interchanges are under the authority of Caltrans, it is uncertain if improvements to these roadways would be constructed prior to when project impacts would occur, resulting in a significant and unavoidable significant to freeways and interchanges. As identified in previously referenced Table 6.G, the Reduced Density Alternative would generate approximately 48,321 total vehicle trips, which is approximately 30 percent less than the total trip generation for the proposed project (69,542 total vehicle trips). The reduction in traffic under the Reduced Density Alternative (i.e., minus approximately 30%) would result in a similar decrease in traffic volumes on local roadways. However, under this alternative, the future increases in traffic volumes would have a similar effect on freeways and interchanges, resulting in significant impacts similar to those identified for the proposed project. Since the City does not have control over when freeway improvements would occur, traffic impacts to freeways and interchanges would remain

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[1] Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., September 2014.

[2] 1 employee/1,667 square feet of logistics uses × 28,000,000 square feet of logistics use = - 16,797 logistics jobs.

significant and unavoidable in approximately the same manner as the proposed project, until such improvements can be installed or constructed by Caltrans.

Utilities and Service Systems: Limited storm water and wastewater infrastructure is currently located in adjacent roadways or parcels within the project area. Like the proposed project, development under this alternative would be required to provide necessary infrastructure to support the future development of the site. The resulting development under this alternative would be subject to the terms and conditions of the City and EMWD. Similar to the proposed project, development under the Reduced Density Alternative would also include implementation of master plans for potable water, sewer, recycled water, and drainage for the project study area. Since the development under this alternative would be similar in use and size to the proposed project, it is anticipated that the same type and quantity of utility infrastructure would be required for the area. Therefore, implementation of these master plans under this alternative would have similar impacts to those identified for the proposed project.

The development of the Reduced Density Alternative would require the installation of water supply infrastructure of a size and extent needed to serve the proposed project. As indicated in previously referenced Table 6.I, the amount of water demand associated with the Reduced Density Alternative (1,202,011 gallons per day) would be 32 percent less than that required for the proposed project. Similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Since this alternative would utilize less water than the proposed project and because EMWD has stated that water supply required for the proposed project is available, it is reasonable to conclude that if this alternative was built, adequate water would be available. Therefore, impacts related to water usage and water treatment/conveyance facilities would remain less than significant with mitigation implemented, similar to the proposed project.

As identified in previously referenced Table 6.H, the Reduced Density Alternative would generate approximately 198,376 gallons of wastewater per day, which is approximately 30 percent less than that generated by the proposed project. This alternative’s demands on wastewater treatment and capacity at existing wastewater treatment facilities would be reduced in magnitude. Similar to the proposed project, development under this alternative would be required to pay infrastructure fees and obtain approval from the wastewater treatment provider that would ensure there is excess capacity for the wastewater that would be generated by the proposed development. Therefore, like the proposed project, adherence to existing requirements identified by the City and EMWD would result in impacts remaining at a less than significant level.

Like the proposed project, the Reduced Density Alternative would also generate solid waste. As identified in previously referenced Table 6.J, the Reduced Density Alternative would generate 30,786 pounds of solid waste per day, which is approximately 30 percent less than what the proposed project would generate. The reduction in solid waste generated by the uses under this alternative would have a reduced demand of solid waste services and landfill capacity. Therefore, demands on solid waste services and landfill capacity would be reduced in magnitude. However, similar to the proposed project, development under the Reduced Density Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts would remain less than significant.

Cumulative Impacts: The Reduced Density Alternative would contribute to the permanent conversion of farmland, but the proposed mitigation, including acquisition of an offsite agricultural conservation easement, will reduce impacts to less than significant levels, as also reduce the cumulative impacts associated with the conversion of farmland, cumulative impacts associated with farmland conversion to less than significant levels, similar to the proposed project. Although the amount of operational air pollutant emissions would be reduced in magnitude, because there are no feasible mitigation measures to reduce long-term air pollutant operational emissions, cumulative impacts would remain significant and unavoidable in approximately the same manner as the proposed project.

The Reduced Density Alternative would reduce traffic volumes that would occur in the project vicinity. However, the additional traffic associated with this alternative would contribute to deficient levels of service on freeway segments during the lifetime of the project. Since the City is not in control of when freeway improvements are made, impacts associated with deficient LOS on freeway segments would remain significant and unavoidable in approximately the same manner as the proposed project, until such time that the freeway improvements are installed or constructed by Caltrans. Similarly, noise generated from traffic on roadway segments within the project area may result in certain roadway segments experiencing noise levels beyond the City's noise standard. Implementation of the identified mitigation measures would reduce noise but it would not reduce noise levels to a less than significant level. Therefore, cumulative impacts associated with traffic noise levels would remain significant and unavoidable in approximately the same manner as the proposed project.

As identified in Section 4.1 of this EIR, the proposed project would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and cumulatively considerable aesthetic impacts. Implementation of this alternative would result in development of the same high-cube logistics land uses, building heights and mass, but at a level approximately 70 percent of the proposed project. For this reason, and in the same manner as the proposed project, this alternative would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and on a cumulatively considerable basis.

Impact Conclusions. Under the Reduced Density Alternative, development of the same high-cube logistics land uses, building heights and mass, but at a floor area level approximately 70 percent of the proposed project, would be constructed resulting in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and on a cumulatively considerable basis in the same exact manner as the proposed project. Impacts related to short-term construction-related air quality would be the same as the proposed project, because the same amount of land would be disturbed and the same mix of equipment would be utilized. The Reduced Density Alternative would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions during project construction, in the same exact manner as the proposed project. Long-term operational-related air quality impacts would be incrementally reduced when compared to the project, but the emissions cannot be mitigated to below SCAQMD thresholds and would remain significant and unavoidable in approximately the same manner as the proposed project. Similarly, impacts related to short-term construction-related noise cannot be mitigated to a less than significant level and would be significant and unavoidable in the exact same manner as the proposed project. Although traffic-related noise would be reduced when compared to the project, impacts would have a similar effect on local roadway segments and would remain significant and unavoidable as there are no feasible mitigation measures that would be able to reduce impacts to a less than significant level, in approximately the same manner as the proposed project. Under this alternative, the volume of water required and the amount of wastewater and solid waste generated would be reduced in comparison to the proposed project and the decrease in the amount of logistics uses would result in a reduction of permanent jobs that would be created. Consequently, this alternative would have incrementally reduced demands on public services, recreation, and water use. Similar to the proposed project, increased property tax revenues, the payment of fees, and adherence to City development and utility requirements would reduce these impacts to less than significant levels.

Because of the decrease in vehicle trips achieved under this alternative, impacts to the operation of local roadways and intersections would be proportionally reduced from those identified for the proposed project. However, under this alternative, the future increases in traffic volumes would have a similar effect on freeways and interchanges, resulting in significant impacts similar to those identified for the proposed project. Since the City does not have control over when freeway improvements would occur, traffic impacts to freeways and interchanges would remain significant and unavoidable for impacts associated with freeway segments in approximately the same manner as the proposed project, as the City does not have control of when such freeway improvements can be installed or constructed by Caltrans.

In summary, the Reduced Density Alternative would incrementally reduce almost all of the project impacts by reducing the total square footage of development. However, all of the impacts identified as significant and unavoidable under the proposed project, including aesthetics, air quality, noise, and traffic would still be significant and unavoidable under this alternative.

Meets Project Objectives. As shown in Table 6.M, under this alternative, some of the project objectives are met, but not nearly to the same degree as the proposed project.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.M: Comparison of Reduced Density Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	Not to the same degree as the proposed project
Provide the land use designations and infrastructure plans necessary to meet current market demands and to support the City's Economic Development Action Plan.	Not to the same degree as the proposed project
Create a major logistics center with good regional and freeway access.	Not to the same degree as the proposed project
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	Yes
Provide a major logistics center to accommodate a portion of the ever-expanding t rave volumes at the Ports of Los Angeles and Long Beach.	Not to the same degree as the proposed project
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	Not to the same degree as the proposed project
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	Not to the same degree as the proposed project
Encourage new development consistent with regional and municipal service capabilities.	Not to the same degree as the proposed project
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Not to the same degree as the proposed project
Provide thousands of construction job opportunities during the project's buildout phase.	Not to the same degree as the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.7 Alternative 2: Mixed Use A

With the intent of avoiding or substantially reducing significant impacts created by the project's traffic, air quality, and noise impacts, the City has considered Mixed Use A Alternative. This alternative includes development of the project site with approximately 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light industrial uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1.0 million square feet), and 150 acres of open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.

Impact Analysis. The following nine environmental issues would have impacts similar to those identified for the proposed project:

- Aesthetics
- Agricultural and Forestry Resources
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Recreation

The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately.

Air Quality: Because the amount of land to be graded with Alternative 2 would be similar to that of the proposed project, a similar mix of equipment as the proposed project would operate during earthmoving activities. Therefore, construction emissions from the development of Alternative 2 would be similar to the proposed project, which is significant and unavoidable for CO, VOC, NO_X, and PM_{10}.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

As indicated in Table 6.N, the volume of each operational pollutant emitted during operation of this alternative would be correspondingly increased due to the substantial increase in traffic from this alternative relative to the proposed project. Like the proposed project, operational emissions for CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ would still exceed daily SCAQMD thresholds. Application of green building design principles could reduce emissions from building operations such as heating and cooling; however, such standards and principles would not reduce CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions to below SCAQMD thresholds.

NOTE: The Alternative 2 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.N: Alternative 2 Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	1,396	593	1,097	21	1,121	304
Alternative 2	5,683	1,307	1,794	35	2,135	603
Net Change (Alternative minus project)	+4,287	+714	+697	+14	+1,014	+299
SCAQMD thresholds	550	55	55	150	150	55
Alternative 2 exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015.

The volume of operational air pollutant emissions would be increased when compared to the proposed project during operations only and impacts would remain significant and unavoidable.

Global Climate Change: This alternative would generate 6,856 metric tons of uncapped GHG emissions resulting from operation of the uses envisioned under the Mixed Use A Alternative would be approximately 10 percent higher than those of the proposed project (see Table 6.F). The Mixed Use A Alternative would generate more greenhouse gas than the proposed project; impacts associated with cumulative global climate change would be less than significant.

Noise: Under the proposed project, construction-related noise impacts were mitigated through adherence to the identified mitigation measures. However, even with the mitigation measures, construction-related noise impact within the Specific Plan area and off-site construction area would remain significant and unavoidable. Under the Mixed Use A Alternative, a similar amount of land would be disturbed; therefore, noise impacts associated with the construction of this alternative would be similar to those identified under the proposed project. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with this alternative would still remain significant and unavoidable as construction noise is not able to be reduced to below noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Mixed Use A Alternative would be generated during loading/unloading, trash compacting, truck movements on roadways, and parking lot activities. The operation-related noise impacts associated with this alternative would remain less than significant with implementation of the mitigation measures, as identified for the proposed project.

The increase in project-related traffic under this alternative would result in an incremental increase in long-term traffic noise due to an increase of traffic trips to the project site. Under the proposed project, the increase in future traffic noise along certain local roadway segments would increase beyond the threshold of perception resulting in the need for mitigation. However, as stated in the EIR, there are no feasible mitigation measures to reduce noise levels to below appropriate levels. Under this alternative, future increases in traffic-related noise would have a similar effect on local roadway segments. When compared to the proposed project, this alternative's contribution to future traffic noise would be increased, thereby increasing overall mobile source noise impacts within the area. It is anticipated that roadway noise along certain roadway segments would remain significant and unavoidable.

Population and Housing: The Mixed Use A Alternative would result in the development of 22 million square feet of logistics warehousing, 20 million square feet of light industrial uses, half a million square feet of retail commercial uses, one million square feet of professional/medical office uses, and 150 acres of open space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the logistics warehousing component of the Mixed Use A Alternative is anticipated to generate approximately 13,197 jobs.[2] Utilizing the same employment factor of one employee for every 1,667 square feet of light industrial uses, the light industrial component of the Mixed Use A Alternative is anticipated to generate approximately 11,998 jobs.[3] Utilizing employment factors of one employee for every 628 square feet of commercial use and one employee for every 481 square feet of office use,[4] this alternative would additionally create up to 2,875 jobs (796 retail jobs[5] and 2,079

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[1] Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., September 2014.

[2] 1 employee/1,667 square feet of logistics uses × 22 million square feet of logistics use = 13,197 logistics jobs.

[3] 1 employee/1,667 square feet of light industrial uses × 20 million square feet of light industrial use = 11,998 light industrial jobs.

[4] *Table II-B Average Employees Per Acre*, Southern California Association of Governments Employment Density Study, The Natelson Company, October 31, 2001.

[5] 1 employee/628 square feet of commercial uses × 500,000 square feet of commercial uses = 796 retail jobs.

office jobs).[1]. Many of the logistics warehousing, light industrial, and retail jobs are likely to be filled by persons already residing in the area.

However, unlike logistics, light industrial, and retail jobs, which can often be filled by most working adults, professional/medical office jobs under this alternative may require the employment of persons in specialized fields, which may not include persons already living in the area. Persons from outside of the area may be required to relocate to Moreno Valley to fill positions in the office space, resulting in an incremental population increase in the City. When this alternative is compared to the proposed project, the number of new residents would be higher than that identified for the proposed project. Under this alternative, up to approximately 28,070 jobs could be created. The number of new jobs in the City would be 17 percent greater than the proposed project (24,000 potential jobs). However, similar to the proposed project, impacts related to population and housing would remain less than significant as this alternative would continue the existing development trend envisioned by the City.

Public Services: As discussed above, the Mixed Use A Alternative could result in an incremental population increase within the City. Because of the increased amount of office development that would occur within the project limits, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude than what was identified for the proposed project. However, similar to the proposed project, development under this alternative would result in higher property tax revenues and payment of development impact fees for schools, police services, and fire services. The payment of development impact fees would offset any impacts to these public services that may result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees.

Traffic: As identified in previously referenced Table 6.G, this alternative would generate approximately 208,988 total traffic trips. In comparison to the proposed project, this alternative would almost triple total traffic trips. With such an increase in traffic, an increase in volumes on nearby roads and intersections would be greater in magnitude when compared to the proposed project. Impacts to LOS at nearby intersections and roadway segments would occur under the Mixed Use A Alternative to an even greater degree than under the proposed project, and would require even more extensive mitigation. The addition of traffic volumes associated with this alternative could result in deficient LOS at many more intersections in the project vicinity during the lifetime of the development. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. Even if mitigation measures were identified for all these intersections, certain roadway improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, as identified for the proposed project, traffic-related impacts would remain significant and unavoidable under the Mixed Use A Alternative.

Utilities and Service Systems: Like the proposed project, development under the Mixed Use A Alternative would connect to existing utility infrastructure subject to the terms and conditions of the City and EMWD. As indicated in previously identified Table 6.H, this alternative would generate approximately 1,830,000 gallons of wastewater per day, which is over six times what the proposed project would generate (286,459 gallons of wastewater per day). When compared to the proposed project, wastewater treatment demand would be increased in magnitude as more wastewater would be generated under this alternative. However, like the proposed project, adherence to existing requirements identified by the City and EMWD may result in impacts remaining at a less than significant level.

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[1] 1 employee/481 square feet of office uses × 1 million square feet of office uses = 2,079 office jobs.

The development of the warehousing, light industrial, commercial, and office uses associated with this alternative would also require the installation of water supply infrastructure to serve the project site. As previously indicated in Table 6.I, the Mixed Use A Alternative would require approximately 3,420,000 gallons of water per day, which is almost twice as much as would be required by the proposed project (1,761,260 gallons of water per day). When compared to the proposed project, water usage demands would be increased. However, similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Therefore, impacts related to water usage and water treatment/ce facilities would remain less than significant when compared to the proposed project.

Like the proposed project, the Mixed Use A Alternative would also generate solid waste. As previously identified in Table 6.J, this alternative would generate 481,344 pounds of solid waste per day, which is over thirteen times as much as the proposed project would generate (37,016 pounds of solid waste per day). Therefore, demands on solid waste services and landfill capacity would be increased in magnitude. Similar to the proposed project, development under the Mixed Use A Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts under this alternative would remain less than significant.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, long-term operational air pollutant emissions, and increased traffic operations on local roadways and at local intersections. The amount of operational air pollutant emissions and traffic would be increased in magnitude and there are no mitigation measures that would reduce long-term air quality operational impacts to below SCAQMD thresholds. Likewise, there are no mitigation measures that would reduce impacts associated with increased traffic in the area. Therefore, cumulative impacts associated with long-term air quality and long-term traffic would remain significant and unavoidable. Similarly, noise generated from traffic on roadway segments within the project area may result in certain roadway segments experiencing noise levels beyond the City's noise standard. Implementation of the identified mitigation measures would reduce noise but it would not reduce noise levels to a less than significant level. Therefore, cumulative impacts associated with traffic noise levels would remain significant and unavoidable. This alternative would also require the development of the project site. The revised EIR contains mitigation (acquisition of an offsite agricultural conservation easement) that would reduce the cumulative impacts associated with the conversion of Unique Farmland, cumulative impacts associated with farmland conversion to less than significant levels.

Impact Conclusions. Under this alternative, impacts related to short-term construction-related air quality and noise impacts would remain significant and unavoidable, similar to the proposed project. Long-term air quality operational impacts under this alternative would be increased in magnitude, remain significant and unavoidable, and would result in similar conditions as identified for the proposed project. The Mixed Use A Alternative would decrease the amount of logistics warehousing and would add light industrial, commercial, and office uses that would generate more permanent and more varied jobs than the proposed project, but some uses may require skilled workers who are not current residents of the City. The office uses proposed under this alternative may incrementally increase the total number of people that would be added to the City's population and could have greater demands on public services and recreation. However, the increased property tax revenues, payment of fees, and dedication of parkland would reduce these impacts to a less than significant level. This alternative would increase the amount of wastewater generated, increase the amount of potable water required, and increase the amount of solid waste produced on site. Similar to the proposed project, adherence to utility requirements would reduce these impacts to less than significant levels. Because of the increase in vehicle trips resulting from this alternative, impacts to the operation of local roadways and intersections would be proportionally increased from the proposed project and remain significant and unavoidable.

Because of the increase in vehicle trips under this alternative, impacts to the operation of local roadways and intersections would be proportionally increased from what was identified for the proposed project. Long-term traffic impacts would remain significant and unavoidable for impacts associated with freeway segments as the City does not have control of when such freeway improvements would occur. Similarly, traffic-related noise would be increased in magnitude and cannot be mitigated to a less than significant level in a manner similar to the proposed project.

In summary, the Mixed Use A Alternative would increase employment opportunities but would substantially increase traffic, noise, and air quality impacts. All the impacts identified as significant under the proposed project, including air quality health risks, would still be significant under this alternative.

Meets Project Objectives. Under this alternative, four of the proposed project objectives are not met as shown in Table 6.O.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.O: Comparison of the Mixed Use A Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	Yes
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	Yes
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	Yes
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	Yes
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes
Provide thousands of construction job opportunities during the project's buildout phase.	Yes
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.8 Alternative 3: Mixed Use B

This alternative would develop the project site similar to the land use plan of the Moreno Highlands Specific Plan (MHSP) but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.

Impact Analysis. Many of the environmental impacts of this alternative would be equivalent to those identified for the No Project/Existing General Plan Alternative, the main differences being traffic, health risks, and greenhouse gas emissions.

Air Quality: Alternative 3 would require site grading and construction similar to that required of the proposed project. As identified in Section 4.3 of this EIR, short-term construction emission impacts associated with construction activities on the project site were significant and unavoidable for all criteria pollutants with the exception of SO_X. Since Alternative 3 would require that the same amount of land be graded, it would require similar grading and construction activities on site. Therefore, it is reasonable to anticipate that short-term construction emission impacts would also be significant and unavoidable for all criteria pollutants, with the exception of $PM_{2.5}$ and SO_X, under this alternative. Air quality impacts associated with the remaining criteria pollutants would significant and unavoidable with this alternative, similar to what was identified for the proposed project.

Under Alternative 3, the site would be developed at the same residential density and intensity as the MHSP but would have 10 million square feet of logistics warehousing on 603 acres instead of the mixed non-residential uses proposed under the MHSP. Based on these land uses, Alternative 3 would generate approximately 78,985 daily vehicle trips (see Table 6.G) compared to 69,542 trips from the proposed project (a 14% increase).

NOTE: Alternative 3 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.P: Alternative 3 Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NOx	SOx	PM_{10}	$PM_{2.5}$
Proposed Project	1,396	593	1,097	21	1,121	304
Alternative 3	2,912	569	762	15	960	278
Net Change (Alternative minus project)	+1,516	-24	-335	-6	-161	-26
SCAQMD thresholds	550	55	55	150	150	55
Alternative 3 exceeds thresholds?	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015.

The volume of each operational pollutant emitted during operation of this alternative would be incrementally increased due the proposed mix of land uses. Therefore, this alternative would also have significant and unavoidable impacts on local air quality. The long-term air quality impacts resulting from this alternative would still contribute criteria pollutants to an air basin that is in nonattainment for these criteria pollutants, similar to the proposed project. As identified in previously referenced Table 6.P, long-term operational air pollutant emissions associated with Alternative 3 would exceed SCAQMD emissions thresholds for all criteria pollutants, with the exception of SO_X.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

When compared with the proposed project, air quality impacts associated with Alternative 3 would be mixed in that criteria pollutants would be higher but diesel particulate matter and truck-related emissions would be less, and potential health risks would be shifted from existing to future residents; more residents could be exposed to health risks. Similar to the proposed project, the generation of these emissions would still result in a cumulative contribution of air pollutants in a nonattainment basin; therefore, impacts remain significant and unavoidable.

Global Climate Change: GHG emissions associated with Alternative 3 are substantially decreased. As identified in previously referenced Table 6.F, Alternative 3 would generate uncapped emissions of 2,925 metric tons of carbon dioxide equivalents, which is approximately half (53%) of that identified for the proposed project.

Noise: Under the proposed project, construction-related noise impacts were mitigated through adherence to the identified mitigation measures. However, even with the mitigation measures, construction-related noise impact within the Specific Plan area and off-site construction area would remain significant and unavoidable. Under the Mixed Use B Alternative, a similar amount of land would be disturbed; therefore, noise impacts associated with the construction of this alternative would be similar to those identified under the proposed project. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with this alternative would still remain significant and unavoidable as construction noise cannot be reduced to noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Mixed Use B Alternative would be generated during resident trips to and from the project, as well as non-residential loading/unloading, trash compacting, truck movements on roadways, and parking lot activities. The operational-related noise impacts associated with this alternative would be significant and adverse, even with implementation of the mitigation measures, similar to the proposed project.

Population and Housing: The Mixed Use B Alternative would result in the development of 6,532 residential units on 1,146 acres, plus 10 million square feet of logistics warehousing and 150 acres of open space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the logistics warehousing component of the Mixed Use B Alternative is anticipated to generate approximately 6,000 jobs.[2] Utilizing a household size of 3.8 persons per unit, it is estimated this alternative would generate 24,821 new residents in the City as well. The number of new jobs in the City would be 82 percent less than the proposed project (24,000 potential jobs). This alternative would eventually have a jobs/housing ratio of 0.22, which is much lower than the existing job/housing ratio of the City. Therefore, this alternative would have substantially greater impacts related to population and housing compared to the proposed project.

Public Services: As discussed above, the Mixed Use B Alternative could result in a substantial population increase within the City. Because of the increased population, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude than what was identified for the proposed project. Similar to the proposed project, development under this alternative would provide increased property tax revenues and payment of development impact fees for schools, police, fire, and recreation services. The payment of development impact fees would offset any impacts to these public services that may result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees.

Traffic: As identified in previously referenced Table 6.G, this alternative would generate approximately 78,985 total traffic trips, which is approximately 12 percent more than the proposed project. This would incrementally increase traffic and impacts to LOS at nearby intersections and roadway. The addition of traffic associated with this alternative could result in deficient LOS at more intersections in the project vicinity during the lifetime of the development. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. Even if mitigation measures were identified for all these intersections,

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[1] Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California (David Taussig & Associates, Inc., September 2014.

[2] 1 employee/1,667 square feet of logistics uses × 10 million square feet of logistics use = 5,999 logistics jobs.

certain roadway improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, as identified for the proposed project, traffic-related impacts would remain significant and unavoidable under the Mixed Use B Alternative.

Utilities and Service Systems: Like the proposed project, development under the Mixed Use B Alternative would connect to existing utility infrastructure subject to the terms and conditions of the City and EMWD. As indicated in previously identified Table 6.H, this alternative would generate approximately 1,681,656 gallons of wastewater per day, which is more than a six-fold increase to what the proposed project would generate (286,459 gallons of wastewater per day). When compared to the proposed project, wastewater treatment demand would be substantially increased under this alternative, but adherence to existing requirements identified by the City and EMWD would likely result in less than significant impacts with planned expansion of wastewater treatment capacity.

The development of logistics rather than commercial and other non-residential uses under the MHSP would require the installation of water supply infrastructure to serve the project site. As previously indicated in Table 6.I, the Mixed Use B Alternative would require approximately 5,196,801 gallons of water per day, which is over three times what would be required by the proposed project (1,761,2601 gallons of water per day). When compared to the proposed project, water usage demands would be substantially increased. Similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Therefore, impacts related to water usage and water treatment/conveyance facilities are assumed to remain at less than significant levels similar to the proposed project.

Like the proposed project, the Mixed Use B Alternative would also generate solid waste. As previously identified in Table 6.J, this alternative would generate 116,800 tons of solid waste per year, which is almost three times more than what the proposed project would generate (37,016 tons of solid waste per year). Therefore, demands on solid waste services and landfill capacity would be substantially increased. Similar to the proposed project, development under the Mixed Use B Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts under this alternative would remain less than significant.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, air quality operational emissions, short-term and long-term noise impacts, and increased traffic operations on local roadways and at local intersections. This alternative would have slightly more traffic and operational emissions. Because there are no feasible mitigation measures to reduce the cumulative impacts associated with long-term operational air pollutant emissions, short-term and long-term noise, and increased traffic, these impacts would remain significant and unavoidable. Alternative 3 would also require the development of the project site. Since there is no feasible mitigation that would reduce the cumulative impacts associated with the conversion of farmland, cumulative impacts associated with farmland conversion would remain significant and unavoidable.

Impact Conclusions. Under Alternative 3, impacts related to short-term construction-related air quality would be similar to the proposed project as the same amount of land would be disturbed and the same mix of equipment would be utilized. Long-term operational-related carbon monoxide emissions would be higher than the proposed project and would remain significant and unavoidable. Like the proposed project, long-term air quality relative to criteria pollutants would still be significant, with the exception of SO_X. Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

The development of Alternative 3 would have increased demands on public services and recreation facilities to serve future residential uses. However, increased property tax revenues, payment of development impact fees, and adherence to development requirements would reduce these impacts to a less than significant level. Water supply availability is expected to be available as water demand is expected to be the same. Water demand was determined to be available for the proposed project. There would be an increase in vehicle trips under this alternative, and impacts to the operation of local roadways and intersections would be similarly increased compared to that identified for the proposed project; therefore, long-term traffic impacts would remain significant and unavoidable. Development of this alternative would provide new employment opportunities and homes for residents of Moreno Valley, but new employment opportunities would be significantly reduced compared to the proposed project.

In summary, the Mixed Use B Alternative would incrementally increase traffic and not improve the City's jobs/housing balance over the long-term. However, this is the only alternative that would reduce a significant impact of the project (aesthetics – views) by substantially reducing the amount of warehousing on the site and replacing it with residential uses. Views of the area would still transition from vacant agricultural land to suburban development, but it would have a residential appearance compared to the proposed project. All the other impacts identified as significant under the proposed project, including likely air quality health risks, would still be significant under this alternative.

Meets Project Objectives. This alternative would not meet most of the objectives of the project related to employment and land use, as shown in Table 6.Q, and would not establish a major regional logistics center in this portion of the City.

NOTE: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.Q: Comparison of Alternative 3 to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	No
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes

Table 6.Q: Comparison of Alternative 3 to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Provide thousands of construction job opportunities during the project's buildout.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.9 Alternative Sites Analysis

NOTE: The following changes have been made due to revision to the Specific Plan project size.

This alternative examines different sites in the surrounding region to determine if an alternative location would reduce or eliminate one or more significant impacts of the project. This analysis must be based on feasible sites that could realistically support the proposed project (i.e., a contiguous 2,610-acre site for 40.6 million square feet of high-cube and light logistics warehouse uses as envisioned by the WLC Specific Plan). The surrounding jurisdictions were contacted to identify potential alternative sites for the proposed project. Figure 6.1 shows the locations of the various jurisdictions that were contacted and/or analyzed in this evaluation and Table 6.R presents the results of that analysis.

Table 6.R indicates that there are no feasible alternative sites in the surrounding or nearby jurisdictions that could support the proposed project (i.e., that have enough vacant land zoned or available for logistics warehousing with good freeway and/or rail access). Therefore, none of these sites will be evaluated further.

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
City of Moreno Valley	John Terell, the City's former Community Development Director, indicated there are no sites available within the City that have nearly that amount of vacant land planned or designated for industrial-related uses, which is why the WLC project is being proposed on the current site as this is the largest available vacant land left in the City (personal communication, December 2012).
City of Banning	Zai Abu Bakar, Community Development Director, indicated that the City does not have any vacant industrial property that large (personal communication, November 21, 2012). The City of Banning has a number of much smaller parcels (50–100 acres) zoned for industrial use along the I-10 Freeway corridor, but these are not contiguous and are under multiple ownerships. Therefore, there is no alternative site for the proposed project within the City of Banning.
City of Beaumont	Rebecca Deming, Director of Planning, indicated "the City does have some vacant industrial zoning and Specific Plan Zoning for industrial areas along the 60 freeway" (personal communication, November 26, 2012). A review of the City's online mapping indicates the following three potential sites of contiguous vacant land with freeway access that could support industrial uses: A. South of SR-60/East of SR-79: Site consists of 319 acres planned for general/community commercial and industrial uses, but with scattered rural residential uses adjacent to many of the vacant parcels. B. North of SR-60/West of I-10/South of Oak Valley Parkway: Site consists of approximately 463 acres planned for a variety of residential uses under the Oak Valley Specific Plan. C. South of SR-60/West of I-10/North of West 4th Street: Site includes 193 acres just

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
	west of new commercial center and planned for "urban village overlay" with industrial along the freeway. Even the largest site (B) is less than 20 percent of the size of the WLC project site in Moreno Valley, and even all together the three sites total 974 acres which is 36 percent of the WLC project site. None of the sites is owned by the developer; Site B is under single ownership, while the other two are under multiple ownership. Based on this information, there are no feasible alternatives sites in the City of Beaumont for the proposed project.
City of Calimesa	Gus Romo, Community Development Director, was contacted and indicated there are not 2,600 acres designated or that have the potential to be zoned for warehouses in Calimesa (personal communication, November 21, 2012). Therefore, there is no alternative site for the proposed project within the City of Calimesa.
City of Menifee	Patti Nahill, contract City Planner, indicated that there was no place in the City with 2,600 vacant acres available for industrial uses (personal communication, November 27, 2012). The City was incorporated on October 1, 2008, and is still working on its General Plan, so the applicable zoning would be Industrial Park (IP). There are three areas in the City with vacant land that could support industrial uses: A. East of I-215 North of Scott Road: Approximately 280 acres with suburban and rural residential uses adjacent to the north and south, and an approved Specific Plan (140 acres) to the east. These areas have multiple owners. B. West of I-215 North of Scott Road: Approximately 600 acres with rural residential to the north, west, and south. This area has multiple owners. C. North Menifee Specific Plan: This area is only 120 acres and the current land use designation is Specific Plan, but the underlying zoning was industrial. This area is under single ownership. Even the largest area (A) is only 22 percent of the size of the WLC project site in Moreno Valley, and even all together the three areas only total 1,000 acres which is 37 percent of the WLC project site. None of the sites is owned by the developer; Area C is under single ownership, while the other two areas are under multiple ownership. Based on this information, there are no feasible alternative sites available in the City of Menifee for the proposed project.
City of Perris	According to the City's website (www.cityofperris.org), the Perris Valley Commerce Center Specific Plan (adopted January 2012) east of I-215 has 1,866 total acres designated for light industrial uses, but some of this area is already developed or planned/approved for development. If this entire area were dedicated to high cube logistics warehousing, it would represent about two-thirds of the land within the proposed WLC Specific Plan. This land is also under ownership of hundreds of individual owners, and the vacant land is not in large contiguous blocks. Therefore, there is no feasible alternative site for the proposed project within the City of Perris.
City of Riverside	Steve Hayes, City Planner, indicated there were no sites close to the required size within the City limits. The only large sites he was aware of were less than 50 acres each and not contiguous with each other (personal communication, November 26, 2012). Therefore, there is no feasible alternative site for the proposed project within the City of Riverside.
City of San Jacinto	Asher Hartel, former Planning Director (retired), said the City of San Jacinto did not have the required amount of vacant land available zoned for industrial use in the City, and there are no freeways or rail service immediately available to the City. He did say the City's "Gateway" area in the northwestern portion of the City, along Ramona Expressway, had approximately 1,700 acres and is mostly vacant, but the property is designated for a mix of residential, commercial, and business park uses in the General Plan, and any non-residential uses would have to be high employment generators (personal communication, November 27, 2012). Therefore, there is no feasible alternative site for the proposed project within the City of San Jacinto.

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
County of Riverside	Frank Coyle, former Deputy Director, Advanced Planning Division Riverside County Planning Department, suggested the County's GIS Department could identify all vacant unincorporated land zoned Light Industrial or Business Park along the I-215 corridor south of Moreno Valley to the City of Perris (personal communication, November 21, 2012). Larry Ross with the County's GIS Department said its research shows a total of 1,280 acres of vacant land designated for light industrial or business park uses where warehousing would be appropriate (see Figure 6.1)(personal communication, November 26, 2012 and data/mapping info sent November 29, 2012). This land constitutes hundreds of parcels under separate ownerships distributed along the west side of I-215 from Nandina Avenue south to Nuevo Road. This "corridor" land is spread out up to a half mile away from the freeway and is not in large contiguous blocks, and it is adjacent to many rural residential parcels and uses. In addition, it is less than half the size needed for a similar amount of logistics warehousing development as under the proposed project. For these reasons, it would be infeasible to consolidate and propose development of industrial-zoned unincorporated land along this portion of I-215. In addition to the I-215 corridor, the "Villages of Lakeview" property located south of Mystic Lake off of Ramona Expressway is at least one additional potential site in the general project area that has sufficient acreage to accommodate the WLC project. This property has already been proposed for a variety of residential uses (11,350 units on 2,800 acres) but the EIR for that project was successfully challenged in court this year (Riverside County EIR 471). While the property is large enough, it is already proposed for residential development so it would be infeasible to use this property to support development equivalent to the proposed project. Although it is relatively far from the project area (approximately 22 miles to the west-northwest along the east side of I-15 south of SR-60), the Mira Loma area of the County supports a variety of large warehouses and has rail service available, so it is a potential location for additional logistics warehouses. The Jurupa Area Plan indicates that warehouse uses are allowed only in the area bounded by San Sevaine Channel from Philadelphia Street southerly to Galena Street on the east, Galena Street from the San Sevaine Channel to Riverside Drive, then Riverside Drive westerly to Milliken Avenue, then Milliken Avenue north to Philadelphia Street on the west, and Philadelphia Street easterly to the San Sevaine Channel on the north. A visual inspection of aerial photographs of the Mira Loma area indicates the largest individual vacant parcel or group of adjacent vacant parcels in this area occupies approximately 800 acres, most of which is currently being used for agriculture (i.e., vineyards)(east of I-15 on both sides of Bellegrave Avenue). Otherwise, there are no vacant parcels of more than 100 acres in size in this area (not shown in Figure 6.1).
City of Jurupa Valley (not shown in Figure 6.1)	The newly incorporated City of Jurupa Valley, located south of SR-60 just west of the City of Riverside, also has vacant industrial-zoned land available for warehousing, but all currently vacant parcels are 50 acres or less in size and not contiguous as to be able to form a parcel nearly large enough to support the proposed project (Ernest Perea, former City contract planner, personal communication, January 4, 2013).
March Joint Powers Authority	The March JPA website (www.marchjpa.com) indicates there is a total of approximately 750 acres of developable land west of I-215, north of Van Buren Boulevard and south of Alessandro Boulevard within the MJPA. At present, this land is planned for a mixture of business park, commercial, industrial, public facilities, and open space uses. Even if all this land was committed to logistics warehousing, it would only represent 28% of the WLC project site. Therefore, an alternative site for the proposed project on March JPA property is infeasible.

* See Figure 6.1

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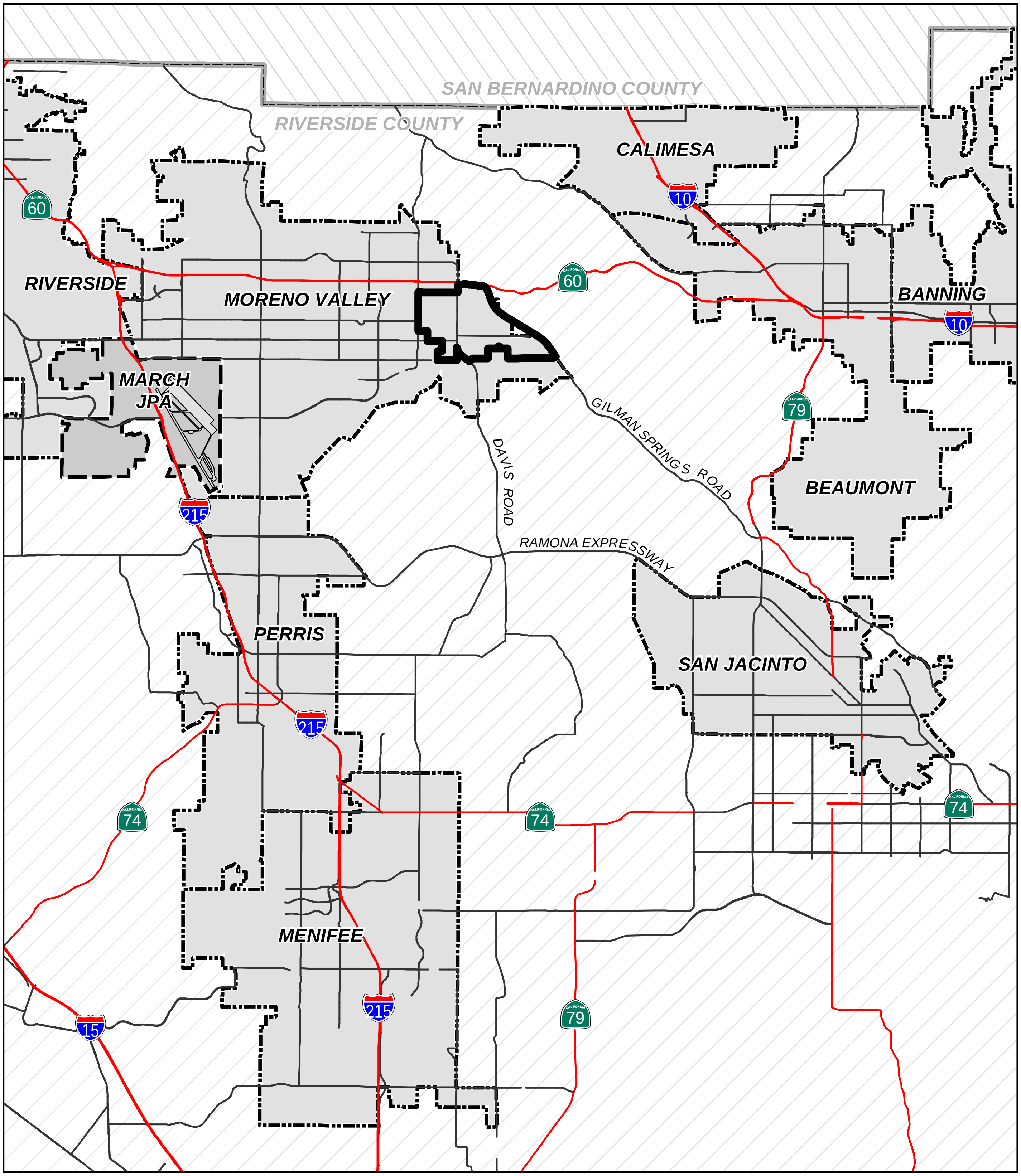

LSA

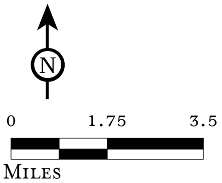

■ Project Boundary

▨ Cities

▢ Riverside County

▧ San Bernardino County

FIGURE 6.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Alternative Sites Analysis

SOURCE: Riverside County, 2011.

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6.4 COMPARISON OF PROJECT ALTERNATIVES

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Sections 4.1 through 4.16 of this EIR. Table 6.S compares the impacts of the alternatives with those of the proposed project. This table identifies whether the alternative results in (1) a reduction of the impact; (2) a greater impact than the project; or (3) the same impact as the project.

Table 6.S: Comparison of Alternatives to the Proposed Project

		No Project	**No Project**	**Alt. 1**	**Alt. 2**	**Alt. 3**
Environmental Issue	**Proposed Project**	**No Build**	**Existing General Plan**	**Reduced Density**	**Mixed Use A**	**Mixed Use B**
Aesthetics	SIG	NI	←LTS	=	=	←LTS
Agricultural and Forest Resources	LTS/mit	NI	=	=	=	=
Air Quality	SIG	NI	SIG	←SIG	→SIG/+	SIG
Biological Resources	LTS/mit	NI	=	=	=	=
Cultural Resources	LTS/mit	NI	=	=	=	=
Geology and Soils	LTS/mit	NI	=	=	=	=
Global Climate Change	LTS/mit	NI	LTS	LTS/mit	LTS/mit	LTS/mit
Hazards and Hazardous Materials	LTS/mit	NI	=	=	=	=
Hydrology and Water Quality	LTS/mit	NI	=	=	=	=
Land Use and Planning	SIG	NI	LTS	=	=	=
Mineral Resources	NI	=	=	=	=	=
Noise	SIG	NI	←SIG	←SIG	←SIG	←SIG
Population, Housing, and Employment	LTS	NI	+	=	=	+
Public Services (police, fire, schools, parks)	LTS/mit	NI	=	=	=	=
Transportation and Traffic	SIG	NI	→SIG	←SIG	→SIG+	→SIG
Utilities and Service Systems (water, wastewater, etc.)	LTS/mit	NI	=	=	=	=

Proposed Project
NI: No Impact
LTS: Less than Significant Impact
LTS/mit: Less than Significant Impact with Mitigation
SIG: Significant Impact with or without Mitigation

Project Alternatives
= Compared with the proposed project, no change in the significance of impact will occur.
→ Compared with the proposed project, the significance of the impact is increased.
← Compared with the proposed project, the significance of the impact is reduced.
\+ Compared with the proposed project, a new impact has been identified.
←SIG Compared with the proposed project, the volume or extent of the impact is reduced, yet still significant.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As detailed above in Table 6.S, the No Project/Existing General Plan Alternative has mixed impacts relative to the proposed project; it reduces aesthetic impacts to less than significant levels but worsens the jobs/housing ratio by introducing more housing than employment-generating uses. The

Reduced Density Alternative incrementally reduces a number of impacts of the proposed project (e.g., traffic, air quality, and noise) but cannot reduce them to less than significant levels even with mitigation. The Mixed Use A Alternative substantially increases traffic and related impacts compared to the project impacts, but it does not create any additional significant impacts. The Mixed Use B Alternative would incrementally increase traffic and would not improve the jobs/housing balance. In addition, this alternative would also worsen the jobs/housing ratio of the City by allowing the construction of many more homes than job-creating land uses. Regarding air quality impacts (criteria pollutants), development of any land uses would likely exceed SCAQMD thresholds mainly due to the size of the proposed project site.

The *CEQA Guidelines* (Section 15126.6 (e[2]) requires that an environmentally superior alternative be identified in the EIR. Based on the analysis in this section and the summary contained in Table 6.S, Alternative 1 – Reduced Density – is the only alternative that reduces traffic, air quality, and related impacts by reducing the total square footage of warehousing by approximately 30 percent. Alternative 3—Mixed Use B—is the only alternative that would reduce a significant impact of the proposed project (i.e., aesthetics – views). However, it would worsen the jobs/housing balance of the City over the long term. For these reasons, Alternative 1 – Reduced Density —has been deemed to be environmentally superior to the proposed project. However, none of the alternatives achieves the objectives of the project to nearly the same degree as the proposed project.

Table 6.T compares Alternative 1 to the project objectives and indicates that Alternative 1 does not meet most of the major goals of the proposed project mainly because of the reduced total square footage by 30 percent, which also reduces the amount of new employment and property tax revenues generated to the City.

NOTE: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time. In addition, some numerical changes result from the changes to the Specific Plan area.

Table 6.T: Comparison of the Environmentally Superior Alternative to the Project Objectives

Project Objectives	Degree to Which Alternative 1 Satisfies the Project Objectives
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	**Not to the Same Degree as the Proposed Project.** The alternative introduces substantially less employment-generating uses on the site which is not consistent with the City's Economic Strategic Plan.
Create a major logistics center with good regional and freeway access.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing near the SR-60 Freeway but it would less attractive as a major regional logistics center compared to the proposed project.
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	**Meets Objective.** Development of the project area under this alternative would most likely proceed under some form of specific plan, which would help ensure future development was consistent with a comprehensive plan for the area.
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	**Meets Objective.** The alternative would develop a smaller amount of logistics warehousing compared to the proposed project, but it would still be master planned, most likely under a specific plan.

Table 6.T: Comparison of the Environmentally Superior Alternative to the Project Objectives

Project Objectives	Degree to Which Alternative 1 Satisfies the Project Objectives
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing vs. 40.6 MSF for the proposed project.
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide nearly as much new warehouse capacity to form a regional port-oriented logistics center compared to the proposed project.
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	**Not to the Same Degree as the Proposed Project.** The alternative would produce 30% less employment than under the proposed project, and would also provide less property tax revenue and be able to pay for less public improvements and infrastructure compared to the proposed project.
Encourage new development consistent with regional and municipal service capabilities.	**Not to the Same Degree as the Proposed Project.** It is unclear if a substantially reduced logistics warehousing project could afford to provide the necessary infrastructure to support the planned development compared to the proposed project.
Significantly improve the jobs/housing balance and help reduce unemployment within the City.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide thousands of construction job opportunities during the project's buildout phase.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide as much work for as many construction workers compared to the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	**Meets Objective.** A smaller logistics warehouse project may be able to provide equal or greater transitions and buffers from existing off-site residential uses compared to the proposed project.

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~~7.0 REFERENCES~~

~~7.1 DOCUMENT AND WEBSITE REFERENCES~~

NOTE TO READERS: This portion of the Revised Sections of the FEIR sets forth those portions of each section within Section 7.0 of the 2015 FEIR which has been revised. The revised cumulative analysis can be found in Section 8.0 of this Revised Sections of the FEIR. The absence of any reference to a portion of Section 7.0 of the 2015 FEIR means that the corresponding portion of Section 7.0 in the FEIR remains unchanged.

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MVUb	MVU. *Moreno Valley Utility, Electrical System Forecast of Utility Infrastructure for the World Logistics Center,* ENCO Utility Services, Inc. No Date.
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USEPA 2002	U.S. Environmental Protection Agency (EPA). *Health Assessment Document for Diesel Engine Exhaust,* National Center for Environmental Assessment, 2002. Available at http://www.epa.gov/ncea. Website accessed May 22, 2012.
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USEPA 2017	U.S. Environmental Protection Agency (EPA). *National Air Toxics Assessment: Glossary of Terms,* 2017. Available at https://www.epa.gov/national-air-toxics-assessment/nata-glossary-terms. Website access June 26, 2018.
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USGS 2012	United States Geologic Society (USGS). *California Quaternary Faults.* Website accessed April 5, 2012. https://geohazards.usgs.gov/qfaults/ca/California.php.
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~~7.2 ACRONYMS AND ABBREVIATIONS~~

WRI 2018	World Resources Institute (WRI), CAIT, *Climate Analysis Indicators Tool: WRI's Climate Data Explorer, 2018.* Available at: http://cait2.wri.org. Accessed June 26, 2018.

8.2 Acronyms and Abbreviations

§	Section
§§	Subsection
°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	Micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACC	Andrew Chang and Company
ACM	Asbestos-Containing Material
AF	acre-feet
AFRES	Air Force Reserve
AFV	Alternative Fuel Vehicle
AFY	acre feet per year
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
amsl	above mean sea level
A-P Act	*Alquist-Priolo Earthquake Fault Zoning Act*
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
AST	Aboveground Storage Tank
Basin	South Coast Air Basin
BAU	Business As Usual
BDCP	Bay Delta Conservation Plan
BMP	Best Management Practice
BP	Business Park
BV&A	Bear Valley and Alessandro Development Company
BVIC	Bear Valley Irrigation Company
BVLWC	Bear Valley Land and Water Company
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model

CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historic Resources
Caltrans	California Department of Transportation
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CASSA	Criteria Area Species Survey Area
CAT	California Climate Action Team
CBC	California Building Code
CBOC	California Burrowing Owl Consortium
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game, former name of the California Department of Fish and Wildlife
CDFW	California Department of Fish and Wildlife, formerly known as the California Department of Fish and Game
CDGB	Community Development Block Grant
CDMG	California Department of Mines and Geology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
CFS	calls for service
cfs	cubic feet per second
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	Methane
CHP	California Highway Patrol
CIP	Capital Improvement Plan

CIWMB	California Integrated Waste Management Board
CLUP	Comprehensive Land Use Plan
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COA	Coordinated Operations Agreement
CPD	(HUD Office of) Community Planning and Development
CPUC	California Public Utilities Commission
CRA	California Resource Agency
CRA	Cultural Resource Assessment
CSC	California Species of Concern
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council
CVC	California Vehicle Code
CVP	Central Valley Project
CWA	(Federal) Clean Water Act
CWC	California Water Code
DAMP	Drainage Area Management Plan
dB	decibel
dBA	decibel on the A-weighted scale
DBESP	Determination of a Biologically Equivalent or Superior Preservation
DCIA	Directly Connected Impervious Area
DE	Diesel Emissions
DEH	Department of Environmental Health
DHS	(California) Department of Health Services
DIF	Development Impact Fee
DMM	Demand Management Measure
DMP	Drainage Master Plan
DOC	(California) Department of Conservation
DOF	(California) Department of Finance

DTA	David Taussig & Associates, Inc.
DTSC	(California) Department of Toxic Substance Control
DWR	(California) Department of Water Resources
e.g.	*exemplī grātiā*, for example
ECSD	Edgemont Community Services District
EDR	Environmental Data Resources
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMWD	Eastern Municipal Water District
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
ESA	Environmental Site Assessment
ESG	Emergency Solutions Grant
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
ft	foot/feet
FTA	Federal Transit Administration
FTE	full-time equivalent
GCC	Global Climate Change
GHG	Greenhouse gas
GIS	Geographic Information Systems
GPA	General Plan Amendment
gpd	gallons per day
gpf	gallons per flush
GWP	Global Warming Potential
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCD	(California) Department of Housing and Community Development
HCM	*Highway Capacity Manual*

HCP	Habitat Conservation Plan
HFCP	Highland Fairview Corporate Park
HHWE	Household Hazardous Waste Element
HI	Hazard Indices
HMB	Hazardous Materials Branch
HMBEP	Hazardous Materials Business Emergency Plan
HMMA	Hazardous Materials Management Act
HMMP	Habitat Mitigation and Monitoring Plan
HNL	Hourly Noise Level
HOME	HOME Investment Partnership
HOPWA	Housing Opportunities for Persons with AIDS
hp	horsepower
HRA	Health Risk Assessment
HSA	Hydrologic Subarea
HSC	Health and Safety Code
HUD	Housing and Urban Development
HVAC	Heating, Ventilating, and Air Conditioning
HWCL	Hazardous Waste Control Law
Hz	hertz
i.e.	*id est*, that is
IMPLAN	Impact Analysis for Planning
IPCC	United Nations Intergovernmental Panel on Climate Change
IRP	Integrated Resources Plan
IS	Initial Study
ITE	Institute of Transportation Engineers
kV	kilovolt
LAFCO	Local Agency Formation Commission
LAPM	Los Angeles pocket mouse
LBP	Lead-Based Paint
LBRMP	Logistic Building Runoff Management Plan
lbs	pounds
LCC	Land Capability Classification
LD	Logistics Development
L_{dn}	day-night average noise

LE	Land Evaluation
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent continuous sound level (L_{eq})
LESA	(California) Land Evaluation and Site Assessment
LHMP	Local Hazard Mitigation Plan
LI	Light Industrial
LID	Low Impact Development
LL	Light Logistics
L_{max}	maximum noise level
LNG	Liquefied Natural Gas
LNG/CNG	liquefied natural gas/compressed natural gas
LOS	Level of Service
~~LS~~	~~Logistics Support~~
LSA	LSA Associates, Inc.
LST	Local Significance Threshold
MARB	March Air Reserve Base
MATES	Multiple Air Toxics Exposure Study
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
MC	Municipal Code
Metropolitan	Metropolitan Water District of Southern California
mgd	million gallons per day
MHSP	Moreno Highlands Specific Plan
MICR	maximum individual cancer risk
MIP	March Inland Port
MJPA	March Joint Powers Authority
mm/yr	millimeters per year
MMDP	Moreno Master Drainage Plan
MMRP	Mitigation Monitoring and Reporting Program
mmt	million metric tons
MOU	Memorandum of Understanding
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization

MPOA	Master Property Owners Association
MPT	Master Plan of Trails
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MSHCP	(Western Riverside County) Multiple Species Habitat Conservation Plan
mt	metric tons
mty	metric tons per year
MVEU	Moreno Valley Electric Utility
MVFD	Moreno Valley Fire Department
MVHS	Moreno Valley Historical Society
MVPD	Moreno Valley Police Department
MVRWRF	Moreno Valley Regional Water Reclamation Facility
MVUSD	Moreno Valley Unified School District
MW	megawatt
MWh	megawatt-hours
N_2O	nitrous oxide
NA	Native American
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAIOP	National Association of Industrial and Office Properties
National Register	National Register of Historic Places
NCCP	Natural Communities Conservation Plan
NDDB	Natural Diversity Data Base
NDFE	Nondisposal Facility Element
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NHTSA	Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NOP	Notice of Preparation

NO_X	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCP	Noise Reduction Compliance Plan
NRCS	Natural Resource Conservation Service
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OHWM	Ordinary High Water Mark
OMB	(White House) Office of Management and Budget
OPR	Office of Planning and Research
OS	Open Space
PAH	Polycyclic Aromatic Hydrocarbon
Pb	Lead
PCBs	polychlorinated biphenyls
PEA	Preliminary Environmental Assessment
PM_{10}	Particulate Matter with a Diameter of 10 Microns or Less
$PM_{2.5}$	Particulate Matter with a Diameter of 2.5 Microns or Less
POTWs	Publicly Owned Treatment Works
POU	Publically Owned Utility
ppb	parts per billion
ppm	parts per million
PSB	Public Safety Building
PUC	Public Utilities Commission
PVC	Polyvinyl Chloride
PVCCSP	Perris Valley Commerce Center Specific Plan
PVSC	Perris Valley Storm Channel
PWC	Public Works Committee
PWQMP	Preliminary Water Quality Management Plan
PZ	Pressure Zone
q.v.	*quod vidē*, which see (presented elsewhere in the document)
RCA	Resource Conservation Agency
RCB	reinforced concrete box
RCC	Riverside Community College
RCFCWCD	Riverside County Flood Control and Water Conservation District

RCFD	Riverside County Fire Department
RCIP	Riverside County Integrated Project
RCIWMP	Riverside Countywide Integrated Waste Management Plan
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RCSD	Riverside County Sheriff’s Department
RCTC	Riverside County Transportation Commission
RHNA	Regional Housing Needs Assessment
RivTAM	Riverside County Traffic Analysis Model
ROG	Reactive Organic Gas
RPR	(California) Rare Plant Ranking
RPS	Renewables Portfolio Standard
RPW	Relatively Permanent Water
RSHA	Regional System of Highways and Arterials
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SA	Site Assessment
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas and Electric
SEDAB	Southeast Desert Air Basin
sf	square foot/feet
SF_6	Sulfur Hexafluoride
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan

SJUSD	San Jacinto Unified School District
SJWA	San Jacinto Wildlife Area
SKR	Stephens' kangaroo rat
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SMARA	Surface Mining and Reclamation Act
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
SP	Service Population
SR-60	State Route 60
SRRE	Source Reduction and Recycling Element
SSURGO	Soil Survey Geographic
STC	Sound Transmission Class
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWQCB	State Water Quality Control Board
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TAF	thousand acre-feet
TASAS	Traffic Accident Surveillance and Analysis System
TCM	Transportation Control Measures
TCP	Traditional Cultural Place
TDM	Transportation Demand Management
TDS	Total Dissolved Solids
TIA	Traffic Impact Analysis
TIS	Traffic Impact Study
TMDL	Total Maximum Daily Load
TNW	Traditional Navigable Water
tpy	tons per year
TRI	Toxics Release Inventory
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UC	University of California
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers

USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VAV	Variable Air Volume
VIA	Visual Impact Assessment
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VRP	Visibility-Reducing Particles
WDR	Wastewater Discharge Requirement
WLC	World Logistics Center
WLCSP	World Logistics Center Specific Plan
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WSA	Water Supply Assessment
WSP	Water Shortage Plan
ZOI	Zone of Influence

~~7.3 GLOSSARY OF GENERAL TERMS~~

8.3 Glossary of General Terms

Acre-Foot. An acre-foot is the quantity of volume of water that covers one acre to a depth of one foot; equal to 43,560 cubic feet or 325,851 gallons.

Aesthetics. The perception of artistic elements, or elements in the natural or human-made environment that are pleasing to the eye.

Air Quality Criteria. Air quality criteria are the levels of pollution and length of exposure at which adverse effects on health and welfare occur.

Air Quality Standards. Air quality standards are the prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

Ambient Noise. Ambient noise is the composite of noise from all sources near and far. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Applicant. An applicant is a person who proposes to carry out a project that needs a lease, permit, license, certificate, or other entitlement, for use or financial assistance from one or more public agencies.

Arterial. An arterial is a major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to non-residential properties.

Attainment. Attainment means that there is compliance with State and Federal ambient air quality standards within an air basin.

A-Weighted Decibel (dBA). The dB on the A-weighted scale is the sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

California Environmental Quality Act (CEQA). Enacted in 1970, CEQA requires State and local agencies to estimate and evaluate the environmental implications of their actions. It aims to prevent environmental effects of the agency actions by requiring agencies, when feasible, to avoid or reduce the significant environmental impacts of their decisions. If a proposed activity has the potential for a significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project (*California Public Resources Code* §§21000 et seq.)

Capacity. The maximum rate of flow at which vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions.

Collector. Relatively low-speed, low-volume street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Community Noise Equivalent Level (CNEL). A 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for greater sensitivity to noise during these hours.

Congestion Management Plan (CMP). A mechanism employing growth management techniques, including traffic level of service requirements, standards for public transit, trip reduction programs involving transportation systems management and jobs/housing balance strategies, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional traffic impacts of development.

Cumulative Impact. As used in CEQA, the total impact resulting from the accumulated impacts of individual projects or programs over time.

Day-Night Average Level (L_{dn}). The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m. (Note: CNEL and L_{dn} represent daily levels of noise exposure averaged on an annual or daily basis, while L_{eq} represents the equivalent energy noise exposure for a shorter time period, typically one hour.)

Decibel (dB). The decibel (dB) is the unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.

Emission Standard. The maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Environment. In CEQA, the environment are "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance."

Environmental Impact Report (EIR). A report required pursuant to the California Environmental Quality Act that assesses all the environmental characteristics of an area, determines what effects or impacts will result if the area is altered or disturbed by a proposed action, and identifies alternatives or other measures to avoid or reduce those impacts.

Equivalent Energy Level (L_{eq}). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is typically computed over 1-hour, 8-hour, and 24-hour sample periods.

Feasible. To be feasible, according to CEQA, means to be capable of being accomplished in a successful manner within a reasonable time taking into account economic, environmental, social, and technological factors.

Findings. Findings required by CEQA are the conclusions made regarding the significance of a project in light of its environmental impacts. A Statement of Overriding Considerations does not obviate the need to make other required CEQA findings.

Floor Area Ratio (FAR). The FAR is the gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net square feet of land area, a floor area ratio of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 square feet of floor area; an FAR of 2.0 would allow 20,000 square feet; and an FAR of 0.5 would allow 5,000 square feet. Also commonly used in zoning, FARs typically are applied on a parcel-by-parcel basis as opposed to an average FAR for an entire land use or zoning district.

Floor Area, Gross. The sum of the horizontal areas of the several floors of a building measured from the exterior face of exterior walls, or from the centerline of a wall separating two buildings, but not including any space where the floor-to-ceiling height is less than six feet. Some cities exclude specific kinds of space (e.g., elevator shafts and parking decks) from the calculation of gross floor area.

Freeway. A freeway is a high-speed, high-capacity, limited-access road serving regional and countywide travel. Such roads are free of tolls, as contrasted with turnpikes or other toll roads. Freeways generally are used for long trips between major land use generators. Major streets cross at a different grade level.

Incorporation by Reference. "Incorporation by reference" is a CEQA term meaning reliance on a previous environmental document for some portion of the environmental analysis of a project. See *CEQA Guidelines* §15150.

Initial Study. An Initial Study is a preliminary CEQA analysis that can be prepared by a Lead Agency to determine whether an EIR or Negative Declaration must be prepared, and identifying the significant environmental effects to be analyzed in an EIR.

Land Use. Any land use is the determination by a governing authority of the use to which land within its jurisdiction may be put so as to promote the most advantageous development of the community.

Lead Agency. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency decides whether an EIR or Negative Declaration is required for a project, and causes the appropriate document to be prepared.

Level of Service (LOS). LOS is a qualitative measure describing operational conditions within a traffic stream and how motorists and/or passengers perceive them.

Maximum Noise Level (L_{max}). The maximum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.

Mitigation Measure. A mitigation measure is a change in a project designed to avoid, minimize, rectify, reduce, or compensate for a significant environmental impact.

Mitigation Monitoring and Reporting Program (MMRP). When a lead agency adopts a mitigated negative declaration or an EIR, it must adopt a program of monitoring or reporting which will ensure that mitigation measures are implemented. (See CEQA Statute §21081.6(a) and *CEQA Guidelines* §§15091(d) and 15097.)

Noise. Noise is any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying (unwanted sound).

Noise Contours. Noise contours are lines drawn about a noise source indicating equal levels of noise exposure.

Notice of Determination (NOD). An NOD is a brief notice filed with the State Clearinghouse to document project approval. The filing of the NOD starts the statute of limitations period. (See *CEQA Guidelines* §15373.)

Notice of Preparation (NOP). An NOP is a brief notice to notify the public, Responsible and Trustee Agencies that an EIR is being prepared for a project. The notice serves to solicit guidance from those agencies and the public about the scope and content of the environmental information to be included in the EIR. (See *CEQA Guidelines* §15375.)

Peak Hour. The hour of highest traffic volume on a given section of roadway between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m.

Programmatic EIR. A programmatic EIR is an EIR that examines the impacts that would result from a conceptual plan or policy action envisioned by the lead agency, which is carried out at a more general level of analysis based upon the development information available. (See C*EQA Guidelines* §15161.)

Project. According to CEQA, a project is the whole of an action that has the potential to result in significant environmental change in the environment, directly or ultimately. (See *CEQA Guidelines* §15378.)

Project Description. A project description describes the basic characteristics of the project including location, need for the project, project objectives, technical and environmental characteristics, project size and design, project phasing and required permits. The level of detail provided in the project description varies according to the type of environmental document prepared.

Project EIR. A project EIR is an EIR that examines the impacts that would result from development of a specific project. (See C*EQA Guidelines* §15161.)

Public Hearing. A public hearing is a mechanism for providing the public an opportunity to comment on and present evidence relating to a proposed project and its Draft EIR.

Responsible Agencies. According to CEQA, responsible agencies are all public agencies other than the Lead Agency that have discretionary approval power over the project. (See *CEQA Guidelines* §15381.)

Reviewing Agencies. Reviewing agencies are local, State, and Federal agencies with jurisdiction over the project area or resources potentially affected by the project. Cities and counties are also considered reviewing agencies.

Scoping Meeting. A scoping meeting is an optional meeting pursuant to CEQA in which the lead agency meets with members of the public or agency representatives after the Notice of Preparation has been issued to discuss environmental issues related to a project. Scoping sessions provide the opportunity to discuss environmental issues, project alternatives and potential mitigation measures that may warrant in-depth analysis in the environmental review process.

Sensitive Receptors. Sensitive receptors are people or institutions with people that are particularly susceptible to illness from environmental pollution, such as the elderly, very young children, people already weakened by illness (e.g., asthmatics), and persons engaged in strenuous exercise.

Significant Effect on the Environment. A significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (*CEQA Guidelines* §15382).

Thresholds of Significance. Thresholds of significance are criteria for each environmental issue area to assist with determinations of significance of project impacts. They are based on *CEQA Guidelines* Appendix G.

Trustee Agency. According to CEQA, a Trustee agency is a State agency that has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. (See *CEQA Guidelines* §15386.)

Volume (Transportation). The volume of traffic is the total number of vehicles that pass over a given point or section of a roadway during a given time interval. Volumes may be expressed in terms of annual, daily, hourly, or sub-hourly periods.

Wastewater. Wastewater is water carrying dissolved or suspended solids from homes, farms, businesses, and industries. The wastewater treatment process includes any process that modifies characteristics of the wastewater, usually for the purpose of meeting effluent standards.

Zoning. Regulation by zone districts of the height, use, and area of structures, the use of land, and the density of population and intensity of allowable uses.

~~7.4 GLOSSARY OF PROJECT-SPECIFIC DEFINITIONS~~

8.4 Glossary of Project-Specific Definitions

The following definitions are excerpts from Section 3.4, *Project Description*.

Annexation Area: This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's adopted Sphere of Influence adopted on November 21, 1985.

~~**CDFW Conservation Buffer Area:** This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and replace them with Open Space and Public Facility designations. This property is not within the proposed World Logistics Center Specific Plan. This Buffer Area is a large part of the "Other Project Areas" described herein.~~

~~**General Plan Amendment:** One of the proposed entitlements is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on the 3,714-acre property located east of Redlands and south of SR-60. The following General Plan Elements will be amended: Community Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) 2,610 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities.~~

~~**Moreno Highlands Specific Plan:** This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. This development will be replaced with the World Logistics Center Specific Plan and 1,104 acres of Open Space and Public Facilities uses.~~

Off-site Analysis Zone: This term refers to an approximately 1,000-foot wide zone adjacent to the south and east boundaries of the Specific Plan area that was studied by Michael Brandman Associates (MBA) as part of the assessment of potential impacts on biological resources. It covers approximately 1,637.5 acres.

Off-site Improvement Areas: Development under the Specific Plan will require construction of a number of offsite infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited to the following facilities (see Figure 3.7):

Debris Basins easterly of Gilman Springs Road;

Water reservoirs and access roads located northeast, north, and west of the project site;

SR-60 interchange improvements; and

Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.

~~**Other Project Areas:** The San Diego Gas & Electric Company (SDG&E) and the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.~~

Project Site or Project Area: This term refers to the entire ~~3,818~~2,714-acre area covered by the EIR encompassed by: (a) the Specific Plan Area (2,610 acres~~); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities Lands area (194 aces);~~ and (b~~d~~) the Off-site Improvement Area on 104 acres.

~~**Proposed Project or World Logistics Center Project:** General term applied to all of the entitlements outlined above that are addressed in this EIR, including:~~

~~WLC Specific Plan~~	~~2,610 acres~~
~~General Plan Amendment~~	~~3,714 acres~~
~~Zone Change~~	~~3,714 acres~~
~~Tentative Parcel Map~~	~~1,539 acres~~
~~Annexation~~	~~85 acres~~
~~Off-site improvements~~	~~104 acres~~

Specific Plan Site: Approximately 2,610 acres of the project area are included in the proposed World Logistics Center (WLC) Specific Plan, located generally south of the SR-60 Freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.

State Lands: Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.

Tentative Parcel Map Area: A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.

WLC Specific Plan: The WLC Specific Plan proposes a master-planned logistics campus to include up to 40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, a site for logistics support uses (LS designation) and 74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines and review procedures for all development within the project.

World Logistics Center Project: The term refers ~~to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC~~ property that is generally located south of the State Route 60 freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.

~~**Zone Change:** The project includes a Zone Change covering 3,714 acres which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E, SCGC properties) and 2,610 acres for the World Logistics Center Specific Plan.~~

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APPENDIX A

Air Quality/GHG and Health Risk Assessment Technical Report (Revised)

WORLD LOGISTICS CENTER

Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Report

Prepared for

City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92552

July 2018

WORLD LOGISTICS CENTER

Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Report

Prepared for
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Acronyms and Abbreviations

AB 32	California Global Warming Solutions Act of 2006
AQMP	Air Quality Management Plan
ATCM	Air Toxics Control Measure
BACT	Best Available Control Technology
Basin	South Coast Air Basin
Basin	South Coast Air Basin
BAU	Business as Usual
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
CAFE	Corporate Average Fuel Economy
CAPCOA	California Air Pollution Control Officer's Association
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CCAT	California Climate Action Team
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CEUS	Commercial End-Use Survey
CH_4	Methane
City	City of Los Angeles
CO	carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalents
CPUC	California Public Utilities Commission
DPM	Diesel Particulate Matter
EMFAC	on-road vehicle emissions factor model
GHG	Greenhouse Gas
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
hp	horsepower
HVAC	Heating, Ventilating and Air Conditioning
IPCC	Intergovernmental Panel on Climate Change
LADWP	Los Angeles Department of Water and Power
LAGBC	Los Angeles Green Building Code

LCFS	Low Carbon Fuel Standard
LOS	Level of Service
LST	localized significance threshold
MATES IV	Multiple Air Toxics Exposure Study, May 2015
MPO	Metropolitan Planning Organization
$MTCO_2e$	Metric ton of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
N_2O	Nitrous Oxide
OPR	California Office of Planning and Research
Pb	lead
PM2.5	fine particulate matter
PM10	respirable particulate matter
ppm	parts per million
PFCs	Perfluorocarbons
RTIP	Regional Transportation Improvement Program
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RPS	Renewable Portfolio Standard
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	sulfur dioxide
SF_6	Sulfur Hexafluoride
TAC	toxic air contaminant
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USGBC	United States Green Building Code
VDECS	Verified Diesel Emission Control Strategies
VMT	Vehicle miles travelled
VOC	volatile organic compounds
$\mu g/m^3$	micrograms per cubic meter
µm	micrometers

EXECUTIVE SUMMARY

The World Logistics Center Specific Plan (project) proposes 40.6 million square feet of logistics warehouse uses. These uses comprise a maximum of 40.4 million square feet of "high-cube logistics" warehouse distribution uses classified as "Logistics Development" (LD) and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as "Light Logistics" (LL). In addition, the LD designation includes land for two special use areas; a fire station and a "logistics support" facility for vehicle fueling and sale of convenience goods (3,000 square feet is assumed for planning purposes for the "logistics support").

In accordance with the requirements under the California Environmental Quality Act (CEQA), this Air Quality and Greenhouse Gas (GHG) Technical Report provides an estimate of air quality and GHG emissions for the project and predicts the potential impacts from construction and operation activities. The report includes the categories and types of emission sources resulting from the Project, the calculation procedures used in the analysis, and any assumptions or limitations.

This report summarizes the potential for the project to conflict with an applicable air quality plan, to violate an air quality standard or threshold, to result in a cumulatively net increase of criteria pollutant emissions, or to expose sensitive receptors to substantial pollutant concentrations, and to generate GHG emissions that may have a significant impact on the environment and its potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The findings of the analyses are as follows:

- The incremental increase in emissions from construction and operation of the project would exceed the regional daily emission thresholds set forth by the South Coast Air Quality Management District (SCAQMD) for VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ even with the implementation of mitigation.

- The incremental increase in onsite emissions from construction and operation of the project would exceed the localized significance thresholds for PM_{10} set forth by the SCAQMD even with implementation of mitigation.

- Emissions from the increase in traffic due to operation of the project would not have a significant impact upon 1-hour or 8-hour local carbon monoxide (CO) concentrations due to mobile source emissions.

- Project construction and operations would not expose off- or on-site receptors to significant levels of toxic air contaminants causing significant health risk with implementation of mitigation.

- The project would result in significant cumulative air quality impacts during construction and operations of the Project even with implementation of mitigation.
- Greenhouse gas emissions associated with the project would not exceed applicable thresholds and the project would be consistent with greenhouse gas reduction plans, policies, and regulations.

SECTION 1
Introduction

1.1 Existing Conditions

The project area is largely vacant undeveloped marginal agricultural land, with six occupied single-family homes and associated ranch/farm buildings in various locations on the property. In the 1920s, several farm buildings and related houses were constructed on the property and, in the 1940s, a stock farm operated on a portion of the site that was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. The overall project site has been farmed by a variety of owners since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming today.

San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres south of the site. The Southern California Gas Company (SCGC) operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) south of the site south of Alessandro Boulevard along existing Virginia Street. The site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service.

Metropolitan Water District owns property and owns and operates facilities within the WLCSP area. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the WLCSP area. In addition, Metropolitan's Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, World Logistics Center Parkway, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road.

At present, the project site contains a number of unimproved drainage features, but it does not contain any improved flood control facilities. The project area is largely vacant marginal agricultural land with six rural residential properties.

1.2 Project Description

The project proposes a maximum of 40.4 million square feet of “high-cube logistics” warehouse distribution uses classified as “Logistics Development” (LD) and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as “Light Logistics” (LL). In addition, the LD designation includes land for two special use areas; a fire station and a “logistics support” facility for vehicle fueling and sale of convenience goods (3,000 square feet is assumed for planning purposes for the “logistics support”).

1.3 Project Location

The project is located in “Rancho Belago,” the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. **Figure 1** depicts the location of the project within the region and the City of Moreno Valley. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, World Logistics Center Parkway, Alessandro Boulevard, and Gilman Springs Road.

The WLC project area is located in portions of Sections 1, 12, and 13 of Township 3 South, Range 3 West; and portions of Sections 6, 7, 8, 9, 16, 17, 18, 19, 20, and 21 of Township 3 South, Range 2 West, as depicted on the U.S. Geological Survey (USGS) 7.5-minute series Sunnymead and El Casco, California quadrangles.

Path: U:\GIS\GIS\Projects\18xxx\D180130 World Logistics Center\03 MXDs Projects\Fig1_RegionalLoc.mxd, JYL 4/3/2018

SOURCE: ESRI

World Logistics Center

Figure 1
Regional Location

1.4 Existing Air Quality Conditions

Existing Setting

The project site is located in the South Coast Air Basin (Basin), a geographic area that encompasses the coastal plain and connecting broad inland valleys and low hills. The Pacific Ocean forms the southwestern border of the Basin, with mountain ranges forming the remainder of the border. The Basin includes Orange County and the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County. The Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

The air quality in the air basin has been steadily improving over the last couple of decades as measured in air pollutant concentrations by the SCAQMD. A concentration of a pollutant is a measure of the amount of a pollutant in the air. Some pollutants are measured in parts per million (ppm) and some are measured in micrograms per cubic meter ($\mu g/m^3$).

When sensitive people, such as children, pregnant women, and the elderly, breathe in air pollutants, they can experience health effects. These health effects differ based on the type of pollutant, the length of time someone is exposed, pre-existing health conditions, and the concentration of the pollutant. In general, health effects can include coughing, sore throat, chest pain, difficulty breathing, eye irritation, reduced lung function, asthma aggravation, chronic lung diseases, cancer, and lung damage.

Federal, state, and local agencies enact rules and regulations to reduce air pollutant emissions to protect the health of sensitive individuals. The EPA sets federal ambient air quality standards and the CARB sets state ambient air quality standards. When concentrations of pollutants exceed the standards, sensitive individuals may experience health effects.

Ozone is a pollutant formed in the air when emissions of volatile organic compounds (VOC) and nitrogen oxides (NO_x) combine in the presence of sunlight. Ozone is a pollutant of concern in the Basin because ozone levels exceed the ozone standards.

As shown in **Figure 2**, *Ozone Concentration Trends in the South Coast Air Basin,* ozone concentrations in the basin have generally decreased over the past twenty years for 1-hour and 8-hour averaging time periods as defined by the State and/or federal ambient air quality standards. The 1-hour and 8-hour concentration refers to the average of the concentration over a 1-hour and 8-hour time period, respectively.

Figure 2: Ozone Concentration Trends in the South Coast Air Basin

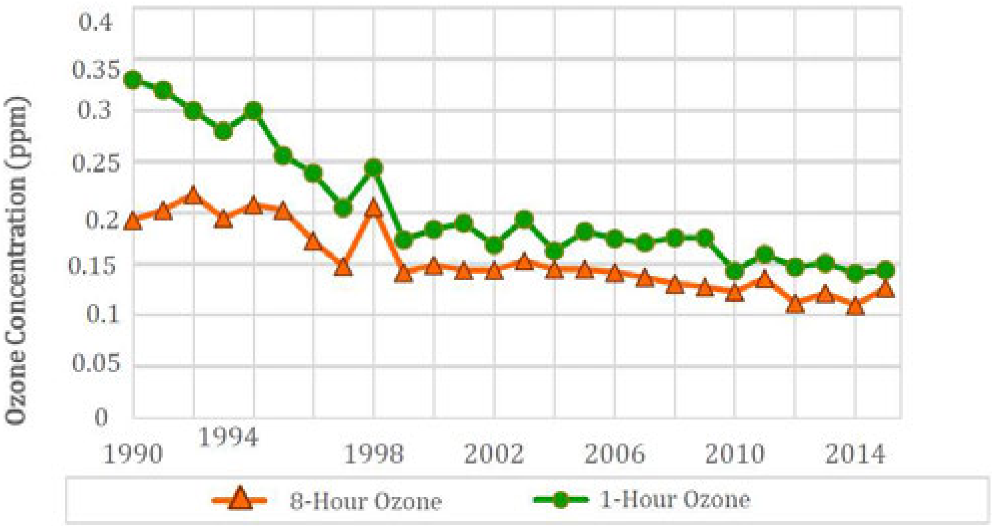

Sources of air pollution are typically categorized into one of three groups: area, mobile, or point. Area sources include small pollution sources like dry cleaners, gas stations, commercial buildings (heating and cooling units; surface coatings), and residential buildings (fire places; surface coatings). Mobile sources include both on-road vehicles (such as cars, trucks and buses) and off-road equipment (such as ships, airplanes, agricultural and construction equipment). Point sources include major industrial facilities like chemical plants, steel mills, oil refineries, power plants, and hazardous waste incinerators. As shown in **Figure 3**, *Ozone Precursor Emissions (VOC and* NO_X*) in the South Coast Air Basin,* the main source of NO_x and VOC emissions in the basin are from on-road motor vehicles, not from the operation of buildings. Although vehicle miles traveled in the basin continue to increase, ozone concentrations are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with cleaner and lower-emitting vehicles. VOC and NO_x are ozone precursors; therefore, if those emissions decrease, it follows that ozone concentrations would also decrease.

Emissions of NO_x in the air basin are expected to decrease in the future despite future growth in population, and vehicle miles traveled, as shown in **Figure 4**, NO_X *Emissions Forecast in the South Coast Air Basin*.

Figure 3: Ozone Precursor Emissions (VOC and NO_x) in the South Coast Air Basin

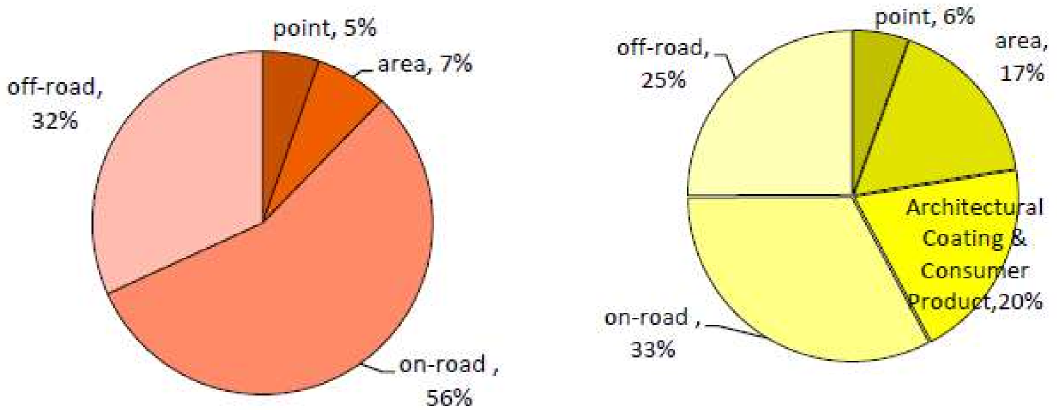

NOX Emissions Sources in South Coast Air Basin

VOC Emissions Sources in South Coast Air Basin

Figure 4: NO_x Emissions Forecast in the South Coast Air Basin

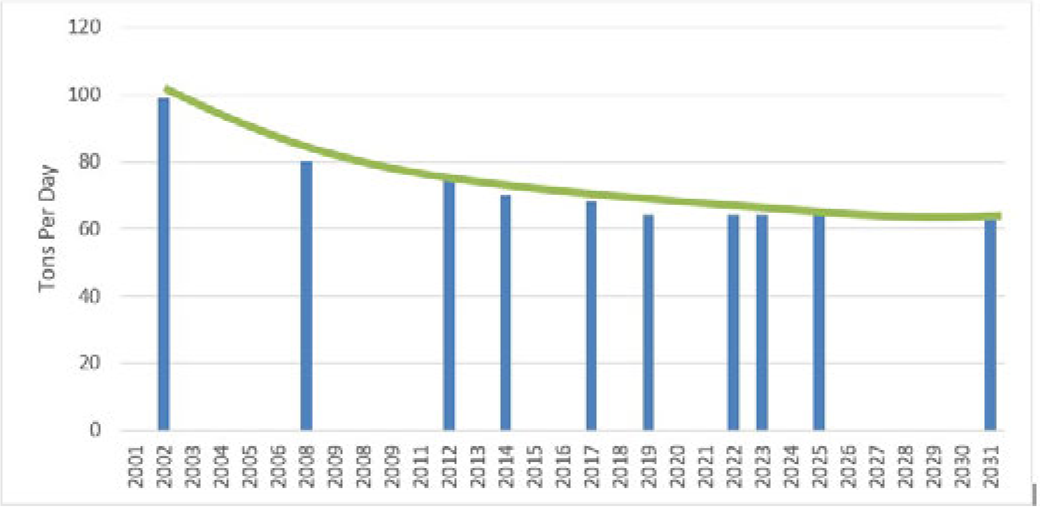

Another pollutant of concern is particulate matter (PM). PM is a mixture of small particles and liquid droplets suspended in the air. It is made up of components such as chemicals, metals, soil, or dust particles. The size of these particulates is linked to their potential for causing health problems. Ultrafine particles are less than 0.1 in micron in diameter, fine particles are less than 2.5 microns in diameter ($PM_{2.5}$), and coarse particles are larger than 2.5 microns and smaller than 10 microns in diameter (PM_{10}). The CARB and EPA have established standards for $PM_{2.5}$ and PM_{10} but not for ultrafine particles. $PM_{2.5}$ and PM_{10} are a concern in the air basin because sometimes the concentrations exceed the standards. $PM_{2.5}$ is often used as a marker for toxic air pollutants such as diesel PM.

As shown in **Figure 5**, *$PM_{2.5}$ Emissions Forecast in the South Coast Air Basin*, $PM_{2.5}$ emissions are expected to decrease in the Basin and then level out after the year 2014.

As shown in **Figure 6**, *Particulate Matter Concentration Trends in the South Coast Air Basin,* PM_{10} and $PM_{2.5}$ annual concentrations have continued to decrease since 1990 within the air basin as a whole.

Figure 7, *$PM_{2.5}$ Concentration Trends in the Inland Empire,* provides an additional view of $PM_{2.5}$ trends specifically in the Inland Empire. As shown, there is a marked decreasing trend in $PM_{2.5}$ concentrations in Riverside-Rubidoux, Fontana, and San Bernardino from 2001 to 2016 and at Mira Loma from 2006 to 2016. This decreasing trend in the Inland Empire PM_{10} concentration continues despite simultaneous increases in urban development including the development of large warehouse complexes since 2001.

Figure 5: $PM_{2.5}$ Emissions Forecast in the South Coast Air Basin

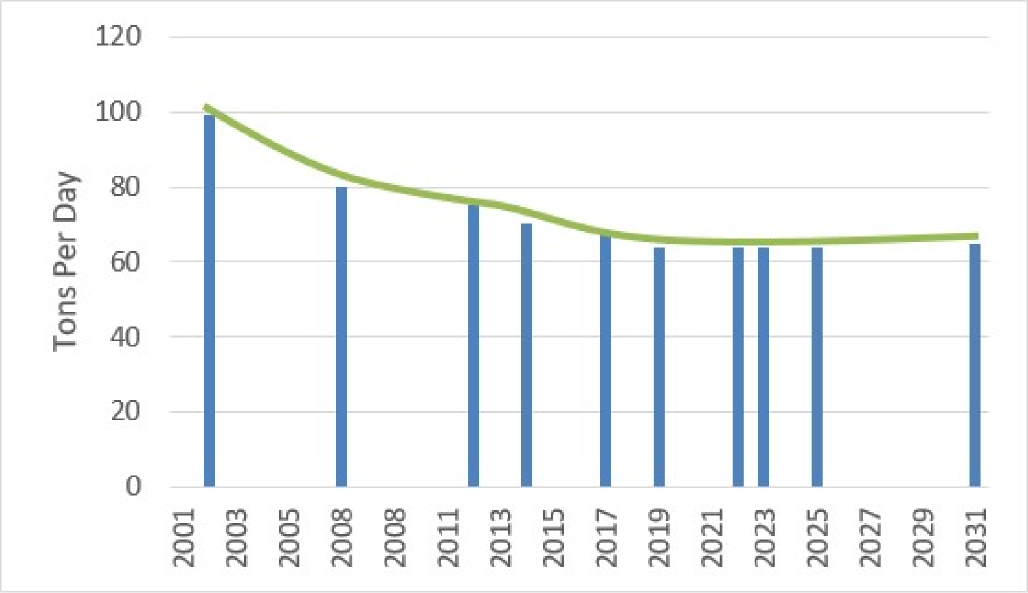

Figure 6: Particulate Matter Concentration Trends in the South Coast Air Basin

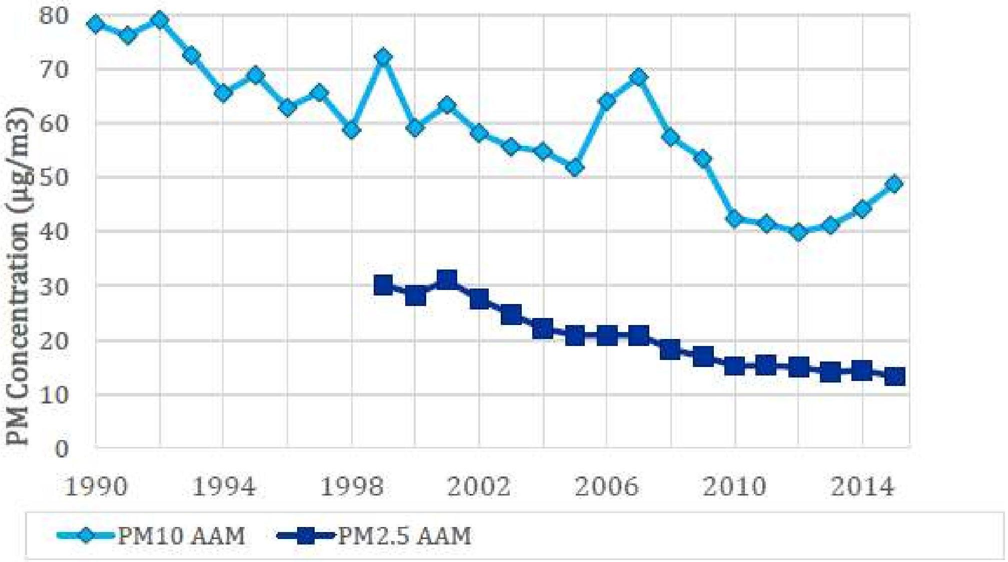

Figure 7: PM$_{2.5}$ Concentration Trends in the Inland Empire

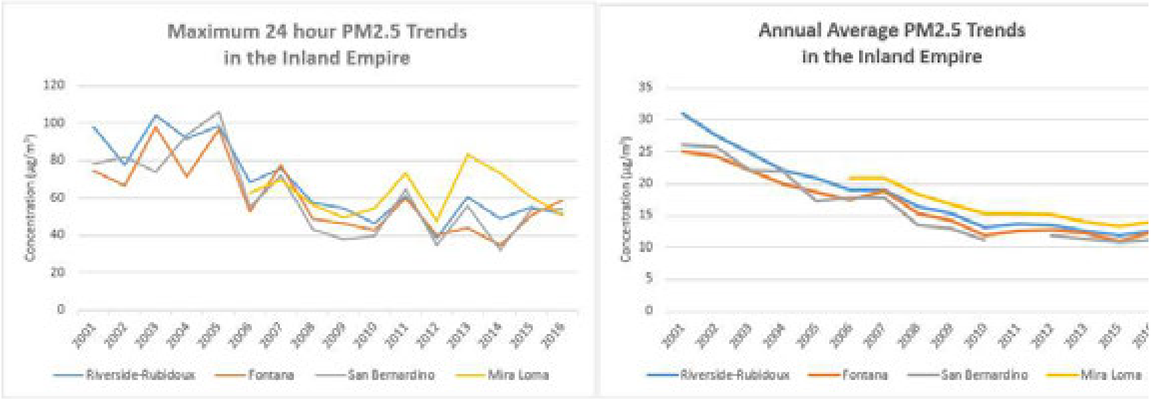

Part of the success in the decreasing NO$_x$ and PM emissions are increasingly stringent standards placed on motor vehicles. **Figure 8**, *Changes in U.S. Heavy-Duty Diesel NO$_X$ and PM Emission Standards Over Time,* demonstrates the changes in U.S. heavy duty diesel emission standards for NO$_x$ and PM over the last twenty-five years. The project would incorporate mitigation that would require that all diesel trucks accessing the project be model 2010 or younger. As shown below, emissions from 2010 trucks are only a fraction of emissions from an older vehicle, at 0.2 grams per horsepower hour (g/HP-hr) of NO$_x$ and 0.01 g/HP-hr of PM. The text in blue represents the off-road construction standards; 2011 model vehicles incorporate Tier 4 Interim standards and 2014 models incorporate Tier 4 Final standards. The project will incorporate mitigation that requires use of only Tier 4 models of equipment.

Figure 8: Changes in U.S. Heavy-Duty Diesel NO_x and PM Emission Standards Over Time

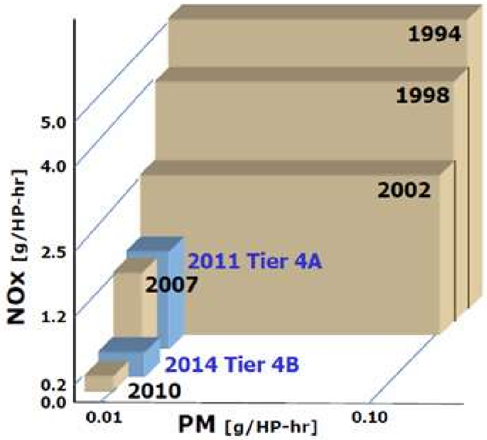

Climate and Meteorology

Air quality in the project area is not only affected by various emission sources (mobile, industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, rainfall, and amount of sunshine. The combination of topography, low atmospheric mixing height, abundant sunshine, and emissions from the second largest urban area in the United States combine to give the Basin one of the worst air pollution problems in the nation.

Winds in the Basin are predominantly of relatively low velocities, averaging about 4.0 miles per hour (mph). These low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. These conditions tend to last for several days at a time.

During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas of Los Angeles County are transported predominantly inland into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are increased concentrations of carbon monoxide (CO) and oxides of nitrogen (NO_X), due to extremely low inversions and air stagnation during the night and early morning hours that trap emissions principally from mobile sources at ground level. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

Regional Air Quality

Both the State of California and the Federal government have established health-based ambient air quality standards (AAQS) for six air pollutants. These pollutants are known as “criteria pollutants.”

- Carbon monoxide (CO)
- Lead (Pb)
- Ozone (O3)

- Nitrogen Dioxide (NO2)
- Particulate matter with a diameter of 10 microns or less (PM10)
- Sulfur dioxide (SO2)

Federal standards for 8-hour ozone and for fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) have also been adopted. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety and are listed in **Table 1**, *Ambient Air Quality Standards*. **Table 2**, *Summary of Health Effects of the Major Criteria Air Pollutants,* lists the health effects of these criteria pollutants and their potential sources.

The Air Quality Index is metric index developed by the United States EPA for reporting daily air quality. It indicates how clean or polluted the air is and what associated health effects might be a concern. The Air Quality Index focuses on health effects that may be experienced within a few hours or days after breathing polluted air. Descriptions for the various pollutant levels in the Air Quality Index are shown in **Table 3**, *Air Quality Index Descriptions*.

The federal and California 8-hour ambient air quality standard for ozone is 70 ppb. The California 1-hour standard for ozone is 90 ppb (there is no federal 1-hour standard). As shown in the table, in order to achieve the federal ambient air quality standard for ozone, the Air Quality Index would need to be below 101. In order to achieve the state 8-hour ambient air quality standard for ozone, the Air Quality Index would need to be below 84.

In the Moreno Valley area during 2016 and 2017, the air quality index was greater than 150 one day each year. That means the air was unhealthy for one day in 2016 and one day in 2017. Although the main source of NOX and VOC emissions are from on-road motor vehicles, NO_X and VOC emissions during project construction could contribute to unhealthy air days. Therefore, the project will incorporate mitigation that prohibits grading on days when an Air Quality Index is greater than 150 for particulates or ozone. If future years follow that trend, there would one day during each of the construction years when construction activities would need to be suspended.

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10}) [9]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$) [9]	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15.0 µg/m^3	
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm(40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2) [10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	None	
Sulfur Dioxide (SO_2) [11]	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas) [11]	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas) [11]	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)	—	
Lead[12, 13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas) [12]	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Visibility-Reducing Particles[14]	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 μg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 μg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24-Hour	0.01 ppm (26 μg/m^3)	Gas Chromatography			

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]

[1] California standards for ozone; carbon monoxide (except 8-hour Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; particulate matter (PM$_{10}$ and PM$_{2.5}$ and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest eight-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM$_{10}$, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For PM$_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

[8] On October 1, 2015, the natural eight-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual PM$_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour PM$_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM$_{10}$ standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the 98th percentile of the daily maximum concentrations at each site must not exceed 0.100 ppm. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO$_2$ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 0.75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm).

[12] The CARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

°C = degrees Celsius
EPA = United States Environmental Protection Agency
µg/m^3 = micrograms per cubic meter
mg/m^3 = milligrams per cubic meter
ppm = parts per million
ppb = parts per billion

Source: California Air Resources Board, 2016 (https://www.arb.ca.gov/research/aaqs/aaqs2.pdf).

Table 2
Summary of Health Effects of the Major Criteria Air Pollutants

Pollutants	*Sources*	*Primary Effects*
Ozone (O_3)	▪ Atmospheric reaction of organic gases (ROG or VOC) with nitrogen oxides in the presence of sunlight.	▪ Breathing difficulty. ▪ Lung tissue damage. ▪ Damage to rubber and some plastics.
Nitrogen Dioxide (NO_2)	▪ Motor vehicle exhaust. ▪ Heavy construction equipment exhaust. ▪ Farming equipment exhaust. ▪ Residential heating.	▪ Lung irritation and damage. ▪ Formation of acid rain.
Carbon Monoxide (CO)	▪ Motor vehicle exhaust. ▪ Heavy construction equipment exhaust. ▪ Farming equipment exhaust. ▪ Residential heating.	▪ Reduced tolerance for exercise. ▪ Impairment of mental function. ▪ Impairment of fetal development. ▪ Death at high levels of exposure. ▪ Aggravation of some heart diseases (angina).
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	▪ Motor vehicle exhaust ($PM_{2.5}$). ▪ Equipment and industrial sources ($PM_{2.5}$). ▪ Residential and agricultural burning ($PM_{2.5}$ and PM_{10}). ▪ Atmospheric chemical reactions ($PM_{2.5}$ and PM_{10}). ▪ Road dust (PM_{10}). ▪ Windblown dust (Agriculture [PM_{10}]) ▪ Construction (Fireplaces [PM_{10}])	▪ Reduced lung function. ▪ Aggravation of the effects of gaseous pollutants. ▪ Aggravation of respiratory and cardiorespiratory diseases. ▪ Increased cough and chest discomfort. ▪ Soiling. ▪ Reduced visibility.
Sulfur Dioxide (SO_2)	▪ Coal/oil- burning power plants. ▪ Industries, refineries, and diesel engines.	▪ Increased lung disease. ▪ Breathing problems for asthmatics. ▪ Formation of acid rain.
Lead (Pb)	▪ Metal smelters. ▪ Resource recovery. ▪ Leaded gasoline. ▪ Deterioration of lead paint.	▪ Learning disabilities. ▪ Brain and kidney damage.

Source: California Air Resources Board 2009 (http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm).

Table 3
Air Quality Index Descriptions

Air Quality Index Levels of Health Concern	Air Quality Index Numerical Range	Ozone Concentration for Air Quality Index (ppb)		Meaning
		8-Hour	1-Hour	
Good	Low: 0 High: 50	—	—	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	Low: 51 Std: 84* High: 100	Low: 59 Std: 70*	Low: 85	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	Low: 101 High: 150	Low: 75 (also the federal standard)	Low: 125	Members of sensitive groups may experience health effects. The general public is not likely to be affected. People with heart or lung disease, children, and older adults are considered sensitive and are at greater risk. For ozone, people who are active outdoors are also considered sensitive.
Unhealthy	Low: 151 High: 200	Low: 95	Low: 165	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	Low: 201 High: 300	Low: 115	Low: 205	Health alert: everyone may experience more serious health effects
Hazardous	Low: 301 High: 500	Low: 374	Low: 405	Health warnings of emergency conditions. The entire population is more likely to be affected.

ppb = parts per billion (a measure of concentration) * Std = 8-hour California ozone ambient air quality standard

Source: Environmental Protection Agency (https://airnow.gov/index.cfm?action=aqibasics.aqi); MBA-FCS 2015

Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. An example of indirect source contribution would be the motor vehicles at intersections, malls, and on highways. The California Clean Air Act (CCAA) provides the SCAQMD with the authority to manage transportation activities at indirect sources. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.

The narrative below describes the pollutant characteristics, mechanisms of pollutant origination, and health effects each of the criteria pollutants (i.e., pollutants specifically regulated under the Federal Clean Air Act [CAA] and/or the California Clean Air Act [CCAA]) and other pollutants of concern. Because the concentration levels of the AAQS were set with an adequate margin to protect public health and safety, these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than Federal AAQS.

- *Carbon Monoxide*
    - Description and Properties: CO is colorless, odorless toxic gas produce by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and

biomass). CO is a primary pollutant, meaning it is emitted directly into the air (unlike secondary pollutants such as ozone that are formed by the reactions of other pollutants). CO levels tend to be highest during the winter months when the meteorological conditions support the accumulation of the pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrated the CO. Because CO is somewhat soluble in water, normal winter conditions of rainfall and fog can suppress CO conditions.

  - Health Effects: CO is essentially inert to plants and materials but can have significant effects on human health. CO gas enters the body through the lungs, dissolves in the blood, and replaces oxygen as an attached hemoglobin. This binding reduces available oxygen in the blood and; therefore, reduces oxygen delivery to the body's organs and tissues. Effects on humans range from slight headaches to nausea to death. Elevated levels of CO can also cause visual impairments, reduced manual dexterity, poor learning ability, reduced work capacity, and trouble performing complex tasks.
  - Sources: The major sources of CO are on-road vehicles, aircraft, and off-road equipment, or any source that burns fuel including residential heaters and stoves. Since most of the CO sources are the indirect result of urban development, most emissions and unhealthy CO levels occur in major urban areas.

- *Ozone*
  - Description and Physical Properties: O_3 is known as a photochemical pollutant. Ozone is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between reactive organic gases (ROG) or volatile organic compounds (VOC), NO_X, and sunlight. ROG and NO_X are emitted from automobiles, solvents and fuel combustion, the sources of which are widespread throughout the SCAQMD. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. The conditions conducive to the formation of ozone include extended periods of daylight (solar radiation) and hot temperatures. These conditions are prevalent during the summer when thermal inversions are most likely to occur. As a result, summertime conditions of long periods of daylight and hot temperatures form ozone in the greatest qualities. During the summer, thermal inversions trap ozone from dispersing vertically, high concentrations of this pollutant are prevalent.
  - Health Effects: Health effects of ozone can include respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation and damage to lung cells, aggravated cardiovascular disease, and permanent lung damage. The greatest health risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Ozone also damages natural ecosystems such as forests, foothill communities, and damages

agricultural crops and some man-made materials such as rubber, paint, and plastics.

  - Sources: Ozone is a secondary pollutant, thus is not emitted directly in the lower level of the atmosphere. The sources of ozone precursors (ROG and NO_X) are discussed above in the description of ozone.

- *Oxides of Nitrogen*
  - Description and Physical Properties: During combustion of fossil fuels, oxygen reacts with nitrogen to produce NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). Atmospheric deposition of NO_X occurs when atmospheric or airborne nitrogen is transferred to water, vegetation, soil, or other materials. Acid deposition involves the deposition of nitrogen and/or sulfur acidic compounds that can harm natural resources and materials. NO_X is also an ozone precursor. When NO_X and ROG are released in the atmosphere, they can also be a precursor to PM_{10} and $PM_{2.5}$.
  - Health Effects: The EPA has concluded that the only form of NO_X that exists at a level high enough to cause public health concerns is nitrogen dioxide (NO_2). Nitrogen dioxide is a brown gas with a strong odor. NO_X can react with moisture, ammonia, and other compounds to form nitric acid and related particles. The main human health concerns of nitrogen dioxide include lung damage, increased incidence of chronic bronchitis, eye and mucus membrane damage, negative effects on the respiratory system, pulmonary dysfunction, and premature death. Small particles can penetrate deeply into the sensitive tissue of the lungs and can cause or worsen respiratory disease such as emphysema, asthma, and bronchitis, and can also aggravate existing heart disease. Because NO_X is an ozone precursor, the health effects associated with ozone are also indirect health effects associated with unhealthful levels of NO_X emissions.
  - Sources: A major source of NO_X includes stationary source fuel combustion (i.e. manufacturing and industrial, food and agricultural processing, and service commercial uses). Additionally, NO_X emission sources include motor vehicles internal combustion engines and electric utility and industrial boilers powered by fossil fuel combustion. Natural sources of NO_X include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_X for the United States. On-road vehicles also contribute to NO_X emissions.

- *Sulfur Dioxide*
  - Description and Physical Properties: Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that affects acid deposition. Sulfur oxides (SO_X) include sulfur

dioxide and sulfur trioxide (SO_3). The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. Historically, sulfur dioxide was a pollutant of concern. However, with the successful application of regulations at the State and local level, the levels of sulfur dioxide have been reduced dramatically in the past several decades. The CARB, the State regulatory agency charged with regulating air pollution in the State, demonstrates that sulfur dioxide levels in the State are well below the maximum standards. Although sulfur dioxide concentrations have been reduced to levels well below State and Federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}. Sulfates are a particulate formed through the photochemical oxidation of sulfur dioxide.

  - Health Effects: Sulfur dioxide is a soluble gas; therefore, it can be absorbed in the mucous membranes of the respiratory tract and nose. Long-term exposure of high levels of sulfur dioxide can cause irritation of existing cardiovascular disease, respiratory illness, and changes in the defenses in the lungs. When people with asthma are exposed to high levels of sulfur dioxide for short periods of time during moderate activity, effects may include wheezing, chest tightness, or shortness of breath.

  - Sources: Anthropogenic, or human caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide.

- *Lead*

  - Description and Physical Properties: Lead (Pb) is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Lead was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. The exclusion of lead from gasoline helped to decrease emissions of lead in the United States from 219,000 to 4,000 short tons per year between 1970 and 1997. Even though leaded gasoline has been phased out in most countries, some still use leaded gasoline. The mechanisms by which lead can be removed from the atmosphere (sinks) include deposition to soils, ice caps, and oceans, and inhalation.

  - Health Effects: Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. The more serious effects of lead poisoning include behavior disorders, mental retardation, and neurological impairment. Low levels of lead in fetuses and young children can result in nervous system damage, which can cause learning deficiencies and low IQs. Lead may also contribute to high blood pressure and heart disease.

  - Sources: Lead-ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, soil waste disposal, and crustal physical weathering.

- *Particulate Matter (PM_{10} and $PM_{2.5}$)*

  - Description and Physical Properties: Particulate matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmosphere particles include those produced from combustion (diesel soot or fly ash), light produced (urban haze), sea spray produced (salt particles), and soil-like particles from re-suspended dust. In discussions of air pollution, particulate matter is typically divided up into two size categories: PM_{10} and $PM_{2.5}$ because of the adverse health effects associated with the smaller-sized particles. PM_{10} refers to particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter, also known as a micrometer [µm]). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in a diameter. Soil dust consists of the minerals and organic material found in soil being lifted up into the air by winds (e.g., fugitive dust).

  - Health Effects: Particulate matter can be inhaled directly into the lungs where it can be absorbed into the bloodstream. It is a respiratory irritant and can cause direct pulmonary effects such as coughing, bronchitis, lung disease, respiratory illnesses, increased airway reactivity, and exacerbation of asthma. Relatively recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health related effects include reduced visibility and soiling of property.

  - Sources: Particulate matter originates from a variety of stationary and mobile sources. Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal and recycling. Mobile or transportation-related sources include particulate matter from highway vehicles and non-road vehicles and fugitive dust from paved and unpaved roads. Secondary particulate matter is formed in the atmosphere through chemical reactions that can involve ROG, SO_X, NO_X, and ammonia.

- *Diesel Particulate Matter*

  - Description and Physical Properties: Diesel particulate matter (DPM) is a source of $PM_{2.5}$ as the size of diesel particles are typically 2.5 microns and smaller. In 1998, DPM made up about 6 percent of the total $PM_{2.5}$ inventory nationwide. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. DPM includes the particles-phase constituents in diesel exhaust. Organic compounds account for 80 percent of the total particulate matter mass, which is composed of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons (PAHs) and their derivatives. Fifteen PAHs have been confirmed for carcinogenicity, a number of which are found in diesel exhaust. The chemical composition and particle sizes of diesel PM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and the year of the engine.

  - Cancer Health Effects: Human studies on the carcinogenicity of diesel particulate matter demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure. Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on how environmental risk should be evaluated through programs like the AB2588 Hot Spots Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.

  - Non-Cancer Health Effects: Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient particulate matter pollution as well, and numerous studies have linked elevated particle levels in the air to increase hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

  - Sources: Diesel exhaust.

- *Visibility-Reducing Particles*

  - Description and Physical Properties: Visibility-reducing particles (VRP) are suspended particulate matter that reduces visibility. Visibility is the distance through the air that can be seen without the use of instrumental assistance. The distance that can be seen is limited by the amount of gases and aerosol particles in the way. The EPA implemented a Regional Haze Rule in 1999 to attempt to protect visibility in 156 national parks and wilderness areas in the United States. The regulation requires states to establish goals for improving their areas and to work together with other states as the pollution is often transported over long distances.

  - Health Effects: The human health effects of VRP are those of pollution (particulate matter, oxides of nitrogen, and sulfur dioxide) discussed above.
  - Sources: The sources are other pollutants (particulate matter, oxides of nitrogen, and sulfur dioxide) as discussed above.

- *Vinyl Chloride*
  - Description and Physical Properties: Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is formed when other substances such as trichloroethylene and tetrachloroethylene are broken down. This can occur when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. In 1978, the CARB established a State ambient air quality standard for vinyl chloride. The standard was set at 0.01 ppm for a 24-hour duration because that was the lowest level that could be detected at that time. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.
  - Health Effects: Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.
  - Sources: Manufacturing of PVC plastic and vinyl products.

- *Hydrogen Sulfide*
  - Description and Physical Properties: Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.
  - Health Effects: High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. Long exposure to hydrogen sulfide can cause pulmonary edema.

  - Sources: Hydrogen sulfide and other reduced sulfur compounds form by the anaerobic decomposition of manure some types of bacteria found in animal and human by-products produce hydrogen sulfide during reduction of sulfur-containing compounds, such as proteins. Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide emissions. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergoes putrefaction. It is used in the production of heavy water for nuclear reactors, the manufacture of chemicals, in metallurgy, and as an analytical reagent.

- *Reactive Organic Gases and Volatile Organic Compounds*

  - Description and Physical Properties: Reactive organic gases (ROG), or volatile organic compounds (VOC), are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. ROG consist of nonmethane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Nonmethane hydrocarbons are hydrocarbons that do not contain the unreactive hydrocarbon, methane. Oxygenated hydrocarbons are hydrocarbons with oxygenated functional groups attached.

  - It should be noted that there are no State or Federal ambient air quality standard for ROG because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemicals reactions that contribute to the formulation of ozone. ROG are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.

  - Health Effects: Although health-based standards have not been established for ROG, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of ROG are suspected to cause eye, nose, and throat irritation; headaches, loss of coordination, nausea, damage to liver, kidney, and the central nervous system. There are many ROG that have been classified as toxic air contaminates. A particular ROG of concern is benzene, which is described in more detail below. The EPA maintains a list of all air substances that have been classified as hazardous to humans and/or animals, and includes ROG, pesticides, herbicides, and radionuclides.

  - Sources: The major sources of ROG are on-road motor vehicles and solvent evaporation.

- *Benzene*

- Description and Physical Properties: Benzene is an ROG. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" (human) carcinogen.

- Health Effects: Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure of high dose by inhalation has caused blood disorders, including aplastic anemia and lower levels or red blood cells. Occupational exposure to benzene has been shown to cause leukemia (mainly acute myelogenous leukemia). Studies have also found that benzene exposure increased the risks of lymphatic and hematopoietic cancer (cancers of lymphatic system and of organs and tissues involved in the production of blood), total leukemia, and specific histologic types of leukemia.

- Sources: Benzene is emitted into the air from gasoline services station (fuel evaporation), motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is also used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also used in manufacturing detergents, explosives, dyestuffs, and pharmaceuticals.

Ultrafine Particles. Ultrafine particles are particulate matter (PM) that exists in the ambient air and are less than 0.1 micrometer (µm or microns) in diameter. Ultrafine particles (UFP or PM0.1) are included in the group called PM$_{2.5}$, particulate matter less than 2.5 micrometers in diameter.

The picture to the right displays the relative size of the particles compared with a human hair, with PM$_{10}$ (particulate matter less than 10 micrometers in diameter) indicated as yellow circles, PM$_{2.5}$ shown as blue circles, and ultrafine particles shown as red circles.

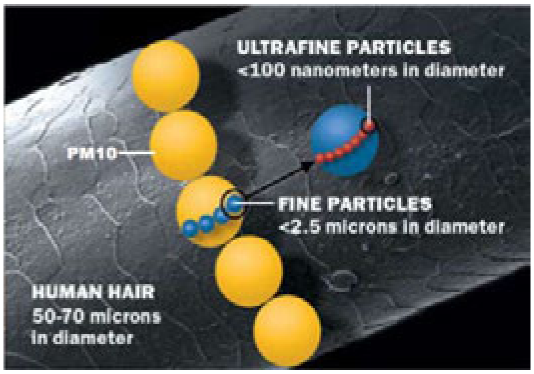

The CARB or the EPA have not set an ambient air quality standard for ultrafine particles because health effect evidence and measurements are currently limited. In its recent revisions to the national ambient air quality standards for particulate matter, the EPA states, "In considering both the currently available health effects evidence and the air quality data, the Policy Assessment concluded that this information was still too limited to provide support for consideration of a distinct PM standard for ultrafine particles".[1]

The EPA indicates that evidence and research regarding health effects from short-term and long-term exposure to ultrafine particles are still too limited to establish a standard for ultrafine particles. In addition, the EPA reports that the studies that do exist have reported inconsistent and mixed results. The following is an excerpt from the Federal Register illustrating this point:

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[1] U.S. Environmental Protection Agency. 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf. Accessed May 2018.

> *"New evidence, primarily from controlled human exposure and toxicological studies, expands our understanding of cardiovascular and respiratory effects related to short-term ultrafine particle exposures. However, the Policy Assessment concluded that this evidence was still very limited and largely focused on exposure to diesel exhaust, for which the Integrated Science Assessment concluded it was unclear whether the effects observed are due to ultrafine particles, larger particles within the PM2.5 mixture, or the gaseous components of diesel exhaust. In addition, the Integrated Science Assessment noted uncertainties associated with the controlled human exposure studies using concentrated ambient particle systems, which have been shown to modify the composition of ultrafine particles.*
>
> *The Policy Assessment recognized that there are relatively few epidemiological studies that have examined potential cardiovascular and respiratory effects associated with short-term exposures to ultrafine particles. These studies have reported inconsistent and mixed results.*
>
> *Collectively, in considering the body of scientific evidence available in this review, the Integrated Science Assessment concluded that the currently available evidence was suggestive of a causal relationship between short-term exposures to ultrafine particles and cardiovascular and respiratory effects. Furthermore, the Integrated Science Assessment concluded that evidence was inadequate to infer a causal relationship between short-term exposure to ultrafine particles and mortality as well as long-term exposure to ultrafine particles and all outcomes evaluated".* [2]

The Integrated Science Assessment for Particulate Matter concluded that evidence is inadequate to determine a causal relationship between short-term exposures of ultrafine particles to mortality or central nervous system effects, but that the evidence suggests short-term (24-hour) exposures cause cardiovascular and respiratory effects. The assessment also concluded that there is inadequate evidence linking long-term exposure (typically measured in terms of an annual concentration) of ultrafine particles to health effects, including respiratory, developmental, cancer, and mortality. Overall, epidemiological studies of atmospheric PM suggest that cardiovascular effects are associated with smaller particles, but there are few reports that make a clear link between ultrafine particle exposures and increased mortality. In January 2015, a new study[3] on the relationship of mortality to long-term exposure to fine and ultra-fine particles was released. The study found there was a relationship between mortality and both fine and ultra-fine particles exposure.

In its Quantitative Health Risk Assessment for Particulate Matter, the EPA did not assess ultrafine particles, stating "that there was insufficient data to support a quantitative risk assessment for other size fractions (e.g., ultrafine particles)."[4]

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[2] U.S. Environmental Protection Agency. 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf. Accessed May 2018.

[3] Environmental Health Perspectives, January 2015. Associations of Mortality with Long-Term Exposures to Fine and Ultrafine Particles, Species and Sources: Results from the California Teachers Study Cohort

[4] U.S. Environmental Protection Agency. 2010. Quantitative Health Risk Assessment for Particulate Matter. EPA-452/R-10-005. Website: http://www.epa.gov/nscep/index.html. (Search for the document.)

The availability of measurements of ultrafine particles to support health studies is also limited:

> *With respect to our understanding of ambient ultrafine particle concentrations, at present, there is no national network of ultrafine particle samplers; thus, only episodic and/or site-specific data sets exist. Therefore, the Policy Assessment recognized a national characterization of concentrations, temporal and spatial patterns, and trends was not possible at this time, and the availability of ambient ultrafine measurements to support health studies was extremely limited. In general, measurements of ultrafine particles are highly dependent on monitor location and, therefore, more subject to exposure error than accumulation mode particles. Furthermore, the number of ultrafine particles generally decreases sharply downwind from sources, as ultrafine particles may grow into the accumulation mode by coagulation or condensation. Limited studies of ambient ultrafine particle measurements have suggested that these particles exhibit a high degree of spatial and temporal heterogeneity driven primarily by differences in nearby source characteristics. Internal combustion engines and, therefore, roadways are a notable source of ultrafine particles, so concentrations of these particles near roadways are generally expected to be elevated. Concentrations of ultrafine particles have been reported to drop off much more quickly with distance from roadways than fine particles.* [5]

In addition, it was hypothesized that chemical composition of PM may be a better predictor of health effects than particle size:

> *In addressing the issue of particle composition, the Integrated Science Assessment concluded that, '[f]rom a mechanistic perspective, it is highly plausible that the chemical composition of PM would be a better predictor of health effects than particle size.' Heterogeneity of ambient concentrations of PM2.5 constituents (e.g., elemental carbon, organic carbon, sulfates, nitrates) observed in different geographical regions as well as regional heterogeneity in PM2.5-related health effects reported in a number of epidemiological studies are consistent with this hypothesis.* [6]

The SCAQMD's Multiple Air Toxics Exposure Study (MATES-IV) states, "the health impact caused by exposure to UFPs [ultrafine particles] is still not well-understood." MATES-IV presents measurements of black carbon and ultrafine particles at 10 fixed sites within the Basin. The results indicate that the highest black carbon levels were at more urban sites located near major roadways. Black carbon was not measured in the previous MATES-III; however, elemental carbon levels decreased about 35 percent during from 2005 to 2012. Black carbon is a term used for elemental and graphitic components of soot.

The SCAQMD's 2016 Air Quality Management Plan (AQMP), discusses its progress in implementing the 2012 AQMP which contains a detailed chapter on near roadway exposure and ultrafine particles. The 2012 AQMP summarizes current health effect research on ultrafine particles. The potential health effects from ultrafine particle exposure are similar to those of

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[5] U.S. Environmental Protection Agency. 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf. Accessed May 2018.

[6] U.S. Environmental Protection Agency. 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf. Accessed May 2018.

PM2.5 and PM10: such as adverse cardio-respiratory responses including elevated blood pressure, and mild inflammatory and prothrombotic (obstruction of circulation) responses. The AQMP indicated that future research and assessment is needed in the following areas:

- Chemical Composition. Chemical composition of ultrafine particles depends on many factors, including vehicle technology, fuel, and atmospheric chemical reactions after being emitted. Particle composition may be a factor determining particle toxicity; therefore, knowledge regarding the chemistry is important.
- Formation. More research is needed regarding the processes leading to ultrafine particle formation.
- Standardized Measurement Methods and Procedures. Currently, there is no standard method for conducting size-classified or particle-number measurements. Characteristics measured in ambient and emission-testing studies are highly dependent on the measurement instrument/protocol used and its setting.
- Measurements at Hot Spot Locations. More measurements should be taken at “hot spots” where large numbers of vehicles are operated.
- Emissions Inventories. Vehicle emission factors for different particle size ranges and for particle numbers are highly uncertain, and there are no emission inventories for ultrafine particles from motor vehicles. New estimations of ultrafine particle levels should not be derived solely from vehicle emission factors (i.e., EMFAC), but have to include predictions for formation near the tailpipe and in the atmosphere.
- Air Quality Modeling. Modeling tools will need to be developed to simulate the formation and transport over a wide range of atmospheric conditions and emissions scenarios. The dispersion near the first few hundred meters of the roadway needs to be better understood.
- Health Effects. New toxicological and epidemiological studies targeting exposure to controlled and uncontrolled emissions from gasoline and diesel vehicles are needed to better characterize the exposure-response relationships to ultrafine particles and to help develop health guidelines and potential regulations. The health effects of inorganic ultrafine particle emissions from vehicles are only now starting to receive significant attention.
- Other Sources. More work is needed to better understand size, composition, and health impact of particles near stationary sources and other processes (rather than just motor vehicles).

Children and Air Pollution. Numerous studies have shown strong links between air pollution exposures and a range of health outcomes. One particular study was carried out over a 10-year experimental time period by the University of Southern California, the Children’s Health Study.[7] The Children's Health Study, which began in 1992, is a large, long-term, study of the effects of chronic air pollution exposures on the health of children living in Southern California. Children

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[7] Gauderman, W, et. al. Peters: Association between Air Pollution and Lung Function Growth in Southern California Children. American Journal of Respiratory and Critical Medicine. Vol 162. Page 1383. 2000.

may be more strongly affected by air pollution because their lungs and their bodies are still developing. Children are also exposed to more air pollution than adults since they breathe faster and spend more time outdoors in strenuous activities. About 5,500 children in twelve communities were enrolled in the study; two-thirds of them were enrolled as fourth-graders. Data on the children's health, their exposures to air pollution, and many factors that affected their responses to air pollution were gathered annually until they graduated from high school. The major conclusions reached in the University of Southern California's Children's Health Study are shown below. Note however, that the conclusions provided below were developed based on measurements made in the 1990's when levels of air pollution in the Basin were substantially higher than current levels.

- Children exposed to higher levels of particulate matter, nitrogen dioxide, acid vapor and elemental carbon, had significantly lower lung function at age 18, an age when the lungs are nearly mature and lung function deficits are unlikely to be reversed.

- Children who were exposed to current levels of air pollution had significantly reduced lung growth and development when exposed to higher levels of acid vapor, ozone, nitrogen dioxide, and particulate matter, which is made up of very small particles that can be breathed deeply into the lungs.

- Children living in communities with higher concentrations of nitrogen dioxide, particulate matter, and acid vapor had lungs that both developed and grew more slowly and were less able to move air through them. This decreased lung development may have permanent adverse effects in adulthood.

- Children who moved away from study communities had increased lung development if the new communities had lower particulate matter levels, and had decreased lung development if the new communities had higher particulate matter levels.

- Days with higher ozone levels resulted in significantly higher school absences due to respiratory illness. Children with asthma who were exposed to higher concentrations of particulate matter were much more likely to develop bronchitis.

- In the most recent update to the Children's Health Study, researchers discovered that improvements in regional air quality contributed to improved children's lung function. Specifically, combined exposure to two harmful pollutants, nitrogen dioxide (NO_2) and fine particulate matter, fell approximately 40 percent for children in the third study group (2007-2011) compared to the first study group (1994-98). The study followed children from Long Beach, Mira Loma, Riverside, San Dimas and Upland.

- Children's lungs grew faster as air quality improved. Lung growth from age 11 to 15 was more than 10 percent greater for children breathing the lower levels of NO_2 from 2007 to 2011 compared to those breathing higher levels from 1994 to 1998.

- The percentage of children in the study with abnormally low lung function at age 15 dropped from nearly 8 percent for the 1994-98 group, to 6.3 percent in 1997-2001, to just 3.6 percent for children followed between 2007 and 2011.

Air Pollution Constituents and Attainment Status

The CARB has many responsibilities with respect to air quality, including the following:

- Coordination and oversight of State and Federal air pollution control programs in California;
- Oversight activities of local air quality management agencies (e.g., the SCAQMD);
- Responsibility for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval; and
- Maintaining air quality monitoring stations throughout the State in conjunction with local air districts.

The CARB has divided the State into 15 air basins based on meteorological and topographical factors that affect air pollution. An air basin generally has similar meteorological and geographic conditions throughout. The CARB and EPA use the data collected at monitoring stations to classify air basins as attainment, nonattainment, nonattainment transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the AAQS. Nonattainment areas are imposed with additional restrictions, as required by the EPA to attain and maintain air quality standards. The air quality data are also used to monitor progress in attaining and maintaining air quality standards.

Significant authority for air quality control within the various air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans. **Table 4,** *Attainment Status of Criteria Pollutants in the South Coast Air Basin,* identifies the attainment status for the criteria pollutants in the Basin. The State AAQS are more stringent than the Federal AAQS.

Table 4
Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Maintenance – serious (San Bernardino County is in nonattainment)
$PM_{2.5}$	Nonattainment	Moderate Nonattainment
CO	Attainment	Serious Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.
Source: California Air Resources Board (https://www.arb.ca.gov/desig/adm/adm.htm), 2018; Environmental Protection Agency (https://www.epa.gov/green-book), 2018

Regional Air Quality Improvements

The SCAQMD website (aqmd.gov) contains historical air quality data dating back to 1994; the year after air pollution emissions thresholds were established. As described on the SCAQMD website,[8] in 1994 pollutant concentrations in the Basin exceeded three of the six Federal ambient air quality standards. The state sulfate standard was exceeded in some Basin areas. The state lead standard was exceeded in one localized area immediately adjacent to a source of lead emissions. No areas of the Basin exceeded standards for nitrogen dioxide or sulfur dioxide. The Los Angeles and Riverside County areas of the Southeast Desert Air Basin (SEDAB) served by the District exceeded standards for ozone and PM_{10}. No other standards were exceeded in the District SEDAB areas. The Federal standards were exceeded at one or more locations in the Basin during 142 days in 1994.

The American Lung Association website (lung.org) includes data collected from State air quality monitors that are used to compile an annual *State of the Air* report. These reports have been published over the last 13 years. The latest *State of the Air Report* compiled for the Basin was in 2017.[9] As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. Riverside County's average number of unhealthy ozone days dropped from 203 days per year in the initial 2000 State of the Air report to 122 in 2017 report and San Bernardino County's number of unhealthy ozone days dropped from 230 in 2000 to 142 in 2017. Both Counties has seen dramatic reduction in particle pollution since the initial State of the Air report (2000). While the 2017 *State of the Air Report* shows a slight uptick in the number of days of unhealthy particle pollution for both counties since

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[8] Historical Air Quality, Summary of 1994 Air Quality, http://aqmd.gov/smog/AirQualityStandardsComplianceReport/AirQualitySummary94.html, website accessed December 17, 2012.

[9] *State of the Air 2017,* American Lung Association, *http://www.lung.org/associations/states/california/assets/pdfs/sota/south-coast-fact-sheet.pdf,* website accessed April 2018.

the 2016 report, it is important to note that pollution levels measured in this latter report were affected by fluctuations in weather conditions.

The 2016 Air Quality Management Plan 2016 AQMP outlines a comprehensive control strategy that meets the requirement for expeditious progress towards an attainment date for the five National Ambient Air Quality Standards (NAAQS) being analyzed. As stated in the 2016 AQMP, "The ozone and PM levels continue to trend downward as the economy and population increase, demonstrating that it is possible to maintain a healthy economy while improving public health through air quality improvements" (South Coast Air Quality Management District 2016). As shown in **Figure 9**, *NO_X, VOC, CO, and Ozone Trends in the South Coast Air Basin*, NO_X, VOC, PM, NH_3, have been decreasing in the Basin since 2000 and are projected to continue to decrease through 2035.[10] These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy.

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[10] CARB, California Almanac of Emissions and Air Quality, 2013 Edition

Figure 9: NOx, VOC, CO, and Ozone Trends in the South Coast Air Basin

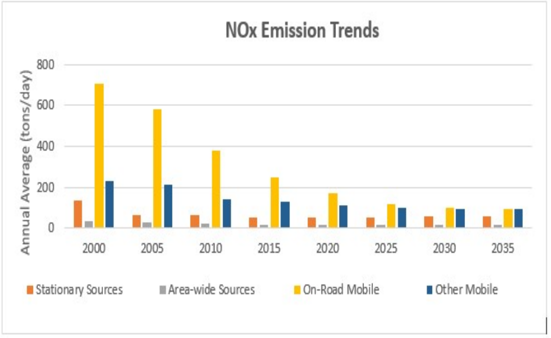

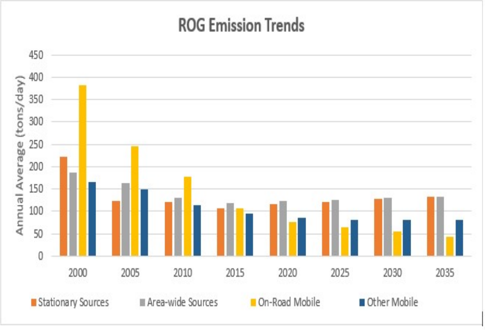

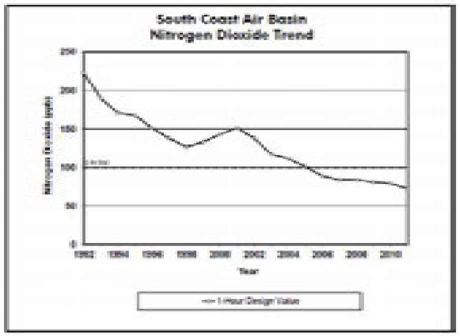

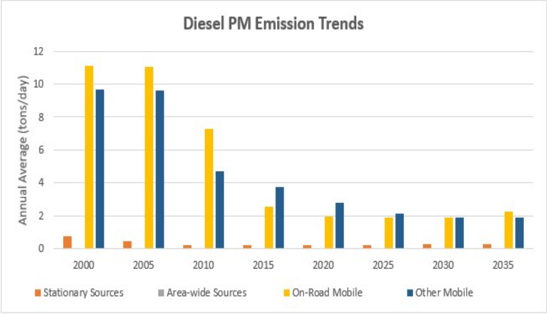

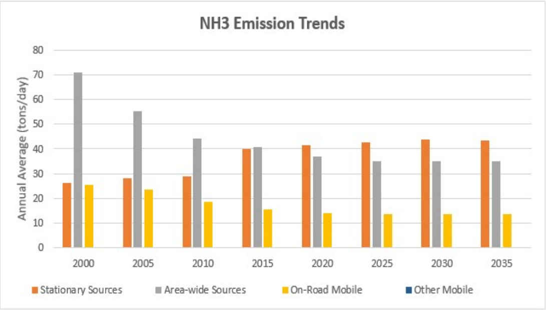

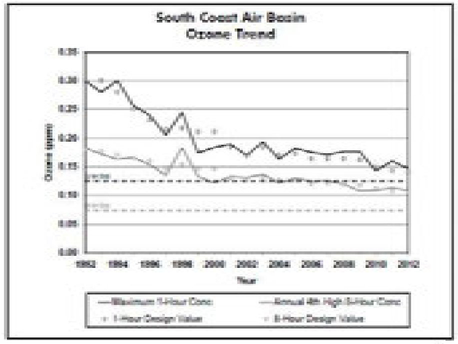

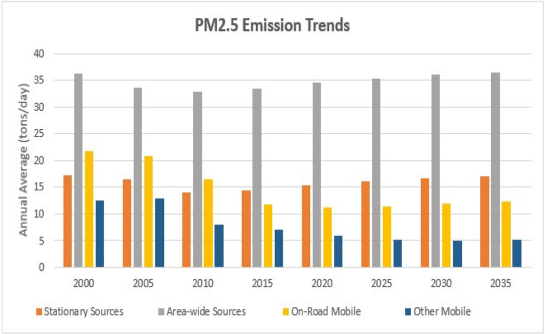

Source: CARB, California Almanac of Emissions and Air Quality, 2013 Edition.

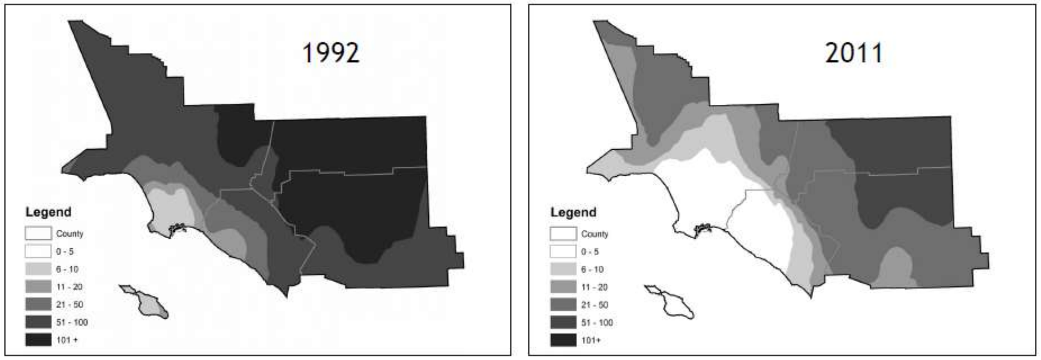

Ozone Contour Maps – 3 year Average of National 8-hour Exceedance Days

Figure 9 also displays ozone contour maps, which show that the number of days exceeding the national 8-hour standard has decreased between 1992 and 2011. During the 1992 time period, nearly all of the South Coast had more than 50 exceedance days, with more than 100 days in nearly one-third of the Basin. This is equivalent to more than three months during a year with ozone concentrations above the level of the standard. The 2011 map now shows a large area with less than ten exceedance days. Much of this area currently meets the national standard, including about two-thirds of Orange County and one-third of Los Angeles County, where the majority of the Basin population lives and works.[11]

As shown in the top portion of **Figure 10**, *Particulate Matter Trends in the South Coast Air Basin*, the overall trends of $PM_{2.5}$ in the air (not emissions) show an overall improvement since 2001. Area-wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.

Figure 10: Particulate Matter Trends in the South Coast Air Basin

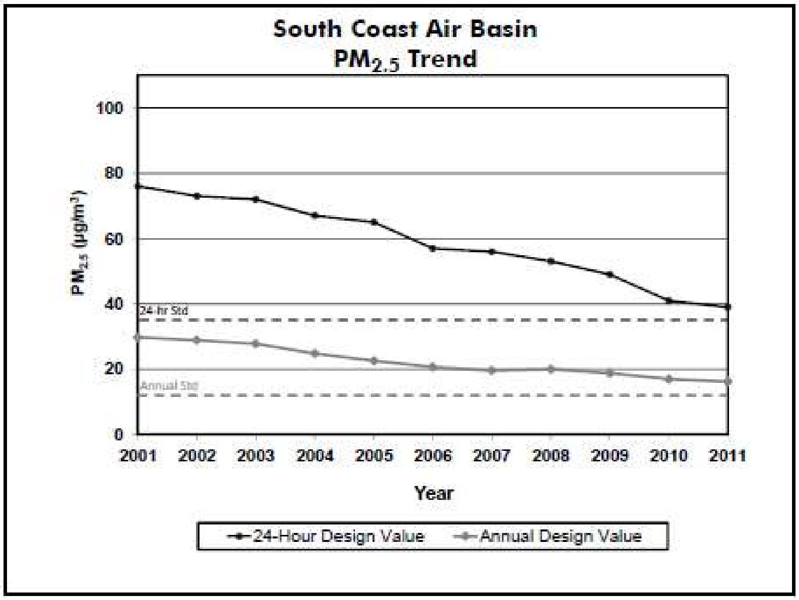

Source: CARB, California Almanac of Emissions and Air Quality, 2013 Edition.

The reduction in air pollution levels experienced in the Basin is attributable to multiple factors. First, Federal and State regulatory strategies requiring the use of cleaner fuels and use of emissions control technology in the transportation and energy production industries have proven to greatly reduce the amount of tailpipe emission (vehicles) and point source (power plants) pollutants (e.g., NO_X and ROG). Second, the SCAQMD's rules and regulatory programs have proven to be instrumental in improving the air quality in the Basin. As an example, the SCAQMD has adopted multiple rules regarding fugitive dust (PM_{10} and $PM_{2.5}$) and construction emissions that have resulted in reduced emission levels. Third, the SCAQMD's creation of the 1993 CEQA review handbook has resulted in lead agencies throughout the air basin employing uniform

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[11] CARB. The California Almanac of Emissions and Air Quality, 2013 Edition. https://www.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm. Accessed April 2018

CEQA analyses and methodologies. The use of uniform CEQA review has allowed the SCAQMD and lead agencies that rely on the 1993 SCAQMD Air Quality Handbook to perform CEQA analysis to better track progress and to employ uniform mitigation and design feature strategies. Fourth, the use of the SCAQMD thresholds of significance to determine a project's direct and cumulative impact has allowed the SCAQMD to make tremendous progress toward achieving air quality attainment. The discussion above (pertaining to the air quality improvements achieved over the past 20 years) demonstrates that the SCAQMD's rules and procedures, including the uniform utilization of the thresholds of significance recommended in the SCAQMD *CEQA Air Quality Handbook* are contributing toward the achievement of improved air quality in the Basin.

It is for this reason the City have chosen to rely on the thresholds of significance established by the SCAQMD in its 1993 CEQA Handbook and subsequent additions to the Handbook. These thresholds of significance (which serve as both direct and cumulative thresholds) have been uniformly utilized by lead agencies throughout the Basin for the past 20 years and the improvement of air quality within the Basin throughout this time period has demonstrated the efficacy of these thresholds, along with the other regional and statewide regional programs discussed above, in improving air quality throughout the Basin.

Local Air Quality

The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station most representative of the project site is the Riverside-Rubidoux station. This station monitors CO, SO_2, NO_2, O_3, PM_{10}, and $PM_{2.5}$. Some monitoring data for SO_2 has been omitted as attainment is regularly met for this pollutant within the Basin. This station characterizes the air quality representative of the ambient air quality in the project area. The ambient air quality data in **Table 5**, *Ambient Air Quality Monitored in the Project Vicinity,* identify that CO and NO_2 levels are consistently below the relevant State and Federal standards in the project vicinity. O_3, PM_{10}, and $PM_{2.5}$ levels all exceed State and/or Federal standards regularly. **Figure 11**, *Air Quality Monitoring Station,* identifies the location of the monitoring station relative to the project site.

Sensitive Land Uses in the Project Vicinity

Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses where people sensitive to air pollutants may be located (i.e., the ill, elderly, pregnant women, and children). There are currently six occupied single-family homes and associated ranch/farm buildings in various locations on the project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Nearby sensitive land uses are depicted in **Figure 12,** *Existing Sensitive Receptors*.

Existing Project Area Emissions

The project area is largely vacant undeveloped marginal agricultural land, with six occupied single-family homes and associated ranch/farm buildings in various locations on the property.

Much of the site is currently used for dry farming generating criteria pollutant and dust emissions. San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres south of the site. The Southern California Gas Company (SCGC) also operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) south of the site south of Alessandro Boulevard along existing Virginia Street. Existing air quality conditions at the project site reflect ambient[12] monitored conditions as presented in **Table 5**.

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[12] Ambient: of or related to the immediate surroundings of something; in this context it means "in the air"

Table 5
Ambient Air Quality Monitored in the Project Vicinity

Pollutant	Standard	2014	2015	2016	2017
Carbon Monoxide (CO)					
Maximum 1-hr concentration (ppm)		2.4	2.5	1.6	2.4
Number of days exceeded:	State: > 20 ppm	0	0	0	0
	Federal: > 35 ppm	0	0	0	0
Maximum 8-hr concentration (ppm)		1.9	1.7	1.3	1.8
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0	0
	Federal: ≥ 9 ppm	0	0	0	0
Ozone (O_3)					
Maximum 1-hr concentration (ppm)		0.141	0.132	0.142	0.145
Number of days exceeded:	State: > 0.09 ppm	29	31	33	ND
Maximum 8-hr concentration (ppm)		0.105	0.106	0.105	0.118
Number of days exceeded:	State: > 0.070 ppm	69	59	71	ND
	Federal: > 0.075 ppm	41	39	47	84
Coarse Particulates (PM_{10})					
Maximum 24-hr concentration (µg/m^3)		100	69	84	92
Number of days exceeded:	State: > 50 µg/m^3	125	92	ND	ND
	Federal: > 150 µg/m^3	0	0	0	0
Annual arithmetic mean concentration (µg/m^3)		44.8	40.0	ND	ND
Exceeded for the year	State: > 20 µg/m^3	Yes	Yes	ND	ND
Fine Particulates ($PM_{2.5}$)					
Maximum 24-hr concentration (µg/m^3)		50.6	61.1	60.8	50.3
Number of days exceeded:	Federal: > 35 µg/m^3	ND	10	5	ND
Annual arithmetic mean (µg/m^3)		16.8	15.3	12.6	12.2
Exceeded for the year	State: > 12 µg/m^3	Yes	Yes	Yes	Yes
	Federal: > 12.0 µg/m^3	Yes	Yes	Yes	Yes
Nitrogen Dioxide (NO_2)					
Maximum 1-hr concentration (ppm)		0.0600	0.057	0.073	0.063
Number of days exceeded:	State: > 0.18 ppm	0	0	0	0
Annual arithmetic mean concentration (ppm)		0.015	0.0144	0.015	0.015
Exceeded for the year	State: > 0.030 ppm Federal: > 0.053 ppm	No No	No No	ND	ND
Sulfur Dioxide (SO_2)					
Maximum 24-hr concentration (ppm)		1.3	1.0	1.2	1.2
Number of days exceeded:	State: > 0.04 ppm	ND	ND	ND	ND
Annual arithmetic average concentration (ppm)		0.26	0.27	0.23	0.29
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No	No

µg/m^3 = micrograms per cubic meter
EPA = United States Environmental Protection Agency
ID = Insufficient data
ND = No data
ppm = parts per million
Source: CARB, iADAM: Air Quality Data Statistics. Available at https://www.arb.ca.gov/adam for the SCAQMD Riverside-Rubidoux air monitoring station.

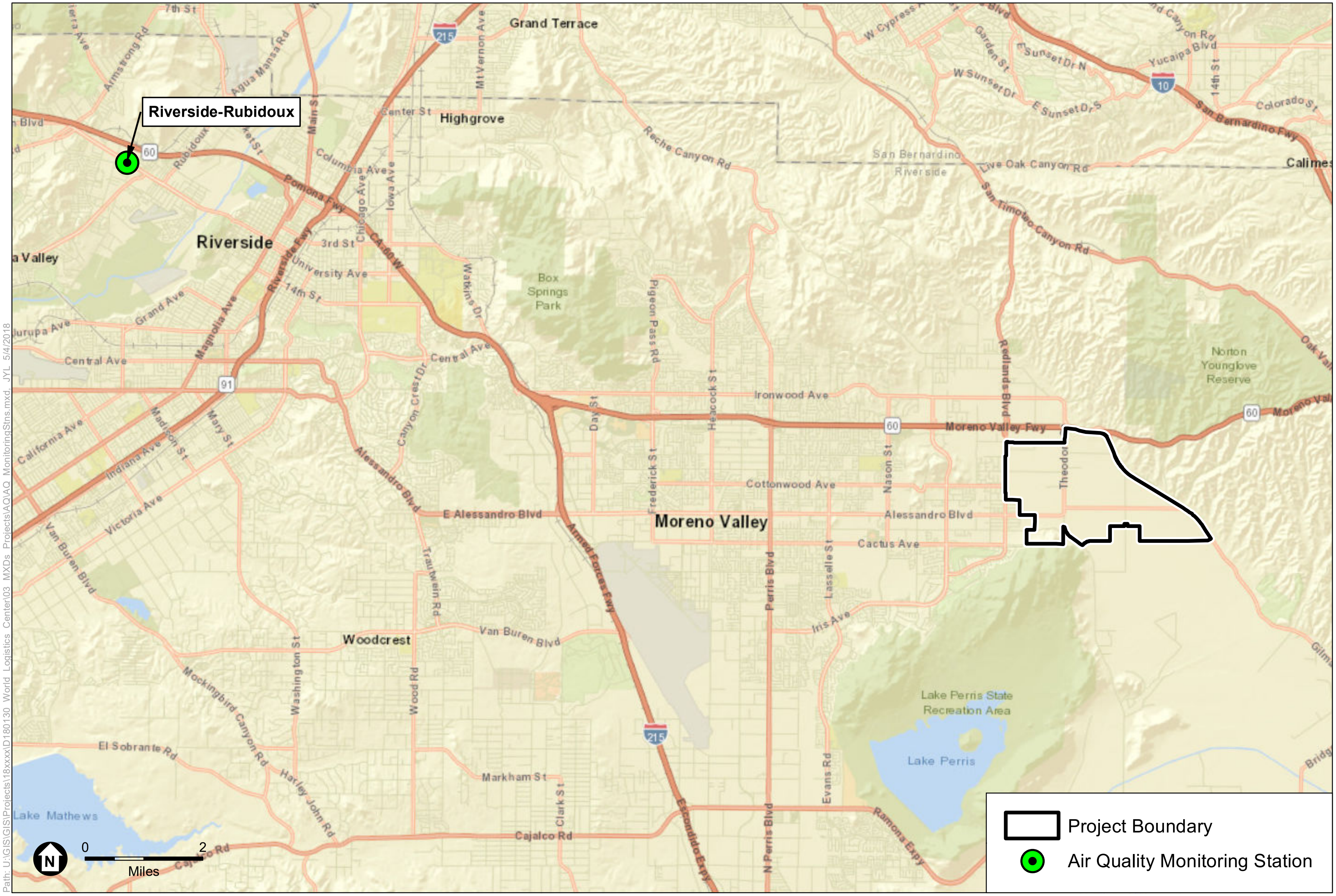

SOURCE: ESRI

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World Logistics Center

Figure 11
Air Quality Monitoring Station

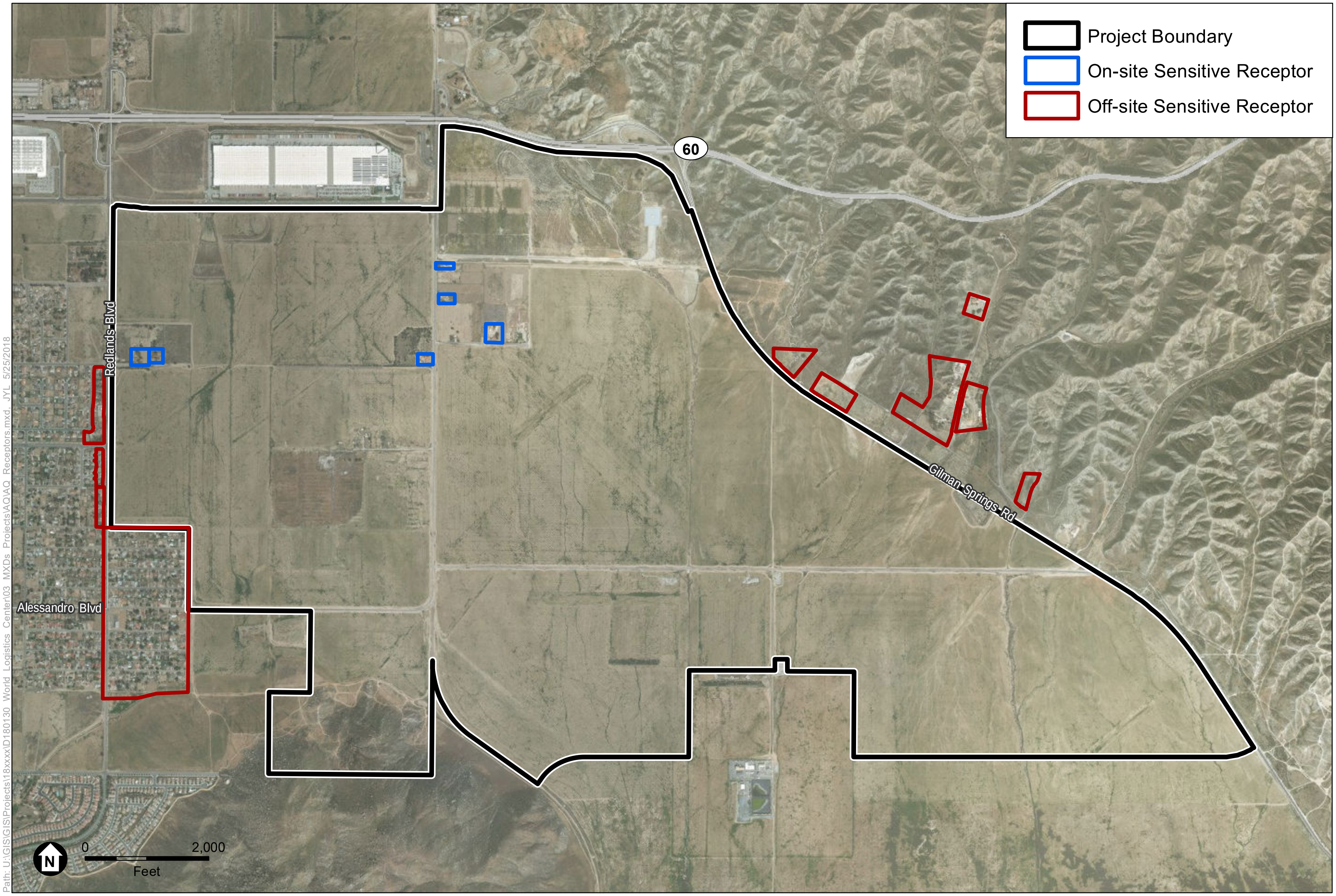

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SOURCE: ESRI 2016; County of Riverside 2017

World Logistics Center

Figure 12

Existing Sensitive Receptors

ESA

1.5 Existing Greenhouse Gas Environment

Global Climate Change

Global climate change is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policy makers to "global warming" because it helps convey the notion that there are other changes in addition to rising temperatures.

Climate change refers to any significant change in measures of climate such as temperature, precipitation, or wind, lasting for decades or longer. Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation); and/or
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).

The primary observed effect of global climate change has been a rise in the average global tropospheric[13] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and increased intensity of tropical cyclones (hurricanes). Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.

Human activities, such as fossil fuel combustion and land use changes release carbon dioxide (CO2) and other compounds, cumulatively termed greenhouse gases (GHGs). GHGs are effective in trapping infrared radiation that otherwise would have escaped the atmosphere, thereby warming the atmosphere, the oceans, and earth's surface.[14] Many scientists believe that "most of the warming observed over the last 50 years is attributable to human activities."[15] The increased amounts of CO_2 and other GHGs are alleged to be the primary causes of the human-induced component of warming.

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[13] The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

[14] U.S. Environmental Protection Agency (EPA). *Climate Change: Basic Information*. Available at https://archive.epa.gov/epa/climatechange/climate-change-basic-information.html. Website accessed June 2018.

[15] Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical Science Basis*, http://www.ipcc.ch.

GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO_2, methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). In the last 200 years, substantial quantities of GHGs have been released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, enhancing the natural greenhouse effect, which is believed to be causing global climate change. While human-made GHGs include CO_2, CH_4, and N_2O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere.

GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons of "CO_2 equivalents" (mt CO_2e or $MTCO_2e$).

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Human-made sources include the mining and burning of fossil fuels; digestive processes in ruminant animals such as cattle; rice paddies; and the burying of waste in landfills. As for CO_2, the major removal process of atmospheric CH_4—chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Worldwide emissions of GHGs in 2010 were approximately 47,351 million mt CO_2e[16] Emissions from the top five countries and the European Union accounted for approximately 57 percent of the total global GHG emissions, according to the most recently available data. The United States was the number two producer of GHG emissions, contributing 13 percent of the emissions. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 82 percent of total GHG emissions. CO_2 from fossil fuel combustion, the largest source of GHG emissions, accounted for approximately 85 percent of the GHG emissions.[17]

In 2016, the United States emitted approximately 5.3 billion mt CO_2e or approximately 16.5 tons per year (tpy) per person. Of the six major sectors nationwide (electric power industry, transportation, industry, agriculture, commercial, and residential), the electric power industry and transportation sectors combined account for approximately 72 percent of the GHG emissions; the majority of the electrical power industry and all of the transportation emissions are generated

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[16] World Resources Institute, CAIT. 2018. Climate Analysis Indicators Tool: WRI's Climate Data Explorer. Washington, DC. Available at: http://cait2.wri.org. Accessed April 6, 2018.

[17] Ibid.

from direct fossil fuel combustion. Between 1990 and 2016, total United States GHG emissions rose approximately 2.8 percent.[18]

World carbon dioxide emissions[19] are expected to increase by 1.9 percent annually between 2001 and 2025. Much of the increase in these emissions is expected to occur in the developing world where emerging economies, such as China and India, fuel economic development with fossil energy. Developing countries' emissions are expected to grow above the world average at 2.7 percent annually between 2001 and 2025; and surpass emissions of industrialized countries near 2018.

The California Air Resources Board (CARB) is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted into and removed from the atmosphere by human activities within the State of California and supports the Assembly Bill (AB) 32 Climate Change Program. The most recent inventory of GHG emissions in California estimated 440.4 million mt CO_2e in 2015.[20] This is a 2.2 percent increase in GHG emissions from 1990. The top contributor of emissions in 2015 was transportation, which contributed 37 percent of the emissions. The second highest sector was industrial (21 percent), which includes sources from refineries, general fuel use, oil and gas extraction, and cement plants. According to CARB, California is on track to meet the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32).[21]

Effects of Global Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use these data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The International Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean surface temperature change for 2081-2100 relative to the period from 1986 to 2005, given six scenarios, could range from 0.3 degrees Celsius (°C) to 4.8 °C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2014). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning

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[18] U.S. Environmental Protection Agency (EPA). 2018. *Inventory of U.S. Greenhouse Gas Emissions And Sinks: 1990 – 2016.* http://www.epa.gov/climatechange/emissions/usinventoryreport.html. Accessed April 6, 2018.

[19] http://www.eia.gov/oiaf/1605/ggccebro/chapter1.html.

[20] California Air Resources Board. California Greenhouse Gas Inventory: 2000-2015. 2017 edition. http://www.arb.ca.gov/cc/inventory/data/data.htm

[21] California Air Resources Board, Frequently Asked Questions for the 2016 Edition California Greenhouse Gas Emission Inventory, (2016). Available at: https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_faq_20160617.pdf. Accessed April 2018.

of fossil fuels. However, the scientific literature is not consistent regarding many of the aspects of global warming or climate change, including actual temperature changes during the 20th century, the accuracy of the IPCC report, and contributions of human versus non-human activities.

Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

Additionally, the following climate change effects, which are based on trends established by the IPCC, can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State’s water supply. If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier.

- A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California’s coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the project area as it is a significant distance away from coastal areas.)

- An increase in temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.

- Increased risk of large wildfires if rain increases as temperatures rise. Precipitation, winds, temperature, and vegetation influence wildfire risk; therefore, wildfire risk is not uniform throughout the state. Changes in current precipitation patterns could influence that risk. As an example, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas (see below).

- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.

- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.

- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.

- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

- Increased electricity demand, particularly in the hot summer months.

- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

Consequences of Climate Change in Moreno Valley

Figure 13, *Observed and Projected Temperatures,* below, displays a chart of measured historical and projected annual average temperatures in the Moreno Valley area. As shown in Figure 13, temperatures are expected to rise in the low and high GHG emissions scenarios.

Water for the project would be provided by the Eastern Municipal Water Department (EMWD). The EMWD 2015 Urban Water Management Plan considered the impact of climate change on water supplies as part of its long-term strategic planning. One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long-term planning focuses on the development of reliable local resources and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area.

Figure 13: Observed and Projected Temperatures

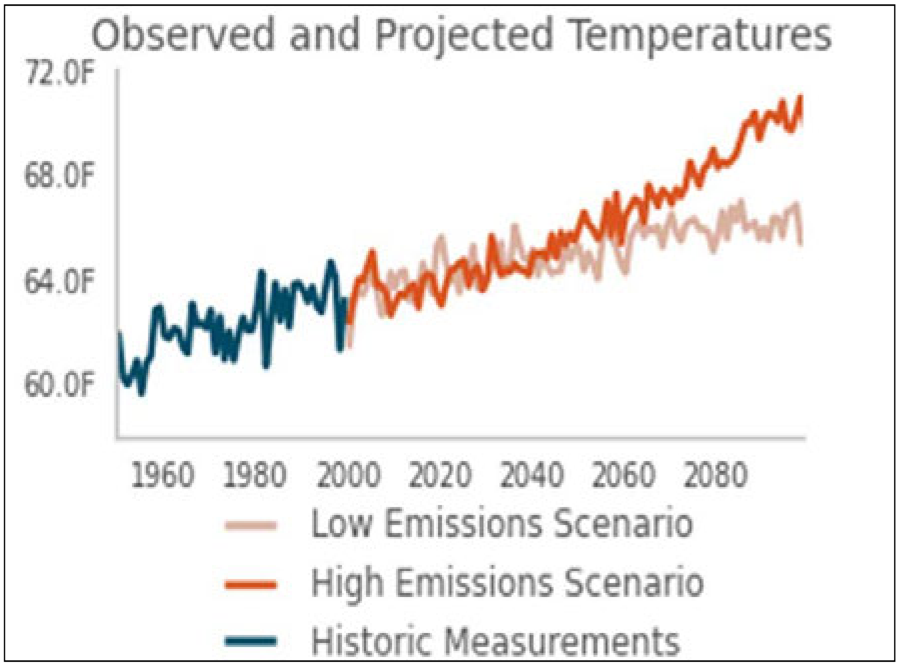

Figure 14, *Wildfire Risk in Moreno Valley,* displays the fire risk in Moreno Valley relative to 2010 levels. Figure 14 displays the projected increase in potential area burned given three different 30-year averaging periods ending in 2020, 2050, and 2085 and two different scenarios (A2, B1). The data are modeled solely on climate projections and do not take landscape and fuel sources into account (there is very little combustible material in the project area). The data modeled the ratio of additional fire risk for an area as compared to the expected burned area. The data are shown in Figure 14 and indicate that under the low-emissions scenario, the additional wildfire risk is about 1, which means that wildfire risk is expected to remain about the same. Under the high-emission scenario, additional risk is variable with a slight increase.

Figure 14: Wildfire Risk in Moreno Valley

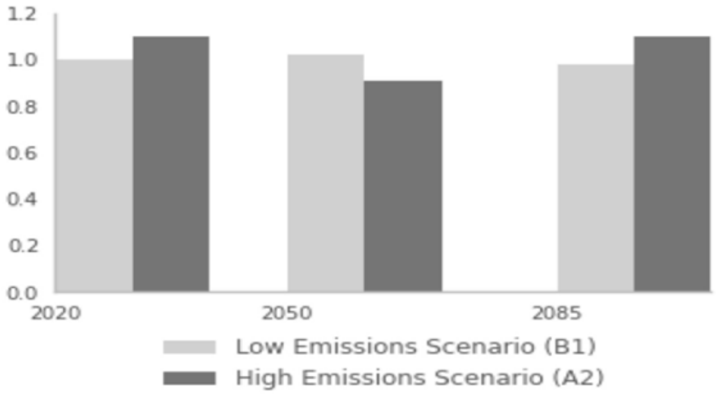

1.6 Greenhouse Gases

The most common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Greenhouse gases defined by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. Many scientists believe that emissions from human activities, such as electricity production and vehicle use, have led to elevated concentrations of these gases in the atmosphere beyond the level of naturally occurring concentrations. Greenhouse gases, the effects of each greenhouse gas, and some of the sources for each of the greenhouse gases are listed below.

- *Water Vapor*
  - Description and Physical Properties: Water vapor (H_2O) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization.
  - Health Effects: There are no health effects from water vapor. When some pollutants come in contact with water vapor, they can dissolve and then the water vapor can be a transport mechanism to enter the human body.
  - Source: The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.
- *Carbon Dioxide*
  - Description and Physical Properties: Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas.
  - Health Effects: Outdoor levels of carbon dioxide are not high enough to result in negative health effects.
  - Sources: Carbon dioxide is emitted from natural and anthropocentric (human) sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.

- *Methane*
    - Description and Physical Properties: Methane (CH_4) is an extremely effective GHG with a global warming potential of 21, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10–12 years) compared to other greenhouse gases.
    - Health Effects: There are no health effects from methane.
    - Sources: Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.
- *Nitrous Oxide*
    - Description and Physical Properties: Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.
    - Health Effects: Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses it is harmless. In some cases, heavy and extended use can cause Olney's Lesions (brain damage).
    - Sources: Concentrations of nitrous oxide also began to rise at the beginning of the Industrial Revolution. In 1998, the global concentration was 314 ppb. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, e.g., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars.
- *Chlorofluorocarbons*
    - Description and Physical Properties: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.

  - Health Effects: In confirmed indoor locations, working with CFC-113 or other CFCs is thought to have resulted in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.
  - Sources: CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

- *Hydrofluorocarbons*
  - Description and Physical Properties: Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential (depending on the gas, ranges from 140 to 11,700). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant.
  - Health Effects: There are no health effects from HFCs.
  - Sources: HFCs are man-made for applications such as automobile air conditioners and refrigerants.

- *Perfluorocarbons*
  - Description and Physical Properties: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Global warming potentials range from 6,500 to 9,200.
  - Health Effects: There are no health effects from PFCs.
  - Sources: The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

- *Sulfur Hexafluoride*
  - Description and Physical Properties: Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated, 23,900. Concentrations in the 1990s were about 4 ppt. It has a lifetime of 3,200 years.

  - Health Effects: In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.
  - Sources: Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

- *Aerosols*
  - Description and Physical Properties: Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols.
  - Health Effects: See health effects associated with particulate matter, above.
  - Sources: Sulfate aerosols are emitted when fuel containing sulfur is burned. Another source of aerosols (in the form of black carbon or soot) is the result of incomplete combustion or the incomplete burning of fossil fuels. Although particulate matter regulation has been lowering aerosol concentrations in the United States, global concentrations are likely increasing as a result of other sources around the world.
  - *Black Carbon.* A specific aerosol of concern is black carbon. Black carbon is a light absorbing component of particulate matter and is formed by the incomplete combustion of fossil fuels, biofuels, and biomass. The following is additional information on black carbon:
    - Black carbon is emitted directly into the atmosphere in the form of fine particles ($PM_{2.5}$).
    - Black carbon contributes to the adverse impacts on human health, ecosystems, and visibility associated with $PM_{2.5}$.
    - Black carbon influences climate by: 1) directly absorbing light, 2) reducing the reflectivity ("albedo") of snow and ice through deposition, and 3) interacting with clouds.

    The direct and snow/ice albedo effects of black carbon are widely understood to lead to climate warming. However, the globally averaged net climate effect of black carbon also includes the effects associated with cloud interactions, which are not well quantified and may cause either warming or cooling. Therefore, though most estimates indicate that black carbon has a net warming influence, a net cooling effect cannot be ruled out.

    - Sensitive regions such as the Arctic and the Himalayas are particularly vulnerable to the warming and melting effects of black carbon.

- Black carbon is emitted with other particles and gases, many of which exert a cooling influence on climate. Therefore, estimates of the net effect of black carbon emissions sources on climate should include the offsetting effects of these co-emitted pollutants. This is particularly important for evaluating mitigation options.

- Black carbon's short atmospheric lifetime (days to weeks), combined with its strong warming potential, means that targeted strategies to reduce black carbon emissions can be expected to provide climate benefits within the next several decades.

- The different climate attributes of black carbon and long-lived GHGs make it difficult to interpret comparisons of their relative climate impacts based on common metrics.

- Based on recent emissions inventories, the majority of global black carbon emissions come from Asia, Latin America, and Africa. Emissions patterns and trends across regions, countries and sources vary significantly.

- Control technologies are available to reduce black carbon emissions from a number of source categories.

- Black carbon mitigation strategies, which lead to reductions in PM2.5, can provide substantial public health and environmental benefits.

Climate change is driven by radiative forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. In other terms, radiative forcing is the energy absorbed by the greenhouse gas that would otherwise be lost to space. Positive forcing tends to warm the surface while negative forcing tends to cool it. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath, which absorbs more radiation and causes more warming.

In order to attempt to quantify the impact of greenhouse gases, the gases are assigned global warming potentials. Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a potential of a gas or aerosol to trap heat in the atmosphere compared to the reference gas, carbon dioxide, and is a measurement of the radiative forcing of a gas. There are positive (warming) and negative (cooling) forcings. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. Carbon dioxide as a molecule has a certain potential for warming; other molecules have a different potential. For example, methane's warming potential of 21 indicates that methane has 21 times greater warming effect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential.

SECTION 2

Regulatory Setting

2.1 International Regulation of Climate Change

Intergovernmental Panel on Climate Change

In 1988, the United Nations created the IPCC to provide independent scientific information regarding climate change to policymakers. The IPCC does not conduct research itself, but rather compiles information from a variety of sources into reports regarding climate change and its impacts. The IPCC has thereafter periodically released reports on climate change, and in 2007 released its Fourth Assessment Report which concluded most global climate change was the result of human activity, mainly the burning of fossil fuels.

United Nations Framework Convention on Climate Change

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (Convention). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at average of five percent against 1990 levels over the five-year period 2008-2012. The Convention (discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities.” The United States has not entered into force of the Kyoto Protocol.

Moreover, since the United States declined to ratify the Kyoto Protocol in 1995, it has become increasingly clear that global climate change cannot be addressed without limiting GHG emissions from developing, as well as developed, countries. According to many sources, China has already surpassed the United States as the world’s largest GHG emitter and is building new coal-fired power plants at a rate of approximately one per week. A recent study conducted by economists at the UC Berkeley and UC San Diego estimated that China's CO_2 emissions are growing by as much as 11 percent annually. In 2007, China released its first national plan on climate change, which includes goals related to increasing energy efficiency and increasing use of renewable resources. The plan, however, makes no commitments regarding reduction of GHG emissions.

Like China, India is already one of the top emitters of GHGs and continues to grow rapidly. India has recently pledged to take more action to fight global warming, for example, by pursuing solar energy, urging energy efficiency, and conservation, but it has not set any concrete goals in these areas, let alone pledged to reduce its carbon emissions. To the contrary, India's emissions are projected to increase fourfold by 2030 (see "Melting Asia," The Economist, June 5, 2008). Similarly, Brazil, the largest economy in South America, and another rapidly developing country, has no national policy requiring it to reduce carbon emissions. Brazil's carbon emissions increased by more than 60 percent between 1990 and 2004, and are projected to continue to rise at a similar pace (see International Energy Agency, World Energy Outlook 2006).

The Kyoto Protocol expired in 2012. Formal negotiations to replace the protocol officially began in December 2007 at the UNFCCC Climate Change Conference in Bali, Indonesia (http://unfccc.int/.php). Whether a workable agreement can be reached, however, remains to be seen, as the United States continues to press for an agreement that requires firm commitments from developing nations, and countries like China and India continue to oppose binding targets (see http://news.bbc.co.uk/////.stm).

In addition, it should be noted that most mitigation measures that address greenhouse gas reduction typically parallel those that reduce the consumption of energy (i.e., electricity and natural gas). Reducing energy use in a market economy typically reduces the cost of energy. However, a reduced cost of energy can release pent-up demand (latent demand) for energy use, particularly in less developed portions of the world, such as Africa and Asia. As such, it is not clear how much energy use reduction in California or the U.S. would actually reduce worldwide energy use. The same would apply to measures to reduce greenhouse gas emissions.

2.2 Federal

Federal Clean Air Act

Pursuant to the Federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

The EPA established national air quality standards for ground-level O_3 and $PM_{2.5}$ in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way that the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The Justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O_3 and soot in 1997. Nevertheless, the Court threw out the EPA's policy for implementing new O_3 rules, stating that the EPA ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the eight-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the eight-hour O_3 standard in April 2003. The EPA completed final eight-hour nonattainment status on April 15, 2004. The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The EPA issued final designations on December 14, 2004.

Effective January 22, 2010, the EPA strengthened the standard for NO_2 by setting a new 1-hour standard at the level of 100 parts per billion (ppb). This standard defines the maximum allowable concentration anywhere in an area and will protect against adverse health effects associated with short-term exposure to NO_2. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb. On January 25, 2010, the EPA issued the final rule setting the one-hour maximum standard for NO_2 at 100 ppb. The agency retained the annual standard of 53 ppb.

Effective June 2, 2010, the EPA revised the primary standard for SO_2 by establishing a new 1-hour standard at a level of 75 ppb. The EPA revoked the two existing primary standards of 140 ppb evaluated over 24 hours and 30 ppb evaluated over an entire year as they would not provide additional public health protection given a 1-hour standard at 75 ppb. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

Effective December 14, 2012, the national annual $PM_{2.5}$ standard was lowered from 15 $\mu g/^{m3}$ to 12 $\mu g/m^3$ but the existing 24-hour and annual secondary standards were retained.

On October 1, 2015, the national eight-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm, respectively.

Greenhouse Gas Endangerment

Massachusetts v. EPA (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the EPA Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- *Endangerment Finding:* The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- *Cause or Contribution Finding:* The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section “Clean Vehicles” below.

In September 2011, the EPA Office of Inspector General evaluated the EPA’s compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a Federal appeals court rejected a lawsuit against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations IPCC rather than doing its own research or testing data according to Federal standards. The U.S. Chamber of Commerce and the National Association of Manufacturers (with others) filed petitions to the U.S. Court of Appeals – D.C. Circuit to rehear the case. The EPA and Department of Justice provided a response on October 12, 2012.

Clean Vehicles

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation’s Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles had to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards were designed to cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[22]

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses (also known as "Phase 1"). For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year. Building on the success of the standards, the EPA and U.S. Department of Transportation jointly finalized additional standards (called "Phase 2") for medium- and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons.

Mandatory Reporting of GHG

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases rule. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions, are required to submit annual reports to the EPA.

This rule does not apply to high cube logistics developers within the WLC Project because, although the project would emit more than 25,000 mt CO_2e per year of GHGs, the rule only applies to the following categories: fossil fuel suppliers and industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and engines. The EPA's Applicability Tool was used to determine if the project developer would need to report the GHG emissions. The source categories that are required to report GHG emissions (i.e., production, manufacturing, electricity generation, and industrial waste landfills) did not apply to the project.

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[22] United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, (August 2012). Available at: http://www.epa.gov/oms/climate/documents/420f12051.pdf. Accessed March 2017.

New Source Review Prevention of Significant Deterioration (GHG Tailoring Rule)

The EPA issued a final rule on May 13, 2010, that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Operating permits are legally enforceable documents that permitting authorities issue to air pollution sources after the source has begun to operate. Title V Operating Permits are required from Title V of the Clean Air Act. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.*

EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

On December 23, 2010, the EPA issued a series of rules that put the necessary regulatory framework in place to ensure that 1) industrial facilities can get Clean Air Act permits covering their GHG emissions when needed and 2) facilities emitting GHGs at levels below those established in the Tailoring Rule do not need to obtain Clean Air Act permits.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units.

As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatt would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour.

Cap and Trade

Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NOX Budget Trading Program in the northeast. There is no Federal cap and trade program currently and no pending legislation exists to establish a national cap and trade program.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance. Please also refer to the subsection, "Clean Vehicles," above.

Energy Policy Act of 1992

The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the Act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.

2.3 State of California

Mulford-Carrell Act

The State began to set California Ambient Air Quality Standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Originally, there were no attainment deadlines for CAAQS; however, the CCAA of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if CAAQS attainment could not be conclusively demonstrated at all. The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

California Clean Air Act

The CCAA was passed into law in 1988. The CCAA provides the basis for air quality planning and regulation independent of federal regulations. A major element of the CCAA is the requirement that local air districts in violation of the CAAQS must prepare attainment plans that identify air quality problems, causes, trends and actions to be taken to attain and maintain California’s air quality standards by the earliest practicable date. The CCAA provides air districts with the authority to manage transportation activities at indirect sources that individually are minor but collectively emit a substantial amount of pollution such as motor vehicles at intersections, malls, and on highways. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.

CARB Airborne Toxic Control Measure/Asbestos

Asbestos is listed as a toxic air contaminant by CARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in surface deposits of several types of rock formations. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Crushing or breaking these rocks, through construction or other means, can release asbestoform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. In July 2001, the CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project. There is no asbestos in the project area.[23]

California Code of Regulations Title 24, Part 6

The California Energy Code (Title 24, Section 6) was created as part of the California Building Standards Code (Title 24 of the California Code of Regulations) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy consumption. These standards include provisions applicable to all buildings, residential and nonresidential, which describe requirements for documentation and certificates that the building meets the standards. These provisions include mandatory requirements for efficiency and design of energy systems, including space conditioning (cooling and heating), water heating, and indoor and outdoor lighting systems and equipment, and appliances. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle as technology and methods have evolved. The 2016 Standards, effective January 1, 2017, focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations.

California Code of Regulations Title 24, Part 11

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development in 2008. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017.

The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California

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[23] U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinken beard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188

Building Standards Commission (CBSC). Key provisions of the CALGreen Code that apply to the type of new non-residential development proposed for the project site are as follows:

Division 5.1—Planning and Design

Section 5.106 Site Development

5.106.4 Bicycle Parking and Changing Rooms:

Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors’ entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1).

Long-term bicycle parking. For buildings with over 10 tenant-occupants or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of tenant vehicular parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet the following: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers (5.106.4.2).

5.106.5 Clean Air Vehicle Parking: For new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles [201 spaces and over require at least 8 percent] (5.106.5.2).

5.106.8 Light Pollution Reduction (specific backlight, uplight, and glare ratings)

5.106.10 Grading and Paving: Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.

Division 5.2—Energy Efficiency

Section 5.201.1 Energy Efficiency (Mandatory energy efficiency standards through California Code of Regulations, Title 24, Part 6)

Division 5.3—Water Efficiency and Conservation

Section 5.303 Indoor Water Use

5.303.1 Meters: Separate water meters for buildings in excess of 50,000 sq. ft or buildings projected to consume more than 1,000 gallons per day.

5.303.2 Twenty Percent Savings: Use of plumbing fixtures and fittings that will reduce the overall use of potable water within the building by 20 percent, based on the maximum allowable water use per fixture and fitting as required by the California Building Code (California Code of Regulations, Title 24, Part 2)

5.304.3 Irrigation design: Automatic irrigation system controllers installed at the time of final inspection shall be weather- or soil moisture-based controllers that adjust irrigation in response to changes in plant needs; weather-based controllers.

5.303.4 Wastewater Reduction: Each building shall reduce by 20 percent wastewater by one of the following methods: 1. The installation of water-conserving fixtures or 2. Use of non-potable water systems (5.303.4).

5.303.6 Plumbing Fixtures and Fittings

Section 5.304 Outdoor Water Use

5.304.1 Water Budget: A water budget shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance where no local ordinance is applicable.

5.304.2 Outdoor Water Use (separate submeters or metering devices)

5.304.3 Irrigation Design (irrigation controllers and sensors)

Division 5.4—Material Conservation and Resource Efficiency

Section 5.407 Water Resistance and Moisture Management

Section 5.408 Construction Waste Reduction, Disposal and Recycling

5.408.1 and 5.408.3 Construction Waste Diversion: Recycle and/or salvage for reuse a minimum 50 percent of the nonhazardous construction and demolition waste. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.

5.408.2 Construction Waste Management Plan

Section 5.410 Building Maintenance and Operation

5.410.1 and 5.713.10 Recycling by Occupants: Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling.

Division 5.5—Environmental Quality

Section 5.504 Pollutant Control

5.504.3 Covering of Duct Openings and Protection of Mechanical Equipment During Construction

5.504.4 Finish Material Pollutant Control: Low-pollutant emitting interior finish materials such as adhesives, paints, carpet, and flooring

5.404.5.3 Filters: Minimum Efficiency Reporting Value (MERV) of 8 or higher in mechanically ventilated buildings.

California Code of Regulations Titles 14 and 27

These parts of the California Code require energy-efficient practices as part of solid and hazardous waste handling and disposal.

Pavley Regulations and Fuel Efficiency Standards

California AB 1493, enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the CARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. On September 8, 2009, the U.S. Chamber of Commerce and the National Automobile Dealers Association sued the EPA to challenge its granting of the waiver to California for its standards. California assisted the EPA in defending the waiver decision. The U.S. District Court for the District of Columbia denied the Chamber's petition on April 29, 2011.

The standards phased in during the 2009 through 2016 model years. The near term (2009–2012) standards were expected to result in about a 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards were expected to result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program includes components to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. The zero emissions vehicle (ZEV) program will act as the focused technology of the

Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEV) in the 2018 to 2025 model years.[24]

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years, through a transition to zero-emission vehicles (ZEVs), cleaner transit systems and reduction of vehicle miles traveled. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 “last mile” delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels.[25]

Low Carbon Fuel Standard, Executive Order S-01-07

The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the CARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard requires producers of petroleum based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court’s ruling issued on December 29, 2011, included a preliminary injunction against the CARB’s implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration.

Senate Bill 1383

This bill creates goals for short-lived climate pollutant (SLCP) reductions in various industry sectors. The SLCPs included under this bill – including methane, fluorinated gases, and black carbon – are GHGs that are much more potent than carbon dioxide and can have detrimental effects on human health and climate change. SB 1383 requires the CARB to adopt a strategy to

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[24] California Air Resources Board (CARB). *The Advanced Clean Cars Program,* 2017. Available at https://www.arb.ca.gov/msprog/acc/acc.htm. Website accessed June 2018

[25] California Air Resources Board (CARB). *Mobile Source Strategy*, 2016. Available at https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm. Website accessed June 2018

reduce methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. The methane emission reduction goals include a 75% reduction in the level of statewide disposal of organic waste from 2014 levels by 2025.

Senate Bill 1368

In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas power plants. Accordingly, the new law will effectively prevent California's utilities from investing in, financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368. The CPUC adopted the regulations required by SB 1368 on August 29, 2007.

Senate Bill 97 and the CEQA Guidelines Update

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the California Governor's Office of Planning and Research (OPR) pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010, for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the OPR submitted to the Secretary for Natural Resources its recommended amendments to the CEQA Guidelines for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the CEQA Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, the CEQA Guidelines offer little guidance on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable; however, it does not answer the question of how to determine whether emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering. A tiered project is a project that was addressed in a certified program document, such as an EIR or Mitigated Negative Declaration. The CEQA Guidelines state the following:

> *Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions (Section 15183.5(a)).*

Compliance with plans for the reduction of GHG emissions can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on energy conservation. The sample environmental checklist in the CEQA Guidelines' Appendix G was amended to include greenhouse gas impact questions, which are used in this analysis.

Executive Order S-3-05

Executive Order S-3-05 was signed by Governor Schwarzenegger in 2005 proclaiming California is vulnerable to the impacts of climate change. It states that increased temperatures could reduce the Sierra Nevada's snowpack, worsen California's air quality problems, and potentially cause a rise in sea levels. The Executive Order establishes total GHG emission targets including emissions reductions to the 2000 level by 2010, and the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target.

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The original 2020 GHG emissions limit was 427 million mt CO_2e. The current 2020 GHG emissions limit is 431 million mt CO_2e. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change.

The Scoping Plan was approved by the CARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.[26] The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The CARB rule-making process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by a CARB hearing and rule adoption.

Pursuant to AB 32, the CARB and the Climate Action Team (CAT)[27] did the following:

- Adopted a list of discrete early action measures;
- Established a statewide GHG emissions cap for 2020 based on 1990 emissions and adopted mandatory reporting rules for significant sources of GHG;
- Indicated how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions; and
- Adopted regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming

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[26] CARB, *Climate Change Proposed Scoping Plan: a Framework for Change,* October 2008.

[27] CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of CARB's jurisdiction.

Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The CARB adopted additional early action measures in October 2007[28] that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and sulfur hexafluoride (SF_6) reductions from the non-electricity sector. The combination of early action measures was estimated to reduce statewide GHG emissions by nearly 16 million mt CO_2e.[29]

AB 32 codifies Executive Order S-3-05's[30] year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020.

The first AB 32 Scoping Plan, published in 2008, identified a future cap-and-trade program covering refineries, power plants, industrial facilities, and transportation fuels as a central element of California's overall strategy to reduce GHG emissions to 1990 levels. More information on the Scoping Plan and California's Cap and Trade program is provided below.

Amendments to California Global Warming Solutions Act of 2006: Emission Limit (SB 32)

Signed into law on September 8, 2016, Senate Bill (SB) 32 (Amendments to California Global Warming Solutions Act of 2006: Emission Limit) amends HSC Division 25.5 and codifies the 2030 target in the recent Executive Order B-30-15 (40 percent below 1990 levels by 2030). The 2030 target is intended to ensure that California remains on track to achieve the goal set forth by Executive Order B-30-15 to reduce statewide GHG emissions by 2050 to 80 percent below 1990 levels. SB 32 states the intent of the legislature to continue to reduce GHGs for the protection of all areas of the state and especially the state's most disadvantaged communities, which are disproportionately impacted by the deleterious effects of climate change on public health (California Legislative Information Website 2017). SB 32 was passed with companion legislation AB 197, which provides additional direction for developing the Scoping Plan. In 2016, the California State Legislature adopted SB 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030, while AB 197 includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

California Cap and Trade Program

Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the cap-and-trade program is a core strategy that California is using to meet its statewide GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050.

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[28] CARB. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

[29] CARB. 2007. "ARB approves tripling of early action measures required under AB 32." News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

[30] Executive Order S-3-05 establishes greenhouse gas emission reduction targets for California.

Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32’s emission-reduction mandate of returning to 1990 levels of emissions by 2020.[31] Under the Cap-and-Trade program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, fuel suppliers, and large industrial facilities that emit more than 25,000 metric tons CO_2e per year) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions throughout the Program’s duration.[32] On July 17, 2017 the California legislature passed Assembly Bill 398, extending the Cap-and-Trade program through 2030.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the 2020 and 2030 statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not direct GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are assured on a State-wide basis.

Since 2015, fuels, such as gasoline, diesel, and natural gas, have been covered under the Cap-and-Trade Program. Fuel suppliers are required to reduce GHG emissions by supplying low carbon fuels or purchasing pollution permits, called “allowances,” to cover the GHGs produced when the conventional petroleum-based fuel they supply is combusted.

2008 Scoping Plan

The California State Legislature adopted AB 32 in 2006 which focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an “ambitious but achievable” reduction in California’s greenhouse gas emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from today’s levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.

The Scoping Plan[33] contains the following 18 strategies to reduce the State’s emissions:

1. California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California’s program meets all applicable AB 32 requirements for market-based mechanisms.

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[31] 17 CCR §§ 95800 to 96023.

[32] See generally 17 CCR §§ 95811, 95812.

[33] Scoping Plan Reduction Measures from California Air Resources Board 2008.

2. California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.
4. Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.
5. Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.
6. Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.
7. Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.
8. Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California’s existing solar programs.
10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.
11. Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
12. High Speed Rail. Support implementation of a high-speed rail system.
13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California’s new and existing inventory of buildings.
14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.
15. Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.
16. Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.
17. Water. Continue efficiency programs and use cleaner energy sources to move and treat water.

18. Agriculture. In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

2014 Scoping Plan Update

This First Update to California's Climate Change Scoping Plan (2014 Scoping Plan Update) was developed by the CARB in collaboration with the Climate Action Team and reflects the input and expertise of a range of state and local government agencies. The Update reflects public input and recommendations from business, environmental, environmental justice, utilities and community-based organizations provided in response to the release of prior drafts of the Update, a Discussion Draft in October 2013, and a draft Proposed Update in February 2014.

This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The First Update includes recommendations for establishing a mid-term emissions limit that aligns with the State's long-term goal of an emissions limit 80 percent below 1990 levels by 2050 and sector-specific discussions covering issues, technologies, needs, and ongoing State activities to significantly reduce emissions throughout California's economy through 2050. The focus areas include energy, transportation, agriculture, water, waste management, and natural and working lands.[34] With respect to the transportation sector, California has outlined several steps in the State's zero emission vehicle (ZEV) Action Plan to further support the market and accelerate its growth. Committed implementation of the actions described in the plan will help meet Governor Brown's 2012 Executive Order (EO) B-16-2012, which—in addition to establishing a more specific 2050 GHG target for the transportation sector of 80 percent from 1990 levels—called for 1.5 million ZEVs on California's roadways by 2025.

Achieving such an aggressive 2050 target will require innovation and unprecedented advancements in energy demand and supply.[35] Emissions from 2020 to 2050 will have to decline at more than twice the rate of that which is needed to reach the 2020 statewide emissions limit. In addition to our climate objectives, California also must meet federal clean air standards. Emissions of criteria air pollutants, including ozone precursors (primarily oxides of nitrogen, or NOX) and particulate matter, must be reduced by an estimated 90 percent by 2032 to comply with federal air quality standards. The scope and scale of emission reductions necessary to improve air quality is similar to that needed to meet long-term climate targets. Achieving both objectives will align programs and investments to leverage limited resources for maximum benefit.

2017 Scoping Plan Update

On December 14, 2017, CARB approved the final version of California's 2017 Climate Change Scoping Plan (2017 Scoping Plan Update), which outlines the proposed framework of action for

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[34] California Air Resources Board, *First Update to the Climate Change Scoping Plan,* http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf, May 2014, Accessed September 12, 2016.

[35] Ibid.

achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels.[36] The 2017 Scoping Plan Update identifies key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the target Statewide 2030 emissions limit is 260 MMTCO2e, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO2e beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2050 limit set forth by E.O. B-30-15.

The 2017 Scoping Plan Update's strategy for meeting the 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030. These include:

- Extending the low carbon fuel standard (LCFS) beyond 2020 and increasing the carbon intensity reduction requirement to 18 percent by 2030;
- SB 350, which increase renewables portfolio standard (RPS) to 50 percent and requires a doubling of energy efficiency for existing buildings by 2030;
- The 2016 Mobile Source Strategy is estimated to reduce emissions from mobile sources including an 80 percent reduction in smog-forming emissions and a 45 percent reduction in diesel particulate matter from 2016 level in the South Coast Air Basin, a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels;
- The Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies (described in more detail below);
- SB 1383, which requires a 50 percent reduction in anthropogenic black carbon and a 40 percent reduction in hydrofluorocarbon and methane emissions below 2013 levels by 2030; and
- Assembly Bill 398, which extends the state Cap-and-Trade Program through 2030.

With respect to project-level GHG reduction actions and thresholds for individual development projects, the 2017 Scoping Plan Update Indicates,

> *Beyond plan-level goals and actions, local governments can also support climate action when considering discretionary approvals and entitlements of individual projects through CEQA. Absent conformity with an adequate geographically-specific GHG reduction plan as described in the preceding section above, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net*

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[36] CARB, *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*, November, 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf; accessed December 18, 2017.

> *additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development.*[37]

Mobile Source Strategy

Implementing CARB's Mobile Source Strategy includes measures to reduce total light-duty VMT by 15 percent from the business-as-usual in 2050. The Mobile Source Strategy includes an expansion of the Advanced Clean Cars program (which further increases the stringency of GHG emissions for all light-duty vehicles, and 4.2 million zero-emission and plug-in hybrid light-duty vehicles by 2030). It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 "last mile" delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels.[38]

Sustainable Freight Action Plan

Executive Order B-32-15 directed the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system. The targets are not mandates, but rather aspirational measures of progress towards sustainability for the State to meet and try to exceed. The targets include:

- System Efficiency Target: Improve freight system efficiency by 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030.

- Transition to Zero Emission Technology Target: Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.

- Increased Competitiveness and Economic Growth Targets: Establish a target or targets for increased State competitiveness and future economic growth within the freight and goods movement industry based on a suite of common-sense economic competitiveness and growth metrics and models developed by a working group comprised of economists, experts, and industry. These targets and tools will support flexibility, efficiency, investment, and best business practices through State policies and programs that create a positive environment for growing freight volumes and jobs, while working with industry to mitigate potential negative economic impacts. The targets and tools will also help evaluate the strategies proposed under the Action Plan to ensure consideration of the impacts of actions on economic growth and competitiveness throughout the development and implementation process.

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[37] *Id.* at 101.

[38] California Air Resources Board (CARB). *Mobile Source Strategy*, 2016. Available at https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm. Website accessed June 2018.

California Transportation Plan 2040

The California Transportation Plan (CTP) 2040 provides a long-range policy framework to meet future mobility needs and reduce GHG emissions. The CTP defines goals, performance-based policies, and strategies to achieve maximum feasible emission reductions in order to attain a statewide reduction in GHG emissions.

The CTP 2040 recognizes that the Governor is committed to reduce by one-half current petroleum use in cars and trucks; increase from one-third to one-half the electricity derived from renewable sources; double the efficiency savings of existing buildings and make heating fuels cleaner; reduce the release of methane, black carbon, and other short-lived climate pollutants; and manage farm and rangelands, forests, and wetlands to store more carbon.

Transportation GHG reduction strategies within the CTP 2040 include demand management (including telecommuting/working at home, increased carpoolers, and increase car sharing), mode shift (including transit service improvements, high-speed rail, bus rapid transit, expanded bike and pedestrian facilities, carpool land occupancy requirements, and increased HOV lanes), travel cost (implement expanded pricing policies), and operational efficiency (incident/emergency management, Caltrans' Master Plan, ITS/TSM, and eco-driving).

Executive Order B-16-2012 (Zero-Emission Vehicles)

This executive order indicates that all State entities under the Governor's control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:

- By 2015: The State's major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State's manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector's investment in zero-emission vehicle infrastructure; and the State's academic and research institutions contributing to zero-emission vehicle research, innovation and education.

- By 2020: The State's zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles; zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.

- By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.

Greenhouse Gas Emissions Performance Standard for Power Plants

On January 25, 2007, the CPUC adopted an interim GHG emissions performance standard. This standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers with power plants that have emissions no greater than a combined cycle gas turbine plant. The established level is 1,100 pounds of CO2 per megawatt-hour.

Senate Bill 375

SB 375 was signed into law on October 1, 2008. SB 375 provides emissions-reduction goals around which regions can plan, integrates disjointed planning activities, and provides incentives for local governments and developers to implement "smart growth" planning and development strategies, including reducing the average VMT to reduce commuting distances and reduce criteria and greenhouse gas air pollutant emissions. SB 375 has three major components:

- Using the regional transportation planning process to achieve reductions in GHG emissions consistent with AB 32's goals;
- Offering CEQA incentives to encourage projects that are consistent with a regional plan that achieves GHG emission reductions; and
- Coordinating the regional housing needs allocation process with the regional transportation process while maintaining local authority over land use decisions.

SB 375 requires each Metropolitan Planning Organization (MPO) to include a Sustainable Communities Strategy (SCS) in the regional transportation plan that demonstrates how the region will meet the greenhouse gas emission targets and creates CEQA streamlining incentives for projects that are consistent with the regional SCS. The focus of SB 375 is on placement of new residential projects and coordinated transportation planning.

Renewable Electricity Standards

There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewables Portfolio Standard (RPS) target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.

Senate Bill 350

The Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 2015) was approved by Governor Brown on October 7, 2015. SB 350 (1) increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provides for the evolution of the Independent System Operator (ISO) into a regional organization; and (4) requires the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the Legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

SmartWay Partners

SmartWay effectively refers to aerodynamic and rolling resistance requirements geared toward reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. CARB’s Tractor-Trailer Greenhouse Gas Regulation requires that all 2010 and older model year tractors that pull 53-foot or longer box type trailers must use SmartWay verified low rolling resistance tires beginning January 1, 2013.

The EPA has evaluated the fuel saving benefits of various devices through emissions and fuel economy testing, demonstration projects and technical literature review. As a result, EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications:

- **Idle Reduction Technologies** allow engine operators to refrain from long-duration idling of the main propulsion engine by using an alternative technology. An idle reduction technology is generally defined as the installation of a technology or device that:
    - Reduces unnecessary main engine idling of the vehicle or equipment; and/or
    - Is designed to provide services (e.g., heat, air conditioning, and/or electricity) to the vehicle or equipment that would otherwise require the operation of the main drive engine while the vehicle or equipment is temporarily parked or remains stationary.
- **Aerodynamic Technologies** minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.

- **Low Rolling Resistance Tires:** Certain tire models can reduce NO_X emissions and fuel use by 3 percent or more, relative to the best-selling new tires for line haul class 8 tractor trailers. These improvements are achieved under the following conditions:
    - Tires are used on the axle positions stated on the list below.
    - Verified low rolling resistance tires are installed on all of the axle positions of the tractor and trailer.
    - All tires must be properly inflated according to the manufacturer’s specifications.
- **Retrofit Technologies:** Diesel retrofit technologies that the EPA has approved or conditionally approved, such as:
    - Diesel Particulate Filter (DPF);
    - CMX Catalyst Muffler;
    - Selective Catalytic Reduction (SCR) System;
    - Diesel Oxidation Catalyst (DOC); and
    - Diesel Oxidation Catalyst (DOC) plus CDTi Closed Crankcase Ventilation (CCV) System.

Within each of these categories, the EPA has verified specific products and continues to evaluate and verify new products. Although the EPA has verified the fuel saving and/or emission reducing benefits of the listed products, it does not endorse the purchase of products or services from any specific vendor.

2.4 Regional

Lewis Air Quality Management Act

The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The Federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the Federal standards in nonattainment areas of the State.

The CARB is responsible for incorporating air quality management plans for local air basins into an SIP for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Carl Moyer Memorial Air Quality Standards Attainment Program

Since 1998, the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) has provided funding to encourage the voluntary purchase of cleaner engines, equipment, and emission reduction technologies. The Carl Moyer Program plays a complementary role to California's regulatory program by funding emission reductions that are surplus, i.e., early and/or in excess of what is required by regulation. The Carl Moyer Program accelerates the turnover of old highly-polluting engines, speeds the commercialization of advanced emission controls, and reduces air pollution impacts on environmental justice communities. Emission reductions achieved through the Carl Moyer Program are an important component of the California State Implementation Plan.

Regional Air Quality Management Plan

The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP), which has a 20-year horizon for the Basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the Federal and/or California ambient air quality standards. The SCAQMD and SCAG must update the AQMP every three years.

2012 AQMP

The 2012 AQMP was adopted December 7, 2012.[39] The purpose of the 2012 AQMP for the Basin was to set forth a program that would lead the Basin into compliance with the Federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The AQMP was adopted by the SCAQMD Board; therefore, it was submitted to the EPA as the State Implementation Plan (SIP). Specifically, the AQMP served as the official SIP submittal for the Federal 2006 24-hour $PM_{2.5}$ standard. In addition, the AQMP updated specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory, and 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.

The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."

The 2012 AQMP proposed Basin-wide $PM_{2.5}$ measures that would be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high $PM_{2.5}$ days), Section 182(e)(5) implementation measures (to maintain progress toward meeting the 2023 8-hour ozone national standard), and transportation control measures. Most of the control measures focused on incentives, outreach, and education.

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[39] South Coast Air Quality Management District. *2012 Air Quality Management Plan*, February 2013. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/main-document-final-2012.pdf

Proposed $PM_{2.5}$ reduction measures in the 2012 AQMP included the following:

- Further NO_X reductions from the SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program. The RECLAIM program was adopted by the SCAQMD in October 1993 and set an emissions cap and declining balance for many of the largest facilities emitting NO_x and SO_x in the South Coast Air Basin. RECLAIM includes over 350 participants in its NO_x market and about 40 participants in its SO_x market. RECLAIM has the longest history and practical experience of any locally designed and implemented air emissions cap and trade program. RECLAIM allows participating facilities to trade air pollution while meeting clean air goals.

- Further reductions from residential wood-burning devices.

- Further reductions from open burning.

- Emission reductions from under-fired char broilers.

- Further ammonia reductions from livestock waste.

- Backstop measures for indirect sources of emissions from ports and port-related sources.

- Further criteria pollutant reductions from education, outreach, and incentives.

There were multiple VOC and NOX reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, and mold release products.

The 2012 AQMP also contained proposed mobile source implementation measures for the deployment of zero and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There were measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.

The 2012 AQMP proposed the following mobile source implementation measures:

- On-road mobile sources:

    - Accelerated penetration of partial zero-emission and zero-emission vehicles. This measure proposed to continue incentives for the purchase of zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode. The state Clean Vehicle Rebate Pilot program was proposed to continue from 2015 to 2023 with a proposed funding for up to $5,000 per vehicle. The measure seeks to provide funding assistance for up to 1,000 zero-emission or partial-zero emission vehicles per year.

    - Accelerated penetration of partial zero-emission and zero-emission light-heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles. The objective of the proposed action was to accelerate the introduction of advanced hybrid and zero-emission technologies for Class 4 through 6 heavy-duty vehicles. The state is currently implementing a Hybrid Vehicle Incentives Project program to promote zero-emission and hybrid heavy-duty vehicles. The proposed measure aimed to continue the program from 2015 to 2023 to deploy up to 1,000 zero- and partial-zero emission vehicles per year with up to $25,000 funding assistance per vehicle. Zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode would be given the highest priority.

  - Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives.

  - Further emission reductions from heavy-duty vehicles serving near-dock rail yards This proposed control measure called for a requirement that any cargo container moved between the ports of Los Angeles and Long Beach to the nearby rail yards be with zero-emission technologies. The measure would be fully implemented by 2020 through the deployment of zero-emission trucks or any alternative zero-emission container movement system such as a fixed guideway system. The measure called for the CARB to either adopt a new regulation or amend an existing regulation to require such deployment by 2020.

- Off-road mobile sources:

  - Extension of the Surplus Off-Road Opt-In for NO_x (SOON) provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment.

  - Further emission reductions from freight and passenger locomotives called for an accelerated use of Tier 4 locomotives in the Basin.

  - Further emission reductions from ocean-going marine vessels while at berth.

  - Emission reductions from ocean-going marine vessels.

The 2012 AQMP also relied upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program, which contains the following sections:

1. Linking regional transportation planning to air quality planning and making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.

2. Regional transportation strategy and transportation control measures: The RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.

3. Reasonably available control measure analysis.

2016 AQMP

On March 3, 2017, SCAQMD approved the Final 2016 Air Quality Management Plan (AQMP) that demonstrates attainment of the 1-hr and 8-hr ozone NAAQS as well as the latest 24-hr and annual PM2.5 standards. Currently, the 2016 AQMP is being reviewed by the U.S. EPA and CARB. Until the approval of the EPA and CARB, the current regional air quality plan is the Final 2012 Air Quality Management Plan (AQMP) adopted by the SCAQMD on December 7, 2012.The Final 2016 AQMP includes the integrated strategies and measures needed to meet the NAAQS.

The 2016 AQMP seeks to achieve multiple goals in partnership with other entities promoting reductions in criteria pollutant, greenhouse gases, and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most effective way to reduce air pollution impacts on the health of our nearly 17 million residents, including those in disproportionally impacted and environmental justice communities that are concentrated along our transportation corridors and goods movement facilities, is to reduce emissions from mobile sources, the principal contributor to our air quality challenges. For that reason, the SCAQMD worked closely with CARB and the U.S. EPA who have primary responsibility for these sources. The Plan recognized the critical importance of working with other agencies to develop new regulations, as well as secure funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. These “win-win” scenarios will be key to implementation of this Plan with broad support from a wide range of stakeholders. The 2016 AQMP also includes transportation control measures (TCMs) developed by SCAG from the 2016 RTP/SCS.

The RTP/SCS and Federal Transportation Improvement Program (FTIP) were developed in consultation with federal, state and local transportation and air quality planning agencies and other stakeholders. The four County Transportation Commissions (CTCs) in the South Coast Air Basin, namely Los Angeles County Metropolitan Transportation Authority, Riverside County Transportation Commission, Orange County Transportation Authority and the San Bernardino Associated Governments, were actively involved in the development of the regional transportation measures. In the South Coast Air Basin, TCMs include the following three main categories of transportation improvement projects and programs that have funding programmed for right-of-way and/or construction in the first two years of the 2015 FTIP:

- Transit, Intermodal Transfer, and Active Transportation Measures;
- High Occupancy Vehicle (HOV) Lanes, High Occupancy Toll (HOT) Lanes, and their pricing alternatives; and
- Information-based Transportation Strategies.

Greenhouse Gases

In April 2008, the SCAQMD, in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group."[40] The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until the CARB (or some other State agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential, non-residential, industrial, etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects in which it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons (mt) of carbon dioxide equivalent (CO_2e) as a screening numerical threshold.

In September 2010, the Working Group released additional revisions, which recommended a project-level efficiency target of 4.8 mt CO_2e per service population (SP) as a 2020 target and 3.0 mt CO_2e, per SP as a 2035 target. The recommended plan-level target for 2020 was 6.6 mt CO_2e and the plan level target for 2035 was 4.1 mt CO_2e. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board.

The SCAQMD has also adopted Rules 2700, 2701, and 2702 to establish a voluntary program to encourage, quantify, and certify voluntary GHG emission reductions in the SCAQMD's jurisdiction. The CARB adopted a resolution regarding the adoption of GHG accounting protocols that distinguishes between the offset certification programs that were developed for the voluntary market, and the program that must be developed to certify offsets to be used under CARB's cap-and-trade rule. This resolution withdrew CARB approval of voluntary protocols but would not impact the use of these protocols for voluntary purposes. Protocols in Rules 2701 and 2702 are voluntary protocols, which no longer have CARB's approval.

Diesel Regulations

The Ports of Long Beach and Los Angeles and the CARB have adopted regulations aimed at reducing the amount of diesel particulate. These programs are the Ports of Los Angeles and Long Beach "Clean Truck Program,[41] the CARB Drayage Truck Regulation,[42] and the CARB statewide On-road Truck and Bus Regulation.[43] Each of these regulatory programs will require an accelerated introduction of "clean trucks" into the statewide truck fleet that will result in substantially lower diesel emissions during the 2008 to 2020 timeframe. Additionally, the Ports of

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[40] For more information see: http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html.

[41] http://www.portoflosangeles.org/ctp/idx_ctp.asp.

[42] http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm.

[43] http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.

Long Beach and Los Angeles updated the Clean Air Action Plan in 2017, providing new strategies and emission targets supporting zero-emissions and freight efficiency targets.[44]

- Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 horsepower and Greater. Effective February 19, 2011, each fleet shall comply with weighted reduced particulate matter emission fleet averages by compliance dates listed in the regulation.

- CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling adopts new Section 2485 within Chapter 10, Article 1, Division 3, Title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles (i.e., commercial trucks over 10,000 pounds) to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than five minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

- CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks, requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to 'neutral' or 'park,' and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to neutral or park." There are a few conditions where the engine shutdown system can be overridden to prevent engine damage. Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

- CARB Regulation for In-Use Off-Road Diesel Vehicles. On July 26, 2007, the CARB adopted a regulation to reduce diesel particulate matter and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. All self-propelled off-road diesel vehicles over 25 horsepower (hp) used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to this regulation. This includes vehicles that are rented or leased (rental or leased fleets). Such vehicles are used in construction, mining, and industrial operations. The regulation:

    - imposes limits on idling to no more than five consecutive minutes,
    - restricts adding of older equipment (such as Tier 0 and Tier 1) into fleets,
    - requires reporting and labeling, and
    - requires disclosure of the regulation upon vehicle sale.

  The CARB is enforcing that with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_X emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or

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[44] http://www.cleanairactionplan.org/2017-clean-air-action-plan-update/

by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality (death) or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Hazardous Air Pollutants (HAPs) and TACs are used interchangeably in this discussion. HAPs are regulated by the EPA under the Federal Clean Air Act. TAC is the term used under the California Clean Air Act to regulate the same hazardous pollutants. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for periods of several years. Many of these contaminants originate from human activities, such as fuel combustion and solvent use.

In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants carbon dioxide, nitrogen dioxide, particulate matter, and ozone for which acceptable levels of exposure can be determined and for which the State and federal governments have set ambient air quality standards. For this reason, thresholds for TAC impacts for regulatory purposes and for CEQA thresholds have been set based on the increase in risk of cancer of a specific amount at sensitive receptors located near the source of TAC emissions.

The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, paradichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM).

TAC measurements, available at the SCAQMD Riverside Rubidoux monitoring station (14 miles northwest of the project site) can be used to characterize the “background” health risks from regional TAC emission sources. **Table 6,** *Toxic Air Contaminant Concentration Levels and Associated Health Effects,* provides this summary of TAC levels in the project area and health risk information. This table lists the air concentration levels and associated health cancer risks for eight of the nine TACs reported by the CARB in its Almanac as measured at the Riverside-Rubidoux air monitoring station. Note that since diesel PM cannot be measured directly, the table does not provide estimates of either measured diesel PM or the cancer risk associated with diesel PM.

Past studies have indicated that diesel PM poses the greatest health risk among the TACs listed in Table 6. The principal concern regarding exposures to diesel PM lies in its small size and thus its ability to penetrate deep into lung tissues when inhaled. Diesel exhaust has been found to cause health effects from short-term or acute exposures and from long-term chronic exposures, such as repeated occupational exposures. The type and severity of health effects depends upon several factors including the amount of chemical you are exposed to and the length of time you are exposed. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Long-term (chronic) exposure to diesel exhaust is likely to occur when a person works in a field where diesel is used regularly or experiences repeated exposure to diesel fumes over a long period of time. Human health studies demonstrate a correlation between exposure to diesel exhaust and increased lung cancer rates in occupational settings. Experimental animal inhalation studies of chronic exposure to diesel exhaust have shown that a range of doses causes varying levels of inflammation and cellular changes in the lungs. Human and laboratory studies have also provided considerable evidence that diesel exhaust is a likely carcinogen.

Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.

In 2008, the SCAQMD released the third iteration of the Multiple Air Toxics Exposure Study (MATES-III). The MATES-III report includes monitoring of various air toxic compounds in the Basin, establishes and updates existing baseline toxic air contaminants, and simulates cancer risk in the Basin. The study focuses on the carcinogenic risk from exposure to air toxics. It does not estimate mortality or other health effects from particulate exposures. The SCAQMD MATES-III report indicates that overall in the Basin, diesel PM contributes 83.6 percent of the risk.

In 2014, the SCAQMD released the fourth iteration of the Multiple Air Toxics Exposure Study (MATES-IV). The MATES-IV is a follow up to the previous MATES studies and included an updated toxics air emission inventory, new air toxics air dispersion modeling, and enhanced air toxics monitoring. A key conclusion reached in the MATES-IV study was that the population weighted cancer risk in the Basin decreased by 57 percent from the MATES-III period in 2005 to the MATES-IV period in 2012 indicating that overall, cancer risks are declining in the Basin as a result of the implementation of emission controls principally on large diesel trucks. The MATES-IV study also concluded that diesel PM contributed 68 percent to the total cancer risk in the Basin with benzene and 1.3 Butadiene also making important contributions to cancer risk. **Figure 15,** *Summary of MATES IV Cancer risks,* summarizes the basin-wide cancer risks as derived from the MATES-IV study.

Figure 15: Summary of MATES IV Cancer Risks

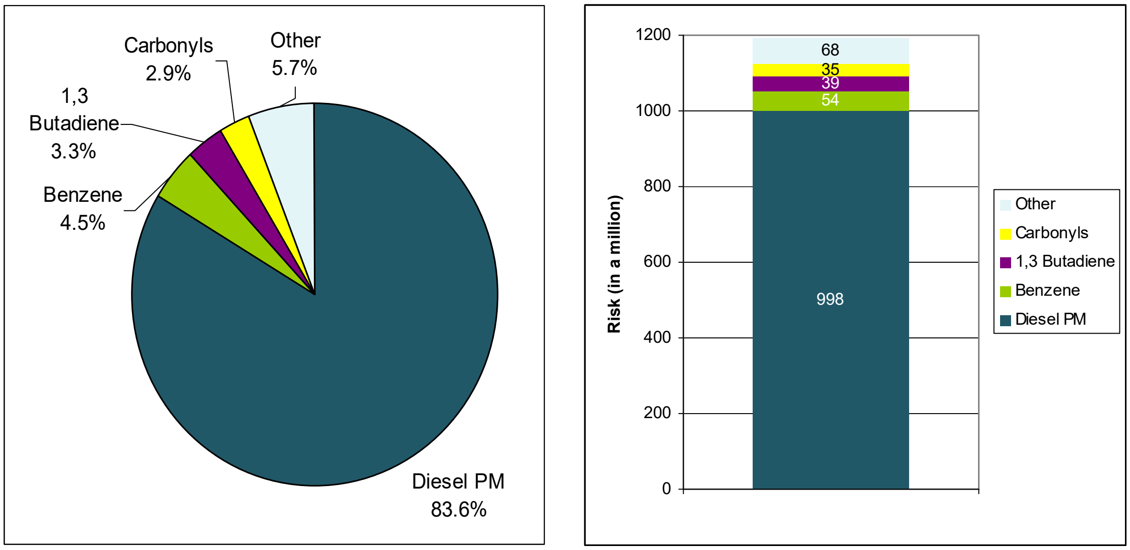

Table 6
Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration^{A} / Health Risk^{B}	2015	2016	2017	Health Effects
Acetaldehyde	Mean	1.48	1.44	1.08	Acetaldehyde is a carcinogen that also causes chronic non-cancer toxicity in the respiratory system. Symptoms of chronic intoxication of acetaldehyde in humans resemble those of alcoholism. The primary acute effect of inhalation exposure to acetaldehyde is irritation of the eyes, skin, and respiratory tract in humans. At higher exposure levels, erythema, coughing, pulmonary edema, and necrosis may also occur. Acute inhalation of acetaldehyde resulted in a depressed respiratory rate and elevated blood pressure in experimental animals.
	Health Risk	22	21	16	
Benzene	Mean	ID	0.27	0.271	Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness in humans. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions in humans. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory
	Health Risk	ID	85	70	

Table 6
Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration^A / Health Risk^B	2015	2016	2017	Health Effects
					tract in humans. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes disorders in the blood in humans. Benzene specifically affects bone marrow (the tissues that produce blood cells). Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.
Chromium Hex	Mean	0.083	0.045	ID	In California, hexavalent chromium has been identified as a carcinogen. There is epidemiological evidence that exposure to inhaled hexavalent chromium may result in lung cancer. The principal acute effects are renal toxicity, gastrointestinal hemorrhage, and intravascular hemolysis. The respiratory tract is the major target organ for chromium (VI) following inhalation exposure in humans. Other effects noted from acute inhalation exposure to very high concentrations of chromium (VI) include gastrointestinal and neurological effects, while dermal exposure causes skin burns in humans. Chronic inhalation exposure to chromium (VI) in humans results in effects on the respiratory tract, with perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness reported. Chronic human exposure to high levels of chromium (VI) by inhalation or oral exposure may produce effects on the liver, kidneys, gastrointestinal and immune systems, and possibly the blood.
	Health Risk	34	19	ID	
Para-Dichlorobenzene	Mean	ID	ID	ID	In California, para-dichlorobenzene has been identified as a carcinogen. Acute exposure to 1,4-dichlorobenzene via inhalation results in irritation to the eyes, skin, and throat in humans. In addition, long-term inhalation exposure may affect the liver, skin, and central nervous system in humans (e.g., cerebellar ataxia, dysarthria, weakness in limbs, and hyporeflexia).
	Health Risk	ID	ID	ID	
Formaldehyde	Mean	3.52	3.64	3.35	The major toxic effects caused by acute formaldehyde exposure via inhalation are eye, nose, and throat irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Chronic exposure to formaldehyde by inhalation in humans has been associated with respiratory symptoms and eye, nose, and throat irritation. Animal studies have reported effects on the nasal respiratory epithelium and lesions in the respiratory system from chronic inhalation exposure to formaldehyde. Occupational studies have noted statistically significant associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer. This evidence is considered “limited” rather than “sufficient” due to possible exposure to other agents that may have contributed to the excess cancers. EPA considers formaldehyde to be a probable human carcinogen (cancer-causing agent) and has ranked it in EPA’s Group B1. In California, formaldehyde has been identified as a carcinogen.
	Health Risk	70	76	70	

Table 6
Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California)

TAC	Concentration^A / Health Risk^B	2015	2016	2017	Health Effects
Methylene Chloride	Mean	ID	48.2	12.3	Case studies of methylene chloride poisoning during paint-stripping operations have demonstrated that inhalation exposure to extremely high levels can be fatal to humans. Acute inhalation exposure to high levels of methylene chloride in humans has resulted in effects on the central nervous system, including decreased visual, auditory, and psychomotor functions, but these effects are reversible once exposure ceases. Methylene chloride also irritates the nose and throat at high concentrations. The major effects from chronic inhalation exposure to methylene chloride in humans are effects on the central nervous system, such as headaches, dizziness, nausea, and memory loss. In addition, chronic exposure can lead to bone marrow, hepatic, and renal toxicity. EPA considers methylene chloride to be a probable human carcinogen and has ranked it in EPA's Group B2. California considers methylene chloride to be carcinogenic.
	Health Risk	ID	477	122	
Perchloroethylene	Mean	ID	0.018	0.013	In California, perchloroethylene has been identified as a carcinogen. Perchloroethylene vapors are irritating to the eyes and respiratory tract. Following chronic exposure, workers have shown signs of liver toxicity, as well as kidney dysfunction and neurological disorders.
	Health Risk	ID	2	2	
Diesel PM	Mean	No Monitoring Data Available			In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. This research was based on studies prior to the advent of modern diesel engines with high efficiency emissions controls.
	Health Risk				

ID = Insufficient data
A = Concentrations for Hexavalent Chromium are expressed as µg/m^3, and concentrations for Diesel PM are expressed as µg/m^3. Concentrations for all other TACs are expressed as ppb.
B = Health Risk represents the number of excess cancer cases per million people based on a lifetime (70-year) exposure to the annual average concentration. Total Health Risk represents only those compounds listed in this table and only those with data for the year. There may be other significant compounds for which monitoring and/or health risk information are not available
Source: CARB 2018 for the SCAQMD Riverside-Rubidoux air monitoring station.

The basin-wide population weighted cancer risk is 367 per million based on averages at fixed monitoring sites estimated during the MATES-IV study. This level of risk means that on average an estimated 367 individuals in the basin could contract cancer out of a population of one million individuals exposed to all sources of toxic air contaminants over a lifetime of 70 years. A comprehensive air dispersion model and a detailed air toxics emission inventory were then used to estimate cancer risks at other locations where no monitoring sites were deployed. A 10-year research program[45] demonstrated that diesel PM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to diesel PM poses a chronic health risk.

In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust has been a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. Within the Basin, in addition to diesel PM, there are emissions of benzene, formaldehyde, acetaldehyde, naphthalene, ethylbenzene, acrolein, toluene, hexane, propylene, and xylene from a variety of sources located within the Basin that contribute to health risks.

Figure 16, *MATES IV Cancer Risk in Area*, shoes the average cancer risk in the project area. As shown in **Figure 17**, *Change in Air Toxics Simulated Risk from 2005 to 2012*, nearly all areas of the Basin experienced decreases in cancer risk during the time period from MATES–III time period of 2005 to the MATES-IV time period of 2012. The project area also experienced a decrease in cancer risk of between 100 and 400 in one million from the years 2005 to 2012.

Figure 20 depicts the cancer risk estimates as a "snapshot in time." That is, the cancer risks are derived from air dispersion models and are based on the emissions of various TACs during the years 2005 and 2012. The basic tenet used to estimate cancer risk assumes that the public will be exposed to these TAC emissions during an entire 70-year lifetime of continuous exposure. However, the SCAQMD, CARB, and the EPA have adopted numerous regulations that have

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[45] CARB. 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines

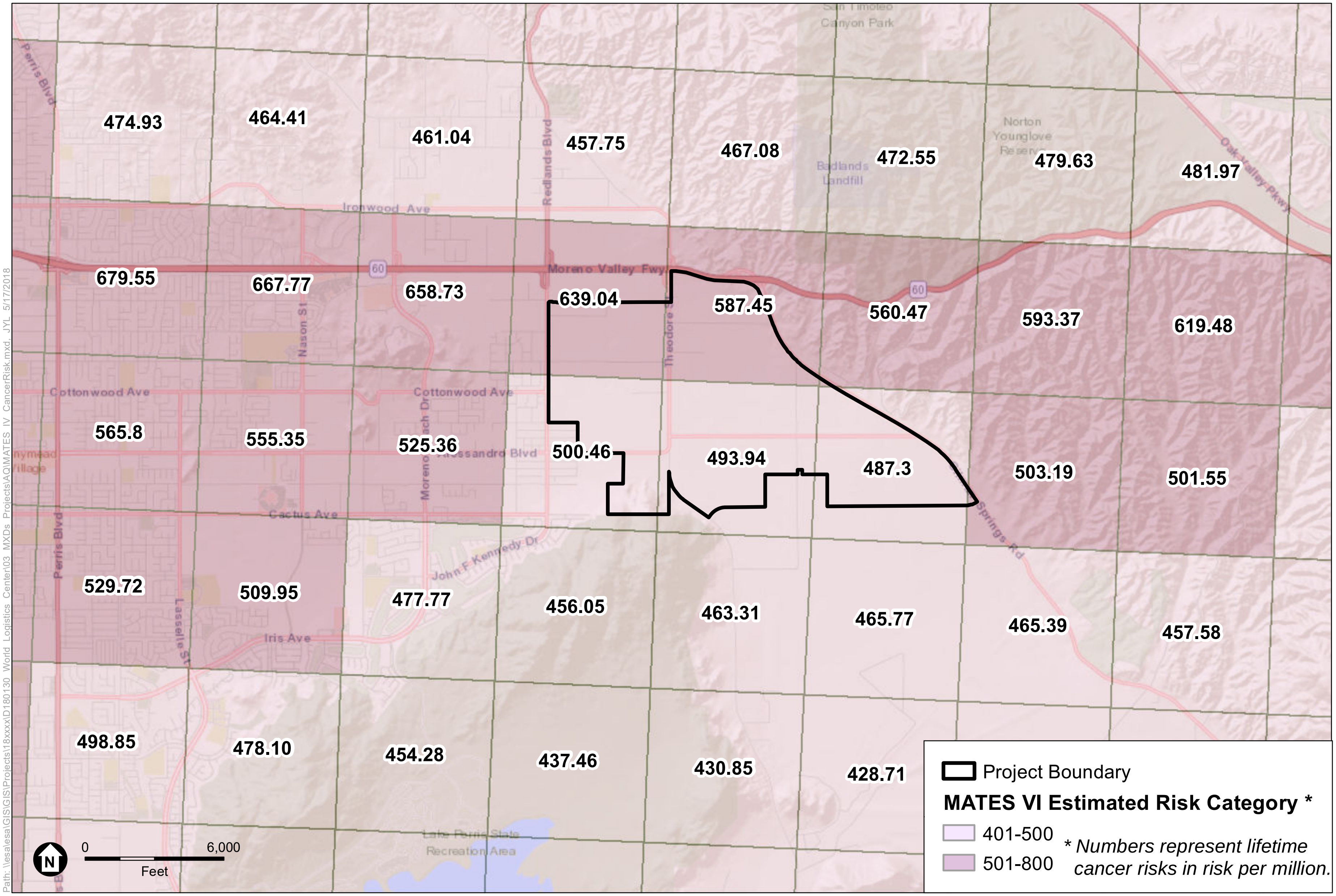

SOURCE: ESRI 2016; South Coast Air Quality Management District 2018

World Logistics Center

Figure 16

MATES IV Cancer Risk in Area

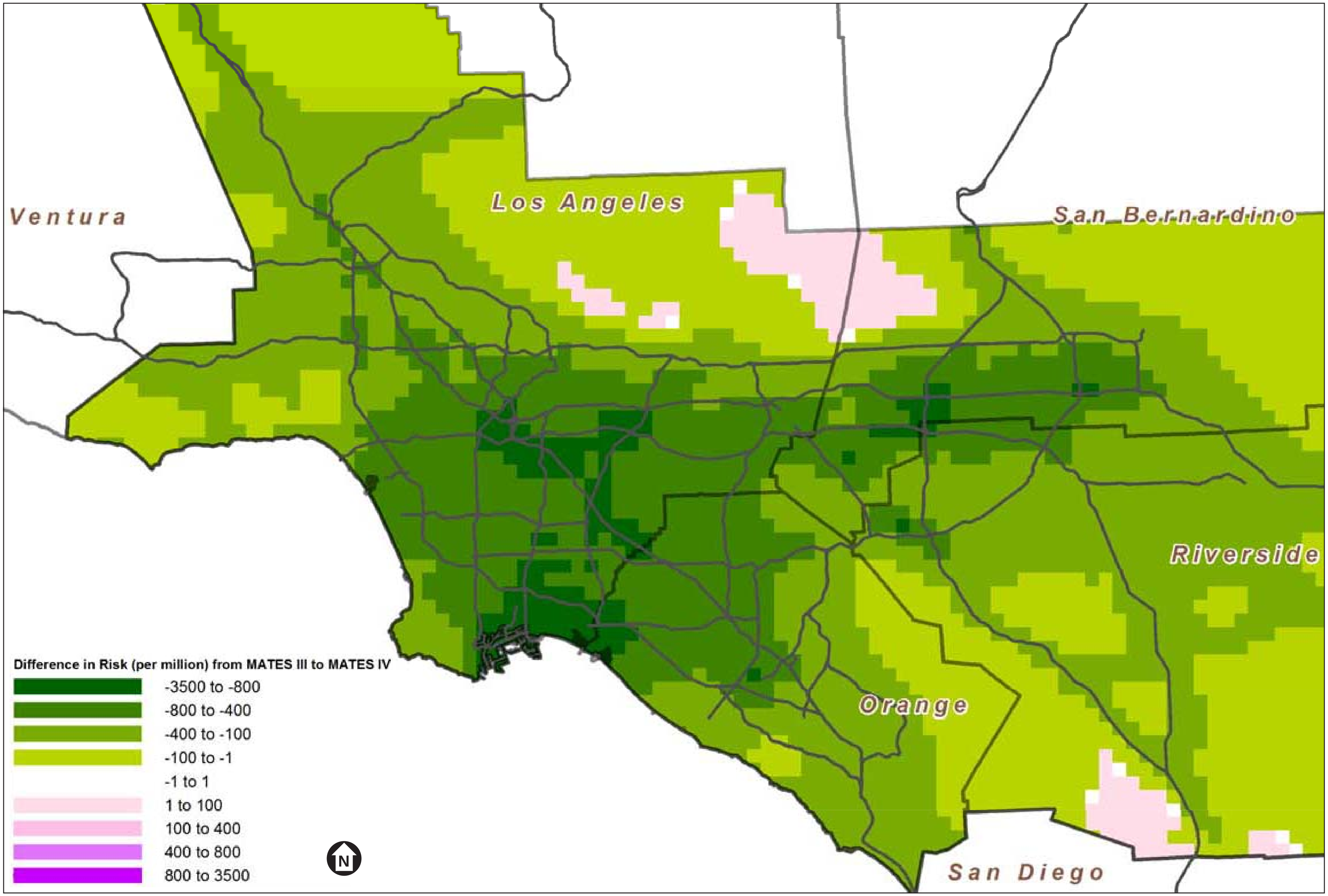

SOURCE: SCAQMD, MATES IV Final Report, May 2015

Figure 17
Change in Air Toxics Simulated Risk from 2005 to 2012

resulted in significant reductions in pollutant emissions with the attendant reductions in prevailing air quality levels since 2012 as noted earlier. The benefits of substantial additional emission reductions derived from the adoption and application of SCAQMD, CARB, and EPA regulations are not reflected in the estimate of 70-year lifetime cancer risks referred to in Figure 17.

Conservative Nature of Health Risk Assessments

Moreover, the current methodological protocols required by the SCAQMD and CARB when studying the health risk posed by diesel PM assume the following (from the California Air Pollution Control Officers Association 2009): (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 70 years. These are overly conservative assumptions that are not replicated in reality. Most people are indoors for 18–20 hours a day (at their place of employment or home) and most people do not live in the same location for a 70-year period. In fact, less than 10 percent of the population has a continuous residency at the same location of greater than 30 years (American Community Survey 2011). Thus, the health risk assessments prepared pursuant to the current protocols overestimate the risk of cancer associated with diesel PM exposure.

Alternative Views on Diesel PM Risk

Some researchers, such as Dr. James E. Enstrom (2008), believe that the risk from diesel PM is exaggerated. Enstrom calls into question some of the basic research on the declaration of diesel exhaust as a toxic air contaminant. In particular, the article states the following:

> *There is substantial new epidemiologic evidence relevant to the health effects of diesel exhaust that was not considered when the 1998 toxic air contaminant declaration was made. For instance, the 2007 paper by Francine Laden et al. measured death rates during 1985–2000 among 54,000 members of the unionized U.S. trucking industry. ... This cohort, which included 36,000 diesel truck drivers, had death rates from all causes and all cancer that were substantially below the rates among US males. Furthermore, unlike earlier evidence that was used in the TAC declaration, this cohort did not have a substantially elevated lung cancer death rate.*

Dr. Enstrom also indicates that the premature mortality calculation in the report, "Quantification of the Health Impacts and Economic Valuation of Air Pollution from Ports and Goods Movement in California," is exaggerated. Dr. Enstrom's analysis "found no relationship between $PM_{2.5}$ and mortality in elderly Californians during 1983–2002."

Southern California Association of Governments

Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) within Regional Transportation Plan (RTP) demonstrates the region's ability to attain and exceed the GHG emission reduction targets set by the CARB. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint Demonstration Projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network, which emphasizes system preservation, active transportation, and transportation demand management measures.

The RTP/SCS exceeds its greenhouse gas emission-reduction targets set by the CARB by achieving an 8 percent reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. **Table 7**, *SCAG Assumptions for Moreno Valley,* shows the assumptions regarding Moreno Valley that SCAG used in its 2016 analysis.

Table 7
SCAG Assumptions for Moreno Valley

Year	Population	Households	Employment
2012	197,600	51,800	31,400
2040	256,600	73,000	83,200

Source: Southern California Association of Governments 2016
(http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf)

The RTP also includes an appendix on Goods Movement, which provides an overview of the regional goods movement and initiatives to facilitate it. The 2016 RTP does not include a list of proposed or recommend strategies. Proposed Strategies in the 2012 RTP (that are still relevant in the 2016 RTP) that include the Local Jurisdiction as a responsible party, that could be applicable to the project, and that pertain to air quality or greenhouse gases are shown in **Table 8**, *Select 2012 Regional Transportation Plan Strategies*. Many of the strategies are similar to the project's mitigation measures and project design features.

Table 8
Select 2012 Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and electric (and other alternative fuel) vehicle supply equipment in public parking lots.	Local Jurisdictions, COGs, SCAG, CTCs	Consistent with **Mitigation Measures 4.3.6.3B** (non-diesel yard trucks), **4.3.6.3C** (alternative fuel station), and **4.3.6.4A** (electric vehicle charging stations).
Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.	Local Jurisdictions and CTCs	Consistent with **Mitigation Measure 4.3.6.4A** (bicycle lanes, storage lockers, and pedestrian connections/pathways).

Table 8
Select 2012 Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency
Engage in a strategic planning process to determine the critical components and implementation steps for identifying and addressing open space resources, including increasing and preserving park space, specifically in park-poor communities.	Local Jurisdictions and CTCs	The project is consistent with City's goal of conserving open space. As compared to the Moreno Highlands Specific Plan, theproject would change the zoning on 910 acres from residential to open space. In addition, the project preserves the zoning of 74 acres of open space in the southwest corner of the project site for passive open space and recreation uses. Finally, a network of trails has been proposed within the project site to provide public trail access to the Lake Perris Recreational Area and the San Jacinto Wildlife Area.
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other zero emission vehicle options.	Local Jurisdictions and CTCs	Consistent with **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program), bicycle lanes, and pedestrian access.
Encourage transit fare discounts and local vendor product and service discounts for residents and employees of transit oriented development/high quality transit areas or for a jurisdiction's local residents in general who have fare media	Local Jurisdictions	Not applicable. This measure is for areas in transit-oriented development.
Encourage the implementation of a Complete Streets policy that meets the needs of all users of the streets, roads and highways—including bicyclists, children, persons with disabilities, motorists, neighborhood electric vehicle (NEVs) users, movers of commercial goods, pedestrians, users of public transportation and seniors—for safe and convenient travel in a manner that is suitable to the suburban and urban contexts within the region.	Local Jurisdictions, COGs, SCAG, CTCs	Although the project is not implementing what is labeled as a "Complete Streets" policy, the project would include bicycle lanes and pedestrian access (**Mitigation Measure 4.3.6.4A**) and would implement handicapped access pursuant to current regulations.
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG, Local Jurisdictions	Consistent through **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program; designated parking for carpool/van pools).
Develop infrastructure plans and educational programs to promote active transportation options and other alternative fueled vehicles, such as neighborhood electric vehicles, and consider collaboration with local public health departments, walking/biking coalitions, and/or Safe Routes to School initiatives, which may already have components of such educational programs in place.	Local Jurisdictions	Consistent with **Mitigation Measures 4.3.6.4A** (bicycle lanes, pedestrian access, electric vehicle charging) and **4.3.6.3C** (alternative fueling infrastructure).
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	Local Jurisdictions and CTCs	Not applicable. Tenants may choose to implement telecommuting if feasible.
Emphasize active transportation and alternative fueled vehicle projects as part of complying with the Complete Streets Act (AB 1358).	State, SCAG, Local Jurisdictions	Consistent with **Mitigation Measure 4.3.6.3C** (alternative fueling station) and **Mitigation Measure 4.3.6.4A** (electric vehicle charging stations)

* Abbreviations:
SCAG = Southern California Association of Governments

Table 8
Select 2012 Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency

CTCs = county transportation commissions
COGs = subregional councils of governments
Source: Southern California Association of Governments 2012 and the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2018.

The Goods Movement appendix of the 2016 RTP/SCS describes a process to develop and deploy needed technologies, along with key action steps for public sector agencies to help move the region to that objective. The 2016 RTP/SCS reaffirms zero- and near zero-emission technologies as a priority, and establishes the regional path forward to such as goods movement system.

SB 375 took effect in 2009 and required regional municipal planning organizations to develop regional land use plans that demonstrate how the regions will achieve compliance with the GHG reduction goals of AB 32. Cities located within these regions are then required, in turn, to update their General Plans in accordance with the regional plans. Non-compliance with SB 375 will result in transportation funds being withheld from the regional and/or local agency. To date, the regional municipal planning organization for Riverside County (the Western Riverside Council of Governments, or WRCOG) has not adopted a regional plan that is in compliance with SB 375.

2.5 Local

City of Moreno Valley

General Plan

Chapter 9 of the City's General Plan defines goals and policies related to air quality within the City of Moreno Valley. The specific policies of the General Plan that are relevant to theproject are as follows:

Objective 6.6	Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.
Objective 6.7	Reduce mobile and stationary source air pollutant emissions.
Policy 6.7.1	Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.
Policy 6.7.2	Encourage the financing and construction of park and ride facilities.
Policy 6.7.3	Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange, and Los Angeles Counties.
Policy 6.7.4	Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors.

Policy 6.7.5 Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.

Policy 6.7.6 Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.

Climate Action Strategy

The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The Strategy contains the following policies to reduce greenhouse gas emissions in 2010 by 15 percent by 2020:

R2-T1 Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

R2-T3 Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

R2-E1 New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.

R2-E2 New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.

R2-E5 New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.

R3-E1 Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.

R3-L2 Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

R2-W1 Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

R3-W1 Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

R2-S1 City Diversion Program. For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

SECTION 3
Significance Thresholds

3.1 State CEQA Guidelines, Appendix G

Based on Appendix G of the CEQA Guidelines, air quality impacts would occur if the project would:

AIR-1: Conflict with or obstruct implementation of the applicable air quality plan;

AIR-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

AIR-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

AIR-4: Expose sensitive receptors to substantial pollutant concentrations; and/or

AIR-5: Create objectionable odors affecting a substantial number of people.

GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or

GHG-2: Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

In addition to the Federal and State AAQS, there are daily emissions thresholds for construction and operation of a project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its CEQA Air Quality Handbook[46] and subsequent additions to the Handbook were used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution related to air quality and health risks.

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[46] *CEQA Air Quality Handbook*, April 1993.

Air Quality Thresholds

Construction Emissions

The following CEQA significance thresholds for regional construction emissions have been established by the SCAQMD for the Basin:

- 75 pounds per day of VOC, also known as reactive organic compounds (ROC).
- 100 pounds per day of NOX.
- 550 pounds per day of CO.
- 150 pounds per day of PM10.
- 150 pounds per day of SOX.
- 55 pounds per day of PM2.5.

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA.

Operational Emissions

Projects with regional operation-related emissions that exceed any of the regional emission thresholds listed below are considered significant under the SCAQMD guidelines.

- 55 pounds per day of VOC, also known as ROC.
- 55 pounds per day of NOX.
- 550 pounds per day of CO.
- 150 pounds per day of PM10.
- 150 pounds per day of SOX.
- 55 pounds per day of PM2.5.

Carbon Monoxide Hotspots

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more. The Basin meets State and Federal attainment standards for CO; therefore, the project would have a significant CO impact if project emissions result in an exceedance of State or

Federal one-hour or eight-hour standard. The following emission concentration standards for CO, based on the SCAQMD CEQA Air Quality Handbook (1993), apply to the project:

- California State one-hour CO standard of 20.0 ppm.
- California State eight-hour CO standard of 9.0 ppm.

Localized Significance Thresholds

The SCAQMD published its Final Localized Significance Threshold Methodology in June 2003, revised July 2008) and Final Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds (October 2006), recommending that all air quality analyses include a localized assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of Federal or State AAQS. LSTs are based on the ambient concentrations of that pollutant within the Source Receptor Area (SRA) where a project is located and the distance to the nearest sensitive receptor. The project site is located in the northern portions of SRAs 24 (Moreno Valley) and 28 (San Jacinto).

In the case of CO and NO_2, if ambient levels are below the air standards for these pollutants, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are nonattainment pollutants in the Basin. For these latter two pollutants, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 $\mu g/m^3$ applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 $\mu g/m^3$ applies to non-aggregate handling operational activities.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. There are currently six occupied single-family homes and associated ranch/farm buildings in various locations on the project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the project site are the residences located along Bay Avenue, Merwin Street, and west of Redlands Boulevard, and scattered residences along Gilman Springs Road.

Following the SCAQMD LST methodology, for sites larger than 5 acres, air dispersion modeling needs to be conducted. Because the project site greatly exceeds 5 acres, the localized significance for project air pollutant emissions was determined by performing dispersion modeling to determine if the pollutant concentrations would exceed relevant significance thresholds established by the SCAQMD.

The following LSTs were applied to the construction and operation of the project:

- 0.18 ppm (State 1-hour); 0.100 ppm (Federal 1-hour); and 0.03 ppm (Annual) of NO_2 for construction or operations.

- 20 ppm (1-hour) and 9.0 ppm (8-hour) of CO for construction or operation.
- 10.4 µg/m3 (24-hour) and 1 µg/m3 of PM_{10} (Annual) for construction.
- 2.5 µg/m3 (24-hour) and 1.0 ppm (Annual) of PM_{10} for operations.
- 10.4 µg/m3 (24-hour) of $PM_{2.5}$ for construction.
- 2.5 µg/m3 (24-hour) of $PM_{2.5}$ for operation.
- Note that when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operation apply in determining emission significance

Health Risk Significance Thresholds

For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), “substantial” is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level.

The SCAQMD has defined several health risk significance thresholds that it recommends to Lead Agencies in assessing a project’s health risk impacts. The City of Moreno Valley has not adopted its own set of thresholds. Therefore, the following SCAQMD thresholds were adopted for the project.

- **Maximum Individual Cancer Risk (MICR) and Cancer Burden.** The MICR is the estimated increase in lifetime probability of the maximally exposed individual contracting cancer as a result of exposure of TACs over the applicable exposure period. Cancer burden multiples the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project.

  A significant impact would occur for:

  A. An increased MICR greater than 10 in 1 million at any receptor location; or

  B. A cancer burden greater than 0.5.

- **Chronic Hazard Index (HI).** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. A reference exposure level is the exposure level below which an adverse health effect will not occur as determined by health professionals The chronic HI calculations include multi-pathway consideration, when applicable.

  A significant impact would occur if the increase in total chronic HI for any target organ system due to exposures to total TAC emissions from the project exceeds 1.0 at any receptor location.

- **Acute Hazard Index (HI).** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level, the exposure level below which an adverse health effect will not occur as determined by health professionals.

  A significant impact would occur if the increase in total acute HI for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.

Greenhouse Gas Thresholds

On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is the lead agency (SCAQMD permit threshold). Tier 3 of the threshold is recommended by the SCAQMD for industrial projects.[47] The threshold consists of five tiers, as follows:

- Tier 1 consists of evaluating whether or not a project qualifies for any applicable exemption under CEQA. The project is not exempt under CEQA; therefore, go to Tier 2.
- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions. There is no greenhouse gas reduction plan that could be used for CEQA purposes for this project; go to Tier 3.
- Tier 3 is a screening threshold level to determine significance using a 90 percent emission capture rate approach and is 10,000 MTCO2e per year (with construction emissions amortized/averaged over 30 years and added to operational emissions). Project greenhouse gas emissions are compared with the threshold, 10,000 MTCO2e per year (see analysis below).
- Tier 4 was not approved in the interim greenhouse gas threshold.
- Tier 5 would allow the project proponent to purchase offsite mitigation to reduce greenhouse gas emissions to less than the screening level (in Tier 3).

Section 15064.4(b) of the CEQA Guideline amendments for greenhouse gas emissions state that a lead agency may take into account the following three considerations in assessing the significance of impacts from greenhouse gas emissions.

Consideration #1: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

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[47] SCAQMD. 2015. Air Quality Significance Thresholds. Revised March 2015. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

Consideration #3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

AB 32 Capped and Uncapped Emissions

The ARB has designed a California cap-and-trade program that is enforceable and meets the requirements of AB 32. The program began on January 1, 2012, with an enforceable compliance obligation beginning with its 2013 greenhouse gas emissions inventory. Some of the project's greenhouse gas emissions are subject to the requirements of the AB 32 Cap and Trade Program and will have a greenhouse gas allocation based on current emissions levels. The AB 32 Cap-and-Trade Program has divided allocations into sectors. The transportation and electricity sectors would be covered by the cap-and-trade program.

The SCAQMD has recognized that the greenhouse gas emissions associated with capped sources should not be counted for the purpose of determining what the greenhouse gas emissions are for facilities that will use electricity generated elsewhere. In September 2013, the SCAQMD adopted the following two Negative Declarations last year stating that greenhouse gas emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MTCO2e significance threshold the SCAQMD applies when acting as a lead agency:

- Ultramar Inc. Wilmington Refinery Proposed Cogeneration Project[48]
- Phillips 66 Los Angeles Refinery Carson Plant - Crude Oil Storage Capacity Project[49]

In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this issue one step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation".[50] This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA . . ." The SJVAPCD classifies ARB's Cap-and- Trade Program as an approved greenhouse gas emission reduction plan or

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[48] SCAQMD. Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project. October 2014. https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C38.pdf

[49] SCAQMD. Final Negative Declaration for: Phillips 66 Los Angeles Refinery Carson Plant - Crude Oil Storage Capacity Project. December 2014. http://www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/phillips-66-fnd.pdf

[50] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2014. CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation. https://www.valleyair.org/policies_per/Policies/APR-2025.pdf

greenhouse gas mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:

- Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change.
- The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change.
- [I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation.
- [T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated.

The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that greenhouse gas emissions associated with vehicle miles traveled cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the project because vehicle miles traveled is by far the largest source of project greenhouse gas emissions.

Therefore, only the uncapped project emissions are compared with the SCAQMD significance threshold (see Tier 3 above).

SECTION 4
Methodology

The evaluation of potential impacts to air quality and GHG emissions that may result from the construction and long-term operations of the Project is conducted as follows:

4.1 Construction

Construction-related emissions are expected from various activities associated with the construction of the project such as rough grading, infrastructure construction, asphalt paving, building construction, architectural coatings, and construction workers commuting. Construction emissions for construction worker vehicles traveling to and from the project site, in addition to vendor trips (construction materials delivered to the project site) and haul trips (dump trucks and concrete trucks) were also accounted for in the analysis. Localized air quality in the project area would be affected by both heavy-duty construction equipment usage on site as well as local traffic due to the equipment delivery and construction worker commuting. The SCAQMD CEQA methodology was used to analyze the criteria pollutant emissions from these activities.

The assumptions that follow in this section are for the criteria pollutant analysis and the greenhouse gas analysis. This section describes the assumptions used to estimate the emissions using the California Emissions Estimator Model (CalEEMod) (Version 2016.3.2). The criteria pollutants estimated by CalEEMod for construction are as follows: VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. In addition, CalEEMod also estimated construction emissions for methane, nitrous oxide, carbon dioxide, and MTCO2e for use in the greenhouse gas impact assessment.

Construction was assumed to occur over 16 years. Although buildout of the project would depend on market conditions, the project could be built out as early as 2035.[51] Therefore, to provide a conservative air quality analysis, construction was assumed to be completed over a 16-year period that provides for phase overlap and the use of older construction equipment.

The various activities during construction are described as follows:

- Mass excavation: Approximately 42 million cubic yards (cy) of cut and fill will be required to rough/mass grade the entire project site, including remedial grading and over-

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[51] *Full build out of the Project is expected to take 15 to 20 years, dependent on market forces. The TIA analyzes full project buildout in 2040, which is worst case for traffic analysis purposes as it accounts for greater regional growth in non-project traffic. However, for purposes of a conservative construction impact analysis, the fifteen-year buildout (ending in 2035) is analyzed. An accelerated construction schedule occurring in earlier years would account for greater overlap of construction activity and the use of dirtier construction equipment (i.e. subject to less stringent emission standards).*

excavation. Earthwork will balance on site within the Specific Plan, eliminating the need to import or export dirt for the project.

- Finish grading: This activity is to fine tune the drainage patterns on the site and achieve the finish tolerance of the grading activity.
- Building: This activity involves construction of the buildings on the project site. The sub-activities include bringing concrete to the site, tilting up the concrete walls, constructing the wet utilities, installing the electrical, and installing the landscaping around the buildings.
- Concrete: Concrete pouring would likely occur during nighttime hours due to limitations high temperatures pose for concrete work during the day. On-site equipment used during concrete pouring would involve daytime prep with actual concrete pouring occurring during the nighttime hours. On average, the total hours of operation for each piece of equipment during the concrete phase would be approximately 10 hours. Therefore, the analysis assumes a realistic average use of construction equipment by assuming that the maximum equipment would be used for five days per week occurring for 10 hours per day (including the concrete pouring phase).
- Utilities: Grading and trenching for electrical, natural gas, etc.
- Interchange: Construction related to the SR-60 interchange improvements.
- Curbing/driving approaches: Constructing curbs and driveways.
- Coatings: The exterior of the buildings and the interior of the office space would be painted. CalEEMod assumes that a high quantity of painting would occur, even though the project consists of warehouses and would require minimal painting. VOC from painting is estimated outside of CalEEMod.
- Paving: The acreage to be paved in unknown at this time; it was assumed for worst-case purposes that one-third of each planning area would be paved. The VOC emissions from paving were estimated manually using the calculations presented in the CalEEMod User's Guide and the acreage of the planning area.
- Landscaping: This involves landscaping the area outside the immediate proximity of the buildings.

Off-road Equipment

The off-road equipment refers to the equipment that would operate onsite (and in the adjacent offsite areas, for offsite improvements) to move dirt and materials around, and include equipment such as scrapers, graders, loaders, pavers, excavators, and dozers. This equipment operates during all subphases of construction of the project.

The emission levels for off-road equipment are based on the emission factors, horsepower, load factor, and activity level of the equipment. The emission factors are generally described as an emission rate per horsepower and time of operation and depend on the type of equipment, horsepower, and model year of the equipment. In general, the horsepower is the power of an engine – the greater the horsepower, the greater the power to be able to move dirt and materials around. In general, a greater horsepower also results in greater emissions. The load factor is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operated at its maximum operating capacity. The activity level is generally represented by the number of hours the equipment is in operation during a time period such as a day. An air emissions model, such as CalEEMod, combines the emission factors, horsepower, load factor, and activity level and outputs the emissions for the various pieces of equipment and air pollutants.

The onsite construction equipment assumptions, including the horsepower, load factor, and number, are included in Appendix A of this report and are used in the emission model to estimate construction emissions.

Equipment *tiers* refers to the adoption of emission standards established by the EPA and ARB that apply to diesel engines in off-road equipment. The "tier" of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the greater the tier it is likely to have. Beginning in year 2011, new off-road mobile engines sold that are equal to or greater than 175 horsepower (hp) and non-emergency stationary engines less than 10 liters per cylinder and equal to or greater than 175 hp are required to meet Tier 4 Interim standards (40 Code of Federal Regulations, part 1039). Tier 4 Final for engines greater than 130 hp are required as of 2014.

CalEEMod contains a default inventory of construction equipment for various land uses that incorporates estimates of the number of equipment, their age, their hp, and equipment tier from which rates of emissions are developed. For the unmitigated emissions estimates, all equipment is assumed to be the CalEEMod defaults. For the mitigated emissions estimates, the off-road equipment (those over 50 hp) are assumed to be Tier 4.

The analysis assumes that the onsite equipment are in the on position for 10 hours per day as a project design feature. This is a conservative scenario as the CalEEMod default assumes construction equipment would be on for 6 to 8 hours per day. This is used to calculate maximum daily emissions which are required for the regional analysis, because project emissions can occur on any day of the week.

Onsite equipment used during concrete pouring, which would most likely occur during the night, was assumed to occur over 24 hours to calculate the regional emissions for a worst-case 24-hour construction day. Concrete pouring phases that would include nighttime activity would occur for a maximum of one or two days for each planning area and not throughout the entire concrete pouring phase. It is assumed that during 24-hour concrete pour days, no other construction would occur on the project site. Therefore, in order to calculate annual average emissions, it is necessary to base emissions upon a realistic work schedule. The analysis assumes a more realistic annual average use of construction equipment by assuming that the maximum equipment would occur for five days per week occurring for 10 hours per day (including the concrete pouring phase). In this way, an annual average and daily emission inventories were estimated.

Construction Trips

Construction trips refer to the number of trips to the project site from offsite locations and include the following groups:

- Workers: These are trips from construction workers from their residence to the project site. The CalEEMod default worker trip length of 14.7 miles was increased to 25 miles, to account for a potentially longer commute distance for construction workers. The CalEEMod default vehicle fleet mix was used for employee trips.
- Vendors: These trips include water trucks and service/support trucks bringing smaller materials to the project site. The vendor trip length was increased from the default of 6.9 miles to 25 miles, to account for any additional trips and to account for deliveries from the greater Los Angeles area. The CalEEMod default vehicle fleet was used for vendor trips.
- Haul Trucks: Dump truck trips, support haul trucks, concrete trucks, and material delivery trips were represented as haul trips, with a mileage of 25 miles per trip (increased from the default of 20 miles). The CalEEMod default vehicle type was used for haul trips.

Construction trips are shown in CalEEMod outputs, included as Appendix A of this report. The vendor and haul trips were also included in the onsite construction equipment by assigning hours per day per trip to account for onsite travel and any idling onsite. The CalEEMod default hp and load factors were used for each equipment as specified below:

- Water trucks and service support trucks: other material handling equipment, 1 hour per day per trip
- Concrete trucks: cement and mortar mixers, 1 hour per day per trip
- Delivery trucks, dump trucks, and support haul trucks: off-highway trucks, 0.3 hours per day per trip

Fugitive Dust Estimates

Off-Road Equipment

Approximately 42 million CY of cut and fill will be required to rough/mass grade the entire project site, including remedial grading and over-excavation. Grading is required to make the land level before the building foundations are laid. Earthwork will balance on-site within the Specific Plan, eliminating the need to import or export dirt for the project.

During grading activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from dozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Each of those activities is calculated differently in CalEEMod based on the number of acres traversed by the grading equipment.

Only some pieces of equipment generate fugitive dust within CalEEMod during grading activities. However, there could be construction emissions occurring over the entire planning area because some equipment does not generate fugitive dust. As an example, the building forklifts lifting materials up would not generate fugitive dust. In addition, there could be groups of graders and scrapers working at different ends of the planning area. The dispersion modeling assessment assumes that emissions would occur over the entire planning area.

According to CalEEMod, only several types of onsite off-road construction equipment generate fugitive dust. These include scrapers, crawler tractors, graders, and rubber tired dozers. For a conservative approach, for this assessment, it was assumed that compactors, excavators, and backhoes also generated fugitive dust. The scrapers are assumed to impact 1 acre over an 8-hour day and the other equipment mentioned above would impact ½ acre over an 8-hour day. Calculations for the grading areas based on the assumed equipment list are included in Appendix A.

SCAQMD Rule 403 requires fugitive dust generating activities to follow best available control measures to reduce emissions of fugitive dust. In particular, the project would need to comply with the requirements of a “large operation,” which requires more dust suppressant methods. Rule 403 states that for large operations, during earth moving, the soil moisture content must be at least 12 percent or water to prevent visible dust emissions from exceeding 100 feet in any direction. According to the SCAQMD’s Mitigation Measure Examples: Fugitive Dust from Construction & Demolition,[52] maintaining a 12 percent soil moisture would reduce fugitive dust by 69 percent. Therefore, for the unmitigated and mitigated emissions estimates, dust emissions from earth moving are reduced by 69 percent. These measures from Rule 403 are accounted for in CalEEMod as “mitigation” because they reduce emissions, even though they are technically not mitigation, but requirements. Rule 403 is accounted for in CalEEMod by watering three times per day, which would result in a 61 percent reduction in fugitive dust.

Unpaved Road Dust

There could be fugitive dust generated on unpaved roads from the employee vehicles, vendor vehicles, and haul trucks during construction. The emissions estimates for this dust were estimated using CalEEMod in its “Onroad Fugitive Dust” tab using a separate CalEEMod file to estimate this dust. The mean vehicle speed was reduced from 40 miles per hour to 20 miles per hour. The percent paved was changed to zero percent. Construction parking would likely be near the paved roads; therefore, the onsite distance is an average of 0.5 mile per trip on unpaved roads.

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[52] SCAQMD. 2007. Fugitive Dust Mitigation Measures. http://www.aqmd.gov/docs/default-source/ceqa/handbook/mitigation-measures-and-control-efficiencies/fugitive-dust/fugitive-dust-overview.pdf

The average vehicle weight was increased from the CalEEMod default of 2.4 tons to 5 tons. All other CalEEMod defaults were used.

SCAQMD Rule 403 requires dust control measures on unpaved roads. Best available control measure 15-1 requires that all off-road traffic and parking areas be stabilized (gravel/paving). Best available control measure 15-2 requires that all haul routes be stabilized gravel/paving) and measure 15-3 requires that construction traffic be directed over established haul routes. In addition, large operations must choose one of the following to reduce dust from unpaved roads:

(4a): Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8-hour work day]; or

(4b): Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; or

(4c): Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.

The fugitive dust reductions from the above control measures is quantified as follows; the smallest percent reduction is used in this analysis, which is from control measure 4a (60 percent reduction):

(4a): According to the SCAQMD mitigation measure examples for Fugitive Dust from Construction and Demolition,[53] applying water every three hours results in a 61 percent decrease in PM10. Applying a 50 percent moisture content for unpaved roads in CalEEMod's "mitigation" module results in a 60 percent reduction in fugitive dust.

(4b): CalEEMod's watering twice per day would result in a 55 percent reduction in fugitive dust. A 55 percent reduction in unpaved road dust occurs when the soil moisture level is 34 percent. Applying a speed limit reduction of 15 miles per hour and watering twice per day reduces fugitive dust by 64.7 percent reduction, according to CalEEMod calculations.

(4c): According to the SCAQMD mitigation measure examples for Fugitive Dust from Unpaved Roads,[54] applying chemical dust suppressants results in an 84 percent reduction.

Water Usage

There would be water used during construction to be compliant with SCAQMD Rule 403. Approximately 30 to 50 gallons of water are needed to compact each cubic yard of soil. If there would be 42 million cy of cut and fill, a total of 6,445 acre feet (2,100 million gallons) of water

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[53] SCAQMD. 2007. Fugitive Dust Mitigation Measures. http://www.aqmd.gov/docs/default-source/ceqa/handbook/mitigation-measures-and-control-efficiencies/fugitive-dust/fugitive-dust-overview.pdf

[54] SCAQMD. 2007. Fugitive Dust Mitigation Measures. http://www.aqmd.gov/docs/default-source/ceqa/handbook/mitigation-measures-and-control-efficiencies/fugitive-dust/fugitive-dust-overview.pdf

would be required. The greenhouse gas emissions associated with water transport are calculated using CalEEMod in its operation module.

Construction Waste

Greenhouse gas emissions associated with construction waste were estimated using the EPA's waste Reduction Model (WARM). The quantity of waste was estimated based on one construction waste case study and the 2008 California waste characterization study.

4.2 Operation

Operational emissions occur once the project commences operation. For purposes of this analysis, project buildout will occur in two phases. Therefore, operational emissions are analyzed for the Phase 1 buildout year and the full buildout year. The major sources of these emissions are summarized below.

To estimate some of the emissions on a year-by-year basis, the conceptual occupancy schedule for purposes of this analysis is shown in **Table 9**, *Conceptual Operational Occupancy Schedule,* based on the best current information. This schedule may vary in the future based on market demand factors associated with regional goods movement.

Table 9
Conceptual Operational Occupancy Schedule

Year	Annual Addition (Millions of Square Feet)	Cumulative Total (Millions of Square Feet)
2020	0.00	0.00
2021	2.10	2.10
2022	2.10	4.20
2023	2.80	7.00
2024	2.80	9.80
2025	5.20	15.00
2026	5.20	20.30
2027	2.75	22.95
2028	1.10	24.05
2029	2.20	26.25
2030	2.35	28.60
2031	2.67	31.27
2032	2.67	33.93
2033	2.67	36.60
2034	1.75	38.35
2035	1.75	40.10
Buildout	0.50	40.60

Note: The square footage includes all land use types (logistics development, light logistics, fueling station, fire station, and convenience store).

Motor Vehicle Emissions

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles and delivery trucks that would travel to and from the project site each day. The following procedures were used to estimate the mobile source criteria regional operational emissions, localized onsite emissions, and greenhouse gas emissions based on emission factors from the CARB EMFAC2014 mobile source emission model and emission information from the EPA dealing with paved road dust.

To quantify mobile source operational emissions, the following information is required:

- Trip generation – the number of vehicles that are expected to move to and from the project site each day.
- Vehicle fleet mix – the mix of vehicle types (i.e., automobiles, trucks, gasoline or diesel-fueled, etc.).
- Trip lengths – the distance each vehicle travels during each trips.
- Emission factors – the amount of emissions generated as a function of vehicle type, vehicle speed, calendar year, and vehicle model year for a given amount of vehicle idling time or distance traveled.

Trip Generation Rates

Trip generation quantifies the number of trips that a project generates each day during all facets of its operations. The trip generation is determined by multiplying an appropriate trip generation rate for a particular land use descriptive of the project by the quantity of that land use. Trip generation rates are determined for daily traffic, morning peak hour inbound and outbound traffic, and the evening peak hour inbound and outbound traffic for the proposed land use. The trip generation rates use for this project were derived from the project traffic impact analysis (TIA) prepared by WSP USA.[55] The trip generation rates applied in this assessment are shown in **Table 10**, *Trip Generation Rates*.

Table 10
Trip Generation Rates

Land Use	Units	Daily Trip Rate
High Cube Logistics Center	KSF	1.40
Light Logistics	KSF	1.74
Existing Utilities Servicing Station	KSF	13.24
Gas Station with Convenience Store	Fuel Pumps	31.61
Convenience Store	KSF	321.87
Fire Station	Number	137

KSF = thousands of square feet
Source: WSP USA Inc. Traffic Impact Analysis Report for The World Logistics Center. June 2018

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[55] WSP USA, Inc. Traffic Impact Analysis Report for The World Logistics Center. June 2018

Working jointly with the National Association of Industrial and Office Properties (NAIOP), the SCAQMD conducted a trip generation study for high-cube warehouses, the predominant form of land use for the project, High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016). The study replaces the earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the project. The results of the study for high-cube warehouse trip generation has been incorporated into the 10th edition of the Institute of Traffic Engineers (ITE) Trip Generation Manual. The trip generation rates included in this study for high-cube warehouse uses and trip rates from the 10th edition of the ITE Trip Generation Manual have been used for other proposed land uses.

Vehicle Fleet Mix

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the project. Emission factors are assigned to the expected vehicle mix as a function of calendar year, vehicle class, speed, and fuel use (gasoline and diesel-powered vehicles). The vehicle fleet mix for the project is based on the assumptions contained in the TIA. The TIA provided a vehicle fleet mix for passenger cars, light duty trucks, medium duty trucks, and heavy duty trucks. For purposes of this assessment, the EMFAC2014 mobile source model was used to derive a complete mix of vehicles consisting of the following vehicle classes (some vehicle classes have been separated into subclasses based on vehicle weight):

- Passenger Car: light duty automobiles (LDA), and light duty trucks (LDT1 and LDT2) – identified as passenger cars in the TIA.

- Light Trucks: medium duty trucks (MDT) – identified as Light Trucks in the TIA.

- Medium Trucks: light-heavy duty trucks (LHDT1 and LHDT2) with a gross weight of between 8,501 pounds and 14,000 pounds – identified as Medium Trucks in the TIA.

- Heavy Trucks: medium-heavy duty trucks (MHDT) and heavy-heavy duty trucks (HHDT) with gross weight of 14,001 to 33,000 pound and 33,000-plus pounds, respectively – identified as Heavy Trucks in the TIA.

The EMFAC2014 model was also used to subdivide each vehicle class by gasoline and diesel vehicles for each analysis year.

Two types of trip generation data were estimated for this assessment:

- Daily average: The daily average trip generation and VMT is representative of daily operations and is characterized by the total amount of vehicle trips and their travel distance during an operational day. The daily vehicle trips, VMT, and fleet mix were provided by the TIA and used to estimate the daily regional emissions from the operation of the project as a project's vehicles travel to and from the project site through the South Coast Air Basin. The daily vehicle trips and fleet mix were also used to estimate local daily and annual air quality impacts to the areas surrounding the project site.

- Peak hour: The peak hour vehicle fleet mix represents the number and mix of vehicles that would access the project during the peak hour of traffic. The peak hour information was provided by the TIA and used to estimate 1-hour and 8-hour local air pollutant impacts as well as for the estimation of acute non-cancer hazards.

Forecasted trip generation and vehicle miles traveled (VMT) contained in the TIA were used to estimate the project's motor vehicle emissions. The traffic model provided estimates of project traffic volumes segregated by vehicle class as passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks. The TIA provides VMT attributable to the project based on the net effect the project has on regional travel as well as project VMT without consideration of a net effect. The net effect includes consideration that creation of a job center (the project) would redistribute existing regional travel and result in shorter employee trips. Freeway and non-freeway VMT and speed data, as provided by WSP, were utilized to determine the appropriate emission factors to apply to project trips from the EMFAC2014 model. In calculating the operational traffic emissions, the VMT per speed was based on daily speed data provided by WSP. Emissions factors vary by speed bin. Therefore, accounting for variations in speed attributable to slow downs occurring during peak hours provides a realistic representation of project mobile emissions.

For purposes of the health risk assessment, peak hour intersection turning movement volumes provided by the TIA for the project area were utilized in order to assign emissions to specific roadway and freeway segments to determine risk. The traffic model is composed of a series of traffic segments that represent the flow of traffic from one geographic point to another. The project's motor vehicle traffic volumes were estimated using the number of peak hour vehicles forecasted by the regional traffic model. The output of the traffic model is in the form of two-way traffic flows for each traffic segment. For each roadway segment, the total number of vehicles was forecasted. The number of vehicles was then broken down into several vehicle types, as described above. Motor vehicle emissions were then estimated for each roadway segment by using the traffic volumes extracted from the traffic model forecasts, the length of the roadway segment, and the emission factors from EMFAC2014.

Mobile emissions utilize EMFAC2014's projected vehicle fuel mix for Phase 1 buildout year 2025 and project buildout year 2040. EMFAC2014 does not include population assumptions for electric or natural gas-fueled trucks. The potential penetration of electric trucks and potential use in association with the project has been analyzed by ESA.[56] Although the State has set targets for zero-emission vehicles, it would be speculative to assume that any EV Penetration scenarios would be practicable or feasible. Therefore, as a worst-case analysis, the greenhouse gas analysis included herein does not factor in any potential emissions reductions provided by electric or natural gas-fueled trucks. For informational purposes only, emissions associated with a Medium EV Penetration Scenario has been taken into account to show further emissions reduction potential.

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[56] ESA. World Logistics Center Transportation Energy Technical Study. June 2018

Local Travel

The automobile and truck traffic generated by the project would travel along several local roadways within and bordering the area of the project including Redlands Boulevard, World Logistics Center Parkway, Gilman Springs Road, Alessandro Boulevard, and Eucalyptus Avenue. As the project traffic travels along the roadway network, this traffic would generate air emissions. To examine the local air quality impacts from the project vehicles during operation along the local roadway network, a number of roadway segments were identified for analysis as described in the TIA.

The local roadway segments analyzed in this assessment are identified in Figure 18. The TIA only provided peak hour turning movement volumes along each of the roadway segments for passenger cars, and light, medium, and heavy trucks during the years 2018, 2025 (Phase 1 interim year), and 2040 (buildout). For purposes of the health risk assessment, the average of the AM and PM peak hour volumes were multiplied by 10 to estimate daily traffic volumes along each of the studied roadway segments.

The localized air quality analysis also addressed vehicle travel and idling within the truck yards of each phase of the project site. The exact physical locations and sizes of the various buildings that would comprise the project are unknown at this time. However, average trip lengths within the truck yards for the project’s two phases and individual land uses was estimated based on a review of the location of transportation analysis zones located within the project boundaries and the placement of the existing and planned local roadway network that would comprise the project. For this purpose, an average truck trip length of 1,080 feet was assigned to the high cube development truck yard areas, 574 feet for the light logistics land uses truck yards, 330 feet for the gas utility land use, and 160 feet for the fueling station/convenience store and fire station land uses.

Regional Travel

The project’s motor vehicles would also travel along numerous regional roadways outside of the project boundaries including local surface street and freeways. Figure 19 shows the local surface street roadway network analyzed and Figure 20 shows the freeway segments analyzed.

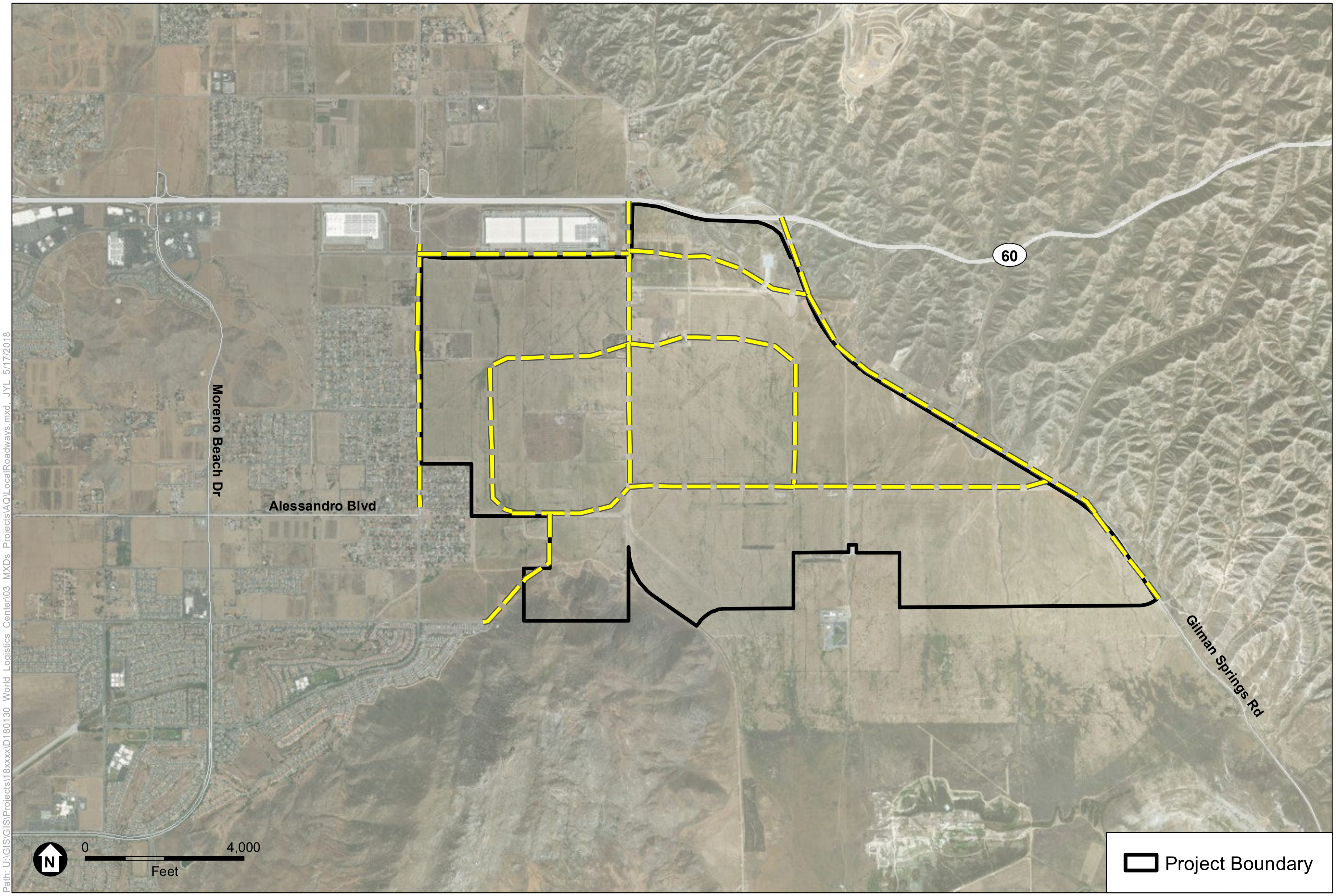

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\AQ\LocalRoadways.mxd, JYL 5/17/2018

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 18
Local Roadway Network Analyzed in the
Local Air Quality and Health Risk Assessment

ESA

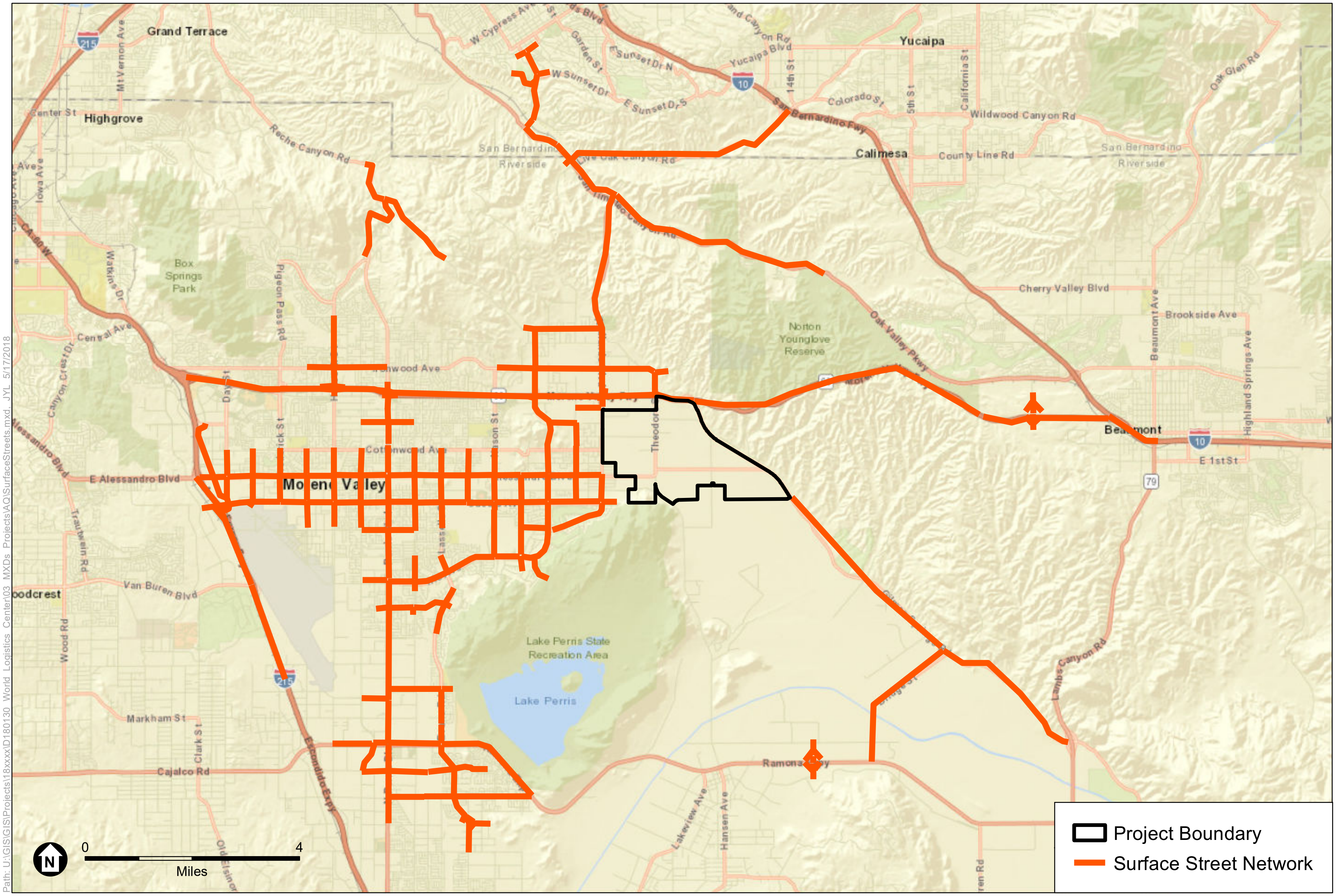

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SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 19
Surface Street Network Analyzed in the
Health Risk Assessment

ESA

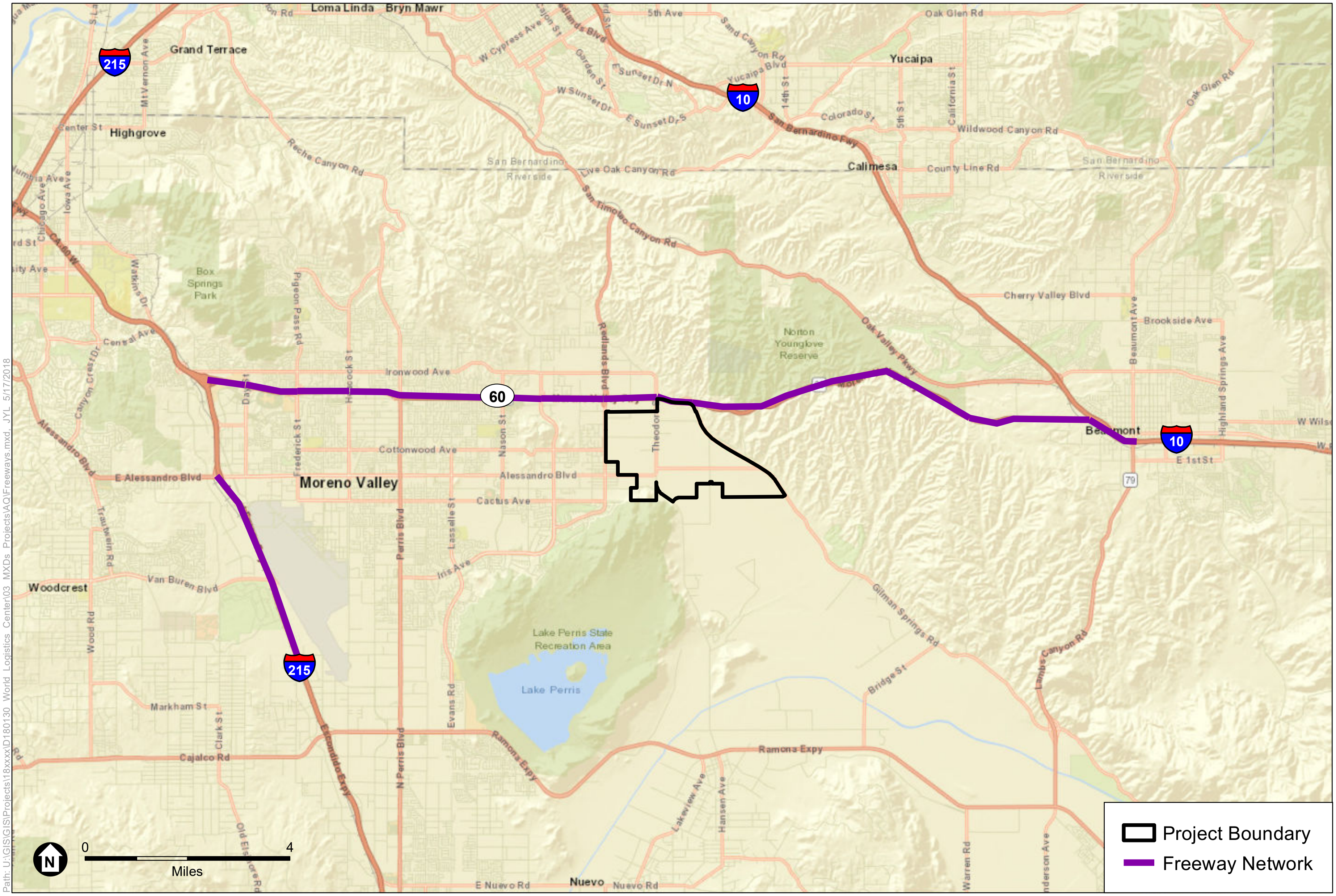

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\AQ\Freeways.mxd, JYL 5/17/2018

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 20
Freeway Network Analyzed in the
Health Risk Assessment

ESA

Emission Factors

There are emission factors available through EMFAC for VOC, NO_X, CO, SO_X, PM_{10}, $PM_{2.5}$, CO_2, and CH_4. There are no emission factors available for black carbon or ultrafine particles. Emissions from motor vehicles can be characterized as follows:

- Combustion Emissions (grams/mile traveled or grams/hour for idling): Combustion emissions (i.e., exhaust emissions) result from the combustion of fuel and are the main source of emissions for all pollutants for the project. EMFAC2014 has the capability to provide emission rates for user defined user speeds, fuel type, vehicle class, and model year.

- Running Loss (grams/mile): Running loss emissions are defined as evaporative hydrocarbons that are emitted from hoses, fittings or canisters, while the vehicle is in operation. This occurs either because fuel heating as caused the vapor generation rate to exceed the vehicle's capacity to control the vapors, or through permeation and leakage (VOC only).

- Diurnal and Resting Loss (grams/vehicle): Diurnal and resting loss emissions are evaporative hydrocarbons. Diurnal emissions result from a sitting vehicle as the ambient temperature rises. Resting loss emissions result from a sitting vehicle as the ambient temperature declines or remains constant.

- Tire wear (grams/mile): and Brake Wear (grams/mile): EMFAC has the capability to provide particulate emissions from tires and brakes that occur from operational wear (PM_{10} and $PM_{2.5}$ only).

- Road Dust (grams/mile) is generated from re-suspension of loose particulate material from the surface of the road as a result of movement of vehicles and wind flow. Road dust emissions are primarily a factor of the amount of re-suspendable particulate matter available on the road surface and the traffic flow volume on the road. The estimation of road dust emissions was based on the methodology presented by the EPA in its assessment of road dust emissions from paved roads (PM_{10} and $PM_{2.5}$ only).

The EMFAC2014 emission factors were developed for the South Coast Air Basin on an annual basis. To derive the basin-wide emission factors, the emission factors were developed as a weighted average of the county emission factors from the four counties that comprise the South Coast Air Basin, weighted by the vehicle miles traveled in each county.

Motor vehicle emissions for each category of emissions were estimated for vehicle travel within the project's truck yards, along adjacent and internal roadways, and truck idling within the project's truck yards.

Truck idling emissions assumed that each heavy duty truck would idling 5 minutes per day prior to mitigation, pursuant to the ARB Air Toxic Control Measure limiting the idling time for heavy duty diesel trucks and the World Logistics Center Specific Plan.

Emission factors for the year 2018 are used for the "worst-case" scenario. Phase 1 of the project used emission factors from the year 2025, and Phase 2 of the project used emission factors for the year 2040. For the mitigated version, the emission factors were modified to reflect the mitigation measure that requires the use of model year 2010 or newer trucks for all medium-heavy duty (MHDT) and heavy-heavy duty diesel (MHDT) trucks associated with the project.

A Note About Operational Heavy-Duty Truck Emissions

The majority of the project's operational emissions are from on-road mobile sources, more particularly, heavy-duty trucks that contribute a disproportionate amount of emissions compared to passenger vehicles. Emissions from on-road mobile sources are regulated at the state and federal levels, and therefore, are outside of the control of local agencies such as the City and the SCAQMD. For example, the EPA is working closely with the EPA, engine, and vehicle manufacturers, and other interested parties to identify programs that will reduce emissions from heavy-duty diesel vehicles in California. In its "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles," the ARB presented a blueprint for achieving a 75 percent reduction in diesel particulates by 2010 and an 85 percent reduction by 2020 from the 2000 baseline.[57] The emission reductions would arise from a combination of measures including the use of ultra-low sulfur diesel fuel, new emission standards for large diesel engines, restrictions on diesel engine idling, addition of post-combustion filter and catalyst equipment, and retrofits for business and government diesel truck fleets. The implementation of these emission reductions will also result in reductions of other pollutants such as NO_X, VOC, and CO. As these emission reduction programs are implemented and there is a turnover in the use of older vehicles with newer and cleaner vehicles, the project's operational emissions are expected to decline significantly in the future.

Emission controls on mobile source vehicles already adopted by the ARB particularly dealing with NO_X and PM_{10} controls on heavy duty trucks will reduce truck emissions significantly over the next 10 years. Today's vehicle fleet (assumed to be 2018) is comprised of vehicles as old as 25 years and generates substantially more emissions than the vehicles that would replace them in the future.

Greenhouse Gases

EMFAC2014 has emission factors for the greenhouse gases carbon dioxide and methane. Greenhouse gas emissions from mobile vehicles were estimated using the same procedures as shown above for carbon dioxide and methane. The emissions were estimated in tons per year and were converted to MTCO2e by multiplying the greenhouse gas by its global warming potential (1 for carbon dioxide and 21 for methane) and then multiplying it by 0.9072 (a conversion from tons to metric tons). The emissions factors from EMFAC2014 include reductions from the following regulations:

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[57] CARB. 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles. https://www.arb.ca.gov/diesel/documents/rrpfinal.pdf

- Regulation – Pavley (AB 1493): Clean car standards to reduce greenhouse gas emissions from new passenger vehicles (LDA-MDV) from 2009 to 2016.
- Regulation – Low Carbon Fuel Standard (Executive Order S-01-07): The low carbon fuel standard would reduce carbon intensity in fuels. Carbon intensity is a measure of the greenhouse gas emissions associated with production and use of a fuel. Fuels like natural gas from landfills, dairy biogas, and biodiesel have lower carbon intensity than gasoline or diesel.

Black carbon emissions were estimated based on the diesel $PM_{2.5}$ emissions discussed below. N_2O emission factors are from the EPA.[58]

Other Emission Sources

There are other emission sources besides mobile vehicles during operation of the project. VOC emissions would be emitted during the occasional repainting of buildings and from consumer products. Criteria pollutants and greenhouse gases would be emitted from landscaping, natural gas usage, onsite yard trucks, onsite forklifts, and onsite emergency generators. Greenhouse gases would be emitted from electricity, water and wastewater, refrigerants, and solid waste generation. There would also be some sequestration from the onsite trees that would be planted on the project site as a result of the project. These emission sources are discussed below.

Architectural Coatings (Painting)

Paints release VOC emissions. The buildings in the project would be repainted on occasion. Painting emissions were estimated by CalEEMod using default assumptions for buildout and estimated for the previous years based on square footage shown in Table 9.

Consumer Products

Consumer products are various solvents used in non-industrial applications that emit VOCs during their product use. “Consumer Product” means a chemically formulated product used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings.[59]

The default emission factor developed for CalEEMod is based on a statewide factor and is not applicable to the project. The entire project would not use consumer products as specified above. The warehouses may have small kitchen areas and bathrooms that would use cleaning products. The majority of the square footage for the project would be used for warehousing/distribution. Negligible quantities of personal care products, home, lawn, and garden products, disinfectants, sanitizers, polishes, cosmetics, and floor finishes would be used. In addition, the buildings in the

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[58] U.S. EPA. 2014. Emission Factors for Greenhouse Gas Inventories. https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

[59] CARB. 2011. Regulation for Reducing Emissions from Consumer Products. https://www.arb.ca.gov/consprod/regs/fro%20consumer%20products%20regulation.pdf

project would be LEED certified; LEED has a variety of credits available for use of low emitting materials. Therefore, to estimate VOC emissions from the project, the emission factor is reduced to 25 percent of its original value, to 5.1E-6 pounds VOC per day per square foot.

Landscape Equipment

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. CalEEMod estimated the landscaping equipment using the default assumptions in the model. Emissions were estimated for buildout and interpolated for the previous years based on square footage in Table 9.

Electricity

There would be emissions from the power plants that would generate electricity to be used by the project (for lighting, etc.). Emissions were estimated for buildout and interpolated for the previous years based on square footage in Table 9. Emissions were estimated using CalEEMod; CalEEMod reports the annual emissions in carbon dioxide (tons), methane (tons), nitrous oxide (tons), and the total (MTCO2e).

The Moreno Valley Electric Utility would provide electricity for the project. Electricity emissions factors for 2025 and 2040 were calculated using 2016 eGRID factors for California-Mexico Power Area (CAMX) and changes in the energy resource mix projected by U.S. Energy Information Administration (EIA).[60] Grid electricity emissions factors of 366 lb CO2e per MWh in 2025 and 310 lb CO2e per MWh in 2040 were used.

Building annual electricity for the project would consume approximately 166,563 MWh per year in 2025 and 274,437 MWh per year in 2040. EV charging annual electricity under the Medium EV Penetration scenario would consume 10, 687 MWh per year in 2025 and 174,279 MWh per year in 2040.

Natural Gas

There would be emissions from the combustion of natural gas for the project (heat and the CNG/LNG fueling station). The Project is not expected to generate demand for natural gas. The Project would mostly comprise high-cube warehouses that do not require heating from natural gas. The spaces that do require heating are ancillary office spaces. Because all heating and cooling is provided via direct evaporative cooling and heat pumps, natural gas is not required. This allows the Project to reduce on-site fossil fuel combustion that would normally be associated with service water and space heating. The Title 24 Baseline scenario assumes compliance but not exceedance of energy standards and includes annual natural gas use equating to 51,274 MMBtu in 2025 and 84,771 MMBtu in 2040. As such, the Project would result in a 100 percent decrease in consumption of natural gas from the Title 24 Baseline scenario for both Phase 1 and Full Buildout.

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[60] WSP, 2018. World Logistics Center (WLC) Sustainable Energy Plan, April 2018.

Wastewater

Depending on the type of wastewater treatment plant, there could be emissions from treatment of wastewater. However, the project's wastewater would be transferred to the Eastern Municipal Water District's Moreno Valley Regional Water Reclamation Facility. The facility was upgraded with fuel cell cogeneration. A digester gas-fueled fuel cell system provides power and heat to the plant while using all available digester gas.[61] CalEEMod was used to determine emissions from wastewater.

Water

There would be greenhouse gas emissions from the use of electricity to pump water to the project. The applicant conducted a water usage analysis; therefore, CalEEMod default water usage is not used. Emissions for buildout are estimated and calculated for prior years based on the square footage anticipated in those years.

Refrigerants

Refrigerants may be used in air conditioning for the office component of the warehouses. Refrigerants are hydrofluorocarbons and have a relatively high global warming potential around the range 1,000 to 3,000. The emissions take into account reductions from SCAQMD's Rule 1415, which require registration, refrigerant leak inspections, and refrigerant leak repairs. Procedures and assumptions for estimating the emissions are shown in Appendix F. The emissions are estimated in tons of hydrofluorocarbons and are converted to MTCO2e.

Solid Waste: Operation

Greenhouse gas emissions would be generated from the decomposition of solid waste generated by the project. Operational waste from the project would initially be delivered to the Badlands Sanitary Landfill, which installed a landfill gas energy capture recovery system in 2011. The project is estimated to generated approximately 38,165 tons of solid waste per year. Emissions at buildout are estimated by CalEEMod and are applied to earlier years based on a percentage of the square footage assumed to be operational.

Yard Trucks

According to a project design feature, the yard trucks could be powered by natural gas, propane, or electricity. Therefore, diesel is not assumed for the yard trucks. For the Port of Los Angeles activities, the most common fuel for yard trucks besides diesel is propane.[62] Therefore, emissions are based on assuming that the yard trucks are powered by propane. It is assumed for purposes of this analysis that there would be two yard trucks at each facility in the on position for seven hours per day.

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[61] Carollo Engineers. Moreno Valley Regional Water Reclamation Facility Fuel Cell Cogeneration Design and Construction. https://www.carollo.com/projects/moreno-valley-regional-wrf-fuel-cell-cogeneration-design-and-construction. Accessed May 2018.

[62] Port of Los Angeles. 2012. Port of Los Angeles Inventory of Air Emissions – 2012. https://www.portoflosangeles.org/pdf/2012_Air_Emissions_Inventory.pdf

Emergency Generators

Emissions from emergency generators would result during testing and maintenance. It is assumed that there would be one generator per 1.5 million square feet based on the current equipment in operation at the adjacent Skechers warehouse north of the project. The generators were assumed to operate for a total 50 hours per year per generator for routine testing and maintenance purposes, with all generators operating for one hour on the same day to estimate the maximum daily emissions. For the unmitigated emissions, the generator is assumed to be Tier 4 diesel. For the mitigated emissions, it is assumed that the generators would be fueled by natural gas.

Forklifts

It is assumed that there would be five natural gas forklifts per light logistics planning area, and assuming three light logistics areas, there would be a total of 15 natural gas forklifts. It is assumed that the warehouses would have electric forklifts, as they would primarily operate inside.

Land Use Change

The project would change the land use from pervious surfaces to impervious (buildings, asphalt, concrete) thereby reducing potential carbon sequestration from the existing farmland. CalEEMod has default accumulation for “cropland” of 6.2 tons CO2/acre/year. However, since the project site is dry farmed and therefore would have less carbon accumulation, a different method was chosen to estimate these emissions. These emissions are included in the operational greenhouse gas emissions. The assumptions are shown in **Table 11**, *Land Use Change*.

Table 11
Land Use Change

Vegetation Land Use Type	Vegetation Land Use Subtype	Initial Acres	Final Acres	Carbon Sequestration (MTCO2e/acre/year)
Cropland	Cropland	2,610	45	0.45

Source of acres: Project description
Source of carbon sequestration: Brown and Huggins 2010; Table 1 in the article presents a range of carbon sequestration for dryland agriculture; the highest of the range was selected (0.90 Mg C ha^{-1} yr^{-1}) and was converted by multiplying by 1.24 (the conversion of Mg to MTCO2e) and dividing by 2.47 (conversion of ha to acres).

Carbon Sequestration (New Trees)

The project would plant trees and integrate landscape into the project design, thereby increasing carbon sequestration. Carbon sequestration is the process of capture and storage of carbon dioxide; trees and vegetation store carbon in their tissues and wood. There is no estimate of the number of trees to be planted in the Specific Plan. The Specific Plan indicates the following regarding trees:

- Streetscapes: The Specific Plan (Section 4.2.3) indicates that trees are required along all street frontages.

- Parking area: Specific Plan measure 5.4.3 requires that landscaping in parking areas comply with the standards contained in the Municipal Code.
- Tree size: Specific Plan measure 5.3.4 specifies that all trees are to be a minimum of 15 gallons.
- Building perimeters: Specific Plan measure 5.3.5 indicates that trees along building and site perimeters are required at a minimum average spacing of 1 tree per 30 linear feet of perimeter.

The number of trees is estimated as shown in **Table 12**, *Estimated Tree Inventory*. This inventory does not represent actual future plantings, which would be refined later during individual building plans. There would also be trees in the project entryways, the roundabouts, the open space areas, and the detention areas; however, those were not included to be conservative.

Table 12
Estimated Tree Inventory

Project Location	Tree Inventory Calculation Details[4]	Tree Species[3]	Trees
Automobile parking	1 tree/6 stalls x 10,981 stalls [1]	Average [2]	1,830
Building perimeters	Assuming an average of 1,500,000 sf per building; taking the square root and multiplying by 4 yields the building perimeter (4,900 ft x 27.8 buildings – 136,220 ft); 1 tree per 60 ft	Average [2]	2,270
Redlands Boulevard, Bay Street	Length = 6,642 ft/40 ft (1 side of road)	Pine	55
		Blue Palo Verde	55
		Sweet Acacia	55
Gilman Springs Road	Length = 12,257 ft/40 ft (1 side only)	Afghan Pine	59
		Date Palm (25' trunk height)	59
Street A	Length = 8,656 ft/40 ft x 2 sides of street	Chilean Mesquite/ Algarrobo	216
		Mexican Fan Palm (30' trunk height)	216
Eucalyptus Street	Length = 5,350 feet/ 40 ft (1 side of road)	Brisbane Box	45
		Afghan Pine	45
		Date Palm (30' trunk height)	45
Street B	Length = 4,418 ft / 40 ft x 3 (two sides of street and median)	Brisbane Box	330
Streets C, D, E, F, G, H	Length = 38,363 ft/ 40 ft x 2 sides of street	Chilean Mesquite/ Algarrobo	1,918
Total			**7,504**

Notes:

1 Table 9.11.040C-12 in Moreno Valley Code states that warehouse and distribution uses are required to have 1/1000 sf of gross floor area for the first 20,000 sf; 1/2000 sf of gross floor area for the second 20,000 sf; 1/4000 sf of gross floor area for areas in excess of the initial 40,000 sf. Assuming 27.8 buildings each 1,500,000 sf in size yields 10,981 stalls.

2 The tree types are not specified in the Specific Plan; therefore, the carbon sequestration rate for the average was used.

3 If more than one species is listed for a project location, the species are distributed evenly.
4 Calculations assume one tree per 40 feet of distances listed, as an average.
Source: World Logistics Center Specific Plan

Although CalEEMod does have calculations to estimate carbon sequestration from new trees, the carbon sequestration rates from the Center for Urban Forest Research (CUFR) Tree Carbon Calculator provide specific species information. As a comparison, CalEEMod has a sequestration rate of 0.0354 metric tons per miscellaneous tree per year. **Table 13**, *Tree Carbon Sequestration Rates (Age of Tree),* displays the carbon dioxide sequestration rates per tree from the CUFR Tree Carbon Calculator for tree species at 5 years and 10 years old. As shown in the table, generally, the older the tree is, the higher the sequestration rate. Therefore, for purposes of this analysis, the rate at five years is used because it assumes less carbon sequestration.

Table 13
Tree Carbon Sequestration Rates (Age of Tree)

Tree Species	Code	CO2 Sequestration (lb/tree/year)	
		5 years	10 years
Afghan pine	PIBR2	47.3	161.0
Blue palo verde	CEFL	14.6	53.3
Brisbane box	TRCO	40.1	36.8
Chilean mesquite/ Algarrobo	PRCH	36.1	100.3
Crape myrtle sp.	LAIN	2.0	3.6
Desert willow	CHLI	4.9	15.1
Sweet acacia	ACFA	17.0	38.0
Sycamore	PLRA	41.7	109.5
Average	--	24.0	55.4

Note:
The rate at 5 years is used in this analysis; 10 years is shown for informational purposes, to demonstrate that the tree will increase sequestration rates overtime. The Codes for the trees are listed in the event that the reader wants to duplicate the modeling; the code makes it easier to conduct the modeling.
Source: CUFR Tree Carbon Calculator (2012) – the model does not provide model output

Table 14, *Tree Carbon Sequestration Rates (Height of Tree),* displays the carbon sequestration rates for the height of the tree, which is used as surrogate for two tree types that do not have data for the age of the tree. The lower tree height (25 feet) is used in this analysis.

Table 14
Tree Carbon Sequestration Rates (Height of Tree)

Tree Species	Code	CO2 Sequestration (lb/tree/year)	
		5 years	10 years
Date Palm	PHDA4	14.8	15.0
Mexican Fan Palm	WARO	26.9	26.4

Source: CUFR Tree Carbon Calculator (2012) – the model does not provide model output

Table 15, *Tree Carbon Sequestration Estimates,* displays the carbon sequestration estimates for the new trees that would be planted on the project site. As shown in the table, the trees would absorb 111 tons per year.

Table 15
Tree Carbon Sequestration Estimates

Type of Tree	Trees	CO_2 Sequestration (lb/tree/year)	CO_2 Sequestration (tons/year)
Average	4,100	24.0	49
Afghan pine	465	47.3	11
Blue Palo Verde	55	14.6	<1
Sweet Acacia	55	17,0	<1
Date Palm	104	14.8	1
Chilean Mesquite/ Algarrobo	2,134	36.1	39
Mexican Fan Palm (30' trunk height)	216	26.4	3
Brisbane Box	375	40.1	8
Total	**7,504**	**--**	**111**

Source: Calculated using the data in prior tables.

Black Carbon

As discussed above, there is substantial uncertainty in estimating greenhouse gas impacts from black carbon emissions at this time. In addition, black carbon is not considered a "greenhouse gas" according to AB32. Nevertheless, black carbon emissions from construction and operation are estimated.

Emissions Methodology

The methodology used in estimating black carbon emissions is from EPA's Report to Congress on Black Carbon (EPA 2012). Essentially, $PM_{2.5}$ emissions are converted to black carbon emissions by application of speciation factors. The equation:

> $PM_{2.5}$ Emissions (in tons) x fraction of $PM2_{.5}$ that is black carbon = black carbon emissions

The speciation factors of black carbon as a percentage of $PM_{2.5}$ are from Table A1-5 and associated text in the EPA's Report to Congress on Black Carbon (EPA 2012). The only sources in this greenhouse gas analysis that assume a portion of black carbon emissions are as follows:

- **Construction.** 77 percent of the $PM_{2.5}$ exhaust emitted during construction is assumed to be black carbon.[63] $PM_{2.5}$ exhaust was estimated using CalEEMod, which is converted to black carbon emissions.

- **Operational mobile – heavy duty.** The EPA's report identifies diesel heavy-heavy duty trucks (HHDT) may have 77 percent black carbon out of the $PM_{2.5}$ exhaust emissions. Therefore, this percentage is applied to the following vehicle classes: diesel light-heavy duty trucks (LHDT1 and LHDT2), diesel medium-heavy duty trucks (MHDT), and

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[63] For construction equipment equipped with diesel particulate matter filters, the BC component is 10 percent of PM2.5; however, this percentage is not applied. The construction equipment will be Tier 3 or higher; however, the BC component of Tier 3 equipment is currently not available so a worst-case assessment is provided.

HHDT. The black carbon emissions are estimated in the $PM_{2.5}$ spreadsheets in Appendix B.

- **Operational mobile – light duty.** The EPA report indicates that 64 percent of $PM_{2.5}$ exhaust emissions for light duty diesel vehicles may be black carbon.[64] Therefore, this percentage is applied to the following vehicle classes: diesel light duty trucks (LDT1 and LDT2) and medium duty trucks (MDT).

- **Natural gas**. 38 percent of the $PM_{2.5}$ emissions from natural gas usage is assumed to be black carbon.

This is a conservative estimate of black carbon, as discussed in the following excerpt from the EPA's report:

> *For the 2007 vehicle (engine) model year, stringent [EPA] emission standards of 0.01 g/BHP-hr (grams per break horsepower/hour – a standard unit for emissions from heavy-duty mobile source engines) became effective for heavy-duty diesel engines, which represents over 99% control [or reduction] from a pre=control diesel engine in the 1970 time frame. As a result of these standards, BC [black carbon] emissions have been dramatically or even preferentially reduced as the major PM constituent. To meet these stringent PM standards, virtually all new on-highway diesel trucks in the United States, beginning with the 2007 model year, have been equipped with diesel particular filters (DPFs). DPFs typically eliminate more than 90% of diesel PM and can reduce BC by as much as 99%.*[65]

Global Warming Potential

In the EPA's "Report to Congress on Black Carbon," black carbon emissions are estimated for the United States and globally but are not converted to a metric (such as MTCO2e) using a global warming potential. The report discusses the global warming potential of BC:

> *[Black carbon] BC influences the climate differently than the warming effects of GHGs. These differences have important implications for identifying appropriate metrics to compare climate impacts (and reductions thereof) ... While a GWP can be calculated for BC, there are reasons that GWPs may be less applicable for this purpose due to the different nature of BC compared to GHGs, in terms of various physical properties and the fact that unlike GHGs, BC is not well mixed in the atmosphere. However, because GWPs are the most commonly used, and only official, metric in climate policy discussions, many studies have calculated GWPs for BC. One-hundred-year GWPs for BC in the literature range from 330- to 2,240. That is to say, 330 to 2,240 tons of CO2 would be required to produce the same integrated radiative effect over 100 years as one ton of BC. Some of the factors that account for the range in these estimates include the use of different and uncertain indirect and snow/ice albedo effects*[66]*estimates, use of a different*

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[64] The percentage of BC for the light duty diesel vehicle group varies from 31% to 64%; therefore, the worst-case scenario is used in this analysis.

[65] U.S. EPA. 2012. Report to Congress on Black Carbon, March 2012.

[66] The albedo is the reflecting power of a surface.

> *CO2 lifetime for the baseline, and recognition of the dependence of a GWP for BC on emissions location…*
>
> *… There is currently no single metric widely accepted by the research and policy community for comparing BC and long-lived GHGs. In fact, some question whether and when such comparisons are useful. For example, there are concerns that some such comparisons may not capture the different weights placed on near-term and long-term climate change.*[67]

4.3 Localized Significance Threshold Analysis

Localized Analysis Methodology

SCAQMD has developed the Localized Significance Threshold (also known as "LST") methodology and recommends that this methodology be used in determining whether a project may generate significant adverse localized air quality impacts and substantially affect sensitive receptors. The evaluation of localized air quality impacts determines the potential of the project to violate any air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations.

According to the SCAQMD LST assessment methodology, the assessment of localized impacts addresses only those emissions that are generated "onsite," that is for the purposes of this project, emissions generated from within or along the boundaries of the project. Therefore, for this localized analysis, only the onsite emissions are examined. Freeway trips as well as trips along the surface street network away from the project were only included in the health risk assessment prepared for this project.

To evaluate localized impacts for construction and operation, an air dispersion model (EPA model, AERMOD) was used to simulate the movement of project related air pollutants through the air and output air concentrations of those pollutants at numerous receptor locations surrounding the project. The estimated concentrations provide conservative estimates (in terms of likely over-predictions) and may not represent actual occurrences. The methodology follows SCAQMD modeling guidance for AERMOD, where applicable.[68]

Table 16, *General Air Dispersion Modeling Assumptions – Localized Air Quality Assessment,* lists the general model assumptions used in the localized significance threshold assessment.

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[67] U.S. EPA. 2012. Report to Congress on Black Carbon, March 2012.

[68] SCAQMD. AB 2588 & Rule 1402 Supplement Guidelines, 2016. Available at http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-supplemental-guidelines.pdf?sfvrsn=9

Table 16
General Air Dispersion Modeling Assumptions – Localized Air Quality Assessment

Feature	Assumption
Terrain processing	Complex terrain; elevations were obtained for the project site using the EPA AERMAP terrain data pre-processor
Emission source configuration	See Table 17 and 18
Land Use	Urban: County of Riverside population provided by the SCAQMD
Coordinate System	Universal Transverse Mercator
Meteorological Data	SCAQMD Riverside Meteorological Data for 2014-2017
NO2 Assessment Methodology	Ozone Limiting Method and Ambient Ratio Method Version 2 using ozone data from the SCAQMD Riverside-Rubidoux air monitoring station for 2012-2016
Receptor Height	0 meters, as recommended by SCAQMD LST methodology
Receptor Location	Receptor locations were defined both within and outside of the project boundaries.

Each of the emission sources that are included in the AERMOD air dispersion model consist of a particular emission source representation. The following definitions are used in defining the emission source representations referred to in **Table 17**, *Project Localized Analysis Construction Emission Source Assumptions*, and **Table 18**, *Project Localized Analysis Operational Emission Source Assumptions*.

- Point source: a single identifiable local source of emissions; it is approximated in the AERMOD air dispersion model as a mathematical point in the modeling region with a location and emission characteristics such as height of release, temperature, etc. (example: a stack from a standby generator or a stack from a motor vehicle such as a truck);

- Volume source: a three dimensional source of pollutants release (example: exhaust emissions from construction equipment);

- Line source: a series of volume sources along a path (example: vehicular traffic along a street or freeway); and

- Area source: a large area where emissions are assumed to be uniformly distributed in the horizontal and vertical directions (example: parking lot).

Construction Modeling Assumptions – Local Air Quality Assessment

Table 17 summarizes the emission source characteristics during construction. For the unmitigated scenario, it is assumed that construction equipment would be in the on position for 10 hours per day for all construction activities. In addition, during building construction, additional hours from midnight to 6 AM were also included to account for the concrete pouring of the tilt-up building walls that would most likely take place at night. The construction was assumed to take place five days per week.

Table 17
Project Localized Analysis Construction Emission Source Assumptions

Emission Source Type	Air Dispersion Model Emission Source Description	Relevant Assumptions
Onsite: Off-road Construction Equipment	Volume Source	• Stack release height: 16.4 feet • Emissions derived from the CalEEMod land use emission model • Volume sources were used to characterize the construction equipment with a volume source dimension of 328 feet on a side to cover the construction area; the number of volume sources used is dependent on the size of the construction area.
Onsite: Fugitive Dust	Area Source	• Release height: 3.3 feet • Emissions derived from the CalEEMod land use emission model • Area sources were used to characterize the fugitive dust generated from the construction equipment.

Operational Model Assumptions – Local Air Quality Assessment

The characterization of the project's operational emission sources as required by AERMOD air dispersion model is provided in Table 18. It is assumed for this analysis that facility operations would occur for 24 hours per day, 7 days per week, 365 days per year.

A graphical representation of the AERMOD air dispersion model local operational sources is shown in **Figure 21**. The AERMOD model also requires the placement of a network of receptors which represent the geographic locations where the impacts from the project's emissions are calculated.

Figure 22 shows the receptor network used in the localized significance threshold analysis. Receptors were located within and outside of the project's boundaries. A dense receptor grid was used in order to adequately characterize the project's offsite impacts. Of particular importance is the location of receptors in the residential areas adjacent and to the west of the project across Redlands Boulevard and scattered residences across Gilman Springs Road as well as locations of other sensitive receptors such as schools.

Table 18
Project Localized Analysis Operational Emission Source Assumptions

Emission Source Type	Air Dispersion Model Emission Source Description	Relevant Assumptions
Onsite vehicle traffic within the truck yards	Area Source	• Stack release height: 6 feet for all vehicles • Vehicle speed: 15 mph • Vehicle trip length based on a review of the layout of the project development phases in relation to the local roadway network. - High cube warehouse: 1,080 feet - Light logistics: 570 feet - Gas compressor utility: 330 feet - All other land uses: 160 feet • Vehicle types: passenger cars and heavy duty delivery trucks • Emission factor: ARB EMFAC2014 model
Onsite diesel truck idling within the truck yards	Area source	• State release height: 6 feet • Idle time: 5 minutes per truck per day (unmitigated) • Vehicle type: heavy duty delivery trucks • Emission factor: ARB EMFAC2014 model
Local Roadway Vehicle Travel	Line sources	• Line source width equal to the width of the roadway plus 3 meters on both sides. • Vehicle speeds: - Heavy duty trucks: 25 mph on local roadways - All other vehicles: 35 mph on local roadways
Standby Diesel Electric Generators	Point sources	• The project was assumed to contain 27 emergency standby diesel generators distributed within the project boundary at full build out (1 generator per 1.5 million square feet of space) • Rated at 315 kilowatts electrical output • Projected testing and maintenance assumed to be 1 hour per day and 50 hours per year • Height of emission release assumed to be 9 feet based on estimates of the generator's temperature, gas flow rate, and influence of building downwash on plume rise • Emissions based on EPA Tier 3 emission standards for diesel generators
Support Equipment	Area sources	• Forklifts using natural gas as fuel • Yard trucks using liquid petroleum gas as fuel

Localized Significance Threshold Analysis

The localized significance threshold analysis evaluated three conditions:

- Project Phase 1 (2018): this condition assumes that Phase 1 of the project is fully built out in 2018.

- Project Phase 1 and Phase 2 Full Build Out (2018): this condition assumes that Phase 1 and Phase 2 of the project are fully built out in 2018.

- Proposed Development Schedule: this condition examines the proposed development schedule of the two-phased project three analysis years were examined under this condition for potential localized air quality impacts:

- 2025, the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern portion of the project adjacent to Alessandro Boulevard and east of the existing residential uses along Merwin Street and when all of Phase 1 operations would occur (approximately 57 percent of entire project floor space);
- 2032, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road (eastern portion of site); and
- 2040[69], when Phase 1 and Phase 2 of the project are fully operational.

Project Phase 1 (2018) represents an interim step during which Phase 1 of the project (approximately 57 percent of the total size of the project) is completely built out in 2018. This analysis simply looks at the situation of what would happen if Phase 1 of the project were built in its entirety with no reductions in motor vehicle emissions that would occur in the future as a result of emission control programs that have already been adopted. This assessment also provides consistency with the TIA and noise reports which examine the Project Phase 1 (2018) condition. The project impact results are compared to the existing air quality levels in 2018 and only consider the project's operational emissions and not construction emissions.

Project Phase 1 and 2 Full Build Out 2018 represents a worst-case scenario since the project could not be physically built out in its entirety in a single year and does not reflect the fact that the project would be developed over a time period of 16 years depending on market demands for warehouse space. This assumption also does not account for the fact that emissions from mobile sources, prior to mitigation, particularly from heavy duty diesel trucks are expected to decline significantly over the next 10 to 15 years as a result of emission controls already mandated by the CARB specifically for these vehicles. This assessment also provides consistency with the TIA and noise reports which examine the full Project Phase 1 and Phase 2 (2018) Build Out condition. The project impact results are compared to the existing air quality levels in 2018 and only consider the project's operational emissions and not construction emissions.

The Proposed Project Development condition represents the proposed project development including the localized impacts during construction and operation over the time period of 2020 to 2040. These results are compared to the existing air quality levels in 2018.

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[69] *In some circumstances, references are made to the year 2035. The year 2035 is the year the construction schedule assumes full completion of project construction. Assuming earlier construction years would result in a more conservative analysis because the use of less efficient construction equipment is assumed. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. For purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.*

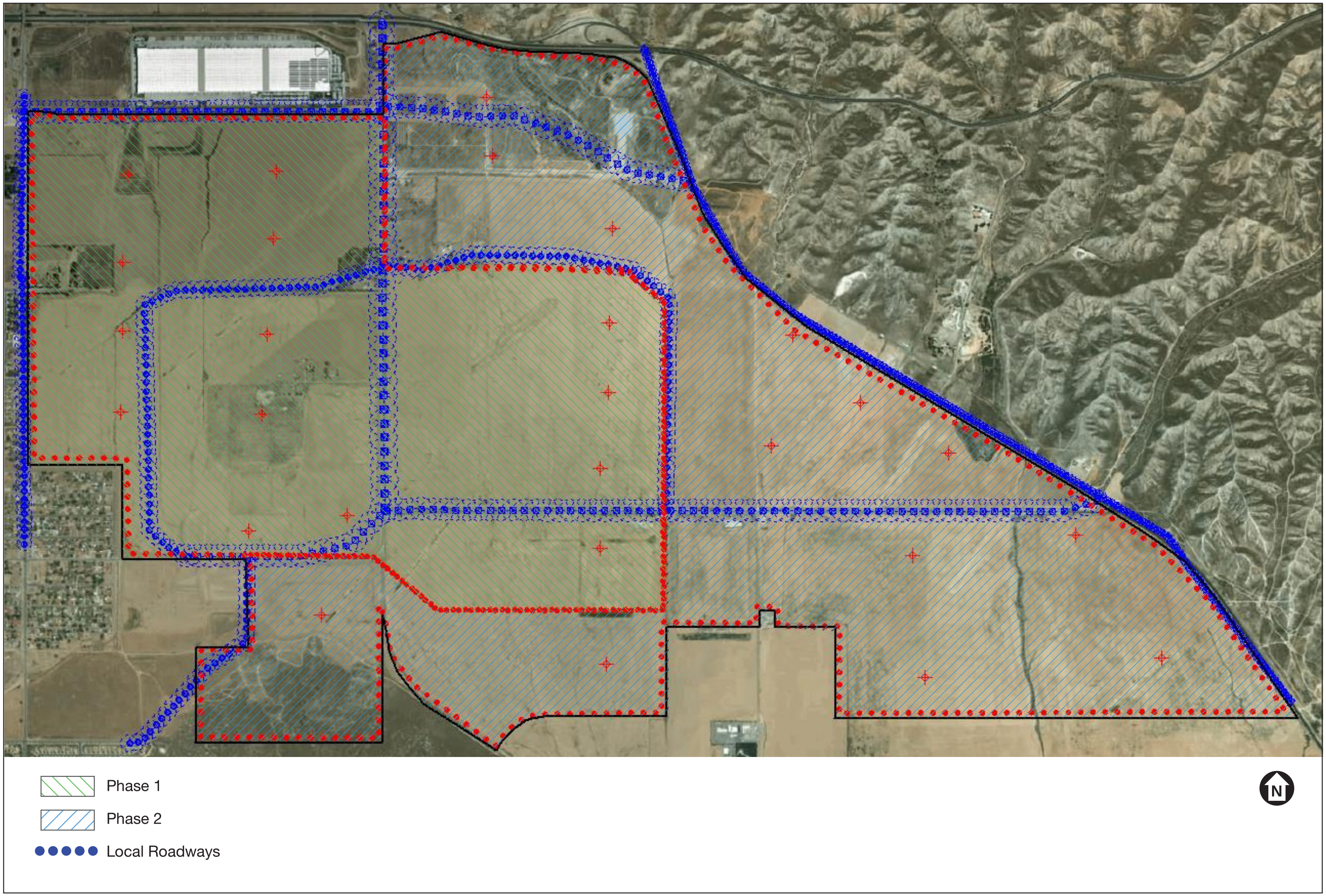

SOURCE: ESA

World Logistics Center

Figure 21
Localized Analysis Operational Emission Sources

ESA

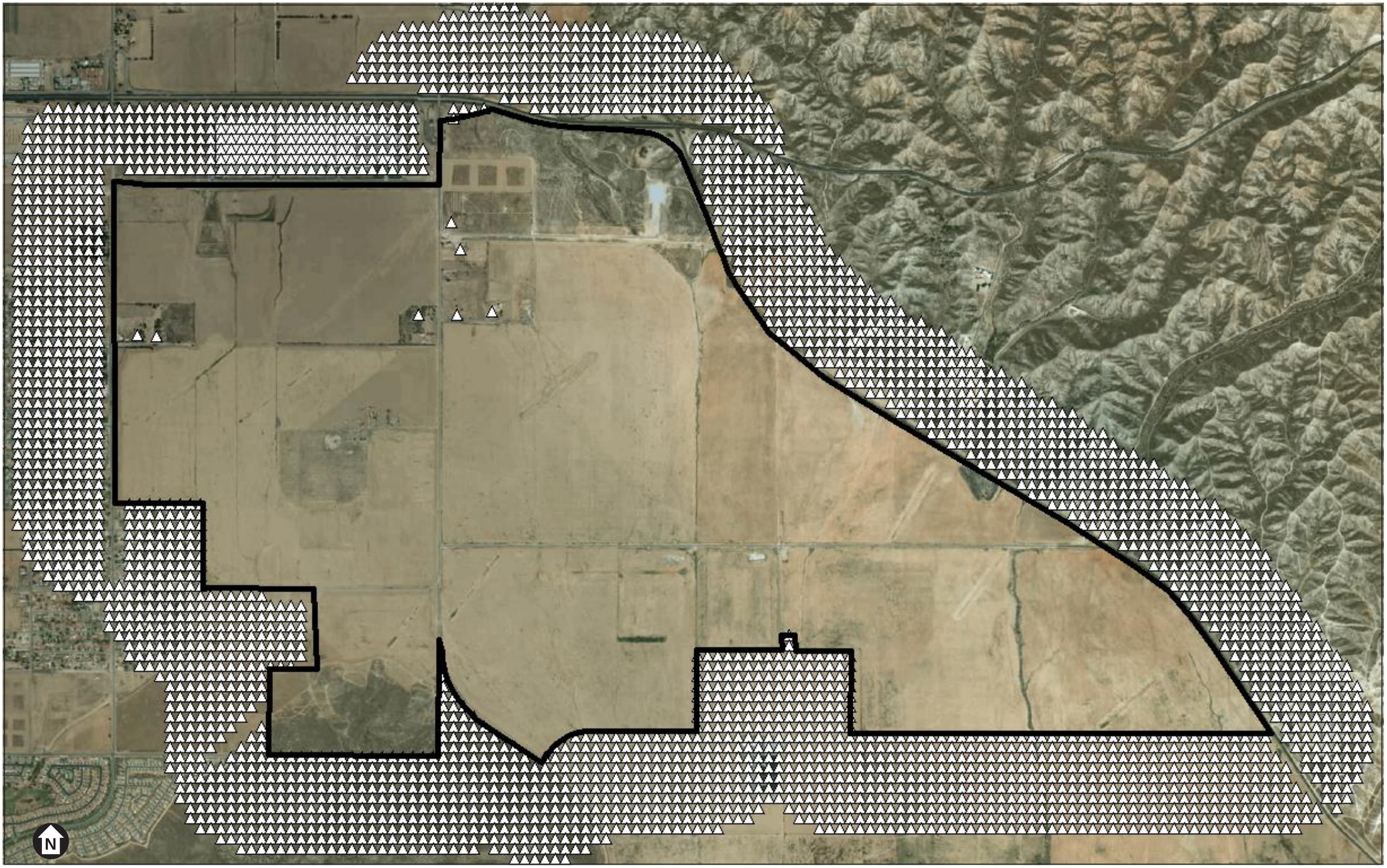

SOURCE: ESA

World Logistics Center

Figure 22
Air Dispersion Model Receptors for the Localized Analysis

ESA

4.4 Health Risk Assessment

About Health Risk Assessments

A Health Risk Assessment (HRA) is a guide that helps to determine whether current or future exposures to a chemical or substance in the environment could affect the health of a population. In general, risk depends on the following factors:

- How much of a chemical is present in an environmental medium (e.g., air);
- How much contact (exposure) a person has with the contaminated environmental medium; and
- The inherent toxicity of the chemical.

This HRA builds and expands upon the methodology described above in the localized air quality assessment by examining the regional effects of the project's potential health risk impacts. The HRA methodology applies a risk characterization model to the results from the air dispersion model to estimate potential health risks at each sensitive receptor location. However, unlike the localized assessment of the criteria pollutants (e.g., carbon monoxide, oxides of nitrogen, and particulate matter), which looks at impacts from exposure times of one hour to a year within a specific year, the HRA examines the impacts over an exposure time period from one hour to an extended exposure time period of many years.

Health Risk Impacts Assessed

The health risk assessment estimated the incremental health impacts attributable to the project's construction and operations for the following condition:

- Proposed Project Development condition which examines the effect of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2020 and the final full build out in 2035. This condition forms the basis for quantifying the incremental impacts from the project.

Annual average diesel PM emissions and impacts were calculated for each year starting from 2020 based on the assumption that diesel exhaust can cause cancer. Specifically, annual average diesel PM concentrations were estimated from the diesel PM construction emissions for each year of construction from 2020 to 2035 according to the construction schedule and equipment usage projected for each year of construction. Proposed Project Development examines project impacts resulting from the proposed construction and operation of the project from the commencement of construction in 2020 for a 30-year duration for sensitive/residential receptors, 25-year for worker receptors, and 9-year exposure time periods for school-site student receptors. Annual average diesel PM emissions and impacts during operation were estimated for the Phase 1 build out year and the final full build out year, years for which detailed traffic information was available from the TIA. The annual average operational diesel PM impacts were then interpolated among operational years between 2020 and 2035.

During years when both construction and operations occur simultaneously (2021 to 2035), the annual diesel PM concentrations at the sensitive receptors from construction were added to the annual diesel PM concentrations from operations to provide a total impact assessment of all diesel PM emissions from the project during each year. The resulting total annual average diesel PM concentrations calculated each year for the exposure time period (individual annual averages) multiplied by the requisite daily breathing rates, age sensitivity factors, and time-at-home factors for each year of exposure. The HRA assumes that a fetus in the 3rd trimester (within the mother's womb) commences its lifetime exposure with exposure starting in year 2020 (construction start year) for construction + operation and in year 2040 for operations. The mitigation conditions require all construction equipment that are greater than 50 horse power be Tire 4, all medium-heavy-duty and heavy-heavy-duty diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4.

Risk Assessment Methodology

The HRA process involves four main steps: hazard identification, dose-response assessment, exposure assessment, and risk characterization.

Hazard Identification

Hazard identification is the process by which contaminants of concern are selected for investigation in the risk assessment, and includes a review of the chemicals that are potentially released to the atmosphere from the equipment of concern. This assessment is responsive to the emissions of various toxic air contaminants from the construction and operation of the project. The main toxic air contaminants associated with the project include diesel PM from diesel-fueled equipment and total organic gases (TOG)[70] from both gasoline and diesel vehicles. Toxicity values for the chemicals evaluated in this analysis and target organs[71] that each contaminant affects in a toxic exposure are summarized in **Table 19**, *Toxicity Values*.

TOG is comprised of several chemical compounds that may result in health impacts. It is necessary, therefore, to separate out the individual TOG compounds in order to estimate the acute non-cancer hazards, a type of health impact due to TOG. The ARB has simplified the process for estimating chronic non-cancer impacts by specifying a reference exposure level for diesel PM which provides a hazard level that is greater than would occur when estimating the chronic non-cancer risk by specifying the individual TOG compounds. The above is the accepted methodology for estimating non-cancer risks.

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[70] Total Organic Gases (TOG) means compounds of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid; metallic carbides or carbonares, and ammonium carbonate; also includes all organic gas compounds emitted to the atmosphere including low reactivity or exempt compounds such as methane, ethane, etc.

[71] A target organ is an organ or bodily system that is most affected by exposure to a specific toxic air contaminant.

Table 19
Toxicity Values

Toxic Air Contaminant	CAS Number	Inhalation Cancer Potency Factor [mg/kg-day]$^{-1}$	Chronic Reference Exposure Level µg/m^3	Target Organ for Chronic Exposure	Acute Reference Exposure Level µg/m^3	Target Organ for Acute Exposure
Diesel PM*	9901	1.1	5	I	ND	ND
Acetaldehyde	75070	*	*	*	470	D,I
Acrolein	107028	*	*	*	2.5	D,I
Benzene	71432	*	*	*	27	C,E,F
Formaldehyde	50000	*	*	*	55	D
Methanol	67561	*	*	*	28,000	G
MEK	78933	*	*	*	13,000	D,I
Styrene	100425	*	*	*	21,000	H,D,I
Toluene	108883	*	*	*	37,000	D,G,H,I
M-Xylene	108383	*	*	*	22,000	D,G,I
O-Xylene	95476	*	*	*	22,000	D,G,I
P-Xylene	106423	*	*	*	22,000	D,G,I
1-3 Butadiene	106990	*	*	*	660	H
Copper	7440508	*	*	*	100	I
Chlorine	7782505	*	*	*	210	D,I
Nickel	7440020	*	*	*	0.2	F
Sulfates	9960	*	*	*	120	I
Arsenic	7440382	*	*	*	0.2	I,G,
Vanadium (fume or dust)	7440622	*	*	*	30	D,I

Notes:
* Only diesel PM emissions were evaluated for cancer risk and chronic hazard indices because diesel PM is a surrogate for the combined health effects associated with exposure to diesel exhaust emissions (ARB 2005b). For the acute hazard indices, diesel PM was not evaluated since no acute non-cancer REL has been defined for diesel PM; rather, emissions of the other toxic air contaminants were evaluated for all emission sources in estimating acute non-cancer hazards.
Key to non-cancer and chronic exposure target organs:
C. Cardiovascular; D. Eye; E. Hematologic System; F. Immune System; G. Nervous System
H. Reproductive System; I. Respiratory System
ND = not defined as the California Office of Environmental Health Hazard Assessments has not defined an acute reference exposure level for diesel PM.
Source: California Air Resources Board 2015

Dose-Response

The dose-response assessment develops relationships between exposures to a given chemical and the corresponding potential health effects associated with exposure to that chemical. In general, data are limited regarding adverse effects associated with direct exposure to humans to a particular chemical. Therefore, animal experiments have often been performed to assess a chemical’s toxicity. These experiments are conducted to determine the organs that are adversely affected by a toxic chemical and the amount of the chemical needed to produce an adverse effect on the organ.

Two types of adverse health effects are generally considered in health risk assessments: carcinogenic and non-carcinogenic. Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Any exposure, therefore, will have some associated risk. Chemicals that potentially produce carcinogenic effects have been shown or are suspected to produce tumors in animals or humans.

Non-carcinogenic effects, such as liver or kidney damage, may be either reversible or permanent. In these situations, it is assumed that there is a level of exposure at which these chemicals produce no adverse effects in the human body. In other words, exposure to these chemicals in amounts less than a threshold level will result in no adverse health effects. The toxicity assessment characterizes the relationship between the magnitude of exposure and the nature and magnitude of adverse health effects that may result from such exposure.

Exposure Assessment

Exposure assessment identifies potential exposure pathways, estimates chemical concentrations at potential exposure points, and calculates expected doses of emitted substances. An exposure pathway is defined as the means by which an individual or a population is exposed to contaminants that originate from a source. Each pathway represents a different mechanism for exposure.

Four elements must be present in order for a potential human exposure pathway to exist.

1. A source and mechanism of substance release to the environment
2. An environmental transport medium (e.g., air, water, soil)
3. An exposure point, or point of potential contact with the contaminated medium
4. A receiver (i.e., human) with a route of entry (e.g., inhaling air, drinking water) at the point of contact

The current risk assessment only considers toxic air contaminants that are released into the air and inhaled. The levels of atmospheric contaminants resulting from emissions of toxic air contaminants are calculated using mathematical air dispersion models, which use emission rates and exposure duration, design features specific to the emissions sources, and meteorological data. The air modeling results include annual average and maximum hourly ambient air concentrations of the modeled substances at various receptor locations. In order to evaluate human exposure, a human receiver with a route of exposure to the affected medium is required, such as a person inhaling air in a potentially affected area. Therefore, potential health risks are only evaluated for developed areas where humans typically are present. A quantitative estimate of potential human exposure is developed for the inhalation pathway in this study.

The cancer risk and chronic non-cancer hazard indices are based on diesel PM concentrations from diesel equipment and vehicles. Diesel exhaust, a complex mixture that includes hundreds of individual constituents, is identified by the State of California as a known carcinogen. Under California regulatory guidelines,[72] diesel PM is used as a surrogate measure of carcinogen

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[72] CARB. 2005. HARP User Guide, Appendix K, Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines. https://www.arb.ca.gov/toxics/harp/docs/userguide/appendixK.pdf

exposure for the mixture of chemicals that make up diesel exhaust as a whole. The California Environmental Protection Agency and other proponents of using the surrogate approach to quantifying cancer risks associated with the diesel mixture indicate that this method is preferable to use of a component-based approach. A component-based approach involves estimating risks for each of the individual components of a mixture. Critics of the component-based approach believe it will underestimate the risks associated with diesel as a whole mixture because the identity of all chemicals in the mixture may not be known, and/or exposure and health effect information for all chemicals identified within the mixture may not be available.

Gasoline combustion can also release chemicals that are carcinogenic. A preliminary comparison of the relative toxicity of gasoline-borne toxics compared to diesel PM concluded that the potential cancer risks associated with the TACs from gasoline combustion emissions from the project's gasoline vehicles are substantially less than the potential cancer risks from the project's diesel PM emissions. Less than 2 percent of the total cancer risk from the project's vehicles can be attributed to the gasoline TACs with the remaining 98 percent attributable to toxics from diesel PM. Therefore, TACs from gasoline-fueled vehicle emissions were not included in this assessment for cancer risk or chronic non-cancer hazards assessments.

The acute non-cancer indices are based on TOG and PM concentrations from both diesel and gasoline vehicles. To estimate acute non-cancer hazard indices, specific chemical concentrations that comprise the PM and TOG emissions must be calculated in a process called speciation.[73]

Risk Characterization

Risk characterization is the process of combining dose-response information with the estimates of human exposure in order to derive a quantitative estimate of the likelihood that humans will experience any adverse health effects for the given exposure assumptions. Two general types of health effects are generally considered: potential carcinogenic risks after chronic (long-term) exposure and potential non-carcinogenic health impacts following chronic (long-term) and acute (short-term) exposure. Each of these health effects was evaluated in this report.

Estimation of Cancer Risks

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of

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[73] Total organic compounds are comprised of many types of individual chemical compounds. Speciation is the process of breaking a total organic compound into its individual compounds. From this information, speciation profiles are devised for many emission sources to provide the makeup of that sources total organic emissions. Speciation profiles are used to estimate emissions of the individual compounds from the emission source which, in turn, are used to estimate the health effects of the emission sources and their total organic compound emissions.

toxic air contaminants over a specified duration of time. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.

As noted above, diesel PM is used as a surrogate measure of carcinogenic exposure for the mixture of chemicals that make up diesel exhaust as a whole. Cancer risks were estimated in accordance with the "Current OEHHA Guidance".[74] The "Current OEHHA Guidance" assumes a lifetime exposure of 30 years with the inclusion of early-in-life sensitivity factors for sensitive receptors, a 25-year exposure for worker receptors, and a 9-year exposure duration for school-site student receptors.

The cancer risk from diesel PM is calculated by multiplying an average diesel PM concentration calculated using the AERMOD air dispersion model and an inhalation exposure factor as shown in Equation 1 below.

Cancer Risk = Inhalation cancer potency factor (CPF) x Dose-inhalation (EQ-1)

Where:

Cancer Risk = Total individual lifetime excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular facility; this risk is defined as an excess risk because it is the risk above and beyond the background cancer risk to the population contributed by causes not related to the project; cancer risk is expressed in terms of risk per million exposed individuals.

Inhalation cancer potency factor (CPF) = 1.1 (milligrams per kilogram per day)$^{-1}$ for diesel PM;

Dose-inhalation = C_{air} x (EF x ED x 10^{-6} ÷ AT x AAF) (EQ-2)

Where:

C_{air} is the average diesel PM concentrations calculated from the AERMOD model in μg/m^3;

EF is the exposure frequency (days per week);

ED is the exposure duration (years); and

AT is the time period over which the exposure is calculated (days)

AAF are a set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH).

Cancer Risk Exposure Assumptions

The principal focus of this HRA is on the potential health impacts to sensitive/residential receptors located within and surrounding the project site. Sensitive receptors include hospitals, schools, daycare facilities, elderly housing and convalescent facilities. Residences are also considered sensitive receptors. An important parameter necessary to estimate cancer risk is the duration of exposure of an individual to toxic air contaminants. An assessment of population

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[74] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

mobility can assist in determining the length of time a residential receptor is exposed in a particular location. For example, the duration of exposure to a source of toxic air contaminants will be directly related to the period of time residents live near the source of the emissions.

Table 20, *Exposure Assumptions for Cancer Risk,* summarizes the primary exposure assumptions used in this HRA to calculate individual cancer risk by receptor type, which is based on the SCAQMD HRA Guidance and the "Current OEHHA Guidance".

Table 20
Exposure Assumptions for Cancer Risk

Type of Guidance	Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate (L/kg-day)
		Hours/ day	Days/ year				
Current OEHHA Guidance	Sensitive/Residential:						
	3rd Trimester	24	350	0.25	10	85	361
	0-2 years	24	350	2	10	85	1090
	2-16 years	24	350	14	3	72	572
	Older than 16 years	24	350	14	1	73	261
	Student	8	180	9	3	NA	640
	Worker	8	250	25	1	NA	230

Time at home factor is 1 if there is a school receptor within the 1 in a million (or greater) cancer risk isopleth, which was the case for this project's unmitigated scenario for the Construction + Operation HRA.
(L/kg-day) = liters per kilogram body weight per day; NA = not applicable.
The daily breathing rates shown are RMP using the Derived Method for residential as recommended by the SCAQMD and the 95th percentile rate for other receptors as recommended by the OEHHA.
Source: OEHHA 2015; SCAQMD, 2016

The underlying factors used in the analysis exemplify the conservative nature of utilizing the exposure scenarios and the underlying assumptions:

- The residential cancer risk calculation assumes that each resident will be exposed to diesel particulate matter (diesel PM) and organic gases for 24 hours a day for 350 days a year at the location of his or her home throughout the entire 30-year residential exposure period.
- The worker and student cancer risk calculations assume that workers or students are exposed to diesel PM for 8 hours a day, next to, but outside of the buildings in which they work or study.
- The atmospheric dispersion model and traffic model that are used to estimate risks generally provide impact estimates that are over-estimated based on the use of conservative model assumptions.

Other Factors that Influence Health Risk Estimates: Conservative Trip Estimates

It should also be noted that the TIA used a conservative estimate of the number of truck trips after the project begins operation. The number of truck trips is important because diesel PM emissions are directly related to both the number of trucks and the vehicle miles traveled.

As mentioned above, the TIA uses the traffic generation rate for high-cube warehouses from the 10th edition of the Institute of Traffic Engineers Trip Generation Manual which is based on the High-Cube Warehouse Vehicle Trip Generation Analysis prepared jointly by SCAQMD and National Association of Industrial and Office Properties (NAOIP).

Cancer Burden

Whereas cancer risk represents the probability that an individual will develop cancer, cancer burden multiplies the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project. The exposed population is defined as the number of persons within a facility's zone of impact, which is typically the area exposed to an incremental cancer risk of one in a million from the project. Consistent with this definition, cancer burden was calculated by first identifying all population census tracts[75] located within the project's zone of impact, multiplying the estimated incremental project cancer risk impact in the census tract by the population of the census tract and then summing all of products of population times estimated cancer risk in the zone of impact. Note that each census tract contributes to the cancer burden in proportion to its population and risk. For example, if a census tract has a relatively high estimated cancer risk, but no people living there, it will not contribute to the estimation of the cancer burden. As provided in the "Current OEHHA Guidance", the cancer burden is calculated assuming a 30-year exposure duration along with the appropriate exposure frequency, daily breathing rates, age sensitivity factors, and time at home factors appropriate to each age group.[76] A cancer burden greater than 0.5 is considered a significant cancer burden.

Non-cancer Hazards

An evaluation of the potential non-cancer effects of chronic (long-term) and acute (short-term) chemical exposures was also conducted. For chemicals that cause non-cancer health effects, risks are typically characterized using a measure called the HI. Adverse non-cancer health effects are evaluated by comparing the concentration of each TAC with the reference concentration level below which an adverse health effect will not occur as determined by health professionals. This reference concentration level is referred to as the Reference Exposure Level (REL). The State of California has published a database of RELs for numerous toxic air contaminants. Toxic air contaminants may have a unique chronic and/or acute REL. A significant risk is defined by the SCAQMD as an HI of 1 or greater, and indicates that the source of TAC emissions has a potential to cause adverse non-cancer health effects.

Chronic Non-cancer Impacts

Exposures to TACs such as diesel PM can cause chronic (long-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects. Risk

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[75] A census tract is a geographic region defined for the purpose of taking a census. Usually these regions coincide with the limits of cities, towns, or other administrative areas. Each tract has a unique numeric code and averages about 4,000 inhabitants. The census tract centroid is the geographic center of the tract based on a weighted distribution of the population within the tract using the census blocks that comprise the tract. A census block is the smallest geographic unit used to tabulate population and each tract can be comprised of several blocks.

[76] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 8.1. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

characterization for chronic non-cancer health risks from diesel PM is expressed as a HI. The HI is a ratio of the predicted concentration of a project's emissions to its REL.

When evaluating chronic non-cancer effects due to TAC exposures, a hazard quotient (HQ) is established for each individual TAC as follows and for each target organ[31] affected by the individual TAC:

$$\mathbf{HQ_i = C_{air}/REL_i} \qquad \textbf{(EQ-3)}$$

Where:

HQi = chronic hazard quotient for each TAC, i

Cair = Annual average concentration of each TAC, i (< g/m3)

RELi = Chronic Reference Exposure Level for TAC, i (< g/m3)

i = toxic air contaminant of interest

To evaluate the potential for adverse non-cancer health effects from simultaneous exposure to multiple TACs, the HQs for all TACs that affect the same target organ are summed yielding a HI as follows:

$$\mathbf{HI_{to} = \Sigma HQ_{tac}} \qquad \textbf{(EQ-4)}$$

Where:

HI_{to} = sum of the hazard quotients for all TACs affecting the same target organ

HQ_{tac} = hazard quotient for TAC and target organ

Chronic health effects were calculated based on maximum annual average diesel PM concentrations from the construction and operation of the project since diesel PM is the most important TAC considered in this assessment. The California OEHHA has assigned a chronic non-cancer REL of 5 $\mu g/m^3$ for diesel PM for diesel PM. Diesel PM has effects on the respiratory system, which accounts for essentially all of the potential chronic non-cancer hazards from diesel PM. Therefore, the only HI calculated was for the respiratory system.

Acute Non-cancer Impacts

The OEHHA has not defined an acute non-cancer REL for diesel PM. This HRA calculated the potential acute non-cancer hazards associated with the various toxic air contaminant components of PM and organic gas exhaust emissions from diesel and gasoline vehicles that have been found to cause acute non-cancer hazards.

The ARB maintains and updates estimates of the chemical composition and hazard levels of TOGs for a variety of emission source categories. These estimates are contained in what are referred to as speciation profiles. Speciation profiles provide estimates of the toxic air contaminant composition of TOG emissions, and are used in the development of emission inventories and air quality models.

Speciation profiles based on those developed by the ARB were used in this study[77] to derive estimates of the pollutant levels of the TOG components and their acute non-cancer hazards for TOGs from both gasoline exhaust and diesel exhaust.

Table 21, *Speciation Profiles for Diesel and Gas Fuel Combustion Sources,* presents the speciation profiles that were used to convert PM and organic gas emissions into individual TAC emissions. Only chemicals that have a defined acute non- cancer reference exposure level (RELs) were included. The estimated total PM and organic gas emissions are multiplied by the profile percentage for a particular toxic to obtain the emissions of that particular toxic.

Table 21
Speciation Profiles for Diesel and Gas Fuel Combustion Sources

Sources	Emission Type	TAC Speciation Profile
Off-road diesel construction equipment	Exhaust TOG	ARB TOG profile #818
	Exhaust PM	ARB PM Profile #425
	Evaporative TOG	Assume negligible
	Brake/Tire PM	N/A
On-road diesel vehicles	Exhaust TOG	ARB TOG profile #818
	Exhaust PM	ARB PM profile #425
	Evaporative TOG	Assume negligible
	Brake PM	ARB PM profile #472
	Tire PM	ARB PM profile #473
On-road gasoline vehicles	Exhaust TOG	ARB TOG profile #2118
	Exhaust PM	ARB PM profile #400
	Evaporative TOG	ARB TOG profile #660
	Brake PM	ARB PM profile #472
	Tire PM	ARB PM profile #473

Notes:
(1) TOG speciation profile 2108 is from the ARB SPECIATE database; this profile is used to characterize TOG emissions from gasoline-fueled vehicles
(2) TOG speciation profile 818 is from the ARB SPECIATE database; this profile was used to characterize TOG emissions from diesel-fueled vehicles Source:
California Air Resources Board 2013.

The methodology used to estimate acute non-cancer hazards follows a similar basic methodology used to estimate chronic non-cancer hazards with two important differences: the toxic air

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[77] CARB. 2013. Speciation Profiles Used in ARB Modeling. https://www.arb.ca.gov/ei/speciate/speciate.htm

contaminant concentration, C_{air} in Equation 3 is based on the predicted maximum one-hour concentration of the toxic air contaminant, and the REL used is specific to the acute impacts from the contaminant.

Quantifying Morbidity and Mortality

Mortality is a measure of the number of deaths in a population, scaled to the size of that population, per unit time. Morbidity refers to the number of individuals who have contracted a disease during a given time period (the incidence rate) or the number who currently have that disease (the prevalence rate), scaled to the size of the population. These terms differ from the cancer risk because the cancer risk is the risk of developing cancer over a lifetime.

Respirable particulate matter is a public health concern as it is known to impact both the respiratory and cardiovascular systems. Respirable particulate matter deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne particulate matter (PM_{10} and $PM_{2.5}$) include children, the elderly, smokers, and people of all ages with low pulmonary/cardiovascular function. The ARB reviewed and summarized the non-toxic health effects (i.e., mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify these impacts based on concentration- response functions.[78] Concentration-response (C-R) functions are equations that relate the change in the number of adverse health effect incidences in a population to a change in pollutant concentration experienced by that population. This ARB model has been used, for example, to estimate the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement in California (ARB 2006).

Although the ARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity, such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions, baseline rates of mortality and morbidity that are entered into concentration response functions (C-R functions), and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. As stated by ARB in a study of diesel PM exposure from ports and goods movement in California: “Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted. Risk assessment is thus best understood as a tool for comparing risks from various sources, usually for

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[78] CARB. 2002. Staff Report: Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates, Chapter 9. https://www.arb.ca.gov/carbis/research/aaqs/std-rs/pm-final/PMfinal.pdf

purposes of prioritizing risk reduction, and not as literal prediction of the community incidence of disease from exposure”.[79]

However, perhaps the most compelling use limitation of C-R functions for site-specific projects is the consideration of whether it is valid to apply the C-R functions to changes in PM concentrations that are far below the ambient concentration. For example, the ARB/OEHHA analysis applied a threshold of 18 $\mu g/m^3$ for PM_{10} and 9 $\mu g/m^3$ for $PM_{2.5}$ for the long-term mortality C-R function, representing the lowest concentration level observed in the long-term mortality studies evaluated. In other words, ARB/OEHHA assumed that the C-R functions were continuous and differentiable down to threshold levels. In the case of trying to quantify Project-specific impacts, it may not be appropriate to use C-R functions that were developed with a threshold significantly higher than the change in PM due to the Project.

Nonetheless, despite these uncertainties in the analysis methodology, the potential increase in long- term mortality was calculated for the project. The most common forms of the C-R function are represented in the log-linear form as discussed in the Health Risk Assessment of the Port of Long Beach Middle Harbor Project.[80] For estimates of long-term mortality impacts, the following C-R function is used:

$$\Delta y = y_o \left(e^{\beta \Delta PM10} - 1\right) \text{ x population}$$

Where:

Δy = changes in the incidence of a health endpoint (in this case changes in mortality) corresponding to a particular change in diesel PM (assumed to be PM2.5)

y_o = baseline all-cause annual death rate per person for the South Coast Air Basin (=0.001768)

B – coefficient (diesel PM: 0.005827); this coefficient is based on the relative risk that is associated with a particular concentration and varies from one study to another

ΔPM_{10} = change in annual diesel PM concentration ($\mu g/m^3$)

Population = population subgroup of the impacted area

To use a C-R function from an epidemiological study to estimate changes in the incidence of a health endpoint corresponding to a particular change in PM in a location, it is important to use appropriate values of parameters for the C-R function, which are the measure of PM, the type of population, and the characterization of the health endpoint should be the same as or as close as possible to those used in the study that estimated the C-R function.

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[79] CARB. 2006. Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach. https://www.arb.ca.gov/regact/marine2005/portstudy0406.pdf

[80] Port of Long Beach. 2009. Health Risk Assessment for the Port of Long Beach Middle Harbor Redevelopment Project. Appendix A-3. http://www.polb.com/civica/filebank/blobdload.asp?BlobID=5134

The form of the C-R function was used to predict the effect of changes in ambient PM concentrations on health effects such as premature deaths, cardiac and respiratory hospitalizations, asthma and other lower respiratory symptoms, etc. The parametric values for the variables Y_O and β are provided in **Table 22**, *Parameter Values,* along with the averaging time for the estimate of the health risk endpoint.

Table 22
Parameter Values

Health Risk Endpoint	Averaging Time	Affected Population	Baseline Occurrence (Y_O)	Relative Incidence (β0	Health Risk Endpoint
Long Term Mortality	Annual	Ages 30 years and older	0.001768	0.005827	Long Term Mortality
Chronic Illness: Chronic Bronchitis	Annual	Ages 27 years and older	0.00378	0.0132	Chronic Illness: Chronic Bronchitis
Hospitalization: Chronic Obstruction Pulmonary Disease	Daily	Ages 65 years and older	0.0000259	0.00288	Hospitalization: Chronic Obstruction Pulmonary Disease
Hospitalization: Pneumonia	Daily	Ages 65 years and older	0.0000516	0.00207	Hospitalization: Pneumonia
Hospitalization: Cardiovascular	Daily	Ages 65 years and older	0.000158	0.00119	Hospitalization: Cardiovascular
Hospitalization: Asthma	Daily	Ages 0 to 64 years old	0.00000263	0.00205	Hospitalization: Asthma
Emergency Room Visits for Asthma	Daily	Ages 0 to 64 years old	0.00000448	0.00367	Emergency Room Visits for Asthma
Source: CARB (2002)					

The basic procedure for determining exposures is based on the methods published by the CARB in its development of the technical support to consider amendments to the ambient air quality standards for particulate matter and sulfates.[81] Within this assessment, the following information is required to make the relevant health risk endpoint estimates in addition to the C-R function shown in the above equation and the parametric information shown in Table 22:

- Air pollutant concentrations (represented as the incremental diesel PM impacts from the population affected.

The incremental air pollutant concentrations of diesel PM resulting from the project were determined using the USEPA AERMOD air dispersion model and associated emission estimates of diesel PM. The dispersion model predicted annual estimates of diesel PM at over 2,300 discrete locations surrounding the project corresponding to the location of population centroids from the US Census Bureau. The locations of these census tract centroid receptors were shown in

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[81] California Air Resources Board, Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates, 2002. Available: https://www.arb.ca.gov/carbis/research/aaqs/std-rs/pm-final/PMfinal.pdf. Accessed May 2018.

Exhibit 20 in the technical report. To provide estimates of 24-hour diesel PM, the annual average diesel PM concentration values calculated by the air dispersion model were multiplied by a factor of 6 which corresponds to the ratio of 24-hour average to annual average air concentrations recommended by the California Office of Environmental Health Hazard Assessment.[82] Each population centroid contained an estimate of the 2010 population. The breakdown of the total population by age group for use in the concentration-response functions was accomplished using the 2010 US Census for California age breakdown as shown in **Table 23**, *California Age Breakdown in 2010*. This population breakdown was assumed to apply to all census tract receptors to determine the affected population in each census tract.

Table 23
California Age Breakdown in 2010

Age	Percent of Total Population
<5	7.3%
5-9	8.0%
10-14	7.6%
15-19	7.2%
20-24	7.0%
25-34	15.5%
35-44	16.2%
45-54	12.8%
55 to 59	4.3%
60 to 64	3.4%
65-74	5.6%
75-84	3.8%
>=85	1.6%

Source: US Census Bureau 2014.

Despite a number of uncertainties in the analysis methodology, the expected increase in mortality and morbidity was calculated for the project's toxic air emissions.

Geographic Scope of the Health Risk Assessment

The HRA is characterized by two important differences from the localized significance threshold assessment for criteria pollutants. According to the SCAQMD localized significance threshold assessment methodology, the assessment of localized impacts addresses only those emissions that are generated "onsite", that is for the purposes of this project, emissions generated from within or along the boundaries of the Specific Plan. However, for the HRA, both the universe of the project's emission sources and air dispersion model receptors were expanded to assess the off-site impact of the project's emissions of toxics. Besides onsite emission sources and receptors, the

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[82] Office of Environmental Health Hazard Assessment, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. Available: https://oehha.ca.gov/media/downloads/crnr/hraguidefinal.pdf. Accessed May 2018.

HRA also included a receptor grid that extends from the project boundary to 5 kilometers (km) away and roadway network that ends 10 km from the project boundary (e.g., including approximately 18 miles of SR-60, surface roadway networks that are extending from the project boundary to 7.6 miles west and 6.9 miles east). The study area reasonably captures the most extensive emissions from project-generated vehicles on the roadway network since all trips to and from the project would travel on the roadway segments and freeway segments (SR-60) nearest the project site regardless of origin or destination. Since project activity is highest on-site, the project's emissions and associated health impact decreases with distance from the project site. Thus, the selected study area is capable of capturing the project's maximum impact. If the maximum risk from the study area is less than significant, project health risk impacts will be less than significant for receptors further away.

The generation of emissions from traffic traveling along the various arterial and freeway mainline roadway segments requires information on traffic volumes, length of segment, and emission factors. The emission factors, in turn, depend on vehicle type, speed, calendar year, and fuel type. Estimates of peak hour vehicle volumes and types (passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks) were provided by the traffic consultant for each roadway segment analyzed. The TIA also provided daily vehicle volumes for freeway segments, but not for non-freeway segments. For use in the cancer risk and chronic non-cancer hazard calculations, the daily vehicle volumes for non-freeway segments were assumed to be 10 times that of the peak hour vehicle volumes. The physical length and width of each roadway segment were estimated using the segment location as provided by the traffic consultant and aerial photographs available from Google Earth. Vehicle speeds for each roadway segment and vehicle type were based on the speed groups provided by the traffic consultant.

SECTION 5

Environmental Impacts

5.1 Compliance with Air Quality Plan

Conflict with or obstruct the implementation of the applicable air quality plan (AIR-1)

According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the AQMP:

1. Indicator: Whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

2. Indicator: A project would conflict with the AQMP if it would exceed the assumptions in the AQMP in 2012 or increments based on the year of project buildout and phase. The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used in the Regional Transportation Model run by the Southern California Association of Governments that generated the mobile inventory used by the SCAQMD for AQMP are not available and assumed not to include the project; therefore, the SCAQMD's significance thresholds are used to determine if the project exceeds the assumptions in the AQMP.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis utilizes the following criteria to address this potential impact:

Project's Contribution to Air Quality Violations and Assumptions in AQMP

According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.[83] As shown in analyses in Impact AIR-2, the project could violate an air quality standard and therefore could contribute substantially to an existing or projected air quality violation.

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[83] SCAQMD. 1993. South Coast Air Quality Management District. CEQA Air Quality Handbook, 1993.

If a project's emissions exceed the SCAQMD regional thresholds for NO_X, VOC, PM_{10}, or $PM_{2.5}$, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the Basin is in nonattainment (ozone, PM_{10}, and $PM_{2.5}$) at a monitoring station in the Basin.

The thresholds are criteria for determining environmental significance and are discussed in the SCAQMD's 1993 Handbook for Air Quality Analysis and are updated in the SCAQMD's most recent thresholds published online in 2012. An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP to achieve attainment of pollutants.

As discussed in the analyses below (AIR-2), the project would exceed the regional emission significance thresholds for VOC, NO_X, CO, PM_{10}, and/or $PM_{2.5}$ prior to the application of mitigation. (Refer specifically to Table 24 for construction emissions and Table 27 for operational emissions.) This means that project emissions could combine with other sources and could result in an ozone, PM_{10}, or $PM_{2.5}$ exceedance at a nearby monitoring station. The Basin in which the project is located is in nonattainment for these pollutants; therefore, according to this criterion, the project would not be consistent with the AQMP. The regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. Therefore, based on this criterion, the project could contribute to air quality violations and would not be consistent with the AQMP.

Compliance with Emission Control Measures

The second indicator of whether the project could conflict with or obstruct implementation of the AQMP is by assessing the project's compliance with the control measures in the AQMPs and the State Implementation Plan (SIP).

2012 AQMP

The project would comply with all applicable rules and regulations enacted as part of the AQMP. In addition, the AQMP relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 RTP/SCS and 2011 FTIP. Included in the RTP/SCS are transportation control measures including active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.

2016 AQMP

As stated previously, the SCAQMD recently approved on March 3, 2017 the Final 2016 AQMP. Currently, the 2016 AQMP is being reviewed by the U.S. EPA and CARB. Until the approval of the EPA and CARB, the current regional air quality plan is the Final 2012 AQMP adopted by the SCAQMD on December 7, 2012. Therefore, consistency analysis with the 2016 AQMP has not been included. Nonetheless, the project would comply with all applicable rules and regulations enacted as part of the 2016 AQMP, including transportation control measures from the 2016 RTC/SCS.

State Implementation Plans

Geographical areas in the State that exceed the Federal air quality standards are called nonattainment areas. The project area is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. SIPs show how each area will attain the Federal standards. To do this, the SIPs identify the amount of pollutant emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions. On September 27, 2007, the CARB adopted its State Strategy for the 2007 SIP. In 2009, the SIP was revised to account for emissions reductions from regulations adopted in 2007 and 2008 and clarifies CARB's legal commitment. Additional recent revisions to the SIP are as follows:

- In 2008, the EPA revised the lead[84] national ambient air quality standard by reducing it to 0.15 $\mu g/m^3$. On December 31, 2010, the Los Angeles County portion of the Basin was designated as nonattainment for the 2008 lead national standard as a result of exceedances measured near a large lead-acid battery recycling facility. The 2012 Lead SIP for Los Angeles County was prepared by the SCAQMD and addresses the recent revision to the lead national standard, and outlines the strategy and pollution control activities that demonstrate attainment of the lead national standard before December 31, 2015. The 2012 Lead SIP was approved May 4, 2012.

- A SIP revision for the federal nitrogen dioxide standard was prepared in 2012, to address the new 1-hour federal ambient air quality standard for nitrogen dioxide.

- The proposed California Infrastructure SIP revision was considered by the CARB on January 23, 2014. The proposed Infrastructure SIP revision is administrative in nature and covers the National Ambient Air Quality Standards (federal standards) for ozone (1997 and 2008), fine particulate matter ($PM_{2.5}$; 1997, 2006, and 2012), lead (2008), nitrogen dioxide (2010), and sulfur dioxide (2010). The proposed revision describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce these federal standards. It does not contain any proposals for emission control measures.

The SIP takes into account CARB rules and regulations. The project will comply with applicable rules and regulations as identified in the AQMPs and SIPs and therefore, complies with this criterion.

Summary

Although the project would be consistent with the policies, rules, and regulations in the AQMP and SIPs, the project must meet all the criteria listed above to be consistent with the AQMP. The project could impede AQMP attainment because its construction and operation emissions exceed

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[84] Lead referred to here is a chemical element; a heavy metal.

the SCAQMD regional significance thresholds, so the project is considered to be inconsistent with the AQMP.

5.2 Regional Emissions

Violate any air quality standard or contribute substantially to an existing or projected air quality violation (AIR-2)

Regional Construction Emissions

Grading and other construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions during these construction activities will vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Activity during peak grading days typically generates a greater amount of air pollutants than other project construction activities.

While the actual details of the future construction schedule are not known, it is expected that project construction would occur in two phases with seven discrete activities in Phase 1 and eight discrete activities in Phase 2. For Phase 1, the following activities are assumed to occur over the course of seven years in the analysis: 1) rough grading, which includes mass site grading; 2) finish grading; 3) building construction; 4) infrastructure construction which includes utility installation; 5) curb, gutter, sidewalk, subgrade preparation, drop rock, and paving activities; 6) asphalt paving; and 7) landscaping. For Phase 2, the same activities are assumed to occur over the course of nine years in the analysis, and includes interchange construction as the eighth activity. Within the "building construction" phase, it is assumed that there would also be subphases of concrete pouring, installation of wet utilities, electrical installation, and landscaping. Appendix A includes details of the emission factors and other assumptions.

Table 24, *Short-Term Regional Construction Emissions – Without Mitigation,* identifies projected emissions resulting from grading and construction activities for the project and shows the estimated maximum daily construction emissions over the course of project construction prior to the application of mitigation.

The construction emissions estimates summarized in Table 24 are based on an assumed construction scenario. Using emission factors from the CalEEMod model, Table 24 indicates that construction emissions of criteria pollutants would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X.[85] This is a significant impact requiring mitigation.

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, and cut-and-fill grading operations. Dust generated during construction varies substantially by project, depending on the level of activity, the specific operations and equipment,

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[85] The project would emit SO_X from construction equipment exhaust; however, the maximum emissions (2 pounds per day) are less than significant as they are far below the threshold of 150 pounds per day.

local soils, and weather conditions at the time of construction. The project will be required to comply with SCAQMD Rules 402 and 403 to control fugitive dust. There are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction.

As identified in Table 24, fugitive dust and exhaust emissions during the anticipated peak construction day for the project would exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM_{10} is an average of 88 percent dust and 12 percent exhaust. $PM_{2.5}$ has an average of 50 percent dust and 50 percent exhaust.

Table 24
Short-Term Regional Construction Emissions–Without Mitigation

	Maximum Daily Pollutant Emissions (lbs/day)								
Year	**VOC**	**NO_X**	**CO**	**PM_{10} dust**	**PM_{10} exhaust**	**PM_{10} Total**	**$PM_{2.5}$ dust**	**$PM_{2.5}$ exhaust**	**$PM_{2.5}$ Total**
2020	281	639	407	99	25	117	11	23	31
2021	270	460	434	97	20	117	11	18	29
2022	298	776	645	132	30	162	15	28	43
2023	262	347	419	97	14	111	11	13	24
2024	343	1,233	992	177	47	224	20	43	63
2025	263	342	457	105	13	118	12	12	24
2026	282	536	595	144	20	164	16	18	35
2027	269	415	476	114	15	130	13	14	27
2028	296	690	663	39	26	165	16	24	39
2029	281	543	560	125	20	145	14	19	33
2030	309	391	605	128	12	140	15	12	26
2031	268	207	427	97	5	102	11	5	16
2032	307	391	616	131	12	143	15	12	26
2033	297	340	565	125	10	135	14	10	24
2034	268	206	426	97	5	102	11	5	16
2035	282	237	511	117	5	122	13	5	19
SCAQMD Threshold	**75**	**100**	**550**	**NA**	**NA**	**150**	**NA**	**NA**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**NA**	**NA**	**Yes**	**NA**	**NA**	**Yes**

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2 pounds per day, substantially under the threshold of 150 pounds per day.
- Dust plus exhaust emissions may not add up to total emissions for both PM10 and PM2.5 because the numbers included in this table are the maximum emissions between winter and summer model outputs for each of the three categories.
- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.
- Emissions assume compliance with SCAQMD Rule 403.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust

Concrete pouring would likely occur during nighttime hours due to limitations high temperatures pose for concrete work during the day. On-site equipment used during concrete pouring would involve daytime prep with actual concrete pouring occurring during the nighttime hours. On average, the total hours of operation for each piece of equipment during the concrete phase would be approximately 10 hours. Therefore, maximum daily emissions presented in Table 24 represent the maximum daily emissions including the average concrete pour day. However, under rare occurences, extended concrete pour days may be required. **Table 25**, *Short-Term Regional 24-Hour Concrete Pour Emissions – Without Mitigation* summarizes daily maximum emissions for each year of construction associated with 24-hour operation of on-site building concrete equipment. As shown in Table 25, maximum 24-hour concrete pour days would exceed SCAQMD thresholds for NO_X. However, all maximum daily emissions are less than those for the worst-case construction day as summarized in Table 24. Therefore, rare 24-hour concrete pour days would be within the estimated worst-case construction day assumptions. No further analysis of 24-hour concrete pour days is required.

Table 25
Short-Term Regional 24-Hour Concrete Pour Emissions–Without Mitigation

	Maximum Daily Pollutant Emissions (lbs/day)				
Year	**VOC**	**NO_X**	**CO**	**PM_{10} Total**	**$PM_{2.5}$**
2020	No Concrete Phase				
2021	17.01	151.89	166.94	8.76	7.56
2022	15.74	138.58	165.83	7.71	6.57
2023	14.86	127.45	165.21	6.94	5.84
2024	14.29	121.56	165.30	6.37	5.30
2025	13.53	114.23	164.89	5.66	4.64
2026	13.52	114.13	164.83	5.66	4.63
2027	13.52	114.04	164.77	5.66	4.63
2028	13.51	113.97	164.72	5.66	4.63
2029	13.50	113.90	164.67	5.66	4.63
2030	14.15	91.24	169.34	3.48	2.63
2031	14.14	91.21	169.31	3.48	2.63
2032	14.13	91.15	169.27	3.48	2.63
2033	14.13	91.10	169.24	3.47	2.63
2034	14.12	91.06	169.20	3.47	2.63
2035	13.36	84.68	169.02	2.94	2.10
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2 pounds per day, substantially under the threshold of 150 pounds per day.
- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.
- Emissions assume compliance with SCAQMD Rule 403.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust

Similar to extended concrete pouring days, other phases of construction such as utility installation and building construction may require an occasional extended construction day based on the task at hand and schedule goals. Occasional extended construction hours would occur for specific tasks within specific planning areas as needed (determined on a day-to-day basis) and would not occur site-wide throughout the 16-year construction period. Therefore, it is anticipated that estimated yearly maximum construction day emissions, as summarized in Table 24, represent the realistic worst-case regional construction emissions for the 16-year construction duration. Therefore, no further analysis of potential extended construction days is required.

The project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. The applicable Rule 403 measures are as follows:

- All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions.

As previously discussed, SCAQMD Rule 1113 regulates the sale and application of architectural coatings. Rule 1113 is applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of ROG or VOC emissions allowed for all types of architectural coatings. Compliance with Rule 1113 means that architectural coatings used during construction would have ROG or VOC emissions that comply with these limits.

Operational Emissions

Long-term air pollutant emission impacts that would result from the project are those associated with stationary sources (generators, boilers, etc.), area sources (landscaping and maintenance activities), and mobile sources (e.g., emissions from the use of motor vehicles by project-generated traffic).

As discussed above in Section 4, the TIA provides VMT attributable to the project based on the net effect the project would have on regional travel as well as project VMT without consideration of a net effect. The emissions from the net effect on VMT, in conjunction with the proposed stationary and area sources, are shown in **Table 26**, *Operational Regional Air Pollutant Emissions (Worst-Case Scenario)***, Table 27**, *Operational Regional Air Pollutant Emissions (Detail, Unmitigated)*, **Table 28**, *Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day, Unmitigated)*, and **Table 29**, *Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day, Unmitigated)*, below for determination of significance. For informational purposes only **Table 30**, *Operational Regional Air Pollutant Emissions (Worst-Case) – No Net Effect (For Informational Purposes Only),* **Table 31**, *Operational Regional Air Pollutant Emissions (Detail, Unmitigated) – No Net Effect (For Informational Purposes Only)*, and **Table 32**, *Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day, Unmitigated) – No Net Effect (For Informational Purposes Only)* includes operational mobile emissions without consideration of a net effect in regional traffic volumes.

Worst-case Scenario

Projected emissions resulting from operational activities of the project under the worst-case scenario are identified in Table 26.

There may be minor emissions of VOC from the fueling station, depending on what type of fuel is used. However, details regarding the fueling station are currently unknown so the emission source is not estimated. This is a worst-case analysis because it assumes that the entire project would be built-out in 2018. The motor vehicle and truck emission factors are from 2018, which assumes a “dirtier” fleet than would be the case in later years. In addition, no reductions are taken for mitigation measures.

As identified in Table 26, operational emissions for the project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the “worst-case” 2018 scenario.

Table 26
Operational Regional Air Pollutant Emissions (Worst-Case Scenario)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 2018 emission factors	Mobile	107	2,078	579	386	116
	Area	175	<1	2	<1	<1
	Onsite equipment	5	138	51	1	1
	Total	**287**	**2,216**	**632**	**388**	**117**
Buildout 2018 emission factors	Mobile	241	3,958	1,472	898	274
	Area	311	<1	4	<1	<1
	Onsite equipment	9	245	89	2	2
	Total	**561**	**4,202**	**1,565**	**901**	**276**
Significance Threshold		55	55	550	150	55
Significant Impact?		Yes	Yes	Yes	Yes	Yes

Notes: VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide
PM_{10} and $PM_{2.5}$ = particulate matter <1 = less than one

Operational Regional Emissions

Table 27 shows the detailed operational emission sources generated both on site and off site for Phase 1 and buildout. The table shows particulate matter (PM_{10} and $PM_{2.5}$) divided into dust and exhaust sources. As shown in the table, emissions of VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout.

Table 28 shows the operational emissions year by year using future year emission factors. The VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions would be over the SCAQMD's significance thresholds for most years beginning as early as year 2021 for NO_X, 2023 for VOC, 2024 for PM_{10} and $PM_{2.5}$, and 2029 for CO. The emissions demonstrate that although the number of vehicles and trucks would increase year by year, the emissions do not increase dramatically because the per-vehicle emission factors decrease over time as cleaner vehicles enter the fleet over time.

Combined Construction and Operation

There would be overlapping of construction and operational emissions with project implementation. The maximum daily operational emissions as shown in Table 28 were added to the maximum daily construction emissions and are shown in Table 29, which shows all pollutants for all years exceed the SCAQMD thresholds, with the exception of SO_X emissions. SO_X are not shown in the table as they are far below the significance threshold of 150 pounds per day.

As identified in the preceding tables, project-related air quality impacts for all criteria pollutants, with the exception of SO_X, would be significant and mitigation measures are required.

Table 27
Operational Regional Air Pollutant Emissions (Detail, Unmitigated)

Phase	Source	Emissions (pounds/day)								
		VOC	**NO$_X$**	**CO**	**PM$_{10}$ Dust**	**PM$_{10}$ Exh.**	**PM$_{10}$ Total**	**PM$_{2.5}$ Dust**	**PM$_{2.5}$ Exh.**	**PM$_{2.5}$ Total**
Phase 1	Mobile	57	607	322	313	5	318	85	3	88
	Area	175	<1	2	0	<1	<1	0	<1	<1
	On-site Equipment	5	138	51	0	1	1	0	1	1
	Total	**238**	**746**	**375**	**313**	**6**	**319**	**85**	**4**	**89**
Buildout	Mobile	103	803	772	940	5	945	252	5	256
	Area	311	<1	4	0	<1	<1	0	<1	<1
	On-site Equipment	9	245	89	0	2	2	0	2	2
	Total	**422**	**1,047**	**865**	**940**	**7**	**947**	**252**	**7**	**259**
Significance Threshold		55	55	550	None	None	150	None	None	55
Significant Impact?		Yes	Yes	Yes	--	--	Yes	--	--	Yes

Notes: VOC = volatile organic compounds NO$_X$ = nitrogen oxides CO = carbon monoxide PM$_{10}$ and PM$_{2.5}$ = particulate matter Exh. = exhaust <1 = less than 1

On-site equipment emissions include emissions from yard trucks, forklifts, and stationary generators.

Table 28
Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2020	0	0	0	*	0	0
2021	25	98	50	*	44	12
2022	49	195	100	*	89	25
2023	82	326	166	*	148	41
2024	115	456	233	*	207	58
2025	175	698	356	*	317	89
2026	226	769	460	*	445	123
2027	252	806	514	*	513	141
2028	268	829	547	*	553	152
2029	284	851	580	*	594	163
2030	307	884	627	*	652	179
2031	332	920	680	*	718	197
2032	358	957	733	*	784	214
2033	384	993	786	*	849	232
2034	401	1,017	821	*	893	244
2035	418	1,041	856	*	936	256
Buildout	422	1,047	865		947	259
SCAQMD Threshold	55	55	550	150	150	55
Significant?	Yes	Yes	Yes	No	Yes	Yes

- Emissions are from local vehicles, trucks, natural gas, emergency generators, forklifts, yard trucks, painting, and consumer products. There is no reduction from existing onsite emissions.
- Operational emissions are assumed to be zero in 2020 when project construction commences.
- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.

* Sulfur dioxide emissions as estimated are substantially less than the threshold of 150 pounds per day. Thus, emissions reflecting decreased vehicle miles traveled would also be less than significant.

VOC = volatile organic compounds; NO_X = nitrogen oxides; SO_2 = sulfur dioxide; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter

Table 29
Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day, Unmitigated)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2020 (construction only)	281	639	407	124	34
2021	294	557	484	161	42
2022	347	972	745	251	68
2023	344	673	585	259	65
2024	457	1,688	1,225	431	121
2025	438	1,040	813	434	112
2026	507	1,304	1,055	608	158
2027	521	1,221	990	642	168
2028	564	1,519	1,210	718	192
2029	565	1,395	1,140	739	196
2030	616	1,274	1,231	792	205
2031	601	1,127	1,107	820	213
2032	666	1,347	1,349	926	241
2033	681	1,333	1,351	985	256
2034	669	1,223	1,247	995	260
2035	699	1,278	1,367	1,058	274
Buildout (operation only)	422	1,047	865	947	259
Max Daily Emissions	699	1,688	1,367	1,058	274
SCAQMD Threshold	55	55	550	150	55
Significant?	Yes	Yes	Yes	Yes	Yes

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day
- Reduction from existing onsite emissions are not included.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter

Table 30
Operational Regional Air Pollutant Emissions (Worst-Case Scenario) – No Net Effect (For Informational Purposes Only)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 2018 emission factors	Mobile	281	3,175	1,921	783	235
	Area	175	<1	2	<1	<1
	Onsite equipment	5	138	51	1	1
	Total	**461**	**3,314**	**1,974**	**784**	**236**
Buildout 2018 emission factors	Mobile	500	5,600	3,400	1,339	416
	Area	311	<1	4	<1	<1
	Onsite equipment	9	245	89	2	2
	Total	**820**	**5,845**	**3,493**	**1,341**	**418**

Notes: VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide
PM_{10} and $PM_{2.5}$ = particulate matter <1 = less than one

Table 31
Operational Regional Air Pollutant Emissions (Detail, Unmitigated) – No Net Effect (For Informational Purposes Only)

Phase	Source	Emissions (pounds/day)								
		VOC	NO_X	CO	PM_{10} Dust	PM_{10} Exh.	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exh.	$PM_{2.5}$ Total
Phase 1	Mobile	167	992	1,107	675	8	682	186	6	193
	Area	175	<1	2	0	<1	<1	0	<1	<1
	On-site Equipment	5	138	51	0	1	1	0	1	1
	Total	**347**	**1,130**	**1,160**	**675**	**9**	**684**	**186**	**8**	**194**
Buildout	Mobile	185	1,185	1,360	1,197	8	1,205	331	**7**	338
	Area	311	<1	4	0	<1	<1	0	<1	<1
	On-site Equipment	9	245	89	0	2	2	0	2	2
	Total	**504**	**1,430**	**1,453**	**1,197**	**10**	**1,208**	**331**	**10**	**340**

Notes: VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter Exh. = exhaust <1 = less than 1

Table 32
Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day, Unmitigated) – No Net Effect (For Informational Purposes Only)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2020 (construction only)	281	639	407	124	34
2021	291	498	467	135	34
2022	339	852	711	197	53
2023	331	474	529	170	41
2024	440	1410	1147	306	87
2025	411	613	694	243	60
2026	472	845	853	309	76
2027	481	745	745	285	72
2028	521	1,033	939	327	86
2029	520	898	843	313	81
2030	567	763	897	317	77
2031	547	599	731	289	70
2032	608	803	930	340	83
2033	619	772	890	342	84
2034	604	650	759	316	78
2035	631	695	850	343	82
Buildout (operation only)	639	946	892	360	94

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day
- Reduction from existing onsite emissions are not included.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter

5.3 Cumulatively Considerable Air Quality Impacts

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) (AIR-3)

The project would result in the emission criteria pollutants for which the project area is in non-attainment during both construction and operation. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Basin is currently in non-attainment for ozone, PM10, and PM2.5.

Construction Emissions

The emissions from construction of the project would exceed applicable SCAQMD regional and local impact thresholds. Therefore, the project would result in a cumulatively considerable net increase for non-attainment pollutants or ozone precursors.

Operational Emissions

Future operations would exceed applicable SCAQMD regional thresholds. Therefore, the project would result in a cumulative considerable net increase for non-attainment of criteria pollutants or ozone precursors.

5.4 Substantial Pollutant Concentrations

Expose Sensitive Receptors to Substantial Pollutant Concentrations (AIR-4)

Localized Construction and Operational Emissions

The localized analysis focused on three potential scenarios:

1. Project Phase 1 (2018), which evaluates the air quality impacts if Phase 1 of the project (approximately 57 percent of the square footage) was built out in full in 2018[86] and no other changes occurred to land uses or the roadway system;

2. Project Phase 1 and Phase 2 Full Build Out (2018), which evaluates what air quality impacts would arise if the entire project, both Phase 1 and Phase 2, were built out in full in 2018 and no other changes occurred to land uses or the roadway system; and

3. Proposed Project Development Schedule, which evaluates the air quality impacts from the following scenarios:

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[86] 2018 is the CEQA Baseline year for purposes of this analysis.

- 2025, the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern portion of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street, and when all of Phase I operations would occur (approximately 57 percent of entire project floor space);
- 2032, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road (eastern portion of site); and
- 2040[87] when the Phase 1 and Phase 2 of the project are fully operational.

The Project Phase 1 (2018) and Project Phase 1 and Phase 2 Full Build Out (2018) conditions represents hypothetical worst-case conditions in that the project physically could not be built-out in 2018 or, in fact, in any single year due to the size of the project. These conditions have been included in this assessment to correspond to the analysis scenarios examined in the TIA. These conditions also do not account for the fact that vehicle emissions are expected to decline over time as vehicle emission control technologies improve. Thus, consideration of these conditions will significantly overestimate the project's potential air quality impacts. The Proposed Project Development condition represents the logical and realistic development of the project over a period of 16 years as represented by the project applicant. The LST analysis is presented for each condition below.

Pursuant to the SCAQMD's LST methodology, only emissions generated from emission sources located within and along the project boundaries are included in the LST assessment. These emission sources include vehicle travel on the roadway network within and along the borders of the project and emissions from support equipment including forklifts, yard/hostler trucks, and emergency standby electric generators.

The project's emissions then served as input into the AERMOD air dispersion model to derive estimate of the project's localized air quality impacts for each condition. See Appendix D.

Project Phase 1 (2018) LST Assessment

The project's on-site emissions were estimated from the traffic-generated by the various project vehicles as provided by the TIA. Vehicle emissions were assumed to be representative of the calendar year 2018 vehicle fleet. Also included were emissions from various support equipment including forklifts, yard trucks, and standby emergency generators. The localized assessment results for the Project Phase 1 (2018) condition are provided in **Table 33**, *Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts within the Project Boundaries (Without Mitigation),* for receptors located within the project boundaries and in **Table 34**, *Localized*

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[87] In some circumstances, references are made to the year 2035. The year 2035 is the year the construction schedule assumes full completion of project construction. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2040. Similar to the Phase 1 buildout year, and for purposes of this assessment, the project buildout year is referred to as year 2040 to remain consistent with the TIA.

Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Outside of the Project Boundaries (Without Mitigation), for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.[88]

Table 33
Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Within the Project Boundaries (Without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.08	0.18	No
	National 1 hour, ppm,	0.053	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.004	0.02	0.030	No
PM_{10}	24 hour, µg/m³	NA	1.7	1.7	2.5	No
	Annual, µg/m³	NA	0.99	0.99	1.0	No
$PM_{2.5}$	24 hour, µg/m³	NA	0.5	0.5	2.5	No

µg/m³ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts generally occur at the existing residences within the project boundaries.

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[88] In keeping with the SCAQMD recommendations, the highest NO_2 and CO air quality measurements over a 3-year rolling average was used to determine existing background conditions. Historical data for years 2014, 2015, 2016, and 2017 were obtained from SCAQMD's Riverside-Rubidoux air monitoring station.

Table 34
Localized Assessment of Project Phase 1 (2018) Emissions Maximum Impacts Outside of the Project Boundaries (Without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2] Project Local Increase	Air Concentration[2] Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.07	0.18	No
	National 1 hour, ppm	0.053	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	0.8	0.8	2.5	No
	Annual, $\mu g/m^3$	NA	0.4	0.4	1.0	No
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.2	0.2	2.5	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts generally occur at the existing residences along Gilman Springs Road to the east of the project.

As noted from Table 33, the project would not exceed the SCAQMD's localized significance thresholds for any of the pollutants studied at receptors located within the project boundaries. As shown in Table 34, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries.

Project Phase 1 and Phase 2 Full Build Out (2018) LST Assessment

The localized assessment results for the Project Phase 1 and Phase 2 Full Build Out (2018) condition are provided in **Table 35**, *Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Within the Project Boundaries (Without Mitigation),* for receptors located within the project boundaries and in **Table 36**, *Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Outside the Project Boundaries (Without Mitigation),* for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.

Table 35
Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Within the Project Boundaries (Without Mitigation)

			Air Concentration[2]			
Pollutant	**Averaging Time, Units**	**Existing Background[1]**	**Project Local Increase**	**Total (Background + Project)**	**Standard/ Threshold**	**Total Impact Exceeds Threshold**
Carbon Monoxide	1 hour, ppm	2.2	0.02	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.07	0.100	No
	Annual, ppm	0.015	0.005	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	1.6	1.6	2.5	No
	Annual, µg/m^3	NA	1.0	1.0	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.5	0.5	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts generally occur at the existing residences within the project boundaries.

Table 36
Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2018) Emissions Maximum Impacts Outside the Project Boundaries (Without Mitigation)

			Air Concentration[2]			
Pollutant	**Averaging Time, Units**	**Existing Background[1]**	**Project Local Increase**	**Total (Background + Project)**	**Standard/ Threshold**	**Total Impact Exceeds Threshold**
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.01	0.08	0.18	No
	National 1 hour, ppm	0.064	0.01	0.06	0.100	No
	Annual, ppm	0.015	0.002	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	0.8	0.8	2.5	No
	Annual, µg/m^3	NA	0.5	0.5	1.0	No
$PM_{2.5}$	24 hour, µg/m^3	NA	0.2	0.2	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.
[2] Highest impacts generally occur at the existing residences along Gilman Springs Road to the east of the project.

As noted from Table 35, the project would exceed the SCAQMD's significance thresholds for the annual PM_{10} threshold for receptors located within the project's boundaries. As shown in table 36, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries.

It is important to note the Project Phase 1 (2018) and Project Phase 1 and Phase 2 Full Build Out (2018) conditions assume that the project's emissions are at the levels that would occur in 2018. The majority of the project's operational emissions are from on-road mobile sources, more particularly, heavy-duty trucks that contribute a disproportionate amount of emissions compared to passenger vehicles. Emissions from on-road mobile sources are regulated at the State and Federal levels and, therefore, are outside of the control of local agencies such as the City and the SCAQMD. For example, the CARB is working closely with the EPA, engine and vehicle manufacturers, and other interested parties to identify programs that will reduce emissions from heavy-duty diesel vehicles in California. Emission reductions arise from a combination of measures including the use of ultra-low sulfur diesel fuel, new emission standards for large diesel engines, restrictions on diesel engine idling, addition of post-combustion filter and catalyst equipment, and retrofits for business and government diesel truck fleets. The implementation of these emission reductions will also result in reductions of other pollutants such as NO_X, VOC, and CO. As these emission reduction programs are implemented and there is a turnover in the use of older vehicles with newer and cleaner vehicles, the project's operational emissions are expected to decline significantly in the future.

Emission controls on mobile source vehicles already adopted by the CARB particularly dealing with NO_X and PM_{10} controls on heavy duty trucks will reduce truck emissions significantly over time. As an example, in the South Coast Air Basin, the per-mile running exhaust rate of NO_X emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 5.4 grams/mile in 2018 to 2.5 grams/mile by 2025, a decline of 53 percent from 2018 levels and to 2.22 grams/mile in 2040, a decrease of 59 percent from 2018 levels. Similarly, the per-mile running exhaust rate of PM_{10} emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 0.09 gram/mile in 2018 to 0.020 gram/mile in 2025, a decline of 79 percent from 2018 levels and decline to 0.018 grams/mile in 2040, a decline of 81 percent from 2018 levels. Thus, two Project (2018) conditions represent highly conservative estimates, in terms of overestimating of the project's operational impacts.

Proposed Project Development Schedule LST Assessment

The final localized threshold assessment condition examined potential local project impacts considering the proposed construction and build out schedule of the project over a time period of 16 years from the commencement of construction in 2020 to the final build out in 2040. This condition examined three specific time periods:

- The year 2025: the earliest year Phase 1 is assumed to be fully operational. When the projected construction schedule would result in construction activities in the southern of the project adjacent to Alessandro Boulevard and east of the existing residential areas along Merwin Street and when all of Phase I operations would occur (approximately 57 percent of entire project floor space); These residences are the closest sensitive receptors outside of the project's boundaries. According to the conceptual construction schedule provided by the applicant, extensive building construction is expected to take place within the southern portion of the site, south of Alessandro Boulevard, as well on both sides of World Logistics Center Parkway during the completion of Phase 1 construction and the beginning of Phase 2 construction. This scenario also corresponds to the complete operations of Phase 1 and the attendant operational emissions. The project's onsite maximum daily and annual construction emissions were estimated using the CalEEMod land use emission model and the construction equipment inventory and activities provided by the applicant. The project's onsite operational emissions, principally from the project's mobile sources, were derived from detailed traffic volume data provided by the TIA that reflects a completely operational Phase 1. The TIA applied a comprehensive regional transportation model to develop daily and peak hour traffic volumes for 2025 and 2040 from the project's mobile sources. Peak hour and daily project traffic volumes were developed for each year from 2020 to buildout for roadway segments within and along the boundaries of the project using the following assumptions:

  - Project operational traffic volumes were assumed to be zero in 2020, the year that project construction would commence.
  - Traffic volumes for the years 2021 to 2025 (the completion year for Phase 1 operations) were interpolated from 2021 to 2025 by applying the annual project occupancy schedule to the 2025 traffic volumes.
  - Traffic volumes for the years 2025 to buildout were interpolated from the provided traffic volumes in 2025 and 2040 by applying the annual project occupancy schedule.

- The year 2032, when the project's total daily on-site construction and operational emissions would be the highest for several air pollutants and construction and operations would occur along the eastern portion of the project potentially impacting the existing residences across from the project along Gilman Springs Road; and
- The year 2040, which is the long term planning year analyzed in the TIA and representative of the complete build out of the project.

Year 2025

The localized impacts for the short-term construction and operational activities were analyzed using an air dispersion model (EPA AERMOD Model) to simulate the transport and dispersion of project-related emissions through the air. These impacts were then compared to the applicable SCAQMD localized concentration thresholds.

The estimated maximum localized air quality impacts from the construction and operation of the project at Phase 1 buildout are summarized in **Table 37**, *Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts within the Project Boundaries (Without Mitigation),* for locations within the project's boundaries. These maximum impacts were found at the locations of the existing residences within the project boundaries. **Table 38**, *Localized*

Assessment – Construction and Operation, Year 2025 Maximum Impacts Outside the Project Boundaries (Without Mitigation), summarizes the highest air quality impacts for sensitive receptors located outside of the project boundaries. As noted from these two tables, project impacts would exceed the significance thresholds for PM_{10} for locations within the project boundaries, and thus represents a significant impact without mitigation. Project impacts would not exceed localized thresholds for receptors located outside the project boundaries.

Table 37
Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts Within the Project Boundaries (Without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.05	2.2	20	No
	8 hour, ppm	1.6	0.02	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.03	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, µg/m^3	NA	3.3	3.3	2.5[2]	Yes
	Annual, µg/m^3	NA	1.6	1.6	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.8	0.8	2.5[2]	No

µg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$

[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.

[2] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.

Table 38
Localized Assessment – Construction and Operation, Year 2025 Maximum Impacts Outside the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.04	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, μg/m^3	NA	2.1	2.1	2.5[2]	No
	Annual, μg/m^3	NA	0.7	0.7	1.0	No
$PM_{2.5}$	24 hour, μg/m^3	NA	0.5	0.5	2.5[2]	No

μg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.

Year 2032

The year 2032 was selected for the LST Analysis for two principal reasons: 1) the year 2032 corresponds to the year with the highest combined total onsite construction and operational emissions of NO_x and CO and the third or fourth highest onsite emissions of PM_{10} and $PM_{2.5}$ during the time period of 2020 to 2035; and 2) the location of the building construction in 2032 places the construction emissions adjacent to the existing residences located on the eastern side of the project across Gilman Springs Road.

The project's maximum combined impacts from construction and operations during 2032 are shown in **Table 39**, *Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Within the Project Boundaries (Without Mitigation),* for the existing sensitive receptors located within the project boundaries along with the SCAQMD-recommended significance thresholds. **Table 40**, *Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Outside the Project Boundaries (Without Mitigation),* shows the maximum combined impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the east of the project across Gilman Springs Road. As shown in these tables, the project would exceed the SCAQMD's significance thresholds for PM_{10} at locations within the project boundary and outside of the project boundary.

Table 39
Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Within the Project Boundaries (Without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.06	2.2	20	No
	8 hour, ppm	1.6	0.02	1.7	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.03	0.09	0.18	No
	National 1 hour, ppm	0.053	0.02	0.08	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, μg/m^3	NA	3.9	3.9	2.5[3]	Yes
	Annual, μg/m^3	NA	1.7	1.7	1.0	Yes
$PM_{2.5}$	24 hour, μg/m^3	NA	0.9	0.9	2.5[3]	No

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$

[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road

[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5.}$ This provides a very conservative threshold for determining the significance of project impacts.

Table 40
Localized Assessment – Construction and Operation, Year 2032 Maximum Impacts Outside the Project Boundaries (without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.09	2.3	20	No
	8 hour, ppm	1.6	0.03	1.7	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.02	0.08	0.18	No
	National 1 hour, ppm	0.053	0.01	0.07	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, μg/m^3	NA	4.7	4.7	2.5[3]	Yes
	Annual, μg/m^3	NA	1.5	1.5	1.0	Yes
$PM_{2.5}$	24 hour, μg/m^3	NA	0.9	0.9	2.5[3]	No

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$

[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.

[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road

[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.

Year 2040

The year 2040 represents a long-term planning year when both phases of the project would be fully in operation. Operational emissions during 2040 were estimated based on the project's trip generation and project-related travel along the local roadway network within and along the project boundaries. **Table 41**, *Localized Assessment – Project Operation Full Build Out, Year 2040 Maximum Impacts Within the Project Boundaries (Without Mitigation),* shows the maximum localized air quality impacts for 2040 relative to the background air quality levels at the existing sensitive receptors located within the project boundaries. **Table 42**, *Localized Assessment – Project Operation, Year 2040 Maximum Impacts Outside of the Project Boundaries (Without Mitigation),* identifies the highest localized impacts for sensitive receptors located outside of the project boundaries. As shown in Table 41 and Table 42, the project would exceed PM_{10} LSTs for receptors within and outside the project boundary and would, therefore, represent a significant impact without mitigation.

Table 41
Localized Assessment – Project Operation Full Build Out, Year 2040 Maximum Impacts Within the Project Boundaries (Without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.009	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.009	0.07	0.18	No
	National 1 hour, ppm	0.053	0.008	0.06	0.100	No
	Annual, ppm	0.015	0.003	0.02	0.030	No
PM_{10}	24 hour, μg/m^3	NA	2.9	2.9	2.5	Yes
	Annual, μg/m^3	NA	1.8	1.8	1.0	Yes
$PM_{2.5}$	24 hour, μg/m^3	NA	0.8	0.8	2.5	No

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$

[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.

Table 42
Localized Assessment – Project Operation, Year 2040 Maximum Impacts Outside of the Project Boundaries (Without Mitigation)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Increase	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.2	0.01	2.2	20	No
	8 hour, ppm	1.6	0.01	1.6	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.064	0.006	0.07	0.18	No
	National 1 hour, ppm	0.053	0.006	0.06	0.100	No
	Annual, ppm	0.015	0.001	0.02	0.030	No
PM_{10}	24 hour, μg/m^3	NA	2.2	2.2	2.5	No
	Annual, μg/m^3	NA	1.3	1.3	1.0	Yes
$PM_{2.5}$	24 hour, μg/m^3	NA	0.6	0.6	2.5	No

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$

[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data over a 3-year rolling average from 2014-2017.

Summary

The localized significance analysis demonstrates that without mitigation, the project would exceed the localized significance thresholds for PM_{10} for one or more of the LST assessment years (2025, 2032, or 2040) analyzed. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the annual and 24-hour PM_{10} ambient air quality standards.

Toxic Air Contaminants

Acute and Chronic Health Risk Impacts

Acute and chronic health risk impact analyses examine the increased risk for non-cancer health outcomes associated with project-related air pollutant emissions. Since these are non-cancer health impacts, as described below, the impacts are analyzed separately from increased cancer risk associated with air pollution.

The construction and operation of the project would not emit any toxic chemicals in any significant quantity other than vehicle exhaust. While there may be other toxic substances in use on site, risk would be negligible due to intermittent use (i.e., chemicals from periodic maintenance), dispersion of chemicals throughout the project site, and compliance with State and Federal handling regulations.

Exposure to diesel exhaust can have immediate (acute) health effects, such as irritation of the eyes, nose, throat, and lungs, and can cause coughs, headaches, light headedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant[89], the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer REL.

The analysis, however, does derive an estimate of acute non-cancer risks by examining the acute health effects of the various toxic components that comprise diesel and gasoline emissions. There is specific guidance for estimating the acute non-cancer hazards from these toxic components based on chemical profiles established by the CARB which was used in the analysis to determine the project's acute non-cancer hazards.

To determine the project's chronic non-cancer hazard impact, the highest annual diesel PM concentration was determined covering the years 2020 (the commencement of project construction) to 2035 (the full build out of the project). In this regard, the highest annual average diesel PM concentration prior to mitigation determined through air dispersion modeling was 0.2 $\mu g/m^3$, at an existing residence located within the project boundaries. This diesel PM concentration was due to the impacts of diesel PM emissions from the off-road construction

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[89] CARB. 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. https://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf

equipment and operation equipment. This level of diesel PM impact results in a chronic non-cancer HI of 0.04. This HI is less than the SCAQMD's significance level of 1.0, and is, therefore, less than significant.

The estimation of the acute non-cancer HI requires the estimation of the maximum 1-hour impacts of toxic air contaminant (TAC) components in organic gases and PM emissions. For project construction, estimates of the maximum 1-hour ROG and PM exhaust emissions were derived from the project's peak daily construction equipment emissions; for project operation, estimates of the project's maximum 1-hour TOG and PM emissions were derived from the project's peak hour traffic data along the nearly 230 roadway segments contained within the study area and then speciated or broken down into the various TAC components by fuel type, gasoline and diesel, and emission type (i.e., exhaust, evaporative, brake wear and tire wear). The acute non-cancer HI was determined for a worst-case condition that assumed the project would be constructed between 2020 and 2035 and full operation starts in 2040. Based on this information, the maximum acute non-cancer HI found at any receptor within the model domain prior to mitigation was 0.16 during project construction and 0.05 during full project operation, which are less than the SCAQMD's non-cancer HI of 1.0, and, therefore, is less than significant without mitigation.

Cancer Risks

As noted in Section 4, Methodology, the project health risk assessment examined the following condition for impacts to both sensitive/residential and worker receptors:

- Proposed Project Development condition which evaluates the impacts of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2020 and the full build out in 2035.

The mitigation conditions require that all diesel-fueled haul trucks during construction be 2010 or newer, diesel trucks accessing the project during operation be model year 2010 or newer, and that all on-site equipment be Tier 4. To be conservative, the HRA relied on EMFAC2014 to determine the breakdown of vehicle types and fuel types and did not consider the potential reductions in TACs emissions and health risks from increased penetration of zero emission vehicles (ZEVs). The increased penetration of ZEVs is speculative, but likely given rapid technology advancement and more stringent legislation. For example, this HRA assumed that the 2040 heavy duty truck fleet would be made up of 94% diesel, 6% gasoline and 0% electric. According to the WLC Transportation Energy Technical Report, a High EV Penetration scenario, projects that the heavy duty truck fleet would consist of 55.7% diesel, 4.3% gasoline, and 40% electric. Therefore, accounting for the High EV Penetration scenario would result in a greatly reduced health risk impact than what has been calculated in this analysis.

Localized Risk

Cancer Risk for Sensitive/Residential Receptors. For reference, a risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration of diesel

PM over the duration of the exposure. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.[90]

Table 43, *Estimated Cancer Risks, 30-Year Exposure for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), Without Mitigation,* presents the estimated cancer risks for the 30-year exposure scenario that starts from the beginning of project construction (Construction + Operation HRA), which uses updated construction and operational emissions values. The results are provided separately for project construction diesel PM emissions, operational diesel PM emissions, and the total project diesel PM emissions prior to the application of emission mitigation. **Table 44**, *Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, Without Mitigation,* shows the estimated cancer risk for the 30-year exposure scenario that starts from the beginning of project full operation in 2040 (Operational HRA), which used the 2040 emission levels to represent the emissions for 2040 to 2069.

On the basis of the results shown in Table 43, the project would exceed the SCAQMD's cancer risk significance threshold of 10 in a million prior to the application of mitigation and would represent a significant impact. Construction impacts contribute the greatest proportion of the total impact presented in Table 43. Table 44 shows that during full project operation, the estimated maximum cancer risk anywhere in the model domain is less than the 10 in a million threshold, impact will therefore be less than significant without mitigation. Overall, without mitigation, the project is expected to have a significant impact mainly due to diesel PM emissions from construction activities.

Figure 23, *Incremental Project Cancer Risk – No Mitigation (Construction and Operation),* and **Figure 24,** *Incremental Project Cancer Risk – No Mitigation (30 Years of Full Operation),* show the incremental cancer risks for the project location. The figures show the results prior to the application of mitigation.

Estimates of Cancer Risk for School Site Receptors. Prior to the application of the mitigation, the maximum cancer risk is at Ridgecrest Elementary School and would be less than 2 in a million. Therefore, impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.

Estimates of Cancer Risk for Worker Receptors. Estimates of worker exposures were prepared based on the assumption of a 25-year exposure duration for 250 days per year and 8 hours per day as described in the methodology section above. Note that the OEHHA early-in-life age factors do not apply to worker receptors. The highest worker cancer risk estimates prior to the application of mitigation is less than 5 in one million for the construction + operational scenario and 0.6 in one million for the full buildout operational scenario, both at one onsite location. Therefore, cancer

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[90] Definition of a 1 in a million cancer risk from the US EPA, Technology Transfer Network Air Toxics, Glossary of Key Terms, Website: www.epa.gov/ttn/atw/natamain/gloss1.html.

risk for worker receptors anywhere in the revised HRA's study area is less than the 10 in one million significance threshold. Projected impacts are less than significant without mitigation.

Estimates of Cancer Burden. The cancer burden calculation provides an estimate of the increased number of cancer cases as a result of exposures to TAC emissions. The total cancer burden is the product of the number of persons in a population area (such as a census tract) and the estimated individual risk from TACs in that population area and then summed over all population areas. The SCAQMD indicates that the burden calculation includes those population units having an incremental cancer risk of 1 in a million or greater.

Cancer risks were estimated at the geographical center (centroid) of census tracts that are within the study area of the HRA. For the 30-year exposure duration with the inclusion of the "Current OEHHA Guidance", the cancer burden is estimated to be 0.09 out of a population of about 63,090 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.

Table 43
Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), Without Mitigation

Receptor Location	Incremental Increase in Cancer Risk During Project Construction (risk/million)	Incremental Increase in Cancer Risk During Project Operation (risk/million)	Total Incremental Increase in Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	54.1	3.9	57.5	10	Yes
Maximum risk within the project boundaries(3)	54.1	3.9	57.5	10	Yes
Maximum risk at any area outside of the project boundaries(4)	14.9	1.1	16.0	10	Yes

Notes:

(1) Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2020 to 2049 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the updated construction emission estimate, TIA, EMFAC2014 emission model, SCAQMD HRA guidance and "Current OEHHA Guidance" for estimating cancer risks

(2) Location is at the existing residences within the boundaries of the project

(3) Location is at the existing residence located at the 13241 World Logistic Parkway (formerly Theodore Street)

(4) Location is adjacent to the midwestern boundary of the project.

Table 44
Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, Without Mitigation

Receptor Location	Total Incremental Increase in Cancer Risk[(1)] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[(2)]	7.9	10	No
Maximum risk within the project boundaries[(3)]	7.9	10	No
Maximum risk at any area outside of the project boundaries[(4)]	3.4	10	No
Maximum risk along SR 60 freeway[(5)]	3.4	10	No

Notes:

[(1)] Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2040 to 2069 (includes diesel PM emissions from full project operation); cancer risk estimates derived from the TIA, EMFAC2014 emission model, SCAQMD HRA guidance and "Current OEHHA Guidance" for estimating cancer risks

[(2)] Location is at the existing residences within the boundaries of the project.

[(3)] Location is at the existing residence located at 30220 Dracaea Avenue.

[(4)] Location is to the northwest of the project boundary, on the west side of Redlands Boulevard.

[(5)] Location is south of SR 60 freeway, same as the location in footnote (4), which to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

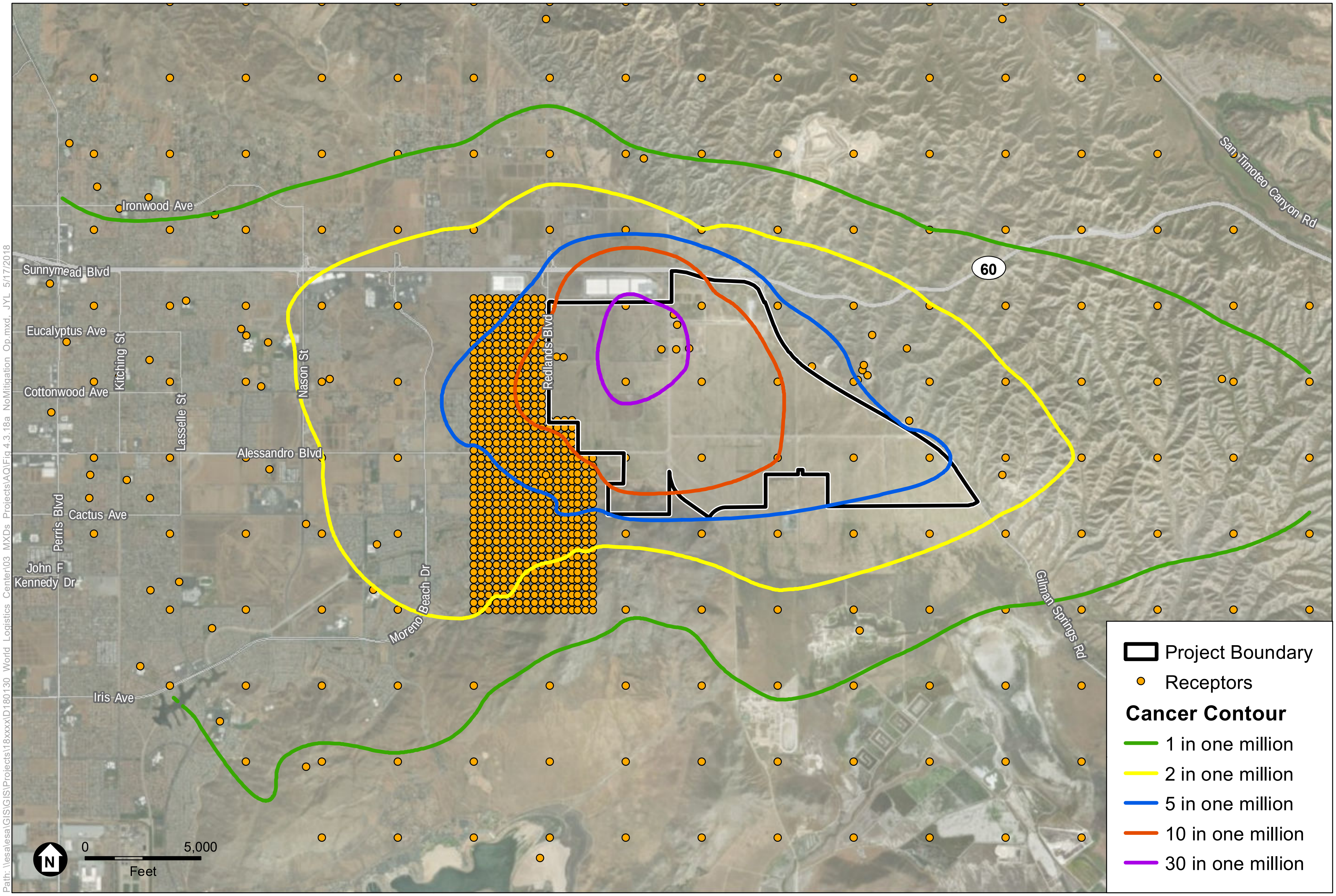

Path: \\esa\esa\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\AQ\Fig 4.3.18a NoMitigation Op.mxd, JYL 5/17/2018

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 23
Incremental Project Cancer Risk – No Mitigation
(Construction and Operation)

ESA

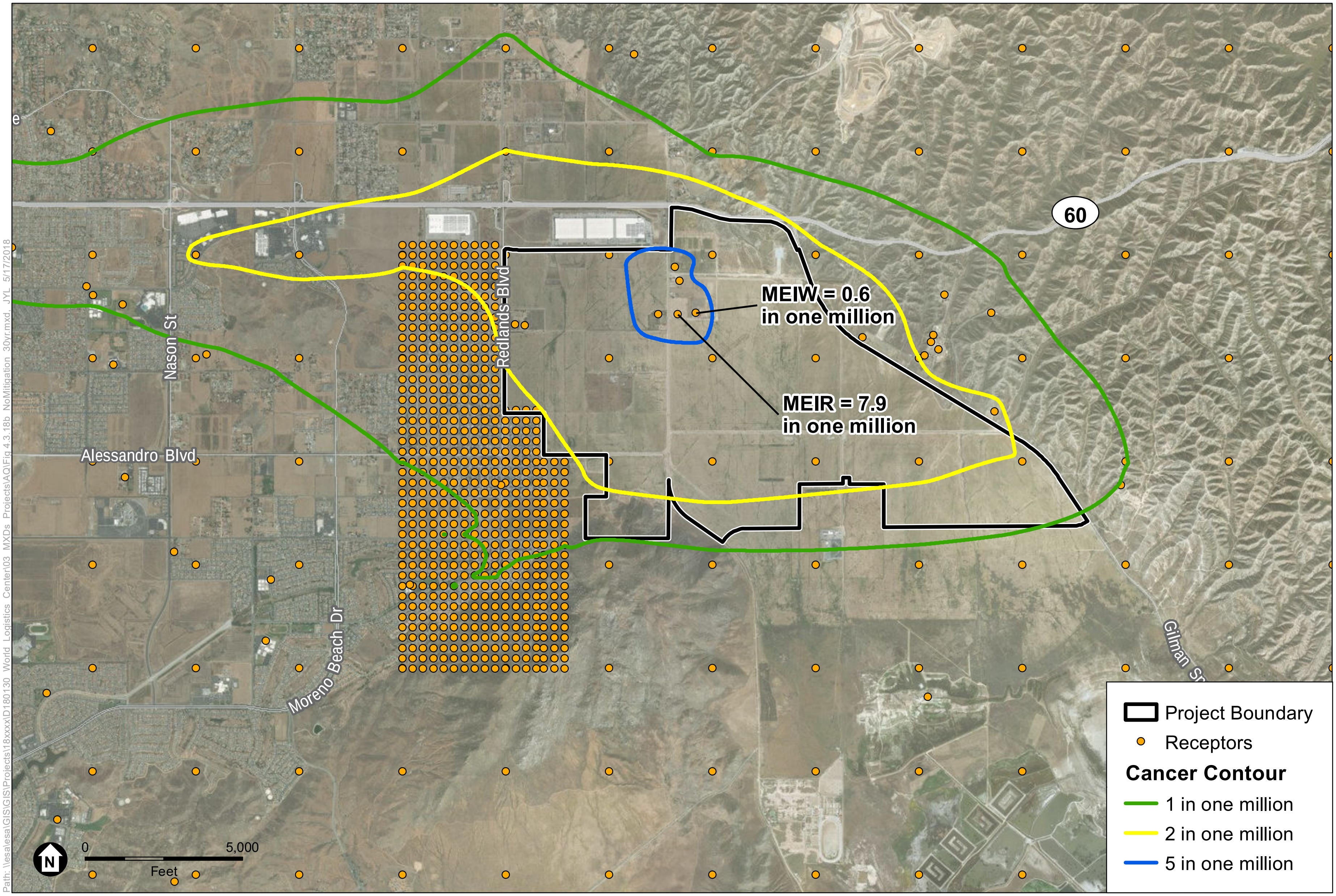

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 24

Incremental Project Cancer Risk – No Mitigation
(30 Years of Full Operation)

ESA

Regional Freeway Network Risk

As mentioned in the methodology section, the HRA study area was focused on the most extensive emissions from project related activities. Because project activity is highest on-site, the project's emissions and associated health impact decreases with an increase in distance from the project site, as demonstrated by the cancer risk contours in Figures 23 and 24. The HRA study area included 18 miles of freeway segments along SR-60 that extend from north of the project boundary 8.6 miles toward west (toward Port of Long Beach) and 9 miles toward east (toward Palm Springs), and the HRA receptor grids include receptors along the SR-60 freeway. Based on the results shown in Figure 23 for the construction plus operation scenario, without mitigation, only a small segment (approximately one mile) along SR-60 that is immediately north of the project boundary will potentially have an incremental cancer risk exceeding the SCAQMD 10 in one million threshold; at an approximate distance of 2.5 miles away from the project boundary, the potential incremental cancer risk along SR-60 would be less than 2 in one million. Based on results shown in Figure 24 for 30 years of the full project buildout scenario, without mitigation, no segment along SR-60 would exceed the 10 in one million cancer risk threshold; at a distance of less than two miles from the project boundary, the incremental cancer risk is less than 2 in one million. Because project-generated vehicle trips and associated impacts decrease with an increase in distance from the project site, the project impact along the regional freeway network that is outside the HRA's study area will be less than those presented in Figures 23 and 24. Therefore, the project health impact along the regional freeway network will be less than significant with mitigation.

Of note, results in Figure24 is based on project construction overlapping with project operations (partial project operation since project is not built out yet) while Figure 24 is based on full project operation. The difference between the two sets of results indicate that the incremental cancer risk in Figure 23 is mainly driven by the DPM emissions from onsite construction equipment. Therefore, the impact would be localized near the project site and will disappear once construction completes.

Morbidity and Mortality (For Informational Purposes Only). There is no established threshold or approved methodology for calculating morbidity and mortality. For purposes of this assessment, morbidity is a term for describing how an external effect such as air pollution would exacerbate an existing illness and other health effect. Mortality is another term for death. The following represents the result of the calculations for long-term mortality and various morbidity health endpoints due to diesel PM for the project prior to the application of mitigation. The locations for the morbidity/mortality estimations were at the location with the highest combined annual diesel PM concentration and census tract population such that the change in diesel PM would affect the greatest number of people. A cumulative total of each mortality/morbidity health endpoint was also calculated that totals the number of added cases of an identified health endpoint at each census tract location within the entire region potentially impacted by the project emissions.

The estimates of mortality and morbidity impacts are based on the application of concentration-response functions (C-R functions) that relate the change in the number of adverse health effect incidences in a population to a change in air pollutant concentration experienced by that population. However, such estimations are subject to great uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, form of C-R functions, baseline rates of mortality and morbidity that are entered into the C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO2, CO, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions.

Exposure to the Project's diesel PM emissions prior to mitigation would result in an increase in mortality of approximately 0.00018 additional cases per year at the location where the project has its maximum impact from diesel PM emissions or 0.002 additional cases over all of the census tracts contained in the modeling domain.

Table 45, *Estimates of Various Morbidity Health Endpoints from Project Emissions Without Mitigation (For Informational Purposes Only),* summarizes the estimates of the various morbidity health endpoints due to the emissions from the project without mitigation. As shown in this table, the project would not result in a single new added case of a quantified health endpoint either at either the location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment (approximately 3,500 square miles, potentially impacted by the project).

Table 45
Estimates of Various Morbidity Health Endpoints from Project Emissions Without Mitigation (For Informational Purposes Only)

Health Endpoint	Maximum Added Occurrences (cases/year)	Cumulative Occurrences over the Entire Modeling Region (cases/year)
Long-term Mortality (Ages 30+)	0.00011	0.0001
Chronic Illness: Chronic Bronchitis (Age 27+)	0.00053	0.005
Hospitalization: Chronic Obstructive Pulmonary Disease Age 65+)	0.000001	0.000008
Hospitalization: Pneumonia (Age 65+)	0.000001	0.00001
Hospitalization: Cardiovascular (Age 65+)	0.000002	0.00002
Hospitalization: Asthma (Age 0-64)	0.0000005	0.000005
Hospitalization: Asthma-related Emergency Visits (Ages 0-64)	0.000002	0.00001

Carbon Monoxide Hotspots

Vehicular trips associated with the development of the project could contribute to congestion at intersections and along roadway segments in the project vicinity resulting in potential local CO "hot spot" impacts. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle travel speeds and idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, etc.). High CO concentrations are typically associated with roadways or intersections operating at unacceptable levels of service or with very high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

Carbon monoxide (CO) "hot spot" thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecast regional traffic do not exceed State or Federal standards for CO at any traffic intersection affected by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the State CO 1-hour standard of 20 ppm, State CO 8-hour standard of 9 ppm, Federal CO 1-hour standard of 35 ppm, or Federal CO 8-hour standard of 9 ppm.

A CO hot spot is a localized concentration of CO that is above the State or Federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections where the concentrations would be the greatest.

This analysis follows guidelines recommended by the CO Protocol[91] and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The LOS for intersections is determined in the TIA. The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: (1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or (2) the project decreases LOS at an intersection from C to D. A decrease in LOS, i.e., from C to D, means that there is more traffic and more delay at the intersection.

For this project analysis, the intersections with the highest traffic volumes and the LOS E or F before mitigation were identified for 2025 using information from the table in the TIA "Intersection LOS under 2025 Plus Phase 1 Conditions." The intersections with the greatest LOS before mitigation were also identified for 2040 using information from the table in the TIA "Intersection LOS under 2040 Plus Build-out Conditions."

The CO concentrations were estimated using the CALINE4 model using 2025 and 2040 emission factors. The emission factors are for "all" vehicle classes and are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project mitigation reductions from requiring that all diesel trucks are model year 2010 or newer.

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[91] University of California, Davis. 1997. Prepared for California Department of Transportation. 1996. Transportation Project-Level Carbon Monoxide Protocol. http://www.dot.ca.gov/env/air/co-protocol.html

Table 46, *Carbon Monoxide Concentrations at Intersections, 2025,* shows estimated CO concentrations at year 2025 plus project traffic conditions. The estimated CO concentrations at year 2040 are shown in **Table 47**, *Carbon Monoxide Concentrations at Intersections, 2040*. As shown in the tables, the estimated 1-hour and 8-hour average CO concentrations from project-generated and cumulative traffic plus the background concentrations are below the State and Federal standards. No CO hot spots are anticipated because of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact. No mitigation is required.

Table 46
Carbon Monoxide Concentrations at Intersections, 2025

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Alessandro Boulevard and Chicago Avenue	PM	5.2	3.5	No
Alessandro Boulevard and Canyon Crest Drive	PM	4.8	3.2	No
Alessandro Boulevard and Mission Grove Parkway	PM	4.3	2.9	No
Arlington Avenue and Victoria Avenue	PM	4.3	2.9	No
Alessandro Boulevard and Sycamore Canyon Boulevard	AM	4.3	2.9	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Table 47
Carbon Monoxide Concentrations at Intersections, 2040

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Alessandro Boulevard and Chicago Avenue	PM	4.5	3.0	No
Alessandro Boulevard and Canyon Crest Drive	PM	4.6	3.1	No
Alessandro Boulevard and Sycamore Canyon Boulevard	PM	4.2	2.8	No
Ramona Expressway and Sanderson Avenue	PM	4.7	3.1	No
Alessandro Boulevard and Mission Grove Parkway	PM	4.2	2.8	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

5.5 Odors

Create objectionable odors affecting a substantial number of people (AIR-5)

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain land uses typically associated with emitting objectionable odors.

SCAQMD Rule 402 dictates that air pollutants discharged from any source shall not cause injury, nuisance, or annoyance to the health, safety, or comfort of the public. With the exception of short-term construction-related odors (e.g., equipment exhaust, paint, and asphalt odors), the proposed uses that would be developed on the proposed site do not include uses that are generally considered to generate offensive odors (e.g., agricultural uses, wastewater treatment plants, or landfills). While the application of architectural coatings and installation of asphalt may generate odors, these odors are temporary and not likely to be noticeable beyond the project boundaries. SCAQMD Rules 1108 and 1113 identify standards regarding the application of asphalt and architectural coatings, respectively.

SCAQMD Rule 1108 sets limitations on ROG (reactive organic gases), which are similar to and for the purposes of this EIR equivalent to and therefore interchangeable with volatile organic compounds (VOC) content in asphalt. This rule is applicable to any person who supplies, sells, offers for sale, or manufactures any asphalt materials for use in the Basin. Rule 1113 of the SCAQMD deals with the selling and application of architectural coatings. Rule 1113 is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use in the Basin that is intended to be applied to buildings, pavements, or curbs. This rule is also applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of VOC emissions allowed for all types of architectural coatings, along with a time table for tightening the emissions standards in the future. Compliance with Rule 1113 means that architectural coatings used during construction would have VOC emissions that comply with these limits.

The SCAQMD indicates that the number of overall complaints has been declining. Between 2003 and 2007, odor complaints made up 50 to 55 percent of the total nuisance complaints. Over the past decade, odor complaints from paint and coating operations have decreased from 27 to 7 percent and odor complaints from refuse collection stations have increased from 9 to 34 percent.

Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Diesel exhaust would also be emitted during operation of the project from the long-haul trucks that would visit the project site. However, the concentrations would not be at a level to result in a negative odor response at nearby sensitive or worker receptors. In addition, modern emission control systems on diesel vehicles since 2007 virtually eliminate diesel's characteristic odor.

During blow-down maintenance activities, natural gas odors will be present around the SDG&E Compressor Plant located on the project site. When this portion of the WLC Specific Plan is developed, these odors will occasionally be detectable from the industrial warehouse properties adjacent to the SDG&E facility. These odors will be infrequent and odorized natural gas will not be present in high concentrations. Therefore, potential odor impacts from on-site natural gas operations are considered to be less than significant and do not require mitigation.

Adherence to applicable provisions of these rules is standard for all development within the Basin. In addition, conditions for the design of waste storage areas on the proposed site would be established through the permit process to ensure enclosures are appropriately designed and maintained to prevent the proliferation of odors. Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on-site uses would be adequately managed. Therefore, impacts associated with this issue would be less than significant and no mitigation is required.

5.6 Greenhouse Gas Emissions

Generate GHG Emissions, either directly or indirectly, that may have a significant impact on the environment (GHG-1)

Future development that could occur within the project site could generate GHG emissions during both construction and operation activities. The following activities are associated with the project and could directly or indirectly contribute to the generation of GHG emissions:

- **Removal of Vegetation (Land Use Change) and Sequestration**: Carbon sequestration is the process of capture and storage of carbon dioxide; trees, vegetation, and soil store carbon in their tissues and wood. The net removal of vegetation for construction from land use change results in a loss of the carbon sequestration in plants. However, planting additional vegetation (sequestration) would result in additional carbon sequestration and would lower the carbon footprint of the project.

- **Construction Activities**: During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Leaks from installation of refrigeration equipment for air conditioning may occur.

- **Gas, Electric, and Water Use**: Natural gas use results in the emissions of CH_4 (the major component of natural gas) and CO_2 from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. Conveying water to the project and treating wastewater also uses electricity.

- **Solid Waste Disposal**: Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is approximately 21 times more potent than CO_2. Landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.

- **Motor Vehicle Use**: Transportation associated with the project would result in GHG emissions from the combustion of fossil fuels and the use of electricity in daily automobile and truck trips.

- **On-site Equipment**: During operation of the project, there would be on-site equipment operating, including yard trucks, emergency generators, and forklifts.

Construction Emissions

The project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment, as shown in **Table 48**, *Construction Greenhouse Gas Emissions (Without Mitigation)*. The GHG emissions are from all phases of construction. The SCAQMD recommends that construction emissions be averaged over a 30-year period.

Table 48
Construction Greenhouse Gas Emissions (Without Mitigation)

Year	Annual Emissions (mt CO_2e)
2020	11,783
2021	11,447
2022	15,056
2023	11,036
2024	20,704
2025	12,384
2026	14,241
2027	11,982
2028	14,057
2029	12,930
2030	15,605
2031	11,894
2032	17,188
2033	15,872
2034	11,839
2035	14,082
Total	222,098
Averaged over 30 years	**7,403**
Capped: Fuel-Based Emission Sources Averaged over 30 years	**7,334**
Uncapped: Refrigerant Installation and Construction Waste Averaged over 30 years	**34**

mt CO_2e = metric tons of carbon dioxide equivalents.
Note: The SCAQMD recommends that construction emissions be averaged over a 30-year period.
Sources include onsite construction equipment, worker trips, haul trips, vendor trips, refrigerant installation for the air conditioning in the offices, construction waste, and water use. Values presented in the table may not equal the sum due to rounding.

Operational Emissions

Total Emissions, Worst-case Scenario

Operational or long-term emissions occur over the life of the project. Operational emissions for a worst-case buildout condition are shown in **Table 49**, *Project Operational GHG Emissions (Worst-Case 2018 Analysis at Buildout)*. This is a worst-case analysis because it assumes that the entire project would be build-out in 2018. The emissions are presented by greenhouse gas (in tons per year), which was also converted to metric tons of carbon dioxide equivalents (mt CO2e). The vehicle emissions in the table represent travel within the South Coast Air Basin. The emissions do not take into account mitigation measures to reduce emissions, such as the use of model year 2010 and later diesel trucks on the project site. As shown in the table, the project's uncapped emissions are over the SCAQMD's significance threshold of 10,000 mt CO2e per year. Therefore, emissions are potentially significant.

The analysis presented in Table 49*,* also represents a worst-case analysis because the emission factors do not take into account implementation of California's Mobile Source Strategy and the full reductions expected from newer trucks and cars as a result of the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. The emissions are estimated using emission factors from EMFAC2014, CARB's emission factor model, for the year 2018.

Table 49
Project Operational GHG Emissions (Worst-Case 2018 Analysis at Buildout)

	Individual Emissions (tons/year)					Greenhouse Gas Emissions (mt CO_2e)
Source	**Carbon Dioxide**	**Methane**	**Nitrous Oxide**	**Hydrofluoro carbons**	**Black Carbon**	
AB 32/SB 32 Capped Emissions						
Mobile (net)	285,523	3.17	1.56	0.00	6.27	263,840
Other	81,599	71.50	185.20	0.00	0.70	126,199
Total	367,122	74.67	186.77	0.00	6.97	390,039
Uncapped Emissions	**9,804**	**504.67**	**0.00**	**1.95**	**0.00**	**22,974**
					Threshold	**10,000**
					Significant?	**Yes**

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
The "other" emissions include the non-mobile capped emissions as presented in Table 49 below.

Total Project Emissions

Table 50, *Project GHG Emissions at Buildout by GHG (Unmitigated),* shows the unmitigated project emissions at buildout, including estimates of the project's mobile emissions estimates for future years based on EMFAC emission factors for the actual year assessed, which take into account the Pavley regulations, the LCFS, and California's Advanced Clean Car Program. Emissions are shown by individual GHG (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and black carbon) and totaled using the common unit of metric tons CO2e based on the floabl warming potential of each gas. Emissions estimates for electricity and natural gas do not account for Project Design Features that improve building energy efficiency and maximize the use of on-site renewable energy.

The table also shows the emissions separated into capped and uncapped sectors, as defined by California's cap-and-trade program. California's cap-and-trade program is enforceable and meets the requirements of AB 32 and SB 32. The program began on January 1, 2012, placing GHG emissions limits on capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MT CO2e per year), and enforcing compliance obligations beginning with 2013 emissions. Vehicle fuels were placed under the cap in 2015, and with the passage of AB 398, the program was extended through 2030. The Cap-and-Trade Program allocates emissions permits across covered entities in each sector.

As shown in Table 50, the majority of the project's GHG emissions are from sources that are subject to the requirements of the Cap-and-Trade Program. AB 32/SB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold.

The total emissions estimates for the project, summarized in **Table 51**, *Project GHG Emissions (Year by Year Without Mitigation),* include both construction and operations emissions, and do not account for Project Design Features that improve building energy efficiency and maximize the use of on-site renewable energy; nor do they account for the project's mitigation measures.

Table 51 shows a summary of AB 32/SB 32 capped and uncapped project emissions for each year between 2020 and buildout. As shown in the table, the uncapped emissions in the year 2026 and after are over the SCAQMD's significance threshold of 10,000 mt CO2e per year. Therefore, emissions are potentially significant, and mitigation is required.

Table 50
Project GHG Emissions at Buildout by GHG (Unmitigated)

	Emissions (tons per year)					
Source	**Carbon Dioxide**	**Methane**	**Nitrous Oxide**	**HFCs**	**Black Carbon**	**GHG Emissions (mt CO_2e)**
AB 32/SB 32 Capped Emissions						
On-Road Vehicles	*231,254*	*1.05*	*1.70*	*0.00*	*0.63*	*210,708*
Electricity[1]	*60,348*	*62.33*	*158.06*	*0.00*	*0.00*	*54,947*
Construction[2]	*7,550*	*1.36*	*<0.01*	*0.00*	*0.66*	*7,334*
Yard trucks	*5,631*	*0.00*	*0.00*	*0.00*	*0.00*	*5,109*
Electricity-convey water	*2,664*	*5.43*	*0.15*	*0.00*	*0.00*	*2,580*
Natural gas[1]	*4,942*	*2.37*	*26.99*	*0.00*	*0.12*	*4,511*
Generator	*267*	*0.01*	*0.00*	*0.00*	*0.04*	*267*
Forklifts	*197*	*0.00*	*0.00*	*0.00*	*0.01*	*183*
Total AB 32/SB 32 Capped	***312,853***	***72.55***	***186.90***	***0.00***	***1.33***	***285,639***
Significant?	*--*	*--*	*--*	*--*	*--*	*No*
Uncapped Emissions						
Waste	8,540	504.67	0.00	0.00	0.00	19,193
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Refrigerants	0	0.00	0.00	1.89	0.00	2,572
Construction[2]	115	0.00	0.00	0.06	0.00	166
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total Uncapped	**9,804**	**504.67**	**0.00**	**1.95**	**0.00**	**22,974**
Threshold	--	--	--	--	--	10,000
Significant impact?	--	--	--	--	--	Yes

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons [HFC] – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072. <0.01 = less than 0.01

1 – Electricity and natural gas emissions estimates are based on minimum compliance with 2016 Title 24 building standards.

2 – Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment and water use, refrigerants, and solid waste, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction emissions are amortized over 30 years.

Table 51a
Project GHG Emissions (Year by Year without Mitigation)

Source	Emissions (mt CO_2e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,688	29,376	48,960	68,544	104,914	126,417	137,770
Electricity[1]	0	4,696	9,393	15,654	21,916	33,545	37,895	40,192
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	133	267	445	623	953	1,283	1,458
Natural gas[1]	0	381	763	1,271	1,779	2,723	3,087	3,278
Generator	0	14	28	46	64	99	133	151
Forklifts	0	9	19	32	44	68	91	104
Total AB 32 Capped Emissions	11,669	31,520	55,289	78,184	114,676	156,342	185,550	197,724
Uncapped Emissions								
Waste	0	992	1,985	3,308	4,632	7,089	9,547	10,844
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction refrigerant and waste[2]	114	114	140	140	231	231	198	132
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**114**	**1,293**	**2,499**	**4,072**	**5,735**	**8,656**	**11,543**	**13,019**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates are based on minimum compliance with 2016 Title 24 building standard; includes electricity use by on-site EV chargers.

2 – Capped construction emission are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years.

Table 51b
Project GHG Emissions (Year by Year without Mitigation)

Source	Emissions (mt CO_2e/year)								
	2028	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Buildout**
AB 32/SB 32 Capped Emissions									
On-road vehicles	144,593	151,416	161,152	172,192	183,233	194,274	201,510	208,747	210,708
Electricity[1]	41,572	42,952	44,922	47,155	49,389	51,622	53,086	54,550	54,947
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,562	1,667	1,817	1,986	2,156	2,326	2,437	2,548	2,580
Natural gas[1]	3,394	3,509	3,673	3,860	4,046	4,233	4,355	4,478	4,510
Generator	162	173	188	206	223	241	252	264	267
Forklifts	111	118	129	141	153	165	173	181	183
Total AB 32 Capped Emissions	208,448	215,943	230,949	241,233	260,523	273,238	278,378	289,842	285,638
Uncapped Emissions									
Waste	11,624	12,404	13,517	14,779	16,040	17,302	18,129	18,956	19,193
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerant and waste[2]	132	174	193	193	193	138	138	64	166
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**13,946**	**14,915**	**16,256**	**17,756**	**19,255**	**20,700**	**21,683**	**22,591**	**22,974**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates are based on minimum compliance with 2016 Title 24 building standard; includes electricity use by on-site EV chargers.

2 – Capped construction emission are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years.

5.7 Greenhouse Gas Plan, Policy, Regulation Consistency

Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs (GHG-2)

Federal and State Reduction Strategies

Table 52, *Project Compliance with Federal/State Greenhouse Gas Reduction Strategies,* evaluates the consistency of the project with the various Federal and State energy conservation strategies and other regulations related to GHG emissions.

Table 52
Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Mandatory Codes	
California Green Building Code. The Cal Green Code (Title 24, Part 11) prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business as Usual Scenario (California Building Code). The mandatory measures that are applicable to nonresidential projects include site selection, energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures.	**Consistent.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code.
Energy Efficiency Measures	
Energy Efficiency. Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Consistent with Mitigation Incorporated.** The project will comply with current California Building Code (CBC) requirements for building construction. **Mitigation Measures MM-GHG-5** and **MM-GHG-6** would increase energy efficiency. **Mitigation Measure MM-GHG-7** would require that the project exceed Title 24 (2008 version) by 10 percent or comply with the current version. The WLC PDFs go further by committing the project to energy conservation measures that will enable the project to exceed the more rigorous 2016 Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout.
Renewables Portfolio Standard. Achieve a 50 percent renewable energy mix statewide by 2050. Qualifying renewable energy sources under the RPS include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not Applicable.** The project is not part of the State's power generation grid, but would install solar photovoltaic panels on project roofs pursuant to **Mitigation Measure MM-GHG-7**. The solar would reduce the project's electricity related emissions by approximately 5.0 percent. In addition, Moreno Valley Electric Utility is subject to the Renewable Portfolio Standard.

Table 52
Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Water Conservation and Efficiency Measures	
Water Use Efficiency. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The CalGreen Code, including the California Plumbing Code (Part 5), promotes water conservation. Title 20 includes appliance and fixture efficiency standards that promote water conservation.	**Consistent with Mitigation Incorporated.** The project will be required to adhere to the non-residential mandatory measures as required by the CalGreen Code. The Specific Plan outlines a number of water conservation measures, and **Mitigation Measures MM-GHG-2** through **MM-GHG-4** will help reduce potential water use even further.
Solid Waste Reduction Measures	
Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste. AB 341 mandates commercial recycling and sets a goal that 75 percent of the state's solid waste generated be reduced, recycled, or composted by 2020. AB 1826 adds requirements regarding mandatory commercial organics recycling. SB 1383 requires methane emissions reduction from landfills and sets statewide disposal targets to reduce landfilling of organic waste by 50 percent from the 2014 level by 2020, and 75 percent from the 2014 level by 2025.	**Consistent with Mitigation Incorporated.** Data available from the California Integrated Waste Management Board (CIWMB) indicate that the City of Moreno Valley has not achieved the 50 percent diversion rate. The project will comply with **MM-GHG-1** to help increase solid waste diversion, composting, and recycling. The measure would also require 50 percent diversion of construction waste prior to 2020 and 75 percent diversion starting in 2020.
Transportation and Motor Vehicle Measures	
Pavley Regulations and Vehicle Fuel Efficiency Standards. AB 1493 (Pavley) and the Advanced Clean Car (ACC) program required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004 and expanded with the ACC program in 2012.	**Consistent.** The project does not involve the manufacture of vehicles or production of vehicle fuels. However, vehicles that are purchased and used within the project site would comply with any vehicle and fuel standards that the CARB adopts or has adopted. In addition, the project would require that all diesel trucks be 2010 or newer (**Mitigation Measure MM-AQ-6**) and would be built to support the charging of future electric-powered vehicles anticipated by the Mobile Source Strategy. The Project design also includes supporting infrastructure to accommodate future EV populations consistent with targets in the Mobile Source Strategy.
Light-Duty Vehicle Efficiency Measures. Implement additional measures that could reduce light-duty vehicle GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency.	
Heavy- and Medium-Duty Fuel and Engine Efficiency Measures. Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased engine efficiency of vehicles.	
Mobile Source Strategy. This 2016 plan includes a target of 4.2 million zero emission vehicles (ZEVs) by 2030, and GHG reductions from medium-duty and heavy-duty vehicles, and transit. It also includes reductions in GHGs from medium-duty and heavy-duty vehicles via the Phase 2 Medium and Heavy-Duty GHG Standards.	

Table 52
Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Consistency
Low Carbon Fuel Standard. The CARB identified this measure as a Discrete Early Action Measure in the 2008 Scoping Plan. As included in the Mobile Source Strategy, this measure would reduce the carbon intensity of California's transportation fuels by at least 18 percent by 2030.	
Sustainable Freight Action Plan. The 2016 plan directs the State to establish targets to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight transport system.	
Regional Transportation-Related Greenhouse Gas Targets. Develop regional GHG emissions reduction targets for passenger vehicles, as required by SB 375. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.	**Not Applicable.** Specific regional emission targets for transportation emissions do not directly apply to the project; regional GHG reduction target development is outside the scope of this project. The project will comply with any plans developed by the City of Moreno Valley.
Measures to Reduce High Global Warming Potential (GWP) Gases	
Short-lived Climate Pollutant Strategy. SB 1383 (2016) requires the CARB to approve and implement Short-Lived Climate Pollutant strategy to reduce high GWP GHGs to achieve a statewide reduction in methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030.	**Not Applicable.** New products used or serviced on the project site (after implementation of the reduction of GHG gases) would comply with future CARB rules and regulations, as would vehicles (with their refrigerants used in air conditioning systems) visiting the site.

AB = Assembly Bill CARB = California Air Resources Board GHG = greenhouse gas

With implementation of applicable strategies/measures project design features, and mitigation measures, the project's contribution to cumulative GHG emissions would be reduced. In order to ensure that the project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32 and SB 32, the Mitigation Measures listed in the above table shall be implemented.

The project will comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting. The warehouse buildings will be built in compliance with the California Building Code to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices. In addition, Mitigation Measure MM-GHG-5 requires that the project will exceed the Title 24 energy conservation standards (2008 version) by 10 percent or comply with the current version, while the WLC Sustainability Plan goes even further by committing the project to energy conservation measures that will enable the project to exceed the more rigorous 2016 Title 24 requirements by approximately 17 percent at Phase 1 and 16 percent at full buildout.[92]

CARB Scoping Plan and the California Cap and Trade Program

AB 32 focuses on reducing GHG emissions to 1990 levels by the year 2020, while SB 32 has a target of 40 percent below 1990 levels by 2030. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which contains a variety of strategies to reduce the State's emissions. The First Update to the Scoping Plan was approved in 2014 and the Second Update was approved in 2017 following the passage of SB 32. As described in Section 2.3, AB 398 extended California's cap-and-trade program through 2030 and the program is adopted as a core strategy in the 2017 Scoping Plan Update for meeting the state's GHG reduction targets for 2020 and 2030. The 2017 Scoping Plan Update incorporates all of the state's GHG reduction strategies included in Table 52. **Table 53**, *Analysis of Additional Measures in the 2017 Scoping Plan Update*, considers the strategies in the 2017 Scoping Plan Update that are not included in Table 52, indicating that all are either consistent with or not applicable to the project; therefore, the project does not conflict with the Scoping Plan.

Table 53
Analysis of Additional Measures in the 2017 Scoping Plan Update

Scoping Plan Reduction Measure	Consistency Analysis
1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable.** California's cap-and-trade system covers products or services (such as electricity) and the cost of the cap-and-trade system would be transferred to the consumers. Large industrial uses are the most likely source of participants for this program, and it is not likely individual logistics warehousing will be an active participant in this program. Under AB 32 and SB 32, emissions from natural gas use, transportation fuel use, and electricity generation are covered under the cap-and-trade program and subject to the program's emission reduction requirements.
16. *Carbon Sequestration in Natural and Working Lands.* Natural and working lands – including forests and agricultural lands – are a key sector in the State's climate change strategy. Storing carbon in trees, other vegetation, soils, and aquatic sediment is an effective way to remove carbon dioxide from the atmosphere. The 2017 Scoping Plan Update describes policies and programs that prioritize protection and enhancement of California's landscapes, and commits the State to finalizing a carbon sequestration and GHG emissions reduction goal for natural and working lands by September 2018.	**Not Applicable.** No forested lands exist on site. Approximately 2,200 acres of the 2,610-acre Specific Plan area is currently dry farmed, mainly with winter wheat. However, the state's Natural and Working Lands Climate Change Implementation Plan has not been adopted, and there is no protection currently in place to preserve the site for agriculture. Further, the conversion of the existing agricultural lands to urban uses is supported by the City's General Plan policies, and the entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City.

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[92] WSP. World Logistics Center Comparison of Renewable Energy Technologies. 2018

Moreno Valley General Plan Policies

The project must also be evaluated against the City's General Plan policies that relate to greenhouse gas emissions, as shown in **Table 54**, *Consistency with City General Plan Air Quality Policies*. This analysis shows that the project is consistent with the applicable General Plan objectives and policies, or the particular objective or policy is not applicable to the proposed WLC project.

Table 54
Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Objective 6.6. Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** The project is providing employment opportunities to Moreno Valley and the surrounding area.
Policy 6.6.1. Provide sites for new neighborhood commercial facilities within close proximity to the residential areas they serve.	**Not Applicable.** The project does not propose the development of neighborhood commercial facilities or residential dwellings.
Policy 6.6.2. Provide multifamily residential development sites in close proximity to neighborhood commercial centers in order to encourage pedestrian instead of vehicular travel.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Policy 6.6.3. Locate neighborhood parks in close proximity to the appropriate concentration of residents in order to encourage pedestrian and bicycle travel to local recreation areas.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Objective 6.7. Reduce mobile and stationary source air pollutant emissions.	**Consistent.** The project would be implementing feasible Mitigation Measures to reduce mobile and stationary emissions (**Mitigation Measures MM-AQ-6, MM-AQ-7, MM-AQ-8,** and **MM-AQ-10**).
Policy 6.7.1. Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.	**Not Applicable.** This measure is beyond the scope of the project; the City will continue to work with the SCAQMD in regional planning efforts.
Policy 6.7.2. Encourage the financing and construction of park-and-ride facilities.	**Not Applicable.** The project consists of industrial uses; a park and ride on the project would not be feasible.
Policy 6.7.3. Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.	**Not Applicable.** No express mass transit facilities are designated on the project site or planned on the project site; therefore, this measure is beyond the scope of the project.
Policy 6.7.6. Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.	**Consistent.** The project will comply with Title 24 requirements.

Policies 6.7.4 and 6.7.5 are discussed in the air quality EIR section, Section 4.3).
Source of objective and policy: Moreno Valley General Plan (2006).

Moreno Valley Climate Action Strategy

Table 55, *Consistency with City Climate Action Strategy,* evaluates the consistency of the project with the policies of the City's Climate Action Strategy approved in October 2012. As shown below, the project is consistent with the requirements of the Strategy for non-residential development with implementation of project design features and mitigation measures.

Table 55
Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.	**Not Applicable.** A Transit Priority Project is one that has at least 50 percent residential use based on area, at least 20 units per acre and is within a ½ mile of a major transit stop or High Quality Transit Corridor. A High Quality Transit Corridor is defined as one with 15-minute frequencies during peak commute hours. The project does not include a residential component and is not along a High Quality Transit Corridor nor are there any High Quality Transit Corridors or major transit stops in the vicinity of the project area. As a result, the strategy is not applicable.
R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.	**Consistent** with implementation of **Mitigation Measure MM-AQ-10.**
R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.	**Not Applicable.** This measure applies to residential projects.
R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.	**Not Applicable.** This measure applies to residential projects.
R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards.	**Consistent** with **Mitigation Measure MM-GHG-7.**
R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.	**Not Applicable.** This refers to updating building and zoning codes and does not apply to this warehousing development plan.
R3-L2: Heat Island Plan. Develop measures that address “heat islands.” Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.	**Consistent.** The Specific Plan indicates that vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).
R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.	**Consistent.** California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. The Specific Plan also contains a variety of water conservation features. **Mitigation Measures MM-GHG-2, MM-GHG-3,** and **MM-GHG-4** also provide water reduction measures.
R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.	**Consistent.** Tenants and owners within the WLC site will provide water conservation information from EMWD and other sources to workers on a regular basis.

Table 55
Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.	**Consistent.** The project would incorporate standard City waste reduction features and **Mitigation Measure MM-GHG1** (has a target to reduce waste by 75 percent by 2020).
C11: Require that developer recycle existing street material for use as base for new streets.	**Consistent.** Project will implement **Mitigation Measure MM-GHG-1** where feasible.

Executive Order S-3-05

The SCAQMD developed its thresholds based on consistency with California Executive Order S-3-05. As shown in Section 5.6 (GHG-1), the project's uncapped GHG emissions would not exceed the SCAQMD's industrial threshold. Therefore, the project would not conflict with Executive Order S-3-05. This impact is less than significant.

SECTION 6

Mitigation Measures

6.1 Air Quality

Compliance with AQMP

Applicable SCAQMD regulatory requirements are restated in the mitigation measures identified below. These measures shall be incorporated in all project plans, specifications, and contract documents. Implementation of the project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures, emissions associated with the project cannot be reduced below the applicable thresholds. Construction and operational emissions would be reduced to the extent feasible through implementation of mitigation measures described below. Construction emissions would be reduced through implementation of mitigation measures that require the use of Tier 4 construction equipment, reduced idling time, use of non-diesel equipment where feasible, low-VOC paints and cleaning solvents, and dust suppression measures. Operational emissions would be reduced through implementation of mitigation measures that require reduced vehicle idling, use of non-diesel on-site equipment, meeting or exceeding 2010 engine emission standards for all diesel trucks entering the site, electric vehicle charging stations, and prohibition of refrigerated warehouses. In the absence of further feasible mitigation to reduce the project's emission of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from exhaust from construction equipment will remain significant and unavoidable.

Regional Emissions

Construction

The following measures are recommended to reduce the level of emissions of criteria pollutants:

MM-AIR-1 Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley.

a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.

b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day.

c) Construction equipment shall be properly maintained according to manufacturer specifications.

d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour.

e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used

f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.

g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles.

h) Construction on-road haul trucks shall be model year 2010 or newer if diesel-fueled.

i) Information on ridesharing programs shall be made available to construction employees.

j) During construction, lunch options shall be provided onsite.

k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards.

l) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.

MM-AIR-2 Prior to issuance of any grading permits, a Construction Staging Plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using World Logistics Center Parkway (formerly Theodore Street), Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Construction Staging Plan shall be retained on site in the construction trailer.

MM-AIR-3 The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC):

a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per liter or lower for both interior and exterior surfaces shall be used.

b) Leftover paint shall be taken to a designated hazardous waste center.

c) Paint containers shall be closed when not in use

d) Low VOC cleaning solvents shall be used to clean paint application equipment.

e) Paint and solvent-laden rags shall be kept in sealed containers.

MM-AIR-4 No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).

As shown in **Table 56,** *Mitigated Short-Term Regional Construction Emissions*, construction emissions are still significant after mitigation, with the exception of $PM_{2.5}$. The reduction in $PM_{2.5}$ emissions is by a reduction in exhaust from the application of Tier 4 off-road equipment. PM_{10} emissions are still significant because emissions in 2024 exceed the threshold; however, emissions of PM_{10} during all other years of construction are less than significant. Although mitigation reduces emissions of all pollutants during construction, potential air quality impacts resulting from exhaust from construction equipment and fugitive dust will remain significant and unavoidable.

Table 56
Mitigated Short-Term Regional Construction Emissions

Year	Maximum Daily Pollutant Emissions (lbs/day)				
	VOC	NO_X	CO*	PM_{10}	$PM_{2.5}$
2020	149	178	452	102	15
2021	151	177	493	101	15
2022	165	200	741	136	19
2023	149	142	488	100	14
2024	167	235	1135	182	25
2025	150	140	537	108	15
2026	155	170	718	147	20
2027	151	143	567	117	16
2028	157	173	803	143	19
2029	154	157	675	128	17
2030	160	160	808	131	18
2031	151	121	490	99	13
2032	160	162	803	134	18
2033	158	152	723	128	17
2034	151	121	489	99	13
2035	155	133	636	119	16
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	No

* There is an error in the way CalEEMod estimates the effect of a higher tier (such as Tier 3 or 4) on mitigated CO; therefore, the mitigated CO values are greater than unmitigated values.

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output in Appendix A; the maximum emissions would be approximately 2 pounds per day after mitigation, substantially under the threshold of 150 pounds/day.
- Mitigation Measure MM-AIR-1(a) was estimated by CalEEMod using its mitigation module by assuming Tier 4 off-road equipment for equipment greater than 50 horsepower.
- Mitigation Measure MM-AIR-1(b) restricts equipment from operating more than 10 hours per day in the on position, which is estimated in CalEEMod in both the unmitigated and mitigated estimates.
- Mitigation Measures MM-AQ-1(c) through (e), MM-AQ-1(g) through (m), MM-AIR2, and MM-AIR-4 are not quantified.
- Mitigation Measure MM-AQ-1(f) is assumed in the unmitigated and mitigated estimates (Rule 403).
- Mitigation Measure MM-AQ-1(i) requires that construction haul trucks be 2007 model year or greater. CalEEMod does not have a mitigation measure embedded in the model to quantify the reduction from this measure. Therefore, this reduction quantification was not provided.
- Mitigation Measure MM-AQ-3 reduces VOC emissions during painting and is calculated as demonstrated in the spreadsheets in Appendix A.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter

Operations

The following mitigation measures are required to reduce emissions of criteria pollutants during project operations.

MM-AIR-5 Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.

MM-AIR-6 The following shall be implemented as indicated:

Prior to Issuance of a Certificate of Occupancy

a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations, and the prohibition of parking in residential areas.

b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations.

c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.

On an Ongoing Basis

d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.

e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.

f) Tenants shall be encouraged to become a SmartWay Partner.

g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers.

h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.

i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center.

j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet.

k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.

l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.

m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel.

n) Truck and vehicle idling shall be limited to three (3) minutes.

MM-AIR-7 Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1,000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure MM-AIR-8.

MM-AIR-8 Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure MM-AIR-7.

MM-AIR-9 Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the Revised Sections of the FEIR. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).

MM-AIR-10 The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

a) All tenants shall be required to participate in Riverside County's Rideshare Program.

b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.

c) Class II bike lanes shall be incorporated into the design for all project streets.

d) The project shall incorporate pedestrian pathways between on-site uses.

e) Site design and building placement shall provide pedestrian connections between internal and external facilities.

f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.

g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 200 parking spaces or more shall be designed and constructed so that at least six percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Sizing of conduit and service capacity at the time of construction shall be sufficient to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater.

h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code. Each building shall provide a minimum of two shower and changing facilities for employees.

i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.

j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

Mitigated operational emissions for full buildout are shown in **Table 57**, *Operational Regional Air Pollutant Emissions (Mitigated)*. Note that the emissions are based on conservative assumptions and does not subtract existing emissions that would cease to exist (i.e., assumes all emissions are net new). As shown in Table 57, even with implementation of the mitigation measures, emissions are still significant.

Table 57
Operational Regional Air Pollutant Emissions (Mitigated)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Buildout	Vehicles: Local and trucks	97	802	773	945	256
	Area	311	<1	4	<1	<1
	Onsite Equipment	8	91	107	<1	<1
	Total Project Emissions	**416**	**893**	**883**	**946**	**257**
	Significance Threshold	55	55	550	150	55
	Significant Impact?	Yes	Yes	Yes	Yes	Yes

- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.
- Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout would be less than 23 pounds per day.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
On-site equipment emissions include emissions from yard trucks, forklifts, and stationary generators.

During overlap of construction and operation, VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ would continue to exceed SCAQMD significance thresholds after mitigation, as shown in **Table 58**, *Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day) – Mitigated*. Therefore, impacts are significant and unavoidable. The emissions do not take into account the existing onsite agricultural emissions.

Table 58
Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day) – Mitigated

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2020	149	178	452	4	3
2021	176	261	542	48	16
2022	214	367	839	93	29
2023	231	420	651	150	44
2024	281	625	1363	211	62
2025	324	736	887	319	90
2026	379	827	1176	447	125
2027	400	831	1083	514	143
2028	422	881	1352	556	155
2029	434	884	1259	596	165
2030	463	914	1441	654	181
2031	479	906	1179	718	197
2032	513	978	1548	785	216
2033	536	999	1523	851	233
2034	546	988	1326	893	244
2035	566	1020	1510	936	256
Buildout	416	893	883	946	257
Max Daily Emissions	566	1,020	1,548	946	257
SCAQMD Threshold	55	55	550	150	55
Significant?	Yes	Yes	Yes	Yes	Yes

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day.
- Emissions do not include existing onsite emissions.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter

As discussed above, the TIA provides VMT attributable to the project based on the net effect the project has on regional travel as well as project VMT without consideration of a net effect. For informational purposes only, **Table 59,** *Operational Regional Air Pollutant Emissions (Mitigated) – No Net Effect (For Informational Purposes Only,* and **Table 60,** *Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day) (Mitigated) – No Net Effect (For Informational Purposes Only),* includes mitigated operational mobile emissions without consideration of a net effect in regional traffic volumes.

Table 59
Operational Regional Air Pollutant Emissions (Mitigated) – No Net Effect (For Informational Purposes Only)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Buildout	Vehicles: Local and trucks	177	1,185	1,361	1,205	338
	Area	311	<1	4	<1	<1
	Onsite Equipment	8	91	107	<1	<1
	Total Project Emissions	496	1,276	1,472	1,206	339

- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.
- Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout would be less than 23 pounds per day.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter

On-site equipment emissions include emissions from yard trucks, forklifts, and stationary generators.

Table 60
Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, Pounds per Day) (Mitigated) – No Net Effect (For Informational Purposes Only)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2020	149	178	452	4	3
2021	172	205	527	21	9
2022	207	257	808	39	14
2023	218	236	600	61	19
2024	264	367	1291	86	28
2025	298	342	777	127	38
2026	344	394	982	147	44
2027	362	377	844	157	47
2028	381	415	1087	164	49
2029	391	405	967	170	50
2030	416	418	1111	179	53
2031	428	390	805	188	54
2032	458	442	1131	199	58
2033	477	443	1064	208	61
2034	484	419	838	214	62
2035	501	438	993	221	64
Buildout	506	467	1019	224	65

- Year 2020 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day.
- Emissions do not include existing onsite emissions.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter

Substantial Pollutant Concentrations

Localized Emissions

With implementation of Mitigation Measures MM-AIR-5 through MM-AIR-9, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual). In addition, the project would continue to exceed the localized significance thresholds at offsite receptors for PM_{10} (24-

hour and annual). **Table 61**, *Comparison of Local Project Air Quality Impacts Before and After Mitigation,* compares the project impacts before and after mitigation for those assessment conditions and pollutants that indicated a significant impact before mitigation.

Table 61
Comparison of Local Project Air Quality Impacts Before and After Mitigation

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation[(1)]	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?
Project Phase 1 and Phase 2 Full Build Out (2018)	Inside Project Boundaries	PM_{10}, Annual, μg/m^3	1.02	0.97	1.0	No
	Outside Project Boundaries	PM_{10}, Annual, μg/m^3	1.2	1.2	1.0	Yes
Project Development Schedule Year 2025	Inside Project Boundaries	PM_{10} 24-hour, μg/m^3	3.3	3.2	2.5	Yes
		PM_{10}, Annual, μg/m^3	1.6	1.6	1.0	Yes
	Outside Project Boundaries	PM_{10} 24-hour, μg/m^3	3.5	3.4	2.5	Yes
		PM_{10}, Annual, μg/m^3	1.7	1.7	1.0	Yes
Project Development Schedule Year 2032	Inside Project Boundaries	PM_{10} 24-hour, μg/m^3	3.9	3.9	2.5	Yes
		PM_{10} Annual, μg/m^3	1.7	1.7	1.0	Yes
	Outside Project Boundaries	PM_{10} 24-hour, μg/m^3	4.7	4.6	2.5	Yes
		PM_{10} Annual, μg/m^3	1.5	1.4	1.0	Yes
Project Development Schedule Year 2040 Build Out	Inside Project Boundaries	PM_{10} 24 hour, μg/m^3	2.9	2.9	2.5	Yes
		PM_{10} Annual, μg/m^3	1.8	1.8	1.0	Yes
	Outside Project Boundaries	PM_{10} 24 hour, μg/m^3	5.2	5.2	2.5	Yes
		PM_{10} Annual, μg/m^3	1.3	1.3	1.0	Yes

Notes: μg/m^3 = micrograms per cubic meter (a unit of concentration); ppm = parts per million (a unit of concentration)

(1) Total Impacts include the incremental impacts from the project plus the pollutant background; see Tables 31 to 40 for the total impacts for the various assessment conditions prior to the application of mitigation.

Cancer Risks

Mitigation Measures MM-AIR-1, MM-AIR-2, and MM-AIR-4 through MM-AIR-9 to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project. Additionally, the following mitigation measure is required to ensure that significant health risk does not occur at on-site sensitive receptors.

MM-AIR-11 The Applicant retains ownership of the residence located at 13241 World Logistics Center Parkway (formerly Theodore Street). Prior to the issuance of grading permits, the Applicant shall arrange for MERV-13 air filters to be installed at this residence.

Through mitigation requirements, new technology diesel engines are required for the WLC project. The mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4.

Mitigation Measures MM-AIR-1 and MM-AIR-2 require 2010-compliant trucks for operation and Tier 4 equipment for construction, both of which rely on diesel particulate filters. These vehicles reduce emissions by 90% when compared to 2006 vehicles and by 99% when compared to uncontrolled diesel engines. Recent emissions testing by CARB revealed that these diesel engines are cleaner than originally estimated. These findings, which are reflected in the CARB emissions factor model EMFAC2014, are 70% cleaner than previously estimated.

Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from equipment equipped with this technology is referred to as New Technology Diesel Engines (NTDE).

Mitigation Measure MM-AIR-7 encourages the use of alternative fueled vehicles on the project site. As discussed above, a High EV Penetration scenario assumes that up to 40% of the project’s heavy duty trucks would be electric-powered; however, no reduction in emissions has been taken.

As discussed above, the HRA has been prepared consistent with “Current OEHHA Guidance”. Although air quality significance thresholds have been established for outdoor environments, a significant portion of human exposure to air pollutants occurs indoors where people spend more than 90 percent of their time.[93] One approach to reduce exposure is the installation of high efficiency panel filters inside the HVAC system. Air filters and other air-cleaning devices are designed to remove pollutants from indoor air. Some are installed in the ductwork of a home’s

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[93] U.S. EPA. 2011. Exposure Factors Handbook. Chapter 16. Activity Factors, Table 16-111. https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=236252

central heating, ventilating, and air-conditioning (HVAC) system to clean the air in the entire house. In studies of the effectiveness of air filtration systems in classrooms and by the EPA in residences,[94, 95]the combination of an HVAC system with a high performance panel filter reduced indoor levels of fine particulate matter, $PM_{2.5}$ and smaller particles by 70 to 90 percent.

The use of a filtration system consisting of the application of filters with a rating of ASHRSE Standard 52.2 MERV-13, as required by Mitigation MM-AIR-11, is sufficient to capture a significant portion of the diesel particulate matter. However, the filtration system would not remove the smallest of particles (less than approximately 0.01 to 0.2 micron in diameter). MERV-13 filters would, however, reduce particles in the range of 0.3 to 1 micron by up to 75 percent and particles larger than 1 micron by 90 percent.[96] Based on measurement studies of the size distribution of the collected DPM, approximately 0.1 to 10 percent of the total DPM mass includes particles between 0.01 and 0.2 micrometer in diameter, particles between 0.3 and 1 micrometer in diameter comprise 70 percent of the total DPM mass, and particles above 1 micrometer comprise 5 to 20 percent of the total DPM mass.[97]

Since the cancer risk from DPM is calculated from the mass of DPM emitted, the quantity of DPM reduced by the action of air filters would thus equate to a reduction in cancer risk. The application of MERV-13 air filter filtration system would result in a reduction of DPM exposures by approximately 70 percent.

DPM size:	0.01 to 0.2 µm	0.3 to 1 µm	Greater than 1 µm
Calculation:	10% mass x 0% reduction	70% mass x 75% reduction	20% mass x 90% reduction
Reduction:	0% reduction	52.5% reduction	18% reduction

Attributing an adjustment for time that windows might be open, residents would be outside, or for different compounds that result in the cancer risk would reduce the efficacy of the filters by about 20 percent, bringing the total cancer risk reduction from the filters to 50 percent.

The use of the filters would bring the OEHHA-calculated risk below the SCAQMD threshold eliminating any possible risk from the project on any onsite or offsite receptors within the study area.

In summary, the implementation of all the recommended mitigation measures, including the requirement to use 2010 diesel engine emissions standards, Tier 4 construction equipment, and installation of air filters at the identified on-site residence will reduce the OEHHA-calculated cancer risk to below 10 in one million at all sensitive receptors.

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[94] SCAQMD. Air Filtration in Schools. http://www.aqmd.gov/docs/default-source/technology-research/clean-fuels-program/clean-fuels-program-advisory-group---february-3-2010/air-filtration-in-schools.pdf

[95] U.S. EPA. Publications about Indoor Air Quality. https://www.epa.gov/indoor-air-quality-iaq/publications-about-indoor-air-quality#residential-air-cleaners

[96] CARB. 2013. Rulemaking to Consider Proposed Amendments to the Air Designations for State Ambient Air Quality Standards, 2013. https://www.arb.ca.gov/regact/2012/area12/area12.htm

[97] Dieselnet.com. Diesel Exhaust Particle Size, 2002. https://www.dieselnet.com/tech/dpm_size.php

Table 62, *Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), With Mitigation,* and **Figure 25**, *Incremental Project Cancer Risk – With Mitigation (Construction and Operation),* shows the cancer risks for the construction and operation HRA after application of mitigation. As noted, the cancer risks are substantially lower after mitigation, and the SCAQMD cancer risk significance threshold would not be exceeded at any of the onsite or offsite receptors within the study area. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM associated with the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when "Current OEHHA Guidance" assigns large age sensitivity factors to the first few years of the 30-year exposure duration. **Table 63**, *Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, With Mitigation,* and **Figure 26**, *Incremental Project Cancer Risk – With Mitigation (30 Years of Full Operation),* shows the mitigated cancer risk from the 30-year full project buildout.

Finally, note further that before mitigation, the cancer risk burden is estimated at 0.09 and is less than the SCAQMD cancer burden significance threshold of 0.5. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold.

Table 62
Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Construction (Construction and Operation HRA), With Mitigation

Receptor Location	Incremental Increase in Cancer Risk During Project Construction (risk/million)	Incremental Increase in Cancer Risk During Project Operation (risk/million)	Total Incremental Increase in Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	8.3	1.4	9.7	10	No
Existing residences within the project boundaries					
13241 World Logistics Center Pkwy	8.3	1.4	9.7	10	No
13100 World Logistics Center Pkwy	4.4	2.2	6.6	10	No
13200 World Logistics Center Pkwy	4.3	1.7	6.0	10	No
30220 Dracaea Ave	4.9	2.7	7.6	10	No
29080 Dracaea Ave	2.5	0.9	3.3	10	No
29140 Dracaea Ave	2.9	1.0	3.8	10	No
Maximum risk at any area outside of the project boundaries[3]	2.0	0.6	2.6	10	No

Notes:

* Pursuant to Mitigation Measure MM-AQ-11, the Applicant shall install MERV-13 air filters at the residence located at 13241 World Logistics Center Parkway (formerly Theodore Avenue).

[1] Cancer risk calculation conservatively assumed all receptors modeled are residential receptors. 30-year average exposures from 2020 to 2049 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and “Current OEHHA Guidance” for estimating cancer risks

[2] Location is at existing residences within the boundaries of the project

[3] Location is adjacent to the midwestern boundary of the project

Table 63
Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors Starting from Beginning of Project Full Operation in 2040, With Mitigation

Receptor Location	Total Incremental Increase in Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	7.1	10	No
Maximum risk within the project boundaries(3)	7.1	10	No
Maximum risk at any area outside of the project boundaries(4)	3.2	10	No
Maximum risk along SR60 freeway outside of the project boundaries(5)	3.2	10	No

Notes:

(1) Conservatively assumed all receptors in the studied domain are residential receptors and will have 30-year average exposures from 2040 to 2069 (includes diesel PM emissions from full project operation); cancer risk estimates derived from the TIA, EMFAC2014 emission model, SCAQMD HRA guidance and "Current OEHHA Guidance" for estimating cancer risks

(2) Location is at the existing residences within the boundaries of the project.

(3) Location is at the existing residence located at 30220 Dracaea Avenue.

(4) Location is to the northwest of the project boundary, on the west side of Redlands Boulevard.

(5) Location is south of SR 60 freeway, same as the location in footnote (4), which to the northwest of the project boundary, on the west side of Redlands Boulevard and north of Fir Avenue.

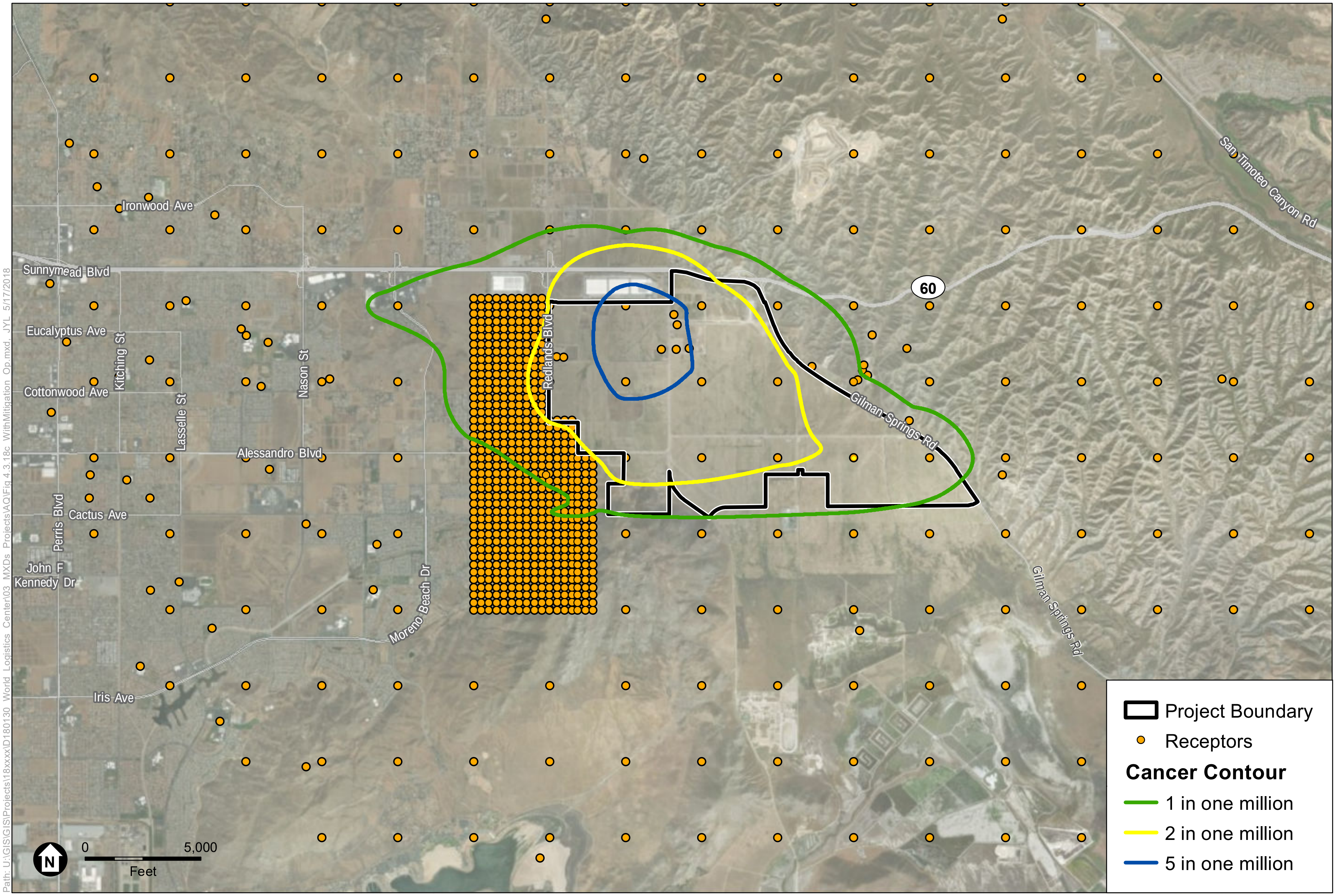

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\AQ\Fig 4.3.18c WithMitigation Op.mxd, JYL 5/17/2018

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 25

Incremental Project Cancer Risk – With Mitigation (Construction and Operation)

ESA

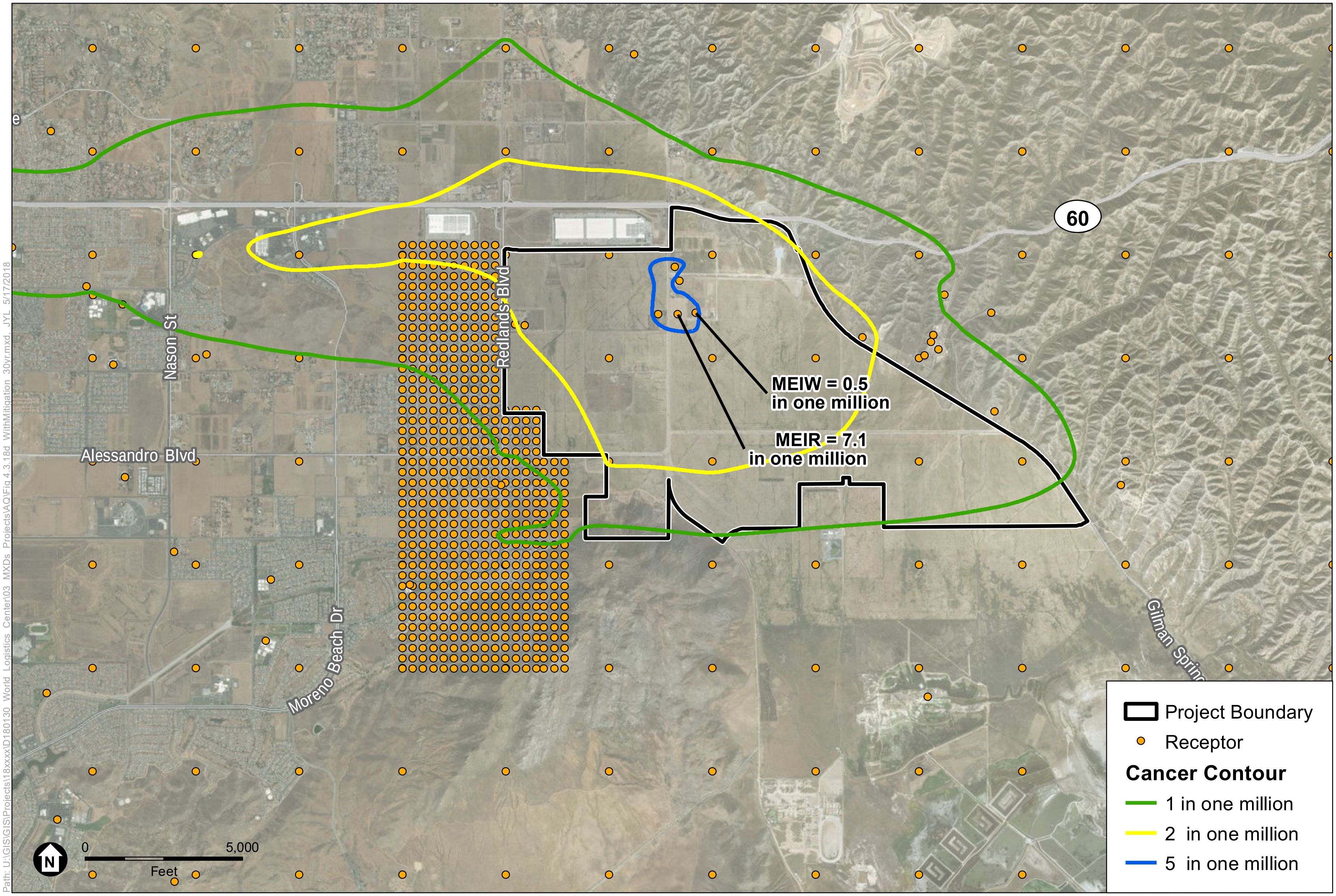

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 26
Incremental Project Cancer Risk – With Mitigation
(30 Years of Full Operation)

ESA

6.2 Greenhouse Gas Emissions

Greenhouse Gas Emissions

Implementation of MM-AIR-6, MM-AIR-7, MM-AIR-8, MM-AIR-10, and MM-GHG-1 would result in reductions in greenhouse gas emissions and ensure consistency with applicable plans, policies, and regulations. Additional mitigation includes the following:

MM-GHG-1 The World Logistics Center project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development:

a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.

c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department’s Design Guidelines for Recyclable Collection and Loading Areas.

d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan.

e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.

f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.

g) The property owner shall advise all tenants of the availability of community recycling and composting services.

h) Existing onsite street material shall be recycled for new project streets to the extent feasible.

MM-GHG-2 Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following:

- Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan;
- Use of vacuums, sweepers, and other “dry” cleaning equipment to reduce the use of water for wash down of exterior areas;
- Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors);
- Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest;
- Use of recirculation systems in any outdoor water features, fountains, etc.;
- Use of low-flow sprinkler heads in irrigation system;
- Provide information to the public in conspicuous places regarding outdoor water conservation; and
- Use of reclaimed water for irrigation if it becomes available.

MM-GHG-3 All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development/Public Works. These design features shall include, but not be limited to the following:

- Instantaneous (flash) or solar water heaters;

- Automatic on and off water facets;
- Water-efficient appliances;
- Low-flow fittings, fixtures and equipment;
- Use of high efficiency toilets (1.28 gallons per flush [gpf] or less);
- Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);
- Use of self-closing valves for drinking fountains;
- Infrared sensors on drinking fountains, sinks, toilets and urinals;
- Low-flow showerheads;
- Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances;
- Cooling tower recirculating system where applicable;
- Provide information to the public in conspicuous places regarding indoor water conservation; and
- Use of reclaimed water for wash down if it becomes available.

MM-GHG-4 Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.

MM-GHG-5 Each application for a building permit shall include energy calculations to demonstrate compliance with the California Energy Efficiency Standards (Title 24, Part 6). Plans shall show the following:

- Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning.
- Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment.
- Energy-efficient appliances that achieve the 2016 California Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows.

MM-GHG-6 Prior to the issuance of any building permits within the World Logistics Center site, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards, for each new structure. Plans may include but are not necessarily limited to implementing the following as appropriate:

- High-efficiency air-conditioning with electronic management system (computer) control.
- Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.
- Use of Energy Star ® exit lighting or exit signage.

MM-GHG-7 Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

- Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building or up to the limit allowed by Moreno Valley Utility’s restriction on distributed solar PV connecting to their grid, whichever is greater;
- Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24’s energy saving requirements for the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and
- Require the equivalent of “Leadership in Energy and Environmental Design Certified” for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.

The WLCSP incorporates site and building designs that emphasize conservation of water and energy, which in turn help reduce greenhouse gas emissions (WLCSP September 2014, Section 1.3.2, Green Building-Sustainable Development). The current proposed Project Design Features go substantially beyond that previous commitment with energy conservation measures that exceed minimal compliance with current (2016) Title 24 requirements by about 17 percent at Phase 1 and 16 percent at full buildout, as outlined in the WLC Sustainable Energy Plan.[98] **Table 64**, *Greenhouse Gas Emissions Reduction Analysis,* evaluates to what degree various design features of the project will reduce potential GHG emissions.

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[98] WSP. World Logistics Center Comparison of Renewable Energy Technologies. 2018

Table 65, *GHG Reductions at Buildout,* shows the GHG emissions and mitigation reductions after implementation of Project Design Features and mitigation at buildout only. **Table 66**, *Project GHG Emissions (Year by Year With Mitigation),* shows the mitigated GHG emissions for each year between 2020 and buildout.

The tables and **Figure 27**, *Uncapped Project GHG Emissions at Buildout*, indicate that after implementation of mitigation, the uncapped emissions would not exceed the significance threshold. GHG emissions are less than significant after mitigation.

Figure 27: Uncapped Project GHG Emissions at Buildout

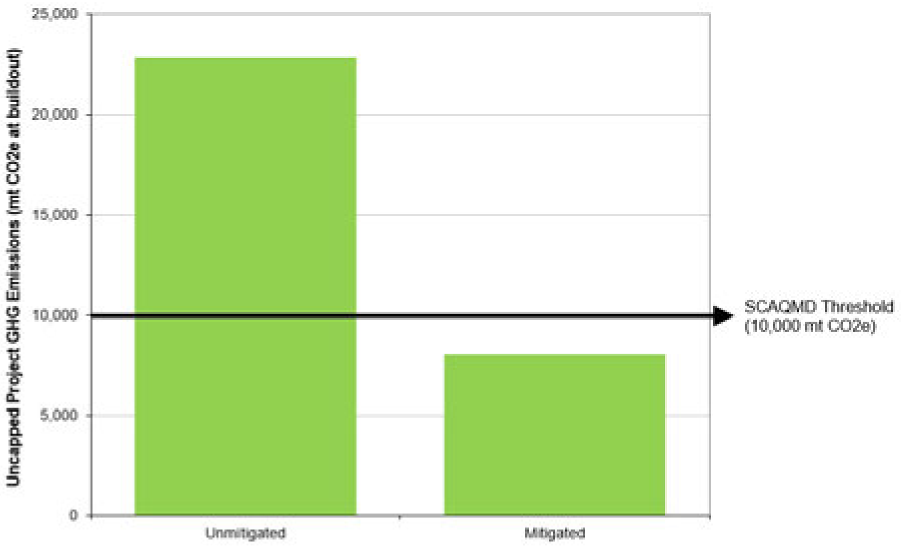

Table 64
Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
Construction Fuel	**Mitigation Measure MM-AQ-1** would require that construction equipment be Tier 4.	This reduction was estimated in CalEEMod. Tier 4 construction equipment would have fewer PM2.5 emissions, and therefore black carbon emissions.
Construction Waste	Regulation in the California Green Building Standards require that projects divert (reduce or recycle) at least 50 percent of waste.	This reduction was estimated using the U.S. EPA's Waste Reduction Model (WARM) version 13.
On-Road Vehicles: Local	*Project Design Feature:* Local bus service to the area is provided by the Riverside Transit Agency. Local bus routes would typically be extended into the project area when adequate demand is generated from this employment center. Future bus routes could circulate on available looped routes with adequate right-of-way along the major arterial roadways of Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Likewise, the industrial collector roadways provide access to locations nearest building front entrances. Due to building scale, bus stops may be spread out by grouped entrances or centralized gateway drive areas as compared to individual business entries.	The California Air Pollution Control Officer's Association (CAPCOA) report's reduction measure TRT-1 indicates a 5.2 percent reduction in commute vehicle miles traveled for low-density suburbs for inclusion of a commute trip reduction program. However, this reduction is not used in this analysis. No reductions are taken for these measures in order to provide a conservative analysis.
	Mitigation Measure MM-AQ-10: Class II bike lanes.	
	Mitigation Measure MM-AQ-10: Participate in Riverside County's rideshare program	
	Mitigation Measure MM-AQ-10: Lockers for employees.	
	Mitigation Measure MM-AQ-10: Bicycle storage and changing rooms	
	Project Design Features: The project would have pedestrian circulation (, sidewalks, and a multiuse trail.	
	Mitigation Measure MM-AQ-10: Safe pedestrian connections	
	Mitigation Measure MM-AQ-10: Parking for fuel-efficient vehicles	
On-road Vehicles: Long haul trucks	**Mitigation Measure MM-AQ-6:** Require model year 2010 diesel trucks or later.	This was implemented by utilizing the emission factors for medium-heavy duty and heavy-heavy duty trucks from EMFAC2014 for year 2010 and after.

Table 64
Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
On-road Vehicles: all	*Pavley-I Regulation:* A clean-car standard to reduce greenhouse gas emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016. *Low Carbon Fuel Standard:* A fuel standard that requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. *California Mobile Source Strategy:* This 2016 plan includes targets for zero emission vehicles (ZEVs) that exceed assumptions included in EMFAC 2014. Project design includes supporting infrastructure to accommodate future EV populations consistent with targets in the Mobile Source Strategy.	EMFAC2014 provides emission factors for carbon dioxide that include these regulations. Therefore, both the unmitigated and mitigated emissions account for these regulations.
Electricity and Natural Gas: Title 24	**Mitigation Measures MM-GHG-5** and **MM-GHG-6** would reduce electricity related emissions. In addition, the project would require LEED certification for buildings and would require buildings to exceed Title 24 (2008 version) by 10 percent or comply with the current version in place. Project design includes energy conservation measures that would enable the project to exceed 2016 Title 24 energy standards by approximately 17 percent at Phase 1 and 16 percent at Full Buildout, by lowering electrical demand with implementation of sustainability measures such as high efficiency appliances and skylights.	Reductions from exceeding the requirements of Title 24 (2016) were accounted for in calculations.
Electricity, Lighting	**Mitigation Measures MM-GHG-6** (lighting efficiency) and **MM-GHG-7** (Title 24) would reduce electricity from lighting. Project design includes energy conservation measures that lower electrical demand with implementation of sustainability measures such as high efficiency lighting and motion sensors.	Reductions due to efficient lighting were accounted for in calculations.
Electricity: Solar	**Mitigation Measure MM-GHG-7** requires that the project install solar panels. Project design includes on-site solar panel installation.	The estimated electricity generation from onsite solar is 24,083 MWh per year, which is 5.0 percent of the electricity demand at buildout. Therefore, 5.0 percent of the unmitigated electricity-related GHG emissions are reduced by solar generation.
Water	**Mitigation Measure MM-GHG-2** would reduce outdoor water usage	CalEEMod mitigation for water-efficient irrigation systems (6.1% reduction, CalEEMod default)

Table 64
Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
	Mitigation Measure MM-GHG-3 would reduce interior water usage, including low flow fittings, fixtures and equipment.	CalEEMod mitigation for: - low-flow toilet (20% reduction in flow, CalEEMod default) - low flow bathroom faucet (32% reduction in flow, CalEEMod default) - low-flow kitchen faucet (18% reduction in flow, CalEEMod default) - low-flow shower (20% reduction in flow, CalEEMod default)
	Mitigation Measure MM-GHG-4 would allow reclaimed water to be used for irrigation.	No reductions are taken for the potential use of reclaimed water.
Waste	**Mitigation Measure MM-GHG-1**: Recycling and composting to divert construction and operational waste by at least 50 percent before 2020 and 75 percent thereafter.	The project would commit to reducing construction and operational waste by 50 percent prior to 2020 and 75 percent thereafter; therefore, a 75 percent reduction is applied.
	Project Design Feature: Specific Plan (Section 5.1.6) requires that all development within the project provide enclosures or compactors for trash and recyclable materials.	

[1] Project design features are from the Project Description and WLC Sustainable Energy Plan (WSP, 2018); mitigation measures are shown in Section 1.0, Table 1.B.

Table 65
GHG Reductions at Buildout (with Mitigation)

Type of Emissions	Source	GHG Emissions (mt CO_2e) at Buildout		
		Unmitigated	Reductions from Mitigation	With Reductions (Mitigated)
AB 32/SB 32 Capped Emissions	On-road vehicles	210,708	-112	210,596
	Electricity[1]	54,947	-4,579	50,368
	Construction[2]	7,334	0	7,334
	Yard trucks	5,109	0	5,109
	Electricity to convey water	2,580	-271	2,308
	Natural Gas[1]	4,510	-4,510	0
	Generator	267	19	286
	Forklifts	183	0	183
	Solar PV	0	-3,386	-3,386
	Total	**285,638**	**-12,840**	**272,799**
	Significant?	No	—	—
Uncapped Emissions	Waste	19,193	-14,395	4,798
	Land use change	1,154	0	1,154
	Refrigerants	2,572	0	2,572
	Construction waste and refrigerants[2]	166	-17	149
	Sequestration	-111	0	-111
	Total	**22,974**	**-14,412**	**8,563**
	Threshold	10,000	—	10,000
	Significant?	Yes	—	No

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
1 – Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.
2 – Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Construction waste results include the GHG reduction benefit of diverting and recycling demolition waste from the landfill as calculated by the EPA Waste Reduction Model (WARM), which quantifies the full lifecycle benefit of recycling. Construction would no longer occur at buildout; however, according to SCAQMD recommendations, construction emissions are included as amortized over 30 years. Construction uncapped emissions include emissions from refrigerant leakage during installation and construction waste.

Table 66a
Project GHG Emissions (Year by Year With Mitigation)

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,601	29,202	48,670	68,138	104,293	125,899	137,307
Electricity[1]	0	4,235	8,469	14,116	19,762	30,248	34,337	36,496
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	119	239	398	557	853	1,148	1,304
Natural gas[1]	0	0	0	0	0	0	0	0
Generator	0	15	30	49	69	106	142	161
Forklifts	0	9	19	32	44	68	91	104
Solar PV	0	-179	-357	-595	-834	-1,276	-1,705	-1,931
Total AB 32/SB 32 Capped Emissions	11,669	30,399	53,046	74,446	109,443	148,331	176,557	188,213
Uncapped Emissions								
Waste	0	248	496	827	1,158	1,772	2,387	2,711
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction refrigerants and waste[1]	97	97	123	123	214	214	181	115
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**97**	**532**	**993**	**1,574**	**2,245**	**3,322**	**4,366**	**4,869**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

Table 66b
Project GHG Emissions (Year by Year with Mitigation)

Source	GHG Mitigated Emissions (mt CO_2e/year)								
	2028	2029	2030	2031	2032	2033	2034	2035	Buildout
AB 32/SB 32 Capped Emissions									
On-road vehicles	144,163	151,018	160,801	171,895	182,989	194,083	201,354	208,625	210,596
Electricity[1]	37,794	39,091	40,943	43,043	45,143	47,242	48,619	49,995	50,368
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,398	1,492	1,626	1,778	1,929	2,081	2,181	2,280	2,308
Natural gas[1]	0	0	0	1	1	1	1	1	1
Generator	173	185	201	220	239	258	270	282	286
Forklifts	111	118	129	141	153	165	173	181	183
Solar PV	-2,068	-2,204	-2,398	-2,618	-2,838	-3,059	-3,203	-3,347	-3,386
Total AB 32/SB 32 Capped Emissions	198,626	205,810	220,371	230,152	248,938	261,149	265,958	277,092	272,799
Uncapped Emissions									
Waste	2,906	3,101	3,379	3,695	4,010	4,326	4,532	4,739	4,798
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	115	147	176	176	176	121	121	47	149
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**5,211**	**5,595**	**6,102**	**6,655**	**7,208**	**7,706**	**8,069**	**8,357**	**8,563**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers.

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

The Scoping Plan Scenario assumes that California's 2016 Mobile Source Strategy (MSS) will be implemented as a key strategy in the 2017 Scoping Plan Update for meeting the state's 2030 GHG target (presented in the Energy section as Vehicle Scenario B: Medium EV Penetration). The MSS has a target of 4.2 zero emission vehicles (ZEVs) in operation statewide by 2030. As explained in the Energy Section, after 2025 the sales and penetration of electric vehicles (EVs) under the MSS starts to exceed the numbers assumed by EMFAC 2014. **Table 67**, *California and SCAQMD Electric Vehicle (EV) Penetration Estimates,* shows that under the MSS approximately 8.4 percent of the passenger vehicle (LDA) and light truck (LDT) fleet is expected to powered by electricity or other zero emission engines by 2025 in the South Coast AQMD region, compared to 6.2 percent using EMFAC 2014 assumptions. By 2040, 42.2 percent of cars and light trucks are expected to be ZEVs in the South Coast AQMD region, compared to 13.7 percent using EMFAC 2014 assumptions.

AB 32/SB 32 capped emissions are shown for informational purposes in **Table 68**, *Project Operational GHG Emissions (Year by Year With Mitigation and Medium EV Penetration) – Scoping Plan Scenario, For Informational Purposes Only*, as those emissions are not compared with the SCAQMD's significance threshold. The emissions presented under the Scoping Plan scenario (Table 68) assume successful implementation of the 2017 Scoping Plan Update, which included the Mobile Source Strategy in addition to the Pavley regulations, the Low Carbon Fuel Standard, and California's Advanced Clean Car program. The mobile emissions estimates for future years are based on emission factors that account for higher penetrations of electric vehicles (EVs) than assumed by EMFAC.

Table 67
California and SCAQMD Electric Vehicle (EV) Penetration Estimates

Jurisdiction	Year	EMFAC 2014				Mobile Source Strategy	
		Total LDA + LDT Population	EV Population	% EV	EV Sales in year as % of total	EV Population	% EV
SCAQMD	2020	6,970,018	139,875	2.0%	4.9%	139,875	2.0%
	2025	7,700,136	475,480	6.2%	9.6%	646,695	8.4%
	2030	8,467,075	841,661	9.9%	9.6%	1,797,448	21.2%
	2040	9,634,507	1,316,666	13.7%	9.6%	4,064,551	42.2%
Statewide	2020	16,052,322	307,181	1.9%	4.9%	307,181	1.9%
	2025	17,860,364	1,075,826	6.0%	9.9%	1,500,000	8.4%
	2030	19,784,562	1,959,302	9.9%	9.6%	4,200,000	21.2%
	2040	22,755,593	3,133,990	13.8%	9.6%	9,600,000	42.2%

LDA = Passenger cars (EMFAC category)
LDT = Light Duty Trucks (EMFAC category)
Sources: EMFAC2014 Web Database (http://www.arb.ca.gov/emfac/2014/) - based on EMFAC2011 Categories, and EMFAC2014 Volume III - Technical Documentation

Table 68a
Project GHG Emissions (Year by Year with Mitigation and Medium EV Penetration) – Scoping Plan Scenario, For Informational Purposes Only

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2020	2021	2022	2023	2024	2025	2026	2027
AB 32/SB 32 Capped Emissions								
On-road vehicles	0	14,622	29,245	48,741	68,238	104,445	124,584	135,216
Electricity[1]	0	4,302	8,605	14,341	20,078	30,731	37,945	41,815
Construction[2]	11,669	11,334	14,916	10,896	20,473	12,153	14,103	11,885
Yard trucks	0	264	528	881	1,233	1,887	2,541	2,887
Electricity to convey water	0	119	239	398	557	853	1,148	1,304
Natural gas[1]	0	0	0	0	0	0	0	0
Generator	0	15	30	49	69	106	142	161
Forklifts	0	9	19	32	44	68	91	104
Solar PV	0	-179	-357	-595	-834	-1,276	-1,705	-1,931
Total AB 32/SB 32 Capped Emissions	11,669	30,488	53,224	74,742	109,858	148,966	178,890	191,441
Uncapped Emissions								
Waste	0	248	496	827	1,158	1,772	2,387	2,711
Land use change	0	60	119	199	279	426	574	652
Refrigerants	0	133	266	443	621	950	1,279	1,453
Construction refrigerants and waste[2]	97	97	123	123	214	214	181	115
Sequestration	0	-6	-11	-19	-27	-41	-55	-63
Total Uncapped Emissions	**97**	**532**	**993**	**1,573**	**2,245**	**3,321**	**4,366**	**4,868**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

Table 68b
Project GHG Emissions (Year by Year with Mitigation and Medium EV Penetration) – Scoping Plan Scenario, For Informational Purposes Only

Source	GHG Mitigated Emissions (mt CO_2e/year)								
	2028	2029	2030	2031	2032	2033	2034	2035	Buildout
AB 32/SB 32 Capped Emissions									
On-road vehicles	141,606	147,996	157,114	167,455	177,795	188,135	194,912	201,689	203,526
Electricity[1]	44,117	46,418	49,703	53,427	57,152	60,877	63,318	65,759	66,421
Construction[2]	13,960	12,806	15,470	11,759	17,052	15,772	11,739	14,029	7,334
Yard trucks	3,094	3,302	3,598	3,934	4,270	4,606	4,826	5,046	5,109
Electricity to convey water	1,398	1,492	1,626	1,778	1,929	2,081	2,181	2,280	2,308
Natural gas[1]	0	0	0	1	1	1	1	1	1
Generator	173	185	201	220	239	258	270	282	286
Forklifts	111	118	129	141	153	165	173	181	183
Solar PV	-2,068	-2,204	-2,398	-2,618	-2,838	-3,059	-3,203	-3,347	-3,386
Total AB 32/SB 32 Capped Emissions	202,392	210,115	225,444	236,096	255,753	268,835	274,216	285,920	281,781
Uncapped Emissions									
Waste	2,906	3,101	3,379	3,695	4,010	4,326	4,532	4,739	4,798
Land use change	699	746	813	889	965	1,041	1,090	1,140	1,154
Refrigerants	1,558	1,662	1,811	1,980	2,149	2,319	2,429	2,540	2,572
Construction refrigerants and waste[2]	115	157	176	176	176	121	121	47	149
Sequestration	-67	-72	-78	-85	-93	-100	-105	-109	-111
Total Uncapped Emissions	**5,211**	**5,594**	**6,101**	**6,655**	**7,207**	**7,707**	**8,067**	**8,357**	**8,562**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.

1 – Electricity and natural gas emissions estimates account for PDFs that improve energy efficiency and eliminate the use of building natural gas; includes electricity use by on-site EV chargers

2 - Capped construction emissions are from on-road and off-road vehicles, electricity use for equipment, and water use. Uncapped construction emissions are from refrigerants and construction waste. Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.

Plan, Policy, Regulation Consistency

The WLCSP contains a sustainability section that emphasizes water and energy conservation throughout the project design, which in turn will help reduce GHG emissions (Section 1.3.2, Green Building-Sustainable Development). The WLC Sustainable Energy Plan includes additional Project Design Features that go beyond the WLSCP with energy conservation measures that exceed minimal compliance with current (2016) Title 24 requirements by about 17 percent at Phase 1 and 16 percent at full buildout.[99]

As previously identified, implementation of the project could result in the development of an approximately 40.6 million square foot high cube-logistics distribution logistics. The project includes a variety of physical attributes and operational programs that would help reduce operational-source pollutant emissions from worker commuting, including GHG emissions. Future development that would occur under the project would be consistent with greenhouse gas emission reduction strategies and policies, including the City's Climate Change Strategy. The project would implement the Mitigation Measures listed above to reduce its contribution to GHG emissions and to ensure it does not conflict with or impede implementation of reduction goals identified in AB 32, SB 32, Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. In addition, the project would also be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. Therefore, the project would not conflict with any applicable plan, program, policy, or regulation related to the reduction of GHG emissions. Impacts are considered less than significant.

Similar to the discussion of cumulative air quality impacts, the project may employ workers locally from the City. This has the benefit of improving the local jobs/housing balance leading to air quality benefits in terms of shorter trip lengths, which lead to lower emissions than if the workforce was derived from distant locations.

The analysis herein concludes that the Project's contributions to climate change are less than significant. Given (i) the global nature of climate change; (ii) uncertainty regarding the extent to which anthropogenic sources are the true causes of any increase in the earth's temperatures; and (iii) the lack of emissions controls being imposed by the world's most rapidly developing nations, even if there is a causal relationship between anthropogenic emissions and an increase in the world's temperature, it is difficult to argue that an individual Project's cumulative contribution to climate change is foreseeable and cumulatively considerable. Nonetheless, the State of California has adopted a number of policies, including AB 32, SB 32 Governor's Executive Order S-3-05, the Pavley vehicle standards, the Advanced Clean Car program, and the Mobile Source Strategy, which collectively provide the structure and commitment to address California's contribution to global climate change. Since the project is consistent with these policies, including being below the SCAQMD threshold for greenhouse gases that was structured in accordance with these State policies, the project is consistent with greenhouse gas plans, policies and regulations.

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[99] WSP. World Logistics Center Comparison of Renewable Energy Technologies. 2018

A-1 Unmitigated Air Quality Emissions

Unmitigated Construction Air Quality Summary

Unmitigated Regional Construction Emissions

Year	VOC	NOx	CO	SO_2	Total PM10	Total PM2.5
	lb/day					
2020	281	639	407	1	117	31
2021	270	460	434	1	117	29
2022	298	776	645	2	162	43
2023	262	347	419	1	111	24
2024	343	1233	992	2	224	63
2025	263	342	457	1	118	24
2026	282	536	595	2	164	35
2027	269	415	476	1	130	27
2028	296	690	663	2	165	39
2029	281	543	560	1	145	33
2030	309	391	605	2	140	26
2031	268	207	427	1	102	16
2032	307	391	616	2	143	26
2033	297	340	565	2	135	24
2034	268	206	426	1	102	16
2035	282	237	511	1	122	19

Unmitigated Localized Construction Emissions

Year	NOx	CO	Total PM10	Total PM2.5
	lb/day			
2020	617	395	110	29
2021	415	414	110	27
2022	729	621	153	40
2023	321	402	104	22
2024	1190	965	213	60
2025	317	440	110	22
2026	503	573	154	32
2027	390	460	122	25
2028	663	646	157	37
2029	517	544	137	30
2030	364	588	132	24
2031	183	413	95	14
2032	364	599	134	24
2033	314	549	127	22
2034	183	413	95	14
2035	215	497	114	17

Plots 2 and 4 Emissions Summaries

Unmitigated Air Quality Construction Analysis

Regional Maximums Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
			lb/day			
Plot 2 (2020) Mass Excavation	35.68	430.10	236.08	0.54	44.20	17.90
Plot 2 (2020) Utilities	15.46	161.71	124.26	0.40	36.55	9.13
Plot 2 (2020) Landscaping	3.96	34.94	37.19	0.06	6.21	2.27
Plot 2 (2020) Finish Grading	1.35	12.54	9.46	0.02	5.91	1.23
Plot 2 (2020) Building-Wet Utilities	7.58	80.45	72.40	0.16	24.09	5.62
Plot 2 (2020) Building-Electrical	5.19	57.59	46.91	0.11	21.14	4.42
Plot 2 (2020) Temporary Utilities	1.82	21.98	15.14	0.03	0.88	0.81
Plot 2 (2020) Curbing/Drive Approaches	1.21	16.60	11.87	0.04	7.32	1.28
Plot 2 (2020) Paving	6.00	71.90	54.65	0.12	20.96	4.68
Plot 2 (2021) Utilities	14.39	142.90	122.92	0.40	35.74	8.38
Plot 2 (2021) Building-Concrete	4.29	47.77	46.07	0.10	16.12	3.56
Plot 2 (2021) Building-Wet Utilities	6.87	68.37	71.18	0.15	17.93	4.55
Plot 2 (2021) Building-Electrical	4.58	45.76	44.89	0.08	13.86	3.31
Plot 2 (2021) Building-Landscaping	3.45	30.53	34.55	0.05	6.12	2.00
Plot 2 (2021) Landscaping	3.63	31.93	36.85	0.06	5.98	2.05
Plot 2 (2021) Curbing/Drive Approaches	1.04	12.22	11.17	0.03	5.45	1.00
Plot 2 (2021) Paving	5.43	60.66	52.25	0.11	15.12	3.76
Plot 2 (2021) Temporary Utilities	1.68	19.59	13.93	0.03	0.79	0.73
Plot 4 (2022) Mass Excavation	33.39	385.49	223.71	0.57	43.10	16.39
Plot 4 (2022) Utilities	12.87	119.97	120.56	0.40	34.74	7.47
Plot 4 (2022) Building-Concrete	3.88	43.22	45.58	0.10	15.76	3.23
Plot 4 (2022) Building-Wet Utilities	6.05	57.46	70.18	0.15	17.35	4.01
Plot 4 (2022) Building-Electrical	4.02	41.57	43.98	0.08	13.47	2.95
Plot 4 (2022) Building-Landscaping	3.04	26.82	33.99	0.05	5.85	1.75
Plot 4 (2022) Landscaping	3.20	27.97	36.27	0.06	5.69	1.79
Plot 4 (2022) Curbing/Drive Approaches	0.94	10.97	11.03	0.03	5.38	0.93
Plot 4 (2022) Finish Grading	1.13	10.59	9.15	0.02	6.05	1.12
Plot 4 (2022) Paving	4.82	52.31	50.33	0.11	14.70	3.38
Plot 4 (2022) Temporary Utilities	1.48	16.47	12.59	0.03	0.67	0.61
Plot 4 (2023) Utilities	12.07	104.25	119.31	0.40	34.17	6.94
Plot 4 (2023) Building-Concrete	3.52	37.16	45.14	0.10	15.49	2.98
Plot 4 (2023) Building-Wet Utilities	5.57	49.73	69.73	0.15	17.01	3.69
Plot 4 (2023) Building-Electrical	3.68	36.69	43.52	0.08	13.21	2.71
Plot 4 (2023) Building-Landscaping	2.78	23.99	33.62	0.05	5.64	1.56
Plot 4 (2023) Landscaping	2.93	25.12	35.90	0.06	5.48	1.60
Plot 4 (2023) Curbing/Drive Approaches	0.86	9.29	10.92	0.03	5.33	0.89
Plot 4 (2023) Paving	4.52	46.78	49.46	0.11	14.49	3.19
Plot 4 (2023) Temporary Utilities	1.34	14.29	11.44	0.03	0.58	0.53
Overlapping Phases						
Plot 2- 2020	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass EXC + Utilties+Landscaping	55.09	626.75	397.53	1.00	86.97	29.30
Mass EXC + Utilities+Landscaping+Finish Grading	56.45	639.29	406.98	1.02	92.88	30.53
Utilities+Landscaping+Finish Grading	20.77	209.19	170.91	0.47	48.67	12.63
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	34.01	356.67	295.90	0.75	88.87	22.25
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	35.22	373.27	307.77	0.79	96.19	23.53
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	41.22	445.18	362.43	0.91	117.15	28.22
Plot 2- 2021						
All Phases	45.37	459.73	433.80	1.01	117.11	29.34
Plot 4-2022						
All Phases Exlcuding Temporary Utilities	73.34	776.38	644.79	1.57	162.08	43.00
Plot 4- 2023						
All Phases	37.27	347.29	419.02	1.00	111.41	24.09
Daily Maximum[1]						
2020	280.86	639.29	406.98	1.02	117.15	30.53
2021	269.79	459.73	433.80	1.01	117.11	29.34
2022	297.76	776.38	644.79	1.57	162.08	43.00
2023	261.68	347.29	419.02	1.00	111.41	24.09

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions						
Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
			lb/day			
Plot 2 (2020) Mass Excavation	0.10	1.94	0.55	0.00	15.02	1.50
Plot 2 (2020) Utilities	0.13	4.10	0.85	0.01	18.55	1.86
Plot 2 (2020) Landscaping	0.02	0.39	0.14	0.00	3.33	0.33
Plot 2 (2020) Finish Grading	0.02	0.14	0.11	0.00	3.54	0.35
Plot 2 (2020) Building-Wet Utilities	0.09	2.70	0.55	0.00	11.84	1.18
Plot 2 (2020) Building-Electrical	0.10	4.33	0.63	0.01	12.40	1.24
Plot 2 (2020) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	0.05	1.86	0.30	0.00	6.16	0.62
Plot 2 (2020) Paving	0.09	3.10	0.54	0.00	11.95	1.20
Plot 2 (2021) Utilities	0.12	3.95	0.80	0.01	18.55	1.85
Plot 2 (2021) Building-Concrete	0.08	2.99	0.48	0.00	11.64	1.16
Plot 2 (2021) Building-Wet Utilities	0.07	1.77	0.41	0.00	10.08	1.01
Plot 2 (2021) Building-Electrical	0.06	2.28	0.37	0.00	8.38	0.84
Plot 2 (2021) Building-Landscaping	0.02	0.44	0.14	0.00	3.54	0.35
Plot 2 (2021) Landscaping	0.02	0.38	0.13	0.00	3.33	0.33
Plot 2 (2021) Curbing/Drive Approaches	0.03	1.02	0.19	0.00	4.54	0.45
Plot 2 (2021) Paving	0.06	1.69	0.35	0.00	9.20	0.92
Plot 2 (2021) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	0.09	1.81	0.47	0.00	15.01	1.50
Plot 4 (2022) Utilities	0.12	3.82	0.75	0.01	18.55	1.85
Plot 4 (2022) Building-Concrete	0.08	2.88	0.46	0.00	11.64	1.16
Plot 4 (2022) Building-Wet Utilities	0.06	1.72	0.39	0.00	10.08	1.01
Plot 4 (2022) Building-Electrical	0.06	2.20	0.36	0.00	8.38	0.84
Plot 4 (2022) Building-Landscaping	0.02	0.43	0.13	0.00	3.54	0.35
Plot 4 (2022) Landscaping	0.02	0.37	0.12	0.00	3.33	0.33
Plot 4 (2022) Curbing/Drive Approaches	0.03	0.99	0.18	0.00	4.54	0.45
Plot 4 (2022) Finish Grading	0.02	0.25	0.10	0.00	3.81	0.38
Plot 4 (2022) Paving	0.06	1.63	0.33	0.00	9.20	0.92
Plot 4 (2022) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	0.09	3.21	0.67	0.00	18.55	1.85
Plot 4 (2023) Building-Concrete	0.06	2.39	0.41	0.00	11.64	1.16
Plot 4 (2023) Building-Wet Utilities	0.05	1.45	0.35	0.00	10.08	1.01
Plot 4 (2023) Building-Electrical	0.04	1.83	0.32	0.00	8.38	0.84
Plot 4 (2023) Building-Landscaping	0.02	0.37	0.12	0.00	3.54	0.35
Plot 4 (2023) Landscaping	0.02	0.31	0.10	0.00	3.33	0.33
Plot 4 (2023) Curbing/Drive Approaches	0.02	0.83	0.16	0.00	4.54	0.45
Plot 4 (2023) Paving	0.05	1.36	0.29	0.00	9.20	0.92
Plot 4 (2023) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Unmitigated VOC Emissions (lb/day)	
2020	224
2021	224
2022	224
2023	224

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 2 (2020) Mass Excavation	34.99	421.67	230.84	0.51	27.70	15.98	0.54	6.36	4.69	0.03	1.48	0.43
Plot 2 (2020) Utilities	14.59	144.09	117.78	0.35	16.06	6.69	0.70	13.26	5.62	0.05	1.94	0.59
Plot 2 (2020) Landscaping	3.81	33.15	36.05	0.05	2.54	1.83	0.12	1.36	1.00	0.01	0.34	0.10
Plot 2 (2020) Finish Grading	1.20	11.87	8.24	0.01	2.03	0.78	0.12	0.51	1.11	0.00	0.34	0.09
Plot 2 (2020) Building-Wet Utilities	7.02	68.85	68.26	0.13	11.01	4.06	0.45	8.72	3.60	0.03	1.24	0.37
Plot 2 (2020) Building-Electrical	4.57	39.47	42.38	0.06	7.42	2.78	0.50	13.55	3.84	0.04	1.32	0.40
Plot 2 (2020) Temporary Utilities	1.82	21.98	15.14	0.03	0.88	0.81	0.00	0.00	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	0.91	8.79	9.67	0.01	0.51	0.47	0.24	5.85	1.90	0.02	0.65	0.19
Plot 2 (2020) Paving	5.42	58.86	50.40	0.09	7.77	3.12	0.46	9.77	3.72	0.03	1.23	0.36
Plot 2 (2021) Utilities	13.60	126.78	116.87	0.35	15.28	5.97	0.63	11.95	5.25	0.05	1.91	0.55
Plot 2 (2021) Building-Concrete	3.76	35.69	42.09	0.06	3.29	2.06	0.42	8.94	3.50	0.03	1.19	0.34
Plot 2 (2021) Building-Wet Utilities	6.45	61.07	67.94	0.13	6.82	3.24	0.33	5.41	2.82	0.02	1.03	0.30
Plot 2 (2021) Building-Electrical	4.20	36.53	42.06	0.06	4.61	2.22	0.30	6.84	2.46	0.03	0.87	0.25
Plot 2 (2021) Building-Landscaping	3.31	28.69	33.45	0.05	2.23	1.54	0.11	1.37	0.96	0.01	0.36	0.10
Plot 2 (2021) Landscaping	3.50	30.34	35.81	0.05	2.31	1.62	0.10	1.18	0.91	0.01	0.33	0.10
Plot 2 (2021) Curbing/Drive Approaches	0.84	8.06	9.66	0.01	0.45	0.41	0.16	3.08	1.32	0.01	0.46	0.13
Plot 2 (2021) Paving	5.03	53.77	49.21	0.09	4.99	2.58	0.32	5.11	2.69	0.02	0.92	0.26
Plot 2 (2021) Temporary Utilities	1.68	19.59	13.93	0.03	0.79	0.73	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	32.79	378.27	219.13	0.54	26.62	14.48	0.47	5.31	4.11	0.03	1.47	0.41
Plot 4 (2022) Utilities	12.12	104.93	114.82	0.35	14.29	5.06	0.60	11.03	4.99	0.05	1.90	0.55
Plot 4 (2022) Building-Concrete	3.37	31.97	41.76	0.06	2.94	1.73	0.40	8.23	3.36	0.03	1.18	0.34
Plot 4 (2022) Building-Wet Utilities	5.65	50.65	67.12	0.13	6.24	2.71	0.31	5.00	2.67	0.02	1.02	0.29
Plot 4 (2022) Building-Electrical	3.67	32.97	41.26	0.06	4.22	1.86	0.29	6.30	2.36	0.03	0.87	0.25
Plot 4 (2022) Building-Landscaping	2.91	25.10	32.96	0.05	1.95	1.29	0.10	1.27	0.90	0.01	0.36	0.10
Plot 4 (2022) Landscaping	3.08	26.49	35.30	0.05	2.03	1.36	0.10	1.09	0.85	0.01	0.33	0.09
Plot 4 (2022) Curbing/Drive Approaches	0.75	7.09	9.60	0.01	0.37	0.35	0.15	2.84	1.26	0.01	0.46	0.13
Plot 4 (2022) Finish Grading	0.99	9.56	8.02	0.01	1.88	0.63	0.11	0.76	1.03	0.01	0.36	0.10
Plot 4 (2022) Paving	4.45	45.90	47.45	0.09	4.58	2.20	0.30	4.71	2.55	0.02	0.92	0.26
Plot 4 (2022) Temporary Utilities	1.48	16.47	12.59	0.03	0.67	0.61	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	11.47	93.84	114.06	0.35	13.74	4.55	0.47	7.11	4.57	0.05	1.88	0.53
Plot 4 (2023) Building-Concrete	3.13	29.48	41.65	0.06	2.69	1.49	0.31	5.23	3.08	0.03	1.17	0.33
Plot 4 (2023) Building-Wet Utilities	5.25	44.98	66.93	0.13	5.91	2.40	0.26	3.25	2.45	0.02	1.02	0.29
Plot 4 (2023) Building-Electrical	3.40	30.80	41.04	0.06	3.97	1.63	0.22	4.02	2.17	0.02	0.85	0.24
Plot 4 (2023) Building-Landscaping	2.66	22.77	32.68	0.05	1.75	1.11	0.09	0.84	0.83	0.01	0.35	0.10
Plot 4 (2023) Landscaping	2.82	24.07	35.01	0.05	1.82	1.17	0.08	0.73	0.78	0.01	0.33	0.09
Plot 4 (2023) Curbing/Drive Approaches	0.71	6.62	9.60	0.01	0.34	0.31	0.12	1.82	1.15	0.01	0.46	0.13
Plot 4 (2023) Paving	4.21	42.36	46.83	0.09	4.38	2.01	0.24	3.02	2.34	0.02	0.91	0.25
Plot 4 (2023) Temporary Utilities	1.34	14.29	11.44	0.03	0.58	0.53	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	PM10 Total	Total PM2.5
Plot 2 (2020) Mass Excavation	35.5	428.0	235.5	0.54	29.19	16.40
Plot 2 (2020) Utilities	15.3	157.4	123.4	0.40	18.00	7.28
Plot 2 (2020) Landscaping	3.9	34.5	37.1	0.06	2.88	1.93
Plot 2 (2020) Finish Grading	1.3	12.4	9.4	0.02	2.37	0.87
Plot 2 (2020) Building-Wet Utilities	7.5	77.6	71.9	0.16	12.25	4.43
Plot 2 (2020) Building-Electrical	5.1	53.0	46.2	0.10	8.74	3.18
Plot 2 (2020) Temporary Utilities	1.8	22.0	15.1	0.03	0.88	0.81
Plot 2 (2020) Curbing/Drive Approaches	1.2	14.6	11.6	0.03	1.16	0.66
Plot 2 (2020) Paving	5.9	68.6	54.1	0.12	9.01	3.49
Plot 2 (2021) Utilities	14.2	138.7	122.1	0.40	17.19	6.53
Plot 2 (2021) Building-Concrete	4.2	44.6	45.6	0.10	4.48	2.40
Plot 2 (2021) Building-Wet Utilities	6.8	66.5	70.8	0.15	7.85	3.54
Plot 2 (2021) Building-Electrical	4.5	43.4	44.5	0.08	5.48	2.47
Plot 2 (2021) Building-Landscaping	3.4	30.1	34.4	0.05	2.58	1.65
Plot 2 (2021) Landscaping	3.6	31.5	36.7	0.06	2.65	1.72
Plot 2 (2021) Curbing/Drive Approaches	1.0	11.1	11.0	0.03	0.91	0.55
Plot 2 (2021) Paving	5.3	58.9	51.9	0.11	5.91	2.84
Plot 2 (2021) Temporary Utilities	1.7	19.6	13.9	0.03	0.79	0.73
Plot 4 (2022) Mass Excavation	33.3	383.6	223.2	0.57	28.09	14.89
Plot 4 (2022) Utilities	12.7	116.0	119.8	0.39	16.19	5.61
Plot 4 (2022) Building-Concrete	3.8	40.2	45.1	0.10	4.12	2.07
Plot 4 (2022) Building-Wet Utilities	6.0	55.7	69.8	0.15	7.26	3.00
Plot 4 (2022) Building-Electrical	4.0	39.3	43.6	0.08	5.08	2.11
Plot 4 (2022) Building-Landscaping	3.0	26.4	33.9	0.05	2.31	1.39
Plot 4 (2022) Landscaping	3.2	27.6	36.2	0.06	2.36	1.45
Plot 4 (2022) Curbing/Drive Approaches	0.9	9.9	10.9	0.03	0.84	0.48
Plot 4 (2022) Finish Grading	1.1	10.3	9.1	0.02	2.24	0.74
Plot 4 (2022) Paving	4.7	50.6	50.0	0.11	5.50	2.46
Plot 4 (2022) Temporary Utilities	1.5	16.5	12.6	0.03	0.67	0.61
Plot 4 (2023) Utilities	11.9	101.0	118.6	0.39	15.62	5.08
Plot 4 (2023) Building-Concrete	3.4	34.7	44.7	0.09	3.86	1.82
Plot 4 (2023) Building-Wet Utilities	5.5	48.2	69.4	0.15	6.92	2.69
Plot 4 (2023) Building-Electrical	3.6	34.8	43.2	0.08	4.82	1.87
Plot 4 (2023) Building-Landscaping	2.7	23.6	33.5	0.05	2.11	1.21
Plot 4 (2023) Landscaping	2.9	24.8	35.8	0.06	2.15	1.26
Plot 4 (2023) Curbing/Drive Approaches	0.8	8.4	10.8	0.03	0.80	0.44
Plot 4 (2023) Paving	4.5	45.4	49.2	0.11	5.29	2.27
Plot 4 (2023) Temporary Utilities	1.3	14.3	11.4	0.03	0.58	0.53

Overlapping Phases						
Plot 2- 2020	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass EXC + Utilties+Landscaping	54.7	619.9	396.0	1.0	50.1	25.6
Mass EXC + Utilities+Landscaping+Finish Grading	56.1	632.3	405.3	1.0	52.4	26.5
Utilities+Landscaping+Finish Grading	20.5	204.2	169.8	0.5	23.3	10.1
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	33.6	344.4	293.7	0.7	42.8	17.6
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	34.7	359.1	305.2	0.8	43.9	18.3
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	40.6	427.7	359.4	0.9	52.9	21.8
Plot 2- 2021						
All Phases	44.8	444.4	430.9	1.0	47.8	22.4
Plot 4-2022						
All Phases Exlcuding Temporary Utilities	72.6	759.5	641.5	1.5	74.0	34.2
Plot 4- 2023						
All Phases	36.8	335.2	416.6	1.0	42.1	17.2
Daily Maximum[1]						
2020	56.06	632.27	405.34	1.01	52.91	26.49
2021	44.75	444.41	430.93	0.99	47.84	22.42
2022	72.60	759.47	641.51	1.55	73.99	34.20
2023	36.78	335.22	416.61	0.99	42.14	17.17

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 2 (2020) Mass Excavation	34.99	421.67	230.84	0.51	27.70	15.98	0.58	6.49	4.40	0.03	1.48	0.43
Plot 2 (2020) Utilities	14.59	144.09	117.78	0.35	16.06	6.69	0.74	13.53	5.49	0.05	1.94	0.59
Plot 2 (2020) Landscaping	3.81	33.15	36.05	0.05	2.54	1.83	0.13	1.39	0.94	0.01	0.34	0.10
Plot 2 (2020) Finish Grading	1.20	11.87	8.24	0.01	2.03	0.78	0.13	0.53	1.01	0.00	0.34	0.09
Plot 2 (2020) Building-Wet Utilities	7.02	68.85	68.26	0.13	11.01	4.06	0.47	8.89	3.52	0.03	1.24	0.37
Plot 2 (2020) Building-Electrical	4.57	39.47	42.38	0.06	7.42	2.78	0.52	13.79	3.90	0.04	1.32	0.40
Plot 2 (2020) Temporary Utilities	1.82	21.98	15.14	0.03	0.88	0.81	0.00	0.00	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	0.91	8.79	9.67	0.01	0.51	0.47	0.26	5.96	1.90	0.02	0.65	0.20
Plot 2 (2020) Paving	5.42	58.86	50.40	0.09	7.77	3.12	0.49	9.95	3.65	0.03	1.23	0.37
Plot 2 (2021) Utilities	13.60	126.78	116.87	0.35	15.28	5.97	0.67	12.17	5.13	0.05	1.91	0.56
Plot 2 (2021) Building-Concrete	3.76	35.69	42.09	0.06	3.29	2.06	0.45	9.10	3.44	0.03	1.19	0.34
Plot 2 (2021) Building-Wet Utilities	6.45	61.07	67.94	0.13	6.82	3.24	0.36	5.52	2.72	0.02	1.03	0.30
Plot 2 (2021) Building-Electrical	4.20	36.53	42.06	0.06	4.61	2.22	0.32	6.96	2.44	0.02	0.87	0.25
Plot 2 (2021) Building-Landscaping	3.31	28.69	33.45	0.05	2.23	1.54	0.12	1.40	0.91	0.01	0.36	0.10
Plot 2 (2021) Landscaping	3.50	30.34	35.81	0.05	2.31	1.62	0.11	1.21	0.86	0.01	0.33	0.10
Plot 2 (2021) Curbing/Drive Approaches	0.84	8.06	9.66	0.01	0.45	0.41	0.17	3.14	1.29	0.01	0.46	0.13
Plot 2 (2021) Paving	5.03	53.77	49.21	0.09	4.99	2.58	0.34	5.20	2.58	0.02	0.92	0.26
Plot 2 (2021) Temporary Utilities	1.68	19.59	13.93	0.03	0.79	0.73	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	32.79	378.27	219.13	0.54	26.62	14.48	0.51	5.41	3.85	0.03	1.47	0.41
Plot 4 (2022) Utilities	12.12	104.93	114.82	0.35	14.29	5.06	0.64	11.22	4.88	0.05	1.90	0.55
Plot 4 (2022) Building-Concrete	3.37	31.97	41.76	0.06	2.94	1.73	0.43	8.36	3.31	0.03	1.18	0.34
Plot 4 (2022) Building-Wet Utilities	5.65	50.65	67.12	0.13	6.24	2.71	0.34	5.09	2.57	0.02	1.02	0.29
Plot 4 (2022) Building-Electrical	3.67	32.97	41.26	0.06	4.22	1.86	0.30	6.40	2.35	0.02	0.87	0.25
Plot 4 (2022) Building-Landscaping	2.91	25.10	32.96	0.05	1.95	1.29	0.11	1.29	0.85	0.01	0.36	0.10
Plot 4 (2022) Landscaping	3.08	26.49	35.30	0.05	2.03	1.36	0.11	1.12	0.80	0.01	0.33	0.09
Plot 4 (2022) Curbing/Drive Approaches	0.75	7.09	9.60	0.01	0.37	0.35	0.16	2.89	1.23	0.01	0.46	0.13
Plot 4 (2022) Finish Grading	0.99	9.56	8.02	0.01	1.88	0.63	0.13	0.78	0.94	0.01	0.36	0.10
Plot 4 (2022) Paving	4.45	45.90	47.45	0.09	4.58	2.20	0.32	4.79	2.45	0.02	0.92	0.26
Plot 4 (2022) Temporary Utilities	1.48	16.47	12.59	0.03	0.67	0.61	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	11.47	93.84	114.06	0.35	13.74	4.55	0.51	7.20	4.43	0.05	1.88	0.53
Plot 4 (2023) Building-Concrete	3.13	29.48	41.65	0.06	2.69	1.49	0.33	5.28	3.00	0.03	1.17	0.33
Plot 4 (2023) Building-Wet Utilities	5.25	44.98	66.93	0.13	5.91	2.40	0.28	3.29	2.34	0.02	1.02	0.29
Plot 4 (2023) Building-Electrical	3.40	30.80	41.04	0.06	3.97	1.63	0.23	4.06	2.13	0.02	0.85	0.24
Plot 4 (2023) Building-Landscaping	2.66	22.77	32.68	0.05	1.75	1.11	0.10	0.86	0.78	0.01	0.35	0.10
Plot 4 (2023) Landscaping	2.82	24.07	35.01	0.05	1.82	1.17	0.09	0.74	0.73	0.01	0.33	0.09
Plot 4 (2023) Curbing/Drive Approaches	0.71	6.62	9.60	0.01	0.34	0.31	0.13	1.84	1.12	0.01	0.46	0.13
Plot 4 (2023) Paving	4.21	42.36	46.83	0.09	4.38	2.01	0.26	3.06	2.23	0.02	0.91	0.25
Plot 4 (2023) Temporary Utilities	1.34	14.29	11.44	0.03	0.58	0.53	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 2 (2020) Mass Excavation	35.6	428.2	235.2	0.54	29.19	16.40
Plot 2 (2020) Utilities	15.3	157.6	123.3	0.40	18.00	7.28
Plot 2 (2020) Landscaping	3.9	34.5	37.0	0.06	2.88	1.93
Plot 2 (2020) Finish Grading	1.3	12.4	9.2	0.02	2.37	0.87
Plot 2 (2020) Building-Wet Utilities	7.5	77.7	71.8	0.16	12.25	4.44
Plot 2 (2020) Building-Electrical	5.1	53.3	46.3	0.10	8.74	3.18
Plot 2 (2020) Temporary Utilities	1.8	22.0	15.1	0.03	0.88	0.81
Plot 2 (2020) Curbing/Drive Approaches	1.2	14.7	11.6	0.03	1.16	0.66
Plot 2 (2020) Paving	5.9	68.8	54.1	0.12	9.01	3.49
Plot 2 (2021) Utilities	14.3	139.0	122.0	0.39	17.19	6.53
Plot 2 (2021) Building-Concrete	4.2	44.8	45.5	0.09	4.48	2.40
Plot 2 (2021) Building-Wet Utilities	6.8	66.6	70.7	0.15	7.85	3.54
Plot 2 (2021) Building-Electrical	4.5	43.5	44.5	0.08	5.48	2.47
Plot 2 (2021) Building-Landscaping	3.4	30.1	34.4	0.05	2.59	1.65
Plot 2 (2021) Landscaping	3.6	31.6	36.7	0.06	2.65	1.72
Plot 2 (2021) Curbing/Drive Approaches	1.0	11.2	10.9	0.03	0.91	0.55
Plot 2 (2021) Paving	5.4	59.0	51.8	0.11	5.91	2.84
Plot 2 (2021) Temporary Utilities	1.7	19.6	13.9	0.03	0.79	0.73
Plot 4 (2022) Mass Excavation	33.3	383.7	223.0	0.57	28.09	14.89
Plot 4 (2022) Utilities	12.8	116.2	119.7	0.39	16.19	5.61
Plot 4 (2022) Building-Concrete	3.8	40.3	45.1	0.09	4.12	2.07
Plot 4 (2022) Building-Wet Utilities	6.0	55.7	69.7	0.15	7.26	3.00
Plot 4 (2022) Building-Electrical	4.0	39.4	43.6	0.08	5.08	2.11
Plot 4 (2022) Building-Landscaping	3.0	26.4	33.8	0.05	2.31	1.39
Plot 4 (2022) Landscaping	3.2	27.6	36.1	0.06	2.36	1.45
Plot 4 (2022) Curbing/Drive Approaches	0.9	10.0	10.8	0.03	0.84	0.48
Plot 4 (2022) Finish Grading	1.1	10.3	9.0	0.02	2.24	0.74
Plot 4 (2022) Paving	4.8	50.7	49.9	0.11	5.50	2.46
Plot 4 (2022) Temporary Utilities	1.5	16.5	12.6	0.03	0.67	0.61
Plot 4 (2023) Utilities	12.0	101.0	118.5	0.39	15.62	5.08
Plot 4 (2023) Building-Concrete	3.5	34.8	44.7	0.09	3.86	1.82
Plot 4 (2023) Building-Wet Utilities	5.5	48.3	69.3	0.15	6.92	2.69
Plot 4 (2023) Building-Electrical	3.6	34.9	43.2	0.08	4.82	1.87
Plot 4 (2023) Building-Landscaping	2.8	23.6	33.5	0.05	2.11	1.21
Plot 4 (2023) Landscaping	2.9	24.8	35.7	0.06	2.15	1.26
Plot 4 (2023) Curbing/Drive Approaches	0.8	8.5	10.7	0.03	0.80	0.44
Plot 4 (2023) Paving	4.5	45.4	49.1	0.11	5.29	2.27
Plot 4 (2023) Temporary Utilities	1.3	14.3	11.4	0.03	0.58	0.53

Overlapping Phases						
Plot 2- 2020	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass EXC + Utilties+Landscaping	54.8	620.3	395.5	1.0	50.1	25.6
Mass EXC + Utilities+Landscaping+Finish Grading	56.2	632.7	404.7	1.0	52.4	26.5
Utilities+Landscaping+Finish Grading	20.6	204.6	169.5	0.5	23.3	10.1
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	33.7	345.1	293.5	0.7	42.8	17.6
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	34.8	359.9	305.0	0.8	43.9	18.3
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	40.7	428.7	359.1	0.9	52.9	21.8
Plot 2- 2021						
All Phases	44.9	445.2	430.4	1.0	47.8	22.4
Plot 4-2022						
All Phases Exlcuding Temporary Utilities	72.8	760.3	640.7	1.5	74.0	34.2
Plot 4- 2023						
All Phases	36.9	335.5	416.0	1.0	42.1	17.2
Daily Maximum[1]						
2020	56.17	632.72	404.75	1.01	52.92	26.49
2021	44.91	445.22	430.39	0.99	47.84	22.42
2022	72.80	760.28	640.66	1.54	73.99	34.20
2023	36.92	335.54	416.01	0.98	42.14	17.17

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissions are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Analysis	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source	lb/day				lb/day			
Plot 2 (2020) Mass Excavation	421.67	230.84	27.70	15.98	1.94	0.55	15.02	1.50
Plot 2 (2020) Utilities	144.09	117.78	16.06	6.69	4.10	0.85	18.55	1.86
Plot 2 (2020) Landscaping	33.15	36.05	2.54	1.83	0.39	0.14	3.33	0.33
Plot 2 (2020) Finish Grading	11.87	8.24	2.03	0.78	0.14	0.11	3.54	0.35
Plot 2 (2020) Building-Wet Utilities	68.85	68.26	11.01	4.06	2.70	0.55	11.84	1.18
Plot 2 (2020) Building-Electrical	39.47	42.38	7.42	2.78	4.33	0.63	12.40	1.24
Plot 2 (2020) Temporary Utilities	21.98	15.14	0.88	0.81	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	8.79	9.67	0.51	0.47	1.86	0.30	6.16	0.62
Plot 2 (2020) Paving	58.86	50.40	7.77	3.12	3.10	0.54	11.95	1.20
Plot 2 (2021) Utilities	126.78	116.87	15.28	5.97	3.95	0.80	18.55	1.85
Plot 2 (2021) Building-Concrete	35.69	42.09	3.29	2.06	2.99	0.48	11.64	1.16
Plot 2 (2021) Building-Wet Utilities	61.07	67.94	6.82	3.24	1.77	0.41	10.08	1.01
Plot 2 (2021) Building-Electrical	36.53	42.06	4.61	2.22	2.28	0.37	8.38	0.84
Plot 2 (2021) Building-Landscaping	28.69	33.45	2.23	1.54	0.44	0.14	3.54	0.35
Plot 2 (2021) Landscaping	30.34	35.81	2.31	1.62	0.38	0.13	3.33	0.33
Plot 2 (2021) Curbing/Drive Approaches	8.06	9.66	0.45	0.41	1.02	0.19	4.54	0.45
Plot 2 (2021) Paving	53.77	49.21	4.99	2.58	1.69	0.35	9.20	0.92
Plot 2 (2021) Temporary Utilities	19.59	13.93	0.79	0.73	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	378.27	219.13	26.62	14.48	1.81	0.47	15.01	1.50
Plot 4 (2022) Utilities	104.93	114.82	14.29	5.06	3.82	0.75	18.55	1.85
Plot 4 (2022) Building-Concrete	31.97	41.76	2.94	1.73	2.88	0.46	11.64	1.16
Plot 4 (2022) Building-Wet Utilities	50.65	67.12	6.24	2.71	1.72	0.39	10.08	1.01
Plot 4 (2022) Building-Electrical	32.97	41.26	4.22	1.86	2.20	0.36	8.38	0.84
Plot 4 (2022) Building-Landscaping	25.10	32.96	1.95	1.29	0.43	0.13	3.54	0.35
Plot 4 (2022) Landscaping	26.49	35.30	2.03	1.36	0.37	0.12	3.33	0.33
Plot 4 (2022) Curbing/Drive Approaches	7.09	9.60	0.37	0.35	0.99	0.18	4.54	0.45
Plot 4 (2022) Finish Grading	9.56	8.02	1.88	0.63	0.25	0.10	3.81	0.38
Plot 4 (2022) Paving	45.90	47.45	4.58	2.20	1.63	0.33	9.20	0.92
Plot 4 (2022) Temporary Utilities	16.47	12.59	0.67	0.61	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	93.84	114.06	13.74	4.55	3.21	0.67	18.55	1.85
Plot 4 (2023) Building-Concrete	29.48	41.65	2.69	1.49	2.39	0.41	11.64	1.16
Plot 4 (2023) Building-Wet Utilities	44.98	66.93	5.91	2.40	1.45	0.35	10.08	1.01
Plot 4 (2023) Building-Electrical	30.80	41.04	3.97	1.63	1.83	0.32	8.38	0.84
Plot 4 (2023) Building-Landscaping	22.77	32.68	1.75	1.11	0.37	0.12	3.54	0.35
Plot 4 (2023) Landscaping	24.07	35.01	1.82	1.17	0.31	0.10	3.33	0.33
Plot 4 (2023) Curbing/Drive Approaches	6.62	9.60	0.34	0.31	0.83	0.16	4.54	0.45
Plot 4 (2023) Paving	42.36	46.83	4.38	2.01	1.36	0.29	9.20	0.92
Plot 4 (2023) Temporary Utilities	14.29	11.44	0.58	0.53	0.00	0.00	0.00	0.00

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 2 (2020) Mass Excavation	423.6	231.4	42.72	17.48
Plot 2 (2020) Utilities	148.2	118.6	34.61	8.55
Plot 2 (2020) Landscaping	33.5	36.2	5.87	2.17
Plot 2 (2020) Finish Grading	12.0	8.3	5.57	1.13
Plot 2 (2020) Building-Wet Utilities	71.6	68.8	22.85	5.25
Plot 2 (2020) Building-Electrical	43.8	43.0	19.82	4.02
Plot 2 (2020) Temporary Utilities	22.0	15.1	0.88	0.81
Plot 2 (2020) Curbing/Drive Approaches	10.6	10.0	6.67	1.09
Plot 2 (2020) Paving	62.0	50.9	19.73	4.32
Plot 2 (2021) Utilities	130.7	117.7	33.83	7.83
Plot 2 (2021) Building-Concrete	38.7	42.6	14.93	3.22
Plot 2 (2021) Building-Wet Utilities	62.8	68.4	16.90	4.25
Plot 2 (2021) Building-Electrical	38.8	42.4	12.99	3.06
Plot 2 (2021) Building-Landscaping	29.1	33.6	5.77	1.90
Plot 2 (2021) Landscaping	30.7	35.9	5.64	1.95
Plot 2 (2021) Curbing/Drive Approaches	9.1	9.9	4.99	0.87
Plot 2 (2021) Paving	55.5	49.6	14.19	3.50
Plot 2 (2021) Temporary Utilities	19.6	13.9	0.79	0.73
Plot 4 (2022) Mass Excavation	380.1	219.6	41.63	15.98
Plot 4 (2022) Utilities	108.8	115.6	32.84	6.92
Plot 4 (2022) Building-Concrete	34.9	42.2	14.58	2.89
Plot 4 (2022) Building-Wet Utilities	52.4	67.5	16.32	3.71
Plot 4 (2022) Building-Electrical	35.2	41.6	12.60	2.70
Plot 4 (2022) Building-Landscaping	25.5	33.1	5.49	1.64
Plot 4 (2022) Landscaping	26.9	35.4	5.36	1.69
Plot 4 (2022) Curbing/Drive Approaches	8.1	9.8	4.91	0.80
Plot 4 (2022) Finish Grading	9.8	8.1	5.69	1.02
Plot 4 (2022) Paving	47.5	47.8	13.78	3.12
Plot 4 (2022) Temporary Utilities	16.5	12.6	0.67	0.61
Plot 4 (2023) Utilities	97.0	114.7	32.29	6.41
Plot 4 (2023) Building-Concrete	31.9	42.1	14.33	2.66
Plot 4 (2023) Building-Wet Utilities	46.4	67.3	15.99	3.41
Plot 4 (2023) Building-Electrical	32.6	41.4	12.35	2.47
Plot 4 (2023) Building-Landscaping	23.1	32.8	5.29	1.46
Plot 4 (2023) Landscaping	24.4	35.1	5.15	1.50
Plot 4 (2023) Curbing/Drive Approaches	7.5	9.8	4.88	0.76
Plot 4 (2023) Paving	43.7	47.1	13.58	2.93
Plot 4 (2023) Temporary Utilities	14.3	11.4	0.58	0.53

Overlapping Phases				
Plot 2- 2020	**NOX**	**CO**	**Total PM10**	**Total PM2.5**
Mass EXC + Utilties+Landscaping	605.3	386.2	83.2	28.2
Mass EXC + Utilities+Landscaping+Finish Grading	617.4	394.6	88.8	29.3
Utilities+Landscaping+Finish Grading	193.7	163.2	46.1	11.8
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	319.1	281.8	84.0	20.8
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	329.7	291.8	90.7	21.9
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	391.7	342.7	110.4	26.2
Plot 2- 2021				
All Phases	415.0	413.9	110.0	27.3
Plot 4-2022				
All Phases Exlcuding Temporary Utilities	729.0	620.7	153.2	40.5
Plot 4- 2023				
All Phases	321.0	401.7	104.4	22.1
Daily Maximum[1]				
2020	617.35	394.56	110.43	29.32
2021	415.04	413.90	110.04	27.30
2022	729.02	620.70	153.20	40.46
2023	320.95	401.66	104.43	22.13

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Daily Unmitigated VOC Emissions (lb/day)	
2020	224
2021	224
2022	224
2023	224

World Logistics Center-Construction Plots 2 & 4 (2020-2023)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	64.8916	632.2739	405.3408	1.0103	78.2365	24.8353	96.6964	9.5189	22.8539	30.4789	0.0000	98,593.2252	98,593.2252	29.2674	0.0000	99,324.9095
2021	56.8977	444.4127	430.9332	0.9941	61.1424	19.7811	80.9235	7.7433	18.2486	25.9919	0.0000	97,770.8315	97,770.8315	25.9324	0.0000	98,419.1426
2022	84.7420	759.4697	641.5059	1.5492	98.0044	30.4570	128.4613	12.0156	28.0660	40.0815	0.0000	151,775.9324	151,775.9324	42.4869	0.0000	152,838.1052
2023	48.9230	335.2209	416.6134	0.9855	61.1423	14.0845	75.2268	7.7433	12.9957	20.7390	0.0000	96,874.2031	96,874.2031	25.8408	0.0000	97,520.2235
Maximum	**84.7420**	**759.4697**	**641.5059**	**1.5492**	**98.0044**	**30.4570**	**128.4613**	**12.0156**	**28.0660**	**40.0815**	**0.0000**	**151,775.9324**	**151,775.9324**	**42.4869**	**0.0000**	**152,838.1052**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	64.8916	632.2739	405.3408	1.0103	34.4535	24.8353	52.9133	4.7914	22.8539	26.4872	0.0000	98,593.2251	98,593.2251	29.2674	0.0000	99,324.9095
2021	56.8977	444.4127	430.9332	0.9941	28.0557	19.7811	47.8368	4.1707	18.2486	22.4193	0.0000	97,770.8315	97,770.8315	25.9324	0.0000	98,419.1425
2022	84.7420	759.4697	641.5059	1.5492	43.5324	30.4570	73.9894	6.1339	28.0660	34.1998	0.0000	151,775.9323	151,775.9323	42.4869	0.0000	152,838.1050
2023	48.9230	335.2209	416.6134	0.9855	28.0556	14.0845	42.1400	4.1707	12.9957	17.1664	0.0000	96,874.2031	96,874.2031	25.8408	0.0000	97,520.2234
Maximum	**84.7420**	**759.4697**	**641.5059**	**1.5492**	**43.5324**	**30.4570**	**73.9894**	**6.1339**	**28.0660**	**34.1998**	**0.0000**	**151,775.9323**	**151,775.9323**	**42.4869**	**0.0000**	**152,838.1050**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	55.08	0.00	43.12	47.96	0.00	14.51	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2020) Mass Excavation	Grading	1/1/2020	6/30/2020	5	130	11
2	Plot 2 (2020) Utilities	Trenching	1/1/2020	12/29/2020	5	260	15
3	Plot 2 (2020) Landscaping	Building Construction	1/1/2020	12/29/2020	5	260	16
4	Plot 2 (2020) Finish Grading	Grading	5/7/2020	7/1/2020	5	40	12
5	Plot 2 (2020) Building-Wet Utilities	Building Construction	7/2/2020	12/30/2020	5	130	13
6	Plot 2 (2020) Building-Electrical	Building Construction	7/2/2020	12/30/2020	5	130	14
7	Plot 2 (2020) Temporary Utilities	Building Construction	7/2/2020	12/30/2020	5	130	17
8	Plot 2 (2020) Curbing/Drive Approaches	Paving	11/5/2020	12/30/2020	5	40	18
9	Plot 2 (2020) Paving	Paving	12/3/2020	12/30/2020	5	20	19
10	Plot 2 (2021) Utilities	Trenching	1/1/2021	12/30/2021	5	260	24
11	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	20
12	Plot 2 (2021) Building-Wet Utilities	Building Construction	1/1/2021	12/30/2021	5	260	21
13	Plot 2 (2021) Building-Electrical	Building Construction	1/1/2021	12/30/2021	5	260	22
14	Plot 2 (2021) Building-Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	23
15	Plot 2 (2021) Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	25
16	Plot 2 (2021) Curbing/Drive Approaches	Paving	5/1/2021	8/20/2021	5	80	27
17	Plot 2 (2021) Paving	Paving	6/1/2021	7/26/2021	5	40	28
18	Plot 2 (2021) Temporary Utilities	Building Construction	7/2/2021	12/30/2021	5	130	26
19	Plot 4 (2022) Mass Excavation	Grading	1/1/2022	7/1/2022	5	130	29
20	Plot 4 (2022) Utilities	Trenching	1/1/2022	12/30/2022	5	260	35
21	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	31
22	Plot 4 (2022) Building-Wet Utilities	Building Construction	1/1/2022	12/30/2022	5	260	32

23	Plot 4 (2022) Building-Electrical	Building Construction	1/1/2022	12/30/2022	5	260	33	
24	Plot 4 (2022) Building-Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	34	
25	Plot 4 (2022) Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	36	
26	Plot 4 (2022) Curbing/Drive Approaches	Paving	5/1/2022	8/20/2022	5	80	38	
27	Plot 4 (2022) Finish Grading	Grading	5/7/2022	7/1/2022	5	40	30	
28	Plot 4 (2022) Paving	Paving	6/1/2022	7/26/2022	5	40	39	
29	Plot 4 (2022) Temporary Utilities	Building Construction	7/2/2022	12/30/2022	5	130	37	
30	Plot 4 (2023) Utilities	Trenching	1/1/2023	12/30/2023	5	260	44	
31	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	40	
32	Plot 4 (2023) Building-Wet Utilities	Building Construction	1/1/2023	12/30/2023	5	260	41	
33	Plot 4 (2023) Building-Electrical	Building Construction	1/1/2023	12/30/2023	5	260	42	
34	Plot 4 (2023) Building-Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	43	
35	Plot 4 (2023) Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	45	
36	Plot 4 (2023) Curbing/Drive Approaches	Paving	5/1/2023	8/20/2023	5	80	47	
37	Plot 4 (2023) Paving	Paving	6/1/2023	7/26/2023	5	40	48	
38	Plot 4 (2023) Temporary Utilities	Building Construction	7/2/2023	12/30/2023	5	130	46	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 2 (2020) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2020) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2020) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2020) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 2 (2020) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2020) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2020) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2020) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2020) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2020) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2020) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2020) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2020) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2020) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37

Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2020) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2020) Mass Excavation	Graders	1	10.00	193	0.41
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2020) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2020) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2020) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2020) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2020) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2020) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2020) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2020) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2020) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2020) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2020) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2020) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2020) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2020) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 2 (2021) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2021) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2021) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2021) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 2 (2021) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2021) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2021) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2021) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2021) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2021) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2021) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2021) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2021) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2021) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2021) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2021) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2021) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2021) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2021) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2021) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2021) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2021) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2021) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2021) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2021) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2022) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2022) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2022) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2022) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 4 (2022) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2022) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2022) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2022) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2022) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 4 (2022) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Mass Excavation	Graders	1	10.00	193	0.41
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40

Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2022) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2022) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2022) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2022) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2022) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2022) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2022) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2022) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2022) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2022) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2022) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2022) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Plot 4 (2023)	Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2023)	Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2023)	Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2023)	Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2023)	Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023)	Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023)	Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023)	Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023)	Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2023)	Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023)	Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023)	Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023)	Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023)	Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023)	Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023)	Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2023)	Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2023)	Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2023)	Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 4 (2023)	Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2023)	Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2023)	Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2023)	Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023)	Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2023)	Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2023)	Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2023)	Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023)	Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023)	Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023)	Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 4 (2023) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2023) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2023) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2023) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2023) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2023) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2023) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2023) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2023) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2023) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2023) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2023) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2023) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 2 (2020) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Finish Grading		15.00	2.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 4 (2022) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Finish Grading		15.00	2.00	52.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 2 (2020) Mass Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	34.9929	421.6704	230.8390	0.5130		15.9933	15.9933		14.7138	14.7138		49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**34.9929**	**421.6704**	**230.8390**	**0.5130**	**30.0285**	**15.9933**	**46.0217**	**3.2424**	**14.7138**	**17.9562**		**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1189	4.1406	0.8514	0.0124	0.2864	0.0143	0.3007	0.0785	0.0136	0.0921		1,334.8860	1,334.8860	0.0861		1,337.0382
Vendor	0.0736	1.9663	0.5003	6.9800e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0754		744.2851	744.2851	0.0322		745.0897
Worker	0.3443	0.2486	3.3388	9.6900e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		965.0841	965.0841	0.0272		965.7649
Total	**0.5368**	**6.3555**	**4.6904**	**0.0290**	**1.4446**	**0.0375**	**1.4821**	**0.3903**	**0.0356**	**0.4259**		**3,044.2552**	**3,044.2552**	**0.1455**		**3,047.8928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	34.9929	421.6704	230.8390	0.5130		15.9933	15.9933		14.7138	14.7138	0.0000	49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**34.9929**	**421.6704**	**230.8390**	**0.5130**	**11.7111**	**15.9933**	**27.7044**	**1.2645**	**14.7138**	**15.9783**	**0.0000**	**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1189	4.1406	0.8514	0.0124	0.2864	0.0143	0.3007	0.0785	0.0136	0.0921		1,334.8860	1,334.8860	0.0861		1,337.0382
Vendor	0.0736	1.9663	0.5003	6.9800e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0754		744.2851	744.2851	0.0322		745.0897
Worker	0.3443	0.2486	3.3388	9.6900e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		965.0841	965.0841	0.0272		965.7649
Total	**0.5368**	**6.3555**	**4.6904**	**0.0290**	**1.4446**	**0.0375**	**1.4821**	**0.3903**	**0.0356**	**0.4259**		**3,044.2552**	**3,044.2552**	**0.1455**		**3,047.8928**

3.3 Plot 2 (2020) Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	14.5857	144.0881	117.7824	0.3462		6.1033	6.1033		5.6161	5.6161		33,495.8101	33,495.8101	10.8221		33,766.3634
Total	**14.5857**	**144.0881**	**117.7824**	**0.3462**	**25.5336**	**6.1033**	**31.6369**	**2.7570**	**5.6161**	**8.3732**		**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3634**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2183	7.6013	1.5630	0.0227	0.5258	0.0262	0.5519	0.1441	0.0250	0.1691		2,450.5532	2,450.5532	0.1580		2,454.5041
Vendor	0.2044	5.4619	1.3897	0.0194	0.5780	0.0452	0.6232	0.1662	0.0432	0.2095		2,067.4586	2,067.4586	0.0894		2,069.6936
Worker	0.2755	0.1989	2.6710	7.7500e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		772.0673	772.0673	0.0218		772.6119
Total	**0.6982**	**13.2620**	**5.6237**	**0.0498**	**1.8639**	**0.0769**	**1.9408**	**0.5119**	**0.0734**	**0.5852**		**5,290.0791**	**5,290.0791**	**0.2692**		**5,296.8097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	14.5857	144.0881	117.7824	0.3462		6.1033	6.1033		5.6161	5.6161	0.0000	33,495.8101	33,495.8101	10.8221		33,766.3633
Total	**14.5857**	**144.0881**	**117.7824**	**0.3462**	**9.9581**	**6.1033**	**16.0614**	**1.0752**	**5.6161**	**6.6914**	**0.0000**	**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3633**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2183	7.6013	1.5630	0.0227	0.5258	0.0262	0.5519	0.1441	0.0250	0.1691		2,450.5532	2,450.5532	0.1580		2,454.5041
Vendor	0.2044	5.4619	1.3897	0.0194	0.5780	0.0452	0.6232	0.1662	0.0432	0.2095		2,067.4586	2,067.4586	0.0894		2,069.6936
Worker	0.2755	0.1989	2.6710	7.7500e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		772.0673	772.0673	0.0218		772.6119
Total	**0.6982**	**13.2620**	**5.6237**	**0.0498**	**1.8639**	**0.0769**	**1.9408**	**0.5119**	**0.0734**	**0.5852**		**5,290.0791**	**5,290.0791**	**0.2692**		**5,296.8097**

3.4 Plot 2 (2020) Landscaping - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.8074	33.1521	36.0541	0.0504		1.9188	1.9188		1.7653	1.7653		4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**3.8074**	**33.1521**	**36.0541**	**0.0504**	**1.5948**	**1.9188**	**3.5136**	**0.1722**	**1.7653**	**1.9375**		**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.1179**	**1.3606**	**1.0013**	**6.6000e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1019**		**689.2069**	**689.2069**	**0.0269**		**689.8794**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.8074	33.1521	36.0541	0.0504		1.9188	1.9188		1.7653	1.7653	0.0000	4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**3.8074**	**33.1521**	**36.0541**	**0.0504**	**0.6220**	**1.9188**	**2.5408**	**0.0672**	**1.7653**	**1.8325**	**0.0000**	**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.1179**	**1.3606**	**1.0013**	**6.6000e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1019**		**689.2069**	**689.2069**	**0.0269**		**689.8794**

3.5 Plot 2 (2020) Finish Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	1.2005	11.8738	8.2372	0.0109		0.6876	0.6876		0.6326	0.6326		1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**1.2005**	**11.8738**	**8.2372**	**0.0109**	**3.4466**	**0.6876**	**4.1342**	**0.3722**	**0.6326**	**1.0047**		**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.4370	0.1112	1.5500e-003	0.0462	3.6200e-003	0.0499	0.0133	3.4600e-003	0.0168		165.3967	165.3967	7.1500e-003		165.5755
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.1197**	**0.5115**	**1.1128**	**4.4600e-003**	**0.3313**	**5.7200e-003**	**0.3370**	**0.0889**	**5.3900e-003**	**0.0943**		**454.9219**	**454.9219**	**0.0153**		**455.3050**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	1.2005	11.8738	8.2372	0.0109		0.6876	0.6876		0.6326	0.6326	0.0000	1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**1.2005**	**11.8738**	**8.2372**	**0.0109**	**1.3442**	**0.6876**	**2.0318**	**0.1451**	**0.6326**	**0.7777**	**0.0000**	**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.4370	0.1112	1.5500e-003	0.0462	3.6200e-003	0.0499	0.0133	3.4600e-003	0.0168		165.3967	165.3967	7.1500e-003		165.5755
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.1197**	**0.5115**	**1.1128**	**4.4600e-003**	**0.3313**	**5.7200e-003**	**0.3370**	**0.0889**	**5.3900e-003**	**0.0943**		**454.9219**	**454.9219**	**0.0153**		**455.3050**

3.6 Plot 2 (2020) Building-Wet Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.1543	0.0000	19.1543	2.0682	0.0000	2.0682			0.0000			0.0000
Off-Road	7.0209	68.8525	68.2550	0.1251		3.5379	3.5379		3.2549	3.2549		12,113.6757	12,113.6757	3.9178		12,211.6210
Total	**7.0209**	**68.8525**	**68.2550**	**0.1251**	**19.1543**	**3.5379**	**22.6922**	**2.0682**	**3.2549**	**5.3231**		**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6210**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	5.3209	1.0941	0.0159	0.3680	0.0183	0.3864	0.1009	0.0175	0.1184		1,715.3873	1,715.3873	0.1106		1,718.1529
Vendor	0.1227	3.2771	0.8338	0.0116	0.3468	0.0271	0.3739	0.0997	0.0259	0.1257		1,240.4751	1,240.4751	0.0536		1,241.8162
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4476**	**8.7223**	**3.5973**	**0.0323**	**1.1899**	**0.0489**	**1.2388**	**0.3266**	**0.0467**	**0.3732**		**3,438.4045**	**3,438.4045**	**0.1779**		**3,442.8515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4702	0.0000	7.4702	0.8066	0.0000	0.8066			0.0000			0.0000
Off-Road	7.0209	68.8525	68.2550	0.1251		3.5379	3.5379		3.2549	3.2549	0.0000	12,113.6757	12,113.6757	3.9178		12,211.6209
Total	**7.0209**	**68.8525**	**68.2550**	**0.1251**	**7.4702**	**3.5379**	**11.0081**	**0.8066**	**3.2549**	**4.0615**	**0.0000**	**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	5.3209	1.0941	0.0159	0.3680	0.0183	0.3864	0.1009	0.0175	0.1184		1,715.3873	1,715.3873	0.1106		1,718.1529
Vendor	0.1227	3.2771	0.8338	0.0116	0.3468	0.0271	0.3739	0.0997	0.0259	0.1257		1,240.4751	1,240.4751	0.0536		1,241.8162
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4476**	**8.7223**	**3.5973**	**0.0323**	**1.1899**	**0.0489**	**1.2388**	**0.3266**	**0.0467**	**0.3732**		**3,438.4045**	**3,438.4045**	**0.1779**		**3,442.8515**

3.7 Plot 2 (2020) Building-Electrical - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7668	0.0000	12.7668	1.3785	0.0000	1.3785			0.0000			0.0000
Off-Road	4.5650	39.4704	42.3822	0.0564		2.4398	2.4398		2.2464	2.2464		5,432.2395	5,432.2395	1.7403		5,475.7459
Total	**4.5650**	**39.4704**	**42.3822**	**0.0564**	**12.7668**	**2.4398**	**15.2066**	**1.3785**	**2.2464**	**3.6249**		**5,432.2395**	**5,432.2395**	**1.7403**		**5,475.7459**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3493	12.1621	2.5007	0.0363	0.8412	0.0419	0.8831	0.2305	0.0400	0.2706		3,920.8851	3,920.8851	0.2529		3,927.2066
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.5016**	**13.5475**	**3.8359**	**0.0438**	**1.2650**	**0.0548**	**1.3198**	**0.3460**	**0.0524**	**0.3983**		**4,706.6004**	**4,706.6004**	**0.2825**		**4,713.6625**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9791	0.0000	4.9791	0.5376	0.0000	0.5376			0.0000			0.0000
Off-Road	4.5650	39.4704	42.3822	0.0564		2.4398	2.4398		2.2464	2.2464	0.0000	5,432.2394	5,432.2394	1.7403		5,475.7458
Total	**4.5650**	**39.4704**	**42.3822**	**0.0564**	**4.9791**	**2.4398**	**7.4189**	**0.5376**	**2.2464**	**2.7840**	**0.0000**	**5,432.2394**	**5,432.2394**	**1.7403**		**5,475.7458**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3493	12.1621	2.5007	0.0363	0.8412	0.0419	0.8831	0.2305	0.0400	0.2706		3,920.8851	3,920.8851	0.2529		3,927.2066
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.5016**	**13.5475**	**3.8359**	**0.0438**	**1.2650**	**0.0548**	**1.3198**	**0.3460**	**0.0524**	**0.3983**		**4,706.6004**	**4,706.6004**	**0.2825**		**4,713.6625**

3.8 Plot 2 (2020) Temporary Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8243	21.9777	15.1378	0.0278		0.8809	0.8809		0.8105	0.8105		2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**1.8243**	**21.9777**	**15.1378**	**0.0278**	**0.0000**	**0.8809**	**0.8809**	**0.0000**	**0.8105**	**0.8105**		**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8243	21.9777	15.1378	0.0278		0.8809	0.8809		0.8105	0.8105	0.0000	2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**1.8243**	**21.9777**	**15.1378**	**0.0278**	**0.0000**	**0.8809**	**0.8809**	**0.0000**	**0.8105**	**0.8105**	**0.0000**	**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 Plot 2 (2020) Curbing/Drive Approaches - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9106	8.7892	9.6732	0.0145		0.5085	0.5085		0.4686	0.4686		1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.0064**	**8.7892**	**9.6732**	**0.0145**	**0.0000**	**0.5085**	**0.5085**	**0.0000**	**0.4686**	**0.4686**		**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1414	4.9251	1.0127	0.0147	0.3407	0.0170	0.3576	0.0934	0.0162	0.1096		1,587.7706	1,587.7706	0.1024		1,590.3305
Vendor	0.0327	0.8739	0.2224	3.1000e-003	0.0925	7.2300e-003	0.0997	0.0266	6.9200e-003	0.0335		330.7934	330.7934	0.0143		331.1510
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.2430**	**5.8487**	**1.9028**	**0.0197**	**0.6232**	**0.0256**	**0.6487**	**0.1703**	**0.0244**	**0.1947**		**2,111.5808**	**2,111.5808**	**0.1222**		**2,114.6344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9106	8.7892	9.6732	0.0145		0.5085	0.5085		0.4686	0.4686	0.0000	1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.0064**	**8.7892**	**9.6732**	**0.0145**	**0.0000**	**0.5085**	**0.5085**	**0.0000**	**0.4686**	**0.4686**	**0.0000**	**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1414	4.9251	1.0127	0.0147	0.3407	0.0170	0.3576	0.0934	0.0162	0.1096		1,587.7706	1,587.7706	0.1024		1,590.3305
Vendor	0.0327	0.8739	0.2224	3.1000e-003	0.0925	7.2300e-003	0.0997	0.0266	6.9200e-003	0.0335		330.7934	330.7934	0.0143		331.1510
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.2430**	**5.8487**	**1.9028**	**0.0197**	**0.6232**	**0.0256**	**0.6487**	**0.1703**	**0.0244**	**0.1947**		**2,111.5808**	**2,111.5808**	**0.1222**		**2,114.6344**

3.10 Plot 2 (2020) Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7260	0.0000	12.7260	1.3741	0.0000	1.3741			0.0000			0.0000
Off-Road	5.4214	58.8557	50.3997	0.0854		2.8092	2.8092		2.5864	2.5864		8,241.4600	8,241.4600	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**21.6130**	**58.8557**	**50.3997**	**0.0854**	**12.7260**	**2.8092**	**15.5352**	**1.3741**	**2.5864**	**3.9605**		**8,241.4600**	**8,241.4600**	**2.6465**		**8,307.6231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2394	8.3347	1.7138	0.0249	0.5765	0.0287	0.6052	0.1580	0.0274	0.1854		2,686.9964	2,686.9964	0.1733		2,691.3285
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4606**	**9.7699**	**3.7167**	**0.0344**	**1.1903**	**0.0430**	**1.2333**	**0.3238**	**0.0410**	**0.3649**		**3,665.7285**	**3,665.7285**	**0.2084**		**3,670.9374**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9631	0.0000	4.9631	0.5359	0.0000	0.5359			0.0000			0.0000
Off-Road	5.4214	58.8557	50.3997	0.0854		2.8092	2.8092		2.5864	2.5864	0.0000	8,241.4599	8,241.4599	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**21.6130**	**58.8557**	**50.3997**	**0.0854**	**4.9631**	**2.8092**	**7.7724**	**0.5359**	**2.5864**	**3.1223**	**0.0000**	**8,241.4599**	**8,241.4599**	**2.6465**		**8,307.6231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2394	8.3347	1.7138	0.0249	0.5765	0.0287	0.6052	0.1580	0.0274	0.1854		2,686.9964	2,686.9964	0.1733		2,691.3285
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4606**	**9.7699**	**3.7167**	**0.0344**	**1.1903**	**0.0430**	**1.2333**	**0.3238**	**0.0410**	**0.3649**		**3,665.7285**	**3,665.7285**	**0.2084**		**3,670.9374**

3.11 Plot 2 (2021) Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	13.5966	126.7797	116.8700	0.3461		5.3238	5.3238		4.8990	4.8990		33,477.1040	33,477.1040	10.8161		33,747.5060
Total	**13.5966**	**126.7797**	**116.8700**	**0.3461**	**25.5336**	**5.3238**	**30.8573**	**2.7570**	**4.8990**	**7.6560**		**33,477.1040**	**33,477.1040**	**10.8161**		**33,747.5060**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2087	7.0434	1.5479	0.0224	0.5258	0.0234	0.5492	0.1441	0.0224	0.1665		2,424.7665	2,424.7665	0.1559		2,428.6634
Vendor	0.1658	4.7292	1.2378	0.0193	0.5780	0.0161	0.5941	0.1662	0.0154	0.1817		2,053.1192	2,053.1192	0.0862		2,055.2741
Worker	0.2575	0.1792	2.4636	7.5000e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		747.0874	747.0874	0.0197		747.5806
Total	**0.6320**	**11.9518**	**5.2493**	**0.0492**	**1.8639**	**0.0449**	**1.9088**	**0.5119**	**0.0428**	**0.5546**		**5,224.9730**	**5,224.9730**	**0.2618**		**5,231.5181**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	13.5966	126.7797	116.8700	0.3461		5.3238	5.3238		4.8990	4.8990	0.0000	33,477.1039	33,477.1039	10.8161		33,747.5059
Total	**13.5966**	**126.7797**	**116.8700**	**0.3461**	**9.9581**	**5.3238**	**15.2819**	**1.0752**	**4.8990**	**5.9742**	**0.0000**	**33,477.1039**	**33,477.1039**	**10.8161**		**33,747.5059**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2087	7.0434	1.5479	0.0224	0.5258	0.0234	0.5492	0.1441	0.0224	0.1665		2,424.7665	2,424.7665	0.1559		2,428.6634
Vendor	0.1658	4.7292	1.2378	0.0193	0.5780	0.0161	0.5941	0.1662	0.0154	0.1817		2,053.1192	2,053.1192	0.0862		2,055.2741
Worker	0.2575	0.1792	2.4636	7.5000e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		747.0874	747.0874	0.0197		747.5806
Total	**0.6320**	**11.9518**	**5.2493**	**0.0492**	**1.8639**	**0.0449**	**1.9088**	**0.5119**	**0.0428**	**0.5546**		**5,224.9730**	**5,224.9730**	**0.2618**		**5,231.5181**

3.12 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.7587	35.6875	42.0925	0.0625		2.0473	2.0473		1.9224	1.9224		5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**3.7587**	**35.6875**	**42.0925**	**0.0625**	**3.1937**	**2.0473**	**5.2410**	**0.3449**	**1.9224**	**2.2673**		**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.7587	35.6875	42.0925	0.0625		2.0473	2.0473		1.9224	1.9224	0.0000	5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**3.7587**	**35.6875**	**42.0925**	**0.0625**	**1.2456**	**2.0473**	**3.2928**	**0.1345**	**1.9224**	**2.0569**	**0.0000**	**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

3.13 Plot 2 (2021) Building-Wet Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	6.4528	61.0725	67.9432	0.1251		3.0859	3.0859		2.8390	2.8390		12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**6.4528**	**61.0725**	**67.9432**	**0.1251**	**9.5771**	**3.0859**	**12.6630**	**1.0341**	**2.8390**	**3.8731**		**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0731	2.4652	0.5418	7.8400e-003	0.1840	8.1900e-003	0.1922	0.0504	7.8300e-003	0.0583		848.6683	848.6683	0.0546		850.0322
Vendor	0.0995	2.8375	0.7427	0.0116	0.3468	9.6800e-003	0.3565	0.0997	9.2600e-003	0.1090		1,231.8715	1,231.8715	0.0517		1,233.1645
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3335**	**5.4147**	**2.8242**	**0.0241**	**1.0059**	**0.0213**	**1.0272**	**0.2761**	**0.0202**	**0.2963**		**2,547.4694**	**2,547.4694**	**0.1186**		**2,550.4346**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	6.4528	61.0725	67.9432	0.1251		3.0859	3.0859		2.8390	2.8390	0.0000	12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**6.4528**	**61.0725**	**67.9432**	**0.1251**	**3.7351**	**3.0859**	**6.8210**	**0.4033**	**2.8390**	**3.2423**	**0.0000**	**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0731	2.4652	0.5418	7.8400e-003	0.1840	8.1900e-003	0.1922	0.0504	7.8300e-003	0.0583		848.6683	848.6683	0.0546		850.0322
Vendor	0.0995	2.8375	0.7427	0.0116	0.3468	9.6800e-003	0.3565	0.0997	9.2600e-003	0.1090		1,231.8715	1,231.8715	0.0517		1,233.1645
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3335**	**5.4147**	**2.8242**	**0.0241**	**1.0059**	**0.0213**	**1.0272**	**0.2761**	**0.0202**	**0.2963**		**2,547.4694**	**2,547.4694**	**0.1186**		**2,550.4346**

3.14 Plot 2 (2021) Building-Electrical - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	4.1999	36.5280	42.0564	0.0564		2.1181	2.1181		1.9504	1.9504		5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**4.1999**	**36.5280**	**42.0564**	**0.0564**	**6.3834**	**2.1181**	**8.5015**	**0.6893**	**1.9504**	**2.6397**		**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1670	5.6347	1.2384	0.0179	0.4206	0.0187	0.4393	0.1153	0.0179	0.1332		1,939.8132	1,939.8132	0.1247		1,942.9307
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0965	0.0672	0.9239	2.8100e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		280.1578	280.1578	7.4000e-003		280.3427
Total	**0.3033**	**6.8369**	**2.4593**	**0.0254**	**0.8444**	**0.0246**	**0.8690**	**0.2307**	**0.0235**	**0.2542**		**2,712.7195**	**2,712.7195**	**0.1528**		**2,716.5392**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	4.1999	36.5280	42.0564	0.0564		2.1181	2.1181		1.9504	1.9504	0.0000	5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**4.1999**	**36.5280**	**42.0564**	**0.0564**	**2.4895**	**2.1181**	**4.6077**	**0.2688**	**1.9504**	**2.2192**	**0.0000**	**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1670	5.6347	1.2384	0.0179	0.4206	0.0187	0.4393	0.1153	0.0179	0.1332		1,939.8132	1,939.8132	0.1247		1,942.9307
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0965	0.0672	0.9239	2.8100e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		280.1578	280.1578	7.4000e-003		280.3427
Total	**0.3033**	**6.8369**	**2.4593**	**0.0254**	**0.8444**	**0.0246**	**0.8690**	**0.2307**	**0.0235**	**0.2542**		**2,712.7195**	**2,712.7195**	**0.1528**		**2,716.5392**

3.15 Plot 2 (2021) Building-Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.3130	28.6908	33.4533	0.0468		1.6052	1.6052		1.4768	1.4768		4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**3.3130**	**28.6908**	**33.4533**	**0.0468**	**1.5948**	**1.6052**	**3.2001**	**0.1722**	**1.4768**	**1.6490**		**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	1.3242	0.3466	5.3900e-003	0.1618	4.5200e-003	0.1664	0.0465	4.3200e-003	0.0509		574.8734	574.8734	0.0241		575.4768
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1108**	**1.3690**	**0.9625**	**7.2600e-003**	**0.3519**	**5.8800e-003**	**0.3577**	**0.0969**	**5.5700e-003**	**0.1025**		**761.6452**	**761.6452**	**0.0291**		**762.3719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.3130	28.6908	33.4533	0.0468		1.6052	1.6052		1.4768	1.4768	0.0000	4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**3.3130**	**28.6908**	**33.4533**	**0.0468**	**0.6220**	**1.6052**	**2.2272**	**0.0672**	**1.4768**	**1.5440**	**0.0000**	**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	1.3242	0.3466	5.3900e-003	0.1618	4.5200e-003	0.1664	0.0465	4.3200e-003	0.0509		574.8734	574.8734	0.0241		575.4768
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1108**	**1.3690**	**0.9625**	**7.2600e-003**	**0.3519**	**5.8800e-003**	**0.3577**	**0.0969**	**5.5700e-003**	**0.1025**		**761.6452**	**761.6452**	**0.0291**		**762.3719**

3.16 Plot 2 (2021) Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.4962	30.3448	35.8069	0.0504		1.6890	1.6890		1.5539	1.5539		4,879.8222	4,879.8222	1.5782		4,919.2781
Total	**3.4962**	**30.3448**	**35.8069**	**0.0504**	**1.5948**	**1.6890**	**3.2838**	**0.1722**	**1.5539**	**1.7261**		**4,879.8222**	**4,879.8222**	**1.5782**		**4,919.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1042**	**1.1798**	**0.9130**	**6.4900e-003**	**0.3288**	**5.2300e-003**	**0.3340**	**0.0903**	**4.9500e-003**	**0.0952**		**679.5204**	**679.5204**	**0.0256**		**680.1609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.4962	30.3448	35.8069	0.0504		1.6890	1.6890		1.5539	1.5539	0.0000	4,879.8222	4,879.8222	1.5782		4,919.2781
Total	**3.4962**	**30.3448**	**35.8069**	**0.0504**	**0.6220**	**1.6890**	**2.3110**	**0.0672**	**1.5539**	**1.6210**	**0.0000**	**4,879.8222**	**4,879.8222**	**1.5782**		**4,919.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1042**	**1.1798**	**0.9130**	**6.4900e-003**	**0.3288**	**5.2300e-003**	**0.3340**	**0.0903**	**4.9500e-003**	**0.0952**		**679.5204**	**679.5204**	**0.0256**		**680.1609**

3.17 Plot 2 (2021) Curbing/Drive Approaches - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8406	8.0613	9.6611	0.0145		0.4479	0.4479		0.4129	0.4129		1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8885**	**8.0613**	**9.6611**	**0.0145**	**0.0000**	**0.4479**	**0.4479**	**0.0000**	**0.4129**	**0.4129**		**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0676	2.2818	0.5015	7.2600e-003	0.1703	7.5800e-003	0.1779	0.0467	7.2500e-003	0.0539		785.5314	785.5314	0.0505		786.7938
Vendor	0.0265	0.7567	0.1980	3.0800e-003	0.0925	2.5800e-003	0.0951	0.0266	2.4700e-003	0.0291		328.4991	328.4991	0.0138		328.8439
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1585**	**3.0833**	**1.3154**	**0.0122**	**0.4528**	**0.0115**	**0.4644**	**0.1237**	**0.0110**	**0.1346**		**1,300.8023**	**1,300.8023**	**0.0692**		**1,302.5328**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8406	8.0613	9.6611	0.0145		0.4479	0.4479		0.4129	0.4129	0.0000	1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8885**	**8.0613**	**9.6611**	**0.0145**	**0.0000**	**0.4479**	**0.4479**	**0.0000**	**0.4129**	**0.4129**	**0.0000**	**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0676	2.2818	0.5015	7.2600e-003	0.1703	7.5800e-003	0.1779	0.0467	7.2500e-003	0.0539		785.5314	785.5314	0.0505		786.7938
Vendor	0.0265	0.7567	0.1980	3.0800e-003	0.0925	2.5800e-003	0.0951	0.0266	2.4700e-003	0.0291		328.4991	328.4991	0.0138		328.8439
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1585**	**3.0833**	**1.3154**	**0.0122**	**0.4528**	**0.0115**	**0.4644**	**0.1237**	**0.0110**	**0.1346**		**1,300.8023**	**1,300.8023**	**0.0692**		**1,302.5328**

3.18 Plot 2 (2021) Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	5.0337	53.7732	49.2131	0.0855		2.5096	2.5096		2.3108	2.3108		8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**13.1295**	**53.7732**	**49.2131**	**0.0855**	**6.3630**	**2.5096**	**8.8726**	**0.6871**	**2.3108**	**2.9979**		**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1144	3.8615	0.8486	0.0123	0.2883	0.0128	0.3011	0.0790	0.0123	0.0913		1,329.3608	1,329.3608	0.0855		1,331.4973
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3151**	**5.1085**	**2.6855**	**0.0216**	**0.9020**	**0.0201**	**0.9221**	**0.2449**	**0.0191**	**0.2640**		**2,289.0390**	**2,289.0390**	**0.1185**		**2,292.0009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.0337	53.7732	49.2131	0.0855		2.5096	2.5096		2.3108	2.3108	0.0000	8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**13.1295**	**53.7732**	**49.2131**	**0.0855**	**2.4816**	**2.5096**	**4.9912**	**0.2680**	**2.3108**	**2.5788**	**0.0000**	**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1144	3.8615	0.8486	0.0123	0.2883	0.0128	0.3011	0.0790	0.0123	0.0913		1,329.3608	1,329.3608	0.0855		1,331.4973
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3151**	**5.1085**	**2.6855**	**0.0216**	**0.9020**	**0.0201**	**0.9221**	**0.2449**	**0.0191**	**0.2640**		**2,289.0390**	**2,289.0390**	**0.1185**		**2,292.0009**

3.19 Plot 2 (2021) Temporary Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6806	19.5885	13.9313	0.0278		0.7881	0.7881		0.7251	0.7251		2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**1.6806**	**19.5885**	**13.9313**	**0.0278**	**0.0000**	**0.7881**	**0.7881**	**0.0000**	**0.7251**	**0.7251**		**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6806	19.5885	13.9313	0.0278		0.7881	0.7881		0.7251	0.7251	0.0000	2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**1.6806**	**19.5885**	**13.9313**	**0.0278**	**0.0000**	**0.7881**	**0.7881**	**0.0000**	**0.7251**	**0.7251**	**0.0000**	**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.20 Plot 4 (2022) Mass Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.6111	0.0000	31.6111	3.4133	0.0000	3.4133			0.0000			0.0000
Off-Road	32.7946	378.2678	219.1301	0.5410		14.2901	14.2901		13.1469	13.1469		52,389.8385	52,389.8385	16.9439		52,813.4369
Total	**32.7946**	**378.2678**	**219.1301**	**0.5410**	**31.6111**	**14.2901**	**45.9011**	**3.4133**	**13.1469**	**16.5601**		**52,389.8385**	**52,389.8385**	**16.9439**		**52,813.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1080	3.5315	0.8343	0.0120	0.2864	0.0110	0.2974	0.0785	0.0105	0.0890		1,305.1354	1,305.1354	0.0836		1,307.2255
Vendor	0.0563	1.5778	0.4257	6.8600e-003	0.2081	5.0500e-003	0.2131	0.0598	4.8300e-003	0.0647		732.5780	732.5780	0.0304		733.3369
Worker	0.3024	0.2025	2.8500	9.0300e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		900.3802	900.3802	0.0223		900.9377
Total	**0.4668**	**5.3118**	**4.1101**	**0.0279**	**1.4446**	**0.0226**	**1.4672**	**0.3903**	**0.0214**	**0.4116**		**2,938.0935**	**2,938.0935**	**0.1363**		**2,941.5001**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.3283	0.0000	12.3283	1.3312	0.0000	1.3312			0.0000			0.0000
Off-Road	32.7946	378.2678	219.1301	0.5410		14.2901	14.2901		13.1469	13.1469	0.0000	52,389.8384	52,389.8384	16.9439		52,813.4368
Total	**32.7946**	**378.2678**	**219.1301**	**0.5410**	**12.3283**	**14.2901**	**26.6184**	**1.3312**	**13.1469**	**14.4780**	**0.0000**	**52,389.8384**	**52,389.8384**	**16.9439**		**52,813.4368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1080	3.5315	0.8343	0.0120	0.2864	0.0110	0.2974	0.0785	0.0105	0.0890		1,305.1354	1,305.1354	0.0836		1,307.2255
Vendor	0.0563	1.5778	0.4257	6.8600e-003	0.2081	5.0500e-003	0.2131	0.0598	4.8300e-003	0.0647		732.5780	732.5780	0.0304		733.3369
Worker	0.3024	0.2025	2.8500	9.0300e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		900.3802	900.3802	0.0223		900.9377
Total	**0.4668**	**5.3118**	**4.1101**	**0.0279**	**1.4446**	**0.0226**	**1.4672**	**0.3903**	**0.0214**	**0.4116**		**2,938.0935**	**2,938.0935**	**0.1363**		**2,941.5001**

3.21 Plot 4 (2022) Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	12.1172	104.9336	114.8176	0.3462		4.3316	4.3316		3.9862	3.9862		33,484.8138	33,484.8138	10.8186		33,755.2781
Total	**12.1172**	**104.9336**	**114.8176**	**0.3462**	**25.5336**	**4.3316**	**29.8652**	**2.7570**	**3.9862**	**6.7433**		**33,484.8138**	**33,484.8138**	**10.8186**		**33,755.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1983	6.4830	1.5317	0.0221	0.5258	0.0201	0.5459	0.1441	0.0193	0.1633		2,395.9377	2,395.9377	0.1535		2,399.7746
Vendor	0.1565	4.3828	1.1826	0.0191	0.5780	0.0140	0.5920	0.1662	0.0134	0.1796		2,034.9388	2,034.9388	0.0843		2,037.0471
Worker	0.2420	0.1620	2.2800	7.2300e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		720.3041	720.3041	0.0178		720.7501
Total	**0.5967**	**11.0278**	**4.9942**	**0.0484**	**1.8639**	**0.0394**	**1.9033**	**0.5118**	**0.0375**	**0.5494**		**5,151.1807**	**5,151.1807**	**0.2557**		**5,157.5718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	12.1172	104.9336	114.8176	0.3462		4.3316	4.3316		3.9862	3.9862	0.0000	33,484.8137	33,484.8137	10.8186		33,755.2781
Total	**12.1172**	**104.9336**	**114.8176**	**0.3462**	**9.9581**	**4.3316**	**14.2897**	**1.0752**	**3.9862**	**5.0615**	**0.0000**	**33,484.8137**	**33,484.8137**	**10.8186**		**33,755.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1983	6.4830	1.5317	0.0221	0.5258	0.0201	0.5459	0.1441	0.0193	0.1633		2,395.9377	2,395.9377	0.1535		2,399.7746
Vendor	0.1565	4.3828	1.1826	0.0191	0.5780	0.0140	0.5920	0.1662	0.0134	0.1796		2,034.9388	2,034.9388	0.0843		2,037.0471
Worker	0.2420	0.1620	2.2800	7.2300e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		720.3041	720.3041	0.0178		720.7501
Total	**0.5967**	**11.0278**	**4.9942**	**0.0484**	**1.8639**	**0.0394**	**1.9033**	**0.5118**	**0.0375**	**0.5494**		**5,151.1807**	**5,151.1807**	**0.2557**		**5,157.5718**

3.22 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.3724	31.9733	41.7603	0.0625		1.6934	1.6934		1.5925	1.5925		5,963.0836	5,963.0836	1.4710		5,999.8594
Total	**3.3724**	**31.9733**	**41.7603**	**0.0625**	**3.1937**	**1.6934**	**4.8871**	**0.3449**	**1.5925**	**1.9374**		**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8594**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.3724	31.9733	41.7603	0.0625		1.6934	1.6934		1.5925	1.5925	0.0000	5,963.0836	5,963.0836	1.4710		5,999.8593
Total	**3.3724**	**31.9733**	**41.7603**	**0.0625**	**1.2456**	**1.6934**	**2.9390**	**0.1345**	**1.5925**	**1.7270**	**0.0000**	**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

3.23 Plot 4 (2022) Building-Wet Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.6507	50.6511	67.1239	0.1251		2.5038	2.5038		2.3035	2.3035		12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**5.6507**	**50.6511**	**67.1239**	**0.1251**	**9.5771**	**2.5038**	**12.0809**	**1.0341**	**2.3035**	**3.3376**		**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	2.2691	0.5361	7.7400e-003	0.1840	7.0400e-003	0.1911	0.0504	6.7400e-003	0.0572		838.5782	838.5782	0.0537		839.9211
Vendor	0.0939	2.6297	0.7095	0.0114	0.3468	8.4200e-003	0.3552	0.0997	8.0600e-003	0.1078		1,220.9633	1,220.9633	0.0506		1,222.2282
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.3145**	**5.0000**	**2.6706**	**0.0237**	**1.0059**	**0.0188**	**1.0246**	**0.2761**	**0.0178**	**0.2940**		**2,509.7316**	**2,509.7316**	**0.1155**		**2,512.6182**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.6507	50.6511	67.1239	0.1251		2.5038	2.5038		2.3035	2.3035	0.0000	12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**5.6507**	**50.6511**	**67.1239**	**0.1251**	**3.7351**	**2.5038**	**6.2388**	**0.4033**	**2.3035**	**2.7068**	**0.0000**	**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	2.2691	0.5361	7.7400e-003	0.1840	7.0400e-003	0.1911	0.0504	6.7400e-003	0.0572		838.5782	838.5782	0.0537		839.9211
Vendor	0.0939	2.6297	0.7095	0.0114	0.3468	8.4200e-003	0.3552	0.0997	8.0600e-003	0.1078		1,220.9633	1,220.9633	0.0506		1,222.2282
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.3145**	**5.0000**	**2.6706**	**0.0237**	**1.0059**	**0.0188**	**1.0246**	**0.2761**	**0.0178**	**0.2940**		**2,509.7316**	**2,509.7316**	**0.1155**		**2,512.6182**

3.24 Plot 4 (2022) Building-Electrical - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.6650	32.9674	41.2585	0.0564		1.7258	1.7258		1.5895	1.5895		5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**3.6650**	**32.9674**	**41.2585**	**0.0564**	**6.3834**	**1.7258**	**8.1092**	**0.6893**	**1.5895**	**2.2787**		**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	5.1864	1.2253	0.0177	0.4206	0.0161	0.4367	0.1153	0.0154	0.1307		1,916.7502	1,916.7502	0.1228		1,919.8197
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.2869**	**6.2990**	**2.3642**	**0.0250**	**0.8444**	**0.0214**	**0.8658**	**0.2307**	**0.0204**	**0.2512**		**2,675.2495**	**2,675.2495**	**0.1497**		**2,678.9923**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.6650	32.9674	41.2585	0.0564		1.7258	1.7258		1.5895	1.5895	0.0000	5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**3.6650**	**32.9674**	**41.2585**	**0.0564**	**2.4895**	**1.7258**	**4.2154**	**0.2688**	**1.5895**	**1.8583**	**0.0000**	**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	5.1864	1.2253	0.0177	0.4206	0.0161	0.4367	0.1153	0.0154	0.1307		1,916.7502	1,916.7502	0.1228		1,919.8197
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.2869**	**6.2990**	**2.3642**	**0.0250**	**0.8444**	**0.0214**	**0.8658**	**0.2307**	**0.0204**	**0.2512**		**2,675.2495**	**2,675.2495**	**0.1497**		**2,678.9923**

3.25 Plot 4 (2022) Building-Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9095	25.0953	32.9608	0.0468		1.3297	1.3297		1.2234	1.2234		4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**2.9095**	**25.0953**	**32.9608**	**0.0468**	**1.5948**	**1.3297**	**2.9246**	**0.1722**	**1.2234**	**1.3956**		**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	1.2272	0.3311	5.3400e-003	0.1618	3.9300e-003	0.1658	0.0465	3.7600e-003	0.0503		569.7829	569.7829	0.0236		570.3732
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1043**	**1.2677**	**0.9011**	**7.1500e-003**	**0.3519**	**5.2500e-003**	**0.3571**	**0.0969**	**4.9700e-003**	**0.1019**		**749.8589**	**749.8589**	**0.0281**		**750.5607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9095	25.0953	32.9608	0.0468		1.3297	1.3297		1.2234	1.2234	0.0000	4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**2.9095**	**25.0953**	**32.9608**	**0.0468**	**0.6220**	**1.3297**	**1.9517**	**0.0672**	**1.2234**	**1.2905**	**0.0000**	**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	1.2272	0.3311	5.3400e-003	0.1618	3.9300e-003	0.1658	0.0465	3.7600e-003	0.0503		569.7829	569.7829	0.0236		570.3732
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1043**	**1.2677**	**0.9011**	**7.1500e-003**	**0.3519**	**5.2500e-003**	**0.3571**	**0.0969**	**4.9700e-003**	**0.1019**		**749.8589**	**749.8589**	**0.0281**		**750.5607**

3.26 Plot 4 (2022) Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0756	26.4898	35.2995	0.0504		1.4054	1.4054		1.2930	1.2930		4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**3.0756**	**26.4898**	**35.2995**	**0.0504**	**1.5948**	**1.4054**	**3.0002**	**0.1722**	**1.2930**	**1.4652**		**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.0981**	**1.0924**	**0.8538**	**6.3900e-003**	**0.3288**	**4.6900e-003**	**0.3334**	**0.0903**	**4.4300e-003**	**0.0947**		**668.4614**	**668.4614**	**0.0247**		**669.0788**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0756	26.4898	35.2995	0.0504		1.4054	1.4054		1.2930	1.2930	0.0000	4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**3.0756**	**26.4898**	**35.2995**	**0.0504**	**0.6220**	**1.4054**	**2.0274**	**0.0672**	**1.2930**	**1.3601**	**0.0000**	**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.0981**	**1.0924**	**0.8538**	**6.3900e-003**	**0.3288**	**4.6900e-003**	**0.3334**	**0.0903**	**4.4300e-003**	**0.0947**		**668.4614**	**668.4614**	**0.0247**		**669.0788**

3.27 Plot 4 (2022) Curbing/Drive Approaches - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7470	7.0919	9.5975	0.0145		0.3747	0.3747		0.3456	0.3456		1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7949**	**7.0919**	**9.5975**	**0.0145**	**0.0000**	**0.3747**	**0.3747**	**0.0000**	**0.3456**	**0.3456**		**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0642	2.1002	0.4962	7.1600e-003	0.1703	6.5200e-003	0.1769	0.0467	6.2400e-003	0.0529		776.1920	776.1920	0.0497		777.4350
Vendor	0.0250	0.7013	0.1892	3.0500e-003	0.0925	2.2500e-003	0.0947	0.0266	2.1500e-003	0.0287		325.5902	325.5902	0.0135		325.9275
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1498**	**2.8420**	**1.2554**	**0.0120**	**0.4528**	**0.0101**	**0.4629**	**0.1237**	**9.6000e-003**	**0.1333**		**1,281.8582**	**1,281.8582**	**0.0677**		**1,283.5500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7470	7.0919	9.5975	0.0145		0.3747	0.3747		0.3456	0.3456	0.0000	1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7949**	**7.0919**	**9.5975**	**0.0145**	**0.0000**	**0.3747**	**0.3747**	**0.0000**	**0.3456**	**0.3456**	**0.0000**	**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0642	2.1002	0.4962	7.1600e-003	0.1703	6.5200e-003	0.1769	0.0467	6.2400e-003	0.0529		776.1920	776.1920	0.0497		777.4350
Vendor	0.0250	0.7013	0.1892	3.0500e-003	0.0925	2.2500e-003	0.0947	0.0266	2.1500e-003	0.0287		325.5902	325.5902	0.0135		325.9275
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1498**	**2.8420**	**1.2554**	**0.0120**	**0.4528**	**0.0101**	**0.4629**	**0.1237**	**9.6000e-003**	**0.1333**		**1,281.8582**	**1,281.8582**	**0.0677**		**1,283.5500**

3.28 Plot 4 (2022) Finish Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.9879	9.5635	8.0189	0.0109		0.5320	0.5320		0.4894	0.4894		1,054.1383	1,054.1383	0.3409		1,062.6616
Total	**0.9879**	**9.5635**	**8.0189**	**0.0109**	**3.4466**	**0.5320**	**3.9786**	**0.3722**	**0.4894**	**0.8616**		**1,054.1383**	**1,054.1383**	**0.3409**		**1,062.6616**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.3500	0.0827	1.1900e-003	0.0284	1.0900e-003	0.0295	7.7800e-003	1.0400e-003	8.8200e-003		129.3653	129.3653	8.2900e-003		129.5725
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.1140**	**0.7614**	**1.0323**	**5.4300e-003**	**0.3597**	**4.1800e-003**	**0.3638**	**0.0967**	**3.9300e-003**	**0.1006**		**562.2745**	**562.2745**	**0.0217**		**562.8176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.9879	9.5635	8.0189	0.0109		0.5320	0.5320		0.4894	0.4894	0.0000	1,054.1383	1,054.1383	0.3409		1,062.6616
Total	**0.9879**	**9.5635**	**8.0189**	**0.0109**	**1.3442**	**0.5320**	**1.8762**	**0.1451**	**0.4894**	**0.6346**	**0.0000**	**1,054.1383**	**1,054.1383**	**0.3409**		**1,062.6616**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.3500	0.0827	1.1900e-003	0.0284	1.0900e-003	0.0295	7.7800e-003	1.0400e-003	8.8200e-003		129.3653	129.3653	8.2900e-003		129.5725
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.1140**	**0.7614**	**1.0323**	**5.4300e-003**	**0.3597**	**4.1800e-003**	**0.3638**	**0.0967**	**3.9300e-003**	**0.1006**		**562.2745**	**562.2745**	**0.0217**		**562.8176**

3.29 Plot 4 (2022) Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.4484	45.8951	47.4508	0.0856		2.0979	2.0979		1.9321	1.9321		8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.5442**	**45.8951**	**47.4508**	**0.0856**	**6.3630**	**2.0979**	**8.4609**	**0.6871**	**1.9321**	**2.6191**		**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1087	3.5543	0.8397	0.0121	0.2883	0.0110	0.2993	0.0790	0.0106	0.0895		1,313.5556	1,313.5556	0.0841		1,315.6592
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.2975**	**4.7074**	**2.5486**	**0.0212**	**0.9020**	**0.0177**	**0.9197**	**0.2449**	**0.0168**	**0.2617**		**2,252.1310**	**2,252.1310**	**0.1155**		**2,255.0193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.4484	45.8951	47.4508	0.0856		2.0979	2.0979		1.9321	1.9321	0.0000	8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.5442**	**45.8951**	**47.4508**	**0.0856**	**2.4816**	**2.0979**	**4.5795**	**0.2680**	**1.9321**	**2.2000**	**0.0000**	**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1087	3.5543	0.8397	0.0121	0.2883	0.0110	0.2993	0.0790	0.0106	0.0895		1,313.5556	1,313.5556	0.0841		1,315.6592
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.2975**	**4.7074**	**2.5486**	**0.0212**	**0.9020**	**0.0177**	**0.9197**	**0.2449**	**0.0168**	**0.2617**		**2,252.1310**	**2,252.1310**	**0.1155**		**2,255.0193**

3.30 Plot 4 (2022) Temporary Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4846	16.4655	12.5866	0.0278		0.6674	0.6674		0.6140	0.6140		2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**1.4846**	**16.4655**	**12.5866**	**0.0278**	**0.0000**	**0.6674**	**0.6674**	**0.0000**	**0.6140**	**0.6140**		**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4846	16.4655	12.5866	0.0278		0.6674	0.6674		0.6140	0.6140	0.0000	2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**1.4846**	**16.4655**	**12.5866**	**0.0278**	**0.0000**	**0.6674**	**0.6674**	**0.0000**	**0.6140**	**0.6140**	**0.0000**	**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.31 Plot 4 (2023) Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.4664	93.8395	114.0629	0.3463		3.7794	3.7794		3.4782	3.4782		33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**11.4664**	**93.8395**	**114.0629**	**0.3463**	**25.5336**	**3.7794**	**29.3130**	**2.7570**	**3.4782**	**6.2352**		**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1308	4.0877	1.3980	0.0212	0.5258	8.3300e-003	0.5341	0.1441	7.9700e-003	0.1520		2,301.3915	2,301.3915	0.1426		2,304.9570
Vendor	0.1136	2.8775	1.0686	0.0185	0.5780	6.2900e-003	0.5843	0.1662	6.0200e-003	0.1722		1,979.1421	1,979.1421	0.0780		1,981.0924
Worker	0.2279	0.1467	2.1070	6.9600e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		693.4458	693.4458	0.0161		693.8483
Total	**0.4724**	**7.1119**	**4.5735**	**0.0467**	**1.8639**	**0.0198**	**1.8836**	**0.5118**	**0.0187**	**0.5305**		**4,973.9794**	**4,973.9794**	**0.2367**		**4,979.8977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	11.4664	93.8395	114.0629	0.3463		3.7794	3.7794		3.4782	3.4782	0.0000	33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**11.4664**	**93.8395**	**114.0629**	**0.3463**	**9.9581**	**3.7794**	**13.7375**	**1.0752**	**3.4782**	**4.5534**	**0.0000**	**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1308	4.0877	1.3980	0.0212	0.5258	8.3300e-003	0.5341	0.1441	7.9700e-003	0.1520		2,301.3915	2,301.3915	0.1426		2,304.9570
Vendor	0.1136	2.8775	1.0686	0.0185	0.5780	6.2900e-003	0.5843	0.1662	6.0200e-003	0.1722		1,979.1421	1,979.1421	0.0780		1,981.0924
Worker	0.2279	0.1467	2.1070	6.9600e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		693.4458	693.4458	0.0161		693.8483
Total	**0.4724**	**7.1119**	**4.5735**	**0.0467**	**1.8639**	**0.0198**	**1.8836**	**0.5118**	**0.0187**	**0.5305**		**4,973.9794**	**4,973.9794**	**0.2367**		**4,979.8977**

3.32 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1272	29.4848	41.6515	0.0626		1.4439	1.4439		1.3588	1.3588		5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**3.1272**	**29.4848**	**41.6515**	**0.0626**	**3.1937**	**1.4439**	**4.6376**	**0.3449**	**1.3588**	**1.7036**		**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1272	29.4848	41.6515	0.0626		1.4439	1.4439		1.3588	1.3588	0.0000	5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**3.1272**	**29.4848**	**41.6515**	**0.0626**	**1.2456**	**1.4439**	**2.6894**	**0.1345**	**1.3588**	**1.4933**	**0.0000**	**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

3.33 Plot 4 (2023) Building-Wet Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.2473	44.9812	66.9330	0.1252		2.1714	2.1714		1.9977	1.9977		12,115.3301	12,115.3301	3.9183		12,213.2887
Total	**5.2473**	**44.9812**	**66.9330**	**0.1252**	**9.5771**	**2.1714**	**11.7485**	**1.0341**	**1.9977**	**3.0318**		**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2887**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.4307	0.4893	7.4200e-003	0.1840	2.9200e-003	0.1869	0.0504	2.7900e-003	0.0532		805.4870	805.4870	0.0499		806.7350
Vendor	0.0682	1.7265	0.6411	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6100e-003	0.1033		1,187.4853	1,187.4853	0.0468		1,188.6554
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2564**	**3.2489**	**2.4473**	**0.0229**	**1.0059**	**9.8900e-003**	**1.0158**	**0.2761**	**9.3500e-003**	**0.2855**		**2,426.3759**	**2,426.3759**	**0.1068**		**2,429.0456**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.2473	44.9812	66.9330	0.1252		2.1714	2.1714		1.9977	1.9977	0.0000	12,115.3301	12,115.3301	3.9183		12,213.2886
Total	**5.2473**	**44.9812**	**66.9330**	**0.1252**	**3.7351**	**2.1714**	**5.9064**	**0.4033**	**1.9977**	**2.4010**	**0.0000**	**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.4307	0.4893	7.4200e-003	0.1840	2.9200e-003	0.1869	0.0504	2.7900e-003	0.0532		805.4870	805.4870	0.0499		806.7350
Vendor	0.0682	1.7265	0.6411	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6100e-003	0.1033		1,187.4853	1,187.4853	0.0468		1,188.6554
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2564**	**3.2489**	**2.4473**	**0.0229**	**1.0059**	**9.8900e-003**	**1.0158**	**0.2761**	**9.3500e-003**	**0.2855**		**2,426.3759**	**2,426.3759**	**0.1068**		**2,429.0456**

3.34 Plot 4 (2023) Building-Electrical - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.4037	30.7960	41.0415	0.0565		1.4799	1.4799		1.3632	1.3632		5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**3.4037**	**30.7960**	**41.0415**	**0.0565**	**6.3834**	**1.4799**	**7.8633**	**0.6893**	**1.3632**	**2.0525**		**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	3.2701	1.1184	0.0170	0.4206	6.6600e-003	0.4273	0.1153	6.3800e-003	0.1216		1,841.1132	1,841.1132	0.1141		1,843.9656
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0855	0.0550	0.7901	2.6100e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		260.0422	260.0422	6.0400e-003		260.1931
Total	**0.2174**	**4.0158**	**2.1650**	**0.0240**	**0.8444**	**0.0101**	**0.8545**	**0.2307**	**9.5900e-003**	**0.2403**		**2,576.1495**	**2,576.1495**	**0.1389**		**2,579.6209**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.4037	30.7960	41.0415	0.0565		1.4799	1.4799		1.3632	1.3632	0.0000	5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**3.4037**	**30.7960**	**41.0415**	**0.0565**	**2.4895**	**1.4799**	**3.9694**	**0.2688**	**1.3632**	**1.6320**	**0.0000**	**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	3.2701	1.1184	0.0170	0.4206	6.6600e-003	0.4273	0.1153	6.3800e-003	0.1216		1,841.1132	1,841.1132	0.1141		1,843.9656
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0855	0.0550	0.7901	2.6100e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		260.0422	260.0422	6.0400e-003		260.1931
Total	**0.2174**	**4.0158**	**2.1650**	**0.0240**	**0.8444**	**0.0101**	**0.8545**	**0.2307**	**9.5900e-003**	**0.2403**		**2,576.1495**	**2,576.1495**	**0.1389**		**2,579.6209**

3.35 Plot 4 (2023) Building-Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6611	22.7664	32.6759	0.0468		1.1283	1.1283		1.0380	1.0380		4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**2.6611**	**22.7664**	**32.6759**	**0.0468**	**1.5948**	**1.1283**	**2.7231**	**0.1722**	**1.0380**	**1.2102**		**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0318	0.8057	0.2992	5.1900e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		554.1598	554.1598	0.0218		554.7059
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0888**	**0.8424**	**0.8260**	**6.9300e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**727.5212**	**727.5212**	**0.0259**		**728.1679**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.6611	22.7664	32.6759	0.0468		1.1283	1.1283		1.0380	1.0380	0.0000	4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**2.6611**	**22.7664**	**32.6759**	**0.0468**	**0.6220**	**1.1283**	**1.7503**	**0.0672**	**1.0380**	**1.1052**	**0.0000**	**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0318	0.8057	0.2992	5.1900e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		554.1598	554.1598	0.0218		554.7059
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0888**	**0.8424**	**0.8260**	**6.9300e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**727.5212**	**727.5212**	**0.0259**		**728.1679**

3.36 Plot 4 (2023) Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.8208	24.0690	35.0106	0.0504		1.1989	1.1989		1.1030	1.1030		4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**2.8208**	**24.0690**	**35.0106**	**0.0504**	**1.5948**	**1.1989**	**2.7937**	**0.1722**	**1.1030**	**1.2752**		**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0843**	**0.7273**	**0.7832**	**6.1900e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**648.3556**	**648.3556**	**0.0227**		**648.9242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.8208	24.0690	35.0106	0.0504		1.1989	1.1989		1.1030	1.1030	0.0000	4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**2.8208**	**24.0690**	**35.0106**	**0.0504**	**0.6220**	**1.1989**	**1.8209**	**0.0672**	**1.1030**	**1.1701**	**0.0000**	**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0843**	**0.7273**	**0.7832**	**6.1900e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**648.3556**	**648.3556**	**0.0227**		**648.9242**

3.37 Plot 4 (2023) Curbing/Drive Approaches - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7096	6.6244	9.6049	0.0145		0.3375	0.3375		0.3113	0.3113		1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7575**	**6.6244**	**9.6049**	**0.0145**	**0.0000**	**0.3375**	**0.3375**	**0.0000**	**0.3113**	**0.3113**		**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.3243	0.4529	6.8600e-003	0.1703	2.7000e-003	0.1730	0.0467	2.5800e-003	0.0493		745.5626	745.5626	0.0462		746.7177
Vendor	0.0182	0.4604	0.1710	2.9600e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		316.6627	316.6627	0.0125		316.9748
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.1175**	**1.8213**	**1.1506**	**0.0116**	**0.4528**	**4.9900e-003**	**0.4578**	**0.1237**	**4.7200e-003**	**0.1284**		**1,235.5868**	**1,235.5868**	**0.0627**		**1,237.1546**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7096	6.6244	9.6049	0.0145		0.3375	0.3375		0.3113	0.3113	0.0000	1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7575**	**6.6244**	**9.6049**	**0.0145**	**0.0000**	**0.3375**	**0.3375**	**0.0000**	**0.3113**	**0.3113**	**0.0000**	**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.3243	0.4529	6.8600e-003	0.1703	2.7000e-003	0.1730	0.0467	2.5800e-003	0.0493		745.5626	745.5626	0.0462		746.7177
Vendor	0.0182	0.4604	0.1710	2.9600e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		316.6627	316.6627	0.0125		316.9748
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.1175**	**1.8213**	**1.1506**	**0.0116**	**0.4528**	**4.9900e-003**	**0.4578**	**0.1237**	**4.7200e-003**	**0.1284**		**1,235.5868**	**1,235.5868**	**0.0627**		**1,237.1546**

3.38 Plot 4 (2023) Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.2119	42.3567	46.8307	0.0856		1.8940	1.8940		1.7444	1.7444		8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.3077**	**42.3567**	**46.8307**	**0.0856**	**6.3630**	**1.8940**	**8.2570**	**0.6871**	**1.7444**	**2.4315**		**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0717	2.2410	0.7664	0.0116	0.2882	4.5700e-003	0.2928	0.0790	4.3700e-003	0.0834		1,261.7214	1,261.7214	0.0782		1,263.6761
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2414**	**3.0233**	**2.3398**	**0.0204**	**0.9020**	**9.2800e-003**	**0.9113**	**0.2449**	**8.7600e-003**	**0.2536**		**2,170.1191**	**2,170.1191**	**0.1070**		**2,172.7934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.2119	42.3567	46.8307	0.0856		1.8940	1.8940		1.7444	1.7444	0.0000	8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.3077**	**42.3567**	**46.8307**	**0.0856**	**2.4816**	**1.8940**	**4.3756**	**0.2680**	**1.7444**	**2.0124**	**0.0000**	**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0717	2.2410	0.7664	0.0116	0.2882	4.5700e-003	0.2928	0.0790	4.3700e-003	0.0834		1,261.7214	1,261.7214	0.0782		1,263.6761
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2414**	**3.0233**	**2.3398**	**0.0204**	**0.9020**	**9.2800e-003**	**0.9113**	**0.2449**	**8.7600e-003**	**0.2536**		**2,170.1191**	**2,170.1191**	**0.1070**		**2,172.7934**

3.39 Plot 4 (2023) Temporary Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3445	14.2851	11.4372	0.0278		0.5778	0.5778		0.5316	0.5316		2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**1.3445**	**14.2851**	**11.4372**	**0.0278**	**0.0000**	**0.5778**	**0.5778**	**0.0000**	**0.5316**	**0.5316**		**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3445	14.2851	11.4372	0.0278		0.5778	0.5778		0.5316	0.5316	0.0000	2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**1.3445**	**14.2851**	**11.4372**	**0.0278**	**0.0000**	**0.5778**	**0.5778**	**0.0000**	**0.5316**	**0.5316**	**0.0000**	**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plots 2 & 4 (2020-2023) - South Coast AQMD Air District, Winter

World Logistics Center-Construction Plots 2 & 4 (2020-2023)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	65.0291	632.7239	404.7479	1.0080	78.2365	24.8361	96.6985	9.5189	22.8547	30.4797	0.0000	98,358.0760	98,358.0760	29.2771	0.0000	99,090.0040
2021	57.0524	445.2171	430.3906	0.9902	61.1424	19.7828	80.9252	7.7433	18.2502	25.9934	0.0000	97,364.1836	97,364.1836	25.9589	0.0000	98,013.1551
2022	84.9428	760.2839	640.6631	1.5442	98.0044	30.4587	128.4630	12.0156	28.0676	40.0832	0.0000	151,269.9344	151,269.9344	42.5147	0.0000	152,332.8004
2023	49.0595	335.5383	416.0094	0.9818	61.1423	14.0855	75.2278	7.7433	12.9967	20.7400	0.0000	96,491.8591	96,491.8591	25.8597	0.0000	97,138.3532
Maximum	**84.9428**	**760.2839**	**640.6631**	**1.5442**	**98.0044**	**30.4587**	**128.4630**	**12.0156**	**28.0676**	**40.0832**	**0.0000**	**151,269.9344**	**151,269.9344**	**42.5147**	**0.0000**	**152,332.8004**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	65.0291	632.7239	404.7479	1.0080	34.4535	24.8361	52.9154	4.7914	22.8547	26.4880	0.0000	98,358.0759	98,358.0759	29.2771	0.0000	99,090.0039
2021	57.0524	445.2171	430.3906	0.9902	28.0557	19.7828	47.8384	4.1707	18.2502	22.4208	0.0000	97,364.1836	97,364.1836	25.9589	0.0000	98,013.1550
2022	84.9428	760.2839	640.6631	1.5442	43.5324	30.4587	73.9911	6.1339	28.0676	34.2015	0.0000	151,269.9342	151,269.9342	42.5147	0.0000	152,332.8003
2023	49.0595	335.5383	416.0094	0.9818	28.0556	14.0855	42.1411	4.1707	12.9967	17.1674	0.0000	96,491.8591	96,491.8591	25.8597	0.0000	97,138.3532
Maximum	**84.9428**	**760.2839**	**640.6631**	**1.5442**	**43.5324**	**30.4587**	**73.9911**	**6.1339**	**28.0676**	**34.2015**	**0.0000**	**151,269.9342**	**151,269.9342**	**42.5147**	**0.0000**	**152,332.8003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**55.08**	**0.00**	**43.12**	**47.96**	**0.00**	**14.51**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2020) Mass Excavation	Grading	1/1/2020	6/30/2020	5	130	11
2	Plot 2 (2020) Utilities	Trenching	1/1/2020	12/29/2020	5	260	15
3	Plot 2 (2020) Landscaping	Building Construction	1/1/2020	12/29/2020	5	260	16
4	Plot 2 (2020) Finish Grading	Grading	5/7/2020	7/1/2020	5	40	12
5	Plot 2 (2020) Building-Wet Utilities	Building Construction	7/2/2020	12/30/2020	5	130	13
6	Plot 2 (2020) Building-Electrical	Building Construction	7/2/2020	12/30/2020	5	130	14
7	Plot 2 (2020) Temporary Utilities	Building Construction	7/2/2020	12/30/2020	5	130	17
8	Plot 2 (2020) Curbing/Drive Approaches	Paving	11/5/2020	12/30/2020	5	40	18
9	Plot 2 (2020) Paving	Paving	12/3/2020	12/30/2020	5	20	19
10	Plot 2 (2021) Utilities	Trenching	1/1/2021	12/30/2021	5	260	24
11	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	20
12	Plot 2 (2021) Building-Wet Utilities	Building Construction	1/1/2021	12/30/2021	5	260	21
13	Plot 2 (2021) Building-Electrical	Building Construction	1/1/2021	12/30/2021	5	260	22
14	Plot 2 (2021) Building-Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	23
15	Plot 2 (2021) Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	25
16	Plot 2 (2021) Curbing/Drive Approaches	Paving	5/1/2021	8/20/2021	5	80	27

17	Plot 2 (2021) Paving	Paving	6/1/2021	7/26/2021	5	40	28	
18	Plot 2 (2021) Temporary Utilities	Building Construction	7/2/2021	12/30/2021	5	130	26	
19	Plot 4 (2022) Mass Excavation	Grading	1/1/2022	7/1/2022	5	130	29	
20	Plot 4 (2022) Utilities	Trenching	1/1/2022	12/30/2022	5	260	35	
21	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	31	
22	Plot 4 (2022) Building-Wet Utilities	Building Construction	1/1/2022	12/30/2022	5	260	32	
23	Plot 4 (2022) Building-Electrical	Building Construction	1/1/2022	12/30/2022	5	260	33	
24	Plot 4 (2022) Building-Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	34	
25	Plot 4 (2022) Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	36	
26	Plot 4 (2022) Curbing/Drive Approaches	Paving	5/1/2022	8/20/2022	5	80	38	
27	Plot 4 (2022) Finish Grading	Grading	5/7/2022	7/1/2022	5	40	30	
28	Plot 4 (2022) Paving	Paving	6/1/2022	7/26/2022	5	40	39	
29	Plot 4 (2022) Temporary Utilities	Building Construction	7/2/2022	12/30/2022	5	130	37	
30	Plot 4 (2023) Utilities	Trenching	1/1/2023	12/30/2023	5	260	44	
31	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	40	
32	Plot 4 (2023) Building-Wet Utilities	Building Construction	1/1/2023	12/30/2023	5	260	41	
33	Plot 4 (2023) Building-Electrical	Building Construction	1/1/2023	12/30/2023	5	260	42	
34	Plot 4 (2023) Building-Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	43	
35	Plot 4 (2023) Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	45	
36	Plot 4 (2023) Curbing/Drive Approaches	Paving	5/1/2023	8/20/2023	5	80	47	
37	Plot 4 (2023) Paving	Paving	6/1/2023	7/26/2023	5	40	48	
38	Plot 4 (2023) Temporary Utilities	Building Construction	7/2/2023	12/30/2023	5	130	46	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 2 (2020) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2020) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2020) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2020) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 2 (2020) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2020) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2020) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2020) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2020) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2020) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2020) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2020) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2020) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2020) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37

Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2020) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2020) Mass Excavation	Graders	1	10.00	193	0.41
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2020) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2020) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2020) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2020) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2020) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2020) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2020) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2020) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2020) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2020) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2020) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2020) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2020) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2020) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 2 (2021) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2021) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2021) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2021) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 2 (2021) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2021) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2021) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2021) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2021) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2021) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2021) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2021) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2021) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2021) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2021) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2021) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2021) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2021) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2021) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2021) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2021) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2021) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2021) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2021) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2021) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2022) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2022) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2022) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2022) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 4 (2022) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2022) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2022) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2022) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2022) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 4 (2022) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Mass Excavation	Graders	1	10.00	193	0.41
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40

Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2022) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2022) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2022) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2022) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2022) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2022) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2022) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2022) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2022) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2022) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2022) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2022) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2023) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2023) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2023) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2023) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 4 (2023) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2023) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2023) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2023) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2023) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2023) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 4 (2023) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2023) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2023) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2023) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2023) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2023) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2023) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2023) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2023) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2023) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2023) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2023) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2023) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 2 (2020) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Finish Grading		15.00	2.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 4 (2022) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Finish Grading		15.00	2.00	52.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 2 (2020) Mass Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	34.9929	421.6704	230.8390	0.5130		15.9933	15.9933		14.7138	14.7138		49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**34.9929**	**421.6704**	**230.8390**	**0.5130**	**30.0285**	**15.9933**	**46.0217**	**3.2424**	**14.7138**	**17.9562**		**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1218	4.2106	0.9048	0.0122	0.2864	0.0144	0.3008	0.0785	0.0138	0.0923		1,314.6474	1,314.6474	0.0893		1,316.8796
Vendor	0.0754	2.0085	0.5237	6.9200e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0755		737.1430	737.1430	0.0333		737.9756
Worker	0.3837	0.2723	2.9676	9.0500e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		902.2896	902.2896	0.0253		902.9209
Total	**0.5809**	**6.4914**	**4.3961**	**0.0281**	**1.4446**	**0.0377**	**1.4824**	**0.3903**	**0.0359**	**0.4261**		**2,954.0800**	**2,954.0800**	**0.1478**		**2,957.7761**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	34.9929	421.6704	230.8390	0.5130		15.9933	15.9933		14.7138	14.7138	0.0000	49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**34.9929**	**421.6704**	**230.8390**	**0.5130**	**11.7111**	**15.9933**	**27.7044**	**1.2645**	**14.7138**	**15.9783**	**0.0000**	**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1218	4.2106	0.9048	0.0122	0.2864	0.0144	0.3008	0.0785	0.0138	0.0923		1,314.6474	1,314.6474	0.0893		1,316.8796
Vendor	0.0754	2.0085	0.5237	6.9200e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0755		737.1430	737.1430	0.0333		737.9756
Worker	0.3837	0.2723	2.9676	9.0500e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		902.2896	902.2896	0.0253		902.9209
Total	**0.5809**	**6.4914**	**4.3961**	**0.0281**	**1.4446**	**0.0377**	**1.4824**	**0.3903**	**0.0359**	**0.4261**		**2,954.0800**	**2,954.0800**	**0.1478**		**2,957.7761**

3.3 Plot 2 (2020) Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	14.5857	144.0881	117.7824	0.3462		6.1033	6.1033		5.6161	5.6161		33,495.8101	33,495.8101	10.8221		33,766.3634
Total	**14.5857**	**144.0881**	**117.7824**	**0.3462**	**25.5336**	**6.1033**	**31.6369**	**2.7570**	**5.6161**	**8.3732**		**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3634**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2235	7.7297	1.6610	0.0223	0.5258	0.0265	0.5523	0.1441	0.0253	0.1694		2,413.3997	2,413.3997	0.1639		2,417.4974
Vendor	0.2095	5.5793	1.4548	0.0192	0.5780	0.0454	0.6234	0.1662	0.0434	0.2096		2,047.6195	2,047.6195	0.0925		2,049.9322
Worker	0.3070	0.2178	2.3741	7.2400e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		721.8317	721.8317	0.0202		722.3368
Total	**0.7400**	**13.5268**	**5.4899**	**0.0488**	**1.8639**	**0.0775**	**1.9413**	**0.5119**	**0.0739**	**0.5857**		**5,182.8508**	**5,182.8508**	**0.2766**		**5,189.7664**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	14.5857	144.0881	117.7824	0.3462		6.1033	6.1033		5.6161	5.6161	0.0000	33,495.8101	33,495.8101	10.8221		33,766.3633
Total	**14.5857**	**144.0881**	**117.7824**	**0.3462**	**9.9581**	**6.1033**	**16.0614**	**1.0752**	**5.6161**	**6.6914**	**0.0000**	**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3633**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2235	7.7297	1.6610	0.0223	0.5258	0.0265	0.5523	0.1441	0.0253	0.1694		2,413.3997	2,413.3997	0.1639		2,417.4974
Vendor	0.2095	5.5793	1.4548	0.0192	0.5780	0.0454	0.6234	0.1662	0.0434	0.2096		2,047.6195	2,047.6195	0.0925		2,049.9322
Worker	0.3070	0.2178	2.3741	7.2400e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		721.8317	721.8317	0.0202		722.3368
Total	**0.7400**	**13.5268**	**5.4899**	**0.0488**	**1.8639**	**0.0775**	**1.9413**	**0.5119**	**0.0739**	**0.5857**		**5,182.8508**	**5,182.8508**	**0.2766**		**5,189.7664**

3.4 Plot 2 (2020) Landscaping - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.8074	33.1521	36.0541	0.0504		1.9188	1.9188		1.7653	1.7653		4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**3.8074**	**33.1521**	**36.0541**	**0.0504**	**1.5948**	**1.9188**	**3.5136**	**0.1722**	**1.7653**	**1.9375**		**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.1270**	**1.3935**	**0.9427**	**6.4200e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1020**		**671.8866**	**671.8866**	**0.0273**		**672.5679**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.8074	33.1521	36.0541	0.0504		1.9188	1.9188		1.7653	1.7653	0.0000	4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**3.8074**	**33.1521**	**36.0541**	**0.0504**	**0.6220**	**1.9188**	**2.5408**	**0.0672**	**1.7653**	**1.8325**	**0.0000**	**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.1270**	**1.3935**	**0.9427**	**6.4200e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1020**		**671.8866**	**671.8866**	**0.0273**		**672.5679**

3.5 Plot 2 (2020) Finish Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	1.2005	11.8738	8.2372	0.0109		0.6876	0.6876		0.6326	0.6326		1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**1.2005**	**11.8738**	**8.2372**	**0.0109**	**3.4466**	**0.6876**	**4.1342**	**0.3722**	**0.6326**	**1.0047**		**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0168	0.4463	0.1164	1.5400e-003	0.0462	3.6300e-003	0.0499	0.0133	3.4700e-003	0.0168		163.8096	163.8096	7.4000e-003		163.9946
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.1319**	**0.5280**	**1.0067**	**4.2600e-003**	**0.3313**	**5.7300e-003**	**0.3370**	**0.0889**	**5.4000e-003**	**0.0943**		**434.4964**	**434.4964**	**0.0150**		**434.8709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	1.2005	11.8738	8.2372	0.0109		0.6876	0.6876		0.6326	0.6326	0.0000	1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**1.2005**	**11.8738**	**8.2372**	**0.0109**	**1.3442**	**0.6876**	**2.0318**	**0.1451**	**0.6326**	**0.7777**	**0.0000**	**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0168	0.4463	0.1164	1.5400e-003	0.0462	3.6300e-003	0.0499	0.0133	3.4700e-003	0.0168		163.8096	163.8096	7.4000e-003		163.9946
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.1319**	**0.5280**	**1.0067**	**4.2600e-003**	**0.3313**	**5.7300e-003**	**0.3370**	**0.0889**	**5.4000e-003**	**0.0943**		**434.4964**	**434.4964**	**0.0150**		**434.8709**

3.6 Plot 2 (2020) Building-Wet Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.1543	0.0000	19.1543	2.0682	0.0000	2.0682			0.0000			0.0000
Off-Road	7.0209	68.8525	68.2550	0.1251		3.5379	3.5379		3.2549	3.2549		12,113.6757	12,113.6757	3.9178		12,211.6210
Total	**7.0209**	**68.8525**	**68.2550**	**0.1251**	**19.1543**	**3.5379**	**22.6922**	**2.0682**	**3.2549**	**5.3231**		**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6210**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1565	5.4108	1.1627	0.0156	0.3680	0.0185	0.3866	0.1009	0.0177	0.1186		1,689.3798	1,689.3798	0.1147		1,692.2482
Vendor	0.1257	3.3476	0.8729	0.0115	0.3468	0.0272	0.3740	0.0997	0.0261	0.1258		1,228.5717	1,228.5717	0.0555		1,229.9593
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4740**	**8.8945**	**3.5194**	**0.0317**	**1.1899**	**0.0493**	**1.2392**	**0.3266**	**0.0470**	**0.3736**		**3,369.0963**	**3,369.0963**	**0.1829**		**3,373.6680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4702	0.0000	7.4702	0.8066	0.0000	0.8066			0.0000			0.0000
Off-Road	7.0209	68.8525	68.2550	0.1251		3.5379	3.5379		3.2549	3.2549	0.0000	12,113.6757	12,113.6757	3.9178		12,211.6209
Total	**7.0209**	**68.8525**	**68.2550**	**0.1251**	**7.4702**	**3.5379**	**11.0081**	**0.8066**	**3.2549**	**4.0615**	**0.0000**	**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1565	5.4108	1.1627	0.0156	0.3680	0.0185	0.3866	0.1009	0.0177	0.1186		1,689.3798	1,689.3798	0.1147		1,692.2482
Vendor	0.1257	3.3476	0.8729	0.0115	0.3468	0.0272	0.3740	0.0997	0.0261	0.1258		1,228.5717	1,228.5717	0.0555		1,229.9593
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4740**	**8.8945**	**3.5194**	**0.0317**	**1.1899**	**0.0493**	**1.2392**	**0.3266**	**0.0470**	**0.3736**		**3,369.0963**	**3,369.0963**	**0.1829**		**3,373.6680**

3.7 Plot 2 (2020) Building-Electrical - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7668	0.0000	12.7668	1.3785	0.0000	1.3785			0.0000			0.0000
Off-Road	4.5650	39.4704	42.3822	0.0564		2.4398	2.4398		2.2464	2.2464		5,432.2395	5,432.2395	1.7403		5,475.7459
Total	**4.5650**	**39.4704**	**42.3822**	**0.0564**	**12.7668**	**2.4398**	**15.2066**	**1.3785**	**2.2464**	**3.6249**		**5,432.2395**	**5,432.2395**	**1.7403**		**5,475.7459**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3576	12.3675	2.6577	0.0357	0.8412	0.0424	0.8836	0.2305	0.0405	0.2711		3,861.4395	3,861.4395	0.2623		3,867.9959
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.5230**	**13.7882**	**3.8971**	**0.0430**	**1.2650**	**0.0554**	**1.3204**	**0.3460**	**0.0529**	**0.3989**		**4,623.5551**	**4,623.5551**	**0.2920**		**4,630.8559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					4.9791	0.0000	4.9791	0.5376	0.0000	0.5376			0.0000			0.0000
Off-Road	4.5650	39.4704	42.3822	0.0564		2.4398	2.4398		2.2464	2.2464	0.0000	5,432.2394	5,432.2394	1.7403		5,475.7458
Total	**4.5650**	**39.4704**	**42.3822**	**0.0564**	**4.9791**	**2.4398**	**7.4189**	**0.5376**	**2.2464**	**2.7840**	**0.0000**	**5,432.2394**	**5,432.2394**	**1.7403**		**5,475.7458**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.3576	12.3675	2.6577	0.0357	0.8412	0.0424	0.8836	0.2305	0.0405	0.2711		3,861.4395	3,861.4395	0.2623		3,867.9959
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.5230**	**13.7882**	**3.8971**	**0.0430**	**1.2650**	**0.0554**	**1.3204**	**0.3460**	**0.0529**	**0.3989**		**4,623.5551**	**4,623.5551**	**0.2920**		**4,630.8559**

3.8 Plot 2 (2020) Temporary Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8243	21.9777	15.1378	0.0278		0.8809	0.8809		0.8105	0.8105		2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**1.8243**	**21.9777**	**15.1378**	**0.0278**	**0.0000**	**0.8809**	**0.8809**	**0.0000**	**0.8105**	**0.8105**		**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8243	21.9777	15.1378	0.0278		0.8809	0.8809		0.8105	0.8105	0.0000	2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**1.8243**	**21.9777**	**15.1378**	**0.0278**	**0.0000**	**0.8809**	**0.8809**	**0.0000**	**0.8105**	**0.8105**	**0.0000**	**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 Plot 2 (2020) Curbing/Drive Approaches - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9106	8.7892	9.6732	0.0145		0.5085	0.5085		0.4686	0.4686		1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.0064**	**8.7892**	**9.6732**	**0.0145**	**0.0000**	**0.5085**	**0.5085**	**0.0000**	**0.4686**	**0.4686**		**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1448	5.0082	1.0762	0.0145	0.3407	0.0172	0.3578	0.0934	0.0164	0.1098		1,563.6980	1,563.6980	0.1062		1,566.3530
Vendor	0.0335	0.8927	0.2328	3.0700e-003	0.0925	7.2600e-003	0.0997	0.0266	6.9500e-003	0.0335		327.6191	327.6191	0.0148		327.9892
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.2551**	**5.9554**	**1.9025**	**0.0193**	**0.6232**	**0.0258**	**0.6490**	**0.1703**	**0.0247**	**0.1950**		**2,071.7750**	**2,071.7750**	**0.1261**		**2,074.9263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9106	8.7892	9.6732	0.0145		0.5085	0.5085		0.4686	0.4686	0.0000	1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.0064**	**8.7892**	**9.6732**	**0.0145**	**0.0000**	**0.5085**	**0.5085**	**0.0000**	**0.4686**	**0.4686**	**0.0000**	**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1448	5.0082	1.0762	0.0145	0.3407	0.0172	0.3578	0.0934	0.0164	0.1098		1,563.6980	1,563.6980	0.1062		1,566.3530
Vendor	0.0335	0.8927	0.2328	3.0700e-003	0.0925	7.2600e-003	0.0997	0.0266	6.9500e-003	0.0335		327.6191	327.6191	0.0148		327.9892
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.2551**	**5.9554**	**1.9025**	**0.0193**	**0.6232**	**0.0258**	**0.6490**	**0.1703**	**0.0247**	**0.1950**		**2,071.7750**	**2,071.7750**	**0.1261**		**2,074.9263**

3.10 Plot 2 (2020) Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7260	0.0000	12.7260	1.3741	0.0000	1.3741			0.0000			0.0000
Off-Road	5.4214	58.8557	50.3997	0.0854		2.8092	2.8092		2.5864	2.5864		8,241.4600	8,241.4600	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**21.6130**	**58.8557**	**50.3997**	**0.0854**	**12.7260**	**2.8092**	**15.5352**	**1.3741**	**2.5864**	**3.9605**		**8,241.4600**	**8,241.4600**	**2.6465**		**8,307.6231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2451	8.4755	1.8213	0.0245	0.5765	0.0290	0.6055	0.1580	0.0278	0.1858		2,646.2581	2,646.2581	0.1797		2,650.7512
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4872**	**9.9506**	**3.6542**	**0.0336**	**1.1903**	**0.0434**	**1.2337**	**0.3238**	**0.0414**	**0.3653**		**3,588.8316**	**3,588.8316**	**0.2146**		**3,594.1954**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9631	0.0000	4.9631	0.5359	0.0000	0.5359			0.0000			0.0000
Off-Road	5.4214	58.8557	50.3997	0.0854		2.8092	2.8092		2.5864	2.5864	0.0000	8,241.4599	8,241.4599	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**21.6130**	**58.8557**	**50.3997**	**0.0854**	**4.9631**	**2.8092**	**7.7724**	**0.5359**	**2.5864**	**3.1223**	**0.0000**	**8,241.4599**	**8,241.4599**	**2.6465**		**8,307.6231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2451	8.4755	1.8213	0.0245	0.5765	0.0290	0.6055	0.1580	0.0278	0.1858		2,646.2581	2,646.2581	0.1797		2,650.7512
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4872**	**9.9506**	**3.6542**	**0.0336**	**1.1903**	**0.0434**	**1.2337**	**0.3238**	**0.0414**	**0.3653**		**3,588.8316**	**3,588.8316**	**0.2146**		**3,594.1954**

3.11 Plot 2 (2021) Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	13.5966	126.7797	116.8700	0.3461		5.3238	5.3238		4.8990	4.8990		33,477.1040	33,477.1040	10.8161		33,747.5060
Total	**13.5966**	**126.7797**	**116.8700**	**0.3461**	**25.5336**	**5.3238**	**30.8573**	**2.7570**	**4.8990**	**7.6560**		**33,477.1040**	**33,477.1040**	**10.8161**		**33,747.5060**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2137	7.1560	1.6411	0.0221	0.5258	0.0237	0.5495	0.1441	0.0227	0.1667		2,387.8222	2,387.8222	0.1615		2,391.8596
Vendor	0.1706	4.8211	1.2991	0.0191	0.5780	0.0163	0.5943	0.1662	0.0156	0.1818		2,033.3985	2,033.3985	0.0892		2,035.6281
Worker	0.2875	0.1962	2.1861	7.0100e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		698.4236	698.4236	0.0183		698.8807
Total	**0.6717**	**12.1733**	**5.1263**	**0.0481**	**1.8639**	**0.0454**	**1.9093**	**0.5119**	**0.0432**	**0.5551**		**5,119.6443**	**5,119.6443**	**0.2690**		**5,126.3684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	13.5966	126.7797	116.8700	0.3461		5.3238	5.3238		4.8990	4.8990	0.0000	33,477.1039	33,477.1039	10.8161		33,747.5059
Total	**13.5966**	**126.7797**	**116.8700**	**0.3461**	**9.9581**	**5.3238**	**15.2819**	**1.0752**	**4.8990**	**5.9742**	**0.0000**	**33,477.1039**	**33,477.1039**	**10.8161**		**33,747.5059**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2137	7.1560	1.6411	0.0221	0.5258	0.0237	0.5495	0.1441	0.0227	0.1667		2,387.8222	2,387.8222	0.1615		2,391.8596
Vendor	0.1706	4.8211	1.2991	0.0191	0.5780	0.0163	0.5943	0.1662	0.0156	0.1818		2,033.3985	2,033.3985	0.0892		2,035.6281
Worker	0.2875	0.1962	2.1861	7.0100e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		698.4236	698.4236	0.0183		698.8807
Total	**0.6717**	**12.1733**	**5.1263**	**0.0481**	**1.8639**	**0.0454**	**1.9093**	**0.5119**	**0.0432**	**0.5551**		**5,119.6443**	**5,119.6443**	**0.2690**		**5,126.3684**

3.12 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.7587	35.6875	42.0925	0.0625		2.0473	2.0473		1.9224	1.9224		5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**3.7587**	**35.6875**	**42.0925**	**0.0625**	**3.1937**	**2.0473**	**5.2410**	**0.3449**	**1.9224**	**2.2673**		**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.7587	35.6875	42.0925	0.0625		2.0473	2.0473		1.9224	1.9224	0.0000	5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**3.7587**	**35.6875**	**42.0925**	**0.0625**	**1.2456**	**2.0473**	**3.2928**	**0.1345**	**1.9224**	**2.0569**	**0.0000**	**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

3.13 Plot 2 (2021) Building-Wet Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	6.4528	61.0725	67.9432	0.1251		3.0859	3.0859		2.8390	2.8390		12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**6.4528**	**61.0725**	**67.9432**	**0.1251**	**9.5771**	**3.0859**	**12.6630**	**1.0341**	**2.8390**	**3.8731**		**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0748	2.5046	0.5744	7.7200e-003	0.1840	8.2900e-003	0.1923	0.0504	7.9300e-003	0.0584		835.7378	835.7378	0.0565		837.1509
Vendor	0.1024	2.8927	0.7795	0.0114	0.3468	9.7700e-003	0.3566	0.0997	9.3500e-003	0.1091		1,220.0391	1,220.0391	0.0535		1,221.3769
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3568**	**5.5199**	**2.7202**	**0.0235**	**1.0059**	**0.0215**	**1.0273**	**0.2761**	**0.0204**	**0.2965**		**2,492.2916**	**2,492.2916**	**0.1215**		**2,495.3282**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	6.4528	61.0725	67.9432	0.1251		3.0859	3.0859		2.8390	2.8390	0.0000	12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**6.4528**	**61.0725**	**67.9432**	**0.1251**	**3.7351**	**3.0859**	**6.8210**	**0.4033**	**2.8390**	**3.2423**	**0.0000**	**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0748	2.5046	0.5744	7.7200e-003	0.1840	8.2900e-003	0.1923	0.0504	7.9300e-003	0.0584		835.7378	835.7378	0.0565		837.1509
Vendor	0.1024	2.8927	0.7795	0.0114	0.3468	9.7700e-003	0.3566	0.0997	9.3500e-003	0.1091		1,220.0391	1,220.0391	0.0535		1,221.3769
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3568**	**5.5199**	**2.7202**	**0.0235**	**1.0059**	**0.0215**	**1.0273**	**0.2761**	**0.0204**	**0.2965**		**2,492.2916**	**2,492.2916**	**0.1215**		**2,495.3282**

3.14 Plot 2 (2021) Building-Electrical - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	4.1999	36.5280	42.0564	0.0564		2.1181	2.1181		1.9504	1.9504		5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**4.1999**	**36.5280**	**42.0564**	**0.0564**	**6.3834**	**2.1181**	**8.5015**	**0.6893**	**1.9504**	**2.6397**		**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1709	5.7248	1.3129	0.0177	0.4206	0.0189	0.4396	0.1153	0.0181	0.1334		1,910.2578	1,910.2578	0.1292		1,913.4877
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1078	0.0736	0.8198	2.6300e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		261.9089	261.9089	6.8600e-003		262.0803
Total	**0.3197**	**6.9554**	**2.4444**	**0.0249**	**0.8444**	**0.0249**	**0.8693**	**0.2307**	**0.0237**	**0.2545**		**2,660.1823**	**2,660.1823**	**0.1575**		**2,664.1187**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	4.1999	36.5280	42.0564	0.0564		2.1181	2.1181		1.9504	1.9504	0.0000	5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**4.1999**	**36.5280**	**42.0564**	**0.0564**	**2.4895**	**2.1181**	**4.6077**	**0.2688**	**1.9504**	**2.2192**	**0.0000**	**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1709	5.7248	1.3129	0.0177	0.4206	0.0189	0.4396	0.1153	0.0181	0.1334		1,910.2578	1,910.2578	0.1292		1,913.4877
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1078	0.0736	0.8198	2.6300e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		261.9089	261.9089	6.8600e-003		262.0803
Total	**0.3197**	**6.9554**	**2.4444**	**0.0249**	**0.8444**	**0.0249**	**0.8693**	**0.2307**	**0.0237**	**0.2545**		**2,660.1823**	**2,660.1823**	**0.1575**		**2,664.1187**

3.15 Plot 2 (2021) Building-Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.3130	28.6908	33.4533	0.0468		1.6052	1.6052		1.4768	1.4768		4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**3.3130**	**28.6908**	**33.4533**	**0.0468**	**1.5948**	**1.6052**	**3.2001**	**0.1722**	**1.4768**	**1.6490**		**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0478	1.3499	0.3638	5.3400e-003	0.1618	4.5600e-003	0.1664	0.0465	4.3600e-003	0.0509		569.3516	569.3516	0.0250		569.9759
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1196**	**1.3990**	**0.9103**	**7.0900e-003**	**0.3519**	**5.9200e-003**	**0.3578**	**0.0969**	**5.6100e-003**	**0.1025**		**743.9575**	**743.9575**	**0.0295**		**744.6960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.3130	28.6908	33.4533	0.0468		1.6052	1.6052		1.4768	1.4768	0.0000	4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**3.3130**	**28.6908**	**33.4533**	**0.0468**	**0.6220**	**1.6052**	**2.2272**	**0.0672**	**1.4768**	**1.5440**	**0.0000**	**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0478	1.3499	0.3638	5.3400e-003	0.1618	4.5600e-003	0.1664	0.0465	4.3600e-003	0.0509		569.3516	569.3516	0.0250		569.9759
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1196**	**1.3990**	**0.9103**	**7.0900e-003**	**0.3519**	**5.9200e-003**	**0.3578**	**0.0969**	**5.6100e-003**	**0.1025**		**743.9575**	**743.9575**	**0.0295**		**744.6960**

3.16 Plot 2 (2021) Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.4962	30.3448	35.8069	0.0504		1.6890	1.6890		1.5539	1.5539		4,879.8222	4,879.8222	1.5782		4,919.2781
Total	**3.4962**	**30.3448**	**35.8069**	**0.0504**	**1.5948**	**1.6890**	**3.2838**	**0.1722**	**1.5539**	**1.7261**		**4,879.8222**	**4,879.8222**	**1.5782**		**4,919.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1128**	**1.2061**	**0.8583**	**6.3300e-003**	**0.3288**	**5.2700e-003**	**0.3340**	**0.0903**	**4.9900e-003**	**0.0953**		**662.6215**	**662.6215**	**0.0260**		**663.2709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.4962	30.3448	35.8069	0.0504		1.6890	1.6890		1.5539	1.5539	0.0000	4,879.822 2	4,879.8222	1.5782		4,919.278 1
Total	**3.4962**	**30.3448**	**35.8069**	**0.0504**	**0.6220**	**1.6890**	**2.3110**	**0.0672**	**1.5539**	**1.6210**	**0.0000**	**4,879.822 2**	**4,879.8222**	**1.5782**		**4,919.278 1**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1128**	**1.2061**	**0.8583**	**6.3300e-003**	**0.3288**	**5.2700e-003**	**0.3340**	**0.0903**	**4.9900e-003**	**0.0953**		**662.6215**	**662.6215**	**0.0260**		**663.2709**

3.17 Plot 2 (2021) Curbing/Drive Approaches - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8406	8.0613	9.6611	0.0145		0.4479	0.4479		0.4129	0.4129		1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8885**	**8.0613**	**9.6611**	**0.0145**	**0.0000**	**0.4479**	**0.4479**	**0.0000**	**0.4129**	**0.4129**		**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	2.3183	0.5317	7.1500e-003	0.1703	7.6700e-003	0.1780	0.0467	7.3400e-003	0.0540		773.5629	773.5629	0.0523		774.8708
Vendor	0.0273	0.7714	0.2079	3.0500e-003	0.0925	2.6100e-003	0.0951	0.0266	2.4900e-003	0.0291		325.3438	325.3438	0.0143		325.7005
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1684**	**3.1387**	**1.2860**	**0.0120**	**0.4528**	**0.0116**	**0.4645**	**0.1237**	**0.0111**	**0.1347**		**1,273.5125**	**1,273.5125**	**0.0712**		**1,275.2915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8406	8.0613	9.6611	0.0145		0.4479	0.4479		0.4129	0.4129	0.0000	1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8885**	**8.0613**	**9.6611**	**0.0145**	**0.0000**	**0.4479**	**0.4479**	**0.0000**	**0.4129**	**0.4129**	**0.0000**	**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	2.3183	0.5317	7.1500e-003	0.1703	7.6700e-003	0.1780	0.0467	7.3400e-003	0.0540		773.5629	773.5629	0.0523		774.8708
Vendor	0.0273	0.7714	0.2079	3.0500e-003	0.0925	2.6100e-003	0.0951	0.0266	2.4900e-003	0.0291		325.3438	325.3438	0.0143		325.7005
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1684**	**3.1387**	**1.2860**	**0.0120**	**0.4528**	**0.0116**	**0.4645**	**0.1237**	**0.0111**	**0.1347**		**1,273.5125**	**1,273.5125**	**0.0712**		**1,275.2915**

3.18 Plot 2 (2021) Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	5.0337	53.7732	49.2131	0.0855		2.5096	2.5096		2.3108	2.3108		8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**13.1295**	**53.7732**	**49.2131**	**0.0855**	**6.3630**	**2.5096**	**8.8726**	**0.6871**	**2.3108**	**2.9979**		**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1172	3.9232	0.8997	0.0121	0.2883	0.0130	0.3012	0.0790	0.0124	0.0914		1,309.1064	1,309.1064	0.0885		1,311.3199
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3378**	**5.2029**	**2.5778**	**0.0211**	**0.9020**	**0.0203**	**0.9223**	**0.2449**	**0.0193**	**0.2641**		**2,233.6368**	**2,233.6368**	**0.1214**		**2,236.6710**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.0337	53.7732	49.2131	0.0855		2.5096	2.5096		2.3108	2.3108	0.0000	8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**13.1295**	**53.7732**	**49.2131**	**0.0855**	**2.4816**	**2.5096**	**4.9912**	**0.2680**	**2.3108**	**2.5788**	**0.0000**	**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1172	3.9232	0.8997	0.0121	0.2883	0.0130	0.3012	0.0790	0.0124	0.0914		1,309.1064	1,309.1064	0.0885		1,311.3199
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3378**	**5.2029**	**2.5778**	**0.0211**	**0.9020**	**0.0203**	**0.9223**	**0.2449**	**0.0193**	**0.2641**		**2,233.6368**	**2,233.6368**	**0.1214**		**2,236.6710**

3.19 Plot 2 (2021) Temporary Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6806	19.5885	13.9313	0.0278		0.7881	0.7881		0.7251	0.7251		2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**1.6806**	**19.5885**	**13.9313**	**0.0278**	**0.0000**	**0.7881**	**0.7881**	**0.0000**	**0.7251**	**0.7251**		**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6806	19.5885	13.9313	0.0278		0.7881	0.7881		0.7251	0.7251	0.0000	2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**1.6806**	**19.5885**	**13.9313**	**0.0278**	**0.0000**	**0.7881**	**0.7881**	**0.0000**	**0.7251**	**0.7251**	**0.0000**	**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.20 Plot 4 (2022) Mass Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.6111	0.0000	31.6111	3.4133	0.0000	3.4133			0.0000			0.0000
Off-Road	32.7946	378.2678	219.1301	0.5410		14.2901	14.2901		13.1469	13.1469		52,389.8385	52,389.8385	16.9439		52,813.4369
Total	**32.7946**	**378.2678**	**219.1301**	**0.5410**	**31.6111**	**14.2901**	**45.9011**	**3.4133**	**13.1469**	**16.5601**		**52,389.8385**	**52,389.8385**	**16.9439**		**52,813.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1106	3.5839	0.8827	0.0119	0.2864	0.0111	0.2975	0.0785	0.0106	0.0891		1,285.0798	1,285.0798	0.0865		1,287.2427
Vendor	0.0580	1.6068	0.4469	6.8000e-003	0.2081	5.1000e-003	0.2132	0.0598	4.8800e-003	0.0647		725.4996	725.4996	0.0314		726.2842
Worker	0.3387	0.2217	2.5249	8.4400e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		841.7111	841.7111	0.0207		842.2274
Total	**0.5072**	**5.4124**	**3.8544**	**0.0271**	**1.4446**	**0.0228**	**1.4674**	**0.3903**	**0.0216**	**0.4118**		**2,852.2904**	**2,852.2904**	**0.1386**		**2,855.7543**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.3283	0.0000	12.3283	1.3312	0.0000	1.3312			0.0000			0.0000
Off-Road	32.7946	378.2678	219.1301	0.5410		14.2901	14.2901		13.1469	13.1469	0.0000	52,389.8384	52,389.8384	16.9439		52,813.4368
Total	**32.7946**	**378.2678**	**219.1301**	**0.5410**	**12.3283**	**14.2901**	**26.6184**	**1.3312**	**13.1469**	**14.4780**	**0.0000**	**52,389.8384**	**52,389.8384**	**16.9439**		**52,813.4368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1106	3.5839	0.8827	0.0119	0.2864	0.0111	0.2975	0.0785	0.0106	0.0891		1,285.0798	1,285.0798	0.0865		1,287.2427
Vendor	0.0580	1.6068	0.4469	6.8000e-003	0.2081	5.1000e-003	0.2132	0.0598	4.8800e-003	0.0647		725.4996	725.4996	0.0314		726.2842
Worker	0.3387	0.2217	2.5249	8.4400e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		841.7111	841.7111	0.0207		842.2274
Total	**0.5072**	**5.4124**	**3.8544**	**0.0271**	**1.4446**	**0.0228**	**1.4674**	**0.3903**	**0.0216**	**0.4118**		**2,852.2904**	**2,852.2904**	**0.1386**		**2,855.7543**

3.21 Plot 4 (2022) Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	12.1172	104.9336	114.8176	0.3462		4.3316	4.3316		3.9862	3.9862		33,484.8138	33,484.8138	10.8186		33,755.2781
Total	**12.1172**	**104.9336**	**114.8176**	**0.3462**	**25.5336**	**4.3316**	**29.8652**	**2.7570**	**3.9862**	**6.7433**		**33,484.8138**	**33,484.8138**	**10.8186**		**33,755.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2030	6.5792	1.6204	0.0218	0.5258	0.0204	0.5461	0.1441	0.0195	0.1636		2,359.1201	2,359.1201	0.1588		2,363.0907
Vendor	0.1610	4.4634	1.2412	0.0189	0.5780	0.0142	0.5922	0.1662	0.0136	0.1798		2,015.2766	2,015.2766	0.0872		2,017.4562
Worker	0.2709	0.1773	2.0199	6.7500e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		673.3689	673.3689	0.0165		673.7819
Total	**0.6350**	**11.2199**	**4.8816**	**0.0474**	**1.8639**	**0.0398**	**1.9037**	**0.5118**	**0.0379**	**0.5498**		**5,047.7655**	**5,047.7655**	**0.2625**		**5,054.3288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	12.1172	104.9336	114.8176	0.3462		4.3316	4.3316		3.9862	3.9862	0.0000	33,484.8137	33,484.8137	10.8186		33,755.2781
Total	**12.1172**	**104.9336**	**114.8176**	**0.3462**	**9.9581**	**4.3316**	**14.2897**	**1.0752**	**3.9862**	**5.0615**	**0.0000**	**33,484.8137**	**33,484.8137**	**10.8186**		**33,755.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2030	6.5792	1.6204	0.0218	0.5258	0.0204	0.5461	0.1441	0.0195	0.1636		2,359.1201	2,359.1201	0.1588		2,363.0907
Vendor	0.1610	4.4634	1.2412	0.0189	0.5780	0.0142	0.5922	0.1662	0.0136	0.1798		2,015.2766	2,015.2766	0.0872		2,017.4562
Worker	0.2709	0.1773	2.0199	6.7500e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		673.3689	673.3689	0.0165		673.7819
Total	**0.6350**	**11.2199**	**4.8816**	**0.0474**	**1.8639**	**0.0398**	**1.9037**	**0.5118**	**0.0379**	**0.5498**		**5,047.7655**	**5,047.7655**	**0.2625**		**5,054.3288**

3.22 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.3724	31.9733	41.7603	0.0625		1.6934	1.6934		1.5925	1.5925		5,963.0836	5,963.0836	1.4710		5,999.8594
Total	**3.3724**	**31.9733**	**41.7603**	**0.0625**	**3.1937**	**1.6934**	**4.8871**	**0.3449**	**1.5925**	**1.9374**		**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8594**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.3724	31.9733	41.7603	0.0625		1.6934	1.6934		1.5925	1.5925	0.0000	5,963.0836	5,963.0836	1.4710		5,999.8593
Total	**3.3724**	**31.9733**	**41.7603**	**0.0625**	**1.2456**	**1.6934**	**2.9390**	**0.1345**	**1.5925**	**1.7270**	**0.0000**	**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

3.23 Plot 4 (2022) Building-Wet Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.6507	50.6511	67.1239	0.1251		2.5038	2.5038		2.3035	2.3035		12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**5.6507**	**50.6511**	**67.1239**	**0.1251**	**9.5771**	**2.5038**	**12.0809**	**1.0341**	**2.3035**	**3.3376**		**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.3027	0.5671	7.6200e-003	0.1840	7.1300e-003	0.1912	0.0504	6.8200e-003	0.0573		825.6920	825.6920	0.0556		827.0818
Vendor	0.0966	2.6780	0.7447	0.0113	0.3468	8.5000e-003	0.3553	0.0997	8.1300e-003	0.1079		1,209.1659	1,209.1659	0.0523		1,210.4737
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3370**	**5.0916**	**2.5743**	**0.0232**	**1.0059**	**0.0189**	**1.0248**	**0.2761**	**0.0180**	**0.2941**		**2,455.7135**	**2,455.7135**	**0.1182**		**2,458.6691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.6507	50.6511	67.1239	0.1251		2.5038	2.5038		2.3035	2.3035	0.0000	12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**5.6507**	**50.6511**	**67.1239**	**0.1251**	**3.7351**	**2.5038**	**6.2388**	**0.4033**	**2.3035**	**2.7068**	**0.0000**	**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.3027	0.5671	7.6200e-003	0.1840	7.1300e-003	0.1912	0.0504	6.8200e-003	0.0573		825.6920	825.6920	0.0556		827.0818
Vendor	0.0966	2.6780	0.7447	0.0113	0.3468	8.5000e-003	0.3553	0.0997	8.1300e-003	0.1079		1,209.1659	1,209.1659	0.0523		1,210.4737
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3370**	**5.0916**	**2.5743**	**0.0232**	**1.0059**	**0.0189**	**1.0248**	**0.2761**	**0.0180**	**0.2941**		**2,455.7135**	**2,455.7135**	**0.1182**		**2,458.6691**

3.24 Plot 4 (2022) Building-Electrical - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.6650	32.9674	41.2585	0.0564		1.7258	1.7258		1.5895	1.5895		5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**3.6650**	**32.9674**	**41.2585**	**0.0564**	**6.3834**	**1.7258**	**8.1092**	**0.6893**	**1.5895**	**2.2787**		**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	5.2634	1.2963	0.0174	0.4206	0.0163	0.4369	0.1153	0.0156	0.1309		1,887.2961	1,887.2961	0.1271		1,890.4726
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.3027**	**6.4011**	**2.3517**	**0.0245**	**0.8444**	**0.0217**	**0.8660**	**0.2307**	**0.0207**	**0.2514**		**2,623.4758**	**2,623.4758**	**0.1542**		**2,627.3303**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.6650	32.9674	41.2585	0.0564		1.7258	1.7258		1.5895	1.5895	0.0000	5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**3.6650**	**32.9674**	**41.2585**	**0.0564**	**2.4895**	**1.7258**	**4.2154**	**0.2688**	**1.5895**	**1.8583**	**0.0000**	**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	5.2634	1.2963	0.0174	0.4206	0.0163	0.4369	0.1153	0.0156	0.1309		1,887.2961	1,887.2961	0.1271		1,890.4726
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.3027**	**6.4011**	**2.3517**	**0.0245**	**0.8444**	**0.0217**	**0.8660**	**0.2307**	**0.0207**	**0.2514**		**2,623.4758**	**2,623.4758**	**0.1542**		**2,627.3303**

3.25 Plot 4 (2022) Building-Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9095	25.0953	32.9608	0.0468		1.3297	1.3297		1.2234	1.2234		4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**2.9095**	**25.0953**	**32.9608**	**0.0468**	**1.5948**	**1.3297**	**2.9246**	**0.1722**	**1.2234**	**1.3956**		**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0451	1.2497	0.3476	5.2900e-003	0.1618	3.9700e-003	0.1658	0.0465	3.8000e-003	0.0503		564.2774	564.2774	0.0244		564.8877
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1128**	**1.2941**	**0.8525**	**6.9800e-003**	**0.3519**	**5.2900e-003**	**0.3572**	**0.0969**	**5.0100e-003**	**0.1019**		**732.6197**	**732.6197**	**0.0285**		**733.3332**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9095	25.0953	32.9608	0.0468		1.3297	1.3297		1.2234	1.2234	0.0000	4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**2.9095**	**25.0953**	**32.9608**	**0.0468**	**0.6220**	**1.3297**	**1.9517**	**0.0672**	**1.2234**	**1.2905**	**0.0000**	**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0451	1.2497	0.3476	5.2900e-003	0.1618	3.9700e-003	0.1658	0.0465	3.8000e-003	0.0503		564.2774	564.2774	0.0244		564.8877
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1128**	**1.2941**	**0.8525**	**6.9800e-003**	**0.3519**	**5.2900e-003**	**0.3572**	**0.0969**	**5.0100e-003**	**0.1019**		**732.6197**	**732.6197**	**0.0285**		**733.3332**

3.26 Plot 4 (2022) Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0756	26.4898	35.2995	0.0504		1.4054	1.4054		1.2930	1.2930		4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**3.0756**	**26.4898**	**35.2995**	**0.0504**	**1.5948**	**1.4054**	**3.0002**	**0.1722**	**1.2930**	**1.4652**		**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1064**	**1.1155**	**0.8029**	**6.2200e-003**	**0.3288**	**4.7200e-003**	**0.3335**	**0.0903**	**4.4600e-003**	**0.0948**		**652.0086**	**652.0086**	**0.0251**		**652.6350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0756	26.4898	35.2995	0.0504		1.4054	1.4054		1.2930	1.2930	0.0000	4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**3.0756**	**26.4898**	**35.2995**	**0.0504**	**0.6220**	**1.4054**	**2.0274**	**0.0672**	**1.2930**	**1.3601**	**0.0000**	**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1064**	**1.1155**	**0.8029**	**6.2200e-003**	**0.3288**	**4.7200e-003**	**0.3335**	**0.0903**	**4.4600e-003**	**0.0948**		**652.0086**	**652.0086**	**0.0251**		**652.6350**

3.27 Plot 4 (2022) Curbing/Drive Approaches - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7470	7.0919	9.5975	0.0145		0.3747	0.3747		0.3456	0.3456		1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7949**	**7.0919**	**9.5975**	**0.0145**	**0.0000**	**0.3747**	**0.3747**	**0.0000**	**0.3456**	**0.3456**		**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0658	2.1314	0.5250	7.0500e-003	0.1703	6.6000e-003	0.1769	0.0467	6.3200e-003	0.0530		764.2645	764.2645	0.0515		765.5508
Vendor	0.0258	0.7141	0.1986	3.0200e-003	0.0925	2.2700e-003	0.0948	0.0266	2.1700e-003	0.0288		322.4443	322.4443	0.0140		322.7930
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1593**	**2.8899**	**1.2285**	**0.0118**	**0.4528**	**0.0102**	**0.4630**	**0.1237**	**9.7000e-003**	**0.1334**		**1,255.0509**	**1,255.0509**	**0.0695**		**1,256.7893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7470	7.0919	9.5975	0.0145		0.3747	0.3747		0.3456	0.3456	0.0000	1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7949**	**7.0919**	**9.5975**	**0.0145**	**0.0000**	**0.3747**	**0.3747**	**0.0000**	**0.3456**	**0.3456**	**0.0000**	**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0658	2.1314	0.5250	7.0500e-003	0.1703	6.6000e-003	0.1769	0.0467	6.3200e-003	0.0530		764.2645	764.2645	0.0515		765.5508
Vendor	0.0258	0.7141	0.1986	3.0200e-003	0.0925	2.2700e-003	0.0948	0.0266	2.1700e-003	0.0288		322.4443	322.4443	0.0140		322.7930
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1593**	**2.8899**	**1.2285**	**0.0118**	**0.4528**	**0.0102**	**0.4630**	**0.1237**	**9.7000e-003**	**0.1334**		**1,255.0509**	**1,255.0509**	**0.0695**		**1,256.7893**

3.28 Plot 4 (2022) Finish Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.9879	9.5635	8.0189	0.0109		0.5320	0.5320		0.4894	0.4894		1,054.1383	1,054.1383	0.3409		1,062.6616
Total	**0.9879**	**9.5635**	**8.0189**	**0.0109**	**3.4466**	**0.5320**	**3.9786**	**0.3722**	**0.4894**	**0.8616**		**1,054.1383**	**1,054.1383**	**0.3409**		**1,062.6616**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0110	0.3552	0.0875	1.1800e-003	0.0284	1.1000e-003	0.0295	7.7800e-003	1.0500e-003	8.8300e-003		127.3774	127.3774	8.5800e-003		127.5918
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.1254**	**0.7788**	**0.9443**	**5.2200e-003**	**0.3597**	**4.2000e-003**	**0.3639**	**0.0967**	**3.9500e-003**	**0.1006**		**541.1129**	**541.1129**	**0.0218**		**541.6565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.9879	9.5635	8.0189	0.0109		0.5320	0.5320		0.4894	0.4894	0.0000	1,054.138 3	1,054.1383	0.3409		1,062.661 6
Total	**0.9879**	**9.5635**	**8.0189**	**0.0109**	**1.3442**	**0.5320**	**1.8762**	**0.1451**	**0.4894**	**0.6346**	**0.0000**	**1,054.138 3**	**1,054.1383**	**0.3409**		**1,062.661 6**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0110	0.3552	0.0875	1.1800e-003	0.0284	1.1000e-003	0.0295	7.7800e-003	1.0500e-003	8.8300e-003		127.3774	127.3774	8.5800e-003		127.5918
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.1254**	**0.7788**	**0.9443**	**5.2200e-003**	**0.3597**	**4.2000e-003**	**0.3639**	**0.0967**	**3.9500e-003**	**0.1006**		**541.1129**	**541.1129**	**0.0218**		**541.6565**

3.29 Plot 4 (2022) Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.4484	45.8951	47.4508	0.0856		2.0979	2.0979		1.9321	1.9321		8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.5442**	**45.8951**	**47.4508**	**0.0856**	**6.3630**	**2.0979**	**8.4609**	**0.6871**	**1.9321**	**2.6191**		**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1113	3.6070	0.8884	0.0119	0.2883	0.0112	0.2994	0.0790	0.0107	0.0897		1,293.3706	1,293.3706	0.0871		1,295.5475
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3193**	**4.7891**	**2.4487**	**0.0207**	**0.9020**	**0.0179**	**0.9199**	**0.2449**	**0.0170**	**0.2618**		**2,197.8926**	**2,197.8926**	**0.1183**		**2,200.8507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.4484	45.8951	47.4508	0.0856		2.0979	2.0979		1.9321	1.9321	0.0000	8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.5442**	**45.8951**	**47.4508**	**0.0856**	**2.4816**	**2.0979**	**4.5795**	**0.2680**	**1.9321**	**2.2000**	**0.0000**	**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1113	3.6070	0.8884	0.0119	0.2883	0.0112	0.2994	0.0790	0.0107	0.0897		1,293.3706	1,293.3706	0.0871		1,295.5475
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3193**	**4.7891**	**2.4487**	**0.0207**	**0.9020**	**0.0179**	**0.9199**	**0.2449**	**0.0170**	**0.2618**		**2,197.8926**	**2,197.8926**	**0.1183**		**2,200.8507**

3.30 Plot 4 (2022) Temporary Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4846	16.4655	12.5866	0.0278		0.6674	0.6674		0.6140	0.6140		2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**1.4846**	**16.4655**	**12.5866**	**0.0278**	**0.0000**	**0.6674**	**0.6674**	**0.0000**	**0.6140**	**0.6140**		**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4846	16.4655	12.5866	0.0278		0.6674	0.6674		0.6140	0.6140	0.0000	2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**1.4846**	**16.4655**	**12.5866**	**0.0278**	**0.0000**	**0.6674**	**0.6674**	**0.0000**	**0.6140**	**0.6140**	**0.0000**	**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.31 Plot 4 (2023) Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.4664	93.8395	114.0629	0.3463		3.7794	3.7794		3.4782	3.4782		33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**11.4664**	**93.8395**	**114.0629**	**0.3463**	**25.5336**	**3.7794**	**29.3130**	**2.7570**	**3.4782**	**6.2352**		**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1340	4.1236	1.4570	0.0209	0.5258	8.5100e-003	0.5343	0.1441	8.1400e-003	0.1522		2,266.2820	2,266.2820	0.1468		2,269.9508
Vendor	0.1173	2.9163	1.1114	0.0184	0.5780	6.3800e-003	0.5844	0.1662	6.1000e-003	0.1723		1,960.3769	1,960.3769	0.0802		1,962.3829
Worker	0.2561	0.1605	1.8633	6.5000e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		648.2429	648.2429	0.0149		648.6153
Total	**0.5074**	**7.2005**	**4.4317**	**0.0457**	**1.8639**	**0.0200**	**1.8839**	**0.5118**	**0.0190**	**0.5308**		**4,874.9019**	**4,874.9019**	**0.2419**		**4,880.9490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	11.4664	93.8395	114.0629	0.3463		3.7794	3.7794		3.4782	3.4782	0.0000	33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**11.4664**	**93.8395**	**114.0629**	**0.3463**	**9.9581**	**3.7794**	**13.7375**	**1.0752**	**3.4782**	**4.5534**	**0.0000**	**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1340	4.1236	1.4570	0.0209	0.5258	8.5100e-003	0.5343	0.1441	8.1400e-003	0.1522		2,266.2820	2,266.2820	0.1468		2,269.9508
Vendor	0.1173	2.9163	1.1114	0.0184	0.5780	6.3800e-003	0.5844	0.1662	6.1000e-003	0.1723		1,960.3769	1,960.3769	0.0802		1,962.3829
Worker	0.2561	0.1605	1.8633	6.5000e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		648.2429	648.2429	0.0149		648.6153
Total	**0.5074**	**7.2005**	**4.4317**	**0.0457**	**1.8639**	**0.0200**	**1.8839**	**0.5118**	**0.0190**	**0.5308**		**4,874.9019**	**4,874.9019**	**0.2419**		**4,880.9490**

3.32 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1272	29.4848	41.6515	0.0626		1.4439	1.4439		1.3588	1.3588		5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**3.1272**	**29.4848**	**41.6515**	**0.0626**	**3.1937**	**1.4439**	**4.6376**	**0.3449**	**1.3588**	**1.7036**		**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1272	29.4848	41.6515	0.0626		1.4439	1.4439		1.3588	1.3588	0.0000	5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**3.1272**	**29.4848**	**41.6515**	**0.0626**	**1.2456**	**1.4439**	**2.6894**	**0.1345**	**1.3588**	**1.4933**	**0.0000**	**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

3.33 Plot 4 (2023) Building-Wet Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.2473	44.9812	66.9330	0.1252		2.1714	2.1714		1.9977	1.9977		12,115.3301	12,115.3301	3.9183		12,213.2887
Total	**5.2473**	**44.9812**	**66.9330**	**0.1252**	**9.5771**	**2.1714**	**11.7485**	**1.0341**	**1.9977**	**3.0318**		**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2887**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0469	1.4433	0.5099	7.3000e-003	0.1840	2.9800e-003	0.1870	0.0504	2.8500e-003	0.0533		793.1987	793.1987	0.0514		794.4828
Vendor	0.0704	1.7498	0.6668	0.0110	0.3468	3.8300e-003	0.3506	0.0997	3.6600e-003	0.1034		1,176.2262	1,176.2262	0.0481		1,177.4297
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2773**	**3.2934**	**2.3414**	**0.0224**	**1.0059**	**0.0100**	**1.0159**	**0.2761**	**9.4600e-003**	**0.2856**		**2,374.5767**	**2,374.5767**	**0.1088**		**2,377.2971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.2473	44.9812	66.9330	0.1252		2.1714	2.1714		1.9977	1.9977	0.0000	12,115.3301	12,115.3301	3.9183		12,213.2886
Total	**5.2473**	**44.9812**	**66.9330**	**0.1252**	**3.7351**	**2.1714**	**5.9064**	**0.4033**	**1.9977**	**2.4010**	**0.0000**	**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0469	1.4433	0.5099	7.3000e-003	0.1840	2.9800e-003	0.1870	0.0504	2.8500e-003	0.0533		793.1987	793.1987	0.0514		794.4828
Vendor	0.0704	1.7498	0.6668	0.0110	0.3468	3.8300e-003	0.3506	0.0997	3.6600e-003	0.1034		1,176.2262	1,176.2262	0.0481		1,177.4297
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2773**	**3.2934**	**2.3414**	**0.0224**	**1.0059**	**0.0100**	**1.0159**	**0.2761**	**9.4600e-003**	**0.2856**		**2,374.5767**	**2,374.5767**	**0.1088**		**2,377.2971**

3.34 Plot 4 (2023) Building-Electrical - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.4037	30.7960	41.0415	0.0565		1.4799	1.4799		1.3632	1.3632		5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**3.4037**	**30.7960**	**41.0415**	**0.0565**	**6.3834**	**1.4799**	**7.8633**	**0.6893**	**1.3632**	**2.0525**		**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1072	3.2989	1.1656	0.0167	0.4206	6.8100e-003	0.4274	0.1153	6.5100e-003	0.1218		1,813.0256	1,813.0256	0.1174		1,815.9607
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0960	0.0602	0.6988	2.4400e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		243.0911	243.0911	5.5800e-003		243.2307
Total	**0.2314**	**4.0590**	**2.1311**	**0.0235**	**0.8444**	**0.0103**	**0.8546**	**0.2307**	**9.7500e-003**	**0.2405**		**2,526.6072**	**2,526.6072**	**0.1422**		**2,530.1633**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.4037	30.7960	41.0415	0.0565		1.4799	1.4799		1.3632	1.3632	0.0000	5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**3.4037**	**30.7960**	**41.0415**	**0.0565**	**2.4895**	**1.4799**	**3.9694**	**0.2688**	**1.3632**	**1.6320**	**0.0000**	**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1072	3.2989	1.1656	0.0167	0.4206	6.8100e-003	0.4274	0.1153	6.5100e-003	0.1218		1,813.0256	1,813.0256	0.1174		1,815.9607
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0960	0.0602	0.6988	2.4400e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		243.0911	243.0911	5.5800e-003		243.2307
Total	**0.2314**	**4.0590**	**2.1311**	**0.0235**	**0.8444**	**0.0103**	**0.8546**	**0.2307**	**9.7500e-003**	**0.2405**		**2,526.6072**	**2,526.6072**	**0.1422**		**2,530.1633**

3.35 Plot 4 (2023) Building-Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6611	22.7664	32.6759	0.0468		1.1283	1.1283		1.0380	1.0380		4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**2.6611**	**22.7664**	**32.6759**	**0.0468**	**1.5948**	**1.1283**	**2.7231**	**0.1722**	**1.0380**	**1.2102**		**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0328	0.8166	0.3112	5.1400e-003	0.1618	1.7900e-003	0.1636	0.0465	1.7100e-003	0.0483		548.9055	548.9055	0.0225		549.4672
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0969**	**0.8567**	**0.7770**	**6.7700e-003**	**0.3519**	**3.0700e-003**	**0.3549**	**0.0969**	**2.8900e-003**	**0.0998**		**710.9663**	**710.9663**	**0.0262**		**711.6210**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.6611	22.7664	32.6759	0.0468		1.1283	1.1283		1.0380	1.0380	0.0000	4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**2.6611**	**22.7664**	**32.6759**	**0.0468**	**0.6220**	**1.1283**	**1.7503**	**0.0672**	**1.0380**	**1.1052**	**0.0000**	**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0328	0.8166	0.3112	5.1400e-003	0.1618	1.7900e-003	0.1636	0.0465	1.7100e-003	0.0483		548.9055	548.9055	0.0225		549.4672
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0969**	**0.8567**	**0.7770**	**6.7700e-003**	**0.3519**	**3.0700e-003**	**0.3549**	**0.0969**	**2.8900e-003**	**0.0998**		**710.9663**	**710.9663**	**0.0262**		**711.6210**

3.36 Plot 4 (2023) Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.8208	24.0690	35.0106	0.0504		1.1989	1.1989		1.1030	1.1030		4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**2.8208**	**24.0690**	**35.0106**	**0.0504**	**1.5948**	**1.1989**	**2.7937**	**0.1722**	**1.1030**	**1.2752**		**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0922**	**0.7401**	**0.7326**	**6.0300e-003**	**0.3288**	**2.8100e-003**	**0.3316**	**0.0903**	**2.6500e-003**	**0.0929**		**632.5512**	**632.5512**	**0.0230**		**633.1257**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.8208	24.0690	35.0106	0.0504		1.1989	1.1989		1.1030	1.1030	0.0000	4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**2.8208**	**24.0690**	**35.0106**	**0.0504**	**0.6220**	**1.1989**	**1.8209**	**0.0672**	**1.1030**	**1.1701**	**0.0000**	**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0922**	**0.7401**	**0.7326**	**6.0300e-003**	**0.3288**	**2.8100e-003**	**0.3316**	**0.0903**	**2.6500e-003**	**0.0929**		**632.5512**	**632.5512**	**0.0230**		**633.1257**

3.37 Plot 4 (2023) Curbing/Drive Approaches - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7096	6.6244	9.6049	0.0145		0.3375	0.3375		0.3113	0.3113		1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7575**	**6.6244**	**9.6049**	**0.0145**	**0.0000**	**0.3375**	**0.3375**	**0.0000**	**0.3113**	**0.3113**		**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0434	1.3359	0.4720	6.7600e-003	0.1703	2.7600e-003	0.1731	0.0467	2.6400e-003	0.0493		734.1885	734.1885	0.0475		735.3770
Vendor	0.0188	0.4666	0.1778	2.9400e-003	0.0925	1.0200e-003	0.0935	0.0266	9.8000e-004	0.0276		313.6603	313.6603	0.0128		313.9813
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.1262**	**1.8426**	**1.1157**	**0.0113**	**0.4528**	**5.0600e-003**	**0.4579**	**0.1237**	**4.8000e-003**	**0.1285**		**1,209.9095**	**1,209.9095**	**0.0641**		**1,211.5121**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7096	6.6244	9.6049	0.0145		0.3375	0.3375		0.3113	0.3113	0.0000	1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7575**	**6.6244**	**9.6049**	**0.0145**	**0.0000**	**0.3375**	**0.3375**	**0.0000**	**0.3113**	**0.3113**	**0.0000**	**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0434	1.3359	0.4720	6.7600e-003	0.1703	2.7600e-003	0.1731	0.0467	2.6400e-003	0.0493		734.1885	734.1885	0.0475		735.3770
Vendor	0.0188	0.4666	0.1778	2.9400e-003	0.0925	1.0200e-003	0.0935	0.0266	9.8000e-004	0.0276		313.6603	313.6603	0.0128		313.9813
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.1262**	**1.8426**	**1.1157**	**0.0113**	**0.4528**	**5.0600e-003**	**0.4579**	**0.1237**	**4.8000e-003**	**0.1285**		**1,209.9095**	**1,209.9095**	**0.0641**		**1,211.5121**

3.38 Plot 4 (2023) Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.2119	42.3567	46.8307	0.0856		1.8940	1.8940		1.7444	1.7444		8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.3077**	**42.3567**	**46.8307**	**0.0856**	**6.3630**	**1.8940**	**8.2570**	**0.6871**	**1.7444**	**2.4315**		**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0735	2.2608	0.7988	0.0114	0.2882	4.6600e-003	0.2929	0.0790	4.4600e-003	0.0835		1,242.4728	1,242.4728	0.0805		1,244.4842
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2617**	**3.0610**	**2.2301**	**0.0199**	**0.9020**	**9.3900e-003**	**0.9114**	**0.2449**	**8.8800e-003**	**0.2537**		**2,118.1151**	**2,118.1151**	**0.1090**		**2,120.8407**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.2119	42.3567	46.8307	0.0856		1.8940	1.8940		1.7444	1.7444	0.0000	8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.3077**	**42.3567**	**46.8307**	**0.0856**	**2.4816**	**1.8940**	**4.3756**	**0.2680**	**1.7444**	**2.0124**	**0.0000**	**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0735	2.2608	0.7988	0.0114	0.2882	4.6600e-003	0.2929	0.0790	4.4600e-003	0.0835		1,242.4728	1,242.4728	0.0805		1,244.4842
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2617**	**3.0610**	**2.2301**	**0.0199**	**0.9020**	**9.3900e-003**	**0.9114**	**0.2449**	**8.8800e-003**	**0.2537**		**2,118.1151**	**2,118.1151**	**0.1090**		**2,120.8407**

3.39 Plot 4 (2023) Temporary Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3445	14.2851	11.4372	0.0278		0.5778	0.5778		0.5316	0.5316		2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**1.3445**	**14.2851**	**11.4372**	**0.0278**	**0.0000**	**0.5778**	**0.5778**	**0.0000**	**0.5316**	**0.5316**		**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3445	14.2851	11.4372	0.0278		0.5778	0.5778		0.5316	0.5316	0.0000	2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**1.3445**	**14.2851**	**11.4372**	**0.0278**	**0.0000**	**0.5778**	**0.5778**	**0.0000**	**0.5316**	**0.5316**	**0.0000**	**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plots 2 and 4

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation - Project Specific Information

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	60
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	24.7679	16.4808	3.0037	0.0209	160.5051	0.0127	160.5178	16.0113	0.0121	16.0234	0.0000	2,247.4733	2,247.4733	0.3090	0.0000	2,255.1987
2021	12.6090	14.5092	2.8704	0.0191	173.0981	9.1300e-003	173.1072	17.2672	8.6800e-003	17.2759	0.0000	2,044.8472	2,044.8472	0.2663	0.0000	2,051.5050
2022	12.6857	16.0941	3.2793	0.0218	220.1439	9.2800e-003	220.1532	21.9598	8.8000e-003	21.9686	0.0000	2,342.7008	2,342.7008	0.2890	0.0000	2,349.9269
2023	12.4931	11.7490	2.4096	0.0180	173.0981	4.9600e-003	173.1031	17.2672	4.6900e-003	17.2719	0.0000	1,935.3006	1,935.3006	0.2010	0.0000	1,940.3257
Maximum	**24.7679**	**16.4808**	**3.2793**	**0.0218**	**220.1439**	**0.0127**	**220.1532**	**21.9598**	**0.0121**	**21.9686**	**0.0000**	**2,342.7008**	**2,342.7008**	**0.3090**	**0.0000**	**2,349.9269**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	24.7679	16.4808	3.0037	0.0209	64.2216	0.0127	64.2343	6.4120	0.0121	6.4240	0.0000	2,247.4733	2,247.4733	0.3090	0.0000	2,255.1987
2021	12.6090	14.5092	2.8704	0.0191	69.2594	9.1300e-003	69.2685	6.9146	8.6800e-003	6.9233	0.0000	2,044.8472	2,044.8472	0.2663	0.0000	2,051.5050
2022	12.6857	16.0941	3.2793	0.0218	88.0822	9.2800e-003	88.0914	8.7934	8.8000e-003	8.8022	0.0000	2,342.7008	2,342.7008	0.2890	0.0000	2,349.9269
2023	12.4931	11.7490	2.4096	0.0180	69.2594	4.9600e-003	69.2643	6.9146	4.6900e-003	6.9193	0.0000	1,935.3006	1,935.3006	0.2010	0.0000	1,940.3257
Maximum	**24.7679**	**16.4808**	**3.2793**	**0.0218**	**88.0822**	**0.0127**	**88.0914**	**8.7934**	**0.0121**	**8.8022**	**0.0000**	**2,342.7008**	**2,342.7008**	**0.3090**	**0.0000**	**2,349.9269**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.93**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2020) Mass Excavation	Grading	1/1/2020	6/30/2020	5	130	1100
2	Plot 2 (2020) Utilities	Trenching	1/1/2020	12/29/2020	5	260	1104
3	Plot 2 (2020) Landscaping	Building Construction	1/1/2020	12/29/2020	5	260	1105
4	Plot 2 (2020) Finish Grading	Grading	5/7/2020	7/1/2020	5	40	1101
5	Plot 2 (2020) Building-Wet Utilities	Building Construction	7/2/2020	12/30/2020	5	130	1102
6	Plot 2 (2020) Building-Electrical	Building Construction	7/2/2020	12/30/2020	5	130	1103
7	Plot 2 (2020) Temporary Utilities	Building Construction	7/2/2020	12/30/2020	5	130	1106
8	Plot 2 (2020) Curbing/Drive Approaches	Paving	11/5/2020	12/30/2020	5	40	1107
9	Plot 2 (2020) Paving	Paving	12/3/2020	12/30/2020	5	20	1108
10	Plot 2 (2021) Utilities	Trenching	1/1/2021	12/30/2021	5	260	1113
11	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	1109
12	Plot 2 (2021) Building-Wet Utilities	Building Construction	1/1/2021	12/30/2021	5	260	1110
13	Plot 2 (2021) Building-Electrical	Building Construction	1/1/2021	12/30/2021	5	260	1111
14	Plot 2 (2021) Building-Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	1112
15	Plot 2 (2021) Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	1114
16	Plot 2 (2021) Curbing/Drive Approaches	Paving	5/1/2021	8/20/2021	5	80	1116
17	Plot 2 (2021) Paving	Paving	6/1/2021	7/26/2021	5	40	1117
18	Plot 2 (2021) Temporary Utilities	Building Construction	7/2/2021	12/30/2021	5	130	1115

19	Plot 4 (2022) Mass Excavation	Grading	1/1/2022	7/1/2022	5	130	1118	
20	Plot 4 (2022) Utilities	Trenching	1/1/2022	12/30/2022	5	260	1124	
21	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	1120	
22	Plot 4 (2022) Building-Wet Utilities	Building Construction	1/1/2022	12/30/2022	5	260	1121	
23	Plot 4 (2022) Building-Electrical	Building Construction	1/1/2022	12/30/2022	5	260	1122	
24	Plot 4 (2022) Building-Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	1123	
25	Plot 4 (2022) Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	1125	
26	Plot 4 (2022) Curbing/Drive Approaches	Paving	5/1/2022	8/20/2022	5	80	1127	
27	Plot 4 (2022) Finish Grading	Grading	5/7/2022	7/1/2022	5	40	1119	
28	Plot 4 (2022) Paving	Paving	6/1/2022	7/26/2022	5	40	1128	
29	Plot 4 (2022) Temporary Utilities	Building Construction	7/2/2022	12/30/2022	5	130	1126	
30	Plot 4 (2023) Utilities	Trenching	1/1/2023	12/30/2023	5	260	1133	
31	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	1129	
32	Plot 4 (2023) Building-Wet Utilities	Building Construction	1/1/2023	12/30/2023	5	260	1130	
33	Plot 4 (2023) Building-Electrical	Building Construction	1/1/2023	12/30/2023	5	260	1131	
34	Plot 4 (2023) Building-Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	1132	
35	Plot 4 (2023) Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	1134	
36	Plot 4 (2023) Curbing/Drive Approaches	Paving	5/1/2023	8/20/2023	5	80	1136	
37	Plot 4 (2023) Paving	Paving	6/1/2023	7/26/2023	5	40	1137	
38	Plot 4 (2023) Temporary Utilities	Building Construction	7/2/2023	12/30/2023	5	130	1135	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 2 (2020) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Finish Grading		15.00	2.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 4 (2022) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Finish Grading		15.00	2.00	52.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Clean Paved Roads

3.2 Plot 2 (2020) Mass Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0244	1.3408	0.1595	1.6800e-003	6.8249	8.1000e-004	6.8257	0.6809	7.8000e-004	0.6817		181.4994	181.4994	0.0258		182.1442
Vendor	0.0140	0.5831	0.1275	6.6000e-004	4.6837	5.8000e-004	4.6842	0.4674	5.6000e-004	0.4679		71.1693	71.1693	9.6100e-003		71.4096
Worker	0.0634	0.0190	0.2592	3.1000e-004	26.0154	4.6000e-004	26.0158	2.5946	4.2000e-004	2.5950		30.5747	30.5747	1.5900e-003		30.6145
Total	**0.1017**	**1.9429**	**0.5462**	**2.6500e-003**	**37.5239**	**1.8500e-003**	**37.5258**	**3.7428**	**1.7600e-003**	**3.7446**		**283.2434**	**283.2434**	**0.0370**		**284.1682**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0244	1.3408	0.1595	1.6800e-003	2.7310	8.1000e-004	2.7318	0.2727	7.8000e-004	0.2735		181.4994	181.4994	0.0258		182.1442
Vendor	0.0140	0.5831	0.1275	6.6000e-004	1.8743	5.8000e-004	1.8749	0.1873	5.6000e-004	0.1878		71.1693	71.1693	9.6100e-003		71.4096
Worker	0.0634	0.0190	0.2592	3.1000e-004	10.4079	4.6000e-004	10.4084	1.0385	4.2000e-004	1.0390		30.5747	30.5747	1.5900e-003		30.6145
Total	**0.1017**	**1.9429**	**0.5462**	**2.6500e-003**	**15.0132**	**1.8500e-003**	**15.0151**	**1.4985**	**1.7600e-003**	**1.5003**		**283.2434**	**283.2434**	**0.0370**		**284.1682**

3.3 Plot 2 (2020) Utilities - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0447	2.4614	0.2929	3.0900e-003	12.5290	1.4900e-003	12.5305	1.2499	1.4300e-003	1.2514		333.1925	333.1925	0.0473		334.3761
Vendor	0.0389	1.6197	0.3542	1.8500e-003	13.0101	1.6100e-003	13.0118	1.2983	1.5400e-003	1.2998		197.6924	197.6924	0.0267		198.3599
Worker	0.0507	0.0152	0.2074	2.5000e-004	20.8123	3.6000e-004	20.8127	2.0757	3.3000e-004	2.0760		24.4598	24.4598	1.2700e-003		24.4916
Total	**0.1343**	**4.0963**	**0.8544**	**5.1900e-003**	**46.3515**	**3.4600e-003**	**46.3549**	**4.6239**	**3.3000e-003**	**4.6272**		**555.3447**	**555.3447**	**0.0753**		**557.2276**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0447	2.4614	0.2929	3.0900e-003	5.0135	1.4900e-003	5.0149	0.5006	1.4300e-003	0.5021		333.1925	333.1925	0.0473		334.3761
Vendor	0.0389	1.6197	0.3542	1.8500e-003	5.2064	1.6100e-003	5.2080	0.5202	1.5400e-003	0.5218		197.6924	197.6924	0.0267		198.3599
Worker	0.0507	0.0152	0.2074	2.5000e-004	8.3263	3.6000e-004	8.3267	0.8308	3.3000e-004	0.8312		24.4598	24.4598	1.2700e-003		24.4916
Total	**0.1343**	**4.0963**	**0.8544**	**5.1900e-003**	**18.5462**	**3.4600e-003**	**18.5497**	**1.8517**	**3.3000e-003**	**1.8550**		**555.3447**	**555.3447**	**0.0753**		**557.2276**

3.4 Plot 2 (2020) Landscaping - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	3.1224	3.9000e-004	3.1228	0.3116	3.7000e-004	0.3120		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0220**	**0.3925**	**0.1368**	**5.0000e-004**	**8.3255**	**4.8000e-004**	**8.3260**	**0.8305**	**4.5000e-004**	**0.8310**		**53.5611**	**53.5611**	**6.7300e-003**		**53.7293**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	1.2495	3.9000e-004	1.2499	0.1249	3.7000e-004	0.1252		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0220**	**0.3925**	**0.1368**	**5.0000e-004**	**3.3311**	**4.8000e-004**	**3.3316**	**0.3326**	**4.5000e-004**	**0.3330**		**53.5611**	**53.5611**	**6.7300e-003**		**53.7293**

3.5 Plot 2 (2020) Finish Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1100e-003	0.1296	0.0283	1.5000e-004	1.0408	1.3000e-004	1.0409	0.1039	1.2000e-004	0.1040		15.8154	15.8154	2.1400e-003		15.8688
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	7.8046	1.4000e-004	7.8048	0.7784	1.3000e-004	0.7785		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0221**	**0.1353**	**0.1061**	**2.4000e-004**	**8.8454**	**2.7000e-004**	**8.8457**	**0.8822**	**2.5000e-004**	**0.8825**		**24.9878**	**24.9878**	**2.6200e-003**		**25.0531**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1100e-003	0.1296	0.0283	1.5000e-004	0.4165	1.3000e-004	0.4166	0.0416	1.2000e-004	0.0417		15.8154	15.8154	2.1400e-003		15.8688
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	3.1224	1.4000e-004	3.1225	0.3116	1.3000e-004	0.3117		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0221**	**0.1353**	**0.1061**	**2.4000e-004**	**3.5389**	**2.7000e-004**	**3.5392**	**0.3532**	**2.5000e-004**	**0.3534**		**24.9878**	**24.9878**	**2.6200e-003**		**25.0531**

3.6 Plot 2 (2020) Building-Wet Utilities - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	1.7230	0.2050	2.1600e-003	8.7703	1.0400e-003	8.7714	0.8750	1.0000e-003	0.8760		233.2348	233.2348	0.0331		234.0633
Vendor	0.0233	0.9718	0.2125	1.1100e-003	7.8061	9.7000e-004	7.8071	0.7790	9.3000e-004	0.7799		118.6155	118.6155	0.0160		119.0159
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	13.0077	2.3000e-004	13.0079	1.2973	2.1000e-004	1.2975		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0863**	**2.7043**	**0.5471**	**3.4200e-003**	**29.5841**	**2.2400e-003**	**29.5863**	**2.9512**	**2.1400e-003**	**2.9533**		**367.1376**	**367.1376**	**0.0500**		**368.3865**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	1.7230	0.2050	2.1600e-003	3.5094	1.0400e-003	3.5105	0.3505	1.0000e-003	0.3515		233.2348	233.2348	0.0331		234.0633
Vendor	0.0233	0.9718	0.2125	1.1100e-003	3.1239	9.7000e-004	3.1248	0.3121	9.3000e-004	0.3131		118.6155	118.6155	0.0160		119.0159
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	5.2040	2.3000e-004	5.2042	0.5193	2.1000e-004	0.5195		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0863**	**2.7043**	**0.5471**	**3.4200e-003**	**11.8372**	**2.2400e-003**	**11.8395**	**1.1819**	**2.1400e-003**	**1.1840**		**367.1376**	**367.1376**	**0.0500**		**368.3865**

3.7 Plot 2 (2020) Building-Electrical - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0716	3.9383	0.4686	4.9500e-003	20.0465	2.3900e-003	20.0488	1.9999	2.2800e-003	2.0022		533.1080	533.1080	0.0758		535.0018
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	3.1224	3.9000e-004	3.1228	0.3116	3.7000e-004	0.3120		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	7.8046	1.4000e-004	7.8048	0.7784	1.3000e-004	0.7785		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0999**	**4.3327**	**0.6313**	**5.4800e-003**	**30.9735**	**2.9200e-003**	**30.9764**	**3.0899**	**2.7800e-003**	**3.0926**		**589.7266**	**589.7266**	**0.0826**		**591.7925**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0716	3.9383	0.4686	4.9500e-003	8.0215	2.3900e-003	8.0239	0.8010	2.2800e-003	0.8033		533.1080	533.1080	0.0758		535.0018
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	1.2495	3.9000e-004	1.2499	0.1249	3.7000e-004	0.1252		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	3.1224	1.4000e-004	3.1225	0.3116	1.3000e-004	0.3117		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0999**	**4.3327**	**0.6313**	**5.4800e-003**	**12.3934**	**2.9200e-003**	**12.3963**	**1.2375**	**2.7800e-003**	**1.2402**		**589.7266**	**589.7266**	**0.0826**		**591.7925**

3.8 Plot 2 (2020) Temporary Utilities - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 Plot 2 (2020) Curbing/Drive Approaches - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0290	1.5948	0.1898	2.0000e-003	8.1179	9.7000e-004	8.1188	0.8099	9.3000e-004	0.8108		215.8832	215.8832	0.0307		216.6501
Vendor	6.2200e-003	0.2592	0.0567	3.0000e-004	2.0816	2.6000e-004	2.0819	0.2077	2.5000e-004	0.2080		31.6308	31.6308	4.2700e-003		31.7376
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0479**	**1.8578**	**0.2983**	**2.3600e-003**	**15.4025**	**1.3200e-003**	**15.4039**	**1.5365**	**1.2600e-003**	**1.5378**		**253.6289**	**253.6289**	**0.0353**		**254.5106**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0290	1.5948	0.1898	2.0000e-003	3.2483	9.7000e-004	3.2493	0.3244	9.3000e-004	0.3253		215.8832	215.8832	0.0307		216.6501
Vendor	6.2200e-003	0.2592	0.0567	3.0000e-004	0.8330	2.6000e-004	0.8333	0.0832	2.5000e-004	0.0835		31.6308	31.6308	4.2700e-003		31.7376
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0479**	**1.8578**	**0.2983**	**2.3600e-003**	**6.1629**	**1.3200e-003**	**6.1643**	**0.6153**	**1.2600e-003**	**0.6166**		**253.6289**	**253.6289**	**0.0353**		**254.5106**

3.10 Plot 2 (2020) Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**16.1916**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0491	2.6989	0.3211	3.3900e-003	13.7379	1.6400e-003	13.7395	1.3705	1.5700e-003	1.3721		365.3408	365.3408	0.0519		366.6386
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	3.1224	3.9000e-004	3.1228	0.3116	3.7000e-004	0.3120		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	13.0077	2.3000e-004	13.0079	1.2973	2.1000e-004	1.2975		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0901**	**3.0972**	**0.5357**	**3.9800e-003**	**29.8680**	**2.2600e-003**	**29.8703**	**2.9794**	**2.1500e-003**	**2.9816**		**428.0744**	**428.0744**	**0.0591**		**429.5522**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**16.1916**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0491	2.6989	0.3211	3.3900e-003	5.4972	1.6400e-003	5.4988	0.5490	1.5700e-003	0.5505		365.3408	365.3408	0.0519		366.6386
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	1.2495	3.9000e-004	1.2499	0.1249	3.7000e-004	0.1252		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	5.2040	2.3000e-004	5.2042	0.5193	2.1000e-004	0.5195		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0901**	**3.0972**	**0.5357**	**3.9800e-003**	**11.9507**	**2.2600e-003**	**11.9529**	**1.1931**	**2.1500e-003**	**1.1952**		**428.0744**	**428.0744**	**0.0591**		**429.5522**

3.11 Plot 2 (2021) Utilities - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	2.3775	0.2810	3.0600e-003	12.5290	1.2900e-003	12.5303	1.2499	1.2300e-003	1.2512		330.0634	330.0634	0.0450		331.1881
Vendor	0.0355	1.5553	0.3282	1.8300e-003	13.0101	8.0000e-004	13.0109	1.2983	7.6000e-004	1.2990		195.9610	195.9610	0.0253		196.5932
Worker	0.0467	0.0134	0.1879	2.4000e-004	20.8123	3.5000e-004	20.8127	2.0757	3.3000e-004	2.0760		23.6808	23.6808	1.1300e-003		23.7091
Total	**0.1243**	**3.9463**	**0.7972**	**5.1300e-003**	**46.3515**	**2.4400e-003**	**46.3539**	**4.6239**	**2.3200e-003**	**4.6262**		**549.7051**	**549.7051**	**0.0714**		**551.4904**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	2.3775	0.2810	3.0600e-003	5.0135	1.2900e-003	5.0147	0.5006	1.2300e-003	0.5019		330.0634	330.0634	0.0450		331.1881
Vendor	0.0355	1.5553	0.3282	1.8300e-003	5.2064	8.0000e-004	5.2072	0.5202	7.6000e-004	0.5210		195.9610	195.9610	0.0253		196.5932
Worker	0.0467	0.0134	0.1879	2.4000e-004	8.3263	3.5000e-004	8.3267	0.8308	3.3000e-004	0.8312		23.6808	23.6808	1.1300e-003		23.7091
Total	**0.1243**	**3.9463**	**0.7972**	**5.1300e-003**	**18.5462**	**2.4400e-003**	**18.5487**	**1.8517**	**2.3200e-003**	**1.8540**		**549.7051**	**549.7051**	**0.0714**		**551.4904**

3.12 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0505	2.8531	0.3372	3.6700e-003	15.0348	1.5500e-003	15.0364	1.4999	1.4800e-003	1.5014		396.0761	396.0761	0.0540		397.4257
Vendor	2.8400e-003	0.1244	0.0263	1.5000e-004	1.0408	6.0000e-005	1.0409	0.1039	6.0000e-005	0.1039		15.6769	15.6769	2.0200e-003		15.7275
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0825**	**2.9859**	**0.4809**	**3.9700e-003**	**29.0833**	**1.8300e-003**	**29.0852**	**2.9011**	**1.7400e-003**	**2.9028**		**426.5534**	**426.5534**	**0.0567**		**427.9714**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0505	2.8531	0.3372	3.6700e-003	6.0161	1.5500e-003	6.0177	0.6008	1.4800e-003	0.6023		396.0761	396.0761	0.0540		397.4257
Vendor	2.8400e-003	0.1244	0.0263	1.5000e-004	0.4165	6.0000e-005	0.4166	0.0416	6.0000e-005	0.0417		15.6769	15.6769	2.0200e-003		15.7275
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0825**	**2.9859**	**0.4809**	**3.9700e-003**	**11.6366**	**1.8300e-003**	**11.6384**	**1.1617**	**1.7400e-003**	**1.1634**		**426.5534**	**426.5534**	**0.0567**		**427.9714**

3.13 Plot 2 (2021) Building-Wet Utilities - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0147	0.8321	0.0984	1.0700e-003	4.3852	4.5000e-004	4.3856	0.4375	4.3000e-004	0.4379		115.5222	115.5222	0.0158		115.9158
Vendor	0.0213	0.9332	0.1969	1.1000e-003	7.8061	4.8000e-004	7.8066	0.7790	4.6000e-004	0.7794		117.5766	117.5766	0.0152		117.9559
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0652**	**1.7737**	**0.4128**	**2.3200e-003**	**25.1989**	**1.1500e-003**	**25.2001**	**2.5137**	**1.0900e-003**	**2.5148**		**247.8992**	**247.8992**	**0.0316**		**248.6899**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0147	0.8321	0.0984	1.0700e-003	1.7547	4.5000e-004	1.7552	0.1752	4.3000e-004	0.1757		115.5222	115.5222	0.0158		115.9158
Vendor	0.0213	0.9332	0.1969	1.1000e-003	3.1239	4.8000e-004	3.1243	0.3121	4.6000e-004	0.3126		117.5766	117.5766	0.0152		117.9559
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0652**	**1.7737**	**0.4128**	**2.3200e-003**	**10.0825**	**1.1500e-003**	**10.0837**	**1.0066**	**1.0900e-003**	**1.0077**		**247.8992**	**247.8992**	**0.0316**		**248.6899**

3.14 Plot 2 (2021) Building-Electrical - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0337	1.9020	0.2248	2.4500e-003	10.0232	1.0300e-003	10.0243	1.0000	9.9000e-004	1.0009		264.0507	264.0507	0.0360		264.9505
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	3.1224	1.9000e-004	3.1226	0.3116	1.8000e-004	0.3118		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0175	5.0400e-003	0.0705	9.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.8803	8.8803	4.3000e-004		8.8909
Total	**0.0597**	**2.2803**	**0.3741**	**2.9800e-003**	**20.9503**	**1.3500e-003**	**20.9516**	**2.0899**	**1.2900e-003**	**2.0912**		**319.9616**	**319.9616**	**0.0425**		**321.0238**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0337	1.9020	0.2248	2.4500e-003	4.0108	1.0300e-003	4.0118	0.4005	9.9000e-004	0.4015		264.0507	264.0507	0.0360		264.9505
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	1.2495	1.9000e-004	1.2497	0.1249	1.8000e-004	0.1250		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0175	5.0400e-003	0.0705	9.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.8803	8.8803	4.3000e-004		8.8909
Total	**0.0597**	**2.2803**	**0.3741**	**2.9800e-003**	**8.3827**	**1.3500e-003**	**8.3840**	**0.8369**	**1.2900e-003**	**0.8382**		**319.9616**	**319.9616**	**0.0425**		**321.0238**

3.15 Plot 2 (2021) Building-Landscaping - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.9500e-003	0.4355	0.0919	5.1000e-004	3.6428	2.2000e-004	3.6431	0.3635	2.1000e-004	0.3637		54.8691	54.8691	7.0800e-003		55.0461
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0216**	**0.4388**	**0.1389**	**5.7000e-004**	**8.8459**	**3.1000e-004**	**8.8462**	**0.8824**	**2.9000e-004**	**0.8827**		**60.7893**	**60.7893**	**7.3600e-003**		**60.9734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.9500e-003	0.4355	0.0919	5.1000e-004	1.4578	2.2000e-004	1.4580	0.1457	2.1000e-004	0.1459		54.8691	54.8691	7.0800e-003		55.0461
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0216**	**0.4388**	**0.1389**	**5.7000e-004**	**3.5394**	**3.1000e-004**	**3.5397**	**0.3534**	**2.9000e-004**	**0.3537**		**60.7893**	**60.7893**	**7.3600e-003**		**60.9734**

3.16 Plot 2 (2021) Landscaping - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	3.1224	1.9000e-004	3.1226	0.3116	1.8000e-004	0.3118		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0202**	**0.3766**	**0.1258**	**5.0000e-004**	**8.3255**	**2.8000e-004**	**8.3258**	**0.8305**	**2.6000e-004**	**0.8308**		**52.9508**	**52.9508**	**6.3500e-003**		**53.1096**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	1.2495	1.9000e-004	1.2497	0.1249	1.8000e-004	0.1250		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0202**	**0.3766**	**0.1258**	**5.0000e-004**	**3.3311**	**2.8000e-004**	**3.3314**	**0.3326**	**2.6000e-004**	**0.3328**		**52.9508**	**52.9508**	**6.3500e-003**		**53.1096**

3.17 Plot 2 (2021) Curbing/Drive Approaches - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.7702	0.0910	9.9000e-004	4.0589	4.2000e-004	4.0593	0.4049	4.0000e-004	0.4053		106.9279	106.9279	0.0146		107.2923
Vendor	5.6900e-003	0.2488	0.0525	2.9000e-004	2.0816	1.3000e-004	2.0818	0.2077	1.2000e-004	0.2078		31.3538	31.3538	4.0500e-003		31.4549
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0310**	**1.0224**	**0.1905**	**1.3400e-003**	**11.3436**	**6.4000e-004**	**11.3443**	**1.1316**	**6.0000e-004**	**1.1322**		**144.2018**	**144.2018**	**0.0189**		**144.6744**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.7702	0.0910	9.9000e-004	1.6242	4.2000e-004	1.6246	0.1622	4.0000e-004	0.1626		106.9279	106.9279	0.0146		107.2923
Vendor	5.6900e-003	0.2488	0.0525	2.9000e-004	0.8330	1.3000e-004	0.8332	0.0832	1.2000e-004	0.0834		31.3538	31.3538	4.0500e-003		31.4549
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0310**	**1.0224**	**0.1905**	**1.3400e-003**	**4.5388**	**6.4000e-004**	**4.5394**	**0.4531**	**6.0000e-004**	**0.4537**		**144.2018**	**144.2018**	**0.0189**		**144.6744**

3.18 Plot 2 (2021) Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0231	1.3035	0.1541	1.6800e-003	6.8690	7.1000e-004	6.8697	0.6853	6.8000e-004	0.6860		180.9549	180.9549	0.0247		181.5715
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	3.1224	1.9000e-004	3.1226	0.3116	1.8000e-004	0.3118		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0608**	**1.6851**	**0.3503**	**2.2700e-003**	**22.9991**	**1.1200e-003**	**23.0002**	**2.2941**	**1.0600e-003**	**2.2952**		**242.7860**	**242.7860**	**0.0314**		**243.5721**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0231	1.3035	0.1541	1.6800e-003	2.7486	7.1000e-004	2.7493	0.2745	6.8000e-004	0.2752		180.9549	180.9549	0.0247		181.5715
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	1.2495	1.9000e-004	1.2497	0.1249	1.8000e-004	0.1250		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0608**	**1.6851**	**0.3503**	**2.2700e-003**	**9.2021**	**1.1200e-003**	**9.2032**	**0.9186**	**1.0600e-003**	**0.9197**		**242.7860**	**242.7860**	**0.0314**		**243.5721**

3.19 Plot 2 (2021) Temporary Utilities - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.20 Plot 4 (2022) Mass Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	1.2499	0.1485	1.6500e-003	6.8249	5.8000e-004	6.8255	0.6809	5.6000e-004	0.6814		178.1587	178.1587	0.0232		178.7379
Vendor	0.0119	0.5450	0.1101	6.5000e-004	4.6837	2.4000e-004	4.6839	0.4674	2.3000e-004	0.4676		69.9616	69.9616	8.5900e-003		70.1764
Worker	0.0540	0.0149	0.2139	2.9000e-004	26.0154	4.3000e-004	26.0158	2.5946	4.0000e-004	2.5950		28.5651	28.5651	1.2600e-003		28.5967
Total	**0.0874**	**1.8098**	**0.4724**	**2.5900e-003**	**37.5239**	**1.2500e-003**	**37.5252**	**3.7428**	**1.1900e-003**	**3.7440**		**276.6853**	**276.6853**	**0.0330**		**277.5110**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	1.2499	0.1485	1.6500e-003	2.7310	5.8000e-004	2.7316	0.2727	5.6000e-004	0.2733		178.1587	178.1587	0.0232		178.7379
Vendor	0.0119	0.5450	0.1101	6.5000e-004	1.8743	2.4000e-004	1.8746	0.1873	2.3000e-004	0.1875		69.9616	69.9616	8.5900e-003		70.1764
Worker	0.0540	0.0149	0.2139	2.9000e-004	10.4079	4.3000e-004	10.4084	1.0385	4.0000e-004	1.0389		28.5651	28.5651	1.2600e-003		28.5967
Total	**0.0874**	**1.8098**	**0.4724**	**2.5900e-003**	**15.0132**	**1.2500e-003**	**15.0145**	**1.4985**	**1.1900e-003**	**1.4997**		**276.6853**	**276.6853**	**0.0330**		**277.5110**

3.21 Plot 4 (2022) Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0396	2.2944	0.2726	3.0300e-003	12.5290	1.0700e-003	12.5301	1.2499	1.0200e-003	1.2510		327.0596	327.0596	0.0425		328.1230
Vendor	0.0330	1.5139	0.3057	1.8100e-003	13.0101	6.7000e-004	13.0108	1.2983	6.4000e-004	1.2989		194.3377	194.3377	0.0239		194.9345
Worker	0.0432	0.0120	0.1711	2.3000e-004	20.8123	3.5000e-004	20.8126	2.0757	3.2000e-004	2.0760		22.8520	22.8520	1.0100e-003		22.8773
Total	**0.1158**	**3.8203**	**0.7494**	**5.0700e-003**	**46.3515**	**2.0900e-003**	**46.3535**	**4.6239**	**1.9800e-003**	**4.6258**		**544.2494**	**544.2494**	**0.0674**		**545.9348**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0396	2.2944	0.2726	3.0300e-003	5.0135	1.0700e-003	5.0145	0.5006	1.0200e-003	0.5017		327.0596	327.0596	0.0425		328.1230
Vendor	0.0330	1.5139	0.3057	1.8100e-003	5.2064	6.7000e-004	5.2071	0.5202	6.4000e-004	0.5209		194.3377	194.3377	0.0239		194.9345
Worker	0.0432	0.0120	0.1711	2.3000e-004	8.3263	3.5000e-004	8.3267	0.8308	3.2000e-004	0.8312		22.8520	22.8520	1.0100e-003		22.8773
Total	**0.1158**	**3.8203**	**0.7494**	**5.0700e-003**	**18.5462**	**2.0900e-003**	**18.5483**	**1.8517**	**1.9800e-003**	**1.8537**		**544.2494**	**544.2494**	**0.0674**		**545.9348**

3.22 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0476	2.7533	0.3271	3.6300e-003	15.0348	1.2800e-003	15.0361	1.4999	1.2200e-003	1.5012		392.4715	392.4715	0.0510		393.7476
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	1.0408	5.0000e-005	1.0409	0.1039	5.0000e-005	0.1039		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0772**	**2.8819**	**0.4585**	**3.9100e-003**	**29.0833**	**1.5500e-003**	**29.0849**	**2.9011**	**1.4700e-003**	**2.9026**		**422.3011**	**422.3011**	**0.0536**		**423.6407**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0476	2.7533	0.3271	3.6300e-003	6.0161	1.2800e-003	6.0174	0.6008	1.2200e-003	0.6020		392.4715	392.4715	0.0510		393.7476
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	0.4165	5.0000e-005	0.4166	0.0416	5.0000e-005	0.0417		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0772**	**2.8819**	**0.4585**	**3.9100e-003**	**11.6366**	**1.5500e-003**	**11.6382**	**1.1617**	**1.4700e-003**	**1.1631**		**422.3011**	**422.3011**	**0.0536**		**423.6407**

3.23 Plot 4 (2022) Building-Wet Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.8031	0.0954	1.0600e-003	4.3852	3.7000e-004	4.3855	0.4375	3.6000e-004	0.4378		114.4709	114.4709	0.0149		114.8431
Vendor	0.0198	0.9083	0.1834	1.0900e-003	7.8061	4.0000e-004	7.8065	0.7790	3.8000e-004	0.7793		116.6026	116.6026	0.0143		116.9607
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0606**	**1.7189**	**0.3858**	**2.2900e-003**	**25.1989**	**9.9000e-004**	**25.1999**	**2.5137**	**9.4000e-004**	**2.5147**		**245.3560**	**245.3560**	**0.0298**		**246.1021**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.8031	0.0954	1.0600e-003	1.7547	3.7000e-004	1.7551	0.1752	3.6000e-004	0.1756		114.4709	114.4709	0.0149		114.8431
Vendor	0.0198	0.9083	0.1834	1.0900e-003	3.1239	4.0000e-004	3.1243	0.3121	3.8000e-004	0.3125		116.6026	116.6026	0.0143		116.9607
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0606**	**1.7189**	**0.3858**	**2.2900e-003**	**10.0825**	**9.9000e-004**	**10.0835**	**1.0066**	**9.4000e-004**	**1.0076**		**245.3560**	**245.3560**	**0.0298**		**246.1021**

3.24 Plot 4 (2022) Building-Electrical - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0317	1.8356	0.2181	2.4200e-003	10.0232	8.5000e-004	10.0241	1.0000	8.2000e-004	1.0008		261.6477	261.6477	0.0340		262.4984
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	3.1224	1.6000e-004	3.1226	0.3116	1.5000e-004	0.3117		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0558**	**2.2034**	**0.3556**	**2.9400e-003**	**20.9503**	**1.1400e-003**	**20.9514**	**2.0899**	**1.0900e-003**	**2.0910**		**316.8583**	**316.8583**	**0.0401**		**317.8617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0317	1.8356	0.2181	2.4200e-003	4.0108	8.5000e-004	4.0116	0.4005	8.2000e-004	0.4013		261.6477	261.6477	0.0340		262.4984
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	1.2495	1.6000e-004	1.2497	0.1249	1.5000e-004	0.1250		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0558**	**2.2034**	**0.3556**	**2.9400e-003**	**8.3827**	**1.1400e-003**	**8.3838**	**0.8369**	**1.0900e-003**	**0.8380**		**316.8583**	**316.8583**	**0.0401**		**317.8617**

3.25 Plot 4 (2022) Building-Landscaping - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2300e-003	0.4239	0.0856	5.1000e-004	3.6428	1.9000e-004	3.6430	0.3635	1.8000e-004	0.3637		54.4146	54.4146	6.6800e-003		54.5817
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0200**	**0.4269**	**0.1284**	**5.7000e-004**	**8.8459**	**2.8000e-004**	**8.8462**	**0.8824**	**2.6000e-004**	**0.8827**		**60.1276**	**60.1276**	**6.9300e-003**		**60.3010**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2300e-003	0.4239	0.0856	5.1000e-004	1.4578	1.9000e-004	1.4580	0.1457	1.8000e-004	0.1458		54.4146	54.4146	6.6800e-003		54.5817
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0200**	**0.4269**	**0.1284**	**5.7000e-004**	**3.5394**	**2.8000e-004**	**3.5397**	**0.3534**	**2.6000e-004**	**0.3536**		**60.1276**	**60.1276**	**6.9300e-003**		**60.3010**

3.26 Plot 4 (2022) Landscaping - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	3.1224	1.6000e-004	3.1226	0.3116	1.5000e-004	0.3117		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0187**	**0.3663**	**0.1161**	**4.9000e-004**	**8.3255**	**2.5000e-004**	**8.3258**	**0.8305**	**2.3000e-004**	**0.8307**		**52.3541**	**52.3541**	**5.9800e-003**		**52.5036**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	1.2495	1.6000e-004	1.2497	0.1249	1.5000e-004	0.1250		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0187**	**0.3663**	**0.1161**	**4.9000e-004**	**3.3311**	**2.5000e-004**	**3.3314**	**0.3326**	**2.3000e-004**	**0.3328**		**52.3541**	**52.3541**	**5.9800e-003**		**52.5036**

3.27 Plot 4 (2022) Curbing/Drive Approaches - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0128	0.7433	0.0883	9.8000e-004	4.0589	3.5000e-004	4.0593	0.4049	3.3000e-004	0.4053		105.9548	105.9548	0.0138		106.2993
Vendor	5.2800e-003	0.2422	0.0489	2.9000e-004	2.0816	1.1000e-004	2.0817	0.2077	1.0000e-004	0.2078		31.0940	31.0940	3.8200e-003		31.1895
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0289**	**0.9885**	**0.1800**	**1.3300e-003**	**11.3436**	**5.5000e-004**	**11.3442**	**1.1316**	**5.1000e-004**	**1.1321**		**142.7618**	**142.7618**	**0.0179**		**143.2081**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0128	0.7433	0.0883	9.8000e-004	1.6242	3.5000e-004	1.6245	0.1622	3.3000e-004	0.1625		105.9548	105.9548	0.0138		106.2993
Vendor	5.2800e-003	0.2422	0.0489	2.9000e-004	0.8330	1.1000e-004	0.8331	0.0832	1.0000e-004	0.0833		31.0940	31.0940	3.8200e-003		31.1895
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0289**	**0.9885**	**0.1800**	**1.3300e-003**	**4.5388**	**5.5000e-004**	**4.5393**	**0.4531**	**5.1000e-004**	**0.4537**		**142.7618**	**142.7618**	**0.0179**		**143.2081**

3.28 Plot 4 (2022) Finish Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1400e-003	0.1239	0.0147	1.6000e-004	0.6765	6.0000e-005	0.6766	0.0675	6.0000e-005	0.0675		17.6591	17.6591	2.3000e-003		17.7166
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	1.0408	5.0000e-005	1.0409	0.1039	5.0000e-005	0.1039		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0210**	**0.2495**	**0.1033**	**3.9000e-004**	**9.5219**	**2.4000e-004**	**9.5222**	**0.9497**	**2.3000e-004**	**0.9500**		**41.7757**	**41.7757**	**4.5900e-003**		**41.8903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1400e-003	0.1239	0.0147	1.6000e-004	0.2707	6.0000e-005	0.2708	0.0270	6.0000e-005	0.0271		17.6591	17.6591	2.3000e-003		17.7166
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	0.4165	5.0000e-005	0.4166	0.0416	5.0000e-005	0.0417		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0210**	**0.2495**	**0.1033**	**3.9000e-004**	**3.8096**	**2.4000e-004**	**3.8098**	**0.3802**	**2.3000e-004**	**0.3804**		**41.7757**	**41.7757**	**4.5900e-003**		**41.8903**

3.29 Plot 4 (2022) Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	1.2579	0.1495	1.6600e-003	6.8690	5.8000e-004	6.8695	0.6853	5.6000e-004	0.6858		179.3081	179.3081	0.0233		179.8911
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	3.1224	1.6000e-004	3.1226	0.3116	1.5000e-004	0.3117		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0566**	**1.6287**	**0.3298**	**2.2300e-003**	**22.9991**	**9.6000e-004**	**23.0000**	**2.2941**	**9.1000e-004**	**2.2951**		**240.2317**	**240.2317**	**0.0297**		**240.9737**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	1.2579	0.1495	1.6600e-003	2.7486	5.8000e-004	2.7492	0.2745	5.6000e-004	0.2750		179.3081	179.3081	0.0233		179.8911
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	1.2495	1.6000e-004	1.2497	0.1249	1.5000e-004	0.1250		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0566**	**1.6287**	**0.3298**	**2.2300e-003**	**9.2021**	**9.6000e-004**	**9.2031**	**0.9186**	**9.1000e-004**	**0.9195**		**240.2317**	**240.2317**	**0.0297**		**240.9737**

3.30 Plot 4 (2022) Temporary Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.31 Plot 4 (2023) Utilities - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0276	1.8990	0.2384	2.8800e-003	12.5290	6.0000e-004	12.5296	1.2499	5.7000e-004	1.2505		312.1597	312.1597	0.0338		313.0051
Vendor	0.0257	1.2987	0.2743	1.7300e-003	13.0101	3.8000e-004	13.0105	1.2983	3.6000e-004	1.2986		186.3474	186.3474	0.0192		186.8282
Worker	0.0400	0.0107	0.1560	2.2000e-004	20.8123	3.4000e-004	20.8126	2.0757	3.1000e-004	2.0760		22.0180	22.0180	9.0000e-004		22.0405
Total	**0.0933**	**3.2084**	**0.6687**	**4.8300e-003**	**46.3515**	**1.3200e-003**	**46.3528**	**4.6239**	**1.2400e-003**	**4.6251**		**520.5251**	**520.5251**	**0.0540**		**521.8738**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0276	1.8990	0.2384	2.8800e-003	5.0135	6.0000e-004	5.0140	0.5006	5.7000e-004	0.5012		312.1597	312.1597	0.0338		313.0051
Vendor	0.0257	1.2987	0.2743	1.7300e-003	5.2064	3.8000e-004	5.2068	0.5202	3.6000e-004	0.5206		186.3474	186.3474	0.0192		186.8282
Worker	0.0400	0.0107	0.1560	2.2000e-004	8.3263	3.4000e-004	8.3267	0.8308	3.1000e-004	0.8311		22.0180	22.0180	9.0000e-004		22.0405
Total	**0.0933**	**3.2084**	**0.6687**	**4.8300e-003**	**18.5462**	**1.3200e-003**	**18.5475**	**1.8517**	**1.2400e-003**	**1.8529**		**520.5251**	**520.5251**	**0.0540**		**521.8738**

3.32 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0331	2.2789	0.2861	3.4600e-003	15.0348	7.2000e-004	15.0356	1.4999	6.8000e-004	1.5006		374.5917	374.5917	0.0406		375.6061
Vendor	2.0600e-003	0.1039	0.0220	1.4000e-004	1.0408	3.0000e-005	1.0408	0.1039	3.0000e-005	0.1039		14.9078	14.9078	1.5400e-003		14.9463
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	13.0077	2.1000e-004	13.0079	1.2973	2.0000e-004	1.2975		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0601**	**2.3894**	**0.4055**	**3.7400e-003**	**29.0833**	**9.6000e-004**	**29.0843**	**2.9011**	**9.1000e-004**	**2.9020**		**403.2607**	**403.2607**	**0.0427**		**404.3277**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0331	2.2789	0.2861	3.4600e-003	6.0161	7.2000e-004	6.0169	0.6008	6.8000e-004	0.6015		374.5917	374.5917	0.0406		375.6061
Vendor	2.0600e-003	0.1039	0.0220	1.4000e-004	0.4165	3.0000e-005	0.4165	0.0416	3.0000e-005	0.0417		14.9078	14.9078	1.5400e-003		14.9463
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	5.2040	2.1000e-004	5.2042	0.5193	2.0000e-004	0.5195		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0601**	**2.3894**	**0.4055**	**3.7400e-003**	**11.6366**	**9.6000e-004**	**11.6376**	**1.1617**	**9.1000e-004**	**1.1626**		**403.2607**	**403.2607**	**0.0427**		**404.3277**

3.33 Plot 4 (2023) Building-Wet Utilities - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.6500e-003	0.6647	0.0834	1.0100e-003	4.3852	2.1000e-004	4.3854	0.4375	2.0000e-004	0.4377		109.2559	109.2559	0.0118		109.5518
Vendor	0.0154	0.7792	0.1646	1.0400e-003	7.8061	2.3000e-004	7.8063	0.7790	2.2000e-004	0.7792		111.8085	111.8085	0.0115		112.0969
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	13.0077	2.1000e-004	13.0079	1.2973	2.0000e-004	1.2975		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0501**	**1.4505**	**0.3455**	**2.1900e-003**	**25.1989**	**6.5000e-004**	**25.1996**	**2.5137**	**6.2000e-004**	**2.5143**		**234.8256**	**234.8256**	**0.0239**		**235.4240**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.6500e-003	0.6647	0.0834	1.0100e-003	1.7547	2.1000e-004	1.7549	0.1752	2.0000e-004	0.1754		109.2559	109.2559	0.0118		109.5518
Vendor	0.0154	0.7792	0.1646	1.0400e-003	3.1239	2.3000e-004	3.1241	0.3121	2.2000e-004	0.3124		111.8085	111.8085	0.0115		112.0969
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	5.2040	2.1000e-004	5.2042	0.5193	2.0000e-004	0.5195		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0501**	**1.4505**	**0.3455**	**2.1900e-003**	**10.0825**	**6.5000e-004**	**10.0832**	**1.0066**	**6.2000e-004**	**1.0073**		**234.8256**	**234.8256**	**0.0239**		**235.4240**

3.34 Plot 4 (2023) Building-Electrical - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0221	1.5192	0.1907	2.3100e-003	10.0232	4.8000e-004	10.0237	1.0000	4.6000e-004	1.0004		249.7278	249.7278	0.0271		250.4041
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	3.1224	9.0000e-005	3.1225	0.3116	9.0000e-005	0.3117		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0150	4.0000e-003	0.0585	8.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.2567	8.2567	3.4000e-004		8.2652
Total	**0.0432**	**1.8349**	**0.3151**	**2.8100e-003**	**20.9503**	**7.0000e-004**	**20.9510**	**2.0899**	**6.7000e-004**	**2.0906**		**302.7079**	**302.7079**	**0.0320**		**303.5081**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0221	1.5192	0.1907	2.3100e-003	4.0108	4.8000e-004	4.0112	0.4005	4.6000e-004	0.4010		249.7278	249.7278	0.0271		250.4041
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	1.2495	9.0000e-005	1.2496	0.1249	9.0000e-005	0.1249		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0150	4.0000e-003	0.0585	8.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.2567	8.2567	3.4000e-004		8.2652
Total	**0.0432**	**1.8349**	**0.3151**	**2.8100e-003**	**8.3827**	**7.0000e-004**	**8.3834**	**0.8369**	**6.7000e-004**	**0.8376**		**302.7079**	**302.7079**	**0.0320**		**303.5081**

3.35 Plot 4 (2023) Building-Landscaping - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2000e-003	0.3636	0.0768	4.9000e-004	3.6428	1.1000e-004	3.6430	0.3635	1.0000e-004	0.3636		52.1773	52.1773	5.3800e-003		52.3119
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0172**	**0.3663**	**0.1158**	**5.5000e-004**	**8.8459**	**1.9000e-004**	**8.8461**	**0.8824**	**1.8000e-004**	**0.8826**		**57.6818**	**57.6818**	**5.6100e-003**		**57.8220**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2000e-003	0.3636	0.0768	4.9000e-004	1.4578	1.1000e-004	1.4579	0.1457	1.0000e-004	0.1458		52.1773	52.1773	5.3800e-003		52.3119
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0172**	**0.3663**	**0.1158**	**5.5000e-004**	**3.5394**	**1.9000e-004**	**3.5396**	**0.3534**	**1.8000e-004**	**0.3536**		**57.6818**	**57.6818**	**5.6100e-003**		**57.8220**

3.36 Plot 4 (2023) Landscaping - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	3.1224	9.0000e-005	3.1225	0.3116	9.0000e-005	0.3117		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0162**	**0.3144**	**0.1048**	**4.8000e-004**	**8.3255**	**1.7000e-004**	**8.3257**	**0.8305**	**1.7000e-004**	**0.8307**		**50.2279**	**50.2279**	**4.8500e-003**		**50.3489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	1.2495	9.0000e-005	1.2496	0.1249	9.0000e-005	0.1249		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0162**	**0.3144**	**0.1048**	**4.8000e-004**	**3.3311**	**1.7000e-004**	**3.3313**	**0.3326**	**1.7000e-004**	**0.3327**		**50.2279**	**50.2279**	**4.8500e-003**		**50.3489**

3.37 Plot 4 (2023) Curbing/Drive Approaches - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9300e-003	0.6152	0.0772	9.3000e-004	4.0589	1.9000e-004	4.0591	0.4049	1.8000e-004	0.4051		101.1278	101.1278	0.0110		101.4017
Vendor	4.1100e-003	0.2078	0.0439	2.8000e-004	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		29.8156	29.8156	3.0800e-003		29.8925
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0230**	**0.8257**	**0.1601**	**1.2700e-003**	**11.3436**	**3.3000e-004**	**11.3440**	**1.1316**	**3.2000e-004**	**1.1319**		**136.4479**	**136.4479**	**0.0143**		**136.8043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9300e-003	0.6152	0.0772	9.3000e-004	1.6242	1.9000e-004	1.6244	0.1622	1.8000e-004	0.1624		101.1278	101.1278	0.0110		101.4017
Vendor	4.1100e-003	0.2078	0.0439	2.8000e-004	0.8330	6.0000e-005	0.8331	0.0832	6.0000e-005	0.0833		29.8156	29.8156	3.0800e-003		29.8925
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0230**	**0.8257**	**0.1601**	**1.2700e-003**	**4.5388**	**3.3000e-004**	**4.5391**	**0.4531**	**3.2000e-004**	**0.4535**		**136.4479**	**136.4479**	**0.0143**		**136.8043**

3.38 Plot 4 (2023) Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0411	0.1307	1.5800e-003	6.8690	3.3000e-004	6.8693	0.6853	3.1000e-004	0.6856		171.1393	171.1393	0.0185		171.6028
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	3.1224	9.0000e-005	3.1225	0.3116	9.0000e-005	0.3117		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	13.0077	2.1000e-004	13.0079	1.2973	2.0000e-004	1.2975		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0463**	**1.3595**	**0.2940**	**2.1400e-003**	**22.9991**	**6.3000e-004**	**22.9997**	**2.2941**	**6.0000e-004**	**2.2947**		**229.6239**	**229.6239**	**0.0237**		**230.2169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0411	0.1307	1.5800e-003	2.7486	3.3000e-004	2.7489	0.2745	3.1000e-004	0.2748		171.1393	171.1393	0.0185		171.6028
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	1.2495	9.0000e-005	1.2496	0.1249	9.0000e-005	0.1249		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	5.2040	2.1000e-004	5.2042	0.5193	2.0000e-004	0.5195		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0463**	**1.3595**	**0.2940**	**2.1400e-003**	**9.2021**	**6.3000e-004**	**9.2027**	**0.9186**	**6.0000e-004**	**0.9192**		**229.6239**	**229.6239**	**0.0237**		**230.2169**

3.39 Plot 4 (2023) Temporary Utilities - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Plots 9 and 1,3,20 Emissions Summaries

Unmitigated Air Quality Construction Analysis

Regional Maximums	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	**lb/day**					
Plot 9 (2024) Mass Excavation	80.50	882.14	556.00	1.41	87.18	36.79
Plot 9 (2024) Utilities	11.25	89.32	115.08	0.35	17.15	4.68
Plot 9 (2024) Building-Concrete	3.51	34.54	46.24	0.10	21.06	3.48
Plot 9 (2024) Building-Wet Utilities	5.28	45.41	69.69	0.15	16.75	3.46
Plot 9 (2024) Building-Electrical	3.34	30.43	42.12	0.06	8.67	2.02
Plot 9 (2024) Building-Landscaping	2.87	28.64	36.03	0.08	14.42	2.47
Plot 9 (2024) Landscaping	3.23	32.58	40.04	0.10	22.11	3.42
Plot 9 (2024) Curbing/Drive Approaches	1.24	22.85	15.12	0.08	19.53	2.54
Plot 9 (2024) Finish Grading	2.74	26.00	24.74	0.04	9.26	2.11
Plot 9 (2024) Paving	4.15	40.61	47.34	0.09	7.89	2.30
Plot 9 (2024) Temporary Utilities	1.31	13.56	11.00	0.03	0.55	0.50
Plot 9 (2025) Utilities	10.64	80.65	114.74	0.35	16.71	4.27
Plot 9 (2025) Building-Concrete	2.97	27.40	43.28	0.07	9.84	2.00
Plot 9 (2025) Building-Wet Utilities	4.83	41.39	69.19	0.15	14.58	2.96
Plot 9 (2025) Building-Electrical	3.37	35.02	44.26	0.09	16.39	2.76
Plot 9 (2025) Building-Landscaping	2.59	23.79	35.03	0.07	12.55	2.13
Plot 9 (2025) Interchange	5.59	55.56	46.86	0.15	24.54	4.40
Plot 9 (2025) Landscaping	2.69	23.58	36.97	0.07	10.61	1.94
Plot 9 (2025) Curbing/Drive Approaches	0.73	6.78	10.42	0.02	4.16	0.70
Plot 9 (2025) Paving	3.77	35.43	45.75	0.09	7.62	2.05
Plot 9 (2025) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46
Plots 1 3 20 (2026) Mass Excavation	19.11	191.57	138.66	0.41	31.64	9.41
Plots 1 3 20 (2026) Utilities	11.09	89.41	118.66	0.40	33.39	6.22
Plots 1 3 20 (2026) Building-Concrete	3.11	33.20	44.87	0.10	15.10	2.62
Plots 1 3 20 (2026) Building-Wet Utilities	4.87	40.21	69.30	0.15	16.44	3.17
Plots 1 3 20 (2026) Building-Electrical	3.25	33.21	43.27	0.08	12.82	2.35
Plots 1 3 20 (2026) Building-Landscaping	2.39	20.33	33.26	0.05	5.35	1.29
Plots 1 3 20 (2026) Interchange	5.35	51.32	44.80	0.13	17.89	3.59
Plots 1 3 20 (2026) Landscaping	2.52	21.19	35.54	0.06	5.17	1.31
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.76	8.15	10.78	0.03	5.26	0.82
Plots 1 3 20 (2026) Finish Grading	0.90	8.41	8.90	0.02	6.48	1.03
Plots 1 3 20 (2026) Paving	3.95	38.64	47.32	0.11	14.07	2.80
Plots 1 3 20 (2026) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46

Overlapping Phases

Plot 9-2024	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
All Phases Except Temporary Utilities	118.10	1232.51	992.40	2.48	224.02	63.27
Plot 9-2025						
All Phases	38.42	341.85	456.94	1.10	117.50	23.66
Plots 1,3,20-2026						
All Phases Except Temporary Utilities	57.30	535.63	595.35	1.53	163.61	34.62
Daily Maximum[1]						
2024	342.52	1232.51	992.40	2.48	224.02	63.27
2025	262.83	341.85	456.94	1.10	117.50	23.66
2026	281.71	535.63	595.35	1.53	163.61	34.62

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions						
Source	ROG	NOX	CO	SO2 lb/day	Total PM10	Total PM2.5
Plot 9 (2024) Mass Excavation	0.10	3.30	0.65	0.01	20.24	2.02
Plot 9 (2024) Utilities	0.02	0.40	0.10	0.00	3.41	0.34
Plot 9 (2024) Building-Concrete	0.08	2.05	0.49	0.00	16.88	1.69
Plot 9 (2024) Building-Wet Utilities	0.05	1.44	0.33	0.00	10.08	1.01
Plot 9 (2024) Building-Electrical	0.02	0.35	0.12	0.00	4.46	0.45
Plot 9 (2024) Building-Landscaping	0.06	2.37	0.39	0.00	11.64	1.16
Plot 9 (2024) Landscaping	0.09	3.18	0.64	0.00	18.55	1.85
Plot 9 (2024) Curbing/Drive Approaches	0.09	5.21	0.73	0.01	17.41	1.74
Plot 9 (2024) Finish Grading	0.02	0.36	0.11	0.00	3.54	0.35
Plot 9 (2024) Paving	0.02	0.31	0.10	0.00	3.33	0.33
Plot 9 (2024) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	0.02	0.39	0.10	0.00	3.41	0.34
Plot 9 (2025) Building-Concrete	0.03	0.47	0.16	0.00	6.88	0.69
Plot 9 (2025) Building-Wet Utilities	0.04	1.80	0.30	0.00	8.38	0.84
Plot 9 (2025) Building-Electrical	0.06	2.34	0.39	0.00	11.64	1.16
Plot 9 (2025) Building-Landscaping	0.05	1.43	0.31	0.00	10.08	1.01
Plot 9 (2025) Interchange	0.08	3.16	0.62	0.00	18.55	1.85
Plot 9 (2025) Landscaping	0.04	1.05	0.23	0.00	8.29	0.83
Plot 9 (2025) Curbing/Drive Approaches	0.02	0.36	0.10	0.00	3.54	0.35
Plot 9 (2025) Paving	0.01	0.31	0.09	0.00	3.33	0.33
Plot 9 (2025) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	0.06	1.06	0.31	0.00	13.81	1.38
Plots 1 3 20 (2026) Utilities	0.08	3.14	0.60	0.00	18.55	1.85
Plots 1 3 20 (2026) Building-Concrete	0.05	2.32	0.38	0.00	11.64	1.16
Plots 1 3 20 (2026) Building-Wet Utilities	0.04	1.42	0.30	0.00	10.08	1.01
Plots 1 3 20 (2026) Building-Electrical	0.04	1.79	0.29	0.00	8.38	0.84
Plots 1 3 20 (2026) Building-Landscaping	0.01	0.36	0.10	0.00	3.54	0.35
Plots 1 3 20 (2026) Interchange	0.05	1.87	0.33	0.00	10.55	1.05
Plots 1 3 20 (2026) Landscaping	0.01	0.31	0.09	0.00	3.33	0.33
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.02	0.81	0.15	0.00	4.54	0.45
Plots 1 3 20 (2026) Finish Grading	0.02	0.40	0.10	0.00	4.35	0.43
Plots 1 3 20 (2026) Paving	0.04	1.32	0.26	0.00	9.20	0.92
Plots 1 3 20 (2026) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Unmitigated VOC Emissions (lb/day)	
2024	224
2025	224
2026	224

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source			lb/day						lb/day			
Plot 9 (2024) Mass Excavation	79.84	871.42	550.35	1.36	64.93	34.21	0.51	7.33	5.00	0.05	2.02	0.56
Plot 9 (2024) Utilities	11.14	88.01	114.17	0.35	13.40	4.24	0.09	0.90	0.80	0.01	0.34	0.09
Plot 9 (2024) Building-Concrete	2.97	27.82	41.70	0.06	2.52	1.33	0.43	4.61	4.05	0.03	1.66	0.46
Plot 9 (2024) Building-Wet Utilities	4.96	40.69	67.00	0.13	5.65	2.17	0.25	3.23	2.36	0.02	1.02	0.29
Plot 9 (2024) Building-Electrical	3.20	29.26	40.99	0.06	3.78	1.46	0.11	0.81	1.02	0.01	0.44	0.12
Plot 9 (2024) Building-Landscaping	2.49	21.03	32.61	0.05	1.61	0.98	0.30	5.19	3.02	0.03	1.17	0.33
Plot 9 (2024) Landscaping	2.64	22.23	34.96	0.05	1.68	1.04	0.46	7.08	4.45	0.05	1.88	0.53
Plot 9 (2024) Curbing/Drive Approaches	0.68	6.22	9.63	0.01	0.31	0.28	0.45	11.31	4.69	0.06	1.82	0.51
Plot 9 (2024) Finish Grading	2.63	24.78	23.85	0.03	5.36	1.66	0.09	0.84	0.79	0.01	0.35	0.10
Plot 9 (2024) Paving	4.05	39.56	46.49	0.09	4.22	1.87	0.08	0.72	0.75	0.01	0.33	0.09
Plot 9 (2024) Temporary Utilities	1.31	13.56	11.00	0.03	0.55	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.08	0.88	0.77	0.01	0.34	0.09
Plot 9 (2025) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.17	1.09	1.51	0.01	0.66	0.18
Plot 9 (2025) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.21	3.92	2.08	0.02	0.85	0.24
Plot 9 (2025) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.30	5.10	2.95	0.03	1.17	0.32
Plot 9 (2025) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.24	3.18	2.27	0.02	1.02	0.29
Plot 9 (2025) Interchange	5.02	45.36	41.94	0.10	4.11	2.01	0.45	6.96	4.30	0.05	1.88	0.53
Plot 9 (2025) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.21	2.33	1.96	0.02	0.81	0.22
Plot 9 (2025) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.08	0.82	0.75	0.01	0.35	0.10
Plot 9 (2025) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.08	0.71	0.71	0.01	0.33	0.09
Plot 9 (2025) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	18.69	188.08	135.37	0.39	16.50	7.67	0.33	2.40	2.97	0.02	1.33	0.37
Plots 1 3 20 (2026) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.44	6.83	4.18	0.05	1.88	0.53
Plots 1 3 20 (2026) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.29	5.01	2.88	0.03	1.17	0.32
Plots 1 3 20 (2026) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.23	3.12	2.19	0.02	1.02	0.29
Plots 1 3 20 (2026) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.20	3.85	2.04	0.02	0.85	0.24
Plots 1 3 20 (2026) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.08	0.81	0.72	0.01	0.35	0.10
Plots 1 3 20 (2026) Interchange	5.02	45.36	41.94	0.10	6.29	2.25	0.26	4.05	2.53	0.03	1.05	0.29
Plots 1 3 20 (2026) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.08	0.70	0.67	0.01	0.33	0.09
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.11	1.75	1.06	0.01	0.46	0.13
Plots 1 3 20 (2026) Finish Grading	0.77	7.09	7.84	0.01	1.71	0.48	0.10	0.90	0.96	0.01	0.42	0.12
Plots 1 3 20 (2026) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.22	2.89	2.11	0.02	0.91	0.25
Plots 1 3 20 (2026) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00

Plots 9 and 1,3,20 Unmitigated AQ Construction Summary

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 9 (2024) Mass Excavation	80.4	878.7	555.3	1.41	66.95	34.77
Plot 9 (2024) Utilities	11.2	88.9	115.0	0.35	13.74	4.34
Plot 9 (2024) Building-Concrete	3.4	32.4	45.7	0.10	4.18	1.79
Plot 9 (2024) Building-Wet Utilities	5.2	43.9	69.4	0.15	6.67	2.45
Plot 9 (2024) Building-Electrical	3.3	30.1	42.0	0.06	4.22	1.58
Plot 9 (2024) Building-Landscaping	2.8	26.2	35.6	0.08	2.78	1.30
Plot 9 (2024) Landscaping	3.1	29.3	39.4	0.10	3.56	1.57
Plot 9 (2024) Curbing/Drive Approaches	1.1	17.5	14.3	0.08	2.12	0.80
Plot 9 (2024) Finish Grading	2.7	25.6	24.6	0.04	5.72	1.76
Plot 9 (2024) Paving	4.1	40.3	47.2	0.09	4.55	1.96
Plot 9 (2024) Temporary Utilities	1.3	13.6	11.0	0.03	0.55	0.50
Plot 9 (2025) Utilities	10.6	80.2	114.6	0.35	13.29	3.93
Plot 9 (2025) Building-Concrete	2.9	26.9	43.1	0.07	2.96	1.31
Plot 9 (2025) Building-Wet Utilities	4.8	39.5	68.9	0.15	6.20	2.12
Plot 9 (2025) Building-Electrical	3.3	32.6	43.9	0.09	4.75	1.60
Plot 9 (2025) Building-Landscaping	2.5	22.3	34.7	0.07	2.47	1.12
Plot 9 (2025) Interchange	5.5	52.3	46.2	0.15	5.99	2.54
Plot 9 (2025) Landscaping	2.6	22.5	36.7	0.07	2.32	1.11
Plot 9 (2025) Curbing/Drive Approaches	0.7	6.4	10.3	0.02	0.62	0.34
Plot 9 (2025) Paving	3.7	35.1	45.7	0.09	4.29	1.72
Plot 9 (2025) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 1 3 20 (2026) Mass Excavation	19.0	190.5	138.3	0.41	17.82	8.03
Plots 1 3 20 (2026) Utilities	11.0	86.2	118.1	0.39	14.84	4.36
Plots 1 3 20 (2026) Building-Concrete	3.0	30.8	44.5	0.09	3.47	1.45
Plots 1 3 20 (2026) Building-Wet Utilities	4.8	38.7	69.0	0.15	6.36	2.17
Plots 1 3 20 (2026) Building-Electrical	3.2	31.4	43.0	0.08	4.44	1.52
Plots 1 3 20 (2026) Building-Landscaping	2.4	20.0	33.2	0.05	1.81	0.93
Plots 1 3 20 (2026) Interchange	5.3	49.4	44.5	0.12	7.34	2.54
Plots 1 3 20 (2026) Landscaping	2.5	20.9	35.5	0.06	1.84	0.98
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.7	7.3	10.6	0.03	0.72	0.37
Plots 1 3 20 (2026) Finish Grading	0.9	8.0	8.8	0.02	2.13	0.60
Plots 1 3 20 (2026) Paving	3.9	37.3	47.1	0.11	4.87	1.88
Plots 1 3 20 (2026) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46

Overlapping Phases						
Plot 9-2024	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
All Phases Except Temporary Utilities	117.36	1213.03	988.65	2.45	114.48	52.32
Plot 9-2025						
All Phases	37.93	330.22	454.64	1.08	43.39	16.26
Plots 1,3,20-2026						
All Phases Except Temporary Utilities	56.7	520.4	592.4	1.5	65.6	24.8
Daily Maximum[1]						
2024	117.36	1213.03	988.65	2.45	114.48	52.32
2025	37.93	330.22	454.64	1.08	43.39	16.26
2026	56.67	520.45	592.44	1.50	65.63	24.83

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source			lb/day						lb/day			
Plot 9 (2024) Mass Excavation	79.84	871.42	550.35	1.36	64.93	34.21	0.56	7.42	4.81	0.05	2.02	0.56
Plot 9 (2024) Utilities	11.14	88.01	114.17	0.35	13.40	4.24	0.09	0.91	0.76	0.01	0.34	0.09
Plot 9 (2024) Building-Concrete	2.97	27.82	41.70	0.06	2.52	1.33	0.46	4.67	3.82	0.03	1.66	0.46
Plot 9 (2024) Building-Wet Utilities	4.96	40.69	67.00	0.13	5.65	2.17	0.27	3.28	2.26	0.02	1.02	0.29
Plot 9 (2024) Building-Electrical	3.20	29.26	40.99	0.06	3.78	1.46	0.12	0.82	0.94	0.01	0.44	0.12
Plot 9 (2024) Building-Landscaping	2.49	21.03	32.61	0.05	1.61	0.98	0.32	5.25	2.95	0.03	1.17	0.33
Plot 9 (2024) Landscaping	2.64	22.23	34.96	0.05	1.68	1.04	0.50	7.16	4.32	0.05	1.88	0.53
Plot 9 (2024) Curbing/Drive Approaches	0.68	6.22	9.63	0.01	0.31	0.28	0.47	11.42	4.76	0.06	1.82	0.51
Plot 9 (2024) Finish Grading	2.63	24.78	23.85	0.03	5.36	1.66	0.09	0.85	0.74	0.01	0.35	0.10
Plot 9 (2024) Paving	4.05	39.56	46.49	0.09	4.22	1.87	0.09	0.74	0.70	0.01	0.33	0.09
Plot 9 (2024) Temporary Utilities	1.31	13.56	11.00	0.03	0.55	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.09	0.90	0.73	0.01	0.34	0.09
Plot 9 (2025) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.18	1.11	1.39	0.01	0.66	0.18
Plot 9 (2025) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.22	3.97	2.06	0.02	0.85	0.24
Plot 9 (2025) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.32	5.15	2.88	0.03	1.17	0.33
Plot 9 (2025) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.26	3.22	2.18	0.02	1.02	0.29
Plot 9 (2025) Interchange	5.02	45.36	41.94	0.10	4.11	2.01	0.48	7.04	4.18	0.04	1.88	0.53
Plot 9 (2025) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.22	2.36	1.85	0.02	0.81	0.22
Plot 9 (2025) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.09	0.84	0.71	0.01	0.35	0.10
Plot 9 (2025) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.09	0.72	0.66	0.01	0.33	0.09
Plot 9 (2025) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	18.69	188.08	135.37	0.39	16.50	7.67	0.36	2.43	2.75	0.02	1.33	0.37
Plots 1 3 20 (2026) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.47	6.92	4.07	0.04	1.88	0.53
Plots 1 3 20 (2026) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.31	5.06	2.83	0.03	1.17	0.32
Plots 1 3 20 (2026) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.25	3.16	2.11	0.02	1.02	0.29
Plots 1 3 20 (2026) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.22	3.90	2.02	0.02	0.85	0.24
Plots 1 3 20 (2026) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.09	0.82	0.68	0.01	0.35	0.10
Plots 1 3 20 (2026) Interchange	5.02	45.36	41.94	0.10	6.29	2.25	0.28	4.10	2.46	0.03	1.05	0.29
Plots 1 3 20 (2026) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.08	0.71	0.63	0.01	0.33	0.09
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.12	1.77	1.03	0.01	0.46	0.13
Plots 1 3 20 (2026) Finish Grading	0.77	7.09	7.84	0.01	1.71	0.48	0.11	0.91	0.89	0.01	0.42	0.12
Plots 1 3 20 (2026) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.24	2.93	2.02	0.02	0.91	0.25
Plots 1 3 20 (2026) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 9 (2024) Mass Excavation	80.4	878.8	555.2	1.41	66.95	34.77
Plot 9 (2024) Utilities	11.2	88.9	114.9	0.35	13.74	4.34
Plot 9 (2024) Building-Concrete	3.4	32.5	45.5	0.10	4.18	1.79
Plot 9 (2024) Building-Wet Utilities	5.2	44.0	69.3	0.15	6.67	2.45
Plot 9 (2024) Building-Electrical	3.3	30.1	41.9	0.06	4.22	1.58
Plot 9 (2024) Building-Landscaping	2.8	26.3	35.6	0.08	2.78	1.30
Plot 9 (2024) Landscaping	3.1	29.4	39.3	0.10	3.56	1.57
Plot 9 (2024) Curbing/Drive Approaches	1.2	17.6	14.4	0.08	2.12	0.80
Plot 9 (2024) Finish Grading	2.7	25.6	24.6	0.04	5.72	1.76
Plot 9 (2024) Paving	4.1	40.3	47.2	0.09	4.55	1.96
Plot 9 (2024) Temporary Utilities	1.3	13.6	11.0	0.03	0.55	0.50
Plot 9 (2025) Utilities	10.6	80.3	114.6	0.35	13.29	3.93
Plot 9 (2025) Building-Concrete	2.9	26.9	43.0	0.07	2.96	1.31
Plot 9 (2025) Building-Wet Utilities	4.8	39.6	68.9	0.15	6.20	2.12
Plot 9 (2025) Building-Electrical	3.3	32.7	43.8	0.09	4.75	1.60
Plot 9 (2025) Building-Landscaping	2.5	22.4	34.6	0.07	2.47	1.12
Plot 9 (2025) Interchange	5.5	52.4	46.1	0.14	5.99	2.54
Plot 9 (2025) Landscaping	2.7	22.5	36.6	0.07	2.32	1.11
Plot 9 (2025) Curbing/Drive Approaches	0.7	6.4	10.3	0.02	0.62	0.34
Plot 9 (2025) Paving	3.8	35.1	45.6	0.09	4.29	1.72
Plot 9 (2025) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 1 3 20 (2026) Mass Excavation	19.0	190.5	138.1	0.41	17.82	8.03
Plots 1 3 20 (2026) Utilities	11.0	86.3	118.0	0.39	14.84	4.37
Plots 1 3 20 (2026) Building-Concrete	3.1	30.9	44.4	0.09	3.47	1.45
Plots 1 3 20 (2026) Building-Wet Utilities	4.8	38.8	68.9	0.15	6.36	2.17
Plots 1 3 20 (2026) Building-Electrical	3.2	31.4	43.0	0.08	4.44	1.52
Plots 1 3 20 (2026) Building-Landscaping	2.4	20.0	33.1	0.05	1.81	0.93
Plots 1 3 20 (2026) Interchange	5.3	49.5	44.4	0.12	7.34	2.54
Plots 1 3 20 (2026) Landscaping	2.5	20.9	35.4	0.06	1.84	0.98
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.7	7.3	10.6	0.03	0.72	0.37
Plots 1 3 20 (2026) Finish Grading	0.9	8.0	8.7	0.02	2.13	0.60
Plots 1 3 20 (2026) Paving	3.9	37.3	47.0	0.10	4.87	1.88
Plots 1 3 20 (2026) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46

Overlapping Phases						
Plot 9-2024	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
All Phases Except Temporary Utilities	117.57	1213.54	987.80	2.44	114.48	52.32
Plot 9-2025						
All Phases	38.08	330.53	453.99	1.08	43.39	16.26
Plots 1,3,20-2026						
All Phases Except Temporary Utilities	56.9	520.8	591.6	1.5	65.6	24.8
Daily Maximum[1]						
2024	117.57	1213.54	987.80	2.44	114.48	52.32
2025	38.08	330.53	453.99	1.08	43.39	16.26
2026	56.87	520.83	591.62	1.50	65.63	24.83

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source	lb/day				lb/day			
Plot 9 (2024) Mass Excavation	871.42	550.35	64.93	34.21	3.30	0.65	20.24	2.02
Plot 9 (2024) Utilities	88.01	114.17	13.40	4.24	0.40	0.10	3.41	0.34
Plot 9 (2024) Building-Concrete	27.82	41.70	2.52	1.33	2.05	0.49	16.88	1.69
Plot 9 (2024) Building-Wet Utilities	40.69	67.00	5.65	2.17	1.44	0.33	10.08	1.01
Plot 9 (2024) Building-Electrical	29.26	40.99	3.78	1.46	0.35	0.12	4.46	0.45
Plot 9 (2024) Building-Landscaping	21.03	32.61	1.61	0.98	2.37	0.39	11.64	1.16
Plot 9 (2024) Landscaping	22.23	34.96	1.68	1.04	3.18	0.64	18.55	1.85
Plot 9 (2024) Curbing/Drive Approaches	6.22	9.63	0.31	0.28	5.21	0.73	17.41	1.74
Plot 9 (2024) Finish Grading	24.78	23.85	5.36	1.66	0.36	0.11	3.54	0.35
Plot 9 (2024) Paving	39.56	46.49	4.22	1.87	0.31	0.10	3.33	0.33
Plot 9 (2024) Temporary Utilities	13.56	11.00	0.55	0.50	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	79.36	113.88	12.96	3.84	0.39	0.10	3.41	0.34
Plot 9 (2025) Building-Concrete	25.82	41.60	2.30	1.13	0.47	0.16	6.88	0.69
Plot 9 (2025) Building-Wet Utilities	35.62	66.81	5.34	1.88	1.80	0.30	8.38	0.84
Plot 9 (2025) Building-Electrical	27.52	40.93	3.58	1.28	2.34	0.39	11.64	1.16
Plot 9 (2025) Building-Landscaping	19.14	32.45	1.45	0.83	1.43	0.31	10.08	1.01
Plot 9 (2025) Interchange	45.36	41.94	4.11	2.01	3.16	0.62	18.55	1.85
Plot 9 (2025) Landscaping	20.17	34.78	1.51	0.88	1.05	0.23	8.29	0.83
Plot 9 (2025) Curbing/Drive Approaches	5.58	9.57	0.26	0.24	0.36	0.10	3.54	0.35
Plot 9 (2025) Paving	34.39	44.95	3.96	1.63	0.31	0.09	3.33	0.33
Plot 9 (2025) Temporary Utilities	12.26	10.43	0.50	0.46	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	188.08	135.37	16.50	7.67	1.06	0.31	13.81	1.38
Plots 1 3 20 (2026) Utilities	79.36	113.88	12.96	3.84	3.14	0.60	18.55	1.85
Plots 1 3 20 (2026) Building-Concrete	25.82	41.60	2.30	1.13	2.32	0.38	11.64	1.16
Plots 1 3 20 (2026) Building-Wet Utilities	35.62	66.81	5.34	1.88	1.42	0.30	10.08	1.01
Plots 1 3 20 (2026) Building-Electrical	27.52	40.93	3.58	1.28	1.79	0.29	8.38	0.84
Plots 1 3 20 (2026) Building-Landscaping	19.14	32.45	1.45	0.83	0.36	0.10	3.54	0.35
Plots 1 3 20 (2026) Interchange	45.36	41.94	6.29	2.25	1.87	0.33	10.55	1.05
Plots 1 3 20 (2026) Landscaping	20.17	34.78	1.51	0.88	0.31	0.09	3.33	0.33
Plots 1 3 20 (2026) Curbing/Drive Approaches	5.58	9.57	0.26	0.24	0.81	0.15	4.54	0.45
Plots 1 3 20 (2026) Finish Grading	7.09	7.84	1.71	0.48	0.40	0.10	4.35	0.43
Plots 1 3 20 (2026) Paving	34.39	44.95	3.96	1.63	1.32	0.26	9.20	0.92
Plots 1 3 20 (2026) Temporary Utilities	12.26	10.43	0.50	0.46	0.00	0.00	0.00	0.00

Regional Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 9 (2024) Mass Excavation	874.7	551.0	85.16	36.23
Plot 9 (2024) Utilities	88.4	114.3	16.81	4.58
Plot 9 (2024) Building-Concrete	29.9	42.2	19.40	3.02
Plot 9 (2024) Building-Wet Utilities	42.1	67.3	15.74	3.17
Plot 9 (2024) Building-Electrical	29.6	41.1	8.24	1.90
Plot 9 (2024) Building-Landscaping	23.4	33.0	13.25	2.14
Plot 9 (2024) Landscaping	25.4	35.6	20.22	2.89
Plot 9 (2024) Curbing/Drive Approaches	11.4	10.4	17.71	2.02
Plot 9 (2024) Finish Grading	25.1	24.0	8.90	2.01
Plot 9 (2024) Paving	39.9	46.6	7.55	2.20
Plot 9 (2024) Temporary Utilities	13.6	11.0	0.55	0.50
Plot 9 (2025) Utilities	79.8	114.0	16.37	4.18
Plot 9 (2025) Building-Concrete	26.3	41.8	9.18	1.82
Plot 9 (2025) Building-Wet Utilities	37.4	67.1	13.73	2.72
Plot 9 (2025) Building-Electrical	29.9	41.3	15.22	2.44
Plot 9 (2025) Building-Landscaping	20.6	32.8	11.54	1.84
Plot 9 (2025) Interchange	48.5	42.6	22.66	3.87
Plot 9 (2025) Landscaping	21.2	35.0	9.80	1.71
Plot 9 (2025) Curbing/Drive Approaches	5.9	9.7	3.80	0.60
Plot 9 (2025) Paving	34.7	45.0	7.29	1.96
Plot 9 (2025) Temporary Utilities	12.3	10.4	0.50	0.46
Plots 1 3 20 (2026) Mass Excavation	189.1	135.7	30.31	9.05
Plots 1 3 20 (2026) Utilities	82.5	114.5	31.50	5.69
Plots 1 3 20 (2026) Building-Concrete	28.1	42.0	13.94	2.29
Plots 1 3 20 (2026) Building-Wet Utilities	37.0	67.1	15.43	2.89
Plots 1 3 20 (2026) Building-Electrical	29.3	41.2	11.97	2.11
Plots 1 3 20 (2026) Building-Landscaping	19.5	32.5	4.99	1.19
Plots 1 3 20 (2026) Interchange	47.2	42.3	16.84	3.30
Plots 1 3 20 (2026) Landscaping	20.5	34.9	4.84	1.22
Plots 1 3 20 (2026) Curbing/Drive Approaches	6.4	9.7	4.80	0.70
Plots 1 3 20 (2026) Finish Grading	7.5	7.9	6.06	0.92
Plots 1 3 20 (2026) Paving	35.7	45.2	13.16	2.55
Plots 1 3 20 (2026) Temporary Utilities	12.3	10.4	0.50	0.46

Overlapping Phases				
Plot 9-2024				
All Phases Except Temporary Utilities	1189.98	965.41	212.99	60.17
Plot 9-2025				
All Phases	316.54	439.64	110.08	21.58
Plots 1,3,20-2026				
All Phases Except Temporary Utilities	502.9	573.0	153.8	31.9
Daily Maximum[1]				
2024	1189.98	965.41	212.99	60.17
2025	316.54	439.64	110.08	21.58
2026	502.93	573.03	153.84	31.89

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Daily Unmitigated VOC Emissions (lb/day)	
2024	224
2025	224
2026	224

World Logistics Center-Construction Plots 9 and 1,3,20 (2024-2026)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	129.5054	1,213.0346	988.6519	2.4503	156.0956	46.9491	203.0447	18.6556	43.2289	61.8846	0.0000	239,762.7841	239,762.7841	69.1348	0.0000	241,491.1549
2025	50.0748	330.2158	454.6355	1.0837	67.1686	12.7182	79.8867	8.4644	11.7325	20.1969	0.0000	106,356.9373	106,356.9373	28.9164	0.0000	107,079.8470
2026	68.8169	520.4462	592.4358	1.5048	102.2376	19.8563	122.0939	12.6305	18.3001	30.9306	0.0000	147,642.7908	147,642.7908	40.8156	0.0000	148,663.1808
Maximum	**129.5054**	**1,213.0346**	**988.6519**	**2.4503**	**156.0956**	**46.9491**	**203.0447**	**18.6556**	**43.2289**	**61.8846**	**0.0000**	**239,762.7841**	**239,762.7841**	**69.1348**	**0.0000**	**241,491.1549**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	129.5054	1,213.0346	988.6519	2.4503	67.5318	46.9491	114.4809	9.0928	43.2289	52.3217	0.0000	239,762.7839	239,762.7839	69.1348	0.0000	241,491.1547
2025	50.0748	330.2158	454.6355	1.0837	30.6757	12.7182	43.3938	4.5240	11.7325	16.2565	0.0000	106,356.9373	106,356.9373	28.9164	0.0000	107,079.8469
2026	68.8169	520.4462	592.4358	1.5048	45.7752	19.8563	65.6315	6.5339	18.3001	24.8340	0.0000	147,642.7907	147,642.7907	40.8156	0.0000	148,663.1807
Maximum	**129.5054**	**1,213.0346**	**988.6519**	**2.4503**	**67.5318**	**46.9491**	**114.4809**	**9.0928**	**43.2289**	**52.3217**	**0.0000**	**239,762.7839**	**239,762.7839**	**69.1348**	**0.0000**	**241,491.1547**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	55.77	0.00	44.82	49.31	0.00	17.34	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 9 (2024) Mass Excavation	Grading	1/1/2024	6/30/2024	5	130	1138
2	Plot 9 (2024) Utilities	Trenching	1/1/2024	12/29/2024	5	260	1144
3	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
4	Plot 9 (2024) Building-Wet Utilities	Building Construction	1/1/2024	12/29/2024	5	260	1141
5	Plot 9 (2024) Building-Electrical	Building Construction	1/1/2024	12/29/2024	5	260	1142
6	Plot 9 (2024) Building-Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1143
7	Plot 9 (2024) Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1145
8	Plot 9 (2024) Curbing/Drive Approaches	Paving	5/1/2024	8/20/2024	5	80	1147
9	Plot 9 (2024) Finish Grading	Grading	5/7/2024	7/1/2024	5	40	1139
10	Plot 9 (2024) Paving	Paving	6/1/2024	7/26/2024	5	40	1148
11	Plot 9 (2024) Temporary Utilities	Building Construction	7/2/2024	12/30/2024	5	130	1146
12	Plot 9 (2025) Utilities	Trenching	1/1/2025	12/30/2025	5	260	1153
13	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
14	Plot 9 (2025) Building-Wet Utilities	Building Construction	1/1/2025	12/30/2025	5	260	1150
15	Plot 9 (2025) Building-Electrical	Building Construction	1/1/2025	12/30/2025	5	260	1151
16	Plot 9 (2025) Building-Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1152

17	Plot 9 (2025) Interchange	Building Construction	1/1/2025	12/30/2025	5	260	1154
18	Plot 9 (2025) Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1155
19	Plot 9 (2025) Curbing/Drive Approaches	Paving	5/1/2025	8/20/2025	5	80	1157
20	Plot 9 (2025) Paving	Paving	6/1/2025	7/26/2025	5	40	1158
21	Plot 9 (2025) Temporary Utilities	Building Construction	7/2/2025	12/30/2025	5	130	1156
22	Plots 1 3 20 (2026) Mass Excavation	Grading	1/1/2026	7/1/2026	5	130	1159
23	Plots 1 3 20 (2026) Utilities	Trenching	1/1/2026	12/30/2026	5	260	1165
24	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
25	Plots 1 3 20 (2026) Building-Wet Utilities	Building Construction	1/1/2026	12/30/2026	5	260	1162
26	Plots 1 3 20 (2026) Building-Electrical	Building Construction	1/1/2026	12/30/2026	5	260	1163
27	Plots 1 3 20 (2026) Building-Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1164
28	Plots 1 3 20 (2026) Interchange	Building Construction	1/1/2026	7/1/2026	5	130	1166
29	Plots 1 3 20 (2026) Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1167
30	Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving	5/1/2026	8/20/2026	5	80	1169
31	Plots 1 3 20 (2026) Finish Grading	Grading	5/7/2026	7/1/2026	5	40	1160
32	Plots 1 3 20 (2026) Paving	Paving	6/1/2026	7/26/2026	5	40	1170
33	Plots 1 3 20 (2026) Temporary Utilities	Building Construction	7/2/2026	12/30/2026	5	130	1168

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 1 3 20 (2026) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 1 3 20 (2026) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 1 3 20 (2026) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 1 3 20 (2026) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 1 3 20 (2026) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 1 3 20 (2026) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 1 3 20 (2026) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 1 3 20 (2026) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 1 3 20 (2026) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plots 1 3 20 (2026) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plots 1 3 20 (2026) Interchange	Cranes	1	10.00	226	0.29
Plots 1 3 20 (2026) Interchange	Excavators	1	10.00	190	0.38
Plots 1 3 20 (2026) Interchange	Graders	1	10.00	259	0.41
Plots 1 3 20 (2026) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plots 1 3 20 (2026) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plots 1 3 20 (2026) Interchange	Scrapers	1	10.00	330	0.48
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plots 1 3 20 (2026) Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Mass Excavation	Graders	1	10.00	193	0.41

Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 1 3 20 (2026) Mass Excavation	Scrapers	1	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Paving	Pavers	2	10.00	126	0.42
Plots 1 3 20 (2026) Paving	Paving Equipment	2	10.00	131	0.36
Plots 1 3 20 (2026) Paving	Plate Compactors	2	10.00	8	0.43
Plots 1 3 20 (2026) Paving	Rollers	2	10.00	81	0.38
Plots 1 3 20 (2026) Paving	Scrapers	2	10.00	362	0.48
Plots 1 3 20 (2026) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 1 3 20 (2026) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 1 3 20 (2026) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	523	0.38
Plots 1 3 20 (2026) Utilities	Excavators	10	10.00	286	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	4	10.00	396	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	188	0.38
Plots 1 3 20 (2026) Utilities	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Utilities	Forklifts	4	10.00	89	0.20

Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Mass Excavation	Graders	3	10.00	193	0.41
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	8	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	410	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	305	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Scrapers	20	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2024) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2024) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	188	0.38
Plot 9 (2024) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2024) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2024) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37

Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2024) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2024) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2024) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2024) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2024) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2024) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 9 (2024) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2024) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2024) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Finish Grading	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Paving	Pavers	2	10.00	126	0.42
Plot 9 (2024) Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2024) Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2024) Paving	Rollers	2	10.00	81	0.38
Plot 9 (2024) Paving	Scrapers	2	10.00	362	0.48
Plot 9 (2024) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2024) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 9 (2025) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2025) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2025) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	188	0.38

Plot 9 (2025) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2025) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2025) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2025) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2025) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2025) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2025) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2025) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2025) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 9 (2025) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plot 9 (2025) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plot 9 (2025) Interchange	Cranes	1	10.00	226	0.29
Plot 9 (2025) Interchange	Excavators	1	10.00	190	0.38
Plot 9 (2025) Interchange	Graders	1	10.00	259	0.41
Plot 9 (2025) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plot 9 (2025) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plot 9 (2025) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plot 9 (2025) Interchange	Scrapers	1	10.00	330	0.48
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plot 9 (2025) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 9 (2025) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2025) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2025) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2025) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2025) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025) Paving	Pavers	2	10.00	126	0.42
Plot 9 (2025) Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2025) Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2025) Paving	Rollers	2	10.00	81	0.38
Plot 9 (2025) Paving	Scrapers	2	10.00	362	0.48
Plot 9 (2025) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2025) Temporary Utilities	Cranes	2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 9 (2024) Mass Excavation		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Electrical		15.00	6.00	104.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Landscaping		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Landscaping		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Curbing/Drive		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Finish Grading		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Wet Utilities		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Electrical		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Landscaping		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Interchange		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Landscaping		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Curbing/Drive		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Mass Excavation		50.00	8.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plots 1 3 20 (2026) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Interchange		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Finish Grading		15.00	2.00	156.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 9 (2024) Mass Excavation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.6062	0.0000	80.6062	8.7036	0.0000	8.7036			0.0000			0.0000
Off-Road	79.8439	871.4155	550.3472	1.3597		33.4898	33.4898		30.8106	30.8106		131,673.0773	131,673.0773	42.5857		132,737.7208
Total	**79.8439**	**871.4155**	**550.3472**	**1.3597**	**80.6062**	**33.4898**	**114.0960**	**8.7036**	**30.8106**	**39.5142**		**131,673.0773**	**131,673.0773**	**42.5857**		**132,737.7208**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1767	5.4360	1.9012	0.0282	0.7030	0.0111	0.7140	0.1926	0.0106	0.2032		3,066.5484	3,066.5484	0.1908		3,071.3189
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.5146**	**7.3286**	**4.9962**	**0.0477**	**1.9999**	**0.0212**	**2.0211**	**0.5443**	**0.0200**	**0.5643**		**5,089.8209**	**5,089.8209**	**0.2559**		**5,096.2194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.4364	0.0000	31.4364	3.3944	0.0000	3.3944			0.0000			0.0000
Off-Road	79.8439	871.4155	550.3472	1.3597		33.4898	33.4898		30.8106	30.8106	0.0000	131,673.0772	131,673.0772	42.5857		132,737.7207
Total	**79.8439**	**871.4155**	**550.3472**	**1.3597**	**31.4364**	**33.4898**	**64.9262**	**3.3944**	**30.8106**	**34.2050**	**0.0000**	**131,673.0772**	**131,673.0772**	**42.5857**		**132,737.7207**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1767	5.4360	1.9012	0.0282	0.7030	0.0111	0.7140	0.1926	0.0106	0.2032		3,066.5484	3,066.5484	0.1908		3,071.3189
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.5146**	**7.3286**	**4.9962**	**0.0477**	**1.9999**	**0.0212**	**2.0211**	**0.5443**	**0.0200**	**0.5643**		**5,089.8209**	**5,089.8209**	**0.2559**		**5,096.2194**

3.3 Plot 9 (2024) Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.1392	88.0083	114.1711	0.3463		3.4412	3.4412		3.1671	3.1671		33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**11.1392**	**88.0083**	**114.1711**	**0.3463**	**25.5336**	**3.4412**	**28.9748**	**2.7570**	**3.1671**	**5.9241**		**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0132	0.4053	0.1417	2.1000e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		228.6172	228.6172	0.0142		228.9729
Vendor	0.0181	0.4601	0.1687	2.9600e-003	0.0925	1.0000e-003	0.0935	0.0266	9.6000e-004	0.0276		315.9700	315.9700	0.0124		316.2811
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0853**	**0.8988**	**0.8029**	**6.7400e-003**	**0.3349**	**3.0900e-003**	**0.3380**	**0.0913**	**2.9100e-003**	**0.0943**		**712.2642**	**712.2642**	**0.0304**		**713.0232**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	11.1392	88.0083	114.1711	0.3463		3.4412	3.4412		3.1671	3.1671	0.0000	33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**11.1392**	**88.0083**	**114.1711**	**0.3463**	**9.9581**	**3.4412**	**13.3993**	**1.0752**	**3.1671**	**4.2423**	**0.0000**	**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0132	0.4053	0.1417	2.1000e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		228.6172	228.6172	0.0142		228.9729
Vendor	0.0181	0.4601	0.1687	2.9600e-003	0.0925	1.0000e-003	0.0935	0.0266	9.6000e-004	0.0276		315.9700	315.9700	0.0124		316.2811
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0853**	**0.8988**	**0.8029**	**6.7400e-003**	**0.3349**	**3.0900e-003**	**0.3380**	**0.0913**	**2.9100e-003**	**0.0943**		**712.2642**	**712.2642**	**0.0304**		**713.0232**

3.4 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9683	27.8163	41.6994	0.0626		1.2700	1.2700		1.1953	1.1953		5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**2.9683**	**27.8163**	**41.6994**	**0.0626**	**3.1937**	**1.2700**	**4.4638**	**0.3449**	**1.1953**	**1.5402**		**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0883	2.7180	0.9506	0.0141	0.3515	5.5300e-003	0.3570	0.0963	5.2900e-003	0.1016		1,533.2742	1,533.2742	0.0954		1,535.6595
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.4263**	**4.6106**	**4.0456**	**0.0336**	**1.6484**	**0.0156**	**1.6640**	**0.4480**	**0.0147**	**0.4627**		**3,556.5468**	**3,556.5468**	**0.1605**		**3,560.5600**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.9683	27.8163	41.6994	0.0626		1.2700	1.2700		1.1953	1.1953	0.0000	5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**2.9683**	**27.8163**	**41.6994**	**0.0626**	**1.2456**	**1.2700**	**2.5156**	**0.1345**	**1.1953**	**1.3298**	**0.0000**	**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0883	2.7180	0.9506	0.0141	0.3515	5.5300e-003	0.3570	0.0963	5.2900e-003	0.1016		1,533.2742	1,533.2742	0.0954		1,535.6595
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.4263**	**4.6106**	**4.0456**	**0.0336**	**1.6484**	**0.0156**	**1.6640**	**0.4480**	**0.0147**	**0.4627**		**3,556.5468**	**3,556.5468**	**0.1605**		**3,560.5600**

3.5 Plot 9 (2024) Building-Wet Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.9612	40.6896	66.9992	0.1252		1.9173	1.9173		1.7639	1.7639		12,114.9480	12,114.9480	3.9182		12,212.9034
Total	**4.9612**	**40.6896**	**66.9992**	**0.1252**	**9.5771**	**1.9173**	**11.4944**	**1.0341**	**1.7639**	**2.7980**		**12,114.9480**	**12,114.9480**	**3.9182**		**12,212.9034**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.4230	0.4977	7.3800e-003	0.1840	2.9000e-003	0.1869	0.0504	2.7700e-003	0.0532		802.7249	802.7249	0.0500		803.9737
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.2491**	**3.2320**	**2.3615**	**0.0227**	**1.0059**	**9.8300e-003**	**1.0157**	**0.2761**	**9.2800e-003**	**0.2854**		**2,406.8050**	**2,406.8050**	**0.1058**		**2,409.4510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.9612	40.6896	66.9992	0.1252		1.9173	1.9173		1.7639	1.7639	0.0000	12,114.9479	12,114.9479	3.9182		12,212.9034
Total	**4.9612**	**40.6896**	**66.9992**	**0.1252**	**3.7351**	**1.9173**	**5.6524**	**0.4033**	**1.7639**	**2.1672**	**0.0000**	**12,114.9479**	**12,114.9479**	**3.9182**		**12,212.9034**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.4230	0.4977	7.3800e-003	0.1840	2.9000e-003	0.1869	0.0504	2.7700e-003	0.0532		802.7249	802.7249	0.0500		803.9737
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.2491**	**3.2320**	**2.3615**	**0.0227**	**1.0059**	**9.8300e-003**	**1.0157**	**0.2761**	**9.2800e-003**	**0.2854**		**2,406.8050**	**2,406.8050**	**0.1058**		**2,409.4510**

3.6 Plot 9 (2024) Building-Electrical - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.1951	29.2599	40.9863	0.0565		1.2915	1.2915		1.1899	1.1899		5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**3.1951**	**29.2599**	**40.9863**	**0.0565**	**6.3834**	**1.2915**	**7.6749**	**0.6893**	**1.1899**	**1.8791**		**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2000e-003	0.0675	0.0236	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		38.1029	38.1029	2.3700e-003		38.1622
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.1104**	**0.8079**	**1.0154**	**7.3000e-003**	**0.4325**	**3.5500e-003**	**0.4360**	**0.1179**	**3.3200e-003**	**0.1212**		**763.5734**	**763.5734**	**0.0266**		**764.2377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.1951	29.2599	40.9863	0.0565		1.2915	1.2915		1.1899	1.1899	0.0000	5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**3.1951**	**29.2599**	**40.9863**	**0.0565**	**2.4895**	**1.2915**	**3.7810**	**0.2688**	**1.1899**	**1.4587**	**0.0000**	**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2000e-003	0.0675	0.0236	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		38.1029	38.1029	2.3700e-003		38.1622
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.1104**	**0.8079**	**1.0154**	**7.3000e-003**	**0.4325**	**3.5500e-003**	**0.4360**	**0.1179**	**3.3200e-003**	**0.1212**		**763.5734**	**763.5734**	**0.0266**		**764.2377**

3.7 Plot 9 (2024) Building-Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4878	21.0268	32.6128	0.0468		0.9898	0.9898		0.9107	0.9107		4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**2.4878**	**21.0268**	**32.6128**	**0.0468**	**1.5948**	**0.9898**	**2.5847**	**0.1722**	**0.9107**	**1.0829**		**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4878	21.0268	32.6128	0.0468		0.9898	0.9898		0.9107	0.9107	0.0000	4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**2.4878**	**21.0268**	**32.6128**	**0.0468**	**0.6220**	**0.9898**	**1.6118**	**0.0672**	**0.9107**	**0.9778**	**0.0000**	**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

3.8 Plot 9 (2024) Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6412	22.2334	34.9552	0.0504		1.0546	1.0546		0.9702	0.9702		4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**2.6412**	**22.2334**	**34.9552**	**0.0504**	**1.5948**	**1.0546**	**2.6494**	**0.1722**	**0.9702**	**1.1424**		**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1321	4.0656	1.4219	0.0211	0.5258	8.2800e-003	0.5340	0.1441	7.9200e-003	0.1520		2,293.4997	2,293.4997	0.1427		2,297.0677
Vendor	0.1129	2.8757	1.0546	0.0185	0.5780	6.2800e-003	0.5843	0.1662	6.0100e-003	0.1722		1,974.8126	1,974.8126	0.0778		1,976.7567
Worker	0.2162	0.1338	1.9698	6.7300e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		670.7080	670.7080	0.0148		671.0772
Total	**0.4612**	**7.0751**	**4.4463**	**0.0463**	**1.8639**	**0.0196**	**1.8835**	**0.5118**	**0.0186**	**0.5304**		**4,939.0204**	**4,939.0204**	**0.2353**		**4,944.9016**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.6412	22.2334	34.9552	0.0504		1.0546	1.0546		0.9702	0.9702	0.0000	4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**2.6412**	**22.2334**	**34.9552**	**0.0504**	**0.6220**	**1.0546**	**1.6766**	**0.0672**	**0.9702**	**1.0374**	**0.0000**	**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1321	4.0656	1.4219	0.0211	0.5258	8.2800e-003	0.5340	0.1441	7.9200e-003	0.1520		2,293.4997	2,293.4997	0.1427		2,297.0677
Vendor	0.1129	2.8757	1.0546	0.0185	0.5780	6.2800e-003	0.5843	0.1662	6.0100e-003	0.1722		1,974.8126	1,974.8126	0.0778		1,976.7567
Worker	0.2162	0.1338	1.9698	6.7300e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		670.7080	670.7080	0.0148		671.0772
Total	**0.4612**	**7.0751**	**4.4463**	**0.0463**	**1.8639**	**0.0196**	**1.8835**	**0.5118**	**0.0186**	**0.5304**		**4,939.0204**	**4,939.0204**	**0.2353**		**4,944.9016**

3.9 Plot 9 (2024) Curbing/Drive Approaches - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6792	6.2242	9.6300	0.0145		0.3057	0.3057		0.2821	0.2821		1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7271**	**6.2242**	**9.6300**	**0.0145**	**0.0000**	**0.3057**	**0.3057**	**0.0000**	**0.2821**	**0.2821**		**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3435	10.5706	3.6970	0.0549	1.3670	0.0215	1.3885	0.3746	0.0206	0.3952		5,963.0993	5,963.0993	0.3711		5,972.3760
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.4517**	**11.3109**	**4.6888**	**0.0618**	**1.7907**	**0.0249**	**1.8157**	**0.4901**	**0.0238**	**0.5138**		**6,688.5698**	**6,688.5698**	**0.3953**		**6,698.4515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6792	6.2242	9.6300	0.0145		0.3057	0.3057		0.2821	0.2821	0.0000	1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6792**	**6.2242**	**9.6300**	**0.0145**	**0.0000**	**0.3057**	**0.3057**	**0.0000**	**0.2821**	**0.2821**	**0.0000**	**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3435	10.5706	3.6970	0.0549	1.3670	0.0215	1.3885	0.3746	0.0206	0.3952		5,963.0993	5,963.0993	0.3711		5,972.3760
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.4517**	**11.3109**	**4.6888**	**0.0618**	**1.7907**	**0.0249**	**1.8157**	**0.4901**	**0.0238**	**0.5138**		**6,688.5698**	**6,688.5698**	**0.3953**		**6,698.4515**

3.10 Plot 9 (2024) Finish Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.3399	0.0000	10.3399	1.1165	0.0000	1.1165			0.0000			0.0000
Off-Road	2.6290	24.7792	23.8477	0.0326		1.3310	1.3310		1.2245	1.2245		3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**2.6290**	**24.7792**	**23.8477**	**0.0326**	**10.3399**	**1.3310**	**11.6709**	**1.1165**	**1.2245**	**2.3410**		**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0316	0.8052	0.2953	5.1700e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		552.9475	552.9475	0.0218		553.4919
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0857**	**0.8386**	**0.7877**	**6.8500e-003**	**0.3519**	**3.0200e-003**	**0.3549**	**0.0969**	**2.8400e-003**	**0.0998**		**720.6245**	**720.6245**	**0.0255**		**721.2612**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0326	0.0000	4.0326	0.4354	0.0000	0.4354			0.0000			0.0000
Off-Road	2.6290	24.7792	23.8477	0.0326		1.3310	1.3310		1.2245	1.2245	0.0000	3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**2.6290**	**24.7792**	**23.8477**	**0.0326**	**4.0326**	**1.3310**	**5.3636**	**0.4354**	**1.2245**	**1.6600**	**0.0000**	**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0316	0.8052	0.2953	5.1700e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		552.9475	552.9475	0.0218		553.4919
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0857**	**0.8386**	**0.7877**	**6.8500e-003**	**0.3519**	**3.0200e-003**	**0.3549**	**0.0969**	**2.8400e-003**	**0.0998**		**720.6245**	**720.6245**	**0.0255**		**721.2612**

3.11 Plot 9 (2024) Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.0488	39.5630	46.4915	0.0856		1.7411	1.7411		1.6038	1.6038		8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.1446**	**39.5630**	**46.4915**	**0.0856**	**6.3630**	**1.7411**	**8.1041**	**0.6871**	**1.6038**	**2.2908**		**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0811**	**0.7236**	**0.7456**	**6.1100e-003**	**0.3288**	**2.7700e-003**	**0.3315**	**0.0903**	**2.6000e-003**	**0.0929**		**641.6320**	**641.6320**	**0.0224**		**642.1909**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.0488	39.5630	46.4915	0.0856		1.7411	1.7411		1.6038	1.6038	0.0000	8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0488**	**39.5630**	**46.4915**	**0.0856**	**2.4816**	**1.7411**	**4.2227**	**0.2680**	**1.6038**	**1.8717**	**0.0000**	**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0811**	**0.7236**	**0.7456**	**6.1100e-003**	**0.3288**	**2.7700e-003**	**0.3315**	**0.0903**	**2.6000e-003**	**0.0929**		**641.6320**	**641.6320**	**0.0224**		**642.1909**

3.12 Plot 9 (2024) Temporary Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3116	13.5590	10.9969	0.0278		0.5481	0.5481		0.5042	0.5042		2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**1.3116**	**13.5590**	**10.9969**	**0.0278**	**0.0000**	**0.5481**	**0.5481**	**0.0000**	**0.5042**	**0.5042**		**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3116	13.5590	10.9969	0.0278		0.5481	0.5481		0.5042	0.5042	0.0000	2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**1.3116**	**13.5590**	**10.9969**	**0.0278**	**0.0000**	**0.5481**	**0.5481**	**0.0000**	**0.5042**	**0.5042**	**0.0000**	**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 9 (2025) Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0131	0.3985	0.1429	2.0900e-003	0.0524	8.1000e-004	0.0532	0.0144	7.8000e-004	0.0151		227.3585	227.3585	0.0142		227.7140
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0823**	**0.8829**	**0.7668**	**6.6400e-003**	**0.3349**	**3.0500e-003**	**0.3380**	**0.0913**	**2.8700e-003**	**0.0942**		**702.9466**	**702.9466**	**0.0300**		**703.6960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0131	0.3985	0.1429	2.0900e-003	0.0524	8.1000e-004	0.0532	0.0144	7.8000e-004	0.0151		227.3585	227.3585	0.0142		227.7140
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0823**	**0.8829**	**0.7668**	**6.6400e-003**	**0.3349**	**3.0500e-003**	**0.3380**	**0.0913**	**2.8700e-003**	**0.0942**		**702.9466**	**702.9466**	**0.0300**		**703.6960**

3.14 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3372	0.1209	1.7700e-003	0.0443	6.9000e-004	0.0450	0.0122	6.6000e-004	0.0128		192.3803	192.3803	0.0120		192.6810
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.1663**	**1.0944**	**1.5148**	**0.0102**	**0.6581**	**5.2900e-003**	**0.6634**	**0.1780**	**4.9400e-003**	**0.1830**		**1,066.8360**	**1,066.8360**	**0.0390**		**1,067.8119**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3372	0.1209	1.7700e-003	0.0443	6.9000e-004	0.0450	0.0122	6.6000e-004	0.0128		192.3803	192.3803	0.0120		192.6810
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.1663**	**1.0944**	**1.5148**	**0.0102**	**0.6581**	**5.2900e-003**	**0.6634**	**0.1780**	**4.9400e-003**	**0.1830**		**1,066.8360**	**1,066.8360**	**0.0390**		**1,067.8119**

3.15 Plot 9 (2025) Building-Wet Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1051	3.1981	1.1466	0.0168	0.4206	6.5400e-003	0.4271	0.1153	6.2600e-003	0.1215		1,824.6979	1,824.6979	0.1141		1,827.5504
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0771	0.0459	0.6869	2.4200e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		241.6105	241.6105	5.0500e-003		241.7368
Total	**0.2089**	**3.9247**	**2.0825**	**0.0236**	**0.8444**	**9.9000e-003**	**0.8543**	**0.2307**	**9.4000e-003**	**0.2401**		**2,538.0799**	**2,538.0799**	**0.1377**		**2,541.5234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1051	3.1981	1.1466	0.0168	0.4206	6.5400e-003	0.4271	0.1153	6.2600e-003	0.1215		1,824.6979	1,824.6979	0.1141		1,827.5504
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0771	0.0459	0.6869	2.4200e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		241.6105	241.6105	5.0500e-003		241.7368
Total	**0.2089**	**3.9247**	**2.0825**	**0.0236**	**0.8444**	**9.9000e-003**	**0.8543**	**0.2307**	**9.4000e-003**	**0.2401**		**2,538.0799**	**2,538.0799**	**0.1377**		**2,541.5234**

3.16 Plot 9 (2025) Building-Electrical - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

3.17 Plot 9 (2025) Building-Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0460	1.3992	0.5016	7.3400e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		798.3053	798.3053	0.0499		799.5533
Vendor	0.0666	1.7018	0.6226	0.0110	0.3468	3.7400e-003	0.3505	0.0997	3.5800e-003	0.1033		1,179.4288	1,179.4288	0.0465		1,180.5906
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2411**	**3.1775**	**2.2691**	**0.0224**	**1.0059**	**9.7000e-003**	**1.0156**	**0.2761**	**9.1700e-003**	**0.2853**		**2,380.4184**	**2,380.4184**	**0.1048**		**2,383.0385**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0460	1.3992	0.5016	7.3400e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		798.3053	798.3053	0.0499		799.5533
Vendor	0.0666	1.7018	0.6226	0.0110	0.3468	3.7400e-003	0.3505	0.0997	3.5800e-003	0.1033		1,179.4288	1,179.4288	0.0465		1,180.5906
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2411**	**3.1775**	**2.2691**	**0.0224**	**1.0059**	**9.7000e-003**	**1.0156**	**0.2761**	**9.1700e-003**	**0.2853**		**2,380.4184**	**2,380.4184**	**0.1048**		**2,383.0385**

3.18 Plot 9 (2025) Interchange - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5839	0.0000	5.5839	0.6029	0.0000	0.6029			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**5.5839**	**1.9312**	**7.5151**	**0.6029**	**1.7773**	**2.3802**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1314	3.9976	1.4332	0.0210	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,280.8724	2,280.8724	0.1426		2,284.4380
Vendor	0.1110	2.8364	1.0377	0.0184	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,965.7147	1,965.7147	0.0775		1,967.6509
Worker	0.2057	0.1224	1.8318	6.4600e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		644.2948	644.2948	0.0135		644.6314
Total	**0.4481**	**6.9565**	**4.3027**	**0.0458**	**1.8639**	**0.0194**	**1.8832**	**0.5118**	**0.0184**	**0.5302**		**4,890.8818**	**4,890.8818**	**0.2336**		**4,896.7204**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1777	0.0000	2.1777	0.2351	0.0000	0.2351			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**2.1777**	**1.9312**	**4.1089**	**0.2351**	**1.7773**	**2.0124**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1314	3.9976	1.4332	0.0210	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,280.8724	2,280.8724	0.1426		2,284.4380
Vendor	0.1110	2.8364	1.0377	0.0184	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,965.7147	1,965.7147	0.0775		1,967.6509
Worker	0.2057	0.1224	1.8318	6.4600e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		644.2948	644.2948	0.0135		644.6314
Total	**0.4481**	**6.9565**	**4.3027**	**0.0458**	**1.8639**	**0.0194**	**1.8832**	**0.5118**	**0.0184**	**0.5302**		**4,890.8818**	**4,890.8818**	**0.2336**		**4,896.7204**

3.19 Plot 9 (2025) Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0591	1.7989	0.6449	9.4300e-003	0.2366	3.6800e-003	0.2403	0.0648	3.5200e-003	0.0684		1,026.3926	1,026.3926	0.0642		1,027.9971
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2055**	**2.3293**	**1.9558**	**0.0164**	**0.8041**	**7.7800e-003**	**0.8119**	**0.2174**	**7.3200e-003**	**0.2247**		**1,743.5911**	**1,743.5911**	**0.0850**		**1,745.7159**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0591	1.7989	0.6449	9.4300e-003	0.2366	3.6800e-003	0.2403	0.0648	3.5200e-003	0.0684		1,026.3926	1,026.3926	0.0642		1,027.9971
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2055**	**2.3293**	**1.9558**	**0.0164**	**0.8041**	**7.7800e-003**	**0.8119**	**0.2174**	**7.3200e-003**	**0.2247**		**1,743.5911**	**1,743.5911**	**0.0850**		**1,745.7159**

3.20 Plot 9 (2025) Curbing/Drive Approaches - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0311	0.7942	0.2906	5.1500e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		550.4001	550.4001	0.0217		550.9423
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0825**	**0.8248**	**0.7485**	**6.7600e-003**	**0.3519**	**2.9800e-003**	**0.3549**	**0.0969**	**2.8100e-003**	**0.0997**		**711.4738**	**711.4738**	**0.0251**		**712.1001**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0311	0.7942	0.2906	5.1500e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		550.4001	550.4001	0.0217		550.9423
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0825**	**0.8248**	**0.7485**	**6.7600e-003**	**0.3519**	**2.9800e-003**	**0.3549**	**0.0969**	**2.8100e-003**	**0.0997**		**711.4738**	**711.4738**	**0.0251**		**712.1001**

3.21 Plot 9 (2025) Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0781**	**0.7114**	**0.7070**	**6.0200e-003**	**0.3288**	**2.7400e-003**	**0.3315**	**0.0903**	**2.5700e-003**	**0.0929**		**632.8452**	**632.8452**	**0.0220**		**633.3941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0781**	**0.7114**	**0.7070**	**6.0200e-003**	**0.3288**	**2.7400e-003**	**0.3315**	**0.0903**	**2.5700e-003**	**0.0929**		**632.8452**	**632.8452**	**0.0220**		**633.3941**

3.22 Plot 9 (2025) Temporary Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.23 Plots 1 3 20 (2026) Mass Excavation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.7063	0.0000	23.7063	2.5597	0.0000	2.5597			0.0000			0.0000
Off-Road	18.6879	188.0787	135.3734	0.3880		7.2513	7.2513		6.6712	6.6712		37,566.3042	37,566.3042	12.1497		37,870.0468
Total	**18.6879**	**188.0787**	**135.3734**	**0.3880**	**23.7063**	**7.2513**	**30.9575**	**2.5597**	**6.6712**	**9.2309**		**37,566.3042**	**37,566.3042**	**12.1497**		**37,870.0468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0452	1.3613	0.5001	7.2200e-003	0.1823	2.7900e-003	0.1850	0.0499	2.6700e-003	0.0526		786.4967	786.4967	0.0493		787.7290
Vendor	0.0349	0.8941	0.3278	5.8500e-003	0.1850	1.9700e-003	0.1869	0.0532	1.8900e-003	0.0551		626.2564	626.2564	0.0246		626.8726
Worker	0.2459	0.1410	2.1429	7.7900e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		776.8485	776.8485	0.0154		777.2343
Total	**0.3260**	**2.3964**	**2.9708**	**0.0209**	**1.3173**	**0.0108**	**1.3281**	**0.3551**	**0.0101**	**0.3651**		**2,189.6017**	**2,189.6017**	**0.0894**		**2,191.8358**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2454	0.0000	9.2454	0.9983	0.0000	0.9983			0.0000			0.0000
Off-Road	18.6879	188.0787	135.3734	0.3880		7.2513	7.2513		6.6712	6.6712	0.0000	37,566.3041	37,566.3041	12.1497		37,870.0467
Total	**18.6879**	**188.0787**	**135.3734**	**0.3880**	**9.2454**	**7.2513**	**16.4967**	**0.9983**	**6.6712**	**7.6695**	**0.0000**	**37,566.3041**	**37,566.3041**	**12.1497**		**37,870.0467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0452	1.3613	0.5001	7.2200e-003	0.1823	2.7900e-003	0.1850	0.0499	2.6700e-003	0.0526		786.4967	786.4967	0.0493		787.7290
Vendor	0.0349	0.8941	0.3278	5.8500e-003	0.1850	1.9700e-003	0.1869	0.0532	1.8900e-003	0.0551		626.2564	626.2564	0.0246		626.8726
Worker	0.2459	0.1410	2.1429	7.7900e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		776.8485	776.8485	0.0154		777.2343
Total	**0.3260**	**2.3964**	**2.9708**	**0.0209**	**1.3173**	**0.0108**	**1.3281**	**0.3551**	**0.0101**	**0.3651**		**2,189.6017**	**2,189.6017**	**0.0894**		**2,191.8358**

3.24 Plots 1 3 20 (2026) Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1305	3.9271	1.4426	0.0208	0.5258	8.0500e-003	0.5338	0.1441	7.7000e-003	0.1518		2,268.8800	2,268.8800	0.1422		2,272.4347
Vendor	0.1092	2.7940	1.0244	0.0183	0.5780	6.1600e-003	0.5842	0.1662	5.8900e-003	0.1721		1,957.0513	1,957.0513	0.0770		1,958.9767
Worker	0.1967	0.1128	1.7143	6.2300e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		621.4788	621.4788	0.0124		621.7875
Total	**0.4363**	**6.8338**	**4.1813**	**0.0454**	**1.8639**	**0.0190**	**1.8829**	**0.5118**	**0.0180**	**0.5298**		**4,847.4101**	**4,847.4101**	**0.2316**		**4,853.1988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1305	3.9271	1.4426	0.0208	0.5258	8.0500e-003	0.5338	0.1441	7.7000e-003	0.1518		2,268.8800	2,268.8800	0.1422		2,272.4347
Vendor	0.1092	2.7940	1.0244	0.0183	0.5780	6.1600e-003	0.5842	0.1662	5.8900e-003	0.1721		1,957.0513	1,957.0513	0.0770		1,958.9767
Worker	0.1967	0.1128	1.7143	6.2300e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		621.4788	621.4788	0.0124		621.7875
Total	**0.4363**	**6.8338**	**4.1813**	**0.0454**	**1.8639**	**0.0190**	**1.8829**	**0.5118**	**0.0180**	**0.5298**		**4,847.4101**	**4,847.4101**	**0.2316**		**4,853.1988**

3.25 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

3.26 Plots 1 3 20 (2026) Building-Wet Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0457	1.3745	0.5049	7.2900e-003	0.1840	2.8200e-003	0.1868	0.0504	2.6900e-003	0.0531		794.1080	794.1080	0.0498		795.3521
Vendor	0.0655	1.6764	0.6146	0.0110	0.3468	3.7000e-003	0.3505	0.0997	3.5400e-003	0.1033		1,174.2308	1,174.2308	0.0462		1,175.3860
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2341**	**3.1214**	**2.1910**	**0.0222**	**1.0059**	**9.5200e-003**	**1.0154**	**0.2761**	**8.9900e-003**	**0.2851**		**2,356.7631**	**2,356.7631**	**0.1037**		**2,359.3553**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0457	1.3745	0.5049	7.2900e-003	0.1840	2.8200e-003	0.1868	0.0504	2.6900e-003	0.0531		794.1080	794.1080	0.0498		795.3521
Vendor	0.0655	1.6764	0.6146	0.0110	0.3468	3.7000e-003	0.3505	0.0997	3.5400e-003	0.1033		1,174.2308	1,174.2308	0.0462		1,175.3860
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2341**	**3.1214**	**2.1910**	**0.0222**	**1.0059**	**9.5200e-003**	**1.0154**	**0.2761**	**8.9900e-003**	**0.2851**		**2,356.7631**	**2,356.7631**	**0.1037**		**2,359.3553**

3.27 Plots 1 3 20 (2026) Building-Electrical - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1044	3.1417	1.1541	0.0167	0.4206	6.4400e-003	0.4270	0.1153	6.1600e-003	0.1214		1,815.1040	1,815.1040	0.1138		1,817.9477
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.2043**	**3.8545**	**2.0428**	**0.0234**	**0.8444**	**9.7200e-003**	**0.8541**	**0.2307**	**9.2200e-003**	**0.2400**		**2,517.8509**	**2,517.8509**	**0.1369**		**2,521.2725**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1044	3.1417	1.1541	0.0167	0.4206	6.4400e-003	0.4270	0.1153	6.1600e-003	0.1214		1,815.1040	1,815.1040	0.1138		1,817.9477
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.2043**	**3.8545**	**2.0428**	**0.0234**	**0.8444**	**9.7200e-003**	**0.8541**	**0.2307**	**9.2200e-003**	**0.2400**		**2,517.8509**	**2,517.8509**	**0.1369**		**2,521.2725**

3.28 Plots 1 3 20 (2026) Building-Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7823	0.2868	5.1200e-003	0.1618	1.7300e-003	0.1636	0.0465	1.6500e-003	0.0482		547.9744	547.9744	0.0216		548.5135
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0797**	**0.8105**	**0.7154**	**6.6800e-003**	**0.3519**	**2.9300e-003**	**0.3548**	**0.0969**	**2.7500e-003**	**0.0997**		**703.3441**	**703.3441**	**0.0247**		**703.9603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7823	0.2868	5.1200e-003	0.1618	1.7300e-003	0.1636	0.0465	1.6500e-003	0.0482		547.9744	547.9744	0.0216		548.5135
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0797**	**0.8105**	**0.7154**	**6.6800e-003**	**0.3519**	**2.9300e-003**	**0.3548**	**0.0969**	**2.7500e-003**	**0.0997**		**703.3441**	**703.3441**	**0.0247**		**703.9603**

3.29 Plots 1 3 20 (2026) Interchange - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.1679	0.0000	11.1679	1.2059	0.0000	1.2059			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**11.1679**	**1.9312**	**13.0991**	**1.2059**	**1.7773**	**2.9831**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1174	3.5344	1.2983	0.0188	0.4732	7.2400e-003	0.4804	0.1297	6.9300e-003	0.1366		2,041.9920	2,041.9920	0.1280		2,045.1912
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2578**	**4.0519**	**2.5337**	**0.0256**	**1.0407**	**0.0112**	**1.0520**	**0.2822**	**0.0106**	**0.2929**		**2,743.5445**	**2,743.5445**	**0.1480**		**2,747.2446**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3555	0.0000	4.3555	0.4703	0.0000	0.4703			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**4.3555**	**1.9312**	**6.2867**	**0.4703**	**1.7773**	**2.2476**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1174	3.5344	1.2983	0.0188	0.4732	7.2400e-003	0.4804	0.1297	6.9300e-003	0.1366		2,041.9920	2,041.9920	0.1280		2,045.1912
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2578**	**4.0519**	**2.5337**	**0.0256**	**1.0407**	**0.0112**	**1.0520**	**0.2822**	**0.0106**	**0.2929**		**2,743.5445**	**2,743.5445**	**0.1480**		**2,747.2446**

3.30 Plots 1 3 20 (2026) Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0754**	**0.6988**	**0.6744**	**5.9500e-003**	**0.3288**	**2.6800e-003**	**0.3314**	**0.0903**	**2.5100e-003**	**0.0928**		**625.0620**	**625.0620**	**0.0216**		**625.6013**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0754**	**0.6988**	**0.6744**	**5.9500e-003**	**0.3288**	**2.6800e-003**	**0.3314**	**0.0903**	**2.5100e-003**	**0.0928**		**625.0620**	**625.0620**	**0.0216**		**625.6013**

3.31 Plots 1 3 20 (2026) Curbing/Drive Approaches - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0423	1.2722	0.4673	6.7500e-003	0.1703	2.6100e-003	0.1729	0.0467	2.4900e-003	0.0492		735.0301	735.0301	0.0461		736.1817
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.1089**	**1.7475**	**1.0598**	**0.0112**	**0.4528**	**4.8000e-003**	**0.4576**	**0.1237**	**4.5300e-003**	**0.1282**		**1,203.5281**	**1,203.5281**	**0.0615**		**1,205.0648**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0423	1.2722	0.4673	6.7500e-003	0.1703	2.6100e-003	0.1729	0.0467	2.4900e-003	0.0492		735.0301	735.0301	0.0461		736.1817
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.1089**	**1.7475**	**1.0598**	**0.0112**	**0.4528**	**4.8000e-003**	**0.4576**	**0.1237**	**4.5300e-003**	**0.1282**		**1,203.5281**	**1,203.5281**	**0.0615**		**1,205.0648**

3.32 Plots 1 3 20 (2026) Finish Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0211	0.6361	0.2337	3.3700e-003	0.0852	1.3000e-003	0.0865	0.0233	1.2500e-003	0.0246		367.5151	367.5151	0.0230		368.0909
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.1036**	**0.9019**	**0.9585**	**7.1700e-003**	**0.4164**	**3.5900e-003**	**0.4200**	**0.1122**	**3.3700e-003**	**0.1156**		**757.1337**	**757.1337**	**0.0338**		**757.9793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**1.3442**	**0.3651**	**1.7093**	**0.1451**	**0.3359**	**0.4810**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0211	0.6361	0.2337	3.3700e-003	0.0852	1.3000e-003	0.0865	0.0233	1.2500e-003	0.0246		367.5151	367.5151	0.0230		368.0909
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.1036**	**0.9019**	**0.9585**	**7.1700e-003**	**0.4164**	**3.5900e-003**	**0.4200**	**0.1122**	**3.3700e-003**	**0.1156**		**757.1337**	**757.1337**	**0.0338**		**757.9793**

3.33 Plots 1 3 20 (2026) Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0715	2.1530	0.7909	0.0114	0.2882	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,243.8972	1,243.8972	0.0780		1,245.8460
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2207**	**2.8941**	**2.1082**	**0.0197**	**0.9020**	**8.8900e-003**	**0.9109**	**0.2449**	**8.3900e-003**	**0.2532**		**2,102.0137**	**2,102.0137**	**0.1042**		**2,104.6175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0715	2.1530	0.7909	0.0114	0.2882	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,243.8972	1,243.8972	0.0780		1,245.8460
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2207**	**2.8941**	**2.1082**	**0.0197**	**0.9020**	**8.8900e-003**	**0.9109**	**0.2449**	**8.3900e-003**	**0.2532**		**2,102.0137**	**2,102.0137**	**0.1042**		**2,104.6175**

3.34 Plots 1 3 20 (2026) Temporary Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plots 9 and 1,3,20 (2024-2026)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	129.7140	1,213.5415	987.8000	2.4445	156.0956	46.9506	203.0462	18.6556	43.2304	61.8860	0.0000	239,161.7375	239,161.7375	69.1656	0.0000	240,890.8789
2025	50.2215	330.5266	453.9861	1.0800	67.1686	12.7190	79.8876	8.4644	11.7332	20.1976	0.0000	105,970.6560	105,970.6560	28.9333	0.0000	106,693.9890
2026	69.0102	520.8328	591.6161	1.4999	102.2376	19.8573	122.0949	12.6305	18.3010	30.9315	0.0000	147,136.4491	147,136.4491	40.8376	0.0000	148,157.3896
Maximum	**129.7140**	**1,213.5415**	**987.8000**	**2.4445**	**156.0956**	**46.9506**	**203.0462**	**18.6556**	**43.2304**	**61.8860**	**0.0000**	**239,161.7375**	**239,161.7375**	**69.1656**	**0.0000**	**240,890.8789**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	129.7140	1,213.5415	987.8000	2.4445	67.5318	46.9506	114.4824	9.0928	43.2304	52.3232	0.0000	239,161.7373	239,161.7373	69.1656	0.0000	240,890.8787
2025	50.2215	330.5266	453.9861	1.0800	30.6757	12.7190	43.3946	4.5240	11.7332	16.2572	0.0000	105,970.6559	105,970.6559	28.9333	0.0000	106,693.9889
2026	69.0102	520.8328	591.6161	1.4999	45.7752	19.8573	65.6325	6.5339	18.3010	24.8348	0.0000	147,136.4490	147,136.4490	40.8376	0.0000	148,157.3895
Maximum	**129.7140**	**1,213.5415**	**987.8000**	**2.4445**	**67.5318**	**46.9506**	**114.4824**	**9.0928**	**43.2304**	**52.3232**	**0.0000**	**239,161.7373**	**239,161.7373**	**69.1656**	**0.0000**	**240,890.8787**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**55.77**	**0.00**	**44.82**	**49.31**	**0.00**	**17.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 9 (2024) Mass Excavation	Grading	1/1/2024	6/30/2024	5	130	1138
2	Plot 9 (2024) Utilities	Trenching	1/1/2024	12/29/2024	5	260	1144
3	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
4	Plot 9 (2024) Building-Wet Utilities	Building Construction	1/1/2024	12/29/2024	5	260	1141
5	Plot 9 (2024) Building-Electrical	Building Construction	1/1/2024	12/29/2024	5	260	1142
6	Plot 9 (2024) Building-Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1143
7	Plot 9 (2024) Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1145
8	Plot 9 (2024) Curbing/Drive Approaches	Paving	5/1/2024	8/20/2024	5	80	1147
9	Plot 9 (2024) Finish Grading	Grading	5/7/2024	7/1/2024	5	40	1139
10	Plot 9 (2024) Paving	Paving	6/1/2024	7/26/2024	5	40	1148
11	Plot 9 (2024) Temporary Utilities	Building Construction	7/2/2024	12/30/2024	5	130	1146
12	Plot 9 (2025) Utilities	Trenching	1/1/2025	12/30/2025	5	260	1153
13	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
14	Plot 9 (2025) Building-Wet Utilities	Building Construction	1/1/2025	12/30/2025	5	260	1150
15	Plot 9 (2025) Building-Electrical	Building Construction	1/1/2025	12/30/2025	5	260	1151
16	Plot 9 (2025) Building-Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1152
17	Plot 9 (2025) Interchange	Building Construction	1/1/2025	12/30/2025	5	260	1154
18	Plot 9 (2025) Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1155
19	Plot 9 (2025) Curbing/Drive Approaches	Paving	5/1/2025	8/20/2025	5	80	1157
20	Plot 9 (2025) Paving	Paving	6/1/2025	7/26/2025	5	40	1158
21	Plot 9 (2025) Temporary Utilities	Building Construction	7/2/2025	12/30/2025	5	130	1156

22	Plots 1 3 20 (2026) Mass Excavation	Grading	1/1/2026	7/1/2026	5	130	1159	
23	Plots 1 3 20 (2026) Utilities	Trenching	1/1/2026	12/30/2026	5	260	1165	
24	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161	
25	Plots 1 3 20 (2026) Building-Wet Utilities	Building Construction	1/1/2026	12/30/2026	5	260	1162	
26	Plots 1 3 20 (2026) Building-Electrical	Building Construction	1/1/2026	12/30/2026	5	260	1163	
27	Plots 1 3 20 (2026) Building-Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1164	
28	Plots 1 3 20 (2026) Interchange	Building Construction	1/1/2026	7/1/2026	5	130	1166	
29	Plots 1 3 20 (2026) Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1167	
30	Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving	5/1/2026	8/20/2026	5	80	1169	
31	Plots 1 3 20 (2026) Finish Grading	Grading	5/7/2026	7/1/2026	5	40	1160	
32	Plots 1 3 20 (2026) Paving	Paving	6/1/2026	7/26/2026	5	40	1170	
33	Plots 1 3 20 (2026) Temporary Utilities	Building Construction	7/2/2026	12/30/2026	5	130	1168	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 1 3 20 (2026) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 1 3 20 (2026) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 1 3 20 (2026) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 1 3 20 (2026) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 1 3 20 (2026) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 1 3 20 (2026) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 1 3 20 (2026) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 1 3 20 (2026) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 1 3 20 (2026) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plots 1 3 20 (2026) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plots 1 3 20 (2026) Interchange	Cranes	1	10.00	226	0.29
Plots 1 3 20 (2026) Interchange	Excavators	1	10.00	190	0.38
Plots 1 3 20 (2026) Interchange	Graders	1	10.00	259	0.41
Plots 1 3 20 (2026) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plots 1 3 20 (2026) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plots 1 3 20 (2026) Interchange	Scrapers	1	10.00	330	0.48
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plots 1 3 20 (2026) Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Mass Excavation	Graders	1	10.00	193	0.41

Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 1 3 20 (2026) Mass Excavation	Scrapers	1	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Paving	Pavers	2	10.00	126	0.42
Plots 1 3 20 (2026) Paving	Paving Equipment	2	10.00	131	0.36
Plots 1 3 20 (2026) Paving	Plate Compactors	2	10.00	8	0.43
Plots 1 3 20 (2026) Paving	Rollers	2	10.00	81	0.38
Plots 1 3 20 (2026) Paving	Scrapers	2	10.00	362	0.48
Plots 1 3 20 (2026) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 1 3 20 (2026) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 1 3 20 (2026) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	523	0.38
Plots 1 3 20 (2026) Utilities	Excavators	10	10.00	286	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	4	10.00	396	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	188	0.38
Plots 1 3 20 (2026) Utilities	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Utilities	Forklifts	4	10.00	89	0.20

Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Mass Excavation	Graders	3	10.00	193	0.41
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	8	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	410	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	305	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Scrapers	20	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2024) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2024) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	188	0.38
Plot 9 (2024) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2024) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2024) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37

Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2024) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2024) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2024) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2024) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2024) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2024) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 9 (2024) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2024) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2024) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Finish Grading	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Paving	Pavers	2	10.00	126	0.42
Plot 9 (2024) Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2024) Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2024) Paving	Rollers	2	10.00	81	0.38
Plot 9 (2024) Paving	Scrapers	2	10.00	362	0.48
Plot 9 (2024) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2024) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 9 (2025) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2025) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2025) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	188	0.38

Plot 9 (2025) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2025) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2025) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2025) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2025) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2025) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2025) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2025) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2025) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 9 (2025) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plot 9 (2025) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plot 9 (2025) Interchange	Cranes	1	10.00	226	0.29
Plot 9 (2025) Interchange	Excavators	1	10.00	190	0.38
Plot 9 (2025) Interchange	Graders	1	10.00	259	0.41
Plot 9 (2025) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plot 9 (2025) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plot 9 (2025) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plot 9 (2025) Interchange	Scrapers	1	10.00	330	0.48
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plot 9 (2025) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 9 (2025) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2025) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2025) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 9 (2025)	Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2025)	Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2025)	Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2025)	Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025)	Paving	Pavers	2	10.00	126	0.42
Plot 9 (2025)	Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2025)	Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2025)	Paving	Rollers	2	10.00	81	0.38
Plot 9 (2025)	Paving	Scrapers	2	10.00	362	0.48
Plot 9 (2025)	Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2025)	Temporary Utilities	Cranes	2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 9 (2024) Mass Excavation		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Electrical		15.00	6.00	104.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Landscaping		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Landscaping		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Curbing/Drive		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Finish Grading		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Wet Utilities		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Electrical		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Landscaping		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Interchange		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Landscaping		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 9 (2025) Curbing/Drive		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Mass Excavation		50.00	8.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Interchange		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Finish Grading		15.00	2.00	156.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 9 (2024) Mass Excavation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.6062	0.0000	80.6062	8.7036	0.0000	8.7036			0.0000			0.0000
Off-Road	79.8439	871.4155	550.3472	1.3597		33.4898	33.4898		30.8106	30.8106		131,673.0773	131,673.0773	42.5857		132,737.7208
Total	**79.8439**	**871.4155**	**550.3472**	**1.3597**	**80.6062**	**33.4898**	**114.0960**	**8.7036**	**30.8106**	**39.5142**		**131,673.0773**	**131,673.0773**	**42.5857**		**132,737.7208**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1809	5.4856	1.9786	0.0278	0.7030	0.0113	0.7143	0.1926	0.0108	0.2034		3,020.1680	3,020.1680	0.1962		3,025.0723
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.5552**	**7.4175**	**4.8103**	**0.0466**	**1.9999**	**0.0214**	**2.0213**	**0.5443**	**0.0203**	**0.5646**		**4,977.5404**	**4,977.5404**	**0.2612**		**4,984.0701**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.4364	0.0000	31.4364	3.3944	0.0000	3.3944			0.0000			0.0000
Off-Road	79.8439	871.4155	550.3472	1.3597		33.4898	33.4898		30.8106	30.8106	0.0000	131,673.0772	131,673.0772	42.5857		132,737.7207
Total	**79.8439**	**871.4155**	**550.3472**	**1.3597**	**31.4364**	**33.4898**	**64.9262**	**3.3944**	**30.8106**	**34.2050**	**0.0000**	**131,673.0772**	**131,673.0772**	**42.5857**		**132,737.7207**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1809	5.4856	1.9786	0.0278	0.7030	0.0113	0.7143	0.1926	0.0108	0.2034		3,020.1680	3,020.1680	0.1962		3,025.0723
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.5552**	**7.4175**	**4.8103**	**0.0466**	**1.9999**	**0.0214**	**2.0213**	**0.5443**	**0.0203**	**0.5646**		**4,977.5404**	**4,977.5404**	**0.2612**		**4,984.0701**

3.3 Plot 9 (2024) Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.1392	88.0083	114.1711	0.3463		3.4412	3.4412		3.1671	3.1671		33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**11.1392**	**88.0083**	**114.1711**	**0.3463**	**25.5336**	**3.4412**	**28.9748**	**2.7570**	**3.1671**	**5.9241**		**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.4090	0.1475	2.0700e-003	0.0524	8.4000e-004	0.0533	0.0144	8.0000e-004	0.0152		225.1595	225.1595	0.0146		225.5251
Vendor	0.0186	0.4664	0.1754	2.9300e-003	0.0925	1.0200e-003	0.0935	0.0266	9.7000e-004	0.0276		313.0013	313.0013	0.0128		313.3210
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0930**	**0.9119**	**0.7577**	**6.5700e-003**	**0.3349**	**3.1200e-003**	**0.3380**	**0.0913**	**2.9300e-003**	**0.0943**		**694.8843**	**694.8843**	**0.0308**		**695.6549**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	11.1392	88.0083	114.1711	0.3463		3.4412	3.4412		3.1671	3.1671	0.0000	33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**11.1392**	**88.0083**	**114.1711**	**0.3463**	**9.9581**	**3.4412**	**13.3993**	**1.0752**	**3.1671**	**4.2423**	**0.0000**	**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.4090	0.1475	2.0700e-003	0.0524	8.4000e-004	0.0533	0.0144	8.0000e-004	0.0152		225.1595	225.1595	0.0146		225.5251
Vendor	0.0186	0.4664	0.1754	2.9300e-003	0.0925	1.0200e-003	0.0935	0.0266	9.7000e-004	0.0276		313.0013	313.0013	0.0128		313.3210
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0930**	**0.9119**	**0.7577**	**6.5700e-003**	**0.3349**	**3.1200e-003**	**0.3380**	**0.0913**	**2.9300e-003**	**0.0943**		**694.8843**	**694.8843**	**0.0308**		**695.6549**

3.4 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9683	27.8163	41.6994	0.0626		1.2700	1.2700		1.1953	1.1953		5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**2.9683**	**27.8163**	**41.6994**	**0.0626**	**3.1937**	**1.2700**	**4.4638**	**0.3449**	**1.1953**	**1.5402**		**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0905	2.7428	0.9893	0.0139	0.3515	5.6400e-003	0.3571	0.0963	5.4000e-003	0.1017		1,510.0840	1,510.0840	0.0981		1,512.5362
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.4648**	**4.6747**	**3.8210**	**0.0327**	**1.6484**	**0.0158**	**1.6642**	**0.4480**	**0.0149**	**0.4629**		**3,467.4564**	**3,467.4564**	**0.1631**		**3,471.5339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.9683	27.8163	41.6994	0.0626		1.2700	1.2700		1.1953	1.1953	0.0000	5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**2.9683**	**27.8163**	**41.6994**	**0.0626**	**1.2456**	**1.2700**	**2.5156**	**0.1345**	**1.1953**	**1.3298**	**0.0000**	**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0905	2.7428	0.9893	0.0139	0.3515	5.6400e-003	0.3571	0.0963	5.4000e-003	0.1017		1,510.0840	1,510.0840	0.0981		1,512.5362
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.4648**	**4.6747**	**3.8210**	**0.0327**	**1.6484**	**0.0158**	**1.6642**	**0.4480**	**0.0149**	**0.4629**		**3,467.4564**	**3,467.4564**	**0.1631**		**3,471.5339**

3.5 Plot 9 (2024) Building-Wet Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.9612	40.6896	66.9992	0.1252		1.9173	1.9173		1.7639	1.7639		12,114.9480	12,114.9480	3.9182		12,212.9034
Total	**4.9612**	**40.6896**	**66.9992**	**0.1252**	**9.5771**	**1.9173**	**11.4944**	**1.0341**	**1.7639**	**2.7980**		**12,114.9480**	**12,114.9480**	**3.9182**		**12,212.9034**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0474	1.4360	0.5179	7.2700e-003	0.1840	2.9500e-003	0.1870	0.0504	2.8200e-003	0.0533		790.5840	790.5840	0.0514		791.8678
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.2694**	**3.2764**	**2.2627**	**0.0222**	**1.0059**	**9.9300e-003**	**1.0158**	**0.2761**	**9.3800e-003**	**0.2855**		**2,356.1477**	**2,356.1477**	**0.1078**		**2,358.8436**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.9612	40.6896	66.9992	0.1252		1.9173	1.9173		1.7639	1.7639	0.0000	12,114.9479	12,114.9479	3.9182		12,212.9034
Total	**4.9612**	**40.6896**	**66.9992**	**0.1252**	**3.7351**	**1.9173**	**5.6524**	**0.4033**	**1.7639**	**2.1672**	**0.0000**	**12,114.9479**	**12,114.9479**	**3.9182**		**12,212.9034**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0474	1.4360	0.5179	7.2700e-003	0.1840	2.9500e-003	0.1870	0.0504	2.8200e-003	0.0533		790.5840	790.5840	0.0514		791.8678
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.2694**	**3.2764**	**2.2627**	**0.0222**	**1.0059**	**9.9300e-003**	**1.0158**	**0.2761**	**9.3800e-003**	**0.2855**		**2,356.1477**	**2,356.1477**	**0.1078**		**2,358.8436**

3.6 Plot 9 (2024) Building-Electrical - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.1951	29.2599	40.9863	0.0565		1.2915	1.2915		1.1899	1.1899		5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**3.1951**	**29.2599**	**40.9863**	**0.0565**	**6.3834**	**1.2915**	**7.6749**	**0.6893**	**1.1899**	**1.8791**		**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	2.2500e-003	0.0682	0.0246	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		37.5266	37.5266	2.4400e-003		37.5875
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.1215**	**0.8226**	**0.9399**	**7.1000e-003**	**0.4325**	**3.5700e-003**	**0.4361**	**0.1179**	**3.3400e-003**	**0.1212**		**742.1138**	**742.1138**	**0.0267**		**742.7822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.1951	29.2599	40.9863	0.0565		1.2915	1.2915		1.1899	1.1899	0.0000	5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**3.1951**	**29.2599**	**40.9863**	**0.0565**	**2.4895**	**1.2915**	**3.7810**	**0.2688**	**1.1899**	**1.4587**	**0.0000**	**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2500e-003	0.0682	0.0246	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		37.5266	37.5266	2.4400e-003		37.5875
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.1215**	**0.8226**	**0.9399**	**7.1000e-003**	**0.4325**	**3.5700e-003**	**0.4361**	**0.1179**	**3.3400e-003**	**0.1212**		**742.1138**	**742.1138**	**0.0267**		**742.7822**

3.7 Plot 9 (2024) Building-Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4878	21.0268	32.6128	0.0468		0.9898	0.9898		0.9107	0.9107		4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**2.4878**	**21.0268**	**32.6128**	**0.0468**	**1.5948**	**0.9898**	**2.5847**	**0.1722**	**0.9107**	**1.0829**		**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4878	21.0268	32.6128	0.0468		0.9898	0.9898		0.9107	0.9107	0.0000	4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**2.4878**	**21.0268**	**32.6128**	**0.0468**	**0.6220**	**0.9898**	**1.6118**	**0.0672**	**0.9107**	**0.9778**	**0.0000**	**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

3.8 Plot 9 (2024) Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6412	22.2334	34.9552	0.0504		1.0546	1.0546		0.9702	0.9702		4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**2.6412**	**22.2334**	**34.9552**	**0.0504**	**1.5948**	**1.0546**	**2.6494**	**0.1722**	**0.9702**	**1.1424**		**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1353	4.1027	1.4798	0.0208	0.5258	8.4400e-003	0.5342	0.1441	8.0700e-003	0.1521		2,258.8114	2,258.8114	0.1467		2,262.4794
Vendor	0.1164	2.9150	1.0964	0.0183	0.5780	6.3600e-003	0.5844	0.1662	6.0900e-003	0.1723		1,956.2583	1,956.2583	0.0799		1,958.2564
Worker	0.2436	0.1463	1.7391	6.2800e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		626.8940	626.8940	0.0137		627.2352
Total	**0.4953**	**7.1640**	**4.3153**	**0.0454**	**1.8639**	**0.0199**	**1.8837**	**0.5118**	**0.0188**	**0.5306**		**4,841.9637**	**4,841.9637**	**0.2403**		**4,847.9709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.6412	22.2334	34.9552	0.0504		1.0546	1.0546		0.9702	0.9702	0.0000	4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**2.6412**	**22.2334**	**34.9552**	**0.0504**	**0.6220**	**1.0546**	**1.6766**	**0.0672**	**0.9702**	**1.0374**	**0.0000**	**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1353	4.1027	1.4798	0.0208	0.5258	8.4400e-003	0.5342	0.1441	8.0700e-003	0.1521		2,258.8114	2,258.8114	0.1467		2,262.4794
Vendor	0.1164	2.9150	1.0964	0.0183	0.5780	6.3600e-003	0.5844	0.1662	6.0900e-003	0.1723		1,956.2583	1,956.2583	0.0799		1,958.2564
Worker	0.2436	0.1463	1.7391	6.2800e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		626.8940	626.8940	0.0137		627.2352
Total	**0.4953**	**7.1640**	**4.3153**	**0.0454**	**1.8639**	**0.0199**	**1.8837**	**0.5118**	**0.0188**	**0.5306**		**4,841.9637**	**4,841.9637**	**0.2403**		**4,847.9709**

3.9 Plot 9 (2024) Curbing/Drive Approaches - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6792	6.2242	9.6300	0.0145		0.3057	0.3057		0.2821	0.2821		1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7271**	**6.2242**	**9.6300**	**0.0145**	**0.0000**	**0.3057**	**0.3057**	**0.0000**	**0.2821**	**0.2821**		**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3518	10.6671	3.8476	0.0540	1.3670	0.0219	1.3889	0.3746	0.0210	0.3956		5,872.9097	5,872.9097	0.3815		5,882.4465
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.4711**	**11.4215**	**4.7629**	**0.0608**	**1.7907**	**0.0254**	**1.8161**	**0.4901**	**0.0242**	**0.5143**		**6,577.4969**	**6,577.4969**	**0.4058**		**6,587.6412**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6792	6.2242	9.6300	0.0145		0.3057	0.3057		0.2821	0.2821	0.0000	1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6792**	**6.2242**	**9.6300**	**0.0145**	**0.0000**	**0.3057**	**0.3057**	**0.0000**	**0.2821**	**0.2821**	**0.0000**	**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3518	10.6671	3.8476	0.0540	1.3670	0.0219	1.3889	0.3746	0.0210	0.3956		5,872.9097	5,872.9097	0.3815		5,882.4465
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.4711**	**11.4215**	**4.7629**	**0.0608**	**1.7907**	**0.0254**	**1.8161**	**0.4901**	**0.0242**	**0.5143**		**6,577.4969**	**6,577.4969**	**0.4058**		**6,587.6412**

3.10 Plot 9 (2024) Finish Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.3399	0.0000	10.3399	1.1165	0.0000	1.1165			0.0000			0.0000
Off-Road	2.6290	24.7792	23.8477	0.0326		1.3310	1.3310		1.2245	1.2245		3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**2.6290**	**24.7792**	**23.8477**	**0.0326**	**10.3399**	**1.3310**	**11.6709**	**1.1165**	**1.2245**	**2.3410**		**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0326	0.8162	0.3070	5.1200e-003	0.1618	1.7800e-003	0.1636	0.0465	1.7000e-003	0.0482		547.7523	547.7523	0.0224		548.3118
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0935**	**0.8528**	**0.7418**	**6.6900e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**704.4758**	**704.4758**	**0.0258**		**705.1206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0326	0.0000	4.0326	0.4354	0.0000	0.4354			0.0000			0.0000
Off-Road	2.6290	24.7792	23.8477	0.0326		1.3310	1.3310		1.2245	1.2245	0.0000	3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**2.6290**	**24.7792**	**23.8477**	**0.0326**	**4.0326**	**1.3310**	**5.3636**	**0.4354**	**1.2245**	**1.6600**	**0.0000**	**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0326	0.8162	0.3070	5.1200e-003	0.1618	1.7800e-003	0.1636	0.0465	1.7000e-003	0.0482		547.7523	547.7523	0.0224		548.3118
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0935**	**0.8528**	**0.7418**	**6.6900e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**704.4758**	**704.4758**	**0.0258**		**705.1206**

3.11 Plot 9 (2024) Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.0488	39.5630	46.4915	0.0856		1.7411	1.7411		1.6038	1.6038		8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.1446**	**39.5630**	**46.4915**	**0.0856**	**6.3630**	**1.7411**	**8.1041**	**0.6871**	**1.6038**	**2.2908**		**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0888**	**0.7362**	**0.6979**	**5.9600e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**626.2255**	**626.2255**	**0.0226**		**626.7903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.0488	39.5630	46.4915	0.0856		1.7411	1.7411		1.6038	1.6038	0.0000	8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0488**	**39.5630**	**46.4915**	**0.0856**	**2.4816**	**1.7411**	**4.2227**	**0.2680**	**1.6038**	**1.8717**	**0.0000**	**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0888**	**0.7362**	**0.6979**	**5.9600e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**626.2255**	**626.2255**	**0.0226**		**626.7903**

3.12 Plot 9 (2024) Temporary Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3116	13.5590	10.9969	0.0278		0.5481	0.5481		0.5042	0.5042		2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**1.3116**	**13.5590**	**10.9969**	**0.0278**	**0.0000**	**0.5481**	**0.5481**	**0.0000**	**0.5042**	**0.5042**		**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3116	13.5590	10.9969	0.0278		0.5481	0.5481		0.5042	0.5042	0.0000	2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**1.3116**	**13.5590**	**10.9969**	**0.0278**	**0.0000**	**0.5481**	**0.5481**	**0.0000**	**0.5042**	**0.5042**	**0.0000**	**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 9 (2025) Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.4021	0.1485	2.0600e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		223.9428	223.9428	0.0146		224.3078
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0899**	**0.8955**	**0.7251**	**6.4800e-003**	**0.3349**	**3.0800e-003**	**0.3380**	**0.0913**	**2.8900e-003**	**0.0942**		**686.0699**	**686.0699**	**0.0304**		**686.8309**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.4021	0.1485	2.0600e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		223.9428	223.9428	0.0146		224.3078
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0899**	**0.8955**	**0.7251**	**6.4800e-003**	**0.3349**	**3.0800e-003**	**0.3380**	**0.0913**	**2.8900e-003**	**0.0942**		**686.0699**	**686.0699**	**0.0304**		**686.8309**

3.14 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0113	0.3402	0.1257	1.7400e-003	0.0443	7.0000e-004	0.0451	0.0122	6.7000e-004	0.0128		189.4900	189.4900	0.0124		189.7989
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.1841**	**1.1138**	**1.3944**	**9.8800e-003**	**0.6581**	**5.3100e-003**	**0.6635**	**0.1780**	**4.9700e-003**	**0.1830**		**1,033.2282**	**1,033.2282**	**0.0392**		**1,034.2088**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0113	0.3402	0.1257	1.7400e-003	0.0443	7.0000e-004	0.0451	0.0122	6.7000e-004	0.0128		189.4900	189.4900	0.0124		189.7989
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.1841**	**1.1138**	**1.3944**	**9.8800e-003**	**0.6581**	**5.3100e-003**	**0.6635**	**0.1780**	**4.9700e-003**	**0.1830**		**1,033.2282**	**1,033.2282**	**0.0392**		**1,034.2088**

3.15 Plot 9 (2025) Building-Wet Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1076	3.2269	1.1921	0.0165	0.4206	6.6500e-003	0.4273	0.1153	6.3700e-003	0.1216		1,797.2841	1,797.2841	0.1172		1,800.2140
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0872	0.0502	0.6059	2.2600e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		225.8212	225.8212	4.6600e-003		225.9378
Total	**0.2223**	**3.9670**	**2.0569**	**0.0231**	**0.8444**	**0.0100**	**0.8544**	**0.2307**	**9.5300e-003**	**0.2403**		**2,490.4749**	**2,490.4749**	**0.1410**		**2,493.9986**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1076	3.2269	1.1921	0.0165	0.4206	6.6500e-003	0.4273	0.1153	6.3700e-003	0.1216		1,797.2841	1,797.2841	0.1172		1,800.2140
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0872	0.0502	0.6059	2.2600e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		225.8212	225.8212	4.6600e-003		225.9378
Total	**0.2223**	**3.9670**	**2.0569**	**0.0231**	**0.8444**	**0.0100**	**0.8544**	**0.2307**	**9.5300e-003**	**0.2403**		**2,490.4749**	**2,490.4749**	**0.1410**		**2,493.9986**

3.16 Plot 9 (2025) Building-Electrical - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

3.17 Plot 9 (2025) Building-Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0471	1.4118	0.5216	7.2300e-003	0.1840	2.9100e-003	0.1869	0.0504	2.7900e-003	0.0532		786.3118	786.3118	0.0513		787.5936
Vendor	0.0686	1.7247	0.6472	0.0109	0.3468	3.7800e-003	0.3506	0.0997	3.6200e-003	0.1034		1,168.4238	1,168.4238	0.0477		1,169.6170
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2610**	**3.2202**	**2.1786**	**0.0219**	**1.0059**	**9.7900e-003**	**1.0157**	**0.2761**	**9.2600e-003**	**0.2854**		**2,331.1043**	**2,331.1043**	**0.1068**		**2,333.7736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0471	1.4118	0.5216	7.2300e-003	0.1840	2.9100e-003	0.1869	0.0504	2.7900e-003	0.0532		786.3118	786.3118	0.0513		787.5936
Vendor	0.0686	1.7247	0.6472	0.0109	0.3468	3.7800e-003	0.3506	0.0997	3.6200e-003	0.1034		1,168.4238	1,168.4238	0.0477		1,169.6170
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2610**	**3.2202**	**2.1786**	**0.0219**	**1.0059**	**9.7900e-003**	**1.0157**	**0.2761**	**9.2600e-003**	**0.2854**		**2,331.1043**	**2,331.1043**	**0.1068**		**2,333.7736**

3.18 Plot 9 (2025) Interchange - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5839	0.0000	5.5839	0.6029	0.0000	0.6029			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**5.5839**	**1.9312**	**7.5151**	**0.6029**	**1.7773**	**2.3802**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1345	4.0336	1.4902	0.0206	0.5258	8.3200e-003	0.5341	0.1441	7.9600e-003	0.1520		2,246.6051	2,246.6051	0.1465		2,250.2675
Vendor	0.1144	2.8745	1.0787	0.0182	0.5780	6.3100e-003	0.5843	0.1662	6.0300e-003	0.1723		1,947.3730	1,947.3730	0.0795		1,949.3616
Worker	0.2326	0.1339	1.6157	6.0400e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		602.1899	602.1899	0.0124		602.5009
Total	**0.4814**	**7.0420**	**4.1846**	**0.0449**	**1.8639**	**0.0196**	**1.8834**	**0.5118**	**0.0186**	**0.5304**		**4,796.1680**	**4,796.1680**	**0.2385**		**4,802.1300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1777	0.0000	2.1777	0.2351	0.0000	0.2351			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**2.1777**	**1.9312**	**4.1089**	**0.2351**	**1.7773**	**2.0124**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1345	4.0336	1.4902	0.0206	0.5258	8.3200e-003	0.5341	0.1441	7.9600e-003	0.1520		2,246.6051	2,246.6051	0.1465		2,250.2675
Vendor	0.1144	2.8745	1.0787	0.0182	0.5780	6.3100e-003	0.5843	0.1662	6.0300e-003	0.1723		1,947.3730	1,947.3730	0.0795		1,949.3616
Worker	0.2326	0.1339	1.6157	6.0400e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		602.1899	602.1899	0.0124		602.5009
Total	**0.4814**	**7.0420**	**4.1846**	**0.0449**	**1.8639**	**0.0196**	**1.8834**	**0.5118**	**0.0186**	**0.5304**		**4,796.1680**	**4,796.1680**	**0.2385**		**4,802.1300**

3.19 Plot 9 (2025) Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0605	1.8151	0.6706	9.2900e-003	0.2366	3.7400e-003	0.2403	0.0648	3.5800e-003	0.0684		1,010.9723	1,010.9723	0.0659		1,012.6204
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2242**	**2.3587**	**1.8530**	**0.0160**	**0.8041**	**7.8500e-003**	**0.8120**	**0.2174**	**7.3900e-003**	**0.2248**		**1,698.9207**	**1,698.9207**	**0.0864**		**1,701.0813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0605	1.8151	0.6706	9.2900e-003	0.2366	3.7400e-003	0.2403	0.0648	3.5800e-003	0.0684		1,010.9723	1,010.9723	0.0659		1,012.6204
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2242**	**2.3587**	**1.8530**	**0.0160**	**0.8041**	**7.8500e-003**	**0.8120**	**0.2174**	**7.3900e-003**	**0.2248**		**1,698.9207**	**1,698.9207**	**0.0864**		**1,701.0813**

3.20 Plot 9 (2025) Curbing/Drive Approaches - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0320	0.8049	0.3020	5.1000e-003	0.1618	1.7700e-003	0.1636	0.0465	1.6900e-003	0.0482		545.2644	545.2644	0.0223		545.8213
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0902**	**0.8383**	**0.7060**	**6.6100e-003**	**0.3519**	**3.0100e-003**	**0.3549**	**0.0969**	**2.8300e-003**	**0.0998**		**695.8119**	**695.8119**	**0.0254**		**696.4465**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0320	0.8049	0.3020	5.1000e-003	0.1618	1.7700e-003	0.1636	0.0465	1.6900e-003	0.0482		545.2644	545.2644	0.0223		545.8213
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0902**	**0.8383**	**0.7060**	**6.6100e-003**	**0.3519**	**3.0100e-003**	**0.3549**	**0.0969**	**2.8300e-003**	**0.0998**		**695.8119**	**695.8119**	**0.0254**		**696.4465**

3.21 Plot 9 (2025) Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0856**	**0.7234**	**0.6628**	**5.8800e-003**	**0.3288**	**2.7500e-003**	**0.3315**	**0.0903**	**2.5900e-003**	**0.0929**		**617.9170**	**617.9170**	**0.0222**		**618.4720**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0856**	**0.7234**	**0.6628**	**5.8800e-003**	**0.3288**	**2.7500e-003**	**0.3315**	**0.0903**	**2.5900e-003**	**0.0929**		**617.9170**	**617.9170**	**0.0222**		**618.4720**

3.22 Plot 9 (2025) Temporary Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.23 Plots 1 3 20 (2026) Mass Excavation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.7063	0.0000	23.7063	2.5597	0.0000	2.5597			0.0000			0.0000
Off-Road	18.6879	188.0787	135.3734	0.3880		7.2513	7.2513		6.6712	6.6712		37,566.3042	37,566.3042	12.1497		37,870.0468
Total	**18.6879**	**188.0787**	**135.3734**	**0.3880**	**23.7063**	**7.2513**	**30.9575**	**2.5597**	**6.6712**	**9.2309**		**37,566.3042**	**37,566.3042**	**12.1497**		**37,870.0468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.3733	0.5195	7.1100e-003	0.1823	2.8300e-003	0.1851	0.0499	2.7100e-003	0.0527		774.7597	774.7597	0.0506		776.0243
Vendor	0.0360	0.9059	0.3407	5.8000e-003	0.1850	1.9900e-003	0.1870	0.0532	1.9100e-003	0.0551		620.4533	620.4533	0.0253		621.0857
Worker	0.2788	0.1542	1.8884	7.2800e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		726.0426	726.0426	0.0143		726.3988
Total	**0.3611**	**2.4334**	**2.7486**	**0.0202**	**1.3173**	**0.0108**	**1.3282**	**0.3551**	**0.0101**	**0.3652**		**2,121.2556**	**2,121.2556**	**0.0901**		**2,123.5088**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2454	0.0000	9.2454	0.9983	0.0000	0.9983			0.0000			0.0000
Off-Road	18.6879	188.0787	135.3734	0.3880		7.2513	7.2513		6.6712	6.6712	0.0000	37,566.3041	37,566.3041	12.1497		37,870.0467
Total	**18.6879**	**188.0787**	**135.3734**	**0.3880**	**9.2454**	**7.2513**	**16.4967**	**0.9983**	**6.6712**	**7.6695**	**0.0000**	**37,566.3041**	**37,566.3041**	**12.1497**		**37,870.0467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.3733	0.5195	7.1100e-003	0.1823	2.8300e-003	0.1851	0.0499	2.7100e-003	0.0527		774.7597	774.7597	0.0506		776.0243
Vendor	0.0360	0.9059	0.3407	5.8000e-003	0.1850	1.9900e-003	0.1870	0.0532	1.9100e-003	0.0551		620.4533	620.4533	0.0253		621.0857
Worker	0.2788	0.1542	1.8884	7.2800e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		726.0426	726.0426	0.0143		726.3988
Total	**0.3611**	**2.4334**	**2.7486**	**0.0202**	**1.3173**	**0.0108**	**1.3282**	**0.3551**	**0.0101**	**0.3652**		**2,121.2556**	**2,121.2556**	**0.0901**		**2,123.5088**

3.24 Plots 1 3 20 (2026) Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1335	3.9618	1.4987	0.0205	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,235.0210	2,235.0210	0.1459		2,238.6692
Vendor	0.1125	2.8308	1.0647	0.0181	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,938.9166	1,938.9166	0.0790		1,940.8927
Worker	0.2231	0.1233	1.5107	5.8200e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		580.8341	580.8341	0.0114		581.1190
Total	**0.4691**	**6.9160**	**4.0741**	**0.0445**	**1.8639**	**0.0192**	**1.8831**	**0.5118**	**0.0182**	**0.5300**		**4,754.7717**	**4,754.7717**	**0.2364**		**4,760.6809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1335	3.9618	1.4987	0.0205	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,235.0210	2,235.0210	0.1459		2,238.6692
Vendor	0.1125	2.8308	1.0647	0.0181	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,938.9166	1,938.9166	0.0790		1,940.8927
Worker	0.2231	0.1233	1.5107	5.8200e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		580.8341	580.8341	0.0114		581.1190
Total	**0.4691**	**6.9160**	**4.0741**	**0.0445**	**1.8639**	**0.0192**	**1.8831**	**0.5118**	**0.0182**	**0.5300**		**4,754.7717**	**4,754.7717**	**0.2364**		**4,760.6809**

3.25 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

3.26 Plots 1 3 20 (2026) Building-Wet Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0467	1.3866	0.5246	7.1800e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		782.2574	782.2574	0.0511		783.5342
Vendor	0.0675	1.6985	0.6388	0.0109	0.3468	3.7400e-003	0.3505	0.0997	3.5700e-003	0.1033		1,163.3500	1,163.3500	0.0474		1,164.5356
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2536**	**3.1622**	**2.1075**	**0.0217**	**1.0059**	**9.6000e-003**	**1.0155**	**0.2761**	**9.0700e-003**	**0.2852**		**2,308.6286**	**2,308.6286**	**0.1056**		**2,311.2692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0467	1.3866	0.5246	7.1800e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		782.2574	782.2574	0.0511		783.5342
Vendor	0.0675	1.6985	0.6388	0.0109	0.3468	3.7400e-003	0.3505	0.0997	3.5700e-003	0.1033		1,163.3500	1,163.3500	0.0474		1,164.5356
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2536**	**3.1622**	**2.1075**	**0.0217**	**1.0059**	**9.6000e-003**	**1.0155**	**0.2761**	**9.0700e-003**	**0.2852**		**2,308.6286**	**2,308.6286**	**0.1056**		**2,311.2692**

3.27 Plots 1 3 20 (2026) Building-Electrical - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1068	3.1694	1.1990	0.0164	0.4206	6.5400e-003	0.4271	0.1153	6.2500e-003	0.1215		1,788.0168	1,788.0168	0.1167		1,790.9353
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.2175**	**3.8951**	**2.0210**	**0.0230**	**0.8444**	**9.8400e-003**	**0.8542**	**0.2307**	**9.3300e-003**	**0.2401**		**2,471.1696**	**2,471.1696**	**0.1400**		**2,474.6692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1068	3.1694	1.1990	0.0164	0.4206	6.5400e-003	0.4271	0.1153	6.2500e-003	0.1215		1,788.0168	1,788.0168	0.1167		1,790.9353
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.2175**	**3.8951**	**2.0210**	**0.0230**	**0.8444**	**9.8400e-003**	**0.8542**	**0.2307**	**9.3300e-003**	**0.2401**		**2,471.1696**	**2,471.1696**	**0.1400**		**2,474.6692**

3.28 Plots 1 3 20 (2026) Building-Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.7926	0.2981	5.0700e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		542.8966	542.8966	0.0221		543.4500
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0873**	**0.8235**	**0.6758**	**6.5300e-003**	**0.3519**	**2.9400e-003**	**0.3548**	**0.0969**	**2.7700e-003**	**0.0997**		**688.1052**	**688.1052**	**0.0250**		**688.7297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.7926	0.2981	5.0700e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		542.8966	542.8966	0.0221		543.4500
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0873**	**0.8235**	**0.6758**	**6.5300e-003**	**0.3519**	**2.9400e-003**	**0.3548**	**0.0969**	**2.7700e-003**	**0.0997**		**688.1052**	**688.1052**	**0.0250**		**688.7297**

3.29 Plots 1 3 20 (2026) Interchange - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.1679	0.0000	11.1679	1.2059	0.0000	1.2059			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**11.1679**	**1.9312**	**13.0991**	**1.2059**	**1.7773**	**2.9831**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1202	3.5656	1.3488	0.0185	0.4732	7.3600e-003	0.4805	0.1297	7.0400e-003	0.1367		2,011.5189	2,011.5189	0.1313		2,014.8022
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2776**	**4.0956**	**2.4634**	**0.0250**	**1.0407**	**0.0114**	**1.0521**	**0.2822**	**0.0108**	**0.2930**		**2,684.7669**	**2,684.7669**	**0.1511**		**2,688.5445**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3555	0.0000	4.3555	0.4703	0.0000	0.4703			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**4.3555**	**1.9312**	**6.2867**	**0.4703**	**1.7773**	**2.2476**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1202	3.5656	1.3488	0.0185	0.4732	7.3600e-003	0.4805	0.1297	7.0400e-003	0.1367		2,011.5189	2,011.5189	0.1313		2,014.8022
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2776**	**4.0956**	**2.4634**	**0.0250**	**1.0407**	**0.0114**	**1.0521**	**0.2822**	**0.0108**	**0.2930**		**2,684.7669**	**2,684.7669**	**0.1511**		**2,688.5445**

3.30 Plots 1 3 20 (2026) Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0828**	**0.7102**	**0.6332**	**5.8100e-003**	**0.3288**	**2.7000e-003**	**0.3314**	**0.0903**	**2.5300e-003**	**0.0928**		**610.5485**	**610.5485**	**0.0218**		**611.0940**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0828**	**0.7102**	**0.6332**	**5.8100e-003**	**0.3288**	**2.7000e-003**	**0.3314**	**0.0903**	**2.5300e-003**	**0.0928**		**610.5485**	**610.5485**	**0.0218**		**611.0940**

3.31 Plots 1 3 20 (2026) Curbing/Drive Approaches - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0433	1.2835	0.4855	6.6500e-003	0.1703	2.6500e-003	0.1730	0.0467	2.5300e-003	0.0492		724.0611	724.0611	0.0473		725.2430
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.1170**	**1.7672**	**1.0335**	**0.0110**	**0.4528**	**4.8500e-003**	**0.4577**	**0.1237**	**4.5800e-003**	**0.1283**		**1,179.4963**	**1,179.4963**	**0.0628**		**1,181.0656**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0433	1.2835	0.4855	6.6500e-003	0.1703	2.6500e-003	0.1730	0.0467	2.5300e-003	0.0492		724.0611	724.0611	0.0473		725.2430
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.1170**	**1.7672**	**1.0335**	**0.0110**	**0.4528**	**4.8500e-003**	**0.4577**	**0.1237**	**4.5800e-003**	**0.1283**		**1,179.4963**	**1,179.4963**	**0.0628**		**1,181.0656**

3.32 Plots 1 3 20 (2026) Finish Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	0.6417	0.2428	3.3200e-003	0.0852	1.3200e-003	0.0865	0.0233	1.2700e-003	0.0246		362.0306	362.0306	0.0236		362.6215
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.1143**	**0.9145**	**0.8944**	**6.9500e-003**	**0.4164**	**3.6200e-003**	**0.4201**	**0.1122**	**3.4000e-003**	**0.1156**		**734.9567**	**734.9567**	**0.0342**		**735.8126**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**1.3442**	**0.3651**	**1.7093**	**0.1451**	**0.3359**	**0.4810**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	0.6417	0.2428	3.3200e-003	0.0852	1.3200e-003	0.0865	0.0233	1.2700e-003	0.0246		362.0306	362.0306	0.0236		362.6215
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.1143**	**0.9145**	**0.8944**	**6.9500e-003**	**0.4164**	**3.6200e-003**	**0.4201**	**0.1122**	**3.4000e-003**	**0.1156**		**734.9567**	**734.9567**	**0.0342**		**735.8126**

3.33 Plots 1 3 20 (2026) Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0732	2.1720	0.8217	0.0113	0.2882	4.4800e-003	0.2927	0.0790	4.2900e-003	0.0833		1,225.3342	1,225.3342	0.0800		1,227.3343
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2396**	**2.9285**	**2.0214**	**0.0192**	**0.9020**	**8.9800e-003**	**0.9110**	**0.2449**	**8.4800e-003**	**0.2533**		**2,053.6955**	**2,053.6955**	**0.1061**		**2,056.3479**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0732	2.1720	0.8217	0.0113	0.2882	4.4800e-003	0.2927	0.0790	4.2900e-003	0.0833		1,225.3342	1,225.3342	0.0800		1,227.3343
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2396**	**2.9285**	**2.0214**	**0.0192**	**0.9020**	**8.9800e-003**	**0.9110**	**0.2449**	**8.4800e-003**	**0.2533**		**2,053.6955**	**2,053.6955**	**0.1061**		**2,056.3479**

3.34 Plots 1 3 20 (2026) Temporary Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.554 4	2,685.5544	0.8686		2,707.268 5
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.554 4**	**2,685.5544**	**0.8686**		**2,707.268 5**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plots 9 and 1,3,20 - South Coast AQMD Air District, Summer

World Logistics Center-Construction Dust-Plots 9 and 1,3,20

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.6720	18.9658	3.6691	0.0290	273.7474	7.5600e-003	273.7550	27.3073	7.1500e-003	27.3145	0.0000	3,125.2648	3,125.2648	0.3183	0.0000	3,133.2238
2025	12.4811	11.3258	2.2996	0.0173	185.2032	4.5900e-003	185.2078	18.4745	4.3300e-003	18.4788	0.0000	1,860.3614	1,860.3614	0.1836	0.0000	1,864.9511
2026	12.5720	14.8013	2.9166	0.0226	244.8601	5.7800e-003	244.8659	24.4252	5.4500e-003	24.4306	0.0000	2,441.0083	2,441.0083	0.2363	0.0000	2,446.9143
Maximum	**12.6720**	**18.9658**	**3.6691**	**0.0290**	**273.7474**	**7.5600e-003**	**273.7550**	**27.3073**	**7.1500e-003**	**27.3145**	**0.0000**	**3,125.2648**	**3,125.2648**	**0.3183**	**0.0000**	**3,133.2238**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.6720	18.9658	3.6691	0.0290	109.5307	7.5600e-003	109.5383	10.9351	7.1500e-003	10.9422	0.0000	3,125.2648	3,125.2648	0.3183	0.0000	3,133.2238
2025	12.4811	11.3258	2.2996	0.0173	74.1023	4.5900e-003	74.1069	7.3979	4.3300e-003	7.4022	0.0000	1,860.3614	1,860.3614	0.1836	0.0000	1,864.9511
2026	12.5720	14.8013	2.9166	0.0226	97.9713	5.7800e-003	97.9771	9.7805	5.4500e-003	9.7860	0.0000	2,441.0083	2,441.0083	0.2363	0.0000	2,446.9143
Maximum	**12.6720**	**18.9658**	**3.6691**	**0.0290**	**109.5307**	**7.5600e-003**	**109.5383**	**10.9351**	**7.1500e-003**	**10.9422**	**0.0000**	**3,125.2648**	**3,125.2648**	**0.3183**	**0.0000**	**3,133.2238**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 9 (2024) Mass Excavation	Grading	1/1/2024	6/30/2024	5	130	1138
2	Plot 9 (2024) Utilities	Trenching	1/1/2024	12/29/2024	5	260	1144
3	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
4	Plot 9 (2024) Building-Wet Utilities	Building Construction	1/1/2024	12/29/2024	5	260	1141
5	Plot 9 (2024) Building-Electrical	Building Construction	1/1/2024	12/29/2024	5	260	1142
6	Plot 9 (2024) Building-Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1143
7	Plot 9 (2024) Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1145
8	Plot 9 (2024) Curbing/Drive Approaches	Paving	5/1/2024	8/20/2024	5	80	1147
9	Plot 9 (2024) Finish Grading	Grading	5/7/2024	7/1/2024	5	40	1139
10	Plot 9 (2024) Paving	Paving	6/1/2024	7/26/2024	5	40	1148
11	Plot 9 (2024) Temporary Utilities	Building Construction	7/2/2024	12/30/2024	5	130	1146
12	Plot 9 (2025) Utilities	Trenching	1/1/2025	12/30/2025	5	260	1153
13	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
14	Plot 9 (2025) Building-Wet Utilities	Building Construction	1/1/2025	12/30/2025	5	260	1150
15	Plot 9 (2025) Building-Electrical	Building Construction	1/1/2025	12/30/2025	5	260	1151
16	Plot 9 (2025) Building-Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1152
17	Plot 9 (2025) Interchange	Building Construction	1/1/2025	12/30/2025	5	260	1154
18	Plot 9 (2025) Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1155

19	Plot 9 (2025) Curbing/Drive Approaches	Paving	5/1/2025	8/20/2025	5	80	1157
20	Plot 9 (2025) Paving	Paving	6/1/2025	7/26/2025	5	40	1158
21	Plot 9 (2025) Temporary Utilities	Building Construction	7/2/2025	12/30/2025	5	130	1156
22	Plots 1 3 20 (2026) Mass Excavation	Grading	1/1/2026	7/1/2026	5	130	1159
23	Plots 1 3 20 (2026) Utilities	Trenching	1/1/2026	12/30/2026	5	260	1165
24	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
25	Plots 1 3 20 (2026) Building-Wet Utilities	Building Construction	1/1/2026	12/30/2026	5	260	1162
26	Plots 1 3 20 (2026) Building-Electrical	Building Construction	1/1/2026	12/30/2026	5	260	1163
27	Plots 1 3 20 (2026) Building-Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1164
28	Plots 1 3 20 (2026) Interchange	Building Construction	1/1/2026	7/1/2026	5	130	1166
29	Plots 1 3 20 (2026) Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1167
30	Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving	5/1/2026	8/20/2026	5	80	1169
31	Plots 1 3 20 (2026) Finish Grading	Grading	5/7/2026	7/1/2026	5	40	1160
32	Plots 1 3 20 (2026) Paving	Paving	6/1/2026	7/26/2026	5	40	1170
33	Plots 1 3 20 (2026) Temporary Utilities	Building Construction	7/2/2026	12/30/2026	5	130	1168

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 9 (2024) Building-Concrete		50.00	15.00	4,185.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Electrical		15.00	6.00	104.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Landscaping		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Curbing/Drive		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Finish Grading		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Landscaping		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Mass Excavation		50.00	15.00	4,185.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Paving		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Utilities		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Electrical		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Landscaping		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Wet Utilities		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Curbing/Drive		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Interchange		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 9 (2025) Landscaping		25.00	4.00	2,817.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Paving		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Utilities		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Finish Grading		15.00	2.00	156.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Interchange		25.00	4.00	2,817.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Mass Excavation		50.00	8.00	1,085.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plot 9 (2024) Mass Excavation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0361	2.5153	0.3162	3.8100e-003	16.7521	7.4000e-004	16.7528	1.6712	7.1000e-004	1.6720		413.0043	413.0043	0.0438		414.0991
Vendor	0.0148	0.7761	0.1563	1.0300e-003	7.8061	2.1000e-004	7.8063	0.7790	2.0000e-004	0.7792		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	26.0154	4.2000e-004	26.0158	2.5946	3.9000e-004	2.5950		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0974**	**3.3034**	**0.6519**	**5.1100e-003**	**50.5735**	**1.3700e-003**	**50.5749**	**5.0448**	**1.3000e-003**	**5.0461**		**550.4048**	**550.4048**	**0.0560**		**551.8038**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0361	2.5153	0.3162	3.8100e-003	6.7033	7.4000e-004	6.7040	0.6694	7.1000e-004	0.6701		413.0043	413.0043	0.0438		414.0991
Vendor	0.0148	0.7761	0.1563	1.0300e-003	3.1239	2.1000e-004	3.1241	0.3121	2.0000e-004	0.3123		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	10.4079	4.2000e-004	10.4083	1.0385	3.9000e-004	1.0389		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0974**	**3.3034**	**0.6519**	**5.1100e-003**	**20.2351**	**1.3700e-003**	**20.2364**	**2.0201**	**1.3000e-003**	**2.0214**		**550.4048**	**550.4048**	**0.0560**		**551.8038**

3.3 Plot 9 (2024) Utilities - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6900e-003	0.1875	0.0236	2.8000e-004	1.2489	6.0000e-005	1.2490	0.1246	5.0000e-005	0.1247		30.7903	30.7903	3.2600e-003		30.8719
Vendor	3.9300e-003	0.2070	0.0417	2.7000e-004	2.0816	6.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		29.5465	29.5465	2.9700e-003		29.6208
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0159**	**0.3969**	**0.1011**	**6.0000e-004**	**8.5336**	**2.0000e-004**	**8.5338**	**0.8512**	**1.8000e-004**	**0.8514**		**65.6570**	**65.6570**	**6.4300e-003**		**65.8181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6900e-003	0.1875	0.0236	2.8000e-004	0.4997	6.0000e-005	0.4998	0.0499	5.0000e-005	0.0500		30.7903	30.7903	3.2600e-003		30.8719
Vendor	3.9300e-003	0.2070	0.0417	2.7000e-004	0.8330	6.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		29.5465	29.5465	2.9700e-003		29.6208
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0159**	**0.3969**	**0.1011**	**6.0000e-004**	**3.4144**	**2.0000e-004**	**3.4146**	**0.3409**	**1.8000e-004**	**0.3410**		**65.6570**	**65.6570**	**6.4300e-003**		**65.8181**

3.4 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0181	1.2577	0.1581	1.9100e-003	8.3760	3.7000e-004	8.3764	0.8356	3.5000e-004	0.8360		206.5021	206.5021	0.0219		207.0496
Vendor	0.0148	0.7761	0.1563	1.0300e-003	7.8061	2.1000e-004	7.8063	0.7790	2.0000e-004	0.7792		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	26.0154	4.2000e-004	26.0158	2.5946	3.9000e-004	2.5950		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0793**	**2.0458**	**0.4938**	**3.2100e-003**	**42.1975**	**1.0000e-003**	**42.1985**	**4.2092**	**9.4000e-004**	**4.2101**		**343.9026**	**343.9026**	**0.0341**		**344.7543**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0181	1.2577	0.1581	1.9100e-003	3.3516	3.7000e-004	3.3520	0.3347	3.5000e-004	0.3351		206.5021	206.5021	0.0219		207.0496
Vendor	0.0148	0.7761	0.1563	1.0300e-003	3.1239	2.1000e-004	3.1241	0.3121	2.0000e-004	0.3123		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	10.4079	4.2000e-004	10.4083	1.0385	3.9000e-004	1.0389		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0793**	**2.0458**	**0.4938**	**3.2100e-003**	**16.8834**	**1.0000e-003**	**16.8844**	**1.6854**	**9.4000e-004**	**1.6863**		**343.9026**	**343.9026**	**0.0341**		**344.7543**

3.5 Plot 9 (2024) Building-Wet Utilities - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4600e-003	0.6584	0.0828	1.0000e-003	4.3852	1.9000e-004	4.3854	0.4375	1.9000e-004	0.4377		108.1114	108.1114	0.0115		108.3980
Vendor	0.0148	0.7761	0.1563	1.0300e-003	7.8061	2.1000e-004	7.8063	0.7790	2.0000e-004	0.7792		110.7992	110.7992	0.0112		111.0781
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0475**	**1.4406**	**0.3288**	**2.1600e-003**	**25.1989**	**6.1000e-004**	**25.1995**	**2.5137**	**5.8000e-004**	**2.5143**		**232.2113**	**232.2113**	**0.0231**		**232.7894**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4600e-003	0.6584	0.0828	1.0000e-003	1.7547	1.9000e-004	1.7549	0.1752	1.9000e-004	0.1754		108.1114	108.1114	0.0115		108.3980
Vendor	0.0148	0.7761	0.1563	1.0300e-003	3.1239	2.1000e-004	3.1241	0.3121	2.0000e-004	0.3123		110.7992	110.7992	0.0112		111.0781
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0475**	**1.4406**	**0.3288**	**2.1600e-003**	**10.0825**	**6.1000e-004**	**10.0831**	**1.0066**	**5.8000e-004**	**1.0072**		**232.2113**	**232.2113**	**0.0231**		**232.7894**

3.6 Plot 9 (2024) Building-Electrical - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5000e-004	0.0313	3.9300e-003	5.0000e-005	0.2082	1.0000e-005	0.2082	0.0208	1.0000e-005	0.0208		5.1317	5.1317	5.4000e-004		5.1453
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0203**	**0.3453**	**0.1203**	**5.4000e-004**	**11.1352**	**2.3000e-004**	**11.1354**	**1.1107**	**2.1000e-004**	**1.1109**		**57.4318**	**57.4318**	**5.3000e-003**		**57.5646**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5000e-004	0.0313	3.9300e-003	5.0000e-005	0.0833	1.0000e-005	0.0833	8.3200e-003	1.0000e-005	8.3300e-003		5.1317	5.1317	5.4000e-004		5.1453
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	1.2495	9.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0203**	**0.3453**	**0.1203**	**5.4000e-004**	**4.4552**	**2.3000e-004**	**4.4554**	**0.4447**	**2.1000e-004**	**0.4450**		**57.4318**	**57.4318**	**5.3000e-003**		**57.5646**

3.7 Plot 9 (2024) Building-Landscaping - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0324	2.2575	0.2838	3.4200e-003	15.0348	6.6000e-004	15.0355	1.4999	6.4000e-004	1.5006		370.6677	370.6677	0.0393		371.6502
Vendor	1.9700e-003	0.1035	0.0208	1.4000e-004	1.0408	3.0000e-005	1.0408	0.1039	3.0000e-005	0.1039		14.7732	14.7732	1.4900e-003		14.8104
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0576**	**2.3669**	**0.3943**	**3.6900e-003**	**29.0833**	**9.0000e-004**	**29.0842**	**2.9011**	**8.6000e-004**	**2.9019**		**398.7415**	**398.7415**	**0.0413**		**399.7739**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0324	2.2575	0.2838	3.4200e-003	6.0161	6.6000e-004	6.0168	0.6008	6.4000e-004	0.6014		370.6677	370.6677	0.0393		371.6502
Vendor	1.9700e-003	0.1035	0.0208	1.4000e-004	0.4165	3.0000e-005	0.4165	0.0416	3.0000e-005	0.0417		14.7732	14.7732	1.4900e-003		14.8104
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0576**	**2.3669**	**0.3943**	**3.6900e-003**	**11.6366**	**9.0000e-004**	**11.6375**	**1.1617**	**8.6000e-004**	**1.1625**		**398.7415**	**398.7415**	**0.0413**		**399.7739**

3.8 Plot 9 (2024) Landscaping - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0270	1.8812	0.2365	2.8500e-003	12.5290	5.5000e-004	12.5296	1.2499	5.3000e-004	1.2505		308.8897	308.8897	0.0328		309.7085
Vendor	0.0246	1.2936	0.2605	1.7200e-003	13.0101	3.6000e-004	13.0105	1.2983	3.4000e-004	1.2986		184.6654	184.6654	0.0186		185.1302
Worker	0.0372	9.5800e-003	0.1435	2.1000e-004	20.8123	3.4000e-004	20.8126	2.0757	3.1000e-004	2.0760		21.2810	21.2810	8.1000e-004		21.3013
Total	**0.0888**	**3.1844**	**0.6405**	**4.7800e-003**	**46.3515**	**1.2500e-003**	**46.3527**	**4.6239**	**1.1800e-003**	**4.6251**		**514.8361**	**514.8361**	**0.0522**		**516.1400**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0270	1.8812	0.2365	2.8500e-003	5.0135	5.5000e-004	5.0140	0.5006	5.3000e-004	0.5012		308.8897	308.8897	0.0328		309.7085
Vendor	0.0246	1.2936	0.2605	1.7200e-003	5.2064	3.6000e-004	5.2068	0.5202	3.4000e-004	0.5206		184.6654	184.6654	0.0186		185.1302
Worker	0.0372	9.5800e-003	0.1435	2.1000e-004	8.3263	3.4000e-004	8.3267	0.8308	3.1000e-004	0.8311		21.2810	21.2810	8.1000e-004		21.3013
Total	**0.0888**	**3.1844**	**0.6405**	**4.7800e-003**	**18.5462**	**1.2500e-003**	**18.5475**	**1.8517**	**1.1800e-003**	**1.8529**		**514.8361**	**514.8361**	**0.0522**		**516.1400**

3.9 Plot 9 (2024) Curbing/Drive Approaches - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0703	4.8912	0.6149	7.4100e-003	32.5755	1.4400e-003	32.5769	3.2498	1.3800e-003	3.2512		803.1132	803.1132	0.0852		805.2422
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0901**	**5.2052**	**0.7312**	**7.9000e-003**	**43.5025**	**1.6600e-003**	**43.5042**	**4.3398**	**1.5800e-003**	**4.3414**		**855.4133**	**855.4133**	**0.0899**		**857.6614**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0703	4.8912	0.6149	7.4100e-003	13.0350	1.4400e-003	13.0364	1.3017	1.3800e-003	1.3030		803.1132	803.1132	0.0852		805.2422
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	1.2495	9.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0901**	**5.2052**	**0.7312**	**7.9000e-003**	**17.4069**	**1.6600e-003**	**17.4085**	**1.7381**	**1.5800e-003**	**1.7397**		**855.4133**	**855.4133**	**0.0899**		**857.6614**

3.10 Plot 9 (2024) Finish Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8800e-003	0.3622	0.0729	4.8000e-004	3.6428	1.0000e-004	3.6429	0.3635	1.0000e-004	0.3636		51.7063	51.7063	5.2100e-003		51.8365
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0162**	**0.3646**	**0.1088**	**5.3000e-004**	**8.8459**	**1.8000e-004**	**8.8461**	**0.8824**	**1.8000e-004**	**0.8826**		**57.0266**	**57.0266**	**5.4100e-003**		**57.1618**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8800e-003	0.3622	0.0729	4.8000e-004	1.4578	1.0000e-004	1.4579	0.1457	1.0000e-004	0.1458		51.7063	51.7063	5.2100e-003		51.8365
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0162**	**0.3646**	**0.1088**	**5.3000e-004**	**3.5394**	**1.8000e-004**	**3.5396**	**0.3534**	**1.8000e-004**	**0.3536**		**57.0266**	**57.0266**	**5.4100e-003**		**57.1618**

3.11 Plot 9 (2024) Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		44.3197	44.3197	4.4600e-003		44.4312
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0152**	**0.3128**	**0.0984**	**4.6000e-004**	**8.3255**	**1.7000e-004**	**8.3257**	**0.8305**	**1.6000e-004**	**0.8307**		**49.6400**	**49.6400**	**4.6600e-003**		**49.7566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	1.2495	9.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		44.3197	44.3197	4.4600e-003		44.4312
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0152**	**0.3128**	**0.0984**	**4.6000e-004**	**3.3311**	**1.7000e-004**	**3.3313**	**0.3326**	**1.6000e-004**	**0.3327**		**49.6400**	**49.6400**	**4.6600e-003**		**49.7566**

3.12 Plot 9 (2024) Temporary Utilities - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 9 (2025) Utilities - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6400e-003	0.1858	0.0235	2.8000e-004	1.2489	5.0000e-005	1.2490	0.1246	5.0000e-005	0.1246		30.4534	30.4534	3.1600e-003		30.5324
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		29.2582	29.2582	2.8700e-003		29.3300
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0151**	**0.3939**	**0.0965**	**6.0000e-004**	**8.5336**	**1.8000e-004**	**8.5338**	**0.8512**	**1.8000e-004**	**0.8514**		**64.8257**	**64.8257**	**6.2100e-003**		**64.9812**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6400e-003	0.1858	0.0235	2.8000e-004	0.4997	5.0000e-005	0.4998	0.0499	5.0000e-005	0.0500		30.4534	30.4534	3.1600e-003		30.5324
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		29.2582	29.2582	2.8700e-003		29.3300
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0151**	**0.3939**	**0.0965**	**6.0000e-004**	**3.4144**	**1.8000e-004**	**3.4145**	**0.3409**	**1.8000e-004**	**0.3410**		**64.8257**	**64.8257**	**6.2100e-003**		**64.9812**

3.14 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2400e-003	0.1572	0.0199	2.4000e-004	1.0568	4.0000e-005	1.0568	0.1054	4.0000e-005	0.1055		25.7682	25.7682	2.6700e-003		25.8351
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	3.1224	8.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0297**	**0.4715**	**0.1624**	**7.8000e-004**	**17.1869**	**3.3000e-004**	**17.1872**	**1.7143**	**3.1000e-004**	**1.7146**		**82.4409**	**82.4409**	**7.4400e-003**		**82.6270**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2400e-003	0.1572	0.0199	2.4000e-004	0.4229	4.0000e-005	0.4229	0.0422	4.0000e-005	0.0423		25.7682	25.7682	2.6700e-003		25.8351
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	1.2495	8.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0297**	**0.4715**	**0.1624**	**7.8000e-004**	**6.8764**	**3.3000e-004**	**6.8767**	**0.6864**	**3.1000e-004**	**0.6867**		**82.4409**	**82.4409**	**7.4400e-003**		**82.6270**

3.15 Plot 9 (2025) Building-Wet Utilities - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0212	1.4907	0.1886	2.2500e-003	10.0232	4.1000e-004	10.0236	1.0000	3.9000e-004	1.0003		244.4078	244.4078	0.0254		245.0418
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	3.1224	8.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0131	3.2400e-003	0.0496	8.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.6713	7.6713	2.7000e-004		7.6781
Total	**0.0399**	**1.8029**	**0.2981**	**2.7400e-003**	**20.9503**	**6.1000e-004**	**20.9509**	**2.0899**	**5.8000e-004**	**2.0905**		**295.9663**	**295.9663**	**0.0299**		**296.7150**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0212	1.4907	0.1886	2.2500e-003	4.0108	4.1000e-004	4.0112	0.4005	3.9000e-004	0.4009		244.4078	244.4078	0.0254		245.0418
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	1.2495	8.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0131	3.2400e-003	0.0496	8.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.6713	7.6713	2.7000e-004		7.6781
Total	**0.0399**	**1.8029**	**0.2981**	**2.7400e-003**	**8.3827**	**6.1000e-004**	**8.3833**	**0.8369**	**5.8000e-004**	**0.8375**		**295.9663**	**295.9663**	**0.0299**		**296.7150**

3.16 Plot 9 (2025) Building-Electrical - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0318	2.2361	0.2829	3.3800e-003	15.0348	6.2000e-004	15.0355	1.4999	5.9000e-004	1.5005		366.6118	366.6118	0.0380		367.5628
Vendor	1.8900e-003	0.1030	0.0200	1.4000e-004	1.0408	3.0000e-005	1.0408	0.1039	3.0000e-005	0.1039		14.6291	14.6291	1.4400e-003		14.6650
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0554**	**2.3445**	**0.3854**	**3.6500e-003**	**29.0833**	**8.6000e-004**	**29.0842**	**2.9011**	**8.1000e-004**	**2.9019**		**394.0263**	**394.0263**	**0.0399**		**395.0247**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0318	2.2361	0.2829	3.3800e-003	6.0161	6.2000e-004	6.0168	0.6008	5.9000e-004	0.6014		366.6118	366.6118	0.0380		367.5628
Vendor	1.8900e-003	0.1030	0.0200	1.4000e-004	0.4165	3.0000e-005	0.4165	0.0416	3.0000e-005	0.0416		14.6291	14.6291	1.4400e-003		14.6650
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0554**	**2.3445**	**0.3854**	**3.6500e-003**	**11.6366**	**8.6000e-004**	**11.6375**	**1.1617**	**8.1000e-004**	**1.1625**		**394.0263**	**394.0263**	**0.0399**		**395.0247**

3.17 Plot 9 (2025) Building-Landscaping - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.2800e-003	0.6522	0.0825	9.9000e-004	4.3852	1.8000e-004	4.3853	0.4375	1.7000e-004	0.4377		106.9284	106.9284	0.0111		107.2058
Vendor	0.0142	0.7724	0.1498	1.0200e-003	7.8061	2.0000e-004	7.8063	0.7790	1.9000e-004	0.7792		109.7181	109.7181	0.0108		109.9876
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0452**	**1.4300**	**0.3149**	**2.1400e-003**	**25.1989**	**5.9000e-004**	**25.1995**	**2.5137**	**5.5000e-004**	**2.5143**		**229.4319**	**229.4319**	**0.0223**		**229.9903**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.2800e-003	0.6522	0.0825	9.9000e-004	1.7547	1.8000e-004	1.7549	0.1752	1.7000e-004	0.1754		106.9284	106.9284	0.0111		107.2058
Vendor	0.0142	0.7724	0.1498	1.0200e-003	3.1239	2.0000e-004	3.1241	0.3121	1.9000e-004	0.3123		109.7181	109.7181	0.0108		109.9876
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0452**	**1.4300**	**0.3149**	**2.1400e-003**	**10.0825**	**5.9000e-004**	**10.0831**	**1.0066**	**5.5000e-004**	**1.0072**		**229.4319**	**229.4319**	**0.0223**		**229.9903**

3.18 Plot 9 (2025) Interchange - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0265	1.8634	0.2357	2.8200e-003	12.5290	5.1000e-004	12.5295	1.2499	4.9000e-004	1.2504		305.5098	305.5098	0.0317		306.3023
Vendor	0.0236	1.2873	0.2497	1.7000e-003	13.0101	3.4000e-004	13.0105	1.2983	3.2000e-004	1.2986		182.8634	182.8634	0.0180		183.3127
Worker	0.0348	8.6400e-003	0.1322	2.1000e-004	20.8123	3.3000e-004	20.8126	2.0757	3.0000e-004	2.0760		20.4567	20.4567	7.3000e-004		20.4750
Total	**0.0849**	**3.1594**	**0.6176**	**4.7300e-003**	**46.3515**	**1.1800e-003**	**46.3526**	**4.6239**	**1.1100e-003**	**4.6250**		**508.8299**	**508.8299**	**0.0504**		**510.0900**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0265	1.8634	0.2357	2.8200e-003	5.0135	5.1000e-004	5.0140	0.5006	4.9000e-004	0.5011		305.5098	305.5098	0.0317		306.3023
Vendor	0.0236	1.2873	0.2497	1.7000e-003	5.2064	3.4000e-004	5.2068	0.5202	3.2000e-004	0.5206		182.8634	182.8634	0.0180		183.3127
Worker	0.0348	8.6400e-003	0.1322	2.1000e-004	8.3263	3.3000e-004	8.3267	0.8308	3.0000e-004	0.8311		20.4567	20.4567	7.3000e-004		20.4750
Total	**0.0849**	**3.1594**	**0.6176**	**4.7300e-003**	**18.5462**	**1.1800e-003**	**18.5474**	**1.8517**	**1.1100e-003**	**1.8528**		**508.8299**	**508.8299**	**0.0504**		**510.0900**

3.19 Plot 9 (2025) Landscaping - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0119	0.8385	0.1061	1.2700e-003	5.6381	2.3000e-004	5.6383	0.5625	2.2000e-004	0.5627		137.4794	137.4794	0.0143		137.8360
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		29.2582	29.2582	2.8700e-003		29.3300
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0375**	**1.0499**	**0.2286**	**1.6700e-003**	**20.7274**	**4.9000e-004**	**20.7279**	**2.0675**	**4.6000e-004**	**2.0679**		**179.5230**	**179.5230**	**0.0176**		**179.9629**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0119	0.8385	0.1061	1.2700e-003	2.2561	2.3000e-004	2.2563	0.2253	2.2000e-004	0.2255		137.4794	137.4794	0.0143		137.8360
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		29.2582	29.2582	2.8700e-003		29.3300
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0375**	**1.0499**	**0.2286**	**1.6700e-003**	**8.2930**	**4.9000e-004**	**8.2935**	**0.8278**	**4.6000e-004**	**0.8283**		**179.5230**	**179.5230**	**0.0176**		**179.9629**

3.20 Plot 9 (2025) Curbing/Drive Approaches - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6100e-003	0.3604	0.0699	4.8000e-004	3.6428	9.0000e-005	3.6429	0.3635	9.0000e-005	0.3636		51.2018	51.2018	5.0300e-003		51.3275
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0153**	**0.3626**	**0.1030**	**5.3000e-004**	**8.8459**	**1.7000e-004**	**8.8461**	**0.8824**	**1.7000e-004**	**0.8826**		**56.3159**	**56.3159**	**5.2100e-003**		**56.4463**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6100e-003	0.3604	0.0699	4.8000e-004	1.4578	9.0000e-005	1.4579	0.1457	9.0000e-005	0.1458		51.2018	51.2018	5.0300e-003		51.3275
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0153**	**0.3626**	**0.1030**	**5.3000e-004**	**3.5394**	**1.7000e-004**	**3.5396**	**0.3534**	**1.7000e-004**	**0.3535**		**56.3159**	**56.3159**	**5.2100e-003**		**56.4463**

3.21 Plot 9 (2025) Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	3.1224	8.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		43.8872	43.8872	4.3100e-003		43.9950
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0144**	**0.3111**	**0.0930**	**4.6000e-004**	**8.3255**	**1.6000e-004**	**8.3257**	**0.8305**	**1.6000e-004**	**0.8307**		**49.0014**	**49.0014**	**4.4900e-003**		**49.1138**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	1.2495	8.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		43.8872	43.8872	4.3100e-003		43.9950
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0144**	**0.3111**	**0.0930**	**4.6000e-004**	**3.3311**	**1.6000e-004**	**3.3313**	**0.3326**	**1.6000e-004**	**0.3327**		**49.0014**	**49.0014**	**4.4900e-003**		**49.1138**

3.22 Plot 9 (2025) Temporary Utilities - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.23 Plots 1 3 20 (2026) Mass Excavation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0300e-003	0.6401	0.0819	9.6000e-004	4.3431	1.7000e-004	4.3433	0.4333	1.6000e-004	0.4334		104.7702	104.7702	0.0107		105.0364
Vendor	7.3100e-003	0.4099	0.0773	5.4000e-004	4.1633	1.0000e-004	4.1634	0.4154	1.0000e-004	0.4155		57.9578	57.9578	5.5700e-003		58.0970
Worker	0.0408	9.8000e-003	0.1530	2.5000e-004	26.0154	4.0000e-004	26.0158	2.5946	3.7000e-004	2.5950		24.6684	24.6684	8.3000e-004		24.6892
Total	**0.0571**	**1.0598**	**0.3122**	**1.7500e-003**	**34.5217**	**6.7000e-004**	**34.5224**	**3.4433**	**6.3000e-004**	**3.4439**		**187.3965**	**187.3965**	**0.0171**		**187.8225**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0300e-003	0.6401	0.0819	9.6000e-004	1.7379	1.7000e-004	1.7381	0.1735	1.6000e-004	0.1737		104.7702	104.7702	0.0107		105.0364
Vendor	7.3100e-003	0.4099	0.0773	5.4000e-004	1.6661	1.0000e-004	1.6662	0.1665	1.0000e-004	0.1666		57.9578	57.9578	5.5700e-003		58.0970
Worker	0.0408	9.8000e-003	0.1530	2.5000e-004	10.4079	4.0000e-004	10.4083	1.0385	3.7000e-004	1.0389		24.6684	24.6684	8.3000e-004		24.6892
Total	**0.0571**	**1.0598**	**0.3122**	**1.7500e-003**	**13.8119**	**6.7000e-004**	**13.8125**	**1.3786**	**6.3000e-004**	**1.3792**		**187.3965**	**187.3965**	**0.0171**		**187.8225**

3.24 Plots 1 3 20 (2026) Utilities - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0261	1.8464	0.2362	2.7800e-003	12.5290	4.8000e-004	12.5295	1.2499	4.6000e-004	1.2504		302.2404	302.2404	0.0307		303.0083
Vendor	0.0228	1.2810	0.2416	1.6800e-003	13.0101	3.2000e-004	13.0105	1.2983	3.0000e-004	1.2986		181.1181	181.1181	0.0174		181.5531
Worker	0.0326	7.8400e-003	0.1224	2.0000e-004	20.8123	3.2000e-004	20.8126	2.0757	3.0000e-004	2.0760		19.7347	19.7347	6.6000e-004		19.7513
Total	**0.0815**	**3.1353**	**0.6002**	**4.6600e-003**	**46.3515**	**1.1200e-003**	**46.3526**	**4.6239**	**1.0600e-003**	**4.6249**		**503.0933**	**503.0933**	**0.0488**		**504.3126**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0261	1.8464	0.2362	2.7800e-003	5.0135	4.8000e-004	5.0139	0.5006	4.6000e-004	0.5011		302.2404	302.2404	0.0307		303.0083
Vendor	0.0228	1.2810	0.2416	1.6800e-003	5.2064	3.2000e-004	5.2067	0.5202	3.0000e-004	0.5205		181.1181	181.1181	0.0174		181.5531
Worker	0.0326	7.8400e-003	0.1224	2.0000e-004	8.3263	3.2000e-004	8.3267	0.8308	3.0000e-004	0.8311		19.7347	19.7347	6.6000e-004		19.7513
Total	**0.0815**	**3.1353**	**0.6002**	**4.6600e-003**	**18.5462**	**1.1200e-003**	**18.5473**	**1.8517**	**1.0600e-003**	**1.8528**		**503.0933**	**503.0933**	**0.0488**		**504.3126**

3.25 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	2.2157	0.2835	3.3400e-003	15.0348	5.7000e-004	15.0354	1.4999	5.5000e-004	1.5005		362.6885	362.6885	0.0369		363.6099
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	1.0408	3.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0535**	**2.3231**	**0.3793**	**3.5900e-003**	**29.0833**	**8.0000e-004**	**29.0841**	**2.9011**	**7.6000e-004**	**2.9018**		**389.5121**	**389.5121**	**0.0387**		**390.4787**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	2.2157	0.2835	3.3400e-003	6.0161	5.7000e-004	6.0167	0.6008	5.5000e-004	0.6013		362.6885	362.6885	0.0369		363.6099
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	0.4165	3.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0535**	**2.3231**	**0.3793**	**3.5900e-003**	**11.6366**	**8.0000e-004**	**11.6374**	**1.1617**	**7.6000e-004**	**1.1624**		**389.5121**	**389.5121**	**0.0387**		**390.4787**

3.26 Plots 1 3 20 (2026) Building-Wet Utilities - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.1200e-003	0.6463	0.0827	9.7000e-004	4.3852	1.7000e-004	4.3853	0.4375	1.6000e-004	0.4376		105.7841	105.7841	0.0108		106.0529
Vendor	0.0137	0.7686	0.1450	1.0100e-003	7.8061	1.9000e-004	7.8063	0.7790	1.8000e-004	0.7791		108.6709	108.6709	0.0104		108.9318
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0432**	**1.4198**	**0.3042**	**2.1000e-003**	**25.1989**	**5.6000e-004**	**25.1995**	**2.5137**	**5.3000e-004**	**2.5143**		**226.7892**	**226.7892**	**0.0216**		**227.3293**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.1200e-003	0.6463	0.0827	9.7000e-004	1.7547	1.7000e-004	1.7549	0.1752	1.6000e-004	0.1754		105.7841	105.7841	0.0108		106.0529
Vendor	0.0137	0.7686	0.1450	1.0100e-003	3.1239	1.9000e-004	3.1240	0.3121	1.8000e-004	0.3123		108.6709	108.6709	0.0104		108.9318
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0432**	**1.4198**	**0.3042**	**2.1000e-003**	**10.0825**	**5.6000e-004**	**10.0831**	**1.0066**	**5.3000e-004**	**1.0072**		**226.7892**	**226.7892**	**0.0216**		**227.3293**

3.27 Plots 1 3 20 (2026) Building-Electrical - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0208	1.4771	0.1890	2.2300e-003	10.0232	3.8000e-004	10.0236	1.0000	3.6000e-004	1.0003		241.7923	241.7923	0.0246		242.4066
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0386**	**1.7875**	**0.2929**	**2.7000e-003**	**20.9503**	**5.8000e-004**	**20.9508**	**2.0899**	**5.4000e-004**	**2.0905**		**292.6612**	**292.6612**	**0.0290**		**293.3861**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0208	1.4771	0.1890	2.2300e-003	4.0108	3.8000e-004	4.0111	0.4005	3.6000e-004	0.4009		241.7923	241.7923	0.0246		242.4066
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	1.2495	8.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0386**	**1.7875**	**0.2929**	**2.7000e-003**	**8.3827**	**5.8000e-004**	**8.3833**	**0.8369**	**5.4000e-004**	**0.8375**		**292.6612**	**292.6612**	**0.0290**		**293.3861**

3.28 Plots 1 3 20 (2026) Building-Landscaping - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3900e-003	0.3587	0.0677	4.7000e-004	3.6428	9.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		50.7131	50.7131	4.8700e-003		50.8349
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0146**	**0.3606**	**0.0983**	**5.2000e-004**	**8.8459**	**1.7000e-004**	**8.8461**	**0.8824**	**1.5000e-004**	**0.8826**		**55.6468**	**55.6468**	**5.0400e-003**		**55.7727**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3900e-003	0.3587	0.0677	4.7000e-004	1.4578	9.0000e-005	1.4579	0.1457	8.0000e-005	0.1458		50.7131	50.7131	4.8700e-003		50.8349
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0146**	**0.3606**	**0.0983**	**5.2000e-004**	**3.5394**	**1.7000e-004**	**3.5396**	**0.3534**	**1.5000e-004**	**0.3535**		**55.6468**	**55.6468**	**5.0400e-003**		**55.7727**

3.29 Plots 1 3 20 (2026) Interchange - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0235	1.6618	0.2126	2.5100e-003	11.2761	4.3000e-004	11.2766	1.1249	4.1000e-004	1.1254		272.0164	272.0164	0.0276		272.7074
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.9789	28.9789	2.7800e-003		29.0485
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0475**	**1.8716**	**0.3278**	**2.9000e-003**	**26.3654**	**6.8000e-004**	**26.3661**	**2.6300**	**6.5000e-004**	**2.6306**		**313.3295**	**313.3295**	**0.0308**		**314.1005**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0235	1.6618	0.2126	2.5100e-003	4.5121	4.3000e-004	4.5125	0.4506	4.1000e-004	0.4510		272.0164	272.0164	0.0276		272.7074
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.9789	28.9789	2.7800e-003		29.0485
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0475**	**1.8716**	**0.3278**	**2.9000e-003**	**10.5491**	**6.8000e-004**	**10.5498**	**1.0531**	**6.5000e-004**	**1.0537**		**313.3295**	**313.3295**	**0.0308**		**314.1005**

3.30 Plots 1 3 20 (2026) Landscaping - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.4684	43.4684	4.1800e-003		43.5727
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0136**	**0.3094**	**0.0886**	**4.5000e-004**	**8.3255**	**1.6000e-004**	**8.3257**	**0.8305**	**1.4000e-004**	**0.8306**		**48.4020**	**48.4020**	**4.3500e-003**		**48.5106**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	1.2495	8.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.4684	43.4684	4.1800e-003		43.5727
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0136**	**0.3094**	**0.0886**	**4.5000e-004**	**3.3311**	**1.6000e-004**	**3.3313**	**0.3326**	**1.4000e-004**	**0.3327**		**48.4020**	**48.4020**	**4.3500e-003**		**48.5106**

3.31 Plots 1 3 20 (2026) Curbing/Drive Approaches - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.4400e-003	0.5982	0.0765	9.0000e-004	4.0589	1.5000e-004	4.0591	0.4049	1.5000e-004	0.4051		97.9143	97.9143	9.9500e-003		98.1631
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.9789	28.9789	2.7800e-003		29.0485
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0203**	**0.8051**	**0.1458**	**1.2200e-003**	**11.3436**	**2.8000e-004**	**11.3439**	**1.1316**	**2.7000e-004**	**1.1318**		**131.8269**	**131.8269**	**0.0129**		**132.1494**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.4400e-003	0.5982	0.0765	9.0000e-004	1.6242	1.5000e-004	1.6243	0.1622	1.5000e-004	0.1623		97.9143	97.9143	9.9500e-003		98.1631
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.9789	28.9789	2.7800e-003		29.0485
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0203**	**0.8051**	**0.1458**	**1.2200e-003**	**4.5388**	**2.8000e-004**	**4.5391**	**0.4531**	**2.7000e-004**	**0.4534**		**131.8269**	**131.8269**	**0.0129**		**132.1494**

3.32 Plots 1 3 20 (2026) Finish Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2200e-003	0.2991	0.0383	4.5000e-004	2.0295	8.0000e-005	2.0295	0.2025	7.0000e-005	0.2025		48.9572	48.9572	4.9800e-003		49.0815
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	1.0408	3.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0183**	**0.4045**	**0.1035**	**6.5000e-004**	**10.8749**	**2.3000e-004**	**10.8751**	**1.0847**	**2.0000e-004**	**1.0849**		**70.8471**	**70.8471**	**6.6200e-003**		**71.0125**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2200e-003	0.2991	0.0383	4.5000e-004	0.8121	8.0000e-005	0.8122	0.0811	7.0000e-005	0.0812		48.9572	48.9572	4.9800e-003		49.0815
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	0.4165	3.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0183**	**0.4045**	**0.1035**	**6.5000e-004**	**4.3510**	**2.3000e-004**	**4.3512**	**0.4343**	**2.0000e-004**	**0.4345**		**70.8471**	**70.8471**	**6.6200e-003**		**71.0125**

3.33 Plots 1 3 20 (2026) Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0143	1.0123	0.1295	1.5300e-003	6.8690	2.6000e-004	6.8692	0.6853	2.5000e-004	0.6855		165.7011	165.7011	0.0168		166.1221
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0402**	**1.3246**	**0.2640**	**2.0500e-003**	**22.9991**	**5.4000e-004**	**22.9996**	**2.2941**	**5.1000e-004**	**2.2947**		**221.5037**	**221.5037**	**0.0214**		**222.0394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0143	1.0123	0.1295	1.5300e-003	2.7486	2.6000e-004	2.7489	0.2745	2.5000e-004	0.2747		165.7011	165.7011	0.0168		166.1221
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	1.2495	8.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0402**	**1.3246**	**0.2640**	**2.0500e-003**	**9.2021**	**5.4000e-004**	**9.2026**	**0.9186**	**5.1000e-004**	**0.9191**		**221.5037**	**221.5037**	**0.0214**		**222.0394**

3.34 Plots 1 3 20 (2026) Temporary Utilities - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Plots 5/10 and 7,8,21,22 Emissions Summaries

Unmitigated Air Quality Construction Analysis

Regional Maximums **Source**	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
	lb/day					
Plots 5 and 10 (2027) Utilities	11.07	89.27	118.54	0.40	33.39	6.22
Plots 5 and 10 (2027) Building-Concrete	3.11	33.09	44.81	0.10	15.10	2.62
Plots 5 and 10 (2027) Building-Wet Utilities	4.86	40.14	69.23	0.15	16.44	3.17
Plots 5 and 10 (2027) Building-Electrical	3.25	33.13	43.23	0.08	12.82	2.35
Plots 5 and 10 (2027) Building-Landscaping	2.39	20.31	33.23	0.05	5.35	1.29
Plots 5 and 10 (2027) Landscaping	2.52	21.18	35.51	0.06	5.17	1.31
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.75	8.11	10.75	0.03	5.26	0.82
Plots 5 and 10 (2027) Paving	3.94	38.58	47.25	0.11	14.07	2.80
Plots 5 and 10 (2027) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46
Plots 5 and 10 (2027) Mass Excavation	15.41	156.20	111.21	0.32	33.55	8.51
Plots 5 and 10 (2027) Finish Grading	0.97	9.44	9.98	0.02	7.26	1.14
Plots 5 and 10 (2028) Mass Excavation	42.49	437.23	302.11	0.86	67.90	20.89
Plots 5 and 10 (2028) Finish Grading	1.69	16.40	16.94	0.03	8.92	1.60
Plots 5 and 10 (2028) Utilities	11.06	89.16	118.44	0.40	33.39	6.22
Plots 5 and 10 (2028) Building-Concrete	3.10	33.00	44.75	0.10	15.10	2.62
Plots 5 and 10 (2028) Building-Wet Utilities	4.85	40.09	69.16	0.15	16.44	3.17
Plots 5 and 10 (2028) Building-Electrical	3.24	33.06	43.19	0.08	12.82	2.35
Plots 5 and 10 (2028) Building-Landscaping	2.38	20.30	33.20	0.05	5.35	1.29
Plots 5 and 10 (2028) Landscaping	2.52	21.16	35.48	0.06	5.17	1.31
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.75	8.08	10.73	0.03	5.26	0.82
Plots 5 and 10 (2028) Paving	3.93	38.53	47.19	0.11	14.07	2.80
Plots 5 and 10 (2028) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46
Plots 7 8 21 22 (2029) Utilities	11.04	89.04	118.33	0.40	33.39	6.22
Plots 7 8 21 22 (2029) Building-Concrete	3.09	32.92	44.70	0.10	15.10	2.62
Plots 7 8 21 22 (2029) Building-Wet Utilities	4.84	40.04	69.09	0.15	16.44	3.17
Plots 7 8 21 22 (2029) Building-Electrical	3.23	32.99	43.16	0.08	12.82	2.35
Plots 7 8 21 22 (2029) Building-Landscaping	2.38	20.28	33.17	0.05	5.35	1.29
Plots 7 8 21 22 (2029) Landscaping	2.51	21.15	35.46	0.06	5.17	1.31
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	4.11	0.81	0.50	0.00	4.73	0.50
Plots 7 8 21 22 (2029) Paving	8.25	1.36	1.14	0.01	9.68	1.05
Plots 7 8 21 22 (2029) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46
Plots 7 8 21 22 (2029) Mass Excavation	27.61	285.24	196.60	0.57	49.01	14.11
Plots 7 8 21 22 (2029) Finish Grading	0.91	9.26	9.06	0.02	7.38	1.14
Overlapping Phases						
Plot 5 and 10-2027	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	44.81	415.01	476.16	1.20	129.59	27.07
Plot 5 and 10-2028 Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	71.32	690.40	663.27	1.73	165.09	39.44
Plots 7,8,21,22-2029 All Phases Except: Paving+Curbing	56.86	543.18	560.00	1.45	145.16	32.66
Daily Maximum[1]						
2027	269.23	415.01	476.16	1.20	129.59	27.07
2028	295.74	690.40	663.27	1.73	165.09	39.44
2029	281.28	543.18	560.00	1.45	145.16	32.66

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions

Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day					
Plots 5 and 10 (2027) Utilities	0.08	3.11	0.59	0.00	18.55	1.85
Plots 5 and 10 (2027) Building-Concrete	0.05	2.30	0.38	0.00	11.64	1.16
Plots 5 and 10 (2027) Building-Wet Utilities	0.04	1.41	0.30	0.00	10.08	1.01
Plots 5 and 10 (2027) Building-Electrical	0.04	1.77	0.29	0.00	8.38	0.84
Plots 5 and 10 (2027) Building-Landscaping	0.01	0.36	0.09	0.00	3.54	0.35
Plots 5 and 10 (2027) Landscaping	0.01	0.31	0.08	0.00	3.33	0.33
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.02	0.80	0.14	0.00	4.54	0.45
Plots 5 and 10 (2027) Paving	0.04	1.31	0.26	0.00	9.20	0.92
Plots 5 and 10 (2027) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	0.06	1.44	0.35	0.00	14.80	1.48
Plots 5 and 10 (2027) Finish Grading	0.02	0.60	0.13	0.00	5.04	0.50
Plots 5 and 10 (2028) Mass Excavation	0.07	2.64	0.51	0.00	18.36	1.83
Plots 5 and 10 (2028) Finish Grading	0.02	0.70	0.14	0.00	5.31	0.53
Plots 5 and 10 (2028) Utilities	0.08	3.09	0.58	0.00	18.55	1.85
Plots 5 and 10 (2028) Building-Concrete	0.05	2.29	0.37	0.00	11.64	1.16
Plots 5 and 10 (2028) Building-Wet Utilities	0.04	1.40	0.29	0.00	10.08	1.01
Plots 5 and 10 (2028) Building-Electrical	0.04	1.76	0.29	0.00	8.38	0.84
Plots 5 and 10 (2028) Building-Landscaping	0.01	0.36	0.09	0.00	3.54	0.35
Plots 5 and 10 (2028) Landscaping	0.01	0.31	0.08	0.00	3.33	0.33
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.02	0.79	0.14	0.00	4.54	0.45
Plots 5 and 10 (2028) Paving	0.04	1.31	0.25	0.00	9.20	0.92
Plots 5 and 10 (2028) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	0.07	3.08	0.57	0.00	18.55	1.85
Plots 7 8 21 22 (2029) Building-Concrete	0.05	2.27	0.37	0.00	11.64	1.16
Plots 7 8 21 22 (2029) Building-Wet Utilities	0.04	1.39	0.28	0.00	10.08	1.01
Plots 7 8 21 22 (2029) Building-Electrical	0.04	1.75	0.28	0.00	8.38	0.84
Plots 7 8 21 22 (2029) Building-Landscaping	0.01	0.36	0.09	0.00	3.54	0.35
Plots 7 8 21 22 (2029) Landscaping	0.01	0.30	0.08	0.00	3.33	0.33
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.02	0.79	0.14	0.00	4.54	0.45
Plots 7 8 21 22 (2029) Paving	0.04	1.30	0.25	0.00	9.20	0.92
Plots 7 8 21 22 (2029) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	0.06	2.12	0.43	0.00	16.89	1.69
Plots 7 8 21 22 (2029) Finish Grading	0.02	0.69	0.13	0.00	5.16	0.52

Daily Unmitgated VOC Emissions (lb/day)	
2027	224
2028	224
2029	224

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plots 5 and 10 (2027) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.43	6.72	4.07	0.05	1.88	0.53
Plots 5 and 10 (2027) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.28	4.92	2.83	0.03	1.17	0.32
Plots 5 and 10 (2027) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.23	3.07	2.12	0.02	1.02	0.28
Plots 5 and 10 (2027) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.20	3.79	2.01	0.02	0.85	0.24
Plots 5 and 10 (2027) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.08	0.80	0.69	0.01	0.35	0.10
Plots 5 and 10 (2027) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.07	0.69	0.65	0.01	0.33	0.09
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.11	1.72	1.03	0.01	0.46	0.13
Plots 5 and 10 (2027) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.21	2.84	2.04	0.02	0.91	0.25
Plots 5 and 10 (2027) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	14.98	151.56	107.71	0.29	17.32	6.64	0.34	3.16	3.14	0.02	1.43	0.39
Plots 5 and 10 (2027) Finish Grading	0.83	7.51	8.77	0.01	1.73	0.50	0.12	1.31	1.08	0.01	0.50	0.14
Plots 5 and 10 (2028) Mass Excavation	41.96	428.86	297.60	0.82	47.72	18.55	0.42	5.67	4.01	0.04	1.81	0.50
Plots 5 and 10 (2028) Finish Grading	1.54	14.19	15.67	0.02	3.09	0.93	0.12	1.50	1.12	0.01	0.52	0.15
Plots 5 and 10 (2028) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.41	6.63	3.98	0.04	1.88	0.53
Plots 5 and 10 (2028) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.27	4.85	2.78	0.03	1.16	0.32
Plots 5 and 10 (2028) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.22	3.03	2.06	0.02	1.01	0.28
Plots 5 and 10 (2028) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.20	3.74	1.98	0.02	0.85	0.24
Plots 5 and 10 (2028) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.07	0.79	0.66	0.01	0.35	0.10
Plots 5 and 10 (2028) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.07	0.68	0.62	0.01	0.33	0.09
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.10	1.69	1.01	0.01	0.46	0.13
Plots 5 and 10 (2028) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.21	2.80	1.99	0.02	0.91	0.25
Plots 5 and 10 (2028) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.40	6.53	3.89	0.04	1.88	0.53
Plots 7 8 21 22 (2029) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.27	4.78	2.73	0.03	1.16	0.32
Plots 7 8 21 22 (2029) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.21	2.98	2.00	0.02	1.01	0.28
Plots 7 8 21 22 (2029) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.19	3.68	1.94	0.02	0.85	0.24
Plots 7 8 21 22 (2029) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.07	0.77	0.64	0.01	0.35	0.10
Plots 7 8 21 22 (2029) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.07	0.67	0.60	0.01	0.33	0.09
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	4.05	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.36	0.00	0.19	0.05
Plots 7 8 21 22 (2029) Paving	8.10	0.00	0.00	0.00	0.00	0.00	0.11	0.06	0.89	0.00	0.48	0.13
Plots 7 8 21 22 (2029) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	27.15	278.53	192.68	0.53	30.46	11.97	0.37	4.53	3.49	0.03	1.66	0.46
Plots 7 8 21 22 (2029) Finish Grading	0.77	7.09	7.84	0.01	1.71	0.48	0.11	1.47	1.09	0.01	0.51	0.14

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plots 5 and 10 (2027) Utilities	11.0	86.1	118.0	0.39	14.84	4.36
Plots 5 and 10 (2027) Building-Concrete	3.0	30.7	44.4	0.09	3.47	1.45
Plots 5 and 10 (2027) Building-Wet Utilities	4.8	38.7	68.9	0.15	6.36	2.17
Plots 5 and 10 (2027) Building-Electrical	3.2	31.3	42.9	0.08	4.44	1.52
Plots 5 and 10 (2027) Building-Landscaping	2.4	19.9	33.1	0.05	1.81	0.93
Plots 5 and 10 (2027) Landscaping	2.5	20.9	35.4	0.06	1.84	0.98
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.7	7.3	10.6	0.03	0.72	0.37
Plots 5 and 10 (2027) Paving	3.9	37.2	47.0	0.11	4.87	1.88
Plots 5 and 10 (2027) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 5 and 10 (2027) Mass Excavation	15.3	154.7	110.9	0.32	18.75	7.03
Plots 5 and 10 (2027) Finish Grading	0.9	8.8	9.8	0.02	2.23	0.64
Plots 5 and 10 (2028) Mass Excavation	42.4	434.5	301.6	0.85	49.54	19.05
Plots 5 and 10 (2028) Finish Grading	1.7	15.7	16.8	0.03	3.61	1.07
Plots 5 and 10 (2028) Utilities	10.9	86.0	117.9	0.39	14.84	4.36
Plots 5 and 10 (2028) Building-Concrete	3.0	30.7	44.4	0.09	3.47	1.45
Plots 5 and 10 (2028) Building-Wet Utilities	4.8	38.6	68.9	0.15	6.36	2.17
Plots 5 and 10 (2028) Building-Electrical	3.2	31.3	42.9	0.08	4.44	1.52
Plots 5 and 10 (2028) Building-Landscaping	2.4	19.9	33.1	0.05	1.81	0.93
Plots 5 and 10 (2028) Landscaping	2.5	20.8	35.4	0.06	1.84	0.97
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.7	7.3	10.6	0.03	0.72	0.37
Plots 5 and 10 (2028) Paving	3.9	37.2	46.9	0.10	4.87	1.88
Plots 5 and 10 (2028) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 7 8 21 22 (2029) Utilities	10.9	85.9	117.8	0.39	14.84	4.36
Plots 7 8 21 22 (2029) Building-Concrete	3.0	30.6	44.3	0.09	3.47	1.45
Plots 7 8 21 22 (2029) Building-Wet Utilities	4.8	38.6	68.8	0.15	6.36	2.17
Plots 7 8 21 22 (2029) Building-Electrical	3.2	31.2	42.9	0.08	4.44	1.52
Plots 7 8 21 22 (2029) Building-Landscaping	2.4	19.9	33.1	0.05	1.81	0.93
Plots 7 8 21 22 (2029) Landscaping	2.5	20.8	35.4	0.06	1.84	0.97
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	4.1	0.0	0.4	0.00	0.19	0.05
Plots 7 8 21 22 (2029) Paving	8.2	0.1	0.9	0.00	0.48	0.13
Plots 7 8 21 22 (2029) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 7 8 21 22 (2029) Mass Excavation	27.5	283.1	196.2	0.56	32.12	12.42
Plots 7 8 21 22 (2029) Finish Grading	0.9	8.6	8.9	0.02	2.22	0.62

Overlapping Phases						
Plot 5 and 10-2027	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	27.58	234.91	353.42	0.85	33.47	11.78
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	31.46	272.14	400.41	0.95	38.34	13.66
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	32.70	284.40	410.84	0.98	38.84	14.12
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	28.82	247.16	363.85	0.87	33.97	12.24
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	28.09	239.87	353.25	0.85	33.25	11.87
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	43.41	394.59	464.10	1.16	52.00	18.90
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	44.35	403.41	473.95	1.19	54.23	19.54
Plot 5 and 10-2028						
Mass Excavation+Finish Grading	44.04	450.21	318.39	0.89	53.15	20.12
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	70.85	677.55	660.92	1.71	85.89	31.53
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	69.20	661.86	644.13	1.67	82.28	30.46
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	27.54	234.61	353.11	0.85	33.47	11.78
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	31.42	271.80	400.05	0.95	38.34	13.66
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	32.66	284.06	410.48	0.98	38.84	14.12
Plots 7,8,21,22-2029						
All Phases Except: Paving+Curbing	56.42	530.94	557.77	1.43	67.58	24.91
Daily Maximum[1]						
2027	44.35	403.41	473.95	1.19	54.23	19.54
2028	70.85	677.55	660.92	1.71	85.89	31.53
2029	56.42	530.94	557.77	1.43	67.58	24.91

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plots 5 and 10 (2027) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.46	6.80	3.98	0.04	1.88	0.53
Plots 5 and 10 (2027) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.30	4.97	2.78	0.03	1.17	0.32
Plots 5 and 10 (2027) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.25	3.11	2.04	0.02	1.02	0.29
Plots 5 and 10 (2027) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.21	3.83	1.99	0.02	0.85	0.24
Plots 5 and 10 (2027) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.08	0.81	0.65	0.01	0.35	0.10
Plots 5 and 10 (2027) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.08	0.70	0.61	0.01	0.33	0.09
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.11	1.74	1.01	0.01	0.46	0.13
Plots 5 and 10 (2027) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.23	2.88	1.96	0.02	0.91	0.25
Plots 5 and 10 (2027) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	14.98	151.56	107.71	0.29	17.32	6.64	0.38	3.20	2.95	0.02	1.43	0.39
Plots 5 and 10 (2027) Finish Grading	0.83	7.51	8.77	0.01	1.73	0.50	0.13	1.33	1.03	0.01	0.50	0.14
Plots 5 and 10 (2028) Mass Excavation	41.96	428.86	297.60	0.82	47.72	18.55	0.45	5.73	3.86	0.04	1.81	0.50
Plots 5 and 10 (2028) Finish Grading	1.54	14.19	15.67	0.02	3.09	0.93	0.13	1.52	1.08	0.01	0.52	0.15
Plots 5 and 10 (2028) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.44	6.70	3.89	0.04	1.88	0.53
Plots 5 and 10 (2028) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.29	4.90	2.73	0.03	1.16	0.32
Plots 5 and 10 (2028) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.24	3.06	1.99	0.02	1.01	0.28
Plots 5 and 10 (2028) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.21	3.78	1.96	0.02	0.85	0.24
Plots 5 and 10 (2028) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.08	0.80	0.63	0.01	0.35	0.10
Plots 5 and 10 (2028) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.08	0.69	0.58	0.01	0.33	0.09
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.62	5.58	9.57	0.01	0.26	0.24	0.11	1.71	0.99	0.01	0.46	0.13
Plots 5 and 10 (2028) Paving	3.67	34.39	44.95	0.09	3.96	1.63	0.23	2.83	1.91	0.02	0.91	0.25
Plots 5 and 10 (2028) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	10.53	79.36	113.88	0.35	12.96	3.84	0.43	6.61	3.81	0.04	1.88	0.53
Plots 7 8 21 22 (2029) Building-Concrete	2.75	25.82	41.60	0.06	2.30	1.13	0.29	4.82	2.69	0.03	1.16	0.32
Plots 7 8 21 22 (2029) Building-Wet Utilities	4.57	35.62	66.81	0.13	5.34	1.88	0.23	3.02	1.94	0.02	1.01	0.28
Plots 7 8 21 22 (2029) Building-Electrical	3.00	27.52	40.93	0.06	3.58	1.28	0.20	3.72	1.93	0.02	0.85	0.24
Plots 7 8 21 22 (2029) Building-Landscaping	2.29	19.14	32.45	0.05	1.45	0.83	0.08	0.79	0.60	0.01	0.35	0.10
Plots 7 8 21 22 (2029) Landscaping	2.43	20.17	34.78	0.05	1.51	0.88	0.07	0.68	0.56	0.01	0.33	0.09
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	4.05	0.00	0.00	0.00	0.00	0.00	0.05	0.02	0.31	0.00	0.19	0.05
Plots 7 8 21 22 (2029) Paving	8.10	0.00	0.00	0.00	0.00	0.00	0.12	0.06	0.78	0.00	0.48	0.13
Plots 7 8 21 22 (2029) Temporary Utilities	1.24	12.26	10.43	0.03	0.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	27.15	278.53	192.68	0.53	30.46	11.97	0.40	4.59	3.34	0.03	1.66	0.46
Plots 7 8 21 22 (2029) Finish Grading	0.77	7.09	7.84	0.01	1.71	0.48	0.12	1.48	1.04	0.01	0.51	0.14

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plots 5 and 10 (2027) Utilities	11.0	86.2	117.9	0.39	14.84	4.36
Plots 5 and 10 (2027) Building-Concrete	3.1	30.8	44.4	0.09	3.47	1.45
Plots 5 and 10 (2027) Building-Wet Utilities	4.8	38.7	68.9	0.15	6.36	2.17
Plots 5 and 10 (2027) Building-Electrical	3.2	31.4	42.9	0.08	4.44	1.52
Plots 5 and 10 (2027) Building-Landscaping	2.4	20.0	33.1	0.05	1.81	0.93
Plots 5 and 10 (2027) Landscaping	2.5	20.9	35.4	0.06	1.84	0.98
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.7	7.3	10.6	0.03	0.72	0.37
Plots 5 and 10 (2027) Paving	3.9	37.3	46.9	0.10	4.87	1.88
Plots 5 and 10 (2027) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 5 and 10 (2027) Mass Excavation	15.4	154.8	110.7	0.31	18.75	7.03
Plots 5 and 10 (2027) Finish Grading	1.0	8.8	9.8	0.02	2.23	0.64
Plots 5 and 10 (2028) Mass Excavation	42.4	434.6	301.5	0.85	49.54	19.05
Plots 5 and 10 (2028) Finish Grading	1.7	15.7	16.7	0.03	3.61	1.07
Plots 5 and 10 (2028) Utilities	11.0	86.1	117.8	0.39	14.84	4.36
Plots 5 and 10 (2028) Building-Concrete	3.0	30.7	44.3	0.09	3.47	1.45
Plots 5 and 10 (2028) Building-Wet Utilities	4.8	38.7	68.8	0.15	6.36	2.17
Plots 5 and 10 (2028) Building-Electrical	3.2	31.3	42.9	0.08	4.44	1.52
Plots 5 and 10 (2028) Building-Landscaping	2.4	19.9	33.1	0.05	1.81	0.93
Plots 5 and 10 (2028) Landscaping	2.5	20.9	35.4	0.06	1.84	0.97
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.7	7.3	10.6	0.03	0.72	0.37
Plots 5 and 10 (2028) Paving	3.9	37.2	46.9	0.10	4.87	1.88
Plots 5 and 10 (2028) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 7 8 21 22 (2029) Utilities	11.0	86.0	117.7	0.39	14.84	4.36
Plots 7 8 21 22 (2029) Building-Concrete	3.0	30.6	44.3	0.09	3.47	1.45
Plots 7 8 21 22 (2029) Building-Wet Utilities	4.8	38.6	68.7	0.15	6.36	2.17
Plots 7 8 21 22 (2029) Building-Electrical	3.2	31.2	42.9	0.08	4.44	1.52
Plots 7 8 21 22 (2029) Building-Landscaping	2.4	19.9	33.1	0.05	1.81	0.93
Plots 7 8 21 22 (2029) Landscaping	2.5	20.8	35.3	0.06	1.84	0.97
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	4.1	0.0	0.3	0.00	0.19	0.05
Plots 7 8 21 22 (2029) Paving	8.2	0.1	0.8	0.00	0.48	0.13
Plots 7 8 21 22 (2029) Temporary Utilities	1.2	12.3	10.4	0.03	0.50	0.46
Plots 7 8 21 22 (2029) Mass Excavation	27.6	283.1	196.0	0.56	32.12	12.42
Plots 7 8 21 22 (2029) Finish Grading	0.9	8.6	8.9	0.02	2.22	0.62

Overlapping Phases						
Plot 5 and 10-2027	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	27.68	235.15	353.08	0.84	33.47	11.78
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	31.59	272.42	399.99	0.95	38.34	13.66
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	32.83	284.68	410.42	0.98	38.84	14.12
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	28.93	247.41	363.51	0.87	33.97	12.24
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	28.19	240.10	352.93	0.85	33.25	11.87
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	43.55	394.86	463.59	1.16	52.00	18.91
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	44.50	403.70	473.38	1.18	54.23	19.54
Plot 5 and 10-2028						
Mass Excavation+Finish Grading	44.08	450.29	318.20	0.89	53.15	20.12
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	71.00	677.85	660.44	1.70	85.90	31.53
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	69.33	662.15	643.69	1.67	82.28	30.46
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	27.64	234.84	352.80	0.84	33.47	11.78
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	31.54	272.07	399.66	0.95	38.34	13.66
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	32.78	284.33	410.10	0.97	38.84	14.12
Plots 7,8,21,22-2029						
All Phases Except: Paving+Curbing	56.56	531.22	557.31	1.43	67.58	24.91
Daily Maximum[1]						
2027	44.50	403.70	473.38	1.18	54.23	19.54
2028	71.00	677.85	660.44	1.70	85.90	31.53
2029	56.56	531.22	557.31	1.43	67.58	24.91

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source	lb/day				lb/day			
Plots 5 and 10 (2027) Utilities	79.36	113.88	12.96	3.84	3.11	0.59	18.55	1.85
Plots 5 and 10 (2027) Building-Concrete	25.82	41.60	2.30	1.13	2.30	0.38	11.64	1.16
Plots 5 and 10 (2027) Building-Wet Utilities	35.62	66.81	5.34	1.88	1.41	0.30	10.08	1.01
Plots 5 and 10 (2027) Building-Electrical	27.52	40.93	3.58	1.28	1.77	0.29	8.38	0.84
Plots 5 and 10 (2027) Building-Landscaping	19.14	32.45	1.45	0.83	0.36	0.09	3.54	0.35
Plots 5 and 10 (2027) Landscaping	20.17	34.78	1.51	0.88	0.31	0.08	3.33	0.33
Plots 5 and 10 (2027) Curbing/Drive Approaches	5.58	9.57	0.26	0.24	0.80	0.14	4.54	0.45
Plots 5 and 10 (2027) Paving	34.39	44.95	3.96	1.63	1.31	0.26	9.20	0.92
Plots 5 and 10 (2027) Temporary Utilities	12.26	10.43	0.50	0.46	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	151.56	107.71	17.32	6.64	1.44	0.35	14.80	1.48
Plots 5 and 10 (2027) Finish Grading	7.51	8.77	1.73	0.50	0.60	0.13	5.04	0.50
Plots 5 and 10 (2028) Mass Excavation	428.86	297.60	47.72	18.55	2.64	0.51	18.36	1.83
Plots 5 and 10 (2028) Finish Grading	14.19	15.67	3.09	0.93	0.70	0.14	5.31	0.53
Plots 5 and 10 (2028) Utilities	79.36	113.88	12.96	3.84	3.09	0.58	18.55	1.85
Plots 5 and 10 (2028) Building-Concrete	25.82	41.60	2.30	1.13	2.29	0.37	11.64	1.16
Plots 5 and 10 (2028) Building-Wet Utilities	35.62	66.81	5.34	1.88	1.40	0.29	10.08	1.01
Plots 5 and 10 (2028) Building-Electrical	27.52	40.93	3.58	1.28	1.76	0.29	8.38	0.84
Plots 5 and 10 (2028) Building-Landscaping	19.14	32.45	1.45	0.83	0.36	0.09	3.54	0.35
Plots 5 and 10 (2028) Landscaping	20.17	34.78	1.51	0.88	0.31	0.08	3.33	0.33
Plots 5 and 10 (2028) Curbing/Drive Approaches	5.58	9.57	0.26	0.24	0.79	0.14	4.54	0.45
Plots 5 and 10 (2028) Paving	34.39	44.95	3.96	1.63	1.31	0.25	9.20	0.92
Plots 5 and 10 (2028) Temporary Utilities	12.26	10.43	0.50	0.46	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	79.36	113.88	12.96	3.84	3.08	0.57	18.55	1.85
Plots 7 8 21 22 (2029) Building-Concrete	25.82	41.60	2.30	1.13	2.27	0.37	11.64	1.16
Plots 7 8 21 22 (2029) Building-Wet Utilities	35.62	66.81	5.34	1.88	1.39	0.28	10.08	1.01
Plots 7 8 21 22 (2029) Building-Electrical	27.52	40.93	3.58	1.28	1.75	0.28	8.38	0.84
Plots 7 8 21 22 (2029) Building-Landscaping	19.14	32.45	1.45	0.83	0.36	0.09	3.54	0.35
Plots 7 8 21 22 (2029) Landscaping	20.17	34.78	1.51	0.88	0.30	0.08	3.33	0.33
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.00	0.00	0.00	0.00	0.79	0.14	4.54	0.45
Plots 7 8 21 22 (2029) Paving	0.00	0.00	0.00	0.00	1.30	0.25	9.20	0.92
Plots 7 8 21 22 (2029) Temporary Utilities	12.26	10.43	0.50	0.46	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	278.53	192.68	30.46	11.97	2.12	0.43	16.89	1.69
Plots 7 8 21 22 (2029) Finish Grading	7.09	7.84	1.71	0.48	0.69	0.13	5.16	0.52

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plots 5 and 10 (2027) Utilities	82.5	114.5	31.50	5.69
Plots 5 and 10 (2027) Building-Concrete	28.1	42.0	13.94	2.29
Plots 5 and 10 (2027) Building-Wet Utilities	37.0	67.1	15.43	2.89
Plots 5 and 10 (2027) Building-Electrical	29.3	41.2	11.97	2.11
Plots 5 and 10 (2027) Building-Landscaping	19.5	32.5	4.99	1.19
Plots 5 and 10 (2027) Landscaping	20.5	34.9	4.84	1.22
Plots 5 and 10 (2027) Curbing/Drive Approaches	6.4	9.7	4.80	0.70
Plots 5 and 10 (2027) Paving	35.7	45.2	13.16	2.55
Plots 5 and 10 (2027) Temporary Utilities	12.3	10.4	0.50	0.46
Plots 5 and 10 (2027) Mass Excavation	153.0	108.1	32.12	8.12
Plots 5 and 10 (2027) Finish Grading	8.1	8.9	6.77	1.00
Plots 5 and 10 (2028) Mass Excavation	431.5	298.1	66.08	20.38
Plots 5 and 10 (2028) Finish Grading	14.9	15.8	8.40	1.46
Plots 5 and 10 (2028) Utilities	82.5	114.5	31.50	5.69
Plots 5 and 10 (2028) Building-Concrete	28.1	42.0	13.94	2.29
Plots 5 and 10 (2028) Building-Wet Utilities	37.0	67.1	15.43	2.89
Plots 5 and 10 (2028) Building-Electrical	29.3	41.2	11.97	2.11
Plots 5 and 10 (2028) Building-Landscaping	19.5	32.5	4.99	1.19
Plots 5 and 10 (2028) Landscaping	20.5	34.9	4.84	1.22
Plots 5 and 10 (2028) Curbing/Drive Approaches	6.4	9.7	4.80	0.70
Plots 5 and 10 (2028) Paving	35.7	45.2	13.16	2.55
Plots 5 and 10 (2028) Temporary Utilities	12.3	10.4	0.50	0.46
Plots 7 8 21 22 (2029) Utilities	82.4	114.4	31.50	5.69
Plots 7 8 21 22 (2029) Building-Concrete	28.1	42.0	13.94	2.29
Plots 7 8 21 22 (2029) Building-Wet Utilities	37.0	67.1	15.43	2.89
Plots 7 8 21 22 (2029) Building-Electrical	29.3	41.2	11.97	2.11
Plots 7 8 21 22 (2029) Building-Landscaping	19.5	32.5	4.99	1.19
Plots 7 8 21 22 (2029) Landscaping	20.5	34.9	4.84	1.22
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.8	0.1	4.54	0.45
Plots 7 8 21 22 (2029) Paving	1.3	0.2	9.20	0.92
Plots 7 8 21 22 (2029) Temporary Utilities	12.3	10.4	0.50	0.46
Plots 7 8 21 22 (2029) Mass Excavation	280.7	193.1	47.35	13.65
Plots 7 8 21 22 (2029) Finish Grading	7.8	8.0	6.87	1.00

Overlapping Phases				
Plot 5 and 10-2027	**NOX**	**CO**	**Total PM10**	**Total PM2.5**
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	223.28	341.89	87.47	16.08
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	258.99	387.10	100.63	18.63
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	271.24	397.53	101.13	19.09
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	235.54	352.33	87.97	16.54
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	229.16	342.61	83.17	15.85
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	382.16	450.67	115.29	23.96
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	390.27	459.57	122.06	24.97
Plot 5 and 10-2028				
Mass Excavation+Finish Grading	446.39	313.91	74.48	21.84
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	663.23	646.06	157.15	37.22
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	648.34	630.25	148.75	35.77
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	223.21	341.86	87.47	16.08
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	258.91	387.06	100.63	18.63
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	271.17	397.50	101.13	19.09
Plots 7,8,21,22-2029				
All Phases Except: Paving+Curbing	517.48	543.63	137.39	30.50
Daily Maximum[1]				
2027	390.27	459.57	122.06	24.97
2028	663.23	646.06	157.15	37.22
2029	517.48	543.63	137.39	30.50

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Daily Unmitgated VOC Emissions (lb/day)	
2027	224
2028	224
2029	224

World Logistics Center-Construction Plots 5 and 10_7,8,21,22 (2027-2029)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	44.8476	403.4132	473.9515	1.1856	88.1316	15.3078	103.4393	10.7450	14.1115	24.8565	0.0000	116,297.3380	116,297.3380	32.2021	0.0000	117,102.3901
2028	70.8531	677.5498	660.9237	1.7067	141.8465	25.7780	167.6245	16.6133	23.7443	40.3575	0.0000	166,934.8331	166,934.8331	48.1752	0.0000	168,139.2135
2029	56.4192	530.9359	557.7690	1.4301	109.7120	20.0979	129.8098	13.1138	18.5184	31.6322	0.0000	140,078.7433	140,078.7433	39.7052	0.0000	141,071.3727
Maximum	**70.8531**	**677.5498**	**660.9237**	**1.7067**	**141.8465**	**25.7780**	**167.6245**	**16.6133**	**23.7443**	**40.3575**	**0.0000**	**166,934.8331**	**166,934.8331**	**48.1752**	**0.0000**	**168,139.2135**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	44.8476	403.4132	473.9515	1.1856	38.9205	15.3078	54.2283	5.4314	14.1115	19.5428	0.0000	116,297.3379	116,297.3379	32.2021	0.0000	117,102.3900
2028	70.8531	677.5498	660.9237	1.7067	60.1167	25.7780	85.8947	7.7883	23.7443	31.5326	0.0000	166,934.8330	166,934.8330	48.1752	0.0000	168,139.2134
2029	56.4192	530.9359	557.7690	1.4301	47.4788	20.0979	67.5766	6.3941	18.5184	24.9125	0.0000	140,078.7432	140,078.7432	39.7052	0.0000	141,071.3726
Maximum	**70.8531**	**677.5498**	**660.9237**	**1.7067**	**60.1167**	**25.7780**	**85.8947**	**7.7883**	**23.7443**	**31.5326**	**0.0000**	**166,934.8330**	**166,934.8330**	**48.1752**	**0.0000**	**168,139.2134**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.87**	**0.00**	**48.19**	**51.54**	**0.00**	**21.54**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plots 5 and 10 (2027) Utilities	Trenching	1/1/2027	12/30/2027	5	260	1177
2	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
3	Plots 5 and 10 (2027) Building-Wet Utilities	Building Construction	1/1/2027	12/30/2027	5	260	1174
4	Plots 5 and 10 (2027) Building-Electrical	Building Construction	1/1/2027	12/30/2027	5	260	1175
5	Plots 5 and 10 (2027) Building-Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1176
6	Plots 5 and 10 (2027) Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1178
7	Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving	5/1/2027	8/20/2027	5	80	1180
8	Plots 5 and 10 (2027) Paving	Paving	6/1/2027	7/26/2027	5	40	1181
9	Plots 5 and 10 (2027) Temporary Utilities	Building Construction	7/2/2027	12/30/2027	5	130	1179
10	Plots 5 and 10 (2027) Mass Excavation	Grading	9/16/2027	12/31/2027	5	77	1171
11	Plots 5 and 10 (2027) Finish Grading	Grading	11/6/2027	12/31/2027	5	40	1172
12	Plots 5 and 10 (2028) Mass Excavation	Grading	1/1/2028	4/18/2028	5	77	1182
13	Plots 5 and 10 (2028) Finish Grading	Grading	1/1/2028	2/25/2028	5	40	1183
14	Plots 5 and 10 (2028) Utilities	Trenching	1/1/2028	12/30/2028	5	260	1188
15	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
16	Plots 5 and 10 (2028) Building-Wet Utilities	Building Construction	1/1/2028	12/30/2028	5	260	1185

17	Plots 5 and 10 (2028) Building-Electrical	Building Construction	1/1/2028	12/30/2028	5	260	1186
18	Plots 5 and 10 (2028) Building-Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1187
19	Plots 5 and 10 (2028) Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1189
20	Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving	5/1/2028	8/20/2028	5	80	1191
21	Plots 5 and 10 (2028) Paving	Paving	6/1/2028	7/26/2028	5	40	1192
22	Plots 5 and 10 (2028) Temporary Utilities	Building Construction	7/2/2028	12/30/2028	5	130	1190
23	Plots 7 8 21 22 (2029) Utilities	Trenching	1/1/2029	12/30/2029	5	260	1199
24	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
25	Plots 7 8 21 22 (2029) Building-Wet Utilities	Building Construction	1/1/2029	12/30/2029	5	260	1196
26	Plots 7 8 21 22 (2029) Building-Electrical	Building Construction	1/1/2029	12/30/2029	5	260	1197
27	Plots 7 8 21 22 (2029) Building-Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1198
28	Plots 7 8 21 22 (2029) Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1200
29	Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving	5/1/2029	8/20/2029	5	80	1202
30	Plots 7 8 21 22 (2029) Paving	Paving	6/1/2029	7/26/2029	5	40	1203
31	Plots 7 8 21 22 (2029) Temporary Utilities	Building Construction	7/2/2029	12/30/2029	5	130	1201
32	Plots 7 8 21 22 (2029) Mass Excavation	Grading	9/14/2029	12/31/2029	5	77	1193
33	Plots 7 8 21 22 (2029) Finish Grading	Grading	11/6/2029	12/31/2029	5	40	1194

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2027) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2027) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2027) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2027) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2027) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2027) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2027) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2027) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2027) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2027) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2027) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2027) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2027) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2027) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2027) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2027) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2027) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	18	1.00	167	0.40

Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 5 and 10 (2027) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2027) Mass Excavation	Graders	1	10.00	193	0.41
Plots 5 and 10 (2027) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 5 and 10 (2027) Mass Excavation	Scrapers	0	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2028) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2028) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Building-Electrical	Forklifts	4	10.00	89	0.20

Plots 5 and 10 (2028) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2028) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2028) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2028) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2028) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2028) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2028) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 5 and 10 (2028) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2028) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2028) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2028) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2028) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2028) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2028) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2028) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2028) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2028) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Mass Excavation	Graders	2	10.00	193	0.41
Plots 5 and 10 (2028) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40

Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Scrapers	12	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 7 8 21 22 (2029) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 7 8 21 22 (2029) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 7 8 21 22 (2029) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 7 8 21 22 (2029) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 7 8 21 22 (2029) Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 7 8 21 22 (2029) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37

Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 7 8 21 22 (2029) Landscaping	Trenchers	2	10.00	39	0.50
Plots 7 8 21 22 (2029) Mass Excavation	Graders	1	10.00	193	0.41
Plots 7 8 21 22 (2029) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	3	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 7 8 21 22 (2029) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Paving	Pavers	2	10.00	126	0.42

Plots 7 8 21 22 (2029) Paving	Paving Equipment	2	10.00	131	0.36
Plots 7 8 21 22 (2029) Paving	Plate Compactors	2	10.00	8	0.43
Plots 7 8 21 22 (2029) Paving	Rollers	2	10.00	81	0.38
Plots 7 8 21 22 (2029) Paving	Scrapers	2	10.00	362	0.48
Plots 7 8 21 22 (2029) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 7 8 21 22 (2029) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 7 8 21 22 (2029) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	523	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	10	10.00	286	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	4	10.00	396	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	188	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Utilities	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Finish Grading		15.00	4.00	208.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Mass Excavation		50.00	7.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plots 5 and 10 (2028) Finish Grading		15.00	4.00	260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Finish Grading		15.00	2.00	312.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plots 5 and 10 (2027) Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1297	3.8630	1.4508	0.0207	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,258.1647	2,258.1647	0.1416		2,261.7041
Vendor	0.1076	2.7516	1.0131	0.0182	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,949.0024	1,949.0024	0.0765		1,950.9156
Worker	0.1878	0.1041	1.6095	6.0300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		601.3827	601.3827	0.0113		601.6661
Total	**0.4251**	**6.7187**	**4.0734**	**0.0450**	**1.8639**	**0.0185**	**1.8824**	**0.5118**	**0.0176**	**0.5294**		**4,808.5498**	**4,808.5498**	**0.2294**		**4,814.2858**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1297	3.8630	1.4508	0.0207	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,258.1647	2,258.1647	0.1416		2,261.7041
Vendor	0.1076	2.7516	1.0131	0.0182	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,949.0024	1,949.0024	0.0765		1,950.9156
Worker	0.1878	0.1041	1.6095	6.0300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		601.3827	601.3827	0.0113		601.6661
Total	**0.4251**	**6.7187**	**4.0734**	**0.0450**	**1.8639**	**0.0185**	**1.8824**	**0.5118**	**0.0176**	**0.5294**		**4,808.5498**	**4,808.5498**	**0.2294**		**4,814.2858**

3.3 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

3.4 Plots 5 and 10 (2027) Building-Wet Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.3520	0.5078	7.2500e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		790.3577	790.3577	0.0496		791.5964
Vendor	0.0645	1.6510	0.6079	0.0109	0.3468	3.6600e-003	0.3505	0.0997	3.4900e-003	0.1032		1,169.4014	1,169.4014	0.0459		1,170.5494
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2273**	**3.0681**	**2.1216**	**0.0219**	**1.0059**	**9.2600e-003**	**1.0151**	**0.2761**	**8.7400e-003**	**0.2849**		**2,335.6233**	**2,335.6233**	**0.1026**		**2,338.1871**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.3520	0.5078	7.2500e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		790.3577	790.3577	0.0496		791.5964
Vendor	0.0645	1.6510	0.6079	0.0109	0.3468	3.6600e-003	0.3505	0.0997	3.4900e-003	0.1032		1,169.4014	1,169.4014	0.0459		1,170.5494
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2273**	**3.0681**	**2.1216**	**0.0219**	**1.0059**	**9.2600e-003**	**1.0151**	**0.2761**	**8.7400e-003**	**0.2849**		**2,335.6233**	**2,335.6233**	**0.1026**		**2,338.1871**

3.5 Plots 5 and 10 (2027) Building-Electrical - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1037	3.0904	1.1606	0.0166	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,806.5318	1,806.5318	0.1133		1,809.3633
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.2000**	**3.7898**	**2.0073**	**0.0232**	**0.8444**	**9.5000e-003**	**0.8539**	**0.2307**	**9.0200e-003**	**0.2398**		**2,499.8109**	**2,499.8109**	**0.1359**		**2,503.2078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1037	3.0904	1.1606	0.0166	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,806.5318	1,806.5318	0.1133		1,809.3633
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.2000**	**3.7898**	**2.0073**	**0.0232**	**0.8444**	**9.5000e-003**	**0.8539**	**0.2307**	**9.0200e-003**	**0.2398**		**2,499.8109**	**2,499.8109**	**0.1359**		**2,503.2078**

3.6 Plots 5 and 10 (2027) Building-Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0771**	**0.7965**	**0.6861**	**6.6100e-003**	**0.3519**	**2.8400e-003**	**0.3547**	**0.0969**	**2.6700e-003**	**0.0996**		**696.0663**	**696.0663**	**0.0243**		**696.6729**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0771**	**0.7965**	**0.6861**	**6.6100e-003**	**0.3519**	**2.8400e-003**	**0.3547**	**0.0969**	**2.6700e-003**	**0.0996**		**696.0663**	**696.0663**	**0.0243**		**696.6729**

3.7 Plots 5 and 10 (2027) Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0728**	**0.6864**	**0.6455**	**5.8800e-003**	**0.3288**	**2.5900e-003**	**0.3313**	**0.0903**	**2.4400e-003**	**0.0927**		**618.1062**	**618.1062**	**0.0212**		**618.6363**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0728**	**0.6864**	**0.6455**	**5.8800e-003**	**0.3288**	**2.5900e-003**	**0.3313**	**0.0903**	**2.4400e-003**	**0.0927**		**618.1062**	**618.1062**	**0.0212**		**618.6363**

3.8 Plots 5 and 10 (2027) Curbing/Drive Approaches - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0420	1.2515	0.4700	6.7100e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		731.5588	731.5588	0.0459		732.7054
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.1062**	**1.7178**	**1.0345**	**0.0111**	**0.4528**	**4.6700e-003**	**0.4575**	**0.1237**	**4.4300e-003**	**0.1281**		**1,193.7448**	**1,193.7448**	**0.0609**		**1,195.2684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0420	1.2515	0.4700	6.7100e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		731.5588	731.5588	0.0459		732.7054
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.1062**	**1.7178**	**1.0345**	**0.0111**	**0.4528**	**4.6700e-003**	**0.4575**	**0.1237**	**4.4300e-003**	**0.1281**		**1,193.7448**	**1,193.7448**	**0.0609**		**1,195.2684**

3.9 Plots 5 and 10 (2027) Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.1179	0.7954	0.0114	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,238.0226	1,238.0226	0.0776		1,239.9630
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2143**	**2.8433**	**2.0445**	**0.0195**	**0.9020**	**8.6300e-003**	**0.9107**	**0.2449**	**8.1600e-003**	**0.2530**		**2,081.6473**	**2,081.6473**	**0.1031**		**2,084.2241**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.1179	0.7954	0.0114	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,238.0226	1,238.0226	0.0776		1,239.9630
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2143**	**2.8433**	**2.0445**	**0.0195**	**0.9020**	**8.6300e-003**	**0.9107**	**0.2449**	**8.1600e-003**	**0.2530**		**2,081.6473**	**2,081.6473**	**0.1031**		**2,084.2241**

3.10 Plots 5 and 10 (2027) Temporary Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 Plots 5 and 10 (2027) Mass Excavation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					29.3497	0.0000	29.3497	3.1691	0.0000	3.1691			0.0000			0.0000
Off-Road	14.9790	151.5608	107.7134	0.2902		5.8748	5.8748		5.4048	5.4048		28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**14.9790**	**151.5608**	**107.7134**	**0.2902**	**29.3497**	**5.8748**	**35.2245**	**3.1691**	**5.4048**	**8.5739**		**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0759	2.2608	0.8491	0.0121	0.3077	4.6400e-003	0.3123	0.0843	4.4400e-003	0.0888		1,321.5806	1,321.5806	0.0829		1,323.6520
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.2348	0.1302	2.0119	7.5300e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		751.7284	751.7284	0.0142		752.0826
Total	**0.3408**	**3.1614**	**3.1446**	**0.0248**	**1.4197**	**0.0120**	**1.4317**	**0.3828**	**0.0113**	**0.3941**		**2,619.0296**	**2,619.0296**	**0.1185**		**2,621.9910**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.4464	0.0000	11.4464	1.2359	0.0000	1.2359			0.0000			0.0000
Off-Road	14.9790	151.5608	107.7134	0.2902		5.8748	5.8748		5.4048	5.4048	0.0000	28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**14.9790**	**151.5608**	**107.7134**	**0.2902**	**11.4464**	**5.8748**	**17.3212**	**1.2359**	**5.4048**	**6.6407**	**0.0000**	**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0759	2.2608	0.8491	0.0121	0.3077	4.6400e-003	0.3123	0.0843	4.4400e-003	0.0888		1,321.5806	1,321.5806	0.0829		1,323.6520
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.2348	0.1302	2.0119	7.5300e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		751.7284	751.7284	0.0142		752.0826
Total	**0.3408**	**3.1614**	**3.1446**	**0.0248**	**1.4197**	**0.0120**	**1.4317**	**0.3828**	**0.0113**	**0.3941**		**2,619.0296**	**2,619.0296**	**0.1185**		**2,621.9910**

3.12 Plots 5 and 10 (2027) Finish Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.8253	7.5056	8.7682	0.0123		0.3864	0.3864		0.3555	0.3555		1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.8253**	**7.5056**	**8.7682**	**0.0123**	**3.4466**	**0.3864**	**3.8330**	**0.3722**	**0.3555**	**0.7276**		**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0280	0.8343	0.3133	4.4800e-003	0.1136	1.7100e-003	0.1153	0.0311	1.6400e-003	0.0328		487.7059	487.7059	0.0306		488.4703
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.1156**	**1.3136**	**1.0790**	**9.6500e-003**	**0.4911**	**4.3800e-003**	**0.4955**	**0.1333**	**4.1300e-003**	**0.1374**		**1,025.0648**	**1,025.0648**	**0.0471**		**1,026.2416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.8253	7.5056	8.7682	0.0123		0.3864	0.3864		0.3555	0.3555	0.0000	1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.8253**	**7.5056**	**8.7682**	**0.0123**	**1.3442**	**0.3864**	**1.7306**	**0.1451**	**0.3555**	**0.5006**	**0.0000**	**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0280	0.8343	0.3133	4.4800e-003	0.1136	1.7100e-003	0.1153	0.0311	1.6400e-003	0.0328		487.7059	487.7059	0.0306		488.4703
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.1156**	**1.3136**	**1.0790**	**9.6500e-003**	**0.4911**	**4.3800e-003**	**0.4955**	**0.1333**	**4.1300e-003**	**0.1374**		**1,025.0648**	**1,025.0648**	**0.0471**		**1,026.2416**

3.13 Plots 5 and 10 (2028) Mass Excavation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	41.9625	428.8563	297.5955	0.8157		16.4979	16.4979		15.1781	15.1781		78,973.7145	78,973.7145	25.5417		79,612.2569
Total	**41.9625**	**428.8563**	**297.5955**	**0.8157**	**80.0609**	**16.4979**	**96.5588**	**8.6447**	**15.1781**	**23.8228**		**78,973.7145**	**78,973.7145**	**25.5417**		**79,612.2569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1509	4.4601	1.7067	0.0241	0.6154	9.1500e-003	0.6246	0.1686	8.7600e-003	0.1774		2,632.5490	2,632.5490	0.1649		2,636.6723
Vendor	0.0425	1.0880	0.4018	7.2600e-003	0.2312	2.4100e-003	0.2336	0.0665	2.3100e-003	0.0688		776.9813	776.9813	0.0304		777.7417
Worker	0.2232	0.1204	1.8970	7.3100e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		729.6285	729.6285	0.0131		729.9555
Total	**0.4167**	**5.6685**	**4.0055**	**0.0387**	**1.7967**	**0.0168**	**1.8135**	**0.4871**	**0.0159**	**0.5030**		**4,139.1588**	**4,139.1588**	**0.2084**		**4,144.3695**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	41.9625	428.8563	297.5955	0.8157		16.4979	16.4979		15.1781	15.1781	0.0000	78,973.7144	78,973.7144	25.5417		79,612.2569
Total	**41.9625**	**428.8563**	**297.5955**	**0.8157**	**31.2238**	**16.4979**	**47.7217**	**3.3714**	**15.1781**	**18.5495**	**0.0000**	**78,973.7144**	**78,973.7144**	**25.5417**		**79,612.2569**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1509	4.4601	1.7067	0.0241	0.6154	9.1500e-003	0.6246	0.1686	8.7600e-003	0.1774		2,632.5490	2,632.5490	0.1649		2,636.6723
Vendor	0.0425	1.0880	0.4018	7.2600e-003	0.2312	2.4100e-003	0.2336	0.0665	2.3100e-003	0.0688		776.9813	776.9813	0.0304		777.7417
Worker	0.2232	0.1204	1.8970	7.3100e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		729.6285	729.6285	0.0131		729.9555
Total	**0.4167**	**5.6685**	**4.0055**	**0.0387**	**1.7967**	**0.0168**	**1.8135**	**0.4871**	**0.0159**	**0.5030**		**4,139.1588**	**4,139.1588**	**0.2084**		**4,144.3695**

3.14 Plots 5 and 10 (2028) Finish Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.5392	14.1889	15.6703	0.0218		0.7302	0.7302		0.6718	0.6718		2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**1.5392**	**14.1889**	**15.6703**	**0.0218**	**6.0449**	**0.7302**	**6.7750**	**0.6527**	**0.6718**	**1.3245**		**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0348	1.0287	0.3936	5.5700e-003	0.1419	2.1100e-003	0.1441	0.0389	2.0200e-003	0.0409		607.1847	607.1847	0.0380		608.1357
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1188**	**1.5000**	**1.1235**	**0.0107**	**0.5195**	**4.6500e-003**	**0.5241**	**0.1411**	**4.3900e-003**	**0.1455**		**1,136.8658**	**1,136.8658**	**0.0541**		**1,138.2190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	1.5392	14.1889	15.6703	0.0218		0.7302	0.7302		0.6718	0.6718	0.0000	2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**1.5392**	**14.1889**	**15.6703**	**0.0218**	**2.3575**	**0.7302**	**3.0877**	**0.2546**	**0.6718**	**0.9263**	**0.0000**	**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0348	1.0287	0.3936	5.5700e-003	0.1419	2.1100e-003	0.1441	0.0389	2.0200e-003	0.0409		607.1847	607.1847	0.0380		608.1357
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1188**	**1.5000**	**1.1235**	**0.0107**	**0.5195**	**4.6500e-003**	**0.5241**	**0.1411**	**4.3900e-003**	**0.1455**		**1,136.8658**	**1,136.8658**	**0.0541**		**1,138.2190**

3.15 Plots 5 and 10 (2028) Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1289	3.8104	1.4581	0.0206	0.5258	7.8200e-003	0.5336	0.1441	7.4800e-003	0.1516		2,249.0983	2,249.0983	0.1409		2,252.6210
Vendor	0.1062	2.7199	1.0045	0.0181	0.5780	6.0400e-003	0.5840	0.1662	5.7700e-003	0.1720		1,942.4532	1,942.4532	0.0760		1,944.3542
Worker	0.1786	0.0964	1.5176	5.8500e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		583.7028	583.7028	0.0105		583.9644
Total	**0.4138**	**6.6267**	**3.9802**	**0.0446**	**1.8639**	**0.0181**	**1.8819**	**0.5118**	**0.0171**	**0.5290**		**4,775.2543**	**4,775.2543**	**0.2274**		**4,780.9396**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1289	3.8104	1.4581	0.0206	0.5258	7.8200e-003	0.5336	0.1441	7.4800e-003	0.1516		2,249.0983	2,249.0983	0.1409		2,252.6210
Vendor	0.1062	2.7199	1.0045	0.0181	0.5780	6.0400e-003	0.5840	0.1662	5.7700e-003	0.1720		1,942.4532	1,942.4532	0.0760		1,944.3542
Worker	0.1786	0.0964	1.5176	5.8500e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		583.7028	583.7028	0.0105		583.9644
Total	**0.4138**	**6.6267**	**3.9802**	**0.0446**	**1.8639**	**0.0181**	**1.8819**	**0.5118**	**0.0171**	**0.5290**		**4,775.2543**	**4,775.2543**	**0.2274**		**4,780.9396**

3.16 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

3.17 Plots 5 and 10 (2028) Building-Wet Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0451	1.3337	0.5103	7.2200e-003	0.1840	2.7400e-003	0.1868	0.0504	2.6200e-003	0.0530		787.1844	787.1844	0.0493		788.4173
Vendor	0.0637	1.6319	0.6027	0.0109	0.3468	3.6200e-003	0.3504	0.0997	3.4600e-003	0.1032		1,165.4719	1,165.4719	0.0456		1,166.6125
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2205**	**3.0258**	**2.0616**	**0.0218**	**1.0059**	**8.9800e-003**	**1.0149**	**0.2761**	**8.4900e-003**	**0.2846**		**2,317.4706**	**2,317.4706**	**0.1015**		**2,320.0076**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0451	1.3337	0.5103	7.2200e-003	0.1840	2.7400e-003	0.1868	0.0504	2.6200e-003	0.0530		787.1844	787.1844	0.0493		788.4173
Vendor	0.0637	1.6319	0.6027	0.0109	0.3468	3.6200e-003	0.3504	0.0997	3.4600e-003	0.1032		1,165.4719	1,165.4719	0.0456		1,166.6125
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2205**	**3.0258**	**2.0616**	**0.0218**	**1.0059**	**8.9800e-003**	**1.0149**	**0.2761**	**8.4900e-003**	**0.2846**		**2,317.4706**	**2,317.4706**	**0.1015**		**2,320.0076**

3.18 Plots 5 and 10 (2028) Building-Electrical - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.1032	3.0484	1.1665	0.0165	0.4206	6.2600e-003	0.4269	0.1153	5.9800e-003	0.1212		1,799.2787	1,799.2787	0.1127		1,802.0968
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1956**	**3.7373**	**1.9767**	**0.0230**	**0.8444**	**9.2800e-003**	**0.8537**	**0.2307**	**8.8200e-003**	**0.2396**		**2,484.3560**	**2,484.3560**	**0.1349**		**2,487.7285**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1032	3.0484	1.1665	0.0165	0.4206	6.2600e-003	0.4269	0.1153	5.9800e-003	0.1212		1,799.2787	1,799.2787	0.1127		1,802.0968
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1956**	**3.7373**	**1.9767**	**0.0230**	**0.8444**	**9.2800e-003**	**0.8537**	**0.2307**	**8.8200e-003**	**0.2396**		**2,484.3560**	**2,484.3560**	**0.1349**		**2,487.7285**

3.19 Plots 5 and 10 (2028) Building-Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0297	0.7616	0.2813	5.0800e-003	0.1618	1.6900e-003	0.1635	0.0465	1.6200e-003	0.0482		543.8869	543.8869	0.0213		544.4192
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0744**	**0.7857**	**0.6607**	**6.5400e-003**	**0.3519**	**2.7400e-003**	**0.3546**	**0.0969**	**2.5800e-003**	**0.0995**		**689.8126**	**689.8126**	**0.0239**		**690.4103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0297	0.7616	0.2813	5.0800e-003	0.1618	1.6900e-003	0.1635	0.0465	1.6200e-003	0.0482		543.8869	543.8869	0.0213		544.4192
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0744**	**0.7857**	**0.6607**	**6.5400e-003**	**0.3519**	**2.7400e-003**	**0.3546**	**0.0969**	**2.5800e-003**	**0.0995**		**689.8126**	**689.8126**	**0.0239**		**690.4103**

3.20 Plots 5 and 10 (2028) Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0701**	**0.6769**	**0.6205**	**5.8100e-003**	**0.3288**	**2.5000e-003**	**0.3312**	**0.0903**	**2.3500e-003**	**0.0926**		**612.1145**	**612.1145**	**0.0209**		**612.6361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0701**	**0.6769**	**0.6205**	**5.8100e-003**	**0.3288**	**2.5000e-003**	**0.3312**	**0.0903**	**2.3500e-003**	**0.0926**		**612.1145**	**612.1145**	**0.0209**		**612.6361**

3.21 Plots 5 and 10 (2028) Curbing/Drive Approaches - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.2344	0.4724	6.6800e-003	0.1703	2.5300e-003	0.1729	0.0467	2.4200e-003	0.0491		728.6216	728.6216	0.0457		729.7628
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.1034**	**1.6937**	**1.0125**	**0.0110**	**0.4528**	**4.5500e-003**	**0.4574**	**0.1237**	**4.3000e-003**	**0.1280**		**1,185.3398**	**1,185.3398**	**0.0604**		**1,186.8506**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.2344	0.4724	6.6800e-003	0.1703	2.5300e-003	0.1729	0.0467	2.4200e-003	0.0491		728.6216	728.6216	0.0457		729.7628
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.1034**	**1.6937**	**1.0125**	**0.0110**	**0.4528**	**4.5500e-003**	**0.4574**	**0.1237**	**4.3000e-003**	**0.1280**		**1,185.3398**	**1,185.3398**	**0.0604**		**1,186.8506**

3.22 Plots 5 and 10 (2028) Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0707	2.0891	0.7994	0.0113	0.2883	4.2900e-003	0.2925	0.0790	4.1000e-003	0.0831		1,233.0520	1,233.0520	0.0773		1,234.9833
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2078**	**2.8020**	**1.9890**	**0.0193**	**0.9020**	**8.3600e-003**	**0.9104**	**0.2449**	**7.9000e-003**	**0.2528**		**2,064.0550**	**2,064.0550**	**0.1020**		**2,066.6060**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0707	2.0891	0.7994	0.0113	0.2883	4.2900e-003	0.2925	0.0790	4.1000e-003	0.0831		1,233.0520	1,233.0520	0.0773		1,234.9833
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2078**	**2.8020**	**1.9890**	**0.0193**	**0.9020**	**8.3600e-003**	**0.9104**	**0.2449**	**7.9000e-003**	**0.2528**		**2,064.0550**	**2,064.0550**	**0.1020**		**2,066.6060**

3.23 Plots 5 and 10 (2028) Temporary Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.24 Plots 7 8 21 22 (2029) Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1281	3.7568	1.4630	0.0205	0.5258	7.7000e-003	0.5335	0.1441	7.3600e-003	0.1514		2,240.6175	2,240.6175	0.1403		2,244.1245
Vendor	0.1049	2.6881	0.9961	0.0181	0.5780	5.9700e-003	0.5840	0.1662	5.7100e-003	0.1719		1,936.4292	1,936.4292	0.0756		1,938.3191
Worker	0.1682	0.0888	1.4272	5.6900e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		568.0444	568.0444	9.6100e-003		568.2847
Total	**0.4012**	**6.5338**	**3.8862**	**0.0443**	**1.8639**	**0.0176**	**1.8814**	**0.5119**	**0.0167**	**0.5285**		**4,745.0911**	**4,745.0911**	**0.2255**		**4,750.7283**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1281	3.7568	1.4630	0.0205	0.5258	7.7000e-003	0.5335	0.1441	7.3600e-003	0.1514		2,240.6175	2,240.6175	0.1403		2,244.1245
Vendor	0.1049	2.6881	0.9961	0.0181	0.5780	5.9700e-003	0.5840	0.1662	5.7100e-003	0.1719		1,936.4292	1,936.4292	0.0756		1,938.3191
Worker	0.1682	0.0888	1.4272	5.6900e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		568.0444	568.0444	9.6100e-003		568.2847
Total	**0.4012**	**6.5338**	**3.8862**	**0.0443**	**1.8639**	**0.0176**	**1.8814**	**0.5119**	**0.0167**	**0.5285**		**4,745.0911**	**4,745.0911**	**0.2255**		**4,750.7283**

3.25 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

3.26 Plots 7 8 21 22 (2029) Building-Wet Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0448	1.3149	0.5120	7.1900e-003	0.1840	2.6900e-003	0.1867	0.0504	2.5800e-003	0.0530		784.2161	784.2161	0.0491		785.4436
Vendor	0.0630	1.6129	0.5977	0.0109	0.3468	3.5800e-003	0.3504	0.0997	3.4200e-003	0.1032		1,161.8575	1,161.8575	0.0454		1,162.9915
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2129**	**2.9833**	**2.0017**	**0.0216**	**1.0059**	**8.7000e-003**	**1.0146**	**0.2761**	**8.2400e-003**	**0.2844**		**2,301.1014**	**2,301.1014**	**0.1005**		**2,303.6130**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0448	1.3149	0.5120	7.1900e-003	0.1840	2.6900e-003	0.1867	0.0504	2.5800e-003	0.0530		784.2161	784.2161	0.0491		785.4436
Vendor	0.0630	1.6129	0.5977	0.0109	0.3468	3.5800e-003	0.3504	0.0997	3.4200e-003	0.1032		1,161.8575	1,161.8575	0.0454		1,162.9915
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2129**	**2.9833**	**2.0017**	**0.0216**	**1.0059**	**8.7000e-003**	**1.0146**	**0.2761**	**8.2400e-003**	**0.2844**		**2,301.1014**	**2,301.1014**	**0.1005**		**2,303.6130**

3.27 Plots 7 8 21 22 (2029) Building-Electrical - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1025	3.0055	1.1704	0.0164	0.4206	6.1600e-003	0.4268	0.1153	5.8900e-003	0.1212		1,792.4940	1,792.4940	0.1122		1,795.2996
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1907**	**3.6839**	**1.9446**	**0.0229**	**0.8444**	**9.0500e-003**	**0.8534**	**0.2307**	**8.6000e-003**	**0.2393**		**2,470.2537**	**2,470.2537**	**0.1340**		**2,473.6030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1025	3.0055	1.1704	0.0164	0.4206	6.1600e-003	0.4268	0.1153	5.8900e-003	0.1212		1,792.4940	1,792.4940	0.1122		1,795.2996
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1907**	**3.6839**	**1.9446**	**0.0229**	**0.8444**	**9.0500e-003**	**0.8534**	**0.2307**	**8.6000e-003**	**0.2393**		**2,470.2537**	**2,470.2537**	**0.1340**		**2,473.6030**

3.28 Plots 7 8 21 22 (2029) Building-Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0294	0.7527	0.2789	5.0600e-003	0.1618	1.6700e-003	0.1635	0.0465	1.6000e-003	0.0481		542.2002	542.2002	0.0212		542.7294
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0714**	**0.7749**	**0.6357**	**6.4800e-003**	**0.3519**	**2.6400e-003**	**0.3545**	**0.0969**	**2.5000e-003**	**0.0994**		**684.2113**	**684.2113**	**0.0236**		**684.8005**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0294	0.7527	0.2789	5.0600e-003	0.1618	1.6700e-003	0.1635	0.0465	1.6000e-003	0.0481		542.2002	542.2002	0.0212		542.7294
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0714**	**0.7749**	**0.6357**	**6.4800e-003**	**0.3519**	**2.6400e-003**	**0.3545**	**0.0969**	**2.5000e-003**	**0.0994**		**684.2113**	**684.2113**	**0.0236**		**684.8005**

3.29 Plots 7 8 21 22 (2029) Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0672**	**0.6673**	**0.5959**	**5.7600e-003**	**0.3288**	**2.4000e-003**	**0.3312**	**0.0903**	**2.2700e-003**	**0.0925**		**606.7541**	**606.7541**	**0.0205**		**607.2678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0672**	**0.6673**	**0.5959**	**5.7600e-003**	**0.3288**	**2.4000e-003**	**0.3312**	**0.0903**	**2.2700e-003**	**0.0925**		**606.7541**	**606.7541**	**0.0205**		**607.2678**

3.30 Plots 7 8 21 22 (2029) Curbing/Drive Approaches - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	0.0168	0.4301	0.1594	2.8900e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		309.8287	309.8287	0.0121		310.1311
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.1003**	**1.6694**	**0.9901**	**0.0110**	**0.4528**	**4.4100e-003**	**0.4573**	**0.1237**	**4.2000e-003**	**0.1279**		**1,177.7139**	**1,177.7139**	**0.0600**		**1,179.2125**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	0.0168	0.4301	0.1594	2.8900e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		309.8287	309.8287	0.0121		310.1311
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.1003**	**1.6694**	**0.9901**	**0.0110**	**0.4528**	**4.4100e-003**	**0.4573**	**0.1237**	**4.2000e-003**	**0.1279**		**1,177.7139**	**1,177.7139**	**0.0600**		**1,179.2125**

3.31 Plots 7 8 21 22 (2029) Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0597	0.8021	0.0113	0.2883	4.2200e-003	0.2925	0.0790	4.0400e-003	0.0830		1,228.4024	1,228.4024	0.0769		1,230.3251
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2005**	**2.7603**	**1.9331**	**0.0192**	**0.9020**	**8.0800e-003**	**0.9101**	**0.2449**	**7.6500e-003**	**0.2525**		**2,048.1732**	**2,048.1732**	**0.1011**		**2,050.6997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0597	0.8021	0.0113	0.2883	4.2200e-003	0.2925	0.0790	4.0400e-003	0.0830		1,228.4024	1,228.4024	0.0769		1,230.3251
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2005**	**2.7603**	**1.9331**	**0.0192**	**0.9020**	**8.0800e-003**	**0.9101**	**0.2449**	**7.6500e-003**	**0.2525**		**2,048.1732**	**2,048.1732**	**0.1011**		**2,050.6997**

3.32 Plots 7 8 21 22 (2029) Temporary Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.33 Plots 7 8 21 22 (2029) Mass Excavation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					50.6974	0.0000	50.6974	5.4741	0.0000	5.4741			0.0000			0.0000
Off-Road	27.1506	278.5289	192.6814	0.5298		10.6871	10.6871		9.8321	9.8321		51,293.7983	51,293.7983	16.5895		51,708.5346
Total	**27.1506**	**278.5289**	**192.6814**	**0.5298**	**50.6974**	**10.6871**	**61.3845**	**5.4741**	**9.8321**	**15.3062**		**51,293.7983**	**51,293.7983**	**16.5895**		**51,708.5346**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1178	3.4551	1.3454	0.0189	0.4835	7.0800e-003	0.4906	0.1325	6.7700e-003	0.1393		2,060.6318	2,060.6318	0.1290		2,063.8571
Vendor	0.0378	0.9677	0.3586	6.5100e-003	0.2081	2.1500e-003	0.2102	0.0598	2.0500e-003	0.0619		697.1145	697.1145	0.0272		697.7949
Worker	0.2102	0.1110	1.7840	7.1200e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		710.0555	710.0555	0.0120		710.3559
Total	**0.3658**	**4.5338**	**3.4880**	**0.0325**	**1.6418**	**0.0141**	**1.6559**	**0.4443**	**0.0133**	**0.4576**		**3,467.8018**	**3,467.8018**	**0.1682**		**3,472.0078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.7720	0.0000	19.7720	2.1349	0.0000	2.1349			0.0000			0.0000
Off-Road	27.1506	278.5289	192.6814	0.5298		10.6871	10.6871		9.8321	9.8321	0.0000	51,293.7982	51,293.7982	16.5895		51,708.5345
Total	**27.1506**	**278.5289**	**192.6814**	**0.5298**	**19.7720**	**10.6871**	**30.4591**	**2.1349**	**9.8321**	**11.9670**	**0.0000**	**51,293.7982**	**51,293.7982**	**16.5895**		**51,708.5345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1178	3.4551	1.3454	0.0189	0.4835	7.0800e-003	0.4906	0.1325	6.7700e-003	0.1393		2,060.6318	2,060.6318	0.1290		2,063.8571
Vendor	0.0378	0.9677	0.3586	6.5100e-003	0.2081	2.1500e-003	0.2102	0.0598	2.0500e-003	0.0619		697.1145	697.1145	0.0272		697.7949
Worker	0.2102	0.1110	1.7840	7.1200e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		710.0555	710.0555	0.0120		710.3559
Total	**0.3658**	**4.5338**	**3.4880**	**0.0325**	**1.6418**	**0.0141**	**1.6559**	**0.4443**	**0.0133**	**0.4576**		**3,467.8018**	**3,467.8018**	**0.1682**		**3,472.0078**

3.34 Plots 7 8 21 22 (2029) Finish Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1130**	**1.4654**	**1.0888**	**0.0102**	**0.5016**	**4.4300e-003**	**0.5060**	**0.1356**	**4.1900e-003**	**0.1397**		**1,093.8052**	**1,093.8052**	**0.0551**		**1,095.1826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**1.3442**	**0.3651**	**1.7093**	**0.1451**	**0.3359**	**0.4810**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1130**	**1.4654**	**1.0888**	**0.0102**	**0.5016**	**4.4300e-003**	**0.5060**	**0.1356**	**4.1900e-003**	**0.1397**		**1,093.8052**	**1,093.8052**	**0.0551**		**1,095.1826**

World Logistics Center-Construction Plots 5 and 10_7,8,21,22 (2027-2029)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	44.9725	403.7003	473.3815	1.1819	88.1316	15.3084	103.4400	10.7450	14.1121	24.8571	0.0000	115,919.3416	115,919.3416	32.2185	0.0000	116,724.8056
2028	70.9954	677.8522	660.4362	1.7029	141.8465	25.7787	167.6251	16.6133	23.7449	40.3581	0.0000	166,540.4162	166,540.4162	48.1938	0.0000	167,745.2609
2029	56.5552	531.2170	557.3068	1.4265	109.7120	20.0984	129.8104	13.1138	18.5190	31.6328	0.0000	139,699.0711	139,699.0711	39.7225	0.0000	140,692.1329
Maximum	**70.9954**	**677.8522**	**660.4362**	**1.7029**	**141.8465**	**25.7787**	**167.6251**	**16.6133**	**23.7449**	**40.3581**	**0.0000**	**166,540.4162**	**166,540.4162**	**48.1938**	**0.0000**	**167,745.2609**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	44.9725	403.7003	473.3815	1.1819	38.9205	15.3084	54.2289	5.4314	14.1121	19.5435	0.0000	115,919.3415	115,919.3415	32.2185	0.0000	116,724.8055
2028	70.9954	677.8522	660.4362	1.7029	60.1167	25.7787	85.8953	7.7883	23.7449	31.5332	0.0000	166,540.4161	166,540.4161	48.1938	0.0000	167,745.2608
2029	56.5552	531.2170	557.3068	1.4265	47.4788	20.0984	67.5772	6.3941	18.5190	24.9130	0.0000	139,699.0710	139,699.0710	39.7225	0.0000	140,692.1328
Maximum	**70.9954**	**677.8522**	**660.4362**	**1.7029**	**60.1167**	**25.7787**	**85.8953**	**7.7883**	**23.7449**	**31.5332**	**0.0000**	**166,540.4161**	**166,540.4161**	**48.1938**	**0.0000**	**167,745.2608**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.87**	**0.00**	**48.19**	**51.54**	**0.00**	**21.54**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plots 5 and 10 (2027) Utilities	Trenching	1/1/2027	12/30/2027	5	260	1177
2	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
3	Plots 5 and 10 (2027) Building-Wet Utilities	Building Construction	1/1/2027	12/30/2027	5	260	1174
4	Plots 5 and 10 (2027) Building-Electrical	Building Construction	1/1/2027	12/30/2027	5	260	1175
5	Plots 5 and 10 (2027) Building-Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1176
6	Plots 5 and 10 (2027) Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1178
7	Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving	5/1/2027	8/20/2027	5	80	1180
8	Plots 5 and 10 (2027) Paving	Paving	6/1/2027	7/26/2027	5	40	1181
9	Plots 5 and 10 (2027) Temporary Utilities	Building Construction	7/2/2027	12/30/2027	5	130	1179
10	Plots 5 and 10 (2027) Mass Excavation	Grading	9/16/2027	12/31/2027	5	77	1171
11	Plots 5 and 10 (2027) Finish Grading	Grading	11/6/2027	12/31/2027	5	40	1172
12	Plots 5 and 10 (2028) Mass Excavation	Grading	1/1/2028	4/18/2028	5	77	1182
13	Plots 5 and 10 (2028) Finish Grading	Grading	1/1/2028	2/25/2028	5	40	1183
14	Plots 5 and 10 (2028) Utilities	Trenching	1/1/2028	12/30/2028	5	260	1188
15	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
16	Plots 5 and 10 (2028) Building-Wet Utilities	Building Construction	1/1/2028	12/30/2028	5	260	1185
17	Plots 5 and 10 (2028) Building-Electrical	Building Construction	1/1/2028	12/30/2028	5	260	1186
18	Plots 5 and 10 (2028) Building-Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1187
19	Plots 5 and 10 (2028) Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1189

20	Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving	5/1/2028	8/20/2028	5	80	1191
21	Plots 5 and 10 (2028) Paving	Paving	6/1/2028	7/26/2028	5	40	1192
22	Plots 5 and 10 (2028) Temporary Utilities	Building Construction	7/2/2028	12/30/2028	5	130	1190
23	Plots 7 8 21 22 (2029) Utilities	Trenching	1/1/2029	12/30/2029	5	260	1199
24	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
25	Plots 7 8 21 22 (2029) Building-Wet Utilities	Building Construction	1/1/2029	12/30/2029	5	260	1196
26	Plots 7 8 21 22 (2029) Building-Electrical	Building Construction	1/1/2029	12/30/2029	5	260	1197
27	Plots 7 8 21 22 (2029) Building-Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1198
28	Plots 7 8 21 22 (2029) Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1200
29	Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving	5/1/2029	8/20/2029	5	80	1202
30	Plots 7 8 21 22 (2029) Paving	Paving	6/1/2029	7/26/2029	5	40	1203
31	Plots 7 8 21 22 (2029) Temporary Utilities	Building Construction	7/2/2029	12/30/2029	5	130	1201
32	Plots 7 8 21 22 (2029) Mass Excavation	Grading	9/14/2029	12/31/2029	5	77	1193
33	Plots 7 8 21 22 (2029) Finish Grading	Grading	11/6/2029	12/31/2029	5	40	1194

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2027) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2027) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2027) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2027) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2027) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2027) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2027) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2027) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2027) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2027) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2027) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2027) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2027) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2027) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2027) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2027) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2027) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	18	1.00	167	0.40

Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 5 and 10 (2027) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2027) Mass Excavation	Graders	1	10.00	193	0.41
Plots 5 and 10 (2027) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 5 and 10 (2027) Mass Excavation	Scrapers	0	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2028) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2028) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Building-Electrical	Forklifts	4	10.00	89	0.20

Plots 5 and 10 (2028) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2028) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2028) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2028) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2028) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2028) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2028) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 5 and 10 (2028) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2028) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2028) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2028) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2028) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2028) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2028) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2028) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2028) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2028) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Mass Excavation	Graders	2	10.00	193	0.41
Plots 5 and 10 (2028) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40

Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Scrapers	12	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 7 8 21 22 (2029) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 7 8 21 22 (2029) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 7 8 21 22 (2029) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 7 8 21 22 (2029) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 7 8 21 22 (2029) Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 7 8 21 22 (2029) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 7 8 21 22 (2029) Landscaping	Trenchers	2	10.00	39	0.50
Plots 7 8 21 22 (2029) Mass Excavation	Graders	1	10.00	193	0.41
Plots 7 8 21 22 (2029) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40

Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	3	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 7 8 21 22 (2029) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Paving	Pavers	2	10.00	126	0.42
Plots 7 8 21 22 (2029) Paving	Paving Equipment	2	10.00	131	0.36
Plots 7 8 21 22 (2029) Paving	Plate Compactors	2	10.00	8	0.43
Plots 7 8 21 22 (2029) Paving	Rollers	2	10.00	81	0.38
Plots 7 8 21 22 (2029) Paving	Scrapers	2	10.00	362	0.48
Plots 7 8 21 22 (2029) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 7 8 21 22 (2029) Temporary Utilities	Cranes	2	10.00	445	0.29

Plots 7 8 21 22 (2029) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	523	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	10	10.00	286	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	4	10.00	396	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	188	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Utilities	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Finish Grading		15.00	4.00	208.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Mass Excavation		50.00	7.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Finish Grading		15.00	4.00	260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plots 5 and 10 (2028) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Finish Grading		15.00	2.00	312.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plots 5 and 10 (2027) Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1327	3.8964	1.5063	0.0204	0.5258	8.0400e-003	0.5338	0.1441	7.6900e-003	0.1518		2,224.6351	2,224.6351	0.1452		2,228.2647
Vendor	0.1108	2.7872	1.0529	0.0180	0.5780	6.1500e-003	0.5842	0.1662	5.8800e-003	0.1721		1,931.0346	1,931.0346	0.0785		1,932.9969
Worker	0.2136	0.1138	1.4169	5.6300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		562.0016	562.0016	0.0105		562.2631
Total	**0.4571**	**6.7974**	**3.9761**	**0.0441**	**1.8639**	**0.0187**	**1.8826**	**0.5118**	**0.0177**	**0.5296**		**4,717.6713**	**4,717.6713**	**0.2341**		**4,723.5247**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1327	3.8964	1.5063	0.0204	0.5258	8.0400e-003	0.5338	0.1441	7.6900e-003	0.1518		2,224.6351	2,224.6351	0.1452		2,228.2647
Vendor	0.1108	2.7872	1.0529	0.0180	0.5780	6.1500e-003	0.5842	0.1662	5.8800e-003	0.1721		1,931.0346	1,931.0346	0.0785		1,932.9969
Worker	0.2136	0.1138	1.4169	5.6300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		562.0016	562.0016	0.0105		562.2631
Total	**0.4571**	**6.7974**	**3.9761**	**0.0441**	**1.8639**	**0.0187**	**1.8826**	**0.5118**	**0.0177**	**0.5296**		**4,717.6713**	**4,717.6713**	**0.2341**		**4,723.5247**

3.3 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

3.4 Plots 5 and 10 (2027) Building-Wet Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0464	1.3637	0.5272	7.1400e-003	0.1840	2.8100e-003	0.1868	0.0504	2.6900e-003	0.0531		778.6223	778.6223	0.0508		779.8927
Vendor	0.0665	1.6723	0.6317	0.0108	0.3468	3.6900e-003	0.3505	0.0997	3.5300e-003	0.1033		1,158.6208	1,158.6208	0.0471		1,159.7982
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2464**	**3.1072**	**2.0445**	**0.0215**	**1.0059**	**9.3300e-003**	**1.0152**	**0.2761**	**8.8200e-003**	**0.2850**		**2,288.4940**	**2,288.4940**	**0.1045**		**2,291.1052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0464	1.3637	0.5272	7.1400e-003	0.1840	2.8100e-003	0.1868	0.0504	2.6900e-003	0.0531		778.6223	778.6223	0.0508		779.8927
Vendor	0.0665	1.6723	0.6317	0.0108	0.3468	3.6900e-003	0.3505	0.0997	3.5300e-003	0.1033		1,158.6208	1,158.6208	0.0471		1,159.7982
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2464**	**3.1072**	**2.0445**	**0.0215**	**1.0059**	**9.3300e-003**	**1.0152**	**0.2761**	**8.8200e-003**	**0.2850**		**2,288.4940**	**2,288.4940**	**0.1045**		**2,291.1052**

3.5 Plots 5 and 10 (2027) Building-Electrical - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1061	3.1171	1.2050	0.0163	0.4206	6.4300e-003	0.4270	0.1153	6.1500e-003	0.1214		1,779.7081	1,779.7081	0.1162		1,782.6118
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.2128**	**3.8287**	**1.9891**	**0.0228**	**0.8444**	**9.6100e-003**	**0.8540**	**0.2307**	**9.1200e-003**	**0.2399**		**2,453.9070**	**2,453.9070**	**0.1389**		**2,457.3797**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1061	3.1171	1.2050	0.0163	0.4206	6.4300e-003	0.4270	0.1153	6.1500e-003	0.1214		1,779.7081	1,779.7081	0.1162		1,782.6118
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.2128**	**3.8287**	**1.9891**	**0.0228**	**0.8444**	**9.6100e-003**	**0.8540**	**0.2307**	**9.1200e-003**	**0.2399**		**2,453.9070**	**2,453.9070**	**0.1389**		**2,457.3797**

3.6 Plots 5 and 10 (2027) Building-Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0844**	**0.8089**	**0.6490**	**6.4600e-003**	**0.3519**	**2.8500e-003**	**0.3547**	**0.0969**	**2.6900e-003**	**0.0996**		**681.1901**	**681.1901**	**0.0246**		**681.8049**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0844**	**0.8089**	**0.6490**	**6.4600e-003**	**0.3519**	**2.8500e-003**	**0.3547**	**0.0969**	**2.6900e-003**	**0.0996**		**681.1901**	**681.1901**	**0.0246**		**681.8049**

3.7 Plots 5 and 10 (2027) Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0800**	**0.6974**	**0.6069**	**5.7400e-003**	**0.3288**	**2.6100e-003**	**0.3314**	**0.0903**	**2.4500e-003**	**0.0927**		**603.9487**	**603.9487**	**0.0215**		**604.4850**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0800**	**0.6974**	**0.6069**	**5.7400e-003**	**0.3288**	**2.6100e-003**	**0.3314**	**0.0903**	**2.4500e-003**	**0.0927**		**603.9487**	**603.9487**	**0.0215**		**604.4850**

3.8 Plots 5 and 10 (2027) Curbing/Drive Approaches - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0430	1.2623	0.4880	6.6100e-003	0.1703	2.6000e-003	0.1729	0.0467	2.4900e-003	0.0492		720.6965	720.6965	0.0470		721.8723
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.1141**	**1.7367**	**1.0107**	**0.0109**	**0.4528**	**4.7100e-003**	**0.4576**	**0.1237**	**4.4700e-003**	**0.1281**		**1,170.1624**	**1,170.1624**	**0.0622**		**1,171.7176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0430	1.2623	0.4880	6.6100e-003	0.1703	2.6000e-003	0.1729	0.0467	2.4900e-003	0.0492		720.6965	720.6965	0.0470		721.8723
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.1141**	**1.7367**	**1.0107**	**0.0109**	**0.4528**	**4.7100e-003**	**0.4576**	**0.1237**	**4.4700e-003**	**0.1281**		**1,170.1624**	**1,170.1624**	**0.0622**		**1,171.7176**

3.9 Plots 5 and 10 (2027) Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0727	2.1362	0.8258	0.0112	0.2883	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,219.6402	1,219.6402	0.0796		1,221.6301
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2328**	**2.8762**	**1.9641**	**0.0190**	**0.9020**	**8.7200e-003**	**0.9108**	**0.2449**	**8.2300e-003**	**0.2531**		**2,034.3395**	**2,034.3395**	**0.1050**		**2,036.9638**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0727	2.1362	0.8258	0.0112	0.2883	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,219.6402	1,219.6402	0.0796		1,221.6301
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2328**	**2.8762**	**1.9641**	**0.0190**	**0.9020**	**8.7200e-003**	**0.9108**	**0.2449**	**8.2300e-003**	**0.2531**		**2,034.3395**	**2,034.3395**	**0.1050**		**2,036.9638**

3.10 Plots 5 and 10 (2027) Temporary Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.554 4	2,685.5544	0.8686		2,707.268 5
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.554 4**	**2,685.5544**	**0.8686**		**2,707.268 5**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 Plots 5 and 10 (2027) Mass Excavation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					29.3497	0.0000	29.3497	3.1691	0.0000	3.1691			0.0000			0.0000
Off-Road	14.9790	151.5608	107.7134	0.2902		5.8748	5.8748		5.4048	5.4048		28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**14.9790**	**151.5608**	**107.7134**	**0.2902**	**29.3497**	**5.8748**	**35.2245**	**3.1691**	**5.4048**	**8.5739**		**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0777	2.2804	0.8816	0.0120	0.3077	4.7000e-003	0.3124	0.0843	4.5000e-003	0.0888		1,301.9575	1,301.9575	0.0850		1,304.0817
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.2670	0.1423	1.7712	7.0400e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		702.5020	702.5020	0.0131		702.8288
Total	**0.3757**	**3.2030**	**2.9475**	**0.0240**	**1.4197**	**0.0121**	**1.4318**	**0.3828**	**0.0114**	**0.3942**		**2,545.1492**	**2,545.1492**	**0.1200**		**2,548.1497**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.4464	0.0000	11.4464	1.2359	0.0000	1.2359			0.0000			0.0000
Off-Road	14.9790	151.5608	107.7134	0.2902		5.8748	5.8748		5.4048	5.4048	0.0000	28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**14.9790**	**151.5608**	**107.7134**	**0.2902**	**11.4464**	**5.8748**	**17.3212**	**1.2359**	**5.4048**	**6.6407**	**0.0000**	**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0777	2.2804	0.8816	0.0120	0.3077	4.7000e-003	0.3124	0.0843	4.5000e-003	0.0888		1,301.9575	1,301.9575	0.0850		1,304.0817
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.2670	0.1423	1.7712	7.0400e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		702.5020	702.5020	0.0131		702.8288
Total	**0.3757**	**3.2030**	**2.9475**	**0.0240**	**1.4197**	**0.0121**	**1.4318**	**0.3828**	**0.0114**	**0.3942**		**2,545.1492**	**2,545.1492**	**0.1200**		**2,548.1497**

3.12 Plots 5 and 10 (2027) Finish Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.8253	7.5056	8.7682	0.0123		0.3864	0.3864		0.3555	0.3555		1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.8253**	**7.5056**	**8.7682**	**0.0123**	**3.4466**	**0.3864**	**3.8330**	**0.3722**	**0.3555**	**0.7276**		**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0287	0.8415	0.3253	4.4100e-003	0.1136	1.7400e-003	0.1153	0.0311	1.6600e-003	0.0328		480.4643	480.4643	0.0314		481.2482
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.1265**	**1.3302**	**1.0251**	**9.4100e-003**	**0.4911**	**4.4200e-003**	**0.4955**	**0.1333**	**4.1600e-003**	**0.1375**		**1,000.1805**	**1,000.1805**	**0.0478**		**1,001.3764**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.8253	7.5056	8.7682	0.0123		0.3864	0.3864		0.3555	0.3555	0.0000	1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.8253**	**7.5056**	**8.7682**	**0.0123**	**1.3442**	**0.3864**	**1.7306**	**0.1451**	**0.3555**	**0.5006**	**0.0000**	**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0287	0.8415	0.3253	4.4100e-003	0.1136	1.7400e-003	0.1153	0.0311	1.6600e-003	0.0328		480.4643	480.4643	0.0314		481.2482
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.1265**	**1.3302**	**1.0251**	**9.4100e-003**	**0.4911**	**4.4200e-003**	**0.4955**	**0.1333**	**4.1600e-003**	**0.1375**		**1,000.1805**	**1,000.1805**	**0.0478**		**1,001.3764**

3.13 Plots 5 and 10 (2028) Mass Excavation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	41.9625	428.8563	297.5955	0.8157		16.4979	16.4979		15.1781	15.1781		78,973.7145	78,973.7145	25.5417		79,612.2569
Total	**41.9625**	**428.8563**	**297.5955**	**0.8157**	**80.0609**	**16.4979**	**96.5588**	**8.6447**	**15.1781**	**23.8228**		**78,973.7145**	**78,973.7145**	**25.5417**		**79,612.2569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1544	4.4982	1.7711	0.0238	0.6154	9.2700e-003	0.6247	0.1686	8.8700e-003	0.1775		2,593.6660	2,593.6660	0.1690		2,597.8914
Vendor	0.0438	1.1018	0.4175	7.1900e-003	0.2312	2.4400e-003	0.2336	0.0665	2.3300e-003	0.0688		769.8577	769.8577	0.0312		770.6372
Worker	0.2544	0.1316	1.6684	6.8300e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		681.7722	681.7722	0.0121		682.0738
Total	**0.4526**	**5.7316**	**3.8570**	**0.0378**	**1.7967**	**0.0170**	**1.8137**	**0.4871**	**0.0160**	**0.5031**		**4,045.2959**	**4,045.2959**	**0.2123**		**4,050.6024**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	41.9625	428.8563	297.5955	0.8157		16.4979	16.4979		15.1781	15.1781	0.0000	78,973.7144	78,973.7144	25.5417		79,612.2569
Total	**41.9625**	**428.8563**	**297.5955**	**0.8157**	**31.2238**	**16.4979**	**47.7217**	**3.3714**	**15.1781**	**18.5495**	**0.0000**	**78,973.7144**	**78,973.7144**	**25.5417**		**79,612.2569**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1544	4.4982	1.7711	0.0238	0.6154	9.2700e-003	0.6247	0.1686	8.8700e-003	0.1775		2,593.6660	2,593.6660	0.1690		2,597.8914
Vendor	0.0438	1.1018	0.4175	7.1900e-003	0.2312	2.4400e-003	0.2336	0.0665	2.3300e-003	0.0688		769.8577	769.8577	0.0312		770.6372
Worker	0.2544	0.1316	1.6684	6.8300e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		681.7722	681.7722	0.0121		682.0738
Total	**0.4526**	**5.7316**	**3.8570**	**0.0378**	**1.7967**	**0.0170**	**1.8137**	**0.4871**	**0.0160**	**0.5031**		**4,045.2959**	**4,045.2959**	**0.2123**		**4,050.6024**

3.14 Plots 5 and 10 (2028) Finish Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.5392	14.1889	15.6703	0.0218		0.7302	0.7302		0.6718	0.6718		2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**1.5392**	**14.1889**	**15.6703**	**0.0218**	**6.0449**	**0.7302**	**6.7750**	**0.6527**	**0.6718**	**1.3245**		**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0356	1.0375	0.4085	5.4900e-003	0.1419	2.1400e-003	0.1441	0.0389	2.0500e-003	0.0409		598.2165	598.2165	0.0390		599.1911
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.1295**	**1.5177**	**1.0760**	**0.0104**	**0.5195**	**4.6800e-003**	**0.5241**	**0.1411**	**4.4300e-003**	**0.1455**		**1,110.6913**	**1,110.6913**	**0.0551**		**1,112.0681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	1.5392	14.1889	15.6703	0.0218		0.7302	0.7302		0.6718	0.6718	0.0000	2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**1.5392**	**14.1889**	**15.6703**	**0.0218**	**2.3575**	**0.7302**	**3.0877**	**0.2546**	**0.6718**	**0.9263**	**0.0000**	**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0356	1.0375	0.4085	5.4900e-003	0.1419	2.1400e-003	0.1441	0.0389	2.0500e-003	0.0409		598.2165	598.2165	0.0390		599.1911
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.1295**	**1.5177**	**1.0760**	**0.0104**	**0.5195**	**4.6800e-003**	**0.5241**	**0.1411**	**4.4300e-003**	**0.1455**		**1,110.6913**	**1,110.6913**	**0.0551**		**1,112.0681**

3.15 Plots 5 and 10 (2028) Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1319	3.8430	1.5131	0.0203	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,215.8789	2,215.8789	0.1444		2,219.4889
Vendor	0.1094	2.7546	1.0438	0.0180	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,924.6443	1,924.6443	0.0779		1,926.5929
Worker	0.2036	0.1053	1.3347	5.4600e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		545.4178	545.4178	9.6500e-003		545.6590
Total	**0.4448**	**6.7028**	**3.8916**	**0.0438**	**1.8639**	**0.0182**	**1.8821**	**0.5118**	**0.0173**	**0.5291**		**4,685.9410**	**4,685.9410**	**0.2320**		**4,691.7408**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1319	3.8430	1.5131	0.0203	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,215.8789	2,215.8789	0.1444		2,219.4889
Vendor	0.1094	2.7546	1.0438	0.0180	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,924.6443	1,924.6443	0.0779		1,926.5929
Worker	0.2036	0.1053	1.3347	5.4600e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		545.4178	545.4178	9.6500e-003		545.6590
Total	**0.4448**	**6.7028**	**3.8916**	**0.0438**	**1.8639**	**0.0182**	**1.8821**	**0.5118**	**0.0173**	**0.5291**		**4,685.9410**	**4,685.9410**	**0.2320**		**4,691.7408**

3.16 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

3.17 Plots 5 and 10 (2028) Building-Wet Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0462	1.3451	0.5296	7.1100e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		775.5576	775.5576	0.0505		776.8211
Vendor	0.0656	1.6528	0.6263	0.0108	0.3468	3.6500e-003	0.3505	0.0997	3.4900e-003	0.1032		1,154.7866	1,154.7866	0.0468		1,155.9558
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2390**	**3.0636**	**1.9900**	**0.0213**	**1.0059**	**9.0400e-003**	**1.0149**	**0.2761**	**8.5500e-003**	**0.2847**		**2,271.2303**	**2,271.2303**	**0.1033**		**2,273.8137**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0462	1.3451	0.5296	7.1100e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		775.5576	775.5576	0.0505		776.8211
Vendor	0.0656	1.6528	0.6263	0.0108	0.3468	3.6500e-003	0.3505	0.0997	3.4900e-003	0.1032		1,154.7866	1,154.7866	0.0468		1,155.9558
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2390**	**3.0636**	**1.9900**	**0.0213**	**1.0059**	**9.0400e-003**	**1.0149**	**0.2761**	**8.5500e-003**	**0.2847**		**2,271.2303**	**2,271.2303**	**0.1033**		**2,273.8137**

3.18 Plots 5 and 10 (2028) Building-Electrical - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1055	3.0744	1.2105	0.0163	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,772.7031	1,772.7031	0.1155		1,775.5911
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.2081**	**3.7750**	**1.9615**	**0.0226**	**0.8444**	**9.3700e-003**	**0.8537**	**0.2307**	**8.9100e-003**	**0.2396**		**2,439.1494**	**2,439.1494**	**0.1379**		**2,442.5955**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1055	3.0744	1.2105	0.0163	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,772.7031	1,772.7031	0.1155		1,775.5911
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.2081**	**3.7750**	**1.9615**	**0.0226**	**0.8444**	**9.3700e-003**	**0.8537**	**0.2307**	**8.9100e-003**	**0.2396**		**2,439.1494**	**2,439.1494**	**0.1379**		**2,442.5955**

3.19 Plots 5 and 10 (2028) Building-Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7713	0.2923	5.0300e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		538.9004	538.9004	0.0218		539.4460
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0815**	**0.7976**	**0.6259**	**6.4000e-003**	**0.3519**	**2.7600e-003**	**0.3546**	**0.0969**	**2.5900e-003**	**0.0995**		**675.2549**	**675.2549**	**0.0242**		**675.8608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7713	0.2923	5.0300e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		538.9004	538.9004	0.0218		539.4460
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0815**	**0.7976**	**0.6259**	**6.4000e-003**	**0.3519**	**2.7600e-003**	**0.3546**	**0.0969**	**2.5900e-003**	**0.0995**		**675.2549**	**675.2549**	**0.0242**		**675.8608**

3.20 Plots 5 and 10 (2028) Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0771**	**0.6874**	**0.5842**	**5.6800e-003**	**0.3288**	**2.5100e-003**	**0.3313**	**0.0903**	**2.3600e-003**	**0.0926**		**598.2691**	**598.2691**	**0.0211**		**598.7971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0771**	**0.6874**	**0.5842**	**5.6800e-003**	**0.3288**	**2.5100e-003**	**0.3313**	**0.0903**	**2.3600e-003**	**0.0926**		**598.2691**	**598.2691**	**0.0211**		**598.7971**

3.21 Plots 5 and 10 (2028) Curbing/Drive Approaches - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0427	1.2450	0.4902	6.5800e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		717.8598	717.8598	0.0468		719.0293
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.1111**	**1.7120**	**0.9909**	**0.0108**	**0.4528**	**4.5900e-003**	**0.4574**	**0.1237**	**4.3500e-003**	**0.1280**		**1,162.1573**	**1,162.1573**	**0.0617**		**1,163.6989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0427	1.2450	0.4902	6.5800e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		717.8598	717.8598	0.0468		719.0293
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.1111**	**1.7120**	**0.9909**	**0.0108**	**0.4528**	**4.5900e-003**	**0.4574**	**0.1237**	**4.3500e-003**	**0.1280**		**1,162.1573**	**1,162.1573**	**0.0617**		**1,163.6989**

3.22 Plots 5 and 10 (2028) Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0723	2.1069	0.8295	0.0111	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,214.8397	1,214.8397	0.0792		1,216.8188
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2258**	**2.8338**	**1.9143**	**0.0189**	**0.9020**	**8.4200e-003**	**0.9105**	**0.2449**	**7.9700e-003**	**0.2528**		**2,017.6404**	**2,017.6404**	**0.1039**		**2,020.2380**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0723	2.1069	0.8295	0.0111	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,214.8397	1,214.8397	0.0792		1,216.8188
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2258**	**2.8338**	**1.9143**	**0.0189**	**0.9020**	**8.4200e-003**	**0.9105**	**0.2449**	**7.9700e-003**	**0.2528**		**2,017.6404**	**2,017.6404**	**0.1039**		**2,020.2380**

3.23 Plots 5 and 10 (2028) Temporary Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.24 Plots 7 8 21 22 (2029) Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1311	3.7884	1.5175	0.0202	0.5258	7.7900e-003	0.5336	0.1441	7.4500e-003	0.1515		2,207.6531	2,207.6531	0.1437		2,211.2448
Vendor	0.1080	2.7219	1.0349	0.0179	0.5780	6.0200e-003	0.5840	0.1662	5.7500e-003	0.1720		1,918.7512	1,918.7512	0.0775		1,920.6873
Worker	0.1921	0.0970	1.2535	5.3200e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		530.7111	530.7111	8.8600e-003		530.9325
Total	**0.4311**	**6.6073**	**3.8060**	**0.0435**	**1.8639**	**0.0177**	**1.8816**	**0.5119**	**0.0168**	**0.5286**		**4,657.1154**	**4,657.1154**	**0.2300**		**4,662.8646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**9.9581**	**2.9986**	**12.9567**	**1.0752**	**2.7599**	**3.8351**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1311	3.7884	1.5175	0.0202	0.5258	7.7900e-003	0.5336	0.1441	7.4500e-003	0.1515		2,207.6531	2,207.6531	0.1437		2,211.2448
Vendor	0.1080	2.7219	1.0349	0.0179	0.5780	6.0200e-003	0.5840	0.1662	5.7500e-003	0.1720		1,918.7512	1,918.7512	0.0775		1,920.6873
Worker	0.1921	0.0970	1.2535	5.3200e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		530.7111	530.7111	8.8600e-003		530.9325
Total	**0.4311**	**6.6073**	**3.8060**	**0.0435**	**1.8639**	**0.0177**	**1.8816**	**0.5119**	**0.0168**	**0.5286**		**4,657.1154**	**4,657.1154**	**0.2300**		**4,662.8646**

3.25 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**1.2456**	**1.0554**	**2.3009**	**0.1345**	**0.9945**	**1.1290**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

3.26 Plots 7 8 21 22 (2029) Building-Wet Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0459	1.3259	0.5311	7.0800e-003	0.1840	2.7300e-003	0.1868	0.0504	2.6100e-003	0.0530		772.6786	772.6786	0.0503		773.9357
Vendor	0.0648	1.6332	0.6209	0.0108	0.3468	3.6100e-003	0.3504	0.0997	3.4500e-003	0.1032		1,151.2507	1,151.2507	0.0465		1,152.4124
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2307**	**3.0197**	**1.9355**	**0.0212**	**1.0059**	**8.7700e-003**	**1.0147**	**0.2761**	**8.3000e-003**	**0.2844**		**2,255.6237**	**2,255.6237**	**0.1023**		**2,258.1809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**3.7351**	**1.6073**	**5.3424**	**0.4033**	**1.4787**	**1.8820**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0459	1.3259	0.5311	7.0800e-003	0.1840	2.7300e-003	0.1868	0.0504	2.6100e-003	0.0530		772.6786	772.6786	0.0503		773.9357
Vendor	0.0648	1.6332	0.6209	0.0108	0.3468	3.6100e-003	0.3504	0.0997	3.4500e-003	0.1032		1,151.2507	1,151.2507	0.0465		1,152.4124
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2307**	**3.0197**	**1.9355**	**0.0212**	**1.0059**	**8.7700e-003**	**1.0147**	**0.2761**	**8.3000e-003**	**0.2844**		**2,255.6237**	**2,255.6237**	**0.1023**		**2,258.1809**

3.27 Plots 7 8 21 22 (2029) Building-Electrical - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1049	3.0307	1.2140	0.0162	0.4206	6.2300e-003	0.4269	0.1153	5.9600e-003	0.1212		1,766.1225	1,766.1225	0.1149		1,768.9958
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.2028**	**3.7203**	**1.9325**	**0.0225**	**0.8444**	**9.1300e-003**	**0.8535**	**0.2307**	**8.6800e-003**	**0.2394**		**2,425.6394**	**2,425.6394**	**0.1368**		**2,429.0605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**2.4895**	**1.0944**	**3.5839**	**0.2688**	**1.0085**	**1.2773**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1049	3.0307	1.2140	0.0162	0.4206	6.2300e-003	0.4269	0.1153	5.9600e-003	0.1212		1,766.1225	1,766.1225	0.1149		1,768.9958
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.2028**	**3.7203**	**1.9325**	**0.0225**	**0.8444**	**9.1300e-003**	**0.8535**	**0.2307**	**8.6800e-003**	**0.2394**		**2,425.6394**	**2,425.6394**	**0.1368**		**2,429.0605**

3.28 Plots 7 8 21 22 (2029) Building-Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0302	0.7621	0.2898	5.0200e-003	0.1618	1.6800e-003	0.1635	0.0465	1.6100e-003	0.0482		537.2503	537.2503	0.0217		537.7925
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0783**	**0.7864**	**0.6032**	**6.3500e-003**	**0.3519**	**2.6500e-003**	**0.3545**	**0.0969**	**2.5100e-003**	**0.0994**		**669.9281**	**669.9281**	**0.0239**		**670.5256**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**0.6220**	**0.8328**	**1.4548**	**0.0672**	**0.7662**	**0.8333**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0302	0.7621	0.2898	5.0200e-003	0.1618	1.6800e-003	0.1635	0.0465	1.6100e-003	0.0482		537.2503	537.2503	0.0217		537.7925
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0783**	**0.7864**	**0.6032**	**6.3500e-003**	**0.3519**	**2.6500e-003**	**0.3545**	**0.0969**	**2.5100e-003**	**0.0994**		**669.9281**	**669.9281**	**0.0239**		**670.5256**

3.29 Plots 7 8 21 22 (2029) Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0739**	**0.6775**	**0.5618**	**5.6300e-003**	**0.3288**	**2.4100e-003**	**0.3312**	**0.0903**	**2.2800e-003**	**0.0926**		**593.1781**	**593.1781**	**0.0208**		**593.6981**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**0.6220**	**0.8861**	**1.5080**	**0.0672**	**0.8152**	**0.8823**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0739**	**0.6775**	**0.5618**	**5.6300e-003**	**0.3288**	**2.4100e-003**	**0.3312**	**0.0903**	**2.2800e-003**	**0.0926**		**593.1781**	**593.1781**	**0.0208**		**593.6981**

3.30 Plots 7 8 21 22 (2029) Curbing/Drive Approaches - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	0.0173	0.4355	0.1656	2.8700e-003	0.0925	9.6000e-004	0.0934	0.0266	9.2000e-004	0.0275		307.0002	307.0002	0.0124		307.3100
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.1078**	**1.6870**	**0.9706**	**0.0108**	**0.4528**	**4.4500e-003**	**0.4573**	**0.1237**	**4.2300e-003**	**0.1279**		**1,154.8729**	**1,154.8729**	**0.0611**		**1,156.4016**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6210**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	0.0173	0.4355	0.1656	2.8700e-003	0.0925	9.6000e-004	0.0934	0.0266	9.2000e-004	0.0275		307.0002	307.0002	0.0124		307.3100
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.1078**	**1.6870**	**0.9706**	**0.0108**	**0.4528**	**4.4500e-003**	**0.4573**	**0.1237**	**4.2300e-003**	**0.1279**		**1,154.8729**	**1,154.8729**	**0.0611**		**1,156.4016**

3.31 Plots 7 8 21 22 (2029) Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0719	2.0769	0.8320	0.0111	0.2883	4.2700e-003	0.2925	0.0790	4.0800e-003	0.0831		1,210.3299	1,210.3299	0.0788		1,212.2991
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2178**	**2.7908**	**1.8638**	**0.0187**	**0.9020**	**8.1400e-003**	**0.9102**	**0.2449**	**7.7000e-003**	**0.2526**		**2,002.5247**	**2,002.5247**	**0.1029**		**2,005.0968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6691**	**34.3917**	**44.9466**	**0.0855**	**2.4816**	**1.4762**	**3.9578**	**0.2680**	**1.3601**	**1.6280**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0719	2.0769	0.8320	0.0111	0.2883	4.2700e-003	0.2925	0.0790	4.0800e-003	0.0831		1,210.3299	1,210.3299	0.0788		1,212.2991
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2178**	**2.7908**	**1.8638**	**0.0187**	**0.9020**	**8.1400e-003**	**0.9102**	**0.2449**	**7.7000e-003**	**0.2526**		**2,002.5247**	**2,002.5247**	**0.1029**		**2,005.0968**

3.32 Plots 7 8 21 22 (2029) Temporary Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.33 Plots 7 8 21 22 (2029) Mass Excavation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					50.6974	0.0000	50.6974	5.4741	0.0000	5.4741			0.0000			0.0000
Off-Road	27.1506	278.5289	192.6814	0.5298		10.6871	10.6871		9.8321	9.8321		51,293.7983	51,293.7983	16.5895		51,708.5346
Total	**27.1506**	**278.5289**	**192.6814**	**0.5298**	**50.6974**	**10.6871**	**61.3845**	**5.4741**	**9.8321**	**15.3062**		**51,293.7983**	**51,293.7983**	**16.5895**		**51,708.5346**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1206	3.4840	1.3956	0.0186	0.4835	7.1600e-003	0.4907	0.1325	6.8500e-003	0.1394		2,030.3154	2,030.3154	0.1321		2,033.6186
Vendor	0.0389	0.9799	0.3726	6.4500e-003	0.2081	2.1700e-003	0.2103	0.0598	2.0700e-003	0.0619		690.7504	690.7504	0.0279		691.4474
Worker	0.2401	0.1212	1.5669	6.6500e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		663.3889	663.3889	0.0111		663.6657
Total	**0.3995**	**4.5852**	**3.3351**	**0.0317**	**1.6418**	**0.0142**	**1.6560**	**0.4443**	**0.0134**	**0.4577**		**3,384.4547**	**3,384.4547**	**0.1711**		**3,388.7316**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.7720	0.0000	19.7720	2.1349	0.0000	2.1349			0.0000			0.0000
Off-Road	27.1506	278.5289	192.6814	0.5298		10.6871	10.6871		9.8321	9.8321	0.0000	51,293.7982	51,293.7982	16.5895		51,708.5345
Total	**27.1506**	**278.5289**	**192.6814**	**0.5298**	**19.7720**	**10.6871**	**30.4591**	**2.1349**	**9.8321**	**11.9670**	**0.0000**	**51,293.7982**	**51,293.7982**	**16.5895**		**51,708.5345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1206	3.4840	1.3956	0.0186	0.4835	7.1600e-003	0.4907	0.1325	6.8500e-003	0.1394		2,030.3154	2,030.3154	0.1321		2,033.6186
Vendor	0.0389	0.9799	0.3726	6.4500e-003	0.2081	2.1700e-003	0.2103	0.0598	2.0700e-003	0.0619		690.7504	690.7504	0.0279		691.4474
Worker	0.2401	0.1212	1.5669	6.6500e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		663.3889	663.3889	0.0111		663.6657
Total	**0.3995**	**4.5852**	**3.3351**	**0.0317**	**1.6418**	**0.0142**	**1.6560**	**0.4443**	**0.0134**	**0.4577**		**3,384.4547**	**3,384.4547**	**0.1711**		**3,388.7316**

3.34 Plots 7 8 21 22 (2029) Finish Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.1231**	**1.4814**	**1.0445**	**9.9800e-003**	**0.5016**	**4.4600e-003**	**0.5061**	**0.1356**	**4.2100e-003**	**0.1398**		**1,067.7117**	**1,067.7117**	**0.0561**		**1,069.1132**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**1.3442**	**0.3651**	**1.7093**	**0.1451**	**0.3359**	**0.4810**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.1231**	**1.4814**	**1.0445**	**9.9800e-003**	**0.5016**	**4.4600e-003**	**0.5061**	**0.1356**	**4.2100e-003**	**0.1398**		**1,067.7117**	**1,067.7117**	**0.0561**		**1,069.1132**

World Logistics Center-Construction Dust-Plots 5,10 & 7,8,21,22

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	12.4378	11.3850	2.2055	0.0172	188.3383	4.1700e-003	188.3426	18.7872	3.9300e-003	18.7911	0.0000	1,851.8142	1,851.8142	0.1759	0.0000	1,856.1872
2028	12.4275	12.5510	2.3456	0.0190	197.9086	4.2300e-003	197.9129	19.7420	3.9900e-003	19.7460	0.0000	2,046.3086	2,046.3086	0.1901	0.0000	2,051.0596
2029	12.4172	11.9670	2.2326	0.0180	193.8813	3.8500e-003	193.8852	19.3402	3.6300e-003	19.3438	0.0000	1,951.3463	1,951.3463	0.1774	0.0000	1,955.7813
Maximum	**12.4378**	**12.5510**	**2.3456**	**0.0190**	**197.9086**	**4.2300e-003**	**197.9129**	**19.7420**	**3.9900e-003**	**19.7460**	**0.0000**	**2,046.3086**	**2,046.3086**	**0.1901**	**0.0000**	**2,051.0596**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	12.4378	11.3850	2.2055	0.0172	75.3565	4.1700e-003	75.3607	7.5230	3.9300e-003	7.5269	0.0000	1,851.8142	1,851.8142	0.1759	0.0000	1,856.1872
2028	12.4275	12.5510	2.3456	0.0190	79.1861	4.2300e-003	79.1903	7.9055	3.9900e-003	7.9094	0.0000	2,046.3086	2,046.3086	0.1901	0.0000	2,051.0596
2029	12.4172	11.9670	2.2326	0.0180	77.5745	3.8500e-003	77.5784	7.7445	3.6300e-003	7.7481	0.0000	1,951.3463	1,951.3463	0.1774	0.0000	1,955.7813
Maximum	**12.4378**	**12.5510**	**2.3456**	**0.0190**	**79.1861**	**4.2300e-003**	**79.1903**	**7.9055**	**3.9900e-003**	**7.9094**	**0.0000**	**2,046.3086**	**2,046.3086**	**0.1901**	**0.0000**	**2,051.0596**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plots 5 and 10 (2027) Utilities	Trenching	1/1/2027	12/30/2027	5	260	1177
2	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
3	Plots 5 and 10 (2027) Building-Wet Utilities	Building Construction	1/1/2027	12/30/2027	5	260	1174
4	Plots 5 and 10 (2027) Building-Electrical	Building Construction	1/1/2027	12/30/2027	5	260	1175
5	Plots 5 and 10 (2027) Building-Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1176
6	Plots 5 and 10 (2027) Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1178
7	Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving	5/1/2027	8/20/2027	5	80	1180
8	Plots 5 and 10 (2027) Paving	Paving	6/1/2027	7/26/2027	5	40	1181
9	Plots 5 and 10 (2027) Temporary Utilities	Building Construction	7/2/2027	12/30/2027	5	130	1179
10	Plots 5 and 10 (2027) Mass Excavation	Grading	9/16/2027	12/31/2027	5	77	1171
11	Plots 5 and 10 (2027) Finish Grading	Grading	11/6/2027	12/31/2027	5	40	1172
12	Plots 5 and 10 (2028) Mass Excavation	Grading	1/1/2028	4/18/2028	5	77	1182
13	Plots 5 and 10 (2028) Finish Grading	Grading	1/1/2028	2/25/2028	5	40	1183
14	Plots 5 and 10 (2028) Utilities	Trenching	1/1/2028	12/30/2028	5	260	1188
15	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
16	Plots 5 and 10 (2028) Building-Wet Utilities	Building Construction	1/1/2028	12/30/2028	5	260	1185
17	Plots 5 and 10 (2028) Building-Electrical	Building Construction	1/1/2028	12/30/2028	5	260	1186
18	Plots 5 and 10 (2028) Building-Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1187
19	Plots 5 and 10 (2028) Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1189

20	Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving	5/1/2028	8/20/2028	5	80	1191	
21	Plots 5 and 10 (2028) Paving	Paving	6/1/2028	7/26/2028	5	40	1192	
22	Plots 5 and 10 (2028) Temporary Utilities	Building Construction	7/2/2028	12/30/2028	5	130	1190	
23	Plots 7 8 21 22 (2029) Utilities	Trenching	1/1/2029	12/30/2029	5	260	1199	
24	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195	
25	Plots 7 8 21 22 (2029) Building-Wet Utilities	Building Construction	1/1/2029	12/30/2029	5	260	1196	
26	Plots 7 8 21 22 (2029) Building-Electrical	Building Construction	1/1/2029	12/30/2029	5	260	1197	
27	Plots 7 8 21 22 (2029) Building-Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1198	
28	Plots 7 8 21 22 (2029) Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1200	
29	Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving	5/1/2029	8/20/2029	5	80	1202	
30	Plots 7 8 21 22 (2029) Paving	Paving	6/1/2029	7/26/2029	5	40	1203	
31	Plots 7 8 21 22 (2029) Temporary Utilities	Building Construction	7/2/2029	12/30/2029	5	130	1201	
32	Plots 7 8 21 22 (2029) Mass Excavation	Grading	9/14/2029	12/31/2029	5	77	1193	
33	Plots 7 8 21 22 (2029) Finish Grading	Grading	11/6/2029	12/31/2029	5	40	1194	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Finish Grading		15.00	4.00	208.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Mass Excavation		50.00	7.00	1,085.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Finish Grading		15.00	4.00	260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plots 5 and 10 (2028) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Mass Excavation		50.00	10.00	2,170.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Finish Grading		15.00	2.00	312.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plots 5 and 10 (2027) Utilities - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0257	1.8318	0.2379	2.7600e-003	12.5290	4.4000e-004	12.5295	1.2499	4.2000e-004	1.2504		299.5811	299.5811	0.0298		300.3250
Vendor	0.0222	1.2755	0.2352	1.6700e-003	13.0101	3.0000e-004	13.0104	1.2983	2.8000e-004	1.2985		179.6849	179.6849	0.0169		180.1062
Worker	0.0306	7.1400e-003	0.1138	1.9000e-004	20.8123	3.1000e-004	20.8126	2.0757	2.8000e-004	2.0760		19.0936	19.0936	6.0000e-004		19.1087
Total	**0.0785**	**3.1144**	**0.5869**	**4.6200e-003**	**46.3515**	**1.0500e-003**	**46.3525**	**4.6239**	**9.8000e-004**	**4.6249**		**498.3596**	**498.3596**	**0.0472**		**499.5399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0257	1.8318	0.2379	2.7600e-003	5.0135	4.4000e-004	5.0139	0.5006	4.2000e-004	0.5011		299.5811	299.5811	0.0298		300.3250
Vendor	0.0222	1.2755	0.2352	1.6700e-003	5.2064	3.0000e-004	5.2067	0.5202	2.8000e-004	0.5205		179.6849	179.6849	0.0169		180.1062
Worker	0.0306	7.1400e-003	0.1138	1.9000e-004	8.3263	3.1000e-004	8.3267	0.8308	2.8000e-004	0.8311		19.0936	19.0936	6.0000e-004		19.1087
Total	**0.0785**	**3.1144**	**0.5869**	**4.6200e-003**	**18.5462**	**1.0500e-003**	**18.5473**	**1.8517**	**9.8000e-004**	**1.8527**		**498.3596**	**498.3596**	**0.0472**		**499.5399**

3.3 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0309	2.1981	0.2854	3.3100e-003	15.0348	5.3000e-004	15.0354	1.4999	5.1000e-004	1.5004		359.4973	359.4973	0.0357		360.3900
Vendor	1.7800e-003	0.1020	0.0188	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.3748	14.3748	1.3500e-003		14.4085
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	13.0077	1.9000e-004	13.0079	1.2973	1.8000e-004	1.2975		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0518**	**2.3046**	**0.3754**	**3.5600e-003**	**29.0833**	**7.4000e-004**	**29.0841**	**2.9011**	**7.1000e-004**	**2.9018**		**385.8056**	**385.8056**	**0.0374**		**386.7414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0309	2.1981	0.2854	3.3100e-003	6.0161	5.3000e-004	6.0167	0.6008	5.1000e-004	0.6013		359.4973	359.4973	0.0357		360.3900
Vendor	1.7800e-003	0.1020	0.0188	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.3748	14.3748	1.3500e-003		14.4085
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	5.2040	1.9000e-004	5.2042	0.5193	1.8000e-004	0.5195		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0518**	**2.3046**	**0.3754**	**3.5600e-003**	**11.6366**	**7.4000e-004**	**11.6374**	**1.1617**	**7.1000e-004**	**1.1624**		**385.8056**	**385.8056**	**0.0374**		**386.7414**

3.4 Plots 5 and 10 (2027) Building-Wet Utilities - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-003	0.6411	0.0833	9.6000e-004	4.3852	1.6000e-004	4.3853	0.4375	1.5000e-004	0.4376		104.8534	104.8534	0.0104		105.1138
Vendor	0.0133	0.7653	0.1411	1.0000e-003	7.8061	1.8000e-004	7.8063	0.7790	1.7000e-004	0.7791		107.8109	107.8109	0.0101		108.0637
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	13.0077	1.9000e-004	13.0079	1.2973	1.8000e-004	1.2975		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0415**	**1.4109**	**0.2955**	**2.0800e-003**	**25.1989**	**5.3000e-004**	**25.1995**	**2.5137**	**5.0000e-004**	**2.5142**		**224.5978**	**224.5978**	**0.0209**		**225.1204**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-003	0.6411	0.0833	9.6000e-004	1.7547	1.6000e-004	1.7549	0.1752	1.5000e-004	0.1754		104.8534	104.8534	0.0104		105.1138
Vendor	0.0133	0.7653	0.1411	1.0000e-003	3.1239	1.8000e-004	3.1240	0.3121	1.7000e-004	0.3123		107.8109	107.8109	0.0101		108.0637
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	5.2040	1.9000e-004	5.2042	0.5193	1.8000e-004	0.5195		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0415**	**1.4109**	**0.2955**	**2.0800e-003**	**10.0825**	**5.3000e-004**	**10.0830**	**1.0066**	**5.0000e-004**	**1.0071**		**224.5978**	**224.5978**	**0.0209**		**225.1204**

3.5 Plots 5 and 10 (2027) Building-Electrical - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0206	1.4654	0.1903	2.2100e-003	10.0232	3.6000e-004	10.0236	1.0000	3.4000e-004	1.0003		239.6649	239.6649	0.0238		240.2600
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0374**	**1.7742**	**0.2894**	**2.6800e-003**	**20.9503**	**5.5000e-004**	**20.9508**	**2.0899**	**5.2000e-004**	**2.0904**		**289.9494**	**289.9494**	**0.0281**		**290.6512**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0206	1.4654	0.1903	2.2100e-003	4.0108	3.6000e-004	4.0111	0.4005	3.4000e-004	0.4009		239.6649	239.6649	0.0238		240.2600
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0374**	**1.7742**	**0.2894**	**2.6800e-003**	**8.3827**	**5.5000e-004**	**8.3832**	**0.8369**	**5.2000e-004**	**0.8374**		**289.9494**	**289.9494**	**0.0281**		**290.6512**

3.6 Plots 5 and 10 (2027) Building-Landscaping - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	3.6428	8.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		50.3118	50.3118	4.7200e-003		50.4297
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0139**	**0.3589**	**0.0943**	**5.2000e-004**	**8.8459**	**1.6000e-004**	**8.8461**	**0.8824**	**1.5000e-004**	**0.8826**		**55.0852**	**55.0852**	**4.8700e-003**		**55.2069**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	1.4578	8.0000e-005	1.4579	0.1457	8.0000e-005	0.1457		50.3118	50.3118	4.7200e-003		50.4297
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0139**	**0.3589**	**0.0943**	**5.2000e-004**	**3.5394**	**1.6000e-004**	**3.5395**	**0.3534**	**1.5000e-004**	**0.3535**		**55.0852**	**55.0852**	**4.8700e-003**		**55.2069**

3.7 Plots 5 and 10 (2027) Landscaping - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.1244	43.1244	4.0400e-003		43.2255
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0130**	**0.3079**	**0.0849**	**4.5000e-004**	**8.3255**	**1.5000e-004**	**8.3257**	**0.8305**	**1.4000e-004**	**0.8306**		**47.8978**	**47.8978**	**4.1900e-003**		**48.0027**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.1244	43.1244	4.0400e-003		43.2255
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0130**	**0.3079**	**0.0849**	**4.5000e-004**	**3.3311**	**1.5000e-004**	**3.3313**	**0.3326**	**1.4000e-004**	**0.3327**		**47.8978**	**47.8978**	**4.1900e-003**		**48.0027**

3.8 Plots 5 and 10 (2027) Curbing/Drive Approaches - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3300e-003	0.5934	0.0771	8.9000e-004	4.0589	1.4000e-004	4.0591	0.4049	1.4000e-004	0.4051		97.0528	97.0528	9.6400e-003		97.2938
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.7496	28.7496	2.7000e-003		28.8170
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0195**	**0.7993**	**0.1432**	**1.2100e-003**	**11.3436**	**2.7000e-004**	**11.3439**	**1.1316**	**2.6000e-004**	**1.1318**		**130.5758**	**130.5758**	**0.0125**		**130.8880**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3300e-003	0.5934	0.0771	8.9000e-004	1.6242	1.4000e-004	1.6243	0.1622	1.4000e-004	0.1623		97.0528	97.0528	9.6400e-003		97.2938
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.7496	28.7496	2.7000e-003		28.8170
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0195**	**0.7993**	**0.1432**	**1.2100e-003**	**4.5388**	**2.7000e-004**	**4.5391**	**0.4531**	**2.6000e-004**	**0.4534**		**130.5758**	**130.5758**	**0.0125**		**130.8880**

3.9 Plots 5 and 10 (2027) Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0141	1.0043	0.1304	1.5100e-003	6.8690	2.4000e-004	6.8692	0.6853	2.3000e-004	0.6855		164.2432	164.2432	0.0163		164.6510
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	13.0077	1.9000e-004	13.0079	1.2973	1.8000e-004	1.2975		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0386**	**1.3148**	**0.2580**	**2.0300e-003**	**22.9991**	**5.0000e-004**	**22.9996**	**2.2941**	**4.8000e-004**	**2.2946**		**219.3011**	**219.3011**	**0.0207**		**219.8194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0141	1.0043	0.1304	1.5100e-003	2.7486	2.4000e-004	2.7488	0.2745	2.3000e-004	0.2747		164.2432	164.2432	0.0163		164.6510
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	5.2040	1.9000e-004	5.2042	0.5193	1.8000e-004	0.5195		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0386**	**1.3148**	**0.2580**	**2.0300e-003**	**9.2021**	**5.0000e-004**	**9.2026**	**0.9186**	**4.8000e-004**	**0.9191**		**219.3011**	**219.3011**	**0.0207**		**219.8194**

3.10 Plots 5 and 10 (2027) Temporary Utilities - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 Plots 5 and 10 (2027) Mass Excavation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0720	0.1392	1.6100e-003	7.3326	2.6000e-004	7.3328	0.7315	2.5000e-004	0.7318		175.3285	175.3285	0.0174		175.7638
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	3.6428	8.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		50.3118	50.3118	4.7200e-003		50.4297
Worker	0.0383	8.9200e-003	0.1423	2.4000e-004	26.0154	3.9000e-004	26.0158	2.5946	3.6000e-004	2.5950		23.8671	23.8671	7.5000e-004		23.8859
Total	**0.0596**	**1.4381**	**0.3473**	**2.3200e-003**	**36.9908**	**7.3000e-004**	**36.9915**	**3.6896**	**6.9000e-004**	**3.6903**		**249.5073**	**249.5073**	**0.0229**		**250.0794**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0720	0.1392	1.6100e-003	2.9341	2.6000e-004	2.9344	0.2930	2.5000e-004	0.2933		175.3285	175.3285	0.0174		175.7638
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	1.4578	8.0000e-005	1.4579	0.1457	8.0000e-005	0.1457		50.3118	50.3118	4.7200e-003		50.4297
Worker	0.0383	8.9200e-003	0.1423	2.4000e-004	10.4079	3.9000e-004	10.4083	1.0385	3.6000e-004	1.0389		23.8671	23.8671	7.5000e-004		23.8859
Total	**0.0596**	**1.4381**	**0.3473**	**2.3200e-003**	**14.7998**	**7.3000e-004**	**14.8006**	**1.4772**	**6.9000e-004**	**1.4779**		**249.5073**	**249.5073**	**0.0229**		**250.0794**

3.12 Plots 5 and 10 (2027) Finish Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5500e-003	0.3956	0.0514	6.0000e-004	2.7060	1.0000e-004	2.7061	0.2700	9.0000e-005	0.2701		64.7019	64.7019	6.4300e-003		64.8625
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.7496	28.7496	2.7000e-003		28.8170
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0206**	**0.6024**	**0.1317**	**9.4000e-004**	**12.5922**	**2.7000e-004**	**12.5925**	**1.2561**	**2.5000e-004**	**1.2563**		**100.6116**	**100.6116**	**9.3600e-003**		**100.8453**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5500e-003	0.3956	0.0514	6.0000e-004	1.0828	1.0000e-004	1.0829	0.1081	9.0000e-005	0.1082		64.7019	64.7019	6.4300e-003		64.8625
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.7496	28.7496	2.7000e-003		28.8170
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0206**	**0.6024**	**0.1317**	**9.4000e-004**	**5.0382**	**2.7000e-004**	**5.0384**	**0.5029**	**2.5000e-004**	**0.5032**		**100.6116**	**100.6116**	**9.3600e-003**		**100.8453**

3.13 Plots 5 and 10 (2028) Mass Excavation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1284	0.2809	3.2000e-003	14.6651	4.9000e-004	14.6656	1.4630	4.7000e-004	1.4635		347.7553	347.7553	0.0338		348.6006
Vendor	8.6600e-003	0.5079	0.0921	6.6000e-004	5.2041	1.1000e-004	5.2042	0.5193	1.1000e-004	0.5194		71.3414	71.3414	6.5400e-003		71.5049
Worker	0.0359	8.1400e-003	0.1329	2.3000e-004	26.0154	3.6000e-004	26.0157	2.5946	3.3000e-004	2.5949		23.1559	23.1559	6.9000e-004		23.1731
Total	**0.0744**	**2.6444**	**0.5059**	**4.0900e-003**	**45.8845**	**9.6000e-004**	**45.8855**	**4.5769**	**9.1000e-004**	**4.5778**		**442.2527**	**442.2527**	**0.0410**		**443.2786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1284	0.2809	3.2000e-003	5.8682	4.9000e-004	5.8687	0.5860	4.7000e-004	0.5865		347.7553	347.7553	0.0338		348.6006
Vendor	8.6600e-003	0.5079	0.0921	6.6000e-004	2.0826	1.1000e-004	2.0827	0.2081	1.1000e-004	0.2082		71.3414	71.3414	6.5400e-003		71.5049
Worker	0.0359	8.1400e-003	0.1329	2.3000e-004	10.4079	3.6000e-004	10.4083	1.0385	3.3000e-004	1.0389		23.1559	23.1559	6.9000e-004		23.1731
Total	**0.0744**	**2.6444**	**0.5059**	**4.0900e-003**	**18.3587**	**9.6000e-004**	**18.3597**	**1.8326**	**9.1000e-004**	**1.8335**		**442.2527**	**442.2527**	**0.0410**		**443.2786**

3.14 Plots 5 and 10 (2028) Finish Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.8700e-003	0.4909	0.0648	7.4000e-004	3.3824	1.1000e-004	3.3826	0.3374	1.1000e-004	0.3376		80.2081	80.2081	7.8000e-003		80.4030
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	2.0816	5.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.5366	28.5366	2.6200e-003		28.6020
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	7.8046	1.1000e-004	7.8047	0.7784	1.0000e-004	0.7785		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0211**	**0.6965**	**0.1415**	**1.0700e-003**	**13.2687**	**2.7000e-004**	**13.2689**	**1.3235**	**2.5000e-004**	**1.3238**		**115.6914**	**115.6914**	**0.0106**		**115.9569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.8700e-003	0.4909	0.0648	7.4000e-004	1.3535	1.1000e-004	1.3536	0.1352	1.1000e-004	0.1353		80.2081	80.2081	7.8000e-003		80.4030
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	0.8330	5.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.5366	28.5366	2.6200e-003		28.6020
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	3.1224	1.1000e-004	3.1225	0.3116	1.0000e-004	0.3117		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0211**	**0.6965**	**0.1415**	**1.0700e-003**	**5.3089**	**2.7000e-004**	**5.3091**	**0.5300**	**2.5000e-004**	**0.5302**		**115.6914**	**115.6914**	**0.0106**		**115.9569**

3.15 Plots 5 and 10 (2028) Utilities - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0254	1.8184	0.2400	2.7300e-003	12.5290	4.2000e-004	12.5295	1.2499	4.0000e-004	1.2503		297.1021	297.1021	0.0289		297.8243
Vendor	0.0216	1.2697	0.2303	1.6500e-003	13.0101	2.8000e-004	13.0104	1.2983	2.7000e-004	1.2985		178.3535	178.3535	0.0164		178.7623
Worker	0.0287	6.5100e-003	0.1063	1.9000e-004	20.8123	2.9000e-004	20.8126	2.0757	2.7000e-004	2.0759		18.5248	18.5248	5.5000e-004		18.5385
Total	**0.0758**	**3.0946**	**0.5766**	**4.5700e-003**	**46.3515**	**9.9000e-004**	**46.3525**	**4.6239**	**9.4000e-004**	**4.6248**		**493.9804**	**493.9804**	**0.0458**		**495.1251**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0254	1.8184	0.2400	2.7300e-003	5.0135	4.2000e-004	5.0139	0.5006	4.0000e-004	0.5010		297.1021	297.1021	0.0289		297.8243
Vendor	0.0216	1.2697	0.2303	1.6500e-003	5.2064	2.8000e-004	5.2067	0.5202	2.7000e-004	0.5205		178.3535	178.3535	0.0164		178.7623
Worker	0.0287	6.5100e-003	0.1063	1.9000e-004	8.3263	2.9000e-004	8.3266	0.8308	2.7000e-004	0.8311		18.5248	18.5248	5.5000e-004		18.5385
Total	**0.0758**	**3.0946**	**0.5766**	**4.5700e-003**	**18.5462**	**9.9000e-004**	**18.5472**	**1.8517**	**9.4000e-004**	**1.8526**		**493.9804**	**493.9804**	**0.0458**		**495.1251**

3.16 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0305	2.1821	0.2879	3.2800e-003	15.0348	5.0000e-004	15.0353	1.4999	4.8000e-004	1.5004		356.5226	356.5226	0.0347		357.3891
Vendor	1.7300e-003	0.1016	0.0184	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.2683	14.2683	1.3100e-003		14.3010
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	13.0077	1.8000e-004	13.0079	1.2973	1.7000e-004	1.2975		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0502**	**2.2877**	**0.3728**	**3.5300e-003**	**29.0833**	**7.0000e-004**	**29.0840**	**2.9011**	**6.7000e-004**	**2.9017**		**382.3688**	**382.3688**	**0.0363**		**383.2767**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0305	2.1821	0.2879	3.2800e-003	6.0161	5.0000e-004	6.0166	0.6008	4.8000e-004	0.6013		356.5226	356.5226	0.0347		357.3891
Vendor	1.7300e-003	0.1016	0.0184	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.2683	14.2683	1.3100e-003		14.3010
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	5.2040	1.8000e-004	5.2041	0.5193	1.7000e-004	0.5194		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0502**	**2.2877**	**0.3728**	**3.5300e-003**	**11.6366**	**7.0000e-004**	**11.6373**	**1.1617**	**6.7000e-004**	**1.1623**		**382.3688**	**382.3688**	**0.0363**		**383.2767**

3.17 Plots 5 and 10 (2028) Building-Wet Utilities - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9000e-003	0.6364	0.0840	9.6000e-004	4.3852	1.5000e-004	4.3853	0.4375	1.4000e-004	0.4376		103.9858	103.9858	0.0101		104.2385
Vendor	0.0130	0.7618	0.1382	9.9000e-004	7.8061	1.7000e-004	7.8063	0.7790	1.6000e-004	0.7791		107.0121	107.0121	9.8100e-003		107.2574
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	13.0077	1.8000e-004	13.0079	1.2973	1.7000e-004	1.2975		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0399**	**1.4023**	**0.2886**	**2.0700e-003**	**25.1989**	**5.0000e-004**	**25.1994**	**2.5137**	**4.7000e-004**	**2.5142**		**222.5758**	**222.5758**	**0.0203**		**223.0824**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9000e-003	0.6364	0.0840	9.6000e-004	1.7547	1.5000e-004	1.7549	0.1752	1.4000e-004	0.1754		103.9858	103.9858	0.0101		104.2385
Vendor	0.0130	0.7618	0.1382	9.9000e-004	3.1239	1.7000e-004	3.1240	0.3121	1.6000e-004	0.3123		107.0121	107.0121	9.8100e-003		107.2574
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	5.2040	1.8000e-004	5.2041	0.5193	1.7000e-004	0.5194		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0399**	**1.4023**	**0.2886**	**2.0700e-003**	**10.0825**	**5.0000e-004**	**10.0830**	**1.0066**	**4.7000e-004**	**1.0071**		**222.5758**	**222.5758**	**0.0203**		**223.0824**

3.18 Plots 5 and 10 (2028) Building-Electrical - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0204	1.4547	0.1920	2.1900e-003	10.0232	3.3000e-004	10.0236	1.0000	3.2000e-004	1.0003		237.6817	237.6817	0.0231		238.2594
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3117		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	7.8046	1.1000e-004	7.8047	0.7784	1.0000e-004	0.7785		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0363**	**1.7619**	**0.2871**	**2.6600e-003**	**20.9503**	**5.1000e-004**	**20.9508**	**2.0899**	**4.8000e-004**	**2.0904**		**287.4333**	**287.4333**	**0.0272**		**288.1143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0204	1.4547	0.1920	2.1900e-003	4.0108	3.3000e-004	4.0111	0.4005	3.2000e-004	0.4008		237.6817	237.6817	0.0231		238.2594
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	3.1224	1.1000e-004	3.1225	0.3116	1.0000e-004	0.3117		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0363**	**1.7619**	**0.2871**	**2.6600e-003**	**8.3827**	**5.1000e-004**	**8.3832**	**0.8369**	**4.8000e-004**	**0.8374**		**287.4333**	**287.4333**	**0.0272**		**288.1143**

3.19 Plots 5 and 10 (2028) Building-Landscaping - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0600e-003	0.3555	0.0645	4.6000e-004	3.6428	8.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		49.9390	49.9390	4.5800e-003		50.0535
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	5.2031	7.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0132**	**0.3571**	**0.0911**	**5.1000e-004**	**8.8459**	**1.5000e-004**	**8.8461**	**0.8824**	**1.5000e-004**	**0.8826**		**54.5702**	**54.5702**	**4.7200e-003**		**54.6881**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0600e-003	0.3555	0.0645	4.6000e-004	1.4578	8.0000e-005	1.4579	0.1457	8.0000e-005	0.1457		49.9390	49.9390	4.5800e-003		50.0535
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0132**	**0.3571**	**0.0911**	**5.1000e-004**	**3.5394**	**1.5000e-004**	**3.5395**	**0.3534**	**1.5000e-004**	**0.3535**		**54.5702**	**54.5702**	**4.7200e-003**		**54.6881**

3.20 Plots 5 and 10 (2028) Landscaping - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3117		42.8048	42.8048	3.9200e-003		42.9030
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	5.2031	7.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0124**	**0.3064**	**0.0819**	**4.5000e-004**	**8.3255**	**1.4000e-004**	**8.3257**	**0.8305**	**1.3000e-004**	**0.8306**		**47.4360**	**47.4360**	**4.0600e-003**		**47.5376**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.8048	42.8048	3.9200e-003		42.9030
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0124**	**0.3064**	**0.0819**	**4.5000e-004**	**3.3311**	**1.4000e-004**	**3.3313**	**0.3326**	**1.3000e-004**	**0.3327**		**47.4360**	**47.4360**	**4.0600e-003**		**47.5376**

3.21 Plots 5 and 10 (2028) Curbing/Drive Approaches - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.2400e-003	0.5891	0.0777	8.8000e-004	4.0589	1.3000e-004	4.0591	0.4049	1.3000e-004	0.4051		96.2497	96.2497	9.3600e-003		96.4837
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	2.0816	5.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.5366	28.5366	2.6200e-003		28.6020
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	5.2031	7.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0189**	**0.7939**	**0.1412**	**1.1900e-003**	**11.3436**	**2.5000e-004**	**11.3439**	**1.1316**	**2.4000e-004**	**1.1318**		**129.4175**	**129.4175**	**0.0121**		**129.7202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.2400e-003	0.5891	0.0777	8.8000e-004	1.6242	1.3000e-004	1.6243	0.1622	1.3000e-004	0.1623		96.2497	96.2497	9.3600e-003		96.4837
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	0.8330	5.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.5366	28.5366	2.6200e-003		28.6020
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0189**	**0.7939**	**0.1412**	**1.1900e-003**	**4.5388**	**2.5000e-004**	**4.5390**	**0.4531**	**2.4000e-004**	**0.4534**		**129.4175**	**129.4175**	**0.0121**		**129.7202**

3.22 Plots 5 and 10 (2028) Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.9969	0.1316	1.5000e-003	6.8690	2.3000e-004	6.8692	0.6853	2.2000e-004	0.6855		162.8841	162.8841	0.0158		163.2800
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3117		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	13.0077	1.8000e-004	13.0079	1.2973	1.7000e-004	1.2975		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0371**	**1.3057**	**0.2533**	**2.0200e-003**	**22.9991**	**4.8000e-004**	**22.9995**	**2.2941**	**4.5000e-004**	**2.2946**		**217.2669**	**217.2669**	**0.0201**		**217.7695**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.9969	0.1316	1.5000e-003	2.7486	2.3000e-004	2.7488	0.2745	2.2000e-004	0.2747		162.8841	162.8841	0.0158		163.2800
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	5.2040	1.8000e-004	5.2041	0.5193	1.7000e-004	0.5194		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0371**	**1.3057**	**0.2533**	**2.0200e-003**	**9.2021**	**4.8000e-004**	**9.2026**	**0.9186**	**4.5000e-004**	**0.9191**		**217.2669**	**217.2669**	**0.0201**		**217.7695**

3.23 Plots 5 and 10 (2028) Temporary Utilities - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.24 Plots 7 8 21 22 (2029) Utilities - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0252	1.8063	0.2419	2.7100e-003	12.5290	3.9000e-004	12.5294	1.2499	3.7000e-004	1.2503		295.0404	295.0404	0.0281		295.7435
Vendor	0.0212	1.2643	0.2259	1.6400e-003	13.0101	2.7000e-004	13.0104	1.2983	2.6000e-004	1.2985		177.2421	177.2421	0.0159		177.6401
Worker	0.0268	5.9300e-003	0.0991	1.8000e-004	20.8123	2.7000e-004	20.8126	2.0757	2.5000e-004	2.0759		18.0172	18.0172	5.0000e-004		18.0296
Total	**0.0731**	**3.0766**	**0.5669**	**4.5300e-003**	**46.3515**	**9.3000e-004**	**46.3524**	**4.6239**	**8.8000e-004**	**4.6247**		**490.2997**	**490.2997**	**0.0445**		**491.4132**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0252	1.8063	0.2419	2.7100e-003	5.0135	3.9000e-004	5.0138	0.5006	3.7000e-004	0.5010		295.0404	295.0404	0.0281		295.7435
Vendor	0.0212	1.2643	0.2259	1.6400e-003	5.2064	2.7000e-004	5.2067	0.5202	2.6000e-004	0.5205		177.2421	177.2421	0.0159		177.6401
Worker	0.0268	5.9300e-003	0.0991	1.8000e-004	8.3263	2.7000e-004	8.3266	0.8308	2.5000e-004	0.8311		18.0172	18.0172	5.0000e-004		18.0296
Total	**0.0731**	**3.0766**	**0.5669**	**4.5300e-003**	**18.5462**	**9.3000e-004**	**18.5471**	**1.8517**	**8.8000e-004**	**1.8526**		**490.2997**	**490.2997**	**0.0445**		**491.4132**

3.25 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0302	2.1676	0.2903	3.2500e-003	15.0348	4.6000e-004	15.0353	1.4999	4.4000e-004	1.5004		354.0485	354.0485	0.0338		354.8922
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	13.0077	1.7000e-004	13.0079	1.2973	1.6000e-004	1.2975		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0486**	**2.2725**	**0.3703**	**3.4900e-003**	**29.0833**	**6.5000e-004**	**29.0840**	**2.9011**	**6.2000e-004**	**2.9017**		**379.4886**	**379.4886**	**0.0353**		**380.3719**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0302	2.1676	0.2903	3.2500e-003	6.0161	4.6000e-004	6.0166	0.6008	4.4000e-004	0.6012		354.0485	354.0485	0.0338		354.8922
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	5.2040	1.7000e-004	5.2041	0.5193	1.6000e-004	0.5194		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0486**	**2.2725**	**0.3703**	**3.4900e-003**	**11.6366**	**6.5000e-004**	**11.6373**	**1.1617**	**6.2000e-004**	**1.1623**		**379.4886**	**379.4886**	**0.0353**		**380.3719**

3.26 Plots 7 8 21 22 (2029) Building-Wet Utilities - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.8200e-003	0.6322	0.0847	9.5000e-004	4.3852	1.4000e-004	4.3853	0.4375	1.3000e-004	0.4376		103.2642	103.2642	9.8400e-003		103.5102
Vendor	0.0127	0.7586	0.1355	9.8000e-004	7.8061	1.6000e-004	7.8063	0.7790	1.5000e-004	0.7791		106.3453	106.3453	9.5500e-003		106.5840
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	13.0077	1.7000e-004	13.0079	1.2973	1.6000e-004	1.2975		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0383**	**1.3945**	**0.2821**	**2.0400e-003**	**25.1989**	**4.7000e-004**	**25.1994**	**2.5137**	**4.4000e-004**	**2.5142**		**220.8702**	**220.8702**	**0.0197**		**221.3628**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.8200e-003	0.6322	0.0847	9.5000e-004	1.7547	1.4000e-004	1.7548	0.1752	1.3000e-004	0.1754		103.2642	103.2642	9.8400e-003		103.5102
Vendor	0.0127	0.7586	0.1355	9.8000e-004	3.1239	1.6000e-004	3.1240	0.3121	1.5000e-004	0.3123		106.3453	106.3453	9.5500e-003		106.5840
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	5.2040	1.7000e-004	5.2041	0.5193	1.6000e-004	0.5194		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0383**	**1.3945**	**0.2821**	**2.0400e-003**	**10.0825**	**4.7000e-004**	**10.0830**	**1.0066**	**4.4000e-004**	**1.0071**		**220.8702**	**220.8702**	**0.0197**		**221.3628**

3.27 Plots 7 8 21 22 (2029) Building-Electrical - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0202	1.4451	0.1935	2.1700e-003	10.0232	3.1000e-004	10.0235	1.0000	3.0000e-004	1.0003		236.0323	236.0323	0.0225		236.5948
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0353**	**1.7507**	**0.2849**	**2.6300e-003**	**20.9503**	**4.7000e-004**	**20.9507**	**2.0899**	**4.5000e-004**	**2.0904**		**285.3269**	**285.3269**	**0.0265**		**285.9895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0202	1.4451	0.1935	2.1700e-003	4.0108	3.1000e-004	4.0111	0.4005	3.0000e-004	0.4008		236.0323	236.0323	0.0225		236.5948
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0353**	**1.7507**	**0.2849**	**2.6300e-003**	**8.3827**	**4.7000e-004**	**8.3832**	**0.8369**	**4.5000e-004**	**0.8374**		**285.3269**	**285.3269**	**0.0265**		**285.9895**

3.28 Plots 7 8 21 22 (2029) Building-Landscaping - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.3540	0.0633	4.6000e-004	3.6428	8.0000e-005	3.6429	0.3635	7.0000e-005	0.3636		49.6278	49.6278	4.4600e-003		49.7392
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	5.2031	7.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0126**	**0.3555**	**0.0880**	**5.1000e-004**	**8.8459**	**1.5000e-004**	**8.8461**	**0.8824**	**1.3000e-004**	**0.8826**		**54.1321**	**54.1321**	**4.5800e-003**		**54.2466**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.3540	0.0633	4.6000e-004	1.4578	8.0000e-005	1.4579	0.1457	7.0000e-005	0.1457		49.6278	49.6278	4.4600e-003		49.7392
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0126**	**0.3555**	**0.0880**	**5.1000e-004**	**3.5394**	**1.5000e-004**	**3.5395**	**0.3534**	**1.3000e-004**	**0.3535**		**54.1321**	**54.1321**	**4.5800e-003**		**54.2466**

3.29 Plots 7 8 21 22 (2029) Landscaping - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.5381	42.5381	3.8200e-003		42.6336
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	5.2031	7.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0118**	**0.3049**	**0.0790**	**4.4000e-004**	**8.3255**	**1.3000e-004**	**8.3256**	**0.8305**	**1.2000e-004**	**0.8306**		**47.0424**	**47.0424**	**3.9400e-003**		**47.1410**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.5381	42.5381	3.8200e-003		42.6336
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0118**	**0.3049**	**0.0790**	**4.4000e-004**	**3.3311**	**1.3000e-004**	**3.3313**	**0.3326**	**1.2000e-004**	**0.3327**		**47.0424**	**47.0424**	**3.9400e-003**		**47.1410**

3.30 Plots 7 8 21 22 (2029) Curbing/Drive Approaches - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	4.0589	1.3000e-004	4.0591	0.4049	1.2000e-004	0.4051		95.5818	95.5818	9.1100e-003		95.8096
Vendor	3.3900e-003	0.2023	0.0361	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.3587	28.3587	2.5500e-003		28.4224
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	5.2031	7.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0182**	**0.7889**	**0.1393**	**1.1900e-003**	**11.3436**	**2.4000e-004**	**11.3439**	**1.1316**	**2.2000e-004**	**1.1318**		**128.4448**	**128.4448**	**0.0118**		**128.7394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	1.6242	1.3000e-004	1.6243	0.1622	1.2000e-004	0.1623		95.5818	95.5818	9.1100e-003		95.8096
Vendor	3.3900e-003	0.2023	0.0361	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.3587	28.3587	2.5500e-003		28.4224
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0182**	**0.7889**	**0.1393**	**1.1900e-003**	**4.5388**	**2.4000e-004**	**4.5390**	**0.4531**	**2.2000e-004**	**0.4534**		**128.4448**	**128.4448**	**0.0118**		**128.7394**

3.31 Plots 7 8 21 22 (2029) Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0138	0.9903	0.1326	1.4900e-003	6.8690	2.1000e-004	6.8692	0.6853	2.0000e-004	0.6855		161.7538	161.7538	0.0154		162.1393
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	13.0077	1.7000e-004	13.0079	1.2973	1.6000e-004	1.2975		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0356**	**1.2975**	**0.2488**	**1.9900e-003**	**22.9991**	**4.4000e-004**	**22.9995**	**2.2941**	**4.2000e-004**	**2.2946**		**215.5526**	**215.5526**	**0.0196**		**216.0414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0138	0.9903	0.1326	1.4900e-003	2.7486	2.1000e-004	2.7488	0.2745	2.0000e-004	0.2747		161.7538	161.7538	0.0154		162.1393
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	5.2040	1.7000e-004	5.2041	0.5193	1.6000e-004	0.5194		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0356**	**1.2975**	**0.2488**	**1.9900e-003**	**9.2021**	**4.4000e-004**	**9.2025**	**0.9186**	**4.2000e-004**	**0.9190**		**215.5526**	**215.5526**	**0.0196**		**216.0414**

3.32 Plots 7 8 21 22 (2029) Temporary Utilities - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.33 Plots 7 8 21 22 (2029) Mass Excavation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0232	1.6612	0.2225	2.4900e-003	11.5226	3.6000e-004	11.5230	1.1495	3.4000e-004	1.1499		271.3402	271.3402	0.0259		271.9868
Vendor	7.6200e-003	0.4551	0.0813	5.9000e-004	4.6837	1.0000e-004	4.6838	0.4674	9.0000e-005	0.4675		63.8072	63.8072	5.7300e-003		63.9504
Worker	0.0335	7.4200e-003	0.1239	2.3000e-004	26.0154	3.4000e-004	26.0157	2.5946	3.1000e-004	2.5949		22.5215	22.5215	6.2000e-004		22.5370
Total	**0.0642**	**2.1238**	**0.4277**	**3.3100e-003**	**42.2216**	**8.0000e-004**	**42.2224**	**4.2115**	**7.4000e-004**	**4.2122**		**357.6689**	**357.6689**	**0.0322**		**358.4743**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0232	1.6612	0.2225	2.4900e-003	4.6107	3.6000e-004	4.6111	0.4604	3.4000e-004	0.4608		271.3402	271.3402	0.0259		271.9868
Vendor	7.6200e-003	0.4551	0.0813	5.9000e-004	1.8743	1.0000e-004	1.8744	0.1873	9.0000e-005	0.1874		63.8072	63.8072	5.7300e-003		63.9504
Worker	0.0335	7.4200e-003	0.1239	2.3000e-004	10.4079	3.4000e-004	10.4083	1.0385	3.1000e-004	1.0389		22.5215	22.5215	6.2000e-004		22.5370
Total	**0.0642**	**2.1238**	**0.4277**	**3.3100e-003**	**16.8930**	**8.0000e-004**	**16.8938**	**1.6863**	**7.4000e-004**	**1.6870**		**357.6689**	**357.6689**	**0.0322**		**358.4743**

3.34 Plots 7 8 21 22 (2029) Finish Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	4.0589	1.3000e-004	4.0591	0.4049	1.2000e-004	0.4051		95.5818	95.5818	9.1100e-003		95.8096
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0199**	**0.6886**	**0.1336**	**1.0800e-003**	**12.9044**	**2.5000e-004**	**12.9046**	**1.2872**	**2.3000e-004**	**1.2874**		**116.5176**	**116.5176**	**0.0106**		**116.7819**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	1.6242	1.3000e-004	1.6243	0.1622	1.2000e-004	0.1623		95.5818	95.5818	9.1100e-003		95.8096
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0199**	**0.6886**	**0.1336**	**1.0800e-003**	**5.1631**	**2.5000e-004**	**5.1633**	**0.5154**	**2.3000e-004**	**0.5156**		**116.5176**	**116.5176**	**0.0106**		**116.7819**

Plot 11 Emissions Summary

Unmitigated Air Quality Construction Analysis

Regional Maximums Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
			lb/day			
Plot 11 (2030) Mass Excavation	46.58	213.17	223.16	0.89	59.14	13.45
Plot 11 (2030) Finish Grading	1.65	10.41	17.12	0.04	9.12	1.33
Plot 11 (2030) Utilities	16.61	59.88	125.00	0.43	31.74	4.81
Plot 11 (2030) Building-Concrete	3.40	24.64	45.85	0.10	2.82	0.87
Plot 11 (2030) Building-Wet Utilities	6.10	25.11	71.81	0.17	15.51	2.37
Plot 11 (2030) Building-Electrical	4.17	27.60	47.57	0.10	12.08	1.70
Plot 11 (2030) Building-Landscaping	3.02	14.69	35.85	0.06	4.88	0.89
Plot 11 (2030) Landscaping	3.17	15.00	38.26	0.07	4.67	0.88
Plot 11 (2030) Curbing/Drive Approaches	1.03	7.13	11.37	0.03	5.20	0.78
Plot 11 (2030) Paving	5.03	26.91	45.13	0.12	13.45	2.29
Plot 11 (2030) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13
Plot 11 (2031) Utilities	16.60	59.82	124.93	0.43	31.74	4.81
Plot 11 (2031) Building-Concrete	3.44	26.86	46.19	0.11	14.46	2.03
Plot 11 (2031) Building-Wet Utilities	6.09	25.09	71.76	0.17	15.51	2.37
Plot 11 (2031) Building-Electrical	4.16	27.57	47.55	0.10	12.08	1.70
Plot 11 (2031) Building-Landscaping	3.01	14.68	35.83	0.06	4.88	0.89
Plot 11 (2031) Landscaping	3.17	15.00	38.24	0.07	4.67	0.88
Plot 11 (2031) Curbing/Drive Approaches	1.02	7.11	11.36	0.03	5.20	0.78
Plot 11 (2031) Paving	5.02	26.88	45.09	0.12	13.45	2.29
Plot 11 (2031) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13
Plot 11 (2032) Mass Excavation	40.55	188.28	194.91	0.75	40.74	10.71
Plot 11 (2032) Finish Grading	1.64	10.66	17.16	0.04	9.42	1.37
Plot 11 (2032) Utilities	16.58	59.73	124.85	0.43	31.74	4.81
Plot 11 (2032) Building-Concrete	3.43	26.79	46.15	0.10	14.46	2.03
Plot 11 (2032) Building-Wet Utilities	6.08	25.05	71.71	0.17	15.51	2.37
Plot 11 (2032) Building-Electrical	4.16	27.52	47.53	0.09	12.08	1.70
Plot 11 (2032) Building-Landscaping	3.01	14.67	35.80	0.06	4.88	0.89
Plot 11 (2032) Landscaping	3.17	14.99	38.22	0.07	4.67	0.88
Plot 11 (2032) Curbing/Drive Approaches	1.02	7.09	11.34	0.03	5.20	0.78
Plot 11 (2032) Paving	5.01	26.84	45.04	0.12	13.45	2.29
Plot 11 (2032) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13

Overlapping Phases

Plot 11-2030	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	84.70	390.51	604.61	1.86	139.96	26.30
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	83.06	380.10	587.49	1.82	130.84	24.97
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	37.50	174.06	375.70	0.96	76.91	12.30
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	42.53	200.96	420.83	1.08	90.35	14.59
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	43.79	204.93	427.04	1.11	90.48	14.73
Plot 11-2031						
All Phases	43.78	206.98	427.14	1.11	102.12	15.89
Plot 11-2032						
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	78.62	367.70	576.32	1.73	133.50	24.76
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	76.98	357.04	559.17	1.69	124.08	23.39
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	78.00	175.85	375.60	0.96	88.54	13.46
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	83.01	390.97	615.54	1.84	142.73	26.47
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	43.72	206.65	426.84	1.11	102.12	15.88
Daily Maximum[1]						
2030	309.12	390.51	604.61	1.86	139.96	26.30
2031	268.20	206.98	427.14	1.11	102.12	15.89
2032	307.43	390.97	615.54	1.84	142.73	26.47

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions						
Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day					
Plot 11 (2030) Mass Excavation	0.07	2.61	0.49	0.00	18.36	1.83
Plot 11 (2030) Finish Grading	0.02	0.88	0.16	0.00	5.85	0.58
Plot 11 (2030) Utilities	0.07	3.06	0.56	0.00	18.55	1.85
Plot 11 (2030) Building-Concrete	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2030) Building-Wet Utilities	0.04	1.39	0.28	0.00	10.08	1.01
Plot 11 (2030) Building-Electrical	0.03	1.74	0.28	0.00	8.38	0.84
Plot 11 (2030) Building-Landscaping	0.01	0.35	0.09	0.00	3.54	0.35
Plot 11 (2030) Landscaping	0.01	0.30	0.08	0.00	3.33	0.33
Plot 11 (2030) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 11 (2030) Paving	0.03	1.29	0.25	0.00	9.20	0.92
Plot 11 (2030) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	0.07	3.05	0.55	0.00	18.55	1.85
Plot 11 (2031) Building-Concrete	0.05	2.25	0.37	0.00	11.64	1.16
Plot 11 (2031) Building-Wet Utilities	0.04	1.38	0.27	0.00	10.08	1.01
Plot 11 (2031) Building-Electrical	0.03	1.73	0.28	0.00	8.38	0.84
Plot 11 (2031) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 11 (2031) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 11 (2031) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 11 (2031) Paving	0.03	1.28	0.24	0.00	9.20	0.92
Plot 11 (2031) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	0.05	1.58	0.34	0.00	15.64	1.56
Plot 11 (2032) Finish Grading	0.02	0.97	0.17	0.00	6.12	0.61
Plot 11 (2032) Utilities	0.07	3.04	0.55	0.00	18.55	1.85
Plot 11 (2032) Building-Concrete	0.04	2.24	0.37	0.00	11.64	1.16
Plot 11 (2032) Building-Wet Utilities	0.03	1.38	0.27	0.00	10.08	1.01
Plot 11 (2032) Building-Electrical	0.03	1.73	0.28	0.00	8.38	0.84
Plot 11 (2032) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 11 (2032) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 11 (2032) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 11 (2032) Paving	0.03	1.28	0.24	0.00	9.20	0.92
Plot 11 (2032) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Unmitgated VOC Emissions (lb/day)	
2030	224
2031	224
2032	224

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 11 (2030) Mass Excavation	46.09	204.99	218.88	0.84	38.96	11.11	0.39	5.50	3.79	0.04	1.81	0.50
Plot 11 (2030) Finish Grading	1.49	7.65	15.74	0.03	2.69	0.59	0.12	1.86	1.22	0.01	0.58	0.16
Plot 11 (2030) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.39	6.44	3.80	0.04	1.88	0.53
Plot 11 (2030) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.26	4.71	2.68	0.03	1.16	0.32
Plot 11 (2030) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.21	2.94	1.95	0.02	1.01	0.28
Plot 11 (2030) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.19	3.63	1.91	0.02	0.85	0.24
Plot 11 (2030) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.07	0.76	0.61	0.01	0.35	0.10
Plot 11 (2030) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.06	0.66	0.57	0.01	0.33	0.09
Plot 11 (2030) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.10	1.65	0.97	0.01	0.46	0.13
Plot 11 (2030) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.19	2.72	1.88	0.02	0.91	0.25
Plot 11 (2030) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.38	6.40	3.74	0.04	1.88	0.53
Plot 11 (2031) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.25	4.68	2.65	0.03	1.16	0.32
Plot 11 (2031) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.20	2.92	1.90	0.02	1.01	0.28
Plot 11 (2031) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.18	3.61	1.90	0.02	0.85	0.24
Plot 11 (2031) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.07	0.76	0.59	0.01	0.35	0.10
Plot 11 (2031) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.06	0.65	0.55	0.01	0.33	0.09
Plot 11 (2031) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.09	1.63	0.95	0.01	0.46	0.13
Plot 11 (2031) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.19	2.70	1.84	0.02	0.91	0.25
Plot 11 (2031) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	40.19	183.34	191.79	0.72	23.58	8.73	0.29	3.33	2.77	0.03	1.52	0.42
Plot 11 (2032) Finish Grading	1.49	7.65	15.74	0.03	2.69	0.59	0.12	2.02	1.25	0.01	0.61	0.17
Plot 11 (2032) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.37	6.33	3.67	0.04	1.88	0.53
Plot 11 (2032) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.25	4.62	2.61	0.03	1.16	0.32
Plot 11 (2032) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.19	2.89	1.86	0.02	1.01	0.28
Plot 11 (2032) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.18	3.57	1.87	0.02	0.85	0.24
Plot 11 (2032) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.06	0.75	0.58	0.01	0.35	0.10
Plot 11 (2032) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.06	0.65	0.54	0.01	0.33	0.09
Plot 11 (2032) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.09	1.62	0.94	0.01	0.46	0.13
Plot 11 (2032) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.18	2.67	1.80	0.02	0.91	0.25
Plot 11 (2032) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 11 (2030) Mass Excavation	46.5	210.5	222.7	0.88	40.78	11.61
Plot 11 (2030) Finish Grading	1.6	9.5	17.0	0.04	3.27	0.75
Plot 11 (2030) Utilities	16.5	56.7	124.4	0.43	13.20	2.96
Plot 11 (2030) Building-Concrete	3.4	24.6	45.9	0.10	2.82	0.87
Plot 11 (2030) Building-Wet Utilities	6.0	23.7	71.5	0.17	5.43	1.36
Plot 11 (2030) Building-Electrical	4.1	25.8	47.3	0.09	3.70	0.87
Plot 11 (2030) Building-Landscaping	3.0	14.3	35.8	0.06	1.34	0.53
Plot 11 (2030) Landscaping	3.2	14.7	38.2	0.07	1.34	0.55
Plot 11 (2030) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 11 (2030) Paving	5.0	25.6	44.9	0.12	4.24	1.37
Plot 11 (2030) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 11 (2031) Utilities	16.5	56.7	124.4	0.43	13.20	2.96
Plot 11 (2031) Building-Concrete	3.4	24.6	45.8	0.10	2.82	0.87
Plot 11 (2031) Building-Wet Utilities	6.0	23.7	71.5	0.17	5.43	1.36
Plot 11 (2031) Building-Electrical	4.1	25.8	47.3	0.09	3.70	0.87
Plot 11 (2031) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 11 (2031) Landscaping	3.2	14.7	38.2	0.07	1.34	0.55
Plot 11 (2031) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 11 (2031) Paving	5.0	25.6	44.8	0.12	4.24	1.37
Plot 11 (2031) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 11 (2032) Mass Excavation	40.5	186.7	194.6	0.75	25.10	9.15
Plot 11 (2032) Finish Grading	1.6	9.7	17.0	0.04	3.30	0.76
Plot 11 (2032) Utilities	16.5	56.6	124.3	0.43	13.20	2.96
Plot 11 (2032) Building-Concrete	3.4	24.5	45.8	0.10	2.82	0.87
Plot 11 (2032) Building-Wet Utilities	6.0	23.6	71.4	0.17	5.43	1.36
Plot 11 (2032) Building-Electrical	4.1	25.8	47.2	0.09	3.70	0.86
Plot 11 (2032) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 11 (2032) Landscaping	3.2	14.7	38.1	0.07	1.34	0.55
Plot 11 (2032) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 11 (2032) Paving	5.0	25.5	44.8	0.12	4.24	1.37
Plot 11 (2032) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13

Overlapping Phases						
Plot 11-2030	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	84.31	379.88	602.68	1.84	71.87	19.50
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	82.70	370.37	585.72	1.80	68.60	18.75
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	37.22	166.20	374.28	0.95	28.48	7.47
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	42.20	191.79	419.17	1.07	32.73	8.84
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	43.47	195.76	425.37	1.10	32.86	8.97
Plot 11-2031						
All Phases	43.42	195.60	425.13	1.10	32.86	8.97
Plot 11-2032						
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	78.24	355.87	574.19	1.71	56.22	17.04
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	76.63	346.20	557.20	1.67	52.92	16.29
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	77.62	165.82	373.84	0.95	28.48	7.46
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	82.59	378.03	613.20	1.82	57.83	17.99
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	43.38	195.32	424.84	1.09	32.85	8.97
Daily Maximum[1]						
2030	84.31	379.88	602.68	1.84	71.87	19.50
2031	43.42	195.60	425.13	1.10	32.86	8.97
2032	82.59	378.03	613.20	1.82	57.83	17.99

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 11 (2030) Mass Excavation	46.09	204.99	218.88	0.84	38.96	11.11	0.42	5.56	3.66	0.04	1.81	0.50
Plot 11 (2030) Finish Grading	1.49	7.65	15.74	0.03	2.69	0.59	0.13	1.88	1.18	0.01	0.58	0.16
Plot 11 (2030) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.42	6.51	3.73	0.04	1.88	0.53
Plot 11 (2030) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.28	4.75	2.64	0.03	1.16	0.32
Plot 11 (2030) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.22	2.98	1.89	0.02	1.01	0.28
Plot 11 (2030) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.20	3.67	1.91	0.02	0.85	0.24
Plot 11 (2030) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.07	0.78	0.58	0.01	0.35	0.10
Plot 11 (2030) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.07	0.67	0.54	0.01	0.33	0.09
Plot 11 (2030) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.10	1.66	0.95	0.01	0.46	0.13
Plot 11 (2030) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.21	2.75	1.82	0.02	0.91	0.25
Plot 11 (2030) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.40	6.47	3.67	0.04	1.88	0.53
Plot 11 (2031) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.27	4.72	2.62	0.03	1.16	0.32
Plot 11 (2031) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.21	2.96	1.85	0.02	1.01	0.28
Plot 11 (2031) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.19	3.64	1.89	0.02	0.85	0.24
Plot 11 (2031) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.07	0.77	0.57	0.01	0.35	0.10
Plot 11 (2031) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.07	0.66	0.52	0.01	0.33	0.09
Plot 11 (2031) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.10	1.65	0.94	0.01	0.46	0.13
Plot 11 (2031) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.20	2.73	1.78	0.02	0.91	0.25
Plot 11 (2031) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	40.19	183.34	191.79	0.72	23.58	8.73	0.32	3.37	2.63	0.03	1.52	0.42
Plot 11 (2032) Finish Grading	1.49	7.65	15.74	0.03	2.69	0.59	0.13	2.04	1.22	0.01	0.61	0.17
Plot 11 (2032) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.39	6.40	3.61	0.04	1.88	0.53
Plot 11 (2032) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.26	4.66	2.58	0.03	1.16	0.32
Plot 11 (2032) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.21	2.92	1.81	0.02	1.01	0.28
Plot 11 (2032) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.19	3.60	1.87	0.02	0.85	0.24
Plot 11 (2032) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.07	0.76	0.55	0.01	0.35	0.10
Plot 11 (2032) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.06	0.65	0.51	0.01	0.33	0.09
Plot 11 (2032) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.10	1.63	0.92	0.01	0.46	0.13
Plot 11 (2032) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.19	2.70	1.74	0.02	0.91	0.25
Plot 11 (2032) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 11 (2030) Mass Excavation	46.5	210.6	222.5	0.88	40.78	11.61
Plot 11 (2030) Finish Grading	1.6	9.5	16.9	0.04	3.27	0.75
Plot 11 (2030) Utilities	16.5	56.8	124.4	0.42	13.20	2.96
Plot 11 (2030) Building-Concrete	3.4	24.6	45.8	0.10	2.82	0.87
Plot 11 (2030) Building-Wet Utilities	6.1	23.7	71.5	0.17	5.43	1.36
Plot 11 (2030) Building-Electrical	4.1	25.9	47.3	0.09	3.70	0.87
Plot 11 (2030) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 11 (2030) Landscaping	3.2	14.7	38.1	0.07	1.34	0.55
Plot 11 (2030) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 11 (2030) Paving	5.0	25.6	44.8	0.12	4.24	1.37
Plot 11 (2030) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 11 (2031) Utilities	16.5	56.8	124.3	0.42	13.20	2.96
Plot 11 (2031) Building-Concrete	3.4	24.6	45.8	0.10	2.82	0.87
Plot 11 (2031) Building-Wet Utilities	6.1	23.7	71.4	0.17	5.43	1.36
Plot 11 (2031) Building-Electrical	4.1	25.8	47.3	0.09	3.70	0.87
Plot 11 (2031) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 11 (2031) Landscaping	3.2	14.7	38.1	0.07	1.34	0.55
Plot 11 (2031) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 11 (2031) Paving	5.0	25.6	44.8	0.12	4.24	1.37
Plot 11 (2031) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 11 (2032) Mass Excavation	40.5	186.7	194.4	0.75	25.10	9.15
Plot 11 (2032) Finish Grading	1.6	9.7	17.0	0.04	3.30	0.76
Plot 11 (2032) Utilities	16.5	56.7	124.2	0.42	13.20	2.96
Plot 11 (2032) Building-Concrete	3.4	24.6	45.8	0.10	2.82	0.87
Plot 11 (2032) Building-Wet Utilities	6.1	23.7	71.4	0.17	5.43	1.36
Plot 11 (2032) Building-Electrical	4.1	25.8	47.2	0.09	3.70	0.87
Plot 11 (2032) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 11 (2032) Landscaping	3.2	14.7	38.1	0.07	1.34	0.55
Plot 11 (2032) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 11 (2032) Paving	5.0	25.6	44.7	0.12	4.24	1.37
Plot 11 (2032) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13

Overlapping Phases						
Plot 11-2030	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	84.45	380.16	602.27	1.84	71.87	19.50
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	82.82	370.64	585.35	1.80	68.60	18.75
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	37.32	166.43	374.03	0.95	28.48	7.47
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	42.31	192.04	418.85	1.06	32.73	8.84
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	43.58	196.01	425.05	1.09	32.86	8.97
Plot 11-2031						
All Phases	43.53	195.85	424.83	1.09	32.86	8.97
Plot 11-2032						
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	78.35	356.12	573.82	1.71	56.22	17.04
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	76.73	346.43	556.86	1.67	52.92	16.29
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	77.74	166.04	373.63	0.95	28.48	7.46
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	82.72	378.31	612.80	1.81	57.83	17.99
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	43.48	195.56	424.57	1.09	32.86	8.97
Daily Maximum[1]						
2030	84.45	380.16	602.27	1.84	71.87	19.50
2031	43.53	195.85	424.83	1.09	32.86	8.97
2032	82.72	378.31	612.80	1.81	57.83	17.99

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized

Air Quality Construction Analysis

Localized Emissions	**Onsite Emissions**				**Onsite OnRoad Vehicle Emissions**			
	NOX	**CO**	**Total PM10**	**Total PM2.5**	**NOX**	**CO**	**Total PM10**	**Total PM2.5**
Source	**lb/day**				**lb/day**			
Plot 11 (2030) Mass Excavation	204.99	218.88	38.96	11.11	2.61	0.49	18.36	1.83
Plot 11 (2030) Finish Grading	7.65	15.74	2.69	0.59	0.88	0.16	5.85	0.58
Plot 11 (2030) Utilities	50.30	120.64	11.32	2.43	3.06	0.56	18.55	1.85
Plot 11 (2030) Building-Concrete	19.89	43.17	1.65	0.54	0.00	0.00	0.00	0.00
Plot 11 (2030) Building-Wet Utilities	20.75	69.59	4.41	1.08	1.39	0.28	10.08	1.01
Plot 11 (2030) Building-Electrical	22.19	45.37	2.85	0.63	1.74	0.28	8.38	0.84
Plot 11 (2030) Building-Landscaping	13.56	35.15	0.99	0.43	0.35	0.09	3.54	0.35
Plot 11 (2030) Landscaping	14.03	37.61	1.01	0.45	0.30	0.08	3.33	0.33
Plot 11 (2030) Curbing/Drive Approaches	4.68	10.26	0.20	0.20	0.78	0.14	4.54	0.45
Plot 11 (2030) Paving	22.87	43.00	3.33	1.12	1.29	0.25	9.20	0.92
Plot 11 (2030) Temporary Utilities	3.97	6.20	0.13	0.13	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	50.30	120.64	11.32	2.43	3.05	0.55	18.55	1.85
Plot 11 (2031) Building-Concrete	19.89	43.17	1.65	0.54	2.25	0.37	11.64	1.16
Plot 11 (2031) Building-Wet Utilities	20.75	69.59	4.41	1.08	1.38	0.27	10.08	1.01
Plot 11 (2031) Building-Electrical	22.19	45.37	2.85	0.63	1.73	0.28	8.38	0.84
Plot 11 (2031) Building-Landscaping	13.56	35.15	0.99	0.43	0.35	0.08	3.54	0.35
Plot 11 (2031) Landscaping	14.03	37.61	1.01	0.45	0.30	0.07	3.33	0.33
Plot 11 (2031) Curbing/Drive Approaches	4.68	10.26	0.20	0.20	0.78	0.14	4.54	0.45
Plot 11 (2031) Paving	22.87	43.00	3.33	1.12	1.28	0.24	9.20	0.92
Plot 11 (2031) Temporary Utilities	3.97	6.20	0.13	0.13	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	183.34	191.79	23.58	8.73	1.58	0.34	15.64	1.56
Plot 11 (2032) Finish Grading	7.65	15.74	2.69	0.59	0.97	0.17	6.12	0.61
Plot 11 (2032) Utilities	50.30	120.64	11.32	2.43	3.04	0.55	18.55	1.85
Plot 11 (2032) Building-Concrete	19.89	43.17	1.65	0.54	2.24	0.37	11.64	1.16
Plot 11 (2032) Building-Wet Utilities	20.75	69.59	4.41	1.08	1.38	0.27	10.08	1.01
Plot 11 (2032) Building-Electrical	22.19	45.37	2.85	0.63	1.73	0.28	8.38	0.84
Plot 11 (2032) Building-Landscaping	13.56	35.15	0.99	0.43	0.35	0.08	3.54	0.35
Plot 11 (2032) Landscaping	14.03	37.61	1.01	0.45	0.30	0.07	3.33	0.33
Plot 11 (2032) Curbing/Drive Approaches	4.68	10.26	0.20	0.20	0.78	0.14	4.54	0.45
Plot 11 (2032) Paving	22.87	43.00	3.33	1.12	1.28	0.24	9.20	0.92
Plot 11 (2032) Temporary Utilities	3.97	6.20	0.13	0.13	0.00	0.00	0.00	0.00

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 11 (2030) Mass Excavation	207.6	219.4	57.32	12.94
Plot 11 (2030) Finish Grading	8.5	15.9	8.54	1.17
Plot 11 (2030) Utilities	53.4	121.2	29.86	4.29
Plot 11 (2030) Building-Concrete	19.9	43.2	1.65	0.54
Plot 11 (2030) Building-Wet Utilities	22.1	69.9	14.49	2.09
Plot 11 (2030) Building-Electrical	23.9	45.7	11.23	1.46
Plot 11 (2030) Building-Landscaping	13.9	35.2	4.53	0.79
Plot 11 (2030) Landscaping	14.3	37.7	4.34	0.79
Plot 11 (2030) Curbing/Drive Approaches	5.5	10.4	4.74	0.66
Plot 11 (2030) Paving	24.2	43.2	12.54	2.04
Plot 11 (2030) Temporary Utilities	4.0	6.2	0.13	0.13
Plot 11 (2031) Utilities	53.4	121.2	29.86	4.29
Plot 11 (2031) Building-Concrete	22.1	43.5	13.29	1.71
Plot 11 (2031) Building-Wet Utilities	22.1	69.9	14.49	2.09
Plot 11 (2031) Building-Electrical	23.9	45.7	11.23	1.46
Plot 11 (2031) Building-Landscaping	13.9	35.2	4.53	0.79
Plot 11 (2031) Landscaping	14.3	37.7	4.34	0.79
Plot 11 (2031) Curbing/Drive Approaches	5.5	10.4	4.74	0.66
Plot 11 (2031) Paving	24.2	43.2	12.54	2.04
Plot 11 (2031) Temporary Utilities	4.0	6.2	0.13	0.13
Plot 11 (2032) Mass Excavation	184.9	192.1	39.22	10.29
Plot 11 (2032) Finish Grading	8.6	15.9	8.81	1.20
Plot 11 (2032) Utilities	53.3	121.2	29.86	4.29
Plot 11 (2032) Building-Concrete	22.1	43.5	13.29	1.71
Plot 11 (2032) Building-Wet Utilities	22.1	69.9	14.49	2.09
Plot 11 (2032) Building-Electrical	23.9	45.7	11.23	1.46
Plot 11 (2032) Building-Landscaping	13.9	35.2	4.53	0.79
Plot 11 (2032) Landscaping	14.3	37.7	4.34	0.79
Plot 11 (2032) Curbing/Drive Approaches	5.5	10.4	4.74	0.66
Plot 11 (2032) Paving	24.1	43.2	12.54	2.04
Plot 11 (2032) Temporary Utilities	4.0	6.2	0.13	0.13

Overlapping Phases				
Plot 11-2030	**NOX**	**CO**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	363.71	588.08	131.97	24.07
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	355.18	572.17	123.43	22.90
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	153.04	363.21	70.85	10.61
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	177.20	406.46	83.39	12.65
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	181.16	412.66	83.52	12.78
Plot 11-2031				
All Phases	183.37	413.01	95.15	13.94
Plot 11-2032				
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	343.30	561.19	125.77	22.61
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	334.68	545.28	116.96	21.41
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	155.22	363.55	82.49	11.77
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	364.28	598.92	134.24	24.10
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	183.33	412.99	95.15	13.94
Daily Maximum[1]				
2030	363.71	588.08	131.97	24.07
2031	183.37	413.01	95.15	13.94
2032	364.28	598.92	134.24	24.10

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Daily Unmitgated VOC Emissions (lb/day)	
2030	224
2031	224
2032	224

World Logistics Center-Construction Plot 11 (2030-2032) - South Coast AQMD Air District, Summer

World Logistics Center-Construction Plot 11 (2030-2032)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	84.3143	379.8818	602.6752	1.8432	141.9033	11.6967	153.6000	16.6288	11.6929	28.3218	0.0000	195,811.0699	195,811.0699	8.2902	0.0000	196,018.3246
2031	55.5663	195.5952	425.1279	1.0952	61.1425	4.8004	65.9428	7.7433	4.7972	12.5405	0.0000	110,929.3178	110,929.3178	4.5555	0.0000	111,043.2045
2032	94.7309	378.0264	613.2036	1.8163	105.3293	11.6141	116.9434	12.7612	11.6104	24.3715	0.0000	191,705.1697	191,705.1697	8.1393	0.0000	191,908.6511
Maximum	**94.7309**	**379.8818**	**613.2036**	**1.8432**	**141.9033**	**11.6967**	**153.6000**	**16.6288**	**11.6929**	**28.3218**	**0.0000**	**195,811.0699**	**195,811.0699**	**8.2902**	**0.0000**	**196,018.3246**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	84.3143	379.8818	602.6752	1.8432	60.1735	11.6967	71.8702	7.8039	11.6929	19.4969	0.0000	195,811.0698	195,811.0698	8.2902	0.0000	196,018.3244
2031	55.5663	195.5952	425.1279	1.0952	28.0557	4.8004	32.8561	4.1707	4.7972	8.9679	0.0000	110,929.3177	110,929.3177	4.5555	0.0000	111,043.2044
2032	94.7309	378.0264	613.2036	1.8163	46.2121	11.6141	57.8262	6.3779	11.6104	17.9882	0.0000	191,705.1696	191,705.1696	8.1393	0.0000	191,908.6510
Maximum	**94.7309**	**379.8818**	**613.2036**	**1.8432**	**60.1735**	**11.6967**	**71.8702**	**7.8039**	**11.6929**	**19.4969**	**0.0000**	**195,811.0698**	**195,811.0698**	**8.2902**	**0.0000**	**196,018.3244**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.40**	**0.00**	**51.69**	**50.58**	**0.00**	**28.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 11 (2030) Mass Excavation	Grading	1/1/2030	4/17/2030	5	77	1204
2	Plot 11 (2030) Finish Grading	Grading	1/1/2030	2/25/2030	5	40	1205
3	Plot 11 (2030) Utilities	Trenching	1/1/2030	12/30/2030	5	260	1210
4	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
5	Plot 11 (2030) Building-Wet Utilities	Building Construction	1/1/2030	12/30/2030	5	260	1207
6	Plot 11 (2030) Building-Electrical	Building Construction	1/1/2030	12/30/2030	5	260	1208
7	Plot 11 (2030) Building-Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1209
8	Plot 11 (2030) Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1211
9	Plot 11 (2030) Curbing/Drive Approaches	Paving	5/1/2030	8/20/2030	5	80	1213
10	Plot 11 (2030) Paving	Paving	6/1/2030	7/26/2030	5	40	1214
11	Plot 11 (2030) Temporary Utilities	Building Construction	7/2/2030	12/30/2030	5	130	1212
12	Plot 11 (2031) Utilities	Trenching	1/1/2031	12/30/2031	5	260	1219
13	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
14	Plot 11 (2031) Building-Wet Utilities	Building Construction	1/1/2031	12/30/2031	5	260	1216
15	Plot 11 (2031) Building-Electrical	Building Construction	1/1/2031	12/30/2031	5	260	1217
16	Plot 11 (2031) Building-Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1218
17	Plot 11 (2031) Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1220
18	Plot 11 (2031) Curbing/Drive Approaches	Paving	5/1/2031	8/20/2031	5	80	1222

19	Plot 11 (2031) Paving	Paving	6/1/2031	7/26/2031	5	40	1223
20	Plot 11 (2031) Temporary Utilities	Building Construction	7/2/2031	12/30/2031	5	130	1221
21	Plot 11 (2032) Mass Excavation	Grading	1/1/2032	6/30/2032	5	130	1224
22	Plot 11 (2032) Finish Grading	Grading	1/1/2032	2/25/2032	5	40	1225
23	Plot 11 (2032) Utilities	Trenching	1/1/2032	12/29/2032	5	260	1230
24	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
25	Plot 11 (2032) Building-Wet Utilities	Building Construction	1/1/2032	12/29/2032	5	260	1227
26	Plot 11 (2032) Building-Electrical	Building Construction	1/1/2032	12/29/2032	5	260	1228
27	Plot 11 (2032) Building-Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1229
28	Plot 11 (2032) Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1231
29	Plot 11 (2032) Curbing/Drive Approaches	Paving	5/1/2032	8/20/2032	5	80	1233
30	Plot 11 (2032) Paving	Paving	6/1/2032	7/26/2032	5	40	1234
31	Plot 11 (2032) Temporary Utilities	Building Construction	7/2/2032	12/30/2032	5	130	1232

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2030) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2030) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2030) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2030) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2030) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2030) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2030) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2030) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2030) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2030) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2030) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2030) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2030) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2030) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2030) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2030) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2030) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2030) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2030) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2030) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2030) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2030) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Utilities	Other Material Handling Equipment	7	1.00	167	0.40

Plot 11 (2030) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2030) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Scrapers	12	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2031) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2031) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2031) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2031) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2031) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2031) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2031) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2031) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2031) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2031) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2031) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2031) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2031) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 11 (2031) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2031) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2031) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2031) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2031) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2031) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2031) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2031) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2031) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2031) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2031) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2031) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2031) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2031) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2032) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2032) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2032) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2032) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2032) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2032) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2032) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2032) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2032) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2032) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40

Plot 11 (2032) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2032) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Mass Excavation	Scrapers	4	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Scrapers	11	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2032) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2032) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2032) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2032) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2032) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2032) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2032) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2032) Utilities	Excavators	2	10.00	523	0.38

Plot 11 (2032) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2032) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2032) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2032) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2032) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Finish Grading		15.00	4.00	364.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 11 (2031) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Finish Grading		15.00	4.00	416.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Mass Excavation		50.00	12.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 11 (2030) Mass Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	46.0913	204.9941	218.8779	0.8430		7.7394	7.7394		7.7394	7.7394		94,850.8990	94,850.8990	4.1058		94,953.5440
Total	**46.0913**	**204.9941**	**218.8779**	**0.8430**	**80.0609**	**7.7394**	**87.8003**	**8.6447**	**7.7394**	**16.3841**		**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1490	4.3369	1.7167	0.0239	0.6154	8.8700e-003	0.6243	0.1686	8.4800e-003	0.1771		2,613.2866	2,613.2866	0.1634		2,617.3709
Vendor	0.0415	1.0627	0.3957	7.2100e-003	0.2312	2.3600e-003	0.2336	0.0665	2.2600e-003	0.0687		772.3079	772.3079	0.0301		773.0593
Worker	0.1969	0.1021	1.6796	6.9400e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		692.7107	692.7107	0.0110		692.9866
Total	**0.3874**	**5.5018**	**3.7920**	**0.0381**	**1.7968**	**0.0158**	**1.8125**	**0.4871**	**0.0149**	**0.5020**		**4,078.3052**	**4,078.3052**	**0.2045**		**4,083.4168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	46.0913	204.9941	218.8779	0.8430		7.7394	7.7394		7.7394	7.7394	0.0000	94,850.8990	94,850.8990	4.1058		94,953.5439
Total	**46.0913**	**204.9941**	**218.8779**	**0.8430**	**31.2238**	**7.7394**	**38.9632**	**3.3714**	**7.7394**	**11.1108**	**0.0000**	**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1490	4.3369	1.7167	0.0239	0.6154	8.8700e-003	0.6243	0.1686	8.4800e-003	0.1771		2,613.2866	2,613.2866	0.1634		2,617.3709
Vendor	0.0415	1.0627	0.3957	7.2100e-003	0.2312	2.3600e-003	0.2336	0.0665	2.2600e-003	0.0687		772.3079	772.3079	0.0301		773.0593
Worker	0.1969	0.1021	1.6796	6.9400e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		692.7107	692.7107	0.0110		692.9866
Total	**0.3874**	**5.5018**	**3.7920**	**0.0381**	**1.7968**	**0.0158**	**1.8125**	**0.4871**	**0.0149**	**0.5020**		**4,078.3052**	**4,078.3052**	**0.2045**		**4,083.4168**

3.3 Plot 11 (2030) Finish Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0481	1.4004	0.5543	7.7300e-003	0.1987	2.8600e-003	0.2016	0.0545	2.7400e-003	0.0572		843.8387	843.8387	0.0528		845.1575
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1238**	**1.8561**	**1.2165**	**0.0127**	**0.5762**	**5.1600e-003**	**0.5814**	**0.1566**	**4.8900e-003**	**0.1615**		**1,360.5751**	**1,360.5751**	**0.0681**		**1,362.2772**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**2.3575**	**0.3322**	**2.6897**	**0.2546**	**0.3322**	**0.5867**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0481	1.4004	0.5543	7.7300e-003	0.1987	2.8600e-003	0.2016	0.0545	2.7400e-003	0.0572		843.8387	843.8387	0.0528		845.1575
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1238**	**1.8561**	**1.2165**	**0.0127**	**0.5762**	**5.1600e-003**	**0.5814**	**0.1566**	**4.8900e-003**	**0.1615**		**1,360.5751**	**1,360.5751**	**0.0681**		**1,362.2772**

3.4 Plot 11 (2030) Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	3.7052	1.4666	0.0205	0.5258	7.5800e-003	0.5334	0.1441	7.2500e-003	0.1513		2,232.6416	2,232.6416	0.1396		2,236.1310
Vendor	0.1038	2.6568	0.9892	0.0180	0.5780	5.9000e-003	0.5839	0.1662	5.6400e-003	0.1719		1,930.7698	1,930.7698	0.0751		1,932.6482
Worker	0.1575	0.0817	1.3437	5.5500e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		554.1686	554.1686	8.8300e-003		554.3893
Total	**0.3886**	**6.4437**	**3.7995**	**0.0440**	**1.8639**	**0.0171**	**1.8810**	**0.5119**	**0.0162**	**0.5281**		**4,717.5800**	**4,717.5800**	**0.2236**		**4,723.1685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	3.7052	1.4666	0.0205	0.5258	7.5800e-003	0.5334	0.1441	7.2500e-003	0.1513		2,232.6416	2,232.6416	0.1396		2,236.1310
Vendor	0.1038	2.6568	0.9892	0.0180	0.5780	5.9000e-003	0.5839	0.1662	5.6400e-003	0.1719		1,930.7698	1,930.7698	0.0751		1,932.6482
Worker	0.1575	0.0817	1.3437	5.5500e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		554.1686	554.1686	8.8300e-003		554.3893
Total	**0.3886**	**6.4437**	**3.7995**	**0.0440**	**1.8639**	**0.0171**	**1.8810**	**0.5119**	**0.0162**	**0.5281**		**4,717.5800**	**4,717.5800**	**0.2236**		**4,723.1685**

3.5 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

3.6 Plot 11 (2030) Building-Wet Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2968	0.5133	7.1600e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5400e-003	0.0530		781.4246	781.4246	0.0489		782.6459
Vendor	0.0623	1.5941	0.5935	0.0108	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,158.4619	1,158.4619	0.0451		1,159.5889
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2052**	**2.9420**	**1.9467**	**0.0214**	**1.0059**	**8.4500e-003**	**1.0143**	**0.2761**	**8.0000e-003**	**0.2841**		**2,286.2418**	**2,286.2418**	**0.0995**		**2,288.7281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2968	0.5133	7.1600e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5400e-003	0.0530		781.4246	781.4246	0.0489		782.6459
Vendor	0.0623	1.5941	0.5935	0.0108	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,158.4619	1,158.4619	0.0451		1,159.5889
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2052**	**2.9420**	**1.9467**	**0.0214**	**1.0059**	**8.4500e-003**	**1.0143**	**0.2761**	**8.0000e-003**	**0.2841**		**2,286.2418**	**2,286.2418**	**0.0995**		**2,288.7281**

3.7 Plot 11 (2030) Building-Electrical - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1018	2.9642	1.1733	0.0164	0.4206	6.0600e-003	0.4267	0.1153	5.8000e-003	0.1211		1,786.1133	1,786.1133	0.1117		1,788.9048
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1858**	**3.6325**	**1.9146**	**0.0228**	**0.8444**	**8.8400e-003**	**0.8532**	**0.2307**	**8.4000e-003**	**0.2391**		**2,457.3113**	**2,457.3113**	**0.1330**		**2,460.6364**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1018	2.9642	1.1733	0.0164	0.4206	6.0600e-003	0.4267	0.1153	5.8000e-003	0.1211		1,786.1133	1,786.1133	0.1117		1,788.9048
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1858**	**3.6325**	**1.9146**	**0.0228**	**0.8444**	**8.8400e-003**	**0.8532**	**0.2307**	**8.4000e-003**	**0.2391**		**2,457.3113**	**2,457.3113**	**0.1330**		**2,460.6364**

3.8 Plot 11 (2030) Building-Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7439	0.2770	5.0500e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		540.6156	540.6156	0.0210		541.1415
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0684**	**0.7643**	**0.6129**	**6.4400e-003**	**0.3519**	**2.5600e-003**	**0.3544**	**0.0969**	**2.4100e-003**	**0.0993**		**679.1577**	**679.1577**	**0.0233**		**679.7388**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7439	0.2770	5.0500e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		540.6156	540.6156	0.0210		541.1415
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0684**	**0.7643**	**0.6129**	**6.4400e-003**	**0.3519**	**2.5600e-003**	**0.3544**	**0.0969**	**2.4100e-003**	**0.0993**		**679.1577**	**679.1577**	**0.0233**		**679.7388**

3.9 Plot 11 (2030) Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0643**	**0.6581**	**0.5733**	**5.7100e-003**	**0.3288**	**2.3300e-003**	**0.3311**	**0.0903**	**2.1800e-003**	**0.0925**		**601.9269**	**601.9269**	**0.0202**		**602.4329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0643**	**0.6581**	**0.5733**	**5.7100e-003**	**0.3288**	**2.3300e-003**	**0.3311**	**0.0903**	**2.1800e-003**	**0.0925**		**601.9269**	**601.9269**	**0.0202**		**602.4329**

3.10 Plot 11 (2030) Curbing/Drive Approaches - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0412	1.2004	0.4751	6.6300e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		723.2903	723.2903	0.0452		724.4207
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0972**	**1.6459**	**0.9693**	**0.0109**	**0.4528**	**4.3000e-003**	**0.4571**	**0.1237**	**4.0800e-003**	**0.1277**		**1,170.7556**	**1,170.7556**	**0.0595**		**1,172.2418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0412	1.2004	0.4751	6.6300e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		723.2903	723.2903	0.0452		724.4207
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0972**	**1.6459**	**0.9693**	**0.0109**	**0.4528**	**4.3000e-003**	**0.4571**	**0.1237**	**4.0800e-003**	**0.1277**		**1,170.7556**	**1,170.7556**	**0.0595**		**1,172.2418**

3.11 Plot 11 (2030) Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0698	2.0314	0.8041	0.0112	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,224.0297	1,224.0297	0.0765		1,225.9428
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.1931**	**2.7201**	**1.8813**	**0.0190**	**0.9020**	**7.8300e-003**	**0.9099**	**0.2449**	**7.4000e-003**	**0.2523**		**2,033.7698**	**2,033.7698**	**0.1001**		**2,036.2716**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0698	2.0314	0.8041	0.0112	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,224.0297	1,224.0297	0.0765		1,225.9428
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.1931**	**2.7201**	**1.8813**	**0.0190**	**0.9020**	**7.8300e-003**	**0.9099**	**0.2449**	**7.4000e-003**	**0.2523**		**2,033.7698**	**2,033.7698**	**0.1001**		**2,036.2716**

3.12 Plot 11 (2030) Temporary Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 11 (2031) Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1280	3.6821	1.4810	0.0204	0.5258	7.5000e-003	0.5333	0.1441	7.1700e-003	0.1513		2,230.0206	2,230.0206	0.1392		2,233.4999
Vendor	0.1038	2.6444	0.9913	0.0180	0.5780	5.8600e-003	0.5839	0.1662	5.6000e-003	0.1718		1,929.6983	1,929.6983	0.0749		1,931.5700
Worker	0.1459	0.0747	1.2662	5.4400e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		542.8434	542.8434	8.1100e-003		543.0461
Total	**0.3776**	**6.4012**	**3.7385**	**0.0439**	**1.8639**	**0.0168**	**1.8806**	**0.5119**	**0.0159**	**0.5277**		**4,702.5624**	**4,702.5624**	**0.2222**		**4,708.1160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1280	3.6821	1.4810	0.0204	0.5258	7.5000e-003	0.5333	0.1441	7.1700e-003	0.1513		2,230.0206	2,230.0206	0.1392		2,233.4999
Vendor	0.1038	2.6444	0.9913	0.0180	0.5780	5.8600e-003	0.5839	0.1662	5.6000e-003	0.1718		1,929.6983	1,929.6983	0.0749		1,931.5700
Worker	0.1459	0.0747	1.2662	5.4400e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		542.8434	542.8434	8.1100e-003		543.0461
Total	**0.3776**	**6.4012**	**3.7385**	**0.0439**	**1.8639**	**0.0168**	**1.8806**	**0.5119**	**0.0159**	**0.5277**		**4,702.5624**	**4,702.5624**	**0.2222**		**4,708.1160**

3.14 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

3.15 Plot 11 (2031) Building-Wet Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0448	1.2887	0.5184	7.1500e-003	0.1840	2.6200e-003	0.1867	0.0504	2.5100e-003	0.0529		780.5072	780.5072	0.0487		781.7250
Vendor	0.0623	1.5866	0.5948	0.0108	0.3468	3.5100e-003	0.3503	0.0997	3.3600e-003	0.1031		1,157.8190	1,157.8190	0.0449		1,158.9420
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1982**	**2.9220**	**1.9045**	**0.0214**	**1.0059**	**8.2500e-003**	**1.0142**	**0.2761**	**7.8200e-003**	**0.2839**		**2,277.6033**	**2,277.6033**	**0.0987**		**2,280.0708**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0448	1.2887	0.5184	7.1500e-003	0.1840	2.6200e-003	0.1867	0.0504	2.5100e-003	0.0529		780.5072	780.5072	0.0487		781.7250
Vendor	0.0623	1.5866	0.5948	0.0108	0.3468	3.5100e-003	0.3503	0.0997	3.3600e-003	0.1031		1,157.8190	1,157.8190	0.0449		1,158.9420
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1982**	**2.9220**	**1.9045**	**0.0214**	**1.0059**	**8.2500e-003**	**1.0142**	**0.2761**	**7.8200e-003**	**0.2839**		**2,277.6033**	**2,277.6033**	**0.0987**		**2,280.0708**

3.16 Plot 11 (2031) Building-Electrical - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1024	2.9457	1.1848	0.0163	0.4206	6.0000e-003	0.4266	0.1153	5.7400e-003	0.1210		1,784.0165	1,784.0165	0.1113		1,786.7999
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0547	0.0280	0.4748	2.0400e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		203.5663	203.5663	3.0400e-003		203.6423
Total	**0.1820**	**3.6083**	**1.8975**	**0.0227**	**0.8444**	**8.6800e-003**	**0.8531**	**0.2307**	**8.2500e-003**	**0.2390**		**2,450.7104**	**2,450.7104**	**0.1324**		**2,454.0190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1024	2.9457	1.1848	0.0163	0.4206	6.0000e-003	0.4266	0.1153	5.7400e-003	0.1210		1,784.0165	1,784.0165	0.1113		1,786.7999
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0547	0.0280	0.4748	2.0400e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		203.5663	203.5663	3.0400e-003		203.6423
Total	**0.1820**	**3.6083**	**1.8975**	**0.0227**	**0.8444**	**8.6800e-003**	**0.8531**	**0.2307**	**8.2500e-003**	**0.2390**		**2,450.7104**	**2,450.7104**	**0.1324**		**2,454.0190**

3.17 Plot 11 (2031) Building-Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7404	0.2776	5.0400e-003	0.1618	1.6400e-003	0.1635	0.0465	1.5700e-003	0.0481		540.3155	540.3155	0.0210		540.8396
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0655**	**0.7591**	**0.5941**	**6.4000e-003**	**0.3519**	**2.4900e-003**	**0.3544**	**0.0969**	**2.3500e-003**	**0.0993**		**676.0264**	**676.0264**	**0.0230**		**676.6011**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7404	0.2776	5.0400e-003	0.1618	1.6400e-003	0.1635	0.0465	1.5700e-003	0.0481		540.3155	540.3155	0.0210		540.8396
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0655**	**0.7591**	**0.5941**	**6.4000e-003**	**0.3519**	**2.4900e-003**	**0.3544**	**0.0969**	**2.3500e-003**	**0.0993**		**676.0264**	**676.0264**	**0.0230**		**676.6011**

3.18 Plot 11 (2031) Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0614**	**0.6533**	**0.5545**	**5.6800e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1200e-003**	**0.0924**		**598.8385**	**598.8385**	**0.0200**		**599.3383**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0614**	**0.6533**	**0.5545**	**5.6800e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1200e-003**	**0.0924**		**598.8385**	**598.8385**	**0.0200**		**599.3383**

3.19 Plot 11 (2031) Curbing/Drive Approaches - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.1929	0.4798	6.6200e-003	0.1703	2.4300e-003	0.1728	0.0467	2.3200e-003	0.0490		722.4412	722.4412	0.0451		723.5683
Vendor	0.0166	0.4231	0.1586	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.7517	308.7517	0.0120		309.0512
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0945**	**1.6346**	**0.9549**	**0.0109**	**0.4528**	**4.2200e-003**	**0.4571**	**0.1237**	**4.0000e-003**	**0.1277**		**1,166.9038**	**1,166.9038**	**0.0591**		**1,168.3811**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.1929	0.4798	6.6200e-003	0.1703	2.4300e-003	0.1728	0.0467	2.3200e-003	0.0490		722.4412	722.4412	0.0451		723.5683
Vendor	0.0166	0.4231	0.1586	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.7517	308.7517	0.0120		309.0512
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0945**	**1.6346**	**0.9549**	**0.0109**	**0.4528**	**4.2200e-003**	**0.4571**	**0.1237**	**4.0000e-003**	**0.1277**		**1,166.9038**	**1,166.9038**	**0.0591**		**1,168.3811**

3.20 Plot 11 (2031) Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0187	0.8120	0.0112	0.2883	4.1100e-003	0.2924	0.0790	3.9300e-003	0.0829		1,222.5928	1,222.5928	0.0763		1,224.5003
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1862**	**2.7000**	**1.8412**	**0.0189**	**0.9021**	**7.6400e-003**	**0.9097**	**0.2449**	**7.2200e-003**	**0.2521**		**2,024.9975**	**2,024.9975**	**0.0993**		**2,027.4809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0187	0.8120	0.0112	0.2883	4.1100e-003	0.2924	0.0790	3.9300e-003	0.0829		1,222.5928	1,222.5928	0.0763		1,224.5003
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1862**	**2.7000**	**1.8412**	**0.0189**	**0.9021**	**7.6400e-003**	**0.9097**	**0.2449**	**7.2200e-003**	**0.2521**		**2,024.9975**	**2,024.9975**	**0.0993**		**2,027.4809**

3.21 Plot 11 (2031) Temporary Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 11 (2032) Mass Excavation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					42.6729	0.0000	42.6729	4.6077	0.0000	4.6077			0.0000			0.0000
Off-Road	40.1862	183.3429	191.7895	0.7240		6.9353	6.9353		6.9353	6.9353		81,286.6667	81,286.6667	3.5825		81,376.2283
Total	**40.1862**	**183.3429**	**191.7895**	**0.7240**	**42.6729**	**6.9353**	**49.6082**	**4.6077**	**6.9353**	**11.5430**		**81,286.6667**	**81,286.6667**	**3.5825**		**81,376.2283**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	1.9837	0.8086	0.0111	0.2864	4.0300e-003	0.2904	0.0785	3.8600e-003	0.0823		1,211.7049	1,211.7049	0.0756		1,213.5937
Vendor	0.0494	1.2564	0.4741	8.6200e-003	0.2774	2.7800e-003	0.2802	0.0798	2.6600e-003	0.0825		924.3436	924.3436	0.0358		925.2384
Worker	0.1694	0.0858	1.4919	6.6600e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		665.0388	665.0388	9.3000e-003		665.2713
Total	**0.2882**	**3.3259**	**2.7746**	**0.0264**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,801.0873**	**2,801.0873**	**0.1206**		**2,804.1034**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.6424	0.0000	16.6424	1.7970	0.0000	1.7970			0.0000			0.0000
Off-Road	40.1862	183.3429	191.7895	0.7240		6.9353	6.9353		6.9353	6.9353	0.0000	81,286.6666	81,286.6666	3.5825		81,376.2282
Total	**40.1862**	**183.3429**	**191.7895**	**0.7240**	**16.6424**	**6.9353**	**23.5777**	**1.7970**	**6.9353**	**8.7323**	**0.0000**	**81,286.6666**	**81,286.6666**	**3.5825**		**81,376.2282**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	1.9837	0.8086	0.0111	0.2864	4.0300e-003	0.2904	0.0785	3.8600e-003	0.0823		1,211.7049	1,211.7049	0.0756		1,213.5937
Vendor	0.0494	1.2564	0.4741	8.6200e-003	0.2774	2.7800e-003	0.2802	0.0798	2.6600e-003	0.0825		924.3436	924.3436	0.0358		925.2384
Worker	0.1694	0.0858	1.4919	6.6600e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		665.0388	665.0388	9.3000e-003		665.2713
Total	**0.2882**	**3.3259**	**2.7746**	**0.0264**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,801.0873**	**2,801.0873**	**0.1206**		**2,804.1034**

3.23 Plot 11 (2032) Finish Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0550	1.5730	0.6412	8.8000e-003	0.2271	3.2000e-003	0.2303	0.0622	3.0600e-003	0.0653		960.8358	960.8358	0.0599		962.3335
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1223**	**2.0175**	**1.2468**	**0.0137**	**0.6046**	**5.3100e-003**	**0.6099**	**0.1644**	**5.0400e-003**	**0.1694**		**1,468.4620**	**1,468.4620**	**0.0746**		**1,470.3277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**2.3575**	**0.3322**	**2.6897**	**0.2546**	**0.3322**	**0.5867**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0550	1.5730	0.6412	8.8000e-003	0.2271	3.2000e-003	0.2303	0.0622	3.0600e-003	0.0653		960.8358	960.8358	0.0599		962.3335
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1223**	**2.0175**	**1.2468**	**0.0137**	**0.6046**	**5.3100e-003**	**0.6099**	**0.1644**	**5.0400e-003**	**0.1694**		**1,468.4620**	**1,468.4620**	**0.0746**		**1,470.3277**

3.24 Plot 11 (2032) Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1274	3.6416	1.4845	0.0204	0.5258	7.4000e-003	0.5332	0.1441	7.0800e-003	0.1512		2,224.4201	2,224.4201	0.1387		2,227.8876
Vendor	0.1029	2.6176	0.9877	0.0180	0.5780	5.8000e-003	0.5838	0.1662	5.5400e-003	0.1718		1,925.7159	1,925.7159	0.0746		1,927.5800
Worker	0.1355	0.0686	1.1935	5.3300e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		532.0310	532.0310	7.4400e-003		532.2170
Total	**0.3658**	**6.3277**	**3.6657**	**0.0437**	**1.8639**	**0.0164**	**1.8803**	**0.5119**	**0.0155**	**0.5274**		**4,682.1670**	**4,682.1670**	**0.2207**		**4,687.6846**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1274	3.6416	1.4845	0.0204	0.5258	7.4000e-003	0.5332	0.1441	7.0800e-003	0.1512		2,224.4201	2,224.4201	0.1387		2,227.8876
Vendor	0.1029	2.6176	0.9877	0.0180	0.5780	5.8000e-003	0.5838	0.1662	5.5400e-003	0.1718		1,925.7159	1,925.7159	0.0746		1,927.5800
Worker	0.1355	0.0686	1.1935	5.3300e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		532.0310	532.0310	7.4400e-003		532.2170
Total	**0.3658**	**6.3277**	**3.6657**	**0.0437**	**1.8639**	**0.0164**	**1.8803**	**0.5119**	**0.0155**	**0.5274**		**4,682.1670**	**4,682.1670**	**0.2207**		**4,687.6846**

3.25 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

3.26 Plot 11 (2032) Building-Wet Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2746	0.5196	7.1300e-003	0.1840	2.5900e-003	0.1866	0.0504	2.4800e-003	0.0529		778.5470	778.5470	0.0486		779.7607
Vendor	0.0618	1.5705	0.5927	0.0108	0.3468	3.4800e-003	0.3503	0.0997	3.3300e-003	0.1031		1,155.4296	1,155.4296	0.0447		1,156.5480
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1910**	**2.8880**	**1.8582**	**0.0212**	**1.0059**	**8.0400e-003**	**1.0139**	**0.2761**	**7.6300e-003**	**0.2838**		**2,266.4960**	**2,266.4960**	**0.0979**		**2,268.9443**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2746	0.5196	7.1300e-003	0.1840	2.5900e-003	0.1866	0.0504	2.4800e-003	0.0529		778.5470	778.5470	0.0486		779.7607
Vendor	0.0618	1.5705	0.5927	0.0108	0.3468	3.4800e-003	0.3503	0.0997	3.3300e-003	0.1031		1,155.4296	1,155.4296	0.0447		1,156.5480
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1910**	**2.8880**	**1.8582**	**0.0212**	**1.0059**	**8.0400e-003**	**1.0139**	**0.2761**	**7.6300e-003**	**0.2838**		**2,266.4960**	**2,266.4960**	**0.0979**		**2,268.9443**

3.27 Plot 11 (2032) Building-Electrical - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.1019	2.9133	1.1876	0.0163	0.4206	5.9200e-003	0.4266	0.1153	5.6600e-003	0.1209		1,779.5361	1,779.5361	0.1110		1,782.3101
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1774**	**3.5672**	**1.8722**	**0.0226**	**0.8444**	**8.4900e-003**	**0.8529**	**0.2307**	**8.0800e-003**	**0.2388**		**2,441.2195**	**2,441.2195**	**0.1317**		**2,444.5106**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1019	2.9133	1.1876	0.0163	0.4206	5.9200e-003	0.4266	0.1153	5.6600e-003	0.1209		1,779.5361	1,779.5361	0.1110		1,782.3101
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1774**	**3.5672**	**1.8722**	**0.0226**	**0.8444**	**8.4900e-003**	**0.8529**	**0.2307**	**8.0800e-003**	**0.2388**		**2,441.2195**	**2,441.2195**	**0.1317**		**2,444.5106**

3.28 Plot 11 (2032) Building-Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7329	0.2766	5.0300e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		539.2005	539.2005	0.0209		539.7224
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0627**	**0.7501**	**0.5750**	**6.3600e-003**	**0.3519**	**2.4100e-003**	**0.3543**	**0.0969**	**2.2800e-003**	**0.0992**		**672.2082**	**672.2082**	**0.0227**		**672.7767**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7329	0.2766	5.0300e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		539.2005	539.2005	0.0209		539.7224
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0627**	**0.7501**	**0.5750**	**6.3600e-003**	**0.3519**	**2.4100e-003**	**0.3543**	**0.0969**	**2.2800e-003**	**0.0992**		**672.2082**	**672.2082**	**0.0227**		**672.7767**

3.29 Plot 11 (2032) Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0586**	**0.6454**	**0.5354**	**5.6400e-003**	**0.3288**	**2.1800e-003**	**0.3309**	**0.0903**	**2.0600e-003**	**0.0923**		**595.1796**	**595.1796**	**0.0198**		**595.6735**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0586**	**0.6454**	**0.5354**	**5.6400e-003**	**0.3288**	**2.1800e-003**	**0.3309**	**0.0903**	**2.0600e-003**	**0.0923**		**595.1796**	**595.1796**	**0.0198**		**595.6735**

3.30 Plot 11 (2032) Curbing/Drive Approaches - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0413	1.1797	0.4809	6.6000e-003	0.1703	2.4000e-003	0.1727	0.0467	2.2900e-003	0.0490		720.6268	720.6268	0.0449		721.7502
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0916**	**1.6157**	**0.9373**	**0.0108**	**0.4528**	**4.1200e-003**	**0.4570**	**0.1237**	**3.9100e-003**	**0.1276**		**1,161.7491**	**1,161.7491**	**0.0587**		**1,163.2172**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0413	1.1797	0.4809	6.6000e-003	0.1703	2.4000e-003	0.1727	0.0467	2.2900e-003	0.0490		720.6268	720.6268	0.0449		721.7502
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0916**	**1.6157**	**0.9373**	**0.0108**	**0.4528**	**4.1200e-003**	**0.4570**	**0.1237**	**3.9100e-003**	**0.1276**		**1,161.7491**	**1,161.7491**	**0.0587**		**1,163.2172**

3.31 Plot 11 (2032) Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0698	1.9965	0.8138	0.0112	0.2883	4.0600e-003	0.2923	0.0790	3.8800e-003	0.0829		1,219.5223	1,219.5223	0.0760		1,221.4233
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1792**	**2.6676**	**1.7969**	**0.0188**	**0.9021**	**7.4200e-003**	**0.9095**	**0.2449**	**7.0300e-003**	**0.2519**		**2,014.2135**	**2,014.2135**	**0.0986**		**2,016.6782**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0698	1.9965	0.8138	0.0112	0.2883	4.0600e-003	0.2923	0.0790	3.8800e-003	0.0829		1,219.5223	1,219.5223	0.0760		1,221.4233
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1792**	**2.6676**	**1.7969**	**0.0188**	**0.9021**	**7.4200e-003**	**0.9095**	**0.2449**	**7.0300e-003**	**0.2519**		**2,014.2135**	**2,014.2135**	**0.0986**		**2,016.6782**

3.32 Plot 11 (2032) Temporary Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plot 11 (2030-2032)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	84.4456	380.1650	602.2721	1.8395	141.9033	11.6972	153.6005	16.6288	11.6934	28.3222	0.0000	195,424.4558	195,424.4558	8.3084	0.0000	195,632.1657
2031	55.6721	195.8453	424.8323	1.0920	61.1425	4.8008	65.9432	7.7433	4.7976	12.5409	0.0000	110,598.0912	110,598.0912	4.5714	0.0000	110,712.3765
2032	94.8593	378.3068	612.7960	1.8125	105.3293	11.6145	116.9438	12.7612	11.6107	24.3719	0.0000	191,306.4837	191,306.4837	8.1568	0.0000	191,510.4029
Maximum	**94.8593**	**380.1650**	**612.7960**	**1.8395**	**141.9033**	**11.6972**	**153.6005**	**16.6288**	**11.6934**	**28.3222**	**0.0000**	**195,424.4558**	**195,424.4558**	**8.3084**	**0.0000**	**195,632.1657**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	84.4456	380.1650	602.2721	1.8395	60.1735	11.6972	71.8707	7.8039	11.6934	19.4973	0.0000	195,424.4556	195,424.4556	8.3084	0.0000	195,632.1656
2031	55.6721	195.8453	424.8323	1.0920	28.0557	4.8008	32.8565	4.1707	4.7976	8.9683	0.0000	110,598.0912	110,598.0912	4.5714	0.0000	110,712.3764
2032	94.8593	378.3068	612.7960	1.8125	46.2121	11.6145	57.8266	6.3779	11.6107	17.9886	0.0000	191,306.4835	191,306.4835	8.1568	0.0000	191,510.4027
Maximum	**94.8593**	**380.1650**	**612.7960**	**1.8395**	**60.1735**	**11.6972**	**71.8707**	**7.8039**	**11.6934**	**19.4973**	**0.0000**	**195,424.4556**	**195,424.4556**	**8.3084**	**0.0000**	**195,632.1656**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.40**	**0.00**	**51.69**	**50.58**	**0.00**	**28.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 11 (2030) Mass Excavation	Grading	1/1/2030	4/17/2030	5	77	1204
2	Plot 11 (2030) Finish Grading	Grading	1/1/2030	2/25/2030	5	40	1205
3	Plot 11 (2030) Utilities	Trenching	1/1/2030	12/30/2030	5	260	1210
4	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
5	Plot 11 (2030) Building-Wet Utilities	Building Construction	1/1/2030	12/30/2030	5	260	1207
6	Plot 11 (2030) Building-Electrical	Building Construction	1/1/2030	12/30/2030	5	260	1208
7	Plot 11 (2030) Building-Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1209
8	Plot 11 (2030) Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1211
9	Plot 11 (2030) Curbing/Drive Approaches	Paving	5/1/2030	8/20/2030	5	80	1213
10	Plot 11 (2030) Paving	Paving	6/1/2030	7/26/2030	5	40	1214
11	Plot 11 (2030) Temporary Utilities	Building Construction	7/2/2030	12/30/2030	5	130	1212
12	Plot 11 (2031) Utilities	Trenching	1/1/2031	12/30/2031	5	260	1219
13	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
14	Plot 11 (2031) Building-Wet Utilities	Building Construction	1/1/2031	12/30/2031	5	260	1216
15	Plot 11 (2031) Building-Electrical	Building Construction	1/1/2031	12/30/2031	5	260	1217
16	Plot 11 (2031) Building-Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1218
17	Plot 11 (2031) Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1220

18	Plot 11 (2031) Curbing/Drive Approaches	Paving	5/1/2031	8/20/2031	5	80	1222
19	Plot 11 (2031) Paving	Paving	6/1/2031	7/26/2031	5	40	1223
20	Plot 11 (2031) Temporary Utilities	Building Construction	7/2/2031	12/30/2031	5	130	1221
21	Plot 11 (2032) Mass Excavation	Grading	1/1/2032	6/30/2032	5	130	1224
22	Plot 11 (2032) Finish Grading	Grading	1/1/2032	2/25/2032	5	40	1225
23	Plot 11 (2032) Utilities	Trenching	1/1/2032	12/29/2032	5	260	1230
24	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
25	Plot 11 (2032) Building-Wet Utilities	Building Construction	1/1/2032	12/29/2032	5	260	1227
26	Plot 11 (2032) Building-Electrical	Building Construction	1/1/2032	12/29/2032	5	260	1228
27	Plot 11 (2032) Building-Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1229
28	Plot 11 (2032) Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1231
29	Plot 11 (2032) Curbing/Drive Approaches	Paving	5/1/2032	8/20/2032	5	80	1233
30	Plot 11 (2032) Paving	Paving	6/1/2032	7/26/2032	5	40	1234
31	Plot 11 (2032) Temporary Utilities	Building Construction	7/2/2032	12/30/2032	5	130	1232

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2030) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2030) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2030) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2030) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2030) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2030) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2030) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2030) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2030) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2030) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2030) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2030) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2030) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2030) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2030) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2030) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2030) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2030) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2030) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2030) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2030) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2030) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Utilities	Other Material Handling Equipment	7	1.00	167	0.40

Plot 11 (2030) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2030) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Scrapers	12	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2031) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2031) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2031) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2031) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2031) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2031) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2031) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2031) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2031) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2031) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2031) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2031) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2031) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 11 (2031) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2031) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2031) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2031) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2031) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2031) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2031) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2031) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2031) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2031) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2031) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2031) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2031) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2031) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2032) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2032) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2032) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2032) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2032) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2032) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2032) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2032) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2032) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2032) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40

Plot 11 (2032) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2032) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Mass Excavation	Scrapers	4	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Scrapers	11	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2032) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2032) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2032) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2032) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2032) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2032) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2032) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2032) Utilities	Excavators	2	10.00	523	0.38

Plot 11 (2032) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2032) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2032) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2032) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2032) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Finish Grading		15.00	4.00	364.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 11 (2031) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Finish Grading		15.00	4.00	416.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Mass Excavation		50.00	12.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 11 (2030) Mass Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	46.0913	204.9941	218.8779	0.8430		7.7394	7.7394		7.7394	7.7394		94,850.8990	94,850.8990	4.1058		94,953.5440
Total	**46.0913**	**204.9941**	**218.8779**	**0.8430**	**80.0609**	**7.7394**	**87.8003**	**8.6447**	**7.7394**	**16.3841**		**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1524	4.3725	1.7802	0.0236	0.6154	8.9600e-003	0.6244	0.1686	8.5700e-003	0.1772		2,574.9362	2,574.9362	0.1672		2,579.1169
Vendor	0.0427	1.0759	0.4111	7.1400e-003	0.2312	2.3800e-003	0.2336	0.0665	2.2700e-003	0.0688		765.2779	765.2779	0.0308		766.0472
Worker	0.2253	0.1114	1.4732	6.4800e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		647.0806	647.0806	0.0102		647.3346
Total	**0.4204**	**5.5599**	**3.6645**	**0.0372**	**1.7968**	**0.0159**	**1.8126**	**0.4871**	**0.0150**	**0.5021**		**3,987.2947**	**3,987.2947**	**0.2082**		**3,992.4988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	46.0913	204.9941	218.8779	0.8430		7.7394	7.7394		7.7394	7.7394	0.0000	94,850.8990	94,850.8990	4.1058		94,953.5439
Total	**46.0913**	**204.9941**	**218.8779**	**0.8430**	**31.2238**	**7.7394**	**38.9632**	**3.3714**	**7.7394**	**11.1108**	**0.0000**	**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1524	4.3725	1.7802	0.0236	0.6154	8.9600e-003	0.6244	0.1686	8.5700e-003	0.1772		2,574.9362	2,574.9362	0.1672		2,579.1169
Vendor	0.0427	1.0759	0.4111	7.1400e-003	0.2312	2.3800e-003	0.2336	0.0665	2.2700e-003	0.0688		765.2779	765.2779	0.0308		766.0472
Worker	0.2253	0.1114	1.4732	6.4800e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		647.0806	647.0806	0.0102		647.3346
Total	**0.4204**	**5.5599**	**3.6645**	**0.0372**	**1.7968**	**0.0159**	**1.8126**	**0.4871**	**0.0150**	**0.5021**		**3,987.2947**	**3,987.2947**	**0.2082**		**3,992.4988**

3.3 Plot 11 (2030) Finish Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0492	1.4119	0.5748	7.6200e-003	0.1987	2.8900e-003	0.2016	0.0545	2.7700e-003	0.0572		831.4552	831.4552	0.0540		832.8052
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1339**	**1.8757**	**1.1812**	**0.0124**	**0.5762**	**5.2000e-003**	**0.5815**	**0.1566**	**4.9300e-003**	**0.1616**		**1,331.6906**	**1,331.6906**	**0.0694**		**1,333.4245**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**2.3575**	**0.3322**	**2.6897**	**0.2546**	**0.3322**	**0.5867**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0492	1.4119	0.5748	7.6200e-003	0.1987	2.8900e-003	0.2016	0.0545	2.7700e-003	0.0572		831.4552	831.4552	0.0540		832.8052
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1339**	**1.8757**	**1.1812**	**0.0124**	**0.5762**	**5.2000e-003**	**0.5815**	**0.1566**	**4.9300e-003**	**0.1616**		**1,331.6906**	**1,331.6906**	**0.0694**		**1,333.4245**

3.4 Plot 11 (2030) Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1302	3.7356	1.5209	0.0202	0.5258	7.6600e-003	0.5334	0.1441	7.3200e-003	0.1514		2,199.8773	2,199.8773	0.1429		2,203.4490
Vendor	0.1068	2.6897	1.0277	0.0179	0.5780	5.9400e-003	0.5840	0.1662	5.6800e-003	0.1719		1,913.1947	1,913.1947	0.0769		1,915.1181
Worker	0.1802	0.0892	1.1785	5.1900e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		517.6645	517.6645	8.1300e-003		517.8677
Total	**0.4172**	**6.5145**	**3.7272**	**0.0432**	**1.8639**	**0.0172**	**1.8811**	**0.5119**	**0.0163**	**0.5282**		**4,630.7364**	**4,630.7364**	**0.2279**		**4,636.4348**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1302	3.7356	1.5209	0.0202	0.5258	7.6600e-003	0.5334	0.1441	7.3200e-003	0.1514		2,199.8773	2,199.8773	0.1429		2,203.4490
Vendor	0.1068	2.6897	1.0277	0.0179	0.5780	5.9400e-003	0.5840	0.1662	5.6800e-003	0.1719		1,913.1947	1,913.1947	0.0769		1,915.1181
Worker	0.1802	0.0892	1.1785	5.1900e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		517.6645	517.6645	8.1300e-003		517.8677
Total	**0.4172**	**6.5145**	**3.7272**	**0.0432**	**1.8639**	**0.0172**	**1.8811**	**0.5119**	**0.0163**	**0.5282**		**4,630.7364**	**4,630.7364**	**0.2279**		**4,636.4348**

3.5 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

3.6 Plot 11 (2030) Building-Wet Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.3075	0.5323	7.0500e-003	0.1840	2.6800e-003	0.1867	0.0504	2.5600e-003	0.0530		769.9571	769.9571	0.0500		771.2072
Vendor	0.0641	1.6139	0.6166	0.0107	0.3468	3.5600e-003	0.3504	0.0997	3.4100e-003	0.1031		1,147.9168	1,147.9168	0.0462		1,149.0709
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2223**	**2.9770**	**1.8855**	**0.0210**	**1.0059**	**8.5000e-003**	**1.0144**	**0.2761**	**8.0500e-003**	**0.2842**		**2,241.4142**	**2,241.4142**	**0.1012**		**2,243.9453**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.3075	0.5323	7.0500e-003	0.1840	2.6800e-003	0.1867	0.0504	2.5600e-003	0.0530		769.9571	769.9571	0.0500		771.2072
Vendor	0.0641	1.6139	0.6166	0.0107	0.3468	3.5600e-003	0.3504	0.0997	3.4100e-003	0.1031		1,147.9168	1,147.9168	0.0462		1,149.0709
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2223**	**2.9770**	**1.8855**	**0.0210**	**1.0059**	**8.5000e-003**	**1.0144**	**0.2761**	**8.0500e-003**	**0.2842**		**2,241.4142**	**2,241.4142**	**0.1012**		**2,243.9453**

3.7 Plot 11 (2030) Building-Electrical - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9885	1.2167	0.0161	0.4206	6.1300e-003	0.4268	0.1153	5.8600e-003	0.1211		1,759.9018	1,759.9018	0.1143		1,762.7592
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1974**	**3.6675**	**1.9053**	**0.0224**	**0.8444**	**8.9200e-003**	**0.8533**	**0.2307**	**8.4700e-003**	**0.2392**		**2,413.1927**	**2,413.1927**	**0.1358**		**2,416.5880**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9885	1.2167	0.0161	0.4206	6.1300e-003	0.4268	0.1153	5.8600e-003	0.1211		1,759.9018	1,759.9018	0.1143		1,762.7592
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1974**	**3.6675**	**1.9053**	**0.0224**	**0.8444**	**8.9200e-003**	**0.8533**	**0.2307**	**8.4700e-003**	**0.2392**		**2,413.1927**	**2,413.1927**	**0.1358**		**2,416.5880**

3.8 Plot 11 (2030) Building-Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7531	0.2878	5.0000e-003	0.1618	1.6600e-003	0.1635	0.0465	1.5900e-003	0.0481		535.6945	535.6945	0.0215		536.2331
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0749**	**0.7754**	**0.5824**	**6.3000e-003**	**0.3519**	**2.5700e-003**	**0.3544**	**0.0969**	**2.4200e-003**	**0.0994**		**665.1106**	**665.1106**	**0.0236**		**665.7000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7531	0.2878	5.0000e-003	0.1618	1.6600e-003	0.1635	0.0465	1.5900e-003	0.0481		535.6945	535.6945	0.0215		536.2331
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0749**	**0.7754**	**0.5824**	**6.3000e-003**	**0.3519**	**2.5700e-003**	**0.3544**	**0.0969**	**2.4200e-003**	**0.0994**		**665.1106**	**665.1106**	**0.0236**		**665.7000**

3.9 Plot 11 (2030) Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0707**	**0.6678**	**0.5413**	**5.5900e-003**	**0.3288**	**2.3400e-003**	**0.3311**	**0.0903**	**2.1900e-003**	**0.0925**		**588.5828**	**588.5828**	**0.0205**		**589.0953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.307 2	5,779.3072	0.2728		5,786.127 5
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.307 2**	**5,779.3072**	**0.2728**		**5,786.127 5**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0707**	**0.6678**	**0.5413**	**5.5900e-003**	**0.3288**	**2.3400e-003**	**0.3311**	**0.0903**	**2.1900e-003**	**0.0925**		**588.5828**	**588.5828**	**0.0205**		**589.0953**

3.10 Plot 11 (2030) Curbing/Drive Approaches - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.2102	0.4927	6.5300e-003	0.1703	2.4800e-003	0.1728	0.0467	2.3700e-003	0.0491		712.6759	712.6759	0.0463		713.8330
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.1043**	**1.6629**	**0.9518**	**0.0107**	**0.4528**	**4.3400e-003**	**0.4572**	**0.1237**	**4.1100e-003**	**0.1278**		**1,148.2032**	**1,148.2032**	**0.0606**		**1,149.7188**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.2102	0.4927	6.5300e-003	0.1703	2.4800e-003	0.1728	0.0467	2.3700e-003	0.0491		712.6759	712.6759	0.0463		713.8330
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.1043**	**1.6629**	**0.9518**	**0.0107**	**0.4528**	**4.3400e-003**	**0.4572**	**0.1237**	**4.1100e-003**	**0.1278**		**1,148.2032**	**1,148.2032**	**0.0606**		**1,149.7188**

3.11 Plot 11 (2030) Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0714	2.0480	0.8338	0.0111	0.2883	4.2000e-003	0.2925	0.0790	4.0200e-003	0.0830		1,206.0669	1,206.0669	0.0783		1,208.0251
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2096**	**2.7493**	**1.8171**	**0.0186**	**0.9020**	**7.8900e-003**	**0.9099**	**0.2449**	**7.4600e-003**	**0.2523**		**1,988.7739**	**1,988.7739**	**0.1019**		**1,991.3208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0714	2.0480	0.8338	0.0111	0.2883	4.2000e-003	0.2925	0.0790	4.0200e-003	0.0830		1,206.0669	1,206.0669	0.0783		1,208.0251
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2096**	**2.7493**	**1.8171**	**0.0186**	**0.9020**	**7.8900e-003**	**0.9099**	**0.2449**	**7.4600e-003**	**0.2523**		**1,988.7739**	**1,988.7739**	**0.1019**		**1,991.3208**

3.12 Plot 11 (2030) Temporary Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 11 (2031) Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1309	3.7127	1.5351	0.0201	0.5258	7.5700e-003	0.5334	0.1441	7.2400e-003	0.1513		2,197.3740	2,197.3740	0.1424		2,200.9336
Vendor	0.1067	2.6774	1.0295	0.0178	0.5780	5.8900e-003	0.5839	0.1662	5.6300e-003	0.1719		1,912.1842	1,912.1842	0.0766		1,914.0998
Worker	0.1672	0.0814	1.1081	5.0800e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		506.9320	506.9320	7.4500e-003		507.1183
Total	**0.4048**	**6.4715**	**3.6727**	**0.0431**	**1.8639**	**0.0169**	**1.8808**	**0.5119**	**0.0160**	**0.5278**		**4,616.4902**	**4,616.4902**	**0.2265**		**4,622.1517**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1309	3.7127	1.5351	0.0201	0.5258	7.5700e-003	0.5334	0.1441	7.2400e-003	0.1513		2,197.3740	2,197.3740	0.1424		2,200.9336
Vendor	0.1067	2.6774	1.0295	0.0178	0.5780	5.8900e-003	0.5839	0.1662	5.6300e-003	0.1719		1,912.1842	1,912.1842	0.0766		1,914.0998
Worker	0.1672	0.0814	1.1081	5.0800e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		506.9320	506.9320	7.4500e-003		507.1183
Total	**0.4048**	**6.4715**	**3.6727**	**0.0431**	**1.8639**	**0.0169**	**1.8808**	**0.5119**	**0.0160**	**0.5278**		**4,616.4902**	**4,616.4902**	**0.2265**		**4,622.1517**

3.14 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

3.15 Plot 11 (2031) Building-Wet Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.2995	0.5373	7.0400e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5300e-003	0.0530		769.0809	769.0809	0.0498		770.3268
Vendor	0.0640	1.6064	0.6177	0.0107	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,147.3105	1,147.3105	0.0460		1,148.4599
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2143**	**2.9568**	**1.8475**	**0.0209**	**1.0059**	**8.3100e-003**	**1.0142**	**0.2761**	**7.8600e-003**	**0.2840**		**2,233.2239**	**2,233.2239**	**0.1005**		**2,235.7356**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.2995	0.5373	7.0400e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5300e-003	0.0530		769.0809	769.0809	0.0498		770.3268
Vendor	0.0640	1.6064	0.6177	0.0107	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,147.3105	1,147.3105	0.0460		1,148.4599
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2143**	**2.9568**	**1.8475**	**0.0209**	**1.0059**	**8.3100e-003**	**1.0142**	**0.2761**	**7.8600e-003**	**0.2840**		**2,233.2239**	**2,233.2239**	**0.1005**		**2,235.7356**

3.16 Plot 11 (2031) Building-Electrical - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	2.9702	1.2281	0.0161	0.4206	6.0500e-003	0.4267	0.1153	5.7900e-003	0.1211		1,757.8992	1,757.8992	0.1139		1,760.7469
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0627	0.0305	0.4155	1.9000e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		190.0995	190.0995	2.7900e-003		190.1694
Total	**0.1930**	**3.6433**	**1.8907**	**0.0223**	**0.8444**	**8.7300e-003**	**0.8531**	**0.2307**	**8.3100e-003**	**0.2391**		**2,406.9229**	**2,406.9229**	**0.1351**		**2,410.3002**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	2.9702	1.2281	0.0161	0.4206	6.0500e-003	0.4267	0.1153	5.7900e-003	0.1211		1,757.8992	1,757.8992	0.1139		1,760.7469
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0627	0.0305	0.4155	1.9000e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		190.0995	190.0995	2.7900e-003		190.1694
Total	**0.1930**	**3.6433**	**1.8907**	**0.0223**	**0.8444**	**8.7300e-003**	**0.8531**	**0.2307**	**8.3100e-003**	**0.2391**		**2,406.9229**	**2,406.9229**	**0.1351**		**2,410.3002**

3.17 Plot 11 (2031) Building-Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7497	0.2883	5.0000e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		535.4116	535.4116	0.0215		535.9480
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0717**	**0.7700**	**0.5653**	**6.2700e-003**	**0.3519**	**2.5000e-003**	**0.3544**	**0.0969**	**2.3600e-003**	**0.0993**		**662.1446**	**662.1446**	**0.0233**		**662.7275**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7497	0.2883	5.0000e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		535.4116	535.4116	0.0215		535.9480
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0717**	**0.7700**	**0.5653**	**6.2700e-003**	**0.3519**	**2.5000e-003**	**0.3544**	**0.0969**	**2.3600e-003**	**0.0993**		**662.1446**	**662.1446**	**0.0233**		**662.7275**

3.18 Plot 11 (2031) Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0674**	**0.6629**	**0.5241**	**5.5500e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1300e-003**	**0.0924**		**585.6572**	**585.6572**	**0.0203**		**586.1635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0674**	**0.6629**	**0.5241**	**5.5500e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1300e-003**	**0.0924**		**585.6572**	**585.6572**	**0.0203**		**586.1635**

3.19 Plot 11 (2031) Curbing/Drive Approaches - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.2028	0.4973	6.5200e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		711.8649	711.8649	0.0461		713.0181
Vendor	0.0171	0.4284	0.1647	2.8600e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		305.9495	305.9495	0.0123		306.2560
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.1013**	**1.6515**	**0.9390**	**0.0107**	**0.4528**	**4.2400e-003**	**0.4571**	**0.1237**	**4.0300e-003**	**0.1277**		**1,144.5474**	**1,144.5474**	**0.0603**		**1,146.0536**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.2028	0.4973	6.5200e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		711.8649	711.8649	0.0461		713.0181
Vendor	0.0171	0.4284	0.1647	2.8600e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		305.9495	305.9495	0.0123		306.2560
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.1013**	**1.6515**	**0.9390**	**0.0107**	**0.4528**	**4.2400e-003**	**0.4571**	**0.1237**	**4.0300e-003**	**0.1277**		**1,144.5474**	**1,144.5474**	**0.0603**		**1,146.0536**

3.20 Plot 11 (2031) Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0718	2.0355	0.8416	0.0110	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,204.6945	1,204.6945	0.0781		1,206.6460
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2019**	**2.7290**	**1.7812**	**0.0185**	**0.9021**	**7.6800e-003**	**0.9097**	**0.2449**	**7.2700e-003**	**0.2521**		**1,980.4512**	**1,980.4512**	**0.1011**		**1,982.9789**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0718	2.0355	0.8416	0.0110	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,204.6945	1,204.6945	0.0781		1,206.6460
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2019**	**2.7290**	**1.7812**	**0.0185**	**0.9021**	**7.6800e-003**	**0.9097**	**0.2449**	**7.2700e-003**	**0.2521**		**1,980.4512**	**1,980.4512**	**0.1011**		**1,982.9789**

3.21 Plot 11 (2031) Temporary Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 11 (2032) Mass Excavation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					42.6729	0.0000	42.6729	4.6077	0.0000	4.6077			0.0000			0.0000
Off-Road	40.1862	183.3429	191.7895	0.7240		6.9353	6.9353		6.9353	6.9353		81,286.6667	81,286.6667	3.5825		81,376.2283
Total	**40.1862**	**183.3429**	**191.7895**	**0.7240**	**42.6729**	**6.9353**	**49.6082**	**4.6077**	**6.9353**	**11.5430**		**81,286.6667**	**81,286.6667**	**3.5825**		**81,376.2283**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0710	1.9998	0.8380	0.0109	0.2864	4.0700e-003	0.2905	0.0785	3.8900e-003	0.0824		1,193.9480	1,193.9480	0.0773		1,195.8796
Vendor	0.0508	1.2719	0.4924	8.5500e-003	0.2774	2.8000e-003	0.2802	0.0798	2.6800e-003	0.0825		915.9495	915.9495	0.0366		916.8650
Worker	0.1943	0.0934	1.3034	6.2200e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		620.9350	620.9350	8.5400e-003		621.1485
Total	**0.3161**	**3.3651**	**2.6339**	**0.0257**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,730.8325**	**2,730.8325**	**0.1224**		**2,733.8931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					16.6424	0.0000	16.6424	1.7970	0.0000	1.7970			0.0000			0.0000
Off-Road	40.1862	183.3429	191.7895	0.7240		6.9353	6.9353		6.9353	6.9353	0.0000	81,286.6666	81,286.6666	3.5825		81,376.2282
Total	**40.1862**	**183.3429**	**191.7895**	**0.7240**	**16.6424**	**6.9353**	**23.5777**	**1.7970**	**6.9353**	**8.7323**	**0.0000**	**81,286.6666**	**81,286.6666**	**3.5825**		**81,376.2282**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0710	1.9998	0.8380	0.0109	0.2864	4.0700e-003	0.2905	0.0785	3.8900e-003	0.0824		1,193.9480	1,193.9480	0.0773		1,195.8796
Vendor	0.0508	1.2719	0.4924	8.5500e-003	0.2774	2.8000e-003	0.2802	0.0798	2.6800e-003	0.0825		915.9495	915.9495	0.0366		916.8650
Worker	0.1943	0.0934	1.3034	6.2200e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		620.9350	620.9350	8.5400e-003		621.1485
Total	**0.3161**	**3.3651**	**2.6339**	**0.0257**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,730.8325**	**2,730.8325**	**0.1224**		**2,733.8931**

3.23 Plot 11 (2032) Finish Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0563	1.5858	0.6645	8.6700e-003	0.2271	3.2200e-003	0.2303	0.0622	3.0800e-003	0.0653		946.7552	946.7552	0.0613		948.2870
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1315**	**2.0378**	**1.2197**	**0.0134**	**0.6046**	**5.3300e-003**	**0.6100**	**0.1644**	**5.0600e-003**	**0.1695**		**1,438.3522**	**1,438.3522**	**0.0760**		**1,440.2532**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**2.3575**	**0.3322**	**2.6897**	**0.2546**	**0.3322**	**0.5867**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0563	1.5858	0.6645	8.6700e-003	0.2271	3.2200e-003	0.2303	0.0622	3.0800e-003	0.0653		946.7552	946.7552	0.0613		948.2870
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1315**	**2.0378**	**1.2197**	**0.0134**	**0.6046**	**5.3300e-003**	**0.6100**	**0.1644**	**5.0600e-003**	**0.1695**		**1,438.3522**	**1,438.3522**	**0.0760**		**1,440.2532**

3.24 Plot 11 (2032) Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1303	3.6712	1.5385	0.0201	0.5258	7.4700e-003	0.5333	0.1441	7.1400e-003	0.1512		2,191.8224	2,191.8224	0.1418		2,195.3685
Vendor	0.1059	2.6498	1.0259	0.0178	0.5780	5.8300e-003	0.5838	0.1662	5.5800e-003	0.1718		1,908.2282	1,908.2282	0.0763		1,910.1354
Worker	0.1555	0.0747	1.0427	4.9700e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		496.7480	496.7480	6.8300e-003		496.9188
Total	**0.3916**	**6.3957**	**3.6071**	**0.0428**	**1.8639**	**0.0165**	**1.8804**	**0.5119**	**0.0156**	**0.5275**		**4,596.7986**	**4,596.7986**	**0.2250**		**4,602.4226**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1303	3.6712	1.5385	0.0201	0.5258	7.4700e-003	0.5333	0.1441	7.1400e-003	0.1512		2,191.8224	2,191.8224	0.1418		2,195.3685
Vendor	0.1059	2.6498	1.0259	0.0178	0.5780	5.8300e-003	0.5838	0.1662	5.5800e-003	0.1718		1,908.2282	1,908.2282	0.0763		1,910.1354
Worker	0.1555	0.0747	1.0427	4.9700e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		496.7480	496.7480	6.8300e-003		496.9188
Total	**0.3916**	**6.3957**	**3.6071**	**0.0428**	**1.8639**	**0.0165**	**1.8804**	**0.5119**	**0.0156**	**0.5275**		**4,596.7986**	**4,596.7986**	**0.2250**		**4,602.4226**

3.25 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

3.26 Plot 11 (2032) Building-Wet Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.2849	0.5385	7.0200e-003	0.1840	2.6100e-003	0.1866	0.0504	2.5000e-003	0.0529		767.1378	767.1378	0.0497		768.3790
Vendor	0.0635	1.5899	0.6155	0.0107	0.3468	3.5000e-003	0.3503	0.0997	3.3500e-003	0.1031		1,144.9369	1,144.9369	0.0458		1,146.0812
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2063**	**2.9215**	**1.8057**	**0.0208**	**1.0059**	**8.0800e-003**	**1.0140**	**0.2761**	**7.6700e-003**	**0.2838**		**2,222.5423**	**2,222.5423**	**0.0997**		**2,225.0344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.2849	0.5385	7.0200e-003	0.1840	2.6100e-003	0.1866	0.0504	2.5000e-003	0.0529		767.1378	767.1378	0.0497		768.3790
Vendor	0.0635	1.5899	0.6155	0.0107	0.3468	3.5000e-003	0.3503	0.0997	3.3500e-003	0.1031		1,144.9369	1,144.9369	0.0458		1,146.0812
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2063**	**2.9215**	**1.8057**	**0.0208**	**1.0059**	**8.0800e-003**	**1.0140**	**0.2761**	**7.6700e-003**	**0.2838**		**2,222.5423**	**2,222.5423**	**0.0997**		**2,225.0344**

3.27 Plot 11 (2032) Building-Electrical - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9370	1.2308	0.0161	0.4206	5.9700e-003	0.4266	0.1153	5.7100e-003	0.1210		1,753.4579	1,753.4579	0.1135		1,756.2948
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1879**	**3.6009**	**1.8680**	**0.0222**	**0.8444**	**8.5500e-003**	**0.8529**	**0.2307**	**8.1400e-003**	**0.2389**		**2,397.7132**	**2,397.7132**	**0.1343**		**2,401.0718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9370	1.2308	0.0161	0.4206	5.9700e-003	0.4266	0.1153	5.7100e-003	0.1210		1,753.4579	1,753.4579	0.1135		1,756.2948
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1879**	**3.6009**	**1.8680**	**0.0222**	**0.8444**	**8.5500e-003**	**0.8529**	**0.2307**	**8.1400e-003**	**0.2389**		**2,397.7132**	**2,397.7132**	**0.1343**		**2,401.0718**

3.28 Plot 11 (2032) Building-Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0296	0.7419	0.2873	4.9900e-003	0.1618	1.6300e-003	0.1635	0.0465	1.5600e-003	0.0481		534.3039	534.3039	0.0214		534.8379
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0685**	**0.7606**	**0.5479**	**6.2300e-003**	**0.3519**	**2.4200e-003**	**0.3543**	**0.0969**	**2.2900e-003**	**0.0992**		**658.4909**	**658.4909**	**0.0231**		**659.0676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0296	0.7419	0.2873	4.9900e-003	0.1618	1.6300e-003	0.1635	0.0465	1.5600e-003	0.0481		534.3039	534.3039	0.0214		534.8379
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0685**	**0.7606**	**0.5479**	**6.2300e-003**	**0.3519**	**2.4200e-003**	**0.3543**	**0.0969**	**2.2900e-003**	**0.0992**		**658.4909**	**658.4909**	**0.0231**		**659.0676**

3.29 Plot 11 (2032) Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0643**	**0.6546**	**0.5069**	**5.5100e-003**	**0.3288**	**2.1900e-003**	**0.3309**	**0.0903**	**2.0700e-003**	**0.0923**		**582.1618**	**582.1618**	**0.0200**		**582.6622**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0643**	**0.6546**	**0.5069**	**5.5100e-003**	**0.3288**	**2.1900e-003**	**0.3309**	**0.0903**	**2.0700e-003**	**0.0923**		**582.1618**	**582.1618**	**0.0200**		**582.6622**

3.30 Plot 11 (2032) Curbing/Drive Approaches - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.1893	0.4984	6.5000e-003	0.1703	2.4200e-003	0.1728	0.0467	2.3100e-003	0.0490		710.0664	710.0664	0.0460		711.2152
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0980**	**1.6320**	**0.9232**	**0.0106**	**0.4528**	**4.1400e-003**	**0.4570**	**0.1237**	**3.9300e-003**	**0.1276**		**1,139.5699**	**1,139.5699**	**0.0599**		**1,141.0666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.1893	0.4984	6.5000e-003	0.1703	2.4200e-003	0.1728	0.0467	2.3100e-003	0.0490		710.0664	710.0664	0.0460		711.2152
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0980**	**1.6320**	**0.9232**	**0.0106**	**0.4528**	**4.1400e-003**	**0.4570**	**0.1237**	**3.9300e-003**	**0.1276**		**1,139.5699**	**1,139.5699**	**0.0599**		**1,141.0666**

3.31 Plot 11 (2032) Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0714	2.0127	0.8435	0.0110	0.2883	4.0900e-003	0.2924	0.0790	3.9200e-003	0.0829		1,201.6509	1,201.6509	0.0778		1,203.5950
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.1940**	**2.6954**	**1.7414**	**0.0184**	**0.9021**	**7.4600e-003**	**0.9095**	**0.2449**	**7.0800e-003**	**0.2519**		**1,970.0931**	**1,970.0931**	**0.1003**		**1,972.6017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0714	2.0127	0.8435	0.0110	0.2883	4.0900e-003	0.2924	0.0790	3.9200e-003	0.0829		1,201.6509	1,201.6509	0.0778		1,203.5950
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.1940**	**2.6954**	**1.7414**	**0.0184**	**0.9021**	**7.4600e-003**	**0.9095**	**0.2449**	**7.0800e-003**	**0.2519**		**1,970.0931**	**1,970.0931**	**0.1003**		**1,972.6017**

3.32 Plot 11 (2032) Temporary Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plot 11

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	12.4076	12.6003	2.3031	0.0189	199.2616	3.7600e-003	199.2654	19.8770	3.5400e-003	19.8805	0.0000	2,049.6373	2,049.6373	0.1832	0.0000	2,054.2171
2031	12.3982	11.1331	2.0137	0.0166	173.0981	3.0900e-003	173.1012	17.2672	2.9200e-003	17.2701	0.0000	1,803.0990	1,803.0990	0.1583	0.0000	1,807.0558
2032	12.4395	12.6654	2.3393	0.0190	212.1832	3.5100e-003	212.1867	21.1659	3.3100e-003	21.1692	0.0000	2,063.1686	2,063.1686	0.1772	0.0000	2,067.5998
Maximum	**12.4395**	**12.6654**	**2.3393**	**0.0190**	**212.1832**	**3.7600e-003**	**212.1867**	**21.1659**	**3.5400e-003**	**21.1692**	**0.0000**	**2,063.1686**	**2,063.1686**	**0.1832**	**0.0000**	**2,067.5998**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	12.4076	12.6003	2.3031	0.0189	79.7275	3.7600e-003	79.7312	7.9595	3.5400e-003	7.9631	0.0000	2,049.6373	2,049.6373	0.1832	0.0000	2,054.2171
2031	12.3982	11.1331	2.0137	0.0166	69.2594	3.0900e-003	69.2625	6.9146	2.9200e-003	6.9175	0.0000	1,803.0990	1,803.0990	0.1583	0.0000	1,807.0558
2032	12.4395	12.6654	2.3393	0.0190	84.8974	3.5100e-003	84.9008	8.4756	3.3100e-003	8.4789	0.0000	2,063.1686	2,063.1686	0.1772	0.0000	2,067.5998
Maximum	**12.4395**	**12.6654**	**2.3393**	**0.0190**	**84.8974**	**3.7600e-003**	**84.9008**	**8.4756**	**3.5400e-003**	**8.4789**	**0.0000**	**2,063.1686**	**2,063.1686**	**0.1832**	**0.0000**	**2,067.5998**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 11 (2030) Mass Excavation	Grading	1/1/2030	4/17/2030	5	77	1204
2	Plot 11 (2030) Finish Grading	Grading	1/1/2030	2/25/2030	5	40	1205
3	Plot 11 (2030) Utilities	Trenching	1/1/2030	12/30/2030	5	260	1210
4	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
5	Plot 11 (2030) Building-Wet Utilities	Building Construction	1/1/2030	12/30/2030	5	260	1207
6	Plot 11 (2030) Building-Electrical	Building Construction	1/1/2030	12/30/2030	5	260	1208
7	Plot 11 (2030) Building-Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1209
8	Plot 11 (2030) Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1211
9	Plot 11 (2030) Curbing/Drive Approaches	Paving	5/1/2030	8/20/2030	5	80	1213
10	Plot 11 (2030) Paving	Paving	6/1/2030	7/26/2030	5	40	1214
11	Plot 11 (2030) Temporary Utilities	Building Construction	7/2/2030	12/30/2030	5	130	1212
12	Plot 11 (2031) Utilities	Trenching	1/1/2031	12/30/2031	5	260	1219
13	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
14	Plot 11 (2031) Building-Wet Utilities	Building Construction	1/1/2031	12/30/2031	5	260	1216
15	Plot 11 (2031) Building-Electrical	Building Construction	1/1/2031	12/30/2031	5	260	1217
16	Plot 11 (2031) Building-Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1218
17	Plot 11 (2031) Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1220

18	Plot 11 (2031) Curbing/Drive Approaches	Paving	5/1/2031	8/20/2031	5	80	1222
19	Plot 11 (2031) Paving	Paving	6/1/2031	7/26/2031	5	40	1223
20	Plot 11 (2031) Temporary Utilities	Building Construction	7/2/2031	12/30/2031	5	130	1221
21	Plot 11 (2032) Mass Excavation	Grading	1/1/2032	6/30/2032	5	130	1224
22	Plot 11 (2032) Finish Grading	Grading	1/1/2032	2/25/2032	5	40	1225
23	Plot 11 (2032) Utilities	Trenching	1/1/2032	12/29/2032	5	260	1230
24	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
25	Plot 11 (2032) Building-Wet Utilities	Building Construction	1/1/2032	12/29/2032	5	260	1227
26	Plot 11 (2032) Building-Electrical	Building Construction	1/1/2032	12/29/2032	5	260	1228
27	Plot 11 (2032) Building-Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1229
28	Plot 11 (2032) Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1231
29	Plot 11 (2032) Curbing/Drive Approaches	Paving	5/1/2032	8/20/2032	5	80	1233
30	Plot 11 (2032) Paving	Paving	6/1/2032	7/26/2032	5	40	1234
31	Plot 11 (2032) Temporary Utilities	Building Construction	7/2/2032	12/30/2032	5	130	1232

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Finish Grading		15.00	4.00	364.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Mass Excavation		50.00	10.00	2,170.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 11 (2031) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Finish Grading		15.00	4.00	416.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Mass Excavation		50.00	12.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plot 11 (2030) Mass Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0293	2.1019	0.2858	3.1500e-003	14.6651	4.2000e-004	14.6655	1.4630	4.0000e-004	1.4635		343.4131	343.4131	0.0321		344.2163
Vendor	8.3100e-003	0.5038	0.0891	6.5000e-004	5.2041	1.0000e-004	5.2042	0.5193	1.0000e-004	0.5194		70.5386	70.5386	6.2100e-003		70.6939
Worker	0.0310	6.7500e-003	0.1155	2.2000e-004	26.0154	3.2000e-004	26.0157	2.5946	3.0000e-004	2.5949		21.9556	21.9556	5.6000e-004		21.9697
Total	**0.0686**	**2.6124**	**0.4904**	**4.0200e-003**	**45.8845**	**8.4000e-004**	**45.8854**	**4.5769**	**8.0000e-004**	**4.5777**		**435.9073**	**435.9073**	**0.0389**		**436.8799**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0293	2.1019	0.2858	3.1500e-003	5.8682	4.2000e-004	5.8686	0.5860	4.0000e-004	0.5864		343.4131	343.4131	0.0321		344.2163
Vendor	8.3100e-003	0.5038	0.0891	6.5000e-004	2.0826	1.0000e-004	2.0827	0.2081	1.0000e-004	0.2082		70.5386	70.5386	6.2100e-003		70.6939
Worker	0.0310	6.7500e-003	0.1155	2.2000e-004	10.4079	3.2000e-004	10.4082	1.0385	3.0000e-004	1.0388		21.9556	21.9556	5.6000e-004		21.9697
Total	**0.0686**	**2.6124**	**0.4904**	**4.0200e-003**	**18.3587**	**8.4000e-004**	**18.3595**	**1.8326**	**8.0000e-004**	**1.8334**		**435.9073**	**435.9073**	**0.0389**		**436.8799**

3.3 Plot 11 (2030) Finish Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4500e-003	0.6787	0.0923	1.0200e-003	4.7354	1.4000e-004	4.7356	0.4724	1.3000e-004	0.4726		110.8892	110.8892	0.0104		111.1485
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.2154	28.2154	2.4900e-003		28.2776
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0221**	**0.8822**	**0.1626**	**1.3500e-003**	**14.6216**	**2.8000e-004**	**14.6219**	**1.4585**	**2.6000e-004**	**1.4588**		**145.6913**	**145.6913**	**0.0130**		**146.0170**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4500e-003	0.6787	0.0923	1.0200e-003	1.8949	1.4000e-004	1.8950	0.1892	1.3000e-004	0.1894		110.8892	110.8892	0.0104		111.1485
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.2154	28.2154	2.4900e-003		28.2776
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0221**	**0.8822**	**0.1626**	**1.3500e-003**	**5.8503**	**2.8000e-004**	**5.8505**	**0.5840**	**2.6000e-004**	**0.5843**		**145.6913**	**145.6913**	**0.0130**		**146.0170**

3.4 Plot 11 (2030) Utilities - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0250	1.7958	0.2442	2.6900e-003	12.5290	3.6000e-004	12.5294	1.2499	3.5000e-004	1.2503		293.3924	293.3924	0.0275		294.0786
Vendor	0.0208	1.2594	0.2227	1.6300e-003	13.0101	2.5000e-004	13.0104	1.2983	2.4000e-004	1.2985		176.3464	176.3464	0.0155		176.7347
Worker	0.0248	5.4000e-003	0.0924	1.8000e-004	20.8123	2.6000e-004	20.8126	2.0757	2.4000e-004	2.0759		17.5645	17.5645	4.5000e-004		17.5758
Total	**0.0706**	**3.0606**	**0.5593**	**4.5000e-003**	**46.3515**	**8.7000e-004**	**46.3523**	**4.6239**	**8.3000e-004**	**4.6247**		**487.3033**	**487.3033**	**0.0434**		**488.3891**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0250	1.7958	0.2442	2.6900e-003	5.0135	3.6000e-004	5.0138	0.5006	3.5000e-004	0.5010		293.3924	293.3924	0.0275		294.0786
Vendor	0.0208	1.2594	0.2227	1.6300e-003	5.2064	2.5000e-004	5.2067	0.5202	2.4000e-004	0.5205		176.3464	176.3464	0.0155		176.7347
Worker	0.0248	5.4000e-003	0.0924	1.8000e-004	8.3263	2.6000e-004	8.3266	0.8308	2.4000e-004	0.8311		17.5645	17.5645	4.5000e-004		17.5758
Total	**0.0706**	**3.0606**	**0.5593**	**4.5000e-003**	**18.5462**	**8.7000e-004**	**18.5471**	**1.8517**	**8.3000e-004**	**1.8525**		**487.3033**	**487.3033**	**0.0434**		**488.3891**

3.5 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0300	2.1549	0.2930	3.2300e-003	15.0348	4.3000e-004	15.0353	1.4999	4.1000e-004	1.5003		352.0709	352.0709	0.0329		352.8943
Vendor	1.6600e-003	0.1008	0.0178	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.1077	14.1077	1.2400e-003		14.1388
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	13.0077	1.6000e-004	13.0078	1.2973	1.5000e-004	1.2974		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0472**	**2.2591**	**0.3686**	**3.4700e-003**	**29.0833**	**6.1000e-004**	**29.0839**	**2.9011**	**5.8000e-004**	**2.9017**		**377.1564**	**377.1564**	**0.0345**		**378.0179**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0300	2.1549	0.2930	3.2300e-003	6.0161	4.3000e-004	6.0166	0.6008	4.1000e-004	0.6012		352.0709	352.0709	0.0329		352.8943
Vendor	1.6600e-003	0.1008	0.0178	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.1077	14.1077	1.2400e-003		14.1388
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	5.2040	1.6000e-004	5.2041	0.5193	1.5000e-004	0.5194		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0472**	**2.2591**	**0.3686**	**3.4700e-003**	**11.6366**	**6.1000e-004**	**11.6372**	**1.1617**	**5.8000e-004**	**1.1622**		**377.1564**	**377.1564**	**0.0345**		**378.0179**

3.6 Plot 11 (2030) Building-Wet Utilities - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7500e-003	0.6285	0.0855	9.4000e-004	4.3852	1.3000e-004	4.3853	0.4375	1.2000e-004	0.4376		102.6873	102.6873	9.6100e-003		102.9275
Vendor	0.0125	0.7556	0.1336	9.8000e-004	7.8061	1.5000e-004	7.8062	0.7790	1.5000e-004	0.7791		105.8078	105.8078	9.3200e-003		106.0408
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	13.0077	1.6000e-004	13.0078	1.2973	1.5000e-004	1.2974		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0367**	**1.3875**	**0.2768**	**2.0300e-003**	**25.1989**	**4.4000e-004**	**25.1994**	**2.5137**	**4.2000e-004**	**2.5141**		**219.4730**	**219.4730**	**0.0192**		**219.9532**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7500e-003	0.6285	0.0855	9.4000e-004	1.7547	1.3000e-004	1.7548	0.1752	1.2000e-004	0.1754		102.6873	102.6873	9.6100e-003		102.9275
Vendor	0.0125	0.7556	0.1336	9.8000e-004	3.1239	1.5000e-004	3.1240	0.3121	1.5000e-004	0.3123		105.8078	105.8078	9.3200e-003		106.0408
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	5.2040	1.6000e-004	5.2041	0.5193	1.5000e-004	0.5194		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0367**	**1.3875**	**0.2768**	**2.0300e-003**	**10.0825**	**4.4000e-004**	**10.0830**	**1.0066**	**4.2000e-004**	**1.0071**		**219.4730**	**219.4730**	**0.0192**		**219.9532**

3.7 Plot 11 (2030) Building-Electrical - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	1.4366	0.1954	2.1600e-003	10.0232	2.9000e-004	10.0235	1.0000	2.8000e-004	1.0002		234.7139	234.7139	0.0220		235.2628
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.3231	42.3231	3.7300e-003		42.4163
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0343**	**1.7409**	**0.2835**	**2.6200e-003**	**20.9503**	**4.5000e-004**	**20.9507**	**2.0899**	**4.3000e-004**	**2.0903**		**283.6237**	**283.6237**	**0.0259**		**284.2701**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	1.4366	0.1954	2.1600e-003	4.0108	2.9000e-004	4.0111	0.4005	2.8000e-004	0.4008		234.7139	234.7139	0.0220		235.2628
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.3231	42.3231	3.7300e-003		42.4163
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0343**	**1.7409**	**0.2835**	**2.6200e-003**	**8.3827**	**4.5000e-004**	**8.3831**	**0.8369**	**4.3000e-004**	**0.8374**		**283.6237**	**283.6237**	**0.0259**		**284.2701**

3.8 Plot 11 (2030) Building-Landscaping - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.8200e-003	0.3526	0.0624	4.6000e-004	3.6428	7.0000e-005	3.6429	0.3635	7.0000e-005	0.3636		49.3770	49.3770	4.3500e-003		49.4857
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0120**	**0.3540**	**0.0855**	**5.0000e-004**	**8.8459**	**1.3000e-004**	**8.8461**	**0.8824**	**1.3000e-004**	**0.8826**		**53.7681**	**53.7681**	**4.4600e-003**		**53.8797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.8200e-003	0.3526	0.0624	4.6000e-004	1.4578	7.0000e-005	1.4579	0.1457	7.0000e-005	0.1457		49.3770	49.3770	4.3500e-003		49.4857
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0120**	**0.3540**	**0.0855**	**5.0000e-004**	**3.5394**	**1.3000e-004**	**3.5395**	**0.3534**	**1.3000e-004**	**0.3535**		**53.7681**	**53.7681**	**4.4600e-003**		**53.8797**

3.9 Plot 11 (2030) Landscaping - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.3231	42.3231	3.7300e-003		42.4163
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0112**	**0.3036**	**0.0765**	**4.3000e-004**	**8.3255**	**1.2000e-004**	**8.3256**	**0.8305**	**1.2000e-004**	**0.8306**		**46.7143**	**46.7143**	**3.8400e-003**		**46.8103**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.3231	42.3231	3.7300e-003		42.4163
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0112**	**0.3036**	**0.0765**	**4.3000e-004**	**3.3311**	**1.2000e-004**	**3.3313**	**0.3326**	**1.2000e-004**	**0.3327**		**46.7143**	**46.7143**	**3.8400e-003**		**46.8103**

3.10 Plot 11 (2030) Curbing/Drive Approaches - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1000e-003	0.5818	0.0791	8.7000e-004	4.0589	1.2000e-004	4.0590	0.4049	1.1000e-004	0.4050		95.0479	95.0479	8.8900e-003		95.2702
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.2154	28.2154	2.4900e-003		28.2776
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0176**	**0.7846**	**0.1378**	**1.1700e-003**	**11.3436**	**2.2000e-004**	**11.3438**	**1.1316**	**2.1000e-004**	**1.1318**		**127.6544**	**127.6544**	**0.0115**		**127.9417**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1000e-003	0.5818	0.0791	8.7000e-004	1.6242	1.2000e-004	1.6243	0.1622	1.1000e-004	0.1623		95.0479	95.0479	8.8900e-003		95.2702
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.2154	28.2154	2.4900e-003		28.2776
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0176**	**0.7846**	**0.1378**	**1.1700e-003**	**4.5388**	**2.2000e-004**	**4.5390**	**0.4531**	**2.1000e-004**	**0.4534**		**127.6544**	**127.6544**	**0.0115**		**127.9417**

3.11 Plot 11 (2030) Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9845	0.1339	1.4800e-003	6.8690	2.0000e-004	6.8692	0.6853	1.9000e-004	0.6855		160.8503	160.8503	0.0151		161.2265
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.3231	42.3231	3.7300e-003		42.4163
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	13.0077	1.6000e-004	13.0078	1.2973	1.5000e-004	1.2974		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0342**	**1.2901**	**0.2451**	**1.9800e-003**	**22.9991**	**4.2000e-004**	**22.9995**	**2.2941**	**4.0000e-004**	**2.2945**		**214.1512**	**214.1512**	**0.0191**		**214.6277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9845	0.1339	1.4800e-003	2.7486	2.0000e-004	2.7488	0.2745	1.9000e-004	0.2747		160.8503	160.8503	0.0151		161.2265
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.3231	42.3231	3.7300e-003		42.4163
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	5.2040	1.6000e-004	5.2041	0.5193	1.5000e-004	0.5194		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0342**	**1.2901**	**0.2451**	**1.9800e-003**	**9.2021**	**4.2000e-004**	**9.2025**	**0.9186**	**4.0000e-004**	**0.9190**		**214.1512**	**214.1512**	**0.0191**		**214.6277**

3.12 Plot 11 (2030) Temporary Utilities - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 11 (2031) Utilities - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0249	1.7878	0.2471	2.6800e-003	12.5290	3.4000e-004	12.5294	1.2499	3.2000e-004	1.2503		292.4754	292.4754	0.0269		293.1471
Vendor	0.0205	1.2554	0.2207	1.6300e-003	13.0101	2.4000e-004	13.0104	1.2983	2.3000e-004	1.2985		175.8699	175.8699	0.0152		176.2501
Worker	0.0228	4.8800e-003	0.0859	1.7000e-004	20.8123	2.4000e-004	20.8125	2.0757	2.2000e-004	2.0759		17.1844	17.1844	4.1000e-004		17.1946
Total	**0.0682**	**3.0480**	**0.5537**	**4.4800e-003**	**46.3515**	**8.2000e-004**	**46.3523**	**4.6239**	**7.7000e-004**	**4.6246**		**485.5297**	**485.5297**	**0.0425**		**486.5918**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0249	1.7878	0.2471	2.6800e-003	5.0135	3.4000e-004	5.0138	0.5006	3.2000e-004	0.5010		292.4754	292.4754	0.0269		293.1471
Vendor	0.0205	1.2554	0.2207	1.6300e-003	5.2064	2.4000e-004	5.2067	0.5202	2.3000e-004	0.5205		175.8699	175.8699	0.0152		176.2501
Worker	0.0228	4.8800e-003	0.0859	1.7000e-004	8.3263	2.4000e-004	8.3266	0.8308	2.2000e-004	0.8311		17.1844	17.1844	4.1000e-004		17.1946
Total	**0.0682**	**3.0480**	**0.5537**	**4.4800e-003**	**18.5462**	**8.2000e-004**	**18.5470**	**1.8517**	**7.7000e-004**	**1.8525**		**485.5297**	**485.5297**	**0.0425**		**486.5918**

3.14 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0299	2.1453	0.2965	3.2200e-003	15.0348	4.1000e-004	15.0352	1.4999	3.9000e-004	1.5003		350.9705	350.9705	0.0322		351.7766
Vendor	1.6400e-003	0.1004	0.0177	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0696	14.0696	1.2200e-003		14.1000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	13.0077	1.5000e-004	13.0078	1.2973	1.4000e-004	1.2974		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0458**	**2.2488**	**0.3679**	**3.4600e-003**	**29.0833**	**5.8000e-004**	**29.0839**	**2.9011**	**5.5000e-004**	**2.9016**		**375.7803**	**375.7803**	**0.0337**		**376.6232**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0299	2.1453	0.2965	3.2200e-003	6.0161	4.1000e-004	6.0165	0.6008	3.9000e-004	0.6012		350.9705	350.9705	0.0322		351.7766
Vendor	1.6400e-003	0.1004	0.0177	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0696	14.0696	1.2200e-003		14.1000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	5.2040	1.5000e-004	5.2041	0.5193	1.4000e-004	0.5194		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0458**	**2.2488**	**0.3679**	**3.4600e-003**	**11.6366**	**5.8000e-004**	**11.6372**	**1.1617**	**5.5000e-004**	**1.1622**		**375.7803**	**375.7803**	**0.0337**		**376.6232**

3.15 Plot 11 (2031) Building-Wet Utilities - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7200e-003	0.6257	0.0865	9.4000e-004	4.3852	1.2000e-004	4.3853	0.4375	1.1000e-004	0.4376		102.3664	102.3664	9.4000e-003		102.6015
Vendor	0.0123	0.7532	0.1324	9.8000e-004	7.8061	1.5000e-004	7.8062	0.7790	1.4000e-004	0.7791		105.5220	105.5220	9.1300e-003		105.7501
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	13.0077	1.5000e-004	13.0078	1.2973	1.4000e-004	1.2974		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0353**	**1.3820**	**0.2726**	**2.0300e-003**	**25.1989**	**4.2000e-004**	**25.1993**	**2.5137**	**3.9000e-004**	**2.5141**		**218.6286**	**218.6286**	**0.0188**		**219.0982**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7200e-003	0.6257	0.0865	9.4000e-004	1.7547	1.2000e-004	1.7548	0.1752	1.1000e-004	0.1753		102.3664	102.3664	9.4000e-003		102.6015
Vendor	0.0123	0.7532	0.1324	9.8000e-004	3.1239	1.5000e-004	3.1240	0.3121	1.4000e-004	0.3123		105.5220	105.5220	9.1300e-003		105.7501
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	5.2040	1.5000e-004	5.2041	0.5193	1.4000e-004	0.5194		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0353**	**1.3820**	**0.2726**	**2.0300e-003**	**10.0825**	**4.2000e-004**	**10.0829**	**1.0066**	**3.9000e-004**	**1.0070**		**218.6286**	**218.6286**	**0.0188**		**219.0982**

3.16 Plot 11 (2031) Building-Electrical - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4302	0.1977	2.1500e-003	10.0232	2.7000e-004	10.0235	1.0000	2.6000e-004	1.0002		233.9803	233.9803	0.0215		234.5177
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.2088	42.2088	3.6500e-003		42.3000
Worker	8.5400e-003	1.8300e-003	0.0322	6.0000e-005	7.8046	9.0000e-005	7.8047	0.7784	8.0000e-005	0.7785		6.4441	6.4441	1.5000e-004		6.4480
Total	**0.0334**	**1.7333**	**0.2829**	**2.6000e-003**	**20.9503**	**4.2000e-004**	**20.9507**	**2.0899**	**4.0000e-004**	**2.0903**		**282.6332**	**282.6332**	**0.0253**		**283.2657**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4302	0.1977	2.1500e-003	4.0108	2.7000e-004	4.0110	0.4005	2.6000e-004	0.4008		233.9803	233.9803	0.0215		234.5177
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.2088	42.2088	3.6500e-003		42.3000
Worker	8.5400e-003	1.8300e-003	0.0322	6.0000e-005	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		6.4441	6.4441	1.5000e-004		6.4480
Total	**0.0334**	**1.7333**	**0.2829**	**2.6000e-003**	**8.3827**	**4.2000e-004**	**8.3831**	**0.8369**	**4.0000e-004**	**0.8373**		**282.6332**	**282.6332**	**0.0253**		**283.2657**

3.17 Plot 11 (2031) Building-Landscaping - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7500e-003	0.3515	0.0618	4.6000e-004	3.6428	7.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.2436	49.2436	4.2600e-003		49.3500
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0114**	**0.3527**	**0.0833**	**5.0000e-004**	**8.8459**	**1.3000e-004**	**8.8460**	**0.8824**	**1.2000e-004**	**0.8826**		**53.5397**	**53.5397**	**4.3600e-003**		**53.6487**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7500e-003	0.3515	0.0618	4.6000e-004	1.4578	7.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.2436	49.2436	4.2600e-003		49.3500
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	6.0000e-005	0.2078		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0114**	**0.3527**	**0.0833**	**5.0000e-004**	**3.5394**	**1.3000e-004**	**3.5395**	**0.3534**	**1.2000e-004**	**0.3535**		**53.5397**	**53.5397**	**4.3600e-003**		**53.6487**

3.18 Plot 11 (2031) Landscaping - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.2088	42.2088	3.6500e-003		42.3000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0106**	**0.3025**	**0.0744**	**4.3000e-004**	**8.3255**	**1.2000e-004**	**8.3256**	**0.8305**	**1.2000e-004**	**0.8306**		**46.5049**	**46.5049**	**3.7500e-003**		**46.5987**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.2088	42.2088	3.6500e-003		42.3000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	6.0000e-005	0.2078		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0106**	**0.3025**	**0.0744**	**4.3000e-004**	**3.3311**	**1.2000e-004**	**3.3312**	**0.3326**	**1.2000e-004**	**0.3327**		**46.5049**	**46.5049**	**3.7500e-003**		**46.5987**

3.19 Plot 11 (2031) Curbing/Drive Approaches - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0700e-003	0.5792	0.0801	8.7000e-004	4.0589	1.1000e-004	4.0590	0.4049	1.1000e-004	0.4050		94.7508	94.7508	8.7000e-003		94.9684
Vendor	3.2800e-003	0.2009	0.0353	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.1392	28.1392	2.4300e-003		28.2000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0170**	**0.7813**	**0.1368**	**1.1700e-003**	**11.3436**	**2.1000e-004**	**11.3438**	**1.1316**	**2.1000e-004**	**1.1318**		**127.1861**	**127.1861**	**0.0112**		**127.4671**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0700e-003	0.5792	0.0801	8.7000e-004	1.6242	1.1000e-004	1.6243	0.1622	1.1000e-004	0.1623		94.7508	94.7508	8.7000e-003		94.9684
Vendor	3.2800e-003	0.2009	0.0353	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.1392	28.1392	2.4300e-003		28.2000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	6.0000e-005	0.2078		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0170**	**0.7813**	**0.1368**	**1.1700e-003**	**4.5388**	**2.1000e-004**	**4.5390**	**0.4531**	**2.1000e-004**	**0.4533**		**127.1861**	**127.1861**	**0.0112**		**127.4671**

3.20 Plot 11 (2031) Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9801	0.1355	1.4700e-003	6.8690	1.9000e-004	6.8691	0.6853	1.8000e-004	0.6855		160.3475	160.3475	0.0147		160.7158
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.2088	42.2088	3.6500e-003		42.3000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	13.0077	1.5000e-004	13.0078	1.2973	1.4000e-004	1.2974		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0328**	**1.2845**	**0.2421**	**1.9700e-003**	**22.9991**	**4.0000e-004**	**22.9995**	**2.2941**	**3.8000e-004**	**2.2945**		**213.2965**	**213.2965**	**0.0186**		**213.7624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9801	0.1355	1.4700e-003	2.7486	1.9000e-004	2.7488	0.2745	1.8000e-004	0.2747		160.3475	160.3475	0.0147		160.7158
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.2088	42.2088	3.6500e-003		42.3000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	5.2040	1.5000e-004	5.2041	0.5193	1.4000e-004	0.5194		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0328**	**1.2845**	**0.2421**	**1.9700e-003**	**9.2021**	**4.0000e-004**	**9.2025**	**0.9186**	**3.8000e-004**	**0.9190**		**213.2965**	**213.2965**	**0.0186**		**213.7624**

3.21 Plot 11 (2031) Temporary Utilities - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 11 (2032) Mass Excavation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9700	0.1361	1.4600e-003	6.8249	1.8000e-004	6.8251	0.6809	1.7000e-004	0.6811		159.0548	159.0548	0.0144		159.4140
Vendor	9.7500e-003	0.6006	0.1053	7.8000e-004	6.2449	1.1000e-004	6.2450	0.6232	1.1000e-004	0.6233		84.2788	84.2788	7.1700e-003		84.4580
Worker	0.0262	5.5200e-003	0.1000	2.1000e-004	26.0154	2.8000e-004	26.0157	2.5946	2.6000e-004	2.5949		21.0350	21.0350	4.6000e-004		21.0465
Total	**0.0494**	**1.5761**	**0.3414**	**2.4500e-003**	**39.0852**	**5.7000e-004**	**39.0857**	**3.8986**	**5.4000e-004**	**3.8992**		**264.3687**	**264.3687**	**0.0220**		**264.9186**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9700	0.1361	1.4600e-003	2.7310	1.8000e-004	2.7311	0.2727	1.7000e-004	0.2729		159.0548	159.0548	0.0144		159.4140
Vendor	9.7500e-003	0.6006	0.1053	7.8000e-004	2.4991	1.1000e-004	2.4992	0.2497	1.1000e-004	0.2498		84.2788	84.2788	7.1700e-003		84.4580
Worker	0.0262	5.5200e-003	0.1000	2.1000e-004	10.4079	2.8000e-004	10.4082	1.0385	2.6000e-004	1.0388		21.0350	21.0350	4.6000e-004		21.0465
Total	**0.0494**	**1.5761**	**0.3414**	**2.4500e-003**	**15.6380**	**5.7000e-004**	**15.6385**	**1.5610**	**5.4000e-004**	**1.5615**		**264.3687**	**264.3687**	**0.0220**		**264.9186**

3.23 Plot 11 (2032) Finish Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.7692	0.1079	1.1600e-003	5.4119	1.4000e-004	5.4120	0.5399	1.3000e-004	0.5400		126.1244	126.1244	0.0114		126.4093
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.0929	28.0929	2.3900e-003		28.1527
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	7.8046	9.0000e-005	7.8047	0.7784	8.0000e-005	0.7785		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0218**	**0.9710**	**0.1730**	**1.4800e-003**	**15.2981**	**2.7000e-004**	**15.2984**	**1.5260**	**2.5000e-004**	**1.5263**		**160.5279**	**160.5279**	**0.0139**		**160.8759**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.7692	0.1079	1.1600e-003	2.1656	1.4000e-004	2.1657	0.2163	1.3000e-004	0.2164		126.1244	126.1244	0.0114		126.4093
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.0929	28.0929	2.3900e-003		28.1527
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3116		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0218**	**0.9710**	**0.1730**	**1.4800e-003**	**6.1210**	**2.7000e-004**	**6.1212**	**0.6111**	**2.5000e-004**	**0.6113**		**160.5279**	**160.5279**	**0.0139**		**160.8759**

3.24 Plot 11 (2032) Utilities - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7807	0.2498	2.6800e-003	12.5290	3.2000e-004	12.5294	1.2499	3.1000e-004	1.2503		291.9892	291.9892	0.0264		292.6486
Vendor	0.0203	1.2512	0.2194	1.6200e-003	13.0101	2.3000e-004	13.0104	1.2983	2.2000e-004	1.2985		175.5809	175.5809	0.0149		175.9542
Worker	0.0209	4.4200e-003	0.0800	1.7000e-004	20.8123	2.3000e-004	20.8125	2.0757	2.1000e-004	2.0759		16.8280	16.8280	3.7000e-004		16.8372
Total	**0.0661**	**3.0363**	**0.5492**	**4.4700e-003**	**46.3515**	**7.8000e-004**	**46.3523**	**4.6239**	**7.4000e-004**	**4.6246**		**484.3981**	**484.3981**	**0.0417**		**485.4401**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7807	0.2498	2.6800e-003	5.0135	3.2000e-004	5.0138	0.5006	3.1000e-004	0.5010		291.9892	291.9892	0.0264		292.6486
Vendor	0.0203	1.2512	0.2194	1.6200e-003	5.2064	2.3000e-004	5.2067	0.5202	2.2000e-004	0.5205		175.5809	175.5809	0.0149		175.9542
Worker	0.0209	4.4200e-003	0.0800	1.7000e-004	8.3263	2.3000e-004	8.3266	0.8308	2.1000e-004	0.8310		16.8280	16.8280	3.7000e-004		16.8372
Total	**0.0661**	**3.0363**	**0.5492**	**4.4700e-003**	**18.5462**	**7.8000e-004**	**18.5470**	**1.8517**	**7.4000e-004**	**1.8525**		**484.3981**	**484.3981**	**0.0417**		**485.4401**

3.25 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1368	0.2998	3.2100e-003	15.0348	3.9000e-004	15.0352	1.4999	3.7000e-004	1.5003		350.3870	350.3870	0.0317		351.1784
Vendor	1.6300e-003	0.1001	0.0176	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0465	14.0465	1.1900e-003		14.0763
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	13.0077	1.4000e-004	13.0078	1.2973	1.3000e-004	1.2974		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0445**	**2.2397**	**0.3673**	**3.4500e-003**	**29.0833**	**5.5000e-004**	**29.0839**	**2.9011**	**5.2000e-004**	**2.9016**		**374.9510**	**374.9510**	**0.0331**		**375.7780**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1368	0.2998	3.2100e-003	6.0161	3.9000e-004	6.0165	0.6008	3.7000e-004	0.6011		350.3870	350.3870	0.0317		351.1784
Vendor	1.6300e-003	0.1001	0.0176	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0465	14.0465	1.1900e-003		14.0763
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	5.2040	1.4000e-004	5.2041	0.5193	1.3000e-004	0.5194		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0445**	**2.2397**	**0.3673**	**3.4500e-003**	**11.6366**	**5.5000e-004**	**11.6372**	**1.1617**	**5.2000e-004**	**1.1622**		**374.9510**	**374.9510**	**0.0331**		**375.7780**

3.26 Plot 11 (2032) Building-Wet Utilities - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6232	0.0874	9.4000e-004	4.3852	1.1000e-004	4.3853	0.4375	1.1000e-004	0.4376		102.1962	102.1962	9.2300e-003		102.4270
Vendor	0.0122	0.7507	0.1316	9.7000e-004	7.8061	1.4000e-004	7.8062	0.7790	1.3000e-004	0.7791		105.3485	105.3485	8.9600e-003		105.5725
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	13.0077	1.4000e-004	13.0078	1.2973	1.3000e-004	1.2974		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0340**	**1.3767**	**0.2691**	**2.0200e-003**	**25.1989**	**3.9000e-004**	**25.1993**	**2.5137**	**3.7000e-004**	**2.5141**		**218.0623**	**218.0623**	**0.0184**		**218.5228**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6232	0.0874	9.4000e-004	1.7547	1.1000e-004	1.7548	0.1752	1.1000e-004	0.1753		102.1962	102.1962	9.2300e-003		102.4270
Vendor	0.0122	0.7507	0.1316	9.7000e-004	3.1239	1.4000e-004	3.1240	0.3121	1.3000e-004	0.3123		105.3485	105.3485	8.9600e-003		105.5725
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	5.2040	1.4000e-004	5.2041	0.5193	1.3000e-004	0.5194		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0340**	**1.3767**	**0.2691**	**2.0200e-003**	**10.0825**	**3.9000e-004**	**10.0829**	**1.0066**	**3.7000e-004**	**1.0070**		**218.0623**	**218.0623**	**0.0184**		**218.5228**

3.27 Plot 11 (2032) Building-Electrical - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4245	0.1999	2.1400e-003	10.0232	2.6000e-004	10.0235	1.0000	2.5000e-004	1.0002		233.5914	233.5914	0.0211		234.1189
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1394	42.1394	3.5800e-003		42.2290
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	7.8046	9.0000e-005	7.8047	0.7784	8.0000e-005	0.7785		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0326**	**1.7265**	**0.2825**	**2.5900e-003**	**20.9503**	**4.1000e-004**	**20.9507**	**2.0899**	**3.8000e-004**	**2.0903**		**282.0413**	**282.0413**	**0.0248**		**282.6619**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4245	0.1999	2.1400e-003	4.0108	2.6000e-004	4.0110	0.4005	2.5000e-004	0.4008		233.5914	233.5914	0.0211		234.1189
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1394	42.1394	3.5800e-003		42.2290
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3116		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0326**	**1.7265**	**0.2825**	**2.5900e-003**	**8.3827**	**4.1000e-004**	**8.3831**	**0.8369**	**3.8000e-004**	**0.8373**		**282.0413**	**282.0413**	**0.0248**		**282.6619**

3.28 Plot 11 (2032) Building-Landscaping - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6900e-003	0.3503	0.0614	4.5000e-004	3.6428	7.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1627	49.1627	4.1800e-003		49.2672
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0109**	**0.3514**	**0.0814**	**4.9000e-004**	**8.8459**	**1.3000e-004**	**8.8460**	**0.8824**	**1.1000e-004**	**0.8825**		**53.3697**	**53.3697**	**4.2700e-003**		**53.4765**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6900e-003	0.3503	0.0614	4.5000e-004	1.4578	7.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1627	49.1627	4.1800e-003		49.2672
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0109**	**0.3514**	**0.0814**	**4.9000e-004**	**3.5394**	**1.3000e-004**	**3.5395**	**0.3534**	**1.1000e-004**	**0.3535**		**53.3697**	**53.3697**	**4.2700e-003**		**53.4765**

3.29 Plot 11 (2032) Landscaping - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1394	42.1394	3.5800e-003		42.2290
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0101**	**0.3014**	**0.0727**	**4.3000e-004**	**8.3255**	**1.2000e-004**	**8.3256**	**0.8305**	**1.0000e-004**	**0.8306**		**46.3464**	**46.3464**	**3.6700e-003**		**46.4383**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1394	42.1394	3.5800e-003		42.2290
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0101**	**0.3014**	**0.0727**	**4.3000e-004**	**3.3311**	**1.2000e-004**	**3.3312**	**0.3326**	**1.0000e-004**	**0.3327**		**46.3464**	**46.3464**	**3.6700e-003**		**46.4383**

3.30 Plot 11 (2032) Curbing/Drive Approaches - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5769	0.0809	8.7000e-004	4.0589	1.0000e-004	4.0590	0.4049	1.0000e-004	0.4050		94.5933	94.5933	8.5500e-003		94.8069
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.0929	28.0929	2.3900e-003		28.1527
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0165**	**0.7782**	**0.1360**	**1.1700e-003**	**11.3436**	**2.0000e-004**	**11.3438**	**1.1316**	**1.9000e-004**	**1.1318**		**126.8933**	**126.8933**	**0.0110**		**127.1689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5769	0.0809	8.7000e-004	1.6242	1.0000e-004	1.6243	0.1622	1.0000e-004	0.1623		94.5933	94.5933	8.5500e-003		94.8069
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.0929	28.0929	2.3900e-003		28.1527
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0165**	**0.7782**	**0.1360**	**1.1700e-003**	**4.5388**	**2.0000e-004**	**4.5390**	**0.4531**	**1.9000e-004**	**0.4533**		**126.8933**	**126.8933**	**0.0110**		**127.1689**

3.31 Plot 11 (2032) Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9762	0.1370	1.4700e-003	6.8690	1.8000e-004	6.8691	0.6853	1.7000e-004	0.6854		160.0810	160.0810	0.0145		160.4425
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1394	42.1394	3.5800e-003		42.2290
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	13.0077	1.4000e-004	13.0078	1.2973	1.3000e-004	1.2974		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0316**	**1.2793**	**0.2396**	**1.9700e-003**	**22.9991**	**3.8000e-004**	**22.9994**	**2.2941**	**3.5000e-004**	**2.2945**		**212.7379**	**212.7379**	**0.0183**		**213.1948**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9762	0.1370	1.4700e-003	2.7486	1.8000e-004	2.7488	0.2745	1.7000e-004	0.2746		160.0810	160.0810	0.0145		160.4425
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1394	42.1394	3.5800e-003		42.2290
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	5.2040	1.4000e-004	5.2041	0.5193	1.3000e-004	0.5194		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0316**	**1.2793**	**0.2396**	**1.9700e-003**	**9.2021**	**3.8000e-004**	**9.2025**	**0.9186**	**3.5000e-004**	**0.9190**		**212.7379**	**212.7379**	**0.0183**		**213.1948**

3.32 Plot 11 (2032) Temporary Utilities - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Plots 12 and 6 Emissions Summaries

Unmitigated Air Quality Construction Analysis

Regional Maximums	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Source	**lb/day**					
Plot 12 (2033) Mass Excavation	30.27	137.74	144.67	0.57	33.21	8.19
Plot 12 (2033) Finish Grading	0.89	6.79	9.26	0.03	8.08	1.07
Plot 12 (2033) Utilities	16.57	59.66	124.79	0.43	31.74	4.81
Plot 12 (2033) Building-Concrete	3.42	26.74	46.11	0.10	14.46	2.03
Plot 12 (2033) Building-Wet Utilities	6.08	25.01	71.67	0.17	15.51	2.37
Plot 12 (2033) Building-Electrical	4.15	27.48	47.50	0.09	12.08	1.70
Plot 12 (2033) Building-Landscaping	3.01	14.66	35.79	0.06	4.88	0.89
Plot 12 (2033) Landscaping	3.16	14.98	38.20	0.07	4.67	0.88
Plot 12 (2033) Curbing/Drive Approaches	1.02	7.07	11.32	0.03	5.20	0.78
Plot 12 (2033) Paving	5.00	26.81	45.00	0.12	13.44	2.29
Plot 12 (2033) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13
Plot 12 (2034) Utilities	16.56	59.59	124.72	0.43	31.74	4.81
Plot 12 (2034) Building-Concrete	3.41	26.69	46.08	0.10	14.46	2.03
Plot 12 (2034) Building-Wet Utilities	6.07	24.98	71.63	0.17	15.51	2.37
Plot 12 (2034) Building-Electrical	4.15	27.44	47.48	0.09	12.08	1.70
Plot 12 (2034) Building-Landscaping	3.00	14.66	35.77	0.06	4.88	0.89
Plot 12 (2034) Landscaping	3.16	14.97	38.18	0.07	4.67	0.88
Plot 12 (2034) Curbing/Drive Approaches	1.01	7.05	11.31	0.03	5.20	0.78
Plot 12 (2034) Paving	5.00	26.78	44.96	0.12	13.44	2.29
Plot 12 (2034) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13
Plot 6 (2035) Mass Excavation	17.83	66.18	93.59	0.38	26.81	5.09
Plot 6 (2035) Finish Grading	0.78	6.05	9.29	0.03	8.32	1.05
Plot 6 (2035) Utilities	15.87	52.13	124.60	0.43	31.41	4.48
Plot 6 (2035) Building-Concrete	3.07	19.81	44.25	0.08	9.05	1.27
Plot 6 (2035) Building-Wet Utilities	5.60	20.38	71.58	0.17	15.28	2.14
Plot 6 (2035) Building-Electrical	3.95	26.31	47.37	0.09	11.97	1.59
Plot 6 (2035) Building-Landscaping	2.69	13.00	35.60	0.06	4.75	0.75
Plot 6 (2035) Landscaping	2.83	13.14	38.01	0.07	4.53	0.73
Plot 6 (2035) Curbing/Drive Approaches	0.88	5.93	11.27	0.03	5.12	0.70
Plot 6 (2035) Paving	4.38	20.54	44.42	0.12	13.11	1.96
Plot 6 (2035) Temporary Utilities	1.15	2.51	6.19	0.03	0.09	0.09
Overlapping Phases						
Plot 12-2033	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	67.55	313.06	517.99	1.54	124.63	21.94
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	66.66	306.27	508.73	1.51	116.55	20.87
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	67.67	313.34	520.05	1.54	121.75	21.65
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	72.68	340.15	565.05	1.66	135.19	23.94
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	43.67	206.37	426.59	1.11	102.12	15.88
Plot 12-2034						
All Phases	43.63	206.12	426.33	1.11	102.11	15.88
Plot 6-2035						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	52.62	217.00	464.30	1.32	112.11	17.10
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	51.83	210.95	455.01	1.29	103.79	16.06
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	52.72	216.88	466.28	1.32	108.91	16.76
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	57.09	237.43	510.69	1.44	122.02	18.72
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	40.41	173.76	423.29	1.09	95.31	13.72
Daily Maximum[1]						
2033	297.09	340.15	565.05	1.66	135.19	23.94
2034	268.05	206.12	426.33	1.11	102.11	15.88
2035	281.51	237.43	510.69	1.44	122.02	18.72

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions

Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day					
Plot 12 (2033) Mass Excavation	0.04	1.42	0.31	0.00	15.01	1.50
Plot 12 (2033) Finish Grading	0.02	0.96	0.17	0.00	5.98	0.60
Plot 12 (2033) Utilities	0.06	3.03	0.55	0.00	18.55	1.85
Plot 12 (2033) Building-Concrete	0.04	2.23	0.37	0.00	11.64	1.16
Plot 12 (2033) Building-Wet Utilities	0.03	1.37	0.27	0.00	10.08	1.01
Plot 12 (2033) Building-Electrical	0.03	1.72	0.28	0.00	8.38	0.84
Plot 12 (2033) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 12 (2033) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 12 (2033) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 12 (2033) Paving	0.03	1.28	0.24	0.00	9.20	0.92
Plot 12 (2033) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	0.06	3.02	0.54	0.00	18.55	1.85
Plot 12 (2034) Building-Concrete	0.04	2.23	0.37	0.00	11.64	1.16
Plot 12 (2034) Building-Wet Utilities	0.03	1.37	0.26	0.00	10.08	1.01
Plot 12 (2034) Building-Electrical	0.03	1.72	0.28	0.00	8.38	0.84
Plot 12 (2034) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 12 (2034) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 12 (2034) Curbing/Drive Approaches	0.02	0.77	0.13	0.00	4.54	0.45
Plot 12 (2034) Paving	0.03	1.27	0.24	0.00	9.20	0.92
Plot 12 (2034) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	0.04	1.41	0.30	0.00	15.01	1.50
Plot 6 (2035) Finish Grading	0.02	1.06	0.18	0.00	6.25	0.62
Plot 6 (2035) Utilities	0.06	3.01	0.54	0.00	18.55	1.85
Plot 6 (2035) Building-Concrete	0.02	0.45	0.11	0.00	6.88	0.69
Plot 6 (2035) Building-Wet Utilities	0.03	1.37	0.26	0.00	10.08	1.01
Plot 6 (2035) Building-Electrical	0.03	1.71	0.28	0.00	8.38	0.84
Plot 6 (2035) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 6 (2035) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 6 (2035) Curbing/Drive Approaches	0.02	0.77	0.13	0.00	4.54	0.45
Plot 6 (2035) Paving	0.03	1.27	0.23	0.00	9.20	0.92
Plot 6 (2035) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Unmitgated VOC Emissions (lb/day)	
2033	224
2034	224
2035	224

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 12 (2033) Mass Excavation	29.93	133.31	141.78	0.55	16.74	6.29	0.26	2.98	2.58	0.02	1.45	0.40
Plot 12 (2033) Finish Grading	0.74	3.83	7.87	0.01	1.51	0.31	0.12	1.98	1.23	0.01	0.59	0.16
Plot 12 (2033) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.36	6.26	3.60	0.04	1.88	0.53
Plot 12 (2033) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.24	4.57	2.57	0.03	1.16	0.32
Plot 12 (2033) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.18	2.86	1.82	0.02	1.01	0.28
Plot 12 (2033) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.17	3.53	1.85	0.02	0.85	0.24
Plot 12 (2033) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.06	0.74	0.56	0.01	0.35	0.10
Plot 12 (2033) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.06	0.64	0.52	0.01	0.33	0.09
Plot 12 (2033) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.09	1.60	0.92	0.01	0.46	0.13
Plot 12 (2033) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.17	2.64	1.76	0.02	0.91	0.25
Plot 12 (2033) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.35	6.21	3.54	0.04	1.88	0.53
Plot 12 (2034) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.23	4.53	2.54	0.03	1.16	0.32
Plot 12 (2034) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.18	2.83	1.78	0.02	1.01	0.28
Plot 12 (2034) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.17	3.50	1.83	0.02	0.85	0.24
Plot 12 (2034) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.06	0.73	0.54	0.01	0.35	0.10
Plot 12 (2034) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.05	0.63	0.50	0.01	0.33	0.09
Plot 12 (2034) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.09	1.58	0.91	0.01	0.46	0.13
Plot 12 (2034) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.17	2.61	1.72	0.02	0.91	0.25
Plot 12 (2034) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	17.52	61.81	90.85	0.36	10.34	3.19	0.25	2.92	2.44	0.02	1.45	0.40
Plot 6 (2035) Finish Grading	0.63	2.83	7.85	0.01	1.45	0.25	0.12	2.14	1.27	0.01	0.62	0.17
Plot 6 (2035) Utilities	15.44	42.89	120.57	0.38	10.99	2.10	0.34	6.16	3.49	0.04	1.88	0.53
Plot 6 (2035) Building-Concrete	2.93	18.40	43.14	0.07	1.51	0.40	0.11	0.95	1.00	0.01	0.66	0.18
Plot 6 (2035) Building-Wet Utilities	5.38	16.18	69.58	0.15	4.18	0.85	0.18	2.81	1.75	0.02	1.01	0.28
Plot 6 (2035) Building-Electrical	3.74	21.09	45.28	0.07	2.73	0.51	0.17	3.47	1.81	0.02	0.85	0.24
Plot 6 (2035) Building-Landscaping	2.62	11.91	34.99	0.06	0.85	0.30	0.06	0.73	0.53	0.01	0.35	0.10
Plot 6 (2035) Landscaping	2.76	12.21	37.45	0.06	0.86	0.31	0.05	0.63	0.49	0.01	0.33	0.09
Plot 6 (2035) Curbing/Drive Approaches	0.78	3.57	10.24	0.02	0.12	0.12	0.09	1.57	0.89	0.01	0.46	0.13
Plot 6 (2035) Paving	4.17	16.65	42.49	0.10	3.00	0.79	0.16	2.59	1.69	0.02	0.91	0.25
Plot 6 (2035) Temporary Utilities	1.15	2.51	6.19	0.03	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 12 (2033) Mass Excavation	30.2	136.3	144.4	0.57	18.19	6.69
Plot 12 (2033) Finish Grading	0.9	5.8	9.1	0.03	2.10	0.48
Plot 12 (2033) Utilities	16.5	56.6	124.2	0.43	13.20	2.96
Plot 12 (2033) Building-Concrete	3.4	24.5	45.7	0.10	2.82	0.87
Plot 12 (2033) Building-Wet Utilities	6.0	23.6	71.4	0.17	5.43	1.36
Plot 12 (2033) Building-Electrical	4.1	25.7	47.2	0.09	3.70	0.86
Plot 12 (2033) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 12 (2033) Landscaping	3.1	14.7	38.1	0.07	1.34	0.55
Plot 12 (2033) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 12 (2033) Paving	5.0	25.5	44.8	0.12	4.24	1.37
Plot 12 (2033) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 12 (2034) Utilities	16.5	56.5	124.2	0.42	13.20	2.96
Plot 12 (2034) Building-Concrete	3.4	24.4	45.7	0.10	2.82	0.87
Plot 12 (2034) Building-Wet Utilities	6.0	23.6	71.4	0.17	5.42	1.36
Plot 12 (2034) Building-Electrical	4.1	25.7	47.2	0.09	3.70	0.86
Plot 12 (2034) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 12 (2034) Landscaping	3.1	14.7	38.1	0.07	1.34	0.55
Plot 12 (2034) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 12 (2034) Paving	5.0	25.5	44.7	0.12	4.24	1.37
Plot 12 (2034) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 6 (2035) Mass Excavation	17.8	64.7	93.3	0.38	11.80	3.59
Plot 6 (2035) Finish Grading	0.8	5.0	9.1	0.03	2.07	0.42
Plot 6 (2035) Utilities	15.8	49.1	124.1	0.42	12.87	2.63
Plot 6 (2035) Building-Concrete	3.0	19.3	44.1	0.08	2.17	0.58
Plot 6 (2035) Building-Wet Utilities	5.6	19.0	71.3	0.17	5.20	1.13
Plot 6 (2035) Building-Electrical	3.9	24.6	47.1	0.09	3.58	0.75
Plot 6 (2035) Building-Landscaping	2.7	12.6	35.5	0.06	1.21	0.40
Plot 6 (2035) Landscaping	2.8	12.8	37.9	0.07	1.20	0.40
Plot 6 (2035) Curbing/Drive Approaches	0.9	5.1	11.1	0.03	0.58	0.25
Plot 6 (2035) Paving	4.3	19.2	44.2	0.12	3.91	1.04
Plot 6 (2035) Temporary Utilities	1.1	2.5	6.2	0.03	0.09	0.09

Overlapping Phases						
Plot 12-2033						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	67.18	301.43	515.90	1.52	48.12	14.30
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	66.32	295.62	506.80	1.49	46.01	13.82
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	67.31	301.90	517.99	1.52	46.67	14.16
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	72.27	327.40	562.75	1.64	50.92	15.53
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	43.34	195.09	424.60	1.09	32.85	8.97
Plot 12-2034						
All Phases	43.30	194.87	424.36	1.09	32.85	8.96
Plot 6-2035						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	52.30	207.14	462.48	1.31	40.09	9.91
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	51.54	202.16	453.36	1.28	38.02	9.49
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	52.40	207.31	464.50	1.31	38.60	9.74
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	56.74	226.56	508.68	1.42	42.51	10.78
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	40.12	164.34	421.57	1.07	30.80	7.28
Daily Maximum[1]						
2033	72.27	327.40	562.75	1.64	50.92	15.53
2034	43.30	194.87	424.36	1.09	32.85	8.96
2035	56.74	226.56	508.68	1.42	42.51	10.78

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissions are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 12 (2033) Mass Excavation	29.93	133.31	141.78	0.55	16.74	6.29	0.29	3.01	2.44	0.02	1.45	0.40
Plot 12 (2033) Finish Grading	0.74	3.83	7.87	0.01	1.51	0.31	0.13	2.00	1.20	0.01	0.59	0.16
Plot 12 (2033) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.38	6.33	3.55	0.04	1.88	0.53
Plot 12 (2033) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.26	4.62	2.55	0.03	1.16	0.32
Plot 12 (2033) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.20	2.89	1.77	0.02	1.01	0.28
Plot 12 (2033) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.18	3.56	1.85	0.02	0.85	0.24
Plot 12 (2033) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.07	0.75	0.53	0.01	0.35	0.10
Plot 12 (2033) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.06	0.65	0.49	0.01	0.33	0.09
Plot 12 (2033) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.10	1.61	0.91	0.01	0.46	0.13
Plot 12 (2033) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.19	2.67	1.71	0.02	0.91	0.25
Plot 12 (2033) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	16.12	50.30	120.64	0.38	11.32	2.43	0.37	6.27	3.50	0.04	1.88	0.53
Plot 12 (2034) Building-Concrete	3.12	19.89	43.17	0.07	1.65	0.54	0.25	4.57	2.52	0.03	1.16	0.32
Plot 12 (2034) Building-Wet Utilities	5.84	20.75	69.59	0.15	4.41	1.08	0.19	2.86	1.74	0.02	1.01	0.28
Plot 12 (2034) Building-Electrical	3.94	22.19	45.37	0.07	2.85	0.63	0.18	3.53	1.83	0.02	0.85	0.24
Plot 12 (2034) Building-Landscaping	2.93	13.56	35.15	0.06	0.99	0.43	0.06	0.74	0.52	0.01	0.35	0.10
Plot 12 (2034) Landscaping	3.09	14.03	37.61	0.06	1.01	0.45	0.06	0.64	0.48	0.01	0.33	0.09
Plot 12 (2034) Curbing/Drive Approaches	0.90	4.68	10.26	0.02	0.20	0.20	0.09	1.60	0.90	0.01	0.46	0.13
Plot 12 (2034) Paving	4.79	22.87	43.00	0.10	3.33	1.12	0.18	2.64	1.67	0.02	0.91	0.25
Plot 12 (2034) Temporary Utilities	1.26	3.97	6.20	0.03	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	17.52	61.81	90.85	0.36	10.34	3.19	0.27	2.96	2.32	0.02	1.45	0.40
Plot 6 (2035) Finish Grading	0.63	2.83	7.85	0.01	1.45	0.25	0.13	2.16	1.25	0.01	0.62	0.17
Plot 6 (2035) Utilities	15.44	42.89	120.57	0.38	10.99	2.10	0.36	6.22	3.45	0.04	1.88	0.53
Plot 6 (2035) Building-Concrete	2.93	18.40	43.14	0.07	1.51	0.40	0.12	0.96	0.93	0.01	0.66	0.18
Plot 6 (2035) Building-Wet Utilities	5.38	16.18	69.58	0.15	4.18	0.85	0.19	2.84	1.71	0.02	1.01	0.28
Plot 6 (2035) Building-Electrical	3.74	21.09	45.28	0.07	2.73	0.51	0.18	3.51	1.81	0.02	0.85	0.24
Plot 6 (2035) Building-Landscaping	2.62	11.91	34.99	0.06	0.85	0.30	0.06	0.74	0.51	0.01	0.35	0.10
Plot 6 (2035) Landscaping	2.76	12.21	37.45	0.06	0.86	0.31	0.06	0.64	0.47	0.01	0.33	0.09
Plot 6 (2035) Curbing/Drive Approaches	0.78	3.57	10.24	0.02	0.12	0.12	0.09	1.59	0.89	0.01	0.46	0.13
Plot 6 (2035) Paving	4.17	16.65	42.49	0.10	3.00	0.79	0.18	2.62	1.65	0.02	0.91	0.25
Plot 6 (2035) Temporary Utilities	1.15	2.51	6.19	0.03	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 12 (2033) Mass Excavation	30.2	136.3	144.2	0.57	18.19	6.69
Plot 12 (2033) Finish Grading	0.9	5.8	9.1	0.03	2.10	0.48
Plot 12 (2033) Utilities	16.5	56.6	124.2	0.42	13.20	2.96
Plot 12 (2033) Building-Concrete	3.4	24.5	45.7	0.10	2.82	0.87
Plot 12 (2033) Building-Wet Utilities	6.0	23.6	71.4	0.17	5.43	1.36
Plot 12 (2033) Building-Electrical	4.1	25.8	47.2	0.09	3.70	0.86
Plot 12 (2033) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 12 (2033) Landscaping	3.2	14.7	38.1	0.07	1.34	0.55
Plot 12 (2033) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 12 (2033) Paving	5.0	25.5	44.7	0.12	4.24	1.37
Plot 12 (2033) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 12 (2034) Utilities	16.5	56.6	124.1	0.42	13.20	2.96
Plot 12 (2034) Building-Concrete	3.4	24.5	45.7	0.10	2.82	0.87
Plot 12 (2034) Building-Wet Utilities	6.0	23.6	71.3	0.17	5.42	1.36
Plot 12 (2034) Building-Electrical	4.1	25.7	47.2	0.09	3.70	0.86
Plot 12 (2034) Building-Landscaping	3.0	14.3	35.7	0.06	1.34	0.53
Plot 12 (2034) Landscaping	3.2	14.7	38.1	0.07	1.34	0.55
Plot 12 (2034) Curbing/Drive Approaches	1.0	6.3	11.2	0.03	0.66	0.33
Plot 12 (2034) Paving	5.0	25.5	44.7	0.12	4.24	1.37
Plot 12 (2034) Temporary Utilities	1.3	4.0	6.2	0.03	0.13	0.13
Plot 6 (2035) Mass Excavation	17.8	64.8	93.2	0.38	11.80	3.59
Plot 6 (2035) Finish Grading	0.8	5.0	9.1	0.03	2.07	0.42
Plot 6 (2035) Utilities	15.8	49.1	124.0	0.42	12.87	2.63
Plot 6 (2035) Building-Concrete	3.0	19.4	44.1	0.08	2.17	0.58
Plot 6 (2035) Building-Wet Utilities	5.6	19.0	71.3	0.17	5.20	1.13
Plot 6 (2035) Building-Electrical	3.9	24.6	47.1	0.09	3.58	0.75
Plot 6 (2035) Building-Landscaping	2.7	12.7	35.5	0.06	1.21	0.40
Plot 6 (2035) Landscaping	2.8	12.8	37.9	0.07	1.20	0.40
Plot 6 (2035) Curbing/Drive Approaches	0.9	5.2	11.1	0.03	0.58	0.25
Plot 6 (2035) Paving	4.3	19.3	44.1	0.12	3.91	1.04
Plot 6 (2035) Temporary Utilities	1.1	2.5	6.2	0.03	0.09	0.09

Overlapping Phases						
Plot 12-2033						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	67.29	301.67	515.56	1.52	48.12	14.30
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	66.42	295.84	506.49	1.49	46.01	13.82
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	67.42	302.14	517.66	1.52	46.67	14.16
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	72.39	327.67	562.38	1.63	50.92	15.53
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	43.43	195.32	424.36	1.09	32.85	8.97
Plot 12-2034						
All Phases	43.40	195.10	424.14	1.09	32.85	8.96
Plot 6-2035						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	52.40	207.34	462.14	1.30	40.09	9.91
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	51.63	202.35	453.04	1.28	38.02	9.49
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	52.50	207.51	464.17	1.31	38.60	9.74
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	56.85	226.78	508.31	1.42	42.51	10.78
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	40.21	164.53	421.32	1.07	30.80	7.28
Daily Maximum[1]						
2033	72.39	327.67	562.38	1.63	50.92	15.53
2034	43.40	195.10	424.14	1.09	32.85	8.96
2035	56.85	226.78	508.31	1.42	42.51	10.78

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissions are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source	lb/day				lb/day			
Plot 12 (2033) Mass Excavation	133.31	141.78	16.74	6.29	1.42	0.31	15.01	1.50
Plot 12 (2033) Finish Grading	3.83	7.87	1.51	0.31	0.96	0.17	5.98	0.60
Plot 12 (2033) Utilities	50.30	120.64	11.32	2.43	3.03	0.55	18.55	1.85
Plot 12 (2033) Building-Concrete	19.89	43.17	1.65	0.54	2.23	0.37	11.64	1.16
Plot 12 (2033) Building-Wet Utilities	20.75	69.59	4.41	1.08	1.37	0.27	10.08	1.01
Plot 12 (2033) Building-Electrical	22.19	45.37	2.85	0.63	1.72	0.28	8.38	0.84
Plot 12 (2033) Building-Landscaping	13.56	35.15	0.99	0.43	0.35	0.08	3.54	0.35
Plot 12 (2033) Landscaping	14.03	37.61	1.01	0.45	0.30	0.07	3.33	0.33
Plot 12 (2033) Curbing/Drive Approaches	4.68	10.26	0.20	0.20	0.78	0.14	4.54	0.45
Plot 12 (2033) Paving	22.87	43.00	3.33	1.12	1.28	0.24	9.20	0.92
Plot 12 (2033) Temporary Utilities	3.97	6.20	0.13	0.13	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	50.30	120.64	11.32	2.43	3.02	0.54	18.55	1.85
Plot 12 (2034) Building-Concrete	19.89	43.17	1.65	0.54	2.23	0.37	11.64	1.16
Plot 12 (2034) Building-Wet Utilities	20.75	69.59	4.41	1.08	1.37	0.26	10.08	1.01
Plot 12 (2034) Building-Electrical	22.19	45.37	2.85	0.63	1.72	0.28	8.38	0.84
Plot 12 (2034) Building-Landscaping	13.56	35.15	0.99	0.43	0.35	0.08	3.54	0.35
Plot 12 (2034) Landscaping	14.03	37.61	1.01	0.45	0.30	0.07	3.33	0.33
Plot 12 (2034) Curbing/Drive Approaches	4.68	10.26	0.20	0.20	0.77	0.13	4.54	0.45
Plot 12 (2034) Paving	22.87	43.00	3.33	1.12	1.27	0.24	9.20	0.92
Plot 12 (2034) Temporary Utilities	3.97	6.20	0.13	0.13	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	61.81	90.85	10.34	3.19	1.41	0.30	15.01	1.50
Plot 6 (2035) Finish Grading	2.83	7.85	1.45	0.25	1.06	0.18	6.25	0.62
Plot 6 (2035) Utilities	42.89	120.57	10.99	2.10	3.01	0.54	18.55	1.85
Plot 6 (2035) Building-Concrete	18.40	43.14	1.51	0.40	0.45	0.11	6.88	0.69
Plot 6 (2035) Building-Wet Utilities	16.18	69.58	4.18	0.85	1.37	0.26	10.08	1.01
Plot 6 (2035) Building-Electrical	21.09	45.28	2.73	0.51	1.71	0.28	8.38	0.84
Plot 6 (2035) Building-Landscaping	11.91	34.99	0.85	0.30	0.35	0.08	3.54	0.35
Plot 6 (2035) Landscaping	12.21	37.45	0.86	0.31	0.30	0.07	3.33	0.33
Plot 6 (2035) Curbing/Drive Approaches	3.57	10.24	0.12	0.12	0.77	0.13	4.54	0.45
Plot 6 (2035) Paving	16.65	42.49	3.00	0.79	1.27	0.23	9.20	0.92
Plot 6 (2035) Temporary Utilities	2.51	6.19	0.09	0.09	0.00	0.00	0.00	0.00

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 12 (2033) Mass Excavation	134.73	142.09	31.75	7.79
Plot 12 (2033) Finish Grading	4.79	8.04	7.49	0.91
Plot 12 (2033) Utilities	53.33	121.19	29.86	4.29
Plot 12 (2033) Building-Concrete	22.12	43.54	13.29	1.71
Plot 12 (2033) Building-Wet Utilities	22.12	69.85	14.49	2.09
Plot 12 (2033) Building-Electrical	23.91	45.65	11.23	1.46
Plot 12 (2033) Building-Landscaping	13.91	35.23	4.53	0.79
Plot 12 (2033) Landscaping	14.33	37.68	4.34	0.79
Plot 12 (2033) Curbing/Drive Approaches	5.45	10.40	4.74	0.66
Plot 12 (2033) Paving	24.14	43.24	12.54	2.04
Plot 12 (2033) Temporary Utilities	3.97	6.20	0.13	0.13
Plot 12 (2034) Utilities	53.32	121.18	29.86	4.29
Plot 12 (2034) Building-Concrete	22.12	43.54	13.29	1.71
Plot 12 (2034) Building-Wet Utilities	22.12	69.85	14.49	2.09
Plot 12 (2034) Building-Electrical	23.91	45.65	11.23	1.46
Plot 12 (2034) Building-Landscaping	13.91	35.23	4.53	0.79
Plot 12 (2034) Landscaping	14.33	37.68	4.34	0.79
Plot 12 (2034) Curbing/Drive Approaches	5.45	10.40	4.74	0.66
Plot 12 (2034) Paving	24.14	43.24	12.54	2.04
Plot 12 (2034) Temporary Utilities	3.97	6.20	0.13	0.13
Plot 6 (2035) Mass Excavation	63.22	91.15	25.36	4.69
Plot 6 (2035) Finish Grading	3.89	8.03	7.70	0.88
Plot 6 (2035) Utilities	45.91	121.11	29.53	3.96
Plot 6 (2035) Building-Concrete	18.85	43.25	8.39	1.09
Plot 6 (2035) Building-Wet Utilities	17.54	69.84	14.27	1.86
Plot 6 (2035) Building-Electrical	22.81	45.56	11.12	1.35
Plot 6 (2035) Building-Landscaping	12.26	35.07	4.39	0.65
Plot 6 (2035) Landscaping	12.50	37.52	4.20	0.64
Plot 6 (2035) Curbing/Drive Approaches	4.35	10.38	4.66	0.57
Plot 6 (2035) Paving	17.92	42.73	12.20	1.71
Plot 6 (2035) Temporary Utilities	2.51	6.19	0.09	0.09

Overlapping Phases				
Plot 12-2033				
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	289.25	503.27	116.98	19.81
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	284.46	495.23	109.50	18.91
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	289.91	505.63	114.24	19.56
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	314.06	548.87	126.78	21.60
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	183.29	412.98	95.15	13.94
Plot 12-2034				
All Phases	183.27	412.97	95.15	13.94
Plot 6-2035				
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	196.98	451.53	104.94	15.11
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	193.10	443.50	97.25	14.24
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	197.44	453.87	101.91	14.81
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	215.36	496.60	114.11	16.52
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	154.65	411.63	88.85	11.92
Daily Maximum[1]				
2033	314.06	548.87	126.78	21.60
2034	183.27	412.97	95.15	13.94
2035	215.36	496.60	114.11	16.52
1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)				

Daily Unmitgated VOC Emissions (lb/day)	
2033	224
2034	224
2035	224

World Logistics Center-Construction Plots 12 and 6 (2033-2035)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	84.4133	327.4031	562.7538	1.6363	92.6156	9.7041	102.3196	11.3759	9.7005	21.0765	0.0000	171,721.2324	171,721.2324	7.2081	0.0000	171,901.4353
2034	55.4475	194.8725	424.3563	1.0931	61.1425	4.7963	65.9388	7.7433	4.7933	12.5367	0.0000	110,725.4850	110,725.4850	4.5401	0.0000	110,838.9886
2035	68.8819	226.5577	508.6801	1.4239	82.6422	5.4877	88.1299	10.2183	5.4846	15.7029	0.0000	147,678.4253	147,678.4253	5.6812	0.0000	147,820.4544
Maximum	**84.4133**	**327.4031**	**562.7538**	**1.6363**	**92.6156**	**9.7041**	**102.3196**	**11.3759**	**9.7005**	**21.0765**	**0.0000**	**171,721.2324**	**171,721.2324**	**7.2081**	**0.0000**	**171,901.4353**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	84.4133	327.4031	562.7538	1.6363	41.2115	9.7041	50.9155	5.8255	9.7005	15.5260	0.0000	171,721.2323	171,721.2323	7.2081	0.0000	171,901.4352
2034	55.4475	194.8725	424.3563	1.0931	28.0558	4.7963	32.8521	4.1707	4.7933	8.9641	0.0000	110,725.4849	110,725.4849	4.5401	0.0000	110,838.9885
2035	68.8819	226.5577	508.6801	1.4239	37.0205	5.4877	42.5082	5.2922	5.4846	10.7768	0.0000	147,678.4252	147,678.4252	5.6812	0.0000	147,820.4543
Maximum	**84.4133**	**327.4031**	**562.7538**	**1.6363**	**41.2115**	**9.7041**	**50.9155**	**5.8255**	**9.7005**	**15.5260**	**0.0000**	**171,721.2323**	**171,721.2323**	**7.2081**	**0.0000**	**171,901.4352**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**55.04**	**0.00**	**50.75**	**47.89**	**0.00**	**28.49**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 12 (2033) Mass Excavation	Grading	1/1/2033	7/1/2033	5	130	1235
2	Plot 12 (2033) Finish Grading	Grading	1/1/2033	2/25/2033	5	40	1236
3	Plot 12 (2033) Utilities	Trenching	1/1/2033	12/30/2033	5	260	1241
4	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
5	Plot 12 (2033) Building-Wet Utilities	Building Construction	1/1/2033	12/30/2033	5	260	1238
6	Plot 12 (2033) Building-Electrical	Building Construction	1/1/2033	12/30/2033	5	260	1239
7	Plot 12 (2033) Building-Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1240
8	Plot 12 (2033) Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1242
9	Plot 12 (2033) Curbing/Drive Approaches	Paving	5/1/2033	8/20/2033	5	80	1244
10	Plot 12 (2033) Paving	Paving	6/1/2033	7/26/2033	5	40	1245
11	Plot 12 (2033) Temporary Utilities	Building Construction	7/2/2033	12/30/2033	5	130	1243
12	Plot 12 (2034) Utilities	Trenching	1/1/2034	12/31/2034	5	260	1250
13	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
14	Plot 12 (2034) Building-Wet Utilities	Building Construction	1/1/2034	12/31/2034	5	260	1247
15	Plot 12 (2034) Building-Electrical	Building Construction	1/1/2034	12/31/2034	5	260	1248
16	Plot 12 (2034) Building-Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1249
17	Plot 12 (2034) Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1251
18	Plot 12 (2034) Curbing/Drive Approaches	Paving	5/1/2034	8/20/2034	5	80	1253
19	Plot 12 (2034) Paving	Paving	6/1/2034	7/26/2034	5	40	1254
20	Plot 12 (2034) Temporary Utilities	Building Construction	7/2/2034	12/31/2034	5	130	1252

21	Plot 6 (2035) Mass Excavation	Grading	1/1/2035	6/30/2035	5	130	1255
22	Plot 6 (2035) Finish Grading	Grading	1/1/2035	2/25/2035	5	40	1256
23	Plot 6 (2035) Utilities	Trenching	1/1/2035	12/29/2035	5	260	1261
24	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257
25	Plot 6 (2035) Building-Wet Utilities	Building Construction	1/1/2035	12/29/2035	5	260	1258
26	Plot 6 (2035) Building-Electrical	Building Construction	1/1/2035	12/29/2035	5	260	1259
27	Plot 6 (2035) Building-Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1260
28	Plot 6 (2035) Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1262
29	Plot 6 (2035) Curbing/Drive Approaches	Paving	5/1/2035	8/20/2035	5	80	1264
30	Plot 6 (2035) Paving	Paving	6/1/2035	7/26/2035	5	40	1265
31	Plot 6 (2035) Temporary Utilities	Building Construction	7/2/2035	12/29/2035	5	130	1263

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2033) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2033) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2033) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2033) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2033) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2033) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2033) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2033) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2033) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2033) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2033) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2033) Mass Excavation	Graders	1	10.00	193	0.41
Plot 12 (2033) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Scrapers	9	10.00	550	0.48

Plot 12 (2033) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2033) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2033) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2033) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2033) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2033) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2033) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 12 (2033) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 12 (2033) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2033) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2033) Utilities	Excavators	8	10.00	40	0.38
Plot 12 (2033) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2033) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2034) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2034) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2034) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 12 (2034) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2034) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2034) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2034) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2034) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2034) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2034) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2034) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2034) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2034) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 12 (2034) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2034) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2034) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2034) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2034) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2034) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2034) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2034) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 12 (2034) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 12 (2034) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2034) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2034) Utilities	Excavators	8	10.00	40	0.38
Plot 12 (2034) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2034) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 6 (2035) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 6 (2035) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 6 (2035) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 6 (2035) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 6 (2035) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 6 (2035) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 6 (2035) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 6 (2035) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 6 (2035) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 6 (2035) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40

Plot 6 (2035) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 6 (2035) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Mass Excavation	Graders	1	10.00	193	0.41
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Mass Excavation	Scrapers	0	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Paving	Pavers	2	10.00	126	0.42
Plot 6 (2035) Paving	Paving Equipment	2	10.00	131	0.36
Plot 6 (2035) Paving	Plate Compactors	2	10.00	8	0.43
Plot 6 (2035) Paving	Rollers	2	10.00	81	0.38
Plot 6 (2035) Paving	Scrapers	2	10.00	362	0.48
Plot 6 (2035) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 6 (2035) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 6 (2035) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 6 (2035) Utilities	Excavators	2	10.00	523	0.38

Plot 6 (2035) Utilities	Excavators	10	10.00	286	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	4	10.00	396	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	188	0.38
Plot 6 (2035) Utilities	Excavators	8	10.00	40	0.38
Plot 6 (2035) Utilities	Forklifts	4	10.00	89	0.20
Plot 6 (2035) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 6 (2035) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Finish Grading		15.00	2.00	468.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 12 (2034) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Finish Grading		15.00	2.00	520.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 12 (2033) Mass Excavation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	29.9317	133.3059	141.7789	0.5470		5.0277	5.0277		5.0277	5.0277		61,617.1266	61,617.1266	2.6664		61,683.7876
Total	**29.9317**	**133.3059**	**141.7789**	**0.5470**	**30.0285**	**5.0277**	**35.0561**	**3.2424**	**5.0277**	**8.2700**		**61,617.1266**	**61,617.1266**	**2.6664**		**61,683.7876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0691	1.9646	0.8103	0.0111	0.2864	3.9900e-003	0.2904	0.0785	3.8100e-003	0.0823		1,209.1287	1,209.1287	0.0753		1,211.0111
Vendor	0.0368	0.9336	0.3546	6.4500e-003	0.2081	2.0700e-003	0.2102	0.0598	1.9800e-003	0.0618		691.9933	691.9933	0.0267		692.6618
Worker	0.1583	0.0793	1.4141	6.5400e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		653.2465	653.2465	8.5900e-003		653.4611
Total	**0.2643**	**2.9774**	**2.5790**	**0.0241**	**1.4446**	**9.7500e-003**	**1.4544**	**0.3903**	**9.1800e-003**	**0.3995**		**2,554.3684**	**2,554.3684**	**0.1106**		**2,557.1340**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	29.9317	133.3059	141.7789	0.5470		5.0277	5.0277		5.0277	5.0277	0.0000	61,617.1265	61,617.1265	2.6664		61,683.7875
Total	**29.9317**	**133.3059**	**141.7789**	**0.5470**	**11.7111**	**5.0277**	**16.7388**	**1.2645**	**5.0277**	**6.2922**	**0.0000**	**61,617.1265**	**61,617.1265**	**2.6664**		**61,683.7875**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0691	1.9646	0.8103	0.0111	0.2864	3.9900e-003	0.2904	0.0785	3.8100e-003	0.0823		1,209.1287	1,209.1287	0.0753		1,211.0111
Vendor	0.0368	0.9336	0.3546	6.4500e-003	0.2081	2.0700e-003	0.2102	0.0598	1.9800e-003	0.0618		691.9933	691.9933	0.0267		692.6618
Worker	0.1583	0.0793	1.4141	6.5400e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		653.2465	653.2465	8.5900e-003		653.4611
Total	**0.2643**	**2.9774**	**2.5790**	**0.0241**	**1.4446**	**9.7500e-003**	**1.4544**	**0.3903**	**9.1800e-003**	**0.3995**		**2,554.3684**	**2,554.3684**	**0.1106**		**2,557.1340**

3.3 Plot 12 (2033) Finish Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7448	3.8257	7.8691	0.0133		0.1661	0.1661		0.1661	0.1661		1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.7448**	**3.8257**	**7.8691**	**0.0133**	**3.4466**	**0.1661**	**3.6127**	**0.3722**	**0.1661**	**0.5382**		**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0617	1.7525	0.7229	9.8700e-003	0.2555	3.5600e-003	0.2591	0.0700	3.4000e-003	0.0734		1,078.6421	1,078.6421	0.0672		1,080.3214
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1173**	**1.9838**	**1.2259**	**0.0133**	**0.5868**	**5.1300e-003**	**0.5919**	**0.1589**	**4.8600e-003**	**0.1638**		**1,428.3923**	**1,428.3923**	**0.0757**		**1,430.2845**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.7448	3.8257	7.8691	0.0133		0.1661	0.1661		0.1661	0.1661	0.0000	1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.7448**	**3.8257**	**7.8691**	**0.0133**	**1.3442**	**0.1661**	**1.5103**	**0.1451**	**0.1661**	**0.3112**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0617	1.7525	0.7229	9.8700e-003	0.2555	3.5600e-003	0.2591	0.0700	3.4000e-003	0.0734		1,078.6421	1,078.6421	0.0672		1,080.3214
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1173**	**1.9838**	**1.2259**	**0.0133**	**0.5868**	**5.1300e-003**	**0.5919**	**0.1589**	**4.8600e-003**	**0.1638**		**1,428.3923**	**1,428.3923**	**0.0757**		**1,430.2845**

3.4 Plot 12 (2033) Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1269	3.6065	1.4876	0.0203	0.5258	7.3200e-003	0.5331	0.1441	7.0000e-003	0.1511		2,219.6908	2,219.6908	0.1382		2,223.1465
Vendor	0.1023	2.5933	0.9850	0.0179	0.5780	5.7500e-003	0.5838	0.1662	5.5000e-003	0.1717		1,922.2036	1,922.2036	0.0743		1,924.0605
Worker	0.1267	0.0634	1.1313	5.2300e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		522.5972	522.5972	6.8700e-003		522.7689
Total	**0.3558**	**6.2632**	**3.6038**	**0.0435**	**1.8639**	**0.0160**	**1.8799**	**0.5119**	**0.0152**	**0.5271**		**4,664.4916**	**4,664.4916**	**0.2194**		**4,669.9759**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1269	3.6065	1.4876	0.0203	0.5258	7.3200e-003	0.5331	0.1441	7.0000e-003	0.1511		2,219.6908	2,219.6908	0.1382		2,223.1465
Vendor	0.1023	2.5933	0.9850	0.0179	0.5780	5.7500e-003	0.5838	0.1662	5.5000e-003	0.1717		1,922.2036	1,922.2036	0.0743		1,924.0605
Worker	0.1267	0.0634	1.1313	5.2300e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		522.5972	522.5972	6.8700e-003		522.7689
Total	**0.3558**	**6.2632**	**3.6038**	**0.0435**	**1.8639**	**0.0160**	**1.8799**	**0.5119**	**0.0152**	**0.5271**		**4,664.4916**	**4,664.4916**	**0.2194**		**4,669.9759**

3.5 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

3.6 Plot 12 (2033) Building-Wet Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0444	1.2623	0.5207	7.1100e-003	0.1840	2.5600e-003	0.1866	0.0504	2.4500e-003	0.0529		776.8918	776.8918	0.0484		778.1013
Vendor	0.0614	1.5560	0.5910	0.0108	0.3468	3.4500e-003	0.3503	0.0997	3.3000e-003	0.1030		1,153.3222	1,153.3222	0.0446		1,154.4363
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1849**	**2.8579**	**1.8187**	**0.0211**	**1.0059**	**7.8500e-003**	**1.0138**	**0.2761**	**7.4500e-003**	**0.2836**		**2,256.8372**	**2,256.8372**	**0.0972**		**2,259.2681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0444	1.2623	0.5207	7.1100e-003	0.1840	2.5600e-003	0.1866	0.0504	2.4500e-003	0.0529		776.8918	776.8918	0.0484		778.1013
Vendor	0.0614	1.5560	0.5910	0.0108	0.3468	3.4500e-003	0.3503	0.0997	3.3000e-003	0.1030		1,153.3222	1,153.3222	0.0446		1,154.4363
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1849**	**2.8579**	**1.8187**	**0.0211**	**1.0059**	**7.8500e-003**	**1.0138**	**0.2761**	**7.4500e-003**	**0.2836**		**2,256.8372**	**2,256.8372**	**0.0972**		**2,259.2681**

3.7 Plot 12 (2033) Building-Electrical - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1015	2.8852	1.1901	0.0163	0.4206	5.8500e-003	0.4265	0.1153	5.6000e-003	0.1209		1,775.7526	1,775.7526	0.1106		1,778.5172
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1736**	**3.5314**	**1.8507**	**0.0225**	**0.8444**	**8.3400e-003**	**0.8527**	**0.2307**	**7.9400e-003**	**0.2387**		**2,433.0554**	**2,433.0554**	**0.1310**		**2,436.3301**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1015	2.8852	1.1901	0.0163	0.4206	5.8500e-003	0.4265	0.1153	5.6000e-003	0.1209		1,775.7526	1,775.7526	0.1106		1,778.5172
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1736**	**3.5314**	**1.8507**	**0.0225**	**0.8444**	**8.3400e-003**	**0.8527**	**0.2307**	**7.9400e-003**	**0.2387**		**2,433.0554**	**2,433.0554**	**0.1310**		**2,436.3301**

3.8 Plot 12 (2033) Building-Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0286	0.7261	0.2758	5.0200e-003	0.1618	1.6100e-003	0.1635	0.0465	1.5400e-003	0.0481		538.2170	538.2170	0.0208		538.7369
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0603**	**0.7420**	**0.5586**	**6.3300e-003**	**0.3519**	**2.3500e-003**	**0.3542**	**0.0969**	**2.2200e-003**	**0.0992**		**668.8663**	**668.8663**	**0.0225**		**669.4292**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0286	0.7261	0.2758	5.0200e-003	0.1618	1.6100e-003	0.1635	0.0465	1.5400e-003	0.0481		538.2170	538.2170	0.0208		538.7369
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0603**	**0.7420**	**0.5586**	**6.3300e-003**	**0.3519**	**2.3500e-003**	**0.3542**	**0.0969**	**2.2200e-003**	**0.0992**		**668.8663**	**668.8663**	**0.0225**		**669.4292**

3.9 Plot 12 (2033) Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0562**	**0.6382**	**0.5192**	**5.6100e-003**	**0.3288**	**2.1200e-003**	**0.3309**	**0.0903**	**2.0000e-003**	**0.0923**		**591.9782**	**591.9782**	**0.0196**		**592.4667**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0562**	**0.6382**	**0.5192**	**5.6100e-003**	**0.3288**	**2.1200e-003**	**0.3309**	**0.0903**	**2.0000e-003**	**0.0923**		**591.9782**	**591.9782**	**0.0196**		**592.4667**

3.10 Plot 12 (2033) Curbing/Drive Approaches - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0411	1.1684	0.4819	6.5800e-003	0.1703	2.3700e-003	0.1727	0.0467	2.2700e-003	0.0489		719.0947	719.0947	0.0448		720.2142
Vendor	0.0164	0.4149	0.1576	2.8700e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		307.5526	307.5526	0.0119		307.8497
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0891**	**1.5991**	**0.9223**	**0.0108**	**0.4528**	**4.0300e-003**	**0.4569**	**0.1237**	**3.8300e-003**	**0.1275**		**1,157.2966**	**1,157.2966**	**0.0584**		**1,158.7561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0411	1.1684	0.4819	6.5800e-003	0.1703	2.3700e-003	0.1727	0.0467	2.2700e-003	0.0489		719.0947	719.0947	0.0448		720.2142
Vendor	0.0164	0.4149	0.1576	2.8700e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		307.5526	307.5526	0.0119		307.8497
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0891**	**1.5991**	**0.9223**	**0.0108**	**0.4528**	**4.0300e-003**	**0.4569**	**0.1237**	**3.8300e-003**	**0.1275**		**1,157.2966**	**1,157.2966**	**0.0584**		**1,158.7561**

3.11 Plot 12 (2033) Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0696	1.9772	0.8156	0.0111	0.2883	4.0100e-003	0.2923	0.0790	3.8400e-003	0.0828		1,216.9295	1,216.9295	0.0758		1,218.8241
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1733**	**2.6393**	**1.7590**	**0.0187**	**0.9021**	**7.2300e-003**	**0.9093**	**0.2449**	**6.8600e-003**	**0.2517**		**2,004.8816**	**2,004.8816**	**0.0979**		**2,007.3292**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0696	1.9772	0.8156	0.0111	0.2883	4.0100e-003	0.2923	0.0790	3.8400e-003	0.0828		1,216.9295	1,216.9295	0.0758		1,218.8241
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1733**	**2.6393**	**1.7590**	**0.0187**	**0.9021**	**7.2300e-003**	**0.9093**	**0.2449**	**6.8600e-003**	**0.2517**		**2,004.8816**	**2,004.8816**	**0.0979**		**2,007.3292**

3.12 Plot 12 (2033) Temporary Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 12 (2034) Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1265	3.5751	1.4892	0.0203	0.5258	7.2300e-003	0.5330	0.1441	6.9200e-003	0.1510		2,215.8038	2,215.8038	0.1378		2,219.2488
Vendor	0.1017	2.5709	0.9820	0.0179	0.5780	5.7000e-003	0.5837	0.1662	5.4500e-003	0.1717		1,919.2014	1,919.2014	0.0740		1,921.0517
Worker	0.1193	0.0591	1.0712	5.1500e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		514.3447	514.3447	6.3300e-003		514.5028
Total	**0.3474**	**6.2051**	**3.5424**	**0.0433**	**1.8639**	**0.0157**	**1.8796**	**0.5119**	**0.0149**	**0.5268**		**4,649.3498**	**4,649.3498**	**0.2181**		**4,654.8034**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1265	3.5751	1.4892	0.0203	0.5258	7.2300e-003	0.5330	0.1441	6.9200e-003	0.1510		2,215.8038	2,215.8038	0.1378		2,219.2488
Vendor	0.1017	2.5709	0.9820	0.0179	0.5780	5.7000e-003	0.5837	0.1662	5.4500e-003	0.1717		1,919.2014	1,919.2014	0.0740		1,921.0517
Worker	0.1193	0.0591	1.0712	5.1500e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		514.3447	514.3447	6.3300e-003		514.5028
Total	**0.3474**	**6.2051**	**3.5424**	**0.0433**	**1.8639**	**0.0157**	**1.8796**	**0.5119**	**0.0149**	**0.5268**		**4,649.3498**	**4,649.3498**	**0.2181**		**4,654.8034**

3.14 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

3.15 Plot 12 (2034) Building-Wet Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0443	1.2513	0.5212	7.1000e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		775.5313	775.5313	0.0482		776.7371
Vendor	0.0610	1.5425	0.5892	0.0107	0.3468	3.4200e-003	0.3502	0.0997	3.2700e-003	0.1030		1,151.5208	1,151.5208	0.0444		1,152.6310
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1798**	**2.8308**	**1.7799**	**0.0211**	**1.0059**	**7.6700e-003**	**1.0136**	**0.2761**	**7.2700e-003**	**0.2834**		**2,248.5176**	**2,248.5176**	**0.0966**		**2,250.9324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0443	1.2513	0.5212	7.1000e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		775.5313	775.5313	0.0482		776.7371
Vendor	0.0610	1.5425	0.5892	0.0107	0.3468	3.4200e-003	0.3502	0.0997	3.2700e-003	0.1030		1,151.5208	1,151.5208	0.0444		1,152.6310
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1798**	**2.8308**	**1.7799**	**0.0211**	**1.0059**	**7.6700e-003**	**1.0136**	**0.2761**	**7.2700e-003**	**0.2834**		**2,248.5176**	**2,248.5176**	**0.0966**		**2,250.9324**

3.16 Plot 12 (2034) Building-Electrical - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.1012	2.8601	1.1914	0.0162	0.4206	5.7900e-003	0.4264	0.1153	5.5400e-003	0.1208		1,772.6430	1,772.6430	0.1102		1,775.3991
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0447	0.0222	0.4017	1.9300e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		192.8792	192.8792	2.3700e-003		192.9386
Total	**0.1703**	**3.4993**	**1.8288**	**0.0225**	**0.8444**	**8.1900e-003**	**0.8526**	**0.2307**	**7.8000e-003**	**0.2385**		**2,426.1306**	**2,426.1306**	**0.1304**		**2,429.3900**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1012	2.8601	1.1914	0.0162	0.4206	5.7900e-003	0.4264	0.1153	5.5400e-003	0.1208		1,772.6430	1,772.6430	0.1102		1,775.3991
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0447	0.0222	0.4017	1.9300e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		192.8792	192.8792	2.3700e-003		192.9386
Total	**0.1703**	**3.4993**	**1.8288**	**0.0225**	**0.8444**	**8.1900e-003**	**0.8526**	**0.2307**	**7.8000e-003**	**0.2385**		**2,426.1306**	**2,426.1306**	**0.1304**		**2,429.3900**

3.17 Plot 12 (2034) Building-Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.7199	0.2750	5.0100e-003	0.1618	1.6000e-003	0.1634	0.0465	1.5300e-003	0.0481		537.3764	537.3764	0.0207		537.8945
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0583**	**0.7346**	**0.5428**	**6.3000e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**665.9625**	**665.9625**	**0.0223**		**666.5202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.7199	0.2750	5.0100e-003	0.1618	1.6000e-003	0.1634	0.0465	1.5300e-003	0.0481		537.3764	537.3764	0.0207		537.8945
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0583**	**0.7346**	**0.5428**	**6.3000e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**665.9625**	**665.9625**	**0.0223**		**666.5202**

3.18 Plot 12 (2034) Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0542**	**0.6318**	**0.5035**	**5.5900e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**589.1945**	**589.1945**	**0.0193**		**589.6781**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0542**	**0.6318**	**0.5035**	**5.5900e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**589.1945**	**589.1945**	**0.0193**		**589.6781**

3.19 Plot 12 (2034) Curbing/Drive Approaches - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0410	1.1582	0.4824	6.5700e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		717.8355	717.8355	0.0446		718.9515
Vendor	0.0163	0.4113	0.1571	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		307.0722	307.0722	0.0118		307.3683
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0871**	**1.5843**	**0.9074**	**0.0107**	**0.4529**	**3.9400e-003**	**0.4568**	**0.1237**	**3.7400e-003**	**0.1274**		**1,153.4939**	**1,153.4939**	**0.0581**		**1,154.9455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0410	1.1582	0.4824	6.5700e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		717.8355	717.8355	0.0446		718.9515
Vendor	0.0163	0.4113	0.1571	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		307.0722	307.0722	0.0118		307.3683
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0871**	**1.5843**	**0.9074**	**0.0107**	**0.4529**	**3.9400e-003**	**0.4568**	**0.1237**	**3.7400e-003**	**0.1274**		**1,153.4939**	**1,153.4939**	**0.0581**		**1,154.9455**

3.20 Plot 12 (2034) Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0693	1.9600	0.8164	0.0111	0.2883	3.9700e-003	0.2922	0.0790	3.7900e-003	0.0828		1,214.7985	1,214.7985	0.0756		1,216.6872
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1683**	**2.6140**	**1.7216**	**0.0186**	**0.9021**	**7.0600e-003**	**0.9091**	**0.2449**	**6.6800e-003**	**0.2515**		**1,996.8722**	**1,996.8722**	**0.0973**		**1,999.3039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0693	1.9600	0.8164	0.0111	0.2883	3.9700e-003	0.2922	0.0790	3.7900e-003	0.0828		1,214.7985	1,214.7985	0.0756		1,216.6872
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1683**	**2.6140**	**1.7216**	**0.0186**	**0.9021**	**7.0600e-003**	**0.9091**	**0.2449**	**6.6800e-003**	**0.2515**		**1,996.8722**	**1,996.8722**	**0.0973**		**1,999.3039**

3.21 Plot 12 (2034) Temporary Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 6 (2035) Mass Excavation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.5492	0.0000	20.5492	2.2188	0.0000	2.2188			0.0000			0.0000
Off-Road	17.5174	61.8079	90.8534	0.3556		2.3276	2.3276		2.3276	2.3276		39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**17.5174**	**61.8079**	**90.8534**	**0.3556**	**20.5492**	**2.3276**	**22.8769**	**2.2188**	**2.3276**	**4.5465**		**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0687	1.9345	0.8116	0.0110	0.2864	3.9100e-003	0.2903	0.0785	3.7400e-003	0.0822		1,205.3581	1,205.3581	0.0748		1,207.2285
Vendor	0.0364	0.9190	0.3525	6.4400e-003	0.2081	2.0400e-003	0.2101	0.0598	1.9500e-003	0.0618		690.0408	690.0408	0.0266		690.7045
Worker	0.1414	0.0699	1.2770	6.3500e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		634.1026	634.1026	7.3500e-003		634.2864
Total	**0.2465**	**2.9234**	**2.4411**	**0.0238**	**1.4446**	**9.1700e-003**	**1.4538**	**0.3903**	**8.6600e-003**	**0.3989**		**2,529.5015**	**2,529.5015**	**0.1087**		**2,532.2194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0142	0.0000	8.0142	0.8654	0.0000	0.8654			0.0000			0.0000
Off-Road	17.5174	61.8079	90.8534	0.3556		2.3276	2.3276		2.3276	2.3276	0.0000	39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**17.5174**	**61.8079**	**90.8534**	**0.3556**	**8.0142**	**2.3276**	**10.3418**	**0.8654**	**2.3276**	**3.1930**	**0.0000**	**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0687	1.9345	0.8116	0.0110	0.2864	3.9100e-003	0.2903	0.0785	3.7400e-003	0.0822		1,205.3581	1,205.3581	0.0748		1,207.2285
Vendor	0.0364	0.9190	0.3525	6.4400e-003	0.2081	2.0400e-003	0.2101	0.0598	1.9500e-003	0.0618		690.0408	690.0408	0.0266		690.7045
Worker	0.1414	0.0699	1.2770	6.3500e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		634.1026	634.1026	7.3500e-003		634.2864
Total	**0.2465**	**2.9234**	**2.4411**	**0.0238**	**1.4446**	**9.1700e-003**	**1.4538**	**0.3903**	**8.6600e-003**	**0.3989**		**2,529.5015**	**2,529.5015**	**0.1087**		**2,532.2194**

3.23 Plot 6 (2035) Finish Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.6342	2.8323	7.8483	0.0133		0.1062	0.1062		0.1062	0.1062		1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.6342**	**2.8323**	**7.8483**	**0.0133**	**3.4466**	**0.1062**	**3.5529**	**0.3722**	**0.1062**	**0.4784**		**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0681	1.9175	0.8045	0.0109	0.2839	3.8700e-003	0.2878	0.0778	3.7000e-003	0.0815		1,194.7538	1,194.7538	0.0742		1,196.6077
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1186**	**2.1427**	**1.2659**	**0.0143**	**0.6152**	**5.2900e-003**	**0.6205**	**0.1667**	**5.0200e-003**	**0.1717**		**1,538.3270**	**1,538.3270**	**0.0823**		**1,540.3835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.6342	2.8323	7.8483	0.0133		0.1062	0.1062		0.1062	0.1062	0.0000	1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.6342**	**2.8323**	**7.8483**	**0.0133**	**1.3442**	**0.1062**	**1.4504**	**0.1451**	**0.1062**	**0.2514**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0681	1.9175	0.8045	0.0109	0.2839	3.8700e-003	0.2878	0.0778	3.7000e-003	0.0815		1,194.7538	1,194.7538	0.0742		1,196.6077
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1186**	**2.1427**	**1.2659**	**0.0143**	**0.6152**	**5.2900e-003**	**0.6205**	**0.1667**	**5.0200e-003**	**0.1717**		**1,538.3270**	**1,538.3270**	**0.0823**		**1,540.3835**

3.24 Plot 6 (2035) Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	15.4429	42.8939	120.5733	0.3816		1.0295	1.0295		1.0295	1.0295		40,230.2918	40,230.2918	1.3529		40,264.1136
Total	**15.4429**	**42.8939**	**120.5733**	**0.3816**	**25.5336**	**1.0295**	**26.5631**	**2.7570**	**1.0295**	**3.7865**		**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1262	3.5513	1.4899	0.0203	0.5258	7.1700e-003	0.5330	0.1441	6.8600e-003	0.1509		2,212.7689	2,212.7689	0.1373		2,216.2024
Vendor	0.1012	2.5528	0.9791	0.0179	0.5780	5.6600e-003	0.5837	0.1662	5.4100e-003	0.1716		1,916.7800	1,916.7800	0.0737		1,918.6236
Worker	0.1131	0.0560	1.0216	5.0800e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		507.2820	507.2820	5.8800e-003		507.4291
Total	**0.3404**	**6.1600**	**3.4907**	**0.0432**	**1.8639**	**0.0154**	**1.8793**	**0.5119**	**0.0146**	**0.5265**		**4,636.8309**	**4,636.8309**	**0.2170**		**4,642.2552**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	15.4429	42.8939	120.5733	0.3816		1.0295	1.0295		1.0295	1.0295	0.0000	40,230.2918	40,230.2918	1.3529		40,264.1135
Total	**15.4429**	**42.8939**	**120.5733**	**0.3816**	**9.9581**	**1.0295**	**10.9876**	**1.0752**	**1.0295**	**2.1047**	**0.0000**	**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1135**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1262	3.5513	1.4899	0.0203	0.5258	7.1700e-003	0.5330	0.1441	6.8600e-003	0.1509		2,212.7689	2,212.7689	0.1373		2,216.2024
Vendor	0.1012	2.5528	0.9791	0.0179	0.5780	5.6600e-003	0.5837	0.1662	5.4100e-003	0.1716		1,916.7800	1,916.7800	0.0737		1,918.6236
Worker	0.1131	0.0560	1.0216	5.0800e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		507.2820	507.2820	5.8800e-003		507.4291
Total	**0.3404**	**6.1600**	**3.4907**	**0.0432**	**1.8639**	**0.0154**	**1.8793**	**0.5119**	**0.0146**	**0.5265**		**4,636.8309**	**4,636.8309**	**0.2170**		**4,642.2552**

3.25 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9307	18.4021	43.1354	0.0722		0.2672	0.2672		0.2672	0.2672		6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**2.9307**	**18.4021**	**43.1354**	**0.0722**	**3.1937**	**0.2672**	**3.4609**	**0.3449**	**0.2672**	**0.6120**		**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0106	0.2995	0.1257	1.7100e-003	0.0444	6.0000e-004	0.0450	0.0122	5.8000e-004	0.0127		186.6361	186.6361	0.0116		186.9257
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1056**	**0.9472**	**0.9992**	**9.1700e-003**	**0.6581**	**3.5700e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**963.7146**	**963.7146**	**0.0330**		**964.5386**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.9307	18.4021	43.1354	0.0722		0.2672	0.2672		0.2672	0.2672	0.0000	6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**2.9307**	**18.4021**	**43.1354**	**0.0722**	**1.2456**	**0.2672**	**1.5127**	**0.1345**	**0.2672**	**0.4017**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0106	0.2995	0.1257	1.7100e-003	0.0444	6.0000e-004	0.0450	0.0122	5.8000e-004	0.0127		186.6361	186.6361	0.0116		186.9257
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1056**	**0.9472**	**0.9992**	**9.1700e-003**	**0.6581**	**3.5700e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**963.7146**	**963.7146**	**0.0330**		**964.5386**

3.26 Plot 6 (2035) Building-Wet Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.3804	16.1782	69.5761	0.1489		0.4481	0.4481		0.4481	0.4481		14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**5.3804**	**16.1782**	**69.5761**	**0.1489**	**9.5771**	**0.4481**	**10.0253**	**1.0341**	**0.4481**	**1.4822**		**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0442	1.2430	0.5215	7.0900e-003	0.1840	2.5100e-003	0.1865	0.0504	2.4000e-003	0.0528		774.4691	774.4691	0.0481		775.6709
Vendor	0.0607	1.5317	0.5875	0.0107	0.3468	3.3900e-003	0.3502	0.0997	3.2500e-003	0.1030		1,150.0680	1,150.0680	0.0443		1,151.1742
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1755**	**2.8096**	**1.7475**	**0.0210**	**1.0059**	**7.5100e-003**	**1.0134**	**0.2761**	**7.1300e-003**	**0.2833**		**2,241.5884**	**2,241.5884**	**0.0960**		**2,243.9882**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.3804	16.1782	69.5761	0.1489		0.4481	0.4481		0.4481	0.4481	0.0000	14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**5.3804**	**16.1782**	**69.5761**	**0.1489**	**3.7351**	**0.4481**	**4.1832**	**0.4033**	**0.4481**	**0.8514**	**0.0000**	**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0442	1.2430	0.5215	7.0900e-003	0.1840	2.5100e-003	0.1865	0.0504	2.4000e-003	0.0528		774.4691	774.4691	0.0481		775.6709
Vendor	0.0607	1.5317	0.5875	0.0107	0.3468	3.3900e-003	0.3502	0.0997	3.2500e-003	0.1030		1,150.0680	1,150.0680	0.0443		1,151.1742
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1755**	**2.8096**	**1.7475**	**0.0210**	**1.0059**	**7.5100e-003**	**1.0134**	**0.2761**	**7.1300e-003**	**0.2833**		**2,241.5884**	**2,241.5884**	**0.0960**		**2,243.9882**

3.27 Plot 6 (2035) Building-Electrical - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.7417	21.0920	45.2781	0.0698		0.2425	0.2425		0.2425	0.2425		6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**3.7417**	**21.0920**	**45.2781**	**0.0698**	**6.3834**	**0.2425**	**6.6259**	**0.6893**	**0.2425**	**0.9318**		**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1009	2.8411	1.1919	0.0162	0.4206	5.7400e-003	0.4264	0.1153	5.4900e-003	0.1208		1,770.2151	1,770.2151	0.1099		1,772.9619
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1676**	**3.4747**	**1.8100**	**0.0224**	**0.8444**	**8.0700e-003**	**0.8525**	**0.2307**	**7.6800e-003**	**0.2384**		**2,420.4731**	**2,420.4731**	**0.1298**		**2,423.7175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.7417	21.0920	45.2781	0.0698		0.2425	0.2425		0.2425	0.2425	0.0000	6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**3.7417**	**21.0920**	**45.2781**	**0.0698**	**2.4895**	**0.2425**	**2.7320**	**0.2688**	**0.2425**	**0.5113**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1009	2.8411	1.1919	0.0162	0.4206	5.7400e-003	0.4264	0.1153	5.4900e-003	0.1208		1,770.2151	1,770.2151	0.1099		1,772.9619
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1676**	**3.4747**	**1.8100**	**0.0224**	**0.8444**	**8.0700e-003**	**0.8525**	**0.2307**	**7.6800e-003**	**0.2384**		**2,420.4731**	**2,420.4731**	**0.1298**		**2,423.7175**

3.28 Plot 6 (2035) Building-Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6200	11.9129	34.9894	0.0579		0.2307	0.2307		0.2307	0.2307		5,360.8447	5,360.8447	0.2341		5,366.6975
Total	**2.6200**	**11.9129**	**34.9894**	**0.0579**	**1.5948**	**0.2307**	**1.8255**	**0.1722**	**0.2307**	**0.4029**		**5,360.8447**	**5,360.8447**	**0.2341**		**5,366.6975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0283	0.7148	0.2742	5.0100e-003	0.1618	1.5800e-003	0.1634	0.0465	1.5100e-003	0.0481		536.6984	536.6984	0.0207		537.2146
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0566**	**0.7288**	**0.5296**	**6.2800e-003**	**0.3519**	**2.2200e-003**	**0.3541**	**0.0969**	**2.1000e-003**	**0.0990**		**663.5189**	**663.5189**	**0.0221**		**664.0719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.6200	11.9129	34.9894	0.0579		0.2307	0.2307		0.2307	0.2307	0.0000	5,360.8447	5,360.8447	0.2341		5,366.6975
Total	**2.6200**	**11.9129**	**34.9894**	**0.0579**	**0.6220**	**0.2307**	**0.8527**	**0.0672**	**0.2307**	**0.2978**	**0.0000**	**5,360.8447**	**5,360.8447**	**0.2341**		**5,366.6975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0283	0.7148	0.2742	5.0100e-003	0.1618	1.5800e-003	0.1634	0.0465	1.5100e-003	0.0481		536.6984	536.6984	0.0207		537.2146
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0566**	**0.7288**	**0.5296**	**6.2800e-003**	**0.3519**	**2.2200e-003**	**0.3541**	**0.0969**	**2.1000e-003**	**0.0990**		**663.5189**	**663.5189**	**0.0221**		**664.0719**

3.29 Plot 6 (2035) Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.7643	12.2059	37.4473	0.0624		0.2425	0.2425		0.2425	0.2425		5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**2.7643**	**12.2059**	**37.4473**	**0.0624**	**1.5948**	**0.2425**	**1.8373**	**0.1722**	**0.2425**	**0.4147**		**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0526**	**0.6267**	**0.4904**	**5.5600e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**586.8477**	**586.8477**	**0.0192**		**587.3270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.7643	12.2059	37.4473	0.0624		0.2425	0.2425		0.2425	0.2425	0.0000	5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**2.7643**	**12.2059**	**37.4473**	**0.0624**	**0.6220**	**0.2425**	**0.8644**	**0.0672**	**0.2425**	**0.3096**	**0.0000**	**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0526**	**0.6267**	**0.4904**	**5.5600e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**586.8477**	**586.8477**	**0.0192**		**587.3270**

3.30 Plot 6 (2035) Curbing/Drive Approaches - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7758	3.5729	10.2419	0.0177		0.1210	0.1210		0.1210	0.1210		1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8237**	**3.5729**	**10.2419**	**0.0177**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**0.1210**	**0.1210**		**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0409	1.1505	0.4827	6.5600e-003	0.1703	2.3200e-003	0.1727	0.0467	2.2200e-003	0.0489		716.8523	716.8523	0.0445		717.9646
Vendor	0.0162	0.4084	0.1567	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		306.6848	306.6848	0.0118		306.9798
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0853**	**1.5729**	**0.8948**	**0.0107**	**0.4529**	**3.8700e-003**	**0.4567**	**0.1237**	**3.6800e-003**	**0.1273**		**1,150.3576**	**1,150.3576**	**0.0578**		**1,151.8017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7758	3.5729	10.2419	0.0177		0.1210	0.1210		0.1210	0.1210	0.0000	1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7758**	**3.5729**	**10.2419**	**0.0177**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0409	1.1505	0.4827	6.5600e-003	0.1703	2.3200e-003	0.1727	0.0467	2.2200e-003	0.0489		716.8523	716.8523	0.0445		717.9646
Vendor	0.0162	0.4084	0.1567	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		306.6848	306.6848	0.0118		306.9798
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0853**	**1.5729**	**0.8948**	**0.0107**	**0.4529**	**3.8700e-003**	**0.4567**	**0.1237**	**3.6800e-003**	**0.1273**		**1,150.3576**	**1,150.3576**	**0.0578**		**1,151.8017**

3.31 Plot 6 (2035) Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.1707	16.6540	42.4916	0.0971		0.5198	0.5198		0.5198	0.5198		9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.2665**	**16.6540**	**42.4916**	**0.0971**	**6.3630**	**0.5198**	**6.8828**	**0.6871**	**0.5198**	**1.2069**		**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	1.9470	0.8168	0.0111	0.2883	3.9300e-003	0.2922	0.0790	3.7600e-003	0.0828		1,213.1346	1,213.1346	0.0753		1,215.0171
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1641**	**2.5946**	**1.6904**	**0.0186**	**0.9021**	**6.9000e-003**	**0.9090**	**0.2449**	**6.5400e-003**	**0.2514**		**1,990.2131**	**1,990.2131**	**0.0967**		**1,992.6299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.1707	16.6540	42.4916	0.0971		0.5198	0.5198		0.5198	0.5198	0.0000	9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1707**	**16.6540**	**42.4916**	**0.0971**	**2.4816**	**0.5198**	**3.0014**	**0.2680**	**0.5198**	**0.7878**	**0.0000**	**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	1.9470	0.8168	0.0111	0.2883	3.9300e-003	0.2922	0.0790	3.7600e-003	0.0828		1,213.1346	1,213.1346	0.0753		1,215.0171
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1641**	**2.5946**	**1.6904**	**0.0186**	**0.9021**	**6.9000e-003**	**0.9090**	**0.2449**	**6.5400e-003**	**0.2514**		**1,990.2131**	**1,990.2131**	**0.0967**		**1,992.6299**

3.32 Plot 6 (2035) Temporary Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1494	2.5094	6.1852	0.0285		0.0910	0.0910		0.0910	0.0910		3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**1.1494**	**2.5094**	**6.1852**	**0.0285**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0910**	**0.0910**		**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1494	2.5094	6.1852	0.0285		0.0910	0.0910		0.0910	0.0910	0.0000	3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**1.1494**	**2.5094**	**6.1852**	**0.0285**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plots 12 and 6 (2033-2035)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	84.5354	327.6698	562.3755	1.6325	92.6156	9.7045	102.3200	11.3759	9.7009	21.0768	0.0000	171,327.4626	171,327.4626	7.2253	0.0000	171,508.0939
2034	55.5397	195.0976	424.1407	1.0900	61.1425	4.7966	65.9391	7.7433	4.7936	12.5370	0.0000	110,400.8387	110,400.8387	4.5555	0.0000	110,514.7279
2035	68.9924	226.7834	508.3087	1.4204	82.6422	5.4879	88.1302	10.2183	5.4849	15.7031	0.0000	147,322.3462	147,322.3462	5.6950	0.0000	147,464.7217
Maximum	**84.5354**	**327.6698**	**562.3755**	**1.6325**	**92.6156**	**9.7045**	**102.3200**	**11.3759**	**9.7009**	**21.0768**	**0.0000**	**171,327.4626**	**171,327.4626**	**7.2253**	**0.0000**	**171,508.0939**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	84.5354	327.6698	562.3755	1.6325	41.2115	9.7045	50.9159	5.8255	9.7009	15.5264	0.0000	171,327.4625	171,327.4625	7.2253	0.0000	171,508.0938
2034	55.5397	195.0976	424.1407	1.0900	28.0558	4.7966	32.8524	4.1707	4.7936	8.9644	0.0000	110,400.8386	110,400.8386	4.5555	0.0000	110,514.7278
2035	68.9924	226.7834	508.3087	1.4204	37.0205	5.4879	42.5084	5.2922	5.4849	10.7771	0.0000	147,322.3461	147,322.3461	5.6950	0.0000	147,464.7216
Maximum	**84.5354**	**327.6698**	**562.3755**	**1.6325**	**41.2115**	**9.7045**	**50.9159**	**5.8255**	**9.7009**	**15.5264**	**0.0000**	**171,327.4625**	**171,327.4625**	**7.2253**	**0.0000**	**171,508.0938**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**55.04**	**0.00**	**50.75**	**47.89**	**0.00**	**28.49**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 12 (2033) Mass Excavation	Grading	1/1/2033	7/1/2033	5	130	1235
2	Plot 12 (2033) Finish Grading	Grading	1/1/2033	2/25/2033	5	40	1236
3	Plot 12 (2033) Utilities	Trenching	1/1/2033	12/30/2033	5	260	1241
4	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
5	Plot 12 (2033) Building-Wet Utilities	Building Construction	1/1/2033	12/30/2033	5	260	1238
6	Plot 12 (2033) Building-Electrical	Building Construction	1/1/2033	12/30/2033	5	260	1239
7	Plot 12 (2033) Building-Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1240
8	Plot 12 (2033) Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1242
9	Plot 12 (2033) Curbing/Drive Approaches	Paving	5/1/2033	8/20/2033	5	80	1244
10	Plot 12 (2033) Paving	Paving	6/1/2033	7/26/2033	5	40	1245
11	Plot 12 (2033) Temporary Utilities	Building Construction	7/2/2033	12/30/2033	5	130	1243
12	Plot 12 (2034) Utilities	Trenching	1/1/2034	12/31/2034	5	260	1250
13	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
14	Plot 12 (2034) Building-Wet Utilities	Building Construction	1/1/2034	12/31/2034	5	260	1247
15	Plot 12 (2034) Building-Electrical	Building Construction	1/1/2034	12/31/2034	5	260	1248
16	Plot 12 (2034) Building-Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1249
17	Plot 12 (2034) Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1251

18	Plot 12 (2034) Curbing/Drive Approaches	Paving	5/1/2034	8/20/2034	5	80	1253
19	Plot 12 (2034) Paving	Paving	6/1/2034	7/26/2034	5	40	1254
20	Plot 12 (2034) Temporary Utilities	Building Construction	7/2/2034	12/31/2034	5	130	1252
21	Plot 6 (2035) Mass Excavation	Grading	1/1/2035	6/30/2035	5	130	1255
22	Plot 6 (2035) Finish Grading	Grading	1/1/2035	2/25/2035	5	40	1256
23	Plot 6 (2035) Utilities	Trenching	1/1/2035	12/29/2035	5	260	1261
24	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257
25	Plot 6 (2035) Building-Wet Utilities	Building Construction	1/1/2035	12/29/2035	5	260	1258
26	Plot 6 (2035) Building-Electrical	Building Construction	1/1/2035	12/29/2035	5	260	1259
27	Plot 6 (2035) Building-Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1260
28	Plot 6 (2035) Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1262
29	Plot 6 (2035) Curbing/Drive Approaches	Paving	5/1/2035	8/20/2035	5	80	1264
30	Plot 6 (2035) Paving	Paving	6/1/2035	7/26/2035	5	40	1265
31	Plot 6 (2035) Temporary Utilities	Building Construction	7/2/2035	12/29/2035	5	130	1263

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2033) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2033) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2033) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2033) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2033) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2033) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2033) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2033) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2033) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2033) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2033) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2033) Mass Excavation	Graders	1	10.00	193	0.41
Plot 12 (2033) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Scrapers	9	10.00	550	0.48

Plot 12 (2033) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2033) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2033) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2033) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2033) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2033) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2033) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 12 (2033) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 12 (2033) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2033) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2033) Utilities	Excavators	8	10.00	40	0.38
Plot 12 (2033) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2033) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2034) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2034) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2034) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 12 (2034) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2034) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2034) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2034) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2034) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2034) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2034) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2034) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2034) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2034) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 12 (2034) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2034) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2034) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2034) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2034) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2034) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2034) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2034) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 12 (2034) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 12 (2034) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2034) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2034) Utilities	Excavators	8	10.00	40	0.38
Plot 12 (2034) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2034) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 6 (2035) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 6 (2035) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 6 (2035) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 6 (2035) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 6 (2035) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 6 (2035) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 6 (2035) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 6 (2035) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 6 (2035) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 6 (2035) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40

Plot 6 (2035) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 6 (2035) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Mass Excavation	Graders	1	10.00	193	0.41
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Mass Excavation	Scrapers	0	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Paving	Pavers	2	10.00	126	0.42
Plot 6 (2035) Paving	Paving Equipment	2	10.00	131	0.36
Plot 6 (2035) Paving	Plate Compactors	2	10.00	8	0.43
Plot 6 (2035) Paving	Rollers	2	10.00	81	0.38
Plot 6 (2035) Paving	Scrapers	2	10.00	362	0.48
Plot 6 (2035) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37

Plot 6 (2035) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 6 (2035) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 6 (2035) Utilities	Excavators	2	10.00	523	0.38
Plot 6 (2035) Utilities	Excavators	10	10.00	286	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	4	10.00	396	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	188	0.38
Plot 6 (2035) Utilities	Excavators	8	10.00	40	0.38
Plot 6 (2035) Utilities	Forklifts	4	10.00	89	0.20
Plot 6 (2035) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 6 (2035) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Finish Grading		15.00	2.00	468.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 12 (2034) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Finish Grading		15.00	2.00	520.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 12 (2033) Mass Excavation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	29.9317	133.3059	141.7789	0.5470		5.0277	5.0277		5.0277	5.0277		61,617.1266	61,617.1266	2.6664		61,683.7876
Total	**29.9317**	**133.3059**	**141.7789**	**0.5470**	**30.0285**	**5.0277**	**35.0561**	**3.2424**	**5.0277**	**8.2700**		**61,617.1266**	**61,617.1266**	**2.6664**		**61,683.7876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0707	1.9802	0.8398	0.0109	0.2864	4.0200e-003	0.2904	0.0785	3.8400e-003	0.0823		1,191.3678	1,191.3678	0.0770		1,193.2922
Vendor	0.0379	0.9449	0.3683	6.4000e-003	0.2081	2.0800e-003	0.2102	0.0598	1.9900e-003	0.0618		685.6970	685.6970	0.0274		686.3807
Worker	0.1819	0.0863	1.2336	6.1100e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		609.8235	609.8235	7.8800e-003		610.0205
Total	**0.2905**	**3.0114**	**2.4417**	**0.0234**	**1.4446**	**9.7900e-003**	**1.4544**	**0.3903**	**9.2200e-003**	**0.3995**		**2,486.8883**	**2,486.8883**	**0.1122**		**2,489.6934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	29.9317	133.3059	141.7789	0.5470		5.0277	5.0277		5.0277	5.0277	0.0000	61,617.1265	61,617.1265	2.6664		61,683.7875
Total	**29.9317**	**133.3059**	**141.7789**	**0.5470**	**11.7111**	**5.0277**	**16.7388**	**1.2645**	**5.0277**	**6.2922**	**0.0000**	**61,617.1265**	**61,617.1265**	**2.6664**		**61,683.7875**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0707	1.9802	0.8398	0.0109	0.2864	4.0200e-003	0.2904	0.0785	3.8400e-003	0.0823		1,191.3678	1,191.3678	0.0770		1,193.2922
Vendor	0.0379	0.9449	0.3683	6.4000e-003	0.2081	2.0800e-003	0.2102	0.0598	1.9900e-003	0.0618		685.6970	685.6970	0.0274		686.3807
Worker	0.1819	0.0863	1.2336	6.1100e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		609.8235	609.8235	7.8800e-003		610.0205
Total	**0.2905**	**3.0114**	**2.4417**	**0.0234**	**1.4446**	**9.7900e-003**	**1.4544**	**0.3903**	**9.2200e-003**	**0.3995**		**2,486.8883**	**2,486.8883**	**0.1122**		**2,489.6934**

3.3 Plot 12 (2033) Finish Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7448	3.8257	7.8691	0.0133		0.1661	0.1661		0.1661	0.1661		1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.7448**	**3.8257**	**7.8691**	**0.0133**	**3.4466**	**0.1661**	**3.6127**	**0.3722**	**0.1661**	**0.5382**		**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0631	1.7665	0.7492	9.7300e-003	0.2555	3.5800e-003	0.2591	0.0700	3.4300e-003	0.0734		1,062.7979	1,062.7979	0.0687		1,064.5146
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1261**	**2.0023**	**1.2011**	**0.0130**	**0.5868**	**5.1500e-003**	**0.5919**	**0.1589**	**4.8900e-003**	**0.1638**		**1,398.1221**	**1,398.1221**	**0.0771**		**1,400.0498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.7448	3.8257	7.8691	0.0133		0.1661	0.1661		0.1661	0.1661	0.0000	1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.7448**	**3.8257**	**7.8691**	**0.0133**	**1.3442**	**0.1661**	**1.5103**	**0.1451**	**0.1661**	**0.3112**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0631	1.7665	0.7492	9.7300e-003	0.2555	3.5800e-003	0.2591	0.0700	3.4300e-003	0.0734		1,062.7979	1,062.7979	0.0687		1,064.5146
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1261**	**2.0023**	**1.2011**	**0.0130**	**0.5868**	**5.1500e-003**	**0.5919**	**0.1589**	**4.8900e-003**	**0.1638**		**1,398.1221**	**1,398.1221**	**0.0771**		**1,400.0498**

3.4 Plot 12 (2033) Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1298	3.6351	1.5416	0.0200	0.5258	7.3800e-003	0.5332	0.1441	7.0600e-003	0.1511		2,187.0858	2,187.0858	0.1413		2,190.6186
Vendor	0.1052	2.6247	1.0231	0.0178	0.5780	5.7800e-003	0.5838	0.1662	5.5300e-003	0.1718		1,904.7138	1,904.7138	0.0760		1,906.6129
Worker	0.1455	0.0690	0.9869	4.8800e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		487.8588	487.8588	6.3000e-003		488.0164
Total	**0.3805**	**6.3289**	**3.5516**	**0.0427**	**1.8639**	**0.0161**	**1.8800**	**0.5119**	**0.0153**	**0.5272**		**4,579.6584**	**4,579.6584**	**0.2236**		**4,585.2479**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1298	3.6351	1.5416	0.0200	0.5258	7.3800e-003	0.5332	0.1441	7.0600e-003	0.1511		2,187.0858	2,187.0858	0.1413		2,190.6186
Vendor	0.1052	2.6247	1.0231	0.0178	0.5780	5.7800e-003	0.5838	0.1662	5.5300e-003	0.1718		1,904.7138	1,904.7138	0.0760		1,906.6129
Worker	0.1455	0.0690	0.9869	4.8800e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		487.8588	487.8588	6.3000e-003		488.0164
Total	**0.3805**	**6.3289**	**3.5516**	**0.0427**	**1.8639**	**0.0161**	**1.8800**	**0.5119**	**0.0153**	**0.5272**		**4,579.6584**	**4,579.6584**	**0.2236**		**4,585.2479**

3.5 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

3.6 Plot 12 (2033) Building-Wet Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.2723	0.5396	7.0100e-003	0.1840	2.5800e-003	0.1866	0.0504	2.4700e-003	0.0529		765.4800	765.4800	0.0495		766.7165
Vendor	0.0631	1.5748	0.6139	0.0107	0.3468	3.4700e-003	0.3503	0.0997	3.3200e-003	0.1031		1,142.8283	1,142.8283	0.0456		1,143.9677
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1995**	**2.8903**	**1.7702**	**0.0207**	**1.0059**	**7.8900e-003**	**1.0138**	**0.2761**	**7.4900e-003**	**0.2836**		**2,213.2200**	**2,213.2200**	**0.0990**		**2,215.6945**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.2723	0.5396	7.0100e-003	0.1840	2.5800e-003	0.1866	0.0504	2.4700e-003	0.0529		765.4800	765.4800	0.0495		766.7165
Vendor	0.0631	1.5748	0.6139	0.0107	0.3468	3.4700e-003	0.3503	0.0997	3.3200e-003	0.1031		1,142.8283	1,142.8283	0.0456		1,143.9677
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1995**	**2.8903**	**1.7702**	**0.0207**	**1.0059**	**7.8900e-003**	**1.0138**	**0.2761**	**7.4900e-003**	**0.2836**		**2,213.2200**	**2,213.2200**	**0.0990**		**2,215.6945**

3.7 Plot 12 (2033) Building-Electrical - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1039	2.9081	1.2333	0.0160	0.4206	5.9000e-003	0.4265	0.1153	5.6400e-003	0.1209		1,749.6686	1,749.6686	0.1131		1,752.4948
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1837**	**3.5639**	**1.8489**	**0.0221**	**0.8444**	**8.4000e-003**	**0.8528**	**0.2307**	**7.9900e-003**	**0.2387**		**2,389.7470**	**2,389.7470**	**0.1336**		**2,393.0881**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1039	2.9081	1.2333	0.0160	0.4206	5.9000e-003	0.4265	0.1153	5.6400e-003	0.1209		1,749.6686	1,749.6686	0.1131		1,752.4948
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1837**	**3.5639**	**1.8489**	**0.0221**	**0.8444**	**8.4000e-003**	**0.8528**	**0.2307**	**7.9900e-003**	**0.2387**		**2,389.7470**	**2,389.7470**	**0.1336**		**2,393.0881**

3.8 Plot 12 (2033) Building-Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0295	0.7349	0.2865	4.9800e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		533.3199	533.3199	0.0213		533.8516
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0658**	**0.7522**	**0.5332**	**6.2000e-003**	**0.3519**	**2.3600e-003**	**0.3542**	**0.0969**	**2.2300e-003**	**0.0992**		**655.2846**	**655.2846**	**0.0229**		**655.8557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0295	0.7349	0.2865	4.9800e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		533.3199	533.3199	0.0213		533.8516
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0658**	**0.7522**	**0.5332**	**6.2000e-003**	**0.3519**	**2.3600e-003**	**0.3542**	**0.0969**	**2.2300e-003**	**0.0992**		**655.2846**	**655.2846**	**0.0229**		**655.8557**

3.9 Plot 12 (2033) Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0616**	**0.6472**	**0.4923**	**5.4800e-003**	**0.3288**	**2.1300e-003**	**0.3309**	**0.0903**	**2.0100e-003**	**0.0923**		**579.0960**	**579.0960**	**0.0198**		**579.5912**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0616**	**0.6472**	**0.4923**	**5.4800e-003**	**0.3288**	**2.1300e-003**	**0.3309**	**0.0903**	**2.0100e-003**	**0.0923**		**579.0960**	**579.0960**	**0.0198**		**579.5912**

3.10 Plot 12 (2033) Curbing/Drive Approaches - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	1.1777	0.4994	6.4900e-003	0.1703	2.3900e-003	0.1727	0.0467	2.2900e-003	0.0490		708.5319	708.5319	0.0458		709.6764
Vendor	0.0168	0.4200	0.1637	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.7542	304.7542	0.0122		305.0581
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0953**	**1.6149**	**0.9099**	**0.0106**	**0.4528**	**4.0500e-003**	**0.4569**	**0.1237**	**3.8500e-003**	**0.1275**		**1,135.2509**	**1,135.2509**	**0.0595**		**1,136.7386**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	1.1777	0.4994	6.4900e-003	0.1703	2.3900e-003	0.1727	0.0467	2.2900e-003	0.0490		708.5319	708.5319	0.0458		709.6764
Vendor	0.0168	0.4200	0.1637	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.7542	304.7542	0.0122		305.0581
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0953**	**1.6149**	**0.9099**	**0.0106**	**0.4528**	**4.0500e-003**	**0.4569**	**0.1237**	**3.8500e-003**	**0.1275**		**1,135.2509**	**1,135.2509**	**0.0595**		**1,136.7386**

3.11 Plot 12 (2033) Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0712	1.9929	0.8452	0.0110	0.2883	4.0400e-003	0.2923	0.0790	3.8700e-003	0.0829		1,199.0541	1,199.0541	0.0775		1,200.9909
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1874**	**2.6660**	**1.7075**	**0.0183**	**0.9021**	**7.2700e-003**	**0.9093**	**0.2449**	**6.9000e-003**	**0.2517**		**1,961.0971**	**1,961.0971**	**0.0996**		**1,963.5882**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0712	1.9929	0.8452	0.0110	0.2883	4.0400e-003	0.2923	0.0790	3.8700e-003	0.0829		1,199.0541	1,199.0541	0.0775		1,200.9909
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1874**	**2.6660**	**1.7075**	**0.0183**	**0.9021**	**7.2700e-003**	**0.9093**	**0.2449**	**6.9000e-003**	**0.2517**		**1,961.0971**	**1,961.0971**	**0.0996**		**1,963.5882**

3.12 Plot 12 (2033) Temporary Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 12 (2034) Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1294	3.6029	1.5434	0.0200	0.5258	7.2900e-003	0.5331	0.1441	6.9700e-003	0.1511		2,183.1554	2,183.1554	0.1408		2,186.6762
Vendor	0.1045	2.6016	1.0201	0.0177	0.5780	5.7300e-003	0.5837	0.1662	5.4700e-003	0.1717		1,901.6907	1,901.6907	0.0757		1,903.5827
Worker	0.1372	0.0643	0.9331	4.8100e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		480.0777	480.0777	5.8000e-003		480.2227
Total	**0.3711**	**6.2688**	**3.4966**	**0.0425**	**1.8639**	**0.0158**	**1.8797**	**0.5119**	**0.0150**	**0.5268**		**4,564.9238**	**4,564.9238**	**0.2223**		**4,570.4816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**9.9581**	**1.3582**	**11.3163**	**1.0752**	**1.3582**	**2.4334**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1294	3.6029	1.5434	0.0200	0.5258	7.2900e-003	0.5331	0.1441	6.9700e-003	0.1511		2,183.1554	2,183.1554	0.1408		2,186.6762
Vendor	0.1045	2.6016	1.0201	0.0177	0.5780	5.7300e-003	0.5837	0.1662	5.4700e-003	0.1717		1,901.6907	1,901.6907	0.0757		1,903.5827
Worker	0.1372	0.0643	0.9331	4.8100e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		480.0777	480.0777	5.8000e-003		480.2227
Total	**0.3711**	**6.2688**	**3.4966**	**0.0425**	**1.8639**	**0.0158**	**1.8797**	**0.5119**	**0.0150**	**0.5268**		**4,564.9238**	**4,564.9238**	**0.2223**		**4,570.4816**

3.14 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**1.2456**	**0.4093**	**1.6548**	**0.1345**	**0.4093**	**0.5437**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

3.15 Plot 12 (2034) Building-Wet Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0453	1.2610	0.5402	6.9900e-003	0.1840	2.5500e-003	0.1866	0.0504	2.4400e-003	0.0529		764.1044	764.1044	0.0493		765.3367
Vendor	0.0627	1.5610	0.6121	0.0106	0.3468	3.4400e-003	0.3502	0.0997	3.2800e-003	0.1030		1,141.0144	1,141.0144	0.0454		1,142.1496
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1938**	**2.8621**	**1.7354**	**0.0206**	**1.0059**	**7.7100e-003**	**1.0136**	**0.2761**	**7.3000e-003**	**0.2834**		**2,205.1674**	**2,205.1674**	**0.0983**		**2,207.6255**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**3.7351**	**0.6761**	**4.4112**	**0.4033**	**0.6761**	**1.0794**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0453	1.2610	0.5402	6.9900e-003	0.1840	2.5500e-003	0.1866	0.0504	2.4400e-003	0.0529		764.1044	764.1044	0.0493		765.3367
Vendor	0.0627	1.5610	0.6121	0.0106	0.3468	3.4400e-003	0.3502	0.0997	3.2800e-003	0.1030		1,141.0144	1,141.0144	0.0454		1,142.1496
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1938**	**2.8621**	**1.7354**	**0.0206**	**1.0059**	**7.7100e-003**	**1.0136**	**0.2761**	**7.3000e-003**	**0.2834**		**2,205.1674**	**2,205.1674**	**0.0983**		**2,207.6255**

3.16 Plot 12 (2034) Building-Electrical - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1035	2.8823	1.2347	0.0160	0.4206	5.8300e-003	0.4265	0.1153	5.5800e-003	0.1208		1,746.5243	1,746.5243	0.1127		1,749.3410
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0515	0.0241	0.3499	1.8000e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		180.0292	180.0292	2.1700e-003		180.0835
Total	**0.1800**	**3.5308**	**1.8294**	**0.0220**	**0.8444**	**8.2300e-003**	**0.8526**	**0.2307**	**7.8400e-003**	**0.2386**		**2,382.9592**	**2,382.9592**	**0.1330**		**2,386.2843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**2.4895**	**0.3572**	**2.8468**	**0.2688**	**0.3572**	**0.6261**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1035	2.8823	1.2347	0.0160	0.4206	5.8300e-003	0.4265	0.1153	5.5800e-003	0.1208		1,746.5243	1,746.5243	0.1127		1,749.3410
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0515	0.0241	0.3499	1.8000e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		180.0292	180.0292	2.1700e-003		180.0835
Total	**0.1800**	**3.5308**	**1.8294**	**0.0220**	**0.8444**	**8.2300e-003**	**0.8526**	**0.2307**	**7.8400e-003**	**0.2386**		**2,382.9592**	**2,382.9592**	**0.1330**		**2,386.2843**

3.17 Plot 12 (2034) Building-Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0293	0.7285	0.2856	4.9700e-003	0.1618	1.6000e-003	0.1635	0.0465	1.5300e-003	0.0481		532.4734	532.4734	0.0212		533.0032
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0636**	**0.7445**	**0.5189**	**6.1700e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**652.4928**	**652.4928**	**0.0226**		**653.0588**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**0.6220**	**0.3659**	**0.9878**	**0.0672**	**0.3659**	**0.4330**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0293	0.7285	0.2856	4.9700e-003	0.1618	1.6000e-003	0.1635	0.0465	1.5300e-003	0.0481		532.4734	532.4734	0.0212		533.0032
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0636**	**0.7445**	**0.5189**	**6.1700e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**652.4928**	**652.4928**	**0.0226**		**653.0588**

3.18 Plot 12 (2034) Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0594**	**0.6405**	**0.4781**	**5.4600e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**576.4252**	**576.4252**	**0.0196**		**576.9155**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**0.6220**	**0.3865**	**1.0085**	**0.0672**	**0.3865**	**0.4536**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0594**	**0.6405**	**0.4781**	**5.4600e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**576.4252**	**576.4252**	**0.0196**		**576.9155**

3.19 Plot 12 (2034) Curbing/Drive Approaches - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0419	1.1672	0.5000	6.4700e-003	0.1703	2.3600e-003	0.1727	0.0467	2.2600e-003	0.0489		707.2586	707.2586	0.0456		708.3993
Vendor	0.0167	0.4163	0.1632	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.2705	304.2705	0.0121		304.5732
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0929**	**1.5995**	**0.8965**	**0.0105**	**0.4529**	**3.9700e-003**	**0.4568**	**0.1237**	**3.7700e-003**	**0.1274**		**1,131.5486**	**1,131.5486**	**0.0592**		**1,133.0282**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9036**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0419	1.1672	0.5000	6.4700e-003	0.1703	2.3600e-003	0.1727	0.0467	2.2600e-003	0.0489		707.2586	707.2586	0.0456		708.3993
Vendor	0.0167	0.4163	0.1632	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.2705	304.2705	0.0121		304.5732
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0929**	**1.5995**	**0.8965**	**0.0105**	**0.4529**	**3.9700e-003**	**0.4568**	**0.1237**	**3.7700e-003**	**0.1274**		**1,131.5486**	**1,131.5486**	**0.0592**		**1,133.0282**

3.20 Plot 12 (2034) Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0709	1.9752	0.8461	0.0110	0.2883	3.9900e-003	0.2923	0.0790	3.8200e-003	0.0828		1,196.8992	1,196.8992	0.0772		1,198.8295
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1818**	**2.6398**	**1.6742**	**0.0182**	**0.9021**	**7.0800e-003**	**0.9091**	**0.2449**	**6.7100e-003**	**0.2516**		**1,953.3536**	**1,953.3536**	**0.0990**		**1,955.8286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7866**	**22.8667**	**43.0035**	**0.0971**	**2.4816**	**0.8515**	**3.3331**	**0.2680**	**0.8515**	**1.1195**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0709	1.9752	0.8461	0.0110	0.2883	3.9900e-003	0.2923	0.0790	3.8200e-003	0.0828		1,196.8992	1,196.8992	0.0772		1,198.8295
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1818**	**2.6398**	**1.6742**	**0.0182**	**0.9021**	**7.0800e-003**	**0.9091**	**0.2449**	**6.7100e-003**	**0.2516**		**1,953.3536**	**1,953.3536**	**0.0990**		**1,955.8286**

3.21 Plot 12 (2034) Temporary Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 6 (2035) Mass Excavation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.5492	0.0000	20.5492	2.2188	0.0000	2.2188			0.0000			0.0000
Off-Road	17.5174	61.8079	90.8534	0.3556		2.3276	2.3276		2.3276	2.3276		39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**17.5174**	**61.8079**	**90.8534**	**0.3556**	**20.5492**	**2.3276**	**22.8769**	**2.2188**	**2.3276**	**4.5465**		**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0703	1.9493	0.8412	0.0109	0.2864	3.9300e-003	0.2904	0.0785	3.7600e-003	0.0823		1,187.5490	1,187.5490	0.0764		1,189.4601
Vendor	0.0374	0.9299	0.3662	6.3800e-003	0.2081	2.0500e-003	0.2101	0.0598	1.9600e-003	0.0618		683.7291	683.7291	0.0271		684.4076
Worker	0.1629	0.0760	1.1110	5.9200e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		591.7701	591.7701	6.7300e-003		591.9385
Total	**0.2706**	**2.9551**	**2.3183**	**0.0232**	**1.4446**	**9.2000e-003**	**1.4538**	**0.3903**	**8.6900e-003**	**0.3990**		**2,463.0482**	**2,463.0482**	**0.1103**		**2,465.8062**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0142	0.0000	8.0142	0.8654	0.0000	0.8654			0.0000			0.0000
Off-Road	17.5174	61.8079	90.8534	0.3556		2.3276	2.3276		2.3276	2.3276	0.0000	39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**17.5174**	**61.8079**	**90.8534**	**0.3556**	**8.0142**	**2.3276**	**10.3418**	**0.8654**	**2.3276**	**3.1930**	**0.0000**	**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0703	1.9493	0.8412	0.0109	0.2864	3.9300e-003	0.2904	0.0785	3.7600e-003	0.0823		1,187.5490	1,187.5490	0.0764		1,189.4601
Vendor	0.0374	0.9299	0.3662	6.3800e-003	0.2081	2.0500e-003	0.2101	0.0598	1.9600e-003	0.0618		683.7291	683.7291	0.0271		684.4076
Worker	0.1629	0.0760	1.1110	5.9200e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		591.7701	591.7701	6.7300e-003		591.9385
Total	**0.2706**	**2.9551**	**2.3183**	**0.0232**	**1.4446**	**9.2000e-003**	**1.4538**	**0.3903**	**8.6900e-003**	**0.3990**		**2,463.0482**	**2,463.0482**	**0.1103**		**2,465.8062**

3.23 Plot 6 (2035) Finish Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.6342	2.8323	7.8483	0.0133		0.1062	0.1062		0.1062	0.1062		1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.6342**	**2.8323**	**7.8483**	**0.0133**	**3.4466**	**0.1062**	**3.5529**	**0.3722**	**0.1062**	**0.4784**		**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0697	1.9321	0.8338	0.0108	0.2839	3.9000e-003	0.2878	0.0778	3.7300e-003	0.0815		1,177.1014	1,177.1014	0.0758		1,178.9957
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1269**	**2.1615**	**1.2484**	**0.0140**	**0.6152**	**5.3200e-003**	**0.6205**	**0.1667**	**5.0500e-003**	**0.1717**		**1,506.5722**	**1,506.5722**	**0.0838**		**1,508.6678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.6342	2.8323	7.8483	0.0133		0.1062	0.1062		0.1062	0.1062	0.0000	1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.6342**	**2.8323**	**7.8483**	**0.0133**	**1.3442**	**0.1062**	**1.4504**	**0.1451**	**0.1062**	**0.2514**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0697	1.9321	0.8338	0.0108	0.2839	3.9000e-003	0.2878	0.0778	3.7300e-003	0.0815		1,177.1014	1,177.1014	0.0758		1,178.9957
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1269**	**2.1615**	**1.2484**	**0.0140**	**0.6152**	**5.3200e-003**	**0.6205**	**0.1667**	**5.0500e-003**	**0.1717**		**1,506.5722**	**1,506.5722**	**0.0838**		**1,508.6678**

3.24 Plot 6 (2035) Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	15.4429	42.8939	120.5733	0.3816		1.0295	1.0295		1.0295	1.0295		40,230.2918	40,230.2918	1.3529		40,264.1136
Total	**15.4429**	**42.8939**	**120.5733**	**0.3816**	**25.5336**	**1.0295**	**26.5631**	**2.7570**	**1.0295**	**3.7865**		**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1291	3.5784	1.5442	0.0200	0.5258	7.2200e-003	0.5330	0.1441	6.9100e-003	0.1510		2,180.0753	2,180.0753	0.1403		2,183.5837
Vendor	0.1040	2.5829	1.0172	0.0177	0.5780	5.6800e-003	0.5837	0.1662	5.4300e-003	0.1717		1,899.2474	1,899.2474	0.0754		1,901.1321
Worker	0.1303	0.0608	0.8888	4.7400e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		473.4161	473.4161	5.3900e-003		473.5508
Total	**0.3634**	**6.2221**	**3.4502**	**0.0424**	**1.8639**	**0.0155**	**1.8794**	**0.5119**	**0.0147**	**0.5266**		**4,552.7388**	**4,552.7388**	**0.2211**		**4,558.2666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	15.4429	42.8939	120.5733	0.3816		1.0295	1.0295		1.0295	1.0295	0.0000	40,230.2918	40,230.2918	1.3529		40,264.1135
Total	**15.4429**	**42.8939**	**120.5733**	**0.3816**	**9.9581**	**1.0295**	**10.9876**	**1.0752**	**1.0295**	**2.1047**	**0.0000**	**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1135**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1291	3.5784	1.5442	0.0200	0.5258	7.2200e-003	0.5330	0.1441	6.9100e-003	0.1510		2,180.0753	2,180.0753	0.1403		2,183.5837
Vendor	0.1040	2.5829	1.0172	0.0177	0.5780	5.6800e-003	0.5837	0.1662	5.4300e-003	0.1717		1,899.2474	1,899.2474	0.0754		1,901.1321
Worker	0.1303	0.0608	0.8888	4.7400e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		473.4161	473.4161	5.3900e-003		473.5508
Total	**0.3634**	**6.2221**	**3.4502**	**0.0424**	**1.8639**	**0.0155**	**1.8794**	**0.5119**	**0.0147**	**0.5266**		**4,552.7388**	**4,552.7388**	**0.2211**		**4,558.2666**

3.25 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9307	18.4021	43.1354	0.0722		0.2672	0.2672		0.2672	0.2672		6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**2.9307**	**18.4021**	**43.1354**	**0.0722**	**3.1937**	**0.2672**	**3.4609**	**0.3449**	**0.2672**	**0.6120**		**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0109	0.3018	0.1302	1.6800e-003	0.0444	6.1000e-004	0.0450	0.0122	5.8000e-004	0.0127		183.8786	183.8786	0.0118		184.1745
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1173**	**0.9597**	**0.9299**	**8.8900e-003**	**0.6581**	**3.5800e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**935.5830**	**935.5830**	**0.0333**		**936.4154**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	2.9307	18.4021	43.1354	0.0722		0.2672	0.2672		0.2672	0.2672	0.0000	6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**2.9307**	**18.4021**	**43.1354**	**0.0722**	**1.2456**	**0.2672**	**1.5127**	**0.1345**	**0.2672**	**0.4017**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0109	0.3018	0.1302	1.6800e-003	0.0444	6.1000e-004	0.0450	0.0122	5.8000e-004	0.0127		183.8786	183.8786	0.0118		184.1745
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1173**	**0.9597**	**0.9299**	**8.8900e-003**	**0.6581**	**3.5800e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**935.5830**	**935.5830**	**0.0333**		**936.4154**

3.26 Plot 6 (2035) Building-Wet Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.3804	16.1782	69.5761	0.1489		0.4481	0.4481		0.4481	0.4481		14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**5.3804**	**16.1782**	**69.5761**	**0.1489**	**9.5771**	**0.4481**	**10.0253**	**1.0341**	**0.4481**	**1.4822**		**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0452	1.2524	0.5405	6.9800e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		763.0264	763.0264	0.0491		764.2543
Vendor	0.0624	1.5498	0.6103	0.0106	0.3468	3.4100e-003	0.3502	0.0997	3.2600e-003	0.1030		1,139.5484	1,139.5484	0.0452		1,140.6793
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1890**	**2.8402**	**1.7063**	**0.0206**	**1.0059**	**7.5500e-003**	**1.0135**	**0.2761**	**7.1600e-003**	**0.2833**		**2,198.4598**	**2,198.4598**	**0.0977**		**2,200.9028**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	5.3804	16.1782	69.5761	0.1489		0.4481	0.4481		0.4481	0.4481	0.0000	14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**5.3804**	**16.1782**	**69.5761**	**0.1489**	**3.7351**	**0.4481**	**4.1832**	**0.4033**	**0.4481**	**0.8514**	**0.0000**	**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0452	1.2524	0.5405	6.9800e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		763.0264	763.0264	0.0491		764.2543
Vendor	0.0624	1.5498	0.6103	0.0106	0.3468	3.4100e-003	0.3502	0.0997	3.2600e-003	0.1030		1,139.5484	1,139.5484	0.0452		1,140.6793
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1890**	**2.8402**	**1.7063**	**0.0206**	**1.0059**	**7.5500e-003**	**1.0135**	**0.2761**	**7.1600e-003**	**0.2833**		**2,198.4598**	**2,198.4598**	**0.0977**		**2,200.9028**

3.27 Plot 6 (2035) Building-Electrical - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.7417	21.0920	45.2781	0.0698		0.2425	0.2425		0.2425	0.2425		6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**3.7417**	**21.0920**	**45.2781**	**0.0698**	**6.3834**	**0.2425**	**6.6259**	**0.6893**	**0.2425**	**0.9318**		**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1033	2.8627	1.2354	0.0160	0.4206	5.7800e-003	0.4264	0.1153	5.5300e-003	0.1208		1,744.0603	1,744.0603	0.1123		1,746.8670
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1771**	**3.5054**	**1.8128**	**0.0220**	**0.8444**	**8.1100e-003**	**0.8525**	**0.2307**	**7.7200e-003**	**0.2385**		**2,377.4107**	**2,377.4107**	**0.1324**		**2,380.7202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	3.7417	21.0920	45.2781	0.0698		0.2425	0.2425		0.2425	0.2425	0.0000	6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**3.7417**	**21.0920**	**45.2781**	**0.0698**	**2.4895**	**0.2425**	**2.7320**	**0.2688**	**0.2425**	**0.5113**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1033	2.8627	1.2354	0.0160	0.4206	5.7800e-003	0.4264	0.1153	5.5300e-003	0.1208		1,744.0603	1,744.0603	0.1123		1,746.8670
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1771**	**3.5054**	**1.8128**	**0.0220**	**0.8444**	**8.1100e-003**	**0.8525**	**0.2307**	**7.7200e-003**	**0.2385**		**2,377.4107**	**2,377.4107**	**0.1324**		**2,380.7202**

3.28 Plot 6 (2035) Building-Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6200	11.9129	34.9894	0.0579		0.2307	0.2307		0.2307	0.2307		5,360.8447	5,360.8447	0.2341		5,366.6975
Total	**2.6200**	**11.9129**	**34.9894**	**0.0579**	**1.5948**	**0.2307**	**1.8255**	**0.1722**	**0.2307**	**0.4029**		**5,360.8447**	**5,360.8447**	**0.2341**		**5,366.6975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7232	0.2848	4.9600e-003	0.1618	1.5900e-003	0.1634	0.0465	1.5200e-003	0.0481		531.7893	531.7893	0.0211		532.3170
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0617**	**0.7384**	**0.5070**	**6.1400e-003**	**0.3519**	**2.2300e-003**	**0.3541**	**0.0969**	**2.1100e-003**	**0.0990**		**650.1433**	**650.1433**	**0.0225**		**650.7047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.6200	11.9129	34.9894	0.0579		0.2307	0.2307		0.2307	0.2307	0.0000	5,360.8447	5,360.8447	0.2341		5,366.6975
Total	**2.6200**	**11.9129**	**34.9894**	**0.0579**	**0.6220**	**0.2307**	**0.8527**	**0.0672**	**0.2307**	**0.2978**	**0.0000**	**5,360.8447**	**5,360.8447**	**0.2341**		**5,366.6975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7232	0.2848	4.9600e-003	0.1618	1.5900e-003	0.1634	0.0465	1.5200e-003	0.0481		531.7893	531.7893	0.0211		532.3170
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0617**	**0.7384**	**0.5070**	**6.1400e-003**	**0.3519**	**2.2300e-003**	**0.3541**	**0.0969**	**2.1100e-003**	**0.0990**		**650.1433**	**650.1433**	**0.0225**		**650.7047**

3.29 Plot 6 (2035) Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.7643	12.2059	37.4473	0.0624		0.2425	0.2425		0.2425	0.2425		5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**2.7643**	**12.2059**	**37.4473**	**0.0624**	**1.5948**	**0.2425**	**1.8373**	**0.1722**	**0.2425**	**0.4147**		**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0575**	**0.6351**	**0.4663**	**5.4300e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**574.1734**	**574.1734**	**0.0194**		**574.6594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	2.7643	12.2059	37.4473	0.0624		0.2425	0.2425		0.2425	0.2425	0.0000	5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**2.7643**	**12.2059**	**37.4473**	**0.0624**	**0.6220**	**0.2425**	**0.8644**	**0.0672**	**0.2425**	**0.3096**	**0.0000**	**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0575**	**0.6351**	**0.4663**	**5.4300e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**574.1734**	**574.1734**	**0.0194**		**574.6594**

3.30 Plot 6 (2035) Curbing/Drive Approaches - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7758	3.5729	10.2419	0.0177		0.1210	0.1210		0.1210	0.1210		1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8237**	**3.5729**	**10.2419**	**0.0177**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**0.1210**	**0.1210**		**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.1593	0.5003	6.4600e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		706.2608	706.2608	0.0455		707.3974
Vendor	0.0166	0.4133	0.1628	2.8300e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		303.8796	303.8796	0.0121		304.1811
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0910**	**1.5877**	**0.8852**	**0.0105**	**0.4529**	**3.8900e-003**	**0.4567**	**0.1237**	**3.7000e-003**	**0.1274**		**1,128.4944**	**1,128.4944**	**0.0589**		**1,129.9662**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7758	3.5729	10.2419	0.0177		0.1210	0.1210		0.1210	0.1210	0.0000	1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7758**	**3.5729**	**10.2419**	**0.0177**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.1593	0.5003	6.4600e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		706.2608	706.2608	0.0455		707.3974
Vendor	0.0166	0.4133	0.1628	2.8300e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		303.8796	303.8796	0.0121		304.1811
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0910**	**1.5877**	**0.8852**	**0.0105**	**0.4529**	**3.8900e-003**	**0.4567**	**0.1237**	**3.7000e-003**	**0.1274**		**1,128.4944**	**1,128.4944**	**0.0589**		**1,129.9662**

3.31 Plot 6 (2035) Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.1707	16.6540	42.4916	0.0971		0.5198	0.5198		0.5198	0.5198		9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.2665**	**16.6540**	**42.4916**	**0.0971**	**6.3630**	**0.5198**	**6.8828**	**0.6871**	**0.5198**	**1.2069**		**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0708	1.9618	0.8466	0.0109	0.2883	3.9600e-003	0.2922	0.0790	3.7900e-003	0.0828		1,195.2106	1,195.2106	0.0769		1,197.1341
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1772**	**2.6197**	**1.6462**	**0.0182**	**0.9021**	**6.9300e-003**	**0.9090**	**0.2449**	**6.5700e-003**	**0.2514**		**1,946.9151**	**1,946.9151**	**0.0984**		**1,949.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	4.1707	16.6540	42.4916	0.0971		0.5198	0.5198		0.5198	0.5198	0.0000	9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.1707**	**16.6540**	**42.4916**	**0.0971**	**2.4816**	**0.5198**	**3.0014**	**0.2680**	**0.5198**	**0.7878**	**0.0000**	**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0708	1.9618	0.8466	0.0109	0.2883	3.9600e-003	0.2922	0.0790	3.7900e-003	0.0828		1,195.2106	1,195.2106	0.0769		1,197.1341
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1772**	**2.6197**	**1.6462**	**0.0182**	**0.9021**	**6.9300e-003**	**0.9090**	**0.2449**	**6.5700e-003**	**0.2514**		**1,946.9151**	**1,946.9151**	**0.0984**		**1,949.3750**

3.32 Plot 6 (2035) Temporary Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1494	2.5094	6.1852	0.0285		0.0910	0.0910		0.0910	0.0910		3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**1.1494**	**2.5094**	**6.1852**	**0.0285**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0910**	**0.0910**		**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1494	2.5094	6.1852	0.0285		0.0910	0.0910		0.0910	0.0910	0.0000	3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**1.1494**	**2.5094**	**6.1852**	**0.0285**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plots 12 and 6 - South Coast AQMD Air District, Summer

World Logistics Center-Construction Dust-Plots 12 and 6

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	12.4280	12.4754	2.2971	0.0188	210.6220	3.3200e-003	210.6254	21.0101	3.1300e-003	21.0132	0.0000	2,039.9923	2,039.9923	0.1725	0.0000	2,044.3053
2034	12.3766	11.0255	1.9749	0.0166	173.0981	2.6600e-003	173.1008	17.2672	2.5200e-003	17.2697	0.0000	1,797.2426	1,797.2426	0.1506	0.0000	1,801.0063
2035	12.3879	10.6435	2.0117	0.0161	198.7255	2.7400e-003	198.7284	19.8233	2.5800e-003	19.8259	0.0000	1,742.1142	1,742.1142	0.1422	0.0000	1,745.6685
Maximum	**12.4280**	**12.4754**	**2.2971**	**0.0188**	**210.6220**	**3.3200e-003**	**210.6254**	**21.0101**	**3.1300e-003**	**21.0132**	**0.0000**	**2,039.9923**	**2,039.9923**	**0.1725**	**0.0000**	**2,044.3053**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	12.4280	12.4754	2.2971	0.0188	84.2726	3.3200e-003	84.2759	8.4131	3.1300e-003	8.4163	0.0000	2,039.9923	2,039.9923	0.1725	0.0000	2,044.3053
2034	12.3766	11.0255	1.9749	0.0166	69.2594	2.6600e-003	69.2620	6.9146	2.5200e-003	6.9171	0.0000	1,797.2426	1,797.2426	0.1506	0.0000	1,801.0063
2035	12.3879	10.6435	2.0117	0.0161	79.5123	2.7400e-003	79.5151	7.9378	2.5800e-003	7.9404	0.0000	1,742.1142	1,742.1142	0.1422	0.0000	1,745.6685
Maximum	**12.4280**	**12.4754**	**2.2971**	**0.0188**	**84.2726**	**3.3200e-003**	**84.2759**	**8.4131**	**3.1300e-003**	**8.4163**	**0.0000**	**2,039.9923**	**2,039.9923**	**0.1725**	**0.0000**	**2,044.3053**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 12 (2033) Mass Excavation	Grading	1/1/2033	7/1/2033	5	130	1235
2	Plot 12 (2033) Finish Grading	Grading	1/1/2033	2/25/2033	5	40	1236
3	Plot 12 (2033) Utilities	Trenching	1/1/2033	12/30/2033	5	260	1241
4	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
5	Plot 12 (2033) Building-Wet Utilities	Building Construction	1/1/2033	12/30/2033	5	260	1238
6	Plot 12 (2033) Building-Electrical	Building Construction	1/1/2033	12/30/2033	5	260	1239
7	Plot 12 (2033) Building-Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1240
8	Plot 12 (2033) Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1242
9	Plot 12 (2033) Curbing/Drive Approaches	Paving	5/1/2033	8/20/2033	5	80	1244
10	Plot 12 (2033) Paving	Paving	6/1/2033	7/26/2033	5	40	1245
11	Plot 12 (2033) Temporary Utilities	Building Construction	7/2/2033	12/29/2033	5	130	1243
12	Plot 12 (2034) Utilities	Trenching	1/1/2034	12/31/2034	5	260	1250
13	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
14	Plot 12 (2034) Building-Wet Utilities	Building Construction	1/1/2034	12/31/2034	5	260	1247
15	Plot 12 (2034) Building-Electrical	Building Construction	1/1/2034	12/31/2034	5	260	1248
16	Plot 12 (2034) Building-Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1249

17	Plot 12 (2034) Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1251
18	Plot 12 (2034) Curbing/Drive Approaches	Paving	5/1/2034	8/20/2034	5	80	1253
19	Plot 12 (2034) Paving	Paving	6/1/2034	7/26/2034	5	40	1254
20	Plot 12 (2034) Temporary Utilities	Building Construction	7/2/2034	12/31/2034	5	130	1252
21	Plot 6 (2035) Mass Excavation	Grading	1/1/2035	6/30/2035	5	130	1255
22	Plot 6 (2035) Finish Grading	Grading	1/1/2035	2/25/2035	5	40	1256
23	Plot 6 (2035) Utilities	Trenching	1/1/2035	12/29/2035	5	260	1261
24	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257
25	Plot 6 (2035) Building-Wet Utilities	Building Construction	1/1/2035	12/29/2035	5	260	1258
26	Plot 6 (2035) Building-Electrical	Building Construction	1/1/2035	12/29/2035	5	260	1259
27	Plot 6 (2035) Building-Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1260
28	Plot 6 (2035) Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1262
29	Plot 6 (2035) Curbing/Drive Approaches	Paving	5/1/2035	8/20/2035	5	80	1264
30	Plot 6 (2035) Paving	Paving	6/1/2035	7/26/2035	5	40	1265
31	Plot 6 (2035) Temporary Utilities	Building Construction	7/1/2035	12/29/2035	5	130	1263

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 12 (2033) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Finish Grading		15.00	2.00	468.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 12 (2034) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Finish Grading		15.00	2.00	520.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plot 12 (2033) Mass Excavation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9670	0.1377	1.4600e-003	6.8249	1.7000e-004	6.8251	0.6809	1.6000e-004	0.6810		159.0257	159.0257	0.0141		159.3792
Vendor	7.2700e-003	0.4491	0.0787	5.8000e-004	4.6837	8.0000e-005	4.6837	0.4674	8.0000e-005	0.4675		63.1853	63.1853	5.2900e-003		63.3176
Worker	0.0241	5.0200e-003	0.0935	2.1000e-004	26.0154	2.7000e-004	26.0156	2.5946	2.5000e-004	2.5948		20.6446	20.6446	4.2000e-004		20.6550
Total	**0.0449**	**1.4211**	**0.3099**	**2.2500e-003**	**37.5239**	**5.2000e-004**	**37.5245**	**3.7428**	**4.9000e-004**	**3.7433**		**242.8556**	**242.8556**	**0.0199**		**243.3518**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9670	0.1377	1.4600e-003	2.7310	1.7000e-004	2.7311	0.2727	1.6000e-004	0.2729		159.0257	159.0257	0.0141		159.3792
Vendor	7.2700e-003	0.4491	0.0787	5.8000e-004	1.8743	8.0000e-005	1.8744	0.1873	8.0000e-005	0.1874		63.1853	63.1853	5.2900e-003		63.3176
Worker	0.0241	5.0200e-003	0.0935	2.1000e-004	10.4079	2.7000e-004	10.4082	1.0385	2.5000e-004	1.0388		20.6446	20.6446	4.2000e-004		20.6550
Total	**0.0449**	**1.4211**	**0.3099**	**2.2500e-003**	**15.0132**	**5.2000e-004**	**15.0137**	**1.4985**	**4.9000e-004**	**1.4990**		**242.8556**	**242.8556**	**0.0199**		**243.3518**

3.3 Plot 12 (2033) Finish Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0121	0.8627	0.1228	1.3000e-003	6.0884	1.5000e-004	6.0885	0.6074	1.4000e-004	0.6075		141.8640	141.8640	0.0126		142.1793
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0412	14.0412	1.1800e-003		14.0706
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	7.8046	8.0000e-005	7.8047	0.7784	7.0000e-005	0.7785		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0209**	**0.9640**	**0.1684**	**1.4900e-003**	**14.9338**	**2.5000e-004**	**14.9341**	**1.4896**	**2.3000e-004**	**1.4899**		**162.0985**	**162.0985**	**0.0139**		**162.4464**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0121	0.8627	0.1228	1.3000e-003	2.4363	1.5000e-004	2.4364	0.2433	1.4000e-004	0.2434		141.8640	141.8640	0.0126		142.1793
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0412	14.0412	1.1800e-003		14.0706
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3116		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0209**	**0.9640**	**0.1684**	**1.4900e-003**	**5.9751**	**2.5000e-004**	**5.9754**	**0.5965**	**2.3000e-004**	**0.5967**		**162.0985**	**162.0985**	**0.0139**		**162.4464**

3.4 Plot 12 (2033) Utilities - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7753	0.2527	2.6800e-003	12.5290	3.1000e-004	12.5293	1.2499	2.9000e-004	1.2502		291.9357	291.9357	0.0260		292.5847
Vendor	0.0202	1.2474	0.2186	1.6200e-003	13.0101	2.3000e-004	13.0104	1.2983	2.2000e-004	1.2985		175.5146	175.5146	0.0147		175.8821
Worker	0.0193	4.0100e-003	0.0748	1.7000e-004	20.8123	2.1000e-004	20.8125	2.0757	2.0000e-004	2.0759		16.5157	16.5157	3.3000e-004		16.5240
Total	**0.0643**	**3.0267**	**0.5462**	**4.4700e-003**	**46.3515**	**7.5000e-004**	**46.3522**	**4.6239**	**7.1000e-004**	**4.6246**		**483.9661**	**483.9661**	**0.0410**		**484.9908**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7753	0.2527	2.6800e-003	5.0135	3.1000e-004	5.0138	0.5006	2.9000e-004	0.5009		291.9357	291.9357	0.0260		292.5847
Vendor	0.0202	1.2474	0.2186	1.6200e-003	5.2064	2.3000e-004	5.2067	0.5202	2.2000e-004	0.5205		175.5146	175.5146	0.0147		175.8821
Worker	0.0193	4.0100e-003	0.0748	1.7000e-004	8.3263	2.1000e-004	8.3266	0.8308	2.0000e-004	0.8310		16.5157	16.5157	3.3000e-004		16.5240
Total	**0.0643**	**3.0267**	**0.5462**	**4.4700e-003**	**18.5462**	**7.5000e-004**	**18.5470**	**1.8517**	**7.1000e-004**	**1.8524**		**483.9661**	**483.9661**	**0.0410**		**484.9908**

3.5 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1303	0.3033	3.2100e-003	15.0348	3.7000e-004	15.0352	1.4999	3.5000e-004	1.5003		350.3229	350.3229	0.0312		351.1016
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0412	14.0412	1.1800e-003		14.0706
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0435**	**2.2326**	**0.3675**	**3.4400e-003**	**29.0833**	**5.2000e-004**	**29.0839**	**2.9011**	**4.9000e-004**	**2.9016**		**374.6864**	**374.6864**	**0.0325**		**375.4997**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1303	0.3033	3.2100e-003	6.0161	3.7000e-004	6.0165	0.6008	3.5000e-004	0.6011		350.3229	350.3229	0.0312		351.1016
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0412	14.0412	1.1800e-003		14.0706
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0435**	**2.2326**	**0.3675**	**3.4400e-003**	**11.6366**	**5.2000e-004**	**11.6371**	**1.1617**	**4.9000e-004**	**1.1622**		**374.6864**	**374.6864**	**0.0325**		**375.4997**

3.6 Plot 12 (2033) Building-Wet Utilities - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	8.7000e-003	0.6214	0.0885	9.4000e-004	4.3852	1.1000e-004	4.3853	0.4375	1.0000e-004	0.4376		102.1775	102.1775	9.0800e-003		102.4046
Vendor	0.0121	0.7484	0.1312	9.7000e-004	7.8061	1.4000e-004	7.8062	0.7790	1.3000e-004	0.7791		105.3088	105.3088	8.8200e-003		105.5293
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0329**	**1.3723**	**0.2664**	**2.0100e-003**	**25.1989**	**3.8000e-004**	**25.1993**	**2.5137**	**3.5000e-004**	**2.5141**		**217.8086**	**217.8086**	**0.0181**		**218.2614**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	8.7000e-003	0.6214	0.0885	9.4000e-004	1.7547	1.1000e-004	1.7548	0.1752	1.0000e-004	0.1753		102.1775	102.1775	9.0800e-003		102.4046
Vendor	0.0121	0.7484	0.1312	9.7000e-004	3.1239	1.4000e-004	3.1240	0.3121	1.3000e-004	0.3123		105.3088	105.3088	8.8200e-003		105.5293
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0329**	**1.3723**	**0.2664**	**2.0100e-003**	**10.0825**	**3.8000e-004**	**10.0829**	**1.0066**	**3.5000e-004**	**1.0070**		**217.8086**	**217.8086**	**0.0181**		**218.2614**

3.7 Plot 12 (2033) Building-Electrical - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4202	0.2022	2.1400e-003	10.0232	2.5000e-004	10.0235	1.0000	2.4000e-004	1.0002		233.5486	233.5486	0.0208		234.0677
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1235	42.1235	3.5300e-003		42.2117
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	7.8046	8.0000e-005	7.8047	0.7784	7.0000e-005	0.7785		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0320**	**1.7211**	**0.2827**	**2.5900e-003**	**20.9503**	**3.8000e-004**	**20.9507**	**2.0899**	**3.6000e-004**	**2.0903**		**281.8655**	**281.8655**	**0.0244**		**282.4759**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4202	0.2022	2.1400e-003	4.0108	2.5000e-004	4.0110	0.4005	2.4000e-004	0.4008		233.5486	233.5486	0.0208		234.0677
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1235	42.1235	3.5300e-003		42.2117
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3116		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0320**	**1.7211**	**0.2827**	**2.5900e-003**	**8.3827**	**3.8000e-004**	**8.3831**	**0.8369**	**3.6000e-004**	**0.8373**		**281.8655**	**281.8655**	**0.0244**		**282.4759**

3.8 Plot 12 (2033) Building-Landscaping - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6500e-003	0.3493	0.0612	4.5000e-004	3.6428	6.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1441	49.1441	4.1200e-003		49.2470
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0105**	**0.3503**	**0.0799**	**4.9000e-004**	**8.8459**	**1.1000e-004**	**8.8460**	**0.8824**	**1.1000e-004**	**0.8825**		**53.2730**	**53.2730**	**4.2000e-003**		**53.3780**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6500e-003	0.3493	0.0612	4.5000e-004	1.4578	6.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1441	49.1441	4.1200e-003		49.2470
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0105**	**0.3503**	**0.0799**	**4.9000e-004**	**3.5394**	**1.1000e-004**	**3.5395**	**0.3534**	**1.1000e-004**	**0.3535**		**53.2730**	**53.2730**	**4.2000e-003**		**53.3780**

3.9 Plot 12 (2033) Landscaping - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1235	42.1235	3.5300e-003		42.2117
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.1289	4.1289	8.0000e-005		4.1310
Total	**9.6700e-003**	**0.3004**	**0.0712**	**4.3000e-004**	**8.3255**	**1.0000e-004**	**8.3256**	**0.8305**	**1.0000e-004**	**0.8306**		**46.2524**	**46.2524**	**3.6100e-003**		**46.3427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1235	42.1235	3.5300e-003		42.2117
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.1289	4.1289	8.0000e-005		4.1310
Total	**9.6700e-003**	**0.3004**	**0.0712**	**4.3000e-004**	**3.3311**	**1.0000e-004**	**3.3312**	**0.3326**	**1.0000e-004**	**0.3327**		**46.2524**	**46.2524**	**3.6100e-003**		**46.3427**

3.10 Plot 12 (2033) Curbing/Drive Approaches - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5751	0.0819	8.7000e-004	4.0589	1.0000e-004	4.0590	0.4049	1.0000e-004	0.4050		94.5760	94.5760	8.4100e-003		94.7862
Vendor	3.2300e-003	0.1996	0.0350	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	3.0000e-005	0.2078		28.0823	28.0823	2.3500e-003		28.1411
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0161**	**0.7757**	**0.1356**	**1.1700e-003**	**11.3436**	**1.9000e-004**	**11.3438**	**1.1316**	**1.8000e-004**	**1.1318**		**126.7873**	**126.7873**	**0.0108**		**127.0584**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5751	0.0819	8.7000e-004	1.6242	1.0000e-004	1.6243	0.1622	1.0000e-004	0.1623		94.5760	94.5760	8.4100e-003		94.7862
Vendor	3.2300e-003	0.1996	0.0350	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	3.0000e-005	0.0833		28.0823	28.0823	2.3500e-003		28.1411
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0161**	**0.7757**	**0.1356**	**1.1700e-003**	**4.5388**	**1.9000e-004**	**4.5390**	**0.4531**	**1.8000e-004**	**0.4533**		**126.7873**	**126.7873**	**0.0108**		**127.0584**

3.11 Plot 12 (2033) Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9733	0.1386	1.4700e-003	6.8690	1.7000e-004	6.8691	0.6853	1.6000e-004	0.6854		160.0517	160.0517	0.0142		160.4074
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1235	42.1235	3.5300e-003		42.2117
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0305**	**1.2752**	**0.2378**	**1.9600e-003**	**22.9991**	**3.5000e-004**	**22.9994**	**2.2941**	**3.3000e-004**	**2.2945**		**212.4975**	**212.4975**	**0.0180**		**212.9467**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9733	0.1386	1.4700e-003	2.7486	1.7000e-004	2.7488	0.2745	1.6000e-004	0.2746		160.0517	160.0517	0.0142		160.4074
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1235	42.1235	3.5300e-003		42.2117
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0305**	**1.2752**	**0.2378**	**1.9600e-003**	**9.2021**	**3.5000e-004**	**9.2024**	**0.9186**	**3.3000e-004**	**0.9189**		**212.4975**	**212.4975**	**0.0180**		**212.9467**

3.12 Plot 12 (2033) Temporary Utilities - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 12 (2034) Utilities - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7710	0.2551	2.6800e-003	12.5290	2.9000e-004	12.5293	1.2499	2.8000e-004	1.2502		292.1651	292.1651	0.0256		292.8055
Vendor	0.0201	1.2442	0.2178	1.6200e-003	13.0101	2.2000e-004	13.0104	1.2983	2.1000e-004	1.2985		175.5972	175.5972	0.0145		175.9599
Worker	0.0177	3.6700e-003	0.0698	1.6000e-004	20.8123	2.0000e-004	20.8125	2.0757	1.8000e-004	2.0759		16.2414	16.2414	3.0000e-004		16.2489
Total	**0.0627**	**3.0188**	**0.5427**	**4.4600e-003**	**46.3515**	**7.1000e-004**	**46.3522**	**4.6239**	**6.7000e-004**	**4.6246**		**484.0037**	**484.0037**	**0.0404**		**485.0143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7710	0.2551	2.6800e-003	5.0135	2.9000e-004	5.0137	0.5006	2.8000e-004	0.5009		292.1651	292.1651	0.0256		292.8055
Vendor	0.0201	1.2442	0.2178	1.6200e-003	5.2064	2.2000e-004	5.2066	0.5202	2.1000e-004	0.5204		175.5972	175.5972	0.0145		175.9599
Worker	0.0177	3.6700e-003	0.0698	1.6000e-004	8.3263	2.0000e-004	8.3265	0.8308	1.8000e-004	0.8310		16.2414	16.2414	3.0000e-004		16.2489
Total	**0.0627**	**3.0188**	**0.5427**	**4.4600e-003**	**18.5462**	**7.1000e-004**	**18.5469**	**1.8517**	**6.7000e-004**	**1.8524**		**484.0037**	**484.0037**	**0.0404**		**485.0143**

3.14 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1251	0.3061	3.2100e-003	15.0348	3.5000e-004	15.0352	1.4999	3.4000e-004	1.5003		350.5982	350.5982	0.0307		351.3666
Vendor	1.6100e-003	0.0995	0.0174	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0478	14.0478	1.1600e-003		14.0768
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0425**	**2.2270**	**0.3672**	**3.4400e-003**	**29.0833**	**5.0000e-004**	**29.0838**	**2.9011**	**4.8000e-004**	**2.9016**		**374.7968**	**374.7968**	**0.0321**		**375.5989**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1251	0.3061	3.2100e-003	6.0161	3.5000e-004	6.0165	0.6008	3.4000e-004	0.6011		350.5982	350.5982	0.0307		351.3666
Vendor	1.6100e-003	0.0995	0.0174	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0478	14.0478	1.1600e-003		14.0768
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0425**	**2.2270**	**0.3672**	**3.4400e-003**	**11.6366**	**5.0000e-004**	**11.6371**	**1.1617**	**4.8000e-004**	**1.1621**		**374.7968**	**374.7968**	**0.0321**		**375.5989**

3.15 Plot 12 (2034) Building-Wet Utilities - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6198	0.0893	9.4000e-004	4.3852	1.0000e-004	4.3853	0.4375	1.0000e-004	0.4376		102.2578	102.2578	8.9600e-003		102.4819
Vendor	0.0121	0.7465	0.1307	9.7000e-004	7.8061	1.3000e-004	7.8062	0.7790	1.3000e-004	0.7791		105.3583	105.3583	8.7000e-003		105.5760
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0318**	**1.3686**	**0.2636**	**2.0100e-003**	**25.1989**	**3.6000e-004**	**25.1993**	**2.5137**	**3.5000e-004**	**2.5141**		**217.7670**	**217.7670**	**0.0179**		**218.2134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6198	0.0893	9.4000e-004	1.7547	1.0000e-004	1.7548	0.1752	1.0000e-004	0.1753		102.2578	102.2578	8.9600e-003		102.4819
Vendor	0.0121	0.7465	0.1307	9.7000e-004	3.1239	1.3000e-004	3.1240	0.3121	1.3000e-004	0.3123		105.3583	105.3583	8.7000e-003		105.5760
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0318**	**1.3686**	**0.2636**	**2.0100e-003**	**10.0825**	**3.6000e-004**	**10.0829**	**1.0066**	**3.5000e-004**	**1.0070**		**217.7670**	**217.7670**	**0.0179**		**218.2134**

3.16 Plot 12 (2034) Building-Electrical - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4168	0.2041	2.1400e-003	10.0232	2.4000e-004	10.0235	1.0000	2.2000e-004	1.0002		233.7321	233.7321	0.0205		234.2444
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1433	42.1433	3.4800e-003		42.2304
Worker	6.6500e-003	1.3800e-003	0.0262	6.0000e-005	7.8046	8.0000e-005	7.8047	0.7784	7.0000e-005	0.7785		6.0905	6.0905	1.1000e-004		6.0933
Total	**0.0314**	**1.7167**	**0.2825**	**2.5900e-003**	**20.9503**	**3.7000e-004**	**20.9506**	**2.0899**	**3.4000e-004**	**2.0903**		**281.9660**	**281.9660**	**0.0241**		**282.5681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4168	0.2041	2.1400e-003	4.0108	2.4000e-004	4.0110	0.4005	2.2000e-004	0.4007		233.7321	233.7321	0.0205		234.2444
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1433	42.1433	3.4800e-003		42.2304
Worker	6.6500e-003	1.3800e-003	0.0262	6.0000e-005	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3116		6.0905	6.0905	1.1000e-004		6.0933
Total	**0.0314**	**1.7167**	**0.2825**	**2.5900e-003**	**8.3827**	**3.7000e-004**	**8.3830**	**0.8369**	**3.4000e-004**	**0.8373**		**281.9660**	**281.9660**	**0.0241**		**282.5681**

3.17 Plot 12 (2034) Building-Landscaping - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.3484	0.0610	4.5000e-004	3.6428	6.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1672	49.1672	4.0600e-003		49.2688
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0101**	**0.3493**	**0.0785**	**4.9000e-004**	**8.8459**	**1.1000e-004**	**8.8460**	**0.8824**	**1.1000e-004**	**0.8825**		**53.2276**	**53.2276**	**4.1400e-003**		**53.3310**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.3484	0.0610	4.5000e-004	1.4578	6.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1672	49.1672	4.0600e-003		49.2688
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0101**	**0.3493**	**0.0785**	**4.9000e-004**	**3.5394**	**1.1000e-004**	**3.5395**	**0.3534**	**1.1000e-004**	**0.3535**		**53.2276**	**53.2276**	**4.1400e-003**		**53.3310**

3.18 Plot 12 (2034) Landscaping - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1433	42.1433	3.4800e-003		42.2304
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.0603	4.0603	8.0000e-005		4.0622
Total	**9.2500e-003**	**0.2995**	**0.0697**	**4.3000e-004**	**8.3255**	**1.0000e-004**	**8.3256**	**0.8305**	**1.0000e-004**	**0.8306**		**46.2037**	**46.2037**	**3.5600e-003**		**46.2926**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1433	42.1433	3.4800e-003		42.2304
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.0603	4.0603	8.0000e-005		4.0622
Total	**9.2500e-003**	**0.2995**	**0.0697**	**4.3000e-004**	**3.3311**	**1.0000e-004**	**3.3312**	**0.3326**	**1.0000e-004**	**0.3327**		**46.2037**	**46.2037**	**3.5600e-003**		**46.2926**

3.19 Plot 12 (2034) Curbing/Drive Approaches - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5737	0.0826	8.7000e-004	4.0589	1.0000e-004	4.0590	0.4049	9.0000e-005	0.4050		94.6503	94.6503	8.3000e-003		94.8578
Vendor	3.2100e-003	0.1991	0.0349	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	3.0000e-005	0.2078		28.0956	28.0956	2.3200e-003		28.1536
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0157**	**0.7737**	**0.1349**	**1.1700e-003**	**11.3436**	**1.9000e-004**	**11.3438**	**1.1316**	**1.7000e-004**	**1.1317**		**126.8062**	**126.8062**	**0.0107**		**127.0736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5737	0.0826	8.7000e-004	1.6242	1.0000e-004	1.6243	0.1622	9.0000e-005	0.1623		94.6503	94.6503	8.3000e-003		94.8578
Vendor	3.2100e-003	0.1991	0.0349	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	3.0000e-005	0.0833		28.0956	28.0956	2.3200e-003		28.1536
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0157**	**0.7737**	**0.1349**	**1.1700e-003**	**4.5388**	**1.9000e-004**	**4.5390**	**0.4531**	**1.7000e-004**	**0.4533**		**126.8062**	**126.8062**	**0.0107**		**127.0736**

3.20 Plot 12 (2034) Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9709	0.1398	1.4700e-003	6.8690	1.6000e-004	6.8691	0.6853	1.5000e-004	0.6854		160.1774	160.1774	0.0140		160.5285
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1433	42.1433	3.4800e-003		42.2304
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0295**	**1.2718**	**0.2358**	**1.9600e-003**	**22.9991**	**3.4000e-004**	**22.9994**	**2.2941**	**3.2000e-004**	**2.2945**		**212.4716**	**212.4716**	**0.0177**		**212.9144**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9709	0.1398	1.4700e-003	2.7486	1.6000e-004	2.7488	0.2745	1.5000e-004	0.2746		160.1774	160.1774	0.0140		160.5285
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1433	42.1433	3.4800e-003		42.2304
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0295**	**1.2718**	**0.2358**	**1.9600e-003**	**9.2021**	**3.4000e-004**	**9.2024**	**0.9186**	**3.2000e-004**	**0.9189**		**212.4716**	**212.4716**	**0.0177**		**212.9144**

3.21 Plot 12 (2034) Temporary Utilities - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 6 (2035) Mass Excavation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9628	0.1399	1.4600e-003	6.8249	1.5000e-004	6.8251	0.6809	1.5000e-004	0.6810		159.2927	159.2927	0.0138		159.6377
Vendor	7.2000e-003	0.4470	0.0781	5.8000e-004	4.6837	8.0000e-005	4.6837	0.4674	7.0000e-005	0.4675		63.2525	63.2525	5.1700e-003		63.3817
Worker	0.0205	4.2400e-003	0.0820	2.0000e-004	26.0154	2.3000e-004	26.0156	2.5946	2.2000e-004	2.5948		20.0070	20.0070	3.4000e-004		20.0155
Total	**0.0413**	**1.4141**	**0.3001**	**2.2400e-003**	**37.5239**	**4.6000e-004**	**37.5244**	**3.7428**	**4.4000e-004**	**3.7433**		**242.5522**	**242.5522**	**0.0193**		**243.0349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9628	0.1399	1.4600e-003	2.7310	1.5000e-004	2.7311	0.2727	1.5000e-004	0.2729		159.2927	159.2927	0.0138		159.6377
Vendor	7.2000e-003	0.4470	0.0781	5.8000e-004	1.8743	8.0000e-005	1.8744	0.1873	7.0000e-005	0.1874		63.2525	63.2525	5.1700e-003		63.3817
Worker	0.0205	4.2400e-003	0.0820	2.0000e-004	10.4079	2.3000e-004	10.4082	1.0385	2.2000e-004	1.0388		20.0070	20.0070	3.4000e-004		20.0155
Total	**0.0413**	**1.4141**	**0.3001**	**2.2400e-003**	**15.0132**	**4.6000e-004**	**15.0137**	**1.4985**	**4.4000e-004**	**1.4990**		**242.5522**	**242.5522**	**0.0193**		**243.0349**

3.23 Plot 6 (2035) Finish Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.9544	0.1387	1.4500e-003	6.7649	1.5000e-004	6.7650	0.6749	1.5000e-004	0.6750		157.8913	157.8913	0.0137		158.2333
Vendor	1.6000e-003	0.0993	0.0174	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0561	14.0561	1.1500e-003		14.0848
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	7.8046	7.0000e-005	7.8047	0.7784	6.0000e-005	0.7784		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0212**	**1.0550**	**0.1807**	**1.6400e-003**	**15.6103**	**2.4000e-004**	**15.6105**	**1.5571**	**2.3000e-004**	**1.5574**		**177.9495**	**177.9495**	**0.0149**		**178.3228**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.9544	0.1387	1.4500e-003	2.7069	1.5000e-004	2.7071	0.2703	1.5000e-004	0.2705		157.8913	157.8913	0.0137		158.2333
Vendor	1.6000e-003	0.0993	0.0174	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0561	14.0561	1.1500e-003		14.0848
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0212**	**1.0550**	**0.1807**	**1.6400e-003**	**6.2458**	**2.4000e-004**	**6.2461**	**0.6235**	**2.3000e-004**	**0.6237**		**177.9495**	**177.9495**	**0.0149**		**178.3228**

3.24 Plot 6 (2035) Utilities - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7676	0.2569	2.6800e-003	12.5290	2.8000e-004	12.5293	1.2499	2.7000e-004	1.2502		292.4259	292.4259	0.0253		293.0593
Vendor	0.0200	1.2416	0.2170	1.6200e-003	13.0101	2.1000e-004	13.0104	1.2983	2.0000e-004	1.2985		175.7014	175.7014	0.0144		176.0602
Worker	0.0164	3.4000e-003	0.0656	1.6000e-004	20.8123	1.9000e-004	20.8125	2.0757	1.7000e-004	2.0758		16.0056	16.0056	2.7000e-004		16.0124
Total	**0.0613**	**3.0126**	**0.5395**	**4.4600e-003**	**46.3515**	**6.8000e-004**	**46.3522**	**4.6239**	**6.4000e-004**	**4.6245**		**484.1329**	**484.1329**	**0.0400**		**485.1319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7676	0.2569	2.6800e-003	5.0135	2.8000e-004	5.0137	0.5006	2.7000e-004	0.5009		292.4259	292.4259	0.0253		293.0593
Vendor	0.0200	1.2416	0.2170	1.6200e-003	5.2064	2.1000e-004	5.2066	0.5202	2.0000e-004	0.5204		175.7014	175.7014	0.0144		176.0602
Worker	0.0164	3.4000e-003	0.0656	1.6000e-004	8.3263	1.9000e-004	8.3265	0.8308	1.7000e-004	0.8310		16.0056	16.0056	2.7000e-004		16.0124
Total	**0.0613**	**3.0126**	**0.5395**	**4.4600e-003**	**18.5462**	**6.8000e-004**	**18.5469**	**1.8517**	**6.4000e-004**	**1.8524**		**484.1329**	**484.1329**	**0.0400**		**485.1319**

3.25 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-003	0.1491	0.0217	2.3000e-004	1.0568	2.0000e-005	1.0568	0.1054	2.0000e-005	0.1055		24.6647	24.6647	2.1400e-003		24.7181
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	13.0077	1.2000e-004	13.0078	1.2973	1.1000e-004	1.2974		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0172**	**0.4492**	**0.1148**	**7.2000e-004**	**17.1869**	**1.9000e-004**	**17.1871**	**1.7143**	**1.8000e-004**	**1.7145**		**76.8365**	**76.8365**	**5.7500e-003**		**76.9803**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-003	0.1491	0.0217	2.3000e-004	0.4229	2.0000e-005	0.4229	0.0422	2.0000e-005	0.0423		24.6647	24.6647	2.1400e-003		24.7181
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	5.2040	1.2000e-004	5.2041	0.5193	1.1000e-004	0.5194		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0172**	**0.4492**	**0.1148**	**7.2000e-004**	**6.8764**	**1.9000e-004**	**6.8766**	**0.6864**	**1.8000e-004**	**0.6865**		**76.8365**	**76.8365**	**5.7500e-003**		**76.9803**

3.26 Plot 6 (2035) Building-Wet Utilities - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7100e-003	0.6187	0.0899	9.4000e-004	4.3852	1.0000e-004	4.3853	0.4375	9.0000e-005	0.4376		102.3491	102.3491	8.8700e-003		102.5708
Vendor	0.0120	0.7450	0.1302	9.7000e-004	7.8061	1.3000e-004	7.8062	0.7790	1.2000e-004	0.7791		105.4208	105.4208	8.6100e-003		105.6361
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	13.0077	1.2000e-004	13.0078	1.2973	1.1000e-004	1.2974		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0310**	**1.3657**	**0.2611**	**2.0100e-003**	**25.1989**	**3.5000e-004**	**25.1993**	**2.5137**	**3.2000e-004**	**2.5141**		**217.7734**	**217.7734**	**0.0177**		**218.2146**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7100e-003	0.6187	0.0899	9.4000e-004	1.7547	1.0000e-004	1.7548	0.1752	9.0000e-005	0.1753		102.3491	102.3491	8.8700e-003		102.5708
Vendor	0.0120	0.7450	0.1302	9.7000e-004	3.1239	1.3000e-004	3.1240	0.3121	1.2000e-004	0.3123		105.4208	105.4208	8.6100e-003		105.6361
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	5.2040	1.2000e-004	5.2041	0.5193	1.1000e-004	0.5194		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0310**	**1.3657**	**0.2611**	**2.0100e-003**	**10.0825**	**3.5000e-004**	**10.0829**	**1.0066**	**3.2000e-004**	**1.0070**		**217.7734**	**217.7734**	**0.0177**		**218.2146**

3.27 Plot 6 (2035) Building-Electrical - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4141	0.2055	2.1400e-003	10.0232	2.3000e-004	10.0235	1.0000	2.2000e-004	1.0002		233.9407	233.9407	0.0203		234.4474
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	7.8046	7.0000e-005	7.8047	0.7784	6.0000e-005	0.7784		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0309**	**1.7133**	**0.2822**	**2.5900e-003**	**20.9503**	**3.5000e-004**	**20.9506**	**2.0899**	**3.3000e-004**	**2.0902**		**282.1111**	**282.1111**	**0.0238**		**282.7066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4141	0.2055	2.1400e-003	4.0108	2.3000e-004	4.0110	0.4005	2.2000e-004	0.4007		233.9407	233.9407	0.0203		234.4474
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0309**	**1.7133**	**0.2822**	**2.5900e-003**	**8.3827**	**3.5000e-004**	**8.3830**	**0.8369**	**3.3000e-004**	**0.8373**		**282.1111**	**282.1111**	**0.0238**		**282.7066**

3.28 Plot 6 (2035) Building-Landscaping - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6000e-003	0.3477	0.0608	4.5000e-004	3.6428	6.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1964	49.1964	4.0200e-003		49.2969
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	4.0000e-005	0.5190		4.0014	4.0014	7.0000e-005		4.0031
Total	**9.7000e-003**	**0.3485**	**0.0772**	**4.9000e-004**	**8.8459**	**1.1000e-004**	**8.8460**	**0.8824**	**1.0000e-004**	**0.8825**		**53.1978**	**53.1978**	**4.0900e-003**		**53.3000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6000e-003	0.3477	0.0608	4.5000e-004	1.4578	6.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1964	49.1964	4.0200e-003		49.2969
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	4.0000e-005	0.2078		4.0014	4.0014	7.0000e-005		4.0031
Total	**9.7000e-003**	**0.3485**	**0.0772**	**4.9000e-004**	**3.5394**	**1.1000e-004**	**3.5395**	**0.3534**	**1.0000e-004**	**0.3535**		**53.1978**	**53.1978**	**4.0900e-003**		**53.3000**

3.29 Plot 6 (2035) Landscaping - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	4.0000e-005	0.5190		4.0014	4.0014	7.0000e-005		4.0031
Total	**8.9000e-003**	**0.2988**	**0.0685**	**4.3000e-004**	**8.3255**	**1.0000e-004**	**8.3256**	**0.8305**	**9.0000e-005**	**0.8306**		**46.1697**	**46.1697**	**3.5100e-003**		**46.2576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	4.0000e-005	0.2078		4.0014	4.0014	7.0000e-005		4.0031
Total	**8.9000e-003**	**0.2988**	**0.0685**	**4.3000e-004**	**3.3311**	**1.0000e-004**	**3.3312**	**0.3326**	**9.0000e-005**	**0.3327**		**46.1697**	**46.1697**	**3.5100e-003**		**46.2576**

3.30 Plot 6 (2035) Curbing/Drive Approaches - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0600e-003	0.5726	0.0832	8.7000e-004	4.0589	9.0000e-005	4.0590	0.4049	9.0000e-005	0.4050		94.7348	94.7348	8.2100e-003		94.9400
Vendor	3.2000e-003	0.1987	0.0347	2.6000e-004	2.0816	3.0000e-005	2.0817	0.2077	3.0000e-005	0.2078		28.1122	28.1122	2.3000e-003		28.1696
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	4.0000e-005	0.5190		4.0014	4.0014	7.0000e-005		4.0031
Total	**0.0154**	**0.7721**	**0.1344**	**1.1700e-003**	**11.3436**	**1.7000e-004**	**11.3438**	**1.1316**	**1.6000e-004**	**1.1317**		**126.8484**	**126.8484**	**0.0106**		**127.1127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0600e-003	0.5726	0.0832	8.7000e-004	1.6242	9.0000e-005	1.6243	0.1622	9.0000e-005	0.1623		94.7348	94.7348	8.2100e-003		94.9400
Vendor	3.2000e-003	0.1987	0.0347	2.6000e-004	0.8330	3.0000e-005	0.8331	0.0832	3.0000e-005	0.0833		28.1122	28.1122	2.3000e-003		28.1696
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	4.0000e-005	0.2078		4.0014	4.0014	7.0000e-005		4.0031
Total	**0.0154**	**0.7721**	**0.1344**	**1.1700e-003**	**4.5388**	**1.7000e-004**	**4.5390**	**0.4531**	**1.6000e-004**	**0.4533**		**126.8484**	**126.8484**	**0.0106**		**127.1127**

3.31 Plot 6 (2035) Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9691	0.1408	1.4700e-003	6.8690	1.6000e-004	6.8691	0.6853	1.5000e-004	0.6854		160.3204	160.3204	0.0139		160.6677
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	13.0077	1.2000e-004	13.0078	1.2973	1.1000e-004	1.2974		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0287**	**1.2692**	**0.2339**	**1.9600e-003**	**22.9991**	**3.3000e-004**	**22.9994**	**2.2941**	**3.1000e-004**	**2.2945**		**212.4922**	**212.4922**	**0.0175**		**212.9299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9691	0.1408	1.4700e-003	2.7486	1.6000e-004	2.7487	0.2745	1.5000e-004	0.2746		160.3204	160.3204	0.0139		160.6677
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	5.2040	1.2000e-004	5.2041	0.5193	1.1000e-004	0.5194		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0287**	**1.2692**	**0.2339**	**1.9600e-003**	**9.2021**	**3.3000e-004**	**9.2024**	**0.9186**	**3.1000e-004**	**0.9189**		**212.4922**	**212.4922**	**0.0175**		**212.9299**

3.32 Plot 6 (2035) Temporary Utilities - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

VOC Emissions Calculations

VOC Emissions Summary

Unmitigated VOC Emissions Summary

Year	Paving Off Gassing	Parking Lot Striping VOC	Architectural Coatings (Interior)	Architectural Coatings (Exterior)	Total Daily Emissions
			lbs/day		
2020	9	61	116	39	224
2021	9	61	116	39	224
2022	9	61	116	39	224
2023	9	61	116	39	224
2024	9	61	116	39	224
2025	9	61	116	39	224
2026	9	61	116	39	224
2027	9	61	116	39	224
2028	9	61	116	39	224
2029	9	61	116	39	224
2030	9	61	116	39	224
2031	9	61	116	39	224
2032	9	61	116	39	224
2033	9	61	116	39	224
2034	9	61	116	39	224
2035	9	61	116	39	224

Mitigated VOC Emissions Summary

Year	Paving Off Gassing	Parking Lot Striping VOC	Architectural Coatings (Interior)	Architectural Coatings (Exterior)	Total Daily Emissions
			lbs/day		
2020	9	61	46	16	132
2021	9	61	46	16	132
2022	9	61	46	16	132
2023	9	61	46	16	132
2024	9	61	46	16	132
2025	9	61	46	16	132
2026	9	61	46	16	132
2027	9	61	46	16	132
2028	9	61	46	16	132
2029	9	61	46	16	132
2030	9	61	46	16	132
2031	9	61	46	16	132
2032	9	61	46	16	132
2033	9	61	46	16	132
2034	9	61	46	16	132
2035	9	61	46	16	132

Estimated VOC Off Gassing Emissions from Asphalt Paving

Plot #	Year	Acres (Total Acres)	Paved Area (Acres)	Percent Paved	Parking Lot Area to be Paved	VOC Emission Factor (lb/acre)[1]	VOC Emissions	Paving Rate (acres/day)	Days of Paving	Daily Emissions (lbs/day)
Plot 2	2020	193.5	97	33%	31.9	2.62	84	3.4	9	8.9
	2021		97	33%	31.9	2.62	84	3.4	9	8.9
Plot 4	2022	301.5	151	33%	49.7	2.62	130	3.4	15	8.9
	2023		151	33%	49.7	2.62	130	3.4	15	8.9
Plot 9	2024	485.8	243	33%	80.2	2.62	210	3.4	24	8.9
	2025		243	33%	80.2	2.62	210	3.4	24	8.9
Plots 1,3,20	2026	214.2	214	33%	70.7	2.62	185	3.4	21	8.9
Plots 5 and 10	2027	204.1	102	33%	33.7	2.62	88	3.4	10	8.9
	2028		102	33%	33.7	2.62	88	3.4	10	8.9
Plots 7,8,21,22	2029	174.2	174	33%	57.5	2.62	151	3.4	17	8.9
Plot 11	2030	500.0	167	33%	55.0	2.62	144	3.4	16	8.9
	2031		167	33%	55.0	2.62	144	3.4	16	8.9
	2032		167	33%	55.0	2.62	144	3.4	16	8.9
Plots 12 and 6	2033	346.6	116	33%	38.1	2.62	100	3.4	11	8.9
	2034		116	33%	38.1	2.62	100	3.4	11	8.9
	2035		116	33%	38.1	2.62	100	3.4	11	8.9

Notes:

1 VOC Emission Factor per CalEEMod User's Guide, Appendix A,p. 17

Estimated VOC Emissions from Parking Lot Painting (Striping)

Plot #	Year	Acres (Total Acres)	Paved Area (Acres)	Percent Paved	Parking Lot Area to be Paved	Percent of Parking Lot to be Painted	Area to be Painted (SF)	VOC Emission Factor (lb/sqft)	VOC Emissions	Paving Rate (acres/day)	Days of Paving	Daily Emissions (lbs/day)
Plot 2	2020	193.5	97	33%	31.9	6%	83446	0.005	386.5	5	6.4	60.5
	2021		97	33%	31.9	6%	83446	0.005	386.5	5	6.4	60.5
Plot 4	2022	301.5	151	33%	49.7	6%	130020	0.005	602.2	5	9.9	60.5
	2023		151	33%	49.7	6%	130020	0.005	602.2	5	9.9	60.5
Plot 9	2024	485.8	243	33%	80.2	6%	209498	0.005	970.3	5	16.0	60.5
	2025		243	33%	80.2	6%	209498	0.005	970.3	5	16.0	60.5
Plots 1,3,20	2026	214.2	214	33%	70.7	6%	184745	0.005	855.7	5	14.1	60.5
Plots 5 and 10	2027	204.1	102	33%	33.7	6%	88017	0.005	407.7	5	6.7	60.5
	2028		102	33%	33.7	6%	88017	0.005	407.7	5	6.7	60.5
Plots 7,8,21,22	2029	174.2	174	33%	57.5	6%	150245	0.005	695.9	5	11.5	60.5
Plot 11	2030	500.0	167	33%	55.0	6%	143748	0.005	665.8	5	11.0	60.5
	2031		167	33%	55.0	6%	143748	0.005	665.8	5	11.0	60.5
	2032		167	33%	55.0	6%	143748	0.005	665.8	5	11.0	60.5
Plots 12 and 6	2033	346.6	116	33%	38.1	6%	99646	0.005	461.5	5	7.6	60.5
	2034		116	33%	38.1	6%	99646	0.005	461.5	5	7.6	60.5
	2035		116	33%	38.1	6%	99646	0.005	461.5	5	7.6	60.5

Notes:

1 CalEEMod Default VOC Emissios Factor for Parking Lot Paint

2 Current Standard for Traffic Coatings in SCAQMD Rule 1113

http://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/tos

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$$EF_{AC} = C_{VOC} / 454(g/lb) \times 3.785(L/Gal) / 180(sqft)$$

Where:

EF = emission factor (lb/sqft)

C = VOC content (g/L). This varies by location and year

Emission Factor (lb/sqft)	**0.005**
C_{VOC} (g/L)[1]	100
Weight Conversion (g/lb)	454
Volume Conversion (L/Gal)	3.785
Area Conversion (sqft/gal)	180

Estimated VOC Emissions from Architectural Coatings (Interior)

Unmitigated

Year	Buildings	Office Area per Building	Coats	Area to be Painted (SF)	VOC Emissions	Days of Painting	Daily VOC Emissions (lbs/day)
2020	1.4	50000	2	140000	1621	14	116
2021	1.4	50000	2	140000	1621	14	116
2022	1.9	50000	2	186667	2161	19	116
2023	1.9	50000	2	186667	2161	19	116
2024	3.5	50000	2	346667	4014	35	116
2025	3.5	50000	2	346667	4014	35	116
2026	1.8	50000	2	183000	2119	18	116
2027	0.7	50000	2	73334	849	7	116
2028	1.5	50000	2	146667	1698	15	116
2029	1.6	50000	2	156667	1814	16	116
2030	1.8	50000	2	177778	2059	18	116
2031	1.8	50000	2	177778	2059	18	116
2032	1.8	50000	2	177778	2059	18	116
2033	1.2	50000	2	116667	1351	12	116
2034	1.2	50000	2	116667	1351	12	116
2035	0.3	50000	2	33334	386	3	116

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$$EF_{AC} = C_{VOC} / 454(g/lb) \times 3.785(L/Gal) / 180(sqft)$$

Where:

EF = emission factor (lb/sqft)

C = VOC content (g/L). This varies by location and year

Unmitigated

Emission Factor (lb/sqft)	0.012
C_{VOC} (g/L)[1]	**250**
Weight Conversion (g/lb)	454
Volume Conversion (L/Gal)	3.785
Area Conversion (sqft)	180

Mitigated

Year	Buildings	Office Area per Building	Coats	Area to be Painted (SF)	VOC Emissions	Days of Painting	Daily VOC Emissions (lbs/day)
2020	1.4	50000	2	140000	648	14	46
2021	1.4	50000	2	140000	648	14	46
2022	1.9	50000	2	186667	865	19	46
2023	1.9	50000	2	186667	865	19	46
2024	3.5	50000	2	346667	1606	35	46
2025	3.5	50000	2	346667	1606	35	46
2026	1.8	50000	2	183000	848	18	46
2027	0.7	50000	2	73334	340	7	46
2028	1.5	50000	2	146667	679	15	46
2029	1.6	50000	2	156667	726	16	46
2030	1.8	50000	2	177778	823	18	46
2031	1.8	50000	2	177778	823	18	46
2032	1.8	50000	2	177778	823	18	46
2033	1.2	50000	2	116667	540	12	46
2034	1.2	50000	2	116667	540	12	46
2035	0.3	50000	2	33334	154	3	46

Mitigated

Emission Factor (lb/sqft)	0.005
C_{VOC} (g/L)[1]	**100**
Weight Conversion (g/lb)	454
Volume Conversion (L/Gal)	3.785
Area Conversion (sqft)	180

Estimated Area of Building Exterior to be Painted

Unmitigated Emissions

Year	Area (Million SF)	Buidling Size (Million SF)	Buildings	Building Perimeter (feet)	Building Height (feet)	Area to be Painted per Building (sqft)	Coats	Area to Be Painted (sqft)	VOC Emission Factor (lb/sqft)[1]	VOC Emissions (lbs)	Days of Painting	VOC Emissions (lbs/day)
2020	2.1	1.5	1.4	4899	40	195959	2	548686	0.003	1646	42	39
2021	2.1	1.5	1.4	4899	40	195959	2	548686	0.003	1646	42	39
2022	2.8	1.5	1.9	4899	40	195959	2	731581	0.003	2195	56	39
2023	2.8	1.5	1.9	4899	40	195959	2	731581	0.003	2195	56	39
2024	5.2	1.5	3.5	4899	40	195959	2	1358650	0.003	4076	104	39
2025	5.2	1.5	3.5	4899	40	195959	2	1358650	0.003	4076	104	39
2026	2.7	1.5	1.8	4899	40	195959	2	717211	0.003	2152	55	39
2027	1.1	1.5	0.7	4899	40	195959	2	287407	0.003	862	22	39
2028	2.2	1.5	1.5	4899	40	195959	2	574814	0.003	1724	44	39
2029	2.4	1.5	1.6	4899	40	195959	2	614005	0.003	1842	47	39
2030	2.7	1.5	1.8	4899	40	195959	2	696744	0.003	2090	53	39
2031	2.7	1.5	1.8	4899	40	195959	2	696744	0.003	2090	53	39
2032	2.7	1.5	1.8	4899	40	195959	2	696744	0.003	2090	53	39
2033	1.8	1.5	1.2	4899	40	195959	2	457238	0.003	1372	35	39
2034	1.8	1.5	1.2	4899	40	195959	2	457238	0.003	1372	35	39
2035	0.5	1.5	0.3	4899	40	195959	2	130639	0.003	392	10	39

Mitigated Emissions

Year	Area (Million SF)	Buidling Size (Million SF)	Buildings	Building Perimeter (feet)	Building Height (feet)	Area to be Painted per Building (sqft)	Coats	Area to Be Painted (sqft)	VOC Emission Factor (lb/sqft)[2]	VOC Emissions (lbs)	Days of Painting	VOC Emissions (lbs/day)
2020	2.1	1.5	1.4	4899	40	195959	2	548686	0.001	686	42	16
2021	2.1	1.5	1.4	4899	40	195959	2	548686	0.001	686	42	16
2022	2.8	1.5	1.9	4899	40	195959	2	731581	0.001	915	56	16
2023	2.8	1.5	1.9	4899	40	195959	2	731581	0.001	915	56	16
2024	5.2	1.5	3.5	4899	40	195959	2	1358650	0.001	1699	104	16
2025	5.2	1.5	3.5	4899	40	195959	2	1358650	0.001	1699	104	16
2026	2.7	1.5	1.8	4899	40	195959	2	717211	0.001	897	55	16
2027	1.1	1.5	0.7	4899	40	195959	2	287407	0.001	359	22	16
2028	2.2	1.5	1.5	4899	40	195959	2	574814	0.001	719	44	16
2029	2.4	1.5	1.6	4899	40	195959	2	614005	0.001	768	47	16
2030	2.7	1.5	1.8	4899	40	195959	2	696744	0.001	871	53	16
2031	2.7	1.5	1.8	4899	40	195959	2	696744	0.001	871	53	16
2032	2.7	1.5	1.8	4899	40	195959	2	696744	0.001	871	53	16
2033	1.8	1.5	1.2	4899	40	195959	2	457238	0.001	572	35	16
2034	1.8	1.5	1.2	4899	40	195959	2	457238	0.001	572	35	16
2035	0.5	1.5	0.3	4899	40	195959	2	130639	0.001	163	10	16

Notes:

1 Unmitigated emission rate based on Revised DEIR calculations found in AQ GHG HRA Appendix A Construction, VOC content equivalent to approximately 70 g/L

2 Mitigated emission rate based on Revised DEIR calculations found in AQ GHG HRA Appendix A Construction, VOC content equivalent to approximately 28 g/L

A-2 Mitigated Air Quality Emissions

Mitigated Construction Air Quality Summary

Mitigated Regional Construction Emissions

Year	VOC	NOx	CO	SO_2	Total PM10	Total PM2.5
	lb/day					
2020	149	178	452	1	102	15
2021	151	177	493	1	101	15
2022	165	200	741	2	136	19
2023	149	142	488	1	100	14
2024	167	235	1135	2	182	25
2025	150	140	537	1	108	15
2026	155	170	718	2	147	20
2027	151	143	567	1	117	16
2028	157	173	803	2	143	19
2029	154	157	675	1	128	17
2030	160	160	808	2	131	18
2031	151	121	490	1	99	13
2032	160	162	803	2	134	18
2033	158	152	723	2	128	17
2034	151	121	489	1	99	13
2035	155	133	636	1	119	16

Mitigated Localized Construction Emissions

Year	NOx	CO	Total PM10	Total PM2.5
	lb/day			
2020	124	439	73	10
2021	132	473	75	11
2022	146	653	92	12
2023	115	471	75	10
2024	193	1108	171	22
2025	115	520	100	13
2026	138	696	137	17
2027	118	551	110	14
2028	146	786	135	17
2029	131	658	121	15
2030	133	791	123	16
2031	98	476	92	11
2032	135	786	126	16
2033	126	707	120	15
2034	98	476	92	11
2035	111	622	111	13

Plots 2 and 4 Emissions Summaries

Mitigated Air Quality Construction Analysis

Regional Maximums	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source				lb/day		
Plot 2 (2020) Mass Excavation	6.99	35.75	241.06	0.54	29.05	4.03
Plot 2 (2020) Utilities	8.20	77.73	161.26	0.40	32.36	5.31
Plot 2 (2020) Landscaping	1.75	15.44	40.02	0.06	4.72	0.90
Plot 2 (2020) Finish Grading	0.29	1.24	9.44	0.02	5.24	0.61
Plot 2 (2020) Building-Wet Utilities	2.65	25.72	82.61	0.16	21.04	2.83
Plot 2 (2020) Building-Electrical	2.07	29.65	47.24	0.11	19.05	2.51
Plot 2 (2020) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 2 (2020) Curbing/Drive Approaches	0.55	9.95	13.03	0.04	6.85	0.85
Plot 2 (2020) Paving	1.68	17.95	56.94	0.12	18.30	2.25
Plot 2 (2021) Utilities	7.85	70.40	160.53	0.40	32.14	5.10
Plot 2 (2021) Building-Concrete	1.41	16.22	48.13	0.10	14.21	1.78
Plot 2 (2021) Building-Wet Utilities	2.46	20.21	81.66	0.15	15.29	2.13
Plot 2 (2021) Building-Electrical	1.79	20.64	45.50	0.08	12.07	1.67
Plot 2 (2021) Building-Landscaping	1.61	15.09	37.10	0.05	4.90	0.88
Plot 2 (2021) Landscaping	1.65	15.03	39.76	0.06	4.67	0.85
Plot 2 (2021) Curbing/Drive Approaches	0.44	6.29	12.33	0.03	5.04	0.62
Plot 2 (2021) Paving	1.50	11.79	55.73	0.11	12.76	1.61
Plot 2 (2021) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 4 (2022) Mass Excavation	7.25	36.05	253.21	0.57	29.70	4.13
Plot 4 (2022) Utilities	7.36	62.01	159.53	0.40	31.87	4.85
Plot 4 (2022) Building-Concrete	1.38	15.39	47.96	0.10	14.20	1.77
Plot 4 (2022) Building-Wet Utilities	2.35	18.27	81.39	0.15	15.24	2.08
Plot 4 (2022) Building-Electrical	1.67	19.76	45.18	0.08	12.02	1.62
Plot 4 (2022) Building-Landscaping	1.51	14.77	36.87	0.05	4.86	0.84
Plot 4 (2022) Landscaping	1.55	14.72	39.53	0.06	4.63	0.82
Plot 4 (2022) Curbing/Drive Approaches	0.43	6.01	12.26	0.03	5.04	0.62
Plot 4 (2022) Finish Grading	0.28	1.61	9.36	0.02	5.54	0.64
Plot 4 (2022) Paving	9.57	11.32	55.57	0.11	12.76	1.60
Plot 4 (2022) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 4 (2023) Utilities	7.04	53.79	158.77	0.40	31.72	4.71
Plot 4 (2023) Building-Concrete	1.27	11.81	47.63	0.10	14.19	1.76
Plot 4 (2023) Building-Wet Utilities	2.24	15.41	81.10	0.15	15.20	2.05
Plot 4 (2023) Building-Electrical	1.56	16.93	44.89	0.08	11.99	1.59
Plot 4 (2023) Building-Landscaping	1.42	13.98	36.58	0.05	4.80	0.79
Plot 4 (2023) Landscaping	1.45	14.01	39.25	0.06	4.58	0.77
Plot 4 (2023) Curbing/Drive Approaches	0.39	4.80	12.14	0.03	5.03	0.62
Plot 4 (2023) Paving	1.41	9.33	55.33	0.11	12.75	1.60
Plot 4 (2023) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Overlapping Phases						
Plot 2- 2020	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass EXC + Utilties+Landscaping	16.94	128.93	442.33	1.00	66.13	10.24
Mass EXC + Utilities+Landscaping+Finish Grading	17.23	130.17	451.77	1.02	71.37	10.85
Utilities+Landscaping+Finish Grading	10.24	94.41	210.72	0.47	42.32	6.82
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	15.01	150.03	343.64	0.75	77.21	11.59
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	15.56	159.97	356.67	0.79	84.06	12.43
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	17.24	177.93	413.61	0.91	102.36	14.68
Plot 2- 2021						
All Phases	19.04	177.16	493.25	1.01	101.12	14.69
Plot 4-2022						
All Phases Exlcuding Temporary Utilities	33.35	199.92	740.85	1.57	135.84	18.98
Plot 4- 2023						
All Phases	17.12	141.54	488.21	1.00	100.29	13.92
Daily Maximum1						
2020	149.32	177.93	451.77	1.02	102.36	14.68
2021	151.13	177.16	493.25	1.01	101.12	14.69
2022	165.44	199.92	740.85	1.57	135.84	18.98
2023	149.21	141.54	488.21	1.00	100.29	13.92

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions						
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source				lb/day		
Plot 2 (2020) Mass Excavation	0.10	1.94	0.55	0.00	15.02	1.50
Plot 2 (2020) Utilities	0.13	4.10	0.85	0.01	18.55	1.86
Plot 2 (2020) Landscaping	0.02	0.39	0.14	0.00	3.33	0.33
Plot 2 (2020) Finish Grading	0.02	0.14	0.11	0.00	3.54	0.35
Plot 2 (2020) Building-Wet Utilities	0.09	2.70	0.55	0.00	11.84	1.18
Plot 2 (2020) Building-Electrical	0.10	4.33	0.63	0.01	12.40	1.24
Plot 2 (2020) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	0.05	1.86	0.30	0.00	6.16	0.62
Plot 2 (2020) Paving	0.09	3.10	0.54	0.00	11.95	1.20
Plot 2 (2021) Utilities	0.12	3.95	0.80	0.01	18.55	1.85
Plot 2 (2021) Building-Concrete	0.08	2.99	0.48	0.00	11.64	1.16
Plot 2 (2021) Building-Wet Utilities	0.07	1.77	0.41	0.00	10.08	1.01
Plot 2 (2021) Building-Electrical	0.06	2.28	0.37	0.00	8.38	0.84
Plot 2 (2021) Building-Landscaping	0.02	0.44	0.14	0.00	3.54	0.35
Plot 2 (2021) Landscaping	0.02	0.38	0.13	0.00	3.33	0.33
Plot 2 (2021) Curbing/Drive Approaches	0.03	1.02	0.19	0.00	4.54	0.45
Plot 2 (2021) Paving	0.06	1.69	0.35	0.00	9.20	0.92
Plot 2 (2021) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	0.09	1.81	0.47	0.00	15.01	1.50
Plot 4 (2022) Utilities	0.12	3.82	0.75	0.01	18.55	1.85
Plot 4 (2022) Building-Concrete	0.08	2.88	0.46	0.00	11.64	1.16
Plot 4 (2022) Building-Wet Utilities	0.06	1.72	0.39	0.00	10.08	1.01
Plot 4 (2022) Building-Electrical	0.06	2.20	0.36	0.00	8.38	0.84
Plot 4 (2022) Building-Landscaping	0.02	0.43	0.13	0.00	3.54	0.35
Plot 4 (2022) Landscaping	0.02	0.37	0.12	0.00	3.33	0.33
Plot 4 (2022) Curbing/Drive Approaches	0.03	0.99	0.18	0.00	4.54	0.45
Plot 4 (2022) Finish Grading	0.02	0.25	0.10	0.00	3.81	0.38
Plot 4 (2022) Paving	0.06	1.63	0.33	0.00	9.20	0.92
Plot 4 (2022) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	0.09	3.21	0.67	0.00	18.55	1.85
Plot 4 (2023) Building-Concrete	0.06	2.39	0.41	0.00	11.64	1.16
Plot 4 (2023) Building-Wet Utilities	0.05	1.45	0.35	0.00	10.08	1.01
Plot 4 (2023) Building-Electrical	0.04	1.83	0.32	0.00	8.38	0.84
Plot 4 (2023) Building-Landscaping	0.02	0.37	0.12	0.00	3.54	0.35
Plot 4 (2023) Landscaping	0.02	0.31	0.10	0.00	3.33	0.33
Plot 4 (2023) Curbing/Drive Approaches	0.02	0.83	0.16	0.00	4.54	0.45
Plot 4 (2023) Paving	0.05	1.36	0.29	0.00	9.20	0.92
Plot 4 (2023) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Mitigated VOC Emissions (lb/day)	
2020	132
2021	132
2022	132
2023	132

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 2 (2020) Mass Excavation	6.30	27.32	235.82	0.51	12.55	2.11	0.54	6.36	4.69	0.03	1.48	0.43
Plot 2 (2020) Utilities	7.33	60.11	154.78	0.35	11.87	2.87	0.70	13.26	5.62	0.05	1.94	0.59
Plot 2 (2020) Landscaping	1.60	13.66	38.88	0.05	1.05	0.46	0.12	1.36	1.00	0.01	0.34	0.10
Plot 2 (2020) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.12	0.51	1.11	0.00	0.34	0.09
Plot 2 (2020) Building-Wet Utilities	2.09	14.12	78.46	0.13	7.96	1.27	0.45	8.72	3.60	0.03	1.24	0.37
Plot 2 (2020) Building-Electrical	1.44	11.53	42.71	0.06	5.33	0.87	0.50	13.55	3.84	0.04	1.32	0.40
Plot 2 (2020) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	0.24	2.13	10.83	0.01	0.03	0.03	0.24	5.85	1.90	0.02	0.65	0.19
Plot 2 (2020) Paving	1.10	4.91	52.69	0.09	5.12	0.69	0.46	9.77	3.72	0.03	1.23	0.36
Plot 2 (2021) Utilities	7.06	54.28	154.48	0.35	11.68	2.69	0.63	11.95	5.25	0.05	1.91	0.55
Plot 2 (2021) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.42	8.94	3.50	0.03	1.19	0.34
Plot 2 (2021) Building-Wet Utilities	2.03	12.91	78.42	0.13	4.18	0.83	0.33	5.41	2.82	0.02	1.03	0.30
Plot 2 (2021) Building-Electrical	1.41	11.41	42.67	0.06	2.82	0.58	0.30	6.84	2.46	0.03	0.87	0.25
Plot 2 (2021) Building-Landscaping	1.47	13.26	36.00	0.05	1.00	0.42	0.11	1.37	0.96	0.01	0.36	0.10
Plot 2 (2021) Landscaping	1.51	13.45	38.73	0.05	1.01	0.43	0.10	1.18	0.91	0.01	0.33	0.10
Plot 2 (2021) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.16	3.08	1.32	0.01	0.46	0.13
Plot 2 (2021) Paving	1.10	4.91	52.69	0.09	2.64	0.42	0.32	5.11	2.69	0.02	0.92	0.26
Plot 2 (2021) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	6.65	28.83	248.62	0.54	13.22	2.22	0.47	5.31	4.11	0.03	1.47	0.41
Plot 4 (2022) Utilities	6.61	46.97	153.79	0.35	11.42	2.45	0.60	11.03	4.99	0.05	1.90	0.55
Plot 4 (2022) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.40	8.23	3.36	0.03	1.18	0.34
Plot 4 (2022) Building-Wet Utilities	1.95	11.46	78.33	0.13	4.13	0.78	0.31	5.00	2.67	0.02	1.02	0.29
Plot 4 (2022) Building-Electrical	1.31	11.16	42.46	0.06	2.77	0.53	0.29	6.30	2.36	0.03	0.87	0.25
Plot 4 (2022) Building-Landscaping	1.38	13.05	35.84	0.05	0.96	0.38	0.10	1.27	0.90	0.01	0.36	0.10
Plot 4 (2022) Landscaping	1.42	13.24	38.56	0.05	0.96	0.39	0.10	1.09	0.85	0.01	0.33	0.09
Plot 4 (2022) Curbing/Drive Approaches	0.24	2.13	10.83	0.01	0.03	0.03	0.15	2.84	1.26	0.01	0.46	0.13
Plot 4 (2022) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.11	0.76	1.03	0.01	0.36	0.10
Plot 4 (2022) Paving	1.10	4.91	52.69	0.09	2.64	0.42	0.30	4.71	2.55	0.02	0.92	0.26
Plot 4 (2022) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	6.44	43.38	153.53	0.35	11.29	2.33	0.47	7.11	4.57	0.05	1.88	0.53
Plot 4 (2023) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.31	5.23	3.08	0.03	1.17	0.33
Plot 4 (2023) Building-Wet Utilities	1.92	10.67	78.31	0.13	4.10	0.76	0.26	3.25	2.45	0.02	1.02	0.29
Plot 4 (2023) Building-Electrical	1.28	11.04	42.41	0.06	2.75	0.51	0.22	4.02	2.17	0.02	0.85	0.24
Plot 4 (2023) Building-Landscaping	1.30	12.76	35.64	0.05	0.91	0.33	0.09	0.84	0.83	0.01	0.35	0.10
Plot 4 (2023) Landscaping	1.35	12.95	38.37	0.05	0.91	0.34	0.08	0.73	0.78	0.01	0.33	0.09
Plot 4 (2023) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.12	1.82	1.15	0.01	0.46	0.13
Plot 4 (2023) Paving	1.10	4.91	52.69	0.09	2.64	0.42	0.24	3.02	2.34	0.02	0.91	0.25
Plot 4 (2023) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 2 (2020) Mass Excavation	6.8	33.7	240.5	0.54	14.03	2.53
Plot 2 (2020) Utilities	8.0	73.4	160.4	0.40	13.81	3.45
Plot 2 (2020) Landscaping	1.7	15.0	39.9	0.06	1.39	0.57
Plot 2 (2020) Finish Grading	0.3	1.1	9.3	0.02	1.70	0.26
Plot 2 (2020) Building-Wet Utilities	2.5	22.8	82.1	0.16	9.20	1.64
Plot 2 (2020) Building-Electrical	1.9	25.1	46.5	0.10	6.65	1.27
Plot 2 (2020) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 2 (2020) Curbing/Drive Approaches	0.5	8.0	12.7	0.03	0.68	0.23
Plot 2 (2020) Paving	1.6	14.7	56.4	0.12	6.35	1.06
Plot 2 (2021) Utilities	7.7	66.2	159.7	0.40	13.59	3.25
Plot 2 (2021) Building-Concrete	1.3	13.1	47.6	0.10	2.57	0.61
Plot 2 (2021) Building-Wet Utilities	2.4	18.3	81.2	0.15	5.21	1.13
Plot 2 (2021) Building-Electrical	1.7	18.2	45.1	0.08	3.69	0.83
Plot 2 (2021) Building-Landscaping	1.6	14.6	37.0	0.05	1.36	0.52
Plot 2 (2021) Landscaping	1.6	14.6	39.6	0.06	1.34	0.52
Plot 2 (2021) Curbing/Drive Approaches	0.4	5.2	12.1	0.03	0.50	0.17
Plot 2 (2021) Paving	1.4	10.0	55.4	0.11	3.56	0.69
Plot 2 (2021) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 4 (2022) Mass Excavation	7.1	34.1	252.7	0.57	14.68	2.63
Plot 4 (2022) Utilities	7.2	58.0	158.8	0.39	13.32	3.00
Plot 4 (2022) Building-Concrete	1.3	12.4	47.5	0.10	2.56	0.61
Plot 4 (2022) Building-Wet Utilities	2.3	16.5	81.0	0.15	5.16	1.08
Plot 4 (2022) Building-Electrical	1.6	17.5	44.8	0.08	3.64	0.79
Plot 4 (2022) Building-Landscaping	1.5	14.3	36.7	0.05	1.32	0.48
Plot 4 (2022) Landscaping	1.5	14.3	39.4	0.06	1.30	0.48
Plot 4 (2022) Curbing/Drive Approaches	0.4	5.0	12.1	0.03	0.50	0.17
Plot 4 (2022) Finish Grading	0.2	1.3	9.3	0.02	1.73	0.26
Plot 4 (2022) Paving	1.4	9.6	55.2	0.11	3.56	0.68
Plot 4 (2022) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 4 (2023) Utilities	6.9	50.5	158.1	0.39	13.17	2.86
Plot 4 (2023) Building-Concrete	1.2	9.4	47.2	0.09	2.55	0.60
Plot 4 (2023) Building-Wet Utilities	2.2	13.9	80.8	0.15	5.12	1.04
Plot 4 (2023) Building-Electrical	1.5	15.1	44.6	0.08	3.60	0.75
Plot 4 (2023) Building-Landscaping	1.4	13.6	36.5	0.05	1.26	0.43
Plot 4 (2023) Landscaping	1.4	13.7	39.1	0.06	1.24	0.43
Plot 4 (2023) Curbing/Drive Approaches	0.4	4.0	12.0	0.03	0.49	0.16
Plot 4 (2023) Paving	1.3	7.9	55.0	0.11	3.55	0.68
Plot 4 (2023) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05

Overlapping Phases						
Plot 2- 2020	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass EXC + Utilties+Landscaping	16.6	122.1	440.8	1.0	29.2	6.5
Mass EXC + Utilities+Landscaping+Finish Grading	16.8	123.1	450.1	1.0	30.9	6.8
Utilities+Landscaping+Finish Grading	10.0	89.5	209.6	0.5	16.9	4.3
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	14.6	137.8	341.4	0.7	31.1	7.0
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	15.1	145.8	354.1	0.8	31.8	7.2
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	16.6	160.4	410.5	0.9	38.1	8.3
Plot 2- 2021						
All Phases	18.4	161.8	490.4	1.0	31.9	7.8
Plot 4-2022						
All Phases Exlcuding Temporary Utilities	24.5	183.0	737.6	1.5	47.7	10.2
Plot 4- 2023						
All Phases	16.6	129.5	485.8	1.0	31.0	7.0
Daily Maximum[1]						
2020	16.84	160.45	450.13	1.01	38.13	8.26
2021	18.42	161.85	490.38	0.99	31.85	7.76
2022	24.51	183.01	737.57	1.55	47.75	10.18
2023	16.64	129.47	485.81	0.99	31.03	7.00

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 2 (2020) Mass Excavation	6.30	27.32	235.82	0.51	12.55	2.11	0.58	6.49	4.40	0.03	1.48	0.43
Plot 2 (2020) Utilities	7.33	60.11	154.78	0.35	11.87	2.87	0.74	13.53	5.49	0.05	1.94	0.59
Plot 2 (2020) Landscaping	1.60	13.66	38.88	0.05	1.05	0.46	0.13	1.39	0.94	0.01	0.34	0.10
Plot 2 (2020) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.13	0.53	1.01	0.00	0.34	0.09
Plot 2 (2020) Building-Wet Utilities	2.09	14.12	78.46	0.13	7.96	1.27	0.47	8.89	3.52	0.03	1.24	0.37
Plot 2 (2020) Building-Electrical	1.44	11.53	42.71	0.06	5.33	0.87	0.52	13.79	3.90	0.04	1.32	0.40
Plot 2 (2020) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	0.24	2.13	10.83	0.01	0.03	0.03	0.26	5.96	1.90	0.02	0.65	0.20
Plot 2 (2020) Paving	1.10	4.91	52.69	0.09	5.12	0.69	0.49	9.95	3.65	0.03	1.23	0.37
Plot 2 (2021) Utilities	7.06	54.28	154.48	0.35	11.68	2.69	0.67	12.17	5.13	0.05	1.91	0.56
Plot 2 (2021) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.45	9.10	3.44	0.03	1.19	0.34
Plot 2 (2021) Building-Wet Utilities	2.03	12.91	78.42	0.13	4.18	0.83	0.36	5.52	2.72	0.02	1.03	0.30
Plot 2 (2021) Building-Electrical	1.41	11.41	42.67	0.06	2.82	0.58	0.32	6.96	2.44	0.02	0.87	0.25
Plot 2 (2021) Building-Landscaping	1.47	13.26	36.00	0.05	1.00	0.42	0.12	1.40	0.91	0.01	0.36	0.10
Plot 2 (2021) Landscaping	1.51	13.45	38.73	0.05	1.01	0.43	0.11	1.21	0.86	0.01	0.33	0.10
Plot 2 (2021) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.17	3.14	1.29	0.01	0.46	0.13
Plot 2 (2021) Paving	1.10	4.91	52.69	0.09	2.64	0.42	0.34	5.20	2.58	0.02	0.92	0.26
Plot 2 (2021) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	6.65	28.83	248.62	0.54	13.22	2.22	0.51	5.41	3.85	0.03	1.47	0.41
Plot 4 (2022) Utilities	6.61	46.97	153.79	0.35	11.42	2.45	0.64	11.22	4.88	0.05	1.90	0.55
Plot 4 (2022) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.43	8.36	3.31	0.03	1.18	0.34
Plot 4 (2022) Building-Wet Utilities	1.95	11.46	78.33	0.13	4.13	0.78	0.34	5.09	2.57	0.02	1.02	0.29
Plot 4 (2022) Building-Electrical	1.31	11.16	42.46	0.06	2.77	0.53	0.30	6.40	2.35	0.02	0.87	0.25
Plot 4 (2022) Building-Landscaping	1.38	13.05	35.84	0.05	0.96	0.38	0.11	1.29	0.85	0.01	0.36	0.10
Plot 4 (2022) Landscaping	1.42	13.24	38.56	0.05	0.96	0.39	0.11	1.12	0.80	0.01	0.33	0.09
Plot 4 (2022) Curbing/Drive Approaches	0.24	2.13	10.83	0.01	0.03	0.03	0.16	2.89	1.23	0.01	0.46	0.13
Plot 4 (2022) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.13	0.78	0.94	0.01	0.36	0.10
Plot 4 (2022) Paving	9.20	4.91	52.69	0.09	2.64	0.42	0.32	4.79	2.45	0.02	0.92	0.26
Plot 4 (2022) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	6.44	43.38	153.53	0.35	11.29	2.33	0.51	7.20	4.43	0.05	1.88	0.53
Plot 4 (2023) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.33	5.28	3.00	0.03	1.17	0.33
Plot 4 (2023) Building-Wet Utilities	1.92	10.67	78.31	0.13	4.10	0.76	0.28	3.29	2.34	0.02	1.02	0.29
Plot 4 (2023) Building-Electrical	1.28	11.04	42.41	0.06	2.75	0.51	0.23	4.06	2.13	0.02	0.85	0.24
Plot 4 (2023) Building-Landscaping	1.30	12.76	35.64	0.05	0.91	0.33	0.10	0.86	0.78	0.01	0.35	0.10
Plot 4 (2023) Landscaping	1.35	12.95	38.37	0.05	0.91	0.34	0.09	0.74	0.73	0.01	0.33	0.09
Plot 4 (2023) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.13	1.84	1.12	0.01	0.46	0.13
Plot 4 (2023) Paving	1.10	4.91	52.69	0.09	2.64	0.42	0.26	3.06	2.23	0.02	0.91	0.25
Plot 4 (2023) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 2 (2020) Mass Excavation	6.9	33.8	240.2	0.54	14.03	2.53
Plot 2 (2020) Utilities	8.1	73.6	160.3	0.40	13.81	3.45
Plot 2 (2020) Landscaping	1.7	15.1	39.8	0.06	1.39	0.57
Plot 2 (2020) Finish Grading	0.3	1.1	9.2	0.02	1.70	0.26
Plot 2 (2020) Building-Wet Utilities	2.6	23.0	82.0	0.16	9.20	1.64
Plot 2 (2020) Building-Electrical	2.0	25.3	46.6	0.10	6.65	1.27
Plot 2 (2020) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 2 (2020) Curbing/Drive Approaches	0.5	8.1	12.7	0.03	0.68	0.23
Plot 2 (2020) Paving	1.6	14.9	56.3	0.12	6.35	1.06
Plot 2 (2021) Utilities	7.7	66.5	159.6	0.39	13.59	3.25
Plot 2 (2021) Building-Concrete	1.3	13.2	47.6	0.09	2.57	0.61
Plot 2 (2021) Building-Wet Utilities	2.4	18.4	81.1	0.15	5.21	1.13
Plot 2 (2021) Building-Electrical	1.7	18.4	45.1	0.08	3.69	0.83
Plot 2 (2021) Building-Landscaping	1.6	14.7	36.9	0.05	1.36	0.52
Plot 2 (2021) Landscaping	1.6	14.7	39.6	0.06	1.34	0.52
Plot 2 (2021) Curbing/Drive Approaches	0.4	5.3	12.1	0.03	0.50	0.17
Plot 2 (2021) Paving	1.4	10.1	55.3	0.11	3.56	0.69
Plot 2 (2021) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 4 (2022) Mass Excavation	7.2	34.2	252.5	0.57	14.68	2.63
Plot 4 (2022) Utilities	7.2	58.2	158.7	0.39	13.32	3.00
Plot 4 (2022) Building-Concrete	1.3	12.5	47.5	0.09	2.56	0.61
Plot 4 (2022) Building-Wet Utilities	2.3	16.6	80.9	0.15	5.16	1.08
Plot 4 (2022) Building-Electrical	1.6	17.6	44.8	0.08	3.64	0.79
Plot 4 (2022) Building-Landscaping	1.5	14.3	36.7	0.05	1.32	0.48
Plot 4 (2022) Landscaping	1.5	14.4	39.4	0.06	1.30	0.48
Plot 4 (2022) Curbing/Drive Approaches	0.4	5.0	12.1	0.03	0.50	0.17
Plot 4 (2022) Finish Grading	0.3	1.4	9.2	0.02	1.73	0.26
Plot 4 (2022) Paving	9.5	9.7	55.1	0.11	3.56	0.68
Plot 4 (2022) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 4 (2023) Utilities	6.9	50.6	158.0	0.39	13.17	2.86
Plot 4 (2023) Building-Concrete	1.2	9.4	47.1	0.09	2.55	0.60
Plot 4 (2023) Building-Wet Utilities	2.2	14.0	80.7	0.15	5.12	1.04
Plot 4 (2023) Building-Electrical	1.5	15.1	44.5	0.08	3.60	0.75
Plot 4 (2023) Building-Landscaping	1.4	13.6	36.4	0.05	1.26	0.43
Plot 4 (2023) Landscaping	1.4	13.7	39.1	0.06	1.24	0.43
Plot 4 (2023) Curbing/Drive Approaches	0.4	4.0	11.9	0.03	0.49	0.16
Plot 4 (2023) Paving	1.4	8.0	54.9	0.11	3.55	0.68
Plot 4 (2023) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05

Overlapping Phases						
Plot 2- 2020	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass EXC + Utilties+Landscaping	16.7	122.5	440.3	1.0	29.2	6.6
Mass EXC + Utilities+Landscaping+Finish Grading	16.9	123.6	449.5	1.0	30.9	6.8
Utilities+Landscaping+Finish Grading	10.1	89.8	209.3	0.5	16.9	4.3
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	14.7	138.5	341.2	0.7	31.1	7.0
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	15.2	146.6	353.9	0.8	31.8	7.2
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	16.8	161.4	410.3	0.9	38.1	8.3
Plot 2- 2021						
All Phases	18.6	162.7	489.8	1.0	31.9	7.8
Plot 4-2022						
All Phases Exlcuding Temporary Utilities	32.8	183.8	736.7	1.5	47.7	10.2
Plot 4- 2023						
All Phases	16.8	129.8	485.2	1.0	31.0	7.0
Daily Maximum[1]						
2020	16.95	161.45	449.54	1.01	38.13	8.26
2021	18.58	162.65	489.84	0.99	31.85	7.76
2022	32.81	183.83	736.73	1.54	47.75	10.18
2023	16.77	129.79	485.20	0.98	31.03	7.00

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
Source	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
	lb/day				lb/day			
Plot 2 (2020) Mass Excavation	27.32	235.82	0.84	0.84	1.94	0.55	15.02	1.50
Plot 2 (2020) Utilities	60.11	154.78	1.92	1.79	4.10	0.85	18.55	1.86
Plot 2 (2020) Landscaping	13.66	38.88	0.42	0.40	0.39	0.14	3.33	0.33
Plot 2 (2020) Finish Grading	0.58	8.22	0.02	0.02	0.14	0.11	3.54	0.35
Plot 2 (2020) Building-Wet Utilities	14.12	78.46	0.49	0.46	2.70	0.55	11.84	1.18
Plot 2 (2020) Building-Electrical	11.53	42.71	0.35	0.33	4.33	0.63	12.40	1.24
Plot 2 (2020) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 2 (2020) Curbing/Drive Approaches	2.13	10.83	0.03	0.03	1.86	0.30	6.16	0.62
Plot 2 (2020) Paving	4.91	52.69	5.12	0.69	3.10	0.54	11.95	1.20
Plot 2 (2021) Utilities	54.28	154.48	1.72	1.62	3.95	0.80	18.55	1.85
Plot 2 (2021) Building-Concrete	4.14	44.15	0.14	0.14	2.99	0.48	11.64	1.16
Plot 2 (2021) Building-Wet Utilities	12.91	78.42	0.45	0.43	1.77	0.41	10.08	1.01
Plot 2 (2021) Building-Electrical	11.41	42.67	0.33	0.31	2.28	0.37	8.38	0.84
Plot 2 (2021) Building-Landscaping	13.26	36.00	0.38	0.35	0.44	0.14	3.54	0.35
Plot 2 (2021) Landscaping	13.45	38.73	0.38	0.36	0.38	0.13	3.33	0.33
Plot 2 (2021) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	1.02	0.19	4.54	0.45
Plot 2 (2021) Paving	4.91	52.69	2.64	0.42	1.69	0.35	9.20	0.92
Plot 2 (2021) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 4 (2022) Mass Excavation	28.83	248.62	0.89	0.89	1.81	0.47	15.01	1.50
Plot 4 (2022) Utilities	46.97	153.79	1.46	1.37	3.82	0.75	18.55	1.85
Plot 4 (2022) Building-Concrete	4.14	44.15	0.14	0.14	2.88	0.46	11.64	1.16
Plot 4 (2022) Building-Wet Utilities	11.46	78.33	0.40	0.38	1.72	0.39	10.08	1.01
Plot 4 (2022) Building-Electrical	11.16	42.46	0.28	0.27	2.20	0.36	8.38	0.84
Plot 4 (2022) Building-Landscaping	13.05	35.84	0.34	0.31	0.43	0.13	3.54	0.35
Plot 4 (2022) Landscaping	13.24	38.56	0.34	0.32	0.37	0.12	3.33	0.33
Plot 4 (2022) Curbing/Drive Approaches	0.00	0.00	0.00	0.00	0.99	0.18	4.54	0.45
Plot 4 (2022) Finish Grading	0.58	8.22	0.02	0.02	0.25	0.10	3.81	0.38
Plot 4 (2022) Paving	0.00	0.00	0.00	0.00	1.63	0.33	9.20	0.92
Plot 4 (2022) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 4 (2023) Utilities	43.38	153.53	1.33	1.25	3.21	0.67	18.55	1.85
Plot 4 (2023) Building-Concrete	4.14	44.15	0.14	0.14	2.39	0.41	11.64	1.16
Plot 4 (2023) Building-Wet Utilities	10.67	78.31	0.37	0.35	1.45	0.35	10.08	1.01
Plot 4 (2023) Building-Electrical	11.04	42.41	0.26	0.24	1.83	0.32	8.38	0.84
Plot 4 (2023) Building-Landscaping	12.76	35.64	0.28	0.27	0.37	0.12	3.54	0.35
Plot 4 (2023) Landscaping	12.95	38.37	0.29	0.27	0.31	0.10	3.33	0.33
Plot 4 (2023) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.83	0.16	4.54	0.45
Plot 4 (2023) Paving	4.91	52.69	2.64	0.42	1.36	0.29	9.20	0.92
Plot 4 (2023) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 2 (2020) Mass Excavation	29.3	236.4	15.86	2.34
Plot 2 (2020) Utilities	64.2	155.6	20.46	3.65
Plot 2 (2020) Landscaping	14.1	39.0	3.76	0.73
Plot 2 (2020) Finish Grading	0.7	8.3	3.56	0.37
Plot 2 (2020) Building-Wet Utilities	16.8	79.0	12.33	1.65
Plot 2 (2020) Building-Electrical	15.9	43.3	12.75	1.57
Plot 2 (2020) Temporary Utilities	1.5	12.5	0.05	0.05
Plot 2 (2020) Curbing/Drive Approaches	4.0	11.1	6.20	0.65
Plot 2 (2020) Paving	8.0	53.2	17.07	1.89
Plot 2 (2021) Utilities	58.2	155.3	20.27	3.47
Plot 2 (2021) Building-Concrete	7.1	44.6	11.77	1.30
Plot 2 (2021) Building-Wet Utilities	14.7	78.8	10.53	1.43
Plot 2 (2021) Building-Electrical	13.7	43.0	8.71	1.15
Plot 2 (2021) Building-Landscaping	13.7	36.1	3.92	0.71
Plot 2 (2021) Landscaping	13.8	38.9	3.71	0.69
Plot 2 (2021) Curbing/Drive Approaches	3.2	11.0	4.57	0.49
Plot 2 (2021) Paving	6.6	53.0	11.84	1.34
Plot 2 (2021) Temporary Utilities	1.5	12.5	0.05	0.05
Plot 4 (2022) Mass Excavation	30.6	249.1	15.90	2.39
Plot 4 (2022) Utilities	50.8	154.5	20.01	3.23
Plot 4 (2022) Building-Concrete	7.0	44.6	11.77	1.30
Plot 4 (2022) Building-Wet Utilities	13.2	78.7	10.48	1.39
Plot 4 (2022) Building-Electrical	13.4	42.8	8.66	1.10
Plot 4 (2022) Building-Landscaping	13.5	36.0	3.88	0.67
Plot 4 (2022) Landscaping	13.6	38.7	3.67	0.65
Plot 4 (2022) Curbing/Drive Approaches	1.0	0.2	4.54	0.45
Plot 4 (2022) Finish Grading	0.8	8.3	3.83	0.40
Plot 4 (2022) Paving	1.6	0.3	9.20	0.92
Plot 4 (2022) Temporary Utilities	1.5	12.5	0.05	0.05
Plot 4 (2023) Utilities	46.6	154.2	19.88	3.11
Plot 4 (2023) Building-Concrete	6.5	44.6	11.77	1.30
Plot 4 (2023) Building-Wet Utilities	12.1	78.7	10.45	1.36
Plot 4 (2023) Building-Electrical	12.9	42.7	8.64	1.08
Plot 4 (2023) Building-Landscaping	13.1	35.8	3.82	0.62
Plot 4 (2023) Landscaping	13.3	38.5	3.62	0.61
Plot 4 (2023) Curbing/Drive Approaches	3.0	11.0	4.57	0.49
Plot 4 (2023) Paving	6.3	53.0	11.84	1.34
Plot 4 (2023) Temporary Utilities	1.5	12.5	0.05	0.05

Overlapping Phases

Plot 2- 2020	NOX	CO	Total PM10	Total PM2.5
Mass EXC + Utilties+Landscaping	107.5	431.0	40.1	6.7
Mass EXC + Utilities+Landscaping+Finish Grading	108.2	439.3	43.6	7.1
Utilities+Landscaping+Finish Grading	79.0	203.0	27.8	4.7
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils	112.4	329.5	49.3	7.6
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing	116.4	340.6	55.5	8.3
Utilities+Landscaping+Wet Utilities+Electircal+Temp Utils+Curbing+Paving	124.4	393.9	72.6	10.2
Plot 2- 2021				
All Phases	132.5	473.3	75.4	10.6
Plot 4-2022				
All Phases Exlcuding Temporary Utilities	145.5	653.2	91.9	12.5
Plot 4- 2023				
All Phases	115.2	470.8	74.6	9.9
Daily Emissions[1]				
2020	124.42	439.34	72.61	10.18
2021	132.47	473.35	75.38	10.62
2022	145.53	653.24	91.95	12.49
2023	115.21	470.85	74.64	9.95

[1] Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Daily Mitigated VOC Emissions (lb/day)	
2020	132
2021	132
2022	132
2023	132

World Logistics Center-Construction Plots 2 & 4 (2020-2023)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	64.8916	632.2739	405.3408	1.0103	78.2365	24.8353	96.6964	9.5189	22.8539	30.4789	0.0000	98,593.2252	98,593.2252	29.2674	0.0000	99,324.9095
2021	56.8977	444.4127	430.9332	0.9941	61.1424	19.7811	80.9235	7.7433	18.2486	25.9919	0.0000	97,770.8315	97,770.8315	25.9324	0.0000	98,419.1426
2022	84.7420	759.4697	641.5059	1.5492	98.0044	30.4570	128.4613	12.0156	28.0660	40.0815	0.0000	151,775.9324	151,775.9324	42.4869	0.0000	152,838.1052
2023	48.9230	335.2209	416.6134	0.9855	61.1423	14.0845	75.2268	7.7433	12.9957	20.7390	0.0000	96,874.2031	96,874.2031	25.8408	0.0000	97,520.2235
Maximum	**84.7420**	**759.4697**	**641.5059**	**1.5492**	**98.0044**	**30.4570**	**128.4613**	**12.0156**	**28.0660**	**40.0815**	**0.0000**	**151,775.9324**	**151,775.9324**	**42.4869**	**0.0000**	**152,838.1052**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	40.9072	160.4498	450.1294	1.0103	34.4535	3.6745	38.1280	4.7914	3.4663	8.2577	0.0000	98,593.2251	98,593.2251	29.2674	0.0000	99,324.9095
2021	30.5677	161.8496	490.3821	0.9941	28.0557	3.7974	31.8531	4.1707	3.5920	7.7627	0.0000	97,770.8315	97,770.8315	25.9324	0.0000	98,419.1425
2022	36.6583	183.0125	737.5690	1.5492	43.5324	4.2146	47.7470	6.1339	4.0445	10.1784	0.0000	151,775.9323	151,775.9323	42.4869	0.0000	152,838.1050
2023	28.7792	129.4745	485.8050	0.9855	28.0556	2.9719	31.0275	4.1707	2.8291	6.9998	0.0000	96,874.2031	96,874.2031	25.8408	0.0000	97,520.2234
Maximum	**40.9072**	**183.0125**	**737.5690**	**1.5492**	**43.5324**	**4.2146**	**47.7470**	**6.1339**	**4.0445**	**10.1784**	**0.0000**	**151,775.9323**	**151,775.9323**	**42.4869**	**0.0000**	**152,838.1050**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**46.40**	**70.77**	**-14.23**	**0.00**	**55.08**	**83.56**	**60.99**	**47.96**	**83.04**	**71.70**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2020) Mass Excavation	Grading	1/1/2020	6/30/2020	5	130	11
2	Plot 2 (2020) Utilities	Trenching	1/1/2020	12/29/2020	5	260	15
3	Plot 2 (2020) Landscaping	Building Construction	1/1/2020	12/29/2020	5	260	16
4	Plot 2 (2020) Finish Grading	Grading	5/7/2020	7/1/2020	5	40	12
5	Plot 2 (2020) Building-Wet Utilities	Building Construction	7/2/2020	12/30/2020	5	130	13
6	Plot 2 (2020) Building-Electrical	Building Construction	7/2/2020	12/30/2020	5	130	14
7	Plot 2 (2020) Temporary Utilities	Building Construction	7/2/2020	12/30/2020	5	130	17
8	Plot 2 (2020) Curbing/Drive Approaches	Paving	11/5/2020	12/30/2020	5	40	18
9	Plot 2 (2020) Paving	Paving	12/3/2020	12/30/2020	5	20	19
10	Plot 2 (2021) Utilities	Trenching	1/1/2021	12/30/2021	5	260	24
11	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	20
12	Plot 2 (2021) Building-Wet Utilities	Building Construction	1/1/2021	12/30/2021	5	260	21
13	Plot 2 (2021) Building-Electrical	Building Construction	1/1/2021	12/30/2021	5	260	22
14	Plot 2 (2021) Building-Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	23
15	Plot 2 (2021) Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	25
16	Plot 2 (2021) Curbing/Drive Approaches	Paving	5/1/2021	8/20/2021	5	80	27
17	Plot 2 (2021) Paving	Paving	6/1/2021	7/26/2021	5	40	28
18	Plot 2 (2021) Temporary Utilities	Building Construction	7/2/2021	12/30/2021	5	130	26
19	Plot 4 (2022) Mass Excavation	Grading	1/1/2022	7/1/2022	5	130	29

20	Plot 4 (2022) Utilities	Trenching	1/1/2022	12/30/2022	5	260	35
21	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	31
22	Plot 4 (2022) Building-Wet Utilities	Building Construction	1/1/2022	12/30/2022	5	260	32
23	Plot 4 (2022) Building-Electrical	Building Construction	1/1/2022	12/30/2022	5	260	33
24	Plot 4 (2022) Building-Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	34
25	Plot 4 (2022) Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	36
26	Plot 4 (2022) Curbing/Drive Approaches	Paving	5/1/2022	8/20/2022	5	80	38
27	Plot 4 (2022) Finish Grading	Grading	5/7/2022	7/1/2022	5	40	30
28	Plot 4 (2022) Paving	Paving	6/1/2022	7/26/2022	5	40	39
29	Plot 4 (2022) Temporary Utilities	Building Construction	7/2/2022	12/30/2022	5	130	37
30	Plot 4 (2023) Utilities	Trenching	1/1/2023	12/30/2023	5	260	44
31	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	40
32	Plot 4 (2023) Building-Wet Utilities	Building Construction	1/1/2023	12/30/2023	5	260	41
33	Plot 4 (2023) Building-Electrical	Building Construction	1/1/2023	12/30/2023	5	260	42
34	Plot 4 (2023) Building-Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	43
35	Plot 4 (2023) Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	45
36	Plot 4 (2023) Curbing/Drive Approaches	Paving	5/1/2023	8/20/2023	5	80	47
37	Plot 4 (2023) Paving	Paving	6/1/2023	7/26/2023	5	40	48
38	Plot 4 (2023) Temporary Utilities	Building Construction	7/2/2023	12/30/2023	5	130	46

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 2 (2020) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2020) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2020) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2020) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 2 (2020) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2020) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2020) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2020) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2020) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2020) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2020) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2020) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2020) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2020) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37

Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2020) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2020) Mass Excavation	Graders	1	10.00	193	0.41
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2020) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2020) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2020) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2020) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2020) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2020) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2020) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2020) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2020) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2020) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2020) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2020) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2020) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2020) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 2 (2021) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2021) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2021) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2021) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 2 (2021) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2021) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2021) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2021) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2021) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2021) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2021) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2021) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2021) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2021) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2021) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2021) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2021) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2021) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2021) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2021) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2021) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2021) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2021) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2021) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2021) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2022) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2022) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2022) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2022) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 4 (2022) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2022) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2022) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2022) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2022) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 4 (2022) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Mass Excavation	Graders	1	10.00	193	0.41
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40

Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2022) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2022) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2022) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2022) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2022) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2022) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2022) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2022) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2022) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2022) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2022) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2022) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2023) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2023) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2023) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2023) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 4 (2023) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2023) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2023) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2023) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2023) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2023) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 4 (2023) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2023) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2023) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2023) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2023) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2023) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2023) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2023) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2023) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2023) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2023) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2023) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2023) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 2 (2020) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Finish Grading		15.00	2.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Finish Grading		15.00	2.00	52.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 4 (2022) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 2 (2020) Mass Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	34.9929	421.6704	230.8390	0.5130		15.9933	15.9933		14.7138	14.7138		49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**34.9929**	**421.6704**	**230.8390**	**0.5130**	**30.0285**	**15.9933**	**46.0217**	**3.2424**	**14.7138**	**17.9562**		**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1189	4.1406	0.8514	0.0124	0.2864	0.0143	0.3007	0.0785	0.0136	0.0921		1,334.8860	1,334.8860	0.0861		1,337.0382
Vendor	0.0736	1.9663	0.5003	6.9800e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0754		744.2851	744.2851	0.0322		745.0897
Worker	0.3443	0.2486	3.3388	9.6900e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		965.0841	965.0841	0.0272		965.7649
Total	**0.5368**	**6.3555**	**4.6904**	**0.0290**	**1.4446**	**0.0375**	**1.4821**	**0.3903**	**0.0356**	**0.4259**		**3,044.2552**	**3,044.2552**	**0.1455**		**3,047.8928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	6.3044	27.3189	235.8192	0.5130		0.8406	0.8406		0.8406	0.8406	0.0000	49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**6.3044**	**27.3189**	**235.8192**	**0.5130**	**11.7111**	**0.8406**	**12.5517**	**1.2645**	**0.8406**	**2.1051**	**0.0000**	**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1189	4.1406	0.8514	0.0124	0.2864	0.0143	0.3007	0.0785	0.0136	0.0921		1,334.8860	1,334.8860	0.0861		1,337.0382
Vendor	0.0736	1.9663	0.5003	6.9800e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0754		744.2851	744.2851	0.0322		745.0897
Worker	0.3443	0.2486	3.3388	9.6900e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		965.0841	965.0841	0.0272		965.7649
Total	**0.5368**	**6.3555**	**4.6904**	**0.0290**	**1.4446**	**0.0375**	**1.4821**	**0.3903**	**0.0356**	**0.4259**		**3,044.2552**	**3,044.2552**	**0.1455**		**3,047.8928**

3.3 Plot 2 (2020) Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	14.5857	144.0881	117.7824	0.3462		6.1033	6.1033		5.6161	5.6161		33,495.8101	33,495.8101	10.8221		33,766.3634
Total	**14.5857**	**144.0881**	**117.7824**	**0.3462**	**25.5336**	**6.1033**	**31.6369**	**2.7570**	**5.6161**	**8.3732**		**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3634**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2183	7.6013	1.5630	0.0227	0.5258	0.0262	0.5519	0.1441	0.0250	0.1691		2,450.5532	2,450.5532	0.1580		2,454.5041
Vendor	0.2044	5.4619	1.3897	0.0194	0.5780	0.0452	0.6232	0.1662	0.0432	0.2095		2,067.4586	2,067.4586	0.0894		2,069.6936
Worker	0.2755	0.1989	2.6710	7.7500e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		772.0673	772.0673	0.0218		772.6119
Total	**0.6982**	**13.2620**	**5.6237**	**0.0498**	**1.8639**	**0.0769**	**1.9408**	**0.5119**	**0.0734**	**0.5852**		**5,290.0791**	**5,290.0791**	**0.2692**		**5,296.8097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	7.3278	60.1055	154.7814	0.3462		1.9150	1.9150		1.7925	1.7925	0.0000	33,495.8101	33,495.8101	10.8221		33,766.3633
Total	**7.3278**	**60.1055**	**154.7814**	**0.3462**	**9.9581**	**1.9150**	**11.8731**	**1.0752**	**1.7925**	**2.8678**	**0.0000**	**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3633**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2183	7.6013	1.5630	0.0227	0.5258	0.0262	0.5519	0.1441	0.0250	0.1691		2,450.5532	2,450.5532	0.1580		2,454.5041
Vendor	0.2044	5.4619	1.3897	0.0194	0.5780	0.0452	0.6232	0.1662	0.0432	0.2095		2,067.4586	2,067.4586	0.0894		2,069.6936
Worker	0.2755	0.1989	2.6710	7.7500e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		772.0673	772.0673	0.0218		772.6119
Total	**0.6982**	**13.2620**	**5.6237**	**0.0498**	**1.8639**	**0.0769**	**1.9408**	**0.5119**	**0.0734**	**0.5852**		**5,290.0791**	**5,290.0791**	**0.2692**		**5,296.8097**

3.4 Plot 2 (2020) Landscaping - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.8074	33.1521	36.0541	0.0504		1.9188	1.9188		1.7653	1.7653		4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**3.8074**	**33.1521**	**36.0541**	**0.0504**	**1.5948**	**1.9188**	**3.5136**	**0.1722**	**1.7653**	**1.9375**		**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.1179**	**1.3606**	**1.0013**	**6.6000e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1019**		**689.2069**	**689.2069**	**0.0269**		**689.8794**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.6013	13.6580	38.8774	0.0504		0.4243	0.4243		0.3962	0.3962	0.0000	4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**1.6013**	**13.6580**	**38.8774**	**0.0504**	**0.6220**	**0.4243**	**1.0463**	**0.0672**	**0.3962**	**0.4634**	**0.0000**	**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.1179**	**1.3606**	**1.0013**	**6.6000e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1019**		**689.2069**	**689.2069**	**0.0269**		**689.8794**

3.5 Plot 2 (2020) Finish Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	1.2005	11.8738	8.2372	0.0109		0.6876	0.6876		0.6326	0.6326		1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**1.2005**	**11.8738**	**8.2372**	**0.0109**	**3.4466**	**0.6876**	**4.1342**	**0.3722**	**0.6326**	**1.0047**		**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.4370	0.1112	1.5500e-003	0.0462	3.6200e-003	0.0499	0.0133	3.4600e-003	0.0168		165.3967	165.3967	7.1500e-003		165.5755
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.1197**	**0.5115**	**1.1128**	**4.4600e-003**	**0.3313**	**5.7200e-003**	**0.3370**	**0.0889**	**5.3900e-003**	**0.0943**		**454.9219**	**454.9219**	**0.0153**		**455.3050**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.4370	0.1112	1.5500e-003	0.0462	3.6200e-003	0.0499	0.0133	3.4600e-003	0.0168		165.3967	165.3967	7.1500e-003		165.5755
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.1197**	**0.5115**	**1.1128**	**4.4600e-003**	**0.3313**	**5.7200e-003**	**0.3370**	**0.0889**	**5.3900e-003**	**0.0943**		**454.9219**	**454.9219**	**0.0153**		**455.3050**

3.6 Plot 2 (2020) Building-Wet Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.1543	0.0000	19.1543	2.0682	0.0000	2.0682			0.0000			0.0000
Off-Road	7.0209	68.8525	68.2550	0.1251		3.5379	3.5379		3.2549	3.2549		12,113.6757	12,113.6757	3.9178		12,211.6210
Total	**7.0209**	**68.8525**	**68.2550**	**0.1251**	**19.1543**	**3.5379**	**22.6922**	**2.0682**	**3.2549**	**5.3231**		**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6210**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	5.3209	1.0941	0.0159	0.3680	0.0183	0.3864	0.1009	0.0175	0.1184		1,715.3873	1,715.3873	0.1106		1,718.1529
Vendor	0.1227	3.2771	0.8338	0.0116	0.3468	0.0271	0.3739	0.0997	0.0259	0.1257		1,240.4751	1,240.4751	0.0536		1,241.8162
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4476**	**8.7223**	**3.5973**	**0.0323**	**1.1899**	**0.0489**	**1.2388**	**0.3266**	**0.0467**	**0.3732**		**3,438.4045**	**3,438.4045**	**0.1779**		**3,442.8515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4702	0.0000	7.4702	0.8066	0.0000	0.8066			0.0000			0.0000
Off-Road	2.0930	14.1243	78.4642	0.1251		0.4895	0.4895		0.4639	0.4639	0.0000	12,113.6757	12,113.6757	3.9178		12,211.6209
Total	**2.0930**	**14.1243**	**78.4642**	**0.1251**	**7.4702**	**0.4895**	**7.9597**	**0.8066**	**0.4639**	**1.2705**	**0.0000**	**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	5.3209	1.0941	0.0159	0.3680	0.0183	0.3864	0.1009	0.0175	0.1184		1,715.3873	1,715.3873	0.1106		1,718.1529
Vendor	0.1227	3.2771	0.8338	0.0116	0.3468	0.0271	0.3739	0.0997	0.0259	0.1257		1,240.4751	1,240.4751	0.0536		1,241.8162
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4476**	**8.7223**	**3.5973**	**0.0323**	**1.1899**	**0.0489**	**1.2388**	**0.3266**	**0.0467**	**0.3732**		**3,438.4045**	**3,438.4045**	**0.1779**		**3,442.8515**

3.7 Plot 2 (2020) Building-Electrical - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7668	0.0000	12.7668	1.3785	0.0000	1.3785			0.0000			0.0000
Off-Road	4.5650	39.4704	42.3822	0.0564		2.4398	2.4398		2.2464	2.2464		5,432.2395	5,432.2395	1.7403		5,475.7459
Total	**4.5650**	**39.4704**	**42.3822**	**0.0564**	**12.7668**	**2.4398**	**15.2066**	**1.3785**	**2.2464**	**3.6249**		**5,432.2395**	**5,432.2395**	**1.7403**		**5,475.7459**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3493	12.1621	2.5007	0.0363	0.8412	0.0419	0.8831	0.2305	0.0400	0.2706		3,920.8851	3,920.8851	0.2529		3,927.2066
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.5016**	**13.5475**	**3.8359**	**0.0438**	**1.2650**	**0.0548**	**1.3198**	**0.3460**	**0.0524**	**0.3983**		**4,706.6004**	**4,706.6004**	**0.2825**		**4,713.6625**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					4.9791	0.0000	4.9791	0.5376	0.0000	0.5376			0.0000			0.0000
Off-Road	1.4422	11.5321	42.7125	0.0564		0.3507	0.3507		0.3307	0.3307	0.0000	5,432.2394	5,432.2394	1.7403		5,475.7458
Total	**1.4422**	**11.5321**	**42.7125**	**0.0564**	**4.9791**	**0.3507**	**5.3297**	**0.5376**	**0.3307**	**0.8683**	**0.0000**	**5,432.2394**	**5,432.2394**	**1.7403**		**5,475.7458**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.3493	12.1621	2.5007	0.0363	0.8412	0.0419	0.8831	0.2305	0.0400	0.2706		3,920.8851	3,920.8851	0.2529		3,927.2066
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1033	0.0746	1.0016	2.9100e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		289.5252	289.5252	8.1700e-003		289.7295
Total	**0.5016**	**13.5475**	**3.8359**	**0.0438**	**1.2650**	**0.0548**	**1.3198**	**0.3460**	**0.0524**	**0.3983**		**4,706.6004**	**4,706.6004**	**0.2825**		**4,713.6625**

3.8 Plot 2 (2020) Temporary Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8243	21.9777	15.1378	0.0278		0.8809	0.8809		0.8105	0.8105		2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**1.8243**	**21.9777**	**15.1378**	**0.0278**	**0.0000**	**0.8809**	**0.8809**	**0.0000**	**0.8105**	**0.8105**		**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 Plot 2 (2020) Curbing/Drive Approaches - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9106	8.7892	9.6732	0.0145		0.5085	0.5085		0.4686	0.4686		1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.0064**	**8.7892**	**9.6732**	**0.0145**	**0.0000**	**0.5085**	**0.5085**	**0.0000**	**0.4686**	**0.4686**		**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1414	4.9251	1.0127	0.0147	0.3407	0.0170	0.3576	0.0934	0.0162	0.1096		1,587.7706	1,587.7706	0.1024		1,590.3305
Vendor	0.0327	0.8739	0.2224	3.1000e-003	0.0925	7.2300e-003	0.0997	0.0266	6.9200e-003	0.0335		330.7934	330.7934	0.0143		331.1510
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.2430**	**5.8487**	**1.9028**	**0.0197**	**0.6232**	**0.0256**	**0.6487**	**0.1703**	**0.0244**	**0.1947**		**2,111.5808**	**2,111.5808**	**0.1222**		**2,114.6344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8250	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.3386**	**2.1332**	**10.8250**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1414	4.9251	1.0127	0.0147	0.3407	0.0170	0.3576	0.0934	0.0162	0.1096		1,587.7706	1,587.7706	0.1024		1,590.3305
Vendor	0.0327	0.8739	0.2224	3.1000e-003	0.0925	7.2300e-003	0.0997	0.0266	6.9200e-003	0.0335		330.7934	330.7934	0.0143		331.1510
Worker	0.0689	0.0497	0.6678	1.9400e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		193.0168	193.0168	5.4500e-003		193.1530
Total	**0.2430**	**5.8487**	**1.9028**	**0.0197**	**0.6232**	**0.0256**	**0.6487**	**0.1703**	**0.0244**	**0.1947**		**2,111.5808**	**2,111.5808**	**0.1222**		**2,114.6344**

3.10 Plot 2 (2020) Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7260	0.0000	12.7260	1.3741	0.0000	1.3741			0.0000			0.0000
Off-Road	5.4214	58.8557	50.3997	0.0854		2.8092	2.8092		2.5864	2.5864		8,241.4600	8,241.4600	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**21.6130**	**58.8557**	**50.3997**	**0.0854**	**12.7260**	**2.8092**	**15.5352**	**1.3741**	**2.5864**	**3.9605**		**8,241.4600**	**8,241.4600**	**2.6465**		**8,307.6231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2394	8.3347	1.7138	0.0249	0.5765	0.0287	0.6052	0.1580	0.0274	0.1854		2,686.9964	2,686.9964	0.1733		2,691.3285
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4606**	**9.7699**	**3.7167**	**0.0344**	**1.1903**	**0.0430**	**1.2333**	**0.3238**	**0.0410**	**0.3649**		**3,665.7285**	**3,665.7285**	**0.2084**		**3,670.9374**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9631	0.0000	4.9631	0.5359	0.0000	0.5359			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0854		0.1544	0.1544		0.1544	0.1544	0.0000	8,241.4599	8,241.4599	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**17.2939**	**4.9064**	**52.6913**	**0.0854**	**4.9631**	**0.1544**	**5.1175**	**0.5359**	**0.1544**	**0.6903**	**0.0000**	**8,241.4599**	**8,241.4599**	**2.6465**		**8,307.6231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2394	8.3347	1.7138	0.0249	0.5765	0.0287	0.6052	0.1580	0.0274	0.1854		2,686.9964	2,686.9964	0.1733		2,691.3285
Vendor	0.0491	1.3109	0.3335	4.6600e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		496.1901	496.1901	0.0215		496.7265
Worker	0.1722	0.1243	1.6694	4.8400e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		482.5421	482.5421	0.0136		482.8824
Total	**0.4606**	**9.7699**	**3.7167**	**0.0344**	**1.1903**	**0.0430**	**1.2333**	**0.3238**	**0.0410**	**0.3649**		**3,665.7285**	**3,665.7285**	**0.2084**		**3,670.9374**

3.11 Plot 2 (2021) Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	13.5966	126.7797	116.8700	0.3461		5.3238	5.3238		4.8990	4.8990		33,477.1040	33,477.1040	10.8161		33,747.5060
Total	**13.5966**	**126.7797**	**116.8700**	**0.3461**	**25.5336**	**5.3238**	**30.8573**	**2.7570**	**4.8990**	**7.6560**		**33,477.1040**	**33,477.1040**	**10.8161**		**33,747.5060**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2087	7.0434	1.5479	0.0224	0.5258	0.0234	0.5492	0.1441	0.0224	0.1665		2,424.7665	2,424.7665	0.1559		2,428.6634
Vendor	0.1658	4.7292	1.2378	0.0193	0.5780	0.0161	0.5941	0.1662	0.0154	0.1817		2,053.1192	2,053.1192	0.0862		2,055.2741
Worker	0.2575	0.1792	2.4636	7.5000e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		747.0874	747.0874	0.0197		747.5806
Total	**0.6320**	**11.9518**	**5.2493**	**0.0492**	**1.8639**	**0.0449**	**1.9088**	**0.5119**	**0.0428**	**0.5546**		**5,224.9730**	**5,224.9730**	**0.2618**		**5,231.5181**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	7.0553	54.2789	154.4786	0.3461		1.7243	1.7243		1.6171	1.6171	0.0000	33,477.1039	33,477.1039	10.8161		33,747.5059
Total	**7.0553**	**54.2789**	**154.4786**	**0.3461**	**9.9581**	**1.7243**	**11.6824**	**1.0752**	**1.6171**	**2.6923**	**0.0000**	**33,477.1039**	**33,477.1039**	**10.8161**		**33,747.5059**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2087	7.0434	1.5479	0.0224	0.5258	0.0234	0.5492	0.1441	0.0224	0.1665		2,424.7665	2,424.7665	0.1559		2,428.6634
Vendor	0.1658	4.7292	1.2378	0.0193	0.5780	0.0161	0.5941	0.1662	0.0154	0.1817		2,053.1192	2,053.1192	0.0862		2,055.2741
Worker	0.2575	0.1792	2.4636	7.5000e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		747.0874	747.0874	0.0197		747.5806
Total	**0.6320**	**11.9518**	**5.2493**	**0.0492**	**1.8639**	**0.0449**	**1.9088**	**0.5119**	**0.0428**	**0.5546**		**5,224.9730**	**5,224.9730**	**0.2618**		**5,231.5181**

3.12 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.7587	35.6875	42.0925	0.0625		2.0473	2.0473		1.9224	1.9224		5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**3.7587**	**35.6875**	**42.0925**	**0.0625**	**3.1937**	**2.0473**	**5.2410**	**0.3449**	**1.9224**	**2.2673**		**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0625		0.1364	0.1364		0.1364	0.1364	0.0000	5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**0.8772**	**4.1418**	**44.1479**	**0.0625**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

3.13 Plot 2 (2021) Building-Wet Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	6.4528	61.0725	67.9432	0.1251		3.0859	3.0859		2.8390	2.8390		12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**6.4528**	**61.0725**	**67.9432**	**0.1251**	**9.5771**	**3.0859**	**12.6630**	**1.0341**	**2.8390**	**3.8731**		**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0731	2.4652	0.5418	7.8400e-003	0.1840	8.1900e-003	0.1922	0.0504	7.8300e-003	0.0583		848.6683	848.6683	0.0546		850.0322
Vendor	0.0995	2.8375	0.7427	0.0116	0.3468	9.6800e-003	0.3565	0.0997	9.2600e-003	0.1090		1,231.8715	1,231.8715	0.0517		1,233.1645
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3335**	**5.4147**	**2.8242**	**0.0241**	**1.0059**	**0.0213**	**1.0272**	**0.2761**	**0.0202**	**0.2963**		**2,547.4694**	**2,547.4694**	**0.1186**		**2,550.4346**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.0345	12.9138	78.4213	0.1251		0.4486	0.4486		0.4262	0.4262	0.0000	12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**2.0345**	**12.9138**	**78.4213**	**0.1251**	**3.7351**	**0.4486**	**4.1836**	**0.4033**	**0.4262**	**0.8295**	**0.0000**	**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0731	2.4652	0.5418	7.8400e-003	0.1840	8.1900e-003	0.1922	0.0504	7.8300e-003	0.0583		848.6683	848.6683	0.0546		850.0322
Vendor	0.0995	2.8375	0.7427	0.0116	0.3468	9.6800e-003	0.3565	0.0997	9.2600e-003	0.1090		1,231.8715	1,231.8715	0.0517		1,233.1645
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3335**	**5.4147**	**2.8242**	**0.0241**	**1.0059**	**0.0213**	**1.0272**	**0.2761**	**0.0202**	**0.2963**		**2,547.4694**	**2,547.4694**	**0.1186**		**2,550.4346**

3.14 Plot 2 (2021) Building-Electrical - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	4.1999	36.5280	42.0564	0.0564		2.1181	2.1181		1.9504	1.9504		5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**4.1999**	**36.5280**	**42.0564**	**0.0564**	**6.3834**	**2.1181**	**8.5015**	**0.6893**	**1.9504**	**2.6397**		**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1670	5.6347	1.2384	0.0179	0.4206	0.0187	0.4393	0.1153	0.0179	0.1332		1,939.8132	1,939.8132	0.1247		1,942.9307
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0965	0.0672	0.9239	2.8100e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		280.1578	280.1578	7.4000e-003		280.3427
Total	**0.3033**	**6.8369**	**2.4593**	**0.0254**	**0.8444**	**0.0246**	**0.8690**	**0.2307**	**0.0235**	**0.2542**		**2,712.7195**	**2,712.7195**	**0.1528**		**2,716.5392**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4076	11.4053	42.6681	0.0564		0.3276	0.3276		0.3094	0.3094	0.0000	5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**1.4076**	**11.4053**	**42.6681**	**0.0564**	**2.4895**	**0.3276**	**2.8171**	**0.2688**	**0.3094**	**0.5782**	**0.0000**	**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1670	5.6347	1.2384	0.0179	0.4206	0.0187	0.4393	0.1153	0.0179	0.1332		1,939.8132	1,939.8132	0.1247		1,942.9307
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0965	0.0672	0.9239	2.8100e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		280.1578	280.1578	7.4000e-003		280.3427
Total	**0.3033**	**6.8369**	**2.4593**	**0.0254**	**0.8444**	**0.0246**	**0.8690**	**0.2307**	**0.0235**	**0.2542**		**2,712.7195**	**2,712.7195**	**0.1528**		**2,716.5392**

3.15 Plot 2 (2021) Building-Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.3130	28.6908	33.4533	0.0468		1.6052	1.6052		1.4768	1.4768		4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**3.3130**	**28.6908**	**33.4533**	**0.0468**	**1.5948**	**1.6052**	**3.2001**	**0.1722**	**1.4768**	**1.6490**		**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	1.3242	0.3466	5.3900e-003	0.1618	4.5200e-003	0.1664	0.0465	4.3200e-003	0.0509		574.8734	574.8734	0.0241		575.4768
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1108**	**1.3690**	**0.9625**	**7.2600e-003**	**0.3519**	**5.8800e-003**	**0.3577**	**0.0969**	**5.5700e-003**	**0.1025**		**761.6452**	**761.6452**	**0.0291**		**762.3719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.4685	13.2565	36.0010	0.0468		0.3775	0.3775		0.3526	0.3526	0.0000	4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**1.4685**	**13.2565**	**36.0010**	**0.0468**	**0.6220**	**0.3775**	**0.9995**	**0.0672**	**0.3526**	**0.4198**	**0.0000**	**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	1.3242	0.3466	5.3900e-003	0.1618	4.5200e-003	0.1664	0.0465	4.3200e-003	0.0509		574.8734	574.8734	0.0241		575.4768
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1108**	**1.3690**	**0.9625**	**7.2600e-003**	**0.3519**	**5.8800e-003**	**0.3577**	**0.0969**	**5.5700e-003**	**0.1025**		**761.6452**	**761.6452**	**0.0291**		**762.3719**

3.16 Plot 2 (2021) Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.4962	30.3448	35.8069	0.0504		1.6890	1.6890		1.5539	1.5539		4,879.8222	4,879.8222	1.5782		4,919.2781
Total	**3.4962**	**30.3448**	**35.8069**	**0.0504**	**1.5948**	**1.6890**	**3.2838**	**0.1722**	**1.5539**	**1.7261**		**4,879.8222**	**4,879.8222**	**1.5782**		**4,919.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1042**	**1.1798**	**0.9130**	**6.4900e-003**	**0.3288**	**5.2300e-003**	**0.3340**	**0.0903**	**4.9500e-003**	**0.0952**		**679.5204**	**679.5204**	**0.0256**		**680.1609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	13.4479	38.7255	0.0504		0.3834	0.3834		0.3585	0.3585	0.0000	4,879.8222	4,879.8222	1.5782		4,919.2781
Total	**1.5126**	**13.4479**	**38.7255**	**0.0504**	**0.6220**	**0.3834**	**1.0053**	**0.0672**	**0.3585**	**0.4257**	**0.0000**	**4,879.8222**	**4,879.8222**	**1.5782**		**4,919.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1042**	**1.1798**	**0.9130**	**6.4900e-003**	**0.3288**	**5.2300e-003**	**0.3340**	**0.0903**	**4.9500e-003**	**0.0952**		**679.5204**	**679.5204**	**0.0256**		**680.1609**

3.17 Plot 2 (2021) Curbing/Drive Approaches - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8406	8.0613	9.6611	0.0145		0.4479	0.4479		0.4129	0.4129		1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8885**	**8.0613**	**9.6611**	**0.0145**	**0.0000**	**0.4479**	**0.4479**	**0.0000**	**0.4129**	**0.4129**		**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0676	2.2818	0.5015	7.2600e-003	0.1703	7.5800e-003	0.1779	0.0467	7.2500e-003	0.0539		785.5314	785.5314	0.0505		786.7938
Vendor	0.0265	0.7567	0.1980	3.0800e-003	0.0925	2.5800e-003	0.0951	0.0266	2.4700e-003	0.0291		328.4991	328.4991	0.0138		328.8439
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1585**	**3.0833**	**1.3154**	**0.0122**	**0.4528**	**0.0115**	**0.4644**	**0.1237**	**0.0110**	**0.1346**		**1,300.8023**	**1,300.8023**	**0.0692**		**1,302.5328**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2907**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0676	2.2818	0.5015	7.2600e-003	0.1703	7.5800e-003	0.1779	0.0467	7.2500e-003	0.0539		785.5314	785.5314	0.0505		786.7938
Vendor	0.0265	0.7567	0.1980	3.0800e-003	0.0925	2.5800e-003	0.0951	0.0266	2.4700e-003	0.0291		328.4991	328.4991	0.0138		328.8439
Worker	0.0644	0.0448	0.6159	1.8700e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		186.7718	186.7718	4.9300e-003		186.8952
Total	**0.1585**	**3.0833**	**1.3154**	**0.0122**	**0.4528**	**0.0115**	**0.4644**	**0.1237**	**0.0110**	**0.1346**		**1,300.8023**	**1,300.8023**	**0.0692**		**1,302.5328**

3.18 Plot 2 (2021) Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	5.0337	53.7732	49.2131	0.0855		2.5096	2.5096		2.3108	2.3108		8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**13.1295**	**53.7732**	**49.2131**	**0.0855**	**6.3630**	**2.5096**	**8.8726**	**0.6871**	**2.3108**	**2.9979**		**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1144	3.8615	0.8486	0.0123	0.2883	0.0128	0.3011	0.0790	0.0123	0.0913		1,329.3608	1,329.3608	0.0855		1,331.4973
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3151**	**5.1085**	**2.6855**	**0.0216**	**0.9020**	**0.0201**	**0.9221**	**0.2449**	**0.0191**	**0.2640**		**2,289.0390**	**2,289.0390**	**0.1185**		**2,292.0009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0855		0.1544	0.1544		0.1544	0.1544	0.0000	8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.1981**	**4.9064**	**52.6913**	**0.0855**	**2.4816**	**0.1544**	**2.6359**	**0.2680**	**0.1544**	**0.4223**	**0.0000**	**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1144	3.8615	0.8486	0.0123	0.2883	0.0128	0.3011	0.0790	0.0123	0.0913		1,329.3608	1,329.3608	0.0855		1,331.4973
Vendor	0.0398	1.1350	0.2971	4.6200e-003	0.1387	3.8700e-003	0.1426	0.0399	3.7000e-003	0.0436		492.7486	492.7486	0.0207		493.2658
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.3151**	**5.1085**	**2.6855**	**0.0216**	**0.9020**	**0.0201**	**0.9221**	**0.2449**	**0.0191**	**0.2640**		**2,289.0390**	**2,289.0390**	**0.1185**		**2,292.0009**

3.19 Plot 2 (2021) Temporary Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6806	19.5885	13.9313	0.0278		0.7881	0.7881		0.7251	0.7251		2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**1.6806**	**19.5885**	**13.9313**	**0.0278**	**0.0000**	**0.7881**	**0.7881**	**0.0000**	**0.7251**	**0.7251**		**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.20 Plot 4 (2022) Mass Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.6111	0.0000	31.6111	3.4133	0.0000	3.4133			0.0000			0.0000
Off-Road	32.7946	378.2678	219.1301	0.5410		14.2901	14.2901		13.1469	13.1469		52,389.8385	52,389.8385	16.9439		52,813.4369
Total	**32.7946**	**378.2678**	**219.1301**	**0.5410**	**31.6111**	**14.2901**	**45.9011**	**3.4133**	**13.1469**	**16.5601**		**52,389.8385**	**52,389.8385**	**16.9439**		**52,813.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1080	3.5315	0.8343	0.0120	0.2864	0.0110	0.2974	0.0785	0.0105	0.0890		1,305.1354	1,305.1354	0.0836		1,307.2255
Vendor	0.0563	1.5778	0.4257	6.8600e-003	0.2081	5.0500e-003	0.2131	0.0598	4.8300e-003	0.0647		732.5780	732.5780	0.0304		733.3369
Worker	0.3024	0.2025	2.8500	9.0300e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		900.3802	900.3802	0.0223		900.9377
Total	**0.4668**	**5.3118**	**4.1101**	**0.0279**	**1.4446**	**0.0226**	**1.4672**	**0.3903**	**0.0214**	**0.4116**		**2,938.0935**	**2,938.0935**	**0.1363**		**2,941.5001**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.3283	0.0000	12.3283	1.3312	0.0000	1.3312			0.0000			0.0000
Off-Road	6.6536	28.8322	248.6237	0.5410		0.8871	0.8871		0.8871	0.8871	0.0000	52,389.8384	52,389.8384	16.9439		52,813.4368
Total	**6.6536**	**28.8322**	**248.6237**	**0.5410**	**12.3283**	**0.8871**	**13.2155**	**1.3312**	**0.8871**	**2.2183**	**0.0000**	**52,389.8384**	**52,389.8384**	**16.9439**		**52,813.4368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1080	3.5315	0.8343	0.0120	0.2864	0.0110	0.2974	0.0785	0.0105	0.0890		1,305.1354	1,305.1354	0.0836		1,307.2255
Vendor	0.0563	1.5778	0.4257	6.8600e-003	0.2081	5.0500e-003	0.2131	0.0598	4.8300e-003	0.0647		732.5780	732.5780	0.0304		733.3369
Worker	0.3024	0.2025	2.8500	9.0300e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		900.3802	900.3802	0.0223		900.9377
Total	**0.4668**	**5.3118**	**4.1101**	**0.0279**	**1.4446**	**0.0226**	**1.4672**	**0.3903**	**0.0214**	**0.4116**		**2,938.0935**	**2,938.0935**	**0.1363**		**2,941.5001**

3.21 Plot 4 (2022) Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	12.1172	104.9336	114.8176	0.3462		4.3316	4.3316		3.9862	3.9862		33,484.8138	33,484.8138	10.8186		33,755.2781
Total	**12.1172**	**104.9336**	**114.8176**	**0.3462**	**25.5336**	**4.3316**	**29.8652**	**2.7570**	**3.9862**	**6.7433**		**33,484.8138**	**33,484.8138**	**10.8186**		**33,755.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1983	6.4830	1.5317	0.0221	0.5258	0.0201	0.5459	0.1441	0.0193	0.1633		2,395.9377	2,395.9377	0.1535		2,399.7746
Vendor	0.1565	4.3828	1.1826	0.0191	0.5780	0.0140	0.5920	0.1662	0.0134	0.1796		2,034.9388	2,034.9388	0.0843		2,037.0471
Worker	0.2420	0.1620	2.2800	7.2300e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		720.3041	720.3041	0.0178		720.7501
Total	**0.5967**	**11.0278**	**4.9942**	**0.0484**	**1.8639**	**0.0394**	**1.9033**	**0.5118**	**0.0375**	**0.5494**		**5,151.1807**	**5,151.1807**	**0.2557**		**5,157.5718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.6115	46.9700	153.7850	0.3462		1.4579	1.4579		1.3720	1.3720	0.0000	33,484.8137	33,484.8137	10.8186		33,755.2781
Total	**6.6115**	**46.9700**	**153.7850**	**0.3462**	**9.9581**	**1.4579**	**11.4160**	**1.0752**	**1.3720**	**2.4473**	**0.0000**	**33,484.8137**	**33,484.8137**	**10.8186**		**33,755.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1983	6.4830	1.5317	0.0221	0.5258	0.0201	0.5459	0.1441	0.0193	0.1633		2,395.9377	2,395.9377	0.1535		2,399.7746
Vendor	0.1565	4.3828	1.1826	0.0191	0.5780	0.0140	0.5920	0.1662	0.0134	0.1796		2,034.9388	2,034.9388	0.0843		2,037.0471
Worker	0.2420	0.1620	2.2800	7.2300e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		720.3041	720.3041	0.0178		720.7501
Total	**0.5967**	**11.0278**	**4.9942**	**0.0484**	**1.8639**	**0.0394**	**1.9033**	**0.5118**	**0.0375**	**0.5494**		**5,151.1807**	**5,151.1807**	**0.2557**		**5,157.5718**

3.22 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.3724	31.9733	41.7603	0.0625		1.6934	1.6934		1.5925	1.5925		5,963.0836	5,963.0836	1.4710		5,999.8594
Total	**3.3724**	**31.9733**	**41.7603**	**0.0625**	**3.1937**	**1.6934**	**4.8871**	**0.3449**	**1.5925**	**1.9374**		**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8594**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1482	0.0625		0.1364	0.1364		0.1364	0.1364	0.0000	5,963.0836	5,963.0836	1.4710		5,999.8593
Total	**0.8772**	**4.1418**	**44.1482**	**0.0625**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

3.23 Plot 4 (2022) Building-Wet Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.6507	50.6511	67.1239	0.1251		2.5038	2.5038		2.3035	2.3035		12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**5.6507**	**50.6511**	**67.1239**	**0.1251**	**9.5771**	**2.5038**	**12.0809**	**1.0341**	**2.3035**	**3.3376**		**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	2.2691	0.5361	7.7400e-003	0.1840	7.0400e-003	0.1911	0.0504	6.7400e-003	0.0572		838.5782	838.5782	0.0537		839.9211
Vendor	0.0939	2.6297	0.7095	0.0114	0.3468	8.4200e-003	0.3552	0.0997	8.0600e-003	0.1078		1,220.9633	1,220.9633	0.0506		1,222.2282
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.3145**	**5.0000**	**2.6706**	**0.0237**	**1.0059**	**0.0188**	**1.0246**	**0.2761**	**0.0178**	**0.2940**		**2,509.7316**	**2,509.7316**	**0.1155**		**2,512.6182**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.9539	11.4624	78.3314	0.1251		0.3959	0.3959		0.3777	0.3777	0.0000	12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**1.9539**	**11.4624**	**78.3314**	**0.1251**	**3.7351**	**0.3959**	**4.1310**	**0.4033**	**0.3777**	**0.7810**	**0.0000**	**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	2.2691	0.5361	7.7400e-003	0.1840	7.0400e-003	0.1911	0.0504	6.7400e-003	0.0572		838.5782	838.5782	0.0537		839.9211
Vendor	0.0939	2.6297	0.7095	0.0114	0.3468	8.4200e-003	0.3552	0.0997	8.0600e-003	0.1078		1,220.9633	1,220.9633	0.0506		1,222.2282
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.3145**	**5.0000**	**2.6706**	**0.0237**	**1.0059**	**0.0188**	**1.0246**	**0.2761**	**0.0178**	**0.2940**		**2,509.7316**	**2,509.7316**	**0.1155**		**2,512.6182**

3.24 Plot 4 (2022) Building-Electrical - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.6650	32.9674	41.2585	0.0564		1.7258	1.7258		1.5895	1.5895		5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**3.6650**	**32.9674**	**41.2585**	**0.0564**	**6.3834**	**1.7258**	**8.1092**	**0.6893**	**1.5895**	**2.2787**		**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	5.1864	1.2253	0.0177	0.4206	0.0161	0.4367	0.1153	0.0154	0.1307		1,916.7502	1,916.7502	0.1228		1,919.8197
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.2869**	**6.2990**	**2.3642**	**0.0250**	**0.8444**	**0.0214**	**0.8658**	**0.2307**	**0.0204**	**0.2512**		**2,675.2495**	**2,675.2495**	**0.1497**		**2,678.9923**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.3124	11.1595	42.4570	0.0564		0.2803	0.2803		0.2659	0.2659	0.0000	5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**1.3124**	**11.1595**	**42.4570**	**0.0564**	**2.4895**	**0.2803**	**2.7698**	**0.2688**	**0.2659**	**0.5347**	**0.0000**	**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	5.1864	1.2253	0.0177	0.4206	0.0161	0.4367	0.1153	0.0154	0.1307		1,916.7502	1,916.7502	0.1228		1,919.8197
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.2869**	**6.2990**	**2.3642**	**0.0250**	**0.8444**	**0.0214**	**0.8658**	**0.2307**	**0.0204**	**0.2512**		**2,675.2495**	**2,675.2495**	**0.1497**		**2,678.9923**

3.25 Plot 4 (2022) Building-Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9095	25.0953	32.9608	0.0468		1.3297	1.3297		1.2234	1.2234		4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**2.9095**	**25.0953**	**32.9608**	**0.0468**	**1.5948**	**1.3297**	**2.9246**	**0.1722**	**1.2234**	**1.3956**		**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	1.2272	0.3311	5.3400e-003	0.1618	3.9300e-003	0.1658	0.0465	3.7600e-003	0.0503		569.7829	569.7829	0.0236		570.3732
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1043**	**1.2677**	**0.9011**	**7.1500e-003**	**0.3519**	**5.2500e-003**	**0.3571**	**0.0969**	**4.9700e-003**	**0.1019**		**749.8589**	**749.8589**	**0.0281**		**750.5607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3767	13.0484	35.8360	0.0468		0.3363	0.3363		0.3148	0.3148	0.0000	4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**1.3767**	**13.0484**	**35.8360**	**0.0468**	**0.6220**	**0.3363**	**0.9583**	**0.0672**	**0.3148**	**0.3819**	**0.0000**	**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0438	1.2272	0.3311	5.3400e-003	0.1618	3.9300e-003	0.1658	0.0465	3.7600e-003	0.0503		569.7829	569.7829	0.0236		570.3732
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1043**	**1.2677**	**0.9011**	**7.1500e-003**	**0.3519**	**5.2500e-003**	**0.3571**	**0.0969**	**4.9700e-003**	**0.1019**		**749.8589**	**749.8589**	**0.0281**		**750.5607**

3.26 Plot 4 (2022) Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0756	26.4898	35.2995	0.0504		1.4054	1.4054		1.2930	1.2930		4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**3.0756**	**26.4898**	**35.2995**	**0.0504**	**1.5948**	**1.4054**	**3.0002**	**0.1722**	**1.2930**	**1.4652**		**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.0981**	**1.0924**	**0.8538**	**6.3900e-003**	**0.3288**	**4.6900e-003**	**0.3334**	**0.0903**	**4.4300e-003**	**0.0947**		**668.4614**	**668.4614**	**0.0247**		**669.0788**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.4208	13.2398	38.5604	0.0504		0.3422	0.3422		0.3207	0.3207	0.0000	4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**1.4208**	**13.2398**	**38.5604**	**0.0504**	**0.6220**	**0.3422**	**0.9642**	**0.0672**	**0.3207**	**0.3878**	**0.0000**	**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.0981**	**1.0924**	**0.8538**	**6.3900e-003**	**0.3288**	**4.6900e-003**	**0.3334**	**0.0903**	**4.4300e-003**	**0.0947**		**668.4614**	**668.4614**	**0.0247**		**669.0788**

3.27 Plot 4 (2022) Curbing/Drive Approaches - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7470	7.0919	9.5975	0.0145		0.3747	0.3747		0.3456	0.3456		1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7949**	**7.0919**	**9.5975**	**0.0145**	**0.0000**	**0.3747**	**0.3747**	**0.0000**	**0.3456**	**0.3456**		**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0642	2.1002	0.4962	7.1600e-003	0.1703	6.5200e-003	0.1769	0.0467	6.2400e-003	0.0529		776.1920	776.1920	0.0497		777.4350
Vendor	0.0250	0.7013	0.1892	3.0500e-003	0.0925	2.2500e-003	0.0947	0.0266	2.1500e-003	0.0287		325.5902	325.5902	0.0135		325.9275
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1498**	**2.8420**	**1.2554**	**0.0120**	**0.4528**	**0.0101**	**0.4629**	**0.1237**	**9.6000e-003**	**0.1333**		**1,281.8582**	**1,281.8582**	**0.0677**		**1,283.5500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8250	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2907**	**2.1332**	**10.8250**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0642	2.1002	0.4962	7.1600e-003	0.1703	6.5200e-003	0.1769	0.0467	6.2400e-003	0.0529		776.1920	776.1920	0.0497		777.4350
Vendor	0.0250	0.7013	0.1892	3.0500e-003	0.0925	2.2500e-003	0.0947	0.0266	2.1500e-003	0.0287		325.5902	325.5902	0.0135		325.9275
Worker	0.0605	0.0405	0.5700	1.8100e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		180.0760	180.0760	4.4600e-003		180.1875
Total	**0.1498**	**2.8420**	**1.2554**	**0.0120**	**0.4528**	**0.0101**	**0.4629**	**0.1237**	**9.6000e-003**	**0.1333**		**1,281.8582**	**1,281.8582**	**0.0677**		**1,283.5500**

3.28 Plot 4 (2022) Finish Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.9879	9.5635	8.0189	0.0109		0.5320	0.5320		0.4894	0.4894		1,054.1383	1,054.1383	0.3409		1,062.6616
Total	**0.9879**	**9.5635**	**8.0189**	**0.0109**	**3.4466**	**0.5320**	**3.9786**	**0.3722**	**0.4894**	**0.8616**		**1,054.1383**	**1,054.1383**	**0.3409**		**1,062.6616**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0107	0.3500	0.0827	1.1900e-003	0.0284	1.0900e-003	0.0295	7.7800e-003	1.0400e-003	8.8200e-003		129.3653	129.3653	8.2900e-003		129.5725
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.1140**	**0.7614**	**1.0323**	**5.4300e-003**	**0.3597**	**4.1800e-003**	**0.3638**	**0.0967**	**3.9300e-003**	**0.1006**		**562.2745**	**562.2745**	**0.0217**		**562.8176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,054.1383	1,054.1383	0.3409		1,062.6616
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,054.1383**	**1,054.1383**	**0.3409**		**1,062.6616**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.3500	0.0827	1.1900e-003	0.0284	1.0900e-003	0.0295	7.7800e-003	1.0400e-003	8.8200e-003		129.3653	129.3653	8.2900e-003		129.5725
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.0907	0.0608	0.8550	2.7100e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		270.1140	270.1140	6.6900e-003		270.2813
Total	**0.1140**	**0.7614**	**1.0323**	**5.4300e-003**	**0.3597**	**4.1800e-003**	**0.3638**	**0.0967**	**3.9300e-003**	**0.1006**		**562.2745**	**562.2745**	**0.0217**		**562.8176**

3.29 Plot 4 (2022) Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.4484	45.8951	47.4508	0.0856		2.0979	2.0979		1.9321	1.9321		8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.5442**	**45.8951**	**47.4508**	**0.0856**	**6.3630**	**2.0979**	**8.4609**	**0.6871**	**1.9321**	**2.6191**		**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1087	3.5543	0.8397	0.0121	0.2883	0.0110	0.2993	0.0790	0.0106	0.0895		1,313.5556	1,313.5556	0.0841		1,315.6592
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.2975**	**4.7074**	**2.5486**	**0.0212**	**0.9020**	**0.0177**	**0.9197**	**0.2449**	**0.0168**	**0.2617**		**2,252.1310**	**2,252.1310**	**0.1155**		**2,255.0193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0856		0.1544	0.1544		0.1544	0.1544	0.0000	8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.1981**	**4.9064**	**52.6913**	**0.0856**	**2.4816**	**0.1544**	**2.6359**	**0.2680**	**0.1544**	**0.4223**	**0.0000**	**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1087	3.5543	0.8397	0.0121	0.2883	0.0110	0.2993	0.0790	0.0106	0.0895		1,313.5556	1,313.5556	0.0841		1,315.6592
Vendor	0.0376	1.0519	0.2838	4.5800e-003	0.1387	3.3700e-003	0.1421	0.0399	3.2200e-003	0.0431		488.3853	488.3853	0.0202		488.8913
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.2975**	**4.7074**	**2.5486**	**0.0212**	**0.9020**	**0.0177**	**0.9197**	**0.2449**	**0.0168**	**0.2617**		**2,252.1310**	**2,252.1310**	**0.1155**		**2,255.0193**

3.30 Plot 4 (2022) Temporary Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4846	16.4655	12.5866	0.0278		0.6674	0.6674		0.6140	0.6140		2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**1.4846**	**16.4655**	**12.5866**	**0.0278**	**0.0000**	**0.6674**	**0.6674**	**0.0000**	**0.6140**	**0.6140**		**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.31 Plot 4 (2023) Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.4664	93.8395	114.0629	0.3463		3.7794	3.7794		3.4782	3.4782		33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**11.4664**	**93.8395**	**114.0629**	**0.3463**	**25.5336**	**3.7794**	**29.3130**	**2.7570**	**3.4782**	**6.2352**		**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1308	4.0877	1.3980	0.0212	0.5258	8.3300e-003	0.5341	0.1441	7.9700e-003	0.1520		2,301.3915	2,301.3915	0.1426		2,304.9570
Vendor	0.1136	2.8775	1.0686	0.0185	0.5780	6.2900e-003	0.5843	0.1662	6.0200e-003	0.1722		1,979.1421	1,979.1421	0.0780		1,981.0924
Worker	0.2279	0.1467	2.1070	6.9600e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		693.4458	693.4458	0.0161		693.8483
Total	**0.4724**	**7.1119**	**4.5735**	**0.0467**	**1.8639**	**0.0198**	**1.8836**	**0.5118**	**0.0187**	**0.5305**		**4,973.9794**	**4,973.9794**	**0.2367**		**4,979.8977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.4391	43.3777	153.5270	0.3463		1.3277	1.3277		1.2523	1.2523	0.0000	33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**6.4391**	**43.3777**	**153.5270**	**0.3463**	**9.9581**	**1.3277**	**11.2858**	**1.0752**	**1.2523**	**2.3275**	**0.0000**	**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1308	4.0877	1.3980	0.0212	0.5258	8.3300e-003	0.5341	0.1441	7.9700e-003	0.1520		2,301.3915	2,301.3915	0.1426		2,304.9570
Vendor	0.1136	2.8775	1.0686	0.0185	0.5780	6.2900e-003	0.5843	0.1662	6.0200e-003	0.1722		1,979.1421	1,979.1421	0.0780		1,981.0924
Worker	0.2279	0.1467	2.1070	6.9600e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		693.4458	693.4458	0.0161		693.8483
Total	**0.4724**	**7.1119**	**4.5735**	**0.0467**	**1.8639**	**0.0198**	**1.8836**	**0.5118**	**0.0187**	**0.5305**		**4,973.9794**	**4,973.9794**	**0.2367**		**4,979.8977**

3.32 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1272	29.4848	41.6515	0.0626		1.4439	1.4439		1.3588	1.3588		5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**3.1272**	**29.4848**	**41.6515**	**0.0626**	**3.1937**	**1.4439**	**4.6376**	**0.3449**	**1.3588**	**1.7036**		**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

3.33 Plot 4 (2023) Building-Wet Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.2473	44.9812	66.9330	0.1252		2.1714	2.1714		1.9977	1.9977		12,115.3301	12,115.3301	3.9183		12,213.2887
Total	**5.2473**	**44.9812**	**66.9330**	**0.1252**	**9.5771**	**2.1714**	**11.7485**	**1.0341**	**1.9977**	**3.0318**		**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2887**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.4307	0.4893	7.4200e-003	0.1840	2.9200e-003	0.1869	0.0504	2.7900e-003	0.0532		805.4870	805.4870	0.0499		806.7350
Vendor	0.0682	1.7265	0.6411	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6100e-003	0.1033		1,187.4853	1,187.4853	0.0468		1,188.6554
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2564**	**3.2489**	**2.4473**	**0.0229**	**1.0059**	**9.8900e-003**	**1.0158**	**0.2761**	**9.3500e-003**	**0.2855**		**2,426.3759**	**2,426.3759**	**0.1068**		**2,429.0456**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.9174	10.6674	78.3102	0.1252		0.3683	0.3683		0.3523	0.3523	0.0000	12,115.3301	12,115.3301	3.9183		12,213.2886
Total	**1.9174**	**10.6674**	**78.3102**	**0.1252**	**3.7351**	**0.3683**	**4.1034**	**0.4033**	**0.3523**	**0.7556**	**0.0000**	**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.4307	0.4893	7.4200e-003	0.1840	2.9200e-003	0.1869	0.0504	2.7900e-003	0.0532		805.4870	805.4870	0.0499		806.7350
Vendor	0.0682	1.7265	0.6411	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6100e-003	0.1033		1,187.4853	1,187.4853	0.0468		1,188.6554
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2564**	**3.2489**	**2.4473**	**0.0229**	**1.0059**	**9.8900e-003**	**1.0158**	**0.2761**	**9.3500e-003**	**0.2855**		**2,426.3759**	**2,426.3759**	**0.1068**		**2,429.0456**

3.34 Plot 4 (2023) Building-Electrical - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.4037	30.7960	41.0415	0.0565		1.4799	1.4799		1.3632	1.3632		5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**3.4037**	**30.7960**	**41.0415**	**0.0565**	**6.3834**	**1.4799**	**7.8633**	**0.6893**	**1.3632**	**2.0525**		**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	3.2701	1.1184	0.0170	0.4206	6.6600e-003	0.4273	0.1153	6.3800e-003	0.1216		1,841.1132	1,841.1132	0.1141		1,843.9656
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0855	0.0550	0.7901	2.6100e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		260.0422	260.0422	6.0400e-003		260.1931
Total	**0.2174**	**4.0158**	**2.1650**	**0.0240**	**0.8444**	**0.0101**	**0.8545**	**0.2307**	**9.5900e-003**	**0.2403**		**2,576.1495**	**2,576.1495**	**0.1389**		**2,579.6209**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2812	11.0392	42.4125	0.0565		0.2575	0.2575		0.2449	0.2449	0.0000	5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**1.2812**	**11.0392**	**42.4125**	**0.0565**	**2.4895**	**0.2575**	**2.7470**	**0.2688**	**0.2449**	**0.5138**	**0.0000**	**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	3.2701	1.1184	0.0170	0.4206	6.6600e-003	0.4273	0.1153	6.3800e-003	0.1216		1,841.1132	1,841.1132	0.1141		1,843.9656
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0855	0.0550	0.7901	2.6100e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		260.0422	260.0422	6.0400e-003		260.1931
Total	**0.2174**	**4.0158**	**2.1650**	**0.0240**	**0.8444**	**0.0101**	**0.8545**	**0.2307**	**9.5900e-003**	**0.2403**		**2,576.1495**	**2,576.1495**	**0.1389**		**2,579.6209**

3.35 Plot 4 (2023) Building-Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6611	22.7664	32.6759	0.0468		1.1283	1.1283		1.0380	1.0380		4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**2.6611**	**22.7664**	**32.6759**	**0.0468**	**1.5948**	**1.1283**	**2.7231**	**0.1722**	**1.0380**	**1.2102**		**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0318	0.8057	0.2992	5.1900e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		554.1598	554.1598	0.0218		554.7059
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0888**	**0.8424**	**0.8260**	**6.9300e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**727.5212**	**727.5212**	**0.0259**		**728.1679**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3016	12.7600	35.6416	0.0468		0.2845	0.2845		0.2671	0.2671	0.0000	4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**1.3016**	**12.7600**	**35.6416**	**0.0468**	**0.6220**	**0.2845**	**0.9065**	**0.0672**	**0.2671**	**0.3343**	**0.0000**	**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0318	0.8057	0.2992	5.1900e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		554.1598	554.1598	0.0218		554.7059
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0888**	**0.8424**	**0.8260**	**6.9300e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**727.5212**	**727.5212**	**0.0259**		**728.1679**

3.36 Plot 4 (2023) Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.8208	24.0690	35.0106	0.0504		1.1989	1.1989		1.1030	1.1030		4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**2.8208**	**24.0690**	**35.0106**	**0.0504**	**1.5948**	**1.1989**	**2.7937**	**0.1722**	**1.1030**	**1.2752**		**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0843**	**0.7273**	**0.7832**	**6.1900e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**648.3556**	**648.3556**	**0.0227**		**648.9242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3458	12.9515	38.3661	0.0504		0.2904	0.2904		0.2730	0.2730	0.0000	4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**1.3458**	**12.9515**	**38.3661**	**0.0504**	**0.6220**	**0.2904**	**0.9124**	**0.0672**	**0.2730**	**0.3402**	**0.0000**	**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.0843**	**0.7273**	**0.7832**	**6.1900e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**648.3556**	**648.3556**	**0.0227**		**648.9242**

3.37 Plot 4 (2023) Curbing/Drive Approaches - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7096	6.6244	9.6049	0.0145		0.3375	0.3375		0.3113	0.3113		1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7575**	**6.6244**	**9.6049**	**0.0145**	**0.0000**	**0.3375**	**0.3375**	**0.0000**	**0.3113**	**0.3113**		**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.3243	0.4529	6.8600e-003	0.1703	2.7000e-003	0.1730	0.0467	2.5800e-003	0.0493		745.5626	745.5626	0.0462		746.7177
Vendor	0.0182	0.4604	0.1710	2.9600e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		316.6627	316.6627	0.0125		316.9748
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.1175**	**1.8213**	**1.1506**	**0.0116**	**0.4528**	**4.9900e-003**	**0.4578**	**0.1237**	**4.7200e-003**	**0.1284**		**1,235.5868**	**1,235.5868**	**0.0627**		**1,237.1546**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2907**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.3243	0.4529	6.8600e-003	0.1703	2.7000e-003	0.1730	0.0467	2.5800e-003	0.0493		745.5626	745.5626	0.0462		746.7177
Vendor	0.0182	0.4604	0.1710	2.9600e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		316.6627	316.6627	0.0125		316.9748
Worker	0.0570	0.0367	0.5268	1.7400e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		173.3615	173.3615	4.0200e-003		173.4621
Total	**0.1175**	**1.8213**	**1.1506**	**0.0116**	**0.4528**	**4.9900e-003**	**0.4578**	**0.1237**	**4.7200e-003**	**0.1284**		**1,235.5868**	**1,235.5868**	**0.0627**		**1,237.1546**

3.38 Plot 4 (2023) Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.2119	42.3567	46.8307	0.0856		1.8940	1.8940		1.7444	1.7444		8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.3077**	**42.3567**	**46.8307**	**0.0856**	**6.3630**	**1.8940**	**8.2570**	**0.6871**	**1.7444**	**2.4315**		**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0717	2.2410	0.7664	0.0116	0.2882	4.5700e-003	0.2928	0.0790	4.3700e-003	0.0834		1,261.7214	1,261.7214	0.0782		1,263.6761
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2414**	**3.0233**	**2.3398**	**0.0204**	**0.9020**	**9.2800e-003**	**0.9113**	**0.2449**	**8.7600e-003**	**0.2536**		**2,170.1191**	**2,170.1191**	**0.1070**		**2,172.7934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0856		0.1544	0.1544		0.1544	0.1544	0.0000	8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.1981**	**4.9064**	**52.6913**	**0.0856**	**2.4816**	**0.1544**	**2.6359**	**0.2680**	**0.1544**	**0.4223**	**0.0000**	**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0717	2.2410	0.7664	0.0116	0.2882	4.5700e-003	0.2928	0.0790	4.3700e-003	0.0834		1,261.7214	1,261.7214	0.0782		1,263.6761
Vendor	0.0273	0.6906	0.2565	4.4500e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		474.9941	474.9941	0.0187		475.4622
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.2414**	**3.0233**	**2.3398**	**0.0204**	**0.9020**	**9.2800e-003**	**0.9113**	**0.2449**	**8.7600e-003**	**0.2536**		**2,170.1191**	**2,170.1191**	**0.1070**		**2,172.7934**

3.39 Plot 4 (2023) Temporary Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3445	14.2851	11.4372	0.0278		0.5778	0.5778		0.5316	0.5316		2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**1.3445**	**14.2851**	**11.4372**	**0.0278**	**0.0000**	**0.5778**	**0.5778**	**0.0000**	**0.5316**	**0.5316**		**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plots 2 & 4 (2020-2023)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	65.0291	632.7239	404.7479	1.0080	78.2365	24.8361	96.6985	9.5189	22.8547	30.4797	0.0000	98,358.0760	98,358.0760	29.2771	0.0000	99,090.0040
2021	57.0524	445.2171	430.3906	0.9902	61.1424	19.7828	80.9252	7.7433	18.2502	25.9934	0.0000	97,364.1836	97,364.1836	25.9589	0.0000	98,013.1551
2022	84.9428	760.2839	640.6631	1.5442	98.0044	30.4587	128.4630	12.0156	28.0676	40.0832	0.0000	151,269.9344	151,269.9344	42.5147	0.0000	152,332.8004
2023	49.0595	335.5383	416.0094	0.9818	61.1423	14.0855	75.2278	7.7433	12.9967	20.7400	0.0000	96,491.8591	96,491.8591	25.8597	0.0000	97,138.3532
Maximum	**84.9428**	**760.2839**	**640.6631**	**1.5442**	**98.0044**	**30.4587**	**128.4630**	**12.0156**	**28.0676**	**40.0832**	**0.0000**	**151,269.9344**	**151,269.9344**	**42.5147**	**0.0000**	**152,332.8004**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year						lb/day								lb/day		
2020	41.0446	161.4477	449.5365	1.0080	34.4535	3.6766	38.1301	4.7914	3.4683	8.2597	0.0000	98,358.0759	98,358.0759	29.2771	0.0000	99,090.0039
2021	30.7223	162.6540	489.8395	0.9902	28.0557	3.7991	31.8547	4.1707	3.5936	7.7642	0.0000	97,364.1836	97,364.1836	25.9589	0.0000	98,013.1550
2022	36.8590	183.8267	736.7262	1.5442	43.5324	4.2163	47.7486	6.1339	4.0461	10.1800	0.0000	151,269.9342	151,269.9342	42.5147	0.0000	152,332.8003
2023	28.9157	129.7919	485.2010	0.9818	28.0556	2.9729	31.0285	4.1707	2.8301	7.0008	0.0000	96,491.8591	96,491.8591	25.8597	0.0000	97,138.3532
Maximum	**41.0446**	**183.8267**	**736.7262**	**1.5442**	**43.5324**	**4.2163**	**47.7486**	**6.1339**	**4.0461**	**10.1800**	**0.0000**	**151,269.9342**	**151,269.9342**	**42.5147**	**0.0000**	**152,332.8003**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**46.29**	**70.66**	**-14.25**	**0.00**	**55.08**	**83.55**	**60.99**	**47.96**	**83.04**	**71.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2020) Mass Excavation	Grading	1/1/2020	6/30/2020	5	130	11
2	Plot 2 (2020) Utilities	Trenching	1/1/2020	12/29/2020	5	260	15
3	Plot 2 (2020) Landscaping	Building Construction	1/1/2020	12/29/2020	5	260	16
4	Plot 2 (2020) Finish Grading	Grading	5/7/2020	7/1/2020	5	40	12
5	Plot 2 (2020) Building-Wet Utilities	Building Construction	7/2/2020	12/30/2020	5	130	13
6	Plot 2 (2020) Building-Electrical	Building Construction	7/2/2020	12/30/2020	5	130	14
7	Plot 2 (2020) Temporary Utilities	Building Construction	7/2/2020	12/30/2020	5	130	17
8	Plot 2 (2020) Curbing/Drive Approaches	Paving	11/5/2020	12/30/2020	5	40	18
9	Plot 2 (2020) Paving	Paving	12/3/2020	12/30/2020	5	20	19
10	Plot 2 (2021) Utilities	Trenching	1/1/2021	12/30/2021	5	260	24
11	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	20
12	Plot 2 (2021) Building-Wet Utilities	Building Construction	1/1/2021	12/30/2021	5	260	21
13	Plot 2 (2021) Building-Electrical	Building Construction	1/1/2021	12/30/2021	5	260	22
14	Plot 2 (2021) Building-Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	23
15	Plot 2 (2021) Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	25
16	Plot 2 (2021) Curbing/Drive Approaches	Paving	5/1/2021	8/20/2021	5	80	27
17	Plot 2 (2021) Paving	Paving	6/1/2021	7/26/2021	5	40	28
18	Plot 2 (2021) Temporary Utilities	Building Construction	7/2/2021	12/30/2021	5	130	26
19	Plot 4 (2022) Mass Excavation	Grading	1/1/2022	7/1/2022	5	130	29
20	Plot 4 (2022) Utilities	Trenching	1/1/2022	12/30/2022	5	260	35
21	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	31
22	Plot 4 (2022) Building-Wet Utilities	Building Construction	1/1/2022	12/30/2022	5	260	32
23	Plot 4 (2022) Building-Electrical	Building Construction	1/1/2022	12/30/2022	5	260	33
24	Plot 4 (2022) Building-Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	34
25	Plot 4 (2022) Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	36
26	Plot 4 (2022) Curbing/Drive Approaches	Paving	5/1/2022	8/20/2022	5	80	38

27	Plot 4 (2022) Finish Grading	Grading	5/7/2022	7/1/2022	5	40	30	
28	Plot 4 (2022) Paving	Paving	6/1/2022	7/26/2022	5	40	39	
29	Plot 4 (2022) Temporary Utilities	Building Construction	7/2/2022	12/30/2022	5	130	37	
30	Plot 4 (2023) Utilities	Trenching	1/1/2023	12/30/2023	5	260	44	
31	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	40	
32	Plot 4 (2023) Building-Wet Utilities	Building Construction	1/1/2023	12/30/2023	5	260	41	
33	Plot 4 (2023) Building-Electrical	Building Construction	1/1/2023	12/30/2023	5	260	42	
34	Plot 4 (2023) Building-Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	43	
35	Plot 4 (2023) Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	45	
36	Plot 4 (2023) Curbing/Drive Approaches	Paving	5/1/2023	8/20/2023	5	80	47	
37	Plot 4 (2023) Paving	Paving	6/1/2023	7/26/2023	5	40	48	
38	Plot 4 (2023) Temporary Utilities	Building Construction	7/2/2023	12/30/2023	5	130	46	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 2 (2020) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2020) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2020) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2020) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 2 (2020) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2020) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2020) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2020) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2020) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2020) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2020) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2020) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2020) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2020) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37

Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2020) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2020) Mass Excavation	Graders	1	10.00	193	0.41
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2020) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2020) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2020) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2020) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2020) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2020) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2020) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2020) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2020) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2020) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2020) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2020) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2020) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2020) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 2 (2021) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2021) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2021) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2021) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 2 (2021) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2021) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2021) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2021) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2021) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2021) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2021) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2021) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2021) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2021) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2021) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2021) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2021) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2021) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2021) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2021) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2021) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2021) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2021) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2021) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2021) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2021) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2022) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2022) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2022) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2022) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 4 (2022) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2022) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2022) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2022) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2022) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 4 (2022) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Mass Excavation	Graders	1	10.00	193	0.41
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40

Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2022) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2022) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2022) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2022) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2022) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2022) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2022) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2022) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2022) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2022) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2022) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2022) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2023) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2023) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2023) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2023) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 4 (2023) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2023) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2023) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2023) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2023) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2023) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 4 (2023) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2023) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2023) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2023) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2023) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2023) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2023) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2023) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2023) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2023) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2023) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2023) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2023) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 2 (2020) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Finish Grading		15.00	2.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 4 (2022) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Finish Grading		15.00	2.00	52.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 2 (2020) Mass Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	34.9929	421.6704	230.8390	0.5130		15.9933	15.9933		14.7138	14.7138		49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**34.9929**	**421.6704**	**230.8390**	**0.5130**	**30.0285**	**15.9933**	**46.0217**	**3.2424**	**14.7138**	**17.9562**		**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1218	4.2106	0.9048	0.0122	0.2864	0.0144	0.3008	0.0785	0.0138	0.0923		1,314.6474	1,314.6474	0.0893		1,316.8796
Vendor	0.0754	2.0085	0.5237	6.9200e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0755		737.1430	737.1430	0.0333		737.9756
Worker	0.3837	0.2723	2.9676	9.0500e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		902.2896	902.2896	0.0253		902.9209
Total	**0.5809**	**6.4914**	**4.3961**	**0.0281**	**1.4446**	**0.0377**	**1.4824**	**0.3903**	**0.0359**	**0.4261**		**2,954.0800**	**2,954.0800**	**0.1478**		**2,957.7761**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	6.3044	27.3189	235.8192	0.5130		0.8406	0.8406		0.8406	0.8406	0.0000	49,686.8308	49,686.8308	16.0697		50,088.5740
Total	**6.3044**	**27.3189**	**235.8192**	**0.5130**	**11.7111**	**0.8406**	**12.5517**	**1.2645**	**0.8406**	**2.1051**	**0.0000**	**49,686.8308**	**49,686.8308**	**16.0697**		**50,088.5740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1218	4.2106	0.9048	0.0122	0.2864	0.0144	0.3008	0.0785	0.0138	0.0923		1,314.6474	1,314.6474	0.0893		1,316.8796
Vendor	0.0754	2.0085	0.5237	6.9200e-003	0.2081	0.0163	0.2244	0.0598	0.0156	0.0755		737.1430	737.1430	0.0333		737.9756
Worker	0.3837	0.2723	2.9676	9.0500e-003	0.9501	6.9800e-003	0.9571	0.2519	6.4300e-003	0.2584		902.2896	902.2896	0.0253		902.9209
Total	**0.5809**	**6.4914**	**4.3961**	**0.0281**	**1.4446**	**0.0377**	**1.4824**	**0.3903**	**0.0359**	**0.4261**		**2,954.0800**	**2,954.0800**	**0.1478**		**2,957.7761**

3.3 Plot 2 (2020) Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	14.5857	144.0881	117.7824	0.3462		6.1033	6.1033		5.6161	5.6161		33,495.8101	33,495.8101	10.8221		33,766.3634
Total	**14.5857**	**144.0881**	**117.7824**	**0.3462**	**25.5336**	**6.1033**	**31.6369**	**2.7570**	**5.6161**	**8.3732**		**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3634**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2235	7.7297	1.6610	0.0223	0.5258	0.0265	0.5523	0.1441	0.0253	0.1694		2,413.3997	2,413.3997	0.1639		2,417.4974
Vendor	0.2095	5.5793	1.4548	0.0192	0.5780	0.0454	0.6234	0.1662	0.0434	0.2096		2,047.6195	2,047.6195	0.0925		2,049.9322
Worker	0.3070	0.2178	2.3741	7.2400e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		721.8317	721.8317	0.0202		722.3368
Total	**0.7400**	**13.5268**	**5.4899**	**0.0488**	**1.8639**	**0.0775**	**1.9413**	**0.5119**	**0.0739**	**0.5857**		**5,182.8508**	**5,182.8508**	**0.2766**		**5,189.7664**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	7.3278	60.1055	154.7814	0.3462		1.9150	1.9150		1.7925	1.7925	0.0000	33,495.8101	33,495.8101	10.8221		33,766.3633
Total	**7.3278**	**60.1055**	**154.7814**	**0.3462**	**9.9581**	**1.9150**	**11.8731**	**1.0752**	**1.7925**	**2.8678**	**0.0000**	**33,495.8101**	**33,495.8101**	**10.8221**		**33,766.3633**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2235	7.7297	1.6610	0.0223	0.5258	0.0265	0.5523	0.1441	0.0253	0.1694		2,413.3997	2,413.3997	0.1639		2,417.4974
Vendor	0.2095	5.5793	1.4548	0.0192	0.5780	0.0454	0.6234	0.1662	0.0434	0.2096		2,047.6195	2,047.6195	0.0925		2,049.9322
Worker	0.3070	0.2178	2.3741	7.2400e-003	0.7601	5.5900e-003	0.7657	0.2016	5.1500e-003	0.2067		721.8317	721.8317	0.0202		722.3368
Total	**0.7400**	**13.5268**	**5.4899**	**0.0488**	**1.8639**	**0.0775**	**1.9413**	**0.5119**	**0.0739**	**0.5857**		**5,182.8508**	**5,182.8508**	**0.2766**		**5,189.7664**

3.4 Plot 2 (2020) Landscaping - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.8074	33.1521	36.0541	0.0504		1.9188	1.9188		1.7653	1.7653		4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**3.8074**	**33.1521**	**36.0541**	**0.0504**	**1.5948**	**1.9188**	**3.5136**	**0.1722**	**1.7653**	**1.9375**		**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.1270**	**1.3935**	**0.9427**	**6.4200e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1020**		**671.8866**	**671.8866**	**0.0273**		**672.5679**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.6013	13.6580	38.8774	0.0504		0.4243	0.4243		0.3962	0.3962	0.0000	4,879.6100	4,879.6100	1.5782		4,919.0641
Total	**1.6013**	**13.6580**	**38.8774**	**0.0504**	**0.6220**	**0.4243**	**1.0463**	**0.0672**	**0.3962**	**0.4634**	**0.0000**	**4,879.6100**	**4,879.6100**	**1.5782**		**4,919.0641**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.1270**	**1.3935**	**0.9427**	**6.4200e-003**	**0.3288**	**0.0123**	**0.3410**	**0.0903**	**0.0117**	**0.1020**		**671.8866**	**671.8866**	**0.0273**		**672.5679**

3.5 Plot 2 (2020) Finish Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	1.2005	11.8738	8.2372	0.0109		0.6876	0.6876		0.6326	0.6326		1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**1.2005**	**11.8738**	**8.2372**	**0.0109**	**3.4466**	**0.6876**	**4.1342**	**0.3722**	**0.6326**	**1.0047**		**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0168	0.4463	0.1164	1.5400e-003	0.0462	3.6300e-003	0.0499	0.0133	3.4700e-003	0.0168		163.8096	163.8096	7.4000e-003		163.9946
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.1319**	**0.5280**	**1.0067**	**4.2600e-003**	**0.3313**	**5.7300e-003**	**0.3370**	**0.0889**	**5.4000e-003**	**0.0943**		**434.4964**	**434.4964**	**0.0150**		**434.8709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,052.5112	1,052.5112	0.3404		1,061.0212
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,052.5112**	**1,052.5112**	**0.3404**		**1,061.0212**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0168	0.4463	0.1164	1.5400e-003	0.0462	3.6300e-003	0.0499	0.0133	3.4700e-003	0.0168		163.8096	163.8096	7.4000e-003		163.9946
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.1319**	**0.5280**	**1.0067**	**4.2600e-003**	**0.3313**	**5.7300e-003**	**0.3370**	**0.0889**	**5.4000e-003**	**0.0943**		**434.4964**	**434.4964**	**0.0150**		**434.8709**

3.6 Plot 2 (2020) Building-Wet Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.1543	0.0000	19.1543	2.0682	0.0000	2.0682			0.0000			0.0000
Off-Road	7.0209	68.8525	68.2550	0.1251		3.5379	3.5379		3.2549	3.2549		12,113.6757	12,113.6757	3.9178		12,211.6210
Total	**7.0209**	**68.8525**	**68.2550**	**0.1251**	**19.1543**	**3.5379**	**22.6922**	**2.0682**	**3.2549**	**5.3231**		**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6210**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1565	5.4108	1.1627	0.0156	0.3680	0.0185	0.3866	0.1009	0.0177	0.1186		1,689.3798	1,689.3798	0.1147		1,692.2482
Vendor	0.1257	3.3476	0.8729	0.0115	0.3468	0.0272	0.3740	0.0997	0.0261	0.1258		1,228.5717	1,228.5717	0.0555		1,229.9593
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4740**	**8.8945**	**3.5194**	**0.0317**	**1.1899**	**0.0493**	**1.2392**	**0.3266**	**0.0470**	**0.3736**		**3,369.0963**	**3,369.0963**	**0.1829**		**3,373.6680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4702	0.0000	7.4702	0.8066	0.0000	0.8066			0.0000			0.0000
Off-Road	2.0930	14.1243	78.4642	0.1251		0.4895	0.4895		0.4639	0.4639	0.0000	12,113.6757	12,113.6757	3.9178		12,211.6209
Total	**2.0930**	**14.1243**	**78.4642**	**0.1251**	**7.4702**	**0.4895**	**7.9597**	**0.8066**	**0.4639**	**1.2705**	**0.0000**	**12,113.6757**	**12,113.6757**	**3.9178**		**12,211.6209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1565	5.4108	1.1627	0.0156	0.3680	0.0185	0.3866	0.1009	0.0177	0.1186		1,689.3798	1,689.3798	0.1147		1,692.2482
Vendor	0.1257	3.3476	0.8729	0.0115	0.3468	0.0272	0.3740	0.0997	0.0261	0.1258		1,228.5717	1,228.5717	0.0555		1,229.9593
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4740**	**8.8945**	**3.5194**	**0.0317**	**1.1899**	**0.0493**	**1.2392**	**0.3266**	**0.0470**	**0.3736**		**3,369.0963**	**3,369.0963**	**0.1829**		**3,373.6680**

3.7 Plot 2 (2020) Building-Electrical - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7668	0.0000	12.7668	1.3785	0.0000	1.3785			0.0000			0.0000
Off-Road	4.5650	39.4704	42.3822	0.0564		2.4398	2.4398		2.2464	2.2464		5,432.2395	5,432.2395	1.7403		5,475.7459
Total	**4.5650**	**39.4704**	**42.3822**	**0.0564**	**12.7668**	**2.4398**	**15.2066**	**1.3785**	**2.2464**	**3.6249**		**5,432.2395**	**5,432.2395**	**1.7403**		**5,475.7459**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3576	12.3675	2.6577	0.0357	0.8412	0.0424	0.8836	0.2305	0.0405	0.2711		3,861.4395	3,861.4395	0.2623		3,867.9959
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.5230**	**13.7882**	**3.8971**	**0.0430**	**1.2650**	**0.0554**	**1.3204**	**0.3460**	**0.0529**	**0.3989**		**4,623.5551**	**4,623.5551**	**0.2920**		**4,630.8559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9791	0.0000	4.9791	0.5376	0.0000	0.5376			0.0000			0.0000
Off-Road	1.4422	11.5321	42.7125	0.0564		0.3507	0.3507		0.3307	0.3307	0.0000	5,432.2394	5,432.2394	1.7403		5,475.7458
Total	**1.4422**	**11.5321**	**42.7125**	**0.0564**	**4.9791**	**0.3507**	**5.3297**	**0.5376**	**0.3307**	**0.8683**	**0.0000**	**5,432.2394**	**5,432.2394**	**1.7403**		**5,475.7458**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3576	12.3675	2.6577	0.0357	0.8412	0.0424	0.8836	0.2305	0.0405	0.2711		3,861.4395	3,861.4395	0.2623		3,867.9959
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1151	0.0817	0.8903	2.7200e-003	0.2850	2.1000e-003	0.2871	0.0756	1.9300e-003	0.0775		270.6869	270.6869	7.5800e-003		270.8763
Total	**0.5230**	**13.7882**	**3.8971**	**0.0430**	**1.2650**	**0.0554**	**1.3204**	**0.3460**	**0.0529**	**0.3989**		**4,623.5551**	**4,623.5551**	**0.2920**		**4,630.8559**

3.8 Plot 2 (2020) Temporary Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8243	21.9777	15.1378	0.0278		0.8809	0.8809		0.8105	0.8105		2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**1.8243**	**21.9777**	**15.1378**	**0.0278**	**0.0000**	**0.8809**	**0.8809**	**0.0000**	**0.8105**	**0.8105**		**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,688.9163	2,688.9163	0.8697		2,710.6576
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,688.9163**	**2,688.9163**	**0.8697**		**2,710.6576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 Plot 2 (2020) Curbing/Drive Approaches - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9106	8.7892	9.6732	0.0145		0.5085	0.5085		0.4686	0.4686		1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.0064**	**8.7892**	**9.6732**	**0.0145**	**0.0000**	**0.5085**	**0.5085**	**0.0000**	**0.4686**	**0.4686**		**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1448	5.0082	1.0762	0.0145	0.3407	0.0172	0.3578	0.0934	0.0164	0.1098		1,563.6980	1,563.6980	0.1062		1,566.3530
Vendor	0.0335	0.8927	0.2328	3.0700e-003	0.0925	7.2600e-003	0.0997	0.0266	6.9500e-003	0.0335		327.6191	327.6191	0.0148		327.9892
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.2551**	**5.9554**	**1.9025**	**0.0193**	**0.6232**	**0.0258**	**0.6490**	**0.1703**	**0.0247**	**0.1950**		**2,071.7750**	**2,071.7750**	**0.1261**		**2,074.9263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8250	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,390.5621	1,390.5621	0.4414		1,401.5975
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.3386**	**2.1332**	**10.8250**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,390.5621**	**1,390.5621**	**0.4414**		**1,401.5975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1448	5.0082	1.0762	0.0145	0.3407	0.0172	0.3578	0.0934	0.0164	0.1098		1,563.6980	1,563.6980	0.1062		1,566.3530
Vendor	0.0335	0.8927	0.2328	3.0700e-003	0.0925	7.2600e-003	0.0997	0.0266	6.9500e-003	0.0335		327.6191	327.6191	0.0148		327.9892
Worker	0.0768	0.0545	0.5935	1.8100e-003	0.1900	1.4000e-003	0.1914	0.0504	1.2900e-003	0.0517		180.4579	180.4579	5.0500e-003		180.5842
Total	**0.2551**	**5.9554**	**1.9025**	**0.0193**	**0.6232**	**0.0258**	**0.6490**	**0.1703**	**0.0247**	**0.1950**		**2,071.7750**	**2,071.7750**	**0.1261**		**2,074.9263**

3.10 Plot 2 (2020) Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7260	0.0000	12.7260	1.3741	0.0000	1.3741			0.0000			0.0000
Off-Road	5.4214	58.8557	50.3997	0.0854		2.8092	2.8092		2.5864	2.5864		8,241.4600	8,241.4600	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**21.6130**	**58.8557**	**50.3997**	**0.0854**	**12.7260**	**2.8092**	**15.5352**	**1.3741**	**2.5864**	**3.9605**		**8,241.4600**	**8,241.4600**	**2.6465**		**8,307.6231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2451	8.4755	1.8213	0.0245	0.5765	0.0290	0.6055	0.1580	0.0278	0.1858		2,646.2581	2,646.2581	0.1797		2,650.7512
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4872**	**9.9506**	**3.6542**	**0.0336**	**1.1903**	**0.0434**	**1.2337**	**0.3238**	**0.0414**	**0.3653**		**3,588.8316**	**3,588.8316**	**0.2146**		**3,594.1954**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9631	0.0000	4.9631	0.5359	0.0000	0.5359			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0854		0.1544	0.1544		0.1544	0.1544	0.0000	8,241.4599	8,241.4599	2.6465		8,307.6231
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**17.2939**	**4.9064**	**52.6913**	**0.0854**	**4.9631**	**0.1544**	**5.1175**	**0.5359**	**0.1544**	**0.6903**	**0.0000**	**8,241.4599**	**8,241.4599**	**2.6465**		**8,307.6231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2451	8.4755	1.8213	0.0245	0.5765	0.0290	0.6055	0.1580	0.0278	0.1858		2,646.2581	2,646.2581	0.1797		2,650.7512
Vendor	0.0503	1.3390	0.3492	4.6100e-003	0.1387	0.0109	0.1496	0.0399	0.0104	0.0503		491.4287	491.4287	0.0222		491.9837
Worker	0.1919	0.1361	1.4838	4.5300e-003	0.4751	3.4900e-003	0.4786	0.1260	3.2200e-003	0.1292		451.1448	451.1448	0.0126		451.4605
Total	**0.4872**	**9.9506**	**3.6542**	**0.0336**	**1.1903**	**0.0434**	**1.2337**	**0.3238**	**0.0414**	**0.3653**		**3,588.8316**	**3,588.8316**	**0.2146**		**3,594.1954**

3.11 Plot 2 (2021) Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	13.5966	126.7797	116.8700	0.3461		5.3238	5.3238		4.8990	4.8990		33,477.1040	33,477.1040	10.8161		33,747.5060
Total	**13.5966**	**126.7797**	**116.8700**	**0.3461**	**25.5336**	**5.3238**	**30.8573**	**2.7570**	**4.8990**	**7.6560**		**33,477.1040**	**33,477.1040**	**10.8161**		**33,747.5060**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2137	7.1560	1.6411	0.0221	0.5258	0.0237	0.5495	0.1441	0.0227	0.1667		2,387.8222	2,387.8222	0.1615		2,391.8596
Vendor	0.1706	4.8211	1.2991	0.0191	0.5780	0.0163	0.5943	0.1662	0.0156	0.1818		2,033.3985	2,033.3985	0.0892		2,035.6281
Worker	0.2875	0.1962	2.1861	7.0100e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		698.4236	698.4236	0.0183		698.8807
Total	**0.6717**	**12.1733**	**5.1263**	**0.0481**	**1.8639**	**0.0454**	**1.9093**	**0.5119**	**0.0432**	**0.5551**		**5,119.6443**	**5,119.6443**	**0.2690**		**5,126.3684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	7.0553	54.2789	154.4786	0.3461		1.7243	1.7243		1.6171	1.6171	0.0000	33,477.1039	33,477.1039	10.8161		33,747.5059
Total	**7.0553**	**54.2789**	**154.4786**	**0.3461**	**9.9581**	**1.7243**	**11.6824**	**1.0752**	**1.6171**	**2.6923**	**0.0000**	**33,477.1039**	**33,477.1039**	**10.8161**		**33,747.5059**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2137	7.1560	1.6411	0.0221	0.5258	0.0237	0.5495	0.1441	0.0227	0.1667		2,387.8222	2,387.8222	0.1615		2,391.8596
Vendor	0.1706	4.8211	1.2991	0.0191	0.5780	0.0163	0.5943	0.1662	0.0156	0.1818		2,033.3985	2,033.3985	0.0892		2,035.6281
Worker	0.2875	0.1962	2.1861	7.0100e-003	0.7601	5.4200e-003	0.7655	0.2016	4.9900e-003	0.2065		698.4236	698.4236	0.0183		698.8807
Total	**0.6717**	**12.1733**	**5.1263**	**0.0481**	**1.8639**	**0.0454**	**1.9093**	**0.5119**	**0.0432**	**0.5551**		**5,119.6443**	**5,119.6443**	**0.2690**		**5,126.3684**

3.12 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.7587	35.6875	42.0925	0.0625		2.0473	2.0473		1.9224	1.9224		5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**3.7587**	**35.6875**	**42.0925**	**0.0625**	**3.1937**	**2.0473**	**5.2410**	**0.3449**	**1.9224**	**2.2673**		**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0625		0.1364	0.1364		0.1364	0.1364	0.0000	5,958.4574	5,958.4574	1.4750		5,995.3328
Total	**0.8772**	**4.1418**	**44.1479**	**0.0625**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,958.4574**	**5,958.4574**	**1.4750**		**5,995.3328**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

3.13 Plot 2 (2021) Building-Wet Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	6.4528	61.0725	67.9432	0.1251		3.0859	3.0859		2.8390	2.8390		12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**6.4528**	**61.0725**	**67.9432**	**0.1251**	**9.5771**	**3.0859**	**12.6630**	**1.0341**	**2.8390**	**3.8731**		**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0748	2.5046	0.5744	7.7200e-003	0.1840	8.2900e-003	0.1923	0.0504	7.9300e-003	0.0584		835.7378	835.7378	0.0565		837.1509
Vendor	0.1024	2.8927	0.7795	0.0114	0.3468	9.7700e-003	0.3566	0.0997	9.3500e-003	0.1091		1,220.0391	1,220.0391	0.0535		1,221.3769
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3568**	**5.5199**	**2.7202**	**0.0235**	**1.0059**	**0.0215**	**1.0273**	**0.2761**	**0.0204**	**0.2965**		**2,492.2916**	**2,492.2916**	**0.1215**		**2,495.3282**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.0345	12.9138	78.4213	0.1251		0.4486	0.4486		0.4262	0.4262	0.0000	12,110.3252	12,110.3252	3.9167		12,208.2433
Total	**2.0345**	**12.9138**	**78.4213**	**0.1251**	**3.7351**	**0.4486**	**4.1836**	**0.4033**	**0.4262**	**0.8295**	**0.0000**	**12,110.3252**	**12,110.3252**	**3.9167**		**12,208.2433**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0748	2.5046	0.5744	7.7200e-003	0.1840	8.2900e-003	0.1923	0.0504	7.9300e-003	0.0584		835.7378	835.7378	0.0565		837.1509
Vendor	0.1024	2.8927	0.7795	0.0114	0.3468	9.7700e-003	0.3566	0.0997	9.3500e-003	0.1091		1,220.0391	1,220.0391	0.0535		1,221.3769
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3568**	**5.5199**	**2.7202**	**0.0235**	**1.0059**	**0.0215**	**1.0273**	**0.2761**	**0.0204**	**0.2965**		**2,492.2916**	**2,492.2916**	**0.1215**		**2,495.3282**

3.14 Plot 2 (2021) Building-Electrical - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	4.1999	36.5280	42.0564	0.0564		2.1181	2.1181		1.9504	1.9504		5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**4.1999**	**36.5280**	**42.0564**	**0.0564**	**6.3834**	**2.1181**	**8.5015**	**0.6893**	**1.9504**	**2.6397**		**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1709	5.7248	1.3129	0.0177	0.4206	0.0189	0.4396	0.1153	0.0181	0.1334		1,910.2578	1,910.2578	0.1292		1,913.4877
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1078	0.0736	0.8198	2.6300e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		261.9089	261.9089	6.8600e-003		262.0803
Total	**0.3197**	**6.9554**	**2.4444**	**0.0249**	**0.8444**	**0.0249**	**0.8693**	**0.2307**	**0.0237**	**0.2545**		**2,660.1823**	**2,660.1823**	**0.1575**		**2,664.1187**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4076	11.4053	42.6681	0.0564		0.3276	0.3276		0.3094	0.3094	0.0000	5,433.4868	5,433.4868	1.7407		5,477.0033
Total	**1.4076**	**11.4053**	**42.6681**	**0.0564**	**2.4895**	**0.3276**	**2.8171**	**0.2688**	**0.3094**	**0.5782**	**0.0000**	**5,433.4868**	**5,433.4868**	**1.7407**		**5,477.0033**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1709	5.7248	1.3129	0.0177	0.4206	0.0189	0.4396	0.1153	0.0181	0.1334		1,910.2578	1,910.2578	0.1292		1,913.4877
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1078	0.0736	0.8198	2.6300e-003	0.2850	2.0300e-003	0.2871	0.0756	1.8700e-003	0.0775		261.9089	261.9089	6.8600e-003		262.0803
Total	**0.3197**	**6.9554**	**2.4444**	**0.0249**	**0.8444**	**0.0249**	**0.8693**	**0.2307**	**0.0237**	**0.2545**		**2,660.1823**	**2,660.1823**	**0.1575**		**2,664.1187**

3.15 Plot 2 (2021) Building-Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.3130	28.6908	33.4533	0.0468		1.6052	1.6052		1.4768	1.4768		4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**3.3130**	**28.6908**	**33.4533**	**0.0468**	**1.5948**	**1.6052**	**3.2001**	**0.1722**	**1.4768**	**1.6490**		**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0478	1.3499	0.3638	5.3400e-003	0.1618	4.5600e-003	0.1664	0.0465	4.3600e-003	0.0509		569.3516	569.3516	0.0250		569.9759
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1196**	**1.3990**	**0.9103**	**7.0900e-003**	**0.3519**	**5.9200e-003**	**0.3578**	**0.0969**	**5.6100e-003**	**0.1025**		**743.9575**	**743.9575**	**0.0295**		**744.6960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.4685	13.2565	36.0010	0.0468		0.3775	0.3775		0.3526	0.3526	0.0000	4,532.1064	4,532.1064	1.4658		4,568.7508
Total	**1.4685**	**13.2565**	**36.0010**	**0.0468**	**0.6220**	**0.3775**	**0.9995**	**0.0672**	**0.3526**	**0.4198**	**0.0000**	**4,532.1064**	**4,532.1064**	**1.4658**		**4,568.7508**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0478	1.3499	0.3638	5.3400e-003	0.1618	4.5600e-003	0.1664	0.0465	4.3600e-003	0.0509		569.3516	569.3516	0.0250		569.9759
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1196**	**1.3990**	**0.9103**	**7.0900e-003**	**0.3519**	**5.9200e-003**	**0.3578**	**0.0969**	**5.6100e-003**	**0.1025**		**743.9575**	**743.9575**	**0.0295**		**744.6960**

3.16 Plot 2 (2021) Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.4962	30.3448	35.8069	0.0504		1.6890	1.6890		1.5539	1.5539		4,879.8222	4,879.8222	1.5782		4,919.2781
Total	**3.4962**	**30.3448**	**35.8069**	**0.0504**	**1.5948**	**1.6890**	**3.2838**	**0.1722**	**1.5539**	**1.7261**		**4,879.8222**	**4,879.8222**	**1.5782**		**4,919.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1128**	**1.2061**	**0.8583**	**6.3300e-003**	**0.3288**	**5.2700e-003**	**0.3340**	**0.0903**	**4.9900e-003**	**0.0953**		**662.6215**	**662.6215**	**0.0260**		**663.2709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	13.4479	38.7255	0.0504		0.3834	0.3834		0.3585	0.3585	0.0000	4,879.8222	4,879.8222	1.5782		4,919.2781
Total	**1.5126**	**13.4479**	**38.7255**	**0.0504**	**0.6220**	**0.3834**	**1.0053**	**0.0672**	**0.3585**	**0.4257**	**0.0000**	**4,879.8222**	**4,879.8222**	**1.5782**		**4,919.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1128**	**1.2061**	**0.8583**	**6.3300e-003**	**0.3288**	**5.2700e-003**	**0.3340**	**0.0903**	**4.9900e-003**	**0.0953**		**662.6215**	**662.6215**	**0.0260**		**663.2709**

3.17 Plot 2 (2021) Curbing/Drive Approaches - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.8406	8.0613	9.6611	0.0145		0.4479	0.4479		0.4129	0.4129		1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8885**	**8.0613**	**9.6611**	**0.0145**	**0.0000**	**0.4479**	**0.4479**	**0.0000**	**0.4129**	**0.4129**		**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	2.3183	0.5317	7.1500e-003	0.1703	7.6700e-003	0.1780	0.0467	7.3400e-003	0.0540		773.5629	773.5629	0.0523		774.8708
Vendor	0.0273	0.7714	0.2079	3.0500e-003	0.0925	2.6100e-003	0.0951	0.0266	2.4900e-003	0.0291		325.3438	325.3438	0.0143		325.7005
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1684**	**3.1387**	**1.2860**	**0.0120**	**0.4528**	**0.0116**	**0.4645**	**0.1237**	**0.0111**	**0.1347**		**1,273.5125**	**1,273.5125**	**0.0712**		**1,275.2915**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,390.4834	1,390.4834	0.4414		1,401.5181
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2907**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,390.4834**	**1,390.4834**	**0.4414**		**1,401.5181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	2.3183	0.5317	7.1500e-003	0.1703	7.6700e-003	0.1780	0.0467	7.3400e-003	0.0540		773.5629	773.5629	0.0523		774.8708
Vendor	0.0273	0.7714	0.2079	3.0500e-003	0.0925	2.6100e-003	0.0951	0.0266	2.4900e-003	0.0291		325.3438	325.3438	0.0143		325.7005
Worker	0.0719	0.0491	0.5465	1.7500e-003	0.1900	1.3600e-003	0.1914	0.0504	1.2500e-003	0.0516		174.6059	174.6059	4.5700e-003		174.7202
Total	**0.1684**	**3.1387**	**1.2860**	**0.0120**	**0.4528**	**0.0116**	**0.4645**	**0.1237**	**0.0111**	**0.1347**		**1,273.5125**	**1,273.5125**	**0.0712**		**1,275.2915**

3.18 Plot 2 (2021) Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	5.0337	53.7732	49.2131	0.0855		2.5096	2.5096		2.3108	2.3108		8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**13.1295**	**53.7732**	**49.2131**	**0.0855**	**6.3630**	**2.5096**	**8.8726**	**0.6871**	**2.3108**	**2.9979**		**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1172	3.9232	0.8997	0.0121	0.2883	0.0130	0.3012	0.0790	0.0124	0.0914		1,309.1064	1,309.1064	0.0885		1,311.3199
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3378**	**5.2029**	**2.5778**	**0.0211**	**0.9020**	**0.0203**	**0.9223**	**0.2449**	**0.0193**	**0.2641**		**2,233.6368**	**2,233.6368**	**0.1214**		**2,236.6710**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0855		0.1544	0.1544		0.1544	0.1544	0.0000	8,243.6459	8,243.6459	2.6472		8,309.8267
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.1981**	**4.9064**	**52.6913**	**0.0855**	**2.4816**	**0.1544**	**2.6359**	**0.2680**	**0.1544**	**0.4223**	**0.0000**	**8,243.6459**	**8,243.6459**	**2.6472**		**8,309.8267**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1172	3.9232	0.8997	0.0121	0.2883	0.0130	0.3012	0.0790	0.0124	0.0914		1,309.1064	1,309.1064	0.0885		1,311.3199
Vendor	0.0409	1.1571	0.3118	4.5800e-003	0.1387	3.9100e-003	0.1426	0.0399	3.7400e-003	0.0436		488.0156	488.0156	0.0214		488.5507
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.3378**	**5.2029**	**2.5778**	**0.0211**	**0.9020**	**0.0203**	**0.9223**	**0.2449**	**0.0193**	**0.2641**		**2,233.6368**	**2,233.6368**	**0.1214**		**2,236.6710**

3.19 Plot 2 (2021) Temporary Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6806	19.5885	13.9313	0.0278		0.7881	0.7881		0.7251	0.7251		2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**1.6806**	**19.5885**	**13.9313**	**0.0278**	**0.0000**	**0.7881**	**0.7881**	**0.0000**	**0.7251**	**0.7251**		**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,688.3326	2,688.3326	0.8695		2,710.0691
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,688.3326**	**2,688.3326**	**0.8695**		**2,710.0691**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.20 Plot 4 (2022) Mass Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.6111	0.0000	31.6111	3.4133	0.0000	3.4133			0.0000			0.0000
Off-Road	32.7946	378.2678	219.1301	0.5410		14.2901	14.2901		13.1469	13.1469		52,389.8385	52,389.8385	16.9439		52,813.4369
Total	**32.7946**	**378.2678**	**219.1301**	**0.5410**	**31.6111**	**14.2901**	**45.9011**	**3.4133**	**13.1469**	**16.5601**		**52,389.8385**	**52,389.8385**	**16.9439**		**52,813.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1106	3.5839	0.8827	0.0119	0.2864	0.0111	0.2975	0.0785	0.0106	0.0891		1,285.0798	1,285.0798	0.0865		1,287.2427
Vendor	0.0580	1.6068	0.4469	6.8000e-003	0.2081	5.1000e-003	0.2132	0.0598	4.8800e-003	0.0647		725.4996	725.4996	0.0314		726.2842
Worker	0.3387	0.2217	2.5249	8.4400e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		841.7111	841.7111	0.0207		842.2274
Total	**0.5072**	**5.4124**	**3.8544**	**0.0271**	**1.4446**	**0.0228**	**1.4674**	**0.3903**	**0.0216**	**0.4118**		**2,852.2904**	**2,852.2904**	**0.1386**		**2,855.7543**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					12.3283	0.0000	12.3283	1.3312	0.0000	1.3312			0.0000			0.0000
Off-Road	6.6536	28.8322	248.6237	0.5410		0.8871	0.8871		0.8871	0.8871	0.0000	52,389.8384	52,389.8384	16.9439		52,813.4368
Total	**6.6536**	**28.8322**	**248.6237**	**0.5410**	**12.3283**	**0.8871**	**13.2155**	**1.3312**	**0.8871**	**2.2183**	**0.0000**	**52,389.8384**	**52,389.8384**	**16.9439**		**52,813.4368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.1106	3.5839	0.8827	0.0119	0.2864	0.0111	0.2975	0.0785	0.0106	0.0891		1,285.0798	1,285.0798	0.0865		1,287.2427
Vendor	0.0580	1.6068	0.4469	6.8000e-003	0.2081	5.1000e-003	0.2132	0.0598	4.8800e-003	0.0647		725.4996	725.4996	0.0314		726.2842
Worker	0.3387	0.2217	2.5249	8.4400e-003	0.9501	6.5800e-003	0.9567	0.2519	6.0600e-003	0.2580		841.7111	841.7111	0.0207		842.2274
Total	**0.5072**	**5.4124**	**3.8544**	**0.0271**	**1.4446**	**0.0228**	**1.4674**	**0.3903**	**0.0216**	**0.4118**		**2,852.2904**	**2,852.2904**	**0.1386**		**2,855.7543**

3.21 Plot 4 (2022) Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	12.1172	104.9336	114.8176	0.3462		4.3316	4.3316		3.9862	3.9862		33,484.8138	33,484.8138	10.8186		33,755.2781
Total	**12.1172**	**104.9336**	**114.8176**	**0.3462**	**25.5336**	**4.3316**	**29.8652**	**2.7570**	**3.9862**	**6.7433**		**33,484.8138**	**33,484.8138**	**10.8186**		**33,755.2781**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2030	6.5792	1.6204	0.0218	0.5258	0.0204	0.5461	0.1441	0.0195	0.1636		2,359.1201	2,359.1201	0.1588		2,363.0907
Vendor	0.1610	4.4634	1.2412	0.0189	0.5780	0.0142	0.5922	0.1662	0.0136	0.1798		2,015.2766	2,015.2766	0.0872		2,017.4562
Worker	0.2709	0.1773	2.0199	6.7500e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		673.3689	673.3689	0.0165		673.7819
Total	**0.6350**	**11.2199**	**4.8816**	**0.0474**	**1.8639**	**0.0398**	**1.9037**	**0.5118**	**0.0379**	**0.5498**		**5,047.7655**	**5,047.7655**	**0.2625**		**5,054.3288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.6115	46.9700	153.7850	0.3462		1.4579	1.4579		1.3720	1.3720	0.0000	33,484.8137	33,484.8137	10.8186		33,755.2781
Total	**6.6115**	**46.9700**	**153.7850**	**0.3462**	**9.9581**	**1.4579**	**11.4160**	**1.0752**	**1.3720**	**2.4473**	**0.0000**	**33,484.8137**	**33,484.8137**	**10.8186**		**33,755.2781**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2030	6.5792	1.6204	0.0218	0.5258	0.0204	0.5461	0.1441	0.0195	0.1636		2,359.1201	2,359.1201	0.1588		2,363.0907
Vendor	0.1610	4.4634	1.2412	0.0189	0.5780	0.0142	0.5922	0.1662	0.0136	0.1798		2,015.2766	2,015.2766	0.0872		2,017.4562
Worker	0.2709	0.1773	2.0199	6.7500e-003	0.7601	5.2600e-003	0.7654	0.2016	4.8500e-003	0.2064		673.3689	673.3689	0.0165		673.7819
Total	**0.6350**	**11.2199**	**4.8816**	**0.0474**	**1.8639**	**0.0398**	**1.9037**	**0.5118**	**0.0379**	**0.5498**		**5,047.7655**	**5,047.7655**	**0.2625**		**5,054.3288**

3.22 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.3724	31.9733	41.7603	0.0625		1.6934	1.6934		1.5925	1.5925		5,963.0836	5,963.0836	1.4710		5,999.8594
Total	**3.3724**	**31.9733**	**41.7603**	**0.0625**	**3.1937**	**1.6934**	**4.8871**	**0.3449**	**1.5925**	**1.9374**		**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8594**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1482	0.0625		0.1364	0.1364		0.1364	0.1364	0.0000	5,963.0836	5,963.0836	1.4710		5,999.8593
Total	**0.8772**	**4.1418**	**44.1482**	**0.0625**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,963.0836**	**5,963.0836**	**1.4710**		**5,999.8593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

3.23 Plot 4 (2022) Building-Wet Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.6507	50.6511	67.1239	0.1251		2.5038	2.5038		2.3035	2.3035		12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**5.6507**	**50.6511**	**67.1239**	**0.1251**	**9.5771**	**2.5038**	**12.0809**	**1.0341**	**2.3035**	**3.3376**		**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.3027	0.5671	7.6200e-003	0.1840	7.1300e-003	0.1912	0.0504	6.8200e-003	0.0573		825.6920	825.6920	0.0556		827.0818
Vendor	0.0966	2.6780	0.7447	0.0113	0.3468	8.5000e-003	0.3553	0.0997	8.1300e-003	0.1079		1,209.1659	1,209.1659	0.0523		1,210.4737
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3370**	**5.0916**	**2.5743**	**0.0232**	**1.0059**	**0.0189**	**1.0248**	**0.2761**	**0.0180**	**0.2941**		**2,455.7135**	**2,455.7135**	**0.1182**		**2,458.6691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.9539	11.4624	78.3314	0.1251		0.3959	0.3959		0.3777	0.3777	0.0000	12,112.7849	12,112.7849	3.9175		12,210.7229
Total	**1.9539**	**11.4624**	**78.3314**	**0.1251**	**3.7351**	**0.3959**	**4.1310**	**0.4033**	**0.3777**	**0.7810**	**0.0000**	**12,112.7849**	**12,112.7849**	**3.9175**		**12,210.7229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.3027	0.5671	7.6200e-003	0.1840	7.1300e-003	0.1912	0.0504	6.8200e-003	0.0573		825.6920	825.6920	0.0556		827.0818
Vendor	0.0966	2.6780	0.7447	0.0113	0.3468	8.5000e-003	0.3553	0.0997	8.1300e-003	0.1079		1,209.1659	1,209.1659	0.0523		1,210.4737
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3370**	**5.0916**	**2.5743**	**0.0232**	**1.0059**	**0.0189**	**1.0248**	**0.2761**	**0.0180**	**0.2941**		**2,455.7135**	**2,455.7135**	**0.1182**		**2,458.6691**

3.24 Plot 4 (2022) Building-Electrical - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.6650	32.9674	41.2585	0.0564		1.7258	1.7258		1.5895	1.5895		5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**3.6650**	**32.9674**	**41.2585**	**0.0564**	**6.3834**	**1.7258**	**8.1092**	**0.6893**	**1.5895**	**2.2787**		**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	5.2634	1.2963	0.0174	0.4206	0.0163	0.4369	0.1153	0.0156	0.1309		1,887.2961	1,887.2961	0.1271		1,890.4726
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.3027**	**6.4011**	**2.3517**	**0.0245**	**0.8444**	**0.0217**	**0.8660**	**0.2307**	**0.0207**	**0.2514**		**2,623.4758**	**2,623.4758**	**0.1542**		**2,627.3303**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.3124	11.1595	42.4570	0.0564		0.2803	0.2803		0.2659	0.2659	0.0000	5,436.8170	5,436.8170	1.7417		5,480.3604
Total	**1.3124**	**11.1595**	**42.4570**	**0.0564**	**2.4895**	**0.2803**	**2.7698**	**0.2688**	**0.2659**	**0.5347**	**0.0000**	**5,436.8170**	**5,436.8170**	**1.7417**		**5,480.3604**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	5.2634	1.2963	0.0174	0.4206	0.0163	0.4369	0.1153	0.0156	0.1309		1,887.2961	1,887.2961	0.1271		1,890.4726
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.3027**	**6.4011**	**2.3517**	**0.0245**	**0.8444**	**0.0217**	**0.8660**	**0.2307**	**0.0207**	**0.2514**		**2,623.4758**	**2,623.4758**	**0.1542**		**2,627.3303**

3.25 Plot 4 (2022) Building-Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9095	25.0953	32.9608	0.0468		1.3297	1.3297		1.2234	1.2234		4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**2.9095**	**25.0953**	**32.9608**	**0.0468**	**1.5948**	**1.3297**	**2.9246**	**0.1722**	**1.2234**	**1.3956**		**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0451	1.2497	0.3476	5.2900e-003	0.1618	3.9700e-003	0.1658	0.0465	3.8000e-003	0.0503		564.2774	564.2774	0.0244		564.8877
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1128**	**1.2941**	**0.8525**	**6.9800e-003**	**0.3519**	**5.2900e-003**	**0.3572**	**0.0969**	**5.0100e-003**	**0.1019**		**732.6197**	**732.6197**	**0.0285**		**733.3332**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3767	13.0484	35.8360	0.0468		0.3363	0.3363		0.3148	0.3148	0.0000	4,533.6168	4,533.6168	1.4663		4,570.2734
Total	**1.3767**	**13.0484**	**35.8360**	**0.0468**	**0.6220**	**0.3363**	**0.9583**	**0.0672**	**0.3148**	**0.3819**	**0.0000**	**4,533.6168**	**4,533.6168**	**1.4663**		**4,570.2734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0451	1.2497	0.3476	5.2900e-003	0.1618	3.9700e-003	0.1658	0.0465	3.8000e-003	0.0503		564.2774	564.2774	0.0244		564.8877
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1128**	**1.2941**	**0.8525**	**6.9800e-003**	**0.3519**	**5.2900e-003**	**0.3572**	**0.0969**	**5.0100e-003**	**0.1019**		**732.6197**	**732.6197**	**0.0285**		**733.3332**

3.26 Plot 4 (2022) Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0756	26.4898	35.2995	0.0504		1.4054	1.4054		1.2930	1.2930		4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**3.0756**	**26.4898**	**35.2995**	**0.0504**	**1.5948**	**1.4054**	**3.0002**	**0.1722**	**1.2930**	**1.4652**		**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1064**	**1.1155**	**0.8029**	**6.2200e-003**	**0.3288**	**4.7200e-003**	**0.3335**	**0.0903**	**4.4600e-003**	**0.0948**		**652.0086**	**652.0086**	**0.0251**		**652.6350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.4208	13.2398	38.5604	0.0504		0.3422	0.3422		0.3207	0.3207	0.0000	4,881.3326	4,881.3326	1.5787		4,920.8007
Total	**1.4208**	**13.2398**	**38.5604**	**0.0504**	**0.6220**	**0.3422**	**0.9642**	**0.0672**	**0.3207**	**0.3878**	**0.0000**	**4,881.3326**	**4,881.3326**	**1.5787**		**4,920.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1064**	**1.1155**	**0.8029**	**6.2200e-003**	**0.3288**	**4.7200e-003**	**0.3335**	**0.0903**	**4.4600e-003**	**0.0948**		**652.0086**	**652.0086**	**0.0251**		**652.6350**

3.27 Plot 4 (2022) Curbing/Drive Approaches - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7470	7.0919	9.5975	0.0145		0.3747	0.3747		0.3456	0.3456		1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7949**	**7.0919**	**9.5975**	**0.0145**	**0.0000**	**0.3747**	**0.3747**	**0.0000**	**0.3456**	**0.3456**		**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0658	2.1314	0.5250	7.0500e-003	0.1703	6.6000e-003	0.1769	0.0467	6.3200e-003	0.0530		764.2645	764.2645	0.0515		765.5508
Vendor	0.0258	0.7141	0.1986	3.0200e-003	0.0925	2.2700e-003	0.0948	0.0266	2.1700e-003	0.0288		322.4443	322.4443	0.0140		322.7930
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1593**	**2.8899**	**1.2285**	**0.0118**	**0.4528**	**0.0102**	**0.4630**	**0.1237**	**9.7000e-003**	**0.1334**		**1,255.0509**	**1,255.0509**	**0.0695**		**1,256.7893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8250	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,390.9176	1,390.9176	0.4415		1,401.9559
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2907**	**2.1332**	**10.8250**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,390.9176**	**1,390.9176**	**0.4415**		**1,401.9559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0658	2.1314	0.5250	7.0500e-003	0.1703	6.6000e-003	0.1769	0.0467	6.3200e-003	0.0530		764.2645	764.2645	0.0515		765.5508
Vendor	0.0258	0.7141	0.1986	3.0200e-003	0.0925	2.2700e-003	0.0948	0.0266	2.1700e-003	0.0288		322.4443	322.4443	0.0140		322.7930
Worker	0.0677	0.0443	0.5050	1.6900e-003	0.1900	1.3200e-003	0.1913	0.0504	1.2100e-003	0.0516		168.3422	168.3422	4.1300e-003		168.4455
Total	**0.1593**	**2.8899**	**1.2285**	**0.0118**	**0.4528**	**0.0102**	**0.4630**	**0.1237**	**9.7000e-003**	**0.1334**		**1,255.0509**	**1,255.0509**	**0.0695**		**1,256.7893**

3.28 Plot 4 (2022) Finish Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.9879	9.5635	8.0189	0.0109		0.5320	0.5320		0.4894	0.4894		1,054.1383	1,054.1383	0.3409		1,062.6616
Total	**0.9879**	**9.5635**	**8.0189**	**0.0109**	**3.4466**	**0.5320**	**3.9786**	**0.3722**	**0.4894**	**0.8616**		**1,054.1383**	**1,054.1383**	**0.3409**		**1,062.6616**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0110	0.3552	0.0875	1.1800e-003	0.0284	1.1000e-003	0.0295	7.7800e-003	1.0500e-003	8.8300e-003		127.3774	127.3774	8.5800e-003		127.5918
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.1254**	**0.7788**	**0.9443**	**5.2200e-003**	**0.3597**	**4.2000e-003**	**0.3639**	**0.0967**	**3.9500e-003**	**0.1006**		**541.1129**	**541.1129**	**0.0218**		**541.6565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,054.1383	1,054.1383	0.3409		1,062.6616
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,054.1383**	**1,054.1383**	**0.3409**		**1,062.6616**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0110	0.3552	0.0875	1.1800e-003	0.0284	1.1000e-003	0.0295	7.7800e-003	1.0500e-003	8.8300e-003		127.3774	127.3774	8.5800e-003		127.5918
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1016	0.0665	0.7575	2.5300e-003	0.2850	1.9700e-003	0.2870	0.0756	1.8200e-003	0.0774		252.5133	252.5133	6.2000e-003		252.6682
Total	**0.1254**	**0.7788**	**0.9443**	**5.2200e-003**	**0.3597**	**4.2000e-003**	**0.3639**	**0.0967**	**3.9500e-003**	**0.1006**		**541.1129**	**541.1129**	**0.0218**		**541.6565**

3.29 Plot 4 (2022) Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.4484	45.8951	47.4508	0.0856		2.0979	2.0979		1.9321	1.9321		8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.5442**	**45.8951**	**47.4508**	**0.0856**	**6.3630**	**2.0979**	**8.4609**	**0.6871**	**1.9321**	**2.6191**		**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1113	3.6070	0.8884	0.0119	0.2883	0.0112	0.2994	0.0790	0.0107	0.0897		1,293.3706	1,293.3706	0.0871		1,295.5475
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3193**	**4.7891**	**2.4487**	**0.0207**	**0.9020**	**0.0179**	**0.9199**	**0.2449**	**0.0170**	**0.2618**		**2,197.8926**	**2,197.8926**	**0.1183**		**2,200.8507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0856		0.1544	0.1544		0.1544	0.1544	0.0000	8,251.6397	8,251.6397	2.6498		8,317.8851
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.1981**	**4.9064**	**52.6913**	**0.0856**	**2.4816**	**0.1544**	**2.6359**	**0.2680**	**0.1544**	**0.4223**	**0.0000**	**8,251.6397**	**8,251.6397**	**2.6498**		**8,317.8851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1113	3.6070	0.8884	0.0119	0.2883	0.0112	0.2994	0.0790	0.0107	0.0897		1,293.3706	1,293.3706	0.0871		1,295.5475
Vendor	0.0386	1.0712	0.2979	4.5300e-003	0.1387	3.4000e-003	0.1421	0.0399	3.2500e-003	0.0432		483.6664	483.6664	0.0209		484.1895
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.3193**	**4.7891**	**2.4487**	**0.0207**	**0.9020**	**0.0179**	**0.9199**	**0.2449**	**0.0170**	**0.2618**		**2,197.8926**	**2,197.8926**	**0.1183**		**2,200.8507**

3.30 Plot 4 (2022) Temporary Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4846	16.4655	12.5866	0.0278		0.6674	0.6674		0.6140	0.6140		2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**1.4846**	**16.4655**	**12.5866**	**0.0278**	**0.0000**	**0.6674**	**0.6674**	**0.0000**	**0.6140**	**0.6140**		**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,686.7697	2,686.7697	0.8690		2,708.4936
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,686.7697**	**2,686.7697**	**0.8690**		**2,708.4936**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.31 Plot 4 (2023) Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.4664	93.8395	114.0629	0.3463		3.7794	3.7794		3.4782	3.4782		33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**11.4664**	**93.8395**	**114.0629**	**0.3463**	**25.5336**	**3.7794**	**29.3130**	**2.7570**	**3.4782**	**6.2352**		**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1340	4.1236	1.4570	0.0209	0.5258	8.5100e-003	0.5343	0.1441	8.1400e-003	0.1522		2,266.2820	2,266.2820	0.1468		2,269.9508
Vendor	0.1173	2.9163	1.1114	0.0184	0.5780	6.3800e-003	0.5844	0.1662	6.1000e-003	0.1723		1,960.3769	1,960.3769	0.0802		1,962.3829
Worker	0.2561	0.1605	1.8633	6.5000e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		648.2429	648.2429	0.0149		648.6153
Total	**0.5074**	**7.2005**	**4.4317**	**0.0457**	**1.8639**	**0.0200**	**1.8839**	**0.5118**	**0.0190**	**0.5308**		**4,874.9019**	**4,874.9019**	**0.2419**		**4,880.9490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.4391	43.3777	153.5270	0.3463		1.3277	1.3277		1.2523	1.2523	0.0000	33,491.6076	33,491.6076	10.8208		33,762.1269
Total	**6.4391**	**43.3777**	**153.5270**	**0.3463**	**9.9581**	**1.3277**	**11.2858**	**1.0752**	**1.2523**	**2.3275**	**0.0000**	**33,491.6076**	**33,491.6076**	**10.8208**		**33,762.1269**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1340	4.1236	1.4570	0.0209	0.5258	8.5100e-003	0.5343	0.1441	8.1400e-003	0.1522		2,266.2820	2,266.2820	0.1468		2,269.9508
Vendor	0.1173	2.9163	1.1114	0.0184	0.5780	6.3800e-003	0.5844	0.1662	6.1000e-003	0.1723		1,960.3769	1,960.3769	0.0802		1,962.3829
Worker	0.2561	0.1605	1.8633	6.5000e-003	0.7601	5.1300e-003	0.7652	0.2016	4.7200e-003	0.2063		648.2429	648.2429	0.0149		648.6153
Total	**0.5074**	**7.2005**	**4.4317**	**0.0457**	**1.8639**	**0.0200**	**1.8839**	**0.5118**	**0.0190**	**0.5308**		**4,874.9019**	**4,874.9019**	**0.2419**		**4,880.9490**

3.32 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1272	29.4848	41.6515	0.0626		1.4439	1.4439		1.3588	1.3588		5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**3.1272**	**29.4848**	**41.6515**	**0.0626**	**3.1937**	**1.4439**	**4.6376**	**0.3449**	**1.3588**	**1.7036**		**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,967.6944	5,967.6944	1.4643		6,004.3019
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,967.6944**	**5,967.6944**	**1.4643**		**6,004.3019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

3.33 Plot 4 (2023) Building-Wet Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.2473	44.9812	66.9330	0.1252		2.1714	2.1714		1.9977	1.9977		12,115.3301	12,115.3301	3.9183		12,213.2887
Total	**5.2473**	**44.9812**	**66.9330**	**0.1252**	**9.5771**	**2.1714**	**11.7485**	**1.0341**	**1.9977**	**3.0318**		**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2887**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0469	1.4433	0.5099	7.3000e-003	0.1840	2.9800e-003	0.1870	0.0504	2.8500e-003	0.0533		793.1987	793.1987	0.0514		794.4828
Vendor	0.0704	1.7498	0.6668	0.0110	0.3468	3.8300e-003	0.3506	0.0997	3.6600e-003	0.1034		1,176.2262	1,176.2262	0.0481		1,177.4297
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2773**	**3.2934**	**2.3414**	**0.0224**	**1.0059**	**0.0100**	**1.0159**	**0.2761**	**9.4600e-003**	**0.2856**		**2,374.5767**	**2,374.5767**	**0.1088**		**2,377.2971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.9174	10.6674	78.3102	0.1252		0.3683	0.3683		0.3523	0.3523	0.0000	12,115.3301	12,115.3301	3.9183		12,213.2886
Total	**1.9174**	**10.6674**	**78.3102**	**0.1252**	**3.7351**	**0.3683**	**4.1034**	**0.4033**	**0.3523**	**0.7556**	**0.0000**	**12,115.3301**	**12,115.3301**	**3.9183**		**12,213.2886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0469	1.4433	0.5099	7.3000e-003	0.1840	2.9800e-003	0.1870	0.0504	2.8500e-003	0.0533		793.1987	793.1987	0.0514		794.4828
Vendor	0.0704	1.7498	0.6668	0.0110	0.3468	3.8300e-003	0.3506	0.0997	3.6600e-003	0.1034		1,176.2262	1,176.2262	0.0481		1,177.4297
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2773**	**3.2934**	**2.3414**	**0.0224**	**1.0059**	**0.0100**	**1.0159**	**0.2761**	**9.4600e-003**	**0.2856**		**2,374.5767**	**2,374.5767**	**0.1088**		**2,377.2971**

3.34 Plot 4 (2023) Building-Electrical - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.4037	30.7960	41.0415	0.0565		1.4799	1.4799		1.3632	1.3632		5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**3.4037**	**30.7960**	**41.0415**	**0.0565**	**6.3834**	**1.4799**	**7.8633**	**0.6893**	**1.3632**	**2.0525**		**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1072	3.2989	1.1656	0.0167	0.4206	6.8100e-003	0.4274	0.1153	6.5100e-003	0.1218		1,813.0256	1,813.0256	0.1174		1,815.9607
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0960	0.0602	0.6988	2.4400e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		243.0911	243.0911	5.5800e-003		243.2307
Total	**0.2314**	**4.0590**	**2.1311**	**0.0235**	**0.8444**	**0.0103**	**0.8546**	**0.2307**	**9.7500e-003**	**0.2405**		**2,526.6072**	**2,526.6072**	**0.1422**		**2,530.1633**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2812	11.0392	42.4125	0.0565		0.2575	0.2575		0.2449	0.2449	0.0000	5,439.9000	5,439.9000	1.7427		5,483.4683
Total	**1.2812**	**11.0392**	**42.4125**	**0.0565**	**2.4895**	**0.2575**	**2.7470**	**0.2688**	**0.2449**	**0.5138**	**0.0000**	**5,439.9000**	**5,439.9000**	**1.7427**		**5,483.4683**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1072	3.2989	1.1656	0.0167	0.4206	6.8100e-003	0.4274	0.1153	6.5100e-003	0.1218		1,813.0256	1,813.0256	0.1174		1,815.9607
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0960	0.0602	0.6988	2.4400e-003	0.2850	1.9200e-003	0.2870	0.0756	1.7700e-003	0.0774		243.0911	243.0911	5.5800e-003		243.2307
Total	**0.2314**	**4.0590**	**2.1311**	**0.0235**	**0.8444**	**0.0103**	**0.8546**	**0.2307**	**9.7500e-003**	**0.2405**		**2,526.6072**	**2,526.6072**	**0.1422**		**2,530.1633**

3.35 Plot 4 (2023) Building-Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6611	22.7664	32.6759	0.0468		1.1283	1.1283		1.0380	1.0380		4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**2.6611**	**22.7664**	**32.6759**	**0.0468**	**1.5948**	**1.1283**	**2.7231**	**0.1722**	**1.0380**	**1.2102**		**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0328	0.8166	0.3112	5.1400e-003	0.1618	1.7900e-003	0.1636	0.0465	1.7100e-003	0.0483		548.9055	548.9055	0.0225		549.4672
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0969**	**0.8567**	**0.7770**	**6.7700e-003**	**0.3519**	**3.0700e-003**	**0.3549**	**0.0969**	**2.8900e-003**	**0.0998**		**710.9663**	**710.9663**	**0.0262**		**711.6210**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3016	12.7600	35.6416	0.0468		0.2845	0.2845		0.2671	0.2671	0.0000	4,534.6014	4,534.6014	1.4666		4,571.2659
Total	**1.3016**	**12.7600**	**35.6416**	**0.0468**	**0.6220**	**0.2845**	**0.9065**	**0.0672**	**0.2671**	**0.3343**	**0.0000**	**4,534.6014**	**4,534.6014**	**1.4666**		**4,571.2659**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0328	0.8166	0.3112	5.1400e-003	0.1618	1.7900e-003	0.1636	0.0465	1.7100e-003	0.0483		548.9055	548.9055	0.0225		549.4672
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0969**	**0.8567**	**0.7770**	**6.7700e-003**	**0.3519**	**3.0700e-003**	**0.3549**	**0.0969**	**2.8900e-003**	**0.0998**		**710.9663**	**710.9663**	**0.0262**		**711.6210**

3.36 Plot 4 (2023) Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.8208	24.0690	35.0106	0.0504		1.1989	1.1989		1.1030	1.1030		4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**2.8208**	**24.0690**	**35.0106**	**0.0504**	**1.5948**	**1.1989**	**2.7937**	**0.1722**	**1.1030**	**1.2752**		**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0922**	**0.7401**	**0.7326**	**6.0300e-003**	**0.3288**	**2.8100e-003**	**0.3316**	**0.0903**	**2.6500e-003**	**0.0929**		**632.5512**	**632.5512**	**0.0230**		**633.1257**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3458	12.9515	38.3661	0.0504		0.2904	0.2904		0.2730	0.2730	0.0000	4,882.3172	4,882.3172	1.5790		4,921.7932
Total	**1.3458**	**12.9515**	**38.3661**	**0.0504**	**0.6220**	**0.2904**	**0.9124**	**0.0672**	**0.2730**	**0.3402**	**0.0000**	**4,882.3172**	**4,882.3172**	**1.5790**		**4,921.7932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.0922**	**0.7401**	**0.7326**	**6.0300e-003**	**0.3288**	**2.8100e-003**	**0.3316**	**0.0903**	**2.6500e-003**	**0.0929**		**632.5512**	**632.5512**	**0.0230**		**633.1257**

3.37 Plot 4 (2023) Curbing/Drive Approaches - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7096	6.6244	9.6049	0.0145		0.3375	0.3375		0.3113	0.3113		1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7575**	**6.6244**	**9.6049**	**0.0145**	**0.0000**	**0.3375**	**0.3375**	**0.0000**	**0.3113**	**0.3113**		**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0434	1.3359	0.4720	6.7600e-003	0.1703	2.7600e-003	0.1731	0.0467	2.6400e-003	0.0493		734.1885	734.1885	0.0475		735.3770
Vendor	0.0188	0.4666	0.1778	2.9400e-003	0.0925	1.0200e-003	0.0935	0.0266	9.8000e-004	0.0276		313.6603	313.6603	0.0128		313.9813
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.1262**	**1.8426**	**1.1157**	**0.0113**	**0.4528**	**5.0600e-003**	**0.4579**	**0.1237**	**4.8000e-003**	**0.1285**		**1,209.9095**	**1,209.9095**	**0.0641**		**1,211.5121**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.1391	1,391.1391	0.4416		1,402.1791
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.2907**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.1391**	**1,391.1391**	**0.4416**		**1,402.1791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0434	1.3359	0.4720	6.7600e-003	0.1703	2.7600e-003	0.1731	0.0467	2.6400e-003	0.0493		734.1885	734.1885	0.0475		735.3770
Vendor	0.0188	0.4666	0.1778	2.9400e-003	0.0925	1.0200e-003	0.0935	0.0266	9.8000e-004	0.0276		313.6603	313.6603	0.0128		313.9813
Worker	0.0640	0.0401	0.4658	1.6300e-003	0.1900	1.2800e-003	0.1913	0.0504	1.1800e-003	0.0516		162.0607	162.0607	3.7200e-003		162.1538
Total	**0.1262**	**1.8426**	**1.1157**	**0.0113**	**0.4528**	**5.0600e-003**	**0.4579**	**0.1237**	**4.8000e-003**	**0.1285**		**1,209.9095**	**1,209.9095**	**0.0641**		**1,211.5121**

3.38 Plot 4 (2023) Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.2119	42.3567	46.8307	0.0856		1.8940	1.8940		1.7444	1.7444		8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.3077**	**42.3567**	**46.8307**	**0.0856**	**6.3630**	**1.8940**	**8.2570**	**0.6871**	**1.7444**	**2.4315**		**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0735	2.2608	0.7988	0.0114	0.2882	4.6600e-003	0.2929	0.0790	4.4600e-003	0.0835		1,242.4728	1,242.4728	0.0805		1,244.4842
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2617**	**3.0610**	**2.2301**	**0.0199**	**0.9020**	**9.3900e-003**	**0.9114**	**0.2449**	**8.8800e-003**	**0.2537**		**2,118.1151**	**2,118.1151**	**0.1090**		**2,120.8407**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.1023	4.9064	52.6913	0.0856		0.1544	0.1544		0.1544	0.1544	0.0000	8,252.7065	8,252.7065	2.6502		8,318.9606
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**9.1981**	**4.9064**	**52.6913**	**0.0856**	**2.4816**	**0.1544**	**2.6359**	**0.2680**	**0.1544**	**0.4223**	**0.0000**	**8,252.7065**	**8,252.7065**	**2.6502**		**8,318.9606**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0735	2.2608	0.7988	0.0114	0.2882	4.6600e-003	0.2929	0.0790	4.4600e-003	0.0835		1,242.4728	1,242.4728	0.0805		1,244.4842
Vendor	0.0281	0.6999	0.2667	4.4000e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4700e-003	0.0414		470.4905	470.4905	0.0193		470.9719
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.2617**	**3.0610**	**2.2301**	**0.0199**	**0.9020**	**9.3900e-003**	**0.9114**	**0.2449**	**8.8800e-003**	**0.2537**		**2,118.1151**	**2,118.1151**	**0.1090**		**2,120.8407**

3.39 Plot 4 (2023) Temporary Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3445	14.2851	11.4372	0.0278		0.5778	0.5778		0.5316	0.5316		2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**1.3445**	**14.2851**	**11.4372**	**0.0278**	**0.0000**	**0.5778**	**0.5778**	**0.0000**	**0.5316**	**0.5316**		**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,687.4145	2,687.4145	0.8692		2,709.1436
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,687.4145**	**2,687.4145**	**0.8692**		**2,709.1436**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plots 2 and 4 - South Coast AQMD Air District, Summer

World Logistics Center-Construction Dust-Plots 2 and 4

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation - Project Specific Information

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	60
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	24.7679	16.4808	3.0037	0.0209	160.5051	0.0127	160.5178	16.0113	0.0121	16.0234	0.0000	2,247.4733	2,247.4733	0.3090	0.0000	2,255.1987
2021	12.6090	14.5092	2.8704	0.0191	173.0981	9.1300e-003	173.1072	17.2672	8.6800e-003	17.2759	0.0000	2,044.8472	2,044.8472	0.2663	0.0000	2,051.5050
2022	12.6857	16.0941	3.2793	0.0218	220.1439	9.2800e-003	220.1532	21.9598	8.8000e-003	21.9686	0.0000	2,342.7008	2,342.7008	0.2890	0.0000	2,349.9269
2023	12.4931	11.7490	2.4096	0.0180	173.0981	4.9600e-003	173.1031	17.2672	4.6900e-003	17.2719	0.0000	1,935.3006	1,935.3006	0.2010	0.0000	1,940.3257
Maximum	**24.7679**	**16.4808**	**3.2793**	**0.0218**	**220.1439**	**0.0127**	**220.1532**	**21.9598**	**0.0121**	**21.9686**	**0.0000**	**2,342.7008**	**2,342.7008**	**0.3090**	**0.0000**	**2,349.9269**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	24.7679	16.4808	3.0037	0.0209	64.2216	0.0127	64.2343	6.4120	0.0121	6.4240	0.0000	2,247.4733	2,247.4733	0.3090	0.0000	2,255.1987
2021	12.6090	14.5092	2.8704	0.0191	69.2594	9.1300e-003	69.2685	6.9146	8.6800e-003	6.9233	0.0000	2,044.8472	2,044.8472	0.2663	0.0000	2,051.5050
2022	12.6857	16.0941	3.2793	0.0218	88.0822	9.2800e-003	88.0914	8.7934	8.8000e-003	8.8022	0.0000	2,342.7008	2,342.7008	0.2890	0.0000	2,349.9269
2023	12.4931	11.7490	2.4096	0.0180	69.2594	4.9600e-003	69.2643	6.9146	4.6900e-003	6.9193	0.0000	1,935.3006	1,935.3006	0.2010	0.0000	1,940.3257
Maximum	**24.7679**	**16.4808**	**3.2793**	**0.0218**	**88.0822**	**0.0127**	**88.0914**	**8.7934**	**0.0121**	**8.8022**	**0.0000**	**2,342.7008**	**2,342.7008**	**0.3090**	**0.0000**	**2,349.9269**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.93**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2020) Mass Excavation	Grading	1/1/2020	6/30/2020	5	130	1100
2	Plot 2 (2020) Utilities	Trenching	1/1/2020	12/29/2020	5	260	1104
3	Plot 2 (2020) Landscaping	Building Construction	1/1/2020	12/29/2020	5	260	1105
4	Plot 2 (2020) Finish Grading	Grading	5/7/2020	7/1/2020	5	40	1101
5	Plot 2 (2020) Building-Wet Utilities	Building Construction	7/2/2020	12/30/2020	5	130	1102
6	Plot 2 (2020) Building-Electrical	Building Construction	7/2/2020	12/30/2020	5	130	1103
7	Plot 2 (2020) Temporary Utilities	Building Construction	7/2/2020	12/30/2020	5	130	1106
8	Plot 2 (2020) Curbing/Drive Approaches	Paving	11/5/2020	12/30/2020	5	40	1107
9	Plot 2 (2020) Paving	Paving	12/3/2020	12/30/2020	5	20	1108
10	Plot 2 (2021) Utilities	Trenching	1/1/2021	12/30/2021	5	260	1113
11	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	1109
12	Plot 2 (2021) Building-Wet Utilities	Building Construction	1/1/2021	12/30/2021	5	260	1110
13	Plot 2 (2021) Building-Electrical	Building Construction	1/1/2021	12/30/2021	5	260	1111
14	Plot 2 (2021) Building-Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	1112
15	Plot 2 (2021) Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	1114
16	Plot 2 (2021) Curbing/Drive Approaches	Paving	5/1/2021	8/20/2021	5	80	1116
17	Plot 2 (2021) Paving	Paving	6/1/2021	7/26/2021	5	40	1117
18	Plot 2 (2021) Temporary Utilities	Building Construction	7/2/2021	12/30/2021	5	130	1115

19	Plot 4 (2022) Mass Excavation	Grading	1/1/2022	7/1/2022	5	130	1118
20	Plot 4 (2022) Utilities	Trenching	1/1/2022	12/30/2022	5	260	1124
21	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	1120
22	Plot 4 (2022) Building-Wet Utilities	Building Construction	1/1/2022	12/30/2022	5	260	1121
23	Plot 4 (2022) Building-Electrical	Building Construction	1/1/2022	12/30/2022	5	260	1122
24	Plot 4 (2022) Building-Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	1123
25	Plot 4 (2022) Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	1125
26	Plot 4 (2022) Curbing/Drive Approaches	Paving	5/1/2022	8/20/2022	5	80	1127
27	Plot 4 (2022) Finish Grading	Grading	5/7/2022	7/1/2022	5	40	1119
28	Plot 4 (2022) Paving	Paving	6/1/2022	7/26/2022	5	40	1128
29	Plot 4 (2022) Temporary Utilities	Building Construction	7/2/2022	12/30/2022	5	130	1126
30	Plot 4 (2023) Utilities	Trenching	1/1/2023	12/30/2023	5	260	1133
31	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	1129
32	Plot 4 (2023) Building-Wet Utilities	Building Construction	1/1/2023	12/30/2023	5	260	1130
33	Plot 4 (2023) Building-Electrical	Building Construction	1/1/2023	12/30/2023	5	260	1131
34	Plot 4 (2023) Building-Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	1132
35	Plot 4 (2023) Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	1134
36	Plot 4 (2023) Curbing/Drive Approaches	Paving	5/1/2023	8/20/2023	5	80	1136
37	Plot 4 (2023) Paving	Paving	6/1/2023	7/26/2023	5	40	1137
38	Plot 4 (2023) Temporary Utilities	Building Construction	7/2/2023	12/30/2023	5	130	1135

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 2 (2020) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Finish Grading		15.00	2.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 4 (2022) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Finish Grading		15.00	2.00	52.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Clean Paved Roads

3.2 Plot 2 (2020) Mass Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0244	1.3408	0.1595	1.6800e-003	6.8249	8.1000e-004	6.8257	0.6809	7.8000e-004	0.6817		181.4994	181.4994	0.0258		182.1442
Vendor	0.0140	0.5831	0.1275	6.6000e-004	4.6837	5.8000e-004	4.6842	0.4674	5.6000e-004	0.4679		71.1693	71.1693	9.6100e-003		71.4096
Worker	0.0634	0.0190	0.2592	3.1000e-004	26.0154	4.6000e-004	26.0158	2.5946	4.2000e-004	2.5950		30.5747	30.5747	1.5900e-003		30.6145
Total	**0.1017**	**1.9429**	**0.5462**	**2.6500e-003**	**37.5239**	**1.8500e-003**	**37.5258**	**3.7428**	**1.7600e-003**	**3.7446**		**283.2434**	**283.2434**	**0.0370**		**284.1682**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0244	1.3408	0.1595	1.6800e-003	2.7310	8.1000e-004	2.7318	0.2727	7.8000e-004	0.2735		181.4994	181.4994	0.0258		182.1442
Vendor	0.0140	0.5831	0.1275	6.6000e-004	1.8743	5.8000e-004	1.8749	0.1873	5.6000e-004	0.1878		71.1693	71.1693	9.6100e-003		71.4096
Worker	0.0634	0.0190	0.2592	3.1000e-004	10.4079	4.6000e-004	10.4084	1.0385	4.2000e-004	1.0390		30.5747	30.5747	1.5900e-003		30.6145
Total	**0.1017**	**1.9429**	**0.5462**	**2.6500e-003**	**15.0132**	**1.8500e-003**	**15.0151**	**1.4985**	**1.7600e-003**	**1.5003**		**283.2434**	**283.2434**	**0.0370**		**284.1682**

3.3 Plot 2 (2020) Utilities - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0447	2.4614	0.2929	3.0900e-003	12.5290	1.4900e-003	12.5305	1.2499	1.4300e-003	1.2514		333.1925	333.1925	0.0473		334.3761
Vendor	0.0389	1.6197	0.3542	1.8500e-003	13.0101	1.6100e-003	13.0118	1.2983	1.5400e-003	1.2998		197.6924	197.6924	0.0267		198.3599
Worker	0.0507	0.0152	0.2074	2.5000e-004	20.8123	3.6000e-004	20.8127	2.0757	3.3000e-004	2.0760		24.4598	24.4598	1.2700e-003		24.4916
Total	**0.1343**	**4.0963**	**0.8544**	**5.1900e-003**	**46.3515**	**3.4600e-003**	**46.3549**	**4.6239**	**3.3000e-003**	**4.6272**		**555.3447**	**555.3447**	**0.0753**		**557.2276**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0447	2.4614	0.2929	3.0900e-003	5.0135	1.4900e-003	5.0149	0.5006	1.4300e-003	0.5021		333.1925	333.1925	0.0473		334.3761
Vendor	0.0389	1.6197	0.3542	1.8500e-003	5.2064	1.6100e-003	5.2080	0.5202	1.5400e-003	0.5218		197.6924	197.6924	0.0267		198.3599
Worker	0.0507	0.0152	0.2074	2.5000e-004	8.3263	3.6000e-004	8.3267	0.8308	3.3000e-004	0.8312		24.4598	24.4598	1.2700e-003		24.4916
Total	**0.1343**	**4.0963**	**0.8544**	**5.1900e-003**	**18.5462**	**3.4600e-003**	**18.5497**	**1.8517**	**3.3000e-003**	**1.8550**		**555.3447**	**555.3447**	**0.0753**		**557.2276**

3.4 Plot 2 (2020) Landscaping - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	3.1224	3.9000e-004	3.1228	0.3116	3.7000e-004	0.3120		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0220**	**0.3925**	**0.1368**	**5.0000e-004**	**8.3255**	**4.8000e-004**	**8.3260**	**0.8305**	**4.5000e-004**	**0.8310**		**53.5611**	**53.5611**	**6.7300e-003**		**53.7293**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	1.2495	3.9000e-004	1.2499	0.1249	3.7000e-004	0.1252		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0220**	**0.3925**	**0.1368**	**5.0000e-004**	**3.3311**	**4.8000e-004**	**3.3316**	**0.3326**	**4.5000e-004**	**0.3330**		**53.5611**	**53.5611**	**6.7300e-003**		**53.7293**

3.5 Plot 2 (2020) Finish Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1100e-003	0.1296	0.0283	1.5000e-004	1.0408	1.3000e-004	1.0409	0.1039	1.2000e-004	0.1040		15.8154	15.8154	2.1400e-003		15.8688
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	7.8046	1.4000e-004	7.8048	0.7784	1.3000e-004	0.7785		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0221**	**0.1353**	**0.1061**	**2.4000e-004**	**8.8454**	**2.7000e-004**	**8.8457**	**0.8822**	**2.5000e-004**	**0.8825**		**24.9878**	**24.9878**	**2.6200e-003**		**25.0531**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1100e-003	0.1296	0.0283	1.5000e-004	0.4165	1.3000e-004	0.4166	0.0416	1.2000e-004	0.0417		15.8154	15.8154	2.1400e-003		15.8688
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	3.1224	1.4000e-004	3.1225	0.3116	1.3000e-004	0.3117		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0221**	**0.1353**	**0.1061**	**2.4000e-004**	**3.5389**	**2.7000e-004**	**3.5392**	**0.3532**	**2.5000e-004**	**0.3534**		**24.9878**	**24.9878**	**2.6200e-003**		**25.0531**

3.6 Plot 2 (2020) Building-Wet Utilities - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	1.7230	0.2050	2.1600e-003	8.7703	1.0400e-003	8.7714	0.8750	1.0000e-003	0.8760		233.2348	233.2348	0.0331		234.0633
Vendor	0.0233	0.9718	0.2125	1.1100e-003	7.8061	9.7000e-004	7.8071	0.7790	9.3000e-004	0.7799		118.6155	118.6155	0.0160		119.0159
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	13.0077	2.3000e-004	13.0079	1.2973	2.1000e-004	1.2975		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0863**	**2.7043**	**0.5471**	**3.4200e-003**	**29.5841**	**2.2400e-003**	**29.5863**	**2.9512**	**2.1400e-003**	**2.9533**		**367.1376**	**367.1376**	**0.0500**		**368.3865**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	1.7230	0.2050	2.1600e-003	3.5094	1.0400e-003	3.5105	0.3505	1.0000e-003	0.3515		233.2348	233.2348	0.0331		234.0633
Vendor	0.0233	0.9718	0.2125	1.1100e-003	3.1239	9.7000e-004	3.1248	0.3121	9.3000e-004	0.3131		118.6155	118.6155	0.0160		119.0159
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	5.2040	2.3000e-004	5.2042	0.5193	2.1000e-004	0.5195		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0863**	**2.7043**	**0.5471**	**3.4200e-003**	**11.8372**	**2.2400e-003**	**11.8395**	**1.1819**	**2.1400e-003**	**1.1840**		**367.1376**	**367.1376**	**0.0500**		**368.3865**

3.7 Plot 2 (2020) Building-Electrical - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0716	3.9383	0.4686	4.9500e-003	20.0465	2.3900e-003	20.0488	1.9999	2.2800e-003	2.0022		533.1080	533.1080	0.0758		535.0018
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	3.1224	3.9000e-004	3.1228	0.3116	3.7000e-004	0.3120		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	7.8046	1.4000e-004	7.8048	0.7784	1.3000e-004	0.7785		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0999**	**4.3327**	**0.6313**	**5.4800e-003**	**30.9735**	**2.9200e-003**	**30.9764**	**3.0899**	**2.7800e-003**	**3.0926**		**589.7266**	**589.7266**	**0.0826**		**591.7925**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0716	3.9383	0.4686	4.9500e-003	8.0215	2.3900e-003	8.0239	0.8010	2.2800e-003	0.8033		533.1080	533.1080	0.0758		535.0018
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	1.2495	3.9000e-004	1.2499	0.1249	3.7000e-004	0.1252		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0190	5.7000e-003	0.0778	9.0000e-005	3.1224	1.4000e-004	3.1225	0.3116	1.3000e-004	0.3117		9.1724	9.1724	4.8000e-004		9.1844
Total	**0.0999**	**4.3327**	**0.6313**	**5.4800e-003**	**12.3934**	**2.9200e-003**	**12.3963**	**1.2375**	**2.7800e-003**	**1.2402**		**589.7266**	**589.7266**	**0.0826**		**591.7925**

3.8 Plot 2 (2020) Temporary Utilities - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 Plot 2 (2020) Curbing/Drive Approaches - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0290	1.5948	0.1898	2.0000e-003	8.1179	9.7000e-004	8.1188	0.8099	9.3000e-004	0.8108		215.8832	215.8832	0.0307		216.6501
Vendor	6.2200e-003	0.2592	0.0567	3.0000e-004	2.0816	2.6000e-004	2.0819	0.2077	2.5000e-004	0.2080		31.6308	31.6308	4.2700e-003		31.7376
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0479**	**1.8578**	**0.2983**	**2.3600e-003**	**15.4025**	**1.3200e-003**	**15.4039**	**1.5365**	**1.2600e-003**	**1.5378**		**253.6289**	**253.6289**	**0.0353**		**254.5106**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0290	1.5948	0.1898	2.0000e-003	3.2483	9.7000e-004	3.2493	0.3244	9.3000e-004	0.3253		215.8832	215.8832	0.0307		216.6501
Vendor	6.2200e-003	0.2592	0.0567	3.0000e-004	0.8330	2.6000e-004	0.8333	0.0832	2.5000e-004	0.0835		31.6308	31.6308	4.2700e-003		31.7376
Worker	0.0127	3.8000e-003	0.0518	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		6.1149	6.1149	3.2000e-004		6.1229
Total	**0.0479**	**1.8578**	**0.2983**	**2.3600e-003**	**6.1629**	**1.3200e-003**	**6.1643**	**0.6153**	**1.2600e-003**	**0.6166**		**253.6289**	**253.6289**	**0.0353**		**254.5106**

3.10 Plot 2 (2020) Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**16.1916**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0491	2.6989	0.3211	3.3900e-003	13.7379	1.6400e-003	13.7395	1.3705	1.5700e-003	1.3721		365.3408	365.3408	0.0519		366.6386
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	3.1224	3.9000e-004	3.1228	0.3116	3.7000e-004	0.3120		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	13.0077	2.3000e-004	13.0079	1.2973	2.1000e-004	1.2975		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0901**	**3.0972**	**0.5357**	**3.9800e-003**	**29.8680**	**2.2600e-003**	**29.8703**	**2.9794**	**2.1500e-003**	**2.9816**		**428.0744**	**428.0744**	**0.0591**		**429.5522**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	16.1916					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**16.1916**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0491	2.6989	0.3211	3.3900e-003	5.4972	1.6400e-003	5.4988	0.5490	1.5700e-003	0.5505		365.3408	365.3408	0.0519		366.6386
Vendor	9.3300e-003	0.3887	0.0850	4.4000e-004	1.2495	3.9000e-004	1.2499	0.1249	3.7000e-004	0.1252		47.4462	47.4462	6.4100e-003		47.6064
Worker	0.0317	9.5000e-003	0.1296	1.5000e-004	5.2040	2.3000e-004	5.2042	0.5193	2.1000e-004	0.5195		15.2874	15.2874	8.0000e-004		15.3072
Total	**0.0901**	**3.0972**	**0.5357**	**3.9800e-003**	**11.9507**	**2.2600e-003**	**11.9529**	**1.1931**	**2.1500e-003**	**1.1952**		**428.0744**	**428.0744**	**0.0591**		**429.5522**

3.11 Plot 2 (2021) Utilities - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	2.3775	0.2810	3.0600e-003	12.5290	1.2900e-003	12.5303	1.2499	1.2300e-003	1.2512		330.0634	330.0634	0.0450		331.1881
Vendor	0.0355	1.5553	0.3282	1.8300e-003	13.0101	8.0000e-004	13.0109	1.2983	7.6000e-004	1.2990		195.9610	195.9610	0.0253		196.5932
Worker	0.0467	0.0134	0.1879	2.4000e-004	20.8123	3.5000e-004	20.8127	2.0757	3.3000e-004	2.0760		23.6808	23.6808	1.1300e-003		23.7091
Total	**0.1243**	**3.9463**	**0.7972**	**5.1300e-003**	**46.3515**	**2.4400e-003**	**46.3539**	**4.6239**	**2.3200e-003**	**4.6262**		**549.7051**	**549.7051**	**0.0714**		**551.4904**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	2.3775	0.2810	3.0600e-003	5.0135	1.2900e-003	5.0147	0.5006	1.2300e-003	0.5019		330.0634	330.0634	0.0450		331.1881
Vendor	0.0355	1.5553	0.3282	1.8300e-003	5.2064	8.0000e-004	5.2072	0.5202	7.6000e-004	0.5210		195.9610	195.9610	0.0253		196.5932
Worker	0.0467	0.0134	0.1879	2.4000e-004	8.3263	3.5000e-004	8.3267	0.8308	3.3000e-004	0.8312		23.6808	23.6808	1.1300e-003		23.7091
Total	**0.1243**	**3.9463**	**0.7972**	**5.1300e-003**	**18.5462**	**2.4400e-003**	**18.5487**	**1.8517**	**2.3200e-003**	**1.8540**		**549.7051**	**549.7051**	**0.0714**		**551.4904**

3.12 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0505	2.8531	0.3372	3.6700e-003	15.0348	1.5500e-003	15.0364	1.4999	1.4800e-003	1.5014		396.0761	396.0761	0.0540		397.4257
Vendor	2.8400e-003	0.1244	0.0263	1.5000e-004	1.0408	6.0000e-005	1.0409	0.1039	6.0000e-005	0.1039		15.6769	15.6769	2.0200e-003		15.7275
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0825**	**2.9859**	**0.4809**	**3.9700e-003**	**29.0833**	**1.8300e-003**	**29.0852**	**2.9011**	**1.7400e-003**	**2.9028**		**426.5534**	**426.5534**	**0.0567**		**427.9714**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0505	2.8531	0.3372	3.6700e-003	6.0161	1.5500e-003	6.0177	0.6008	1.4800e-003	0.6023		396.0761	396.0761	0.0540		397.4257
Vendor	2.8400e-003	0.1244	0.0263	1.5000e-004	0.4165	6.0000e-005	0.4166	0.0416	6.0000e-005	0.0417		15.6769	15.6769	2.0200e-003		15.7275
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0825**	**2.9859**	**0.4809**	**3.9700e-003**	**11.6366**	**1.8300e-003**	**11.6384**	**1.1617**	**1.7400e-003**	**1.1634**		**426.5534**	**426.5534**	**0.0567**		**427.9714**

3.13 Plot 2 (2021) Building-Wet Utilities - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0147	0.8321	0.0984	1.0700e-003	4.3852	4.5000e-004	4.3856	0.4375	4.3000e-004	0.4379		115.5222	115.5222	0.0158		115.9158
Vendor	0.0213	0.9332	0.1969	1.1000e-003	7.8061	4.8000e-004	7.8066	0.7790	4.6000e-004	0.7794		117.5766	117.5766	0.0152		117.9559
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0652**	**1.7737**	**0.4128**	**2.3200e-003**	**25.1989**	**1.1500e-003**	**25.2001**	**2.5137**	**1.0900e-003**	**2.5148**		**247.8992**	**247.8992**	**0.0316**		**248.6899**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0147	0.8321	0.0984	1.0700e-003	1.7547	4.5000e-004	1.7552	0.1752	4.3000e-004	0.1757		115.5222	115.5222	0.0158		115.9158
Vendor	0.0213	0.9332	0.1969	1.1000e-003	3.1239	4.8000e-004	3.1243	0.3121	4.6000e-004	0.3126		117.5766	117.5766	0.0152		117.9559
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0652**	**1.7737**	**0.4128**	**2.3200e-003**	**10.0825**	**1.1500e-003**	**10.0837**	**1.0066**	**1.0900e-003**	**1.0077**		**247.8992**	**247.8992**	**0.0316**		**248.6899**

3.14 Plot 2 (2021) Building-Electrical - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0337	1.9020	0.2248	2.4500e-003	10.0232	1.0300e-003	10.0243	1.0000	9.9000e-004	1.0009		264.0507	264.0507	0.0360		264.9505
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	3.1224	1.9000e-004	3.1226	0.3116	1.8000e-004	0.3118		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0175	5.0400e-003	0.0705	9.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.8803	8.8803	4.3000e-004		8.8909
Total	**0.0597**	**2.2803**	**0.3741**	**2.9800e-003**	**20.9503**	**1.3500e-003**	**20.9516**	**2.0899**	**1.2900e-003**	**2.0912**		**319.9616**	**319.9616**	**0.0425**		**321.0238**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0337	1.9020	0.2248	2.4500e-003	4.0108	1.0300e-003	4.0118	0.4005	9.9000e-004	0.4015		264.0507	264.0507	0.0360		264.9505
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	1.2495	1.9000e-004	1.2497	0.1249	1.8000e-004	0.1250		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0175	5.0400e-003	0.0705	9.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.8803	8.8803	4.3000e-004		8.8909
Total	**0.0597**	**2.2803**	**0.3741**	**2.9800e-003**	**8.3827**	**1.3500e-003**	**8.3840**	**0.8369**	**1.2900e-003**	**0.8382**		**319.9616**	**319.9616**	**0.0425**		**321.0238**

3.15 Plot 2 (2021) Building-Landscaping - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.9500e-003	0.4355	0.0919	5.1000e-004	3.6428	2.2000e-004	3.6431	0.3635	2.1000e-004	0.3637		54.8691	54.8691	7.0800e-003		55.0461
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0216**	**0.4388**	**0.1389**	**5.7000e-004**	**8.8459**	**3.1000e-004**	**8.8462**	**0.8824**	**2.9000e-004**	**0.8827**		**60.7893**	**60.7893**	**7.3600e-003**		**60.9734**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.9500e-003	0.4355	0.0919	5.1000e-004	1.4578	2.2000e-004	1.4580	0.1457	2.1000e-004	0.1459		54.8691	54.8691	7.0800e-003		55.0461
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0216**	**0.4388**	**0.1389**	**5.7000e-004**	**3.5394**	**3.1000e-004**	**3.5397**	**0.3534**	**2.9000e-004**	**0.3537**		**60.7893**	**60.7893**	**7.3600e-003**		**60.9734**

3.16 Plot 2 (2021) Landscaping - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	3.1224	1.9000e-004	3.1226	0.3116	1.8000e-004	0.3118		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0202**	**0.3766**	**0.1258**	**5.0000e-004**	**8.3255**	**2.8000e-004**	**8.3258**	**0.8305**	**2.6000e-004**	**0.8308**		**52.9508**	**52.9508**	**6.3500e-003**		**53.1096**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	1.2495	1.9000e-004	1.2497	0.1249	1.8000e-004	0.1250		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0202**	**0.3766**	**0.1258**	**5.0000e-004**	**3.3311**	**2.8000e-004**	**3.3314**	**0.3326**	**2.6000e-004**	**0.3328**		**52.9508**	**52.9508**	**6.3500e-003**		**53.1096**

3.17 Plot 2 (2021) Curbing/Drive Approaches - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.7702	0.0910	9.9000e-004	4.0589	4.2000e-004	4.0593	0.4049	4.0000e-004	0.4053		106.9279	106.9279	0.0146		107.2923
Vendor	5.6900e-003	0.2488	0.0525	2.9000e-004	2.0816	1.3000e-004	2.0818	0.2077	1.2000e-004	0.2078		31.3538	31.3538	4.0500e-003		31.4549
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0310**	**1.0224**	**0.1905**	**1.3400e-003**	**11.3436**	**6.4000e-004**	**11.3443**	**1.1316**	**6.0000e-004**	**1.1322**		**144.2018**	**144.2018**	**0.0189**		**144.6744**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.7702	0.0910	9.9000e-004	1.6242	4.2000e-004	1.6246	0.1622	4.0000e-004	0.1626		106.9279	106.9279	0.0146		107.2923
Vendor	5.6900e-003	0.2488	0.0525	2.9000e-004	0.8330	1.3000e-004	0.8332	0.0832	1.2000e-004	0.0834		31.3538	31.3538	4.0500e-003		31.4549
Worker	0.0117	3.3600e-003	0.0470	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.9202	5.9202	2.8000e-004		5.9273
Total	**0.0310**	**1.0224**	**0.1905**	**1.3400e-003**	**4.5388**	**6.4000e-004**	**4.5394**	**0.4531**	**6.0000e-004**	**0.4537**		**144.2018**	**144.2018**	**0.0189**		**144.6744**

3.18 Plot 2 (2021) Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0231	1.3035	0.1541	1.6800e-003	6.8690	7.1000e-004	6.8697	0.6853	6.8000e-004	0.6860		180.9549	180.9549	0.0247		181.5715
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	3.1224	1.9000e-004	3.1226	0.3116	1.8000e-004	0.3118		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0608**	**1.6851**	**0.3503**	**2.2700e-003**	**22.9991**	**1.1200e-003**	**23.0002**	**2.2941**	**1.0600e-003**	**2.2952**		**242.7860**	**242.7860**	**0.0314**		**243.5721**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0231	1.3035	0.1541	1.6800e-003	2.7486	7.1000e-004	2.7493	0.2745	6.8000e-004	0.2752		180.9549	180.9549	0.0247		181.5715
Vendor	8.5300e-003	0.3733	0.0788	4.4000e-004	1.2495	1.9000e-004	1.2497	0.1249	1.8000e-004	0.1250		47.0306	47.0306	6.0700e-003		47.1824
Worker	0.0292	8.4000e-003	0.1175	1.5000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.8005	14.8005	7.1000e-004		14.8182
Total	**0.0608**	**1.6851**	**0.3503**	**2.2700e-003**	**9.2021**	**1.1200e-003**	**9.2032**	**0.9186**	**1.0600e-003**	**0.9197**		**242.7860**	**242.7860**	**0.0314**		**243.5721**

3.19 Plot 2 (2021) Temporary Utilities - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.20 Plot 4 (2022) Mass Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	1.2499	0.1485	1.6500e-003	6.8249	5.8000e-004	6.8255	0.6809	5.6000e-004	0.6814		178.1587	178.1587	0.0232		178.7379
Vendor	0.0119	0.5450	0.1101	6.5000e-004	4.6837	2.4000e-004	4.6839	0.4674	2.3000e-004	0.4676		69.9616	69.9616	8.5900e-003		70.1764
Worker	0.0540	0.0149	0.2139	2.9000e-004	26.0154	4.3000e-004	26.0158	2.5946	4.0000e-004	2.5950		28.5651	28.5651	1.2600e-003		28.5967
Total	**0.0874**	**1.8098**	**0.4724**	**2.5900e-003**	**37.5239**	**1.2500e-003**	**37.5252**	**3.7428**	**1.1900e-003**	**3.7440**		**276.6853**	**276.6853**	**0.0330**		**277.5110**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	1.2499	0.1485	1.6500e-003	2.7310	5.8000e-004	2.7316	0.2727	5.6000e-004	0.2733		178.1587	178.1587	0.0232		178.7379
Vendor	0.0119	0.5450	0.1101	6.5000e-004	1.8743	2.4000e-004	1.8746	0.1873	2.3000e-004	0.1875		69.9616	69.9616	8.5900e-003		70.1764
Worker	0.0540	0.0149	0.2139	2.9000e-004	10.4079	4.3000e-004	10.4084	1.0385	4.0000e-004	1.0389		28.5651	28.5651	1.2600e-003		28.5967
Total	**0.0874**	**1.8098**	**0.4724**	**2.5900e-003**	**15.0132**	**1.2500e-003**	**15.0145**	**1.4985**	**1.1900e-003**	**1.4997**		**276.6853**	**276.6853**	**0.0330**		**277.5110**

3.21 Plot 4 (2022) Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0396	2.2944	0.2726	3.0300e-003	12.5290	1.0700e-003	12.5301	1.2499	1.0200e-003	1.2510		327.0596	327.0596	0.0425		328.1230
Vendor	0.0330	1.5139	0.3057	1.8100e-003	13.0101	6.7000e-004	13.0108	1.2983	6.4000e-004	1.2989		194.3377	194.3377	0.0239		194.9345
Worker	0.0432	0.0120	0.1711	2.3000e-004	20.8123	3.5000e-004	20.8126	2.0757	3.2000e-004	2.0760		22.8520	22.8520	1.0100e-003		22.8773
Total	**0.1158**	**3.8203**	**0.7494**	**5.0700e-003**	**46.3515**	**2.0900e-003**	**46.3535**	**4.6239**	**1.9800e-003**	**4.6258**		**544.2494**	**544.2494**	**0.0674**		**545.9348**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0396	2.2944	0.2726	3.0300e-003	5.0135	1.0700e-003	5.0145	0.5006	1.0200e-003	0.5017		327.0596	327.0596	0.0425		328.1230
Vendor	0.0330	1.5139	0.3057	1.8100e-003	5.2064	6.7000e-004	5.2071	0.5202	6.4000e-004	0.5209		194.3377	194.3377	0.0239		194.9345
Worker	0.0432	0.0120	0.1711	2.3000e-004	8.3263	3.5000e-004	8.3267	0.8308	3.2000e-004	0.8312		22.8520	22.8520	1.0100e-003		22.8773
Total	**0.1158**	**3.8203**	**0.7494**	**5.0700e-003**	**18.5462**	**2.0900e-003**	**18.5483**	**1.8517**	**1.9800e-003**	**1.8537**		**544.2494**	**544.2494**	**0.0674**		**545.9348**

3.22 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0476	2.7533	0.3271	3.6300e-003	15.0348	1.2800e-003	15.0361	1.4999	1.2200e-003	1.5012		392.4715	392.4715	0.0510		393.7476
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	1.0408	5.0000e-005	1.0409	0.1039	5.0000e-005	0.1039		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0772**	**2.8819**	**0.4585**	**3.9100e-003**	**29.0833**	**1.5500e-003**	**29.0849**	**2.9011**	**1.4700e-003**	**2.9026**		**422.3011**	**422.3011**	**0.0536**		**423.6407**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0476	2.7533	0.3271	3.6300e-003	6.0161	1.2800e-003	6.0174	0.6008	1.2200e-003	0.6020		392.4715	392.4715	0.0510		393.7476
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	0.4165	5.0000e-005	0.4166	0.0416	5.0000e-005	0.0417		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0772**	**2.8819**	**0.4585**	**3.9100e-003**	**11.6366**	**1.5500e-003**	**11.6382**	**1.1617**	**1.4700e-003**	**1.1631**		**422.3011**	**422.3011**	**0.0536**		**423.6407**

3.23 Plot 4 (2022) Building-Wet Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.8031	0.0954	1.0600e-003	4.3852	3.7000e-004	4.3855	0.4375	3.6000e-004	0.4378		114.4709	114.4709	0.0149		114.8431
Vendor	0.0198	0.9083	0.1834	1.0900e-003	7.8061	4.0000e-004	7.8065	0.7790	3.8000e-004	0.7793		116.6026	116.6026	0.0143		116.9607
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0606**	**1.7189**	**0.3858**	**2.2900e-003**	**25.1989**	**9.9000e-004**	**25.1999**	**2.5137**	**9.4000e-004**	**2.5147**		**245.3560**	**245.3560**	**0.0298**		**246.1021**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.8031	0.0954	1.0600e-003	1.7547	3.7000e-004	1.7551	0.1752	3.6000e-004	0.1756		114.4709	114.4709	0.0149		114.8431
Vendor	0.0198	0.9083	0.1834	1.0900e-003	3.1239	4.0000e-004	3.1243	0.3121	3.8000e-004	0.3125		116.6026	116.6026	0.0143		116.9607
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0606**	**1.7189**	**0.3858**	**2.2900e-003**	**10.0825**	**9.9000e-004**	**10.0835**	**1.0066**	**9.4000e-004**	**1.0076**		**245.3560**	**245.3560**	**0.0298**		**246.1021**

3.24 Plot 4 (2022) Building-Electrical - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0317	1.8356	0.2181	2.4200e-003	10.0232	8.5000e-004	10.0241	1.0000	8.2000e-004	1.0008		261.6477	261.6477	0.0340		262.4984
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	3.1224	1.6000e-004	3.1226	0.3116	1.5000e-004	0.3117		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0558**	**2.2034**	**0.3556**	**2.9400e-003**	**20.9503**	**1.1400e-003**	**20.9514**	**2.0899**	**1.0900e-003**	**2.0910**		**316.8583**	**316.8583**	**0.0401**		**317.8617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0317	1.8356	0.2181	2.4200e-003	4.0108	8.5000e-004	4.0116	0.4005	8.2000e-004	0.4013		261.6477	261.6477	0.0340		262.4984
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	1.2495	1.6000e-004	1.2497	0.1249	1.5000e-004	0.1250		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0558**	**2.2034**	**0.3556**	**2.9400e-003**	**8.3827**	**1.1400e-003**	**8.3838**	**0.8369**	**1.0900e-003**	**0.8380**		**316.8583**	**316.8583**	**0.0401**		**317.8617**

3.25 Plot 4 (2022) Building-Landscaping - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2300e-003	0.4239	0.0856	5.1000e-004	3.6428	1.9000e-004	3.6430	0.3635	1.8000e-004	0.3637		54.4146	54.4146	6.6800e-003		54.5817
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0200**	**0.4269**	**0.1284**	**5.7000e-004**	**8.8459**	**2.8000e-004**	**8.8462**	**0.8824**	**2.6000e-004**	**0.8827**		**60.1276**	**60.1276**	**6.9300e-003**		**60.3010**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2300e-003	0.4239	0.0856	5.1000e-004	1.4578	1.9000e-004	1.4580	0.1457	1.8000e-004	0.1458		54.4146	54.4146	6.6800e-003		54.5817
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0200**	**0.4269**	**0.1284**	**5.7000e-004**	**3.5394**	**2.8000e-004**	**3.5397**	**0.3534**	**2.6000e-004**	**0.3536**		**60.1276**	**60.1276**	**6.9300e-003**		**60.3010**

3.26 Plot 4 (2022) Landscaping - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	3.1224	1.6000e-004	3.1226	0.3116	1.5000e-004	0.3117		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0187**	**0.3663**	**0.1161**	**4.9000e-004**	**8.3255**	**2.5000e-004**	**8.3258**	**0.8305**	**2.3000e-004**	**0.8307**		**52.3541**	**52.3541**	**5.9800e-003**		**52.5036**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	1.2495	1.6000e-004	1.2497	0.1249	1.5000e-004	0.1250		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0187**	**0.3663**	**0.1161**	**4.9000e-004**	**3.3311**	**2.5000e-004**	**3.3314**	**0.3326**	**2.3000e-004**	**0.3328**		**52.3541**	**52.3541**	**5.9800e-003**		**52.5036**

3.27 Plot 4 (2022) Curbing/Drive Approaches - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0128	0.7433	0.0883	9.8000e-004	4.0589	3.5000e-004	4.0593	0.4049	3.3000e-004	0.4053		105.9548	105.9548	0.0138		106.2993
Vendor	5.2800e-003	0.2422	0.0489	2.9000e-004	2.0816	1.1000e-004	2.0817	0.2077	1.0000e-004	0.2078		31.0940	31.0940	3.8200e-003		31.1895
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	5.2031	9.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0289**	**0.9885**	**0.1800**	**1.3300e-003**	**11.3436**	**5.5000e-004**	**11.3442**	**1.1316**	**5.1000e-004**	**1.1321**		**142.7618**	**142.7618**	**0.0179**		**143.2081**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0128	0.7433	0.0883	9.8000e-004	1.6242	3.5000e-004	1.6245	0.1622	3.3000e-004	0.1625		105.9548	105.9548	0.0138		106.2993
Vendor	5.2800e-003	0.2422	0.0489	2.9000e-004	0.8330	1.1000e-004	0.8331	0.0832	1.0000e-004	0.0833		31.0940	31.0940	3.8200e-003		31.1895
Worker	0.0108	2.9900e-003	0.0428	6.0000e-005	2.0816	9.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.7130	5.7130	2.5000e-004		5.7193
Total	**0.0289**	**0.9885**	**0.1800**	**1.3300e-003**	**4.5388**	**5.5000e-004**	**4.5393**	**0.4531**	**5.1000e-004**	**0.4537**		**142.7618**	**142.7618**	**0.0179**		**143.2081**

3.28 Plot 4 (2022) Finish Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1400e-003	0.1239	0.0147	1.6000e-004	0.6765	6.0000e-005	0.6766	0.0675	6.0000e-005	0.0675		17.6591	17.6591	2.3000e-003		17.7166
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	1.0408	5.0000e-005	1.0409	0.1039	5.0000e-005	0.1039		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0210**	**0.2495**	**0.1033**	**3.9000e-004**	**9.5219**	**2.4000e-004**	**9.5222**	**0.9497**	**2.3000e-004**	**0.9500**		**41.7757**	**41.7757**	**4.5900e-003**		**41.8903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1400e-003	0.1239	0.0147	1.6000e-004	0.2707	6.0000e-005	0.2708	0.0270	6.0000e-005	0.0271		17.6591	17.6591	2.3000e-003		17.7166
Vendor	2.6400e-003	0.1211	0.0245	1.4000e-004	0.4165	5.0000e-005	0.4166	0.0416	5.0000e-005	0.0417		15.5470	15.5470	1.9100e-003		15.5948
Worker	0.0162	4.4800e-003	0.0642	9.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.5695	8.5695	3.8000e-004		8.5790
Total	**0.0210**	**0.2495**	**0.1033**	**3.9000e-004**	**3.8096**	**2.4000e-004**	**3.8098**	**0.3802**	**2.3000e-004**	**0.3804**		**41.7757**	**41.7757**	**4.5900e-003**		**41.8903**

3.29 Plot 4 (2022) Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	1.2579	0.1495	1.6600e-003	6.8690	5.8000e-004	6.8695	0.6853	5.6000e-004	0.6858		179.3081	179.3081	0.0233		179.8911
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	3.1224	1.6000e-004	3.1226	0.3116	1.5000e-004	0.3117		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	13.0077	2.2000e-004	13.0079	1.2973	2.0000e-004	1.2975		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0566**	**1.6287**	**0.3298**	**2.2300e-003**	**22.9991**	**9.6000e-004**	**23.0000**	**2.2941**	**9.1000e-004**	**2.2951**		**240.2317**	**240.2317**	**0.0297**		**240.9737**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	1.2579	0.1495	1.6600e-003	2.7486	5.8000e-004	2.7492	0.2745	5.6000e-004	0.2750		179.3081	179.3081	0.0233		179.8911
Vendor	7.9100e-003	0.3633	0.0734	4.3000e-004	1.2495	1.6000e-004	1.2497	0.1249	1.5000e-004	0.1250		46.6411	46.6411	5.7300e-003		46.7843
Worker	0.0270	7.4700e-003	0.1070	1.4000e-004	5.2040	2.2000e-004	5.2042	0.5193	2.0000e-004	0.5195		14.2825	14.2825	6.3000e-004		14.2983
Total	**0.0566**	**1.6287**	**0.3298**	**2.2300e-003**	**9.2021**	**9.6000e-004**	**9.2031**	**0.9186**	**9.1000e-004**	**0.9195**		**240.2317**	**240.2317**	**0.0297**		**240.9737**

3.30 Plot 4 (2022) Temporary Utilities - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.31 Plot 4 (2023) Utilities - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0276	1.8990	0.2384	2.8800e-003	12.5290	6.0000e-004	12.5296	1.2499	5.7000e-004	1.2505		312.1597	312.1597	0.0338		313.0051
Vendor	0.0257	1.2987	0.2743	1.7300e-003	13.0101	3.8000e-004	13.0105	1.2983	3.6000e-004	1.2986		186.3474	186.3474	0.0192		186.8282
Worker	0.0400	0.0107	0.1560	2.2000e-004	20.8123	3.4000e-004	20.8126	2.0757	3.1000e-004	2.0760		22.0180	22.0180	9.0000e-004		22.0405
Total	**0.0933**	**3.2084**	**0.6687**	**4.8300e-003**	**46.3515**	**1.3200e-003**	**46.3528**	**4.6239**	**1.2400e-003**	**4.6251**		**520.5251**	**520.5251**	**0.0540**		**521.8738**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0276	1.8990	0.2384	2.8800e-003	5.0135	6.0000e-004	5.0140	0.5006	5.7000e-004	0.5012		312.1597	312.1597	0.0338		313.0051
Vendor	0.0257	1.2987	0.2743	1.7300e-003	5.2064	3.8000e-004	5.2068	0.5202	3.6000e-004	0.5206		186.3474	186.3474	0.0192		186.8282
Worker	0.0400	0.0107	0.1560	2.2000e-004	8.3263	3.4000e-004	8.3267	0.8308	3.1000e-004	0.8311		22.0180	22.0180	9.0000e-004		22.0405
Total	**0.0933**	**3.2084**	**0.6687**	**4.8300e-003**	**18.5462**	**1.3200e-003**	**18.5475**	**1.8517**	**1.2400e-003**	**1.8529**		**520.5251**	**520.5251**	**0.0540**		**521.8738**

3.32 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0331	2.2789	0.2861	3.4600e-003	15.0348	7.2000e-004	15.0356	1.4999	6.8000e-004	1.5006		374.5917	374.5917	0.0406		375.6061
Vendor	2.0600e-003	0.1039	0.0220	1.4000e-004	1.0408	3.0000e-005	1.0408	0.1039	3.0000e-005	0.1039		14.9078	14.9078	1.5400e-003		14.9463
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	13.0077	2.1000e-004	13.0079	1.2973	2.0000e-004	1.2975		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0601**	**2.3894**	**0.4055**	**3.7400e-003**	**29.0833**	**9.6000e-004**	**29.0843**	**2.9011**	**9.1000e-004**	**2.9020**		**403.2607**	**403.2607**	**0.0427**		**404.3277**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0331	2.2789	0.2861	3.4600e-003	6.0161	7.2000e-004	6.0169	0.6008	6.8000e-004	0.6015		374.5917	374.5917	0.0406		375.6061
Vendor	2.0600e-003	0.1039	0.0220	1.4000e-004	0.4165	3.0000e-005	0.4165	0.0416	3.0000e-005	0.0417		14.9078	14.9078	1.5400e-003		14.9463
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	5.2040	2.1000e-004	5.2042	0.5193	2.0000e-004	0.5195		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0601**	**2.3894**	**0.4055**	**3.7400e-003**	**11.6366**	**9.6000e-004**	**11.6376**	**1.1617**	**9.1000e-004**	**1.1626**		**403.2607**	**403.2607**	**0.0427**		**404.3277**

3.33 Plot 4 (2023) Building-Wet Utilities - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.6500e-003	0.6647	0.0834	1.0100e-003	4.3852	2.1000e-004	4.3854	0.4375	2.0000e-004	0.4377		109.2559	109.2559	0.0118		109.5518
Vendor	0.0154	0.7792	0.1646	1.0400e-003	7.8061	2.3000e-004	7.8063	0.7790	2.2000e-004	0.7792		111.8085	111.8085	0.0115		112.0969
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	13.0077	2.1000e-004	13.0079	1.2973	2.0000e-004	1.2975		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0501**	**1.4505**	**0.3455**	**2.1900e-003**	**25.1989**	**6.5000e-004**	**25.1996**	**2.5137**	**6.2000e-004**	**2.5143**		**234.8256**	**234.8256**	**0.0239**		**235.4240**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.6500e-003	0.6647	0.0834	1.0100e-003	1.7547	2.1000e-004	1.7549	0.1752	2.0000e-004	0.1754		109.2559	109.2559	0.0118		109.5518
Vendor	0.0154	0.7792	0.1646	1.0400e-003	3.1239	2.3000e-004	3.1241	0.3121	2.2000e-004	0.3124		111.8085	111.8085	0.0115		112.0969
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	5.2040	2.1000e-004	5.2042	0.5193	2.0000e-004	0.5195		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0501**	**1.4505**	**0.3455**	**2.1900e-003**	**10.0825**	**6.5000e-004**	**10.0832**	**1.0066**	**6.2000e-004**	**1.0073**		**234.8256**	**234.8256**	**0.0239**		**235.4240**

3.34 Plot 4 (2023) Building-Electrical - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0221	1.5192	0.1907	2.3100e-003	10.0232	4.8000e-004	10.0237	1.0000	4.6000e-004	1.0004		249.7278	249.7278	0.0271		250.4041
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	3.1224	9.0000e-005	3.1225	0.3116	9.0000e-005	0.3117		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0150	4.0000e-003	0.0585	8.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		8.2567	8.2567	3.4000e-004		8.2652
Total	**0.0432**	**1.8349**	**0.3151**	**2.8100e-003**	**20.9503**	**7.0000e-004**	**20.9510**	**2.0899**	**6.7000e-004**	**2.0906**		**302.7079**	**302.7079**	**0.0320**		**303.5081**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0221	1.5192	0.1907	2.3100e-003	4.0108	4.8000e-004	4.0112	0.4005	4.6000e-004	0.4010		249.7278	249.7278	0.0271		250.4041
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	1.2495	9.0000e-005	1.2496	0.1249	9.0000e-005	0.1249		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0150	4.0000e-003	0.0585	8.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		8.2567	8.2567	3.4000e-004		8.2652
Total	**0.0432**	**1.8349**	**0.3151**	**2.8100e-003**	**8.3827**	**7.0000e-004**	**8.3834**	**0.8369**	**6.7000e-004**	**0.8376**		**302.7079**	**302.7079**	**0.0320**		**303.5081**

3.35 Plot 4 (2023) Building-Landscaping - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2000e-003	0.3636	0.0768	4.9000e-004	3.6428	1.1000e-004	3.6430	0.3635	1.0000e-004	0.3636		52.1773	52.1773	5.3800e-003		52.3119
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0172**	**0.3663**	**0.1158**	**5.5000e-004**	**8.8459**	**1.9000e-004**	**8.8461**	**0.8824**	**1.8000e-004**	**0.8826**		**57.6818**	**57.6818**	**5.6100e-003**		**57.8220**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.2000e-003	0.3636	0.0768	4.9000e-004	1.4578	1.1000e-004	1.4579	0.1457	1.0000e-004	0.1458		52.1773	52.1773	5.3800e-003		52.3119
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0172**	**0.3663**	**0.1158**	**5.5000e-004**	**3.5394**	**1.9000e-004**	**3.5396**	**0.3534**	**1.8000e-004**	**0.3536**		**57.6818**	**57.6818**	**5.6100e-003**		**57.8220**

3.36 Plot 4 (2023) Landscaping - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	3.1224	9.0000e-005	3.1225	0.3116	9.0000e-005	0.3117		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0162**	**0.3144**	**0.1048**	**4.8000e-004**	**8.3255**	**1.7000e-004**	**8.3257**	**0.8305**	**1.7000e-004**	**0.8307**		**50.2279**	**50.2279**	**4.8500e-003**		**50.3489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	1.2495	9.0000e-005	1.2496	0.1249	9.0000e-005	0.1249		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0162**	**0.3144**	**0.1048**	**4.8000e-004**	**3.3311**	**1.7000e-004**	**3.3313**	**0.3326**	**1.7000e-004**	**0.3327**		**50.2279**	**50.2279**	**4.8500e-003**		**50.3489**

3.37 Plot 4 (2023) Curbing/Drive Approaches - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9300e-003	0.6152	0.0772	9.3000e-004	4.0589	1.9000e-004	4.0591	0.4049	1.8000e-004	0.4051		101.1278	101.1278	0.0110		101.4017
Vendor	4.1100e-003	0.2078	0.0439	2.8000e-004	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		29.8156	29.8156	3.0800e-003		29.8925
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0230**	**0.8257**	**0.1601**	**1.2700e-003**	**11.3436**	**3.3000e-004**	**11.3440**	**1.1316**	**3.2000e-004**	**1.1319**		**136.4479**	**136.4479**	**0.0143**		**136.8043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9300e-003	0.6152	0.0772	9.3000e-004	1.6242	1.9000e-004	1.6244	0.1622	1.8000e-004	0.1624		101.1278	101.1278	0.0110		101.4017
Vendor	4.1100e-003	0.2078	0.0439	2.8000e-004	0.8330	6.0000e-005	0.8331	0.0832	6.0000e-005	0.0833		29.8156	29.8156	3.0800e-003		29.8925
Worker	0.0100	2.6700e-003	0.0390	6.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.5045	5.5045	2.3000e-004		5.5101
Total	**0.0230**	**0.8257**	**0.1601**	**1.2700e-003**	**4.5388**	**3.3000e-004**	**4.5391**	**0.4531**	**3.2000e-004**	**0.4535**		**136.4479**	**136.4479**	**0.0143**		**136.8043**

3.38 Plot 4 (2023) Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0411	0.1307	1.5800e-003	6.8690	3.3000e-004	6.8693	0.6853	3.1000e-004	0.6856		171.1393	171.1393	0.0185		171.6028
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	3.1224	9.0000e-005	3.1225	0.3116	9.0000e-005	0.3117		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	13.0077	2.1000e-004	13.0079	1.2973	2.0000e-004	1.2975		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0463**	**1.3595**	**0.2940**	**2.1400e-003**	**22.9991**	**6.3000e-004**	**22.9997**	**2.2941**	**6.0000e-004**	**2.2947**		**229.6239**	**229.6239**	**0.0237**		**230.2169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0411	0.1307	1.5800e-003	2.7486	3.3000e-004	2.7489	0.2745	3.1000e-004	0.2748		171.1393	171.1393	0.0185		171.6028
Vendor	6.1700e-003	0.3117	0.0658	4.2000e-004	1.2495	9.0000e-005	1.2496	0.1249	9.0000e-005	0.1249		44.7234	44.7234	4.6200e-003		44.8388
Worker	0.0250	6.6600e-003	0.0975	1.4000e-004	5.2040	2.1000e-004	5.2042	0.5193	2.0000e-004	0.5195		13.7612	13.7612	5.6000e-004		13.7753
Total	**0.0463**	**1.3595**	**0.2940**	**2.1400e-003**	**9.2021**	**6.3000e-004**	**9.2027**	**0.9186**	**6.0000e-004**	**0.9192**		**229.6239**	**229.6239**	**0.0237**		**230.2169**

3.39 Plot 4 (2023) Temporary Utilities - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Plots 9 and 1,3,20 Emissions Summaries

Mitigated Air Quality Construction Analysis

Regional Maximums	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source			**lb/day**			
Plot 9 (2024) Mass Excavation	17.36	83.14	629.74	1.41	55.92	8.21
Plot 9 (2024) Utilities	6.48	43.02	154.45	0.35	14.97	2.70
Plot 9 (2024) Building-Concrete	1.42	10.86	48.69	0.10	19.93	2.42
Plot 9 (2024) Building-Wet Utilities	2.22	14.96	81.02	0.15	15.19	2.03
Plot 9 (2024) Building-Electrical	1.39	12.11	43.52	0.06	7.62	1.06
Plot 9 (2024) Building-Landscaping	1.64	20.25	38.99	0.08	13.69	1.80
Plot 9 (2024) Landscaping	1.89	23.18	43.39	0.10	21.32	2.70
Plot 9 (2024) Curbing/Drive Approaches	0.80	18.76	16.32	0.08	19.26	2.29
Plot 9 (2024) Finish Grading	0.51	2.95	25.57	0.04	7.98	0.94
Plot 9 (2024) Paving	1.18	5.80	53.41	0.09	6.29	0.84
Plot 9 (2024) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 9 (2025) Utilities	6.32	40.42	154.35	0.35	14.88	2.62
Plot 9 (2025) Building-Concrete	1.09	5.73	45.83	0.07	8.92	1.14
Plot 9 (2025) Building-Wet Utilities	2.13	15.40	80.68	0.15	13.30	1.80
Plot 9 (2025) Building-Electrical	1.60	18.38	45.73	0.09	15.51	1.97
Plot 9 (2025) Building-Landscaping	1.51	17.12	38.07	0.07	11.95	1.58
Plot 9 (2025) Interchange	1.86	16.11	54.80	0.15	22.79	2.80
Plot 9 (2025) Landscaping	1.51	16.07	40.39	0.07	9.96	1.34
Plot 9 (2025) Curbing/Drive Approaches	0.35	3.33	11.68	0.02	3.93	0.49
Plot 9 (2025) Paving	1.18	5.79	53.37	0.09	6.29	0.84
Plot 9 (2025) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plots 1 3 20 (2026) Mass Excavation	5.18	24.15	182.49	0.41	25.02	3.38
Plots 1 3 20 (2026) Utilities	6.77	49.19	158.27	0.40	31.56	4.57
Plots 1 3 20 (2026) Building-Concrete	1.24	11.52	47.41	0.10	14.18	1.76
Plots 1 3 20 (2026) Building-Wet Utilities	2.16	14.21	80.80	0.15	15.17	2.01
Plots 1 3 20 (2026) Building-Electrical	1.48	16.56	44.73	0.08	11.95	1.56
Plots 1 3 20 (2026) Building-Landscaping	1.31	13.66	36.30	0.05	4.75	0.74
Plots 1 3 20 (2026) Interchange	1.61	11.87	52.74	0.13	16.14	2.00
Plots 1 3 20 (2026) Landscaping	1.35	13.68	38.97	0.06	4.52	0.71
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.38	4.71	12.03	0.03	5.03	0.62
Plots 1 3 20 (2026) Finish Grading	0.27	1.90	9.29	0.02	6.13	0.71
Plots 1 3 20 (2026) Paving	1.36	9.01	54.94	0.11	12.74	1.59
Plots 1 3 20 (2026) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05

Overlapping Phases

Plot 9-2024	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
All Phases Except Temporary Utilities	34.89	235.03	1135.09	2.48	182.16	25.00
Plot 9-2025						
All Phases	17.89	139.83	537.40	1.10	107.60	14.62
Plots 1,3,20-2026						
All Phases Except Temporary Utilities	23.11	170.45	717.95	1.53	147.20	19.65
Daily Maximum1						
2024	166.98	235.03	1135.09	2.48	182.16	25.00
2025	149.97	139.83	537.40	1.10	107.60	14.62
2026	155.19	170.45	717.95	1.53	147.20	19.65

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions						
Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
			lb/day			
Plot 9 (2024) Mass Excavation	0.10	3.30	0.65	0.01	20.24	2.02
Plot 9 (2024) Utilities	0.02	0.40	0.10	0.00	3.41	0.34
Plot 9 (2024) Building-Concrete	0.08	2.05	0.49	0.00	16.88	1.69
Plot 9 (2024) Building-Wet Utilities	0.05	1.44	0.33	0.00	10.08	1.01
Plot 9 (2024) Building-Electrical	0.02	0.35	0.12	0.00	4.46	0.45
Plot 9 (2024) Building-Landscaping	0.06	2.37	0.39	0.00	11.64	1.16
Plot 9 (2024) Landscaping	0.09	3.18	0.64	0.00	18.55	1.85
Plot 9 (2024) Curbing/Drive Approaches	0.09	5.21	0.73	0.01	17.41	1.74
Plot 9 (2024) Finish Grading	0.02	0.36	0.11	0.00	3.54	0.35
Plot 9 (2024) Paving	0.02	0.31	0.10	0.00	3.33	0.33
Plot 9 (2024) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	0.02	0.39	0.10	0.00	3.41	0.34
Plot 9 (2025) Building-Concrete	0.03	0.47	0.16	0.00	6.88	0.69
Plot 9 (2025) Building-Wet Utilities	0.04	1.80	0.30	0.00	8.38	0.84
Plot 9 (2025) Building-Electrical	0.06	2.34	0.39	0.00	11.64	1.16
Plot 9 (2025) Building-Landscaping	0.05	1.43	0.31	0.00	10.08	1.01
Plot 9 (2025) Interchange	0.08	3.16	0.62	0.00	18.55	1.85
Plot 9 (2025) Landscaping	0.04	1.05	0.23	0.00	8.29	0.83
Plot 9 (2025) Curbing/Drive Approaches	0.02	0.36	0.10	0.00	3.54	0.35
Plot 9 (2025) Paving	0.01	0.31	0.09	0.00	3.33	0.33
Plot 9 (2025) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	0.06	1.06	0.31	0.00	13.81	1.38
Plots 1 3 20 (2026) Utilities	0.08	3.14	0.60	0.00	18.55	1.85
Plots 1 3 20 (2026) Building-Concrete	0.05	2.32	0.38	0.00	11.64	1.16
Plots 1 3 20 (2026) Building-Wet Utilities	0.04	1.42	0.30	0.00	10.08	1.01
Plots 1 3 20 (2026) Building-Electrical	0.04	1.79	0.29	0.00	8.38	0.84
Plots 1 3 20 (2026) Building-Landscaping	0.01	0.36	0.10	0.00	3.54	0.35
Plots 1 3 20 (2026) Interchange	0.05	1.87	0.33	0.00	10.55	1.05
Plots 1 3 20 (2026) Landscaping	0.01	0.31	0.09	0.00	3.33	0.33
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.02	0.81	0.15	0.00	4.54	0.45
Plots 1 3 20 (2026) Finish Grading	0.02	0.40	0.10	0.00	4.35	0.43
Plots 1 3 20 (2026) Paving	0.04	1.32	0.26	0.00	9.20	0.92
Plots 1 3 20 (2026) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Mitigated VOC Emissions (lb/day)	
2024	132
2025	132
2026	132

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 9 (2024) Mass Excavation	16.71	72.42	624.09	1.36	33.66	5.62	0.51	7.33	5.00	0.05	2.02	0.56
Plot 9 (2024) Utilities	6.37	41.71	153.55	0.35	11.22	2.27	0.09	0.90	0.80	0.01	0.34	0.09
Plot 9 (2024) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.43	4.61	4.05	0.03	1.66	0.46
Plot 9 (2024) Building-Wet Utilities	1.90	10.24	78.32	0.13	4.09	0.74	0.25	3.23	2.36	0.02	1.02	0.29
Plot 9 (2024) Building-Electrical	1.24	10.94	42.38	0.06	2.72	0.49	0.11	0.81	1.02	0.01	0.44	0.12
Plot 9 (2024) Building-Landscaping	1.26	12.64	35.58	0.05	0.88	0.31	0.30	5.19	3.02	0.03	1.17	0.33
Plot 9 (2024) Landscaping	1.30	12.83	38.30	0.05	0.89	0.32	0.46	7.08	4.45	0.05	1.88	0.53
Plot 9 (2024) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.45	11.31	4.69	0.06	1.82	0.51
Plot 9 (2024) Finish Grading	0.40	1.73	24.67	0.03	4.09	0.49	0.09	0.84	0.79	0.01	0.35	0.10
Plot 9 (2024) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.08	0.72	0.75	0.01	0.33	0.09
Plot 9 (2024) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.08	0.88	0.77	0.01	0.34	0.09
Plot 9 (2025) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.17	1.09	1.51	0.01	0.66	0.18
Plot 9 (2025) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.21	3.92	2.08	0.02	0.85	0.24
Plot 9 (2025) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.30	5.10	2.95	0.03	1.17	0.32
Plot 9 (2025) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.24	3.18	2.27	0.02	1.02	0.29
Plot 9 (2025) Interchange	1.29	5.91	49.88	0.10	2.36	0.42	0.45	6.96	4.30	0.05	1.88	0.53
Plot 9 (2025) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.21	2.33	1.96	0.02	0.81	0.22
Plot 9 (2025) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.08	0.82	0.75	0.01	0.35	0.10
Plot 9 (2025) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.08	0.71	0.71	0.01	0.33	0.09
Plot 9 (2025) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	4.77	20.65	179.21	0.39	9.88	1.63	0.33	2.40	2.97	0.02	1.33	0.37
Plots 1 3 20 (2026) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.44	6.83	4.18	0.05	1.88	0.53
Plots 1 3 20 (2026) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.29	5.01	2.88	0.03	1.17	0.32
Plots 1 3 20 (2026) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.23	3.12	2.19	0.02	1.02	0.29
Plots 1 3 20 (2026) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.20	3.85	2.04	0.02	0.85	0.24
Plots 1 3 20 (2026) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.08	0.81	0.72	0.01	0.35	0.10
Plots 1 3 20 (2026) Interchange	1.29	5.91	49.88	0.10	4.54	0.65	0.26	4.05	2.53	0.03	1.05	0.29
Plots 1 3 20 (2026) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.08	0.70	0.67	0.01	0.33	0.09
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.11	1.75	1.06	0.01	0.46	0.13
Plots 1 3 20 (2026) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.10	0.90	0.96	0.01	0.42	0.12
Plots 1 3 20 (2026) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.22	2.89	2.11	0.02	0.91	0.25
Plots 1 3 20 (2026) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 9 (2024) Mass Excavation	17.2	79.7	629.1	1.41	35.69	6.19
Plot 9 (2024) Utilities	6.5	42.6	154.4	0.35	11.56	2.36
Plot 9 (2024) Building-Concrete	1.3	8.8	48.2	0.10	3.05	0.73
Plot 9 (2024) Building-Wet Utilities	2.2	13.5	80.7	0.15	5.10	1.03
Plot 9 (2024) Building-Electrical	1.4	11.8	43.4	0.06	3.16	0.61
Plot 9 (2024) Building-Landscaping	1.6	17.8	38.6	0.08	2.05	0.64
Plot 9 (2024) Landscaping	1.8	19.9	42.7	0.10	2.77	0.85
Plot 9 (2024) Curbing/Drive Approaches	0.7	13.4	15.5	0.08	1.85	0.55
Plot 9 (2024) Finish Grading	0.5	2.6	25.5	0.04	4.44	0.59
Plot 9 (2024) Paving	1.2	5.5	53.3	0.09	2.96	0.51
Plot 9 (2024) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 9 (2025) Utilities	6.3	40.0	154.3	0.35	11.47	2.28
Plot 9 (2025) Building-Concrete	1.0	5.2	45.7	0.07	2.05	0.45
Plot 9 (2025) Building-Wet Utilities	2.1	13.6	80.4	0.15	4.92	0.96
Plot 9 (2025) Building-Electrical	1.5	16.0	45.3	0.09	3.88	0.81
Plot 9 (2025) Building-Landscaping	1.4	15.6	37.8	0.07	1.87	0.57
Plot 9 (2025) Interchange	1.7	12.9	54.2	0.15	4.25	0.95
Plot 9 (2025) Landscaping	1.5	15.0	40.2	0.07	1.67	0.51
Plot 9 (2025) Curbing/Drive Approaches	0.3	3.0	11.6	0.02	0.39	0.13
Plot 9 (2025) Paving	1.2	5.5	53.3	0.09	2.96	0.51
Plot 9 (2025) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 1 3 20 (2026) Mass Excavation	5.1	23.1	182.2	0.41	11.21	2.00
Plots 1 3 20 (2026) Utilities	6.7	46.0	157.7	0.39	13.01	2.72
Plots 1 3 20 (2026) Building-Concrete	1.2	9.1	47.0	0.09	2.55	0.60
Plots 1 3 20 (2026) Building-Wet Utilities	2.1	12.7	80.5	0.15	5.08	1.01
Plots 1 3 20 (2026) Building-Electrical	1.4	14.7	44.4	0.08	3.57	0.72
Plots 1 3 20 (2026) Building-Landscaping	1.3	13.3	36.2	0.05	1.21	0.38
Plots 1 3 20 (2026) Interchange	1.5	10.0	52.4	0.12	5.59	0.95
Plots 1 3 20 (2026) Landscaping	1.3	13.4	38.9	0.06	1.19	0.38
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.4	3.9	11.9	0.03	0.49	0.16
Plots 1 3 20 (2026) Finish Grading	0.2	1.5	9.2	0.02	1.78	0.28
Plots 1 3 20 (2026) Paving	1.3	7.6	54.7	0.11	3.54	0.67
Plots 1 3 20 (2026) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05

Overlapping Phases						
Plot 9-2024	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
All Phases Except Temporary Utilities	34.15	215.56	1131.34	2.45	72.62	14.05
Plot 9-2025						
All Phases	17.40	128.20	535.10	1.08	33.49	7.22
Plots 1,3,20-2026						
All Phases Except Temporary Utilities	22.5	155.3	715.0	1.5	49.2	9.9
Daily Maximum[1]						
2024	34.15	215.56	1131.34	2.45	72.62	14.05
2025	17.40	128.20	535.10	1.08	33.49	7.22
2026	22.49	155.26	715.03	1.50	49.22	9.86

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 9 (2024) Mass Excavation	16.71	72.42	624.09	1.36	33.66	5.62	0.56	7.42	4.81	0.05	2.02	0.56
Plot 9 (2024) Utilities	6.37	41.71	153.55	0.35	11.22	2.27	0.09	0.91	0.76	0.01	0.34	0.09
Plot 9 (2024) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.46	4.67	3.82	0.03	1.66	0.46
Plot 9 (2024) Building-Wet Utilities	1.90	10.24	78.32	0.13	4.09	0.74	0.27	3.28	2.26	0.02	1.02	0.29
Plot 9 (2024) Building-Electrical	1.24	10.94	42.38	0.06	2.72	0.49	0.12	0.82	0.94	0.01	0.44	0.12
Plot 9 (2024) Building-Landscaping	1.26	12.64	35.58	0.05	0.88	0.31	0.32	5.25	2.95	0.03	1.17	0.33
Plot 9 (2024) Landscaping	1.30	12.83	38.30	0.05	0.89	0.32	0.50	7.16	4.32	0.05	1.88	0.53
Plot 9 (2024) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.47	11.42	4.76	0.06	1.82	0.51
Plot 9 (2024) Finish Grading	0.40	1.73	24.67	0.03	4.09	0.49	0.09	0.85	0.74	0.01	0.35	0.10
Plot 9 (2024) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.09	0.74	0.70	0.01	0.33	0.09
Plot 9 (2024) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.09	0.90	0.73	0.01	0.34	0.09
Plot 9 (2025) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.18	1.11	1.39	0.01	0.66	0.18
Plot 9 (2025) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.22	3.97	2.06	0.02	0.85	0.24
Plot 9 (2025) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.32	5.15	2.88	0.03	1.17	0.33
Plot 9 (2025) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.26	3.22	2.18	0.02	1.02	0.29
Plot 9 (2025) Interchange	1.29	5.91	49.88	0.10	2.36	0.42	0.48	7.04	4.18	0.04	1.88	0.53
Plot 9 (2025) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.22	2.36	1.85	0.02	0.81	0.22
Plot 9 (2025) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.09	0.84	0.71	0.01	0.35	0.10
Plot 9 (2025) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.09	0.72	0.66	0.01	0.33	0.09
Plot 9 (2025) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	4.77	20.65	179.21	0.39	9.88	1.63	0.36	2.43	2.75	0.02	1.33	0.37
Plots 1 3 20 (2026) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.47	6.92	4.07	0.04	1.88	0.53
Plots 1 3 20 (2026) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.31	5.06	2.83	0.03	1.17	0.32
Plots 1 3 20 (2026) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.25	3.16	2.11	0.02	1.02	0.29
Plots 1 3 20 (2026) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.22	3.90	2.02	0.02	0.85	0.24
Plots 1 3 20 (2026) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.09	0.82	0.68	0.01	0.35	0.10
Plots 1 3 20 (2026) Interchange	1.29	5.91	49.88	0.10	4.54	0.65	0.28	4.10	2.46	0.03	1.05	0.29
Plots 1 3 20 (2026) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.08	0.71	0.63	0.01	0.33	0.09
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.12	1.77	1.03	0.01	0.46	0.13
Plots 1 3 20 (2026) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.11	0.91	0.89	0.01	0.42	0.12
Plots 1 3 20 (2026) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.24	2.93	2.02	0.02	0.91	0.25
Plots 1 3 20 (2026) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 9 (2024) Mass Excavation	17.3	79.8	628.9	1.41	35.69	6.19
Plot 9 (2024) Utilities	6.5	42.6	154.3	0.35	11.56	2.36
Plot 9 (2024) Building-Concrete	1.3	8.8	48.0	0.10	3.05	0.73
Plot 9 (2024) Building-Wet Utilities	2.2	13.5	80.6	0.15	5.10	1.03
Plot 9 (2024) Building-Electrical	1.4	11.8	43.3	0.06	3.16	0.61
Plot 9 (2024) Building-Landscaping	1.6	17.9	38.5	0.08	2.05	0.64
Plot 9 (2024) Landscaping	1.8	20.0	42.6	0.10	2.77	0.85
Plot 9 (2024) Curbing/Drive Approaches	0.7	13.6	15.6	0.08	1.85	0.55
Plot 9 (2024) Finish Grading	0.5	2.6	25.4	0.04	4.44	0.59
Plot 9 (2024) Paving	1.2	5.5	53.3	0.09	2.96	0.51
Plot 9 (2024) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 9 (2025) Utilities	6.3	40.0	154.2	0.35	11.47	2.28
Plot 9 (2025) Building-Concrete	1.1	5.3	45.5	0.07	2.05	0.45
Plot 9 (2025) Building-Wet Utilities	2.1	13.6	80.4	0.15	4.92	0.96
Plot 9 (2025) Building-Electrical	1.5	16.0	45.3	0.09	3.88	0.81
Plot 9 (2025) Building-Landscaping	1.5	15.7	37.7	0.07	1.87	0.57
Plot 9 (2025) Interchange	1.8	12.9	54.1	0.14	4.25	0.95
Plot 9 (2025) Landscaping	1.5	15.0	40.1	0.07	1.67	0.51
Plot 9 (2025) Curbing/Drive Approaches	0.3	3.0	11.5	0.02	0.39	0.13
Plot 9 (2025) Paving	1.2	5.5	53.2	0.09	2.96	0.51
Plot 9 (2025) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 1 3 20 (2026) Mass Excavation	5.1	23.1	182.0	0.41	11.21	2.00
Plots 1 3 20 (2026) Utilities	6.7	46.1	157.6	0.39	13.01	2.72
Plots 1 3 20 (2026) Building-Concrete	1.2	9.2	47.0	0.09	2.55	0.60
Plots 1 3 20 (2026) Building-Wet Utilities	2.1	12.8	80.4	0.15	5.08	1.01
Plots 1 3 20 (2026) Building-Electrical	1.4	14.8	44.4	0.08	3.57	0.72
Plots 1 3 20 (2026) Building-Landscaping	1.3	13.3	36.2	0.05	1.21	0.38
Plots 1 3 20 (2026) Interchange	1.6	10.0	52.3	0.12	5.59	0.95
Plots 1 3 20 (2026) Landscaping	1.3	13.4	38.8	0.06	1.19	0.38
Plots 1 3 20 (2026) Curbing/Drive Approaches	0.4	3.9	11.9	0.03	0.49	0.16
Plots 1 3 20 (2026) Finish Grading	0.2	1.5	9.1	0.02	1.78	0.28
Plots 1 3 20 (2026) Paving	1.3	7.7	54.6	0.10	3.54	0.67
Plots 1 3 20 (2026) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05

Overlapping Phases						
Plot 9-2024	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
All Phases Except Temporary Utilities	34.36	216.07	1130.49	2.44	72.63	14.05
Plot 9-2025						
All Phases	17.55	128.51	534.45	1.08	33.49	7.22
Plots 1,3,20-2026						
All Phases Except Temporary Utilities	22.7	155.7	714.2	1.5	49.2	9.9
Daily Maximum[1]						
2024	34.36	216.07	1130.49	2.44	72.63	14.05
2025	17.55	128.51	534.45	1.08	33.49	7.22
2026	22.68	155.65	714.21	1.50	49.22	9.86

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source	lb/day				lb/day			
Plot 9 (2024) Mass Excavation	72.42	624.09	33.66	5.62	3.30	0.65	20.24	2.02
Plot 9 (2024) Utilities	41.71	153.55	11.22	2.27	0.40	0.10	3.41	0.34
Plot 9 (2024) Building-Concrete	4.14	44.15	1.38	0.27	2.05	0.49	16.88	1.69
Plot 9 (2024) Building-Wet Utilities	10.24	78.32	4.09	0.74	1.44	0.33	10.08	1.01
Plot 9 (2024) Building-Electrical	10.94	42.38	2.72	0.49	0.35	0.12	4.46	0.45
Plot 9 (2024) Building-Landscaping	12.64	35.58	0.88	0.31	2.37	0.39	11.64	1.16
Plot 9 (2024) Landscaping	12.83	38.30	0.89	0.32	3.18	0.64	18.55	1.85
Plot 9 (2024) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	5.21	0.73	17.41	1.74
Plot 9 (2024) Finish Grading	1.73	24.67	4.09	0.49	0.36	0.11	3.54	0.35
Plot 9 (2024) Paving	4.76	52.57	2.63	0.42	0.31	0.10	3.33	0.33
Plot 9 (2024) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 9 (2025) Utilities	39.14	153.48	11.13	2.19	0.39	0.10	3.41	0.34
Plot 9 (2025) Building-Concrete	4.14	44.15	1.38	0.27	0.47	0.16	6.88	0.69
Plot 9 (2025) Building-Wet Utilities	9.63	78.30	4.07	0.72	1.80	0.30	8.38	0.84
Plot 9 (2025) Building-Electrical	10.88	42.40	2.71	0.48	2.34	0.39	11.64	1.16
Plot 9 (2025) Building-Landscaping	12.47	35.48	0.85	0.28	1.43	0.31	10.08	1.01
Plot 9 (2025) Interchange	5.91	49.88	2.36	0.42	3.16	0.62	18.55	1.85
Plot 9 (2025) Landscaping	12.66	38.21	0.86	0.29	1.05	0.23	8.29	0.83
Plot 9 (2025) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.36	0.10	3.54	0.35
Plot 9 (2025) Paving	4.76	52.57	2.63	0.42	0.31	0.09	3.33	0.33
Plot 9 (2025) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plots 1 3 20 (2026) Mass Excavation	20.65	179.21	9.88	1.63	1.06	0.31	13.81	1.38
Plots 1 3 20 (2026) Utilities	39.14	153.48	11.13	2.19	3.14	0.60	18.55	1.85
Plots 1 3 20 (2026) Building-Concrete	4.14	44.15	1.38	0.27	2.32	0.38	11.64	1.16
Plots 1 3 20 (2026) Building-Wet Utilities	9.63	78.30	4.07	0.72	1.42	0.30	10.08	1.01
Plots 1 3 20 (2026) Building-Electrical	10.88	42.40	2.71	0.48	1.79	0.29	8.38	0.84
Plots 1 3 20 (2026) Building-Landscaping	12.47	35.48	0.85	0.28	0.36	0.10	3.54	0.35
Plots 1 3 20 (2026) Interchange	5.91	49.88	4.54	0.65	1.87	0.33	10.55	1.05
Plots 1 3 20 (2026) Landscaping	12.66	38.21	0.86	0.29	0.31	0.09	3.33	0.33
Plots 1 3 20 (2026) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.81	0.15	4.54	0.45
Plots 1 3 20 (2026) Finish Grading	0.58	8.22	1.36	0.16	0.40	0.10	4.35	0.43
Plots 1 3 20 (2026) Paving	4.76	52.57	2.63	0.42	1.32	0.26	9.20	0.92
Plots 1 3 20 (2026) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 9 (2024) Mass Excavation	75.7	624.7	53.90	7.64
Plot 9 (2024) Utilities	42.1	153.6	14.63	2.61
Plot 9 (2024) Building-Concrete	6.2	44.6	18.27	1.96
Plot 9 (2024) Building-Wet Utilities	11.7	78.7	14.17	1.75
Plot 9 (2024) Building-Electrical	11.3	42.5	7.18	0.94
Plot 9 (2024) Building-Landscaping	15.0	36.0	12.52	1.47
Plot 9 (2024) Landscaping	16.0	38.9	19.44	2.17
Plot 9 (2024) Curbing/Drive Approaches	7.3	11.6	17.44	1.77
Plot 9 (2024) Finish Grading	2.1	24.8	7.63	0.84
Plot 9 (2024) Paving	5.1	52.7	5.96	0.75
Plot 9 (2024) Temporary Utilities	1.5	12.5	0.05	0.05
Plot 9 (2025) Utilities	39.5	153.6	14.55	2.53
Plot 9 (2025) Building-Concrete	4.6	44.3	8.26	0.96
Plot 9 (2025) Building-Wet Utilities	11.4	78.6	12.45	1.56
Plot 9 (2025) Building-Electrical	13.2	42.8	14.35	1.64
Plot 9 (2025) Building-Landscaping	13.9	35.8	10.93	1.29
Plot 9 (2025) Interchange	9.1	50.5	20.91	2.27
Plot 9 (2025) Landscaping	13.7	38.4	9.15	1.12
Plot 9 (2025) Curbing/Drive Approaches	2.5	10.9	3.57	0.39
Plot 9 (2025) Paving	5.1	52.7	5.96	0.75
Plot 9 (2025) Temporary Utilities	1.5	12.5	0.05	0.05
Plots 1 3 20 (2026) Mass Excavation	21.7	179.5	23.69	3.01
Plots 1 3 20 (2026) Utilities	42.3	154.1	29.68	4.04
Plots 1 3 20 (2026) Building-Concrete	6.5	44.5	13.02	1.43
Plots 1 3 20 (2026) Building-Wet Utilities	11.0	78.6	14.15	1.73
Plots 1 3 20 (2026) Building-Electrical	12.7	42.7	11.09	1.32
Plots 1 3 20 (2026) Building-Landscaping	12.8	35.6	4.39	0.64
Plots 1 3 20 (2026) Interchange	7.8	50.2	15.09	1.71
Plots 1 3 20 (2026) Landscaping	13.0	38.3	4.19	0.62
Plots 1 3 20 (2026) Curbing/Drive Approaches	2.9	11.0	4.57	0.49
Plots 1 3 20 (2026) Finish Grading	1.0	8.3	5.71	0.60
Plots 1 3 20 (2026) Paving	6.1	52.8	11.83	1.34
Plots 1 3 20 (2026) Temporary Utilities	1.5	12.5	0.05	0.05

Overlapping Phases				
Plot 9-2024	**NOX**	**CO**	**Total PM10**	**Total PM2.5**
All Phases Except Temporary Utilities	192.51	1108.10	171.14	21.91
Plot 9-2025				
All Phases	114.52	520.10	100.18	12.55
Plots 1,3,20-2026				
All Phases Except Temporary Utilities	137.7	695.6	137.4	16.9
Daily Maximum[1]				
2024	192.51	1108.10	171.14	21.91
2025	114.52	520.10	100.18	12.55
2026	137.75	695.63	137.42	16.92

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, they are not inlcuded in these tables because VOC emissions were calculated outside of CalEEMod.Values in this table include the VOC emissions calculated outside of CalEEMod.

Daily Mitigated VOC Emissions (lb/day)	
2024	132
2025	132
2026	132

World Logistics Center-Construction Plots 9 and 1,3,20 (2024-2026)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	129.5054	1,213.0346	988.6519	2.4503	156.0956	46.9491	203.0447	18.6556	43.2289	61.8846	0.0000	239,762.7841	239,762.7841	69.1348	0.0000	241,491.1549
2025	50.0748	330.2158	454.6355	1.0837	67.1686	12.7182	79.8867	8.4644	11.7325	20.1969	0.0000	106,356.9373	106,356.9373	28.9164	0.0000	107,079.8470
2026	68.8169	520.4462	592.4358	1.5048	102.2376	19.8563	122.0939	12.6305	18.3001	30.9306	0.0000	147,642.7908	147,642.7908	40.8156	0.0000	148,663.1808
Maximum	**129.5054**	**1,213.0346**	**988.6519**	**2.4503**	**156.0956**	**46.9491**	**203.0447**	**18.6556**	**43.2289**	**61.8846**	**0.0000**	**239,762.7841**	**239,762.7841**	**69.1348**	**0.0000**	**241,491.1549**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	46.2984	215.5586	1,131.3419	2.4503	67.5318	5.0930	72.6248	9.0928	4.9602	14.0530	0.0000	239,762.7839	239,762.7839	69.1348	0.0000	241,491.1547
2025	29.5454	128.1968	535.0970	1.0837	30.6757	2.8129	33.4886	4.5240	2.6955	7.2195	0.0000	106,356.9373	106,356.9373	28.9164	0.0000	107,079.8469
2026	34.6311	155.2648	715.0337	1.5048	45.7752	3.4427	49.2179	6.5339	3.3240	9.8579	0.0000	147,642.7907	147,642.7907	40.8156	0.0000	148,663.1807
Maximum	**46.2984**	**215.5586**	**1,131.3419**	**2.4503**	**67.5318**	**5.0930**	**72.6248**	**9.0928**	**4.9602**	**14.0530**	**0.0000**	**239,762.7839**	**239,762.7839**	**69.1348**	**0.0000**	**241,491.1547**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**55.52**	**75.82**	**-16.98**	**0.00**	**55.77**	**85.73**	**61.65**	**49.31**	**85.01**	**72.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 9 (2024) Mass Excavation	Grading	1/1/2024	6/30/2024	5	130	1138
2	Plot 9 (2024) Utilities	Trenching	1/1/2024	12/29/2024	5	260	1144
3	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
4	Plot 9 (2024) Building-Wet Utilities	Building Construction	1/1/2024	12/29/2024	5	260	1141
5	Plot 9 (2024) Building-Electrical	Building Construction	1/1/2024	12/29/2024	5	260	1142
6	Plot 9 (2024) Building-Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1143
7	Plot 9 (2024) Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1145
8	Plot 9 (2024) Curbing/Drive Approaches	Paving	5/1/2024	8/20/2024	5	80	1147
9	Plot 9 (2024) Finish Grading	Grading	5/7/2024	7/1/2024	5	40	1139
10	Plot 9 (2024) Paving	Paving	6/1/2024	7/26/2024	5	40	1148

11	Plot 9 (2024) Temporary Utilities	Building Construction	7/2/2024	12/30/2024	5	130	1146
12	Plot 9 (2025) Utilities	Trenching	1/1/2025	12/30/2025	5	260	1153
13	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
14	Plot 9 (2025) Building-Wet Utilities	Building Construction	1/1/2025	12/30/2025	5	260	1150
15	Plot 9 (2025) Building-Electrical	Building Construction	1/1/2025	12/30/2025	5	260	1151
16	Plot 9 (2025) Building-Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1152
17	Plot 9 (2025) Interchange	Building Construction	1/1/2025	12/30/2025	5	260	1154
18	Plot 9 (2025) Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1155
19	Plot 9 (2025) Curbing/Drive Approaches	Paving	5/1/2025	8/20/2025	5	80	1157
20	Plot 9 (2025) Paving	Paving	6/1/2025	7/26/2025	5	40	1158
21	Plot 9 (2025) Temporary Utilities	Building Construction	7/2/2025	12/30/2025	5	130	1156
22	Plots 1 3 20 (2026) Mass Excavation	Grading	1/1/2026	7/1/2026	5	130	1159
23	Plots 1 3 20 (2026) Utilities	Trenching	1/1/2026	12/30/2026	5	260	1165
24	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
25	Plots 1 3 20 (2026) Building-Wet Utilities	Building Construction	1/1/2026	12/30/2026	5	260	1162
26	Plots 1 3 20 (2026) Building-Electrical	Building Construction	1/1/2026	12/30/2026	5	260	1163
27	Plots 1 3 20 (2026) Building-Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1164
28	Plots 1 3 20 (2026) Interchange	Building Construction	1/1/2026	7/1/2026	5	130	1166
29	Plots 1 3 20 (2026) Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1167
30	Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving	5/1/2026	8/20/2026	5	80	1169
31	Plots 1 3 20 (2026) Finish Grading	Grading	5/7/2026	7/1/2026	5	40	1160
32	Plots 1 3 20 (2026) Paving	Paving	6/1/2026	7/26/2026	5	40	1170
33	Plots 1 3 20 (2026) Temporary Utilities	Building Construction	7/2/2026	12/30/2026	5	130	1168

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 1 3 20 (2026) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 1 3 20 (2026) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 1 3 20 (2026) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 1 3 20 (2026) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 1 3 20 (2026) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 1 3 20 (2026) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 1 3 20 (2026) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plots 1 3 20 (2026) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers		1	10.00	140	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers		2	10.00	85	0.40
Plots 1 3 20 (2026) Finish Grading	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plots 1 3 20 (2026) Interchange	Bore/Drill Rigs		1	10.00	206	0.50
Plots 1 3 20 (2026) Interchange	Cement and Mortar Mixers		4	1.00	9	0.56
Plots 1 3 20 (2026) Interchange	Cranes		1	10.00	226	0.29
Plots 1 3 20 (2026) Interchange	Excavators		1	10.00	190	0.38
Plots 1 3 20 (2026) Interchange	Graders		1	10.00	259	0.41
Plots 1 3 20 (2026) Interchange	Other General Industrial Equipment		1	10.00	88	0.34
Plots 1 3 20 (2026) Interchange	Other Material Handling Equipment		4	1.00	167	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers		1	10.00	410	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers		1	10.00	140	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Loaders		1	10.00	180	0.36
Plots 1 3 20 (2026) Interchange	Scrapers		1	10.00	330	0.48
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes		1	10.00	98	0.37
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes		1	10.00	90	0.37
Plots 1 3 20 (2026) Landscaping	Excavators		2	10.00	29	0.38
Plots 1 3 20 (2026) Landscaping	Forklifts		2	10.00	125	0.20
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment		2	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment		10	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plots 1 3 20 (2026) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plots 1 3 20 (2026) Landscaping	Trenchers		2	10.00	39	0.50
Plots 1 3 20 (2026) Mass Excavation	Graders		1	10.00	193	0.41

Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 1 3 20 (2026) Mass Excavation	Scrapers	1	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Paving	Pavers	2	10.00	126	0.42
Plots 1 3 20 (2026) Paving	Paving Equipment	2	10.00	131	0.36
Plots 1 3 20 (2026) Paving	Plate Compactors	2	10.00	8	0.43
Plots 1 3 20 (2026) Paving	Rollers	2	10.00	81	0.38
Plots 1 3 20 (2026) Paving	Scrapers	2	10.00	362	0.48
Plots 1 3 20 (2026) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 1 3 20 (2026) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 1 3 20 (2026) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	523	0.38
Plots 1 3 20 (2026) Utilities	Excavators	10	10.00	286	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	4	10.00	396	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	188	0.38
Plots 1 3 20 (2026) Utilities	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Utilities	Forklifts	4	10.00	89	0.20

Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Mass Excavation	Graders	3	10.00	193	0.41
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	8	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	410	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	305	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Scrapers	20	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2024) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2024) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	188	0.38
Plot 9 (2024) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2024) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2024) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37

Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2024) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2024) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2024) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2024) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2024) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2024) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 9 (2024) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2024) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2024) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Finish Grading	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Paving	Pavers	2	10.00	126	0.42
Plot 9 (2024) Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2024) Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2024) Paving	Rollers	2	10.00	81	0.38
Plot 9 (2024) Paving	Scrapers	2	10.00	362	0.48
Plot 9 (2024) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2024) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 9 (2025) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2025) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2025) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	188	0.38

Plot 9 (2025) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2025) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2025) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2025) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2025) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2025) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2025) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2025) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2025) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 9 (2025) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plot 9 (2025) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plot 9 (2025) Interchange	Cranes	1	10.00	226	0.29
Plot 9 (2025) Interchange	Excavators	1	10.00	190	0.38
Plot 9 (2025) Interchange	Graders	1	10.00	259	0.41
Plot 9 (2025) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plot 9 (2025) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plot 9 (2025) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plot 9 (2025) Interchange	Scrapers	1	10.00	330	0.48
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plot 9 (2025) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 9 (2025) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2025) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2025) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2025) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2025) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025) Paving	Pavers	2	10.00	126	0.42

Plot 9 (2025) Paving	Paving Equipment		2	10.00	131	0.36
Plot 9 (2025) Paving	Plate Compactors		2	10.00	8	0.43
Plot 9 (2025) Paving	Rollers		2	10.00	81	0.38
Plot 9 (2025) Paving	Scrapers		2	10.00	362	0.48
Plot 9 (2025) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plot 9 (2025) Temporary Utilities	Cranes		2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 9 (2024) Mass Excavation		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Electrical		15.00	6.00	104.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Landscaping		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Landscaping		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Curbing/Drive		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Finish Grading		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 9 (2025) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Wet Utilities		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Electrical		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Landscaping		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Interchange		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Landscaping		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Curbing/Drive		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Mass Excavation		50.00	8.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Interchange		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Finish Grading		15.00	2.00	156.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 9 (2024) Mass Excavation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					80.6062	0.0000	80.6062	8.7036	0.0000	8.7036			0.0000			0.0000
Off-Road	79.8439	871.4155	550.3472	1.3597		33.4898	33.4898		30.8106	30.8106		131,673.0773	131,673.0773	42.5857		132,737.7208
Total	**79.8439**	**871.4155**	**550.3472**	**1.3597**	**80.6062**	**33.4898**	**114.0960**	**8.7036**	**30.8106**	**39.5142**		**131,673.0773**	**131,673.0773**	**42.5857**		**132,737.7208**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.1767	5.4360	1.9012	0.0282	0.7030	0.0111	0.7140	0.1926	0.0106	0.2032		3,066.5484	3,066.5484	0.1908		3,071.3189
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.5146**	**7.3286**	**4.9962**	**0.0477**	**1.9999**	**0.0212**	**2.0211**	**0.5443**	**0.0200**	**0.5643**		**5,089.8209**	**5,089.8209**	**0.2559**		**5,096.2194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.4364	0.0000	31.4364	3.3944	0.0000	3.3944			0.0000			0.0000
Off-Road	16.7118	72.4178	624.0922	1.3597		2.2282	2.2282		2.2282	2.2282	0.0000	131,673.0772	131,673.0772	42.5857		132,737.7207
Total	**16.7118**	**72.4178**	**624.0922**	**1.3597**	**31.4364**	**2.2282**	**33.6647**	**3.3944**	**2.2282**	**5.6226**	**0.0000**	**131,673.0772**	**131,673.0772**	**42.5857**		**132,737.7207**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1767	5.4360	1.9012	0.0282	0.7030	0.0111	0.7140	0.1926	0.0106	0.2032		3,066.5484	3,066.5484	0.1908		3,071.3189
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.5146**	**7.3286**	**4.9962**	**0.0477**	**1.9999**	**0.0212**	**2.0211**	**0.5443**	**0.0200**	**0.5643**		**5,089.8209**	**5,089.8209**	**0.2559**		**5,096.2194**

3.3 Plot 9 (2024) Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.1392	88.0083	114.1711	0.3463		3.4412	3.4412		3.1671	3.1671		33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**11.1392**	**88.0083**	**114.1711**	**0.3463**	**25.5336**	**3.4412**	**28.9748**	**2.7570**	**3.1671**	**5.9241**		**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0132	0.4053	0.1417	2.1000e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		228.6172	228.6172	0.0142		228.9729
Vendor	0.0181	0.4601	0.1687	2.9600e-003	0.0925	1.0000e-003	0.0935	0.0266	9.6000e-004	0.0276		315.9700	315.9700	0.0124		316.2811
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0853**	**0.8988**	**0.8029**	**6.7400e-003**	**0.3349**	**3.0900e-003**	**0.3380**	**0.0913**	**2.9100e-003**	**0.0943**		**712.2642**	**712.2642**	**0.0304**		**713.0232**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.3683	41.7112	153.5472	0.3463		1.2604	1.2604		1.1903	1.1903	0.0000	33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**6.3683**	**41.7112**	**153.5472**	**0.3463**	**9.9581**	**1.2604**	**11.2185**	**1.0752**	**1.1903**	**2.2656**	**0.0000**	**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0132	0.4053	0.1417	2.1000e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		228.6172	228.6172	0.0142		228.9729
Vendor	0.0181	0.4601	0.1687	2.9600e-003	0.0925	1.0000e-003	0.0935	0.0266	9.6000e-004	0.0276		315.9700	315.9700	0.0124		316.2811
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0853**	**0.8988**	**0.8029**	**6.7400e-003**	**0.3349**	**3.0900e-003**	**0.3380**	**0.0913**	**2.9100e-003**	**0.0943**		**712.2642**	**712.2642**	**0.0304**		**713.0232**

3.4 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9683	27.8163	41.6994	0.0626		1.2700	1.2700		1.1953	1.1953		5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**2.9683**	**27.8163**	**41.6994**	**0.0626**	**3.1937**	**1.2700**	**4.4638**	**0.3449**	**1.1953**	**1.5402**		**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0883	2.7180	0.9506	0.0141	0.3515	5.5300e-003	0.3570	0.0963	5.2900e-003	0.1016		1,533.2742	1,533.2742	0.0954		1,535.6595
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.4263**	**4.6106**	**4.0456**	**0.0336**	**1.6484**	**0.0156**	**1.6640**	**0.4480**	**0.0147**	**0.4627**		**3,556.5468**	**3,556.5468**	**0.1605**		**3,560.5600**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0883	2.7180	0.9506	0.0141	0.3515	5.5300e-003	0.3570	0.0963	5.2900e-003	0.1016		1,533.2742	1,533.2742	0.0954		1,535.6595
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.2702	0.1672	2.4623	8.4100e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		838.3850	838.3850	0.0185		838.8465
Total	**0.4263**	**4.6106**	**4.0456**	**0.0336**	**1.6484**	**0.0156**	**1.6640**	**0.4480**	**0.0147**	**0.4627**		**3,556.5468**	**3,556.5468**	**0.1605**		**3,560.5600**

3.5 Plot 9 (2024) Building-Wet Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.9612	40.6896	66.9992	0.1252		1.9173	1.9173		1.7639	1.7639		12,114.9480	12,114.9480	3.9182		12,212.9034
Total	**4.9612**	**40.6896**	**66.9992**	**0.1252**	**9.5771**	**1.9173**	**11.4944**	**1.0341**	**1.7639**	**2.7980**		**12,114.9480**	**12,114.9480**	**3.9182**		**12,212.9034**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.4230	0.4977	7.3800e-003	0.1840	2.9000e-003	0.1869	0.0504	2.7700e-003	0.0532		802.7249	802.7249	0.0500		803.9737
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.2491**	**3.2320**	**2.3615**	**0.0227**	**1.0059**	**9.8300e-003**	**1.0157**	**0.2761**	**9.2800e-003**	**0.2854**		**2,406.8050**	**2,406.8050**	**0.1058**		**2,409.4510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.9020	10.2416	78.3247	0.1252		0.3537	0.3537		0.3389	0.3389	0.0000	12,114.9479	12,114.9479	3.9182		12,212.9034
Total	**1.9020**	**10.2416**	**78.3247**	**0.1252**	**3.7351**	**0.3537**	**4.0887**	**0.4033**	**0.3389**	**0.7422**	**0.0000**	**12,114.9479**	**12,114.9479**	**3.9182**		**12,212.9034**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.4230	0.4977	7.3800e-003	0.1840	2.9000e-003	0.1869	0.0504	2.7700e-003	0.0532		802.7249	802.7249	0.0500		803.9737
Vendor	0.0677	1.7254	0.6327	0.0111	0.3468	3.7700e-003	0.3506	0.0997	3.6000e-003	0.1033		1,184.8876	1,184.8876	0.0467		1,186.0540
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.2491**	**3.2320**	**2.3615**	**0.0227**	**1.0059**	**9.8300e-003**	**1.0157**	**0.2761**	**9.2800e-003**	**0.2854**		**2,406.8050**	**2,406.8050**	**0.1058**		**2,409.4510**

3.6 Plot 9 (2024) Building-Electrical - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.1951	29.2599	40.9863	0.0565		1.2915	1.2915		1.1899	1.1899		5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**3.1951**	**29.2599**	**40.9863**	**0.0565**	**6.3834**	**1.2915**	**7.6749**	**0.6893**	**1.1899**	**1.8791**		**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2000e-003	0.0675	0.0236	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		38.1029	38.1029	2.3700e-003		38.1622
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.1104**	**0.8079**	**1.0154**	**7.3000e-003**	**0.4325**	**3.5500e-003**	**0.4360**	**0.1179**	**3.3200e-003**	**0.1212**		**763.5734**	**763.5734**	**0.0266**		**764.2377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2432	10.9430	42.3802	0.0565		0.2351	0.2351		0.2244	0.2244	0.0000	5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**1.2432**	**10.9430**	**42.3802**	**0.0565**	**2.4895**	**0.2351**	**2.7246**	**0.2688**	**0.2244**	**0.4932**	**0.0000**	**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2000e-003	0.0675	0.0236	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		38.1029	38.1029	2.3700e-003		38.1622
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.1104**	**0.8079**	**1.0154**	**7.3000e-003**	**0.4325**	**3.5500e-003**	**0.4360**	**0.1179**	**3.3200e-003**	**0.1212**		**763.5734**	**763.5734**	**0.0266**		**764.2377**

3.7 Plot 9 (2024) Building-Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4878	21.0268	32.6128	0.0468		0.9898	0.9898		0.9107	0.9107		4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**2.4878**	**21.0268**	**32.6128**	**0.0468**	**1.5948**	**0.9898**	**2.5847**	**0.1722**	**0.9107**	**1.0829**		**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2595	12.6355	35.5770	0.0468		0.2603	0.2603		0.2449	0.2449	0.0000	4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**1.2595**	**12.6355**	**35.5770**	**0.0468**	**0.6220**	**0.2603**	**0.8823**	**0.0672**	**0.2449**	**0.3120**	**0.0000**	**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

3.8 Plot 9 (2024) Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6412	22.2334	34.9552	0.0504		1.0546	1.0546		0.9702	0.9702		4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**2.6412**	**22.2334**	**34.9552**	**0.0504**	**1.5948**	**1.0546**	**2.6494**	**0.1722**	**0.9702**	**1.1424**		**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1321	4.0656	1.4219	0.0211	0.5258	8.2800e-003	0.5340	0.1441	7.9200e-003	0.1520		2,293.4997	2,293.4997	0.1427		2,297.0677
Vendor	0.1129	2.8757	1.0546	0.0185	0.5780	6.2800e-003	0.5843	0.1662	6.0100e-003	0.1722		1,974.8126	1,974.8126	0.0778		1,976.7567
Worker	0.2162	0.1338	1.9698	6.7300e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		670.7080	670.7080	0.0148		671.0772
Total	**0.4612**	**7.0751**	**4.4463**	**0.0463**	**1.8639**	**0.0196**	**1.8835**	**0.5118**	**0.0186**	**0.5304**		**4,939.0204**	**4,939.0204**	**0.2353**		**4,944.9016**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3037	12.8270	38.3014	0.0504		0.2662	0.2662		0.2508	0.2508	0.0000	4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**1.3037**	**12.8270**	**38.3014**	**0.0504**	**0.6220**	**0.2662**	**0.8882**	**0.0672**	**0.2508**	**0.3179**	**0.0000**	**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1321	4.0656	1.4219	0.0211	0.5258	8.2800e-003	0.5340	0.1441	7.9200e-003	0.1520		2,293.4997	2,293.4997	0.1427		2,297.0677
Vendor	0.1129	2.8757	1.0546	0.0185	0.5780	6.2800e-003	0.5843	0.1662	6.0100e-003	0.1722		1,974.8126	1,974.8126	0.0778		1,976.7567
Worker	0.2162	0.1338	1.9698	6.7300e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		670.7080	670.7080	0.0148		671.0772
Total	**0.4612**	**7.0751**	**4.4463**	**0.0463**	**1.8639**	**0.0196**	**1.8835**	**0.5118**	**0.0186**	**0.5304**		**4,939.0204**	**4,939.0204**	**0.2353**		**4,944.9016**

3.9 Plot 9 (2024) Curbing/Drive Approaches - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6792	6.2242	9.6300	0.0145		0.3057	0.3057		0.2821	0.2821		1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7271**	**6.2242**	**9.6300**	**0.0145**	**0.0000**	**0.3057**	**0.3057**	**0.0000**	**0.2821**	**0.2821**		**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3435	10.5706	3.6970	0.0549	1.3670	0.0215	1.3885	0.3746	0.0206	0.3952		5,963.0993	5,963.0993	0.3711		5,972.3760
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.4517**	**11.3109**	**4.6888**	**0.0618**	**1.7907**	**0.0249**	**1.8157**	**0.4901**	**0.0238**	**0.5138**		**6,688.5698**	**6,688.5698**	**0.3953**		**6,698.4515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3435	10.5706	3.6970	0.0549	1.3670	0.0215	1.3885	0.3746	0.0206	0.3952		5,963.0993	5,963.0993	0.3711		5,972.3760
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0811	0.0502	0.7387	2.5200e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		251.5155	251.5155	5.5400e-003		251.6539
Total	**0.4517**	**11.3109**	**4.6888**	**0.0618**	**1.7907**	**0.0249**	**1.8157**	**0.4901**	**0.0238**	**0.5138**		**6,688.5698**	**6,688.5698**	**0.3953**		**6,698.4515**

3.10 Plot 9 (2024) Finish Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.3399	0.0000	10.3399	1.1165	0.0000	1.1165			0.0000			0.0000
Off-Road	2.6290	24.7792	23.8477	0.0326		1.3310	1.3310		1.2245	1.2245		3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**2.6290**	**24.7792**	**23.8477**	**0.0326**	**10.3399**	**1.3310**	**11.6709**	**1.1165**	**1.2245**	**2.3410**		**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0316	0.8052	0.2953	5.1700e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		552.9475	552.9475	0.0218		553.4919
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0857**	**0.8386**	**0.7877**	**6.8500e-003**	**0.3519**	**3.0200e-003**	**0.3549**	**0.0969**	**2.8400e-003**	**0.0998**		**720.6245**	**720.6245**	**0.0255**		**721.2612**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0326	0.0000	4.0326	0.4354	0.0000	0.4354			0.0000			0.0000
Off-Road	0.4001	1.7335	24.6695	0.0326		0.0533	0.0533		0.0533	0.0533	0.0000	3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**0.4001**	**1.7335**	**24.6695**	**0.0326**	**4.0326**	**0.0533**	**4.0859**	**0.4354**	**0.0533**	**0.4888**	**0.0000**	**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0316	0.8052	0.2953	5.1700e-003	0.1618	1.7600e-003	0.1636	0.0465	1.6800e-003	0.0482		552.9475	552.9475	0.0218		553.4919
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0857**	**0.8386**	**0.7877**	**6.8500e-003**	**0.3519**	**3.0200e-003**	**0.3549**	**0.0969**	**2.8400e-003**	**0.0998**		**720.6245**	**720.6245**	**0.0255**		**721.2612**

3.11 Plot 9 (2024) Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.0488	39.5630	46.4915	0.0856		1.7411	1.7411		1.6038	1.6038		8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.1446**	**39.5630**	**46.4915**	**0.0856**	**6.3630**	**1.7411**	**8.1041**	**0.6871**	**1.6038**	**2.2908**		**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0811**	**0.7236**	**0.7456**	**6.1100e-003**	**0.3288**	**2.7700e-003**	**0.3315**	**0.0903**	**2.6000e-003**	**0.0929**		**641.6320**	**641.6320**	**0.0224**		**642.1909**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0856		0.1485	0.1485		0.1485	0.1485	0.0000	8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0856**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.6902	0.2531	4.4300e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4400e-003	0.0413		473.9550	473.9550	0.0187		474.4216
Worker	0.0540	0.0335	0.4925	1.6800e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		167.6770	167.6770	3.6900e-003		167.7693
Total	**0.0811**	**0.7236**	**0.7456**	**6.1100e-003**	**0.3288**	**2.7700e-003**	**0.3315**	**0.0903**	**2.6000e-003**	**0.0929**		**641.6320**	**641.6320**	**0.0224**		**642.1909**

3.12 Plot 9 (2024) Temporary Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3116	13.5590	10.9969	0.0278		0.5481	0.5481		0.5042	0.5042		2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**1.3116**	**13.5590**	**10.9969**	**0.0278**	**0.0000**	**0.5481**	**0.5481**	**0.0000**	**0.5042**	**0.5042**		**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 9 (2025) Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0131	0.3985	0.1429	2.0900e-003	0.0524	8.1000e-004	0.0532	0.0144	7.8000e-004	0.0151		227.3585	227.3585	0.0142		227.7140
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0823**	**0.8829**	**0.7668**	**6.6400e-003**	**0.3349**	**3.0500e-003**	**0.3380**	**0.0913**	**2.8700e-003**	**0.0942**		**702.9466**	**702.9466**	**0.0300**		**703.6960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0131	0.3985	0.1429	2.0900e-003	0.0524	8.1000e-004	0.0532	0.0144	7.8000e-004	0.0151		227.3585	227.3585	0.0142		227.7140
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0823**	**0.8829**	**0.7668**	**6.6400e-003**	**0.3349**	**3.0500e-003**	**0.3380**	**0.0913**	**2.8700e-003**	**0.0942**		**702.9466**	**702.9466**	**0.0300**		**703.6960**

3.14 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3372	0.1209	1.7700e-003	0.0443	6.9000e-004	0.0450	0.0122	6.6000e-004	0.0128		192.3803	192.3803	0.0120		192.6810
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.1663**	**1.0944**	**1.5148**	**0.0102**	**0.6581**	**5.2900e-003**	**0.6634**	**0.1780**	**4.9400e-003**	**0.1830**		**1,066.8360**	**1,066.8360**	**0.0390**		**1,067.8119**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3372	0.1209	1.7700e-003	0.0443	6.9000e-004	0.0450	0.0122	6.6000e-004	0.0128		192.3803	192.3803	0.0120		192.6810
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.1663**	**1.0944**	**1.5148**	**0.0102**	**0.6581**	**5.2900e-003**	**0.6634**	**0.1780**	**4.9400e-003**	**0.1830**		**1,066.8360**	**1,066.8360**	**0.0390**		**1,067.8119**

3.15 Plot 9 (2025) Building-Wet Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1051	3.1981	1.1466	0.0168	0.4206	6.5400e-003	0.4271	0.1153	6.2600e-003	0.1215		1,824.6979	1,824.6979	0.1141		1,827.5504
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0771	0.0459	0.6869	2.4200e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		241.6105	241.6105	5.0500e-003		241.7368
Total	**0.2089**	**3.9247**	**2.0825**	**0.0236**	**0.8444**	**9.9000e-003**	**0.8543**	**0.2307**	**9.4000e-003**	**0.2401**		**2,538.0799**	**2,538.0799**	**0.1377**		**2,541.5234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1051	3.1981	1.1466	0.0168	0.4206	6.5400e-003	0.4271	0.1153	6.2600e-003	0.1215		1,824.6979	1,824.6979	0.1141		1,827.5504
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0771	0.0459	0.6869	2.4200e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		241.6105	241.6105	5.0500e-003		241.7368
Total	**0.2089**	**3.9247**	**2.0825**	**0.0236**	**0.8444**	**9.9000e-003**	**0.8543**	**0.2307**	**9.4000e-003**	**0.2401**		**2,538.0799**	**2,538.0799**	**0.1377**		**2,541.5234**

3.16 Plot 9 (2025) Building-Electrical - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

3.17 Plot 9 (2025) Building-Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0460	1.3992	0.5016	7.3400e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		798.3053	798.3053	0.0499		799.5533
Vendor	0.0666	1.7018	0.6226	0.0110	0.3468	3.7400e-003	0.3505	0.0997	3.5800e-003	0.1033		1,179.4288	1,179.4288	0.0465		1,180.5906
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2411**	**3.1775**	**2.2691**	**0.0224**	**1.0059**	**9.7000e-003**	**1.0156**	**0.2761**	**9.1700e-003**	**0.2853**		**2,380.4184**	**2,380.4184**	**0.1048**		**2,383.0385**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0460	1.3992	0.5016	7.3400e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		798.3053	798.3053	0.0499		799.5533
Vendor	0.0666	1.7018	0.6226	0.0110	0.3468	3.7400e-003	0.3505	0.0997	3.5800e-003	0.1033		1,179.4288	1,179.4288	0.0465		1,180.5906
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2411**	**3.1775**	**2.2691**	**0.0224**	**1.0059**	**9.7000e-003**	**1.0156**	**0.2761**	**9.1700e-003**	**0.2853**		**2,380.4184**	**2,380.4184**	**0.1048**		**2,383.0385**

3.18 Plot 9 (2025) Interchange - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5839	0.0000	5.5839	0.6029	0.0000	0.6029			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**5.5839**	**1.9312**	**7.5151**	**0.6029**	**1.7773**	**2.3802**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1314	3.9976	1.4332	0.0210	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,280.8724	2,280.8724	0.1426		2,284.4380
Vendor	0.1110	2.8364	1.0377	0.0184	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,965.7147	1,965.7147	0.0775		1,967.6509
Worker	0.2057	0.1224	1.8318	6.4600e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		644.2948	644.2948	0.0135		644.6314
Total	**0.4481**	**6.9565**	**4.3027**	**0.0458**	**1.8639**	**0.0194**	**1.8832**	**0.5118**	**0.0184**	**0.5302**		**4,890.8818**	**4,890.8818**	**0.2336**		**4,896.7204**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1777	0.0000	2.1777	0.2351	0.0000	0.2351			0.0000			0.0000
Off-Road	1.2888	5.9059	49.8751	0.0992		0.1846	0.1846		0.1829	0.1829	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**1.2888**	**5.9059**	**49.8751**	**0.0992**	**2.1777**	**0.1846**	**2.3623**	**0.2351**	**0.1829**	**0.4180**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1314	3.9976	1.4332	0.0210	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,280.8724	2,280.8724	0.1426		2,284.4380
Vendor	0.1110	2.8364	1.0377	0.0184	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,965.7147	1,965.7147	0.0775		1,967.6509
Worker	0.2057	0.1224	1.8318	6.4600e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		644.2948	644.2948	0.0135		644.6314
Total	**0.4481**	**6.9565**	**4.3027**	**0.0458**	**1.8639**	**0.0194**	**1.8832**	**0.5118**	**0.0184**	**0.5302**		**4,890.8818**	**4,890.8818**	**0.2336**		**4,896.7204**

3.19 Plot 9 (2025) Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0591	1.7989	0.6449	9.4300e-003	0.2366	3.6800e-003	0.2403	0.0648	3.5200e-003	0.0684		1,026.3926	1,026.3926	0.0642		1,027.9971
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2055**	**2.3293**	**1.9558**	**0.0164**	**0.8041**	**7.7800e-003**	**0.8119**	**0.2174**	**7.3200e-003**	**0.2247**		**1,743.5911**	**1,743.5911**	**0.0850**		**1,745.7159**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0591	1.7989	0.6449	9.4300e-003	0.2366	3.6800e-003	0.2403	0.0648	3.5200e-003	0.0684		1,026.3926	1,026.3926	0.0642		1,027.9971
Vendor	0.0178	0.4538	0.1660	2.9400e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		314.5144	314.5144	0.0124		314.8242
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2055**	**2.3293**	**1.9558**	**0.0164**	**0.8041**	**7.7800e-003**	**0.8119**	**0.2174**	**7.3200e-003**	**0.2247**		**1,743.5911**	**1,743.5911**	**0.0850**		**1,745.7159**

3.20 Plot 9 (2025) Curbing/Drive Approaches - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0311	0.7942	0.2906	5.1500e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		550.4001	550.4001	0.0217		550.9423
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0825**	**0.8248**	**0.7485**	**6.7600e-003**	**0.3519**	**2.9800e-003**	**0.3549**	**0.0969**	**2.8100e-003**	**0.0997**		**711.4738**	**711.4738**	**0.0251**		**712.1001**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0311	0.7942	0.2906	5.1500e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		550.4001	550.4001	0.0217		550.9423
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0825**	**0.8248**	**0.7485**	**6.7600e-003**	**0.3519**	**2.9800e-003**	**0.3549**	**0.0969**	**2.8100e-003**	**0.0997**		**711.4738**	**711.4738**	**0.0251**		**712.1001**

3.21 Plot 9 (2025) Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0781**	**0.7114**	**0.7070**	**6.0200e-003**	**0.3288**	**2.7400e-003**	**0.3315**	**0.0903**	**2.5700e-003**	**0.0929**		**632.8452**	**632.8452**	**0.0220**		**633.3941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6807	0.2490	4.4100e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		471.7715	471.7715	0.0186		472.2362
Worker	0.0514	0.0306	0.4580	1.6100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		161.0737	161.0737	3.3700e-003		161.1579
Total	**0.0781**	**0.7114**	**0.7070**	**6.0200e-003**	**0.3288**	**2.7400e-003**	**0.3315**	**0.0903**	**2.5700e-003**	**0.0929**		**632.8452**	**632.8452**	**0.0220**		**633.3941**

3.22 Plot 9 (2025) Temporary Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.23 Plots 1 3 20 (2026) Mass Excavation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.7063	0.0000	23.7063	2.5597	0.0000	2.5597			0.0000			0.0000
Off-Road	18.6879	188.0787	135.3734	0.3880		7.2513	7.2513		6.6712	6.6712		37,566.3042	37,566.3042	12.1497		37,870.0468
Total	**18.6879**	**188.0787**	**135.3734**	**0.3880**	**23.7063**	**7.2513**	**30.9575**	**2.5597**	**6.6712**	**9.2309**		**37,566.3042**	**37,566.3042**	**12.1497**		**37,870.0468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0452	1.3613	0.5001	7.2200e-003	0.1823	2.7900e-003	0.1850	0.0499	2.6700e-003	0.0526		786.4967	786.4967	0.0493		787.7290
Vendor	0.0349	0.8941	0.3278	5.8500e-003	0.1850	1.9700e-003	0.1869	0.0532	1.8900e-003	0.0551		626.2564	626.2564	0.0246		626.8726
Worker	0.2459	0.1410	2.1429	7.7900e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		776.8485	776.8485	0.0154		777.2343
Total	**0.3260**	**2.3964**	**2.9708**	**0.0209**	**1.3173**	**0.0108**	**1.3281**	**0.3551**	**0.0101**	**0.3651**		**2,189.6017**	**2,189.6017**	**0.0894**		**2,191.8358**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2454	0.0000	9.2454	0.9983	0.0000	0.9983			0.0000			0.0000
Off-Road	4.7664	20.6544	179.2063	0.3880		0.6355	0.6355		0.6355	0.6355	0.0000	37,566.3041	37,566.3041	12.1497		37,870.0467
Total	**4.7664**	**20.6544**	**179.2063**	**0.3880**	**9.2454**	**0.6355**	**9.8810**	**0.9983**	**0.6355**	**1.6338**	**0.0000**	**37,566.3041**	**37,566.3041**	**12.1497**		**37,870.0467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0452	1.3613	0.5001	7.2200e-003	0.1823	2.7900e-003	0.1850	0.0499	2.6700e-003	0.0526		786.4967	786.4967	0.0493		787.7290
Vendor	0.0349	0.8941	0.3278	5.8500e-003	0.1850	1.9700e-003	0.1869	0.0532	1.8900e-003	0.0551		626.2564	626.2564	0.0246		626.8726
Worker	0.2459	0.1410	2.1429	7.7900e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		776.8485	776.8485	0.0154		777.2343
Total	**0.3260**	**2.3964**	**2.9708**	**0.0209**	**1.3173**	**0.0108**	**1.3281**	**0.3551**	**0.0101**	**0.3651**		**2,189.6017**	**2,189.6017**	**0.0894**		**2,191.8358**

3.24 Plots 1 3 20 (2026) Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1305	3.9271	1.4426	0.0208	0.5258	8.0500e-003	0.5338	0.1441	7.7000e-003	0.1518		2,268.8800	2,268.8800	0.1422		2,272.4347
Vendor	0.1092	2.7940	1.0244	0.0183	0.5780	6.1600e-003	0.5842	0.1662	5.8900e-003	0.1721		1,957.0513	1,957.0513	0.0770		1,958.9767
Worker	0.1967	0.1128	1.7143	6.2300e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		621.4788	621.4788	0.0124		621.7875
Total	**0.4363**	**6.8338**	**4.1813**	**0.0454**	**1.8639**	**0.0190**	**1.8829**	**0.5118**	**0.0180**	**0.5298**		**4,847.4101**	**4,847.4101**	**0.2316**		**4,853.1988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1305	3.9271	1.4426	0.0208	0.5258	8.0500e-003	0.5338	0.1441	7.7000e-003	0.1518		2,268.8800	2,268.8800	0.1422		2,272.4347
Vendor	0.1092	2.7940	1.0244	0.0183	0.5780	6.1600e-003	0.5842	0.1662	5.8900e-003	0.1721		1,957.0513	1,957.0513	0.0770		1,958.9767
Worker	0.1967	0.1128	1.7143	6.2300e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		621.4788	621.4788	0.0124		621.7875
Total	**0.4363**	**6.8338**	**4.1813**	**0.0454**	**1.8639**	**0.0190**	**1.8829**	**0.5118**	**0.0180**	**0.5298**		**4,847.4101**	**4,847.4101**	**0.2316**		**4,853.1988**

3.25 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

3.26 Plots 1 3 20 (2026) Building-Wet Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0457	1.3745	0.5049	7.2900e-003	0.1840	2.8200e-003	0.1868	0.0504	2.6900e-003	0.0531		794.1080	794.1080	0.0498		795.3521
Vendor	0.0655	1.6764	0.6146	0.0110	0.3468	3.7000e-003	0.3505	0.0997	3.5400e-003	0.1033		1,174.2308	1,174.2308	0.0462		1,175.3860
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2341**	**3.1214**	**2.1910**	**0.0222**	**1.0059**	**9.5200e-003**	**1.0154**	**0.2761**	**8.9900e-003**	**0.2851**		**2,356.7631**	**2,356.7631**	**0.1037**		**2,359.3553**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0457	1.3745	0.5049	7.2900e-003	0.1840	2.8200e-003	0.1868	0.0504	2.6900e-003	0.0531		794.1080	794.1080	0.0498		795.3521
Vendor	0.0655	1.6764	0.6146	0.0110	0.3468	3.7000e-003	0.3505	0.0997	3.5400e-003	0.1033		1,174.2308	1,174.2308	0.0462		1,175.3860
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2341**	**3.1214**	**2.1910**	**0.0222**	**1.0059**	**9.5200e-003**	**1.0154**	**0.2761**	**8.9900e-003**	**0.2851**		**2,356.7631**	**2,356.7631**	**0.1037**		**2,359.3553**

3.27 Plots 1 3 20 (2026) Building-Electrical - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1044	3.1417	1.1541	0.0167	0.4206	6.4400e-003	0.4270	0.1153	6.1600e-003	0.1214		1,815.1040	1,815.1040	0.1138		1,817.9477
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.2043**	**3.8545**	**2.0428**	**0.0234**	**0.8444**	**9.7200e-003**	**0.8541**	**0.2307**	**9.2200e-003**	**0.2400**		**2,517.8509**	**2,517.8509**	**0.1369**		**2,521.2725**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1044	3.1417	1.1541	0.0167	0.4206	6.4400e-003	0.4270	0.1153	6.1600e-003	0.1214		1,815.1040	1,815.1040	0.1138		1,817.9477
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.2043**	**3.8545**	**2.0428**	**0.0234**	**0.8444**	**9.7200e-003**	**0.8541**	**0.2307**	**9.2200e-003**	**0.2400**		**2,517.8509**	**2,517.8509**	**0.1369**		**2,521.2725**

3.28 Plots 1 3 20 (2026) Building-Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7823	0.2868	5.1200e-003	0.1618	1.7300e-003	0.1636	0.0465	1.6500e-003	0.0482		547.9744	547.9744	0.0216		548.5135
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0797**	**0.8105**	**0.7154**	**6.6800e-003**	**0.3519**	**2.9300e-003**	**0.3548**	**0.0969**	**2.7500e-003**	**0.0997**		**703.3441**	**703.3441**	**0.0247**		**703.9603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7823	0.2868	5.1200e-003	0.1618	1.7300e-003	0.1636	0.0465	1.6500e-003	0.0482		547.9744	547.9744	0.0216		548.5135
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0797**	**0.8105**	**0.7154**	**6.6800e-003**	**0.3519**	**2.9300e-003**	**0.3548**	**0.0969**	**2.7500e-003**	**0.0997**		**703.3441**	**703.3441**	**0.0247**		**703.9603**

3.29 Plots 1 3 20 (2026) Interchange - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.1679	0.0000	11.1679	1.2059	0.0000	1.2059			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**11.1679**	**1.9312**	**13.0991**	**1.2059**	**1.7773**	**2.9831**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1174	3.5344	1.2983	0.0188	0.4732	7.2400e-003	0.4804	0.1297	6.9300e-003	0.1366		2,041.9920	2,041.9920	0.1280		2,045.1912
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2578**	**4.0519**	**2.5337**	**0.0256**	**1.0407**	**0.0112**	**1.0520**	**0.2822**	**0.0106**	**0.2929**		**2,743.5445**	**2,743.5445**	**0.1480**		**2,747.2446**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					4.3555	0.0000	4.3555	0.4703	0.0000	0.4703			0.0000			0.0000
Off-Road	1.2888	5.9059	49.8751	0.0992		0.1846	0.1846		0.1829	0.1829	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**1.2888**	**5.9059**	**49.8751**	**0.0992**	**4.3555**	**0.1846**	**4.5400**	**0.4703**	**0.1829**	**0.6532**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.1174	3.5344	1.2983	0.0188	0.4732	7.2400e-003	0.4804	0.1297	6.9300e-003	0.1366		2,041.9920	2,041.9920	0.1280		2,045.1912
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2578**	**4.0519**	**2.5337**	**0.0256**	**1.0407**	**0.0112**	**1.0520**	**0.2822**	**0.0106**	**0.2929**		**2,743.5445**	**2,743.5445**	**0.1480**		**2,747.2446**

3.30 Plots 1 3 20 (2026) Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0754**	**0.6988**	**0.6744**	**5.9500e-003**	**0.3288**	**2.6800e-003**	**0.3314**	**0.0903**	**2.5100e-003**	**0.0928**		**625.0620**	**625.0620**	**0.0216**		**625.6013**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.0754**	**0.6988**	**0.6744**	**5.9500e-003**	**0.3288**	**2.6800e-003**	**0.3314**	**0.0903**	**2.5100e-003**	**0.0928**		**625.0620**	**625.0620**	**0.0216**		**625.6013**

3.31 Plots 1 3 20 (2026) Curbing/Drive Approaches - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0423	1.2722	0.4673	6.7500e-003	0.1703	2.6100e-003	0.1729	0.0467	2.4900e-003	0.0492		735.0301	735.0301	0.0461		736.1817
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.1089**	**1.7475**	**1.0598**	**0.0112**	**0.4528**	**4.8000e-003**	**0.4576**	**0.1237**	**4.5300e-003**	**0.1282**		**1,203.5281**	**1,203.5281**	**0.0615**		**1,205.0648**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0423	1.2722	0.4673	6.7500e-003	0.1703	2.6100e-003	0.1729	0.0467	2.4900e-003	0.0492		735.0301	735.0301	0.0461		736.1817
Vendor	0.0175	0.4470	0.1639	2.9300e-003	0.0925	9.9000e-004	0.0935	0.0266	9.4000e-004	0.0275		313.1282	313.1282	0.0123		313.4363
Worker	0.0492	0.0282	0.4286	1.5600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		155.3697	155.3697	3.0900e-003		155.4469
Total	**0.1089**	**1.7475**	**1.0598**	**0.0112**	**0.4528**	**4.8000e-003**	**0.4576**	**0.1237**	**4.5300e-003**	**0.1282**		**1,203.5281**	**1,203.5281**	**0.0615**		**1,205.0648**

3.32 Plots 1 3 20 (2026) Finish Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0211	0.6361	0.2337	3.3700e-003	0.0852	1.3000e-003	0.0865	0.0233	1.2500e-003	0.0246		367.5151	367.5151	0.0230		368.0909
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.1036**	**0.9019**	**0.9585**	**7.1700e-003**	**0.4164**	**3.5900e-003**	**0.4200**	**0.1122**	**3.3700e-003**	**0.1156**		**757.1337**	**757.1337**	**0.0338**		**757.9793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0211	0.6361	0.2337	3.3700e-003	0.0852	1.3000e-003	0.0865	0.0233	1.2500e-003	0.0246		367.5151	367.5151	0.0230		368.0909
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.0738	0.0423	0.6429	2.3400e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		233.0546	233.0546	4.6300e-003		233.1703
Total	**0.1036**	**0.9019**	**0.9585**	**7.1700e-003**	**0.4164**	**3.5900e-003**	**0.4200**	**0.1122**	**3.3700e-003**	**0.1156**		**757.1337**	**757.1337**	**0.0338**		**757.9793**

3.33 Plots 1 3 20 (2026) Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0715	2.1530	0.7909	0.0114	0.2882	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,243.8972	1,243.8972	0.0780		1,245.8460
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2207**	**2.8941**	**2.1082**	**0.0197**	**0.9020**	**8.8900e-003**	**0.9109**	**0.2449**	**8.3900e-003**	**0.2532**		**2,102.0137**	**2,102.0137**	**0.1042**		**2,104.6175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0715	2.1530	0.7909	0.0114	0.2882	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,243.8972	1,243.8972	0.0780		1,245.8460
Vendor	0.0262	0.6706	0.2459	4.3900e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		469.6923	469.6923	0.0185		470.1544
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2207**	**2.8941**	**2.1082**	**0.0197**	**0.9020**	**8.8900e-003**	**0.9109**	**0.2449**	**8.3900e-003**	**0.2532**		**2,102.0137**	**2,102.0137**	**0.1042**		**2,104.6175**

3.34 Plots 1 3 20 (2026) Temporary Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plots 9 and 1,3,20 (2024-2026)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	129.7140	1,213.5415	987.8000	2.4445	156.0956	46.9506	203.0462	18.6556	43.2304	61.8860	0.0000	239,161.7375	239,161.7375	69.1656	0.0000	240,890.8789
2025	50.2215	330.5266	453.9861	1.0800	67.1686	12.7190	79.8876	8.4644	11.7332	20.1976	0.0000	105,970.6560	105,970.6560	28.9333	0.0000	106,693.9890
2026	69.0102	520.8328	591.6161	1.4999	102.2376	19.8573	122.0949	12.6305	18.3010	30.9315	0.0000	147,136.4491	147,136.4491	40.8376	0.0000	148,157.3896
Maximum	**129.7140**	**1,213.5415**	**987.8000**	**2.4445**	**156.0956**	**46.9506**	**203.0462**	**18.6556**	**43.2304**	**61.8860**	**0.0000**	**239,161.7375**	**239,161.7375**	**69.1656**	**0.0000**	**240,890.8789**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	46.5070	216.0656	1,130.4899	2.4445	67.5318	5.0945	72.6263	9.0928	4.9616	14.0544	0.0000	239,161.7373	239,161.7373	69.1656	0.0000	240,890.8787
2025	29.6921	128.5075	534.4477	1.0800	30.6757	2.8137	33.4894	4.5240	2.6962	7.2202	0.0000	105,970.6559	105,970.6559	28.9333	0.0000	106,693.9889
2026	34.8243	155.6514	714.2139	1.4999	45.7752	3.4437	49.2189	6.5339	3.3249	9.8588	0.0000	147,136.4490	147,136.4490	40.8376	0.0000	148,157.3895
Maximum	**46.5070**	**216.0656**	**1,130.4899**	**2.4445**	**67.5318**	**5.0945**	**72.6263**	**9.0928**	**4.9616**	**14.0544**	**0.0000**	**239,161.7373**	**239,161.7373**	**69.1656**	**0.0000**	**240,890.8787**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**55.40**	**75.77**	**-17.00**	**0.00**	**55.77**	**85.73**	**61.65**	**49.31**	**85.01**	**72.45**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 9 (2024) Mass Excavation	Grading	1/1/2024	6/30/2024	5	130	1138
2	Plot 9 (2024) Utilities	Trenching	1/1/2024	12/29/2024	5	260	1144
3	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
4	Plot 9 (2024) Building-Wet Utilities	Building Construction	1/1/2024	12/29/2024	5	260	1141
5	Plot 9 (2024) Building-Electrical	Building Construction	1/1/2024	12/29/2024	5	260	1142
6	Plot 9 (2024) Building-Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1143
7	Plot 9 (2024) Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1145
8	Plot 9 (2024) Curbing/Drive Approaches	Paving	5/1/2024	8/20/2024	5	80	1147
9	Plot 9 (2024) Finish Grading	Grading	5/7/2024	7/1/2024	5	40	1139
10	Plot 9 (2024) Paving	Paving	6/1/2024	7/26/2024	5	40	1148
11	Plot 9 (2024) Temporary Utilities	Building Construction	7/2/2024	12/30/2024	5	130	1146
12	Plot 9 (2025) Utilities	Trenching	1/1/2025	12/30/2025	5	260	1153
13	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
14	Plot 9 (2025) Building-Wet Utilities	Building Construction	1/1/2025	12/30/2025	5	260	1150
15	Plot 9 (2025) Building-Electrical	Building Construction	1/1/2025	12/30/2025	5	260	1151
16	Plot 9 (2025) Building-Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1152
17	Plot 9 (2025) Interchange	Building Construction	1/1/2025	12/30/2025	5	260	1154

18	Plot 9 (2025) Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1155
19	Plot 9 (2025) Curbing/Drive Approaches	Paving	5/1/2025	8/20/2025	5	80	1157
20	Plot 9 (2025) Paving	Paving	6/1/2025	7/26/2025	5	40	1158
21	Plot 9 (2025) Temporary Utilities	Building Construction	7/2/2025	12/30/2025	5	130	1156
22	Plots 1 3 20 (2026) Mass Excavation	Grading	1/1/2026	7/1/2026	5	130	1159
23	Plots 1 3 20 (2026) Utilities	Trenching	1/1/2026	12/30/2026	5	260	1165
24	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
25	Plots 1 3 20 (2026) Building-Wet Utilities	Building Construction	1/1/2026	12/30/2026	5	260	1162
26	Plots 1 3 20 (2026) Building-Electrical	Building Construction	1/1/2026	12/30/2026	5	260	1163
27	Plots 1 3 20 (2026) Building-Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1164
28	Plots 1 3 20 (2026) Interchange	Building Construction	1/1/2026	7/1/2026	5	130	1166
29	Plots 1 3 20 (2026) Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1167
30	Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving	5/1/2026	8/20/2026	5	80	1169
31	Plots 1 3 20 (2026) Finish Grading	Grading	5/7/2026	7/1/2026	5	40	1160
32	Plots 1 3 20 (2026) Paving	Paving	6/1/2026	7/26/2026	5	40	1170
33	Plots 1 3 20 (2026) Temporary Utilities	Building Construction	7/2/2026	12/30/2026	5	130	1168

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 1 3 20 (2026) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 1 3 20 (2026) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 1 3 20 (2026) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 1 3 20 (2026) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 1 3 20 (2026) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 1 3 20 (2026) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 1 3 20 (2026) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 1 3 20 (2026) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 1 3 20 (2026) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plots 1 3 20 (2026) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plots 1 3 20 (2026) Interchange	Cranes	1	10.00	226	0.29
Plots 1 3 20 (2026) Interchange	Excavators	1	10.00	190	0.38
Plots 1 3 20 (2026) Interchange	Graders	1	10.00	259	0.41
Plots 1 3 20 (2026) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plots 1 3 20 (2026) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plots 1 3 20 (2026) Interchange	Scrapers	1	10.00	330	0.48
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plots 1 3 20 (2026) Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Mass Excavation	Graders	1	10.00	193	0.41

Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 1 3 20 (2026) Mass Excavation	Scrapers	1	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Paving	Pavers	2	10.00	126	0.42
Plots 1 3 20 (2026) Paving	Paving Equipment	2	10.00	131	0.36
Plots 1 3 20 (2026) Paving	Plate Compactors	2	10.00	8	0.43
Plots 1 3 20 (2026) Paving	Rollers	2	10.00	81	0.38
Plots 1 3 20 (2026) Paving	Scrapers	2	10.00	362	0.48
Plots 1 3 20 (2026) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 1 3 20 (2026) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 1 3 20 (2026) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	523	0.38
Plots 1 3 20 (2026) Utilities	Excavators	10	10.00	286	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	4	10.00	396	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators	2	10.00	188	0.38
Plots 1 3 20 (2026) Utilities	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Utilities	Forklifts	4	10.00	89	0.20

Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Mass Excavation	Graders	3	10.00	193	0.41
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment	8	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Plate Compactors	3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	410	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	305	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Scrapers	20	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2024) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2024) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	188	0.38
Plot 9 (2024) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2024) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2024) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37

Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2024) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2024) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2024) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2024) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2024) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2024) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 9 (2024) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2024) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2024) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Finish Grading	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Paving	Pavers	2	10.00	126	0.42
Plot 9 (2024) Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2024) Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2024) Paving	Rollers	2	10.00	81	0.38
Plot 9 (2024) Paving	Scrapers	2	10.00	362	0.48
Plot 9 (2024) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2024) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 9 (2025) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2025) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2025) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	188	0.38

Plot 9 (2025) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2025) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2025) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2025) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2025) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2025) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2025) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2025) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2025) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 9 (2025) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plot 9 (2025) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plot 9 (2025) Interchange	Cranes	1	10.00	226	0.29
Plot 9 (2025) Interchange	Excavators	1	10.00	190	0.38
Plot 9 (2025) Interchange	Graders	1	10.00	259	0.41
Plot 9 (2025) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plot 9 (2025) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plot 9 (2025) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plot 9 (2025) Interchange	Scrapers	1	10.00	330	0.48
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plot 9 (2025) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 9 (2025) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36

Plot 9 (2025) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plot 9 (2025) Landscaping	Trenchers		2	10.00	39	0.50
Plot 9 (2025) Curbing/Drive Approaches	Cement and Mortar Mixers		6	1.00	9	0.56
Plot 9 (2025) Curbing/Drive Approaches	Other Material Handling Equipment		4	1.00	167	0.40
Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment		1	10.00	99	0.36
Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plot 9 (2025) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plot 9 (2025) Paving	Other Material Handling Equipment		6	1.00	167	0.40
Plot 9 (2025) Paving	Pavers		2	10.00	126	0.42
Plot 9 (2025) Paving	Paving Equipment		2	10.00	131	0.36
Plot 9 (2025) Paving	Plate Compactors		2	10.00	8	0.43
Plot 9 (2025) Paving	Rollers		2	10.00	81	0.38
Plot 9 (2025) Paving	Scrapers		2	10.00	362	0.48
Plot 9 (2025) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plot 9 (2025) Temporary Utilities	Cranes		2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 9 (2024) Mass Excavation		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Electrical		15.00	6.00	104.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Landscaping		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Landscaping		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Curbing/Drive		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Finish Grading		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Wet Utilities		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Electrical		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Landscaping		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Interchange		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Landscaping		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 9 (2025) Curbing/Drive		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Mass Excavation		50.00	8.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Interchange		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Finish Grading		15.00	2.00	156.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 9 (2024) Mass Excavation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.6062	0.0000	80.6062	8.7036	0.0000	8.7036			0.0000			0.0000
Off-Road	79.8439	871.4155	550.3472	1.3597		33.4898	33.4898		30.8106	30.8106		131,673.0773	131,673.0773	42.5857		132,737.7208
Total	**79.8439**	**871.4155**	**550.3472**	**1.3597**	**80.6062**	**33.4898**	**114.0960**	**8.7036**	**30.8106**	**39.5142**		**131,673.0773**	**131,673.0773**	**42.5857**		**132,737.7208**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1809	5.4856	1.9786	0.0278	0.7030	0.0113	0.7143	0.1926	0.0108	0.2034		3,020.1680	3,020.1680	0.1962		3,025.0723
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.5552**	**7.4175**	**4.8103**	**0.0466**	**1.9999**	**0.0214**	**2.0213**	**0.5443**	**0.0203**	**0.5646**		**4,977.5404**	**4,977.5404**	**0.2612**		**4,984.0701**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.4364	0.0000	31.4364	3.3944	0.0000	3.3944			0.0000			0.0000
Off-Road	16.7118	72.4178	624.0922	1.3597		2.2282	2.2282		2.2282	2.2282	0.0000	131,673.0772	131,673.0772	42.5857		132,737.7207
Total	**16.7118**	**72.4178**	**624.0922**	**1.3597**	**31.4364**	**2.2282**	**33.6647**	**3.3944**	**2.2282**	**5.6226**	**0.0000**	**131,673.0772**	**131,673.0772**	**42.5857**		**132,737.7207**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1809	5.4856	1.9786	0.0278	0.7030	0.0113	0.7143	0.1926	0.0108	0.2034		3,020.1680	3,020.1680	0.1962		3,025.0723
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.5552**	**7.4175**	**4.8103**	**0.0466**	**1.9999**	**0.0214**	**2.0213**	**0.5443**	**0.0203**	**0.5646**		**4,977.5404**	**4,977.5404**	**0.2612**		**4,984.0701**

3.3 Plot 9 (2024) Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	11.1392	88.0083	114.1711	0.3463		3.4412	3.4412		3.1671	3.1671		33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**11.1392**	**88.0083**	**114.1711**	**0.3463**	**25.5336**	**3.4412**	**28.9748**	**2.7570**	**3.1671**	**5.9241**		**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.4090	0.1475	2.0700e-003	0.0524	8.4000e-004	0.0533	0.0144	8.0000e-004	0.0152		225.1595	225.1595	0.0146		225.5251
Vendor	0.0186	0.4664	0.1754	2.9300e-003	0.0925	1.0200e-003	0.0935	0.0266	9.7000e-004	0.0276		313.0013	313.0013	0.0128		313.3210
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0930**	**0.9119**	**0.7577**	**6.5700e-003**	**0.3349**	**3.1200e-003**	**0.3380**	**0.0913**	**2.9300e-003**	**0.0943**		**694.8843**	**694.8843**	**0.0308**		**695.6549**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.3683	41.7112	153.5472	0.3463		1.2604	1.2604		1.1903	1.1903	0.0000	33,490.5310	33,490.5310	10.8204		33,761.0416
Total	**6.3683**	**41.7112**	**153.5472**	**0.3463**	**9.9581**	**1.2604**	**11.2185**	**1.0752**	**1.1903**	**2.2656**	**0.0000**	**33,490.5310**	**33,490.5310**	**10.8204**		**33,761.0416**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.4090	0.1475	2.0700e-003	0.0524	8.4000e-004	0.0533	0.0144	8.0000e-004	0.0152		225.1595	225.1595	0.0146		225.5251
Vendor	0.0186	0.4664	0.1754	2.9300e-003	0.0925	1.0200e-003	0.0935	0.0266	9.7000e-004	0.0276		313.0013	313.0013	0.0128		313.3210
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0930**	**0.9119**	**0.7577**	**6.5700e-003**	**0.3349**	**3.1200e-003**	**0.3380**	**0.0913**	**2.9300e-003**	**0.0943**		**694.8843**	**694.8843**	**0.0308**		**695.6549**

3.4 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9683	27.8163	41.6994	0.0626		1.2700	1.2700		1.1953	1.1953		5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**2.9683**	**27.8163**	**41.6994**	**0.0626**	**3.1937**	**1.2700**	**4.4638**	**0.3449**	**1.1953**	**1.5402**		**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0905	2.7428	0.9893	0.0139	0.3515	5.6400e-003	0.3571	0.0963	5.4000e-003	0.1017		1,510.0840	1,510.0840	0.0981		1,512.5362
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.4648**	**4.6747**	**3.8210**	**0.0327**	**1.6484**	**0.0158**	**1.6642**	**0.4480**	**0.0149**	**0.4629**		**3,467.4564**	**3,467.4564**	**0.1631**		**3,471.5339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,970.2931	5,970.2931	1.4624		6,006.8531
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,970.2931**	**5,970.2931**	**1.4624**		**6,006.8531**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0905	2.7428	0.9893	0.0139	0.3515	5.6400e-003	0.3571	0.0963	5.4000e-003	0.1017		1,510.0840	1,510.0840	0.0981		1,512.5362
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.3045	0.1829	2.1738	7.8600e-003	0.9501	6.3200e-003	0.9565	0.2519	5.8200e-003	0.2578		783.6175	783.6175	0.0171		784.0439
Total	**0.4648**	**4.6747**	**3.8210**	**0.0327**	**1.6484**	**0.0158**	**1.6642**	**0.4480**	**0.0149**	**0.4629**		**3,467.4564**	**3,467.4564**	**0.1631**		**3,471.5339**

3.5 Plot 9 (2024) Building-Wet Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.9612	40.6896	66.9992	0.1252		1.9173	1.9173		1.7639	1.7639		12,114.9480	12,114.9480	3.9182		12,212.9034
Total	**4.9612**	**40.6896**	**66.9992**	**0.1252**	**9.5771**	**1.9173**	**11.4944**	**1.0341**	**1.7639**	**2.7980**		**12,114.9480**	**12,114.9480**	**3.9182**		**12,212.9034**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0474	1.4360	0.5179	7.2700e-003	0.1840	2.9500e-003	0.1870	0.0504	2.8200e-003	0.0533		790.5840	790.5840	0.0514		791.8678
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.2694**	**3.2764**	**2.2627**	**0.0222**	**1.0059**	**9.9300e-003**	**1.0158**	**0.2761**	**9.3800e-003**	**0.2855**		**2,356.1477**	**2,356.1477**	**0.1078**		**2,358.8436**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.9020	10.2416	78.3247	0.1252		0.3537	0.3537		0.3389	0.3389	0.0000	12,114.9479	12,114.9479	3.9182		12,212.9034
Total	**1.9020**	**10.2416**	**78.3247**	**0.1252**	**3.7351**	**0.3537**	**4.0887**	**0.4033**	**0.3389**	**0.7422**	**0.0000**	**12,114.9479**	**12,114.9479**	**3.9182**		**12,212.9034**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0474	1.4360	0.5179	7.2700e-003	0.1840	2.9500e-003	0.1870	0.0504	2.8200e-003	0.0533		790.5840	790.5840	0.0514		791.8678
Vendor	0.0698	1.7490	0.6578	0.0110	0.3468	3.8200e-003	0.3506	0.0997	3.6500e-003	0.1034		1,173.7550	1,173.7550	0.0480		1,174.9538
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.2694**	**3.2764**	**2.2627**	**0.0222**	**1.0059**	**9.9300e-003**	**1.0158**	**0.2761**	**9.3800e-003**	**0.2855**		**2,356.1477**	**2,356.1477**	**0.1078**		**2,358.8436**

3.6 Plot 9 (2024) Building-Electrical - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.1951	29.2599	40.9863	0.0565		1.2915	1.2915		1.1899	1.1899		5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**3.1951**	**29.2599**	**40.9863**	**0.0565**	**6.3834**	**1.2915**	**7.6749**	**0.6893**	**1.1899**	**1.8791**		**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2500e-003	0.0682	0.0246	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		37.5266	37.5266	2.4400e-003		37.5875
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.1215**	**0.8226**	**0.9399**	**7.1000e-003**	**0.4325**	**3.5700e-003**	**0.4361**	**0.1179**	**3.3400e-003**	**0.1212**		**742.1138**	**742.1138**	**0.0267**		**742.7822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2432	10.9430	42.3802	0.0565		0.2351	0.2351		0.2244	0.2244	0.0000	5,443.1408	5,443.1408	1.7438		5,486.7354
Total	**1.2432**	**10.9430**	**42.3802**	**0.0565**	**2.4895**	**0.2351**	**2.7246**	**0.2688**	**0.2244**	**0.4932**	**0.0000**	**5,443.1408**	**5,443.1408**	**1.7438**		**5,486.7354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2500e-003	0.0682	0.0246	3.5000e-004	8.7300e-003	1.4000e-004	8.8700e-003	2.3900e-003	1.3000e-004	2.5300e-003		37.5266	37.5266	2.4400e-003		37.5875
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.1215**	**0.8226**	**0.9399**	**7.1000e-003**	**0.4325**	**3.5700e-003**	**0.4361**	**0.1179**	**3.3400e-003**	**0.1212**		**742.1138**	**742.1138**	**0.0267**		**742.7822**

3.7 Plot 9 (2024) Building-Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4878	21.0268	32.6128	0.0468		0.9898	0.9898		0.9107	0.9107		4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**2.4878**	**21.0268**	**32.6128**	**0.0468**	**1.5948**	**0.9898**	**2.5847**	**0.1722**	**0.9107**	**1.0829**		**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2595	12.6355	35.5770	0.0468		0.2603	0.2603		0.2449	0.2449	0.0000	4,535.0431	4,535.0431	1.4667		4,571.7112
Total	**1.2595**	**12.6355**	**35.5770**	**0.0468**	**0.6220**	**0.2603**	**0.8823**	**0.0672**	**0.2449**	**0.3120**	**0.0000**	**4,535.0431**	**4,535.0431**	**1.4667**		**4,571.7112**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

3.8 Plot 9 (2024) Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6412	22.2334	34.9552	0.0504		1.0546	1.0546		0.9702	0.9702		4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**2.6412**	**22.2334**	**34.9552**	**0.0504**	**1.5948**	**1.0546**	**2.6494**	**0.1722**	**0.9702**	**1.1424**		**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1353	4.1027	1.4798	0.0208	0.5258	8.4400e-003	0.5342	0.1441	8.0700e-003	0.1521		2,258.8114	2,258.8114	0.1467		2,262.4794
Vendor	0.1164	2.9150	1.0964	0.0183	0.5780	6.3600e-003	0.5844	0.1662	6.0900e-003	0.1723		1,956.2583	1,956.2583	0.0799		1,958.2564
Worker	0.2436	0.1463	1.7391	6.2800e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		626.8940	626.8940	0.0137		627.2352
Total	**0.4953**	**7.1640**	**4.3153**	**0.0454**	**1.8639**	**0.0199**	**1.8837**	**0.5118**	**0.0188**	**0.5306**		**4,841.9637**	**4,841.9637**	**0.2403**		**4,847.9709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3037	12.8270	38.3014	0.0504		0.2662	0.2662		0.2508	0.2508	0.0000	4,882.7589	4,882.7589	1.5792		4,922.2385
Total	**1.3037**	**12.8270**	**38.3014**	**0.0504**	**0.6220**	**0.2662**	**0.8882**	**0.0672**	**0.2508**	**0.3179**	**0.0000**	**4,882.7589**	**4,882.7589**	**1.5792**		**4,922.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1353	4.1027	1.4798	0.0208	0.5258	8.4400e-003	0.5342	0.1441	8.0700e-003	0.1521		2,258.8114	2,258.8114	0.1467		2,262.4794
Vendor	0.1164	2.9150	1.0964	0.0183	0.5780	6.3600e-003	0.5844	0.1662	6.0900e-003	0.1723		1,956.2583	1,956.2583	0.0799		1,958.2564
Worker	0.2436	0.1463	1.7391	6.2800e-003	0.7601	5.0600e-003	0.7652	0.2016	4.6600e-003	0.2062		626.8940	626.8940	0.0137		627.2352
Total	**0.4953**	**7.1640**	**4.3153**	**0.0454**	**1.8639**	**0.0199**	**1.8837**	**0.5118**	**0.0188**	**0.5306**		**4,841.9637**	**4,841.9637**	**0.2403**		**4,847.9709**

3.9 Plot 9 (2024) Curbing/Drive Approaches - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6792	6.2242	9.6300	0.0145		0.3057	0.3057		0.2821	0.2821		1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.7271**	**6.2242**	**9.6300**	**0.0145**	**0.0000**	**0.3057**	**0.3057**	**0.0000**	**0.2821**	**0.2821**		**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3518	10.6671	3.8476	0.0540	1.3670	0.0219	1.3889	0.3746	0.0210	0.3956		5,872.9097	5,872.9097	0.3815		5,882.4465
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.4711**	**11.4215**	**4.7629**	**0.0608**	**1.7907**	**0.0254**	**1.8161**	**0.4901**	**0.0242**	**0.5143**		**6,577.4969**	**6,577.4969**	**0.4058**		**6,587.6412**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.0741	1,391.0741	0.4416		1,402.1136
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.0741**	**1,391.0741**	**0.4416**		**1,402.1136**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3518	10.6671	3.8476	0.0540	1.3670	0.0219	1.3889	0.3746	0.0210	0.3956		5,872.9097	5,872.9097	0.3815		5,882.4465
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0914	0.0549	0.6522	2.3600e-003	0.2850	1.9000e-003	0.2869	0.0756	1.7500e-003	0.0773		235.0852	235.0852	5.1200e-003		235.2132
Total	**0.4711**	**11.4215**	**4.7629**	**0.0608**	**1.7907**	**0.0254**	**1.8161**	**0.4901**	**0.0242**	**0.5143**		**6,577.4969**	**6,577.4969**	**0.4058**		**6,587.6412**

3.10 Plot 9 (2024) Finish Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.3399	0.0000	10.3399	1.1165	0.0000	1.1165			0.0000			0.0000
Off-Road	2.6290	24.7792	23.8477	0.0326		1.3310	1.3310		1.2245	1.2245		3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**2.6290**	**24.7792**	**23.8477**	**0.0326**	**10.3399**	**1.3310**	**11.6709**	**1.1165**	**1.2245**	**2.3410**		**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0326	0.8162	0.3070	5.1200e-003	0.1618	1.7800e-003	0.1636	0.0465	1.7000e-003	0.0482		547.7523	547.7523	0.0224		548.3118
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0935**	**0.8528**	**0.7418**	**6.6900e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**704.4758**	**704.4758**	**0.0258**		**705.1206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0326	0.0000	4.0326	0.4354	0.0000	0.4354			0.0000			0.0000
Off-Road	0.4001	1.7335	24.6695	0.0326		0.0533	0.0533		0.0533	0.0533	0.0000	3,162.6771	3,162.6771	1.0229		3,188.2489
Total	**0.4001**	**1.7335**	**24.6695**	**0.0326**	**4.0326**	**0.0533**	**4.0859**	**0.4354**	**0.0533**	**0.4888**	**0.0000**	**3,162.6771**	**3,162.6771**	**1.0229**		**3,188.2489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0326	0.8162	0.3070	5.1200e-003	0.1618	1.7800e-003	0.1636	0.0465	1.7000e-003	0.0482		547.7523	547.7523	0.0224		548.3118
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0935**	**0.8528**	**0.7418**	**6.6900e-003**	**0.3519**	**3.0400e-003**	**0.3549**	**0.0969**	**2.8600e-003**	**0.0998**		**704.4758**	**704.4758**	**0.0258**		**705.1206**

3.11 Plot 9 (2024) Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.0488	39.5630	46.4915	0.0856		1.7411	1.7411		1.6038	1.6038		8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.1446**	**39.5630**	**46.4915**	**0.0856**	**6.3630**	**1.7411**	**8.1041**	**0.6871**	**1.6038**	**2.2908**		**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0888**	**0.7362**	**0.6979**	**5.9600e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**626.2255**	**626.2255**	**0.0226**		**626.7903**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0856		0.1485	0.1485		0.1485	0.1485	0.0000	8,251.0065	8,251.0065	2.6496		8,317.2468
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0856**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,251.0065**	**8,251.0065**	**2.6496**		**8,317.2468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0279	0.6996	0.2631	4.3900e-003	0.1387	1.5300e-003	0.1403	0.0399	1.4600e-003	0.0414		469.5020	469.5020	0.0192		469.9815
Worker	0.0609	0.0366	0.4348	1.5700e-003	0.1900	1.2600e-003	0.1913	0.0504	1.1600e-003	0.0516		156.7235	156.7235	3.4100e-003		156.8088
Total	**0.0888**	**0.7362**	**0.6979**	**5.9600e-003**	**0.3288**	**2.7900e-003**	**0.3315**	**0.0903**	**2.6200e-003**	**0.0929**		**626.2255**	**626.2255**	**0.0226**		**626.7903**

3.12 Plot 9 (2024) Temporary Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.3116	13.5590	10.9969	0.0278		0.5481	0.5481		0.5042	0.5042		2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**1.3116**	**13.5590**	**10.9969**	**0.0278**	**0.0000**	**0.5481**	**0.5481**	**0.0000**	**0.5042**	**0.5042**		**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0278		0.0455	0.0455		0.0455	0.0455	0.0000	2,686.1195	2,686.1195	0.8688		2,707.8382
Total	**0.3414**	**1.4794**	**12.5183**	**0.0278**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,686.1195**	**2,686.1195**	**0.8688**		**2,707.8382**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 9 (2025) Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.4021	0.1485	2.0600e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		223.9428	223.9428	0.0146		224.3078
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0899**	**0.8955**	**0.7251**	**6.4800e-003**	**0.3349**	**3.0800e-003**	**0.3380**	**0.0913**	**2.8900e-003**	**0.0942**		**686.0699**	**686.0699**	**0.0304**		**686.8309**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.4021	0.1485	2.0600e-003	0.0524	8.3000e-004	0.0532	0.0144	7.9000e-004	0.0152		223.9428	223.9428	0.0146		224.3078
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0899**	**0.8955**	**0.7251**	**6.4800e-003**	**0.3349**	**3.0800e-003**	**0.3380**	**0.0913**	**2.8900e-003**	**0.0942**		**686.0699**	**686.0699**	**0.0304**		**686.8309**

3.14 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0113	0.3402	0.1257	1.7400e-003	0.0443	7.0000e-004	0.0451	0.0122	6.7000e-004	0.0128		189.4900	189.4900	0.0124		189.7989
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.1841**	**1.1138**	**1.3944**	**9.8800e-003**	**0.6581**	**5.3100e-003**	**0.6635**	**0.1780**	**4.9700e-003**	**0.1830**		**1,033.2282**	**1,033.2282**	**0.0392**		**1,034.2088**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0113	0.3402	0.1257	1.7400e-003	0.0443	7.0000e-004	0.0451	0.0122	6.7000e-004	0.0128		189.4900	189.4900	0.0124		189.7989
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.1841**	**1.1138**	**1.3944**	**9.8800e-003**	**0.6581**	**5.3100e-003**	**0.6635**	**0.1780**	**4.9700e-003**	**0.1830**		**1,033.2282**	**1,033.2282**	**0.0392**		**1,034.2088**

3.15 Plot 9 (2025) Building-Wet Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1076	3.2269	1.1921	0.0165	0.4206	6.6500e-003	0.4273	0.1153	6.3700e-003	0.1216		1,797.2841	1,797.2841	0.1172		1,800.2140
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0872	0.0502	0.6059	2.2600e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		225.8212	225.8212	4.6600e-003		225.9378
Total	**0.2223**	**3.9670**	**2.0569**	**0.0231**	**0.8444**	**0.0100**	**0.8544**	**0.2307**	**9.5300e-003**	**0.2403**		**2,490.4749**	**2,490.4749**	**0.1410**		**2,493.9986**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1076	3.2269	1.1921	0.0165	0.4206	6.6500e-003	0.4273	0.1153	6.3700e-003	0.1216		1,797.2841	1,797.2841	0.1172		1,800.2140
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0872	0.0502	0.6059	2.2600e-003	0.2850	1.8600e-003	0.2869	0.0756	1.7100e-003	0.0773		225.8212	225.8212	4.6600e-003		225.9378
Total	**0.2223**	**3.9670**	**2.0569**	**0.0231**	**0.8444**	**0.0100**	**0.8544**	**0.2307**	**9.5300e-003**	**0.2403**		**2,490.4749**	**2,490.4749**	**0.1410**		**2,493.9986**

3.16 Plot 9 (2025) Building-Electrical - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

3.17 Plot 9 (2025) Building-Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0471	1.4118	0.5216	7.2300e-003	0.1840	2.9100e-003	0.1869	0.0504	2.7900e-003	0.0532		786.3118	786.3118	0.0513		787.5936
Vendor	0.0686	1.7247	0.6472	0.0109	0.3468	3.7800e-003	0.3506	0.0997	3.6200e-003	0.1034		1,168.4238	1,168.4238	0.0477		1,169.6170
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2610**	**3.2202**	**2.1786**	**0.0219**	**1.0059**	**9.7900e-003**	**1.0157**	**0.2761**	**9.2600e-003**	**0.2854**		**2,331.1043**	**2,331.1043**	**0.1068**		**2,333.7736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0471	1.4118	0.5216	7.2300e-003	0.1840	2.9100e-003	0.1869	0.0504	2.7900e-003	0.0532		786.3118	786.3118	0.0513		787.5936
Vendor	0.0686	1.7247	0.6472	0.0109	0.3468	3.7800e-003	0.3506	0.0997	3.6200e-003	0.1034		1,168.4238	1,168.4238	0.0477		1,169.6170
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2610**	**3.2202**	**2.1786**	**0.0219**	**1.0059**	**9.7900e-003**	**1.0157**	**0.2761**	**9.2600e-003**	**0.2854**		**2,331.1043**	**2,331.1043**	**0.1068**		**2,333.7736**

3.18 Plot 9 (2025) Interchange - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5839	0.0000	5.5839	0.6029	0.0000	0.6029			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**5.5839**	**1.9312**	**7.5151**	**0.6029**	**1.7773**	**2.3802**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1345	4.0336	1.4902	0.0206	0.5258	8.3200e-003	0.5341	0.1441	7.9600e-003	0.1520		2,246.6051	2,246.6051	0.1465		2,250.2675
Vendor	0.1144	2.8745	1.0787	0.0182	0.5780	6.3100e-003	0.5843	0.1662	6.0300e-003	0.1723		1,947.3730	1,947.3730	0.0795		1,949.3616
Worker	0.2326	0.1339	1.6157	6.0400e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		602.1899	602.1899	0.0124		602.5009
Total	**0.4814**	**7.0420**	**4.1846**	**0.0449**	**1.8639**	**0.0196**	**1.8834**	**0.5118**	**0.0186**	**0.5304**		**4,796.1680**	**4,796.1680**	**0.2385**		**4,802.1300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1777	0.0000	2.1777	0.2351	0.0000	0.2351			0.0000			0.0000
Off-Road	1.2888	5.9059	49.8751	0.0992		0.1846	0.1846		0.1829	0.1829	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**1.2888**	**5.9059**	**49.8751**	**0.0992**	**2.1777**	**0.1846**	**2.3623**	**0.2351**	**0.1829**	**0.4180**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1345	4.0336	1.4902	0.0206	0.5258	8.3200e-003	0.5341	0.1441	7.9600e-003	0.1520		2,246.6051	2,246.6051	0.1465		2,250.2675
Vendor	0.1144	2.8745	1.0787	0.0182	0.5780	6.3100e-003	0.5843	0.1662	6.0300e-003	0.1723		1,947.3730	1,947.3730	0.0795		1,949.3616
Worker	0.2326	0.1339	1.6157	6.0400e-003	0.7601	4.9600e-003	0.7651	0.2016	4.5700e-003	0.2061		602.1899	602.1899	0.0124		602.5009
Total	**0.4814**	**7.0420**	**4.1846**	**0.0449**	**1.8639**	**0.0196**	**1.8834**	**0.5118**	**0.0186**	**0.5304**		**4,796.1680**	**4,796.1680**	**0.2385**		**4,802.1300**

3.19 Plot 9 (2025) Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0605	1.8151	0.6706	9.2900e-003	0.2366	3.7400e-003	0.2403	0.0648	3.5800e-003	0.0684		1,010.9723	1,010.9723	0.0659		1,012.6204
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2242**	**2.3587**	**1.8530**	**0.0160**	**0.8041**	**7.8500e-003**	**0.8120**	**0.2174**	**7.3900e-003**	**0.2248**		**1,698.9207**	**1,698.9207**	**0.0864**		**1,701.0813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0605	1.8151	0.6706	9.2900e-003	0.2366	3.7400e-003	0.2403	0.0648	3.5800e-003	0.0684		1,010.9723	1,010.9723	0.0659		1,012.6204
Vendor	0.0183	0.4599	0.1726	2.9100e-003	0.0925	1.0100e-003	0.0935	0.0266	9.6000e-004	0.0276		311.5797	311.5797	0.0127		311.8979
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.2242**	**2.3587**	**1.8530**	**0.0160**	**0.8041**	**7.8500e-003**	**0.8120**	**0.2174**	**7.3900e-003**	**0.2248**		**1,698.9207**	**1,698.9207**	**0.0864**		**1,701.0813**

3.20 Plot 9 (2025) Curbing/Drive Approaches - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0320	0.8049	0.3020	5.1000e-003	0.1618	1.7700e-003	0.1636	0.0465	1.6900e-003	0.0482		545.2644	545.2644	0.0223		545.8213
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0902**	**0.8383**	**0.7060**	**6.6100e-003**	**0.3519**	**3.0100e-003**	**0.3549**	**0.0969**	**2.8300e-003**	**0.0998**		**695.8119**	**695.8119**	**0.0254**		**696.4465**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0320	0.8049	0.3020	5.1000e-003	0.1618	1.7700e-003	0.1636	0.0465	1.6900e-003	0.0482		545.2644	545.2644	0.0223		545.8213
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0902**	**0.8383**	**0.7060**	**6.6100e-003**	**0.3519**	**3.0100e-003**	**0.3549**	**0.0969**	**2.8300e-003**	**0.0998**		**695.8119**	**695.8119**	**0.0254**		**696.4465**

3.21 Plot 9 (2025) Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0856**	**0.7234**	**0.6628**	**5.8800e-003**	**0.3288**	**2.7500e-003**	**0.3315**	**0.0903**	**2.5900e-003**	**0.0929**		**617.9170**	**617.9170**	**0.0222**		**618.4720**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0274	0.6899	0.2589	4.3700e-003	0.1387	1.5100e-003	0.1402	0.0399	1.4500e-003	0.0413		467.3695	467.3695	0.0191		467.8468
Worker	0.0581	0.0335	0.4039	1.5100e-003	0.1900	1.2400e-003	0.1913	0.0504	1.1400e-003	0.0515		150.5475	150.5475	3.1100e-003		150.6252
Total	**0.0856**	**0.7234**	**0.6628**	**5.8800e-003**	**0.3288**	**2.7500e-003**	**0.3315**	**0.0903**	**2.5900e-003**	**0.0929**		**617.9170**	**617.9170**	**0.0222**		**618.4720**

3.22 Plot 9 (2025) Temporary Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.23 Plots 1 3 20 (2026) Mass Excavation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.7063	0.0000	23.7063	2.5597	0.0000	2.5597			0.0000			0.0000
Off-Road	18.6879	188.0787	135.3734	0.3880		7.2513	7.2513		6.6712	6.6712		37,566.3042	37,566.3042	12.1497		37,870.0468
Total	**18.6879**	**188.0787**	**135.3734**	**0.3880**	**23.7063**	**7.2513**	**30.9575**	**2.5597**	**6.6712**	**9.2309**		**37,566.3042**	**37,566.3042**	**12.1497**		**37,870.0468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.3733	0.5195	7.1100e-003	0.1823	2.8300e-003	0.1851	0.0499	2.7100e-003	0.0527		774.7597	774.7597	0.0506		776.0243
Vendor	0.0360	0.9059	0.3407	5.8000e-003	0.1850	1.9900e-003	0.1870	0.0532	1.9100e-003	0.0551		620.4533	620.4533	0.0253		621.0857
Worker	0.2788	0.1542	1.8884	7.2800e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		726.0426	726.0426	0.0143		726.3988
Total	**0.3611**	**2.4334**	**2.7486**	**0.0202**	**1.3173**	**0.0108**	**1.3282**	**0.3551**	**0.0101**	**0.3652**		**2,121.2556**	**2,121.2556**	**0.0901**		**2,123.5088**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2454	0.0000	9.2454	0.9983	0.0000	0.9983			0.0000			0.0000
Off-Road	4.7664	20.6544	179.2063	0.3880		0.6355	0.6355		0.6355	0.6355	0.0000	37,566.3041	37,566.3041	12.1497		37,870.0467
Total	**4.7664**	**20.6544**	**179.2063**	**0.3880**	**9.2454**	**0.6355**	**9.8810**	**0.9983**	**0.6355**	**1.6338**	**0.0000**	**37,566.3041**	**37,566.3041**	**12.1497**		**37,870.0467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0463	1.3733	0.5195	7.1100e-003	0.1823	2.8300e-003	0.1851	0.0499	2.7100e-003	0.0527		774.7597	774.7597	0.0506		776.0243
Vendor	0.0360	0.9059	0.3407	5.8000e-003	0.1850	1.9900e-003	0.1870	0.0532	1.9100e-003	0.0551		620.4533	620.4533	0.0253		621.0857
Worker	0.2788	0.1542	1.8884	7.2800e-003	0.9501	5.9900e-003	0.9561	0.2519	5.5100e-003	0.2575		726.0426	726.0426	0.0143		726.3988
Total	**0.3611**	**2.4334**	**2.7486**	**0.0202**	**1.3173**	**0.0108**	**1.3282**	**0.3551**	**0.0101**	**0.3652**		**2,121.2556**	**2,121.2556**	**0.0901**		**2,123.5088**

3.24 Plots 1 3 20 (2026) Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1335	3.9618	1.4987	0.0205	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,235.0210	2,235.0210	0.1459		2,238.6692
Vendor	0.1125	2.8308	1.0647	0.0181	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,938.9166	1,938.9166	0.0790		1,940.8927
Worker	0.2231	0.1233	1.5107	5.8200e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		580.8341	580.8341	0.0114		581.1190
Total	**0.4691**	**6.9160**	**4.0741**	**0.0445**	**1.8639**	**0.0192**	**1.8831**	**0.5118**	**0.0182**	**0.5300**		**4,754.7717**	**4,754.7717**	**0.2364**		**4,760.6809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1335	3.9618	1.4987	0.0205	0.5258	8.1700e-003	0.5339	0.1441	7.8200e-003	0.1519		2,235.0210	2,235.0210	0.1459		2,238.6692
Vendor	0.1125	2.8308	1.0647	0.0181	0.5780	6.2300e-003	0.5842	0.1662	5.9600e-003	0.1722		1,938.9166	1,938.9166	0.0790		1,940.8927
Worker	0.2231	0.1233	1.5107	5.8200e-003	0.7601	4.7900e-003	0.7649	0.2016	4.4100e-003	0.2060		580.8341	580.8341	0.0114		581.1190
Total	**0.4691**	**6.9160**	**4.0741**	**0.0445**	**1.8639**	**0.0192**	**1.8831**	**0.5118**	**0.0182**	**0.5300**		**4,754.7717**	**4,754.7717**	**0.2364**		**4,760.6809**

3.25 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

3.26 Plots 1 3 20 (2026) Building-Wet Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0467	1.3866	0.5246	7.1800e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		782.2574	782.2574	0.0511		783.5342
Vendor	0.0675	1.6985	0.6388	0.0109	0.3468	3.7400e-003	0.3505	0.0997	3.5700e-003	0.1033		1,163.3500	1,163.3500	0.0474		1,164.5356
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2536**	**3.1622**	**2.1075**	**0.0217**	**1.0059**	**9.6000e-003**	**1.0155**	**0.2761**	**9.0700e-003**	**0.2852**		**2,308.6286**	**2,308.6286**	**0.1056**		**2,311.2692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0467	1.3866	0.5246	7.1800e-003	0.1840	2.8600e-003	0.1869	0.0504	2.7400e-003	0.0532		782.2574	782.2574	0.0511		783.5342
Vendor	0.0675	1.6985	0.6388	0.0109	0.3468	3.7400e-003	0.3505	0.0997	3.5700e-003	0.1033		1,163.3500	1,163.3500	0.0474		1,164.5356
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2536**	**3.1622**	**2.1075**	**0.0217**	**1.0059**	**9.6000e-003**	**1.0155**	**0.2761**	**9.0700e-003**	**0.2852**		**2,308.6286**	**2,308.6286**	**0.1056**		**2,311.2692**

3.27 Plots 1 3 20 (2026) Building-Electrical - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1068	3.1694	1.1990	0.0164	0.4206	6.5400e-003	0.4271	0.1153	6.2500e-003	0.1215		1,788.0168	1,788.0168	0.1167		1,790.9353
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.2175**	**3.8951**	**2.0210**	**0.0230**	**0.8444**	**9.8400e-003**	**0.8542**	**0.2307**	**9.3300e-003**	**0.2401**		**2,471.1696**	**2,471.1696**	**0.1400**		**2,474.6692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1068	3.1694	1.1990	0.0164	0.4206	6.5400e-003	0.4271	0.1153	6.2500e-003	0.1215		1,788.0168	1,788.0168	0.1167		1,790.9353
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.2175**	**3.8951**	**2.0210**	**0.0230**	**0.8444**	**9.8400e-003**	**0.8542**	**0.2307**	**9.3300e-003**	**0.2401**		**2,471.1696**	**2,471.1696**	**0.1400**		**2,474.6692**

3.28 Plots 1 3 20 (2026) Building-Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.7926	0.2981	5.0700e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		542.8966	542.8966	0.0221		543.4500
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0873**	**0.8235**	**0.6758**	**6.5300e-003**	**0.3519**	**2.9400e-003**	**0.3548**	**0.0969**	**2.7700e-003**	**0.0997**		**688.1052**	**688.1052**	**0.0250**		**688.7297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.7926	0.2981	5.0700e-003	0.1618	1.7400e-003	0.1636	0.0465	1.6700e-003	0.0482		542.8966	542.8966	0.0221		543.4500
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0873**	**0.8235**	**0.6758**	**6.5300e-003**	**0.3519**	**2.9400e-003**	**0.3548**	**0.0969**	**2.7700e-003**	**0.0997**		**688.1052**	**688.1052**	**0.0250**		**688.7297**

3.29 Plots 1 3 20 (2026) Interchange - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.1679	0.0000	11.1679	1.2059	0.0000	1.2059			0.0000			0.0000
Off-Road	5.0237	45.3556	41.9365	0.0992		1.9312	1.9312		1.7773	1.7773		9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**5.0237**	**45.3556**	**41.9365**	**0.0992**	**11.1679**	**1.9312**	**13.0991**	**1.2059**	**1.7773**	**2.9831**		**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1202	3.5656	1.3488	0.0185	0.4732	7.3600e-003	0.4805	0.1297	7.0400e-003	0.1367		2,011.5189	2,011.5189	0.1313		2,014.8022
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2776**	**4.0956**	**2.4634**	**0.0250**	**1.0407**	**0.0114**	**1.0521**	**0.2822**	**0.0108**	**0.2930**		**2,684.7669**	**2,684.7669**	**0.1511**		**2,688.5445**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3555	0.0000	4.3555	0.4703	0.0000	0.4703			0.0000			0.0000
Off-Road	1.2888	5.9059	49.8751	0.0992		0.1846	0.1846		0.1829	0.1829	0.0000	9,590.5970	9,590.5970	3.0963		9,668.0032
Total	**1.2888**	**5.9059**	**49.8751**	**0.0992**	**4.3555**	**0.1846**	**4.5400**	**0.4703**	**0.1829**	**0.6532**	**0.0000**	**9,590.5970**	**9,590.5970**	**3.0963**		**9,668.0032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1202	3.5656	1.3488	0.0185	0.4732	7.3600e-003	0.4805	0.1297	7.0400e-003	0.1367		2,011.5189	2,011.5189	0.1313		2,014.8022
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2776**	**4.0956**	**2.4634**	**0.0250**	**1.0407**	**0.0114**	**1.0521**	**0.2822**	**0.0108**	**0.2930**		**2,684.7669**	**2,684.7669**	**0.1511**		**2,688.5445**

3.30 Plots 1 3 20 (2026) Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0828**	**0.7102**	**0.6332**	**5.8100e-003**	**0.3288**	**2.7000e-003**	**0.3314**	**0.0903**	**2.5300e-003**	**0.0928**		**610.5485**	**610.5485**	**0.0218**		**611.0940**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.0828**	**0.7102**	**0.6332**	**5.8100e-003**	**0.3288**	**2.7000e-003**	**0.3314**	**0.0903**	**2.5300e-003**	**0.0928**		**610.5485**	**610.5485**	**0.0218**		**611.0940**

3.31 Plots 1 3 20 (2026) Curbing/Drive Approaches - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0433	1.2835	0.4855	6.6500e-003	0.1703	2.6500e-003	0.1730	0.0467	2.5300e-003	0.0492		724.0611	724.0611	0.0473		725.2430
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.1170**	**1.7672**	**1.0335**	**0.0110**	**0.4528**	**4.8500e-003**	**0.4577**	**0.1237**	**4.5800e-003**	**0.1283**		**1,179.4963**	**1,179.4963**	**0.0628**		**1,181.0656**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0433	1.2835	0.4855	6.6500e-003	0.1703	2.6500e-003	0.1730	0.0467	2.5300e-003	0.0492		724.0611	724.0611	0.0473		725.2430
Vendor	0.0180	0.4529	0.1704	2.9000e-003	0.0925	1.0000e-003	0.0935	0.0266	9.5000e-004	0.0276		310.2267	310.2267	0.0127		310.5428
Worker	0.0558	0.0308	0.3777	1.4600e-003	0.1900	1.2000e-003	0.1912	0.0504	1.1000e-003	0.0515		145.2085	145.2085	2.8500e-003		145.2798
Total	**0.1170**	**1.7672**	**1.0335**	**0.0110**	**0.4528**	**4.8500e-003**	**0.4577**	**0.1237**	**4.5800e-003**	**0.1283**		**1,179.4963**	**1,179.4963**	**0.0628**		**1,181.0656**

3.32 Plots 1 3 20 (2026) Finish Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	0.6417	0.2428	3.3200e-003	0.0852	1.3200e-003	0.0865	0.0233	1.2700e-003	0.0246		362.0306	362.0306	0.0236		362.6215
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.1143**	**0.9145**	**0.8944**	**6.9500e-003**	**0.4164**	**3.6200e-003**	**0.4201**	**0.1122**	**3.4000e-003**	**0.1156**		**734.9567**	**734.9567**	**0.0342**		**735.8126**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0216	0.6417	0.2428	3.3200e-003	0.0852	1.3200e-003	0.0865	0.0233	1.2700e-003	0.0246		362.0306	362.0306	0.0236		362.6215
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.0837	0.0463	0.5665	2.1800e-003	0.2850	1.8000e-003	0.2868	0.0756	1.6500e-003	0.0772		217.8128	217.8128	4.2700e-003		217.9196
Total	**0.1143**	**0.9145**	**0.8944**	**6.9500e-003**	**0.4164**	**3.6200e-003**	**0.4201**	**0.1122**	**3.4000e-003**	**0.1156**		**734.9567**	**734.9567**	**0.0342**		**735.8126**

3.33 Plots 1 3 20 (2026) Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0732	2.1720	0.8217	0.0113	0.2882	4.4800e-003	0.2927	0.0790	4.2900e-003	0.0833		1,225.3342	1,225.3342	0.0800		1,227.3343
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2396**	**2.9285**	**2.0214**	**0.0192**	**0.9020**	**8.9800e-003**	**0.9110**	**0.2449**	**8.4800e-003**	**0.2533**		**2,053.6955**	**2,053.6955**	**0.1061**		**2,056.3479**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0732	2.1720	0.8217	0.0113	0.2882	4.4800e-003	0.2927	0.0790	4.2900e-003	0.0833		1,225.3342	1,225.3342	0.0800		1,227.3343
Vendor	0.0270	0.6794	0.2555	4.3500e-003	0.1387	1.5000e-003	0.1402	0.0399	1.4300e-003	0.0413		465.3400	465.3400	0.0190		465.8143
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.2396**	**2.9285**	**2.0214**	**0.0192**	**0.9020**	**8.9800e-003**	**0.9110**	**0.2449**	**8.4800e-003**	**0.2533**		**2,053.6955**	**2,053.6955**	**0.1061**		**2,056.3479**

3.34 Plots 1 3 20 (2026) Temporary Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plots 9 and 1,3,20

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.6720	18.9658	3.6691	0.0290	273.7474	7.5600e-003	273.7550	27.3073	7.1500e-003	27.3145	0.0000	3,125.2648	3,125.2648	0.3183	0.0000	3,133.2238
2025	12.4811	11.3258	2.2996	0.0173	185.2032	4.5900e-003	185.2078	18.4745	4.3300e-003	18.4788	0.0000	1,860.3614	1,860.3614	0.1836	0.0000	1,864.9511
2026	12.5720	14.8013	2.9166	0.0226	244.8601	5.7800e-003	244.8659	24.4252	5.4500e-003	24.4306	0.0000	2,441.0083	2,441.0083	0.2363	0.0000	2,446.9143
Maximum	**12.6720**	**18.9658**	**3.6691**	**0.0290**	**273.7474**	**7.5600e-003**	**273.7550**	**27.3073**	**7.1500e-003**	**27.3145**	**0.0000**	**3,125.2648**	**3,125.2648**	**0.3183**	**0.0000**	**3,133.2238**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.6720	18.9658	3.6691	0.0290	109.5307	7.5600e-003	109.5383	10.9351	7.1500e-003	10.9422	0.0000	3,125.2648	3,125.2648	0.3183	0.0000	3,133.2238
2025	12.4811	11.3258	2.2996	0.0173	74.1023	4.5900e-003	74.1069	7.3979	4.3300e-003	7.4022	0.0000	1,860.3614	1,860.3614	0.1836	0.0000	1,864.9511
2026	12.5720	14.8013	2.9166	0.0226	97.9713	5.7800e-003	97.9771	9.7805	5.4500e-003	9.7860	0.0000	2,441.0083	2,441.0083	0.2363	0.0000	2,446.9143
Maximum	**12.6720**	**18.9658**	**3.6691**	**0.0290**	**109.5307**	**7.5600e-003**	**109.5383**	**10.9351**	**7.1500e-003**	**10.9422**	**0.0000**	**3,125.2648**	**3,125.2648**	**0.3183**	**0.0000**	**3,133.2238**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 9 (2024) Mass Excavation	Grading	1/1/2024	6/30/2024	5	130	1138
2	Plot 9 (2024) Utilities	Trenching	1/1/2024	12/29/2024	5	260	1144
3	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
4	Plot 9 (2024) Building-Wet Utilities	Building Construction	1/1/2024	12/29/2024	5	260	1141
5	Plot 9 (2024) Building-Electrical	Building Construction	1/1/2024	12/29/2024	5	260	1142
6	Plot 9 (2024) Building-Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1143
7	Plot 9 (2024) Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1145
8	Plot 9 (2024) Curbing/Drive Approaches	Paving	5/1/2024	8/20/2024	5	80	1147
9	Plot 9 (2024) Finish Grading	Grading	5/7/2024	7/1/2024	5	40	1139
10	Plot 9 (2024) Paving	Paving	6/1/2024	7/26/2024	5	40	1148
11	Plot 9 (2024) Temporary Utilities	Building Construction	7/2/2024	12/30/2024	5	130	1146
12	Plot 9 (2025) Utilities	Trenching	1/1/2025	12/30/2025	5	260	1153
13	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
14	Plot 9 (2025) Building-Wet Utilities	Building Construction	1/1/2025	12/30/2025	5	260	1150
15	Plot 9 (2025) Building-Electrical	Building Construction	1/1/2025	12/30/2025	5	260	1151
16	Plot 9 (2025) Building-Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1152
17	Plot 9 (2025) Interchange	Building Construction	1/1/2025	12/30/2025	5	260	1154
18	Plot 9 (2025) Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1155

19	Plot 9 (2025) Curbing/Drive Approaches	Paving	5/1/2025	8/20/2025	5	80	1157
20	Plot 9 (2025) Paving	Paving	6/1/2025	7/26/2025	5	40	1158
21	Plot 9 (2025) Temporary Utilities	Building Construction	7/2/2025	12/30/2025	5	130	1156
22	Plots 1 3 20 (2026) Mass Excavation	Grading	1/1/2026	7/1/2026	5	130	1159
23	Plots 1 3 20 (2026) Utilities	Trenching	1/1/2026	12/30/2026	5	260	1165
24	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
25	Plots 1 3 20 (2026) Building-Wet Utilities	Building Construction	1/1/2026	12/30/2026	5	260	1162
26	Plots 1 3 20 (2026) Building-Electrical	Building Construction	1/1/2026	12/30/2026	5	260	1163
27	Plots 1 3 20 (2026) Building-Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1164
28	Plots 1 3 20 (2026) Interchange	Building Construction	1/1/2026	7/1/2026	5	130	1166
29	Plots 1 3 20 (2026) Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1167
30	Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving	5/1/2026	8/20/2026	5	80	1169
31	Plots 1 3 20 (2026) Finish Grading	Grading	5/7/2026	7/1/2026	5	40	1160
32	Plots 1 3 20 (2026) Paving	Paving	6/1/2026	7/26/2026	5	40	1170
33	Plots 1 3 20 (2026) Temporary Utilities	Building Construction	7/2/2026	12/30/2026	5	130	1168

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 9 (2024) Building-Concrete		50.00	15.00	4,185.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Electrical		15.00	6.00	104.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Landscaping		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Curbing/Drive		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Finish Grading		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Landscaping		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Mass Excavation		50.00	15.00	4,185.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Paving		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Utilities		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Electrical		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Landscaping		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Wet Utilities		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Curbing/Drive		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Interchange		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 9 (2025) Landscaping		25.00	4.00	2,817.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Paving		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Utilities		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Finish Grading		15.00	2.00	156.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Interchange		25.00	4.00	2,817.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Mass Excavation		50.00	8.00	1,085.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plot 9 (2024) Mass Excavation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0361	2.5153	0.3162	3.8100e-003	16.7521	7.4000e-004	16.7528	1.6712	7.1000e-004	1.6720		413.0043	413.0043	0.0438		414.0991
Vendor	0.0148	0.7761	0.1563	1.0300e-003	7.8061	2.1000e-004	7.8063	0.7790	2.0000e-004	0.7792		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	26.0154	4.2000e-004	26.0158	2.5946	3.9000e-004	2.5950		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0974**	**3.3034**	**0.6519**	**5.1100e-003**	**50.5735**	**1.3700e-003**	**50.5749**	**5.0448**	**1.3000e-003**	**5.0461**		**550.4048**	**550.4048**	**0.0560**		**551.8038**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0361	2.5153	0.3162	3.8100e-003	6.7033	7.4000e-004	6.7040	0.6694	7.1000e-004	0.6701		413.0043	413.0043	0.0438		414.0991
Vendor	0.0148	0.7761	0.1563	1.0300e-003	3.1239	2.1000e-004	3.1241	0.3121	2.0000e-004	0.3123		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	10.4079	4.2000e-004	10.4083	1.0385	3.9000e-004	1.0389		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0974**	**3.3034**	**0.6519**	**5.1100e-003**	**20.2351**	**1.3700e-003**	**20.2364**	**2.0201**	**1.3000e-003**	**2.0214**		**550.4048**	**550.4048**	**0.0560**		**551.8038**

3.3 Plot 9 (2024) Utilities - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6900e-003	0.1875	0.0236	2.8000e-004	1.2489	6.0000e-005	1.2490	0.1246	5.0000e-005	0.1247		30.7903	30.7903	3.2600e-003		30.8719
Vendor	3.9300e-003	0.2070	0.0417	2.7000e-004	2.0816	6.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		29.5465	29.5465	2.9700e-003		29.6208
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0159**	**0.3969**	**0.1011**	**6.0000e-004**	**8.5336**	**2.0000e-004**	**8.5338**	**0.8512**	**1.8000e-004**	**0.8514**		**65.6570**	**65.6570**	**6.4300e-003**		**65.8181**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6900e-003	0.1875	0.0236	2.8000e-004	0.4997	6.0000e-005	0.4998	0.0499	5.0000e-005	0.0500		30.7903	30.7903	3.2600e-003		30.8719
Vendor	3.9300e-003	0.2070	0.0417	2.7000e-004	0.8330	6.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		29.5465	29.5465	2.9700e-003		29.6208
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0159**	**0.3969**	**0.1011**	**6.0000e-004**	**3.4144**	**2.0000e-004**	**3.4146**	**0.3409**	**1.8000e-004**	**0.3410**		**65.6570**	**65.6570**	**6.4300e-003**		**65.8181**

3.4 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0181	1.2577	0.1581	1.9100e-003	8.3760	3.7000e-004	8.3764	0.8356	3.5000e-004	0.8360		206.5021	206.5021	0.0219		207.0496
Vendor	0.0148	0.7761	0.1563	1.0300e-003	7.8061	2.1000e-004	7.8063	0.7790	2.0000e-004	0.7792		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	26.0154	4.2000e-004	26.0158	2.5946	3.9000e-004	2.5950		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0793**	**2.0458**	**0.4938**	**3.2100e-003**	**42.1975**	**1.0000e-003**	**42.1985**	**4.2092**	**9.4000e-004**	**4.2101**		**343.9026**	**343.9026**	**0.0341**		**344.7543**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0181	1.2577	0.1581	1.9100e-003	3.3516	3.7000e-004	3.3520	0.3347	3.5000e-004	0.3351		206.5021	206.5021	0.0219		207.0496
Vendor	0.0148	0.7761	0.1563	1.0300e-003	3.1239	2.1000e-004	3.1241	0.3121	2.0000e-004	0.3123		110.7992	110.7992	0.0112		111.0781
Worker	0.0465	0.0120	0.1794	2.7000e-004	10.4079	4.2000e-004	10.4083	1.0385	3.9000e-004	1.0389		26.6012	26.6012	1.0200e-003		26.6266
Total	**0.0793**	**2.0458**	**0.4938**	**3.2100e-003**	**16.8834**	**1.0000e-003**	**16.8844**	**1.6854**	**9.4000e-004**	**1.6863**		**343.9026**	**343.9026**	**0.0341**		**344.7543**

3.5 Plot 9 (2024) Building-Wet Utilities - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4600e-003	0.6584	0.0828	1.0000e-003	4.3852	1.9000e-004	4.3854	0.4375	1.9000e-004	0.4377		108.1114	108.1114	0.0115		108.3980
Vendor	0.0148	0.7761	0.1563	1.0300e-003	7.8061	2.1000e-004	7.8063	0.7790	2.0000e-004	0.7792		110.7992	110.7992	0.0112		111.0781
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0475**	**1.4406**	**0.3288**	**2.1600e-003**	**25.1989**	**6.1000e-004**	**25.1995**	**2.5137**	**5.8000e-004**	**2.5143**		**232.2113**	**232.2113**	**0.0231**		**232.7894**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4600e-003	0.6584	0.0828	1.0000e-003	1.7547	1.9000e-004	1.7549	0.1752	1.9000e-004	0.1754		108.1114	108.1114	0.0115		108.3980
Vendor	0.0148	0.7761	0.1563	1.0300e-003	3.1239	2.1000e-004	3.1241	0.3121	2.0000e-004	0.3123		110.7992	110.7992	0.0112		111.0781
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0475**	**1.4406**	**0.3288**	**2.1600e-003**	**10.0825**	**6.1000e-004**	**10.0831**	**1.0066**	**5.8000e-004**	**1.0072**		**232.2113**	**232.2113**	**0.0231**		**232.7894**

3.6 Plot 9 (2024) Building-Electrical - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5000e-004	0.0313	3.9300e-003	5.0000e-005	0.2082	1.0000e-005	0.2082	0.0208	1.0000e-005	0.0208		5.1317	5.1317	5.4000e-004		5.1453
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0203**	**0.3453**	**0.1203**	**5.4000e-004**	**11.1352**	**2.3000e-004**	**11.1354**	**1.1107**	**2.1000e-004**	**1.1109**		**57.4318**	**57.4318**	**5.3000e-003**		**57.5646**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.5000e-004	0.0313	3.9300e-003	5.0000e-005	0.0833	1.0000e-005	0.0833	8.3200e-003	1.0000e-005	8.3300e-003		5.1317	5.1317	5.4000e-004		5.1453
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	1.2495	9.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0203**	**0.3453**	**0.1203**	**5.4000e-004**	**4.4552**	**2.3000e-004**	**4.4554**	**0.4447**	**2.1000e-004**	**0.4450**		**57.4318**	**57.4318**	**5.3000e-003**		**57.5646**

3.7 Plot 9 (2024) Building-Landscaping - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0324	2.2575	0.2838	3.4200e-003	15.0348	6.6000e-004	15.0355	1.4999	6.4000e-004	1.5006		370.6677	370.6677	0.0393		371.6502
Vendor	1.9700e-003	0.1035	0.0208	1.4000e-004	1.0408	3.0000e-005	1.0408	0.1039	3.0000e-005	0.1039		14.7732	14.7732	1.4900e-003		14.8104
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0576**	**2.3669**	**0.3943**	**3.6900e-003**	**29.0833**	**9.0000e-004**	**29.0842**	**2.9011**	**8.6000e-004**	**2.9019**		**398.7415**	**398.7415**	**0.0413**		**399.7739**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0324	2.2575	0.2838	3.4200e-003	6.0161	6.6000e-004	6.0168	0.6008	6.4000e-004	0.6014		370.6677	370.6677	0.0393		371.6502
Vendor	1.9700e-003	0.1035	0.0208	1.4000e-004	0.4165	3.0000e-005	0.4165	0.0416	3.0000e-005	0.0417		14.7732	14.7732	1.4900e-003		14.8104
Worker	0.0233	5.9900e-003	0.0897	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		13.3006	13.3006	5.1000e-004		13.3133
Total	**0.0576**	**2.3669**	**0.3943**	**3.6900e-003**	**11.6366**	**9.0000e-004**	**11.6375**	**1.1617**	**8.6000e-004**	**1.1625**		**398.7415**	**398.7415**	**0.0413**		**399.7739**

3.8 Plot 9 (2024) Landscaping - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0270	1.8812	0.2365	2.8500e-003	12.5290	5.5000e-004	12.5296	1.2499	5.3000e-004	1.2505		308.8897	308.8897	0.0328		309.7085
Vendor	0.0246	1.2936	0.2605	1.7200e-003	13.0101	3.6000e-004	13.0105	1.2983	3.4000e-004	1.2986		184.6654	184.6654	0.0186		185.1302
Worker	0.0372	9.5800e-003	0.1435	2.1000e-004	20.8123	3.4000e-004	20.8126	2.0757	3.1000e-004	2.0760		21.2810	21.2810	8.1000e-004		21.3013
Total	**0.0888**	**3.1844**	**0.6405**	**4.7800e-003**	**46.3515**	**1.2500e-003**	**46.3527**	**4.6239**	**1.1800e-003**	**4.6251**		**514.8361**	**514.8361**	**0.0522**		**516.1400**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0270	1.8812	0.2365	2.8500e-003	5.0135	5.5000e-004	5.0140	0.5006	5.3000e-004	0.5012		308.8897	308.8897	0.0328		309.7085
Vendor	0.0246	1.2936	0.2605	1.7200e-003	5.2064	3.6000e-004	5.2068	0.5202	3.4000e-004	0.5206		184.6654	184.6654	0.0186		185.1302
Worker	0.0372	9.5800e-003	0.1435	2.1000e-004	8.3263	3.4000e-004	8.3267	0.8308	3.1000e-004	0.8311		21.2810	21.2810	8.1000e-004		21.3013
Total	**0.0888**	**3.1844**	**0.6405**	**4.7800e-003**	**18.5462**	**1.2500e-003**	**18.5475**	**1.8517**	**1.1800e-003**	**1.8529**		**514.8361**	**514.8361**	**0.0522**		**516.1400**

3.9 Plot 9 (2024) Curbing/Drive Approaches - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0703	4.8912	0.6149	7.4100e-003	32.5755	1.4400e-003	32.5769	3.2498	1.3800e-003	3.2512		803.1132	803.1132	0.0852		805.2422
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	7.8046	1.3000e-004	7.8047	0.7784	1.2000e-004	0.7785		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0901**	**5.2052**	**0.7312**	**7.9000e-003**	**43.5025**	**1.6600e-003**	**43.5042**	**4.3398**	**1.5800e-003**	**4.3414**		**855.4133**	**855.4133**	**0.0899**		**857.6614**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0703	4.8912	0.6149	7.4100e-003	13.0350	1.4400e-003	13.0364	1.3017	1.3800e-003	1.3030		803.1132	803.1132	0.0852		805.2422
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	1.2495	9.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		44.3197	44.3197	4.4600e-003		44.4312
Worker	0.0140	3.5900e-003	0.0538	8.0000e-005	3.1224	1.3000e-004	3.1225	0.3116	1.2000e-004	0.3117		7.9804	7.9804	3.0000e-004		7.9880
Total	**0.0901**	**5.2052**	**0.7312**	**7.9000e-003**	**17.4069**	**1.6600e-003**	**17.4085**	**1.7381**	**1.5800e-003**	**1.7397**		**855.4133**	**855.4133**	**0.0899**		**857.6614**

3.10 Plot 9 (2024) Finish Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8800e-003	0.3622	0.0729	4.8000e-004	3.6428	1.0000e-004	3.6429	0.3635	1.0000e-004	0.3636		51.7063	51.7063	5.2100e-003		51.8365
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0162**	**0.3646**	**0.1088**	**5.3000e-004**	**8.8459**	**1.8000e-004**	**8.8461**	**0.8824**	**1.8000e-004**	**0.8826**		**57.0266**	**57.0266**	**5.4100e-003**		**57.1618**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.8800e-003	0.3622	0.0729	4.8000e-004	1.4578	1.0000e-004	1.4579	0.1457	1.0000e-004	0.1458		51.7063	51.7063	5.2100e-003		51.8365
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0162**	**0.3646**	**0.1088**	**5.3000e-004**	**3.5394**	**1.8000e-004**	**3.5396**	**0.3534**	**1.8000e-004**	**0.3536**		**57.0266**	**57.0266**	**5.4100e-003**		**57.1618**

3.11 Plot 9 (2024) Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		44.3197	44.3197	4.4600e-003		44.4312
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0152**	**0.3128**	**0.0984**	**4.6000e-004**	**8.3255**	**1.7000e-004**	**8.3257**	**0.8305**	**1.6000e-004**	**0.8307**		**49.6400**	**49.6400**	**4.6600e-003**		**49.7566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9000e-003	0.3105	0.0625	4.1000e-004	1.2495	9.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		44.3197	44.3197	4.4600e-003		44.4312
Worker	9.3000e-003	2.3900e-003	0.0359	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.3203	5.3203	2.0000e-004		5.3253
Total	**0.0152**	**0.3128**	**0.0984**	**4.6000e-004**	**3.3311**	**1.7000e-004**	**3.3313**	**0.3326**	**1.6000e-004**	**0.3327**		**49.6400**	**49.6400**	**4.6600e-003**		**49.7566**

3.12 Plot 9 (2024) Temporary Utilities - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 9 (2025) Utilities - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6400e-003	0.1858	0.0235	2.8000e-004	1.2489	5.0000e-005	1.2490	0.1246	5.0000e-005	0.1246		30.4534	30.4534	3.1600e-003		30.5324
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		29.2582	29.2582	2.8700e-003		29.3300
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0151**	**0.3939**	**0.0965**	**6.0000e-004**	**8.5336**	**1.8000e-004**	**8.5338**	**0.8512**	**1.8000e-004**	**0.8514**		**64.8257**	**64.8257**	**6.2100e-003**		**64.9812**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6400e-003	0.1858	0.0235	2.8000e-004	0.4997	5.0000e-005	0.4998	0.0499	5.0000e-005	0.0500		30.4534	30.4534	3.1600e-003		30.5324
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		29.2582	29.2582	2.8700e-003		29.3300
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0151**	**0.3939**	**0.0965**	**6.0000e-004**	**3.4144**	**1.8000e-004**	**3.4145**	**0.3409**	**1.8000e-004**	**0.3410**		**64.8257**	**64.8257**	**6.2100e-003**		**64.9812**

3.14 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2400e-003	0.1572	0.0199	2.4000e-004	1.0568	4.0000e-005	1.0568	0.1054	4.0000e-005	0.1055		25.7682	25.7682	2.6700e-003		25.8351
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	3.1224	8.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0297**	**0.4715**	**0.1624**	**7.8000e-004**	**17.1869**	**3.3000e-004**	**17.1872**	**1.7143**	**3.1000e-004**	**1.7146**		**82.4409**	**82.4409**	**7.4400e-003**		**82.6270**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.2400e-003	0.1572	0.0199	2.4000e-004	0.4229	4.0000e-005	0.4229	0.0422	4.0000e-005	0.0423		25.7682	25.7682	2.6700e-003		25.8351
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	1.2495	8.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0297**	**0.4715**	**0.1624**	**7.8000e-004**	**6.8764**	**3.3000e-004**	**6.8767**	**0.6864**	**3.1000e-004**	**0.6867**		**82.4409**	**82.4409**	**7.4400e-003**		**82.6270**

3.15 Plot 9 (2025) Building-Wet Utilities - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0212	1.4907	0.1886	2.2500e-003	10.0232	4.1000e-004	10.0236	1.0000	3.9000e-004	1.0003		244.4078	244.4078	0.0254		245.0418
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	3.1224	8.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0131	3.2400e-003	0.0496	8.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.6713	7.6713	2.7000e-004		7.6781
Total	**0.0399**	**1.8029**	**0.2981**	**2.7400e-003**	**20.9503**	**6.1000e-004**	**20.9509**	**2.0899**	**5.8000e-004**	**2.0905**		**295.9663**	**295.9663**	**0.0299**		**296.7150**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0212	1.4907	0.1886	2.2500e-003	4.0108	4.1000e-004	4.0112	0.4005	3.9000e-004	0.4009		244.4078	244.4078	0.0254		245.0418
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	1.2495	8.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		43.8872	43.8872	4.3100e-003		43.9950
Worker	0.0131	3.2400e-003	0.0496	8.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.6713	7.6713	2.7000e-004		7.6781
Total	**0.0399**	**1.8029**	**0.2981**	**2.7400e-003**	**8.3827**	**6.1000e-004**	**8.3833**	**0.8369**	**5.8000e-004**	**0.8375**		**295.9663**	**295.9663**	**0.0299**		**296.7150**

3.16 Plot 9 (2025) Building-Electrical - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0318	2.2361	0.2829	3.3800e-003	15.0348	6.2000e-004	15.0355	1.4999	5.9000e-004	1.5005		366.6118	366.6118	0.0380		367.5628
Vendor	1.8900e-003	0.1030	0.0200	1.4000e-004	1.0408	3.0000e-005	1.0408	0.1039	3.0000e-005	0.1039		14.6291	14.6291	1.4400e-003		14.6650
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0554**	**2.3445**	**0.3854**	**3.6500e-003**	**29.0833**	**8.6000e-004**	**29.0842**	**2.9011**	**8.1000e-004**	**2.9019**		**394.0263**	**394.0263**	**0.0399**		**395.0247**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0318	2.2361	0.2829	3.3800e-003	6.0161	6.2000e-004	6.0168	0.6008	5.9000e-004	0.6014		366.6118	366.6118	0.0380		367.5628
Vendor	1.8900e-003	0.1030	0.0200	1.4000e-004	0.4165	3.0000e-005	0.4165	0.0416	3.0000e-005	0.0416		14.6291	14.6291	1.4400e-003		14.6650
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0554**	**2.3445**	**0.3854**	**3.6500e-003**	**11.6366**	**8.6000e-004**	**11.6375**	**1.1617**	**8.1000e-004**	**1.1625**		**394.0263**	**394.0263**	**0.0399**		**395.0247**

3.17 Plot 9 (2025) Building-Landscaping - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.2800e-003	0.6522	0.0825	9.9000e-004	4.3852	1.8000e-004	4.3853	0.4375	1.7000e-004	0.4377		106.9284	106.9284	0.0111		107.2058
Vendor	0.0142	0.7724	0.1498	1.0200e-003	7.8061	2.0000e-004	7.8063	0.7790	1.9000e-004	0.7792		109.7181	109.7181	0.0108		109.9876
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0452**	**1.4300**	**0.3149**	**2.1400e-003**	**25.1989**	**5.9000e-004**	**25.1995**	**2.5137**	**5.5000e-004**	**2.5143**		**229.4319**	**229.4319**	**0.0223**		**229.9903**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.2800e-003	0.6522	0.0825	9.9000e-004	1.7547	1.8000e-004	1.7549	0.1752	1.7000e-004	0.1754		106.9284	106.9284	0.0111		107.2058
Vendor	0.0142	0.7724	0.1498	1.0200e-003	3.1239	2.0000e-004	3.1241	0.3121	1.9000e-004	0.3123		109.7181	109.7181	0.0108		109.9876
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0452**	**1.4300**	**0.3149**	**2.1400e-003**	**10.0825**	**5.9000e-004**	**10.0831**	**1.0066**	**5.5000e-004**	**1.0072**		**229.4319**	**229.4319**	**0.0223**		**229.9903**

3.18 Plot 9 (2025) Interchange - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0265	1.8634	0.2357	2.8200e-003	12.5290	5.1000e-004	12.5295	1.2499	4.9000e-004	1.2504		305.5098	305.5098	0.0317		306.3023
Vendor	0.0236	1.2873	0.2497	1.7000e-003	13.0101	3.4000e-004	13.0105	1.2983	3.2000e-004	1.2986		182.8634	182.8634	0.0180		183.3127
Worker	0.0348	8.6400e-003	0.1322	2.1000e-004	20.8123	3.3000e-004	20.8126	2.0757	3.0000e-004	2.0760		20.4567	20.4567	7.3000e-004		20.4750
Total	**0.0849**	**3.1594**	**0.6176**	**4.7300e-003**	**46.3515**	**1.1800e-003**	**46.3526**	**4.6239**	**1.1100e-003**	**4.6250**		**508.8299**	**508.8299**	**0.0504**		**510.0900**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0265	1.8634	0.2357	2.8200e-003	5.0135	5.1000e-004	5.0140	0.5006	4.9000e-004	0.5011		305.5098	305.5098	0.0317		306.3023
Vendor	0.0236	1.2873	0.2497	1.7000e-003	5.2064	3.4000e-004	5.2068	0.5202	3.2000e-004	0.5206		182.8634	182.8634	0.0180		183.3127
Worker	0.0348	8.6400e-003	0.1322	2.1000e-004	8.3263	3.3000e-004	8.3267	0.8308	3.0000e-004	0.8311		20.4567	20.4567	7.3000e-004		20.4750
Total	**0.0849**	**3.1594**	**0.6176**	**4.7300e-003**	**18.5462**	**1.1800e-003**	**18.5474**	**1.8517**	**1.1100e-003**	**1.8528**		**508.8299**	**508.8299**	**0.0504**		**510.0900**

3.19 Plot 9 (2025) Landscaping - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0119	0.8385	0.1061	1.2700e-003	5.6381	2.3000e-004	5.6383	0.5625	2.2000e-004	0.5627		137.4794	137.4794	0.0143		137.8360
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		29.2582	29.2582	2.8700e-003		29.3300
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	13.0077	2.1000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0375**	**1.0499**	**0.2286**	**1.6700e-003**	**20.7274**	**4.9000e-004**	**20.7279**	**2.0675**	**4.6000e-004**	**2.0679**		**179.5230**	**179.5230**	**0.0176**		**179.9629**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0119	0.8385	0.1061	1.2700e-003	2.2561	2.3000e-004	2.2563	0.2253	2.2000e-004	0.2255		137.4794	137.4794	0.0143		137.8360
Vendor	3.7800e-003	0.2060	0.0400	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		29.2582	29.2582	2.8700e-003		29.3300
Worker	0.0218	5.4000e-003	0.0826	1.3000e-004	5.2040	2.1000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.7854	12.7854	4.6000e-004		12.7969
Total	**0.0375**	**1.0499**	**0.2286**	**1.6700e-003**	**8.2930**	**4.9000e-004**	**8.2935**	**0.8278**	**4.6000e-004**	**0.8283**		**179.5230**	**179.5230**	**0.0176**		**179.9629**

3.20 Plot 9 (2025) Curbing/Drive Approaches - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6100e-003	0.3604	0.0699	4.8000e-004	3.6428	9.0000e-005	3.6429	0.3635	9.0000e-005	0.3636		51.2018	51.2018	5.0300e-003		51.3275
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0153**	**0.3626**	**0.1030**	**5.3000e-004**	**8.8459**	**1.7000e-004**	**8.8461**	**0.8824**	**1.7000e-004**	**0.8826**		**56.3159**	**56.3159**	**5.2100e-003**		**56.4463**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.6100e-003	0.3604	0.0699	4.8000e-004	1.4578	9.0000e-005	1.4579	0.1457	9.0000e-005	0.1458		51.2018	51.2018	5.0300e-003		51.3275
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0153**	**0.3626**	**0.1030**	**5.3000e-004**	**3.5394**	**1.7000e-004**	**3.5396**	**0.3534**	**1.7000e-004**	**0.3535**		**56.3159**	**56.3159**	**5.2100e-003**		**56.4463**

3.21 Plot 9 (2025) Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	3.1224	8.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		43.8872	43.8872	4.3100e-003		43.9950
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	8.0000e-005	0.5190		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0144**	**0.3111**	**0.0930**	**4.6000e-004**	**8.3255**	**1.6000e-004**	**8.3257**	**0.8305**	**1.6000e-004**	**0.8307**		**49.0014**	**49.0014**	**4.4900e-003**		**49.1138**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6700e-003	0.3090	0.0599	4.1000e-004	1.2495	8.0000e-005	1.2496	0.1249	8.0000e-005	0.1249		43.8872	43.8872	4.3100e-003		43.9950
Worker	8.7000e-003	2.1600e-003	0.0330	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	8.0000e-005	0.2078		5.1142	5.1142	1.8000e-004		5.1188
Total	**0.0144**	**0.3111**	**0.0930**	**4.6000e-004**	**3.3311**	**1.6000e-004**	**3.3313**	**0.3326**	**1.6000e-004**	**0.3327**		**49.0014**	**49.0014**	**4.4900e-003**		**49.1138**

3.22 Plot 9 (2025) Temporary Utilities - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.23 Plots 1 3 20 (2026) Mass Excavation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0300e-003	0.6401	0.0819	9.6000e-004	4.3431	1.7000e-004	4.3433	0.4333	1.6000e-004	0.4334		104.7702	104.7702	0.0107		105.0364
Vendor	7.3100e-003	0.4099	0.0773	5.4000e-004	4.1633	1.0000e-004	4.1634	0.4154	1.0000e-004	0.4155		57.9578	57.9578	5.5700e-003		58.0970
Worker	0.0408	9.8000e-003	0.1530	2.5000e-004	26.0154	4.0000e-004	26.0158	2.5946	3.7000e-004	2.5950		24.6684	24.6684	8.3000e-004		24.6892
Total	**0.0571**	**1.0598**	**0.3122**	**1.7500e-003**	**34.5217**	**6.7000e-004**	**34.5224**	**3.4433**	**6.3000e-004**	**3.4439**		**187.3965**	**187.3965**	**0.0171**		**187.8225**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0300e-003	0.6401	0.0819	9.6000e-004	1.7379	1.7000e-004	1.7381	0.1735	1.6000e-004	0.1737		104.7702	104.7702	0.0107		105.0364
Vendor	7.3100e-003	0.4099	0.0773	5.4000e-004	1.6661	1.0000e-004	1.6662	0.1665	1.0000e-004	0.1666		57.9578	57.9578	5.5700e-003		58.0970
Worker	0.0408	9.8000e-003	0.1530	2.5000e-004	10.4079	4.0000e-004	10.4083	1.0385	3.7000e-004	1.0389		24.6684	24.6684	8.3000e-004		24.6892
Total	**0.0571**	**1.0598**	**0.3122**	**1.7500e-003**	**13.8119**	**6.7000e-004**	**13.8125**	**1.3786**	**6.3000e-004**	**1.3792**		**187.3965**	**187.3965**	**0.0171**		**187.8225**

3.24 Plots 1 3 20 (2026) Utilities - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0261	1.8464	0.2362	2.7800e-003	12.5290	4.8000e-004	12.5295	1.2499	4.6000e-004	1.2504		302.2404	302.2404	0.0307		303.0083
Vendor	0.0228	1.2810	0.2416	1.6800e-003	13.0101	3.2000e-004	13.0105	1.2983	3.0000e-004	1.2986		181.1181	181.1181	0.0174		181.5531
Worker	0.0326	7.8400e-003	0.1224	2.0000e-004	20.8123	3.2000e-004	20.8126	2.0757	3.0000e-004	2.0760		19.7347	19.7347	6.6000e-004		19.7513
Total	**0.0815**	**3.1353**	**0.6002**	**4.6600e-003**	**46.3515**	**1.1200e-003**	**46.3526**	**4.6239**	**1.0600e-003**	**4.6249**		**503.0933**	**503.0933**	**0.0488**		**504.3126**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0261	1.8464	0.2362	2.7800e-003	5.0135	4.8000e-004	5.0139	0.5006	4.6000e-004	0.5011		302.2404	302.2404	0.0307		303.0083
Vendor	0.0228	1.2810	0.2416	1.6800e-003	5.2064	3.2000e-004	5.2067	0.5202	3.0000e-004	0.5205		181.1181	181.1181	0.0174		181.5531
Worker	0.0326	7.8400e-003	0.1224	2.0000e-004	8.3263	3.2000e-004	8.3267	0.8308	3.0000e-004	0.8311		19.7347	19.7347	6.6000e-004		19.7513
Total	**0.0815**	**3.1353**	**0.6002**	**4.6600e-003**	**18.5462**	**1.1200e-003**	**18.5473**	**1.8517**	**1.0600e-003**	**1.8528**		**503.0933**	**503.0933**	**0.0488**		**504.3126**

3.25 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	2.2157	0.2835	3.3400e-003	15.0348	5.7000e-004	15.0354	1.4999	5.5000e-004	1.5005		362.6885	362.6885	0.0369		363.6099
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	1.0408	3.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0535**	**2.3231**	**0.3793**	**3.5900e-003**	**29.0833**	**8.0000e-004**	**29.0841**	**2.9011**	**7.6000e-004**	**2.9018**		**389.5121**	**389.5121**	**0.0387**		**390.4787**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0313	2.2157	0.2835	3.3400e-003	6.0161	5.7000e-004	6.0167	0.6008	5.5000e-004	0.6013		362.6885	362.6885	0.0369		363.6099
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	0.4165	3.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0535**	**2.3231**	**0.3793**	**3.5900e-003**	**11.6366**	**8.0000e-004**	**11.6374**	**1.1617**	**7.6000e-004**	**1.1624**		**389.5121**	**389.5121**	**0.0387**		**390.4787**

3.26 Plots 1 3 20 (2026) Building-Wet Utilities - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.1200e-003	0.6463	0.0827	9.7000e-004	4.3852	1.7000e-004	4.3853	0.4375	1.6000e-004	0.4376		105.7841	105.7841	0.0108		106.0529
Vendor	0.0137	0.7686	0.1450	1.0100e-003	7.8061	1.9000e-004	7.8063	0.7790	1.8000e-004	0.7791		108.6709	108.6709	0.0104		108.9318
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0432**	**1.4198**	**0.3042**	**2.1000e-003**	**25.1989**	**5.6000e-004**	**25.1995**	**2.5137**	**5.3000e-004**	**2.5143**		**226.7892**	**226.7892**	**0.0216**		**227.3293**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.1200e-003	0.6463	0.0827	9.7000e-004	1.7547	1.7000e-004	1.7549	0.1752	1.6000e-004	0.1754		105.7841	105.7841	0.0108		106.0529
Vendor	0.0137	0.7686	0.1450	1.0100e-003	3.1239	1.9000e-004	3.1240	0.3121	1.8000e-004	0.3123		108.6709	108.6709	0.0104		108.9318
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0432**	**1.4198**	**0.3042**	**2.1000e-003**	**10.0825**	**5.6000e-004**	**10.0831**	**1.0066**	**5.3000e-004**	**1.0072**		**226.7892**	**226.7892**	**0.0216**		**227.3293**

3.27 Plots 1 3 20 (2026) Building-Electrical - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0208	1.4771	0.1890	2.2300e-003	10.0232	3.8000e-004	10.0236	1.0000	3.6000e-004	1.0003		241.7923	241.7923	0.0246		242.4066
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0386**	**1.7875**	**0.2929**	**2.7000e-003**	**20.9503**	**5.8000e-004**	**20.9508**	**2.0899**	**5.4000e-004**	**2.0905**		**292.6612**	**292.6612**	**0.0290**		**293.3861**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0208	1.4771	0.1890	2.2300e-003	4.0108	3.8000e-004	4.0111	0.4005	3.6000e-004	0.4009		241.7923	241.7923	0.0246		242.4066
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	1.2495	8.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0386**	**1.7875**	**0.2929**	**2.7000e-003**	**8.3827**	**5.8000e-004**	**8.3833**	**0.8369**	**5.4000e-004**	**0.8375**		**292.6612**	**292.6612**	**0.0290**		**293.3861**

3.28 Plots 1 3 20 (2026) Building-Landscaping - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3900e-003	0.3587	0.0677	4.7000e-004	3.6428	9.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		50.7131	50.7131	4.8700e-003		50.8349
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0146**	**0.3606**	**0.0983**	**5.2000e-004**	**8.8459**	**1.7000e-004**	**8.8461**	**0.8824**	**1.5000e-004**	**0.8826**		**55.6468**	**55.6468**	**5.0400e-003**		**55.7727**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3900e-003	0.3587	0.0677	4.7000e-004	1.4578	9.0000e-005	1.4579	0.1457	8.0000e-005	0.1458		50.7131	50.7131	4.8700e-003		50.8349
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0146**	**0.3606**	**0.0983**	**5.2000e-004**	**3.5394**	**1.7000e-004**	**3.5396**	**0.3534**	**1.5000e-004**	**0.3535**		**55.6468**	**55.6468**	**5.0400e-003**		**55.7727**

3.29 Plots 1 3 20 (2026) Interchange - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0235	1.6618	0.2126	2.5100e-003	11.2761	4.3000e-004	11.2766	1.1249	4.1000e-004	1.1254		272.0164	272.0164	0.0276		272.7074
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.9789	28.9789	2.7800e-003		29.0485
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0475**	**1.8716**	**0.3278**	**2.9000e-003**	**26.3654**	**6.8000e-004**	**26.3661**	**2.6300**	**6.5000e-004**	**2.6306**		**313.3295**	**313.3295**	**0.0308**		**314.1005**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0235	1.6618	0.2126	2.5100e-003	4.5121	4.3000e-004	4.5125	0.4506	4.1000e-004	0.4510		272.0164	272.0164	0.0276		272.7074
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.9789	28.9789	2.7800e-003		29.0485
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0475**	**1.8716**	**0.3278**	**2.9000e-003**	**10.5491**	**6.8000e-004**	**10.5498**	**1.0531**	**6.5000e-004**	**1.0537**		**313.3295**	**313.3295**	**0.0308**		**314.1005**

3.30 Plots 1 3 20 (2026) Landscaping - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.4684	43.4684	4.1800e-003		43.5727
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0136**	**0.3094**	**0.0886**	**4.5000e-004**	**8.3255**	**1.6000e-004**	**8.3257**	**0.8305**	**1.4000e-004**	**0.8306**		**48.4020**	**48.4020**	**4.3500e-003**		**48.5106**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	1.2495	8.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.4684	43.4684	4.1800e-003		43.5727
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0136**	**0.3094**	**0.0886**	**4.5000e-004**	**3.3311**	**1.6000e-004**	**3.3313**	**0.3326**	**1.4000e-004**	**0.3327**		**48.4020**	**48.4020**	**4.3500e-003**		**48.5106**

3.31 Plots 1 3 20 (2026) Curbing/Drive Approaches - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.4400e-003	0.5982	0.0765	9.0000e-004	4.0589	1.5000e-004	4.0591	0.4049	1.5000e-004	0.4051		97.9143	97.9143	9.9500e-003		98.1631
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.9789	28.9789	2.7800e-003		29.0485
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0203**	**0.8051**	**0.1458**	**1.2200e-003**	**11.3436**	**2.8000e-004**	**11.3439**	**1.1316**	**2.7000e-004**	**1.1318**		**131.8269**	**131.8269**	**0.0129**		**132.1494**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.4400e-003	0.5982	0.0765	9.0000e-004	1.6242	1.5000e-004	1.6243	0.1622	1.5000e-004	0.1623		97.9143	97.9143	9.9500e-003		98.1631
Vendor	3.6500e-003	0.2050	0.0387	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.9789	28.9789	2.7800e-003		29.0485
Worker	8.1600e-003	1.9600e-003	0.0306	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.9337	4.9337	1.7000e-004		4.9378
Total	**0.0203**	**0.8051**	**0.1458**	**1.2200e-003**	**4.5388**	**2.8000e-004**	**4.5391**	**0.4531**	**2.7000e-004**	**0.4534**		**131.8269**	**131.8269**	**0.0129**		**132.1494**

3.32 Plots 1 3 20 (2026) Finish Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2200e-003	0.2991	0.0383	4.5000e-004	2.0295	8.0000e-005	2.0295	0.2025	7.0000e-005	0.2025		48.9572	48.9572	4.9800e-003		49.0815
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	1.0408	3.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0183**	**0.4045**	**0.1035**	**6.5000e-004**	**10.8749**	**2.3000e-004**	**10.8751**	**1.0847**	**2.0000e-004**	**1.0849**		**70.8471**	**70.8471**	**6.6200e-003**		**71.0125**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2200e-003	0.2991	0.0383	4.5000e-004	0.8121	8.0000e-005	0.8122	0.0811	7.0000e-005	0.0812		48.9572	48.9572	4.9800e-003		49.0815
Vendor	1.8300e-003	0.1025	0.0193	1.3000e-004	0.4165	3.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.4895	14.4895	1.3900e-003		14.5242
Worker	0.0122	2.9400e-003	0.0459	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.4005	7.4005	2.5000e-004		7.4068
Total	**0.0183**	**0.4045**	**0.1035**	**6.5000e-004**	**4.3510**	**2.3000e-004**	**4.3512**	**0.4343**	**2.0000e-004**	**0.4345**		**70.8471**	**70.8471**	**6.6200e-003**		**71.0125**

3.33 Plots 1 3 20 (2026) Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0143	1.0123	0.1295	1.5300e-003	6.8690	2.6000e-004	6.8692	0.6853	2.5000e-004	0.6855		165.7011	165.7011	0.0168		166.1221
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	13.0077	2.0000e-004	13.0079	1.2973	1.9000e-004	1.2975		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0402**	**1.3246**	**0.2640**	**2.0500e-003**	**22.9991**	**5.4000e-004**	**22.9996**	**2.2941**	**5.1000e-004**	**2.2947**		**221.5037**	**221.5037**	**0.0214**		**222.0394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0143	1.0123	0.1295	1.5300e-003	2.7486	2.6000e-004	2.7489	0.2745	2.5000e-004	0.2747		165.7011	165.7011	0.0168		166.1221
Vendor	5.4800e-003	0.3074	0.0580	4.0000e-004	1.2495	8.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.4684	43.4684	4.1800e-003		43.5727
Worker	0.0204	4.9000e-003	0.0765	1.2000e-004	5.2040	2.0000e-004	5.2042	0.5193	1.9000e-004	0.5195		12.3342	12.3342	4.1000e-004		12.3446
Total	**0.0402**	**1.3246**	**0.2640**	**2.0500e-003**	**9.2021**	**5.4000e-004**	**9.2026**	**0.9186**	**5.1000e-004**	**0.9191**		**221.5037**	**221.5037**	**0.0214**		**222.0394**

3.34 Plots 1 3 20 (2026) Temporary Utilities - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Plots 5/10 and 7,8,21,22 Emissions Summaries

Mitigated Air Quality Construction Analysis

Regional Maximums	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source			lb/day			
Plots 5 and 10 (2027) Utilities	6.75	49.05	158.15	0.40	31.56	4.57
Plots 5 and 10 (2027) Building-Concrete	1.23	11.42	47.35	0.10	14.18	1.76
Plots 5 and 10 (2027) Building-Wet Utilities	2.15	14.15	80.72	0.15	15.16	2.01
Plots 5 and 10 (2027) Building-Electrical	1.48	16.48	44.69	0.08	11.95	1.56
Plots 5 and 10 (2027) Building-Landscaping	1.30	13.64	36.26	0.05	4.75	0.74
Plots 5 and 10 (2027) Landscaping	1.34	13.67	38.94	0.06	4.52	0.71
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.38	4.67	12.00	0.03	5.03	0.62
Plots 5 and 10 (2027) Paving	1.35	8.95	54.87	0.11	12.74	1.59
Plots 5 and 10 (2027) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plots 5 and 10 (2027) Mass Excavation	4.00	20.08	138.31	0.32	28.15	3.58
Plots 5 and 10 (2027) Finish Grading	0.30	2.59	10.52	0.02	6.90	0.81
Plots 5 and 10 (2028) Mass Excavation	10.54	51.77	379.25	0.86	52.73	7.04
Plots 5 and 10 (2028) Finish Grading	0.42	3.37	17.71	0.03	8.23	0.97
Plots 5 and 10 (2028) Utilities	6.74	48.93	158.04	0.40	31.56	4.57
Plots 5 and 10 (2028) Building-Concrete	1.22	11.33	47.30	0.10	14.18	1.76
Plots 5 and 10 (2028) Building-Wet Utilities	2.14	14.09	80.65	0.15	15.16	2.01
Plots 5 and 10 (2028) Building-Electrical	1.47	16.42	44.66	0.08	11.95	1.56
Plots 5 and 10 (2028) Building-Landscaping	1.30	13.63	36.23	0.05	4.75	0.74
Plots 5 and 10 (2028) Landscaping	1.34	13.66	38.91	0.06	4.52	0.71
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.37	4.64	11.98	0.03	5.03	0.62
Plots 5 and 10 (2028) Paving	1.34	8.90	54.81	0.11	12.74	1.59
Plots 5 and 10 (2028) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plots 7 8 21 22 (2029) Utilities	6.72	48.82	157.94	0.40	31.56	4.57
Plots 7 8 21 22 (2029) Building-Concrete	1.21	11.24	47.25	0.10	14.18	1.76
Plots 7 8 21 22 (2029) Building-Wet Utilities	2.13	14.04	80.59	0.15	15.16	2.01
Plots 7 8 21 22 (2029) Building-Electrical	1.47	16.35	44.63	0.08	11.95	1.56
Plots 7 8 21 22 (2029) Building-Landscaping	1.30	13.61	36.21	0.05	4.75	0.74
Plots 7 8 21 22 (2029) Landscaping	1.34	13.65	38.88	0.06	4.52	0.71
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.37	4.61	11.95	0.03	5.03	0.61
Plots 7 8 21 22 (2029) Paving	1.33	8.84	54.75	0.11	12.74	1.59
Plots 7 8 21 22 (2029) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plots 7 8 21 22 (2029) Mass Excavation	6.97	34.90	247.11	0.57	39.19	5.15
Plots 7 8 21 22 (2029) Finish Grading	0.28	2.75	9.45	0.02	7.03	0.82
Overlapping Phases						
Plot 5 and 10-2027	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
g+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	18.90	142.54	567.46	1.20	117.22	15.78
Plot 5 and 10-2028						
Mass Excavation+Finish Grading	10.96	55.14	396.96	0.89	60.96	8.01
ng+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	25.17	173.20	802.76	1.73	143.08	19.36
Plots 7,8,21,22-2029						
g+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	21.75	156.84	674.55	1.45	128.39	17.36
Daily Maximum[1]						
2027	150.98	142.54	567.46	1.20	117.22	15.78
2028	157.26	173.20	802.76	1.73	143.08	19.36
2029	153.84	156.84	674.55	1.45	128.39	17.36

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions

Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
				lb/day		
Plots 5 and 10 (2027) Utilities	0.08	3.11	0.59	0.00	18.55	1.85
Plots 5 and 10 (2027) Building-Concrete	0.05	2.30	0.38	0.00	11.64	1.16
Plots 5 and 10 (2027) Building-Wet Utilities	0.04	1.41	0.30	0.00	10.08	1.01
Plots 5 and 10 (2027) Building-Electrical	0.04	1.77	0.29	0.00	8.38	0.84
Plots 5 and 10 (2027) Building-Landscaping	0.01	0.36	0.09	0.00	3.54	0.35
Plots 5 and 10 (2027) Landscaping	0.01	0.31	0.08	0.00	3.33	0.33
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.02	0.80	0.14	0.00	4.54	0.45
Plots 5 and 10 (2027) Paving	0.04	1.31	0.26	0.00	9.20	0.92
Plots 5 and 10 (2027) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	0.06	1.44	0.35	0.00	14.80	1.48
Plots 5 and 10 (2027) Finish Grading	0.02	0.60	0.13	0.00	5.04	0.50
Plots 5 and 10 (2028) Mass Excavation	0.07	2.64	0.51	0.00	18.36	1.83
Plots 5 and 10 (2028) Finish Grading	0.02	0.70	0.14	0.00	5.31	0.53
Plots 5 and 10 (2028) Utilities	0.08	3.09	0.58	0.00	18.55	1.85
Plots 5 and 10 (2028) Building-Concrete	0.05	2.29	0.37	0.00	11.64	1.16
Plots 5 and 10 (2028) Building-Wet Utilities	0.04	1.40	0.29	0.00	10.08	1.01
Plots 5 and 10 (2028) Building-Electrical	0.04	1.76	0.29	0.00	8.38	0.84
Plots 5 and 10 (2028) Building-Landscaping	0.01	0.36	0.09	0.00	3.54	0.35
Plots 5 and 10 (2028) Landscaping	0.01	0.31	0.08	0.00	3.33	0.33
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.02	0.79	0.14	0.00	4.54	0.45
Plots 5 and 10 (2028) Paving	0.04	1.31	0.25	0.00	9.20	0.92
Plots 5 and 10 (2028) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	0.07	3.08	0.57	0.00	18.55	1.85
Plots 7 8 21 22 (2029) Building-Concrete	0.05	2.27	0.37	0.00	11.64	1.16
Plots 7 8 21 22 (2029) Building-Wet Utilities	0.04	1.39	0.28	0.00	10.08	1.01
Plots 7 8 21 22 (2029) Building-Electrical	0.04	1.75	0.28	0.00	8.38	0.84
Plots 7 8 21 22 (2029) Building-Landscaping	0.01	0.36	0.09	0.00	3.54	0.35
Plots 7 8 21 22 (2029) Landscaping	0.01	0.30	0.08	0.00	3.33	0.33
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.02	0.79	0.14	0.00	4.54	0.45
Plots 7 8 21 22 (2029) Paving	0.04	1.30	0.25	0.00	9.20	0.92
Plots 7 8 21 22 (2029) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	0.06	2.12	0.43	0.00	16.89	1.69
Plots 7 8 21 22 (2029) Finish Grading	0.02	0.69	0.13	0.00	5.16	0.52

Daily Mitgated VOC Emissions (lb/day)	
2027	132
2028	132
2029	132

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plots 5 and 10 (2027) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.43	6.72	4.07	0.05	1.88	0.53
Plots 5 and 10 (2027) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.28	4.92	2.83	0.03	1.17	0.32
Plots 5 and 10 (2027) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.23	3.07	2.12	0.02	1.02	0.28
Plots 5 and 10 (2027) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.20	3.79	2.01	0.02	0.85	0.24
Plots 5 and 10 (2027) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.08	0.80	0.69	0.01	0.35	0.10
Plots 5 and 10 (2027) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.07	0.69	0.65	0.01	0.33	0.09
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.11	1.72	1.03	0.01	0.46	0.13
Plots 5 and 10 (2027) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.21	2.84	2.04	0.02	0.91	0.25
Plots 5 and 10 (2027) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	3.56	15.43	134.82	0.29	11.92	1.71	0.34	3.16	3.14	0.02	1.43	0.39
Plots 5 and 10 (2027) Finish Grading	0.15	0.65	9.31	0.01	1.36	0.17	0.12	1.31	1.08	0.01	0.50	0.14
Plots 5 and 10 (2028) Mass Excavation	10.01	43.39	374.74	0.82	32.56	4.71	0.42	5.67	4.01	0.04	1.81	0.50
Plots 5 and 10 (2028) Finish Grading	0.27	1.16	16.45	0.02	2.39	0.29	0.12	1.50	1.12	0.01	0.52	0.15
Plots 5 and 10 (2028) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.41	6.63	3.98	0.04	1.88	0.53
Plots 5 and 10 (2028) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.27	4.85	2.78	0.03	1.16	0.32
Plots 5 and 10 (2028) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.22	3.03	2.06	0.02	1.01	0.28
Plots 5 and 10 (2028) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.20	3.74	1.98	0.02	0.85	0.24
Plots 5 and 10 (2028) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.07	0.79	0.66	0.01	0.35	0.10
Plots 5 and 10 (2028) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.07	0.68	0.62	0.01	0.33	0.09
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.10	1.69	1.01	0.01	0.46	0.13
Plots 5 and 10 (2028) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.21	2.80	1.99	0.02	0.91	0.25
Plots 5 and 10 (2028) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.40	6.53	3.89	0.04	1.88	0.53
Plots 7 8 21 22 (2029) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.27	4.78	2.73	0.03	1.16	0.32
Plots 7 8 21 22 (2029) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.21	2.98	2.00	0.02	1.01	0.28
Plots 7 8 21 22 (2029) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.19	3.68	1.94	0.02	0.85	0.24
Plots 7 8 21 22 (2029) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.07	0.77	0.64	0.01	0.35	0.10
Plots 7 8 21 22 (2029) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.07	0.67	0.60	0.01	0.33	0.09
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.10	1.67	0.99	0.01	0.46	0.13
Plots 7 8 21 22 (2029) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.20	2.76	1.93	0.02	0.91	0.25
Plots 7 8 21 22 (2029) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	6.51	28.19	243.19	0.53	20.64	3.00	0.37	4.53	3.49	0.03	1.66	0.46
Plots 7 8 21 22 (2029) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.11	1.47	1.09	0.01	0.51	0.14

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plots 5 and 10 (2027) Utilities	6.6	45.9	157.6	0.39	13.01	2.71
Plots 5 and 10 (2027) Building-Concrete	1.2	9.1	47.0	0.09	2.55	0.60
Plots 5 and 10 (2027) Building-Wet Utilities	2.1	12.7	80.4	0.15	5.08	1.01
Plots 5 and 10 (2027) Building-Electrical	1.4	14.7	44.4	0.08	3.56	0.72
Plots 5 and 10 (2027) Building-Landscaping	1.3	13.3	36.2	0.05	1.21	0.38
Plots 5 and 10 (2027) Landscaping	1.3	13.3	38.9	0.06	1.19	0.38
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.3	3.9	11.9	0.03	0.49	0.16
Plots 5 and 10 (2027) Paving	1.3	7.6	54.6	0.11	3.54	0.67
Plots 5 and 10 (2027) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 5 and 10 (2027) Mass Excavation	3.9	18.6	138.0	0.32	13.35	2.10
Plots 5 and 10 (2027) Finish Grading	0.3	2.0	10.4	0.02	1.86	0.30
Plots 5 and 10 (2028) Mass Excavation	10.4	49.1	378.7	0.85	34.37	5.21
Plots 5 and 10 (2028) Finish Grading	0.4	2.7	17.6	0.03	2.92	0.44
Plots 5 and 10 (2028) Utilities	6.6	45.8	157.5	0.39	13.01	2.71
Plots 5 and 10 (2028) Building-Concrete	1.2	9.0	46.9	0.09	2.55	0.59
Plots 5 and 10 (2028) Building-Wet Utilities	2.1	12.7	80.4	0.15	5.08	1.01
Plots 5 and 10 (2028) Building-Electrical	1.4	14.6	44.4	0.08	3.56	0.72
Plots 5 and 10 (2028) Building-Landscaping	1.3	13.3	36.1	0.05	1.21	0.38
Plots 5 and 10 (2028) Landscaping	1.3	13.3	38.8	0.06	1.19	0.38
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.3	3.8	11.8	0.03	0.49	0.16
Plots 5 and 10 (2028) Paving	1.3	7.6	54.6	0.10	3.54	0.67
Plots 5 and 10 (2028) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 7 8 21 22 (2029) Utilities	6.6	45.7	157.4	0.39	13.01	2.71
Plots 7 8 21 22 (2029) Building-Concrete	1.1	8.9	46.9	0.09	2.55	0.59
Plots 7 8 21 22 (2029) Building-Wet Utilities	2.1	12.6	80.3	0.15	5.08	1.01
Plots 7 8 21 22 (2029) Building-Electrical	1.4	14.6	44.3	0.08	3.56	0.72
Plots 7 8 21 22 (2029) Building-Landscaping	1.3	13.2	36.1	0.05	1.21	0.38
Plots 7 8 21 22 (2029) Landscaping	1.3	13.3	38.8	0.06	1.19	0.38
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.3	3.8	11.8	0.03	0.49	0.16
Plots 7 8 21 22 (2029) Paving	1.3	7.5	54.5	0.10	3.54	0.67
Plots 7 8 21 22 (2029) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 7 8 21 22 (2029) Mass Excavation	6.9	32.7	246.7	0.56	22.30	3.46
Plots 7 8 21 22 (2029) Finish Grading	0.2	2.0	9.3	0.02	1.87	0.30

Overlapping Phases						
Plot 5 and 10-2027	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**PM2.5**
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	14.28	112.75	416.24	0.85	27.09	5.96
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	15.57	120.35	470.85	0.95	30.63	6.63
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	15.91	121.83	483.37	0.98	30.68	6.68
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	14.62	114.23	428.76	0.87	27.14	6.01
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	14.27	110.38	416.90	0.85	26.65	5.85
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	18.17	128.98	554.86	1.16	40.00	7.95
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	18.44	130.94	565.25	1.19	41.86	8.25
Plot 5 and 10-2028						
Mass Excavation+Finish Grading	10.82	51.72	396.31	0.89	37.29	5.65
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	24.71	160.34	800.41	1.71	63.89	11.45
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	24.32	157.69	782.84	1.67	60.97	11.01
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	14.24	112.45	415.93	0.85	27.09	5.96
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	15.52	120.01	470.49	0.95	30.63	6.63
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	15.87	121.49	483.01	0.98	30.68	6.68
Plots 7,8,21,22-2029						
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing	14.20	112.15	415.63	0.84	27.09	5.96
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	15.48	119.66	470.12	0.95	30.63	6.63
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	15.82	121.14	482.64	0.98	30.68	6.67
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	14.54	113.62	428.14	0.87	27.13	6.01
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	14.19	109.82	416.33	0.85	26.64	5.84
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	20.72	141.07	650.49	1.38	48.89	9.26
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	21.31	144.59	672.32	1.43	50.81	9.61
Daily Maximum[1]						
2027	18.44	130.94	565.25	1.19	41.86	8.25
2028	24.71	160.34	800.41	1.71	63.89	11.45
2029	21.31	144.59	672.32	1.43	50.81	9.61

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plots 5 and 10 (2027) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.46	6.80	3.98	0.04	1.88	0.53
Plots 5 and 10 (2027) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.30	4.97	2.78	0.03	1.17	0.32
Plots 5 and 10 (2027) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.25	3.11	2.04	0.02	1.02	0.29
Plots 5 and 10 (2027) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.21	3.83	1.99	0.02	0.85	0.24
Plots 5 and 10 (2027) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.08	0.81	0.65	0.01	0.35	0.10
Plots 5 and 10 (2027) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.08	0.70	0.61	0.01	0.33	0.09
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.11	1.74	1.01	0.01	0.46	0.13
Plots 5 and 10 (2027) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.23	2.88	1.96	0.02	0.91	0.25
Plots 5 and 10 (2027) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	3.56	15.43	134.82	0.29	11.92	1.71	0.38	3.20	2.95	0.02	1.43	0.39
Plots 5 and 10 (2027) Finish Grading	0.15	0.65	9.31	0.01	1.36	0.17	0.13	1.33	1.03	0.01	0.50	0.14
Plots 5 and 10 (2028) Mass Excavation	10.01	43.39	374.74	0.82	32.56	4.71	0.45	5.73	3.86	0.04	1.81	0.50
Plots 5 and 10 (2028) Finish Grading	0.27	1.16	16.45	0.02	2.39	0.29	0.13	1.52	1.08	0.01	0.52	0.15
Plots 5 and 10 (2028) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.44	6.70	3.89	0.04	1.88	0.53
Plots 5 and 10 (2028) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.29	4.90	2.73	0.03	1.16	0.32
Plots 5 and 10 (2028) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.24	3.06	1.99	0.02	1.01	0.28
Plots 5 and 10 (2028) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.21	3.78	1.96	0.02	0.85	0.24
Plots 5 and 10 (2028) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.08	0.80	0.63	0.01	0.35	0.10
Plots 5 and 10 (2028) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.08	0.69	0.58	0.01	0.33	0.09
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.11	1.71	0.99	0.01	0.46	0.13
Plots 5 and 10 (2028) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.23	2.83	1.91	0.02	0.91	0.25
Plots 5 and 10 (2028) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	6.22	39.14	153.48	0.35	11.13	2.19	0.43	6.61	3.81	0.04	1.88	0.53
Plots 7 8 21 22 (2029) Building-Concrete	0.88	4.14	44.15	0.06	1.38	0.27	0.29	4.82	2.69	0.03	1.16	0.32
Plots 7 8 21 22 (2029) Building-Wet Utilities	1.86	9.63	78.30	0.13	4.07	0.72	0.23	3.02	1.94	0.02	1.01	0.28
Plots 7 8 21 22 (2029) Building-Electrical	1.23	10.88	42.40	0.06	2.71	0.48	0.20	3.72	1.93	0.02	0.85	0.24
Plots 7 8 21 22 (2029) Building-Landscaping	1.21	12.47	35.48	0.05	0.85	0.28	0.08	0.79	0.60	0.01	0.35	0.10
Plots 7 8 21 22 (2029) Landscaping	1.25	12.66	38.21	0.05	0.86	0.29	0.07	0.68	0.56	0.01	0.33	0.09
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.24	2.13	10.82	0.01	0.03	0.03	0.11	1.69	0.97	0.01	0.46	0.13
Plots 7 8 21 22 (2029) Paving	1.08	4.76	52.57	0.09	2.63	0.42	0.22	2.79	1.86	0.02	0.91	0.25
Plots 7 8 21 22 (2029) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	6.51	28.19	243.19	0.53	20.64	3.00	0.40	4.59	3.34	0.03	1.66	0.46
Plots 7 8 21 22 (2029) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.12	1.48	1.04	0.01	0.51	0.14

Regional Emissions	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Plots 5 and 10 (2027) Utilities	6.7	45.9	157.5	0.39	13.01	2.72
Plots 5 and 10 (2027) Building-Concrete	1.2	9.1	46.9	0.09	2.55	0.60
Plots 5 and 10 (2027) Building-Wet Utilities	2.1	12.7	80.3	0.15	5.08	1.01
Plots 5 and 10 (2027) Building-Electrical	1.4	14.7	44.4	0.08	3.57	0.72
Plots 5 and 10 (2027) Building-Landscaping	1.3	13.3	36.1	0.05	1.21	0.38
Plots 5 and 10 (2027) Landscaping	1.3	13.4	38.8	0.06	1.19	0.38
Plots 5 and 10 (2027) Curbing/Drive Approaches	0.4	3.9	11.8	0.03	0.49	0.16
Plots 5 and 10 (2027) Paving	1.3	7.6	54.5	0.10	3.54	0.67
Plots 5 and 10 (2027) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 5 and 10 (2027) Mass Excavation	3.9	18.6	137.8	0.31	13.35	2.11
Plots 5 and 10 (2027) Finish Grading	0.3	2.0	10.3	0.02	1.86	0.30
Plots 5 and 10 (2028) Mass Excavation	10.5	49.1	378.6	0.85	34.37	5.21
Plots 5 and 10 (2028) Finish Grading	0.4	2.7	17.5	0.03	2.92	0.44
Plots 5 and 10 (2028) Utilities	6.7	45.8	157.4	0.39	13.01	2.71
Plots 5 and 10 (2028) Building-Concrete	1.2	9.0	46.9	0.09	2.55	0.60
Plots 5 and 10 (2028) Building-Wet Utilities	2.1	12.7	80.3	0.15	5.08	1.01
Plots 5 and 10 (2028) Building-Electrical	1.4	14.7	44.4	0.08	3.56	0.72
Plots 5 and 10 (2028) Building-Landscaping	1.3	13.3	36.1	0.05	1.21	0.38
Plots 5 and 10 (2028) Landscaping	1.3	13.4	38.8	0.06	1.19	0.38
Plots 5 and 10 (2028) Curbing/Drive Approaches	0.4	3.8	11.8	0.03	0.49	0.16
Plots 5 and 10 (2028) Paving	1.3	7.6	54.5	0.10	3.54	0.67
Plots 5 and 10 (2028) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 7 8 21 22 (2029) Utilities	6.6	45.7	157.3	0.39	13.01	2.71
Plots 7 8 21 22 (2029) Building-Concrete	1.2	9.0	46.8	0.09	2.55	0.59
Plots 7 8 21 22 (2029) Building-Wet Utilities	2.1	12.6	80.2	0.15	5.08	1.01
Plots 7 8 21 22 (2029) Building-Electrical	1.4	14.6	44.3	0.08	3.56	0.72
Plots 7 8 21 22 (2029) Building-Landscaping	1.3	13.3	36.1	0.05	1.21	0.38
Plots 7 8 21 22 (2029) Landscaping	1.3	13.3	38.8	0.06	1.19	0.38
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	0.4	3.8	11.8	0.03	0.49	0.16
Plots 7 8 21 22 (2029) Paving	1.3	7.5	54.4	0.10	3.54	0.67
Plots 7 8 21 22 (2029) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plots 7 8 21 22 (2029) Mass Excavation	6.9	32.8	246.5	0.56	22.30	3.46
Plots 7 8 21 22 (2029) Finish Grading	0.3	2.1	9.3	0.02	1.87	0.30

Overlapping Phases						
Plot 5 and 10-2027	**ROG**	**NOX**	**CO**	**SO2**	**PM10**	**PM2.5**
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	14.38	113.00	415.90	0.84	27.09	5.96
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	15.69	120.63	470.43	0.95	30.63	6.63
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	16.03	122.11	482.94	0.98	30.68	6.68
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	14.72	114.48	428.42	0.87	27.14	6.01
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	14.37	110.61	416.58	0.85	26.65	5.85
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	18.30	129.25	554.34	1.16	40.00	7.95
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	18.58	131.23	564.68	1.18	41.86	8.26
Plot 5 and 10-2028						
Mass Excavation+Finish Grading	10.86	51.80	396.12	0.89	37.29	5.65
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	24.85	160.64	799.92	1.70	63.89	11.45
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	24.45	157.97	782.40	1.67	60.97	11.01
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	14.34	112.69	415.62	0.84	27.09	5.96
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	15.65	120.28	470.10	0.95	30.63	6.63
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	15.99	121.76	482.62	0.97	30.68	6.68
Plots 7,8,21,22-2029						
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing	14.30	112.38	415.34	0.84	27.09	5.96
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	15.59	119.92	469.77	0.95	30.63	6.63
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	15.93	121.40	482.29	0.97	30.68	6.68
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	14.64	113.86	427.86	0.87	27.14	6.01
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	14.29	110.04	416.06	0.84	26.64	5.84
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	20.85	141.33	650.07	1.38	48.89	9.26
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation+Finish Grading	21.45	144.87	671.86	1.43	50.81	9.61
Daily Maximum[1]						
2027	18.58	131.23	564.68	1.18	41.86	8.26
2028	24.85	160.64	799.92	1.70	63.89	11.45
2029	21.45	144.87	671.86	1.43	50.81	9.61

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source	lb/day				lb/day			
Plots 5 and 10 (2027) Utilities	39.14	153.48	11.13	2.19	3.11	0.59	18.55	1.85
Plots 5 and 10 (2027) Building-Concrete	4.14	44.15	1.38	0.27	2.30	0.38	11.64	1.16
Plots 5 and 10 (2027) Building-Wet Utilities	9.63	78.30	4.07	0.72	1.41	0.30	10.08	1.01
Plots 5 and 10 (2027) Building-Electrical	10.88	42.40	2.71	0.48	1.77	0.29	8.38	0.84
Plots 5 and 10 (2027) Building-Landscaping	12.47	35.48	0.85	0.28	0.36	0.09	3.54	0.35
Plots 5 and 10 (2027) Landscaping	12.66	38.21	0.86	0.29	0.31	0.08	3.33	0.33
Plots 5 and 10 (2027) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.80	0.14	4.54	0.45
Plots 5 and 10 (2027) Paving	4.76	52.57	2.63	0.42	1.31	0.26	9.20	0.92
Plots 5 and 10 (2027) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plots 5 and 10 (2027) Mass Excavation	15.43	134.82	11.92	1.71	1.44	0.35	14.80	1.48
Plots 5 and 10 (2027) Finish Grading	0.65	9.31	1.36	0.17	0.60	0.13	5.04	0.50
Plots 5 and 10 (2028) Mass Excavation	43.39	374.74	32.56	4.71	2.64	0.51	18.36	1.83
Plots 5 and 10 (2028) Finish Grading	1.16	16.45	2.39	0.29	0.70	0.14	5.31	0.53
Plots 5 and 10 (2028) Utilities	39.14	153.48	11.13	2.19	3.09	0.58	18.55	1.85
Plots 5 and 10 (2028) Building-Concrete	4.14	44.15	1.38	0.27	2.29	0.37	11.64	1.16
Plots 5 and 10 (2028) Building-Wet Utilities	9.63	78.30	4.07	0.72	1.40	0.29	10.08	1.01
Plots 5 and 10 (2028) Building-Electrical	10.88	42.40	2.71	0.48	1.76	0.29	8.38	0.84
Plots 5 and 10 (2028) Building-Landscaping	12.47	35.48	0.85	0.28	0.36	0.09	3.54	0.35
Plots 5 and 10 (2028) Landscaping	12.66	38.21	0.86	0.29	0.31	0.08	3.33	0.33
Plots 5 and 10 (2028) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.79	0.14	4.54	0.45
Plots 5 and 10 (2028) Paving	4.76	52.57	2.63	0.42	1.31	0.25	9.20	0.92
Plots 5 and 10 (2028) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Utilities	39.14	153.48	11.13	2.19	3.08	0.57	18.55	1.85
Plots 7 8 21 22 (2029) Building-Concrete	4.14	44.15	1.38	0.27	2.27	0.37	11.64	1.16
Plots 7 8 21 22 (2029) Building-Wet Utilities	9.63	78.30	4.07	0.72	1.39	0.28	10.08	1.01
Plots 7 8 21 22 (2029) Building-Electrical	10.88	42.40	2.71	0.48	1.75	0.28	8.38	0.84
Plots 7 8 21 22 (2029) Building-Landscaping	12.47	35.48	0.85	0.28	0.36	0.09	3.54	0.35
Plots 7 8 21 22 (2029) Landscaping	12.66	38.21	0.86	0.29	0.30	0.08	3.33	0.33
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.79	0.14	4.54	0.45
Plots 7 8 21 22 (2029) Paving	4.76	52.57	2.63	0.42	1.30	0.25	9.20	0.92
Plots 7 8 21 22 (2029) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plots 7 8 21 22 (2029) Mass Excavation	28.19	243.19	20.64	3.00	2.12	0.43	16.89	1.69
Plots 7 8 21 22 (2029) Finish Grading	0.58	8.22	1.36	0.16	0.69	0.13	5.16	0.52

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plots 5 and 10 (2027) Utilities	42.2	154.1	29.68	4.04
Plots 5 and 10 (2027) Building-Concrete	6.4	44.5	13.02	1.43
Plots 5 and 10 (2027) Building-Wet Utilities	11.0	78.6	14.15	1.73
Plots 5 and 10 (2027) Building-Electrical	12.7	42.7	11.09	1.32
Plots 5 and 10 (2027) Building-Landscaping	12.8	35.6	4.39	0.64
Plots 5 and 10 (2027) Landscaping	13.0	38.3	4.19	0.62
Plots 5 and 10 (2027) Curbing/Drive Approaches	2.9	11.0	4.57	0.49
Plots 5 and 10 (2027) Paving	6.1	52.8	11.83	1.34
Plots 5 and 10 (2027) Temporary Utilities	1.5	12.5	0.05	0.05
Plots 5 and 10 (2027) Mass Excavation	16.9	135.2	26.72	3.19
Plots 5 and 10 (2027) Finish Grading	1.3	9.4	6.40	0.67
Plots 5 and 10 (2028) Mass Excavation	46.0	375.2	50.92	6.54
Plots 5 and 10 (2028) Finish Grading	1.9	16.6	7.70	0.82
Plots 5 and 10 (2028) Utilities	42.2	154.1	29.68	4.04
Plots 5 and 10 (2028) Building-Concrete	6.4	44.5	13.02	1.43
Plots 5 and 10 (2028) Building-Wet Utilities	11.0	78.6	14.15	1.73
Plots 5 and 10 (2028) Building-Electrical	12.6	42.7	11.09	1.32
Plots 5 and 10 (2028) Building-Landscaping	12.8	35.6	4.39	0.64
Plots 5 and 10 (2028) Landscaping	13.0	38.3	4.19	0.62
Plots 5 and 10 (2028) Curbing/Drive Approaches	2.9	11.0	4.57	0.49
Plots 5 and 10 (2028) Paving	6.1	52.8	11.83	1.34
Plots 5 and 10 (2028) Temporary Utilities	1.5	12.5	0.05	0.05
Plots 7 8 21 22 (2029) Utilities	42.2	154.1	29.68	4.04
Plots 7 8 21 22 (2029) Building-Concrete	6.4	44.5	13.02	1.43
Plots 7 8 21 22 (2029) Building-Wet Utilities	11.0	78.6	14.15	1.73
Plots 7 8 21 22 (2029) Building-Electrical	12.6	42.7	11.09	1.32
Plots 7 8 21 22 (2029) Building-Landscaping	12.8	35.6	4.39	0.64
Plots 7 8 21 22 (2029) Landscaping	13.0	38.3	4.19	0.62
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	2.9	11.0	4.57	0.49
Plots 7 8 21 22 (2029) Paving	6.1	52.8	11.83	1.34
Plots 7 8 21 22 (2029) Temporary Utilities	1.5	12.5	0.05	0.05
Plots 7 8 21 22 (2029) Mass Excavation	30.3	243.6	37.53	4.69
Plots 7 8 21 22 (2029) Finish Grading	1.3	8.4	6.53	0.68

Overlapping Phases				
Plot 5 and 10-2027	**NOX**	**CO**	**Total PM10**	**Total PM2.5**
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	101.12	404.71	81.09	10.26
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	107.19	457.54	92.93	11.60
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	108.67	470.05	92.97	11.64
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	102.60	417.23	81.14	10.31
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	99.67	406.26	76.57	9.82
Concrete+Wet utils+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	116.54	541.43	103.29	13.01
Grading	117.80	550.87	109.69	13.68
Plot 5 and 10-2028				
Mass Excavation+Finish Grading	47.89	391.83	58.62	7.36
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	146.02	785.55	135.14	17.14
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping	144.17	768.96	127.44	16.32
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing	101.06	404.68	81.09	10.26
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	107.12	457.50	92.93	11.60
Concrete+Wet Utils+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	108.60	470.02	92.97	11.64
Plots 7,8,21,22-2029				
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing	101.00	404.65	81.09	10.26
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	107.05	457.47	92.93	11.60
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	108.53	469.99	92.97	11.64
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Curbing+Temp Utils	102.48	417.17	81.14	10.31
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils	99.55	406.21	76.57	9.82
Concrete+Wet Util+Electrical+Landscaping+Utilities+Landscaping+Temp Utils+Mass Excavation	128.39	637.31	114.05	14.47
Grading	131.14	658.18	120.62	15.19
Daily Maximum[1]				
2027	117.80	550.87	109.69	13.68
2028	146.02	785.55	135.14	17.14
2029	131.14	658.18	120.62	15.19

[1] VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, they are not inlcuded in these tables because VOC emissions were calculated outside of CalEEMod.Values in this table include the VOC emissions calculated outside of CalEEMod.

Daily Mitgated VOC Emissions (lb/day)	
2027	132
2028	132
2029	132

World Logistics Center-Construction Plots 5 and 10_7,8,21,22 (2027-2029)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	44.8476	403.4132	473.9515	1.1856	88.1316	15.3078	103.4393	10.7450	14.1115	24.8565	0.0000	116,297.3380	116,297.3380	32.2021	0.0000	117,102.3901
2028	70.8531	677.5498	660.9237	1.7067	141.8465	25.7780	167.6245	16.6133	23.7443	40.3575	0.0000	166,934.8331	166,934.8331	48.1752	0.0000	168,139.2135
2029	56.4192	530.9359	557.7690	1.4301	109.7120	20.0979	129.8098	13.1138	18.5184	31.6322	0.0000	140,078.7433	140,078.7433	39.7052	0.0000	141,071.3727
Maximum	**70.8531**	**677.5498**	**660.9237**	**1.7067**	**141.8465**	**25.7780**	**167.6245**	**16.6133**	**23.7443**	**40.3575**	**0.0000**	**166,934.8331**	**166,934.8331**	**48.1752**	**0.0000**	**168,139.2135**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	28.0531	130.9442	565.2515	1.1856	38.9205	2.9390	41.8595	5.4314	2.8234	8.2547	0.0000	116,297.3379	116,297.3379	32.2021	0.0000	117,102.3900
2028	28.0093	160.3423	800.4102	1.7067	60.1167	3.7728	63.8894	7.7883	3.6570	11.4454	0.0000	166,934.8330	166,934.8330	48.1752	0.0000	168,139.2134
2029	27.9604	144.5892	672.3197	1.4301	47.4788	3.3283	50.8070	6.3941	3.2127	9.6068	0.0000	140,078.7432	140,078.7432	39.7052	0.0000	141,071.3726
Maximum	**28.0531**	**160.3423**	**800.4102**	**1.7067**	**60.1167**	**3.7728**	**63.8894**	**7.7883**	**3.6570**	**11.4454**	**0.0000**	**166,934.8330**	**166,934.8330**	**48.1752**	**0.0000**	**168,139.2134**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**51.18**	**72.96**	**-20.40**	**0.00**	**56.87**	**83.59**	**60.95**	**51.54**	**82.81**	**69.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plots 5 and 10 (2027) Utilities	Trenching	1/1/2027	12/30/2027	5	260	1177
2	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
3	Plots 5 and 10 (2027) Building-Wet Utilities	Building Construction	1/1/2027	12/30/2027	5	260	1174
4	Plots 5 and 10 (2027) Building-Electrical	Building Construction	1/1/2027	12/30/2027	5	260	1175
5	Plots 5 and 10 (2027) Building-Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1176
6	Plots 5 and 10 (2027) Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1178
7	Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving	5/1/2027	8/20/2027	5	80	1180
8	Plots 5 and 10 (2027) Paving	Paving	6/1/2027	7/26/2027	5	40	1181
9	Plots 5 and 10 (2027) Temporary Utilities	Building Construction	7/2/2027	12/30/2027	5	130	1179
10	Plots 5 and 10 (2027) Mass Excavation	Grading	9/16/2027	12/31/2027	5	77	1171
11	Plots 5 and 10 (2027) Finish Grading	Grading	11/6/2027	12/31/2027	5	40	1172
12	Plots 5 and 10 (2028) Mass Excavation	Grading	1/1/2028	4/18/2028	5	77	1182
13	Plots 5 and 10 (2028) Finish Grading	Grading	1/1/2028	2/25/2028	5	40	1183
14	Plots 5 and 10 (2028) Utilities	Trenching	1/1/2028	12/30/2028	5	260	1188
15	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
16	Plots 5 and 10 (2028) Building-Wet Utilities	Building Construction	1/1/2028	12/30/2028	5	260	1185
17	Plots 5 and 10 (2028) Building-Electrical	Building Construction	1/1/2028	12/30/2028	5	260	1186
18	Plots 5 and 10 (2028) Building-Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1187
19	Plots 5 and 10 (2028) Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1189

20	Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving	5/1/2028	8/20/2028	5	80	1191	
21	Plots 5 and 10 (2028) Paving	Paving	6/1/2028	7/26/2028	5	40	1192	
22	Plots 5 and 10 (2028) Temporary Utilities	Building Construction	7/2/2028	12/30/2028	5	130	1190	
23	Plots 7 8 21 22 (2029) Utilities	Trenching	1/1/2029	12/30/2029	5	260	1199	
24	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195	
25	Plots 7 8 21 22 (2029) Building-Wet Utilities	Building Construction	1/1/2029	12/30/2029	5	260	1196	
26	Plots 7 8 21 22 (2029) Building-Electrical	Building Construction	1/1/2029	12/30/2029	5	260	1197	
27	Plots 7 8 21 22 (2029) Building-Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1198	
28	Plots 7 8 21 22 (2029) Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1200	
29	Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving	5/1/2029	8/20/2029	5	80	1202	
30	Plots 7 8 21 22 (2029) Paving	Paving	6/1/2029	7/26/2029	5	40	1203	
31	Plots 7 8 21 22 (2029) Temporary Utilities	Building Construction	7/2/2029	12/30/2029	5	130	1201	
32	Plots 7 8 21 22 (2029) Mass Excavation	Grading	9/14/2029	12/31/2029	5	77	1193	
33	Plots 7 8 21 22 (2029) Finish Grading	Grading	11/6/2029	12/31/2029	5	40	1194	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2027) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2027) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2027) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2027) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2027) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2027) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2027) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2027) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2027) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2027) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2027) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2027) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2027) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2027) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2027) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2027) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2027) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	18	1.00	167	0.40

Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes		2	10.00	85	0.37
Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment		2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment		2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers		1	10.00	140	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers		2	10.00	85	0.40
Plots 5 and 10 (2027) Finish Grading	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plots 5 and 10 (2027) Mass Excavation	Graders		1	10.00	193	0.41
Plots 5 and 10 (2027) Mass Excavation	Off-Highway Trucks		1	10.00	400	0.38
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment		2	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment		4	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors		1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors		1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers		1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers		1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers		1	10.00	410	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers		1	10.00	305	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers		1	10.00	140	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers		1	10.00	85	0.40
Plots 5 and 10 (2027) Mass Excavation	Scrapers		0	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Scrapers		6	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers		24	1.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment		2	1.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps		2	10.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes		4	10.00	85	0.37
Plots 5 and 10 (2028) Building-Electrical	Cement and Mortar Mixers		12	1.00	9	0.56
Plots 5 and 10 (2028) Building-Electrical	Excavators		8	10.00	40	0.38
Plots 5 and 10 (2028) Building-Electrical	Forklifts		4	10.00	89	0.20

Plots 5 and 10 (2028) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2028) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2028) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2028) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2028) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2028) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2028) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 5 and 10 (2028) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2028) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2028) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2028) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2028) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2028) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2028) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2028) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2028) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2028) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Mass Excavation	Graders	2	10.00	193	0.41
Plots 5 and 10 (2028) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40

Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Scrapers	12	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 7 8 21 22 (2029) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 7 8 21 22 (2029) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 7 8 21 22 (2029) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 7 8 21 22 (2029) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 7 8 21 22 (2029) Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 7 8 21 22 (2029) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 7 8 21 22 (2029) Landscaping	Trenchers	2	10.00	39	0.50
Plots 7 8 21 22 (2029) Mass Excavation	Graders	1	10.00	193	0.41
Plots 7 8 21 22 (2029) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40

Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	3	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 7 8 21 22 (2029) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Paving	Pavers	2	10.00	126	0.42
Plots 7 8 21 22 (2029) Paving	Paving Equipment	2	10.00	131	0.36
Plots 7 8 21 22 (2029) Paving	Plate Compactors	2	10.00	8	0.43

Plots 7 8 21 22 (2029) Paving	Rollers	2	10.00	81	0.38
Plots 7 8 21 22 (2029) Paving	Scrapers	2	10.00	362	0.48
Plots 7 8 21 22 (2029) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 7 8 21 22 (2029) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 7 8 21 22 (2029) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	523	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	10	10.00	286	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	4	10.00	396	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	188	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Utilities	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Finish Grading		15.00	4.00	208.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Mass Excavation		50.00	7.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Finish Grading		15.00	4.00	260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plots 5 and 10 (2028) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Finish Grading		15.00	2.00	312.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plots 5 and 10 (2027) Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1297	3.8630	1.4508	0.0207	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,258.1647	2,258.1647	0.1416		2,261.7041
Vendor	0.1076	2.7516	1.0131	0.0182	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,949.0024	1,949.0024	0.0765		1,950.9156
Worker	0.1878	0.1041	1.6095	6.0300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		601.3827	601.3827	0.0113		601.6661
Total	**0.4251**	**6.7187**	**4.0734**	**0.0450**	**1.8639**	**0.0185**	**1.8824**	**0.5118**	**0.0176**	**0.5294**		**4,808.5498**	**4,808.5498**	**0.2294**		**4,814.2858**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1297	3.8630	1.4508	0.0207	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,258.1647	2,258.1647	0.1416		2,261.7041
Vendor	0.1076	2.7516	1.0131	0.0182	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,949.0024	1,949.0024	0.0765		1,950.9156
Worker	0.1878	0.1041	1.6095	6.0300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		601.3827	601.3827	0.0113		601.6661
Total	**0.4251**	**6.7187**	**4.0734**	**0.0450**	**1.8639**	**0.0185**	**1.8824**	**0.5118**	**0.0176**	**0.5294**		**4,808.5498**	**4,808.5498**	**0.2294**		**4,814.2858**

3.3 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

3.4 Plots 5 and 10 (2027) Building-Wet Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.3520	0.5078	7.2500e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		790.3577	790.3577	0.0496		791.5964
Vendor	0.0645	1.6510	0.6079	0.0109	0.3468	3.6600e-003	0.3505	0.0997	3.4900e-003	0.1032		1,169.4014	1,169.4014	0.0459		1,170.5494
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2273**	**3.0681**	**2.1216**	**0.0219**	**1.0059**	**9.2600e-003**	**1.0151**	**0.2761**	**8.7400e-003**	**0.2849**		**2,335.6233**	**2,335.6233**	**0.1026**		**2,338.1871**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.3520	0.5078	7.2500e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		790.3577	790.3577	0.0496		791.5964
Vendor	0.0645	1.6510	0.6079	0.0109	0.3468	3.6600e-003	0.3505	0.0997	3.4900e-003	0.1032		1,169.4014	1,169.4014	0.0459		1,170.5494
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2273**	**3.0681**	**2.1216**	**0.0219**	**1.0059**	**9.2600e-003**	**1.0151**	**0.2761**	**8.7400e-003**	**0.2849**		**2,335.6233**	**2,335.6233**	**0.1026**		**2,338.1871**

3.5 Plots 5 and 10 (2027) Building-Electrical - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1037	3.0904	1.1606	0.0166	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,806.5318	1,806.5318	0.1133		1,809.3633
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.2000**	**3.7898**	**2.0073**	**0.0232**	**0.8444**	**9.5000e-003**	**0.8539**	**0.2307**	**9.0200e-003**	**0.2398**		**2,499.8109**	**2,499.8109**	**0.1359**		**2,503.2078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1037	3.0904	1.1606	0.0166	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,806.5318	1,806.5318	0.1133		1,809.3633
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.2000**	**3.7898**	**2.0073**	**0.0232**	**0.8444**	**9.5000e-003**	**0.8539**	**0.2307**	**9.0200e-003**	**0.2398**		**2,499.8109**	**2,499.8109**	**0.1359**		**2,503.2078**

3.6 Plots 5 and 10 (2027) Building-Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0771**	**0.7965**	**0.6861**	**6.6100e-003**	**0.3519**	**2.8400e-003**	**0.3547**	**0.0969**	**2.6700e-003**	**0.0996**		**696.0663**	**696.0663**	**0.0243**		**696.6729**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0771**	**0.7965**	**0.6861**	**6.6100e-003**	**0.3519**	**2.8400e-003**	**0.3547**	**0.0969**	**2.6700e-003**	**0.0996**		**696.0663**	**696.0663**	**0.0243**		**696.6729**

3.7 Plots 5 and 10 (2027) Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0728**	**0.6864**	**0.6455**	**5.8800e-003**	**0.3288**	**2.5900e-003**	**0.3313**	**0.0903**	**2.4400e-003**	**0.0927**		**618.1062**	**618.1062**	**0.0212**		**618.6363**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.0728**	**0.6864**	**0.6455**	**5.8800e-003**	**0.3288**	**2.5900e-003**	**0.3313**	**0.0903**	**2.4400e-003**	**0.0927**		**618.1062**	**618.1062**	**0.0212**		**618.6363**

3.8 Plots 5 and 10 (2027) Curbing/Drive Approaches - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0420	1.2515	0.4700	6.7100e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		731.5588	731.5588	0.0459		732.7054
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.1062**	**1.7178**	**1.0345**	**0.0111**	**0.4528**	**4.6700e-003**	**0.4575**	**0.1237**	**4.4300e-003**	**0.1281**		**1,193.7448**	**1,193.7448**	**0.0609**		**1,195.2684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0420	1.2515	0.4700	6.7100e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		731.5588	731.5588	0.0459		732.7054
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0470	0.0260	0.4024	1.5100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		150.3457	150.3457	2.8300e-003		150.4165
Total	**0.1062**	**1.7178**	**1.0345**	**0.0111**	**0.4528**	**4.6700e-003**	**0.4575**	**0.1237**	**4.4300e-003**	**0.1281**		**1,193.7448**	**1,193.7448**	**0.0609**		**1,195.2684**

3.9 Plots 5 and 10 (2027) Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.1179	0.7954	0.0114	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,238.0226	1,238.0226	0.0776		1,239.9630
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2143**	**2.8433**	**2.0445**	**0.0195**	**0.9020**	**8.6300e-003**	**0.9107**	**0.2449**	**8.1600e-003**	**0.2530**		**2,081.6473**	**2,081.6473**	**0.1031**		**2,084.2241**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0711	2.1179	0.7954	0.0114	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,238.0226	1,238.0226	0.0776		1,239.9630
Vendor	0.0258	0.6604	0.2432	4.3700e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		467.7606	467.7606	0.0184		468.2198
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2143**	**2.8433**	**2.0445**	**0.0195**	**0.9020**	**8.6300e-003**	**0.9107**	**0.2449**	**8.1600e-003**	**0.2530**		**2,081.6473**	**2,081.6473**	**0.1031**		**2,084.2241**

3.10 Plots 5 and 10 (2027) Temporary Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 Plots 5 and 10 (2027) Mass Excavation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					29.3497	0.0000	29.3497	3.1691	0.0000	3.1691			0.0000			0.0000
Off-Road	14.9790	151.5608	107.7134	0.2902		5.8748	5.8748		5.4048	5.4048		28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**14.9790**	**151.5608**	**107.7134**	**0.2902**	**29.3497**	**5.8748**	**35.2245**	**3.1691**	**5.4048**	**8.5739**		**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0759	2.2608	0.8491	0.0121	0.3077	4.6400e-003	0.3123	0.0843	4.4400e-003	0.0888		1,321.5806	1,321.5806	0.0829		1,323.6520
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.2348	0.1302	2.0119	7.5300e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		751.7284	751.7284	0.0142		752.0826
Total	**0.3408**	**3.1614**	**3.1446**	**0.0248**	**1.4197**	**0.0120**	**1.4317**	**0.3828**	**0.0113**	**0.3941**		**2,619.0296**	**2,619.0296**	**0.1185**		**2,621.9910**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.4464	0.0000	11.4464	1.2359	0.0000	1.2359			0.0000			0.0000
Off-Road	3.5618	15.4344	134.8159	0.2902		0.4749	0.4749		0.4749	0.4749	0.0000	28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**3.5618**	**15.4344**	**134.8159**	**0.2902**	**11.4464**	**0.4749**	**11.9213**	**1.2359**	**0.4749**	**1.7108**	**0.0000**	**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0759	2.2608	0.8491	0.0121	0.3077	4.6400e-003	0.3123	0.0843	4.4400e-003	0.0888		1,321.5806	1,321.5806	0.0829		1,323.6520
Vendor	0.0301	0.7705	0.2837	5.1000e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		545.7207	545.7207	0.0214		546.2564
Worker	0.2348	0.1302	2.0119	7.5300e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		751.7284	751.7284	0.0142		752.0826
Total	**0.3408**	**3.1614**	**3.1446**	**0.0248**	**1.4197**	**0.0120**	**1.4317**	**0.3828**	**0.0113**	**0.3941**		**2,619.0296**	**2,619.0296**	**0.1185**		**2,621.9910**

3.12 Plots 5 and 10 (2027) Finish Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.8253	7.5056	8.7682	0.0123		0.3864	0.3864		0.3555	0.3555		1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.8253**	**7.5056**	**8.7682**	**0.0123**	**3.4466**	**0.3864**	**3.8330**	**0.3722**	**0.3555**	**0.7276**		**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0280	0.8343	0.3133	4.4800e-003	0.1136	1.7100e-003	0.1153	0.0311	1.6400e-003	0.0328		487.7059	487.7059	0.0306		488.4703
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.1156**	**1.3136**	**1.0790**	**9.6500e-003**	**0.4911**	**4.3800e-003**	**0.4955**	**0.1333**	**4.1300e-003**	**0.1374**		**1,025.0648**	**1,025.0648**	**0.0471**		**1,026.2416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1510	0.6544	9.3130	0.0123		0.0201	0.0201		0.0201	0.0201	0.0000	1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.1510**	**0.6544**	**9.3130**	**0.0123**	**1.3442**	**0.0201**	**1.3643**	**0.1451**	**0.0201**	**0.1653**	**0.0000**	**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0280	0.8343	0.3133	4.4800e-003	0.1136	1.7100e-003	0.1153	0.0311	1.6400e-003	0.0328		487.7059	487.7059	0.0306		488.4703
Vendor	0.0172	0.4403	0.1621	2.9100e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		311.8404	311.8404	0.0122		312.1465
Worker	0.0704	0.0391	0.6036	2.2600e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		225.5185	225.5185	4.2500e-003		225.6248
Total	**0.1156**	**1.3136**	**1.0790**	**9.6500e-003**	**0.4911**	**4.3800e-003**	**0.4955**	**0.1333**	**4.1300e-003**	**0.1374**		**1,025.0648**	**1,025.0648**	**0.0471**		**1,026.2416**

3.13 Plots 5 and 10 (2028) Mass Excavation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	41.9625	428.8563	297.5955	0.8157		16.4979	16.4979		15.1781	15.1781		78,973.7145	78,973.7145	25.5417		79,612.2569
Total	**41.9625**	**428.8563**	**297.5955**	**0.8157**	**80.0609**	**16.4979**	**96.5588**	**8.6447**	**15.1781**	**23.8228**		**78,973.7145**	**78,973.7145**	**25.5417**		**79,612.2569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1509	4.4601	1.7067	0.0241	0.6154	9.1500e-003	0.6246	0.1686	8.7600e-003	0.1774		2,632.5490	2,632.5490	0.1649		2,636.6723
Vendor	0.0425	1.0880	0.4018	7.2600e-003	0.2312	2.4100e-003	0.2336	0.0665	2.3100e-003	0.0688		776.9813	776.9813	0.0304		777.7417
Worker	0.2232	0.1204	1.8970	7.3100e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		729.6285	729.6285	0.0131		729.9555
Total	**0.4167**	**5.6685**	**4.0055**	**0.0387**	**1.7967**	**0.0168**	**1.8135**	**0.4871**	**0.0159**	**0.5030**		**4,139.1588**	**4,139.1588**	**0.2084**		**4,144.3695**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	10.0142	43.3948	374.7380	0.8157		1.3352	1.3352		1.3352	1.3352	0.0000	78,973.7144	78,973.7144	25.5417		79,612.2569
Total	**10.0142**	**43.3948**	**374.7380**	**0.8157**	**31.2238**	**1.3352**	**32.5590**	**3.3714**	**1.3352**	**4.7067**	**0.0000**	**78,973.7144**	**78,973.7144**	**25.5417**		**79,612.2569**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1509	4.4601	1.7067	0.0241	0.6154	9.1500e-003	0.6246	0.1686	8.7600e-003	0.1774		2,632.5490	2,632.5490	0.1649		2,636.6723
Vendor	0.0425	1.0880	0.4018	7.2600e-003	0.2312	2.4100e-003	0.2336	0.0665	2.3100e-003	0.0688		776.9813	776.9813	0.0304		777.7417
Worker	0.2232	0.1204	1.8970	7.3100e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		729.6285	729.6285	0.0131		729.9555
Total	**0.4167**	**5.6685**	**4.0055**	**0.0387**	**1.7967**	**0.0168**	**1.8135**	**0.4871**	**0.0159**	**0.5030**		**4,139.1588**	**4,139.1588**	**0.2084**		**4,144.3695**

3.14 Plots 5 and 10 (2028) Finish Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.5392	14.1889	15.6703	0.0218		0.7302	0.7302		0.6718	0.6718		2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**1.5392**	**14.1889**	**15.6703**	**0.0218**	**6.0449**	**0.7302**	**6.7750**	**0.6527**	**0.6718**	**1.3245**		**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0348	1.0287	0.3936	5.5700e-003	0.1419	2.1100e-003	0.1441	0.0389	2.0200e-003	0.0409		607.1847	607.1847	0.0380		608.1357
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1188**	**1.5000**	**1.1235**	**0.0107**	**0.5195**	**4.6500e-003**	**0.5241**	**0.1411**	**4.3900e-003**	**0.1455**		**1,136.8658**	**1,136.8658**	**0.0541**		**1,138.2190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	0.2667	1.1557	16.4464	0.0218		0.0356	0.0356		0.0356	0.0356	0.0000	2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**0.2667**	**1.1557**	**16.4464**	**0.0218**	**2.3575**	**0.0356**	**2.3931**	**0.2546**	**0.0356**	**0.2901**	**0.0000**	**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0348	1.0287	0.3936	5.5700e-003	0.1419	2.1100e-003	0.1441	0.0389	2.0200e-003	0.0409		607.1847	607.1847	0.0380		608.1357
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1188**	**1.5000**	**1.1235**	**0.0107**	**0.5195**	**4.6500e-003**	**0.5241**	**0.1411**	**4.3900e-003**	**0.1455**		**1,136.8658**	**1,136.8658**	**0.0541**		**1,138.2190**

3.15 Plots 5 and 10 (2028) Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1289	3.8104	1.4581	0.0206	0.5258	7.8200e-003	0.5336	0.1441	7.4800e-003	0.1516		2,249.0983	2,249.0983	0.1409		2,252.6210
Vendor	0.1062	2.7199	1.0045	0.0181	0.5780	6.0400e-003	0.5840	0.1662	5.7700e-003	0.1720		1,942.4532	1,942.4532	0.0760		1,944.3542
Worker	0.1786	0.0964	1.5176	5.8500e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		583.7028	583.7028	0.0105		583.9644
Total	**0.4138**	**6.6267**	**3.9802**	**0.0446**	**1.8639**	**0.0181**	**1.8819**	**0.5118**	**0.0171**	**0.5290**		**4,775.2543**	**4,775.2543**	**0.2274**		**4,780.9396**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1289	3.8104	1.4581	0.0206	0.5258	7.8200e-003	0.5336	0.1441	7.4800e-003	0.1516		2,249.0983	2,249.0983	0.1409		2,252.6210
Vendor	0.1062	2.7199	1.0045	0.0181	0.5780	6.0400e-003	0.5840	0.1662	5.7700e-003	0.1720		1,942.4532	1,942.4532	0.0760		1,944.3542
Worker	0.1786	0.0964	1.5176	5.8500e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		583.7028	583.7028	0.0105		583.9644
Total	**0.4138**	**6.6267**	**3.9802**	**0.0446**	**1.8639**	**0.0181**	**1.8819**	**0.5118**	**0.0171**	**0.5290**		**4,775.2543**	**4,775.2543**	**0.2274**		**4,780.9396**

3.16 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

3.17 Plots 5 and 10 (2028) Building-Wet Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0451	1.3337	0.5103	7.2200e-003	0.1840	2.7400e-003	0.1868	0.0504	2.6200e-003	0.0530		787.1844	787.1844	0.0493		788.4173
Vendor	0.0637	1.6319	0.6027	0.0109	0.3468	3.6200e-003	0.3504	0.0997	3.4600e-003	0.1032		1,165.4719	1,165.4719	0.0456		1,166.6125
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2205**	**3.0258**	**2.0616**	**0.0218**	**1.0059**	**8.9800e-003**	**1.0149**	**0.2761**	**8.4900e-003**	**0.2846**		**2,317.4706**	**2,317.4706**	**0.1015**		**2,320.0076**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0451	1.3337	0.5103	7.2200e-003	0.1840	2.7400e-003	0.1868	0.0504	2.6200e-003	0.0530		787.1844	787.1844	0.0493		788.4173
Vendor	0.0637	1.6319	0.6027	0.0109	0.3468	3.6200e-003	0.3504	0.0997	3.4600e-003	0.1032		1,165.4719	1,165.4719	0.0456		1,166.6125
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2205**	**3.0258**	**2.0616**	**0.0218**	**1.0059**	**8.9800e-003**	**1.0149**	**0.2761**	**8.4900e-003**	**0.2846**		**2,317.4706**	**2,317.4706**	**0.1015**		**2,320.0076**

3.18 Plots 5 and 10 (2028) Building-Electrical - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1032	3.0484	1.1665	0.0165	0.4206	6.2600e-003	0.4269	0.1153	5.9800e-003	0.1212		1,799.2787	1,799.2787	0.1127		1,802.0968
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1956**	**3.7373**	**1.9767**	**0.0230**	**0.8444**	**9.2800e-003**	**0.8537**	**0.2307**	**8.8200e-003**	**0.2396**		**2,484.3560**	**2,484.3560**	**0.1349**		**2,487.7285**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1032	3.0484	1.1665	0.0165	0.4206	6.2600e-003	0.4269	0.1153	5.9800e-003	0.1212		1,799.2787	1,799.2787	0.1127		1,802.0968
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0670	0.0361	0.5691	2.1900e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		218.8885	218.8885	3.9200e-003		218.9867
Total	**0.1956**	**3.7373**	**1.9767**	**0.0230**	**0.8444**	**9.2800e-003**	**0.8537**	**0.2307**	**8.8200e-003**	**0.2396**		**2,484.3560**	**2,484.3560**	**0.1349**		**2,487.7285**

3.19 Plots 5 and 10 (2028) Building-Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0297	0.7616	0.2813	5.0800e-003	0.1618	1.6900e-003	0.1635	0.0465	1.6200e-003	0.0482		543.8869	543.8869	0.0213		544.4192
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0744**	**0.7857**	**0.6607**	**6.5400e-003**	**0.3519**	**2.7400e-003**	**0.3546**	**0.0969**	**2.5800e-003**	**0.0995**		**689.8126**	**689.8126**	**0.0239**		**690.4103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.187 5	4,536.1875	1.4671		4,572.864 8
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.187 5**	**4,536.1875**	**1.4671**		**4,572.864 8**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0297	0.7616	0.2813	5.0800e-003	0.1618	1.6900e-003	0.1635	0.0465	1.6200e-003	0.0482		543.8869	543.8869	0.0213		544.4192
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0744**	**0.7857**	**0.6607**	**6.5400e-003**	**0.3519**	**2.7400e-003**	**0.3546**	**0.0969**	**2.5800e-003**	**0.0995**		**689.8126**	**689.8126**	**0.0239**		**690.4103**

3.20 Plots 5 and 10 (2028) Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0701**	**0.6769**	**0.6205**	**5.8100e-003**	**0.3288**	**2.5000e-003**	**0.3312**	**0.0903**	**2.3500e-003**	**0.0926**		**612.1145**	**612.1145**	**0.0209**		**612.6361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.0701**	**0.6769**	**0.6205**	**5.8100e-003**	**0.3288**	**2.5000e-003**	**0.3312**	**0.0903**	**2.3500e-003**	**0.0926**		**612.1145**	**612.1145**	**0.0209**		**612.6361**

3.21 Plots 5 and 10 (2028) Curbing/Drive Approaches - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.2344	0.4724	6.6800e-003	0.1703	2.5300e-003	0.1729	0.0467	2.4200e-003	0.0491		728.6216	728.6216	0.0457		729.7628
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.1034**	**1.6937**	**1.0125**	**0.0110**	**0.4528**	**4.5500e-003**	**0.4574**	**0.1237**	**4.3000e-003**	**0.1280**		**1,185.3398**	**1,185.3398**	**0.0604**		**1,186.8506**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.2344	0.4724	6.6800e-003	0.1703	2.5300e-003	0.1729	0.0467	2.4200e-003	0.0491		728.6216	728.6216	0.0457		729.7628
Vendor	0.0170	0.4352	0.1607	2.9000e-003	0.0925	9.7000e-004	0.0935	0.0266	9.2000e-004	0.0275		310.7925	310.7925	0.0122		311.0967
Worker	0.0447	0.0241	0.3794	1.4600e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		145.9257	145.9257	2.6200e-003		145.9911
Total	**0.1034**	**1.6937**	**1.0125**	**0.0110**	**0.4528**	**4.5500e-003**	**0.4574**	**0.1237**	**4.3000e-003**	**0.1280**		**1,185.3398**	**1,185.3398**	**0.0604**		**1,186.8506**

3.22 Plots 5 and 10 (2028) Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0707	2.0891	0.7994	0.0113	0.2883	4.2900e-003	0.2925	0.0790	4.1000e-003	0.0831		1,233.0520	1,233.0520	0.0773		1,234.9833
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2078**	**2.8020**	**1.9890**	**0.0193**	**0.9020**	**8.3600e-003**	**0.9104**	**0.2449**	**7.9000e-003**	**0.2528**		**2,064.0550**	**2,064.0550**	**0.1020**		**2,066.6060**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0707	2.0891	0.7994	0.0113	0.2883	4.2900e-003	0.2925	0.0790	4.1000e-003	0.0831		1,233.0520	1,233.0520	0.0773		1,234.9833
Vendor	0.0255	0.6528	0.2411	4.3500e-003	0.1387	1.4500e-003	0.1402	0.0399	1.3900e-003	0.0413		466.1888	466.1888	0.0183		466.6450
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2078**	**2.8020**	**1.9890**	**0.0193**	**0.9020**	**8.3600e-003**	**0.9104**	**0.2449**	**7.9000e-003**	**0.2528**		**2,064.0550**	**2,064.0550**	**0.1020**		**2,066.6060**

3.23 Plots 5 and 10 (2028) Temporary Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.24 Plots 7 8 21 22 (2029) Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1281	3.7568	1.4630	0.0205	0.5258	7.7000e-003	0.5335	0.1441	7.3600e-003	0.1514		2,240.6175	2,240.6175	0.1403		2,244.1245
Vendor	0.1049	2.6881	0.9961	0.0181	0.5780	5.9700e-003	0.5840	0.1662	5.7100e-003	0.1719		1,936.4292	1,936.4292	0.0756		1,938.3191
Worker	0.1682	0.0888	1.4272	5.6900e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		568.0444	568.0444	9.6100e-003		568.2847
Total	**0.4012**	**6.5338**	**3.8862**	**0.0443**	**1.8639**	**0.0176**	**1.8814**	**0.5119**	**0.0167**	**0.5285**		**4,745.0911**	**4,745.0911**	**0.2255**		**4,750.7283**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1281	3.7568	1.4630	0.0205	0.5258	7.7000e-003	0.5335	0.1441	7.3600e-003	0.1514		2,240.6175	2,240.6175	0.1403		2,244.1245
Vendor	0.1049	2.6881	0.9961	0.0181	0.5780	5.9700e-003	0.5840	0.1662	5.7100e-003	0.1719		1,936.4292	1,936.4292	0.0756		1,938.3191
Worker	0.1682	0.0888	1.4272	5.6900e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		568.0444	568.0444	9.6100e-003		568.2847
Total	**0.4012**	**6.5338**	**3.8862**	**0.0443**	**1.8639**	**0.0176**	**1.8814**	**0.5119**	**0.0167**	**0.5285**		**4,745.0911**	**4,745.0911**	**0.2255**		**4,750.7283**

3.25 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

3.26 Plots 7 8 21 22 (2029) Building-Wet Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0448	1.3149	0.5120	7.1900e-003	0.1840	2.6900e-003	0.1867	0.0504	2.5800e-003	0.0530		784.2161	784.2161	0.0491		785.4436
Vendor	0.0630	1.6129	0.5977	0.0109	0.3468	3.5800e-003	0.3504	0.0997	3.4200e-003	0.1032		1,161.8575	1,161.8575	0.0454		1,162.9915
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2129**	**2.9833**	**2.0017**	**0.0216**	**1.0059**	**8.7000e-003**	**1.0146**	**0.2761**	**8.2400e-003**	**0.2844**		**2,301.1014**	**2,301.1014**	**0.1005**		**2,303.6130**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0448	1.3149	0.5120	7.1900e-003	0.1840	2.6900e-003	0.1867	0.0504	2.5800e-003	0.0530		784.2161	784.2161	0.0491		785.4436
Vendor	0.0630	1.6129	0.5977	0.0109	0.3468	3.5800e-003	0.3504	0.0997	3.4200e-003	0.1032		1,161.8575	1,161.8575	0.0454		1,162.9915
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2129**	**2.9833**	**2.0017**	**0.0216**	**1.0059**	**8.7000e-003**	**1.0146**	**0.2761**	**8.2400e-003**	**0.2844**		**2,301.1014**	**2,301.1014**	**0.1005**		**2,303.6130**

3.27 Plots 7 8 21 22 (2029) Building-Electrical - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1025	3.0055	1.1704	0.0164	0.4206	6.1600e-003	0.4268	0.1153	5.8900e-003	0.1212		1,792.4940	1,792.4940	0.1122		1,795.2996
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1907**	**3.6839**	**1.9446**	**0.0229**	**0.8444**	**9.0500e-003**	**0.8534**	**0.2307**	**8.6000e-003**	**0.2393**		**2,470.2537**	**2,470.2537**	**0.1340**		**2,473.6030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1025	3.0055	1.1704	0.0164	0.4206	6.1600e-003	0.4268	0.1153	5.8900e-003	0.1212		1,792.4940	1,792.4940	0.1122		1,795.2996
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1907**	**3.6839**	**1.9446**	**0.0229**	**0.8444**	**9.0500e-003**	**0.8534**	**0.2307**	**8.6000e-003**	**0.2393**		**2,470.2537**	**2,470.2537**	**0.1340**		**2,473.6030**

3.28 Plots 7 8 21 22 (2029) Building-Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0294	0.7527	0.2789	5.0600e-003	0.1618	1.6700e-003	0.1635	0.0465	1.6000e-003	0.0481		542.2002	542.2002	0.0212		542.7294
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0714**	**0.7749**	**0.6357**	**6.4800e-003**	**0.3519**	**2.6400e-003**	**0.3545**	**0.0969**	**2.5000e-003**	**0.0994**		**684.2113**	**684.2113**	**0.0236**		**684.8005**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0294	0.7527	0.2789	5.0600e-003	0.1618	1.6700e-003	0.1635	0.0465	1.6000e-003	0.0481		542.2002	542.2002	0.0212		542.7294
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0714**	**0.7749**	**0.6357**	**6.4800e-003**	**0.3519**	**2.6400e-003**	**0.3545**	**0.0969**	**2.5000e-003**	**0.0994**		**684.2113**	**684.2113**	**0.0236**		**684.8005**

3.29 Plots 7 8 21 22 (2029) Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0672**	**0.6673**	**0.5959**	**5.7600e-003**	**0.3288**	**2.4000e-003**	**0.3312**	**0.0903**	**2.2700e-003**	**0.0925**		**606.7541**	**606.7541**	**0.0205**		**607.2678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.0672**	**0.6673**	**0.5959**	**5.7600e-003**	**0.3288**	**2.4000e-003**	**0.3312**	**0.0903**	**2.2700e-003**	**0.0925**		**606.7541**	**606.7541**	**0.0205**		**607.2678**

3.30 Plots 7 8 21 22 (2029) Curbing/Drive Approaches - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	0.0168	0.4301	0.1594	2.8900e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		309.8287	309.8287	0.0121		310.1311
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.1003**	**1.6694**	**0.9901**	**0.0110**	**0.4528**	**4.4100e-003**	**0.4573**	**0.1237**	**4.2000e-003**	**0.1279**		**1,177.7139**	**1,177.7139**	**0.0600**		**1,179.2125**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	0.0168	0.4301	0.1594	2.8900e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		309.8287	309.8287	0.0121		310.1311
Worker	0.0420	0.0222	0.3568	1.4200e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		142.0111	142.0111	2.4000e-003		142.0712
Total	**0.1003**	**1.6694**	**0.9901**	**0.0110**	**0.4528**	**4.4100e-003**	**0.4573**	**0.1237**	**4.2000e-003**	**0.1279**		**1,177.7139**	**1,177.7139**	**0.0600**		**1,179.2125**

3.31 Plots 7 8 21 22 (2029) Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0597	0.8021	0.0113	0.2883	4.2200e-003	0.2925	0.0790	4.0400e-003	0.0830		1,228.4024	1,228.4024	0.0769		1,230.3251
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2005**	**2.7603**	**1.9331**	**0.0192**	**0.9020**	**8.0800e-003**	**0.9101**	**0.2449**	**7.6500e-003**	**0.2525**		**2,048.1732**	**2,048.1732**	**0.1011**		**2,050.6997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0597	0.8021	0.0113	0.2883	4.2200e-003	0.2925	0.0790	4.0400e-003	0.0830		1,228.4024	1,228.4024	0.0769		1,230.3251
Vendor	0.0252	0.6451	0.2391	4.3400e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3700e-003	0.0413		464.7430	464.7430	0.0181		465.1966
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2005**	**2.7603**	**1.9331**	**0.0192**	**0.9020**	**8.0800e-003**	**0.9101**	**0.2449**	**7.6500e-003**	**0.2525**		**2,048.1732**	**2,048.1732**	**0.1011**		**2,050.6997**

3.32 Plots 7 8 21 22 (2029) Temporary Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.33 Plots 7 8 21 22 (2029) Mass Excavation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					50.6974	0.0000	50.6974	5.4741	0.0000	5.4741			0.0000			0.0000
Off-Road	27.1506	278.5289	192.6814	0.5298		10.6871	10.6871		9.8321	9.8321		51,293.7983	51,293.7983	16.5895		51,708.5346
Total	**27.1506**	**278.5289**	**192.6814**	**0.5298**	**50.6974**	**10.6871**	**61.3845**	**5.4741**	**9.8321**	**15.3062**		**51,293.7983**	**51,293.7983**	**16.5895**		**51,708.5346**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1178	3.4551	1.3454	0.0189	0.4835	7.0800e-003	0.4906	0.1325	6.7700e-003	0.1393		2,060.6318	2,060.6318	0.1290		2,063.8571
Vendor	0.0378	0.9677	0.3586	6.5100e-003	0.2081	2.1500e-003	0.2102	0.0598	2.0500e-003	0.0619		697.1145	697.1145	0.0272		697.7949
Worker	0.2102	0.1110	1.7840	7.1200e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		710.0555	710.0555	0.0120		710.3559
Total	**0.3658**	**4.5338**	**3.4880**	**0.0325**	**1.6418**	**0.0141**	**1.6559**	**0.4443**	**0.0133**	**0.4576**		**3,467.8018**	**3,467.8018**	**0.1682**		**3,472.0078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.7720	0.0000	19.7720	2.1349	0.0000	2.1349			0.0000			0.0000
Off-Road	6.5054	28.1902	243.1915	0.5298		0.8674	0.8674		0.8674	0.8674	0.0000	51,293.7982	51,293.7982	16.5895		51,708.5345
Total	**6.5054**	**28.1902**	**243.1915**	**0.5298**	**19.7720**	**0.8674**	**20.6394**	**2.1349**	**0.8674**	**3.0023**	**0.0000**	**51,293.7982**	**51,293.7982**	**16.5895**		**51,708.5345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1178	3.4551	1.3454	0.0189	0.4835	7.0800e-003	0.4906	0.1325	6.7700e-003	0.1393		2,060.6318	2,060.6318	0.1290		2,063.8571
Vendor	0.0378	0.9677	0.3586	6.5100e-003	0.2081	2.1500e-003	0.2102	0.0598	2.0500e-003	0.0619		697.1145	697.1145	0.0272		697.7949
Worker	0.2102	0.1110	1.7840	7.1200e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		710.0555	710.0555	0.0120		710.3559
Total	**0.3658**	**4.5338**	**3.4880**	**0.0325**	**1.6418**	**0.0141**	**1.6559**	**0.4443**	**0.0133**	**0.4576**		**3,467.8018**	**3,467.8018**	**0.1682**		**3,472.0078**

3.34 Plots 7 8 21 22 (2029) Finish Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1130**	**1.4654**	**1.0888**	**0.0102**	**0.5016**	**4.4300e-003**	**0.5060**	**0.1356**	**4.1900e-003**	**0.1397**		**1,093.8052**	**1,093.8052**	**0.0551**		**1,095.1826**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.2171	0.4739	6.6500e-003	0.1703	2.4900e-003	0.1728	0.0467	2.3900e-003	0.0491		725.8742	725.8742	0.0455		727.0103
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.0631	0.0333	0.5352	2.1300e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		213.0166	213.0166	3.6000e-003		213.1068
Total	**0.1130**	**1.4654**	**1.0888**	**0.0102**	**0.5016**	**4.4300e-003**	**0.5060**	**0.1356**	**4.1900e-003**	**0.1397**		**1,093.8052**	**1,093.8052**	**0.0551**		**1,095.1826**

World Logistics Center-Construction Plots 5 and 10_7,8,21,22 (2027-2029)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	44.9725	403.7003	473.3815	1.1819	88.1316	15.3084	103.4400	10.7450	14.1121	24.8571	0.0000	115,919.3416	115,919.3416	32.2185	0.0000	116,724.8056
2028	70.9954	677.8522	660.4362	1.7029	141.8465	25.7787	167.6251	16.6133	23.7449	40.3581	0.0000	166,540.4162	166,540.4162	48.1938	0.0000	167,745.2609
2029	56.5552	531.2170	557.3068	1.4265	109.7120	20.0984	129.8104	13.1138	18.5190	31.6328	0.0000	139,699.0711	139,699.0711	39.7225	0.0000	140,692.1329
Maximum	**70.9954**	**677.8522**	**660.4362**	**1.7029**	**141.8465**	**25.7787**	**167.6251**	**16.6133**	**23.7449**	**40.3581**	**0.0000**	**166,540.4162**	**166,540.4162**	**48.1938**	**0.0000**	**167,745.2609**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	28.1780	131.2313	564.6815	1.1819	38.9205	2.9397	41.8602	5.4314	2.8240	8.2553	0.0000	115,919.3415	115,919.3415	32.2185	0.0000	116,724.8055
2028	28.1306	160.6446	799.9227	1.7029	60.1167	3.7734	63.8901	7.7883	3.6577	11.4460	0.0000	166,540.4161	166,540.4161	48.1938	0.0000	167,745.2608
2029	28.0772	144.8702	671.8576	1.4265	47.4788	3.3288	50.8076	6.3941	3.2133	9.6073	0.0000	139,699.0710	139,699.0710	39.7225	0.0000	140,692.1328
Maximum	**28.1780**	**160.6446**	**799.9227**	**1.7029**	**60.1167**	**3.7734**	**63.8901**	**7.7883**	**3.6577**	**11.4460**	**0.0000**	**166,540.4161**	**166,540.4161**	**48.1938**	**0.0000**	**167,745.2608**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**51.09**	**72.92**	**-20.42**	**0.00**	**56.87**	**83.59**	**60.95**	**51.54**	**82.80**	**69.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plots 5 and 10 (2027) Utilities	Trenching	1/1/2027	12/30/2027	5	260	1177
2	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
3	Plots 5 and 10 (2027) Building-Wet Utilities	Building Construction	1/1/2027	12/30/2027	5	260	1174
4	Plots 5 and 10 (2027) Building-Electrical	Building Construction	1/1/2027	12/30/2027	5	260	1175
5	Plots 5 and 10 (2027) Building-Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1176
6	Plots 5 and 10 (2027) Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1178
7	Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving	5/1/2027	8/20/2027	5	80	1180
8	Plots 5 and 10 (2027) Paving	Paving	6/1/2027	7/26/2027	5	40	1181
9	Plots 5 and 10 (2027) Temporary Utilities	Building Construction	7/2/2027	12/30/2027	5	130	1179
10	Plots 5 and 10 (2027) Mass Excavation	Grading	9/16/2027	12/31/2027	5	77	1171
11	Plots 5 and 10 (2027) Finish Grading	Grading	11/6/2027	12/31/2027	5	40	1172
12	Plots 5 and 10 (2028) Mass Excavation	Grading	1/1/2028	4/18/2028	5	77	1182
13	Plots 5 and 10 (2028) Finish Grading	Grading	1/1/2028	2/25/2028	5	40	1183
14	Plots 5 and 10 (2028) Utilities	Trenching	1/1/2028	12/30/2028	5	260	1188
15	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
16	Plots 5 and 10 (2028) Building-Wet Utilities	Building Construction	1/1/2028	12/30/2028	5	260	1185

17	Plots 5 and 10 (2028) Building-Electrical	Building Construction	1/1/2028	12/30/2028	5	260	1186
18	Plots 5 and 10 (2028) Building-Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1187
19	Plots 5 and 10 (2028) Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1189
20	Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving	5/1/2028	8/20/2028	5	80	1191
21	Plots 5 and 10 (2028) Paving	Paving	6/1/2028	7/26/2028	5	40	1192
22	Plots 5 and 10 (2028) Temporary Utilities	Building Construction	7/2/2028	12/30/2028	5	130	1190
23	Plots 7 8 21 22 (2029) Utilities	Trenching	1/1/2029	12/30/2029	5	260	1199
24	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
25	Plots 7 8 21 22 (2029) Building-Wet Utilities	Building Construction	1/1/2029	12/30/2029	5	260	1196
26	Plots 7 8 21 22 (2029) Building-Electrical	Building Construction	1/1/2029	12/30/2029	5	260	1197
27	Plots 7 8 21 22 (2029) Building-Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1198
28	Plots 7 8 21 22 (2029) Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1200
29	Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving	5/1/2029	8/20/2029	5	80	1202
30	Plots 7 8 21 22 (2029) Paving	Paving	6/1/2029	7/26/2029	5	40	1203
31	Plots 7 8 21 22 (2029) Temporary Utilities	Building Construction	7/2/2029	12/30/2029	5	130	1201
32	Plots 7 8 21 22 (2029) Mass Excavation	Grading	9/14/2029	12/31/2029	5	77	1193
33	Plots 7 8 21 22 (2029) Finish Grading	Grading	11/6/2029	12/31/2029	5	40	1194

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2027) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2027) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2027) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2027) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2027) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2027) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36

Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2027) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2027) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2027) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2027) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2027) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2027) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2027) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2027) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2027) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2027) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2027) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	18	1.00	167	0.40

Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 5 and 10 (2027) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2027) Mass Excavation	Graders	1	10.00	193	0.41
Plots 5 and 10 (2027) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 5 and 10 (2027) Mass Excavation	Scrapers	0	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2028) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2028) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Building-Electrical	Forklifts	4	10.00	89	0.20

Plots 5 and 10 (2028) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2028) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2028) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2028) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2028) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2028) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2028) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 5 and 10 (2028) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2028) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2028) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2028) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2028) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2028) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2028) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2028) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2028) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators	2	10.00	188	0.38
Plots 5 and 10 (2028) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Mass Excavation	Graders	2	10.00	193	0.41
Plots 5 and 10 (2028) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40

Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Scrapers	12	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 7 8 21 22 (2029) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plots 7 8 21 22 (2029) Building-Landscaping	Trenchers		2	10.00	39	0.50
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators		2	10.00	300	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators		2	10.00	179	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators		2	10.00	173	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Other Material Handling Equipment		15	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Wet Utilities	Rubber Tired Loaders		6	10.00	152	0.36
Plots 7 8 21 22 (2029) Building-Wet Utilities	Tractors/Loaders/Backhoes		6	10.00	108	0.37
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Cement and Mortar Mixers		6	1.00	9	0.56
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Other Material Handling Equipment		4	1.00	167	0.40
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment		1	10.00	99	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers		1	10.00	140	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers		2	10.00	85	0.40
Plots 7 8 21 22 (2029) Finish Grading	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plots 7 8 21 22 (2029) Landscaping	Excavators		2	10.00	29	0.38
Plots 7 8 21 22 (2029) Landscaping	Forklifts		2	10.00	125	0.20
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment		2	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment		10	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plots 7 8 21 22 (2029) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37

Plots 7 8 21 22 (2029) Landscaping	Trenchers	2	10.00	39	0.50
Plots 7 8 21 22 (2029) Mass Excavation	Graders	1	10.00	193	0.41
Plots 7 8 21 22 (2029) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	3	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 7 8 21 22 (2029) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Paving	Pavers	2	10.00	126	0.42
Plots 7 8 21 22 (2029) Paving	Paving Equipment	2	10.00	131	0.36
Plots 7 8 21 22 (2029) Paving	Plate Compactors	2	10.00	8	0.43
Plots 7 8 21 22 (2029) Paving	Rollers	2	10.00	81	0.38
Plots 7 8 21 22 (2029) Paving	Scrapers	2	10.00	362	0.48

Plots 7 8 21 22 (2029) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 7 8 21 22 (2029) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 7 8 21 22 (2029) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	523	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	10	10.00	286	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	4	10.00	396	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	2	10.00	188	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Utilities	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Finish Grading		15.00	4.00	208.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Mass Excavation		50.00	7.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plots 5 and 10 (2028) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Finish Grading		15.00	4.00	260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Finish Grading		15.00	2.00	312.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plots 5 and 10 (2027) Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1327	3.8964	1.5063	0.0204	0.5258	8.0400e-003	0.5338	0.1441	7.6900e-003	0.1518		2,224.6351	2,224.6351	0.1452		2,228.2647
Vendor	0.1108	2.7872	1.0529	0.0180	0.5780	6.1500e-003	0.5842	0.1662	5.8800e-003	0.1721		1,931.0346	1,931.0346	0.0785		1,932.9969
Worker	0.2136	0.1138	1.4169	5.6300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		562.0016	562.0016	0.0105		562.2631
Total	**0.4571**	**6.7974**	**3.9761**	**0.0441**	**1.8639**	**0.0187**	**1.8826**	**0.5118**	**0.0177**	**0.5296**		**4,717.6713**	**4,717.6713**	**0.2341**		**4,723.5247**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1327	3.8964	1.5063	0.0204	0.5258	8.0400e-003	0.5338	0.1441	7.6900e-003	0.1518		2,224.6351	2,224.6351	0.1452		2,228.2647
Vendor	0.1108	2.7872	1.0529	0.0180	0.5780	6.1500e-003	0.5842	0.1662	5.8800e-003	0.1721		1,931.0346	1,931.0346	0.0785		1,932.9969
Worker	0.2136	0.1138	1.4169	5.6300e-003	0.7601	4.5300e-003	0.7646	0.2016	4.1700e-003	0.2057		562.0016	562.0016	0.0105		562.2631
Total	**0.4571**	**6.7974**	**3.9761**	**0.0441**	**1.8639**	**0.0187**	**1.8826**	**0.5118**	**0.0177**	**0.5296**		**4,717.6713**	**4,717.6713**	**0.2341**		**4,723.5247**

3.3 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

3.4 Plots 5 and 10 (2027) Building-Wet Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0464	1.3637	0.5272	7.1400e-003	0.1840	2.8100e-003	0.1868	0.0504	2.6900e-003	0.0531		778.6223	778.6223	0.0508		779.8927
Vendor	0.0665	1.6723	0.6317	0.0108	0.3468	3.6900e-003	0.3505	0.0997	3.5300e-003	0.1033		1,158.6208	1,158.6208	0.0471		1,159.7982
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2464**	**3.1072**	**2.0445**	**0.0215**	**1.0059**	**9.3300e-003**	**1.0152**	**0.2761**	**8.8200e-003**	**0.2850**		**2,288.4940**	**2,288.4940**	**0.1045**		**2,291.1052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0464	1.3637	0.5272	7.1400e-003	0.1840	2.8100e-003	0.1868	0.0504	2.6900e-003	0.0531		778.6223	778.6223	0.0508		779.8927
Vendor	0.0665	1.6723	0.6317	0.0108	0.3468	3.6900e-003	0.3505	0.0997	3.5300e-003	0.1033		1,158.6208	1,158.6208	0.0471		1,159.7982
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2464**	**3.1072**	**2.0445**	**0.0215**	**1.0059**	**9.3300e-003**	**1.0152**	**0.2761**	**8.8200e-003**	**0.2850**		**2,288.4940**	**2,288.4940**	**0.1045**		**2,291.1052**

3.5 Plots 5 and 10 (2027) Building-Electrical - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1061	3.1171	1.2050	0.0163	0.4206	6.4300e-003	0.4270	0.1153	6.1500e-003	0.1214		1,779.7081	1,779.7081	0.1162		1,782.6118
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.2128**	**3.8287**	**1.9891**	**0.0228**	**0.8444**	**9.6100e-003**	**0.8540**	**0.2307**	**9.1200e-003**	**0.2399**		**2,453.9070**	**2,453.9070**	**0.1389**		**2,457.3797**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1061	3.1171	1.2050	0.0163	0.4206	6.4300e-003	0.4270	0.1153	6.1500e-003	0.1214		1,779.7081	1,779.7081	0.1162		1,782.6118
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.2128**	**3.8287**	**1.9891**	**0.0228**	**0.8444**	**9.6100e-003**	**0.8540**	**0.2307**	**9.1200e-003**	**0.2399**		**2,453.9070**	**2,453.9070**	**0.1389**		**2,457.3797**

3.6 Plots 5 and 10 (2027) Building-Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0844**	**0.8089**	**0.6490**	**6.4600e-003**	**0.3519**	**2.8500e-003**	**0.3547**	**0.0969**	**2.6900e-003**	**0.0996**		**681.1901**	**681.1901**	**0.0246**		**681.8049**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0844**	**0.8089**	**0.6490**	**6.4600e-003**	**0.3519**	**2.8500e-003**	**0.3547**	**0.0969**	**2.6900e-003**	**0.0996**		**681.1901**	**681.1901**	**0.0246**		**681.8049**

3.7 Plots 5 and 10 (2027) Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0800**	**0.6974**	**0.6069**	**5.7400e-003**	**0.3288**	**2.6100e-003**	**0.3314**	**0.0903**	**2.4500e-003**	**0.0927**		**603.9487**	**603.9487**	**0.0215**		**604.4850**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.0800**	**0.6974**	**0.6069**	**5.7400e-003**	**0.3288**	**2.6100e-003**	**0.3314**	**0.0903**	**2.4500e-003**	**0.0927**		**603.9487**	**603.9487**	**0.0215**		**604.4850**

3.8 Plots 5 and 10 (2027) Curbing/Drive Approaches - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0430	1.2623	0.4880	6.6100e-003	0.1703	2.6000e-003	0.1729	0.0467	2.4900e-003	0.0492		720.6965	720.6965	0.0470		721.8723
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.1141**	**1.7367**	**1.0107**	**0.0109**	**0.4528**	**4.7100e-003**	**0.4576**	**0.1237**	**4.4700e-003**	**0.1281**		**1,170.1624**	**1,170.1624**	**0.0622**		**1,171.7176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0430	1.2623	0.4880	6.6100e-003	0.1703	2.6000e-003	0.1729	0.0467	2.4900e-003	0.0492		720.6965	720.6965	0.0470		721.8723
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0534	0.0285	0.3542	1.4100e-003	0.1900	1.1300e-003	0.1912	0.0504	1.0400e-003	0.0514		140.5004	140.5004	2.6100e-003		140.5658
Total	**0.1141**	**1.7367**	**1.0107**	**0.0109**	**0.4528**	**4.7100e-003**	**0.4576**	**0.1237**	**4.4700e-003**	**0.1281**		**1,170.1624**	**1,170.1624**	**0.0622**		**1,171.7176**

3.9 Plots 5 and 10 (2027) Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0727	2.1362	0.8258	0.0112	0.2883	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,219.6402	1,219.6402	0.0796		1,221.6301
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2328**	**2.8762**	**1.9641**	**0.0190**	**0.9020**	**8.7200e-003**	**0.9108**	**0.2449**	**8.2300e-003**	**0.2531**		**2,034.3395**	**2,034.3395**	**0.1050**		**2,036.9638**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0727	2.1362	0.8258	0.0112	0.2883	4.4100e-003	0.2927	0.0790	4.2200e-003	0.0832		1,219.6402	1,219.6402	0.0796		1,221.6301
Vendor	0.0266	0.6689	0.2527	4.3300e-003	0.1387	1.4800e-003	0.1402	0.0399	1.4100e-003	0.0413		463.4483	463.4483	0.0188		463.9193
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.2328**	**2.8762**	**1.9641**	**0.0190**	**0.9020**	**8.7200e-003**	**0.9108**	**0.2449**	**8.2300e-003**	**0.2531**		**2,034.3395**	**2,034.3395**	**0.1050**		**2,036.9638**

3.10 Plots 5 and 10 (2027) Temporary Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 Plots 5 and 10 (2027) Mass Excavation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					29.3497	0.0000	29.3497	3.1691	0.0000	3.1691			0.0000			0.0000
Off-Road	14.9790	151.5608	107.7134	0.2902		5.8748	5.8748		5.4048	5.4048		28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**14.9790**	**151.5608**	**107.7134**	**0.2902**	**29.3497**	**5.8748**	**35.2245**	**3.1691**	**5.4048**	**8.5739**		**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0777	2.2804	0.8816	0.0120	0.3077	4.7000e-003	0.3124	0.0843	4.5000e-003	0.0888		1,301.9575	1,301.9575	0.0850		1,304.0817
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.2670	0.1423	1.7712	7.0400e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		702.5020	702.5020	0.0131		702.8288
Total	**0.3757**	**3.2030**	**2.9475**	**0.0240**	**1.4197**	**0.0121**	**1.4318**	**0.3828**	**0.0114**	**0.3942**		**2,545.1492**	**2,545.1492**	**0.1200**		**2,548.1497**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.4464	0.0000	11.4464	1.2359	0.0000	1.2359			0.0000			0.0000
Off-Road	3.5618	15.4344	134.8159	0.2902		0.4749	0.4749		0.4749	0.4749	0.0000	28,097.1752	28,097.1752	9.0872		28,324.3551
Total	**3.5618**	**15.4344**	**134.8159**	**0.2902**	**11.4464**	**0.4749**	**11.9213**	**1.2359**	**0.4749**	**1.7108**	**0.0000**	**28,097.1752**	**28,097.1752**	**9.0872**		**28,324.3551**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0777	2.2804	0.8816	0.0120	0.3077	4.7000e-003	0.3124	0.0843	4.5000e-003	0.0888		1,301.9575	1,301.9575	0.0850		1,304.0817
Vendor	0.0310	0.7804	0.2948	5.0500e-003	0.1618	1.7200e-003	0.1636	0.0465	1.6500e-003	0.0482		540.6897	540.6897	0.0220		541.2391
Worker	0.2670	0.1423	1.7712	7.0400e-003	0.9501	5.6600e-003	0.9558	0.2519	5.2100e-003	0.2571		702.5020	702.5020	0.0131		702.8288
Total	**0.3757**	**3.2030**	**2.9475**	**0.0240**	**1.4197**	**0.0121**	**1.4318**	**0.3828**	**0.0114**	**0.3942**		**2,545.1492**	**2,545.1492**	**0.1200**		**2,548.1497**

3.12 Plots 5 and 10 (2027) Finish Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.8253	7.5056	8.7682	0.0123		0.3864	0.3864		0.3555	0.3555		1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.8253**	**7.5056**	**8.7682**	**0.0123**	**3.4466**	**0.3864**	**3.8330**	**0.3722**	**0.3555**	**0.7276**		**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0287	0.8415	0.3253	4.4100e-003	0.1136	1.7400e-003	0.1153	0.0311	1.6600e-003	0.0328		480.4643	480.4643	0.0314		481.2482
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.1265**	**1.3302**	**1.0251**	**9.4100e-003**	**0.4911**	**4.4200e-003**	**0.4955**	**0.1333**	**4.1600e-003**	**0.1375**		**1,000.1805**	**1,000.1805**	**0.0478**		**1,001.3764**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1510	0.6544	9.3130	0.0123		0.0201	0.0201		0.0201	0.0201	0.0000	1,194.3549	1,194.3549	0.3863		1,204.0119
Total	**0.1510**	**0.6544**	**9.3130**	**0.0123**	**1.3442**	**0.0201**	**1.3643**	**0.1451**	**0.0201**	**0.1653**	**0.0000**	**1,194.3549**	**1,194.3549**	**0.3863**		**1,204.0119**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0287	0.8415	0.3253	4.4100e-003	0.1136	1.7400e-003	0.1153	0.0311	1.6600e-003	0.0328		480.4643	480.4643	0.0314		481.2482
Vendor	0.0177	0.4460	0.1685	2.8900e-003	0.0925	9.8000e-004	0.0935	0.0266	9.4000e-004	0.0275		308.9655	308.9655	0.0126		309.2795
Worker	0.0801	0.0427	0.5314	2.1100e-003	0.2850	1.7000e-003	0.2867	0.0756	1.5600e-003	0.0771		210.7506	210.7506	3.9200e-003		210.8486
Total	**0.1265**	**1.3302**	**1.0251**	**9.4100e-003**	**0.4911**	**4.4200e-003**	**0.4955**	**0.1333**	**4.1600e-003**	**0.1375**		**1,000.1805**	**1,000.1805**	**0.0478**		**1,001.3764**

3.13 Plots 5 and 10 (2028) Mass Excavation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	41.9625	428.8563	297.5955	0.8157		16.4979	16.4979		15.1781	15.1781		78,973.7145	78,973.7145	25.5417		79,612.2569
Total	**41.9625**	**428.8563**	**297.5955**	**0.8157**	**80.0609**	**16.4979**	**96.5588**	**8.6447**	**15.1781**	**23.8228**		**78,973.7145**	**78,973.7145**	**25.5417**		**79,612.2569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1544	4.4982	1.7711	0.0238	0.6154	9.2700e-003	0.6247	0.1686	8.8700e-003	0.1775		2,593.6660	2,593.6660	0.1690		2,597.8914
Vendor	0.0438	1.1018	0.4175	7.1900e-003	0.2312	2.4400e-003	0.2336	0.0665	2.3300e-003	0.0688		769.8577	769.8577	0.0312		770.6372
Worker	0.2544	0.1316	1.6684	6.8300e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		681.7722	681.7722	0.0121		682.0738
Total	**0.4526**	**5.7316**	**3.8570**	**0.0378**	**1.7967**	**0.0170**	**1.8137**	**0.4871**	**0.0160**	**0.5031**		**4,045.2959**	**4,045.2959**	**0.2123**		**4,050.6024**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	10.0142	43.3948	374.7380	0.8157		1.3352	1.3352		1.3352	1.3352	0.0000	78,973.7144	78,973.7144	25.5417		79,612.2569
Total	**10.0142**	**43.3948**	**374.7380**	**0.8157**	**31.2238**	**1.3352**	**32.5590**	**3.3714**	**1.3352**	**4.7067**	**0.0000**	**78,973.7144**	**78,973.7144**	**25.5417**		**79,612.2569**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1544	4.4982	1.7711	0.0238	0.6154	9.2700e-003	0.6247	0.1686	8.8700e-003	0.1775		2,593.6660	2,593.6660	0.1690		2,597.8914
Vendor	0.0438	1.1018	0.4175	7.1900e-003	0.2312	2.4400e-003	0.2336	0.0665	2.3300e-003	0.0688		769.8577	769.8577	0.0312		770.6372
Worker	0.2544	0.1316	1.6684	6.8300e-003	0.9501	5.2400e-003	0.9554	0.2519	4.8200e-003	0.2568		681.7722	681.7722	0.0121		682.0738
Total	**0.4526**	**5.7316**	**3.8570**	**0.0378**	**1.7967**	**0.0170**	**1.8137**	**0.4871**	**0.0160**	**0.5031**		**4,045.2959**	**4,045.2959**	**0.2123**		**4,050.6024**

3.14 Plots 5 and 10 (2028) Finish Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.5392	14.1889	15.6703	0.0218		0.7302	0.7302		0.6718	0.6718		2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**1.5392**	**14.1889**	**15.6703**	**0.0218**	**6.0449**	**0.7302**	**6.7750**	**0.6527**	**0.6718**	**1.3245**		**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0356	1.0375	0.4085	5.4900e-003	0.1419	2.1400e-003	0.1441	0.0389	2.0500e-003	0.0409		598.2165	598.2165	0.0390		599.1911
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.1295**	**1.5177**	**1.0760**	**0.0104**	**0.5195**	**4.6800e-003**	**0.5241**	**0.1411**	**4.4300e-003**	**0.1455**		**1,110.6913**	**1,110.6913**	**0.0551**		**1,112.0681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	0.2667	1.1557	16.4464	0.0218		0.0356	0.0356		0.0356	0.0356	0.0000	2,110.5371	2,110.5371	0.6826		2,127.6019
Total	**0.2667**	**1.1557**	**16.4464**	**0.0218**	**2.3575**	**0.0356**	**2.3931**	**0.2546**	**0.0356**	**0.2901**	**0.0000**	**2,110.5371**	**2,110.5371**	**0.6826**		**2,127.6019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0356	1.0375	0.4085	5.4900e-003	0.1419	2.1400e-003	0.1441	0.0389	2.0500e-003	0.0409		598.2165	598.2165	0.0390		599.1911
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.1295**	**1.5177**	**1.0760**	**0.0104**	**0.5195**	**4.6800e-003**	**0.5241**	**0.1411**	**4.4300e-003**	**0.1455**		**1,110.6913**	**1,110.6913**	**0.0551**		**1,112.0681**

3.15 Plots 5 and 10 (2028) Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1319	3.8430	1.5131	0.0203	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,215.8789	2,215.8789	0.1444		2,219.4889
Vendor	0.1094	2.7546	1.0438	0.0180	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,924.6443	1,924.6443	0.0779		1,926.5929
Worker	0.2036	0.1053	1.3347	5.4600e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		545.4178	545.4178	9.6500e-003		545.6590
Total	**0.4448**	**6.7028**	**3.8916**	**0.0438**	**1.8639**	**0.0182**	**1.8821**	**0.5118**	**0.0173**	**0.5291**		**4,685.9410**	**4,685.9410**	**0.2320**		**4,691.7408**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1319	3.8430	1.5131	0.0203	0.5258	7.9200e-003	0.5337	0.1441	7.5800e-003	0.1517		2,215.8789	2,215.8789	0.1444		2,219.4889
Vendor	0.1094	2.7546	1.0438	0.0180	0.5780	6.0900e-003	0.5841	0.1662	5.8200e-003	0.1720		1,924.6443	1,924.6443	0.0779		1,926.5929
Worker	0.2036	0.1053	1.3347	5.4600e-003	0.7601	4.1900e-003	0.7643	0.2016	3.8600e-003	0.2054		545.4178	545.4178	9.6500e-003		545.6590
Total	**0.4448**	**6.7028**	**3.8916**	**0.0438**	**1.8639**	**0.0182**	**1.8821**	**0.5118**	**0.0173**	**0.5291**		**4,685.9410**	**4,685.9410**	**0.2320**		**4,691.7408**

3.16 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

3.17 Plots 5 and 10 (2028) Building-Wet Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0462	1.3451	0.5296	7.1100e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		775.5576	775.5576	0.0505		776.8211
Vendor	0.0656	1.6528	0.6263	0.0108	0.3468	3.6500e-003	0.3505	0.0997	3.4900e-003	0.1032		1,154.7866	1,154.7866	0.0468		1,155.9558
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2390**	**3.0636**	**1.9900**	**0.0213**	**1.0059**	**9.0400e-003**	**1.0149**	**0.2761**	**8.5500e-003**	**0.2847**		**2,271.2303**	**2,271.2303**	**0.1033**		**2,273.8137**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0462	1.3451	0.5296	7.1100e-003	0.1840	2.7700e-003	0.1868	0.0504	2.6500e-003	0.0531		775.5576	775.5576	0.0505		776.8211
Vendor	0.0656	1.6528	0.6263	0.0108	0.3468	3.6500e-003	0.3505	0.0997	3.4900e-003	0.1032		1,154.7866	1,154.7866	0.0468		1,155.9558
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2390**	**3.0636**	**1.9900**	**0.0213**	**1.0059**	**9.0400e-003**	**1.0149**	**0.2761**	**8.5500e-003**	**0.2847**		**2,271.2303**	**2,271.2303**	**0.1033**		**2,273.8137**

3.18 Plots 5 and 10 (2028) Building-Electrical - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1055	3.0744	1.2105	0.0163	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,772.7031	1,772.7031	0.1155		1,775.5911
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.2081**	**3.7750**	**1.9615**	**0.0226**	**0.8444**	**9.3700e-003**	**0.8537**	**0.2307**	**8.9100e-003**	**0.2396**		**2,439.1494**	**2,439.1494**	**0.1379**		**2,442.5955**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1055	3.0744	1.2105	0.0163	0.4206	6.3400e-003	0.4270	0.1153	6.0600e-003	0.1213		1,772.7031	1,772.7031	0.1155		1,775.5911
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0763	0.0395	0.5005	2.0500e-003	0.2850	1.5700e-003	0.2866	0.0756	1.4500e-003	0.0770		204.5317	204.5317	3.6200e-003		204.6221
Total	**0.2081**	**3.7750**	**1.9615**	**0.0226**	**0.8444**	**9.3700e-003**	**0.8537**	**0.2307**	**8.9100e-003**	**0.2396**		**2,439.1494**	**2,439.1494**	**0.1379**		**2,442.5955**

3.19 Plots 5 and 10 (2028) Building-Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7713	0.2923	5.0300e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		538.9004	538.9004	0.0218		539.4460
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0815**	**0.7976**	**0.6259**	**6.4000e-003**	**0.3519**	**2.7600e-003**	**0.3546**	**0.0969**	**2.5900e-003**	**0.0995**		**675.2549**	**675.2549**	**0.0242**		**675.8608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0306	0.7713	0.2923	5.0300e-003	0.1618	1.7100e-003	0.1635	0.0465	1.6300e-003	0.0482		538.9004	538.9004	0.0218		539.4460
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0815**	**0.7976**	**0.6259**	**6.4000e-003**	**0.3519**	**2.7600e-003**	**0.3546**	**0.0969**	**2.5900e-003**	**0.0995**		**675.2549**	**675.2549**	**0.0242**		**675.8608**

3.20 Plots 5 and 10 (2028) Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0771**	**0.6874**	**0.5842**	**5.6800e-003**	**0.3288**	**2.5100e-003**	**0.3313**	**0.0903**	**2.3600e-003**	**0.0926**		**598.2691**	**598.2691**	**0.0211**		**598.7971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.0771**	**0.6874**	**0.5842**	**5.6800e-003**	**0.3288**	**2.5100e-003**	**0.3313**	**0.0903**	**2.3600e-003**	**0.0926**		**598.2691**	**598.2691**	**0.0211**		**598.7971**

3.21 Plots 5 and 10 (2028) Curbing/Drive Approaches - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0427	1.2450	0.4902	6.5800e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		717.8598	717.8598	0.0468		719.0293
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.1111**	**1.7120**	**0.9909**	**0.0108**	**0.4528**	**4.5900e-003**	**0.4574**	**0.1237**	**4.3500e-003**	**0.1280**		**1,162.1573**	**1,162.1573**	**0.0617**		**1,163.6989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0427	1.2450	0.4902	6.5800e-003	0.1703	2.5700e-003	0.1729	0.0467	2.4600e-003	0.0491		717.8598	717.8598	0.0468		719.0293
Vendor	0.0175	0.4407	0.1670	2.8800e-003	0.0925	9.7000e-004	0.0935	0.0266	9.3000e-004	0.0275		307.9431	307.9431	0.0125		308.2549
Worker	0.0509	0.0263	0.3337	1.3700e-003	0.1900	1.0500e-003	0.1911	0.0504	9.6000e-004	0.0514		136.3544	136.3544	2.4100e-003		136.4148
Total	**0.1111**	**1.7120**	**0.9909**	**0.0108**	**0.4528**	**4.5900e-003**	**0.4574**	**0.1237**	**4.3500e-003**	**0.1280**		**1,162.1573**	**1,162.1573**	**0.0617**		**1,163.6989**

3.22 Plots 5 and 10 (2028) Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0723	2.1069	0.8295	0.0111	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,214.8397	1,214.8397	0.0792		1,216.8188
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2258**	**2.8338**	**1.9143**	**0.0189**	**0.9020**	**8.4200e-003**	**0.9105**	**0.2449**	**7.9700e-003**	**0.2528**		**2,017.6404**	**2,017.6404**	**0.1039**		**2,020.2380**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0723	2.1069	0.8295	0.0111	0.2883	4.3400e-003	0.2926	0.0790	4.1600e-003	0.0831		1,214.8397	1,214.8397	0.0792		1,216.8188
Vendor	0.0263	0.6611	0.2505	4.3100e-003	0.1387	1.4600e-003	0.1402	0.0399	1.4000e-003	0.0413		461.9146	461.9146	0.0187		462.3823
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2258**	**2.8338**	**1.9143**	**0.0189**	**0.9020**	**8.4200e-003**	**0.9105**	**0.2449**	**7.9700e-003**	**0.2528**		**2,017.6404**	**2,017.6404**	**0.1039**		**2,020.2380**

3.23 Plots 5 and 10 (2028) Temporary Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.24 Plots 7 8 21 22 (2029) Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	10.5347	79.3576	113.8782	0.3465		2.9986	2.9986		2.7599	2.7599		33,515.2272	33,515.2272	10.8284		33,785.9375
Total	**10.5347**	**79.3576**	**113.8782**	**0.3465**	**25.5336**	**2.9986**	**28.5322**	**2.7570**	**2.7599**	**5.5169**		**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1311	3.7884	1.5175	0.0202	0.5258	7.7900e-003	0.5336	0.1441	7.4500e-003	0.1515		2,207.6531	2,207.6531	0.1437		2,211.2448
Vendor	0.1080	2.7219	1.0349	0.0179	0.5780	6.0200e-003	0.5840	0.1662	5.7500e-003	0.1720		1,918.7512	1,918.7512	0.0775		1,920.6873
Worker	0.1921	0.0970	1.2535	5.3200e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		530.7111	530.7111	8.8600e-003		530.9325
Total	**0.4311**	**6.6073**	**3.8060**	**0.0435**	**1.8639**	**0.0177**	**1.8816**	**0.5119**	**0.0168**	**0.5286**		**4,657.1154**	**4,657.1154**	**0.2300**		**4,662.8646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	6.2162	39.1350	153.4849	0.3465		1.1733	1.1733		1.1102	1.1102	0.0000	33,515.2272	33,515.2272	10.8284		33,785.9374
Total	**6.2162**	**39.1350**	**153.4849**	**0.3465**	**9.9581**	**1.1733**	**11.1314**	**1.0752**	**1.1102**	**2.1855**	**0.0000**	**33,515.2272**	**33,515.2272**	**10.8284**		**33,785.9374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1311	3.7884	1.5175	0.0202	0.5258	7.7900e-003	0.5336	0.1441	7.4500e-003	0.1515		2,207.6531	2,207.6531	0.1437		2,211.2448
Vendor	0.1080	2.7219	1.0349	0.0179	0.5780	6.0200e-003	0.5840	0.1662	5.7500e-003	0.1720		1,918.7512	1,918.7512	0.0775		1,920.6873
Worker	0.1921	0.0970	1.2535	5.3200e-003	0.7601	3.8900e-003	0.7640	0.2016	3.5800e-003	0.2051		530.7111	530.7111	8.8600e-003		530.9325
Total	**0.4311**	**6.6073**	**3.8060**	**0.0435**	**1.8639**	**0.0177**	**1.8816**	**0.5119**	**0.0168**	**0.5286**		**4,657.1154**	**4,657.1154**	**0.2300**		**4,662.8646**

3.25 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.7522	25.8181	41.6034	0.0626		1.0554	1.0554		0.9945	0.9945		5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**2.7522**	**25.8181**	**41.6034**	**0.0626**	**3.1937**	**1.0554**	**4.2491**	**0.3449**	**0.9945**	**1.3394**		**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0626		0.1364	0.1364		0.1364	0.1364	0.0000	5,974.2424	5,974.2424	1.4582		6,010.6972
Total	**0.8772**	**4.1418**	**44.1479**	**0.0626**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**5,974.2424**	**5,974.2424**	**1.4582**		**6,010.6972**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

3.26 Plots 7 8 21 22 (2029) Building-Wet Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	4.5687	35.6235	66.8091	0.1252		1.6073	1.6073		1.4787	1.4787		12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**4.5687**	**35.6235**	**66.8091**	**0.1252**	**9.5771**	**1.6073**	**11.1844**	**1.0341**	**1.4787**	**2.5128**		**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0459	1.3259	0.5311	7.0800e-003	0.1840	2.7300e-003	0.1868	0.0504	2.6100e-003	0.0530		772.6786	772.6786	0.0503		773.9357
Vendor	0.0648	1.6332	0.6209	0.0108	0.3468	3.6100e-003	0.3504	0.0997	3.4500e-003	0.1032		1,151.2507	1,151.2507	0.0465		1,152.4124
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2307**	**3.0197**	**1.9355**	**0.0212**	**1.0059**	**8.7700e-003**	**1.0147**	**0.2761**	**8.3000e-003**	**0.2844**		**2,255.6237**	**2,255.6237**	**0.1023**		**2,258.1809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	1.8641	9.6280	78.3012	0.1252		0.3315	0.3315		0.3184	0.3184	0.0000	12,121.5778	12,121.5778	3.9204		12,219.5869
Total	**1.8641**	**9.6280**	**78.3012**	**0.1252**	**3.7351**	**0.3315**	**4.0666**	**0.4033**	**0.3184**	**0.7217**	**0.0000**	**12,121.5778**	**12,121.5778**	**3.9204**		**12,219.5869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0459	1.3259	0.5311	7.0800e-003	0.1840	2.7300e-003	0.1868	0.0504	2.6100e-003	0.0530		772.6786	772.6786	0.0503		773.9357
Vendor	0.0648	1.6332	0.6209	0.0108	0.3468	3.6100e-003	0.3504	0.0997	3.4500e-003	0.1032		1,151.2507	1,151.2507	0.0465		1,152.4124
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2307**	**3.0197**	**1.9355**	**0.0212**	**1.0059**	**8.7700e-003**	**1.0147**	**0.2761**	**8.3000e-003**	**0.2844**		**2,255.6237**	**2,255.6237**	**0.1023**		**2,258.1809**

3.27 Plots 7 8 21 22 (2029) Building-Electrical - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	2.9968	27.5226	40.9296	0.0565		1.0944	1.0944		1.0085	1.0085		5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**2.9968**	**27.5226**	**40.9296**	**0.0565**	**6.3834**	**1.0944**	**7.4778**	**0.6893**	**1.0085**	**1.6978**		**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1049	3.0307	1.2140	0.0162	0.4206	6.2300e-003	0.4269	0.1153	5.9600e-003	0.1212		1,766.1225	1,766.1225	0.1149		1,768.9958
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.2028**	**3.7203**	**1.9325**	**0.0225**	**0.8444**	**9.1300e-003**	**0.8535**	**0.2307**	**8.6800e-003**	**0.2394**		**2,425.6394**	**2,425.6394**	**0.1368**		**2,429.0605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.2284	10.8809	42.3961	0.0565		0.2215	0.2215		0.2118	0.2118	0.0000	5,445.2825	5,445.2825	1.7445		5,488.8943
Total	**1.2284**	**10.8809**	**42.3961**	**0.0565**	**2.4895**	**0.2215**	**2.7110**	**0.2688**	**0.2118**	**0.4806**	**0.0000**	**5,445.2825**	**5,445.2825**	**1.7445**		**5,488.8943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1049	3.0307	1.2140	0.0162	0.4206	6.2300e-003	0.4269	0.1153	5.9600e-003	0.1212		1,766.1225	1,766.1225	0.1149		1,768.9958
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.2028**	**3.7203**	**1.9325**	**0.0225**	**0.8444**	**9.1300e-003**	**0.8535**	**0.2307**	**8.6800e-003**	**0.2394**		**2,425.6394**	**2,425.6394**	**0.1368**		**2,429.0605**

3.28 Plots 7 8 21 22 (2029) Building-Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.2876	19.1420	32.4489	0.0469		0.8328	0.8328		0.7662	0.7662		4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**2.2876**	**19.1420**	**32.4489**	**0.0469**	**1.5948**	**0.8328**	**2.4276**	**0.1722**	**0.7662**	**0.9384**		**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0302	0.7621	0.2898	5.0200e-003	0.1618	1.6800e-003	0.1635	0.0465	1.6100e-003	0.0482		537.2503	537.2503	0.0217		537.7925
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0783**	**0.7864**	**0.6032**	**6.3500e-003**	**0.3519**	**2.6500e-003**	**0.3545**	**0.0969**	**2.5100e-003**	**0.0994**		**669.9281**	**669.9281**	**0.0239**		**670.5256**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2064	12.4718	35.4821	0.0469		0.2290	0.2290		0.2160	0.2160	0.0000	4,536.1875	4,536.1875	1.4671		4,572.8648
Total	**1.2064**	**12.4718**	**35.4821**	**0.0469**	**0.6220**	**0.2290**	**0.8510**	**0.0672**	**0.2160**	**0.2832**	**0.0000**	**4,536.1875**	**4,536.1875**	**1.4671**		**4,572.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0302	0.7621	0.2898	5.0200e-003	0.1618	1.6800e-003	0.1635	0.0465	1.6100e-003	0.0482		537.2503	537.2503	0.0217		537.7925
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0783**	**0.7864**	**0.6032**	**6.3500e-003**	**0.3519**	**2.6500e-003**	**0.3545**	**0.0969**	**2.5100e-003**	**0.0994**		**669.9281**	**669.9281**	**0.0239**		**670.5256**

3.29 Plots 7 8 21 22 (2029) Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.4269	20.1698	34.7816	0.0505		0.8861	0.8861		0.8152	0.8152		4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**2.4269**	**20.1698**	**34.7816**	**0.0505**	**1.5948**	**0.8861**	**2.4809**	**0.1722**	**0.8152**	**0.9874**		**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0739**	**0.6775**	**0.5618**	**5.6300e-003**	**0.3288**	**2.4100e-003**	**0.3312**	**0.0903**	**2.2800e-003**	**0.0926**		**593.1781**	**593.1781**	**0.0208**		**593.6981**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.2506	12.6632	38.2066	0.0505		0.2349	0.2349		0.2219	0.2219	0.0000	4,883.9033	4,883.9033	1.5796		4,923.3921
Total	**1.2506**	**12.6632**	**38.2066**	**0.0505**	**0.6220**	**0.2349**	**0.8569**	**0.0672**	**0.2219**	**0.2891**	**0.0000**	**4,883.9033**	**4,883.9033**	**1.5796**		**4,923.3921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.0739**	**0.6775**	**0.5618**	**5.6300e-003**	**0.3288**	**2.4100e-003**	**0.3312**	**0.0903**	**2.2800e-003**	**0.0926**		**593.1781**	**593.1781**	**0.0208**		**593.6981**

3.30 Plots 7 8 21 22 (2029) Curbing/Drive Approaches - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6210	5.5750	9.5731	0.0145		0.2619	0.2619		0.2418	0.2418		1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.6689**	**5.5750**	**9.5731**	**0.0145**	**0.0000**	**0.2619**	**0.2619**	**0.0000**	**0.2418**	**0.2418**		**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	0.0173	0.4355	0.1656	2.8700e-003	0.0925	9.6000e-004	0.0934	0.0266	9.2000e-004	0.0275		307.0002	307.0002	0.0124		307.3100
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.1078**	**1.6870**	**0.9706**	**0.0108**	**0.4528**	**4.4500e-003**	**0.4573**	**0.1237**	**4.2300e-003**	**0.1279**		**1,154.8729**	**1,154.8729**	**0.0611**		**1,156.4016**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0145		0.0336	0.0336		0.0336	0.0336	0.0000	1,391.2907	1,391.2907	0.4417		1,402.3320
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0145**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,391.2907**	**1,391.2907**	**0.4417**		**1,402.3320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	0.0173	0.4355	0.1656	2.8700e-003	0.0925	9.6000e-004	0.0934	0.0266	9.2000e-004	0.0275		307.0002	307.0002	0.0124		307.3100
Worker	0.0480	0.0243	0.3134	1.3300e-003	0.1900	9.7000e-004	0.1910	0.0504	9.0000e-004	0.0513		132.6778	132.6778	2.2100e-003		132.7331
Total	**0.1078**	**1.6870**	**0.9706**	**0.0108**	**0.4528**	**4.4500e-003**	**0.4573**	**0.1237**	**4.2300e-003**	**0.1279**		**1,154.8729**	**1,154.8729**	**0.0611**		**1,156.4016**

3.31 Plots 7 8 21 22 (2029) Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	3.6691	34.3917	44.9466	0.0855		1.4762	1.4762		1.3601	1.3601		8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**11.7649**	**34.3917**	**44.9466**	**0.0855**	**6.3630**	**1.4762**	**7.8392**	**0.6871**	**1.3601**	**2.0471**		**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0719	2.0769	0.8320	0.0111	0.2883	4.2700e-003	0.2925	0.0790	4.0800e-003	0.0831		1,210.3299	1,210.3299	0.0788		1,212.2991
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2178**	**2.7908**	**1.8638**	**0.0187**	**0.9020**	**8.1400e-003**	**0.9102**	**0.2449**	**7.7000e-003**	**0.2526**		**2,002.5247**	**2,002.5247**	**0.1029**		**2,005.0968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0855		0.1485	0.1485		0.1485	0.1485	0.0000	8,249.0136	8,249.0136	2.6490		8,315.2378
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0855**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**8,249.0136**	**8,249.0136**	**2.6490**		**8,315.2378**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0719	2.0769	0.8320	0.0111	0.2883	4.2700e-003	0.2925	0.0790	4.0800e-003	0.0831		1,210.3299	1,210.3299	0.0788		1,212.2991
Vendor	0.0259	0.6533	0.2484	4.3000e-003	0.1387	1.4400e-003	0.1402	0.0399	1.3800e-003	0.0413		460.5003	460.5003	0.0186		460.9650
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2178**	**2.7908**	**1.8638**	**0.0187**	**0.9020**	**8.1400e-003**	**0.9102**	**0.2449**	**7.7000e-003**	**0.2526**		**2,002.5247**	**2,002.5247**	**0.1029**		**2,005.0968**

3.32 Plots 7 8 21 22 (2029) Temporary Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2427	12.2579	10.4336	0.0277		0.5002	0.5002		0.4602	0.4602		2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**1.2427**	**12.2579**	**10.4336**	**0.0277**	**0.0000**	**0.5002**	**0.5002**	**0.0000**	**0.4602**	**0.4602**		**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0277		0.0455	0.0455		0.0455	0.0455	0.0000	2,685.5544	2,685.5544	0.8686		2,707.2685
Total	**0.3414**	**1.4794**	**12.5183**	**0.0277**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**2,685.5544**	**2,685.5544**	**0.8686**		**2,707.2685**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.33 Plots 7 8 21 22 (2029) Mass Excavation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					50.6974	0.0000	50.6974	5.4741	0.0000	5.4741			0.0000			0.0000
Off-Road	27.1506	278.5289	192.6814	0.5298		10.6871	10.6871		9.8321	9.8321		51,293.7983	51,293.7983	16.5895		51,708.5346
Total	**27.1506**	**278.5289**	**192.6814**	**0.5298**	**50.6974**	**10.6871**	**61.3845**	**5.4741**	**9.8321**	**15.3062**		**51,293.7983**	**51,293.7983**	**16.5895**		**51,708.5346**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1206	3.4840	1.3956	0.0186	0.4835	7.1600e-003	0.4907	0.1325	6.8500e-003	0.1394		2,030.3154	2,030.3154	0.1321		2,033.6186
Vendor	0.0389	0.9799	0.3726	6.4500e-003	0.2081	2.1700e-003	0.2103	0.0598	2.0700e-003	0.0619		690.7504	690.7504	0.0279		691.4474
Worker	0.2401	0.1212	1.5669	6.6500e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		663.3889	663.3889	0.0111		663.6657
Total	**0.3995**	**4.5852**	**3.3351**	**0.0317**	**1.6418**	**0.0142**	**1.6560**	**0.4443**	**0.0134**	**0.4577**		**3,384.4547**	**3,384.4547**	**0.1711**		**3,388.7316**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.7720	0.0000	19.7720	2.1349	0.0000	2.1349			0.0000			0.0000
Off-Road	6.5054	28.1902	243.1915	0.5298		0.8674	0.8674		0.8674	0.8674	0.0000	51,293.7982	51,293.7982	16.5895		51,708.5345
Total	**6.5054**	**28.1902**	**243.1915**	**0.5298**	**19.7720**	**0.8674**	**20.6394**	**2.1349**	**0.8674**	**3.0023**	**0.0000**	**51,293.7982**	**51,293.7982**	**16.5895**		**51,708.5345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1206	3.4840	1.3956	0.0186	0.4835	7.1600e-003	0.4907	0.1325	6.8500e-003	0.1394		2,030.3154	2,030.3154	0.1321		2,033.6186
Vendor	0.0389	0.9799	0.3726	6.4500e-003	0.2081	2.1700e-003	0.2103	0.0598	2.0700e-003	0.0619		690.7504	690.7504	0.0279		691.4474
Worker	0.2401	0.1212	1.5669	6.6500e-003	0.9501	4.8700e-003	0.9550	0.2519	4.4800e-003	0.2564		663.3889	663.3889	0.0111		663.6657
Total	**0.3995**	**4.5852**	**3.3351**	**0.0317**	**1.6418**	**0.0142**	**1.6560**	**0.4443**	**0.0134**	**0.4577**		**3,384.4547**	**3,384.4547**	**0.1711**		**3,388.7316**

3.34 Plots 7 8 21 22 (2029) Finish Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7696	7.0944	7.8352	0.0109		0.3651	0.3651		0.3359	0.3359		1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.7696**	**7.0944**	**7.8352**	**0.0109**	**3.4466**	**0.3651**	**3.8117**	**0.3722**	**0.3359**	**0.7080**		**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.1231**	**1.4814**	**1.0445**	**9.9800e-003**	**0.5016**	**4.4600e-003**	**0.5061**	**0.1356**	**4.2100e-003**	**0.1398**		**1,067.7117**	**1,067.7117**	**0.0561**		**1,069.1132**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0109		0.0178	0.0178		0.0178	0.0178	0.0000	1,055.2686	1,055.2686	0.3413		1,063.8009
Total	**0.1334**	**0.5778**	**8.2232**	**0.0109**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,055.2686**	**1,055.2686**	**0.3413**		**1,063.8009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0425	1.2273	0.4916	6.5600e-003	0.1703	2.5200e-003	0.1729	0.0467	2.4100e-003	0.0491		715.1950	715.1950	0.0465		716.3585
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.0720	0.0364	0.4701	1.9900e-003	0.2850	1.4600e-003	0.2865	0.0756	1.3400e-003	0.0769		199.0167	199.0167	3.3200e-003		199.0997
Total	**0.1231**	**1.4814**	**1.0445**	**9.9800e-003**	**0.5016**	**4.4600e-003**	**0.5061**	**0.1356**	**4.2100e-003**	**0.1398**		**1,067.7117**	**1,067.7117**	**0.0561**		**1,069.1132**

World Logistics Center-Construction Dust-Plots 5,10 & 7,8,21,22 - South Coast AQMD Air District, Summer

World Logistics Center-Construction Dust-Plots 5,10 & 7,8,21,22

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	12.4378	11.3850	2.2055	0.0172	188.3383	4.1700e-003	188.3426	18.7872	3.9300e-003	18.7911	0.0000	1,851.8142	1,851.8142	0.1759	0.0000	1,856.1872
2028	12.4275	12.5510	2.3456	0.0190	197.9086	4.2300e-003	197.9129	19.7420	3.9900e-003	19.7460	0.0000	2,046.3086	2,046.3086	0.1901	0.0000	2,051.0596
2029	12.4172	11.9670	2.2326	0.0180	193.8813	3.8500e-003	193.8852	19.3402	3.6300e-003	19.3438	0.0000	1,951.3463	1,951.3463	0.1774	0.0000	1,955.7813
Maximum	**12.4378**	**12.5510**	**2.3456**	**0.0190**	**197.9086**	**4.2300e-003**	**197.9129**	**19.7420**	**3.9900e-003**	**19.7460**	**0.0000**	**2,046.3086**	**2,046.3086**	**0.1901**	**0.0000**	**2,051.0596**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	12.4378	11.3850	2.2055	0.0172	75.3565	4.1700e-003	75.3607	7.5230	3.9300e-003	7.5269	0.0000	1,851.8142	1,851.8142	0.1759	0.0000	1,856.1872
2028	12.4275	12.5510	2.3456	0.0190	79.1861	4.2300e-003	79.1903	7.9055	3.9900e-003	7.9094	0.0000	2,046.3086	2,046.3086	0.1901	0.0000	2,051.0596
2029	12.4172	11.9670	2.2326	0.0180	77.5745	3.8500e-003	77.5784	7.7445	3.6300e-003	7.7481	0.0000	1,951.3463	1,951.3463	0.1774	0.0000	1,955.7813
Maximum	**12.4378**	**12.5510**	**2.3456**	**0.0190**	**79.1861**	**4.2300e-003**	**79.1903**	**7.9055**	**3.9900e-003**	**7.9094**	**0.0000**	**2,046.3086**	**2,046.3086**	**0.1901**	**0.0000**	**2,051.0596**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plots 5 and 10 (2027) Utilities	Trenching	1/1/2027	12/30/2027	5	260	1177
2	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
3	Plots 5 and 10 (2027) Building-Wet Utilities	Building Construction	1/1/2027	12/30/2027	5	260	1174
4	Plots 5 and 10 (2027) Building-Electrical	Building Construction	1/1/2027	12/30/2027	5	260	1175
5	Plots 5 and 10 (2027) Building-Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1176
6	Plots 5 and 10 (2027) Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1178
7	Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving	5/1/2027	8/20/2027	5	80	1180
8	Plots 5 and 10 (2027) Paving	Paving	6/1/2027	7/26/2027	5	40	1181
9	Plots 5 and 10 (2027) Temporary Utilities	Building Construction	7/2/2027	12/30/2027	5	130	1179
10	Plots 5 and 10 (2027) Mass Excavation	Grading	9/16/2027	12/31/2027	5	77	1171
11	Plots 5 and 10 (2027) Finish Grading	Grading	11/6/2027	12/31/2027	5	40	1172
12	Plots 5 and 10 (2028) Mass Excavation	Grading	1/1/2028	4/18/2028	5	77	1182
13	Plots 5 and 10 (2028) Finish Grading	Grading	1/1/2028	2/25/2028	5	40	1183
14	Plots 5 and 10 (2028) Utilities	Trenching	1/1/2028	12/30/2028	5	260	1188
15	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
16	Plots 5 and 10 (2028) Building-Wet Utilities	Building Construction	1/1/2028	12/30/2028	5	260	1185
17	Plots 5 and 10 (2028) Building-Electrical	Building Construction	1/1/2028	12/30/2028	5	260	1186
18	Plots 5 and 10 (2028) Building-Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1187
19	Plots 5 and 10 (2028) Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1189

20	Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving	5/1/2028	8/20/2028	5	80	1191
21	Plots 5 and 10 (2028) Paving	Paving	6/1/2028	7/26/2028	5	40	1192
22	Plots 5 and 10 (2028) Temporary Utilities	Building Construction	7/2/2028	12/30/2028	5	130	1190
23	Plots 7 8 21 22 (2029) Utilities	Trenching	1/1/2029	12/30/2029	5	260	1199
24	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
25	Plots 7 8 21 22 (2029) Building-Wet Utilities	Building Construction	1/1/2029	12/30/2029	5	260	1196
26	Plots 7 8 21 22 (2029) Building-Electrical	Building Construction	1/1/2029	12/30/2029	5	260	1197
27	Plots 7 8 21 22 (2029) Building-Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1198
28	Plots 7 8 21 22 (2029) Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1200
29	Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving	5/1/2029	8/20/2029	5	80	1202
30	Plots 7 8 21 22 (2029) Paving	Paving	6/1/2029	7/26/2029	5	40	1203
31	Plots 7 8 21 22 (2029) Temporary Utilities	Building Construction	7/2/2029	12/30/2029	5	130	1201
32	Plots 7 8 21 22 (2029) Mass Excavation	Grading	9/14/2029	12/31/2029	5	77	1193
33	Plots 7 8 21 22 (2029) Finish Grading	Grading	11/6/2029	12/31/2029	5	40	1194

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Finish Grading		15.00	4.00	208.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Mass Excavation		50.00	7.00	1,085.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Finish Grading		15.00	4.00	260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plots 5 and 10 (2028) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Mass Excavation		50.00	10.00	2,170.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Finish Grading		15.00	2.00	312.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plots 5 and 10 (2027) Utilities - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0257	1.8318	0.2379	2.7600e-003	12.5290	4.4000e-004	12.5295	1.2499	4.2000e-004	1.2504		299.5811	299.5811	0.0298		300.3250
Vendor	0.0222	1.2755	0.2352	1.6700e-003	13.0101	3.0000e-004	13.0104	1.2983	2.8000e-004	1.2985		179.6849	179.6849	0.0169		180.1062
Worker	0.0306	7.1400e-003	0.1138	1.9000e-004	20.8123	3.1000e-004	20.8126	2.0757	2.8000e-004	2.0760		19.0936	19.0936	6.0000e-004		19.1087
Total	**0.0785**	**3.1144**	**0.5869**	**4.6200e-003**	**46.3515**	**1.0500e-003**	**46.3525**	**4.6239**	**9.8000e-004**	**4.6249**		**498.3596**	**498.3596**	**0.0472**		**499.5399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0257	1.8318	0.2379	2.7600e-003	5.0135	4.4000e-004	5.0139	0.5006	4.2000e-004	0.5011		299.5811	299.5811	0.0298		300.3250
Vendor	0.0222	1.2755	0.2352	1.6700e-003	5.2064	3.0000e-004	5.2067	0.5202	2.8000e-004	0.5205		179.6849	179.6849	0.0169		180.1062
Worker	0.0306	7.1400e-003	0.1138	1.9000e-004	8.3263	3.1000e-004	8.3267	0.8308	2.8000e-004	0.8311		19.0936	19.0936	6.0000e-004		19.1087
Total	**0.0785**	**3.1144**	**0.5869**	**4.6200e-003**	**18.5462**	**1.0500e-003**	**18.5473**	**1.8517**	**9.8000e-004**	**1.8527**		**498.3596**	**498.3596**	**0.0472**		**499.5399**

3.3 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0309	2.1981	0.2854	3.3100e-003	15.0348	5.3000e-004	15.0354	1.4999	5.1000e-004	1.5004		359.4973	359.4973	0.0357		360.3900
Vendor	1.7800e-003	0.1020	0.0188	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.3748	14.3748	1.3500e-003		14.4085
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	13.0077	1.9000e-004	13.0079	1.2973	1.8000e-004	1.2975		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0518**	**2.3046**	**0.3754**	**3.5600e-003**	**29.0833**	**7.4000e-004**	**29.0841**	**2.9011**	**7.1000e-004**	**2.9018**		**385.8056**	**385.8056**	**0.0374**		**386.7414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0309	2.1981	0.2854	3.3100e-003	6.0161	5.3000e-004	6.0167	0.6008	5.1000e-004	0.6013		359.4973	359.4973	0.0357		360.3900
Vendor	1.7800e-003	0.1020	0.0188	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.3748	14.3748	1.3500e-003		14.4085
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	5.2040	1.9000e-004	5.2042	0.5193	1.8000e-004	0.5195		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0518**	**2.3046**	**0.3754**	**3.5600e-003**	**11.6366**	**7.4000e-004**	**11.6374**	**1.1617**	**7.1000e-004**	**1.1624**		**385.8056**	**385.8056**	**0.0374**		**386.7414**

3.4 Plots 5 and 10 (2027) Building-Wet Utilities - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-003	0.6411	0.0833	9.6000e-004	4.3852	1.6000e-004	4.3853	0.4375	1.5000e-004	0.4376		104.8534	104.8534	0.0104		105.1138
Vendor	0.0133	0.7653	0.1411	1.0000e-003	7.8061	1.8000e-004	7.8063	0.7790	1.7000e-004	0.7791		107.8109	107.8109	0.0101		108.0637
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	13.0077	1.9000e-004	13.0079	1.2973	1.8000e-004	1.2975		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0415**	**1.4109**	**0.2955**	**2.0800e-003**	**25.1989**	**5.3000e-004**	**25.1995**	**2.5137**	**5.0000e-004**	**2.5142**		**224.5978**	**224.5978**	**0.0209**		**225.1204**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-003	0.6411	0.0833	9.6000e-004	1.7547	1.6000e-004	1.7549	0.1752	1.5000e-004	0.1754		104.8534	104.8534	0.0104		105.1138
Vendor	0.0133	0.7653	0.1411	1.0000e-003	3.1239	1.8000e-004	3.1240	0.3121	1.7000e-004	0.3123		107.8109	107.8109	0.0101		108.0637
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	5.2040	1.9000e-004	5.2042	0.5193	1.8000e-004	0.5195		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0415**	**1.4109**	**0.2955**	**2.0800e-003**	**10.0825**	**5.3000e-004**	**10.0830**	**1.0066**	**5.0000e-004**	**1.0071**		**224.5978**	**224.5978**	**0.0209**		**225.1204**

3.5 Plots 5 and 10 (2027) Building-Electrical - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0206	1.4654	0.1903	2.2100e-003	10.0232	3.6000e-004	10.0236	1.0000	3.4000e-004	1.0003		239.6649	239.6649	0.0238		240.2600
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0374**	**1.7742**	**0.2894**	**2.6800e-003**	**20.9503**	**5.5000e-004**	**20.9508**	**2.0899**	**5.2000e-004**	**2.0904**		**289.9494**	**289.9494**	**0.0281**		**290.6512**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0206	1.4654	0.1903	2.2100e-003	4.0108	3.6000e-004	4.0111	0.4005	3.4000e-004	0.4009		239.6649	239.6649	0.0238		240.2600
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0374**	**1.7742**	**0.2894**	**2.6800e-003**	**8.3827**	**5.5000e-004**	**8.3832**	**0.8369**	**5.2000e-004**	**0.8374**		**289.9494**	**289.9494**	**0.0281**		**290.6512**

3.6 Plots 5 and 10 (2027) Building-Landscaping - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	3.6428	8.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		50.3118	50.3118	4.7200e-003		50.4297
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0139**	**0.3589**	**0.0943**	**5.2000e-004**	**8.8459**	**1.6000e-004**	**8.8461**	**0.8824**	**1.5000e-004**	**0.8826**		**55.0852**	**55.0852**	**4.8700e-003**		**55.2069**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	1.4578	8.0000e-005	1.4579	0.1457	8.0000e-005	0.1457		50.3118	50.3118	4.7200e-003		50.4297
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0139**	**0.3589**	**0.0943**	**5.2000e-004**	**3.5394**	**1.6000e-004**	**3.5395**	**0.3534**	**1.5000e-004**	**0.3535**		**55.0852**	**55.0852**	**4.8700e-003**		**55.2069**

3.7 Plots 5 and 10 (2027) Landscaping - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.1244	43.1244	4.0400e-003		43.2255
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0130**	**0.3079**	**0.0849**	**4.5000e-004**	**8.3255**	**1.5000e-004**	**8.3257**	**0.8305**	**1.4000e-004**	**0.8306**		**47.8978**	**47.8978**	**4.1900e-003**		**48.0027**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.1244	43.1244	4.0400e-003		43.2255
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0130**	**0.3079**	**0.0849**	**4.5000e-004**	**3.3311**	**1.5000e-004**	**3.3313**	**0.3326**	**1.4000e-004**	**0.3327**		**47.8978**	**47.8978**	**4.1900e-003**		**48.0027**

3.8 Plots 5 and 10 (2027) Curbing/Drive Approaches - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3300e-003	0.5934	0.0771	8.9000e-004	4.0589	1.4000e-004	4.0591	0.4049	1.4000e-004	0.4051		97.0528	97.0528	9.6400e-003		97.2938
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.7496	28.7496	2.7000e-003		28.8170
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	5.2031	8.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0195**	**0.7993**	**0.1432**	**1.2100e-003**	**11.3436**	**2.7000e-004**	**11.3439**	**1.1316**	**2.6000e-004**	**1.1318**		**130.5758**	**130.5758**	**0.0125**		**130.8880**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3300e-003	0.5934	0.0771	8.9000e-004	1.6242	1.4000e-004	1.6243	0.1622	1.4000e-004	0.1623		97.0528	97.0528	9.6400e-003		97.2938
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.7496	28.7496	2.7000e-003		28.8170
Worker	7.6600e-003	1.7800e-003	0.0285	5.0000e-005	2.0816	8.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.7734	4.7734	1.5000e-004		4.7772
Total	**0.0195**	**0.7993**	**0.1432**	**1.2100e-003**	**4.5388**	**2.7000e-004**	**4.5391**	**0.4531**	**2.6000e-004**	**0.4534**		**130.5758**	**130.5758**	**0.0125**		**130.8880**

3.9 Plots 5 and 10 (2027) Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0141	1.0043	0.1304	1.5100e-003	6.8690	2.4000e-004	6.8692	0.6853	2.3000e-004	0.6855		164.2432	164.2432	0.0163		164.6510
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	7.0000e-005	0.3117		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	13.0077	1.9000e-004	13.0079	1.2973	1.8000e-004	1.2975		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0386**	**1.3148**	**0.2580**	**2.0300e-003**	**22.9991**	**5.0000e-004**	**22.9996**	**2.2941**	**4.8000e-004**	**2.2946**		**219.3011**	**219.3011**	**0.0207**		**219.8194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0141	1.0043	0.1304	1.5100e-003	2.7486	2.4000e-004	2.7488	0.2745	2.3000e-004	0.2747		164.2432	164.2432	0.0163		164.6510
Vendor	5.3300e-003	0.3061	0.0565	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	7.0000e-005	0.1249		43.1244	43.1244	4.0400e-003		43.2255
Worker	0.0191	4.4600e-003	0.0711	1.2000e-004	5.2040	1.9000e-004	5.2042	0.5193	1.8000e-004	0.5195		11.9335	11.9335	3.8000e-004		11.9429
Total	**0.0386**	**1.3148**	**0.2580**	**2.0300e-003**	**9.2021**	**5.0000e-004**	**9.2026**	**0.9186**	**4.8000e-004**	**0.9191**		**219.3011**	**219.3011**	**0.0207**		**219.8194**

3.10 Plots 5 and 10 (2027) Temporary Utilities - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 Plots 5 and 10 (2027) Mass Excavation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0720	0.1392	1.6100e-003	7.3326	2.6000e-004	7.3328	0.7315	2.5000e-004	0.7318		175.3285	175.3285	0.0174		175.7638
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	3.6428	8.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		50.3118	50.3118	4.7200e-003		50.4297
Worker	0.0383	8.9200e-003	0.1423	2.4000e-004	26.0154	3.9000e-004	26.0158	2.5946	3.6000e-004	2.5950		23.8671	23.8671	7.5000e-004		23.8859
Total	**0.0596**	**1.4381**	**0.3473**	**2.3200e-003**	**36.9908**	**7.3000e-004**	**36.9915**	**3.6896**	**6.9000e-004**	**3.6903**		**249.5073**	**249.5073**	**0.0229**		**250.0794**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0151	1.0720	0.1392	1.6100e-003	2.9341	2.6000e-004	2.9344	0.2930	2.5000e-004	0.2933		175.3285	175.3285	0.0174		175.7638
Vendor	6.2100e-003	0.3571	0.0659	4.7000e-004	1.4578	8.0000e-005	1.4579	0.1457	8.0000e-005	0.1457		50.3118	50.3118	4.7200e-003		50.4297
Worker	0.0383	8.9200e-003	0.1423	2.4000e-004	10.4079	3.9000e-004	10.4083	1.0385	3.6000e-004	1.0389		23.8671	23.8671	7.5000e-004		23.8859
Total	**0.0596**	**1.4381**	**0.3473**	**2.3200e-003**	**14.7998**	**7.3000e-004**	**14.8006**	**1.4772**	**6.9000e-004**	**1.4779**		**249.5073**	**249.5073**	**0.0229**		**250.0794**

3.12 Plots 5 and 10 (2027) Finish Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5500e-003	0.3956	0.0514	6.0000e-004	2.7060	1.0000e-004	2.7061	0.2700	9.0000e-005	0.2701		64.7019	64.7019	6.4300e-003		64.8625
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	2.0816	5.0000e-005	2.0817	0.2077	5.0000e-005	0.2078		28.7496	28.7496	2.7000e-003		28.8170
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	7.8046	1.2000e-004	7.8047	0.7784	1.1000e-004	0.7785		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0206**	**0.6024**	**0.1317**	**9.4000e-004**	**12.5922**	**2.7000e-004**	**12.5925**	**1.2561**	**2.5000e-004**	**1.2563**		**100.6116**	**100.6116**	**9.3600e-003**		**100.8453**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5500e-003	0.3956	0.0514	6.0000e-004	1.0828	1.0000e-004	1.0829	0.1081	9.0000e-005	0.1082		64.7019	64.7019	6.4300e-003		64.8625
Vendor	3.5500e-003	0.2041	0.0376	2.7000e-004	0.8330	5.0000e-005	0.8331	0.0832	5.0000e-005	0.0833		28.7496	28.7496	2.7000e-003		28.8170
Worker	0.0115	2.6800e-003	0.0427	7.0000e-005	3.1224	1.2000e-004	3.1225	0.3116	1.1000e-004	0.3117		7.1601	7.1601	2.3000e-004		7.1658
Total	**0.0206**	**0.6024**	**0.1317**	**9.4000e-004**	**5.0382**	**2.7000e-004**	**5.0384**	**0.5029**	**2.5000e-004**	**0.5032**		**100.6116**	**100.6116**	**9.3600e-003**		**100.8453**

3.13 Plots 5 and 10 (2028) Mass Excavation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1284	0.2809	3.2000e-003	14.6651	4.9000e-004	14.6656	1.4630	4.7000e-004	1.4635		347.7553	347.7553	0.0338		348.6006
Vendor	8.6600e-003	0.5079	0.0921	6.6000e-004	5.2041	1.1000e-004	5.2042	0.5193	1.1000e-004	0.5194		71.3414	71.3414	6.5400e-003		71.5049
Worker	0.0359	8.1400e-003	0.1329	2.3000e-004	26.0154	3.6000e-004	26.0157	2.5946	3.3000e-004	2.5949		23.1559	23.1559	6.9000e-004		23.1731
Total	**0.0744**	**2.6444**	**0.5059**	**4.0900e-003**	**45.8845**	**9.6000e-004**	**45.8855**	**4.5769**	**9.1000e-004**	**4.5778**		**442.2527**	**442.2527**	**0.0410**		**443.2786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1284	0.2809	3.2000e-003	5.8682	4.9000e-004	5.8687	0.5860	4.7000e-004	0.5865		347.7553	347.7553	0.0338		348.6006
Vendor	8.6600e-003	0.5079	0.0921	6.6000e-004	2.0826	1.1000e-004	2.0827	0.2081	1.1000e-004	0.2082		71.3414	71.3414	6.5400e-003		71.5049
Worker	0.0359	8.1400e-003	0.1329	2.3000e-004	10.4079	3.6000e-004	10.4083	1.0385	3.3000e-004	1.0389		23.1559	23.1559	6.9000e-004		23.1731
Total	**0.0744**	**2.6444**	**0.5059**	**4.0900e-003**	**18.3587**	**9.6000e-004**	**18.3597**	**1.8326**	**9.1000e-004**	**1.8335**		**442.2527**	**442.2527**	**0.0410**		**443.2786**

3.14 Plots 5 and 10 (2028) Finish Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.8700e-003	0.4909	0.0648	7.4000e-004	3.3824	1.1000e-004	3.3826	0.3374	1.1000e-004	0.3376		80.2081	80.2081	7.8000e-003		80.4030
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	2.0816	5.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.5366	28.5366	2.6200e-003		28.6020
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	7.8046	1.1000e-004	7.8047	0.7784	1.0000e-004	0.7785		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0211**	**0.6965**	**0.1415**	**1.0700e-003**	**13.2687**	**2.7000e-004**	**13.2689**	**1.3235**	**2.5000e-004**	**1.3238**		**115.6914**	**115.6914**	**0.0106**		**115.9569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.8700e-003	0.4909	0.0648	7.4000e-004	1.3535	1.1000e-004	1.3536	0.1352	1.1000e-004	0.1353		80.2081	80.2081	7.8000e-003		80.4030
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	0.8330	5.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.5366	28.5366	2.6200e-003		28.6020
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	3.1224	1.1000e-004	3.1225	0.3116	1.0000e-004	0.3117		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0211**	**0.6965**	**0.1415**	**1.0700e-003**	**5.3089**	**2.7000e-004**	**5.3091**	**0.5300**	**2.5000e-004**	**0.5302**		**115.6914**	**115.6914**	**0.0106**		**115.9569**

3.15 Plots 5 and 10 (2028) Utilities - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0254	1.8184	0.2400	2.7300e-003	12.5290	4.2000e-004	12.5295	1.2499	4.0000e-004	1.2503		297.1021	297.1021	0.0289		297.8243
Vendor	0.0216	1.2697	0.2303	1.6500e-003	13.0101	2.8000e-004	13.0104	1.2983	2.7000e-004	1.2985		178.3535	178.3535	0.0164		178.7623
Worker	0.0287	6.5100e-003	0.1063	1.9000e-004	20.8123	2.9000e-004	20.8126	2.0757	2.7000e-004	2.0759		18.5248	18.5248	5.5000e-004		18.5385
Total	**0.0758**	**3.0946**	**0.5766**	**4.5700e-003**	**46.3515**	**9.9000e-004**	**46.3525**	**4.6239**	**9.4000e-004**	**4.6248**		**493.9804**	**493.9804**	**0.0458**		**495.1251**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0254	1.8184	0.2400	2.7300e-003	5.0135	4.2000e-004	5.0139	0.5006	4.0000e-004	0.5010		297.1021	297.1021	0.0289		297.8243
Vendor	0.0216	1.2697	0.2303	1.6500e-003	5.2064	2.8000e-004	5.2067	0.5202	2.7000e-004	0.5205		178.3535	178.3535	0.0164		178.7623
Worker	0.0287	6.5100e-003	0.1063	1.9000e-004	8.3263	2.9000e-004	8.3266	0.8308	2.7000e-004	0.8311		18.5248	18.5248	5.5000e-004		18.5385
Total	**0.0758**	**3.0946**	**0.5766**	**4.5700e-003**	**18.5462**	**9.9000e-004**	**18.5472**	**1.8517**	**9.4000e-004**	**1.8526**		**493.9804**	**493.9804**	**0.0458**		**495.1251**

3.16 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0305	2.1821	0.2879	3.2800e-003	15.0348	5.0000e-004	15.0353	1.4999	4.8000e-004	1.5004		356.5226	356.5226	0.0347		357.3891
Vendor	1.7300e-003	0.1016	0.0184	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.2683	14.2683	1.3100e-003		14.3010
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	13.0077	1.8000e-004	13.0079	1.2973	1.7000e-004	1.2975		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0502**	**2.2877**	**0.3728**	**3.5300e-003**	**29.0833**	**7.0000e-004**	**29.0840**	**2.9011**	**6.7000e-004**	**2.9017**		**382.3688**	**382.3688**	**0.0363**		**383.2767**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0305	2.1821	0.2879	3.2800e-003	6.0161	5.0000e-004	6.0166	0.6008	4.8000e-004	0.6013		356.5226	356.5226	0.0347		357.3891
Vendor	1.7300e-003	0.1016	0.0184	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.2683	14.2683	1.3100e-003		14.3010
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	5.2040	1.8000e-004	5.2041	0.5193	1.7000e-004	0.5194		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0502**	**2.2877**	**0.3728**	**3.5300e-003**	**11.6366**	**7.0000e-004**	**11.6373**	**1.1617**	**6.7000e-004**	**1.1623**		**382.3688**	**382.3688**	**0.0363**		**383.2767**

3.17 Plots 5 and 10 (2028) Building-Wet Utilities - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9000e-003	0.6364	0.0840	9.6000e-004	4.3852	1.5000e-004	4.3853	0.4375	1.4000e-004	0.4376		103.9858	103.9858	0.0101		104.2385
Vendor	0.0130	0.7618	0.1382	9.9000e-004	7.8061	1.7000e-004	7.8063	0.7790	1.6000e-004	0.7791		107.0121	107.0121	9.8100e-003		107.2574
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	13.0077	1.8000e-004	13.0079	1.2973	1.7000e-004	1.2975		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0399**	**1.4023**	**0.2886**	**2.0700e-003**	**25.1989**	**5.0000e-004**	**25.1994**	**2.5137**	**4.7000e-004**	**2.5142**		**222.5758**	**222.5758**	**0.0203**		**223.0824**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.9000e-003	0.6364	0.0840	9.6000e-004	1.7547	1.5000e-004	1.7549	0.1752	1.4000e-004	0.1754		103.9858	103.9858	0.0101		104.2385
Vendor	0.0130	0.7618	0.1382	9.9000e-004	3.1239	1.7000e-004	3.1240	0.3121	1.6000e-004	0.3123		107.0121	107.0121	9.8100e-003		107.2574
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	5.2040	1.8000e-004	5.2041	0.5193	1.7000e-004	0.5194		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0399**	**1.4023**	**0.2886**	**2.0700e-003**	**10.0825**	**5.0000e-004**	**10.0830**	**1.0066**	**4.7000e-004**	**1.0071**		**222.5758**	**222.5758**	**0.0203**		**223.0824**

3.18 Plots 5 and 10 (2028) Building-Electrical - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0204	1.4547	0.1920	2.1900e-003	10.0232	3.3000e-004	10.0236	1.0000	3.2000e-004	1.0003		237.6817	237.6817	0.0231		238.2594
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3117		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	7.8046	1.1000e-004	7.8047	0.7784	1.0000e-004	0.7785		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0363**	**1.7619**	**0.2871**	**2.6600e-003**	**20.9503**	**5.1000e-004**	**20.9508**	**2.0899**	**4.8000e-004**	**2.0904**		**287.4333**	**287.4333**	**0.0272**		**288.1143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0204	1.4547	0.1920	2.1900e-003	4.0108	3.3000e-004	4.0111	0.4005	3.2000e-004	0.4008		237.6817	237.6817	0.0231		238.2594
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0108	2.4400e-003	0.0399	7.0000e-005	3.1224	1.1000e-004	3.1225	0.3116	1.0000e-004	0.3117		6.9468	6.9468	2.1000e-004		6.9519
Total	**0.0363**	**1.7619**	**0.2871**	**2.6600e-003**	**8.3827**	**5.1000e-004**	**8.3832**	**0.8369**	**4.8000e-004**	**0.8374**		**287.4333**	**287.4333**	**0.0272**		**288.1143**

3.19 Plots 5 and 10 (2028) Building-Landscaping - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0600e-003	0.3555	0.0645	4.6000e-004	3.6428	8.0000e-005	3.6429	0.3635	8.0000e-005	0.3636		49.9390	49.9390	4.5800e-003		50.0535
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	5.2031	7.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0132**	**0.3571**	**0.0911**	**5.1000e-004**	**8.8459**	**1.5000e-004**	**8.8461**	**0.8824**	**1.5000e-004**	**0.8826**		**54.5702**	**54.5702**	**4.7200e-003**		**54.6881**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0600e-003	0.3555	0.0645	4.6000e-004	1.4578	8.0000e-005	1.4579	0.1457	8.0000e-005	0.1457		49.9390	49.9390	4.5800e-003		50.0535
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0132**	**0.3571**	**0.0911**	**5.1000e-004**	**3.5394**	**1.5000e-004**	**3.5395**	**0.3534**	**1.5000e-004**	**0.3535**		**54.5702**	**54.5702**	**4.7200e-003**		**54.6881**

3.20 Plots 5 and 10 (2028) Landscaping - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3117		42.8048	42.8048	3.9200e-003		42.9030
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	5.2031	7.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0124**	**0.3064**	**0.0819**	**4.5000e-004**	**8.3255**	**1.4000e-004**	**8.3257**	**0.8305**	**1.3000e-004**	**0.8306**		**47.4360**	**47.4360**	**4.0600e-003**		**47.5376**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.8048	42.8048	3.9200e-003		42.9030
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0124**	**0.3064**	**0.0819**	**4.5000e-004**	**3.3311**	**1.4000e-004**	**3.3313**	**0.3326**	**1.3000e-004**	**0.3327**		**47.4360**	**47.4360**	**4.0600e-003**		**47.5376**

3.21 Plots 5 and 10 (2028) Curbing/Drive Approaches - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.2400e-003	0.5891	0.0777	8.8000e-004	4.0589	1.3000e-004	4.0591	0.4049	1.3000e-004	0.4051		96.2497	96.2497	9.3600e-003		96.4837
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	2.0816	5.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.5366	28.5366	2.6200e-003		28.6020
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	5.2031	7.0000e-005	5.2032	0.5189	7.0000e-005	0.5190		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0189**	**0.7939**	**0.1412**	**1.1900e-003**	**11.3436**	**2.5000e-004**	**11.3439**	**1.1316**	**2.4000e-004**	**1.1318**		**129.4175**	**129.4175**	**0.0121**		**129.7202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.2400e-003	0.5891	0.0777	8.8000e-004	1.6242	1.3000e-004	1.6243	0.1622	1.3000e-004	0.1623		96.2497	96.2497	9.3600e-003		96.4837
Vendor	3.4600e-003	0.2032	0.0369	2.6000e-004	0.8330	5.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.5366	28.5366	2.6200e-003		28.6020
Worker	7.1800e-003	1.6300e-003	0.0266	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	7.0000e-005	0.2078		4.6312	4.6312	1.4000e-004		4.6346
Total	**0.0189**	**0.7939**	**0.1412**	**1.1900e-003**	**4.5388**	**2.5000e-004**	**4.5390**	**0.4531**	**2.4000e-004**	**0.4534**		**129.4175**	**129.4175**	**0.0121**		**129.7202**

3.22 Plots 5 and 10 (2028) Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.9969	0.1316	1.5000e-003	6.8690	2.3000e-004	6.8692	0.6853	2.2000e-004	0.6855		162.8841	162.8841	0.0158		163.2800
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3117		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	13.0077	1.8000e-004	13.0079	1.2973	1.7000e-004	1.2975		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0371**	**1.3057**	**0.2533**	**2.0200e-003**	**22.9991**	**4.8000e-004**	**22.9995**	**2.2941**	**4.5000e-004**	**2.2946**		**217.2669**	**217.2669**	**0.0201**		**217.7695**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0139	0.9969	0.1316	1.5000e-003	2.7486	2.3000e-004	2.7488	0.2745	2.2000e-004	0.2747		162.8841	162.8841	0.0158		163.2800
Vendor	5.1900e-003	0.3047	0.0553	4.0000e-004	1.2495	7.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.8048	42.8048	3.9200e-003		42.9030
Worker	0.0180	4.0700e-003	0.0665	1.2000e-004	5.2040	1.8000e-004	5.2041	0.5193	1.7000e-004	0.5194		11.5780	11.5780	3.4000e-004		11.5866
Total	**0.0371**	**1.3057**	**0.2533**	**2.0200e-003**	**9.2021**	**4.8000e-004**	**9.2026**	**0.9186**	**4.5000e-004**	**0.9191**		**217.2669**	**217.2669**	**0.0201**		**217.7695**

3.23 Plots 5 and 10 (2028) Temporary Utilities - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.24 Plots 7 8 21 22 (2029) Utilities - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0252	1.8063	0.2419	2.7100e-003	12.5290	3.9000e-004	12.5294	1.2499	3.7000e-004	1.2503		295.0404	295.0404	0.0281		295.7435
Vendor	0.0212	1.2643	0.2259	1.6400e-003	13.0101	2.7000e-004	13.0104	1.2983	2.6000e-004	1.2985		177.2421	177.2421	0.0159		177.6401
Worker	0.0268	5.9300e-003	0.0991	1.8000e-004	20.8123	2.7000e-004	20.8126	2.0757	2.5000e-004	2.0759		18.0172	18.0172	5.0000e-004		18.0296
Total	**0.0731**	**3.0766**	**0.5669**	**4.5300e-003**	**46.3515**	**9.3000e-004**	**46.3524**	**4.6239**	**8.8000e-004**	**4.6247**		**490.2997**	**490.2997**	**0.0445**		**491.4132**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0252	1.8063	0.2419	2.7100e-003	5.0135	3.9000e-004	5.0138	0.5006	3.7000e-004	0.5010		295.0404	295.0404	0.0281		295.7435
Vendor	0.0212	1.2643	0.2259	1.6400e-003	5.2064	2.7000e-004	5.2067	0.5202	2.6000e-004	0.5205		177.2421	177.2421	0.0159		177.6401
Worker	0.0268	5.9300e-003	0.0991	1.8000e-004	8.3263	2.7000e-004	8.3266	0.8308	2.5000e-004	0.8311		18.0172	18.0172	5.0000e-004		18.0296
Total	**0.0731**	**3.0766**	**0.5669**	**4.5300e-003**	**18.5462**	**9.3000e-004**	**18.5471**	**1.8517**	**8.8000e-004**	**1.8526**		**490.2997**	**490.2997**	**0.0445**		**491.4132**

3.25 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0302	2.1676	0.2903	3.2500e-003	15.0348	4.6000e-004	15.0353	1.4999	4.4000e-004	1.5004		354.0485	354.0485	0.0338		354.8922
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	13.0077	1.7000e-004	13.0079	1.2973	1.6000e-004	1.2975		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0486**	**2.2725**	**0.3703**	**3.4900e-003**	**29.0833**	**6.5000e-004**	**29.0840**	**2.9011**	**6.2000e-004**	**2.9017**		**379.4886**	**379.4886**	**0.0353**		**380.3719**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0302	2.1676	0.2903	3.2500e-003	6.0161	4.6000e-004	6.0166	0.6008	4.4000e-004	0.6012		354.0485	354.0485	0.0338		354.8922
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	5.2040	1.7000e-004	5.2041	0.5193	1.6000e-004	0.5194		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0486**	**2.2725**	**0.3703**	**3.4900e-003**	**11.6366**	**6.5000e-004**	**11.6373**	**1.1617**	**6.2000e-004**	**1.1623**		**379.4886**	**379.4886**	**0.0353**		**380.3719**

3.26 Plots 7 8 21 22 (2029) Building-Wet Utilities - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.8200e-003	0.6322	0.0847	9.5000e-004	4.3852	1.4000e-004	4.3853	0.4375	1.3000e-004	0.4376		103.2642	103.2642	9.8400e-003		103.5102
Vendor	0.0127	0.7586	0.1355	9.8000e-004	7.8061	1.6000e-004	7.8063	0.7790	1.5000e-004	0.7791		106.3453	106.3453	9.5500e-003		106.5840
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	13.0077	1.7000e-004	13.0079	1.2973	1.6000e-004	1.2975		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0383**	**1.3945**	**0.2821**	**2.0400e-003**	**25.1989**	**4.7000e-004**	**25.1994**	**2.5137**	**4.4000e-004**	**2.5142**		**220.8702**	**220.8702**	**0.0197**		**221.3628**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.8200e-003	0.6322	0.0847	9.5000e-004	1.7547	1.4000e-004	1.7548	0.1752	1.3000e-004	0.1754		103.2642	103.2642	9.8400e-003		103.5102
Vendor	0.0127	0.7586	0.1355	9.8000e-004	3.1239	1.6000e-004	3.1240	0.3121	1.5000e-004	0.3123		106.3453	106.3453	9.5500e-003		106.5840
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	5.2040	1.7000e-004	5.2041	0.5193	1.6000e-004	0.5194		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0383**	**1.3945**	**0.2821**	**2.0400e-003**	**10.0825**	**4.7000e-004**	**10.0830**	**1.0066**	**4.4000e-004**	**1.0071**		**220.8702**	**220.8702**	**0.0197**		**221.3628**

3.27 Plots 7 8 21 22 (2029) Building-Electrical - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0202	1.4451	0.1935	2.1700e-003	10.0232	3.1000e-004	10.0235	1.0000	3.0000e-004	1.0003		236.0323	236.0323	0.0225		236.5948
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0353**	**1.7507**	**0.2849**	**2.6300e-003**	**20.9503**	**4.7000e-004**	**20.9507**	**2.0899**	**4.5000e-004**	**2.0904**		**285.3269**	**285.3269**	**0.0265**		**285.9895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0202	1.4451	0.1935	2.1700e-003	4.0108	3.1000e-004	4.0111	0.4005	3.0000e-004	0.4008		236.0323	236.0323	0.0225		236.5948
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0353**	**1.7507**	**0.2849**	**2.6300e-003**	**8.3827**	**4.7000e-004**	**8.3832**	**0.8369**	**4.5000e-004**	**0.8374**		**285.3269**	**285.3269**	**0.0265**		**285.9895**

3.28 Plots 7 8 21 22 (2029) Building-Landscaping - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.3540	0.0633	4.6000e-004	3.6428	8.0000e-005	3.6429	0.3635	7.0000e-005	0.3636		49.6278	49.6278	4.4600e-003		49.7392
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	5.2031	7.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0126**	**0.3555**	**0.0880**	**5.1000e-004**	**8.8459**	**1.5000e-004**	**8.8461**	**0.8824**	**1.3000e-004**	**0.8826**		**54.1321**	**54.1321**	**4.5800e-003**		**54.2466**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.3540	0.0633	4.6000e-004	1.4578	8.0000e-005	1.4579	0.1457	7.0000e-005	0.1457		49.6278	49.6278	4.4600e-003		49.7392
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0126**	**0.3555**	**0.0880**	**5.1000e-004**	**3.5394**	**1.5000e-004**	**3.5395**	**0.3534**	**1.3000e-004**	**0.3535**		**54.1321**	**54.1321**	**4.5800e-003**		**54.2466**

3.29 Plots 7 8 21 22 (2029) Landscaping - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.5381	42.5381	3.8200e-003		42.6336
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	5.2031	7.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0118**	**0.3049**	**0.0790**	**4.4000e-004**	**8.3255**	**1.3000e-004**	**8.3256**	**0.8305**	**1.2000e-004**	**0.8306**		**47.0424**	**47.0424**	**3.9400e-003**		**47.1410**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.5381	42.5381	3.8200e-003		42.6336
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0118**	**0.3049**	**0.0790**	**4.4000e-004**	**3.3311**	**1.3000e-004**	**3.3313**	**0.3326**	**1.2000e-004**	**0.3327**		**47.0424**	**47.0424**	**3.9400e-003**		**47.1410**

3.30 Plots 7 8 21 22 (2029) Curbing/Drive Approaches - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	4.0589	1.3000e-004	4.0591	0.4049	1.2000e-004	0.4051		95.5818	95.5818	9.1100e-003		95.8096
Vendor	3.3900e-003	0.2023	0.0361	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.3587	28.3587	2.5500e-003		28.4224
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	5.2031	7.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0182**	**0.7889**	**0.1393**	**1.1900e-003**	**11.3436**	**2.4000e-004**	**11.3439**	**1.1316**	**2.2000e-004**	**1.1318**		**128.4448**	**128.4448**	**0.0118**		**128.7394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	1.6242	1.3000e-004	1.6243	0.1622	1.2000e-004	0.1623		95.5818	95.5818	9.1100e-003		95.8096
Vendor	3.3900e-003	0.2023	0.0361	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.3587	28.3587	2.5500e-003		28.4224
Worker	6.6900e-003	1.4800e-003	0.0248	5.0000e-005	2.0816	7.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.5043	4.5043	1.2000e-004		4.5074
Total	**0.0182**	**0.7889**	**0.1393**	**1.1900e-003**	**4.5388**	**2.4000e-004**	**4.5390**	**0.4531**	**2.2000e-004**	**0.4534**		**128.4448**	**128.4448**	**0.0118**		**128.7394**

3.31 Plots 7 8 21 22 (2029) Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0138	0.9903	0.1326	1.4900e-003	6.8690	2.1000e-004	6.8692	0.6853	2.0000e-004	0.6855		161.7538	161.7538	0.0154		162.1393
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	13.0077	1.7000e-004	13.0079	1.2973	1.6000e-004	1.2975		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0356**	**1.2975**	**0.2488**	**1.9900e-003**	**22.9991**	**4.4000e-004**	**22.9995**	**2.2941**	**4.2000e-004**	**2.2946**		**215.5526**	**215.5526**	**0.0196**		**216.0414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0138	0.9903	0.1326	1.4900e-003	2.7486	2.1000e-004	2.7488	0.2745	2.0000e-004	0.2747		161.7538	161.7538	0.0154		162.1393
Vendor	5.0800e-003	0.3034	0.0542	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.5381	42.5381	3.8200e-003		42.6336
Worker	0.0167	3.7100e-003	0.0619	1.1000e-004	5.2040	1.7000e-004	5.2041	0.5193	1.6000e-004	0.5194		11.2607	11.2607	3.1000e-004		11.2685
Total	**0.0356**	**1.2975**	**0.2488**	**1.9900e-003**	**9.2021**	**4.4000e-004**	**9.2025**	**0.9186**	**4.2000e-004**	**0.9190**		**215.5526**	**215.5526**	**0.0196**		**216.0414**

3.32 Plots 7 8 21 22 (2029) Temporary Utilities - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.33 Plots 7 8 21 22 (2029) Mass Excavation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0232	1.6612	0.2225	2.4900e-003	11.5226	3.6000e-004	11.5230	1.1495	3.4000e-004	1.1499		271.3402	271.3402	0.0259		271.9868
Vendor	7.6200e-003	0.4551	0.0813	5.9000e-004	4.6837	1.0000e-004	4.6838	0.4674	9.0000e-005	0.4675		63.8072	63.8072	5.7300e-003		63.9504
Worker	0.0335	7.4200e-003	0.1239	2.3000e-004	26.0154	3.4000e-004	26.0157	2.5946	3.1000e-004	2.5949		22.5215	22.5215	6.2000e-004		22.5370
Total	**0.0642**	**2.1238**	**0.4277**	**3.3100e-003**	**42.2216**	**8.0000e-004**	**42.2224**	**4.2115**	**7.4000e-004**	**4.2122**		**357.6689**	**357.6689**	**0.0322**		**358.4743**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0232	1.6612	0.2225	2.4900e-003	4.6107	3.6000e-004	4.6111	0.4604	3.4000e-004	0.4608		271.3402	271.3402	0.0259		271.9868
Vendor	7.6200e-003	0.4551	0.0813	5.9000e-004	1.8743	1.0000e-004	1.8744	0.1873	9.0000e-005	0.1874		63.8072	63.8072	5.7300e-003		63.9504
Worker	0.0335	7.4200e-003	0.1239	2.3000e-004	10.4079	3.4000e-004	10.4083	1.0385	3.1000e-004	1.0389		22.5215	22.5215	6.2000e-004		22.5370
Total	**0.0642**	**2.1238**	**0.4277**	**3.3100e-003**	**16.8930**	**8.0000e-004**	**16.8938**	**1.6863**	**7.4000e-004**	**1.6870**		**357.6689**	**357.6689**	**0.0322**		**358.4743**

3.34 Plots 7 8 21 22 (2029) Finish Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	4.0589	1.3000e-004	4.0591	0.4049	1.2000e-004	0.4051		95.5818	95.5818	9.1100e-003		95.8096
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0199**	**0.6886**	**0.1336**	**1.0800e-003**	**12.9044**	**2.5000e-004**	**12.9046**	**1.2872**	**2.3000e-004**	**1.2874**		**116.5176**	**116.5176**	**0.0106**		**116.7819**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1600e-003	0.5852	0.0784	8.8000e-004	1.6242	1.3000e-004	1.6243	0.1622	1.2000e-004	0.1623		95.5818	95.5818	9.1100e-003		95.8096
Vendor	1.6900e-003	0.1011	0.0181	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.1794	14.1794	1.2700e-003		14.2112
Worker	0.0100	2.2300e-003	0.0372	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.7564	6.7564	1.9000e-004		6.7611
Total	**0.0199**	**0.6886**	**0.1336**	**1.0800e-003**	**5.1631**	**2.5000e-004**	**5.1633**	**0.5154**	**2.3000e-004**	**0.5156**		**116.5176**	**116.5176**	**0.0106**		**116.7819**

Plot 11 Emissions Summary

Mitigated Air Quality Construction Analysis

Regional Maximums	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day					
Plot 11 (2030) Mass Excavation	10.50	51.57	379.02	0.89	52.73	7.04
Plot 11 (2030) Finish Grading	0.42	3.91	17.83	0.04	8.83	1.04
Plot 11 (2030) Utilities	8.81	39.85	159.74	0.43	31.19	4.26
Plot 11 (2030) Building-Concrete	1.15	8.90	46.83	0.10	2.55	0.59
Plot 11 (2030) Building-Wet Utilities	2.46	11.97	81.03	0.17	15.08	1.95
Plot 11 (2030) Building-Electrical	1.68	16.22	45.82	0.10	11.87	1.49
Plot 11 (2030) Building-Landscaping	1.60	13.74	37.34	0.06	4.71	0.72
Plot 11 (2030) Landscaping	1.64	13.78	40.01	0.07	4.49	0.70
Plot 11 (2030) Curbing/Drive Approaches	0.36	4.58	11.93	0.03	5.03	0.61
Plot 11 (2030) Paving	1.32	8.80	54.69	0.12	12.74	1.59
Plot 11 (2030) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 11 (2031) Utilities	8.79	39.79	159.67	0.43	31.19	4.26
Plot 11 (2031) Building-Concrete	1.19	11.11	47.16	0.11	14.18	1.76
Plot 11 (2031) Building-Wet Utilities	2.46	11.94	80.98	0.17	15.08	1.94
Plot 11 (2031) Building-Electrical	1.68	16.19	45.80	0.10	11.87	1.49
Plot 11 (2031) Building-Landscaping	1.60	13.74	37.32	0.06	4.71	0.72
Plot 11 (2031) Landscaping	1.63	13.77	39.99	0.07	4.49	0.70
Plot 11 (2031) Curbing/Drive Approaches	0.36	4.57	11.92	0.03	5.03	0.61
Plot 11 (2031) Paving	1.31	8.77	54.65	0.12	12.74	1.59
Plot 11 (2031) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 11 (2032) Mass Excavation	8.95	42.13	325.79	0.75	34.95	4.92
Plot 11 (2032) Finish Grading	0.42	4.16	17.87	0.04	9.12	1.07
Plot 11 (2032) Utilities	8.78	39.71	159.59	0.43	31.19	4.26
Plot 11 (2032) Building-Concrete	1.18	11.05	47.12	0.10	14.18	1.76
Plot 11 (2032) Building-Wet Utilities	2.45	11.90	80.93	0.17	15.08	1.94
Plot 11 (2032) Building-Electrical	1.67	16.14	45.78	0.09	11.87	1.49
Plot 11 (2032) Building-Landscaping	1.59	13.72	37.30	0.06	4.71	0.72
Plot 11 (2032) Landscaping	1.63	13.76	39.97	0.07	4.49	0.70
Plot 11 (2032) Curbing/Drive Approaches	0.36	4.54	11.90	0.03	5.03	0.61
Plot 11 (2032) Paving	1.30	8.73	54.60	0.12	12.74	1.59
Plot 11 (2032) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05

Overlapping Phases

Plot 11-2030	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	28.27	159.93	807.61	1.86	131.44	17.78
Plot 11-2031						
All Phases	19.36	121.35	490.01	1.11	99.34	13.11
Plot 11-2032						
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	27.91	161.68	802.98	1.84	134.24	17.98
Daily Maximum[1]						
2030	160.36	159.93	807.61	1.86	131.44	17.78
2031	151.45	121.35	490.01	1.11	99.34	13.11
2032	160.00	161.68	802.98	1.84	134.24	17.98

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions						
Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day					
Plot 11 (2030) Mass Excavation	0.07	2.61	0.49	0.00	18.36	1.83
Plot 11 (2030) Finish Grading	0.02	0.88	0.16	0.00	5.85	0.58
Plot 11 (2030) Utilities	0.07	3.06	0.56	0.00	18.55	1.85
Plot 11 (2030) Building-Concrete	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2030) Building-Wet Utilities	0.04	1.39	0.28	0.00	10.08	1.01
Plot 11 (2030) Building-Electrical	0.03	1.74	0.28	0.00	8.38	0.84
Plot 11 (2030) Building-Landscaping	0.01	0.35	0.09	0.00	3.54	0.35
Plot 11 (2030) Landscaping	0.01	0.30	0.08	0.00	3.33	0.33
Plot 11 (2030) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 11 (2030) Paving	0.03	1.29	0.25	0.00	9.20	0.92
Plot 11 (2030) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	0.07	3.05	0.55	0.00	18.55	1.85
Plot 11 (2031) Building-Concrete	0.05	2.25	0.37	0.00	11.64	1.16
Plot 11 (2031) Building-Wet Utilities	0.04	1.38	0.27	0.00	10.08	1.01
Plot 11 (2031) Building-Electrical	0.03	1.73	0.28	0.00	8.38	0.84
Plot 11 (2031) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 11 (2031) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 11 (2031) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 11 (2031) Paving	0.03	1.28	0.24	0.00	9.20	0.92
Plot 11 (2031) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	0.05	1.58	0.34	0.00	15.64	1.56
Plot 11 (2032) Finish Grading	0.02	0.97	0.17	0.00	6.12	0.61
Plot 11 (2032) Utilities	0.07	3.04	0.55	0.00	18.55	1.85
Plot 11 (2032) Building-Concrete	0.04	2.24	0.37	0.00	11.64	1.16
Plot 11 (2032) Building-Wet Utilities	0.03	1.38	0.27	0.00	10.08	1.01
Plot 11 (2032) Building-Electrical	0.03	1.73	0.28	0.00	8.38	0.84
Plot 11 (2032) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 11 (2032) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 11 (2032) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 11 (2032) Paving	0.03	1.28	0.24	0.00	9.20	0.92
Plot 11 (2032) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Mitigated VOC Emissions (lb/day)	
2030	132
2031	132
2032	132

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 11 (2030) Mass Excavation	10.01	43.39	374.74	0.84	32.56	4.71	0.39	5.50	3.79	0.04	1.81	0.50
Plot 11 (2030) Finish Grading	0.27	1.16	16.45	0.03	2.39	0.29	0.12	1.86	1.22	0.01	0.58	0.16
Plot 11 (2030) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.39	6.44	3.80	0.04	1.88	0.53
Plot 11 (2030) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.26	4.71	2.68	0.03	1.16	0.32
Plot 11 (2030) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.21	2.94	1.95	0.02	1.01	0.28
Plot 11 (2030) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.19	3.63	1.91	0.02	0.85	0.24
Plot 11 (2030) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.07	0.76	0.61	0.01	0.35	0.10
Plot 11 (2030) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.06	0.66	0.57	0.01	0.33	0.09
Plot 11 (2030) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.10	1.65	0.97	0.01	0.46	0.13
Plot 11 (2030) Paving	1.08	4.76	52.57	0.10	2.63	0.42	0.19	2.72	1.88	0.02	0.91	0.25
Plot 11 (2030) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.38	6.40	3.74	0.04	1.88	0.53
Plot 11 (2031) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.25	4.68	2.65	0.03	1.16	0.32
Plot 11 (2031) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.20	2.92	1.90	0.02	1.01	0.28
Plot 11 (2031) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.18	3.61	1.90	0.02	0.85	0.24
Plot 11 (2031) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.07	0.76	0.59	0.01	0.35	0.10
Plot 11 (2031) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.06	0.65	0.55	0.01	0.33	0.09
Plot 11 (2031) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.09	1.63	0.95	0.01	0.46	0.13
Plot 11 (2031) Paving	1.08	4.76	52.57	0.10	2.63	0.42	0.19	2.70	1.84	0.02	0.91	0.25
Plot 11 (2031) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	8.58	37.19	322.67	0.72	17.79	2.94	0.29	3.33	2.77	0.03	1.52	0.42
Plot 11 (2032) Finish Grading	0.27	1.16	16.45	0.03	2.39	0.29	0.12	2.02	1.25	0.01	0.61	0.17
Plot 11 (2032) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.37	6.33	3.67	0.04	1.88	0.53
Plot 11 (2032) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.25	4.62	2.61	0.03	1.16	0.32
Plot 11 (2032) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.19	2.89	1.86	0.02	1.01	0.28
Plot 11 (2032) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.18	3.57	1.87	0.02	0.85	0.24
Plot 11 (2032) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.06	0.75	0.58	0.01	0.35	0.10
Plot 11 (2032) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.06	0.65	0.54	0.01	0.33	0.09
Plot 11 (2032) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.09	1.62	0.94	0.01	0.46	0.13
Plot 11 (2032) Paving	1.08	4.76	52.57	0.10	2.63	0.42	0.18	2.67	1.80	0.02	0.91	0.25
Plot 11 (2032) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 11 (2030) Mass Excavation	10.4	48.9	378.5	0.88	34.37	5.21
Plot 11 (2030) Finish Grading	0.4	3.0	17.7	0.04	2.97	0.45
Plot 11 (2030) Utilities	8.7	36.7	159.2	0.43	12.64	2.40
Plot 11 (2030) Building-Concrete	1.1	8.9	46.8	0.10	2.55	0.59
Plot 11 (2030) Building-Wet Utilities	2.4	10.5	80.8	0.17	5.00	0.94
Plot 11 (2030) Building-Electrical	1.6	14.4	45.5	0.09	3.49	0.65
Plot 11 (2030) Building-Landscaping	1.6	13.4	37.3	0.06	1.17	0.37
Plot 11 (2030) Landscaping	1.6	13.5	39.9	0.07	1.16	0.36
Plot 11 (2030) Curbing/Drive Approaches	0.3	3.8	11.8	0.03	0.49	0.16
Plot 11 (2030) Paving	1.3	7.5	54.4	0.12	3.54	0.67
Plot 11 (2030) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 11 (2031) Utilities	8.7	36.7	159.1	0.43	12.64	2.40
Plot 11 (2031) Building-Concrete	1.1	8.8	46.8	0.10	2.55	0.59
Plot 11 (2031) Building-Wet Utilities	2.4	10.5	80.7	0.17	5.00	0.94
Plot 11 (2031) Building-Electrical	1.6	14.4	45.5	0.09	3.49	0.65
Plot 11 (2031) Building-Landscaping	1.6	13.4	37.2	0.06	1.17	0.37
Plot 11 (2031) Landscaping	1.6	13.5	39.9	0.07	1.16	0.36
Plot 11 (2031) Curbing/Drive Approaches	0.3	3.8	11.8	0.03	0.49	0.16
Plot 11 (2031) Paving	1.3	7.5	54.4	0.12	3.54	0.67
Plot 11 (2031) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 11 (2032) Mass Excavation	8.9	40.5	325.4	0.75	19.31	3.36
Plot 11 (2032) Finish Grading	0.4	3.2	17.7	0.04	3.00	0.46
Plot 11 (2032) Utilities	8.7	36.6	159.0	0.43	12.64	2.40
Plot 11 (2032) Building-Concrete	1.1	8.8	46.8	0.10	2.55	0.59
Plot 11 (2032) Building-Wet Utilities	2.4	10.5	80.7	0.17	5.00	0.94
Plot 11 (2032) Building-Electrical	1.6	14.4	45.5	0.09	3.49	0.65
Plot 11 (2032) Building-Landscaping	1.6	13.4	37.2	0.06	1.17	0.36
Plot 11 (2032) Landscaping	1.6	13.4	39.9	0.07	1.16	0.36
Plot 11 (2032) Curbing/Drive Approaches	0.3	3.7	11.8	0.03	0.49	0.16
Plot 11 (2032) Paving	1.3	7.4	54.4	0.12	3.54	0.67
Plot 11 (2032) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05

Overlapping Phases						
Plot 11-2030	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	27.89	149.31	805.68	1.84	63.35	10.98
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	27.50	146.29	788.01	1.80	60.38	10.52
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	17.44	101.18	421.28	0.95	26.49	5.48
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	18.71	108.65	475.72	1.07	30.03	6.15
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	19.05	110.13	488.24	1.10	30.08	6.19
Plot 11-2031						
All Phases	19.00	109.97	488.00	1.10	30.08	6.19
Plot 11-2032						
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	26.28	140.74	752.21	1.71	48.32	9.14
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	25.89	137.56	734.52	1.67	45.31	8.68
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	26.23	100.80	420.83	0.95	26.49	5.48
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	27.49	148.73	800.64	1.82	49.34	9.51
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	18.96	109.70	487.71	1.09	30.08	6.19
Daily Maximum[1]						
2030	27.89	149.31	805.68	1.84	63.35	10.98
2031	19.00	109.97	488.00	1.10	30.08	6.19
2032	27.49	148.73	800.64	1.82	49.34	9.51

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 11 (2030) Mass Excavation	10.01	43.39	374.74	0.84	32.56	4.71	0.42	5.56	3.66	0.04	1.81	0.50
Plot 11 (2030) Finish Grading	0.27	1.16	16.45	0.03	2.39	0.29	0.13	1.88	1.18	0.01	0.58	0.16
Plot 11 (2030) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.42	6.51	3.73	0.04	1.88	0.53
Plot 11 (2030) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.28	4.75	2.64	0.03	1.16	0.32
Plot 11 (2030) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.22	2.98	1.89	0.02	1.01	0.28
Plot 11 (2030) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.20	3.67	1.91	0.02	0.85	0.24
Plot 11 (2030) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.07	0.78	0.58	0.01	0.35	0.10
Plot 11 (2030) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.07	0.67	0.54	0.01	0.33	0.09
Plot 11 (2030) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.10	1.66	0.95	0.01	0.46	0.13
Plot 11 (2030) Paving	1.08	4.76	52.57	0.10	2.63	0.42	0.21	2.75	1.82	0.02	0.91	0.25
Plot 11 (2030) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.40	6.47	3.67	0.04	1.88	0.53
Plot 11 (2031) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.27	4.72	2.62	0.03	1.16	0.32
Plot 11 (2031) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.21	2.96	1.85	0.02	1.01	0.28
Plot 11 (2031) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.19	3.64	1.89	0.02	0.85	0.24
Plot 11 (2031) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.07	0.77	0.57	0.01	0.35	0.10
Plot 11 (2031) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.07	0.66	0.52	0.01	0.33	0.09
Plot 11 (2031) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.10	1.65	0.94	0.01	0.46	0.13
Plot 11 (2031) Paving	1.08	4.76	52.57	0.10	2.63	0.42	0.20	2.73	1.78	0.02	0.91	0.25
Plot 11 (2031) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	8.58	37.19	322.67	0.72	17.79	2.94	0.32	3.37	2.63	0.03	1.52	0.42
Plot 11 (2032) Finish Grading	0.27	1.16	16.45	0.03	2.39	0.29	0.13	2.04	1.22	0.01	0.61	0.17
Plot 11 (2032) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.39	6.40	3.61	0.04	1.88	0.53
Plot 11 (2032) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.26	4.66	2.58	0.03	1.16	0.32
Plot 11 (2032) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.21	2.92	1.81	0.02	1.01	0.28
Plot 11 (2032) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.19	3.60	1.87	0.02	0.85	0.24
Plot 11 (2032) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.07	0.76	0.55	0.01	0.35	0.10
Plot 11 (2032) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.06	0.65	0.51	0.01	0.33	0.09
Plot 11 (2032) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.10	1.63	0.92	0.01	0.46	0.13
Plot 11 (2032) Paving	1.08	4.76	52.57	0.10	2.63	0.42	0.19	2.70	1.74	0.02	0.91	0.25
Plot 11 (2032) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 11 (2030) Mass Excavation	10.4	49.0	378.4	0.88	34.37	5.21
Plot 11 (2030) Finish Grading	0.4	3.0	17.6	0.04	2.97	0.45
Plot 11 (2030) Utilities	8.7	36.8	159.1	0.42	12.64	2.40
Plot 11 (2030) Building-Concrete	1.2	8.9	46.8	0.10	2.55	0.59
Plot 11 (2030) Building-Wet Utilities	2.4	10.6	80.7	0.17	5.00	0.94
Plot 11 (2030) Building-Electrical	1.6	14.5	45.5	0.09	3.49	0.65
Plot 11 (2030) Building-Landscaping	1.6	13.4	37.2	0.06	1.17	0.37
Plot 11 (2030) Landscaping	1.6	13.5	39.9	0.07	1.16	0.36
Plot 11 (2030) Curbing/Drive Approaches	0.3	3.8	11.8	0.03	0.49	0.16
Plot 11 (2030) Paving	1.3	7.5	54.4	0.12	3.54	0.67
Plot 11 (2030) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 11 (2031) Utilities	8.7	36.7	159.0	0.42	12.64	2.40
Plot 11 (2031) Building-Concrete	1.1	8.9	46.8	0.10	2.55	0.59
Plot 11 (2031) Building-Wet Utilities	2.4	10.6	80.7	0.17	5.00	0.94
Plot 11 (2031) Building-Electrical	1.6	14.5	45.5	0.09	3.49	0.65
Plot 11 (2031) Building-Landscaping	1.6	13.4	37.2	0.06	1.17	0.37
Plot 11 (2031) Landscaping	1.6	13.5	39.9	0.07	1.16	0.36
Plot 11 (2031) Curbing/Drive Approaches	0.3	3.8	11.8	0.03	0.49	0.16
Plot 11 (2031) Paving	1.3	7.5	54.3	0.12	3.54	0.67
Plot 11 (2031) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05
Plot 11 (2032) Mass Excavation	8.9	40.6	325.3	0.75	19.31	3.36
Plot 11 (2032) Finish Grading	0.4	3.2	17.7	0.04	3.00	0.46
Plot 11 (2032) Utilities	8.7	36.7	159.0	0.42	12.64	2.40
Plot 11 (2032) Building-Concrete	1.1	8.8	46.7	0.10	2.55	0.59
Plot 11 (2032) Building-Wet Utilities	2.4	10.5	80.6	0.17	5.00	0.94
Plot 11 (2032) Building-Electrical	1.6	14.4	45.5	0.09	3.49	0.65
Plot 11 (2032) Building-Landscaping	1.6	13.4	37.2	0.06	1.17	0.36
Plot 11 (2032) Landscaping	1.6	13.5	39.9	0.07	1.16	0.36
Plot 11 (2032) Curbing/Drive Approaches	0.3	3.8	11.7	0.03	0.49	0.16
Plot 11 (2032) Paving	1.3	7.5	54.3	0.12	3.54	0.67
Plot 11 (2032) Temporary Utilities	0.3	1.5	12.5	0.03	0.05	0.05

Overlapping Phases						
Plot 11-2030	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	28.02	149.59	805.27	1.84	63.35	10.98
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	27.62	146.56	787.65	1.80	60.38	10.53
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	17.53	101.40	421.02	0.95	26.49	5.48
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	18.82	108.90	475.40	1.06	30.03	6.15
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	19.16	110.38	487.92	1.09	30.08	6.19
Plot 11-2031						
All Phases	19.11	110.22	487.70	1.09	30.08	6.19
Plot 11-2032						
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	26.40	140.99	751.84	1.71	48.32	9.14
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	26.00	137.80	734.18	1.67	45.31	8.68
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	26.34	101.01	420.62	0.95	26.49	5.48
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	27.62	149.01	800.23	1.81	49.34	9.51
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	19.06	109.94	487.45	1.09	30.08	6.19
Daily Maximum[1]						
2030	28.02	149.59	805.27	1.84	63.35	10.98
2031	19.11	110.22	487.70	1.09	30.08	6.19
2032	27.62	149.01	800.23	1.81	49.34	9.51

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source	lb/day				lb/day			
Plot 11 (2030) Mass Excavation	43.39	374.74	32.56	4.71	2.61	0.49	18.36	1.83
Plot 11 (2030) Finish Grading	1.16	16.45	2.39	0.29	0.88	0.16	5.85	0.58
Plot 11 (2030) Utilities	30.27	155.38	10.76	1.88	3.06	0.56	18.55	1.85
Plot 11 (2030) Building-Concrete	4.14	44.15	1.38	0.27	0.00	0.00	0.00	0.00
Plot 11 (2030) Building-Wet Utilities	7.60	78.81	3.99	0.65	1.39	0.28	10.08	1.01
Plot 11 (2030) Building-Electrical	10.81	43.62	2.63	0.41	1.74	0.28	8.38	0.84
Plot 11 (2030) Building-Landscaping	12.61	36.64	0.82	0.27	0.35	0.09	3.54	0.35
Plot 11 (2030) Landscaping	12.80	39.36	0.83	0.27	0.30	0.08	3.33	0.33
Plot 11 (2030) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.78	0.14	4.54	0.45
Plot 11 (2030) Paving	4.76	52.57	2.63	0.42	1.29	0.25	9.20	0.92
Plot 11 (2030) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 11 (2031) Utilities	30.27	155.38	10.76	1.88	3.05	0.55	18.55	1.85
Plot 11 (2031) Building-Concrete	4.14	44.15	1.38	0.27	2.25	0.37	11.64	1.16
Plot 11 (2031) Building-Wet Utilities	7.60	78.81	3.99	0.65	1.38	0.27	10.08	1.01
Plot 11 (2031) Building-Electrical	10.81	43.62	2.63	0.41	1.73	0.28	8.38	0.84
Plot 11 (2031) Building-Landscaping	12.61	36.64	0.82	0.27	0.35	0.08	3.54	0.35
Plot 11 (2031) Landscaping	12.80	39.36	0.83	0.27	0.30	0.07	3.33	0.33
Plot 11 (2031) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.78	0.14	4.54	0.45
Plot 11 (2031) Paving	4.76	52.57	2.63	0.42	1.28	0.24	9.20	0.92
Plot 11 (2031) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 11 (2032) Mass Excavation	37.19	322.67	17.79	2.94	1.58	0.34	15.64	1.56
Plot 11 (2032) Finish Grading	1.16	16.45	2.39	0.29	0.97	0.17	6.12	0.61
Plot 11 (2032) Utilities	30.27	155.38	10.76	1.88	3.04	0.55	18.55	1.85
Plot 11 (2032) Building-Concrete	4.14	44.15	1.38	0.27	2.24	0.37	11.64	1.16
Plot 11 (2032) Building-Wet Utilities	7.60	78.81	3.99	0.65	1.38	0.27	10.08	1.01
Plot 11 (2032) Building-Electrical	10.81	43.62	2.63	0.41	1.73	0.28	8.38	0.84
Plot 11 (2032) Building-Landscaping	12.61	36.64	0.82	0.27	0.35	0.08	3.54	0.35
Plot 11 (2032) Landscaping	12.80	39.36	0.83	0.27	0.30	0.07	3.33	0.33
Plot 11 (2032) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.78	0.14	4.54	0.45
Plot 11 (2032) Paving	4.76	52.57	2.63	0.42	1.28	0.24	9.20	0.92
Plot 11 (2032) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 11 (2030) Mass Excavation	46.0	375.2	50.92	6.54
Plot 11 (2030) Finish Grading	2.0	16.6	8.24	0.87
Plot 11 (2030) Utilities	33.3	155.9	29.31	3.73
Plot 11 (2030) Building-Concrete	4.1	44.1	1.38	0.27
Plot 11 (2030) Building-Wet Utilities	9.0	79.1	14.07	1.66
Plot 11 (2030) Building-Electrical	12.6	43.9	11.02	1.25
Plot 11 (2030) Building-Landscaping	13.0	36.7	4.36	0.62
Plot 11 (2030) Landscaping	13.1	39.4	4.16	0.60
Plot 11 (2030) Curbing/Drive Approaches	2.9	11.0	4.57	0.49
Plot 11 (2030) Paving	6.0	52.8	11.83	1.34
Plot 11 (2030) Temporary Utilities	1.5	12.5	0.05	0.05
Plot 11 (2031) Utilities	33.3	155.9	29.31	3.73
Plot 11 (2031) Building-Concrete	6.4	44.5	13.02	1.43
Plot 11 (2031) Building-Wet Utilities	9.0	79.1	14.07	1.66
Plot 11 (2031) Building-Electrical	12.5	43.9	11.02	1.25
Plot 11 (2031) Building-Landscaping	13.0	36.7	4.36	0.62
Plot 11 (2031) Landscaping	13.1	39.4	4.16	0.60
Plot 11 (2031) Curbing/Drive Approaches	2.9	11.0	4.57	0.49
Plot 11 (2031) Paving	6.0	52.8	11.83	1.34
Plot 11 (2031) Temporary Utilities	1.5	12.5	0.05	0.05
Plot 11 (2032) Mass Excavation	38.8	323.0	33.43	4.50
Plot 11 (2032) Finish Grading	2.1	16.6	8.51	0.90
Plot 11 (2032) Utilities	33.3	155.9	29.31	3.73
Plot 11 (2032) Building-Concrete	6.4	44.5	13.02	1.43
Plot 11 (2032) Building-Wet Utilities	9.0	79.1	14.07	1.66
Plot 11 (2032) Building-Electrical	12.5	43.9	11.02	1.25
Plot 11 (2032) Building-Landscaping	13.0	36.7	4.36	0.62
Plot 11 (2032) Landscaping	13.1	39.4	4.16	0.60
Plot 11 (2032) Curbing/Drive Approaches	2.9	11.0	4.57	0.49
Plot 11 (2032) Paving	6.0	52.8	11.83	1.34
Plot 11 (2032) Temporary Utilities	1.5	12.5	0.05	0.05

Overlapping Phases				
Plot 11-2030				
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	133.14	791.08	123.45	15.55
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	131.10	774.47	115.21	14.67
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	88.01	410.20	68.86	8.62
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	94.06	463.01	80.69	9.96
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	95.54	475.53	80.74	10.00
Plot 11-2031				
All Phases	97.75	475.88	92.38	11.16
Plot 11-2032				
Mass Excavation+Finish Grading+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	128.17	739.21	117.87	14.70
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping	126.04	722.59	109.35	13.80
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing	90.19	410.54	80.50	9.78
Mass Excavation+Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving	134.99	786.36	125.76	15.62
Concrete+Wet Utils+Electrical+Landscaping+Utililties+Landscaping+Curbing+Paving+Temp Utils	97.70	475.86	92.38	11.16
Daily Maximum[1]				
2030	133.14	791.08	123.45	15.55
2031	97.75	475.88	92.38	11.16
2032	134.99	786.36	125.76	15.62

[1] Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Daily Mitigated VOC Emissions (lb/day)	
2030	132
2031	132
2032	132

World Logistics Center-Construction Plot 11 (2030-2032) - South Coast AQMD Air District, Summer

World Logistics Center-Construction Plot 11 (2030-2032)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	84.3143	379.8818	602.6752	1.8432	141.9033	11.6967	153.6000	16.6288	11.6929	28.3218	0.0000	195,811.0699	195,811.0699	8.2902	0.0000	196,018.3246
2031	55.5663	195.5952	425.1279	1.0952	61.1425	4.8004	65.9428	7.7433	4.7972	12.5405	0.0000	110,929.3178	110,929.3178	4.5555	0.0000	111,043.2045
2032	94.7309	378.0264	613.2036	1.8163	105.3293	11.6141	116.9434	12.7612	11.6104	24.3715	0.0000	191,705.1697	191,705.1697	8.1393	0.0000	191,908.6511
Maximum	**94.7309**	**379.8818**	**613.2036**	**1.8432**	**141.9033**	**11.6967**	**153.6000**	**16.6288**	**11.6929**	**28.3218**	**0.0000**	**195,811.0699**	**195,811.0699**	**8.2902**	**0.0000**	**196,018.3246**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year						lb/day							lb/day			
2030	31.1916	149.3055	805.6770	1.8432	60.1735	3.1761	63.3496	7.8039	3.1724	10.9763	0.0000	195,811.0698	195,811.0698	8.2902	0.0000	196,018.3244
2031	31.1480	109.9702	487.9996	1.0952	28.0557	2.0228	30.0785	4.1707	2.0197	6.1904	0.0000	110,929.3177	110,929.3177	4.5555	0.0000	111,043.2044
2032	39.6304	148.7341	800.6396	1.8163	46.2121	3.1309	49.3430	6.3779	3.1272	9.5050	0.0000	191,705.1696	191,705.1696	8.1393	0.0000	191,908.6510
Maximum	**39.6304**	**149.3055**	**805.6770**	**1.8432**	**60.1735**	**3.1761**	**63.3496**	**7.8039**	**3.1724**	**10.9763**	**0.0000**	**195,811.0698**	**195,811.0698**	**8.2902**	**0.0000**	**196,018.3244**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**56.54**	**57.21**	**-27.62**	**0.00**	**56.40**	**70.37**	**57.57**	**50.58**	**70.39**	**59.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 11 (2030) Mass Excavation	Grading	1/1/2030	4/17/2030	5	77	1204
2	Plot 11 (2030) Finish Grading	Grading	1/1/2030	2/25/2030	5	40	1205
3	Plot 11 (2030) Utilities	Trenching	1/1/2030	12/30/2030	5	260	1210
4	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
5	Plot 11 (2030) Building-Wet Utilities	Building Construction	1/1/2030	12/30/2030	5	260	1207
6	Plot 11 (2030) Building-Electrical	Building Construction	1/1/2030	12/30/2030	5	260	1208
7	Plot 11 (2030) Building-Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1209
8	Plot 11 (2030) Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1211
9	Plot 11 (2030) Curbing/Drive Approaches	Paving	5/1/2030	8/20/2030	5	80	1213
10	Plot 11 (2030) Paving	Paving	6/1/2030	7/26/2030	5	40	1214
11	Plot 11 (2030) Temporary Utilities	Building Construction	7/2/2030	12/30/2030	5	130	1212
12	Plot 11 (2031) Utilities	Trenching	1/1/2031	12/30/2031	5	260	1219
13	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
14	Plot 11 (2031) Building-Wet Utilities	Building Construction	1/1/2031	12/30/2031	5	260	1216
15	Plot 11 (2031) Building-Electrical	Building Construction	1/1/2031	12/30/2031	5	260	1217

16	Plot 11 (2031) Building-Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1218	
17	Plot 11 (2031) Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1220	
18	Plot 11 (2031) Curbing/Drive Approaches	Paving	5/1/2031	8/20/2031	5	80	1222	
19	Plot 11 (2031) Paving	Paving	6/1/2031	7/26/2031	5	40	1223	
20	Plot 11 (2031) Temporary Utilities	Building Construction	7/2/2031	12/30/2031	5	130	1221	
21	Plot 11 (2032) Mass Excavation	Grading	1/1/2032	6/30/2032	5	130	1224	
22	Plot 11 (2032) Finish Grading	Grading	1/1/2032	2/25/2032	5	40	1225	
23	Plot 11 (2032) Utilities	Trenching	1/1/2032	12/29/2032	5	260	1230	
24	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226	
25	Plot 11 (2032) Building-Wet Utilities	Building Construction	1/1/2032	12/29/2032	5	260	1227	
26	Plot 11 (2032) Building-Electrical	Building Construction	1/1/2032	12/29/2032	5	260	1228	
27	Plot 11 (2032) Building-Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1229	
28	Plot 11 (2032) Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1231	
29	Plot 11 (2032) Curbing/Drive Approaches	Paving	5/1/2032	8/20/2032	5	80	1233	
30	Plot 11 (2032) Paving	Paving	6/1/2032	7/26/2032	5	40	1234	
31	Plot 11 (2032) Temporary Utilities	Building Construction	7/2/2032	12/30/2032	5	130	1232	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2030) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2030) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2030) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2030) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2030) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2030) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2030) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2030) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2030) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2030) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2030) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2030) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2030) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2030) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2030) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2030) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2030) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2030) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2030) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2030) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2030) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2030) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Utilities	Other Material Handling Equipment	7	1.00	167	0.40

Plot 11 (2030) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2030) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Scrapers	12	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2031) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2031) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2031) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2031) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2031) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2031) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2031) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2031) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2031) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2031) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2031) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2031) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2031) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 11 (2031) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2031) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2031) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2031) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2031) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2031) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2031) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2031) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2031) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2031) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2031) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2031) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2031) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2031) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2032) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2032) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2032) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2032) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2032) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2032) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2032) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2032) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2032) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2032) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40

Plot 11 (2032) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2032) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Mass Excavation	Scrapers	4	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Scrapers	11	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2032) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2032) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2032) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2032) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2032) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2032) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2032) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2032) Utilities	Excavators	2	10.00	523	0.38

Plot 11 (2032) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2032) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2032) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2032) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2032) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Finish Grading		15.00	4.00	364.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 11 (2031) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Finish Grading		15.00	4.00	416.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Mass Excavation		50.00	12.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 11 (2030) Mass Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	46.0913	204.9941	218.8779	0.8430		7.7394	7.7394		7.7394	7.7394		94,850.8990	94,850.8990	4.1058		94,953.5440
Total	**46.0913**	**204.9941**	**218.8779**	**0.8430**	**80.0609**	**7.7394**	**87.8003**	**8.6447**	**7.7394**	**16.3841**		**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1490	4.3369	1.7167	0.0239	0.6154	8.8700e-003	0.6243	0.1686	8.4800e-003	0.1771		2,613.2866	2,613.2866	0.1634		2,617.3709
Vendor	0.0415	1.0627	0.3957	7.2100e-003	0.2312	2.3600e-003	0.2336	0.0665	2.2600e-003	0.0687		772.3079	772.3079	0.0301		773.0593
Worker	0.1969	0.1021	1.6796	6.9400e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		692.7107	692.7107	0.0110		692.9866
Total	**0.3874**	**5.5018**	**3.7920**	**0.0381**	**1.7968**	**0.0158**	**1.8125**	**0.4871**	**0.0149**	**0.5020**		**4,078.3052**	**4,078.3052**	**0.2045**		**4,083.4168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	10.0142	43.3948	374.7380	0.8430		1.3352	1.3352		1.3352	1.3352	0.0000	94,850.8990	94,850.8990	4.1058		94,953.5439
Total	**10.0142**	**43.3948**	**374.7380**	**0.8430**	**31.2238**	**1.3352**	**32.5590**	**3.3714**	**1.3352**	**4.7067**	**0.0000**	**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1490	4.3369	1.7167	0.0239	0.6154	8.8700e-003	0.6243	0.1686	8.4800e-003	0.1771		2,613.2866	2,613.2866	0.1634		2,617.3709
Vendor	0.0415	1.0627	0.3957	7.2100e-003	0.2312	2.3600e-003	0.2336	0.0665	2.2600e-003	0.0687		772.3079	772.3079	0.0301		773.0593
Worker	0.1969	0.1021	1.6796	6.9400e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		692.7107	692.7107	0.0110		692.9866
Total	**0.3874**	**5.5018**	**3.7920**	**0.0381**	**1.7968**	**0.0158**	**1.8125**	**0.4871**	**0.0149**	**0.5020**		**4,078.3052**	**4,078.3052**	**0.2045**		**4,083.4168**

3.3 Plot 11 (2030) Finish Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0481	1.4004	0.5543	7.7300e-003	0.1987	2.8600e-003	0.2016	0.0545	2.7400e-003	0.0572		843.8387	843.8387	0.0528		845.1575
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1238**	**1.8561**	**1.2165**	**0.0127**	**0.5762**	**5.1600e-003**	**0.5814**	**0.1566**	**4.8900e-003**	**0.1615**		**1,360.5751**	**1,360.5751**	**0.0681**		**1,362.2772**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	0.2667	1.1557	16.4464	0.0267		0.0356	0.0356		0.0356	0.0356	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**0.2667**	**1.1557**	**16.4464**	**0.0267**	**2.3575**	**0.0356**	**2.3931**	**0.2546**	**0.0356**	**0.2901**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0481	1.4004	0.5543	7.7300e-003	0.1987	2.8600e-003	0.2016	0.0545	2.7400e-003	0.0572		843.8387	843.8387	0.0528		845.1575
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1238**	**1.8561**	**1.2165**	**0.0127**	**0.5762**	**5.1600e-003**	**0.5814**	**0.1566**	**4.8900e-003**	**0.1615**		**1,360.5751**	**1,360.5751**	**0.0681**		**1,362.2772**

3.4 Plot 11 (2030) Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	3.7052	1.4666	0.0205	0.5258	7.5800e-003	0.5334	0.1441	7.2500e-003	0.1513		2,232.6416	2,232.6416	0.1396		2,236.1310
Vendor	0.1038	2.6568	0.9892	0.0180	0.5780	5.9000e-003	0.5839	0.1662	5.6400e-003	0.1719		1,930.7698	1,930.7698	0.0751		1,932.6482
Worker	0.1575	0.0817	1.3437	5.5500e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		554.1686	554.1686	8.8300e-003		554.3893
Total	**0.3886**	**6.4437**	**3.7995**	**0.0440**	**1.8639**	**0.0171**	**1.8810**	**0.5119**	**0.0162**	**0.5281**		**4,717.5800**	**4,717.5800**	**0.2236**		**4,723.1685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	3.7052	1.4666	0.0205	0.5258	7.5800e-003	0.5334	0.1441	7.2500e-003	0.1513		2,232.6416	2,232.6416	0.1396		2,236.1310
Vendor	0.1038	2.6568	0.9892	0.0180	0.5780	5.9000e-003	0.5839	0.1662	5.6400e-003	0.1719		1,930.7698	1,930.7698	0.0751		1,932.6482
Worker	0.1575	0.0817	1.3437	5.5500e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		554.1686	554.1686	8.8300e-003		554.3893
Total	**0.3886**	**6.4437**	**3.7995**	**0.0440**	**1.8639**	**0.0171**	**1.8810**	**0.5119**	**0.0162**	**0.5281**		**4,717.5800**	**4,717.5800**	**0.2236**		**4,723.1685**

3.5 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

3.6 Plot 11 (2030) Building-Wet Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2968	0.5133	7.1600e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5400e-003	0.0530		781.4246	781.4246	0.0489		782.6459
Vendor	0.0623	1.5941	0.5935	0.0108	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,158.4619	1,158.4619	0.0451		1,159.5889
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2052**	**2.9420**	**1.9467**	**0.0214**	**1.0059**	**8.4500e-003**	**1.0143**	**0.2761**	**8.0000e-003**	**0.2841**		**2,286.2418**	**2,286.2418**	**0.0995**		**2,288.7281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2968	0.5133	7.1600e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5400e-003	0.0530		781.4246	781.4246	0.0489		782.6459
Vendor	0.0623	1.5941	0.5935	0.0108	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,158.4619	1,158.4619	0.0451		1,159.5889
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2052**	**2.9420**	**1.9467**	**0.0214**	**1.0059**	**8.4500e-003**	**1.0143**	**0.2761**	**8.0000e-003**	**0.2841**		**2,286.2418**	**2,286.2418**	**0.0995**		**2,288.7281**

3.7 Plot 11 (2030) Building-Electrical - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1018	2.9642	1.1733	0.0164	0.4206	6.0600e-003	0.4267	0.1153	5.8000e-003	0.1211		1,786.1133	1,786.1133	0.1117		1,788.9048
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1858**	**3.6325**	**1.9146**	**0.0228**	**0.8444**	**8.8400e-003**	**0.8532**	**0.2307**	**8.4000e-003**	**0.2391**		**2,457.3113**	**2,457.3113**	**0.1330**		**2,460.6364**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1018	2.9642	1.1733	0.0164	0.4206	6.0600e-003	0.4267	0.1153	5.8000e-003	0.1211		1,786.1133	1,786.1133	0.1117		1,788.9048
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0591	0.0306	0.5039	2.0800e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		207.8132	207.8132	3.3100e-003		207.8960
Total	**0.1858**	**3.6325**	**1.9146**	**0.0228**	**0.8444**	**8.8400e-003**	**0.8532**	**0.2307**	**8.4000e-003**	**0.2391**		**2,457.3113**	**2,457.3113**	**0.1330**		**2,460.6364**

3.8 Plot 11 (2030) Building-Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7439	0.2770	5.0500e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		540.6156	540.6156	0.0210		541.1415
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0684**	**0.7643**	**0.6129**	**6.4400e-003**	**0.3519**	**2.5600e-003**	**0.3544**	**0.0969**	**2.4100e-003**	**0.0993**		**679.1577**	**679.1577**	**0.0233**		**679.7388**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7439	0.2770	5.0500e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		540.6156	540.6156	0.0210		541.1415
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0684**	**0.7643**	**0.6129**	**6.4400e-003**	**0.3519**	**2.5600e-003**	**0.3544**	**0.0969**	**2.4100e-003**	**0.0993**		**679.1577**	**679.1577**	**0.0233**		**679.7388**

3.9 Plot 11 (2030) Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0643**	**0.6581**	**0.5733**	**5.7100e-003**	**0.3288**	**2.3300e-003**	**0.3311**	**0.0903**	**2.1800e-003**	**0.0925**		**601.9269**	**601.9269**	**0.0202**		**602.4329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0643**	**0.6581**	**0.5733**	**5.7100e-003**	**0.3288**	**2.3300e-003**	**0.3311**	**0.0903**	**2.1800e-003**	**0.0925**		**601.9269**	**601.9269**	**0.0202**		**602.4329**

3.10 Plot 11 (2030) Curbing/Drive Approaches - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0412	1.2004	0.4751	6.6300e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		723.2903	723.2903	0.0452		724.4207
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0972**	**1.6459**	**0.9693**	**0.0109**	**0.4528**	**4.3000e-003**	**0.4571**	**0.1237**	**4.0800e-003**	**0.1277**		**1,170.7556**	**1,170.7556**	**0.0595**		**1,172.2418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0412	1.2004	0.4751	6.6300e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		723.2903	723.2903	0.0452		724.4207
Vendor	0.0166	0.4251	0.1583	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.9232	308.9232	0.0120		309.2237
Worker	0.0394	0.0204	0.3359	1.3900e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		138.5421	138.5421	2.2100e-003		138.5973
Total	**0.0972**	**1.6459**	**0.9693**	**0.0109**	**0.4528**	**4.3000e-003**	**0.4571**	**0.1237**	**4.0800e-003**	**0.1277**		**1,170.7556**	**1,170.7556**	**0.0595**		**1,172.2418**

3.11 Plot 11 (2030) Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0698	2.0314	0.8041	0.0112	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,224.0297	1,224.0297	0.0765		1,225.9428
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.1931**	**2.7201**	**1.8813**	**0.0190**	**0.9020**	**7.8300e-003**	**0.9099**	**0.2449**	**7.4000e-003**	**0.2523**		**2,033.7698**	**2,033.7698**	**0.1001**		**2,036.2716**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0971		0.1485	0.1485		0.1485	0.1485	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0971**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0698	2.0314	0.8041	0.0112	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,224.0297	1,224.0297	0.0765		1,225.9428
Vendor	0.0249	0.6376	0.2374	4.3200e-003	0.1387	1.4200e-003	0.1401	0.0399	1.3500e-003	0.0413		463.3848	463.3848	0.0180		463.8356
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.1931**	**2.7201**	**1.8813**	**0.0190**	**0.9020**	**7.8300e-003**	**0.9099**	**0.2449**	**7.4000e-003**	**0.2523**		**2,033.7698**	**2,033.7698**	**0.1001**		**2,036.2716**

3.12 Plot 11 (2030) Temporary Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 11 (2031) Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1280	3.6821	1.4810	0.0204	0.5258	7.5000e-003	0.5333	0.1441	7.1700e-003	0.1513		2,230.0206	2,230.0206	0.1392		2,233.4999
Vendor	0.1038	2.6444	0.9913	0.0180	0.5780	5.8600e-003	0.5839	0.1662	5.6000e-003	0.1718		1,929.6983	1,929.6983	0.0749		1,931.5700
Worker	0.1459	0.0747	1.2662	5.4400e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		542.8434	542.8434	8.1100e-003		543.0461
Total	**0.3776**	**6.4012**	**3.7385**	**0.0439**	**1.8639**	**0.0168**	**1.8806**	**0.5119**	**0.0159**	**0.5277**		**4,702.5624**	**4,702.5624**	**0.2222**		**4,708.1160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1280	3.6821	1.4810	0.0204	0.5258	7.5000e-003	0.5333	0.1441	7.1700e-003	0.1513		2,230.0206	2,230.0206	0.1392		2,233.4999
Vendor	0.1038	2.6444	0.9913	0.0180	0.5780	5.8600e-003	0.5839	0.1662	5.6000e-003	0.1718		1,929.6983	1,929.6983	0.0749		1,931.5700
Worker	0.1459	0.0747	1.2662	5.4400e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		542.8434	542.8434	8.1100e-003		543.0461
Total	**0.3776**	**6.4012**	**3.7385**	**0.0439**	**1.8639**	**0.0168**	**1.8806**	**0.5119**	**0.0159**	**0.5277**		**4,702.5624**	**4,702.5624**	**0.2222**		**4,708.1160**

3.14 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

3.15 Plot 11 (2031) Building-Wet Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0448	1.2887	0.5184	7.1500e-003	0.1840	2.6200e-003	0.1867	0.0504	2.5100e-003	0.0529		780.5072	780.5072	0.0487		781.7250
Vendor	0.0623	1.5866	0.5948	0.0108	0.3468	3.5100e-003	0.3503	0.0997	3.3600e-003	0.1031		1,157.8190	1,157.8190	0.0449		1,158.9420
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1982**	**2.9220**	**1.9045**	**0.0214**	**1.0059**	**8.2500e-003**	**1.0142**	**0.2761**	**7.8200e-003**	**0.2839**		**2,277.6033**	**2,277.6033**	**0.0987**		**2,280.0708**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0448	1.2887	0.5184	7.1500e-003	0.1840	2.6200e-003	0.1867	0.0504	2.5100e-003	0.0529		780.5072	780.5072	0.0487		781.7250
Vendor	0.0623	1.5866	0.5948	0.0108	0.3468	3.5100e-003	0.3503	0.0997	3.3600e-003	0.1031		1,157.8190	1,157.8190	0.0449		1,158.9420
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1982**	**2.9220**	**1.9045**	**0.0214**	**1.0059**	**8.2500e-003**	**1.0142**	**0.2761**	**7.8200e-003**	**0.2839**		**2,277.6033**	**2,277.6033**	**0.0987**		**2,280.0708**

3.16 Plot 11 (2031) Building-Electrical - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1024	2.9457	1.1848	0.0163	0.4206	6.0000e-003	0.4266	0.1153	5.7400e-003	0.1210		1,784.0165	1,784.0165	0.1113		1,786.7999
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0547	0.0280	0.4748	2.0400e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		203.5663	203.5663	3.0400e-003		203.6423
Total	**0.1820**	**3.6083**	**1.8975**	**0.0227**	**0.8444**	**8.6800e-003**	**0.8531**	**0.2307**	**8.2500e-003**	**0.2390**		**2,450.7104**	**2,450.7104**	**0.1324**		**2,454.0190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1024	2.9457	1.1848	0.0163	0.4206	6.0000e-003	0.4266	0.1153	5.7400e-003	0.1210		1,784.0165	1,784.0165	0.1113		1,786.7999
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0547	0.0280	0.4748	2.0400e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		203.5663	203.5663	3.0400e-003		203.6423
Total	**0.1820**	**3.6083**	**1.8975**	**0.0227**	**0.8444**	**8.6800e-003**	**0.8531**	**0.2307**	**8.2500e-003**	**0.2390**		**2,450.7104**	**2,450.7104**	**0.1324**		**2,454.0190**

3.17 Plot 11 (2031) Building-Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7404	0.2776	5.0400e-003	0.1618	1.6400e-003	0.1635	0.0465	1.5700e-003	0.0481		540.3155	540.3155	0.0210		540.8396
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0655**	**0.7591**	**0.5941**	**6.4000e-003**	**0.3519**	**2.4900e-003**	**0.3544**	**0.0969**	**2.3500e-003**	**0.0993**		**676.0264**	**676.0264**	**0.0230**		**676.6011**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7404	0.2776	5.0400e-003	0.1618	1.6400e-003	0.1635	0.0465	1.5700e-003	0.0481		540.3155	540.3155	0.0210		540.8396
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0655**	**0.7591**	**0.5941**	**6.4000e-003**	**0.3519**	**2.4900e-003**	**0.3544**	**0.0969**	**2.3500e-003**	**0.0993**		**676.0264**	**676.0264**	**0.0230**		**676.6011**

3.18 Plot 11 (2031) Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0614**	**0.6533**	**0.5545**	**5.6800e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1200e-003**	**0.0924**		**598.8385**	**598.8385**	**0.0200**		**599.3383**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0614**	**0.6533**	**0.5545**	**5.6800e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1200e-003**	**0.0924**		**598.8385**	**598.8385**	**0.0200**		**599.3383**

3.19 Plot 11 (2031) Curbing/Drive Approaches - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.1929	0.4798	6.6200e-003	0.1703	2.4300e-003	0.1728	0.0467	2.3200e-003	0.0490		722.4412	722.4412	0.0451		723.5683
Vendor	0.0166	0.4231	0.1586	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.7517	308.7517	0.0120		309.0512
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0945**	**1.6346**	**0.9549**	**0.0109**	**0.4528**	**4.2200e-003**	**0.4571**	**0.1237**	**4.0000e-003**	**0.1277**		**1,166.9038**	**1,166.9038**	**0.0591**		**1,168.3811**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0415	1.1929	0.4798	6.6200e-003	0.1703	2.4300e-003	0.1728	0.0467	2.3200e-003	0.0490		722.4412	722.4412	0.0451		723.5683
Vendor	0.0166	0.4231	0.1586	2.8800e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		308.7517	308.7517	0.0120		309.0512
Worker	0.0365	0.0187	0.3166	1.3600e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		135.7109	135.7109	2.0300e-003		135.7615
Total	**0.0945**	**1.6346**	**0.9549**	**0.0109**	**0.4528**	**4.2200e-003**	**0.4571**	**0.1237**	**4.0000e-003**	**0.1277**		**1,166.9038**	**1,166.9038**	**0.0591**		**1,168.3811**

3.20 Plot 11 (2031) Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0187	0.8120	0.0112	0.2883	4.1100e-003	0.2924	0.0790	3.9300e-003	0.0829		1,222.5928	1,222.5928	0.0763		1,224.5003
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1862**	**2.7000**	**1.8412**	**0.0189**	**0.9021**	**7.6400e-003**	**0.9097**	**0.2449**	**7.2200e-003**	**0.2521**		**2,024.9975**	**2,024.9975**	**0.0993**		**2,027.4809**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0971		0.1485	0.1485		0.1485	0.1485	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0971**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.0187	0.8120	0.0112	0.2883	4.1100e-003	0.2924	0.0790	3.9300e-003	0.0829		1,222.5928	1,222.5928	0.0763		1,224.5003
Vendor	0.0249	0.6346	0.2379	4.3200e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3400e-003	0.0412		463.1276	463.1276	0.0180		463.5768
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.1862**	**2.7000**	**1.8412**	**0.0189**	**0.9021**	**7.6400e-003**	**0.9097**	**0.2449**	**7.2200e-003**	**0.2521**		**2,024.9975**	**2,024.9975**	**0.0993**		**2,027.4809**

3.21 Plot 11 (2031) Temporary Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 11 (2032) Mass Excavation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					42.6729	0.0000	42.6729	4.6077	0.0000	4.6077			0.0000			0.0000
Off-Road	40.1862	183.3429	191.7895	0.7240		6.9353	6.9353		6.9353	6.9353		81,286.6667	81,286.6667	3.5825		81,376.2283
Total	**40.1862**	**183.3429**	**191.7895**	**0.7240**	**42.6729**	**6.9353**	**49.6082**	**4.6077**	**6.9353**	**11.5430**		**81,286.6667**	**81,286.6667**	**3.5825**		**81,376.2283**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	1.9837	0.8086	0.0111	0.2864	4.0300e-003	0.2904	0.0785	3.8600e-003	0.0823		1,211.7049	1,211.7049	0.0756		1,213.5937
Vendor	0.0494	1.2564	0.4741	8.6200e-003	0.2774	2.7800e-003	0.2802	0.0798	2.6600e-003	0.0825		924.3436	924.3436	0.0358		925.2384
Worker	0.1694	0.0858	1.4919	6.6600e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		665.0388	665.0388	9.3000e-003		665.2713
Total	**0.2882**	**3.3259**	**2.7746**	**0.0264**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,801.0873**	**2,801.0873**	**0.1206**		**2,804.1034**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.6424	0.0000	16.6424	1.7970	0.0000	1.7970			0.0000			0.0000
Off-Road	8.5821	37.1891	322.6699	0.7240		1.1443	1.1443		1.1443	1.1443	0.0000	81,286.6666	81,286.6666	3.5825		81,376.2282
Total	**8.5821**	**37.1891**	**322.6699**	**0.7240**	**16.6424**	**1.1443**	**17.7867**	**1.7970**	**1.1443**	**2.9413**	**0.0000**	**81,286.6666**	**81,286.6666**	**3.5825**		**81,376.2282**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0694	1.9837	0.8086	0.0111	0.2864	4.0300e-003	0.2904	0.0785	3.8600e-003	0.0823		1,211.7049	1,211.7049	0.0756		1,213.5937
Vendor	0.0494	1.2564	0.4741	8.6200e-003	0.2774	2.7800e-003	0.2802	0.0798	2.6600e-003	0.0825		924.3436	924.3436	0.0358		925.2384
Worker	0.1694	0.0858	1.4919	6.6600e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		665.0388	665.0388	9.3000e-003		665.2713
Total	**0.2882**	**3.3259**	**2.7746**	**0.0264**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,801.0873**	**2,801.0873**	**0.1206**		**2,804.1034**

3.23 Plot 11 (2032) Finish Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0550	1.5730	0.6412	8.8000e-003	0.2271	3.2000e-003	0.2303	0.0622	3.0600e-003	0.0653		960.8358	960.8358	0.0599		962.3335
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1223**	**2.0175**	**1.2468**	**0.0137**	**0.6046**	**5.3100e-003**	**0.6099**	**0.1644**	**5.0400e-003**	**0.1694**		**1,468.4620**	**1,468.4620**	**0.0746**		**1,470.3277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	0.2667	1.1557	16.4464	0.0267		0.0356	0.0356		0.0356	0.0356	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**0.2667**	**1.1557**	**16.4464**	**0.0267**	**2.3575**	**0.0356**	**2.3931**	**0.2546**	**0.0356**	**0.2901**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0550	1.5730	0.6412	8.8000e-003	0.2271	3.2000e-003	0.2303	0.0622	3.0600e-003	0.0653		960.8358	960.8358	0.0599		962.3335
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1223**	**2.0175**	**1.2468**	**0.0137**	**0.6046**	**5.3100e-003**	**0.6099**	**0.1644**	**5.0400e-003**	**0.1694**		**1,468.4620**	**1,468.4620**	**0.0746**		**1,470.3277**

3.24 Plot 11 (2032) Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1274	3.6416	1.4845	0.0204	0.5258	7.4000e-003	0.5332	0.1441	7.0800e-003	0.1512		2,224.4201	2,224.4201	0.1387		2,227.8876
Vendor	0.1029	2.6176	0.9877	0.0180	0.5780	5.8000e-003	0.5838	0.1662	5.5400e-003	0.1718		1,925.7159	1,925.7159	0.0746		1,927.5800
Worker	0.1355	0.0686	1.1935	5.3300e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		532.0310	532.0310	7.4400e-003		532.2170
Total	**0.3658**	**6.3277**	**3.6657**	**0.0437**	**1.8639**	**0.0164**	**1.8803**	**0.5119**	**0.0155**	**0.5274**		**4,682.1670**	**4,682.1670**	**0.2207**		**4,687.6846**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1274	3.6416	1.4845	0.0204	0.5258	7.4000e-003	0.5332	0.1441	7.0800e-003	0.1512		2,224.4201	2,224.4201	0.1387		2,227.8876
Vendor	0.1029	2.6176	0.9877	0.0180	0.5780	5.8000e-003	0.5838	0.1662	5.5400e-003	0.1718		1,925.7159	1,925.7159	0.0746		1,927.5800
Worker	0.1355	0.0686	1.1935	5.3300e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		532.0310	532.0310	7.4400e-003		532.2170
Total	**0.3658**	**6.3277**	**3.6657**	**0.0437**	**1.8639**	**0.0164**	**1.8803**	**0.5119**	**0.0155**	**0.5274**		**4,682.1670**	**4,682.1670**	**0.2207**		**4,687.6846**

3.25 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

3.26 Plot 11 (2032) Building-Wet Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2746	0.5196	7.1300e-003	0.1840	2.5900e-003	0.1866	0.0504	2.4800e-003	0.0529		778.5470	778.5470	0.0486		779.7607
Vendor	0.0618	1.5705	0.5927	0.0108	0.3468	3.4800e-003	0.3503	0.0997	3.3300e-003	0.1031		1,155.4296	1,155.4296	0.0447		1,156.5480
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1910**	**2.8880**	**1.8582**	**0.0212**	**1.0059**	**8.0400e-003**	**1.0139**	**0.2761**	**7.6300e-003**	**0.2838**		**2,266.4960**	**2,266.4960**	**0.0979**		**2,268.9443**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0446	1.2746	0.5196	7.1300e-003	0.1840	2.5900e-003	0.1866	0.0504	2.4800e-003	0.0529		778.5470	778.5470	0.0486		779.7607
Vendor	0.0618	1.5705	0.5927	0.0108	0.3468	3.4800e-003	0.3503	0.0997	3.3300e-003	0.1031		1,155.4296	1,155.4296	0.0447		1,156.5480
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1910**	**2.8880**	**1.8582**	**0.0212**	**1.0059**	**8.0400e-003**	**1.0139**	**0.2761**	**7.6300e-003**	**0.2838**		**2,266.4960**	**2,266.4960**	**0.0979**		**2,268.9443**

3.27 Plot 11 (2032) Building-Electrical - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1019	2.9133	1.1876	0.0163	0.4206	5.9200e-003	0.4266	0.1153	5.6600e-003	0.1209		1,779.5361	1,779.5361	0.1110		1,782.3101
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1774**	**3.5672**	**1.8722**	**0.0226**	**0.8444**	**8.4900e-003**	**0.8529**	**0.2307**	**8.0800e-003**	**0.2388**		**2,441.2195**	**2,441.2195**	**0.1317**		**2,444.5106**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1019	2.9133	1.1876	0.0163	0.4206	5.9200e-003	0.4266	0.1153	5.6600e-003	0.1209		1,779.5361	1,779.5361	0.1110		1,782.3101
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0508	0.0257	0.4476	2.0000e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		199.5116	199.5116	2.7900e-003		199.5814
Total	**0.1774**	**3.5672**	**1.8722**	**0.0226**	**0.8444**	**8.4900e-003**	**0.8529**	**0.2307**	**8.0800e-003**	**0.2388**		**2,441.2195**	**2,441.2195**	**0.1317**		**2,444.5106**

3.28 Plot 11 (2032) Building-Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7329	0.2766	5.0300e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		539.2005	539.2005	0.0209		539.7224
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0627**	**0.7501**	**0.5750**	**6.3600e-003**	**0.3519**	**2.4100e-003**	**0.3543**	**0.0969**	**2.2800e-003**	**0.0992**		**672.2082**	**672.2082**	**0.0227**		**672.7767**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7329	0.2766	5.0300e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		539.2005	539.2005	0.0209		539.7224
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0627**	**0.7501**	**0.5750**	**6.3600e-003**	**0.3519**	**2.4100e-003**	**0.3543**	**0.0969**	**2.2800e-003**	**0.0992**		**672.2082**	**672.2082**	**0.0227**		**672.7767**

3.29 Plot 11 (2032) Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0586**	**0.6454**	**0.5354**	**5.6400e-003**	**0.3288**	**2.1800e-003**	**0.3309**	**0.0903**	**2.0600e-003**	**0.0923**		**595.1796**	**595.1796**	**0.0198**		**595.6735**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0586**	**0.6454**	**0.5354**	**5.6400e-003**	**0.3288**	**2.1800e-003**	**0.3309**	**0.0903**	**2.0600e-003**	**0.0923**		**595.1796**	**595.1796**	**0.0198**		**595.6735**

3.30 Plot 11 (2032) Curbing/Drive Approaches - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0413	1.1797	0.4809	6.6000e-003	0.1703	2.4000e-003	0.1727	0.0467	2.2900e-003	0.0490		720.6268	720.6268	0.0449		721.7502
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0916**	**1.6157**	**0.9373**	**0.0108**	**0.4528**	**4.1200e-003**	**0.4570**	**0.1237**	**3.9100e-003**	**0.1276**		**1,161.7491**	**1,161.7491**	**0.0587**		**1,163.2172**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0413	1.1797	0.4809	6.6000e-003	0.1703	2.4000e-003	0.1727	0.0467	2.2900e-003	0.0490		720.6268	720.6268	0.0449		721.7502
Vendor	0.0165	0.4188	0.1580	2.8700e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		308.1146	308.1146	0.0119		308.4128
Worker	0.0339	0.0172	0.2984	1.3300e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		133.0078	133.0078	1.8600e-003		133.0543
Total	**0.0916**	**1.6157**	**0.9373**	**0.0108**	**0.4528**	**4.1200e-003**	**0.4570**	**0.1237**	**3.9100e-003**	**0.1276**		**1,161.7491**	**1,161.7491**	**0.0587**		**1,163.2172**

3.31 Plot 11 (2032) Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0698	1.9965	0.8138	0.0112	0.2883	4.0600e-003	0.2923	0.0790	3.8800e-003	0.0829		1,219.5223	1,219.5223	0.0760		1,221.4233
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1792**	**2.6676**	**1.7969**	**0.0188**	**0.9021**	**7.4200e-003**	**0.9095**	**0.2449**	**7.0300e-003**	**0.2519**		**2,014.2135**	**2,014.2135**	**0.0986**		**2,016.6782**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0971		0.1485	0.1485		0.1485	0.1485	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0971**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0698	1.9965	0.8138	0.0112	0.2883	4.0600e-003	0.2923	0.0790	3.8800e-003	0.0829		1,219.5223	1,219.5223	0.0760		1,221.4233
Vendor	0.0247	0.6282	0.2371	4.3100e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		462.1718	462.1718	0.0179		462.6192
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.1792**	**2.6676**	**1.7969**	**0.0188**	**0.9021**	**7.4200e-003**	**0.9095**	**0.2449**	**7.0300e-003**	**0.2519**		**2,014.2135**	**2,014.2135**	**0.0986**		**2,016.6782**

3.32 Plot 11 (2032) Temporary Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plot 11 (2030-2032)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	84.4456	380.1650	602.2721	1.8395	141.9033	11.6972	153.6005	16.6288	11.6934	28.3222	0.0000	195,424.4558	195,424.4558	8.3084	0.0000	195,632.1657
2031	55.6721	195.8453	424.8323	1.0920	61.1425	4.8008	65.9432	7.7433	4.7976	12.5409	0.0000	110,598.0912	110,598.0912	4.5714	0.0000	110,712.3765
2032	94.8593	378.3068	612.7960	1.8125	105.3293	11.6145	116.9438	12.7612	11.6107	24.3719	0.0000	191,306.4837	191,306.4837	8.1568	0.0000	191,510.4029
Maximum	**94.8593**	**380.1650**	**612.7960**	**1.8395**	**141.9033**	**11.6972**	**153.6005**	**16.6288**	**11.6934**	**28.3222**	**0.0000**	**195,424.4558**	**195,424.4558**	**8.3084**	**0.0000**	**195,632.1657**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year						lb/day							lb/day			
2030	31.3033	149.5886	805.2739	1.8395	60.1735	3.1767	63.3502	7.8039	3.1729	10.9768	0.0000	195,424.4556	195,424.4556	8.3084	0.0000	195,632.1656
2031	31.2538	110.2202	487.7039	1.0920	28.0557	2.0232	30.0789	4.1707	2.0200	6.1908	0.0000	110,598.0912	110,598.0912	4.5714	0.0000	110,712.3764
2032	39.7588	149.0145	800.2320	1.8125	46.2121	3.1313	49.3434	6.3779	3.1276	9.5055	0.0000	191,306.4835	191,306.4835	8.1568	0.0000	191,510.4027
Maximum	**39.7588**	**149.5886**	**805.2739**	**1.8395**	**60.1735**	**3.1767**	**63.3502**	**7.8039**	**3.1729**	**10.9768**	**0.0000**	**195,424.4556**	**195,424.4556**	**8.3084**	**0.0000**	**195,632.1656**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**56.46**	**57.16**	**-27.64**	**0.00**	**56.40**	**70.36**	**57.57**	**50.58**	**70.39**	**59.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 11 (2030) Mass Excavation	Grading	1/1/2030	4/17/2030	5	77	1204
2	Plot 11 (2030) Finish Grading	Grading	1/1/2030	2/25/2030	5	40	1205
3	Plot 11 (2030) Utilities	Trenching	1/1/2030	12/30/2030	5	260	1210
4	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
5	Plot 11 (2030) Building-Wet Utilities	Building Construction	1/1/2030	12/30/2030	5	260	1207
6	Plot 11 (2030) Building-Electrical	Building Construction	1/1/2030	12/30/2030	5	260	1208
7	Plot 11 (2030) Building-Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1209
8	Plot 11 (2030) Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1211
9	Plot 11 (2030) Curbing/Drive Approaches	Paving	5/1/2030	8/20/2030	5	80	1213
10	Plot 11 (2030) Paving	Paving	6/1/2030	7/26/2030	5	40	1214
11	Plot 11 (2030) Temporary Utilities	Building Construction	7/2/2030	12/30/2030	5	130	1212
12	Plot 11 (2031) Utilities	Trenching	1/1/2031	12/30/2031	5	260	1219
13	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
14	Plot 11 (2031) Building-Wet Utilities	Building Construction	1/1/2031	12/30/2031	5	260	1216
15	Plot 11 (2031) Building-Electrical	Building Construction	1/1/2031	12/30/2031	5	260	1217
16	Plot 11 (2031) Building-Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1218
17	Plot 11 (2031) Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1220
18	Plot 11 (2031) Curbing/Drive Approaches	Paving	5/1/2031	8/20/2031	5	80	1222

19	Plot 11 (2031) Paving	Paving	6/1/2031	7/26/2031	5	40	1223	
20	Plot 11 (2031) Temporary Utilities	Building Construction	7/2/2031	12/30/2031	5	130	1221	
21	Plot 11 (2032) Mass Excavation	Grading	1/1/2032	6/30/2032	5	130	1224	
22	Plot 11 (2032) Finish Grading	Grading	1/1/2032	2/25/2032	5	40	1225	
23	Plot 11 (2032) Utilities	Trenching	1/1/2032	12/29/2032	5	260	1230	
24	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226	
25	Plot 11 (2032) Building-Wet Utilities	Building Construction	1/1/2032	12/29/2032	5	260	1227	
26	Plot 11 (2032) Building-Electrical	Building Construction	1/1/2032	12/29/2032	5	260	1228	
27	Plot 11 (2032) Building-Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1229	
28	Plot 11 (2032) Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1231	
29	Plot 11 (2032) Curbing/Drive Approaches	Paving	5/1/2032	8/20/2032	5	80	1233	
30	Plot 11 (2032) Paving	Paving	6/1/2032	7/26/2032	5	40	1234	
31	Plot 11 (2032) Temporary Utilities	Building Construction	7/2/2032	12/30/2032	5	130	1232	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2030) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2030) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2030) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2030) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2030) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2030) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2030) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2030) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2030) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2030) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2030) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2030) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2030) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2030) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2030) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2030) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2030) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2030) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2030) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2030) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2030) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2030) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Utilities	Other Material Handling Equipment	7	1.00	167	0.40

Plot 11 (2030) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2030) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Scrapers	12	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2031) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2031) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2031) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2031) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2031) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2031) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2031) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2031) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2031) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2031) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2031) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2031) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2031) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 11 (2031) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2031) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2031) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2031) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2031) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2031) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2031) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2031) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2031) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2031) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2031) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2031) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2031) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2031) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2032) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2032) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2032) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2032) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2032) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2032) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2032) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2032) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2032) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2032) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40

Plot 11 (2032) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2032) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Mass Excavation	Scrapers	4	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Scrapers	11	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2032) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2032) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2032) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2032) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2032) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2032) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2032) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2032) Utilities	Excavators	2	10.00	523	0.38

Plot 11 (2032) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2032) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2032) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2032) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2032) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Finish Grading		15.00	4.00	364.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 11 (2031) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Finish Grading		15.00	4.00	416.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Mass Excavation		50.00	12.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 11 (2030) Mass Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					80.0609	0.0000	80.0609	8.6447	0.0000	8.6447			0.0000			0.0000
Off-Road	46.0913	204.9941	218.8779	0.8430		7.7394	7.7394		7.7394	7.7394		94,850.8990	94,850.8990	4.1058		94,953.5440
Total	**46.0913**	**204.9941**	**218.8779**	**0.8430**	**80.0609**	**7.7394**	**87.8003**	**8.6447**	**7.7394**	**16.3841**		**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1524	4.3725	1.7802	0.0236	0.6154	8.9600e-003	0.6244	0.1686	8.5700e-003	0.1772		2,574.9362	2,574.9362	0.1672		2,579.1169
Vendor	0.0427	1.0759	0.4111	7.1400e-003	0.2312	2.3800e-003	0.2336	0.0665	2.2700e-003	0.0688		765.2779	765.2779	0.0308		766.0472
Worker	0.2253	0.1114	1.4732	6.4800e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		647.0806	647.0806	0.0102		647.3346
Total	**0.4204**	**5.5599**	**3.6645**	**0.0372**	**1.7968**	**0.0159**	**1.8126**	**0.4871**	**0.0150**	**0.5021**		**3,987.2947**	**3,987.2947**	**0.2082**		**3,992.4988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					31.2238	0.0000	31.2238	3.3714	0.0000	3.3714			0.0000			0.0000
Off-Road	10.0142	43.3948	374.7380	0.8430		1.3352	1.3352		1.3352	1.3352	0.0000	94,850.8990	94,850.8990	4.1058		94,953.5439
Total	**10.0142**	**43.3948**	**374.7380**	**0.8430**	**31.2238**	**1.3352**	**32.5590**	**3.3714**	**1.3352**	**4.7067**	**0.0000**	**94,850.8990**	**94,850.8990**	**4.1058**		**94,953.5439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1524	4.3725	1.7802	0.0236	0.6154	8.9600e-003	0.6244	0.1686	8.5700e-003	0.1772		2,574.9362	2,574.9362	0.1672		2,579.1169
Vendor	0.0427	1.0759	0.4111	7.1400e-003	0.2312	2.3800e-003	0.2336	0.0665	2.2700e-003	0.0688		765.2779	765.2779	0.0308		766.0472
Worker	0.2253	0.1114	1.4732	6.4800e-003	0.9501	4.5300e-003	0.9547	0.2519	4.1600e-003	0.2561		647.0806	647.0806	0.0102		647.3346
Total	**0.4204**	**5.5599**	**3.6645**	**0.0372**	**1.7968**	**0.0159**	**1.8126**	**0.4871**	**0.0150**	**0.5021**		**3,987.2947**	**3,987.2947**	**0.2082**		**3,992.4988**

3.3 Plot 11 (2030) Finish Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0492	1.4119	0.5748	7.6200e-003	0.1987	2.8900e-003	0.2016	0.0545	2.7700e-003	0.0572		831.4552	831.4552	0.0540		832.8052
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1339**	**1.8757**	**1.1812**	**0.0124**	**0.5762**	**5.2000e-003**	**0.5815**	**0.1566**	**4.9300e-003**	**0.1616**		**1,331.6906**	**1,331.6906**	**0.0694**		**1,333.4245**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	0.2667	1.1557	16.4464	0.0267		0.0356	0.0356		0.0356	0.0356	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**0.2667**	**1.1557**	**16.4464**	**0.0267**	**2.3575**	**0.0356**	**2.3931**	**0.2546**	**0.0356**	**0.2901**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0492	1.4119	0.5748	7.6200e-003	0.1987	2.8900e-003	0.2016	0.0545	2.7700e-003	0.0572		831.4552	831.4552	0.0540		832.8052
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1339**	**1.8757**	**1.1812**	**0.0124**	**0.5762**	**5.2000e-003**	**0.5815**	**0.1566**	**4.9300e-003**	**0.1616**		**1,331.6906**	**1,331.6906**	**0.0694**		**1,333.4245**

3.4 Plot 11 (2030) Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1302	3.7356	1.5209	0.0202	0.5258	7.6600e-003	0.5334	0.1441	7.3200e-003	0.1514		2,199.8773	2,199.8773	0.1429		2,203.4490
Vendor	0.1068	2.6897	1.0277	0.0179	0.5780	5.9400e-003	0.5840	0.1662	5.6800e-003	0.1719		1,913.1947	1,913.1947	0.0769		1,915.1181
Worker	0.1802	0.0892	1.1785	5.1900e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		517.6645	517.6645	8.1300e-003		517.8677
Total	**0.4172**	**6.5145**	**3.7272**	**0.0432**	**1.8639**	**0.0172**	**1.8811**	**0.5119**	**0.0163**	**0.5282**		**4,630.7364**	**4,630.7364**	**0.2279**		**4,636.4348**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1302	3.7356	1.5209	0.0202	0.5258	7.6600e-003	0.5334	0.1441	7.3200e-003	0.1514		2,199.8773	2,199.8773	0.1429		2,203.4490
Vendor	0.1068	2.6897	1.0277	0.0179	0.5780	5.9400e-003	0.5840	0.1662	5.6800e-003	0.1719		1,913.1947	1,913.1947	0.0769		1,915.1181
Worker	0.1802	0.0892	1.1785	5.1900e-003	0.7601	3.6200e-003	0.7637	0.2016	3.3300e-003	0.2049		517.6645	517.6645	8.1300e-003		517.8677
Total	**0.4172**	**6.5145**	**3.7272**	**0.0432**	**1.8639**	**0.0172**	**1.8811**	**0.5119**	**0.0163**	**0.5282**		**4,630.7364**	**4,630.7364**	**0.2279**		**4,636.4348**

3.5 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

3.6 Plot 11 (2030) Building-Wet Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.3075	0.5323	7.0500e-003	0.1840	2.6800e-003	0.1867	0.0504	2.5600e-003	0.0530		769.9571	769.9571	0.0500		771.2072
Vendor	0.0641	1.6139	0.6166	0.0107	0.3468	3.5600e-003	0.3504	0.0997	3.4100e-003	0.1031		1,147.9168	1,147.9168	0.0462		1,149.0709
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2223**	**2.9770**	**1.8855**	**0.0210**	**1.0059**	**8.5000e-003**	**1.0144**	**0.2761**	**8.0500e-003**	**0.2842**		**2,241.4142**	**2,241.4142**	**0.1012**		**2,243.9453**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.3075	0.5323	7.0500e-003	0.1840	2.6800e-003	0.1867	0.0504	2.5600e-003	0.0530		769.9571	769.9571	0.0500		771.2072
Vendor	0.0641	1.6139	0.6166	0.0107	0.3468	3.5600e-003	0.3504	0.0997	3.4100e-003	0.1031		1,147.9168	1,147.9168	0.0462		1,149.0709
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2223**	**2.9770**	**1.8855**	**0.0210**	**1.0059**	**8.5000e-003**	**1.0144**	**0.2761**	**8.0500e-003**	**0.2842**		**2,241.4142**	**2,241.4142**	**0.1012**		**2,243.9453**

3.7 Plot 11 (2030) Building-Electrical - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9885	1.2167	0.0161	0.4206	6.1300e-003	0.4268	0.1153	5.8600e-003	0.1211		1,759.9018	1,759.9018	0.1143		1,762.7592
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1974**	**3.6675**	**1.9053**	**0.0224**	**0.8444**	**8.9200e-003**	**0.8533**	**0.2307**	**8.4700e-003**	**0.2392**		**2,413.1927**	**2,413.1927**	**0.1358**		**2,416.5880**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9885	1.2167	0.0161	0.4206	6.1300e-003	0.4268	0.1153	5.8600e-003	0.1211		1,759.9018	1,759.9018	0.1143		1,762.7592
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0676	0.0334	0.4420	1.9400e-003	0.2850	1.3600e-003	0.2864	0.0756	1.2500e-003	0.0768		194.1242	194.1242	3.0500e-003		194.2004
Total	**0.1974**	**3.6675**	**1.9053**	**0.0224**	**0.8444**	**8.9200e-003**	**0.8533**	**0.2307**	**8.4700e-003**	**0.2392**		**2,413.1927**	**2,413.1927**	**0.1358**		**2,416.5880**

3.8 Plot 11 (2030) Building-Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7531	0.2878	5.0000e-003	0.1618	1.6600e-003	0.1635	0.0465	1.5900e-003	0.0481		535.6945	535.6945	0.0215		536.2331
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0749**	**0.7754**	**0.5824**	**6.3000e-003**	**0.3519**	**2.5700e-003**	**0.3544**	**0.0969**	**2.4200e-003**	**0.0994**		**665.1106**	**665.1106**	**0.0236**		**665.7000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7531	0.2878	5.0000e-003	0.1618	1.6600e-003	0.1635	0.0465	1.5900e-003	0.0481		535.6945	535.6945	0.0215		536.2331
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0749**	**0.7754**	**0.5824**	**6.3000e-003**	**0.3519**	**2.5700e-003**	**0.3544**	**0.0969**	**2.4200e-003**	**0.0994**		**665.1106**	**665.1106**	**0.0236**		**665.7000**

3.9 Plot 11 (2030) Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0707**	**0.6678**	**0.5413**	**5.5900e-003**	**0.3288**	**2.3400e-003**	**0.3311**	**0.0903**	**2.1900e-003**	**0.0925**		**588.5828**	**588.5828**	**0.0205**		**589.0953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.0707**	**0.6678**	**0.5413**	**5.5900e-003**	**0.3288**	**2.3400e-003**	**0.3311**	**0.0903**	**2.1900e-003**	**0.0925**		**588.5828**	**588.5828**	**0.0205**		**589.0953**

3.10 Plot 11 (2030) Curbing/Drive Approaches - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.2102	0.4927	6.5300e-003	0.1703	2.4800e-003	0.1728	0.0467	2.3700e-003	0.0491		712.6759	712.6759	0.0463		713.8330
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.1043**	**1.6629**	**0.9518**	**0.0107**	**0.4528**	**4.3400e-003**	**0.4572**	**0.1237**	**4.1100e-003**	**0.1278**		**1,148.2032**	**1,148.2032**	**0.0606**		**1,149.7188**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.2102	0.4927	6.5300e-003	0.1703	2.4800e-003	0.1728	0.0467	2.3700e-003	0.0491		712.6759	712.6759	0.0463		713.8330
Vendor	0.0171	0.4304	0.1644	2.8600e-003	0.0925	9.5000e-004	0.0934	0.0266	9.1000e-004	0.0275		306.1112	306.1112	0.0123		306.4189
Worker	0.0451	0.0223	0.2946	1.3000e-003	0.1900	9.1000e-004	0.1909	0.0504	8.3000e-004	0.0512		129.4161	129.4161	2.0300e-003		129.4669
Total	**0.1043**	**1.6629**	**0.9518**	**0.0107**	**0.4528**	**4.3400e-003**	**0.4572**	**0.1237**	**4.1100e-003**	**0.1278**		**1,148.2032**	**1,148.2032**	**0.0606**		**1,149.7188**

3.11 Plot 11 (2030) Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0714	2.0480	0.8338	0.0111	0.2883	4.2000e-003	0.2925	0.0790	4.0200e-003	0.0830		1,206.0669	1,206.0669	0.0783		1,208.0251
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2096**	**2.7493**	**1.8171**	**0.0186**	**0.9020**	**7.8900e-003**	**0.9099**	**0.2449**	**7.4600e-003**	**0.2523**		**1,988.7739**	**1,988.7739**	**0.1019**		**1,991.3208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0971		0.1485	0.1485		0.1485	0.1485	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0971**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0714	2.0480	0.8338	0.0111	0.2883	4.2000e-003	0.2925	0.0790	4.0200e-003	0.0830		1,206.0669	1,206.0669	0.0783		1,208.0251
Vendor	0.0256	0.6455	0.2467	4.2900e-003	0.1387	1.4300e-003	0.1402	0.0399	1.3600e-003	0.0413		459.1667	459.1667	0.0185		459.6283
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2096**	**2.7493**	**1.8171**	**0.0186**	**0.9020**	**7.8900e-003**	**0.9099**	**0.2449**	**7.4600e-003**	**0.2523**		**1,988.7739**	**1,988.7739**	**0.1019**		**1,991.3208**

3.12 Plot 11 (2030) Temporary Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 11 (2031) Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1309	3.7127	1.5351	0.0201	0.5258	7.5700e-003	0.5334	0.1441	7.2400e-003	0.1513		2,197.3740	2,197.3740	0.1424		2,200.9336
Vendor	0.1067	2.6774	1.0295	0.0178	0.5780	5.8900e-003	0.5839	0.1662	5.6300e-003	0.1719		1,912.1842	1,912.1842	0.0766		1,914.0998
Worker	0.1672	0.0814	1.1081	5.0800e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		506.9320	506.9320	7.4500e-003		507.1183
Total	**0.4048**	**6.4715**	**3.6727**	**0.0431**	**1.8639**	**0.0169**	**1.8808**	**0.5119**	**0.0160**	**0.5278**		**4,616.4902**	**4,616.4902**	**0.2265**		**4,622.1517**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1309	3.7127	1.5351	0.0201	0.5258	7.5700e-003	0.5334	0.1441	7.2400e-003	0.1513		2,197.3740	2,197.3740	0.1424		2,200.9336
Vendor	0.1067	2.6774	1.0295	0.0178	0.5780	5.8900e-003	0.5839	0.1662	5.6300e-003	0.1719		1,912.1842	1,912.1842	0.0766		1,914.0998
Worker	0.1672	0.0814	1.1081	5.0800e-003	0.7601	3.3900e-003	0.7635	0.2016	3.1200e-003	0.2047		506.9320	506.9320	7.4500e-003		507.1183
Total	**0.4048**	**6.4715**	**3.6727**	**0.0431**	**1.8639**	**0.0169**	**1.8808**	**0.5119**	**0.0160**	**0.5278**		**4,616.4902**	**4,616.4902**	**0.2265**		**4,622.1517**

3.14 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

3.15 Plot 11 (2031) Building-Wet Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.2995	0.5373	7.0400e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5300e-003	0.0530		769.0809	769.0809	0.0498		770.3268
Vendor	0.0640	1.6064	0.6177	0.0107	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,147.3105	1,147.3105	0.0460		1,148.4599
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2143**	**2.9568**	**1.8475**	**0.0209**	**1.0059**	**8.3100e-003**	**1.0142**	**0.2761**	**7.8600e-003**	**0.2840**		**2,233.2239**	**2,233.2239**	**0.1005**		**2,235.7356**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0458	1.2995	0.5373	7.0400e-003	0.1840	2.6500e-003	0.1867	0.0504	2.5300e-003	0.0530		769.0809	769.0809	0.0498		770.3268
Vendor	0.0640	1.6064	0.6177	0.0107	0.3468	3.5400e-003	0.3503	0.0997	3.3800e-003	0.1031		1,147.3105	1,147.3105	0.0460		1,148.4599
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2143**	**2.9568**	**1.8475**	**0.0209**	**1.0059**	**8.3100e-003**	**1.0142**	**0.2761**	**7.8600e-003**	**0.2840**		**2,233.2239**	**2,233.2239**	**0.1005**		**2,235.7356**

3.16 Plot 11 (2031) Building-Electrical - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	2.9702	1.2281	0.0161	0.4206	6.0500e-003	0.4267	0.1153	5.7900e-003	0.1211		1,757.8992	1,757.8992	0.1139		1,760.7469
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0627	0.0305	0.4155	1.9000e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		190.0995	190.0995	2.7900e-003		190.1694
Total	**0.1930**	**3.6433**	**1.8907**	**0.0223**	**0.8444**	**8.7300e-003**	**0.8531**	**0.2307**	**8.3100e-003**	**0.2391**		**2,406.9229**	**2,406.9229**	**0.1351**		**2,410.3002**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1047	2.9702	1.2281	0.0161	0.4206	6.0500e-003	0.4267	0.1153	5.7900e-003	0.1211		1,757.8992	1,757.8992	0.1139		1,760.7469
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0627	0.0305	0.4155	1.9000e-003	0.2850	1.2700e-003	0.2863	0.0756	1.1700e-003	0.0768		190.0995	190.0995	2.7900e-003		190.1694
Total	**0.1930**	**3.6433**	**1.8907**	**0.0223**	**0.8444**	**8.7300e-003**	**0.8531**	**0.2307**	**8.3100e-003**	**0.2391**		**2,406.9229**	**2,406.9229**	**0.1351**		**2,410.3002**

3.17 Plot 11 (2031) Building-Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7497	0.2883	5.0000e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		535.4116	535.4116	0.0215		535.9480
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0717**	**0.7700**	**0.5653**	**6.2700e-003**	**0.3519**	**2.5000e-003**	**0.3544**	**0.0969**	**2.3600e-003**	**0.0993**		**662.1446**	**662.1446**	**0.0233**		**662.7275**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0299	0.7497	0.2883	5.0000e-003	0.1618	1.6500e-003	0.1635	0.0465	1.5800e-003	0.0481		535.4116	535.4116	0.0215		535.9480
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0717**	**0.7700**	**0.5653**	**6.2700e-003**	**0.3519**	**2.5000e-003**	**0.3544**	**0.0969**	**2.3600e-003**	**0.0993**		**662.1446**	**662.1446**	**0.0233**		**662.7275**

3.18 Plot 11 (2031) Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0674**	**0.6629**	**0.5241**	**5.5500e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1300e-003**	**0.0924**		**585.6572**	**585.6572**	**0.0203**		**586.1635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.0674**	**0.6629**	**0.5241**	**5.5500e-003**	**0.3288**	**2.2600e-003**	**0.3310**	**0.0903**	**2.1300e-003**	**0.0924**		**585.6572**	**585.6572**	**0.0203**		**586.1635**

3.19 Plot 11 (2031) Curbing/Drive Approaches - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.2028	0.4973	6.5200e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		711.8649	711.8649	0.0461		713.0181
Vendor	0.0171	0.4284	0.1647	2.8600e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		305.9495	305.9495	0.0123		306.2560
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.1013**	**1.6515**	**0.9390**	**0.0107**	**0.4528**	**4.2400e-003**	**0.4571**	**0.1237**	**4.0300e-003**	**0.1277**		**1,144.5474**	**1,144.5474**	**0.0603**		**1,146.0536**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0424	1.2028	0.4973	6.5200e-003	0.1703	2.4500e-003	0.1728	0.0467	2.3500e-003	0.0490		711.8649	711.8649	0.0461		713.0181
Vendor	0.0171	0.4284	0.1647	2.8600e-003	0.0925	9.4000e-004	0.0934	0.0266	9.0000e-004	0.0275		305.9495	305.9495	0.0123		306.2560
Worker	0.0418	0.0204	0.2770	1.2700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		126.7330	126.7330	1.8600e-003		126.7796
Total	**0.1013**	**1.6515**	**0.9390**	**0.0107**	**0.4528**	**4.2400e-003**	**0.4571**	**0.1237**	**4.0300e-003**	**0.1277**		**1,144.5474**	**1,144.5474**	**0.0603**		**1,146.0536**

3.20 Plot 11 (2031) Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0718	2.0355	0.8416	0.0110	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,204.6945	1,204.6945	0.0781		1,206.6460
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2019**	**2.7290**	**1.7812**	**0.0185**	**0.9021**	**7.6800e-003**	**0.9097**	**0.2449**	**7.2700e-003**	**0.2521**		**1,980.4512**	**1,980.4512**	**0.1011**		**1,982.9789**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0971		0.1485	0.1485		0.1485	0.1485	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0971**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0718	2.0355	0.8416	0.0110	0.2883	4.1500e-003	0.2924	0.0790	3.9700e-003	0.0830		1,204.6945	1,204.6945	0.0781		1,206.6460
Vendor	0.0256	0.6426	0.2471	4.2800e-003	0.1387	1.4100e-003	0.1401	0.0399	1.3500e-003	0.0413		458.9242	458.9242	0.0184		459.3840
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2019**	**2.7290**	**1.7812**	**0.0185**	**0.9021**	**7.6800e-003**	**0.9097**	**0.2449**	**7.2700e-003**	**0.2521**		**1,980.4512**	**1,980.4512**	**0.1011**		**1,982.9789**

3.21 Plot 11 (2031) Temporary Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 11 (2032) Mass Excavation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					42.6729	0.0000	42.6729	4.6077	0.0000	4.6077			0.0000			0.0000
Off-Road	40.1862	183.3429	191.7895	0.7240		6.9353	6.9353		6.9353	6.9353		81,286.6667	81,286.6667	3.5825		81,376.2283
Total	**40.1862**	**183.3429**	**191.7895**	**0.7240**	**42.6729**	**6.9353**	**49.6082**	**4.6077**	**6.9353**	**11.5430**		**81,286.6667**	**81,286.6667**	**3.5825**		**81,376.2283**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0710	1.9998	0.8380	0.0109	0.2864	4.0700e-003	0.2905	0.0785	3.8900e-003	0.0824		1,193.9480	1,193.9480	0.0773		1,195.8796
Vendor	0.0508	1.2719	0.4924	8.5500e-003	0.2774	2.8000e-003	0.2802	0.0798	2.6800e-003	0.0825		915.9495	915.9495	0.0366		916.8650
Worker	0.1943	0.0934	1.3034	6.2200e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		620.9350	620.9350	8.5400e-003		621.1485
Total	**0.3161**	**3.3651**	**2.6339**	**0.0257**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,730.8325**	**2,730.8325**	**0.1224**		**2,733.8931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.6424	0.0000	16.6424	1.7970	0.0000	1.7970			0.0000			0.0000
Off-Road	8.5821	37.1891	322.6699	0.7240		1.1443	1.1443		1.1443	1.1443	0.0000	81,286.6666	81,286.6666	3.5825		81,376.2282
Total	**8.5821**	**37.1891**	**322.6699**	**0.7240**	**16.6424**	**1.1443**	**17.7867**	**1.7970**	**1.1443**	**2.9413**	**0.0000**	**81,286.6666**	**81,286.6666**	**3.5825**		**81,376.2282**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0710	1.9998	0.8380	0.0109	0.2864	4.0700e-003	0.2905	0.0785	3.8900e-003	0.0824		1,193.9480	1,193.9480	0.0773		1,195.8796
Vendor	0.0508	1.2719	0.4924	8.5500e-003	0.2774	2.8000e-003	0.2802	0.0798	2.6800e-003	0.0825		915.9495	915.9495	0.0366		916.8650
Worker	0.1943	0.0934	1.3034	6.2200e-003	0.9501	3.9500e-003	0.9541	0.2519	3.6300e-003	0.2556		620.9350	620.9350	8.5400e-003		621.1485
Total	**0.3161**	**3.3651**	**2.6339**	**0.0257**	**1.5140**	**0.0108**	**1.5248**	**0.4102**	**0.0102**	**0.4204**		**2,730.8325**	**2,730.8325**	**0.1224**		**2,733.8931**

3.23 Plot 11 (2032) Finish Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0449	0.0000	6.0449	0.6527	0.0000	0.6527			0.0000			0.0000
Off-Road	1.4895	7.6513	15.7381	0.0267		0.3322	0.3322		0.3322	0.3322		2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**1.4895**	**7.6513**	**15.7381**	**0.0267**	**6.0449**	**0.3322**	**6.3770**	**0.6527**	**0.3322**	**0.9849**		**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0563	1.5858	0.6645	8.6700e-003	0.2271	3.2200e-003	0.2303	0.0622	3.0800e-003	0.0653		946.7552	946.7552	0.0613		948.2870
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1315**	**2.0378**	**1.2197**	**0.0134**	**0.6046**	**5.3300e-003**	**0.6100**	**0.1644**	**5.0600e-003**	**0.1695**		**1,438.3522**	**1,438.3522**	**0.0760**		**1,440.2532**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3575	0.0000	2.3575	0.2546	0.0000	0.2546			0.0000			0.0000
Off-Road	0.2667	1.1557	16.4464	0.0267		0.0356	0.0356		0.0356	0.0356	0.0000	2,526.0664	2,526.0664	0.1309		2,529.3388
Total	**0.2667**	**1.1557**	**16.4464**	**0.0267**	**2.3575**	**0.0356**	**2.3931**	**0.2546**	**0.0356**	**0.2901**	**0.0000**	**2,526.0664**	**2,526.0664**	**0.1309**		**2,529.3388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0563	1.5858	0.6645	8.6700e-003	0.2271	3.2200e-003	0.2303	0.0622	3.0800e-003	0.0653		946.7552	946.7552	0.0613		948.2870
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1315**	**2.0378**	**1.2197**	**0.0134**	**0.6046**	**5.3300e-003**	**0.6100**	**0.1644**	**5.0600e-003**	**0.1695**		**1,438.3522**	**1,438.3522**	**0.0760**		**1,440.2532**

3.24 Plot 11 (2032) Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1303	3.6712	1.5385	0.0201	0.5258	7.4700e-003	0.5333	0.1441	7.1400e-003	0.1512		2,191.8224	2,191.8224	0.1418		2,195.3685
Vendor	0.1059	2.6498	1.0259	0.0178	0.5780	5.8300e-003	0.5838	0.1662	5.5800e-003	0.1718		1,908.2282	1,908.2282	0.0763		1,910.1354
Worker	0.1555	0.0747	1.0427	4.9700e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		496.7480	496.7480	6.8300e-003		496.9188
Total	**0.3916**	**6.3957**	**3.6071**	**0.0428**	**1.8639**	**0.0165**	**1.8804**	**0.5119**	**0.0156**	**0.5275**		**4,596.7986**	**4,596.7986**	**0.2250**		**4,602.4226**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1303	3.6712	1.5385	0.0201	0.5258	7.4700e-003	0.5333	0.1441	7.1400e-003	0.1512		2,191.8224	2,191.8224	0.1418		2,195.3685
Vendor	0.1059	2.6498	1.0259	0.0178	0.5780	5.8300e-003	0.5838	0.1662	5.5800e-003	0.1718		1,908.2282	1,908.2282	0.0763		1,910.1354
Worker	0.1555	0.0747	1.0427	4.9700e-003	0.7601	3.1600e-003	0.7633	0.2016	2.9000e-003	0.2045		496.7480	496.7480	6.8300e-003		496.9188
Total	**0.3916**	**6.3957**	**3.6071**	**0.0428**	**1.8639**	**0.0165**	**1.8804**	**0.5119**	**0.0156**	**0.5275**		**4,596.7986**	**4,596.7986**	**0.2250**		**4,602.4226**

3.25 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

3.26 Plot 11 (2032) Building-Wet Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.2849	0.5385	7.0200e-003	0.1840	2.6100e-003	0.1866	0.0504	2.5000e-003	0.0529		767.1378	767.1378	0.0497		768.3790
Vendor	0.0635	1.5899	0.6155	0.0107	0.3468	3.5000e-003	0.3503	0.0997	3.3500e-003	0.1031		1,144.9369	1,144.9369	0.0458		1,146.0812
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2063**	**2.9215**	**1.8057**	**0.0208**	**1.0059**	**8.0800e-003**	**1.0140**	**0.2761**	**7.6700e-003**	**0.2838**		**2,222.5423**	**2,222.5423**	**0.0997**		**2,225.0344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	1.2849	0.5385	7.0200e-003	0.1840	2.6100e-003	0.1866	0.0504	2.5000e-003	0.0529		767.1378	767.1378	0.0497		768.3790
Vendor	0.0635	1.5899	0.6155	0.0107	0.3468	3.5000e-003	0.3503	0.0997	3.3500e-003	0.1031		1,144.9369	1,144.9369	0.0458		1,146.0812
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2063**	**2.9215**	**1.8057**	**0.0208**	**1.0059**	**8.0800e-003**	**1.0140**	**0.2761**	**7.6700e-003**	**0.2838**		**2,222.5423**	**2,222.5423**	**0.0997**		**2,225.0344**

3.27 Plot 11 (2032) Building-Electrical - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9370	1.2308	0.0161	0.4206	5.9700e-003	0.4266	0.1153	5.7100e-003	0.1210		1,753.4579	1,753.4579	0.1135		1,756.2948
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1879**	**3.6009**	**1.8680**	**0.0222**	**0.8444**	**8.5500e-003**	**0.8529**	**0.2307**	**8.1400e-003**	**0.2389**		**2,397.7132**	**2,397.7132**	**0.1343**		**2,401.0718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1042	2.9370	1.2308	0.0161	0.4206	5.9700e-003	0.4266	0.1153	5.7100e-003	0.1210		1,753.4579	1,753.4579	0.1135		1,756.2948
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0583	0.0280	0.3910	1.8700e-003	0.2850	1.1800e-003	0.2862	0.0756	1.0900e-003	0.0767		186.2805	186.2805	2.5600e-003		186.3446
Total	**0.1879**	**3.6009**	**1.8680**	**0.0222**	**0.8444**	**8.5500e-003**	**0.8529**	**0.2307**	**8.1400e-003**	**0.2389**		**2,397.7132**	**2,397.7132**	**0.1343**		**2,401.0718**

3.28 Plot 11 (2032) Building-Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0296	0.7419	0.2873	4.9900e-003	0.1618	1.6300e-003	0.1635	0.0465	1.5600e-003	0.0481		534.3039	534.3039	0.0214		534.8379
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0685**	**0.7606**	**0.5479**	**6.2300e-003**	**0.3519**	**2.4200e-003**	**0.3543**	**0.0969**	**2.2900e-003**	**0.0992**		**658.4909**	**658.4909**	**0.0231**		**659.0676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.843 6	5,360.8436	0.2588		5,367.314 2
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.843 6**	**5,360.8436**	**0.2588**		**5,367.314 2**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0296	0.7419	0.2873	4.9900e-003	0.1618	1.6300e-003	0.1635	0.0465	1.5600e-003	0.0481		534.3039	534.3039	0.0214		534.8379
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0685**	**0.7606**	**0.5479**	**6.2300e-003**	**0.3519**	**2.4200e-003**	**0.3543**	**0.0969**	**2.2900e-003**	**0.0992**		**658.4909**	**658.4909**	**0.0231**		**659.0676**

3.29 Plot 11 (2032) Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0643**	**0.6546**	**0.5069**	**5.5100e-003**	**0.3288**	**2.1900e-003**	**0.3309**	**0.0903**	**2.0700e-003**	**0.0923**		**582.1618**	**582.1618**	**0.0200**		**582.6622**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0643**	**0.6546**	**0.5069**	**5.5100e-003**	**0.3288**	**2.1900e-003**	**0.3309**	**0.0903**	**2.0700e-003**	**0.0923**		**582.1618**	**582.1618**	**0.0200**		**582.6622**

3.30 Plot 11 (2032) Curbing/Drive Approaches - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.1893	0.4984	6.5000e-003	0.1703	2.4200e-003	0.1728	0.0467	2.3100e-003	0.0490		710.0664	710.0664	0.0460		711.2152
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0980**	**1.6320**	**0.9232**	**0.0106**	**0.4528**	**4.1400e-003**	**0.4570**	**0.1237**	**3.9300e-003**	**0.1276**		**1,139.5699**	**1,139.5699**	**0.0599**		**1,141.0666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0422	1.1893	0.4984	6.5000e-003	0.1703	2.4200e-003	0.1728	0.0467	2.3100e-003	0.0490		710.0664	710.0664	0.0460		711.2152
Vendor	0.0169	0.4240	0.1641	2.8500e-003	0.0925	9.3000e-004	0.0934	0.0266	8.9000e-004	0.0275		305.3165	305.3165	0.0122		305.6217
Worker	0.0389	0.0187	0.2607	1.2400e-003	0.1900	7.9000e-004	0.1908	0.0504	7.3000e-004	0.0511		124.1870	124.1870	1.7100e-003		124.2297
Total	**0.0980**	**1.6320**	**0.9232**	**0.0106**	**0.4528**	**4.1400e-003**	**0.4570**	**0.1237**	**3.9300e-003**	**0.1276**		**1,139.5699**	**1,139.5699**	**0.0599**		**1,141.0666**

3.31 Plot 11 (2032) Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0714	2.0127	0.8435	0.0110	0.2883	4.0900e-003	0.2924	0.0790	3.9200e-003	0.0829		1,201.6509	1,201.6509	0.0778		1,203.5950
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.1940**	**2.6954**	**1.7414**	**0.0184**	**0.9021**	**7.4600e-003**	**0.9095**	**0.2449**	**7.0800e-003**	**0.2519**		**1,970.0931**	**1,970.0931**	**0.1003**		**1,972.6017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0782	4.7556	52.5650	0.0971		0.1485	0.1485		0.1485	0.1485	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0782**	**4.7556**	**52.5650**	**0.0971**	**2.4816**	**0.1485**	**2.6301**	**0.2680**	**0.1485**	**0.4165**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0714	2.0127	0.8435	0.0110	0.2883	4.0900e-003	0.2924	0.0790	3.9200e-003	0.0829		1,201.6509	1,201.6509	0.0778		1,203.5950
Vendor	0.0254	0.6360	0.2462	4.2700e-003	0.1387	1.4000e-003	0.1401	0.0399	1.3400e-003	0.0412		457.9748	457.9748	0.0183		458.4325
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.1940**	**2.6954**	**1.7414**	**0.0184**	**0.9021**	**7.4600e-003**	**0.9095**	**0.2449**	**7.0800e-003**	**0.2519**		**1,970.0931**	**1,970.0931**	**0.1003**		**1,972.6017**

3.32 Plot 11 (2032) Temporary Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plot 11

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	12.4076	12.6003	2.3031	0.0189	199.2616	3.7600e-003	199.2654	19.8770	3.5400e-003	19.8805	0.0000	2,049.6373	2,049.6373	0.1832	0.0000	2,054.2171
2031	12.3982	11.1331	2.0137	0.0166	173.0981	3.0900e-003	173.1012	17.2672	2.9200e-003	17.2701	0.0000	1,803.0990	1,803.0990	0.1583	0.0000	1,807.0558
2032	12.4395	12.6654	2.3393	0.0190	212.1832	3.5100e-003	212.1867	21.1659	3.3100e-003	21.1692	0.0000	2,063.1686	2,063.1686	0.1772	0.0000	2,067.5998
Maximum	**12.4395**	**12.6654**	**2.3393**	**0.0190**	**212.1832**	**3.7600e-003**	**212.1867**	**21.1659**	**3.5400e-003**	**21.1692**	**0.0000**	**2,063.1686**	**2,063.1686**	**0.1832**	**0.0000**	**2,067.5998**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	12.4076	12.6003	2.3031	0.0189	79.7275	3.7600e-003	79.7312	7.9595	3.5400e-003	7.9631	0.0000	2,049.6373	2,049.6373	0.1832	0.0000	2,054.2171
2031	12.3982	11.1331	2.0137	0.0166	69.2594	3.0900e-003	69.2625	6.9146	2.9200e-003	6.9175	0.0000	1,803.0990	1,803.0990	0.1583	0.0000	1,807.0558
2032	12.4395	12.6654	2.3393	0.0190	84.8974	3.5100e-003	84.9008	8.4756	3.3100e-003	8.4789	0.0000	2,063.1686	2,063.1686	0.1772	0.0000	2,067.5998
Maximum	**12.4395**	**12.6654**	**2.3393**	**0.0190**	**84.8974**	**3.7600e-003**	**84.9008**	**8.4756**	**3.5400e-003**	**8.4789**	**0.0000**	**2,063.1686**	**2,063.1686**	**0.1832**	**0.0000**	**2,067.5998**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 11 (2030) Mass Excavation	Grading	1/1/2030	4/17/2030	5	77	1204
2	Plot 11 (2030) Finish Grading	Grading	1/1/2030	2/25/2030	5	40	1205
3	Plot 11 (2030) Utilities	Trenching	1/1/2030	12/30/2030	5	260	1210
4	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
5	Plot 11 (2030) Building-Wet Utilities	Building Construction	1/1/2030	12/30/2030	5	260	1207
6	Plot 11 (2030) Building-Electrical	Building Construction	1/1/2030	12/30/2030	5	260	1208
7	Plot 11 (2030) Building-Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1209
8	Plot 11 (2030) Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1211
9	Plot 11 (2030) Curbing/Drive Approaches	Paving	5/1/2030	8/20/2030	5	80	1213
10	Plot 11 (2030) Paving	Paving	6/1/2030	7/26/2030	5	40	1214
11	Plot 11 (2030) Temporary Utilities	Building Construction	7/2/2030	12/30/2030	5	130	1212
12	Plot 11 (2031) Utilities	Trenching	1/1/2031	12/30/2031	5	260	1219
13	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
14	Plot 11 (2031) Building-Wet Utilities	Building Construction	1/1/2031	12/30/2031	5	260	1216
15	Plot 11 (2031) Building-Electrical	Building Construction	1/1/2031	12/30/2031	5	260	1217
16	Plot 11 (2031) Building-Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1218
17	Plot 11 (2031) Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1220

18	Plot 11 (2031) Curbing/Drive Approaches	Paving	5/1/2031	8/20/2031	5	80	1222
19	Plot 11 (2031) Paving	Paving	6/1/2031	7/26/2031	5	40	1223
20	Plot 11 (2031) Temporary Utilities	Building Construction	7/2/2031	12/30/2031	5	130	1221
21	Plot 11 (2032) Mass Excavation	Grading	1/1/2032	6/30/2032	5	130	1224
22	Plot 11 (2032) Finish Grading	Grading	1/1/2032	2/25/2032	5	40	1225
23	Plot 11 (2032) Utilities	Trenching	1/1/2032	12/29/2032	5	260	1230
24	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
25	Plot 11 (2032) Building-Wet Utilities	Building Construction	1/1/2032	12/29/2032	5	260	1227
26	Plot 11 (2032) Building-Electrical	Building Construction	1/1/2032	12/29/2032	5	260	1228
27	Plot 11 (2032) Building-Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1229
28	Plot 11 (2032) Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1231
29	Plot 11 (2032) Curbing/Drive Approaches	Paving	5/1/2032	8/20/2032	5	80	1233
30	Plot 11 (2032) Paving	Paving	6/1/2032	7/26/2032	5	40	1234
31	Plot 11 (2032) Temporary Utilities	Building Construction	7/2/2032	12/30/2032	5	130	1232

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Finish Grading		15.00	4.00	364.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Mass Excavation		50.00	10.00	2,170.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 11 (2031) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Finish Grading		15.00	4.00	416.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Mass Excavation		50.00	12.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plot 11 (2030) Mass Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0293	2.1019	0.2858	3.1500e-003	14.6651	4.2000e-004	14.6655	1.4630	4.0000e-004	1.4635		343.4131	343.4131	0.0321		344.2163
Vendor	8.3100e-003	0.5038	0.0891	6.5000e-004	5.2041	1.0000e-004	5.2042	0.5193	1.0000e-004	0.5194		70.5386	70.5386	6.2100e-003		70.6939
Worker	0.0310	6.7500e-003	0.1155	2.2000e-004	26.0154	3.2000e-004	26.0157	2.5946	3.0000e-004	2.5949		21.9556	21.9556	5.6000e-004		21.9697
Total	**0.0686**	**2.6124**	**0.4904**	**4.0200e-003**	**45.8845**	**8.4000e-004**	**45.8854**	**4.5769**	**8.0000e-004**	**4.5777**		**435.9073**	**435.9073**	**0.0389**		**436.8799**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0293	2.1019	0.2858	3.1500e-003	5.8682	4.2000e-004	5.8686	0.5860	4.0000e-004	0.5864		343.4131	343.4131	0.0321		344.2163
Vendor	8.3100e-003	0.5038	0.0891	6.5000e-004	2.0826	1.0000e-004	2.0827	0.2081	1.0000e-004	0.2082		70.5386	70.5386	6.2100e-003		70.6939
Worker	0.0310	6.7500e-003	0.1155	2.2000e-004	10.4079	3.2000e-004	10.4082	1.0385	3.0000e-004	1.0388		21.9556	21.9556	5.6000e-004		21.9697
Total	**0.0686**	**2.6124**	**0.4904**	**4.0200e-003**	**18.3587**	**8.4000e-004**	**18.3595**	**1.8326**	**8.0000e-004**	**1.8334**		**435.9073**	**435.9073**	**0.0389**		**436.8799**

3.3 Plot 11 (2030) Finish Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4500e-003	0.6787	0.0923	1.0200e-003	4.7354	1.4000e-004	4.7356	0.4724	1.3000e-004	0.4726		110.8892	110.8892	0.0104		111.1485
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.2154	28.2154	2.4900e-003		28.2776
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0221**	**0.8822**	**0.1626**	**1.3500e-003**	**14.6216**	**2.8000e-004**	**14.6219**	**1.4585**	**2.6000e-004**	**1.4588**		**145.6913**	**145.6913**	**0.0130**		**146.0170**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.4500e-003	0.6787	0.0923	1.0200e-003	1.8949	1.4000e-004	1.8950	0.1892	1.3000e-004	0.1894		110.8892	110.8892	0.0104		111.1485
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.2154	28.2154	2.4900e-003		28.2776
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0221**	**0.8822**	**0.1626**	**1.3500e-003**	**5.8503**	**2.8000e-004**	**5.8505**	**0.5840**	**2.6000e-004**	**0.5843**		**145.6913**	**145.6913**	**0.0130**		**146.0170**

3.4 Plot 11 (2030) Utilities - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0250	1.7958	0.2442	2.6900e-003	12.5290	3.6000e-004	12.5294	1.2499	3.5000e-004	1.2503		293.3924	293.3924	0.0275		294.0786
Vendor	0.0208	1.2594	0.2227	1.6300e-003	13.0101	2.5000e-004	13.0104	1.2983	2.4000e-004	1.2985		176.3464	176.3464	0.0155		176.7347
Worker	0.0248	5.4000e-003	0.0924	1.8000e-004	20.8123	2.6000e-004	20.8126	2.0757	2.4000e-004	2.0759		17.5645	17.5645	4.5000e-004		17.5758
Total	**0.0706**	**3.0606**	**0.5593**	**4.5000e-003**	**46.3515**	**8.7000e-004**	**46.3523**	**4.6239**	**8.3000e-004**	**4.6247**		**487.3033**	**487.3033**	**0.0434**		**488.3891**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0250	1.7958	0.2442	2.6900e-003	5.0135	3.6000e-004	5.0138	0.5006	3.5000e-004	0.5010		293.3924	293.3924	0.0275		294.0786
Vendor	0.0208	1.2594	0.2227	1.6300e-003	5.2064	2.5000e-004	5.2067	0.5202	2.4000e-004	0.5205		176.3464	176.3464	0.0155		176.7347
Worker	0.0248	5.4000e-003	0.0924	1.8000e-004	8.3263	2.6000e-004	8.3266	0.8308	2.4000e-004	0.8311		17.5645	17.5645	4.5000e-004		17.5758
Total	**0.0706**	**3.0606**	**0.5593**	**4.5000e-003**	**18.5462**	**8.7000e-004**	**18.5471**	**1.8517**	**8.3000e-004**	**1.8525**		**487.3033**	**487.3033**	**0.0434**		**488.3891**

3.5 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0300	2.1549	0.2930	3.2300e-003	15.0348	4.3000e-004	15.0353	1.4999	4.1000e-004	1.5003		352.0709	352.0709	0.0329		352.8943
Vendor	1.6600e-003	0.1008	0.0178	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.1077	14.1077	1.2400e-003		14.1388
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	13.0077	1.6000e-004	13.0078	1.2973	1.5000e-004	1.2974		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0472**	**2.2591**	**0.3686**	**3.4700e-003**	**29.0833**	**6.1000e-004**	**29.0839**	**2.9011**	**5.8000e-004**	**2.9017**		**377.1564**	**377.1564**	**0.0345**		**378.0179**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0300	2.1549	0.2930	3.2300e-003	6.0161	4.3000e-004	6.0166	0.6008	4.1000e-004	0.6012		352.0709	352.0709	0.0329		352.8943
Vendor	1.6600e-003	0.1008	0.0178	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.1077	14.1077	1.2400e-003		14.1388
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	5.2040	1.6000e-004	5.2041	0.5193	1.5000e-004	0.5194		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0472**	**2.2591**	**0.3686**	**3.4700e-003**	**11.6366**	**6.1000e-004**	**11.6372**	**1.1617**	**5.8000e-004**	**1.1622**		**377.1564**	**377.1564**	**0.0345**		**378.0179**

3.6 Plot 11 (2030) Building-Wet Utilities - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7500e-003	0.6285	0.0855	9.4000e-004	4.3852	1.3000e-004	4.3853	0.4375	1.2000e-004	0.4376		102.6873	102.6873	9.6100e-003		102.9275
Vendor	0.0125	0.7556	0.1336	9.8000e-004	7.8061	1.5000e-004	7.8062	0.7790	1.5000e-004	0.7791		105.8078	105.8078	9.3200e-003		106.0408
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	13.0077	1.6000e-004	13.0078	1.2973	1.5000e-004	1.2974		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0367**	**1.3875**	**0.2768**	**2.0300e-003**	**25.1989**	**4.4000e-004**	**25.1994**	**2.5137**	**4.2000e-004**	**2.5141**		**219.4730**	**219.4730**	**0.0192**		**219.9532**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7500e-003	0.6285	0.0855	9.4000e-004	1.7547	1.3000e-004	1.7548	0.1752	1.2000e-004	0.1754		102.6873	102.6873	9.6100e-003		102.9275
Vendor	0.0125	0.7556	0.1336	9.8000e-004	3.1239	1.5000e-004	3.1240	0.3121	1.5000e-004	0.3123		105.8078	105.8078	9.3200e-003		106.0408
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	5.2040	1.6000e-004	5.2041	0.5193	1.5000e-004	0.5194		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0367**	**1.3875**	**0.2768**	**2.0300e-003**	**10.0825**	**4.4000e-004**	**10.0830**	**1.0066**	**4.2000e-004**	**1.0071**		**219.4730**	**219.4730**	**0.0192**		**219.9532**

3.7 Plot 11 (2030) Building-Electrical - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	1.4366	0.1954	2.1600e-003	10.0232	2.9000e-004	10.0235	1.0000	2.8000e-004	1.0002		234.7139	234.7139	0.0220		235.2628
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.3231	42.3231	3.7300e-003		42.4163
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	7.8046	1.0000e-004	7.8047	0.7784	9.0000e-005	0.7785		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0343**	**1.7409**	**0.2835**	**2.6200e-003**	**20.9503**	**4.5000e-004**	**20.9507**	**2.0899**	**4.3000e-004**	**2.0903**		**283.6237**	**283.6237**	**0.0259**		**284.2701**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0200	1.4366	0.1954	2.1600e-003	4.0108	2.9000e-004	4.0111	0.4005	2.8000e-004	0.4008		234.7139	234.7139	0.0220		235.2628
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.3231	42.3231	3.7300e-003		42.4163
Worker	9.3100e-003	2.0200e-003	0.0347	7.0000e-005	3.1224	1.0000e-004	3.1225	0.3116	9.0000e-005	0.3117		6.5867	6.5867	1.7000e-004		6.5909
Total	**0.0343**	**1.7409**	**0.2835**	**2.6200e-003**	**8.3827**	**4.5000e-004**	**8.3831**	**0.8369**	**4.3000e-004**	**0.8374**		**283.6237**	**283.6237**	**0.0259**		**284.2701**

3.8 Plot 11 (2030) Building-Landscaping - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.8200e-003	0.3526	0.0624	4.6000e-004	3.6428	7.0000e-005	3.6429	0.3635	7.0000e-005	0.3636		49.3770	49.3770	4.3500e-003		49.4857
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0120**	**0.3540**	**0.0855**	**5.0000e-004**	**8.8459**	**1.3000e-004**	**8.8461**	**0.8824**	**1.3000e-004**	**0.8826**		**53.7681**	**53.7681**	**4.4600e-003**		**53.8797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.8200e-003	0.3526	0.0624	4.6000e-004	1.4578	7.0000e-005	1.4579	0.1457	7.0000e-005	0.1457		49.3770	49.3770	4.3500e-003		49.4857
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0120**	**0.3540**	**0.0855**	**5.0000e-004**	**3.5394**	**1.3000e-004**	**3.5395**	**0.3534**	**1.3000e-004**	**0.3535**		**53.7681**	**53.7681**	**4.4600e-003**		**53.8797**

3.9 Plot 11 (2030) Landscaping - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.3231	42.3231	3.7300e-003		42.4163
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0112**	**0.3036**	**0.0765**	**4.3000e-004**	**8.3255**	**1.2000e-004**	**8.3256**	**0.8305**	**1.2000e-004**	**0.8306**		**46.7143**	**46.7143**	**3.8400e-003**		**46.8103**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.3231	42.3231	3.7300e-003		42.4163
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0112**	**0.3036**	**0.0765**	**4.3000e-004**	**3.3311**	**1.2000e-004**	**3.3313**	**0.3326**	**1.2000e-004**	**0.3327**		**46.7143**	**46.7143**	**3.8400e-003**		**46.8103**

3.10 Plot 11 (2030) Curbing/Drive Approaches - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1000e-003	0.5818	0.0791	8.7000e-004	4.0589	1.2000e-004	4.0590	0.4049	1.1000e-004	0.4050		95.0479	95.0479	8.8900e-003		95.2702
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.2154	28.2154	2.4900e-003		28.2776
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0176**	**0.7846**	**0.1378**	**1.1700e-003**	**11.3436**	**2.2000e-004**	**11.3438**	**1.1316**	**2.1000e-004**	**1.1318**		**127.6544**	**127.6544**	**0.0115**		**127.9417**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1000e-003	0.5818	0.0791	8.7000e-004	1.6242	1.2000e-004	1.6243	0.1622	1.1000e-004	0.1623		95.0479	95.0479	8.8900e-003		95.2702
Vendor	3.3300e-003	0.2015	0.0356	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.2154	28.2154	2.4900e-003		28.2776
Worker	6.2100e-003	1.3500e-003	0.0231	4.0000e-005	2.0816	6.0000e-005	2.0817	0.2077	6.0000e-005	0.2078		4.3911	4.3911	1.1000e-004		4.3940
Total	**0.0176**	**0.7846**	**0.1378**	**1.1700e-003**	**4.5388**	**2.2000e-004**	**4.5390**	**0.4531**	**2.1000e-004**	**0.4534**		**127.6544**	**127.6544**	**0.0115**		**127.9417**

3.11 Plot 11 (2030) Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9845	0.1339	1.4800e-003	6.8690	2.0000e-004	6.8692	0.6853	1.9000e-004	0.6855		160.8503	160.8503	0.0151		161.2265
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.3231	42.3231	3.7300e-003		42.4163
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	13.0077	1.6000e-004	13.0078	1.2973	1.5000e-004	1.2974		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0342**	**1.2901**	**0.2451**	**1.9800e-003**	**22.9991**	**4.2000e-004**	**22.9995**	**2.2941**	**4.0000e-004**	**2.2945**		**214.1512**	**214.1512**	**0.0191**		**214.6277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9845	0.1339	1.4800e-003	2.7486	2.0000e-004	2.7488	0.2745	1.9000e-004	0.2747		160.8503	160.8503	0.0151		161.2265
Vendor	4.9900e-003	0.3023	0.0534	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.3231	42.3231	3.7300e-003		42.4163
Worker	0.0155	3.3700e-003	0.0578	1.1000e-004	5.2040	1.6000e-004	5.2041	0.5193	1.5000e-004	0.5194		10.9778	10.9778	2.8000e-004		10.9849
Total	**0.0342**	**1.2901**	**0.2451**	**1.9800e-003**	**9.2021**	**4.2000e-004**	**9.2025**	**0.9186**	**4.0000e-004**	**0.9190**		**214.1512**	**214.1512**	**0.0191**		**214.6277**

3.12 Plot 11 (2030) Temporary Utilities - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 11 (2031) Utilities - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7878	0.2471	2.6800e-003	12.5290	3.4000e-004	12.5294	1.2499	3.2000e-004	1.2503		292.4754	292.4754	0.0269		293.1471
Vendor	0.0205	1.2554	0.2207	1.6300e-003	13.0101	2.4000e-004	13.0104	1.2983	2.3000e-004	1.2985		175.8699	175.8699	0.0152		176.2501
Worker	0.0228	4.8800e-003	0.0859	1.7000e-004	20.8123	2.4000e-004	20.8125	2.0757	2.2000e-004	2.0759		17.1844	17.1844	4.1000e-004		17.1946
Total	**0.0682**	**3.0480**	**0.5537**	**4.4800e-003**	**46.3515**	**8.2000e-004**	**46.3523**	**4.6239**	**7.7000e-004**	**4.6246**		**485.5297**	**485.5297**	**0.0425**		**486.5918**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7878	0.2471	2.6800e-003	5.0135	3.4000e-004	5.0138	0.5006	3.2000e-004	0.5010		292.4754	292.4754	0.0269		293.1471
Vendor	0.0205	1.2554	0.2207	1.6300e-003	5.2064	2.4000e-004	5.2067	0.5202	2.3000e-004	0.5205		175.8699	175.8699	0.0152		176.2501
Worker	0.0228	4.8800e-003	0.0859	1.7000e-004	8.3263	2.4000e-004	8.3266	0.8308	2.2000e-004	0.8311		17.1844	17.1844	4.1000e-004		17.1946
Total	**0.0682**	**3.0480**	**0.5537**	**4.4800e-003**	**18.5462**	**8.2000e-004**	**18.5470**	**1.8517**	**7.7000e-004**	**1.8525**		**485.5297**	**485.5297**	**0.0425**		**486.5918**

3.14 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0299	2.1453	0.2965	3.2200e-003	15.0348	4.1000e-004	15.0352	1.4999	3.9000e-004	1.5003		350.9705	350.9705	0.0322		351.7766
Vendor	1.6400e-003	0.1004	0.0177	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0696	14.0696	1.2200e-003		14.1000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	13.0077	1.5000e-004	13.0078	1.2973	1.4000e-004	1.2974		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0458**	**2.2488**	**0.3679**	**3.4600e-003**	**29.0833**	**5.8000e-004**	**29.0839**	**2.9011**	**5.5000e-004**	**2.9016**		**375.7803**	**375.7803**	**0.0337**		**376.6232**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0299	2.1453	0.2965	3.2200e-003	6.0161	4.1000e-004	6.0165	0.6008	3.9000e-004	0.6012		350.9705	350.9705	0.0322		351.7766
Vendor	1.6400e-003	0.1004	0.0177	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0696	14.0696	1.2200e-003		14.1000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	5.2040	1.5000e-004	5.2041	0.5193	1.4000e-004	0.5194		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0458**	**2.2488**	**0.3679**	**3.4600e-003**	**11.6366**	**5.8000e-004**	**11.6372**	**1.1617**	**5.5000e-004**	**1.1622**		**375.7803**	**375.7803**	**0.0337**		**376.6232**

3.15 Plot 11 (2031) Building-Wet Utilities - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7200e-003	0.6257	0.0865	9.4000e-004	4.3852	1.2000e-004	4.3853	0.4375	1.1000e-004	0.4376		102.3664	102.3664	9.4000e-003		102.6015
Vendor	0.0123	0.7532	0.1324	9.8000e-004	7.8061	1.5000e-004	7.8062	0.7790	1.4000e-004	0.7791		105.5220	105.5220	9.1300e-003		105.7501
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	13.0077	1.5000e-004	13.0078	1.2973	1.4000e-004	1.2974		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0353**	**1.3820**	**0.2726**	**2.0300e-003**	**25.1989**	**4.2000e-004**	**25.1993**	**2.5137**	**3.9000e-004**	**2.5141**		**218.6286**	**218.6286**	**0.0188**		**219.0982**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7200e-003	0.6257	0.0865	9.4000e-004	1.7547	1.2000e-004	1.7548	0.1752	1.1000e-004	0.1753		102.3664	102.3664	9.4000e-003		102.6015
Vendor	0.0123	0.7532	0.1324	9.8000e-004	3.1239	1.5000e-004	3.1240	0.3121	1.4000e-004	0.3123		105.5220	105.5220	9.1300e-003		105.7501
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	5.2040	1.5000e-004	5.2041	0.5193	1.4000e-004	0.5194		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0353**	**1.3820**	**0.2726**	**2.0300e-003**	**10.0825**	**4.2000e-004**	**10.0829**	**1.0066**	**3.9000e-004**	**1.0070**		**218.6286**	**218.6286**	**0.0188**		**219.0982**

3.16 Plot 11 (2031) Building-Electrical - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4302	0.1977	2.1500e-003	10.0232	2.7000e-004	10.0235	1.0000	2.6000e-004	1.0002		233.9803	233.9803	0.0215		234.5177
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.2088	42.2088	3.6500e-003		42.3000
Worker	8.5400e-003	1.8300e-003	0.0322	6.0000e-005	7.8046	9.0000e-005	7.8047	0.7784	8.0000e-005	0.7785		6.4441	6.4441	1.5000e-004		6.4480
Total	**0.0334**	**1.7333**	**0.2829**	**2.6000e-003**	**20.9503**	**4.2000e-004**	**20.9507**	**2.0899**	**4.0000e-004**	**2.0903**		**282.6332**	**282.6332**	**0.0253**		**283.2657**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4302	0.1977	2.1500e-003	4.0108	2.7000e-004	4.0110	0.4005	2.6000e-004	0.4008		233.9803	233.9803	0.0215		234.5177
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.2088	42.2088	3.6500e-003		42.3000
Worker	8.5400e-003	1.8300e-003	0.0322	6.0000e-005	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3117		6.4441	6.4441	1.5000e-004		6.4480
Total	**0.0334**	**1.7333**	**0.2829**	**2.6000e-003**	**8.3827**	**4.2000e-004**	**8.3831**	**0.8369**	**4.0000e-004**	**0.8373**		**282.6332**	**282.6332**	**0.0253**		**283.2657**

3.17 Plot 11 (2031) Building-Landscaping - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7500e-003	0.3515	0.0618	4.6000e-004	3.6428	7.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.2436	49.2436	4.2600e-003		49.3500
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0114**	**0.3527**	**0.0833**	**5.0000e-004**	**8.8459**	**1.3000e-004**	**8.8460**	**0.8824**	**1.2000e-004**	**0.8826**		**53.5397**	**53.5397**	**4.3600e-003**		**53.6487**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7500e-003	0.3515	0.0618	4.6000e-004	1.4578	7.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.2436	49.2436	4.2600e-003		49.3500
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	6.0000e-005	0.2078		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0114**	**0.3527**	**0.0833**	**5.0000e-004**	**3.5394**	**1.3000e-004**	**3.5395**	**0.3534**	**1.2000e-004**	**0.3535**		**53.5397**	**53.5397**	**4.3600e-003**		**53.6487**

3.18 Plot 11 (2031) Landscaping - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.2088	42.2088	3.6500e-003		42.3000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0106**	**0.3025**	**0.0744**	**4.3000e-004**	**8.3255**	**1.2000e-004**	**8.3256**	**0.8305**	**1.2000e-004**	**0.8306**		**46.5049**	**46.5049**	**3.7500e-003**		**46.5987**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.2088	42.2088	3.6500e-003		42.3000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	6.0000e-005	0.2078		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0106**	**0.3025**	**0.0744**	**4.3000e-004**	**3.3311**	**1.2000e-004**	**3.3312**	**0.3326**	**1.2000e-004**	**0.3327**		**46.5049**	**46.5049**	**3.7500e-003**		**46.5987**

3.19 Plot 11 (2031) Curbing/Drive Approaches - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0700e-003	0.5792	0.0801	8.7000e-004	4.0589	1.1000e-004	4.0590	0.4049	1.1000e-004	0.4050		94.7508	94.7508	8.7000e-003		94.9684
Vendor	3.2800e-003	0.2009	0.0353	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.1392	28.1392	2.4300e-003		28.2000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	6.0000e-005	0.5190		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0170**	**0.7813**	**0.1368**	**1.1700e-003**	**11.3436**	**2.1000e-004**	**11.3438**	**1.1316**	**2.1000e-004**	**1.1318**		**127.1861**	**127.1861**	**0.0112**		**127.4671**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0700e-003	0.5792	0.0801	8.7000e-004	1.6242	1.1000e-004	1.6243	0.1622	1.1000e-004	0.1623		94.7508	94.7508	8.7000e-003		94.9684
Vendor	3.2800e-003	0.2009	0.0353	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.1392	28.1392	2.4300e-003		28.2000
Worker	5.6900e-003	1.2200e-003	0.0215	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	6.0000e-005	0.2078		4.2961	4.2961	1.0000e-004		4.2986
Total	**0.0170**	**0.7813**	**0.1368**	**1.1700e-003**	**4.5388**	**2.1000e-004**	**4.5390**	**0.4531**	**2.1000e-004**	**0.4533**		**127.1861**	**127.1861**	**0.0112**		**127.4671**

3.20 Plot 11 (2031) Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9801	0.1355	1.4700e-003	6.8690	1.9000e-004	6.8691	0.6853	1.8000e-004	0.6855		160.3475	160.3475	0.0147		160.7158
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		42.2088	42.2088	3.6500e-003		42.3000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	13.0077	1.5000e-004	13.0078	1.2973	1.4000e-004	1.2974		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0328**	**1.2845**	**0.2421**	**1.9700e-003**	**22.9991**	**4.0000e-004**	**22.9995**	**2.2941**	**3.8000e-004**	**2.2945**		**213.2965**	**213.2965**	**0.0186**		**213.7624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.9801	0.1355	1.4700e-003	2.7486	1.9000e-004	2.7488	0.2745	1.8000e-004	0.2747		160.3475	160.3475	0.0147		160.7158
Vendor	4.9300e-003	0.3013	0.0530	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	6.0000e-005	0.1249		42.2088	42.2088	3.6500e-003		42.3000
Worker	0.0142	3.0500e-003	0.0537	1.1000e-004	5.2040	1.5000e-004	5.2041	0.5193	1.4000e-004	0.5194		10.7402	10.7402	2.5000e-004		10.7466
Total	**0.0328**	**1.2845**	**0.2421**	**1.9700e-003**	**9.2021**	**4.0000e-004**	**9.2025**	**0.9186**	**3.8000e-004**	**0.9190**		**213.2965**	**213.2965**	**0.0186**		**213.7624**

3.21 Plot 11 (2031) Temporary Utilities - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 11 (2032) Mass Excavation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9700	0.1361	1.4600e-003	6.8249	1.8000e-004	6.8251	0.6809	1.7000e-004	0.6811		159.0548	159.0548	0.0144		159.4140
Vendor	9.7500e-003	0.6006	0.1053	7.8000e-004	6.2449	1.1000e-004	6.2450	0.6232	1.1000e-004	0.6233		84.2788	84.2788	7.1700e-003		84.4580
Worker	0.0262	5.5200e-003	0.1000	2.1000e-004	26.0154	2.8000e-004	26.0157	2.5946	2.6000e-004	2.5949		21.0350	21.0350	4.6000e-004		21.0465
Total	**0.0494**	**1.5761**	**0.3414**	**2.4500e-003**	**39.0852**	**5.7000e-004**	**39.0857**	**3.8986**	**5.4000e-004**	**3.8992**		**264.3687**	**264.3687**	**0.0220**		**264.9186**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9700	0.1361	1.4600e-003	2.7310	1.8000e-004	2.7311	0.2727	1.7000e-004	0.2729		159.0548	159.0548	0.0144		159.4140
Vendor	9.7500e-003	0.6006	0.1053	7.8000e-004	2.4991	1.1000e-004	2.4992	0.2497	1.1000e-004	0.2498		84.2788	84.2788	7.1700e-003		84.4580
Worker	0.0262	5.5200e-003	0.1000	2.1000e-004	10.4079	2.8000e-004	10.4082	1.0385	2.6000e-004	1.0388		21.0350	21.0350	4.6000e-004		21.0465
Total	**0.0494**	**1.5761**	**0.3414**	**2.4500e-003**	**15.6380**	**5.7000e-004**	**15.6385**	**1.5610**	**5.4000e-004**	**1.5615**		**264.3687**	**264.3687**	**0.0220**		**264.9186**

3.23 Plot 11 (2032) Finish Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.7692	0.1079	1.1600e-003	5.4119	1.4000e-004	5.4120	0.5399	1.3000e-004	0.5400		126.1244	126.1244	0.0114		126.4093
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.0929	28.0929	2.3900e-003		28.1527
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	7.8046	9.0000e-005	7.8047	0.7784	8.0000e-005	0.7785		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0218**	**0.9710**	**0.1730**	**1.4800e-003**	**15.2981**	**2.7000e-004**	**15.2984**	**1.5260**	**2.5000e-004**	**1.5263**		**160.5279**	**160.5279**	**0.0139**		**160.8759**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0107	0.7692	0.1079	1.1600e-003	2.1656	1.4000e-004	2.1657	0.2163	1.3000e-004	0.2164		126.1244	126.1244	0.0114		126.4093
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.0929	28.0929	2.3900e-003		28.1527
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3116		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0218**	**0.9710**	**0.1730**	**1.4800e-003**	**6.1210**	**2.7000e-004**	**6.1212**	**0.6111**	**2.5000e-004**	**0.6113**		**160.5279**	**160.5279**	**0.0139**		**160.8759**

3.24 Plot 11 (2032) Utilities - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7807	0.2498	2.6800e-003	12.5290	3.2000e-004	12.5294	1.2499	3.1000e-004	1.2503		291.9892	291.9892	0.0264		292.6486
Vendor	0.0203	1.2512	0.2194	1.6200e-003	13.0101	2.3000e-004	13.0104	1.2983	2.2000e-004	1.2985		175.5809	175.5809	0.0149		175.9542
Worker	0.0209	4.4200e-003	0.0800	1.7000e-004	20.8123	2.3000e-004	20.8125	2.0757	2.1000e-004	2.0759		16.8280	16.8280	3.7000e-004		16.8372
Total	**0.0661**	**3.0363**	**0.5492**	**4.4700e-003**	**46.3515**	**7.8000e-004**	**46.3523**	**4.6239**	**7.4000e-004**	**4.6246**		**484.3981**	**484.3981**	**0.0417**		**485.4401**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7807	0.2498	2.6800e-003	5.0135	3.2000e-004	5.0138	0.5006	3.1000e-004	0.5010		291.9892	291.9892	0.0264		292.6486
Vendor	0.0203	1.2512	0.2194	1.6200e-003	5.2064	2.3000e-004	5.2067	0.5202	2.2000e-004	0.5205		175.5809	175.5809	0.0149		175.9542
Worker	0.0209	4.4200e-003	0.0800	1.7000e-004	8.3263	2.3000e-004	8.3266	0.8308	2.1000e-004	0.8310		16.8280	16.8280	3.7000e-004		16.8372
Total	**0.0661**	**3.0363**	**0.5492**	**4.4700e-003**	**18.5462**	**7.8000e-004**	**18.5470**	**1.8517**	**7.4000e-004**	**1.8525**		**484.3981**	**484.3981**	**0.0417**		**485.4401**

3.25 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1368	0.2998	3.2100e-003	15.0348	3.9000e-004	15.0352	1.4999	3.7000e-004	1.5003		350.3870	350.3870	0.0317		351.1784
Vendor	1.6300e-003	0.1001	0.0176	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0465	14.0465	1.1900e-003		14.0763
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	13.0077	1.4000e-004	13.0078	1.2973	1.3000e-004	1.2974		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0445**	**2.2397**	**0.3673**	**3.4500e-003**	**29.0833**	**5.5000e-004**	**29.0839**	**2.9011**	**5.2000e-004**	**2.9016**		**374.9510**	**374.9510**	**0.0331**		**375.7780**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1368	0.2998	3.2100e-003	6.0161	3.9000e-004	6.0165	0.6008	3.7000e-004	0.6011		350.3870	350.3870	0.0317		351.1784
Vendor	1.6300e-003	0.1001	0.0176	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0465	14.0465	1.1900e-003		14.0763
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	5.2040	1.4000e-004	5.2041	0.5193	1.3000e-004	0.5194		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0445**	**2.2397**	**0.3673**	**3.4500e-003**	**11.6366**	**5.5000e-004**	**11.6372**	**1.1617**	**5.2000e-004**	**1.1622**		**374.9510**	**374.9510**	**0.0331**		**375.7780**

3.26 Plot 11 (2032) Building-Wet Utilities - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6232	0.0874	9.4000e-004	4.3852	1.1000e-004	4.3853	0.4375	1.1000e-004	0.4376		102.1962	102.1962	9.2300e-003		102.4270
Vendor	0.0122	0.7507	0.1316	9.7000e-004	7.8061	1.4000e-004	7.8062	0.7790	1.3000e-004	0.7791		105.3485	105.3485	8.9600e-003		105.5725
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	13.0077	1.4000e-004	13.0078	1.2973	1.3000e-004	1.2974		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0340**	**1.3767**	**0.2691**	**2.0200e-003**	**25.1989**	**3.9000e-004**	**25.1993**	**2.5137**	**3.7000e-004**	**2.5141**		**218.0623**	**218.0623**	**0.0184**		**218.5228**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6232	0.0874	9.4000e-004	1.7547	1.1000e-004	1.7548	0.1752	1.1000e-004	0.1753		102.1962	102.1962	9.2300e-003		102.4270
Vendor	0.0122	0.7507	0.1316	9.7000e-004	3.1239	1.4000e-004	3.1240	0.3121	1.3000e-004	0.3123		105.3485	105.3485	8.9600e-003		105.5725
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	5.2040	1.4000e-004	5.2041	0.5193	1.3000e-004	0.5194		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0340**	**1.3767**	**0.2691**	**2.0200e-003**	**10.0825**	**3.9000e-004**	**10.0829**	**1.0066**	**3.7000e-004**	**1.0070**		**218.0623**	**218.0623**	**0.0184**		**218.5228**

3.27 Plot 11 (2032) Building-Electrical - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4245	0.1999	2.1400e-003	10.0232	2.6000e-004	10.0235	1.0000	2.5000e-004	1.0002		233.5914	233.5914	0.0211		234.1189
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1394	42.1394	3.5800e-003		42.2290
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	7.8046	9.0000e-005	7.8047	0.7784	8.0000e-005	0.7785		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0326**	**1.7265**	**0.2825**	**2.5900e-003**	**20.9503**	**4.1000e-004**	**20.9507**	**2.0899**	**3.8000e-004**	**2.0903**		**282.0413**	**282.0413**	**0.0248**		**282.6619**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4245	0.1999	2.1400e-003	4.0108	2.6000e-004	4.0110	0.4005	2.5000e-004	0.4008		233.5914	233.5914	0.0211		234.1189
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1394	42.1394	3.5800e-003		42.2290
Worker	7.8500e-003	1.6600e-003	0.0300	6.0000e-005	3.1224	9.0000e-005	3.1225	0.3116	8.0000e-005	0.3116		6.3105	6.3105	1.4000e-004		6.3140
Total	**0.0326**	**1.7265**	**0.2825**	**2.5900e-003**	**8.3827**	**4.1000e-004**	**8.3831**	**0.8369**	**3.8000e-004**	**0.8373**		**282.0413**	**282.0413**	**0.0248**		**282.6619**

3.28 Plot 11 (2032) Building-Landscaping - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6900e-003	0.3503	0.0614	4.5000e-004	3.6428	7.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1627	49.1627	4.1800e-003		49.2672
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0109**	**0.3514**	**0.0814**	**4.9000e-004**	**8.8459**	**1.3000e-004**	**8.8460**	**0.8824**	**1.1000e-004**	**0.8825**		**53.3697**	**53.3697**	**4.2700e-003**		**53.4765**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6900e-003	0.3503	0.0614	4.5000e-004	1.4578	7.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1627	49.1627	4.1800e-003		49.2672
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0109**	**0.3514**	**0.0814**	**4.9000e-004**	**3.5394**	**1.3000e-004**	**3.5395**	**0.3534**	**1.1000e-004**	**0.3535**		**53.3697**	**53.3697**	**4.2700e-003**		**53.4765**

3.29 Plot 11 (2032) Landscaping - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1394	42.1394	3.5800e-003		42.2290
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0101**	**0.3014**	**0.0727**	**4.3000e-004**	**8.3255**	**1.2000e-004**	**8.3256**	**0.8305**	**1.0000e-004**	**0.8306**		**46.3464**	**46.3464**	**3.6700e-003**		**46.4383**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1394	42.1394	3.5800e-003		42.2290
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0101**	**0.3014**	**0.0727**	**4.3000e-004**	**3.3311**	**1.2000e-004**	**3.3312**	**0.3326**	**1.0000e-004**	**0.3327**		**46.3464**	**46.3464**	**3.6700e-003**		**46.4383**

3.30 Plot 11 (2032) Curbing/Drive Approaches - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5769	0.0809	8.7000e-004	4.0589	1.0000e-004	4.0590	0.4049	1.0000e-004	0.4050		94.5933	94.5933	8.5500e-003		94.8069
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	4.0000e-005	0.2078		28.0929	28.0929	2.3900e-003		28.1527
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	5.2031	6.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0165**	**0.7782**	**0.1360**	**1.1700e-003**	**11.3436**	**2.0000e-004**	**11.3438**	**1.1316**	**1.9000e-004**	**1.1318**		**126.8933**	**126.8933**	**0.0110**		**127.1689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5769	0.0809	8.7000e-004	1.6242	1.0000e-004	1.6243	0.1622	1.0000e-004	0.1623		94.5933	94.5933	8.5500e-003		94.8069
Vendor	3.2500e-003	0.2002	0.0351	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	4.0000e-005	0.0833		28.0929	28.0929	2.3900e-003		28.1527
Worker	5.2300e-003	1.1000e-003	0.0200	4.0000e-005	2.0816	6.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.2070	4.2070	9.0000e-005		4.2093
Total	**0.0165**	**0.7782**	**0.1360**	**1.1700e-003**	**4.5388**	**2.0000e-004**	**4.5390**	**0.4531**	**1.9000e-004**	**0.4533**		**126.8933**	**126.8933**	**0.0110**		**127.1689**

3.31 Plot 11 (2032) Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9762	0.1370	1.4700e-003	6.8690	1.8000e-004	6.8691	0.6853	1.7000e-004	0.6854		160.0810	160.0810	0.0145		160.4425
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	3.1224	6.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1394	42.1394	3.5800e-003		42.2290
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	13.0077	1.4000e-004	13.0078	1.2973	1.3000e-004	1.2974		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0316**	**1.2793**	**0.2396**	**1.9700e-003**	**22.9991**	**3.8000e-004**	**22.9994**	**2.2941**	**3.5000e-004**	**2.2945**		**212.7379**	**212.7379**	**0.0183**		**213.1948**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9762	0.1370	1.4700e-003	2.7486	1.8000e-004	2.7488	0.2745	1.7000e-004	0.2746		160.0810	160.0810	0.0145		160.4425
Vendor	4.8800e-003	0.3003	0.0527	3.9000e-004	1.2495	6.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1394	42.1394	3.5800e-003		42.2290
Worker	0.0131	2.7600e-003	0.0500	1.1000e-004	5.2040	1.4000e-004	5.2041	0.5193	1.3000e-004	0.5194		10.5175	10.5175	2.3000e-004		10.5233
Total	**0.0316**	**1.2793**	**0.2396**	**1.9700e-003**	**9.2021**	**3.8000e-004**	**9.2025**	**0.9186**	**3.5000e-004**	**0.9190**		**212.7379**	**212.7379**	**0.0183**		**213.1948**

3.32 Plot 11 (2032) Temporary Utilities - 2032

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Plots 12 and 6 Emissions Summaries

Mitigated Air Quality Construction Analysis

Regional Maximums Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day					
Plot 12 (2033) Mass Excavation	6.84	32.62	246.08	0.57	29.05	4.03
Plot 12 (2033) Finish Grading	0.28	3.54	9.62	0.03	7.93	0.92
Plot 12 (2033) Utilities	8.76	39.63	159.53	0.43	31.19	4.26
Plot 12 (2033) Building-Concrete	1.18	10.99	47.09	0.10	14.18	1.76
Plot 12 (2033) Building-Wet Utilities	2.44	11.86	80.89	0.17	15.08	1.94
Plot 12 (2033) Building-Electrical	1.67	16.10	45.76	0.09	11.87	1.49
Plot 12 (2033) Building-Landscaping	1.59	13.72	37.28	0.06	4.71	0.72
Plot 12 (2033) Landscaping	1.63	13.75	39.96	0.07	4.49	0.70
Plot 12 (2033) Curbing/Drive Approaches	0.35	4.52	11.88	0.03	5.03	0.61
Plot 12 (2033) Paving	1.31	8.80	54.65	0.12	12.75	1.59
Plot 12 (2033) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 12 (2034) Utilities	8.75	39.56	159.46	0.43	31.18	4.25
Plot 12 (2034) Building-Concrete	1.17	10.94	47.05	0.10	14.18	1.76
Plot 12 (2034) Building-Wet Utilities	2.43	11.83	80.85	0.17	15.08	1.94
Plot 12 (2034) Building-Electrical	1.66	16.06	45.73	0.09	11.87	1.49
Plot 12 (2034) Building-Landscaping	1.59	13.71	37.26	0.06	4.71	0.72
Plot 12 (2034) Landscaping	1.63	13.74	39.94	0.07	4.49	0.70
Plot 12 (2034) Curbing/Drive Approaches	0.35	4.51	11.87	0.03	5.03	0.61
Plot 12 (2034) Paving	1.31	8.77	54.61	0.12	12.75	1.59
Plot 12 (2034) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 6 (2035) Mass Excavation	4.52	22.61	161.73	0.38	25.04	3.32
Plot 6 (2035) Finish Grading	0.28	3.79	9.67	0.03	8.23	0.96
Plot 6 (2035) Utilities	8.54	37.12	159.40	0.43	31.10	4.17
Plot 6 (2035) Building-Concrete	1.01	5.55	45.26	0.08	8.92	1.14
Plot 6 (2035) Building-Wet Utilities	2.38	11.27	80.82	0.17	15.06	1.92
Plot 6 (2035) Building-Electrical	1.63	15.95	45.69	0.09	11.85	1.47
Plot 6 (2035) Building-Landscaping	1.43	13.44	37.11	0.06	4.66	0.66
Plot 6 (2035) Landscaping	1.47	13.48	39.79	0.07	4.43	0.64
Plot 6 (2035) Curbing/Drive Approaches	0.35	4.49	11.85	0.03	5.03	0.61
Plot 6 (2035) Paving	1.30	8.75	54.58	0.12	12.75	1.59
Plot 6 (2035) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05

Overlapping Phases

Plot 12-2033	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	24.38	142.21	666.19	1.54	118.50	15.81
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	24.10	138.67	656.57	1.51	110.57	14.89
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	24.46	143.19	668.46	1.54	115.60	15.50
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	25.77	152.00	723.11	1.66	128.34	17.09
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	19.27	120.85	489.55	1.11	99.34	13.11
Plot 12-2034						
All Phases	19.23	120.60	489.29	1.11	99.34	13.11
Plot 6-2035						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	21.27	123.22	579.47	1.32	109.30	14.29
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	20.99	119.42	569.80	1.29	101.07	13.33
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	21.33	123.92	581.66	1.32	106.10	13.95
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	22.64	132.67	636.24	1.44	118.85	15.54
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	18.46	111.54	487.02	1.09	93.85	12.26
Daily Maximum[1]						
2033	157.86	152.00	723.11	1.66	128.34	17.09
2034	151.31	120.60	489.29	1.11	99.34	13.11
2035	154.72	132.67	636.24	1.44	118.85	15.54

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Onsite OnRoad Vehicle Emissions

Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
			lb/day			
Plot 12 (2033) Mass Excavation	0.04	1.42	0.31	0.00	15.01	1.50
Plot 12 (2033) Finish Grading	0.02	0.96	0.17	0.00	5.98	0.60
Plot 12 (2033) Utilities	0.06	3.03	0.55	0.00	18.55	1.85
Plot 12 (2033) Building-Concrete	0.04	2.23	0.37	0.00	11.64	1.16
Plot 12 (2033) Building-Wet Utilities	0.03	1.37	0.27	0.00	10.08	1.01
Plot 12 (2033) Building-Electrical	0.03	1.72	0.28	0.00	8.38	0.84
Plot 12 (2033) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 12 (2033) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 12 (2033) Curbing/Drive Approaches	0.02	0.78	0.14	0.00	4.54	0.45
Plot 12 (2033) Paving	0.03	1.28	0.24	0.00	9.20	0.92
Plot 12 (2033) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	0.06	3.02	0.54	0.00	18.55	1.85
Plot 12 (2034) Building-Concrete	0.04	2.23	0.37	0.00	11.64	1.16
Plot 12 (2034) Building-Wet Utilities	0.03	1.37	0.26	0.00	10.08	1.01
Plot 12 (2034) Building-Electrical	0.03	1.72	0.28	0.00	8.38	0.84
Plot 12 (2034) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 12 (2034) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 12 (2034) Curbing/Drive Approaches	0.02	0.77	0.13	0.00	4.54	0.45
Plot 12 (2034) Paving	0.03	1.27	0.24	0.00	9.20	0.92
Plot 12 (2034) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	0.04	1.41	0.30	0.00	15.01	1.50
Plot 6 (2035) Finish Grading	0.02	1.06	0.18	0.00	6.25	0.62
Plot 6 (2035) Utilities	0.06	3.01	0.54	0.00	18.55	1.85
Plot 6 (2035) Building-Concrete	0.02	0.45	0.11	0.00	6.88	0.69
Plot 6 (2035) Building-Wet Utilities	0.03	1.37	0.26	0.00	10.08	1.01
Plot 6 (2035) Building-Electrical	0.03	1.71	0.28	0.00	8.38	0.84
Plot 6 (2035) Building-Landscaping	0.01	0.35	0.08	0.00	3.54	0.35
Plot 6 (2035) Landscaping	0.01	0.30	0.07	0.00	3.33	0.33
Plot 6 (2035) Curbing/Drive Approaches	0.02	0.77	0.13	0.00	4.54	0.45
Plot 6 (2035) Paving	0.03	1.27	0.23	0.00	9.20	0.92
Plot 6 (2035) Temporary Utilities	0.00	0.00	0.00	0.00	0.00	0.00

Daily Mitigated VOC Emissions (lb/day)	
2033	132
2034	132
2035	132

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 12 (2033) Mass Excavation	6.51	28.19	243.19	0.55	12.58	2.13	0.26	2.98	2.58	0.02	1.45	0.40
Plot 12 (2033) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.12	1.98	1.23	0.01	0.59	0.16
Plot 12 (2033) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.36	6.26	3.60	0.04	1.88	0.53
Plot 12 (2033) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.24	4.57	2.57	0.03	1.16	0.32
Plot 12 (2033) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.18	2.86	1.82	0.02	1.01	0.28
Plot 12 (2033) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.17	3.53	1.85	0.02	0.85	0.24
Plot 12 (2033) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.06	0.74	0.56	0.01	0.35	0.10
Plot 12 (2033) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.06	0.64	0.52	0.01	0.33	0.09
Plot 12 (2033) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.09	1.60	0.92	0.01	0.46	0.13
Plot 12 (2033) Paving	1.10	4.86	52.65	0.10	2.63	0.42	0.17	2.64	1.76	0.02	0.91	0.25
Plot 12 (2033) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.35	6.21	3.54	0.04	1.88	0.53
Plot 12 (2034) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.23	4.53	2.54	0.03	1.16	0.32
Plot 12 (2034) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.18	2.83	1.78	0.02	1.01	0.28
Plot 12 (2034) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.17	3.50	1.83	0.02	0.85	0.24
Plot 12 (2034) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.06	0.73	0.54	0.01	0.35	0.10
Plot 12 (2034) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.05	0.63	0.50	0.01	0.33	0.09
Plot 12 (2034) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.09	1.58	0.91	0.01	0.46	0.13
Plot 12 (2034) Paving	1.10	4.86	52.65	0.10	2.63	0.42	0.17	2.61	1.72	0.02	0.91	0.25
Plot 12 (2034) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	4.21	18.24	158.99	0.36	8.58	1.43	0.25	2.92	2.44	0.02	1.45	0.40
Plot 6 (2035) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.12	2.14	1.27	0.01	0.62	0.17
Plot 6 (2035) Utilities	8.12	27.89	155.37	0.38	10.67	1.79	0.34	6.16	3.49	0.04	1.88	0.53
Plot 6 (2035) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.11	0.95	1.00	0.01	0.66	0.18
Plot 6 (2035) Building-Wet Utilities	2.16	7.06	78.81	0.15	3.97	0.63	0.18	2.81	1.75	0.02	1.01	0.28
Plot 6 (2035) Building-Electrical	1.42	10.73	43.60	0.07	2.62	0.40	0.17	3.47	1.81	0.02	0.85	0.24
Plot 6 (2035) Building-Landscaping	1.36	12.35	36.50	0.06	0.77	0.21	0.06	0.73	0.53	0.01	0.35	0.10
Plot 6 (2035) Landscaping	1.40	12.54	39.23	0.06	0.77	0.22	0.05	0.63	0.49	0.01	0.33	0.09
Plot 6 (2035) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.09	1.57	0.89	0.01	0.46	0.13
Plot 6 (2035) Paving	1.10	4.86	52.65	0.10	2.63	0.42	0.16	2.59	1.69	0.02	0.91	0.25
Plot 6 (2035) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 12 (2033) Mass Excavation	6.77	31.17	245.77	0.57	14.03	2.53
Plot 12 (2033) Finish Grading	0.25	2.56	9.45	0.03	1.95	0.33
Plot 12 (2033) Utilities	8.67	36.54	158.98	0.43	12.64	2.40
Plot 12 (2033) Building-Concrete	1.12	8.72	46.72	0.10	2.55	0.59
Plot 12 (2033) Building-Wet Utilities	2.39	10.46	80.62	0.17	5.00	0.94
Plot 12 (2033) Building-Electrical	1.63	14.34	45.47	0.09	3.49	0.65
Plot 12 (2033) Building-Landscaping	1.57	13.35	37.20	0.06	1.17	0.36
Plot 12 (2033) Landscaping	1.61	13.44	39.88	0.07	1.16	0.36
Plot 12 (2033) Curbing/Drive Approaches	0.33	3.73	11.75	0.03	0.49	0.16
Plot 12 (2033) Paving	1.27	7.50	54.41	0.12	3.54	0.67
Plot 12 (2033) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 12 (2034) Utilities	8.67	36.48	158.92	0.42	12.64	2.40
Plot 12 (2034) Building-Concrete	1.11	8.67	46.68	0.10	2.55	0.59
Plot 12 (2034) Building-Wet Utilities	2.39	10.43	80.59	0.17	5.00	0.94
Plot 12 (2034) Building-Electrical	1.62	14.31	45.45	0.09	3.49	0.65
Plot 12 (2034) Building-Landscaping	1.57	13.35	37.18	0.06	1.17	0.36
Plot 12 (2034) Landscaping	1.61	13.44	39.87	0.07	1.16	0.36
Plot 12 (2034) Curbing/Drive Approaches	0.33	3.72	11.73	0.03	0.49	0.16
Plot 12 (2034) Paving	1.26	7.48	54.38	0.12	3.54	0.67
Plot 12 (2034) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 6 (2035) Mass Excavation	4.46	21.16	161.43	0.38	10.03	1.83
Plot 6 (2035) Finish Grading	0.25	2.72	9.49	0.03	1.98	0.33
Plot 6 (2035) Utilities	8.46	34.05	158.86	0.42	12.55	2.32
Plot 6 (2035) Building-Concrete	0.98	5.09	45.15	0.08	2.04	0.45
Plot 6 (2035) Building-Wet Utilities	2.34	9.87	80.56	0.17	4.98	0.92
Plot 6 (2035) Building-Electrical	1.59	14.21	45.41	0.09	3.47	0.63
Plot 6 (2035) Building-Landscaping	1.42	13.08	37.03	0.06	1.12	0.31
Plot 6 (2035) Landscaping	1.46	13.17	39.72	0.07	1.10	0.31
Plot 6 (2035) Curbing/Drive Approaches	0.33	3.71	11.72	0.03	0.49	0.16
Plot 6 (2035) Paving	1.26	7.46	54.34	0.12	3.54	0.67
Plot 6 (2035) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05

Overlapping Phases						
Plot 12-2033	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	24.01	130.58	664.10	1.52	41.99	8.17
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	23.76	128.02	654.65	1.49	40.03	7.84
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	24.10	131.75	666.40	1.52	40.52	8.01
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	25.36	139.26	720.81	1.64	44.07	8.68
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	18.94	109.57	487.56	1.09	30.08	6.19
Plot 12-2034						
All Phases	18.90	109.35	487.32	1.09	30.08	6.19
Plot 6-2035						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	20.95	113.36	577.65	1.31	37.28	7.10
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	20.69	110.64	568.16	1.28	35.30	6.77
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	21.02	114.34	579.88	1.31	35.79	6.93
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	22.28	121.80	634.22	1.42	39.33	7.60
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	18.17	102.12	485.31	1.07	29.35	5.82
Daily Maximum[1]						
2033	25.36	139.26	720.81	1.64	44.07	8.68
2034	18.90	109.35	487.32	1.09	30.08	6.19
2035	22.28	121.80	634.22	1.42	39.33	7.60

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
Plot 12 (2033) Mass Excavation	6.51	28.19	243.19	0.55	12.58	2.13	0.29	3.01	2.44	0.02	1.45	0.40
Plot 12 (2033) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.13	2.00	1.20	0.01	0.59	0.16
Plot 12 (2033) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.38	6.33	3.55	0.04	1.88	0.53
Plot 12 (2033) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.26	4.62	2.55	0.03	1.16	0.32
Plot 12 (2033) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.20	2.89	1.77	0.02	1.01	0.28
Plot 12 (2033) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.18	3.56	1.85	0.02	0.85	0.24
Plot 12 (2033) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.07	0.75	0.53	0.01	0.35	0.10
Plot 12 (2033) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.06	0.65	0.49	0.01	0.33	0.09
Plot 12 (2033) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.10	1.61	0.91	0.01	0.46	0.13
Plot 12 (2033) Paving	1.10	4.86	52.65	0.10	2.63	0.42	0.19	2.67	1.71	0.02	0.91	0.25
Plot 12 (2033) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	8.32	30.27	155.38	0.38	10.76	1.88	0.37	6.27	3.50	0.04	1.88	0.53
Plot 12 (2034) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.25	4.57	2.52	0.03	1.16	0.32
Plot 12 (2034) Building-Wet Utilities	2.21	7.60	78.81	0.15	3.99	0.65	0.19	2.86	1.74	0.02	1.01	0.28
Plot 12 (2034) Building-Electrical	1.45	10.81	43.62	0.07	2.63	0.41	0.18	3.53	1.83	0.02	0.85	0.24
Plot 12 (2034) Building-Landscaping	1.51	12.61	36.64	0.06	0.82	0.27	0.06	0.74	0.52	0.01	0.35	0.10
Plot 12 (2034) Landscaping	1.56	12.80	39.36	0.06	0.83	0.27	0.06	0.64	0.48	0.01	0.33	0.09
Plot 12 (2034) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.09	1.60	0.90	0.01	0.46	0.13
Plot 12 (2034) Paving	1.10	4.86	52.65	0.10	2.63	0.42	0.18	2.64	1.67	0.02	0.91	0.25
Plot 12 (2034) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	4.21	18.24	158.99	0.36	8.58	1.43	0.27	2.96	2.32	0.02	1.45	0.40
Plot 6 (2035) Finish Grading	0.13	0.58	8.22	0.01	1.36	0.16	0.13	2.16	1.25	0.01	0.62	0.17
Plot 6 (2035) Utilities	8.12	27.89	155.37	0.38	10.67	1.79	0.36	6.22	3.45	0.04	1.88	0.53
Plot 6 (2035) Building-Concrete	0.88	4.14	44.15	0.07	1.38	0.27	0.12	0.96	0.93	0.01	0.66	0.18
Plot 6 (2035) Building-Wet Utilities	2.16	7.06	78.81	0.15	3.97	0.63	0.19	2.84	1.71	0.02	1.01	0.28
Plot 6 (2035) Building-Electrical	1.42	10.73	43.60	0.07	2.62	0.40	0.18	3.51	1.81	0.02	0.85	0.24
Plot 6 (2035) Building-Landscaping	1.36	12.35	36.50	0.06	0.77	0.21	0.06	0.74	0.51	0.01	0.35	0.10
Plot 6 (2035) Landscaping	1.40	12.54	39.23	0.06	0.77	0.22	0.06	0.64	0.47	0.01	0.33	0.09
Plot 6 (2035) Curbing/Drive Approaches	0.24	2.13	10.82	0.02	0.03	0.03	0.09	1.59	0.89	0.01	0.46	0.13
Plot 6 (2035) Paving	1.10	4.86	52.65	0.10	2.63	0.42	0.18	2.62	1.65	0.02	0.91	0.25
Plot 6 (2035) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Plot 12 (2033) Mass Excavation	6.80	31.20	245.63	0.57	14.03	2.53
Plot 12 (2033) Finish Grading	0.26	2.58	9.42	0.03	1.95	0.33
Plot 12 (2033) Utilities	8.70	36.60	158.93	0.42	12.64	2.40
Plot 12 (2033) Building-Concrete	1.13	8.76	46.70	0.10	2.55	0.59
Plot 12 (2033) Building-Wet Utilities	2.41	10.49	80.58	0.17	5.00	0.94
Plot 12 (2033) Building-Electrical	1.64	14.38	45.47	0.09	3.49	0.65
Plot 12 (2033) Building-Landscaping	1.58	13.36	37.17	0.06	1.17	0.36
Plot 12 (2033) Landscaping	1.62	13.45	39.86	0.07	1.16	0.36
Plot 12 (2033) Curbing/Drive Approaches	0.34	3.75	11.73	0.03	0.49	0.16
Plot 12 (2033) Paving	1.28	7.53	54.36	0.12	3.54	0.67
Plot 12 (2033) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 12 (2034) Utilities	8.69	36.54	158.87	0.42	12.64	2.40
Plot 12 (2034) Building-Concrete	1.13	8.71	46.66	0.10	2.55	0.59
Plot 12 (2034) Building-Wet Utilities	2.40	10.46	80.54	0.17	5.00	0.94
Plot 12 (2034) Building-Electrical	1.63	14.34	45.45	0.09	3.49	0.65
Plot 12 (2034) Building-Landscaping	1.58	13.36	37.16	0.06	1.17	0.36
Plot 12 (2034) Landscaping	1.62	13.44	39.84	0.07	1.16	0.36
Plot 12 (2034) Curbing/Drive Approaches	0.34	3.73	11.72	0.03	0.49	0.16
Plot 12 (2034) Paving	1.28	7.50	54.33	0.12	3.54	0.67
Plot 12 (2034) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05
Plot 6 (2035) Mass Excavation	4.48	21.19	161.31	0.38	10.03	1.83
Plot 6 (2035) Finish Grading	0.26	2.74	9.47	0.03	1.98	0.33
Plot 6 (2035) Utilities	8.48	34.11	158.82	0.42	12.55	2.32
Plot 6 (2035) Building-Concrete	0.99	5.10	45.08	0.08	2.04	0.45
Plot 6 (2035) Building-Wet Utilities	2.35	9.90	80.52	0.17	4.98	0.92
Plot 6 (2035) Building-Electrical	1.60	14.24	45.41	0.09	3.47	0.63
Plot 6 (2035) Building-Landscaping	1.42	13.09	37.01	0.06	1.12	0.31
Plot 6 (2035) Landscaping	1.46	13.18	39.70	0.07	1.10	0.31
Plot 6 (2035) Curbing/Drive Approaches	0.33	3.72	11.71	0.03	0.49	0.16
Plot 6 (2035) Paving	1.27	7.48	54.30	0.12	3.54	0.67
Plot 6 (2035) Temporary Utilities	0.34	1.48	12.52	0.03	0.05	0.05

Overlapping Phases						
Plot 12-2033	**ROG**	**NOX**	**CO**	**SO2**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	24.12	130.83	663.76	1.52	41.99	8.17
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	23.87	128.25	654.34	1.49	40.03	7.84
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	24.20	131.99	666.07	1.52	40.52	8.01
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	25.49	139.52	720.43	1.63	44.07	8.68
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	19.03	109.80	487.32	1.09	30.08	6.19
Plot 12-2034						
All Phases	18.99	109.58	487.10	1.09	30.08	6.19
Plot 6-2035						
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	21.05	113.56	577.31	1.30	37.28	7.10
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	20.79	110.82	567.84	1.28	35.30	6.77
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	21.12	114.54	579.55	1.31	35.79	6.93
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	22.39	122.02	633.85	1.42	39.33	7.60
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	18.25	102.31	485.06	1.07	29.35	5.82
Daily Maximum[1]						
2033	25.49	139.52	720.43	1.63	44.07	8.68
2034	18.99	109.58	487.10	1.09	30.08	6.19
2035	22.39	122.02	633.85	1.42	39.33	7.60

1) VOC offgassing emissions from Curbing/Drive Approaches and Paving are calculated in CalEEMod Output Files, however, the offgassing emissiona are not included in the this table because VOC emissiosn are calculated outside of CalEEMod and are incorporated in the Regional Maximum and Localized worksheets.

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions				Onsite OnRoad Vehicle Emissions			
	NOX	CO	Total PM10	Total PM2.5	NOX	CO	Total PM10	Total PM2.5
Source		lb/day				lb/day		
Plot 12 (2033) Mass Excavation	28.19	243.19	12.58	2.13	1.42	0.31	15.01	1.50
Plot 12 (2033) Finish Grading	0.58	8.22	1.36	0.16	0.96	0.17	5.98	0.60
Plot 12 (2033) Utilities	30.27	155.38	10.76	1.88	3.03	0.55	18.55	1.85
Plot 12 (2033) Building-Concrete	4.14	44.15	1.38	0.27	2.23	0.37	11.64	1.16
Plot 12 (2033) Building-Wet Utilities	7.60	78.81	3.99	0.65	1.37	0.27	10.08	1.01
Plot 12 (2033) Building-Electrical	10.81	43.62	2.63	0.41	1.72	0.28	8.38	0.84
Plot 12 (2033) Building-Landscaping	12.61	36.64	0.82	0.27	0.35	0.08	3.54	0.35
Plot 12 (2033) Landscaping	12.80	39.36	0.83	0.27	0.30	0.07	3.33	0.33
Plot 12 (2033) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.78	0.14	4.54	0.45
Plot 12 (2033) Paving	4.86	52.65	2.63	0.42	1.28	0.24	9.20	0.92
Plot 12 (2033) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 12 (2034) Utilities	30.27	155.38	10.76	1.88	3.02	0.54	18.55	1.85
Plot 12 (2034) Building-Concrete	4.14	44.15	1.38	0.27	2.23	0.37	11.64	1.16
Plot 12 (2034) Building-Wet Utilities	7.60	78.81	3.99	0.65	1.37	0.26	10.08	1.01
Plot 12 (2034) Building-Electrical	10.81	43.62	2.63	0.41	1.72	0.28	8.38	0.84
Plot 12 (2034) Building-Landscaping	12.61	36.64	0.82	0.27	0.35	0.08	3.54	0.35
Plot 12 (2034) Landscaping	12.80	39.36	0.83	0.27	0.30	0.07	3.33	0.33
Plot 12 (2034) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.77	0.13	4.54	0.45
Plot 12 (2034) Paving	4.86	52.65	2.63	0.42	1.27	0.24	9.20	0.92
Plot 12 (2034) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00
Plot 6 (2035) Mass Excavation	18.24	158.99	8.58	1.43	1.41	0.30	15.01	1.50
Plot 6 (2035) Finish Grading	0.58	8.22	1.36	0.16	1.06	0.18	6.25	0.62
Plot 6 (2035) Utilities	27.89	155.37	10.67	1.79	3.01	0.54	18.55	1.85
Plot 6 (2035) Building-Concrete	4.14	44.15	1.38	0.27	0.45	0.11	6.88	0.69
Plot 6 (2035) Building-Wet Utilities	7.06	78.81	3.97	0.63	1.37	0.26	10.08	1.01
Plot 6 (2035) Building-Electrical	10.73	43.60	2.62	0.40	1.71	0.28	8.38	0.84
Plot 6 (2035) Building-Landscaping	12.35	36.50	0.77	0.21	0.35	0.08	3.54	0.35
Plot 6 (2035) Landscaping	12.54	39.23	0.77	0.22	0.30	0.07	3.33	0.33
Plot 6 (2035) Curbing/Drive Approaches	2.13	10.82	0.03	0.03	0.77	0.13	4.54	0.45
Plot 6 (2035) Paving	4.86	52.65	2.63	0.42	1.27	0.23	9.20	0.92
Plot 6 (2035) Temporary Utilities	1.48	12.52	0.05	0.05	0.00	0.00	0.00	0.00

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
Plot 12 (2033) Mass Excavation	29.61	243.50	27.59	3.63
Plot 12 (2033) Finish Grading	1.54	8.39	7.34	0.76
Plot 12 (2033) Utilities	33.30	155.92	29.31	3.73
Plot 12 (2033) Building-Concrete	6.37	44.52	13.02	1.43
Plot 12 (2033) Building-Wet Utilities	8.97	79.07	14.07	1.66
Plot 12 (2033) Building-Electrical	12.53	43.91	11.02	1.25
Plot 12 (2033) Building-Landscaping	12.96	36.72	4.36	0.62
Plot 12 (2033) Landscaping	13.10	39.44	4.16	0.60
Plot 12 (2033) Curbing/Drive Approaches	2.91	10.96	4.57	0.49
Plot 12 (2033) Paving	6.14	52.89	11.84	1.34
Plot 12 (2033) Temporary Utilities	1.48	12.52	0.05	0.05
Plot 12 (2034) Utilities	33.29	155.92	29.31	3.73
Plot 12 (2034) Building-Concrete	6.37	44.52	13.02	1.43
Plot 12 (2034) Building-Wet Utilities	8.97	79.07	14.07	1.66
Plot 12 (2034) Building-Electrical	12.53	43.91	11.02	1.25
Plot 12 (2034) Building-Landscaping	12.96	36.72	4.36	0.62
Plot 12 (2034) Landscaping	13.10	39.43	4.16	0.60
Plot 12 (2034) Curbing/Drive Approaches	2.91	10.96	4.57	0.49
Plot 12 (2034) Paving	6.13	52.89	11.84	1.34
Plot 12 (2034) Temporary Utilities	1.48	12.52	0.05	0.05
Plot 6 (2035) Mass Excavation	19.65	159.29	23.59	2.93
Plot 6 (2035) Finish Grading	1.63	8.40	7.61	0.79
Plot 6 (2035) Utilities	30.90	155.91	29.22	3.64
Plot 6 (2035) Building-Concrete	4.59	44.26	8.26	0.96
Plot 6 (2035) Building-Wet Utilities	8.43	79.07	14.05	1.64
Plot 6 (2035) Building-Electrical	12.45	43.88	11.00	1.23
Plot 6 (2035) Building-Landscaping	12.70	36.58	4.31	0.56
Plot 6 (2035) Landscaping	12.84	39.30	4.10	0.55
Plot 6 (2035) Curbing/Drive Approaches	2.91	10.96	4.57	0.49
Plot 6 (2035) Paving	6.13	52.89	11.84	1.34
Plot 6 (2035) Temporary Utilities	1.48	12.52	0.05	0.05

Overlapping Phases				
Plot 12-2033	**NOX**	**CO**	**Total PM10**	**Total PM2.5**
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	118.40	651.47	110.86	13.69
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	116.86	643.07	103.52	12.93
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	119.77	654.03	108.09	13.41
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	125.91	706.93	119.93	14.75
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	97.78	475.94	92.38	11.17
Plot 12-2034				
All Phases	97.75	475.93	92.38	11.17
Plot 6-2035				
Mass Excavation+Finish Grading+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	103.20	566.70	102.13	12.30
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping	101.57	558.29	94.52	11.51
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing	104.47	569.25	99.10	12.00
Mass Excavation+Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving	110.60	622.14	110.93	13.34
Concrete+Wet Utilites+Electrical+Landscaping+Utilities+Landscaping+Curbing+Paving+Temp Utils	92.43	475.36	87.39	10.46
Daily Maximum[1]				
2033	125.91	706.93	119.93	14.75
2034	97.75	475.93	92.38	11.17
2035	110.60	622.14	110.93	13.34

1) Includes all VOC emissions (paving offgassing and striping, Interior/Exterior Architectural coatings)

Daily Mitigated VOC Emissions (lb/day)	
2033	132
2034	132
2035	132

World Logistics Center-Construction Plots 12 and 6 (2033-2035)

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	84.4133	327.4031	562.7538	1.6363	92.6156	9.7041	102.3196	11.3759	9.7005	21.0765	0.0000	171,721.2324	171,721.2324	7.2081	0.0000	171,901.4353
2034	55.4475	194.8725	424.3563	1.0931	61.1425	4.7963	65.9388	7.7433	4.7933	12.5367	0.0000	110,725.4850	110,725.4850	4.5401	0.0000	110,838.9886
2035	68.8819	226.5577	508.6801	1.4239	82.6422	5.4877	88.1299	10.2183	5.4846	15.7029	0.0000	147,678.4253	147,678.4253	5.6812	0.0000	147,820.4544
Maximum	**84.4133**	**327.4031**	**562.7538**	**1.6363**	**92.6156**	**9.7041**	**102.3196**	**11.3759**	**9.7005**	**21.0765**	**0.0000**	**171,721.2324**	**171,721.2324**	**7.2081**	**0.0000**	**171,901.4353**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	37.5077	139.2557	720.8114	1.6363	41.2115	2.8558	44.0672	5.8255	2.8522	8.6777	0.0000	171,721.2323	171,721.2323	7.2081	0.0000	171,901.4352
2034	31.0462	109.3543	487.3174	1.0931	28.0558	2.0229	30.0787	4.1707	2.0200	6.1907	0.0000	110,725.4849	110,725.4849	4.5401	0.0000	110,838.9885
2035	34.4248	121.7986	634.2211	1.4239	37.0205	2.3094	39.3299	5.2922	2.3063	7.5985	0.0000	147,678.4252	147,678.4252	5.6812	0.0000	147,820.4543
Maximum	**37.5077**	**139.2557**	**720.8114**	**1.6363**	**41.2115**	**2.8558**	**44.0672**	**5.8255**	**2.8522**	**8.6777**	**0.0000**	**171,721.2323**	**171,721.2323**	**7.2081**	**0.0000**	**171,901.4352**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**50.67**	**50.54**	**-23.17**	**0.00**	**55.04**	**64.04**	**55.74**	**47.89**	**64.07**	**54.44**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 12 (2033) Mass Excavation	Grading	1/1/2033	7/1/2033	5	130	1235
2	Plot 12 (2033) Finish Grading	Grading	1/1/2033	2/25/2033	5	40	1236
3	Plot 12 (2033) Utilities	Trenching	1/1/2033	12/30/2033	5	260	1241
4	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
5	Plot 12 (2033) Building-Wet Utilities	Building Construction	1/1/2033	12/30/2033	5	260	1238
6	Plot 12 (2033) Building-Electrical	Building Construction	1/1/2033	12/30/2033	5	260	1239
7	Plot 12 (2033) Building-Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1240
8	Plot 12 (2033) Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1242
9	Plot 12 (2033) Curbing/Drive Approaches	Paving	5/1/2033	8/20/2033	5	80	1244
10	Plot 12 (2033) Paving	Paving	6/1/2033	7/26/2033	5	40	1245
11	Plot 12 (2033) Temporary Utilities	Building Construction	7/2/2033	12/30/2033	5	130	1243
12	Plot 12 (2034) Utilities	Trenching	1/1/2034	12/31/2034	5	260	1250
13	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
14	Plot 12 (2034) Building-Wet Utilities	Building Construction	1/1/2034	12/31/2034	5	260	1247
15	Plot 12 (2034) Building-Electrical	Building Construction	1/1/2034	12/31/2034	5	260	1248
16	Plot 12 (2034) Building-Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1249
17	Plot 12 (2034) Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1251
18	Plot 12 (2034) Curbing/Drive Approaches	Paving	5/1/2034	8/20/2034	5	80	1253

19	Plot 12 (2034) Paving	Paving	6/1/2034	7/26/2034	5	40	1254
20	Plot 12 (2034) Temporary Utilities	Building Construction	7/2/2034	12/31/2034	5	130	1252
21	Plot 6 (2035) Mass Excavation	Grading	1/1/2035	6/30/2035	5	130	1255
22	Plot 6 (2035) Finish Grading	Grading	1/1/2035	2/25/2035	5	40	1256
23	Plot 6 (2035) Utilities	Trenching	1/1/2035	12/29/2035	5	260	1261
24	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257
25	Plot 6 (2035) Building-Wet Utilities	Building Construction	1/1/2035	12/29/2035	5	260	1258
26	Plot 6 (2035) Building-Electrical	Building Construction	1/1/2035	12/29/2035	5	260	1259
27	Plot 6 (2035) Building-Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1260
28	Plot 6 (2035) Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1262
29	Plot 6 (2035) Curbing/Drive Approaches	Paving	5/1/2035	8/20/2035	5	80	1264
30	Plot 6 (2035) Paving	Paving	6/1/2035	7/26/2035	5	40	1265
31	Plot 6 (2035) Temporary Utilities	Building Construction	7/2/2035	12/29/2035	5	130	1263

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 12 (2033) Mass Excavation	Graders	1	10.00	193	0.41
Plot 12 (2033) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 12 (2033) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2033) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2033) Utilities	Excavators	8	10.00	40	0.38

Plot 12 (2033) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2033) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2033) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2033) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2033) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2033) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2033) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2033) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Building-Landscaping	Trenchers	2	10.00	39	0.50

Plot 12 (2033) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2033) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2033) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2033) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2033) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2033) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2033) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2033) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2033) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2033) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2033) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2033) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2033) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 12 (2034) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 12 (2034) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2034) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2034) Utilities	Excavators	8	10.00	40	0.38

Plot 12 (2034) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2034) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2034) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2034) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2034) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2034) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2034) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2034) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2034) Building-Landscaping	Trenchers	2	10.00	39	0.50

Plot 12 (2034) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2034) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2034) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2034) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2034) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2034) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2034) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2034) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2034) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2034) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2034) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2034) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2034) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 6 (2035) Mass Excavation	Graders	1	10.00	193	0.41
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40

Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Mass Excavation	Scrapers	0	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 6 (2035) Utilities	Excavators	2	10.00	523	0.38
Plot 6 (2035) Utilities	Excavators	10	10.00	286	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	4	10.00	396	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	188	0.38
Plot 6 (2035) Utilities	Excavators	8	10.00	40	0.38
Plot 6 (2035) Utilities	Forklifts	4	10.00	89	0.20
Plot 6 (2035) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 6 (2035) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	300	0.38

Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 6 (2035) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 6 (2035) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 6 (2035) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 6 (2035) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 6 (2035) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 6 (2035) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 6 (2035) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 6 (2035) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 6 (2035) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 6 (2035) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 6 (2035) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 6 (2035) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Paving	Pavers	2	10.00	126	0.42
Plot 6 (2035) Paving	Paving Equipment	2	10.00	131	0.36
Plot 6 (2035) Paving	Plate Compactors	2	10.00	8	0.43
Plot 6 (2035) Paving	Rollers	2	10.00	81	0.38
Plot 6 (2035) Paving	Scrapers	2	10.00	362	0.48
Plot 6 (2035) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 6 (2035) Temporary Utilities	Cranes	2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 12 (2033) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Finish Grading		15.00	2.00	468.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 6 (2035) Finish Grading		15.00	2.00	520.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 12 (2033) Mass Excavation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	29.9317	133.3059	141.7789	0.5470		5.0277	5.0277		5.0277	5.0277		61,617.1266	61,617.1266	2.6664		61,683.7876
Total	**29.9317**	**133.3059**	**141.7789**	**0.5470**	**30.0285**	**5.0277**	**35.0561**	**3.2424**	**5.0277**	**8.2700**		**61,617.1266**	**61,617.1266**	**2.6664**		**61,683.7876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0691	1.9646	0.8103	0.0111	0.2864	3.9900e-003	0.2904	0.0785	3.8100e-003	0.0823		1,209.1287	1,209.1287	0.0753		1,211.0111
Vendor	0.0368	0.9336	0.3546	6.4500e-003	0.2081	2.0700e-003	0.2102	0.0598	1.9800e-003	0.0618		691.9933	691.9933	0.0267		692.6618
Worker	0.1583	0.0793	1.4141	6.5400e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		653.2465	653.2465	8.5900e-003		653.4611
Total	**0.2643**	**2.9774**	**2.5790**	**0.0241**	**1.4446**	**9.7500e-003**	**1.4544**	**0.3903**	**9.1800e-003**	**0.3995**		**2,554.3684**	**2,554.3684**	**0.1106**		**2,557.1340**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	6.5054	28.1902	243.1915	0.5470		0.8674	0.8674		0.8674	0.8674	0.0000	61,617.1265	61,617.1265	2.6664		61,683.7875
Total	**6.5054**	**28.1902**	**243.1915**	**0.5470**	**11.7111**	**0.8674**	**12.5785**	**1.2645**	**0.8674**	**2.1319**	**0.0000**	**61,617.1265**	**61,617.1265**	**2.6664**		**61,683.7875**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0691	1.9646	0.8103	0.0111	0.2864	3.9900e-003	0.2904	0.0785	3.8100e-003	0.0823		1,209.1287	1,209.1287	0.0753		1,211.0111
Vendor	0.0368	0.9336	0.3546	6.4500e-003	0.2081	2.0700e-003	0.2102	0.0598	1.9800e-003	0.0618		691.9933	691.9933	0.0267		692.6618
Worker	0.1583	0.0793	1.4141	6.5400e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		653.2465	653.2465	8.5900e-003		653.4611
Total	**0.2643**	**2.9774**	**2.5790**	**0.0241**	**1.4446**	**9.7500e-003**	**1.4544**	**0.3903**	**9.1800e-003**	**0.3995**		**2,554.3684**	**2,554.3684**	**0.1106**		**2,557.1340**

3.3 Plot 12 (2033) Finish Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7448	3.8257	7.8691	0.0133		0.1661	0.1661		0.1661	0.1661		1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.7448**	**3.8257**	**7.8691**	**0.0133**	**3.4466**	**0.1661**	**3.6127**	**0.3722**	**0.1661**	**0.5382**		**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0617	1.7525	0.7229	9.8700e-003	0.2555	3.5600e-003	0.2591	0.0700	3.4000e-003	0.0734		1,078.6421	1,078.6421	0.0672		1,080.3214
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1173**	**1.9838**	**1.2259**	**0.0133**	**0.5868**	**5.1300e-003**	**0.5919**	**0.1589**	**4.8600e-003**	**0.1638**		**1,428.3923**	**1,428.3923**	**0.0757**		**1,430.2845**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0133		0.0178	0.0178		0.0178	0.0178	0.0000	1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.1334**	**0.5778**	**8.2232**	**0.0133**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0617	1.7525	0.7229	9.8700e-003	0.2555	3.5600e-003	0.2591	0.0700	3.4000e-003	0.0734		1,078.6421	1,078.6421	0.0672		1,080.3214
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1173**	**1.9838**	**1.2259**	**0.0133**	**0.5868**	**5.1300e-003**	**0.5919**	**0.1589**	**4.8600e-003**	**0.1638**		**1,428.3923**	**1,428.3923**	**0.0757**		**1,430.2845**

3.4 Plot 12 (2033) Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1269	3.6065	1.4876	0.0203	0.5258	7.3200e-003	0.5331	0.1441	7.0000e-003	0.1511		2,219.6908	2,219.6908	0.1382		2,223.1465
Vendor	0.1023	2.5933	0.9850	0.0179	0.5780	5.7500e-003	0.5838	0.1662	5.5000e-003	0.1717		1,922.2036	1,922.2036	0.0743		1,924.0605
Worker	0.1267	0.0634	1.1313	5.2300e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		522.5972	522.5972	6.8700e-003		522.7689
Total	**0.3558**	**6.2632**	**3.6038**	**0.0435**	**1.8639**	**0.0160**	**1.8799**	**0.5119**	**0.0152**	**0.5271**		**4,664.4916**	**4,664.4916**	**0.2194**		**4,669.9759**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1269	3.6065	1.4876	0.0203	0.5258	7.3200e-003	0.5331	0.1441	7.0000e-003	0.1511		2,219.6908	2,219.6908	0.1382		2,223.1465
Vendor	0.1023	2.5933	0.9850	0.0179	0.5780	5.7500e-003	0.5838	0.1662	5.5000e-003	0.1717		1,922.2036	1,922.2036	0.0743		1,924.0605
Worker	0.1267	0.0634	1.1313	5.2300e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		522.5972	522.5972	6.8700e-003		522.7689
Total	**0.3558**	**6.2632**	**3.6038**	**0.0435**	**1.8639**	**0.0160**	**1.8799**	**0.5119**	**0.0152**	**0.5271**		**4,664.4916**	**4,664.4916**	**0.2194**		**4,669.9759**

3.5 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

3.6 Plot 12 (2033) Building-Wet Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0444	1.2623	0.5207	7.1100e-003	0.1840	2.5600e-003	0.1866	0.0504	2.4500e-003	0.0529		776.8918	776.8918	0.0484		778.1013
Vendor	0.0614	1.5560	0.5910	0.0108	0.3468	3.4500e-003	0.3503	0.0997	3.3000e-003	0.1030		1,153.3222	1,153.3222	0.0446		1,154.4363
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1849**	**2.8579**	**1.8187**	**0.0211**	**1.0059**	**7.8500e-003**	**1.0138**	**0.2761**	**7.4500e-003**	**0.2836**		**2,256.8372**	**2,256.8372**	**0.0972**		**2,259.2681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0444	1.2623	0.5207	7.1100e-003	0.1840	2.5600e-003	0.1866	0.0504	2.4500e-003	0.0529		776.8918	776.8918	0.0484		778.1013
Vendor	0.0614	1.5560	0.5910	0.0108	0.3468	3.4500e-003	0.3503	0.0997	3.3000e-003	0.1030		1,153.3222	1,153.3222	0.0446		1,154.4363
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1849**	**2.8579**	**1.8187**	**0.0211**	**1.0059**	**7.8500e-003**	**1.0138**	**0.2761**	**7.4500e-003**	**0.2836**		**2,256.8372**	**2,256.8372**	**0.0972**		**2,259.2681**

3.7 Plot 12 (2033) Building-Electrical - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1015	2.8852	1.1901	0.0163	0.4206	5.8500e-003	0.4265	0.1153	5.6000e-003	0.1209		1,775.7526	1,775.7526	0.1106		1,778.5172
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1736**	**3.5314**	**1.8507**	**0.0225**	**0.8444**	**8.3400e-003**	**0.8527**	**0.2307**	**7.9400e-003**	**0.2387**		**2,433.0554**	**2,433.0554**	**0.1310**		**2,436.3301**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1015	2.8852	1.1901	0.0163	0.4206	5.8500e-003	0.4265	0.1153	5.6000e-003	0.1209		1,775.7526	1,775.7526	0.1106		1,778.5172
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0475	0.0238	0.4242	1.9600e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		195.9739	195.9739	2.5800e-003		196.0383
Total	**0.1736**	**3.5314**	**1.8507**	**0.0225**	**0.8444**	**8.3400e-003**	**0.8527**	**0.2307**	**7.9400e-003**	**0.2387**		**2,433.0554**	**2,433.0554**	**0.1310**		**2,436.3301**

3.8 Plot 12 (2033) Building-Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0286	0.7261	0.2758	5.0200e-003	0.1618	1.6100e-003	0.1635	0.0465	1.5400e-003	0.0481		538.2170	538.2170	0.0208		538.7369
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0603**	**0.7420**	**0.5586**	**6.3300e-003**	**0.3519**	**2.3500e-003**	**0.3542**	**0.0969**	**2.2200e-003**	**0.0992**		**668.8663**	**668.8663**	**0.0225**		**669.4292**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0286	0.7261	0.2758	5.0200e-003	0.1618	1.6100e-003	0.1635	0.0465	1.5400e-003	0.0481		538.2170	538.2170	0.0208		538.7369
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0603**	**0.7420**	**0.5586**	**6.3300e-003**	**0.3519**	**2.3500e-003**	**0.3542**	**0.0969**	**2.2200e-003**	**0.0992**		**668.8663**	**668.8663**	**0.0225**		**669.4292**

3.9 Plot 12 (2033) Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0562**	**0.6382**	**0.5192**	**5.6100e-003**	**0.3288**	**2.1200e-003**	**0.3309**	**0.0903**	**2.0000e-003**	**0.0923**		**591.9782**	**591.9782**	**0.0196**		**592.4667**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0562**	**0.6382**	**0.5192**	**5.6100e-003**	**0.3288**	**2.1200e-003**	**0.3309**	**0.0903**	**2.0000e-003**	**0.0923**		**591.9782**	**591.9782**	**0.0196**		**592.4667**

3.10 Plot 12 (2033) Curbing/Drive Approaches - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0411	1.1684	0.4819	6.5800e-003	0.1703	2.3700e-003	0.1727	0.0467	2.2700e-003	0.0489		719.0947	719.0947	0.0448		720.2142
Vendor	0.0164	0.4149	0.1576	2.8700e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		307.5526	307.5526	0.0119		307.8497
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0891**	**1.5991**	**0.9223**	**0.0108**	**0.4528**	**4.0300e-003**	**0.4569**	**0.1237**	**3.8300e-003**	**0.1275**		**1,157.2966**	**1,157.2966**	**0.0584**		**1,158.7561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0411	1.1684	0.4819	6.5800e-003	0.1703	2.3700e-003	0.1727	0.0467	2.2700e-003	0.0489		719.0947	719.0947	0.0448		720.2142
Vendor	0.0164	0.4149	0.1576	2.8700e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		307.5526	307.5526	0.0119		307.8497
Worker	0.0317	0.0159	0.2828	1.3100e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		130.6493	130.6493	1.7200e-003		130.6922
Total	**0.0891**	**1.5991**	**0.9223**	**0.0108**	**0.4528**	**4.0300e-003**	**0.4569**	**0.1237**	**3.8300e-003**	**0.1275**		**1,157.2966**	**1,157.2966**	**0.0584**		**1,158.7561**

3.11 Plot 12 (2033) Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0696	1.9772	0.8156	0.0111	0.2883	4.0100e-003	0.2923	0.0790	3.8400e-003	0.0828		1,216.9295	1,216.9295	0.0758		1,218.8241
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1733**	**2.6393**	**1.7590**	**0.0187**	**0.9021**	**7.2300e-003**	**0.9093**	**0.2449**	**6.8600e-003**	**0.2517**		**2,004.8816**	**2,004.8816**	**0.0979**		**2,007.3292**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0953	4.8624	52.6544	0.0971		0.1527	0.1527		0.1527	0.1527	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0953**	**4.8624**	**52.6544**	**0.0971**	**2.4816**	**0.1527**	**2.6342**	**0.2680**	**0.1527**	**0.4206**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0696	1.9772	0.8156	0.0111	0.2883	4.0100e-003	0.2923	0.0790	3.8400e-003	0.0828		1,216.9295	1,216.9295	0.0758		1,218.8241
Vendor	0.0246	0.6224	0.2364	4.3000e-003	0.1387	1.3800e-003	0.1401	0.0399	1.3200e-003	0.0412		461.3289	461.3289	0.0178		461.7745
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.1733**	**2.6393**	**1.7590**	**0.0187**	**0.9021**	**7.2300e-003**	**0.9093**	**0.2449**	**6.8600e-003**	**0.2517**		**2,004.8816**	**2,004.8816**	**0.0979**		**2,007.3292**

3.12 Plot 12 (2033) Temporary Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 12 (2034) Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1265	3.5751	1.4892	0.0203	0.5258	7.2300e-003	0.5330	0.1441	6.9200e-003	0.1510		2,215.8038	2,215.8038	0.1378		2,219.2488
Vendor	0.1017	2.5709	0.9820	0.0179	0.5780	5.7000e-003	0.5837	0.1662	5.4500e-003	0.1717		1,919.2014	1,919.2014	0.0740		1,921.0517
Worker	0.1193	0.0591	1.0712	5.1500e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		514.3447	514.3447	6.3300e-003		514.5028
Total	**0.3474**	**6.2051**	**3.5424**	**0.0433**	**1.8639**	**0.0157**	**1.8796**	**0.5119**	**0.0149**	**0.5268**		**4,649.3498**	**4,649.3498**	**0.2181**		**4,654.8034**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1265	3.5751	1.4892	0.0203	0.5258	7.2300e-003	0.5330	0.1441	6.9200e-003	0.1510		2,215.8038	2,215.8038	0.1378		2,219.2488
Vendor	0.1017	2.5709	0.9820	0.0179	0.5780	5.7000e-003	0.5837	0.1662	5.4500e-003	0.1717		1,919.2014	1,919.2014	0.0740		1,921.0517
Worker	0.1193	0.0591	1.0712	5.1500e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		514.3447	514.3447	6.3300e-003		514.5028
Total	**0.3474**	**6.2051**	**3.5424**	**0.0433**	**1.8639**	**0.0157**	**1.8796**	**0.5119**	**0.0149**	**0.5268**		**4,649.3498**	**4,649.3498**	**0.2181**		**4,654.8034**

3.14 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

3.15 Plot 12 (2034) Building-Wet Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0443	1.2513	0.5212	7.1000e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		775.5313	775.5313	0.0482		776.7371
Vendor	0.0610	1.5425	0.5892	0.0107	0.3468	3.4200e-003	0.3502	0.0997	3.2700e-003	0.1030		1,151.5208	1,151.5208	0.0444		1,152.6310
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1798**	**2.8308**	**1.7799**	**0.0211**	**1.0059**	**7.6700e-003**	**1.0136**	**0.2761**	**7.2700e-003**	**0.2834**		**2,248.5176**	**2,248.5176**	**0.0966**		**2,250.9324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0443	1.2513	0.5212	7.1000e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		775.5313	775.5313	0.0482		776.7371
Vendor	0.0610	1.5425	0.5892	0.0107	0.3468	3.4200e-003	0.3502	0.0997	3.2700e-003	0.1030		1,151.5208	1,151.5208	0.0444		1,152.6310
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1798**	**2.8308**	**1.7799**	**0.0211**	**1.0059**	**7.6700e-003**	**1.0136**	**0.2761**	**7.2700e-003**	**0.2834**		**2,248.5176**	**2,248.5176**	**0.0966**		**2,250.9324**

3.16 Plot 12 (2034) Building-Electrical - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1012	2.8601	1.1914	0.0162	0.4206	5.7900e-003	0.4264	0.1153	5.5400e-003	0.1208		1,772.6430	1,772.6430	0.1102		1,775.3991
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0447	0.0222	0.4017	1.9300e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		192.8792	192.8792	2.3700e-003		192.9386
Total	**0.1703**	**3.4993**	**1.8288**	**0.0225**	**0.8444**	**8.1900e-003**	**0.8526**	**0.2307**	**7.8000e-003**	**0.2385**		**2,426.1306**	**2,426.1306**	**0.1304**		**2,429.3900**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1012	2.8601	1.1914	0.0162	0.4206	5.7900e-003	0.4264	0.1153	5.5400e-003	0.1208		1,772.6430	1,772.6430	0.1102		1,775.3991
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0447	0.0222	0.4017	1.9300e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		192.8792	192.8792	2.3700e-003		192.9386
Total	**0.1703**	**3.4993**	**1.8288**	**0.0225**	**0.8444**	**8.1900e-003**	**0.8526**	**0.2307**	**7.8000e-003**	**0.2385**		**2,426.1306**	**2,426.1306**	**0.1304**		**2,429.3900**

3.17 Plot 12 (2034) Building-Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.7199	0.2750	5.0100e-003	0.1618	1.6000e-003	0.1634	0.0465	1.5300e-003	0.0481		537.3764	537.3764	0.0207		537.8945
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0583**	**0.7346**	**0.5428**	**6.3000e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**665.9625**	**665.9625**	**0.0223**		**666.5202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.7199	0.2750	5.0100e-003	0.1618	1.6000e-003	0.1634	0.0465	1.5300e-003	0.0481		537.3764	537.3764	0.0207		537.8945
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0583**	**0.7346**	**0.5428**	**6.3000e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**665.9625**	**665.9625**	**0.0223**		**666.5202**

3.18 Plot 12 (2034) Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0542**	**0.6318**	**0.5035**	**5.5900e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**589.1945**	**589.1945**	**0.0193**		**589.6781**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0542**	**0.6318**	**0.5035**	**5.5900e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**589.1945**	**589.1945**	**0.0193**		**589.6781**

3.19 Plot 12 (2034) Curbing/Drive Approaches - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0410	1.1582	0.4824	6.5700e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		717.8355	717.8355	0.0446		718.9515
Vendor	0.0163	0.4113	0.1571	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		307.0722	307.0722	0.0118		307.3683
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0871**	**1.5843**	**0.9074**	**0.0107**	**0.4529**	**3.9400e-003**	**0.4568**	**0.1237**	**3.7400e-003**	**0.1274**		**1,153.4939**	**1,153.4939**	**0.0581**		**1,154.9455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0410	1.1582	0.4824	6.5700e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		717.8355	717.8355	0.0446		718.9515
Vendor	0.0163	0.4113	0.1571	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		307.0722	307.0722	0.0118		307.3683
Worker	0.0298	0.0148	0.2678	1.2900e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		128.5862	128.5862	1.5800e-003		128.6257
Total	**0.0871**	**1.5843**	**0.9074**	**0.0107**	**0.4529**	**3.9400e-003**	**0.4568**	**0.1237**	**3.7400e-003**	**0.1274**		**1,153.4939**	**1,153.4939**	**0.0581**		**1,154.9455**

3.20 Plot 12 (2034) Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0693	1.9600	0.8164	0.0111	0.2883	3.9700e-003	0.2922	0.0790	3.7900e-003	0.0828		1,214.7985	1,214.7985	0.0756		1,216.6872
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1683**	**2.6140**	**1.7216**	**0.0186**	**0.9021**	**7.0600e-003**	**0.9091**	**0.2449**	**6.6800e-003**	**0.2515**		**1,996.8722**	**1,996.8722**	**0.0973**		**1,999.3039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0953	4.8624	52.6544	0.0971		0.1527	0.1527		0.1527	0.1527	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0953**	**4.8624**	**52.6544**	**0.0971**	**2.4816**	**0.1527**	**2.6342**	**0.2680**	**0.1527**	**0.4206**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0693	1.9600	0.8164	0.0111	0.2883	3.9700e-003	0.2922	0.0790	3.7900e-003	0.0828		1,214.7985	1,214.7985	0.0756		1,216.6872
Vendor	0.0244	0.6170	0.2357	4.3000e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		460.6083	460.6083	0.0178		461.0524
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.1683**	**2.6140**	**1.7216**	**0.0186**	**0.9021**	**7.0600e-003**	**0.9091**	**0.2449**	**6.6800e-003**	**0.2515**		**1,996.8722**	**1,996.8722**	**0.0973**		**1,999.3039**

3.21 Plot 12 (2034) Temporary Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 6 (2035) Mass Excavation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.5492	0.0000	20.5492	2.2188	0.0000	2.2188			0.0000			0.0000
Off-Road	17.5174	61.8079	90.8534	0.3556		2.3276	2.3276		2.3276	2.3276		39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**17.5174**	**61.8079**	**90.8534**	**0.3556**	**20.5492**	**2.3276**	**22.8769**	**2.2188**	**2.3276**	**4.5465**		**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0687	1.9345	0.8116	0.0110	0.2864	3.9100e-003	0.2903	0.0785	3.7400e-003	0.0822		1,205.3581	1,205.3581	0.0748		1,207.2285
Vendor	0.0364	0.9190	0.3525	6.4400e-003	0.2081	2.0400e-003	0.2101	0.0598	1.9500e-003	0.0618		690.0408	690.0408	0.0266		690.7045
Worker	0.1414	0.0699	1.2770	6.3500e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		634.1026	634.1026	7.3500e-003		634.2864
Total	**0.2465**	**2.9234**	**2.4411**	**0.0238**	**1.4446**	**9.1700e-003**	**1.4538**	**0.3903**	**8.6600e-003**	**0.3989**		**2,529.5015**	**2,529.5015**	**0.1087**		**2,532.2194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0142	0.0000	8.0142	0.8654	0.0000	0.8654			0.0000			0.0000
Off-Road	4.2091	18.2394	158.9925	0.3556		0.5612	0.5612		0.5612	0.5612	0.0000	39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**4.2091**	**18.2394**	**158.9925**	**0.3556**	**8.0142**	**0.5612**	**8.5754**	**0.8654**	**0.5612**	**1.4266**	**0.0000**	**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0687	1.9345	0.8116	0.0110	0.2864	3.9100e-003	0.2903	0.0785	3.7400e-003	0.0822		1,205.3581	1,205.3581	0.0748		1,207.2285
Vendor	0.0364	0.9190	0.3525	6.4400e-003	0.2081	2.0400e-003	0.2101	0.0598	1.9500e-003	0.0618		690.0408	690.0408	0.0266		690.7045
Worker	0.1414	0.0699	1.2770	6.3500e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		634.1026	634.1026	7.3500e-003		634.2864
Total	**0.2465**	**2.9234**	**2.4411**	**0.0238**	**1.4446**	**9.1700e-003**	**1.4538**	**0.3903**	**8.6600e-003**	**0.3989**		**2,529.5015**	**2,529.5015**	**0.1087**		**2,532.2194**

3.23 Plot 6 (2035) Finish Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.6342	2.8323	7.8483	0.0133		0.1062	0.1062		0.1062	0.1062		1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.6342**	**2.8323**	**7.8483**	**0.0133**	**3.4466**	**0.1062**	**3.5529**	**0.3722**	**0.1062**	**0.4784**		**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0681	1.9175	0.8045	0.0109	0.2839	3.8700e-003	0.2878	0.0778	3.7000e-003	0.0815		1,194.7538	1,194.7538	0.0742		1,196.6077
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1186**	**2.1427**	**1.2659**	**0.0143**	**0.6152**	**5.2900e-003**	**0.6205**	**0.1667**	**5.0200e-003**	**0.1717**		**1,538.3270**	**1,538.3270**	**0.0823**		**1,540.3835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0133		0.0178	0.0178		0.0178	0.0178	0.0000	1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.1334**	**0.5778**	**8.2232**	**0.0133**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0681	1.9175	0.8045	0.0109	0.2839	3.8700e-003	0.2878	0.0778	3.7000e-003	0.0815		1,194.7538	1,194.7538	0.0742		1,196.6077
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1186**	**2.1427**	**1.2659**	**0.0143**	**0.6152**	**5.2900e-003**	**0.6205**	**0.1667**	**5.0200e-003**	**0.1717**		**1,538.3270**	**1,538.3270**	**0.0823**		**1,540.3835**

3.24 Plot 6 (2035) Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	15.4429	42.8939	120.5733	0.3816		1.0295	1.0295		1.0295	1.0295		40,230.2918	40,230.2918	1.3529		40,264.1136
Total	**15.4429**	**42.8939**	**120.5733**	**0.3816**	**25.5336**	**1.0295**	**26.5631**	**2.7570**	**1.0295**	**3.7865**		**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1262	3.5513	1.4899	0.0203	0.5258	7.1700e-003	0.5330	0.1441	6.8600e-003	0.1509		2,212.7689	2,212.7689	0.1373		2,216.2024
Vendor	0.1012	2.5528	0.9791	0.0179	0.5780	5.6600e-003	0.5837	0.1662	5.4100e-003	0.1716		1,916.7800	1,916.7800	0.0737		1,918.6236
Worker	0.1131	0.0560	1.0216	5.0800e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		507.2820	507.2820	5.8800e-003		507.4291
Total	**0.3404**	**6.1600**	**3.4907**	**0.0432**	**1.8639**	**0.0154**	**1.8793**	**0.5119**	**0.0146**	**0.5265**		**4,636.8309**	**4,636.8309**	**0.2170**		**4,642.2552**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.1180	27.8899	155.3674	0.3816		0.7145	0.7145		0.7145	0.7145	0.0000	40,230.2918	40,230.2918	1.3529		40,264.1135
Total	**8.1180**	**27.8899**	**155.3674**	**0.3816**	**9.9581**	**0.7145**	**10.6726**	**1.0752**	**0.7145**	**1.7898**	**0.0000**	**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1135**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1262	3.5513	1.4899	0.0203	0.5258	7.1700e-003	0.5330	0.1441	6.8600e-003	0.1509		2,212.7689	2,212.7689	0.1373		2,216.2024
Vendor	0.1012	2.5528	0.9791	0.0179	0.5780	5.6600e-003	0.5837	0.1662	5.4100e-003	0.1716		1,916.7800	1,916.7800	0.0737		1,918.6236
Worker	0.1131	0.0560	1.0216	5.0800e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		507.2820	507.2820	5.8800e-003		507.4291
Total	**0.3404**	**6.1600**	**3.4907**	**0.0432**	**1.8639**	**0.0154**	**1.8793**	**0.5119**	**0.0146**	**0.5265**		**4,636.8309**	**4,636.8309**	**0.2170**		**4,642.2552**

3.25 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9307	18.4021	43.1354	0.0722		0.2672	0.2672		0.2672	0.2672		6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**2.9307**	**18.4021**	**43.1354**	**0.0722**	**3.1937**	**0.2672**	**3.4609**	**0.3449**	**0.2672**	**0.6120**		**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0106	0.2995	0.1257	1.7100e-003	0.0444	6.0000e-004	0.0450	0.0122	5.8000e-004	0.0127		186.6361	186.6361	0.0116		186.9257
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1056**	**0.9472**	**0.9992**	**9.1700e-003**	**0.6581**	**3.5700e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**963.7146**	**963.7146**	**0.0330**		**964.5386**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0106	0.2995	0.1257	1.7100e-003	0.0444	6.0000e-004	0.0450	0.0122	5.8000e-004	0.0127		186.6361	186.6361	0.0116		186.9257
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1056**	**0.9472**	**0.9992**	**9.1700e-003**	**0.6581**	**3.5700e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**963.7146**	**963.7146**	**0.0330**		**964.5386**

3.26 Plot 6 (2035) Building-Wet Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.3804	16.1782	69.5761	0.1489		0.4481	0.4481		0.4481	0.4481		14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**5.3804**	**16.1782**	**69.5761**	**0.1489**	**9.5771**	**0.4481**	**10.0253**	**1.0341**	**0.4481**	**1.4822**		**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0442	1.2430	0.5215	7.0900e-003	0.1840	2.5100e-003	0.1865	0.0504	2.4000e-003	0.0528		774.4691	774.4691	0.0481		775.6709
Vendor	0.0607	1.5317	0.5875	0.0107	0.3468	3.3900e-003	0.3502	0.0997	3.2500e-003	0.1030		1,150.0680	1,150.0680	0.0443		1,151.1742
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1755**	**2.8096**	**1.7475**	**0.0210**	**1.0059**	**7.5100e-003**	**1.0134**	**0.2761**	**7.1300e-003**	**0.2833**		**2,241.5884**	**2,241.5884**	**0.0960**		**2,243.9882**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.1613	7.0646	78.8091	0.1489		0.2306	0.2306		0.2306	0.2306	0.0000	14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**2.1613**	**7.0646**	**78.8091**	**0.1489**	**3.7351**	**0.2306**	**3.9657**	**0.4033**	**0.2306**	**0.6339**	**0.0000**	**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0442	1.2430	0.5215	7.0900e-003	0.1840	2.5100e-003	0.1865	0.0504	2.4000e-003	0.0528		774.4691	774.4691	0.0481		775.6709
Vendor	0.0607	1.5317	0.5875	0.0107	0.3468	3.3900e-003	0.3502	0.0997	3.2500e-003	0.1030		1,150.0680	1,150.0680	0.0443		1,151.1742
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1755**	**2.8096**	**1.7475**	**0.0210**	**1.0059**	**7.5100e-003**	**1.0134**	**0.2761**	**7.1300e-003**	**0.2833**		**2,241.5884**	**2,241.5884**	**0.0960**		**2,243.9882**

3.27 Plot 6 (2035) Building-Electrical - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.7417	21.0920	45.2781	0.0698		0.2425	0.2425		0.2425	0.2425		6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**3.7417**	**21.0920**	**45.2781**	**0.0698**	**6.3834**	**0.2425**	**6.6259**	**0.6893**	**0.2425**	**0.9318**		**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1009	2.8411	1.1919	0.0162	0.4206	5.7400e-003	0.4264	0.1153	5.4900e-003	0.1208		1,770.2151	1,770.2151	0.1099		1,772.9619
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1676**	**3.4747**	**1.8100**	**0.0224**	**0.8444**	**8.0700e-003**	**0.8525**	**0.2307**	**7.6800e-003**	**0.2384**		**2,420.4731**	**2,420.4731**	**0.1298**		**2,423.7175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4184	10.7346	43.5982	0.0698		0.1275	0.1275		0.1275	0.1275	0.0000	6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**1.4184**	**10.7346**	**43.5982**	**0.0698**	**2.4895**	**0.1275**	**2.6171**	**0.2688**	**0.1275**	**0.3964**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1009	2.8411	1.1919	0.0162	0.4206	5.7400e-003	0.4264	0.1153	5.4900e-003	0.1208		1,770.2151	1,770.2151	0.1099		1,772.9619
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0424	0.0210	0.3831	1.9000e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		190.2308	190.2308	2.2100e-003		190.2859
Total	**0.1676**	**3.4747**	**1.8100**	**0.0224**	**0.8444**	**8.0700e-003**	**0.8525**	**0.2307**	**7.6800e-003**	**0.2384**		**2,420.4731**	**2,420.4731**	**0.1298**		**2,423.7175**

3.28 Plot 6 (2035) Building-Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6200	11.9129	34.9894	0.0579		0.2307	0.2307		0.2307	0.2307		5,360.8447	5,360.8447	0.2341		5,366.6975
Total	**2.6200**	**11.9129**	**34.9894**	**0.0579**	**1.5948**	**0.2307**	**1.8255**	**0.1722**	**0.2307**	**0.4029**		**5,360.8447**	**5,360.8447**	**0.2341**		**5,366.6975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0283	0.7148	0.2742	5.0100e-003	0.1618	1.5800e-003	0.1634	0.0465	1.5100e-003	0.0481		536.6984	536.6984	0.0207		537.2146
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0566**	**0.7288**	**0.5296**	**6.2800e-003**	**0.3519**	**2.2200e-003**	**0.3541**	**0.0969**	**2.1000e-003**	**0.0990**		**663.5189**	**663.5189**	**0.0221**		**664.0719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3603	12.3517	36.5043	0.0579		0.1441	0.1441		0.1441	0.1441	0.0000	5,360.844 7	5,360.8447	0.2341		5,366.697 5
Total	**1.3603**	**12.3517**	**36.5043**	**0.0579**	**0.6220**	**0.1441**	**0.7661**	**0.0672**	**0.1441**	**0.2112**	**0.0000**	**5,360.844 7**	**5,360.8447**	**0.2341**		**5,366.697 5**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0283	0.7148	0.2742	5.0100e-003	0.1618	1.5800e-003	0.1634	0.0465	1.5100e-003	0.0481		536.6984	536.6984	0.0207		537.2146
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0566**	**0.7288**	**0.5296**	**6.2800e-003**	**0.3519**	**2.2200e-003**	**0.3541**	**0.0969**	**2.1000e-003**	**0.0990**		**663.5189**	**663.5189**	**0.0221**		**664.0719**

3.29 Plot 6 (2035) Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.7643	12.2059	37.4473	0.0624		0.2425	0.2425		0.2425	0.2425		5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**2.7643**	**12.2059**	**37.4473**	**0.0624**	**1.5948**	**0.2425**	**1.8373**	**0.1722**	**0.2425**	**0.4147**		**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0526**	**0.6267**	**0.4904**	**5.5600e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**586.8477**	**586.8477**	**0.0192**		**587.3270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.4045	12.5431	39.2287	0.0624		0.1500	0.1500		0.1500	0.1500	0.0000	5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**1.4045**	**12.5431**	**39.2287**	**0.0624**	**0.6220**	**0.1500**	**0.7720**	**0.0672**	**0.1500**	**0.2171**	**0.0000**	**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0526**	**0.6267**	**0.4904**	**5.5600e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**586.8477**	**586.8477**	**0.0192**		**587.3270**

3.30 Plot 6 (2035) Curbing/Drive Approaches - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7758	3.5729	10.2419	0.0177		0.1210	0.1210		0.1210	0.1210		1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8237**	**3.5729**	**10.2419**	**0.0177**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**0.1210**	**0.1210**		**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0409	1.1505	0.4827	6.5600e-003	0.1703	2.3200e-003	0.1727	0.0467	2.2200e-003	0.0489		716.8523	716.8523	0.0445		717.9646
Vendor	0.0162	0.4084	0.1567	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		306.6848	306.6848	0.0118		306.9798
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0853**	**1.5729**	**0.8948**	**0.0107**	**0.4529**	**3.8700e-003**	**0.4567**	**0.1237**	**3.6800e-003**	**0.1273**		**1,150.3576**	**1,150.3576**	**0.0578**		**1,151.8017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0409	1.1505	0.4827	6.5600e-003	0.1703	2.3200e-003	0.1727	0.0467	2.2200e-003	0.0489		716.8523	716.8523	0.0445		717.9646
Vendor	0.0162	0.4084	0.1567	2.8600e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		306.6848	306.6848	0.0118		306.9798
Worker	0.0283	0.0140	0.2554	1.2700e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		126.8205	126.8205	1.4700e-003		126.8573
Total	**0.0853**	**1.5729**	**0.8948**	**0.0107**	**0.4529**	**3.8700e-003**	**0.4567**	**0.1237**	**3.6800e-003**	**0.1273**		**1,150.3576**	**1,150.3576**	**0.0578**		**1,151.8017**

3.31 Plot 6 (2035) Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.1707	16.6540	42.4916	0.0971		0.5198	0.5198		0.5198	0.5198		9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.2665**	**16.6540**	**42.4916**	**0.0971**	**6.3630**	**0.5198**	**6.8828**	**0.6871**	**0.5198**	**1.2069**		**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	1.9470	0.8168	0.0111	0.2883	3.9300e-003	0.2922	0.0790	3.7600e-003	0.0828		1,213.1346	1,213.1346	0.0753		1,215.0171
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1641**	**2.5946**	**1.6904**	**0.0186**	**0.9021**	**6.9000e-003**	**0.9090**	**0.2449**	**6.5400e-003**	**0.2514**		**1,990.2131**	**1,990.2131**	**0.0967**		**1,992.6299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0953	4.8624	52.6545	0.0971		0.1527	0.1527		0.1527	0.1527	0.0000	9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0953**	**4.8624**	**52.6545**	**0.0971**	**2.4816**	**0.1527**	**2.6342**	**0.2680**	**0.1527**	**0.4206**	**0.0000**	**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0692	1.9470	0.8168	0.0111	0.2883	3.9300e-003	0.2922	0.0790	3.7600e-003	0.0828		1,213.1346	1,213.1346	0.0753		1,215.0171
Vendor	0.0243	0.6127	0.2350	4.2900e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		460.0272	460.0272	0.0177		460.4697
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.1641**	**2.5946**	**1.6904**	**0.0186**	**0.9021**	**6.9000e-003**	**0.9090**	**0.2449**	**6.5400e-003**	**0.2514**		**1,990.2131**	**1,990.2131**	**0.0967**		**1,992.6299**

3.32 Plot 6 (2035) Temporary Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1494	2.5094	6.1852	0.0285		0.0910	0.0910		0.0910	0.0910		3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**1.1494**	**2.5094**	**6.1852**	**0.0285**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0910**	**0.0910**		**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Plots 12 and 6 (2033-2035)

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	84.5354	327.6698	562.3755	1.6325	92.6156	9.7045	102.3200	11.3759	9.7009	21.0768	0.0000	171,327.4626	171,327.4626	7.2253	0.0000	171,508.0939
2034	55.5397	195.0976	424.1407	1.0900	61.1425	4.7966	65.9391	7.7433	4.7936	12.5370	0.0000	110,400.8387	110,400.8387	4.5555	0.0000	110,514.7279
2035	68.9924	226.7834	508.3087	1.4204	82.6422	5.4879	88.1302	10.2183	5.4849	15.7031	0.0000	147,322.3462	147,322.3462	5.6950	0.0000	147,464.7217
Maximum	**84.5354**	**327.6698**	**562.3755**	**1.6325**	**92.6156**	**9.7045**	**102.3200**	**11.3759**	**9.7009**	**21.0768**	**0.0000**	**171,327.4626**	**171,327.4626**	**7.2253**	**0.0000**	**171,508.0939**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	37.6298	139.5224	720.4331	1.6325	41.2115	2.8562	44.0676	5.8255	2.8526	8.6781	0.0000	171,327.4625	171,327.4625	7.2253	0.0000	171,508.0938
2034	31.1384	109.5793	487.1018	1.0900	28.0558	2.0232	30.0790	4.1707	2.0203	6.1910	0.0000	110,400.8386	110,400.8386	4.5555	0.0000	110,514.7278
2035	34.5353	122.0243	633.8496	1.4204	37.0205	2.3096	39.3302	5.2922	2.3066	7.5988	0.0000	147,322.3461	147,322.3461	5.6950	0.0000	147,464.7216
Maximum	**37.6298**	**139.5224**	**720.4331**	**1.6325**	**41.2115**	**2.8562**	**44.0676**	**5.8255**	**2.8526**	**8.6781**	**0.0000**	**171,327.4625**	**171,327.4625**	**7.2253**	**0.0000**	**171,508.0938**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**50.59**	**50.49**	**-23.18**	**0.00**	**55.04**	**64.04**	**55.74**	**47.89**	**64.07**	**54.44**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 12 (2033) Mass Excavation	Grading	1/1/2033	7/1/2033	5	130	1235
2	Plot 12 (2033) Finish Grading	Grading	1/1/2033	2/25/2033	5	40	1236
3	Plot 12 (2033) Utilities	Trenching	1/1/2033	12/30/2033	5	260	1241
4	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
5	Plot 12 (2033) Building-Wet Utilities	Building Construction	1/1/2033	12/30/2033	5	260	1238
6	Plot 12 (2033) Building-Electrical	Building Construction	1/1/2033	12/30/2033	5	260	1239
7	Plot 12 (2033) Building-Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1240
8	Plot 12 (2033) Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1242
9	Plot 12 (2033) Curbing/Drive Approaches	Paving	5/1/2033	8/20/2033	5	80	1244
10	Plot 12 (2033) Paving	Paving	6/1/2033	7/26/2033	5	40	1245
11	Plot 12 (2033) Temporary Utilities	Building Construction	7/2/2033	12/30/2033	5	130	1243
12	Plot 12 (2034) Utilities	Trenching	1/1/2034	12/31/2034	5	260	1250
13	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
14	Plot 12 (2034) Building-Wet Utilities	Building Construction	1/1/2034	12/31/2034	5	260	1247
15	Plot 12 (2034) Building-Electrical	Building Construction	1/1/2034	12/31/2034	5	260	1248
16	Plot 12 (2034) Building-Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1249
17	Plot 12 (2034) Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1251
18	Plot 12 (2034) Curbing/Drive Approaches	Paving	5/1/2034	8/20/2034	5	80	1253
19	Plot 12 (2034) Paving	Paving	6/1/2034	7/26/2034	5	40	1254

20	Plot 12 (2034) Temporary Utilities	Building Construction	7/2/2034	12/31/2034	5	130	1252
21	Plot 6 (2035) Mass Excavation	Grading	1/1/2035	6/30/2035	5	130	1255
22	Plot 6 (2035) Finish Grading	Grading	1/1/2035	2/25/2035	5	40	1256
23	Plot 6 (2035) Utilities	Trenching	1/1/2035	12/29/2035	5	260	1261
24	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257
25	Plot 6 (2035) Building-Wet Utilities	Building Construction	1/1/2035	12/29/2035	5	260	1258
26	Plot 6 (2035) Building-Electrical	Building Construction	1/1/2035	12/29/2035	5	260	1259
27	Plot 6 (2035) Building-Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1260
28	Plot 6 (2035) Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1262
29	Plot 6 (2035) Curbing/Drive Approaches	Paving	5/1/2035	8/20/2035	5	80	1264
30	Plot 6 (2035) Paving	Paving	6/1/2035	7/26/2035	5	40	1265
31	Plot 6 (2035) Temporary Utilities	Building Construction	7/2/2035	12/29/2035	5	130	1263

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 12 (2033) Mass Excavation	Graders	1	10.00	193	0.41
Plot 12 (2033) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56

Plot 12 (2033) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2033) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2033) Utilities	Excavators	8	10.00	40	0.38
Plot 12 (2033) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2033) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2033) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2033) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2033) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2033) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2033) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2033) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 12 (2033) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2033) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Building-Landscaping	Forklifts	2	10.00	125	0.20

Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2033) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2033) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2033) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2033) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2033) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2033) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2033) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2033) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2033) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2033) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2033) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2033) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2033) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2033) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2033) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2033) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2033) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2033) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 12 (2034) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56

Plot 12 (2034) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2034) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2034) Utilities	Excavators	8	10.00	40	0.38
Plot 12 (2034) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2034) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2034) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2034) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2034) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2034) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2034) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2034) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Building-Landscaping	Forklifts	2	10.00	125	0.20

Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2034) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2034) Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 12 (2034) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2034) Landscaping	Trenchers	2	10.00	39	0.50
Plot 12 (2034) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 12 (2034) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 12 (2034) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 12 (2034) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Paving	Pavers	2	10.00	126	0.42
Plot 12 (2034) Paving	Paving Equipment	2	10.00	131	0.36
Plot 12 (2034) Paving	Plate Compactors	2	10.00	8	0.43
Plot 12 (2034) Paving	Rollers	2	10.00	81	0.38
Plot 12 (2034) Paving	Scrapers	2	10.00	362	0.48
Plot 12 (2034) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 12 (2034) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 6 (2035) Mass Excavation	Graders	1	10.00	193	0.41

Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Mass Excavation	Scrapers	0	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 6 (2035) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 6 (2035) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 6 (2035) Utilities	Excavators	2	10.00	523	0.38
Plot 6 (2035) Utilities	Excavators	10	10.00	286	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	4	10.00	396	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators	2	10.00	188	0.38
Plot 6 (2035) Utilities	Excavators	8	10.00	40	0.38
Plot 6 (2035) Utilities	Forklifts	4	10.00	89	0.20
Plot 6 (2035) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 6 (2035) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37

Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 6 (2035) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 6 (2035) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 6 (2035) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 6 (2035) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 6 (2035) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 6 (2035) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 6 (2035) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 6 (2035) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 6 (2035) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 6 (2035) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 6 (2035) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 6 (2035) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Paving	Pavers	2	10.00	126	0.42
Plot 6 (2035) Paving	Paving Equipment	2	10.00	131	0.36
Plot 6 (2035) Paving	Plate Compactors	2	10.00	8	0.43
Plot 6 (2035) Paving	Rollers	2	10.00	81	0.38
Plot 6 (2035) Paving	Scrapers	2	10.00	362	0.48
Plot 6 (2035) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 6 (2035) Temporary Utilities	Cranes	2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 12 (2033) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Finish Grading		15.00	2.00	468.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 12 (2034) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Finish Grading		15.00	2.00	520.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 12 (2033) Mass Excavation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					30.0285	0.0000	30.0285	3.2424	0.0000	3.2424			0.0000			0.0000
Off-Road	29.9317	133.3059	141.7789	0.5470		5.0277	5.0277		5.0277	5.0277		61,617.1266	61,617.1266	2.6664		61,683.7876
Total	**29.9317**	**133.3059**	**141.7789**	**0.5470**	**30.0285**	**5.0277**	**35.0561**	**3.2424**	**5.0277**	**8.2700**		**61,617.1266**	**61,617.1266**	**2.6664**		**61,683.7876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0707	1.9802	0.8398	0.0109	0.2864	4.0200e-003	0.2904	0.0785	3.8400e-003	0.0823		1,191.3678	1,191.3678	0.0770		1,193.2922
Vendor	0.0379	0.9449	0.3683	6.4000e-003	0.2081	2.0800e-003	0.2102	0.0598	1.9900e-003	0.0618		685.6970	685.6970	0.0274		686.3807
Worker	0.1819	0.0863	1.2336	6.1100e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		609.8235	609.8235	7.8800e-003		610.0205
Total	**0.2905**	**3.0114**	**2.4417**	**0.0234**	**1.4446**	**9.7900e-003**	**1.4544**	**0.3903**	**9.2200e-003**	**0.3995**		**2,486.8883**	**2,486.8883**	**0.1122**		**2,489.6934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.7111	0.0000	11.7111	1.2645	0.0000	1.2645			0.0000			0.0000
Off-Road	6.5054	28.1902	243.1915	0.5470		0.8674	0.8674		0.8674	0.8674	0.0000	61,617.1265	61,617.1265	2.6664		61,683.7875
Total	**6.5054**	**28.1902**	**243.1915**	**0.5470**	**11.7111**	**0.8674**	**12.5785**	**1.2645**	**0.8674**	**2.1319**	**0.0000**	**61,617.1265**	**61,617.1265**	**2.6664**		**61,683.7875**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0707	1.9802	0.8398	0.0109	0.2864	4.0200e-003	0.2904	0.0785	3.8400e-003	0.0823		1,191.3678	1,191.3678	0.0770		1,193.2922
Vendor	0.0379	0.9449	0.3683	6.4000e-003	0.2081	2.0800e-003	0.2102	0.0598	1.9900e-003	0.0618		685.6970	685.6970	0.0274		686.3807
Worker	0.1819	0.0863	1.2336	6.1100e-003	0.9501	3.6900e-003	0.9538	0.2519	3.3900e-003	0.2553		609.8235	609.8235	7.8800e-003		610.0205
Total	**0.2905**	**3.0114**	**2.4417**	**0.0234**	**1.4446**	**9.7900e-003**	**1.4544**	**0.3903**	**9.2200e-003**	**0.3995**		**2,486.8883**	**2,486.8883**	**0.1122**		**2,489.6934**

3.3 Plot 12 (2033) Finish Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.7448	3.8257	7.8691	0.0133		0.1661	0.1661		0.1661	0.1661		1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.7448**	**3.8257**	**7.8691**	**0.0133**	**3.4466**	**0.1661**	**3.6127**	**0.3722**	**0.1661**	**0.5382**		**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0631	1.7665	0.7492	9.7300e-003	0.2555	3.5800e-003	0.2591	0.0700	3.4300e-003	0.0734		1,062.7979	1,062.7979	0.0687		1,064.5146
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1261**	**2.0023**	**1.2011**	**0.0130**	**0.5868**	**5.1500e-003**	**0.5919**	**0.1589**	**4.8900e-003**	**0.1638**		**1,398.1221**	**1,398.1221**	**0.0771**		**1,400.0498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0133		0.0178	0.0178		0.0178	0.0178	0.0000	1,263.0332	1,263.0332	0.0655		1,264.6694
Total	**0.1334**	**0.5778**	**8.2232**	**0.0133**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0655**		**1,264.6694**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0631	1.7665	0.7492	9.7300e-003	0.2555	3.5800e-003	0.2591	0.0700	3.4300e-003	0.0734		1,062.7979	1,062.7979	0.0687		1,064.5146
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1261**	**2.0023**	**1.2011**	**0.0130**	**0.5868**	**5.1500e-003**	**0.5919**	**0.1589**	**4.8900e-003**	**0.1638**		**1,398.1221**	**1,398.1221**	**0.0771**		**1,400.0498**

3.4 Plot 12 (2033) Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1298	3.6351	1.5416	0.0200	0.5258	7.3800e-003	0.5332	0.1441	7.0600e-003	0.1511		2,187.0858	2,187.0858	0.1413		2,190.6186
Vendor	0.1052	2.6247	1.0231	0.0178	0.5780	5.7800e-003	0.5838	0.1662	5.5300e-003	0.1718		1,904.7138	1,904.7138	0.0760		1,906.6129
Worker	0.1455	0.0690	0.9869	4.8800e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		487.8588	487.8588	6.3000e-003		488.0164
Total	**0.3805**	**6.3289**	**3.5516**	**0.0427**	**1.8639**	**0.0161**	**1.8800**	**0.5119**	**0.0153**	**0.5272**		**4,579.6584**	**4,579.6584**	**0.2236**		**4,585.2479**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1298	3.6351	1.5416	0.0200	0.5258	7.3800e-003	0.5332	0.1441	7.0600e-003	0.1511		2,187.0858	2,187.0858	0.1413		2,190.6186
Vendor	0.1052	2.6247	1.0231	0.0178	0.5780	5.7800e-003	0.5838	0.1662	5.5300e-003	0.1718		1,904.7138	1,904.7138	0.0760		1,906.6129
Worker	0.1455	0.0690	0.9869	4.8800e-003	0.7601	2.9500e-003	0.7631	0.2016	2.7100e-003	0.2043		487.8588	487.8588	6.3000e-003		488.0164
Total	**0.3805**	**6.3289**	**3.5516**	**0.0427**	**1.8639**	**0.0161**	**1.8800**	**0.5119**	**0.0153**	**0.5272**		**4,579.6584**	**4,579.6584**	**0.2236**		**4,585.2479**

3.5 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

3.6 Plot 12 (2033) Building-Wet Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.2723	0.5396	7.0100e-003	0.1840	2.5800e-003	0.1866	0.0504	2.4700e-003	0.0529		765.4800	765.4800	0.0495		766.7165
Vendor	0.0631	1.5748	0.6139	0.0107	0.3468	3.4700e-003	0.3503	0.0997	3.3200e-003	0.1031		1,142.8283	1,142.8283	0.0456		1,143.9677
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1995**	**2.8903**	**1.7702**	**0.0207**	**1.0059**	**7.8900e-003**	**1.0138**	**0.2761**	**7.4900e-003**	**0.2836**		**2,213.2200**	**2,213.2200**	**0.0990**		**2,215.6945**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0454	1.2723	0.5396	7.0100e-003	0.1840	2.5800e-003	0.1866	0.0504	2.4700e-003	0.0529		765.4800	765.4800	0.0495		766.7165
Vendor	0.0631	1.5748	0.6139	0.0107	0.3468	3.4700e-003	0.3503	0.0997	3.3200e-003	0.1031		1,142.8283	1,142.8283	0.0456		1,143.9677
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1995**	**2.8903**	**1.7702**	**0.0207**	**1.0059**	**7.8900e-003**	**1.0138**	**0.2761**	**7.4900e-003**	**0.2836**		**2,213.2200**	**2,213.2200**	**0.0990**		**2,215.6945**

3.7 Plot 12 (2033) Building-Electrical - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1039	2.9081	1.2333	0.0160	0.4206	5.9000e-003	0.4265	0.1153	5.6400e-003	0.1209		1,749.6686	1,749.6686	0.1131		1,752.4948
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1837**	**3.5639**	**1.8489**	**0.0221**	**0.8444**	**8.4000e-003**	**0.8528**	**0.2307**	**7.9900e-003**	**0.2387**		**2,389.7470**	**2,389.7470**	**0.1336**		**2,393.0881**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1039	2.9081	1.2333	0.0160	0.4206	5.9000e-003	0.4265	0.1153	5.6400e-003	0.1209		1,749.6686	1,749.6686	0.1131		1,752.4948
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0546	0.0259	0.3701	1.8300e-003	0.2850	1.1100e-003	0.2862	0.0756	1.0200e-003	0.0766		182.9471	182.9471	2.3600e-003		183.0062
Total	**0.1837**	**3.5639**	**1.8489**	**0.0221**	**0.8444**	**8.4000e-003**	**0.8528**	**0.2307**	**7.9900e-003**	**0.2387**		**2,389.7470**	**2,389.7470**	**0.1336**		**2,393.0881**

3.8 Plot 12 (2033) Building-Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0295	0.7349	0.2865	4.9800e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		533.3199	533.3199	0.0213		533.8516
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0658**	**0.7522**	**0.5332**	**6.2000e-003**	**0.3519**	**2.3600e-003**	**0.3542**	**0.0969**	**2.2300e-003**	**0.0992**		**655.2846**	**655.2846**	**0.0229**		**655.8557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0295	0.7349	0.2865	4.9800e-003	0.1618	1.6200e-003	0.1635	0.0465	1.5500e-003	0.0481		533.3199	533.3199	0.0213		533.8516
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0658**	**0.7522**	**0.5332**	**6.2000e-003**	**0.3519**	**2.3600e-003**	**0.3542**	**0.0969**	**2.2300e-003**	**0.0992**		**655.2846**	**655.2846**	**0.0229**		**655.8557**

3.9 Plot 12 (2033) Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0616**	**0.6472**	**0.4923**	**5.4800e-003**	**0.3288**	**2.1300e-003**	**0.3309**	**0.0903**	**2.0100e-003**	**0.0923**		**579.0960**	**579.0960**	**0.0198**		**579.5912**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0616**	**0.6472**	**0.4923**	**5.4800e-003**	**0.3288**	**2.1300e-003**	**0.3309**	**0.0903**	**2.0100e-003**	**0.0923**		**579.0960**	**579.0960**	**0.0198**		**579.5912**

3.10 Plot 12 (2033) Curbing/Drive Approaches - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	1.1777	0.4994	6.4900e-003	0.1703	2.3900e-003	0.1727	0.0467	2.2900e-003	0.0490		708.5319	708.5319	0.0458		709.6764
Vendor	0.0168	0.4200	0.1637	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.7542	304.7542	0.0122		305.0581
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0953**	**1.6149**	**0.9099**	**0.0106**	**0.4528**	**4.0500e-003**	**0.4569**	**0.1237**	**3.8500e-003**	**0.1275**		**1,135.2509**	**1,135.2509**	**0.0595**		**1,136.7386**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0421	1.1777	0.4994	6.4900e-003	0.1703	2.3900e-003	0.1727	0.0467	2.2900e-003	0.0490		708.5319	708.5319	0.0458		709.6764
Vendor	0.0168	0.4200	0.1637	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.7542	304.7542	0.0122		305.0581
Worker	0.0364	0.0173	0.2467	1.2200e-003	0.1900	7.4000e-004	0.1908	0.0504	6.8000e-004	0.0511		121.9647	121.9647	1.5800e-003		122.0041
Total	**0.0953**	**1.6149**	**0.9099**	**0.0106**	**0.4528**	**4.0500e-003**	**0.4569**	**0.1237**	**3.8500e-003**	**0.1275**		**1,135.2509**	**1,135.2509**	**0.0595**		**1,136.7386**

3.11 Plot 12 (2033) Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0712	1.9929	0.8452	0.0110	0.2883	4.0400e-003	0.2923	0.0790	3.8700e-003	0.0829		1,199.0541	1,199.0541	0.0775		1,200.9909
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1874**	**2.6660**	**1.7075**	**0.0183**	**0.9021**	**7.2700e-003**	**0.9093**	**0.2449**	**6.9000e-003**	**0.2517**		**1,961.0971**	**1,961.0971**	**0.0996**		**1,963.5882**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0953	4.8624	52.6544	0.0971		0.1527	0.1527		0.1527	0.1527	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0953**	**4.8624**	**52.6544**	**0.0971**	**2.4816**	**0.1527**	**2.6342**	**0.2680**	**0.1527**	**0.4206**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0712	1.9929	0.8452	0.0110	0.2883	4.0400e-003	0.2923	0.0790	3.8700e-003	0.0829		1,199.0541	1,199.0541	0.0775		1,200.9909
Vendor	0.0252	0.6299	0.2455	4.2600e-003	0.1387	1.3900e-003	0.1401	0.0399	1.3300e-003	0.0412		457.1313	457.1313	0.0182		457.5871
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.1874**	**2.6660**	**1.7075**	**0.0183**	**0.9021**	**7.2700e-003**	**0.9093**	**0.2449**	**6.9000e-003**	**0.2517**		**1,961.0971**	**1,961.0971**	**0.0996**		**1,963.5882**

3.12 Plot 12 (2033) Temporary Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 12 (2034) Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	16.1240	50.3029	120.6394	0.3816		1.3582	1.3582		1.3582	1.3582		40,230.2823	40,230.2823	1.4326		40,266.0977
Total	**16.1240**	**50.3029**	**120.6394**	**0.3816**	**25.5336**	**1.3582**	**26.8918**	**2.7570**	**1.3582**	**4.1152**		**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1294	3.6029	1.5434	0.0200	0.5258	7.2900e-003	0.5331	0.1441	6.9700e-003	0.1511		2,183.1554	2,183.1554	0.1408		2,186.6762
Vendor	0.1045	2.6016	1.0201	0.0177	0.5780	5.7300e-003	0.5837	0.1662	5.4700e-003	0.1717		1,901.6907	1,901.6907	0.0757		1,903.5827
Worker	0.1372	0.0643	0.9331	4.8100e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		480.0777	480.0777	5.8000e-003		480.2227
Total	**0.3711**	**6.2688**	**3.4966**	**0.0425**	**1.8639**	**0.0158**	**1.8797**	**0.5119**	**0.0150**	**0.5268**		**4,564.9238**	**4,564.9238**	**0.2223**		**4,570.4816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.3190	30.2739	155.3766	0.3816		0.8002	0.8002		0.8002	0.8002	0.0000	40,230.2823	40,230.2823	1.4326		40,266.0976
Total	**8.3190**	**30.2739**	**155.3766**	**0.3816**	**9.9581**	**0.8002**	**10.7583**	**1.0752**	**0.8002**	**1.8755**	**0.0000**	**40,230.2823**	**40,230.2823**	**1.4326**		**40,266.0976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1294	3.6029	1.5434	0.0200	0.5258	7.2900e-003	0.5331	0.1441	6.9700e-003	0.1511		2,183.1554	2,183.1554	0.1408		2,186.6762
Vendor	0.1045	2.6016	1.0201	0.0177	0.5780	5.7300e-003	0.5837	0.1662	5.4700e-003	0.1717		1,901.6907	1,901.6907	0.0757		1,903.5827
Worker	0.1372	0.0643	0.9331	4.8100e-003	0.7601	2.7500e-003	0.7629	0.2016	2.5300e-003	0.2041		480.0777	480.0777	5.8000e-003		480.2227
Total	**0.3711**	**6.2688**	**3.4966**	**0.0425**	**1.8639**	**0.0158**	**1.8797**	**0.5119**	**0.0150**	**0.5268**		**4,564.9238**	**4,564.9238**	**0.2223**		**4,570.4816**

3.14 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	3.1219	19.8902	43.1728	0.0722		0.4093	0.4093		0.4093	0.4093		6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**3.1219**	**19.8902**	**43.1728**	**0.0722**	**3.1937**	**0.4093**	**3.6030**	**0.3449**	**0.4093**	**0.7541**		**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2754		6,797.2211
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2754**		**6,797.2211**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

3.15 Plot 12 (2034) Building-Wet Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.8446	20.7483	69.5854	0.1489		0.6761	0.6761		0.6761	0.6761		14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**5.8446**	**20.7483**	**69.5854**	**0.1489**	**9.5771**	**0.6761**	**10.2532**	**1.0341**	**0.6761**	**1.7102**		**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0453	1.2610	0.5402	6.9900e-003	0.1840	2.5500e-003	0.1866	0.0504	2.4400e-003	0.0529		764.1044	764.1044	0.0493		765.3367
Vendor	0.0627	1.5610	0.6121	0.0106	0.3468	3.4400e-003	0.3502	0.0997	3.2800e-003	0.1030		1,141.0144	1,141.0144	0.0454		1,142.1496
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1938**	**2.8621**	**1.7354**	**0.0206**	**1.0059**	**7.7100e-003**	**1.0136**	**0.2761**	**7.3000e-003**	**0.2834**		**2,205.1674**	**2,205.1674**	**0.0983**		**2,207.6255**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.2056	7.6006	78.8058	0.1489		0.2505	0.2505		0.2505	0.2505	0.0000	14,581.0737	14,581.0737	0.5131		14,593.9020
Total	**2.2056**	**7.6006**	**78.8058**	**0.1489**	**3.7351**	**0.2505**	**3.9856**	**0.4033**	**0.2505**	**0.6538**	**0.0000**	**14,581.0737**	**14,581.0737**	**0.5131**		**14,593.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0453	1.2610	0.5402	6.9900e-003	0.1840	2.5500e-003	0.1866	0.0504	2.4400e-003	0.0529		764.1044	764.1044	0.0493		765.3367
Vendor	0.0627	1.5610	0.6121	0.0106	0.3468	3.4400e-003	0.3502	0.0997	3.2800e-003	0.1030		1,141.0144	1,141.0144	0.0454		1,142.1496
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1938**	**2.8621**	**1.7354**	**0.0206**	**1.0059**	**7.7100e-003**	**1.0136**	**0.2761**	**7.3000e-003**	**0.2834**		**2,205.1674**	**2,205.1674**	**0.0983**		**2,207.6255**

3.16 Plot 12 (2034) Building-Electrical - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.9381	22.1926	45.3703	0.0698		0.3572	0.3572		0.3572	0.3572		6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**3.9381**	**22.1926**	**45.3703**	**0.0698**	**6.3834**	**0.3572**	**6.7406**	**0.6893**	**0.3572**	**1.0465**		**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1035	2.8823	1.2347	0.0160	0.4206	5.8300e-003	0.4265	0.1153	5.5800e-003	0.1208		1,746.5243	1,746.5243	0.1127		1,749.3410
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0515	0.0241	0.3499	1.8000e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		180.0292	180.0292	2.1700e-003		180.0835
Total	**0.1800**	**3.5308**	**1.8294**	**0.0220**	**0.8444**	**8.2300e-003**	**0.8526**	**0.2307**	**7.8400e-003**	**0.2386**		**2,382.9592**	**2,382.9592**	**0.1330**		**2,386.2843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4521	10.8134	43.6229	0.0698		0.1433	0.1433		0.1433	0.1433	0.0000	6,331.1779	6,331.1779	0.3496		6,339.9183
Total	**1.4521**	**10.8134**	**43.6229**	**0.0698**	**2.4895**	**0.1433**	**2.6328**	**0.2688**	**0.1433**	**0.4121**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3496**		**6,339.9183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1035	2.8823	1.2347	0.0160	0.4206	5.8300e-003	0.4265	0.1153	5.5800e-003	0.1208		1,746.5243	1,746.5243	0.1127		1,749.3410
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0515	0.0241	0.3499	1.8000e-003	0.2850	1.0300e-003	0.2861	0.0756	9.5000e-004	0.0765		180.0292	180.0292	2.1700e-003		180.0835
Total	**0.1800**	**3.5308**	**1.8294**	**0.0220**	**0.8444**	**8.2300e-003**	**0.8526**	**0.2307**	**7.8400e-003**	**0.2386**		**2,382.9592**	**2,382.9592**	**0.1330**		**2,386.2843**

3.17 Plot 12 (2034) Building-Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.9300	13.5614	35.1484	0.0579		0.3659	0.3659		0.3659	0.3659		5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**2.9300**	**13.5614**	**35.1484**	**0.0579**	**1.5948**	**0.3659**	**1.9607**	**0.1722**	**0.3659**	**0.5381**		**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0293	0.7285	0.2856	4.9700e-003	0.1618	1.6000e-003	0.1635	0.0465	1.5300e-003	0.0481		532.4734	532.4734	0.0212		533.0032
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0636**	**0.7445**	**0.5189**	**6.1700e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**652.4928**	**652.4928**	**0.0226**		**653.0588**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5126	12.6127	36.6403	0.0579		0.1985	0.1985		0.1985	0.1985	0.0000	5,360.8436	5,360.8436	0.2588		5,367.3142
Total	**1.5126**	**12.6127**	**36.6403**	**0.0579**	**0.6220**	**0.1985**	**0.8205**	**0.0672**	**0.1985**	**0.2657**	**0.0000**	**5,360.8436**	**5,360.8436**	**0.2588**		**5,367.3142**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0293	0.7285	0.2856	4.9700e-003	0.1618	1.6000e-003	0.1635	0.0465	1.5300e-003	0.0481		532.4734	532.4734	0.0212		533.0032
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0636**	**0.7445**	**0.5189**	**6.1700e-003**	**0.3519**	**2.2900e-003**	**0.3542**	**0.0969**	**2.1600e-003**	**0.0991**		**652.4928**	**652.4928**	**0.0226**		**653.0588**

3.18 Plot 12 (2034) Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	3.0920	14.0326	37.6086	0.0624		0.3865	0.3865		0.3865	0.3865		5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**3.0920**	**14.0326**	**37.6086**	**0.0624**	**1.5948**	**0.3865**	**1.9813**	**0.1722**	**0.3865**	**0.5587**		**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0594**	**0.6405**	**0.4781**	**5.4600e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**576.4252**	**576.4252**	**0.0196**		**576.9155**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.5568	12.8042	39.3648	0.0624		0.2044	0.2044		0.2044	0.2044	0.0000	5,779.3072	5,779.3072	0.2728		5,786.1275
Total	**1.5568**	**12.8042**	**39.3648**	**0.0624**	**0.6220**	**0.2044**	**0.8264**	**0.0672**	**0.2044**	**0.2716**	**0.0000**	**5,779.3072**	**5,779.3072**	**0.2728**		**5,786.1275**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0594**	**0.6405**	**0.4781**	**5.4600e-003**	**0.3288**	**2.0600e-003**	**0.3308**	**0.0903**	**1.9400e-003**	**0.0922**		**576.4252**	**576.4252**	**0.0196**		**576.9155**

3.19 Plot 12 (2034) Curbing/Drive Approaches - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.9036	4.6791	10.2642	0.0177		0.2030	0.2030		0.2030	0.2030		1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.9515**	**4.6791**	**10.2642**	**0.0177**	**0.0000**	**0.2030**	**0.2030**	**0.0000**	**0.2030**	**0.2030**		**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0419	1.1672	0.5000	6.4700e-003	0.1703	2.3600e-003	0.1727	0.0467	2.2600e-003	0.0489		707.2586	707.2586	0.0456		708.3993
Vendor	0.0167	0.4163	0.1632	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.2705	304.2705	0.0121		304.5732
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0929**	**1.5995**	**0.8965**	**0.0105**	**0.4529**	**3.9700e-003**	**0.4568**	**0.1237**	**3.7700e-003**	**0.1274**		**1,131.5486**	**1,131.5486**	**0.0592**		**1,133.0282**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0096	1,665.0096	0.0804		1,667.0202
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0096**	**1,665.0096**	**0.0804**		**1,667.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0419	1.1672	0.5000	6.4700e-003	0.1703	2.3600e-003	0.1727	0.0467	2.2600e-003	0.0489		707.2586	707.2586	0.0456		708.3993
Vendor	0.0167	0.4163	0.1632	2.8400e-003	0.0925	9.2000e-004	0.0934	0.0266	8.8000e-004	0.0275		304.2705	304.2705	0.0121		304.5732
Worker	0.0343	0.0161	0.2333	1.2000e-003	0.1900	6.9000e-004	0.1907	0.0504	6.3000e-004	0.0510		120.0194	120.0194	1.4500e-003		120.0557
Total	**0.0929**	**1.5995**	**0.8965**	**0.0105**	**0.4529**	**3.9700e-003**	**0.4568**	**0.1237**	**3.7700e-003**	**0.1274**		**1,131.5486**	**1,131.5486**	**0.0592**		**1,133.0282**

3.20 Plot 12 (2034) Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.7866	22.8667	43.0035	0.0971		0.8515	0.8515		0.8515	0.8515		9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.8824**	**22.8667**	**43.0035**	**0.0971**	**6.3630**	**0.8515**	**7.2145**	**0.6871**	**0.8515**	**1.5386**		**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0709	1.9752	0.8461	0.0110	0.2883	3.9900e-003	0.2923	0.0790	3.8200e-003	0.0828		1,196.8992	1,196.8992	0.0772		1,198.8295
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1818**	**2.6398**	**1.6742**	**0.0182**	**0.9021**	**7.0800e-003**	**0.9091**	**0.2449**	**6.7100e-003**	**0.2516**		**1,953.3536**	**1,953.3536**	**0.0990**		**1,955.8286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0953	4.8624	52.6544	0.0971		0.1527	0.1527		0.1527	0.1527	0.0000	9,890.2729	9,890.2729	0.4261		9,900.9263
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0953**	**4.8624**	**52.6544**	**0.0971**	**2.4816**	**0.1527**	**2.6342**	**0.2680**	**0.1527**	**0.4206**	**0.0000**	**9,890.2729**	**9,890.2729**	**0.4261**		**9,900.9263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0709	1.9752	0.8461	0.0110	0.2883	3.9900e-003	0.2923	0.0790	3.8200e-003	0.0828		1,196.8992	1,196.8992	0.0772		1,198.8295
Vendor	0.0251	0.6244	0.2448	4.2600e-003	0.1387	1.3700e-003	0.1401	0.0399	1.3100e-003	0.0412		456.4058	456.4058	0.0182		456.8599
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.1818**	**2.6398**	**1.6742**	**0.0182**	**0.9021**	**7.0800e-003**	**0.9091**	**0.2449**	**6.7100e-003**	**0.2516**		**1,953.3536**	**1,953.3536**	**0.0990**		**1,955.8286**

3.21 Plot 12 (2034) Temporary Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2632	3.9660	6.2022	0.0285		0.1309	0.1309		0.1309	0.1309		3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**1.2632**	**3.9660**	**6.2022**	**0.0285**	**0.0000**	**0.1309**	**0.1309**	**0.0000**	**0.1309**	**0.1309**		**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1138		3,236.5408
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1138**		**3,236.5408**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 6 (2035) Mass Excavation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					20.5492	0.0000	20.5492	2.2188	0.0000	2.2188			0.0000			0.0000
Off-Road	17.5174	61.8079	90.8534	0.3556		2.3276	2.3276		2.3276	2.3276		39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**17.5174**	**61.8079**	**90.8534**	**0.3556**	**20.5492**	**2.3276**	**22.8769**	**2.2188**	**2.3276**	**4.5465**		**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0703	1.9493	0.8412	0.0109	0.2864	3.9300e-003	0.2904	0.0785	3.7600e-003	0.0823		1,187.5490	1,187.5490	0.0764		1,189.4601
Vendor	0.0374	0.9299	0.3662	6.3800e-003	0.2081	2.0500e-003	0.2101	0.0598	1.9600e-003	0.0618		683.7291	683.7291	0.0271		684.4076
Worker	0.1629	0.0760	1.1110	5.9200e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		591.7701	591.7701	6.7300e-003		591.9385
Total	**0.2706**	**2.9551**	**2.3183**	**0.0232**	**1.4446**	**9.2000e-003**	**1.4538**	**0.3903**	**8.6900e-003**	**0.3990**		**2,463.0482**	**2,463.0482**	**0.1103**		**2,465.8062**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0142	0.0000	8.0142	0.8654	0.0000	0.8654			0.0000			0.0000
Off-Road	4.2091	18.2394	158.9925	0.3556		0.5612	0.5612		0.5612	0.5612	0.0000	39,867.0558	39,867.0558	1.5594		39,906.0396
Total	**4.2091**	**18.2394**	**158.9925**	**0.3556**	**8.0142**	**0.5612**	**8.5754**	**0.8654**	**0.5612**	**1.4266**	**0.0000**	**39,867.0558**	**39,867.0558**	**1.5594**		**39,906.0396**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0703	1.9493	0.8412	0.0109	0.2864	3.9300e-003	0.2904	0.0785	3.7600e-003	0.0823		1,187.5490	1,187.5490	0.0764		1,189.4601
Vendor	0.0374	0.9299	0.3662	6.3800e-003	0.2081	2.0500e-003	0.2101	0.0598	1.9600e-003	0.0618		683.7291	683.7291	0.0271		684.4076
Worker	0.1629	0.0760	1.1110	5.9200e-003	0.9501	3.2200e-003	0.9534	0.2519	2.9700e-003	0.2549		591.7701	591.7701	6.7300e-003		591.9385
Total	**0.2706**	**2.9551**	**2.3183**	**0.0232**	**1.4446**	**9.2000e-003**	**1.4538**	**0.3903**	**8.6900e-003**	**0.3990**		**2,463.0482**	**2,463.0482**	**0.1103**		**2,465.8062**

3.23 Plot 6 (2035) Finish Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4466	0.0000	3.4466	0.3722	0.0000	0.3722			0.0000			0.0000
Off-Road	0.6342	2.8323	7.8483	0.0133		0.1062	0.1062		0.1062	0.1062		1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.6342**	**2.8323**	**7.8483**	**0.0133**	**3.4466**	**0.1062**	**3.5529**	**0.3722**	**0.1062**	**0.4784**		**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0697	1.9321	0.8338	0.0108	0.2839	3.9000e-003	0.2878	0.0778	3.7300e-003	0.0815		1,177.1014	1,177.1014	0.0758		1,178.9957
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1269**	**2.1615**	**1.2484**	**0.0140**	**0.6152**	**5.3200e-003**	**0.6205**	**0.1667**	**5.0500e-003**	**0.1717**		**1,506.5722**	**1,506.5722**	**0.0838**		**1,508.6678**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3442	0.0000	1.3442	0.1451	0.0000	0.1451			0.0000			0.0000
Off-Road	0.1334	0.5778	8.2232	0.0133		0.0178	0.0178		0.0178	0.0178	0.0000	1,263.0332	1,263.0332	0.0568		1,264.4521
Total	**0.1334**	**0.5778**	**8.2232**	**0.0133**	**1.3442**	**0.0178**	**1.3620**	**0.1451**	**0.0178**	**0.1629**	**0.0000**	**1,263.0332**	**1,263.0332**	**0.0568**		**1,264.4521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0697	1.9321	0.8338	0.0108	0.2839	3.9000e-003	0.2878	0.0778	3.7300e-003	0.0815		1,177.1014	1,177.1014	0.0758		1,178.9957
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1269**	**2.1615**	**1.2484**	**0.0140**	**0.6152**	**5.3200e-003**	**0.6205**	**0.1667**	**5.0500e-003**	**0.1717**		**1,506.5722**	**1,506.5722**	**0.0838**		**1,508.6678**

3.24 Plot 6 (2035) Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.5336	0.0000	25.5336	2.7570	0.0000	2.7570			0.0000			0.0000
Off-Road	15.4429	42.8939	120.5733	0.3816		1.0295	1.0295		1.0295	1.0295		40,230.2918	40,230.2918	1.3529		40,264.1136
Total	**15.4429**	**42.8939**	**120.5733**	**0.3816**	**25.5336**	**1.0295**	**26.5631**	**2.7570**	**1.0295**	**3.7865**		**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1136**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1291	3.5784	1.5442	0.0200	0.5258	7.2200e-003	0.5330	0.1441	6.9100e-003	0.1510		2,180.0753	2,180.0753	0.1403		2,183.5837
Vendor	0.1040	2.5829	1.0172	0.0177	0.5780	5.6800e-003	0.5837	0.1662	5.4300e-003	0.1717		1,899.2474	1,899.2474	0.0754		1,901.1321
Worker	0.1303	0.0608	0.8888	4.7400e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		473.4161	473.4161	5.3900e-003		473.5508
Total	**0.3634**	**6.2221**	**3.4502**	**0.0424**	**1.8639**	**0.0155**	**1.8794**	**0.5119**	**0.0147**	**0.5266**		**4,552.7388**	**4,552.7388**	**0.2211**		**4,558.2666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.9581	0.0000	9.9581	1.0752	0.0000	1.0752			0.0000			0.0000
Off-Road	8.1180	27.8899	155.3674	0.3816		0.7145	0.7145		0.7145	0.7145	0.0000	40,230.2918	40,230.2918	1.3529		40,264.1135
Total	**8.1180**	**27.8899**	**155.3674**	**0.3816**	**9.9581**	**0.7145**	**10.6726**	**1.0752**	**0.7145**	**1.7898**	**0.0000**	**40,230.2918**	**40,230.2918**	**1.3529**		**40,264.1135**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1291	3.5784	1.5442	0.0200	0.5258	7.2200e-003	0.5330	0.1441	6.9100e-003	0.1510		2,180.0753	2,180.0753	0.1403		2,183.5837
Vendor	0.1040	2.5829	1.0172	0.0177	0.5780	5.6800e-003	0.5837	0.1662	5.4300e-003	0.1717		1,899.2474	1,899.2474	0.0754		1,901.1321
Worker	0.1303	0.0608	0.8888	4.7400e-003	0.7601	2.5800e-003	0.7627	0.2016	2.3700e-003	0.2039		473.4161	473.4161	5.3900e-003		473.5508
Total	**0.3634**	**6.2221**	**3.4502**	**0.0424**	**1.8639**	**0.0155**	**1.8794**	**0.5119**	**0.0147**	**0.5266**		**4,552.7388**	**4,552.7388**	**0.2211**		**4,558.2666**

3.25 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1937	0.0000	3.1937	0.3449	0.0000	0.3449			0.0000			0.0000
Off-Road	2.9307	18.4021	43.1354	0.0722		0.2672	0.2672		0.2672	0.2672		6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**2.9307**	**18.4021**	**43.1354**	**0.0722**	**3.1937**	**0.2672**	**3.4609**	**0.3449**	**0.2672**	**0.6120**		**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0109	0.3018	0.1302	1.6800e-003	0.0444	6.1000e-004	0.0450	0.0122	5.8000e-004	0.0127		183.8786	183.8786	0.0118		184.1745
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1173**	**0.9597**	**0.9299**	**8.8900e-003**	**0.6581**	**3.5800e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**935.5830**	**935.5830**	**0.0333**		**936.4154**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2456	0.0000	1.2456	0.1345	0.0000	0.1345			0.0000			0.0000
Off-Road	0.8772	4.1418	44.1479	0.0722		0.1364	0.1364		0.1364	0.1364	0.0000	6,790.3351	6,790.3351	0.2607		6,796.8532
Total	**0.8772**	**4.1418**	**44.1479**	**0.0722**	**1.2456**	**0.1364**	**1.3820**	**0.1345**	**0.1364**	**0.2709**	**0.0000**	**6,790.3351**	**6,790.3351**	**0.2607**		**6,796.8532**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0109	0.3018	0.1302	1.6800e-003	0.0444	6.1000e-004	0.0450	0.0122	5.8000e-004	0.0127		183.8786	183.8786	0.0118		184.1745
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1173**	**0.9597**	**0.9299**	**8.8900e-003**	**0.6581**	**3.5800e-003**	**0.6617**	**0.1780**	**3.3600e-003**	**0.1814**		**935.5830**	**935.5830**	**0.0333**		**936.4154**

3.26 Plot 6 (2035) Building-Wet Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.5771	0.0000	9.5771	1.0341	0.0000	1.0341			0.0000			0.0000
Off-Road	5.3804	16.1782	69.5761	0.1489		0.4481	0.4481		0.4481	0.4481		14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**5.3804**	**16.1782**	**69.5761**	**0.1489**	**9.5771**	**0.4481**	**10.0253**	**1.0341**	**0.4481**	**1.4822**		**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0452	1.2524	0.5405	6.9800e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		763.0264	763.0264	0.0491		764.2543
Vendor	0.0624	1.5498	0.6103	0.0106	0.3468	3.4100e-003	0.3502	0.0997	3.2600e-003	0.1030		1,139.5484	1,139.5484	0.0452		1,140.6793
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1890**	**2.8402**	**1.7063**	**0.0206**	**1.0059**	**7.5500e-003**	**1.0135**	**0.2761**	**7.1600e-003**	**0.2833**		**2,198.4598**	**2,198.4598**	**0.0977**		**2,200.9028**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					3.7351	0.0000	3.7351	0.4033	0.0000	0.4033			0.0000			0.0000
Off-Road	2.1613	7.0646	78.8091	0.1489		0.2306	0.2306		0.2306	0.2306	0.0000	14,581.0767	14,581.0767	0.4751		14,592.9549
Total	**2.1613**	**7.0646**	**78.8091**	**0.1489**	**3.7351**	**0.2306**	**3.9657**	**0.4033**	**0.2306**	**0.6339**	**0.0000**	**14,581.0767**	**14,581.0767**	**0.4751**		**14,592.9549**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0452	1.2524	0.5405	6.9800e-003	0.1840	2.5300e-003	0.1866	0.0504	2.4200e-003	0.0529		763.0264	763.0264	0.0491		764.2543
Vendor	0.0624	1.5498	0.6103	0.0106	0.3468	3.4100e-003	0.3502	0.0997	3.2600e-003	0.1030		1,139.5484	1,139.5484	0.0452		1,140.6793
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1890**	**2.8402**	**1.7063**	**0.0206**	**1.0059**	**7.5500e-003**	**1.0135**	**0.2761**	**7.1600e-003**	**0.2833**		**2,198.4598**	**2,198.4598**	**0.0977**		**2,200.9028**

3.27 Plot 6 (2035) Building-Electrical - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3834	0.0000	6.3834	0.6893	0.0000	0.6893			0.0000			0.0000
Off-Road	3.7417	21.0920	45.2781	0.0698		0.2425	0.2425		0.2425	0.2425		6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**3.7417**	**21.0920**	**45.2781**	**0.0698**	**6.3834**	**0.2425**	**6.6259**	**0.6893**	**0.2425**	**0.9318**		**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1033	2.8627	1.2354	0.0160	0.4206	5.7800e-003	0.4264	0.1153	5.5300e-003	0.1208		1,744.0603	1,744.0603	0.1123		1,746.8670
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1771**	**3.5054**	**1.8128**	**0.0220**	**0.8444**	**8.1100e-003**	**0.8525**	**0.2307**	**7.7200e-003**	**0.2385**		**2,377.4107**	**2,377.4107**	**0.1324**		**2,380.7202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4895	0.0000	2.4895	0.2688	0.0000	0.2688			0.0000			0.0000
Off-Road	1.4184	10.7346	43.5982	0.0698		0.1275	0.1275		0.1275	0.1275	0.0000	6,331.1779	6,331.1779	0.3324		6,339.4870
Total	**1.4184**	**10.7346**	**43.5982**	**0.0698**	**2.4895**	**0.1275**	**2.6171**	**0.2688**	**0.1275**	**0.3964**	**0.0000**	**6,331.1779**	**6,331.1779**	**0.3324**		**6,339.4870**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1033	2.8627	1.2354	0.0160	0.4206	5.7800e-003	0.4264	0.1153	5.5300e-003	0.1208		1,744.0603	1,744.0603	0.1123		1,746.8670
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0489	0.0228	0.3333	1.7800e-003	0.2850	9.7000e-004	0.2860	0.0756	8.9000e-004	0.0765		177.5310	177.5310	2.0200e-003		177.5816
Total	**0.1771**	**3.5054**	**1.8128**	**0.0220**	**0.8444**	**8.1100e-003**	**0.8525**	**0.2307**	**7.7200e-003**	**0.2385**		**2,377.4107**	**2,377.4107**	**0.1324**		**2,380.7202**

3.28 Plot 6 (2035) Building-Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.6200	11.9129	34.9894	0.0579		0.2307	0.2307		0.2307	0.2307		5,360.8447	5,360.8447	0.2341		5,366.6975
Total	**2.6200**	**11.9129**	**34.9894**	**0.0579**	**1.5948**	**0.2307**	**1.8255**	**0.1722**	**0.2307**	**0.4029**		**5,360.8447**	**5,360.8447**	**0.2341**		**5,366.6975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7232	0.2848	4.9600e-003	0.1618	1.5900e-003	0.1634	0.0465	1.5200e-003	0.0481		531.7893	531.7893	0.0211		532.3170
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0617**	**0.7384**	**0.5070**	**6.1400e-003**	**0.3519**	**2.2300e-003**	**0.3541**	**0.0969**	**2.1100e-003**	**0.0990**		**650.1433**	**650.1433**	**0.0225**		**650.7047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.3603	12.3517	36.5043	0.0579		0.1441	0.1441		0.1441	0.1441	0.0000	5,360.8447	5,360.8447	0.2341		5,366.6975
Total	**1.3603**	**12.3517**	**36.5043**	**0.0579**	**0.6220**	**0.1441**	**0.7661**	**0.0672**	**0.1441**	**0.2112**	**0.0000**	**5,360.8447**	**5,360.8447**	**0.2341**		**5,366.6975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0291	0.7232	0.2848	4.9600e-003	0.1618	1.5900e-003	0.1634	0.0465	1.5200e-003	0.0481		531.7893	531.7893	0.0211		532.3170
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0617**	**0.7384**	**0.5070**	**6.1400e-003**	**0.3519**	**2.2300e-003**	**0.3541**	**0.0969**	**2.1100e-003**	**0.0990**		**650.1433**	**650.1433**	**0.0225**		**650.7047**

3.29 Plot 6 (2035) Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5948	0.0000	1.5948	0.1722	0.0000	0.1722			0.0000			0.0000
Off-Road	2.7643	12.2059	37.4473	0.0624		0.2425	0.2425		0.2425	0.2425		5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**2.7643**	**12.2059**	**37.4473**	**0.0624**	**1.5948**	**0.2425**	**1.8373**	**0.1722**	**0.2425**	**0.4147**		**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0575**	**0.6351**	**0.4663**	**5.4300e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**574.1734**	**574.1734**	**0.0194**		**574.6594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6220	0.0000	0.6220	0.0672	0.0000	0.0672			0.0000			0.0000
Off-Road	1.4045	12.5431	39.2287	0.0624		0.1500	0.1500		0.1500	0.1500	0.0000	5,779.3083	5,779.3083	0.2466		5,785.4740
Total	**1.4045**	**12.5431**	**39.2287**	**0.0624**	**0.6220**	**0.1500**	**0.7720**	**0.0672**	**0.1500**	**0.2171**	**0.0000**	**5,779.3083**	**5,779.3083**	**0.2466**		**5,785.4740**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0575**	**0.6351**	**0.4663**	**5.4300e-003**	**0.3288**	**2.0000e-003**	**0.3308**	**0.0903**	**1.8900e-003**	**0.0922**		**574.1734**	**574.1734**	**0.0194**		**574.6594**

3.30 Plot 6 (2035) Curbing/Drive Approaches - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.7758	3.5729	10.2419	0.0177		0.1210	0.1210		0.1210	0.1210		1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.8237**	**3.5729**	**10.2419**	**0.0177**	**0.0000**	**0.1210**	**0.1210**	**0.0000**	**0.1210**	**0.1210**		**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.1593	0.5003	6.4600e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		706.2608	706.2608	0.0455		707.3974
Vendor	0.0166	0.4133	0.1628	2.8300e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		303.8796	303.8796	0.0121		304.1811
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0910**	**1.5877**	**0.8852**	**0.0105**	**0.4529**	**3.8900e-003**	**0.4567**	**0.1237**	**3.7000e-003**	**0.1274**		**1,128.4944**	**1,128.4944**	**0.0589**		**1,129.9662**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2428	2.1332	10.8249	0.0177		0.0336	0.0336		0.0336	0.0336	0.0000	1,665.0088	1,665.0088	0.0689		1,666.7309
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2428**	**2.1332**	**10.8249**	**0.0177**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**0.0336**	**0.0336**	**0.0000**	**1,665.0088**	**1,665.0088**	**0.0689**		**1,666.7309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	1.1593	0.5003	6.4600e-003	0.1703	2.3400e-003	0.1727	0.0467	2.2400e-003	0.0489		706.2608	706.2608	0.0455		707.3974
Vendor	0.0166	0.4133	0.1628	2.8300e-003	0.0925	9.1000e-004	0.0934	0.0266	8.7000e-004	0.0275		303.8796	303.8796	0.0121		304.1811
Worker	0.0326	0.0152	0.2222	1.1800e-003	0.1900	6.4000e-004	0.1907	0.0504	5.9000e-004	0.0510		118.3540	118.3540	1.3500e-003		118.3877
Total	**0.0910**	**1.5877**	**0.8852**	**0.0105**	**0.4529**	**3.8900e-003**	**0.4567**	**0.1237**	**3.7000e-003**	**0.1274**		**1,128.4944**	**1,128.4944**	**0.0589**		**1,129.9662**

3.31 Plot 6 (2035) Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3630	0.0000	6.3630	0.6871	0.0000	0.6871			0.0000			0.0000
Off-Road	4.1707	16.6540	42.4916	0.0971		0.5198	0.5198		0.5198	0.5198		9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**12.2665**	**16.6540**	**42.4916**	**0.0971**	**6.3630**	**0.5198**	**6.8828**	**0.6871**	**0.5198**	**1.2069**		**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0708	1.9618	0.8466	0.0109	0.2883	3.9600e-003	0.2922	0.0790	3.7900e-003	0.0828		1,195.2106	1,195.2106	0.0769		1,197.1341
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1772**	**2.6197**	**1.6462**	**0.0182**	**0.9021**	**6.9300e-003**	**0.9090**	**0.2449**	**6.5700e-003**	**0.2514**		**1,946.9151**	**1,946.9151**	**0.0984**		**1,949.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4816	0.0000	2.4816	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	1.0953	4.8624	52.6545	0.0971		0.1527	0.1527		0.1527	0.1527	0.0000	9,890.2805	9,890.2805	0.3710		9,899.5545
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0953**	**4.8624**	**52.6545**	**0.0971**	**2.4816**	**0.1527**	**2.6342**	**0.2680**	**0.1527**	**0.4206**	**0.0000**	**9,890.2805**	**9,890.2805**	**0.3710**		**9,899.5545**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0708	1.9618	0.8466	0.0109	0.2883	3.9600e-003	0.2922	0.0790	3.7900e-003	0.0828		1,195.2106	1,195.2106	0.0769		1,197.1341
Vendor	0.0250	0.6199	0.2441	4.2500e-003	0.1387	1.3600e-003	0.1401	0.0399	1.3000e-003	0.0412		455.8194	455.8194	0.0181		456.2717
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.1772**	**2.6197**	**1.6462**	**0.0182**	**0.9021**	**6.9300e-003**	**0.9090**	**0.2449**	**6.5700e-003**	**0.2514**		**1,946.9151**	**1,946.9151**	**0.0984**		**1,949.3750**

3.32 Plot 6 (2035) Temporary Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1494	2.5094	6.1852	0.0285		0.0910	0.0910		0.0910	0.0910		3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**1.1494**	**2.5094**	**6.1852**	**0.0285**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0910**	**0.0910**		**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3414	1.4794	12.5183	0.0285		0.0455	0.0455		0.0455	0.0455	0.0000	3,233.6958	3,233.6958	0.1024		3,236.2563
Total	**0.3414**	**1.4794**	**12.5183**	**0.0285**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**0.0455**	**0.0455**	**0.0000**	**3,233.6958**	**3,233.6958**	**0.1024**		**3,236.2563**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

World Logistics Center-Construction Dust-Plots 12 and 6 - South Coast AQMD Air District, Summer

World Logistics Center-Construction Dust-Plots 12 and 6

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Parking	323041	0
tblAreaMitigation	UseLowVOCPaintParkingValue	0	100
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	12.4280	12.4754	2.2971	0.0188	210.6220	3.3200e-003	210.6254	21.0101	3.1300e-003	21.0132	0.0000	2,039.9923	2,039.9923	0.1725	0.0000	2,044.3053
2034	12.3766	11.0255	1.9749	0.0166	173.0981	2.6600e-003	173.1008	17.2672	2.5200e-003	17.2697	0.0000	1,797.2426	1,797.2426	0.1506	0.0000	1,801.0063
2035	12.3879	10.6435	2.0117	0.0161	198.7255	2.7400e-003	198.7284	19.8233	2.5800e-003	19.8259	0.0000	1,742.1142	1,742.1142	0.1422	0.0000	1,745.6685
Maximum	**12.4280**	**12.4754**	**2.2971**	**0.0188**	**210.6220**	**3.3200e-003**	**210.6254**	**21.0101**	**3.1300e-003**	**21.0132**	**0.0000**	**2,039.9923**	**2,039.9923**	**0.1725**	**0.0000**	**2,044.3053**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	12.4280	12.4754	2.2971	0.0188	84.2726	3.3200e-003	84.2759	8.4131	3.1300e-003	8.4163	0.0000	2,039.9923	2,039.9923	0.1725	0.0000	2,044.3053
2034	12.3766	11.0255	1.9749	0.0166	69.2594	2.6600e-003	69.2620	6.9146	2.5200e-003	6.9171	0.0000	1,797.2426	1,797.2426	0.1506	0.0000	1,801.0063
2035	12.3879	10.6435	2.0117	0.0161	79.5123	2.7400e-003	79.5151	7.9378	2.5800e-003	7.9404	0.0000	1,742.1142	1,742.1142	0.1422	0.0000	1,745.6685
Maximum	**12.4280**	**12.4754**	**2.2971**	**0.0188**	**84.2726**	**3.3200e-003**	**84.2759**	**8.4131**	**3.1300e-003**	**8.4163**	**0.0000**	**2,039.9923**	**2,039.9923**	**0.1725**	**0.0000**	**2,044.3053**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.99**	**0.00**	**59.99**	**59.96**	**0.00**	**59.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 12 (2033) Mass Excavation	Grading	1/1/2033	7/1/2033	5	130	1235
2	Plot 12 (2033) Finish Grading	Grading	1/1/2033	2/25/2033	5	40	1236
3	Plot 12 (2033) Utilities	Trenching	1/1/2033	12/30/2033	5	260	1241
4	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
5	Plot 12 (2033) Building-Wet Utilities	Building Construction	1/1/2033	12/30/2033	5	260	1238
6	Plot 12 (2033) Building-Electrical	Building Construction	1/1/2033	12/30/2033	5	260	1239
7	Plot 12 (2033) Building-Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1240
8	Plot 12 (2033) Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1242
9	Plot 12 (2033) Curbing/Drive Approaches	Paving	5/1/2033	8/20/2033	5	80	1244
10	Plot 12 (2033) Paving	Paving	6/1/2033	7/26/2033	5	40	1245
11	Plot 12 (2033) Temporary Utilities	Building Construction	7/2/2033	12/29/2033	5	130	1243
12	Plot 12 (2034) Utilities	Trenching	1/1/2034	12/31/2034	5	260	1250
13	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
14	Plot 12 (2034) Building-Wet Utilities	Building Construction	1/1/2034	12/31/2034	5	260	1247
15	Plot 12 (2034) Building-Electrical	Building Construction	1/1/2034	12/31/2034	5	260	1248
16	Plot 12 (2034) Building-Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1249

17	Plot 12 (2034) Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1251
18	Plot 12 (2034) Curbing/Drive Approaches	Paving	5/1/2034	8/20/2034	5	80	1253
19	Plot 12 (2034) Paving	Paving	6/1/2034	7/26/2034	5	40	1254
20	Plot 12 (2034) Temporary Utilities	Building Construction	7/2/2034	12/31/2034	5	130	1252
21	Plot 6 (2035) Mass Excavation	Grading	1/1/2035	6/30/2035	5	130	1255
22	Plot 6 (2035) Finish Grading	Grading	1/1/2035	2/25/2035	5	40	1256
23	Plot 6 (2035) Utilities	Trenching	1/1/2035	12/29/2035	5	260	1261
24	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257
25	Plot 6 (2035) Building-Wet Utilities	Building Construction	1/1/2035	12/29/2035	5	260	1258
26	Plot 6 (2035) Building-Electrical	Building Construction	1/1/2035	12/29/2035	5	260	1259
27	Plot 6 (2035) Building-Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1260
28	Plot 6 (2035) Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1262
29	Plot 6 (2035) Curbing/Drive Approaches	Paving	5/1/2035	8/20/2035	5	80	1264
30	Plot 6 (2035) Paving	Paving	6/1/2035	7/26/2035	5	40	1265
31	Plot 6 (2035) Temporary Utilities	Building Construction	7/1/2035	12/29/2035	5	130	1263

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 12 (2033) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Finish Grading		15.00	2.00	468.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Concrete		25.00	2.00	7,512.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Plot 12 (2034) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Electrical		15.00	6.00	5,008.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Landscaping		10.00	7.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Wet Utilities		25.00	15.00	2,191.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Curbing/Drive		10.00	4.00	624.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Finish Grading		15.00	2.00	520.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Landscaping		10.00	6.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Mass Excavation		50.00	9.00	1,705.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Paving		25.00	6.00	528.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Temporary Utilities		0.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Utilities		40.00	25.00	6,260.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

3.2 Plot 12 (2033) Mass Excavation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9670	0.1377	1.4600e-003	6.8249	1.7000e-004	6.8251	0.6809	1.6000e-004	0.6810		159.0257	159.0257	0.0141		159.3792
Vendor	7.2700e-003	0.4491	0.0787	5.8000e-004	4.6837	8.0000e-005	4.6837	0.4674	8.0000e-005	0.4675		63.1853	63.1853	5.2900e-003		63.3176
Worker	0.0241	5.0200e-003	0.0935	2.1000e-004	26.0154	2.7000e-004	26.0156	2.5946	2.5000e-004	2.5948		20.6446	20.6446	4.2000e-004		20.6550
Total	**0.0449**	**1.4211**	**0.3099**	**2.2500e-003**	**37.5239**	**5.2000e-004**	**37.5245**	**3.7428**	**4.9000e-004**	**3.7433**		**242.8556**	**242.8556**	**0.0199**		**243.3518**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0135	0.9670	0.1377	1.4600e-003	2.7310	1.7000e-004	2.7311	0.2727	1.6000e-004	0.2729		159.0257	159.0257	0.0141		159.3792
Vendor	7.2700e-003	0.4491	0.0787	5.8000e-004	1.8743	8.0000e-005	1.8744	0.1873	8.0000e-005	0.1874		63.1853	63.1853	5.2900e-003		63.3176
Worker	0.0241	5.0200e-003	0.0935	2.1000e-004	10.4079	2.7000e-004	10.4082	1.0385	2.5000e-004	1.0388		20.6446	20.6446	4.2000e-004		20.6550
Total	**0.0449**	**1.4211**	**0.3099**	**2.2500e-003**	**15.0132**	**5.2000e-004**	**15.0137**	**1.4985**	**4.9000e-004**	**1.4990**		**242.8556**	**242.8556**	**0.0199**		**243.3518**

3.3 Plot 12 (2033) Finish Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0121	0.8627	0.1228	1.3000e-003	6.0884	1.5000e-004	6.0885	0.6074	1.4000e-004	0.6075		141.8640	141.8640	0.0126		142.1793
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0412	14.0412	1.1800e-003		14.0706
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	7.8046	8.0000e-005	7.8047	0.7784	7.0000e-005	0.7785		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0209**	**0.9640**	**0.1684**	**1.4900e-003**	**14.9338**	**2.5000e-004**	**14.9341**	**1.4896**	**2.3000e-004**	**1.4899**		**162.0985**	**162.0985**	**0.0139**		**162.4464**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0121	0.8627	0.1228	1.3000e-003	2.4363	1.5000e-004	2.4364	0.2433	1.4000e-004	0.2434		141.8640	141.8640	0.0126		142.1793
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0412	14.0412	1.1800e-003		14.0706
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3116		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0209**	**0.9640**	**0.1684**	**1.4900e-003**	**5.9751**	**2.5000e-004**	**5.9754**	**0.5965**	**2.3000e-004**	**0.5967**		**162.0985**	**162.0985**	**0.0139**		**162.4464**

3.4 Plot 12 (2033) Utilities - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7753	0.2527	2.6800e-003	12.5290	3.1000e-004	12.5293	1.2499	2.9000e-004	1.2502		291.9357	291.9357	0.0260		292.5847
Vendor	0.0202	1.2474	0.2186	1.6200e-003	13.0101	2.3000e-004	13.0104	1.2983	2.2000e-004	1.2985		175.5146	175.5146	0.0147		175.8821
Worker	0.0193	4.0100e-003	0.0748	1.7000e-004	20.8123	2.1000e-004	20.8125	2.0757	2.0000e-004	2.0759		16.5157	16.5157	3.3000e-004		16.5240
Total	**0.0643**	**3.0267**	**0.5462**	**4.4700e-003**	**46.3515**	**7.5000e-004**	**46.3522**	**4.6239**	**7.1000e-004**	**4.6246**		**483.9661**	**483.9661**	**0.0410**		**484.9908**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7753	0.2527	2.6800e-003	5.0135	3.1000e-004	5.0138	0.5006	2.9000e-004	0.5009		291.9357	291.9357	0.0260		292.5847
Vendor	0.0202	1.2474	0.2186	1.6200e-003	5.2064	2.3000e-004	5.2067	0.5202	2.2000e-004	0.5205		175.5146	175.5146	0.0147		175.8821
Worker	0.0193	4.0100e-003	0.0748	1.7000e-004	8.3263	2.1000e-004	8.3266	0.8308	2.0000e-004	0.8310		16.5157	16.5157	3.3000e-004		16.5240
Total	**0.0643**	**3.0267**	**0.5462**	**4.4700e-003**	**18.5462**	**7.5000e-004**	**18.5470**	**1.8517**	**7.1000e-004**	**1.8524**		**483.9661**	**483.9661**	**0.0410**		**484.9908**

3.5 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1303	0.3033	3.2100e-003	15.0348	3.7000e-004	15.0352	1.4999	3.5000e-004	1.5003		350.3229	350.3229	0.0312		351.1016
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0412	14.0412	1.1800e-003		14.0706
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0435**	**2.2326**	**0.3675**	**3.4400e-003**	**29.0833**	**5.2000e-004**	**29.0839**	**2.9011**	**4.9000e-004**	**2.9016**		**374.6864**	**374.6864**	**0.0325**		**375.4997**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1303	0.3033	3.2100e-003	6.0161	3.7000e-004	6.0165	0.6008	3.5000e-004	0.6011		350.3229	350.3229	0.0312		351.1016
Vendor	1.6200e-003	0.0998	0.0175	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0412	14.0412	1.1800e-003		14.0706
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0435**	**2.2326**	**0.3675**	**3.4400e-003**	**11.6366**	**5.2000e-004**	**11.6371**	**1.1617**	**4.9000e-004**	**1.1622**		**374.6864**	**374.6864**	**0.0325**		**375.4997**

3.6 Plot 12 (2033) Building-Wet Utilities - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6214	0.0885	9.4000e-004	4.3852	1.1000e-004	4.3853	0.4375	1.0000e-004	0.4376		102.1775	102.1775	9.0800e-003		102.4046
Vendor	0.0121	0.7484	0.1312	9.7000e-004	7.8061	1.4000e-004	7.8062	0.7790	1.3000e-004	0.7791		105.3088	105.3088	8.8200e-003		105.5293
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0329**	**1.3723**	**0.2664**	**2.0100e-003**	**25.1989**	**3.8000e-004**	**25.1993**	**2.5137**	**3.5000e-004**	**2.5141**		**217.8086**	**217.8086**	**0.0181**		**218.2614**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6214	0.0885	9.4000e-004	1.7547	1.1000e-004	1.7548	0.1752	1.0000e-004	0.1753		102.1775	102.1775	9.0800e-003		102.4046
Vendor	0.0121	0.7484	0.1312	9.7000e-004	3.1239	1.4000e-004	3.1240	0.3121	1.3000e-004	0.3123		105.3088	105.3088	8.8200e-003		105.5293
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0329**	**1.3723**	**0.2664**	**2.0100e-003**	**10.0825**	**3.8000e-004**	**10.0829**	**1.0066**	**3.5000e-004**	**1.0070**		**217.8086**	**217.8086**	**0.0181**		**218.2614**

3.7 Plot 12 (2033) Building-Electrical - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4202	0.2022	2.1400e-003	10.0232	2.5000e-004	10.0235	1.0000	2.4000e-004	1.0002		233.5486	233.5486	0.0208		234.0677
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1235	42.1235	3.5300e-003		42.2117
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	7.8046	8.0000e-005	7.8047	0.7784	7.0000e-005	0.7785		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0320**	**1.7211**	**0.2827**	**2.5900e-003**	**20.9503**	**3.8000e-004**	**20.9507**	**2.0899**	**3.6000e-004**	**2.0903**		**281.8655**	**281.8655**	**0.0244**		**282.4759**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4202	0.2022	2.1400e-003	4.0108	2.5000e-004	4.0110	0.4005	2.4000e-004	0.4008		233.5486	233.5486	0.0208		234.0677
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1235	42.1235	3.5300e-003		42.2117
Worker	7.2300e-003	1.5000e-003	0.0281	6.0000e-005	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3116		6.1934	6.1934	1.2000e-004		6.1965
Total	**0.0320**	**1.7211**	**0.2827**	**2.5900e-003**	**8.3827**	**3.8000e-004**	**8.3831**	**0.8369**	**3.6000e-004**	**0.8373**		**281.8655**	**281.8655**	**0.0244**		**282.4759**

3.8 Plot 12 (2033) Building-Landscaping - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6500e-003	0.3493	0.0612	4.5000e-004	3.6428	6.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1441	49.1441	4.1200e-003		49.2470
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0105**	**0.3503**	**0.0799**	**4.9000e-004**	**8.8459**	**1.1000e-004**	**8.8460**	**0.8824**	**1.1000e-004**	**0.8825**		**53.2730**	**53.2730**	**4.2000e-003**		**53.3780**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6500e-003	0.3493	0.0612	4.5000e-004	1.4578	6.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1441	49.1441	4.1200e-003		49.2470
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0105**	**0.3503**	**0.0799**	**4.9000e-004**	**3.5394**	**1.1000e-004**	**3.5395**	**0.3534**	**1.1000e-004**	**0.3535**		**53.2730**	**53.2730**	**4.2000e-003**		**53.3780**

3.9 Plot 12 (2033) Landscaping - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1235	42.1235	3.5300e-003		42.2117
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.1289	4.1289	8.0000e-005		4.1310
Total	**9.6700e-003**	**0.3004**	**0.0712**	**4.3000e-004**	**8.3255**	**1.0000e-004**	**8.3256**	**0.8305**	**1.0000e-004**	**0.8306**		**46.2524**	**46.2524**	**3.6100e-003**		**46.3427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1235	42.1235	3.5300e-003		42.2117
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.1289	4.1289	8.0000e-005		4.1310
Total	**9.6700e-003**	**0.3004**	**0.0712**	**4.3000e-004**	**3.3311**	**1.0000e-004**	**3.3312**	**0.3326**	**1.0000e-004**	**0.3327**		**46.2524**	**46.2524**	**3.6100e-003**		**46.3427**

3.10 Plot 12 (2033) Curbing/Drive Approaches - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5751	0.0819	8.7000e-004	4.0589	1.0000e-004	4.0590	0.4049	1.0000e-004	0.4050		94.5760	94.5760	8.4100e-003		94.7862
Vendor	3.2300e-003	0.1996	0.0350	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	3.0000e-005	0.2078		28.0823	28.0823	2.3500e-003		28.1411
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0161**	**0.7757**	**0.1356**	**1.1700e-003**	**11.3436**	**1.9000e-004**	**11.3438**	**1.1316**	**1.8000e-004**	**1.1318**		**126.7873**	**126.7873**	**0.0108**		**127.0584**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5751	0.0819	8.7000e-004	1.6242	1.0000e-004	1.6243	0.1622	1.0000e-004	0.1623		94.5760	94.5760	8.4100e-003		94.7862
Vendor	3.2300e-003	0.1996	0.0350	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	3.0000e-005	0.0833		28.0823	28.0823	2.3500e-003		28.1411
Worker	4.8200e-003	1.0000e-003	0.0187	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.1289	4.1289	8.0000e-005		4.1310
Total	**0.0161**	**0.7757**	**0.1356**	**1.1700e-003**	**4.5388**	**1.9000e-004**	**4.5390**	**0.4531**	**1.8000e-004**	**0.4533**		**126.7873**	**126.7873**	**0.0108**		**127.0584**

3.11 Plot 12 (2033) Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9733	0.1386	1.4700e-003	6.8690	1.7000e-004	6.8691	0.6853	1.6000e-004	0.6854		160.0517	160.0517	0.0142		160.4074
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1235	42.1235	3.5300e-003		42.2117
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0305**	**1.2752**	**0.2378**	**1.9600e-003**	**22.9991**	**3.5000e-004**	**22.9994**	**2.2941**	**3.3000e-004**	**2.2945**		**212.4975**	**212.4975**	**0.0180**		**212.9467**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9733	0.1386	1.4700e-003	2.7486	1.7000e-004	2.7488	0.2745	1.6000e-004	0.2746		160.0517	160.0517	0.0142		160.4074
Vendor	4.8500e-003	0.2994	0.0525	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1235	42.1235	3.5300e-003		42.2117
Worker	0.0121	2.5100e-003	0.0468	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.3223	10.3223	2.1000e-004		10.3275
Total	**0.0305**	**1.2752**	**0.2378**	**1.9600e-003**	**9.2021**	**3.5000e-004**	**9.2024**	**0.9186**	**3.3000e-004**	**0.9189**		**212.4975**	**212.4975**	**0.0180**		**212.9467**

3.12 Plot 12 (2033) Temporary Utilities - 2033

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.13 Plot 12 (2034) Utilities - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7710	0.2551	2.6800e-003	12.5290	2.9000e-004	12.5293	1.2499	2.8000e-004	1.2502		292.1651	292.1651	0.0256		292.8055
Vendor	0.0201	1.2442	0.2178	1.6200e-003	13.0101	2.2000e-004	13.0104	1.2983	2.1000e-004	1.2985		175.5972	175.5972	0.0145		175.9599
Worker	0.0177	3.6700e-003	0.0698	1.6000e-004	20.8123	2.0000e-004	20.8125	2.0757	1.8000e-004	2.0759		16.2414	16.2414	3.0000e-004		16.2489
Total	**0.0627**	**3.0188**	**0.5427**	**4.4600e-003**	**46.3515**	**7.1000e-004**	**46.3522**	**4.6239**	**6.7000e-004**	**4.6246**		**484.0037**	**484.0037**	**0.0404**		**485.0143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7710	0.2551	2.6800e-003	5.0135	2.9000e-004	5.0137	0.5006	2.8000e-004	0.5009		292.1651	292.1651	0.0256		292.8055
Vendor	0.0201	1.2442	0.2178	1.6200e-003	5.2064	2.2000e-004	5.2066	0.5202	2.1000e-004	0.5204		175.5972	175.5972	0.0145		175.9599
Worker	0.0177	3.6700e-003	0.0698	1.6000e-004	8.3263	2.0000e-004	8.3265	0.8308	1.8000e-004	0.8310		16.2414	16.2414	3.0000e-004		16.2489
Total	**0.0627**	**3.0188**	**0.5427**	**4.4600e-003**	**18.5462**	**7.1000e-004**	**18.5469**	**1.8517**	**6.7000e-004**	**1.8524**		**484.0037**	**484.0037**	**0.0404**		**485.0143**

3.14 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1251	0.3061	3.2100e-003	15.0348	3.5000e-004	15.0352	1.4999	3.4000e-004	1.5003		350.5982	350.5982	0.0307		351.3666
Vendor	1.6100e-003	0.0995	0.0174	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0478	14.0478	1.1600e-003		14.0768
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0425**	**2.2270**	**0.3672**	**3.4400e-003**	**29.0833**	**5.0000e-004**	**29.0838**	**2.9011**	**4.8000e-004**	**2.9016**		**374.7968**	**374.7968**	**0.0321**		**375.5989**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0298	2.1251	0.3061	3.2100e-003	6.0161	3.5000e-004	6.0165	0.6008	3.4000e-004	0.6011		350.5982	350.5982	0.0307		351.3666
Vendor	1.6100e-003	0.0995	0.0174	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0478	14.0478	1.1600e-003		14.0768
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0425**	**2.2270**	**0.3672**	**3.4400e-003**	**11.6366**	**5.0000e-004**	**11.6371**	**1.1617**	**4.8000e-004**	**1.1621**		**374.7968**	**374.7968**	**0.0321**		**375.5989**

3.15 Plot 12 (2034) Building-Wet Utilities - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6198	0.0893	9.4000e-004	4.3852	1.0000e-004	4.3853	0.4375	1.0000e-004	0.4376		102.2578	102.2578	8.9600e-003		102.4819
Vendor	0.0121	0.7465	0.1307	9.7000e-004	7.8061	1.3000e-004	7.8062	0.7790	1.3000e-004	0.7791		105.3583	105.3583	8.7000e-003		105.5760
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0318**	**1.3686**	**0.2636**	**2.0100e-003**	**25.1989**	**3.6000e-004**	**25.1993**	**2.5137**	**3.5000e-004**	**2.5141**		**217.7670**	**217.7670**	**0.0179**		**218.2134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7000e-003	0.6198	0.0893	9.4000e-004	1.7547	1.0000e-004	1.7548	0.1752	1.0000e-004	0.1753		102.2578	102.2578	8.9600e-003		102.4819
Vendor	0.0121	0.7465	0.1307	9.7000e-004	3.1239	1.3000e-004	3.1240	0.3121	1.3000e-004	0.3123		105.3583	105.3583	8.7000e-003		105.5760
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0318**	**1.3686**	**0.2636**	**2.0100e-003**	**10.0825**	**3.6000e-004**	**10.0829**	**1.0066**	**3.5000e-004**	**1.0070**		**217.7670**	**217.7670**	**0.0179**		**218.2134**

3.16 Plot 12 (2034) Building-Electrical - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4168	0.2041	2.1400e-003	10.0232	2.4000e-004	10.0235	1.0000	2.2000e-004	1.0002		233.7321	233.7321	0.0205		234.2444
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1433	42.1433	3.4800e-003		42.2304
Worker	6.6500e-003	1.3800e-003	0.0262	6.0000e-005	7.8046	8.0000e-005	7.8047	0.7784	7.0000e-005	0.7785		6.0905	6.0905	1.1000e-004		6.0933
Total	**0.0314**	**1.7167**	**0.2825**	**2.5900e-003**	**20.9503**	**3.7000e-004**	**20.9506**	**2.0899**	**3.4000e-004**	**2.0903**		**281.9660**	**281.9660**	**0.0241**		**282.5681**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4168	0.2041	2.1400e-003	4.0108	2.4000e-004	4.0110	0.4005	2.2000e-004	0.4007		233.7321	233.7321	0.0205		234.2444
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1433	42.1433	3.4800e-003		42.2304
Worker	6.6500e-003	1.3800e-003	0.0262	6.0000e-005	3.1224	8.0000e-005	3.1225	0.3116	7.0000e-005	0.3116		6.0905	6.0905	1.1000e-004		6.0933
Total	**0.0314**	**1.7167**	**0.2825**	**2.5900e-003**	**8.3827**	**3.7000e-004**	**8.3830**	**0.8369**	**3.4000e-004**	**0.8373**		**281.9660**	**281.9660**	**0.0241**		**282.5681**

3.17 Plot 12 (2034) Building-Landscaping - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.3484	0.0610	4.5000e-004	3.6428	6.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1672	49.1672	4.0600e-003		49.2688
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0101**	**0.3493**	**0.0785**	**4.9000e-004**	**8.8459**	**1.1000e-004**	**8.8460**	**0.8824**	**1.1000e-004**	**0.8825**		**53.2276**	**53.2276**	**4.1400e-003**		**53.3310**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.3484	0.0610	4.5000e-004	1.4578	6.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1672	49.1672	4.0600e-003		49.2688
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0101**	**0.3493**	**0.0785**	**4.9000e-004**	**3.5394**	**1.1000e-004**	**3.5395**	**0.3534**	**1.1000e-004**	**0.3535**		**53.2276**	**53.2276**	**4.1400e-003**		**53.3310**

3.18 Plot 12 (2034) Landscaping - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1433	42.1433	3.4800e-003		42.2304
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.0603	4.0603	8.0000e-005		4.0622
Total	**9.2500e-003**	**0.2995**	**0.0697**	**4.3000e-004**	**8.3255**	**1.0000e-004**	**8.3256**	**0.8305**	**1.0000e-004**	**0.8306**		**46.2037**	**46.2037**	**3.5600e-003**		**46.2926**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1433	42.1433	3.4800e-003		42.2304
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.0603	4.0603	8.0000e-005		4.0622
Total	**9.2500e-003**	**0.2995**	**0.0697**	**4.3000e-004**	**3.3311**	**1.0000e-004**	**3.3312**	**0.3326**	**1.0000e-004**	**0.3327**		**46.2037**	**46.2037**	**3.5600e-003**		**46.2926**

3.19 Plot 12 (2034) Curbing/Drive Approaches - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5737	0.0826	8.7000e-004	4.0589	1.0000e-004	4.0590	0.4049	9.0000e-005	0.4050		94.6503	94.6503	8.3000e-003		94.8578
Vendor	3.2100e-003	0.1991	0.0349	2.6000e-004	2.0816	4.0000e-005	2.0817	0.2077	3.0000e-005	0.2078		28.0956	28.0956	2.3200e-003		28.1536
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	5.0000e-005	0.5190		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0157**	**0.7737**	**0.1349**	**1.1700e-003**	**11.3436**	**1.9000e-004**	**11.3438**	**1.1316**	**1.7000e-004**	**1.1317**		**126.8062**	**126.8062**	**0.0107**		**127.0736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0500e-003	0.5737	0.0826	8.7000e-004	1.6242	1.0000e-004	1.6243	0.1622	9.0000e-005	0.1623		94.6503	94.6503	8.3000e-003		94.8578
Vendor	3.2100e-003	0.1991	0.0349	2.6000e-004	0.8330	4.0000e-005	0.8331	0.0832	3.0000e-005	0.0833		28.0956	28.0956	2.3200e-003		28.1536
Worker	4.4300e-003	9.2000e-004	0.0175	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	5.0000e-005	0.2078		4.0603	4.0603	8.0000e-005		4.0622
Total	**0.0157**	**0.7737**	**0.1349**	**1.1700e-003**	**4.5388**	**1.9000e-004**	**4.5390**	**0.4531**	**1.7000e-004**	**0.4533**		**126.8062**	**126.8062**	**0.0107**		**127.0736**

3.20 Plot 12 (2034) Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9709	0.1398	1.4700e-003	6.8690	1.6000e-004	6.8691	0.6853	1.5000e-004	0.6854		160.1774	160.1774	0.0140		160.5285
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1433	42.1433	3.4800e-003		42.2304
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	13.0077	1.3000e-004	13.0078	1.2973	1.2000e-004	1.2974		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0295**	**1.2718**	**0.2358**	**1.9600e-003**	**22.9991**	**3.4000e-004**	**22.9994**	**2.2941**	**3.2000e-004**	**2.2945**		**212.4716**	**212.4716**	**0.0177**		**212.9144**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9709	0.1398	1.4700e-003	2.7486	1.6000e-004	2.7488	0.2745	1.5000e-004	0.2746		160.1774	160.1774	0.0140		160.5285
Vendor	4.8200e-003	0.2986	0.0523	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1433	42.1433	3.4800e-003		42.2304
Worker	0.0111	2.2900e-003	0.0436	1.0000e-004	5.2040	1.3000e-004	5.2041	0.5193	1.2000e-004	0.5194		10.1509	10.1509	1.9000e-004		10.1556
Total	**0.0295**	**1.2718**	**0.2358**	**1.9600e-003**	**9.2021**	**3.4000e-004**	**9.2024**	**0.9186**	**3.2000e-004**	**0.9189**		**212.4716**	**212.4716**	**0.0177**		**212.9144**

3.21 Plot 12 (2034) Temporary Utilities - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.22 Plot 6 (2035) Mass Excavation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9628	0.1399	1.4600e-003	6.8249	1.5000e-004	6.8251	0.6809	1.5000e-004	0.6810		159.2927	159.2927	0.0138		159.6377
Vendor	7.2000e-003	0.4470	0.0781	5.8000e-004	4.6837	8.0000e-005	4.6837	0.4674	7.0000e-005	0.4675		63.2525	63.2525	5.1700e-003		63.3817
Worker	0.0205	4.2400e-003	0.0820	2.0000e-004	26.0154	2.3000e-004	26.0156	2.5946	2.2000e-004	2.5948		20.0070	20.0070	3.4000e-004		20.0155
Total	**0.0413**	**1.4141**	**0.3001**	**2.2400e-003**	**37.5239**	**4.6000e-004**	**37.5244**	**3.7428**	**4.4000e-004**	**3.7433**		**242.5522**	**242.5522**	**0.0193**		**243.0349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9628	0.1399	1.4600e-003	2.7310	1.5000e-004	2.7311	0.2727	1.5000e-004	0.2729		159.2927	159.2927	0.0138		159.6377
Vendor	7.2000e-003	0.4470	0.0781	5.8000e-004	1.8743	8.0000e-005	1.8744	0.1873	7.0000e-005	0.1874		63.2525	63.2525	5.1700e-003		63.3817
Worker	0.0205	4.2400e-003	0.0820	2.0000e-004	10.4079	2.3000e-004	10.4082	1.0385	2.2000e-004	1.0388		20.0070	20.0070	3.4000e-004		20.0155
Total	**0.0413**	**1.4141**	**0.3001**	**2.2400e-003**	**15.0132**	**4.6000e-004**	**15.0137**	**1.4985**	**4.4000e-004**	**1.4990**		**242.5522**	**242.5522**	**0.0193**		**243.0349**

3.23 Plot 6 (2035) Finish Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.9544	0.1387	1.4500e-003	6.7649	1.5000e-004	6.7650	0.6749	1.5000e-004	0.6750		157.8913	157.8913	0.0137		158.2333
Vendor	1.6000e-003	0.0993	0.0174	1.3000e-004	1.0408	2.0000e-005	1.0408	0.1039	2.0000e-005	0.1039		14.0561	14.0561	1.1500e-003		14.0848
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	7.8046	7.0000e-005	7.8047	0.7784	6.0000e-005	0.7784		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0212**	**1.0550**	**0.1807**	**1.6400e-003**	**15.6103**	**2.4000e-004**	**15.6105**	**1.5571**	**2.3000e-004**	**1.5574**		**177.9495**	**177.9495**	**0.0149**		**178.3228**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0134	0.9544	0.1387	1.4500e-003	2.7069	1.5000e-004	2.7071	0.2703	1.5000e-004	0.2705		157.8913	157.8913	0.0137		158.2333
Vendor	1.6000e-003	0.0993	0.0174	1.3000e-004	0.4165	2.0000e-005	0.4165	0.0416	2.0000e-005	0.0416		14.0561	14.0561	1.1500e-003		14.0848
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0212**	**1.0550**	**0.1807**	**1.6400e-003**	**6.2458**	**2.4000e-004**	**6.2461**	**0.6235**	**2.3000e-004**	**0.6237**		**177.9495**	**177.9495**	**0.0149**		**178.3228**

3.24 Plot 6 (2035) Utilities - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7676	0.2569	2.6800e-003	12.5290	2.8000e-004	12.5293	1.2499	2.7000e-004	1.2502		292.4259	292.4259	0.0253		293.0593
Vendor	0.0200	1.2416	0.2170	1.6200e-003	13.0101	2.1000e-004	13.0104	1.2983	2.0000e-004	1.2985		175.7014	175.7014	0.0144		176.0602
Worker	0.0164	3.4000e-003	0.0656	1.6000e-004	20.8123	1.9000e-004	20.8125	2.0757	1.7000e-004	2.0758		16.0056	16.0056	2.7000e-004		16.0124
Total	**0.0613**	**3.0126**	**0.5395**	**4.4600e-003**	**46.3515**	**6.8000e-004**	**46.3522**	**4.6239**	**6.4000e-004**	**4.6245**		**484.1329**	**484.1329**	**0.0400**		**485.1319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0249	1.7676	0.2569	2.6800e-003	5.0135	2.8000e-004	5.0137	0.5006	2.7000e-004	0.5009		292.4259	292.4259	0.0253		293.0593
Vendor	0.0200	1.2416	0.2170	1.6200e-003	5.2064	2.1000e-004	5.2066	0.5202	2.0000e-004	0.5204		175.7014	175.7014	0.0144		176.0602
Worker	0.0164	3.4000e-003	0.0656	1.6000e-004	8.3263	1.9000e-004	8.3265	0.8308	1.7000e-004	0.8310		16.0056	16.0056	2.7000e-004		16.0124
Total	**0.0613**	**3.0126**	**0.5395**	**4.4600e-003**	**18.5462**	**6.8000e-004**	**18.5469**	**1.8517**	**6.4000e-004**	**1.8524**		**484.1329**	**484.1329**	**0.0400**		**485.1319**

3.25 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-003	0.1491	0.0217	2.3000e-004	1.0568	2.0000e-005	1.0568	0.1054	2.0000e-005	0.1055		24.6647	24.6647	2.1400e-003		24.7181
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	13.0077	1.2000e-004	13.0078	1.2973	1.1000e-004	1.2974		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0172**	**0.4492**	**0.1148**	**7.2000e-004**	**17.1869**	**1.9000e-004**	**17.1871**	**1.7143**	**1.8000e-004**	**1.7145**		**76.8365**	**76.8365**	**5.7500e-003**		**76.9803**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-003	0.1491	0.0217	2.3000e-004	0.4229	2.0000e-005	0.4229	0.0422	2.0000e-005	0.0423		24.6647	24.6647	2.1400e-003		24.7181
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	5.2040	1.2000e-004	5.2041	0.5193	1.1000e-004	0.5194		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0172**	**0.4492**	**0.1148**	**7.2000e-004**	**6.8764**	**1.9000e-004**	**6.8766**	**0.6864**	**1.8000e-004**	**0.6865**		**76.8365**	**76.8365**	**5.7500e-003**		**76.9803**

3.26 Plot 6 (2035) Building-Wet Utilities - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7100e-003	0.6187	0.0899	9.4000e-004	4.3852	1.0000e-004	4.3853	0.4375	9.0000e-005	0.4376		102.3491	102.3491	8.8700e-003		102.5708
Vendor	0.0120	0.7450	0.1302	9.7000e-004	7.8061	1.3000e-004	7.8062	0.7790	1.2000e-004	0.7791		105.4208	105.4208	8.6100e-003		105.6361
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	13.0077	1.2000e-004	13.0078	1.2973	1.1000e-004	1.2974		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0310**	**1.3657**	**0.2611**	**2.0100e-003**	**25.1989**	**3.5000e-004**	**25.1993**	**2.5137**	**3.2000e-004**	**2.5141**		**217.7734**	**217.7734**	**0.0177**		**218.2146**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7100e-003	0.6187	0.0899	9.4000e-004	1.7547	1.0000e-004	1.7548	0.1752	9.0000e-005	0.1753		102.3491	102.3491	8.8700e-003		102.5708
Vendor	0.0120	0.7450	0.1302	9.7000e-004	3.1239	1.3000e-004	3.1240	0.3121	1.2000e-004	0.3123		105.4208	105.4208	8.6100e-003		105.6361
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	5.2040	1.2000e-004	5.2041	0.5193	1.1000e-004	0.5194		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0310**	**1.3657**	**0.2611**	**2.0100e-003**	**10.0825**	**3.5000e-004**	**10.0829**	**1.0066**	**3.2000e-004**	**1.0070**		**217.7734**	**217.7734**	**0.0177**		**218.2146**

3.27 Plot 6 (2035) Building-Electrical - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4141	0.2055	2.1400e-003	10.0232	2.3000e-004	10.0235	1.0000	2.2000e-004	1.0002		233.9407	233.9407	0.0203		234.4474
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	7.8046	7.0000e-005	7.8047	0.7784	6.0000e-005	0.7784		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0309**	**1.7133**	**0.2822**	**2.5900e-003**	**20.9503**	**3.5000e-004**	**20.9506**	**2.0899**	**3.3000e-004**	**2.0902**		**282.1111**	**282.1111**	**0.0238**		**282.7066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0199	1.4141	0.2055	2.1400e-003	4.0108	2.3000e-004	4.0110	0.4005	2.2000e-004	0.4007		233.9407	233.9407	0.0203		234.4474
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	6.1500e-003	1.2700e-003	0.0246	6.0000e-005	3.1224	7.0000e-005	3.1225	0.3116	6.0000e-005	0.3116		6.0021	6.0021	1.0000e-004		6.0047
Total	**0.0309**	**1.7133**	**0.2822**	**2.5900e-003**	**8.3827**	**3.5000e-004**	**8.3830**	**0.8369**	**3.3000e-004**	**0.8373**		**282.1111**	**282.1111**	**0.0238**		**282.7066**

3.28 Plot 6 (2035) Building-Landscaping - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6000e-003	0.3477	0.0608	4.5000e-004	3.6428	6.0000e-005	3.6429	0.3635	6.0000e-005	0.3636		49.1964	49.1964	4.0200e-003		49.2969
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	4.0000e-005	0.5190		4.0014	4.0014	7.0000e-005		4.0031
Total	**9.7000e-003**	**0.3485**	**0.0772**	**4.9000e-004**	**8.8459**	**1.1000e-004**	**8.8460**	**0.8824**	**1.0000e-004**	**0.8825**		**53.1978**	**53.1978**	**4.0900e-003**		**53.3000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6000e-003	0.3477	0.0608	4.5000e-004	1.4578	6.0000e-005	1.4579	0.1457	6.0000e-005	0.1457		49.1964	49.1964	4.0200e-003		49.2969
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	4.0000e-005	0.2078		4.0014	4.0014	7.0000e-005		4.0031
Total	**9.7000e-003**	**0.3485**	**0.0772**	**4.9000e-004**	**3.5394**	**1.1000e-004**	**3.5395**	**0.3534**	**1.0000e-004**	**0.3535**		**53.1978**	**53.1978**	**4.0900e-003**		**53.3000**

3.29 Plot 6 (2035) Landscaping - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	4.0000e-005	0.5190		4.0014	4.0014	7.0000e-005		4.0031
Total	**8.9000e-003**	**0.2988**	**0.0685**	**4.3000e-004**	**8.3255**	**1.0000e-004**	**8.3256**	**0.8305**	**9.0000e-005**	**0.8306**		**46.1697**	**46.1697**	**3.5100e-003**		**46.2576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	4.0000e-005	0.2078		4.0014	4.0014	7.0000e-005		4.0031
Total	**8.9000e-003**	**0.2988**	**0.0685**	**4.3000e-004**	**3.3311**	**1.0000e-004**	**3.3312**	**0.3326**	**9.0000e-005**	**0.3327**		**46.1697**	**46.1697**	**3.5100e-003**		**46.2576**

3.30 Plot 6 (2035) Curbing/Drive Approaches - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0600e-003	0.5726	0.0832	8.7000e-004	4.0589	9.0000e-005	4.0590	0.4049	9.0000e-005	0.4050		94.7348	94.7348	8.2100e-003		94.9400
Vendor	3.2000e-003	0.1987	0.0347	2.6000e-004	2.0816	3.0000e-005	2.0817	0.2077	3.0000e-005	0.2078		28.1122	28.1122	2.3000e-003		28.1696
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	5.2031	5.0000e-005	5.2031	0.5189	4.0000e-005	0.5190		4.0014	4.0014	7.0000e-005		4.0031
Total	**0.0154**	**0.7721**	**0.1344**	**1.1700e-003**	**11.3436**	**1.7000e-004**	**11.3438**	**1.1316**	**1.6000e-004**	**1.1317**		**126.8484**	**126.8484**	**0.0106**		**127.1127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	4.0479					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0479**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0600e-003	0.5726	0.0832	8.7000e-004	1.6242	9.0000e-005	1.6243	0.1622	9.0000e-005	0.1623		94.7348	94.7348	8.2100e-003		94.9400
Vendor	3.2000e-003	0.1987	0.0347	2.6000e-004	0.8330	3.0000e-005	0.8331	0.0832	3.0000e-005	0.0833		28.1122	28.1122	2.3000e-003		28.1696
Worker	4.1000e-003	8.5000e-004	0.0164	4.0000e-005	2.0816	5.0000e-005	2.0816	0.2077	4.0000e-005	0.2078		4.0014	4.0014	7.0000e-005		4.0031
Total	**0.0154**	**0.7721**	**0.1344**	**1.1700e-003**	**4.5388**	**1.7000e-004**	**4.5390**	**0.4531**	**1.6000e-004**	**0.4533**		**126.8484**	**126.8484**	**0.0106**		**127.1127**

3.31 Plot 6 (2035) Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9691	0.1408	1.4700e-003	6.8690	1.6000e-004	6.8691	0.6853	1.5000e-004	0.6854		160.3204	160.3204	0.0139		160.6677
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	3.1224	5.0000e-005	3.1225	0.3116	5.0000e-005	0.3116		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	13.0077	1.2000e-004	13.0078	1.2973	1.1000e-004	1.2974		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0287**	**1.2692**	**0.2339**	**1.9600e-003**	**22.9991**	**3.3000e-004**	**22.9994**	**2.2941**	**3.1000e-004**	**2.2945**		**212.4922**	**212.4922**	**0.0175**		**212.9299**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Paving	8.0958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**8.0958**					**0.0000**	**0.0000**		**0.0000**	**0.0000**			**0.0000**			**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0136	0.9691	0.1408	1.4700e-003	2.7486	1.6000e-004	2.7487	0.2745	1.5000e-004	0.2746		160.3204	160.3204	0.0139		160.6677
Vendor	4.8000e-003	0.2980	0.0521	3.9000e-004	1.2495	5.0000e-005	1.2496	0.1249	5.0000e-005	0.1249		42.1683	42.1683	3.4400e-003		42.2545
Worker	0.0103	2.1200e-003	0.0410	1.0000e-004	5.2040	1.2000e-004	5.2041	0.5193	1.1000e-004	0.5194		10.0035	10.0035	1.7000e-004		10.0078
Total	**0.0287**	**1.2692**	**0.2339**	**1.9600e-003**	**9.2021**	**3.3000e-004**	**9.2024**	**0.9186**	**3.1000e-004**	**0.9189**		**212.4922**	**212.4922**	**0.0175**		**212.9299**

3.32 Plot 6 (2035) Temporary Utilities - 2035

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

VOC Emissions Calculations

VOC Emissions Summary

Unmitigated VOC Emissions Summary

Year	Paving Off Gassing	Parking Lot Striping VOC	Architectural Coatings (Interior)	Architectural Coatings (Exterior)	Total Daily Emissions
			lbs/day		
2020	9	61	116	39	224
2021	9	61	116	39	224
2022	9	61	116	39	224
2023	9	61	116	39	224
2024	9	61	116	39	224
2025	9	61	116	39	224
2026	9	61	116	39	224
2027	9	61	116	39	224
2028	9	61	116	39	224
2029	9	61	116	39	224
2030	9	61	116	39	224
2031	9	61	116	39	224
2032	9	61	116	39	224
2033	9	61	116	39	224
2034	9	61	116	39	224
2035	9	61	116	39	224

Mitigated VOC Emissions Summary

Year	Paving Off Gassing	Parking Lot Striping VOC	Architectural Coatings (Interior)	Architectural Coatings (Exterior)	Total Daily Emissions
			lbs/day		
2020	9	61	46	16	132
2021	9	61	46	16	132
2022	9	61	46	16	132
2023	9	61	46	16	132
2024	9	61	46	16	132
2025	9	61	46	16	132
2026	9	61	46	16	132
2027	9	61	46	16	132
2028	9	61	46	16	132
2029	9	61	46	16	132
2030	9	61	46	16	132
2031	9	61	46	16	132
2032	9	61	46	16	132
2033	9	61	46	16	132
2034	9	61	46	16	132
2035	9	61	46	16	132

Estimated VOC Off Gassing Emissions from Asphalt Paving

Plot #	Year	Acres (Total Acres)	Paved Area (Acres)	Percent Paved	Parking Lot Area to be Paved	VOC Emission Factor (lb/acre)[1]	VOC Emissions	Paving Rate (acres/day)	Days of Paving	Daily Emissions (lbs/day)
Plot 2	2020	193.5	97	33%	31.9	2.62	84	3.4	9	8.9
	2021		97	33%	31.9	2.62	84	3.4	9	8.9
Plot 4	2022	301.5	151	33%	49.7	2.62	130	3.4	15	8.9
	2023		151	33%	49.7	2.62	130	3.4	15	8.9
Plot 9	2024	485.8	243	33%	80.2	2.62	210	3.4	24	8.9
	2025		243	33%	80.2	2.62	210	3.4	24	8.9
Plots 1,3,20	2026	214.2	214	33%	70.7	2.62	185	3.4	21	8.9
Plots 5 and 10	2027	204.1	102	33%	33.7	2.62	88	3.4	10	8.9
	2028		102	33%	33.7	2.62	88	3.4	10	8.9
Plots 7,8,21,22	2029	174.2	174	33%	57.5	2.62	151	3.4	17	8.9
Plot 11	2030	500.0	167	33%	55.0	2.62	144	3.4	16	8.9
	2031		167	33%	55.0	2.62	144	3.4	16	8.9
	2032		167	33%	55.0	2.62	144	3.4	16	8.9
Plots 12 and 6	2033	346.6	116	33%	38.1	2.62	100	3.4	11	8.9
	2034		116	33%	38.1	2.62	100	3.4	11	8.9
	2035		116	33%	38.1	2.62	100	3.4	11	8.9

Notes:
1 VOC Emission Factor per CalEEMod User's Guide, Appendix A,p. 17

Estimated VOC Emissions from Parking Lot Painting (Striping)

Plot #	Year	Acres (Total Acres)	Paved Area (Acres)	Percent Paved	Parking Lot Area to be Paved	Percent of Parking Lot to be Painted	Area to be Painted (SF)	VOC Emission Factor (lb/sqft)	VOC Emissions	Paving Rate (acres/day)	Days of Paving	Daily Emissions (lbs/day)
Plot 2	2020	193.5	97	33%	31.9	6%	83446	0.005	386.5	5	6.4	60.5
	2021		97	33%	31.9	6%	83446	0.005	386.5	5	6.4	60.5
Plot 4	2022	301.5	151	33%	49.7	6%	130020	0.005	602.2	5	9.9	60.5
	2023		151	33%	49.7	6%	130020	0.005	602.2	5	9.9	60.5
Plot 9	2024	485.8	243	33%	80.2	6%	209498	0.005	970.3	5	16.0	60.5
	2025		243	33%	80.2	6%	209498	0.005	970.3	5	16.0	60.5
Plots 1,3,20	2026	214.2	214	33%	70.7	6%	184745	0.005	855.7	5	14.1	60.5
Plots 5 and 10	2027	204.1	102	33%	33.7	6%	88017	0.005	407.7	5	6.7	60.5
	2028		102	33%	33.7	6%	88017	0.005	407.7	5	6.7	60.5
Plots 7,8,21,22	2029	174.2	174	33%	57.5	6%	150245	0.005	695.9	5	11.5	60.5
Plot 11	2030	500.0	167	33%	55.0	6%	143748	0.005	665.8	5	11.0	60.5
	2031		167	33%	55.0	6%	143748	0.005	665.8	5	11.0	60.5
	2032		167	33%	55.0	6%	143748	0.005	665.8	5	11.0	60.5
Plots 12 and 6	2033	346.6	116	33%	38.1	6%	99646	0.005	461.5	5	7.6	60.5
	2034		116	33%	38.1	6%	99646	0.005	461.5	5	7.6	60.5
	2035		116	33%	38.1	6%	99646	0.005	461.5	5	7.6	60.5

Notes:

1 CalEEMod Default VOC Emissios Factor for Parking Lot Paint

2 Current Standard for Traffic Coatings in SCAQMD Rule 1113

http://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/tos

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$$EF_{AC} = C_{VOC} / 454(g/lb) \times 3.785(L/Gal) / 180(sqft)$$

Where:

EF = emission factor (lb/sqft)

C = VOC content (g/L). This varies by location and year

Emission Factor (lb/sqft)	**0.005**
C_{VOC} (g/L)[1]	100
Weight Conversion (g/lb)	454
Volume Conversion (L/Gal)	3.785
Area Conversion (sqft/gal)	180

Estimated VOC Emissions from Architectural Coatings (Interior)

Unmitigated

Year	Buildings	Office Area per Building	Coats	Area to be Painted (SF)	VOC Emissions	Days of Painting	Daily VOC Emissions (lbs/day)
2020	1.4	50000	2	140000	1621	14	116
2021	1.4	50000	2	140000	1621	14	116
2022	1.9	50000	2	186667	2161	19	116
2023	1.9	50000	2	186667	2161	19	116
2024	3.5	50000	2	346667	4014	35	116
2025	3.5	50000	2	346667	4014	35	116
2026	1.8	50000	2	183000	2119	18	116
2027	0.7	50000	2	73334	849	7	116
2028	1.5	50000	2	146667	1698	15	116
2029	1.6	50000	2	156667	1814	16	116
2030	1.8	50000	2	177778	2059	18	116
2031	1.8	50000	2	177778	2059	18	116
2032	1.8	50000	2	177778	2059	18	116
2033	1.2	50000	2	116667	1351	12	116
2034	1.2	50000	2	116667	1351	12	116
2035	0.3	50000	2	33334	386	3	116

The emission factor (EF) is based on the VOC content of the surface coatings and is calculated estimated using the equation below:

$$EF_{AC} = C_{VOC} / 454(g/lb) \times 3.785(L/Gal) / 180(sqft)$$

Where:

EF = emission factor (lb/sqft)

C = VOC content (g/L). This varies by location and year

Unmitigated

Emission Factor (lb/sqft)	0.012
C_{VOC} (g/L)[1]	**250**
Weight Conversion (g/lb)	454
Volume Conversion (L/Gal)	3.785
Area Conversion (sqft)	180

Mitigated

Year	Buildings	Office Area per Building	Coats	Area to be Painted (SF)	VOC Emissions	Days of Painting	Daily VOC Emissions (lbs/day)
2020	1.4	50000	2	140000	648	14	46
2021	1.4	50000	2	140000	648	14	46
2022	1.9	50000	2	186667	865	19	46
2023	1.9	50000	2	186667	865	19	46
2024	3.5	50000	2	346667	1606	35	46
2025	3.5	50000	2	346667	1606	35	46
2026	1.8	50000	2	183000	848	18	46
2027	0.7	50000	2	73334	340	7	46
2028	1.5	50000	2	146667	679	15	46
2029	1.6	50000	2	156667	726	16	46
2030	1.8	50000	2	177778	823	18	46
2031	1.8	50000	2	177778	823	18	46
2032	1.8	50000	2	177778	823	18	46
2033	1.2	50000	2	116667	540	12	46
2034	1.2	50000	2	116667	540	12	46
2035	0.3	50000	2	33334	154	3	46

Mitigated

Emission Factor (lb/sqft)	0.005
C_{VOC} (g/L)[1]	**100**
Weight Conversion (g/lb)	454
Volume Conversion (L/Gal)	3.785
Area Conversion (sqft)	180

Estimated Area of Building Exterior to be Painted

Unmitigated Emissions

Year	Area (Million SF)	Buidling Size (Million SF)	Buildings	Building Perimeter (feet)	Building Height (feet)	Area to be Painted per Building (sqft)	Coats	Area to Be Painted (sqft)	VOC Emission Factor (lb/sqft)[1]	VOC Emissions (lbs)	Days of Painting	VOC Emissions (lbs/day)
2020	2.1	1.5	1.4	4899	40	195959	2	548686	0.003	1646	42	39
2021	2.1	1.5	1.4	4899	40	195959	2	548686	0.003	1646	42	39
2022	2.8	1.5	1.9	4899	40	195959	2	731581	0.003	2195	56	39
2023	2.8	1.5	1.9	4899	40	195959	2	731581	0.003	2195	56	39
2024	5.2	1.5	3.5	4899	40	195959	2	1358650	0.003	4076	104	39
2025	5.2	1.5	3.5	4899	40	195959	2	1358650	0.003	4076	104	39
2026	2.7	1.5	1.8	4899	40	195959	2	717211	0.003	2152	55	39
2027	1.1	1.5	0.7	4899	40	195959	2	287407	0.003	862	22	39
2028	2.2	1.5	1.5	4899	40	195959	2	574814	0.003	1724	44	39
2029	2.4	1.5	1.6	4899	40	195959	2	614005	0.003	1842	47	39
2030	2.7	1.5	1.8	4899	40	195959	2	696744	0.003	2090	53	39
2031	2.7	1.5	1.8	4899	40	195959	2	696744	0.003	2090	53	39
2032	2.7	1.5	1.8	4899	40	195959	2	696744	0.003	2090	53	39
2033	1.8	1.5	1.2	4899	40	195959	2	457238	0.003	1372	35	39
2034	1.8	1.5	1.2	4899	40	195959	2	457238	0.003	1372	35	39
2035	0.5	1.5	0.3	4899	40	195959	2	130639	0.003	392	10	39

Mitigated Emissions

Year	Area (Million SF)	Buidling Size (Million SF)	Buildings	Building Perimeter (feet)	Building Height (feet)	Area to be Painted per Building (sqft)	Coats	Area to Be Painted (sqft)	VOC Emission Factor (lb/sqft)[2]	VOC Emissions (lbs)	Days of Painting	VOC Emissions (lbs/day)
2020	2.1	1.5	1.4	4899	40	195959	2	548686	0.001	686	42	16
2021	2.1	1.5	1.4	4899	40	195959	2	548686	0.001	686	42	16
2022	2.8	1.5	1.9	4899	40	195959	2	731581	0.001	915	56	16
2023	2.8	1.5	1.9	4899	40	195959	2	731581	0.001	915	56	16
2024	5.2	1.5	3.5	4899	40	195959	2	1358650	0.001	1699	104	16
2025	5.2	1.5	3.5	4899	40	195959	2	1358650	0.001	1699	104	16
2026	2.7	1.5	1.8	4899	40	195959	2	717211	0.001	897	55	16
2027	1.1	1.5	0.7	4899	40	195959	2	287407	0.001	359	22	16
2028	2.2	1.5	1.5	4899	40	195959	2	574814	0.001	719	44	16
2029	2.4	1.5	1.6	4899	40	195959	2	614005	0.001	768	47	16
2030	2.7	1.5	1.8	4899	40	195959	2	696744	0.001	871	53	16
2031	2.7	1.5	1.8	4899	40	195959	2	696744	0.001	871	53	16
2032	2.7	1.5	1.8	4899	40	195959	2	696744	0.001	871	53	16
2033	1.8	1.5	1.2	4899	40	195959	2	457238	0.001	572	35	16
2034	1.8	1.5	1.2	4899	40	195959	2	457238	0.001	572	35	16
2035	0.5	1.5	0.3	4899	40	195959	2	130639	0.001	163	10	16

Notes:

1 Unmitigated emission rate based on Revised DEIR calculations found in AQ GHG HRA Appendix A Construction, VOC content equivalent to approximately 70 g/L

2 Mitigated emission rate based on Revised DEIR calculations found in AQ GHG HRA Appendix A Construction, VOC content equivalent to approximately 28 g/L

A-3 Greenhouse Gas Emissions

World Logistics Center-Construction Plots 2 & 4 (2020-2023)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	6.1735	64.0575	45.7371	0.1147	8.3095	2.6022	10.9116	0.9902	2.3950	3.3852	0.0000	10,194.8238	10,194.8238	2.9089	0.0000	10,267.5458
2021	5.3562	49.1964	48.3583	0.1130	7.0958	2.2008	9.2966	0.8899	2.0308	2.9207	0.0000	10,078.0149	10,078.0149	2.6903	0.0000	10,145.2735
2022	6.9743	67.4433	62.1593	0.1500	9.3188	2.7462	12.0650	1.1460	2.5320	3.6780	0.0000	13,341.5699	13,341.5699	3.7020	0.0000	13,434.1193
2023	4.4550	36.9829	46.9803	0.1121	7.0958	1.5533	8.6491	0.8899	1.4336	2.3235	0.0000	9,990.0103	9,990.0103	2.6806	0.0000	10,057.0261
Maximum	**6.9743**	**67.4433**	**62.1593**	**0.1500**	**9.3188**	**2.7462**	**12.0650**	**1.1460**	**2.5320**	**3.6780**	**0.0000**	**13,341.5699**	**13,341.5699**	**3.7020**	**0.0000**	**13,434.1193**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	2.3809	17.3685	51.7981	0.1147	3.5822	0.4408	4.0230	0.4798	0.4172	0.8970	0.0000	10,194.8133	10,194.8133	2.9089	0.0000	10,267.5353
2021	2.5066	19.5491	55.6911	0.1130	3.2215	0.4675	3.6890	0.4715	0.4410	0.9125	0.0000	10,078.0052	10,078.0052	2.6903	0.0000	10,145.2636
2022	2.8557	20.1866	72.0165	0.1500	4.1490	0.4665	4.6156	0.5878	0.4447	1.0325	0.0000	13,341.5565	13,341.5565	3.7020	0.0000	13,434.1057
2023	2.2856	15.5920	55.1504	0.1121	3.2215	0.3620	3.5835	0.4715	0.3435	0.8150	0.0000	9,990.0005	9,990.0005	2.6806	0.0000	10,057.0162
Maximum	**2.8557**	**20.1866**	**72.0165**	**0.1500**	**4.1490**	**0.4675**	**4.6156**	**0.5878**	**0.4447**	**1.0325**	**0.0000**	**13,341.5565**	**13,341.5565**	**3.7020**	**0.0000**	**13,434.1057**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**56.32**	**66.60**	**-15.46**	**0.00**	**55.45**	**80.92**	**61.12**	**48.66**	**80.38**	**70.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2020**	**3-31-2020**	21.9426	4.5232
2	**4-1-2020**	**6-30-2020**	22.1946	4.5324
3	**7-1-2020**	**9-30-2020**	12.3653	4.9873
4	**10-1-2020**	**12-31-2020**	13.6250	5.6029
5	**1-1-2021**	**3-31-2021**	12.6097	5.2129
6	**4-1-2021**	**6-30-2021**	13.8522	5.6654
7	**7-1-2021**	**9-30-2021**	14.5221	5.7198
8	**10-1-2021**	**12-31-2021**	13.4410	5.3300
9	**1-1-2022**	**3-31-2022**	24.2771	6.1195
10	**4-1-2022**	**6-30-2022**	25.7484	6.6017
11	**7-1-2022**	**9-30-2022**	12.6897	5.2960
12	**10-1-2022**	**12-31-2022**	11.5783	4.9010
13	**1-1-2023**	**3-31-2023**	9.5667	4.2129
14	**4-1-2023**	**6-30-2023**	10.5720	4.6161
15	**7-1-2023**	**9-30-2023**	11.0558	4.6672
		Highest	25.7484	6.6017

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2020) Mass Excavation	Grading	1/1/2020	6/30/2020	5	130	11
2	Plot 2 (2020) Utilities	Trenching	1/1/2020	12/29/2020	5	260	15
3	Plot 2 (2020) Landscaping	Building Construction	1/1/2020	12/29/2020	5	260	16
4	Plot 2 (2020) Finish Grading	Grading	5/7/2020	7/1/2020	5	40	12
5	Plot 2 (2020) Building-Wet Utilities	Building Construction	7/2/2020	12/30/2020	5	130	13
6	Plot 2 (2020) Building-Electrical	Building Construction	7/2/2020	12/30/2020	5	130	14
7	Plot 2 (2020) Temporary Utilities	Building Construction	7/2/2020	12/30/2020	5	130	17
8	Plot 2 (2020) Curbing/Drive Approaches	Paving	11/5/2020	12/30/2020	5	40	18
9	Plot 2 (2020) Paving	Paving	12/3/2020	12/30/2020	5	20	19
10	Plot 2 (2021) Utilities	Trenching	1/1/2021	12/30/2021	5	260	24
11	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	20
12	Plot 2 (2021) Building-Wet Utilities	Building Construction	1/1/2021	12/30/2021	5	260	21
13	Plot 2 (2021) Building-Electrical	Building Construction	1/1/2021	12/30/2021	5	260	22
14	Plot 2 (2021) Building-Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	23
15	Plot 2 (2021) Landscaping	Building Construction	1/1/2021	12/30/2021	5	260	25
16	Plot 2 (2021) Curbing/Drive Approaches	Paving	5/1/2021	8/20/2021	5	80	27
17	Plot 2 (2021) Paving	Paving	6/1/2021	7/26/2021	5	40	28
18	Plot 2 (2021) Temporary Utilities	Building Construction	7/2/2021	12/30/2021	5	130	26
19	Plot 4 (2022) Mass Excavation	Grading	1/1/2022	7/1/2022	5	130	29
20	Plot 4 (2022) Utilities	Trenching	1/1/2022	12/30/2022	5	260	35
21	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	31
22	Plot 4 (2022) Building-Wet Utilities	Building Construction	1/1/2022	12/30/2022	5	260	32
23	Plot 4 (2022) Building-Electrical	Building Construction	1/1/2022	12/30/2022	5	260	33
24	Plot 4 (2022) Building-Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	34

25	Plot 4 (2022) Landscaping	Building Construction	1/1/2022	12/30/2022	5	260	36
26	Plot 4 (2022) Curbing/Drive Approaches	Paving	5/1/2022	8/20/2022	5	80	38
27	Plot 4 (2022) Finish Grading	Grading	5/7/2022	7/1/2022	5	40	30
28	Plot 4 (2022) Paving	Paving	6/1/2022	7/26/2022	5	40	39
29	Plot 4 (2022) Temporary Utilities	Building Construction	7/2/2022	12/30/2022	5	130	37
30	Plot 4 (2023) Utilities	Trenching	1/1/2023	12/30/2023	5	260	44
31	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	40
32	Plot 4 (2023) Building-Wet Utilities	Building Construction	1/1/2023	12/30/2023	5	260	41
33	Plot 4 (2023) Building-Electrical	Building Construction	1/1/2023	12/30/2023	5	260	42
34	Plot 4 (2023) Building-Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	43
35	Plot 4 (2023) Landscaping	Building Construction	1/1/2023	12/30/2023	5	260	45
36	Plot 4 (2023) Curbing/Drive Approaches	Paving	5/1/2023	8/20/2023	5	80	47
37	Plot 4 (2023) Paving	Paving	6/1/2023	7/26/2023	5	40	48
38	Plot 4 (2023) Temporary Utilities	Building Construction	7/2/2023	12/30/2023	5	130	46

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 2 (2020) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2020) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2020) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2020) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2020) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 2 (2020) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 2 (2020) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 2 (2020) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 2 (2020) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 2 (2020) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 2 (2020) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2020) Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2020) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2020) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 2 (2020) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2020) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37

Plot 2 (2020) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2020) Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2020) Mass Excavation	Graders	1	10.00	193	0.41
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 2 (2020) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 2 (2020) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 2 (2020) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 2 (2020) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2020) Paving	Pavers	2	10.00	126	0.42
Plot 2 (2020) Paving	Paving Equipment	2	10.00	131	0.36
Plot 2 (2020) Paving	Plate Compactors	2	10.00	8	0.43
Plot 2 (2020) Paving	Rollers	2	10.00	81	0.38
Plot 2 (2020) Paving	Scrapers	2	10.00	362	0.48
Plot 2 (2020) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 2 (2020) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 2 (2020) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 2 (2020) Utilities	Excavators	2	10.00	523	0.38
Plot 2 (2020) Utilities	Excavators	10	10.00	286	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38
Plot 2 (2020) Utilities	Excavators	4	10.00	396	0.38
Plot 2 (2020) Utilities	Excavators	2	10.00	190	0.38

Plot 2 (2020) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2020) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2020) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2020) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2020) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2020) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 2 (2021) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 2 (2021) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 2 (2021) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 2 (2021) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 2 (2021) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 2 (2021) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 2 (2021) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 2 (2021) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 2 (2021) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 2 (2021) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 2 (2021) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 2 (2021) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 2 (2021) Building-Wet Utilities	Rubber Tired Loaders		6	10.00	152	0.36
Plot 2 (2021) Building-Wet Utilities	Tractors/Loaders/Backhoes		6	10.00	108	0.37
Plot 2 (2021) Curbing/Drive Approaches	Cement and Mortar Mixers		6	1.00	9	0.56
Plot 2 (2021) Curbing/Drive Approaches	Other Material Handling Equipment		4	1.00	167	0.40
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment		1	10.00	99	0.36
Plot 2 (2021) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plot 2 (2021) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plot 2 (2021) Landscaping	Excavators		2	10.00	29	0.38
Plot 2 (2021) Landscaping	Forklifts		2	10.00	125	0.20
Plot 2 (2021) Landscaping	Other Material Handling Equipment		2	1.00	167	0.40
Plot 2 (2021) Landscaping	Other Material Handling Equipment		10	1.00	167	0.40
Plot 2 (2021) Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plot 2 (2021) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plot 2 (2021) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plot 2 (2021) Landscaping	Trenchers		2	10.00	39	0.50
Plot 2 (2021) Paving	Other Material Handling Equipment		6	1.00	167	0.40
Plot 2 (2021) Paving	Pavers		2	10.00	126	0.42
Plot 2 (2021) Paving	Paving Equipment		2	10.00	131	0.36
Plot 2 (2021) Paving	Plate Compactors		2	10.00	8	0.43
Plot 2 (2021) Paving	Rollers		2	10.00	81	0.38
Plot 2 (2021) Paving	Scrapers		2	10.00	362	0.48
Plot 2 (2021) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plot 2 (2021) Temporary Utilities	Cranes		2	10.00	445	0.29
Plot 2 (2021) Utilities	Cement and Mortar Mixers		8	1.00	9	0.56
Plot 2 (2021) Utilities	Excavators		2	10.00	523	0.38
Plot 2 (2021) Utilities	Excavators		10	10.00	286	0.38
Plot 2 (2021) Utilities	Excavators		2	10.00	190	0.38
Plot 2 (2021) Utilities	Excavators		4	10.00	396	0.38
Plot 2 (2021) Utilities	Excavators		2	10.00	190	0.38

Plot 2 (2021) Utilities	Excavators	2	10.00	188	0.38
Plot 2 (2021) Utilities	Excavators	8	10.00	40	0.38
Plot 2 (2021) Utilities	Forklifts	4	10.00	89	0.20
Plot 2 (2021) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 2 (2021) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 2 (2021) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2022) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2022) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2022) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2022) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2022) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2022) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40

Plot 4 (2022) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2022) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2022) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2022) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2022) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2022) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2022) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2022) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2022) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 4 (2022) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2022) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2022) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2022) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2022) Mass Excavation	Graders	1	10.00	193	0.41
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40

Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 4 (2022) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 4 (2022) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Scrapers	10	10.00	550	0.48
Plot 4 (2022) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 4 (2022) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2022) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2022) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2022) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2022) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2022) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2022) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2022) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2022) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2022) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2022) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2022) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2022) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2022) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2022) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2022) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2022) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 4 (2023) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 4 (2023) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 4 (2023) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 4 (2023) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 4 (2023) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 4 (2023) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 4 (2023) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 4 (2023) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 4 (2023) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 4 (2023) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 4 (2023) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 4 (2023) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 4 (2023) Landscaping	Excavators	2	10.00	29	0.38
Plot 4 (2023) Landscaping	Forklifts	2	10.00	125	0.20
Plot 4 (2023) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 4 (2023) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plot 4 (2023) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 4 (2023) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 4 (2023) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 4 (2023) Landscaping	Trenchers	2	10.00	39	0.50
Plot 4 (2023) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 4 (2023) Paving	Pavers	2	10.00	126	0.42
Plot 4 (2023) Paving	Paving Equipment	2	10.00	131	0.36
Plot 4 (2023) Paving	Plate Compactors	2	10.00	8	0.43
Plot 4 (2023) Paving	Rollers	2	10.00	81	0.38
Plot 4 (2023) Paving	Scrapers	2	10.00	362	0.48
Plot 4 (2023) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 4 (2023) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 4 (2023) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 4 (2023) Utilities	Excavators	2	10.00	523	0.38
Plot 4 (2023) Utilities	Excavators	10	10.00	286	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	4	10.00	396	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	190	0.38
Plot 4 (2023) Utilities	Excavators	2	10.00	188	0.38
Plot 4 (2023) Utilities	Excavators	8	10.00	40	0.38
Plot 4 (2023) Utilities	Forklifts	4	10.00	89	0.20
Plot 4 (2023) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 4 (2023) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 4 (2023) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 2 (2020) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Finish Grading		15.00	2.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2020) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Finish Grading		15.00	2.00	52.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 2 (2020) Mass Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9519	0.0000	1.9519	0.2108	0.0000	0.2108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2745	27.4086	15.0045	0.0333		1.0396	1.0396		0.9564	0.9564	0.0000	2,929.8838	2,929.8838	0.9476	0.0000	2,953.5734
Total	**2.2745**	**27.4086**	**15.0045**	**0.0333**	**1.9519**	**1.0396**	**2.9914**	**0.2108**	**0.9564**	**1.1672**	**0.0000**	**2,929.8838**	**2,929.8838**	**0.9476**	**0.0000**	**2,953.5734**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.8100e-003	0.2785	0.0568	8.0000e-004	0.0183	9.3000e-004	0.0193	5.0300e-003	8.9000e-004	5.9200e-003	0.0000	78.2130	78.2130	5.1600e-003	0.0000	78.3420
Vendor	4.8300e-003	0.1328	0.0332	4.5000e-004	0.0133	1.0600e-003	0.0144	3.8400e-003	1.0100e-003	4.8500e-003	0.0000	43.7114	43.7114	1.9300e-003	0.0000	43.7596
Worker	0.0224	0.0182	0.1990	6.0000e-004	0.0606	4.5000e-004	0.0611	0.0161	4.2000e-004	0.0165	0.0000	54.1229	54.1229	1.5200e-003	0.0000	54.1608
Total	**0.0351**	**0.4295**	**0.2891**	**1.8500e-003**	**0.0923**	**2.4400e-003**	**0.0947**	**0.0250**	**2.3200e-003**	**0.0273**	**0.0000**	**176.0473**	**176.0473**	**8.6100e-003**	**0.0000**	**176.2623**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7612	0.0000	0.7612	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4098	1.7757	15.3282	0.0333		0.0546	0.0546		0.0546	0.0546	0.0000	2,929.8803	2,929.8803	0.9476	0.0000	2,953.5698
Total	**0.4098**	**1.7757**	**15.3282**	**0.0333**	**0.7612**	**0.0546**	**0.8159**	**0.0822**	**0.0546**	**0.1368**	**0.0000**	**2,929.8803**	**2,929.8803**	**0.9476**	**0.0000**	**2,953.5698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.8100e-003	0.2785	0.0568	8.0000e-004	0.0183	9.3000e-004	0.0193	5.0300e-003	8.9000e-004	5.9200e-003	0.0000	78.2130	78.2130	5.1600e-003	0.0000	78.3420
Vendor	4.8300e-003	0.1328	0.0332	4.5000e-004	0.0133	1.0600e-003	0.0144	3.8400e-003	1.0100e-003	4.8500e-003	0.0000	43.7114	43.7114	1.9300e-003	0.0000	43.7596
Worker	0.0224	0.0182	0.1990	6.0000e-004	0.0606	4.5000e-004	0.0611	0.0161	4.2000e-004	0.0165	0.0000	54.1229	54.1229	1.5200e-003	0.0000	54.1608
Total	**0.0351**	**0.4295**	**0.2891**	**1.8500e-003**	**0.0923**	**2.4400e-003**	**0.0947**	**0.0250**	**2.3200e-003**	**0.0273**	**0.0000**	**176.0473**	**176.0473**	**8.6100e-003**	**0.0000**	**176.2623**

3.3 Plot 2 (2020) Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8961	18.7315	15.3117	0.0450		0.7934	0.7934		0.7301	0.7301	0.0000	3,950.2954	3,950.2954	1.2763	0.0000	3,982.2028
Total	**1.8961**	**18.7315**	**15.3117**	**0.0450**	**3.3194**	**0.7934**	**4.1128**	**0.3584**	**0.7301**	**1.0885**	**0.0000**	**3,950.2954**	**3,950.2954**	**1.2763**	**0.0000**	**3,982.2028**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0287	1.0225	0.2087	2.9300e-003	0.0673	3.4200e-003	0.0707	0.0185	3.2700e-003	0.0217	0.0000	287.1633	287.1633	0.0189	0.0000	287.6368
Vendor	0.0268	0.7375	0.1847	2.5100e-003	0.0740	5.8900e-003	0.0799	0.0213	5.6300e-003	0.0270	0.0000	242.8410	242.8410	0.0107	0.0000	243.1086
Worker	0.0359	0.0292	0.3185	9.6000e-004	0.0970	7.3000e-004	0.0977	0.0258	6.7000e-004	0.0264	0.0000	86.5966	86.5966	2.4300e-003	0.0000	86.6573
Total	**0.0914**	**1.7892**	**0.7118**	**6.4000e-003**	**0.2382**	**0.0100**	**0.2483**	**0.0655**	**9.5700e-003**	**0.0751**	**0.0000**	**616.6009**	**616.6009**	**0.0321**	**0.0000**	**617.4027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9526	7.8137	20.1216	0.0450		0.2490	0.2490		0.2330	0.2330	0.0000	3,950.2907	3,950.2907	1.2763	0.0000	3,982.1981
Total	**0.9526**	**7.8137**	**20.1216**	**0.0450**	**1.2946**	**0.2490**	**1.5435**	**0.1398**	**0.2330**	**0.3728**	**0.0000**	**3,950.2907**	**3,950.2907**	**1.2763**	**0.0000**	**3,982.1981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0287	1.0225	0.2087	2.9300e-003	0.0673	3.4200e-003	0.0707	0.0185	3.2700e-003	0.0217	0.0000	287.1633	287.1633	0.0189	0.0000	287.6368
Vendor	0.0268	0.7375	0.1847	2.5100e-003	0.0740	5.8900e-003	0.0799	0.0213	5.6300e-003	0.0270	0.0000	242.8410	242.8410	0.0107	0.0000	243.1086
Worker	0.0359	0.0292	0.3185	9.6000e-004	0.0970	7.3000e-004	0.0977	0.0258	6.7000e-004	0.0264	0.0000	86.5966	86.5966	2.4300e-003	0.0000	86.6573
Total	**0.0914**	**1.7892**	**0.7118**	**6.4000e-003**	**0.2382**	**0.0100**	**0.2483**	**0.0655**	**9.5700e-003**	**0.0751**	**0.0000**	**616.6009**	**616.6009**	**0.0321**	**0.0000**	**617.4027**

3.4 Plot 2 (2020) Landscaping - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4950	4.3098	4.6870	6.5500e-003		0.2494	0.2494		0.2295	0.2295	0.0000	575.4720	575.4720	0.1861	0.0000	580.1250
Total	**0.4950**	**4.3098**	**4.6870**	**6.5500e-003**	**0.2073**	**0.2494**	**0.4568**	**0.0224**	**0.2295**	**0.2519**	**0.0000**	**575.4720**	**575.4720**	**0.1861**	**0.0000**	**580.1250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4300e-003	0.1770	0.0443	6.0000e-004	0.0178	1.4100e-003	0.0192	5.1200e-003	1.3500e-003	6.4700e-003	0.0000	58.2819	58.2819	2.5700e-003	0.0000	58.3461
Worker	8.9700e-003	7.2900e-003	0.0796	2.4000e-004	0.0243	1.8000e-004	0.0244	6.4400e-003	1.7000e-004	6.6100e-003	0.0000	21.6492	21.6492	6.1000e-004	0.0000	21.6643
Total	**0.0154**	**0.1843**	**0.1239**	**8.4000e-004**	**0.0420**	**1.5900e-003**	**0.0436**	**0.0116**	**1.5200e-003**	**0.0131**	**0.0000**	**79.9310**	**79.9310**	**3.1800e-003**	**0.0000**	**80.0104**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2082	1.7755	5.0541	6.5500e-003		0.0552	0.0552		0.0515	0.0515	0.0000	575.4713	575.4713	0.1861	0.0000	580.1243
Total	**0.2082**	**1.7755**	**5.0541**	**6.5500e-003**	**0.0809**	**0.0552**	**0.1360**	**8.7300e-003**	**0.0515**	**0.0602**	**0.0000**	**575.4713**	**575.4713**	**0.1861**	**0.0000**	**580.1243**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4300e-003	0.1770	0.0443	6.0000e-004	0.0178	1.4100e-003	0.0192	5.1200e-003	1.3500e-003	6.4700e-003	0.0000	58.2819	58.2819	2.5700e-003	0.0000	58.3461
Worker	8.9700e-003	7.2900e-003	0.0796	2.4000e-004	0.0243	1.8000e-004	0.0244	6.4400e-003	1.7000e-004	6.6100e-003	0.0000	21.6492	21.6492	6.1000e-004	0.0000	21.6643
Total	**0.0154**	**0.1843**	**0.1239**	**8.4000e-004**	**0.0420**	**1.5900e-003**	**0.0436**	**0.0116**	**1.5200e-003**	**0.0131**	**0.0000**	**79.9310**	**79.9310**	**3.1800e-003**	**0.0000**	**80.0104**

3.5 Plot 2 (2020) Finish Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0689	0.0000	0.0689	7.4400e-003	0.0000	7.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0240	0.2375	0.1647	2.2000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	19.0964	19.0964	6.1800e-003	0.0000	19.2509
Total	**0.0240**	**0.2375**	**0.1647**	**2.2000e-004**	**0.0689**	**0.0138**	**0.0827**	**7.4400e-003**	**0.0127**	**0.0201**	**0.0000**	**19.0964**	**19.0964**	**6.1800e-003**	**0.0000**	**19.2509**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3000e-004	9.0800e-003	2.2700e-003	3.0000e-005	9.1000e-004	7.0000e-005	9.8000e-004	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	2.9888	2.9888	1.3000e-004	0.0000	2.9921
Worker	2.0700e-003	1.6800e-003	0.0184	6.0000e-005	5.6000e-003	4.0000e-005	5.6400e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	4.9960	4.9960	1.4000e-004	0.0000	4.9995
Total	**2.4000e-003**	**0.0108**	**0.0206**	**9.0000e-005**	**6.5100e-003**	**1.1000e-004**	**6.6200e-003**	**1.7500e-003**	**1.1000e-004**	**1.8500e-003**	**0.0000**	**7.9848**	**7.9848**	**2.7000e-004**	**0.0000**	**7.9916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0269	0.0000	0.0269	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0116	0.1645	2.2000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	19.0964	19.0964	6.1800e-003	0.0000	19.2508
Total	**2.6700e-003**	**0.0116**	**0.1645**	**2.2000e-004**	**0.0269**	**3.6000e-004**	**0.0272**	**2.9000e-003**	**3.6000e-004**	**3.2600e-003**	**0.0000**	**19.0964**	**19.0964**	**6.1800e-003**	**0.0000**	**19.2508**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3000e-004	9.0800e-003	2.2700e-003	3.0000e-005	9.1000e-004	7.0000e-005	9.8000e-004	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	2.9888	2.9888	1.3000e-004	0.0000	2.9921
Worker	2.0700e-003	1.6800e-003	0.0184	6.0000e-005	5.6000e-003	4.0000e-005	5.6400e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	4.9960	4.9960	1.4000e-004	0.0000	4.9995
Total	**2.4000e-003**	**0.0108**	**0.0206**	**9.0000e-005**	**6.5100e-003**	**1.1000e-004**	**6.6200e-003**	**1.7500e-003**	**1.1000e-004**	**1.8500e-003**	**0.0000**	**7.9848**	**7.9848**	**2.7000e-004**	**0.0000**	**7.9916**

3.6 Plot 2 (2020) Building-Wet Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4564	4.4754	4.4366	8.1300e-003		0.2300	0.2300		0.2116	0.2116	0.0000	714.3072	714.3072	0.2310	0.0000	720.0828
Total	**0.4564**	**4.4754**	**4.4366**	**8.1300e-003**	**1.2450**	**0.2300**	**1.4750**	**0.1344**	**0.2116**	**0.3460**	**0.0000**	**714.3072**	**714.3072**	**0.2310**	**0.0000**	**720.0828**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0100	0.3579	0.0730	1.0200e-003	0.0235	1.2000e-003	0.0247	6.4600e-003	1.1400e-003	7.6100e-003	0.0000	100.5072	100.5072	6.6300e-003	0.0000	100.6729
Vendor	8.0400e-003	0.2213	0.0554	7.5000e-004	0.0222	1.7700e-003	0.0240	6.4000e-003	1.6900e-003	8.0900e-003	0.0000	72.8523	72.8523	3.2100e-003	0.0000	72.9326
Worker	0.0112	9.1100e-003	0.0995	3.0000e-004	0.0303	2.3000e-004	0.0305	8.0500e-003	2.1000e-004	8.2600e-003	0.0000	27.0614	27.0614	7.6000e-004	0.0000	27.0804
Total	**0.0293**	**0.5883**	**0.2280**	**2.0700e-003**	**0.0761**	**3.2000e-003**	**0.0792**	**0.0209**	**3.0400e-003**	**0.0240**	**0.0000**	**200.4209**	**200.4209**	**0.0106**	**0.0000**	**200.6859**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1361	0.9181	5.1002	8.1300e-003		0.0318	0.0318		0.0302	0.0302	0.0000	714.3064	714.3064	0.2310	0.0000	720.0819
Total	**0.1361**	**0.9181**	**5.1002**	**8.1300e-003**	**0.4856**	**0.0318**	**0.5174**	**0.0524**	**0.0302**	**0.0826**	**0.0000**	**714.3064**	**714.3064**	**0.2310**	**0.0000**	**720.0819**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0100	0.3579	0.0730	1.0200e-003	0.0235	1.2000e-003	0.0247	6.4600e-003	1.1400e-003	7.6100e-003	0.0000	100.5072	100.5072	6.6300e-003	0.0000	100.6729
Vendor	8.0400e-003	0.2213	0.0554	7.5000e-004	0.0222	1.7700e-003	0.0240	6.4000e-003	1.6900e-003	8.0900e-003	0.0000	72.8523	72.8523	3.2100e-003	0.0000	72.9326
Worker	0.0112	9.1100e-003	0.0995	3.0000e-004	0.0303	2.3000e-004	0.0305	8.0500e-003	2.1000e-004	8.2600e-003	0.0000	27.0614	27.0614	7.6000e-004	0.0000	27.0804
Total	**0.0293**	**0.5883**	**0.2280**	**2.0700e-003**	**0.0761**	**3.2000e-003**	**0.0792**	**0.0209**	**3.0400e-003**	**0.0240**	**0.0000**	**200.4209**	**200.4209**	**0.0106**	**0.0000**	**200.6859**

3.7 Plot 2 (2020) Building-Electrical - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2967	2.5656	2.7548	3.6600e-003		0.1586	0.1586		0.1460	0.1460	0.0000	320.3229	320.3229	0.1026	0.0000	322.8884
Total	**0.2967**	**2.5656**	**2.7548**	**3.6600e-003**	**0.8298**	**0.1586**	**0.9884**	**0.0896**	**0.1460**	**0.2356**	**0.0000**	**320.3229**	**320.3229**	**0.1026**	**0.0000**	**322.8884**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0229	0.8180	0.1669	2.3400e-003	0.0538	2.7300e-003	0.0565	0.0148	2.6200e-003	0.0174	0.0000	229.7306	229.7306	0.0152	0.0000	230.1094
Vendor	3.2200e-003	0.0885	0.0222	3.0000e-004	8.8800e-003	7.1000e-004	9.5900e-003	2.5600e-003	6.8000e-004	3.2400e-003	0.0000	29.1409	29.1409	1.2800e-003	0.0000	29.1730
Worker	6.7300e-003	5.4600e-003	0.0597	1.8000e-004	0.0182	1.4000e-004	0.0183	4.8300e-003	1.3000e-004	4.9500e-003	0.0000	16.2369	16.2369	4.6000e-004	0.0000	16.2483
Total	**0.0329**	**0.9120**	**0.2488**	**2.8200e-003**	**0.0809**	**3.5800e-003**	**0.0845**	**0.0222**	**3.4300e-003**	**0.0256**	**0.0000**	**275.1084**	**275.1084**	**0.0169**	**0.0000**	**275.5307**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0937	0.7496	2.7763	3.6600e-003		0.0228	0.0228		0.0215	0.0215	0.0000	320.3225	320.3225	0.1026	0.0000	322.8880
Total	**0.0937**	**0.7496**	**2.7763**	**3.6600e-003**	**0.3236**	**0.0228**	**0.3464**	**0.0350**	**0.0215**	**0.0564**	**0.0000**	**320.3225**	**320.3225**	**0.1026**	**0.0000**	**322.8880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0229	0.8180	0.1669	2.3400e-003	0.0538	2.7300e-003	0.0565	0.0148	2.6200e-003	0.0174	0.0000	229.7306	229.7306	0.0152	0.0000	230.1094
Vendor	3.2200e-003	0.0885	0.0222	3.0000e-004	8.8800e-003	7.1000e-004	9.5900e-003	2.5600e-003	6.8000e-004	3.2400e-003	0.0000	29.1409	29.1409	1.2800e-003	0.0000	29.1730
Worker	6.7300e-003	5.4600e-003	0.0597	1.8000e-004	0.0182	1.4000e-004	0.0183	4.8300e-003	1.3000e-004	4.9500e-003	0.0000	16.2369	16.2369	4.6000e-004	0.0000	16.2483
Total	**0.0329**	**0.9120**	**0.2488**	**2.8200e-003**	**0.0809**	**3.5800e-003**	**0.0845**	**0.0222**	**3.4300e-003**	**0.0256**	**0.0000**	**275.1084**	**275.1084**	**0.0169**	**0.0000**	**275.5307**

3.8 Plot 2 (2020) Temporary Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1186	1.4286	0.9840	1.8000e-003		0.0573	0.0573		0.0527	0.0527	0.0000	158.5574	158.5574	0.0513	0.0000	159.8394
Total	**0.1186**	**1.4286**	**0.9840**	**1.8000e-003**	**0.0000**	**0.0573**	**0.0573**	**0.0000**	**0.0527**	**0.0527**	**0.0000**	**158.5574**	**158.5574**	**0.0513**	**0.0000**	**159.8394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.5572	158.5572	0.0513	0.0000	159.8392
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.5572**	**158.5572**	**0.0513**	**0.0000**	**159.8392**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 Plot 2 (2020) Curbing/Drive Approaches - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0182	0.1758	0.1935	2.9000e-004		0.0102	0.0102		9.3700e-003	9.3700e-003	0.0000	25.2299	25.2299	8.0100e-003	0.0000	25.4302
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1801**	**0.1758**	**0.1935**	**2.9000e-004**	**0.0000**	**0.0102**	**0.0102**	**0.0000**	**9.3700e-003**	**9.3700e-003**	**0.0000**	**25.2299**	**25.2299**	**8.0100e-003**	**0.0000**	**25.4302**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8600e-003	0.1019	0.0208	2.9000e-004	6.7000e-003	3.4000e-004	7.0400e-003	1.8400e-003	3.3000e-004	2.1700e-003	0.0000	28.6246	28.6246	1.8900e-003	0.0000	28.6718
Vendor	6.6000e-004	0.0182	4.5500e-003	6.0000e-005	1.8200e-003	1.4000e-004	1.9700e-003	5.3000e-004	1.4000e-004	6.6000e-004	0.0000	5.9776	5.9776	2.6000e-004	0.0000	5.9842
Worker	1.3800e-003	1.1200e-003	0.0123	4.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.3306	3.3306	9.0000e-005	0.0000	3.3330
Total	**4.9000e-003**	**0.1212**	**0.0376**	**3.9000e-004**	**0.0123**	**5.1000e-004**	**0.0128**	**3.3600e-003**	**5.0000e-004**	**3.8500e-003**	**0.0000**	**37.9329**	**37.9329**	**2.2400e-003**	**0.0000**	**37.9890**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8600e-003	0.0427	0.2165	2.9000e-004		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	25.2299	25.2299	8.0100e-003	0.0000	25.4301
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1668**	**0.0427**	**0.2165**	**2.9000e-004**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**0.0000**	**25.2299**	**25.2299**	**8.0100e-003**	**0.0000**	**25.4301**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8600e-003	0.1019	0.0208	2.9000e-004	6.7000e-003	3.4000e-004	7.0400e-003	1.8400e-003	3.3000e-004	2.1700e-003	0.0000	28.6246	28.6246	1.8900e-003	0.0000	28.6718
Vendor	6.6000e-004	0.0182	4.5500e-003	6.0000e-005	1.8200e-003	1.4000e-004	1.9700e-003	5.3000e-004	1.4000e-004	6.6000e-004	0.0000	5.9776	5.9776	2.6000e-004	0.0000	5.9842
Worker	1.3800e-003	1.1200e-003	0.0123	4.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.3306	3.3306	9.0000e-005	0.0000	3.3330
Total	**4.9000e-003**	**0.1212**	**0.0376**	**3.9000e-004**	**0.0123**	**5.1000e-004**	**0.0128**	**3.3600e-003**	**5.0000e-004**	**3.8500e-003**	**0.0000**	**37.9329**	**37.9329**	**2.2400e-003**	**0.0000**	**37.9890**

3.10 Plot 2 (2020) Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0542	0.5886	0.5040	8.5000e-004		0.0281	0.0281		0.0259	0.0259	0.0000	74.7653	74.7653	0.0240	0.0000	75.3655
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2161**	**0.5886**	**0.5040**	**8.5000e-004**	**0.1273**	**0.0281**	**0.1554**	**0.0137**	**0.0259**	**0.0396**	**0.0000**	**74.7653**	**74.7653**	**0.0240**	**0.0000**	**75.3655**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4200e-003	0.0863	0.0176	2.5000e-004	5.6700e-003	2.9000e-004	5.9600e-003	1.5600e-003	2.8000e-004	1.8300e-003	0.0000	24.2208	24.2208	1.6000e-003	0.0000	24.2607
Vendor	4.9000e-004	0.0136	3.4100e-003	5.0000e-005	1.3700e-003	1.1000e-004	1.4700e-003	3.9000e-004	1.0000e-004	5.0000e-004	0.0000	4.4832	4.4832	2.0000e-004	0.0000	4.4882
Worker	1.7300e-003	1.4000e-003	0.0153	5.0000e-005	4.6600e-003	3.0000e-005	4.7000e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.1633	4.1633	1.2000e-004	0.0000	4.1662
Total	**4.6400e-003**	**0.1013**	**0.0363**	**3.5000e-004**	**0.0117**	**4.3000e-004**	**0.0121**	**3.1900e-003**	**4.1000e-004**	**3.6000e-003**	**0.0000**	**32.8673**	**32.8673**	**1.9200e-003**	**0.0000**	**32.9151**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.0491	0.5269	8.5000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	74.7652	74.7652	0.0240	0.0000	75.3654
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1729**	**0.0491**	**0.5269**	**8.5000e-004**	**0.0496**	**1.5400e-003**	**0.0512**	**5.3600e-003**	**1.5400e-003**	**6.9000e-003**	**0.0000**	**74.7652**	**74.7652**	**0.0240**	**0.0000**	**75.3654**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4200e-003	0.0863	0.0176	2.5000e-004	5.6700e-003	2.9000e-004	5.9600e-003	1.5600e-003	2.8000e-004	1.8300e-003	0.0000	24.2208	24.2208	1.6000e-003	0.0000	24.2607
Vendor	4.9000e-004	0.0136	3.4100e-003	5.0000e-005	1.3700e-003	1.1000e-004	1.4700e-003	3.9000e-004	1.0000e-004	5.0000e-004	0.0000	4.4832	4.4832	2.0000e-004	0.0000	4.4882
Worker	1.7300e-003	1.4000e-003	0.0153	5.0000e-005	4.6600e-003	3.0000e-005	4.7000e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.1633	4.1633	1.2000e-004	0.0000	4.1662
Total	**4.6400e-003**	**0.1013**	**0.0363**	**3.5000e-004**	**0.0117**	**4.3000e-004**	**0.0121**	**3.1900e-003**	**4.1000e-004**	**3.6000e-003**	**0.0000**	**32.8673**	**32.8673**	**1.9200e-003**	**0.0000**	**32.9151**

3.11 Plot 2 (2021) Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7676	16.4814	15.1931	0.0450		0.6921	0.6921		0.6369	0.6369	0.0000	3,948.0893	3,948.0893	1.2756	0.0000	3,979.9789
Total	**1.7676**	**16.4814**	**15.1931**	**0.0450**	**3.3194**	**0.6921**	**4.0115**	**0.3584**	**0.6369**	**0.9953**	**0.0000**	**3,948.0893**	**3,948.0893**	**1.2756**	**0.0000**	**3,979.9789**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0274	0.9467	0.2064	2.8900e-003	0.0673	3.0600e-003	0.0703	0.0185	2.9200e-003	0.0214	0.0000	284.1325	284.1325	0.0187	0.0000	284.5993
Vendor	0.0218	0.6372	0.1647	2.4900e-003	0.0740	2.1100e-003	0.0761	0.0213	2.0100e-003	0.0233	0.0000	241.1558	241.1558	0.0103	0.0000	241.4138
Worker	0.0336	0.0263	0.2934	9.3000e-004	0.0970	7.0000e-004	0.0977	0.0258	6.5000e-004	0.0264	0.0000	83.7893	83.7893	2.2000e-003	0.0000	83.8443
Total	**0.0828**	**1.6101**	**0.6645**	**6.3100e-003**	**0.2382**	**5.8700e-003**	**0.2441**	**0.0655**	**5.5800e-003**	**0.0711**	**0.0000**	**609.0776**	**609.0776**	**0.0312**	**0.0000**	**609.8573**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9172	7.0563	20.0822	0.0450		0.2242	0.2242		0.2102	0.2102	0.0000	3,948.0846	3,948.0846	1.2756	0.0000	3,979.9742
Total	**0.9172**	**7.0563**	**20.0822**	**0.0450**	**1.2946**	**0.2242**	**1.5187**	**0.1398**	**0.2102**	**0.3500**	**0.0000**	**3,948.0846**	**3,948.0846**	**1.2756**	**0.0000**	**3,979.9742**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0274	0.9467	0.2064	2.8900e-003	0.0673	3.0600e-003	0.0703	0.0185	2.9200e-003	0.0214	0.0000	284.1325	284.1325	0.0187	0.0000	284.5993
Vendor	0.0218	0.6372	0.1647	2.4900e-003	0.0740	2.1100e-003	0.0761	0.0213	2.0100e-003	0.0233	0.0000	241.1558	241.1558	0.0103	0.0000	241.4138
Worker	0.0336	0.0263	0.2934	9.3000e-004	0.0970	7.0000e-004	0.0977	0.0258	6.5000e-004	0.0264	0.0000	83.7893	83.7893	2.2000e-003	0.0000	83.8443
Total	**0.0828**	**1.6101**	**0.6645**	**6.3100e-003**	**0.2382**	**5.8700e-003**	**0.2441**	**0.0655**	**5.5800e-003**	**0.0711**	**0.0000**	**609.0776**	**609.0776**	**0.0312**	**0.0000**	**609.8573**

3.12 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4886	4.6394	5.4720	8.1200e-003		0.2661	0.2661		0.2499	0.2499	0.0000	702.7048	702.7048	0.1740	0.0000	707.0537
Total	**0.4886**	**4.6394**	**5.4720**	**8.1200e-003**	**0.4152**	**0.2661**	**0.6813**	**0.0448**	**0.2499**	**0.2948**	**0.0000**	**702.7048**	**702.7048**	**0.1740**	**0.0000**	**707.0537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0329	1.1360	0.2477	3.4700e-003	0.0807	3.6700e-003	0.0844	0.0222	3.5100e-003	0.0257	0.0000	340.9590	340.9590	0.0224	0.0000	341.5191
Vendor	1.7400e-003	0.0510	0.0132	2.0000e-004	5.9200e-003	1.7000e-004	6.0900e-003	1.7100e-003	1.6000e-004	1.8700e-003	0.0000	19.2925	19.2925	8.3000e-004	0.0000	19.3131
Worker	0.0210	0.0164	0.1834	5.8000e-004	0.0606	4.4000e-004	0.0611	0.0161	4.1000e-004	0.0165	0.0000	52.3683	52.3683	1.3700e-003	0.0000	52.4027
Total	**0.0556**	**1.2034**	**0.4443**	**4.2500e-003**	**0.1472**	**4.2800e-003**	**0.1515**	**0.0400**	**4.0800e-003**	**0.0440**	**0.0000**	**412.6198**	**412.6198**	**0.0246**	**0.0000**	**413.2349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1200e-003		0.0177	0.0177		0.0177	0.0177	0.0000	702.7040	702.7040	0.1740	0.0000	707.0528
Total	**0.1140**	**0.5384**	**5.7392**	**8.1200e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**702.7040**	**702.7040**	**0.1740**	**0.0000**	**707.0528**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0329	1.1360	0.2477	3.4700e-003	0.0807	3.6700e-003	0.0844	0.0222	3.5100e-003	0.0257	0.0000	340.9590	340.9590	0.0224	0.0000	341.5191
Vendor	1.7400e-003	0.0510	0.0132	2.0000e-004	5.9200e-003	1.7000e-004	6.0900e-003	1.7100e-003	1.6000e-004	1.8700e-003	0.0000	19.2925	19.2925	8.3000e-004	0.0000	19.3131
Worker	0.0210	0.0164	0.1834	5.8000e-004	0.0606	4.4000e-004	0.0611	0.0161	4.1000e-004	0.0165	0.0000	52.3683	52.3683	1.3700e-003	0.0000	52.4027
Total	**0.0556**	**1.2034**	**0.4443**	**4.2500e-003**	**0.1472**	**4.2800e-003**	**0.1515**	**0.0400**	**4.0800e-003**	**0.0440**	**0.0000**	**412.6198**	**412.6198**	**0.0246**	**0.0000**	**413.2349**

3.13 Plot 2 (2021) Building-Wet Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8389	7.9394	8.8326	0.0163		0.4012	0.4012		0.3691	0.3691	0.0000	1,428.2193	1,428.2193	0.4619	0.0000	1,439.7672
Total	**0.8389**	**7.9394**	**8.8326**	**0.0163**	**1.2450**	**0.4012**	**1.6462**	**0.1344**	**0.3691**	**0.5035**	**0.0000**	**1,428.2193**	**1,428.2193**	**0.4619**	**0.0000**	**1,439.7672**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.5900e-003	0.3313	0.0723	1.0100e-003	0.0235	1.0700e-003	0.0246	6.4600e-003	1.0200e-003	7.4800e-003	0.0000	99.4464	99.4464	6.5300e-003	0.0000	99.6098
Vendor	0.0131	0.3823	0.0988	1.5000e-003	0.0444	1.2600e-003	0.0457	0.0128	1.2100e-003	0.0140	0.0000	144.6935	144.6935	6.1900e-003	0.0000	144.8483
Worker	0.0210	0.0164	0.1834	5.8000e-004	0.0606	4.4000e-004	0.0611	0.0161	4.1000e-004	0.0165	0.0000	52.3683	52.3683	1.3700e-003	0.0000	52.4027
Total	**0.0436**	**0.7301**	**0.3544**	**3.0900e-003**	**0.1286**	**2.7700e-003**	**0.1313**	**0.0354**	**2.6400e-003**	**0.0380**	**0.0000**	**296.5082**	**296.5082**	**0.0141**	**0.0000**	**296.8607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2645	1.6788	10.1948	0.0163		0.0583	0.0583		0.0554	0.0554	0.0000	1,428.2176	1,428.2176	0.4619	0.0000	1,439.7655
Total	**0.2645**	**1.6788**	**10.1948**	**0.0163**	**0.4856**	**0.0583**	**0.5439**	**0.0524**	**0.0554**	**0.1078**	**0.0000**	**1,428.2176**	**1,428.2176**	**0.4619**	**0.0000**	**1,439.7655**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.5900e-003	0.3313	0.0723	1.0100e-003	0.0235	1.0700e-003	0.0246	6.4600e-003	1.0200e-003	7.4800e-003	0.0000	99.4464	99.4464	6.5300e-003	0.0000	99.6098
Vendor	0.0131	0.3823	0.0988	1.5000e-003	0.0444	1.2600e-003	0.0457	0.0128	1.2100e-003	0.0140	0.0000	144.6935	144.6935	6.1900e-003	0.0000	144.8483
Worker	0.0210	0.0164	0.1834	5.8000e-004	0.0606	4.4000e-004	0.0611	0.0161	4.1000e-004	0.0165	0.0000	52.3683	52.3683	1.3700e-003	0.0000	52.4027
Total	**0.0436**	**0.7301**	**0.3544**	**3.0900e-003**	**0.1286**	**2.7700e-003**	**0.1313**	**0.0354**	**2.6400e-003**	**0.0380**	**0.0000**	**296.5082**	**296.5082**	**0.0141**	**0.0000**	**296.8607**

3.14 Plot 2 (2021) Building-Electrical - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5460	4.7486	5.4673	7.3300e-003		0.2754	0.2754		0.2536	0.2536	0.0000	640.7929	640.7929	0.2053	0.0000	645.9250
Total	**0.5460**	**4.7486**	**5.4673**	**7.3300e-003**	**0.8298**	**0.2754**	**1.1052**	**0.0896**	**0.2536**	**0.3432**	**0.0000**	**640.7929**	**640.7929**	**0.2053**	**0.0000**	**645.9250**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0219	0.7573	0.1652	2.3100e-003	0.0538	2.4500e-003	0.0563	0.0148	2.3400e-003	0.0171	0.0000	227.3060	227.3060	0.0149	0.0000	227.6794
Vendor	5.2300e-003	0.1529	0.0395	6.0000e-004	0.0178	5.1000e-004	0.0183	5.1200e-003	4.8000e-004	5.6000e-003	0.0000	57.8774	57.8774	2.4800e-003	0.0000	57.9393
Worker	0.0126	9.8500e-003	0.1100	3.5000e-004	0.0364	2.6000e-004	0.0366	9.6600e-003	2.4000e-004	9.9000e-003	0.0000	31.4210	31.4210	8.2000e-004	0.0000	31.4416
Total	**0.0397**	**0.9201**	**0.3147**	**3.2600e-003**	**0.1079**	**3.2200e-003**	**0.1112**	**0.0296**	**3.0600e-003**	**0.0326**	**0.0000**	**316.6044**	**316.6044**	**0.0182**	**0.0000**	**317.0603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1830	1.4827	5.5468	7.3300e-003		0.0426	0.0426		0.0402	0.0402	0.0000	640.7922	640.7922	0.2053	0.0000	645.9242
Total	**0.1830**	**1.4827**	**5.5468**	**7.3300e-003**	**0.3236**	**0.0426**	**0.3662**	**0.0350**	**0.0402**	**0.0752**	**0.0000**	**640.7922**	**640.7922**	**0.2053**	**0.0000**	**645.9242**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0219	0.7573	0.1652	2.3100e-003	0.0538	2.4500e-003	0.0563	0.0148	2.3400e-003	0.0171	0.0000	227.3060	227.3060	0.0149	0.0000	227.6794
Vendor	5.2300e-003	0.1529	0.0395	6.0000e-004	0.0178	5.1000e-004	0.0183	5.1200e-003	4.8000e-004	5.6000e-003	0.0000	57.8774	57.8774	2.4800e-003	0.0000	57.9393
Worker	0.0126	9.8500e-003	0.1100	3.5000e-004	0.0364	2.6000e-004	0.0366	9.6600e-003	2.4000e-004	9.9000e-003	0.0000	31.4210	31.4210	8.2000e-004	0.0000	31.4416
Total	**0.0397**	**0.9201**	**0.3147**	**3.2600e-003**	**0.1079**	**3.2200e-003**	**0.1112**	**0.0296**	**3.0600e-003**	**0.0326**	**0.0000**	**316.6044**	**316.6044**	**0.0182**	**0.0000**	**317.0603**

3.15 Plot 2 (2021) Building-Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4307	3.7298	4.3489	6.0800e-003		0.2087	0.2087		0.1920	0.1920	0.0000	534.4895	534.4895	0.1729	0.0000	538.8111
Total	**0.4307**	**3.7298**	**4.3489**	**6.0800e-003**	**0.2073**	**0.2087**	**0.4160**	**0.0224**	**0.1920**	**0.2144**	**0.0000**	**534.4895**	**534.4895**	**0.1729**	**0.0000**	**538.8111**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-003	0.1784	0.0461	7.0000e-004	0.0207	5.9000e-004	0.0213	5.9700e-003	5.6000e-004	6.5400e-003	0.0000	67.5236	67.5236	2.8900e-003	0.0000	67.5959
Worker	8.3900e-003	6.5600e-003	0.0733	2.3000e-004	0.0243	1.8000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.9473	20.9473	5.5000e-004	0.0000	20.9611
Total	**0.0145**	**0.1850**	**0.1195**	**9.3000e-004**	**0.0450**	**7.7000e-004**	**0.0457**	**0.0124**	**7.2000e-004**	**0.0131**	**0.0000**	**88.4710**	**88.4710**	**3.4400e-003**	**0.0000**	**88.5569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1909	1.7233	4.6801	6.0800e-003		0.0491	0.0491		0.0458	0.0458	0.0000	534.4889	534.4889	0.1729	0.0000	538.8105
Total	**0.1909**	**1.7233**	**4.6801**	**6.0800e-003**	**0.0809**	**0.0491**	**0.1299**	**8.7300e-003**	**0.0458**	**0.0546**	**0.0000**	**534.4889**	**534.4889**	**0.1729**	**0.0000**	**538.8105**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-003	0.1784	0.0461	7.0000e-004	0.0207	5.9000e-004	0.0213	5.9700e-003	5.6000e-004	6.5400e-003	0.0000	67.5236	67.5236	2.8900e-003	0.0000	67.5959
Worker	8.3900e-003	6.5600e-003	0.0733	2.3000e-004	0.0243	1.8000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.9473	20.9473	5.5000e-004	0.0000	20.9611
Total	**0.0145**	**0.1850**	**0.1195**	**9.3000e-004**	**0.0450**	**7.7000e-004**	**0.0457**	**0.0124**	**7.2000e-004**	**0.0131**	**0.0000**	**88.4710**	**88.4710**	**3.4400e-003**	**0.0000**	**88.5569**

3.16 Plot 2 (2021) Landscaping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4545	3.9448	4.6549	6.5500e-003		0.2196	0.2196		0.2020	0.2020	0.0000	575.4970	575.4970	0.1861	0.0000	580.1502
Total	**0.4545**	**3.9448**	**4.6549**	**6.5500e-003**	**0.2073**	**0.2196**	**0.4269**	**0.0224**	**0.2020**	**0.2244**	**0.0000**	**575.4970**	**575.4970**	**0.1861**	**0.0000**	**580.1502**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2300e-003	0.1529	0.0395	6.0000e-004	0.0178	5.1000e-004	0.0183	5.1200e-003	4.8000e-004	5.6000e-003	0.0000	57.8774	57.8774	2.4800e-003	0.0000	57.9393
Worker	8.3900e-003	6.5600e-003	0.0733	2.3000e-004	0.0243	1.8000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.9473	20.9473	5.5000e-004	0.0000	20.9611
Total	**0.0136**	**0.1595**	**0.1129**	**8.3000e-004**	**0.0420**	**6.9000e-004**	**0.0427**	**0.0116**	**6.4000e-004**	**0.0122**	**0.0000**	**78.8247**	**78.8247**	**3.0300e-003**	**0.0000**	**78.9004**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1966	1.7482	5.0343	6.5500e-003		0.0498	0.0498		0.0466	0.0466	0.0000	575.4964	575.4964	0.1861	0.0000	580.1495
Total	**0.1966**	**1.7482**	**5.0343**	**6.5500e-003**	**0.0809**	**0.0498**	**0.1307**	**8.7300e-003**	**0.0466**	**0.0553**	**0.0000**	**575.4964**	**575.4964**	**0.1861**	**0.0000**	**580.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2300e-003	0.1529	0.0395	6.0000e-004	0.0178	5.1000e-004	0.0183	5.1200e-003	4.8000e-004	5.6000e-003	0.0000	57.8774	57.8774	2.4800e-003	0.0000	57.9393
Worker	8.3900e-003	6.5600e-003	0.0733	2.3000e-004	0.0243	1.8000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.9473	20.9473	5.5000e-004	0.0000	20.9611
Total	**0.0136**	**0.1595**	**0.1129**	**8.3000e-004**	**0.0420**	**6.9000e-004**	**0.0427**	**0.0116**	**6.4000e-004**	**0.0122**	**0.0000**	**78.8247**	**78.8247**	**3.0300e-003**	**0.0000**	**78.9004**

3.17 Plot 2 (2021) Curbing/Drive Approaches - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0336	0.3225	0.3864	5.8000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	50.4570	50.4570	0.0160	0.0000	50.8574
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1955**	**0.3225**	**0.3864**	**5.8000e-004**	**0.0000**	**0.0179**	**0.0179**	**0.0000**	**0.0165**	**0.0165**	**0.0000**	**50.4570**	**50.4570**	**0.0160**	**0.0000**	**50.8574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7300e-003	0.0944	0.0206	2.9000e-004	6.7000e-003	3.0000e-004	7.0100e-003	1.8400e-003	2.9000e-004	2.1300e-003	0.0000	28.3225	28.3225	1.8600e-003	0.0000	28.3690
Vendor	1.0700e-003	0.0314	8.1100e-003	1.2000e-004	3.6400e-003	1.0000e-004	3.7500e-003	1.0500e-003	1.0000e-004	1.1500e-003	0.0000	11.8723	11.8723	5.1000e-004	0.0000	11.8850
Worker	2.5800e-003	2.0200e-003	0.0226	7.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	6.4453	6.4453	1.7000e-004	0.0000	6.4496
Total	**6.3800e-003**	**0.1278**	**0.0513**	**4.8000e-004**	**0.0178**	**4.5000e-004**	**0.0183**	**4.8700e-003**	**4.4000e-004**	**5.3100e-003**	**0.0000**	**46.6401**	**46.6401**	**2.5400e-003**	**0.0000**	**46.7036**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4570	50.4570	0.0160	0.0000	50.8574
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4570**	**50.4570**	**0.0160**	**0.0000**	**50.8574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7300e-003	0.0944	0.0206	2.9000e-004	6.7000e-003	3.0000e-004	7.0100e-003	1.8400e-003	2.9000e-004	2.1300e-003	0.0000	28.3225	28.3225	1.8600e-003	0.0000	28.3690
Vendor	1.0700e-003	0.0314	8.1100e-003	1.2000e-004	3.6400e-003	1.0000e-004	3.7500e-003	1.0500e-003	1.0000e-004	1.1500e-003	0.0000	11.8723	11.8723	5.1000e-004	0.0000	11.8850
Worker	2.5800e-003	2.0200e-003	0.0226	7.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	6.4453	6.4453	1.7000e-004	0.0000	6.4496
Total	**6.3800e-003**	**0.1278**	**0.0513**	**4.8000e-004**	**0.0178**	**4.5000e-004**	**0.0183**	**4.8700e-003**	**4.4000e-004**	**5.3100e-003**	**0.0000**	**46.6401**	**46.6401**	**2.5400e-003**	**0.0000**	**46.7036**

3.18 Plot 2 (2021) Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1007	1.0755	0.9843	1.7100e-003		0.0502	0.0502		0.0462	0.0462	0.0000	149.5702	149.5702	0.0480	0.0000	150.7710
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2626**	**1.0755**	**0.9843**	**1.7100e-003**	**0.1273**	**0.0502**	**0.1775**	**0.0137**	**0.0462**	**0.0600**	**0.0000**	**149.5702**	**149.5702**	**0.0480**	**0.0000**	**150.7710**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0799	0.0174	2.4000e-004	5.6700e-003	2.6000e-004	5.9300e-003	1.5600e-003	2.5000e-004	1.8000e-003	0.0000	23.9652	23.9652	1.5700e-003	0.0000	24.0045
Vendor	8.0000e-004	0.0235	6.0800e-003	9.0000e-005	2.7300e-003	8.0000e-005	2.8100e-003	7.9000e-004	7.0000e-005	8.6000e-004	0.0000	8.9042	8.9042	3.8000e-004	0.0000	8.9137
Worker	3.2300e-003	2.5200e-003	0.0282	9.0000e-005	9.3300e-003	7.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	8.0567	8.0567	2.1000e-004	0.0000	8.0620
Total	**6.3400e-003**	**0.1059**	**0.0517**	**4.2000e-004**	**0.0177**	**4.1000e-004**	**0.0181**	**4.8300e-003**	**3.8000e-004**	**5.2000e-003**	**0.0000**	**40.9261**	**40.9261**	**2.1600e-003**	**0.0000**	**40.9802**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0221	0.0981	1.0538	1.7100e-003		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	149.5700	149.5700	0.0480	0.0000	150.7708
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1840**	**0.0981**	**1.0538**	**1.7100e-003**	**0.0496**	**3.0900e-003**	**0.0527**	**5.3600e-003**	**3.0900e-003**	**8.4500e-003**	**0.0000**	**149.5700**	**149.5700**	**0.0480**	**0.0000**	**150.7708**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0799	0.0174	2.4000e-004	5.6700e-003	2.6000e-004	5.9300e-003	1.5600e-003	2.5000e-004	1.8000e-003	0.0000	23.9652	23.9652	1.5700e-003	0.0000	24.0045
Vendor	8.0000e-004	0.0235	6.0800e-003	9.0000e-005	2.7300e-003	8.0000e-005	2.8100e-003	7.9000e-004	7.0000e-005	8.6000e-004	0.0000	8.9042	8.9042	3.8000e-004	0.0000	8.9137
Worker	3.2300e-003	2.5200e-003	0.0282	9.0000e-005	9.3300e-003	7.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	8.0567	8.0567	2.1000e-004	0.0000	8.0620
Total	**6.3400e-003**	**0.1059**	**0.0517**	**4.2000e-004**	**0.0177**	**4.1000e-004**	**0.0181**	**4.8300e-003**	**3.8000e-004**	**5.2000e-003**	**0.0000**	**40.9261**	**40.9261**	**2.1600e-003**	**0.0000**	**40.9802**

3.19 Plot 2 (2021) Temporary Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1092	1.2733	0.9055	1.8000e-003		0.0512	0.0512		0.0471	0.0471	0.0000	158.5229	158.5229	0.0513	0.0000	159.8047
Total	**0.1092**	**1.2733**	**0.9055**	**1.8000e-003**	**0.0000**	**0.0512**	**0.0512**	**0.0000**	**0.0471**	**0.0471**	**0.0000**	**158.5229**	**158.5229**	**0.0513**	**0.0000**	**159.8047**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.5227	158.5227	0.0513	0.0000	159.8045
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.5227**	**158.5227**	**0.0513**	**0.0000**	**159.8045**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.20 Plot 4 (2022) Mass Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0547	0.0000	2.0547	0.2219	0.0000	0.2219	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1317	24.5874	14.2435	0.0352		0.9289	0.9289		0.8546	0.8546	0.0000	3,089.2720	3,089.2720	0.9991	0.0000	3,114.2504
Total	**2.1317**	**24.5874**	**14.2435**	**0.0352**	**2.0547**	**0.9289**	**2.9836**	**0.2219**	**0.8546**	**1.0764**	**0.0000**	**3,089.2720**	**3,089.2720**	**0.9991**	**0.0000**	**3,114.2504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0900e-003	0.2371	0.0556	7.8000e-004	0.0183	7.2000e-004	0.0190	5.0300e-003	6.9000e-004	5.7100e-003	0.0000	76.4632	76.4632	5.0000e-003	0.0000	76.5883
Vendor	3.7000e-003	0.1062	0.0283	4.4000e-004	0.0133	3.3000e-004	0.0137	3.8400e-003	3.2000e-004	4.1500e-003	0.0000	43.0226	43.0226	1.8200e-003	0.0000	43.0680
Worker	0.0197	0.0148	0.1695	5.6000e-004	0.0606	4.3000e-004	0.0611	0.0161	3.9000e-004	0.0165	0.0000	50.4897	50.4897	1.2400e-003	0.0000	50.5207
Total	**0.0305**	**0.3581**	**0.2534**	**1.7800e-003**	**0.0923**	**1.4800e-003**	**0.0937**	**0.0250**	**1.4000e-003**	**0.0264**	**0.0000**	**169.9756**	**169.9756**	**8.0600e-003**	**0.0000**	**170.1771**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8013	0.0000	0.8013	0.0865	0.0000	0.0865	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4325	1.8741	16.1605	0.0352		0.0577	0.0577		0.0577	0.0577	0.0000	3,089.2684	3,089.2684	0.9991	0.0000	3,114.2467
Total	**0.4325**	**1.8741**	**16.1605**	**0.0352**	**0.8013**	**0.0577**	**0.8590**	**0.0865**	**0.0577**	**0.1442**	**0.0000**	**3,089.2684**	**3,089.2684**	**0.9991**	**0.0000**	**3,114.2467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0900e-003	0.2371	0.0556	7.8000e-004	0.0183	7.2000e-004	0.0190	5.0300e-003	6.9000e-004	5.7100e-003	0.0000	76.4632	76.4632	5.0000e-003	0.0000	76.5883
Vendor	3.7000e-003	0.1062	0.0283	4.4000e-004	0.0133	3.3000e-004	0.0137	3.8400e-003	3.2000e-004	4.1500e-003	0.0000	43.0226	43.0226	1.8200e-003	0.0000	43.0680
Worker	0.0197	0.0148	0.1695	5.6000e-004	0.0606	4.3000e-004	0.0611	0.0161	3.9000e-004	0.0165	0.0000	50.4897	50.4897	1.2400e-003	0.0000	50.5207
Total	**0.0305**	**0.3581**	**0.2534**	**1.7800e-003**	**0.0923**	**1.4800e-003**	**0.0937**	**0.0250**	**1.4000e-003**	**0.0264**	**0.0000**	**169.9756**	**169.9756**	**8.0600e-003**	**0.0000**	**170.1771**

3.21 Plot 4 (2022) Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5752	13.6414	14.9263	0.0450		0.5631	0.5631		0.5182	0.5182	0.0000	3,948.9986	3,948.9986	1.2759	0.0000	3,980.8955
Total	**1.5752**	**13.6414**	**14.9263**	**0.0450**	**3.3194**	**0.5631**	**3.8825**	**0.3584**	**0.5182**	**0.8766**	**0.0000**	**3,948.9986**	**3,948.9986**	**1.2759**	**0.0000**	**3,980.8955**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0260	0.8704	0.2041	2.8600e-003	0.0673	2.6300e-003	0.0699	0.0185	2.5200e-003	0.0210	0.0000	280.7389	280.7389	0.0184	0.0000	281.1982
Vendor	0.0206	0.5899	0.1574	2.4700e-003	0.0740	1.8300e-003	0.0758	0.0213	1.7500e-003	0.0231	0.0000	239.0146	239.0146	0.0101	0.0000	239.2669
Worker	0.0316	0.0237	0.2712	8.9000e-004	0.0970	6.8000e-004	0.0977	0.0258	6.3000e-004	0.0264	0.0000	80.7835	80.7835	1.9900e-003	0.0000	80.8332
Total	**0.0782**	**1.4840**	**0.6326**	**6.2200e-003**	**0.2382**	**5.1400e-003**	**0.2434**	**0.0655**	**4.9000e-003**	**0.0704**	**0.0000**	**600.5370**	**600.5370**	**0.0305**	**0.0000**	**601.2983**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8595	6.1061	19.9920	0.0450		0.1895	0.1895		0.1784	0.1784	0.0000	3,948.9939	3,948.9939	1.2759	0.0000	3,980.8908
Total	**0.8595**	**6.1061**	**19.9920**	**0.0450**	**1.2946**	**0.1895**	**1.4841**	**0.1398**	**0.1784**	**0.3181**	**0.0000**	**3,948.9939**	**3,948.9939**	**1.2759**	**0.0000**	**3,980.8908**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0260	0.8704	0.2041	2.8600e-003	0.0673	2.6300e-003	0.0699	0.0185	2.5200e-003	0.0210	0.0000	280.7389	280.7389	0.0184	0.0000	281.1982
Vendor	0.0206	0.5899	0.1574	2.4700e-003	0.0740	1.8300e-003	0.0758	0.0213	1.7500e-003	0.0231	0.0000	239.0146	239.0146	0.0101	0.0000	239.2669
Worker	0.0316	0.0237	0.2712	8.9000e-004	0.0970	6.8000e-004	0.0977	0.0258	6.3000e-004	0.0264	0.0000	80.7835	80.7835	1.9900e-003	0.0000	80.8332
Total	**0.0782**	**1.4840**	**0.6326**	**6.2200e-003**	**0.2382**	**5.1400e-003**	**0.2434**	**0.0655**	**4.9000e-003**	**0.0704**	**0.0000**	**600.5370**	**600.5370**	**0.0305**	**0.0000**	**601.2983**

3.22 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4384	4.1565	5.4288	8.1300e-003		0.2201	0.2201		0.2070	0.2070	0.0000	703.2504	703.2504	0.1735	0.0000	707.5875
Total	**0.4384**	**4.1565**	**5.4288**	**8.1300e-003**	**0.4152**	**0.2201**	**0.6353**	**0.0448**	**0.2070**	**0.2519**	**0.0000**	**703.2504**	**703.2504**	**0.1735**	**0.0000**	**707.5875**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0312	1.0445	0.2449	3.4300e-003	0.0807	3.1600e-003	0.0839	0.0222	3.0200e-003	0.0252	0.0000	336.8867	336.8867	0.0221	0.0000	337.4379
Vendor	1.6400e-003	0.0472	0.0126	2.0000e-004	5.9200e-003	1.5000e-004	6.0700e-003	1.7100e-003	1.4000e-004	1.8500e-003	0.0000	19.1212	19.1212	8.1000e-004	0.0000	19.1414
Worker	0.0197	0.0148	0.1695	5.6000e-004	0.0606	4.3000e-004	0.0611	0.0161	3.9000e-004	0.0165	0.0000	50.4897	50.4897	1.2400e-003	0.0000	50.5207
Total	**0.0526**	**1.1065**	**0.4270**	**4.1900e-003**	**0.1472**	**3.7400e-003**	**0.1510**	**0.0400**	**3.5500e-003**	**0.0435**	**0.0000**	**406.4976**	**406.4976**	**0.0241**	**0.0000**	**407.1000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7393	8.1300e-003		0.0177	0.0177		0.0177	0.0177	0.0000	703.2496	703.2496	0.1735	0.0000	707.5867
Total	**0.1140**	**0.5384**	**5.7393**	**8.1300e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**703.2496**	**703.2496**	**0.1735**	**0.0000**	**707.5867**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0312	1.0445	0.2449	3.4300e-003	0.0807	3.1600e-003	0.0839	0.0222	3.0200e-003	0.0252	0.0000	336.8867	336.8867	0.0221	0.0000	337.4379
Vendor	1.6400e-003	0.0472	0.0126	2.0000e-004	5.9200e-003	1.5000e-004	6.0700e-003	1.7100e-003	1.4000e-004	1.8500e-003	0.0000	19.1212	19.1212	8.1000e-004	0.0000	19.1414
Worker	0.0197	0.0148	0.1695	5.6000e-004	0.0606	4.3000e-004	0.0611	0.0161	3.9000e-004	0.0165	0.0000	50.4897	50.4897	1.2400e-003	0.0000	50.5207
Total	**0.0526**	**1.1065**	**0.4270**	**4.1900e-003**	**0.1472**	**3.7400e-003**	**0.1510**	**0.0400**	**3.5500e-003**	**0.0435**	**0.0000**	**406.4976**	**406.4976**	**0.0241**	**0.0000**	**407.1000**

3.23 Plot 4 (2022) Building-Wet Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7346	6.5846	8.7261	0.0163		0.3255	0.3255		0.2995	0.2995	0.0000	1,428.5094	1,428.5094	0.4620	0.0000	1,440.0596
Total	**0.7346**	**6.5846**	**8.7261**	**0.0163**	**1.2450**	**0.3255**	**1.5705**	**0.1344**	**0.2995**	**0.4339**	**0.0000**	**1,428.5094**	**1,428.5094**	**0.4620**	**0.0000**	**1,440.0596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.1100e-003	0.3047	0.0714	1.0000e-003	0.0235	9.2000e-004	0.0245	6.4600e-003	8.8000e-004	7.3400e-003	0.0000	98.2586	98.2586	6.4300e-003	0.0000	98.4194
Vendor	0.0123	0.3539	0.0944	1.4800e-003	0.0444	1.1000e-003	0.0455	0.0128	1.0500e-003	0.0139	0.0000	143.4088	143.4088	6.0600e-003	0.0000	143.5601
Worker	0.0197	0.0148	0.1695	5.6000e-004	0.0606	4.3000e-004	0.0611	0.0161	3.9000e-004	0.0165	0.0000	50.4897	50.4897	1.2400e-003	0.0000	50.5207
Total	**0.0412**	**0.6734**	**0.3353**	**3.0400e-003**	**0.1286**	**2.4500e-003**	**0.1310**	**0.0354**	**2.3200e-003**	**0.0377**	**0.0000**	**292.1571**	**292.1571**	**0.0137**	**0.0000**	**292.5003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2540	1.4901	10.1831	0.0163		0.0515	0.0515		0.0491	0.0491	0.0000	1,428.5077	1,428.5077	0.4620	0.0000	1,440.0579
Total	**0.2540**	**1.4901**	**10.1831**	**0.0163**	**0.4856**	**0.0515**	**0.5370**	**0.0524**	**0.0491**	**0.1015**	**0.0000**	**1,428.5077**	**1,428.5077**	**0.4620**	**0.0000**	**1,440.0579**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.1100e-003	0.3047	0.0714	1.0000e-003	0.0235	9.2000e-004	0.0245	6.4600e-003	8.8000e-004	7.3400e-003	0.0000	98.2586	98.2586	6.4300e-003	0.0000	98.4194
Vendor	0.0123	0.3539	0.0944	1.4800e-003	0.0444	1.1000e-003	0.0455	0.0128	1.0500e-003	0.0139	0.0000	143.4088	143.4088	6.0600e-003	0.0000	143.5601
Worker	0.0197	0.0148	0.1695	5.6000e-004	0.0606	4.3000e-004	0.0611	0.0161	3.9000e-004	0.0165	0.0000	50.4897	50.4897	1.2400e-003	0.0000	50.5207
Total	**0.0412**	**0.6734**	**0.3353**	**3.0400e-003**	**0.1286**	**2.4500e-003**	**0.1310**	**0.0354**	**2.3200e-003**	**0.0377**	**0.0000**	**292.1571**	**292.1571**	**0.0137**	**0.0000**	**292.5003**

3.24 Plot 4 (2022) Building-Electrical - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4764	4.2858	5.3636	7.3300e-003		0.2244	0.2244		0.2066	0.2066	0.0000	641.1857	641.1857	0.2054	0.0000	646.3209
Total	**0.4764**	**4.2858**	**5.3636**	**7.3300e-003**	**0.8298**	**0.2244**	**1.0542**	**0.0896**	**0.2066**	**0.2962**	**0.0000**	**641.1857**	**641.1857**	**0.2054**	**0.0000**	**646.3209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0208	0.6963	0.1633	2.2800e-003	0.0538	2.1000e-003	0.0559	0.0148	2.0100e-003	0.0168	0.0000	224.5911	224.5911	0.0147	0.0000	224.9586
Vendor	4.9300e-003	0.1416	0.0378	5.9000e-004	0.0178	4.4000e-004	0.0182	5.1200e-003	4.2000e-004	5.5400e-003	0.0000	57.3635	57.3635	2.4200e-003	0.0000	57.4241
Worker	0.0118	8.9000e-003	0.1017	3.3000e-004	0.0364	2.6000e-004	0.0366	9.6600e-003	2.4000e-004	9.8900e-003	0.0000	30.2938	30.2938	7.4000e-004	0.0000	30.3125
Total	**0.0376**	**0.8468**	**0.3027**	**3.2000e-003**	**0.1079**	**2.8000e-003**	**0.1107**	**0.0296**	**2.6700e-003**	**0.0322**	**0.0000**	**312.2485**	**312.2485**	**0.0179**	**0.0000**	**312.6951**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1706	1.4507	5.5194	7.3300e-003		0.0364	0.0364		0.0346	0.0346	0.0000	641.1849	641.1849	0.2054	0.0000	646.3201
Total	**0.1706**	**1.4507**	**5.5194**	**7.3300e-003**	**0.3236**	**0.0364**	**0.3601**	**0.0350**	**0.0346**	**0.0695**	**0.0000**	**641.1849**	**641.1849**	**0.2054**	**0.0000**	**646.3201**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0208	0.6963	0.1633	2.2800e-003	0.0538	2.1000e-003	0.0559	0.0148	2.0100e-003	0.0168	0.0000	224.5911	224.5911	0.0147	0.0000	224.9586
Vendor	4.9300e-003	0.1416	0.0378	5.9000e-004	0.0178	4.4000e-004	0.0182	5.1200e-003	4.2000e-004	5.5400e-003	0.0000	57.3635	57.3635	2.4200e-003	0.0000	57.4241
Worker	0.0118	8.9000e-003	0.1017	3.3000e-004	0.0364	2.6000e-004	0.0366	9.6600e-003	2.4000e-004	9.8900e-003	0.0000	30.2938	30.2938	7.4000e-004	0.0000	30.3125
Total	**0.0376**	**0.8468**	**0.3027**	**3.2000e-003**	**0.1079**	**2.8000e-003**	**0.1107**	**0.0296**	**2.6700e-003**	**0.0322**	**0.0000**	**312.2485**	**312.2485**	**0.0179**	**0.0000**	**312.6951**

3.25 Plot 4 (2022) Building-Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3782	3.2624	4.2849	6.0900e-003		0.1729	0.1729		0.1590	0.1590	0.0000	534.6676	534.6676	0.1729	0.0000	538.9907
Total	**0.3782**	**3.2624**	**4.2849**	**6.0900e-003**	**0.2073**	**0.1729**	**0.3802**	**0.0224**	**0.1590**	**0.1814**	**0.0000**	**534.6676**	**534.6676**	**0.1729**	**0.0000**	**538.9907**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7600e-003	0.1652	0.0441	6.9000e-004	0.0207	5.1000e-004	0.0212	5.9700e-003	4.9000e-004	6.4600e-003	0.0000	66.9241	66.9241	2.8300e-003	0.0000	66.9947
Worker	7.9000e-003	5.9300e-003	0.0678	2.2000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.1959	20.1959	5.0000e-004	0.0000	20.2083
Total	**0.0137**	**0.1711**	**0.1119**	**9.1000e-004**	**0.0450**	**6.8000e-004**	**0.0457**	**0.0124**	**6.5000e-004**	**0.0131**	**0.0000**	**87.1200**	**87.1200**	**3.3300e-003**	**0.0000**	**87.2030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1790	1.6963	4.6587	6.0900e-003		0.0437	0.0437		0.0409	0.0409	0.0000	534.6670	534.6670	0.1729	0.0000	538.9901
Total	**0.1790**	**1.6963**	**4.6587**	**6.0900e-003**	**0.0809**	**0.0437**	**0.1246**	**8.7300e-003**	**0.0409**	**0.0497**	**0.0000**	**534.6670**	**534.6670**	**0.1729**	**0.0000**	**538.9901**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7600e-003	0.1652	0.0441	6.9000e-004	0.0207	5.1000e-004	0.0212	5.9700e-003	4.9000e-004	6.4600e-003	0.0000	66.9241	66.9241	2.8300e-003	0.0000	66.9947
Worker	7.9000e-003	5.9300e-003	0.0678	2.2000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.1959	20.1959	5.0000e-004	0.0000	20.2083
Total	**0.0137**	**0.1711**	**0.1119**	**9.1000e-004**	**0.0450**	**6.8000e-004**	**0.0457**	**0.0124**	**6.5000e-004**	**0.0131**	**0.0000**	**87.1200**	**87.1200**	**3.3300e-003**	**0.0000**	**87.2030**

3.26 Plot 4 (2022) Landscaping - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3998	3.4437	4.5889	6.5500e-003		0.1827	0.1827		0.1681	0.1681	0.0000	575.6752	575.6752	0.1862	0.0000	580.3298
Total	**0.3998**	**3.4437**	**4.5889**	**6.5500e-003**	**0.2073**	**0.1827**	**0.3900**	**0.0224**	**0.1681**	**0.1905**	**0.0000**	**575.6752**	**575.6752**	**0.1862**	**0.0000**	**580.3298**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9300e-003	0.1416	0.0378	5.9000e-004	0.0178	4.4000e-004	0.0182	5.1200e-003	4.2000e-004	5.5400e-003	0.0000	57.3635	57.3635	2.4200e-003	0.0000	57.4241
Worker	7.9000e-003	5.9300e-003	0.0678	2.2000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.1959	20.1959	5.0000e-004	0.0000	20.2083
Total	**0.0128**	**0.1475**	**0.1056**	**8.1000e-004**	**0.0420**	**6.1000e-004**	**0.0426**	**0.0116**	**5.8000e-004**	**0.0121**	**0.0000**	**77.5594**	**77.5594**	**2.9200e-003**	**0.0000**	**77.6324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1847	1.7212	5.0129	6.5500e-003		0.0445	0.0445		0.0417	0.0417	0.0000	575.6745	575.6745	0.1862	0.0000	580.3291
Total	**0.1847**	**1.7212**	**5.0129**	**6.5500e-003**	**0.0809**	**0.0445**	**0.1254**	**8.7300e-003**	**0.0417**	**0.0504**	**0.0000**	**575.6745**	**575.6745**	**0.1862**	**0.0000**	**580.3291**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9300e-003	0.1416	0.0378	5.9000e-004	0.0178	4.4000e-004	0.0182	5.1200e-003	4.2000e-004	5.5400e-003	0.0000	57.3635	57.3635	2.4200e-003	0.0000	57.4241
Worker	7.9000e-003	5.9300e-003	0.0678	2.2000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.6000e-004	6.6000e-003	0.0000	20.1959	20.1959	5.0000e-004	0.0000	20.2083
Total	**0.0128**	**0.1475**	**0.1056**	**8.1000e-004**	**0.0420**	**6.1000e-004**	**0.0426**	**0.0116**	**5.8000e-004**	**0.0121**	**0.0000**	**77.5594**	**77.5594**	**2.9200e-003**	**0.0000**	**77.6324**

3.27 Plot 4 (2022) Curbing/Drive Approaches - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0299	0.2837	0.3839	5.8000e-004		0.0150	0.0150		0.0138	0.0138	0.0000	50.4728	50.4728	0.0160	0.0000	50.8733
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1918**	**0.2837**	**0.3839**	**5.8000e-004**	**0.0000**	**0.0150**	**0.0150**	**0.0000**	**0.0138**	**0.0138**	**0.0000**	**50.4728**	**50.4728**	**0.0160**	**0.0000**	**50.8733**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.0868	0.0203	2.8000e-004	6.7000e-003	2.6000e-004	6.9700e-003	1.8400e-003	2.5000e-004	2.0900e-003	0.0000	27.9842	27.9842	1.8300e-003	0.0000	28.0300
Vendor	1.0100e-003	0.0290	7.7500e-003	1.2000e-004	3.6400e-003	9.0000e-005	3.7300e-003	1.0500e-003	9.0000e-005	1.1400e-003	0.0000	11.7669	11.7669	5.0000e-004	0.0000	11.7793
Worker	2.4300e-003	1.8300e-003	0.0209	7.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	6.2141	6.2141	1.5000e-004	0.0000	6.2179
Total	**6.0400e-003**	**0.1176**	**0.0490**	**4.7000e-004**	**0.0178**	**4.0000e-004**	**0.0182**	**4.8700e-003**	**3.9000e-004**	**5.2600e-003**	**0.0000**	**45.9652**	**45.9652**	**2.4800e-003**	**0.0000**	**46.0272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4727	50.4727	0.0160	0.0000	50.8733
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4727**	**50.4727**	**0.0160**	**0.0000**	**50.8733**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.0868	0.0203	2.8000e-004	6.7000e-003	2.6000e-004	6.9700e-003	1.8400e-003	2.5000e-004	2.0900e-003	0.0000	27.9842	27.9842	1.8300e-003	0.0000	28.0300
Vendor	1.0100e-003	0.0290	7.7500e-003	1.2000e-004	3.6400e-003	9.0000e-005	3.7300e-003	1.0500e-003	9.0000e-005	1.1400e-003	0.0000	11.7669	11.7669	5.0000e-004	0.0000	11.7793
Worker	2.4300e-003	1.8300e-003	0.0209	7.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	6.2141	6.2141	1.5000e-004	0.0000	6.2179
Total	**6.0400e-003**	**0.1176**	**0.0490**	**4.7000e-004**	**0.0178**	**4.0000e-004**	**0.0182**	**4.8700e-003**	**3.9000e-004**	**5.2600e-003**	**0.0000**	**45.9652**	**45.9652**	**2.4800e-003**	**0.0000**	**46.0272**

3.28 Plot 4 (2022) Finish Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0689	0.0000	0.0689	7.4400e-003	0.0000	7.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0198	0.1913	0.1604	2.2000e-004		0.0106	0.0106		9.7900e-003	9.7900e-003	0.0000	19.1260	19.1260	6.1900e-003	0.0000	19.2806
Total	**0.0198**	**0.1913**	**0.1604**	**2.2000e-004**	**0.0689**	**0.0106**	**0.0796**	**7.4400e-003**	**9.7900e-003**	**0.0172**	**0.0000**	**19.1260**	**19.1260**	**6.1900e-003**	**0.0000**	**19.2806**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-004	7.2300e-003	1.7000e-003	2.0000e-005	5.6000e-004	2.0000e-005	5.8000e-004	1.5000e-004	2.0000e-005	1.7000e-004	0.0000	2.3320	2.3320	1.5000e-004	0.0000	2.3358
Vendor	2.5000e-004	7.2600e-003	1.9400e-003	3.0000e-005	9.1000e-004	2.0000e-005	9.3000e-004	2.6000e-004	2.0000e-005	2.8000e-004	0.0000	2.9417	2.9417	1.2000e-004	0.0000	2.9448
Worker	1.8200e-003	1.3700e-003	0.0156	5.0000e-005	5.6000e-003	4.0000e-005	5.6400e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	4.6606	4.6606	1.1000e-004	0.0000	4.6635
Total	**2.2900e-003**	**0.0159**	**0.0193**	**1.0000e-004**	**7.0700e-003**	**8.0000e-005**	**7.1500e-003**	**1.9000e-003**	**8.0000e-005**	**1.9700e-003**	**0.0000**	**9.9343**	**9.9343**	**3.8000e-004**	**0.0000**	**9.9441**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0269	0.0000	0.0269	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0116	0.1645	2.2000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	19.1259	19.1259	6.1900e-003	0.0000	19.2806
Total	**2.6700e-003**	**0.0116**	**0.1645**	**2.2000e-004**	**0.0269**	**3.6000e-004**	**0.0272**	**2.9000e-003**	**3.6000e-004**	**3.2600e-003**	**0.0000**	**19.1259**	**19.1259**	**6.1900e-003**	**0.0000**	**19.2806**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-004	7.2300e-003	1.7000e-003	2.0000e-005	5.6000e-004	2.0000e-005	5.8000e-004	1.5000e-004	2.0000e-005	1.7000e-004	0.0000	2.3320	2.3320	1.5000e-004	0.0000	2.3358
Vendor	2.5000e-004	7.2600e-003	1.9400e-003	3.0000e-005	9.1000e-004	2.0000e-005	9.3000e-004	2.6000e-004	2.0000e-005	2.8000e-004	0.0000	2.9417	2.9417	1.2000e-004	0.0000	2.9448
Worker	1.8200e-003	1.3700e-003	0.0156	5.0000e-005	5.6000e-003	4.0000e-005	5.6400e-003	1.4900e-003	4.0000e-005	1.5200e-003	0.0000	4.6606	4.6606	1.1000e-004	0.0000	4.6635
Total	**2.2900e-003**	**0.0159**	**0.0193**	**1.0000e-004**	**7.0700e-003**	**8.0000e-005**	**7.1500e-003**	**1.9000e-003**	**8.0000e-005**	**1.9700e-003**	**0.0000**	**9.9343**	**9.9343**	**3.8000e-004**	**0.0000**	**9.9441**

3.29 Plot 4 (2022) Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0890	0.9179	0.9490	1.7100e-003		0.0420	0.0420		0.0386	0.0386	0.0000	149.7152	149.7152	0.0481	0.0000	150.9172
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2509**	**0.9179**	**0.9490**	**1.7100e-003**	**0.1273**	**0.0420**	**0.1692**	**0.0137**	**0.0386**	**0.0524**	**0.0000**	**149.7152**	**149.7152**	**0.0481**	**0.0000**	**150.9172**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-003	0.0734	0.0172	2.4000e-004	5.6700e-003	2.2000e-004	5.8900e-003	1.5600e-003	2.1000e-004	1.7700e-003	0.0000	23.6789	23.6789	1.5500e-003	0.0000	23.7177
Vendor	7.6000e-004	0.0218	5.8100e-003	9.0000e-005	2.7300e-003	7.0000e-005	2.8000e-003	7.9000e-004	6.0000e-005	8.5000e-004	0.0000	8.8252	8.8252	3.7000e-004	0.0000	8.8345
Worker	3.0400e-003	2.2800e-003	0.0261	9.0000e-005	9.3300e-003	7.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	7.7677	7.7677	1.9000e-004	0.0000	7.7724
Total	**6.0000e-003**	**0.0975**	**0.0491**	**4.2000e-004**	**0.0177**	**3.6000e-004**	**0.0181**	**4.8300e-003**	**3.3000e-004**	**5.1600e-003**	**0.0000**	**40.2717**	**40.2717**	**2.1100e-003**	**0.0000**	**40.3246**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0221	0.0981	1.0538	1.7100e-003		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	149.7151	149.7151	0.0481	0.0000	150.9170
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1840**	**0.0981**	**1.0538**	**1.7100e-003**	**0.0496**	**3.0900e-003**	**0.0527**	**5.3600e-003**	**3.0900e-003**	**8.4500e-003**	**0.0000**	**149.7151**	**149.7151**	**0.0481**	**0.0000**	**150.9170**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-003	0.0734	0.0172	2.4000e-004	5.6700e-003	2.2000e-004	5.8900e-003	1.5600e-003	2.1000e-004	1.7700e-003	0.0000	23.6789	23.6789	1.5500e-003	0.0000	23.7177
Vendor	7.6000e-004	0.0218	5.8100e-003	9.0000e-005	2.7300e-003	7.0000e-005	2.8000e-003	7.9000e-004	6.0000e-005	8.5000e-004	0.0000	8.8252	8.8252	3.7000e-004	0.0000	8.8345
Worker	3.0400e-003	2.2800e-003	0.0261	9.0000e-005	9.3300e-003	7.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	7.7677	7.7677	1.9000e-004	0.0000	7.7724
Total	**6.0000e-003**	**0.0975**	**0.0491**	**4.2000e-004**	**0.0177**	**3.6000e-004**	**0.0181**	**4.8300e-003**	**3.3000e-004**	**5.1600e-003**	**0.0000**	**40.2717**	**40.2717**	**2.1100e-003**	**0.0000**	**40.3246**

3.30 Plot 4 (2022) Temporary Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0965	1.0703	0.8181	1.8000e-003		0.0434	0.0434		0.0399	0.0399	0.0000	158.4308	158.4308	0.0512	0.0000	159.7118
Total	**0.0965**	**1.0703**	**0.8181**	**1.8000e-003**	**0.0000**	**0.0434**	**0.0434**	**0.0000**	**0.0399**	**0.0399**	**0.0000**	**158.4308**	**158.4308**	**0.0512**	**0.0000**	**159.7118**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.4306	158.4306	0.0512	0.0000	159.7116
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.4306**	**158.4306**	**0.0512**	**0.0000**	**159.7116**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.31 Plot 4 (2023) Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4906	12.1991	14.8282	0.0450		0.4913	0.4913		0.4522	0.4522	0.0000	3,949.7998	3,949.7998	1.2761	0.0000	3,981.7032
Total	**1.4906**	**12.1991**	**14.8282**	**0.0450**	**3.3194**	**0.4913**	**3.8107**	**0.3584**	**0.4522**	**0.8106**	**0.0000**	**3,949.7998**	**3,949.7998**	**1.2761**	**0.0000**	**3,981.7032**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0172	0.5453	0.1851	2.7400e-003	0.0673	1.0900e-003	0.0683	0.0185	1.0500e-003	0.0195	0.0000	269.6733	269.6733	0.0170	0.0000	270.0991
Vendor	0.0149	0.3850	0.1417	2.4000e-003	0.0740	8.2000e-004	0.0748	0.0213	7.9000e-004	0.0221	0.0000	232.4787	232.4787	9.3200e-003	0.0000	232.7116
Worker	0.0298	0.0215	0.2502	8.6000e-004	0.0970	6.7000e-004	0.0977	0.0258	6.1000e-004	0.0264	0.0000	77.7693	77.7693	1.7900e-003	0.0000	77.8140
Total	**0.0619**	**0.9518**	**0.5770**	**6.0000e-003**	**0.2382**	**2.5800e-003**	**0.2408**	**0.0655**	**2.4500e-003**	**0.0680**	**0.0000**	**579.9213**	**579.9213**	**0.0281**	**0.0000**	**580.6247**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8371	5.6391	19.9585	0.0450		0.1726	0.1726		0.1628	0.1628	0.0000	3,949.7951	3,949.7951	1.2761	0.0000	3,981.6985
Total	**0.8371**	**5.6391**	**19.9585**	**0.0450**	**1.2946**	**0.1726**	**1.4672**	**0.1398**	**0.1628**	**0.3026**	**0.0000**	**3,949.7951**	**3,949.7951**	**1.2761**	**0.0000**	**3,981.6985**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0172	0.5453	0.1851	2.7400e-003	0.0673	1.0900e-003	0.0683	0.0185	1.0500e-003	0.0195	0.0000	269.6733	269.6733	0.0170	0.0000	270.0991
Vendor	0.0149	0.3850	0.1417	2.4000e-003	0.0740	8.2000e-004	0.0748	0.0213	7.9000e-004	0.0221	0.0000	232.4787	232.4787	9.3200e-003	0.0000	232.7116
Worker	0.0298	0.0215	0.2502	8.6000e-004	0.0970	6.7000e-004	0.0977	0.0258	6.1000e-004	0.0264	0.0000	77.7693	77.7693	1.7900e-003	0.0000	77.8140
Total	**0.0619**	**0.9518**	**0.5770**	**6.0000e-003**	**0.2382**	**2.5800e-003**	**0.2408**	**0.0655**	**2.4500e-003**	**0.0680**	**0.0000**	**579.9213**	**579.9213**	**0.0281**	**0.0000**	**580.6247**

3.32 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4065	3.8330	5.4147	8.1300e-003		0.1877	0.1877		0.1766	0.1766	0.0000	703.7942	703.7942	0.1727	0.0000	708.1114
Total	**0.4065**	**3.8330**	**5.4147**	**8.1300e-003**	**0.4152**	**0.1877**	**0.6029**	**0.0448**	**0.1766**	**0.2215**	**0.0000**	**703.7942**	**703.7942**	**0.1727**	**0.0000**	**708.1114**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0206	0.6543	0.2221	3.2800e-003	0.0807	1.3100e-003	0.0820	0.0222	1.2500e-003	0.0234	0.0000	323.6080	323.6080	0.0204	0.0000	324.1189
Vendor	1.2000e-003	0.0308	0.0113	1.9000e-004	5.9200e-003	7.0000e-005	5.9900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.5983	18.5983	7.5000e-004	0.0000	18.6169
Worker	0.0186	0.0134	0.1564	5.4000e-004	0.0606	4.2000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	48.6058	48.6058	1.1200e-003	0.0000	48.6338
Total	**0.0404**	**0.6985**	**0.3898**	**4.0100e-003**	**0.1472**	**1.8000e-003**	**0.1490**	**0.0400**	**1.6900e-003**	**0.0417**	**0.0000**	**390.8120**	**390.8120**	**0.0223**	**0.0000**	**391.3696**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1300e-003		0.0177	0.0177		0.0177	0.0177	0.0000	703.7933	703.7933	0.1727	0.0000	708.1106
Total	**0.1140**	**0.5384**	**5.7392**	**8.1300e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**703.7933**	**703.7933**	**0.1727**	**0.0000**	**708.1106**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0206	0.6543	0.2221	3.2800e-003	0.0807	1.3100e-003	0.0820	0.0222	1.2500e-003	0.0234	0.0000	323.6080	323.6080	0.0204	0.0000	324.1189
Vendor	1.2000e-003	0.0308	0.0113	1.9000e-004	5.9200e-003	7.0000e-005	5.9900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.5983	18.5983	7.5000e-004	0.0000	18.6169
Worker	0.0186	0.0134	0.1564	5.4000e-004	0.0606	4.2000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	48.6058	48.6058	1.1200e-003	0.0000	48.6338
Total	**0.0404**	**0.6985**	**0.3898**	**4.0100e-003**	**0.1472**	**1.8000e-003**	**0.1490**	**0.0400**	**1.6900e-003**	**0.0417**	**0.0000**	**390.8120**	**390.8120**	**0.0223**	**0.0000**	**391.3696**

3.33 Plot 4 (2023) Building-Wet Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6822	5.8476	8.7013	0.0163		0.2823	0.2823		0.2597	0.2597	0.0000	1,428.8095	1,428.8095	0.4621	0.0000	1,440.3622
Total	**0.6822**	**5.8476**	**8.7013**	**0.0163**	**1.2450**	**0.2823**	**1.5273**	**0.1344**	**0.2597**	**0.3941**	**0.0000**	**1,428.8095**	**1,428.8095**	**0.4621**	**0.0000**	**1,440.3622**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0100e-003	0.1908	0.0648	9.6000e-004	0.0235	3.8000e-004	0.0239	6.4600e-003	3.7000e-004	6.8300e-003	0.0000	94.3857	94.3857	5.9600e-003	0.0000	94.5347
Vendor	8.9600e-003	0.2310	0.0850	1.4400e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	139.4872	139.4872	5.5900e-003	0.0000	139.6270
Worker	0.0186	0.0134	0.1564	5.4000e-004	0.0606	4.2000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	48.6058	48.6058	1.1200e-003	0.0000	48.6338
Total	**0.0336**	**0.4353**	**0.3062**	**2.9400e-003**	**0.1286**	**1.2900e-003**	**0.1298**	**0.0354**	**1.2200e-003**	**0.0366**	**0.0000**	**282.4787**	**282.4787**	**0.0127**	**0.0000**	**282.7954**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2493	1.3868	10.1803	0.0163		0.0479	0.0479		0.0458	0.0458	0.0000	1,428.8078	1,428.8078	0.4621	0.0000	1,440.3605
Total	**0.2493**	**1.3868**	**10.1803**	**0.0163**	**0.4856**	**0.0479**	**0.5334**	**0.0524**	**0.0458**	**0.0982**	**0.0000**	**1,428.8078**	**1,428.8078**	**0.4621**	**0.0000**	**1,440.3605**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0100e-003	0.1908	0.0648	9.6000e-004	0.0235	3.8000e-004	0.0239	6.4600e-003	3.7000e-004	6.8300e-003	0.0000	94.3857	94.3857	5.9600e-003	0.0000	94.5347
Vendor	8.9600e-003	0.2310	0.0850	1.4400e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	139.4872	139.4872	5.5900e-003	0.0000	139.6270
Worker	0.0186	0.0134	0.1564	5.4000e-004	0.0606	4.2000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	48.6058	48.6058	1.1200e-003	0.0000	48.6338
Total	**0.0336**	**0.4353**	**0.3062**	**2.9400e-003**	**0.1286**	**1.2900e-003**	**0.1298**	**0.0354**	**1.2200e-003**	**0.0366**	**0.0000**	**282.4787**	**282.4787**	**0.0127**	**0.0000**	**282.7954**

3.34 Plot 4 (2023) Building-Electrical - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4425	4.0035	5.3354	7.3400e-003		0.1924	0.1924		0.1772	0.1772	0.0000	641.5493	641.5493	0.2055	0.0000	646.6874
Total	**0.4425**	**4.0035**	**5.3354**	**7.3400e-003**	**0.8298**	**0.1924**	**1.0222**	**0.0896**	**0.1772**	**0.2668**	**0.0000**	**641.5493**	**641.5493**	**0.2055**	**0.0000**	**646.6874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0138	0.4362	0.1481	2.1900e-003	0.0538	8.7000e-004	0.0547	0.0148	8.4000e-004	0.0156	0.0000	215.7386	215.7386	0.0136	0.0000	216.0793
Vendor	3.5900e-003	0.0924	0.0340	5.8000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.7949	55.7949	2.2400e-003	0.0000	55.8508
Worker	0.0112	8.0600e-003	0.0938	3.2000e-004	0.0364	2.5000e-004	0.0366	9.6600e-003	2.3000e-004	9.8900e-003	0.0000	29.1635	29.1635	6.7000e-004	0.0000	29.1803
Total	**0.0285**	**0.5367**	**0.2759**	**3.0900e-003**	**0.1079**	**1.3200e-003**	**0.1093**	**0.0296**	**1.2600e-003**	**0.0308**	**0.0000**	**300.6970**	**300.6970**	**0.0165**	**0.0000**	**301.1103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1666	1.4351	5.5136	7.3400e-003		0.0335	0.0335		0.0318	0.0318	0.0000	641.5485	641.5485	0.2055	0.0000	646.6867
Total	**0.1666**	**1.4351**	**5.5136**	**7.3400e-003**	**0.3236**	**0.0335**	**0.3571**	**0.0350**	**0.0318**	**0.0668**	**0.0000**	**641.5485**	**641.5485**	**0.2055**	**0.0000**	**646.6867**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0138	0.4362	0.1481	2.1900e-003	0.0538	8.7000e-004	0.0547	0.0148	8.4000e-004	0.0156	0.0000	215.7386	215.7386	0.0136	0.0000	216.0793
Vendor	3.5900e-003	0.0924	0.0340	5.8000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.7949	55.7949	2.2400e-003	0.0000	55.8508
Worker	0.0112	8.0600e-003	0.0938	3.2000e-004	0.0364	2.5000e-004	0.0366	9.6600e-003	2.3000e-004	9.8900e-003	0.0000	29.1635	29.1635	6.7000e-004	0.0000	29.1803
Total	**0.0285**	**0.5367**	**0.2759**	**3.0900e-003**	**0.1079**	**1.3200e-003**	**0.1093**	**0.0296**	**1.2600e-003**	**0.0308**	**0.0000**	**300.6970**	**300.6970**	**0.0165**	**0.0000**	**301.1103**

3.35 Plot 4 (2023) Building-Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3460	2.9596	4.2479	6.0900e-003		0.1467	0.1467		0.1349	0.1349	0.0000	534.7838	534.7838	0.1730	0.0000	539.1078
Total	**0.3460**	**2.9596**	**4.2479**	**6.0900e-003**	**0.2073**	**0.1467**	**0.3540**	**0.0224**	**0.1349**	**0.1573**	**0.0000**	**534.7838**	**534.7838**	**0.1730**	**0.0000**	**539.1078**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1800e-003	0.1078	0.0397	6.7000e-004	0.0207	2.3000e-004	0.0210	5.9700e-003	2.2000e-004	6.1900e-003	0.0000	65.0940	65.0940	2.6100e-003	0.0000	65.1593
Worker	7.4500e-003	5.3700e-003	0.0626	2.1000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	19.4423	19.4423	4.5000e-004	0.0000	19.4535
Total	**0.0116**	**0.1132**	**0.1022**	**8.8000e-004**	**0.0450**	**4.0000e-004**	**0.0454**	**0.0124**	**3.7000e-004**	**0.0128**	**0.0000**	**84.5364**	**84.5364**	**3.0600e-003**	**0.0000**	**84.6128**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1692	1.6588	4.6334	6.0900e-003		0.0370	0.0370		0.0347	0.0347	0.0000	534.7831	534.7831	0.1730	0.0000	539.1071
Total	**0.1692**	**1.6588**	**4.6334**	**6.0900e-003**	**0.0809**	**0.0370**	**0.1179**	**8.7300e-003**	**0.0347**	**0.0435**	**0.0000**	**534.7831**	**534.7831**	**0.1730**	**0.0000**	**539.1071**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1800e-003	0.1078	0.0397	6.7000e-004	0.0207	2.3000e-004	0.0210	5.9700e-003	2.2000e-004	6.1900e-003	0.0000	65.0940	65.0940	2.6100e-003	0.0000	65.1593
Worker	7.4500e-003	5.3700e-003	0.0626	2.1000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	19.4423	19.4423	4.5000e-004	0.0000	19.4535
Total	**0.0116**	**0.1132**	**0.1022**	**8.8000e-004**	**0.0450**	**4.0000e-004**	**0.0454**	**0.0124**	**3.7000e-004**	**0.0128**	**0.0000**	**84.5364**	**84.5364**	**3.0600e-003**	**0.0000**	**84.6128**

3.36 Plot 4 (2023) Landscaping - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3667	3.1290	4.5514	6.5500e-003		0.1559	0.1559		0.1434	0.1434	0.0000	575.7913	575.7913	0.1862	0.0000	580.4468
Total	**0.3667**	**3.1290**	**4.5514**	**6.5500e-003**	**0.2073**	**0.1559**	**0.3632**	**0.0224**	**0.1434**	**0.1658**	**0.0000**	**575.7913**	**575.7913**	**0.1862**	**0.0000**	**580.4468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5900e-003	0.0924	0.0340	5.8000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.7949	55.7949	2.2400e-003	0.0000	55.8508
Worker	7.4500e-003	5.3700e-003	0.0626	2.1000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	19.4423	19.4423	4.5000e-004	0.0000	19.4535
Total	**0.0110**	**0.0978**	**0.0966**	**7.9000e-004**	**0.0420**	**3.7000e-004**	**0.0424**	**0.0116**	**3.4000e-004**	**0.0119**	**0.0000**	**75.2372**	**75.2372**	**2.6900e-003**	**0.0000**	**75.3043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1750	1.6837	4.9876	6.5500e-003		0.0378	0.0378		0.0355	0.0355	0.0000	575.7906	575.7906	0.1862	0.0000	580.4462
Total	**0.1750**	**1.6837**	**4.9876**	**6.5500e-003**	**0.0809**	**0.0378**	**0.1186**	**8.7300e-003**	**0.0355**	**0.0442**	**0.0000**	**575.7906**	**575.7906**	**0.1862**	**0.0000**	**580.4462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5900e-003	0.0924	0.0340	5.8000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.7949	55.7949	2.2400e-003	0.0000	55.8508
Worker	7.4500e-003	5.3700e-003	0.0626	2.1000e-004	0.0243	1.7000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	19.4423	19.4423	4.5000e-004	0.0000	19.4535
Total	**0.0110**	**0.0978**	**0.0966**	**7.9000e-004**	**0.0420**	**3.7000e-004**	**0.0424**	**0.0116**	**3.4000e-004**	**0.0119**	**0.0000**	**75.2372**	**75.2372**	**2.6900e-003**	**0.0000**	**75.3043**

3.37 Plot 4 (2023) Curbing/Drive Approaches - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0284	0.2650	0.3842	5.8000e-004		0.0135	0.0135		0.0125	0.0125	0.0000	50.4808	50.4808	0.0160	0.0000	50.8814
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1903**	**0.2650**	**0.3842**	**5.8000e-004**	**0.0000**	**0.0135**	**0.0135**	**0.0000**	**0.0125**	**0.0125**	**0.0000**	**50.4808**	**50.4808**	**0.0160**	**0.0000**	**50.8814**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7100e-003	0.0544	0.0185	2.7000e-004	6.7000e-003	1.1000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.8812	26.8812	1.7000e-003	0.0000	26.9236
Vendor	7.4000e-004	0.0190	6.9700e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.4451	11.4451	4.6000e-004	0.0000	11.4566
Worker	2.2900e-003	1.6500e-003	0.0193	7.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	5.9823	5.9823	1.4000e-004	0.0000	5.9857
Total	**4.7400e-003**	**0.0750**	**0.0447**	**4.6000e-004**	**0.0178**	**2.0000e-004**	**0.0180**	**4.8700e-003**	**1.9000e-004**	**5.0600e-003**	**0.0000**	**44.3085**	**44.3085**	**2.3000e-003**	**0.0000**	**44.3659**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4808	50.4808	0.0160	0.0000	50.8814
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4808**	**50.4808**	**0.0160**	**0.0000**	**50.8814**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7100e-003	0.0544	0.0185	2.7000e-004	6.7000e-003	1.1000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.8812	26.8812	1.7000e-003	0.0000	26.9236
Vendor	7.4000e-004	0.0190	6.9700e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.4451	11.4451	4.6000e-004	0.0000	11.4566
Worker	2.2900e-003	1.6500e-003	0.0193	7.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	5.9823	5.9823	1.4000e-004	0.0000	5.9857
Total	**4.7400e-003**	**0.0750**	**0.0447**	**4.6000e-004**	**0.0178**	**2.0000e-004**	**0.0180**	**4.8700e-003**	**1.9000e-004**	**5.0600e-003**	**0.0000**	**44.3085**	**44.3085**	**2.3000e-003**	**0.0000**	**44.3659**

3.38 Plot 4 (2023) Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0842	0.8471	0.9366	1.7100e-003		0.0379	0.0379		0.0349	0.0349	0.0000	149.7346	149.7346	0.0481	0.0000	150.9367
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2462**	**0.8471**	**0.9366**	**1.7100e-003**	**0.1273**	**0.0379**	**0.1651**	**0.0137**	**0.0349**	**0.0486**	**0.0000**	**149.7346**	**149.7346**	**0.0481**	**0.0000**	**150.9367**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4500e-003	0.0460	0.0156	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	9.0000e-005	1.6500e-003	0.0000	22.7456	22.7456	1.4400e-003	0.0000	22.7815
Vendor	5.5000e-004	0.0142	5.2300e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.5838	8.5838	3.4000e-004	0.0000	8.5924
Worker	2.8600e-003	2.0700e-003	0.0241	8.0000e-005	9.3300e-003	6.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	7.4778	7.4778	1.7000e-004	0.0000	7.4821
Total	**4.8600e-003**	**0.0623**	**0.0449**	**4.0000e-004**	**0.0177**	**1.8000e-004**	**0.0179**	**4.8300e-003**	**1.8000e-004**	**5.0100e-003**	**0.0000**	**38.8073**	**38.8073**	**1.9500e-003**	**0.0000**	**38.8561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0221	0.0981	1.0538	1.7100e-003		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	149.7344	149.7344	0.0481	0.0000	150.9365
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1840**	**0.0981**	**1.0538**	**1.7100e-003**	**0.0496**	**3.0900e-003**	**0.0527**	**5.3600e-003**	**3.0900e-003**	**8.4500e-003**	**0.0000**	**149.7344**	**149.7344**	**0.0481**	**0.0000**	**150.9365**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4500e-003	0.0460	0.0156	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	9.0000e-005	1.6500e-003	0.0000	22.7456	22.7456	1.4400e-003	0.0000	22.7815
Vendor	5.5000e-004	0.0142	5.2300e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.5838	8.5838	3.4000e-004	0.0000	8.5924
Worker	2.8600e-003	2.0700e-003	0.0241	8.0000e-005	9.3300e-003	6.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5400e-003	0.0000	7.4778	7.4778	1.7000e-004	0.0000	7.4821
Total	**4.8600e-003**	**0.0623**	**0.0449**	**4.0000e-004**	**0.0177**	**1.8000e-004**	**0.0179**	**4.8300e-003**	**1.8000e-004**	**5.0100e-003**	**0.0000**	**38.8073**	**38.8073**	**1.9500e-003**	**0.0000**	**38.8561**

3.39 Plot 4 (2023) Temporary Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0874	0.9285	0.7434	1.8000e-003		0.0376	0.0376		0.0346	0.0346	0.0000	158.4688	158.4688	0.0513	0.0000	159.7501
Total	**0.0874**	**0.9285**	**0.7434**	**1.8000e-003**	**0.0000**	**0.0376**	**0.0376**	**0.0000**	**0.0346**	**0.0346**	**0.0000**	**158.4688**	**158.4688**	**0.0513**	**0.0000**	**159.7501**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.4686	158.4686	0.0513	0.0000	159.7499
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.4686**	**158.4686**	**0.0513**	**0.0000**	**159.7499**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

World Logistics Center-Construction Plots 9 and 1,3,20 (2024-2026)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	9.5904	92.7419	83.8608	0.2072	12.8318	3.5925	16.4244	1.5567	3.3094	4.8660	0.0000	18,405.1415	18,405.1415	5.2396	0.0000	18,536.1312
2025	4.7006	37.7845	52.4041	0.1268	7.9491	1.4344	9.3834	1.0024	1.3234	2.3259	0.0000	11,301.7614	11,301.7614	3.0551	0.0000	11,378.1376
2026	5.6055	47.3146	58.6469	0.1466	9.5904	1.7877	11.3780	1.1850	1.6485	2.8335	0.0000	13,048.2224	13,048.2224	3.5992	0.0000	13,138.2033
Maximum	**9.5904**	**92.7419**	**83.8608**	**0.2072**	**12.8318**	**3.5925**	**16.4244**	**1.5567**	**3.3094**	**4.8660**	**0.0000**	**18,405.1415**	**18,405.1415**	**5.2396**	**0.0000**	**18,536.1312**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	3.4252	20.9517	96.8498	0.2072	5.6353	0.4908	6.1261	0.7796	0.4737	1.2533	0.0000	18,405.1224	18,405.1224	5.2396	0.0000	18,536.1120
2025	2.4094	15.7924	61.7778	0.1268	3.6320	0.3428	3.9748	0.5363	0.3276	0.8639	0.0000	11,301.7503	11,301.7503	3.0550	0.0000	11,378.1264
2026	2.6394	16.8738	70.3616	0.1466	4.2912	0.3727	4.6639	0.6129	0.3576	0.9704	0.0000	13,048.2093	13,048.2093	3.5992	0.0000	13,138.1901
Maximum	**3.4252**	**20.9517**	**96.8498**	**0.2072**	**5.6353**	**0.4908**	**6.1261**	**0.7796**	**0.4737**	**1.2533**	**0.0000**	**18,405.1224**	**18,405.1224**	**5.2396**	**0.0000**	**18,536.1120**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**57.41**	**69.85**	**-17.48**	**0.00**	**55.36**	**82.30**	**60.29**	**48.49**	**81.55**	**69.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
17	**1-1-2024**	**3-31-2024**	40.2846	7.3587
18	**4-1-2024**	**6-30-2024**	41.8809	7.9552
19	**7-1-2024**	**9-30-2024**	10.5908	4.7638
20	**10-1-2024**	**12-31-2024**	9.4927	4.2159
21	**1-1-2025**	**3-31-2025**	9.9357	4.3164
22	**4-1-2025**	**6-30-2025**	10.7784	4.6682
23	**7-1-2025**	**9-30-2025**	11.2206	4.7280
24	**10-1-2025**	**12-31-2025**	10.4848	4.4235
25	**1-1-2026**	**3-31-2026**	16.6981	5.2499
26	**4-1-2026**	**6-30-2026**	17.8340	5.6895
27	**7-1-2026**	**9-30-2026**	9.5877	4.4313
		Highest	41.8809	7.9552

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 9 (2024) Mass Excavation	Grading	1/1/2024	6/30/2024	5	130	1138
2	Plot 9 (2024) Utilities	Trenching	1/1/2024	12/29/2024	5	260	1144
3	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
4	Plot 9 (2024) Building-Wet Utilities	Building Construction	1/1/2024	12/29/2024	5	260	1141
5	Plot 9 (2024) Building-Electrical	Building Construction	1/1/2024	12/29/2024	5	260	1142
6	Plot 9 (2024) Building-Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1143
7	Plot 9 (2024) Landscaping	Building Construction	1/1/2024	12/29/2024	5	260	1145
8	Plot 9 (2024) Curbing/Drive Approaches	Paving	5/1/2024	8/20/2024	5	80	1147
9	Plot 9 (2024) Finish Grading	Grading	5/7/2024	7/1/2024	5	40	1139
10	Plot 9 (2024) Paving	Paving	6/1/2024	7/26/2024	5	40	1148
11	Plot 9 (2024) Temporary Utilities	Building Construction	7/2/2024	12/30/2024	5	130	1146
12	Plot 9 (2025) Utilities	Trenching	1/1/2025	12/30/2025	5	260	1153
13	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
14	Plot 9 (2025) Building-Wet Utilities	Building Construction	1/1/2025	12/30/2025	5	260	1150
15	Plot 9 (2025) Building-Electrical	Building Construction	1/1/2025	12/30/2025	5	260	1151
16	Plot 9 (2025) Building-Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1152

17	Plot 9 (2025) Interchange	Building Construction	1/1/2025	12/30/2025	5	260	1154
18	Plot 9 (2025) Landscaping	Building Construction	1/1/2025	12/30/2025	5	260	1155
19	Plot 9 (2025) Curbing/Drive Approaches	Paving	5/1/2025	8/20/2025	5	80	1157
20	Plot 9 (2025) Paving	Paving	6/1/2025	7/26/2025	5	40	1158
21	Plot 9 (2025) Temporary Utilities	Building Construction	7/2/2025	12/30/2025	5	130	1156
22	Plots 1 3 20 (2026) Mass Excavation	Grading	1/1/2026	7/1/2026	5	130	1159
23	Plots 1 3 20 (2026) Utilities	Trenching	1/1/2026	12/30/2026	5	260	1165
24	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
25	Plots 1 3 20 (2026) Building-Wet Utilities	Building Construction	1/1/2026	12/30/2026	5	260	1162
26	Plots 1 3 20 (2026) Building-Electrical	Building Construction	1/1/2026	12/30/2026	5	260	1163
27	Plots 1 3 20 (2026) Building-Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1164
28	Plots 1 3 20 (2026) Interchange	Building Construction	1/1/2026	7/1/2026	5	130	1166
29	Plots 1 3 20 (2026) Landscaping	Building Construction	1/1/2026	12/30/2026	5	260	1167
30	Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving	5/1/2026	8/20/2026	5	80	1169
31	Plots 1 3 20 (2026) Finish Grading	Grading	5/7/2026	7/1/2026	5	40	1160
32	Plots 1 3 20 (2026) Paving	Paving	6/1/2026	7/26/2026	5	40	1170
33	Plots 1 3 20 (2026) Temporary Utilities	Building Construction	7/2/2026	12/30/2026	5	130	1168

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 1 3 20 (2026) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 1 3 20 (2026) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 1 3 20 (2026) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 1 3 20 (2026) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 1 3 20 (2026) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 1 3 20 (2026) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Building-Landscaping	Trenchers	2	10.00	39	0.50

Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 1 3 20 (2026) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 1 3 20 (2026) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 1 3 20 (2026) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 1 3 20 (2026) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 1 3 20 (2026) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 1 3 20 (2026) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 1 3 20 (2026) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 1 3 20 (2026) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plots 1 3 20 (2026) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plots 1 3 20 (2026) Interchange	Cranes	1	10.00	226	0.29
Plots 1 3 20 (2026) Interchange	Excavators	1	10.00	190	0.38
Plots 1 3 20 (2026) Interchange	Graders	1	10.00	259	0.41
Plots 1 3 20 (2026) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plots 1 3 20 (2026) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plots 1 3 20 (2026) Interchange	Scrapers	1	10.00	330	0.48
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plots 1 3 20 (2026) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plots 1 3 20 (2026) Landscaping	Excavators	2	10.00	29	0.38

Plots 1 3 20 (2026) Landscaping	Forklifts	2	10.00	125	0.20
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 1 3 20 (2026) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 1 3 20 (2026) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 1 3 20 (2026) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 1 3 20 (2026) Landscaping	Trenchers	2	10.00	39	0.50
Plots 1 3 20 (2026) Mass Excavation	Graders	1	10.00	193	0.41
Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	3	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 1 3 20 (2026) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 1 3 20 (2026) Mass Excavation	Scrapers	1	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Scrapers	9	10.00	550	0.48
Plots 1 3 20 (2026) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 1 3 20 (2026) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 1 3 20 (2026) Paving	Pavers	2	10.00	126	0.42
Plots 1 3 20 (2026) Paving	Paving Equipment	2	10.00	131	0.36
Plots 1 3 20 (2026) Paving	Plate Compactors	2	10.00	8	0.43
Plots 1 3 20 (2026) Paving	Rollers	2	10.00	81	0.38
Plots 1 3 20 (2026) Paving	Scrapers	2	10.00	362	0.48
Plots 1 3 20 (2026) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 1 3 20 (2026) Temporary Utilities	Cranes	2	10.00	445	0.29

Plots 1 3 20 (2026) Utilities	Cement and Mortar Mixers		8	1.00	9	0.56
Plots 1 3 20 (2026) Utilities	Excavators		2	10.00	523	0.38
Plots 1 3 20 (2026) Utilities	Excavators		10	10.00	286	0.38
Plots 1 3 20 (2026) Utilities	Excavators		2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators		4	10.00	396	0.38
Plots 1 3 20 (2026) Utilities	Excavators		2	10.00	190	0.38
Plots 1 3 20 (2026) Utilities	Excavators		2	10.00	188	0.38
Plots 1 3 20 (2026) Utilities	Excavators		8	10.00	40	0.38
Plots 1 3 20 (2026) Utilities	Forklifts		4	10.00	89	0.20
Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment		7	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Other Material Handling Equipment		18	1.00	167	0.40
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes		2	10.00	85	0.37
Plots 1 3 20 (2026) Utilities	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plot 9 (2024) Mass Excavation	Graders		3	10.00	193	0.41
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment		4	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Other Material Handling Equipment		8	1.00	167	0.40
Plot 9 (2024) Mass Excavation	Plate Compactors		3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Plate Compactors		3	10.00	354	0.43
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers		6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers		6	10.00	580	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers		6	10.00	410	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers		3	10.00	305	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers		3	10.00	140	0.40
Plot 9 (2024) Mass Excavation	Rubber Tired Dozers		6	10.00	85	0.40
Plot 9 (2024) Mass Excavation	Scrapers		10	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Scrapers		20	10.00	550	0.48
Plot 9 (2024) Mass Excavation	Tractors/Loaders/Backhoes		3	10.00	85	0.37
Plot 9 (2024) Utilities	Cement and Mortar Mixers		8	1.00	9	0.56
Plot 9 (2024) Utilities	Excavators		2	10.00	523	0.38
Plot 9 (2024) Utilities	Excavators		10	10.00	286	0.38

Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2024) Utilities	Excavators	2	10.00	188	0.38
Plot 9 (2024) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2024) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2024) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 9 (2024) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2024) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2024) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2024) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2024) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2024) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2024) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2024) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2024) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2024) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40

Plot 9 (2024) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2024) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2024) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2024) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 9 (2024) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2024) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2024) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2024) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2024) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2024) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2024) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2024) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	3	10.00	140	0.40
Plot 9 (2024) Finish Grading	Rubber Tired Dozers	6	10.00	85	0.40
Plot 9 (2024) Finish Grading	Tractors/Loaders/Backhoes	3	10.00	85	0.37
Plot 9 (2024) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2024) Paving	Pavers	2	10.00	126	0.42
Plot 9 (2024) Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2024) Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2024) Paving	Rollers	2	10.00	81	0.38
Plot 9 (2024) Paving	Scrapers	2	10.00	362	0.48

Plot 9 (2024) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2024) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 9 (2025) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 9 (2025) Utilities	Excavators	2	10.00	523	0.38
Plot 9 (2025) Utilities	Excavators	10	10.00	286	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	4	10.00	396	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	190	0.38
Plot 9 (2025) Utilities	Excavators	2	10.00	188	0.38
Plot 9 (2025) Utilities	Excavators	8	10.00	40	0.38
Plot 9 (2025) Utilities	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 9 (2025) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 9 (2025) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 9 (2025) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 9 (2025) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 9 (2025) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 9 (2025) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 9 (2025) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 9 (2025) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 9 (2025) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 9 (2025) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40

Plot 9 (2025) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 9 (2025) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 9 (2025) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2025) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Interchange	Bore/Drill Rigs	1	10.00	206	0.50
Plot 9 (2025) Interchange	Cement and Mortar Mixers	4	1.00	9	0.56
Plot 9 (2025) Interchange	Cranes	1	10.00	226	0.29
Plot 9 (2025) Interchange	Excavators	1	10.00	190	0.38
Plot 9 (2025) Interchange	Graders	1	10.00	259	0.41
Plot 9 (2025) Interchange	Other General Industrial Equipment	1	10.00	88	0.34
Plot 9 (2025) Interchange	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	410	0.40
Plot 9 (2025) Interchange	Rubber Tired Dozers	1	10.00	140	0.40
Plot 9 (2025) Interchange	Rubber Tired Loaders	1	10.00	180	0.36
Plot 9 (2025) Interchange	Scrapers	1	10.00	330	0.48
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	98	0.37
Plot 9 (2025) Interchange	Tractors/Loaders/Backhoes	1	10.00	90	0.37
Plot 9 (2025) Landscaping	Excavators	2	10.00	29	0.38
Plot 9 (2025) Landscaping	Forklifts	2	10.00	125	0.20
Plot 9 (2025) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 9 (2025) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 9 (2025) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 9 (2025) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37

Plot 9 (2025) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 9 (2025) Landscaping	Trenchers	2	10.00	39	0.50
Plot 9 (2025) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 9 (2025) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 9 (2025) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 9 (2025) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 9 (2025) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 9 (2025) Paving	Pavers	2	10.00	126	0.42
Plot 9 (2025) Paving	Paving Equipment	2	10.00	131	0.36
Plot 9 (2025) Paving	Plate Compactors	2	10.00	8	0.43
Plot 9 (2025) Paving	Rollers	2	10.00	81	0.38
Plot 9 (2025) Paving	Scrapers	2	10.00	362	0.48
Plot 9 (2025) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 9 (2025) Temporary Utilities	Cranes	2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 9 (2024) Mass Excavation		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		50.00	15.00	4,185.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Electrical		15.00	6.00	104.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Landscaping		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Landscaping		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Curbing/Drive		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Finish Grading		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Utilities		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Wet Utilities		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Electrical		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Landscaping		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 9 (2025) Interchange		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Landscaping		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Curbing/Drive		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Paving		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Mass Excavation		50.00	8.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Interchange		25.00	4.00	2,817.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Finish Grading		15.00	2.00	156.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 9 (2024) Mass Excavation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.2394	0.0000	5.2394	0.5657	0.0000	0.5657	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1899	56.6420	35.7726	0.0884		2.1768	2.1768		2.0027	2.0027	0.0000	7,764.3674	7,764.3674	2.5112	0.0000	7,827.1463
Total	**5.1899**	**56.6420**	**35.7726**	**0.0884**	**5.2394**	**2.1768**	**7.4162**	**0.5657**	**2.0027**	**2.5684**	**0.0000**	**7,764.3674**	**7,764.3674**	**2.5112**	**0.0000**	**7,827.1463**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0116	0.3626	0.1258	1.8200e-003	0.0450	7.3000e-004	0.0457	0.0123	6.9000e-004	0.0130	0.0000	179.6765	179.6765	0.0114	0.0000	179.9613
Vendor	4.4500e-003	0.1155	0.0419	7.2000e-004	0.0222	2.5000e-004	0.0225	6.4000e-003	2.4000e-004	6.6300e-003	0.0000	69.5936	69.5936	2.7800e-003	0.0000	69.6632
Worker	0.0177	0.0122	0.1460	5.2000e-004	0.0606	4.1000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	47.0070	47.0070	1.0300e-003	0.0000	47.0326
Total	**0.0337**	**0.4903**	**0.3137**	**3.0600e-003**	**0.1278**	**1.3900e-003**	**0.1292**	**0.0348**	**1.3100e-003**	**0.0361**	**0.0000**	**296.2771**	**296.2771**	**0.0152**	**0.0000**	**296.6571**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0434	0.0000	2.0434	0.2206	0.0000	0.2206	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0863	4.7072	40.5659	0.0884		0.1448	0.1448		0.1448	0.1448	0.0000	7,764.3582	7,764.3582	2.5112	0.0000	7,827.1370
Total	**1.0863**	**4.7072**	**40.5659**	**0.0884**	**2.0434**	**0.1448**	**2.1882**	**0.2206**	**0.1448**	**0.3655**	**0.0000**	**7,764.3582**	**7,764.3582**	**2.5112**	**0.0000**	**7,827.1370**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0116	0.3626	0.1258	1.8200e-003	0.0450	7.3000e-004	0.0457	0.0123	6.9000e-004	0.0130	0.0000	179.6765	179.6765	0.0114	0.0000	179.9613
Vendor	4.4500e-003	0.1155	0.0419	7.2000e-004	0.0222	2.5000e-004	0.0225	6.4000e-003	2.4000e-004	6.6300e-003	0.0000	69.5936	69.5936	2.7800e-003	0.0000	69.6632
Worker	0.0177	0.0122	0.1460	5.2000e-004	0.0606	4.1000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	47.0070	47.0070	1.0300e-003	0.0000	47.0326
Total	**0.0337**	**0.4903**	**0.3137**	**3.0600e-003**	**0.1278**	**1.3900e-003**	**0.1292**	**0.0348**	**1.3100e-003**	**0.0361**	**0.0000**	**296.2771**	**296.2771**	**0.0152**	**0.0000**	**296.6571**

3.3 Plot 9 (2024) Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4481	11.4411	14.8422	0.0450		0.4474	0.4474		0.4117	0.4117	0.0000	3,949.6728	3,949.6728	1.2761	0.0000	3,981.5752
Total	**1.4481**	**11.4411**	**14.8422**	**0.0450**	**3.3194**	**0.4474**	**3.7667**	**0.3584**	**0.4117**	**0.7701**	**0.0000**	**3,949.6728**	**3,949.6728**	**1.2761**	**0.0000**	**3,981.5752**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7300e-003	0.0541	0.0188	2.7000e-004	6.7000e-003	1.1000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.7905	26.7905	1.7000e-003	0.0000	26.8329
Vendor	2.3700e-003	0.0616	0.0224	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.3000e-004	3.5400e-003	0.0000	37.1166	37.1166	1.4900e-003	0.0000	37.1537
Worker	7.0700e-003	4.9000e-003	0.0584	2.1000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	18.8028	18.8028	4.1000e-004	0.0000	18.8131
Total	**0.0112**	**0.1205**	**0.0995**	**8.6000e-004**	**0.0428**	**4.0000e-004**	**0.0432**	**0.0117**	**3.8000e-004**	**0.0121**	**0.0000**	**82.7099**	**82.7099**	**3.6000e-003**	**0.0000**	**82.7997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8279	5.4225	19.9611	0.0450		0.1639	0.1639		0.1547	0.1547	0.0000	3,949.6681	3,949.6681	1.2761	0.0000	3,981.5705
Total	**0.8279**	**5.4225**	**19.9611**	**0.0450**	**1.2946**	**0.1639**	**1.4584**	**0.1398**	**0.1547**	**0.2945**	**0.0000**	**3,949.6681**	**3,949.6681**	**1.2761**	**0.0000**	**3,981.5705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7300e-003	0.0541	0.0188	2.7000e-004	6.7000e-003	1.1000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.7905	26.7905	1.7000e-003	0.0000	26.8329
Vendor	2.3700e-003	0.0616	0.0224	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.3000e-004	3.5400e-003	0.0000	37.1166	37.1166	1.4900e-003	0.0000	37.1537
Worker	7.0700e-003	4.9000e-003	0.0584	2.1000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	18.8028	18.8028	4.1000e-004	0.0000	18.8131
Total	**0.0112**	**0.1205**	**0.0995**	**8.6000e-004**	**0.0428**	**4.0000e-004**	**0.0432**	**0.0117**	**3.8000e-004**	**0.0121**	**0.0000**	**82.7099**	**82.7099**	**3.6000e-003**	**0.0000**	**82.7997**

3.4 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3859	3.6161	5.4209	8.1400e-003		0.1651	0.1651		0.1554	0.1554	0.0000	704.1007	704.1007	0.1725	0.0000	708.4123
Total	**0.3859**	**3.6161**	**5.4209**	**8.1400e-003**	**0.4152**	**0.1651**	**0.5803**	**0.0448**	**0.1554**	**0.2002**	**0.0000**	**704.1007**	**704.1007**	**0.1725**	**0.0000**	**708.4123**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0116	0.3626	0.1258	1.8200e-003	0.0450	7.3000e-004	0.0457	0.0123	6.9000e-004	0.0130	0.0000	179.6765	179.6765	0.0114	0.0000	179.9613
Vendor	8.9000e-003	0.2309	0.0839	1.4400e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	139.1871	139.1871	5.5700e-003	0.0000	139.3264
Worker	0.0354	0.0245	0.2920	1.0400e-003	0.1212	8.2000e-004	0.1221	0.0322	7.6000e-004	0.0330	0.0000	94.0140	94.0140	2.0500e-003	0.0000	94.0653
Total	**0.0559**	**0.6180**	**0.5017**	**4.3000e-003**	**0.2106**	**2.0400e-003**	**0.2126**	**0.0573**	**1.9200e-003**	**0.0593**	**0.0000**	**412.8777**	**412.8777**	**0.0190**	**0.0000**	**413.3529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1400e-003		0.0177	0.0177		0.0177	0.0177	0.0000	704.0998	704.0998	0.1725	0.0000	708.4115
Total	**0.1140**	**0.5384**	**5.7392**	**8.1400e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**704.0998**	**704.0998**	**0.1725**	**0.0000**	**708.4115**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0116	0.3626	0.1258	1.8200e-003	0.0450	7.3000e-004	0.0457	0.0123	6.9000e-004	0.0130	0.0000	179.6765	179.6765	0.0114	0.0000	179.9613
Vendor	8.9000e-003	0.2309	0.0839	1.4400e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	139.1871	139.1871	5.5700e-003	0.0000	139.3264
Worker	0.0354	0.0245	0.2920	1.0400e-003	0.1212	8.2000e-004	0.1221	0.0322	7.6000e-004	0.0330	0.0000	94.0140	94.0140	2.0500e-003	0.0000	94.0653
Total	**0.0559**	**0.6180**	**0.5017**	**4.3000e-003**	**0.2106**	**2.0400e-003**	**0.2126**	**0.0573**	**1.9200e-003**	**0.0593**	**0.0000**	**412.8777**	**412.8777**	**0.0190**	**0.0000**	**413.3529**

3.5 Plot 9 (2024) Building-Wet Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6450	5.2897	8.7099	0.0163		0.2492	0.2492		0.2293	0.2293	0.0000	1,428.7645	1,428.7645	0.4621	0.0000	1,440.3168
Total	**0.6450**	**5.2897**	**8.7099**	**0.0163**	**1.2450**	**0.2492**	**1.4943**	**0.1344**	**0.2293**	**0.3637**	**0.0000**	**1,428.7645**	**1,428.7645**	**0.4621**	**0.0000**	**1,440.3168**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0700e-003	0.1899	0.0659	9.5000e-004	0.0235	3.8000e-004	0.0239	6.4600e-003	3.6000e-004	6.8200e-003	0.0000	94.0672	94.0672	5.9600e-003	0.0000	94.2163
Vendor	8.9000e-003	0.2309	0.0839	1.4400e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	139.1871	139.1871	5.5700e-003	0.0000	139.3264
Worker	0.0177	0.0122	0.1460	5.2000e-004	0.0606	4.1000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	47.0070	47.0070	1.0300e-003	0.0000	47.0326
Total	**0.0327**	**0.4330**	**0.2957**	**2.9100e-003**	**0.1286**	**1.2800e-003**	**0.1298**	**0.0354**	**1.2100e-003**	**0.0366**	**0.0000**	**280.2613**	**280.2613**	**0.0126**	**0.0000**	**280.5753**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2473	1.3314	10.1822	0.0163		0.0460	0.0460		0.0441	0.0441	0.0000	1,428.7628	1,428.7628	0.4621	0.0000	1,440.3150
Total	**0.2473**	**1.3314**	**10.1822**	**0.0163**	**0.4856**	**0.0460**	**0.5315**	**0.0524**	**0.0441**	**0.0965**	**0.0000**	**1,428.7628**	**1,428.7628**	**0.4621**	**0.0000**	**1,440.3150**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0700e-003	0.1899	0.0659	9.5000e-004	0.0235	3.8000e-004	0.0239	6.4600e-003	3.6000e-004	6.8200e-003	0.0000	94.0672	94.0672	5.9600e-003	0.0000	94.2163
Vendor	8.9000e-003	0.2309	0.0839	1.4400e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	139.1871	139.1871	5.5700e-003	0.0000	139.3264
Worker	0.0177	0.0122	0.1460	5.2000e-004	0.0606	4.1000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	47.0070	47.0070	1.0300e-003	0.0000	47.0326
Total	**0.0327**	**0.4330**	**0.2957**	**2.9100e-003**	**0.1286**	**1.2800e-003**	**0.1298**	**0.0354**	**1.2100e-003**	**0.0366**	**0.0000**	**280.2613**	**280.2613**	**0.0126**	**0.0000**	**280.5753**

3.6 Plot 9 (2024) Building-Electrical - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4154	3.8038	5.3282	7.3400e-003		0.1679	0.1679		0.1547	0.1547	0.0000	641.9315	641.9315	0.2057	0.0000	647.0727
Total	**0.4154**	**3.8038**	**5.3282**	**7.3400e-003**	**0.8298**	**0.1679**	**0.9977**	**0.0896**	**0.1547**	**0.2443**	**0.0000**	**641.9315**	**641.9315**	**0.2057**	**0.0000**	**647.0727**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	9.0100e-003	3.1300e-003	5.0000e-005	1.1200e-003	2.0000e-005	1.1400e-003	3.1000e-004	2.0000e-005	3.2000e-004	0.0000	4.4651	4.4651	2.8000e-004	0.0000	4.4722
Vendor	3.5600e-003	0.0924	0.0336	5.7000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.6749	55.6749	2.2300e-003	0.0000	55.7306
Worker	0.0106	7.3500e-003	0.0876	3.1000e-004	0.0364	2.5000e-004	0.0366	9.6600e-003	2.3000e-004	9.8800e-003	0.0000	28.2042	28.2042	6.2000e-004	0.0000	28.2196
Total	**0.0145**	**0.1087**	**0.1243**	**9.3000e-004**	**0.0553**	**4.7000e-004**	**0.0557**	**0.0151**	**4.4000e-004**	**0.0155**	**0.0000**	**88.3441**	**88.3441**	**3.1300e-003**	**0.0000**	**88.4223**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1616	1.4226	5.5094	7.3400e-003		0.0306	0.0306		0.0292	0.0292	0.0000	641.9307	641.9307	0.2057	0.0000	647.0720
Total	**0.1616**	**1.4226**	**5.5094**	**7.3400e-003**	**0.3236**	**0.0306**	**0.3542**	**0.0350**	**0.0292**	**0.0641**	**0.0000**	**641.9307**	**641.9307**	**0.2057**	**0.0000**	**647.0720**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	9.0100e-003	3.1300e-003	5.0000e-005	1.1200e-003	2.0000e-005	1.1400e-003	3.1000e-004	2.0000e-005	3.2000e-004	0.0000	4.4651	4.4651	2.8000e-004	0.0000	4.4722
Vendor	3.5600e-003	0.0924	0.0336	5.7000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.6749	55.6749	2.2300e-003	0.0000	55.7306
Worker	0.0106	7.3500e-003	0.0876	3.1000e-004	0.0364	2.5000e-004	0.0366	9.6600e-003	2.3000e-004	9.8800e-003	0.0000	28.2042	28.2042	6.2000e-004	0.0000	28.2196
Total	**0.0145**	**0.1087**	**0.1243**	**9.3000e-004**	**0.0553**	**4.7000e-004**	**0.0557**	**0.0151**	**4.4000e-004**	**0.0155**	**0.0000**	**88.3441**	**88.3441**	**3.1300e-003**	**0.0000**	**88.4223**

3.7 Plot 9 (2024) Building-Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3234	2.7335	4.2397	6.0900e-003		0.1287	0.1287		0.1184	0.1184	0.0000	534.8358	534.8358	0.1730	0.0000	539.1603
Total	**0.3234**	**2.7335**	**4.2397**	**6.0900e-003**	**0.2073**	**0.1287**	**0.3360**	**0.0224**	**0.1184**	**0.1408**	**0.0000**	**534.8358**	**534.8358**	**0.1730**	**0.0000**	**539.1603**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0208	0.6509	0.2258	3.2700e-003	0.0807	1.3000e-003	0.0820	0.0222	1.2500e-003	0.0234	0.0000	322.5161	322.5161	0.0204	0.0000	323.0272
Vendor	1.1900e-003	0.0308	0.0112	1.9000e-004	5.9200e-003	7.0000e-005	5.9900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.5583	18.5583	7.4000e-004	0.0000	18.5769
Worker	0.0177	0.0122	0.1460	5.2000e-004	0.0606	4.1000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	47.0070	47.0070	1.0300e-003	0.0000	47.0326
Total	**0.0397**	**0.6939**	**0.3830**	**3.9800e-003**	**0.1472**	**1.7800e-003**	**0.1490**	**0.0400**	**1.6900e-003**	**0.0416**	**0.0000**	**388.0814**	**388.0814**	**0.0222**	**0.0000**	**388.6367**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1637	1.6426	4.6250	6.0900e-003		0.0338	0.0338		0.0318	0.0318	0.0000	534.8352	534.8352	0.1730	0.0000	539.1596
Total	**0.1637**	**1.6426**	**4.6250**	**6.0900e-003**	**0.0809**	**0.0338**	**0.1147**	**8.7300e-003**	**0.0318**	**0.0406**	**0.0000**	**534.8352**	**534.8352**	**0.1730**	**0.0000**	**539.1596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0208	0.6509	0.2258	3.2700e-003	0.0807	1.3000e-003	0.0820	0.0222	1.2500e-003	0.0234	0.0000	322.5161	322.5161	0.0204	0.0000	323.0272
Vendor	1.1900e-003	0.0308	0.0112	1.9000e-004	5.9200e-003	7.0000e-005	5.9900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.5583	18.5583	7.4000e-004	0.0000	18.5769
Worker	0.0177	0.0122	0.1460	5.2000e-004	0.0606	4.1000e-004	0.0610	0.0161	3.8000e-004	0.0165	0.0000	47.0070	47.0070	1.0300e-003	0.0000	47.0326
Total	**0.0397**	**0.6939**	**0.3830**	**3.9800e-003**	**0.1472**	**1.7800e-003**	**0.1490**	**0.0400**	**1.6900e-003**	**0.0416**	**0.0000**	**388.0814**	**388.0814**	**0.0222**	**0.0000**	**388.6367**

3.8 Plot 9 (2024) Landscaping - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3434	2.8903	4.5442	6.5600e-003		0.1371	0.1371		0.1261	0.1261	0.0000	575.8434	575.8434	0.1862	0.0000	580.4994
Total	**0.3434**	**2.8903**	**4.5442**	**6.5600e-003**	**0.2073**	**0.1371**	**0.3444**	**0.0224**	**0.1261**	**0.1485**	**0.0000**	**575.8434**	**575.8434**	**0.1862**	**0.0000**	**580.4994**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0174	0.5424	0.1881	2.7200e-003	0.0673	1.0800e-003	0.0683	0.0185	1.0400e-003	0.0195	0.0000	268.7634	268.7634	0.0170	0.0000	269.1894
Vendor	0.0148	0.3848	0.1398	2.3900e-003	0.0740	8.2000e-004	0.0748	0.0213	7.9000e-004	0.0221	0.0000	231.9786	231.9786	9.2800e-003	0.0000	232.2106
Worker	0.0283	0.0196	0.2336	8.3000e-004	0.0970	6.6000e-004	0.0977	0.0258	6.1000e-004	0.0264	0.0000	75.2112	75.2112	1.6400e-003	0.0000	75.2522
Total	**0.0605**	**0.9468**	**0.5615**	**5.9400e-003**	**0.2382**	**2.5600e-003**	**0.2408**	**0.0655**	**2.4400e-003**	**0.0680**	**0.0000**	**575.9532**	**575.9532**	**0.0280**	**0.0000**	**576.6522**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1695	1.6675	4.9792	6.5600e-003		0.0346	0.0346		0.0326	0.0326	0.0000	575.8427	575.8427	0.1862	0.0000	580.4987
Total	**0.1695**	**1.6675**	**4.9792**	**6.5600e-003**	**0.0809**	**0.0346**	**0.1155**	**8.7300e-003**	**0.0326**	**0.0413**	**0.0000**	**575.8427**	**575.8427**	**0.1862**	**0.0000**	**580.4987**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0174	0.5424	0.1881	2.7200e-003	0.0673	1.0800e-003	0.0683	0.0185	1.0400e-003	0.0195	0.0000	268.7634	268.7634	0.0170	0.0000	269.1894
Vendor	0.0148	0.3848	0.1398	2.3900e-003	0.0740	8.2000e-004	0.0748	0.0213	7.9000e-004	0.0221	0.0000	231.9786	231.9786	9.2800e-003	0.0000	232.2106
Worker	0.0283	0.0196	0.2336	8.3000e-004	0.0970	6.6000e-004	0.0977	0.0258	6.1000e-004	0.0264	0.0000	75.2112	75.2112	1.6400e-003	0.0000	75.2522
Total	**0.0605**	**0.9468**	**0.5615**	**5.9400e-003**	**0.2382**	**2.5600e-003**	**0.2408**	**0.0655**	**2.4400e-003**	**0.0680**	**0.0000**	**575.9532**	**575.9532**	**0.0280**	**0.0000**	**576.6522**

3.9 Plot 9 (2024) Curbing/Drive Approaches - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0272	0.2490	0.3852	5.8000e-004		0.0122	0.0122		0.0113	0.0113	0.0000	50.4785	50.4785	0.0160	0.0000	50.8790
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1891**	**0.2490**	**0.3852**	**5.8000e-004**	**0.0000**	**0.0122**	**0.0122**	**0.0000**	**0.0113**	**0.0113**	**0.0000**	**50.4785**	**50.4785**	**0.0160**	**0.0000**	**50.8790**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0139	0.4339	0.1505	2.1800e-003	0.0538	8.7000e-004	0.0547	0.0148	8.3000e-004	0.0156	0.0000	215.0108	215.0108	0.0136	0.0000	215.3515
Vendor	1.1000e-003	0.0284	0.0103	1.8000e-004	5.4600e-003	6.0000e-005	5.5300e-003	1.5800e-003	6.0000e-005	1.6300e-003	0.0000	17.1307	17.1307	6.9000e-004	0.0000	17.1479
Worker	3.2600e-003	2.2600e-003	0.0270	1.0000e-004	0.0112	8.0000e-005	0.0113	2.9700e-003	7.0000e-005	3.0400e-003	0.0000	8.6782	8.6782	1.9000e-004	0.0000	8.6830
Total	**0.0182**	**0.4646**	**0.1878**	**2.4600e-003**	**0.0705**	**1.0100e-003**	**0.0715**	**0.0193**	**9.6000e-004**	**0.0203**	**0.0000**	**240.8197**	**240.8197**	**0.0145**	**0.0000**	**241.1823**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4784	50.4784	0.0160	0.0000	50.8790
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4784**	**50.4784**	**0.0160**	**0.0000**	**50.8790**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0139	0.4339	0.1505	2.1800e-003	0.0538	8.7000e-004	0.0547	0.0148	8.3000e-004	0.0156	0.0000	215.0108	215.0108	0.0136	0.0000	215.3515
Vendor	1.1000e-003	0.0284	0.0103	1.8000e-004	5.4600e-003	6.0000e-005	5.5300e-003	1.5800e-003	6.0000e-005	1.6300e-003	0.0000	17.1307	17.1307	6.9000e-004	0.0000	17.1479
Worker	3.2600e-003	2.2600e-003	0.0270	1.0000e-004	0.0112	8.0000e-005	0.0113	2.9700e-003	7.0000e-005	3.0400e-003	0.0000	8.6782	8.6782	1.9000e-004	0.0000	8.6830
Total	**0.0182**	**0.4646**	**0.1878**	**2.4600e-003**	**0.0705**	**1.0100e-003**	**0.0715**	**0.0193**	**9.6000e-004**	**0.0203**	**0.0000**	**240.8197**	**240.8197**	**0.0145**	**0.0000**	**241.1823**

3.10 Plot 9 (2024) Finish Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0526	0.4956	0.4770	6.5000e-004		0.0266	0.0266		0.0245	0.0245	0.0000	57.3827	57.3827	0.0186	0.0000	57.8466
Total	**0.0526**	**0.4956**	**0.4770**	**6.5000e-004**	**0.2068**	**0.0266**	**0.2334**	**0.0223**	**0.0245**	**0.0468**	**0.0000**	**57.3827**	**57.3827**	**0.0186**	**0.0000**	**57.8466**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4000e-004	0.0166	6.0200e-003	1.0000e-004	3.1900e-003	4.0000e-005	3.2200e-003	9.2000e-004	3.0000e-005	9.5000e-004	0.0000	9.9929	9.9929	4.0000e-004	0.0000	10.0029
Worker	1.0900e-003	7.5000e-004	8.9900e-003	3.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.8927	2.8927	6.0000e-005	0.0000	2.8943
Total	**1.7300e-003**	**0.0173**	**0.0150**	**1.3000e-004**	**6.9200e-003**	**7.0000e-005**	**6.9800e-003**	**1.9100e-003**	**5.0000e-005**	**1.9600e-003**	**0.0000**	**12.8857**	**12.8857**	**4.6000e-004**	**0.0000**	**12.8972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	8.7100e-003	0.0000	8.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-003	0.0347	0.4934	6.5000e-004		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	57.3826	57.3826	0.0186	0.0000	57.8466
Total	**8.0000e-003**	**0.0347**	**0.4934**	**6.5000e-004**	**0.0807**	**1.0700e-003**	**0.0817**	**8.7100e-003**	**1.0700e-003**	**9.7800e-003**	**0.0000**	**57.3826**	**57.3826**	**0.0186**	**0.0000**	**57.8466**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4000e-004	0.0166	6.0200e-003	1.0000e-004	3.1900e-003	4.0000e-005	3.2200e-003	9.2000e-004	3.0000e-005	9.5000e-004	0.0000	9.9929	9.9929	4.0000e-004	0.0000	10.0029
Worker	1.0900e-003	7.5000e-004	8.9900e-003	3.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.8927	2.8927	6.0000e-005	0.0000	2.8943
Total	**1.7300e-003**	**0.0173**	**0.0150**	**1.3000e-004**	**6.9200e-003**	**7.0000e-005**	**6.9800e-003**	**1.9100e-003**	**5.0000e-005**	**1.9600e-003**	**0.0000**	**12.8857**	**12.8857**	**4.6000e-004**	**0.0000**	**12.8972**

3.11 Plot 9 (2024) Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0810	0.7913	0.9298	1.7100e-003		0.0348	0.0348		0.0321	0.0321	0.0000	149.7037	149.7037	0.0481	0.0000	150.9056
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2429**	**0.7913**	**0.9298**	**1.7100e-003**	**0.1273**	**0.0348**	**0.1621**	**0.0137**	**0.0321**	**0.0458**	**0.0000**	**149.7037**	**149.7037**	**0.0481**	**0.0000**	**150.9056**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0142	5.1600e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.5654	8.5654	3.4000e-004	0.0000	8.5739
Worker	1.0900e-003	7.5000e-004	8.9900e-003	3.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.8927	2.8927	6.0000e-005	0.0000	2.8943
Total	**1.6400e-003**	**0.0150**	**0.0142**	**1.2000e-004**	**6.4600e-003**	**6.0000e-005**	**6.5200e-003**	**1.7800e-003**	**5.0000e-005**	**1.8300e-003**	**0.0000**	**11.4581**	**11.4581**	**4.0000e-004**	**0.0000**	**11.4683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.7100e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	149.7036	149.7036	0.0481	0.0000	150.9054
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.7100e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**149.7036**	**149.7036**	**0.0481**	**0.0000**	**150.9054**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0142	5.1600e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.5654	8.5654	3.4000e-004	0.0000	8.5739
Worker	1.0900e-003	7.5000e-004	8.9900e-003	3.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.8927	2.8927	6.0000e-005	0.0000	2.8943
Total	**1.6400e-003**	**0.0150**	**0.0142**	**1.2000e-004**	**6.4600e-003**	**6.0000e-005**	**6.5200e-003**	**1.7800e-003**	**5.0000e-005**	**1.8300e-003**	**0.0000**	**11.4581**	**11.4581**	**4.0000e-004**	**0.0000**	**11.4683**

3.12 Plot 9 (2024) Temporary Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0853	0.8813	0.7148	1.8000e-003		0.0356	0.0356		0.0328	0.0328	0.0000	158.3924	158.3924	0.0512	0.0000	159.6731
Total	**0.0853**	**0.8813**	**0.7148**	**1.8000e-003**	**0.0000**	**0.0356**	**0.0356**	**0.0000**	**0.0328**	**0.0328**	**0.0000**	**158.3924**	**158.3924**	**0.0512**	**0.0000**	**159.6731**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.3922	158.3922	0.0512	0.0000	159.6729
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.3922**	**158.3922**	**0.0512**	**0.0000**	**159.6729**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.13 Plot 9 (2025) Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3695	10.3165	14.8042	0.0451		0.3898	0.3898		0.3588	0.3588	0.0000	3,952.5854	3,952.5854	1.2770	0.0000	3,984.5113
Total	**1.3695**	**10.3165**	**14.8042**	**0.0451**	**3.3194**	**0.3898**	**3.7092**	**0.3584**	**0.3588**	**0.7172**	**0.0000**	**3,952.5854**	**3,952.5854**	**1.2770**	**0.0000**	**3,984.5113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7200e-003	0.0532	0.0189	2.7000e-004	6.7000e-003	1.1000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.6441	26.6441	1.7000e-003	0.0000	26.6865
Vendor	2.3300e-003	0.0607	0.0220	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.2000e-004	3.5400e-003	0.0000	36.9466	36.9466	1.4800e-003	0.0000	36.9836
Worker	6.7400e-003	4.4800e-003	0.0543	2.0000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	18.0618	18.0618	3.7000e-004	0.0000	18.0712
Total	**0.0108**	**0.1184**	**0.0952**	**8.5000e-004**	**0.0428**	**4.0000e-004**	**0.0432**	**0.0117**	**3.7000e-004**	**0.0121**	**0.0000**	**81.6525**	**81.6525**	**3.5500e-003**	**0.0000**	**81.7413**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8081	5.0875	19.9530	0.0451		0.1525	0.1525		0.1443	0.1443	0.0000	3,952.5807	3,952.5807	1.2770	0.0000	3,984.5066
Total	**0.8081**	**5.0875**	**19.9530**	**0.0451**	**1.2946**	**0.1525**	**1.4471**	**0.1398**	**0.1443**	**0.2841**	**0.0000**	**3,952.5807**	**3,952.5807**	**1.2770**	**0.0000**	**3,984.5066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7200e-003	0.0532	0.0189	2.7000e-004	6.7000e-003	1.1000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.6441	26.6441	1.7000e-003	0.0000	26.6865
Vendor	2.3300e-003	0.0607	0.0220	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.2000e-004	3.5400e-003	0.0000	36.9466	36.9466	1.4800e-003	0.0000	36.9836
Worker	6.7400e-003	4.4800e-003	0.0543	2.0000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.5000e-004	6.5900e-003	0.0000	18.0618	18.0618	3.7000e-004	0.0000	18.0712
Total	**0.0108**	**0.1184**	**0.0952**	**8.5000e-004**	**0.0428**	**4.0000e-004**	**0.0432**	**0.0117**	**3.7000e-004**	**0.0121**	**0.0000**	**81.6525**	**81.6525**	**3.5500e-003**	**0.0000**	**81.7413**

3.14 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3578	3.3564	5.4084	8.1400e-003		0.1372	0.1372		0.1293	0.1293	0.0000	704.5664	704.5664	0.1720	0.0000	708.8657
Total	**0.3578**	**3.3564**	**5.4084**	**8.1400e-003**	**0.4152**	**0.1372**	**0.5524**	**0.0448**	**0.1293**	**0.1741**	**0.0000**	**704.5664**	**704.5664**	**0.1720**	**0.0000**	**708.8657**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4600e-003	0.0450	0.0160	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	9.0000e-005	1.6400e-003	0.0000	22.5450	22.5450	1.4400e-003	0.0000	22.5809
Vendor	3.5000e-003	0.0911	0.0330	5.7000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.4199	55.4199	2.2200e-003	0.0000	55.4753
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0218**	**0.1473**	**0.1847**	**1.3000e-003**	**0.0841**	**6.9000e-004**	**0.0847**	**0.0228**	**6.5000e-004**	**0.0234**	**0.0000**	**123.1195**	**123.1195**	**4.5900e-003**	**0.0000**	**123.2342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1400e-003		0.0177	0.0177		0.0177	0.0177	0.0000	704.5656	704.5656	0.1720	0.0000	708.8648
Total	**0.1140**	**0.5384**	**5.7392**	**8.1400e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**704.5656**	**704.5656**	**0.1720**	**0.0000**	**708.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4600e-003	0.0450	0.0160	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	9.0000e-005	1.6400e-003	0.0000	22.5450	22.5450	1.4400e-003	0.0000	22.5809
Vendor	3.5000e-003	0.0911	0.0330	5.7000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.4199	55.4199	2.2200e-003	0.0000	55.4753
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0218**	**0.1473**	**0.1847**	**1.3000e-003**	**0.0841**	**6.9000e-004**	**0.0847**	**0.0228**	**6.5000e-004**	**0.0234**	**0.0000**	**123.1195**	**123.1195**	**4.5900e-003**	**0.0000**	**123.2342**

3.15 Plot 9 (2025) Building-Wet Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5939	4.6311	8.6852	0.0163		0.2090	0.2090		0.1922	0.1922	0.0000	1,429.5464	1,429.5464	0.4623	0.0000	1,441.1050
Total	**0.5939**	**4.6311**	**8.6852**	**0.0163**	**1.2450**	**0.2090**	**1.4540**	**0.1344**	**0.1922**	**0.3267**	**0.0000**	**1,429.5464**	**1,429.5464**	**0.4623**	**0.0000**	**1,441.1050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0138	0.4266	0.1516	2.1700e-003	0.0538	8.6000e-004	0.0547	0.0148	8.2000e-004	0.0156	0.0000	213.8361	213.8361	0.0136	0.0000	214.1765
Vendor	3.5000e-003	0.0911	0.0330	5.7000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.4199	55.4199	2.2200e-003	0.0000	55.4753
Worker	0.0101	6.7200e-003	0.0814	3.0000e-004	0.0364	2.4000e-004	0.0366	9.6600e-003	2.2000e-004	9.8800e-003	0.0000	27.0928	27.0928	5.6000e-004	0.0000	27.1068
Total	**0.0274**	**0.5244**	**0.2661**	**3.0400e-003**	**0.1079**	**1.3000e-003**	**0.1092**	**0.0296**	**1.2300e-003**	**0.0308**	**0.0000**	**296.3487**	**296.3487**	**0.0164**	**0.0000**	**296.7586**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2423	1.2516	10.1791	0.0163		0.0431	0.0431		0.0414	0.0414	0.0000	1,429.5447	1,429.5447	0.4623	0.0000	1,441.1032
Total	**0.2423**	**1.2516**	**10.1791**	**0.0163**	**0.4856**	**0.0431**	**0.5287**	**0.0524**	**0.0414**	**0.0938**	**0.0000**	**1,429.5447**	**1,429.5447**	**0.4623**	**0.0000**	**1,441.1032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0138	0.4266	0.1516	2.1700e-003	0.0538	8.6000e-004	0.0547	0.0148	8.2000e-004	0.0156	0.0000	213.8361	213.8361	0.0136	0.0000	214.1765
Vendor	3.5000e-003	0.0911	0.0330	5.7000e-004	0.0178	2.0000e-004	0.0180	5.1200e-003	1.9000e-004	5.3100e-003	0.0000	55.4199	55.4199	2.2200e-003	0.0000	55.4753
Worker	0.0101	6.7200e-003	0.0814	3.0000e-004	0.0364	2.4000e-004	0.0366	9.6600e-003	2.2000e-004	9.8800e-003	0.0000	27.0928	27.0928	5.6000e-004	0.0000	27.1068
Total	**0.0274**	**0.5244**	**0.2661**	**3.0400e-003**	**0.1079**	**1.3000e-003**	**0.1092**	**0.0296**	**1.2300e-003**	**0.0308**	**0.0000**	**296.3487**	**296.3487**	**0.0164**	**0.0000**	**296.7586**

3.16 Plot 9 (2025) Building-Electrical - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3896	3.5779	5.3209	7.3500e-003		0.1423	0.1423		0.1311	0.1311	0.0000	642.1840	642.1840	0.2057	0.0000	647.3274
Total	**0.3896**	**3.5779**	**5.3209**	**7.3500e-003**	**0.8298**	**0.1423**	**0.9721**	**0.0896**	**0.1311**	**0.2207**	**0.0000**	**642.1840**	**642.1840**	**0.2057**	**0.0000**	**647.3274**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0207	0.6399	0.2275	3.2500e-003	0.0807	1.2800e-003	0.0820	0.0222	1.2300e-003	0.0234	0.0000	320.7541	320.7541	0.0204	0.0000	321.2647
Vendor	1.1700e-003	0.0304	0.0110	1.9000e-004	5.9200e-003	7.0000e-005	5.9900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.4733	18.4733	7.4000e-004	0.0000	18.4918
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0387**	**0.6815**	**0.3742**	**3.9400e-003**	**0.1472**	**1.7500e-003**	**0.1490**	**0.0400**	**1.6600e-003**	**0.0416**	**0.0000**	**384.3820**	**384.3820**	**0.0221**	**0.0000**	**384.9344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1597	1.4145	5.5115	7.3500e-003		0.0288	0.0288		0.0275	0.0275	0.0000	642.1833	642.1833	0.2057	0.0000	647.3266
Total	**0.1597**	**1.4145**	**5.5115**	**7.3500e-003**	**0.3236**	**0.0288**	**0.3524**	**0.0350**	**0.0275**	**0.0625**	**0.0000**	**642.1833**	**642.1833**	**0.2057**	**0.0000**	**647.3266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0207	0.6399	0.2275	3.2500e-003	0.0807	1.2800e-003	0.0820	0.0222	1.2300e-003	0.0234	0.0000	320.7541	320.7541	0.0204	0.0000	321.2647
Vendor	1.1700e-003	0.0304	0.0110	1.9000e-004	5.9200e-003	7.0000e-005	5.9900e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.4733	18.4733	7.4000e-004	0.0000	18.4918
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0387**	**0.6815**	**0.3742**	**3.9400e-003**	**0.1472**	**1.7500e-003**	**0.1490**	**0.0400**	**1.6600e-003**	**0.0416**	**0.0000**	**384.3820**	**384.3820**	**0.0221**	**0.0000**	**384.9344**

3.17 Plot 9 (2025) Building-Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2974	2.4885	4.2184	6.0900e-003		0.1083	0.1083		0.0996	0.0996	0.0000	534.9708	534.9708	0.1730	0.0000	539.2963
Total	**0.2974**	**2.4885**	**4.2184**	**6.0900e-003**	**0.2073**	**0.1083**	**0.3156**	**0.0224**	**0.0996**	**0.1220**	**0.0000**	**534.9708**	**534.9708**	**0.1730**	**0.0000**	**539.2963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1866	0.0663	9.5000e-004	0.0235	3.7000e-004	0.0239	6.4600e-003	3.6000e-004	6.8200e-003	0.0000	93.5533	93.5533	5.9600e-003	0.0000	93.7022
Vendor	8.7500e-003	0.2277	0.0825	1.4300e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	138.5497	138.5497	5.5500e-003	0.0000	138.6883
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0316**	**0.4255**	**0.2845**	**2.8800e-003**	**0.1286**	**1.2600e-003**	**0.1298**	**0.0354**	**1.2000e-003**	**0.0366**	**0.0000**	**277.2576**	**277.2576**	**0.0124**	**0.0000**	**277.5685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1568	1.6213	4.6127	6.0900e-003		0.0298	0.0298		0.0281	0.0281	0.0000	534.9702	534.9702	0.1730	0.0000	539.2957
Total	**0.1568**	**1.6213**	**4.6127**	**6.0900e-003**	**0.0809**	**0.0298**	**0.1106**	**8.7300e-003**	**0.0281**	**0.0368**	**0.0000**	**534.9702**	**534.9702**	**0.1730**	**0.0000**	**539.2957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1866	0.0663	9.5000e-004	0.0235	3.7000e-004	0.0239	6.4600e-003	3.6000e-004	6.8200e-003	0.0000	93.5533	93.5533	5.9600e-003	0.0000	93.7022
Vendor	8.7500e-003	0.2277	0.0825	1.4300e-003	0.0444	4.9000e-004	0.0449	0.0128	4.7000e-004	0.0133	0.0000	138.5497	138.5497	5.5500e-003	0.0000	138.6883
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0316**	**0.4255**	**0.2845**	**2.8800e-003**	**0.1286**	**1.2600e-003**	**0.1298**	**0.0354**	**1.2000e-003**	**0.0366**	**0.0000**	**277.2576**	**277.2576**	**0.0124**	**0.0000**	**277.5685**

3.18 Plot 9 (2025) Interchange - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7259	0.0000	0.7259	0.0784	0.0000	0.0784	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6531	5.8962	5.4518	0.0129		0.2511	0.2511		0.2310	0.2310	0.0000	1,131.0576	1,131.0576	0.3652	0.0000	1,140.1865
Total	**0.6531**	**5.8962**	**5.4518**	**0.0129**	**0.7259**	**0.2511**	**0.9770**	**0.0784**	**0.2310**	**0.3094**	**0.0000**	**1,131.0576**	**1,131.0576**	**0.3652**	**0.0000**	**1,140.1865**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0173	0.5333	0.1896	2.7100e-003	0.0673	1.0700e-003	0.0683	0.0185	1.0200e-003	0.0195	0.0000	267.2951	267.2951	0.0170	0.0000	267.7206
Vendor	0.0146	0.3795	0.1375	2.3800e-003	0.0740	8.1000e-004	0.0748	0.0213	7.8000e-004	0.0221	0.0000	230.9161	230.9161	9.2400e-003	0.0000	231.1472
Worker	0.0270	0.0179	0.2171	8.0000e-004	0.0970	6.4000e-004	0.0976	0.0258	5.9000e-004	0.0264	0.0000	72.2474	72.2474	1.5000e-003	0.0000	72.2847
Total	**0.0588**	**0.9307**	**0.5442**	**5.8900e-003**	**0.2382**	**2.5200e-003**	**0.2408**	**0.0655**	**2.3900e-003**	**0.0679**	**0.0000**	**570.4586**	**570.4586**	**0.0278**	**0.0000**	**571.1525**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2831	0.0000	0.2831	0.0306	0.0000	0.0306	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1675	0.7678	6.4838	0.0129		0.0240	0.0240		0.0238	0.0238	0.0000	1,131.0563	1,131.0563	0.3652	0.0000	1,140.1851
Total	**0.1675**	**0.7678**	**6.4838**	**0.0129**	**0.2831**	**0.0240**	**0.3071**	**0.0306**	**0.0238**	**0.0543**	**0.0000**	**1,131.0563**	**1,131.0563**	**0.3652**	**0.0000**	**1,140.1851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0173	0.5333	0.1896	2.7100e-003	0.0673	1.0700e-003	0.0683	0.0185	1.0200e-003	0.0195	0.0000	267.2951	267.2951	0.0170	0.0000	267.7206
Vendor	0.0146	0.3795	0.1375	2.3800e-003	0.0740	8.1000e-004	0.0748	0.0213	7.8000e-004	0.0221	0.0000	230.9161	230.9161	9.2400e-003	0.0000	231.1472
Worker	0.0270	0.0179	0.2171	8.0000e-004	0.0970	6.4000e-004	0.0976	0.0258	5.9000e-004	0.0264	0.0000	72.2474	72.2474	1.5000e-003	0.0000	72.2847
Total	**0.0588**	**0.9307**	**0.5442**	**5.8900e-003**	**0.2382**	**2.5200e-003**	**0.2408**	**0.0655**	**2.3900e-003**	**0.0679**	**0.0000**	**570.4586**	**570.4586**	**0.0278**	**0.0000**	**571.1525**

3.19 Plot 9 (2025) Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3155	2.6221	4.5216	6.5600e-003		0.1152	0.1152		0.1060	0.1060	0.0000	575.9783	575.9783	0.1863	0.0000	580.6354
Total	**0.3155**	**2.6221**	**4.5216**	**6.5600e-003**	**0.2073**	**0.1152**	**0.3225**	**0.0224**	**0.1060**	**0.1284**	**0.0000**	**575.9783**	**575.9783**	**0.1863**	**0.0000**	**580.6354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7600e-003	0.2400	0.0853	1.2200e-003	0.0303	4.8000e-004	0.0307	8.3100e-003	4.6000e-004	8.7700e-003	0.0000	120.2828	120.2828	7.6600e-003	0.0000	120.4743
Vendor	2.3300e-003	0.0607	0.0220	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.2000e-004	3.5400e-003	0.0000	36.9466	36.9466	1.4800e-003	0.0000	36.9836
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0269**	**0.3119**	**0.2430**	**2.1000e-003**	**0.1027**	**1.0100e-003**	**0.1037**	**0.0278**	**9.5000e-004**	**0.0288**	**0.0000**	**202.3840**	**202.3840**	**0.0101**	**0.0000**	**202.6358**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1626	1.6462	4.9669	6.5600e-003		0.0305	0.0305		0.0289	0.0289	0.0000	575.9776	575.9776	0.1863	0.0000	580.6347
Total	**0.1626**	**1.6462**	**4.9669**	**6.5600e-003**	**0.0809**	**0.0305**	**0.1114**	**8.7300e-003**	**0.0289**	**0.0376**	**0.0000**	**575.9776**	**575.9776**	**0.1863**	**0.0000**	**580.6347**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7600e-003	0.2400	0.0853	1.2200e-003	0.0303	4.8000e-004	0.0307	8.3100e-003	4.6000e-004	8.7700e-003	0.0000	120.2828	120.2828	7.6600e-003	0.0000	120.4743
Vendor	2.3300e-003	0.0607	0.0220	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.2000e-004	3.5400e-003	0.0000	36.9466	36.9466	1.4800e-003	0.0000	36.9836
Worker	0.0169	0.0112	0.1357	5.0000e-004	0.0606	4.0000e-004	0.0610	0.0161	3.7000e-004	0.0165	0.0000	45.1546	45.1546	9.3000e-004	0.0000	45.1780
Total	**0.0269**	**0.3119**	**0.2430**	**2.1000e-003**	**0.1027**	**1.0100e-003**	**0.1037**	**0.0278**	**9.5000e-004**	**0.0288**	**0.0000**	**202.3840**	**202.3840**	**0.0101**	**0.0000**	**202.6358**

3.20 Plot 9 (2025) Curbing/Drive Approaches - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2230	0.3829	5.8000e-004		0.0105	0.0105		9.6700e-003	9.6700e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8870
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1868**	**0.2230**	**0.3829**	**5.8000e-004**	**0.0000**	**0.0105**	**0.0105**	**0.0000**	**9.6700e-003**	**9.6700e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2600e-003	0.0327	0.0119	2.1000e-004	6.3800e-003	7.0000e-005	6.4500e-003	1.8400e-003	7.0000e-005	1.9000e-003	0.0000	19.8943	19.8943	8.0000e-004	0.0000	19.9142
Worker	2.0700e-003	1.3800e-003	0.0167	6.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	5.5575	5.5575	1.2000e-004	0.0000	5.5604
Total	**3.3300e-003**	**0.0341**	**0.0286**	**2.7000e-004**	**0.0138**	**1.2000e-004**	**0.0140**	**3.8200e-003**	**1.2000e-004**	**3.9300e-003**	**0.0000**	**25.4518**	**25.4518**	**9.2000e-004**	**0.0000**	**25.4746**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8869
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2600e-003	0.0327	0.0119	2.1000e-004	6.3800e-003	7.0000e-005	6.4500e-003	1.8400e-003	7.0000e-005	1.9000e-003	0.0000	19.8943	19.8943	8.0000e-004	0.0000	19.9142
Worker	2.0700e-003	1.3800e-003	0.0167	6.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	5.0000e-005	2.0300e-003	0.0000	5.5575	5.5575	1.2000e-004	0.0000	5.5604
Total	**3.3300e-003**	**0.0341**	**0.0286**	**2.7000e-004**	**0.0138**	**1.2000e-004**	**0.0140**	**3.8200e-003**	**1.2000e-004**	**3.9300e-003**	**0.0000**	**25.4518**	**25.4518**	**9.2000e-004**	**0.0000**	**25.4746**

3.21 Plot 9 (2025) Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.6878	0.8989	1.7100e-003		0.0295	0.0295		0.0272	0.0272	0.0000	149.6676	149.6676	0.0481	0.0000	150.8691
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2353**	**0.6878**	**0.8989**	**1.7100e-003**	**0.1273**	**0.0295**	**0.1568**	**0.0137**	**0.0272**	**0.0409**	**0.0000**	**149.6676**	**149.6676**	**0.0481**	**0.0000**	**150.8691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0140	5.0800e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.5261	8.5261	3.4000e-004	0.0000	8.5347
Worker	1.0400e-003	6.9000e-004	8.3500e-003	3.0000e-005	3.7300e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.7787	2.7787	6.0000e-005	0.0000	2.7802
Total	**1.5800e-003**	**0.0147**	**0.0134**	**1.2000e-004**	**6.4600e-003**	**5.0000e-005**	**6.5200e-003**	**1.7800e-003**	**5.0000e-005**	**1.8300e-003**	**0.0000**	**11.3049**	**11.3049**	**4.0000e-004**	**0.0000**	**11.3149**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.7100e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	149.6674	149.6674	0.0481	0.0000	150.8690
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.7100e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**149.6674**	**149.6674**	**0.0481**	**0.0000**	**150.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0140	5.0800e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.5261	8.5261	3.4000e-004	0.0000	8.5347
Worker	1.0400e-003	6.9000e-004	8.3500e-003	3.0000e-005	3.7300e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.7787	2.7787	6.0000e-005	0.0000	2.7802
Total	**1.5800e-003**	**0.0147**	**0.0134**	**1.2000e-004**	**6.4600e-003**	**5.0000e-005**	**6.5200e-003**	**1.7800e-003**	**5.0000e-005**	**1.8300e-003**	**0.0000**	**11.3049**	**11.3049**	**4.0000e-004**	**0.0000**	**11.3149**

3.22 Plot 9 (2025) Temporary Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0808	0.7968	0.6782	1.8000e-003		0.0325	0.0325		0.0299	0.0299	0.0000	158.3591	158.3591	0.0512	0.0000	159.6395
Total	**0.0808**	**0.7968**	**0.6782**	**1.8000e-003**	**0.0000**	**0.0325**	**0.0325**	**0.0000**	**0.0299**	**0.0299**	**0.0000**	**158.3591**	**158.3591**	**0.0512**	**0.0000**	**159.6395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.3589	158.3589	0.0512	0.0000	159.6393
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.3589**	**158.3589**	**0.0512**	**0.0000**	**159.6393**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.23 Plots 1 3 20 (2026) Mass Excavation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5409	0.0000	1.5409	0.1664	0.0000	0.1664	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2147	12.2251	8.7993	0.0252		0.4713	0.4713		0.4336	0.4336	0.0000	2,215.1726	2,215.1726	0.7164	0.0000	2,233.0834
Total	**1.2147**	**12.2251**	**8.7993**	**0.0252**	**1.5409**	**0.4713**	**2.0122**	**0.1664**	**0.4336**	**0.6000**	**0.0000**	**2,215.1726**	**2,215.1726**	**0.7164**	**0.0000**	**2,233.0834**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9700e-003	0.0908	0.0331	4.7000e-004	0.0117	1.8000e-004	0.0118	3.2000e-003	1.7000e-004	3.3700e-003	0.0000	46.0867	46.0867	2.9400e-003	0.0000	46.1602
Vendor	2.3000e-003	0.0598	0.0217	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.2000e-004	3.5400e-003	0.0000	36.7848	36.7848	1.4700e-003	0.0000	36.8215
Worker	0.0161	0.0103	0.1269	4.8000e-004	0.0606	3.9000e-004	0.0610	0.0161	3.6000e-004	0.0165	0.0000	43.5536	43.5536	8.6000e-004	0.0000	43.5750
Total	**0.0214**	**0.1609**	**0.1817**	**1.3300e-003**	**0.0841**	**7.0000e-004**	**0.0848**	**0.0227**	**6.5000e-004**	**0.0234**	**0.0000**	**126.4250**	**126.4250**	**5.2700e-003**	**0.0000**	**126.5567**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6010	0.0000	0.6010	0.0649	0.0000	0.0649	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3098	1.3425	11.6484	0.0252		0.0413	0.0413		0.0413	0.0413	0.0000	2,215.1699	2,215.1699	0.7164	0.0000	2,233.0807
Total	**0.3098**	**1.3425**	**11.6484**	**0.0252**	**0.6010**	**0.0413**	**0.6423**	**0.0649**	**0.0413**	**0.1062**	**0.0000**	**2,215.1699**	**2,215.1699**	**0.7164**	**0.0000**	**2,233.0807**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9700e-003	0.0908	0.0331	4.7000e-004	0.0117	1.8000e-004	0.0118	3.2000e-003	1.7000e-004	3.3700e-003	0.0000	46.0867	46.0867	2.9400e-003	0.0000	46.1602
Vendor	2.3000e-003	0.0598	0.0217	3.8000e-004	0.0118	1.3000e-004	0.0120	3.4100e-003	1.2000e-004	3.5400e-003	0.0000	36.7848	36.7848	1.4700e-003	0.0000	36.8215
Worker	0.0161	0.0103	0.1269	4.8000e-004	0.0606	3.9000e-004	0.0610	0.0161	3.6000e-004	0.0165	0.0000	43.5536	43.5536	8.6000e-004	0.0000	43.5750
Total	**0.0214**	**0.1609**	**0.1817**	**1.3300e-003**	**0.0841**	**7.0000e-004**	**0.0848**	**0.0227**	**6.5000e-004**	**0.0234**	**0.0000**	**126.4250**	**126.4250**	**5.2700e-003**	**0.0000**	**126.5567**

3.24 Plots 1 3 20 (2026) Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3695	10.3165	14.8042	0.0451		0.3898	0.3898		0.3588	0.3588	0.0000	3,952.5854	3,952.5854	1.2770	0.0000	3,984.5113
Total	**1.3695**	**10.3165**	**14.8042**	**0.0451**	**3.3194**	**0.3898**	**3.7092**	**0.3584**	**0.3588**	**0.7172**	**0.0000**	**3,952.5854**	**3,952.5854**	**1.2770**	**0.0000**	**3,984.5113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0171	0.5238	0.1907	2.6900e-003	0.0673	1.0500e-003	0.0683	0.0185	1.0100e-003	0.0195	0.0000	265.9010	265.9010	0.0170	0.0000	266.3250
Vendor	0.0143	0.3737	0.1357	2.3700e-003	0.0740	8.0000e-004	0.0748	0.0213	7.7000e-004	0.0221	0.0000	229.9047	229.9047	9.1900e-003	0.0000	230.1344
Worker	0.0258	0.0165	0.2030	7.7000e-004	0.0970	6.2000e-004	0.0976	0.0258	5.7000e-004	0.0263	0.0000	69.6857	69.6857	1.3700e-003	0.0000	69.7200
Total	**0.0573**	**0.9139**	**0.5295**	**5.8300e-003**	**0.2382**	**2.4700e-003**	**0.2407**	**0.0655**	**2.3500e-003**	**0.0679**	**0.0000**	**565.4914**	**565.4914**	**0.0275**	**0.0000**	**566.1794**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8081	5.0875	19.9530	0.0451		0.1525	0.1525		0.1443	0.1443	0.0000	3,952.5807	3,952.5807	1.2770	0.0000	3,984.5066
Total	**0.8081**	**5.0875**	**19.9530**	**0.0451**	**1.2946**	**0.1525**	**1.4471**	**0.1398**	**0.1443**	**0.2841**	**0.0000**	**3,952.5807**	**3,952.5807**	**1.2770**	**0.0000**	**3,984.5066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0171	0.5238	0.1907	2.6900e-003	0.0673	1.0500e-003	0.0683	0.0185	1.0100e-003	0.0195	0.0000	265.9010	265.9010	0.0170	0.0000	266.3250
Vendor	0.0143	0.3737	0.1357	2.3700e-003	0.0740	8.0000e-004	0.0748	0.0213	7.7000e-004	0.0221	0.0000	229.9047	229.9047	9.1900e-003	0.0000	230.1344
Worker	0.0258	0.0165	0.2030	7.7000e-004	0.0970	6.2000e-004	0.0976	0.0258	5.7000e-004	0.0263	0.0000	69.6857	69.6857	1.3700e-003	0.0000	69.7200
Total	**0.0573**	**0.9139**	**0.5295**	**5.8300e-003**	**0.2382**	**2.4700e-003**	**0.2407**	**0.0655**	**2.3500e-003**	**0.0679**	**0.0000**	**565.4914**	**565.4914**	**0.0275**	**0.0000**	**566.1794**

3.25 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3578	3.3564	5.4084	8.1400e-003		0.1372	0.1372		0.1293	0.1293	0.0000	704.5664	704.5664	0.1720	0.0000	708.8657
Total	**0.3578**	**3.3564**	**5.4084**	**8.1400e-003**	**0.4152**	**0.1372**	**0.5524**	**0.0448**	**0.1293**	**0.1741**	**0.0000**	**704.5664**	**704.5664**	**0.1720**	**0.0000**	**708.8657**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0206	0.6285	0.2289	3.2300e-003	0.0807	1.2600e-003	0.0820	0.0222	1.2100e-003	0.0234	0.0000	319.0812	319.0812	0.0204	0.0000	319.5900
Vendor	1.1500e-003	0.0299	0.0109	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.3924	18.3924	7.4000e-004	0.0000	18.4108
Worker	0.0161	0.0103	0.1269	4.8000e-004	0.0606	3.9000e-004	0.0610	0.0161	3.6000e-004	0.0165	0.0000	43.5536	43.5536	8.6000e-004	0.0000	43.5750
Total	**0.0378**	**0.6687**	**0.3666**	**3.9000e-003**	**0.1472**	**1.7100e-003**	**0.1490**	**0.0400**	**1.6300e-003**	**0.0416**	**0.0000**	**381.0272**	**381.0272**	**0.0220**	**0.0000**	**381.5758**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1400e-003		0.0177	0.0177		0.0177	0.0177	0.0000	704.5656	704.5656	0.1720	0.0000	708.8648
Total	**0.1140**	**0.5384**	**5.7392**	**8.1400e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**704.5656**	**704.5656**	**0.1720**	**0.0000**	**708.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0206	0.6285	0.2289	3.2300e-003	0.0807	1.2600e-003	0.0820	0.0222	1.2100e-003	0.0234	0.0000	319.0812	319.0812	0.0204	0.0000	319.5900
Vendor	1.1500e-003	0.0299	0.0109	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.3924	18.3924	7.4000e-004	0.0000	18.4108
Worker	0.0161	0.0103	0.1269	4.8000e-004	0.0606	3.9000e-004	0.0610	0.0161	3.6000e-004	0.0165	0.0000	43.5536	43.5536	8.6000e-004	0.0000	43.5750
Total	**0.0378**	**0.6687**	**0.3666**	**3.9000e-003**	**0.1472**	**1.7100e-003**	**0.1490**	**0.0400**	**1.6300e-003**	**0.0416**	**0.0000**	**381.0272**	**381.0272**	**0.0220**	**0.0000**	**381.5758**

3.26 Plots 1 3 20 (2026) Building-Wet Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5939	4.6311	8.6852	0.0163		0.2090	0.2090		0.1922	0.1922	0.0000	1,429.5464	1,429.5464	0.4623	0.0000	1,441.1050
Total	**0.5939**	**4.6311**	**8.6852**	**0.0163**	**1.2450**	**0.2090**	**1.4540**	**0.1344**	**0.1922**	**0.3267**	**0.0000**	**1,429.5464**	**1,429.5464**	**0.4623**	**0.0000**	**1,441.1050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-003	0.1833	0.0668	9.4000e-004	0.0235	3.7000e-004	0.0239	6.4600e-003	3.5000e-004	6.8100e-003	0.0000	93.0654	93.0654	5.9400e-003	0.0000	93.2138
Vendor	8.6100e-003	0.2242	0.0814	1.4200e-003	0.0444	4.8000e-004	0.0449	0.0128	4.6000e-004	0.0133	0.0000	137.9428	137.9428	5.5100e-003	0.0000	138.0806
Worker	0.0161	0.0103	0.1269	4.8000e-004	0.0606	3.9000e-004	0.0610	0.0161	3.6000e-004	0.0165	0.0000	43.5536	43.5536	8.6000e-004	0.0000	43.5750
Total	**0.0307**	**0.4178**	**0.2751**	**2.8400e-003**	**0.1286**	**1.2400e-003**	**0.1298**	**0.0354**	**1.1700e-003**	**0.0365**	**0.0000**	**274.5618**	**274.5618**	**0.0123**	**0.0000**	**274.8694**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2423	1.2516	10.1791	0.0163		0.0431	0.0431		0.0414	0.0414	0.0000	1,429.5447	1,429.5447	0.4623	0.0000	1,441.1032
Total	**0.2423**	**1.2516**	**10.1791**	**0.0163**	**0.4856**	**0.0431**	**0.5287**	**0.0524**	**0.0414**	**0.0938**	**0.0000**	**1,429.5447**	**1,429.5447**	**0.4623**	**0.0000**	**1,441.1032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-003	0.1833	0.0668	9.4000e-004	0.0235	3.7000e-004	0.0239	6.4600e-003	3.5000e-004	6.8100e-003	0.0000	93.0654	93.0654	5.9400e-003	0.0000	93.2138
Vendor	8.6100e-003	0.2242	0.0814	1.4200e-003	0.0444	4.8000e-004	0.0449	0.0128	4.6000e-004	0.0133	0.0000	137.9428	137.9428	5.5100e-003	0.0000	138.0806
Worker	0.0161	0.0103	0.1269	4.8000e-004	0.0606	3.9000e-004	0.0610	0.0161	3.6000e-004	0.0165	0.0000	43.5536	43.5536	8.6000e-004	0.0000	43.5750
Total	**0.0307**	**0.4178**	**0.2751**	**2.8400e-003**	**0.1286**	**1.2400e-003**	**0.1298**	**0.0354**	**1.1700e-003**	**0.0365**	**0.0000**	**274.5618**	**274.5618**	**0.0123**	**0.0000**	**274.8694**

3.27 Plots 1 3 20 (2026) Building-Electrical - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3896	3.5779	5.3209	7.3500e-003		0.1423	0.1423		0.1311	0.1311	0.0000	642.1840	642.1840	0.2057	0.0000	647.3274
Total	**0.3896**	**3.5779**	**5.3209**	**7.3500e-003**	**0.8298**	**0.1423**	**0.9721**	**0.0896**	**0.1311**	**0.2207**	**0.0000**	**642.1840**	**642.1840**	**0.2057**	**0.0000**	**647.3274**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.4190	0.1526	2.1500e-003	0.0538	8.4000e-004	0.0546	0.0148	8.1000e-004	0.0156	0.0000	212.7208	212.7208	0.0136	0.0000	213.0600
Vendor	3.4400e-003	0.0897	0.0326	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	55.1771	55.1771	2.2100e-003	0.0000	55.2323
Worker	9.6800e-003	6.1900e-003	0.0761	2.9000e-004	0.0364	2.3000e-004	0.0366	9.6600e-003	2.2000e-004	9.8700e-003	0.0000	26.1322	26.1322	5.1000e-004	0.0000	26.1450
Total	**0.0268**	**0.5149**	**0.2613**	**3.0100e-003**	**0.1079**	**1.2600e-003**	**0.1092**	**0.0296**	**1.2100e-003**	**0.0307**	**0.0000**	**294.0301**	**294.0301**	**0.0163**	**0.0000**	**294.4372**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1597	1.4145	5.5115	7.3500e-003		0.0288	0.0288		0.0275	0.0275	0.0000	642.1833	642.1833	0.2057	0.0000	647.3266
Total	**0.1597**	**1.4145**	**5.5115**	**7.3500e-003**	**0.3236**	**0.0288**	**0.3524**	**0.0350**	**0.0275**	**0.0625**	**0.0000**	**642.1833**	**642.1833**	**0.2057**	**0.0000**	**647.3266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.4190	0.1526	2.1500e-003	0.0538	8.4000e-004	0.0546	0.0148	8.1000e-004	0.0156	0.0000	212.7208	212.7208	0.0136	0.0000	213.0600
Vendor	3.4400e-003	0.0897	0.0326	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	55.1771	55.1771	2.2100e-003	0.0000	55.2323
Worker	9.6800e-003	6.1900e-003	0.0761	2.9000e-004	0.0364	2.3000e-004	0.0366	9.6600e-003	2.2000e-004	9.8700e-003	0.0000	26.1322	26.1322	5.1000e-004	0.0000	26.1450
Total	**0.0268**	**0.5149**	**0.2613**	**3.0100e-003**	**0.1079**	**1.2600e-003**	**0.1092**	**0.0296**	**1.2100e-003**	**0.0307**	**0.0000**	**294.0301**	**294.0301**	**0.0163**	**0.0000**	**294.4372**

3.28 Plots 1 3 20 (2026) Building-Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2974	2.4885	4.2184	6.0900e-003		0.1083	0.1083		0.0996	0.0996	0.0000	534.9708	534.9708	0.1730	0.0000	539.2963
Total	**0.2974**	**2.4885**	**4.2184**	**6.0900e-003**	**0.2073**	**0.1083**	**0.3156**	**0.0224**	**0.0996**	**0.1220**	**0.0000**	**534.9708**	**534.9708**	**0.1730**	**0.0000**	**539.2963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0200e-003	0.1046	0.0380	6.6000e-004	0.0207	2.3000e-004	0.0210	5.9700e-003	2.2000e-004	6.1900e-003	0.0000	64.3733	64.3733	2.5700e-003	0.0000	64.4376
Worker	6.4500e-003	4.1300e-003	0.0508	1.9000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.4000e-004	6.5800e-003	0.0000	17.4214	17.4214	3.4000e-004	0.0000	17.4300
Total	**0.0105**	**0.1088**	**0.0888**	**8.5000e-004**	**0.0450**	**3.9000e-004**	**0.0454**	**0.0124**	**3.6000e-004**	**0.0128**	**0.0000**	**81.7947**	**81.7947**	**2.9100e-003**	**0.0000**	**81.8676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1568	1.6213	4.6127	6.0900e-003		0.0298	0.0298		0.0281	0.0281	0.0000	534.9702	534.9702	0.1730	0.0000	539.2957
Total	**0.1568**	**1.6213**	**4.6127**	**6.0900e-003**	**0.0809**	**0.0298**	**0.1106**	**8.7300e-003**	**0.0281**	**0.0368**	**0.0000**	**534.9702**	**534.9702**	**0.1730**	**0.0000**	**539.2957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0200e-003	0.1046	0.0380	6.6000e-004	0.0207	2.3000e-004	0.0210	5.9700e-003	2.2000e-004	6.1900e-003	0.0000	64.3733	64.3733	2.5700e-003	0.0000	64.4376
Worker	6.4500e-003	4.1300e-003	0.0508	1.9000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.4000e-004	6.5800e-003	0.0000	17.4214	17.4214	3.4000e-004	0.0000	17.4300
Total	**0.0105**	**0.1088**	**0.0888**	**8.5000e-004**	**0.0450**	**3.9000e-004**	**0.0454**	**0.0124**	**3.6000e-004**	**0.0128**	**0.0000**	**81.7947**	**81.7947**	**2.9100e-003**	**0.0000**	**81.8676**

3.29 Plots 1 3 20 (2026) Interchange - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7259	0.0000	0.7259	0.0784	0.0000	0.0784	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3265	2.9481	2.7259	6.4400e-003		0.1255	0.1255		0.1155	0.1155	0.0000	565.5288	565.5288	0.1826	0.0000	570.0932
Total	**0.3265**	**2.9481**	**2.7259**	**6.4400e-003**	**0.7259**	**0.1255**	**0.8514**	**0.0784**	**0.1155**	**0.1939**	**0.0000**	**565.5288**	**565.5288**	**0.1826**	**0.0000**	**570.0932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7100e-003	0.2357	0.0858	1.2100e-003	0.0303	4.7000e-004	0.0307	8.3100e-003	4.5000e-004	8.7600e-003	0.0000	119.6555	119.6555	7.6300e-003	0.0000	119.8463
Vendor	1.1500e-003	0.0299	0.0109	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.3924	18.3924	7.4000e-004	0.0000	18.4108
Worker	8.0700e-003	5.1600e-003	0.0635	2.4000e-004	0.0303	1.9000e-004	0.0305	8.0500e-003	1.8000e-004	8.2300e-003	0.0000	21.7768	21.7768	4.3000e-004	0.0000	21.7875
Total	**0.0169**	**0.2707**	**0.1601**	**1.6400e-003**	**0.0665**	**7.2000e-004**	**0.0672**	**0.0181**	**6.9000e-004**	**0.0188**	**0.0000**	**159.8246**	**159.8246**	**8.8000e-003**	**0.0000**	**160.0445**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2831	0.0000	0.2831	0.0306	0.0000	0.0306	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0838	0.3839	3.2419	6.4400e-003		0.0120	0.0120		0.0119	0.0119	0.0000	565.5281	565.5281	0.1826	0.0000	570.0925
Total	**0.0838**	**0.3839**	**3.2419**	**6.4400e-003**	**0.2831**	**0.0120**	**0.2951**	**0.0306**	**0.0119**	**0.0425**	**0.0000**	**565.5281**	**565.5281**	**0.1826**	**0.0000**	**570.0925**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7100e-003	0.2357	0.0858	1.2100e-003	0.0303	4.7000e-004	0.0307	8.3100e-003	4.5000e-004	8.7600e-003	0.0000	119.6555	119.6555	7.6300e-003	0.0000	119.8463
Vendor	1.1500e-003	0.0299	0.0109	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.3924	18.3924	7.4000e-004	0.0000	18.4108
Worker	8.0700e-003	5.1600e-003	0.0635	2.4000e-004	0.0303	1.9000e-004	0.0305	8.0500e-003	1.8000e-004	8.2300e-003	0.0000	21.7768	21.7768	4.3000e-004	0.0000	21.7875
Total	**0.0169**	**0.2707**	**0.1601**	**1.6400e-003**	**0.0665**	**7.2000e-004**	**0.0672**	**0.0181**	**6.9000e-004**	**0.0188**	**0.0000**	**159.8246**	**159.8246**	**8.8000e-003**	**0.0000**	**160.0445**

3.30 Plots 1 3 20 (2026) Landscaping - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3155	2.6221	4.5216	6.5600e-003		0.1152	0.1152		0.1060	0.1060	0.0000	575.9783	575.9783	0.1863	0.0000	580.6354
Total	**0.3155**	**2.6221**	**4.5216**	**6.5600e-003**	**0.2073**	**0.1152**	**0.3225**	**0.0224**	**0.1060**	**0.1284**	**0.0000**	**575.9783**	**575.9783**	**0.1863**	**0.0000**	**580.6354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4400e-003	0.0897	0.0326	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	55.1771	55.1771	2.2100e-003	0.0000	55.2323
Worker	6.4500e-003	4.1300e-003	0.0508	1.9000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.4000e-004	6.5800e-003	0.0000	17.4214	17.4214	3.4000e-004	0.0000	17.4300
Total	**9.8900e-003**	**0.0938**	**0.0833**	**7.6000e-004**	**0.0420**	**3.5000e-004**	**0.0424**	**0.0116**	**3.2000e-004**	**0.0119**	**0.0000**	**72.5986**	**72.5986**	**2.5500e-003**	**0.0000**	**72.6623**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1626	1.6462	4.9669	6.5600e-003		0.0305	0.0305		0.0289	0.0289	0.0000	575.9776	575.9776	0.1863	0.0000	580.6347
Total	**0.1626**	**1.6462**	**4.9669**	**6.5600e-003**	**0.0809**	**0.0305**	**0.1114**	**8.7300e-003**	**0.0289**	**0.0376**	**0.0000**	**575.9776**	**575.9776**	**0.1863**	**0.0000**	**580.6347**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4400e-003	0.0897	0.0326	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	55.1771	55.1771	2.2100e-003	0.0000	55.2323
Worker	6.4500e-003	4.1300e-003	0.0508	1.9000e-004	0.0243	1.6000e-004	0.0244	6.4400e-003	1.4000e-004	6.5800e-003	0.0000	17.4214	17.4214	3.4000e-004	0.0000	17.4300
Total	**9.8900e-003**	**0.0938**	**0.0833**	**7.6000e-004**	**0.0420**	**3.5000e-004**	**0.0424**	**0.0116**	**3.2000e-004**	**0.0119**	**0.0000**	**72.5986**	**72.5986**	**2.5500e-003**	**0.0000**	**72.6623**

3.31 Plots 1 3 20 (2026) Curbing/Drive Approaches - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2230	0.3829	5.8000e-004		0.0105	0.0105		9.6700e-003	9.6700e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8870
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1868**	**0.2230**	**0.3829**	**5.8000e-004**	**0.0000**	**0.0105**	**0.0105**	**0.0000**	**9.6700e-003**	**9.6700e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7100e-003	0.0522	0.0190	2.7000e-004	6.7000e-003	1.0000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.5052	26.5052	1.6900e-003	0.0000	26.5474
Vendor	7.1000e-004	0.0184	6.6800e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.3184	11.3184	4.5000e-004	0.0000	11.3297
Worker	1.9900e-003	1.2700e-003	0.0156	6.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	4.0000e-005	2.0300e-003	0.0000	5.3604	5.3604	1.1000e-004	0.0000	5.3631
Total	**4.4100e-003**	**0.0719**	**0.0413**	**4.5000e-004**	**0.0178**	**1.9000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0600e-003**	**0.0000**	**43.1840**	**43.1840**	**2.2500e-003**	**0.0000**	**43.2402**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8869
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7100e-003	0.0522	0.0190	2.7000e-004	6.7000e-003	1.0000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.5052	26.5052	1.6900e-003	0.0000	26.5474
Vendor	7.1000e-004	0.0184	6.6800e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.3184	11.3184	4.5000e-004	0.0000	11.3297
Worker	1.9900e-003	1.2700e-003	0.0156	6.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	4.0000e-005	2.0300e-003	0.0000	5.3604	5.3604	1.1000e-004	0.0000	5.3631
Total	**4.4100e-003**	**0.0719**	**0.0413**	**4.5000e-004**	**0.0178**	**1.9000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0600e-003**	**0.0000**	**43.1840**	**43.1840**	**2.2500e-003**	**0.0000**	**43.2402**

3.32 Plots 1 3 20 (2026) Finish Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0689	0.0000	0.0689	7.4400e-003	0.0000	7.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.1419	0.1567	2.2000e-004		7.3000e-003	7.3000e-003		6.7200e-003	6.7200e-003	0.0000	19.1465	19.1465	6.1900e-003	0.0000	19.3013
Total	**0.0154**	**0.1419**	**0.1567**	**2.2000e-004**	**0.0689**	**7.3000e-003**	**0.0762**	**7.4400e-003**	**6.7200e-003**	**0.0142**	**0.0000**	**19.1465**	**19.1465**	**6.1900e-003**	**0.0000**	**19.3013**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3000e-004	0.0131	4.7500e-003	7.0000e-005	1.6800e-003	3.0000e-005	1.7000e-003	4.6000e-004	3.0000e-005	4.9000e-004	0.0000	6.6263	6.6263	4.2000e-004	0.0000	6.6369
Vendor	1.8000e-004	4.6000e-003	1.6700e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.8296	2.8296	1.1000e-004	0.0000	2.8324
Worker	1.4900e-003	9.5000e-004	0.0117	4.0000e-005	5.6000e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.0203	4.0203	8.0000e-005	0.0000	4.0223
Total	**2.1000e-003**	**0.0186**	**0.0181**	**1.4000e-004**	**8.1900e-003**	**8.0000e-005**	**8.2500e-003**	**2.2100e-003**	**7.0000e-005**	**2.2800e-003**	**0.0000**	**13.4762**	**13.4762**	**6.1000e-004**	**0.0000**	**13.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0269	0.0000	0.0269	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0116	0.1645	2.2000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	19.1465	19.1465	6.1900e-003	0.0000	19.3013
Total	**2.6700e-003**	**0.0116**	**0.1645**	**2.2000e-004**	**0.0269**	**3.6000e-004**	**0.0272**	**2.9000e-003**	**3.6000e-004**	**3.2600e-003**	**0.0000**	**19.1465**	**19.1465**	**6.1900e-003**	**0.0000**	**19.3013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3000e-004	0.0131	4.7500e-003	7.0000e-005	1.6800e-003	3.0000e-005	1.7000e-003	4.6000e-004	3.0000e-005	4.9000e-004	0.0000	6.6263	6.6263	4.2000e-004	0.0000	6.6369
Vendor	1.8000e-004	4.6000e-003	1.6700e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.8296	2.8296	1.1000e-004	0.0000	2.8324
Worker	1.4900e-003	9.5000e-004	0.0117	4.0000e-005	5.6000e-003	4.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	4.0203	4.0203	8.0000e-005	0.0000	4.0223
Total	**2.1000e-003**	**0.0186**	**0.0181**	**1.4000e-004**	**8.1900e-003**	**8.0000e-005**	**8.2500e-003**	**2.2100e-003**	**7.0000e-005**	**2.2800e-003**	**0.0000**	**13.4762**	**13.4762**	**6.1000e-004**	**0.0000**	**13.4916**

3.33 Plots 1 3 20 (2026) Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.6878	0.8989	1.7100e-003		0.0295	0.0295		0.0272	0.0272	0.0000	149.6676	149.6676	0.0481	0.0000	150.8691
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2353**	**0.6878**	**0.8989**	**1.7100e-003**	**0.1273**	**0.0295**	**0.1568**	**0.0137**	**0.0272**	**0.0409**	**0.0000**	**149.6676**	**149.6676**	**0.0481**	**0.0000**	**150.8691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4400e-003	0.0442	0.0161	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.4274	22.4274	1.4300e-003	0.0000	22.4632
Vendor	5.3000e-004	0.0138	5.0100e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.4888	8.4888	3.4000e-004	0.0000	8.4973
Worker	2.4800e-003	1.5900e-003	0.0195	7.0000e-005	9.3300e-003	6.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5300e-003	0.0000	6.7006	6.7006	1.3000e-004	0.0000	6.7038
Total	**4.4500e-003**	**0.0596**	**0.0406**	**3.9000e-004**	**0.0177**	**1.8000e-004**	**0.0179**	**4.8300e-003**	**1.7000e-004**	**4.9900e-003**	**0.0000**	**37.6168**	**37.6168**	**1.9000e-003**	**0.0000**	**37.6643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.7100e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	149.6674	149.6674	0.0481	0.0000	150.8690
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.7100e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**149.6674**	**149.6674**	**0.0481**	**0.0000**	**150.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4400e-003	0.0442	0.0161	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.4274	22.4274	1.4300e-003	0.0000	22.4632
Vendor	5.3000e-004	0.0138	5.0100e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.4888	8.4888	3.4000e-004	0.0000	8.4973
Worker	2.4800e-003	1.5900e-003	0.0195	7.0000e-005	9.3300e-003	6.0000e-005	9.3900e-003	2.4800e-003	6.0000e-005	2.5300e-003	0.0000	6.7006	6.7006	1.3000e-004	0.0000	6.7038
Total	**4.4500e-003**	**0.0596**	**0.0406**	**3.9000e-004**	**0.0177**	**1.8000e-004**	**0.0179**	**4.8300e-003**	**1.7000e-004**	**4.9900e-003**	**0.0000**	**37.6168**	**37.6168**	**1.9000e-003**	**0.0000**	**37.6643**

3.34 Plots 1 3 20 (2026) Temporary Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0808	0.7968	0.6782	1.8000e-003		0.0325	0.0325		0.0299	0.0299	0.0000	158.3591	158.3591	0.0512	0.0000	159.6395
Total	**0.0808**	**0.7968**	**0.6782**	**1.8000e-003**	**0.0000**	**0.0325**	**0.0325**	**0.0000**	**0.0299**	**0.0299**	**0.0000**	**158.3591**	**158.3591**	**0.0512**	**0.0000**	**159.6395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.3589	158.3589	0.0512	0.0000	159.6393
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.3589**	**158.3589**	**0.0512**	**0.0000**	**159.6393**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

World Logistics Center-Construction Plots 5 and 10_7,8,21,22 (2027-2029)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	4.6126	37.6375	51.0215	0.1240	8.3581	1.4163	9.7743	1.0364	1.3067	2.3431	0.0000	11,045.5622	11,045.5622	3.0080	0.0000	11,120.7610
2028	5.6640	48.5101	58.4691	0.1448	10.3773	1.8321	12.2094	1.2570	1.6893	2.9462	0.0000	12,881.7540	12,881.7540	3.5906	0.0000	12,971.5181
2029	5.0710	42.4948	54.2162	0.1332	9.1886	1.6008	10.7893	1.1276	1.4764	2.6040	0.0000	11,860.7014	11,860.7014	3.2696	0.0000	11,942.4405
Maximum	**5.6640**	**48.5101**	**58.4691**	**0.1448**	**10.3773**	**1.8321**	**12.2094**	**1.2570**	**1.6893**	**2.9462**	**0.0000**	**12,881.7540**	**12,881.7540**	**3.5906**	**0.0000**	**12,971.5181**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	2.3539	15.3960	60.4175	0.1240	3.7524	0.3366	4.0890	0.5391	0.3216	0.8607	0.0000	11,045.5512	11,045.5512	3.0080	0.0000	11,120.7500
2028	2.6029	16.5455	69.7964	0.1448	4.5490	0.3700	4.9189	0.6276	0.3550	0.9827	0.0000	12,881.7409	12,881.7409	3.5906	0.0000	12,971.5049
2029	2.4578	15.8628	64.5104	0.1332	4.0816	0.3513	4.4329	0.5761	0.3364	0.9125	0.0000	11,860.6894	11,860.6894	3.2696	0.0000	11,942.4285
Maximum	**2.6029**	**16.5455**	**69.7964**	**0.1448**	**4.5490**	**0.3700**	**4.9189**	**0.6276**	**0.3550**	**0.9827**	**0.0000**	**12,881.7409**	**12,881.7409**	**3.5906**	**0.0000**	**12,971.5049**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**51.69**	**62.84**	**-18.95**	**0.00**	**55.65**	**78.18**	**58.99**	**49.05**	**77.35**	**65.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
29	**1-1-2027**	**3-31-2027**	8.1897	3.9586
30	**4-1-2027**	**6-30-2027**	9.0603	4.3536
31	**7-1-2027**	**9-30-2027**	10.3875	4.5234
32	**10-1-2027**	**12-31-2027**	14.5049	4.8487
33	**1-1-2028**	**3-31-2028**	24.1204	5.9902
34	**4-1-2028**	**6-30-2028**	12.1149	4.7248
35	**7-1-2028**	**9-30-2028**	9.4654	4.3917
36	**10-1-2028**	**12-31-2028**	8.7090	4.0512
37	**1-1-2029**	**3-31-2029**	8.1687	3.9376
38	**4-1-2029**	**6-30-2029**	9.0376	4.3308
39	**7-1-2029**	**9-30-2029**	11.3396	4.6207
		Highest	24.1204	5.9902

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plots 5 and 10 (2027) Utilities	Trenching	1/1/2027	12/30/2027	5	260	1177
2	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
3	Plots 5 and 10 (2027) Building-Wet Utilities	Building Construction	1/1/2027	12/30/2027	5	260	1174
4	Plots 5 and 10 (2027) Building-Electrical	Building Construction	1/1/2027	12/30/2027	5	260	1175
5	Plots 5 and 10 (2027) Building-Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1176
6	Plots 5 and 10 (2027) Landscaping	Building Construction	1/1/2027	12/30/2027	5	260	1178
7	Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving	5/1/2027	8/20/2027	5	80	1180
8	Plots 5 and 10 (2027) Paving	Paving	6/1/2027	7/26/2027	5	40	1181
9	Plots 5 and 10 (2027) Temporary Utilities	Building Construction	7/2/2027	12/30/2027	5	130	1179
10	Plots 5 and 10 (2027) Mass Excavation	Grading	9/16/2027	12/31/2027	5	77	1171
11	Plots 5 and 10 (2027) Finish Grading	Grading	11/6/2027	12/31/2027	5	40	1172
12	Plots 5 and 10 (2028) Mass Excavation	Grading	1/1/2028	4/18/2028	5	77	1182
13	Plots 5 and 10 (2028) Finish Grading	Grading	1/1/2028	2/25/2028	5	40	1183
14	Plots 5 and 10 (2028) Utilities	Trenching	1/1/2028	12/30/2028	5	260	1188
15	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
16	Plots 5 and 10 (2028) Building-Wet Utilities	Building Construction	1/1/2028	12/30/2028	5	260	1185
17	Plots 5 and 10 (2028) Building-Electrical	Building Construction	1/1/2028	12/30/2028	5	260	1186
18	Plots 5 and 10 (2028) Building-Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1187
19	Plots 5 and 10 (2028) Landscaping	Building Construction	1/1/2028	12/30/2028	5	260	1189
20	Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving	5/1/2028	8/20/2028	5	80	1191

21	Plots 5 and 10 (2028) Paving	Paving	6/1/2028	7/26/2028	5	40	1192
22	Plots 5 and 10 (2028) Temporary Utilities	Building Construction	7/2/2028	12/30/2028	5	130	1190
23	Plots 7 8 21 22 (2029) Utilities	Trenching	1/1/2029	12/30/2029	5	260	1199
24	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
25	Plots 7 8 21 22 (2029) Building-Wet Utilities	Building Construction	1/1/2029	12/30/2029	5	260	1196
26	Plots 7 8 21 22 (2029) Building-Electrical	Building Construction	1/1/2029	12/30/2029	5	260	1197
27	Plots 7 8 21 22 (2029) Building-Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1198
28	Plots 7 8 21 22 (2029) Landscaping	Building Construction	1/1/2029	12/30/2029	5	260	1200
29	Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving	5/1/2029	8/20/2029	5	80	1202
30	Plots 7 8 21 22 (2029) Paving	Paving	6/1/2029	7/26/2029	5	40	1203
31	Plots 7 8 21 22 (2029) Temporary Utilities	Building Construction	7/2/2029	12/30/2029	5	130	1201
32	Plots 7 8 21 22 (2029) Mass Excavation	Grading	9/14/2029	12/31/2029	5	77	1193
33	Plots 7 8 21 22 (2029) Finish Grading	Grading	11/6/2029	12/31/2029	5	40	1194

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2027) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2027) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2027) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2027) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36

Plots 5 and 10 (2027) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2027) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2027) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 5 and 10 (2027) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2027) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2027) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2027) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plots 5 and 10 (2027) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2027) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2027) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2027) Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2027) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2027) Paving	Pavers	2	10.00	126	0.42
Plots 5 and 10 (2027) Paving	Paving Equipment	2	10.00	131	0.36
Plots 5 and 10 (2027) Paving	Plate Compactors	2	10.00	8	0.43
Plots 5 and 10 (2027) Paving	Rollers	2	10.00	81	0.38
Plots 5 and 10 (2027) Paving	Scrapers	2	10.00	362	0.48
Plots 5 and 10 (2027) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plots 5 and 10 (2027) Temporary Utilities	Cranes	2	10.00	445	0.29
Plots 5 and 10 (2027) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	523	0.38
Plots 5 and 10 (2027) Utilities	Excavators	10	10.00	286	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	4	10.00	396	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	190	0.38
Plots 5 and 10 (2027) Utilities	Excavators	2	10.00	188	0.38

Plots 5 and 10 (2027) Utilities	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2027) Utilities	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plots 5 and 10 (2027) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2027) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plots 5 and 10 (2027) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2027) Mass Excavation	Graders	1	10.00	193	0.41
Plots 5 and 10 (2027) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	580	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	410	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plots 5 and 10 (2027) Mass Excavation	Rubber Tired Dozers	1	10.00	85	0.40
Plots 5 and 10 (2027) Mass Excavation	Scrapers	0	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2027) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37

Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 5 and 10 (2028) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 5 and 10 (2028) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 5 and 10 (2028) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 5 and 10 (2028) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 5 and 10 (2028) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 5 and 10 (2028) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plots 5 and 10 (2028) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plots 5 and 10 (2028) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plots 5 and 10 (2028) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plots 5 and 10 (2028) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plots 5 and 10 (2028) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plots 5 and 10 (2028) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plots 5 and 10 (2028) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plots 5 and 10 (2028) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plots 5 and 10 (2028) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plots 5 and 10 (2028) Landscaping	Excavators	2	10.00	29	0.38
Plots 5 and 10 (2028) Landscaping	Forklifts	2	10.00	125	0.20
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plots 5 and 10 (2028) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40

Plots 5 and 10 (2028) Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plots 5 and 10 (2028) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plots 5 and 10 (2028) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plots 5 and 10 (2028) Landscaping	Trenchers		2	10.00	39	0.50
Plots 5 and 10 (2028) Paving	Other Material Handling Equipment		6	1.00	167	0.40
Plots 5 and 10 (2028) Paving	Pavers		2	10.00	126	0.42
Plots 5 and 10 (2028) Paving	Paving Equipment		2	10.00	131	0.36
Plots 5 and 10 (2028) Paving	Plate Compactors		2	10.00	8	0.43
Plots 5 and 10 (2028) Paving	Rollers		2	10.00	81	0.38
Plots 5 and 10 (2028) Paving	Scrapers		2	10.00	362	0.48
Plots 5 and 10 (2028) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plots 5 and 10 (2028) Temporary Utilities	Cranes		2	10.00	445	0.29
Plots 5 and 10 (2028) Utilities	Cement and Mortar Mixers		8	1.00	9	0.56
Plots 5 and 10 (2028) Utilities	Excavators		2	10.00	523	0.38
Plots 5 and 10 (2028) Utilities	Excavators		10	10.00	286	0.38
Plots 5 and 10 (2028) Utilities	Excavators		2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators		4	10.00	396	0.38
Plots 5 and 10 (2028) Utilities	Excavators		2	10.00	190	0.38
Plots 5 and 10 (2028) Utilities	Excavators		2	10.00	188	0.38
Plots 5 and 10 (2028) Utilities	Excavators		8	10.00	40	0.38
Plots 5 and 10 (2028) Utilities	Forklifts		4	10.00	89	0.20
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment		7	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Other Material Handling Equipment		18	1.00	167	0.40
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes		2	10.00	85	0.37
Plots 5 and 10 (2028) Utilities	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment		2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Other Material Handling Equipment		2	1.00	167	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers		2	10.00	140	0.40
Plots 5 and 10 (2028) Finish Grading	Rubber Tired Dozers		3	10.00	85	0.40

Plots 5 and 10 (2028) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 5 and 10 (2028) Mass Excavation	Graders	2	10.00	193	0.41
Plots 5 and 10 (2028) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plots 5 and 10 (2028) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plots 5 and 10 (2028) Mass Excavation	Scrapers	6	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Scrapers	12	10.00	550	0.48
Plots 5 and 10 (2028) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	10.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plots 7 8 21 22 (2029) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plots 7 8 21 22 (2029) Building-Electrical	Excavators	8	10.00	40	0.38
Plots 7 8 21 22 (2029) Building-Electrical	Forklifts	4	10.00	89	0.20
Plots 7 8 21 22 (2029) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Excavators	2	10.00	29	0.38
Plots 7 8 21 22 (2029) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40

Plots 7 8 21 22 (2029) Building-Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plots 7 8 21 22 (2029) Building-Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plots 7 8 21 22 (2029) Building-Landscaping	Trenchers		2	10.00	39	0.50
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators		2	10.00	300	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators		2	10.00	179	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Excavators		2	10.00	173	0.38
Plots 7 8 21 22 (2029) Building-Wet Utilities	Other Material Handling Equipment		15	1.00	167	0.40
Plots 7 8 21 22 (2029) Building-Wet Utilities	Rubber Tired Loaders		6	10.00	152	0.36
Plots 7 8 21 22 (2029) Building-Wet Utilities	Tractors/Loaders/Backhoes		6	10.00	108	0.37
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Cement and Mortar Mixers		6	1.00	9	0.56
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Other Material Handling Equipment		4	1.00	167	0.40
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment		1	10.00	99	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers		1	10.00	140	0.40
Plots 7 8 21 22 (2029) Finish Grading	Rubber Tired Dozers		2	10.00	85	0.40
Plots 7 8 21 22 (2029) Finish Grading	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plots 7 8 21 22 (2029) Landscaping	Excavators		2	10.00	29	0.38
Plots 7 8 21 22 (2029) Landscaping	Forklifts		2	10.00	125	0.20
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment		2	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Other Material Handling Equipment		10	1.00	167	0.40
Plots 7 8 21 22 (2029) Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plots 7 8 21 22 (2029) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plots 7 8 21 22 (2029) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plots 7 8 21 22 (2029) Landscaping	Trenchers		2	10.00	39	0.50

Plots 7 8 21 22 (2029) Mass Excavation	Graders		1	10.00	193	0.41
Plots 7 8 21 22 (2029) Mass Excavation	Off-Highway Trucks		1	10.00	400	0.38
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment		4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Other Material Handling Equipment		4	1.00	167	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors		1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Plate Compactors		1	10.00	354	0.43
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers		2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers		2	10.00	580	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers		2	10.00	410	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers		1	10.00	305	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers		1	10.00	140	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Rubber Tired Dozers		2	10.00	85	0.40
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers		3	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Scrapers		9	10.00	550	0.48
Plots 7 8 21 22 (2029) Mass Excavation	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plots 7 8 21 22 (2029) Paving	Other Material Handling Equipment		6	1.00	167	0.40
Plots 7 8 21 22 (2029) Paving	Pavers		2	10.00	126	0.42
Plots 7 8 21 22 (2029) Paving	Paving Equipment		2	10.00	131	0.36
Plots 7 8 21 22 (2029) Paving	Plate Compactors		2	10.00	8	0.43
Plots 7 8 21 22 (2029) Paving	Rollers		2	10.00	81	0.38
Plots 7 8 21 22 (2029) Paving	Scrapers		2	10.00	362	0.48

Plots 7 8 21 22 (2029) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plots 7 8 21 22 (2029) Temporary Utilities	Cranes		2	10.00	445	0.29
Plots 7 8 21 22 (2029) Utilities	Cement and Mortar Mixers		8	1.00	9	0.56
Plots 7 8 21 22 (2029) Utilities	Excavators		2	10.00	523	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators		10	10.00	286	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators		2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators		4	10.00	396	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators		2	10.00	190	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators		2	10.00	188	0.38
Plots 7 8 21 22 (2029) Utilities	Excavators		8	10.00	40	0.38
Plots 7 8 21 22 (2029) Utilities	Forklifts		4	10.00	89	0.20
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment		7	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Other Material Handling Equipment		18	1.00	167	0.40
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes		2	10.00	85	0.37
Plots 7 8 21 22 (2029) Utilities	Tractors/Loaders/Backhoes		8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Finish Grading		15.00	4.00	208.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Mass Excavation		50.00	7.00	1,085.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Finish Grading		15.00	4.00	260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plots 5 and 10 (2028) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Finish Grading		15.00	2.00	312.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plots 5 and 10 (2027) Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3695	10.3165	14.8042	0.0451		0.3898	0.3898		0.3588	0.3588	0.0000	3,952.5854	3,952.5854	1.2770	0.0000	3,984.5113
Total	**1.3695**	**10.3165**	**14.8042**	**0.0451**	**3.3194**	**0.3898**	**3.7092**	**0.3584**	**0.3588**	**0.7172**	**0.0000**	**3,952.5854**	**3,952.5854**	**1.2770**	**0.0000**	**3,984.5113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0170	0.5151	0.1918	2.6800e-003	0.0673	1.0400e-003	0.0683	0.0185	9.9000e-004	0.0195	0.0000	264.6536	264.6536	0.0169	0.0000	265.0757
Vendor	0.0141	0.3679	0.1342	2.3600e-003	0.0740	8.0000e-004	0.0748	0.0213	7.6000e-004	0.0221	0.0000	228.9637	228.9637	9.1300e-003	0.0000	229.1919
Worker	0.0247	0.0152	0.1905	7.4000e-004	0.0970	5.9000e-004	0.0976	0.0258	5.4000e-004	0.0263	0.0000	67.4274	67.4274	1.2600e-003	0.0000	67.4589
Total	**0.0558**	**0.8982**	**0.5165**	**5.7800e-003**	**0.2382**	**2.4300e-003**	**0.2407**	**0.0655**	**2.2900e-003**	**0.0678**	**0.0000**	**561.0448**	**561.0448**	**0.0273**	**0.0000**	**561.7264**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8081	5.0875	19.9530	0.0451		0.1525	0.1525		0.1443	0.1443	0.0000	3,952.5807	3,952.5807	1.2770	0.0000	3,984.5066
Total	**0.8081**	**5.0875**	**19.9530**	**0.0451**	**1.2946**	**0.1525**	**1.4471**	**0.1398**	**0.1443**	**0.2841**	**0.0000**	**3,952.5807**	**3,952.5807**	**1.2770**	**0.0000**	**3,984.5066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0170	0.5151	0.1918	2.6800e-003	0.0673	1.0400e-003	0.0683	0.0185	9.9000e-004	0.0195	0.0000	264.6536	264.6536	0.0169	0.0000	265.0757
Vendor	0.0141	0.3679	0.1342	2.3600e-003	0.0740	8.0000e-004	0.0748	0.0213	7.6000e-004	0.0221	0.0000	228.9637	228.9637	9.1300e-003	0.0000	229.1919
Worker	0.0247	0.0152	0.1905	7.4000e-004	0.0970	5.9000e-004	0.0976	0.0258	5.4000e-004	0.0263	0.0000	67.4274	67.4274	1.2600e-003	0.0000	67.4589
Total	**0.0558**	**0.8982**	**0.5165**	**5.7800e-003**	**0.2382**	**2.4300e-003**	**0.2407**	**0.0655**	**2.2900e-003**	**0.0678**	**0.0000**	**561.0448**	**561.0448**	**0.0273**	**0.0000**	**561.7264**

3.3 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3578	3.3564	5.4084	8.1400e-003		0.1372	0.1372		0.1293	0.1293	0.0000	704.5664	704.5664	0.1720	0.0000	708.8657
Total	**0.3578**	**3.3564**	**5.4084**	**8.1400e-003**	**0.4152**	**0.1372**	**0.5524**	**0.0448**	**0.1293**	**0.1741**	**0.0000**	**704.5664**	**704.5664**	**0.1720**	**0.0000**	**708.8657**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0204	0.6181	0.2301	3.2100e-003	0.0807	1.2400e-003	0.0819	0.0222	1.1900e-003	0.0233	0.0000	317.5844	317.5844	0.0203	0.0000	318.0908
Vendor	1.1300e-003	0.0294	0.0107	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.3171	18.3171	7.3000e-004	0.0000	18.3354
Worker	0.0154	9.5300e-003	0.1190	4.7000e-004	0.0606	3.7000e-004	0.0610	0.0161	3.4000e-004	0.0164	0.0000	42.1421	42.1421	7.9000e-004	0.0000	42.1618
Total	**0.0370**	**0.6571**	**0.3599**	**3.8700e-003**	**0.1472**	**1.6700e-003**	**0.1489**	**0.0400**	**1.5900e-003**	**0.0415**	**0.0000**	**378.0436**	**378.0436**	**0.0218**	**0.0000**	**378.5879**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1400e-003		0.0177	0.0177		0.0177	0.0177	0.0000	704.5656	704.5656	0.1720	0.0000	708.8648
Total	**0.1140**	**0.5384**	**5.7392**	**8.1400e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**704.5656**	**704.5656**	**0.1720**	**0.0000**	**708.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0204	0.6181	0.2301	3.2100e-003	0.0807	1.2400e-003	0.0819	0.0222	1.1900e-003	0.0233	0.0000	317.5844	317.5844	0.0203	0.0000	318.0908
Vendor	1.1300e-003	0.0294	0.0107	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.3171	18.3171	7.3000e-004	0.0000	18.3354
Worker	0.0154	9.5300e-003	0.1190	4.7000e-004	0.0606	3.7000e-004	0.0610	0.0161	3.4000e-004	0.0164	0.0000	42.1421	42.1421	7.9000e-004	0.0000	42.1618
Total	**0.0370**	**0.6571**	**0.3599**	**3.8700e-003**	**0.1472**	**1.6700e-003**	**0.1489**	**0.0400**	**1.5900e-003**	**0.0415**	**0.0000**	**378.0436**	**378.0436**	**0.0218**	**0.0000**	**378.5879**

3.4 Plots 5 and 10 (2027) Building-Wet Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5939	4.6311	8.6852	0.0163		0.2090	0.2090		0.1922	0.1922	0.0000	1,429.5464	1,429.5464	0.4623	0.0000	1,441.1050
Total	**0.5939**	**4.6311**	**8.6852**	**0.0163**	**1.2450**	**0.2090**	**1.4540**	**0.1344**	**0.1922**	**0.3267**	**0.0000**	**1,429.5464**	**1,429.5464**	**0.4623**	**0.0000**	**1,441.1050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9600e-003	0.1803	0.0671	9.4000e-004	0.0235	3.6000e-004	0.0239	6.4600e-003	3.5000e-004	6.8100e-003	0.0000	92.6288	92.6288	5.9100e-003	0.0000	92.7765
Vendor	8.4800e-003	0.2207	0.0805	1.4100e-003	0.0444	4.8000e-004	0.0449	0.0128	4.6000e-004	0.0133	0.0000	137.3782	137.3782	5.4800e-003	0.0000	137.5151
Worker	0.0154	9.5300e-003	0.1190	4.7000e-004	0.0606	3.7000e-004	0.0610	0.0161	3.4000e-004	0.0164	0.0000	42.1421	42.1421	7.9000e-004	0.0000	42.1618
Total	**0.0299**	**0.4105**	**0.2667**	**2.8200e-003**	**0.1286**	**1.2100e-003**	**0.1298**	**0.0354**	**1.1500e-003**	**0.0365**	**0.0000**	**272.1491**	**272.1491**	**0.0122**	**0.0000**	**272.4534**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2423	1.2516	10.1791	0.0163		0.0431	0.0431		0.0414	0.0414	0.0000	1,429.5447	1,429.5447	0.4623	0.0000	1,441.1032
Total	**0.2423**	**1.2516**	**10.1791**	**0.0163**	**0.4856**	**0.0431**	**0.5287**	**0.0524**	**0.0414**	**0.0938**	**0.0000**	**1,429.5447**	**1,429.5447**	**0.4623**	**0.0000**	**1,441.1032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9600e-003	0.1803	0.0671	9.4000e-004	0.0235	3.6000e-004	0.0239	6.4600e-003	3.5000e-004	6.8100e-003	0.0000	92.6288	92.6288	5.9100e-003	0.0000	92.7765
Vendor	8.4800e-003	0.2207	0.0805	1.4100e-003	0.0444	4.8000e-004	0.0449	0.0128	4.6000e-004	0.0133	0.0000	137.3782	137.3782	5.4800e-003	0.0000	137.5151
Worker	0.0154	9.5300e-003	0.1190	4.7000e-004	0.0606	3.7000e-004	0.0610	0.0161	3.4000e-004	0.0164	0.0000	42.1421	42.1421	7.9000e-004	0.0000	42.1618
Total	**0.0299**	**0.4105**	**0.2667**	**2.8200e-003**	**0.1286**	**1.2100e-003**	**0.1298**	**0.0354**	**1.1500e-003**	**0.0365**	**0.0000**	**272.1491**	**272.1491**	**0.0122**	**0.0000**	**272.4534**

3.5 Plots 5 and 10 (2027) Building-Electrical - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3896	3.5779	5.3209	7.3500e-003		0.1423	0.1423		0.1311	0.1311	0.0000	642.1840	642.1840	0.2057	0.0000	647.3274
Total	**0.3896**	**3.5779**	**5.3209**	**7.3500e-003**	**0.8298**	**0.1423**	**0.9721**	**0.0896**	**0.1311**	**0.2207**	**0.0000**	**642.1840**	**642.1840**	**0.2057**	**0.0000**	**647.3274**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0136	0.4121	0.1534	2.1400e-003	0.0538	8.3000e-004	0.0546	0.0148	7.9000e-004	0.0156	0.0000	211.7229	211.7229	0.0135	0.0000	212.0605
Vendor	3.3900e-003	0.0883	0.0322	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.9513	54.9513	2.1900e-003	0.0000	55.0061
Worker	9.2600e-003	5.7200e-003	0.0714	2.8000e-004	0.0364	2.2000e-004	0.0366	9.6600e-003	2.0000e-004	9.8600e-003	0.0000	25.2853	25.2853	4.7000e-004	0.0000	25.2971
Total	**0.0263**	**0.5061**	**0.2571**	**2.9900e-003**	**0.1079**	**1.2400e-003**	**0.1092**	**0.0296**	**1.1700e-003**	**0.0307**	**0.0000**	**291.9595**	**291.9595**	**0.0162**	**0.0000**	**292.3636**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1597	1.4145	5.5115	7.3500e-003		0.0288	0.0288		0.0275	0.0275	0.0000	642.1833	642.1833	0.2057	0.0000	647.3266
Total	**0.1597**	**1.4145**	**5.5115**	**7.3500e-003**	**0.3236**	**0.0288**	**0.3524**	**0.0350**	**0.0275**	**0.0625**	**0.0000**	**642.1833**	**642.1833**	**0.2057**	**0.0000**	**647.3266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0136	0.4121	0.1534	2.1400e-003	0.0538	8.3000e-004	0.0546	0.0148	7.9000e-004	0.0156	0.0000	211.7229	211.7229	0.0135	0.0000	212.0605
Vendor	3.3900e-003	0.0883	0.0322	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.9513	54.9513	2.1900e-003	0.0000	55.0061
Worker	9.2600e-003	5.7200e-003	0.0714	2.8000e-004	0.0364	2.2000e-004	0.0366	9.6600e-003	2.0000e-004	9.8600e-003	0.0000	25.2853	25.2853	4.7000e-004	0.0000	25.2971
Total	**0.0263**	**0.5061**	**0.2571**	**2.9900e-003**	**0.1079**	**1.2400e-003**	**0.1092**	**0.0296**	**1.1700e-003**	**0.0307**	**0.0000**	**291.9595**	**291.9595**	**0.0162**	**0.0000**	**292.3636**

3.6 Plots 5 and 10 (2027) Building-Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2974	2.4885	4.2184	6.0900e-003		0.1083	0.1083		0.0996	0.0996	0.0000	534.9708	534.9708	0.1730	0.0000	539.2963
Total	**0.2974**	**2.4885**	**4.2184**	**6.0900e-003**	**0.2073**	**0.1083**	**0.3156**	**0.0224**	**0.0996**	**0.1220**	**0.0000**	**534.9708**	**534.9708**	**0.1730**	**0.0000**	**539.2963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9600e-003	0.1030	0.0376	6.6000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	64.1098	64.1098	2.5600e-003	0.0000	64.1737
Worker	6.1700e-003	3.8100e-003	0.0476	1.9000e-004	0.0243	1.5000e-004	0.0244	6.4400e-003	1.4000e-004	6.5700e-003	0.0000	16.8569	16.8569	3.1000e-004	0.0000	16.8647
Total	**0.0101**	**0.1068**	**0.0852**	**8.5000e-004**	**0.0450**	**3.7000e-004**	**0.0453**	**0.0124**	**3.5000e-004**	**0.0128**	**0.0000**	**80.9667**	**80.9667**	**2.8700e-003**	**0.0000**	**81.0385**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1568	1.6213	4.6127	6.0900e-003		0.0298	0.0298		0.0281	0.0281	0.0000	534.9702	534.9702	0.1730	0.0000	539.2957
Total	**0.1568**	**1.6213**	**4.6127**	**6.0900e-003**	**0.0809**	**0.0298**	**0.1106**	**8.7300e-003**	**0.0281**	**0.0368**	**0.0000**	**534.9702**	**534.9702**	**0.1730**	**0.0000**	**539.2957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9600e-003	0.1030	0.0376	6.6000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	64.1098	64.1098	2.5600e-003	0.0000	64.1737
Worker	6.1700e-003	3.8100e-003	0.0476	1.9000e-004	0.0243	1.5000e-004	0.0244	6.4400e-003	1.4000e-004	6.5700e-003	0.0000	16.8569	16.8569	3.1000e-004	0.0000	16.8647
Total	**0.0101**	**0.1068**	**0.0852**	**8.5000e-004**	**0.0450**	**3.7000e-004**	**0.0453**	**0.0124**	**3.5000e-004**	**0.0128**	**0.0000**	**80.9667**	**80.9667**	**2.8700e-003**	**0.0000**	**81.0385**

3.7 Plots 5 and 10 (2027) Landscaping - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3155	2.6221	4.5216	6.5600e-003		0.1152	0.1152		0.1060	0.1060	0.0000	575.9783	575.9783	0.1863	0.0000	580.6354
Total	**0.3155**	**2.6221**	**4.5216**	**6.5600e-003**	**0.2073**	**0.1152**	**0.3225**	**0.0224**	**0.1060**	**0.1284**	**0.0000**	**575.9783**	**575.9783**	**0.1863**	**0.0000**	**580.6354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.0883	0.0322	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.9513	54.9513	2.1900e-003	0.0000	55.0061
Worker	6.1700e-003	3.8100e-003	0.0476	1.9000e-004	0.0243	1.5000e-004	0.0244	6.4400e-003	1.4000e-004	6.5700e-003	0.0000	16.8569	16.8569	3.1000e-004	0.0000	16.8647
Total	**9.5600e-003**	**0.0921**	**0.0798**	**7.6000e-004**	**0.0420**	**3.4000e-004**	**0.0423**	**0.0116**	**3.2000e-004**	**0.0119**	**0.0000**	**71.8082**	**71.8082**	**2.5000e-003**	**0.0000**	**71.8708**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1626	1.6462	4.9669	6.5600e-003		0.0305	0.0305		0.0289	0.0289	0.0000	575.9776	575.9776	0.1863	0.0000	580.6347
Total	**0.1626**	**1.6462**	**4.9669**	**6.5600e-003**	**0.0809**	**0.0305**	**0.1114**	**8.7300e-003**	**0.0289**	**0.0376**	**0.0000**	**575.9776**	**575.9776**	**0.1863**	**0.0000**	**580.6347**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.0883	0.0322	5.7000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.9513	54.9513	2.1900e-003	0.0000	55.0061
Worker	6.1700e-003	3.8100e-003	0.0476	1.9000e-004	0.0243	1.5000e-004	0.0244	6.4400e-003	1.4000e-004	6.5700e-003	0.0000	16.8569	16.8569	3.1000e-004	0.0000	16.8647
Total	**9.5600e-003**	**0.0921**	**0.0798**	**7.6000e-004**	**0.0420**	**3.4000e-004**	**0.0423**	**0.0116**	**3.2000e-004**	**0.0119**	**0.0000**	**71.8082**	**71.8082**	**2.5000e-003**	**0.0000**	**71.8708**

3.8 Plots 5 and 10 (2027) Curbing/Drive Approaches - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2230	0.3829	5.8000e-004		0.0105	0.0105		9.6700e-003	9.6700e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8870
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1868**	**0.2230**	**0.3829**	**5.8000e-004**	**0.0000**	**0.0105**	**0.0105**	**0.0000**	**9.6700e-003**	**9.6700e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-003	0.0513	0.0191	2.7000e-004	6.7000e-003	1.0000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.3808	26.3808	1.6800e-003	0.0000	26.4229
Vendor	7.0000e-004	0.0181	6.6100e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.2721	11.2721	4.5000e-004	0.0000	11.2833
Worker	1.9000e-003	1.1700e-003	0.0147	6.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	5.1867	5.1867	1.0000e-004	0.0000	5.1891
Total	**4.3000e-003**	**0.0706**	**0.0404**	**4.5000e-004**	**0.0178**	**1.9000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0500e-003**	**0.0000**	**42.8396**	**42.8396**	**2.2300e-003**	**0.0000**	**42.8953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8869
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-003	0.0513	0.0191	2.7000e-004	6.7000e-003	1.0000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.3808	26.3808	1.6800e-003	0.0000	26.4229
Vendor	7.0000e-004	0.0181	6.6100e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.2721	11.2721	4.5000e-004	0.0000	11.2833
Worker	1.9000e-003	1.1700e-003	0.0147	6.0000e-005	7.4600e-003	5.0000e-005	7.5100e-003	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	5.1867	5.1867	1.0000e-004	0.0000	5.1891
Total	**4.3000e-003**	**0.0706**	**0.0404**	**4.5000e-004**	**0.0178**	**1.9000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0500e-003**	**0.0000**	**42.8396**	**42.8396**	**2.2300e-003**	**0.0000**	**42.8953**

3.9 Plots 5 and 10 (2027) Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.6878	0.8989	1.7100e-003		0.0295	0.0295		0.0272	0.0272	0.0000	149.6676	149.6676	0.0481	0.0000	150.8691
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2353**	**0.6878**	**0.8989**	**1.7100e-003**	**0.1273**	**0.0295**	**0.1568**	**0.0137**	**0.0272**	**0.0409**	**0.0000**	**149.6676**	**149.6676**	**0.0481**	**0.0000**	**150.8691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4400e-003	0.0434	0.0162	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.3222	22.3222	1.4200e-003	0.0000	22.3578
Vendor	5.2000e-004	0.0136	4.9600e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.4540	8.4540	3.4000e-004	0.0000	8.4625
Worker	2.3700e-003	1.4700e-003	0.0183	7.0000e-005	9.3300e-003	6.0000e-005	9.3800e-003	2.4800e-003	5.0000e-005	2.5300e-003	0.0000	6.4834	6.4834	1.2000e-004	0.0000	6.4864
Total	**4.3300e-003**	**0.0585**	**0.0394**	**3.9000e-004**	**0.0177**	**1.8000e-004**	**0.0179**	**4.8300e-003**	**1.6000e-004**	**4.9900e-003**	**0.0000**	**37.2597**	**37.2597**	**1.8800e-003**	**0.0000**	**37.3067**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.7100e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	149.6674	149.6674	0.0481	0.0000	150.8690
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.7100e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**149.6674**	**149.6674**	**0.0481**	**0.0000**	**150.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4400e-003	0.0434	0.0162	2.3000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.3222	22.3222	1.4200e-003	0.0000	22.3578
Vendor	5.2000e-004	0.0136	4.9600e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.4540	8.4540	3.4000e-004	0.0000	8.4625
Worker	2.3700e-003	1.4700e-003	0.0183	7.0000e-005	9.3300e-003	6.0000e-005	9.3800e-003	2.4800e-003	5.0000e-005	2.5300e-003	0.0000	6.4834	6.4834	1.2000e-004	0.0000	6.4864
Total	**4.3300e-003**	**0.0585**	**0.0394**	**3.9000e-004**	**0.0177**	**1.8000e-004**	**0.0179**	**4.8300e-003**	**1.6000e-004**	**4.9900e-003**	**0.0000**	**37.2597**	**37.2597**	**1.8800e-003**	**0.0000**	**37.3067**

3.10 Plots 5 and 10 (2027) Temporary Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0808	0.7968	0.6782	1.8000e-003		0.0325	0.0325		0.0299	0.0299	0.0000	158.3591	158.3591	0.0512	0.0000	159.6395
Total	**0.0808**	**0.7968**	**0.6782**	**1.8000e-003**	**0.0000**	**0.0325**	**0.0325**	**0.0000**	**0.0299**	**0.0299**	**0.0000**	**158.3591**	**158.3591**	**0.0512**	**0.0000**	**159.6395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.3589	158.3589	0.0512	0.0000	159.6393
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.3589**	**158.3589**	**0.0512**	**0.0000**	**159.6393**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.11 Plots 5 and 10 (2027) Mass Excavation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1300	0.0000	1.1300	0.1220	0.0000	0.1220	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5767	5.8351	4.1470	0.0112		0.2262	0.2262		0.2081	0.2081	0.0000	981.3392	981.3392	0.3174	0.0000	989.2738
Total	**0.5767**	**5.8351**	**4.1470**	**0.0112**	**1.1300**	**0.2262**	**1.3561**	**0.1220**	**0.2081**	**0.3301**	**0.0000**	**981.3392**	**981.3392**	**0.3174**	**0.0000**	**989.2738**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9500e-003	0.0893	0.0332	4.6000e-004	0.0117	1.8000e-004	0.0118	3.2000e-003	1.7000e-004	3.3700e-003	0.0000	45.8705	45.8705	2.9300e-003	0.0000	45.9436
Vendor	1.1700e-003	0.0305	0.0111	2.0000e-004	6.1400e-003	7.0000e-005	6.2000e-003	1.7700e-003	6.0000e-005	1.8300e-003	0.0000	18.9864	18.9864	7.6000e-004	0.0000	19.0053
Worker	9.1400e-003	5.6400e-003	0.0705	2.8000e-004	0.0359	2.2000e-004	0.0361	9.5300e-003	2.0000e-004	9.7300e-003	0.0000	24.9611	24.9611	4.7000e-004	0.0000	24.9728
Total	**0.0133**	**0.1254**	**0.1149**	**9.4000e-004**	**0.0537**	**4.7000e-004**	**0.0542**	**0.0145**	**4.3000e-004**	**0.0149**	**0.0000**	**89.8180**	**89.8180**	**4.1600e-003**	**0.0000**	**89.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4407	0.0000	0.4407	0.0476	0.0000	0.0476	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1371	0.5942	5.1904	0.0112		0.0183	0.0183		0.0183	0.0183	0.0000	981.3380	981.3380	0.3174	0.0000	989.2726
Total	**0.1371**	**0.5942**	**5.1904**	**0.0112**	**0.4407**	**0.0183**	**0.4590**	**0.0476**	**0.0183**	**0.0659**	**0.0000**	**981.3380**	**981.3380**	**0.3174**	**0.0000**	**989.2726**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9500e-003	0.0893	0.0332	4.6000e-004	0.0117	1.8000e-004	0.0118	3.2000e-003	1.7000e-004	3.3700e-003	0.0000	45.8705	45.8705	2.9300e-003	0.0000	45.9436
Vendor	1.1700e-003	0.0305	0.0111	2.0000e-004	6.1400e-003	7.0000e-005	6.2000e-003	1.7700e-003	6.0000e-005	1.8300e-003	0.0000	18.9864	18.9864	7.6000e-004	0.0000	19.0053
Worker	9.1400e-003	5.6400e-003	0.0705	2.8000e-004	0.0359	2.2000e-004	0.0361	9.5300e-003	2.0000e-004	9.7300e-003	0.0000	24.9611	24.9611	4.7000e-004	0.0000	24.9728
Total	**0.0133**	**0.1254**	**0.1149**	**9.4000e-004**	**0.0537**	**4.7000e-004**	**0.0542**	**0.0145**	**4.3000e-004**	**0.0149**	**0.0000**	**89.8180**	**89.8180**	**4.1600e-003**	**0.0000**	**89.9217**

3.12 Plots 5 and 10 (2027) Finish Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0689	0.0000	0.0689	7.4400e-003	0.0000	7.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0165	0.1501	0.1754	2.5000e-004		7.7300e-003	7.7300e-003		7.1100e-003	7.1100e-003	0.0000	21.6700	21.6700	7.0100e-003	0.0000	21.8452
Total	**0.0165**	**0.1501**	**0.1754**	**2.5000e-004**	**0.0689**	**7.7300e-003**	**0.0767**	**7.4400e-003**	**7.1100e-003**	**0.0146**	**0.0000**	**21.6700**	**21.6700**	**7.0100e-003**	**0.0000**	**21.8452**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7000e-004	0.0171	6.3700e-003	9.0000e-005	2.2300e-003	3.0000e-005	2.2700e-003	6.1000e-004	3.0000e-005	6.5000e-004	0.0000	8.7936	8.7936	5.6000e-004	0.0000	8.8076
Vendor	3.5000e-004	9.0600e-003	3.3000e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.6360	5.6360	2.2000e-004	0.0000	5.6417
Worker	1.4200e-003	8.8000e-004	0.0110	4.0000e-005	5.6000e-003	3.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	3.8900	3.8900	7.0000e-005	0.0000	3.8919
Total	**2.3400e-003**	**0.0271**	**0.0207**	**1.9000e-004**	**9.6500e-003**	**8.0000e-005**	**9.7400e-003**	**2.6300e-003**	**8.0000e-005**	**2.7100e-003**	**0.0000**	**18.3197**	**18.3197**	**8.5000e-004**	**0.0000**	**18.3411**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0269	0.0000	0.0269	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0200e-003	0.0131	0.1863	2.5000e-004		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	21.6700	21.6700	7.0100e-003	0.0000	21.8452
Total	**3.0200e-003**	**0.0131**	**0.1863**	**2.5000e-004**	**0.0269**	**4.0000e-004**	**0.0273**	**2.9000e-003**	**4.0000e-004**	**3.3000e-003**	**0.0000**	**21.6700**	**21.6700**	**7.0100e-003**	**0.0000**	**21.8452**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7000e-004	0.0171	6.3700e-003	9.0000e-005	2.2300e-003	3.0000e-005	2.2700e-003	6.1000e-004	3.0000e-005	6.5000e-004	0.0000	8.7936	8.7936	5.6000e-004	0.0000	8.8076
Vendor	3.5000e-004	9.0600e-003	3.3000e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.6360	5.6360	2.2000e-004	0.0000	5.6417
Worker	1.4200e-003	8.8000e-004	0.0110	4.0000e-005	5.6000e-003	3.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5200e-003	0.0000	3.8900	3.8900	7.0000e-005	0.0000	3.8919
Total	**2.3400e-003**	**0.0271**	**0.0207**	**1.9000e-004**	**9.6500e-003**	**8.0000e-005**	**9.7400e-003**	**2.6300e-003**	**8.0000e-005**	**2.7100e-003**	**0.0000**	**18.3197**	**18.3197**	**8.5000e-004**	**0.0000**	**18.3411**

3.13 Plots 5 and 10 (2028) Mass Excavation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0823	0.0000	3.0823	0.3328	0.0000	0.3328	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6156	16.5110	11.4574	0.0314		0.6352	0.6352		0.5844	0.5844	0.0000	2,758.2843	2,758.2843	0.8921	0.0000	2,780.5865
Total	**1.6156**	**16.5110**	**11.4574**	**0.0314**	**3.0823**	**0.6352**	**3.7175**	**0.3328**	**0.5844**	**0.9172**	**0.0000**	**2,758.2843**	**2,758.2843**	**0.8921**	**0.0000**	**2,780.5865**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8700e-003	0.1761	0.0668	9.2000e-004	0.0233	3.5000e-004	0.0237	6.4000e-003	3.4000e-004	6.7400e-003	0.0000	91.3756	91.3756	5.8200e-003	0.0000	91.5212
Vendor	1.6500e-003	0.0431	0.0158	2.8000e-004	8.7700e-003	9.0000e-005	8.8600e-003	2.5300e-003	9.0000e-005	2.6200e-003	0.0000	27.0328	27.0328	1.0700e-003	0.0000	27.0597
Worker	8.6900e-003	5.2200e-003	0.0664	2.7000e-004	0.0359	2.0000e-004	0.0361	9.5300e-003	1.9000e-004	9.7200e-003	0.0000	24.2251	24.2251	4.3000e-004	0.0000	24.2358
Total	**0.0162**	**0.2244**	**0.1490**	**1.4700e-003**	**0.0680**	**6.4000e-004**	**0.0686**	**0.0185**	**6.2000e-004**	**0.0191**	**0.0000**	**142.6336**	**142.6336**	**7.3200e-003**	**0.0000**	**142.8167**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2021	0.0000	1.2021	0.1298	0.0000	0.1298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3856	1.6707	14.4274	0.0314		0.0514	0.0514		0.0514	0.0514	0.0000	2,758.2810	2,758.2810	0.8921	0.0000	2,780.5831
Total	**0.3856**	**1.6707**	**14.4274**	**0.0314**	**1.2021**	**0.0514**	**1.2535**	**0.1298**	**0.0514**	**0.1812**	**0.0000**	**2,758.2810**	**2,758.2810**	**0.8921**	**0.0000**	**2,780.5831**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8700e-003	0.1761	0.0668	9.2000e-004	0.0233	3.5000e-004	0.0237	6.4000e-003	3.4000e-004	6.7400e-003	0.0000	91.3756	91.3756	5.8200e-003	0.0000	91.5212
Vendor	1.6500e-003	0.0431	0.0158	2.8000e-004	8.7700e-003	9.0000e-005	8.8600e-003	2.5300e-003	9.0000e-005	2.6200e-003	0.0000	27.0328	27.0328	1.0700e-003	0.0000	27.0597
Worker	8.6900e-003	5.2200e-003	0.0664	2.7000e-004	0.0359	2.0000e-004	0.0361	9.5300e-003	1.9000e-004	9.7200e-003	0.0000	24.2251	24.2251	4.3000e-004	0.0000	24.2358
Total	**0.0162**	**0.2244**	**0.1490**	**1.4700e-003**	**0.0680**	**6.4000e-004**	**0.0686**	**0.0185**	**6.2000e-004**	**0.0191**	**0.0000**	**142.6336**	**142.6336**	**7.3200e-003**	**0.0000**	**142.8167**

3.14 Plots 5 and 10 (2028) Finish Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1209	0.0000	0.1209	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0308	0.2838	0.3134	4.4000e-004		0.0146	0.0146		0.0134	0.0134	0.0000	38.2929	38.2929	0.0124	0.0000	38.6026
Total	**0.0308**	**0.2838**	**0.3134**	**4.4000e-004**	**0.1209**	**0.0146**	**0.1355**	**0.0131**	**0.0134**	**0.0265**	**0.0000**	**38.2929**	**38.2929**	**0.0124**	**0.0000**	**38.6026**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-004	0.0211	8.0000e-003	1.1000e-004	2.7900e-003	4.0000e-005	2.8400e-003	7.7000e-004	4.0000e-005	8.1000e-004	0.0000	10.9482	10.9482	7.0000e-004	0.0000	10.9657
Vendor	3.4000e-004	8.9500e-003	3.2800e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.6172	5.6172	2.2000e-004	0.0000	5.6228
Worker	1.3600e-003	8.1000e-004	0.0104	4.0000e-005	5.6000e-003	3.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5100e-003	0.0000	3.7753	3.7753	7.0000e-005	0.0000	3.7770
Total	**2.4000e-003**	**0.0309**	**0.0216**	**2.1000e-004**	**0.0102**	**9.0000e-005**	**0.0103**	**2.7900e-003**	**9.0000e-005**	**2.8600e-003**	**0.0000**	**20.3408**	**20.3408**	**9.9000e-004**	**0.0000**	**20.3655**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0472	0.0000	0.0472	5.0900e-003	0.0000	5.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3300e-003	0.0231	0.3289	4.4000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	38.2929	38.2929	0.0124	0.0000	38.6025
Total	**5.3300e-003**	**0.0231**	**0.3289**	**4.4000e-004**	**0.0472**	**7.1000e-004**	**0.0479**	**5.0900e-003**	**7.1000e-004**	**5.8000e-003**	**0.0000**	**38.2929**	**38.2929**	**0.0124**	**0.0000**	**38.6025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-004	0.0211	8.0000e-003	1.1000e-004	2.7900e-003	4.0000e-005	2.8400e-003	7.7000e-004	4.0000e-005	8.1000e-004	0.0000	10.9482	10.9482	7.0000e-004	0.0000	10.9657
Vendor	3.4000e-004	8.9500e-003	3.2800e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.6172	5.6172	2.2000e-004	0.0000	5.6228
Worker	1.3600e-003	8.1000e-004	0.0104	4.0000e-005	5.6000e-003	3.0000e-005	5.6300e-003	1.4900e-003	3.0000e-005	1.5100e-003	0.0000	3.7753	3.7753	7.0000e-005	0.0000	3.7770
Total	**2.4000e-003**	**0.0309**	**0.0216**	**2.1000e-004**	**0.0102**	**9.0000e-005**	**0.0103**	**2.7900e-003**	**9.0000e-005**	**2.8600e-003**	**0.0000**	**20.3408**	**20.3408**	**9.9000e-004**	**0.0000**	**20.3655**

3.15 Plots 5 and 10 (2028) Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3695	10.3165	14.8042	0.0451		0.3898	0.3898		0.3588	0.3588	0.0000	3,952.5854	3,952.5854	1.2770	0.0000	3,984.5113
Total	**1.3695**	**10.3165**	**14.8042**	**0.0451**	**3.3194**	**0.3898**	**3.7092**	**0.3584**	**0.3588**	**0.7172**	**0.0000**	**3,952.5854**	**3,952.5854**	**1.2770**	**0.0000**	**3,984.5113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0169	0.5080	0.1927	2.6600e-003	0.0673	1.0200e-003	0.0683	0.0185	9.8000e-004	0.0194	0.0000	263.5998	263.5998	0.0168	0.0000	264.0197
Vendor	0.0140	0.3636	0.1331	2.3500e-003	0.0740	7.9000e-004	0.0748	0.0213	7.5000e-004	0.0221	0.0000	228.1992	228.1992	9.0700e-003	0.0000	228.4259
Worker	0.0235	0.0141	0.1795	7.2000e-004	0.0970	5.5000e-004	0.0975	0.0258	5.0000e-004	0.0263	0.0000	65.4392	65.4392	1.1600e-003	0.0000	65.4682
Total	**0.0544**	**0.8857**	**0.5052**	**5.7300e-003**	**0.2382**	**2.3600e-003**	**0.2406**	**0.0655**	**2.2300e-003**	**0.0678**	**0.0000**	**557.2382**	**557.2382**	**0.0270**	**0.0000**	**557.9137**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8081	5.0875	19.9530	0.0451		0.1525	0.1525		0.1443	0.1443	0.0000	3,952.580 7	3,952.5807	1.2770	0.0000	3,984.506 6
Total	**0.8081**	**5.0875**	**19.9530**	**0.0451**	**1.2946**	**0.1525**	**1.4471**	**0.1398**	**0.1443**	**0.2841**	**0.0000**	**3,952.580 7**	**3,952.5807**	**1.2770**	**0.0000**	**3,984.506 6**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0169	0.5080	0.1927	2.6600e-003	0.0673	1.0200e-003	0.0683	0.0185	9.8000e-004	0.0194	0.0000	263.5998	263.5998	0.0168	0.0000	264.0197
Vendor	0.0140	0.3636	0.1331	2.3500e-003	0.0740	7.9000e-004	0.0748	0.0213	7.5000e-004	0.0221	0.0000	228.1992	228.1992	9.0700e-003	0.0000	228.4259
Worker	0.0235	0.0141	0.1795	7.2000e-004	0.0970	5.5000e-004	0.0975	0.0258	5.0000e-004	0.0263	0.0000	65.4392	65.4392	1.1600e-003	0.0000	65.4682
Total	**0.0544**	**0.8857**	**0.5052**	**5.7300e-003**	**0.2382**	**2.3600e-003**	**0.2406**	**0.0655**	**2.2300e-003**	**0.0678**	**0.0000**	**557.2382**	**557.2382**	**0.0270**	**0.0000**	**557.9137**

3.16 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3578	3.3564	5.4084	8.1400e-003		0.1372	0.1372		0.1293	0.1293	0.0000	704.5664	704.5664	0.1720	0.0000	708.8657
Total	**0.3578**	**3.3564**	**5.4084**	**8.1400e-003**	**0.4152**	**0.1372**	**0.5524**	**0.0448**	**0.1293**	**0.1741**	**0.0000**	**704.5664**	**704.5664**	**0.1720**	**0.0000**	**708.8657**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0203	0.6096	0.2312	3.2000e-003	0.0807	1.2300e-003	0.0819	0.0222	1.1700e-003	0.0233	0.0000	316.3197	316.3197	0.0202	0.0000	316.8236
Vendor	1.1200e-003	0.0291	0.0107	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.2559	18.2559	7.3000e-004	0.0000	18.2741
Worker	0.0147	8.8100e-003	0.1122	4.5000e-004	0.0606	3.4000e-004	0.0610	0.0161	3.1000e-004	0.0164	0.0000	40.8995	40.8995	7.3000e-004	0.0000	40.9176
Total	**0.0361**	**0.6475**	**0.3540**	**3.8400e-003**	**0.1472**	**1.6300e-003**	**0.1489**	**0.0400**	**1.5400e-003**	**0.0415**	**0.0000**	**375.4752**	**375.4752**	**0.0216**	**0.0000**	**376.0153**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1400e-003		0.0177	0.0177		0.0177	0.0177	0.0000	704.5656	704.5656	0.1720	0.0000	708.8648
Total	**0.1140**	**0.5384**	**5.7392**	**8.1400e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**704.5656**	**704.5656**	**0.1720**	**0.0000**	**708.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0203	0.6096	0.2312	3.2000e-003	0.0807	1.2300e-003	0.0819	0.0222	1.1700e-003	0.0233	0.0000	316.3197	316.3197	0.0202	0.0000	316.8236
Vendor	1.1200e-003	0.0291	0.0107	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.2559	18.2559	7.3000e-004	0.0000	18.2741
Worker	0.0147	8.8100e-003	0.1122	4.5000e-004	0.0606	3.4000e-004	0.0610	0.0161	3.1000e-004	0.0164	0.0000	40.8995	40.8995	7.3000e-004	0.0000	40.9176
Total	**0.0361**	**0.6475**	**0.3540**	**3.8400e-003**	**0.1472**	**1.6300e-003**	**0.1489**	**0.0400**	**1.5400e-003**	**0.0415**	**0.0000**	**375.4752**	**375.4752**	**0.0216**	**0.0000**	**376.0153**

3.17 Plots 5 and 10 (2028) Building-Wet Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5939	4.6311	8.6852	0.0163		0.2090	0.2090		0.1922	0.1922	0.0000	1,429.5464	1,429.5464	0.4623	0.0000	1,441.1050
Total	**0.5939**	**4.6311**	**8.6852**	**0.0163**	**1.2450**	**0.2090**	**1.4540**	**0.1344**	**0.1922**	**0.3267**	**0.0000**	**1,429.5464**	**1,429.5464**	**0.4623**	**0.0000**	**1,441.1050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9200e-003	0.1778	0.0674	9.3000e-004	0.0235	3.6000e-004	0.0239	6.4600e-003	3.4000e-004	6.8000e-003	0.0000	92.2599	92.2599	5.8800e-003	0.0000	92.4069
Vendor	8.3700e-003	0.2181	0.0799	1.4100e-003	0.0444	4.7000e-004	0.0449	0.0128	4.5000e-004	0.0133	0.0000	136.9195	136.9195	5.4400e-003	0.0000	137.0555
Worker	0.0147	8.8100e-003	0.1122	4.5000e-004	0.0606	3.4000e-004	0.0610	0.0161	3.1000e-004	0.0164	0.0000	40.8995	40.8995	7.3000e-004	0.0000	40.9176
Total	**0.0290**	**0.4047**	**0.2595**	**2.7900e-003**	**0.1286**	**1.1700e-003**	**0.1297**	**0.0354**	**1.1000e-003**	**0.0365**	**0.0000**	**270.0790**	**270.0790**	**0.0121**	**0.0000**	**270.3800**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2423	1.2516	10.1791	0.0163		0.0431	0.0431		0.0414	0.0414	0.0000	1,429.5447	1,429.5447	0.4623	0.0000	1,441.1032
Total	**0.2423**	**1.2516**	**10.1791**	**0.0163**	**0.4856**	**0.0431**	**0.5287**	**0.0524**	**0.0414**	**0.0938**	**0.0000**	**1,429.5447**	**1,429.5447**	**0.4623**	**0.0000**	**1,441.1032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9200e-003	0.1778	0.0674	9.3000e-004	0.0235	3.6000e-004	0.0239	6.4600e-003	3.4000e-004	6.8000e-003	0.0000	92.2599	92.2599	5.8800e-003	0.0000	92.4069
Vendor	8.3700e-003	0.2181	0.0799	1.4100e-003	0.0444	4.7000e-004	0.0449	0.0128	4.5000e-004	0.0133	0.0000	136.9195	136.9195	5.4400e-003	0.0000	137.0555
Worker	0.0147	8.8100e-003	0.1122	4.5000e-004	0.0606	3.4000e-004	0.0610	0.0161	3.1000e-004	0.0164	0.0000	40.8995	40.8995	7.3000e-004	0.0000	40.9176
Total	**0.0290**	**0.4047**	**0.2595**	**2.7900e-003**	**0.1286**	**1.1700e-003**	**0.1297**	**0.0354**	**1.1000e-003**	**0.0365**	**0.0000**	**270.0790**	**270.0790**	**0.0121**	**0.0000**	**270.3800**

3.18 Plots 5 and 10 (2028) Building-Electrical - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3896	3.5779	5.3209	7.3500e-003		0.1423	0.1423		0.1311	0.1311	0.0000	642.1840	642.1840	0.2057	0.0000	647.3274
Total	**0.3896**	**3.5779**	**5.3209**	**7.3500e-003**	**0.8298**	**0.1423**	**0.9721**	**0.0896**	**0.1311**	**0.2207**	**0.0000**	**642.1840**	**642.1840**	**0.2057**	**0.0000**	**647.3274**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0135	0.4064	0.1542	2.1300e-003	0.0538	8.2000e-004	0.0546	0.0148	7.8000e-004	0.0156	0.0000	210.8798	210.8798	0.0134	0.0000	211.2157
Vendor	3.3500e-003	0.0873	0.0319	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.7678	54.7678	2.1800e-003	0.0000	54.8222
Worker	8.8100e-003	5.2900e-003	0.0673	2.7000e-004	0.0364	2.0000e-004	0.0366	9.6600e-003	1.9000e-004	9.8500e-003	0.0000	24.5397	24.5397	4.4000e-004	0.0000	24.5506
Total	**0.0257**	**0.4989**	**0.2534**	**2.9600e-003**	**0.1079**	**1.2100e-003**	**0.1092**	**0.0296**	**1.1500e-003**	**0.0307**	**0.0000**	**290.1873**	**290.1873**	**0.0161**	**0.0000**	**290.5885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1597	1.4145	5.5115	7.3500e-003		0.0288	0.0288		0.0275	0.0275	0.0000	642.1833	642.1833	0.2057	0.0000	647.3266
Total	**0.1597**	**1.4145**	**5.5115**	**7.3500e-003**	**0.3236**	**0.0288**	**0.3524**	**0.0350**	**0.0275**	**0.0625**	**0.0000**	**642.1833**	**642.1833**	**0.2057**	**0.0000**	**647.3266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0135	0.4064	0.1542	2.1300e-003	0.0538	8.2000e-004	0.0546	0.0148	7.8000e-004	0.0156	0.0000	210.8798	210.8798	0.0134	0.0000	211.2157
Vendor	3.3500e-003	0.0873	0.0319	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.7678	54.7678	2.1800e-003	0.0000	54.8222
Worker	8.8100e-003	5.2900e-003	0.0673	2.7000e-004	0.0364	2.0000e-004	0.0366	9.6600e-003	1.9000e-004	9.8500e-003	0.0000	24.5397	24.5397	4.4000e-004	0.0000	24.5506
Total	**0.0257**	**0.4989**	**0.2534**	**2.9600e-003**	**0.1079**	**1.2100e-003**	**0.1092**	**0.0296**	**1.1500e-003**	**0.0307**	**0.0000**	**290.1873**	**290.1873**	**0.0161**	**0.0000**	**290.5885**

3.19 Plots 5 and 10 (2028) Building-Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2974	2.4885	4.2184	6.0900e-003		0.1083	0.1083		0.0996	0.0996	0.0000	534.9708	534.9708	0.1730	0.0000	539.2963
Total	**0.2974**	**2.4885**	**4.2184**	**6.0900e-003**	**0.2073**	**0.1083**	**0.3156**	**0.0224**	**0.0996**	**0.1220**	**0.0000**	**534.9708**	**534.9708**	**0.1730**	**0.0000**	**539.2963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9100e-003	0.1018	0.0373	6.6000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	63.8958	63.8958	2.5400e-003	0.0000	63.9592
Worker	5.8700e-003	3.5200e-003	0.0449	1.8000e-004	0.0243	1.4000e-004	0.0244	6.4400e-003	1.3000e-004	6.5600e-003	0.0000	16.3598	16.3598	2.9000e-004	0.0000	16.3671
Total	**9.7800e-003**	**0.1053**	**0.0821**	**8.4000e-004**	**0.0450**	**3.6000e-004**	**0.0453**	**0.0124**	**3.4000e-004**	**0.0127**	**0.0000**	**80.2556**	**80.2556**	**2.8300e-003**	**0.0000**	**80.3263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1568	1.6213	4.6127	6.0900e-003		0.0298	0.0298		0.0281	0.0281	0.0000	534.9702	534.9702	0.1730	0.0000	539.2957
Total	**0.1568**	**1.6213**	**4.6127**	**6.0900e-003**	**0.0809**	**0.0298**	**0.1106**	**8.7300e-003**	**0.0281**	**0.0368**	**0.0000**	**534.9702**	**534.9702**	**0.1730**	**0.0000**	**539.2957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9100e-003	0.1018	0.0373	6.6000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	63.8958	63.8958	2.5400e-003	0.0000	63.9592
Worker	5.8700e-003	3.5200e-003	0.0449	1.8000e-004	0.0243	1.4000e-004	0.0244	6.4400e-003	1.3000e-004	6.5600e-003	0.0000	16.3598	16.3598	2.9000e-004	0.0000	16.3671
Total	**9.7800e-003**	**0.1053**	**0.0821**	**8.4000e-004**	**0.0450**	**3.6000e-004**	**0.0453**	**0.0124**	**3.4000e-004**	**0.0127**	**0.0000**	**80.2556**	**80.2556**	**2.8300e-003**	**0.0000**	**80.3263**

3.20 Plots 5 and 10 (2028) Landscaping - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3155	2.6221	4.5216	6.5600e-003		0.1152	0.1152		0.1060	0.1060	0.0000	575.9783	575.9783	0.1863	0.0000	580.6354
Total	**0.3155**	**2.6221**	**4.5216**	**6.5600e-003**	**0.2073**	**0.1152**	**0.3225**	**0.0224**	**0.1060**	**0.1284**	**0.0000**	**575.9783**	**575.9783**	**0.1863**	**0.0000**	**580.6354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3500e-003	0.0873	0.0319	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.7678	54.7678	2.1800e-003	0.0000	54.8222
Worker	5.8700e-003	3.5200e-003	0.0449	1.8000e-004	0.0243	1.4000e-004	0.0244	6.4400e-003	1.3000e-004	6.5600e-003	0.0000	16.3598	16.3598	2.9000e-004	0.0000	16.3671
Total	**9.2200e-003**	**0.0908**	**0.0768**	**7.4000e-004**	**0.0420**	**3.3000e-004**	**0.0423**	**0.0116**	**3.1000e-004**	**0.0119**	**0.0000**	**71.1276**	**71.1276**	**2.4700e-003**	**0.0000**	**71.1893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1626	1.6462	4.9669	6.5600e-003		0.0305	0.0305		0.0289	0.0289	0.0000	575.9776	575.9776	0.1863	0.0000	580.6347
Total	**0.1626**	**1.6462**	**4.9669**	**6.5600e-003**	**0.0809**	**0.0305**	**0.1114**	**8.7300e-003**	**0.0289**	**0.0376**	**0.0000**	**575.9776**	**575.9776**	**0.1863**	**0.0000**	**580.6347**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3500e-003	0.0873	0.0319	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.7678	54.7678	2.1800e-003	0.0000	54.8222
Worker	5.8700e-003	3.5200e-003	0.0449	1.8000e-004	0.0243	1.4000e-004	0.0244	6.4400e-003	1.3000e-004	6.5600e-003	0.0000	16.3598	16.3598	2.9000e-004	0.0000	16.3671
Total	**9.2200e-003**	**0.0908**	**0.0768**	**7.4000e-004**	**0.0420**	**3.3000e-004**	**0.0423**	**0.0116**	**3.1000e-004**	**0.0119**	**0.0000**	**71.1276**	**71.1276**	**2.4700e-003**	**0.0000**	**71.1893**

3.21 Plots 5 and 10 (2028) Curbing/Drive Approaches - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2230	0.3829	5.8000e-004		0.0105	0.0105		9.6700e-003	9.6700e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8870
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1868**	**0.2230**	**0.3829**	**5.8000e-004**	**0.0000**	**0.0105**	**0.0105**	**0.0000**	**9.6700e-003**	**9.6700e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6900e-003	0.0506	0.0192	2.7000e-004	6.7000e-003	1.0000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.2758	26.2758	1.6700e-003	0.0000	26.3176
Vendor	6.9000e-004	0.0179	6.5500e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.2344	11.2344	4.5000e-004	0.0000	11.2456
Worker	1.8100e-003	1.0800e-003	0.0138	6.0000e-005	7.4600e-003	4.0000e-005	7.5000e-003	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	5.0338	5.0338	9.0000e-005	0.0000	5.0360
Total	**4.1900e-003**	**0.0696**	**0.0396**	**4.5000e-004**	**0.0178**	**1.8000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0500e-003**	**0.0000**	**42.5440**	**42.5440**	**2.2100e-003**	**0.0000**	**42.5992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8869
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6900e-003	0.0506	0.0192	2.7000e-004	6.7000e-003	1.0000e-004	6.8100e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.2758	26.2758	1.6700e-003	0.0000	26.3176
Vendor	6.9000e-004	0.0179	6.5500e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.2344	11.2344	4.5000e-004	0.0000	11.2456
Worker	1.8100e-003	1.0800e-003	0.0138	6.0000e-005	7.4600e-003	4.0000e-005	7.5000e-003	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	5.0338	5.0338	9.0000e-005	0.0000	5.0360
Total	**4.1900e-003**	**0.0696**	**0.0396**	**4.5000e-004**	**0.0178**	**1.8000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0500e-003**	**0.0000**	**42.5440**	**42.5440**	**2.2100e-003**	**0.0000**	**42.5992**

3.22 Plots 5 and 10 (2028) Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.6878	0.8989	1.7100e-003		0.0295	0.0295		0.0272	0.0272	0.0000	149.6676	149.6676	0.0481	0.0000	150.8691
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2353**	**0.6878**	**0.8989**	**1.7100e-003**	**0.1273**	**0.0295**	**0.1568**	**0.0137**	**0.0272**	**0.0409**	**0.0000**	**149.6676**	**149.6676**	**0.0481**	**0.0000**	**150.8691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4300e-003	0.0429	0.0163	2.2000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.2333	22.2333	1.4200e-003	0.0000	22.2688
Vendor	5.2000e-004	0.0134	4.9100e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.4258	8.4258	3.3000e-004	0.0000	8.4342
Worker	2.2600e-003	1.3600e-003	0.0173	7.0000e-005	9.3300e-003	5.0000e-005	9.3800e-003	2.4800e-003	5.0000e-005	2.5200e-003	0.0000	6.2922	6.2922	1.1000e-004	0.0000	6.2950
Total	**4.2100e-003**	**0.0576**	**0.0384**	**3.8000e-004**	**0.0177**	**1.7000e-004**	**0.0179**	**4.8300e-003**	**1.6000e-004**	**4.9800e-003**	**0.0000**	**36.9514**	**36.9514**	**1.8600e-003**	**0.0000**	**36.9980**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.7100e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	149.6674	149.6674	0.0481	0.0000	150.8690
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.7100e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**149.6674**	**149.6674**	**0.0481**	**0.0000**	**150.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4300e-003	0.0429	0.0163	2.2000e-004	5.6700e-003	9.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.2333	22.2333	1.4200e-003	0.0000	22.2688
Vendor	5.2000e-004	0.0134	4.9100e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.4258	8.4258	3.3000e-004	0.0000	8.4342
Worker	2.2600e-003	1.3600e-003	0.0173	7.0000e-005	9.3300e-003	5.0000e-005	9.3800e-003	2.4800e-003	5.0000e-005	2.5200e-003	0.0000	6.2922	6.2922	1.1000e-004	0.0000	6.2950
Total	**4.2100e-003**	**0.0576**	**0.0384**	**3.8000e-004**	**0.0177**	**1.7000e-004**	**0.0179**	**4.8300e-003**	**1.6000e-004**	**4.9800e-003**	**0.0000**	**36.9514**	**36.9514**	**1.8600e-003**	**0.0000**	**36.9980**

3.23 Plots 5 and 10 (2028) Temporary Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0808	0.7968	0.6782	1.8000e-003		0.0325	0.0325		0.0299	0.0299	0.0000	158.3591	158.3591	0.0512	0.0000	159.6395
Total	**0.0808**	**0.7968**	**0.6782**	**1.8000e-003**	**0.0000**	**0.0325**	**0.0325**	**0.0000**	**0.0299**	**0.0299**	**0.0000**	**158.3591**	**158.3591**	**0.0512**	**0.0000**	**159.6395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.3589	158.3589	0.0512	0.0000	159.6393
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.3589**	**158.3589**	**0.0512**	**0.0000**	**159.6393**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.24 Plots 7 8 21 22 (2029) Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3695	10.3165	14.8042	0.0451		0.3898	0.3898		0.3588	0.3588	0.0000	3,952.5854	3,952.5854	1.2770	0.0000	3,984.5113
Total	**1.3695**	**10.3165**	**14.8042**	**0.0451**	**3.3194**	**0.3898**	**3.7092**	**0.3584**	**0.3588**	**0.7172**	**0.0000**	**3,952.5854**	**3,952.5854**	**1.2770**	**0.0000**	**3,984.5113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0168	0.5008	0.1933	2.6500e-003	0.0673	1.0100e-003	0.0683	0.0185	9.6000e-004	0.0194	0.0000	262.6122	262.6122	0.0167	0.0000	263.0301
Vendor	0.0138	0.3592	0.1320	2.3400e-003	0.0740	7.8000e-004	0.0748	0.0213	7.4000e-004	0.0221	0.0000	227.4953	227.4953	9.0100e-003	0.0000	227.7205
Worker	0.0221	0.0130	0.1686	7.0000e-004	0.0970	5.1000e-004	0.0975	0.0258	4.7000e-004	0.0262	0.0000	63.6766	63.6766	1.0700e-003	0.0000	63.7032
Total	**0.0527**	**0.8730**	**0.4939**	**5.6900e-003**	**0.2382**	**2.3000e-003**	**0.2405**	**0.0655**	**2.1700e-003**	**0.0677**	**0.0000**	**553.7840**	**553.7840**	**0.0268**	**0.0000**	**554.4539**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8081	5.0875	19.9530	0.0451		0.1525	0.1525		0.1443	0.1443	0.0000	3,952.5807	3,952.5807	1.2770	0.0000	3,984.5066
Total	**0.8081**	**5.0875**	**19.9530**	**0.0451**	**1.2946**	**0.1525**	**1.4471**	**0.1398**	**0.1443**	**0.2841**	**0.0000**	**3,952.5807**	**3,952.5807**	**1.2770**	**0.0000**	**3,984.5066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0168	0.5008	0.1933	2.6500e-003	0.0673	1.0100e-003	0.0683	0.0185	9.6000e-004	0.0194	0.0000	262.6122	262.6122	0.0167	0.0000	263.0301
Vendor	0.0138	0.3592	0.1320	2.3400e-003	0.0740	7.8000e-004	0.0748	0.0213	7.4000e-004	0.0221	0.0000	227.4953	227.4953	9.0100e-003	0.0000	227.7205
Worker	0.0221	0.0130	0.1686	7.0000e-004	0.0970	5.1000e-004	0.0975	0.0258	4.7000e-004	0.0262	0.0000	63.6766	63.6766	1.0700e-003	0.0000	63.7032
Total	**0.0527**	**0.8730**	**0.4939**	**5.6900e-003**	**0.2382**	**2.3000e-003**	**0.2405**	**0.0655**	**2.1700e-003**	**0.0677**	**0.0000**	**553.7840**	**553.7840**	**0.0268**	**0.0000**	**554.4539**

3.25 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3578	3.3564	5.4084	8.1400e-003		0.1372	0.1372		0.1293	0.1293	0.0000	704.5664	704.5664	0.1720	0.0000	708.8657
Total	**0.3578**	**3.3564**	**5.4084**	**8.1400e-003**	**0.4152**	**0.1372**	**0.5524**	**0.0448**	**0.1293**	**0.1741**	**0.0000**	**704.5664**	**704.5664**	**0.1720**	**0.0000**	**708.8657**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0202	0.6009	0.2320	3.1800e-003	0.0807	1.2100e-003	0.0819	0.0222	1.1500e-003	0.0233	0.0000	315.1347	315.1347	0.0201	0.0000	315.6362
Vendor	1.1000e-003	0.0287	0.0106	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.1996	18.1996	7.2000e-004	0.0000	18.2176
Worker	0.0138	8.1200e-003	0.1054	4.4000e-004	0.0606	3.2000e-004	0.0609	0.0161	2.9000e-004	0.0164	0.0000	39.7979	39.7979	6.7000e-004	0.0000	39.8145
Total	**0.0351**	**0.6378**	**0.3479**	**3.8100e-003**	**0.1472**	**1.5900e-003**	**0.1488**	**0.0400**	**1.5000e-003**	**0.0415**	**0.0000**	**373.1321**	**373.1321**	**0.0215**	**0.0000**	**373.6683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	8.1400e-003		0.0177	0.0177		0.0177	0.0177	0.0000	704.5656	704.5656	0.1720	0.0000	708.8648
Total	**0.1140**	**0.5384**	**5.7392**	**8.1400e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**704.5656**	**704.5656**	**0.1720**	**0.0000**	**708.8648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0202	0.6009	0.2320	3.1800e-003	0.0807	1.2100e-003	0.0819	0.0222	1.1500e-003	0.0233	0.0000	315.1347	315.1347	0.0201	0.0000	315.6362
Vendor	1.1000e-003	0.0287	0.0106	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.1996	18.1996	7.2000e-004	0.0000	18.2176
Worker	0.0138	8.1200e-003	0.1054	4.4000e-004	0.0606	3.2000e-004	0.0609	0.0161	2.9000e-004	0.0164	0.0000	39.7979	39.7979	6.7000e-004	0.0000	39.8145
Total	**0.0351**	**0.6378**	**0.3479**	**3.8100e-003**	**0.1472**	**1.5900e-003**	**0.1488**	**0.0400**	**1.5000e-003**	**0.0415**	**0.0000**	**373.1321**	**373.1321**	**0.0215**	**0.0000**	**373.6683**

3.26 Plots 7 8 21 22 (2029) Building-Wet Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5939	4.6311	8.6852	0.0163		0.2090	0.2090		0.1922	0.1922	0.0000	1,429.5464	1,429.5464	0.4623	0.0000	1,441.1050
Total	**0.5939**	**4.6311**	**8.6852**	**0.0163**	**1.2450**	**0.2090**	**1.4540**	**0.1344**	**0.1922**	**0.3267**	**0.0000**	**1,429.5464**	**1,429.5464**	**0.4623**	**0.0000**	**1,441.1050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8900e-003	0.1753	0.0677	9.3000e-004	0.0235	3.5000e-004	0.0239	6.4600e-003	3.4000e-004	6.8000e-003	0.0000	91.9143	91.9143	5.8500e-003	0.0000	92.0606
Vendor	8.2700e-003	0.2155	0.0792	1.4000e-003	0.0444	4.7000e-004	0.0449	0.0128	4.5000e-004	0.0132	0.0000	136.4972	136.4972	5.4100e-003	0.0000	136.6323
Worker	0.0138	8.1200e-003	0.1054	4.4000e-004	0.0606	3.2000e-004	0.0609	0.0161	2.9000e-004	0.0164	0.0000	39.7979	39.7979	6.7000e-004	0.0000	39.8145
Total	**0.0280**	**0.3989**	**0.2522**	**2.7700e-003**	**0.1286**	**1.1400e-003**	**0.1297**	**0.0354**	**1.0800e-003**	**0.0364**	**0.0000**	**268.2093**	**268.2093**	**0.0119**	**0.0000**	**268.5074**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2423	1.2516	10.1791	0.0163		0.0431	0.0431		0.0414	0.0414	0.0000	1,429.5447	1,429.5447	0.4623	0.0000	1,441.1032
Total	**0.2423**	**1.2516**	**10.1791**	**0.0163**	**0.4856**	**0.0431**	**0.5287**	**0.0524**	**0.0414**	**0.0938**	**0.0000**	**1,429.5447**	**1,429.5447**	**0.4623**	**0.0000**	**1,441.1032**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8900e-003	0.1753	0.0677	9.3000e-004	0.0235	3.5000e-004	0.0239	6.4600e-003	3.4000e-004	6.8000e-003	0.0000	91.9143	91.9143	5.8500e-003	0.0000	92.0606
Vendor	8.2700e-003	0.2155	0.0792	1.4000e-003	0.0444	4.7000e-004	0.0449	0.0128	4.5000e-004	0.0132	0.0000	136.4972	136.4972	5.4100e-003	0.0000	136.6323
Worker	0.0138	8.1200e-003	0.1054	4.4000e-004	0.0606	3.2000e-004	0.0609	0.0161	2.9000e-004	0.0164	0.0000	39.7979	39.7979	6.7000e-004	0.0000	39.8145
Total	**0.0280**	**0.3989**	**0.2522**	**2.7700e-003**	**0.1286**	**1.1400e-003**	**0.1297**	**0.0354**	**1.0800e-003**	**0.0364**	**0.0000**	**268.2093**	**268.2093**	**0.0119**	**0.0000**	**268.5074**

3.27 Plots 7 8 21 22 (2029) Building-Electrical - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3896	3.5779	5.3209	7.3500e-003		0.1423	0.1423		0.1311	0.1311	0.0000	642.1840	642.1840	0.2057	0.0000	647.3274
Total	**0.3896**	**3.5779**	**5.3209**	**7.3500e-003**	**0.8298**	**0.1423**	**0.9721**	**0.0896**	**0.1311**	**0.2207**	**0.0000**	**642.1840**	**642.1840**	**0.2057**	**0.0000**	**647.3274**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0135	0.4006	0.1547	2.1200e-003	0.0538	8.0000e-004	0.0546	0.0148	7.7000e-004	0.0155	0.0000	210.0898	210.0898	0.0134	0.0000	210.4241
Vendor	3.3100e-003	0.0862	0.0317	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.5989	54.5989	2.1600e-003	0.0000	54.6529
Worker	8.3000e-003	4.8700e-003	0.0632	2.6000e-004	0.0364	1.9000e-004	0.0366	9.6600e-003	1.7000e-004	9.8300e-003	0.0000	23.8787	23.8787	4.0000e-004	0.0000	23.8887
Total	**0.0251**	**0.4917**	**0.2495**	**2.9400e-003**	**0.1079**	**1.1800e-003**	**0.1091**	**0.0296**	**1.1200e-003**	**0.0307**	**0.0000**	**288.5673**	**288.5673**	**0.0159**	**0.0000**	**288.9657**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1597	1.4145	5.5115	7.3500e-003		0.0288	0.0288		0.0275	0.0275	0.0000	642.1833	642.1833	0.2057	0.0000	647.3266
Total	**0.1597**	**1.4145**	**5.5115**	**7.3500e-003**	**0.3236**	**0.0288**	**0.3524**	**0.0350**	**0.0275**	**0.0625**	**0.0000**	**642.1833**	**642.1833**	**0.2057**	**0.0000**	**647.3266**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0135	0.4006	0.1547	2.1200e-003	0.0538	8.0000e-004	0.0546	0.0148	7.7000e-004	0.0155	0.0000	210.0898	210.0898	0.0134	0.0000	210.4241
Vendor	3.3100e-003	0.0862	0.0317	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.5989	54.5989	2.1600e-003	0.0000	54.6529
Worker	8.3000e-003	4.8700e-003	0.0632	2.6000e-004	0.0364	1.9000e-004	0.0366	9.6600e-003	1.7000e-004	9.8300e-003	0.0000	23.8787	23.8787	4.0000e-004	0.0000	23.8887
Total	**0.0251**	**0.4917**	**0.2495**	**2.9400e-003**	**0.1079**	**1.1800e-003**	**0.1091**	**0.0296**	**1.1200e-003**	**0.0307**	**0.0000**	**288.5673**	**288.5673**	**0.0159**	**0.0000**	**288.9657**

3.28 Plots 7 8 21 22 (2029) Building-Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2974	2.4885	4.2184	6.0900e-003		0.1083	0.1083		0.0996	0.0996	0.0000	534.9708	534.9708	0.1730	0.0000	539.2963
Total	**0.2974**	**2.4885**	**4.2184**	**6.0900e-003**	**0.2073**	**0.1083**	**0.3156**	**0.0224**	**0.0996**	**0.1220**	**0.0000**	**534.9708**	**534.9708**	**0.1730**	**0.0000**	**539.2963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8600e-003	0.1006	0.0370	6.6000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	63.6987	63.6987	2.5200e-003	0.0000	63.7618
Worker	5.5300e-003	3.2500e-003	0.0422	1.8000e-004	0.0243	1.3000e-004	0.0244	6.4400e-003	1.2000e-004	6.5500e-003	0.0000	15.9191	15.9191	2.7000e-004	0.0000	15.9258
Total	**9.3900e-003**	**0.1038**	**0.0791**	**8.4000e-004**	**0.0450**	**3.5000e-004**	**0.0453**	**0.0124**	**3.3000e-004**	**0.0127**	**0.0000**	**79.6178**	**79.6178**	**2.7900e-003**	**0.0000**	**79.6876**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1568	1.6213	4.6127	6.0900e-003		0.0298	0.0298		0.0281	0.0281	0.0000	534.9702	534.9702	0.1730	0.0000	539.2957
Total	**0.1568**	**1.6213**	**4.6127**	**6.0900e-003**	**0.0809**	**0.0298**	**0.1106**	**8.7300e-003**	**0.0281**	**0.0368**	**0.0000**	**534.9702**	**534.9702**	**0.1730**	**0.0000**	**539.2957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8600e-003	0.1006	0.0370	6.6000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	63.6987	63.6987	2.5200e-003	0.0000	63.7618
Worker	5.5300e-003	3.2500e-003	0.0422	1.8000e-004	0.0243	1.3000e-004	0.0244	6.4400e-003	1.2000e-004	6.5500e-003	0.0000	15.9191	15.9191	2.7000e-004	0.0000	15.9258
Total	**9.3900e-003**	**0.1038**	**0.0791**	**8.4000e-004**	**0.0450**	**3.5000e-004**	**0.0453**	**0.0124**	**3.3000e-004**	**0.0127**	**0.0000**	**79.6178**	**79.6178**	**2.7900e-003**	**0.0000**	**79.6876**

3.29 Plots 7 8 21 22 (2029) Landscaping - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3155	2.6221	4.5216	6.5600e-003		0.1152	0.1152		0.1060	0.1060	0.0000	575.9783	575.9783	0.1863	0.0000	580.6354
Total	**0.3155**	**2.6221**	**4.5216**	**6.5600e-003**	**0.2073**	**0.1152**	**0.3225**	**0.0224**	**0.1060**	**0.1284**	**0.0000**	**575.9783**	**575.9783**	**0.1863**	**0.0000**	**580.6354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.0862	0.0317	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.5989	54.5989	2.1600e-003	0.0000	54.6529
Worker	5.5300e-003	3.2500e-003	0.0422	1.8000e-004	0.0243	1.3000e-004	0.0244	6.4400e-003	1.2000e-004	6.5500e-003	0.0000	15.9191	15.9191	2.7000e-004	0.0000	15.9258
Total	**8.8400e-003**	**0.0895**	**0.0738**	**7.4000e-004**	**0.0420**	**3.2000e-004**	**0.0423**	**0.0116**	**3.0000e-004**	**0.0119**	**0.0000**	**70.5180**	**70.5180**	**2.4300e-003**	**0.0000**	**70.5787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1626	1.6462	4.9669	6.5600e-003		0.0305	0.0305		0.0289	0.0289	0.0000	575.9776	575.9776	0.1863	0.0000	580.6347
Total	**0.1626**	**1.6462**	**4.9669**	**6.5600e-003**	**0.0809**	**0.0305**	**0.1114**	**8.7300e-003**	**0.0289**	**0.0376**	**0.0000**	**575.9776**	**575.9776**	**0.1863**	**0.0000**	**580.6347**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.0862	0.0317	5.6000e-004	0.0178	1.9000e-004	0.0180	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.5989	54.5989	2.1600e-003	0.0000	54.6529
Worker	5.5300e-003	3.2500e-003	0.0422	1.8000e-004	0.0243	1.3000e-004	0.0244	6.4400e-003	1.2000e-004	6.5500e-003	0.0000	15.9191	15.9191	2.7000e-004	0.0000	15.9258
Total	**8.8400e-003**	**0.0895**	**0.0738**	**7.4000e-004**	**0.0420**	**3.2000e-004**	**0.0423**	**0.0116**	**3.0000e-004**	**0.0119**	**0.0000**	**70.5180**	**70.5180**	**2.4300e-003**	**0.0000**	**70.5787**

3.30 Plots 7 8 21 22 (2029) Curbing/Drive Approaches - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2230	0.3829	5.8000e-004		0.0105	0.0105		9.6700e-003	9.6700e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8870
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1868**	**0.2230**	**0.3829**	**5.8000e-004**	**0.0000**	**0.0105**	**0.0105**	**0.0000**	**9.6700e-003**	**9.6700e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8870**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6800e-003	0.0499	0.0193	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.1773	26.1773	1.6700e-003	0.0000	26.2190
Vendor	6.8000e-004	0.0177	6.5000e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1998	11.1998	4.4000e-004	0.0000	11.2109
Worker	1.7000e-003	1.0000e-003	0.0130	5.0000e-005	7.4600e-003	4.0000e-005	7.5000e-003	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	4.8982	4.8982	8.0000e-005	0.0000	4.9003
Total	**4.0600e-003**	**0.0686**	**0.0387**	**4.3000e-004**	**0.0178**	**1.8000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0500e-003**	**0.0000**	**42.2753**	**42.2753**	**2.1900e-003**	**0.0000**	**42.3301**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	5.8000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	50.4863	50.4863	0.0160	0.0000	50.8869
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**5.8000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**50.4863**	**50.4863**	**0.0160**	**0.0000**	**50.8869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6800e-003	0.0499	0.0193	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	1.0000e-004	1.9400e-003	0.0000	26.1773	26.1773	1.6700e-003	0.0000	26.2190
Vendor	6.8000e-004	0.0177	6.5000e-003	1.2000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1998	11.1998	4.4000e-004	0.0000	11.2109
Worker	1.7000e-003	1.0000e-003	0.0130	5.0000e-005	7.4600e-003	4.0000e-005	7.5000e-003	1.9800e-003	4.0000e-005	2.0200e-003	0.0000	4.8982	4.8982	8.0000e-005	0.0000	4.9003
Total	**4.0600e-003**	**0.0686**	**0.0387**	**4.3000e-004**	**0.0178**	**1.8000e-004**	**0.0180**	**4.8700e-003**	**1.8000e-004**	**5.0500e-003**	**0.0000**	**42.2753**	**42.2753**	**2.1900e-003**	**0.0000**	**42.3301**

3.31 Plots 7 8 21 22 (2029) Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.6878	0.8989	1.7100e-003		0.0295	0.0295		0.0272	0.0272	0.0000	149.6676	149.6676	0.0481	0.0000	150.8691
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2353**	**0.6878**	**0.8989**	**1.7100e-003**	**0.1273**	**0.0295**	**0.1568**	**0.0137**	**0.0272**	**0.0409**	**0.0000**	**149.6676**	**149.6676**	**0.0481**	**0.0000**	**150.8691**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4200e-003	0.0422	0.0163	2.2000e-004	5.6700e-003	8.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.1500	22.1500	1.4100e-003	0.0000	22.1853
Vendor	5.1000e-004	0.0133	4.8700e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.3998	8.3998	3.3000e-004	0.0000	8.4081
Worker	2.1300e-003	1.2500e-003	0.0162	7.0000e-005	9.3300e-003	5.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	6.1228	6.1228	1.0000e-004	0.0000	6.1253
Total	**4.0600e-003**	**0.0568**	**0.0374**	**3.8000e-004**	**0.0177**	**1.6000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9800e-003**	**0.0000**	**36.6726**	**36.6726**	**1.8400e-003**	**0.0000**	**36.7187**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.7100e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	149.6674	149.6674	0.0481	0.0000	150.8690
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.7100e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**149.6674**	**149.6674**	**0.0481**	**0.0000**	**150.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4200e-003	0.0422	0.0163	2.2000e-004	5.6700e-003	8.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.1500	22.1500	1.4100e-003	0.0000	22.1853
Vendor	5.1000e-004	0.0133	4.8700e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.2000e-004	0.0000	8.3998	8.3998	3.3000e-004	0.0000	8.4081
Worker	2.1300e-003	1.2500e-003	0.0162	7.0000e-005	9.3300e-003	5.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	6.1228	6.1228	1.0000e-004	0.0000	6.1253
Total	**4.0600e-003**	**0.0568**	**0.0374**	**3.8000e-004**	**0.0177**	**1.6000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9800e-003**	**0.0000**	**36.6726**	**36.6726**	**1.8400e-003**	**0.0000**	**36.7187**

3.32 Plots 7 8 21 22 (2029) Temporary Utilities - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0808	0.7968	0.6782	1.8000e-003		0.0325	0.0325		0.0299	0.0299	0.0000	158.3591	158.3591	0.0512	0.0000	159.6395
Total	**0.0808**	**0.7968**	**0.6782**	**1.8000e-003**	**0.0000**	**0.0325**	**0.0325**	**0.0000**	**0.0299**	**0.0299**	**0.0000**	**158.3591**	**158.3591**	**0.0512**	**0.0000**	**159.6395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8000e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	158.3589	158.3589	0.0512	0.0000	159.6393
Total	**0.0222**	**0.0962**	**0.8137**	**1.8000e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**158.3589**	**158.3589**	**0.0512**	**0.0000**	**159.6393**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.33 Plots 7 8 21 22 (2029) Mass Excavation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9519	0.0000	1.9519	0.2108	0.0000	0.2108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0453	10.7234	7.4182	0.0204		0.4115	0.4115		0.3785	0.3785	0.0000	1,791.5186	1,791.5186	0.5794	0.0000	1,806.0040
Total	**1.0453**	**10.7234**	**7.4182**	**0.0204**	**1.9519**	**0.4115**	**2.3633**	**0.2108**	**0.3785**	**0.5893**	**0.0000**	**1,791.5186**	**1,791.5186**	**0.5794**	**0.0000**	**1,806.0040**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5800e-003	0.1364	0.0527	7.2000e-004	0.0183	2.7000e-004	0.0186	5.0300e-003	2.6000e-004	5.2900e-003	0.0000	71.5262	71.5262	4.5500e-003	0.0000	71.6400
Vendor	1.4700e-003	0.0383	0.0141	2.5000e-004	7.8900e-003	8.0000e-005	7.9700e-003	2.2700e-003	8.0000e-005	2.3500e-003	0.0000	24.2545	24.2545	9.6000e-004	0.0000	24.2785
Worker	8.1900e-003	4.8100e-003	0.0624	2.6000e-004	0.0359	1.9000e-004	0.0361	9.5300e-003	1.7000e-004	9.7100e-003	0.0000	23.5726	23.5726	3.9000e-004	0.0000	23.5824
Total	**0.0142**	**0.1795**	**0.1291**	**1.2300e-003**	**0.0621**	**5.4000e-004**	**0.0627**	**0.0168**	**5.1000e-004**	**0.0174**	**0.0000**	**119.3532**	**119.3532**	**5.9000e-003**	**0.0000**	**119.5009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7612	0.0000	0.7612	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2505	1.0853	9.3629	0.0204		0.0334	0.0334		0.0334	0.0334	0.0000	1,791.5165	1,791.5165	0.5794	0.0000	1,806.0018
Total	**0.2505**	**1.0853**	**9.3629**	**0.0204**	**0.7612**	**0.0334**	**0.7946**	**0.0822**	**0.0334**	**0.1156**	**0.0000**	**1,791.5165**	**1,791.5165**	**0.5794**	**0.0000**	**1,806.0018**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5800e-003	0.1364	0.0527	7.2000e-004	0.0183	2.7000e-004	0.0186	5.0300e-003	2.6000e-004	5.2900e-003	0.0000	71.5262	71.5262	4.5500e-003	0.0000	71.6400
Vendor	1.4700e-003	0.0383	0.0141	2.5000e-004	7.8900e-003	8.0000e-005	7.9700e-003	2.2700e-003	8.0000e-005	2.3500e-003	0.0000	24.2545	24.2545	9.6000e-004	0.0000	24.2785
Worker	8.1900e-003	4.8100e-003	0.0624	2.6000e-004	0.0359	1.9000e-004	0.0361	9.5300e-003	1.7000e-004	9.7100e-003	0.0000	23.5726	23.5726	3.9000e-004	0.0000	23.5824
Total	**0.0142**	**0.1795**	**0.1291**	**1.2300e-003**	**0.0621**	**5.4000e-004**	**0.0627**	**0.0168**	**5.1000e-004**	**0.0174**	**0.0000**	**119.3532**	**119.3532**	**5.9000e-003**	**0.0000**	**119.5009**

3.34 Plots 7 8 21 22 (2029) Finish Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0689	0.0000	0.0689	7.4400e-003	0.0000	7.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.1419	0.1567	2.2000e-004		7.3000e-003	7.3000e-003		6.7200e-003	6.7200e-003	0.0000	19.1465	19.1465	6.1900e-003	0.0000	19.3013
Total	**0.0154**	**0.1419**	**0.1567**	**2.2000e-004**	**0.0689**	**7.3000e-003**	**0.0762**	**7.4400e-003**	**6.7200e-003**	**0.0142**	**0.0000**	**19.1465**	**19.1465**	**6.1900e-003**	**0.0000**	**19.3013**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4000e-004	0.0250	9.6300e-003	1.3000e-004	3.3500e-003	5.0000e-005	3.4000e-003	9.2000e-004	5.0000e-005	9.7000e-004	0.0000	13.0887	13.0887	8.3000e-004	0.0000	13.1095
Vendor	1.7000e-004	4.4200e-003	1.6200e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.7999	2.7999	1.1000e-004	0.0000	2.8027
Worker	1.2800e-003	7.5000e-004	9.7300e-003	4.0000e-005	5.6000e-003	3.0000e-005	5.6200e-003	1.4900e-003	3.0000e-005	1.5100e-003	0.0000	3.6737	3.6737	6.0000e-005	0.0000	3.6752
Total	**2.2900e-003**	**0.0301**	**0.0210**	**2.0000e-004**	**9.8600e-003**	**9.0000e-005**	**9.9400e-003**	**2.6700e-003**	**9.0000e-005**	**2.7500e-003**	**0.0000**	**19.5623**	**19.5623**	**1.0000e-003**	**0.0000**	**19.5874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0269	0.0000	0.0269	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0116	0.1645	2.2000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	19.1465	19.1465	6.1900e-003	0.0000	19.3013
Total	**2.6700e-003**	**0.0116**	**0.1645**	**2.2000e-004**	**0.0269**	**3.6000e-004**	**0.0272**	**2.9000e-003**	**3.6000e-004**	**3.2600e-003**	**0.0000**	**19.1465**	**19.1465**	**6.1900e-003**	**0.0000**	**19.3013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4000e-004	0.0250	9.6300e-003	1.3000e-004	3.3500e-003	5.0000e-005	3.4000e-003	9.2000e-004	5.0000e-005	9.7000e-004	0.0000	13.0887	13.0887	8.3000e-004	0.0000	13.1095
Vendor	1.7000e-004	4.4200e-003	1.6200e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.7999	2.7999	1.1000e-004	0.0000	2.8027
Worker	1.2800e-003	7.5000e-004	9.7300e-003	4.0000e-005	5.6000e-003	3.0000e-005	5.6200e-003	1.4900e-003	3.0000e-005	1.5100e-003	0.0000	3.6737	3.6737	6.0000e-005	0.0000	3.6752
Total	**2.2900e-003**	**0.0301**	**0.0210**	**2.0000e-004**	**9.8600e-003**	**9.0000e-005**	**9.9400e-003**	**2.6700e-003**	**9.0000e-005**	**2.7500e-003**	**0.0000**	**19.5623**	**19.5623**	**1.0000e-003**	**0.0000**	**19.5874**

World Logistics Center-Construction Plot 11 (2030-2032) - South Coast AQMD Air District, Annual

World Logistics Center-Construction Plot 11 (2030-2032)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	7.0782	30.1791	57.8174	0.1598	10.3784	0.8079	11.1863	1.2573	0.8075	2.0648	0.0000	14,982.2146	14,982.2146	0.6221	0.0000	14,997.7662
2031	5.2516	21.8595	48.8871	0.1250	7.0958	0.5024	7.5982	0.8899	0.5021	1.3919	0.0000	11,452.9903	11,452.9903	0.4673	0.0000	11,464.6733
2032	7.9099	34.1619	61.8367	0.1745	10.0991	0.9605	11.0595	1.2319	0.9601	2.1920	0.0000	16,473.4214	16,473.4214	0.6889	0.0000	16,490.6440
Maximum	**7.9099**	**34.1619**	**61.8367**	**0.1745**	**10.3784**	**0.9605**	**11.1863**	**1.2573**	**0.9601**	**2.1920**	**0.0000**	**16,473.4214**	**16,473.4214**	**0.6889**	**0.0000**	**16,490.6440**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	3.0177	15.0793	70.4927	0.1598	4.5501	0.2924	4.8425	0.6280	0.2920	0.9200	0.0000	14,982.1990	14,982.1990	0.6221	0.0000	14,997.7506
2031	2.6045	13.1112	55.5475	0.1250	3.2215	0.2395	3.4610	0.4715	0.2391	0.7106	0.0000	11,452.9787	11,452.9787	0.4673	0.0000	11,464.6617
2032	3.1841	15.7837	77.0185	0.1745	4.4590	0.3152	4.7742	0.6229	0.3148	0.9377	0.0000	16,473.4041	16,473.4041	0.6889	0.0000	16,490.6266
Maximum	**3.1841**	**15.7837**	**77.0185**	**0.1745**	**4.5501**	**0.3152**	**4.8425**	**0.6280**	**0.3148**	**0.9377**	**0.0000**	**16,473.4041**	**16,473.4041**	**0.6889**	**0.0000**	**16,490.6266**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**56.49**	**48.99**	**-20.48**	**0.00**	**55.64**	**62.70**	**56.18**	**49.03**	**62.73**	**54.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
41	**1-1-2030**	**3-31-2030**	14.7985	5.6671
42	**4-1-2030**	**6-30-2030**	8.5955	4.4394
43	**7-1-2030**	**9-30-2030**	7.1794	4.1262
44	**10-1-2030**	**12-31-2030**	6.5528	3.7897
45	**1-1-2031**	**3-31-2031**	6.3072	3.6841
46	**4-1-2031**	**6-30-2031**	7.0294	4.0735
47	**7-1-2031**	**9-30-2031**	7.1736	4.1203
48	**10-1-2031**	**12-31-2031**	6.5473	3.7842
49	**1-1-2032**	**3-31-2032**	13.9791	5.3953
50	**4-1-2032**	**6-30-2032**	14.4023	5.6692
51	**7-1-2032**	**9-30-2032**	7.1644	4.1111
		Highest	14.7985	5.6692

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 11 (2030) Mass Excavation	Grading	1/1/2030	4/17/2030	5	77	1204
2	Plot 11 (2030) Finish Grading	Grading	1/1/2030	2/25/2030	5	40	1205
3	Plot 11 (2030) Utilities	Trenching	1/1/2030	12/30/2030	5	260	1210
4	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
5	Plot 11 (2030) Building-Wet Utilities	Building Construction	1/1/2030	12/30/2030	5	260	1207
6	Plot 11 (2030) Building-Electrical	Building Construction	1/1/2030	12/30/2030	5	260	1208
7	Plot 11 (2030) Building-Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1209
8	Plot 11 (2030) Landscaping	Building Construction	1/1/2030	12/30/2030	5	260	1211
9	Plot 11 (2030) Curbing/Drive Approaches	Paving	5/1/2030	8/20/2030	5	80	1213
10	Plot 11 (2030) Paving	Paving	6/1/2030	7/26/2030	5	40	1214
11	Plot 11 (2030) Temporary Utilities	Building Construction	7/2/2030	12/30/2030	5	130	1212
12	Plot 11 (2031) Utilities	Trenching	1/1/2031	12/30/2031	5	260	1219
13	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
14	Plot 11 (2031) Building-Wet Utilities	Building Construction	1/1/2031	12/30/2031	5	260	1216
15	Plot 11 (2031) Building-Electrical	Building Construction	1/1/2031	12/30/2031	5	260	1217
16	Plot 11 (2031) Building-Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1218

17	Plot 11 (2031) Landscaping	Building Construction	1/1/2031	12/30/2031	5	260	1220
18	Plot 11 (2031) Curbing/Drive Approaches	Paving	5/1/2031	8/20/2031	5	80	1222
19	Plot 11 (2031) Paving	Paving	6/1/2031	7/26/2031	5	40	1223
20	Plot 11 (2031) Temporary Utilities	Building Construction	7/2/2031	12/30/2031	5	130	1221
21	Plot 11 (2032) Mass Excavation	Grading	1/1/2032	6/30/2032	5	130	1224
22	Plot 11 (2032) Finish Grading	Grading	1/1/2032	2/25/2032	5	40	1225
23	Plot 11 (2032) Utilities	Trenching	1/1/2032	12/29/2032	5	260	1230
24	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
25	Plot 11 (2032) Building-Wet Utilities	Building Construction	1/1/2032	12/29/2032	5	260	1227
26	Plot 11 (2032) Building-Electrical	Building Construction	1/1/2032	12/29/2032	5	260	1228
27	Plot 11 (2032) Building-Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1229
28	Plot 11 (2032) Landscaping	Building Construction	1/1/2032	12/29/2032	5	260	1231
29	Plot 11 (2032) Curbing/Drive Approaches	Paving	5/1/2032	8/20/2032	5	80	1233
30	Plot 11 (2032) Paving	Paving	6/1/2032	7/26/2032	5	40	1234
31	Plot 11 (2032) Temporary Utilities	Building Construction	7/2/2032	12/30/2032	5	130	1232

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2030) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2030) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2030) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2030) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2030) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2030) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2030) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2030) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2030) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40

Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2030) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2030) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2030) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2030) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2030) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2030) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2030) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2030) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2030) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2030) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2030) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2030) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2030) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2030) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2030) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2030) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2030) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2030) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2030) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2030) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2030) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2030) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2030) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2030) Utilities	Other Material Handling Equipment	7	1.00	167	0.40

Plot 11 (2030) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2030) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2030) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2030) Mass Excavation	Off-Highway Trucks	2	10.00	400	0.38
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2030) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2030) Mass Excavation	Scrapers	6	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Scrapers	12	10.00	550	0.48
Plot 11 (2030) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2031) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2031) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2031) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2031) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2031) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2031) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2031) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2031) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2031) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2031) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2031) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2031) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2031) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2031) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2031) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2031) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2031) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2031) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2031) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2031) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2031) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37

Plot 11 (2031) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2031) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2031) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2031) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2031) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2031) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2031) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2031) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2031) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2031) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2031) Utilities	Excavators	2	10.00	523	0.38
Plot 11 (2031) Utilities	Excavators	10	10.00	286	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	4	10.00	396	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	190	0.38
Plot 11 (2031) Utilities	Excavators	2	10.00	188	0.38
Plot 11 (2031) Utilities	Excavators	8	10.00	40	0.38
Plot 11 (2031) Utilities	Forklifts	4	10.00	89	0.20
Plot 11 (2031) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 11 (2031) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2031) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 11 (2032) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 11 (2032) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 11 (2032) Building-Electrical	Forklifts	4	10.00	89	0.20

Plot 11 (2032) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 11 (2032) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 11 (2032) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 11 (2032) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 11 (2032) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 11 (2032) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 11 (2032) Curbing/Drive Approaches	Cement and Mortar Mixers	6	1.00	9	0.56
Plot 11 (2032) Curbing/Drive Approaches	Other Material Handling Equipment	4	1.00	167	0.40
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	99	0.36
Plot 11 (2032) Curbing/Drive Approaches	Paving Equipment	1	10.00	131	0.36
Plot 11 (2032) Curbing/Drive Approaches	Tractors/Loaders/Backhoes	1	10.00	55	0.37
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Other Material Handling Equipment	2	1.00	167	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Finish Grading	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Finish Grading	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Landscaping	Excavators	2	10.00	29	0.38
Plot 11 (2032) Landscaping	Forklifts	2	10.00	125	0.20
Plot 11 (2032) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40

Plot 11 (2032) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 11 (2032) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 11 (2032) Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 11 (2032) Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 11 (2032) Landscaping	Trenchers	2	10.00	39	0.50
Plot 11 (2032) Mass Excavation	Graders	2	10.00	193	0.41
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Other Material Handling Equipment	5	1.00	167	0.40
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Plate Compactors	2	10.00	354	0.43
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	580	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	410	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	305	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	2	10.00	140	0.40
Plot 11 (2032) Mass Excavation	Rubber Tired Dozers	3	10.00	85	0.40
Plot 11 (2032) Mass Excavation	Scrapers	4	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Scrapers	11	10.00	550	0.48
Plot 11 (2032) Mass Excavation	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 11 (2032) Paving	Other Material Handling Equipment	6	1.00	167	0.40
Plot 11 (2032) Paving	Pavers	2	10.00	126	0.42
Plot 11 (2032) Paving	Paving Equipment	2	10.00	131	0.36
Plot 11 (2032) Paving	Plate Compactors	2	10.00	8	0.43
Plot 11 (2032) Paving	Rollers	2	10.00	81	0.38
Plot 11 (2032) Paving	Scrapers	2	10.00	362	0.48
Plot 11 (2032) Paving	Tractors/Loaders/Backhoes	4	10.00	90	0.37
Plot 11 (2032) Temporary Utilities	Cranes	2	10.00	445	0.29
Plot 11 (2032) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 11 (2032) Utilities	Excavators	2	10.00	523	0.38

Plot 11 (2032) Utilities	Excavators		10	10.00	286	0.38
Plot 11 (2032) Utilities	Excavators		2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators		4	10.00	396	0.38
Plot 11 (2032) Utilities	Excavators		2	10.00	190	0.38
Plot 11 (2032) Utilities	Excavators		2	10.00	188	0.38
Plot 11 (2032) Utilities	Excavators		8	10.00	40	0.38
Plot 11 (2032) Utilities	Forklifts		4	10.00	89	0.20
Plot 11 (2032) Utilities	Other Material Handling Equipment		7	1.00	167	0.40
Plot 11 (2032) Utilities	Other Material Handling Equipment		18	1.00	167	0.40
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes		2	10.00	85	0.37
Plot 11 (2032) Utilities	Tractors/Loaders/Backhoes		8	10.00	90	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Building Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Finish Grading		15.00	4.00	364.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Mass Excavation		50.00	10.00	2,170.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2030) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 11 (2031) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Finish Grading		15.00	4.00	416.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Mass Excavation		50.00	12.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 11 (2030) Mass Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0823	0.0000	3.0823	0.3328	0.0000	0.3328	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7745	7.8923	8.4268	0.0325		0.2980	0.2980		0.2980	0.2980	0.0000	3,312.8206	3,312.8206	0.1434	0.0000	3,316.4056
Total	**1.7745**	**7.8923**	**8.4268**	**0.0325**	**3.0823**	**0.2980**	**3.3803**	**0.3328**	**0.2980**	**0.6308**	**0.0000**	**3,312.8206**	**3,312.8206**	**0.1434**	**0.0000**	**3,316.4056**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7900e-003	0.1712	0.0672	9.2000e-004	0.0233	3.4000e-004	0.0237	6.4000e-003	3.3000e-004	6.7300e-003	0.0000	90.7107	90.7107	5.7600e-003	0.0000	90.8548
Vendor	1.6100e-003	0.0421	0.0155	2.8000e-004	8.7700e-003	9.0000e-005	8.8600e-003	2.5300e-003	9.0000e-005	2.6100e-003	0.0000	26.8710	26.8710	1.0600e-003	0.0000	26.8975
Worker	7.6800e-003	4.4200e-003	0.0587	2.5000e-004	0.0359	1.7000e-004	0.0361	9.5300e-003	1.6000e-004	9.6900e-003	0.0000	22.9939	22.9939	3.6000e-004	0.0000	23.0029
Total	**0.0151**	**0.2176**	**0.1414**	**1.4500e-003**	**0.0680**	**6.0000e-004**	**0.0686**	**0.0185**	**5.8000e-004**	**0.0190**	**0.0000**	**140.5755**	**140.5755**	**7.1800e-003**	**0.0000**	**140.7552**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2021	0.0000	1.2021	0.1298	0.0000	0.1298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3856	1.6707	14.4274	0.0325		0.0514	0.0514		0.0514	0.0514	0.0000	3,312.8167	3,312.8167	0.1434	0.0000	3,316.4017
Total	**0.3856**	**1.6707**	**14.4274**	**0.0325**	**1.2021**	**0.0514**	**1.2535**	**0.1298**	**0.0514**	**0.1812**	**0.0000**	**3,312.8167**	**3,312.8167**	**0.1434**	**0.0000**	**3,316.4017**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7900e-003	0.1712	0.0672	9.2000e-004	0.0233	3.4000e-004	0.0237	6.4000e-003	3.3000e-004	6.7300e-003	0.0000	90.7107	90.7107	5.7600e-003	0.0000	90.8548
Vendor	1.6100e-003	0.0421	0.0155	2.8000e-004	8.7700e-003	9.0000e-005	8.8600e-003	2.5300e-003	9.0000e-005	2.6100e-003	0.0000	26.8710	26.8710	1.0600e-003	0.0000	26.8975
Worker	7.6800e-003	4.4200e-003	0.0587	2.5000e-004	0.0359	1.7000e-004	0.0361	9.5300e-003	1.6000e-004	9.6900e-003	0.0000	22.9939	22.9939	3.6000e-004	0.0000	23.0029
Total	**0.0151**	**0.2176**	**0.1414**	**1.4500e-003**	**0.0680**	**6.0000e-004**	**0.0686**	**0.0185**	**5.8000e-004**	**0.0190**	**0.0000**	**140.5755**	**140.5755**	**7.1800e-003**	**0.0000**	**140.7552**

3.3 Plot 11 (2030) Finish Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1209	0.0000	0.1209	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0298	0.1530	0.3148	5.3000e-004		6.6400e-003	6.6400e-003		6.6400e-003	6.6400e-003	0.0000	45.8322	45.8322	2.3700e-003	0.0000	45.8916
Total	**0.0298**	**0.1530**	**0.3148**	**5.3000e-004**	**0.1209**	**6.6400e-003**	**0.1275**	**0.0131**	**6.6400e-003**	**0.0197**	**0.0000**	**45.8322**	**45.8322**	**2.3700e-003**	**0.0000**	**45.8916**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.7000e-004	0.0287	0.0113	1.5000e-004	3.9100e-003	6.0000e-005	3.9700e-003	1.0700e-003	6.0000e-005	1.1300e-003	0.0000	15.2160	15.2160	9.7000e-004	0.0000	15.2402
Vendor	3.4000e-004	8.7400e-003	3.2300e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.5836	5.5836	2.2000e-004	0.0000	5.5891
Worker	1.2000e-003	6.9000e-004	9.1500e-003	4.0000e-005	5.6000e-003	3.0000e-005	5.6200e-003	1.4900e-003	2.0000e-005	1.5100e-003	0.0000	3.5835	3.5835	6.0000e-005	0.0000	3.5849
Total	**2.5100e-003**	**0.0381**	**0.0237**	**2.5000e-004**	**0.0113**	**1.1000e-004**	**0.0114**	**3.0900e-003**	**1.0000e-004**	**3.1800e-003**	**0.0000**	**24.3830**	**24.3830**	**1.2500e-003**	**0.0000**	**24.4141**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0472	0.0000	0.0472	5.0900e-003	0.0000	5.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3300e-003	0.0231	0.3289	5.3000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	45.8321	45.8321	2.3700e-003	0.0000	45.8915
Total	**5.3300e-003**	**0.0231**	**0.3289**	**5.3000e-004**	**0.0472**	**7.1000e-004**	**0.0479**	**5.0900e-003**	**7.1000e-004**	**5.8000e-003**	**0.0000**	**45.8321**	**45.8321**	**2.3700e-003**	**0.0000**	**45.8915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.7000e-004	0.0287	0.0113	1.5000e-004	3.9100e-003	6.0000e-005	3.9700e-003	1.0700e-003	6.0000e-005	1.1300e-003	0.0000	15.2160	15.2160	9.7000e-004	0.0000	15.2402
Vendor	3.4000e-004	8.7400e-003	3.2300e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.5836	5.5836	2.2000e-004	0.0000	5.5891
Worker	1.2000e-003	6.9000e-004	9.1500e-003	4.0000e-005	5.6000e-003	3.0000e-005	5.6200e-003	1.4900e-003	2.0000e-005	1.5100e-003	0.0000	3.5835	3.5835	6.0000e-005	0.0000	3.5849
Total	**2.5100e-003**	**0.0381**	**0.0237**	**2.5000e-004**	**0.0113**	**1.1000e-004**	**0.0114**	**3.0900e-003**	**1.0000e-004**	**3.1800e-003**	**0.0000**	**24.3830**	**24.3830**	**1.2500e-003**	**0.0000**	**24.4141**

3.4 Plot 11 (2030) Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0961	6.5394	15.6831	0.0496		0.1766	0.1766		0.1766	0.1766	0.0000	4,744.5188	4,744.5188	0.1690	0.0000	4,748.7426
Total	**2.0961**	**6.5394**	**15.6831**	**0.0496**	**3.3194**	**0.1766**	**3.4959**	**0.3584**	**0.1766**	**0.5350**	**0.0000**	**4,744.5188**	**4,744.5188**	**0.1690**	**0.0000**	**4,748.7426**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0167	0.4938	0.1938	2.6400e-003	0.0673	9.9000e-004	0.0682	0.0185	9.5000e-004	0.0194	0.0000	261.6815	261.6815	0.0166	0.0000	262.0972
Vendor	0.0136	0.3550	0.1310	2.3300e-003	0.0740	7.7000e-004	0.0748	0.0213	7.4000e-004	0.0221	0.0000	226.8329	226.8329	8.9500e-003	0.0000	227.0568
Worker	0.0207	0.0119	0.1586	6.9000e-004	0.0970	4.7000e-004	0.0975	0.0258	4.3000e-004	0.0262	0.0000	62.1133	62.1133	9.8000e-004	0.0000	62.1377
Total	**0.0511**	**0.8607**	**0.4834**	**5.6600e-003**	**0.2382**	**2.2300e-003**	**0.2405**	**0.0655**	**2.1200e-003**	**0.0677**	**0.0000**	**550.6277**	**550.6277**	**0.0266**	**0.0000**	**551.2917**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0815	3.9356	20.1989	0.0496		0.1040	0.1040		0.1040	0.1040	0.0000	4,744.5131	4,744.5131	0.1690	0.0000	4,748.7370
Total	**1.0815**	**3.9356**	**20.1989**	**0.0496**	**1.2946**	**0.1040**	**1.3986**	**0.1398**	**0.1040**	**0.2438**	**0.0000**	**4,744.5131**	**4,744.5131**	**0.1690**	**0.0000**	**4,748.7370**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0167	0.4938	0.1938	2.6400e-003	0.0673	9.9000e-004	0.0682	0.0185	9.5000e-004	0.0194	0.0000	261.6815	261.6815	0.0166	0.0000	262.0972
Vendor	0.0136	0.3550	0.1310	2.3300e-003	0.0740	7.7000e-004	0.0748	0.0213	7.4000e-004	0.0221	0.0000	226.8329	226.8329	8.9500e-003	0.0000	227.0568
Worker	0.0207	0.0119	0.1586	6.9000e-004	0.0970	4.7000e-004	0.0975	0.0258	4.3000e-004	0.0262	0.0000	62.1133	62.1133	9.8000e-004	0.0000	62.1377
Total	**0.0511**	**0.8607**	**0.4834**	**5.6600e-003**	**0.2382**	**2.2300e-003**	**0.2405**	**0.0655**	**2.1200e-003**	**0.0677**	**0.0000**	**550.6277**	**550.6277**	**0.0266**	**0.0000**	**551.2917**

3.5 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4059	2.5857	5.6125	9.3900e-003		0.0532	0.0532		0.0532	0.0532	0.0000	800.8115	800.8115	0.0325	0.0000	801.6236
Total	**0.4059**	**2.5857**	**5.6125**	**9.3900e-003**	**0.4152**	**0.0532**	**0.4684**	**0.0448**	**0.0532**	**0.0980**	**0.0000**	**800.8115**	**800.8115**	**0.0325**	**0.0000**	**801.6236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0201	0.5925	0.2325	3.1700e-003	0.0807	1.1900e-003	0.0819	0.0222	1.1400e-003	0.0233	0.0000	314.0178	314.0178	0.0200	0.0000	314.5167
Vendor	1.0900e-003	0.0284	0.0105	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.1466	18.1466	7.2000e-004	0.0000	18.1645
Worker	0.0130	7.4700e-003	0.0991	4.3000e-004	0.0606	2.9000e-004	0.0609	0.0161	2.7000e-004	0.0164	0.0000	38.8208	38.8208	6.1000e-004	0.0000	38.8361
Total	**0.0341**	**0.6284**	**0.3421**	**3.7900e-003**	**0.1472**	**1.5400e-003**	**0.1488**	**0.0400**	**1.4700e-003**	**0.0414**	**0.0000**	**370.9852**	**370.9852**	**0.0213**	**0.0000**	**371.5173**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	9.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	800.8105	800.8105	0.0325	0.0000	801.6226
Total	**0.1140**	**0.5384**	**5.7392**	**9.3900e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**800.8105**	**800.8105**	**0.0325**	**0.0000**	**801.6226**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0201	0.5925	0.2325	3.1700e-003	0.0807	1.1900e-003	0.0819	0.0222	1.1400e-003	0.0233	0.0000	314.0178	314.0178	0.0200	0.0000	314.5167
Vendor	1.0900e-003	0.0284	0.0105	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7700e-003	0.0000	18.1466	18.1466	7.2000e-004	0.0000	18.1645
Worker	0.0130	7.4700e-003	0.0991	4.3000e-004	0.0606	2.9000e-004	0.0609	0.0161	2.7000e-004	0.0164	0.0000	38.8208	38.8208	6.1000e-004	0.0000	38.8361
Total	**0.0341**	**0.6284**	**0.3421**	**3.7900e-003**	**0.1472**	**1.5400e-003**	**0.1488**	**0.0400**	**1.4700e-003**	**0.0414**	**0.0000**	**370.9852**	**370.9852**	**0.0213**	**0.0000**	**371.5173**

3.6 Plot 11 (2030) Building-Wet Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7598	2.6973	9.0461	0.0194		0.0879	0.0879		0.0879	0.0879	0.0000	1,719.6046	1,719.6046	0.0605	0.0000	1,721.1175
Total	**0.7598**	**2.6973**	**9.0461**	**0.0194**	**1.2450**	**0.0879**	**1.3329**	**0.1344**	**0.0879**	**0.2223**	**0.0000**	**1,719.6046**	**1,719.6046**	**0.0605**	**0.0000**	**1,721.1175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8500e-003	0.1728	0.0678	9.3000e-004	0.0235	3.5000e-004	0.0239	6.4600e-003	3.3000e-004	6.7900e-003	0.0000	91.5885	91.5885	5.8200e-003	0.0000	91.7340
Vendor	8.1800e-003	0.2130	0.0786	1.4000e-003	0.0444	4.6000e-004	0.0449	0.0128	4.4000e-004	0.0132	0.0000	136.0998	136.0998	5.3700e-003	0.0000	136.2341
Worker	0.0130	7.4700e-003	0.0991	4.3000e-004	0.0606	2.9000e-004	0.0609	0.0161	2.7000e-004	0.0164	0.0000	38.8208	38.8208	6.1000e-004	0.0000	38.8361
Total	**0.0270**	**0.3933**	**0.2455**	**2.7600e-003**	**0.1286**	**1.1000e-003**	**0.1297**	**0.0354**	**1.0400e-003**	**0.0364**	**0.0000**	**266.5091**	**266.5091**	**0.0118**	**0.0000**	**266.8042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2867	0.9881	10.2447	0.0194		0.0326	0.0326		0.0326	0.0326	0.0000	1,719.6025	1,719.6025	0.0605	0.0000	1,721.1154
Total	**0.2867**	**0.9881**	**10.2447**	**0.0194**	**0.4856**	**0.0326**	**0.5181**	**0.0524**	**0.0326**	**0.0850**	**0.0000**	**1,719.6025**	**1,719.6025**	**0.0605**	**0.0000**	**1,721.1154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8500e-003	0.1728	0.0678	9.3000e-004	0.0235	3.5000e-004	0.0239	6.4600e-003	3.3000e-004	6.7900e-003	0.0000	91.5885	91.5885	5.8200e-003	0.0000	91.7340
Vendor	8.1800e-003	0.2130	0.0786	1.4000e-003	0.0444	4.6000e-004	0.0449	0.0128	4.4000e-004	0.0132	0.0000	136.0998	136.0998	5.3700e-003	0.0000	136.2341
Worker	0.0130	7.4700e-003	0.0991	4.3000e-004	0.0606	2.9000e-004	0.0609	0.0161	2.7000e-004	0.0164	0.0000	38.8208	38.8208	6.1000e-004	0.0000	38.8361
Total	**0.0270**	**0.3933**	**0.2455**	**2.7600e-003**	**0.1286**	**1.1000e-003**	**0.1297**	**0.0354**	**1.0400e-003**	**0.0364**	**0.0000**	**266.5091**	**266.5091**	**0.0118**	**0.0000**	**266.8042**

3.7 Plot 11 (2030) Building-Electrical - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5120	2.8850	5.8981	9.0700e-003		0.0464	0.0464		0.0464	0.0464	0.0000	746.6612	746.6612	0.0412	0.0000	747.6920
Total	**0.5120**	**2.8850**	**5.8981**	**9.0700e-003**	**0.8298**	**0.0464**	**0.8763**	**0.0896**	**0.0464**	**0.1360**	**0.0000**	**746.6612**	**746.6612**	**0.0412**	**0.0000**	**747.6920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.3950	0.1550	2.1100e-003	0.0538	7.9000e-004	0.0546	0.0148	7.6000e-004	0.0155	0.0000	209.3452	209.3452	0.0133	0.0000	209.6778
Vendor	3.2700e-003	0.0852	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.4399	54.4399	2.1500e-003	0.0000	54.4936
Worker	7.7800e-003	4.4800e-003	0.0595	2.6000e-004	0.0364	1.8000e-004	0.0366	9.6600e-003	1.6000e-004	9.8200e-003	0.0000	23.2925	23.2925	3.7000e-004	0.0000	23.3016
Total	**0.0244**	**0.4847**	**0.2459**	**2.9300e-003**	**0.1079**	**1.1500e-003**	**0.1091**	**0.0296**	**1.1000e-003**	**0.0307**	**0.0000**	**287.0776**	**287.0776**	**0.0158**	**0.0000**	**287.4731**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	1.4057	5.6710	9.0700e-003		0.0186	0.0186		0.0186	0.0186	0.0000	746.6603	746.6603	0.0412	0.0000	747.6911
Total	**0.1888**	**1.4057**	**5.6710**	**9.0700e-003**	**0.3236**	**0.0186**	**0.3423**	**0.0350**	**0.0186**	**0.0536**	**0.0000**	**746.6603**	**746.6603**	**0.0412**	**0.0000**	**747.6911**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.3950	0.1550	2.1100e-003	0.0538	7.9000e-004	0.0546	0.0148	7.6000e-004	0.0155	0.0000	209.3452	209.3452	0.0133	0.0000	209.6778
Vendor	3.2700e-003	0.0852	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.4399	54.4399	2.1500e-003	0.0000	54.4936
Worker	7.7800e-003	4.4800e-003	0.0595	2.6000e-004	0.0364	1.8000e-004	0.0366	9.6600e-003	1.6000e-004	9.8200e-003	0.0000	23.2925	23.2925	3.7000e-004	0.0000	23.3016
Total	**0.0244**	**0.4847**	**0.2459**	**2.9300e-003**	**0.1079**	**1.1500e-003**	**0.1091**	**0.0296**	**1.1000e-003**	**0.0307**	**0.0000**	**287.0776**	**287.0776**	**0.0158**	**0.0000**	**287.4731**

3.8 Plot 11 (2030) Building-Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3809	1.7630	4.5693	7.5300e-003		0.0476	0.0476		0.0476	0.0476	0.0000	632.2258	632.2258	0.0305	0.0000	632.9889
Total	**0.3809**	**1.7630**	**4.5693**	**7.5300e-003**	**0.2073**	**0.0476**	**0.2549**	**0.0224**	**0.0476**	**0.0700**	**0.0000**	**632.2258**	**632.2258**	**0.0305**	**0.0000**	**632.9889**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8200e-003	0.0994	0.0367	6.5000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	63.5132	63.5132	2.5100e-003	0.0000	63.5759
Worker	5.1900e-003	2.9900e-003	0.0396	1.7000e-004	0.0243	1.2000e-004	0.0244	6.4400e-003	1.1000e-004	6.5500e-003	0.0000	15.5283	15.5283	2.4000e-004	0.0000	15.5344
Total	**9.0100e-003**	**0.1024**	**0.0763**	**8.2000e-004**	**0.0450**	**3.4000e-004**	**0.0453**	**0.0124**	**3.2000e-004**	**0.0127**	**0.0000**	**79.0415**	**79.0415**	**2.7500e-003**	**0.0000**	**79.1103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1966	1.6397	4.7632	7.5300e-003		0.0258	0.0258		0.0258	0.0258	0.0000	632.2251	632.2251	0.0305	0.0000	632.9882
Total	**0.1966**	**1.6397**	**4.7632**	**7.5300e-003**	**0.0809**	**0.0258**	**0.1067**	**8.7300e-003**	**0.0258**	**0.0345**	**0.0000**	**632.2251**	**632.2251**	**0.0305**	**0.0000**	**632.9882**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8200e-003	0.0994	0.0367	6.5000e-004	0.0207	2.2000e-004	0.0209	5.9700e-003	2.1000e-004	6.1800e-003	0.0000	63.5132	63.5132	2.5100e-003	0.0000	63.5759
Worker	5.1900e-003	2.9900e-003	0.0396	1.7000e-004	0.0243	1.2000e-004	0.0244	6.4400e-003	1.1000e-004	6.5500e-003	0.0000	15.5283	15.5283	2.4000e-004	0.0000	15.5344
Total	**9.0100e-003**	**0.1024**	**0.0763**	**8.2000e-004**	**0.0450**	**3.4000e-004**	**0.0453**	**0.0124**	**3.2000e-004**	**0.0127**	**0.0000**	**79.0415**	**79.0415**	**2.7500e-003**	**0.0000**	**79.1103**

3.9 Plot 11 (2030) Landscaping - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4020	1.8242	4.8891	8.1100e-003		0.0502	0.0502		0.0502	0.0502	0.0000	681.5769	681.5769	0.0322	0.0000	682.3813
Total	**0.4020**	**1.8242**	**4.8891**	**8.1100e-003**	**0.2073**	**0.0502**	**0.2576**	**0.0224**	**0.0502**	**0.0726**	**0.0000**	**681.5769**	**681.5769**	**0.0322**	**0.0000**	**682.3813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2700e-003	0.0852	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.4399	54.4399	2.1500e-003	0.0000	54.4936
Worker	5.1900e-003	2.9900e-003	0.0396	1.7000e-004	0.0243	1.2000e-004	0.0244	6.4400e-003	1.1000e-004	6.5500e-003	0.0000	15.5283	15.5283	2.4000e-004	0.0000	15.5344
Total	**8.4600e-003**	**0.0882**	**0.0711**	**7.3000e-004**	**0.0420**	**3.0000e-004**	**0.0423**	**0.0116**	**2.9000e-004**	**0.0119**	**0.0000**	**69.9682**	**69.9682**	**2.3900e-003**	**0.0000**	**70.0281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2024	1.6645	5.1174	8.1100e-003		0.0266	0.0266		0.0266	0.0266	0.0000	681.5761	681.5761	0.0322	0.0000	682.3805
Total	**0.2024**	**1.6645**	**5.1174**	**8.1100e-003**	**0.0809**	**0.0266**	**0.1074**	**8.7300e-003**	**0.0266**	**0.0353**	**0.0000**	**681.5761**	**681.5761**	**0.0322**	**0.0000**	**682.3805**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2700e-003	0.0852	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.3000e-003	0.0000	54.4399	54.4399	2.1500e-003	0.0000	54.4936
Worker	5.1900e-003	2.9900e-003	0.0396	1.7000e-004	0.0243	1.2000e-004	0.0244	6.4400e-003	1.1000e-004	6.5500e-003	0.0000	15.5283	15.5283	2.4000e-004	0.0000	15.5344
Total	**8.4600e-003**	**0.0882**	**0.0711**	**7.3000e-004**	**0.0420**	**3.0000e-004**	**0.0423**	**0.0116**	**2.9000e-004**	**0.0119**	**0.0000**	**69.9682**	**69.9682**	**2.3900e-003**	**0.0000**	**70.0281**

3.10 Plot 11 (2030) Curbing/Drive Approaches - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0362	0.1872	0.4106	7.1000e-004		8.1200e-003	8.1200e-003		8.1200e-003	8.1200e-003	0.0000	60.4189	60.4189	2.9200e-003	0.0000	60.4918
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1981**	**0.1872**	**0.4106**	**7.1000e-004**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**60.4189**	**60.4189**	**2.9200e-003**	**0.0000**	**60.4918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0492	0.0193	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	26.0846	26.0846	1.6600e-003	0.0000	26.1260
Vendor	6.7000e-004	0.0175	6.4500e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1672	11.1672	4.4000e-004	0.0000	11.1782
Worker	1.6000e-003	9.2000e-004	0.0122	5.0000e-005	7.4600e-003	4.0000e-005	7.5000e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.7779	4.7779	8.0000e-005	0.0000	4.7798
Total	**3.9400e-003**	**0.0676**	**0.0380**	**4.2000e-004**	**0.0178**	**1.8000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**42.0297**	**42.0297**	**2.1800e-003**	**0.0000**	**42.0840**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	7.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	60.4188	60.4188	2.9200e-003	0.0000	60.4917
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**7.1000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**60.4188**	**60.4188**	**2.9200e-003**	**0.0000**	**60.4917**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0492	0.0193	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	26.0846	26.0846	1.6600e-003	0.0000	26.1260
Vendor	6.7000e-004	0.0175	6.4500e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1672	11.1672	4.4000e-004	0.0000	11.1782
Worker	1.6000e-003	9.2000e-004	0.0122	5.0000e-005	7.4600e-003	4.0000e-005	7.5000e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.7779	4.7779	8.0000e-005	0.0000	4.7798
Total	**3.9400e-003**	**0.0676**	**0.0380**	**4.2000e-004**	**0.0178**	**1.8000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**42.0297**	**42.0297**	**2.1800e-003**	**0.0000**	**42.0840**

3.11 Plot 11 (2030) Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0957	0.4573	0.8601	1.9400e-003		0.0170	0.0170		0.0170	0.0170	0.0000	179.4461	179.4461	7.7300e-003	0.0000	179.6394
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2577**	**0.4573**	**0.8601**	**1.9400e-003**	**0.1273**	**0.0170**	**0.1443**	**0.0137**	**0.0170**	**0.0308**	**0.0000**	**179.4461**	**179.4461**	**7.7300e-003**	**0.0000**	**179.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4100e-003	0.0417	0.0163	2.2000e-004	5.6700e-003	8.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.0715	22.0715	1.4000e-003	0.0000	22.1066
Vendor	5.0000e-004	0.0131	4.8400e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3754	8.3754	3.3000e-004	0.0000	8.3836
Worker	1.9900e-003	1.1500e-003	0.0153	7.0000e-005	9.3300e-003	5.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	5.9724	5.9724	9.0000e-005	0.0000	5.9748
Total	**3.9000e-003**	**0.0559**	**0.0364**	**3.8000e-004**	**0.0177**	**1.6000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9700e-003**	**0.0000**	**36.4193**	**36.4193**	**1.8200e-003**	**0.0000**	**36.4650**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.9400e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	179.4459	179.4459	7.7300e-003	0.0000	179.6392
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.9400e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**179.4459**	**179.4459**	**7.7300e-003**	**0.0000**	**179.6392**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4100e-003	0.0417	0.0163	2.2000e-004	5.6700e-003	8.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.0715	22.0715	1.4000e-003	0.0000	22.1066
Vendor	5.0000e-004	0.0131	4.8400e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3754	8.3754	3.3000e-004	0.0000	8.3836
Worker	1.9900e-003	1.1500e-003	0.0153	7.0000e-005	9.3300e-003	5.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	5.9724	5.9724	9.0000e-005	0.0000	5.9748
Total	**3.9000e-003**	**0.0559**	**0.0364**	**3.8000e-004**	**0.0177**	**1.6000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9700e-003**	**0.0000**	**36.4193**	**36.4193**	**1.8200e-003**	**0.0000**	**36.4650**

3.12 Plot 11 (2030) Temporary Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0821	0.2578	0.4032	1.8500e-003		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	190.6814	190.6814	6.7100e-003	0.0000	190.8491
Total	**0.0821**	**0.2578**	**0.4032**	**1.8500e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**190.6814**	**190.6814**	**6.7100e-003**	**0.0000**	**190.8491**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8500e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	190.6811	190.6811	6.7100e-003	0.0000	190.8489
Total	**0.0222**	**0.0962**	**0.8137**	**1.8500e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**190.6811**	**190.6811**	**6.7100e-003**	**0.0000**	**190.8489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.13 Plot 11 (2031) Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0961	6.5394	15.6831	0.0496		0.1766	0.1766		0.1766	0.1766	0.0000	4,744.5188	4,744.5188	0.1690	0.0000	4,748.7426
Total	**2.0961**	**6.5394**	**15.6831**	**0.0496**	**3.3194**	**0.1766**	**3.4959**	**0.3584**	**0.1766**	**0.5350**	**0.0000**	**4,744.5188**	**4,744.5188**	**0.1690**	**0.0000**	**4,748.7426**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0168	0.4907	0.1957	2.6400e-003	0.0673	9.8000e-004	0.0682	0.0185	9.4000e-004	0.0194	0.0000	261.3782	261.3782	0.0166	0.0000	261.7927
Vendor	0.0136	0.3533	0.1313	2.3300e-003	0.0740	7.6000e-004	0.0748	0.0213	7.3000e-004	0.0221	0.0000	226.7096	226.7096	8.9200e-003	0.0000	226.9326
Worker	0.0192	0.0109	0.1492	6.7000e-004	0.0970	4.4000e-004	0.0974	0.0258	4.1000e-004	0.0262	0.0000	60.8308	60.8308	9.0000e-004	0.0000	60.8532
Total	**0.0497**	**0.8549**	**0.4761**	**5.6400e-003**	**0.2382**	**2.1800e-003**	**0.2404**	**0.0655**	**2.0800e-003**	**0.0676**	**0.0000**	**548.9186**	**548.9186**	**0.0264**	**0.0000**	**549.5784**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0815	3.9356	20.1989	0.0496		0.1040	0.1040		0.1040	0.1040	0.0000	4,744.5131	4,744.5131	0.1690	0.0000	4,748.7370
Total	**1.0815**	**3.9356**	**20.1989**	**0.0496**	**1.2946**	**0.1040**	**1.3986**	**0.1398**	**0.1040**	**0.2438**	**0.0000**	**4,744.5131**	**4,744.5131**	**0.1690**	**0.0000**	**4,748.7370**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0168	0.4907	0.1957	2.6400e-003	0.0673	9.8000e-004	0.0682	0.0185	9.4000e-004	0.0194	0.0000	261.3782	261.3782	0.0166	0.0000	261.7927
Vendor	0.0136	0.3533	0.1313	2.3300e-003	0.0740	7.6000e-004	0.0748	0.0213	7.3000e-004	0.0221	0.0000	226.7096	226.7096	8.9200e-003	0.0000	226.9326
Worker	0.0192	0.0109	0.1492	6.7000e-004	0.0970	4.4000e-004	0.0974	0.0258	4.1000e-004	0.0262	0.0000	60.8308	60.8308	9.0000e-004	0.0000	60.8532
Total	**0.0497**	**0.8549**	**0.4761**	**5.6400e-003**	**0.2382**	**2.1800e-003**	**0.2404**	**0.0655**	**2.0800e-003**	**0.0676**	**0.0000**	**548.9186**	**548.9186**	**0.0264**	**0.0000**	**549.5784**

3.14 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4059	2.5857	5.6125	9.3900e-003		0.0532	0.0532		0.0532	0.0532	0.0000	800.8115	800.8115	0.0325	0.0000	801.6236
Total	**0.4059**	**2.5857**	**5.6125**	**9.3900e-003**	**0.4152**	**0.0532**	**0.4684**	**0.0448**	**0.0532**	**0.0980**	**0.0000**	**800.8115**	**800.8115**	**0.0325**	**0.0000**	**801.6236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0202	0.5888	0.2348	3.1700e-003	0.0807	1.1700e-003	0.0819	0.0222	1.1200e-003	0.0233	0.0000	313.6539	313.6539	0.0199	0.0000	314.1512
Vendor	1.0900e-003	0.0283	0.0105	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.1368	18.1368	7.1000e-004	0.0000	18.1546
Worker	0.0120	6.8200e-003	0.0932	4.2000e-004	0.0606	2.8000e-004	0.0609	0.0161	2.5000e-004	0.0164	0.0000	38.0192	38.0192	5.6000e-004	0.0000	38.0333
Total	**0.0333**	**0.6239**	**0.3385**	**3.7800e-003**	**0.1472**	**1.5100e-003**	**0.1488**	**0.0400**	**1.4300e-003**	**0.0414**	**0.0000**	**369.8099**	**369.8099**	**0.0212**	**0.0000**	**370.3391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	9.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	800.8105	800.8105	0.0325	0.0000	801.6226
Total	**0.1140**	**0.5384**	**5.7392**	**9.3900e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**800.8105**	**800.8105**	**0.0325**	**0.0000**	**801.6226**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0202	0.5888	0.2348	3.1700e-003	0.0807	1.1700e-003	0.0819	0.0222	1.1200e-003	0.0233	0.0000	313.6539	313.6539	0.0199	0.0000	314.1512
Vendor	1.0900e-003	0.0283	0.0105	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.1368	18.1368	7.1000e-004	0.0000	18.1546
Worker	0.0120	6.8200e-003	0.0932	4.2000e-004	0.0606	2.8000e-004	0.0609	0.0161	2.5000e-004	0.0164	0.0000	38.0192	38.0192	5.6000e-004	0.0000	38.0333
Total	**0.0333**	**0.6239**	**0.3385**	**3.7800e-003**	**0.1472**	**1.5100e-003**	**0.1488**	**0.0400**	**1.4300e-003**	**0.0414**	**0.0000**	**369.8099**	**369.8099**	**0.0212**	**0.0000**	**370.3391**

3.15 Plot 11 (2031) Building-Wet Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7598	2.6973	9.0461	0.0194		0.0879	0.0879		0.0879	0.0879	0.0000	1,719.6046	1,719.6046	0.0605	0.0000	1,721.1175
Total	**0.7598**	**2.6973**	**9.0461**	**0.0194**	**1.2450**	**0.0879**	**1.3329**	**0.1344**	**0.0879**	**0.2223**	**0.0000**	**1,719.6046**	**1,719.6046**	**0.0605**	**0.0000**	**1,721.1175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8800e-003	0.1717	0.0685	9.2000e-004	0.0235	3.4000e-004	0.0239	6.4600e-003	3.3000e-004	6.7900e-003	0.0000	91.4824	91.4824	5.8000e-003	0.0000	91.6274
Vendor	8.1800e-003	0.2120	0.0788	1.4000e-003	0.0444	4.6000e-004	0.0449	0.0128	4.4000e-004	0.0132	0.0000	136.0258	136.0258	5.3500e-003	0.0000	136.1596
Worker	0.0120	6.8200e-003	0.0932	4.2000e-004	0.0606	2.8000e-004	0.0609	0.0161	2.5000e-004	0.0164	0.0000	38.0192	38.0192	5.6000e-004	0.0000	38.0333
Total	**0.0261**	**0.3905**	**0.2405**	**2.7400e-003**	**0.1286**	**1.0800e-003**	**0.1296**	**0.0354**	**1.0200e-003**	**0.0364**	**0.0000**	**265.5274**	**265.5274**	**0.0117**	**0.0000**	**265.8202**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2867	0.9881	10.2447	0.0194		0.0326	0.0326		0.0326	0.0326	0.0000	1,719.6025	1,719.6025	0.0605	0.0000	1,721.1154
Total	**0.2867**	**0.9881**	**10.2447**	**0.0194**	**0.4856**	**0.0326**	**0.5181**	**0.0524**	**0.0326**	**0.0850**	**0.0000**	**1,719.6025**	**1,719.6025**	**0.0605**	**0.0000**	**1,721.1154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8800e-003	0.1717	0.0685	9.2000e-004	0.0235	3.4000e-004	0.0239	6.4600e-003	3.3000e-004	6.7900e-003	0.0000	91.4824	91.4824	5.8000e-003	0.0000	91.6274
Vendor	8.1800e-003	0.2120	0.0788	1.4000e-003	0.0444	4.6000e-004	0.0449	0.0128	4.4000e-004	0.0132	0.0000	136.0258	136.0258	5.3500e-003	0.0000	136.1596
Worker	0.0120	6.8200e-003	0.0932	4.2000e-004	0.0606	2.8000e-004	0.0609	0.0161	2.5000e-004	0.0164	0.0000	38.0192	38.0192	5.6000e-004	0.0000	38.0333
Total	**0.0261**	**0.3905**	**0.2405**	**2.7400e-003**	**0.1286**	**1.0800e-003**	**0.1296**	**0.0354**	**1.0200e-003**	**0.0364**	**0.0000**	**265.5274**	**265.5274**	**0.0117**	**0.0000**	**265.8202**

3.16 Plot 11 (2031) Building-Electrical - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5120	2.8850	5.8981	9.0700e-003		0.0464	0.0464		0.0464	0.0464	0.0000	746.6612	746.6612	0.0412	0.0000	747.6920
Total	**0.5120**	**2.8850**	**5.8981**	**9.0700e-003**	**0.8298**	**0.0464**	**0.8763**	**0.0896**	**0.0464**	**0.1360**	**0.0000**	**746.6612**	**746.6612**	**0.0412**	**0.0000**	**747.6920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.3926	0.1565	2.1100e-003	0.0538	7.8000e-004	0.0546	0.0148	7.5000e-004	0.0155	0.0000	209.1026	209.1026	0.0133	0.0000	209.4341
Vendor	3.2700e-003	0.0848	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.2900e-003	0.0000	54.4103	54.4103	2.1400e-003	0.0000	54.4638
Worker	7.2100e-003	4.0900e-003	0.0559	2.5000e-004	0.0364	1.7000e-004	0.0365	9.6600e-003	1.5000e-004	9.8100e-003	0.0000	22.8115	22.8115	3.4000e-004	0.0000	22.8200
Total	**0.0239**	**0.4814**	**0.2440**	**2.9200e-003**	**0.1079**	**1.1300e-003**	**0.1091**	**0.0296**	**1.0800e-003**	**0.0306**	**0.0000**	**286.3244**	**286.3244**	**0.0157**	**0.0000**	**286.7179**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	1.4057	5.6710	9.0700e-003		0.0186	0.0186		0.0186	0.0186	0.0000	746.6603	746.6603	0.0412	0.0000	747.6911
Total	**0.1888**	**1.4057**	**5.6710**	**9.0700e-003**	**0.3236**	**0.0186**	**0.3423**	**0.0350**	**0.0186**	**0.0536**	**0.0000**	**746.6603**	**746.6603**	**0.0412**	**0.0000**	**747.6911**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.3926	0.1565	2.1100e-003	0.0538	7.8000e-004	0.0546	0.0148	7.5000e-004	0.0155	0.0000	209.1026	209.1026	0.0133	0.0000	209.4341
Vendor	3.2700e-003	0.0848	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.2900e-003	0.0000	54.4103	54.4103	2.1400e-003	0.0000	54.4638
Worker	7.2100e-003	4.0900e-003	0.0559	2.5000e-004	0.0364	1.7000e-004	0.0365	9.6600e-003	1.5000e-004	9.8100e-003	0.0000	22.8115	22.8115	3.4000e-004	0.0000	22.8200
Total	**0.0239**	**0.4814**	**0.2440**	**2.9200e-003**	**0.1079**	**1.1300e-003**	**0.1091**	**0.0296**	**1.0800e-003**	**0.0306**	**0.0000**	**286.3244**	**286.3244**	**0.0157**	**0.0000**	**286.7179**

3.17 Plot 11 (2031) Building-Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3809	1.7630	4.5693	7.5300e-003		0.0476	0.0476		0.0476	0.0476	0.0000	632.2258	632.2258	0.0305	0.0000	632.9889
Total	**0.3809**	**1.7630**	**4.5693**	**7.5300e-003**	**0.2073**	**0.0476**	**0.2549**	**0.0224**	**0.0476**	**0.0700**	**0.0000**	**632.2258**	**632.2258**	**0.0305**	**0.0000**	**632.9889**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8200e-003	0.0989	0.0368	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1800e-003	0.0000	63.4787	63.4787	2.5000e-003	0.0000	63.5411
Worker	4.8100e-003	2.7300e-003	0.0373	1.7000e-004	0.0243	1.1000e-004	0.0244	6.4400e-003	1.0000e-004	6.5400e-003	0.0000	15.2077	15.2077	2.2000e-004	0.0000	15.2133
Total	**8.6300e-003**	**0.1017**	**0.0741**	**8.2000e-004**	**0.0450**	**3.2000e-004**	**0.0453**	**0.0124**	**3.0000e-004**	**0.0127**	**0.0000**	**78.6864**	**78.6864**	**2.7200e-003**	**0.0000**	**78.7544**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1966	1.6397	4.7632	7.5300e-003		0.0258	0.0258		0.0258	0.0258	0.0000	632.2251	632.2251	0.0305	0.0000	632.9882
Total	**0.1966**	**1.6397**	**4.7632**	**7.5300e-003**	**0.0809**	**0.0258**	**0.1067**	**8.7300e-003**	**0.0258**	**0.0345**	**0.0000**	**632.2251**	**632.2251**	**0.0305**	**0.0000**	**632.9882**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8200e-003	0.0989	0.0368	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1800e-003	0.0000	63.4787	63.4787	2.5000e-003	0.0000	63.5411
Worker	4.8100e-003	2.7300e-003	0.0373	1.7000e-004	0.0243	1.1000e-004	0.0244	6.4400e-003	1.0000e-004	6.5400e-003	0.0000	15.2077	15.2077	2.2000e-004	0.0000	15.2133
Total	**8.6300e-003**	**0.1017**	**0.0741**	**8.2000e-004**	**0.0450**	**3.2000e-004**	**0.0453**	**0.0124**	**3.0000e-004**	**0.0127**	**0.0000**	**78.6864**	**78.6864**	**2.7200e-003**	**0.0000**	**78.7544**

3.18 Plot 11 (2031) Landscaping - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4020	1.8242	4.8891	8.1100e-003		0.0502	0.0502		0.0502	0.0502	0.0000	681.5769	681.5769	0.0322	0.0000	682.3813
Total	**0.4020**	**1.8242**	**4.8891**	**8.1100e-003**	**0.2073**	**0.0502**	**0.2576**	**0.0224**	**0.0502**	**0.0726**	**0.0000**	**681.5769**	**681.5769**	**0.0322**	**0.0000**	**682.3813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2700e-003	0.0848	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.2900e-003	0.0000	54.4103	54.4103	2.1400e-003	0.0000	54.4638
Worker	4.8100e-003	2.7300e-003	0.0373	1.7000e-004	0.0243	1.1000e-004	0.0244	6.4400e-003	1.0000e-004	6.5400e-003	0.0000	15.2077	15.2077	2.2000e-004	0.0000	15.2133
Total	**8.0800e-003**	**0.0875**	**0.0688**	**7.3000e-004**	**0.0420**	**2.9000e-004**	**0.0423**	**0.0116**	**2.8000e-004**	**0.0118**	**0.0000**	**69.6180**	**69.6180**	**2.3600e-003**	**0.0000**	**69.6771**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2024	1.6645	5.1174	8.1100e-003		0.0266	0.0266		0.0266	0.0266	0.0000	681.5761	681.5761	0.0322	0.0000	682.3805
Total	**0.2024**	**1.6645**	**5.1174**	**8.1100e-003**	**0.0809**	**0.0266**	**0.1074**	**8.7300e-003**	**0.0266**	**0.0353**	**0.0000**	**681.5761**	**681.5761**	**0.0322**	**0.0000**	**682.3805**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2700e-003	0.0848	0.0315	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.8000e-004	5.2900e-003	0.0000	54.4103	54.4103	2.1400e-003	0.0000	54.4638
Worker	4.8100e-003	2.7300e-003	0.0373	1.7000e-004	0.0243	1.1000e-004	0.0244	6.4400e-003	1.0000e-004	6.5400e-003	0.0000	15.2077	15.2077	2.2000e-004	0.0000	15.2133
Total	**8.0800e-003**	**0.0875**	**0.0688**	**7.3000e-004**	**0.0420**	**2.9000e-004**	**0.0423**	**0.0116**	**2.8000e-004**	**0.0118**	**0.0000**	**69.6180**	**69.6180**	**2.3600e-003**	**0.0000**	**69.6771**

3.19 Plot 11 (2031) Curbing/Drive Approaches - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0362	0.1872	0.4106	7.1000e-004		8.1200e-003	8.1200e-003		8.1200e-003	8.1200e-003	0.0000	60.4189	60.4189	2.9200e-003	0.0000	60.4918
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1981**	**0.1872**	**0.4106**	**7.1000e-004**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**60.4189**	**60.4189**	**2.9200e-003**	**0.0000**	**60.4918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0489	0.0195	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	26.0543	26.0543	1.6500e-003	0.0000	26.0956
Vendor	6.7000e-004	0.0174	6.4600e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1611	11.1611	4.4000e-004	0.0000	11.1721
Worker	1.4800e-003	8.4000e-004	0.0115	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.6793	4.6793	7.0000e-005	0.0000	4.6810
Total	**3.8200e-003**	**0.0671**	**0.0374**	**4.2000e-004**	**0.0178**	**1.7000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**41.8947**	**41.8947**	**2.1600e-003**	**0.0000**	**41.9487**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	7.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	60.4188	60.4188	2.9200e-003	0.0000	60.4917
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**7.1000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**60.4188**	**60.4188**	**2.9200e-003**	**0.0000**	**60.4917**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0489	0.0195	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	26.0543	26.0543	1.6500e-003	0.0000	26.0956
Vendor	6.7000e-004	0.0174	6.4600e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1611	11.1611	4.4000e-004	0.0000	11.1721
Worker	1.4800e-003	8.4000e-004	0.0115	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.6793	4.6793	7.0000e-005	0.0000	4.6810
Total	**3.8200e-003**	**0.0671**	**0.0374**	**4.2000e-004**	**0.0178**	**1.7000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**41.8947**	**41.8947**	**2.1600e-003**	**0.0000**	**41.9487**

3.20 Plot 11 (2031) Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0957	0.4573	0.8601	1.9400e-003		0.0170	0.0170		0.0170	0.0170	0.0000	179.4461	179.4461	7.7300e-003	0.0000	179.6394
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2577**	**0.4573**	**0.8601**	**1.9400e-003**	**0.1273**	**0.0170**	**0.1443**	**0.0137**	**0.0170**	**0.0308**	**0.0000**	**179.4461**	**179.4461**	**7.7300e-003**	**0.0000**	**179.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4200e-003	0.0414	0.0165	2.2000e-004	5.6700e-003	8.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.0460	22.0460	1.4000e-003	0.0000	22.0809
Vendor	5.0000e-004	0.0130	4.8500e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3708	8.3708	3.3000e-004	0.0000	8.3791
Worker	1.8500e-003	1.0500e-003	0.0143	6.0000e-005	9.3300e-003	4.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	5.8491	5.8491	9.0000e-005	0.0000	5.8513
Total	**3.7700e-003**	**0.0555**	**0.0357**	**3.7000e-004**	**0.0177**	**1.5000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9700e-003**	**0.0000**	**36.2659**	**36.2659**	**1.8200e-003**	**0.0000**	**36.3112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.9400e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	179.4459	179.4459	7.7300e-003	0.0000	179.6392
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.9400e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**179.4459**	**179.4459**	**7.7300e-003**	**0.0000**	**179.6392**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4200e-003	0.0414	0.0165	2.2000e-004	5.6700e-003	8.0000e-005	5.7600e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	22.0460	22.0460	1.4000e-003	0.0000	22.0809
Vendor	5.0000e-004	0.0130	4.8500e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3708	8.3708	3.3000e-004	0.0000	8.3791
Worker	1.8500e-003	1.0500e-003	0.0143	6.0000e-005	9.3300e-003	4.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5200e-003	0.0000	5.8491	5.8491	9.0000e-005	0.0000	5.8513
Total	**3.7700e-003**	**0.0555**	**0.0357**	**3.7000e-004**	**0.0177**	**1.5000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9700e-003**	**0.0000**	**36.2659**	**36.2659**	**1.8200e-003**	**0.0000**	**36.3112**

3.21 Plot 11 (2031) Temporary Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0821	0.2578	0.4032	1.8500e-003		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	190.6814	190.6814	6.7100e-003	0.0000	190.8491
Total	**0.0821**	**0.2578**	**0.4032**	**1.8500e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**190.6814**	**190.6814**	**6.7100e-003**	**0.0000**	**190.8491**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8500e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	190.6811	190.6811	6.7100e-003	0.0000	190.8489
Total	**0.0222**	**0.0962**	**0.8137**	**1.8500e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**190.6811**	**190.6811**	**6.7100e-003**	**0.0000**	**190.8489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.22 Plot 11 (2032) Mass Excavation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7737	0.0000	2.7737	0.2995	0.0000	0.2995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6121	11.9173	12.4663	0.0471		0.4508	0.4508		0.4508	0.4508	0.0000	4,793.2315	4,793.2315	0.2113	0.0000	4,798.5127
Total	**2.6121**	**11.9173**	**12.4663**	**0.0471**	**2.7737**	**0.4508**	**3.2245**	**0.2995**	**0.4508**	**0.7503**	**0.0000**	**4,793.2315**	**4,793.2315**	**0.2113**	**0.0000**	**4,798.5127**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5500e-003	0.1322	0.0534	7.2000e-004	0.0183	2.6000e-004	0.0186	5.0300e-003	2.5000e-004	5.2800e-003	0.0000	71.0108	71.0108	4.5000e-003	0.0000	71.1233
Vendor	3.2500e-003	0.0839	0.0314	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.2979	54.2979	2.1300e-003	0.0000	54.3512
Worker	0.0112	6.2600e-003	0.0878	4.1000e-004	0.0606	2.6000e-004	0.0609	0.0161	2.4000e-004	0.0163	0.0000	37.2568	37.2568	5.1000e-004	0.0000	37.2697
Total	**0.0190**	**0.2223**	**0.1726**	**1.6900e-003**	**0.0967**	**7.0000e-004**	**0.0974**	**0.0263**	**6.6000e-004**	**0.0269**	**0.0000**	**162.5656**	**162.5656**	**7.1400e-003**	**0.0000**	**162.7442**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0818	0.0000	1.0818	0.1168	0.0000	0.1168	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5578	2.4173	20.9735	0.0471		0.0744	0.0744		0.0744	0.0744	0.0000	4,793.2258	4,793.2258	0.2113	0.0000	4,798.5070
Total	**0.5578**	**2.4173**	**20.9735**	**0.0471**	**1.0818**	**0.0744**	**1.1561**	**0.1168**	**0.0744**	**0.1912**	**0.0000**	**4,793.2258**	**4,793.2258**	**0.2113**	**0.0000**	**4,798.5070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5500e-003	0.1322	0.0534	7.2000e-004	0.0183	2.6000e-004	0.0186	5.0300e-003	2.5000e-004	5.2800e-003	0.0000	71.0108	71.0108	4.5000e-003	0.0000	71.1233
Vendor	3.2500e-003	0.0839	0.0314	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.2979	54.2979	2.1300e-003	0.0000	54.3512
Worker	0.0112	6.2600e-003	0.0878	4.1000e-004	0.0606	2.6000e-004	0.0609	0.0161	2.4000e-004	0.0163	0.0000	37.2568	37.2568	5.1000e-004	0.0000	37.2697
Total	**0.0190**	**0.2223**	**0.1726**	**1.6900e-003**	**0.0967**	**7.0000e-004**	**0.0974**	**0.0263**	**6.6000e-004**	**0.0269**	**0.0000**	**162.5656**	**162.5656**	**7.1400e-003**	**0.0000**	**162.7442**

3.23 Plot 11 (2032) Finish Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1209	0.0000	0.1209	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0298	0.1530	0.3148	5.3000e-004		6.6400e-003	6.6400e-003		6.6400e-003	6.6400e-003	0.0000	45.8322	45.8322	2.3700e-003	0.0000	45.8916
Total	**0.0298**	**0.1530**	**0.3148**	**5.3000e-004**	**0.1209**	**6.6400e-003**	**0.1275**	**0.0131**	**6.6400e-003**	**0.0197**	**0.0000**	**45.8322**	**45.8322**	**2.3700e-003**	**0.0000**	**45.8916**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1100e-003	0.0322	0.0130	1.7000e-004	4.4700e-003	6.0000e-005	4.5300e-003	1.2300e-003	6.0000e-005	1.2900e-003	0.0000	17.3258	17.3258	1.1000e-003	0.0000	17.3533
Vendor	3.3000e-004	8.6100e-003	3.2200e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.5690	5.5690	2.2000e-004	0.0000	5.5745
Worker	1.0300e-003	5.8000e-004	8.1000e-003	4.0000e-005	5.6000e-003	2.0000e-005	5.6200e-003	1.4900e-003	2.0000e-005	1.5100e-003	0.0000	3.4391	3.4391	5.0000e-005	0.0000	3.4403
Total	**2.4700e-003**	**0.0414**	**0.0244**	**2.7000e-004**	**0.0119**	**1.0000e-004**	**0.0120**	**3.2500e-003**	**1.0000e-004**	**3.3400e-003**	**0.0000**	**26.3339**	**26.3339**	**1.3700e-003**	**0.0000**	**26.3680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0472	0.0000	0.0472	5.0900e-003	0.0000	5.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3300e-003	0.0231	0.3289	5.3000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	45.8321	45.8321	2.3700e-003	0.0000	45.8915
Total	**5.3300e-003**	**0.0231**	**0.3289**	**5.3000e-004**	**0.0472**	**7.1000e-004**	**0.0479**	**5.0900e-003**	**7.1000e-004**	**5.8000e-003**	**0.0000**	**45.8321**	**45.8321**	**2.3700e-003**	**0.0000**	**45.8915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1100e-003	0.0322	0.0130	1.7000e-004	4.4700e-003	6.0000e-005	4.5300e-003	1.2300e-003	6.0000e-005	1.2900e-003	0.0000	17.3258	17.3258	1.1000e-003	0.0000	17.3533
Vendor	3.3000e-004	8.6100e-003	3.2200e-003	6.0000e-005	1.8200e-003	2.0000e-005	1.8400e-003	5.3000e-004	2.0000e-005	5.4000e-004	0.0000	5.5690	5.5690	2.2000e-004	0.0000	5.5745
Worker	1.0300e-003	5.8000e-004	8.1000e-003	4.0000e-005	5.6000e-003	2.0000e-005	5.6200e-003	1.4900e-003	2.0000e-005	1.5100e-003	0.0000	3.4391	3.4391	5.0000e-005	0.0000	3.4403
Total	**2.4700e-003**	**0.0414**	**0.0244**	**2.7000e-004**	**0.0119**	**1.0000e-004**	**0.0120**	**3.2500e-003**	**1.0000e-004**	**3.3400e-003**	**0.0000**	**26.3339**	**26.3339**	**1.3700e-003**	**0.0000**	**26.3680**

3.24 Plot 11 (2032) Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0961	6.5394	15.6831	0.0496		0.1766	0.1766		0.1766	0.1766	0.0000	4,744.518 8	4,744.5188	0.1690	0.0000	4,748.742 6
Total	**2.0961**	**6.5394**	**15.6831**	**0.0496**	**3.3194**	**0.1766**	**3.4959**	**0.3584**	**0.1766**	**0.5350**	**0.0000**	**4,744.518 8**	**4,744.5188**	**0.1690**	**0.0000**	**4,748.742 6**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0167	0.4852	0.1961	2.6300e-003	0.0673	9.7000e-004	0.0682	0.0185	9.2000e-004	0.0194	0.0000	260.7202	260.7202	0.0165	0.0000	261.1331
Vendor	0.0135	0.3496	0.1308	2.3300e-003	0.0740	7.6000e-004	0.0748	0.0213	7.2000e-004	0.0221	0.0000	226.2412	226.2412	8.8800e-003	0.0000	226.4633
Worker	0.0179	0.0100	0.1404	6.6000e-004	0.0970	4.1000e-004	0.0974	0.0258	3.8000e-004	0.0261	0.0000	59.6109	59.6109	8.2000e-004	0.0000	59.6315
Total	**0.0481**	**0.8449**	**0.4673**	**5.6200e-003**	**0.2382**	**2.1400e-003**	**0.2404**	**0.0655**	**2.0200e-003**	**0.0676**	**0.0000**	**546.5723**	**546.5723**	**0.0262**	**0.0000**	**547.2279**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0815	3.9356	20.1989	0.0496		0.1040	0.1040		0.1040	0.1040	0.0000	4,744.5131	4,744.5131	0.1690	0.0000	4,748.7370
Total	**1.0815**	**3.9356**	**20.1989**	**0.0496**	**1.2946**	**0.1040**	**1.3986**	**0.1398**	**0.1040**	**0.2438**	**0.0000**	**4,744.5131**	**4,744.5131**	**0.1690**	**0.0000**	**4,748.7370**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0167	0.4852	0.1961	2.6300e-003	0.0673	9.7000e-004	0.0682	0.0185	9.2000e-004	0.0194	0.0000	260.7202	260.7202	0.0165	0.0000	261.1331
Vendor	0.0135	0.3496	0.1308	2.3300e-003	0.0740	7.6000e-004	0.0748	0.0213	7.2000e-004	0.0221	0.0000	226.2412	226.2412	8.8800e-003	0.0000	226.4633
Worker	0.0179	0.0100	0.1404	6.6000e-004	0.0970	4.1000e-004	0.0974	0.0258	3.8000e-004	0.0261	0.0000	59.6109	59.6109	8.2000e-004	0.0000	59.6315
Total	**0.0481**	**0.8449**	**0.4673**	**5.6200e-003**	**0.2382**	**2.1400e-003**	**0.2404**	**0.0655**	**2.0200e-003**	**0.0676**	**0.0000**	**546.5723**	**546.5723**	**0.0262**	**0.0000**	**547.2279**

3.25 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4059	2.5857	5.6125	9.3900e-003		0.0532	0.0532		0.0532	0.0532	0.0000	800.8115	800.8115	0.0325	0.0000	801.6236
Total	**0.4059**	**2.5857**	**5.6125**	**9.3900e-003**	**0.4152**	**0.0532**	**0.4684**	**0.0448**	**0.0532**	**0.0980**	**0.0000**	**800.8115**	**800.8115**	**0.0325**	**0.0000**	**801.6236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0201	0.5822	0.2353	3.1600e-003	0.0807	1.1600e-003	0.0819	0.0222	1.1100e-003	0.0233	0.0000	312.8642	312.8642	0.0198	0.0000	313.3597
Vendor	1.0800e-003	0.0280	0.0105	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.0993	18.0993	7.1000e-004	0.0000	18.1171
Worker	0.0112	6.2600e-003	0.0878	4.1000e-004	0.0606	2.6000e-004	0.0609	0.0161	2.4000e-004	0.0163	0.0000	37.2568	37.2568	5.1000e-004	0.0000	37.2697
Total	**0.0323**	**0.6165**	**0.3336**	**3.7600e-003**	**0.1472**	**1.4800e-003**	**0.1487**	**0.0400**	**1.4100e-003**	**0.0414**	**0.0000**	**368.2203**	**368.2203**	**0.0210**	**0.0000**	**368.7465**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	9.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	800.8105	800.8105	0.0325	0.0000	801.6226
Total	**0.1140**	**0.5384**	**5.7392**	**9.3900e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**800.8105**	**800.8105**	**0.0325**	**0.0000**	**801.6226**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0201	0.5822	0.2353	3.1600e-003	0.0807	1.1600e-003	0.0819	0.0222	1.1100e-003	0.0233	0.0000	312.8642	312.8642	0.0198	0.0000	313.3597
Vendor	1.0800e-003	0.0280	0.0105	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.0993	18.0993	7.1000e-004	0.0000	18.1171
Worker	0.0112	6.2600e-003	0.0878	4.1000e-004	0.0606	2.6000e-004	0.0609	0.0161	2.4000e-004	0.0163	0.0000	37.2568	37.2568	5.1000e-004	0.0000	37.2697
Total	**0.0323**	**0.6165**	**0.3336**	**3.7600e-003**	**0.1472**	**1.4800e-003**	**0.1487**	**0.0400**	**1.4100e-003**	**0.0414**	**0.0000**	**368.2203**	**368.2203**	**0.0210**	**0.0000**	**368.7465**

3.26 Plot 11 (2032) Building-Wet Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7598	2.6973	9.0461	0.0194		0.0879	0.0879		0.0879	0.0879	0.0000	1,719.6046	1,719.6046	0.0605	0.0000	1,721.1175
Total	**0.7598**	**2.6973**	**9.0461**	**0.0194**	**1.2450**	**0.0879**	**1.3329**	**0.1344**	**0.0879**	**0.2223**	**0.0000**	**1,719.6046**	**1,719.6046**	**0.0605**	**0.0000**	**1,721.1175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8500e-003	0.1698	0.0686	9.2000e-004	0.0235	3.4000e-004	0.0239	6.4600e-003	3.2000e-004	6.7800e-003	0.0000	91.2521	91.2521	5.7800e-003	0.0000	91.3966
Vendor	8.1100e-003	0.2098	0.0785	1.4000e-003	0.0444	4.5000e-004	0.0449	0.0128	4.3000e-004	0.0132	0.0000	135.7447	135.7447	5.3300e-003	0.0000	135.8780
Worker	0.0112	6.2600e-003	0.0878	4.1000e-004	0.0606	2.6000e-004	0.0609	0.0161	2.4000e-004	0.0163	0.0000	37.2568	37.2568	5.1000e-004	0.0000	37.2697
Total	**0.0251**	**0.3859**	**0.2349**	**2.7300e-003**	**0.1286**	**1.0500e-003**	**0.1296**	**0.0354**	**9.9000e-004**	**0.0363**	**0.0000**	**264.2536**	**264.2536**	**0.0116**	**0.0000**	**264.5442**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2867	0.9881	10.2447	0.0194		0.0326	0.0326		0.0326	0.0326	0.0000	1,719.6025	1,719.6025	0.0605	0.0000	1,721.1154
Total	**0.2867**	**0.9881**	**10.2447**	**0.0194**	**0.4856**	**0.0326**	**0.5181**	**0.0524**	**0.0326**	**0.0850**	**0.0000**	**1,719.6025**	**1,719.6025**	**0.0605**	**0.0000**	**1,721.1154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8500e-003	0.1698	0.0686	9.2000e-004	0.0235	3.4000e-004	0.0239	6.4600e-003	3.2000e-004	6.7800e-003	0.0000	91.2521	91.2521	5.7800e-003	0.0000	91.3966
Vendor	8.1100e-003	0.2098	0.0785	1.4000e-003	0.0444	4.5000e-004	0.0449	0.0128	4.3000e-004	0.0132	0.0000	135.7447	135.7447	5.3300e-003	0.0000	135.8780
Worker	0.0112	6.2600e-003	0.0878	4.1000e-004	0.0606	2.6000e-004	0.0609	0.0161	2.4000e-004	0.0163	0.0000	37.2568	37.2568	5.1000e-004	0.0000	37.2697
Total	**0.0251**	**0.3859**	**0.2349**	**2.7300e-003**	**0.1286**	**1.0500e-003**	**0.1296**	**0.0354**	**9.9000e-004**	**0.0363**	**0.0000**	**264.2536**	**264.2536**	**0.0116**	**0.0000**	**264.5442**

3.27 Plot 11 (2032) Building-Electrical - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5120	2.8850	5.8981	9.0700e-003		0.0464	0.0464		0.0464	0.0464	0.0000	746.6612	746.6612	0.0412	0.0000	747.6920
Total	**0.5120**	**2.8850**	**5.8981**	**9.0700e-003**	**0.8298**	**0.0464**	**0.8763**	**0.0896**	**0.0464**	**0.1360**	**0.0000**	**746.6612**	**746.6612**	**0.0412**	**0.0000**	**747.6920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.3882	0.1569	2.1100e-003	0.0538	7.7000e-004	0.0546	0.0148	7.4000e-004	0.0155	0.0000	208.5761	208.5761	0.0132	0.0000	208.9065
Vendor	3.2500e-003	0.0839	0.0314	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.2979	54.2979	2.1300e-003	0.0000	54.3512
Worker	6.7000e-003	3.7600e-003	0.0527	2.5000e-004	0.0364	1.5000e-004	0.0365	9.6600e-003	1.4000e-004	9.8000e-003	0.0000	22.3541	22.3541	3.1000e-004	0.0000	22.3618
Total	**0.0233**	**0.4758**	**0.2409**	**2.9200e-003**	**0.1079**	**1.1000e-003**	**0.1090**	**0.0296**	**1.0500e-003**	**0.0306**	**0.0000**	**285.2281**	**285.2281**	**0.0157**	**0.0000**	**285.6195**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	1.4057	5.6710	9.0700e-003		0.0186	0.0186		0.0186	0.0186	0.0000	746.6603	746.6603	0.0412	0.0000	747.6911
Total	**0.1888**	**1.4057**	**5.6710**	**9.0700e-003**	**0.3236**	**0.0186**	**0.3423**	**0.0350**	**0.0186**	**0.0536**	**0.0000**	**746.6603**	**746.6603**	**0.0412**	**0.0000**	**747.6911**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.3882	0.1569	2.1100e-003	0.0538	7.7000e-004	0.0546	0.0148	7.4000e-004	0.0155	0.0000	208.5761	208.5761	0.0132	0.0000	208.9065
Vendor	3.2500e-003	0.0839	0.0314	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.2979	54.2979	2.1300e-003	0.0000	54.3512
Worker	6.7000e-003	3.7600e-003	0.0527	2.5000e-004	0.0364	1.5000e-004	0.0365	9.6600e-003	1.4000e-004	9.8000e-003	0.0000	22.3541	22.3541	3.1000e-004	0.0000	22.3618
Total	**0.0233**	**0.4758**	**0.2409**	**2.9200e-003**	**0.1079**	**1.1000e-003**	**0.1090**	**0.0296**	**1.0500e-003**	**0.0306**	**0.0000**	**285.2281**	**285.2281**	**0.0157**	**0.0000**	**285.6195**

3.28 Plot 11 (2032) Building-Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3809	1.7630	4.5693	7.5300e-003		0.0476	0.0476		0.0476	0.0476	0.0000	632.2258	632.2258	0.0305	0.0000	632.9889
Total	**0.3809**	**1.7630**	**4.5693**	**7.5300e-003**	**0.2073**	**0.0476**	**0.2549**	**0.0224**	**0.0476**	**0.0700**	**0.0000**	**632.2258**	**632.2258**	**0.0305**	**0.0000**	**632.9889**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7900e-003	0.0979	0.0366	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.3475	63.3475	2.4900e-003	0.0000	63.4097
Worker	4.4700e-003	2.5000e-003	0.0351	1.6000e-004	0.0243	1.0000e-004	0.0244	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.9027	14.9027	2.1000e-004	0.0000	14.9079
Total	**8.2600e-003**	**0.1004**	**0.0717**	**8.1000e-004**	**0.0450**	**3.1000e-004**	**0.0453**	**0.0124**	**2.9000e-004**	**0.0127**	**0.0000**	**78.2503**	**78.2503**	**2.7000e-003**	**0.0000**	**78.3176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1966	1.6397	4.7632	7.5300e-003		0.0258	0.0258		0.0258	0.0258	0.0000	632.2251	632.2251	0.0305	0.0000	632.9882
Total	**0.1966**	**1.6397**	**4.7632**	**7.5300e-003**	**0.0809**	**0.0258**	**0.1067**	**8.7300e-003**	**0.0258**	**0.0345**	**0.0000**	**632.2251**	**632.2251**	**0.0305**	**0.0000**	**632.9882**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7900e-003	0.0979	0.0366	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.3475	63.3475	2.4900e-003	0.0000	63.4097
Worker	4.4700e-003	2.5000e-003	0.0351	1.6000e-004	0.0243	1.0000e-004	0.0244	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.9027	14.9027	2.1000e-004	0.0000	14.9079
Total	**8.2600e-003**	**0.1004**	**0.0717**	**8.1000e-004**	**0.0450**	**3.1000e-004**	**0.0453**	**0.0124**	**2.9000e-004**	**0.0127**	**0.0000**	**78.2503**	**78.2503**	**2.7000e-003**	**0.0000**	**78.3176**

3.29 Plot 11 (2032) Landscaping - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4020	1.8242	4.8891	8.1100e-003		0.0502	0.0502		0.0502	0.0502	0.0000	681.5769	681.5769	0.0322	0.0000	682.3813
Total	**0.4020**	**1.8242**	**4.8891**	**8.1100e-003**	**0.2073**	**0.0502**	**0.2576**	**0.0224**	**0.0502**	**0.0726**	**0.0000**	**681.5769**	**681.5769**	**0.0322**	**0.0000**	**682.3813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0839	0.0314	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.2979	54.2979	2.1300e-003	0.0000	54.3512
Worker	4.4700e-003	2.5000e-003	0.0351	1.6000e-004	0.0243	1.0000e-004	0.0244	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.9027	14.9027	2.1000e-004	0.0000	14.9079
Total	**7.7200e-003**	**0.0864**	**0.0665**	**7.2000e-004**	**0.0420**	**2.8000e-004**	**0.0423**	**0.0116**	**2.6000e-004**	**0.0118**	**0.0000**	**69.2006**	**69.2006**	**2.3400e-003**	**0.0000**	**69.2591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2024	1.6645	5.1174	8.1100e-003		0.0266	0.0266		0.0266	0.0266	0.0000	681.5761	681.5761	0.0322	0.0000	682.3805
Total	**0.2024**	**1.6645**	**5.1174**	**8.1100e-003**	**0.0809**	**0.0266**	**0.1074**	**8.7300e-003**	**0.0266**	**0.0353**	**0.0000**	**681.5761**	**681.5761**	**0.0322**	**0.0000**	**682.3805**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0839	0.0314	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.2979	54.2979	2.1300e-003	0.0000	54.3512
Worker	4.4700e-003	2.5000e-003	0.0351	1.6000e-004	0.0243	1.0000e-004	0.0244	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.9027	14.9027	2.1000e-004	0.0000	14.9079
Total	**7.7200e-003**	**0.0864**	**0.0665**	**7.2000e-004**	**0.0420**	**2.8000e-004**	**0.0423**	**0.0116**	**2.6000e-004**	**0.0118**	**0.0000**	**69.2006**	**69.2006**	**2.3400e-003**	**0.0000**	**69.2591**

3.30 Plot 11 (2032) Curbing/Drive Approaches - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0362	0.1872	0.4106	7.1000e-004		8.1200e-003	8.1200e-003		8.1200e-003	8.1200e-003	0.0000	60.4189	60.4189	2.9200e-003	0.0000	60.4918
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1981**	**0.1872**	**0.4106**	**7.1000e-004**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**60.4189**	**60.4189**	**2.9200e-003**	**0.0000**	**60.4918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0484	0.0196	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.9887	25.9887	1.6500e-003	0.0000	26.0299
Vendor	6.7000e-004	0.0172	6.4400e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1380	11.1380	4.4000e-004	0.0000	11.1490
Worker	1.3700e-003	7.7000e-004	0.0108	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.5855	4.5855	6.0000e-005	0.0000	4.5870
Total	**3.7100e-003**	**0.0663**	**0.0368**	**4.2000e-004**	**0.0178**	**1.7000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**41.7122**	**41.7122**	**2.1500e-003**	**0.0000**	**41.7659**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	7.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	60.4188	60.4188	2.9200e-003	0.0000	60.4917
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**7.1000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**60.4188**	**60.4188**	**2.9200e-003**	**0.0000**	**60.4917**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0484	0.0196	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.9887	25.9887	1.6500e-003	0.0000	26.0299
Vendor	6.7000e-004	0.0172	6.4400e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1380	11.1380	4.4000e-004	0.0000	11.1490
Worker	1.3700e-003	7.7000e-004	0.0108	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.5855	4.5855	6.0000e-005	0.0000	4.5870
Total	**3.7100e-003**	**0.0663**	**0.0368**	**4.2000e-004**	**0.0178**	**1.7000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**41.7122**	**41.7122**	**2.1500e-003**	**0.0000**	**41.7659**

3.31 Plot 11 (2032) Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0957	0.4573	0.8601	1.9400e-003		0.0170	0.0170		0.0170	0.0170	0.0000	179.4461	179.4461	7.7300e-003	0.0000	179.6394
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2577**	**0.4573**	**0.8601**	**1.9400e-003**	**0.1273**	**0.0170**	**0.1443**	**0.0137**	**0.0170**	**0.0308**	**0.0000**	**179.4461**	**179.4461**	**7.7300e-003**	**0.0000**	**179.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4100e-003	0.0409	0.0165	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	21.9905	21.9905	1.3900e-003	0.0000	22.0253
Vendor	5.0000e-004	0.0129	4.8300e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3535	8.3535	3.3000e-004	0.0000	8.3617
Worker	1.7200e-003	9.6000e-004	0.0135	6.0000e-005	9.3300e-003	4.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5100e-003	0.0000	5.7318	5.7318	8.0000e-005	0.0000	5.7338
Total	**3.6300e-003**	**0.0548**	**0.0349**	**3.7000e-004**	**0.0177**	**1.5000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9600e-003**	**0.0000**	**36.0758**	**36.0758**	**1.8000e-003**	**0.0000**	**36.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0216	0.0951	1.0513	1.9400e-003		2.9700e-003	2.9700e-003		2.9700e-003	2.9700e-003	0.0000	179.4459	179.4459	7.7300e-003	0.0000	179.6392
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1835**	**0.0951**	**1.0513**	**1.9400e-003**	**0.0496**	**2.9700e-003**	**0.0526**	**5.3600e-003**	**2.9700e-003**	**8.3300e-003**	**0.0000**	**179.4459**	**179.4459**	**7.7300e-003**	**0.0000**	**179.6392**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4100e-003	0.0409	0.0165	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6400e-003	0.0000	21.9905	21.9905	1.3900e-003	0.0000	22.0253
Vendor	5.0000e-004	0.0129	4.8300e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3535	8.3535	3.3000e-004	0.0000	8.3617
Worker	1.7200e-003	9.6000e-004	0.0135	6.0000e-005	9.3300e-003	4.0000e-005	9.3700e-003	2.4800e-003	4.0000e-005	2.5100e-003	0.0000	5.7318	5.7318	8.0000e-005	0.0000	5.7338
Total	**3.6300e-003**	**0.0548**	**0.0349**	**3.7000e-004**	**0.0177**	**1.5000e-004**	**0.0179**	**4.8300e-003**	**1.5000e-004**	**4.9600e-003**	**0.0000**	**36.0758**	**36.0758**	**1.8000e-003**	**0.0000**	**36.1208**

3.32 Plot 11 (2032) Temporary Utilities - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0821	0.2578	0.4032	1.8500e-003		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	190.6814	190.6814	6.7100e-003	0.0000	190.8491
Total	**0.0821**	**0.2578**	**0.4032**	**1.8500e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**190.6814**	**190.6814**	**6.7100e-003**	**0.0000**	**190.8491**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8500e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	190.6811	190.6811	6.7100e-003	0.0000	190.8489
Total	**0.0222**	**0.0962**	**0.8137**	**1.8500e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**190.6811**	**190.6811**	**6.7100e-003**	**0.0000**	**190.8489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

World Logistics Center-Construction Plots 12 and 6 (2033-2035) - South Coast AQMD Air District, Annual

World Logistics Center-Construction Plots 12 and 6 (2033-2035)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2033	7.2225	30.7812	58.3917	0.1625	9.2204	0.8330	10.0534	1.1361	0.8326	1.9687	0.0000	15,268.9273	15,268.9273	0.6326	0.0000	15,284.7427
2034	5.2387	21.7752	48.8107	0.1248	7.0958	0.5020	7.5978	0.8899	0.5016	1.3915	0.0000	11,433.3294	11,433.3294	0.4658	0.0000	11,444.9744
2035	6.0824	22.9875	54.7502	0.1474	8.5416	0.5005	9.0421	1.0526	0.5002	1.5528	0.0000	13,723.4253	13,723.4253	0.5237	0.0000	13,736.5175
Maximum	**7.2225**	**30.7812**	**58.3917**	**0.1625**	**9.2204**	**0.8330**	**10.0534**	**1.1361**	**0.8326**	**1.9687**	**0.0000**	**15,268.9273**	**15,268.9273**	**0.6326**	**0.0000**	**15,284.7427**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2033	3.0409	15.1376	71.6528	0.1625	4.1134	0.2967	4.4101	0.5847	0.2963	0.8810	0.0000	15,268.9113	15,268.9113	0.6326	0.0000	15,284.7267
2034	2.5920	13.0291	55.4729	0.1248	3.2215	0.2391	3.4606	0.4715	0.2388	0.7103	0.0000	11,433.3178	11,433.3178	0.4658	0.0000	11,444.9627
2035	2.7917	13.5154	65.8902	0.1474	3.8105	0.2457	4.0561	0.5417	0.2453	0.7871	0.0000	13,723.4109	13,723.4109	0.5237	0.0000	13,736.5031
Maximum	**3.0409**	**15.1376**	**71.6528**	**0.1625**	**4.1134**	**0.2967**	**4.4101**	**0.5847**	**0.2963**	**0.8810**	**0.0000**	**15,268.9113**	**15,268.9113**	**0.6326**	**0.0000**	**15,284.7267**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**54.57**	**44.82**	**-19.18**	**0.00**	**55.16**	**57.42**	**55.32**	**48.09**	**57.46**	**51.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
53	**1-1-2033**	**3-31-2033**	11.7781	4.9461
54	**4-1-2033**	**6-30-2033**	12.4227	5.2905
55	**7-1-2033**	**9-30-2033**	7.2158	4.1178
56	**10-1-2033**	**12-31-2033**	6.5309	3.7679
57	**1-1-2034**	**3-31-2034**	6.2844	3.6613
58	**4-1-2034**	**6-30-2034**	7.0049	4.0503
59	**7-1-2034**	**9-30-2034**	7.1492	4.0971
60	**10-1-2034**	**12-31-2034**	6.5959	3.8024
61	**1-1-2035**	**3-31-2035**	8.2788	4.2902
62	**4-1-2035**	**6-30-2035**	8.8039	4.6244
63	**7-1-2035**	**9-30-2035**	6.2217	3.8359
		Highest	12.4227	5.2905

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 12 (2033) Mass Excavation	Grading	1/1/2033	7/1/2033	5	130	1235
2	Plot 12 (2033) Finish Grading	Grading	1/1/2033	2/25/2033	5	40	1236
3	Plot 12 (2033) Utilities	Trenching	1/1/2033	12/30/2033	5	260	1241
4	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
5	Plot 12 (2033) Building-Wet Utilities	Building Construction	1/1/2033	12/30/2033	5	260	1238
6	Plot 12 (2033) Building-Electrical	Building Construction	1/1/2033	12/30/2033	5	260	1239
7	Plot 12 (2033) Building-Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1240
8	Plot 12 (2033) Landscaping	Building Construction	1/1/2033	12/30/2033	5	260	1242
9	Plot 12 (2033) Curbing/Drive Approaches	Paving	5/1/2033	8/20/2033	5	80	1244
10	Plot 12 (2033) Paving	Paving	6/1/2033	7/26/2033	5	40	1245
11	Plot 12 (2033) Temporary Utilities	Building Construction	7/2/2033	12/30/2033	5	130	1243
12	Plot 12 (2034) Utilities	Trenching	1/1/2034	12/31/2034	5	260	1250
13	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
14	Plot 12 (2034) Building-Wet Utilities	Building Construction	1/1/2034	12/31/2034	5	260	1247
15	Plot 12 (2034) Building-Electrical	Building Construction	1/1/2034	12/31/2034	5	260	1248
16	Plot 12 (2034) Building-Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1249
17	Plot 12 (2034) Landscaping	Building Construction	1/1/2034	12/31/2034	5	260	1251

18	Plot 12 (2034) Curbing/Drive Approaches	Paving	5/1/2034	8/20/2034	5	80	1253
19	Plot 12 (2034) Paving	Paving	6/1/2034	7/26/2034	5	40	1254
20	Plot 12 (2034) Temporary Utilities	Building Construction	7/2/2034	12/31/2034	5	130	1252
21	Plot 6 (2035) Mass Excavation	Grading	1/1/2035	6/30/2035	5	130	1255
22	Plot 6 (2035) Finish Grading	Grading	1/1/2035	2/25/2035	5	40	1256
23	Plot 6 (2035) Utilities	Trenching	1/1/2035	12/29/2035	5	260	1261
24	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257
25	Plot 6 (2035) Building-Wet Utilities	Building Construction	1/1/2035	12/29/2035	5	260	1258
26	Plot 6 (2035) Building-Electrical	Building Construction	1/1/2035	12/29/2035	5	260	1259
27	Plot 6 (2035) Building-Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1260
28	Plot 6 (2035) Landscaping	Building Construction	1/1/2035	12/29/2035	5	260	1262
29	Plot 6 (2035) Curbing/Drive Approaches	Paving	5/1/2035	8/20/2035	5	80	1264
30	Plot 6 (2035) Paving	Paving	6/1/2035	7/26/2035	5	40	1265
31	Plot 6 (2035) Temporary Utilities	Building Construction	7/2/2035	12/29/2035	5	130	1263

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 12 (2033) Mass Excavation	Graders	1	10.00	193	0.41
Plot 12 (2033) Mass Excavation	Off-Highway Trucks	1	10.00	400	0.38
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Plate Compactors	1	10.00	354	0.43
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	580	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	410	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	305	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Mass Excavation	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Mass Excavation	Scrapers	3	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Scrapers	9	10.00	550	0.48
Plot 12 (2033) Mass Excavation	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Other Material Handling Equipment	1	1.00	167	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	1	10.00	140	0.40
Plot 12 (2033) Finish Grading	Rubber Tired Dozers	2	10.00	85	0.40
Plot 12 (2033) Finish Grading	Tractors/Loaders/Backhoes	1	10.00	85	0.37
Plot 12 (2033) Utilities	Cement and Mortar Mixers	8	1.00	9	0.56
Plot 12 (2033) Utilities	Excavators	2	10.00	523	0.38
Plot 12 (2033) Utilities	Excavators	10	10.00	286	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	4	10.00	396	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	190	0.38
Plot 12 (2033) Utilities	Excavators	2	10.00	188	0.38
Plot 12 (2033) Utilities	Excavators	8	10.00	40	0.38

Plot 12 (2033) Utilities	Forklifts		4	10.00	89	0.20
Plot 12 (2033) Utilities	Other Material Handling Equipment		7	1.00	167	0.40
Plot 12 (2033) Utilities	Other Material Handling Equipment		18	1.00	167	0.40
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes		2	10.00	85	0.37
Plot 12 (2033) Utilities	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers		24	1.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment		2	1.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps		2	10.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes		4	10.00	85	0.37
Plot 12 (2033) Building-Wet Utilities	Excavators		2	10.00	300	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators		2	10.00	179	0.38
Plot 12 (2033) Building-Wet Utilities	Excavators		2	10.00	173	0.38
Plot 12 (2033) Building-Wet Utilities	Other Material Handling Equipment		15	1.00	167	0.40
Plot 12 (2033) Building-Wet Utilities	Rubber Tired Loaders		6	10.00	152	0.36
Plot 12 (2033) Building-Wet Utilities	Tractors/Loaders/Backhoes		6	10.00	108	0.37
Plot 12 (2033) Building-Electrical	Cement and Mortar Mixers		12	1.00	9	0.56
Plot 12 (2033) Building-Electrical	Excavators		8	10.00	40	0.38
Plot 12 (2033) Building-Electrical	Forklifts		4	10.00	89	0.20
Plot 12 (2033) Building-Electrical	Other Material Handling Equipment		6	1.00	167	0.40
Plot 12 (2033) Building-Electrical	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plot 12 (2033) Building-Landscaping	Excavators		2	10.00	29	0.38
Plot 12 (2033) Building-Landscaping	Forklifts		2	10.00	125	0.20
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment		3	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Other Material Handling Equipment		4	1.00	167	0.40
Plot 12 (2033) Building-Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plot 12 (2033) Building-Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plot 12 (2033) Building-Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plot 12 (2033) Building-Landscaping	Trenchers		2	10.00	39	0.50

Plot 12 (2033) Landscaping	Excavators		2	10.00	29	0.38
Plot 12 (2033) Landscaping	Forklifts		2	10.00	125	0.20
Plot 12 (2033) Landscaping	Other Material Handling Equipment		2	1.00	167	0.40
Plot 12 (2033) Landscaping	Other Material Handling Equipment		10	1.00	167	0.40
Plot 12 (2033) Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plot 12 (2033) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plot 12 (2033) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plot 12 (2033) Landscaping	Trenchers		2	10.00	39	0.50
Plot 12 (2033) Curbing/Drive Approaches	Cement and Mortar Mixers		6	1.00	9	0.56
Plot 12 (2033) Curbing/Drive Approaches	Other Material Handling Equipment		4	1.00	167	0.40
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment		1	10.00	99	0.36
Plot 12 (2033) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plot 12 (2033) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plot 12 (2033) Paving	Other Material Handling Equipment		6	1.00	167	0.40
Plot 12 (2033) Paving	Pavers		2	10.00	126	0.42
Plot 12 (2033) Paving	Paving Equipment		2	10.00	131	0.36
Plot 12 (2033) Paving	Plate Compactors		2	10.00	8	0.43
Plot 12 (2033) Paving	Rollers		2	10.00	81	0.38
Plot 12 (2033) Paving	Scrapers		2	10.00	362	0.48
Plot 12 (2033) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plot 12 (2033) Temporary Utilities	Cranes		2	10.00	445	0.29
Plot 12 (2034) Utilities	Cement and Mortar Mixers		8	1.00	9	0.56
Plot 12 (2034) Utilities	Excavators		2	10.00	523	0.38
Plot 12 (2034) Utilities	Excavators		10	10.00	286	0.38
Plot 12 (2034) Utilities	Excavators		2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators		4	10.00	396	0.38
Plot 12 (2034) Utilities	Excavators		2	10.00	190	0.38
Plot 12 (2034) Utilities	Excavators		2	10.00	188	0.38
Plot 12 (2034) Utilities	Excavators		8	10.00	40	0.38

Plot 12 (2034) Utilities	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Utilities	Other Material Handling Equipment	7	1.00	167	0.40
Plot 12 (2034) Utilities	Other Material Handling Equipment	18	1.00	167	0.40
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	2	10.00	85	0.37
Plot 12 (2034) Utilities	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	1.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	1.00	167	0.40
Plot 12 (2034) Building-Concrete	Pumps	2	10.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	10.00	85	0.37
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	300	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 12 (2034) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 12 (2034) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 12 (2034) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 12 (2034) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 12 (2034) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 12 (2034) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 12 (2034) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 12 (2034) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 12 (2034) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 12 (2034) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 12 (2034) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 12 (2034) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 12 (2034) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 12 (2034) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 12 (2034) Building-Landscaping	Trenchers	2	10.00	39	0.50

Plot 12 (2034) Landscaping	Excavators		2	10.00	29	0.38
Plot 12 (2034) Landscaping	Forklifts		2	10.00	125	0.20
Plot 12 (2034) Landscaping	Other Material Handling Equipment		2	1.00	167	0.40
Plot 12 (2034) Landscaping	Other Material Handling Equipment		10	1.00	167	0.40
Plot 12 (2034) Landscaping	Rubber Tired Loaders		2	10.00	149	0.36
Plot 12 (2034) Landscaping	Skid Steer Loaders		2	10.00	69	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plot 12 (2034) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plot 12 (2034) Landscaping	Trenchers		2	10.00	39	0.50
Plot 12 (2034) Curbing/Drive Approaches	Cement and Mortar Mixers		6	1.00	9	0.56
Plot 12 (2034) Curbing/Drive Approaches	Other Material Handling Equipment		4	1.00	167	0.40
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment		1	10.00	99	0.36
Plot 12 (2034) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plot 12 (2034) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plot 12 (2034) Paving	Other Material Handling Equipment		6	1.00	167	0.40
Plot 12 (2034) Paving	Pavers		2	10.00	126	0.42
Plot 12 (2034) Paving	Paving Equipment		2	10.00	131	0.36
Plot 12 (2034) Paving	Plate Compactors		2	10.00	8	0.43
Plot 12 (2034) Paving	Rollers		2	10.00	81	0.38
Plot 12 (2034) Paving	Scrapers		2	10.00	362	0.48
Plot 12 (2034) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plot 12 (2034) Temporary Utilities	Cranes		2	10.00	445	0.29
Plot 6 (2035) Mass Excavation	Graders		1	10.00	193	0.41
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment		4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Other Material Handling Equipment		4	1.00	167	0.40
Plot 6 (2035) Mass Excavation	Plate Compactors		1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Plate Compactors		1	10.00	354	0.43
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers		2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers		2	10.00	580	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers		2	10.00	410	0.40

Plot 6 (2035) Mass Excavation	Rubber Tired Dozers		1	10.00	305	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers		1	10.00	140	0.40
Plot 6 (2035) Mass Excavation	Rubber Tired Dozers		2	10.00	85	0.40
Plot 6 (2035) Mass Excavation	Scrapers		0	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Scrapers		6	10.00	550	0.48
Plot 6 (2035) Mass Excavation	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plot 6 (2035) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Other Material Handling Equipment		1	1.00	167	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers		1	10.00	140	0.40
Plot 6 (2035) Finish Grading	Rubber Tired Dozers		2	10.00	85	0.40
Plot 6 (2035) Finish Grading	Tractors/Loaders/Backhoes		1	10.00	85	0.37
Plot 6 (2035) Utilities	Cement and Mortar Mixers		8	1.00	9	0.56
Plot 6 (2035) Utilities	Excavators		2	10.00	523	0.38
Plot 6 (2035) Utilities	Excavators		10	10.00	286	0.38
Plot 6 (2035) Utilities	Excavators		2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators		4	10.00	396	0.38
Plot 6 (2035) Utilities	Excavators		2	10.00	190	0.38
Plot 6 (2035) Utilities	Excavators		2	10.00	188	0.38
Plot 6 (2035) Utilities	Excavators		8	10.00	40	0.38
Plot 6 (2035) Utilities	Forklifts		4	10.00	89	0.20
Plot 6 (2035) Utilities	Other Material Handling Equipment		7	1.00	167	0.40
Plot 6 (2035) Utilities	Other Material Handling Equipment		18	1.00	167	0.40
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes		2	10.00	85	0.37
Plot 6 (2035) Utilities	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers		24	1.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment		2	1.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps		2	10.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes		8	10.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes		4	10.00	85	0.37
Plot 6 (2035) Building-Wet Utilities	Excavators		2	10.00	300	0.38

Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	179	0.38
Plot 6 (2035) Building-Wet Utilities	Excavators	2	10.00	173	0.38
Plot 6 (2035) Building-Wet Utilities	Other Material Handling Equipment	15	1.00	167	0.40
Plot 6 (2035) Building-Wet Utilities	Rubber Tired Loaders	6	10.00	152	0.36
Plot 6 (2035) Building-Wet Utilities	Tractors/Loaders/Backhoes	6	10.00	108	0.37
Plot 6 (2035) Building-Electrical	Cement and Mortar Mixers	12	1.00	9	0.56
Plot 6 (2035) Building-Electrical	Excavators	8	10.00	40	0.38
Plot 6 (2035) Building-Electrical	Forklifts	4	10.00	89	0.20
Plot 6 (2035) Building-Electrical	Other Material Handling Equipment	6	1.00	167	0.40
Plot 6 (2035) Building-Electrical	Tractors/Loaders/Backhoes	8	10.00	90	0.37
Plot 6 (2035) Building-Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Building-Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	3	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Other Material Handling Equipment	4	1.00	167	0.40
Plot 6 (2035) Building-Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Building-Landscaping	Skid Steer Loaders	2	10.00	69	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	73	0.37
Plot 6 (2035) Building-Landscaping	Tractors/Loaders/Backhoes	2	10.00	78	0.37
Plot 6 (2035) Building-Landscaping	Trenchers	2	10.00	39	0.50
Plot 6 (2035) Landscaping	Excavators	2	10.00	29	0.38
Plot 6 (2035) Landscaping	Forklifts	2	10.00	125	0.20
Plot 6 (2035) Landscaping	Other Material Handling Equipment	2	1.00	167	0.40
Plot 6 (2035) Landscaping	Other Material Handling Equipment	10	1.00	167	0.40
Plot 6 (2035) Landscaping	Rubber Tired Loaders	2	10.00	149	0.36
Plot 6 (2035) Landscaping	Skid Steer Loaders	2	10.00	69	0.37

Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes		2	10.00	73	0.37
Plot 6 (2035) Landscaping	Tractors/Loaders/Backhoes		2	10.00	78	0.37
Plot 6 (2035) Landscaping	Trenchers		2	10.00	39	0.50
Plot 6 (2035) Curbing/Drive Approaches	Cement and Mortar Mixers		6	1.00	9	0.56
Plot 6 (2035) Curbing/Drive Approaches	Other Material Handling Equipment		4	1.00	167	0.40
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment		1	10.00	99	0.36
Plot 6 (2035) Curbing/Drive Approaches	Paving Equipment		1	10.00	131	0.36
Plot 6 (2035) Curbing/Drive Approaches	Tractors/Loaders/Backhoes		1	10.00	55	0.37
Plot 6 (2035) Paving	Other Material Handling Equipment		6	1.00	167	0.40
Plot 6 (2035) Paving	Pavers		2	10.00	126	0.42
Plot 6 (2035) Paving	Paving Equipment		2	10.00	131	0.36
Plot 6 (2035) Paving	Plate Compactors		2	10.00	8	0.43
Plot 6 (2035) Paving	Rollers		2	10.00	81	0.38
Plot 6 (2035) Paving	Scrapers		2	10.00	362	0.48
Plot 6 (2035) Paving	Tractors/Loaders/Backhoes		4	10.00	90	0.37
Plot 6 (2035) Temporary Utilities	Cranes		2	10.00	445	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 12 (2033) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Finish Grading		15.00	2.00	468.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

Plot 12 (2034) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Mass Excavation		50.00	9.00	1,705.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Finish Grading		15.00	2.00	520.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Utilities		40.00	25.00	6,260.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Wet Utilities		25.00	15.00	2,191.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Electrical		15.00	6.00	5,008.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Landscaping		10.00	7.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Landscaping		10.00	6.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Curbing/Drive		10.00	4.00	624.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Paving		25.00	6.00	528.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Temporary Utilities		0.00	0.00	0.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 12 (2033) Mass Excavation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9519	0.0000	1.9519	0.2108	0.0000	0.2108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9456	8.6649	9.2156	0.0356		0.3268	0.3268		0.3268	0.3268	0.0000	3,633.3776	3,633.3776	0.1572	0.0000	3,637.3084
Total	**1.9456**	**8.6649**	**9.2156**	**0.0356**	**1.9519**	**0.3268**	**2.2787**	**0.2108**	**0.3268**	**0.5376**	**0.0000**	**3,633.3776**	**3,633.3776**	**0.1572**	**0.0000**	**3,637.3084**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5400e-003	0.1309	0.0535	7.2000e-004	0.0183	2.6000e-004	0.0186	5.0300e-003	2.5000e-004	5.2800e-003	0.0000	70.8588	70.8588	4.4800e-003	0.0000	70.9709
Vendor	2.4200e-003	0.0623	0.0235	4.2000e-004	0.0133	1.3000e-004	0.0135	3.8400e-003	1.3000e-004	3.9700e-003	0.0000	40.6488	40.6488	1.5900e-003	0.0000	40.6887
Worker	0.0104	5.7900e-003	0.0831	4.0000e-004	0.0606	2.4000e-004	0.0609	0.0161	2.2000e-004	0.0163	0.0000	36.5914	36.5914	4.7000e-004	0.0000	36.6032
Total	**0.0174**	**0.1990**	**0.1601**	**1.5400e-003**	**0.0923**	**6.3000e-004**	**0.0929**	**0.0250**	**6.0000e-004**	**0.0256**	**0.0000**	**148.0990**	**148.0990**	**6.5400e-003**	**0.0000**	**148.2628**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7612	0.0000	0.7612	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4229	1.8324	15.8074	0.0356		0.0564	0.0564		0.0564	0.0564	0.0000	3,633.3733	3,633.3733	0.1572	0.0000	3,637.3041
Total	**0.4229**	**1.8324**	**15.8074**	**0.0356**	**0.7612**	**0.0564**	**0.8176**	**0.0822**	**0.0564**	**0.1386**	**0.0000**	**3,633.3733**	**3,633.3733**	**0.1572**	**0.0000**	**3,637.3041**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5400e-003	0.1309	0.0535	7.2000e-004	0.0183	2.6000e-004	0.0186	5.0300e-003	2.5000e-004	5.2800e-003	0.0000	70.8588	70.8588	4.4800e-003	0.0000	70.9709
Vendor	2.4200e-003	0.0623	0.0235	4.2000e-004	0.0133	1.3000e-004	0.0135	3.8400e-003	1.3000e-004	3.9700e-003	0.0000	40.6488	40.6488	1.5900e-003	0.0000	40.6887
Worker	0.0104	5.7900e-003	0.0831	4.0000e-004	0.0606	2.4000e-004	0.0609	0.0161	2.2000e-004	0.0163	0.0000	36.5914	36.5914	4.7000e-004	0.0000	36.6032
Total	**0.0174**	**0.1990**	**0.1601**	**1.5400e-003**	**0.0923**	**6.3000e-004**	**0.0929**	**0.0250**	**6.0000e-004**	**0.0256**	**0.0000**	**148.0990**	**148.0990**	**6.5400e-003**	**0.0000**	**148.2628**

3.3 Plot 12 (2033) Finish Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0689	0.0000	0.0689	7.4400e-003	0.0000	7.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.0765	0.1574	2.7000e-004		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	22.9161	22.9161	1.1900e-003	0.0000	22.9458
Total	**0.0149**	**0.0765**	**0.1574**	**2.7000e-004**	**0.0689**	**3.3200e-003**	**0.0723**	**7.4400e-003**	**3.3200e-003**	**0.0108**	**0.0000**	**22.9161**	**22.9161**	**1.1900e-003**	**0.0000**	**22.9458**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2500e-003	0.0359	0.0147	2.0000e-004	5.0300e-003	7.0000e-005	5.1000e-003	1.3800e-003	7.0000e-005	1.4500e-003	0.0000	19.4498	19.4498	1.2300e-003	0.0000	19.4806
Vendor	1.7000e-004	4.2600e-003	1.6100e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.7794	2.7794	1.1000e-004	0.0000	2.7821
Worker	9.6000e-004	5.3000e-004	7.6700e-003	4.0000e-005	5.6000e-003	2.0000e-005	5.6200e-003	1.4900e-003	2.0000e-005	1.5100e-003	0.0000	3.3777	3.3777	4.0000e-005	0.0000	3.3788
Total	**2.3800e-003**	**0.0407**	**0.0240**	**2.7000e-004**	**0.0115**	**1.0000e-004**	**0.0116**	**3.1300e-003**	**1.0000e-004**	**3.2300e-003**	**0.0000**	**25.6069**	**25.6069**	**1.3800e-003**	**0.0000**	**25.6415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0269	0.0000	0.0269	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0116	0.1645	2.7000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	22.9161	22.9161	1.1900e-003	0.0000	22.9458
Total	**2.6700e-003**	**0.0116**	**0.1645**	**2.7000e-004**	**0.0269**	**3.6000e-004**	**0.0272**	**2.9000e-003**	**3.6000e-004**	**3.2600e-003**	**0.0000**	**22.9161**	**22.9161**	**1.1900e-003**	**0.0000**	**22.9458**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2500e-003	0.0359	0.0147	2.0000e-004	5.0300e-003	7.0000e-005	5.1000e-003	1.3800e-003	7.0000e-005	1.4500e-003	0.0000	19.4498	19.4498	1.2300e-003	0.0000	19.4806
Vendor	1.7000e-004	4.2600e-003	1.6100e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.7794	2.7794	1.1000e-004	0.0000	2.7821
Worker	9.6000e-004	5.3000e-004	7.6700e-003	4.0000e-005	5.6000e-003	2.0000e-005	5.6200e-003	1.4900e-003	2.0000e-005	1.5100e-003	0.0000	3.3777	3.3777	4.0000e-005	0.0000	3.3788
Total	**2.3800e-003**	**0.0407**	**0.0240**	**2.7000e-004**	**0.0115**	**1.0000e-004**	**0.0116**	**3.1300e-003**	**1.0000e-004**	**3.2300e-003**	**0.0000**	**25.6069**	**25.6069**	**1.3800e-003**	**0.0000**	**25.6415**

3.4 Plot 12 (2033) Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0961	6.5394	15.6831	0.0496		0.1766	0.1766		0.1766	0.1766	0.0000	4,744.5188	4,744.5188	0.1690	0.0000	4,748.7426
Total	**2.0961**	**6.5394**	**15.6831**	**0.0496**	**3.3194**	**0.1766**	**3.4959**	**0.3584**	**0.1766**	**0.5350**	**0.0000**	**4,744.5188**	**4,744.5188**	**0.1690**	**0.0000**	**4,748.7426**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0167	0.4804	0.1965	2.6300e-003	0.0673	9.5000e-004	0.0682	0.0185	9.1000e-004	0.0194	0.0000	260.1621	260.1621	0.0165	0.0000	260.5735
Vendor	0.0134	0.3463	0.1305	2.3200e-003	0.0740	7.5000e-004	0.0748	0.0213	7.2000e-004	0.0221	0.0000	225.8269	225.8269	8.8500e-003	0.0000	226.0481
Worker	0.0167	9.2600e-003	0.1330	6.5000e-004	0.0970	3.8000e-004	0.0974	0.0258	3.5000e-004	0.0261	0.0000	58.5462	58.5462	7.6000e-004	0.0000	58.5651
Total	**0.0468**	**0.8360**	**0.4599**	**5.6000e-003**	**0.2382**	**2.0800e-003**	**0.2403**	**0.0655**	**1.9800e-003**	**0.0675**	**0.0000**	**544.5351**	**544.5351**	**0.0261**	**0.0000**	**545.1867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0815	3.9356	20.1989	0.0496		0.1040	0.1040		0.1040	0.1040	0.0000	4,744.5131	4,744.5131	0.1690	0.0000	4,748.7370
Total	**1.0815**	**3.9356**	**20.1989**	**0.0496**	**1.2946**	**0.1040**	**1.3986**	**0.1398**	**0.1040**	**0.2438**	**0.0000**	**4,744.5131**	**4,744.5131**	**0.1690**	**0.0000**	**4,748.7370**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0167	0.4804	0.1965	2.6300e-003	0.0673	9.5000e-004	0.0682	0.0185	9.1000e-004	0.0194	0.0000	260.1621	260.1621	0.0165	0.0000	260.5735
Vendor	0.0134	0.3463	0.1305	2.3200e-003	0.0740	7.5000e-004	0.0748	0.0213	7.2000e-004	0.0221	0.0000	225.8269	225.8269	8.8500e-003	0.0000	226.0481
Worker	0.0167	9.2600e-003	0.1330	6.5000e-004	0.0970	3.8000e-004	0.0974	0.0258	3.5000e-004	0.0261	0.0000	58.5462	58.5462	7.6000e-004	0.0000	58.5651
Total	**0.0468**	**0.8360**	**0.4599**	**5.6000e-003**	**0.2382**	**2.0800e-003**	**0.2403**	**0.0655**	**1.9800e-003**	**0.0675**	**0.0000**	**544.5351**	**544.5351**	**0.0261**	**0.0000**	**545.1867**

3.5 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4059	2.5857	5.6125	9.3900e-003		0.0532	0.0532		0.0532	0.0532	0.0000	800.8115	800.8115	0.0325	0.0000	801.6236
Total	**0.4059**	**2.5857**	**5.6125**	**9.3900e-003**	**0.4152**	**0.0532**	**0.4684**	**0.0448**	**0.0532**	**0.0980**	**0.0000**	**800.8115**	**800.8115**	**0.0325**	**0.0000**	**801.6236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0200	0.5765	0.2358	3.1500e-003	0.0807	1.1500e-003	0.0819	0.0222	1.1000e-003	0.0233	0.0000	312.1945	312.1945	0.0198	0.0000	312.6882
Vendor	1.0700e-003	0.0277	0.0104	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.0662	18.0662	7.1000e-004	0.0000	18.0839
Worker	0.0104	5.7900e-003	0.0831	4.0000e-004	0.0606	2.4000e-004	0.0609	0.0161	2.2000e-004	0.0163	0.0000	36.5914	36.5914	4.7000e-004	0.0000	36.6032
Total	**0.0315**	**0.6100**	**0.3294**	**3.7400e-003**	**0.1472**	**1.4500e-003**	**0.1487**	**0.0400**	**1.3800e-003**	**0.0413**	**0.0000**	**366.8520**	**366.8520**	**0.0209**	**0.0000**	**367.3753**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	9.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	800.8105	800.8105	0.0325	0.0000	801.6226
Total	**0.1140**	**0.5384**	**5.7392**	**9.3900e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**800.8105**	**800.8105**	**0.0325**	**0.0000**	**801.6226**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0200	0.5765	0.2358	3.1500e-003	0.0807	1.1500e-003	0.0819	0.0222	1.1000e-003	0.0233	0.0000	312.1945	312.1945	0.0198	0.0000	312.6882
Vendor	1.0700e-003	0.0277	0.0104	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.0662	18.0662	7.1000e-004	0.0000	18.0839
Worker	0.0104	5.7900e-003	0.0831	4.0000e-004	0.0606	2.4000e-004	0.0609	0.0161	2.2000e-004	0.0163	0.0000	36.5914	36.5914	4.7000e-004	0.0000	36.6032
Total	**0.0315**	**0.6100**	**0.3294**	**3.7400e-003**	**0.1472**	**1.4500e-003**	**0.1487**	**0.0400**	**1.3800e-003**	**0.0413**	**0.0000**	**366.8520**	**366.8520**	**0.0209**	**0.0000**	**367.3753**

3.6 Plot 12 (2033) Building-Wet Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7598	2.6973	9.0461	0.0194		0.0879	0.0879		0.0879	0.0879	0.0000	1,719.6046	1,719.6046	0.0605	0.0000	1,721.1175
Total	**0.7598**	**2.6973**	**9.0461**	**0.0194**	**1.2450**	**0.0879**	**1.3329**	**0.1344**	**0.0879**	**0.2223**	**0.0000**	**1,719.6046**	**1,719.6046**	**0.0605**	**0.0000**	**1,721.1175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8300e-003	0.1682	0.0688	9.2000e-004	0.0235	3.3000e-004	0.0239	6.4600e-003	3.2000e-004	6.7800e-003	0.0000	91.0567	91.0567	5.7600e-003	0.0000	91.2007
Vendor	8.0600e-003	0.2078	0.0783	1.3900e-003	0.0444	4.5000e-004	0.0449	0.0128	4.3000e-004	0.0132	0.0000	135.4961	135.4961	5.3100e-003	0.0000	135.6288
Worker	0.0104	5.7900e-003	0.0831	4.0000e-004	0.0606	2.4000e-004	0.0609	0.0161	2.2000e-004	0.0163	0.0000	36.5914	36.5914	4.7000e-004	0.0000	36.6032
Total	**0.0243**	**0.3817**	**0.2302**	**2.7100e-003**	**0.1286**	**1.0200e-003**	**0.1296**	**0.0354**	**9.7000e-004**	**0.0363**	**0.0000**	**263.1442**	**263.1442**	**0.0115**	**0.0000**	**263.4328**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2867	0.9881	10.2447	0.0194		0.0326	0.0326		0.0326	0.0326	0.0000	1,719.6025	1,719.6025	0.0605	0.0000	1,721.1154
Total	**0.2867**	**0.9881**	**10.2447**	**0.0194**	**0.4856**	**0.0326**	**0.5181**	**0.0524**	**0.0326**	**0.0850**	**0.0000**	**1,719.6025**	**1,719.6025**	**0.0605**	**0.0000**	**1,721.1154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8300e-003	0.1682	0.0688	9.2000e-004	0.0235	3.3000e-004	0.0239	6.4600e-003	3.2000e-004	6.7800e-003	0.0000	91.0567	91.0567	5.7600e-003	0.0000	91.2007
Vendor	8.0600e-003	0.2078	0.0783	1.3900e-003	0.0444	4.5000e-004	0.0449	0.0128	4.3000e-004	0.0132	0.0000	135.4961	135.4961	5.3100e-003	0.0000	135.6288
Worker	0.0104	5.7900e-003	0.0831	4.0000e-004	0.0606	2.4000e-004	0.0609	0.0161	2.2000e-004	0.0163	0.0000	36.5914	36.5914	4.7000e-004	0.0000	36.6032
Total	**0.0243**	**0.3817**	**0.2302**	**2.7100e-003**	**0.1286**	**1.0200e-003**	**0.1296**	**0.0354**	**9.7000e-004**	**0.0363**	**0.0000**	**263.1442**	**263.1442**	**0.0115**	**0.0000**	**263.4328**

3.7 Plot 12 (2033) Building-Electrical - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5120	2.8850	5.8981	9.0700e-003		0.0464	0.0464		0.0464	0.0464	0.0000	746.6612	746.6612	0.0412	0.0000	747.6920
Total	**0.5120**	**2.8850**	**5.8981**	**9.0700e-003**	**0.8298**	**0.0464**	**0.8763**	**0.0896**	**0.0464**	**0.1360**	**0.0000**	**746.6612**	**746.6612**	**0.0412**	**0.0000**	**747.6920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0133	0.3843	0.1572	2.1000e-003	0.0538	7.6000e-004	0.0546	0.0148	7.3000e-004	0.0155	0.0000	208.1296	208.1296	0.0132	0.0000	208.4588
Vendor	3.2200e-003	0.0831	0.0313	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1985	54.1985	2.1200e-003	0.0000	54.2515
Worker	6.2600e-003	3.4700e-003	0.0499	2.4000e-004	0.0364	1.4000e-004	0.0365	9.6600e-003	1.3000e-004	9.7900e-003	0.0000	21.9548	21.9548	2.8000e-004	0.0000	21.9619
Total	**0.0228**	**0.4709**	**0.2384**	**2.9000e-003**	**0.1079**	**1.0800e-003**	**0.1090**	**0.0296**	**1.0300e-003**	**0.0306**	**0.0000**	**284.2829**	**284.2829**	**0.0156**	**0.0000**	**284.6723**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	1.4057	5.6710	9.0700e-003		0.0186	0.0186		0.0186	0.0186	0.0000	746.6603	746.6603	0.0412	0.0000	747.6911
Total	**0.1888**	**1.4057**	**5.6710**	**9.0700e-003**	**0.3236**	**0.0186**	**0.3423**	**0.0350**	**0.0186**	**0.0536**	**0.0000**	**746.6603**	**746.6603**	**0.0412**	**0.0000**	**747.6911**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0133	0.3843	0.1572	2.1000e-003	0.0538	7.6000e-004	0.0546	0.0148	7.3000e-004	0.0155	0.0000	208.1296	208.1296	0.0132	0.0000	208.4588
Vendor	3.2200e-003	0.0831	0.0313	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1985	54.1985	2.1200e-003	0.0000	54.2515
Worker	6.2600e-003	3.4700e-003	0.0499	2.4000e-004	0.0364	1.4000e-004	0.0365	9.6600e-003	1.3000e-004	9.7900e-003	0.0000	21.9548	21.9548	2.8000e-004	0.0000	21.9619
Total	**0.0228**	**0.4709**	**0.2384**	**2.9000e-003**	**0.1079**	**1.0800e-003**	**0.1090**	**0.0296**	**1.0300e-003**	**0.0306**	**0.0000**	**284.2829**	**284.2829**	**0.0156**	**0.0000**	**284.6723**

3.8 Plot 12 (2033) Building-Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3809	1.7630	4.5693	7.5300e-003		0.0476	0.0476		0.0476	0.0476	0.0000	632.2258	632.2258	0.0305	0.0000	632.9889
Total	**0.3809**	**1.7630**	**4.5693**	**7.5300e-003**	**0.2073**	**0.0476**	**0.2549**	**0.0224**	**0.0476**	**0.0700**	**0.0000**	**632.2258**	**632.2258**	**0.0305**	**0.0000**	**632.9889**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7600e-003	0.0970	0.0365	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.2315	63.2315	2.4800e-003	0.0000	63.2935
Worker	4.1800e-003	2.3100e-003	0.0332	1.6000e-004	0.0243	1.0000e-004	0.0243	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.6365	14.6365	1.9000e-004	0.0000	14.6413
Total	**7.9400e-003**	**0.0993**	**0.0698**	**8.1000e-004**	**0.0450**	**3.1000e-004**	**0.0453**	**0.0124**	**2.9000e-004**	**0.0127**	**0.0000**	**77.8681**	**77.8681**	**2.6700e-003**	**0.0000**	**77.9347**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1966	1.6397	4.7632	7.5300e-003		0.0258	0.0258		0.0258	0.0258	0.0000	632.2251	632.2251	0.0305	0.0000	632.9882
Total	**0.1966**	**1.6397**	**4.7632**	**7.5300e-003**	**0.0809**	**0.0258**	**0.1067**	**8.7300e-003**	**0.0258**	**0.0345**	**0.0000**	**632.2251**	**632.2251**	**0.0305**	**0.0000**	**632.9882**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7600e-003	0.0970	0.0365	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.2315	63.2315	2.4800e-003	0.0000	63.2935
Worker	4.1800e-003	2.3100e-003	0.0332	1.6000e-004	0.0243	1.0000e-004	0.0243	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.6365	14.6365	1.9000e-004	0.0000	14.6413
Total	**7.9400e-003**	**0.0993**	**0.0698**	**8.1000e-004**	**0.0450**	**3.1000e-004**	**0.0453**	**0.0124**	**2.9000e-004**	**0.0127**	**0.0000**	**77.8681**	**77.8681**	**2.6700e-003**	**0.0000**	**77.9347**

3.9 Plot 12 (2033) Landscaping - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4020	1.8242	4.8891	8.1100e-003		0.0502	0.0502		0.0502	0.0502	0.0000	681.5769	681.5769	0.0322	0.0000	682.3813
Total	**0.4020**	**1.8242**	**4.8891**	**8.1100e-003**	**0.2073**	**0.0502**	**0.2576**	**0.0224**	**0.0502**	**0.0726**	**0.0000**	**681.5769**	**681.5769**	**0.0322**	**0.0000**	**682.3813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2200e-003	0.0831	0.0313	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1985	54.1985	2.1200e-003	0.0000	54.2515
Worker	4.1800e-003	2.3100e-003	0.0332	1.6000e-004	0.0243	1.0000e-004	0.0243	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.6365	14.6365	1.9000e-004	0.0000	14.6413
Total	**7.4000e-003**	**0.0854**	**0.0646**	**7.2000e-004**	**0.0420**	**2.8000e-004**	**0.0423**	**0.0116**	**2.6000e-004**	**0.0118**	**0.0000**	**68.8350**	**68.8350**	**2.3100e-003**	**0.0000**	**68.8928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2024	1.6645	5.1174	8.1100e-003		0.0266	0.0266		0.0266	0.0266	0.0000	681.5761	681.5761	0.0322	0.0000	682.3805
Total	**0.2024**	**1.6645**	**5.1174**	**8.1100e-003**	**0.0809**	**0.0266**	**0.1074**	**8.7300e-003**	**0.0266**	**0.0353**	**0.0000**	**681.5761**	**681.5761**	**0.0322**	**0.0000**	**682.3805**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2200e-003	0.0831	0.0313	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1985	54.1985	2.1200e-003	0.0000	54.2515
Worker	4.1800e-003	2.3100e-003	0.0332	1.6000e-004	0.0243	1.0000e-004	0.0243	6.4400e-003	9.0000e-005	6.5300e-003	0.0000	14.6365	14.6365	1.9000e-004	0.0000	14.6413
Total	**7.4000e-003**	**0.0854**	**0.0646**	**7.2000e-004**	**0.0420**	**2.8000e-004**	**0.0423**	**0.0116**	**2.6000e-004**	**0.0118**	**0.0000**	**68.8350**	**68.8350**	**2.3100e-003**	**0.0000**	**68.8928**

3.10 Plot 12 (2033) Curbing/Drive Approaches - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0362	0.1872	0.4106	7.1000e-004		8.1200e-003	8.1200e-003		8.1200e-003	8.1200e-003	0.0000	60.4189	60.4189	2.9200e-003	0.0000	60.4918
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1981**	**0.1872**	**0.4106**	**7.1000e-004**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**60.4189**	**60.4189**	**2.9200e-003**	**0.0000**	**60.4918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.0479	0.0196	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.9331	25.9331	1.6400e-003	0.0000	25.9741
Vendor	6.6000e-004	0.0171	6.4200e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1176	11.1176	4.4000e-004	0.0000	11.1285
Worker	1.2800e-003	7.1000e-004	0.0102	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.5036	4.5036	6.0000e-005	0.0000	4.5050
Total	**3.6000e-003**	**0.0657**	**0.0362**	**4.2000e-004**	**0.0178**	**1.7000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**41.5543**	**41.5543**	**2.1400e-003**	**0.0000**	**41.6076**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	7.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	60.4188	60.4188	2.9200e-003	0.0000	60.4917
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**7.1000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**60.4188**	**60.4188**	**2.9200e-003**	**0.0000**	**60.4917**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6600e-003	0.0479	0.0196	2.6000e-004	6.7000e-003	1.0000e-004	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.9331	25.9331	1.6400e-003	0.0000	25.9741
Vendor	6.6000e-004	0.0171	6.4200e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	4.0000e-005	1.0900e-003	0.0000	11.1176	11.1176	4.4000e-004	0.0000	11.1285
Worker	1.2800e-003	7.1000e-004	0.0102	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.5036	4.5036	6.0000e-005	0.0000	4.5050
Total	**3.6000e-003**	**0.0657**	**0.0362**	**4.2000e-004**	**0.0178**	**1.7000e-004**	**0.0180**	**4.8700e-003**	**1.6000e-004**	**5.0300e-003**	**0.0000**	**41.5543**	**41.5543**	**2.1400e-003**	**0.0000**	**41.6076**

3.11 Plot 12 (2033) Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0957	0.4573	0.8601	1.9400e-003		0.0170	0.0170		0.0170	0.0170	0.0000	179.4461	179.4461	7.7300e-003	0.0000	179.6394
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2577**	**0.4573**	**0.8601**	**1.9400e-003**	**0.1273**	**0.0170**	**0.1443**	**0.0137**	**0.0170**	**0.0308**	**0.0000**	**179.4461**	**179.4461**	**7.7300e-003**	**0.0000**	**179.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0405	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.9434	21.9434	1.3900e-003	0.0000	21.9781
Vendor	5.0000e-004	0.0128	4.8200e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3382	8.3382	3.3000e-004	0.0000	8.3464
Worker	1.6100e-003	8.9000e-004	0.0128	6.0000e-005	9.3300e-003	4.0000e-005	9.3600e-003	2.4800e-003	3.0000e-005	2.5100e-003	0.0000	5.6294	5.6294	7.0000e-005	0.0000	5.6313
Total	**3.5100e-003**	**0.0542**	**0.0342**	**3.7000e-004**	**0.0177**	**1.5000e-004**	**0.0179**	**4.8300e-003**	**1.4000e-004**	**4.9500e-003**	**0.0000**	**35.9110**	**35.9110**	**1.7900e-003**	**0.0000**	**35.9557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0219	0.0973	1.0531	1.9400e-003		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	179.4459	179.4459	7.7300e-003	0.0000	179.6392
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1838**	**0.0973**	**1.0531**	**1.9400e-003**	**0.0496**	**3.0500e-003**	**0.0527**	**5.3600e-003**	**3.0500e-003**	**8.4100e-003**	**0.0000**	**179.4459**	**179.4459**	**7.7300e-003**	**0.0000**	**179.6392**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0405	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.9434	21.9434	1.3900e-003	0.0000	21.9781
Vendor	5.0000e-004	0.0128	4.8200e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3382	8.3382	3.3000e-004	0.0000	8.3464
Worker	1.6100e-003	8.9000e-004	0.0128	6.0000e-005	9.3300e-003	4.0000e-005	9.3600e-003	2.4800e-003	3.0000e-005	2.5100e-003	0.0000	5.6294	5.6294	7.0000e-005	0.0000	5.6313
Total	**3.5100e-003**	**0.0542**	**0.0342**	**3.7000e-004**	**0.0177**	**1.5000e-004**	**0.0179**	**4.8300e-003**	**1.4000e-004**	**4.9500e-003**	**0.0000**	**35.9110**	**35.9110**	**1.7900e-003**	**0.0000**	**35.9557**

3.12 Plot 12 (2033) Temporary Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0821	0.2578	0.4032	1.8500e-003		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	190.6814	190.6814	6.7100e-003	0.0000	190.8491
Total	**0.0821**	**0.2578**	**0.4032**	**1.8500e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**190.6814**	**190.6814**	**6.7100e-003**	**0.0000**	**190.8491**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8500e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	190.6811	190.6811	6.7100e-003	0.0000	190.8489
Total	**0.0222**	**0.0962**	**0.8137**	**1.8500e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**190.6811**	**190.6811**	**6.7100e-003**	**0.0000**	**190.8489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.13 Plot 12 (2034) Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0961	6.5394	15.6831	0.0496		0.1766	0.1766		0.1766	0.1766	0.0000	4,744.5188	4,744.5188	0.1690	0.0000	4,748.7426
Total	**2.0961**	**6.5394**	**15.6831**	**0.0496**	**3.3194**	**0.1766**	**3.4959**	**0.3584**	**0.1766**	**0.5350**	**0.0000**	**4,744.5188**	**4,744.5188**	**0.1690**	**0.0000**	**4,748.7426**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0166	0.4761	0.1968	2.6200e-003	0.0673	9.4000e-004	0.0682	0.0185	9.0000e-004	0.0194	0.0000	259.7015	259.7015	0.0164	0.0000	260.1117
Vendor	0.0134	0.3433	0.1301	2.3200e-003	0.0740	7.4000e-004	0.0747	0.0213	7.1000e-004	0.0220	0.0000	225.4718	225.4718	8.8200e-003	0.0000	225.6922
Worker	0.0157	8.6200e-003	0.1258	6.4000e-004	0.0970	3.6000e-004	0.0974	0.0258	3.3000e-004	0.0261	0.0000	57.6142	57.6142	7.0000e-004	0.0000	57.6317
Total	**0.0457**	**0.8280**	**0.4526**	**5.5800e-003**	**0.2382**	**2.0400e-003**	**0.2403**	**0.0655**	**1.9400e-003**	**0.0675**	**0.0000**	**542.7875**	**542.7875**	**0.0259**	**0.0000**	**543.4355**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0815	3.9356	20.1989	0.0496		0.1040	0.1040		0.1040	0.1040	0.0000	4,744.5131	4,744.5131	0.1690	0.0000	4,748.7370
Total	**1.0815**	**3.9356**	**20.1989**	**0.0496**	**1.2946**	**0.1040**	**1.3986**	**0.1398**	**0.1040**	**0.2438**	**0.0000**	**4,744.5131**	**4,744.5131**	**0.1690**	**0.0000**	**4,748.7370**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0166	0.4761	0.1968	2.6200e-003	0.0673	9.4000e-004	0.0682	0.0185	9.0000e-004	0.0194	0.0000	259.7015	259.7015	0.0164	0.0000	260.1117
Vendor	0.0134	0.3433	0.1301	2.3200e-003	0.0740	7.4000e-004	0.0747	0.0213	7.1000e-004	0.0220	0.0000	225.4718	225.4718	8.8200e-003	0.0000	225.6922
Worker	0.0157	8.6200e-003	0.1258	6.4000e-004	0.0970	3.6000e-004	0.0974	0.0258	3.3000e-004	0.0261	0.0000	57.6142	57.6142	7.0000e-004	0.0000	57.6317
Total	**0.0457**	**0.8280**	**0.4526**	**5.5800e-003**	**0.2382**	**2.0400e-003**	**0.2403**	**0.0655**	**1.9400e-003**	**0.0675**	**0.0000**	**542.7875**	**542.7875**	**0.0259**	**0.0000**	**543.4355**

3.14 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4059	2.5857	5.6125	9.3900e-003		0.0532	0.0532		0.0532	0.0532	0.0000	800.8115	800.8115	0.0325	0.0000	801.6236
Total	**0.4059**	**2.5857**	**5.6125**	**9.3900e-003**	**0.4152**	**0.0532**	**0.4684**	**0.0448**	**0.0532**	**0.0980**	**0.0000**	**800.8115**	**800.8115**	**0.0325**	**0.0000**	**801.6236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0199	0.5714	0.2361	3.1400e-003	0.0807	1.1300e-003	0.0818	0.0222	1.0800e-003	0.0232	0.0000	311.6418	311.6418	0.0197	0.0000	312.1340
Vendor	1.0700e-003	0.0275	0.0104	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.0377	18.0377	7.1000e-004	0.0000	18.0554
Worker	9.8400e-003	5.3900e-003	0.0786	4.0000e-004	0.0606	2.2000e-004	0.0608	0.0161	2.1000e-004	0.0163	0.0000	36.0089	36.0089	4.4000e-004	0.0000	36.0198
Total	**0.0308**	**0.6042**	**0.3251**	**3.7300e-003**	**0.1473**	**1.4100e-003**	**0.1487**	**0.0400**	**1.3500e-003**	**0.0413**	**0.0000**	**365.6884**	**365.6884**	**0.0208**	**0.0000**	**366.2092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	9.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	800.8105	800.8105	0.0325	0.0000	801.6226
Total	**0.1140**	**0.5384**	**5.7392**	**9.3900e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**800.8105**	**800.8105**	**0.0325**	**0.0000**	**801.6226**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0199	0.5714	0.2361	3.1400e-003	0.0807	1.1300e-003	0.0818	0.0222	1.0800e-003	0.0232	0.0000	311.6418	311.6418	0.0197	0.0000	312.1340
Vendor	1.0700e-003	0.0275	0.0104	1.9000e-004	5.9200e-003	6.0000e-005	5.9800e-003	1.7100e-003	6.0000e-005	1.7600e-003	0.0000	18.0377	18.0377	7.1000e-004	0.0000	18.0554
Worker	9.8400e-003	5.3900e-003	0.0786	4.0000e-004	0.0606	2.2000e-004	0.0608	0.0161	2.1000e-004	0.0163	0.0000	36.0089	36.0089	4.4000e-004	0.0000	36.0198
Total	**0.0308**	**0.6042**	**0.3251**	**3.7300e-003**	**0.1473**	**1.4100e-003**	**0.1487**	**0.0400**	**1.3500e-003**	**0.0413**	**0.0000**	**365.6884**	**365.6884**	**0.0208**	**0.0000**	**366.2092**

3.15 Plot 12 (2034) Building-Wet Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7598	2.6973	9.0461	0.0194		0.0879	0.0879		0.0879	0.0879	0.0000	1,719.6046	1,719.6046	0.0605	0.0000	1,721.1175
Total	**0.7598**	**2.6973**	**9.0461**	**0.0194**	**1.2450**	**0.0879**	**1.3329**	**0.1344**	**0.0879**	**0.2223**	**0.0000**	**1,719.6046**	**1,719.6046**	**0.0605**	**0.0000**	**1,721.1175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8100e-003	0.1667	0.0689	9.2000e-004	0.0235	3.3000e-004	0.0239	6.4600e-003	3.2000e-004	6.7800e-003	0.0000	90.8955	90.8955	5.7400e-003	0.0000	91.0391
Vendor	8.0100e-003	0.2060	0.0780	1.3900e-003	0.0444	4.5000e-004	0.0449	0.0128	4.3000e-004	0.0132	0.0000	135.2831	135.2831	5.2900e-003	0.0000	135.4153
Worker	9.8400e-003	5.3900e-003	0.0786	4.0000e-004	0.0606	2.2000e-004	0.0608	0.0161	2.1000e-004	0.0163	0.0000	36.0089	36.0089	4.4000e-004	0.0000	36.0198
Total	**0.0237**	**0.3780**	**0.2255**	**2.7100e-003**	**0.1286**	**1.0000e-003**	**0.1296**	**0.0354**	**9.6000e-004**	**0.0363**	**0.0000**	**262.1875**	**262.1875**	**0.0115**	**0.0000**	**262.4742**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2867	0.9881	10.2447	0.0194		0.0326	0.0326		0.0326	0.0326	0.0000	1,719.6025	1,719.6025	0.0605	0.0000	1,721.1154
Total	**0.2867**	**0.9881**	**10.2447**	**0.0194**	**0.4856**	**0.0326**	**0.5181**	**0.0524**	**0.0326**	**0.0850**	**0.0000**	**1,719.6025**	**1,719.6025**	**0.0605**	**0.0000**	**1,721.1154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8100e-003	0.1667	0.0689	9.2000e-004	0.0235	3.3000e-004	0.0239	6.4600e-003	3.2000e-004	6.7800e-003	0.0000	90.8955	90.8955	5.7400e-003	0.0000	91.0391
Vendor	8.0100e-003	0.2060	0.0780	1.3900e-003	0.0444	4.5000e-004	0.0449	0.0128	4.3000e-004	0.0132	0.0000	135.2831	135.2831	5.2900e-003	0.0000	135.4153
Worker	9.8400e-003	5.3900e-003	0.0786	4.0000e-004	0.0606	2.2000e-004	0.0608	0.0161	2.1000e-004	0.0163	0.0000	36.0089	36.0089	4.4000e-004	0.0000	36.0198
Total	**0.0237**	**0.3780**	**0.2255**	**2.7100e-003**	**0.1286**	**1.0000e-003**	**0.1296**	**0.0354**	**9.6000e-004**	**0.0363**	**0.0000**	**262.1875**	**262.1875**	**0.0115**	**0.0000**	**262.4742**

3.16 Plot 12 (2034) Building-Electrical - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5120	2.8850	5.8981	9.0700e-003		0.0464	0.0464		0.0464	0.0464	0.0000	746.6612	746.6612	0.0412	0.0000	747.6920
Total	**0.5120**	**2.8850**	**5.8981**	**9.0700e-003**	**0.8298**	**0.0464**	**0.8763**	**0.0896**	**0.0464**	**0.1360**	**0.0000**	**746.6612**	**746.6612**	**0.0412**	**0.0000**	**747.6920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0133	0.3809	0.1574	2.1000e-003	0.0538	7.5000e-004	0.0546	0.0148	7.2000e-004	0.0155	0.0000	207.7612	207.7612	0.0131	0.0000	208.0893
Vendor	3.2100e-003	0.0824	0.0312	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1132	54.1132	2.1200e-003	0.0000	54.1661
Worker	5.9000e-003	3.2300e-003	0.0472	2.4000e-004	0.0364	1.3000e-004	0.0365	9.6600e-003	1.2000e-004	9.7800e-003	0.0000	21.6053	21.6053	2.6000e-004	0.0000	21.6119
Total	**0.0224**	**0.4665**	**0.2358**	**2.9000e-003**	**0.1079**	**1.0600e-003**	**0.1090**	**0.0296**	**1.0100e-003**	**0.0306**	**0.0000**	**283.4798**	**283.4798**	**0.0155**	**0.0000**	**283.8673**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1888	1.4057	5.6710	9.0700e-003		0.0186	0.0186		0.0186	0.0186	0.0000	746.6603	746.6603	0.0412	0.0000	747.6911
Total	**0.1888**	**1.4057**	**5.6710**	**9.0700e-003**	**0.3236**	**0.0186**	**0.3423**	**0.0350**	**0.0186**	**0.0536**	**0.0000**	**746.6603**	**746.6603**	**0.0412**	**0.0000**	**747.6911**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0133	0.3809	0.1574	2.1000e-003	0.0538	7.5000e-004	0.0546	0.0148	7.2000e-004	0.0155	0.0000	207.7612	207.7612	0.0131	0.0000	208.0893
Vendor	3.2100e-003	0.0824	0.0312	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1132	54.1132	2.1200e-003	0.0000	54.1661
Worker	5.9000e-003	3.2300e-003	0.0472	2.4000e-004	0.0364	1.3000e-004	0.0365	9.6600e-003	1.2000e-004	9.7800e-003	0.0000	21.6053	21.6053	2.6000e-004	0.0000	21.6119
Total	**0.0224**	**0.4665**	**0.2358**	**2.9000e-003**	**0.1079**	**1.0600e-003**	**0.1090**	**0.0296**	**1.0100e-003**	**0.0306**	**0.0000**	**283.4798**	**283.4798**	**0.0155**	**0.0000**	**283.8673**

3.17 Plot 12 (2034) Building-Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3809	1.7630	4.5693	7.5300e-003		0.0476	0.0476		0.0476	0.0476	0.0000	632.2258	632.2258	0.0305	0.0000	632.9889
Total	**0.3809**	**1.7630**	**4.5693**	**7.5300e-003**	**0.2073**	**0.0476**	**0.2549**	**0.0224**	**0.0476**	**0.0700**	**0.0000**	**632.2258**	**632.2258**	**0.0305**	**0.0000**	**632.9889**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7400e-003	0.0961	0.0364	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.1321	63.1321	2.4700e-003	0.0000	63.1938
Worker	3.9400e-003	2.1600e-003	0.0314	1.6000e-004	0.0243	9.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.4036	14.4036	1.7000e-004	0.0000	14.4079
Total	**7.6800e-003**	**0.0983**	**0.0679**	**8.1000e-004**	**0.0450**	**3.0000e-004**	**0.0453**	**0.0124**	**2.8000e-004**	**0.0127**	**0.0000**	**77.5357**	**77.5357**	**2.6400e-003**	**0.0000**	**77.6017**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1966	1.6397	4.7632	7.5300e-003		0.0258	0.0258		0.0258	0.0258	0.0000	632.2251	632.2251	0.0305	0.0000	632.9882
Total	**0.1966**	**1.6397**	**4.7632**	**7.5300e-003**	**0.0809**	**0.0258**	**0.1067**	**8.7300e-003**	**0.0258**	**0.0345**	**0.0000**	**632.2251**	**632.2251**	**0.0305**	**0.0000**	**632.9882**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7400e-003	0.0961	0.0364	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.1321	63.1321	2.4700e-003	0.0000	63.1938
Worker	3.9400e-003	2.1600e-003	0.0314	1.6000e-004	0.0243	9.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.4036	14.4036	1.7000e-004	0.0000	14.4079
Total	**7.6800e-003**	**0.0983**	**0.0679**	**8.1000e-004**	**0.0450**	**3.0000e-004**	**0.0453**	**0.0124**	**2.8000e-004**	**0.0127**	**0.0000**	**77.5357**	**77.5357**	**2.6400e-003**	**0.0000**	**77.6017**

3.18 Plot 12 (2034) Landscaping - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4020	1.8242	4.8891	8.1100e-003		0.0502	0.0502		0.0502	0.0502	0.0000	681.5769	681.5769	0.0322	0.0000	682.3813
Total	**0.4020**	**1.8242**	**4.8891**	**8.1100e-003**	**0.2073**	**0.0502**	**0.2576**	**0.0224**	**0.0502**	**0.0726**	**0.0000**	**681.5769**	**681.5769**	**0.0322**	**0.0000**	**682.3813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2100e-003	0.0824	0.0312	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1132	54.1132	2.1200e-003	0.0000	54.1661
Worker	3.9400e-003	2.1600e-003	0.0314	1.6000e-004	0.0243	9.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.4036	14.4036	1.7000e-004	0.0000	14.4079
Total	**7.1500e-003**	**0.0845**	**0.0627**	**7.2000e-004**	**0.0420**	**2.7000e-004**	**0.0423**	**0.0116**	**2.5000e-004**	**0.0118**	**0.0000**	**68.5168**	**68.5168**	**2.2900e-003**	**0.0000**	**68.5741**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2024	1.6645	5.1174	8.1100e-003		0.0266	0.0266		0.0266	0.0266	0.0000	681.5761	681.5761	0.0322	0.0000	682.3805
Total	**0.2024**	**1.6645**	**5.1174**	**8.1100e-003**	**0.0809**	**0.0266**	**0.1074**	**8.7300e-003**	**0.0266**	**0.0353**	**0.0000**	**681.5761**	**681.5761**	**0.0322**	**0.0000**	**682.3805**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2100e-003	0.0824	0.0312	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.1132	54.1132	2.1200e-003	0.0000	54.1661
Worker	3.9400e-003	2.1600e-003	0.0314	1.6000e-004	0.0243	9.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.4036	14.4036	1.7000e-004	0.0000	14.4079
Total	**7.1500e-003**	**0.0845**	**0.0627**	**7.2000e-004**	**0.0420**	**2.7000e-004**	**0.0423**	**0.0116**	**2.5000e-004**	**0.0118**	**0.0000**	**68.5168**	**68.5168**	**2.2900e-003**	**0.0000**	**68.5741**

3.19 Plot 12 (2034) Curbing/Drive Approaches - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0362	0.1872	0.4106	7.1000e-004		8.1200e-003	8.1200e-003		8.1200e-003	8.1200e-003	0.0000	60.4189	60.4189	2.9200e-003	0.0000	60.4918
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1981**	**0.1872**	**0.4106**	**7.1000e-004**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**8.1200e-003**	**8.1200e-003**	**0.0000**	**60.4189**	**60.4189**	**2.9200e-003**	**0.0000**	**60.4918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6500e-003	0.0475	0.0196	2.6000e-004	6.7000e-003	9.0000e-005	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.8872	25.8872	1.6400e-003	0.0000	25.9281
Vendor	6.6000e-004	0.0169	6.4000e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	11.1002	11.1002	4.3000e-004	0.0000	11.1110
Worker	1.2100e-003	6.6000e-004	9.6700e-003	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.4319	4.4319	5.0000e-005	0.0000	4.4332
Total	**3.5200e-003**	**0.0650**	**0.0357**	**4.2000e-004**	**0.0178**	**1.6000e-004**	**0.0180**	**4.8700e-003**	**1.5000e-004**	**5.0200e-003**	**0.0000**	**41.4192**	**41.4192**	**2.1200e-003**	**0.0000**	**41.4723**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	7.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	60.4188	60.4188	2.9200e-003	0.0000	60.4917
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**7.1000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**60.4188**	**60.4188**	**2.9200e-003**	**0.0000**	**60.4917**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6500e-003	0.0475	0.0196	2.6000e-004	6.7000e-003	9.0000e-005	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.8872	25.8872	1.6400e-003	0.0000	25.9281
Vendor	6.6000e-004	0.0169	6.4000e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	11.1002	11.1002	4.3000e-004	0.0000	11.1110
Worker	1.2100e-003	6.6000e-004	9.6700e-003	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	3.0000e-005	2.0100e-003	0.0000	4.4319	4.4319	5.0000e-005	0.0000	4.4332
Total	**3.5200e-003**	**0.0650**	**0.0357**	**4.2000e-004**	**0.0178**	**1.6000e-004**	**0.0180**	**4.8700e-003**	**1.5000e-004**	**5.0200e-003**	**0.0000**	**41.4192**	**41.4192**	**2.1200e-003**	**0.0000**	**41.4723**

3.20 Plot 12 (2034) Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0957	0.4573	0.8601	1.9400e-003		0.0170	0.0170		0.0170	0.0170	0.0000	179.4461	179.4461	7.7300e-003	0.0000	179.6394
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2577**	**0.4573**	**0.8601**	**1.9400e-003**	**0.1273**	**0.0170**	**0.1443**	**0.0137**	**0.0170**	**0.0308**	**0.0000**	**179.4461**	**179.4461**	**7.7300e-003**	**0.0000**	**179.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0402	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.9045	21.9045	1.3800e-003	0.0000	21.9391
Vendor	4.9000e-004	0.0127	4.8000e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3251	8.3251	3.3000e-004	0.0000	8.3333
Worker	1.5100e-003	8.3000e-004	0.0121	6.0000e-005	9.3300e-003	3.0000e-005	9.3600e-003	2.4800e-003	3.0000e-005	2.5100e-003	0.0000	5.5398	5.5398	7.0000e-005	0.0000	5.5415
Total	**3.4000e-003**	**0.0537**	**0.0335**	**3.7000e-004**	**0.0177**	**1.4000e-004**	**0.0179**	**4.8300e-003**	**1.4000e-004**	**4.9500e-003**	**0.0000**	**35.7695**	**35.7695**	**1.7800e-003**	**0.0000**	**35.8139**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0219	0.0973	1.0531	1.9400e-003		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	179.4459	179.4459	7.7300e-003	0.0000	179.6392
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1838**	**0.0973**	**1.0531**	**1.9400e-003**	**0.0496**	**3.0500e-003**	**0.0527**	**5.3600e-003**	**3.0500e-003**	**8.4100e-003**	**0.0000**	**179.4459**	**179.4459**	**7.7300e-003**	**0.0000**	**179.6392**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0402	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.9045	21.9045	1.3800e-003	0.0000	21.9391
Vendor	4.9000e-004	0.0127	4.8000e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3251	8.3251	3.3000e-004	0.0000	8.3333
Worker	1.5100e-003	8.3000e-004	0.0121	6.0000e-005	9.3300e-003	3.0000e-005	9.3600e-003	2.4800e-003	3.0000e-005	2.5100e-003	0.0000	5.5398	5.5398	7.0000e-005	0.0000	5.5415
Total	**3.4000e-003**	**0.0537**	**0.0335**	**3.7000e-004**	**0.0177**	**1.4000e-004**	**0.0179**	**4.8300e-003**	**1.4000e-004**	**4.9500e-003**	**0.0000**	**35.7695**	**35.7695**	**1.7800e-003**	**0.0000**	**35.8139**

3.21 Plot 12 (2034) Temporary Utilities - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0821	0.2578	0.4032	1.8500e-003		8.5100e-003	8.5100e-003		8.5100e-003	8.5100e-003	0.0000	190.6814	190.6814	6.7100e-003	0.0000	190.8491
Total	**0.0821**	**0.2578**	**0.4032**	**1.8500e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**8.5100e-003**	**8.5100e-003**	**0.0000**	**190.6814**	**190.6814**	**6.7100e-003**	**0.0000**	**190.8491**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8500e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	190.6811	190.6811	6.7100e-003	0.0000	190.8489
Total	**0.0222**	**0.0962**	**0.8137**	**1.8500e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**190.6811**	**190.6811**	**6.7100e-003**	**0.0000**	**190.8489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.22 Plot 6 (2035) Mass Excavation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3357	0.0000	1.3357	0.1442	0.0000	0.1442	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1386	4.0175	5.9055	0.0231		0.1513	0.1513		0.1513	0.1513	0.0000	2,350.8410	2,350.8410	0.0920	0.0000	2,353.1398
Total	**1.1386**	**4.0175**	**5.9055**	**0.0231**	**1.3357**	**0.1513**	**1.4870**	**0.1442**	**0.1513**	**0.2955**	**0.0000**	**2,350.8410**	**2,350.8410**	**0.0920**	**0.0000**	**2,353.1398**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5100e-003	0.1288	0.0536	7.1000e-004	0.0183	2.5000e-004	0.0186	5.0300e-003	2.4000e-004	5.2700e-003	0.0000	70.6353	70.6353	4.4500e-003	0.0000	70.7466
Vendor	2.3900e-003	0.0613	0.0234	4.2000e-004	0.0133	1.3000e-004	0.0135	3.8400e-003	1.3000e-004	3.9700e-003	0.0000	40.5333	40.5333	1.5800e-003	0.0000	40.5729
Worker	9.3400e-003	5.1000e-003	0.0749	3.9000e-004	0.0606	2.1000e-004	0.0608	0.0161	1.9000e-004	0.0163	0.0000	35.5103	35.5103	4.1000e-004	0.0000	35.5204
Total	**0.0162**	**0.1952**	**0.1519**	**1.5200e-003**	**0.0923**	**5.9000e-004**	**0.0929**	**0.0250**	**5.6000e-004**	**0.0255**	**0.0000**	**146.6789**	**146.6789**	**6.4400e-003**	**0.0000**	**146.8399**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5209	0.0000	0.5209	0.0563	0.0000	0.0563	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2736	1.1856	10.3345	0.0231		0.0365	0.0365		0.0365	0.0365	0.0000	2,350.8382	2,350.8382	0.0920	0.0000	2,353.1370
Total	**0.2736**	**1.1856**	**10.3345**	**0.0231**	**0.5209**	**0.0365**	**0.5574**	**0.0563**	**0.0365**	**0.0927**	**0.0000**	**2,350.8382**	**2,350.8382**	**0.0920**	**0.0000**	**2,353.1370**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5100e-003	0.1288	0.0536	7.1000e-004	0.0183	2.5000e-004	0.0186	5.0300e-003	2.4000e-004	5.2700e-003	0.0000	70.6353	70.6353	4.4500e-003	0.0000	70.7466
Vendor	2.3900e-003	0.0613	0.0234	4.2000e-004	0.0133	1.3000e-004	0.0135	3.8400e-003	1.3000e-004	3.9700e-003	0.0000	40.5333	40.5333	1.5800e-003	0.0000	40.5729
Worker	9.3400e-003	5.1000e-003	0.0749	3.9000e-004	0.0606	2.1000e-004	0.0608	0.0161	1.9000e-004	0.0163	0.0000	35.5103	35.5103	4.1000e-004	0.0000	35.5204
Total	**0.0162**	**0.1952**	**0.1519**	**1.5200e-003**	**0.0923**	**5.9000e-004**	**0.0929**	**0.0250**	**5.6000e-004**	**0.0255**	**0.0000**	**146.6789**	**146.6789**	**6.4400e-003**	**0.0000**	**146.8399**

3.23 Plot 6 (2035) Finish Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0689	0.0000	0.0689	7.4400e-003	0.0000	7.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.0567	0.1570	2.7000e-004		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	22.9161	22.9161	1.0300e-003	0.0000	22.9418
Total	**0.0127**	**0.0567**	**0.1570**	**2.7000e-004**	**0.0689**	**2.1200e-003**	**0.0711**	**7.4400e-003**	**2.1200e-003**	**9.5600e-003**	**0.0000**	**22.9161**	**22.9161**	**1.0300e-003**	**0.0000**	**22.9418**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3800e-003	0.0393	0.0164	2.2000e-004	5.5900e-003	8.0000e-005	5.6600e-003	1.5300e-003	7.0000e-005	1.6100e-003	0.0000	21.5427	21.5427	1.3600e-003	0.0000	21.5767
Vendor	1.6000e-004	4.1900e-003	1.6000e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.7715	2.7715	1.1000e-004	0.0000	2.7742
Worker	8.6000e-004	4.7000e-004	6.9100e-003	4.0000e-005	5.6000e-003	2.0000e-005	5.6100e-003	1.4900e-003	2.0000e-005	1.5000e-003	0.0000	3.2779	3.2779	4.0000e-005	0.0000	3.2788
Total	**2.4000e-003**	**0.0439**	**0.0249**	**2.9000e-004**	**0.0121**	**1.1000e-004**	**0.0122**	**3.2800e-003**	**1.0000e-004**	**3.3800e-003**	**0.0000**	**27.5921**	**27.5921**	**1.5100e-003**	**0.0000**	**27.6297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0269	0.0000	0.0269	2.9000e-003	0.0000	2.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0116	0.1645	2.7000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	22.9161	22.9161	1.0300e-003	0.0000	22.9418
Total	**2.6700e-003**	**0.0116**	**0.1645**	**2.7000e-004**	**0.0269**	**3.6000e-004**	**0.0272**	**2.9000e-003**	**3.6000e-004**	**3.2600e-003**	**0.0000**	**22.9161**	**22.9161**	**1.0300e-003**	**0.0000**	**22.9418**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3800e-003	0.0393	0.0164	2.2000e-004	5.5900e-003	8.0000e-005	5.6600e-003	1.5300e-003	7.0000e-005	1.6100e-003	0.0000	21.5427	21.5427	1.3600e-003	0.0000	21.5767
Vendor	1.6000e-004	4.1900e-003	1.6000e-003	3.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	2.7715	2.7715	1.1000e-004	0.0000	2.7742
Worker	8.6000e-004	4.7000e-004	6.9100e-003	4.0000e-005	5.6000e-003	2.0000e-005	5.6100e-003	1.4900e-003	2.0000e-005	1.5000e-003	0.0000	3.2779	3.2779	4.0000e-005	0.0000	3.2788
Total	**2.4000e-003**	**0.0439**	**0.0249**	**2.9000e-004**	**0.0121**	**1.1000e-004**	**0.0122**	**3.2800e-003**	**1.0000e-004**	**3.3800e-003**	**0.0000**	**27.5921**	**27.5921**	**1.5100e-003**	**0.0000**	**27.6297**

3.24 Plot 6 (2035) Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3194	0.0000	3.3194	0.3584	0.0000	0.3584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0076	5.5762	15.6745	0.0496		0.1338	0.1338		0.1338	0.1338	0.0000	4,744.5199	4,744.5199	0.1596	0.0000	4,748.5086
Total	**2.0076**	**5.5762**	**15.6745**	**0.0496**	**3.3194**	**0.1338**	**3.4532**	**0.3584**	**0.1338**	**0.4922**	**0.0000**	**4,744.5199**	**4,744.5199**	**0.1596**	**0.0000**	**4,748.5086**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0166	0.4729	0.1969	2.6200e-003	0.0673	9.4000e-004	0.0682	0.0185	8.9000e-004	0.0194	0.0000	259.3413	259.3413	0.0164	0.0000	259.7501
Vendor	0.0133	0.3408	0.1297	2.3100e-003	0.0740	7.4000e-004	0.0747	0.0213	7.0000e-004	0.0220	0.0000	225.1852	225.1852	8.7800e-003	0.0000	225.4047
Worker	0.0149	8.1600e-003	0.1198	6.3000e-004	0.0970	3.4000e-004	0.0973	0.0258	3.1000e-004	0.0261	0.0000	56.8164	56.8164	6.5000e-004	0.0000	56.8326
Total	**0.0448**	**0.8219**	**0.4464**	**5.5600e-003**	**0.2382**	**2.0200e-003**	**0.2403**	**0.0655**	**1.9000e-003**	**0.0675**	**0.0000**	**541.3429**	**541.3429**	**0.0258**	**0.0000**	**541.9874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2946	0.0000	1.2946	0.1398	0.0000	0.1398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0553	3.6257	20.1977	0.0496		0.0929	0.0929		0.0929	0.0929	0.0000	4,744.5142	4,744.5142	0.1596	0.0000	4,748.5030
Total	**1.0553**	**3.6257**	**20.1977**	**0.0496**	**1.2946**	**0.0929**	**1.3874**	**0.1398**	**0.0929**	**0.2327**	**0.0000**	**4,744.5142**	**4,744.5142**	**0.1596**	**0.0000**	**4,748.5030**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0166	0.4729	0.1969	2.6200e-003	0.0673	9.4000e-004	0.0682	0.0185	8.9000e-004	0.0194	0.0000	259.3413	259.3413	0.0164	0.0000	259.7501
Vendor	0.0133	0.3408	0.1297	2.3100e-003	0.0740	7.4000e-004	0.0747	0.0213	7.0000e-004	0.0220	0.0000	225.1852	225.1852	8.7800e-003	0.0000	225.4047
Worker	0.0149	8.1600e-003	0.1198	6.3000e-004	0.0970	3.4000e-004	0.0973	0.0258	3.1000e-004	0.0261	0.0000	56.8164	56.8164	6.5000e-004	0.0000	56.8326
Total	**0.0448**	**0.8219**	**0.4464**	**5.5600e-003**	**0.2382**	**2.0200e-003**	**0.2403**	**0.0655**	**1.9000e-003**	**0.0675**	**0.0000**	**541.3429**	**541.3429**	**0.0258**	**0.0000**	**541.9874**

3.25 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4152	0.0000	0.4152	0.0448	0.0000	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3810	2.3923	5.6076	9.3900e-003		0.0347	0.0347		0.0347	0.0347	0.0000	800.8115	800.8115	0.0308	0.0000	801.5802
Total	**0.3810**	**2.3923**	**5.6076**	**9.3900e-003**	**0.4152**	**0.0347**	**0.4499**	**0.0448**	**0.0347**	**0.0796**	**0.0000**	**800.8115**	**800.8115**	**0.0308**	**0.0000**	**801.5802**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0399	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.8742	21.8742	1.3800e-003	0.0000	21.9086
Vendor	3.1900e-003	0.0818	0.0311	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.0444	54.0444	2.1100e-003	0.0000	54.0971
Worker	9.3400e-003	5.1000e-003	0.0749	3.9000e-004	0.0606	2.1000e-004	0.0608	0.0161	1.9000e-004	0.0163	0.0000	35.5103	35.5103	4.1000e-004	0.0000	35.5204
Total	**0.0139**	**0.1268**	**0.1226**	**1.1700e-003**	**0.0841**	**4.7000e-004**	**0.0845**	**0.0228**	**4.4000e-004**	**0.0232**	**0.0000**	**111.4289**	**111.4289**	**3.9000e-003**	**0.0000**	**111.5262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1140	0.5384	5.7392	9.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	800.8105	800.8105	0.0308	0.0000	801.5792
Total	**0.1140**	**0.5384**	**5.7392**	**9.3900e-003**	**0.1619**	**0.0177**	**0.1797**	**0.0175**	**0.0177**	**0.0352**	**0.0000**	**800.8105**	**800.8105**	**0.0308**	**0.0000**	**801.5792**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0399	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.8742	21.8742	1.3800e-003	0.0000	21.9086
Vendor	3.1900e-003	0.0818	0.0311	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.0444	54.0444	2.1100e-003	0.0000	54.0971
Worker	9.3400e-003	5.1000e-003	0.0749	3.9000e-004	0.0606	2.1000e-004	0.0608	0.0161	1.9000e-004	0.0163	0.0000	35.5103	35.5103	4.1000e-004	0.0000	35.5204
Total	**0.0139**	**0.1268**	**0.1226**	**1.1700e-003**	**0.0841**	**4.7000e-004**	**0.0845**	**0.0228**	**4.4000e-004**	**0.0232**	**0.0000**	**111.4289**	**111.4289**	**3.9000e-003**	**0.0000**	**111.5262**

3.26 Plot 6 (2035) Building-Wet Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2450	0.0000	1.2450	0.1344	0.0000	0.1344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6995	2.1032	9.0449	0.0194		0.0583	0.0583		0.0583	0.0583	0.0000	1,719.6049	1,719.6049	0.0560	0.0000	1,721.0058
Total	**0.6995**	**2.1032**	**9.0449**	**0.0194**	**1.2450**	**0.0583**	**1.3033**	**0.1344**	**0.0583**	**0.1927**	**0.0000**	**1,719.6049**	**1,719.6049**	**0.0560**	**0.0000**	**1,721.0058**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8000e-003	0.1655	0.0689	9.2000e-004	0.0235	3.3000e-004	0.0239	6.4600e-003	3.1000e-004	6.7700e-003	0.0000	90.7695	90.7695	5.7200e-003	0.0000	90.9125
Vendor	7.9700e-003	0.2045	0.0778	1.3900e-003	0.0444	4.4000e-004	0.0448	0.0128	4.2000e-004	0.0132	0.0000	135.1111	135.1111	5.2700e-003	0.0000	135.2428
Worker	9.3400e-003	5.1000e-003	0.0749	3.9000e-004	0.0606	2.1000e-004	0.0608	0.0161	1.9000e-004	0.0163	0.0000	35.5103	35.5103	4.1000e-004	0.0000	35.5204
Total	**0.0231**	**0.3751**	**0.2216**	**2.7000e-003**	**0.1286**	**9.8000e-004**	**0.1295**	**0.0354**	**9.2000e-004**	**0.0363**	**0.0000**	**261.3908**	**261.3908**	**0.0114**	**0.0000**	**261.6757**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4856	0.0000	0.4856	0.0524	0.0000	0.0524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2810	0.9184	10.2452	0.0194		0.0300	0.0300		0.0300	0.0300	0.0000	1,719.6029	1,719.6029	0.0560	0.0000	1,721.0037
Total	**0.2810**	**0.9184**	**10.2452**	**0.0194**	**0.4856**	**0.0300**	**0.5155**	**0.0524**	**0.0300**	**0.0824**	**0.0000**	**1,719.6029**	**1,719.6029**	**0.0560**	**0.0000**	**1,721.0037**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8000e-003	0.1655	0.0689	9.2000e-004	0.0235	3.3000e-004	0.0239	6.4600e-003	3.1000e-004	6.7700e-003	0.0000	90.7695	90.7695	5.7200e-003	0.0000	90.9125
Vendor	7.9700e-003	0.2045	0.0778	1.3900e-003	0.0444	4.4000e-004	0.0448	0.0128	4.2000e-004	0.0132	0.0000	135.1111	135.1111	5.2700e-003	0.0000	135.2428
Worker	9.3400e-003	5.1000e-003	0.0749	3.9000e-004	0.0606	2.1000e-004	0.0608	0.0161	1.9000e-004	0.0163	0.0000	35.5103	35.5103	4.1000e-004	0.0000	35.5204
Total	**0.0231**	**0.3751**	**0.2216**	**2.7000e-003**	**0.1286**	**9.8000e-004**	**0.1295**	**0.0354**	**9.2000e-004**	**0.0363**	**0.0000**	**261.3908**	**261.3908**	**0.0114**	**0.0000**	**261.6757**

3.27 Plot 6 (2035) Building-Electrical - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8298	0.0000	0.8298	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4864	2.7420	5.8862	9.0700e-003		0.0315	0.0315		0.0315	0.0315	0.0000	746.6612	746.6612	0.0392	0.0000	747.6412
Total	**0.4864**	**2.7420**	**5.8862**	**9.0700e-003**	**0.8298**	**0.0315**	**0.8614**	**0.0896**	**0.0315**	**0.1211**	**0.0000**	**746.6612**	**746.6612**	**0.0392**	**0.0000**	**747.6412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0133	0.3783	0.1575	2.0900e-003	0.0538	7.5000e-004	0.0546	0.0148	7.2000e-004	0.0155	0.0000	207.4731	207.4731	0.0131	0.0000	207.8001
Vendor	3.1900e-003	0.0818	0.0311	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.0444	54.0444	2.1100e-003	0.0000	54.0971
Worker	5.6000e-003	3.0600e-003	0.0449	2.4000e-004	0.0364	1.3000e-004	0.0365	9.6600e-003	1.2000e-004	9.7700e-003	0.0000	21.3062	21.3062	2.4000e-004	0.0000	21.3122
Total	**0.0220**	**0.4632**	**0.2335**	**2.8900e-003**	**0.1079**	**1.0600e-003**	**0.1090**	**0.0296**	**1.0100e-003**	**0.0305**	**0.0000**	**282.8237**	**282.8237**	**0.0154**	**0.0000**	**283.2094**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3236	0.0000	0.3236	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1844	1.3955	5.6678	9.0700e-003		0.0166	0.0166		0.0166	0.0166	0.0000	746.6603	746.6603	0.0392	0.0000	747.6403
Total	**0.1844**	**1.3955**	**5.6678**	**9.0700e-003**	**0.3236**	**0.0166**	**0.3402**	**0.0350**	**0.0166**	**0.0515**	**0.0000**	**746.6603**	**746.6603**	**0.0392**	**0.0000**	**747.6403**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0133	0.3783	0.1575	2.0900e-003	0.0538	7.5000e-004	0.0546	0.0148	7.2000e-004	0.0155	0.0000	207.4731	207.4731	0.0131	0.0000	207.8001
Vendor	3.1900e-003	0.0818	0.0311	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.0444	54.0444	2.1100e-003	0.0000	54.0971
Worker	5.6000e-003	3.0600e-003	0.0449	2.4000e-004	0.0364	1.3000e-004	0.0365	9.6600e-003	1.2000e-004	9.7700e-003	0.0000	21.3062	21.3062	2.4000e-004	0.0000	21.3122
Total	**0.0220**	**0.4632**	**0.2335**	**2.8900e-003**	**0.1079**	**1.0600e-003**	**0.1090**	**0.0296**	**1.0100e-003**	**0.0305**	**0.0000**	**282.8237**	**282.8237**	**0.0154**	**0.0000**	**283.2094**

3.28 Plot 6 (2035) Building-Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3406	1.5487	4.5486	7.5300e-003		0.0300	0.0300		0.0300	0.0300	0.0000	632.2260	632.2260	0.0276	0.0000	632.9162
Total	**0.3406**	**1.5487**	**4.5486**	**7.5300e-003**	**0.2073**	**0.0300**	**0.2373**	**0.0224**	**0.0300**	**0.0524**	**0.0000**	**632.2260**	**632.2260**	**0.0276**	**0.0000**	**632.9162**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7200e-003	0.0954	0.0363	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.0518	63.0518	2.4600e-003	0.0000	63.1133
Worker	3.7400e-003	2.0400e-003	0.0300	1.6000e-004	0.0243	8.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.2041	14.2041	1.6000e-004	0.0000	14.2082
Total	**7.4600e-003**	**0.0975**	**0.0663**	**8.1000e-004**	**0.0450**	**2.9000e-004**	**0.0453**	**0.0124**	**2.8000e-004**	**0.0127**	**0.0000**	**77.2559**	**77.2559**	**2.6200e-003**	**0.0000**	**77.3215**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1768	1.6057	4.7456	7.5300e-003		0.0187	0.0187		0.0187	0.0187	0.0000	632.2252	632.2252	0.0276	0.0000	632.9154
Total	**0.1768**	**1.6057**	**4.7456**	**7.5300e-003**	**0.0809**	**0.0187**	**0.0996**	**8.7300e-003**	**0.0187**	**0.0275**	**0.0000**	**632.2252**	**632.2252**	**0.0276**	**0.0000**	**632.9154**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7200e-003	0.0954	0.0363	6.5000e-004	0.0207	2.1000e-004	0.0209	5.9700e-003	2.0000e-004	6.1700e-003	0.0000	63.0518	63.0518	2.4600e-003	0.0000	63.1133
Worker	3.7400e-003	2.0400e-003	0.0300	1.6000e-004	0.0243	8.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.2041	14.2041	1.6000e-004	0.0000	14.2082
Total	**7.4600e-003**	**0.0975**	**0.0663**	**8.1000e-004**	**0.0450**	**2.9000e-004**	**0.0453**	**0.0124**	**2.8000e-004**	**0.0127**	**0.0000**	**77.2559**	**77.2559**	**2.6200e-003**	**0.0000**	**77.3215**

3.29 Plot 6 (2035) Landscaping - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2073	0.0000	0.2073	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3594	1.5868	4.8682	8.1100e-003		0.0315	0.0315		0.0315	0.0315	0.0000	681.5770	681.5770	0.0291	0.0000	682.3042
Total	**0.3594**	**1.5868**	**4.8682**	**8.1100e-003**	**0.2073**	**0.0315**	**0.2389**	**0.0224**	**0.0315**	**0.0539**	**0.0000**	**681.5770**	**681.5770**	**0.0291**	**0.0000**	**682.3042**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1900e-003	0.0818	0.0311	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.0444	54.0444	2.1100e-003	0.0000	54.0971
Worker	3.7400e-003	2.0400e-003	0.0300	1.6000e-004	0.0243	8.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.2041	14.2041	1.6000e-004	0.0000	14.2082
Total	**6.9300e-003**	**0.0838**	**0.0611**	**7.2000e-004**	**0.0420**	**2.6000e-004**	**0.0423**	**0.0116**	**2.5000e-004**	**0.0118**	**0.0000**	**68.2485**	**68.2485**	**2.2700e-003**	**0.0000**	**68.3053**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0809	0.0000	0.0809	8.7300e-003	0.0000	8.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1826	1.6306	5.0997	8.1100e-003		0.0195	0.0195		0.0195	0.0195	0.0000	681.5762	681.5762	0.0291	0.0000	682.3034
Total	**0.1826**	**1.6306**	**5.0997**	**8.1100e-003**	**0.0809**	**0.0195**	**0.1004**	**8.7300e-003**	**0.0195**	**0.0282**	**0.0000**	**681.5762**	**681.5762**	**0.0291**	**0.0000**	**682.3034**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1900e-003	0.0818	0.0311	5.6000e-004	0.0178	1.8000e-004	0.0179	5.1200e-003	1.7000e-004	5.2900e-003	0.0000	54.0444	54.0444	2.1100e-003	0.0000	54.0971
Worker	3.7400e-003	2.0400e-003	0.0300	1.6000e-004	0.0243	8.0000e-005	0.0243	6.4400e-003	8.0000e-005	6.5200e-003	0.0000	14.2041	14.2041	1.6000e-004	0.0000	14.2082
Total	**6.9300e-003**	**0.0838**	**0.0611**	**7.2000e-004**	**0.0420**	**2.6000e-004**	**0.0423**	**0.0116**	**2.5000e-004**	**0.0118**	**0.0000**	**68.2485**	**68.2485**	**2.2700e-003**	**0.0000**	**68.3053**

3.30 Plot 6 (2035) Curbing/Drive Approaches - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0310	0.1429	0.4097	7.1000e-004		4.8400e-003	4.8400e-003		4.8400e-003	4.8400e-003	0.0000	60.4188	60.4188	2.5000e-003	0.0000	60.4813
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1930**	**0.1429**	**0.4097**	**7.1000e-004**	**0.0000**	**4.8400e-003**	**4.8400e-003**	**0.0000**	**4.8400e-003**	**4.8400e-003**	**0.0000**	**60.4188**	**60.4188**	**2.5000e-003**	**0.0000**	**60.4813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6500e-003	0.0471	0.0196	2.6000e-004	6.7000e-003	9.0000e-005	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.8513	25.8513	1.6300e-003	0.0000	25.8920
Vendor	6.5000e-004	0.0168	6.3900e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	11.0860	11.0860	4.3000e-004	0.0000	11.0969
Worker	1.1500e-003	6.3000e-004	9.2200e-003	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	2.0000e-005	2.0000e-003	0.0000	4.3705	4.3705	5.0000e-005	0.0000	4.3717
Total	**3.4500e-003**	**0.0646**	**0.0352**	**4.2000e-004**	**0.0178**	**1.6000e-004**	**0.0180**	**4.8700e-003**	**1.4000e-004**	**5.0100e-003**	**0.0000**	**41.3078**	**41.3078**	**2.1100e-003**	**0.0000**	**41.3606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e-003	0.0853	0.4330	7.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	60.4188	60.4188	2.5000e-003	0.0000	60.4812
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**0.0853**	**0.4330**	**7.1000e-004**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**1.3500e-003**	**1.3500e-003**	**0.0000**	**60.4188**	**60.4188**	**2.5000e-003**	**0.0000**	**60.4812**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6500e-003	0.0471	0.0196	2.6000e-004	6.7000e-003	9.0000e-005	6.8000e-003	1.8400e-003	9.0000e-005	1.9300e-003	0.0000	25.8513	25.8513	1.6300e-003	0.0000	25.8920
Vendor	6.5000e-004	0.0168	6.3900e-003	1.1000e-004	3.6400e-003	4.0000e-005	3.6800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	11.0860	11.0860	4.3000e-004	0.0000	11.0969
Worker	1.1500e-003	6.3000e-004	9.2200e-003	5.0000e-005	7.4600e-003	3.0000e-005	7.4900e-003	1.9800e-003	2.0000e-005	2.0000e-003	0.0000	4.3705	4.3705	5.0000e-005	0.0000	4.3717
Total	**3.4500e-003**	**0.0646**	**0.0352**	**4.2000e-004**	**0.0178**	**1.6000e-004**	**0.0180**	**4.8700e-003**	**1.4000e-004**	**5.0100e-003**	**0.0000**	**41.3078**	**41.3078**	**2.1100e-003**	**0.0000**	**41.3606**

3.31 Plot 6 (2035) Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1273	0.0000	0.1273	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0834	0.3331	0.8498	1.9400e-003		0.0104	0.0104		0.0104	0.0104	0.0000	179.4462	179.4462	6.7300e-003	0.0000	179.6145
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2453**	**0.3331**	**0.8498**	**1.9400e-003**	**0.1273**	**0.0104**	**0.1377**	**0.0137**	**0.0104**	**0.0241**	**0.0000**	**179.4462**	**179.4462**	**6.7300e-003**	**0.0000**	**179.6145**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0399	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.8742	21.8742	1.3800e-003	0.0000	21.9086
Vendor	4.9000e-004	0.0126	4.7900e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3145	8.3145	3.2000e-004	0.0000	8.3226
Worker	1.4400e-003	7.8000e-004	0.0115	6.0000e-005	9.3300e-003	3.0000e-005	9.3600e-003	2.4800e-003	3.0000e-005	2.5100e-003	0.0000	5.4631	5.4631	6.0000e-005	0.0000	5.4647
Total	**3.3300e-003**	**0.0533**	**0.0329**	**3.7000e-004**	**0.0177**	**1.4000e-004**	**0.0179**	**4.8300e-003**	**1.4000e-004**	**4.9500e-003**	**0.0000**	**35.6518**	**35.6518**	**1.7600e-003**	**0.0000**	**35.6960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	5.3600e-003	0.0000	5.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0219	0.0973	1.0531	1.9400e-003		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	179.4460	179.4460	6.7300e-003	0.0000	179.6143
Paving	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1838**	**0.0973**	**1.0531**	**1.9400e-003**	**0.0496**	**3.0500e-003**	**0.0527**	**5.3600e-003**	**3.0500e-003**	**8.4100e-003**	**0.0000**	**179.4460**	**179.4460**	**6.7300e-003**	**0.0000**	**179.6143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0399	0.0166	2.2000e-004	5.6700e-003	8.0000e-005	5.7500e-003	1.5600e-003	8.0000e-005	1.6300e-003	0.0000	21.8742	21.8742	1.3800e-003	0.0000	21.9086
Vendor	4.9000e-004	0.0126	4.7900e-003	9.0000e-005	2.7300e-003	3.0000e-005	2.7600e-003	7.9000e-004	3.0000e-005	8.1000e-004	0.0000	8.3145	8.3145	3.2000e-004	0.0000	8.3226
Worker	1.4400e-003	7.8000e-004	0.0115	6.0000e-005	9.3300e-003	3.0000e-005	9.3600e-003	2.4800e-003	3.0000e-005	2.5100e-003	0.0000	5.4631	5.4631	6.0000e-005	0.0000	5.4647
Total	**3.3300e-003**	**0.0533**	**0.0329**	**3.7000e-004**	**0.0177**	**1.4000e-004**	**0.0179**	**4.8300e-003**	**1.4000e-004**	**4.9500e-003**	**0.0000**	**35.6518**	**35.6518**	**1.7600e-003**	**0.0000**	**35.6960**

3.32 Plot 6 (2035) Temporary Utilities - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0747	0.1631	0.4020	1.8500e-003		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	190.6814	190.6814	6.0400e-003	0.0000	190.8324
Total	**0.0747**	**0.1631**	**0.4020**	**1.8500e-003**	**0.0000**	**5.9200e-003**	**5.9200e-003**	**0.0000**	**5.9200e-003**	**5.9200e-003**	**0.0000**	**190.6814**	**190.6814**	**6.0400e-003**	**0.0000**	**190.8324**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.0962	0.8137	1.8500e-003		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	190.6811	190.6811	6.0400e-003	0.0000	190.8321
Total	**0.0222**	**0.0962**	**0.8137**	**1.8500e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**2.9600e-003**	**2.9600e-003**	**0.0000**	**190.6811**	**190.6811**	**6.0400e-003**	**0.0000**	**190.8321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

A-4 24-Hour Concrete Pour Air Quality Emissions

ESA

Unmitigated 24 hour Concrete Pour

Maximum Daily Emissions

Year	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	lb/day					
2020	No Concrete Phase					
2021	17.01	151.89	166.94	0.30	8.76	7.56
2022	15.74	138.58	165.83	0.30	7.71	6.57
2023	14.86	127.45	165.21	0.30	6.94	5.84
2024	14.29	121.56	165.30	0.30	6.37	5.30
2025	13.53	114.23	164.89	0.30	5.66	4.64
2026	13.52	114.13	164.83	0.30	5.66	4.63
2027	13.52	114.04	164.77	0.30	5.66	4.63
2028	13.51	113.97	164.72	0.30	5.66	4.63
2029	13.50	113.90	164.67	0.30	5.66	4.63
2030	14.15	91.24	169.34	0.33	3.48	2.63
2031	14.14	91.21	169.31	0.33	3.48	2.63
2032	14.13	91.15	169.27	0.33	3.48	2.63
2033	14.13	91.10	169.24	0.33	3.47	2.63
2034	14.12	91.06	169.20	0.33	3.47	2.63
2035	13.36	84.68	169.02	0.33	2.94	2.10

Summer

Year	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	lb/day					
2021	16.98	151.74	166.94	0.30	8.76	7.56
2022	15.72	138.44	165.83	0.30	7.71	6.57
2023	14.84	127.40	165.21	0.30	6.94	5.84
2024	14.27	121.50	165.30	0.30	6.37	5.30
2025	13.51	114.18	164.89	0.30	5.66	4.63
2026	13.50	114.08	164.83	0.30	5.66	4.63
2027	13.50	114.00	164.77	0.30	5.66	4.63
2028	13.49	113.93	164.72	0.30	5.66	4.63
2029	13.48	113.85	164.67	0.30	5.66	4.63
2030	14.13	91.20	169.34	0.33	3.48	2.63
2031	14.12	91.16	169.31	0.33	3.48	2.63
2032	14.12	91.11	169.27	0.33	3.47	2.63
2033	14.11	91.06	169.24	0.33	3.47	2.63
2034	14.10	91.02	169.20	0.33	3.47	2.63
2035	13.34	84.65	169.02	0.33	2.94	2.10

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Year	lb/day					
2021	17.01	151.89	166.89	0.30	8.76	7.56
2022	15.74	138.58	165.78	0.30	7.71	6.57
2023	14.86	127.45	165.14	0.30	6.94	5.84
2024	14.29	121.56	165.23	0.30	6.37	5.30
2025	13.53	114.23	164.83	0.30	5.66	4.64
2026	13.52	114.13	164.77	0.30	5.66	4.63
2027	13.52	114.04	164.72	0.30	5.66	4.63
2028	13.51	113.97	164.67	0.30	5.66	4.63
2029	13.50	113.90	164.63	0.30	5.66	4.63
2030	14.15	91.24	169.31	0.33	3.48	2.63
2031	14.14	91.21	169.28	0.33	3.48	2.63
2032	14.13	91.15	169.24	0.33	3.48	2.63
2033	14.13	91.10	169.21	0.33	3.47	2.63
2034	14.12	91.06	169.18	0.33	3.47	2.63
2035	13.36	84.68	169.01	0.33	2.94	2.10

World Logistics Center-24hr Concrete Pour

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year						lb/day							lb/day			
2021	16.9802	151.7389	166.9436	0.2996	1.1522	7.6037	8.7559	0.3122	7.2447	7.5568	0.0000	27,857.1262	27,857.1262	5.2486	0.0000	27,988.3401
2022	15.7182	138.4438	165.8318	0.2992	1.1522	6.5553	7.7076	0.3122	6.2595	6.5717	0.0000	27,815.4406	27,815.4406	5.2216	0.0000	27,945.9813
2023	14.8364	127.3966	165.2133	0.2980	1.1522	5.7861	6.9383	0.3122	5.5323	5.8445	0.0000	27,691.8010	27,691.8010	5.1777	0.0000	27,821.2433
2024	14.2696	121.5022	165.3036	0.2978	1.1522	5.2129	6.3651	0.3122	4.9881	5.3003	0.0000	27,674.0102	27,674.0102	5.1592	0.0000	27,802.9913
2025	13.5097	114.1754	164.8889	0.2976	1.1522	4.5063	5.6585	0.3122	4.3228	4.6349	0.0000	27,651.0994	27,651.0994	5.1351	0.0000	27,779.4757
2026	13.5028	114.0813	164.8257	0.2973	1.1522	4.5060	5.6582	0.3122	4.3225	4.6347	0.0000	27,621.7556	27,621.7556	5.1338	0.0000	27,750.1003
2027	13.4962	113.9956	164.7691	0.2970	1.1522	4.5057	5.6579	0.3122	4.3222	4.6344	0.0000	27,595.6933	27,595.6933	5.1324	0.0000	27,724.0028
2028	13.4894	113.9252	164.7197	0.2968	1.1522	4.5053	5.6576	0.3122	4.3219	4.6341	0.0000	27,573.2397	27,573.2397	5.1310	0.0000	27,701.5147
2029	13.4818	113.8536	164.6684	0.2966	1.1522	4.5050	5.6572	0.3122	4.3216	4.6337	0.0000	27,552.7943	27,552.7943	5.1297	0.0000	27,681.0362
2030	14.1300	91.1970	169.3431	0.3265	1.1523	2.3232	3.4754	0.3122	2.3226	2.6347	0.0000	30,103.9807	30,103.9807	1.4061	0.0000	30,139.1319
2031	14.1235	91.1639	169.3120	0.3264	1.1523	2.3229	3.4752	0.3122	2.3224	2.6345	0.0000	30,093.6716	30,093.6716	1.4051	0.0000	30,128.7988
2032	14.1163	91.1093	169.2705	0.3263	1.1523	2.3227	3.4749	0.3122	2.3221	2.6343	0.0000	30,079.8746	30,079.8746	1.4041	0.0000	30,114.9766
2033	14.1101	91.0620	169.2351	0.3261	1.1523	2.3224	3.4747	0.3122	2.3219	2.6341	0.0000	30,068.0224	30,068.0224	1.4031	0.0000	30,103.1007
2034	14.1049	91.0199	169.1993	0.3261	1.1523	2.3222	3.4745	0.3122	2.3217	2.6338	0.0000	30,057.9599	30,057.9599	1.4023	0.0000	30,093.0165
2035	13.3445	84.6468	169.0207	0.3260	1.1523	1.7863	2.9386	0.3122	1.7858	2.0979	0.0000	30,049.7102	30,049.7102	1.3402	0.0000	30,083.2155
Maximum	**16.9802**	**151.7389**	**169.3431**	**0.3265**	**1.1523**	**7.6037**	**8.7559**	**0.3122**	**7.2447**	**7.5568**	**0.0000**	**30,103.9807**	**30,103.9807**	**5.2486**	**0.0000**	**30,139.1319**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	16.9802	151.7389	166.9436	0.2996	1.1522	7.6037	8.7559	0.3122	7.2447	7.5568	0.0000	27,857.1262	27,857.1262	5.2486	0.0000	27,988.3401
2022	15.7182	138.4438	165.8318	0.2992	1.1522	6.5553	7.7076	0.3122	6.2595	6.5717	0.0000	27,815.4406	27,815.4406	5.2216	0.0000	27,945.9813
2023	14.8364	127.3966	165.2133	0.2980	1.1522	5.7861	6.9383	0.3122	5.5323	5.8445	0.0000	27,691.8009	27,691.8009	5.1777	0.0000	27,821.2433
2024	14.2696	121.5022	165.3036	0.2978	1.1522	5.2129	6.3651	0.3122	4.9881	5.3003	0.0000	27,674.0102	27,674.0102	5.1592	0.0000	27,802.9913
2025	13.5097	114.1754	164.8889	0.2976	1.1522	4.5063	5.6585	0.3122	4.3228	4.6349	0.0000	27,651.0994	27,651.0994	5.1351	0.0000	27,779.4757
2026	13.5028	114.0813	164.8257	0.2973	1.1522	4.5060	5.6582	0.3122	4.3225	4.6347	0.0000	27,621.7556	27,621.7556	5.1338	0.0000	27,750.1003
2027	13.4962	113.9956	164.7691	0.2970	1.1522	4.5057	5.6579	0.3122	4.3222	4.6344	0.0000	27,595.6932	27,595.6932	5.1324	0.0000	27,724.0028
2028	13.4894	113.9252	164.7197	0.2968	1.1522	4.5053	5.6576	0.3122	4.3219	4.6341	0.0000	27,573.2397	27,573.2397	5.1310	0.0000	27,701.5146
2029	13.4818	113.8536	164.6684	0.2966	1.1522	4.5050	5.6572	0.3122	4.3216	4.6337	0.0000	27,552.7943	27,552.7943	5.1297	0.0000	27,681.0362
2030	14.1300	91.1970	169.3431	0.3265	1.1523	2.3232	3.4754	0.3122	2.3226	2.6347	0.0000	30,103.9807	30,103.9807	1.4061	0.0000	30,139.1319
2031	14.1235	91.1639	169.3120	0.3264	1.1523	2.3229	3.4752	0.3122	2.3224	2.6345	0.0000	30,093.6716	30,093.6716	1.4051	0.0000	30,128.7988
2032	14.1163	91.1093	169.2705	0.3263	1.1523	2.3227	3.4749	0.3122	2.3221	2.6343	0.0000	30,079.8746	30,079.8746	1.4041	0.0000	30,114.9766
2033	14.1101	91.0620	169.2351	0.3261	1.1523	2.3224	3.4747	0.3122	2.3219	2.6341	0.0000	30,068.0223	30,068.0223	1.4031	0.0000	30,103.1007
2034	14.1049	91.0199	169.1993	0.3261	1.1523	2.3222	3.4745	0.3122	2.3217	2.6338	0.0000	30,057.9599	30,057.9599	1.4023	0.0000	30,093.0165
2035	13.3445	84.6468	169.0207	0.3260	1.1523	1.7863	2.9386	0.3122	1.7858	2.0979	0.0000	30,049.7102	30,049.7102	1.3402	0.0000	30,083.2155
Maximum	**16.9802**	**151.7389**	**169.3431**	**0.3265**	**1.1523**	**7.6037**	**8.7559**	**0.3122**	**7.2447**	**7.5568**	**0.0000**	**30,103.9807**	**30,103.9807**	**5.2486**	**0.0000**	**30,139.1319**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	1109
2	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	1120
3	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	1129
4	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
5	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
6	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
7	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
8	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
9	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
10	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
11	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
12	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
13	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
14	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
15	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2030) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2031) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2032) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2033) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40

Plot 12 (2034) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2034) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 2 (2021) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2022) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2023) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 6 (2035) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40

Plot 9 (2024) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2024) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2025) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 1 3 20 (2026) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2027) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40

Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Generator Sets	4	12.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	16.5555	142.7965	163.4473	0.2665		7.5709	7.5709		7.2135	7.2135		24,316.2273	24,316.2273	5.0423		24,442.2843
Total	**16.5555**	**142.7965**	**163.4473**	**0.2665**	**0.0000**	**7.5709**	**7.5709**	**0.0000**	**7.2135**	**7.2135**		**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2843**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	16.5555	142.7965	163.4473	0.2665		7.5709	7.5709		7.2135	7.2135	0.0000	24,316.2273	24,316.2273	5.0423		24,442.2842
Total	**16.5555**	**142.7965**	**163.4473**	**0.2665**	**0.0000**	**7.5709**	**7.5709**	**0.0000**	**7.2135**	**7.2135**	**0.0000**	**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2842**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

3.3 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	15.3165	130.2123	162.4741	0.2666		6.5268	6.5268		6.2323	6.2323		24,327.3302	24,327.3302	5.0196		24,452.8192
Total	**15.3165**	**130.2123**	**162.4741**	**0.2666**	**0.0000**	**6.5268**	**6.5268**	**0.0000**	**6.2323**	**6.2323**		**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8192**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	15.3165	130.2123	162.4741	0.2666		6.5268	6.5268		6.2323	6.2323	0.0000	24,327.3302	24,327.3302	5.0196		24,452.8191
Total	**15.3165**	**130.2123**	**162.4741**	**0.2666**	**0.0000**	**6.5268**	**6.5268**	**0.0000**	**6.2323**	**6.2323**	**0.0000**	**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

3.4 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.5279	122.1695	162.1334	0.2667		5.7724	5.7724		5.5194	5.5194		24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**14.5279**	**122.1695**	**162.1334**	**0.2667**	**0.0000**	**5.7724**	**5.7724**	**0.0000**	**5.5194**	**5.5194**		**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.5279	122.1695	162.1334	0.2667		5.7724	5.7724		5.5194	5.5194	0.0000	24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**14.5279**	**122.1695**	**162.1334**	**0.2667**	**0.0000**	**5.7724**	**5.7724**	**0.0000**	**5.5194**	**5.5194**	**0.0000**	**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

3.5 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.9669	116.3098	162.2818	0.2668		5.1993	5.1993		4.9752	4.9752		24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**13.9669**	**116.3098**	**162.2818**	**0.2668**	**0.0000**	**5.1993**	**5.1993**	**0.0000**	**4.9752**	**4.9752**		**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.9669	116.3098	162.2818	0.2668		5.1993	5.1993		4.9752	4.9752	0.0000	24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**13.9669**	**116.3098**	**162.2818**	**0.2668**	**0.0000**	**5.1993**	**5.1993**	**0.0000**	**4.9752**	**4.9752**	**0.0000**	**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

3.6 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

3.7 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

3.8 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

3.9 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

3.10 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

3.11 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

3.12 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

3.13 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

3.14 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

3.15 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

3.16 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.1143	80.1460	166.5159	0.2971		1.7756	1.7756		1.7756	1.7756		26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**13.1143**	**80.1460**	**166.5159**	**0.2971**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**1.7756**	**1.7756**		**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1514	4.2616	1.7879	0.0243	0.6310	8.6100e-003	0.6396	0.1729	8.2300e-003	0.1811		2,655.3227	2,655.3227	0.1648		2,659.4429
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.2302**	**4.5008**	**2.5048**	**0.0289**	**1.1523**	**0.0107**	**1.1629**	**0.3122**	**0.0101**	**0.3223**		**3,125.7163**	**3,125.7163**	**0.1744**		**3,130.0760**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.1143	80.1460	166.5159	0.2971		1.7756	1.7756		1.7756	1.7756	0.0000	26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**13.1143**	**80.1460**	**166.5159**	**0.2971**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1514	4.2616	1.7879	0.0243	0.6310	8.6100e-003	0.6396	0.1729	8.2300e-003	0.1811		2,655.3227	2,655.3227	0.1648		2,659.4429
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.2302**	**4.5008**	**2.5048**	**0.0289**	**1.1523**	**0.0107**	**1.1629**	**0.3122**	**0.0101**	**0.3223**		**3,125.7163**	**3,125.7163**	**0.1744**		**3,130.0760**

World Logistics Center-24hr Concrete Pour

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	17.0053	151.8920	166.8869	0.2989	1.1522	7.6040	8.7563	0.3122	7.2450	7.5572	0.0000	27,780.8006	27,780.8006	5.2546	0.0000	27,912.1665
2022	15.7423	138.5753	165.7804	0.2985	1.1522	6.5557	7.7079	0.3122	6.2598	6.5720	0.0000	27,740.3519	27,740.3519	5.2275	0.0000	27,871.0382
2023	14.8581	127.4515	165.1352	0.2973	1.1522	5.7863	6.9386	0.3122	5.5326	5.8447	0.0000	27,619.9166	27,619.9166	5.1821	0.0000	27,749.4685
2024	14.2909	121.5577	165.2323	0.2971	1.1522	5.2131	6.3653	0.3122	4.9883	5.3005	0.0000	27,603.5161	27,603.5161	5.1635	0.0000	27,732.6041
2025	13.5305	114.2288	164.8255	0.2969	1.1522	4.5064	5.6587	0.3122	4.3229	4.6351	0.0000	27,582.1959	27,582.1959	5.1392	0.0000	27,710.6764
2026	13.5232	114.1325	164.7690	0.2966	1.1522	4.5062	5.6584	0.3122	4.3227	4.6348	0.0000	27,554.2711	27,554.2711	5.1378	0.0000	27,682.7172
2027	13.5161	114.0446	164.7185	0.2964	1.1522	4.5058	5.6580	0.3122	4.3224	4.6345	0.0000	27,529.4071	27,529.4071	5.1363	0.0000	27,657.8152
2028	13.5089	113.9726	164.6746	0.2962	1.1522	4.5055	5.6577	0.3122	4.3220	4.6342	0.0000	27,508.0235	27,508.0235	5.1348	0.0000	27,636.3943
2029	13.5005	113.8992	164.6285	0.2960	1.1522	4.5051	5.6573	0.3122	4.3217	4.6339	0.0000	27,488.4895	27,488.4895	5.1334	0.0000	27,616.8249
2030	14.1479	91.2408	169.3080	0.3259	1.1523	2.3233	3.4755	0.3122	2.3227	2.6348	0.0000	30,040.4425	30,040.4425	1.4097	0.0000	30,075.6851
2031	14.1406	91.2075	169.2811	0.3258	1.1523	2.3230	3.4753	0.3122	2.3224	2.6346	0.0000	30,030.6499	30,030.6499	1.4087	0.0000	30,065.8667
2032	14.1324	91.1513	169.2441	0.3257	1.1523	2.3228	3.4750	0.3122	2.3222	2.6343	0.0000	30,017.3065	30,017.3065	1.4076	0.0000	30,052.4968
2033	14.1256	91.1024	169.2128	0.3256	1.1523	2.3225	3.4748	0.3122	2.3220	2.6341	0.0000	30,005.7857	30,005.7857	1.4066	0.0000	30,040.9511
2034	14.1199	91.0589	169.1810	0.3255	1.1523	2.3223	3.4745	0.3122	2.3217	2.6339	0.0000	29,995.9641	29,995.9641	1.4057	0.0000	30,031.1068
2035	13.3589	84.6847	169.0058	0.3254	1.1523	1.7864	2.9386	0.3122	1.7858	2.0980	0.0000	29,987.9091	29,987.9091	1.3436	0.0000	30,021.4997
Maximum	**17.0053**	**151.8920**	**169.3080**	**0.3259**	**1.1523**	**7.6040**	**8.7563**	**0.3122**	**7.2450**	**7.5572**	**0.0000**	**30,040.4425**	**30,040.4425**	**5.2546**	**0.0000**	**30,075.6851**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	17.0053	151.8920	166.8869	0.2989	1.1522	7.6040	8.7563	0.3122	7.2450	7.5572	0.0000	27,780.8006	27,780.8006	5.2546	0.0000	27,912.1665
2022	15.7423	138.5753	165.7804	0.2985	1.1522	6.5557	7.7079	0.3122	6.2598	6.5720	0.0000	27,740.3519	27,740.3519	5.2275	0.0000	27,871.0382
2023	14.8581	127.4515	165.1352	0.2973	1.1522	5.7863	6.9386	0.3122	5.5326	5.8447	0.0000	27,619.9165	27,619.9165	5.1821	0.0000	27,749.4685
2024	14.2909	121.5577	165.2323	0.2971	1.1522	5.2131	6.3653	0.3122	4.9883	5.3005	0.0000	27,603.5161	27,603.5161	5.1635	0.0000	27,732.6041
2025	13.5305	114.2288	164.8255	0.2969	1.1522	4.5064	5.6587	0.3122	4.3229	4.6351	0.0000	27,582.1959	27,582.1959	5.1392	0.0000	27,710.6764
2026	13.5232	114.1325	164.7690	0.2966	1.1522	4.5062	5.6584	0.3122	4.3227	4.6348	0.0000	27,554.2711	27,554.2711	5.1378	0.0000	27,682.7172
2027	13.5161	114.0446	164.7185	0.2964	1.1522	4.5058	5.6580	0.3122	4.3224	4.6345	0.0000	27,529.4071	27,529.4071	5.1363	0.0000	27,657.8152
2028	13.5089	113.9726	164.6746	0.2962	1.1522	4.5055	5.6577	0.3122	4.3220	4.6342	0.0000	27,508.0235	27,508.0235	5.1348	0.0000	27,636.3943
2029	13.5005	113.8992	164.6285	0.2960	1.1522	4.5051	5.6573	0.3122	4.3217	4.6339	0.0000	27,488.4894	27,488.4894	5.1334	0.0000	27,616.8249
2030	14.1479	91.2408	169.3080	0.3259	1.1523	2.3233	3.4755	0.3122	2.3227	2.6348	0.0000	30,040.4425	30,040.4425	1.4097	0.0000	30,075.6851
2031	14.1406	91.2075	169.2811	0.3258	1.1523	2.3230	3.4753	0.3122	2.3224	2.6346	0.0000	30,030.6499	30,030.6499	1.4087	0.0000	30,065.8667
2032	14.1324	91.1513	169.2441	0.3257	1.1523	2.3228	3.4750	0.3122	2.3222	2.6343	0.0000	30,017.3065	30,017.3065	1.4076	0.0000	30,052.4967
2033	14.1256	91.1024	169.2128	0.3256	1.1523	2.3225	3.4748	0.3122	2.3220	2.6341	0.0000	30,005.7856	30,005.7856	1.4066	0.0000	30,040.9510
2034	14.1199	91.0589	169.1810	0.3255	1.1523	2.3223	3.4745	0.3122	2.3217	2.6339	0.0000	29,995.9641	29,995.9641	1.4057	0.0000	30,031.1068
2035	13.3589	84.6847	169.0058	0.3254	1.1523	1.7864	2.9386	0.3122	1.7858	2.0980	0.0000	29,987.9091	29,987.9091	1.3436	0.0000	30,021.4997
Maximum	**17.0053**	**151.8920**	**169.3080**	**0.3259**	**1.1523**	**7.6040**	**8.7563**	**0.3122**	**7.2450**	**7.5572**	**0.0000**	**30,040.4425**	**30,040.4425**	**5.2546**	**0.0000**	**30,075.6851**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	1109
2	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	1120
3	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	1129
4	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
5	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
6	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
7	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
8	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
9	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
10	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
11	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
12	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
13	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
14	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
15	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2030) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2031) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2032) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2033) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40

Plot 12 (2034) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2034) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 2 (2021) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2022) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2023) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 6 (2035) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40

Plot 9 (2024) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2024) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2025) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 1 3 20 (2026) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2027) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40

Plots 7 8 21 22 (2029) Building-Concrete	Pumps		2	24.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes		8	24.00	90	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes		4	24.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Generator Sets		4	12.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	16.5555	142.7965	163.4473	0.2665		7.5709	7.5709		7.2135	7.2135		24,316.2273	24,316.2273	5.0423		24,442.2843
Total	**16.5555**	**142.7965**	**163.4473**	**0.2665**	**0.0000**	**7.5709**	**7.5709**	**0.0000**	**7.2135**	**7.2135**		**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2843**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	16.5555	142.7965	163.4473	0.2665		7.5709	7.5709		7.2135	7.2135	0.0000	24,316.2273	24,316.2273	5.0423		24,442.2842
Total	**16.5555**	**142.7965**	**163.4473**	**0.2665**	**0.0000**	**7.5709**	**7.5709**	**0.0000**	**7.2135**	**7.2135**	**0.0000**	**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2842**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

3.3 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	15.3165	130.2123	162.4741	0.2666		6.5268	6.5268		6.2323	6.2323		24,327.3302	24,327.3302	5.0196		24,452.8192
Total	**15.3165**	**130.2123**	**162.4741**	**0.2666**	**0.0000**	**6.5268**	**6.5268**	**0.0000**	**6.2323**	**6.2323**		**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8192**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	15.3165	130.2123	162.4741	0.2666		6.5268	6.5268		6.2323	6.2323	0.0000	24,327.3302	24,327.3302	5.0196		24,452.8191
Total	**15.3165**	**130.2123**	**162.4741**	**0.2666**	**0.0000**	**6.5268**	**6.5268**	**0.0000**	**6.2323**	**6.2323**	**0.0000**	**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

3.4 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.5279	122.1695	162.1334	0.2667		5.7724	5.7724		5.5194	5.5194		24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**14.5279**	**122.1695**	**162.1334**	**0.2667**	**0.0000**	**5.7724**	**5.7724**	**0.0000**	**5.5194**	**5.5194**		**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.5279	122.1695	162.1334	0.2667		5.7724	5.7724		5.5194	5.5194	0.0000	24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**14.5279**	**122.1695**	**162.1334**	**0.2667**	**0.0000**	**5.7724**	**5.7724**	**0.0000**	**5.5194**	**5.5194**	**0.0000**	**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

3.5 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.9669	116.3098	162.2818	0.2668		5.1993	5.1993		4.9752	4.9752		24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**13.9669**	**116.3098**	**162.2818**	**0.2668**	**0.0000**	**5.1993**	**5.1993**	**0.0000**	**4.9752**	**4.9752**		**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.9669	116.3098	162.2818	0.2668		5.1993	5.1993		4.9752	4.9752	0.0000	24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**13.9669**	**116.3098**	**162.2818**	**0.2668**	**0.0000**	**5.1993**	**5.1993**	**0.0000**	**4.9752**	**4.9752**	**0.0000**	**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

3.6 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

3.7 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

3.8 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

3.9 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

3.10 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

3.11 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

3.12 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

3.13 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

3.14 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

3.15 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

3.16 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.1143	80.1460	166.5159	0.2971		1.7756	1.7756		1.7756	1.7756		26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**13.1143**	**80.1460**	**166.5159**	**0.2971**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**1.7756**	**1.7756**		**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1549	4.2941	1.8530	0.0239	0.6310	8.6600e-003	0.6396	0.1729	8.2900e-003	0.1812		2,616.0904	2,616.0904	0.1684		2,620.3004
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.2446**	**4.5387**	**2.4899**	**0.0283**	**1.1523**	**0.0107**	**1.1630**	**0.3122**	**0.0102**	**0.3224**		**3,063.9153**	**3,063.9153**	**0.1778**		**3,068.3602**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.1143	80.1460	166.5159	0.2971		1.7756	1.7756		1.7756	1.7756	0.0000	26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**13.1143**	**80.1460**	**166.5159**	**0.2971**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1549	4.2941	1.8530	0.0239	0.6310	8.6600e-003	0.6396	0.1729	8.2900e-003	0.1812		2,616.0904	2,616.0904	0.1684		2,620.3004
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.2446**	**4.5387**	**2.4899**	**0.0283**	**1.1523**	**0.0107**	**1.1630**	**0.3122**	**0.0102**	**0.3224**		**3,063.9153**	**3,063.9153**	**0.1778**		**3,068.3602**

Mitigated 24 hour Concrete Pour

Maximum Daily Emissions

Year	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	lb/day					
2020	No Concrete Phase					
2021	7.14	46.26	177.31	0.30	2.54	1.70
2022	7.11	45.53	177.18	0.30	2.54	1.70
2023	7.02	42.45	176.89	0.30	2.52	1.68
2024	7.01	42.41	176.84	0.30	2.52	1.68
2025	7.01	42.32	176.76	0.30	2.52	1.68
2026	7.00	42.22	176.70	0.30	2.52	1.68
2027	6.99	42.13	176.64	0.30	2.52	1.68
2028	6.98	42.06	176.59	0.30	2.52	1.68
2029	6.98	41.99	176.54	0.30	2.52	1.68
2030	6.97	41.92	176.49	0.33	2.52	1.68
2031	6.96	41.88	176.46	0.33	2.52	1.68
2032	6.95	41.83	176.42	0.33	2.52	1.68
2033	6.94	41.78	176.39	0.33	2.52	1.68
2034	6.94	41.73	176.35	0.33	2.52	1.68
2035	6.93	41.70	176.32	0.33	2.52	1.68

Summer

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Year				lb/day		
2021	7.11	46.11	177.31	0.30	2.54	1.70
2022	7.09	45.39	177.18	0.30	2.54	1.70
2023	7.00	42.39	176.89	0.30	2.52	1.68
2024	6.99	42.36	176.84	0.30	2.52	1.68
2025	6.98	42.26	176.76	0.30	2.52	1.68
2026	6.98	42.17	176.70	0.30	2.52	1.68
2027	6.97	42.08	176.64	0.30	2.52	1.68
2028	6.96	42.01	176.59	0.30	2.52	1.68
2029	6.96	41.94	176.54	0.30	2.52	1.68
2030	6.95	41.87	176.49	0.33	2.52	1.68
2031	6.94	41.84	176.46	0.33	2.52	1.68
2032	6.93	41.79	176.42	0.33	2.52	1.68
2033	6.93	41.74	176.39	0.33	2.52	1.68
2034	6.92	41.70	176.35	0.33	2.52	1.68
2035	6.92	41.66	176.32	0.33	2.52	1.68

Winter

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Year				lb/day		
2021	7.14	46.26	177.25	0.30	2.54	1.70
2022	7.11	45.53	177.13	0.30	2.54	1.70
2023	7.02	42.45	176.82	0.30	2.52	1.68
2024	7.01	42.41	176.76	0.30	2.52	1.68
2025	7.01	42.32	176.70	0.30	2.52	1.68
2026	7.00	42.22	176.64	0.30	2.52	1.68
2027	6.99	42.13	176.59	0.30	2.52	1.68
2028	6.98	42.06	176.55	0.30	2.52	1.68
2029	6.98	41.99	176.50	0.30	2.52	1.68
2030	6.97	41.92	176.46	0.33	2.52	1.68
2031	6.96	41.88	176.43	0.33	2.52	1.68
2032	6.95	41.83	176.39	0.33	2.52	1.68
2033	6.94	41.78	176.36	0.33	2.52	1.68
2034	6.94	41.73	176.33	0.33	2.52	1.68
2035	6.93	41.70	176.30	0.33	2.52	1.68

World Logistics Center-24hr Concrete Pour

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	16.9802	151.7389	166.9436	0.2996	1.1522	7.6037	8.7559	0.3122	7.2447	7.5568	0.0000	27,857.1262	27,857.1262	5.2486	0.0000	27,988.3401
2022	15.7182	138.4438	165.8318	0.2992	1.1522	6.5553	7.7076	0.3122	6.2595	6.5717	0.0000	27,815.4406	27,815.4406	5.2216	0.0000	27,945.9813
2023	14.8364	127.3966	165.2133	0.2980	1.1522	5.7861	6.9383	0.3122	5.5323	5.8445	0.0000	27,691.8010	27,691.8010	5.1777	0.0000	27,821.2433
2024	14.2696	121.5022	165.3036	0.2978	1.1522	5.2129	6.3651	0.3122	4.9881	5.3003	0.0000	27,674.0102	27,674.0102	5.1592	0.0000	27,802.9913
2025	13.5097	114.1754	164.8889	0.2976	1.1522	4.5063	5.6585	0.3122	4.3228	4.6349	0.0000	27,651.0994	27,651.0994	5.1351	0.0000	27,779.4757
2026	13.5028	114.0813	164.8257	0.2973	1.1522	4.5060	5.6582	0.3122	4.3225	4.6347	0.0000	27,621.7556	27,621.7556	5.1338	0.0000	27,750.1003
2027	13.4962	113.9956	164.7691	0.2970	1.1522	4.5057	5.6579	0.3122	4.3222	4.6344	0.0000	27,595.6933	27,595.6933	5.1324	0.0000	27,724.0028
2028	13.4894	113.9252	164.7197	0.2968	1.1522	4.5053	5.6576	0.3122	4.3219	4.6341	0.0000	27,573.2397	27,573.2397	5.1310	0.0000	27,701.5147
2029	13.4818	113.8536	164.6684	0.2966	1.1522	4.5050	5.6572	0.3122	4.3216	4.6337	0.0000	27,552.7943	27,552.7943	5.1297	0.0000	27,681.0362
2030	14.1300	91.1970	169.3431	0.3265	1.1523	2.3232	3.4754	0.3122	2.3226	2.6347	0.0000	30,103.9807	30,103.9807	1.4061	0.0000	30,139.1319
2031	14.1235	91.1639	169.3120	0.3264	1.1523	2.3229	3.4752	0.3122	2.3224	2.6345	0.0000	30,093.6716	30,093.6716	1.4051	0.0000	30,128.7988
2032	14.1163	91.1093	169.2705	0.3263	1.1523	2.3227	3.4749	0.3122	2.3221	2.6343	0.0000	30,079.8746	30,079.8746	1.4041	0.0000	30,114.9766
2033	14.1101	91.0620	169.2351	0.3261	1.1523	2.3224	3.4747	0.3122	2.3219	2.6341	0.0000	30,068.0224	30,068.0224	1.4031	0.0000	30,103.1007
2034	14.1049	91.0199	169.1993	0.3261	1.1523	2.3222	3.4745	0.3122	2.3217	2.6338	0.0000	30,057.9599	30,057.9599	1.4023	0.0000	30,093.0165
2035	13.3445	84.6468	169.0207	0.3260	1.1523	1.7863	2.9386	0.3122	1.7858	2.0979	0.0000	30,049.7102	30,049.7102	1.3402	0.0000	30,083.2155
Maximum	**16.9802**	**151.7389**	**169.3431**	**0.3265**	**1.1523**	**7.6037**	**8.7559**	**0.3122**	**7.2447**	**7.5568**	**0.0000**	**30,103.9807**	**30,103.9807**	**5.2486**	**0.0000**	**30,139.1319**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/day								lb/day			
2021	7.1137	46.1055	177.3108	0.2996	1.1522	1.3910	2.5432	0.3122	1.3894	1.7016	0.0000	27,857.1262	27,857.1262	5.2486	0.0000	27,988.3401
2022	7.0907	45.3946	177.1785	0.2992	1.1522	1.3868	2.5390	0.3122	1.3854	1.6976	0.0000	27,815.4406	27,815.4406	5.2216	0.0000	27,945.9813
2023	6.9976	42.3902	176.8944	0.2980	1.1522	1.3719	2.5241	0.3122	1.3712	1.6834	0.0000	27,691.8009	27,691.8009	5.1777	0.0000	27,821.2433
2024	6.9918	42.3555	176.8363	0.2978	1.1522	1.3718	2.5240	0.3122	1.3711	1.6833	0.0000	27,674.0102	27,674.0102	5.1592	0.0000	27,802.9913
2025	6.9842	42.2637	176.7622	0.2976	1.1522	1.3716	2.5239	0.3122	1.3709	1.6831	0.0000	27,651.0994	27,651.0994	5.1351	0.0000	27,779.4757
2026	6.9773	42.1696	176.6990	0.2973	1.1522	1.3714	2.5236	0.3122	1.3707	1.6828	0.0000	27,621.7556	27,621.7556	5.1338	0.0000	27,750.1003
2027	6.9706	42.0839	176.6424	0.2970	1.1522	1.3711	2.5233	0.3122	1.3704	1.6825	0.0000	27,595.6932	27,595.6932	5.1324	0.0000	27,724.0028
2028	6.9639	42.0134	176.5930	0.2968	1.1522	1.3707	2.5230	0.3122	1.3701	1.6822	0.0000	27,573.2397	27,573.2397	5.1310	0.0000	27,701.5146
2029	6.9563	41.9419	176.5417	0.2966	1.1522	1.3704	2.5226	0.3122	1.3698	1.6819	0.0000	27,552.7943	27,552.7943	5.1297	0.0000	27,681.0362
2030	6.9486	41.8730	176.4934	0.3265	1.1523	1.3701	2.5223	0.3122	1.3695	1.6816	0.0000	30,103.9807	30,103.9807	1.4061	0.0000	30,139.1319
2031	6.9421	41.8399	176.4624	0.3264	1.1523	1.3698	2.5221	0.3122	1.3692	1.6814	0.0000	30,093.6716	30,093.6716	1.4051	0.0000	30,128.7988
2032	6.9348	41.7853	176.4208	0.3263	1.1523	1.3696	2.5218	0.3122	1.3690	1.6811	0.0000	30,079.8746	30,079.8746	1.4041	0.0000	30,114.9766
2033	6.9287	41.7380	176.3854	0.3261	1.1523	1.3693	2.5216	0.3122	1.3688	1.6809	0.0000	30,068.0223	30,068.0223	1.4031	0.0000	30,103.1007
2034	6.9235	41.6959	176.3496	0.3261	1.1523	1.3691	2.5214	0.3122	1.3686	1.6807	0.0000	30,057.9599	30,057.9599	1.4023	0.0000	30,093.0165
2035	6.9192	41.6639	176.3192	0.3260	1.1523	1.3689	2.5212	0.3122	1.3684	1.6805	0.0000	30,049.7102	30,049.7102	1.3402	0.0000	30,083.2155
Maximum	**7.1137**	**46.1055**	**177.3108**	**0.3265**	**1.1523**	**1.3910**	**2.5432**	**0.3122**	**1.3894**	**1.7016**	**0.0000**	**30,103.9807**	**30,103.9807**	**5.2486**	**0.0000**	**30,139.1319**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**50.92**	**61.36**	**-5.89**	**0.00**	**0.00**	**66.29**	**51.67**	**0.00**	**65.13**	**60.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	1109
2	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	1120
3	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	1129
4	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
5	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
6	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
7	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
8	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
9	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
10	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
11	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
12	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
13	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
14	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
15	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2030) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2031) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2032) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2033) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 12 (2034) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37

Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2034) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 2 (2021) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2022) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2023) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 6 (2035) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 9 (2024) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37

Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2024) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2025) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 1 3 20 (2026) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2027) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37

Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Generator Sets	4	12.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day									lb/day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	16.5555	142.7965	163.4473	0.2665		7.5709	7.5709		7.2135	7.2135		24,316.2273	24,316.2273	5.0423		24,442.2843
Total	**16.5555**	**142.7965**	**163.4473**	**0.2665**	**0.0000**	**7.5709**	**7.5709**	**0.0000**	**7.2135**	**7.2135**		**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2843**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day									lb/day		
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2665		1.3582	1.3582		1.3582	1.3582	0.0000	24,316.2273	24,316.2273	5.0423		24,442.2842
Total	**6.6891**	**37.1631**	**173.8145**	**0.2665**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2842**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2505	8.4521	1.8575	0.0269	0.6309	0.0281	0.6590	0.1729	0.0269	0.1997		2,909.7197	2,909.7197	0.1871		2,914.3961
Vendor	0.0133	0.3783	0.0990	1.5400e-003	0.0462	1.2900e-003	0.0475	0.0133	1.2300e-003	0.0145		164.2495	164.2495	6.9000e-003		164.4219
Worker	0.1609	0.1120	1.5398	4.6900e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		466.9296	466.9296	0.0123		467.2379
Total	**0.4246**	**8.9424**	**3.4963**	**0.0331**	**1.1522**	**0.0328**	**1.1850**	**0.3122**	**0.0312**	**0.3434**		**3,540.8989**	**3,540.8989**	**0.2063**		**3,546.0559**

3.3 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	15.3165	130.2123	162.4741	0.2666		6.5268	6.5268		6.2323	6.2323		24,327.3302	24,327.3302	5.0196		24,452.8192
Total	**15.3165**	**130.2123**	**162.4741**	**0.2666**	**0.0000**	**6.5268**	**6.5268**	**0.0000**	**6.2323**	**6.2323**		**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8192**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8209	0.2666		1.3582	1.3582		1.3582	1.3582	0.0000	24,327.3302	24,327.3302	5.0196		24,452.8191
Total	**6.6891**	**37.1631**	**173.8209**	**0.2666**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2379	7.7796	1.8380	0.0265	0.6309	0.0242	0.6551	0.1729	0.0231	0.1960		2,875.1253	2,875.1253	0.1842		2,879.7295
Vendor	0.0125	0.3506	0.0946	1.5300e-003	0.0462	1.1200e-003	0.0474	0.0133	1.0700e-003	0.0144		162.7951	162.7951	6.7500e-003		162.9638
Worker	0.1512	0.1013	1.4250	4.5200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		450.1901	450.1901	0.0112		450.4688
Total	**0.4017**	**8.2315**	**3.3576**	**0.0326**	**1.1522**	**0.0286**	**1.1808**	**0.3122**	**0.0272**	**0.3394**		**3,488.1104**	**3,488.1104**	**0.2021**		**3,493.1621**

3.4 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.5279	122.1695	162.1334	0.2667		5.7724	5.7724		5.5194	5.5194		24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**14.5279**	**122.1695**	**162.1334**	**0.2667**	**0.0000**	**5.7724**	**5.7724**	**0.0000**	**5.5194**	**5.5194**		**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2667		1.3582	1.3582		1.3582	1.3582	0.0000	24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**6.6891**	**37.1631**	**173.8145**	**0.2667**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1570	4.9052	1.6775	0.0254	0.6309	0.0100	0.6409	0.1729	9.5600e-003	0.1825		2,761.6698	2,761.6698	0.1711		2,765.9484
Vendor	9.0900e-003	0.2302	0.0855	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		158.3314	158.3314	6.2400e-003		158.4874
Worker	0.1425	0.0917	1.3169	4.3500e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		433.4036	433.4036	0.0101		433.6552
Total	**0.3085**	**5.2271**	**3.0799**	**0.0313**	**1.1522**	**0.0137**	**1.1659**	**0.3122**	**0.0130**	**0.3252**		**3,353.4048**	**3,353.4048**	**0.1874**		**3,358.0910**

3.5 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.9669	116.3098	162.2818	0.2668		5.1993	5.1993		4.9752	4.9752		24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**13.9669**	**116.3098**	**162.2818**	**0.2668**	**0.0000**	**5.1993**	**5.1993**	**0.0000**	**4.9752**	**4.9752**		**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2668		1.3582	1.3582		1.3582	1.3582	0.0000	24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**6.6891**	**37.1631**	**173.8145**	**0.2668**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1586	4.8787	1.7063	0.0253	0.6309	9.9300e-003	0.6408	0.1729	9.5000e-003	0.1824		2,752.1997	2,752.1997	0.1713		2,756.4812
Vendor	9.0300e-003	0.2301	0.0844	1.4800e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.9850	157.9850	6.2200e-003		158.1405
Worker	0.1351	0.0836	1.2311	4.2000e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		419.1925	419.1925	9.2300e-003		419.4232
Total	**0.3027**	**5.1924**	**3.0218**	**0.0310**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3251**		**3,329.3772**	**3,329.3772**	**0.1867**		**3,334.0450**

3.6 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1577	4.7971	1.7198	0.0252	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,737.0468	2,737.0468	0.1712		2,741.3256
Vendor	8.8800e-003	0.2269	0.0830	1.4700e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		157.2572	157.2572	6.2000e-003		157.4121
Worker	0.1286	0.0765	1.1449	4.0400e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		402.6842	402.6842	8.4200e-003		402.8946
Total	**0.2951**	**5.1006**	**2.9477**	**0.0307**	**1.1522**	**0.0134**	**1.1656**	**0.3122**	**0.0127**	**0.3249**		**3,296.9882**	**3,296.9882**	**0.1858**		**3,301.6324**

3.7 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1566	4.7125	1.7311	0.0250	0.6309	9.6500e-003	0.6406	0.1729	9.2400e-003	0.1821		2,722.6560	2,722.6560	0.1706		2,726.9216
Vendor	8.7300e-003	0.2235	0.0820	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		156.5641	156.5641	6.1600e-003		156.7181
Worker	0.1229	0.0705	1.0715	3.8900e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		388.4243	388.4243	7.7200e-003		388.6172
Total	**0.2882**	**5.0065**	**2.8845**	**0.0304**	**1.1522**	**0.0131**	**1.1654**	**0.3122**	**0.0125**	**0.3246**		**3,267.6444**	**3,267.6444**	**0.1845**		**3,272.2569**

3.8 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1556	4.6356	1.7409	0.0249	0.6309	9.5100e-003	0.6404	0.1729	9.1000e-003	0.1820		2,709.7977	2,709.7977	0.1699		2,714.0449
Vendor	8.6100e-003	0.2201	0.0811	1.4600e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		155.9202	155.9202	6.1200e-003		156.0733
Worker	0.1174	0.0651	1.0060	3.7700e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		375.8642	375.8642	7.0900e-003		376.0413
Total	**0.2816**	**4.9208**	**2.8279**	**0.0301**	**1.1522**	**0.0128**	**1.1651**	**0.3122**	**0.0122**	**0.3243**		**3,241.5820**	**3,241.5820**	**0.1831**		**3,246.1594**

3.9 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1547	4.5725	1.7497	0.0248	0.6309	9.3800e-003	0.6403	0.1729	8.9800e-003	0.1819		2,698.9180	2,698.9180	0.1691		2,703.1452
Vendor	8.5000e-003	0.2176	0.0804	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		155.3963	155.3963	6.0800e-003		155.5483
Worker	0.1116	0.0602	0.9485	3.6600e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		364.8142	364.8142	6.5400e-003		364.9778
Total	**0.2749**	**4.8503**	**2.7786**	**0.0299**	**1.1522**	**0.0125**	**1.1647**	**0.3122**	**0.0119**	**0.3240**		**3,219.1285**	**3,219.1285**	**0.1817**		**3,223.6713**

3.10 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1538	4.5082	1.7555	0.0247	0.6309	9.2400e-003	0.6402	0.1729	8.8400e-003	0.1817		2,688.7410	2,688.7410	0.1683		2,692.9494
Vendor	8.3900e-003	0.2151	0.0797	1.4500e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		154.9143	154.9143	6.0500e-003		155.0655
Worker	0.1051	0.0555	0.8920	3.5600e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		355.0277	355.0277	6.0100e-003		355.1779
Total	**0.2672**	**4.7788**	**2.7272**	**0.0297**	**1.1522**	**0.0122**	**1.1644**	**0.3122**	**0.0115**	**0.3237**		**3,198.6831**	**3,198.6831**	**0.1804**		**3,203.1929**

3.11 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1528	4.4463	1.7600	0.0246	0.6309	9.0900e-003	0.6400	0.1729	8.7000e-003	0.1816		2,679.1699	2,679.1699	0.1675		2,683.3572
Vendor	8.3000e-003	0.2125	0.0791	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.4616	154.4616	6.0100e-003		154.6119
Worker	0.0984	0.0511	0.8398	3.4700e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		346.3554	346.3554	5.5200e-003		346.4933
Total	**0.2595**	**4.7099**	**2.6789**	**0.0295**	**1.1523**	**0.0118**	**1.1641**	**0.3122**	**0.0112**	**0.3234**		**3,179.9869**	**3,179.9869**	**0.1790**		**3,184.4624**

3.12 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1536	4.4185	1.7772	0.0245	0.6309	9.0000e-003	0.6399	0.1729	8.6100e-003	0.1815		2,676.0248	2,676.0248	0.1670		2,680.1999
Vendor	8.3000e-003	0.2116	0.0793	1.4400e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		154.3759	154.3759	5.9900e-003		154.5256
Worker	0.0912	0.0467	0.7914	3.4000e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		339.2771	339.2771	5.0700e-003		339.4038
Total	**0.2531**	**4.6768**	**2.6479**	**0.0294**	**1.1523**	**0.0116**	**1.1638**	**0.3122**	**0.0110**	**0.3232**		**3,169.6778**	**3,169.6778**	**0.1781**		**3,174.1293**

3.13 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1529	4.3699	1.7814	0.0244	0.6309	8.8800e-003	0.6398	0.1729	8.5000e-003	0.1814		2,669.3041	2,669.3041	0.1664		2,673.4651
Vendor	8.2300e-003	0.2094	0.0790	1.4400e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		154.0573	154.0573	5.9700e-003		154.2064
Worker	0.0847	0.0429	0.7460	3.3300e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		332.5194	332.5194	4.6500e-003		332.6356
Total	**0.2458**	**4.6222**	**2.6063**	**0.0292**	**1.1523**	**0.0113**	**1.1636**	**0.3122**	**0.0108**	**0.3229**		**3,155.8807**	**3,155.8807**	**0.1771**		**3,160.3071**

3.14 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1523	4.3278	1.7851	0.0244	0.6309	8.7800e-003	0.6397	0.1729	8.4000e-003	0.1813		2,663.6290	2,663.6290	0.1659		2,667.7758
Vendor	8.1800e-003	0.2075	0.0788	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.7763	153.7763	5.9400e-003		153.9248
Worker	0.0792	0.0397	0.7071	3.2700e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		326.6232	326.6232	4.2900e-003		326.7306
Total	**0.2396**	**4.5749**	**2.5709**	**0.0291**	**1.1523**	**0.0111**	**1.1633**	**0.3122**	**0.0105**	**0.3227**		**3,144.0285**	**3,144.0285**	**0.1761**		**3,148.4312**

3.15 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	4.2901	1.7870	0.0243	0.6310	8.6800e-003	0.6396	0.1729	8.3000e-003	0.1812		2,658.9646	2,658.9646	0.1654		2,663.0986
Vendor	8.1300e-003	0.2057	0.0786	1.4300e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		153.5361	153.5361	5.9200e-003		153.6841
Worker	0.0745	0.0370	0.6695	3.2200e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		321.4654	321.4654	3.9500e-003		321.5643
Total	**0.2344**	**4.5328**	**2.5351**	**0.0290**	**1.1523**	**0.0109**	**1.1631**	**0.3122**	**0.0103**	**0.3225**		**3,133.9661**	**3,133.9661**	**0.1752**		**3,138.3470**

3.16 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.1143	80.1460	166.5159	0.2971		1.7756	1.7756		1.7756	1.7756		26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**13.1143**	**80.1460**	**166.5159**	**0.2971**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**1.7756**	**1.7756**		**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1514	4.2616	1.7879	0.0243	0.6310	8.6100e-003	0.6396	0.1729	8.2300e-003	0.1811		2,655.3227	2,655.3227	0.1648		2,659.4429
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.2302**	**4.5008**	**2.5048**	**0.0289**	**1.1523**	**0.0107**	**1.1629**	**0.3122**	**0.0101**	**0.3223**		**3,125.7163**	**3,125.7163**	**0.1744**		**3,130.0760**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.1514	4.2616	1.7879	0.0243	0.6310	8.6100e-003	0.6396	0.1729	8.2300e-003	0.1811		2,655.3227	2,655.3227	0.1648		2,659.4429
Vendor	8.0900e-003	0.2042	0.0783	1.4300e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		153.3424	153.3424	5.9000e-003		153.4899
Worker	0.0707	0.0350	0.6385	3.1700e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		317.0513	317.0513	3.6800e-003		317.1432
Total	**0.2302**	**4.5008**	**2.5048**	**0.0289**	**1.1523**	**0.0107**	**1.1629**	**0.3122**	**0.0101**	**0.3223**		**3,125.7163**	**3,125.7163**	**0.1744**		**3,130.0760**

World Logistics Center-24hr Concrete Pour

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	2,419.90	40,600,000.00	0
Parking Lot	123.60	Acre	123.60	5,384,016.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO_2 Intensity (lb/MWhr)	702.44	**CH_4 Intensity (lb/MWhr)**	0.029	**N_2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See Construction Assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	932.05	2,419.90

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	17.0053	151.8920	166.8869	0.2989	1.1522	7.6040	8.7563	0.3122	7.2450	7.5572	0.0000	27,780.8006	27,780.8006	5.2546	0.0000	27,912.1665
2022	15.7423	138.5753	165.7804	0.2985	1.1522	6.5557	7.7079	0.3122	6.2598	6.5720	0.0000	27,740.3519	27,740.3519	5.2275	0.0000	27,871.0382
2023	14.8581	127.4515	165.1352	0.2973	1.1522	5.7863	6.9386	0.3122	5.5326	5.8447	0.0000	27,619.9166	27,619.9166	5.1821	0.0000	27,749.4685
2024	14.2909	121.5577	165.2323	0.2971	1.1522	5.2131	6.3653	0.3122	4.9883	5.3005	0.0000	27,603.5161	27,603.5161	5.1635	0.0000	27,732.6041
2025	13.5305	114.2288	164.8255	0.2969	1.1522	4.5064	5.6587	0.3122	4.3229	4.6351	0.0000	27,582.1959	27,582.1959	5.1392	0.0000	27,710.6764
2026	13.5232	114.1325	164.7690	0.2966	1.1522	4.5062	5.6584	0.3122	4.3227	4.6348	0.0000	27,554.2711	27,554.2711	5.1378	0.0000	27,682.7172
2027	13.5161	114.0446	164.7185	0.2964	1.1522	4.5058	5.6580	0.3122	4.3224	4.6345	0.0000	27,529.4071	27,529.4071	5.1363	0.0000	27,657.8152
2028	13.5089	113.9726	164.6746	0.2962	1.1522	4.5055	5.6577	0.3122	4.3220	4.6342	0.0000	27,508.0235	27,508.0235	5.1348	0.0000	27,636.3943
2029	13.5005	113.8992	164.6285	0.2960	1.1522	4.5051	5.6573	0.3122	4.3217	4.6339	0.0000	27,488.4895	27,488.4895	5.1334	0.0000	27,616.8249
2030	14.1479	91.2408	169.3080	0.3259	1.1523	2.3233	3.4755	0.3122	2.3227	2.6348	0.0000	30,040.4425	30,040.4425	1.4097	0.0000	30,075.6851
2031	14.1406	91.2075	169.2811	0.3258	1.1523	2.3230	3.4753	0.3122	2.3224	2.6346	0.0000	30,030.6499	30,030.6499	1.4087	0.0000	30,065.8667
2032	14.1324	91.1513	169.2441	0.3257	1.1523	2.3228	3.4750	0.3122	2.3222	2.6343	0.0000	30,017.3065	30,017.3065	1.4076	0.0000	30,052.4968
2033	14.1256	91.1024	169.2128	0.3256	1.1523	2.3225	3.4748	0.3122	2.3220	2.6341	0.0000	30,005.7857	30,005.7857	1.4066	0.0000	30,040.9511
2034	14.1199	91.0589	169.1810	0.3255	1.1523	2.3223	3.4745	0.3122	2.3217	2.6339	0.0000	29,995.9641	29,995.9641	1.4057	0.0000	30,031.1068
2035	13.3589	84.6847	169.0058	0.3254	1.1523	1.7864	2.9386	0.3122	1.7858	2.0980	0.0000	29,987.9091	29,987.9091	1.3436	0.0000	30,021.4997
Maximum	**17.0053**	**151.8920**	**169.3080**	**0.3259**	**1.1523**	**7.6040**	**8.7563**	**0.3122**	**7.2450**	**7.5572**	**0.0000**	**30,040.4425**	**30,040.4425**	**5.2546**	**0.0000**	**30,075.6851**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.1388	46.2586	177.2540	0.2989	1.1522	1.3913	2.5436	0.3122	1.3898	1.7019	0.0000	27,780.8006	27,780.8006	5.2546	0.0000	27,912.1665
2022	7.1149	45.5261	177.1271	0.2985	1.1522	1.3871	2.5393	0.3122	1.3857	1.6979	0.0000	27,740.3519	27,740.3519	5.2275	0.0000	27,871.0382
2023	7.0193	42.4451	176.8163	0.2973	1.1522	1.3722	2.5244	0.3122	1.3714	1.6836	0.0000	27,619.9165	27,619.9165	5.1821	0.0000	27,749.4685
2024	7.0130	42.4110	176.7649	0.2971	1.1522	1.3720	2.5242	0.3122	1.3713	1.6835	0.0000	27,603.5161	27,603.5161	5.1635	0.0000	27,732.6041
2025	7.0050	42.3171	176.6988	0.2969	1.1522	1.3718	2.5240	0.3122	1.3711	1.6833	0.0000	27,582.1959	27,582.1959	5.1392	0.0000	27,710.6764
2026	6.9977	42.2208	176.6423	0.2966	1.1522	1.3715	2.5238	0.3122	1.3708	1.6830	0.0000	27,554.2711	27,554.2711	5.1378	0.0000	27,682.7172
2027	6.9906	42.1329	176.5918	0.2964	1.1522	1.3712	2.5234	0.3122	1.3705	1.6827	0.0000	27,529.4071	27,529.4071	5.1363	0.0000	27,657.8152
2028	6.9833	42.0609	176.5479	0.2962	1.1522	1.3708	2.5231	0.3122	1.3702	1.6824	0.0000	27,508.0235	27,508.0235	5.1348	0.0000	27,636.3943
2029	6.9750	41.9875	176.5018	0.2960	1.1522	1.3705	2.5227	0.3122	1.3699	1.6820	0.0000	27,488.4894	27,488.4894	5.1334	0.0000	27,616.8249
2030	6.9665	41.9168	176.4584	0.3259	1.1523	1.3702	2.5224	0.3122	1.3696	1.6817	0.0000	30,040.4425	30,040.4425	1.4097	0.0000	30,075.6851
2031	6.9591	41.8835	176.4315	0.3258	1.1523	1.3699	2.5221	0.3122	1.3693	1.6815	0.0000	30,030.6499	30,030.6499	1.4087	0.0000	30,065.8667
2032	6.9510	41.8272	176.3944	0.3257	1.1523	1.3696	2.5219	0.3122	1.3691	1.6812	0.0000	30,017.3065	30,017.3065	1.4076	0.0000	30,052.4967
2033	6.9442	41.7784	176.3631	0.3256	1.1523	1.3694	2.5216	0.3122	1.3688	1.6810	0.0000	30,005.7856	30,005.7856	1.4066	0.0000	30,040.9510
2034	6.9384	41.7348	176.3313	0.3255	1.1523	1.3692	2.5214	0.3122	1.3686	1.6808	0.0000	29,995.9641	29,995.9641	1.4057	0.0000	30,031.1068
2035	6.9337	41.7018	176.3044	0.3254	1.1523	1.3690	2.5212	0.3122	1.3684	1.6806	0.0000	29,987.9091	29,987.9091	1.3436	0.0000	30,021.4997
Maximum	**7.1388**	**46.2586**	**177.2540**	**0.3259**	**1.1523**	**1.3913**	**2.5436**	**0.3122**	**1.3898**	**1.7019**	**0.0000**	**30,040.4425**	**30,040.4425**	**5.2546**	**0.0000**	**30,075.6851**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**50.85**	**61.33**	**-5.89**	**0.00**	**0.00**	**66.29**	**51.67**	**0.00**	**65.13**	**60.34**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	5	260	1109
2	Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	5	260	1120
3	Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	5	260	1129
4	Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	5	260	1140
5	Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	5	260	1149
6	Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	5	260	1161
7	Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	5	260	1173
8	Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	5	260	1184
9	Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	5	260	1195
10	Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	5	260	1206
11	Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	5	260	1215
12	Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	5	260	1226
13	Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	5	260	1237
14	Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	5	260	1246
15	Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	5	260	1257

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 123.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Plot 11 (2030) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2030) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2030) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2030) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2030) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2031) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2031) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2031) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2031) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2031) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 11 (2032) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 11 (2032) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 11 (2032) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 11 (2032) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 11 (2032) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2033) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2033) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 12 (2033) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 12 (2033) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2033) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 12 (2034) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 12 (2034) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 12 (2034) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37

Plot 12 (2034) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 12 (2034) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 2 (2021) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 2 (2021) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 2 (2021) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 2 (2021) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 2 (2021) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2022) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2022) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2022) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2022) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2022) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 4 (2023) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 4 (2023) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 4 (2023) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 4 (2023) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 4 (2023) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 6 (2035) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 6 (2035) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 6 (2035) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 6 (2035) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 6 (2035) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2024) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2024) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 9 (2024) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37

Plot 9 (2024) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2024) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plot 9 (2025) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plot 9 (2025) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plot 9 (2025) Building-Concrete	Pumps	2	24.00	84	0.74
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plot 9 (2025) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plot 9 (2025) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 1 3 20 (2026) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 1 3 20 (2026) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 1 3 20 (2026) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 1 3 20 (2026) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2027) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2027) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2027) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2027) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 5 and 10 (2028) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 5 and 10 (2028) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37
Plots 5 and 10 (2028) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 5 and 10 (2028) Building-Concrete	Generator Sets	4	12.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Cement and Mortar Mixers	24	24.00	9	0.56
Plots 7 8 21 22 (2029) Building-Concrete	Other Material Handling Equipment	2	24.00	167	0.40
Plots 7 8 21 22 (2029) Building-Concrete	Pumps	2	24.00	84	0.74
Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	8	24.00	90	0.37

Plots 7 8 21 22 (2029) Building-Concrete	Tractors/Loaders/Backhoes	4	24.00	85	0.37
Plots 7 8 21 22 (2029) Building-Concrete	Generator Sets	4	12.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Plot 11 (2030) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2031) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 11 (2032) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2033) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 12 (2034) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 2 (2021) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2022) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 4 (2023) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 6 (2035) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2024) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plot 9 (2025) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 1 3 20 (2026) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2027) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 5 and 10 (2028) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT
Plots 7 8 21 22 (2029) Building-Concrete		25.00	2.00	7,512.00	25.00	25.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Plot 2 (2021) Building-Concrete - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	16.5555	142.7965	163.4473	0.2665		7.5709	7.5709		7.2135	7.2135		24,316.2273	24,316.2273	5.0423		24,442.2843
Total	**16.5555**	**142.7965**	**163.4473**	**0.2665**	**0.0000**	**7.5709**	**7.5709**	**0.0000**	**7.2135**	**7.2135**		**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2843**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2665		1.3582	1.3582		1.3582	1.3582	0.0000	24,316.2273	24,316.2273	5.0423		24,442.2842
Total	**6.6891**	**37.1631**	**173.8145**	**0.2665**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,316.2273**	**24,316.2273**	**5.0423**		**24,442.2842**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2564	8.5872	1.9693	0.0265	0.6309	0.0284	0.6593	0.1729	0.0272	0.2001		2,865.3867	2,865.3867	0.1938		2,870.2316
Vendor	0.0137	0.3857	0.1039	1.5300e-003	0.0462	1.3000e-003	0.0475	0.0133	1.2500e-003	0.0145		162.6719	162.6719	7.1300e-003		162.8503
Worker	0.1797	0.1226	1.3663	4.3800e-003	0.4751	3.3900e-003	0.4785	0.1260	3.1200e-003	0.1291		436.5148	436.5148	0.0114		436.8004
Total	**0.4497**	**9.0955**	**3.4395**	**0.0324**	**1.1522**	**0.0331**	**1.1853**	**0.3122**	**0.0316**	**0.3437**		**3,464.5733**	**3,464.5733**	**0.2124**		**3,469.8822**

3.3 Plot 4 (2022) Building-Concrete - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	15.3165	130.2123	162.4741	0.2666		6.5268	6.5268		6.2323	6.2323		24,327.3302	24,327.3302	5.0196		24,452.8192
Total	**15.3165**	**130.2123**	**162.4741**	**0.2666**	**0.0000**	**6.5268**	**6.5268**	**0.0000**	**6.2323**	**6.2323**		**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8192**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8209	0.2666		1.3582	1.3582		1.3582	1.3582	0.0000	24,327.3302	24,327.3302	5.0196		24,452.8191
Total	**6.6891**	**37.1631**	**173.8209**	**0.2666**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,327.3302**	**24,327.3302**	**5.0196**		**24,452.8191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2436	7.8950	1.9445	0.0261	0.6309	0.0245	0.6554	0.1729	0.0234	0.1963		2,830.9441	2,830.9441	0.1906		2,835.7089
Vendor	0.0129	0.3571	0.0993	1.5100e-003	0.0462	1.1300e-003	0.0474	0.0133	1.0800e-003	0.0144		161.2221	161.2221	6.9700e-003		161.3965
Worker	0.1693	0.1108	1.2624	4.2200e-003	0.4751	3.2900e-003	0.4784	0.1260	3.0300e-003	0.1290		420.8556	420.8556	0.0103		421.1137
Total	**0.4258**	**8.3630**	**3.3062**	**0.0319**	**1.1522**	**0.0289**	**1.1811**	**0.3122**	**0.0275**	**0.3397**		**3,413.0218**	**3,413.0218**	**0.2079**		**3,418.2191**

3.4 Plot 4 (2023) Building-Concrete - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	14.5279	122.1695	162.1334	0.2667		5.7724	5.7724		5.5194	5.5194		24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**14.5279**	**122.1695**	**162.1334**	**0.2667**	**0.0000**	**5.7724**	**5.7724**	**0.0000**	**5.5194**	**5.5194**		**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2667		1.3582	1.3582		1.3582	1.3582	0.0000	24,338.3961	24,338.3961	4.9903		24,463.1524
Total	**6.6891**	**37.1631**	**173.8145**	**0.2667**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,338.3961**	**24,338.3961**	**4.9903**		**24,463.1524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1608	4.9484	1.7484	0.0250	0.6309	0.0102	0.6411	0.1729	9.7700e-003	0.1827		2,719.5384	2,719.5384	0.1761		2,723.9410
Vendor	9.3800e-003	0.2333	0.0889	1.4700e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.8302	156.8302	6.4200e-003		156.9906
Worker	0.1601	0.1003	1.1646	4.0600e-003	0.4751	3.2000e-003	0.4783	0.1260	2.9500e-003	0.1289		405.1518	405.1518	9.3100e-003		405.3845
Total	**0.3303**	**5.2820**	**3.0019**	**0.0306**	**1.1522**	**0.0139**	**1.1661**	**0.3122**	**0.0132**	**0.3254**		**3,281.5204**	**3,281.5204**	**0.1918**		**3,286.3162**

3.5 Plot 9 (2024) Building-Concrete - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.9669	116.3098	162.2818	0.2668		5.1993	5.1993		4.9752	4.9752		24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**13.9669**	**116.3098**	**162.2818**	**0.2668**	**0.0000**	**5.1993**	**5.1993**	**0.0000**	**4.9752**	**4.9752**		**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2668		1.3582	1.3582		1.3582	1.3582	0.0000	24,344.6330	24,344.6330	4.9725		24,468.9463
Total	**6.6891**	**37.1631**	**173.8145**	**0.2668**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,344.6330**	**24,344.6330**	**4.9725**		**24,468.9463**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1624	4.9233	1.7758	0.0249	0.6309	0.0101	0.6410	0.1729	9.6800e-003	0.1826		2,710.5737	2,710.5737	0.1761		2,714.9753
Vendor	9.3100e-003	0.2332	0.0877	1.4600e-003	0.0462	5.1000e-004	0.0468	0.0133	4.9000e-004	0.0138		156.5007	156.5007	6.3900e-003		156.6605
Worker	0.1523	0.0915	1.0869	3.9300e-003	0.4751	3.1600e-003	0.4782	0.1260	2.9100e-003	0.1289		391.8087	391.8087	8.5300e-003		392.0220
Total	**0.3239**	**5.2479**	**2.9504**	**0.0303**	**1.1522**	**0.0138**	**1.1660**	**0.3122**	**0.0131**	**0.3252**		**3,258.8831**	**3,258.8831**	**0.1910**		**3,263.6578**

3.6 Plot 9 (2025) Building-Concrete - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1614	4.8403	1.7882	0.0248	0.6309	9.9800e-003	0.6409	0.1729	9.5500e-003	0.1824		2,695.9262	2,695.9262	0.1758		2,700.3210
Vendor	9.1500e-003	0.2300	0.0863	1.4600e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.7898	155.7898	6.3600e-003		155.9489
Worker	0.1453	0.0837	1.0098	3.7700e-003	0.4751	3.1000e-003	0.4782	0.1260	2.8500e-003	0.1288		376.3687	376.3687	7.7700e-003		376.5631
Total	**0.3159**	**5.1540**	**2.8843**	**0.0300**	**1.1522**	**0.0136**	**1.1658**	**0.3122**	**0.0129**	**0.3250**		**3,228.0847**	**3,228.0847**	**0.1899**		**3,232.8330**

3.7 Plots 1 3 20 (2026) Building-Concrete - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.1602	4.7542	1.7985	0.0246	0.6309	9.8100e-003	0.6407	0.1729	9.3800e-003	0.1823		2,682.0252	2,682.0252	0.1751		2,686.4030
Vendor	9.0000e-003	0.2265	0.0852	1.4500e-003	0.0462	5.0000e-004	0.0467	0.0133	4.8000e-004	0.0138		155.1133	155.1133	6.3200e-003		155.2714
Worker	0.1394	0.0771	0.9442	3.6400e-003	0.4751	3.0000e-003	0.4781	0.1260	2.7600e-003	0.1287		363.0213	363.0213	7.1200e-003		363.1994
Total	**0.3087**	**5.0577**	**2.8278**	**0.0297**	**1.1522**	**0.0133**	**1.1655**	**0.3122**	**0.0126**	**0.3248**		**3,200.1599**	**3,200.1599**	**0.1886**		**3,204.8738**

3.8 Plots 5 and 10 (2027) Building-Concrete - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1592	4.6757	1.8075	0.0245	0.6309	9.6400e-003	0.6406	0.1729	9.2300e-003	0.1821		2,669.5621	2,669.5621	0.1742		2,673.9176
Vendor	8.8600e-003	0.2230	0.0842	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		154.4828	154.4828	6.2800e-003		154.6398
Worker	0.1335	0.0711	0.8856	3.5200e-003	0.4751	2.8300e-003	0.4779	0.1260	2.6000e-003	0.1286		351.2510	351.2510	6.5400e-003		351.4144
Total	**0.3016**	**4.9698**	**2.7774**	**0.0295**	**1.1522**	**0.0130**	**1.1652**	**0.3122**	**0.0123**	**0.3245**		**3,175.2959**	**3,175.2959**	**0.1870**		**3,179.9718**

3.9 Plots 5 and 10 (2028) Building-Concrete - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	4.6116	1.8157	0.0244	0.6309	9.5100e-003	0.6404	0.1729	9.0900e-003	0.1820		2,659.0547	2,659.0547	0.1733		2,663.3866
Vendor	8.7500e-003	0.2204	0.0835	1.4400e-003	0.0462	4.9000e-004	0.0467	0.0133	4.7000e-004	0.0138		153.9715	153.9715	6.2400e-003		154.1274
Worker	0.1272	0.0658	0.8342	3.4200e-003	0.4751	2.6200e-003	0.4777	0.1260	2.4100e-003	0.1284		340.8861	340.8861	6.0300e-003		341.0369
Total	**0.2943**	**4.8978**	**2.7334**	**0.0292**	**1.1522**	**0.0126**	**1.1649**	**0.3122**	**0.0120**	**0.3241**		**3,153.9123**	**3,153.9123**	**0.1856**		**3,158.5510**

3.10 Plots 7 8 21 22 (2029) Building-Concrete - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.2146	109.0748	161.9412	0.2669		4.4929	4.4929		4.3101	4.3101		24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**13.2146**	**109.0748**	**161.9412**	**0.2669**	**0.0000**	**4.4929**	**4.4929**	**0.0000**	**4.3101**	**4.3101**		**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2669		1.3582	1.3582		1.3582	1.3582	0.0000	24,354.1112	24,354.1112	4.9493		24,477.8434
Total	**6.6891**	**37.1631**	**173.8145**	**0.2669**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**24,354.1112**	**24,354.1112**	**4.9493**		**24,477.8434**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1573	4.5460	1.8211	0.0243	0.6309	9.3400e-003	0.6403	0.1729	8.9400e-003	0.1818		2,649.1837	2,649.1837	0.1724		2,653.4937
Vendor	8.6400e-003	0.2178	0.0828	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.6000e-004	0.0138		153.5001	153.5001	6.2000e-003		153.6550
Worker	0.1200	0.0606	0.7835	3.3200e-003	0.4751	2.4300e-003	0.4775	0.1260	2.2400e-003	0.1282		331.6944	331.6944	5.5400e-003		331.8328
Total	**0.2860**	**4.8244**	**2.6873**	**0.0290**	**1.1522**	**0.0123**	**1.1645**	**0.3122**	**0.0116**	**0.3238**		**3,134.3782**	**3,134.3782**	**0.1841**		**3,138.9816**

3.11 Plot 11 (2030) Building-Concrete - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4828	1.8251	0.0242	0.6309	9.1900e-003	0.6401	0.1729	8.7900e-003	0.1817		2,639.8527	2,639.8527	0.1714		2,644.1389
Vendor	8.5400e-003	0.2152	0.0822	1.4300e-003	0.0462	4.8000e-004	0.0467	0.0133	4.5000e-004	0.0138		153.0556	153.0556	6.1500e-003		153.2095
Worker	0.1126	0.0557	0.7366	3.2400e-003	0.4751	2.2600e-003	0.4773	0.1260	2.0800e-003	0.1281		323.5403	323.5403	5.0800e-003		323.6673
Total	**0.2774**	**4.7537**	**2.6439**	**0.0289**	**1.1523**	**0.0119**	**1.1642**	**0.3122**	**0.0113**	**0.3235**		**3,116.4486**	**3,116.4486**	**0.1827**		**3,121.0156**

3.12 Plot 11 (2031) Building-Concrete - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1571	4.4553	1.8421	0.0242	0.6309	9.0800e-003	0.6400	0.1729	8.6900e-003	0.1816		2,636.8488	2,636.8488	0.1709		2,641.1203
Vendor	8.5400e-003	0.2142	0.0824	1.4300e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0138		152.9747	152.9747	6.1300e-003		153.1280
Worker	0.1045	0.0509	0.6926	3.1700e-003	0.4751	2.1200e-003	0.4772	0.1260	1.9500e-003	0.1279		316.8325	316.8325	4.6600e-003		316.9490
Total	**0.2701**	**4.7204**	**2.6170**	**0.0288**	**1.1523**	**0.0117**	**1.1639**	**0.3122**	**0.0111**	**0.3232**		**3,106.6560**	**3,106.6560**	**0.1817**		**3,111.1972**

3.13 Plot 11 (2032) Building-Concrete - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1563	4.4055	1.8462	0.0241	0.6309	8.9600e-003	0.6399	0.1729	8.5700e-003	0.1815		2,630.1869	2,630.1869	0.1702		2,634.4422
Vendor	8.4700e-003	0.2120	0.0821	1.4200e-003	0.0462	4.7000e-004	0.0467	0.0133	4.5000e-004	0.0137		152.6583	152.6583	6.1000e-003		152.8108
Worker	0.0972	0.0467	0.6517	3.1100e-003	0.4751	1.9700e-003	0.4770	0.1260	1.8200e-003	0.1278		310.4675	310.4675	4.2700e-003		310.5743
Total	**0.2620**	**4.6641**	**2.5799**	**0.0286**	**1.1523**	**0.0114**	**1.1637**	**0.3122**	**0.0108**	**0.3230**		**3,093.3126**	**3,093.3126**	**0.1806**		**3,097.8272**

3.14 Plot 12 (2033) Building-Concrete - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1558	4.3622	1.8500	0.0240	0.6309	8.8500e-003	0.6398	0.1729	8.4700e-003	0.1814		2,624.5029	2,624.5029	0.1696		2,628.7423
Vendor	8.4100e-003	0.2100	0.0819	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.3771	152.3771	6.0800e-003		152.5290
Worker	0.0909	0.0432	0.6168	3.0500e-003	0.4751	1.8400e-003	0.4769	0.1260	1.7000e-003	0.1277		304.9118	304.9118	3.9400e-003		305.0103
Total	**0.2551**	**4.6153**	**2.5486**	**0.0285**	**1.1523**	**0.0112**	**1.1634**	**0.3122**	**0.0106**	**0.3228**		**3,081.7918**	**3,081.7918**	**0.1796**		**3,086.2815**

3.15 Plot 12 (2034) Building-Concrete - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.8705	86.4871	166.6642	0.2971		2.3114	2.3114		2.3114	2.3114		26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**13.8705**	**86.4871**	**166.6642**	**0.2971**	**0.0000**	**2.3114**	**2.3114**	**0.0000**	**2.3114**	**2.3114**		**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.2270		26,954.6695
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.2270**		**26,954.6695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1553	4.3234	1.8521	0.0240	0.6310	8.7400e-003	0.6397	0.1729	8.3600e-003	0.1813		2,619.7864	2,619.7864	0.1690		2,624.0114
Vendor	8.3600e-003	0.2081	0.0816	1.4200e-003	0.0462	4.6000e-004	0.0467	0.0133	4.4000e-004	0.0137		152.1353	152.1353	6.0500e-003		152.2866
Worker	0.0858	0.0402	0.5832	3.0000e-003	0.4751	1.7200e-003	0.4768	0.1260	1.5800e-003	0.1276		300.0486	300.0486	3.6200e-003		300.1392
Total	**0.2494**	**4.5717**	**2.5169**	**0.0284**	**1.1523**	**0.0109**	**1.1632**	**0.3122**	**0.0104**	**0.3226**		**3,071.9703**	**3,071.9703**	**0.1787**		**3,076.4373**

3.16 Plot 6 (2035) Building-Concrete - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	13.1143	80.1460	166.5159	0.2971		1.7756	1.7756		1.7756	1.7756		26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**13.1143**	**80.1460**	**166.5159**	**0.2971**	**0.0000**	**1.7756**	**1.7756**	**0.0000**	**1.7756**	**1.7756**		**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1549	4.2941	1.8530	0.0239	0.6310	8.6600e-003	0.6396	0.1729	8.2900e-003	0.1812		2,616.0904	2,616.0904	0.1684		2,620.3004
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.2446**	**4.5387**	**2.4899**	**0.0283**	**1.1523**	**0.0107**	**1.1630**	**0.3122**	**0.0102**	**0.3224**		**3,063.9153**	**3,063.9153**	**0.1778**		**3,068.3602**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	6.6891	37.1631	173.8145	0.2971		1.3582	1.3582		1.3582	1.3582	0.0000	26,923.9939	26,923.9939	1.1658		26,953.1395
Total	**6.6891**	**37.1631**	**173.8145**	**0.2971**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**1.3582**	**1.3582**	**0.0000**	**26,923.9939**	**26,923.9939**	**1.1658**		**26,953.1395**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1549	4.2941	1.8530	0.0239	0.6310	8.6600e-003	0.6396	0.1729	8.2900e-003	0.1812		2,616.0904	2,616.0904	0.1684		2,620.3004
Vendor	8.3200e-003	0.2066	0.0814	1.4200e-003	0.0462	4.5000e-004	0.0467	0.0133	4.3000e-004	0.0137		151.9398	151.9398	6.0300e-003		152.0906
Worker	0.0814	0.0380	0.5555	2.9600e-003	0.4751	1.6100e-003	0.4767	0.1260	1.4800e-003	0.1275		295.8851	295.8851	3.3700e-003		295.9693
Total	**0.2446**	**4.5387**	**2.4899**	**0.0283**	**1.1523**	**0.0107**	**1.1630**	**0.3122**	**0.0102**	**0.3224**		**3,063.9153**	**3,063.9153**	**0.1778**		**3,068.3602**

B-1 Operational Summary 2018 Net

World Logistics Center
Criteria Pollutant Summary

Unmitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	31	304	86	48	4	51	13	3	16
2022	63	607	172	95	7	102	26	7	33
2023	105	1012	286	158	12	170	43	11	55
2024	147	1416	401	222	17	238	60	16	76
2025	225	2168	613	339	26	365	92	25	117
2026	293	2581	807	443	30	474	120	29	149
2027	329	2800	909	498	33	531	135	32	166
2028	351	2931	970	531	34	566	144	33	177
2029	372	3062	1032	564	36	600	152	34	187
2030	403	3249	1119	611	38	650	165	37	202
2031	438	3462	1219	665	41	706	179	39	218
2032	473	3674	1318	718	43	761	193	41	235
2033	508	3886	1417	772	46	817	208	44	251
2034	531	4025	1482	807	47	854	217	45	262
2035	554	4164	1547	842	49	891	226	47	273
Buildout	561	4202	1565	851	49	901	229	47	276

Unmitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	281	639	407	99	25	124	11	23	34
2021	301	763	520	145	23	168	24	22	46
2022	361	1383	816	227	38	264	41	35	76
2023	367	1359	705	256	26	282	54	24	79
2024	489	2649	1393	399	64	462	80	59	140
2025	488	2510	1070	444	38	482	104	36	141
2026	575	3117	1402	587	50	637	137	47	184
2027	598	3215	1385	613	48	661	148	46	193
2028	646	3621	1633	671	60	731	159	57	216
2029	654	3605	1592	689	56	746	167	53	220
2030	712	3640	1724	740	50	790	180	48	228
2031	707	3669	1646	762	45	808	190	44	234
2032	781	4065	1933	849	55	904	208	53	261
2033	805	4226	1982	897	55	953	222	53	275
2034	799	4231	1909	904	52	956	228	50	278
2035	836	4402	2058	958	54	1013	240	52	292
Buildout	847	4687	2115	972	67	1038	243	63	306

Mitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	27	126	63	48	1	48	13	1	13
2022	53	252	125	95	1	96	26	1	27
2023	89	420	209	158	2	160	43	2	45
2024	124	588	292	222	3	224	60	2	63
2025	190	900	447	339	4	343	92	4	96
2026	252	1082	612	443	5	448	120	5	125
2027	285	1178	699	498	5	504	135	5	140
2028	304	1236	752	531	6	537	144	5	149
2029	324	1294	804	564	6	570	152	6	158
2030	352	1376	879	611	6	618	165	6	171
2031	384	1470	963	665	7	672	179	7	186
2032	415	1563	1048	718	7	726	193	7	201
2033	447	1657	1133	772	8	780	208	7	215
2034	468	1718	1188	807	8	815	217	8	225
2035	489	1779	1244	842	8	850	226	8	234
Buildout	495	1796	1259	851	9	860	229	8	237

Mitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	149	178	452	1	99	4	102	11	3
2021	178	303	556	49	98	52	114	12	17
2022	219	452	866	97	133	100	162	16	31
2023	238	562	697	159	99	163	143	13	48
2024	291	823	1427	224	180	229	243	23	68
2025	340	1040	985	340	109	346	200	16	99
2026	407	1253	1330	445	149	452	267	21	128
2027	436	1321	1267	500	120	507	252	18	143
2028	462	1409	1554	533	145	541	287	21	153
2029	478	1451	1479	566	131	574	281	20	161
2030	512	1536	1686	613	135	621	296	21	174
2031	535	1591	1453	666	104	674	279	18	188
2032	575	1725	1851	720	138	729	328	22	204
2033	605	1809	1856	773	133	782	336	22	218
2034	619	1839	1678	808	105	817	316	19	227
2035	643	1912	1880	843	125	853	345	21	237
Buildout	650	1956	1919	853	129	863	352	22	240

Reduction in Operational Criteria Pollutant Emissions (Unmitigated-Mitigated), lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	-5	-178	-23	0	-3	-3	0	-3	-3
2022	-10	-355	-46	0	-6	-6	0	-6	-6
2023	-16	-592	-77	0	-10	-10	0	-10	-10
2024	-22	-828	-108	0	-14	-14	0	-14	-14
2025	-34	-1268	-166	0	-22	-22	0	-21	-21
2026	-41	-1499	-194	0	-25	-25	0	-24	-24
2027	-44	-1622	-209	0	-28	-28	0	-26	-26
2028	-46	-1695	-219	0	-29	-29	0	-28	-28
2029	-48	-1768	-228	0	-30	-30	0	-29	-29
2030	-51	-1873	-240	0	-32	-32	0	-30	-30
2031	-55	-1992	-255	0	-34	-34	0	-32	-32
2032	-58	-2111	-270	0	-36	-36	0	-34	-34
2033	-61	-2229	-284	0	-38	-38	0	-36	-36
2034	-63	-2307	-294	0	-39	-39	0	-37	-37
2035	-66	-2385	-304	0	-40	-40	0	-39	-39
Buildout	-66	-2406	-306	0	-41	-41	0	-39	-39

Operational Emissions Summary by Phase, lbs/day

Condition	Phase	Source	VOC	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
Unmitigated	Phase 1	Mobile	107	2078	579	0	339	47	386	92	24	116
		Area	175	0	2	0	0	0	0	0	0	0
		Onsite	5	138	51	0	0	1	1	0	1	1
		Total	287	2216	632	0	339	48	388	92	25	117
	Buildout	Mobile	241	3958	1472	0	851	47	898	229	45	274
		Area	311	0	4	0	0	0	0	0	0	0
		Onsite	9	245	89	0	0	2	2	0	2	2
		Total	561	4202	1565	0	851	49	901	229	47	276
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**
Mitigated	Phase 1	Mobile	73	866	406	0	339	4	343	92	4	96
		Area	175	0	2	0	0	0	0	0	0	0
		Onsite	4	51	60	0	0	0	0	0	0	0
		Total	253	918	469	0	339	4	343	92	4	96
	Buildout	Mobile	176	1705	1148	0	851	8	859	229	8	237
		Area	311	0	4	0	0	0	0	0	0	0
		Onsite	8	91	107	0	0	0	0	0	0	0
		Total	495	1796	1259	0	851	9	860	229	8	237
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**

B-2 Operational Summary 2018 Project

World Logistics Center
Criteria Pollutant Summary

Unmitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	56	457	274	100	6	106	28	5	33
2022	112	914	548	200	11	211	55	11	66
2023	186	1524	913	334	18	352	92	18	110
2024	261	2134	1278	467	26	493	129	25	154
2025	399	3266	1956	715	40	754	198	38	235
2026	484	3790	2268	828	46	874	229	44	273
2027	530	4067	2433	888	49	937	245	47	292
2028	557	4233	2532	923	51	975	255	49	304
2029	584	4399	2631	959	53	1012	265	51	316
2030	623	4637	2773	1010	56	1066	279	53	333
2031	667	4906	2933	1068	59	1128	295	56	352
2032	711	5175	3094	1126	62	1189	311	60	371
2033	754	5444	3254	1185	66	1250	327	63	390
2034	783	5621	3360	1223	68	1290	338	65	402
2035	812	5797	3465	1261	70	1330	348	67	415
Buildout	820	5845	3493	1271	70	1341	351	67	418

Unmitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	281	639	407	99	25	124	11	23	34
2021	326	917	708	197	25	223	39	24	62
2022	409	1691	1192	332	42	373	70	39	109
2023	448	1871	1332	431	33	463	103	31	134
2024	603	3366	2270	644	73	717	149	68	217
2025	662	3608	2413	820	52	872	210	49	259
2026	766	4326	2863	972	66	1037	245	62	307
2027	799	4482	2909	1002	64	1066	258	61	319
2028	852	4924	3196	1063	77	1140	271	73	343
2029	865	4943	3192	1084	73	1158	279	69	348
2030	932	5027	3378	1139	68	1206	294	65	359
2031	935	5113	3361	1166	64	1230	306	61	368
2032	1018	5566	3710	1258	74	1332	326	71	397
2033	1052	5784	3820	1310	75	1385	341	72	414
2034	1051	5827	3786	1320	72	1392	349	69	418
2035	1094	6034	3976	1377	75	1452	361	72	434
Buildout	1106	6330	4043	1391	88	1479	365	83	448

Mitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	49	202	239	100	1	101	28	1	29
2022	97	404	479	200	2	203	55	2	58
2023	162	673	798	334	4	338	92	4	96
2024	227	943	1117	468	5	473	129	5	134
2025	348	1443	1709	716	8	724	198	8	206
2026	425	1675	1985	828	10	838	229	9	238
2027	466	1798	2130	888	10	898	245	10	255
2028	490	1871	2218	924	11	935	255	10	265
2029	514	1945	2305	960	11	971	265	11	276
2030	549	2050	2430	1011	12	1023	279	11	290
2031	589	2169	2571	1069	12	1081	295	12	307
2032	628	2289	2713	1127	13	1140	311	12	324
2033	668	2408	2854	1185	14	1198	327	13	340
2034	694	2486	2947	1223	14	1237	338	14	351
2035	720	2564	3040	1261	15	1275	348	14	362
Buildout	727	2586	3065	1271	15	1286	351	14	365

Mitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	149	178	452	1	99	4	102	11	3
2021	200	379	733	101	98	105	129	12	32
2022	263	604	1219	202	134	207	191	17	62
2023	312	815	1286	335	101	341	193	15	99
2024	394	1178	2252	470	182	478	311	25	139
2025	498	1583	2247	717	113	727	305	20	208
2026	580	1846	2703	830	153	842	376	25	241
2027	617	1940	2698	889	125	901	363	23	258
2028	647	2045	3020	926	150	938	398	26	269
2029	668	2102	2980	961	136	974	394	25	279
2030	710	2210	3237	1013	140	1026	411	26	294
2031	740	2291	3061	1070	110	1083	395	23	309
2032	788	2450	3516	1129	144	1143	445	27	327
2033	826	2560	3577	1186	139	1201	456	27	343
2034	845	2607	3436	1224	112	1239	437	25	353
2035	874	2697	3676	1262	131	1278	467	27	364
Buildout	882	2746	3725	1272	135	1289	475	28	368

Reduction in Operational Criteria Pollutant Emissions (Unmitigated-Mitigated), lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	-7	-255	-34	0	-4	-4	0	-4	-4
2022	-14	-510	-69	0	-9	-9	0	-8	-8
2023	-24	-851	-115	0	-15	-14	0	-14	-14
2024	-33	-1191	-161	0	-20	-20	0	-20	-19
2025	-51	-1823	-246	1	-31	-31	0	-30	-30
2026	-59	-2115	-283	1	-36	-36	0	-35	-34
2027	-64	-2269	-303	0	-39	-38	0	-37	-37
2028	-67	-2362	-315	0	-40	-40	0	-39	-39
2029	-69	-2454	-326	0	-42	-41	0	-40	-40
2030	-73	-2587	-343	0	-44	-44	0	-42	-42
2031	-78	-2736	-362	0	-47	-46	0	-45	-45
2032	-82	-2886	-381	0	-49	-49	0	-47	-47
2033	-87	-3036	-400	0	-52	-52	0	-50	-50
2034	-90	-3135	-413	0	-53	-53	0	-51	-51
2035	-93	-3233	-425	0	-55	-55	0	-53	-53
Buildout	-93	-3260	-429	0	-55	-55	0	-53	-53

Operational Emissions Summary by Phase, lbs/day

Condition	Phase	Source	VOC	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
Unmitigated	Phase 1	Mobile	281	3175	1921	0	715	68	783	198	37	235
		Area	175	0	2	0	0	0	0	0	0	0
		Onsite	5	138	51	0	0	1	1	0	1	1
		Total	461	3314	1974	0	715	69	784	198	38	236
	Buildout	Mobile	500	5600	3400	0	1271	68	1339	351	65	416
		Area	311	0	4	0	0	0	0	0	0	0
		Onsite	9	245	89	0	0	2	2	0	2	2
		Total	820	5845	3493	0	1271	70	1341	351	67	418
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**
Mitigated	Phase 1	Mobile	230	1409	1668	0	716	8	724	198	8	205
		Area	175	0	2	0	0	0	0	0	0	0
		Onsite	4	51	60	0	0	0	0	0	0	0
		Total	410	1461	1731	0	716	8	724	198	8	206
	Buildout	Mobile	408	2495	2954	0	1271	14	1285	351	14	365
		Area	311	0	4	0	0	0	0	0	0	0
		Onsite	8	91	107	0	0	0	0	0	0	0
		Total	727	2586	3065	0	1271	15	1286	351	14	365
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**

B-3 Operational Summary Net

World Logistics Center
Criteria Pollutant Summary

Unmitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	25	98	50	44	1	44	12	1	12
2022	49	195	100	88	1	89	24	1	25
2023	82	326	166	146	2	148	40	2	41
2024	115	456	233	204	2	207	55	2	58
2025	175	698	356	313	4	317	85	4	89
2026	226	769	460	440	5	445	119	4	123
2027	252	806	514	508	5	513	137	5	141
2028	268	829	547	548	5	553	147	5	152
2029	284	851	580	589	5	594	158	5	163
2030	307	884	627	646	6	652	174	5	179
2031	332	920	680	712	6	718	191	6	197
2032	358	957	733	777	6	784	208	6	214
2033	384	993	786	843	7	849	226	6	232
2034	401	1017	821	886	7	893	237	7	244
2035	418	1041	856	929	7	936	249	7	256
Buildout	422	1047	865	940	7	947	252	7	259

Unmitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	281	639	407	99	25	124	11	23	34
2021	294	557	484	141	20	161	23	19	42
2022	347	972	745	219	32	251	39	29	68
2023	344	673	585	243	16	259	51	15	65
2024	457	1688	1225	381	49	431	75	46	121
2025	438	1040	813	418	17	434	97	15	112
2026	507	1304	1055	584	24	608	135	23	158
2027	521	1221	990	622	20	642	150	19	168
2028	564	1519	1210	687	31	718	163	29	192
2029	565	1395	1140	714	25	739	172	24	196
2030	616	1274	1231	775	17	792	188	17	205
2031	601	1127	1107	809	11	820	202	11	213
2032	666	1347	1349	908	18	926	223	18	241
2033	681	1333	1351	968	16	985	240	16	256
2034	669	1223	1247	983	12	995	248	12	260
2035	699	1278	1367	1045	13	1058	262	12	274
Buildout	422	1047	865	940	7	947	252	7	259

Mitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	24	83	49	44	0	44	12	0	12
2022	49	167	98	88	1	88	24	1	25
2023	81	278	163	146	1	147	40	1	41
2024	114	390	228	204	2	206	55	2	57
2025	174	596	349	313	3	316	85	3	88
2026	223	657	458	440	3	444	119	3	122
2027	249	689	515	508	4	511	137	4	140
2028	265	708	550	548	4	552	147	4	151
2029	280	727	584	589	4	593	158	4	162
2030	303	754	633	646	4	651	174	4	178
2031	328	785	689	712	5	716	191	4	195
2032	353	816	745	777	5	782	208	5	213
2033	378	847	800	843	5	848	226	5	231
2034	394	867	837	886	5	891	237	5	242
2035	411	888	873	929	5	934	249	5	254
Buildout	416	893	883	940	5	946	252	5	257

Mitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	149	178	452	1	99	4	102	11	3
2021	176	261	542	45	98	48	113	11	16
2022	214	367	839	89	132	93	160	16	29
2023	231	420	651	147	99	150	140	12	44
2024	281	625	1363	207	179	211	238	22	62
2025	324	736	887	314	108	319	192	15	90
2026	379	827	1176	442	147	447	266	20	125
2027	400	831	1083	509	118	514	254	17	143
2028	422	881	1352	550	143	556	291	19	155
2029	434	884	1259	590	129	596	287	18	165
2030	463	914	1441	648	133	654	305	19	181
2031	479	906	1179	713	102	718	290	15	197
2032	513	978	1548	779	136	785	343	19	216
2033	536	999	1523	844	130	851	354	19	233
2034	546	988	1326	887	102	893	336	16	244
2035	566	1020	1510	930	122	936	367	18	256
Buildout	416	893	883	940	5	946	252	5	257

Reduction in Operational Criteria Pollutant Emissions (Unmitigated-Mitigated), lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	0	-14	-1	0	0	0	0	0	0
2022	0	-28	-2	0	0	0	0	0	0
2023	0	-47	-3	0	0	0	0	0	0
2024	-1	-66	-4	0	-1	-1	0	-1	-1
2025	-1	-101	-7	0	-1	-1	0	-1	-1
2026	-2	-112	-2	0	-1	-1	0	-1	-1
2027	-3	-118	1	0	-1	-1	0	-1	-1
2028	-3	-121	2	0	-1	-1	0	-1	-1
2029	-4	-125	4	0	-1	-1	0	-1	-1
2030	-4	-129	6	0	-1	-1	0	-1	-1
2031	-5	-135	9	0	-2	-2	0	-1	-1
2032	-5	-140	12	0	-2	-2	0	-2	-2
2033	-6	-146	14	0	-2	-2	0	-2	-2
2034	-6	-150	16	0	-2	-2	0	-2	-2
2035	-7	-153	18	0	-2	-2	0	-2	-2
Buildout	-7	-154	18	0	-2	-2	0	-2	-2

Operational Emissions Summary by Phase, lbs/day

Condition	Phase	Source	VOC	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
Unmitigated	Phase 1	Mobile	57.23	607.31	321.66	0.00	312.80	4.88	317.69	84.87	2.81	87.67
		Area	175.50	0.02	2.33	0.00	0.00	0.01	0.01	0.00	0.01	0.01
		Onsite	5.22	138.19	50.56	0.00	0.00	1.34	1.34	0.00	1.33	1.33
		Total	237.95	745.52	374.55	0.00	312.80	6.23	319.03	84.87	4.15	89.01
	Buildout	Mobile	102.61	802.88	771.74	0.00	940.20	4.88	945.08	251.65	4.64	256.29
		Area	310.60	0.04	4.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01
		Onsite	9.24	244.58	89.49	0.00	0.00	2.37	2.37	0.00	2.36	2.36
		Total	422.46	1047.49	865.35	0.00	940.20	7.27	947.47	251.65	7.01	258.67
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**
Mitigated	Phase 1	Mobile	56.76	562.75	308.46	0.00	312.80	2.79	315.59	84.87	2.66	87.53
		Area	175.50	0.02	2.33	0.00	0.00	0.01	0.01	0.00	0.01	0.01
		Onsite	4.37	51.40	60.26	0.00	0.00	0.28	0.28	0.00	0.28	0.28
		Total	236.63	614.18	371.05	0.00	312.80	3.08	315.88	84.87	2.95	87.82
	Buildout	Mobile	97.32	802.23	772.61	0.00	940.20	4.87	945.07	251.65	4.63	256.28
		Area	310.60	0.04	4.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01
		Onsite	7.74	90.97	106.65	0.00	0.00	0.50	0.50	0.00	0.50	0.50
		Total	415.66	893.24	883.37	0.00	940.20	5.38	945.58	251.65	5.14	256.79
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**

B-4 Operational Summary Project

ESA

World Logistics Center
Criteria Pollutant Summary

Unmitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	21	38	33	17	0	18	5	0	5
2022	42	76	66	34	1	35	10	1	10
2023	69	127	110	57	1	58	16	1	17
2024	97	177	155	80	1	82	22	1	24
2025	149	271	237	123	2	125	34	2	36
2026	190	310	258	143	2	145	39	2	42
2027	212	330	269	153	3	155	42	3	45
2028	225	342	276	159	3	162	44	3	47
2029	239	355	283	165	3	168	46	3	48
2030	257	372	292	174	3	177	48	3	51
2031	279	392	303	184	3	187	51	3	54
2032	300	412	314	194	3	197	54	3	57
2033	322	431	325	204	4	207	56	3	60
2034	336	444	333	210	4	214	58	4	62
2035	350	457	340	217	4	221	60	4	64
Buildout	354	461	342	219	4	222	60	4	64

Unmitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	281	639	407	99	25	124	11	23	34
2021	291	498	467	115	20	135	16	19	34
2022	339	852	711	166	31	197	24	29	53
2023	331	474	529	155	15	170	27	14	41
2024	440	1410	1147	257	48	306	42	45	87
2025	411	613	694	228	15	243	46	14	60
2026	472	845	853	286	22	309	56	21	76
2027	481	745	745	267	18	285	55	17	72
2028	521	1033	939	298	29	327	60	26	86
2029	520	898	843	290	23	313	60	21	81
2030	567	763	897	302	15	317	63	15	77
2031	547	599	731	281	8	289	62	8	70
2032	608	803	930	325	15	340	68	15	83
2033	619	772	890	329	13	342	70	13	84
2034	604	650	759	308	8	316	69	8	78
2035	631	695	850	333	9	343	73	9	82
Buildout	639	946	892	339	21	360	74	20	94

Mitigated Operational Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	21	28	34	17	0	17	5	0	5
2022	41	57	67	34	0	35	10	0	10
2023	69	94	112	57	1	58	16	1	16
2024	97	132	156	80	1	81	22	1	23
2025	148	202	239	123	1	124	34	1	35
2026	189	224	264	143	1	144	39	1	41
2027	211	235	277	153	2	154	42	1	44
2028	224	242	284	159	2	160	44	2	45
2029	237	248	292	165	2	167	46	2	47
2030	256	258	303	174	2	176	48	2	50
2031	277	269	315	184	2	186	51	2	52
2032	298	280	328	194	2	196	54	2	55
2033	319	291	340	204	2	206	56	2	58
2034	333	298	349	210	2	212	58	2	60
2035	347	305	357	217	2	219	60	2	62
Buildout	351	307	359	219	2	220	60	2	62

Mitigated Operational and Construction Criteria Pollutant Emissions, lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	149	178	452	1	99	4	102	11	3
2021	172	205	527	18	98	21	106	11	9
2022	207	257	808	36	132	39	145	15	14
2023	218	236	600	58	98	61	116	12	19
2024	264	367	1291	83	178	86	204	21	28
2025	298	342	777	124	106	127	142	13	38
2026	344	394	982	144	145	147	187	18	44
2027	362	377	844	154	116	157	159	14	47
2028	381	415	1087	161	141	164	187	17	49
2029	391	405	967	167	127	170	174	16	50
2030	416	418	1111	176	130	179	179	16	53
2031	428	390	805	185	99	188	150	13	54
2032	458	442	1131	196	133	199	188	17	58
2033	477	443	1064	205	127	208	185	16	61
2034	484	419	838	211	99	214	157	13	62
2035	501	438	993	218	118	221	179	15	64
Buildout	506	467	1019	220	122	224	184	16	65

Reduction in Operational Criteria Pollutant Emissions (Unmitigated-Mitigated), lbs/day

Year	VOC	NOX	CO	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
2020	0	0	0	0	0	0	0	0	0
2021	0	-10	0	0	0	0	0	0	0
2022	0	-19	1	0	0	0	0	0	0
2023	0	-32	1	0	0	0	0	0	0
2024	0	-45	2	0	0	0	0	0	0
2025	-1	-69	3	0	-1	-1	0	-1	-1
2026	-1	-86	6	0	-1	-1	0	-1	-1
2027	-1	-95	7	0	-1	-1	0	-1	-1
2028	-1	-101	8	0	-1	-1	0	-1	-1
2029	-2	-106	9	0	-1	-1	0	-1	-1
2030	-2	-114	10	0	-1	-1	0	-1	-1
2031	-2	-123	12	0	-1	-1	0	-1	-1
2032	-2	-132	14	0	-2	-2	0	-2	-2
2033	-3	-140	15	0	-2	-2	0	-2	-2
2034	-3	-146	16	0	-2	-2	0	-2	-2
2035	-3	-152	17	0	-2	-2	0	-2	-2
Buildout	-3	-154	17	0	-2	-2	0	-2	-2

Operational Emissions Summary by Phase, lbs/day

Condition	Phase	Source	VOC	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
Unmitigated	Phase 1	Mobile	167	992	1107	0	675	8	682	186	6	193
		Area	175	0	2	0	0	0	0	0	0	0
		Onsite	5	138	51	0	0	1	1	0	1	1
		Total	347	1130	1160	0	675	9	684	186	8	194
	Buildout	Mobile	185	1185	1360	0	1197	8	1205	331	7	338
		Area	311	0	4	0	0	0	0	0	0	0
		Onsite	9	245	89	0	0	2	2	0	2	2
		Total	504	1430	1453	0	1197	10	1208	331	10	340
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**
Mitigated	Phase 1	Mobile	166	924	1087	0	675	7	681	186	6	193
		Area	175	0	2	0	0	0	0	0	0	0
		Onsite	4	51	60	0	0	0	0	0	0	0
		Total	346	976	1150	0	675	7	681	186	6	193
	Buildout	Mobile	177	1185	1361	0	1197	8	1205	331	7	338
		Area	311	0	4	0	0	0	0	0	0	0
		Onsite	8	91	107	0	0	0	0	0	0	0
		Total	496	1276	1472	0	1197	8	1206	331	8	339
		Threshold	55	55	550	-	-	-	150	-	-	55
		Exceeded?	**Yes**	**Yes**	**Yes**	No	No	No	**Yes**	No	No	**Yes**

B-9 Onsite Emissions Summary

World Logistics Center
Operational Emissions
Yard Trucks/Hostlers

Yard Trucks/Hostlers

Parameter	Value	Source/Reference
Number of yard trucks per facility	2	Highland Fairview, October 10, 2013
Fuel type	Propane	
Average building/facility area, sq. ft.	1,500,000	
Warehouse area (minus logistics), sq. ft.	40,400,000	
Average number of buildings	26.9	
Yard trucks	54	
Horsepower	199	Port of Los Angeles Inventory of Emissions - 2016. Starcrest Consulting Group. Table 5.1 (average HP of propane yard tractor).
WHP	155	Wheel Horsepower to Crankshaft Horsepower Guestimator (Rear-Wheel Drive). http://www.mk5cortinaestate.co.uk/calculator4.php
Load factor	0.39	CARB's Emission Inventory Development for Cargo Handling Equipment. https://www.arb.ca.gov/regact/2011/cargo11/cargoappb.pdf
Maximum daily operating hours per truck	7	
Annual days of operation	260	

Unmitigated Emission Factors and Emissions

Parameter	THC	NOx	CO	PM	CO2	MTCO2e
Emission factor, g/whp-hr	0.14	3.49	0.07	0.007	864	
Emissions per Facility, lbs/day	0.26	6.50	0.13	0.01	1,608	
Emissions per Facility, tons/year	0.03	0.84	0.02	0.00	209	
Project Buildout Emissions, lbs/day	7.02	175.01	3.51	0.35	43,319	
Project Buildout Emissions, tons/year	0.91	22.75	0.46	0.05	5,631	5,109

Emission factors from California Air Resources Board. 2005. Cargo Handling Equipment Yard Truck Emission Testing. Cummins 2004 5.9L LPG truck (page 1-5 of Appendix 1).

Mitigated Emission Factors and Emissions (Tier 4 Interim NOx standard or better)

Parameter	NOx
Emission factor (g/hp-hr)	1.29
Emissions (lbs/day) - per facility	3.08
Emissions (tons/year) - per facility	0.40
Emissions (lbs/day) - Project Build Out	83.05
Emissions (tons/year) - Project Build Out	10.80

Note: Emission factors for mitigated Tier 4 Interim (CalEEMod User's Guide, Appendix D, Table 3.5)

Notes:

The most common propane fueled yard tractor at the port in 2006 was the Kalmar PT122, year 2004 (http://www.portoflosangeles.org/DOC/REPORT_Air_Emissions_Inventory_Volume2.pdf). According to www.kalmarind-northamerica.com/source.php/1390193/ Kalmar%20Logistics%20brochure.pdf, for the Ottawa tractor, there are 3 types of tractors listed: 4x2 off-road terminal tractor, whic has a Tier 3 off-road engine; 4x2 DOT/EPA Terminal Tractor, which is 2010 Clean Idle Certified; 6x4 DOT/EPA Terminal Tractor, which is 2010 Clean Idle certified. According to the Technical Data for Kalmar 4-wheel Drive TR618i RoRo Tractor, it has a Tier 3 off-road engine.

World Logistics Center
Operational Emissions
Forklifts

Forklift Assumptions

Parameter	Value	Reference/Source
Quantity of non-diesel forklifts per light logistics planning area	5	Highland Fairview 10/11/13
Number of light logistics planning areas	3	
Quantity of non-diesel forklifts	15	
Average daily operating hours per forklift	4	
Horsepower	93	Cat Lift Trucks, LG Gas Cushion Tire Lift Trucks, Model GC35K, http://www.cat-lift.com/_cat/PDFs/CLT-PDF030/CLT-PDF030.html
Load factor	0.2	
Annual days of operation	260	

Natural Gas-Fueled Forklift Emissions

Parameter	ROG	NOx	CO	SO2	PM10	PM2.5	CO2	Black Carbon	CO2e, MT	Notes
Diesel fueled forklift emission factors, g/bhp-hr	0.459	4.13299	3.75954	0.005	0.308	0.283	471.5285			CalEEMod User's Guide, Appendix D, Table 3.4, Forklifts, year 2020, HP 51-120
Percent reduction in diesel emission factors for compressed natural gas	86%	26%	-710%	100%	81%	79%	-31%			CalEEMod User's Guide, Appendix D, Table 3.6, Min Year 2020, Max Year 2024, HP 51-120 for Forklift
Compressed natural gas emission factors, g/bhp-hr	0.0652	3.0547	30.4372	0.0000	0.0594	0.0593	615.9341			
Forklift emissions, lb/day	0.16	7.50	74.73	0.00	0.15	0.15	1512	0.06	1410	
Forklift emissions, tons/year	0.02	0.97	9.71	0.00	0.02	0.02	197	0.01	183	

Note: Black carbon emissions assumed to be 38% of PM2.5 emissions with a Global Warming Potential of 760.

World Logistics Center
Operational Emissions
Diesel-Fueled Emergency Generator Emissions

Diesel-Fueled Emergency Generator Information and Assumptions

Parameter	Value	Reference/Source
Emergency generators per 1.5 million sq. ft.	1	Highland Fairview 7/17/2013
Total project size, million sq. ft.	40.6	Project Description
Quantity of generators	27	
Generator horsepower	314.9	Highland Fairview 7/17/2013 (235 kw)
Testing schedule, hours/year/generator	50	SCAQMD Rule 1470 (c)(2)(C)(i)
Maximum daily hours of use per generator	1	

Number of Diesel-Fueled Emergency Generators Per Phase

Project Phase	Building area, sq. ft.	Percentage of total area	Number of generators
1	22,700,000	55.91%	15
2	17,900,000	44.09%	12

Emissions Rate and Emissions per Diesel-Fueled Generator

Parameter	HC	CO	NOx	PM/PM10	PM2.5	CO2	CH4
Emission rate, Tier III diesel engines, g/hp-hr	0.11	0.6	3.31	0.1	0.0994	568.3	0.017
Annual emissions per generator, g/yr	1,732	9,447	52,116	1,575	1,565	8,947,884	268
Average annual emissions per generator, g/s	5.49E-05	3.00E-04	1.65E-03	4.99E-05	4.96E-05	2.84E-01	8.49E-06

HC, NOX, CO, and PM emission factors from Kohler Power Systems, 200REOZJF, 60 HZ Diesel Industrial Generator Set, Emission Data Sheet. CO2 and CH4 emission factors from CalEEMod Appendix D, Table 3.4, OFFROAD Equipment Emission Factors for Generator Sets, for year 2020, between 251 and 500 horsepower.

PM10 assumed to be equal to PM emission factor. PM2.5 emissions are assumed to be 90% of PM10 emissions (from ARB CEIDARS Database PM Size Profiles)

Emissions from All Diesel-Fueled Emergency Generators, g/s

Project Phase	HC	CO	NOX	PM10	PM2.5
1	8.31E-04	4.53E-03	2.50E-02	7.56E-04	7.51E-04
2	6.55E-04	3.57E-03	1.97E-02	5.96E-04	5.92E-04

Daily Emissions from All Diesel-Fueled Emergency Generators, lb/day

Project Phase	HC	CO	NOX	PM10	PM2.5	Black Carbon
1	1.15	6.29	34.70	1.05	1.04	0.80
2	0.91	4.96	27.36	0.83	0.82	0.63
Total	2.06	11.25	62.07	1.88	1.86	1.44

Note: Black carbon emissions assumed to be 77% of PM2.5 emissions.

Annual Emissions from All Diesel-Fueled Emergency Generators, tons/year

Project Phase	HC	CO	NOX	PM10	PM2.5	Black Carbon	CO2	CH4	Total MTCO2e /year
1	0.03	0.16	0.87	0.03	0.03	0.02	149.27	0.00	149.38
2	0.02	0.12	0.69	0.02	0.02	0.02	117.70	0.00	117.79
Total	0.05	0.28	1.55	0.05	0.05	0.04	266.97	0.01	267.16

Note: GWP of 760 used for Black Carbon, 25 for methane.

World Logistics Center
Operational Emissions
Natural Gas-Fueled Emergency Generator Emissions

Natural Gas-Fueled Emergency Generator Information and Assumptions

Parameter	Value	Reference/Source
Emergency generators per 1.5 million sq. ft.	1	Highland Fairview 7/17/2013
Total project size, million sq. ft.	40.6	Project Description
Quantity of generators	27	
Generator kw rating	235	Highland Fairview 7/17/2013 (235 kw)
Testing schedule, hours/year/generator	50	SCAQMD Rule 1470 (c)(2)(C)(i)
Maximum daily hours of use per generator	1	

Number of Natural Gas-Fueled Generators Per Phase

Project Phase	Building area, sq. ft.	Percentage of total area	Number of generators
1	22,700,000	55.91%	15
2	17,900,000	44.09%	12

Emissions Rate and Emissions per Natural Gas-Fueled Generator

Parameter	HC	CO	NOx	PM/PM10	PM2.5	CO2	CH4
Emission rate, g/kW-hr	0.04	2.03	0.03	0	0	898.68	0
Annual emissions per generator, g/yr	470	23,853	353	0	0	10,559,490	0
Average annual emissions per generator, g/s	1.49E-05	7.56E-04	1.12E-05	0.00E+00	0.00E+00	3.35E-01	0.00E+00

Emission factors from Kohler Power Systems, Generator Model 200REZXB, natural gas-fired.

Emissions from All Natural Gas-Fueled Emergency Generators, g/s

Project Phase	HC	CO	NOX	PM10	PM2.5
1	2.26E-04	1.14E-02	1.69E-04	0.00E+00	0.00E+00
2	1.78E-04	9.03E-03	1.33E-04	0.00E+00	0.00E+00

Daily Emissions from All Natural Gas-Fueled Emergency Generators, lb/day

Project Phase	HC	CO	NOX	PM10	PM2.5	Black Carbon
1	0.31	15.88	0.23	-	-	-
2	0.25	12.52	0.19	-	-	-
Total	0.56	28.41	0.42	-	-	-

Note: Black carbon emissions assumed to be 77% of PM2.5 emissions.

Annual Emissions from All Natural Gas-Fueled Emergency Generators, tons/year

Project Phase	HC	CO	NOX	PM10	PM2.5	Black Carbon	CO2	CH4	Total MTCO2e /year
1	0.01	0.40	0.01	-	-	-	176.15	-	159.80
2	0.01	0.31	0.00	-	-	-	138.90	-	126.01
Total	0.01	0.71	0.01	-	-	-	315.05	-	285.82

Note: GWP of 760 used for Black Carbon, 25 for methane.

World Logistics Center
Operational Emissions
Onsite Equipment Emissions Summary

Onsite Equipment Emissions Summary by Phase, lbs/day

Condition	Phase	Source	VOC	NOX	CO	SO2	PM10	PM2.5
Unmitigated	Phase 1	Yard Trucks	4	99	2	0	0	0
		Generator	1	35	6	0	1	1
		Forklifts	0	4	42	0	0	0
		Total	5	138	51	0	1	1
	Buildout	Yard Trucks	7	175	4	0	0	0
		Generator	2	62	11	0	2	2
		Forklifts	0	7	75	0	0	0
		Total	9	245	89	0	2	2
Mitigated	Phase 1	Yard Trucks	4	47	2	0	0	0
		Generator	0	0	16	0	0	0
		Forklifts	0	4	42	0	0	0
		Total	4	51	60	0	0	0
	Buildout	Yard Trucks	7	83	4	0	0	0
		Generator	1	0	28	0	0	0
		Forklifts	0	7	75	0	0	0
		Total	8	91	107	0	0	0

Interpolated Annual Onsite Criteria Pollutant Emissions Based on Buildout, lbs/day

Condition	Year	VOC	NOX	CO	SO2	PM10	PM2.5
Unmitigated	2020	0	0	0	0	0	0
	2021	0	13	5	0	0	0
	2022	1	25	9	0	0	0
	2023	2	42	15	0	0	0
	2024	2	59	22	0	1	1
	2025	3	90	33	0	1	1
	2026	5	122	45	0	1	1
	2027	5	138	51	0	1	1
	2028	6	148	54	0	1	1
	2029	6	158	58	0	2	2
	2030	7	172	63	0	2	2
	2031	7	188	69	0	2	2
	2032	8	204	75	0	2	2
	2033	8	220	81	0	2	2
	2034	9	231	85	0	2	2
	2035	9	242	88	0	2	2
	Buildout	9	245	89	0	2	2
Mitigated	2020	0	0	0	0	0	0
	2021	0	5	6	0	0	0
	2022	1	9	11	0	0	0
	2023	1	16	18	0	0	0
	2024	2	22	26	0	0	0
	2025	3	34	39	0	0	0
	2026	4	45	53	0	0	0
	2027	4	51	60	0	0	0
	2028	5	55	65	0	0	0
	2029	5	59	69	0	0	0
	2030	5	64	75	0	0	0
	2031	6	70	82	0	0	0
	2032	6	76	89	0	0	0
	2033	7	82	96	0	0	0
	2034	7	86	101	0	0	0
	2035	8	90	105	0	0	0
	Buildout	8	91	107	0	0	0

B-10 Area Emissions Summary

World Logistics Center
Operational Emissions
Area Source Emissions

Conceptual Buildout

Year	Total, million sq. ft.	Total, sq. ft.	Percent of total	Occupied Area, sq. ft.	Percent Added During Construction
2020	0	0	0%	0	5.2%
2021	2.1	2,100,000	5%	2,100,000	5.2%
2022	4.2	4,200,000	10%	2,100,000	6.9%
2023	7	7,000,000	17%	2,800,000	6.9%
2024	9.8	9,800,000	24%	2,800,000	12.8%
2025	15	15,000,000	37%	5,200,000	12.8%
2026	20.2	20,200,000	50%	5,200,000	6.8%
2027	22.9455	22,945,500	57%	2,745,500	4.1%
2028	24.5955	24,595,500	61%	1,650,000	4.1%
2029	26.2455	26,245,500	65%	1,650,000	5.8%
2030	28.6	28,600,000	70%	2,354,500	6.6%
2031	31.27	31,270,000	77%	2,670,000	6.6%
2032	33.94	33,940,000	84%	2,670,000	6.6%
2033	36.61	36,610,000	90%	2,670,000	4.3%
2034	38.36	38,360,000	94%	1,750,000	4.3%
2035	40.11	40,110,000	99%	1,750,000	1.2%
Buildout	40.61	40,610,000	100%	500,000	0.0%

Consumer Product and Architectural Coating Emissions

Year	Emission Factor, lb VOC/day/sf	Square Feet	Consumer Product VOC Emissions, lb/day	Architectural Coating VOC Emissions, lb/day
2021	5.10E-06	2,100,000	11	5
2022	5.10E-06	4,200,000	21	11
2023	5.10E-06	7,000,000	36	18
2024	5.10E-06	9,800,000	50	25
2025	5.10E-06	15,000,000	77	38
2026	5.10E-06	20,200,000	103	51
2027	5.10E-06	22,945,500	117	58
2028	5.10E-06	24,595,500	125	62
2029	5.10E-06	26,245,500	134	67
2030	5.10E-06	28,600,000	146	73
2031	5.10E-06	31,270,000	159	79
2032	5.10E-06	33,940,000	173	86
2033	5.10E-06	36,610,000	187	93
2034	5.10E-06	38,360,000	196	97
2035	5.10E-06	40,110,000	205	102
Buildout	5.10E-06	40,610,000	207	103

Note: Architectural coating emissions based on percentage of sq. ft. completed per year.

Landscape Area Emissions

Year	VOC, lb/day	NOX, lb/day	CO, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day	Black Carbon, lb/day	Black Carbon, tons/year
2021	0.02	0.00	0.21	0.00	0.00	0.00	0.00	0.0001
2022	0.04	0.00	0.43	0.00	0.00	0.00	0.00	0.0001
2023	0.06	0.01	0.71	0.00	0.00	0.00	0.00	0.0002
2024	0.09	0.01	0.99	0.00	0.00	0.00	0.00	0.0002
2025	0.14	0.01	1.52	0.00	0.01	0.01	0.00	0.0004
2026	0.19	0.02	2.05	0.00	0.01	0.01	0.00	0.0005
2027	0.21	0.02	2.33	0.00	0.01	0.01	0.00	0.0006
2028	0.23	0.02	2.49	0.00	0.01	0.01	0.00	0.0006
2029	0.24	0.02	2.66	0.00	0.01	0.01	0.00	0.0007
2030	0.27	0.03	2.90	0.00	0.01	0.01	0.00	0.0007
2031	0.29	0.03	3.17	0.00	0.01	0.01	0.00	0.0008
2032	0.31	0.03	3.44	0.00	0.01	0.01	0.00	0.0008
2033	0.34	0.03	3.71	0.00	0.01	0.01	0.01	0.0009
2034	0.36	0.03	3.89	0.00	0.01	0.01	0.01	0.0010
2035	0.37	0.04	4.07	0.00	0.01	0.01	0.01	0.0010
Buildout	0.38	0.04	4.12	0.00	0.01	0.01	0.01	0.0010

Note: Black carbon is assumed to be 38% of PM2.5 and have a GWP of 760.

Source of Buildout emissions: CalEEMod output.

Summary of Operational Area Emissions

Year	VOC, lb/day	NOX, lb/day	CO, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day	Black Carbon, lb/day	Black Carbon, tons/year
2021	16.06	0.00	0.21	0.00	0.00	0.00	0.00	0.0001
2022	32.12	0.00	0.43	0.00	0.00	0.00	0.00	0.0001
2023	53.54	0.01	0.71	0.00	0.00	0.00	0.00	0.0002
2024	74.95	0.01	0.99	0.00	0.00	0.00	0.00	0.0002
2025	114.73	0.01	1.52	0.00	0.01	0.01	0.00	0.0004
2026	154.50	0.02	2.05	0.00	0.01	0.01	0.00	0.0005
2027	175.50	0.02	2.33	0.00	0.01	0.01	0.00	0.0006
2028	188.12	0.02	2.49	0.00	0.01	0.01	0.00	0.0006
2029	200.74	0.02	2.66	0.00	0.01	0.01	0.00	0.0007
2030	218.74	0.03	2.90	0.00	0.01	0.01	0.00	0.0007
2031	239.16	0.03	3.17	0.00	0.01	0.01	0.00	0.0008
2032	259.59	0.03	3.44	0.00	0.01	0.01	0.00	0.0008
2033	280.01	0.03	3.71	0.00	0.01	0.01	0.01	0.0009
2034	293.39	0.03	3.89	0.00	0.01	0.01	0.01	0.0010
2035	306.78	0.04	4.07	0.00	0.01	0.01	0.01	0.0010
Buildout	310.60	0.04	4.12	0.00	0.01	0.01	0.01	0.0010

B-11 Mobile Source Emissions Summary – 2018 Net

World Logistics Center
Operational Emissions
2018 Net Mobile Source Emissions
Without EV Adjustment

2018 Net Mobile Source Emissions (without EV adjustment)

Condition	Year	Units	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
Unmitigated	2025	lb/day	107	2078	579	25	276	64	364	24	68	25	116	18	4	7	760189
		tons/year	19	379	106	5	50	12	66	4	12	5	21	3	1	1	138735
Unmitigated	2040	lb/day	241	3958	1472	47	714	138	898	45	175	54	274	34	9	17	1564507
		tons/year	44	722	269	9	130	25	164	8	32	10	50	6	2	3	285523
Mitigated	2025	lb/day	73	866	406	4	276	64	343	4	68	25	96	3	4	5	738670
		tons/year	13	158	74	1	50	12	63	1	12	5	18	1	1	1	134807
Mitigated	2040	lb/day	176	1705	1148	8	714	138	859	8	175	54	237	6	9	12	1523888
		tons/year	32	311	210	1	130	25	157	1	32	10	43	1	2	2	278110

Unmitigated, tons

Year	ROG lbs/day	NOX lbs/day	CO lbs/day	PM10 Exhaust lbs/day	PM10 Dust lbs/day	PM10 Brake lbs/day	PM10 Total lbs/day	PM2.5 Exhaust lbs/day	PM2.5 Dust lbs/day	PM2.5 Brake lbs/day	PM2.5 Total lbs/day	Black Carbon tons/year	N2O tons/year	CH4 tons/year	CO2 tons/year
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	15	291	81	3	39	9	51	3	9	3	16	0	0	0	19423
2022	30	582	162	7	77	18	102	7	19	7	33	1	0	0	38846
2023	50	970	270	12	129	30	170	11	32	12	54	2	0	1	64743
2024	70	1357	378	16	180	42	238	15	44	16	76	2	0	1	90640
2025	107	2078	579	25	276	64	364	24	68	25	116	3	1	1	138735
2026	134	2460	760	29	365	79	473	28	90	31	148	4	1	2	168569
2027	148	2661	856	32	412	87	530	30	101	34	165	4	1	2	184321
2028	157	2783	913	33	440	91	564	32	108	36	175	4	1	2	193788
2029	166	2904	971	34	468	96	599	33	115	38	185	5	1	2	203255
2030	178	3077	1053	36	508	103	648	35	125	40	200	5	1	2	216764
2031	192	3273	1146	39	554	111	704	37	136	43	216	5	1	3	232082
2032	206	3469	1240	41	600	118	759	39	147	46	233	6	1	3	247401
2033	220	3666	1333	43	646	126	815	42	158	49	249	6	1	3	262720
2034	229	3794	1394	45	676	131	852	43	166	51	260	6	1	3	272761
2035	238	3923	1455	46	705	136	888	44	173	53	271	6	2	3	282801
Buildout	241	3958	1472	47	714	138	898	45	175	54	274	6	2	3	285523

Mitigated

Year	ROG lbs/day	NOX lbs/day	CO lbs/day	PM10 Exhaust lbs/day	PM10 Dust lbs/day	PM10 Brake lbs/day	PM10 Total lbs/day	PM2.5 Exhaust lbs/day	PM2.5 Dust lbs/day	PM2.5 Brake lbs/day	PM2.5 Total lbs/day	Black Carbon tons/year	N2O tons/year	CH4 tons/year	CO2 tons/year
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	10	121	57	1	39	9	48	1	9	3	13	0	0	0	18873
2022	20	243	114	1	77	18	96	1	19	7	27	0	0	0	37746
2023	34	404	190	2	129	30	160	2	32	12	45	0	0	0	62910
2024	48	566	266	2	180	42	224	2	44	16	63	0	0	1	88074
2025	73	866	406	4	276	64	343	4	68	25	96	1	1	1	134807
2026	94	1037	557	5	365	79	448	4	90	31	125	1	1	1	163933
2027	105	1127	637	5	412	87	503	5	101	34	140	1	1	1	179311
2028	112	1181	685	5	440	91	537	5	108	36	149	1	1	1	188553
2029	118	1235	732	6	468	96	570	5	115	38	158	1	1	1	197795
2030	128	1312	801	6	508	103	618	6	125	40	171	1	1	2	210983
2031	139	1400	878	6	554	111	671	6	136	43	185	1	1	2	225939
2032	149	1487	955	7	600	118	725	7	147	46	200	1	1	2	240894
2033	160	1575	1033	7	646	126	779	7	158	49	215	1	1	2	255849
2034	167	1632	1084	8	676	131	814	7	166	51	224	1	1	2	265651
2035	174	1689	1134	8	705	136	850	8	173	53	234	1	2	2	275453
Buildout	176	1705	1148	8	714	138	859	8	175	54	237	1	2	2	278110

B-12 Mobile Source Emissions Summary – 2018 Project

World Logistics Center
Operational Emissions
2018 Project Mobile Source Emissions
Without EV Adjustment

2018 Project Mobile Source Emissions (without EV adjustment)

Condition	Year	Units	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
Unmitigated	2025	lb/day	281	3175	1921	39	564	151	754	37	138	59	235	28	11	20	1525164
		tons/year	51	580	351	7	103	28	138	7	25	11	43	5	2	4	278342
Unmitigated	2040	lb/day	500	5600	3400	68	1005	266	1339	65	247	104	416	49	19	35	2692328
		tons/year	91	1022	620	12	183	49	244	12	45	19	76	9	4	6	491350
Mitigated	2025	lb/day	230	1409	1668	8	564	151	724	8	139	59	205	6	11	16	1494484
		tons/year	42	257	304	1	103	28	132	1	25	11	38	1	2	3	272743
Mitigated	2040	lb/day	408	2495	2954	14	1005	266	1285	14	247	104	365	10	19	28	2636337
		tons/year	75	455	539	3	183	49	235	2	45	19	67	2	4	5	481131

Unmitigated

Year	ROG lbs/day	NOX lbs/day	CO lbs/day	PM10 Exhaust lbs/day	PM10 Dust lbs/day	PM10 Brake lbs/day	PM10 Total lbs/day	PM2.5 Exhaust lbs/day	PM2.5 Dust lbs/day	PM2.5 Brake lbs/day	PM2.5 Total lbs/day	Black Carbon tons/year	N2O tons/year	CH4 tons/year	CO2 tons/year
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	39	445	269	5	79	21	105	5	19	8	33	1	0	1	38968
2022	79	889	538	11	158	42	211	10	39	17	66	1	1	1	77936
2023	131	1482	896	18	263	71	352	17	65	28	109	2	1	2	129893
2024	183	2075	1255	25	368	99	492	24	90	39	153	3	1	2	181850
2025	281	3175	1921	39	564	151	754	37	138	59	235	5	2	4	278342
2026	325	3668	2222	45	653	175	873	43	160	68	271	6	2	4	321636
2027	349	3929	2380	48	701	187	935	46	172	73	291	6	2	5	344494
2028	363	4085	2476	50	729	194	973	47	179	76	303	7	3	5	358232
2029	377	4241	2571	52	758	202	1011	49	186	79	314	7	3	5	371969
2030	397	4465	2707	54	798	212	1065	52	196	83	331	7	3	5	391572
2031	420	4718	2861	57	844	224	1126	55	207	88	350	8	3	5	413802
2032	443	4971	3016	60	890	236	1187	58	218	93	369	8	3	6	436031
2033	466	5224	3170	63	936	248	1248	60	230	97	388	8	3	6	458261
2034	481	5390	3271	65	966	256	1288	62	237	101	400	9	3	6	472831
2035	496	5555	3372	67	996	264	1328	64	245	104	413	9	4	6	487401
Buildout	500	5600	3400	68	1005	266	1339	65	247	104	416	9	4	6	491350

Mitigated

Year	ROG lbs/day	NOX lbs/day	CO lbs/day	PM10 Exhaust lbs/day	PM10 Dust lbs/day	PM10 Brake lbs/day	PM10 Total lbs/day	PM2.5 Exhaust lbs/day	PM2.5 Dust lbs/day	PM2.5 Brake lbs/day	PM2.5 Total lbs/day	Black Carbon tons/year	N2O tons/year	CH4 tons/year	CO2 tons/year
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	32	197	234	1	79	21	101	1	19	8	29	0	0	0	38184
2022	65	395	467	2	158	42	203	2	39	17	58	0	1	1	76368
2023	108	658	779	4	263	71	338	4	65	28	96	0	1	1	127280
2024	151	921	1090	5	369	99	473	5	91	39	134	1	1	2	178192
2025	230	1409	1668	8	564	151	724	8	139	59	205	1	2	3	272743
2026	267	1630	1930	9	654	175	838	9	161	68	238	1	2	3	315098
2027	286	1746	2068	10	701	187	898	9	172	73	255	1	2	4	337461
2028	297	1816	2151	10	730	194	934	10	179	76	265	1	3	4	350900
2029	309	1886	2234	11	758	202	971	10	186	79	275	1	3	4	364340
2030	325	1986	2352	11	798	212	1022	11	196	83	290	1	3	4	383517
2031	344	2099	2486	12	844	224	1081	11	207	88	307	2	3	4	405265
2032	362	2213	2620	13	890	236	1139	12	219	93	323	2	3	5	427013
2033	381	2326	2754	13	936	248	1198	13	230	97	340	2	3	5	448760
2034	393	2400	2842	14	966	256	1236	13	237	101	351	2	3	5	463014
2035	405	2474	2930	14	996	264	1275	13	245	104	362	2	4	5	477268
Buildout	408	2495	2954	14	1005	266	1285	14	247	104	365	2	4	5	481131

B-13 Mobile Source Emissions Summary – Net

World Logistics Center
Operational Emissions
Net Mobile Source Emissions
Without EV Adjustment

Net Mobile Source Emissions (without EV adjustment)

Condition	Year	Units	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
Unmitigated	2025	lb/day	57	607	322	3	257	56	316	3	63	22	88	2	3	3	631063
		tons/year	10	111	59	1	47	10	58	1	11	4	16	0	1	1	115169
Unmitigated	2040	lb/day	103	803	772	5	797	143	945	5	196	56	256	3	9	6	1267144
		tons/year	19	147	141	1	145	26	172	1	36	10	47	1	2	1	231254
Mitigated	2025	lb/day	57	563	308	3	257	56	316	3	63	22	88	2	3	3	627402
		tons/year	10	103	56	1	47	10	58	0	11	4	16	0	1	1	114501
Mitigated	2040	lb/day	97	802	773	5	797	143	945	5	196	56	256	3	9	6	1266474
		tons/year	18	146	141	1	145	26	172	1	36	10	47	1	2	1	231131

Unmitigated

Year	ROG lbs/day	NOX lbs/day	CO lbs/day	PM10 Exhaust lbs/day	PM10 Dust lbs/day	PM10 Brake lbs/day	PM10 Total lbs/day	PM2.5 Exhaust lbs/day	PM2.5 Dust lbs/day	PM2.5 Brake lbs/day	PM2.5 Total lbs/day	Black Carbon tons/year	N2O tons/year	CH4 tons/year	CO2 tons/year
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	8	85	45	0	36	8	44	0	9	3	12	0	0	0	16124
2022	16	170	90	1	72	16	88	1	18	6	25	0	0	0	32247
2023	27	283	150	1	120	26	147	1	29	10	41	0	0	0	53746
2024	37	397	210	2	168	37	206	2	41	14	57	0	0	0	75244
2025	57	607	322	3	257	56	316	3	63	22	88	0	1	1	115169
2026	66	647	413	3	367	74	444	3	90	29	122	0	1	1	138763
2027	71	668	461	4	425	83	511	3	104	32	140	0	1	1	151221
2028	74	681	490	4	459	89	552	3	113	35	151	0	1	1	158707
2029	77	693	519	4	494	94	592	4	121	37	162	0	1	1	166194
2030	81	711	561	4	544	102	650	4	134	40	177	1	1	1	176877
2031	86	732	608	4	600	111	716	4	147	44	195	1	1	1	188992
2032	91	752	655	4	657	120	782	4	161	47	213	1	1	1	201106
2033	96	772	702	5	713	129	847	4	175	51	230	1	2	1	213221
2034	99	786	733	5	750	135	890	4	184	53	242	1	2	1	221161
2035	102	799	763	5	787	141	933	5	193	55	253	1	2	1	229102
Buildout	103	803	772	5	797	143	945	5	196	56	256	1	2	1	231254

Mitigated

Year	ROG lbs/day	NOX lbs/day	CO lbs/day	PM10 Exhaust lbs/day	PM10 Dust lbs/day	PM10 Brake lbs/day	PM10 Total lbs/day	PM2.5 Exhaust lbs/day	PM2.5 Dust lbs/day	PM2.5 Brake lbs/day	PM2.5 Total lbs/day	Black Carbon tons/year	N2O tons/year	CH4 tons/year	CO2 tons/year
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	8	79	43	0	36	8	44	0	9	3	12	0	0	0	16030
2022	16	158	86	1	72	16	88	1	18	6	25	0	0	0	32060
2023	26	263	144	1	120	26	147	1	29	10	41	0	0	0	53434
2024	37	368	202	2	168	37	206	2	41	14	57	0	0	0	74807
2025	57	563	308	3	257	56	316	3	63	22	88	0	1	1	114501
2026	65	611	403	3	367	74	444	3	90	29	122	0	1	1	138206
2027	69	637	453	3	425	83	511	3	104	32	140	0	1	1	150722
2028	72	653	483	4	459	89	552	3	113	35	151	0	1	1	158244
2029	75	668	512	4	494	94	592	4	121	37	162	0	1	1	165765
2030	78	690	555	4	544	102	650	4	134	40	177	1	1	1	176499
2031	83	715	604	4	600	111	716	4	147	44	195	1	1	1	188671
2032	87	740	652	4	657	120	782	4	161	47	212	1	1	1	200842
2033	91	765	701	5	713	129	847	4	175	51	230	1	2	1	213014
2034	94	781	732	5	750	135	890	4	184	53	242	1	2	1	220992
2035	97	798	764	5	787	141	933	5	193	55	253	1	2	1	228969
Buildout	97	802	773	5	797	143	945	5	196	56	256	1	2	1	231131

B-14 Mobile Source Emissions Summary – Project

ESA

World Logistics Center
Operational Emissions
Mobile Source Emissions
Without EV Adjustment

Mobile Source Emissions (without EV adjustment)

Condition	Year	Units	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
Unmitigated	2025	lb/day	167	992	1107	7	533	142	681	6	131	56	193	5	10	9	1280164
		tons/year	30	181	202	1	97	26	124	1	24	10	35	1	2	2	233630
Unmitigated	2040	lb/day	185	1185	1360	8	947	250	1205	7	233	98	338	5	17	9	2009568
		tons/year	34	216	248	1	173	46	220	1	42	18	62	1	3	2	366746
Mitigated	2025	lb/day	166	924	1087	7	533	142	681	6	131	56	193	4	10	9	1274558
		tons/year	30	169	198	1	97	26	124	1	24	10	35	1	2	2	232607
Mitigated	2040	lb/day	177	1185	1361	8	947	250	1205	7	233	98	338	5	17	9	2008580
		tons/year	32	216	248	1	173	46	220	1	42	18	62	1	3	2	366566

Unmitigated, tons

Year	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	4	25	28	0	14	4	17	0	3	1	5	0	0	0	32708
2022	9	51	57	0	27	7	35	0	7	3	10	0	1	0	65416
2023	14	84	94	1	45	12	58	1	11	5	16	0	1	1	109027
2024	20	118	132	1	64	17	81	1	16	7	23	1	1	1	152638
2025	30	181	202	1	97	26	124	1	24	10	35	1	2	2	233630
2026	31	188	211	1	113	30	144	1	28	12	41	1	2	2	260686
2027	31	192	216	1	121	32	154	1	30	13	43	1	2	2	274971
2028	32	194	219	1	126	33	160	1	31	13	45	1	2	2	283556
2029	32	197	222	1	130	35	166	1	32	14	47	1	2	2	292141
2030	32	200	227	1	137	36	175	1	34	14	49	1	3	2	304391
2031	33	203	231	1	145	38	185	1	36	15	52	1	3	2	318283
2032	33	207	236	1	153	41	195	1	38	16	55	1	3	2	332176
2033	33	211	241	1	161	43	205	1	40	17	58	1	3	2	346068
2034	33	213	244	1	166	44	212	1	41	17	59	1	3	2	355173
2035	34	216	247	1	171	45	218	1	42	18	61	1	3	2	364278
Buildout	34	216	248	1	173	46	220	1	42	18	62	1	3	2	366746

Mitigated

Year	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	4	24	28	0	14	4	17	0	3	1	5	0	0	0	32565
2022	8	47	56	0	27	7	35	0	7	3	10	0	1	0	65130
2023	14	79	93	1	45	12	58	1	11	5	16	0	1	1	108550
2024	20	110	130	1	64	17	81	1	16	7	23	1	1	1	151970
2025	30	169	198	1	97	26	124	1	24	10	35	1	2	2	232607
2026	31	178	209	1	113	30	144	1	28	12	41	1	2	2	259834
2027	31	183	214	1	121	32	154	1	30	13	43	1	2	2	274209
2028	31	187	217	1	126	33	160	1	31	13	45	1	2	2	282849
2029	31	190	220	1	130	35	166	1	32	14	47	1	2	2	291488
2030	31	194	225	1	137	36	175	1	34	14	49	1	3	2	303816
2031	32	199	230	1	145	38	185	1	36	15	52	1	3	2	317796
2032	32	204	235	1	153	41	195	1	38	16	55	1	3	2	331776
2033	32	209	241	1	161	43	205	1	40	17	58	1	3	2	345757
2034	32	212	244	1	166	44	212	1	41	17	59	1	3	2	354919
2035	32	215	247	1	171	45	218	1	42	18	61	1	3	2	364082
Buildout	32	216	248	1	173	46	220	1	42	18	62	1	3	2	366566

B-15 Mobile Source Emissions Summary – Net Medium EV Penetration Scenario

World Logistics Center
Operational Emissions
Mobile Source Emissions
With EV Adjustment

Mobile Source Emissions with EV Adjustment

Condition	Year	Units	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
Mitigated	2025	lb/day	59	589	754	3	261	56	319	3	64	22	88	2	3	5	628295
		tons/year	11	108	138	0	48	10	58	0	12	4	16	0	1	1	114664
Mitigated	2040	lb/day	95	856	1507	5	836	138	979	4	205	54	264	3	8	9	1224090
		tons/year	17	156	275	1	153	25	179	1	37	10	48	1	2	2	223396

Mitigated

Year	ROG	NOX	CO	PM10 Exhaust	PM10 Dust	PM10 Brake	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	2	15	19	0	7	1	8	0	2	1	2	0	0	0	16053
2022	3	30	39	0	13	3	16	0	3	1	5	0	0	0	32106
2023	5	50	64	0	22	5	27	0	5	2	8	0	0	0	53510
2024	7	70	90	0	31	7	38	0	8	3	11	0	0	1	74914
2025	11	108	138	0	48	10	58	0	12	4	16	0	1	1	114664
2026	12	117	166	1	69	13	83	1	17	5	23	0	1	1	136764
2027	13	123	180	1	80	15	96	1	20	6	26	0	1	1	148432
2028	13	126	189	1	87	16	103	1	21	6	28	0	1	1	155445
2029	14	129	198	1	94	17	111	1	23	7	30	0	1	1	162457
2030	14	133	211	1	103	18	122	1	25	7	33	0	1	1	172464
2031	15	138	225	1	114	20	135	1	28	8	36	1	1	1	183811
2032	16	144	239	1	125	21	147	1	31	8	40	1	1	1	195158
2033	16	149	254	1	136	23	160	1	33	9	43	1	1	2	206506
2034	17	152	263	1	143	24	168	1	35	9	45	1	1	2	213943
2035	17	155	272	1	151	25	176	1	37	10	48	1	2	2	221381
Buildout	17	156	275	1	153	25	179	1	37	10	48	1	2	2	223396

B-16 Mobile Source Emissions Calculations – 2018

ESA

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
106.69	2,077.58	578.61	24.70	275.68	63.70	364.07	23.62	67.67	24.80	116.09	18.17	3.57	7.40	760,189.10

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
19.47	379.16	105.60	4.51	50.31	11.62	66.44	4.31	12.35	4.53	21.19	3.32	0.65	1.35	138,734.51

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
VMT

	Net Trips			Net VMT		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	1,599.2	13.1	17.1	-24,556.0	-201.3	-261.8
LDT1	120.0	0.2	0.1	-1,841.9	-2.5	-1.5
LDT2	600.8	0.9	0.0	-9,224.7	-13.3	0.0
MDT	1,535.5	18.8	0.0	24,318.5	298.5	0.0
LHDT1	556.0	360.7	0.0	15,362.7	9,968.0	0.0
LHDT2	185.8	255.0	0.0	5,133.0	7,045.5	0.0
MHDT	210.7	1,342.6	0.0	10,812.4	68,891.2	0.0
HHDT	23.9	2,566.2	0.0	1,227.9	131,673.7	0.0

	Surface Street VMT			Freeway VMT		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	8,243.9	67.6	87.9	-32,799.9	-268.9	-349.7
LDT1	618.4	0.8	0.5	-2,460.2	-3.3	-2.1
LDT2	3,096.9	4.5	0.0	-12,321.5	-17.8	0.0
MDT	10,363.0	127.2	0.0	13,955.6	171.3	0.0
LHDT1	4,408.6	2,860.5	0.0	10,954.0	7,107.5	0.0
LHDT2	1,473.0	2,021.9	0.0	3,660.0	5,023.6	0.0
MHDT	1,558.0	9,926.6	0.0	9,254.4	58,964.5	0.0
HHDT	176.9	18,973.1	0.0	1,051.0	112,700.6	0.0

	% of Surface Street VMT		% of Freeway VMT	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
15	9%	8%	0%	0%
25	32%	31%	1%	3%
35	38%	30%	8%	10%
45	7%	15%	21%	13%
55	9%	13%	19%	4%
65	5%	3%	52%	70%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	741.9	55.7	278.7	932.7	396.8	132.6	124.6	14.2	2,677.1
25 mph	2,638.0	197.9	991.0	3,316.1	1,410.8	471.4	483.0	54.8	9,563.0
35 mph	3,132.7	235.0	1,176.8	3,937.9	1,675.3	559.7	467.4	53.1	11,237.9
45 mph	577.1	43.3	216.8	725.4	308.6	103.1	233.7	26.5	2,234.5
55 mph	741.9	55.7	278.7	932.7	396.8	132.6	202.5	23.0	2,763.9
65 mph	412.2	30.9	154.8	518.1	220.4	73.7	46.7	5.3	1,462.2
total	8,243.9	618.4	3,096.9	10,363.0	4,408.6	1,473.0	1,558.0	176.9	29,938.6

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-328.0	-24.6	-123.2	139.6	109.5	36.6	277.6	31.5	119.0
35 mph	-2,624.0	-196.8	-985.7	1,116.4	876.3	292.8	925.4	105.1	-490.4
45 mph	-6,724.0	-504.3	-2,525.9	2,860.9	2,245.6	750.3	1,203.1	136.6	-2,557.8
55 mph	-6,068.0	-455.1	-2,279.5	2,581.8	2,026.5	677.1	370.2	42.0	-3,105.0
65 mph	-17,056.0	-1,279.3	-6,407.2	7,256.9	5,696.1	1,903.2	6,478.1	735.7	-2,672.5
total	-32,799.9	-2,460.2	-12,321.5	13,955.6	10,954.0	3,660.0	9,254.4	1,051.0	-8,706.7

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	3,189.7	239.2	1,198.2	355.9	190.6	63.7	65.9	7.5	5,310.7
25 mph	0.0	0.0	0.0	0.0	-48.1	-16.1	269.8	30.6	236.2
35 mph	9,028.3	677.2	3,391.5	1,974.5	0.0	0.0	0.0	0.0	15,071.5
total	12,217.9	916.4	4,589.8	2,330.4	142.5	47.6	335.6	38.1	20,618.4

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	3,931.6	294.9	1,476.9	1,288.5	587.4	196.3	190.5	21.6	7,987.8
25 mph	2,310.0	173.3	867.8	3,455.7	1,472.2	491.9	1,030.4	117.0	9,918.2
35 mph	9,536.9	715.3	3,582.6	7,028.9	2,551.6	852.5	1,392.8	158.2	25,819.0
45 mph	-6,146.9	-461.1	-2,309.1	3,586.3	2,554.2	853.4	1,436.8	163.2	-323.3
55 mph	-5,326.0	-399.5	-2,000.8	3,514.4	2,423.3	809.7	572.7	65.0	-341.2
65 mph	-16,643.8	-1,248.4	-6,252.4	7,775.0	5,916.5	1,976.8	6,524.8	741.0	-1,210.3
total	-12,338.1	-925.4	-4,634.9	26,648.9	15,505.2	5,180.6	11,148.0	1,266.0	41,850.3

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	6.1	0.1	0.4	11.4	257.4	182.0	794.1	1,517.8	2,769.4
25 mph	21.6	0.3	1.4	40.7	915.4	647.0	3,077.3	5,881.7	10,585.3
35 mph	25.7	0.3	1.7	48.3	1,087.0	768.3	2,978.0	5,691.9	10,601.3
45 mph	4.7	0.1	0.3	8.9	200.2	141.5	1,489.0	2,846.0	4,690.7
55 mph	6.1	0.1	0.4	11.4	257.4	182.0	1,290.5	2,466.5	4,214.4
65 mph	3.4	0.0	0.2	6.4	143.0	101.1	297.8	569.2	1,121.1
total	67.6	0.8	4.5	127.2	2,860.5	2,021.9	9,926.6	18,973.1	33,982.2

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-2.7	0.0	-0.2	1.7	71.1	50.2	1,768.9	3,381.0	5,270.1
35 mph	-21.5	-0.3	-1.4	13.7	568.6	401.9	5,896.5	11,270.1	18,127.5
45 mph	-55.1	-0.7	-3.6	35.1	1,457.0	1,029.8	7,665.4	14,651.1	24,779.0
55 mph	-49.8	-0.6	-3.3	31.7	1,314.9	929.4	2,358.6	4,508.0	9,088.9
65 mph	-139.8	-1.7	-9.2	89.1	3,695.9	2,612.3	41,275.2	78,890.4	126,412.0
total	-268.9	-3.3	-17.8	171.3	7,107.5	5,023.6	58,964.5	112,700.6	183,677.5

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2	1,465.6
25 mph	0.0	0.0	0.0	0.0	-31.2	-22.1	1,718.8	3,285.2	4,950.6
35 mph	74.0	0.9	4.9	24.2	0.0	0.0	0.0	0.0	104.1
total	100.2	1.2	6.6	28.6	92.5	65.4	2,138.5	4,087.3	6,520.3

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	32.2	0.4	2.1	15.8	381.1	269.4	1,213.8	2,320.0	4,235.0
25 mph	18.9	0.2	1.3	42.4	955.2	675.2	6,565.0	12,547.8	20,806.0
35 mph	78.2	1.0	5.2	86.3	1,655.6	1,170.2	8,874.4	16,962.0	28,832.8
45 mph	-50.4	-0.6	-3.3	44.0	1,657.3	1,171.4	9,154.4	17,497.0	29,469.7
55 mph	-43.7	-0.5	-2.9	43.1	1,572.3	1,111.3	3,649.0	6,974.5	13,303.3
65 mph	-136.5	-1.7	-9.0	95.4	3,838.9	2,713.4	41,573.0	79,459.6	127,533.1
total	-101.2	-1.3	-6.7	327.1	10,060.5	7,110.9	71,029.6	135,761.0	224,180.0

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
25 mph	28.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	28.3
35 mph	33.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	33.6
45 mph	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
55 mph	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
65 mph	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
total	87.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	88.4

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.5
35 mph	-28.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-28.1
45 mph	-71.7	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-72.1
55 mph	-64.7	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-65.1
65 mph	-181.8	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	-182.9
total	-349.7	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	-351.8

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	34.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,285.2	3,285.2
35 mph	96.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	96.8
total	130.3	0.8	0.0	0.0	0.0	0.0	0.0	3,285.2	3,416.2

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	41.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	42.2
25 mph	24.6	0.1	0.0	0.0	0.0	0.0	0.0	3,285.2	3,309.9
35 mph	101.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	102.3
45 mph	-65.5	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-65.9
55 mph	-56.8	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	-57.1
65 mph	-177.4	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	-178.5
total	-131.5	-0.8	0.0	0.0	0.0	0.0	0.0	3,285.2	3,152.8

World Logistics Center

Internal Roadway Road Dust

Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	7,160	1,432	469	94	1,293	259	2,156	431	2,216	7.51	0.035	0.0002	0.4	0.0008	1.8
2	A	731	0.45	4,250	1,913	258	116	679	305	1,131	509	2,843	7.09	0.035	0.0002	0.5	0.0008	2.2
3	A	2352	1.46	1,715	2,504	104	151	187	273	312	456	3,384	5.91	0.035	0.0002	0.5	0.0006	2.2
5	A	953	0.59	3,390	2,000	174	103	-	-	-	-	2,103	2.30	0.035	0.0001	0.1	0.0002	0.5
6	A	1099	0.68	7,940	5,399	548	372	1,488	1,012	2,482	1,688	8,471	7.64	0.035	0.0002	1.7	0.0008	7.0
8	A	1091	0.68	3,285	2,234	178	121	-	-	-	-	2,355	2.31	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	(3,185)	(2,389)	(81)	(61)	(6)	(4)	(9)	(7)	(2,461)	2.29	0.035	0.0001	-0.1	0.0002	-0.6
12	A	824	0.51	(265)	(135)	(93)	(47)	(4)	(2)	(6)	(3)	(188)	3.47	0.035	0.0001	0.0	0.0004	-0.1
14	A	1618	1.01	1,645	1,661	72	73	174	176	290	293	2,203	5.82	0.035	0.0002	0.3	0.0006	1.4
18	A	1412	0.88	880	774	-	-	-	-	-	-	774	2.13	0.035	0.0001	0.0	0.0002	0.2
19	A	2386	1.48	2,035	2,133	-	-	4	4	6	7	2,143	2.21	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	(965)	(753)	(9)	(7)	13	10	22	17	(732)	1.54	0.035	0.0000	0.0	0.0002	-0.1
24	A	1946	1.21	(885)	(1,071)	10	12	39	47	65	78	(934)	0.17	0.035	0.0000	0.0	0.0000	0.0
30	A	2827	1.76	1,810	3,186	(390)	(686)	(42)	(75)	(71)	(125)	2,300	0.37	0.035	0.0000	0.0	0.0000	0.1
29	A	675	0.42	(8,160)	(3,427)	(390)	(164)	(42)	(18)	(71)	(30)	(3,639)	2.51	0.035	0.0001	-0.2	0.0003	-1.0
31	A	820	0.51	(370)	(189)	(380)	(194)	2	1	3	2	(380)	3.81	0.035	0.0001	0.0	0.0004	-0.2
TOTAL				20,280		469		3,785		6,311						3.6		14.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				3905.54	-11486.05	1,357.41	37,509.16	1,553.34	79,703.53	2,590.11	132,901.58	238,628.23	10.04	0.035	0.0003	64.1136857	0.0011	261.203905

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	3149.5	25.8	33.6
	LDT1	15	1127	330	0.21	236.8	236.2	0.3	0.2
	LDT2	15	5642	330	0.21	1184.8	1183.1	1.7	0.0
	MDT	15	1700	330	0.21	357.0	352.7	4.3	0.0
	LHDT1	15	1494	330	0.21	313.6	190.2	123.4	0.0
	LHDT2	15	718	330	0.21	150.8	63.6	87.2	0.0
	MHDT	15	2286	330	0.21	480.2	65.1	415.0	0.0
	HHDT	15	3813	330	0.21	800.6	7.4	793.2	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.8	0.0	0.1
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.5	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.2	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.1	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3189.7	239.2	1198.2	355.9	190.6	63.7	65.9	7.5
Diesel	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2
Electric	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	453	294	0	2264.5	1469.3	0.0
	LHDT2	5	359	151	208	0	756.6	1038.5	0.0
	MHDT	5	1143	155	988	0	775.4	4940.7	0.0
	HHDT	5	1906	18	1889	0	88.1	9443.3	0.0
Travel at Light Logistics	LHDT1	5	1	1	0	0	3.7	2.4	0.0
	LHDT2	5	1	0	0	0	1.2	1.7	0.0
	MHDT	5	2	0	1	0	1.0	6.5	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	38.0	12.7	13.8	1.6
Diesel	24.6	17.4	88.1	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	21.4107	16.5563
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.3179	1.4160
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.1677	0.7407
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.1092	0.4838
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0880	0.3881
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0877	0.3920
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.1080	0.4728

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.9435	1.1267
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.6695	0.6310
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.2621	0.3207
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.1704	0.1774
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.1185	0.0999
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.1007	0.0592
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.1013	0.0527

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0797	0.0159	0.0386	0.2840	0.1502	0.0257	0.0874	0.0442	0.7257
25 mph	0.1490	0.0310	0.0724	0.5454	0.2973	0.0496	0.1786	0.0896	1.4129
35 mph	0.1122	0.0238	0.0547	0.4193	0.2372	0.0389	0.1126	0.0566	1.0553
45 mph	0.0166	0.0035	0.0081	0.0629	0.0364	0.0059	0.0454	0.0227	0.2013
55 mph	0.0209	0.0044	0.0101	0.0802	0.0468	0.0075	0.0392	0.0199	0.2291
65 mph	0.0137	0.0028	0.0066	0.0528	0.0333	0.0053	0.0111	0.0055	0.1312
total	0.3921	0.0815	0.1905	1.4445	0.8013	0.1329	0.4742	0.2385	3.7555

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0185	-0.0039	-0.0090	0.0230	0.0231	0.0039	0.1027	0.0515	0.1727
35 mph	-0.0940	-0.0200	-0.0458	0.1189	0.1241	0.0204	0.2229	0.1121	0.4386
45 mph	-0.1930	-0.0412	-0.0938	0.2479	0.2645	0.0427	0.2336	0.1169	0.5777
55 mph	-0.1707	-0.0362	-0.0829	0.2220	0.2391	0.0385	0.0716	0.0363	0.3178
65 mph	-0.5684	-0.1161	-0.2737	0.7391	0.8601	0.1373	1.5427	0.7670	3.0880
total	-1.0447	-0.2173	-0.5052	1.3509	1.5109	0.2428	2.1735	1.0838	4.5948

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.6525	0.0579	1.4125
15 mph	0.3425	0.0685	0.1661	0.1084	0.0722	0.0124	0.0462	0.0234	0.8395
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0101	-0.0017	0.0998	0.0500	0.1380
35 mph	0.3233	0.0687	0.1575	0.2102	0.0000	0.0000	0.0000	0.0000	0.7598
total	0.6657	0.1372	0.3237	0.3186	0.3278	0.4471	0.7985	0.1312	3.1498

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.6525	0.0579	1.4125
15 mph	0.4221	0.0845	0.2048	0.3924	0.2224	0.0381	0.1335	0.0676	1.5653
25 mph	0.1305	0.0271	0.0634	0.5683	0.3103	0.0517	0.3810	0.1911	1.7235
35 mph	0.3415	0.0726	0.1664	0.7484	0.3613	0.0593	0.3354	0.1687	2.2537
45 mph	-0.1765	-0.0377	-0.0858	0.3108	0.3009	0.0486	0.2789	0.1396	0.7790
55 mph	-0.1499	-0.0318	-0.0728	0.3022	0.2860	0.0461	0.1108	0.0562	0.5468
65 mph	-0.5547	-0.1133	-0.2671	0.7919	0.8933	0.1426	1.5539	0.7725	3.2192
total	0.0131	0.0015	0.0089	3.1139	2.6400	0.8228	3.4461	1.4536	11.5000

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0015	0.0001	0.0001	0.0020	0.1782	0.1173	1.1723	2.1120	3.5833
25 mph	0.0020	0.0001	0.0001	0.0021	0.2693	0.1547	1.7782	4.1587	6.3652
35 mph	0.0015	0.0001	0.0001	0.0015	0.2295	0.1278	1.1186	2.2269	3.7061
45 mph	0.0002	0.0000	0.0000	0.0002	0.0360	0.0195	0.3891	0.6271	1.0721
55 mph	0.0003	0.0000	0.0000	0.0002	0.0472	0.0248	0.2867	0.3218	0.6810
65 mph	0.0002	0.0000	0.0000	0.0001	0.0328	0.0168	0.0665	0.0662	0.1826
total	0.0058	0.0004	0.0002	0.0062	0.7930	0.4608	4.8114	9.5126	15.5904

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0003	0.0000	0.0000	0.0001	0.0209	0.0120	1.0222	2.3906	3.4455
35 mph	-0.0013	-0.0001	0.0000	0.0004	0.1201	0.0669	2.2148	4.4093	6.8101
45 mph	-0.0027	-0.0002	-0.0001	0.0008	0.2618	0.1417	2.0031	3.2283	5.6327
55 mph	-0.0023	-0.0002	-0.0001	0.0007	0.2413	0.1265	0.5239	0.5881	1.4779
65 mph	-0.0074	-0.0007	-0.0002	0.0020	0.8463	0.4336	9.2227	9.1717	19.6681
total	-0.0139	-0.0012	-0.0004	0.0041	1.4903	0.7807	14.9867	19.7880	37.0343

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.1832	0.4182	0.8957
15 mph	0.0064	0.0003	0.0004	0.0008	0.0856	0.0563	0.6195	1.1162	1.8854
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0092	-0.0053	0.9932	2.3228	3.3016
35 mph	0.0044	0.0003	0.0002	0.0008	0.0000	0.0000	0.0000	0.0000	0.0057
total	0.0108	0.0006	0.0005	0.0015	0.2488	0.1729	1.7960	3.8571	6.0884

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.1832	0.4182	0.8957
15 mph	0.0079	0.0003	0.0005	0.0028	0.2638	0.1736	1.7918	3.2281	5.4688
25 mph	0.0018	0.0001	0.0001	0.0021	0.2811	0.1614	3.7937	8.8720	13.1123
35 mph	0.0047	0.0003	0.0002	0.0028	0.3496	0.1947	3.3335	6.6362	10.5219
45 mph	-0.0025	-0.0002	-0.0001	0.0011	0.2977	0.1612	2.3922	3.8553	6.7048
55 mph	-0.0020	-0.0002	-0.0001	0.0009	0.2886	0.1513	0.8106	0.9099	2.1589
65 mph	-0.0072	-0.0006	-0.0002	0.0022	0.8791	0.4504	9.2892	9.2379	19.8507
total	0.0027	-0.0002	0.0004	0.0119	2.5322	1.4145	21.5941	33.1577	58.7131

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.32	-0.44	-0.76	6.04	19.96	3.88	5.19	0.21
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**-1.32**	**-0.44**	**-0.76**	**6.04**	**19.96**	**3.88**	**5.19**	**0.21**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.18	0.24	0.49	1.68	0.08	0.02	0.02	0.00
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**1.18**	**0.24**	**0.49**	**1.68**	**0.08**	**0.02**	**0.02**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.44	0.56	0.84	0.48	2.31
15 mph	0.43	0.08	0.21	0.40	0.49	0.21	1.93	3.30	7.03
25 mph	0.13	0.03	0.06	0.57	0.59	0.21	4.17	9.06	14.84
35 mph	0.35	0.07	0.17	0.75	0.71	0.25	3.67	6.80	12.78
45 mph	-0.18	-0.04	-0.09	0.31	0.60	0.21	2.67	3.99	7.48
55 mph	-0.15	-0.03	-0.07	0.30	0.57	0.20	0.92	0.97	2.71
65 mph	-0.56	-0.11	-0.27	0.79	1.77	0.59	10.84	10.01	23.07
RUNLOSS	-1.32	-0.44	-0.76	6.04	19.96	3.88	5.19	0.21	32.75
RESTLOSS DIURI	1.18	0.24	0.49	1.68	0.08	0.02	0.02	0.00	3.72
total	-0.12	-0.20	-0.26	10.85	25.21	6.14	30.25	34.82	**106.69**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	1.8256	30.1057
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	1.0676	4.6797
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.8804	3.8472
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.7729	3.3857
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.7241	3.1651
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.7218	3.1794
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.7669	3.3424

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	66.1389	35.5307
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	6.9426	11.8824
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	4.1976	6.9535
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	3.3617	5.3338
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	2.9415	4.5604
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	2.7873	4.1187
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	2.7887	4.0304

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1654	0.0359	0.1031	0.6213	0.4466	0.1044	0.2934	0.1461	1.9162
25 mph	0.4766	0.0999	0.2925	1.7991	1.3581	0.3106	0.9376	0.4653	5.7398
35 mph	0.4855	0.1006	0.2954	1.8669	1.4624	0.3279	0.7966	0.3963	5.7315
45 mph	0.0839	0.0176	0.0510	0.3269	0.2588	0.0572	0.3731	0.1852	1.3537
55 mph	0.1081	0.0236	0.0661	0.4302	0.3361	0.0734	0.3223	0.1612	1.5211
65 mph	0.0635	0.0145	0.0391	0.2587	0.2005	0.0437	0.0790	0.0391	0.7383
total	1.3831	0.2921	0.8473	5.3032	4.0626	0.9172	2.8020	1.3932	17.0007

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0593	-0.0124	-0.0364	0.0757	0.1054	0.0241	0.5390	0.2675	0.9037
35 mph	-0.4067	-0.0842	-0.2475	0.5293	0.7650	0.1715	1.5772	0.7846	3.0891
45 mph	-0.9781	-0.2055	-0.5938	1.2892	1.8831	0.4159	1.9208	0.9535	4.6851
55 mph	-0.8840	-0.1931	-0.5403	1.1909	1.7167	0.3751	0.5891	0.2947	2.5492
65 mph	-2.6277	-0.6001	-1.6196	3.6238	5.1818	1.1288	10.9541	5.4221	21.4632
total	-4.9558	-1.0954	-3.0376	6.7089	9.6521	2.1155	15.5802	7.7224	32.6904

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0556	0.1052	0.3036
15 mph	0.7111	0.1541	0.4433	0.2371	0.2146	0.0501	0.1551	0.0772	2.0426
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0463	-0.0106	0.5237	0.2599	0.7266
35 mph	1.3993	0.2899	0.8515	0.9361	0.0000	0.0000	0.0000	0.0000	3.4767
total	2.1104	0.4440	1.2947	1.1732	0.2747	0.0759	0.7344	0.4423	6.5496

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0556	0.1052	0.3036
15 mph	0.8765	0.1900	0.5464	0.8584	0.6612	0.1545	0.4485	0.2232	3.9588
25 mph	0.4174	0.0875	0.2562	1.8748	1.4172	0.3242	2.0002	0.9926	7.3701
35 mph	1.4782	0.3062	0.8994	3.3322	2.2274	0.4994	2.3738	1.1809	12.2974
45 mph	-0.8942	-0.1879	-0.5429	1.6161	2.1419	0.4731	2.2939	1.1387	6.0388
55 mph	-0.7759	-0.1695	-0.4742	1.6211	2.0529	0.4486	0.9115	0.4560	4.0704
65 mph	-2.5642	-0.5856	-1.5805	3.8825	5.3824	1.1725	11.0331	5.4612	22.2015
total	-1.4622	-0.3592	-0.8956	13.1852	13.9893	3.1086	19.1166	9.5578	56.2406

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0024	0.0002	0.0001	0.0026	1.3179	0.6664	12.1568	39.7685	53.9149
25 mph	0.0073	0.0006	0.0002	0.0060	4.9809	2.4304	28.4825	90.1807	126.0886
35 mph	0.0081	0.0007	0.0002	0.0062	6.7088	3.2306	22.0748	66.9428	98.9722
45 mph	0.0015	0.0001	0.0000	0.0011	1.3697	0.6557	9.6578	28.6178	40.3037
55 mph	0.0021	0.0002	0.0000	0.0014	1.9558	0.9361	7.9311	22.4001	33.2268
65 mph	0.0012	0.0001	0.0000	0.0008	1.2023	0.5763	1.8312	5.0584	8.6704
total	0.0226	0.0019	0.0006	0.0180	17.5354	8.4956	82.1343	252.9684	361.1767

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0009	-0.0001	0.0000	0.0003	0.3868	0.1887	16.3729	51.8396	68.7872
35 mph	-0.0068	-0.0006	-0.0002	0.0017	3.5093	1.6899	43.7084	132.5472	181.4489
45 mph	-0.0180	-0.0017	-0.0004	0.0042	9.9665	4.7711	49.7184	147.3251	211.7653
55 mph	-0.0169	-0.0016	-0.0004	0.0038	9.9890	4.7813	14.4957	40.9406	70.1915
65 mph	-0.0489	-0.0048	-0.0010	0.0111	31.0690	14.8912	253.8077	701.1036	1,000.8279
total	-0.0916	-0.0088	-0.0020	0.0211	54.9205	26.3222	378.1031	1,073.7562	1,533.0207

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	12.8430	13.1870	32.6834
15 mph	0.0105	0.0006	0.0004	0.0010	0.6332	0.3202	6.4249	21.0176	28.4083
25 mph	0.0000	0.0000	0.0000	0.0000	-0.1699	-0.0829	15.9087	50.3698	66.0257
35 mph	0.0235	0.0021	0.0006	0.0031	0.0000	0.0000	0.0000	0.0000	0.0292
total	0.0340	0.0027	0.0010	0.0041	4.3880	2.9660	35.1765	84.5744	127.1466

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	12.8430	13.1870	32.6834
15 mph	0.0129	0.0008	0.0005	0.0036	1.9510	0.9866	18.5817	60.7861	82.3232
25 mph	0.0064	0.0005	0.0002	0.0062	5.1978	2.5362	60.7640	192.3902	260.9015
35 mph	0.0248	0.0022	0.0006	0.0110	10.2181	4.9206	65.7832	199.4900	280.4504
45 mph	-0.0165	-0.0015	-0.0004	0.0053	11.3362	5.4268	59.3762	175.9430	252.0690
55 mph	-0.0148	-0.0014	-0.0003	0.0052	11.9448	5.7174	22.4268	63.3407	103.4183
65 mph	-0.0478	-0.0047	-0.0010	0.0118	32.2714	15.4675	255.6389	706.1621	1,009.4982
total	-0.0350	-0.0042	-0.0004	0.0432	76.8439	37.7838	495.4138	1,411.2990	2,021.3441

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.03	2.77	12.90	13.29	32.99
15 mph	0.89	0.19	0.55	0.86	2.61	1.14	19.03	61.01	86.28
25 mph	0.42	0.09	0.26	1.88	6.61	2.86	62.76	193.38	268.27
35 mph	1.50	0.31	0.90	3.34	12.45	5.42	68.16	200.67	292.75
45 mph	-0.91	-0.19	-0.54	1.62	13.48	5.90	61.67	177.08	258.11
55 mph	-0.79	-0.17	-0.47	1.63	14.00	6.17	23.34	63.80	107.49
65 mph	-2.61	-0.59	-1.58	3.89	37.65	16.64	266.67	711.62	1,031.70
total	-1.50	-0.36	-0.90	13.23	90.83	40.89	514.53	1,420.86	**2,077.58**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	327.6017	301.9366
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	4.9398	48.8767
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	3.9858	40.4481
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	3.3476	34.3026
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	2.9246	29.6841
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	2.6833	26.4522
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	2.6739	24.3070

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	9.3860	4.3977
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	1.5036	2.4036
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.8054	1.2799
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.5630	0.7141
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.4336	0.4073
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.3932	0.2437
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.3945	0.2171

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	2.0227	0.4086	0.9852	5.8474	2.4516	0.4034	1.3576	1.5255	15.0018
25 mph	5.8340	1.1190	2.8327	16.3282	6.2827	1.0750	4.2447	4.8919	42.6081
35 mph	5.7134	1.0698	2.7766	16.0177	6.0150	1.0416	3.4501	4.0148	40.0989
45 mph	0.9083	0.1714	0.4411	2.5866	1.0128	0.1720	1.5070	1.7371	8.5364
55 mph	1.0352	0.2039	0.5037	3.0891	1.3422	0.2179	1.1983	1.3416	8.9318
65 mph	0.5245	0.1102	0.2547	1.7057	0.9628	0.1449	0.2756	0.2845	4.2629
total	16.0379	3.0828	7.7939	45.5747	18.0671	3.0547	12.0333	13.7953	119.4398

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.7254	-0.1391	-0.3522	0.6872	0.4878	0.0835	2.4400	2.8120	5.2938
35 mph	-4.7856	-0.8961	-2.3257	4.5412	3.1464	0.5448	6.8312	7.9493	15.0055
45 mph	-10.5834	-1.9976	-5.1392	10.2012	7.3699	1.2514	7.7583	8.9427	17.8033
55 mph	-8.4660	-1.6673	-4.1191	8.5512	6.8552	1.1127	2.1902	2.4520	6.9089
65 mph	-21.7019	-4.5608	-10.5405	23.8895	24.8781	3.7451	38.1950	39.4304	93.3348
total	-46.2623	-9.2608	-22.4768	47.8702	42.7375	6.7375	57.4147	61.5865	138.3463

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	9.9842	1.0550	25.5125
15 mph	8.6956	1.7565	4.2353	2.2312	1.1779	0.1938	0.7175	0.8062	19.8140
25 mph	0.0000	0.0000	0.0000	0.0000	-0.2143	-0.0367	2.3709	2.7323	4.8522
35 mph	16.4657	3.0830	8.0021	8.0315	0.0000	0.0000	0.0000	0.0000	35.5823
total	25.1613	4.8395	12.2374	10.2626	11.7543	3.8397	13.0725	4.5936	85.7610

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	9.9842	1.0550	25.5125
15 mph	10.7183	2.1651	5.2205	8.0785	3.6295	0.5972	2.0751	2.3317	34.8158
25 mph	5.1086	0.9799	2.4805	17.0153	6.5562	1.1218	9.0556	10.4362	52.7541
35 mph	17.3935	3.2568	8.4530	28.5904	9.1614	1.5864	10.2813	11.9641	90.6867
45 mph	-9.6751	-1.8261	-4.6982	12.7878	8.3827	1.4233	9.2653	10.6798	26.3397
55 mph	-7.4309	-1.4634	-3.6155	11.6403	8.1975	1.3306	3.3885	3.7936	15.8407
65 mph	-21.1774	-4.4506	-10.2858	25.5952	25.8409	3.8900	38.4705	39.7149	97.5977
total	-5.0630	-1.3384	-2.4455	103.7076	72.5588	13.6319	82.5205	79.9753	343.5472

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0170	0.0003	0.0007	0.0319	0.7220	0.4536	2.6330	8.0445	11.9029
25 mph	0.0179	0.0006	0.0006	0.0281	1.2220	0.6719	5.4649	16.5988	24.0049
35 mph	0.0138	0.0006	0.0005	0.0207	1.1489	0.6107	3.6968	8.9623	14.4542
45 mph	0.0021	0.0001	0.0001	0.0028	0.2039	0.1052	1.4237	2.5558	4.2936
55 mph	0.0025	0.0002	0.0001	0.0030	0.3135	0.1574	1.1187	1.3255	2.9209
65 mph	0.0017	0.0001	0.0000	0.0018	0.2606	0.1287	0.2590	0.2725	0.9245
total	0.0551	0.0019	0.0020	0.0883	3.8710	2.1273	14.5961	37.7594	58.5010

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0022	-0.0001	-0.0001	0.0012	0.0949	0.0522	3.1415	9.5417	12.8290
35 mph	-0.0116	-0.0005	-0.0004	0.0059	0.6010	0.3194	7.3196	17.7454	25.9789
45 mph	-0.0239	-0.0012	-0.0007	0.0110	1.4839	0.7652	7.3292	13.1573	22.7207
55 mph	-0.0207	-0.0013	-0.0006	0.0083	1.6013	0.8040	2.0446	2.4226	6.8582
65 mph	-0.0713	-0.0055	-0.0017	0.0251	6.7346	3.3250	35.9024	37.7631	83.6718
total	-0.1297	-0.0086	-0.0035	0.0515	10.5156	5.2658	55.7374	80.6301	152.0585

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	1.8226	1.6322	5.8941
15 mph	0.0731	0.0013	0.0031	0.0122	0.3469	0.2179	1.3915	4.2515	6.2975
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0417	-0.0229	3.0524	9.2711	12.2589
35 mph	0.0398	0.0017	0.0013	0.0104	0.0000	0.0000	0.0000	0.0000	0.0533
total	0.1130	0.0030	0.0044	0.0225	1.7344	1.2052	6.2665	15.1548	24.5038

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	1.8226	1.6322	5.8941
15 mph	0.0901	0.0016	0.0038	0.0440	1.0689	0.6715	4.0245	12.2961	18.2004
25 mph	0.0157	0.0006	0.0006	0.0293	1.2752	0.7011	11.6587	35.4116	49.0928
35 mph	0.0421	0.0018	0.0014	0.0369	1.7499	0.9301	11.0164	26.7077	40.4864
45 mph	-0.0219	-0.0011	-0.0007	0.0138	1.6878	0.8704	8.7529	15.7130	27.0143
55 mph	-0.0182	-0.0012	-0.0005	0.0113	1.9148	0.9614	3.1634	3.7482	9.7792
65 mph	-0.0696	-0.0054	-0.0017	0.0269	6.9952	3.4537	36.1615	38.0356	84.5962
total	0.0383	-0.0037	0.0029	0.1623	16.1209	8.5983	76.6000	133.5443	235.0634

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	12.22	4.69	11.81	2.69	31.41
15 mph	10.81	2.17	5.22	8.12	4.70	1.27	6.10	14.63	53.02
25 mph	5.12	0.98	2.48	17.04	7.83	1.82	20.71	45.85	101.85
35 mph	17.44	3.26	8.45	28.63	10.91	2.52	21.30	38.67	131.17
45 mph	-9.70	-1.83	-4.70	12.80	10.07	2.29	18.02	26.39	53.35
55 mph	-7.45	-1.46	-3.62	11.65	10.11	2.29	6.55	7.54	25.62
65 mph	-21.25	-4.46	-10.29	25.62	32.84	7.34	74.63	77.75	182.19
total	-5.02	-1.34	-2.44	103.87	88.68	22.23	159.12	213.52	**578.61**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0337	0.0259
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0029	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0015	0.0012
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0010	0.0008
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0010	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.2770	0.0399
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.1388	0.0428
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0894	0.0311
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0789	0.0262
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0834	0.0237
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.1048	0.0233
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.1127	0.0235

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0083	0.0011	0.0030	0.0111	0.0036	0.0009	0.0008	0.0001	0.0289
25 mph	0.0153	0.0021	0.0056	0.0207	0.0068	0.0016	0.0016	0.0001	0.0540
35 mph	0.0116	0.0016	0.0043	0.0157	0.0052	0.0013	0.0010	0.0001	0.0408
45 mph	0.0017	0.0002	0.0006	0.0023	0.0008	0.0002	0.0004	0.0000	0.0063
55 mph	0.0021	0.0003	0.0008	0.0029	0.0010	0.0002	0.0004	0.0000	0.0077
65 mph	0.0014	0.0002	0.0005	0.0019	0.0007	0.0002	0.0001	0.0000	0.0050
total	0.0404	0.0056	0.0149	0.0547	0.0180	0.0044	0.0043	0.0004	0.1427

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0019	-0.0003	-0.0007	0.0009	0.0005	0.0001	0.0009	0.0001	-0.0003
35 mph	-0.0097	-0.0014	-0.0036	0.0045	0.0027	0.0007	0.0020	0.0002	-0.0046
45 mph	-0.0198	-0.0028	-0.0073	0.0091	0.0057	0.0013	0.0021	0.0002	-0.0114
55 mph	-0.0175	-0.0024	-0.0064	0.0081	0.0051	0.0012	0.0006	0.0001	-0.0113
65 mph	-0.0590	-0.0080	-0.0217	0.0271	0.0177	0.0042	0.0137	0.0012	-0.0247
total	-0.1078	-0.0148	-0.0396	0.0496	0.0317	0.0075	0.0194	0.0017	-0.0524

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0010	0.0001	0.0060
15 mph	0.0356	0.0048	0.0131	0.0042	0.0017	0.0004	0.0004	0.0000	0.0603
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0002	-0.0001	0.0009	0.0001	0.0007
35 mph	0.0334	0.0047	0.0123	0.0079	0.0000	0.0000	0.0000	0.0000	0.0582
total	0.0690	0.0095	0.0254	0.0121	0.0054	0.0014	0.0023	0.0002	0.1253

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0010	0.0001	0.0060
15 mph	0.0439	0.0060	0.0161	0.0153	0.0053	0.0013	0.0012	0.0001	0.0892
25 mph	0.0134	0.0019	0.0049	0.0216	0.0071	0.0017	0.0034	0.0003	0.0543
35 mph	0.0353	0.0050	0.0130	0.0280	0.0080	0.0019	0.0030	0.0003	0.0944
45 mph	-0.0181	-0.0026	-0.0066	0.0114	0.0064	0.0015	0.0025	0.0002	-0.0051
55 mph	-0.0153	-0.0021	-0.0056	0.0110	0.0061	0.0014	0.0010	0.0001	-0.0035
65 mph	-0.0576	-0.0078	-0.0211	0.0290	0.0184	0.0043	0.0138	0.0012	-0.0197
total	0.0016	0.0003	0.0006	0.1165	0.0551	0.0132	0.0260	0.0023	0.2156

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0006	0.0000	0.0000	0.0004	0.0256	0.0143	0.2430	0.1433	0.4273
25 mph	0.0012	0.0001	0.0000	0.0009	0.0582	0.0332	0.6064	0.4038	1.1039
35 mph	0.0010	0.0001	0.0000	0.0008	0.0531	0.0305	0.5183	0.3292	0.9331
45 mph	0.0002	0.0000	0.0000	0.0001	0.0086	0.0049	0.2739	0.1489	0.4367
55 mph	0.0002	0.0000	0.0000	0.0002	0.0114	0.0064	0.2982	0.1267	0.4431
65 mph	0.0001	0.0000	0.0000	0.0001	0.0078	0.0042	0.0740	0.0294	0.1157
total	0.0033	0.0003	0.0001	0.0024	0.1647	0.0936	2.0139	1.1813	3.4596

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0002	0.0000	0.0000	0.0000	0.0045	0.0026	0.3486	0.2321	0.5877
35 mph	-0.0008	-0.0001	0.0000	0.0002	0.0278	0.0160	1.0263	0.6518	1.7212
45 mph	-0.0018	-0.0002	0.0000	0.0005	0.0628	0.0359	1.4100	0.7667	2.2739
55 mph	-0.0016	-0.0001	0.0000	0.0004	0.0583	0.0326	0.5451	0.2315	0.8661
65 mph	-0.0053	-0.0005	-0.0001	0.0014	0.2009	0.1094	10.2538	4.0811	14.6407
total	-0.0098	-0.0009	-0.0002	0.0026	0.3543	0.1964	13.5838	5.9632	20.0895

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0538	0.0148	0.1434
15 mph	0.0025	0.0002	0.0001	0.0001	0.0123	0.0069	0.1284	0.0758	0.2262
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0020	-0.0011	0.3387	0.2255	0.5611
35 mph	0.0028	0.0002	0.0001	0.0004	0.0000	0.0000	0.0000	0.0000	0.0035
total	0.0053	0.0004	0.0001	0.0005	0.0543	0.0366	0.5209	0.3161	0.9343

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0538	0.0148	0.1434
15 mph	0.0030	0.0002	0.0001	0.0005	0.0378	0.0212	0.3714	0.2191	0.6535
25 mph	0.0011	0.0001	0.0000	0.0009	0.0607	0.0347	1.2938	0.8614	2.2527
35 mph	0.0030	0.0002	0.0001	0.0014	0.0809	0.0465	1.5447	0.9810	2.6578
45 mph	-0.0017	-0.0001	0.0000	0.0006	0.0714	0.0408	1.6839	0.9157	2.7105
55 mph	-0.0014	-0.0001	0.0000	0.0006	0.0697	0.0390	0.8433	0.3582	1.3091
65 mph	-0.0052	-0.0005	-0.0001	0.0015	0.2087	0.1137	10.3278	4.1106	14.7564
total	-0.0012	-0.0002	0.0000	0.0055	0.5733	0.3267	16.1186	7.4606	24.4834

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.05	0.01	0.15
15 mph	0.05	0.01	0.02	0.02	0.04	0.02	0.37	0.22	0.74
25 mph	0.01	0.00	0.00	0.02	0.07	0.04	1.30	0.86	2.31
35 mph	0.04	0.01	0.01	0.03	0.09	0.05	1.55	0.98	2.75
45 mph	-0.02	0.00	-0.01	0.01	0.08	0.04	1.69	0.92	2.71
55 mph	-0.02	0.00	-0.01	0.01	0.08	0.04	0.84	0.36	1.31
65 mph	-0.06	-0.01	-0.02	0.03	0.23	0.12	10.34	4.11	14.74
total	0.00	0.00	0.00	0.12	0.63	0.34	16.14	7.46	**24.70**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.81	0.06	0.31	1.02	0.82	0.32	0.49	0.03
Diesel	0.01	0.00	0.00	0.01	0.56	0.45	3.12	4.09
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.83	0.06	0.31	1.04	1.38	0.77	3.60	4.12

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-3.24	-0.24	-1.22	1.38	2.04	0.78	2.90	0.19
Diesel	-0.03	0.00	0.00	0.02	1.39	1.12	18.51	24.29
Electric	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-3.30	-0.24	-1.22	1.39	3.43	1.91	21.41	24.48

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.21	0.09	0.45	0.23	0.03	0.01	0.11	0.01
Diesel	0.01	0.00	0.00	0.00	0.02	0.01	0.67	0.88
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.23	0.09	0.45	0.23	0.04	0.02	0.78	0.89

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-1.22	-0.09	-0.46	2.63	2.89	1.11	3.50	0.23	8.59
Diesel	-0.01	0.00	0.00	0.03	1.96	1.59	22.29	29.26	55.12
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Total	-1.24	-0.09	-0.46	2.66	4.85	2.70	25.79	29.49	**63.70**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	261.20
Internal	14.47
Total	**275.68**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0310	0.0239
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0027	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0014	0.0011
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0009	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0007	0.0006
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0007	0.0006
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0009	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.2650	0.0381
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.1328	0.0410
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0855	0.0298
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0755	0.0251
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0798	0.0227
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.1003	0.0223
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.1078	0.0224

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0076	0.0010	0.0028	0.0102	0.0033	0.0008	0.0007	0.0001	0.0266
25 mph	0.0141	0.0020	0.0052	0.0191	0.0062	0.0015	0.0015	0.0001	0.0497
35 mph	0.0107	0.0015	0.0039	0.0145	0.0048	0.0012	0.0009	0.0001	0.0375
45 mph	0.0016	0.0002	0.0006	0.0021	0.0007	0.0002	0.0004	0.0000	0.0058
55 mph	0.0020	0.0003	0.0007	0.0027	0.0009	0.0002	0.0003	0.0000	0.0071
65 mph	0.0013	0.0002	0.0005	0.0018	0.0006	0.0001	0.0001	0.0000	0.0046
total	0.0372	0.0052	0.0137	0.0504	0.0166	0.0040	0.0039	0.0003	0.1314

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0018	-0.0002	-0.0006	0.0008	0.0005	0.0001	0.0009	0.0001	-0.0003
35 mph	-0.0089	-0.0013	-0.0033	0.0041	0.0025	0.0006	0.0018	0.0002	-0.0042
45 mph	-0.0182	-0.0026	-0.0067	0.0084	0.0052	0.0012	0.0019	0.0002	-0.0105
55 mph	-0.0161	-0.0023	-0.0059	0.0075	0.0047	0.0011	0.0006	0.0001	-0.0104
65 mph	-0.0543	-0.0073	-0.0199	0.0250	0.0163	0.0038	0.0126	0.0011	-0.0227
total	-0.0992	-0.0137	-0.0365	0.0458	0.0292	0.0069	0.0178	0.0016	-0.0481

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0009	0.0001	0.0055
15 mph	0.0327	0.0044	0.0120	0.0039	0.0016	0.0004	0.0004	0.0000	0.0555
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0002	-0.0001	0.0008	0.0001	0.0006
35 mph	0.0307	0.0043	0.0113	0.0073	0.0000	0.0000	0.0000	0.0000	0.0536
total	0.0634	0.0088	0.0233	0.0112	0.0050	0.0012	0.0022	0.0002	0.1153

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0009	0.0001	0.0055
15 mph	0.0404	0.0055	0.0148	0.0141	0.0049	0.0012	0.0011	0.0001	0.0821
25 mph	0.0123	0.0017	0.0045	0.0199	0.0065	0.0016	0.0032	0.0003	0.0500
35 mph	0.0324	0.0046	0.0119	0.0258	0.0073	0.0018	0.0028	0.0002	0.0869
45 mph	-0.0166	-0.0023	-0.0061	0.0105	0.0059	0.0014	0.0023	0.0002	-0.0047
55 mph	-0.0141	-0.0020	-0.0052	0.0101	0.0056	0.0013	0.0009	0.0001	-0.0032
65 mph	-0.0530	-0.0072	-0.0194	0.0268	0.0169	0.0040	0.0127	0.0011	-0.0180
total	0.0014	0.0003	0.0005	0.1074	0.0508	0.0122	0.0239	0.0021	0.1986

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0005	0.0000	0.0000	0.0004	0.0244	0.0137	0.2325	0.1371	0.4088
25 mph	0.0012	0.0001	0.0000	0.0008	0.0557	0.0318	0.5802	0.3863	1.0561
35 mph	0.0009	0.0001	0.0000	0.0008	0.0508	0.0292	0.4959	0.3149	0.8927
45 mph	0.0002	0.0000	0.0000	0.0001	0.0083	0.0047	0.2620	0.1425	0.4178
55 mph	0.0002	0.0000	0.0000	0.0002	0.0109	0.0061	0.2853	0.1212	0.4239
65 mph	0.0001	0.0000	0.0000	0.0001	0.0074	0.0041	0.0708	0.0282	0.1107
total	0.0031	0.0003	0.0001	0.0023	0.1576	0.0896	1.9268	1.1302	3.3100

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0001	0.0000	0.0000	0.0000	0.0043	0.0025	0.3335	0.2221	0.5623
35 mph	-0.0008	-0.0001	0.0000	0.0002	0.0266	0.0153	0.9819	0.6236	1.6467
45 mph	-0.0017	-0.0001	0.0000	0.0005	0.0601	0.0343	1.3490	0.7336	2.1755
55 mph	-0.0016	-0.0001	0.0000	0.0004	0.0558	0.0312	0.5215	0.2215	0.8286
65 mph	-0.0051	-0.0005	-0.0001	0.0013	0.1922	0.1047	9.8102	3.9046	14.0073
total	-0.0094	-0.0009	-0.0002	0.0024	0.3390	0.1879	12.9962	5.7052	19.2204

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0515	0.0142	0.1372
15 mph	0.0024	0.0002	0.0001	0.0001	0.0117	0.0066	0.1229	0.0725	0.2164
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0019	-0.0011	0.3241	0.2158	0.5369
35 mph	0.0027	0.0002	0.0001	0.0004	0.0000	0.0000	0.0000	0.0000	0.0034
total	0.0051	0.0004	0.0001	0.0005	0.0519	0.0350	0.4984	0.3024	0.8939

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0515	0.0142	0.1372
15 mph	0.0029	0.0002	0.0001	0.0005	0.0362	0.0203	0.3553	0.2096	0.6252
25 mph	0.0010	0.0001	0.0000	0.0009	0.0581	0.0332	1.2378	0.8241	2.1552
35 mph	0.0029	0.0002	0.0001	0.0014	0.0774	0.0445	1.4778	0.9385	2.5428
45 mph	-0.0016	-0.0001	0.0000	0.0006	0.0683	0.0390	1.6111	0.8760	2.5933
55 mph	-0.0014	-0.0001	0.0000	0.0006	0.0667	0.0373	0.8068	0.3427	1.2525
65 mph	-0.0050	-0.0005	-0.0001	0.0014	0.1997	0.1088	9.8810	3.9327	14.1180
total	-0.0011	-0.0002	0.0000	0.0053	0.5485	0.3126	15.4213	7.1379	23.4243

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.05	0.01	0.14
15 mph	0.04	0.01	0.01	0.01	0.04	0.02	0.36	0.21	0.71
25 mph	0.01	0.00	0.00	0.02	0.06	0.03	1.24	0.82	2.21
35 mph	0.04	0.00	0.01	0.03	0.08	0.05	1.48	0.94	2.63
45 mph	-0.02	0.00	-0.01	0.01	0.07	0.04	1.61	0.88	2.59
55 mph	-0.02	0.00	-0.01	0.01	0.07	0.04	0.81	0.34	1.25
65 mph	-0.06	-0.01	-0.02	0.03	0.22	0.11	9.89	3.93	14.10
total	0.00	0.00	0.00	0.11	0.60	0.32	15.45	7.14	**23.62**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.32	0.02	0.12	0.41	0.34	0.13	0.20	0.01
Diesel	0.00	0.00	0.00	0.00	0.23	0.18	1.29	1.48
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.33	0.02	0.12	0.41	0.56	0.31	1.49	1.50

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.28	-0.10	-0.48	0.55	0.84	0.32	1.20	0.07
Diesel	-0.01	0.00	0.00	0.01	0.56	0.46	7.65	8.81
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-1.31	-0.10	-0.48	0.55	1.40	0.78	8.85	8.88

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.48	0.04	0.18	0.09	0.01	0.00	0.04	0.00
Diesel	0.00	0.00	0.00	0.00	0.01	0.01	0.28	0.32
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.49	0.04	0.18	0.09	0.02	0.01	0.32	0.32

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-0.48	-0.04	-0.18	1.04	1.19	0.46	1.45	0.09	3.53
Diesel	0.00	0.00	0.00	0.01	0.79	0.65	9.22	10.62	21.28
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Total	-0.49	-0.04	-0.18	1.06	1.98	1.11	10.67	10.70	**24.80**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	64.11
Internal	3.55
Total	**67.67**

Black Carbon

percent of PM2.5 Exhaust	
LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.04	0.01	0.11
15 mph	0.03	0.00	0.01	0.01	0.03	0.02	0.27	0.16	0.53
25 mph	0.01	0.00	0.00	0.01	0.05	0.03	0.96	0.63	1.69
35 mph	0.02	0.00	0.01	0.02	0.07	0.04	1.14	0.72	2.01
45 mph	-0.01	0.00	0.00	0.01	0.06	0.03	1.24	0.67	2.00
55 mph	-0.01	0.00	0.00	0.01	0.06	0.03	0.62	0.26	0.96
65 mph	-0.04	0.00	-0.01	0.02	0.17	0.09	7.62	3.03	10.86
total	0.00	0.00	0.00	0.07	0.46	0.25	11.89	5.50	18.17

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0059	0.0008	0.0041	0.0136	0.0117	0.0039	0.0037	0.0004	0.0441
25 mph	0.0209	0.0029	0.0144	0.0483	0.0417	0.0139	0.0143	0.0016	0.1580
35 mph	0.0249	0.0034	0.0171	0.0573	0.0495	0.0165	0.0138	0.0016	0.1841
45 mph	0.0046	0.0006	0.0032	0.0106	0.0091	0.0030	0.0069	0.0008	0.0388
55 mph	0.0059	0.0008	0.0041	0.0136	0.0117	0.0039	0.0060	0.0007	0.0466
65 mph	0.0033	0.0004	0.0023	0.0075	0.0065	0.0022	0.0014	0.0002	0.0237
total	0.0654	0.0090	0.0451	0.1508	0.1303	0.0435	0.0460	0.0052	0.4954

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0026	-0.0004	-0.0018	0.0020	0.0032	0.0011	0.0082	0.0009	0.0107
35 mph	-0.0208	-0.0029	-0.0143	0.0162	0.0259	0.0087	0.0273	0.0031	0.0432
45 mph	-0.0534	-0.0073	-0.0368	0.0416	0.0664	0.0222	0.0355	0.0040	0.0723
55 mph	-0.0482	-0.0066	-0.0332	0.0376	0.0599	0.0200	0.0109	0.0012	0.0417
65 mph	-0.1354	-0.0186	-0.0932	0.1056	0.1683	0.0562	0.1914	0.0217	0.2960
total	-0.2604	-0.0358	-0.1793	0.2031	0.3237	0.1081	0.2734	0.0311	0.4639

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.0253	0.0035	0.0174	0.0052	0.0056	0.0019	0.0019	0.0002	0.0611
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0014	-0.0005	0.0080	0.0009	0.0070
35 mph	0.0717	0.0099	0.0494	0.0287	0.0000	0.0000	0.0000	0.0000	0.1596
total	0.0970	0.0133	0.0668	0.0339	0.0053	0.0018	0.0103	0.0012	0.2296

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.0312	0.0043	0.0215	0.0188	0.0174	0.0058	0.0056	0.0006	0.1052
25 mph	0.0183	0.0025	0.0126	0.0503	0.0435	0.0145	0.0304	0.0035	0.1757
35 mph	0.0757	0.0104	0.0521	0.1023	0.0754	0.0252	0.0412	0.0047	0.3870
45 mph	-0.0488	-0.0067	-0.0336	0.0522	0.0755	0.0252	0.0425	0.0048	0.1110
55 mph	-0.0423	-0.0058	-0.0291	0.0511	0.0716	0.0239	0.0169	0.0019	0.0883
65 mph	-0.1321	-0.0182	-0.0910	0.1132	0.1748	0.0584	0.1928	0.0219	0.3198
total	-0.0979	-0.0135	-0.0675	0.3878	0.4593	0.1534	0.3298	0.0375	1.1889

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0001	0.0027	0.0019	0.0084	0.0161	0.0293
25 mph	0.0000	0.0000	0.0000	0.0004	0.0097	0.0068	0.0326	0.0623	0.1118
35 mph	0.0001	0.0000	0.0000	0.0005	0.0115	0.0081	0.0315	0.0602	0.1120
45 mph	0.0000	0.0000	0.0000	0.0001	0.0021	0.0015	0.0158	0.0301	0.0496
55 mph	0.0000	0.0000	0.0000	0.0001	0.0027	0.0019	0.0137	0.0261	0.0446
65 mph	0.0000	0.0000	0.0000	0.0001	0.0015	0.0011	0.0032	0.0060	0.0118
total	0.0001	0.0000	0.0000	0.0013	0.0303	0.0214	0.1051	0.2008	0.3591

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0005	0.0187	0.0358	0.0558
35 mph	0.0000	0.0000	0.0000	0.0001	0.0060	0.0043	0.0624	0.1193	0.1921
45 mph	-0.0001	0.0000	0.0000	0.0004	0.0154	0.0109	0.0811	0.1551	0.2628
55 mph	-0.0001	0.0000	0.0000	0.0003	0.0139	0.0098	0.0250	0.0477	0.0966
65 mph	-0.0003	0.0000	0.0000	0.0009	0.0391	0.0276	0.4369	0.8350	1.3392
total	-0.0006	0.0000	-0.0001	0.0018	0.0752	0.0532	0.6241	1.1928	1.9464

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0001	0.0000	0.0000	0.0000	0.0013	0.0009	0.0044	0.0085	0.0153
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0003	-0.0002	0.0182	0.0348	0.0524
35 mph	0.0002	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0004
total	0.0002	0.0000	0.0000	0.0003	0.0012	0.0009	0.0236	0.0450	0.0713

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0001	0.0000	0.0000	0.0002	0.0040	0.0029	0.0128	0.0246	0.0445
25 mph	0.0000	0.0000	0.0000	0.0004	0.0101	0.0071	0.0695	0.1328	0.2200
35 mph	0.0002	0.0000	0.0000	0.0009	0.0175	0.0124	0.0939	0.1795	0.3045
45 mph	-0.0001	0.0000	0.0000	0.0005	0.0175	0.0124	0.0969	0.1852	0.3124
55 mph	-0.0001	0.0000	0.0000	0.0005	0.0166	0.0118	0.0386	0.0738	0.1412
65 mph	-0.0003	0.0000	0.0000	0.0010	0.0406	0.0287	0.4400	0.8410	1.3510
total	-0.0002	0.0000	0.0000	0.0035	0.1067	0.0754	0.7527	1.4387	2.3768

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.03	0.00	0.02	0.02	0.02	0.01	0.02	0.03	0.15
25 mph	0.02	0.00	0.01	0.05	0.05	0.02	0.10	0.14	0.40
35 mph	0.08	0.01	0.05	0.10	0.09	0.04	0.14	0.18	0.69
45 mph	-0.05	-0.01	-0.03	0.05	0.09	0.04	0.14	0.19	0.42
55 mph	-0.04	-0.01	-0.03	0.05	0.09	0.04	0.06	0.08	0.23
65 mph	-0.13	-0.02	-0.09	0.11	0.22	0.09	0.63	0.86	1.67
total	-0.10	-0.01	-0.07	0.39	0.57	0.23	1.08	1.48	**3.57**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	8.6156	6.5036
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.1258	0.5551
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0662	0.2886
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0430	0.1875
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0346	0.1497
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0343	0.1511
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0423	0.1822

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0438	0.0523
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0311	0.0293
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0122	0.0149
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0079	0.0082
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0055	0.0046
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0047	0.0027
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0047	0.0024

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0301	0.0060	0.0147	0.0924	0.0572	0.0102	0.0346	0.0173	0.2625
25 mph	0.0560	0.0116	0.0274	0.1745	0.1128	0.0196	0.0705	0.0349	0.5073
35 mph	0.0420	0.0089	0.0207	0.1341	0.0899	0.0153	0.0443	0.0219	0.3771
45 mph	0.0062	0.0013	0.0030	0.0198	0.0138	0.0023	0.0178	0.0088	0.0729
55 mph	0.0077	0.0016	0.0038	0.0249	0.0177	0.0030	0.0153	0.0077	0.0818
65 mph	0.0051	0.0010	0.0025	0.0164	0.0126	0.0021	0.0044	0.0021	0.0461
total	0.1471	0.0304	0.0721	0.4622	0.3040	0.0524	0.1869	0.0927	1.3478

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0070	-0.0014	-0.0034	0.0073	0.0088	0.0015	0.0405	0.0201	0.0664
35 mph	-0.0352	-0.0074	-0.0173	0.0380	0.0470	0.0080	0.0877	0.0434	0.1643
45 mph	-0.0718	-0.0152	-0.0353	0.0780	0.1001	0.0168	0.0917	0.0451	0.2093
55 mph	-0.0632	-0.0133	-0.0310	0.0691	0.0905	0.0151	0.0280	0.0140	0.1092
65 mph	-0.2103	-0.0424	-0.1024	0.2300	0.3245	0.0539	0.6039	0.2955	1.1528
total	-0.3875	-0.0798	-0.1894	0.4224	0.5708	0.0954	0.8518	0.4181	1.7019

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2626	0.0227	0.9773
15 mph	0.1296	0.0257	0.0633	0.0353	0.0275	0.0049	0.0183	0.0092	0.3137
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0038	-0.0007	0.0394	0.0195	0.0544
35 mph	0.1210	0.0256	0.0596	0.0672	0.0000	0.0000	0.0000	0.0000	0.2734
total	0.2506	0.0513	0.1229	0.1025	0.5395	0.1804	0.3202	0.0514	1.6188

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2626	0.0227	0.9773
15 mph	0.1597	0.0317	0.0780	0.1276	0.0847	0.0150	0.0529	0.0265	0.5762
25 mph	0.0490	0.0101	0.0240	0.1819	0.1178	0.0204	0.1504	0.0745	0.6281
35 mph	0.1279	0.0270	0.0629	0.2393	0.1369	0.0233	0.1320	0.0654	0.8147
45 mph	-0.0656	-0.0139	-0.0322	0.0977	0.1138	0.0191	0.1095	0.0539	0.2822
55 mph	-0.0555	-0.0117	-0.0272	0.0940	0.1082	0.0181	0.0434	0.0217	0.1910
65 mph	-0.2053	-0.0413	-0.0999	0.2465	0.3370	0.0560	0.6083	0.2976	1.1989
total	0.0102	0.0019	0.0056	0.9871	1.4143	0.3282	1.3589	0.5622	4.6685

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0001	0.0000	0.0000	0.0001	0.0083	0.0054	0.0544	0.0981	0.1664
25 mph	0.0001	0.0000	0.0000	0.0001	0.0125	0.0072	0.0826	0.1932	0.2956
35 mph	0.0001	0.0000	0.0000	0.0001	0.0107	0.0059	0.0520	0.1034	0.1721
45 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0009	0.0181	0.0291	0.0498
55 mph	0.0000	0.0000	0.0000	0.0000	0.0022	0.0012	0.0133	0.0149	0.0316
65 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0008	0.0031	0.0031	0.0085
total	0.0003	0.0000	0.0000	0.0003	0.0368	0.0214	0.2235	0.4418	0.7241

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0006	0.0475	0.1110	0.1600
35 mph	-0.0001	0.0000	0.0000	0.0000	0.0056	0.0031	0.1029	0.2048	0.3163
45 mph	-0.0001	0.0000	0.0000	0.0000	0.0122	0.0066	0.0930	0.1499	0.2616
55 mph	-0.0001	0.0000	0.0000	0.0000	0.0112	0.0059	0.0243	0.0273	0.0686
65 mph	-0.0003	0.0000	0.0000	0.0001	0.0393	0.0201	0.4284	0.4260	0.9135
total	-0.0006	-0.0001	0.0000	0.0002	0.0692	0.0363	0.6961	0.9191	1.7201

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0085	0.0194	0.0416
15 mph	0.0003	0.0000	0.0000	0.0000	0.0040	0.0026	0.0288	0.0518	0.0876
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0004	-0.0002	0.0461	0.1079	0.1533
35 mph	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003
total	0.0005	0.0000	0.0000	0.0001	0.0116	0.0080	0.0834	0.1792	0.2828

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0085	0.0194	0.0416
15 mph	0.0004	0.0000	0.0000	0.0001	0.0123	0.0081	0.0832	0.1499	0.2540
25 mph	0.0001	0.0000	0.0000	0.0001	0.0131	0.0075	0.1762	0.4121	0.6090
35 mph	0.0002	0.0000	0.0000	0.0001	0.0162	0.0090	0.1548	0.3082	0.4887
45 mph	-0.0001	0.0000	0.0000	0.0000	0.0138	0.0075	0.1111	0.1791	0.3114
55 mph	-0.0001	0.0000	0.0000	0.0000	0.0134	0.0070	0.0376	0.0423	0.1003
65 mph	-0.0003	0.0000	0.0000	0.0001	0.0408	0.0209	0.4315	0.4291	0.9220
total	0.0001	0.0000	0.0000	0.0006	0.1176	0.0657	1.0030	1.5401	2.7271

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.52	0.18	0.27	0.04	1.02
15 mph	0.16	0.03	0.08	0.13	0.10	0.02	0.14	0.18	0.83
25 mph	0.05	0.01	0.02	0.18	0.13	0.03	0.33	0.49	1.24
35 mph	0.13	0.03	0.06	0.24	0.15	0.03	0.29	0.37	1.30
45 mph	-0.07	-0.01	-0.03	0.10	0.13	0.03	0.22	0.23	0.59
55 mph	-0.06	-0.01	-0.03	0.09	0.12	0.03	0.08	0.06	0.29
65 mph	-0.21	-0.04	-0.10	0.25	0.38	0.08	1.04	0.73	2.12
total	0.01	0.00	0.01	0.99	1.53	0.39	2.36	2.10	**7.40**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net Regional) - Unmitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	14,206.13	20,903.71
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,281.01	2,564.64
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,400.60	1,948.38
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,188.48	1,779.31
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,027.46	1,677.11
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	934.39	1,627.61
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	957.32	1,599.40

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	7,140.20	6,523.73
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,700.75	2,451.82
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,343.60	1,956.20
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,200.75	1,736.54
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,106.33	1,589.90
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,044.34	1,488.78
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,033.09	1,468.49

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	878.69	77.25	442.14	1,960.95	835.73	316.17	626.88	80.04	5,217.85
25 mph	2,068.48	181.85	1,041.02	4,624.42	2,365.02	889.66	1,491.57	235.64	12,897.65
35 mph	1,886.63	165.91	949.58	4,234.43	2,549.37	955.04	1,224.85	208.25	12,174.06
45 mph	310.08	27.27	156.06	696.19	465.74	167.87	529.45	98.14	2,450.80
55 mph	412.88	36.31	207.72	927.91	665.51	235.29	417.29	82.55	2,985.47
65 mph	275.43	24.22	138.58	620.07	380.23	133.36	98.66	18.72	1,689.27
total	5,832.18	512.82	2,935.09	13,063.97	7,261.60	2,697.39	4,388.71	723.35	37,415.10

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-257.18	-22.61	-129.43	194.61	183.63	69.08	857.42	135.46	1,030.97
35 mph	-1,580.28	-138.97	-795.39	1,200.51	1,333.55	499.57	2,425.21	412.34	3,356.54
45 mph	-3,612.99	-317.71	-1,818.41	2,745.67	3,388.97	1,221.51	2,725.63	505.25	4,837.91
55 mph	-3,376.74	-297.00	-1,698.80	2,568.63	3,399.04	1,201.71	762.68	150.87	2,710.39
65 mph	-11,396.89	-1,002.37	-5,734.11	8,684.35	9,825.50	3,446.08	13,674.47	2,594.52	20,091.53
total	-20,224.09	-1,778.66	-10,176.15	15,393.76	18,130.69	6,437.94	20,445.40	3,798.44	32,027.34

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	432.95	73.04	1,059.16
15 mph	3,777.52	332.12	1,900.77	748.24	401.54	151.91	331.31	42.30	7,685.70
25 mph	0.00	0.00	0.00	0.00	-80.68	-30.35	833.11	131.62	853.69
35 mph	5,437.21	478.13	2,736.66	2,123.20	0.00	0.00	0.00	0.00	10,775.20
total	9,214.73	810.25	4,637.43	2,871.43	719.67	275.91	1,597.37	246.96	20,373.75

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	432.95	73.04	1,059.16
15 mph	4,656.20	409.37	2,342.91	2,709.18	1,237.27	468.08	958.19	122.35	12,903.55
25 mph	1,811.29	159.24	911.58	4,819.03	2,467.97	928.39	3,182.09	502.71	14,782.31
35 mph	5,743.56	505.07	2,890.85	7,558.14	3,882.92	1,454.61	3,650.06	620.59	26,305.81
45 mph	-3,302.91	-290.45	-1,662.35	3,441.86	3,854.71	1,389.38	3,255.08	603.40	7,288.71
55 mph	-2,963.86	-260.68	-1,491.08	3,496.54	4,064.55	1,437.00	1,179.97	233.42	5,695.86
65 mph	-11,121.46	-978.15	-5,595.54	9,304.42	10,205.73	3,579.43	13,773.13	2,613.24	21,780.80
total	-5,177.17	-455.60	-2,603.63	31,329.17	26,111.96	9,411.25	26,431.47	4,768.74	89,816.19

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	6.45	0.11	0.55	19.92	394.98	315.10	2,978.12	8,205.87	11,921.11
25 mph	15.78	0.27	1.35	49.75	1,062.16	851.87	9,116.80	25,370.02	36,468.01
35 mph	14.67	0.25	1.25	46.26	1,147.05	913.35	7,884.71	21,794.82	31,802.35
45 mph	2.44	0.04	0.21	7.67	200.61	155.92	3,632.36	9,977.20	13,976.45
55 mph	3.30	0.06	0.28	10.45	282.76	215.29	2,971.63	8,096.94	11,580.70
65 mph	2.23	0.04	0.19	7.06	160.81	120.43	678.38	1,843.06	2,812.19
total	44.87	0.76	3.82	141.11	3,248.38	2,571.95	27,261.99	75,287.91	108,560.80

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-1.96	-0.03	-0.17	2.09	82.47	66.14	5,240.71	14,583.73	19,972.99
35 mph	-12.28	-0.21	-1.05	13.12	600.01	477.77	15,611.79	43,153.92	59,843.05
45 mph	-28.46	-0.48	-2.41	30.25	1,459.74	1,134.53	18,699.44	51,362.85	72,655.47
55 mph	-26.95	-0.45	-2.28	28.93	1,444.18	1,099.57	5,431.25	14,798.77	22,773.01
65 mph	-92.33	-1.54	-7.78	98.87	4,155.55	3,111.87	94,023.39	255,448.61	356,736.64
total	-161.98	-2.71	-13.68	173.27	7,741.95	5,889.87	139,006.58	379,347.87	531,981.16

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,386.49	2,421.25	4,274.00
15 mph	27.75	0.47	2.37	7.60	189.78	151.39	1,573.93	4,336.78	6,290.08
25 mph	0.00	0.00	0.00	0.00	-36.24	-29.06	5,092.13	14,170.25	19,197.09
35 mph	42.27	0.71	3.60	23.20	0.00	0.00	0.00	0.00	69.77
total	70.02	1.19	5.97	30.80	372.72	369.41	8,052.55	20,928.29	29,830.94

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,386.49	2,421.25	4,274.00
15 mph	34.20	0.58	2.92	27.52	584.76	466.49	4,552.04	12,542.66	18,211.19
25 mph	13.82	0.24	1.18	51.84	1,108.40	888.95	19,449.65	54,124.01	75,638.08
35 mph	44.65	0.75	3.80	82.57	1,747.06	1,391.12	23,496.49	64,948.74	91,715.18
45 mph	-26.01	-0.44	-2.20	37.92	1,660.34	1,290.44	22,331.80	61,340.06	86,631.91
55 mph	-23.66	-0.40	-2.00	39.39	1,726.94	1,314.86	8,402.88	22,895.70	34,353.71
65 mph	-90.10	-1.50	-7.59	105.93	4,316.37	3,232.29	94,701.76	257,291.67	359,548.83
total	-47.10	-0.76	-3.89	345.17	11,363.04	8,831.24	174,321.12	475,564.07	670,372.90

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	617.99	401.43	1,819.45	2,494.29	5,333.16
15 mph	4,690.41	409.95	2,345.83	2,736.71	1,822.02	934.57	5,510.23	12,665.00	31,114.74
25 mph	1,825.11	159.48	912.76	4,870.87	3,576.37	1,817.35	22,631.74	54,626.72	90,420.39
35 mph	5,788.21	505.83	2,894.65	7,640.71	5,629.98	2,845.73	27,146.55	65,569.32	118,020.98
45 mph	-3,328.92	-290.88	-1,664.56	3,479.78	5,515.05	2,679.82	25,586.88	61,943.46	93,920.62
55 mph	-2,987.52	-261.08	-1,493.08	3,535.93	5,791.49	2,751.85	9,582.85	23,129.12	40,049.57
65 mph	-11,211.56	-979.65	-5,603.13	9,410.35	14,522.10	6,811.73	108,474.89	259,904.90	381,329.63
total	-5,224.27	-456.36	-2,607.52	31,674.34	37,475.01	18,242.49	200,752.59	480,332.82	**760,189.10**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
240.90	3,957.74	1,471.51	46.86	713.59	137.68	898.14	44.79	175.15	53.76	273.71	34.36	8.57	17.35	1,564,507.19

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
43.96	722.29	268.55	8.55	130.23	25.13	163.91	8.17	31.97	9.81	49.95	6.27	1.56	3.17	285,522.56

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	2,936.4	24.1	31.3	74,790.0	613.2	797.4
LDT1	220.2	0.3	0.2	5,609.8	7.6	4.7
LDT2	1,103.1	1.6	0.0	28,095.4	40.5	0.0
MDT	2,735.9	33.6	0.0	49,614.1	609.0	0.0
LHDT1	1,024.7	664.9	0.0	29,783.6	19,325.0	0.0
LHDT2	342.4	469.9	0.0	9,951.3	13,659.1	0.0
MHDT	378.3	2,410.3	0.0	20,113.6	128,153.8	0.0
HHDT	43.0	4,606.9	0.0	2,284.2	244,944.1	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	81,832.4	670.9	872.5	-7,042.4	-57.7	-75.1
LDT1	6,138.0	8.3	5.1	-528.2	-0.7	-0.4
LDT2	30,741.0	44.3	0.0	-2,645.5	-3.8	0.0
MDT	21,552.3	264.6	0.0	28,061.8	344.5	0.0
LHDT1	10,052.0	6,522.2	0.0	19,731.7	12,802.8	0.0
LHDT2	3,358.6	4,610.0	0.0	6,592.7	9,049.2	0.0
MHDT	3,670.2	23,384.7	0.0	16,443.4	104,769.1	0.0
HHDT	416.8	44,695.8	0.0	1,867.4	200,248.3	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
15	9%	8%	0%	0%
25	32%	31%	1%	3%
35	38%	30%	8%	10%
45	7%	15%	21%	13%
55	9%	13%	19%	4%
65	5%	3%	52%	70%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	7,364.9	552.4	2,766.7	1,939.7	904.7	302.3	293.6	33.3	14,157.6
25 mph	26,186.4	1,964.2	9,837.1	6,896.7	3,216.6	1,074.7	1,137.8	129.2	50,442.7
35 mph	31,096.3	2,332.5	11,681.6	8,189.9	3,819.8	1,276.3	1,101.1	125.0	59,622.3
45 mph	5,728.3	429.7	2,151.9	1,508.7	703.6	235.1	550.5	62.5	11,370.2
55 mph	7,364.9	552.4	2,766.7	1,939.7	904.7	302.3	477.1	54.2	14,362.0
65 mph	4,091.6	306.9	1,537.0	1,077.6	502.6	167.9	110.1	12.5	7,806.3
total	81,832.4	6,138.0	30,741.0	21,552.3	10,052.0	3,358.6	3,670.2	416.8	157,761.3

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-70.4	-5.3	-26.5	280.6	197.3	65.9	493.3	56.0	991.0
35 mph	-563.4	-42.3	-211.6	2,244.9	1,578.5	527.4	1,644.3	186.7	5,364.7
45 mph	-1,443.7	-108.3	-542.3	5,752.7	4,045.0	1,351.5	2,137.6	242.8	11,435.3
55 mph	-1,302.9	-97.7	-489.4	5,191.4	3,650.4	1,219.7	657.7	74.7	8,903.9
65 mph	-3,662.1	-274.7	-1,375.7	14,592.2	10,260.5	3,428.2	11,510.4	1,307.2	35,785.9
total	-7,042.4	-528.2	-2,645.5	28,061.8	19,731.7	6,592.7	16,443.4	1,867.4	62,480.8

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	5,612.6	421.0	2,108.4	626.9	336.5	112.4	115.8	13.2	9,346.8
25 mph	0.0	0.0	0.0	0.0	337.7	112.8	527.7	59.9	1,038.2
35 mph	20,173.0	1,513.1	7,578.1	3,242.8	0.0	0.0	0.0	0.0	32,507.1
total	25,785.6	1,934.1	9,686.5	3,869.7	674.3	225.3	643.5	73.1	42,892.0

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	12,977.5	973.4	4,875.1	2,566.6	1,241.2	414.7	409.4	46.5	23,504.4
25 mph	26,115.9	1,958.9	9,810.7	7,177.4	3,751.7	1,253.5	2,158.8	245.2	52,471.9
35 mph	50,705.9	3,803.3	19,048.1	13,677.6	5,398.3	1,803.7	2,745.4	311.8	97,494.1
45 mph	4,284.6	321.4	1,609.5	7,261.3	4,748.6	1,586.6	2,688.2	305.3	22,805.5
55 mph	6,062.1	454.7	2,277.3	7,131.1	4,555.0	1,521.9	1,134.9	128.9	23,265.9
65 mph	429.5	32.2	161.4	15,669.8	10,763.1	3,596.2	11,620.5	1,319.7	43,592.3
total	100,575.5	7,543.9	37,781.9	53,483.8	30,457.9	10,176.6	20,757.1	2,357.3	263,134.1

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	60.4	0.8	4.0	23.8	587.0	414.9	1,870.8	3,575.7	6,537.3
25 mph	214.7	2.7	14.2	84.7	2,087.1	1,475.2	7,249.3	13,855.7	24,983.5
35 mph	255.0	3.2	16.8	100.5	2,478.4	1,751.8	7,015.4	13,408.7	25,029.9
45 mph	47.0	0.6	3.1	18.5	456.6	322.7	3,507.7	6,704.4	11,060.5
55 mph	60.4	0.8	4.0	23.8	587.0	414.9	3,040.0	5,810.5	9,941.3
65 mph	33.5	0.4	2.2	13.2	326.1	230.5	701.5	1,340.9	2,648.4
total	670.9	8.3	44.3	264.6	6,522.2	4,610.0	23,384.7	44,695.8	80,200.9

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-0.6	0.0	0.0	3.4	128.0	90.5	3,143.1	6,007.4	9,371.9
35 mph	-4.6	-0.1	-0.3	27.6	1,024.2	723.9	10,476.9	20,024.8	32,272.5
45 mph	-11.8	-0.1	-0.8	70.6	2,624.6	1,855.1	13,620.0	26,032.3	44,189.8
55 mph	-10.7	-0.1	-0.7	63.7	2,368.5	1,674.1	4,190.8	8,009.9	16,295.5
65 mph	-30.0	-0.4	-2.0	179.1	6,657.5	4,705.6	73,338.4	140,173.8	225,022.0
total	-57.7	-0.7	-3.8	344.5	12,802.8	9,049.2	104,769.1	200,248.3	327,151.6

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1,410.2	2,578.0
25 mph	0.0	0.0	0.0	0.0	219.1	154.9	3,362.2	6,426.2	10,162.4
35 mph	165.4	2.1	10.9	39.8	0.0	0.0	0.0	0.0	218.2
total	211.4	2.6	14.0	47.5	437.5	309.2	4,100.0	7,836.4	12,958.7

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	106.4	1.3	7.0	31.5	805.4	569.2	2,608.6	4,985.9	9,115.3
25 mph	214.1	2.7	14.1	88.1	2,434.3	1,720.6	13,754.5	26,289.4	44,517.8
35 mph	415.7	5.2	27.5	167.9	3,502.7	2,475.7	17,492.3	33,433.6	57,520.6
45 mph	35.1	0.4	2.3	89.1	3,081.1	2,177.8	17,127.7	32,736.7	55,250.3
55 mph	49.7	0.6	3.3	87.5	2,955.5	2,089.0	7,230.8	13,820.4	26,236.8
65 mph	3.5	0.0	0.2	192.4	6,983.6	4,936.1	74,039.9	141,514.7	227,670.4
total	824.6	10.3	54.5	656.5	19,762.5	13,968.3	132,253.8	252,780.6	420,311.2

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	78.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	79.0
25 mph	279.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	280.8
35 mph	331.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	333.5
45 mph	61.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	61.4
55 mph	78.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	79.0
65 mph	43.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	43.9
total	872.5	5.1	0.0	0.0	0.0	0.0	0.0	0.0	877.6

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8
35 mph	-6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.0
45 mph	-15.4	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-15.5
55 mph	-13.9	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.0
65 mph	-39.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-39.3
total	-75.1	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-75.5

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	60.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,426.2	6,426.2
35 mph	215.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	216.3
total	274.9	1.6	0.0	0.0	0.0	0.0	0.0	6,426.2	6,702.8

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	138.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	139.2
25 mph	278.4	1.6	0.0	0.0	0.0	0.0	0.0	6,426.2	6,706.3
35 mph	540.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0	543.8
45 mph	45.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	45.9
55 mph	64.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	65.0
65 mph	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
total	1,072.3	6.3	0.0	0.0	0.0	0.0	0.0	6,426.2	7,504.9

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	10,785	2,157	685	137	1,833	367	3,057	611	3,272	7.30	0.035	0.0002	0.6	0.0008	2.6
2	A	731	0.45	6,415	2,887	380	171	1,005	452	1,675	754	4,264	7.02	0.035	0.0002	0.8	0.0008	3.2
3	A	2352	1.46	3,605	5,263	104	152	186	271	310	452	6,139	4.20	0.035	0.0001	0.7	0.0004	2.8
5	A	953	0.59	4,755	2,805	303	179	-	-	-	-	2,984	2.34	0.035	0.0001	0.2	0.0002	0.7
6	A	1099	0.68	11,540	7,847	815	554	2,212	1,504	3,688	2,508	12,413	7.72	0.035	0.0002	2.6	0.0008	10.4
8	A	1091	0.68	4,735	3,220	317	216	-	-	-	-	3,435	2.35	0.035	0.0001	0.2	0.0002	0.9
11	A	1201	0.75	(465)	(349)	(84)	(63)	(6)	(4)	(9)	(7)	(423)	3.10	0.035	0.0001	0.0	0.0003	-0.1
12	A	824	0.51	(720)	(367)	(94)	(48)	(4)	(2)	(6)	(3)	(420)	2.73	0.035	0.0001	0.0	0.0003	-0.1
14	A	1618	1.01	1,895	1,914	97	98	363	367	605	611	2,990	7.74	0.035	0.0002	0.6	0.0008	2.5
18	A	1412	0.88	1,725	1,518	30	27	64	56	106	94	1,694	3.67	0.035	0.0001	0.2	0.0004	0.7
19	A	2386	1.48	3,450	3,616	21	21	4	4	6	7	3,648	2.20	0.035	0.0001	0.2	0.0002	0.8
21	A	1258	0.78	(460)	(359)	144	112	160	125	267	208	86	71.59	0.035	0.0020	0.2	0.0081	0.7
24	A	1946	1.21	365	442	140	170	338	409	564	683	1,704	13.25	0.035	0.0004	0.6	0.0015	2.5
30	A	2827	1.76	2,580	4,541	(323)	(568)	145	256	242	426	4,655	4.17	0.035	0.0001	0.5	0.0004	2.1
29	A	675	0.42	(6,795)	(2,854)	(334)	(140)	201	85	336	141	(2,768)	0.94	0.035	0.0000	-0.1	0.0001	-0.3
31	A	820	0.51	1,295	660	(378)	(193)	2	1	3	1	470	0.78	0.035	0.0000	0.0	0.0001	0.0
TOTAL				44,705		1,823		6,503		10,844						7.2		29.4

World Logistics Center

Off-Site Road Dust

Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				7086.65	160181.77	2,501.84	72,719.12	2,788.64	148,267.40	4,649.91	247,228.35	628,396.64	9.99	0.035	0.0003	167.947539	0.0011	684.230715

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	5556.3	45.6	59.2
	LDT1	15	1989	330	0.21	417.7	416.8	0.6	0.3
	LDT2	15	9954	330	0.21	2090.3	2087.3	3.0	0.0
	MDT	15	2999	330	0.21	629.8	622.1	7.6	0.0
	LHDT1	15	2635	330	0.21	553.3	335.6	217.7	0.0
	LHDT2	15	1267	330	0.21	266.0	112.1	153.9	0.0
	MHDT	15	4034	330	0.21	847.1	114.9	732.2	0.0
	HHDT	15	6726	330	0.21	1412.5	13.1	1399.4	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	20.9	0.2	0.2
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.9	0.0	0.0
	MDT	15	18	175	0.11	2.0	2.0	0.0	0.0
	LHDT1	15	11	175	0.11	1.2	0.7	0.5	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.3	0.0
	MHDT	15	13	175	0.11	1.4	0.2	1.2	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5612.6	421.0	2108.4	626.9	336.5	112.4	115.8	13.2
Diesel	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1410.2
Electric	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	799	518	0	3995.0	2592.1	0.0
	LHDT2	5	633	267	366	0	1334.8	1832.1	0.0
	MHDT	5	2017	274	1743	0	1368.0	8716.4	0.0
	HHDT	5	3363	31	3332	0	155.4	16659.8	0.0
Travel at Light Logistics	LHDT1	5	5	3	2	0	16.0	10.4	0.0
	LHDT2	5	3	1	1	0	5.4	7.4	0.0
	MHDT	5	7	1	6	0	4.4	28.2	0.0
	HHDT	5	11	0	11	0	0.5	53.9	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	67.0	22.4	23.8	2.8
Diesel	43.5	30.7	151.4	289.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	21.4107	16.5563
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.3179	1.4160
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.1677	0.7407
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.1092	0.4838
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0880	0.3881
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0877	0.3920
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.1080	0.4728

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.9435	1.1267
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.6695	0.6310
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.2621	0.3207
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.1704	0.1774
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.1185	0.0999
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.1007	0.0592
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.1013	0.0527

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.7908	0.1582	0.3836	0.5906	0.3425	0.0586	0.2058	0.1041	2.6342
25 mph	1.4795	0.3074	0.7184	1.1342	0.6779	0.1131	0.4208	0.2110	5.0623
35 mph	1.1134	0.2366	0.5426	0.8721	0.5409	0.0887	0.2652	0.1334	3.7929
45 mph	0.1644	0.0351	0.0799	0.1307	0.0829	0.0134	0.1069	0.0535	0.6669
55 mph	0.2072	0.0439	0.1006	0.1668	0.1068	0.0172	0.0923	0.0468	0.7816
65 mph	0.1364	0.0278	0.0657	0.1098	0.0759	0.0121	0.0262	0.0130	0.4669
total	3.8917	0.8091	1.8908	3.0041	1.8269	0.3031	1.1172	0.5619	13.4049

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0040	-0.0008	-0.0019	0.0461	0.0416	0.0069	0.1824	0.0915	0.3619
35 mph	-0.0202	-0.0043	-0.0098	0.2390	0.2235	0.0367	0.3960	0.1992	1.0602
45 mph	-0.0414	-0.0088	-0.0201	0.4985	0.4765	0.0770	0.4150	0.2078	1.6044
55 mph	-0.0367	-0.0078	-0.0178	0.4464	0.4308	0.0694	0.1272	0.0646	1.0761
65 mph	-0.1220	-0.0249	-0.0588	1.4862	1.5492	0.2474	2.7411	1.3627	7.1810
total	-0.2243	-0.0466	-0.1085	2.7163	2.7217	0.4374	3.8618	1.9258	11.2835

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.1215	0.1009	2.4615
15 mph	0.6026	0.1206	0.2923	0.1909	0.1274	0.0218	0.0812	0.0411	1.4778
25 mph	0.0000	0.0000	0.0000	0.0000	0.0712	0.0119	0.1951	0.0979	0.3761
35 mph	0.7223	0.1535	0.3520	0.3453	0.0000	0.0000	0.0000	0.0000	1.5731
total	1.3249	0.2741	0.6443	0.5362	0.6676	0.8038	1.3978	0.2398	5.8885

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.1215	0.1009	2.4615
15 mph	1.3934	0.2788	0.6758	0.7815	0.4700	0.0804	0.2870	0.1452	4.1120
25 mph	1.4755	0.3066	0.7165	1.1803	0.7907	0.1319	0.7983	0.4004	5.8003
35 mph	1.8155	0.3858	0.8848	1.4564	0.7645	0.1254	0.6612	0.3326	6.4262
45 mph	0.1230	0.0262	0.0598	0.6293	0.5594	0.0904	0.5219	0.2613	2.2713
55 mph	0.1706	0.0361	0.0828	0.6131	0.5375	0.0866	0.2196	0.1114	1.8577
65 mph	0.0143	0.0029	0.0069	1.5960	1.6251	0.2595	2.7674	1.3758	7.6479
total	4.9923	1.0366	2.4267	6.2566	5.2162	1.5443	6.3768	2.7275	30.5769

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0147	0.0006	0.0008	0.0042	0.4062	0.2674	2.7616	4.9753	8.4308
25 mph	0.0202	0.0013	0.0008	0.0043	0.6141	0.3527	4.1891	9.7968	14.9792
35 mph	0.0153	0.0011	0.0006	0.0032	0.5233	0.2915	2.6352	5.2460	8.7161
45 mph	0.0023	0.0002	0.0001	0.0004	0.0820	0.0444	0.9166	1.4773	2.5233
55 mph	0.0028	0.0002	0.0001	0.0005	0.1077	0.0565	0.6753	0.7580	1.6011
65 mph	0.0018	0.0002	0.0000	0.0003	0.0747	0.0383	0.1568	0.1559	0.4279
total	0.0571	0.0035	0.0024	0.0130	1.8080	1.0507	11.3345	22.4092	36.6784

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0001	0.0000	0.0000	0.0002	0.0377	0.0216	1.8163	4.2476	6.1233
35 mph	-0.0003	0.0000	0.0000	0.0009	0.2162	0.1204	3.9354	7.8345	12.1072
45 mph	-0.0006	0.0000	0.0000	0.0017	0.4715	0.2552	3.5591	5.7360	10.0230
55 mph	-0.0005	0.0000	0.0000	0.0013	0.4347	0.2279	0.9309	1.0449	2.6392
65 mph	-0.0016	-0.0001	0.0000	0.0041	1.5245	0.7811	16.3870	16.2965	34.9914
total	-0.0030	-0.0003	-0.0001	0.0082	2.6846	1.4063	26.6287	35.1596	65.8840

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.3149	0.7187	1.5529
15 mph	0.0112	0.0005	0.0006	0.0014	0.1511	0.0995	1.0891	1.9622	3.3156
25 mph	0.0000	0.0000	0.0000	0.0000	0.0645	0.0370	1.9429	4.5437	6.5881
35 mph	0.0099	0.0007	0.0004	0.0013	0.0000	0.0000	0.0000	0.0000	0.0123
total	0.0211	0.0012	0.0010	0.0026	0.5199	0.3516	3.3469	7.2246	11.4689

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.3149	0.7187	1.5529
15 mph	0.0259	0.0011	0.0015	0.0056	0.5574	0.3668	3.8507	6.9374	11.7464
25 mph	0.0202	0.0013	0.0008	0.0044	0.7162	0.4114	7.9483	18.5881	27.6907
35 mph	0.0250	0.0018	0.0009	0.0054	0.7395	0.4119	6.5705	13.0806	20.8356
45 mph	0.0017	0.0001	0.0001	0.0022	0.5535	0.2996	4.4757	7.2133	12.5462
55 mph	0.0023	0.0002	0.0001	0.0019	0.5424	0.2843	1.6062	1.8030	4.2403
65 mph	0.0002	0.0000	0.0000	0.0044	1.5991	0.8193	16.5438	16.4524	35.4192
total	0.0753	0.0045	0.0033	0.0238	5.0125	2.8085	41.3101	64.7934	114.0313

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	10.75	3.61	6.19	12.12	39.20	7.63	9.66	0.39
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**10.75**	**3.61**	**6.19**	**12.12**	**39.20**	**7.63**	**9.66**	**0.39**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.17	0.45	0.90	3.00	0.15	0.03	0.04	0.00
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**2.17**	**0.45**	**0.90**	**3.00**	**0.15**	**0.03**	**0.04**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.77	0.99	1.44	0.82	4.01
15 mph	1.42	0.28	0.68	0.79	1.03	0.45	4.14	7.08	15.86
25 mph	1.50	0.31	0.72	1.18	1.51	0.54	8.75	18.99	33.49
35 mph	1.84	0.39	0.89	1.46	1.50	0.54	7.23	13.41	27.26
45 mph	0.12	0.03	0.06	0.63	1.11	0.39	5.00	7.47	14.82
55 mph	0.17	0.04	0.08	0.61	1.08	0.37	1.83	1.91	6.10
65 mph	0.01	0.00	0.01	1.60	3.22	1.08	19.31	17.83	43.07
RUNLOSS	10.75	3.61	6.19	12.12	39.20	7.63	9.66	0.39	89.55
RESTLOSS DIURI	2.17	0.45	0.90	3.00	0.15	0.03	0.04	0.00	6.74
total	17.99	5.10	9.52	21.40	49.58	12.01	57.38	67.91	**240.90**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	1.8256	30.1057
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	1.0676	4.6797
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.8804	3.8472
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.7729	3.3857
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.7241	3.1651
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.7218	3.1794
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.7669	3.3424

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	66.1389	35.5307
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	6.9426	11.8824
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	4.1976	6.9535
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	3.3617	5.3338
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	2.9415	4.5604
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	2.7873	4.1187
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	2.7887	4.0304

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	1.6420	0.3559	1.0235	1.2922	1.0184	0.2380	0.6912	0.3441	6.6051
25 mph	4.7314	0.9920	2.9038	3.7417	3.0965	0.7083	2.2087	1.0961	19.4786
35 mph	4.8197	0.9984	2.9327	3.8826	3.3344	0.7476	1.8765	0.9335	19.5254
45 mph	0.8333	0.1751	0.5059	0.6799	0.5901	0.1303	0.8790	0.4363	4.2298
55 mph	1.0729	0.2344	0.6557	0.8947	0.7664	0.1675	0.7594	0.3799	4.9308
65 mph	0.6304	0.1440	0.3885	0.5381	0.4572	0.0996	0.1862	0.0922	2.5362
total	13.7297	2.8998	8.4102	11.0292	9.2629	2.0912	6.6009	3.2820	57.3059

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0127	-0.0027	-0.0078	0.1522	0.1899	0.0434	0.9576	0.4752	1.7953
35 mph	-0.0873	-0.0181	-0.0531	1.0643	1.3779	0.3089	2.8024	1.3941	6.7891
45 mph	-0.2100	-0.0441	-0.1275	2.5924	3.3920	0.7492	3.4129	1.6942	11.4591
55 mph	-0.1898	-0.0415	-0.1160	2.3946	3.0924	0.6757	1.0468	0.5237	7.3859
65 mph	-0.5642	-0.1288	-0.3478	7.2867	9.3341	2.0334	19.4635	9.6340	46.7109
total	-1.0641	-0.2352	-0.6522	13.4902	17.3865	3.8107	27.6832	13.7212	74.1404

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.0956	0.1834	0.5310
15 mph	1.2513	0.2712	0.7800	0.4176	0.3788	0.0885	0.2726	0.1357	3.5958
25 mph	0.0000	0.0000	0.0000	0.0000	0.3251	0.0744	1.0244	0.5084	1.9322
35 mph	3.1267	0.6477	1.9025	1.5374	0.0000	0.0000	0.0000	0.0000	7.2143
total	4.3780	0.9189	2.6825	1.9550	0.8917	0.2271	1.3926	0.8275	13.2733

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.0956	0.1834	0.5310
15 mph	2.8933	0.6272	1.8034	1.7098	1.3972	0.3265	0.9638	0.4798	10.2009
25 mph	4.7187	0.9893	2.8960	3.8940	3.6116	0.8261	4.1908	2.0797	23.2061
35 mph	7.8591	1.6280	4.7821	6.4843	4.7123	1.0565	4.6789	2.3276	33.5288
45 mph	0.6233	0.1310	0.3784	3.2722	3.9821	0.8796	4.2919	2.1306	15.6889
55 mph	0.8831	0.1929	0.5397	3.2893	3.8588	0.8432	1.8062	0.9035	12.3168
65 mph	0.0662	0.0151	0.0408	7.8249	9.7914	2.1330	19.6496	9.7262	49.2471
total	17.0436	3.5835	10.4405	26.4745	27.5411	6.1290	35.6767	17.8308	144.7196

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0242	0.0015	0.0009	0.0055	3.0048	1.5194	28.6384	93.6846	126.8794
25 mph	0.0721	0.0057	0.0021	0.0124	11.3569	5.5415	67.0975	212.4432	296.5315
35 mph	0.0808	0.0071	0.0021	0.0128	15.2964	7.3661	52.0028	157.7004	232.4685
45 mph	0.0153	0.0014	0.0004	0.0022	3.1229	1.4950	22.7513	67.4164	94.8050
55 mph	0.0205	0.0020	0.0004	0.0029	4.4593	2.1345	18.6837	52.7690	78.0723
65 mph	0.0117	0.0012	0.0003	0.0016	2.7414	1.3139	4.3139	11.9164	20.3004
total	0.2248	0.0189	0.0061	0.0374	39.9818	19.3704	193.4877	595.9300	849.0571

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0002	0.0000	0.0000	0.0005	0.6967	0.3399	29.0916	92.1095	122.2380
35 mph	-0.0015	-0.0001	0.0000	0.0035	6.3213	3.0441	77.6618	235.5121	322.5412
45 mph	-0.0039	-0.0004	-0.0001	0.0085	17.9528	8.5942	88.3405	261.7698	376.6615
55 mph	-0.0036	-0.0003	-0.0001	0.0077	17.9933	8.6126	25.7562	72.7440	125.1097
65 mph	-0.0105	-0.0010	-0.0002	0.0222	55.9651	26.8238	450.9698	1,245.7329	1,779.5020
total	-0.0197	-0.0019	-0.0004	0.0424	98.9291	47.4146	671.8199	1,907.8683	2,726.0524

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	22.0728	22.6642	56.4787
15 mph	0.0185	0.0011	0.0007	0.0018	1.1178	0.5652	11.2946	36.9478	49.9475
25 mph	0.0000	0.0000	0.0000	0.0000	1.1924	0.5818	31.1197	98.5306	131.4245
35 mph	0.0524	0.0046	0.0013	0.0051	0.0000	0.0000	0.0000	0.0000	0.0634
total	0.0709	0.0058	0.0020	0.0068	9.2364	5.9625	64.4871	158.1426	237.9141

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	22.0728	22.6642	56.4787
15 mph	0.0427	0.0026	0.0016	0.0072	4.1226	2.0846	39.9330	130.6324	176.8269
25 mph	0.0719	0.0057	0.0021	0.0129	13.2459	6.4633	127.3088	403.0833	550.1939
35 mph	0.1317	0.0116	0.0034	0.0214	21.6178	10.4102	129.6646	393.2125	555.0731
45 mph	0.0115	0.0011	0.0003	0.0108	21.0757	10.0892	111.0918	329.1862	471.4665
55 mph	0.0169	0.0016	0.0004	0.0105	22.4526	10.7471	44.4400	125.5130	203.1820
65 mph	0.0012	0.0001	0.0000	0.0239	58.7065	28.1378	455.2837	1,257.6493	1,799.8025
total	0.2760	0.0228	0.0077	0.0867	148.1473	72.7476	929.7947	2,661.9408	3,813.0236

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	7.11	4.88	22.17	22.85	57.01
15 mph	2.94	0.63	1.81	1.72	5.52	2.41	40.90	131.11	187.03
25 mph	4.79	1.00	2.90	3.91	16.86	7.29	131.50	405.16	573.40
35 mph	7.99	1.64	4.79	6.51	26.33	11.47	134.34	395.54	588.60
45 mph	0.63	0.13	0.38	3.28	25.06	10.97	115.38	331.32	487.16
55 mph	0.90	0.19	0.54	3.30	26.31	11.59	46.25	126.42	215.50
65 mph	0.07	0.02	0.04	7.85	68.50	30.27	474.93	1,267.38	1,849.05
total	17.32	3.61	10.45	26.56	175.69	78.88	965.47	2,679.77	**3,957.74**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	327.6017	301.9366
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	4.9398	48.8767
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	3.9858	40.4481
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	3.3476	34.3026
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	2.9246	29.6841
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	2.6833	26.4522
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	2.6739	24.3070

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	9.3860	4.3977
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	1.5036	2.4036
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.8054	1.2799
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.5630	0.7141
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.4336	0.4073
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.3932	0.2437
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.3945	0.2171

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	20.0780	4.0557	9.7793	12.1610	5.5897	0.9197	3.1982	3.5936	59.3753
25 mph	57.9106	11.1075	28.1183	33.9585	14.3249	2.4512	9.9995	11.5240	169.3944
35 mph	56.7134	10.6190	27.5619	33.3127	13.7147	2.3748	8.1275	9.4578	161.8818
45 mph	9.0162	1.7018	4.3782	5.3795	2.3093	0.3921	3.5502	4.0922	30.8195
55 mph	10.2755	2.0236	4.9995	6.4245	3.0604	0.4967	2.8230	3.1604	33.2637
65 mph	5.2062	1.0941	2.5286	3.5475	2.1951	0.3305	0.6492	0.6702	16.2213
total	159.1999	30.6017	77.3658	94.7837	41.1942	6.9650	28.3475	32.4983	470.9560

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.1557	-0.0299	-0.0756	1.3817	0.8787	0.1504	4.3355	4.9965	11.4815
35 mph	-1.0275	-0.1924	-0.4994	9.1314	5.6677	0.9814	12.1378	14.1245	40.3235
45 mph	-2.2724	-0.4289	-1.1034	20.5126	13.2755	2.2541	13.7851	15.8896	61.9122
55 mph	-1.8177	-0.3580	-0.8844	17.1947	12.3485	2.0043	3.8916	4.3568	36.7357
65 mph	-4.6596	-0.9792	-2.2632	48.0370	44.8133	6.7461	67.8654	70.0606	229.6204
total	-9.9329	-1.9884	-4.8260	96.2574	76.9837	12.1363	102.0153	109.4279	380.0732

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	17.1595	1.8396	44.5408
15 mph	15.3008	3.0907	7.4525	3.9303	2.0794	0.3421	1.2613	1.4173	34.8744
25 mph	0.0000	0.0000	0.0000	0.0000	1.5040	0.2574	4.6377	5.3448	11.7439
35 mph	36.7914	6.8888	17.8801	13.1903	0.0000	0.0000	0.0000	0.0000	74.7507
total	52.0923	9.9796	25.3326	17.1206	22.6263	7.0983	23.0585	8.6016	165.9098

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	17.1595	1.8396	44.5408
15 mph	35.3789	7.1464	17.2318	16.0913	7.6691	1.2619	4.4595	5.0109	94.2498
25 mph	57.7549	11.0776	28.0427	35.3402	16.7076	2.8589	18.9727	21.8653	192.6198
35 mph	92.4773	17.3155	44.9426	55.6345	19.3823	3.3562	20.2653	23.5823	276.9560
45 mph	6.7438	1.2729	3.2748	25.8921	15.5849	2.6462	17.3353	19.9818	92.7317
55 mph	8.4578	1.6656	4.1151	23.6192	15.4088	2.5011	6.7145	7.5172	69.9994
65 mph	0.5466	0.1149	0.2655	51.5844	47.0084	7.0765	68.5146	70.7308	245.8417
total	201.3592	38.5929	97.8724	208.1617	140.8041	26.1997	153.4214	150.5278	1,016.9391

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1689	0.0030	0.0071	0.0663	1.6461	1.0341	6.2026	18.9509	28.0790
25 mph	0.1781	0.0064	0.0063	0.0585	2.7862	1.5319	12.8740	39.1026	56.5439
35 mph	0.1373	0.0059	0.0046	0.0430	2.6197	1.3924	8.7087	21.1129	34.0244
45 mph	0.0204	0.0010	0.0006	0.0058	0.4650	0.2398	3.3539	6.0208	10.1073
55 mph	0.0251	0.0016	0.0007	0.0063	0.7148	0.3589	2.6354	3.1226	6.8654
65 mph	0.0171	0.0013	0.0004	0.0037	0.5942	0.2934	0.6102	0.6418	2.1622
total	0.5468	0.0192	0.0198	0.1836	8.8261	4.8505	34.3847	88.9516	137.7822

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0005	0.0000	0.0000	0.0024	0.1709	0.0940	5.5818	16.9538	22.8023
35 mph	-0.0025	-0.0001	-0.0001	0.0118	1.0826	0.5754	13.0057	31.5303	46.2031
45 mph	-0.0051	-0.0003	-0.0002	0.0222	2.6729	1.3784	13.0227	23.3780	40.4686
55 mph	-0.0044	-0.0003	-0.0001	0.0167	2.8844	1.4482	3.6330	4.3046	12.2821
65 mph	-0.0153	-0.0012	-0.0004	0.0505	12.1311	5.9894	63.7921	67.0981	149.0444
total	-0.0279	-0.0019	-0.0008	0.1036	18.9419	9.4854	99.0352	143.2649	270.8004

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	3.1324	2.8052	10.2425
15 mph	0.1287	0.0023	0.0054	0.0214	0.6124	0.3847	2.4462	7.4740	11.0750
25 mph	0.0000	0.0000	0.0000	0.0000	0.2925	0.1608	5.9709	18.1357	24.5599
35 mph	0.0890	0.0038	0.0030	0.0170	0.0000	0.0000	0.0000	0.0000	0.1129
total	0.2177	0.0061	0.0084	0.0384	3.4271	2.3282	11.5495	28.4148	45.9904

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	3.1324	2.8052	10.2425
15 mph	0.2975	0.0054	0.0125	0.0877	2.2585	1.4189	8.6488	26.4249	39.1541
25 mph	0.1776	0.0063	0.0063	0.0609	3.2497	1.7867	24.4266	74.1920	103.9062
35 mph	0.2238	0.0095	0.0076	0.0719	3.7023	1.9678	21.7143	52.6432	80.3403
45 mph	0.0152	0.0008	0.0005	0.0280	3.1378	1.6182	16.3765	29.3988	50.5758
55 mph	0.0207	0.0013	0.0006	0.0230	3.5992	1.8072	6.2683	7.4272	19.1475
65 mph	0.0018	0.0001	0.0000	0.0543	12.7253	6.2828	64.4023	67.7400	151.2066
total	0.7367	0.0235	0.0274	0.3256	31.1950	16.6641	144.9694	260.6312	454.5730

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	21.57	8.28	20.29	4.64	54.78
15 mph	35.68	7.15	17.24	16.18	9.93	2.68	13.11	31.44	133.40
25 mph	57.93	11.08	28.05	35.40	19.96	4.65	43.40	96.06	296.53
35 mph	92.70	17.33	44.95	55.71	23.08	5.32	41.98	76.23	357.30
45 mph	6.76	1.27	3.28	25.92	18.72	4.26	33.71	49.38	143.31
55 mph	8.48	1.67	4.12	23.64	19.01	4.31	12.98	14.94	89.15
65 mph	0.55	0.11	0.27	51.64	59.73	13.36	132.92	138.47	397.05
total	202.10	38.62	97.90	208.49	172.00	42.86	298.39	411.16	**1,471.51**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0337	0.0259
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0029	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0015	0.0012
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0010	0.0008
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0010	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.2770	0.0399
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.1388	0.0428
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0894	0.0311
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0789	0.0262
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0834	0.0237
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.1048	0.0233
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.1127	0.0235

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0822	0.0112	0.0302	0.0231	0.0082	0.0020	0.0019	0.0002	0.1589
25 mph	0.1521	0.0212	0.0558	0.0431	0.0154	0.0038	0.0038	0.0003	0.2956
35 mph	0.1150	0.0162	0.0423	0.0326	0.0119	0.0029	0.0024	0.0002	0.2234
45 mph	0.0168	0.0024	0.0062	0.0048	0.0018	0.0004	0.0010	0.0001	0.0335
55 mph	0.0212	0.0030	0.0078	0.0061	0.0023	0.0005	0.0008	0.0001	0.0417
65 mph	0.0142	0.0019	0.0052	0.0040	0.0016	0.0004	0.0002	0.0000	0.0275
total	0.4014	0.0558	0.1475	0.1138	0.0411	0.0100	0.0101	0.0009	0.7805

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0004	-0.0001	-0.0002	0.0018	0.0009	0.0002	0.0016	0.0001	0.0041
35 mph	-0.0021	-0.0003	-0.0008	0.0089	0.0049	0.0012	0.0036	0.0003	0.0158
45 mph	-0.0042	-0.0006	-0.0016	0.0184	0.0102	0.0024	0.0037	0.0003	0.0286
55 mph	-0.0037	-0.0005	-0.0014	0.0163	0.0091	0.0022	0.0011	0.0001	0.0231
65 mph	-0.0127	-0.0017	-0.0047	0.0545	0.0319	0.0075	0.0244	0.0021	0.1014
total	-0.0232	-0.0032	-0.0085	0.0998	0.0571	0.0135	0.0344	0.0030	0.1730

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0018	0.0002	0.0106
15 mph	0.0626	0.0085	0.0230	0.0075	0.0030	0.0008	0.0007	0.0001	0.1062
25 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0004	0.0018	0.0002	0.0039
35 mph	0.0746	0.0105	0.0274	0.0129	0.0000	0.0000	0.0000	0.0000	0.1254
total	0.1372	0.0190	0.0504	0.0204	0.0116	0.0029	0.0043	0.0004	0.2461

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0018	0.0002	0.0106
15 mph	0.1448	0.0197	0.0532	0.0306	0.0112	0.0028	0.0026	0.0002	0.2651
25 mph	0.1517	0.0211	0.0557	0.0449	0.0180	0.0044	0.0072	0.0006	0.3036
35 mph	0.1874	0.0264	0.0689	0.0545	0.0168	0.0041	0.0059	0.0005	0.3646
45 mph	0.0126	0.0018	0.0046	0.0232	0.0120	0.0029	0.0047	0.0004	0.0621
55 mph	0.0174	0.0024	0.0064	0.0223	0.0114	0.0027	0.0020	0.0002	0.0649
65 mph	0.0015	0.0002	0.0005	0.0585	0.0335	0.0079	0.0246	0.0022	0.1289
total	0.5155	0.0716	0.1894	0.2340	0.1097	0.0264	0.0487	0.0043	1.1997

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0057	0.0004	0.0002	0.0008	0.0583	0.0327	0.5724	0.3377	1.0082
25 mph	0.0122	0.0009	0.0002	0.0018	0.1327	0.0758	1.4286	0.9512	2.6035
35 mph	0.0098	0.0008	0.0002	0.0016	0.1212	0.0696	1.2211	0.7755	2.1997
45 mph	0.0016	0.0001	0.0000	0.0003	0.0197	0.0112	0.6452	0.3509	1.0290
55 mph	0.0020	0.0002	0.0000	0.0003	0.0260	0.0146	0.7025	0.2984	1.0440
65 mph	0.0013	0.0001	0.0000	0.0002	0.0177	0.0097	0.1743	0.0694	0.2727
total	0.0325	0.0026	0.0007	0.0051	0.3755	0.2135	4.7442	2.7829	8.1571

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0001	0.0081	0.0046	0.6194	0.4124	1.0447
35 mph	-0.0002	0.0000	0.0000	0.0005	0.0501	0.0287	1.8236	1.1581	3.0608
45 mph	-0.0004	0.0000	0.0000	0.0010	0.1131	0.0646	2.5053	1.3623	4.0459
55 mph	-0.0004	0.0000	0.0000	0.0009	0.1050	0.0587	0.9685	0.4113	1.5440
65 mph	-0.0011	-0.0001	0.0000	0.0027	0.3619	0.1971	18.2192	7.2514	26.0310
total	-0.0021	-0.0002	0.0000	0.0051	0.6382	0.3539	24.1360	10.5955	35.7264

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0924	0.0254	0.2500
15 mph	0.0043	0.0003	0.0001	0.0003	0.0217	0.0122	0.2258	0.1332	0.3979
25 mph	0.0000	0.0000	0.0000	0.0000	0.0139	0.0080	0.6626	0.4412	1.1256
35 mph	0.0064	0.0005	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0077
total	0.0107	0.0009	0.0003	0.0009	0.1132	0.0746	0.9808	0.5998	1.7811

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0924	0.0254	0.2500
15 mph	0.0101	0.0008	0.0003	0.0011	0.0799	0.0449	0.7982	0.4709	1.4061
25 mph	0.0121	0.0009	0.0002	0.0019	0.1548	0.0884	2.7106	1.8048	4.7738
35 mph	0.0160	0.0013	0.0003	0.0027	0.1712	0.0983	3.0447	1.9336	5.2682
45 mph	0.0012	0.0001	0.0000	0.0013	0.1328	0.0758	3.1505	1.7132	5.0749
55 mph	0.0016	0.0001	0.0000	0.0012	0.1310	0.0733	1.6710	0.7097	2.5880
65 mph	0.0001	0.0000	0.0000	0.0029	0.3796	0.2068	18.3934	7.3207	26.3037
total	0.0411	0.0033	0.0010	0.0111	1.1270	0.6420	29.8609	13.9782	45.6646

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.06	0.09	0.03	0.26
15 mph	0.15	0.02	0.05	0.03	0.09	0.05	0.80	0.47	1.67
25 mph	0.16	0.02	0.06	0.05	0.17	0.09	2.72	1.81	5.08
35 mph	0.20	0.03	0.07	0.06	0.19	0.10	3.05	1.93	5.63
45 mph	0.01	0.00	0.00	0.02	0.14	0.08	3.16	1.71	5.14
55 mph	0.02	0.00	0.01	0.02	0.14	0.08	1.67	0.71	2.65
65 mph	0.00	0.00	0.00	0.06	0.41	0.21	18.42	7.32	26.43
total	0.56	0.07	0.19	0.25	1.24	0.67	29.91	13.98	**46.86**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	8.07	0.61	3.03	2.13	1.87	0.72	1.15	0.08
Diesel	0.07	0.00	0.00	0.03	1.27	1.03	7.34	9.63
Electric	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.23	0.61	3.04	2.15	3.14	1.75	8.49	9.71

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-0.69	-0.05	-0.26	2.77	3.67	1.41	5.16	0.34
Diesel	-0.01	0.00	0.00	0.03	2.50	2.02	32.88	43.16
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-0.71	-0.05	-0.26	2.80	6.17	3.43	38.04	43.49

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.54	0.19	0.96	0.38	0.13	0.05	0.20	0.01
Diesel	0.02	0.00	0.00	0.00	0.09	0.07	1.29	1.69
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.59	0.19	0.96	0.39	0.21	0.12	1.49	1.70

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	9.92	0.74	3.73	5.28	5.67	2.18	6.51	0.42	34.47
Diesel	0.08	0.00	0.01	0.06	3.85	3.12	41.51	54.48	103.11
Electric	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
Total	10.11	0.75	3.73	5.34	9.52	5.30	48.02	54.90	**137.68**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	684.23
Internal	29.36
Total	**713.59**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0310	0.0239
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0027	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0014	0.0011
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0009	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0007	0.0006
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0007	0.0006
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0009	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.2650	0.0381
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.1328	0.0410
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0855	0.0298
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0755	0.0251
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0798	0.0227
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.1003	0.0223
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.1078	0.0224

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0756	0.0103	0.0278	0.0213	0.0075	0.0019	0.0017	0.0001	0.1462
25 mph	0.1399	0.0195	0.0514	0.0398	0.0142	0.0035	0.0035	0.0003	0.2720
35 mph	0.1057	0.0149	0.0389	0.0301	0.0110	0.0026	0.0022	0.0002	0.2056
45 mph	0.0155	0.0022	0.0057	0.0044	0.0016	0.0004	0.0009	0.0001	0.0308
55 mph	0.0195	0.0027	0.0072	0.0056	0.0021	0.0005	0.0008	0.0001	0.0384
65 mph	0.0130	0.0018	0.0048	0.0037	0.0014	0.0003	0.0002	0.0000	0.0253
total	0.3693	0.0513	0.1357	0.1049	0.0378	0.0092	0.0093	0.0008	0.7183

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0004	-0.0001	-0.0001	0.0016	0.0009	0.0002	0.0015	0.0001	0.0038
35 mph	-0.0019	-0.0003	-0.0007	0.0082	0.0045	0.0011	0.0033	0.0003	0.0145
45 mph	-0.0039	-0.0006	-0.0014	0.0169	0.0094	0.0022	0.0034	0.0003	0.0264
55 mph	-0.0034	-0.0005	-0.0013	0.0150	0.0084	0.0020	0.0010	0.0001	0.0213
65 mph	-0.0117	-0.0016	-0.0043	0.0503	0.0294	0.0069	0.0224	0.0020	0.0934
total	-0.0213	-0.0029	-0.0078	0.0920	0.0526	0.0124	0.0317	0.0028	0.1594

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0016	0.0001	0.0097
15 mph	0.0576	0.0078	0.0212	0.0069	0.0028	0.0007	0.0007	0.0001	0.0977
25 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0004	0.0016	0.0001	0.0036
35 mph	0.0686	0.0097	0.0252	0.0119	0.0000	0.0000	0.0000	0.0000	0.1154
total	0.1262	0.0175	0.0464	0.0188	0.0106	0.0027	0.0039	0.0003	0.2264

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0016	0.0001	0.0097
15 mph	0.1332	0.0181	0.0489	0.0282	0.0103	0.0025	0.0024	0.0002	0.2439
25 mph	0.1396	0.0195	0.0512	0.0414	0.0166	0.0040	0.0066	0.0006	0.2794
35 mph	0.1724	0.0243	0.0634	0.0503	0.0155	0.0037	0.0055	0.0005	0.3356
45 mph	0.0116	0.0016	0.0043	0.0214	0.0110	0.0026	0.0043	0.0004	0.0572
55 mph	0.0160	0.0022	0.0059	0.0206	0.0105	0.0025	0.0018	0.0002	0.0597
65 mph	0.0014	0.0002	0.0005	0.0540	0.0308	0.0072	0.0226	0.0020	0.1187
total	0.4742	0.0659	0.1743	0.2157	0.1011	0.0242	0.0449	0.0039	1.1042

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0055	0.0004	0.0002	0.0008	0.0557	0.0313	0.5477	0.3231	0.9646
25 mph	0.0116	0.0009	0.0002	0.0018	0.1269	0.0725	1.3668	0.9100	2.4909
35 mph	0.0094	0.0008	0.0002	0.0016	0.1159	0.0666	1.1683	0.7419	2.1046
45 mph	0.0015	0.0001	0.0000	0.0002	0.0188	0.0108	0.6173	0.3357	0.9845
55 mph	0.0019	0.0002	0.0000	0.0003	0.0249	0.0139	0.6721	0.2855	0.9989
65 mph	0.0012	0.0001	0.0000	0.0002	0.0170	0.0092	0.1667	0.0664	0.2609
total	0.0311	0.0025	0.0007	0.0049	0.3593	0.2043	4.5389	2.6626	7.8042

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0001	0.0078	0.0044	0.5926	0.3946	0.9995
35 mph	-0.0002	0.0000	0.0000	0.0004	0.0479	0.0275	1.7447	1.1080	2.9283
45 mph	-0.0004	0.0000	0.0000	0.0010	0.1082	0.0618	2.3969	1.3034	3.8709
55 mph	-0.0003	0.0000	0.0000	0.0008	0.1004	0.0562	0.9266	0.3935	1.4772
65 mph	-0.0011	-0.0001	0.0000	0.0026	0.3462	0.1886	17.4310	6.9377	24.9049
total	-0.0020	-0.0002	0.0000	0.0049	0.6106	0.3385	23.0919	10.1372	34.1809

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0884	0.0243	0.2391
15 mph	0.0042	0.0003	0.0001	0.0002	0.0207	0.0116	0.2160	0.1274	0.3806
25 mph	0.0000	0.0000	0.0000	0.0000	0.0133	0.0076	0.6339	0.4221	1.0769
35 mph	0.0061	0.0005	0.0001	0.0006	0.0000	0.0000	0.0000	0.0000	0.0073
total	0.0102	0.0008	0.0003	0.0009	0.1083	0.0714	0.9384	0.5738	1.7041

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0884	0.0243	0.2391
15 mph	0.0096	0.0007	0.0003	0.0010	0.0765	0.0429	0.7637	0.4505	1.3453
25 mph	0.0116	0.0009	0.0002	0.0018	0.1481	0.0846	2.5934	1.7267	4.5673
35 mph	0.0153	0.0013	0.0003	0.0026	0.1638	0.0941	2.9130	1.8499	5.0403
45 mph	0.0011	0.0001	0.0000	0.0012	0.1271	0.0726	3.0143	1.6391	4.8554
55 mph	0.0016	0.0001	0.0000	0.0011	0.1253	0.0701	1.5987	0.6790	2.4761
65 mph	0.0001	0.0000	0.0000	0.0028	0.3632	0.1978	17.5978	7.0041	25.1658
total	0.0393	0.0032	0.0009	0.0106	1.0782	0.6142	28.5692	13.3735	43.6892

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.05	0.09	0.02	0.25
15 mph	0.14	0.02	0.05	0.03	0.09	0.05	0.77	0.45	1.59
25 mph	0.15	0.02	0.05	0.04	0.16	0.09	2.60	1.73	4.85
35 mph	0.19	0.03	0.06	0.05	0.18	0.10	2.92	1.85	5.38
45 mph	0.01	0.00	0.00	0.02	0.14	0.08	3.02	1.64	4.91
55 mph	0.02	0.00	0.01	0.02	0.14	0.07	1.60	0.68	2.54
65 mph	0.00	0.00	0.00	0.06	0.39	0.21	17.62	7.01	25.28
total	0.51	0.07	0.18	0.23	1.18	0.64	28.61	13.38	**44.79**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3.20	0.24	1.20	0.84	0.77	0.30	0.48	0.03
Diesel	0.03	0.00	0.00	0.01	0.51	0.42	3.04	3.49
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.26	0.24	1.20	0.85	1.28	0.72	3.51	3.52

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-0.28	-0.02	-0.10	1.10	1.51	0.58	2.13	0.13
Diesel	0.00	0.00	0.00	0.01	1.01	0.82	13.60	15.66
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-0.28	-0.02	-0.10	1.11	2.52	1.41	15.73	15.79

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.01	0.08	0.38	0.15	0.05	0.02	0.08	0.01
Diesel	0.01	0.00	0.00	0.00	0.03	0.03	0.53	0.61
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.03	0.08	0.38	0.15	0.09	0.05	0.62	0.62

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	3.94	0.30	1.48	2.09	2.33	0.90	2.69	0.16	13.90
Diesel	0.03	0.00	0.00	0.03	1.56	1.27	17.16	19.76	39.82
Electric	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Total	4.01	0.30	1.48	2.12	3.89	2.17	19.86	19.93	**53.76**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	167.95
Internal	7.21
Total	**175.15**

Black Carbon

percent of PM2.5 Exhaust	
LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.07	0.02	0.19
15 mph	0.09	0.01	0.03	0.02	0.07	0.04	0.59	0.35	1.19
25 mph	0.10	0.01	0.03	0.03	0.13	0.07	2.00	1.33	3.70
35 mph	0.12	0.02	0.04	0.03	0.14	0.08	2.25	1.42	4.10
45 mph	0.01	0.00	0.00	0.01	0.11	0.06	2.32	1.26	3.78
55 mph	0.01	0.00	0.00	0.01	0.10	0.06	1.23	0.52	1.95
65 mph	0.00	0.00	0.00	0.04	0.30	0.16	13.57	5.39	19.46
total	0.33	0.04	0.11	0.14	0.91	0.49	22.03	10.30	34.36

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0585	0.0080	0.0403	0.0282	0.0267	0.0089	0.0087	0.0010	0.1803
25 mph	0.2079	0.0286	0.1432	0.1004	0.0950	0.0318	0.0336	0.0038	0.6442
35 mph	0.2468	0.0339	0.1700	0.1192	0.1129	0.0377	0.0325	0.0037	0.7568
45 mph	0.0455	0.0063	0.0313	0.0220	0.0208	0.0069	0.0163	0.0018	0.1508
55 mph	0.0585	0.0080	0.0403	0.0282	0.0267	0.0089	0.0141	0.0016	0.1864
65 mph	0.0325	0.0045	0.0224	0.0157	0.0149	0.0050	0.0033	0.0004	0.0984
total	0.6496	0.0893	0.4474	0.3137	0.2970	0.0992	0.1084	0.0123	2.0169

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0006	-0.0001	-0.0004	0.0041	0.0058	0.0019	0.0146	0.0017	0.0271
35 mph	-0.0045	-0.0006	-0.0031	0.0327	0.0466	0.0156	0.0486	0.0055	0.1408
45 mph	-0.0115	-0.0016	-0.0079	0.0837	0.1195	0.0399	0.0632	0.0072	0.2926
55 mph	-0.0103	-0.0014	-0.0071	0.0756	0.1079	0.0360	0.0194	0.0022	0.2222
65 mph	-0.0291	-0.0040	-0.0200	0.2124	0.3032	0.1013	0.3401	0.0386	0.9425
total	-0.0559	-0.0077	-0.0385	0.4084	0.5830	0.1948	0.4859	0.0552	1.6251

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.0446	0.0061	0.0307	0.0091	0.0099	0.0033	0.0034	0.0004	0.1076
25 mph	0.0000	0.0000	0.0000	0.0000	0.0100	0.0033	0.0156	0.0018	0.0307
35 mph	0.1601	0.0220	0.1103	0.0472	0.0000	0.0000	0.0000	0.0000	0.3396
total	0.2047	0.0281	0.1410	0.0563	0.0219	0.0073	0.0197	0.0022	0.4813

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.1030	0.0142	0.0709	0.0374	0.0367	0.0123	0.0121	0.0014	0.2879
25 mph	0.2073	0.0285	0.1428	0.1045	0.1109	0.0370	0.0638	0.0072	0.7020
35 mph	0.4025	0.0553	0.2772	0.1991	0.1595	0.0533	0.0811	0.0092	1.2372
45 mph	0.0340	0.0047	0.0234	0.1057	0.1403	0.0469	0.0794	0.0090	0.4434
55 mph	0.0481	0.0066	0.0331	0.1038	0.1346	0.0450	0.0335	0.0038	0.4086
65 mph	0.0034	0.0005	0.0023	0.2280	0.3180	0.1063	0.3434	0.0390	1.0409
total	0.7984	0.1098	0.5498	0.7784	0.9019	0.3013	0.6140	0.0697	4.1234

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0001	0.0000	0.0000	0.0003	0.0062	0.0044	0.0198	0.0378	0.0687
25 mph	0.0005	0.0000	0.0000	0.0009	0.0221	0.0156	0.0767	0.1466	0.2625
35 mph	0.0006	0.0000	0.0001	0.0011	0.0262	0.0185	0.0743	0.1419	0.2626
45 mph	0.0001	0.0000	0.0000	0.0002	0.0048	0.0034	0.0371	0.0710	0.1166
55 mph	0.0001	0.0000	0.0000	0.0003	0.0062	0.0044	0.0322	0.0615	0.1047
65 mph	0.0001	0.0000	0.0000	0.0001	0.0035	0.0024	0.0074	0.0142	0.0277
total	0.0015	0.0000	0.0001	0.0028	0.0690	0.0488	0.2475	0.4731	0.8428

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0010	0.0333	0.0636	0.0992
35 mph	0.0000	0.0000	0.0000	0.0003	0.0108	0.0077	0.1109	0.2119	0.3416
45 mph	0.0000	0.0000	0.0000	0.0007	0.0278	0.0196	0.1442	0.2755	0.4678
55 mph	0.0000	0.0000	0.0000	0.0007	0.0251	0.0177	0.0444	0.0848	0.1726
65 mph	-0.0001	0.0000	0.0000	0.0019	0.0705	0.0498	0.7762	1.4836	2.3819
total	-0.0001	0.0000	0.0000	0.0036	0.1355	0.0958	1.1089	2.1194	3.4631

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0001	0.0000	0.0000	0.0001	0.0023	0.0016	0.0078	0.0149	0.0269
25 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0016	0.0356	0.0680	0.1076
35 mph	0.0004	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0008
total	0.0005	0.0000	0.0000	0.0005	0.0051	0.0036	0.0450	0.0860	0.1407

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0002	0.0000	0.0000	0.0003	0.0085	0.0060	0.0276	0.0528	0.0955
25 mph	0.0005	0.0000	0.0000	0.0009	0.0258	0.0182	0.1456	0.2782	0.4693
35 mph	0.0009	0.0000	0.0001	0.0018	0.0371	0.0262	0.1851	0.3539	0.6051
45 mph	0.0001	0.0000	0.0000	0.0009	0.0326	0.0230	0.1813	0.3465	0.5845
55 mph	0.0001	0.0000	0.0000	0.0009	0.0313	0.0221	0.0765	0.1463	0.2772
65 mph	0.0000	0.0000	0.0000	0.0020	0.0739	0.0522	0.7836	1.4978	2.4096
total	0.0018	0.0000	0.0002	0.0069	0.2096	0.1482	1.4014	2.6785	4.4466

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.10	0.01	0.07	0.04	0.05	0.02	0.04	0.05	0.38
25 mph	0.21	0.03	0.14	0.11	0.14	0.06	0.21	0.29	1.17
35 mph	0.40	0.06	0.28	0.20	0.20	0.08	0.27	0.36	1.84
45 mph	0.03	0.00	0.02	0.11	0.17	0.07	0.26	0.36	1.03
55 mph	0.05	0.01	0.03	0.10	0.17	0.07	0.11	0.15	0.69
65 mph	0.00	0.00	0.00	0.23	0.39	0.16	1.13	1.54	3.45
total	0.80	0.11	0.55	0.79	1.11	0.45	2.02	2.75	**8.57**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	8.6156	6.5036
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.1258	0.5551
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0662	0.2886
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0430	0.1875
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0346	0.1497
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0343	0.1511
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0423	0.1822

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0438	0.0523
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0311	0.0293
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0122	0.0149
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0079	0.0082
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0055	0.0046
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0047	0.0027
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0047	0.0024

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH_4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.2992	0.0594	0.1461	0.1921	0.1305	0.0232	0.0815	0.0408	0.9729
25 mph	0.5558	0.1149	0.2723	0.3630	0.2573	0.0446	0.1661	0.0822	1.8562
35 mph	0.4169	0.0881	0.2052	0.2789	0.2050	0.0349	0.1043	0.0517	1.3849
45 mph	0.0612	0.0130	0.0300	0.0411	0.0314	0.0053	0.0420	0.0206	0.2445
55 mph	0.0768	0.0161	0.0376	0.0519	0.0404	0.0068	0.0361	0.0181	0.2837
65 mph	0.0505	0.0102	0.0246	0.0342	0.0286	0.0048	0.0103	0.0050	0.1680
total	1.4604	0.3017	0.7158	0.9612	0.6932	0.1195	0.4402	0.2185	4.9103

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0015	-0.0003	-0.0007	0.0148	0.0158	0.0027	0.0720	0.0357	0.1384
35 mph	-0.0076	-0.0016	-0.0037	0.0764	0.0847	0.0144	0.1558	0.0772	0.3957
45 mph	-0.0154	-0.0033	-0.0076	0.1568	0.1802	0.0303	0.1629	0.0802	0.5841
55 mph	-0.0136	-0.0029	-0.0067	0.1389	0.1630	0.0273	0.0498	0.0249	0.3808
65 mph	-0.0452	-0.0091	-0.0220	0.4626	0.5845	0.0971	1.0731	0.5250	2.6661
total	-0.0832	-0.0171	-0.0407	0.8494	1.0283	0.1718	1.5136	0.7429	4.1650

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4513	0.0396	1.7122
15 mph	0.2280	0.0453	0.1114	0.0621	0.0485	0.0086	0.0321	0.0161	0.5522
25 mph	0.0000	0.0000	0.0000	0.0000	0.0270	0.0047	0.0770	0.0381	0.1468
35 mph	0.2705	0.0571	0.1331	0.1104	0.0000	0.0000	0.0000	0.0000	0.5711
total	0.4985	0.1024	0.2445	0.1725	0.9858	0.3243	0.5604	0.0939	2.9823

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4513	0.0396	1.7122
15 mph	0.5272	0.1047	0.2575	0.2542	0.1791	0.0318	0.1136	0.0569	1.5250
25 mph	0.5544	0.1146	0.2715	0.3778	0.3001	0.0520	0.3151	0.1560	2.1414
35 mph	0.6798	0.1436	0.3346	0.4657	0.2897	0.0494	0.2601	0.1289	2.3518
45 mph	0.0458	0.0097	0.0225	0.1979	0.2116	0.0355	0.2048	0.1008	0.8286
55 mph	0.0632	0.0133	0.0310	0.1908	0.2034	0.0340	0.0859	0.0429	0.6645
65 mph	0.0053	0.0011	0.0026	0.4967	0.6131	0.1019	1.0833	0.5301	2.8341
total	1.8756	0.3870	0.9196	1.9831	2.7073	0.6156	2.5142	1.0552	12.0575

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0007	0.0000	0.0001	0.0002	0.0189	0.0124	0.1283	0.2311	0.3916
25 mph	0.0009	0.0001	0.0000	0.0002	0.0285	0.0164	0.1946	0.4550	0.6957
35 mph	0.0007	0.0001	0.0000	0.0001	0.0243	0.0135	0.1224	0.2437	0.4048
45 mph	0.0001	0.0000	0.0000	0.0000	0.0038	0.0021	0.0426	0.0686	0.1172
55 mph	0.0001	0.0000	0.0000	0.0000	0.0050	0.0026	0.0314	0.0352	0.0744
65 mph	0.0001	0.0000	0.0000	0.0000	0.0035	0.0018	0.0073	0.0072	0.0199
total	0.0027	0.0002	0.0001	0.0006	0.0840	0.0488	0.5265	1.0409	1.7037

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0010	0.0844	0.1973	0.2844
35 mph	0.0000	0.0000	0.0000	0.0000	0.0100	0.0056	0.1828	0.3639	0.5623
45 mph	0.0000	0.0000	0.0000	0.0001	0.0219	0.0119	0.1653	0.2664	0.4655
55 mph	0.0000	0.0000	0.0000	0.0001	0.0202	0.0106	0.0432	0.0485	0.1226
65 mph	-0.0001	0.0000	0.0000	0.0002	0.0708	0.0363	0.7611	0.7569	1.6253
total	-0.0001	0.0000	0.0000	0.0004	0.1247	0.0653	1.2368	1.6331	3.0601

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0146	0.0334	0.0721
15 mph	0.0005	0.0000	0.0001	0.0001	0.0070	0.0046	0.0506	0.0911	0.1540
25 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0017	0.0902	0.2110	0.3060
35 mph	0.0005	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0006
total	0.0010	0.0001	0.0001	0.0001	0.0241	0.0163	0.1555	0.3356	0.5327

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0146	0.0334	0.0721
15 mph	0.0012	0.0001	0.0001	0.0003	0.0259	0.0170	0.1789	0.3222	0.5457
25 mph	0.0009	0.0001	0.0000	0.0002	0.0333	0.0191	0.3692	0.8634	1.2862
35 mph	0.0012	0.0001	0.0000	0.0002	0.0343	0.0191	0.3052	0.6076	0.9678
45 mph	0.0001	0.0000	0.0000	0.0001	0.0257	0.0139	0.2079	0.3350	0.5827
55 mph	0.0001	0.0000	0.0000	0.0001	0.0252	0.0132	0.0746	0.0837	0.1970
65 mph	0.0000	0.0000	0.0000	0.0002	0.0743	0.0381	0.7684	0.7642	1.6451
total	0.0035	0.0002	0.0002	0.0011	0.2328	0.1305	1.9187	3.0095	5.2965

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.92	0.32	0.47	0.07	1.78
15 mph	0.53	0.10	0.26	0.25	0.20	0.05	0.29	0.38	2.07
25 mph	0.56	0.11	0.27	0.38	0.33	0.07	0.68	1.02	3.43
35 mph	0.68	0.14	0.33	0.47	0.32	0.07	0.57	0.74	3.32
45 mph	0.05	0.01	0.02	0.20	0.24	0.05	0.41	0.44	1.41
55 mph	0.06	0.01	0.03	0.19	0.23	0.05	0.16	0.13	0.86
65 mph	0.01	0.00	0.00	0.50	0.69	0.14	1.85	1.29	4.48
total	1.88	0.39	0.92	1.98	2.94	0.75	4.43	4.06	**17.35**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Net Regional) - Unmitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	14,206.13	20,903.71
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,281.01	2,564.64
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,400.60	1,948.38
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,188.48	1,779.31
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,027.46	1,677.11
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	934.39	1,627.61
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	957.32	1,599.40

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	7,140.20	6,523.73
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,700.75	2,451.82
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,343.60	1,956.20
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,200.75	1,736.54
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,106.33	1,589.90
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,044.34	1,488.78
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,033.09	1,468.49

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	8,722.23	766.85	4,388.85	4,078.27	1,905.51	720.89	1,476.78	188.56	22,247.95
25 mph	20,532.65	1,805.14	10,333.60	9,617.60	5,392.40	2,028.49	3,513.77	555.11	53,778.76
35 mph	18,727.54	1,646.85	9,425.95	8,806.54	5,812.74	2,177.56	2,885.43	490.59	49,973.21
45 mph	3,077.96	270.66	1,549.14	1,447.90	1,061.91	382.75	1,247.25	231.20	9,268.79
55 mph	4,098.47	360.48	2,061.89	1,929.83	1,517.42	536.47	983.03	194.46	11,682.04
65 mph	2,734.05	240.46	1,375.58	1,289.58	866.96	304.07	232.42	44.10	7,087.22
total	57,892.89	5,090.44	29,135.01	27,169.72	16,556.95	6,150.24	10,338.69	1,704.03	154,037.97

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-55.22	-4.85	-27.79	391.33	330.78	124.43	1,523.47	240.68	2,522.83
35 mph	-339.30	-29.84	-170.78	2,413.98	2,402.14	899.89	4,309.15	732.65	10,217.90
45 mph	-775.74	-68.22	-390.43	5,520.98	6,104.60	2,200.32	4,842.94	897.74	18,332.19
55 mph	-725.02	-63.77	-364.75	5,165.00	6,122.74	2,164.65	1,355.15	268.07	13,922.07
65 mph	-2,447.02	-215.22	-1,231.17	17,462.48	17,698.82	6,207.47	24,297.03	4,609.98	66,382.36
total	-4,342.30	-381.90	-2,184.91	30,953.77	32,659.08	11,596.76	36,327.73	6,749.12	111,377.35

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	744.11	127.36	1,847.66
15 mph	6,646.94	584.39	3,344.61	1,318.04	708.86	268.17	582.42	74.37	13,527.80
25 mph	0.00	0.00	0.00	0.00	566.16	212.97	1,629.68	257.46	2,666.27
35 mph	12,149.04	1,068.35	6,114.86	3,487.00	0.00	0.00	0.00	0.00	22,819.25
total	18,795.98	1,652.75	9,459.47	4,805.03	1,978.82	753.54	2,956.20	459.18	40,860.97

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	744.11	127.36	1,847.66
15 mph	15,369.18	1,351.24	7,733.46	5,396.30	2,614.37	989.07	2,059.20	262.93	35,775.75
25 mph	20,477.43	1,800.28	10,305.81	10,008.93	6,289.34	2,365.90	6,666.92	1,053.25	58,967.86
35 mph	30,537.27	2,685.37	15,370.04	14,707.52	8,214.88	3,077.45	7,194.59	1,223.24	83,010.35
45 mph	2,302.22	202.45	1,158.71	6,968.88	7,166.51	2,583.07	6,090.19	1,128.95	27,600.98
55 mph	3,373.45	296.71	1,697.14	7,094.82	7,640.16	2,701.13	2,338.18	462.54	25,604.11
65 mph	287.03	25.24	144.41	18,752.06	18,565.78	6,511.53	24,529.45	4,654.08	73,469.58
total	72,346.57	6,361.30	36,409.57	62,928.51	51,194.84	18,500.54	49,622.62	8,912.33	306,276.29

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	64.07	1.09	5.48	41.43	900.59	718.45	7,015.69	19,330.98	28,077.78
25 mph	156.64	2.66	13.39	103.46	2,421.80	1,942.32	21,476.90	59,765.41	85,882.59
35 mph	145.58	2.45	12.39	96.21	2,615.35	2,082.51	18,574.40	51,343.13	74,872.01
45 mph	24.24	0.41	2.05	15.95	457.40	355.50	8,556.92	23,503.79	32,916.26
55 mph	32.71	0.55	2.76	21.74	644.72	490.87	7,000.42	19,074.35	27,268.12
65 mph	22.15	0.37	1.87	14.68	366.67	274.58	1,598.09	4,341.78	6,620.18
total	445.40	7.53	37.94	293.48	7,406.52	5,864.23	64,222.41	177,359.43	255,636.94

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-0.42	-0.01	-0.04	4.21	148.56	119.15	9,311.79	25,912.62	35,495.86
35 mph	-2.64	-0.04	-0.22	26.37	1,080.80	860.61	27,739.29	76,676.61	106,380.77
45 mph	-6.11	-0.10	-0.52	60.83	2,629.44	2,043.64	33,225.49	91,262.39	129,215.06
55 mph	-5.79	-0.10	-0.49	58.18	2,601.42	1,980.67	9,650.33	26,294.70	40,578.92
65 mph	-19.82	-0.33	-1.67	198.81	7,485.46	5,605.45	167,062.35	453,885.42	634,215.67
total	-34.78	-0.58	-2.94	348.40	13,945.68	10,609.51	246,989.25	674,031.74	945,886.28

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,382.93	4,161.33	7,367.09
15 mph	48.83	0.83	4.18	13.39	335.02	267.26	2,766.89	7,623.85	11,060.25
25 mph	0.00	0.00	0.00	0.00	254.27	203.93	9,960.93	27,719.04	38,138.17
35 mph	94.44	1.59	8.04	38.09	0.00	0.00	0.00	0.00	142.17
total	143.27	2.42	12.21	51.49	976.08	907.23	15,110.75	39,504.23	56,707.68

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,382.93	4,161.33	7,367.09
15 mph	112.90	1.92	9.65	54.83	1,235.61	985.71	9,782.58	26,954.83	39,138.03
25 mph	156.21	2.66	13.35	107.67	2,824.63	2,265.40	40,749.62	113,397.07	159,516.62
35 mph	237.39	4.00	20.20	160.67	3,696.15	2,943.11	46,313.68	128,019.74	181,394.95
45 mph	18.13	0.30	1.54	76.78	3,086.84	2,399.14	41,782.41	114,766.18	162,131.33
55 mph	26.93	0.45	2.27	79.92	3,246.13	2,471.54	16,650.75	45,369.05	67,847.04
65 mph	2.33	0.04	0.20	213.49	7,852.12	5,880.03	168,660.43	458,227.20	640,835.84
total	553.89	9.38	47.22	693.36	22,328.28	17,380.97	326,322.41	890,895.40	1,258,230.90

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1,090.60	708.43	3,127.03	4,288.69	9,214.75
15 mph	15,482.08	1,353.16	7,743.11	5,451.13	3,849.98	1,974.78	11,841.78	27,217.76	74,913.78
25 mph	20,633.64	1,802.94	10,319.17	10,116.60	9,113.97	4,631.30	47,416.54	114,450.32	218,484.47
35 mph	30,774.66	2,689.37	15,390.24	14,868.19	11,911.03	6,020.56	53,508.27	129,242.97	264,405.30
45 mph	2,320.35	202.75	1,160.24	7,045.66	10,253.36	4,982.21	47,872.60	115,895.13	189,732.31
55 mph	3,400.37	297.16	1,699.41	7,174.74	10,886.29	5,172.67	18,988.93	45,831.58	93,451.15
65 mph	289.35	25.28	144.61	18,965.55	26,417.90	12,391.56	193,189.88	462,881.28	714,305.42
total	72,900.46	6,370.67	36,456.78	63,621.88	73,523.13	35,881.51	375,945.03	899,807.73	**1,564,507.19**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
280.62	3,175.50	1,921.01	38.63	563.83	151.10	753.56	36.86	138.39	59.26	234.52	28.06	10.96	19.89	1,525,164.13

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
51.21	579.53	350.58	7.05	102.90	27.58	137.52	6.73	25.26	10.82	42.80	5.12	2.00	3.63	278,342.45

World Logistics Center

Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated

VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	16,005.8	131.2	170.6	335,540.9	2,751.1	3,577.4
LDT1	1,200.6	1.6	1.0	25,168.0	34.2	21.1
LDT2	6,012.7	8.7	0.0	126,048.4	181.8	0.0
MDT	1,729.8	21.2	0.0	27,012.4	331.6	0.0
LHDT1	911.7	591.6	0.0	23,286.2	15,109.2	0.0
LHDT2	304.6	418.1	0.0	7,780.4	10,679.3	0.0
MHDT	331.7	2,113.3	0.0	15,986.9	101,860.9	0.0
HHDT	37.7	4,039.3	0.0	1,815.6	194,689.6	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	165,352.9	1,355.7	1,762.9	170,187.9	1,395.4	1,814.5
LDT1	12,402.7	16.9	10.4	12,765.3	17.4	10.7
LDT2	62,116.1	89.6	0.0	63,932.4	92.2	0.0
MDT	11,765.3	144.4	0.0	15,247.1	187.2	0.0
LHDT1	8,249.0	5,352.4	0.0	15,037.1	9,756.8	0.0
LHDT2	2,756.2	3,783.1	0.0	5,024.2	6,896.2	0.0
MHDT	3,013.8	19,202.7	0.0	12,973.1	82,658.1	0.0
HHDT	342.3	36,702.7	0.0	1,473.3	157,986.9	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
15	9%	8%	0%	0%
25	32%	31%	1%	3%
35	38%	30%	8%	10%
45	7%	15%	21%	13%
55	9%	13%	19%	4%
65	5%	3%	52%	70%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	14,881.8	1,116.2	5,590.4	1,058.9	742.4	248.1	241.1	27.4	23,906.3
25 mph	52,912.9	3,968.9	19,877.1	3,764.9	2,639.7	882.0	934.3	106.1	85,085.9
35 mph	62,834.1	4,713.0	23,604.1	4,470.8	3,134.6	1,047.3	904.2	102.7	100,810.9
45 mph	11,574.7	868.2	4,348.1	823.6	577.4	192.9	452.1	51.3	18,888.4
55 mph	14,881.8	1,116.2	5,590.4	1,058.9	742.4	248.1	391.8	44.5	24,074.1
65 mph	8,267.6	620.1	3,105.8	588.3	412.5	137.8	90.4	10.3	13,232.8
total	165,352.9	12,402.7	62,116.1	11,765.3	8,249.0	2,756.2	3,013.8	342.3	265,998.3

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	1,701.9	127.7	639.3	152.5	150.4	50.2	389.2	44.2	3,255.3
35 mph	13,615.0	1,021.2	5,114.6	1,219.8	1,203.0	401.9	1,297.3	147.3	24,020.2
45 mph	34,888.5	2,616.9	13,106.1	3,125.7	3,082.6	1,030.0	1,686.5	191.5	59,727.8
55 mph	31,484.8	2,361.6	11,827.5	2,820.7	2,781.9	929.5	518.9	58.9	52,783.8
65 mph	88,497.7	6,638.0	33,244.8	7,928.5	7,819.3	2,612.6	9,081.2	1,031.3	156,853.4
total	170,187.9	12,765.3	63,932.4	15,247.1	15,037.1	5,024.2	12,973.1	1,473.3	296,640.4

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	3,189.7	239.2	1,198.2	355.9	190.6	63.7	65.9	7.5	5,310.7
25 mph	0.0	0.0	0.0	0.0	515.4	172.2	294.7	33.5	1,015.8
35 mph	43,289.8	3,247.1	16,262.1	2,094.5	0.0	0.0	0.0	0.0	64,893.5
total	46,479.5	3,486.3	17,460.4	2,450.4	706.1	235.9	360.6	41.0	71,220.1

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	18,071.4	1,355.5	6,788.7	1,414.8	933.1	311.8	307.0	34.9	29,217.0
25 mph	54,614.8	4,096.5	20,516.5	3,917.4	3,305.5	1,104.4	1,618.2	183.8	89,357.0
35 mph	119,738.9	8,981.3	44,980.8	7,785.1	4,337.6	1,449.3	2,201.5	250.0	189,724.6
45 mph	46,463.2	3,485.1	17,454.3	3,949.2	3,660.0	1,222.9	2,138.6	242.9	78,616.2
55 mph	46,366.5	3,477.8	17,417.9	3,879.6	3,524.3	1,177.5	910.7	103.4	76,857.8
65 mph	96,765.4	7,258.1	36,350.6	8,516.8	8,231.8	2,750.4	9,171.6	1,041.6	170,086.2
total	382,020.3	28,654.3	143,508.8	29,462.8	23,992.2	8,016.3	16,347.5	1,856.5	633,858.8

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	122.0	1.5	8.1	13.0	481.7	340.5	1,536.2	2,936.2	5,439.2
25 mph	433.8	5.4	28.7	46.2	1,712.8	1,210.6	5,952.8	11,377.9	20,768.2
35 mph	515.2	6.4	34.0	54.9	2,033.9	1,437.6	5,760.8	11,010.8	20,853.6
45 mph	94.9	1.2	6.3	10.1	374.7	264.8	2,880.4	5,505.4	9,137.8
55 mph	122.0	1.5	8.1	13.0	481.7	340.5	2,496.4	4,771.4	8,234.5
65 mph	67.8	0.8	4.5	7.2	267.6	189.2	576.1	1,101.1	2,214.3
total	1,355.7	16.9	89.6	144.4	5,352.4	3,783.1	19,202.7	36,702.7	66,647.6

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	14.0	0.2	0.9	1.9	97.6	69.0	2,479.7	4,739.6	7,402.8
35 mph	111.6	1.4	7.4	15.0	780.5	551.7	8,265.8	15,798.7	25,532.1
45 mph	286.1	3.6	18.9	38.4	2,000.1	1,413.7	10,745.6	20,538.3	35,044.6
55 mph	258.1	3.2	17.1	34.6	1,805.0	1,275.8	3,306.3	6,319.5	13,019.6
65 mph	725.6	9.0	47.9	97.3	5,073.5	3,586.0	57,860.7	110,590.8	177,991.0
total	1,395.4	17.4	92.2	187.2	9,756.8	6,896.2	82,658.1	157,986.9	258,990.1

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2	1,465.6
25 mph	0.0	0.0	0.0	0.0	334.4	236.4	1,877.8	3,589.2	6,037.8
35 mph	354.9	4.4	23.5	25.7	0.0	0.0	0.0	0.0	408.5
total	381.1	4.7	25.2	30.1	458.1	323.8	2,297.5	4,391.3	7,911.9

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	148.2	1.8	9.8	17.4	605.4	427.9	1,955.9	3,738.4	6,904.8
25 mph	447.8	5.6	29.6	48.1	2,144.8	1,515.9	10,310.4	19,706.6	34,208.8
35 mph	981.7	12.2	64.9	95.6	2,814.4	1,989.3	14,026.6	26,809.5	46,794.3
45 mph	381.0	4.7	25.2	48.5	2,374.8	1,678.5	13,626.0	26,043.7	44,182.4
55 mph	380.2	4.7	25.1	47.6	2,286.7	1,616.3	5,802.7	11,090.8	21,254.1
65 mph	793.4	9.9	52.4	104.5	5,341.2	3,775.2	58,436.8	111,691.9	180,205.2
total	3,132.2	39.0	207.0	361.7	15,567.3	11,003.1	104,158.4	199,081.0	333,549.6

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	158.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	159.6
25 mph	564.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	567.5
35 mph	669.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	673.9
45 mph	123.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	124.1
55 mph	158.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	159.6
65 mph	88.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	88.7
total	1,762.9	10.4	0.0	0.0	0.0	0.0	0.0	0.0	1,773.3

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	18.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	18.3
35 mph	145.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	146.0
45 mph	372.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	374.2
55 mph	335.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	337.7
65 mph	943.5	5.6	0.0	0.0	0.0	0.0	0.0	0.0	949.1
total	1,814.5	10.7	0.0	0.0	0.0	0.0	0.0	0.0	1,825.2

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	34.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,589.2	3,589.2
35 mph	461.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	464.3
total	495.5	2.9	0.0	0.0	0.0	0.0	0.0	3,589.2	4,087.6

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	192.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	193.8
25 mph	582.3	3.4	0.0	0.0	0.0	0.0	0.0	3,589.2	4,174.9
35 mph	1,276.6	7.5	0.0	0.0	0.0	0.0	0.0	0.0	1,284.1
45 mph	495.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	498.3
55 mph	494.3	2.9	0.0	0.0	0.0	0.0	0.0	0.0	497.3
65 mph	1,031.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0	1,037.8
total	4,073.0	24.0	0.0	0.0	0.0	0.0	0.0	3,589.2	7,686.1

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	8,535	1,707	499	100	1,331	266	2,219	444	2,517	7.01	0.035	0.0002	0.5	0.0008	1.9
2	A	731	0.45	4,760	2,142	258	116	680	306	1,135	511	3,075	6.73	0.035	0.0002	0.5	0.0007	2.2
3	A	2352	1.46	1,715	2,504	104	151	187	273	312	456	3,384	5.91	0.035	0.0002	0.5	0.0006	2.2
5	A	953	0.59	3,870	2,283	189	111	-	-	-	-	2,395	2.29	0.035	0.0001	0.1	0.0002	0.6
6	A	1099	0.68	8,960	6,093	558	379	1,492	1,015	2,488	1,692	9,178	7.23	0.035	0.0002	1.8	0.0008	7.2
8	A	1091	0.68	3,285	2,234	178	121	-	-	-	-	2,355	2.31	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	4,970	3,728	29	22	-	-	-	-	3,749	2.15	0.035	0.0001	0.2	0.0002	0.9
12	A	824	0.51	8,275	4,220	12	6	2	1	3	2	4,229	2.15	0.035	0.0001	0.2	0.0002	1.0
14	A	1618	1.01	1,645	1,661	72	73	174	176	290	293	2,203	5.82	0.035	0.0002	0.3	0.0006	1.4
18	A	1412	0.88	880	774	-	-	-	-	-	-	774	2.13	0.035	0.0001	0.0	0.0002	0.2
19	A	2386	1.48	2,035	2,133	-	-	4	4	6	7	2,143	2.21	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	1,410	1,100	21	16	15	12	25	20	1,147	2.64	0.035	0.0001	0.1	0.0003	0.3
24	A	1946	1.21	1,490	1,803	40	48	41	49	68	82	1,982	3.33	0.035	0.0001	0.2	0.0004	0.7
30	A	2827	1.76	13,840	24,359	35	62	18	31	29	51	24,503	2.20	0.035	0.0001	1.4	0.0002	5.7
29	A	675	0.42	3,870	1,625	35	15	18	7	29	12	1,660	2.36	0.035	0.0001	0.1	0.0002	0.4
31	A	820	0.51	14,510	7,400	75	38	64	32	106	54	7,525	2.34	0.035	0.0001	0.5	0.0002	1.9
TOTAL				84,051		2,104		4,025		6,711						6.8		27.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				25283.24	520666.93	2,226.00	56,855.00	2,445.03	117,847.80	4,076.97	196,505.20	891,874.93	5.58	0.035	0.0001	131.640601	0.0006	536.3135595

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	3149.5	25.8	33.6
	LDT1	15	1127	330	0.21	236.8	236.2	0.3	0.2
	LDT2	15	5642	330	0.21	1184.8	1183.1	1.7	0.0
	MDT	15	1700	330	0.21	357.0	352.7	4.3	0.0
	LHDT1	15	1494	330	0.21	313.6	190.2	123.4	0.0
	LHDT2	15	718	330	0.21	150.8	63.6	87.2	0.0
	MHDT	15	2286	330	0.21	480.2	65.1	415.0	0.0
	HHDT	15	3813	330	0.21	800.6	7.4	793.2	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.8	0.0	0.1
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.5	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.2	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.1	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3189.7	239.2	1198.2	355.9	190.6	63.7	65.9	7.5
Diesel	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2
Electric	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	453	294	0	2264.5	1469.3	0.0
	LHDT2	5	359	151	208	0	756.6	1038.5	0.0
	MHDT	5	1143	155	988	0	775.4	4940.7	0.0
	HHDT	5	1906	18	1889	0	88.1	9443.3	0.0
Travel at Light Logistics	LHDT1	5	1	1	0	0	3.7	2.4	0.0
	LHDT2	5	1	0	0	0	1.2	1.7	0.0
	MHDT	5	2	0	1	0	1.0	6.5	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	38.0	12.7	13.8	1.6
Diesel	24.6	17.4	88.1	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	21.4107	8.3113
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.3179	1.4160
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.1677	0.7407
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.1092	0.4838
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0880	0.3881
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0877	0.3920
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.1080	0.4728

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.9435	1.1267
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.6695	0.6310
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.2621	0.3207
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.1704	0.1774
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.1185	0.0999
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.1007	0.0592
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.1013	0.0527

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	1.5978	0.3197	0.7750	0.3224	0.2811	0.0481	0.1690	0.0855	3.5987
25 mph	2.9895	0.6212	1.4517	0.6192	0.5563	0.0928	0.3455	0.1733	6.8495
35 mph	2.2498	0.4781	1.0965	0.4761	0.4439	0.0728	0.2177	0.1095	5.1444
45 mph	0.3323	0.0709	0.1615	0.0714	0.0680	0.0110	0.0878	0.0439	0.8468
55 mph	0.4187	0.0887	0.2033	0.0910	0.0876	0.0141	0.0758	0.0385	1.0178
65 mph	0.2755	0.0563	0.1327	0.0599	0.0623	0.0099	0.0215	0.0107	0.6289
total	7.8636	1.6349	3.8206	1.6400	1.4992	0.2488	0.9174	0.4614	18.0859

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0962	0.0200	0.0467	0.0251	0.0317	0.0053	0.1439	0.0722	0.4410
35 mph	0.4875	0.1036	0.2376	0.1299	0.1704	0.0279	0.3124	0.1572	1.6265
45 mph	1.0015	0.2137	0.4867	0.2709	0.3631	0.0587	0.3274	0.1639	2.8860
55 mph	0.8859	0.1877	0.4301	0.2425	0.3283	0.0529	0.1004	0.0509	2.2787
65 mph	2.9493	0.6023	1.4202	0.8075	1.1806	0.1885	2.1626	1.0751	10.3863
total	5.4204	1.1273	2.6213	1.4759	2.0741	0.3333	3.0468	1.5193	17.6185

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.6525	0.0290	1.3837
15 mph	0.3425	0.0685	0.1661	0.1084	0.0722	0.0124	0.0462	0.0234	0.8395
25 mph	0.0000	0.0000	0.0000	0.0000	0.1086	0.0181	0.1090	0.0547	0.2904
35 mph	1.5500	0.3294	0.7554	0.2230	0.0000	0.0000	0.0000	0.0000	2.8579
total	1.8925	0.3979	0.9215	0.3314	0.4466	0.4669	0.8077	0.1071	5.3715

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.6525	0.0290	1.3837
15 mph	1.9403	0.3882	0.9411	0.4308	0.3533	0.0605	0.2152	0.1089	4.4382
25 mph	3.0856	0.6412	1.4984	0.6442	0.6966	0.1162	0.5984	0.3002	7.5809
35 mph	4.2873	0.9112	2.0895	0.8290	0.6143	0.1008	0.5302	0.2667	9.6288
45 mph	1.3338	0.2846	0.6482	0.3422	0.4312	0.0697	0.4152	0.2079	3.7328
55 mph	1.3047	0.2764	0.6333	0.3336	0.4159	0.0670	0.1762	0.0894	3.2964
65 mph	3.2249	0.6586	1.5529	0.8674	1.2429	0.1985	2.1842	1.0858	11.0152
total	15.1765	3.1602	7.3635	3.4472	4.0199	1.0489	4.7719	2.0878	41.0760

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0297	0.0013	0.0017	0.0023	0.3334	0.2194	2.2677	4.0855	6.9410
25 mph	0.0409	0.0026	0.0016	0.0023	0.5039	0.2895	3.4399	8.0448	12.3255
35 mph	0.0309	0.0022	0.0012	0.0018	0.4294	0.2392	2.1639	4.3079	7.1764
45 mph	0.0046	0.0003	0.0002	0.0002	0.0673	0.0364	0.7527	1.2131	2.0749
55 mph	0.0057	0.0005	0.0002	0.0003	0.0884	0.0463	0.5545	0.6225	1.3183
65 mph	0.0036	0.0003	0.0001	0.0002	0.0613	0.0314	0.1287	0.1280	0.3536
total	0.1154	0.0071	0.0049	0.0071	1.4837	0.8622	9.3075	18.4017	30.1897

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0013	0.0001	0.0001	0.0001	0.0287	0.0165	1.4330	3.3512	4.8309
35 mph	0.0067	0.0005	0.0002	0.0005	0.1648	0.0918	3.1048	6.1811	9.5504
45 mph	0.0140	0.0010	0.0005	0.0009	0.3593	0.1945	2.8080	4.5255	7.9037
55 mph	0.0120	0.0010	0.0003	0.0007	0.3313	0.1737	0.7344	0.8244	2.0778
65 mph	0.0382	0.0035	0.0010	0.0022	1.1618	0.5953	12.9286	12.8572	27.5877
total	0.0721	0.0060	0.0021	0.0045	2.0459	1.0717	21.0088	27.7393	51.9505

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.1832	0.4182	0.8957
15 mph	0.0064	0.0003	0.0004	0.0008	0.0856	0.0563	0.6195	1.1162	1.8854
25 mph	0.0000	0.0000	0.0000	0.0000	0.0984	0.0565	1.0851	2.5377	3.7778
35 mph	0.0213	0.0015	0.0008	0.0008	0.0000	0.0000	0.0000	0.0000	0.0244
total	0.0277	0.0018	0.0012	0.0016	0.3564	0.2347	1.8879	4.0721	6.5834

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.1832	0.4182	0.8957
15 mph	0.0361	0.0015	0.0021	0.0031	0.4190	0.2757	2.8873	5.2017	8.8265
25 mph	0.0422	0.0026	0.0016	0.0024	0.6311	0.3625	5.9580	13.9337	20.9341
35 mph	0.0590	0.0041	0.0022	0.0031	0.5942	0.3310	5.2687	10.4890	16.7513
45 mph	0.0186	0.0014	0.0006	0.0012	0.4266	0.2310	3.5607	5.7385	9.9786
55 mph	0.0176	0.0015	0.0005	0.0010	0.4197	0.2200	1.2889	1.4469	3.3961
65 mph	0.0418	0.0038	0.0011	0.0024	1.2230	0.6266	13.0573	12.9852	27.9413
total	0.2152	0.0150	0.0081	0.0131	3.8860	2.1687	32.2042	50.2131	88.7235

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	40.84	13.71	23.51	6.68	30.88	6.01	7.61	0.31
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**40.84**	**13.71**	**23.51**	**6.68**	**30.88**	**6.01**	**7.61**	**0.31**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.82	2.44	4.93	1.90	0.13	0.03	0.03	0.00
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**11.82**	**2.44**	**4.93**	**1.90**	**0.13**	**0.03**	**0.03**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.44	0.56	0.84	0.45	2.28
15 mph	1.98	0.39	0.94	0.43	0.77	0.34	3.10	5.31	13.26
25 mph	3.13	0.64	1.50	0.65	1.33	0.48	6.56	14.23	28.52
35 mph	4.35	0.92	2.09	0.83	1.21	0.43	5.80	10.76	26.38
45 mph	1.35	0.29	0.65	0.34	0.86	0.30	3.98	5.95	13.71
55 mph	1.32	0.28	0.63	0.33	0.84	0.29	1.47	1.54	6.69
65 mph	3.27	0.66	1.55	0.87	2.47	0.83	15.24	14.07	38.96
RUNLOSS	40.84	13.71	23.51	6.68	30.88	6.01	7.61	0.31	129.54
RESTLOSS DIURI	11.82	2.44	4.93	1.90	0.13	0.03	0.03	0.00	21.28
total	68.06	19.32	35.81	12.04	38.92	9.25	44.61	52.61	**280.62**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	1.8256	30.1057
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	1.0676	4.6797
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.8804	3.8472
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.7729	3.3857
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.7241	3.1651
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.7218	3.1794
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.7669	3.3424

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	66.1389	35.5307
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	6.9426	11.8824
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	4.1976	6.9535
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	3.3617	5.3338
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	2.9415	4.5604
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	2.7873	4.1187
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	2.7887	4.0304

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	3.3178	0.7192	2.0681	0.7054	0.8357	0.1953	0.5676	0.2825	8.6916
25 mph	9.5604	2.0045	5.8676	2.0426	2.5411	0.5812	1.8137	0.9001	25.3112
35 mph	9.7389	2.0174	5.9259	2.1195	2.7363	0.6135	1.5409	0.7666	25.4590
45 mph	1.6838	0.3538	1.0222	0.3711	0.4842	0.1070	0.7218	0.3583	5.1021
55 mph	2.1680	0.4736	1.3250	0.4884	0.6289	0.1374	0.6236	0.3119	6.1569
65 mph	1.2737	0.2909	0.7851	0.2938	0.3752	0.0817	0.1529	0.0757	3.3290
total	27.7425	5.8593	16.9939	6.0208	7.6015	1.7161	5.4204	2.6951	74.0498

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.3075	0.0645	0.1887	0.0827	0.1448	0.0331	0.7555	0.3749	1.9518
35 mph	2.1102	0.4371	1.2840	0.5783	1.0501	0.2354	2.2110	1.0999	9.0061
45 mph	5.0752	1.0664	3.0811	1.4085	2.5850	0.5710	2.6926	1.3367	17.8165
55 mph	4.5868	1.0019	2.8033	1.3011	2.3567	0.5150	0.8259	0.4131	13.8037
65 mph	13.6342	3.1137	8.4038	3.9592	7.1134	1.5496	15.3558	7.6008	60.7303
total	25.7139	5.6836	15.7610	7.3298	13.2499	2.9041	21.8408	10.8254	103.3084

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0556	0.1052	0.3036
15 mph	0.7111	0.1541	0.4433	0.2371	0.2146	0.0501	0.1551	0.0772	2.0426
25 mph	0.0000	0.0000	0.0000	0.0000	0.4962	0.1135	0.5721	0.2839	1.4657
35 mph	6.7096	1.3899	4.0827	0.9930	0.0000	0.0000	0.0000	0.0000	13.1752
total	7.4207	1.5441	4.5260	1.2301	0.8172	0.2000	0.7828	0.4663	16.9872

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0556	0.1052	0.3036
15 mph	4.0289	0.8733	2.5113	0.9425	1.0503	0.2454	0.7226	0.3597	10.7342
25 mph	9.8679	2.0690	6.0563	2.1253	3.1820	0.7279	3.1414	1.5589	28.7287
35 mph	18.5587	3.8445	11.2927	3.6908	3.7864	0.8489	3.7519	1.8665	47.6403
45 mph	6.7590	1.4201	4.1033	1.7797	3.0692	0.6779	3.4144	1.6950	22.9187
55 mph	6.7548	1.4755	4.1283	1.7895	2.9856	0.6524	1.4494	0.7251	19.9606
65 mph	14.9079	3.4046	9.1889	4.2529	7.4886	1.6313	15.5087	7.6765	64.0593
total	60.8772	13.0869	37.2809	14.5807	21.6686	4.8202	28.0441	13.9869	194.3453

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0490	0.0030	0.0019	0.0030	2.4658	1.2469	23.5170	76.9307	104.2173
25 mph	0.1457	0.0115	0.0042	0.0068	9.3199	4.5476	55.0983	174.4514	243.5854
35 mph	0.1632	0.0144	0.0042	0.0070	12.5528	6.0449	42.7030	129.4983	190.9878
45 mph	0.0310	0.0029	0.0007	0.0012	2.5628	1.2268	18.6826	55.3601	77.8682
55 mph	0.0415	0.0040	0.0009	0.0016	3.6595	1.7516	15.3425	43.3321	64.1337
65 mph	0.0237	0.0023	0.0005	0.0009	2.2497	1.0783	3.5424	9.7854	16.6832
total	0.4542	0.0381	0.0124	0.0204	32.8105	15.8961	158.8857	489.3581	697.4755

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0047	0.0004	0.0001	0.0003	0.5309	0.2591	22.9520	72.6702	96.4176
35 mph	0.0354	0.0031	0.0009	0.0019	4.8174	2.3198	61.2716	185.8085	254.2586
45 mph	0.0934	0.0087	0.0022	0.0046	13.6815	6.5495	69.6967	206.5246	296.5611
55 mph	0.0877	0.0084	0.0019	0.0042	13.7123	6.5635	20.3205	57.3917	98.0903
65 mph	0.2539	0.0250	0.0054	0.0121	42.6500	20.4419	355.7948	982.8271	1,402.0102
total	0.4751	0.0456	0.0105	0.0230	75.3921	36.1338	530.0357	1,505.2221	2,147.3379

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	12.8430	13.1870	32.6834
15 mph	0.0105	0.0006	0.0004	0.0010	0.6332	0.3202	6.4249	21.0176	28.4083
25 mph	0.0000	0.0000	0.0000	0.0000	1.8198	0.8880	17.3808	55.0309	75.1195
35 mph	0.1125	0.0099	0.0029	0.0033	0.0000	0.0000	0.0000	0.0000	0.1285
total	0.1230	0.0106	0.0033	0.0043	6.3777	3.9368	36.6486	89.2355	136.3398

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	12.8430	13.1870	32.6834
15 mph	0.0595	0.0037	0.0023	0.0040	3.0990	1.5671	29.9418	97.9483	132.6256
25 mph	0.1504	0.0119	0.0043	0.0071	11.6706	5.6946	95.4311	302.1525	415.1225
35 mph	0.3111	0.0274	0.0079	0.0122	17.3702	8.3647	103.9746	315.3068	445.3750
45 mph	0.1244	0.0115	0.0029	0.0058	16.2443	7.7764	88.3793	261.8847	374.4293
55 mph	0.1292	0.0124	0.0028	0.0057	17.3718	8.3151	35.6630	100.7239	162.2240
65 mph	0.2776	0.0273	0.0059	0.0130	44.8997	21.5202	359.3373	992.6125	1,418.6935
total	1.0522	0.0943	0.0262	0.0478	114.5803	55.9667	725.5700	2,083.8157	2,981.1532

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.03	2.77	12.90	13.29	32.99
15 mph	4.09	0.88	2.51	0.95	4.15	1.81	30.66	98.31	143.36
25 mph	10.02	2.08	6.06	2.13	14.85	6.42	98.57	303.71	443.85
35 mph	18.87	3.87	11.30	3.70	21.16	9.21	107.73	317.17	493.02
45 mph	6.88	1.43	4.11	1.79	19.31	8.45	91.79	263.58	397.35
55 mph	6.88	1.49	4.13	1.80	20.36	8.97	37.11	101.45	182.18
65 mph	15.19	3.43	9.19	4.27	52.39	23.15	374.85	1,000.29	1,482.75
total	61.93	13.18	37.31	14.63	136.25	60.79	753.61	2,097.80	**3,175.50**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	327.6017	301.9366
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	4.9398	48.8767
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	3.9858	40.4481
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	3.3476	34.3026
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	2.9246	29.6841
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	2.6833	26.4522
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	2.6739	24.3070

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	9.3860	4.3977
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	1.5036	2.4036
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.8054	1.2799
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.5630	0.7141
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.4336	0.4073
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.3932	0.2437
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.3945	0.2171

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	40.5702	8.1951	19.7603	6.6387	4.5871	0.7548	2.6262	2.9510	86.0834
25 mph	117.0159	22.4441	56.8167	18.5378	11.7555	2.0115	8.2112	9.4631	246.2559
35 mph	114.5966	21.4571	55.6923	18.1853	11.2548	1.9489	6.6741	7.7665	237.5755
45 mph	18.2183	3.4386	8.8467	2.9366	1.8951	0.3218	2.9153	3.3604	41.9329
55 mph	20.7630	4.0890	10.1021	3.5071	2.5114	0.4076	2.3181	2.5953	46.2937
65 mph	10.5197	2.2108	5.1094	1.9366	1.8014	0.2712	0.5331	0.5503	22.9324
total	321.6838	61.8347	156.3275	51.7421	33.8054	5.7157	23.2781	26.6865	681.0738

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	3.7637	0.7219	1.8274	0.7507	0.6697	0.1146	3.4205	3.9420	15.2105
35 mph	24.8311	4.6494	12.0675	4.9615	4.3192	0.7479	9.5762	11.1436	72.2963
45 mph	54.9137	10.3648	26.6658	11.1453	10.1170	1.7178	10.8758	12.5361	138.3363
55 mph	43.9275	8.6509	21.3727	9.3425	9.4105	1.5275	3.0703	3.4373	100.7392
65 mph	112.6039	23.6644	54.6914	26.1004	34.1514	5.1411	53.5428	55.2746	365.1699
total	240.0398	48.0513	116.6248	52.3004	58.6678	9.2489	80.4855	86.3337	691.7522

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	9.9842	1.0550	25.5125
15 mph	8.6956	1.7565	4.2353	2.2312	1.1779	0.1938	0.7175	0.8062	19.8140
25 mph	0.0000	0.0000	0.0000	0.0000	2.2954	0.3928	2.5902	2.9852	8.2635
35 mph	78.9518	14.7830	38.3694	8.5197	0.0000	0.0000	0.0000	0.0000	140.6239
total	87.6474	16.5395	42.6047	10.7509	14.2640	4.2692	13.2919	4.8464	194.2139

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	9.9842	1.0550	25.5125
15 mph	49.2658	9.9516	23.9956	8.8698	5.7650	0.9486	3.3437	3.7572	105.8974
25 mph	120.7796	23.1660	58.6441	19.2885	14.7206	2.5189	14.2220	16.3903	269.7299
35 mph	218.3795	40.8895	106.1292	31.6664	15.5740	2.6968	16.2502	18.9100	450.4956
45 mph	73.1320	13.8034	35.5125	14.0819	12.0122	2.0396	13.7911	15.8965	180.2693
55 mph	64.6905	12.7399	31.4748	12.8497	11.9220	1.9351	5.3884	6.0326	147.0329
65 mph	123.1236	25.8751	59.8008	28.0369	35.9528	5.4123	54.0759	55.8250	388.1024
total	649.3710	126.4255	315.5571	114.7933	106.7372	19.2338	117.0555	117.8666	1,567.0399

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.3412	0.0062	0.0143	0.0362	1.3509	0.8487	5.0934	15.5619	23.2526
25 mph	0.3599	0.0128	0.0128	0.0319	2.2865	1.2571	10.5717	32.1097	46.6424
35 mph	0.2773	0.0118	0.0094	0.0235	2.1498	1.1426	7.1513	17.3372	28.1029
45 mph	0.0411	0.0021	0.0013	0.0032	0.3816	0.1968	2.7541	4.9441	8.3242
55 mph	0.0508	0.0033	0.0014	0.0034	0.5866	0.2945	2.1641	2.5642	5.6683
65 mph	0.0346	0.0027	0.0008	0.0020	0.4876	0.2408	0.5011	0.5271	1.7967
total	1.1049	0.0389	0.0399	0.1002	7.2430	3.9805	28.2356	73.0441	113.7871

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0116	0.0004	0.0004	0.0013	0.1303	0.0716	4.4038	13.3758	17.9951
35 mph	0.0601	0.0026	0.0020	0.0064	0.8250	0.4385	10.2609	24.8760	36.4715
45 mph	0.1240	0.0064	0.0038	0.0120	2.0370	1.0505	10.2743	18.4442	31.9522
55 mph	0.1075	0.0069	0.0029	0.0091	2.1981	1.1037	2.8662	3.3961	9.6906
65 mph	0.3699	0.0285	0.0089	0.0275	9.2449	4.5644	50.3291	52.9374	117.5105
total	0.6731	0.0448	0.0181	0.0563	14.4352	7.2286	78.1343	113.0295	213.6200

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	1.8226	1.6322	5.8941
15 mph	0.0731	0.0013	0.0031	0.0122	0.3469	0.2179	1.3915	4.2515	6.2975
25 mph	0.0000	0.0000	0.0000	0.0000	0.4465	0.2455	3.3348	10.1291	14.1558
35 mph	0.1911	0.0081	0.0065	0.0110	0.0000	0.0000	0.0000	0.0000	0.2167
total	0.2642	0.0095	0.0095	0.0232	2.2225	1.4736	6.5489	16.0128	26.5642

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	1.8226	1.6322	5.8941
15 mph	0.4143	0.0075	0.0173	0.0483	1.6978	1.0666	6.4849	19.8134	29.5501
25 mph	0.3715	0.0133	0.0132	0.0332	2.8632	1.5742	18.3103	55.6146	78.7934
35 mph	0.5285	0.0225	0.0179	0.0409	2.9748	1.5811	17.4122	42.2132	64.7911
45 mph	0.1652	0.0085	0.0051	0.0152	2.4185	1.2472	13.0284	23.3883	40.2764
55 mph	0.1583	0.0102	0.0043	0.0125	2.7847	1.3982	5.0303	5.9603	15.3589
65 mph	0.4045	0.0311	0.0097	0.0295	9.7325	4.8052	50.8302	53.4645	119.3072
total	2.0423	0.0931	0.0676	0.1797	23.9008	12.6827	112.9188	202.0864	353.9713

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	12.22	4.69	11.81	2.69	31.41
15 mph	49.68	9.96	24.01	8.92	7.46	2.02	9.83	23.57	135.45
25 mph	121.15	23.18	58.66	19.32	17.58	4.09	32.53	72.00	348.52
35 mph	218.91	40.91	106.15	31.71	18.55	4.28	33.66	61.12	515.29
45 mph	73.30	13.81	35.52	14.10	14.43	3.29	26.82	39.28	220.55
55 mph	64.85	12.75	31.48	12.86	14.71	3.33	10.42	11.99	162.39
65 mph	123.53	25.91	59.81	28.07	45.69	10.22	104.91	109.29	507.41
total	651.41	126.52	315.62	114.97	130.64	31.92	229.97	319.95	**1,921.01**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0337	0.0259
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0029	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0015	0.0012
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0010	0.0008
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0010	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.2770	0.0399
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.1388	0.0428
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0894	0.0311
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0789	0.0262
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0834	0.0237
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.1048	0.0233
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.1127	0.0235

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1661	0.0225	0.0610	0.0126	0.0067	0.0017	0.0015	0.0001	0.2723
25 mph	0.3074	0.0428	0.1128	0.0236	0.0126	0.0031	0.0031	0.0003	0.5057
35 mph	0.2323	0.0327	0.0854	0.0178	0.0098	0.0024	0.0020	0.0002	0.3825
45 mph	0.0340	0.0048	0.0125	0.0026	0.0015	0.0003	0.0008	0.0001	0.0566
55 mph	0.0428	0.0060	0.0158	0.0033	0.0019	0.0004	0.0007	0.0001	0.0709
65 mph	0.0286	0.0039	0.0105	0.0022	0.0013	0.0003	0.0002	0.0000	0.0469
total	0.8112	0.1127	0.2980	0.0621	0.0337	0.0082	0.0083	0.0007	1.3350

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0099	0.0014	0.0036	0.0010	0.0007	0.0002	0.0013	0.0001	0.0182
35 mph	0.0503	0.0071	0.0185	0.0049	0.0038	0.0009	0.0028	0.0002	0.0885
45 mph	0.1026	0.0145	0.0377	0.0100	0.0078	0.0019	0.0029	0.0003	0.1776
55 mph	0.0906	0.0127	0.0334	0.0088	0.0070	0.0016	0.0009	0.0001	0.1551
65 mph	0.3061	0.0413	0.1124	0.0296	0.0243	0.0057	0.0192	0.0017	0.5403
total	0.5595	0.0770	0.2056	0.0542	0.0435	0.0103	0.0271	0.0024	0.9796

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0010	0.0001	0.0060
15 mph	0.0356	0.0048	0.0131	0.0042	0.0017	0.0004	0.0004	0.0000	0.0603
25 mph	0.0000	0.0000	0.0000	0.0000	0.0025	0.0006	0.0010	0.0001	0.0041
35 mph	0.1600	0.0225	0.0588	0.0083	0.0000	0.0000	0.0000	0.0000	0.2497
total	0.1956	0.0273	0.0719	0.0126	0.0081	0.0020	0.0024	0.0002	0.3202

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0010	0.0001	0.0060
15 mph	0.2017	0.0274	0.0741	0.0169	0.0084	0.0021	0.0020	0.0002	0.3326
25 mph	0.3173	0.0442	0.1165	0.0245	0.0158	0.0039	0.0054	0.0005	0.5280
35 mph	0.4427	0.0623	0.1628	0.0310	0.0135	0.0033	0.0048	0.0004	0.7207
45 mph	0.1366	0.0193	0.0502	0.0126	0.0092	0.0022	0.0037	0.0003	0.2342
55 mph	0.1334	0.0187	0.0491	0.0122	0.0088	0.0021	0.0016	0.0001	0.2260
65 mph	0.3346	0.0452	0.1229	0.0318	0.0256	0.0060	0.0194	0.0017	0.5873
total	1.5663	0.2170	0.5756	0.1290	0.0853	0.0205	0.0378	0.0033	2.6348

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0115	0.0009	0.0004	0.0004	0.0478	0.0268	0.4701	0.2773	0.8352
25 mph	0.0246	0.0019	0.0005	0.0010	0.1089	0.0622	1.1731	0.7811	2.1533
35 mph	0.0198	0.0016	0.0004	0.0009	0.0994	0.0571	1.0027	0.6368	1.8188
45 mph	0.0031	0.0003	0.0001	0.0001	0.0161	0.0092	0.5298	0.2881	0.8469
55 mph	0.0040	0.0004	0.0001	0.0002	0.0214	0.0119	0.5769	0.2450	0.8599
65 mph	0.0026	0.0002	0.0000	0.0001	0.0145	0.0079	0.1431	0.0570	0.2255
total	0.0657	0.0053	0.0015	0.0028	0.3082	0.1752	3.8958	2.2853	6.7396

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0008	0.0001	0.0000	0.0000	0.0062	0.0035	0.4887	0.3254	0.8247
35 mph	0.0043	0.0004	0.0001	0.0002	0.0382	0.0219	1.4387	0.9137	2.4175
45 mph	0.0095	0.0008	0.0002	0.0005	0.0862	0.0492	1.9766	1.0748	3.1979
55 mph	0.0085	0.0008	0.0002	0.0005	0.0800	0.0448	0.7641	0.3245	1.2233
65 mph	0.0276	0.0027	0.0005	0.0015	0.2758	0.1502	14.3741	5.7210	20.5535
total	0.0507	0.0046	0.0010	0.0028	0.4864	0.2697	19.0422	8.3594	28.2168

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0538	0.0148	0.1434
15 mph	0.0025	0.0002	0.0001	0.0001	0.0123	0.0069	0.1284	0.0758	0.2262
25 mph	0.0000	0.0000	0.0000	0.0000	0.0213	0.0121	0.3701	0.2464	0.6499
35 mph	0.0136	0.0011	0.0003	0.0004	0.0000	0.0000	0.0000	0.0000	0.0155
total	0.0161	0.0013	0.0004	0.0006	0.0775	0.0499	0.5523	0.3370	1.0350

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0538	0.0148	0.1434
15 mph	0.0140	0.0011	0.0004	0.0006	0.0601	0.0337	0.5985	0.3531	1.0615
25 mph	0.0254	0.0020	0.0005	0.0010	0.1364	0.0779	2.0319	1.3529	3.6279
35 mph	0.0377	0.0031	0.0008	0.0016	0.1376	0.0790	2.4414	1.5505	4.2517
45 mph	0.0126	0.0011	0.0003	0.0007	0.1024	0.0584	2.5064	1.3629	4.0448
55 mph	0.0125	0.0011	0.0003	0.0007	0.1014	0.0567	1.3410	0.5695	2.0831
65 mph	0.0302	0.0029	0.0006	0.0016	0.2903	0.1582	14.5172	5.7780	20.7790
total	0.1325	0.0113	0.0029	0.0061	0.8721	0.4948	23.4902	10.9816	35.9914

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.05	0.01	0.15
15 mph	0.22	0.03	0.07	0.02	0.07	0.04	0.60	0.35	1.39
25 mph	0.34	0.05	0.12	0.03	0.15	0.08	2.04	1.35	4.16
35 mph	0.48	0.07	0.16	0.03	0.15	0.08	2.45	1.55	4.97
45 mph	0.15	0.02	0.05	0.01	0.11	0.06	2.51	1.36	4.28
55 mph	0.15	0.02	0.05	0.01	0.11	0.06	1.34	0.57	2.31
65 mph	0.36	0.05	0.12	0.03	0.32	0.16	14.54	5.78	21.37
total	1.70	0.23	0.58	0.14	0.96	0.52	23.53	10.98	**38.63**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	16.32	1.22	6.13	1.16	1.54	0.59	0.95	0.06
Diesel	0.13	0.00	0.01	0.01	1.04	0.84	6.03	7.91
Electric	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	16.62	1.23	6.14	1.18	2.58	1.43	6.97	7.97

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	16.79	1.26	6.31	1.50	2.80	1.08	4.07	0.27
Diesel	0.14	0.00	0.01	0.02	1.90	1.54	25.94	34.05
Electric	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	17.11	1.26	6.32	1.52	4.70	2.62	30.01	34.31

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.59	0.34	1.72	0.24	0.13	0.05	0.11	0.01
Diesel	0.04	0.00	0.00	0.00	0.09	0.07	0.72	0.95
Electric	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.67	0.34	1.73	0.24	0.22	0.12	0.83	0.95

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	37.70	2.83	14.16	2.91	4.47	1.72	5.13	0.33	69.24
Diesel	0.31	0.00	0.02	0.04	3.04	2.45	32.69	42.91	81.46
Electric	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
Total	38.41	2.83	14.18	2.94	7.50	4.17	37.82	43.24	**151.10**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	536.31
Internal	27.52
Total	**563.83**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0310	0.0239
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0027	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0014	0.0011
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0009	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0007	0.0006
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0007	0.0006
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0009	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.2650	0.0381
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.1328	0.0410
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0855	0.0298
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0755	0.0251
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0798	0.0227
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.1003	0.0223
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.1078	0.0224

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1527	0.0207	0.0561	0.0116	0.0062	0.0015	0.0014	0.0001	0.2505
25 mph	0.2827	0.0394	0.1038	0.0217	0.0116	0.0028	0.0029	0.0003	0.4653
35 mph	0.2137	0.0301	0.0786	0.0164	0.0090	0.0022	0.0018	0.0002	0.3519
45 mph	0.0313	0.0044	0.0115	0.0024	0.0013	0.0003	0.0007	0.0001	0.0521
55 mph	0.0394	0.0055	0.0145	0.0031	0.0017	0.0004	0.0006	0.0001	0.0653
65 mph	0.0263	0.0036	0.0097	0.0020	0.0012	0.0003	0.0002	0.0000	0.0432
total	0.7462	0.1037	0.2742	0.0573	0.0311	0.0075	0.0076	0.0007	1.2282

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0091	0.0013	0.0033	0.0009	0.0007	0.0002	0.0012	0.0001	0.0167
35 mph	0.0463	0.0065	0.0170	0.0045	0.0035	0.0008	0.0026	0.0002	0.0814
45 mph	0.0944	0.0133	0.0347	0.0092	0.0072	0.0017	0.0027	0.0002	0.1634
55 mph	0.0834	0.0117	0.0307	0.0081	0.0064	0.0015	0.0008	0.0001	0.1427
65 mph	0.2816	0.0380	0.1034	0.0273	0.0224	0.0053	0.0177	0.0016	0.4972
total	0.5147	0.0708	0.1892	0.0500	0.0401	0.0095	0.0250	0.0022	0.9014

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0009	0.0001	0.0055
15 mph	0.0327	0.0044	0.0120	0.0039	0.0016	0.0004	0.0004	0.0000	0.0555
25 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0006	0.0009	0.0001	0.0038
35 mph	0.1472	0.0207	0.0541	0.0077	0.0000	0.0000	0.0000	0.0000	0.2298
total	0.1800	0.0252	0.0662	0.0116	0.0075	0.0019	0.0022	0.0002	0.2946

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0009	0.0001	0.0055
15 mph	0.1855	0.0252	0.0682	0.0155	0.0078	0.0019	0.0018	0.0002	0.3060
25 mph	0.2918	0.0407	0.1071	0.0226	0.0146	0.0035	0.0050	0.0004	0.4858
35 mph	0.4072	0.0573	0.1497	0.0286	0.0125	0.0030	0.0044	0.0004	0.6631
45 mph	0.1257	0.0177	0.0462	0.0116	0.0085	0.0020	0.0034	0.0003	0.2155
55 mph	0.1228	0.0172	0.0452	0.0112	0.0081	0.0019	0.0014	0.0001	0.2080
65 mph	0.3079	0.0416	0.1131	0.0293	0.0236	0.0055	0.0179	0.0016	0.5404
total	1.4408	0.1997	0.5295	0.1189	0.0786	0.0188	0.0348	0.0031	2.4242

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0110	0.0009	0.0004	0.0004	0.0457	0.0257	0.4497	0.2653	0.7991
25 mph	0.0235	0.0018	0.0005	0.0010	0.1042	0.0595	1.1224	0.7473	2.0601
35 mph	0.0189	0.0016	0.0004	0.0009	0.0951	0.0546	0.9593	0.6092	1.7401
45 mph	0.0030	0.0003	0.0001	0.0001	0.0155	0.0088	0.5069	0.2756	0.8103
55 mph	0.0038	0.0003	0.0001	0.0002	0.0204	0.0114	0.5519	0.2344	0.8227
65 mph	0.0025	0.0002	0.0000	0.0001	0.0139	0.0076	0.1369	0.0545	0.2158
total	0.0628	0.0051	0.0014	0.0027	0.2948	0.1676	3.7272	2.1864	6.4481

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0008	0.0001	0.0000	0.0000	0.0059	0.0034	0.4675	0.3113	0.7890
35 mph	0.0041	0.0003	0.0001	0.0002	0.0365	0.0210	1.3765	0.8742	2.3129
45 mph	0.0091	0.0008	0.0002	0.0005	0.0825	0.0471	1.8911	1.0283	3.0595
55 mph	0.0081	0.0007	0.0002	0.0005	0.0765	0.0428	0.7310	0.3105	1.1704
65 mph	0.0264	0.0025	0.0005	0.0014	0.2639	0.1437	13.7523	5.4735	19.6643
total	0.0485	0.0044	0.0010	0.0027	0.4653	0.2580	18.2184	7.9978	26.9961

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0515	0.0142	0.1372
15 mph	0.0024	0.0002	0.0001	0.0001	0.0117	0.0066	0.1229	0.0725	0.2164
25 mph	0.0000	0.0000	0.0000	0.0000	0.0203	0.0116	0.3541	0.2357	0.6218
35 mph	0.0130	0.0011	0.0003	0.0004	0.0000	0.0000	0.0000	0.0000	0.0148
total	0.0154	0.0013	0.0004	0.0005	0.0742	0.0477	0.5284	0.3224	0.9902

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0515	0.0142	0.1372
15 mph	0.0134	0.0010	0.0004	0.0006	0.0575	0.0323	0.5726	0.3378	1.0156
25 mph	0.0243	0.0019	0.0005	0.0010	0.1305	0.0745	1.9440	1.2943	3.4709
35 mph	0.0361	0.0030	0.0008	0.0015	0.1316	0.0756	2.3358	1.4834	4.0678
45 mph	0.0121	0.0010	0.0003	0.0007	0.0979	0.0559	2.3980	1.3040	3.8698
55 mph	0.0120	0.0011	0.0002	0.0006	0.0970	0.0542	1.2830	0.5449	1.9930
65 mph	0.0289	0.0028	0.0006	0.0015	0.2778	0.1513	13.8892	5.5280	19.8801
total	0.1267	0.0108	0.0028	0.0059	0.8343	0.4734	22.4741	10.5065	34.4345

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.05	0.01	0.14
15 mph	0.20	0.03	0.07	0.02	0.07	0.03	0.57	0.34	1.32
25 mph	0.32	0.04	0.11	0.02	0.15	0.08	1.95	1.29	3.96
35 mph	0.44	0.06	0.15	0.03	0.14	0.08	2.34	1.48	4.73
45 mph	0.14	0.02	0.05	0.01	0.11	0.06	2.40	1.30	4.09
55 mph	0.13	0.02	0.05	0.01	0.11	0.06	1.28	0.55	2.20
65 mph	0.34	0.04	0.11	0.03	0.30	0.16	13.91	5.53	20.42
total	1.57	0.21	0.53	0.12	0.91	0.49	22.51	10.51	**36.86**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.47	0.49	2.43	0.46	0.63	0.24	0.39	0.02
Diesel	0.05	0.00	0.00	0.01	0.42	0.34	2.49	2.87
Electric	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.59	0.49	2.43	0.47	1.05	0.59	2.88	2.89

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.66	0.50	2.50	0.60	1.15	0.45	1.68	0.10
Diesel	0.05	0.00	0.00	0.01	0.77	0.63	10.73	12.35
Electric	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.79	0.50	2.51	0.60	1.92	1.07	12.41	12.46

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.82	0.14	0.68	0.10	0.05	0.02	0.05	0.00
Diesel	0.01	0.00	0.00	0.00	0.04	0.03	0.30	0.34
Electric	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.85	0.14	0.68	0.10	0.09	0.05	0.34	0.35

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	14.95	1.12	5.62	1.15	1.84	0.71	2.12	0.13	27.64
Diesel	0.12	0.00	0.01	0.01	1.23	1.00	13.52	15.57	31.46
Electric	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Total	15.23	1.12	5.62	1.17	3.07	1.71	15.64	15.69	**59.26**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	131.64
Internal	6.75
Total	**138.39**

Black Carbon

percent of PM2.5 Exhaust	
LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.04	0.01	0.11
15 mph	0.13	0.02	0.04	0.01	0.05	0.03	0.44	0.26	0.98
25 mph	0.20	0.03	0.07	0.02	0.11	0.06	1.50	1.00	2.98
35 mph	0.28	0.04	0.10	0.02	0.11	0.06	1.80	1.14	3.55
45 mph	0.09	0.01	0.03	0.01	0.08	0.04	1.85	1.00	3.12
55 mph	0.09	0.01	0.03	0.01	0.08	0.04	0.99	0.42	1.67
65 mph	0.22	0.03	0.07	0.02	0.23	0.12	10.71	4.26	15.66
total	1.00	0.13	0.34	0.08	0.70	0.38	17.33	8.09	28.06

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1181	0.0162	0.0814	0.0154	0.0219	0.0073	0.0071	0.0008	0.2683
25 mph	0.4200	0.0578	0.2893	0.0548	0.0780	0.0261	0.0276	0.0031	0.9566
35 mph	0.4988	0.0686	0.3435	0.0651	0.0926	0.0309	0.0267	0.0030	1.1293
45 mph	0.0919	0.0126	0.0633	0.0120	0.0171	0.0057	0.0134	0.0015	0.2174
55 mph	0.1181	0.0162	0.0814	0.0154	0.0219	0.0073	0.0116	0.0013	0.2733
65 mph	0.0656	0.0090	0.0452	0.0086	0.0122	0.0041	0.0027	0.0003	0.1476
total	1.3126	0.1805	0.9040	0.1712	0.2437	0.0814	0.0891	0.0101	2.9926

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0135	0.0019	0.0093	0.0022	0.0044	0.0015	0.0115	0.0013	0.0456
35 mph	0.1081	0.0149	0.0744	0.0178	0.0355	0.0119	0.0383	0.0044	0.3052
45 mph	0.2769	0.0381	0.1907	0.0455	0.0911	0.0304	0.0498	0.0057	0.7283
55 mph	0.2499	0.0344	0.1721	0.0410	0.0822	0.0275	0.0153	0.0017	0.6242
65 mph	0.7025	0.0966	0.4838	0.1154	0.2310	0.0772	0.2683	0.0305	2.0053
total	1.3510	0.1858	0.9304	0.2219	0.4443	0.1485	0.3833	0.0435	3.7086

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.0253	0.0035	0.0174	0.0052	0.0056	0.0019	0.0019	0.0002	0.0611
25 mph	0.0000	0.0000	0.0000	0.0000	0.0152	0.0051	0.0087	0.0010	0.0300
35 mph	0.3436	0.0473	0.2367	0.0305	0.0000	0.0000	0.0000	0.0000	0.6580
total	0.3690	0.0507	0.2541	0.0357	0.0220	0.0073	0.0111	0.0013	0.7511

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.1435	0.0197	0.0988	0.0206	0.0276	0.0092	0.0091	0.0010	0.3294
25 mph	0.4335	0.0596	0.2986	0.0570	0.0977	0.0326	0.0478	0.0054	1.0323
35 mph	0.9505	0.1307	0.6546	0.1133	0.1282	0.0428	0.0650	0.0074	2.0925
45 mph	0.3688	0.0507	0.2540	0.0575	0.1081	0.0361	0.0632	0.0072	0.9457
55 mph	0.3681	0.0506	0.2535	0.0565	0.1041	0.0348	0.0269	0.0031	0.8975
65 mph	0.7681	0.1056	0.5290	0.1239	0.2432	0.0813	0.2710	0.0308	2.1530
total	3.0325	0.4170	2.0885	0.4288	0.7100	0.2372	0.4834	0.0549	7.4523

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0003	0.0000	0.0000	0.0001	0.0051	0.0036	0.0163	0.0311	0.0565
25 mph	0.0010	0.0000	0.0001	0.0005	0.0181	0.0128	0.0630	0.1204	0.2159
35 mph	0.0011	0.0000	0.0001	0.0006	0.0215	0.0152	0.0610	0.1165	0.2161
45 mph	0.0002	0.0000	0.0000	0.0001	0.0040	0.0028	0.0305	0.0583	0.0959
55 mph	0.0003	0.0000	0.0000	0.0001	0.0051	0.0036	0.0264	0.0505	0.0861
65 mph	0.0001	0.0000	0.0000	0.0001	0.0028	0.0020	0.0061	0.0117	0.0228
total	0.0030	0.0001	0.0003	0.0015	0.0566	0.0400	0.2032	0.3885	0.6933

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0007	0.0262	0.0502	0.0782
35 mph	0.0002	0.0000	0.0000	0.0002	0.0083	0.0058	0.0875	0.1672	0.2692
45 mph	0.0006	0.0000	0.0001	0.0004	0.0212	0.0150	0.1137	0.2174	0.3684
55 mph	0.0006	0.0000	0.0001	0.0004	0.0191	0.0135	0.0350	0.0669	0.1355
65 mph	0.0016	0.0000	0.0002	0.0010	0.0537	0.0380	0.6124	1.1705	1.8774
total	0.0031	0.0001	0.0003	0.0020	0.1033	0.0730	0.8749	1.6721	2.7287

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0001	0.0000	0.0000	0.0000	0.0013	0.0009	0.0044	0.0085	0.0153
25 mph	0.0000	0.0000	0.0000	0.0000	0.0035	0.0025	0.0199	0.0380	0.0639
35 mph	0.0008	0.0000	0.0001	0.0003	0.0000	0.0000	0.0000	0.0000	0.0011
total	0.0008	0.0000	0.0001	0.0003	0.0051	0.0036	0.0252	0.0483	0.0835

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0003	0.0000	0.0000	0.0002	0.0064	0.0045	0.0207	0.0396	0.0718
25 mph	0.0010	0.0000	0.0001	0.0005	0.0227	0.0160	0.1091	0.2086	0.3581
35 mph	0.0022	0.0000	0.0002	0.0010	0.0298	0.0211	0.1485	0.2838	0.4865
45 mph	0.0008	0.0000	0.0001	0.0005	0.0251	0.0178	0.1442	0.2756	0.4642
55 mph	0.0008	0.0000	0.0001	0.0005	0.0242	0.0171	0.0614	0.1174	0.2216
65 mph	0.0017	0.0000	0.0002	0.0011	0.0565	0.0400	0.6185	1.1821	1.9002
total	0.0069	0.0001	0.0007	0.0038	0.1650	0.1166	1.1033	2.1089	3.5054

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.14	0.02	0.10	0.02	0.03	0.01	0.03	0.04	0.40
25 mph	0.43	0.06	0.30	0.06	0.12	0.05	0.16	0.21	1.39
35 mph	0.95	0.13	0.65	0.11	0.16	0.06	0.21	0.29	2.58
45 mph	0.37	0.05	0.25	0.06	0.13	0.05	0.21	0.28	1.41
55 mph	0.37	0.05	0.25	0.06	0.13	0.05	0.09	0.12	1.12
65 mph	0.77	0.11	0.53	0.13	0.30	0.12	0.89	1.21	4.05
total	3.04	0.42	2.09	0.43	0.88	0.35	1.59	2.16	**10.96**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	8.6156	6.5036
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.1258	0.5551
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0662	0.2886
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0430	0.1875
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0346	0.1497
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0343	0.1511
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0423	0.1822

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0438	0.0523
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0311	0.0293
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0122	0.0149
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0079	0.0082
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0055	0.0046
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0047	0.0027
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0047	0.0024

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.6046	0.1201	0.2953	0.1049	0.1071	0.0190	0.0669	0.0335	1.3514
25 mph	1.1232	0.2322	0.5502	0.1982	0.2111	0.0366	0.1364	0.0675	2.5553
35 mph	0.8424	0.1780	0.4146	0.1522	0.1682	0.0287	0.0857	0.0424	1.9122
45 mph	0.1236	0.0262	0.0607	0.0224	0.0257	0.0043	0.0344	0.0170	0.3144
55 mph	0.1551	0.0326	0.0760	0.0283	0.0332	0.0055	0.0297	0.0148	0.3752
65 mph	0.1020	0.0205	0.0496	0.0186	0.0235	0.0039	0.0084	0.0041	0.2307
total	2.9508	0.6096	1.4464	0.5247	0.5688	0.0980	0.3615	0.1794	6.7392

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0361	0.0075	0.0177	0.0080	0.0120	0.0021	0.0568	0.0281	0.1684
35 mph	0.1825	0.0386	0.0898	0.0415	0.0646	0.0110	0.1229	0.0609	0.6118
45 mph	0.3726	0.0790	0.1830	0.0852	0.1374	0.0231	0.1285	0.0632	1.0720
55 mph	0.3281	0.0689	0.1609	0.0755	0.1242	0.0208	0.0393	0.0196	0.8373
65 mph	1.0914	0.2199	0.5311	0.2513	0.4454	0.0740	0.8466	0.4142	3.8741
total	2.0108	0.4138	0.9826	0.4615	0.7836	0.1309	1.1941	0.5861	6.5635

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2626	0.0227	0.9773
15 mph	0.1296	0.0257	0.0633	0.0353	0.0275	0.0049	0.0183	0.0092	0.3137
25 mph	0.0000	0.0000	0.0000	0.0000	0.0412	0.0071	0.0430	0.0213	0.1127
35 mph	0.5804	0.1226	0.2856	0.0713	0.0000	0.0000	0.0000	0.0000	1.0599
total	0.7100	0.1483	0.3489	0.1066	0.5845	0.1882	0.3239	0.0532	2.4636

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2626	0.0227	0.9773
15 mph	0.7342	0.1459	0.3586	0.1401	0.1346	0.0239	0.0852	0.0427	1.6651
25 mph	1.1593	0.2396	0.5679	0.2062	0.2644	0.0458	0.2362	0.1170	2.8363
35 mph	1.6053	0.3391	0.7901	0.2651	0.2328	0.0397	0.2086	0.1033	3.5840
45 mph	0.4962	0.1052	0.2437	0.1076	0.1631	0.0274	0.1630	0.0802	1.3864
55 mph	0.4832	0.1015	0.2369	0.1038	0.1574	0.0263	0.0690	0.0345	1.2125
65 mph	1.1934	0.2404	0.5808	0.2700	0.4689	0.0779	0.8550	0.4183	4.1048
total	5.6716	1.1717	2.7779	1.0928	1.9370	0.4172	1.8795	0.8187	15.7664

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0014	0.0001	0.0001	0.0001	0.0155	0.0102	0.1053	0.1898	0.3225
25 mph	0.0019	0.0001	0.0001	0.0001	0.0234	0.0134	0.1598	0.3737	0.5725
35 mph	0.0014	0.0001	0.0001	0.0001	0.0199	0.0111	0.1005	0.2001	0.3333
45 mph	0.0002	0.0000	0.0000	0.0000	0.0031	0.0017	0.0350	0.0563	0.0964
55 mph	0.0003	0.0000	0.0000	0.0000	0.0041	0.0022	0.0258	0.0289	0.0612
65 mph	0.0002	0.0000	0.0000	0.0000	0.0028	0.0015	0.0060	0.0059	0.0164
total	0.0054	0.0003	0.0003	0.0003	0.0689	0.0400	0.4323	0.8547	1.4023

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0001	0.0000	0.0000	0.0000	0.0013	0.0008	0.0666	0.1557	0.2244
35 mph	0.0003	0.0000	0.0000	0.0000	0.0077	0.0043	0.1442	0.2871	0.4436
45 mph	0.0006	0.0000	0.0000	0.0000	0.0167	0.0090	0.1304	0.2102	0.3671
55 mph	0.0006	0.0000	0.0000	0.0000	0.0154	0.0081	0.0341	0.0383	0.0965
65 mph	0.0018	0.0002	0.0000	0.0001	0.0540	0.0276	0.6005	0.5972	1.2814
total	0.0034	0.0003	0.0001	0.0002	0.0950	0.0498	0.9758	1.2884	2.4130

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0085	0.0194	0.0416
15 mph	0.0003	0.0000	0.0000	0.0000	0.0040	0.0026	0.0288	0.0518	0.0876
25 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0026	0.0504	0.1179	0.1755
35 mph	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011
total	0.0013	0.0001	0.0001	0.0001	0.0166	0.0109	0.0877	0.1891	0.3058

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0085	0.0194	0.0416
15 mph	0.0017	0.0001	0.0002	0.0001	0.0195	0.0128	0.1341	0.2416	0.4100
25 mph	0.0020	0.0001	0.0001	0.0001	0.0293	0.0168	0.2767	0.6472	0.9723
35 mph	0.0027	0.0002	0.0001	0.0001	0.0276	0.0154	0.2447	0.4872	0.7781
45 mph	0.0009	0.0001	0.0000	0.0001	0.0198	0.0107	0.1654	0.2665	0.4635
55 mph	0.0008	0.0001	0.0000	0.0000	0.0195	0.0102	0.0599	0.0672	0.1577
65 mph	0.0019	0.0002	0.0001	0.0001	0.0568	0.0291	0.6065	0.6031	1.2978
total	0.0100	0.0007	0.0005	0.0006	0.1805	0.1007	1.4958	2.3323	4.1211

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.52	0.18	0.27	0.04	1.02
15 mph	0.74	0.15	0.36	0.14	0.15	0.04	0.22	0.28	2.08
25 mph	1.16	0.24	0.57	0.21	0.29	0.06	0.51	0.76	3.81
35 mph	1.61	0.34	0.79	0.27	0.26	0.06	0.45	0.59	4.36
45 mph	0.50	0.11	0.24	0.11	0.18	0.04	0.33	0.35	1.85
55 mph	0.48	0.10	0.24	0.10	0.18	0.04	0.13	0.10	1.37
65 mph	1.20	0.24	0.58	0.27	0.53	0.11	1.46	1.02	5.40
total	5.68	1.17	2.78	1.09	2.12	0.52	3.38	3.15	**19.89**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Unmitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	14,206.13	20,903.71
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,281.01	2,564.64
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,400.60	1,948.38
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,188.48	1,779.31
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,027.46	1,677.11
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	934.39	1,627.61
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	957.32	1,599.40

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	7,140.20	6,523.73
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,700.75	2,451.82
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,343.60	1,956.20
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,200.75	1,736.54
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,106.33	1,589.90
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,044.34	1,488.78
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,033.09	1,468.49

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	17,624.39	1,549.52	8,868.24	2,226.31	1,563.74	591.59	1,212.68	154.84	33,791.32
25 mph	41,488.86	3,647.51	20,880.37	5,250.21	4,425.20	1,664.66	2,885.39	455.84	80,698.04
35 mph	37,841.40	3,327.67	19,046.35	4,807.46	4,770.15	1,786.99	2,369.42	402.85	74,352.30
45 mph	6,219.42	546.91	3,130.23	790.40	871.45	314.10	1,024.20	189.86	13,086.57
55 mph	8,281.48	728.39	4,166.31	1,053.48	1,245.25	440.25	807.23	159.69	16,882.08
65 mph	5,524.49	485.89	2,779.53	703.98	711.46	249.53	190.86	36.21	10,681.95
total	116,980.04	10,285.90	58,871.04	14,831.85	13,587.24	5,047.11	8,489.79	1,399.29	229,492.26

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	1,334.44	117.32	671.59	212.62	252.08	94.83	1,201.95	189.89	4,074.72
35 mph	8,199.56	721.05	4,127.01	1,311.61	1,830.63	685.79	3,399.73	578.03	20,853.39
45 mph	18,746.59	1,648.51	9,435.15	2,999.77	4,652.20	1,676.82	3,820.86	708.28	43,688.17
55 mph	17,520.80	1,541.03	8,814.50	2,806.34	4,666.02	1,649.64	1,069.15	211.50	38,278.99
65 mph	59,134.72	5,200.98	29,752.42	9,488.05	13,487.94	4,730.59	19,169.26	3,637.07	144,601.02
total	104,936.11	9,228.89	52,800.66	16,818.39	24,888.88	8,837.67	28,660.95	5,324.75	251,496.31

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	432.95	73.04	1,059.16
15 mph	3,777.52	332.12	1,900.77	748.24	401.54	151.91	331.31	42.30	7,685.70
25 mph	0.00	0.00	0.00	0.00	864.06	325.04	910.20	143.79	2,243.09
35 mph	26,070.98	2,292.61	13,122.06	2,252.26	0.00	0.00	0.00	0.00	43,737.91
total	29,848.50	2,624.73	15,022.83	3,000.50	1,664.41	631.30	1,674.46	259.14	54,725.86

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	432.95	73.04	1,059.16
15 mph	21,401.91	1,881.63	10,769.01	2,974.55	1,965.27	743.50	1,543.99	197.15	41,477.02
25 mph	42,823.29	3,764.83	21,551.97	5,462.84	5,541.34	2,084.52	4,997.54	789.52	87,015.85
35 mph	72,111.94	6,341.34	36,295.42	8,371.33	6,600.78	2,472.77	5,769.15	980.88	138,943.60
45 mph	24,966.01	2,195.42	12,565.38	3,790.17	5,523.65	1,990.92	4,845.06	898.13	56,774.74
55 mph	25,802.28	2,269.43	12,980.81	3,859.83	5,911.27	2,089.89	1,876.38	371.18	55,161.08
65 mph	64,659.21	5,686.87	32,531.95	10,192.03	14,199.40	4,980.12	19,360.11	3,673.28	155,282.97
total	251,764.64	22,139.52	126,694.53	34,650.74	40,140.53	14,516.09	38,825.20	6,983.19	535,714.43

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	129.47	2.20	11.07	22.62	739.05	589.58	5,761.06	15,873.96	23,129.02
25 mph	316.50	5.38	27.06	56.48	1,987.42	1,593.94	17,636.13	49,077.38	70,700.30
35 mph	294.17	4.96	25.03	52.52	2,146.25	1,708.98	15,252.68	42,161.28	61,645.88
45 mph	48.99	0.82	4.15	8.71	375.36	291.74	7,026.66	19,300.54	27,056.96
55 mph	66.10	1.11	5.58	11.87	529.08	402.83	5,748.51	15,663.23	22,428.30
65 mph	44.75	0.75	3.77	8.01	300.90	225.33	1,312.29	3,565.32	5,461.14
total	899.98	15.22	76.67	160.21	6,078.06	4,812.40	52,737.33	145,641.72	210,421.59

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	10.18	0.17	0.87	2.29	113.21	90.80	7,346.58	20,443.89	28,007.99
35 mph	63.74	1.07	5.42	14.33	823.66	655.85	21,885.05	60,494.39	83,943.52
45 mph	147.66	2.48	12.51	33.05	2,003.85	1,557.42	26,213.41	72,001.91	101,972.29
55 mph	139.84	2.34	11.81	31.61	1,982.49	1,509.43	7,613.68	20,745.33	32,036.54
65 mph	479.05	7.98	40.37	108.02	5,704.53	4,271.81	131,804.67	358,095.15	500,511.58
total	840.47	14.04	70.99	189.30	10,627.74	8,085.31	194,863.39	531,780.68	746,471.92

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,386.49	2,421.25	4,274.00
15 mph	27.75	0.47	2.37	7.60	189.78	151.39	1,573.93	4,336.78	6,290.08
25 mph	0.00	0.00	0.00	0.00	388.06	311.23	5,563.34	15,481.53	21,744.17
35 mph	202.67	3.42	17.25	24.61	0.00	0.00	0.00	0.00	247.94
total	230.42	3.89	19.62	32.21	797.01	709.71	8,523.76	22,239.57	32,556.19

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,386.49	2,421.25	4,274.00
15 mph	157.22	2.68	13.44	30.22	928.83	740.98	7,334.98	20,210.75	29,419.09
25 mph	326.68	5.56	27.93	58.77	2,488.70	1,995.97	30,546.05	85,002.81	120,452.46
35 mph	560.58	9.45	47.71	91.45	2,969.91	2,364.83	37,137.73	102,655.67	145,837.34
45 mph	196.64	3.30	16.66	41.76	2,379.21	1,849.16	33,240.08	91,302.45	129,029.25
55 mph	205.94	3.45	17.40	43.48	2,511.57	1,912.26	13,362.19	36,408.56	54,464.84
65 mph	523.81	8.72	44.15	116.04	6,005.43	4,497.14	133,116.96	361,660.48	505,972.72
total	1,970.88	33.15	167.27	381.71	17,502.82	13,607.42	256,124.48	699,661.96	989,449.70

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	617.99	401.43	1,819.45	2,494.29	5,333.16
15 mph	21,559.13	1,884.31	10,782.46	3,004.77	2,894.10	1,484.48	8,878.97	20,407.89	70,896.11
25 mph	43,149.98	3,770.39	21,579.89	5,521.60	8,030.04	4,080.49	35,543.59	85,792.32	207,468.31
35 mph	72,672.52	6,350.79	36,343.12	8,462.78	9,570.69	4,837.61	42,906.88	103,636.55	284,780.94
45 mph	25,162.65	2,198.72	12,582.03	3,831.93	7,902.86	3,840.08	38,085.14	92,200.59	185,803.99
55 mph	26,008.22	2,272.88	12,998.20	3,903.31	8,422.84	4,002.15	15,238.57	36,779.74	109,625.92
65 mph	65,183.01	5,695.59	32,576.10	10,308.06	20,204.83	9,477.26	152,477.08	365,333.75	661,255.69
total	253,735.52	22,172.67	126,861.81	35,032.45	57,643.35	28,123.51	294,949.68	706,645.15	**1,525,164.13**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
500.27	5,600.42	3,399.78	67.95	1,004.62	266.26	1,338.82	64.84	246.59	104.44	415.86	49.36	19.36	35.33	2,692,327.67

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
91.30	1,022.08	620.46	12.40	183.34	48.59	244.33	11.83	45.00	19.06	75.89	9.01	3.53	6.45	491,349.80

World Logistics Center

Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated

VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	27,613.6	226.4	294.4	608,874.4	4,992.2	6,491.6
LDT1	2,071.2	2.8	1.7	45,670.0	62.1	38.3
LDT2	10,373.3	15.0	0.0	228,728.2	329.9	0.0
MDT	3,026.8	37.2	0.0	53,313.6	654.5	0.0
LHDT1	1,608.8	1,043.9	0.0	42,102.6	27,318.2	0.0
LHDT2	537.5	737.8	0.0	14,067.3	19,308.8	0.0
MHDT	570.1	3,632.4	0.0	28,048.6	178,711.7	0.0
HHDT	64.7	6,942.7	0.0	3,185.3	341,576.8	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	304,006.3	2,492.6	3,241.2	304,868.1	2,499.6	3,250.4
LDT1	22,802.7	31.0	19.1	22,867.3	31.1	19.2
LDT2	114,202.2	164.7	0.0	114,526.0	165.2	0.0
MDT	23,297.2	286.0	0.0	30,016.3	368.5	0.0
LHDT1	15,257.3	9,899.6	0.0	26,845.3	17,418.5	0.0
LHDT2	5,097.8	6,997.2	0.0	8,969.6	12,311.6	0.0
MHDT	5,439.4	34,657.1	0.0	22,609.2	144,054.6	0.0
HHDT	617.7	66,241.1	0.0	2,567.6	275,335.7	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
15	9.0%	8.0%	0.0%	0.0%
25	32.0%	31.0%	1.0%	3.0%
35	38.0%	30.0%	8.0%	10.0%
45	7.0%	15.0%	20.5%	13.0%
55	9.0%	13.0%	18.5%	4.0%
65	5.0%	3.0%	52.0%	70.0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	27,360.6	2,052.2	10,278.2	2,096.8	1,373.2	458.8	435.2	49.4	44,104.3
25 mph	97,282.0	7,296.9	36,544.7	7,455.1	4,882.3	1,631.3	1,686.2	191.5	156,970.0
35 mph	115,522.4	8,665.0	43,396.9	8,852.9	5,797.8	1,937.2	1,631.8	185.3	185,989.3
45 mph	21,280.4	1,596.2	7,994.2	1,630.8	1,068.0	356.8	815.9	92.7	34,835.0
55 mph	27,360.6	2,052.2	10,278.2	2,096.8	1,373.2	458.8	707.1	80.3	44,407.1
65 mph	15,200.3	1,140.1	5,710.1	1,164.9	762.9	254.9	163.2	18.5	24,414.9
total	304,006.3	22,802.7	114,202.2	23,297.2	15,257.3	5,097.8	5,439.4	617.7	490,720.6

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	3,048.7	228.7	1,145.3	300.2	268.5	89.7	678.3	77.0	5,836.2
35 mph	24,389.4	1,829.4	9,162.1	2,401.3	2,147.6	717.6	2,260.9	256.8	43,165.1
45 mph	62,498.0	4,687.8	23,477.8	6,153.4	5,503.3	1,838.8	2,939.2	333.8	107,432.0
55 mph	56,400.6	4,230.5	21,187.3	5,553.0	4,966.4	1,659.4	904.4	102.7	95,004.2
65 mph	158,531.4	11,891.0	59,553.5	15,608.5	13,959.6	4,664.2	15,826.4	1,797.3	281,832.0
total	304,868.1	22,867.3	114,526.0	30,016.3	26,845.3	8,969.6	22,609.2	2,567.6	533,269.5

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	5,612.6	421.0	2,108.4	626.9	336.5	112.4	115.8	13.2	9,346.8
25 mph	0.0	0.0	0.0	0.0	901.3	301.1	552.7	62.8	1,817.8
35 mph	54,434.5	4,083.0	20,448.7	3,362.8	0.0	0.0	0.0	0.0	82,329.1
total	60,047.1	4,504.0	22,557.1	3,989.7	1,237.8	413.6	668.5	75.9	93,493.7

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	32,973.1	2,473.2	12,386.6	2,723.6	1,709.7	571.2	550.9	62.6	53,451.1
25 mph	100,330.7	7,525.5	37,690.0	7,755.3	6,052.0	2,022.1	2,917.1	331.3	164,624.1
35 mph	194,346.4	14,577.4	73,007.7	14,617.1	7,945.4	2,654.7	3,892.7	442.1	311,483.5
45 mph	83,778.4	6,284.0	31,472.0	7,784.2	6,571.3	2,195.6	3,755.1	426.4	142,267.0
55 mph	83,761.2	6,282.7	31,465.5	7,649.8	6,339.5	2,118.2	1,611.5	183.0	139,411.4
65 mph	173,731.7	13,031.2	65,263.6	16,773.4	14,722.4	4,919.1	15,989.6	1,815.9	306,246.9
total	668,921.5	50,174.0	251,285.4	57,303.3	43,340.4	14,480.9	28,717.0	3,261.3	1,117,483.8

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	224.3	2.8	14.8	25.7	891.0	629.7	2,772.6	5,299.3	9,860.2
25 mph	797.6	9.9	52.7	91.5	3,167.9	2,239.1	10,743.7	20,534.7	37,637.2
35 mph	947.2	11.8	62.6	108.7	3,761.9	2,658.9	10,397.1	19,872.3	37,820.5
45 mph	174.5	2.2	11.5	20.0	693.0	489.8	5,198.6	9,936.2	16,525.7
55 mph	224.3	2.8	14.8	25.7	891.0	629.7	4,505.4	8,611.3	14,905.2
65 mph	124.6	1.6	8.2	14.3	495.0	349.9	1,039.7	1,987.2	4,020.5
total	2,492.6	31.0	164.7	286.0	9,899.6	6,997.2	34,657.1	66,241.1	120,769.2

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	25.0	0.3	1.7	3.7	174.2	123.1	4,321.6	8,260.1	12,909.7
35 mph	200.0	2.5	13.2	29.5	1,393.5	984.9	14,405.5	27,533.6	44,562.6
45 mph	512.4	6.4	33.9	75.5	3,570.8	2,523.9	18,727.1	35,793.6	61,243.6
55 mph	462.4	5.8	30.6	68.2	3,222.4	2,277.6	5,762.2	11,013.4	22,842.6
65 mph	1,299.8	16.2	85.9	191.6	9,057.6	6,402.0	100,838.2	192,735.0	310,626.4
total	2,499.6	31.1	165.2	368.5	17,418.5	12,311.6	144,054.6	275,335.7	452,184.8

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1,410.2	2,578.0
25 mph	0.0	0.0	0.0	0.0	584.8	413.3	3,521.2	6,730.2	11,249.6
35 mph	446.3	5.6	29.5	41.3	0.0	0.0	0.0	0.0	522.6
total	492.3	6.1	32.5	49.0	803.2	567.7	4,259.0	8,140.4	14,350.3

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	270.3	3.4	17.9	33.4	1,109.3	784.1	3,510.4	6,709.5	12,438.3
25 mph	822.6	10.2	54.4	95.2	3,926.9	2,775.5	18,586.6	35,525.0	61,796.4
35 mph	1,593.5	19.8	105.3	179.4	5,155.3	3,643.8	24,802.6	47,405.9	82,905.7
45 mph	686.9	8.5	45.4	95.6	4,263.8	3,013.7	23,925.7	45,729.8	77,769.3
55 mph	686.8	8.5	45.4	93.9	4,113.4	2,907.4	10,267.6	19,624.8	37,747.7
65 mph	1,424.4	17.7	94.1	205.9	9,552.6	6,751.9	101,877.9	194,722.3	314,646.9
total	5,484.5	68.3	362.4	703.4	28,121.3	19,876.4	182,970.7	349,717.3	587,304.3

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	291.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	293.4
25 mph	1,037.2	6.1	0.0	0.0	0.0	0.0	0.0	0.0	1,043.3
35 mph	1,231.7	7.3	0.0	0.0	0.0	0.0	0.0	0.0	1,238.9
45 mph	226.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	228.2
55 mph	291.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	293.4
65 mph	162.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	163.0
total	3,241.2	19.1	0.0	0.0	0.0	0.0	0.0	0.0	3,260.3

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	32.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	32.7
35 mph	260.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	261.6
45 mph	666.3	3.9	0.0	0.0	0.0	0.0	0.0	0.0	670.3
55 mph	601.3	3.5	0.0	0.0	0.0	0.0	0.0	0.0	604.9
65 mph	1,690.2	10.0	0.0	0.0	0.0	0.0	0.0	0.0	1,700.2
total	3,250.4	19.2	0.0	0.0	0.0	0.0	0.0	0.0	3,269.6

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	60.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,730.2	6,730.2
35 mph	580.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0	583.8
total	640.2	3.8	0.0	0.0	0.0	0.0	0.0	6,730.2	7,374.2

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	351.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	353.6
25 mph	1,069.7	6.3	0.0	0.0	0.0	0.0	0.0	6,730.2	7,806.2
35 mph	2,072.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	2,084.3
45 mph	893.2	5.3	0.0	0.0	0.0	0.0	0.0	0.0	898.5
55 mph	893.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	898.3
65 mph	1,852.3	10.9	0.0	0.0	0.0	0.0	0.0	0.0	1,863.2
total	7,131.8	42.1	0.0	0.0	0.0	0.0	0.0	6,730.2	13,904.1

World Logistics Center

Internal Roadway Road Dust

Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	12,160	2,432	715	143	1,871	374	3,119	624	3,573	6.97	0.035	0.0002	0.7	0.0008	2.7
2	A	731	0.45	6,925	3,116	380	171	1,007	453	1,678	755	4,495	6.78	0.035	0.0002	0.8	0.0007	3.3
3	A	2352	1.46	3,605	5,263	104	152	186	271	310	452	6,139	4.20	0.035	0.0001	0.7	0.0004	2.8
5	A	953	0.59	5,235	3,089	318	187	-	-	-	-	3,276	2.33	0.035	0.0001	0.2	0.0002	0.8
6	A	1099	0.68	12,560	8,541	825	561	2,216	1,507	3,694	2,512	13,120	7.43	0.035	0.0002	2.6	0.0008	10.6
8	A	1091	0.68	4,735	3,220	317	216	-	-	-	-	3,435	2.35	0.035	0.0001	0.2	0.0002	0.9
11	A	1201	0.75	7,690	5,768	26	19	-	-	-	-	5,787	2.14	0.035	0.0001	0.3	0.0002	1.3
12	A	824	0.51	7,820	3,988	11	6	2	1	3	2	3,997	2.15	0.035	0.0001	0.2	0.0002	0.9
14	A	1618	1.01	1,895	1,914	97	98	363	367	605	611	2,990	7.74	0.035	0.0002	0.6	0.0008	2.5
18	A	1412	0.88	1,725	1,518	30	27	64	56	106	94	1,694	3.67	0.035	0.0001	0.2	0.0004	0.7
19	A	2386	1.48	3,450	3,616	21	21	4	4	6	7	3,648	2.20	0.035	0.0001	0.2	0.0002	0.8
21	A	1258	0.78	1,915	1,494	174	136	162	126	270	210	1,966	5.25	0.035	0.0001	0.3	0.0006	1.1
24	A	1946	1.21	2,740	3,315	170	206	340	412	567	687	4,620	6.28	0.035	0.0002	0.8	0.0007	3.1
30	A	2827	1.76	14,610	25,714	102	180	205	361	342	602	26,858	2.76	0.035	0.0001	1.9	0.0003	7.9
29	A	675	0.42	5,235	2,199	92	38	261	110	436	183	2,530	4.13	0.035	0.0001	0.3	0.0004	1.1
31	A	820	0.51	16,175	8,249	77	39	64	32	106	54	8,375	2.32	0.035	0.0001	0.5	0.0002	2.1
TOTAL				108,476		3,458		6,743		11,244						10.4		42.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				43662.41	949154.78	3,928.00	102,796.89	4,202.52	206,760.23	7,007.48	344,762.16	##########	5.57	0.035	0.0001	236.154272	0.0006	962.109996

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	5556.3	45.6	59.2
	LDT1	15	1989	330	0.21	417.7	416.8	0.6	0.3
	LDT2	15	9954	330	0.21	2090.3	2087.3	3.0	0.0
	MDT	15	2999	330	0.21	629.8	622.1	7.6	0.0
	LHDT1	15	2635	330	0.21	553.3	335.6	217.7	0.0
	LHDT2	15	1267	330	0.21	266.0	112.1	153.9	0.0
	MHDT	15	4034	330	0.21	847.1	114.9	732.2	0.0
	HHDT	15	6726	330	0.21	1412.5	13.1	1399.4	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	20.9	0.2	0.2
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.9	0.0	0.0
	MDT	15	18	175	0.11	2.0	2.0	0.0	0.0
	LHDT1	15	11	175	0.11	1.2	0.7	0.5	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.3	0.0
	MHDT	15	13	175	0.11	1.4	0.2	1.2	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5612.6	421.0	2108.4	626.9	336.5	112.4	115.8	13.2
Diesel	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1410.2
Electric	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	799	518	0	3995.0	2592.1	0.0
	LHDT2	5	633	267	366	0	1334.8	1832.1	0.0
	MHDT	5	2017	274	1743	0	1368.0	8716.4	0.0
	HHDT	5	3363	31	3332	0	155.4	16659.8	0.0
Travel at Light Logistics	LHDT1	5	5	3	2	0	16.0	10.4	0.0
	LHDT2	5	3	1	1	0	5.4	7.4	0.0
	MHDT	5	7	1	6	0	4.4	28.2	0.0
	HHDT	5	11	0	11	0	0.5	53.9	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	67.0	22.4	23.8	2.8
Diesel	43.5	30.7	151.4	289.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	21.4107	16.5563
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.3179	1.4160
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.1677	0.7407
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.1092	0.4838
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0880	0.3881
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0877	0.3920
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.1080	0.4728

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.9435	5.6334
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.6695	0.6310
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.2621	0.3207
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.1704	0.1774
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.1185	0.0999
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.1007	0.0592
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.1013	0.0527

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	2.9376	0.5878	1.4249	0.6384	0.5199	0.0890	0.3050	0.1543	6.6570
25 mph	5.4962	1.1421	2.6690	1.2260	1.0290	0.1716	0.6236	0.3128	12.6703
35 mph	4.1363	0.8791	2.0159	0.9427	0.8210	0.1347	0.3930	0.1977	9.5203
45 mph	0.6109	0.1304	0.2969	0.1413	0.1258	0.0203	0.1584	0.0793	1.5633
55 mph	0.7699	0.1631	0.3737	0.1803	0.1620	0.0261	0.1368	0.0694	1.8813
65 mph	0.5066	0.1035	0.2439	0.1186	0.1152	0.0184	0.0389	0.0193	1.1644
total	14.4575	3.0059	7.0243	3.2474	2.7730	0.4601	1.6557	0.8328	33.4566

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.1722	0.0358	0.0836	0.0494	0.0566	0.0094	0.2508	0.1258	0.7837
35 mph	0.8733	0.1856	0.4256	0.2557	0.3041	0.0499	0.5445	0.2739	2.9126
45 mph	1.7941	0.3829	0.8719	0.5332	0.6483	0.1048	0.5706	0.2857	5.1915
55 mph	1.5870	0.3363	0.7704	0.4774	0.5861	0.0944	0.1750	0.0888	4.1153
65 mph	5.2833	1.0789	2.5442	1.5898	2.1078	0.3366	3.7690	1.8737	18.5832
total	9.7099	2.0194	4.6957	2.9055	3.7029	0.5950	5.3099	2.6479	31.5863

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.1215	0.1009	2.4615
15 mph	0.6026	0.1206	0.2923	0.1909	0.1274	0.0218	0.0812	0.0411	1.4778
25 mph	0.0000	0.0000	0.0000	0.0000	0.1899	0.0317	0.2044	0.1025	0.5285
35 mph	1.9490	0.4142	0.9499	0.3581	0.0000	0.0000	0.0000	0.0000	3.6712
total	2.5516	0.5348	1.2422	0.5490	0.7864	0.8236	1.4070	0.2444	8.1390

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.1215	0.1009	2.4615
15 mph	3.5403	0.7083	1.7172	0.8293	0.6473	0.1108	0.3862	0.1954	8.1348
25 mph	5.6685	1.1779	2.7526	1.2754	1.2755	0.2127	1.0788	0.5411	13.9825
35 mph	6.9586	1.4789	3.3914	1.5564	1.1252	0.1846	0.9375	0.4716	16.1041
45 mph	2.4050	0.5132	1.1688	0.6746	0.7741	0.1251	0.7291	0.3650	6.7548
55 mph	2.3569	0.4994	1.1441	0.6577	0.7481	0.1205	0.3118	0.1582	5.9966
65 mph	5.7899	1.1824	2.7881	1.7084	2.2230	0.3550	3.8079	1.8930	19.7476
total	26.7191	5.5601	12.9622	6.7018	7.2622	1.8788	8.3726	3.7251	73.1819

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0546	0.0023	0.0031	0.0046	0.6166	0.4058	4.0928	7.3735	12.5534
25 mph	0.0751	0.0047	0.0029	0.0046	0.9321	0.5354	6.2084	14.5192	22.2825
35 mph	0.0569	0.0040	0.0021	0.0035	0.7943	0.4424	3.9054	7.7749	12.9834
45 mph	0.0085	0.0006	0.0003	0.0005	0.1245	0.0674	1.3585	2.1894	3.7496
55 mph	0.0104	0.0009	0.0003	0.0005	0.1635	0.0857	1.0008	1.1234	2.3855
65 mph	0.0066	0.0006	0.0002	0.0003	0.1133	0.0581	0.2323	0.2310	0.6424
total	0.2121	0.0131	0.0089	0.0140	2.7443	1.5948	16.7982	33.2114	54.5969

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0024	0.0001	0.0001	0.0002	0.0513	0.0294	2.4973	5.8403	8.4211
35 mph	0.0120	0.0008	0.0004	0.0009	0.2942	0.1639	5.4110	10.7722	16.6556
45 mph	0.0250	0.0019	0.0008	0.0018	0.6415	0.3473	4.8937	7.8869	13.7988
55 mph	0.0214	0.0018	0.0006	0.0014	0.5914	0.3100	1.2800	1.4368	3.6434
65 mph	0.0685	0.0062	0.0018	0.0044	2.0741	1.0627	22.5317	22.4072	48.1564
total	0.1292	0.0108	0.0038	0.0088	3.6524	1.9133	36.6137	48.3434	90.6754

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.3149	3.5934	4.4277
15 mph	0.0112	0.0005	0.0006	0.0014	0.1511	0.0995	1.0891	1.9622	3.3156
25 mph	0.0000	0.0000	0.0000	0.0000	0.1721	0.0988	2.0348	4.7587	7.0644
35 mph	0.0268	0.0019	0.0010	0.0013	0.0000	0.0000	0.0000	0.0000	0.0310
total	0.0380	0.0024	0.0016	0.0027	0.6275	0.4134	3.4388	10.3142	14.8386

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.3149	3.5934	4.4277
15 mph	0.0659	0.0028	0.0038	0.0059	0.7677	0.5053	5.1819	9.3357	15.8690
25 mph	0.0775	0.0049	0.0030	0.0048	1.1554	0.6637	10.7405	25.1182	37.7680
35 mph	0.0957	0.0067	0.0036	0.0057	1.0885	0.6063	9.3164	18.5471	29.6700
45 mph	0.0335	0.0025	0.0011	0.0023	0.7660	0.4147	6.2522	10.0762	17.5485
55 mph	0.0318	0.0026	0.0009	0.0020	0.7549	0.3957	2.2807	2.5602	6.0289
65 mph	0.0750	0.0068	0.0020	0.0047	2.1874	1.1208	22.7640	22.6382	48.7988
total	0.3794	0.0263	0.0144	0.0255	7.0242	3.9214	56.8507	91.8691	160.1109

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	71.51	24.01	41.17	12.99	55.78	10.85	13.36	0.54
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**71.51**	**24.01**	**41.17**	**12.99**	**55.78**	**10.85**	**13.36**	**0.54**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	20.39	4.21	8.50	3.32	0.23	0.05	0.06	0.01
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**20.40**	**4.21**	**8.50**	**3.32**	**0.23**	**0.05**	**0.06**	**0.01**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.77	0.99	1.44	3.69	6.89
15 mph	3.61	0.71	1.72	0.84	1.42	0.62	5.57	9.53	24.00
25 mph	5.75	1.18	2.76	1.28	2.43	0.88	11.82	25.66	51.75
35 mph	7.05	1.49	3.39	1.56	2.21	0.79	10.25	19.02	45.77
45 mph	2.44	0.52	1.17	0.68	1.54	0.54	6.98	10.44	24.30
55 mph	2.39	0.50	1.15	0.66	1.50	0.52	2.59	2.72	12.03
65 mph	5.86	1.19	2.79	1.71	4.41	1.48	26.57	24.53	68.55
RUNLOSS	71.51	24.01	41.17	12.99	55.78	10.85	13.36	0.54	230.21
RESTLOSS DIURI	20.40	4.21	8.50	3.32	0.23	0.05	0.06	0.01	36.77
total	119.01	33.80	62.65	23.03	70.30	16.70	78.64	96.14	**500.27**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	1.8256	30.1057
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	1.0676	4.6797
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.8804	3.8472
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.7729	3.3857
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.7241	3.1651
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.7218	3.1794
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.7669	3.3424

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	66.1389	35.5307
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	6.9426	11.8824
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	4.1976	6.9535
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	3.3617	5.3338
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	2.9415	4.5604
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	2.7873	4.1187
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	2.7887	4.0304

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	6.0999	1.3222	3.8022	1.3968	1.5457	0.3612	1.0244	0.5099	16.0623
25 mph	17.5770	3.6853	10.7877	4.0447	4.7000	1.0751	3.2734	1.6245	46.7677
35 mph	17.9052	3.7091	10.8950	4.1970	5.0610	1.1347	2.7810	1.3835	47.0665
45 mph	3.0957	0.6504	1.8794	0.7349	0.8956	0.1978	1.3027	0.6467	9.4031
55 mph	3.9859	0.8707	2.4361	0.9671	1.1633	0.2542	1.1254	0.5630	11.3657
65 mph	2.3418	0.5348	1.4434	0.5817	0.6940	0.1512	0.2759	0.1366	6.1594
total	51.0055	10.7726	31.2438	11.9222	14.0596	3.1741	9.7828	4.8641	136.8247

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.5508	0.1155	0.3381	0.1628	0.2584	0.0591	1.3167	0.6534	3.4550
35 mph	3.7802	0.7831	2.3002	1.1384	1.8747	0.4203	3.8532	1.9169	16.0670
45 mph	9.0915	1.9102	5.5194	2.7729	4.6149	1.0194	4.6927	2.3295	31.9506
55 mph	8.2165	1.7948	5.0217	2.5614	4.2073	0.9194	1.4393	0.7200	24.8804
65 mph	24.4237	5.5777	15.0542	7.7943	12.6993	2.7665	26.7617	13.2465	108.3238
total	46.0628	10.1813	28.2336	14.4298	23.6547	5.1846	38.0636	18.8663	184.6768

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.0956	0.1834	0.5310
15 mph	1.2513	0.2712	0.7800	0.4176	0.3788	0.0885	0.2726	0.1357	3.5958
25 mph	0.0000	0.0000	0.0000	0.0000	0.8676	0.1985	1.0729	0.5324	2.6713
35 mph	8.4370	1.7477	5.1338	1.5943	0.0000	0.0000	0.0000	0.0000	16.9127
total	9.6883	2.0190	5.9137	2.0119	1.4342	0.3512	1.4411	0.8515	23.7108

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.0956	0.1834	0.5310
15 mph	7.3512	1.5935	4.5822	1.8144	1.9245	0.4497	1.2969	0.6456	19.6581
25 mph	18.1279	3.8008	11.1258	4.2075	5.8260	1.3326	5.6630	2.8103	52.8940
35 mph	30.1224	6.2399	18.3290	6.9297	6.9357	1.5550	6.6342	3.3004	80.0462
45 mph	12.1872	2.5607	7.3988	3.5078	5.5106	1.2172	5.9953	2.9762	41.3537
55 mph	12.2025	2.6655	7.4578	3.5285	5.3705	1.1736	2.5647	1.2830	36.2461
65 mph	26.7655	6.1125	16.4977	8.3759	13.3933	2.9176	27.0376	13.3831	114.4832
total	106.7566	22.9728	65.3912	28.3639	39.1485	8.7099	49.2875	24.5820	345.2123

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0901	0.0056	0.0035	0.0059	4.5608	2.3062	42.4434	138.8445	188.2599
25 mph	0.2680	0.0212	0.0077	0.0134	17.2379	8.4111	99.4413	314.8497	440.2503
35 mph	0.3001	0.0265	0.0077	0.0138	23.2175	11.1805	77.0703	233.7185	345.5349
45 mph	0.0570	0.0053	0.0013	0.0024	4.7401	2.2692	33.7184	99.9139	140.7076
55 mph	0.0762	0.0073	0.0017	0.0031	6.7685	3.2398	27.6901	78.2058	115.9925
65 mph	0.0436	0.0043	0.0009	0.0018	4.1610	1.9943	6.3934	17.6606	30.2600
total	0.8350	0.0701	0.0228	0.0405	60.6858	29.4012	286.7568	883.1930	1,261.0051

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0084	0.0007	0.0002	0.0005	0.9478	0.4625	40.0002	126.6479	168.0682
35 mph	0.0634	0.0056	0.0016	0.0038	8.6003	4.1415	106.7827	323.8225	443.4214
45 mph	0.1674	0.0155	0.0039	0.0091	24.4251	11.6926	121.4657	359.9260	517.7054
55 mph	0.1572	0.0151	0.0034	0.0082	24.4802	11.7176	35.4141	100.0209	171.8167
65 mph	0.4548	0.0448	0.0097	0.0238	76.1418	36.4944	620.0706	1,712.8473	2,446.0872
total	0.8511	0.0816	0.0189	0.0454	134.5953	64.5087	923.7333	2,623.2646	3,747.0989

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	22.0728	22.6642	56.4787
15 mph	0.0185	0.0011	0.0007	0.0018	1.1178	0.5652	11.2946	36.9478	49.9475
25 mph	0.0000	0.0000	0.0000	0.0000	3.1821	1.5527	32.5918	103.1917	140.5183
35 mph	0.1414	0.0125	0.0036	0.0053	0.0000	0.0000	0.0000	0.0000	0.1628
total	0.1599	0.0136	0.0043	0.0070	11.2261	6.9334	65.9592	162.8037	247.1072

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	22.0728	22.6642	56.4787
15 mph	0.1086	0.0067	0.0042	0.0077	5.6786	2.8714	53.7380	175.7923	238.2074
25 mph	0.2764	0.0218	0.0080	0.0140	21.3678	10.4263	172.0333	544.6893	748.8368
35 mph	0.5049	0.0445	0.0129	0.0228	31.8178	15.3221	183.8530	557.5410	789.1190
45 mph	0.2244	0.0208	0.0052	0.0115	29.1653	13.9618	155.1841	459.8400	658.4130
55 mph	0.2334	0.0224	0.0051	0.0113	31.2488	14.9574	63.1042	178.2267	287.8093
65 mph	0.4985	0.0491	0.0106	0.0255	80.3028	38.4887	626.4640	1,730.5079	2,476.3471
total	1.8460	0.1654	0.0459	0.0928	206.5072	100.8432	1,276.4493	3,669.2613	5,255.2112

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	7.11	4.88	22.17	22.85	57.01
15 mph	7.46	1.60	4.59	1.82	7.60	3.32	55.03	176.44	257.87
25 mph	18.40	3.82	11.13	4.22	27.19	11.76	177.70	547.50	801.73
35 mph	30.63	6.28	18.34	6.95	38.75	16.88	190.49	560.84	869.17
45 mph	12.41	2.58	7.40	3.52	34.68	15.18	161.18	462.82	699.77
55 mph	12.44	2.69	7.46	3.54	36.62	16.13	65.67	179.51	324.06
65 mph	27.26	6.16	16.51	8.40	93.70	41.41	653.50	1,743.89	2,590.83
total	108.60	23.14	65.44	28.46	245.66	109.55	1,325.74	3,693.84	**5,600.42**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	327.6017	301.9366
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	4.9398	48.8767
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	3.9858	40.4481
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	3.3476	34.3026
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	2.9246	29.6841
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	2.6833	26.4522
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	2.6739	24.3070

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	9.3860	4.3977
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	1.5036	2.4036
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.8054	1.2799
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.5630	0.7141
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.4336	0.4073
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.3932	0.2437
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.3945	0.2171

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	74.5896	15.0669	36.3299	13.1456	8.4843	1.3960	4.7398	5.3259	159.0781
25 mph	215.1373	41.2642	104.4592	36.7078	21.7429	3.7204	14.8196	17.0790	454.9305
35 mph	210.6894	39.4496	102.3919	36.0098	20.8166	3.6046	12.0453	14.0169	439.0242
45 mph	33.4949	6.3220	16.2650	5.8150	3.5052	0.5952	5.2616	6.0648	77.3237
55 mph	38.1734	7.5177	18.5731	6.9447	4.6451	0.7540	4.1837	4.6839	85.4756
65 mph	19.3408	4.0646	9.3938	3.8347	3.3319	0.5016	0.9621	0.9932	42.4226
total	591.4253	113.6850	287.4128	102.4577	62.5260	10.5717	42.0122	48.1638	1,258.2546

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	6.7421	1.2932	3.2736	1.4780	1.1955	0.2046	5.9612	6.8700	27.0181
35 mph	44.4814	8.3287	21.6173	9.7674	7.7110	1.3352	16.6891	19.4207	129.3509
45 mph	98.3702	18.5671	47.7681	21.9413	18.0617	3.0668	18.9541	21.8477	248.5769
55 mph	78.6900	15.4969	38.2862	18.3923	16.8004	2.7269	5.3508	5.9905	181.7339
65 mph	201.7143	42.3914	97.9721	51.3828	60.9695	9.1782	93.3130	96.3313	653.2527
total	429.9981	86.0773	208.9173	102.9618	104.7380	16.5117	140.2682	150.4602	1,239.9325

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	17.1595	1.8396	44.5408
15 mph	15.3008	3.0907	7.4525	3.9303	2.0794	0.3421	1.2613	1.4173	34.8744
25 mph	0.0000	0.0000	0.0000	0.0000	4.0137	0.6868	4.8571	5.5976	15.1552
35 mph	99.2775	18.5888	48.2474	13.6786	0.0000	0.0000	0.0000	0.0000	179.7922
total	114.5783	21.6795	55.6999	17.6088	25.1360	7.5278	23.2779	8.8545	274.3627

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	17.1595	1.8396	44.5408
15 mph	89.8904	18.1576	43.7824	17.0759	10.5637	1.7381	6.0011	6.7432	193.9525
25 mph	221.8794	42.5574	107.7328	38.1858	26.9521	4.6118	25.6379	29.5467	497.1038
35 mph	354.4483	66.3670	172.2566	59.4558	28.5276	4.9398	28.7344	33.4376	748.1672
45 mph	131.8651	24.8891	64.0331	27.7563	21.5668	3.6619	24.2157	27.9125	325.9006
55 mph	116.8634	23.0146	56.8592	25.3370	21.4455	3.4809	9.5345	10.6744	267.2096
65 mph	221.0551	46.4560	107.3658	55.2174	64.3013	9.6798	94.2752	97.3246	695.6753
total	1,136.0017	221.4418	552.0300	223.0283	192.3999	34.6112	205.5583	207.4785	2,772.5497

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.6273	0.0113	0.0263	0.0716	2.4986	1.5697	9.1925	28.0860	42.0833
25 mph	0.6617	0.0236	0.0235	0.0632	4.2290	2.3251	19.0797	57.9516	84.3575
35 mph	0.5099	0.0217	0.0173	0.0465	3.9762	2.1134	12.9066	31.2902	50.8818
45 mph	0.0756	0.0039	0.0023	0.0063	0.7057	0.3639	4.9706	8.9231	15.0515
55 mph	0.0934	0.0060	0.0025	0.0068	1.0850	0.5448	3.9057	4.6278	10.2721
65 mph	0.0635	0.0049	0.0015	0.0040	0.9019	0.4453	0.9044	0.9512	3.2769
total	2.0315	0.0715	0.0734	0.1985	13.3966	7.3622	50.9595	131.8300	205.9230

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0207	0.0007	0.0007	0.0025	0.2325	0.1278	7.6748	23.3110	31.3709
35 mph	0.1077	0.0046	0.0036	0.0126	1.4729	0.7828	17.8824	43.3533	63.6199
45 mph	0.2222	0.0114	0.0069	0.0237	3.6365	1.8753	17.9058	32.1441	55.8260
55 mph	0.1926	0.0124	0.0053	0.0179	3.9242	1.9704	4.9952	5.9187	17.0367
65 mph	0.6627	0.0510	0.0159	0.0541	16.5046	8.1487	87.7123	92.2580	205.4073
total	1.2058	0.0802	0.0325	0.1108	25.7708	12.9051	136.1705	196.9851	373.2608

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	3.1324	2.8052	10.2425
15 mph	0.1287	0.0023	0.0054	0.0214	0.6124	0.3847	2.4462	7.4740	11.0750
25 mph	0.0000	0.0000	0.0000	0.0000	0.7807	0.4292	6.2534	18.9936	26.4569
35 mph	0.2403	0.0102	0.0081	0.0177	0.0000	0.0000	0.0000	0.0000	0.2763
total	0.3689	0.0126	0.0135	0.0391	3.9152	2.5966	11.8320	29.2727	48.0507

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	3.1324	2.8052	10.2425
15 mph	0.7560	0.0136	0.0316	0.0930	3.1109	1.9544	11.6387	35.5600	53.1583
25 mph	0.6824	0.0243	0.0242	0.0658	5.2423	2.8822	33.0079	100.2562	142.1853
35 mph	0.8578	0.0366	0.0290	0.0768	5.4491	2.8962	30.7890	74.6434	114.7780
45 mph	0.2978	0.0153	0.0092	0.0300	4.3422	2.2393	22.8764	41.0672	70.8775
55 mph	0.2860	0.0184	0.0078	0.0247	5.0093	2.5151	8.9010	10.5465	27.3087
65 mph	0.7262	0.0559	0.0175	0.0581	17.4066	8.5940	88.6167	93.2093	208.6842
total	3.6062	0.1642	0.1194	0.3484	43.0826	22.8639	198.9621	358.0878	627.2345

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	21.57	8.28	20.29	4.64	54.78
15 mph	90.65	18.17	43.81	17.17	13.67	3.69	17.64	42.30	247.11
25 mph	222.56	42.58	107.76	38.25	32.19	7.49	58.65	129.80	639.29
35 mph	355.31	66.40	172.29	59.53	33.98	7.84	59.52	108.08	862.95
45 mph	132.16	24.90	64.04	27.79	25.91	5.90	47.09	68.98	396.78
55 mph	117.15	23.03	56.87	25.36	26.45	6.00	18.44	21.22	294.52
65 mph	221.78	46.51	107.38	55.28	81.71	18.27	182.89	190.53	904.36
total	1,139.61	221.61	552.15	223.38	235.48	57.48	404.52	565.57	**3,399.78**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0337	0.0259
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0029	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0015	0.0012
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0010	0.0008
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0008	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0010	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.2770	0.0399
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.1388	0.0428
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0894	0.0311
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0789	0.0262
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0834	0.0237
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.1048	0.0233
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.1127	0.0235

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.3053	0.0414	0.1122	0.0250	0.0124	0.0031	0.0028	0.0002	0.5024
25 mph	0.5651	0.0788	0.2074	0.0466	0.0234	0.0057	0.0056	0.0005	0.9332
35 mph	0.4271	0.0601	0.1570	0.0353	0.0181	0.0044	0.0035	0.0003	0.7058
45 mph	0.0626	0.0088	0.0230	0.0052	0.0027	0.0006	0.0014	0.0001	0.1045
55 mph	0.0787	0.0110	0.0290	0.0066	0.0034	0.0008	0.0012	0.0001	0.1309
65 mph	0.0526	0.0071	0.0193	0.0044	0.0024	0.0006	0.0003	0.0000	0.0866
total	1.4914	0.2073	0.5479	0.1230	0.0624	0.0151	0.0149	0.0013	2.4633

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0177	0.0025	0.0065	0.0019	0.0013	0.0003	0.0023	0.0002	0.0326
35 mph	0.0902	0.0127	0.0332	0.0096	0.0067	0.0016	0.0049	0.0004	0.1592
45 mph	0.1838	0.0259	0.0675	0.0196	0.0139	0.0033	0.0051	0.0005	0.3196
55 mph	0.1623	0.0227	0.0598	0.0174	0.0124	0.0029	0.0016	0.0001	0.2792
65 mph	0.5483	0.0740	0.2014	0.0583	0.0434	0.0102	0.0335	0.0029	0.9720
total	1.0022	0.1379	0.3683	0.1068	0.0777	0.0184	0.0473	0.0042	1.7627

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0018	0.0002	0.0106
15 mph	0.0626	0.0085	0.0230	0.0075	0.0030	0.0008	0.0007	0.0001	0.1062
25 mph	0.0000	0.0000	0.0000	0.0000	0.0043	0.0011	0.0018	0.0002	0.0074
35 mph	0.2012	0.0283	0.0740	0.0134	0.0000	0.0000	0.0000	0.0000	0.3170
total	0.2639	0.0368	0.0970	0.0209	0.0143	0.0035	0.0043	0.0004	0.4411

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0018	0.0002	0.0106
15 mph	0.3679	0.0499	0.1352	0.0324	0.0155	0.0038	0.0035	0.0003	0.6086
25 mph	0.5828	0.0812	0.2139	0.0485	0.0290	0.0071	0.0097	0.0008	0.9731
35 mph	0.7185	0.1011	0.2642	0.0583	0.0248	0.0060	0.0084	0.0007	1.1819
45 mph	0.2464	0.0348	0.0905	0.0248	0.0166	0.0039	0.0065	0.0006	0.4241
55 mph	0.2411	0.0338	0.0888	0.0240	0.0158	0.0037	0.0028	0.0002	0.4102
65 mph	0.6008	0.0811	0.2207	0.0627	0.0458	0.0108	0.0338	0.0030	1.0586
total	2.7575	0.3819	1.0133	0.2507	0.1543	0.0370	0.0666	0.0058	4.6671

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0212	0.0016	0.0007	0.0009	0.0884	0.0496	0.8484	0.5005	1.5113
25 mph	0.0452	0.0035	0.0009	0.0020	0.2014	0.1150	2.1173	1.4097	3.8950
35 mph	0.0364	0.0030	0.0008	0.0018	0.1839	0.1056	1.8097	1.1493	3.2904
45 mph	0.0058	0.0005	0.0001	0.0003	0.0299	0.0171	0.9562	0.5200	1.5298
55 mph	0.0074	0.0007	0.0002	0.0004	0.0395	0.0221	1.0412	0.4422	1.5535
65 mph	0.0047	0.0005	0.0001	0.0002	0.0269	0.0147	0.2583	0.1028	0.4082
total	0.1207	0.0098	0.0027	0.0055	0.5700	0.3241	7.0311	4.1244	12.1883

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0014	0.0001	0.0000	0.0001	0.0111	0.0063	0.8517	0.5671	1.4378
35 mph	0.0077	0.0006	0.0002	0.0005	0.0681	0.0391	2.5074	1.5923	4.2159
45 mph	0.0170	0.0014	0.0004	0.0011	0.1539	0.0879	3.4447	1.8732	5.5795
55 mph	0.0153	0.0014	0.0003	0.0009	0.1428	0.0799	1.3316	0.5656	2.1378
65 mph	0.0495	0.0048	0.0009	0.0029	0.4924	0.2682	25.0508	9.9704	35.8400
total	0.0909	0.0083	0.0018	0.0055	0.8683	0.4814	33.1863	14.5685	49.2110

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0924	0.0254	0.2500
15 mph	0.0043	0.0003	0.0001	0.0003	0.0217	0.0122	0.2258	0.1332	0.3979
25 mph	0.0000	0.0000	0.0000	0.0000	0.0372	0.0212	0.6939	0.4620	1.2144
35 mph	0.0171	0.0014	0.0004	0.0007	0.0000	0.0000	0.0000	0.0000	0.0196
total	0.0215	0.0018	0.0005	0.0009	0.1365	0.0879	1.0121	0.6206	1.8818

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0924	0.0254	0.2500
15 mph	0.0255	0.0020	0.0008	0.0011	0.1101	0.0618	1.0741	0.6337	1.9091
25 mph	0.0466	0.0036	0.0009	0.0021	0.2497	0.1426	3.6629	2.4388	6.5472
35 mph	0.0612	0.0051	0.0013	0.0029	0.2520	0.1447	4.3171	2.7416	7.5260
45 mph	0.0228	0.0019	0.0005	0.0013	0.1838	0.1049	4.4010	2.3931	7.1094
55 mph	0.0226	0.0020	0.0005	0.0013	0.1823	0.1020	2.3728	1.0078	3.6913
65 mph	0.0543	0.0052	0.0010	0.0032	0.5193	0.2829	25.3091	10.0732	36.2482
total	0.2331	0.0198	0.0051	0.0119	1.5748	0.8934	41.2295	19.3136	63.2811

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.06	0.09	0.03	0.26
15 mph	0.39	0.05	0.14	0.03	0.13	0.07	1.08	0.63	2.52
25 mph	0.63	0.08	0.21	0.05	0.28	0.15	3.67	2.44	7.52
35 mph	0.78	0.11	0.27	0.06	0.28	0.15	4.33	2.74	8.71
45 mph	0.27	0.04	0.09	0.03	0.20	0.11	4.41	2.39	7.53
55 mph	0.26	0.04	0.09	0.03	0.20	0.11	2.38	1.01	4.10
65 mph	0.66	0.09	0.22	0.07	0.57	0.29	25.34	10.08	37.31
total	2.99	0.40	1.02	0.26	1.73	0.93	41.30	19.32	**67.95**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	30.00	2.25	11.27	2.30	2.84	1.09	1.71	0.11
Diesel	0.25	0.00	0.02	0.03	1.93	1.56	10.88	14.28
Electric	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.56	2.25	11.29	2.33	4.77	2.65	12.58	14.39

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	30.08	2.26	11.30	2.96	5.00	1.92	7.10	0.46
Diesel	0.25	0.00	0.02	0.04	3.40	2.75	45.21	59.34
Electric	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.65	2.26	11.32	3.00	8.40	4.67	52.31	59.80

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5.93	0.44	2.23	0.39	0.23	0.09	0.21	0.01
Diesel	0.05	0.00	0.00	0.00	0.16	0.13	1.34	1.75
Electric	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.04	0.45	2.23	0.40	0.39	0.22	1.55	1.77

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	66.00	4.95	24.80	5.65	8.07	3.10	9.01	0.59	122.18
Diesel	0.54	0.01	0.04	0.07	5.48	4.43	57.43	75.37	143.37
Electric	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
Total	67.25	4.96	24.83	5.72	13.55	7.54	66.44	75.96	**266.26**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	962.11
Internal	42.51
Total	**1,004.62**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0310	0.0239
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0027	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0014	0.0011
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0009	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0007	0.0006
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0007	0.0006
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0009	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.2650	0.0381
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.1328	0.0410
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0855	0.0298
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0755	0.0251
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0798	0.0227
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.1003	0.0223
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.1078	0.0224

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.2808	0.0381	0.1032	0.0230	0.0114	0.0028	0.0026	0.0002	0.4622
25 mph	0.5198	0.0725	0.1908	0.0430	0.0215	0.0052	0.0052	0.0005	0.8585
35 mph	0.3928	0.0553	0.1445	0.0325	0.0167	0.0040	0.0032	0.0003	0.6493
45 mph	0.0576	0.0081	0.0212	0.0048	0.0025	0.0006	0.0013	0.0001	0.0961
55 mph	0.0724	0.0101	0.0267	0.0061	0.0032	0.0007	0.0011	0.0001	0.1204
65 mph	0.0484	0.0065	0.0178	0.0040	0.0022	0.0005	0.0003	0.0000	0.0797
total	1.3719	0.1907	0.5041	0.1134	0.0574	0.0139	0.0137	0.0012	2.2663

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0163	0.0023	0.0060	0.0017	0.0012	0.0003	0.0021	0.0002	0.0300
35 mph	0.0829	0.0117	0.0305	0.0088	0.0062	0.0015	0.0045	0.0004	0.1465
45 mph	0.1691	0.0239	0.0621	0.0181	0.0128	0.0030	0.0047	0.0004	0.2941
55 mph	0.1493	0.0209	0.0550	0.0160	0.0114	0.0027	0.0014	0.0001	0.2570
65 mph	0.5044	0.0681	0.1852	0.0538	0.0400	0.0094	0.0308	0.0027	0.8944
total	0.9220	0.1269	0.3388	0.0984	0.0715	0.0169	0.0435	0.0038	1.6220

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0016	0.0001	0.0097
15 mph	0.0576	0.0078	0.0212	0.0069	0.0028	0.0007	0.0007	0.0001	0.0977
25 mph	0.0000	0.0000	0.0000	0.0000	0.0040	0.0010	0.0017	0.0001	0.0068
35 mph	0.1851	0.0261	0.0681	0.0124	0.0000	0.0000	0.0000	0.0000	0.2916
total	0.2427	0.0339	0.0892	0.0192	0.0131	0.0033	0.0040	0.0004	0.4058

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0016	0.0001	0.0097
15 mph	0.3384	0.0459	0.1244	0.0299	0.0142	0.0035	0.0032	0.0003	0.5599
25 mph	0.5361	0.0748	0.1968	0.0447	0.0267	0.0065	0.0090	0.0008	0.8953
35 mph	0.6609	0.0930	0.2430	0.0537	0.0228	0.0055	0.0077	0.0007	1.0874
45 mph	0.2267	0.0320	0.0833	0.0229	0.0152	0.0036	0.0060	0.0005	0.3902
55 mph	0.2218	0.0311	0.0817	0.0221	0.0146	0.0034	0.0026	0.0002	0.3774
65 mph	0.5527	0.0747	0.2030	0.0578	0.0422	0.0099	0.0311	0.0027	0.9741
total	2.5366	0.3515	0.9322	0.2311	0.1421	0.0341	0.0613	0.0054	4.2941

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0203	0.0016	0.0006	0.0008	0.0846	0.0475	0.8117	0.4788	1.4459
25 mph	0.0432	0.0034	0.0008	0.0019	0.1927	0.1101	2.0257	1.3487	3.7265
35 mph	0.0348	0.0029	0.0008	0.0017	0.1759	0.1010	1.7314	1.0996	3.1481
45 mph	0.0055	0.0005	0.0001	0.0003	0.0286	0.0163	0.9149	0.4975	1.4636
55 mph	0.0071	0.0006	0.0001	0.0003	0.0378	0.0211	0.9962	0.4231	1.4863
65 mph	0.0045	0.0004	0.0001	0.0002	0.0257	0.0140	0.2471	0.0984	0.3905
total	0.1155	0.0094	0.0026	0.0053	0.5453	0.3101	6.7269	3.9460	11.6610

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0014	0.0001	0.0000	0.0001	0.0106	0.0061	0.8148	0.5425	1.3756
35 mph	0.0073	0.0006	0.0002	0.0005	0.0652	0.0374	2.3989	1.5235	4.0335
45 mph	0.0163	0.0014	0.0004	0.0010	0.1473	0.0841	3.2957	1.7921	5.3382
55 mph	0.0146	0.0013	0.0003	0.0009	0.1367	0.0764	1.2740	0.5411	2.0453
65 mph	0.0474	0.0045	0.0009	0.0028	0.4711	0.2566	23.9671	9.5391	34.2896
total	0.0869	0.0079	0.0017	0.0053	0.8307	0.4606	31.7506	13.9383	47.0822

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0884	0.0243	0.2391
15 mph	0.0042	0.0003	0.0001	0.0002	0.0207	0.0116	0.2160	0.1274	0.3806
25 mph	0.0000	0.0000	0.0000	0.0000	0.0356	0.0203	0.6639	0.4420	1.1618
35 mph	0.0164	0.0014	0.0004	0.0006	0.0000	0.0000	0.0000	0.0000	0.0188
total	0.0206	0.0017	0.0005	0.0009	0.1306	0.0841	0.9684	0.5938	1.8004

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0884	0.0243	0.2391
15 mph	0.0244	0.0019	0.0008	0.0011	0.1053	0.0591	1.0277	0.6062	1.8266
25 mph	0.0446	0.0035	0.0009	0.0020	0.2389	0.1364	3.5044	2.3333	6.2639
35 mph	0.0586	0.0049	0.0013	0.0028	0.2411	0.1384	4.1303	2.6230	7.2004
45 mph	0.0218	0.0018	0.0005	0.0013	0.1758	0.1004	4.2106	2.2896	6.8018
55 mph	0.0217	0.0019	0.0004	0.0012	0.1744	0.0976	2.2702	0.9642	3.5316
65 mph	0.0519	0.0050	0.0010	0.0030	0.4968	0.2706	24.2143	9.6375	34.6801
total	0.2230	0.0190	0.0048	0.0114	1.5067	0.8547	39.4459	18.4781	60.5436

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.05	0.09	0.02	0.25
15 mph	0.36	0.05	0.13	0.03	0.12	0.06	1.03	0.61	2.39
25 mph	0.58	0.08	0.20	0.05	0.27	0.14	3.51	2.33	7.16
35 mph	0.72	0.10	0.24	0.06	0.26	0.14	4.14	2.62	8.29
45 mph	0.25	0.03	0.08	0.02	0.19	0.10	4.22	2.29	7.19
55 mph	0.24	0.03	0.08	0.02	0.19	0.10	2.27	0.96	3.91
65 mph	0.60	0.08	0.20	0.06	0.54	0.28	24.25	9.64	35.65
total	2.76	0.37	0.94	0.24	1.65	0.89	39.51	18.48	**64.84**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.90	0.89	4.47	0.91	1.17	0.45	0.71	0.04
Diesel	0.10	0.00	0.01	0.01	0.78	0.64	4.50	5.18
Electric	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.12	0.89	4.48	0.92	1.95	1.09	5.20	5.22

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.93	0.89	4.48	1.17	2.06	0.80	2.93	0.18
Diesel	0.10	0.00	0.01	0.01	1.37	1.12	18.70	21.53
Electric	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.16	0.90	4.49	1.19	3.43	1.91	21.63	21.71

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.35	0.18	0.88	0.16	0.09	0.04	0.09	0.01
Diesel	0.02	0.00	0.00	0.00	0.06	0.05	0.55	0.64
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.39	0.18	0.88	0.16	0.16	0.09	0.64	0.64

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	26.18	1.96	9.83	2.24	3.32	1.28	3.73	0.23	48.78
Diesel	0.21	0.00	0.01	0.03	2.22	1.81	23.75	27.34	55.37
Electric	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
Total	26.67	1.97	9.85	2.27	5.54	3.09	27.47	27.57	**104.44**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	236.15
Internal	10.43
Total	**246.59**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.07	0.02	0.19
15 mph	0.23	0.03	0.08	0.02	0.09	0.05	0.79	0.47	1.76
25 mph	0.37	0.05	0.13	0.03	0.20	0.11	2.71	1.80	5.40
35 mph	0.46	0.06	0.16	0.04	0.20	0.11	3.19	2.02	6.24
45 mph	0.16	0.02	0.05	0.02	0.15	0.08	3.25	1.76	5.49
55 mph	0.16	0.02	0.05	0.01	0.15	0.08	1.75	0.74	2.96
65 mph	0.39	0.05	0.13	0.04	0.42	0.22	18.67	7.42	27.33
total	1.77	0.24	0.60	0.16	1.27	0.68	30.42	14.23	49.36

World Logistics Center

Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated

N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.2172	0.0299	0.1496	0.0305	0.0406	0.0136	0.0129	0.0015	0.4956
25 mph	0.7722	0.1062	0.5318	0.1085	0.1443	0.0482	0.0498	0.0057	1.7667
35 mph	0.9170	0.1261	0.6316	0.1288	0.1713	0.0572	0.0482	0.0055	2.0857
45 mph	0.1689	0.0232	0.1163	0.0237	0.0316	0.0105	0.0241	0.0027	0.4012
55 mph	0.2172	0.0299	0.1496	0.0305	0.0406	0.0136	0.0209	0.0024	0.5045
65 mph	0.1207	0.0166	0.0831	0.0170	0.0225	0.0075	0.0048	0.0005	0.2727
total	2.4132	0.3318	1.6620	0.3390	0.4508	0.1506	0.1607	0.0183	5.5265

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0242	0.0033	0.0167	0.0044	0.0079	0.0027	0.0200	0.0023	0.0815
35 mph	0.1936	0.0266	0.1333	0.0349	0.0635	0.0212	0.0668	0.0076	0.5476
45 mph	0.4961	0.0682	0.3417	0.0895	0.1626	0.0543	0.0868	0.0099	1.3092
55 mph	0.4477	0.0616	0.3083	0.0808	0.1467	0.0490	0.0267	0.0030	1.1240
65 mph	1.2584	0.1730	0.8667	0.2272	0.4125	0.1378	0.4676	0.0531	3.5963
total	2.4200	0.3328	1.6667	0.4368	0.7932	0.2650	0.6680	0.0759	6.6585

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.0446	0.0061	0.0307	0.0091	0.0099	0.0033	0.0034	0.0004	0.1076
25 mph	0.0000	0.0000	0.0000	0.0000	0.0266	0.0089	0.0163	0.0019	0.0537
35 mph	0.4321	0.0594	0.2976	0.0489	0.0000	0.0000	0.0000	0.0000	0.8381
total	0.4767	0.0655	0.3283	0.0581	0.0386	0.0129	0.0205	0.0023	1.0027

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.2617	0.0360	0.1803	0.0396	0.0505	0.0169	0.0163	0.0018	0.6032
25 mph	0.7964	0.1095	0.5485	0.1129	0.1788	0.0597	0.0862	0.0098	1.9019
35 mph	1.5427	0.2121	1.0625	0.2127	0.2348	0.0784	0.1150	0.0131	3.4714
45 mph	0.6650	0.0915	0.4580	0.1133	0.1942	0.0649	0.1110	0.0126	1.7104
55 mph	0.6649	0.0914	0.4579	0.1113	0.1873	0.0626	0.0476	0.0054	1.6285
65 mph	1.3791	0.1896	0.9498	0.2441	0.4350	0.1453	0.4724	0.0537	3.8691
total	5.3099	0.7302	3.6570	0.8339	1.2826	0.4285	0.8492	0.0964	13.1877

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0005	0.0000	0.0000	0.0003	0.0094	0.0067	0.0293	0.0561	0.1024
25 mph	0.0018	0.0000	0.0002	0.0010	0.0335	0.0237	0.1137	0.2173	0.3912
35 mph	0.0021	0.0000	0.0002	0.0012	0.0398	0.0281	0.1100	0.2103	0.3918
45 mph	0.0004	0.0000	0.0000	0.0002	0.0073	0.0052	0.0550	0.1052	0.1733
55 mph	0.0005	0.0000	0.0000	0.0003	0.0094	0.0067	0.0477	0.0911	0.1557
65 mph	0.0003	0.0000	0.0000	0.0002	0.0052	0.0037	0.0110	0.0210	0.0414
total	0.0055	0.0001	0.0005	0.0030	0.1048	0.0741	0.3668	0.7011	1.2559

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0001	0.0000	0.0000	0.0000	0.0018	0.0013	0.0457	0.0874	0.1364
35 mph	0.0004	0.0000	0.0000	0.0003	0.0147	0.0104	0.1525	0.2914	0.4699
45 mph	0.0011	0.0000	0.0001	0.0008	0.0378	0.0267	0.1982	0.3788	0.6436
55 mph	0.0010	0.0000	0.0001	0.0007	0.0341	0.0241	0.0610	0.1166	0.2376
65 mph	0.0029	0.0001	0.0003	0.0020	0.0959	0.0678	1.0673	2.0399	3.2760
total	0.0055	0.0001	0.0005	0.0039	0.1844	0.1303	1.5247	2.9142	4.7636

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0001	0.0000	0.0000	0.0001	0.0023	0.0016	0.0078	0.0149	0.0269
25 mph	0.0000	0.0000	0.0000	0.0000	0.0062	0.0044	0.0373	0.0712	0.1191
35 mph	0.0010	0.0000	0.0001	0.0004	0.0000	0.0000	0.0000	0.0000	0.0015
total	0.0011	0.0000	0.0001	0.0005	0.0090	0.0063	0.0467	0.0892	0.1529

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0006	0.0000	0.0001	0.0004	0.0117	0.0083	0.0372	0.0710	0.1292
25 mph	0.0018	0.0000	0.0002	0.0010	0.0416	0.0294	0.1967	0.3760	0.6467
35 mph	0.0035	0.0001	0.0003	0.0019	0.0546	0.0386	0.2625	0.5017	0.8632
45 mph	0.0015	0.0000	0.0002	0.0010	0.0451	0.0319	0.2532	0.4840	0.8170
55 mph	0.0015	0.0000	0.0002	0.0010	0.0435	0.0308	0.1087	0.2077	0.3934
65 mph	0.0031	0.0001	0.0003	0.0022	0.1011	0.0715	1.0783	2.0609	3.3175
total	0.0121	0.0002	0.0012	0.0074	0.2981	0.2107	1.9382	3.7045	6.1724

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.26	0.04	0.18	0.04	0.06	0.03	0.05	0.07	0.73
25 mph	0.80	0.11	0.55	0.11	0.22	0.09	0.28	0.39	2.55
35 mph	1.55	0.21	1.06	0.21	0.29	0.12	0.38	0.51	4.33
45 mph	0.67	0.09	0.46	0.11	0.24	0.10	0.36	0.50	2.53
55 mph	0.67	0.09	0.46	0.11	0.23	0.09	0.16	0.21	2.02
65 mph	1.38	0.19	0.95	0.25	0.54	0.22	1.55	2.11	7.19
total	5.32	0.73	3.66	0.84	1.58	0.64	2.79	3.80	**19.36**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	8.6156	6.5036
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.1258	0.5551
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0662	0.2886
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0430	0.1875
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0346	0.1497
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0343	0.1511
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0423	0.1822

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0438	0.0523
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0311	0.0293
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0122	0.0149
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0079	0.0082
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0055	0.0046
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0047	0.0027
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0047	0.0024

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	1.1115	0.2208	0.5429	0.2077	0.1981	0.0352	0.1207	0.0605	2.4974
25 mph	2.0650	0.4269	1.0115	0.3924	0.3905	0.0677	0.2461	0.1219	4.7219
35 mph	1.5488	0.3272	0.7622	0.3015	0.3111	0.0530	0.1546	0.0766	3.5350
45 mph	0.2273	0.0482	0.1116	0.0444	0.0476	0.0080	0.0622	0.0306	0.5799
55 mph	0.2851	0.0599	0.1398	0.0561	0.0613	0.0103	0.0535	0.0268	0.6928
65 mph	0.1875	0.0378	0.0912	0.0369	0.0435	0.0072	0.0152	0.0074	0.4267
total	5.4252	1.1207	2.6592	1.0390	1.0521	0.1813	0.6524	0.3238	12.4537

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0647	0.0134	0.0317	0.0158	0.0215	0.0037	0.0990	0.0490	0.2988
35 mph	0.3270	0.0691	0.1609	0.0818	0.1153	0.0196	0.2142	0.1061	1.0940
45 mph	0.6675	0.1415	0.3278	0.1677	0.2452	0.0412	0.2240	0.1102	1.9251
55 mph	0.5878	0.1234	0.2882	0.1485	0.2218	0.0371	0.0685	0.0342	1.5095
65 mph	1.9552	0.3939	0.9515	0.4948	0.7952	0.1322	1.4755	0.7219	6.9200
total	3.6021	0.7413	1.7601	0.9086	1.3990	0.2338	2.0811	1.0215	11.7474

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4513	0.0396	1.7122
15 mph	0.2280	0.0453	0.1114	0.0621	0.0485	0.0086	0.0321	0.0161	0.5522
25 mph	0.0000	0.0000	0.0000	0.0000	0.0721	0.0125	0.0807	0.0399	0.2052
35 mph	0.7298	0.1542	0.3592	0.1145	0.0000	0.0000	0.0000	0.0000	1.3576
total	0.9578	0.1995	0.4705	0.1766	1.0309	0.3321	0.5641	0.0957	3.8271

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4513	0.0396	1.7122
15 mph	1.3396	0.2661	0.6542	0.2698	0.2466	0.0438	0.1529	0.0766	3.0496
25 mph	2.1297	0.4402	1.0432	0.4082	0.4841	0.0839	0.4258	0.2108	5.2258
35 mph	2.6056	0.5504	1.2823	0.4977	0.4264	0.0726	0.3688	0.1827	5.9867
45 mph	0.8948	0.1897	0.4395	0.2121	0.2928	0.0492	0.2861	0.1408	2.5050
55 mph	0.8729	0.1833	0.4280	0.2046	0.2831	0.0473	0.1220	0.0610	2.2023
65 mph	2.1426	0.4316	1.0427	0.5317	0.8387	0.1394	1.4907	0.7293	7.3467
total	9.9851	2.0614	4.8899	2.1242	3.4820	0.7472	3.2975	1.4409	28.0283

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0025	0.0001	0.0003	0.0002	0.0286	0.0188	0.1901	0.3425	0.5832
25 mph	0.0035	0.0002	0.0001	0.0002	0.0433	0.0249	0.2884	0.6744	1.0350
35 mph	0.0026	0.0002	0.0001	0.0002	0.0369	0.0205	0.1814	0.3611	0.6030
45 mph	0.0004	0.0000	0.0000	0.0000	0.0058	0.0031	0.0631	0.1017	0.1742
55 mph	0.0005	0.0000	0.0000	0.0000	0.0076	0.0040	0.0465	0.0522	0.1108
65 mph	0.0003	0.0000	0.0000	0.0000	0.0053	0.0027	0.0108	0.0107	0.0298
total	0.0099	0.0006	0.0005	0.0007	0.1275	0.0741	0.7802	1.5426	2.5360

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0001	0.0000	0.0000	0.0000	0.0024	0.0014	0.1160	0.2713	0.3911
35 mph	0.0006	0.0000	0.0000	0.0000	0.0137	0.0076	0.2513	0.5003	0.7736
45 mph	0.0012	0.0001	0.0000	0.0001	0.0298	0.0161	0.2273	0.3663	0.6409
55 mph	0.0010	0.0001	0.0000	0.0001	0.0275	0.0144	0.0595	0.0667	0.1692
65 mph	0.0032	0.0003	0.0001	0.0002	0.0963	0.0494	1.0465	1.0408	2.2367
total	0.0060	0.0005	0.0002	0.0004	0.1696	0.0889	1.7006	2.2454	4.2116

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0146	0.0334	0.0721
15 mph	0.0005	0.0000	0.0001	0.0001	0.0070	0.0046	0.0506	0.0911	0.1540
25 mph	0.0000	0.0000	0.0000	0.0000	0.0080	0.0046	0.0945	0.2210	0.3281
35 mph	0.0012	0.0001	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0014
total	0.0018	0.0001	0.0001	0.0001	0.0291	0.0192	0.1597	0.3455	0.5557

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0146	0.0334	0.0721
15 mph	0.0031	0.0001	0.0003	0.0003	0.0357	0.0235	0.2407	0.4336	0.7372
25 mph	0.0036	0.0002	0.0001	0.0002	0.0537	0.0308	0.4989	1.1667	1.7542
35 mph	0.0044	0.0003	0.0002	0.0003	0.0506	0.0282	0.4327	0.8615	1.3781
45 mph	0.0016	0.0001	0.0001	0.0001	0.0356	0.0193	0.2904	0.4680	0.8151
55 mph	0.0015	0.0001	0.0000	0.0001	0.0351	0.0184	0.1059	0.1189	0.2800
65 mph	0.0035	0.0003	0.0001	0.0002	0.1016	0.0521	1.0573	1.0515	2.2666
total	0.0176	0.0012	0.0008	0.0012	0.3263	0.1821	2.6406	4.1336	7.3034

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.92	0.32	0.47	0.07	1.78
15 mph	1.34	0.27	0.65	0.27	0.28	0.07	0.39	0.51	3.79
25 mph	2.13	0.44	1.04	0.41	0.54	0.11	0.92	1.38	6.98
35 mph	2.61	0.55	1.28	0.50	0.48	0.10	0.80	1.04	7.36
45 mph	0.90	0.19	0.44	0.21	0.33	0.07	0.58	0.61	3.32
55 mph	0.87	0.18	0.43	0.20	0.32	0.07	0.23	0.18	2.48
65 mph	2.15	0.43	1.04	0.53	0.94	0.19	2.55	1.78	9.61
total	10.00	2.06	4.89	2.13	3.81	0.93	5.94	5.57	**35.33**

World Logistics Center
Mobile Emissions - 2018 Project Buildout (Project) - Unmitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	14,206.13	20,903.71
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,281.01	2,564.64
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,400.60	1,948.38
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,188.48	1,779.31
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,027.46	1,677.11
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	934.39	1,627.61
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	957.32	1,599.40

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	7,140.20	6,523.73
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,700.75	2,451.82
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,343.60	1,956.20
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,200.75	1,736.54
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,106.33	1,589.90
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,044.34	1,488.78
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,033.09	1,468.49

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	32,402.98	2,848.84	16,304.53	4,408.46	2,892.26	1,094.20	2,188.65	279.46	62,419.36
25 mph	76,278.51	6,706.06	38,389.20	10,396.27	8,184.78	3,078.92	5,207.55	822.70	149,063.99
35 mph	69,572.56	6,118.03	35,017.30	9,519.54	8,822.79	3,305.18	4,276.33	727.07	137,358.80
45 mph	11,434.58	1,005.52	5,755.02	1,565.12	1,611.81	580.96	1,848.48	342.66	24,144.15
55 mph	15,225.75	1,339.17	7,659.88	2,086.07	2,303.19	814.28	1,456.89	288.20	31,173.44
65 mph	10,156.94	893.32	5,110.26	1,393.99	1,315.90	461.52	344.46	65.36	19,741.75
total	215,071.32	18,910.93	108,236.18	29,369.46	25,130.74	9,335.06	15,322.37	2,525.44	423,901.49

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	2,390.46	210.16	1,203.06	418.58	450.04	169.29	2,094.73	330.93	7,267.26
35 mph	14,688.37	1,291.66	7,392.96	2,582.12	3,268.17	1,224.32	5,924.96	1,007.37	37,379.93
45 mph	33,581.92	2,953.07	16,901.76	5,905.52	8,305.44	2,993.58	6,658.90	1,234.37	78,534.57
55 mph	31,386.09	2,760.55	15,789.95	5,524.74	8,330.12	2,945.06	1,863.29	368.59	68,968.39
65 mph	105,931.65	9,316.84	53,297.34	18,678.74	24,079.63	8,445.39	33,407.72	6,338.59	259,495.91
total	187,978.50	16,532.28	94,585.08	33,109.71	44,433.40	15,777.65	49,949.60	9,279.85	451,646.06

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	744.11	127.36	1,847.66
15 mph	6,646.94	584.39	3,344.61	1,318.04	708.86	268.17	582.42	74.37	13,527.80
25 mph	0.00	0.00	0.00	0.00	1,510.90	568.36	1,706.77	269.64	4,055.67
35 mph	32,782.80	2,882.83	16,500.26	3,616.06	0.00	0.00	0.00	0.00	55,781.96
total	39,429.75	3,467.23	19,844.87	4,934.10	2,923.56	1,108.93	3,033.30	471.36	75,213.08

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	744.11	127.36	1,847.66
15 mph	39,049.92	3,433.23	19,649.13	5,726.49	3,601.12	1,362.37	2,771.07	353.83	75,947.16
25 mph	78,668.97	6,916.22	39,592.26	10,814.86	10,145.71	3,816.58	9,009.05	1,423.26	160,386.91
35 mph	117,043.73	10,292.52	58,910.51	15,717.72	12,090.96	4,529.50	10,201.30	1,734.44	230,520.68
45 mph	45,016.51	3,958.59	22,656.78	7,470.65	9,917.25	3,574.54	8,507.39	1,577.02	102,678.72
55 mph	46,611.84	4,099.72	23,449.84	7,610.81	10,633.31	3,759.34	3,320.18	656.80	100,141.83
65 mph	116,088.59	10,210.16	58,407.60	20,072.74	25,395.54	8,906.92	33,752.18	6,403.95	279,237.67
total	442,479.57	38,910.44	222,666.12	67,413.26	72,487.69	26,221.63	68,305.26	12,276.65	950,760.63

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	238.03	4.05	20.35	44.79	1,366.94	1,090.48	10,397.55	28,649.31	41,811.51
25 mph	581.90	9.90	49.74	111.84	3,675.90	2,948.13	31,829.67	88,574.82	127,781.89
35 mph	540.84	9.12	46.03	104.00	3,969.67	3,160.90	27,528.03	76,092.65	111,451.23
45 mph	90.06	1.51	7.63	17.24	694.26	539.59	12,681.71	34,833.59	48,865.60
55 mph	121.53	2.03	10.27	23.50	978.57	745.07	10,374.91	28,268.98	40,524.85
65 mph	82.28	1.37	6.93	15.87	556.54	416.76	2,368.43	6,434.70	9,882.89
total	1,654.65	27.98	140.95	317.24	11,241.89	8,900.94	95,180.29	262,854.05	380,317.97

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	18.24	0.31	1.56	4.50	202.12	162.10	12,803.44	35,629.11	48,821.39
35 mph	114.18	1.93	9.72	28.21	1,470.46	1,170.87	38,140.73	105,428.16	146,364.25
45 mph	264.50	4.44	22.40	65.06	3,577.42	2,780.42	45,684.10	125,483.19	177,881.54
55 mph	250.51	4.19	21.16	62.23	3,539.28	2,694.74	13,268.93	36,154.46	55,995.52
65 mph	858.16	14.29	72.33	212.66	10,184.13	7,626.34	229,705.98	624,079.55	872,753.43
total	1,505.59	25.15	127.17	372.67	18,973.41	14,434.48	339,603.19	926,774.48	1,301,816.14

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,382.93	4,161.33	7,367.09
15 mph	48.83	0.83	4.18	13.39	335.02	267.26	2,766.89	7,623.85	11,060.25
25 mph	0.00	0.00	0.00	0.00	678.56	544.22	10,432.14	29,030.32	40,685.25
35 mph	254.85	4.30	21.69	39.50	0.00	0.00	0.00	0.00	320.33
total	303.67	5.13	25.86	52.90	1,400.38	1,247.52	15,581.96	40,815.51	59,432.93

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,382.93	4,161.33	7,367.09
15 mph	286.86	4.88	24.53	58.18	1,701.96	1,357.75	13,164.43	36,273.17	52,871.76
25 mph	600.14	10.21	51.30	116.34	4,556.59	3,654.45	55,065.25	153,234.25	217,288.53
35 mph	909.87	15.34	77.43	171.71	5,440.12	4,331.78	65,668.75	181,520.81	258,135.82
45 mph	354.57	5.95	30.03	82.31	4,271.68	3,320.01	58,365.82	160,316.79	226,747.14
55 mph	372.04	6.23	31.43	85.73	4,517.86	3,439.81	23,643.84	64,423.44	96,520.37
65 mph	940.44	15.66	79.26	228.53	10,740.67	8,043.11	232,074.41	630,514.25	882,636.32
total	3,463.91	58.27	293.98	742.80	31,615.67	24,582.94	450,365.44	1,230,444.03	1,741,567.04

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1,090.60	708.43	3,127.03	4,288.69	9,214.75
15 mph	39,336.78	3,438.11	19,673.66	5,784.67	5,303.08	2,720.12	15,935.50	36,626.99	128,818.93
25 mph	79,269.11	6,926.43	39,643.56	10,931.20	14,702.30	7,471.03	64,074.30	154,657.52	377,675.44
35 mph	117,953.60	10,307.86	58,987.94	15,889.43	17,531.08	8,861.27	75,870.05	183,255.25	488,656.50
45 mph	45,371.07	3,964.54	22,686.81	7,552.96	14,188.93	6,894.55	66,873.20	161,893.81	329,425.87
55 mph	46,983.87	4,105.95	23,481.26	7,696.54	15,151.17	7,199.15	26,964.02	65,080.23	196,662.20
65 mph	117,029.03	10,225.81	58,486.86	20,301.27	36,136.21	16,950.03	265,826.58	636,918.20	1,161,873.99
total	445,943.48	38,968.70	222,960.11	68,156.06	104,103.36	50,804.57	518,670.70	1,242,720.69	**2,692,327.67**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
72.89	866.35	406.43	3.78	275.68	63.70	343.15	3.61	67.67	24.80	96.07	2.76	3.57	4.72	738,670.25

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
13.30	158.11	74.17	0.69	50.31	11.62	62.63	0.66	12.35	4.53	17.53	0.50	0.65	0.86	134,807.32

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
VMT

	Net Trips			Net VMT		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	1,599.2	13.1	17.1	-24,556.0	-201.3	-261.8
LDT1	120.0	0.2	0.1	-1,841.9	-2.5	-1.5
LDT2	600.8	0.9	0.0	-9,224.7	-13.3	0.0
MDT	1,535.5	18.8	0.0	24,318.5	298.5	0.0
LHDT1	556.0	360.7	0.0	15,362.7	9,968.0	0.0
LHDT2	185.8	255.0	0.0	5,133.0	7,045.5	0.0
MHDT	210.7	1,342.6	0.0	10,812.4	68,891.2	0.0
HHDT	23.9	2,566.2	0.0	1,227.9	131,673.7	0.0

	Surface Street VMT			Freeway VMT		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	8,243.9	67.6	87.9	-32,799.9	-268.9	-349.7
LDT1	618.4	0.8	0.5	-2,460.2	-3.3	-2.1
LDT2	3,096.9	4.5	0.0	-12,321.5	-17.8	0.0
MDT	10,363.0	127.2	0.0	13,955.6	171.3	0.0
LHDT1	4,408.6	2,860.5	0.0	10,954.0	7,107.5	0.0
LHDT2	1,473.0	2,021.9	0.0	3,660.0	5,023.6	0.0
MHDT	1,558.0	9,926.6	0.0	9,254.4	58,964.5	0.0
HHDT	176.9	18,973.1	0.0	1,051.0	112,700.6	0.0

	% of Surface Street VMT		% of Freeway VMT	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
15	9%	8%	0%	0%
25	32%	31%	1%	3%
35	38%	30%	8%	10%
45	7%	15%	21%	13%
55	9%	13%	19%	4%
65	5%	3%	52%	70%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	741.9	55.7	278.7	932.7	396.8	132.6	124.6	14.2	2,677.1
25 mph	2,638.0	197.9	991.0	3,316.1	1,410.8	471.4	483.0	54.8	9,563.0
35 mph	3,132.7	235.0	1,176.8	3,937.9	1,675.3	559.7	467.4	53.1	11,237.9
45 mph	577.1	43.3	216.8	725.4	308.6	103.1	233.7	26.5	2,234.5
55 mph	741.9	55.7	278.7	932.7	396.8	132.6	202.5	23.0	2,763.9
65 mph	412.2	30.9	154.8	518.1	220.4	73.7	46.7	5.3	1,462.2
total	8,243.9	618.4	3,096.9	10,363.0	4,408.6	1,473.0	1,558.0	176.9	29,938.6

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-328.0	-24.6	-123.2	139.6	109.5	36.6	277.6	31.5	119.0
35 mph	-2,624.0	-196.8	-985.7	1,116.4	876.3	292.8	925.4	105.1	-490.4
45 mph	-6,724.0	-504.3	-2,525.9	2,860.9	2,245.6	750.3	1,203.1	136.6	-2,557.8
55 mph	-6,068.0	-455.1	-2,279.5	2,581.8	2,026.5	677.1	370.2	42.0	-3,105.0
65 mph	-17,056.0	-1,279.3	-6,407.2	7,256.9	5,696.1	1,903.2	6,478.1	735.7	-2,672.5
total	-32,799.9	-2,460.2	-12,321.5	13,955.6	10,954.0	3,660.0	9,254.4	1,051.0	-8,706.7

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	3,189.7	239.2	1,198.2	355.9	190.6	63.7	65.9	7.5	5,310.7
25 mph	0.0	0.0	0.0	0.0	-48.1	-16.1	269.8	30.6	236.2
35 mph	9,028.3	677.2	3,391.5	1,974.5	0.0	0.0	0.0	0.0	15,071.5
total	12,217.9	916.4	4,589.8	2,330.4	142.5	47.6	335.6	38.1	20,618.4

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	3,931.6	294.9	1,476.9	1,288.5	587.4	196.3	190.5	21.6	7,987.8
25 mph	2,310.0	173.3	867.8	3,455.7	1,472.2	491.9	1,030.4	117.0	9,918.2
35 mph	9,536.9	715.3	3,582.6	7,028.9	2,551.6	852.5	1,392.8	158.2	25,819.0
45 mph	-6,146.9	-461.1	-2,309.1	3,586.3	2,554.2	853.4	1,436.8	163.2	-323.3
55 mph	-5,326.0	-399.5	-2,000.8	3,514.4	2,423.3	809.7	572.7	65.0	-341.2
65 mph	-16,643.8	-1,248.4	-6,252.4	7,775.0	5,916.5	1,976.8	6,524.8	741.0	-1,210.3
total	-12,338.1	-925.4	-4,634.9	26,648.9	15,505.2	5,180.6	11,148.0	1,266.0	41,850.3

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	6.1	0.1	0.4	11.4	257.4	182.0	794.1	1,517.8	2,769.4
25 mph	21.6	0.3	1.4	40.7	915.4	647.0	3,077.3	5,881.7	10,585.3
35 mph	25.7	0.3	1.7	48.3	1,087.0	768.3	2,978.0	5,691.9	10,601.3
45 mph	4.7	0.1	0.3	8.9	200.2	141.5	1,489.0	2,846.0	4,690.7
55 mph	6.1	0.1	0.4	11.4	257.4	182.0	1,290.5	2,466.5	4,214.4
65 mph	3.4	0.0	0.2	6.4	143.0	101.1	297.8	569.2	1,121.1
total	67.6	0.8	4.5	127.2	2,860.5	2,021.9	9,926.6	18,973.1	33,982.2

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-2.7	0.0	-0.2	1.7	71.1	50.2	1,768.9	3,381.0	5,270.1
35 mph	-21.5	-0.3	-1.4	13.7	568.6	401.9	5,896.5	11,270.1	18,127.5
45 mph	-55.1	-0.7	-3.6	35.1	1,457.0	1,029.8	7,665.4	14,651.1	24,779.0
55 mph	-49.8	-0.6	-3.3	31.7	1,314.9	929.4	2,358.6	4,508.0	9,088.9
65 mph	-139.8	-1.7	-9.2	89.1	3,695.9	2,612.3	41,275.2	78,890.4	126,412.0
total	-268.9	-3.3	-17.8	171.3	7,107.5	5,023.6	58,964.5	112,700.6	183,677.5

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2	1,465.6
25 mph	0.0	0.0	0.0	0.0	-31.2	-22.1	1,718.8	3,285.2	4,950.6
35 mph	74.0	0.9	4.9	24.2	0.0	0.0	0.0	0.0	104.1
total	100.2	1.2	6.6	28.6	92.5	65.4	2,138.5	4,087.3	6,520.3

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	32.2	0.4	2.1	15.8	381.1	269.4	1,213.8	2,320.0	4,235.0
25 mph	18.9	0.2	1.3	42.4	955.2	675.2	6,565.0	12,547.8	20,806.0
35 mph	78.2	1.0	5.2	86.3	1,655.6	1,170.2	8,874.4	16,962.0	28,832.8
45 mph	-50.4	-0.6	-3.3	44.0	1,657.3	1,171.4	9,154.4	17,497.0	29,469.7
55 mph	-43.7	-0.5	-2.9	43.1	1,572.3	1,111.3	3,649.0	6,974.5	13,303.3
65 mph	-136.5	-1.7	-9.0	95.4	3,838.9	2,713.4	41,573.0	79,459.6	127,533.1
total	-101.2	-1.3	-6.7	327.1	10,060.5	7,110.9	71,029.6	135,761.0	224,180.0

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
25 mph	28.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	28.3
35 mph	33.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	33.6
45 mph	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
55 mph	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
65 mph	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
total	87.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	88.4

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.5
35 mph	-28.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-28.1
45 mph	-71.7	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-72.1
55 mph	-64.7	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-65.1
65 mph	-181.8	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	-182.9
total	-349.7	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	-351.8

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	34.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,285.2	3,285.2
35 mph	96.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	96.8
total	130.3	0.8	0.0	0.0	0.0	0.0	0.0	3,285.2	3,416.2

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	41.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	42.2
25 mph	24.6	0.1	0.0	0.0	0.0	0.0	0.0	3,285.2	3,309.9
35 mph	101.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	102.3
45 mph	-65.5	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-65.9
55 mph	-56.8	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	-57.1
65 mph	-177.4	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	-178.5
total	-131.5	-0.8	0.0	0.0	0.0	0.0	0.0	3,285.2	3,152.8

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	7,160	1,432	469	94	1,293	259	2,156	431	2,216	7.51	0.035	0.0002	0.4	0.0008	1.8
2	A	731	0.45	4,250	1,913	258	116	679	305	1,131	509	2,843	7.09	0.035	0.0002	0.5	0.0008	2.2
3	A	2352	1.46	1,715	2,504	104	151	187	273	312	456	3,384	5.91	0.035	0.0002	0.5	0.0006	2.2
5	A	953	0.59	3,390	2,000	174	103	-	-	-	-	2,103	2.30	0.035	0.0001	0.1	0.0002	0.5
6	A	1099	0.68	7,940	5,399	548	372	1,488	1,012	2,482	1,688	8,471	7.64	0.035	0.0002	1.7	0.0008	7.0
8	A	1091	0.68	3,285	2,234	178	121	-	-	-	-	2,355	2.31	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	(3,185)	(2,389)	(81)	(61)	(6)	(4)	(9)	(7)	(2,461)	2.29	0.035	0.0001	-0.1	0.0002	-0.6
12	A	824	0.51	(265)	(135)	(93)	(47)	(4)	(2)	(6)	(3)	(188)	3.47	0.035	0.0001	0.0	0.0004	-0.1
14	A	1618	1.01	1,645	1,661	72	73	174	176	290	293	2,203	5.82	0.035	0.0002	0.3	0.0006	1.4
18	A	1412	0.88	880	774	-	-	-	-	-	-	774	2.13	0.035	0.0001	0.0	0.0002	0.2
19	A	2386	1.48	2,035	2,133	-	-	4	4	6	7	2,143	2.21	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	(965)	(753)	(9)	(7)	13	10	22	17	(732)	1.54	0.035	0.0000	0.0	0.0002	-0.1
24	A	1946	1.21	(885)	(1,071)	10	12	39	47	65	78	(934)	0.17	0.035	0.0000	0.0	0.0000	0.0
30	A	2827	1.76	1,810	3,186	(390)	(686)	(42)	(75)	(71)	(125)	2,300	0.37	0.035	0.0000	0.0	0.0000	0.1
29	A	675	0.42	(8,160)	(3,427)	(390)	(164)	(42)	(18)	(71)	(30)	(3,639)	2.51	0.035	0.0001	-0.2	0.0003	-1.0
31	A	820	0.51	(370)	(189)	(380)	(194)	2	1	3	2	(380)	3.81	0.035	0.0001	0.0	0.0004	-0.2
TOTAL				20,280		469		3,785		6,311						3.6		14.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				3905.54	-11486.05	1,357.41	37,509.16	1,553.34	79,703.53	2,590.11	132,901.58	238,628.23	10.04	0.035	0.0003	64.11368569	0.0011	261.2039047

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	3149.5	25.8	33.6
	LDT1	15	1127	330	0.21	236.8	236.2	0.3	0.2
	LDT2	15	5642	330	0.21	1184.8	1183.1	1.7	0.0
	MDT	15	1700	330	0.21	357.0	352.7	4.3	0.0
	LHDT1	15	1494	330	0.21	313.6	190.2	123.4	0.0
	LHDT2	15	718	330	0.21	150.8	63.6	87.2	0.0
	MHDT	15	2286	330	0.21	480.2	65.1	415.0	0.0
	HHDT	15	3813	330	0.21	800.6	7.4	793.2	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.8	0.0	0.1
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.5	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.2	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.1	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3189.7	239.2	1198.2	355.9	190.6	63.7	65.9	7.5
Diesel	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2
Electric	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	453	294	0	2264.5	1469.3	0.0
	LHDT2	5	359	151	208	0	756.6	1038.5	0.0
	MHDT	5	1143	155	988	0	775.4	4940.7	0.0
	HHDT	5	1906	18	1889	0	88.1	9443.3	0.0
Travel at Light Logistics	LHDT1	5	1	1	0	0	3.7	2.4	0.0
	LHDT2	5	1	0	0	0	1.2	1.7	0.0
	MHDT	5	2	0	1	0	1.0	6.5	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	38.0	12.7	13.8	1.6
Diesel	24.6	17.4	88.1	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	23.2369	8.4364
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.0273	0.7094
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.0141	0.3666
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.0090	0.2346
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0071	0.1862
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0070	0.1829
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.0086	0.2225

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1825	0.6570
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.1414	0.4499
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.0750	0.2083
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.0407	0.1139
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.0221	0.0631
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.0120	0.0360
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.0103	0.0279

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0797	0.0159	0.0386	0.2840	0.1502	0.0257	0.0075	0.0221	0.6238
25 mph	0.1490	0.0310	0.0724	0.5454	0.2973	0.0496	0.0150	0.0443	1.2040
35 mph	0.1122	0.0238	0.0547	0.4193	0.2372	0.0389	0.0093	0.0275	0.9229
45 mph	0.0166	0.0035	0.0081	0.0629	0.0364	0.0059	0.0037	0.0109	0.1478
55 mph	0.0209	0.0044	0.0101	0.0802	0.0468	0.0075	0.0031	0.0093	0.1824
65 mph	0.0137	0.0028	0.0066	0.0528	0.0333	0.0053	0.0009	0.0026	0.1180
total	0.3921	0.0815	0.1905	1.4445	0.8013	0.1329	0.0395	0.1167	3.1989

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0185	-0.0039	-0.0090	0.0230	0.0231	0.0039	0.0086	0.0255	0.0526
35 mph	-0.0940	-0.0200	-0.0458	0.1189	0.1241	0.0204	0.0184	0.0544	0.1764
45 mph	-0.1930	-0.0412	-0.0938	0.2479	0.2645	0.0427	0.0190	0.0561	0.3022
55 mph	-0.1707	-0.0362	-0.0829	0.2220	0.2391	0.0385	0.0057	0.0170	0.2325
65 mph	-0.5684	-0.1161	-0.2737	0.7391	0.8601	0.1373	0.1227	0.3610	1.2619
total	-1.0447	-0.2173	-0.5052	1.3509	1.5109	0.2428	0.1744	0.5139	2.0257

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.7082	0.0295	1.4398
15 mph	0.3425	0.0685	0.1661	0.1084	0.0722	0.0124	0.0040	0.0117	0.7857
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0101	-0.0017	0.0084	0.0248	0.0213
35 mph	0.3233	0.0687	0.1575	0.2102	0.0000	0.0000	0.0000	0.0000	0.7598
total	0.6657	0.1372	0.3237	0.3186	0.3278	0.4471	0.7205	0.0659	3.0065

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.7082	0.0295	1.4398
15 mph	0.4221	0.0845	0.2048	0.3924	0.2224	0.0381	0.0115	0.0338	1.4095
25 mph	0.1305	0.0271	0.0634	0.5683	0.3103	0.0517	0.0320	0.0946	1.2779
35 mph	0.3415	0.0726	0.1664	0.7484	0.3613	0.0593	0.0277	0.0818	1.8590
45 mph	-0.1765	-0.0377	-0.0858	0.3108	0.3009	0.0486	0.0226	0.0670	0.4501
55 mph	-0.1499	-0.0318	-0.0728	0.3022	0.2860	0.0461	0.0089	0.0262	0.4149
65 mph	-0.5547	-0.1133	-0.2671	0.7919	0.8933	0.1426	0.1236	0.3636	1.3800
total	0.0131	0.0015	0.0089	3.1139	2.6400	0.8228	0.9344	0.6965	8.2312

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0015	0.0001	0.0001	0.0020	0.1782	0.1173	0.2476	1.5057	2.0524
25 mph	0.0020	0.0001	0.0001	0.0021	0.2693	0.1547	0.5088	2.7014	3.6386
35 mph	0.0015	0.0001	0.0001	0.0015	0.2295	0.1278	0.2675	1.4297	2.0578
45 mph	0.0002	0.0000	0.0000	0.0002	0.0360	0.0195	0.0727	0.3960	0.5246
55 mph	0.0003	0.0000	0.0000	0.0002	0.0472	0.0248	0.0341	0.1957	0.3024
65 mph	0.0002	0.0000	0.0000	0.0001	0.0328	0.0168	0.0068	0.0350	0.0916
total	0.0058	0.0004	0.0002	0.0062	0.7930	0.4608	1.1375	6.2635	8.6674

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0003	0.0000	0.0000	0.0001	0.0209	0.0120	0.2925	1.5529	1.8781
35 mph	-0.0013	-0.0001	0.0000	0.0004	0.1201	0.0669	0.5296	2.8308	3.5464
45 mph	-0.0027	-0.0002	-0.0001	0.0008	0.2618	0.1417	0.3740	2.0387	2.8141
55 mph	-0.0023	-0.0002	-0.0001	0.0007	0.2413	0.1265	0.0624	0.3577	0.7860
65 mph	-0.0074	-0.0007	-0.0002	0.0020	0.8463	0.4336	0.9365	4.8466	7.0568
total	-0.0139	-0.0012	-0.0004	0.0041	1.4903	0.7807	2.1951	11.6267	16.0814

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.0354	0.2438	0.5736
15 mph	0.0064	0.0003	0.0004	0.0008	0.0856	0.0563	0.1309	0.7958	1.0764
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0092	-0.0053	0.2842	1.5088	1.7786
35 mph	0.0044	0.0003	0.0002	0.0008	0.0000	0.0000	0.0000	0.0000	0.0057
total	0.0108	0.0006	0.0005	0.0015	0.2488	0.1729	0.4505	2.5485	3.4342

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.0354	0.2438	0.5736
15 mph	0.0079	0.0003	0.0005	0.0028	0.2638	0.1736	0.3785	2.3015	3.1288
25 mph	0.0018	0.0001	0.0001	0.0021	0.2811	0.1614	1.0855	5.7631	7.2952
35 mph	0.0047	0.0003	0.0002	0.0028	0.3496	0.1947	0.7971	4.2605	5.6098
45 mph	-0.0025	-0.0002	-0.0001	0.0011	0.2977	0.1612	0.4467	2.4348	3.3387
55 mph	-0.0020	-0.0002	-0.0001	0.0009	0.2886	0.1513	0.0966	0.5534	1.0885
65 mph	-0.0072	-0.0006	-0.0002	0.0022	0.8791	0.4504	0.9433	4.8815	7.1484
total	0.0027	-0.0002	0.0004	0.0119	2.5322	1.4145	3.7831	20.4386	28.1830

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.32	-0.44	-0.76	6.04	19.96	3.88	5.19	0.21
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**-1.32**	**-0.44**	**-0.76**	**6.04**	**19.96**	**3.88**	**5.19**	**0.21**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.18	0.24	0.49	1.68	0.08	0.02	0.02	0.00
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**1.18**	**0.24**	**0.49**	**1.68**	**0.08**	**0.02**	**0.02**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.44	0.56	0.74	0.27	2.01
15 mph	0.43	0.08	0.21	0.40	0.49	0.21	0.39	2.34	4.54
25 mph	0.13	0.03	0.06	0.57	0.59	0.21	1.12	5.86	8.57
35 mph	0.35	0.07	0.17	0.75	0.71	0.25	0.82	4.34	7.47
45 mph	-0.18	-0.04	-0.09	0.31	0.60	0.21	0.47	2.50	3.79
55 mph	-0.15	-0.03	-0.07	0.30	0.57	0.20	0.11	0.58	1.50
65 mph	-0.56	-0.11	-0.27	0.79	1.77	0.59	1.07	5.25	8.53
RUNLOSS	-1.32	-0.44	-0.76	6.04	19.96	3.88	5.19	0.21	32.75
RESTLOSS DIURI	1.18	0.24	0.49	1.68	0.08	0.02	0.02	0.00	3.72
total	-0.12	-0.20	-0.26	10.85	25.21	6.14	9.92	21.35	**72.89**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	2.0008	22.8319
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	0.1185	3.5146
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.0968	2.8731
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.0843	2.5036
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.0783	2.3272
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.0777	2.3049
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.0823	2.4348

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	18.8257	17.8936
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	4.0527	9.6014
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	1.7445	4.2191
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	0.9991	2.5657
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	0.6881	1.9171
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	0.5212	1.6871
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	0.4903	1.2803

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1654	0.0359	0.1031	0.6213	0.4466	0.1044	0.0326	0.1097	1.6190
25 mph	0.4766	0.0999	0.2925	1.7991	1.3581	0.3106	0.1031	0.3475	4.7875
35 mph	0.4855	0.1006	0.2954	1.8669	1.4624	0.3279	0.0869	0.2930	4.9186
45 mph	0.0839	0.0176	0.0510	0.3269	0.2588	0.0572	0.0404	0.1362	0.9719
55 mph	0.1081	0.0236	0.0661	0.4302	0.3361	0.0734	0.0347	0.1169	1.1891
65 mph	0.0635	0.0145	0.0391	0.2587	0.2005	0.0437	0.0085	0.0285	0.6571
total	1.3831	0.2921	0.8473	5.3032	4.0626	0.9172	0.3060	1.0318	14.1432

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0593	-0.0124	-0.0364	0.0757	0.1054	0.0241	0.0593	0.1997	0.3562
35 mph	-0.4067	-0.0842	-0.2475	0.5293	0.7650	0.1715	0.1720	0.5802	1.4795
45 mph	-0.9781	-0.2055	-0.5938	1.2892	1.8831	0.4159	0.2077	0.7011	2.7196
55 mph	-0.8840	-0.1931	-0.5403	1.1909	1.7167	0.3751	0.0634	0.2137	1.9424
65 mph	-2.6277	-0.6001	-1.6196	3.6238	5.1818	1.1288	1.1750	3.9498	10.2118
total	-4.9558	-1.0954	-3.0376	6.7089	9.6521	2.1155	1.6774	5.6445	16.7096

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0610	0.0798	0.2835
15 mph	0.7111	0.1541	0.4433	0.2371	0.2146	0.0501	0.0172	0.0580	1.8855
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0463	-0.0106	0.0576	0.1941	0.1947
35 mph	1.3993	0.2899	0.8515	0.9361	0.0000	0.0000	0.0000	0.0000	3.4767
total	2.1104	0.4440	1.2947	1.1732	0.2747	0.0759	0.1358	0.3318	5.8405

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0610	0.0798	0.2835
15 mph	0.8765	0.1900	0.5464	0.8584	0.6612	0.1545	0.0498	0.1677	3.5045
25 mph	0.4174	0.0875	0.2562	1.8748	1.4172	0.3242	0.2199	0.7413	5.3385
35 mph	1.4782	0.3062	0.8994	3.3322	2.2274	0.4994	0.2589	0.8732	9.8749
45 mph	-0.8942	-0.1879	-0.5429	1.6161	2.1419	0.4731	0.2481	0.8373	3.6916
55 mph	-0.7759	-0.1695	-0.4742	1.6211	2.0529	0.4486	0.0981	0.3305	3.1316
65 mph	-2.5642	-0.5856	-1.5805	3.8825	5.3824	1.1725	1.1834	3.9783	10.8689
total	-1.4622	-0.3592	-0.8956	13.1852	13.9893	3.1086	2.1192	7.0081	36.6934

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0024	0.0002	0.0001	0.0026	1.3179	0.6664	7.0966	32.1346	41.2207
25 mph	0.0073	0.0006	0.0002	0.0060	4.9809	2.4304	11.8370	54.7178	73.9802
35 mph	0.0081	0.0007	0.0002	0.0062	6.7088	3.2306	6.5606	32.2017	48.7170
45 mph	0.0015	0.0001	0.0000	0.0011	1.3697	0.6557	2.2592	12.0307	16.3180
55 mph	0.0021	0.0002	0.0000	0.0014	1.9558	0.9361	1.4830	9.1756	13.5543
65 mph	0.0012	0.0001	0.0000	0.0008	1.2023	0.5763	0.3219	1.6069	3.7096
total	0.0226	0.0019	0.0006	0.0180	17.5354	8.4956	29.5583	141.8674	197.4997

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0009	-0.0001	0.0000	0.0003	0.3868	0.1887	6.8044	31.4541	38.8331
35 mph	-0.0068	-0.0006	-0.0002	0.0017	3.5093	1.6899	12.9900	63.7597	81.9431
45 mph	-0.0180	-0.0017	-0.0004	0.0042	9.9665	4.7711	11.6302	61.9343	88.2862
55 mph	-0.0169	-0.0016	-0.0004	0.0038	9.9890	4.7813	2.7106	16.7703	34.2360
65 mph	-0.0489	-0.0048	-0.0010	0.0111	31.0690	14.8912	44.6224	222.7210	313.2600
total	-0.0916	-0.0088	-0.0020	0.0211	54.9205	26.3222	78.7576	396.6394	556.5584

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	3.6556	6.6411	16.9502
15 mph	0.0105	0.0006	0.0004	0.0010	0.6332	0.3202	3.7505	16.9830	21.6995
25 mph	0.0000	0.0000	0.0000	0.0000	-0.1699	-0.0829	6.6115	30.5623	36.9209
35 mph	0.0235	0.0021	0.0006	0.0031	0.0000	0.0000	0.0000	0.0000	0.0292
total	0.0340	0.0027	0.0010	0.0041	4.3880	2.9660	14.0176	54.1864	75.5997

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	3.6556	6.6411	16.9502
15 mph	0.0129	0.0008	0.0005	0.0036	1.9510	0.9866	10.8471	49.1176	62.9202
25 mph	0.0064	0.0005	0.0002	0.0062	5.1978	2.5362	25.2528	116.7342	149.7342
35 mph	0.0248	0.0022	0.0006	0.0110	10.2181	4.9206	19.5506	95.9614	130.6892
45 mph	-0.0165	-0.0015	-0.0004	0.0053	11.3362	5.4268	13.8893	73.9650	104.6042
55 mph	-0.0148	-0.0014	-0.0003	0.0052	11.9448	5.7174	4.1936	25.9459	47.7903
65 mph	-0.0478	-0.0047	-0.0010	0.0118	32.2714	15.4675	44.9444	224.3279	316.9696
total	-0.0350	-0.0042	-0.0004	0.0432	76.8439	37.7838	122.3334	592.6932	829.6579

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.03	2.77	3.72	6.72	17.23
15 mph	0.89	0.19	0.55	0.86	2.61	1.14	10.90	49.29	66.42
25 mph	0.42	0.09	0.26	1.88	6.61	2.86	25.47	117.48	155.07
35 mph	1.50	0.31	0.90	3.34	12.45	5.42	19.81	96.83	140.56
45 mph	-0.91	-0.19	-0.54	1.62	13.48	5.90	14.14	74.80	108.30
55 mph	-0.79	-0.17	-0.47	1.63	14.00	6.17	4.29	26.28	50.92
65 mph	-2.61	-0.59	-1.58	3.89	37.65	16.64	46.13	228.31	327.84
total	-1.50	-0.36	-0.90	13.23	90.83	40.89	124.45	599.70	**866.35**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	347.4761	226.4185
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	0.2735	37.8780
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	0.2299	31.8113
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	0.1954	27.0076
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	0.1678	23.1978
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	0.1457	20.1296
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	0.1279	17.6580

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.3809	2.4873
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	0.7005	2.1724
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.3716	1.1057
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.2019	0.5998
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.1097	0.3282
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.0595	0.1813
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.0511	0.1507

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	2.0227	0.4086	0.9852	5.8474	2.4516	0.4034	0.0752	1.1822	13.3761
25 mph	5.8340	1.1190	2.8327	16.3282	6.2827	1.0750	0.2448	3.8473	37.5637
35 mph	5.7134	1.0698	2.7766	16.0177	6.0150	1.0416	0.2014	3.1610	35.9964
45 mph	0.9083	0.1714	0.4411	2.5866	1.0128	0.1720	0.0865	1.3575	6.7362
55 mph	1.0352	0.2039	0.5037	3.0891	1.3422	0.2179	0.0651	1.0209	7.4779
65 mph	0.5245	0.1102	0.2547	1.7057	0.9628	0.1449	0.0132	0.2067	3.9227
total	16.0379	3.0828	7.7939	45.5747	18.0671	3.0547	0.6861	10.7756	105.0729

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.7254	-0.1391	-0.3522	0.6872	0.4878	0.0835	0.1407	2.2116	2.3941
35 mph	-4.7856	-0.8961	-2.3257	4.5412	3.1464	0.5448	0.3987	6.2588	6.8824
45 mph	-10.5834	-1.9976	-5.1392	10.2012	7.3699	1.2514	0.4452	6.9886	8.5362
55 mph	-8.4660	-1.6673	-4.1191	8.5512	6.8552	1.1127	0.1189	1.8659	4.2516
65 mph	-21.7019	-4.5608	-10.5405	23.8895	24.8781	3.7451	1.8270	28.6445	46.1810
total	-46.2623	-9.2608	-22.4768	47.8702	42.7375	6.7375	2.9306	45.9695	68.2453

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	10.5899	0.7912	25.8543
15 mph	8.6956	1.7565	4.2353	2.2312	1.1779	0.1938	0.0397	0.6248	18.9548
25 mph	0.0000	0.0000	0.0000	0.0000	-0.2143	-0.0367	0.1368	2.1489	2.0346
35 mph	16.4657	3.0830	8.0021	8.0315	0.0000	0.0000	0.0000	0.0000	35.5823
total	25.1613	4.8395	12.2374	10.2626	11.7543	3.8397	10.7663	3.5648	82.4261

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	10.5899	0.7912	25.8543
15 mph	10.7183	2.1651	5.2205	8.0785	3.6295	0.5972	0.1149	1.8070	32.3309
25 mph	5.1086	0.9799	2.4805	17.0153	6.5562	1.1218	0.5223	8.2078	41.9924
35 mph	17.3935	3.2568	8.4530	28.5904	9.1614	1.5864	0.6000	9.4197	78.4611
45 mph	-9.6751	-1.8261	-4.6982	12.7878	8.3827	1.4233	0.5317	8.3462	15.2724
55 mph	-7.4309	-1.4634	-3.6155	11.6403	8.1975	1.3306	0.1840	2.8869	11.7295
65 mph	-21.1774	-4.4506	-10.2858	25.5952	25.8409	3.8900	1.8401	28.8512	50.1037
total	-5.0630	-1.3384	-2.4455	103.7076	72.5588	13.6319	14.3830	60.3099	255.7443

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0170	0.0003	0.0007	0.0319	0.7220	0.4536	1.2267	7.2707	9.7228
25 mph	0.0179	0.0006	0.0006	0.0281	1.2220	0.6719	2.5212	14.3402	18.8026
35 mph	0.0138	0.0006	0.0005	0.0207	1.1489	0.6107	1.3260	7.5283	10.6495
45 mph	0.0021	0.0001	0.0001	0.0028	0.2039	0.1052	0.3601	2.0594	2.7336
55 mph	0.0025	0.0002	0.0001	0.0030	0.3135	0.1574	0.1694	0.9860	1.6321
65 mph	0.0017	0.0001	0.0000	0.0018	0.2606	0.1287	0.0335	0.1892	0.6157
total	0.0551	0.0019	0.0020	0.0883	3.8710	2.1273	5.6369	32.3739	44.1564

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0022	-0.0001	-0.0001	0.0012	0.0949	0.0522	1.4493	8.2434	9.8385
35 mph	-0.0116	-0.0005	-0.0004	0.0059	0.6010	0.3194	2.6255	14.9062	18.4455
45 mph	-0.0239	-0.0012	-0.0007	0.0110	1.4839	0.7652	1.8539	10.6019	14.6900
55 mph	-0.0207	-0.0013	-0.0006	0.0083	1.6013	0.8040	0.3096	1.8022	4.5028
65 mph	-0.0713	-0.0055	-0.0017	0.0251	6.7346	3.3250	4.6476	26.2204	40.8742
total	-0.1297	-0.0086	-0.0035	0.0515	10.5156	5.2658	10.8859	61.7740	88.3510

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	0.2681	0.9231	3.6307
15 mph	0.0731	0.0013	0.0031	0.0122	0.3469	0.2179	0.6483	3.8425	5.1453
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0417	-0.0229	1.4082	8.0096	9.3532
35 mph	0.0398	0.0017	0.0013	0.0104	0.0000	0.0000	0.0000	0.0000	0.0533
total	0.1130	0.0030	0.0044	0.0225	1.7344	1.2052	2.3246	12.7753	18.1824

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	0.2681	0.9231	3.6307
15 mph	0.0901	0.0016	0.0038	0.0440	1.0689	0.6715	1.8750	11.1132	14.8680
25 mph	0.0157	0.0006	0.0006	0.0293	1.2752	0.7011	5.3786	30.5933	37.9943
35 mph	0.0421	0.0018	0.0014	0.0369	1.7499	0.9301	3.9516	22.4345	29.1484
45 mph	-0.0219	-0.0011	-0.0007	0.0138	1.6878	0.8704	2.2140	12.6613	17.4236
55 mph	-0.0182	-0.0012	-0.0005	0.0113	1.9148	0.9614	0.4791	2.7882	6.1349
65 mph	-0.0696	-0.0054	-0.0017	0.0269	6.9952	3.4537	4.6811	26.4096	41.4899
total	0.0383	-0.0037	0.0029	0.1623	16.1209	8.5983	18.8475	106.9232	150.6898

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	12.22	4.69	10.86	1.71	29.48
15 mph	10.81	2.17	5.22	8.12	4.70	1.27	1.99	12.92	47.20
25 mph	5.12	0.98	2.48	17.04	7.83	1.82	5.90	38.80	79.99
35 mph	17.44	3.26	8.45	28.63	10.91	2.52	4.55	31.85	107.61
45 mph	-9.70	-1.83	-4.70	12.80	10.07	2.29	2.75	21.01	32.70
55 mph	-7.45	-1.46	-3.62	11.65	10.11	2.29	0.66	5.68	17.86
65 mph	-21.25	-4.46	-10.29	25.62	32.84	7.34	6.52	55.26	91.59
total	-5.02	-1.34	-2.44	103.87	88.68	22.23	33.23	167.23	**406.43**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0249	0.0263
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0021	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0011	0.0011
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0007	0.0007
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0007	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.0014	0.0015
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.0051	0.0163
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0041	0.0101
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0035	0.0088
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0031	0.0080
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.0027	0.0078
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.0027	0.0061

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0083	0.0011	0.0030	0.0111	0.0036	0.0009	0.0006	0.0001	0.0287
25 mph	0.0153	0.0021	0.0056	0.0207	0.0068	0.0016	0.0012	0.0001	0.0535
35 mph	0.0116	0.0016	0.0043	0.0157	0.0052	0.0013	0.0007	0.0001	0.0404
45 mph	0.0017	0.0002	0.0006	0.0023	0.0008	0.0002	0.0003	0.0000	0.0062
55 mph	0.0021	0.0003	0.0008	0.0029	0.0010	0.0002	0.0002	0.0000	0.0076
65 mph	0.0014	0.0002	0.0005	0.0019	0.0007	0.0002	0.0001	0.0000	0.0050
total	0.0404	0.0056	0.0149	0.0547	0.0180	0.0044	0.0030	0.0004	0.1414

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0019	-0.0003	-0.0007	0.0009	0.0005	0.0001	0.0007	0.0001	-0.0006
35 mph	-0.0097	-0.0014	-0.0036	0.0045	0.0027	0.0007	0.0014	0.0002	-0.0052
45 mph	-0.0198	-0.0028	-0.0073	0.0091	0.0057	0.0013	0.0014	0.0002	-0.0121
55 mph	-0.0175	-0.0024	-0.0064	0.0081	0.0051	0.0012	0.0004	0.0001	-0.0115
65 mph	-0.0590	-0.0080	-0.0217	0.0271	0.0177	0.0042	0.0095	0.0011	-0.0290
total	-0.1078	-0.0148	-0.0396	0.0496	0.0317	0.0075	0.0135	0.0016	-0.0584

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0008	0.0001	0.0057
15 mph	0.0356	0.0048	0.0131	0.0042	0.0017	0.0004	0.0003	0.0000	0.0602
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0002	-0.0001	0.0006	0.0001	0.0004
35 mph	0.0334	0.0047	0.0123	0.0079	0.0000	0.0000	0.0000	0.0000	0.0582
total	0.0690	0.0095	0.0254	0.0121	0.0054	0.0014	0.0017	0.0002	0.1246

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0008	0.0001	0.0057
15 mph	0.0439	0.0060	0.0161	0.0153	0.0053	0.0013	0.0009	0.0001	0.0889
25 mph	0.0134	0.0019	0.0049	0.0216	0.0071	0.0017	0.0025	0.0003	0.0534
35 mph	0.0353	0.0050	0.0130	0.0280	0.0080	0.0019	0.0021	0.0003	0.0934
45 mph	-0.0181	-0.0026	-0.0066	0.0114	0.0064	0.0015	0.0017	0.0002	-0.0059
55 mph	-0.0153	-0.0021	-0.0056	0.0110	0.0061	0.0014	0.0007	0.0001	-0.0039
65 mph	-0.0576	-0.0078	-0.0211	0.0290	0.0184	0.0043	0.0096	0.0011	-0.0240
total	0.0016	0.0003	0.0006	0.1165	0.0551	0.0132	0.0182	0.0021	0.2077

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0006	0.0000	0.0000	0.0004	0.0256	0.0143	0.0089	0.0544	0.1043
25 mph	0.0012	0.0001	0.0000	0.0009	0.0582	0.0332	0.0281	0.1305	0.2522
35 mph	0.0010	0.0001	0.0000	0.0008	0.0531	0.0305	0.0232	0.1100	0.2188
45 mph	0.0002	0.0000	0.0000	0.0001	0.0086	0.0049	0.0102	0.0501	0.0742
55 mph	0.0002	0.0000	0.0000	0.0002	0.0114	0.0064	0.0078	0.0425	0.0685
65 mph	0.0001	0.0000	0.0000	0.0001	0.0078	0.0042	0.0017	0.0077	0.0217
total	0.0033	0.0003	0.0001	0.0024	0.1647	0.0936	0.0799	0.3953	0.7396

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0002	0.0000	0.0000	0.0000	0.0045	0.0026	0.0161	0.0750	0.0981
35 mph	-0.0008	-0.0001	0.0000	0.0002	0.0278	0.0160	0.0459	0.2179	0.3069
45 mph	-0.0018	-0.0002	0.0000	0.0005	0.0628	0.0359	0.0523	0.2582	0.4076
55 mph	-0.0016	-0.0001	0.0000	0.0004	0.0583	0.0326	0.0143	0.0777	0.1814
65 mph	-0.0053	-0.0005	-0.0001	0.0014	0.2009	0.1094	0.2423	1.0675	1.6156
total	-0.0098	-0.0009	-0.0002	0.0026	0.3543	0.1964	0.3710	1.6962	2.6096

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0003	0.0006	0.0757
15 mph	0.0025	0.0002	0.0001	0.0001	0.0123	0.0069	0.0047	0.0288	0.0555
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0020	-0.0011	0.0157	0.0729	0.0854
35 mph	0.0028	0.0002	0.0001	0.0004	0.0000	0.0000	0.0000	0.0000	0.0035
total	0.0053	0.0004	0.0001	0.0005	0.0543	0.0366	0.0206	0.1022	0.2202

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0003	0.0006	0.0757
15 mph	0.0030	0.0002	0.0001	0.0005	0.0378	0.0212	0.0136	0.0832	0.1598
25 mph	0.0011	0.0001	0.0000	0.0009	0.0607	0.0347	0.0599	0.2784	0.4357
35 mph	0.0030	0.0002	0.0001	0.0014	0.0809	0.0465	0.0691	0.3279	0.5292
45 mph	-0.0017	-0.0001	0.0000	0.0006	0.0714	0.0408	0.0625	0.3083	0.4818
55 mph	-0.0014	-0.0001	0.0000	0.0006	0.0697	0.0390	0.0221	0.1202	0.2499
65 mph	-0.0052	-0.0005	-0.0001	0.0015	0.2087	0.1137	0.2441	1.0752	1.6373
total	-0.0012	-0.0002	0.0000	0.0055	0.5733	0.3267	0.4716	2.1936	3.5694

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
15 mph	0.05	0.01	0.02	0.02	0.04	0.02	0.01	0.08	0.25
25 mph	0.01	0.00	0.00	0.02	0.07	0.04	0.06	0.28	0.49
35 mph	0.04	0.01	0.01	0.03	0.09	0.05	0.07	0.33	0.62
45 mph	-0.02	0.00	-0.01	0.01	0.08	0.04	0.06	0.31	0.48
55 mph	-0.02	0.00	-0.01	0.01	0.08	0.04	0.02	0.12	0.25
65 mph	-0.06	-0.01	-0.02	0.03	0.23	0.12	0.25	1.08	1.61
total	0.00	0.00	0.00	0.12	0.63	0.34	0.49	2.20	**3.78**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.81	0.06	0.31	1.02	0.82	0.32	0.49	0.03
Diesel	0.01	0.00	0.00	0.01	0.56	0.45	3.12	4.09
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.83	0.06	0.31	1.04	1.38	0.77	3.60	4.12

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-3.24	-0.24	-1.22	1.38	2.04	0.78	2.90	0.19
Diesel	-0.03	0.00	0.00	0.02	1.39	1.12	18.51	24.29
Electric	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-3.30	-0.24	-1.22	1.39	3.43	1.91	21.41	24.48

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.21	0.09	0.45	0.23	0.03	0.01	0.11	0.01
Diesel	0.01	0.00	0.00	0.00	0.02	0.01	0.67	0.88
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.23	0.09	0.45	0.23	0.04	0.02	0.78	0.89

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-1.22	-0.09	-0.46	2.63	2.89	1.11	3.50	0.23	8.59
Diesel	-0.01	0.00	0.00	0.03	1.96	1.59	22.29	29.26	55.12
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Total	-1.24	-0.09	-0.46	2.66	4.85	2.70	25.79	29.49	**63.70**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	261.20
Internal	14.47
Total	**275.68**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0229	0.0242
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0019	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0010	0.0010
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0006	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0005	0.0005
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0005	0.0005
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0006	0.0006

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.0013	0.0014
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.0049	0.0156
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0040	0.0096
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0034	0.0084
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0030	0.0076
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.0026	0.0075
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.0025	0.0059

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0076	0.0010	0.0028	0.0102	0.0033	0.0008	0.0005	0.0001	0.0264
25 mph	0.0141	0.0020	0.0052	0.0191	0.0062	0.0015	0.0011	0.0001	0.0493
35 mph	0.0107	0.0015	0.0039	0.0145	0.0048	0.0012	0.0007	0.0001	0.0372
45 mph	0.0016	0.0002	0.0006	0.0021	0.0007	0.0002	0.0003	0.0000	0.0057
55 mph	0.0020	0.0003	0.0007	0.0027	0.0009	0.0002	0.0002	0.0000	0.0070
65 mph	0.0013	0.0002	0.0005	0.0018	0.0006	0.0001	0.0001	0.0000	0.0046
total	0.0372	0.0052	0.0137	0.0504	0.0166	0.0040	0.0028	0.0003	0.1302

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0018	-0.0002	-0.0006	0.0008	0.0005	0.0001	0.0006	0.0001	-0.0006
35 mph	-0.0089	-0.0013	-0.0033	0.0041	0.0025	0.0006	0.0013	0.0002	-0.0048
45 mph	-0.0182	-0.0026	-0.0067	0.0084	0.0052	0.0012	0.0013	0.0002	-0.0111
55 mph	-0.0161	-0.0023	-0.0059	0.0075	0.0047	0.0011	0.0004	0.0000	-0.0106
65 mph	-0.0543	-0.0073	-0.0199	0.0250	0.0163	0.0038	0.0088	0.0010	-0.0266
total	-0.0992	-0.0137	-0.0365	0.0458	0.0292	0.0069	0.0124	0.0015	-0.0536

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0007	0.0001	0.0053
15 mph	0.0327	0.0044	0.0120	0.0039	0.0016	0.0004	0.0003	0.0000	0.0554
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0002	-0.0001	0.0006	0.0001	0.0004
35 mph	0.0307	0.0043	0.0113	0.0073	0.0000	0.0000	0.0000	0.0000	0.0536
total	0.0634	0.0088	0.0233	0.0112	0.0050	0.0012	0.0016	0.0002	0.1147

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0007	0.0001	0.0053
15 mph	0.0404	0.0055	0.0148	0.0141	0.0049	0.0012	0.0008	0.0001	0.0818
25 mph	0.0123	0.0017	0.0045	0.0199	0.0065	0.0016	0.0023	0.0003	0.0491
35 mph	0.0324	0.0046	0.0119	0.0258	0.0073	0.0018	0.0019	0.0002	0.0860
45 mph	-0.0166	-0.0023	-0.0061	0.0105	0.0059	0.0014	0.0016	0.0002	-0.0054
55 mph	-0.0141	-0.0020	-0.0052	0.0101	0.0056	0.0013	0.0006	0.0001	-0.0035
65 mph	-0.0530	-0.0072	-0.0194	0.0268	0.0169	0.0040	0.0088	0.0010	-0.0220
total	0.0014	0.0003	0.0005	0.1074	0.0508	0.0122	0.0168	0.0020	0.1913

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0005	0.0000	0.0000	0.0004	0.0244	0.0137	0.0085	0.0521	0.0997
25 mph	0.0012	0.0001	0.0000	0.0008	0.0557	0.0318	0.0268	0.1248	0.2413
35 mph	0.0009	0.0001	0.0000	0.0008	0.0508	0.0292	0.0222	0.1053	0.2093
45 mph	0.0002	0.0000	0.0000	0.0001	0.0083	0.0047	0.0097	0.0480	0.0710
55 mph	0.0002	0.0000	0.0000	0.0002	0.0109	0.0061	0.0075	0.0407	0.0655
65 mph	0.0001	0.0000	0.0000	0.0001	0.0074	0.0041	0.0017	0.0074	0.0208
total	0.0031	0.0003	0.0001	0.0023	0.1576	0.0896	0.0764	0.3782	0.7076

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0001	0.0000	0.0000	0.0000	0.0043	0.0025	0.0154	0.0718	0.0939
35 mph	-0.0008	-0.0001	0.0000	0.0002	0.0266	0.0153	0.0440	0.2084	0.2936
45 mph	-0.0017	-0.0001	0.0000	0.0005	0.0601	0.0343	0.0501	0.2470	0.3900
55 mph	-0.0016	-0.0001	0.0000	0.0004	0.0558	0.0312	0.0136	0.0743	0.1736
65 mph	-0.0051	-0.0005	-0.0001	0.0013	0.1922	0.1047	0.2319	1.0213	1.5457
total	-0.0094	-0.0009	-0.0002	0.0024	0.3390	0.1879	0.3550	1.6228	2.4968

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0003	0.0005	0.0724
15 mph	0.0024	0.0002	0.0001	0.0001	0.0117	0.0066	0.0045	0.0275	0.0531
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0019	-0.0011	0.0150	0.0697	0.0817
35 mph	0.0027	0.0002	0.0001	0.0004	0.0000	0.0000	0.0000	0.0000	0.0034
total	0.0051	0.0004	0.0001	0.0005	0.0519	0.0350	0.0198	0.0978	0.2106

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0003	0.0005	0.0724
15 mph	0.0029	0.0002	0.0001	0.0005	0.0362	0.0203	0.0130	0.0796	0.1529
25 mph	0.0010	0.0001	0.0000	0.0009	0.0581	0.0332	0.0573	0.2663	0.4169
35 mph	0.0029	0.0002	0.0001	0.0014	0.0774	0.0445	0.0662	0.3137	0.5063
45 mph	-0.0016	-0.0001	0.0000	0.0006	0.0683	0.0390	0.0598	0.2950	0.4610
55 mph	-0.0014	-0.0001	0.0000	0.0006	0.0667	0.0373	0.0211	0.1150	0.2391
65 mph	-0.0050	-0.0005	-0.0001	0.0014	0.1997	0.1088	0.2335	1.0287	1.5665
total	-0.0011	-0.0002	0.0000	0.0053	0.5485	0.3126	0.4512	2.0988	3.4150

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
15 mph	0.04	0.01	0.01	0.01	0.04	0.02	0.01	0.08	0.23
25 mph	0.01	0.00	0.00	0.02	0.06	0.03	0.06	0.27	0.47
35 mph	0.04	0.00	0.01	0.03	0.08	0.05	0.07	0.31	0.59
45 mph	-0.02	0.00	-0.01	0.01	0.07	0.04	0.06	0.30	0.46
55 mph	-0.02	0.00	-0.01	0.01	0.07	0.04	0.02	0.12	0.24
65 mph	-0.06	-0.01	-0.02	0.03	0.22	0.11	0.24	1.03	1.54
total	0.00	0.00	0.00	0.11	0.60	0.32	0.47	2.10	**3.61**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.32	0.02	0.12	0.41	0.34	0.13	0.20	0.01
Diesel	0.00	0.00	0.00	0.00	0.23	0.18	1.29	1.48
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.33	0.02	0.12	0.41	0.56	0.31	1.49	1.50

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.28	-0.10	-0.48	0.55	0.84	0.32	1.20	0.07
Diesel	-0.01	0.00	0.00	0.01	0.56	0.46	7.65	8.81
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-1.31	-0.10	-0.48	0.55	1.40	0.78	8.85	8.88

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.48	0.04	0.18	0.09	0.01	0.00	0.04	0.00
Diesel	0.00	0.00	0.00	0.00	0.01	0.01	0.28	0.32
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.49	0.04	0.18	0.09	0.02	0.01	0.32	0.32

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-0.48	-0.04	-0.18	1.04	1.19	0.46	1.45	0.09	3.53
Diesel	0.00	0.00	0.00	0.01	0.79	0.65	9.22	10.62	21.28
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Total	-0.49	-0.04	-0.18	1.06	1.98	1.11	10.67	10.70	**24.80**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	64.11
Internal	3.55
Total	**67.67**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.06
15 mph	0.03	0.00	0.01	0.01	0.03	0.02	0.01	0.06	0.17
25 mph	0.01	0.00	0.00	0.01	0.05	0.03	0.05	0.21	0.35
35 mph	0.02	0.00	0.01	0.02	0.07	0.04	0.05	0.24	0.45
45 mph	-0.01	0.00	0.00	0.01	0.06	0.03	0.05	0.23	0.35
55 mph	-0.01	0.00	0.00	0.01	0.06	0.03	0.02	0.09	0.18
65 mph	-0.04	0.00	-0.01	0.02	0.17	0.09	0.19	0.79	1.20
total	0.00	0.00	0.00	0.07	0.46	0.25	0.36	1.62	2.76

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0059	0.0008	0.0041	0.0136	0.0117	0.0039	0.0037	0.0004	0.0441
25 mph	0.0209	0.0029	0.0144	0.0483	0.0417	0.0139	0.0143	0.0016	0.1580
35 mph	0.0249	0.0034	0.0171	0.0573	0.0495	0.0165	0.0138	0.0016	0.1841
45 mph	0.0046	0.0006	0.0032	0.0106	0.0091	0.0030	0.0069	0.0008	0.0388
55 mph	0.0059	0.0008	0.0041	0.0136	0.0117	0.0039	0.0060	0.0007	0.0466
65 mph	0.0033	0.0004	0.0023	0.0075	0.0065	0.0022	0.0014	0.0002	0.0237
total	0.0654	0.0090	0.0451	0.1508	0.1303	0.0435	0.0460	0.0052	0.4954

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0026	-0.0004	-0.0018	0.0020	0.0032	0.0011	0.0082	0.0009	0.0107
35 mph	-0.0208	-0.0029	-0.0143	0.0162	0.0259	0.0087	0.0273	0.0031	0.0432
45 mph	-0.0534	-0.0073	-0.0368	0.0416	0.0664	0.0222	0.0355	0.0040	0.0723
55 mph	-0.0482	-0.0066	-0.0332	0.0376	0.0599	0.0200	0.0109	0.0012	0.0417
65 mph	-0.1354	-0.0186	-0.0932	0.1056	0.1683	0.0562	0.1914	0.0217	0.2960
total	-0.2604	-0.0358	-0.1793	0.2031	0.3237	0.1081	0.2734	0.0311	0.4639

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.0253	0.0035	0.0174	0.0052	0.0056	0.0019	0.0019	0.0002	0.0611
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0014	-0.0005	0.0080	0.0009	0.0070
35 mph	0.0717	0.0099	0.0494	0.0287	0.0000	0.0000	0.0000	0.0000	0.1596
total	0.0970	0.0133	0.0668	0.0339	0.0053	0.0018	0.0103	0.0012	0.2296

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.0312	0.0043	0.0215	0.0188	0.0174	0.0058	0.0056	0.0006	0.1052
25 mph	0.0183	0.0025	0.0126	0.0503	0.0435	0.0145	0.0304	0.0035	0.1757
35 mph	0.0757	0.0104	0.0521	0.1023	0.0754	0.0252	0.0412	0.0047	0.3870
45 mph	-0.0488	-0.0067	-0.0336	0.0522	0.0755	0.0252	0.0425	0.0048	0.1110
55 mph	-0.0423	-0.0058	-0.0291	0.0511	0.0716	0.0239	0.0169	0.0019	0.0883
65 mph	-0.1321	-0.0182	-0.0910	0.1132	0.1748	0.0584	0.1928	0.0219	0.3198
total	-0.0979	-0.0135	-0.0675	0.3878	0.4593	0.1534	0.3298	0.0375	1.1889

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0001	0.0027	0.0019	0.0084	0.0161	0.0293
25 mph	0.0000	0.0000	0.0000	0.0004	0.0097	0.0068	0.0326	0.0623	0.1118
35 mph	0.0001	0.0000	0.0000	0.0005	0.0115	0.0081	0.0315	0.0602	0.1120
45 mph	0.0000	0.0000	0.0000	0.0001	0.0021	0.0015	0.0158	0.0301	0.0496
55 mph	0.0000	0.0000	0.0000	0.0001	0.0027	0.0019	0.0137	0.0261	0.0446
65 mph	0.0000	0.0000	0.0000	0.0001	0.0015	0.0011	0.0032	0.0060	0.0118
total	0.0001	0.0000	0.0000	0.0013	0.0303	0.0214	0.1051	0.2008	0.3591

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0005	0.0187	0.0358	0.0558
35 mph	0.0000	0.0000	0.0000	0.0001	0.0060	0.0043	0.0624	0.1193	0.1921
45 mph	-0.0001	0.0000	0.0000	0.0004	0.0154	0.0109	0.0811	0.1551	0.2628
55 mph	-0.0001	0.0000	0.0000	0.0003	0.0139	0.0098	0.0250	0.0477	0.0966
65 mph	-0.0003	0.0000	0.0000	0.0009	0.0391	0.0276	0.4369	0.8350	1.3392
total	-0.0006	0.0000	-0.0001	0.0018	0.0752	0.0532	0.6241	1.1928	1.9464

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0001	0.0000	0.0000	0.0000	0.0013	0.0009	0.0044	0.0085	0.0153
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0003	-0.0002	0.0182	0.0348	0.0524
35 mph	0.0002	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0004
total	0.0002	0.0000	0.0000	0.0003	0.0012	0.0009	0.0236	0.0450	0.0713

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0001	0.0000	0.0000	0.0002	0.0040	0.0029	0.0128	0.0246	0.0445
25 mph	0.0000	0.0000	0.0000	0.0004	0.0101	0.0071	0.0695	0.1328	0.2200
35 mph	0.0002	0.0000	0.0000	0.0009	0.0175	0.0124	0.0939	0.1795	0.3045
45 mph	-0.0001	0.0000	0.0000	0.0005	0.0175	0.0124	0.0969	0.1852	0.3124
55 mph	-0.0001	0.0000	0.0000	0.0005	0.0166	0.0118	0.0386	0.0738	0.1412
65 mph	-0.0003	0.0000	0.0000	0.0010	0.0406	0.0287	0.4400	0.8410	1.3510
total	-0.0002	0.0000	0.0000	0.0035	0.1067	0.0754	0.7527	1.4387	2.3768

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.03	0.00	0.02	0.02	0.02	0.01	0.02	0.03	0.15
25 mph	0.02	0.00	0.01	0.05	0.05	0.02	0.10	0.14	0.40
35 mph	0.08	0.01	0.05	0.10	0.09	0.04	0.14	0.18	0.69
45 mph	-0.05	-0.01	-0.03	0.05	0.09	0.04	0.14	0.19	0.42
55 mph	-0.04	-0.01	-0.03	0.05	0.09	0.04	0.06	0.08	0.23
65 mph	-0.13	-0.02	-0.09	0.11	0.22	0.09	0.63	0.86	1.67
total	-0.10	-0.01	-0.07	0.39	0.57	0.23	1.08	1.48	**3.57**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	9.3896	3.4090
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.0110	0.2867
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0057	0.1481
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0036	0.0948
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0029	0.0752
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0028	0.0739
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0035	0.0899

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0085	0.0305
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0066	0.0209
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0035	0.0097
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0019	0.0053
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0010	0.0029
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0006	0.0017
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0005	0.0013

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0301	0.0060	0.0147	0.0924	0.0572	0.0102	0.0030	0.0089	0.2226
25 mph	0.0560	0.0116	0.0274	0.1745	0.1128	0.0196	0.0061	0.0179	0.4259
35 mph	0.0420	0.0089	0.0207	0.1341	0.0899	0.0153	0.0038	0.0111	0.3257
45 mph	0.0062	0.0013	0.0030	0.0198	0.0138	0.0023	0.0015	0.0044	0.0522
55 mph	0.0077	0.0016	0.0038	0.0249	0.0177	0.0030	0.0013	0.0037	0.0638
65 mph	0.0051	0.0010	0.0025	0.0164	0.0126	0.0021	0.0004	0.0011	0.0411
total	0.1471	0.0304	0.0721	0.4622	0.3040	0.0524	0.0160	0.0472	1.1313

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0070	-0.0014	-0.0034	0.0073	0.0088	0.0015	0.0035	0.0103	0.0196
35 mph	-0.0352	-0.0074	-0.0173	0.0380	0.0470	0.0080	0.0074	0.0220	0.0625
45 mph	-0.0718	-0.0152	-0.0353	0.0780	0.1001	0.0168	0.0077	0.0227	0.1028
55 mph	-0.0632	-0.0133	-0.0310	0.0691	0.0905	0.0151	0.0023	0.0068	0.0763
65 mph	-0.2103	-0.0424	-0.1024	0.2300	0.3245	0.0539	0.0496	0.1459	0.4488
total	-0.3875	-0.0798	-0.1894	0.4224	0.5708	0.0954	0.0705	0.2076	0.7101

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2862	0.0119	0.9901
15 mph	0.1296	0.0257	0.0633	0.0353	0.0275	0.0049	0.0016	0.0047	0.2926
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0038	-0.0007	0.0034	0.0100	0.0089
35 mph	0.1210	0.0256	0.0596	0.0672	0.0000	0.0000	0.0000	0.0000	0.2734
total	0.2506	0.0513	0.1229	0.1025	0.5395	0.1804	0.2911	0.0266	1.5650

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2862	0.0119	0.9901
15 mph	0.1597	0.0317	0.0780	0.1276	0.0847	0.0150	0.0046	0.0137	0.5152
25 mph	0.0490	0.0101	0.0240	0.1819	0.1178	0.0204	0.0129	0.0382	0.4544
35 mph	0.1279	0.0270	0.0629	0.2393	0.1369	0.0233	0.0112	0.0331	0.6616
45 mph	-0.0656	-0.0139	-0.0322	0.0977	0.1138	0.0191	0.0091	0.0271	0.1551
55 mph	-0.0555	-0.0117	-0.0272	0.0940	0.1082	0.0181	0.0036	0.0106	0.1401
65 mph	-0.2053	-0.0413	-0.0999	0.2465	0.3370	0.0560	0.0499	0.1469	0.4898
total	0.0102	0.0019	0.0056	0.9871	1.4143	0.3282	0.3776	0.2814	3.4064

CH_4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0001	0.0000	0.0000	0.0001	0.0083	0.0054	0.0115	0.0699	0.0953
25 mph	0.0001	0.0000	0.0000	0.0001	0.0125	0.0072	0.0236	0.1255	0.1690
35 mph	0.0001	0.0000	0.0000	0.0001	0.0107	0.0059	0.0124	0.0664	0.0956
45 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0009	0.0034	0.0184	0.0244
55 mph	0.0000	0.0000	0.0000	0.0000	0.0022	0.0012	0.0016	0.0091	0.0140
65 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0008	0.0003	0.0016	0.0043
total	0.0003	0.0000	0.0000	0.0003	0.0368	0.0214	0.0528	0.2909	0.4026

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0006	0.0136	0.0721	0.0872
35 mph	-0.0001	0.0000	0.0000	0.0000	0.0056	0.0031	0.0246	0.1315	0.1647
45 mph	-0.0001	0.0000	0.0000	0.0000	0.0122	0.0066	0.0174	0.0947	0.1307
55 mph	-0.0001	0.0000	0.0000	0.0000	0.0112	0.0059	0.0029	0.0166	0.0365
65 mph	-0.0003	0.0000	0.0000	0.0001	0.0393	0.0201	0.0435	0.2251	0.3278
total	-0.0006	-0.0001	0.0000	0.0002	0.0692	0.0363	0.1020	0.5400	0.7469

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0016	0.0113	0.0266
15 mph	0.0003	0.0000	0.0000	0.0000	0.0040	0.0026	0.0061	0.0370	0.0500
25 mph	0.0000	0.0000	0.0000	0.0000	-0.0004	-0.0002	0.0132	0.0701	0.0826
35 mph	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003
total	0.0005	0.0000	0.0000	0.0001	0.0116	0.0080	0.0209	0.1184	0.1595

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0016	0.0113	0.0266
15 mph	0.0004	0.0000	0.0000	0.0001	0.0123	0.0081	0.0176	0.1069	0.1453
25 mph	0.0001	0.0000	0.0000	0.0001	0.0131	0.0075	0.0504	0.2677	0.3388
35 mph	0.0002	0.0000	0.0000	0.0001	0.0162	0.0090	0.0370	0.1979	0.2606
45 mph	-0.0001	0.0000	0.0000	0.0000	0.0138	0.0075	0.0207	0.1131	0.1551
55 mph	-0.0001	0.0000	0.0000	0.0000	0.0134	0.0070	0.0045	0.0257	0.0506
65 mph	-0.0003	0.0000	0.0000	0.0001	0.0408	0.0209	0.0438	0.2267	0.3320
total	0.0001	0.0000	0.0000	0.0006	0.1176	0.0657	0.1757	0.9493	1.3090

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.52	0.18	0.29	0.02	1.02
15 mph	0.16	0.03	0.08	0.13	0.10	0.02	0.02	0.12	0.66
25 mph	0.05	0.01	0.02	0.18	0.13	0.03	0.06	0.31	0.79
35 mph	0.13	0.03	0.06	0.24	0.15	0.03	0.05	0.23	0.92
45 mph	-0.07	-0.01	-0.03	0.10	0.13	0.03	0.03	0.14	0.31
55 mph	-0.06	-0.01	-0.03	0.09	0.12	0.03	0.01	0.04	0.19
65 mph	-0.21	-0.04	-0.10	0.25	0.38	0.08	0.09	0.37	0.82
total	0.01	0.00	0.01	0.99	1.53	0.39	0.55	1.23	**4.72**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Net) - Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	13,913.37	20,112.41
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,242.10	2,466.87
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,377.17	1,874.35
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,169.21	1,711.34
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,011.01	1,613.15
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	919.35	1,563.49
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	941.16	1,536.53

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	6,792.14	6,260.12
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,670.76	2,309.55
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,346.91	1,841.64
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,213.11	1,647.66
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,122.78	1,518.01
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,057.46	1,429.06
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,043.95	1,403.10

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	878.69	77.25	442.14	1,960.95	835.73	316.17	616.19	76.99	5,204.10
25 mph	2,068.48	181.85	1,041.02	4,624.42	2,365.02	889.66	1,466.62	226.69	12,863.75
35 mph	1,886.63	165.91	949.58	4,234.43	2,549.37	955.04	1,204.99	200.30	12,146.25
45 mph	310.08	27.27	156.06	696.19	465.74	167.87	520.97	94.40	2,438.58
55 mph	412.88	36.31	207.72	927.91	665.51	235.29	410.58	79.30	2,975.51
65 mph	275.43	24.22	138.58	620.07	380.23	133.36	97.00	17.98	1,686.87
total	5,832.18	512.82	2,935.09	13,063.97	7,261.60	2,697.39	4,316.34	695.66	37,315.05

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-257.18	-22.61	-129.43	194.61	183.63	69.08	843.07	130.31	1,011.48
35 mph	-1,580.28	-138.97	-795.39	1,200.51	1,333.55	499.57	2,385.89	396.59	3,301.47
45 mph	-3,612.99	-317.71	-1,818.41	2,745.67	3,388.97	1,221.51	2,681.98	485.98	4,774.99
55 mph	-3,376.74	-297.00	-1,698.80	2,568.63	3,399.04	1,201.71	750.41	144.93	2,692.18
65 mph	-11,396.89	-1,002.37	-5,734.11	8,684.35	9,825.50	3,446.08	13,443.63	2,492.54	19,758.71
total	-20,224.09	-1,778.66	-10,176.15	15,393.76	18,130.69	6,437.94	20,104.99	3,650.34	31,538.84

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	424.03	70.28	1,047.47
15 mph	3,777.52	332.12	1,900.77	748.24	401.54	151.91	325.65	40.69	7,678.44
25 mph	0.00	0.00	0.00	0.00	-80.68	-30.35	819.17	126.61	834.75
35 mph	5,437.21	478.13	2,736.66	2,123.20	0.00	0.00	0.00	0.00	10,775.20
total	9,214.73	810.25	4,637.43	2,871.43	719.67	275.91	1,568.86	237.58	20,335.86

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	424.03	70.28	1,047.47
15 mph	4,656.20	409.37	2,342.91	2,709.18	1,237.27	468.08	941.84	117.68	12,882.54
25 mph	1,811.29	159.24	911.58	4,819.03	2,467.97	928.39	3,128.86	483.61	14,709.98
35 mph	5,743.56	505.07	2,890.85	7,558.14	3,882.92	1,454.61	3,590.88	596.88	26,222.92
45 mph	-3,302.91	-290.45	-1,662.35	3,441.86	3,854.71	1,389.38	3,202.96	580.38	7,213.57
55 mph	-2,963.86	-260.68	-1,491.08	3,496.54	4,064.55	1,437.00	1,160.99	224.23	5,667.68
65 mph	-11,121.46	-978.15	-5,595.54	9,304.42	10,205.73	3,579.43	13,540.63	2,510.52	21,445.59
total	-5,177.17	-455.60	-2,603.63	31,329.17	26,111.96	9,411.25	25,990.19	4,583.58	89,189.75

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	6.45	0.11	0.55	19.92	394.98	315.10	2,925.60	7,729.72	11,392.43
25 mph	15.78	0.27	1.35	49.75	1,062.16	851.87	9,139.28	23,884.28	35,004.74
35 mph	14.67	0.25	1.25	46.26	1,147.05	913.35	7,965.84	20,679.33	30,767.99
45 mph	2.44	0.04	0.21	7.67	200.61	155.92	3,686.36	9,526.04	13,579.29
55 mph	3.30	0.06	0.28	10.45	282.76	215.29	3,008.97	7,772.15	11,293.25
65 mph	2.23	0.04	0.19	7.06	160.81	120.43	685.51	1,760.99	2,737.26
total	44.87	0.76	3.82	141.11	3,248.38	2,571.95	27,411.56	71,352.51	104,774.96

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-1.96	-0.03	-0.17	2.09	82.47	66.14	5,253.63	13,729.66	19,131.84
35 mph	-12.28	-0.21	-1.05	13.12	600.01	477.77	15,772.43	40,945.24	57,795.02
45 mph	-28.46	-0.48	-2.41	30.25	1,459.74	1,134.53	18,977.44	49,040.27	70,610.88
55 mph	-26.95	-0.45	-2.28	28.93	1,444.18	1,099.57	5,499.49	14,205.15	22,247.64
65 mph	-92.33	-1.54	-7.78	98.87	4,155.55	3,111.87	95,012.02	244,074.68	346,351.35
total	-161.98	-2.71	-13.68	173.27	7,741.95	5,889.87	140,515.02	361,995.00	516,136.73

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,318.91	2,323.41	4,108.58
15 mph	27.75	0.47	2.37	7.60	189.78	151.39	1,546.17	4,085.14	6,010.67
25 mph	0.00	0.00	0.00	0.00	-36.24	-29.06	5,104.68	13,340.40	18,379.79
35 mph	42.27	0.71	3.60	23.20	0.00	0.00	0.00	0.00	69.77
total	70.02	1.19	5.97	30.80	372.72	369.41	7,969.76	19,748.95	28,568.81

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,318.91	2,323.41	4,108.58
15 mph	34.20	0.58	2.92	27.52	584.76	466.49	4,471.77	11,814.85	17,403.10
25 mph	13.82	0.24	1.18	51.84	1,108.40	888.95	19,497.60	50,954.34	72,516.37
35 mph	44.65	0.75	3.80	82.57	1,747.06	1,391.12	23,738.27	61,624.57	88,632.79
45 mph	-26.01	-0.44	-2.20	37.92	1,660.34	1,290.44	22,663.79	58,566.32	84,190.16
55 mph	-23.66	-0.40	-2.00	39.39	1,726.94	1,314.86	8,508.46	21,977.29	33,540.89
65 mph	-90.10	-1.50	-7.59	105.93	4,316.37	3,232.29	95,697.53	245,835.67	349,088.61
total	-47.10	-0.76	-3.89	345.17	11,363.04	8,831.24	175,896.34	453,096.45	649,480.50

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	617.99	401.43	1,742.94	2,393.69	5,156.05
15 mph	4,690.41	409.95	2,345.83	2,736.71	1,822.02	934.57	5,413.61	11,932.53	30,285.64
25 mph	1,825.11	159.48	912.76	4,870.87	3,576.37	1,817.35	22,626.46	51,437.95	87,226.35
35 mph	5,788.21	505.83	2,894.65	7,640.71	5,629.98	2,845.73	27,329.15	62,221.45	114,855.71
45 mph	-3,328.92	-290.88	-1,664.56	3,479.78	5,515.05	2,679.82	25,866.75	59,146.70	91,403.74
55 mph	-2,987.52	-261.08	-1,493.08	3,535.93	5,791.49	2,751.85	9,669.45	22,201.52	39,208.57
65 mph	-11,211.56	-979.65	-5,603.13	9,410.35	14,522.10	6,811.73	109,238.16	248,346.19	370,534.19
total	-5,224.27	-456.36	-2,607.52	31,674.34	37,475.01	18,242.49	201,886.53	457,680.03	**738,670.25**

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
176.25	1,704.92	1,148.08	8.04	713.59	137.68	859.31	7.65	175.15	53.76	236.56	5.76	8.57	12.26	1,523,888.15

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
32.17	311.15	209.52	1.47	130.23	25.13	156.82	1.40	31.97	9.81	43.17	1.05	1.56	2.24	278,109.59

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	2,936.4	24.1	31.3	74,790.0	613.2	797.4
LDT1	220.2	0.3	0.2	5,609.8	7.6	4.7
LDT2	1,103.1	1.6	0.0	28,095.4	40.5	0.0
MDT	2,735.9	33.6	0.0	49,614.1	609.0	0.0
LHDT1	1,024.7	664.9	0.0	29,783.6	19,325.0	0.0
LHDT2	342.4	469.9	0.0	9,951.3	13,659.1	0.0
MHDT	378.3	2,410.3	0.0	20,113.6	128,153.8	0.0
HHDT	43.0	4,606.9	0.0	2,284.2	244,944.1	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	81,832.4	670.9	872.5	-7,042.4	-57.7	-75.1
LDT1	6,138.0	8.3	5.1	-528.2	-0.7	-0.4
LDT2	30,741.0	44.3	0.0	-2,645.5	-3.8	0.0
MDT	21,552.3	264.6	0.0	28,061.8	344.5	0.0
LHDT1	10,052.0	6,522.2	0.0	19,731.7	12,802.8	0.0
LHDT2	3,358.6	4,610.0	0.0	6,592.7	9,049.2	0.0
MHDT	3,670.2	23,384.7	0.0	16,443.4	104,769.1	0.0
HHDT	416.8	44,695.8	0.0	1,867.4	200,248.3	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
15	9%	8%	0%	0%
25	32%	31%	1%	3%
35	38%	30%	8%	10%
45	7%	15%	21%	13%
55	9%	13%	19%	4%
65	5%	3%	52%	70%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	7,364.9	552.4	2,766.7	1,939.7	904.7	302.3	293.6	33.3	14,157.6
25 mph	26,186.4	1,964.2	9,837.1	6,896.7	3,216.6	1,074.7	1,137.8	129.2	50,442.7
35 mph	31,096.3	2,332.5	11,681.6	8,189.9	3,819.8	1,276.3	1,101.1	125.0	59,622.3
45 mph	5,728.3	429.7	2,151.9	1,508.7	703.6	235.1	550.5	62.5	11,370.2
55 mph	7,364.9	552.4	2,766.7	1,939.7	904.7	302.3	477.1	54.2	14,362.0
65 mph	4,091.6	306.9	1,537.0	1,077.6	502.6	167.9	110.1	12.5	7,806.3
total	81,832.4	6,138.0	30,741.0	21,552.3	10,052.0	3,358.6	3,670.2	416.8	157,761.3

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-70.4	-5.3	-26.5	280.6	197.3	65.9	493.3	56.0	991.0
35 mph	-563.4	-42.3	-211.6	2,244.9	1,578.5	527.4	1,644.3	186.7	5,364.7
45 mph	-1,443.7	-108.3	-542.3	5,752.7	4,045.0	1,351.5	2,137.6	242.8	11,435.3
55 mph	-1,302.9	-97.7	-489.4	5,191.4	3,650.4	1,219.7	657.7	74.7	8,903.9
65 mph	-3,662.1	-274.7	-1,375.7	14,592.2	10,260.5	3,428.2	11,510.4	1,307.2	35,785.9
total	-7,042.4	-528.2	-2,645.5	28,061.8	19,731.7	6,592.7	16,443.4	1,867.4	62,480.8

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	5,612.6	421.0	2,108.4	626.9	336.5	112.4	115.8	13.2	9,346.8
25 mph	0.0	0.0	0.0	0.0	337.7	112.8	527.7	59.9	1,038.2
35 mph	20,173.0	1,513.1	7,578.1	3,242.8	0.0	0.0	0.0	0.0	32,507.1
total	25,785.6	1,934.1	9,686.5	3,869.7	674.3	225.3	643.5	73.1	42,892.0

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	12,977.5	973.4	4,875.1	2,566.6	1,241.2	414.7	409.4	46.5	23,504.4
25 mph	26,115.9	1,958.9	9,810.7	7,177.4	3,751.7	1,253.5	2,158.8	245.2	52,471.9
35 mph	50,705.9	3,803.3	19,048.1	13,677.6	5,398.3	1,803.7	2,745.4	311.8	97,494.1
45 mph	4,284.6	321.4	1,609.5	7,261.3	4,748.6	1,586.6	2,688.2	305.3	22,805.5
55 mph	6,062.1	454.7	2,277.3	7,131.1	4,555.0	1,521.9	1,134.9	128.9	23,265.9
65 mph	429.5	32.2	161.4	15,669.8	10,763.1	3,596.2	11,620.5	1,319.7	43,592.3
total	100,575.5	7,543.9	37,781.9	53,483.8	30,457.9	10,176.6	20,757.1	2,357.3	263,134.1

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	60.4	0.8	4.0	23.8	587.0	414.9	1,870.8	3,575.7	6,537.3
25 mph	214.7	2.7	14.2	84.7	2,087.1	1,475.2	7,249.3	13,855.7	24,983.5
35 mph	255.0	3.2	16.8	100.5	2,478.4	1,751.8	7,015.4	13,408.7	25,029.9
45 mph	47.0	0.6	3.1	18.5	456.6	322.7	3,507.7	6,704.4	11,060.5
55 mph	60.4	0.8	4.0	23.8	587.0	414.9	3,040.0	5,810.5	9,941.3
65 mph	33.5	0.4	2.2	13.2	326.1	230.5	701.5	1,340.9	2,648.4
total	670.9	8.3	44.3	264.6	6,522.2	4,610.0	23,384.7	44,695.8	80,200.9

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-0.6	0.0	0.0	3.4	128.0	90.5	3,143.1	6,007.4	9,371.9
35 mph	-4.6	-0.1	-0.3	27.6	1,024.2	723.9	10,476.9	20,024.8	32,272.5
45 mph	-11.8	-0.1	-0.8	70.6	2,624.6	1,855.1	13,620.0	26,032.3	44,189.8
55 mph	-10.7	-0.1	-0.7	63.7	2,368.5	1,674.1	4,190.8	8,009.9	16,295.5
65 mph	-30.0	-0.4	-2.0	179.1	6,657.5	4,705.6	73,338.4	140,173.8	225,022.0
total	-57.7	-0.7	-3.8	344.5	12,802.8	9,049.2	104,769.1	200,248.3	327,151.6

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1,410.2	2,578.0
25 mph	0.0	0.0	0.0	0.0	219.1	154.9	3,362.2	6,426.2	10,162.4
35 mph	165.4	2.1	10.9	39.8	0.0	0.0	0.0	0.0	218.2
total	211.4	2.6	14.0	47.5	437.5	309.2	4,100.0	7,836.4	12,958.7

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	106.4	1.3	7.0	31.5	805.4	569.2	2,608.6	4,985.9	9,115.3
25 mph	214.1	2.7	14.1	88.1	2,434.3	1,720.6	13,754.5	26,289.4	44,517.8
35 mph	415.7	5.2	27.5	167.9	3,502.7	2,475.7	17,492.3	33,433.6	57,520.6
45 mph	35.1	0.4	2.3	89.1	3,081.1	2,177.8	17,127.7	32,736.7	55,250.3
55 mph	49.7	0.6	3.3	87.5	2,955.5	2,089.0	7,230.8	13,820.4	26,236.8
65 mph	3.5	0.0	0.2	192.4	6,983.6	4,936.1	74,039.9	141,514.7	227,670.4
total	824.6	10.3	54.5	656.5	19,762.5	13,968.3	132,253.8	252,780.6	420,311.2

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	78.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	79.0
25 mph	279.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	280.8
35 mph	331.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	333.5
45 mph	61.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	61.4
55 mph	78.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	79.0
65 mph	43.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	43.9
total	872.5	5.1	0.0	0.0	0.0	0.0	0.0	0.0	877.6

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8
35 mph	-6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.0
45 mph	-15.4	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-15.5
55 mph	-13.9	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-14.0
65 mph	-39.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-39.3
total	-75.1	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-75.5

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	60.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,426.2	6,426.2
35 mph	215.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	216.3
total	274.9	1.6	0.0	0.0	0.0	0.0	0.0	6,426.2	6,702.8

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	138.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	139.2
25 mph	278.4	1.6	0.0	0.0	0.0	0.0	0.0	6,426.2	6,706.3
35 mph	540.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0	543.8
45 mph	45.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	45.9
55 mph	64.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	65.0
65 mph	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
total	1,072.3	6.3	0.0	0.0	0.0	0.0	0.0	6,426.2	7,504.9

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2018 Buildout (Net) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	10,785	2,157	685	137	1,833	367	3,057	611	3,272	7.30	0.035	0.0002	0.6	0.0008	2.6
2	A	731	0.45	6,415	2,887	380	171	1,005	452	1,675	754	4,264	7.02	0.035	0.0002	0.8	0.0008	3.2
3	A	2352	1.46	3,605	5,263	104	152	186	271	310	452	6,139	4.20	0.035	0.0001	0.7	0.0004	2.8
5	A	953	0.59	4,755	2,805	303	179	-	-	-	-	2,984	2.34	0.035	0.0001	0.2	0.0002	0.7
6	A	1099	0.68	11,540	7,847	815	554	2,212	1,504	3,688	2,508	12,413	7.72	0.035	0.0002	2.6	0.0008	10.4
8	A	1091	0.68	4,735	3,220	317	216	-	-	-	-	3,435	2.35	0.035	0.0001	0.2	0.0002	0.9
11	A	1201	0.75	(465)	(349)	(84)	(63)	(6)	(4)	(9)	(7)	(423)	3.10	0.035	0.0001	0.0	0.0003	-0.1
12	A	824	0.51	(720)	(367)	(94)	(48)	(4)	(2)	(6)	(3)	(420)	2.73	0.035	0.0001	0.0	0.0003	-0.1
14	A	1618	1.01	1,895	1,914	97	98	363	367	605	611	2,990	7.74	0.035	0.0002	0.6	0.0008	2.5
18	A	1412	0.88	1,725	1,518	30	27	64	56	106	94	1,694	3.67	0.035	0.0001	0.2	0.0004	0.7
19	A	2386	1.48	3,450	3,616	21	21	4	4	6	7	3,648	2.20	0.035	0.0001	0.2	0.0002	0.8
21	A	1258	0.78	(460)	(359)	144	112	160	125	267	208	86	71.59	0.035	0.0020	0.2	0.0081	0.7
24	A	1946	1.21	365	442	140	170	338	409	564	683	1,704	13.25	0.035	0.0004	0.6	0.0015	2.5
30	A	2827	1.76	2,580	4,541	(323)	(568)	145	256	242	426	4,655	4.17	0.035	0.0001	0.5	0.0004	2.1
29	A	675	0.42	(6,795)	(2,854)	(334)	(140)	201	85	336	141	(2,768)	0.94	0.035	0.0000	-0.1	0.0001	-0.3
31	A	820	0.51	1,295	660	(378)	(193)	2	1	3	1	470	0.78	0.035	0.0000	0.0	0.0001	0.0
TOTAL				44,705		1,823		6,503		10,844						7.2		29.4

World Logistics Center

Off-Site Road Dust

Mobile Emissions - 2018 Buildout (Net) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				7086.65	160181.77	2,501.84	72,719.12	2,788.64	148,267.40	4,649.91	247,228.35	628,396.64	9.99	0.035	0.0003	167.9475392	0.0011	684.2307154

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	5556.3	45.6	59.2
	LDT1	15	1989	330	0.21	417.7	416.8	0.6	0.3
	LDT2	15	9954	330	0.21	2090.3	2087.3	3.0	0.0
	MDT	15	2999	330	0.21	629.8	622.1	7.6	0.0
	LHDT1	15	2635	330	0.21	553.3	335.6	217.7	0.0
	LHDT2	15	1267	330	0.21	266.0	112.1	153.9	0.0
	MHDT	15	4034	330	0.21	847.1	114.9	732.2	0.0
	HHDT	15	6726	330	0.21	1412.5	13.1	1399.4	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	20.9	0.2	0.2
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.9	0.0	0.0
	MDT	15	18	175	0.11	2.0	2.0	0.0	0.0
	LHDT1	15	11	175	0.11	1.2	0.7	0.5	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.3	0.0
	MHDT	15	13	175	0.11	1.4	0.2	1.2	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5612.6	421.0	2108.4	626.9	336.5	112.4	115.8	13.2
Diesel	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1410.2
Electric	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	799	518	0	3995.0	2592.1	0.0
	LHDT2	5	633	267	366	0	1334.8	1832.1	0.0
	MHDT	5	2017	274	1743	0	1368.0	8716.4	0.0
	HHDT	5	3363	31	3332	0	155.4	16659.8	0.0
Travel at Light Logistics	LHDT1	5	5	3	2	0	16.0	10.4	0.0
	LHDT2	5	3	1	1	0	5.4	7.4	0.0
	MHDT	5	7	1	6	0	4.4	28.2	0.0
	HHDT	5	11	0	11	0	0.5	53.9	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	67.0	22.4	23.8	2.8
Diesel	43.5	30.7	151.4	289.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	23.2369	8.4364
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.0273	0.7094
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.0141	0.3666
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.0090	0.2346
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0071	0.1862
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0070	0.1829
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.0086	0.2225

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1825	0.6570
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.1414	0.4499
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.0750	0.2083
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.0407	0.1139
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.0221	0.0631
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.0120	0.0360
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.0103	0.0279

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.7908	0.1582	0.3836	0.5906	0.3425	0.0586	0.0177	0.0522	2.3941
25 mph	1.4795	0.3074	0.7184	1.1342	0.6779	0.1131	0.0353	0.1044	4.5703
35 mph	1.1134	0.2366	0.5426	0.8721	0.5409	0.0887	0.0219	0.0647	3.4810
45 mph	0.1644	0.0351	0.0799	0.1307	0.0829	0.0134	0.0087	0.0257	0.5408
55 mph	0.2072	0.0439	0.1006	0.1668	0.1068	0.0172	0.0074	0.0218	0.6717
65 mph	0.1364	0.0278	0.0657	0.1098	0.0759	0.0121	0.0021	0.0061	0.4359
total	3.8917	0.8091	1.8908	3.0041	1.8269	0.3031	0.0930	0.2749	12.0938

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0040	-0.0008	-0.0019	0.0461	0.0416	0.0069	0.0153	0.0453	0.1485
35 mph	-0.0202	-0.0043	-0.0098	0.2390	0.2235	0.0367	0.0327	0.0966	0.5942
45 mph	-0.0414	-0.0088	-0.0201	0.4985	0.4765	0.0770	0.0337	0.0997	1.1150
55 mph	-0.0367	-0.0078	-0.0178	0.4464	0.4308	0.0694	0.0102	0.0301	0.9246
65 mph	-0.1220	-0.0249	-0.0588	1.4862	1.5492	0.2474	0.2180	0.6413	3.9364
total	-0.2243	-0.0466	-0.1085	2.7163	2.7217	0.4374	0.3098	0.9130	6.7188

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.2171	0.0514	2.5077
15 mph	0.6026	0.1206	0.2923	0.1909	0.1274	0.0218	0.0070	0.0206	1.3831
25 mph	0.0000	0.0000	0.0000	0.0000	0.0712	0.0119	0.0164	0.0484	0.1479
35 mph	0.7223	0.1535	0.3520	0.3453	0.0000	0.0000	0.0000	0.0000	1.5731
total	1.3249	0.2741	0.6443	0.5362	0.6676	0.8038	1.2405	0.1204	5.6118

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.2171	0.0514	2.5077
15 mph	1.3934	0.2788	0.6758	0.7815	0.4700	0.0804	0.0246	0.0727	3.7772
25 mph	1.4755	0.3066	0.7165	1.1803	0.7907	0.1319	0.0671	0.1982	4.8667
35 mph	1.8155	0.3858	0.8848	1.4564	0.7645	0.1254	0.0545	0.1613	5.6483
45 mph	0.1230	0.0262	0.0598	0.6293	0.5594	0.0904	0.0423	0.1253	1.6558
55 mph	0.1706	0.0361	0.0828	0.6131	0.5375	0.0866	0.0176	0.0520	1.5963
65 mph	0.0143	0.0029	0.0069	1.5960	1.6251	0.2595	0.2201	0.6475	4.3723
total	4.9923	1.0366	2.4267	6.2566	5.2162	1.5443	1.6434	1.3084	24.4243

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0147	0.0006	0.0008	0.0042	0.4062	0.2674	0.5833	3.5471	4.8244
25 mph	0.0202	0.0013	0.0008	0.0043	0.6141	0.3527	1.1987	6.3638	8.5558
35 mph	0.0153	0.0011	0.0006	0.0032	0.5233	0.2915	0.6302	3.3680	4.8330
45 mph	0.0023	0.0002	0.0001	0.0004	0.0820	0.0444	0.1711	0.9329	1.2335
55 mph	0.0028	0.0002	0.0001	0.0005	0.1077	0.0565	0.0804	0.4611	0.7093
65 mph	0.0018	0.0002	0.0000	0.0003	0.0747	0.0383	0.0159	0.0824	0.2135
total	0.0571	0.0035	0.0024	0.0130	1.8080	1.0507	2.6796	14.7553	20.3696

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0001	0.0000	0.0000	0.0002	0.0377	0.0216	0.5197	2.7592	3.3383
35 mph	-0.0003	0.0000	0.0000	0.0009	0.2162	0.1204	0.9411	5.0298	6.3081
45 mph	-0.0006	0.0000	0.0000	0.0017	0.4715	0.2552	0.6645	3.6225	5.0148
55 mph	-0.0005	0.0000	0.0000	0.0013	0.4347	0.2279	0.1109	0.6356	1.4098
65 mph	-0.0016	-0.0001	0.0000	0.0041	1.5245	0.7811	1.6640	8.6115	12.5834
total	-0.0030	-0.0003	-0.0001	0.0082	2.6846	1.4063	3.9002	20.6585	28.6545

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.0609	0.4191	0.9993
15 mph	0.0112	0.0005	0.0006	0.0014	0.1511	0.0995	0.2301	1.3989	1.8933
25 mph	0.0000	0.0000	0.0000	0.0000	0.0645	0.0370	0.5559	2.9515	3.6090
35 mph	0.0099	0.0007	0.0004	0.0013	0.0000	0.0000	0.0000	0.0000	0.0123
total	0.0211	0.0012	0.0010	0.0026	0.5199	0.3516	0.8469	4.7695	6.5138

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.0609	0.4191	0.9993
15 mph	0.0259	0.0011	0.0015	0.0056	0.5574	0.3668	0.8134	4.9460	6.7177
25 mph	0.0202	0.0013	0.0008	0.0044	0.7162	0.4114	2.2743	12.0745	15.5031
35 mph	0.0250	0.0018	0.0009	0.0054	0.7395	0.4119	1.5712	8.3978	11.1535
45 mph	0.0017	0.0001	0.0001	0.0022	0.5535	0.2996	0.8357	4.5554	6.2483
55 mph	0.0023	0.0002	0.0001	0.0019	0.5424	0.2843	0.1913	1.0966	2.1191
65 mph	0.0002	0.0000	0.0000	0.0044	1.5991	0.8193	1.6799	8.6939	12.7969
total	0.0753	0.0045	0.0033	0.0238	5.0125	2.8085	7.4268	40.1833	55.5379

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	10.75	3.61	6.19	12.12	39.20	7.63	9.66	0.39
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**10.75**	**3.61**	**6.19**	**12.12**	**39.20**	**7.63**	**9.66**	**0.39**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.17	0.45	0.90	3.00	0.15	0.03	0.04	0.00
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**2.17**	**0.45**	**0.90**	**3.00**	**0.15**	**0.03**	**0.04**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.77	0.99	1.28	0.47	3.51
15 mph	1.42	0.28	0.68	0.79	1.03	0.45	0.84	5.02	10.49
25 mph	1.50	0.31	0.72	1.18	1.51	0.54	2.34	12.27	20.37
35 mph	1.84	0.39	0.89	1.46	1.50	0.54	1.63	8.56	16.80
45 mph	0.12	0.03	0.06	0.63	1.11	0.39	0.88	4.68	7.90
55 mph	0.17	0.04	0.08	0.61	1.08	0.37	0.21	1.15	3.72
65 mph	0.01	0.00	0.01	1.60	3.22	1.08	1.90	9.34	17.17
RUNLOSS	10.75	3.61	6.19	12.12	39.20	7.63	9.66	0.39	89.55
RESTLOSS DIURI	2.17	0.45	0.90	3.00	0.15	0.03	0.04	0.00	6.74
total	17.99	5.10	9.52	21.40	49.58	12.01	18.76	41.89	**176.25**

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	2.0008	22.8319
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	0.1185	3.5146
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.0968	2.8731
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.0843	2.5036
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.0783	2.3272
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.0777	2.3049
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.0823	2.4348

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	18.8257	17.8936
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	4.0527	9.6014
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	1.7445	4.2191
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	0.9991	2.5657
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	0.6881	1.9171
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	0.5212	1.6871
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	0.4903	1.2803

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	1.6420	0.3559	1.0235	1.2922	1.0184	0.2380	0.0767	0.2584	5.9050
25 mph	4.7314	0.9920	2.9038	3.7417	3.0965	0.7083	0.2429	0.8186	17.2352
35 mph	4.8197	0.9984	2.9327	3.8826	3.3344	0.7476	0.2046	0.6903	17.6103
45 mph	0.8333	0.1751	0.5059	0.6799	0.5901	0.1303	0.0951	0.3208	3.3304
55 mph	1.0729	0.2344	0.6557	0.8947	0.7664	0.1675	0.0817	0.2754	4.1487
65 mph	0.6304	0.1440	0.3885	0.5381	0.4572	0.0996	0.0200	0.0671	2.3449
total	13.7297	2.8998	8.4102	11.0292	9.2629	2.0912	0.7210	2.4306	50.5746

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0127	-0.0027	-0.0078	0.1522	0.1899	0.0434	0.1053	0.3549	0.8226
35 mph	-0.0873	-0.0181	-0.0531	1.0643	1.3779	0.3089	0.3056	1.0309	3.9291
45 mph	-0.2100	-0.0441	-0.1275	2.5924	3.3920	0.7492	0.3691	1.2457	7.9669
55 mph	-0.1898	-0.0415	-0.1160	2.3946	3.0924	0.6757	0.1126	0.3796	6.3077
65 mph	-0.5642	-0.1288	-0.3478	7.2867	9.3341	2.0334	2.0877	7.0180	26.7192
total	-1.0641	-0.2352	-0.6522	13.4902	17.3865	3.8107	2.9803	10.0292	45.7455

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.1048	0.1391	0.4959
15 mph	1.2513	0.2712	0.7800	0.4176	0.3788	0.0885	0.0303	0.1019	3.3196
25 mph	0.0000	0.0000	0.0000	0.0000	0.3251	0.0744	0.1126	0.3796	0.8918
35 mph	3.1267	0.6477	1.9025	1.5374	0.0000	0.0000	0.0000	0.0000	7.2143
total	4.3780	0.9189	2.6825	1.9550	0.8917	0.2271	0.2477	0.6207	11.9215

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.1048	0.1391	0.4959
15 mph	2.8933	0.6272	1.8034	1.7098	1.3972	0.3265	0.1070	0.3603	9.2246
25 mph	4.7187	0.9893	2.8960	3.8940	3.6116	0.8261	0.4608	1.5531	18.9496
35 mph	7.8591	1.6280	4.7821	6.4843	4.7123	1.0565	0.5103	1.7212	28.7537
45 mph	0.6233	0.1310	0.3784	3.2722	3.9821	0.8796	0.4642	1.5666	11.2972
55 mph	0.8831	0.1929	0.5397	3.2893	3.8588	0.8432	0.1944	0.6550	10.4565
65 mph	0.0662	0.0151	0.0408	7.8249	9.7914	2.1330	2.1077	7.0852	29.0641
total	17.0436	3.5835	10.4405	26.4745	27.5411	6.1290	3.9490	13.0805	108.2416

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0242	0.0015	0.0009	0.0055	3.0048	1.5194	16.7177	75.7010	96.9750
25 mph	0.0721	0.0057	0.0021	0.0124	11.3569	5.5415	27.8849	128.9015	173.7772
35 mph	0.0808	0.0071	0.0021	0.0128	15.2964	7.3661	15.4551	75.8592	114.0796
45 mph	0.0153	0.0014	0.0004	0.0022	3.1229	1.4950	5.3220	28.3413	38.3006
55 mph	0.0205	0.0020	0.0004	0.0029	4.4593	2.1345	3.4937	21.6155	31.7288
65 mph	0.0117	0.0012	0.0003	0.0016	2.7414	1.3139	0.7584	3.7855	8.6141
total	0.2248	0.0189	0.0061	0.0374	39.9818	19.3704	69.6319	334.2040	463.4753

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0002	0.0000	0.0000	0.0005	0.6967	0.3399	12.0901	55.8881	69.0151
35 mph	-0.0015	-0.0001	0.0000	0.0035	6.3213	3.0441	23.0809	113.2893	145.7375
45 mph	-0.0039	-0.0004	-0.0001	0.0085	17.9528	8.5942	20.6647	110.0460	157.2618
55 mph	-0.0036	-0.0003	-0.0001	0.0077	17.9933	8.6126	4.8162	29.7978	61.2234
65 mph	-0.0105	-0.0010	-0.0002	0.0222	55.9651	26.8238	79.2859	395.7345	557.8198
total	-0.0197	-0.0019	-0.0004	0.0424	98.9291	47.4146	139.9378	704.7556	991.0576

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	6.2828	11.4139	29.4384
15 mph	0.0185	0.0011	0.0007	0.0018	1.1178	0.5652	6.5932	29.8553	38.1537
25 mph	0.0000	0.0000	0.0000	0.0000	1.1924	0.5818	12.9330	59.7842	74.4913
35 mph	0.0524	0.0046	0.0013	0.0051	0.0000	0.0000	0.0000	0.0000	0.0634
total	0.0709	0.0058	0.0020	0.0068	9.2364	5.9625	25.8090	101.0534	142.1468

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	6.2828	11.4139	29.4384
15 mph	0.0427	0.0026	0.0016	0.0072	4.1226	2.0846	23.3110	105.5563	135.1287
25 mph	0.0719	0.0057	0.0021	0.0129	13.2459	6.4633	52.9080	244.5738	317.2836
35 mph	0.1317	0.0116	0.0034	0.0214	21.6178	10.4102	38.5360	189.1485	259.8805
45 mph	0.0115	0.0011	0.0003	0.0108	21.0757	10.0892	25.9867	138.3873	195.5624
55 mph	0.0169	0.0016	0.0004	0.0105	22.4526	10.7471	8.3098	51.4133	92.9522
65 mph	0.0012	0.0001	0.0000	0.0239	58.7065	28.1378	80.0443	399.5200	566.4339
total	0.2760	0.0228	0.0077	0.0867	148.1473	72.7476	235.3786	1,140.0130	1,596.6797

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	7.11	4.88	6.39	11.55	29.93
15 mph	2.94	0.63	1.81	1.72	5.52	2.41	23.42	105.92	144.35
25 mph	4.79	1.00	2.90	3.91	16.86	7.29	53.37	246.13	336.23
35 mph	7.99	1.64	4.79	6.51	26.33	11.47	39.05	190.87	288.63
45 mph	0.63	0.13	0.38	3.28	25.06	10.97	26.45	139.95	206.86
55 mph	0.90	0.19	0.54	3.30	26.31	11.59	8.50	52.07	103.41
65 mph	0.07	0.02	0.04	7.85	68.50	30.27	82.15	406.61	595.50
total	17.32	3.61	10.45	26.56	175.69	78.88	239.33	1,153.09	**1,704.92**

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	347.4761	226.4185
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	0.2735	37.8780
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	0.2299	31.8113
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	0.1954	27.0076
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	0.1678	23.1978
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	0.1457	20.1296
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	0.1279	17.6580

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.3809	2.4873
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	0.7005	2.1724
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.3716	1.1057
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.2019	0.5998
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.1097	0.3282
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.0595	0.1813
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.0511	0.1507

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	20.0780	4.0557	9.7793	12.1610	5.5897	0.9197	0.1771	2.7850	55.5455
25 mph	57.9106	11.1075	28.1183	33.9585	14.3249	2.4512	0.5768	9.0633	157.5111
35 mph	56.7134	10.6190	27.5619	33.3127	13.7147	2.3748	0.4743	7.4465	152.2173
45 mph	9.0162	1.7018	4.3782	5.3795	2.3093	0.3921	0.2037	3.1980	26.5788
55 mph	10.2755	2.0236	4.9995	6.4245	3.0604	0.4967	0.1533	2.4050	29.8386
65 mph	5.2062	1.0941	2.5286	3.5475	2.1951	0.3305	0.0311	0.4869	15.4198
total	159.1999	30.6017	77.3658	94.7837	41.1942	6.9650	1.6163	25.3847	437.1112

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.1557	-0.0299	-0.0756	1.3817	0.8787	0.1504	0.2501	3.9296	6.3293
35 mph	-1.0275	-0.1924	-0.4994	9.1314	5.6677	0.9814	0.7084	11.1207	25.8903
45 mph	-2.2724	-0.4289	-1.1034	20.5126	13.2755	2.2541	0.7911	12.4175	45.4462
55 mph	-1.8177	-0.3580	-0.8844	17.1947	12.3485	2.0043	0.2113	3.3154	32.0141
65 mph	-4.6596	-0.9792	-2.2632	48.0370	44.8133	6.7461	3.2462	50.8961	145.8366
total	-9.9329	-1.9884	-4.8260	96.2574	76.9837	12.1363	5.2071	81.6793	255.5164

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	18.2005	1.3795	45.1217
15 mph	15.3008	3.0907	7.4525	3.9303	2.0794	0.3421	0.0698	1.0984	33.3640
25 mph	0.0000	0.0000	0.0000	0.0000	1.5040	0.2574	0.2675	4.2035	6.2324
35 mph	36.7914	6.8888	17.8801	13.1903	0.0000	0.0000	0.0000	0.0000	74.7507
total	52.0923	9.9796	25.3326	17.1206	22.6263	7.0983	18.5379	6.6814	159.4688

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	18.2005	1.3795	45.1217
15 mph	35.3789	7.1464	17.2318	16.0913	7.6691	1.2619	0.2469	3.8833	88.9096
25 mph	57.7549	11.0776	28.0427	35.3402	16.7076	2.8589	1.0944	17.1964	170.0727
35 mph	92.4773	17.3155	44.9426	55.6345	19.3823	3.3562	1.1827	18.5672	252.8583
45 mph	6.7438	1.2729	3.2748	25.8921	15.5849	2.6462	0.9948	15.6155	72.0250
55 mph	8.4578	1.6656	4.1151	23.6192	15.4088	2.5011	0.3647	5.7205	61.8527
65 mph	0.5466	0.1149	0.2655	51.5844	47.0084	7.0765	3.2772	51.3829	161.2565
total	201.3592	38.5929	97.8724	208.1617	140.8041	26.1997	25.3612	113.7453	852.0965

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1689	0.0030	0.0071	0.0663	1.6461	1.0341	2.8897	17.1279	22.9431
25 mph	0.1781	0.0064	0.0063	0.0585	2.7862	1.5319	5.9393	33.7820	44.2887
35 mph	0.1373	0.0059	0.0046	0.0430	2.6197	1.3924	3.1238	17.7349	25.0615
45 mph	0.0204	0.0010	0.0006	0.0058	0.4650	0.2398	0.8483	4.8514	6.4324
55 mph	0.0251	0.0016	0.0007	0.0063	0.7148	0.3589	0.3991	2.3228	3.8294
65 mph	0.0171	0.0013	0.0004	0.0037	0.5942	0.2934	0.0790	0.4457	1.4348
total	0.5468	0.0192	0.0198	0.1836	8.8261	4.8505	13.2792	76.2647	103.9899

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0005	0.0000	0.0000	0.0024	0.1709	0.0940	2.5751	14.6469	17.4888
35 mph	-0.0025	-0.0001	-0.0001	0.0118	1.0826	0.5754	4.6651	26.4855	32.8177
45 mph	-0.0051	-0.0003	-0.0002	0.0222	2.6729	1.3784	3.2940	18.8376	26.1995
55 mph	-0.0044	-0.0003	-0.0001	0.0167	2.8844	1.4482	0.5502	3.2021	8.0968
65 mph	-0.0153	-0.0012	-0.0004	0.0505	12.1311	5.9894	8.2579	46.5889	73.0010
total	-0.0279	-0.0019	-0.0008	0.1036	18.9419	9.4854	19.3423	109.7611	157.6038

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	0.4608	1.5866	6.3523
15 mph	0.1287	0.0023	0.0054	0.0214	0.6124	0.3847	1.1397	6.7550	9.0495
25 mph	0.0000	0.0000	0.0000	0.0000	0.2925	0.1608	2.7546	15.6680	18.8760
35 mph	0.0890	0.0038	0.0030	0.0170	0.0000	0.0000	0.0000	0.0000	0.1129
total	0.2177	0.0061	0.0084	0.0384	3.4271	2.3282	4.3551	24.0096	34.3907

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	0.4608	1.5866	6.3523
15 mph	0.2975	0.0054	0.0125	0.0877	2.2585	1.4189	4.0294	23.8829	31.9926
25 mph	0.1776	0.0063	0.0063	0.0609	3.2497	1.7867	11.2690	64.0970	80.6535
35 mph	0.2238	0.0095	0.0076	0.0719	3.7023	1.9678	7.7889	44.2204	57.9921
45 mph	0.0152	0.0008	0.0005	0.0280	3.1378	1.6182	4.1423	23.6890	32.6318
55 mph	0.0207	0.0013	0.0006	0.0230	3.5992	1.8072	0.9493	5.5249	11.9262
65 mph	0.0018	0.0001	0.0000	0.0543	12.7253	6.2828	8.3369	47.0346	74.4358
total	0.7367	0.0235	0.0274	0.3256	31.1950	16.6641	36.9766	210.0353	295.9843

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	21.57	8.28	18.66	2.97	51.47
15 mph	35.68	7.15	17.24	16.18	9.93	2.68	4.28	27.77	120.90
25 mph	57.93	11.08	28.05	35.40	19.96	4.65	12.36	81.29	250.73
35 mph	92.70	17.33	44.95	55.71	23.08	5.32	8.97	62.79	310.85
45 mph	6.76	1.27	3.28	25.92	18.72	4.26	5.14	39.30	104.66
55 mph	8.48	1.67	4.12	23.64	19.01	4.31	1.31	11.25	73.78
65 mph	0.55	0.11	0.27	51.64	59.73	13.36	11.61	98.42	235.69
total	202.10	38.62	97.90	208.49	172.00	42.86	62.34	323.78	**1,148.08**

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0249	0.0263
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0021	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0011	0.0011
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0007	0.0007
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0007	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.0014	0.0015
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.0051	0.0163
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0041	0.0101
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0035	0.0088
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0031	0.0080
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.0027	0.0078
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.0027	0.0061

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0822	0.0112	0.0302	0.0231	0.0082	0.0020	0.0014	0.0002	0.1584
25 mph	0.1521	0.0212	0.0558	0.0431	0.0154	0.0038	0.0027	0.0003	0.2945
35 mph	0.1150	0.0162	0.0423	0.0326	0.0119	0.0029	0.0017	0.0002	0.2227
45 mph	0.0168	0.0024	0.0062	0.0048	0.0018	0.0004	0.0007	0.0001	0.0332
55 mph	0.0212	0.0030	0.0078	0.0061	0.0023	0.0005	0.0006	0.0001	0.0415
65 mph	0.0142	0.0019	0.0052	0.0040	0.0016	0.0004	0.0002	0.0000	0.0274
total	0.4014	0.0558	0.1475	0.1138	0.0411	0.0100	0.0072	0.0008	0.7776

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0004	-0.0001	-0.0002	0.0018	0.0009	0.0002	0.0012	0.0001	0.0036
35 mph	-0.0021	-0.0003	-0.0008	0.0089	0.0049	0.0012	0.0025	0.0003	0.0147
45 mph	-0.0042	-0.0006	-0.0016	0.0184	0.0102	0.0024	0.0026	0.0003	0.0274
55 mph	-0.0037	-0.0005	-0.0014	0.0163	0.0091	0.0022	0.0008	0.0001	0.0228
65 mph	-0.0127	-0.0017	-0.0047	0.0545	0.0319	0.0075	0.0169	0.0020	0.0938
total	-0.0232	-0.0032	-0.0085	0.0998	0.0571	0.0135	0.0240	0.0028	0.1623

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0013	0.0002	0.0101
15 mph	0.0626	0.0085	0.0230	0.0075	0.0030	0.0008	0.0005	0.0001	0.1060
25 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0004	0.0013	0.0001	0.0034
35 mph	0.0746	0.0105	0.0274	0.0129	0.0000	0.0000	0.0000	0.0000	0.1254
total	0.1372	0.0190	0.0504	0.0204	0.0116	0.0029	0.0031	0.0004	0.2449

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0013	0.0002	0.0101
15 mph	0.1448	0.0197	0.0532	0.0306	0.0112	0.0028	0.0019	0.0002	0.2644
25 mph	0.1517	0.0211	0.0557	0.0449	0.0180	0.0044	0.0052	0.0006	0.3016
35 mph	0.1874	0.0264	0.0689	0.0545	0.0168	0.0041	0.0042	0.0005	0.3628
45 mph	0.0126	0.0018	0.0046	0.0232	0.0120	0.0029	0.0032	0.0004	0.0606
55 mph	0.0174	0.0024	0.0064	0.0223	0.0114	0.0027	0.0013	0.0002	0.0642
65 mph	0.0015	0.0002	0.0005	0.0585	0.0335	0.0079	0.0171	0.0020	0.1212
total	0.5155	0.0716	0.1894	0.2340	0.1097	0.0264	0.0342	0.0040	1.1849

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0057	0.0004	0.0002	0.0008	0.0583	0.0327	0.0210	0.1282	0.2473
25 mph	0.0122	0.0009	0.0002	0.0018	0.1327	0.0758	0.0661	0.3074	0.5971
35 mph	0.0098	0.0008	0.0002	0.0016	0.1212	0.0696	0.0547	0.2592	0.5170
45 mph	0.0016	0.0001	0.0000	0.0003	0.0197	0.0112	0.0240	0.1181	0.1750
55 mph	0.0020	0.0002	0.0000	0.0003	0.0260	0.0146	0.0184	0.1001	0.1616
65 mph	0.0013	0.0001	0.0000	0.0002	0.0177	0.0097	0.0041	0.0181	0.0513
total	0.0325	0.0026	0.0007	0.0051	0.3755	0.2135	0.1882	0.9311	1.7494

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0001	0.0081	0.0046	0.0287	0.1333	0.1747
35 mph	-0.0002	0.0000	0.0000	0.0005	0.0501	0.0287	0.0816	0.3871	0.5478
45 mph	-0.0004	0.0000	0.0000	0.0010	0.1131	0.0646	0.0930	0.4587	0.7300
55 mph	-0.0004	0.0000	0.0000	0.0009	0.1050	0.0587	0.0253	0.1380	0.3276
65 mph	-0.0011	-0.0001	0.0000	0.0027	0.3619	0.1971	0.4306	1.8968	2.8879
total	-0.0021	-0.0002	0.0000	0.0051	0.6382	0.3539	0.6592	3.0138	4.6679

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0005	0.0010	0.1335
15 mph	0.0043	0.0003	0.0001	0.0003	0.0217	0.0122	0.0083	0.0506	0.0978
25 mph	0.0000	0.0000	0.0000	0.0000	0.0139	0.0080	0.0307	0.1426	0.1951
35 mph	0.0064	0.0005	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0077
total	0.0107	0.0009	0.0003	0.0009	0.1132	0.0746	0.0394	0.1941	0.4340

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0005	0.0010	0.1335
15 mph	0.0101	0.0008	0.0003	0.0011	0.0799	0.0449	0.0293	0.1787	0.3451
25 mph	0.0121	0.0009	0.0002	0.0019	0.1548	0.0884	0.1254	0.5832	0.9670
35 mph	0.0160	0.0013	0.0003	0.0027	0.1712	0.0983	0.1363	0.6463	1.0725
45 mph	0.0012	0.0001	0.0000	0.0013	0.1328	0.0758	0.1170	0.5768	0.9050
55 mph	0.0016	0.0001	0.0000	0.0012	0.1310	0.0733	0.0437	0.2381	0.4892
65 mph	0.0001	0.0000	0.0000	0.0029	0.3796	0.2068	0.4347	1.9149	2.9391
total	0.0411	0.0033	0.0010	0.0111	1.1270	0.6420	0.8868	4.1390	6.8513

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.06	0.00	0.00	0.14
15 mph	0.15	0.02	0.05	0.03	0.09	0.05	0.03	0.18	0.61
25 mph	0.16	0.02	0.06	0.05	0.17	0.09	0.13	0.58	1.27
35 mph	0.20	0.03	0.07	0.06	0.19	0.10	0.14	0.65	1.44
45 mph	0.01	0.00	0.00	0.02	0.14	0.08	0.12	0.58	0.97
55 mph	0.02	0.00	0.01	0.02	0.14	0.08	0.05	0.24	0.55
65 mph	0.00	0.00	0.00	0.06	0.41	0.21	0.45	1.92	3.06
total	0.56	0.07	0.19	0.25	1.24	0.67	0.92	4.14	**8.04**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	8.07	0.61	3.03	2.13	1.87	0.72	1.15	0.08
Diesel	0.07	0.00	0.00	0.03	1.27	1.03	7.34	9.63
Electric	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.23	0.61	3.04	2.15	3.14	1.75	8.49	9.71

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-0.69	-0.05	-0.26	2.77	3.67	1.41	5.16	0.34
Diesel	-0.01	0.00	0.00	0.03	2.50	2.02	32.88	43.16
Electric	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-0.71	-0.05	-0.26	2.80	6.17	3.43	38.04	43.49

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.54	0.19	0.96	0.38	0.13	0.05	0.20	0.01
Diesel	0.02	0.00	0.00	0.00	0.09	0.07	1.29	1.69
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.59	0.19	0.96	0.39	0.21	0.12	1.49	1.70

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	9.92	0.74	3.73	5.28	5.67	2.18	6.51	0.42	34.47
Diesel	0.08	0.00	0.01	0.06	3.85	3.12	41.51	54.48	103.11
Electric	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
Total	10.11	0.75	3.73	5.34	9.52	5.30	48.02	54.90	**137.68**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	684.23
Internal	29.36
Total	**713.59**

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0229	0.0242
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0019	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0010	0.0010
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0006	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0005	0.0005
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0005	0.0005
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0006	0.0006

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.0013	0.0014
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.0049	0.0156
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0040	0.0096
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0034	0.0084
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0030	0.0076
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.0026	0.0075
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.0025	0.0059

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0756	0.0103	0.0278	0.0213	0.0075	0.0019	0.0013	0.0001	0.1457
25 mph	0.1399	0.0195	0.0514	0.0398	0.0142	0.0035	0.0025	0.0003	0.2710
35 mph	0.1057	0.0149	0.0389	0.0301	0.0110	0.0026	0.0015	0.0002	0.2049
45 mph	0.0155	0.0022	0.0057	0.0044	0.0016	0.0004	0.0006	0.0001	0.0305
55 mph	0.0195	0.0027	0.0072	0.0056	0.0021	0.0005	0.0005	0.0001	0.0382
65 mph	0.0130	0.0018	0.0048	0.0037	0.0014	0.0003	0.0001	0.0000	0.0252
total	0.3693	0.0513	0.1357	0.1049	0.0378	0.0092	0.0066	0.0008	0.7156

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0004	-0.0001	-0.0001	0.0016	0.0009	0.0002	0.0011	0.0001	0.0033
35 mph	-0.0019	-0.0003	-0.0007	0.0082	0.0045	0.0011	0.0023	0.0003	0.0136
45 mph	-0.0039	-0.0006	-0.0014	0.0169	0.0094	0.0022	0.0024	0.0003	0.0253
55 mph	-0.0034	-0.0005	-0.0013	0.0150	0.0084	0.0020	0.0007	0.0001	0.0210
65 mph	-0.0117	-0.0016	-0.0043	0.0503	0.0294	0.0069	0.0156	0.0018	0.0864
total	-0.0213	-0.0029	-0.0078	0.0920	0.0526	0.0124	0.0220	0.0026	0.1496

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0012	0.0001	0.0093
15 mph	0.0576	0.0078	0.0212	0.0069	0.0028	0.0007	0.0005	0.0001	0.0975
25 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0004	0.0012	0.0001	0.0032
35 mph	0.0686	0.0097	0.0252	0.0119	0.0000	0.0000	0.0000	0.0000	0.1154
total	0.1262	0.0175	0.0464	0.0188	0.0106	0.0027	0.0029	0.0003	0.2254

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0012	0.0001	0.0093
15 mph	0.1332	0.0181	0.0489	0.0282	0.0103	0.0025	0.0018	0.0002	0.2432
25 mph	0.1396	0.0195	0.0512	0.0414	0.0166	0.0040	0.0048	0.0006	0.2775
35 mph	0.1724	0.0243	0.0634	0.0503	0.0155	0.0037	0.0038	0.0005	0.3339
45 mph	0.0116	0.0016	0.0043	0.0214	0.0110	0.0026	0.0030	0.0004	0.0558
55 mph	0.0160	0.0022	0.0059	0.0206	0.0105	0.0025	0.0012	0.0001	0.0591
65 mph	0.0014	0.0002	0.0005	0.0540	0.0308	0.0072	0.0157	0.0018	0.1116
total	0.4742	0.0659	0.1743	0.2157	0.1011	0.0242	0.0315	0.0037	1.0905

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0055	0.0004	0.0002	0.0008	0.0557	0.0313	0.0201	0.1226	0.2366
25 mph	0.0116	0.0009	0.0002	0.0018	0.1269	0.0725	0.0632	0.2941	0.5713
35 mph	0.0094	0.0008	0.0002	0.0016	0.1159	0.0666	0.0523	0.2480	0.4947
45 mph	0.0015	0.0001	0.0000	0.0002	0.0188	0.0108	0.0229	0.1130	0.1674
55 mph	0.0019	0.0002	0.0000	0.0003	0.0249	0.0139	0.0176	0.0958	0.1546
65 mph	0.0012	0.0001	0.0000	0.0002	0.0170	0.0092	0.0039	0.0174	0.0491
total	0.0311	0.0025	0.0007	0.0049	0.3593	0.2043	0.1801	0.8909	1.6737

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0001	0.0078	0.0044	0.0274	0.1275	0.1672
35 mph	-0.0002	0.0000	0.0000	0.0004	0.0479	0.0275	0.0781	0.3703	0.5241
45 mph	-0.0004	0.0000	0.0000	0.0010	0.1082	0.0618	0.0890	0.4388	0.6984
55 mph	-0.0003	0.0000	0.0000	0.0008	0.1004	0.0562	0.0242	0.1320	0.3134
65 mph	-0.0011	-0.0001	0.0000	0.0026	0.3462	0.1886	0.4120	1.8147	2.7629
total	-0.0020	-0.0002	0.0000	0.0049	0.6106	0.3385	0.6307	2.8835	4.4660

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0004	0.0009	0.1277
15 mph	0.0042	0.0003	0.0001	0.0002	0.0207	0.0116	0.0079	0.0484	0.0935
25 mph	0.0000	0.0000	0.0000	0.0000	0.0133	0.0076	0.0293	0.1364	0.1867
35 mph	0.0061	0.0005	0.0001	0.0006	0.0000	0.0000	0.0000	0.0000	0.0073
total	0.0102	0.0008	0.0003	0.0009	0.1083	0.0714	0.0377	0.1857	0.4153

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0004	0.0009	0.1277
15 mph	0.0096	0.0007	0.0003	0.0010	0.0765	0.0429	0.0280	0.1710	0.3301
25 mph	0.0116	0.0009	0.0002	0.0018	0.1481	0.0846	0.1200	0.5580	0.9252
35 mph	0.0153	0.0013	0.0003	0.0026	0.1638	0.0941	0.1304	0.6183	1.0261
45 mph	0.0011	0.0001	0.0000	0.0012	0.1271	0.0726	0.1119	0.5519	0.8658
55 mph	0.0016	0.0001	0.0000	0.0011	0.1253	0.0701	0.0418	0.2278	0.4680
65 mph	0.0001	0.0000	0.0000	0.0028	0.3632	0.1978	0.4159	1.8321	2.8120
total	0.0393	0.0032	0.0009	0.0106	1.0782	0.6142	0.8485	3.9600	6.5549

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.05	0.00	0.00	0.14
15 mph	0.14	0.02	0.05	0.03	0.09	0.05	0.03	0.17	0.57
25 mph	0.15	0.02	0.05	0.04	0.16	0.09	0.12	0.56	1.20
35 mph	0.19	0.03	0.06	0.05	0.18	0.10	0.13	0.62	1.36
45 mph	0.01	0.00	0.00	0.02	0.14	0.08	0.11	0.55	0.92
55 mph	0.02	0.00	0.01	0.02	0.14	0.07	0.04	0.23	0.53
65 mph	0.00	0.00	0.00	0.06	0.39	0.21	0.43	1.83	2.92
total	0.51	0.07	0.18	0.23	1.18	0.64	0.88	3.96	**7.65**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3.20	0.24	1.20	0.84	0.77	0.30	0.48	0.03
Diesel	0.03	0.00	0.00	0.01	0.51	0.42	3.04	3.49
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.26	0.24	1.20	0.85	1.28	0.72	3.51	3.52

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-0.28	-0.02	-0.10	1.10	1.51	0.58	2.13	0.13
Diesel	0.00	0.00	0.00	0.01	1.01	0.82	13.60	15.66
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-0.28	-0.02	-0.10	1.11	2.52	1.41	15.73	15.79

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.01	0.08	0.38	0.15	0.05	0.02	0.08	0.01
Diesel	0.01	0.00	0.00	0.00	0.03	0.03	0.53	0.61
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.03	0.08	0.38	0.15	0.09	0.05	0.62	0.62

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	3.94	0.30	1.48	2.09	2.33	0.90	2.69	0.16	13.90
Diesel	0.03	0.00	0.00	0.03	1.56	1.27	17.16	19.76	39.82
Electric	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Total	4.01	0.30	1.48	2.12	3.89	2.17	19.86	19.93	**53.76**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	167.95
Internal	7.21
Total	**175.15**

Black Carbon

percent of PM2.5 Exhaust	
LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.11
15 mph	0.09	0.01	0.03	0.02	0.07	0.04	0.02	0.13	0.41
25 mph	0.10	0.01	0.03	0.03	0.13	0.07	0.10	0.43	0.89
35 mph	0.12	0.02	0.04	0.03	0.14	0.08	0.10	0.48	1.00
45 mph	0.01	0.00	0.00	0.01	0.11	0.06	0.09	0.43	0.70
55 mph	0.01	0.00	0.00	0.01	0.10	0.06	0.03	0.18	0.40
65 mph	0.00	0.00	0.00	0.04	0.30	0.16	0.33	1.41	2.24
total	0.33	0.04	0.11	0.14	0.91	0.49	0.68	3.05	5.76

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0585	0.0080	0.0403	0.0282	0.0267	0.0089	0.0087	0.0010	0.1803
25 mph	0.2079	0.0286	0.1432	0.1004	0.0950	0.0318	0.0336	0.0038	0.6442
35 mph	0.2468	0.0339	0.1700	0.1192	0.1129	0.0377	0.0325	0.0037	0.7568
45 mph	0.0455	0.0063	0.0313	0.0220	0.0208	0.0069	0.0163	0.0018	0.1508
55 mph	0.0585	0.0080	0.0403	0.0282	0.0267	0.0089	0.0141	0.0016	0.1864
65 mph	0.0325	0.0045	0.0224	0.0157	0.0149	0.0050	0.0033	0.0004	0.0984
total	0.6496	0.0893	0.4474	0.3137	0.2970	0.0992	0.1084	0.0123	2.0169

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0006	-0.0001	-0.0004	0.0041	0.0058	0.0019	0.0146	0.0017	0.0271
35 mph	-0.0045	-0.0006	-0.0031	0.0327	0.0466	0.0156	0.0486	0.0055	0.1408
45 mph	-0.0115	-0.0016	-0.0079	0.0837	0.1195	0.0399	0.0632	0.0072	0.2926
55 mph	-0.0103	-0.0014	-0.0071	0.0756	0.1079	0.0360	0.0194	0.0022	0.2222
65 mph	-0.0291	-0.0040	-0.0200	0.2124	0.3032	0.1013	0.3401	0.0386	0.9425
total	-0.0559	-0.0077	-0.0385	0.4084	0.5830	0.1948	0.4859	0.0552	1.6251

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.0446	0.0061	0.0307	0.0091	0.0099	0.0033	0.0034	0.0004	0.1076
25 mph	0.0000	0.0000	0.0000	0.0000	0.0100	0.0033	0.0156	0.0018	0.0307
35 mph	0.1601	0.0220	0.1103	0.0472	0.0000	0.0000	0.0000	0.0000	0.3396
total	0.2047	0.0281	0.1410	0.0563	0.0219	0.0073	0.0197	0.0022	0.4813

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.1030	0.0142	0.0709	0.0374	0.0367	0.0123	0.0121	0.0014	0.2879
25 mph	0.2073	0.0285	0.1428	0.1045	0.1109	0.0370	0.0638	0.0072	0.7020
35 mph	0.4025	0.0553	0.2772	0.1991	0.1595	0.0533	0.0811	0.0092	1.2372
45 mph	0.0340	0.0047	0.0234	0.1057	0.1403	0.0469	0.0794	0.0090	0.4434
55 mph	0.0481	0.0066	0.0331	0.1038	0.1346	0.0450	0.0335	0.0038	0.4086
65 mph	0.0034	0.0005	0.0023	0.2280	0.3180	0.1063	0.3434	0.0390	1.0409
total	0.7984	0.1098	0.5498	0.7784	0.9019	0.3013	0.6140	0.0697	4.1234

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0001	0.0000	0.0000	0.0003	0.0062	0.0044	0.0198	0.0378	0.0687
25 mph	0.0005	0.0000	0.0000	0.0009	0.0221	0.0156	0.0767	0.1466	0.2625
35 mph	0.0006	0.0000	0.0001	0.0011	0.0262	0.0185	0.0743	0.1419	0.2626
45 mph	0.0001	0.0000	0.0000	0.0002	0.0048	0.0034	0.0371	0.0710	0.1166
55 mph	0.0001	0.0000	0.0000	0.0003	0.0062	0.0044	0.0322	0.0615	0.1047
65 mph	0.0001	0.0000	0.0000	0.0001	0.0035	0.0024	0.0074	0.0142	0.0277
total	0.0015	0.0000	0.0001	0.0028	0.0690	0.0488	0.2475	0.4731	0.8428

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0010	0.0333	0.0636	0.0992
35 mph	0.0000	0.0000	0.0000	0.0003	0.0108	0.0077	0.1109	0.2119	0.3416
45 mph	0.0000	0.0000	0.0000	0.0007	0.0278	0.0196	0.1442	0.2755	0.4678
55 mph	0.0000	0.0000	0.0000	0.0007	0.0251	0.0177	0.0444	0.0848	0.1726
65 mph	-0.0001	0.0000	0.0000	0.0019	0.0705	0.0498	0.7762	1.4836	2.3819
total	-0.0001	0.0000	0.0000	0.0036	0.1355	0.0958	1.1089	2.1194	3.4631

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0001	0.0000	0.0000	0.0001	0.0023	0.0016	0.0078	0.0149	0.0269
25 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0016	0.0356	0.0680	0.1076
35 mph	0.0004	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0008
total	0.0005	0.0000	0.0000	0.0005	0.0051	0.0036	0.0450	0.0860	0.1407

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0002	0.0000	0.0000	0.0003	0.0085	0.0060	0.0276	0.0528	0.0955
25 mph	0.0005	0.0000	0.0000	0.0009	0.0258	0.0182	0.1456	0.2782	0.4693
35 mph	0.0009	0.0000	0.0001	0.0018	0.0371	0.0262	0.1851	0.3539	0.6051
45 mph	0.0001	0.0000	0.0000	0.0009	0.0326	0.0230	0.1813	0.3465	0.5845
55 mph	0.0001	0.0000	0.0000	0.0009	0.0313	0.0221	0.0765	0.1463	0.2772
65 mph	0.0000	0.0000	0.0000	0.0020	0.0739	0.0522	0.7836	1.4978	2.4096
total	0.0018	0.0000	0.0002	0.0069	0.2096	0.1482	1.4014	2.6785	4.4466

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.10	0.01	0.07	0.04	0.05	0.02	0.04	0.05	0.38
25 mph	0.21	0.03	0.14	0.11	0.14	0.06	0.21	0.29	1.17
35 mph	0.40	0.06	0.28	0.20	0.20	0.08	0.27	0.36	1.84
45 mph	0.03	0.00	0.02	0.11	0.17	0.07	0.26	0.36	1.03
55 mph	0.05	0.01	0.03	0.10	0.17	0.07	0.11	0.15	0.69
65 mph	0.00	0.00	0.00	0.23	0.39	0.16	1.13	1.54	3.45
total	0.80	0.11	0.55	0.79	1.11	0.45	2.02	2.75	**8.57**

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	9.3896	3.4090
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.0110	0.2867
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0057	0.1481
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0036	0.0948
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0029	0.0752
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0028	0.0739
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0035	0.0899

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0085	0.0305
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0066	0.0209
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0035	0.0097
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0019	0.0053
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0010	0.0029
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0006	0.0017
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0005	0.0013

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.2992	0.0594	0.1461	0.1921	0.1305	0.0232	0.0071	0.0211	0.8788
25 mph	0.5558	0.1149	0.2723	0.3630	0.2573	0.0446	0.0143	0.0422	1.6644
35 mph	0.4169	0.0881	0.2052	0.2789	0.2050	0.0349	0.0088	0.0261	1.2639
45 mph	0.0612	0.0130	0.0300	0.0411	0.0314	0.0053	0.0035	0.0104	0.1958
55 mph	0.0768	0.0161	0.0376	0.0519	0.0404	0.0068	0.0030	0.0088	0.2414
65 mph	0.0505	0.0102	0.0246	0.0342	0.0286	0.0048	0.0008	0.0025	0.1561
total	1.4604	0.3017	0.7158	0.9612	0.6932	0.1195	0.0376	0.1111	4.4003

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	-0.0015	-0.0003	-0.0007	0.0148	0.0158	0.0027	0.0062	0.0183	0.0552
35 mph	-0.0076	-0.0016	-0.0037	0.0764	0.0847	0.0144	0.0132	0.0390	0.2150
45 mph	-0.0154	-0.0033	-0.0076	0.1568	0.1802	0.0303	0.0136	0.0403	0.3949
55 mph	-0.0136	-0.0029	-0.0067	0.1389	0.1630	0.0273	0.0041	0.0122	0.3223
65 mph	-0.0452	-0.0091	-0.0220	0.4626	0.5845	0.0971	0.0881	0.2592	1.4152
total	-0.0832	-0.0171	-0.0407	0.8494	1.0283	0.1718	0.1252	0.3689	2.4026

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4918	0.0208	1.7338
15 mph	0.2280	0.0453	0.1114	0.0621	0.0485	0.0086	0.0028	0.0083	0.5151
25 mph	0.0000	0.0000	0.0000	0.0000	0.0270	0.0047	0.0066	0.0196	0.0579
35 mph	0.2705	0.0571	0.1331	0.1104	0.0000	0.0000	0.0000	0.0000	0.5711
total	0.4985	0.1024	0.2445	0.1725	0.9858	0.3243	0.5013	0.0487	2.8779

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4918	0.0208	1.7338
15 mph	0.5272	0.1047	0.2575	0.2542	0.1791	0.0318	0.0099	0.0294	1.3939
25 mph	0.5544	0.1146	0.2715	0.3778	0.3001	0.0520	0.0271	0.0801	1.7775
35 mph	0.6798	0.1436	0.3346	0.4657	0.2897	0.0494	0.0220	0.0652	2.0500
45 mph	0.0458	0.0097	0.0225	0.1979	0.2116	0.0355	0.0171	0.0506	0.5907
55 mph	0.0632	0.0133	0.0310	0.1908	0.2034	0.0340	0.0071	0.0210	0.5637
65 mph	0.0053	0.0011	0.0026	0.4967	0.6131	0.1019	0.0889	0.2616	1.5713
total	1.8756	0.3870	0.9196	1.9831	2.7073	0.6156	0.6641	0.5287	9.6809

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0007	0.0000	0.0001	0.0002	0.0189	0.0124	0.0271	0.1648	0.2241
25 mph	0.0009	0.0001	0.0000	0.0002	0.0285	0.0164	0.0557	0.2956	0.3974
35 mph	0.0007	0.0001	0.0000	0.0001	0.0243	0.0135	0.0293	0.1564	0.2245
45 mph	0.0001	0.0000	0.0000	0.0000	0.0038	0.0021	0.0079	0.0433	0.0573
55 mph	0.0001	0.0000	0.0000	0.0000	0.0050	0.0026	0.0037	0.0214	0.0329
65 mph	0.0001	0.0000	0.0000	0.0000	0.0035	0.0018	0.0007	0.0038	0.0099
total	0.0027	0.0002	0.0001	0.0006	0.0840	0.0488	0.1245	0.6853	0.9462

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0010	0.0241	0.1282	0.1551
35 mph	0.0000	0.0000	0.0000	0.0000	0.0100	0.0056	0.0437	0.2336	0.2930
45 mph	0.0000	0.0000	0.0000	0.0001	0.0219	0.0119	0.0309	0.1683	0.2329
55 mph	0.0000	0.0000	0.0000	0.0001	0.0202	0.0106	0.0052	0.0295	0.0655
65 mph	-0.0001	0.0000	0.0000	0.0002	0.0708	0.0363	0.0773	0.4000	0.5845
total	-0.0001	0.0000	0.0000	0.0004	0.1247	0.0653	0.1812	0.9595	1.3309

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0028	0.0195	0.0464
15 mph	0.0005	0.0000	0.0001	0.0001	0.0070	0.0046	0.0107	0.0650	0.0880
25 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0017	0.0258	0.1371	0.1676
35 mph	0.0005	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0006
total	0.0010	0.0001	0.0001	0.0001	0.0241	0.0163	0.0393	0.2215	0.3026

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0028	0.0195	0.0464
15 mph	0.0012	0.0001	0.0001	0.0003	0.0259	0.0170	0.0378	0.2297	0.3121
25 mph	0.0009	0.0001	0.0000	0.0002	0.0333	0.0191	0.1056	0.5608	0.7201
35 mph	0.0012	0.0001	0.0000	0.0002	0.0343	0.0191	0.0730	0.3901	0.5180
45 mph	0.0001	0.0000	0.0000	0.0001	0.0257	0.0139	0.0388	0.2116	0.2902
55 mph	0.0001	0.0000	0.0000	0.0001	0.0252	0.0132	0.0089	0.0509	0.0984
65 mph	0.0000	0.0000	0.0000	0.0002	0.0743	0.0381	0.0780	0.4038	0.5944
total	0.0035	0.0002	0.0002	0.0011	0.2328	0.1305	0.3450	1.8664	2.5797

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.92	0.32	0.49	0.04	1.78
15 mph	0.53	0.10	0.26	0.25	0.20	0.05	0.05	0.26	1.71
25 mph	0.56	0.11	0.27	0.38	0.33	0.07	0.13	0.64	2.50
35 mph	0.68	0.14	0.33	0.47	0.32	0.07	0.10	0.46	2.57
45 mph	0.05	0.01	0.02	0.20	0.24	0.05	0.06	0.26	0.88
55 mph	0.06	0.01	0.03	0.19	0.23	0.05	0.02	0.07	0.66
65 mph	0.01	0.00	0.00	0.50	0.69	0.14	0.17	0.67	2.17
total	1.88	0.39	0.92	1.98	2.94	0.75	1.01	2.40	**12.26**

World Logistics Center
Mobile Emissions - 2018 Buildout (Net) - Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	13,913.37	20,112.41
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,242.10	2,466.87
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,377.17	1,874.35
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,169.21	1,711.34
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,011.01	1,613.15
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	919.35	1,563.49
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	941.16	1,536.53

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	6,792.14	6,260.12
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,670.76	2,309.55
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,346.91	1,841.64
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,213.11	1,647.66
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,122.78	1,518.01
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,057.46	1,429.06
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,043.95	1,403.10

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	8,722.23	766.85	4,388.85	4,078.27	1,905.51	720.89	1,451.59	181.38	22,215.57
25 mph	20,532.65	1,805.14	10,333.60	9,617.60	5,392.40	2,028.49	3,454.99	534.02	53,698.89
35 mph	18,727.54	1,646.85	9,425.95	8,806.54	5,812.74	2,177.56	2,838.65	471.85	49,907.68
45 mph	3,077.96	270.66	1,549.14	1,447.90	1,061.91	382.75	1,227.28	222.39	9,240.00
55 mph	4,098.47	360.48	2,061.89	1,929.83	1,517.42	536.47	967.22	186.80	11,658.57
65 mph	2,734.05	240.46	1,375.58	1,289.58	866.96	304.07	228.50	42.36	7,081.56
total	57,892.89	5,090.44	29,135.01	27,169.72	16,556.95	6,150.24	10,168.22	1,638.79	153,802.27

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-55.22	-4.85	-27.79	391.33	330.78	124.43	1,497.99	231.54	2,488.20
35 mph	-339.30	-29.84	-170.78	2,413.98	2,402.14	899.89	4,239.29	704.66	10,120.05
45 mph	-775.74	-68.22	-390.43	5,520.98	6,104.60	2,200.32	4,765.39	863.50	18,220.40
55 mph	-725.02	-63.77	-364.75	5,165.00	6,122.74	2,164.65	1,333.35	257.51	13,889.71
65 mph	-2,447.02	-215.22	-1,231.17	17,462.48	17,698.82	6,207.47	23,886.87	4,428.78	65,791.01
total	-4,342.30	-381.90	-2,184.91	30,953.77	32,659.08	11,596.76	35,722.89	6,485.99	110,509.37

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	728.77	122.54	1,827.50
15 mph	6,646.94	584.39	3,344.61	1,318.04	708.86	268.17	572.48	71.53	13,515.03
25 mph	0.00	0.00	0.00	0.00	566.16	212.97	1,602.41	247.68	2,629.22
35 mph	12,149.04	1,068.35	6,114.86	3,487.00	0.00	0.00	0.00	0.00	22,819.25
total	18,795.98	1,652.75	9,459.47	4,805.03	1,978.82	753.54	2,903.67	441.74	40,791.00

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	728.77	122.54	1,827.50
15 mph	15,369.18	1,351.24	7,733.46	5,396.30	2,614.37	989.07	2,024.07	252.91	35,730.60
25 mph	20,477.43	1,800.28	10,305.81	10,008.93	6,289.34	2,365.90	6,555.39	1,013.23	58,816.31
35 mph	30,537.27	2,685.37	15,370.04	14,707.52	8,214.88	3,077.45	7,077.94	1,176.51	82,846.98
45 mph	2,302.22	202.45	1,158.71	6,968.88	7,166.51	2,583.07	5,992.67	1,085.89	27,460.40
55 mph	3,373.45	296.71	1,697.14	7,094.82	7,640.16	2,701.13	2,300.56	444.32	25,548.28
65 mph	287.03	25.24	144.41	18,752.06	18,565.78	6,511.53	24,115.37	4,471.15	72,872.57
total	72,346.57	6,361.30	36,409.57	62,928.51	51,194.84	18,500.54	48,794.78	8,566.53	305,102.64

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	64.07	1.09	5.48	41.43	900.59	718.45	6,891.97	18,209.27	26,832.35
25 mph	156.64	2.66	13.39	103.46	2,421.80	1,942.32	21,529.85	56,265.37	82,435.50
35 mph	145.58	2.45	12.39	96.21	2,615.35	2,082.51	18,765.53	48,715.31	72,435.33
45 mph	24.24	0.41	2.05	15.95	457.40	355.50	8,684.13	22,440.97	31,980.65
55 mph	32.71	0.55	2.76	21.74	644.72	490.87	7,088.38	18,309.22	26,590.96
65 mph	22.15	0.37	1.87	14.68	366.67	274.58	1,614.89	4,148.46	6,443.66
total	445.40	7.53	37.94	293.48	7,406.52	5,864.23	64,574.75	168,088.60	246,718.44

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	-0.42	-0.01	-0.04	4.21	148.56	119.15	9,334.75	24,395.10	34,001.29
35 mph	-2.64	-0.04	-0.22	26.37	1,080.80	860.61	28,024.72	72,752.19	102,741.79
45 mph	-6.11	-0.10	-0.52	60.83	2,629.44	2,043.64	33,719.43	87,135.59	125,582.20
55 mph	-5.79	-0.10	-0.49	58.18	2,601.42	1,980.67	9,771.59	25,239.95	39,645.43
65 mph	-19.82	-0.33	-1.67	198.81	7,485.46	5,605.45	168,818.98	433,676.03	615,762.90
total	-34.78	-0.58	-2.94	348.40	13,945.68	10,609.51	249,669.47	643,198.85	917,733.62

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,266.77	3,993.18	7,082.78
15 mph	48.83	0.83	4.18	13.39	335.02	267.26	2,718.09	7,181.47	10,569.07
25 mph	0.00	0.00	0.00	0.00	254.27	203.93	9,985.49	26,095.73	36,539.42
35 mph	94.44	1.59	8.04	38.09	0.00	0.00	0.00	0.00	142.17
total	143.27	2.42	12.21	51.49	976.08	907.23	14,970.35	37,270.38	54,333.44

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,266.77	3,993.18	7,082.78
15 mph	112.90	1.92	9.65	54.83	1,235.61	985.71	9,610.06	25,390.74	37,401.42
25 mph	156.21	2.66	13.35	107.67	2,824.63	2,265.40	40,850.09	106,756.19	152,976.21
35 mph	237.39	4.00	20.20	160.67	3,696.15	2,943.11	46,790.25	121,467.51	175,319.29
45 mph	18.13	0.30	1.54	76.78	3,086.84	2,399.14	42,403.56	109,576.56	157,562.86
55 mph	26.93	0.45	2.27	79.92	3,246.13	2,471.54	16,859.97	43,549.17	66,236.39
65 mph	2.33	0.04	0.20	213.49	7,852.12	5,880.03	170,433.87	437,824.49	622,206.56
total	553.89	9.38	47.22	693.36	22,328.28	17,380.97	329,214.57	848,557.83	1,218,785.51

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1,090.60	708.43	2,995.54	4,115.72	8,910.29
15 mph	15,482.08	1,353.16	7,743.11	5,451.13	3,849.98	1,974.78	11,634.13	25,643.65	73,132.02
25 mph	20,633.64	1,802.94	10,319.17	10,116.60	9,113.97	4,631.30	47,405.48	107,769.42	211,792.52
35 mph	30,774.66	2,689.37	15,390.24	14,868.19	11,911.03	6,020.56	53,868.19	122,644.01	258,166.27
45 mph	2,320.35	202.75	1,160.24	7,045.66	10,253.36	4,982.21	48,396.24	110,662.45	185,023.26
55 mph	3,400.37	297.16	1,699.41	7,174.74	10,886.29	5,172.67	19,160.54	43,993.48	91,784.67
65 mph	289.35	25.28	144.61	18,965.55	26,417.90	12,391.56	194,549.24	442,295.63	695,079.13
total	72,900.46	6,370.67	36,456.78	63,621.88	73,523.13	35,881.51	378,009.35	857,124.36	**1,523,888.15**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
230.38	1,409.25	1,668.40	8.10	564.45	151.18	723.73	7.65	138.55	59.29	205.49	5.57	10.96	15.91	1,494,484.14

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
42.04	257.19	304.48	1.48	103.01	27.59	132.08	1.40	25.28	10.82	37.50	1.02	2.00	2.90	272,743.36

World Logistics Center

Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated

VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	16,005.8	131.2	170.6	335,540.9	2,751.1	3,577.4
LDT1	1,200.6	1.6	1.0	25,168.0	34.2	21.1
LDT2	6,012.7	8.7	0.0	126,048.4	181.8	0.0
MDT	1,729.8	21.2	0.0	27,012.4	331.6	0.0
LHDT1	911.7	591.6	0.0	23,286.2	15,109.2	0.0
LHDT2	304.6	418.1	0.0	7,780.4	10,679.3	0.0
MHDT	331.7	2,113.3	0.0	15,986.9	101,860.9	0.0
HHDT	37.7	4,039.3	0.0	1,815.6	194,689.6	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	165,352.9	1,355.7	1,762.9	170,187.9	1,395.4	1,814.5
LDT1	12,402.7	16.9	10.4	12,765.3	17.4	10.7
LDT2	62,116.1	89.6	0.0	63,932.4	92.2	0.0
MDT	11,765.3	144.4	0.0	15,247.1	187.2	0.0
LHDT1	8,249.0	5,352.4	0.0	15,037.1	9,756.8	0.0
LHDT2	2,756.2	3,783.1	0.0	5,024.2	6,896.2	0.0
MHDT	3,013.8	19,202.7	0.0	12,973.1	82,658.1	0.0
HHDT	342.3	36,702.7	0.0	1,473.3	157,986.9	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
15	9%	8%	0%	0%
25	32%	31%	1%	3%
35	38%	30%	8%	10%
45	7%	15%	21%	13%
55	9%	13%	19%	4%
65	5%	3%	52%	70%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	14,881.8	1,116.2	5,590.4	1,058.9	742.4	248.1	241.1	27.4	23,906.3
25 mph	52,912.9	3,968.9	19,877.1	3,764.9	2,639.7	882.0	934.3	106.1	85,085.9
35 mph	62,834.1	4,713.0	23,604.1	4,470.8	3,134.6	1,047.3	904.2	102.7	100,810.9
45 mph	11,574.7	868.2	4,348.1	823.6	577.4	192.9	452.1	51.3	18,888.4
55 mph	14,881.8	1,116.2	5,590.4	1,058.9	742.4	248.1	391.8	44.5	24,074.1
65 mph	8,267.6	620.1	3,105.8	588.3	412.5	137.8	90.4	10.3	13,232.8
total	165,352.9	12,402.7	62,116.1	11,765.3	8,249.0	2,756.2	3,013.8	342.3	265,998.3

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	1,701.9	127.7	639.3	152.5	150.4	50.2	389.2	44.2	3,255.3
35 mph	13,615.0	1,021.2	5,114.6	1,219.8	1,203.0	401.9	1,297.3	147.3	24,020.2
45 mph	34,888.5	2,616.9	13,106.1	3,125.7	3,082.6	1,030.0	1,686.5	191.5	59,727.8
55 mph	31,484.8	2,361.6	11,827.5	2,820.7	2,781.9	929.5	518.9	58.9	52,783.8
65 mph	88,497.7	6,638.0	33,244.8	7,928.5	7,819.3	2,612.6	9,081.2	1,031.3	156,853.4
total	170,187.9	12,765.3	63,932.4	15,247.1	15,037.1	5,024.2	12,973.1	1,473.3	296,640.4

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	3,189.7	239.2	1,198.2	355.9	190.6	63.7	65.9	7.5	5,310.7
25 mph	0.0	0.0	0.0	0.0	520.8	174.0	309.9	35.2	1,039.9
35 mph	43,289.8	3,247.1	16,262.1	2,094.5	0.0	0.0	0.0	0.0	64,893.5
total	46,479.5	3,486.3	17,460.4	2,450.4	711.5	237.7	375.8	42.7	71,244.2

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	38.0	12.7	13.8	1.6	66.1
15 mph	18,071.4	1,355.5	6,788.7	1,414.8	933.1	311.8	307.0	34.9	29,217.0
25 mph	54,614.8	4,096.5	20,516.5	3,917.4	3,310.9	1,106.2	1,633.4	185.5	89,381.2
35 mph	119,738.9	8,981.3	44,980.8	7,785.1	4,337.6	1,449.3	2,201.5	250.0	189,724.6
45 mph	46,463.2	3,485.1	17,454.3	3,949.2	3,660.0	1,222.9	2,138.6	242.9	78,616.2
55 mph	46,366.5	3,477.8	17,417.9	3,879.6	3,524.3	1,177.5	910.7	103.4	76,857.8
65 mph	96,765.4	7,258.1	36,350.6	8,516.8	8,231.8	2,750.4	9,171.6	1,041.6	170,086.2
total	382,020.3	28,654.3	143,508.8	29,462.8	23,997.6	8,018.1	16,362.7	1,858.2	633,882.9

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	122.0	1.5	8.1	13.0	481.7	340.5	1,536.2	2,936.2	5,439.2
25 mph	433.8	5.4	28.7	46.2	1,712.8	1,210.6	5,952.8	11,377.9	20,768.2
35 mph	515.2	6.4	34.0	54.9	2,033.9	1,437.6	5,760.8	11,010.8	20,853.6
45 mph	94.9	1.2	6.3	10.1	374.7	264.8	2,880.4	5,505.4	9,137.8
55 mph	122.0	1.5	8.1	13.0	481.7	340.5	2,496.4	4,771.4	8,234.5
65 mph	67.8	0.8	4.5	7.2	267.6	189.2	576.1	1,101.1	2,214.3
total	1,355.7	16.9	89.6	144.4	5,352.4	3,783.1	19,202.7	36,702.7	66,647.6

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	14.0	0.2	0.9	1.9	97.6	69.0	2,479.7	4,739.6	7,402.8
35 mph	111.6	1.4	7.4	15.0	780.5	551.7	8,265.8	15,798.7	25,532.1
45 mph	286.1	3.6	18.9	38.4	2,000.1	1,413.7	10,745.6	20,538.3	35,044.6
55 mph	258.1	3.2	17.1	34.6	1,805.0	1,275.8	3,306.3	6,319.5	13,019.6
65 mph	725.6	9.0	47.9	97.3	5,073.5	3,586.0	57,860.7	110,590.8	177,991.0
total	1,395.4	17.4	92.2	187.2	9,756.8	6,896.2	82,658.1	157,986.9	258,990.1

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2	1,465.6
25 mph	0.0	0.0	0.0	0.0	337.9	238.9	1,974.5	3,773.9	6,325.3
35 mph	354.9	4.4	23.5	25.7	0.0	0.0	0.0	0.0	408.5
total	381.1	4.7	25.2	30.1	461.6	326.3	2,394.2	4,576.1	8,199.3

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	24.6	17.4	88.1	168.3	298.4
15 mph	148.2	1.8	9.8	17.4	605.4	427.9	1,955.9	3,738.4	6,904.8
25 mph	447.8	5.6	29.6	48.1	2,148.3	1,518.4	10,407.1	19,891.4	34,496.2
35 mph	981.7	12.2	64.9	95.6	2,814.4	1,989.3	14,026.6	26,809.5	46,794.3
45 mph	381.0	4.7	25.2	48.5	2,374.8	1,678.5	13,626.0	26,043.7	44,182.4
55 mph	380.2	4.7	25.1	47.6	2,286.7	1,616.3	5,802.7	11,090.8	21,254.1
65 mph	793.4	9.9	52.4	104.5	5,341.2	3,775.2	58,436.8	111,691.9	180,205.2
total	3,132.2	39.0	207.0	361.7	15,570.8	11,005.6	104,255.1	199,265.8	333,837.0

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	158.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	159.6
25 mph	564.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	567.5
35 mph	669.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	673.9
45 mph	123.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	124.1
55 mph	158.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	159.6
65 mph	88.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	88.7
total	1,762.9	10.4	0.0	0.0	0.0	0.0	0.0	0.0	1,773.3

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	18.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	18.3
35 mph	145.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	146.0
45 mph	372.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	374.2
55 mph	335.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	337.7
65 mph	943.5	5.6	0.0	0.0	0.0	0.0	0.0	0.0	949.1
total	1,814.5	10.7	0.0	0.0	0.0	0.0	0.0	0.0	1,825.2

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	34.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,773.9	3,773.9
35 mph	461.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	464.3
total	495.5	2.9	0.0	0.0	0.0	0.0	0.0	3,773.9	4,272.4

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	192.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	193.8
25 mph	582.3	3.4	0.0	0.0	0.0	0.0	0.0	3,773.9	4,359.7
35 mph	1,276.6	7.5	0.0	0.0	0.0	0.0	0.0	0.0	1,284.1
45 mph	495.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	498.3
55 mph	494.3	2.9	0.0	0.0	0.0	0.0	0.0	0.0	497.3
65 mph	1,031.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0	1,037.8
total	4,073.0	24.0	0.0	0.0	0.0	0.0	0.0	3,773.9	7,870.9

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	8,535	1,707	499	100	1,331	266	2,219	444	2,517	7.01	0.035	0.0002	0.5	0.0008	1.9
2	A	731	0.45	4,760	2,142	258	116	680	306	1,135	511	3,075	6.73	0.035	0.0002	0.5	0.0007	2.2
3	A	2352	1.46	1,715	2,504	104	151	187	273	312	456	3,384	5.91	0.035	0.0002	0.5	0.0006	2.2
5	A	953	0.59	3,870	2,283	189	111	-	-	-	-	2,395	2.29	0.035	0.0001	0.1	0.0002	0.6
6	A	1099	0.68	8,960	6,093	558	379	1,492	1,015	2,488	1,692	9,178	7.23	0.035	0.0002	1.8	0.0008	7.2
8	A	1091	0.68	3,285	2,234	178	121	-	-	-	-	2,355	2.31	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	4,970	3,728	29	22	-	-	-	-	3,749	2.15	0.035	0.0001	0.2	0.0002	0.9
12	A	824	0.51	8,275	4,220	12	6	2	1	3	2	4,229	2.15	0.035	0.0001	0.2	0.0002	1.0
14	A	1618	1.01	1,645	1,661	72	73	174	176	290	293	2,203	5.82	0.035	0.0002	0.3	0.0006	1.4
18	A	1412	0.88	880	774	15	13	129	114	216	190	1,091	6.85	0.035	0.0002	0.2	0.0007	0.8
19	A	2386	1.48	2,035	2,133	-	-	2	2	3	3	2,138	2.17	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	1,410	1,100	21	16	15	12	25	20	1,147	2.64	0.035	0.0001	0.1	0.0003	0.3
24	A	1946	1.21	1,490	1,803	40	48	41	49	68	82	1,982	3.33	0.035	0.0001	0.2	0.0004	0.7
30	A	2827	1.76	13,840	24,359	35	62	18	31	29	51	24,503	2.20	0.035	0.0001	1.4	0.0002	5.7
29	A	675	0.42	3,870	1,625	35	15	18	7	29	12	1,660	2.36	0.035	0.0001	0.1	0.0002	0.4
31	A	820	0.51	14,510	7,400	75	38	64	32	106	54	7,525	2.34	0.035	0.0001	0.5	0.0002	1.9
TOTAL				84,051		2,119		4,152		6,923						6.9		28.1

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				25283.24	520666.93	2,226.00	56,855.00	2,445.03	117,847.80	4,076.97	196,505.20	891,874.93	5.58	0.035	0.0001	131.640601	0.0006	536.3135595

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	3149.5	25.8	33.6
	LDT1	15	1127	330	0.21	236.8	236.2	0.3	0.2
	LDT2	15	5642	330	0.21	1184.8	1183.1	1.7	0.0
	MDT	15	1700	330	0.21	357.0	352.7	4.3	0.0
	LHDT1	15	1494	330	0.21	313.6	190.2	123.4	0.0
	LHDT2	15	718	330	0.21	150.8	63.6	87.2	0.0
	MHDT	15	2286	330	0.21	480.2	65.1	415.0	0.0
	HHDT	15	3813	330	0.21	800.6	7.4	793.2	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.8	0.0	0.1
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.5	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.2	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.1	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3189.7	239.2	1198.2	355.9	190.6	63.7	65.9	7.5
Diesel	26.2	0.3	1.7	4.4	123.7	87.4	419.7	802.2
Electric	34.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	453	294	0	2264.5	1469.3	0.0
	LHDT2	5	359	151	208	0	756.6	1038.5	0.0
	MHDT	5	1143	155	988	0	775.4	4940.7	0.0
	HHDT	5	1906	18	1889	0	88.1	9443.3	0.0
Travel at Light Logistics	LHDT1	5	1	1	0	0	3.7	2.4	0.0
	LHDT2	5	1	0	0	0	1.2	1.7	0.0
	MHDT	5	2	0	1	0	1.0	6.5	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	38.0	12.7	13.8	1.6
Diesel	24.6	17.4	88.1	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	23.2369	8.4364
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.0273	0.7094
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.0141	0.3666
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.0090	0.2346
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0071	0.1862
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0070	0.1829
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.0086	0.2225

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1825	0.6570
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.1414	0.4499
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.0750	0.2083
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.0407	0.1139
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.0221	0.0631
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.0120	0.0360
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.0103	0.0279

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	1.5978	0.3197	0.7750	0.3224	0.2811	0.0481	0.0145	0.0428	3.4015
25 mph	2.9895	0.6212	1.4517	0.6192	0.5563	0.0928	0.0290	0.0858	6.4454
35 mph	2.2498	0.4781	1.0965	0.4761	0.4439	0.0728	0.0180	0.0531	4.8882
45 mph	0.3323	0.0709	0.1615	0.0714	0.0680	0.0110	0.0071	0.0211	0.7432
55 mph	0.4187	0.0887	0.2033	0.0910	0.0876	0.0141	0.0061	0.0179	0.9275
65 mph	0.2755	0.0563	0.1327	0.0599	0.0623	0.0099	0.0017	0.0050	0.6034
total	7.8636	1.6349	3.8206	1.6400	1.4992	0.2488	0.0764	0.2258	17.0093

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0962	0.0200	0.0467	0.0251	0.0317	0.0053	0.0121	0.0357	0.2727
35 mph	0.4875	0.1036	0.2376	0.1299	0.1704	0.0279	0.0258	0.0762	1.2589
45 mph	1.0015	0.2137	0.4867	0.2709	0.3631	0.0587	0.0266	0.0786	2.4999
55 mph	0.8859	0.1877	0.4301	0.2425	0.3283	0.0529	0.0080	0.0238	2.1592
65 mph	2.9493	0.6023	1.4202	0.8075	1.1806	0.1885	0.1720	0.5060	7.8265
total	5.4204	1.1273	2.6213	1.4759	2.0741	0.3333	0.2445	0.7203	14.0171

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.7082	0.0295	1.4398
15 mph	0.3425	0.0685	0.1661	0.1084	0.0722	0.0124	0.0040	0.0117	0.7857
25 mph	0.0000	0.0000	0.0000	0.0000	0.1098	0.0183	0.0096	0.0284	0.1661
35 mph	1.5500	0.3294	0.7554	0.2230	0.0000	0.0000	0.0000	0.0000	2.8579
total	1.8925	0.3979	0.9215	0.3314	0.4477	0.4671	0.7218	0.0696	5.2495

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2658	0.4364	0.7082	0.0295	1.4398
15 mph	1.9403	0.3882	0.9411	0.4308	0.3533	0.0605	0.0185	0.0545	4.1871
25 mph	3.0856	0.6412	1.4984	0.6442	0.6978	0.1164	0.0507	0.1499	6.8843
35 mph	4.2873	0.9112	2.0895	0.8290	0.6143	0.1008	0.0437	0.1293	9.0050
45 mph	1.3338	0.2846	0.6482	0.3422	0.4312	0.0697	0.0337	0.0997	3.2431
55 mph	1.3047	0.2764	0.6333	0.3336	0.4159	0.0670	0.0141	0.0417	3.0867
65 mph	3.2249	0.6586	1.5529	0.8674	1.2429	0.1985	0.1737	0.5110	8.4299
total	15.1765	3.1602	7.3635	3.4472	4.0211	1.0491	1.0426	1.0157	36.2759

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0297	0.0013	0.0017	0.0023	0.3334	0.2194	0.4790	2.9128	3.9795
25 mph	0.0409	0.0026	0.0016	0.0023	0.5039	0.2895	0.9843	5.2257	7.0508
35 mph	0.0309	0.0022	0.0012	0.0018	0.4294	0.2392	0.5175	2.7657	3.9878
45 mph	0.0046	0.0003	0.0002	0.0002	0.0673	0.0364	0.1405	0.7661	1.0158
55 mph	0.0057	0.0005	0.0002	0.0003	0.0884	0.0463	0.0661	0.3786	0.5860
65 mph	0.0036	0.0003	0.0001	0.0002	0.0613	0.0314	0.0131	0.0676	0.1775
total	0.1154	0.0071	0.0049	0.0071	1.4837	0.8622	2.2004	12.1165	16.7974

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0013	0.0001	0.0001	0.0001	0.0287	0.0165	0.4100	2.1769	2.6336
35 mph	0.0067	0.0005	0.0002	0.0005	0.1648	0.0918	0.7425	3.9683	4.9752
45 mph	0.0140	0.0010	0.0005	0.0009	0.3593	0.1945	0.5243	2.8580	3.9525
55 mph	0.0120	0.0010	0.0003	0.0007	0.3313	0.1737	0.0875	0.5014	1.1079
65 mph	0.0382	0.0035	0.0010	0.0022	1.1618	0.5953	1.3128	6.7941	9.9088
total	0.0721	0.0060	0.0021	0.0045	2.0459	1.0717	3.0771	16.2986	22.5781

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.0354	0.2438	0.5736
15 mph	0.0064	0.0003	0.0004	0.0008	0.0856	0.0563	0.1309	0.7958	1.0764
25 mph	0.0000	0.0000	0.0000	0.0000	0.0994	0.0571	0.3265	1.7333	2.2164
35 mph	0.0213	0.0015	0.0008	0.0008	0.0000	0.0000	0.0000	0.0000	0.0244
total	0.0277	0.0018	0.0012	0.0016	0.3575	0.2353	0.4928	2.7729	3.8907

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1724	0.1219	0.0354	0.2438	0.5736
15 mph	0.0361	0.0015	0.0021	0.0031	0.4190	0.2757	0.6099	3.7085	5.0559
25 mph	0.0422	0.0026	0.0016	0.0024	0.6321	0.3631	1.7208	9.1359	11.9008
35 mph	0.0590	0.0041	0.0022	0.0031	0.5942	0.3310	1.2599	6.7339	8.9874
45 mph	0.0186	0.0014	0.0006	0.0012	0.4266	0.2310	0.6648	3.6241	4.9683
55 mph	0.0176	0.0015	0.0005	0.0010	0.4197	0.2200	0.1535	0.8800	1.6938
65 mph	0.0418	0.0038	0.0011	0.0024	1.2230	0.6266	1.3259	6.8617	10.0864
total	0.2152	0.0150	0.0081	0.0131	3.8871	2.1693	5.7703	31.1881	43.2662

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	40.84	13.71	23.51	6.68	30.89	6.01	7.61	0.31
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**40.84**	**13.71**	**23.51**	**6.68**	**30.89**	**6.01**	**7.61**	**0.31**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.82	2.44	4.93	1.90	0.13	0.03	0.03	0.00
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**11.82**	**2.44**	**4.93**	**1.90**	**0.13**	**0.03**	**0.03**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.44	0.56	0.74	0.27	2.01
15 mph	1.98	0.39	0.94	0.43	0.77	0.34	0.63	3.76	9.24
25 mph	3.13	0.64	1.50	0.65	1.33	0.48	1.77	9.29	18.79
35 mph	4.35	0.92	2.09	0.83	1.21	0.43	1.30	6.86	17.99
45 mph	1.35	0.29	0.65	0.34	0.86	0.30	0.70	3.72	8.21
55 mph	1.32	0.28	0.63	0.33	0.84	0.29	0.17	0.92	4.78
65 mph	3.27	0.66	1.55	0.87	2.47	0.83	1.50	7.37	18.52
RUNLOSS	40.84	13.71	23.51	6.68	30.89	6.01	7.61	0.31	129.55
RESTLOSS DIURI	11.82	2.44	4.93	1.90	0.13	0.03	0.03	0.00	21.28
total	68.06	19.32	35.81	12.04	38.93	9.26	14.46	32.51	**230.38**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	2.0008	22.8319
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	0.1185	3.5146
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.0968	2.8731
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.0843	2.5036
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.0783	2.3272
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.0777	2.3049
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.0823	2.4348

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	18.8257	17.8936
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	4.0527	9.6014
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	1.7445	4.2191
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	0.9991	2.5657
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	0.6881	1.9171
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	0.5212	1.6871
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	0.4903	1.2803

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	3.3178	0.7192	2.0681	0.7054	0.8357	0.1953	0.0630	0.2122	8.1166
25 mph	9.5604	2.0045	5.8676	2.0426	2.5411	0.5812	0.1994	0.6722	23.4690
35 mph	9.7389	2.0174	5.9259	2.1195	2.7363	0.6135	0.1680	0.5668	23.8864
45 mph	1.6838	0.3538	1.0222	0.3711	0.4842	0.1070	0.0781	0.2635	4.3636
55 mph	2.1680	0.4736	1.3250	0.4884	0.6289	0.1374	0.0671	0.2261	5.5146
65 mph	1.2737	0.2909	0.7851	0.2938	0.3752	0.0817	0.0164	0.0551	3.1720
total	27.7425	5.8593	16.9939	6.0208	7.6015	1.7161	0.5920	1.9959	68.5222

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.3075	0.0645	0.1887	0.0827	0.1448	0.0331	0.0831	0.2800	1.1844
35 mph	2.1102	0.4371	1.2840	0.5783	1.0501	0.2354	0.2411	0.8133	6.7497
45 mph	5.0752	1.0664	3.0811	1.4085	2.5850	0.5710	0.2912	0.9828	15.0613
55 mph	4.5868	1.0019	2.8033	1.3011	2.3567	0.5150	0.0889	0.2995	12.9531
65 mph	13.6342	3.1137	8.4038	3.9592	7.1134	1.5496	1.6471	5.5369	44.9578
total	25.7139	5.6836	15.7610	7.3298	13.2499	2.9041	2.3514	7.9126	80.9061

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0610	0.0798	0.2835
15 mph	0.7111	0.1541	0.4433	0.2371	0.2146	0.0501	0.0172	0.0580	1.8855
25 mph	0.0000	0.0000	0.0000	0.0000	0.5014	0.1147	0.0662	0.2230	0.9052
35 mph	6.7096	1.3899	4.0827	0.9930	0.0000	0.0000	0.0000	0.0000	13.1752
total	7.4207	1.5441	4.5260	1.2301	0.8224	0.2012	0.1443	0.3607	16.2494

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1064	0.0364	0.0610	0.0798	0.2835
15 mph	4.0289	0.8733	2.5113	0.9425	1.0503	0.2454	0.0802	0.2702	10.0021
25 mph	9.8679	2.0690	6.0563	2.1253	3.1872	0.7290	0.3487	1.1751	25.5585
35 mph	18.5587	3.8445	11.2927	3.6908	3.7864	0.8489	0.4092	1.3802	43.8113
45 mph	6.7590	1.4201	4.1033	1.7797	3.0692	0.6779	0.3693	1.2463	19.4248
55 mph	6.7548	1.4755	4.1283	1.7895	2.9856	0.6524	0.1560	0.5256	18.4677
65 mph	14.9079	3.4046	9.1889	4.2529	7.4886	1.6313	1.6635	5.5920	48.1297
total	60.8772	13.0869	37.2809	14.5807	21.6738	4.8214	3.0877	10.2692	165.6777

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0490	0.0030	0.0019	0.0030	2.4658	1.2469	13.7281	62.1631	79.6608
25 mph	0.1457	0.0115	0.0042	0.0068	9.3199	4.5476	22.8982	105.8497	142.7835
35 mph	0.1632	0.0144	0.0042	0.0070	12.5528	6.0449	12.6912	62.2931	93.7708
45 mph	0.0310	0.0029	0.0007	0.0012	2.5628	1.2268	4.3702	23.2730	31.4687
55 mph	0.0415	0.0040	0.0009	0.0016	3.6595	1.7516	2.8689	17.7499	26.0779
65 mph	0.0237	0.0023	0.0005	0.0009	2.2497	1.0783	0.6228	3.1085	7.0868
total	0.4542	0.0381	0.0124	0.0204	32.8105	15.8961	57.1794	274.4373	380.8485

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0047	0.0004	0.0001	0.0003	0.5309	0.2591	9.5386	44.0932	54.4272
35 mph	0.0354	0.0031	0.0009	0.0019	4.8174	2.3198	18.2098	89.3801	114.7684
45 mph	0.0934	0.0087	0.0022	0.0046	13.6815	6.5495	16.3035	86.8213	123.4647
55 mph	0.0877	0.0084	0.0019	0.0042	13.7123	6.5635	3.7997	23.5091	47.6869
65 mph	0.2539	0.0250	0.0054	0.0121	42.6500	20.4419	62.5530	312.2167	438.1580
total	0.4751	0.0456	0.0105	0.0230	75.3921	36.1338	110.4046	556.0204	778.5052

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	3.6556	6.6411	16.9502
15 mph	0.0105	0.0006	0.0004	0.0010	0.6332	0.3202	3.7505	16.9830	21.6995
25 mph	0.0000	0.0000	0.0000	0.0000	1.8389	0.8973	7.5951	35.1095	45.4408
35 mph	0.1125	0.0099	0.0029	0.0033	0.0000	0.0000	0.0000	0.0000	0.1285
total	0.1230	0.0106	0.0033	0.0043	6.3968	3.9461	15.0013	58.7337	84.2190

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9247	2.7287	3.6556	6.6411	16.9502
15 mph	0.0595	0.0037	0.0023	0.0040	3.0990	1.5671	17.4786	79.1462	101.3603
25 mph	0.1504	0.0119	0.0043	0.0071	11.6897	5.7039	40.0319	185.0524	242.6515
35 mph	0.3111	0.0274	0.0079	0.0122	17.3702	8.3647	30.9010	151.6732	208.6678
45 mph	0.1244	0.0115	0.0029	0.0058	16.2443	7.7764	20.6737	110.0943	154.9333
55 mph	0.1292	0.0124	0.0028	0.0057	17.3718	8.3151	6.6686	41.2590	73.7648
65 mph	0.2776	0.0273	0.0059	0.0130	44.8997	21.5202	63.1758	315.3252	445.2448
total	1.0522	0.0943	0.0262	0.0478	114.5994	55.9761	182.5853	889.1914	1,243.5726

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.03	2.77	3.72	6.72	17.23
15 mph	4.09	0.88	2.51	0.95	4.15	1.81	17.56	79.42	111.36
25 mph	10.02	2.08	6.06	2.13	14.88	6.43	40.38	186.23	268.21
35 mph	18.87	3.87	11.30	3.70	21.16	9.21	31.31	153.05	252.48
45 mph	6.88	1.43	4.11	1.79	19.31	8.45	21.04	111.34	174.36
55 mph	6.88	1.49	4.13	1.80	20.36	8.97	6.82	41.78	92.23
65 mph	15.19	3.43	9.19	4.27	52.39	23.15	64.84	320.92	493.37
total	61.93	13.18	37.31	14.63	136.27	60.80	185.67	899.46	**1,409.25**

World Logistics Center

Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated

CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	347.4761	226.4185
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	0.2735	37.8780
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	0.2299	31.8113
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	0.1954	27.0076
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	0.1678	23.1978
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	0.1457	20.1296
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	0.1279	17.6580

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.3809	2.4873
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	0.7005	2.1724
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.3716	1.1057
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.2019	0.5998
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.1097	0.3282
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.0595	0.1813
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.0511	0.1507

*Idling emission factor - g/hour

Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	40.5702	8.1951	19.7603	6.6387	4.5871	0.7548	0.1454	2.2869	82.9385
25 mph	117.0159	22.4441	56.8167	18.5378	11.7555	2.0115	0.4736	7.4425	236.4977
35 mph	114.5966	21.4571	55.6923	18.1853	11.2548	1.9489	0.3895	6.1148	229.6393
45 mph	18.2183	3.4386	8.8467	2.9366	1.8951	0.3218	0.1673	2.6261	38.4506
55 mph	20.7630	4.0890	10.1021	3.5071	2.5114	0.4076	0.1259	1.9749	43.4812
65 mph	10.5197	2.2108	5.1094	1.9366	1.8014	0.2712	0.0255	0.3998	22.2743
total	321.6838	61.8347	156.3275	51.7421	33.8054	5.7157	1.3272	20.8451	653.2816

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	3.7637	0.7219	1.8274	0.7507	0.6697	0.1146	0.1973	3.1003	11.1456
35 mph	24.8311	4.6494	12.0675	4.9615	4.3192	0.7479	0.5589	8.7737	60.9092
45 mph	54.9137	10.3648	26.6658	11.1453	10.1170	1.7178	0.6241	9.7969	125.3454
55 mph	43.9275	8.6509	21.3727	9.3425	9.4105	1.5275	0.1667	2.6157	97.0141
65 mph	112.6039	23.6644	54.6914	26.1004	34.1514	5.1411	2.5611	40.1547	299.0683
total	240.0398	48.0513	116.6248	52.3004	58.6678	9.2489	4.1082	64.4413	593.4825

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	10.5899	0.7912	25.8543
15 mph	8.6956	1.7565	4.2353	2.2312	1.1779	0.1938	0.0397	0.6248	18.9548
25 mph	0.0000	0.0000	0.0000	0.0000	2.3194	0.3969	0.1571	2.4686	5.3420
35 mph	78.9518	14.7830	38.3694	8.5197	0.0000	0.0000	0.0000	0.0000	140.6239
total	87.6474	16.5395	42.6047	10.7509	14.2880	4.2733	10.7867	3.8846	190.7750

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.7907	3.6826	10.5899	0.7912	25.8543
15 mph	49.2658	9.9516	23.9956	8.8698	5.7650	0.9486	0.1851	2.9117	101.8933
25 mph	120.7796	23.1660	58.6441	19.2885	14.7447	2.5230	0.8280	13.0114	252.9853
35 mph	218.3795	40.8895	106.1292	31.6664	15.5740	2.6968	0.9484	14.8885	431.1723
45 mph	73.1320	13.8034	35.5125	14.0819	12.0122	2.0396	0.7914	12.4230	163.7960
55 mph	64.6905	12.7399	31.4748	12.8497	11.9220	1.9351	0.2926	4.5907	140.4952
65 mph	123.1236	25.8751	59.8008	28.0369	35.9528	5.4123	2.5866	40.5545	321.3426
total	649.3710	126.4255	315.5571	114.7933	106.7613	19.2379	16.2221	89.1709	1,437.5391

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.3412	0.0062	0.0143	0.0362	1.3509	0.8487	2.3729	14.0649	19.0351
25 mph	0.3599	0.0128	0.0128	0.0319	2.2865	1.2571	4.8771	27.7407	36.5789
35 mph	0.2773	0.0118	0.0094	0.0235	2.1498	1.1426	2.5652	14.5633	20.7429
45 mph	0.0411	0.0021	0.0013	0.0032	0.3816	0.1968	0.6966	3.9838	5.3065
55 mph	0.0508	0.0033	0.0014	0.0034	0.5866	0.2945	0.3277	1.9074	3.1752
65 mph	0.0346	0.0027	0.0008	0.0020	0.4876	0.2408	0.0649	0.3660	1.1993
total	1.1049	0.0389	0.0399	0.1002	7.2430	3.9805	10.9044	62.6261	86.0380

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0116	0.0004	0.0004	0.0013	0.1303	0.0716	2.0316	11.5558	13.8030
35 mph	0.0601	0.0026	0.0020	0.0064	0.8250	0.4385	3.6806	20.8959	25.9111
45 mph	0.1240	0.0064	0.0038	0.0120	2.0370	1.0505	2.5988	14.8620	20.6945
55 mph	0.1075	0.0069	0.0029	0.0091	2.1981	1.1037	0.4341	2.5263	6.3886
65 mph	0.3699	0.0285	0.0089	0.0275	9.2449	4.5644	6.5151	36.7566	57.5157
total	0.6731	0.0448	0.0181	0.0563	14.4352	7.2286	15.2602	86.5965	124.3129

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	0.2681	0.9231	3.6307
15 mph	0.0731	0.0013	0.0031	0.0122	0.3469	0.2179	0.6483	3.8425	5.1453
25 mph	0.0000	0.0000	0.0000	0.0000	0.4511	0.2480	1.6177	9.2014	11.5183
35 mph	0.1911	0.0081	0.0065	0.0110	0.0000	0.0000	0.0000	0.0000	0.2167
total	0.2642	0.0095	0.0095	0.0232	2.2272	1.4761	2.5341	13.9670	20.5109

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.4292	1.0102	0.2681	0.9231	3.6307
15 mph	0.4143	0.0075	0.0173	0.0483	1.6978	1.0666	3.0212	17.9074	24.1804
25 mph	0.3715	0.0133	0.0132	0.0332	2.8679	1.5768	8.5265	48.4978	61.9001
35 mph	0.5285	0.0225	0.0179	0.0409	2.9748	1.5811	6.2457	35.4592	46.8707
45 mph	0.1652	0.0085	0.0051	0.0152	2.4185	1.2472	3.2954	18.8458	26.0010
55 mph	0.1583	0.0102	0.0043	0.0125	2.7847	1.3982	0.7618	4.4337	9.5638
65 mph	0.4045	0.0311	0.0097	0.0295	9.7325	4.8052	6.5800	37.1225	58.7151
total	2.0423	0.0931	0.0676	0.1797	23.9055	12.6852	28.6988	163.1896	230.8618

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	12.22	4.69	10.86	1.71	29.48
15 mph	49.68	9.96	24.01	8.92	7.46	2.02	3.21	20.82	126.07
25 mph	121.15	23.18	58.66	19.32	17.61	4.10	9.35	61.51	314.89
35 mph	218.91	40.91	106.15	31.71	18.55	4.28	7.19	50.35	478.04
45 mph	73.30	13.81	35.52	14.10	14.43	3.29	4.09	31.27	189.80
55 mph	64.85	12.75	31.48	12.86	14.71	3.33	1.05	9.02	150.06
65 mph	123.53	25.91	59.81	28.07	45.69	10.22	9.17	77.68	380.06
total	651.41	126.52	315.62	114.97	130.67	31.92	44.92	252.36	**1,668.40**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0249	0.0263
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0021	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0011	0.0011
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0007	0.0007
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0007	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.0014	0.0015
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.0051	0.0163
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0041	0.0101
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0035	0.0088
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0031	0.0080
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.0027	0.0078
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.0027	0.0061

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1661	0.0225	0.0610	0.0126	0.0067	0.0017	0.0011	0.0001	0.2718
25 mph	0.3074	0.0428	0.1128	0.0236	0.0126	0.0031	0.0022	0.0003	0.5048
35 mph	0.2323	0.0327	0.0854	0.0178	0.0098	0.0024	0.0014	0.0002	0.3819
45 mph	0.0340	0.0048	0.0125	0.0026	0.0015	0.0003	0.0005	0.0001	0.0564
55 mph	0.0428	0.0060	0.0158	0.0033	0.0019	0.0004	0.0005	0.0001	0.0707
65 mph	0.0286	0.0039	0.0105	0.0022	0.0013	0.0003	0.0001	0.0000	0.0469
total	0.8112	0.1127	0.2980	0.0621	0.0337	0.0082	0.0059	0.0007	1.3325

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0099	0.0014	0.0036	0.0010	0.0007	0.0002	0.0009	0.0001	0.0178
35 mph	0.0503	0.0071	0.0185	0.0049	0.0038	0.0009	0.0020	0.0002	0.0876
45 mph	0.1026	0.0145	0.0377	0.0100	0.0078	0.0019	0.0020	0.0002	0.1766
55 mph	0.0906	0.0127	0.0334	0.0088	0.0070	0.0016	0.0006	0.0001	0.1548
65 mph	0.3061	0.0413	0.1124	0.0296	0.0243	0.0057	0.0134	0.0016	0.5344
total	0.5595	0.0770	0.2056	0.0542	0.0435	0.0103	0.0189	0.0022	0.9712

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0008	0.0001	0.0057
15 mph	0.0356	0.0048	0.0131	0.0042	0.0017	0.0004	0.0003	0.0000	0.0602
25 mph	0.0000	0.0000	0.0000	0.0000	0.0025	0.0006	0.0007	0.0001	0.0039
35 mph	0.1600	0.0225	0.0588	0.0083	0.0000	0.0000	0.0000	0.0000	0.2497
total	0.1956	0.0273	0.0719	0.0126	0.0081	0.0020	0.0018	0.0002	0.3197

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0039	0.0010	0.0008	0.0001	0.0057
15 mph	0.2017	0.0274	0.0741	0.0169	0.0084	0.0021	0.0014	0.0002	0.3321
25 mph	0.3173	0.0442	0.1165	0.0245	0.0159	0.0039	0.0039	0.0005	0.5265
35 mph	0.4427	0.0623	0.1628	0.0310	0.0135	0.0033	0.0033	0.0004	0.7193
45 mph	0.1366	0.0193	0.0502	0.0126	0.0092	0.0022	0.0026	0.0003	0.2330
55 mph	0.1334	0.0187	0.0491	0.0122	0.0088	0.0021	0.0011	0.0001	0.2255
65 mph	0.3346	0.0452	0.1229	0.0318	0.0256	0.0060	0.0135	0.0016	0.5812
total	1.5663	0.2170	0.5756	0.1290	0.0854	0.0205	0.0266	0.0031	2.6234

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0115	0.0009	0.0004	0.0004	0.0478	0.0268	0.0173	0.1053	0.2104
25 mph	0.0246	0.0019	0.0005	0.0010	0.1089	0.0622	0.0543	0.2524	0.5057
35 mph	0.0198	0.0016	0.0004	0.0009	0.0994	0.0571	0.0449	0.2128	0.4370
45 mph	0.0031	0.0003	0.0001	0.0001	0.0161	0.0092	0.0197	0.0970	0.1457
55 mph	0.0040	0.0004	0.0001	0.0002	0.0214	0.0119	0.0151	0.0822	0.1352
65 mph	0.0026	0.0002	0.0000	0.0001	0.0145	0.0079	0.0034	0.0149	0.0437
total	0.0657	0.0053	0.0015	0.0028	0.3082	0.1752	0.1546	0.7646	1.4778

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0008	0.0001	0.0000	0.0000	0.0062	0.0035	0.0226	0.1051	0.1384
35 mph	0.0043	0.0004	0.0001	0.0002	0.0382	0.0219	0.0644	0.3054	0.4348
45 mph	0.0095	0.0008	0.0002	0.0005	0.0862	0.0492	0.0734	0.3619	0.5817
55 mph	0.0085	0.0008	0.0002	0.0005	0.0800	0.0448	0.0200	0.1089	0.2636
65 mph	0.0276	0.0027	0.0005	0.0015	0.2758	0.1502	0.3397	1.4965	2.2945
total	0.0507	0.0046	0.0010	0.0028	0.4864	0.2697	0.5201	2.3778	3.7131

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0003	0.0006	0.0757
15 mph	0.0025	0.0002	0.0001	0.0001	0.0123	0.0069	0.0047	0.0288	0.0555
25 mph	0.0000	0.0000	0.0000	0.0000	0.0215	0.0123	0.0180	0.0837	0.1355
35 mph	0.0136	0.0011	0.0003	0.0004	0.0000	0.0000	0.0000	0.0000	0.0155
total	0.0161	0.0013	0.0004	0.0006	0.0777	0.0500	0.0230	0.1130	0.2822

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0440	0.0309	0.0003	0.0006	0.0757
15 mph	0.0140	0.0011	0.0004	0.0006	0.0601	0.0337	0.0220	0.1340	0.2659
25 mph	0.0254	0.0020	0.0005	0.0010	0.1366	0.0780	0.0949	0.4413	0.7796
35 mph	0.0377	0.0031	0.0008	0.0016	0.1376	0.0790	0.1093	0.5182	0.8873
45 mph	0.0126	0.0011	0.0003	0.0007	0.1024	0.0584	0.0930	0.4589	0.7274
55 mph	0.0125	0.0011	0.0003	0.0007	0.1014	0.0567	0.0351	0.1911	0.3988
65 mph	0.0302	0.0029	0.0006	0.0016	0.2903	0.1582	0.3431	1.5114	2.3383
total	0.1325	0.0113	0.0029	0.0061	0.8723	0.4949	0.6976	3.2554	5.4730

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
15 mph	0.22	0.03	0.07	0.02	0.07	0.04	0.02	0.13	0.60
25 mph	0.34	0.05	0.12	0.03	0.15	0.08	0.10	0.44	1.31
35 mph	0.48	0.07	0.16	0.03	0.15	0.08	0.11	0.52	1.61
45 mph	0.15	0.02	0.05	0.01	0.11	0.06	0.10	0.46	0.96
55 mph	0.15	0.02	0.05	0.01	0.11	0.06	0.04	0.19	0.62
65 mph	0.36	0.05	0.12	0.03	0.32	0.16	0.36	1.51	2.92
total	1.70	0.23	0.58	0.14	0.96	0.52	0.72	3.26	**8.10**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	16.32	1.22	6.13	1.16	1.54	0.59	0.95	0.06
Diesel	0.13	0.00	0.01	0.01	1.04	0.84	6.03	7.91
Electric	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	16.62	1.23	6.14	1.18	2.58	1.43	6.97	7.97

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	16.79	1.26	6.31	1.50	2.80	1.08	4.07	0.27
Diesel	0.14	0.00	0.01	0.02	1.90	1.54	25.94	34.05
Electric	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	17.11	1.26	6.32	1.52	4.70	2.62	30.01	34.31

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.59	0.34	1.72	0.24	0.13	0.05	0.12	0.01
Diesel	0.04	0.00	0.00	0.00	0.09	0.07	0.75	0.99
Electric	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.67	0.34	1.73	0.24	0.22	0.12	0.87	0.99

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	37.70	2.83	14.16	2.91	4.47	1.72	5.14	0.33	69.25
Diesel	0.31	0.00	0.02	0.04	3.04	2.46	32.72	42.95	81.53
Electric	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
Total	38.41	2.83	14.18	2.94	7.50	4.17	37.86	43.28	**151.18**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	536.31
Internal	28.14
Total	**564.45**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0229	0.0242
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0019	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0010	0.0010
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0006	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0005	0.0005
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0005	0.0005
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0006	0.0006

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.0013	0.0014
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.0049	0.0156
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0040	0.0096
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0034	0.0084
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0030	0.0076
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.0026	0.0075
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.0025	0.0059

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1527	0.0207	0.0561	0.0116	0.0062	0.0015	0.0010	0.0001	0.2501
25 mph	0.2827	0.0394	0.1038	0.0217	0.0116	0.0028	0.0021	0.0002	0.4644
35 mph	0.2137	0.0301	0.0786	0.0164	0.0090	0.0022	0.0013	0.0002	0.3513
45 mph	0.0313	0.0044	0.0115	0.0024	0.0013	0.0003	0.0005	0.0001	0.0519
55 mph	0.0394	0.0055	0.0145	0.0031	0.0017	0.0004	0.0004	0.0001	0.0651
65 mph	0.0263	0.0036	0.0097	0.0020	0.0012	0.0003	0.0001	0.0000	0.0431
total	0.7462	0.1037	0.2742	0.0573	0.0311	0.0075	0.0054	0.0006	1.2260

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0091	0.0013	0.0033	0.0009	0.0007	0.0002	0.0009	0.0001	0.0164
35 mph	0.0463	0.0065	0.0170	0.0045	0.0035	0.0008	0.0018	0.0002	0.0806
45 mph	0.0944	0.0133	0.0347	0.0092	0.0072	0.0017	0.0019	0.0002	0.1625
55 mph	0.0834	0.0117	0.0307	0.0081	0.0064	0.0015	0.0006	0.0001	0.1424
65 mph	0.2816	0.0380	0.1034	0.0273	0.0224	0.0053	0.0123	0.0014	0.4917
total	0.5147	0.0708	0.1892	0.0500	0.0401	0.0095	0.0174	0.0020	0.8936

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0007	0.0001	0.0053
15 mph	0.0327	0.0044	0.0120	0.0039	0.0016	0.0004	0.0003	0.0000	0.0554
25 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0006	0.0007	0.0001	0.0036
35 mph	0.1472	0.0207	0.0541	0.0077	0.0000	0.0000	0.0000	0.0000	0.2298
total	0.1800	0.0252	0.0662	0.0116	0.0075	0.0019	0.0017	0.0002	0.2941

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0036	0.0009	0.0007	0.0001	0.0053
15 mph	0.1855	0.0252	0.0682	0.0155	0.0078	0.0019	0.0013	0.0002	0.3055
25 mph	0.2918	0.0407	0.1071	0.0226	0.0146	0.0036	0.0036	0.0004	0.4844
35 mph	0.4072	0.0573	0.1497	0.0286	0.0125	0.0030	0.0031	0.0004	0.6617
45 mph	0.1257	0.0177	0.0462	0.0116	0.0085	0.0020	0.0024	0.0003	0.2144
55 mph	0.1228	0.0172	0.0452	0.0112	0.0081	0.0019	0.0010	0.0001	0.2075
65 mph	0.3079	0.0416	0.1131	0.0293	0.0236	0.0055	0.0124	0.0015	0.5348
total	1.4408	0.1997	0.5295	0.1189	0.0786	0.0188	0.0244	0.0029	2.4137

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0110	0.0009	0.0004	0.0004	0.0457	0.0257	0.0165	0.1007	0.2013
25 mph	0.0235	0.0018	0.0005	0.0010	0.1042	0.0595	0.0519	0.2415	0.4839
35 mph	0.0189	0.0016	0.0004	0.0009	0.0951	0.0546	0.0429	0.2036	0.4181
45 mph	0.0030	0.0003	0.0001	0.0001	0.0155	0.0088	0.0188	0.0928	0.1394
55 mph	0.0038	0.0003	0.0001	0.0002	0.0204	0.0114	0.0144	0.0787	0.1294
65 mph	0.0025	0.0002	0.0000	0.0001	0.0139	0.0076	0.0032	0.0143	0.0419
total	0.0628	0.0051	0.0014	0.0027	0.2948	0.1676	0.1479	0.7315	1.4139

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0008	0.0001	0.0000	0.0000	0.0059	0.0034	0.0216	0.1006	0.1324
35 mph	0.0041	0.0003	0.0001	0.0002	0.0365	0.0210	0.0616	0.2922	0.4160
45 mph	0.0091	0.0008	0.0002	0.0005	0.0825	0.0471	0.0702	0.3462	0.5566
55 mph	0.0081	0.0007	0.0002	0.0005	0.0765	0.0428	0.0191	0.1042	0.2522
65 mph	0.0264	0.0025	0.0005	0.0014	0.2639	0.1437	0.3250	1.4317	2.1953
total	0.0485	0.0044	0.0010	0.0027	0.4653	0.2580	0.4976	2.2749	3.5524

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0003	0.0005	0.0724
15 mph	0.0024	0.0002	0.0001	0.0001	0.0117	0.0066	0.0045	0.0275	0.0531
25 mph	0.0000	0.0000	0.0000	0.0000	0.0206	0.0117	0.0172	0.0801	0.1296
35 mph	0.0130	0.0011	0.0003	0.0004	0.0000	0.0000	0.0000	0.0000	0.0148
total	0.0154	0.0013	0.0004	0.0005	0.0744	0.0479	0.0220	0.1081	0.2700

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0421	0.0295	0.0003	0.0005	0.0724
15 mph	0.0134	0.0010	0.0004	0.0006	0.0575	0.0323	0.0210	0.1282	0.2544
25 mph	0.0243	0.0019	0.0005	0.0010	0.1307	0.0746	0.0908	0.4222	0.7459
35 mph	0.0361	0.0030	0.0008	0.0015	0.1316	0.0756	0.1046	0.4958	0.8489
45 mph	0.0121	0.0010	0.0003	0.0007	0.0979	0.0559	0.0890	0.4390	0.6959
55 mph	0.0120	0.0011	0.0002	0.0006	0.0970	0.0542	0.0336	0.1828	0.3816
65 mph	0.0289	0.0028	0.0006	0.0015	0.2778	0.1513	0.3282	1.4460	2.2371
total	0.1267	0.0108	0.0028	0.0059	0.8346	0.4735	0.6675	3.1146	5.2363

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
15 mph	0.20	0.03	0.07	0.02	0.07	0.03	0.02	0.13	0.56
25 mph	0.32	0.04	0.11	0.02	0.15	0.08	0.09	0.42	1.23
35 mph	0.44	0.06	0.15	0.03	0.14	0.08	0.11	0.50	1.51
45 mph	0.14	0.02	0.05	0.01	0.11	0.06	0.09	0.44	0.91
55 mph	0.13	0.02	0.05	0.01	0.11	0.06	0.03	0.18	0.59
65 mph	0.34	0.04	0.11	0.03	0.30	0.16	0.34	1.45	2.77
total	1.57	0.21	0.53	0.12	0.91	0.49	0.69	3.12	**7.65**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.47	0.49	2.43	0.46	0.63	0.24	0.39	0.02
Diesel	0.05	0.00	0.00	0.01	0.42	0.34	2.49	2.87
Electric	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.59	0.49	2.43	0.47	1.05	0.59	2.88	2.89

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.66	0.50	2.50	0.60	1.15	0.45	1.68	0.10
Diesel	0.05	0.00	0.00	0.01	0.77	0.63	10.73	12.35
Electric	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.79	0.50	2.51	0.60	1.92	1.07	12.41	12.46

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.82	0.14	0.68	0.10	0.05	0.02	0.05	0.00
Diesel	0.01	0.00	0.00	0.00	0.04	0.03	0.31	0.36
Electric	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.85	0.14	0.68	0.10	0.09	0.05	0.36	0.36

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	14.95	1.12	5.62	1.15	1.84	0.71	2.12	0.13	27.65
Diesel	0.12	0.00	0.01	0.01	1.23	1.00	13.53	15.58	31.49
Electric	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Total	15.23	1.12	5.62	1.17	3.07	1.71	15.65	15.71	**59.29**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	131.64
Internal	6.91
Total	**138.55**

Black Carbon

percent of PM2.5 Exhaust	
LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.06
15 mph	0.13	0.02	0.04	0.01	0.05	0.03	0.02	0.10	0.39
25 mph	0.20	0.03	0.07	0.02	0.11	0.06	0.07	0.33	0.88
35 mph	0.28	0.04	0.10	0.02	0.11	0.06	0.08	0.38	1.07
45 mph	0.09	0.01	0.03	0.01	0.08	0.04	0.07	0.34	0.67
55 mph	0.09	0.01	0.03	0.01	0.08	0.04	0.03	0.14	0.43
65 mph	0.22	0.03	0.07	0.02	0.23	0.12	0.26	1.11	2.07
total	1.00	0.13	0.34	0.08	0.70	0.38	0.53	2.40	5.57

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.1181	0.0162	0.0814	0.0154	0.0219	0.0073	0.0071	0.0008	0.2683
25 mph	0.4200	0.0578	0.2893	0.0548	0.0780	0.0261	0.0276	0.0031	0.9566
35 mph	0.4988	0.0686	0.3435	0.0651	0.0926	0.0309	0.0267	0.0030	1.1293
45 mph	0.0919	0.0126	0.0633	0.0120	0.0171	0.0057	0.0134	0.0015	0.2174
55 mph	0.1181	0.0162	0.0814	0.0154	0.0219	0.0073	0.0116	0.0013	0.2733
65 mph	0.0656	0.0090	0.0452	0.0086	0.0122	0.0041	0.0027	0.0003	0.1476
total	1.3126	0.1805	0.9040	0.1712	0.2437	0.0814	0.0891	0.0101	2.9926

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0135	0.0019	0.0093	0.0022	0.0044	0.0015	0.0115	0.0013	0.0456
35 mph	0.1081	0.0149	0.0744	0.0178	0.0355	0.0119	0.0383	0.0044	0.3052
45 mph	0.2769	0.0381	0.1907	0.0455	0.0911	0.0304	0.0498	0.0057	0.7283
55 mph	0.2499	0.0344	0.1721	0.0410	0.0822	0.0275	0.0153	0.0017	0.6242
65 mph	0.7025	0.0966	0.4838	0.1154	0.2310	0.0772	0.2683	0.0305	2.0053
total	1.3510	0.1858	0.9304	0.2219	0.4443	0.1485	0.3833	0.0435	3.7086

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.0253	0.0035	0.0174	0.0052	0.0056	0.0019	0.0019	0.0002	0.0611
25 mph	0.0000	0.0000	0.0000	0.0000	0.0154	0.0051	0.0092	0.0010	0.0307
35 mph	0.3436	0.0473	0.2367	0.0305	0.0000	0.0000	0.0000	0.0000	0.6580
total	0.3690	0.0507	0.2541	0.0357	0.0221	0.0074	0.0115	0.0013	0.7518

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0004	0.0004	0.0000	0.0020
15 mph	0.1435	0.0197	0.0988	0.0206	0.0276	0.0092	0.0091	0.0010	0.3294
25 mph	0.4335	0.0596	0.2986	0.0570	0.0978	0.0327	0.0483	0.0055	1.0330
35 mph	0.9505	0.1307	0.6546	0.1133	0.1282	0.0428	0.0650	0.0074	2.0925
45 mph	0.3688	0.0507	0.2540	0.0575	0.1081	0.0361	0.0632	0.0072	0.9457
55 mph	0.3681	0.0506	0.2535	0.0565	0.1041	0.0348	0.0269	0.0031	0.8975
65 mph	0.7681	0.1056	0.5290	0.1239	0.2432	0.0813	0.2710	0.0308	2.1530
total	3.0325	0.4170	2.0885	0.4288	0.7102	0.2373	0.4839	0.0550	7.4530

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0003	0.0000	0.0000	0.0001	0.0051	0.0036	0.0163	0.0311	0.0565
25 mph	0.0010	0.0000	0.0001	0.0005	0.0181	0.0128	0.0630	0.1204	0.2159
35 mph	0.0011	0.0000	0.0001	0.0006	0.0215	0.0152	0.0610	0.1165	0.2161
45 mph	0.0002	0.0000	0.0000	0.0001	0.0040	0.0028	0.0305	0.0583	0.0959
55 mph	0.0003	0.0000	0.0000	0.0001	0.0051	0.0036	0.0264	0.0505	0.0861
65 mph	0.0001	0.0000	0.0000	0.0001	0.0028	0.0020	0.0061	0.0117	0.0228
total	0.0030	0.0001	0.0003	0.0015	0.0566	0.0400	0.2032	0.3885	0.6933

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0007	0.0262	0.0502	0.0782
35 mph	0.0002	0.0000	0.0000	0.0002	0.0083	0.0058	0.0875	0.1672	0.2692
45 mph	0.0006	0.0000	0.0001	0.0004	0.0212	0.0150	0.1137	0.2174	0.3684
55 mph	0.0006	0.0000	0.0001	0.0004	0.0191	0.0135	0.0350	0.0669	0.1355
65 mph	0.0016	0.0000	0.0002	0.0010	0.0537	0.0380	0.6124	1.1705	1.8774
total	0.0031	0.0001	0.0003	0.0020	0.1033	0.0730	0.8749	1.6721	2.7287

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0001	0.0000	0.0000	0.0000	0.0013	0.0009	0.0044	0.0085	0.0153
25 mph	0.0000	0.0000	0.0000	0.0000	0.0036	0.0025	0.0209	0.0399	0.0669
35 mph	0.0008	0.0000	0.0001	0.0003	0.0000	0.0000	0.0000	0.0000	0.0011
total	0.0008	0.0000	0.0001	0.0003	0.0051	0.0036	0.0263	0.0502	0.0865

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0009	0.0018	0.0032
15 mph	0.0003	0.0000	0.0000	0.0002	0.0064	0.0045	0.0207	0.0396	0.0718
25 mph	0.0010	0.0000	0.0001	0.0005	0.0227	0.0161	0.1101	0.2105	0.3611
35 mph	0.0022	0.0000	0.0002	0.0010	0.0298	0.0211	0.1485	0.2838	0.4865
45 mph	0.0008	0.0000	0.0001	0.0005	0.0251	0.0178	0.1442	0.2756	0.4642
55 mph	0.0008	0.0000	0.0001	0.0005	0.0242	0.0171	0.0614	0.1174	0.2216
65 mph	0.0017	0.0000	0.0002	0.0011	0.0565	0.0400	0.6185	1.1821	1.9002
total	0.0069	0.0001	0.0007	0.0038	0.1651	0.1167	1.1044	2.1108	3.5085

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.14	0.02	0.10	0.02	0.03	0.01	0.03	0.04	0.40
25 mph	0.43	0.06	0.30	0.06	0.12	0.05	0.16	0.22	1.39
35 mph	0.95	0.13	0.65	0.11	0.16	0.06	0.21	0.29	2.58
45 mph	0.37	0.05	0.25	0.06	0.13	0.05	0.21	0.28	1.41
55 mph	0.37	0.05	0.25	0.06	0.13	0.05	0.09	0.12	1.12
65 mph	0.77	0.11	0.53	0.13	0.30	0.12	0.89	1.21	4.05
total	3.04	0.42	2.09	0.43	0.88	0.35	1.59	2.17	**10.96**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	9.3896	3.4090
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.0110	0.2867
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0057	0.1481
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0036	0.0948
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0029	0.0752
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0028	0.0739
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0035	0.0899

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0085	0.0305
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0066	0.0209
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0035	0.0097
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0019	0.0053
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0010	0.0029
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0006	0.0017
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0005	0.0013

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.6046	0.1201	0.2953	0.1049	0.1071	0.0190	0.0059	0.0173	1.2741
25 mph	1.1232	0.2322	0.5502	0.1982	0.2111	0.0366	0.0117	0.0347	2.3978
35 mph	0.8424	0.1780	0.4146	0.1522	0.1682	0.0287	0.0073	0.0215	1.8128
45 mph	0.1236	0.0262	0.0607	0.0224	0.0257	0.0043	0.0029	0.0085	0.2744
55 mph	0.1551	0.0326	0.0760	0.0283	0.0332	0.0055	0.0025	0.0072	0.3404
65 mph	0.1020	0.0205	0.0496	0.0186	0.0235	0.0039	0.0007	0.0020	0.2209
total	2.9508	0.6096	1.4464	0.5247	0.5688	0.0980	0.0309	0.0912	6.3205

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0361	0.0075	0.0177	0.0080	0.0120	0.0021	0.0049	0.0144	0.1027
35 mph	0.1825	0.0386	0.0898	0.0415	0.0646	0.0110	0.0104	0.0308	0.4692
45 mph	0.3726	0.0790	0.1830	0.0852	0.1374	0.0231	0.0107	0.0318	0.9227
55 mph	0.3281	0.0689	0.1609	0.0755	0.1242	0.0208	0.0033	0.0096	0.7912
65 mph	1.0914	0.2199	0.5311	0.2513	0.4454	0.0740	0.0695	0.2045	2.8872
total	2.0108	0.4138	0.9826	0.4615	0.7836	0.1309	0.0988	0.2911	5.1731

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2862	0.0119	0.9901
15 mph	0.1296	0.0257	0.0633	0.0353	0.0275	0.0049	0.0016	0.0047	0.2926
25 mph	0.0000	0.0000	0.0000	0.0000	0.0417	0.0072	0.0039	0.0115	0.0643
35 mph	0.5804	0.1226	0.2856	0.0713	0.0000	0.0000	0.0000	0.0000	1.0599
total	0.7100	0.1483	0.3489	0.1066	0.5850	0.1883	0.2917	0.0281	2.4069

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5158	0.1762	0.2862	0.0119	0.9901
15 mph	0.7342	0.1459	0.3586	0.1401	0.1346	0.0239	0.0075	0.0220	1.5667
25 mph	1.1593	0.2396	0.5679	0.2062	0.2648	0.0459	0.0205	0.0606	2.5648
35 mph	1.6053	0.3391	0.7901	0.2651	0.2328	0.0397	0.0177	0.0523	3.3420
45 mph	0.4962	0.1052	0.2437	0.1076	0.1631	0.0274	0.0136	0.0403	1.1972
55 mph	0.4832	0.1015	0.2369	0.1038	0.1574	0.0263	0.0057	0.0169	1.1316
65 mph	1.1934	0.2404	0.5808	0.2700	0.4689	0.0779	0.0702	0.2065	3.1081
total	5.6716	1.1717	2.7779	1.0928	1.9374	0.4173	0.4213	0.4104	13.9005

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0014	0.0001	0.0001	0.0001	0.0155	0.0102	0.0222	0.1353	0.1849
25 mph	0.0019	0.0001	0.0001	0.0001	0.0234	0.0134	0.0457	0.2427	0.3275
35 mph	0.0014	0.0001	0.0001	0.0001	0.0199	0.0111	0.0240	0.1285	0.1852
45 mph	0.0002	0.0000	0.0000	0.0000	0.0031	0.0017	0.0065	0.0356	0.0472
55 mph	0.0003	0.0000	0.0000	0.0000	0.0041	0.0022	0.0031	0.0176	0.0272
65 mph	0.0002	0.0000	0.0000	0.0000	0.0028	0.0015	0.0006	0.0031	0.0082
total	0.0054	0.0003	0.0003	0.0003	0.0689	0.0400	0.1022	0.5628	0.7803

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0001	0.0000	0.0000	0.0000	0.0013	0.0008	0.0190	0.1011	0.1223
35 mph	0.0003	0.0000	0.0000	0.0000	0.0077	0.0043	0.0345	0.1843	0.2311
45 mph	0.0006	0.0000	0.0000	0.0000	0.0167	0.0090	0.0244	0.1327	0.1836
55 mph	0.0006	0.0000	0.0000	0.0000	0.0154	0.0081	0.0041	0.0233	0.0515
65 mph	0.0018	0.0002	0.0000	0.0001	0.0540	0.0276	0.0610	0.3156	0.4602
total	0.0034	0.0003	0.0001	0.0002	0.0950	0.0498	0.1429	0.7570	1.0487

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0016	0.0113	0.0266
15 mph	0.0003	0.0000	0.0000	0.0000	0.0040	0.0026	0.0061	0.0370	0.0500
25 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0027	0.0152	0.0805	0.1029
35 mph	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011
total	0.0013	0.0001	0.0001	0.0001	0.0166	0.0109	0.0229	0.1288	0.1807

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0080	0.0057	0.0016	0.0113	0.0266
15 mph	0.0017	0.0001	0.0002	0.0001	0.0195	0.0128	0.0283	0.1723	0.2349
25 mph	0.0020	0.0001	0.0001	0.0001	0.0294	0.0169	0.0799	0.4243	0.5528
35 mph	0.0027	0.0002	0.0001	0.0001	0.0276	0.0154	0.0585	0.3128	0.4174
45 mph	0.0009	0.0001	0.0000	0.0001	0.0198	0.0107	0.0309	0.1683	0.2308
55 mph	0.0008	0.0001	0.0000	0.0000	0.0195	0.0102	0.0071	0.0409	0.0787
65 mph	0.0019	0.0002	0.0001	0.0001	0.0568	0.0291	0.0616	0.3187	0.4685
total	0.0100	0.0007	0.0005	0.0006	0.1805	0.1008	0.2680	1.4486	2.0097

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.52	0.18	0.29	0.02	1.02
15 mph	0.74	0.15	0.36	0.14	0.15	0.04	0.04	0.19	1.80
25 mph	1.16	0.24	0.57	0.21	0.29	0.06	0.10	0.48	3.12
35 mph	1.61	0.34	0.79	0.27	0.26	0.06	0.08	0.37	3.76
45 mph	0.50	0.11	0.24	0.11	0.18	0.04	0.04	0.21	1.43
55 mph	0.48	0.10	0.24	0.10	0.18	0.04	0.01	0.06	1.21
65 mph	1.20	0.24	0.58	0.27	0.53	0.11	0.13	0.53	3.58
total	5.68	1.17	2.78	1.09	2.12	0.52	0.69	1.86	**15.91**

World Logistics Center
Mobile Emissions - 2018 + Phase 1 (Project) - Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	13,913.37	20,112.41
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,242.10	2,466.87
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,377.17	1,874.35
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,169.21	1,711.34
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,011.01	1,613.15
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	919.35	1,563.49
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	941.16	1,536.53

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	6,792.14	6,260.12
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,670.76	2,309.55
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,346.91	1,841.64
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,213.11	1,647.66
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,122.78	1,518.01
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,057.46	1,429.06
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,043.95	1,403.10

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	17,624.39	1,549.52	8,868.24	2,226.31	1,563.74	591.59	1,191.99	148.94	33,764.72
25 mph	41,488.86	3,647.51	20,880.37	5,250.21	4,425.20	1,664.66	2,837.12	438.52	80,632.45
35 mph	37,841.40	3,327.67	19,046.35	4,807.46	4,770.15	1,786.99	2,331.01	387.46	74,298.49
45 mph	6,219.42	546.91	3,130.23	790.40	871.45	314.10	1,007.80	182.62	13,062.93
55 mph	8,281.48	728.39	4,166.31	1,053.48	1,245.25	440.25	794.25	153.40	16,862.81
65 mph	5,524.49	485.89	2,779.53	703.98	711.46	249.53	187.63	34.79	10,677.30
total	116,980.04	10,285.90	58,871.04	14,831.85	13,587.24	5,047.11	8,349.81	1,345.72	229,298.71

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	1,334.44	117.32	671.59	212.62	252.08	94.83	1,181.84	182.67	4,047.40
35 mph	8,199.56	721.05	4,127.01	1,311.61	1,830.63	685.79	3,344.61	555.95	20,776.19
45 mph	18,746.59	1,648.51	9,435.15	2,999.77	4,652.20	1,676.82	3,759.68	681.26	43,599.98
55 mph	17,520.80	1,541.03	8,814.50	2,806.34	4,666.02	1,649.64	1,051.95	203.17	38,253.46
65 mph	59,134.72	5,200.98	29,752.42	9,488.05	13,487.94	4,730.59	18,845.67	3,494.11	144,134.48
total	104,936.11	9,228.89	52,800.66	16,818.39	24,888.88	8,837.67	28,183.75	5,117.16	250,811.51

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	424.03	70.28	1,047.47
15 mph	3,777.52	332.12	1,900.77	748.24	401.54	151.91	325.65	40.69	7,678.44
25 mph	0.00	0.00	0.00	0.00	873.12	328.45	941.05	145.45	2,288.07
35 mph	26,070.98	2,292.61	13,122.06	2,252.26	0.00	0.00	0.00	0.00	43,737.91
total	29,848.50	2,624.73	15,022.83	3,000.50	1,673.47	634.71	1,690.74	256.42	54,751.89

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	398.81	154.35	424.03	70.28	1,047.47
15 mph	21,401.91	1,881.63	10,769.01	2,974.55	1,965.27	743.50	1,517.65	189.63	41,443.16
25 mph	42,823.29	3,764.83	21,551.97	5,462.84	5,550.41	2,087.93	4,960.02	766.64	86,967.92
35 mph	72,111.94	6,341.34	36,295.42	8,371.33	6,600.78	2,472.77	5,675.62	943.41	138,812.60
45 mph	24,966.01	2,195.42	12,565.38	3,790.17	5,523.65	1,990.92	4,767.48	863.88	56,662.91
55 mph	25,802.28	2,269.43	12,980.81	3,859.83	5,911.27	2,089.89	1,846.20	356.56	55,116.27
65 mph	64,659.21	5,686.87	32,531.95	10,192.03	14,199.40	4,980.12	19,033.30	3,528.90	154,811.78
total	251,764.64	22,139.52	126,694.53	34,650.74	40,149.59	14,519.50	38,224.30	6,719.30	534,862.11

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	129.47	2.20	11.07	22.62	739.05	589.58	5,659.46	14,952.85	22,106.31
25 mph	316.50	5.38	27.06	56.48	1,987.42	1,593.94	17,679.61	46,203.26	67,869.66
35 mph	294.17	4.96	25.03	52.52	2,146.25	1,708.98	15,409.63	40,003.41	59,644.96
45 mph	48.99	0.82	4.15	8.71	375.36	291.74	7,131.12	18,427.79	26,288.67
55 mph	66.10	1.11	5.58	11.87	529.08	402.83	5,820.74	15,034.93	21,872.24
65 mph	44.75	0.75	3.77	8.01	300.90	225.33	1,326.09	3,406.58	5,316.19
total	899.98	15.22	76.67	160.21	6,078.06	4,812.40	53,026.65	138,028.82	203,098.02

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	10.18	0.17	0.87	2.29	113.21	90.80	7,364.69	19,246.63	26,828.85
35 mph	63.74	1.07	5.42	14.33	823.66	655.85	22,110.24	57,398.20	81,072.53
45 mph	147.66	2.48	12.51	33.05	2,003.85	1,557.42	26,603.11	68,746.05	99,106.13
55 mph	139.84	2.34	11.81	31.61	1,982.49	1,509.43	7,709.35	19,913.18	31,300.06
65 mph	479.05	7.98	40.37	108.02	5,704.53	4,271.81	133,190.57	342,150.85	485,953.18
total	840.47	14.04	70.99	189.30	10,627.74	8,085.31	196,977.97	507,454.92	724,260.74

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,318.91	2,323.41	4,108.58
15 mph	27.75	0.47	2.37	7.60	189.78	151.39	1,546.17	4,085.14	6,010.67
25 mph	0.00	0.00	0.00	0.00	392.13	314.49	5,864.19	15,325.26	21,896.08
35 mph	202.67	3.42	17.25	24.61	0.00	0.00	0.00	0.00	247.94
total	230.42	3.89	19.62	32.21	801.08	712.97	8,729.27	21,733.81	32,263.27

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	219.18	247.08	1,318.91	2,323.41	4,108.58
15 mph	157.22	2.68	13.44	30.22	928.83	740.98	7,205.63	19,037.99	28,116.98
25 mph	326.68	5.56	27.93	58.77	2,492.77	1,999.24	30,908.49	80,775.16	116,594.58
35 mph	560.58	9.45	47.71	91.45	2,969.91	2,364.83	37,519.87	97,401.61	140,965.43
45 mph	196.64	3.30	16.66	41.76	2,379.21	1,849.16	33,734.23	87,173.84	125,394.80
55 mph	205.94	3.45	17.40	43.48	2,511.57	1,912.26	13,530.09	34,948.11	53,172.30
65 mph	523.81	8.72	44.15	116.04	6,005.43	4,497.14	134,516.66	345,557.42	491,269.37
total	1,970.88	33.15	167.27	381.71	17,506.89	13,610.68	258,733.89	667,217.55	959,622.03

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	617.99	401.43	1,742.94	2,393.69	5,156.05
15 mph	21,559.13	1,884.31	10,782.46	3,004.77	2,894.10	1,484.48	8,723.28	19,227.62	69,560.15
25 mph	43,149.98	3,770.39	21,579.89	5,521.60	8,043.17	4,087.17	35,868.50	81,541.80	203,562.50
35 mph	72,672.52	6,350.79	36,343.12	8,462.78	9,570.69	4,837.61	43,195.49	98,345.02	279,778.03
45 mph	25,162.65	2,198.72	12,582.03	3,831.93	7,902.86	3,840.08	38,501.72	88,037.72	182,057.70
55 mph	26,008.22	2,272.88	12,998.20	3,903.31	8,422.84	4,002.15	15,376.29	35,304.67	108,288.56
65 mph	65,183.01	5,695.59	32,576.10	10,308.06	20,204.83	9,477.26	153,549.96	349,086.32	646,081.15
total	253,735.52	22,172.67	126,861.81	35,032.45	57,656.48	28,130.18	296,958.18	673,936.85	**1,494,484.14**

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
408.44	2,494.53	2,954.07	14.34	1,004.62	266.26	1,285.21	13.55	246.59	104.44	364.57	9.87	19.36	28.31	2,636,336.63

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
74.54	455.25	539.12	2.62	183.34	48.59	234.55	2.47	45.00	19.06	66.53	1.80	3.53	5.17	481,131.44

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
VMT

	Net Trips			Net VMT		
	Gas	Dsl	Elec	Gas	Dsl	Elec
LDA	27,613.6	226.4	294.4	608,874.4	4,992.2	6,491.6
LDT1	2,071.2	2.8	1.7	45,670.0	62.1	38.3
LDT2	10,373.3	15.0	0.0	228,728.2	329.9	0.0
MDT	3,026.8	37.2	0.0	53,313.6	654.5	0.0
LHDT1	1,608.8	1,043.9	0.0	42,102.6	27,318.2	0.0
LHDT2	537.5	737.8	0.0	14,067.3	19,308.8	0.0
MHDT	570.1	3,632.4	0.0	28,048.6	178,711.7	0.0
HHDT	64.7	6,942.7	0.0	3,185.3	341,576.8	0.0

	Surface Street VMT			Freeway VMT		
	Gas	Dsl	Elec	Gas	Dsl	Elec
LDA	304,006.3	2,492.6	3,241.2	304,868.1	2,499.6	3,250.4
LDT1	22,802.7	31.0	19.1	22,867.3	31.1	19.2
LDT2	114,202.2	164.7	0.0	114,526.0	165.2	0.0
MDT	23,297.2	286.0	0.0	30,016.3	368.5	0.0
LHDT1	15,257.3	9,899.6	0.0	26,845.3	17,418.5	0.0
LHDT2	5,097.8	6,997.2	0.0	8,969.6	12,311.6	0.0
MHDT	5,439.4	34,657.1	0.0	22,609.2	144,054.6	0.0
HHDT	617.7	66,241.1	0.0	2,567.6	275,335.7	0.0

	% of Surface Street VMT		% of Freeway VMT	
Speed	All Other	MHDT/HHDT	All Other	MHDT/HHDT
15	9.0%	8.0%	0.0%	0.0%
25	32.0%	31.0%	1.0%	3.0%
35	38.0%	30.0%	8.0%	10.0%
45	7.0%	15.0%	20.5%	13.0%
55	9.0%	13.0%	18.5%	4.0%
65	5.0%	3.0%	52.0%	70.0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	27,360.6	2,052.2	10,278.2	2,096.8	1,373.2	458.8	435.2	49.4	44,104.3
25 mph	97,282.0	7,296.9	36,544.7	7,455.1	4,882.3	1,631.3	1,686.2	191.5	156,970.0
35 mph	115,522.4	8,665.0	43,396.9	8,852.9	5,797.8	1,937.2	1,631.8	185.3	185,989.3
45 mph	21,280.4	1,596.2	7,994.2	1,630.8	1,068.0	356.8	815.9	92.7	34,835.0
55 mph	27,360.6	2,052.2	10,278.2	2,096.8	1,373.2	458.8	707.1	80.3	44,407.1
65 mph	15,200.3	1,140.1	5,710.1	1,164.9	762.9	254.9	163.2	18.5	24,414.9
total	304,006.3	22,802.7	114,202.2	23,297.2	15,257.3	5,097.8	5,439.4	617.7	490,720.6

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	3,048.7	228.7	1,145.3	300.2	268.5	89.7	678.3	77.0	5,836.2
35 mph	24,389.4	1,829.4	9,162.1	2,401.3	2,147.6	717.6	2,260.9	256.8	43,165.1
45 mph	62,498.0	4,687.8	23,477.8	6,153.4	5,503.3	1,838.8	2,939.2	333.8	107,432.0
55 mph	56,400.6	4,230.5	21,187.3	5,553.0	4,966.4	1,659.4	904.4	102.7	95,004.2
65 mph	158,531.4	11,891.0	59,553.5	15,608.5	13,959.6	4,664.2	15,826.4	1,797.3	281,832.0
total	304,868.1	22,867.3	114,526.0	30,016.3	26,845.3	8,969.6	22,609.2	2,567.6	533,269.5

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	5,612.6	421.0	2,108.4	626.9	336.5	112.4	115.8	13.2	9,346.8
25 mph	0.0	0.0	0.0	0.0	901.3	301.1	552.7	62.8	1,817.8
35 mph	54,434.5	4,083.0	20,448.7	3,362.8	0.0	0.0	0.0	0.0	82,329.1
total	60,047.1	4,504.0	22,557.1	3,989.7	1,237.8	413.6	668.5	75.9	93,493.7

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	67.0	22.4	23.8	2.8	115.9
15 mph	32,973.1	2,473.2	12,386.6	2,723.6	1,709.7	571.2	550.9	62.6	53,451.1
25 mph	100,330.7	7,525.5	37,690.0	7,755.3	6,052.0	2,022.1	2,917.1	331.3	164,624.1
35 mph	194,346.4	14,577.4	73,007.7	14,617.1	7,945.4	2,654.7	3,892.7	442.1	311,483.5
45 mph	83,778.4	6,284.0	31,472.0	7,784.2	6,571.3	2,195.6	3,755.1	426.4	142,267.0
55 mph	83,761.2	6,282.7	31,465.5	7,649.8	6,339.5	2,118.2	1,611.5	183.0	139,411.4
65 mph	173,731.7	13,031.2	65,263.6	16,773.4	14,722.4	4,919.1	15,989.6	1,815.9	306,246.9
total	668,921.5	50,174.0	251,285.4	57,303.3	43,340.4	14,480.9	28,717.0	3,261.3	1,117,483.8

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	224.3	2.8	14.8	25.7	891.0	629.7	2,772.6	5,299.3	9,860.2
25 mph	797.6	9.9	52.7	91.5	3,167.9	2,239.1	10,743.7	20,534.7	37,637.2
35 mph	947.2	11.8	62.6	108.7	3,761.9	2,658.9	10,397.1	19,872.3	37,820.5
45 mph	174.5	2.2	11.5	20.0	693.0	489.8	5,198.6	9,936.2	16,525.7
55 mph	224.3	2.8	14.8	25.7	891.0	629.7	4,505.4	8,611.3	14,905.2
65 mph	124.6	1.6	8.2	14.3	495.0	349.9	1,039.7	1,987.2	4,020.5
total	2,492.6	31.0	164.7	286.0	9,899.6	6,997.2	34,657.1	66,241.1	120,769.2

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	25.0	0.3	1.7	3.7	174.2	123.1	4,321.6	8,260.1	12,909.7
35 mph	200.0	2.5	13.2	29.5	1,393.5	984.9	14,405.5	27,533.6	44,562.6
45 mph	512.4	6.4	33.9	75.5	3,570.8	2,523.9	18,727.1	35,793.6	61,243.6
55 mph	462.4	5.8	30.6	68.2	3,222.4	2,277.6	5,762.2	11,013.4	22,842.6
65 mph	1,299.8	16.2	85.9	191.6	9,057.6	6,402.0	100,838.2	192,735.0	310,626.4
total	2,499.6	31.1	165.2	368.5	17,418.5	12,311.6	144,054.6	275,335.7	452,184.8

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1,410.2	2,578.0
25 mph	0.0	0.0	0.0	0.0	584.8	413.3	3,521.2	6,730.2	11,249.6
35 mph	446.3	5.6	29.5	41.3	0.0	0.0	0.0	0.0	522.6
total	492.3	6.1	32.5	49.0	803.2	567.7	4,259.0	8,140.4	14,350.3

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	43.5	30.7	151.4	289.3	514.9
15 mph	270.3	3.4	17.9	33.4	1,109.3	784.1	3,510.4	6,709.5	12,438.3
25 mph	822.6	10.2	54.4	95.2	3,926.9	2,775.5	18,586.6	35,525.0	61,796.4
35 mph	1,593.5	19.8	105.3	179.4	5,155.3	3,643.8	24,802.6	47,405.9	82,905.7
45 mph	686.9	8.5	45.4	95.6	4,263.8	3,013.7	23,925.7	45,729.8	77,769.3
55 mph	686.8	8.5	45.4	93.9	4,113.4	2,907.4	10,267.6	19,624.8	37,747.7
65 mph	1,424.4	17.7	94.1	205.9	9,552.6	6,751.9	101,877.9	194,722.3	314,646.9
total	5,484.5	68.3	362.4	703.4	28,121.3	19,876.4	182,970.7	349,717.3	587,304.3

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	291.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	293.4
25 mph	1,037.2	6.1	0.0	0.0	0.0	0.0	0.0	0.0	1,043.3
35 mph	1,231.7	7.3	0.0	0.0	0.0	0.0	0.0	0.0	1,238.9
45 mph	226.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	228.2
55 mph	291.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	293.4
65 mph	162.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	163.0
total	3,241.2	19.1	0.0	0.0	0.0	0.0	0.0	0.0	3,260.3

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 mph	32.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	32.7
35 mph	260.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	261.6
45 mph	666.3	3.9	0.0	0.0	0.0	0.0	0.0	0.0	670.3
55 mph	601.3	3.5	0.0	0.0	0.0	0.0	0.0	0.0	604.9
65 mph	1,690.2	10.0	0.0	0.0	0.0	0.0	0.0	0.0	1,700.2
total	3,250.4	19.2	0.0	0.0	0.0	0.0	0.0	0.0	3,269.6

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	60.2
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,730.2	6,730.2
35 mph	580.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0	583.8
total	640.2	3.8	0.0	0.0	0.0	0.0	0.0	6,730.2	7,374.2

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	351.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	353.6
25 mph	1,069.7	6.3	0.0	0.0	0.0	0.0	0.0	6,730.2	7,806.2
35 mph	2,072.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	2,084.3
45 mph	893.2	5.3	0.0	0.0	0.0	0.0	0.0	0.0	898.5
55 mph	893.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	898.3
65 mph	1,852.3	10.9	0.0	0.0	0.0	0.0	0.0	0.0	1,863.2
total	7,131.8	42.1	0.0	0.0	0.0	0.0	0.0	6,730.2	13,904.1

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2018 Buildout (Project) Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	12,160	2,432	715	143	1,871	374	3,119	624	3,573	6.97	0.035	0.0002	0.7	0.0008	2.7
2	A	731	0.45	6,925	3,116	380	171	1,007	453	1,678	755	4,495	6.78	0.035	0.0002	0.8	0.0007	3.3
3	A	2352	1.46	3,605	5,263	104	152	186	271	310	452	6,139	4.20	0.035	0.0001	0.7	0.0004	2.8
5	A	953	0.59	5,235	3,089	318	187	-	-	-	-	3,276	2.33	0.035	0.0001	0.2	0.0002	0.8
6	A	1099	0.68	12,560	8,541	825	561	2,216	1,507	3,694	2,512	13,120	7.43	0.035	0.0002	2.6	0.0008	10.6
8	A	1091	0.68	4,735	3,220	317	216	-	-	-	-	3,435	2.35	0.035	0.0001	0.2	0.0002	0.9
11	A	1201	0.75	7,690	5,768	26	19	-	-	-	-	5,787	2.14	0.035	0.0001	0.3	0.0002	1.3
12	A	824	0.51	7,820	3,988	11	6	2	1	3	2	3,997	2.15	0.035	0.0001	0.2	0.0002	0.9
14	A	1618	1.01	1,895	1,914	97	98	363	367	605	611	2,990	7.74	0.035	0.0002	0.6	0.0008	2.5
18	A	1412	0.88	1,725	1,518	30	27	64	56	106	94	1,694	3.67	0.035	0.0001	0.2	0.0004	0.7
19	A	2386	1.48	3,450	3,616	21	21	4	4	6	7	3,648	2.20	0.035	0.0001	0.2	0.0002	0.8
21	A	1258	0.78	1,915	1,494	174	136	162	126	270	210	1,966	5.25	0.035	0.0001	0.3	0.0006	1.1
24	A	1946	1.21	2,740	3,315	170	206	340	412	567	687	4,620	6.28	0.035	0.0002	0.8	0.0007	3.1
30	A	2827	1.76	14,610	25,714	102	180	205	361	342	602	26,858	2.76	0.035	0.0001	1.9	0.0003	7.9
29	A	675	0.42	5,235	2,199	92	38	261	110	436	183	2,530	4.13	0.035	0.0001	0.3	0.0004	1.1
31	A	820	0.51	16,175	8,249	77	39	64	32	106	54	8,375	2.32	0.035	0.0001	0.5	0.0002	2.1
TOTAL				108,476		3,458		6,743		11,244						10.4		42.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2018 Buildout (Project) Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				43662.41	949154.78	3,928.00	102,796.89	4,202.52	206,760.23	7,007.48	344,762.16	##########	5.57	0.035	0.0001	236.1542717	0.0006	962.1099959

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	5556.3	45.6	59.2
	LDT1	15	1989	330	0.21	417.7	416.8	0.6	0.3
	LDT2	15	9954	330	0.21	2090.3	2087.3	3.0	0.0
	MDT	15	2999	330	0.21	629.8	622.1	7.6	0.0
	LHDT1	15	2635	330	0.21	553.3	335.6	217.7	0.0
	LHDT2	15	1267	330	0.21	266.0	112.1	153.9	0.0
	MHDT	15	4034	330	0.21	847.1	114.9	732.2	0.0
	HHDT	15	6726	330	0.21	1412.5	13.1	1399.4	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	20.9	0.2	0.2
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.9	0.0	0.0
	MDT	15	18	175	0.11	2.0	2.0	0.0	0.0
	LHDT1	15	11	175	0.11	1.2	0.7	0.5	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.3	0.0
	MHDT	15	13	175	0.11	1.4	0.2	1.2	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.9	0.1	0.1
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.8	0.0	0.0
	LHDT1	15	7	100	0.06	0.4	0.3	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.6	3.7	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	19.7	0.2	0.2
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.8	0.0	0.0
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.1	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5612.6	421.0	2108.4	626.9	336.5	112.4	115.8	13.2
Diesel	46.0	0.6	3.0	7.7	218.4	154.3	737.8	1410.2
Electric	59.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	799	518	0	3995.0	2592.1	0.0
	LHDT2	5	633	267	366	0	1334.8	1832.1	0.0
	MHDT	5	2017	274	1743	0	1368.0	8716.4	0.0
	HHDT	5	3363	31	3332	0	155.4	16659.8	0.0
Travel at Light Logistics	LHDT1	5	5	3	2	0	16.0	10.4	0.0
	LHDT2	5	3	1	1	0	5.4	7.4	0.0
	MHDT	5	7	1	6	0	4.4	28.2	0.0
	HHDT	5	11	0	11	0	0.5	53.9	0.0
Travel at Utility	LHDT1	5	4	2	1	0	10.8	7.0	0.0
	LHDT2	5	2	1	1	0	3.6	5.0	0.0
	MHDT	5	7	1	6	0	4.6	29.4	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	10	61	0	48.2	307.3	0.0
	HHDT	5	119	1	117	0	5.5	587.4	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	67.0	22.4	23.8	2.8
Diesel	43.5	30.7	151.4	289.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	15.5954	23.2369	8.4364
15 mph	0.0487	0.1299	0.0629	0.1381	0.1717	0.0880	0.0273	0.7094
25 mph	0.0256	0.0710	0.0331	0.0746	0.0956	0.0477	0.0141	0.3666
35 mph	0.0162	0.0460	0.0211	0.0483	0.0642	0.0315	0.0090	0.2346
45 mph	0.0130	0.0370	0.0168	0.0393	0.0534	0.0258	0.0071	0.1862
55 mph	0.0128	0.0360	0.0165	0.0390	0.0535	0.0258	0.0070	0.1829
65 mph	0.0151	0.0411	0.0194	0.0462	0.0685	0.0327	0.0086	0.2225

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1825	0.6570
15 mph	0.1105	0.3746	0.0963	0.0803	0.3139	0.2922	0.1414	0.4499
25 mph	0.0427	0.2154	0.0249	0.0229	0.1334	0.1084	0.0750	0.2083
35 mph	0.0272	0.1539	0.0154	0.0145	0.0958	0.0755	0.0407	0.1139
45 mph	0.0221	0.1338	0.0112	0.0110	0.0815	0.0624	0.0221	0.0631
55 mph	0.0210	0.1398	0.0093	0.0096	0.0832	0.0617	0.0120	0.0360
65 mph	0.0239	0.1736	0.0095	0.0104	0.1038	0.0753	0.0103	0.0279

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	2.9376	0.5878	1.4249	0.6384	0.5199	0.0890	0.0262	0.0773	6.3011
25 mph	5.4962	1.1421	2.6690	1.2260	1.0290	0.1716	0.0524	0.1548	11.9411
35 mph	4.1363	0.8791	2.0159	0.9427	0.8210	0.1347	0.0324	0.0959	9.0579
45 mph	0.6109	0.1304	0.2969	0.1413	0.1258	0.0203	0.0129	0.0380	1.3765
55 mph	0.7699	0.1631	0.3737	0.1803	0.1620	0.0261	0.0110	0.0324	1.7185
65 mph	0.5066	0.1035	0.2439	0.1186	0.1152	0.0184	0.0031	0.0091	1.1184
total	14.4575	3.0059	7.0243	3.2474	2.7730	0.4601	0.1379	0.4075	31.5135

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.1722	0.0358	0.0836	0.0494	0.0566	0.0094	0.0211	0.0623	0.4904
35 mph	0.8733	0.1856	0.4256	0.2557	0.3041	0.0499	0.0449	0.1328	2.2719
45 mph	1.7941	0.3829	0.8719	0.5332	0.6483	0.1048	0.0463	0.1370	4.5185
55 mph	1.5870	0.3363	0.7704	0.4774	0.5861	0.0944	0.0140	0.0414	3.9070
65 mph	5.2833	1.0789	2.5442	1.5898	2.1078	0.3366	0.2997	0.8818	14.1220
total	9.7099	2.0194	4.6957	2.9055	3.7029	0.5950	0.4260	1.2554	25.3099

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.2171	0.0514	2.5077
15 mph	0.6026	0.1206	0.2923	0.1909	0.1274	0.0218	0.0070	0.0206	1.3831
25 mph	0.0000	0.0000	0.0000	0.0000	0.1899	0.0317	0.0172	0.0507	0.2895
35 mph	1.9490	0.4142	0.9499	0.3581	0.0000	0.0000	0.0000	0.0000	3.6712
total	2.5516	0.5348	1.2422	0.5490	0.7864	0.8236	1.2413	0.1227	7.8515

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.4690	0.7702	1.2171	0.0514	2.5077
15 mph	3.5403	0.7083	1.7172	0.8293	0.6473	0.1108	0.0331	0.0979	7.6842
25 mph	5.6685	1.1779	2.7526	1.2754	1.2755	0.2127	0.0906	0.2678	12.7210
35 mph	6.9586	1.4789	3.3914	1.5564	1.1252	0.1846	0.0773	0.2287	15.0011
45 mph	2.4050	0.5132	1.1688	0.6746	0.7741	0.1251	0.0592	0.1751	5.8950
55 mph	2.3569	0.4994	1.1441	0.6577	0.7481	0.1205	0.0250	0.0738	5.6255
65 mph	5.7899	1.1824	2.7881	1.7084	2.2230	0.3550	0.3028	0.8909	15.2404
total	26.7191	5.5601	12.9622	6.7018	7.2622	1.8788	1.8052	1.7856	64.6749

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0546	0.0023	0.0031	0.0046	0.6166	0.4058	0.8645	5.2570	7.2085
25 mph	0.0751	0.0047	0.0029	0.0046	0.9321	0.5354	1.7765	9.4314	12.7627
35 mph	0.0569	0.0040	0.0021	0.0035	0.7943	0.4424	0.9339	4.9915	7.2285
45 mph	0.0085	0.0006	0.0003	0.0005	0.1245	0.0674	0.2536	1.3826	1.8381
55 mph	0.0104	0.0009	0.0003	0.0005	0.1635	0.0857	0.1192	0.6833	1.0638
65 mph	0.0066	0.0006	0.0002	0.0003	0.1133	0.0581	0.0236	0.1221	0.3247
total	0.2121	0.0131	0.0089	0.0140	2.7443	1.5948	3.9713	21.8679	30.4265

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0024	0.0001	0.0001	0.0002	0.0513	0.0294	0.7146	3.7938	4.5918
35 mph	0.0120	0.0008	0.0004	0.0009	0.2942	0.1639	1.2940	6.9158	8.6821
45 mph	0.0250	0.0019	0.0008	0.0018	0.6415	0.3473	0.9137	4.9808	6.9128
55 mph	0.0214	0.0018	0.0006	0.0014	0.5914	0.3100	0.1525	0.8739	1.9530
65 mph	0.0685	0.0062	0.0018	0.0044	2.0741	1.0627	2.2880	11.8405	17.3461
total	0.1292	0.0108	0.0038	0.0088	3.6524	1.9133	5.3627	28.4048	39.4859

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.0609	0.4191	0.9993
15 mph	0.0112	0.0005	0.0006	0.0014	0.1511	0.0995	0.2301	1.3989	1.8933
25 mph	0.0000	0.0000	0.0000	0.0000	0.1721	0.0988	0.5822	3.0911	3.9443
35 mph	0.0268	0.0019	0.0010	0.0013	0.0000	0.0000	0.0000	0.0000	0.0310
total	0.0380	0.0024	0.0016	0.0027	0.6275	0.4134	0.8732	4.9091	6.8679

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3043	0.2151	0.0609	0.4191	0.9993
15 mph	0.0659	0.0028	0.0038	0.0059	0.7677	0.5053	1.0946	6.6559	9.1018
25 mph	0.0775	0.0049	0.0030	0.0048	1.1554	0.6637	3.0733	16.3163	21.2988
35 mph	0.0957	0.0067	0.0036	0.0057	1.0885	0.6063	2.2279	11.9073	15.9416
45 mph	0.0335	0.0025	0.0011	0.0023	0.7660	0.4147	1.1674	6.3634	8.7509
55 mph	0.0318	0.0026	0.0009	0.0020	0.7549	0.3957	0.2717	1.5572	3.0169
65 mph	0.0750	0.0068	0.0020	0.0047	2.1874	1.1208	2.3116	11.9626	17.6708
total	0.3794	0.0263	0.0144	0.0255	7.0242	3.9214	10.2073	55.1819	76.7802

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.05	0.22	0.07	0.10	0.58	0.34	0.21	0.08
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	71.51	24.01	41.17	12.99	55.78	10.85	13.36	0.54
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**71.51**	**24.01**	**41.17**	**12.99**	**55.78**	**10.85**	**13.36**	**0.54**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.67	1.84	0.74	0.99	0.13	0.09	0.09	0.08
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	20.39	4.21	8.50	3.32	0.23	0.05	0.06	0.01
Electric	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**20.40**	**4.21**	**8.50**	**3.32**	**0.23**	**0.05**	**0.06**	**0.01**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.77	0.99	1.28	0.47	3.51
15 mph	3.61	0.71	1.72	0.84	1.42	0.62	1.13	6.75	16.79
25 mph	5.75	1.18	2.76	1.28	2.43	0.88	3.16	16.58	34.02
35 mph	7.05	1.49	3.39	1.56	2.21	0.79	2.31	12.14	30.94
45 mph	2.44	0.52	1.17	0.68	1.54	0.54	1.23	6.54	14.65
55 mph	2.39	0.50	1.15	0.66	1.50	0.52	0.30	1.63	8.64
65 mph	5.86	1.19	2.79	1.71	4.41	1.48	2.61	12.85	32.91
RUNLOSS	71.51	24.01	41.17	12.99	55.78	10.85	13.36	0.54	230.21
RESTLOSS DIURI	20.40	4.21	8.50	3.32	0.23	0.05	0.06	0.01	36.77
total	119.01	33.80	62.65	23.03	70.30	16.70	25.43	57.51	**408.44**

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.2704	1.3001	2.0008	22.8319
15 mph	0.1011	0.2922	0.1678	0.3021	0.5105	0.3570	0.1185	3.5146
25 mph	0.0819	0.2290	0.1339	0.2460	0.4366	0.2989	0.0968	2.8731
35 mph	0.0703	0.1941	0.1139	0.2150	0.3959	0.2656	0.0843	2.5036
45 mph	0.0660	0.1848	0.1066	0.2044	0.3803	0.2514	0.0783	2.3272
55 mph	0.0661	0.1924	0.1075	0.2092	0.3842	0.2513	0.0777	2.3049
65 mph	0.0699	0.2127	0.1146	0.2265	0.4126	0.2690	0.0823	2.4348

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	72.2224	71.0419	18.8257	17.8936
15 mph	0.1821	0.9055	0.1057	0.1041	2.3215	1.6608	4.0527	9.6014
25 mph	0.1524	0.9672	0.0665	0.0665	2.4678	1.7036	1.7445	4.2191
35 mph	0.1437	1.0188	0.0556	0.0577	2.7990	1.9070	0.9991	2.5657
45 mph	0.1481	1.1032	0.0520	0.0547	3.1022	2.1010	0.6881	1.9171
55 mph	0.1541	1.1890	0.0508	0.0546	3.4453	2.3332	0.5212	1.6871
65 mph	0.1587	1.2559	0.0512	0.0563	3.8124	2.5852	0.4903	1.2803

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	6.0999	1.3222	3.8022	1.3968	1.5457	0.3612	0.1137	0.3830	15.0247
25 mph	17.5770	3.6853	10.7877	4.0447	4.7000	1.0751	0.3599	1.2131	43.4429
35 mph	17.9052	3.7091	10.8950	4.1970	5.0610	1.1347	0.3033	1.0230	44.2283
45 mph	3.0957	0.6504	1.8794	0.7349	0.8956	0.1978	0.1409	0.4755	8.0701
55 mph	3.9859	0.8707	2.4361	0.9671	1.1633	0.2542	0.1211	0.4081	10.2065
65 mph	2.3418	0.5348	1.4434	0.5817	0.6940	0.1512	0.0296	0.0995	5.8760
total	51.0055	10.7726	31.2438	11.9222	14.0596	3.1741	1.0685	3.6023	126.8485

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.5508	0.1155	0.3381	0.1628	0.2584	0.0591	0.1448	0.4880	2.1176
35 mph	3.7802	0.7831	2.3002	1.1384	1.8747	0.4203	0.4202	1.4175	12.1346
45 mph	9.0915	1.9102	5.5194	2.7729	4.6149	1.0194	0.5075	1.7129	27.1488
55 mph	8.2165	1.7948	5.0217	2.5614	4.2073	0.9194	0.1549	0.5220	23.3979
65 mph	24.4237	5.5777	15.0542	7.7943	12.6993	2.7665	2.8705	9.6496	80.8357
total	46.0628	10.1813	28.2336	14.4298	23.6547	5.1846	4.0979	13.7899	145.6346

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.1048	0.1391	0.4959
15 mph	1.2513	0.2712	0.7800	0.4176	0.3788	0.0885	0.0303	0.1019	3.3196
25 mph	0.0000	0.0000	0.0000	0.0000	0.8676	0.1985	0.1180	0.3976	1.5816
35 mph	8.4370	1.7477	5.1338	1.5943	0.0000	0.0000	0.0000	0.0000	16.9127
total	9.6883	2.0190	5.9137	2.0119	1.4342	0.3512	0.2530	0.6386	22.3099

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.1878	0.0642	0.1048	0.1391	0.4959
15 mph	7.3512	1.5935	4.5822	1.8144	1.9245	0.4497	0.1439	0.4849	18.3443
25 mph	18.1279	3.8008	11.1258	4.2075	5.8260	1.3326	0.6227	2.0987	47.1421
35 mph	30.1224	6.2399	18.3290	6.9297	6.9357	1.5550	0.7235	2.4405	73.2756
45 mph	12.1872	2.5607	7.3988	3.5078	5.5106	1.2172	0.6484	2.1883	35.2189
55 mph	12.2025	2.6655	7.4578	3.5285	5.3705	1.1736	0.2760	0.9301	33.6045
65 mph	26.7655	6.1125	16.4977	8.3759	13.3933	2.9176	2.9001	9.7491	86.7117
total	106.7566	22.9728	65.3912	28.3639	39.1485	8.7099	5.4194	18.0307	294.7930

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0901	0.0056	0.0035	0.0059	4.5608	2.3062	24.7764	112.1920	143.9403
25 mph	0.2680	0.0212	0.0077	0.0134	17.2379	8.4111	41.3266	191.0374	258.3233
35 mph	0.3001	0.0265	0.0077	0.0138	23.2175	11.1805	22.9051	112.4265	170.0777
45 mph	0.0570	0.0053	0.0013	0.0024	4.7401	2.2692	7.8874	42.0030	56.9657
55 mph	0.0762	0.0073	0.0017	0.0031	6.7685	3.2398	5.1778	32.0351	47.3095
65 mph	0.0436	0.0043	0.0009	0.0018	4.1610	1.9943	1.1240	5.6103	12.9403
total	0.8350	0.0701	0.0228	0.0405	60.6858	29.4012	103.1973	495.3042	689.5568

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0084	0.0007	0.0002	0.0005	0.9478	0.4625	16.6236	76.8446	94.8883
35 mph	0.0634	0.0056	0.0016	0.0038	8.6003	4.1415	31.7356	155.7695	200.3213
45 mph	0.1674	0.0155	0.0039	0.0091	24.4251	11.6926	28.4133	151.3101	216.0370
55 mph	0.1572	0.0151	0.0034	0.0082	24.4802	11.7176	6.6221	40.9711	83.9749
65 mph	0.4548	0.0448	0.0097	0.0238	76.1418	36.4944	109.0159	544.1237	766.3088
total	0.8511	0.0816	0.0189	0.0454	134.5953	64.5087	192.4105	969.0189	1,361.5303

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	6.2828	11.4139	29.4384
15 mph	0.0185	0.0011	0.0007	0.0018	1.1178	0.5652	6.5932	29.8553	38.1537
25 mph	0.0000	0.0000	0.0000	0.0000	3.1821	1.5527	13.5448	62.6123	80.8919
35 mph	0.1414	0.0125	0.0036	0.0053	0.0000	0.0000	0.0000	0.0000	0.1628
total	0.1599	0.0136	0.0043	0.0070	11.2261	6.9334	26.4208	103.8816	148.6467

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	6.9262	4.8155	6.2828	11.4139	29.4384
15 mph	0.1086	0.0067	0.0042	0.0077	5.6786	2.8714	31.3696	142.0473	182.0940
25 mph	0.2764	0.0218	0.0080	0.0140	21.3678	10.4263	71.4950	330.4943	434.1034
35 mph	0.5049	0.0445	0.0129	0.0228	31.8178	15.3221	54.6407	268.1960	370.5618
45 mph	0.2244	0.0208	0.0052	0.0115	29.1653	13.9618	36.3007	193.3131	273.0028
55 mph	0.2334	0.0224	0.0051	0.0113	31.2488	14.9574	11.7998	73.0062	131.2844
65 mph	0.4985	0.0491	0.0106	0.0255	80.3028	38.4887	110.1399	549.7340	779.2491
total	1.8460	0.1654	0.0459	0.0928	206.5072	100.8432	322.0286	1,568.2047	2,199.7338

NOX Emissions

Total NOX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	7.11	4.88	6.39	11.55	29.93
15 mph	7.46	1.60	4.59	1.82	7.60	3.32	31.51	142.53	200.44
25 mph	18.40	3.82	11.13	4.22	27.19	11.76	72.12	332.59	481.25
35 mph	30.63	6.28	18.34	6.95	38.75	16.88	55.36	270.64	443.84
45 mph	12.41	2.58	7.40	3.52	34.68	15.18	36.95	195.50	308.22
55 mph	12.44	2.69	7.46	3.54	36.62	16.13	12.08	73.94	164.89
65 mph	27.26	6.16	16.51	8.40	93.70	41.41	113.04	559.48	865.96
total	108.60	23.14	65.44	28.46	245.66	109.55	327.45	1,586.24	**2,494.53**

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.8406	131.5995	347.4761	226.4185
15 mph	1.2364	3.3296	1.6030	2.8433	2.8021	1.3799	0.2735	37.8780
25 mph	1.0029	2.5647	1.2963	2.2330	2.0197	1.0343	0.2299	31.8113
35 mph	0.8271	2.0647	1.0700	1.8447	1.6283	0.8439	0.1954	27.0076
45 mph	0.7138	1.7962	0.9227	1.6171	1.4884	0.7564	0.1678	23.1978
55 mph	0.6327	1.6613	0.8195	1.5021	1.5342	0.7453	0.1457	20.1296
65 mph	0.5770	1.6168	0.7461	1.4930	1.9808	0.8924	0.1279	17.6580

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.3809	2.4873
15 mph	1.2682	1.8380	0.8032	1.2620	1.2718	1.1304	0.7005	2.1724
25 mph	0.3762	1.0784	0.2023	0.3134	0.6054	0.4709	0.3716	1.1057
35 mph	0.2441	0.8362	0.1250	0.1941	0.4794	0.3605	0.2019	0.5998
45 mph	0.1966	0.8138	0.0923	0.1423	0.4619	0.3370	0.1097	0.3282
55 mph	0.1889	0.9769	0.0780	0.1191	0.5523	0.3923	0.0595	0.1813
65 mph	0.2312	1.4301	0.0842	0.1279	0.8264	0.5772	0.0511	0.1507

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	74.5896	15.0669	36.3299	13.1456	8.4843	1.3960	0.2624	4.1274	153.4022
25 mph	215.1373	41.2642	104.4592	36.7078	21.7429	3.7204	0.8548	13.4322	437.3188
35 mph	210.6894	39.4496	102.3919	36.0098	20.8166	3.6046	0.7030	11.0360	424.7009
45 mph	33.4949	6.3220	16.2650	5.8150	3.5052	0.5952	0.3019	4.7396	71.0388
55 mph	38.1734	7.5177	18.5731	6.9447	4.6451	0.7540	0.2272	3.5644	80.3996
65 mph	19.3408	4.0646	9.3938	3.8347	3.3319	0.5016	0.0460	0.7215	41.2348
total	591.4253	113.6850	287.4128	102.4577	62.5260	10.5717	2.3954	37.6211	1,208.0951

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	6.7421	1.2932	3.2736	1.4780	1.1955	0.2046	0.3439	5.4031	19.9339
35 mph	44.4814	8.3287	21.6173	9.7674	7.7110	1.3352	0.9740	15.2906	109.5057
45 mph	98.3702	18.5671	47.7681	21.9413	18.0617	3.0668	1.0877	17.0737	225.9366
55 mph	78.6900	15.4969	38.2862	18.3923	16.8004	2.7269	0.2906	4.5586	175.2419
65 mph	201.7143	42.3914	97.9721	51.3828	60.9695	9.1782	4.4634	69.9807	538.0524
total	429.9981	86.0773	208.9173	102.9618	104.7380	16.5117	7.1596	112.3067	1,068.6704

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	18.2005	1.3795	45.1217
15 mph	15.3008	3.0907	7.4525	3.9303	2.0794	0.3421	0.0698	1.0984	33.3640
25 mph	0.0000	0.0000	0.0000	0.0000	4.0137	0.6868	0.2802	4.4024	9.3830
35 mph	99.2775	18.5888	48.2474	13.6786	0.0000	0.0000	0.0000	0.0000	179.7922
total	114.5783	21.6795	55.6999	17.6088	25.1360	7.5278	18.5505	6.8802	267.6610

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	19.0429	6.4989	18.2005	1.3795	45.1217
15 mph	89.8904	18.1576	43.7824	17.0759	10.5637	1.7381	0.3322	5.2258	186.7662
25 mph	221.8794	42.5574	107.7328	38.1858	26.9521	4.6118	1.4788	23.2377	466.6357
35 mph	354.4483	66.3670	172.2566	59.4558	28.5276	4.9398	1.6770	26.3266	713.9988
45 mph	131.8651	24.8891	64.0331	27.7563	21.5668	3.6619	1.3897	21.8133	296.9754
55 mph	116.8634	23.0146	56.8592	25.3370	21.4455	3.4809	0.5178	8.1230	255.6414
65 mph	221.0551	46.4560	107.3658	55.2174	64.3013	9.6798	4.5094	70.7022	579.2872
total	1,136.0017	221.4418	552.0300	223.0283	192.3999	34.6112	28.1055	156.8081	2,544.4265

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.6273	0.0113	0.0263	0.0716	2.4986	1.5697	4.2827	25.3842	34.4716
25 mph	0.6617	0.0236	0.0235	0.0632	4.2290	2.3251	8.8022	50.0664	66.1948
35 mph	0.5099	0.0217	0.0173	0.0465	3.9762	2.1134	4.6296	26.2838	37.5984
45 mph	0.0756	0.0039	0.0023	0.0063	0.7057	0.3639	1.2573	7.1900	9.6052
55 mph	0.0934	0.0060	0.0025	0.0068	1.0850	0.5448	0.5915	3.4425	5.7725
65 mph	0.0635	0.0049	0.0015	0.0040	0.9019	0.4453	0.1171	0.6605	2.1988
total	2.0315	0.0715	0.0734	0.1985	13.3966	7.3622	19.6803	113.0275	155.8414

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0207	0.0007	0.0007	0.0025	0.2325	0.1278	3.5407	20.1391	24.0650
35 mph	0.1077	0.0046	0.0036	0.0126	1.4729	0.7828	6.4144	36.4168	45.2155
45 mph	0.2222	0.0114	0.0069	0.0237	3.6365	1.8753	4.5291	25.9011	36.2063
55 mph	0.1926	0.0124	0.0053	0.0179	3.9242	1.9704	0.7565	4.4028	11.2820
65 mph	0.6627	0.0510	0.0159	0.0541	16.5046	8.1487	11.3544	64.0584	100.8498
total	1.2058	0.0802	0.0325	0.1108	25.7708	12.9051	26.5951	150.9183	217.6186

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	0.4608	1.5866	6.3523
15 mph	0.1287	0.0023	0.0054	0.0214	0.6124	0.3847	1.1397	6.7550	9.0495
25 mph	0.0000	0.0000	0.0000	0.0000	0.7807	0.4292	2.8849	16.4092	20.5040
35 mph	0.2403	0.0102	0.0081	0.0177	0.0000	0.0000	0.0000	0.0000	0.2763
total	0.3689	0.0126	0.0135	0.0391	3.9152	2.5966	4.4854	24.7508	36.1822

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.5222	1.7827	0.4608	1.5866	6.3523
15 mph	0.7560	0.0136	0.0316	0.0930	3.1109	1.9544	5.4223	32.1392	43.5212
25 mph	0.6824	0.0243	0.0242	0.0658	5.2423	2.8822	15.2279	86.6147	110.7638
35 mph	0.8578	0.0366	0.0290	0.0768	5.4491	2.8962	11.0440	62.7006	83.0902
45 mph	0.2978	0.0153	0.0092	0.0300	4.3422	2.2393	5.7864	33.0912	45.8115
55 mph	0.2860	0.0184	0.0078	0.0247	5.0093	2.5151	1.3479	7.8453	17.0545
65 mph	0.7262	0.0559	0.0175	0.0581	17.4066	8.5940	11.4715	64.7189	103.0486
total	3.6062	0.1642	0.1194	0.3484	43.0826	22.8639	50.7609	288.6966	409.6422

CO Emissions

Total CO Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	21.57	8.28	18.66	2.97	51.47
15 mph	90.65	18.17	43.81	17.17	13.67	3.69	5.75	37.37	230.29
25 mph	222.56	42.58	107.76	38.25	32.19	7.49	16.71	109.85	577.40
35 mph	355.31	66.40	172.29	59.53	33.98	7.84	12.72	89.03	797.09
45 mph	132.16	24.90	64.04	27.79	25.91	5.90	7.18	54.90	342.79
55 mph	117.15	23.03	56.87	25.36	26.45	6.00	1.87	15.97	272.70
65 mph	221.78	46.51	107.38	55.28	81.71	18.27	15.98	135.42	682.34
total	1,139.61	221.61	552.15	223.38	235.48	57.48	78.87	445.50	**2,954.07**

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0466	0.0353	0.0249	0.0263
15 mph	0.0051	0.0092	0.0049	0.0054	0.0041	0.0030	0.0021	0.0022
25 mph	0.0026	0.0049	0.0026	0.0028	0.0022	0.0016	0.0011	0.0011
35 mph	0.0017	0.0031	0.0016	0.0018	0.0014	0.0010	0.0007	0.0007
45 mph	0.0013	0.0025	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
55 mph	0.0013	0.0024	0.0013	0.0014	0.0011	0.0008	0.0005	0.0006
65 mph	0.0016	0.0028	0.0015	0.0017	0.0014	0.0010	0.0007	0.0007

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8094	0.8035	0.0014	0.0015
15 mph	0.0429	0.2654	0.0207	0.0152	0.0450	0.0358	0.0051	0.0163
25 mph	0.0257	0.1609	0.0076	0.0099	0.0288	0.0233	0.0041	0.0101
35 mph	0.0174	0.1162	0.0057	0.0074	0.0222	0.0180	0.0035	0.0088
45 mph	0.0150	0.1016	0.0049	0.0064	0.0195	0.0158	0.0031	0.0080
55 mph	0.0150	0.1067	0.0047	0.0062	0.0201	0.0159	0.0027	0.0078
65 mph	0.0173	0.1332	0.0050	0.0069	0.0247	0.0190	0.0027	0.0061

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.3053	0.0414	0.1122	0.0250	0.0124	0.0031	0.0020	0.0002	0.5016
25 mph	0.5651	0.0788	0.2074	0.0466	0.0234	0.0057	0.0040	0.0005	0.9316
35 mph	0.4271	0.0601	0.1570	0.0353	0.0181	0.0044	0.0025	0.0003	0.7047
45 mph	0.0626	0.0088	0.0230	0.0052	0.0027	0.0006	0.0010	0.0001	0.1040
55 mph	0.0787	0.0110	0.0290	0.0066	0.0034	0.0008	0.0008	0.0001	0.1305
65 mph	0.0526	0.0071	0.0193	0.0044	0.0024	0.0006	0.0002	0.0000	0.0865
total	1.4914	0.2073	0.5479	0.1230	0.0624	0.0151	0.0106	0.0013	2.4590

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0177	0.0025	0.0065	0.0019	0.0013	0.0003	0.0016	0.0002	0.0320
35 mph	0.0902	0.0127	0.0332	0.0096	0.0067	0.0016	0.0034	0.0004	0.1577
45 mph	0.1838	0.0259	0.0675	0.0196	0.0139	0.0033	0.0035	0.0004	0.3180
55 mph	0.1623	0.0227	0.0598	0.0174	0.0124	0.0029	0.0011	0.0001	0.2787
65 mph	0.5483	0.0740	0.2014	0.0583	0.0434	0.0102	0.0233	0.0027	0.9616
total	1.0022	0.1379	0.3683	0.1068	0.0777	0.0184	0.0329	0.0039	1.7480

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0013	0.0002	0.0101
15 mph	0.0626	0.0085	0.0230	0.0075	0.0030	0.0008	0.0005	0.0001	0.1060
25 mph	0.0000	0.0000	0.0000	0.0000	0.0043	0.0011	0.0013	0.0002	0.0068
35 mph	0.2012	0.0283	0.0740	0.0134	0.0000	0.0000	0.0000	0.0000	0.3170
total	0.2639	0.0368	0.0970	0.0209	0.0143	0.0035	0.0032	0.0004	0.4399

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0069	0.0017	0.0013	0.0002	0.0101
15 mph	0.3679	0.0499	0.1352	0.0324	0.0155	0.0038	0.0026	0.0003	0.6076
25 mph	0.5828	0.0812	0.2139	0.0485	0.0290	0.0071	0.0070	0.0008	0.9704
35 mph	0.7185	0.1011	0.2642	0.0583	0.0248	0.0060	0.0059	0.0007	1.1794
45 mph	0.2464	0.0348	0.0905	0.0248	0.0166	0.0039	0.0045	0.0005	0.4221
55 mph	0.2411	0.0338	0.0888	0.0240	0.0158	0.0037	0.0019	0.0002	0.4093
65 mph	0.6008	0.0811	0.2207	0.0627	0.0458	0.0108	0.0235	0.0028	1.0481
total	2.7575	0.3819	1.0133	0.2507	0.1543	0.0370	0.0467	0.0055	4.6469

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0212	0.0016	0.0007	0.0009	0.0884	0.0496	0.0311	0.1900	0.3836
25 mph	0.0452	0.0035	0.0009	0.0020	0.2014	0.1150	0.0980	0.4555	0.9215
35 mph	0.0364	0.0030	0.0008	0.0018	0.1839	0.1056	0.0810	0.3841	0.7966
45 mph	0.0058	0.0005	0.0001	0.0003	0.0299	0.0171	0.0355	0.1751	0.2642
55 mph	0.0074	0.0007	0.0002	0.0004	0.0395	0.0221	0.0272	0.1484	0.2458
65 mph	0.0047	0.0005	0.0001	0.0002	0.0269	0.0147	0.0061	0.0269	0.0801
total	0.1207	0.0098	0.0027	0.0055	0.5700	0.3241	0.2790	1.3800	2.6917

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0014	0.0001	0.0000	0.0001	0.0111	0.0063	0.0394	0.1832	0.2417
35 mph	0.0077	0.0006	0.0002	0.0005	0.0681	0.0391	0.1122	0.5322	0.7607
45 mph	0.0170	0.0014	0.0004	0.0011	0.1539	0.0879	0.1279	0.6307	1.0202
55 mph	0.0153	0.0014	0.0003	0.0009	0.1428	0.0799	0.0348	0.1898	0.4652
65 mph	0.0495	0.0048	0.0009	0.0029	0.4924	0.2682	0.5920	2.6080	4.0188
total	0.0909	0.0083	0.0018	0.0055	0.8683	0.4814	0.9064	4.1439	6.5065

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0005	0.0010	0.1335
15 mph	0.0043	0.0003	0.0001	0.0003	0.0217	0.0122	0.0083	0.0506	0.0978
25 mph	0.0000	0.0000	0.0000	0.0000	0.0372	0.0212	0.0321	0.1493	0.2398
35 mph	0.0171	0.0014	0.0004	0.0007	0.0000	0.0000	0.0000	0.0000	0.0196
total	0.0215	0.0018	0.0005	0.0009	0.1365	0.0879	0.0408	0.2008	0.4907

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0776	0.0545	0.0005	0.0010	0.1335
15 mph	0.0255	0.0020	0.0008	0.0011	0.1101	0.0618	0.0394	0.2405	0.4813
25 mph	0.0466	0.0036	0.0009	0.0021	0.2497	0.1426	0.1695	0.7881	1.4030
35 mph	0.0612	0.0051	0.0013	0.0029	0.2520	0.1447	0.1932	0.9164	1.5769
45 mph	0.0228	0.0019	0.0005	0.0013	0.1838	0.1049	0.1634	0.8058	1.2844
55 mph	0.0226	0.0020	0.0005	0.0013	0.1823	0.1020	0.0621	0.3381	0.7110
65 mph	0.0543	0.0052	0.0010	0.0032	0.5193	0.2829	0.5981	2.6349	4.0989
total	0.2331	0.0198	0.0051	0.0119	1.5748	0.8934	1.2262	5.7247	9.6890

PM10 Emissions

Total PM10 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.06	0.00	0.00	0.14
15 mph	0.39	0.05	0.14	0.03	0.13	0.07	0.04	0.24	1.09
25 mph	0.63	0.08	0.21	0.05	0.28	0.15	0.18	0.79	2.37
35 mph	0.78	0.11	0.27	0.06	0.28	0.15	0.20	0.92	2.76
45 mph	0.27	0.04	0.09	0.03	0.20	0.11	0.17	0.81	1.71
55 mph	0.26	0.04	0.09	0.03	0.20	0.11	0.06	0.34	1.12
65 mph	0.66	0.09	0.22	0.07	0.57	0.29	0.62	2.64	5.15
total	2.99	0.40	1.02	0.26	1.73	0.93	1.27	5.73	**14.34**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	30.00	2.25	11.27	2.30	2.84	1.09	1.71	0.11
Diesel	0.25	0.00	0.02	0.03	1.93	1.56	10.88	14.28
Electric	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.56	2.25	11.29	2.33	4.77	2.65	12.58	14.39

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	30.08	2.26	11.30	2.96	5.00	1.92	7.10	0.46
Diesel	0.25	0.00	0.02	0.04	3.40	2.75	45.21	59.34
Electric	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.65	2.26	11.32	3.00	8.40	4.67	52.31	59.80

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5.93	0.44	2.23	0.39	0.23	0.09	0.21	0.01
Diesel	0.05	0.00	0.00	0.00	0.16	0.13	1.34	1.75
Electric	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.04	0.45	2.23	0.40	0.39	0.22	1.55	1.77

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	66.00	4.95	24.80	5.65	8.07	3.10	9.01	0.59	122.18
Diesel	0.54	0.01	0.04	0.07	5.48	4.43	57.43	75.37	143.37
Electric	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
Total	67.25	4.96	24.83	5.72	13.55	7.54	66.44	75.96	**266.26**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	962.11
Internal	42.51
Total	**1,004.62**

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0429	0.0325	0.0229	0.0242
15 mph	0.0047	0.0084	0.0046	0.0050	0.0038	0.0028	0.0019	0.0020
25 mph	0.0024	0.0045	0.0024	0.0026	0.0020	0.0015	0.0010	0.0010
35 mph	0.0015	0.0029	0.0015	0.0017	0.0013	0.0009	0.0006	0.0007
45 mph	0.0012	0.0023	0.0012	0.0013	0.0011	0.0007	0.0005	0.0005
55 mph	0.0012	0.0022	0.0012	0.0013	0.0010	0.0007	0.0005	0.0005
65 mph	0.0014	0.0026	0.0014	0.0016	0.0013	0.0009	0.0006	0.0006

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.7744	0.7687	0.0013	0.0014
15 mph	0.0410	0.2539	0.0198	0.0145	0.0431	0.0342	0.0049	0.0156
25 mph	0.0246	0.1539	0.0073	0.0095	0.0276	0.0223	0.0040	0.0096
35 mph	0.0167	0.1111	0.0055	0.0071	0.0212	0.0172	0.0034	0.0084
45 mph	0.0144	0.0972	0.0047	0.0061	0.0187	0.0151	0.0030	0.0076
55 mph	0.0143	0.1021	0.0045	0.0060	0.0192	0.0152	0.0026	0.0075
65 mph	0.0165	0.1275	0.0048	0.0066	0.0236	0.0182	0.0025	0.0059

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.2808	0.0381	0.1032	0.0230	0.0114	0.0028	0.0019	0.0002	0.4615
25 mph	0.5198	0.0725	0.1908	0.0430	0.0215	0.0052	0.0037	0.0004	0.8570
35 mph	0.3928	0.0553	0.1445	0.0325	0.0167	0.0040	0.0023	0.0003	0.6484
45 mph	0.0576	0.0081	0.0212	0.0048	0.0025	0.0006	0.0009	0.0001	0.0957
55 mph	0.0724	0.0101	0.0267	0.0061	0.0032	0.0007	0.0008	0.0001	0.1201
65 mph	0.0484	0.0065	0.0178	0.0040	0.0022	0.0005	0.0002	0.0000	0.0796
total	1.3719	0.1907	0.5041	0.1134	0.0574	0.0139	0.0098	0.0011	2.2623

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0163	0.0023	0.0060	0.0017	0.0012	0.0003	0.0015	0.0002	0.0294
35 mph	0.0829	0.0117	0.0305	0.0088	0.0062	0.0015	0.0032	0.0004	0.1451
45 mph	0.1691	0.0239	0.0621	0.0181	0.0128	0.0030	0.0032	0.0004	0.2926
55 mph	0.1493	0.0209	0.0550	0.0160	0.0114	0.0027	0.0010	0.0001	0.2565
65 mph	0.5044	0.0681	0.1852	0.0538	0.0400	0.0094	0.0214	0.0025	0.8848
total	0.9220	0.1269	0.3388	0.0984	0.0715	0.0169	0.0303	0.0036	1.6084

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0012	0.0001	0.0093
15 mph	0.0576	0.0078	0.0212	0.0069	0.0028	0.0007	0.0005	0.0001	0.0975
25 mph	0.0000	0.0000	0.0000	0.0000	0.0040	0.0010	0.0012	0.0001	0.0063
35 mph	0.1851	0.0261	0.0681	0.0124	0.0000	0.0000	0.0000	0.0000	0.2916
total	0.2427	0.0339	0.0892	0.0192	0.0131	0.0033	0.0029	0.0003	0.4047

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0063	0.0016	0.0012	0.0001	0.0093
15 mph	0.3384	0.0459	0.1244	0.0299	0.0142	0.0035	0.0024	0.0003	0.5590
25 mph	0.5361	0.0748	0.1968	0.0447	0.0267	0.0065	0.0064	0.0008	0.8928
35 mph	0.6609	0.0930	0.2430	0.0537	0.0228	0.0055	0.0054	0.0006	1.0851
45 mph	0.2267	0.0320	0.0833	0.0229	0.0152	0.0036	0.0041	0.0005	0.3883
55 mph	0.2218	0.0311	0.0817	0.0221	0.0146	0.0034	0.0018	0.0002	0.3766
65 mph	0.5527	0.0747	0.2030	0.0578	0.0422	0.0099	0.0216	0.0025	0.9644
total	2.5366	0.3515	0.9322	0.2311	0.1421	0.0341	0.0430	0.0051	4.2755

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0203	0.0016	0.0006	0.0008	0.0846	0.0475	0.0298	0.1818	0.3670
25 mph	0.0432	0.0034	0.0008	0.0019	0.1927	0.1101	0.0937	0.4358	0.8817
35 mph	0.0348	0.0029	0.0008	0.0017	0.1759	0.1010	0.0775	0.3675	0.7622
45 mph	0.0055	0.0005	0.0001	0.0003	0.0286	0.0163	0.0340	0.1675	0.2527
55 mph	0.0071	0.0006	0.0001	0.0003	0.0378	0.0211	0.0261	0.1420	0.2351
65 mph	0.0045	0.0004	0.0001	0.0002	0.0257	0.0140	0.0058	0.0257	0.0766
total	0.1155	0.0094	0.0026	0.0053	0.5453	0.3101	0.2669	1.3203	2.5753

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0014	0.0001	0.0000	0.0001	0.0106	0.0061	0.0377	0.1753	0.2312
35 mph	0.0073	0.0006	0.0002	0.0005	0.0652	0.0374	0.1074	0.5092	0.7278
45 mph	0.0163	0.0014	0.0004	0.0010	0.1473	0.0841	0.1223	0.6034	0.9761
55 mph	0.0146	0.0013	0.0003	0.0009	0.1367	0.0764	0.0333	0.1816	0.4451
65 mph	0.0474	0.0045	0.0009	0.0028	0.4711	0.2566	0.5664	2.4952	3.8449
total	0.0869	0.0079	0.0017	0.0053	0.8307	0.4606	0.8672	3.9647	6.2251

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0004	0.0009	0.1277
15 mph	0.0042	0.0003	0.0001	0.0002	0.0207	0.0116	0.0079	0.0484	0.0935
25 mph	0.0000	0.0000	0.0000	0.0000	0.0356	0.0203	0.0307	0.1428	0.2294
35 mph	0.0164	0.0014	0.0004	0.0006	0.0000	0.0000	0.0000	0.0000	0.0188
total	0.0206	0.0017	0.0005	0.0009	0.1306	0.0841	0.0391	0.1921	0.4695

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0743	0.0521	0.0004	0.0009	0.1277
15 mph	0.0244	0.0019	0.0008	0.0011	0.1053	0.0591	0.0377	0.2301	0.4605
25 mph	0.0446	0.0035	0.0009	0.0020	0.2389	0.1364	0.1621	0.7540	1.3423
35 mph	0.0586	0.0049	0.0013	0.0028	0.2411	0.1384	0.1849	0.8767	1.5087
45 mph	0.0218	0.0018	0.0005	0.0013	0.1758	0.1004	0.1563	0.7709	1.2288
55 mph	0.0217	0.0019	0.0004	0.0012	0.1744	0.0976	0.0594	0.3235	0.6802
65 mph	0.0519	0.0050	0.0010	0.0030	0.4968	0.2706	0.5723	2.5209	3.9215
total	0.2230	0.0190	0.0048	0.0114	1.5067	0.8547	1.1732	5.4771	9.2698

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.08	0.05	0.00	0.00	0.14
15 mph	0.36	0.05	0.13	0.03	0.12	0.06	0.04	0.23	1.02
25 mph	0.58	0.08	0.20	0.05	0.27	0.14	0.17	0.75	2.24
35 mph	0.72	0.10	0.24	0.06	0.26	0.14	0.19	0.88	2.59
45 mph	0.25	0.03	0.08	0.02	0.19	0.10	0.16	0.77	1.62
55 mph	0.24	0.03	0.08	0.02	0.19	0.10	0.06	0.32	1.06
65 mph	0.60	0.08	0.20	0.06	0.54	0.28	0.59	2.52	4.89
total	2.76	0.37	0.94	0.24	1.65	0.89	1.22	5.48	**13.55**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.90	0.89	4.47	0.91	1.17	0.45	0.71	0.04
Diesel	0.10	0.00	0.01	0.01	0.78	0.64	4.50	5.18
Electric	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.12	0.89	4.48	0.92	1.95	1.09	5.20	5.22

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.93	0.89	4.48	1.17	2.06	0.80	2.93	0.18
Diesel	0.10	0.00	0.01	0.01	1.37	1.12	18.70	21.53
Electric	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.16	0.90	4.49	1.19	3.43	1.91	21.63	21.71

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.35	0.18	0.88	0.16	0.09	0.04	0.09	0.01
Diesel	0.02	0.00	0.00	0.00	0.06	0.05	0.55	0.64
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.39	0.18	0.88	0.16	0.16	0.09	0.64	0.64

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	26.18	1.96	9.83	2.24	3.32	1.28	3.73	0.23	48.78
Diesel	0.21	0.00	0.01	0.03	2.22	1.81	23.75	27.34	55.37
Electric	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
Total	26.67	1.97	9.85	2.27	5.54	3.09	27.47	27.57	**104.44**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	236.15
Internal	10.43
Total	**246.59**

Black Carbon

percent of PM2.5 Exhaust	
LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.11
15 mph	0.23	0.03	0.08	0.02	0.09	0.05	0.03	0.18	0.71
25 mph	0.37	0.05	0.13	0.03	0.20	0.11	0.13	0.58	1.60
35 mph	0.46	0.06	0.16	0.04	0.20	0.11	0.15	0.68	1.85
45 mph	0.16	0.02	0.05	0.02	0.15	0.08	0.12	0.59	1.19
55 mph	0.16	0.02	0.05	0.01	0.15	0.08	0.05	0.25	0.76
65 mph	0.39	0.05	0.13	0.04	0.42	0.22	0.46	1.94	3.64
total	1.77	0.24	0.60	0.16	1.27	0.68	0.94	4.22	9.87

World Logistics Center

Mobile Emissions - 2018 Buildout (Project) Mitigated

N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.2172	0.0299	0.1496	0.0305	0.0406	0.0136	0.0129	0.0015	0.4956
25 mph	0.7722	0.1062	0.5318	0.1085	0.1443	0.0482	0.0498	0.0057	1.7667
35 mph	0.9170	0.1261	0.6316	0.1288	0.1713	0.0572	0.0482	0.0055	2.0857
45 mph	0.1689	0.0232	0.1163	0.0237	0.0316	0.0105	0.0241	0.0027	0.4012
55 mph	0.2172	0.0299	0.1496	0.0305	0.0406	0.0136	0.0209	0.0024	0.5045
65 mph	0.1207	0.0166	0.0831	0.0170	0.0225	0.0075	0.0048	0.0005	0.2727
total	2.4132	0.3318	1.6620	0.3390	0.4508	0.1506	0.1607	0.0183	5.5265

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0242	0.0033	0.0167	0.0044	0.0079	0.0027	0.0200	0.0023	0.0815
35 mph	0.1936	0.0266	0.1333	0.0349	0.0635	0.0212	0.0668	0.0076	0.5476
45 mph	0.4961	0.0682	0.3417	0.0895	0.1626	0.0543	0.0868	0.0099	1.3092
55 mph	0.4477	0.0616	0.3083	0.0808	0.1467	0.0490	0.0267	0.0030	1.1240
65 mph	1.2584	0.1730	0.8667	0.2272	0.4125	0.1378	0.4676	0.0531	3.5963
total	2.4200	0.3328	1.6667	0.4368	0.7932	0.2650	0.6680	0.0759	6.6585

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.0446	0.0061	0.0307	0.0091	0.0099	0.0033	0.0034	0.0004	0.1076
25 mph	0.0000	0.0000	0.0000	0.0000	0.0266	0.0089	0.0163	0.0019	0.0537
35 mph	0.4321	0.0594	0.2976	0.0489	0.0000	0.0000	0.0000	0.0000	0.8381
total	0.4767	0.0655	0.3283	0.0581	0.0386	0.0129	0.0205	0.0023	1.0027

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0020	0.0007	0.0007	0.0001	0.0034
15 mph	0.2617	0.0360	0.1803	0.0396	0.0505	0.0169	0.0163	0.0018	0.6032
25 mph	0.7964	0.1095	0.5485	0.1129	0.1788	0.0597	0.0862	0.0098	1.9019
35 mph	1.5427	0.2121	1.0625	0.2127	0.2348	0.0784	0.1150	0.0131	3.4714
45 mph	0.6650	0.0915	0.4580	0.1133	0.1942	0.0649	0.1110	0.0126	1.7104
55 mph	0.6649	0.0914	0.4579	0.1113	0.1873	0.0626	0.0476	0.0054	1.6285
65 mph	1.3791	0.1896	0.9498	0.2441	0.4350	0.1453	0.4724	0.0537	3.8691
total	5.3099	0.7302	3.6570	0.8339	1.2826	0.4285	0.8492	0.0964	13.1877

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0005	0.0000	0.0000	0.0003	0.0094	0.0067	0.0293	0.0561	0.1024
25 mph	0.0018	0.0000	0.0002	0.0010	0.0335	0.0237	0.1137	0.2173	0.3912
35 mph	0.0021	0.0000	0.0002	0.0012	0.0398	0.0281	0.1100	0.2103	0.3918
45 mph	0.0004	0.0000	0.0000	0.0002	0.0073	0.0052	0.0550	0.1052	0.1733
55 mph	0.0005	0.0000	0.0000	0.0003	0.0094	0.0067	0.0477	0.0911	0.1557
65 mph	0.0003	0.0000	0.0000	0.0002	0.0052	0.0037	0.0110	0.0210	0.0414
total	0.0055	0.0001	0.0005	0.0030	0.1048	0.0741	0.3668	0.7011	1.2559

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0001	0.0000	0.0000	0.0000	0.0018	0.0013	0.0457	0.0874	0.1364
35 mph	0.0004	0.0000	0.0000	0.0003	0.0147	0.0104	0.1525	0.2914	0.4699
45 mph	0.0011	0.0000	0.0001	0.0008	0.0378	0.0267	0.1982	0.3788	0.6436
55 mph	0.0010	0.0000	0.0001	0.0007	0.0341	0.0241	0.0610	0.1166	0.2376
65 mph	0.0029	0.0001	0.0003	0.0020	0.0959	0.0678	1.0673	2.0399	3.2760
total	0.0055	0.0001	0.0005	0.0039	0.1844	0.1303	1.5247	2.9142	4.7636

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0001	0.0000	0.0000	0.0001	0.0023	0.0016	0.0078	0.0149	0.0269
25 mph	0.0000	0.0000	0.0000	0.0000	0.0062	0.0044	0.0373	0.0712	0.1191
35 mph	0.0010	0.0000	0.0001	0.0004	0.0000	0.0000	0.0000	0.0000	0.0015
total	0.0011	0.0000	0.0001	0.0005	0.0090	0.0063	0.0467	0.0892	0.1529

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0005	0.0003	0.0016	0.0031	0.0054
15 mph	0.0006	0.0000	0.0001	0.0004	0.0117	0.0083	0.0372	0.0710	0.1292
25 mph	0.0018	0.0000	0.0002	0.0010	0.0416	0.0294	0.1967	0.3760	0.6467
35 mph	0.0035	0.0001	0.0003	0.0019	0.0546	0.0386	0.2625	0.5017	0.8632
45 mph	0.0015	0.0000	0.0002	0.0010	0.0451	0.0319	0.2532	0.4840	0.8170
55 mph	0.0015	0.0000	0.0002	0.0010	0.0435	0.0308	0.1087	0.2077	0.3934
65 mph	0.0031	0.0001	0.0003	0.0022	0.1011	0.0715	1.0783	2.0609	3.3175
total	0.0121	0.0002	0.0012	0.0074	0.2981	0.2107	1.9382	3.7045	6.1724

N2O Emissions

Total N2O Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
15 mph	0.26	0.04	0.18	0.04	0.06	0.03	0.05	0.07	0.73
25 mph	0.80	0.11	0.55	0.11	0.22	0.09	0.28	0.39	2.55
35 mph	1.55	0.21	1.06	0.21	0.29	0.12	0.38	0.51	4.33
45 mph	0.67	0.09	0.46	0.11	0.24	0.10	0.36	0.50	2.53
55 mph	0.67	0.09	0.46	0.11	0.23	0.09	0.16	0.21	2.02
65 mph	1.38	0.19	0.95	0.25	0.54	0.22	1.55	2.11	7.19
total	5.32	0.73	3.66	0.84	1.58	0.64	2.79	3.80	**19.36**

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	6.1588	6.2969	9.3896	3.4090
15 mph	0.0184	0.0488	0.0240	0.0449	0.0654	0.0348	0.0110	0.2867
25 mph	0.0096	0.0265	0.0126	0.0239	0.0363	0.0188	0.0057	0.1481
35 mph	0.0061	0.0171	0.0080	0.0154	0.0243	0.0124	0.0036	0.0948
45 mph	0.0048	0.0137	0.0063	0.0124	0.0202	0.0102	0.0029	0.0752
55 mph	0.0047	0.0132	0.0062	0.0121	0.0203	0.0101	0.0028	0.0739
65 mph	0.0056	0.0150	0.0072	0.0144	0.0258	0.0129	0.0035	0.0899

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0085	0.0305
15 mph	0.0051	0.0174	0.0083	0.0037	0.0146	0.0136	0.0066	0.0209
25 mph	0.0020	0.0100	0.0012	0.0011	0.0062	0.0050	0.0035	0.0097
35 mph	0.0013	0.0071	0.0007	0.0007	0.0044	0.0035	0.0019	0.0053
45 mph	0.0010	0.0062	0.0005	0.0005	0.0038	0.0029	0.0010	0.0029
55 mph	0.0010	0.0065	0.0004	0.0004	0.0039	0.0029	0.0006	0.0017
65 mph	0.0011	0.0081	0.0004	0.0005	0.0048	0.0035	0.0005	0.0013

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	1.1115	0.2208	0.5429	0.2077	0.1981	0.0352	0.0106	0.0312	2.3580
25 mph	2.0650	0.4269	1.0115	0.3924	0.3905	0.0677	0.0212	0.0625	4.4376
35 mph	1.5488	0.3272	0.7622	0.3015	0.3111	0.0530	0.0131	0.0387	3.3557
45 mph	0.2273	0.0482	0.1116	0.0444	0.0476	0.0080	0.0052	0.0154	0.5077
55 mph	0.2851	0.0599	0.1398	0.0561	0.0613	0.0103	0.0044	0.0131	0.6300
65 mph	0.1875	0.0378	0.0912	0.0369	0.0435	0.0072	0.0012	0.0037	0.4090
total	5.4252	1.1207	2.6592	1.0390	1.0521	0.1813	0.0557	0.1647	11.6979

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0647	0.0134	0.0317	0.0158	0.0215	0.0037	0.0085	0.0252	0.1845
35 mph	0.3270	0.0691	0.1609	0.0818	0.1153	0.0196	0.0182	0.0537	0.8455
45 mph	0.6675	0.1415	0.3278	0.1677	0.2452	0.0412	0.0187	0.0554	1.6650
55 mph	0.5878	0.1234	0.2882	0.1485	0.2218	0.0371	0.0057	0.0167	1.4292
65 mph	1.9552	0.3939	0.9515	0.4948	0.7952	0.1322	0.1211	0.3563	5.2001
total	3.6021	0.7413	1.7601	0.9086	1.3990	0.2338	0.1721	0.5073	9.3243

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4918	0.0208	1.7338
15 mph	0.2280	0.0453	0.1114	0.0621	0.0485	0.0086	0.0028	0.0083	0.5151
25 mph	0.0000	0.0000	0.0000	0.0000	0.0721	0.0125	0.0069	0.0205	0.1120
35 mph	0.7298	0.1542	0.3592	0.1145	0.0000	0.0000	0.0000	0.0000	1.3576
total	0.9578	0.1995	0.4705	0.1766	1.0309	0.3321	0.5016	0.0496	3.7186

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.9103	0.3110	0.4918	0.0208	1.7338
15 mph	1.3396	0.2661	0.6542	0.2698	0.2466	0.0438	0.0134	0.0395	2.8731
25 mph	2.1297	0.4402	1.0432	0.4082	0.4841	0.0839	0.0366	0.1082	4.7341
35 mph	2.6056	0.5504	1.2823	0.4977	0.4264	0.0726	0.0312	0.0924	5.5588
45 mph	0.8948	0.1897	0.4395	0.2121	0.2928	0.0492	0.0239	0.0707	2.1727
55 mph	0.8729	0.1833	0.4280	0.2046	0.2831	0.0473	0.0101	0.0298	2.0592
65 mph	2.1426	0.4316	1.0427	0.5317	0.8387	0.1394	0.1224	0.3600	5.6091
total	9.9851	2.0614	4.8899	2.1242	3.4820	0.7472	0.7294	0.7215	24.7407

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0025	0.0001	0.0003	0.0002	0.0286	0.0188	0.0402	0.2442	0.3349
25 mph	0.0035	0.0002	0.0001	0.0002	0.0433	0.0249	0.0825	0.4381	0.5928
35 mph	0.0026	0.0002	0.0001	0.0002	0.0369	0.0205	0.0434	0.2318	0.3357
45 mph	0.0004	0.0000	0.0000	0.0000	0.0058	0.0031	0.0118	0.0642	0.0854
55 mph	0.0005	0.0000	0.0000	0.0000	0.0076	0.0040	0.0055	0.0317	0.0494
65 mph	0.0003	0.0000	0.0000	0.0000	0.0053	0.0027	0.0011	0.0057	0.0151
total	0.0099	0.0006	0.0005	0.0007	0.1275	0.0741	0.1845	1.0157	1.4134

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25 mph	0.0001	0.0000	0.0000	0.0000	0.0024	0.0014	0.0332	0.1762	0.2133
35 mph	0.0006	0.0000	0.0000	0.0000	0.0137	0.0076	0.0601	0.3212	0.4033
45 mph	0.0012	0.0001	0.0000	0.0001	0.0298	0.0161	0.0424	0.2313	0.3211
55 mph	0.0010	0.0001	0.0000	0.0001	0.0275	0.0144	0.0071	0.0406	0.0907
65 mph	0.0032	0.0003	0.0001	0.0002	0.0963	0.0494	0.1063	0.5500	0.8057
total	0.0060	0.0005	0.0002	0.0004	0.1696	0.0889	0.2491	1.3193	1.8340

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0028	0.0195	0.0464
15 mph	0.0005	0.0000	0.0001	0.0001	0.0070	0.0046	0.0107	0.0650	0.0880
25 mph	0.0000	0.0000	0.0000	0.0000	0.0080	0.0046	0.0270	0.1436	0.1832
35 mph	0.0012	0.0001	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0014
total	0.0018	0.0001	0.0001	0.0001	0.0291	0.0192	0.0406	0.2280	0.3190

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0141	0.0100	0.0028	0.0195	0.0464
15 mph	0.0031	0.0001	0.0003	0.0003	0.0357	0.0235	0.0508	0.3091	0.4229
25 mph	0.0036	0.0002	0.0001	0.0002	0.0537	0.0308	0.1427	0.7579	0.9893
35 mph	0.0044	0.0003	0.0002	0.0003	0.0506	0.0282	0.1035	0.5531	0.7404
45 mph	0.0016	0.0001	0.0001	0.0001	0.0356	0.0193	0.0542	0.2956	0.4065
55 mph	0.0015	0.0001	0.0000	0.0001	0.0351	0.0184	0.0126	0.0723	0.1401
65 mph	0.0035	0.0003	0.0001	0.0002	0.1016	0.0521	0.1074	0.5556	0.8208
total	0.0176	0.0012	0.0008	0.0012	0.3263	0.1821	0.4741	2.5631	3.5664

CH4 Emissions

Total CH4 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.92	0.32	0.49	0.04	1.78
15 mph	1.34	0.27	0.65	0.27	0.28	0.07	0.06	0.35	3.30
25 mph	2.13	0.44	1.04	0.41	0.54	0.11	0.18	0.87	5.72
35 mph	2.61	0.55	1.28	0.50	0.48	0.10	0.13	0.65	6.30
45 mph	0.90	0.19	0.44	0.21	0.33	0.07	0.08	0.37	2.58
55 mph	0.87	0.18	0.43	0.20	0.32	0.07	0.02	0.10	2.20
65 mph	2.15	0.43	1.04	0.53	0.94	0.19	0.23	0.92	6.43
total	10.00	2.06	4.89	2.13	3.81	0.93	1.20	3.28	**28.31**

World Logistics Center
Mobile Emissions - 2018 Buildout (Project) Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,761.81	5,515.84	13,913.37	20,112.41
15 mph	537.10	629.55	719.42	953.52	955.23	1,081.60	2,242.10	2,466.87
25 mph	355.60	416.80	476.40	632.43	760.28	855.97	1,377.17	1,874.35
35 mph	273.13	320.21	365.94	487.66	690.14	773.79	1,169.21	1,711.34
45 mph	243.69	285.69	326.49	435.25	684.43	738.34	1,011.01	1,613.15
55 mph	252.37	295.94	337.98	451.20	760.68	804.90	919.35	1,563.49
65 mph	303.04	355.34	405.87	542.72	782.29	821.18	941.16	1,536.53

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,033.26	6,432.78	6,792.14	6,260.12
15 mph	481.22	658.26	622.76	789.18	695.79	785.32	1,670.76	2,309.55
25 mph	330.86	452.20	428.04	554.23	526.24	597.13	1,346.91	1,841.64
35 mph	258.96	350.88	333.52	434.00	478.57	539.13	1,213.11	1,647.66
45 mph	234.10	315.59	300.09	390.65	454.36	499.61	1,122.78	1,518.01
55 mph	245.68	330.40	314.10	414.04	498.11	536.57	1,057.46	1,429.06
65 mph	299.42	400.59	381.91	503.35	509.92	540.24	1,043.95	1,403.10

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	32,402.98	2,848.84	16,304.53	4,408.46	2,892.26	1,094.20	2,151.31	268.81	62,371.37
25 mph	76,278.51	6,706.06	38,389.20	10,396.27	8,184.78	3,078.92	5,120.43	791.44	148,945.62
35 mph	69,572.56	6,118.03	35,017.30	9,519.54	8,822.79	3,305.18	4,207.00	699.29	137,261.69
45 mph	11,434.58	1,005.52	5,755.02	1,565.12	1,611.81	580.96	1,818.88	329.59	24,101.48
55 mph	15,225.75	1,339.17	7,659.88	2,086.07	2,303.19	814.28	1,433.46	276.85	31,138.65
65 mph	10,156.94	893.32	5,110.26	1,393.99	1,315.90	461.52	338.64	62.79	19,733.37
total	215,071.32	18,910.93	108,236.18	29,369.46	25,130.74	9,335.06	15,069.73	2,428.76	423,552.18

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	2,390.46	210.16	1,203.06	418.58	450.04	169.29	2,059.69	318.35	7,219.64
35 mph	14,688.37	1,291.66	7,392.96	2,582.12	3,268.17	1,224.32	5,828.90	968.89	37,245.39
45 mph	33,581.92	2,953.07	16,901.76	5,905.52	8,305.44	2,993.58	6,552.28	1,187.29	78,380.87
55 mph	31,386.09	2,760.55	15,789.95	5,524.74	8,330.12	2,945.06	1,833.31	354.07	68,923.90
65 mph	105,931.65	9,316.84	53,297.34	18,678.74	24,079.63	8,445.39	32,843.77	6,089.45	258,682.83
total	187,978.50	16,532.28	94,585.08	33,109.71	44,433.40	15,777.65	49,117.95	8,918.06	450,452.62

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	728.77	122.54	1,827.50
15 mph	6,646.94	584.39	3,344.61	1,318.04	708.86	268.17	572.48	71.53	13,515.03
25 mph	0.00	0.00	0.00	0.00	1,510.90	568.36	1,678.22	259.39	4,016.87
35 mph	32,782.80	2,882.83	16,500.26	3,616.06	0.00	0.00	0.00	0.00	55,781.96
total	39,429.75	3,467.23	19,844.87	4,934.10	2,923.56	1,108.93	2,979.47	453.46	75,141.35

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	703.80	272.39	728.77	122.54	1,827.50
15 mph	39,049.92	3,433.23	19,649.13	5,726.49	3,601.12	1,362.37	2,723.79	340.34	75,886.40
25 mph	78,668.97	6,916.22	39,592.26	10,814.86	10,145.71	3,816.58	8,858.34	1,369.18	160,182.12
35 mph	117,043.73	10,292.52	58,910.51	15,717.72	12,090.96	4,529.50	10,035.91	1,668.18	230,289.03
45 mph	45,016.51	3,958.59	22,656.78	7,470.65	9,917.25	3,574.54	8,371.16	1,516.87	102,482.35
55 mph	46,611.84	4,099.72	23,449.84	7,610.81	10,633.31	3,759.34	3,266.77	630.92	100,062.55
65 mph	116,088.59	10,210.16	58,407.60	20,072.74	25,395.54	8,906.92	33,182.41	6,152.24	278,416.19
total	442,479.57	38,910.44	222,666.12	67,413.26	72,487.69	26,221.63	67,167.16	11,800.28	949,146.15

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	238.03	4.05	20.35	44.79	1,366.94	1,090.48	10,214.18	26,986.90	39,965.73
25 mph	581.90	9.90	49.74	111.84	3,675.90	2,948.13	31,908.14	83,387.61	122,673.16
35 mph	540.84	9.12	46.03	104.00	3,969.67	3,160.90	27,811.29	72,198.12	107,839.96
45 mph	90.06	1.51	7.63	17.24	694.26	539.59	12,870.24	33,258.45	47,478.99
55 mph	121.53	2.03	10.27	23.50	978.57	745.07	10,505.27	27,135.03	39,521.27
65 mph	82.28	1.37	6.93	15.87	556.54	416.76	2,393.33	6,148.19	9,621.29
total	1,654.65	27.98	140.95	317.24	11,241.89	8,900.94	95,702.46	249,114.30	367,100.40

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25 mph	18.24	0.31	1.56	4.50	202.12	162.10	12,835.01	33,542.57	46,766.40
35 mph	114.18	1.93	9.72	28.21	1,470.46	1,170.87	38,533.20	100,032.20	141,360.76
45 mph	264.50	4.44	22.40	65.06	3,577.42	2,780.42	46,363.26	119,808.96	172,886.47
55 mph	250.51	4.19	21.16	62.23	3,539.28	2,694.74	13,435.66	34,704.21	54,711.99
65 mph	858.16	14.29	72.33	212.66	10,184.13	7,626.34	232,121.30	596,292.21	847,381.40
total	1,505.59	25.15	127.17	372.67	18,973.41	14,434.48	343,288.43	884,380.14	1,263,107.03

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,266.77	3,993.18	7,082.78
15 mph	48.83	0.83	4.18	13.39	335.02	267.26	2,718.09	7,181.47	10,569.07
25 mph	0.00	0.00	0.00	0.00	678.56	544.22	10,457.86	27,330.22	39,010.86
35 mph	254.85	4.30	21.69	39.50	0.00	0.00	0.00	0.00	320.33
total	303.67	5.13	25.86	52.90	1,400.38	1,247.52	15,442.73	38,504.87	56,983.05

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	386.79	436.04	2,266.77	3,993.18	7,082.78
15 mph	286.86	4.88	24.53	58.18	1,701.96	1,357.75	12,932.28	34,168.37	50,534.81
25 mph	600.14	10.21	51.30	116.34	4,556.59	3,654.45	55,201.01	144,260.39	208,450.43
35 mph	909.87	15.34	77.43	171.71	5,440.12	4,331.78	66,344.49	172,230.32	249,521.06
45 mph	354.57	5.95	30.03	82.31	4,271.68	3,320.01	59,233.50	153,067.41	220,365.45
55 mph	372.04	6.23	31.43	85.73	4,517.86	3,439.81	23,940.94	61,839.24	94,233.26
65 mph	940.44	15.66	79.26	228.53	10,740.67	8,043.11	234,514.63	602,440.40	857,002.69
total	3,463.91	58.27	293.98	742.80	31,615.67	24,582.94	454,433.61	1,171,999.30	1,687,190.48

CO2 Emissions

Total CO2 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1,090.60	708.43	2,995.54	4,115.72	8,910.29
15 mph	39,336.78	3,438.11	19,673.66	5,784.67	5,303.08	2,720.12	15,656.07	34,508.70	126,421.20
25 mph	79,269.11	6,926.43	39,643.56	10,931.20	14,702.30	7,471.03	64,059.35	145,629.58	368,632.55
35 mph	117,953.60	10,307.86	58,987.94	15,889.43	17,531.08	8,861.27	76,380.39	173,898.50	479,810.09
45 mph	45,371.07	3,964.54	22,686.81	7,552.96	14,188.93	6,894.55	67,604.66	154,584.28	322,847.80
55 mph	46,983.87	4,105.95	23,481.26	7,696.54	15,151.17	7,199.15	27,207.71	62,470.16	194,295.81
65 mph	117,029.03	10,225.81	58,486.86	20,301.27	36,136.21	16,950.03	267,697.04	608,592.63	1,135,418.88
total	445,943.48	38,968.70	222,960.11	68,156.06	104,103.36	50,804.57	521,600.77	1,183,799.58	**2,636,336.63**

B-17 Mobile Source Emissions Calculations – 2025

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
57.23	607.31	321.66	2.94	256.64	56.17	315.74	2.81	62.99	21.87	87.67	2.15	3.05	3.29	631,063.28

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
10.44	110.83	58.70	0.54	46.84	10.25	57.62	0.51	11.50	3.99	16.00	0.39	0.56	0.60	115,169.05

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
VMT

	Net Trips			Net VMT		
	Gas	Dsl	Elec	Gas	Dsl	Elec
LDA	982.7	11.4	70.7	-25,045.1	-291.4	-1,801.7
LDT1	78.4	0.1	0.0	-1,999.1	-1.9	-1.2
LDT2	392.4	0.8	0.0	-9,999.8	-20.6	0.0
MDT	1,484.1	32.0	0.0	22,720.4	490.2	0.0
LHDT1	437.1	474.1	0.0	11,135.2	12,079.6	0.0
LHDT2	147.5	290.6	0.0	3,758.4	7,402.8	0.0
MHDT	174.5	1,375.4	0.0	7,853.7	61,906.2	0.0
HHDT	24.6	2,559.8	0.0	1,105.0	115,216.1	0.0

	Surface Street VMT			Freeway VMT		
	Gas	Dsl	Elec	Gas	Dsl	Elec
LDA	11,239.2	130.8	808.5	-36,284.2	-422.2	-2,610.2
LDT1	897.1	0.9	0.5	-2,896.3	-2.8	-1.7
LDT2	4,487.5	9.2	0.0	-14,487.3	-29.8	0.0
MDT	10,190.2	219.9	0.0	12,530.2	270.3	0.0
LHDT1	3,590.3	3,894.8	0.0	7,544.9	8,184.8	0.0
LHDT2	1,211.8	2,386.9	0.0	2,546.6	5,015.9	0.0
MHDT	1,381.5	10,889.4	0.0	6,472.2	51,016.8	0.0
HHDT	194.4	20,266.7	0.0	910.6	94,949.4	0.0

	% of Surface Street VMT		% of Freeway VMT	
Speed	All Other	MHDT/HHDT	All Other	MHDT/HHDT
10	5%	7%	0%	0%
15	1%	2%	0%	0%
20	6%	6%	1%	1%
25	25%	25%	2%	2%
30	24%	20%	3%	5%
35	14%	8%	4%	6%
40	6%	7%	6%	7%
45	4%	9%	13%	5%
50	4%	11%	11%	3%
55	7%	1%	8%	1%
60	5%	4%	4%	70%
65	0%	0%	2%	0%
70	0%	0%	47%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	505.8	40.4	201.9	458.6	161.6	54.5	96.7	13.6	1,533.0
15 mph	112.4	9.0	44.9	101.9	35.9	12.1	27.6	3.9	347.7
20 mph	674.4	53.8	269.2	611.4	215.4	72.7	82.9	11.7	1,991.5
25 mph	2,809.8	224.3	1,121.9	2,547.6	897.6	303.0	345.4	48.6	8,298.0
30 mph	2,697.4	215.3	1,077.0	2,445.7	861.7	290.8	276.3	38.9	7,903.0
35 mph	1,573.5	125.6	628.2	1,426.6	502.6	169.7	110.5	15.6	4,552.3
40 mph	674.4	53.8	269.2	611.4	215.4	72.7	96.7	13.6	2,007.3
45 mph	449.6	35.9	179.5	407.6	143.6	48.5	124.3	17.5	1,406.5
50 mph	449.6	35.9	179.5	407.6	143.6	48.5	152.0	21.4	1,438.0
55 mph	786.7	62.8	314.1	713.3	251.3	84.8	13.8	1.9	2,228.9
60 mph	505.8	40.4	201.9	458.6	161.6	54.5	55.3	7.8	1,485.8
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	11,239.2	897.1	4,487.5	10,190.2	3,590.3	1,211.8	1,381.5	194.4	33,192.0

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-362.8	-29.0	-144.9	125.3	75.4	25.5	64.7	9.1	-236.6
25 mph	-544.3	-43.4	-217.3	188.0	113.2	38.2	129.4	18.2	-318.0
30 mph	-907.1	-72.4	-362.2	313.3	188.6	63.7	323.6	45.5	-407.0
35 mph	-1,451.4	-115.9	-579.5	501.2	301.8	101.9	388.3	54.6	-798.9
40 mph	-2,177.1	-173.8	-869.2	751.8	452.7	152.8	453.1	63.7	-1,346.0
45 mph	-4,716.9	-376.5	-1,883.3	1,628.9	980.8	331.1	323.6	45.5	-3,666.8
50 mph	-3,991.3	-318.6	-1,593.6	1,378.3	829.9	280.1	194.2	27.3	-3,193.6
55 mph	-2,902.7	-231.7	-1,159.0	1,002.4	603.6	203.7	64.7	9.1	-2,409.9
60 mph	-1,451.4	-115.9	-579.5	501.2	301.8	101.9	4,530.5	637.5	3,926.2
65 mph	-725.7	-57.9	-289.7	250.6	150.9	50.9	0.0	0.0	-620.9
70 mph	-17,053.6	-1,361.2	-6,809.0	5,889.2	3,546.1	1,196.9	0.0	0.0	-14,591.6
total	-36,284.2	-2,896.3	-14,487.3	12,530.2	7,544.9	2,546.6	6,472.2	910.6	-23,663.2

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
15 mph	2,999.2	239.4	1,197.5	352.6	150.8	50.9	54.7	7.7	5,052.7
25 mph	0.0	0.0	0.0	0.0	363.8	122.8	221.8	31.2	739.6
35 mph	8,828.0	704.7	3,524.8	1,014.6	0.0	0.0	0.0	0.0	14,072.0
total	11,827.2	944.1	4,722.3	1,367.2	514.5	173.7	276.5	38.9	19,864.3

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
10 mph	505.8	40.4	201.9	458.6	161.6	54.5	96.7	13.6	1,533.0
15 mph	3,111.6	248.4	1,242.4	454.5	186.7	63.0	82.3	11.6	5,400.4
20 mph	311.5	24.9	124.4	736.7	290.9	98.2	147.6	20.8	1,754.9
25 mph	2,265.5	180.8	904.6	2,735.5	1,374.5	463.9	696.6	98.0	8,719.5
30 mph	1,790.3	142.9	714.8	2,758.9	1,050.3	354.5	599.9	84.4	7,496.0
35 mph	8,950.1	714.4	3,573.5	2,942.4	804.4	271.5	498.9	70.2	17,825.5
40 mph	-1,502.7	-119.9	-600.0	1,363.2	668.1	225.5	549.8	77.4	661.3
45 mph	-4,267.4	-340.6	-1,703.8	2,036.5	1,124.5	379.5	447.9	63.0	-2,260.4
50 mph	-3,541.7	-282.7	-1,414.1	1,785.9	973.6	328.6	346.1	48.7	-1,755.6
55 mph	-2,116.0	-168.9	-844.9	1,715.7	854.9	288.6	78.5	11.1	-181.0
60 mph	-945.6	-75.5	-377.6	959.8	463.4	156.4	4,585.8	645.2	5,411.9
65 mph	-725.7	-57.9	-289.7	250.6	150.9	50.9	0.0	0.0	-620.9
70 mph	-17,053.6	-1,361.2	-6,809.0	5,889.2	3,546.1	1,196.9	0.0	0.0	-14,591.6
total	-13,217.9	-1,055.1	-5,277.5	24,087.6	11,649.8	3,932.1	8,130.2	1,143.9	29,393.1

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	5.9	0.0	0.4	9.9	175.3	107.4	762.3	1,418.7	2,479.8
15 mph	1.3	0.0	0.1	2.2	38.9	23.9	217.8	405.3	689.5
20 mph	7.8	0.1	0.6	13.2	233.7	143.2	653.4	1,216.0	2,267.9
25 mph	32.7	0.2	2.3	55.0	973.7	596.7	2,722.3	5,066.7	9,449.6
30 mph	31.4	0.2	2.2	52.8	934.7	572.8	2,177.9	4,053.3	7,825.4
35 mph	18.3	0.1	1.3	30.8	545.3	334.2	871.2	1,621.3	3,422.4
40 mph	7.8	0.1	0.6	13.2	233.7	143.2	762.3	1,418.7	2,579.5
45 mph	5.2	0.0	0.4	8.8	155.8	95.5	980.0	1,824.0	3,069.7
50 mph	5.2	0.0	0.4	8.8	155.8	95.5	1,197.8	2,229.3	3,692.9
55 mph	9.2	0.1	0.6	15.4	272.6	167.1	108.9	202.7	776.5
60 mph	5.9	0.0	0.4	9.9	175.3	107.4	435.6	810.7	1,545.1
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	130.8	0.9	9.2	219.9	3,894.8	2,386.9	10,889.4	20,266.7	37,798.4

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-4.2	0.0	-0.3	2.7	81.8	50.2	510.2	949.5	1,589.8
25 mph	-6.3	0.0	-0.4	4.1	122.8	75.2	1,020.3	1,899.0	3,114.6
30 mph	-10.6	-0.1	-0.7	6.8	204.6	125.4	2,550.8	4,747.5	7,623.7
35 mph	-16.9	-0.1	-1.2	10.8	327.4	200.6	3,061.0	5,697.0	9,278.6
40 mph	-25.3	-0.2	-1.8	16.2	491.1	301.0	3,571.2	6,646.5	10,998.6
45 mph	-54.9	-0.4	-3.9	35.1	1,064.0	652.1	2,550.8	4,747.5	8,990.4
50 mph	-46.4	-0.3	-3.3	29.7	900.3	551.8	1,530.5	2,848.5	5,810.8
55 mph	-33.8	-0.2	-2.4	21.6	654.8	401.3	510.2	949.5	2,501.0
60 mph	-16.9	-0.1	-1.2	10.8	327.4	200.6	35,711.8	66,464.6	102,697.0
65 mph	-8.4	-0.1	-0.6	5.4	163.7	100.3	0.0	0.0	260.3
70 mph	-198.4	-1.3	-14.0	127.1	3,846.9	2,357.5	0.0	0.0	6,117.7
total	-422.2	-2.8	-29.8	270.3	8,184.8	5,015.9	51,016.8	94,949.4	158,982.5

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
15 mph	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0	1,541.9
25 mph	0.0	0.0	0.0	0.0	394.6	241.8	1,748.5	3,254.1	5,639.0
35 mph	102.7	0.7	7.2	21.9	0.0	0.0	0.0	0.0	132.5
total	137.6	0.9	9.7	29.5	558.2	342.1	2,179.4	4,056.1	7,313.4

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
10 mph	5.9	0.0	0.4	9.9	175.3	107.4	762.3	1,418.7	2,479.8
15 mph	36.2	0.2	2.6	9.8	202.5	124.1	648.7	1,207.3	2,231.4
20 mph	3.6	0.0	0.3	15.9	315.5	193.4	1,163.5	2,165.5	3,857.7
25 mph	26.4	0.2	1.9	59.0	1,491.1	913.8	5,491.1	10,219.8	18,203.2
30 mph	20.8	0.1	1.5	59.5	1,139.4	698.2	4,728.7	8,800.8	15,449.1
35 mph	104.1	0.7	7.3	63.5	872.7	534.8	3,932.2	7,318.3	12,833.6
40 mph	-17.5	-0.1	-1.2	29.4	724.8	444.2	4,333.4	8,065.1	13,578.1
45 mph	-49.7	-0.3	-3.5	43.9	1,219.8	747.5	3,530.9	6,571.5	12,060.2
50 mph	-41.2	-0.3	-2.9	38.5	1,056.1	647.2	2,728.3	5,077.8	9,503.6
55 mph	-24.6	-0.2	-1.7	37.0	927.4	568.4	619.1	1,152.2	3,277.5
60 mph	-11.0	-0.1	-0.8	20.7	502.7	308.0	36,147.3	67,275.2	104,242.1
65 mph	-8.4	-0.1	-0.6	5.4	163.7	100.3	0.0	0.0	260.3
70 mph	-198.4	-1.3	-14.0	127.1	3,846.9	2,357.5	0.0	0.0	6,117.7
total	-153.8	-1.0	-10.8	519.7	12,637.8	7,744.9	64,085.6	119,272.2	204,094.4

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4
15 mph	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
20 mph	48.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.5
25 mph	202.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	202.3
30 mph	194.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	194.2
35 mph	113.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	113.3
40 mph	48.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.5
45 mph	32.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4
50 mph	32.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4
55 mph	32.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4
60 mph	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	784.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	784.8

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1
25 mph	-39.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-39.2
30 mph	-65.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-65.3
35 mph	-104.4	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-104.5
40 mph	-156.6	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-156.7
45 mph	-339.3	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-339.6
50 mph	-287.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-287.3
55 mph	-208.8	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-209.0
60 mph	-104.4	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-104.5
65 mph	-52.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-52.2
70 mph	-1,226.8	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-1,227.6
total	-2,610.2	-1.7	0.0	0.0	0.0	0.0	0.0	0.0	-2,612.0

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	215.9
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,254.1	3,254.1
35 mph	635.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	635.5
total	850.8	0.6	0.0	0.0	0.0	0.0	0.0	3,254.1	4,105.5

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4
15 mph	223.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	224.0
20 mph	22.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4
25 mph	163.0	0.1	0.0	0.0	0.0	0.0	0.0	3,254.1	3,417.2
30 mph	128.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	128.9
35 mph	643.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	644.3
40 mph	-108.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-108.2
45 mph	-307.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-307.2
50 mph	-254.8	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-255.0
55 mph	-176.5	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-176.6
60 mph	-68.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-68.1
65 mph	-52.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-52.2
70 mph	-1,226.8	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-1,227.6
total	1,218.3	0.8	0.0	0.0	0.0	0.0	0.0	3,254.1	2,278.4

World Logistics Center

Internal Roadway Road Dust

Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	7,415	1,483	515	103	1,353	271	2,256	451	2,308	7.54	0.035	0.0002	0.5	0.0008	1.9
2	A	731	0.45	4,575	2,059	258	116	680	306	1,133	510	2,990	6.85	0.035	0.0002	0.5	0.0007	2.2
3	A	2352	1.46	1,580	2,307	115	168	187	273	312	455	3,203	6.14	0.035	0.0002	0.5	0.0007	2.1
5	A	953	0.59	2,130	1,257	207	122	-	-	-	-	1,379	2.44	0.035	0.0001	0.1	0.0003	0.4
6	A	1099	0.68	9,030	6,140	553	376	1,482	1,008	2,471	1,680	9,204	7.18	0.035	0.0002	1.8	0.0008	7.2
8	A	1091	0.68	3,310	2,251	195	133	-	-	-	-	2,383	2.32	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	(3,215)	(2,411)	11	9	(2)	(1)	(3)	(2)	(2,407)	2.14	0.035	0.0001	-0.1	0.0002	-0.5
12	A	824	0.51	(160)	(82)	(8)	(4)	(4)	(2)	(6)	(3)	(91)	3.23	0.035	0.0001	0.0	0.0003	0.0
14	A	1618	1.01	345	348	(90)	(90)	(10)	(10)	(16)	(16)	232	1.09	0.035	0.0000	0.0	0.0001	0.0
18	A	1412	0.88	100	88	-	-	-	-	-	-	88	2.13	0.035	0.0001	0.0	0.0002	0.0
19	A	2386	1.48	1,930	2,023	-	-	-	-	-	-	2,023	2.13	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	895	698	21	16	19	15	31	24	753	3.07	0.035	0.0001	0.1	0.0003	0.2
24	A	1946	1.21	545	659	57	69	58	70	97	117	916	5.84	0.035	0.0002	0.1	0.0006	0.6
30	A	2827	1.76	(925)	(1,628)	47	83	-	-	-	-	(1,545)	1.94	0.035	0.0001	-0.1	0.0002	-0.3
29	A	675	0.42	2,130	895	44	19	-	-	-	-	913	2.20	0.035	0.0001	0.1	0.0002	0.2
31	A	820	0.51	(2,445)	(1,247)	10	5	81	41	134	69	(1,132)	0.49	0.035	0.0000	0.0	0.0000	-0.1
TOTAL				27,240		1,935		3,844		6,410						3.7		14.9

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				3052.68	-15950.16	1,349.28	34,376.07	1,549.91	69,759.90	2,584.39	116,321.09	204,506.89	10.82	0.035	0.0003	59.3310908	0.0012	241.719259

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	2961.4	34.5	213.0
	LDT1	15	1127	330	0.21	236.8	236.4	0.2	0.1
	LDT2	15	5642	330	0.21	1184.8	1182.4	2.4	0.0
	MDT	15	1700	330	0.21	357.0	349.4	7.5	0.0
	LHDT1	15	1494	330	0.21	313.6	150.4	163.2	0.0
	LHDT2	15	718	330	0.21	150.8	50.8	100.0	0.0
	MHDT	15	2286	330	0.21	480.2	54.1	426.1	0.0
	HHDT	15	3813	330	0.21	800.6	7.6	793.0	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.5	0.1	0.3
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.4	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.1	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.0	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.1	0.1	0.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.2	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.5	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	18.5	0.2	1.3
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.6	0.0	0.2
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2999.2	239.4	1197.5	352.6	150.8	50.9	54.7	7.7
Diesel	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0
Electric	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	358	389	0	1790.9	1942.8	0.0
	LHDT2	5	359	121	238	0	604.5	1190.6	0.0
	MHDT	5	1143	129	1015	0	643.5	5072.6	0.0
	HHDT	5	1906	18	1888	0	90.5	9440.8	0.0
Travel at Light Logistics	LHDT1	5	1	1	1	0	2.9	3.2	0.0
	LHDT2	5	1	0	0	0	1.0	1.9	0.0
	MHDT	5	2	0	1	0	0.8	6.7	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	2	0	8.5	9.3	0.0
	LHDT2	5	2	1	1	0	2.9	5.7	0.0
	MHDT	5	7	1	6	0	3.8	30.1	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	8	63	0	40.0	315.5	0.0
	HHDT	5	119	1	117	0	5.6	587.2	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	30.0	10.1	11.5	1.6
Diesel	32.6	20.0	90.4	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	13.0528	12.2296	20.3988	10.6186
10 mph	0.0358	0.0838	0.0464	0.0810	0.1181	0.0412	0.1328	1.3612
15 mph	0.0241	0.0581	0.0311	0.0541	0.0814	0.0277	0.0885	0.8922
20 mph	0.0170	0.0420	0.0220	0.0385	0.0594	0.0199	0.0622	0.6284
25 mph	0.0125	0.0313	0.0162	0.0287	0.0451	0.0149	0.0461	0.4626
30 mph	0.0097	0.0244	0.0126	0.0225	0.0359	0.0117	0.0361	0.3606
35 mph	0.0079	0.0198	0.0103	0.0187	0.0302	0.0098	0.0297	0.2974
40 mph	0.0068	0.0172	0.0089	0.0162	0.0269	0.0086	0.0259	0.2584
45 mph	0.0063	0.0157	0.0081	0.0148	0.0251	0.0080	0.0238	0.2364
50 mph	0.0060	0.0149	0.0078	0.0143	0.0245	0.0077	0.0229	0.2284
55 mph	0.0061	0.0150	0.0079	0.0146	0.0254	0.0080	0.0233	0.2336
60 mph	0.0065	0.0158	0.0085	0.0155	0.0276	0.0086	0.0250	0.2509
65 mph	0.0072	0.0170	0.0094	0.0174	0.0317	0.0098		
70 mph	0.0076	0.0170	0.0098	0.0199	0.0317	0.0097		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1695	0.5532
10 mph	0.1140	0.3876	0.1950	0.1170	0.5540	0.5438	0.1972	0.4801
15 mph	0.0602	0.2571	0.0959	0.0582	0.2914	0.2750	0.1388	0.3376
20 mph	0.0281	0.1751	0.0380	0.0238	0.1395	0.1187	0.1001	0.2429
25 mph	0.0185	0.1332	0.0230	0.0147	0.0940	0.0759	0.0734	0.1783
30 mph	0.0143	0.1079	0.0174	0.0113	0.0752	0.0592	0.0541	0.1314
35 mph	0.0115	0.0909	0.0139	0.0091	0.0641	0.0489	0.0399	0.0968
40 mph	0.0098	0.0818	0.0115	0.0076	0.0568	0.0421	0.0294	0.0714
45 mph	0.0089	0.0778	0.0098	0.0066	0.0518	0.0373	0.0217	0.0527
50 mph	0.0082	0.0768	0.0086	0.0058	0.0495	0.0344	0.0160	0.0389
55 mph	0.0078	0.0797	0.0076	0.0053	0.0482	0.0323	0.0119	0.0288
60 mph	0.0080	0.0866	0.0073	0.0052	0.0497	0.0323	0.0102	0.0248
65 mph	0.0084	0.0954	0.0074	0.0054	0.0581	0.0362		
70 mph	0.0073	0.0920	0.0073	0.0057	0.0978	0.0563		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0399	0.0075	0.0207	0.0819	0.0421	0.0050	0.0283	0.0408	0.2661
15 mph	0.0060	0.0011	0.0031	0.0122	0.0064	0.0007	0.0054	0.0076	0.0426
20 mph	0.0253	0.0050	0.0130	0.0519	0.0282	0.0032	0.0114	0.0162	0.1541
25 mph	0.0776	0.0155	0.0401	0.1610	0.0892	0.0099	0.0351	0.0496	0.4780
30 mph	0.0577	0.0116	0.0299	0.1215	0.0682	0.0075	0.0220	0.0309	0.3493
35 mph	0.0273	0.0055	0.0142	0.0587	0.0335	0.0037	0.0072	0.0102	0.1603
40 mph	0.0101	0.0020	0.0053	0.0219	0.0128	0.0014	0.0055	0.0078	0.0668
45 mph	0.0062	0.0012	0.0032	0.0133	0.0079	0.0009	0.0065	0.0091	0.0484
50 mph	0.0059	0.0012	0.0031	0.0129	0.0078	0.0008	0.0077	0.0108	0.0501
55 mph	0.0106	0.0021	0.0055	0.0229	0.0141	0.0015	0.0007	0.0010	0.0584
60 mph	0.0073	0.0014	0.0038	0.0157	0.0098	0.0010	0.0030	0.0043	0.0463
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.2739	0.0541	0.1419	0.5738	0.3200	0.0356	0.1329	0.1883	1.7204

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0136	-0.0027	-0.0070	0.0106	0.0099	0.0011	0.0089	0.0126	0.0198
25 mph	-0.0150	-0.0030	-0.0078	0.0119	0.0112	0.0013	0.0132	0.0186	0.0303
30 mph	-0.0194	-0.0039	-0.0101	0.0156	0.0149	0.0016	0.0257	0.0362	0.0607
35 mph	-0.0252	-0.0051	-0.0131	0.0206	0.0201	0.0022	0.0255	0.0358	0.0608
40 mph	-0.0327	-0.0066	-0.0171	0.0269	0.0268	0.0029	0.0259	0.0363	0.0624
45 mph	-0.0650	-0.0130	-0.0338	0.0533	0.0542	0.0058	0.0170	0.0237	0.0421
50 mph	-0.0528	-0.0105	-0.0274	0.0435	0.0448	0.0048	0.0098	0.0138	0.0259
55 mph	-0.0390	-0.0077	-0.0203	0.0322	0.0338	0.0036	0.0033	0.0047	0.0107
60 mph	-0.0208	-0.0040	-0.0108	0.0171	0.0184	0.0019	0.2500	0.3527	0.6044
65 mph	-0.0116	-0.0022	-0.0060	0.0096	0.0105	0.0011	0.0000	0.0000	0.0015
70 mph	-0.2843	-0.0511	-0.1471	0.2586	0.2477	0.0256	0.0000	0.0000	0.0494
total	-0.5795	-0.1097	-0.3005	0.5000	0.4924	0.0519	0.3792	0.5344	0.9681

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5159	0.0381	1.6920
15 mph	0.1597	0.0307	0.0821	0.0421	0.0271	0.0031	0.0107	0.0151	0.3705
25 mph	0.0000	0.0000	0.0000	0.0000	0.0361	0.0040	0.0226	0.0318	0.0946
35 mph	0.1534	0.0308	0.0799	0.0417	0.0000	0.0000	0.0000	0.0000	0.3058
total	0.3131	0.0614	0.1620	0.0838	0.9278	0.2806	0.5492	0.0850	2.4629

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5159	0.0381	1.6920
10 mph	0.0399	0.0075	0.0207	0.0819	0.0421	0.0050	0.0283	0.0408	0.2661
15 mph	0.1656	0.0318	0.0852	0.0543	0.0335	0.0038	0.0161	0.0228	0.4131
20 mph	0.0117	0.0023	0.0060	0.0625	0.0381	0.0043	0.0202	0.0288	0.1739
25 mph	0.0626	0.0125	0.0323	0.1729	0.1365	0.0152	0.0709	0.1000	0.6029
30 mph	0.0383	0.0077	0.0198	0.1370	0.0832	0.0092	0.0477	0.0671	0.4100
35 mph	0.1556	0.0312	0.0810	0.1210	0.0535	0.0058	0.0327	0.0460	0.5269
40 mph	-0.0226	-0.0045	-0.0118	0.0488	0.0396	0.0043	0.0314	0.0441	0.1292
45 mph	-0.0588	-0.0118	-0.0306	0.0666	0.0621	0.0067	0.0235	0.0329	0.0905
50 mph	-0.0469	-0.0093	-0.0244	0.0564	0.0526	0.0056	0.0175	0.0245	0.0760
55 mph	-0.0284	-0.0056	-0.0148	0.0551	0.0479	0.0051	0.0040	0.0057	0.0690
60 mph	-0.0136	-0.0026	-0.0071	0.0328	0.0282	0.0030	0.2530	0.3570	0.6507
65 mph	-0.0116	-0.0022	-0.0060	0.0096	0.0105	0.0011	0.0000	0.0000	0.0015
70 mph	-0.2843	-0.0511	-0.1471	0.2586	0.2477	0.0256	0.0000	0.0000	0.0494
total	0.0075	0.0058	0.0033	1.1576	1.7402	0.3680	1.0612	0.8077	5.1514

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0015	0.0000	0.0002	0.0026	0.2141	0.1288	0.3314	1.5017	2.1803
15 mph	0.0002	0.0000	0.0000	0.0003	0.0250	0.0145	0.0666	0.3017	0.4083
20 mph	0.0005	0.0000	0.0000	0.0007	0.0719	0.0375	0.1443	0.6514	0.9062
25 mph	0.0013	0.0001	0.0001	0.0018	0.2017	0.0999	0.4407	1.9919	2.7375
30 mph	0.0010	0.0000	0.0001	0.0013	0.1550	0.0748	0.2600	1.1741	1.6662
35 mph	0.0005	0.0000	0.0000	0.0006	0.0771	0.0361	0.0767	0.3460	0.5370
40 mph	0.0002	0.0000	0.0000	0.0002	0.0292	0.0133	0.0495	0.2233	0.3157
45 mph	0.0001	0.0000	0.0000	0.0001	0.0178	0.0078	0.0469	0.2119	0.2847
50 mph	0.0001	0.0000	0.0000	0.0001	0.0170	0.0072	0.0424	0.1913	0.2581
55 mph	0.0002	0.0000	0.0000	0.0002	0.0290	0.0119	0.0028	0.0129	0.0570
60 mph	0.0001	0.0000	0.0000	0.0001	0.0192	0.0077	0.0098	0.0443	0.0812
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0056	0.0002	0.0005	0.0080	0.8570	0.4394	1.4711	6.6505	9.4323

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0003	0.0000	0.0000	0.0001	0.0252	0.0131	0.1126	0.5086	0.6594
25 mph	-0.0003	0.0000	0.0000	0.0001	0.0254	0.0126	0.1652	0.7466	0.9496
30 mph	-0.0003	0.0000	0.0000	0.0002	0.0339	0.0164	0.3045	1.3751	1.7297
35 mph	-0.0004	0.0000	0.0000	0.0002	0.0463	0.0217	0.2695	1.2157	1.5528
40 mph	-0.0005	0.0000	0.0000	0.0003	0.0615	0.0279	0.2318	1.0463	1.3671
45 mph	-0.0011	-0.0001	-0.0001	0.0005	0.1214	0.0536	0.1221	0.5516	0.8480
50 mph	-0.0008	-0.0001	-0.0001	0.0004	0.0983	0.0418	0.0541	0.2444	0.4380
55 mph	-0.0006	0.0000	0.0000	0.0003	0.0697	0.0286	0.0133	0.0603	0.1716
60 mph	-0.0003	0.0000	0.0000	0.0001	0.0359	0.0143	0.8038	3.6343	4.4881
65 mph	-0.0002	0.0000	0.0000	0.0001	0.0210	0.0080	0.0000	0.0000	0.0289
70 mph	-0.0032	-0.0003	-0.0002	0.0016	0.8297	0.2928	0.0000	0.0000	1.1204
total	-0.0080	-0.0005	-0.0006	0.0039	1.3682	0.5307	2.0770	9.3829	13.3536

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0338	0.2053	0.6068
15 mph	0.0046	0.0001	0.0005	0.0010	0.1051	0.0608	0.1318	0.5970	0.9009
25 mph	0.0000	0.0000	0.0000	0.0000	0.0818	0.0405	0.2830	1.2793	1.6846
35 mph	0.0026	0.0001	0.0002	0.0004	0.0000	0.0000	0.0000	0.0000	0.0034
total	0.0072	0.0003	0.0007	0.0014	0.4149	0.2410	0.4487	2.0816	3.1957

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0338	0.2053	0.6068
10 mph	0.0015	0.0000	0.0002	0.0026	0.2141	0.1288	0.3314	1.5017	2.1803
15 mph	0.0048	0.0001	0.0005	0.0013	0.1301	0.0753	0.1985	0.8987	1.3093
20 mph	0.0002	0.0000	0.0000	0.0008	0.0971	0.0506	0.2569	1.1600	1.5656
25 mph	0.0011	0.0001	0.0001	0.0019	0.3090	0.1529	0.8889	4.0178	5.3717
30 mph	0.0007	0.0000	0.0001	0.0015	0.1889	0.0911	0.5645	2.5492	3.3959
35 mph	0.0026	0.0001	0.0002	0.0013	0.1234	0.0577	0.3461	1.5617	2.0932
40 mph	-0.0004	0.0000	0.0000	0.0005	0.0907	0.0412	0.2813	1.2696	1.6828
45 mph	-0.0010	-0.0001	-0.0001	0.0006	0.1392	0.0614	0.1691	0.7635	1.1327
50 mph	-0.0007	0.0000	-0.0001	0.0005	0.1153	0.0491	0.0965	0.4356	0.6961
55 mph	-0.0004	0.0000	0.0000	0.0004	0.0987	0.0405	0.0162	0.0732	0.2286
60 mph	-0.0002	0.0000	0.0000	0.0002	0.0551	0.0220	0.8136	3.6786	4.5694
65 mph	-0.0002	0.0000	0.0000	0.0001	0.0210	0.0080	0.0000	0.0000	0.0289
70 mph	-0.0032	-0.0003	-0.0002	0.0016	0.8297	0.2928	0.0000	0.0000	1.1204
total	0.0048	0.0000	0.0007	0.0133	2.6401	1.2111	3.9968	18.1149	25.9816

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.04	0.15	0.06	0.09	0.65	0.19	0.16	0.04
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.11	-0.34	-0.66	4.73	16.66	1.68	2.81	0.10
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**-1.11**	**-0.34**	**-0.66**	**4.73**	**16.66**	**1.68**	**2.81**	**0.10**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.41	1.21	0.52	0.84	0.12	0.06	0.06	0.04
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.44	0.10	0.22	1.38	0.06	0.01	0.01	0.00
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.44**	**0.10**	**0.22**	**1.38**	**0.06**	**0.01**	**0.01**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.09	0.41	0.55	0.24	2.30
10 mph	0.04	0.01	0.02	0.08	0.26	0.13	0.36	1.54	2.45
15 mph	0.17	0.03	0.09	0.06	0.16	0.08	0.21	0.92	1.72
20 mph	0.01	0.00	0.01	0.06	0.14	0.05	0.28	1.19	1.74
25 mph	0.06	0.01	0.03	0.17	0.45	0.17	0.96	4.12	5.97
30 mph	0.04	0.01	0.02	0.14	0.27	0.10	0.61	2.62	3.81
35 mph	0.16	0.03	0.08	0.12	0.18	0.06	0.38	1.61	2.62
40 mph	-0.02	0.00	-0.01	0.05	0.13	0.05	0.31	1.31	1.81
45 mph	-0.06	-0.01	-0.03	0.07	0.20	0.07	0.19	0.80	1.22
50 mph	-0.05	-0.01	-0.02	0.06	0.17	0.05	0.11	0.46	0.77
55 mph	-0.03	-0.01	-0.01	0.06	0.15	0.05	0.02	0.08	0.30
60 mph	-0.01	0.00	-0.01	0.03	0.08	0.02	1.07	4.04	5.22
65 mph	-0.01	0.00	-0.01	0.01	0.03	0.01	0.00	0.00	0.03
70 mph	-0.29	-0.05	-0.15	0.26	1.08	0.32	0.00	0.00	1.17
RUNLOSS	-1.11	-0.34	-0.66	4.73	16.66	1.68	2.81	0.10	23.86
RESTLOSS DIURI	0.44	0.10	0.22	1.38	0.06	0.01	0.01	0.00	2.24
total	-0.66	-0.23	-0.43	7.28	21.10	3.27	7.87	19.02	**57.23**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.1346	1.0612	1.8059	25.9645
10 mph	0.0629	0.1686	0.0898	0.1579	0.3531	0.1672	0.3966	4.5535
15 mph	0.0557	0.1462	0.0788	0.1369	0.3115	0.1463	0.3507	3.9973
20 mph	0.0498	0.1287	0.0703	0.1222	0.2870	0.1331	0.3153	3.5963
25 mph	0.0449	0.1138	0.0633	0.1107	0.2655	0.1218	0.2881	3.2732
30 mph	0.0412	0.1027	0.0581	0.1024	0.2505	0.1135	0.2673	3.0321
35 mph	0.0384	0.0943	0.0541	0.0967	0.2409	0.1080	0.2520	2.8583
40 mph	0.0366	0.0902	0.0517	0.0929	0.2345	0.1041	0.2415	2.7365
45 mph	0.0357	0.0889	0.0504	0.0907	0.2310	0.1018	0.2352	2.6594
50 mph	0.0353	0.0887	0.0498	0.0905	0.2310	0.1005	0.2315	2.6264
55 mph	0.0356	0.0915	0.0504	0.0922	0.2345	0.1016	0.2321	2.6414
60 mph	0.0365	0.0959	0.0517	0.0951	0.2392	0.1035	0.2363	2.6927
65 mph	0.0376	0.1001	0.0534	0.1003	0.2489	0.1072		
70 mph	0.0374	0.0959	0.0524	0.1105	0.2674	0.1084		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	55.1536	49.5342	18.9307	18.2067
10 mph	0.0972	0.5625	0.1311	0.0885	1.2043	0.7272	7.5265	15.5674
15 mph	0.0761	0.5746	0.0898	0.0620	1.0397	0.5966	4.6201	9.6526
20 mph	0.0609	0.5819	0.0612	0.0436	1.0463	0.5555	2.7027	5.7332
25 mph	0.0538	0.5876	0.0479	0.0353	1.0526	0.5389	1.5622	3.4228
30 mph	0.0499	0.5918	0.0408	0.0310	1.1106	0.5536	1.0276	2.3120
35 mph	0.0468	0.5903	0.0360	0.0282	1.2082	0.5878	0.7323	1.6900
40 mph	0.0457	0.6066	0.0328	0.0264	1.2914	0.6187	0.5525	1.3097
45 mph	0.0459	0.6349	0.0306	0.0252	1.3494	0.6409	0.4348	1.0595
50 mph	0.0458	0.6540	0.0288	0.0243	1.4275	0.6759	0.3553	0.8804
55 mph	0.0458	0.6773	0.0275	0.0238	1.4541	0.6854	0.2977	0.7561
60 mph	0.0470	0.7035	0.0270	0.0237	1.4750	0.6919	0.2749	0.7091
65 mph	0.0464	0.6954	0.0269	0.0240	1.6623	0.7796		
70 mph	0.0401	0.5666	0.0259	0.0254	3.0371	1.4913		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0702	0.0150	0.0400	0.1597	0.1258	0.0201	0.0846	0.1366	0.6519
15 mph	0.0138	0.0029	0.0078	0.0308	0.0247	0.0039	0.0214	0.0343	0.1394
20 mph	0.0740	0.0153	0.0418	0.1647	0.1363	0.0213	0.0576	0.0925	0.6035
25 mph	0.2784	0.0563	0.1567	0.6218	0.5255	0.0813	0.2194	0.3507	2.2901
30 mph	0.2451	0.0488	0.1379	0.5523	0.4759	0.0728	0.1629	0.2599	1.9555
35 mph	0.1331	0.0261	0.0749	0.3043	0.2670	0.0404	0.0614	0.0980	1.0052
40 mph	0.0545	0.0107	0.0307	0.1252	0.1114	0.0167	0.0515	0.0821	0.4827
45 mph	0.0354	0.0070	0.0199	0.0815	0.0731	0.0109	0.0645	0.1026	0.3950
50 mph	0.0350	0.0070	0.0197	0.0814	0.0731	0.0107	0.0776	0.1238	0.4284
55 mph	0.0617	0.0127	0.0349	0.1451	0.1299	0.0190	0.0071	0.0113	0.4217
60 mph	0.0407	0.0085	0.0230	0.0961	0.0852	0.0124	0.0288	0.0462	0.3410
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.0417	0.2103	0.5873	2.3629	2.0280	0.3097	0.8366	1.3380	8.7144

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0398	-0.0082	-0.0225	0.0338	0.0477	0.0075	0.0450	0.0722	0.1357
25 mph	-0.0539	-0.0109	-0.0304	0.0459	0.0663	0.0103	0.0822	0.1314	0.2409
30 mph	-0.0824	-0.0164	-0.0464	0.0707	0.1042	0.0159	0.1907	0.3044	0.5409
35 mph	-0.1228	-0.0241	-0.0691	0.1069	0.1603	0.0242	0.2157	0.3444	0.6356
40 mph	-0.1758	-0.0346	-0.0990	0.1540	0.2340	0.0351	0.2413	0.3846	0.7396
45 mph	-0.3716	-0.0738	-0.2092	0.3256	0.4996	0.0743	0.1678	0.2670	0.6798
50 mph	-0.3107	-0.0623	-0.1749	0.2752	0.4227	0.0621	0.0991	0.1582	0.4694
55 mph	-0.2277	-0.0468	-0.1288	0.2039	0.3121	0.0456	0.0331	0.0530	0.2445
60 mph	-0.1167	-0.0245	-0.0661	0.1051	0.1592	0.0232	2.3610	3.7848	6.2260
65 mph	-0.0602	-0.0128	-0.0341	0.0554	0.0828	0.0120	0.0000	0.0000	0.0432
70 mph	-1.4046	-0.2879	-0.7872	1.4347	2.0912	0.2861	0.0000	0.0000	1.3323
total	-2.9661	-0.6022	-1.6676	2.8111	4.1801	0.5964	3.4360	5.5002	11.2879

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0457	0.0931	0.2376
15 mph	0.3684	0.0772	0.2080	0.1064	0.1035	0.0164	0.0423	0.0678	0.9901
25 mph	0.0000	0.0000	0.0000	0.0000	0.2130	0.0330	0.1409	0.2253	0.6121
35 mph	0.7466	0.1466	0.4203	0.2164	0.0000	0.0000	0.0000	0.0000	1.5299
total	1.1151	0.2238	0.6283	0.3228	0.3917	0.0731	0.2288	0.3861	3.3697

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0457	0.0931	0.2376
10 mph	0.0702	0.0150	0.0400	0.1597	0.1258	0.0201	0.0846	0.1366	0.6519
15 mph	0.3823	0.0801	0.2158	0.1372	0.1282	0.0203	0.0636	0.1021	1.1295
20 mph	0.0342	0.0071	0.0193	0.1985	0.1840	0.0288	0.1026	0.1647	0.7392
25 mph	0.2244	0.0454	0.1264	0.6677	0.8047	0.1246	0.4425	0.7074	3.1430
30 mph	0.1626	0.0324	0.0915	0.6230	0.5801	0.0888	0.3536	0.5643	2.4964
35 mph	0.7570	0.1486	0.4261	0.6276	0.4274	0.0646	0.2771	0.4424	3.1708
40 mph	-0.1214	-0.0239	-0.0683	0.2792	0.3454	0.0518	0.2928	0.4667	1.2224
45 mph	-0.3361	-0.0667	-0.1893	0.4071	0.5727	0.0852	0.2323	0.3696	1.0748
50 mph	-0.2757	-0.0553	-0.1552	0.3565	0.4958	0.0728	0.1767	0.2820	0.8977
55 mph	-0.1660	-0.0341	-0.0939	0.3490	0.4420	0.0646	0.0402	0.0644	0.6662
60 mph	-0.0760	-0.0160	-0.0430	0.2012	0.2444	0.0357	2.3898	3.8310	6.5670
65 mph	-0.0602	-0.0128	-0.0341	0.0554	0.0828	0.0120	0.0000	0.0000	0.0432
70 mph	-1.4046	-0.2879	-0.7872	1.4347	2.0912	0.2861	0.0000	0.0000	1.3323
total	-0.8093	-0.1681	-0.4520	5.4969	6.5997	0.9792	4.5014	7.2243	23.3721

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0013	0.0000	0.0001	0.0019	0.4654	0.1722	12.6503	48.6974	61.9888
15 mph	0.0002	0.0000	0.0000	0.0003	0.0893	0.0314	2.2187	8.6271	10.9670
20 mph	0.0011	0.0001	0.0001	0.0013	0.5391	0.1754	3.8936	15.3723	19.9829
25 mph	0.0039	0.0003	0.0002	0.0043	2.2600	0.7090	9.3778	38.2391	50.5946
30 mph	0.0035	0.0003	0.0002	0.0036	2.2890	0.6993	4.9348	20.6638	28.5944
35 mph	0.0019	0.0002	0.0001	0.0019	1.4527	0.4331	1.4067	6.0420	9.3385
40 mph	0.0008	0.0001	0.0000	0.0008	0.6654	0.1954	0.9286	4.0968	5.8879
45 mph	0.0005	0.0000	0.0000	0.0005	0.4636	0.1349	0.9396	4.2611	5.8002
50 mph	0.0005	0.0001	0.0000	0.0005	0.4904	0.1423	0.9385	4.3277	5.9000
55 mph	0.0009	0.0001	0.0000	0.0008	0.8742	0.2525	0.0715	0.3379	1.5379
60 mph	0.0006	0.0001	0.0000	0.0005	0.5700	0.1639	0.2640	1.2675	2.2666
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0151	0.0012	0.0009	0.0164	10.1591	3.1095	37.6240	151.9328	202.8590

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0006	0.0000	0.0000	0.0003	0.1888	0.0614	3.0403	12.0032	15.2933
25 mph	-0.0008	-0.0001	0.0000	0.0003	0.2850	0.0894	3.5148	14.3320	18.2206
30 mph	-0.0012	-0.0001	-0.0001	0.0005	0.5011	0.1531	5.7799	24.2025	30.6357
35 mph	-0.0017	-0.0001	-0.0001	0.0007	0.8722	0.2601	4.9427	21.2300	27.3037
40 mph	-0.0026	-0.0002	-0.0001	0.0009	1.3984	0.4106	4.3504	19.1936	25.3511
45 mph	-0.0056	-0.0005	-0.0003	0.0020	3.1660	0.9214	2.4455	11.0906	17.6192
50 mph	-0.0047	-0.0004	-0.0002	0.0016	2.8339	0.8223	1.1991	5.5297	10.3813
55 mph	-0.0034	-0.0003	-0.0001	0.0011	2.0995	0.6065	0.3348	1.5830	4.6211
60 mph	-0.0018	-0.0002	-0.0001	0.0006	1.0648	0.3061	21.6440	103.9210	126.9345
65 mph	-0.0009	-0.0001	0.0000	0.0003	0.6000	0.1725	0.0000	0.0000	0.7718
70 mph	-0.0175	-0.0017	-0.0008	0.0071	25.7617	7.7524	0.0000	0.0000	33.5013
total	-0.0406	-0.0038	-0.0019	0.0153	38.7715	11.5557	47.2515	213.0857	310.6335

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.7741	6.7555	16.6741
15 mph	0.0059	0.0003	0.0005	0.0010	0.3750	0.1319	4.3898	17.0690	21.9733
25 mph	0.0000	0.0000	0.0000	0.0000	0.9159	0.2874	6.0230	24.5595	31.7858
35 mph	0.0106	0.0009	0.0006	0.0014	0.0000	0.0000	0.0000	0.0000	0.0134
total	0.0165	0.0012	0.0011	0.0024	5.2540	2.6005	14.1869	48.3840	70.4466

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.7741	6.7555	16.6741
10 mph	0.0013	0.0000	0.0001	0.0019	0.4654	0.1722	12.6503	48.6974	61.9888
15 mph	0.0061	0.0003	0.0005	0.0013	0.4643	0.1633	6.6085	25.6961	32.9403
20 mph	0.0005	0.0000	0.0000	0.0015	0.7280	0.2368	6.9339	27.3755	35.2762
25 mph	0.0031	0.0002	0.0002	0.0046	3.4609	1.0858	18.9156	77.1307	100.6011
30 mph	0.0023	0.0002	0.0001	0.0041	2.7901	0.8523	10.7147	44.8663	59.2301
35 mph	0.0107	0.0009	0.0006	0.0040	2.3249	0.6932	6.3494	27.2720	36.6556
40 mph	-0.0018	-0.0002	-0.0001	0.0017	2.0639	0.6060	5.2790	23.2905	31.2390
45 mph	-0.0050	-0.0005	-0.0002	0.0024	3.6296	1.0563	3.3851	15.3517	23.4194
50 mph	-0.0042	-0.0004	-0.0002	0.0021	3.3243	0.9646	2.1376	9.8574	16.2812
55 mph	-0.0025	-0.0002	-0.0001	0.0019	2.9736	0.8590	0.4063	1.9209	6.1590
60 mph	-0.0011	-0.0001	0.0000	0.0011	1.6349	0.4700	21.9080	105.1885	129.2011
65 mph	-0.0009	-0.0001	0.0000	0.0003	0.6000	0.1725	0.0000	0.0000	0.7718
70 mph	-0.0175	-0.0017	-0.0008	0.0071	25.7617	7.7524	0.0000	0.0000	33.5013
total	-0.0090	-0.0014	0.0001	0.0341	54.1847	17.2657	99.0625	413.4025	583.9391

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.04	2.21	3.82	6.85	16.91
10 mph	0.07	0.02	0.04	0.16	0.59	0.19	12.73	48.83	62.64
15 mph	0.39	0.08	0.22	0.14	0.59	0.18	6.67	25.80	34.07
20 mph	0.03	0.01	0.02	0.20	0.91	0.27	7.04	27.54	36.02
25 mph	0.23	0.05	0.13	0.67	4.27	1.21	19.36	77.84	103.74
30 mph	0.16	0.03	0.09	0.63	3.37	0.94	11.07	45.43	61.73
35 mph	0.77	0.15	0.43	0.63	2.75	0.76	6.63	27.71	39.83
40 mph	-0.12	-0.02	-0.07	0.28	2.41	0.66	5.57	23.76	32.46
45 mph	-0.34	-0.07	-0.19	0.41	4.20	1.14	3.62	15.72	24.49
50 mph	-0.28	-0.06	-0.16	0.36	3.82	1.04	2.31	10.14	17.18
55 mph	-0.17	-0.03	-0.09	0.35	3.42	0.92	0.45	1.99	6.83
60 mph	-0.08	-0.02	-0.04	0.20	1.88	0.51	24.30	109.02	135.77
65 mph	-0.06	-0.01	-0.03	0.06	0.68	0.18	0.00	0.00	0.81
70 mph	-1.42	-0.29	-0.79	1.44	27.85	8.04	0.00	0.00	34.83
total	-0.82	-0.17	-0.45	5.53	60.78	18.24	103.56	420.63	**607.31**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	124.4483	127.5595	318.3050	265.7938
10 mph	0.8342	1.8852	1.0329	1.5242	1.6491	0.5168	1.4643	48.7806
15 mph	0.7621	1.6847	0.9389	1.3700	1.3665	0.4410	1.3147	44.2787
20 mph	0.6952	1.5094	0.8566	1.2475	1.1722	0.3904	1.1917	40.6098
25 mph	0.6334	1.3434	0.7801	1.1396	1.0226	0.3470	1.0873	37.2076
30 mph	0.5786	1.2041	0.7132	1.0480	0.9137	0.3134	0.9976	34.2317
35 mph	0.5298	1.0843	0.6538	0.9702	0.8379	0.2882	0.9197	31.6221
40 mph	0.4895	0.9986	0.6042	0.8994	0.7899	0.2697	0.8534	29.2893
45 mph	0.4550	0.9330	0.5613	0.8354	0.7608	0.2554	0.7964	27.1820
50 mph	0.4235	0.8729	0.5220	0.7826	0.7512	0.2447	0.7433	25.2918
55 mph	0.3960	0.8303	0.4893	0.7370	0.7725	0.2425	0.7016	23.6550
60 mph	0.3716	0.7925	0.4588	0.6945	0.8234	0.2456	0.6691	22.1485
65 mph	0.3475	0.7484	0.4295	0.6611	0.9259	0.2599		
70 mph	0.3314	0.6885	0.4068	0.6759	0.8817	0.2368		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2697	2.0572
10 mph	2.2519	2.4137	1.8620	2.5084	2.3491	2.2520	1.0309	2.8106
15 mph	1.1202	1.5176	0.9138	1.2314	1.2440	1.1438	0.7267	1.9814
20 mph	0.4584	0.9766	0.3589	0.4844	0.6147	0.5060	0.5254	1.4300
25 mph	0.2847	0.7494	0.2166	0.2932	0.4263	0.3305	0.3853	1.0501
30 mph	0.2182	0.6262	0.1639	0.2223	0.3518	0.2635	0.2842	0.7737
35 mph	0.1759	0.5477	0.1305	0.1776	0.3125	0.2245	0.2095	0.5699
40 mph	0.1484	0.5150	0.1081	0.1474	0.2899	0.2000	0.1545	0.4204
45 mph	0.1303	0.5165	0.0923	0.1261	0.2791	0.1849	0.1139	0.3101
50 mph	0.1178	0.5395	0.0805	0.1106	0.2852	0.1807	0.0841	0.2288
55 mph	0.1100	0.5986	0.0719	0.0992	0.2995	0.1814	0.0621	0.1692
60 mph	0.1116	0.7027	0.0690	0.0957	0.3348	0.1949	0.0534	0.1454
65 mph	0.1183	0.8376	0.0701	0.0985	0.4331	0.2417		
70 mph	0.1131	0.7928	0.0692	0.1024	0.8203	0.4490		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.9303	0.1678	0.4599	1.5412	0.5875	0.0621	0.3122	1.4635	5.5246
15 mph	0.1889	0.0333	0.0929	0.3078	0.1082	0.0118	0.0801	0.3796	1.2026
20 mph	1.0337	0.1791	0.5086	1.6819	0.5568	0.0626	0.2178	1.0443	5.2848
25 mph	3.9240	0.6644	1.9298	6.4016	2.0238	0.2318	0.8280	3.9868	19.9902
30 mph	3.4413	0.5717	1.6936	5.6517	1.7361	0.2010	0.6077	2.9343	16.8374
35 mph	1.8381	0.3003	0.9057	3.0520	0.9287	0.1078	0.2241	1.0843	8.4409
40 mph	0.7278	0.1185	0.3587	1.2126	0.3752	0.0432	0.1820	0.8787	3.8967
45 mph	0.4511	0.0738	0.2222	0.7508	0.2409	0.0273	0.2183	1.0485	3.0329
50 mph	0.4198	0.0691	0.2066	0.7034	0.2379	0.0262	0.2491	1.1924	3.1043
55 mph	0.6870	0.1150	0.3389	1.1593	0.4281	0.0454	0.0214	0.1014	2.8964
60 mph	0.4145	0.0705	0.2043	0.7023	0.2933	0.0295	0.0815	0.3797	2.1757
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	14.0564	2.3635	6.9211	23.1645	7.5164	0.8487	3.0223	14.4935	72.3865

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.5562	-0.0964	-0.2736	0.3447	0.1950	0.0219	0.1701	0.8154	0.6209
25 mph	-0.7601	-0.1287	-0.3738	0.4723	0.2552	0.0292	0.3104	1.4942	1.2987
30 mph	-1.1573	-0.1922	-0.5695	0.7239	0.3800	0.0440	0.7118	3.4368	3.3776
35 mph	-1.6954	-0.2770	-0.8354	1.0722	0.5576	0.0647	0.7875	3.8098	3.4841
40 mph	-2.3496	-0.3826	-1.1581	1.4910	0.7884	0.0909	0.8525	4.1169	3.4493
45 mph	-4.7327	-0.7746	-2.3309	3.0004	1.6455	0.1864	0.5683	2.7290	0.2914
50 mph	-3.7268	-0.6132	-1.8342	2.3784	1.3748	0.1511	0.3183	1.5236	-0.4281
55 mph	-2.5349	-0.4242	-1.2504	1.6291	1.0281	0.1089	0.1001	0.4750	-0.8683
60 mph	-1.1893	-0.2025	-0.5863	0.7676	0.5479	0.0552	6.6841	31.1316	37.2084
65 mph	-0.5560	-0.0956	-0.2744	0.3653	0.3081	0.0292	0.0000	0.0000	-0.2234
70 mph	-12.4619	-2.0664	-6.1075	8.7764	6.8942	0.6249	0.0000	0.0000	-4.3404
total	-31.7203	-5.2534	-15.5942	21.0214	13.9747	1.4065	10.5030	49.5324	43.8702

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.0507	0.9530	20.0988
15 mph	5.0402	0.8893	2.4791	1.0653	0.4543	0.0495	0.1585	0.7510	10.8871
25 mph	0.0000	0.0000	0.0000	0.0000	0.8202	0.0939	0.5318	2.5605	4.0065
35 mph	10.3125	1.6848	5.0812	2.1704	0.0000	0.0000	0.0000	0.0000	19.2490
total	15.3527	2.5741	7.5603	3.2357	9.5178	2.9953	8.7410	4.2645	54.2414

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.0507	0.9530	20.0988
10 mph	0.9303	0.1678	0.4599	1.5412	0.5875	0.0621	0.3122	1.4635	5.5246
15 mph	5.2291	0.9227	2.5720	1.3731	0.5625	0.0613	0.2386	1.1305	12.0897
20 mph	0.4775	0.0828	0.2349	2.0265	0.7518	0.0845	0.3879	1.8598	5.9057
25 mph	3.1639	0.5357	1.5560	6.8739	3.0992	0.3550	1.6702	8.0416	25.2954
30 mph	2.2840	0.3794	1.1241	6.3756	2.1161	0.2450	1.3196	6.3712	20.2149
35 mph	10.4552	1.7081	5.1515	6.2946	1.4862	0.1726	1.0116	4.8940	31.1739
40 mph	-1.6218	-0.2641	-0.7994	2.7036	1.1636	0.1341	1.0345	4.9956	7.3461
45 mph	-4.2817	-0.7007	-2.1088	3.7513	1.8864	0.2137	0.7866	3.7776	3.3243
50 mph	-3.3070	-0.5441	-1.6276	3.0818	1.6126	0.1773	0.5673	2.7160	2.6763
55 mph	-1.8479	-0.3092	-0.9115	2.7883	1.4562	0.1543	0.1215	0.5764	2.0280
60 mph	-0.7749	-0.1319	-0.3820	1.4698	0.8412	0.0847	6.7656	31.5113	39.3840
65 mph	-0.5560	-0.0956	-0.2744	0.3653	0.3081	0.0292	0.0000	0.0000	-0.2234
70 mph	-12.4619	-2.0664	-6.1075	8.7764	6.8942	0.6249	0.0000	0.0000	-4.3404
total	-2.3112	-0.3158	-1.1127	47.4216	31.0089	5.2505	22.2664	68.2904	170.4980

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0292	0.0002	0.0017	0.0547	0.9078	0.5334	1.7328	8.7921	12.0519
15 mph	0.0032	0.0000	0.0002	0.0060	0.1068	0.0602	0.3490	1.7709	2.2963
20 mph	0.0079	0.0001	0.0004	0.0141	0.3167	0.1598	0.7569	3.8343	5.0904
25 mph	0.0205	0.0004	0.0011	0.0355	0.9153	0.4349	2.3130	11.7321	15.4528
30 mph	0.0151	0.0003	0.0008	0.0259	0.7252	0.3329	1.3646	6.9149	9.3796
35 mph	0.0071	0.0001	0.0004	0.0121	0.3757	0.1654	0.4025	2.0375	3.0009
40 mph	0.0026	0.0001	0.0001	0.0043	0.1494	0.0631	0.2596	1.3150	1.7942
45 mph	0.0015	0.0000	0.0001	0.0024	0.0959	0.0389	0.2462	1.2473	1.6324
50 mph	0.0014	0.0000	0.0001	0.0021	0.0980	0.0380	0.2221	1.1249	1.4866
55 mph	0.0022	0.0001	0.0001	0.0034	0.1801	0.0668	0.0149	0.0756	0.3432
60 mph	0.0014	0.0001	0.0001	0.0021	0.1294	0.0462	0.0513	0.2599	0.4903
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0922	0.0014	0.0050	0.1626	4.0003	1.9396	7.7129	39.1045	53.0186

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0043	-0.0001	-0.0002	0.0029	0.1109	0.0560	0.5910	2.9940	3.7502
25 mph	-0.0040	-0.0001	-0.0002	0.0026	0.1154	0.0548	0.8669	4.3972	5.4327
30 mph	-0.0051	-0.0001	-0.0003	0.0033	0.1587	0.0729	1.5983	8.0991	9.9268
35 mph	-0.0065	-0.0001	-0.0003	0.0042	0.2256	0.0993	1.4142	7.1594	8.8958
40 mph	-0.0083	-0.0002	-0.0004	0.0053	0.3139	0.1327	1.2163	6.1608	7.8201
45 mph	-0.0158	-0.0004	-0.0008	0.0098	0.6549	0.2658	0.6408	3.2464	4.8008
50 mph	-0.0121	-0.0004	-0.0006	0.0073	0.5662	0.2198	0.2838	1.4373	2.5014
55 mph	-0.0082	-0.0003	-0.0004	0.0047	0.4325	0.1605	0.0698	0.3543	1.0130
60 mph	-0.0042	-0.0002	-0.0002	0.0023	0.2417	0.0862	4.2024	21.3075	25.8356
65 mph	-0.0022	-0.0001	-0.0001	0.0012	0.1563	0.0535	0.0000	0.0000	0.2086
70 mph	-0.0495	-0.0023	-0.0021	0.0287	6.9584	2.3342	0.0000	0.0000	9.2674
total	-0.1200	-0.0042	-0.0056	0.0722	9.9347	3.5357	10.8837	55.1559	79.4525

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2531	0.7633	4.0644
15 mph	0.0862	0.0008	0.0050	0.0207	0.4487	0.2528	0.6904	3.5038	5.0082
25 mph	0.0000	0.0000	0.0000	0.0000	0.3709	0.1763	1.4856	7.5351	9.5678
35 mph	0.0398	0.0008	0.0021	0.0086	0.0000	0.0000	0.0000	0.0000	0.0513
total	0.1260	0.0016	0.0070	0.0292	2.7094	1.5872	2.4291	11.8021	18.6918

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2531	0.7633	4.0644
10 mph	0.0292	0.0002	0.0017	0.0547	0.9078	0.5334	1.7328	8.7921	12.0519
15 mph	0.0894	0.0008	0.0051	0.0266	0.5555	0.3130	1.0394	5.2746	7.3045
20 mph	0.0037	0.0001	0.0002	0.0170	0.4277	0.2157	1.3480	6.8283	8.8406
25 mph	0.0165	0.0003	0.0009	0.0381	1.4016	0.6660	4.6655	23.6643	30.4533
30 mph	0.0100	0.0002	0.0005	0.0292	0.8839	0.4057	2.9629	15.0139	19.3064
35 mph	0.0404	0.0008	0.0021	0.0249	0.6014	0.2648	1.8167	9.1970	11.9480
40 mph	-0.0057	-0.0001	-0.0003	0.0096	0.4633	0.1958	1.4760	7.4758	9.6143
45 mph	-0.0143	-0.0004	-0.0007	0.0122	0.7508	0.3048	0.8870	4.4937	6.4331
50 mph	-0.0107	-0.0003	-0.0005	0.0094	0.6642	0.2578	0.5060	2.5621	3.9880
55 mph	-0.0060	-0.0002	-0.0003	0.0081	0.6126	0.2274	0.0847	0.4300	1.3563
60 mph	-0.0027	-0.0001	-0.0001	0.0044	0.3710	0.1324	4.2537	21.5674	26.3260
65 mph	-0.0022	-0.0001	-0.0001	0.0012	0.1563	0.0535	0.0000	0.0000	0.2086
70 mph	-0.0495	-0.0023	-0.0021	0.0287	6.9584	2.3342	0.0000	0.0000	9.2674
total	0.0982	-0.0012	0.0064	0.2640	16.6444	7.0625	21.0258	106.0625	151.1628

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	10.13	4.01	8.30	1.72	24.16
10 mph	0.96	0.17	0.46	1.60	1.50	0.60	2.05	10.26	17.58
15 mph	5.32	0.92	2.58	1.40	1.12	0.37	1.28	6.41	19.39
20 mph	0.48	0.08	0.24	2.04	1.18	0.30	1.74	8.69	14.75
25 mph	3.18	0.54	1.56	6.91	4.50	1.02	6.34	31.71	55.75
30 mph	2.29	0.38	1.12	6.40	3.00	0.65	4.28	21.39	39.52
35 mph	10.50	1.71	5.15	6.32	2.09	0.44	2.83	14.09	43.12
40 mph	-1.63	-0.26	-0.80	2.71	1.63	0.33	2.51	12.47	16.96
45 mph	-4.30	-0.70	-2.11	3.76	2.64	0.52	1.67	8.27	9.76
50 mph	-3.32	-0.54	-1.63	3.09	2.28	0.44	1.07	5.28	6.66
55 mph	-1.85	-0.31	-0.91	2.80	2.07	0.38	0.21	1.01	3.38
60 mph	-0.78	-0.13	-0.38	1.47	1.21	0.22	11.02	53.08	65.71
65 mph	-0.56	-0.10	-0.27	0.37	0.46	0.08	0.00	0.00	-0.01
70 mph	-12.51	-2.07	-6.11	8.81	13.85	2.96	0.00	0.00	4.93
total	-2.21	-0.32	-1.11	47.69	47.65	12.31	43.29	174.35	**321.66**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0402	0.0337	0.0337	0.0330
10 mph	0.0075	0.0098	0.0075	0.0075	0.0051	0.0042	0.0043	0.0041
15 mph	0.0050	0.0066	0.0050	0.0050	0.0034	0.0028	0.0028	0.0027
20 mph	0.0035	0.0047	0.0035	0.0035	0.0024	0.0020	0.0020	0.0019
25 mph	0.0026	0.0035	0.0026	0.0026	0.0018	0.0015	0.0015	0.0014
30 mph	0.0020	0.0027	0.0020	0.0020	0.0014	0.0011	0.0011	0.0011
35 mph	0.0017	0.0022	0.0017	0.0017	0.0012	0.0009	0.0009	0.0009
40 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
45 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
50 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
55 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
60 mph	0.0014	0.0018	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
65 mph	0.0016	0.0020	0.0016	0.0016	0.0011	0.0009		
70 mph	0.0017	0.0021	0.0017	0.0017	0.0012	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.6569	0.6555	0.0041	0.0097
10 mph	0.0178	0.2161	0.0101	0.0090	0.0371	0.0270	0.0057	0.0117
15 mph	0.0142	0.1606	0.0085	0.0074	0.0275	0.0214	0.0048	0.0099
20 mph	0.0111	0.1227	0.0072	0.0061	0.0226	0.0178	0.0043	0.0086
25 mph	0.0088	0.0964	0.0060	0.0051	0.0186	0.0149	0.0039	0.0078
30 mph	0.0073	0.0789	0.0053	0.0044	0.0162	0.0131	0.0035	0.0072
35 mph	0.0062	0.0671	0.0047	0.0039	0.0148	0.0119	0.0033	0.0066
40 mph	0.0056	0.0609	0.0043	0.0036	0.0137	0.0110	0.0031	0.0062
45 mph	0.0053	0.0585	0.0040	0.0034	0.0130	0.0103	0.0029	0.0058
50 mph	0.0052	0.0582	0.0038	0.0032	0.0127	0.0099	0.0027	0.0055
55 mph	0.0052	0.0608	0.0036	0.0031	0.0126	0.0096	0.0026	0.0052
60 mph	0.0055	0.0664	0.0036	0.0032	0.0130	0.0097	0.0025	0.0051
65 mph	0.0058	0.0734	0.0036	0.0033	0.0147	0.0105		
70 mph	0.0048	0.0716	0.0036	0.0035	0.0228	0.0149		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0083	0.0009	0.0033	0.0076	0.0018	0.0005	0.0009	0.0001	0.0235
15 mph	0.0012	0.0001	0.0005	0.0011	0.0003	0.0001	0.0002	0.0000	0.0035
20 mph	0.0052	0.0006	0.0021	0.0047	0.0012	0.0003	0.0004	0.0000	0.0144
25 mph	0.0160	0.0017	0.0064	0.0146	0.0036	0.0010	0.0011	0.0002	0.0445
30 mph	0.0120	0.0013	0.0048	0.0109	0.0027	0.0007	0.0007	0.0001	0.0331
35 mph	0.0057	0.0006	0.0023	0.0052	0.0013	0.0004	0.0002	0.0000	0.0158
40 mph	0.0021	0.0002	0.0009	0.0019	0.0005	0.0001	0.0002	0.0000	0.0060
45 mph	0.0013	0.0001	0.0005	0.0012	0.0003	0.0001	0.0002	0.0000	0.0037
50 mph	0.0013	0.0001	0.0005	0.0011	0.0003	0.0001	0.0002	0.0000	0.0037
55 mph	0.0022	0.0002	0.0009	0.0020	0.0005	0.0001	0.0000	0.0000	0.0061
60 mph	0.0015	0.0002	0.0006	0.0014	0.0004	0.0001	0.0001	0.0000	0.0043
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0568	0.0061	0.0228	0.0518	0.0128	0.0035	0.0042	0.0006	0.1586

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0028	-0.0003	-0.0011	0.0010	0.0004	0.0001	0.0003	0.0000	-0.0024
25 mph	-0.0031	-0.0003	-0.0012	0.0011	0.0005	0.0001	0.0004	0.0001	-0.0025
30 mph	-0.0040	-0.0004	-0.0016	0.0014	0.0006	0.0002	0.0008	0.0001	-0.0030
35 mph	-0.0053	-0.0006	-0.0021	0.0018	0.0008	0.0002	0.0008	0.0001	-0.0042
40 mph	-0.0069	-0.0007	-0.0028	0.0024	0.0010	0.0003	0.0008	0.0001	-0.0058
45 mph	-0.0136	-0.0015	-0.0055	0.0047	0.0020	0.0005	0.0005	0.0001	-0.0127
50 mph	-0.0111	-0.0012	-0.0045	0.0039	0.0017	0.0004	0.0003	0.0000	-0.0105
55 mph	-0.0082	-0.0009	-0.0033	0.0028	0.0012	0.0003	0.0001	0.0000	-0.0079
60 mph	-0.0044	-0.0005	-0.0018	0.0015	0.0007	0.0002	0.0079	0.0011	0.0047
65 mph	-0.0025	-0.0003	-0.0010	0.0009	0.0004	0.0001	0.0000	0.0000	-0.0024
70 mph	-0.0635	-0.0064	-0.0255	0.0216	0.0093	0.0025	0.0000	0.0000	-0.0620
total	-0.1255	-0.0130	-0.0503	0.0430	0.0185	0.0050	0.0120	0.0016	-0.1086

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
15 mph	0.0328	0.0035	0.0132	0.0039	0.0011	0.0003	0.0003	0.0000	0.0553
25 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0004	0.0007	0.0001	0.0027
35 mph	0.0322	0.0035	0.0129	0.0037	0.0000	0.0000	0.0000	0.0000	0.0522
total	0.0650	0.0070	0.0261	0.0076	0.0053	0.0015	0.0019	0.0003	0.1145

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
10 mph	0.0083	0.0009	0.0033	0.0076	0.0018	0.0005	0.0009	0.0001	0.0235
15 mph	0.0341	0.0036	0.0137	0.0050	0.0014	0.0004	0.0005	0.0001	0.0588
20 mph	0.0024	0.0003	0.0010	0.0057	0.0016	0.0004	0.0006	0.0001	0.0120
25 mph	0.0129	0.0014	0.0052	0.0157	0.0055	0.0015	0.0023	0.0003	0.0446
30 mph	0.0079	0.0009	0.0032	0.0123	0.0033	0.0009	0.0015	0.0002	0.0301
35 mph	0.0326	0.0035	0.0131	0.0107	0.0021	0.0006	0.0010	0.0001	0.0637
40 mph	-0.0047	-0.0005	-0.0019	0.0043	0.0015	0.0004	0.0010	0.0001	0.0002
45 mph	-0.0123	-0.0013	-0.0049	0.0059	0.0023	0.0006	0.0007	0.0001	-0.0089
50 mph	-0.0099	-0.0011	-0.0040	0.0050	0.0019	0.0005	0.0006	0.0001	-0.0068
55 mph	-0.0060	-0.0006	-0.0024	0.0049	0.0017	0.0005	0.0001	0.0000	-0.0018
60 mph	-0.0029	-0.0003	-0.0012	0.0029	0.0010	0.0003	0.0080	0.0011	0.0090
65 mph	-0.0025	-0.0003	-0.0010	0.0009	0.0004	0.0001	0.0000	0.0000	-0.0024
70 mph	-0.0635	-0.0064	-0.0255	0.0216	0.0093	0.0025	0.0000	0.0000	-0.0620
total	-0.0036	0.0000	-0.0014	0.1024	0.0365	0.0100	0.0182	0.0025	0.1645

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0002	0.0144	0.0064	0.0096	0.0367	0.0674
15 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0011	0.0023	0.0089	0.0147
20 mph	0.0002	0.0000	0.0000	0.0002	0.0116	0.0056	0.0061	0.0231	0.0468
25 mph	0.0006	0.0000	0.0000	0.0006	0.0400	0.0196	0.0231	0.0872	0.1714
30 mph	0.0005	0.0000	0.0000	0.0005	0.0335	0.0165	0.0170	0.0639	0.1320
35 mph	0.0002	0.0000	0.0000	0.0003	0.0178	0.0088	0.0063	0.0236	0.0570
40 mph	0.0001	0.0000	0.0000	0.0001	0.0071	0.0035	0.0052	0.0193	0.0352
45 mph	0.0001	0.0000	0.0000	0.0001	0.0045	0.0022	0.0062	0.0233	0.0363
50 mph	0.0001	0.0000	0.0000	0.0001	0.0044	0.0021	0.0072	0.0270	0.0408
55 mph	0.0001	0.0000	0.0000	0.0001	0.0076	0.0035	0.0006	0.0023	0.0143
60 mph	0.0001	0.0000	0.0000	0.0001	0.0050	0.0023	0.0024	0.0092	0.0190
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0022	0.0002	0.0001	0.0022	0.1481	0.0716	0.0862	0.3245	0.6351

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0001	0.0000	0.0000	0.0000	0.0041	0.0020	0.0048	0.0180	0.0288
25 mph	-0.0001	0.0000	0.0000	0.0000	0.0050	0.0025	0.0087	0.0327	0.0488
30 mph	-0.0002	0.0000	0.0000	0.0001	0.0073	0.0036	0.0199	0.0749	0.1056
35 mph	-0.0002	0.0000	0.0000	0.0001	0.0107	0.0053	0.0222	0.0830	0.1210
40 mph	-0.0003	0.0000	0.0000	0.0001	0.0149	0.0073	0.0242	0.0904	0.1366
45 mph	-0.0006	0.0000	0.0000	0.0003	0.0305	0.0148	0.0162	0.0608	0.1218
50 mph	-0.0005	0.0000	0.0000	0.0002	0.0252	0.0120	0.0092	0.0344	0.0805
55 mph	-0.0004	0.0000	0.0000	0.0001	0.0182	0.0085	0.0029	0.0110	0.0403
60 mph	-0.0002	0.0000	0.0000	0.0001	0.0094	0.0043	0.2006	0.7506	0.9646
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0053	0.0023	0.0000	0.0000	0.0076
70 mph	-0.0021	-0.0002	-0.0001	0.0010	0.1938	0.0775	0.0000	0.0000	0.2698
total	-0.0049	-0.0004	-0.0003	0.0021	0.3243	0.1400	0.3087	1.1558	1.9253

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0008	0.0036	0.0805
15 mph	0.0011	0.0001	0.0000	0.0001	0.0099	0.0047	0.0046	0.0175	0.0381
25 mph	0.0000	0.0000	0.0000	0.0000	0.0162	0.0080	0.0149	0.0560	0.0951
35 mph	0.0014	0.0001	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0018
total	0.0025	0.0002	0.0001	0.0003	0.0733	0.0415	0.0203	0.0772	0.2154

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0008	0.0036	0.0805
10 mph	0.0002	0.0000	0.0000	0.0002	0.0144	0.0064	0.0096	0.0367	0.0674
15 mph	0.0011	0.0001	0.0000	0.0002	0.0123	0.0058	0.0069	0.0264	0.0528
20 mph	0.0001	0.0000	0.0000	0.0002	0.0157	0.0076	0.0109	0.0411	0.0756
25 mph	0.0005	0.0000	0.0000	0.0007	0.0613	0.0301	0.0467	0.1760	0.3152
30 mph	0.0003	0.0000	0.0000	0.0006	0.0408	0.0202	0.0369	0.1388	0.2377
35 mph	0.0014	0.0001	0.0001	0.0005	0.0284	0.0140	0.0285	0.1067	0.1798
40 mph	-0.0002	0.0000	0.0000	0.0002	0.0220	0.0108	0.0293	0.1098	0.1718
45 mph	-0.0006	0.0000	0.0000	0.0003	0.0349	0.0170	0.0225	0.0841	0.1582
50 mph	-0.0005	0.0000	0.0000	0.0003	0.0296	0.0141	0.0165	0.0614	0.1213
55 mph	-0.0003	0.0000	0.0000	0.0003	0.0257	0.0120	0.0036	0.0133	0.0545
60 mph	-0.0001	0.0000	0.0000	0.0001	0.0144	0.0066	0.2030	0.7597	0.9836
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0053	0.0023	0.0000	0.0000	0.0076
70 mph	-0.0021	-0.0002	-0.0001	0.0010	0.1938	0.0775	0.0000	0.0000	0.2698
total	-0.0002	-0.0001	0.0000	0.0046	0.5457	0.2532	0.4151	1.5575	2.7759

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.01	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.09
15 mph	0.04	0.00	0.01	0.01	0.01	0.01	0.01	0.03	0.11
20 mph	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.09
25 mph	0.01	0.00	0.01	0.02	0.07	0.03	0.05	0.18	0.36
30 mph	0.01	0.00	0.00	0.01	0.04	0.02	0.04	0.14	0.27
35 mph	0.03	0.00	0.01	0.01	0.03	0.01	0.03	0.11	0.24
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.11	0.17
45 mph	-0.01	0.00	0.00	0.01	0.04	0.02	0.02	0.08	0.15
50 mph	-0.01	0.00	0.00	0.01	0.03	0.01	0.02	0.06	0.11
55 mph	-0.01	0.00	0.00	0.01	0.03	0.01	0.00	0.01	0.05
60 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.21	0.76	0.99
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
70 mph	-0.07	-0.01	-0.03	0.02	0.20	0.08	0.00	0.00	0.21
total	0.00	0.00	0.00	0.11	0.58	0.26	0.43	1.56	**2.94**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.11	0.09	0.44	1.01	0.67	0.26	0.43	0.04
Diesel	0.01	0.00	0.00	0.02	0.76	0.53	3.42	4.37
Electric	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.20	0.09	0.44	1.03	1.43	0.79	3.85	4.40

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-3.58	-0.29	-1.43	1.24	1.40	0.55	2.03	0.16
Diesel	-0.04	0.00	0.00	0.03	1.60	1.12	16.01	20.46
Electric	-0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-3.88	-0.29	-1.43	1.26	3.00	1.66	18.04	20.63

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.17	0.09	0.47	0.13	0.10	0.04	0.09	0.01
Diesel	0.01	0.00	0.00	0.00	0.11	0.08	0.68	0.87
Electric	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.26	0.09	0.47	0.14	0.20	0.11	0.77	0.88

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-1.30	-0.10	-0.52	2.38	2.17	0.84	2.55	0.21	6.22
Diesel	-0.02	0.00	0.00	0.05	2.46	1.73	20.11	25.71	50.05
Electric	-0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.10
Total	-1.42	-0.10	-0.52	2.43	4.63	2.57	22.67	25.91	**56.17**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	241.72
Internal	14.92
Total	**256.64**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0370	0.0310	0.0310	0.0304
10 mph	0.0069	0.0090	0.0069	0.0069	0.0047	0.0039	0.0039	0.0038
15 mph	0.0046	0.0061	0.0046	0.0046	0.0032	0.0026	0.0026	0.0025
20 mph	0.0032	0.0043	0.0032	0.0032	0.0022	0.0018	0.0018	0.0018
25 mph	0.0024	0.0032	0.0024	0.0024	0.0017	0.0014	0.0013	0.0013
30 mph	0.0018	0.0025	0.0019	0.0019	0.0013	0.0011	0.0011	0.0010
35 mph	0.0015	0.0020	0.0015	0.0015	0.0011	0.0009	0.0009	0.0008
40 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0008	0.0008	0.0007
45 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
50 mph	0.0012	0.0016	0.0012	0.0012	0.0008	0.0007	0.0007	0.0006
55 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
60 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
65 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008		
70 mph	0.0016	0.0020	0.0016	0.0015	0.0011	0.0009		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.6285	0.6272	0.0039	0.0093
10 mph	0.0170	0.2067	0.0096	0.0086	0.0355	0.0258	0.0054	0.0112
15 mph	0.0135	0.1537	0.0082	0.0071	0.0263	0.0204	0.0046	0.0095
20 mph	0.0106	0.1174	0.0068	0.0058	0.0216	0.0170	0.0041	0.0082
25 mph	0.0085	0.0923	0.0058	0.0049	0.0178	0.0143	0.0037	0.0075
30 mph	0.0070	0.0755	0.0050	0.0042	0.0155	0.0125	0.0034	0.0068
35 mph	0.0059	0.0642	0.0045	0.0037	0.0141	0.0114	0.0031	0.0063
40 mph	0.0054	0.0583	0.0041	0.0034	0.0131	0.0105	0.0029	0.0059
45 mph	0.0051	0.0560	0.0038	0.0032	0.0124	0.0099	0.0028	0.0056
50 mph	0.0049	0.0557	0.0036	0.0031	0.0121	0.0095	0.0026	0.0052
55 mph	0.0049	0.0581	0.0035	0.0030	0.0120	0.0092	0.0025	0.0050
60 mph	0.0052	0.0635	0.0034	0.0030	0.0124	0.0092	0.0024	0.0049
65 mph	0.0055	0.0702	0.0035	0.0032	0.0141	0.0101		
70 mph	0.0046	0.0685	0.0034	0.0033	0.0219	0.0143		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0077	0.0008	0.0031	0.0070	0.0017	0.0005	0.0008	0.0001	0.0216
15 mph	0.0011	0.0001	0.0005	0.0010	0.0003	0.0001	0.0002	0.0000	0.0032
20 mph	0.0048	0.0005	0.0019	0.0044	0.0011	0.0003	0.0003	0.0000	0.0133
25 mph	0.0147	0.0016	0.0059	0.0134	0.0033	0.0009	0.0010	0.0001	0.0409
30 mph	0.0110	0.0012	0.0044	0.0100	0.0025	0.0007	0.0006	0.0001	0.0305
35 mph	0.0053	0.0006	0.0021	0.0048	0.0012	0.0003	0.0002	0.0000	0.0145
40 mph	0.0020	0.0002	0.0008	0.0018	0.0004	0.0001	0.0002	0.0000	0.0055
45 mph	0.0012	0.0001	0.0005	0.0011	0.0003	0.0001	0.0002	0.0000	0.0034
50 mph	0.0012	0.0001	0.0005	0.0010	0.0003	0.0001	0.0002	0.0000	0.0034
55 mph	0.0021	0.0002	0.0008	0.0019	0.0005	0.0001	0.0000	0.0000	0.0056
60 mph	0.0014	0.0001	0.0006	0.0013	0.0003	0.0001	0.0001	0.0000	0.0039
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0523	0.0056	0.0210	0.0476	0.0117	0.0032	0.0039	0.0005	0.1458

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0026	-0.0003	-0.0010	0.0009	0.0004	0.0001	0.0003	0.0000	-0.0022
25 mph	-0.0028	-0.0003	-0.0011	0.0010	0.0004	0.0001	0.0004	0.0001	-0.0023
30 mph	-0.0037	-0.0004	-0.0015	0.0013	0.0005	0.0001	0.0008	0.0001	-0.0028
35 mph	-0.0049	-0.0005	-0.0019	0.0017	0.0007	0.0002	0.0007	0.0001	-0.0039
40 mph	-0.0063	-0.0007	-0.0025	0.0022	0.0009	0.0003	0.0008	0.0001	-0.0053
45 mph	-0.0125	-0.0013	-0.0050	0.0043	0.0019	0.0005	0.0005	0.0001	-0.0116
50 mph	-0.0102	-0.0011	-0.0041	0.0035	0.0015	0.0004	0.0003	0.0000	-0.0096
55 mph	-0.0076	-0.0008	-0.0030	0.0026	0.0011	0.0003	0.0001	0.0000	-0.0072
60 mph	-0.0041	-0.0004	-0.0016	0.0014	0.0006	0.0002	0.0073	0.0010	0.0043
65 mph	-0.0023	-0.0002	-0.0009	0.0008	0.0003	0.0001	0.0000	0.0000	-0.0022
70 mph	-0.0584	-0.0059	-0.0234	0.0198	0.0085	0.0023	0.0000	0.0000	-0.0570
total	-0.1154	-0.0120	-0.0462	0.0396	0.0170	0.0046	0.0111	0.0015	-0.0998

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
15 mph	0.0302	0.0032	0.0121	0.0036	0.0011	0.0003	0.0003	0.0000	0.0508
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0004	0.0007	0.0001	0.0024
35 mph	0.0296	0.0032	0.0118	0.0034	0.0000	0.0000	0.0000	0.0000	0.0480
total	0.0598	0.0064	0.0240	0.0070	0.0048	0.0014	0.0018	0.0002	0.1053

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
10 mph	0.0077	0.0008	0.0031	0.0070	0.0017	0.0005	0.0008	0.0001	0.0216
15 mph	0.0313	0.0033	0.0126	0.0046	0.0013	0.0004	0.0005	0.0001	0.0540
20 mph	0.0022	0.0002	0.0009	0.0052	0.0014	0.0004	0.0006	0.0001	0.0111
25 mph	0.0118	0.0013	0.0047	0.0144	0.0050	0.0014	0.0021	0.0003	0.0410
30 mph	0.0073	0.0008	0.0029	0.0113	0.0030	0.0008	0.0014	0.0002	0.0277
35 mph	0.0300	0.0032	0.0120	0.0099	0.0019	0.0005	0.0010	0.0001	0.0586
40 mph	-0.0044	-0.0005	-0.0017	0.0040	0.0014	0.0004	0.0009	0.0001	0.0002
45 mph	-0.0113	-0.0012	-0.0045	0.0054	0.0021	0.0006	0.0007	0.0001	-0.0082
50 mph	-0.0091	-0.0010	-0.0036	0.0046	0.0018	0.0005	0.0005	0.0001	-0.0063
55 mph	-0.0055	-0.0006	-0.0022	0.0045	0.0016	0.0004	0.0001	0.0000	-0.0017
60 mph	-0.0026	-0.0003	-0.0011	0.0027	0.0009	0.0003	0.0074	0.0010	0.0083
65 mph	-0.0023	-0.0002	-0.0009	0.0008	0.0003	0.0001	0.0000	0.0000	-0.0022
70 mph	-0.0584	-0.0059	-0.0234	0.0198	0.0085	0.0023	0.0000	0.0000	-0.0570
total	-0.0033	0.0000	-0.0013	0.0941	0.0335	0.0092	0.0167	0.0023	0.1512

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0002	0.0137	0.0061	0.0091	0.0351	0.0645
15 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0011	0.0022	0.0085	0.0141
20 mph	0.0002	0.0000	0.0000	0.0002	0.0111	0.0054	0.0059	0.0221	0.0448
25 mph	0.0006	0.0000	0.0000	0.0006	0.0383	0.0188	0.0221	0.0835	0.1640
30 mph	0.0005	0.0000	0.0000	0.0005	0.0320	0.0158	0.0163	0.0612	0.1263
35 mph	0.0002	0.0000	0.0000	0.0003	0.0170	0.0084	0.0060	0.0226	0.0546
40 mph	0.0001	0.0000	0.0000	0.0001	0.0068	0.0033	0.0049	0.0185	0.0337
45 mph	0.0001	0.0000	0.0000	0.0001	0.0043	0.0021	0.0060	0.0223	0.0348
50 mph	0.0001	0.0000	0.0000	0.0001	0.0042	0.0020	0.0069	0.0258	0.0390
55 mph	0.0001	0.0000	0.0000	0.0001	0.0072	0.0034	0.0006	0.0022	0.0137
60 mph	0.0001	0.0000	0.0000	0.0001	0.0048	0.0022	0.0023	0.0088	0.0182
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0022	0.0002	0.0001	0.0021	0.1417	0.0685	0.0824	0.3105	0.6076

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0001	0.0000	0.0000	0.0000	0.0039	0.0019	0.0046	0.0172	0.0275
25 mph	-0.0001	0.0000	0.0000	0.0000	0.0048	0.0024	0.0083	0.0313	0.0467
30 mph	-0.0002	0.0000	0.0000	0.0001	0.0070	0.0035	0.0191	0.0716	0.1011
35 mph	-0.0002	0.0000	0.0000	0.0001	0.0102	0.0050	0.0212	0.0794	0.1157
40 mph	-0.0003	0.0000	0.0000	0.0001	0.0142	0.0070	0.0231	0.0865	0.1306
45 mph	-0.0006	0.0000	0.0000	0.0002	0.0292	0.0142	0.0155	0.0581	0.1165
50 mph	-0.0005	0.0000	0.0000	0.0002	0.0241	0.0115	0.0088	0.0329	0.0770
55 mph	-0.0004	0.0000	0.0000	0.0001	0.0174	0.0081	0.0028	0.0105	0.0385
60 mph	-0.0002	0.0000	0.0000	0.0001	0.0089	0.0041	0.1919	0.7181	0.9229
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0051	0.0022	0.0000	0.0000	0.0072
70 mph	-0.0020	-0.0002	-0.0001	0.0009	0.1854	0.0741	0.0000	0.0000	0.2582
total	-0.0047	-0.0004	-0.0002	0.0020	0.3103	0.1340	0.2953	1.1058	1.8420

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0008	0.0035	0.0770
15 mph	0.0010	0.0001	0.0000	0.0001	0.0095	0.0045	0.0044	0.0168	0.0364
25 mph	0.0000	0.0000	0.0000	0.0000	0.0155	0.0076	0.0142	0.0536	0.0910
35 mph	0.0013	0.0001	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0017
total	0.0024	0.0002	0.0001	0.0003	0.0702	0.0398	0.0194	0.0738	0.2061

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0008	0.0035	0.0770
10 mph	0.0002	0.0000	0.0000	0.0002	0.0137	0.0061	0.0091	0.0351	0.0645
15 mph	0.0011	0.0001	0.0000	0.0002	0.0118	0.0056	0.0066	0.0252	0.0506
20 mph	0.0001	0.0000	0.0000	0.0002	0.0150	0.0073	0.0104	0.0393	0.0723
25 mph	0.0005	0.0000	0.0000	0.0006	0.0586	0.0288	0.0447	0.1684	0.3016
30 mph	0.0003	0.0000	0.0000	0.0006	0.0390	0.0193	0.0353	0.1328	0.2274
35 mph	0.0014	0.0001	0.0001	0.0005	0.0272	0.0134	0.0272	0.1021	0.1720
40 mph	-0.0002	0.0000	0.0000	0.0002	0.0210	0.0103	0.0281	0.1050	0.1643
45 mph	-0.0006	0.0000	0.0000	0.0003	0.0334	0.0162	0.0215	0.0805	0.1513
50 mph	-0.0004	0.0000	0.0000	0.0003	0.0283	0.0135	0.0157	0.0587	0.1160
55 mph	-0.0003	0.0000	0.0000	0.0002	0.0246	0.0115	0.0034	0.0127	0.0522
60 mph	-0.0001	0.0000	0.0000	0.0001	0.0137	0.0063	0.1942	0.7269	0.9411
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0051	0.0022	0.0000	0.0000	0.0072
70 mph	-0.0020	-0.0002	-0.0001	0.0009	0.1854	0.0741	0.0000	0.0000	0.2582
total	-0.0002	-0.0001	0.0000	0.0044	0.5221	0.2423	0.3972	1.4901	2.6558

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.01	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.09
15 mph	0.03	0.00	0.01	0.00	0.01	0.01	0.01	0.03	0.10
20 mph	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.08
25 mph	0.01	0.00	0.00	0.02	0.06	0.03	0.05	0.17	0.34
30 mph	0.01	0.00	0.00	0.01	0.04	0.02	0.04	0.13	0.26
35 mph	0.03	0.00	0.01	0.01	0.03	0.01	0.03	0.10	0.23
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.11	0.16
45 mph	-0.01	0.00	0.00	0.01	0.04	0.02	0.02	0.08	0.14
50 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.02	0.06	0.11
55 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.05
60 mph	0.00	0.00	0.00	0.00	0.01	0.01	0.20	0.73	0.95
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
70 mph	-0.06	-0.01	-0.02	0.02	0.19	0.08	0.00	0.00	0.20
total	0.00	0.00	0.00	0.10	0.56	0.25	0.41	1.49	**2.81**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.44	0.04	0.18	0.40	0.28	0.11	0.18	0.01
Diesel	0.01	0.00	0.00	0.01	0.31	0.22	1.41	1.58
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.48	0.04	0.18	0.41	0.58	0.32	1.59	1.60

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.42	-0.11	-0.57	0.49	0.58	0.23	0.84	0.06
Diesel	-0.02	0.00	0.00	0.01	0.65	0.46	6.62	7.42
Electric	-0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-1.54	-0.11	-0.57	0.50	1.22	0.68	7.46	7.49

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.46	0.04	0.18	0.05	0.04	0.02	0.04	0.00
Diesel	0.01	0.00	0.00	0.00	0.04	0.03	0.28	0.32
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.50	0.04	0.19	0.05	0.08	0.05	0.32	0.32

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-0.52	-0.04	-0.21	0.94	0.89	0.35	1.06	0.08	2.55
Diesel	-0.01	0.00	0.00	0.02	1.00	0.70	8.32	9.33	19.36
Electric	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04
Total	-0.56	-0.04	-0.21	0.96	1.89	1.05	9.37	9.41	**21.87**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	59.33
Internal	3.66
Total	**62.99**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.06
10 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.06
15 mph	0.02	0.00	0.01	0.00	0.01	0.00	0.01	0.02	0.07
20 mph	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.06
25 mph	0.01	0.00	0.00	0.01	0.05	0.02	0.04	0.13	0.26
30 mph	0.00	0.00	0.00	0.01	0.03	0.02	0.03	0.10	0.19
35 mph	0.02	0.00	0.01	0.01	0.02	0.01	0.02	0.08	0.17
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.08	0.13
45 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.02	0.06	0.11
50 mph	-0.01	0.00	0.00	0.00	0.02	0.01	0.01	0.05	0.09
55 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.04
60 mph	0.00	0.00	0.00	0.00	0.01	0.01	0.16	0.56	0.73
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	-0.04	0.00	-0.02	0.01	0.15	0.06	0.00	0.00	0.16
total	0.00	0.00	0.00	0.06	0.43	0.19	0.32	1.15	2.15

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0040	0.0006	0.0029	0.0067	0.0048	0.0016	0.0029	0.0004	0.0239
15 mph	0.0009	0.0001	0.0007	0.0015	0.0011	0.0004	0.0008	0.0001	0.0055
20 mph	0.0054	0.0008	0.0039	0.0089	0.0064	0.0021	0.0024	0.0003	0.0303
25 mph	0.0223	0.0033	0.0163	0.0371	0.0265	0.0090	0.0102	0.0014	0.1261
30 mph	0.0214	0.0031	0.0157	0.0356	0.0255	0.0086	0.0082	0.0011	0.1192
35 mph	0.0125	0.0018	0.0091	0.0208	0.0149	0.0050	0.0033	0.0005	0.0678
40 mph	0.0054	0.0008	0.0039	0.0089	0.0064	0.0021	0.0029	0.0004	0.0307
45 mph	0.0036	0.0005	0.0026	0.0059	0.0042	0.0014	0.0037	0.0005	0.0225
50 mph	0.0036	0.0005	0.0026	0.0059	0.0042	0.0014	0.0045	0.0006	0.0234
55 mph	0.0062	0.0009	0.0046	0.0104	0.0074	0.0025	0.0004	0.0001	0.0325
60 mph	0.0040	0.0006	0.0029	0.0067	0.0048	0.0016	0.0016	0.0002	0.0225
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0892	0.0131	0.0653	0.1483	0.1061	0.0358	0.0408	0.0057	0.5043

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0029	-0.0004	-0.0021	0.0018	0.0022	0.0008	0.0019	0.0003	0.0016
25 mph	-0.0043	-0.0006	-0.0032	0.0027	0.0033	0.0011	0.0038	0.0005	0.0035
30 mph	-0.0072	-0.0011	-0.0053	0.0046	0.0056	0.0019	0.0096	0.0013	0.0094
35 mph	-0.0115	-0.0017	-0.0084	0.0073	0.0089	0.0030	0.0115	0.0016	0.0107
40 mph	-0.0173	-0.0025	-0.0127	0.0109	0.0134	0.0045	0.0134	0.0019	0.0116
45 mph	-0.0374	-0.0055	-0.0274	0.0237	0.0290	0.0098	0.0096	0.0013	0.0030
50 mph	-0.0317	-0.0046	-0.0232	0.0201	0.0245	0.0083	0.0057	0.0008	-0.0001
55 mph	-0.0230	-0.0034	-0.0169	0.0146	0.0178	0.0060	0.0019	0.0003	-0.0027
60 mph	-0.0115	-0.0017	-0.0084	0.0073	0.0089	0.0030	0.1339	0.0188	0.1503
65 mph	-0.0058	-0.0008	-0.0042	0.0036	0.0045	0.0015	0.0000	0.0000	-0.0012
70 mph	-0.1354	-0.0198	-0.0991	0.0857	0.1048	0.0354	0.0000	0.0000	-0.0284
total	-0.2880	-0.0421	-0.2108	0.1824	0.2229	0.0752	0.1912	0.0269	0.1577

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
15 mph	0.0238	0.0035	0.0174	0.0051	0.0045	0.0015	0.0016	0.0002	0.0577
25 mph	0.0000	0.0000	0.0000	0.0000	0.0107	0.0036	0.0066	0.0009	0.0219
35 mph	0.0701	0.0103	0.0513	0.0148	0.0000	0.0000	0.0000	0.0000	0.1464
total	0.0939	0.0137	0.0687	0.0199	0.0161	0.0054	0.0085	0.0012	0.2275

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
10 mph	0.0040	0.0006	0.0029	0.0067	0.0048	0.0016	0.0029	0.0004	0.0239
15 mph	0.0247	0.0036	0.0181	0.0066	0.0055	0.0019	0.0024	0.0003	0.0632
20 mph	0.0025	0.0004	0.0018	0.0107	0.0086	0.0029	0.0044	0.0006	0.0318
25 mph	0.0180	0.0026	0.0132	0.0398	0.0406	0.0137	0.0206	0.0029	0.1514
30 mph	0.0142	0.0021	0.0104	0.0402	0.0310	0.0105	0.0177	0.0025	0.1286
35 mph	0.0710	0.0104	0.0520	0.0428	0.0238	0.0080	0.0147	0.0021	0.2249
40 mph	-0.0119	-0.0017	-0.0087	0.0198	0.0197	0.0067	0.0162	0.0023	0.0424
45 mph	-0.0339	-0.0050	-0.0248	0.0296	0.0332	0.0112	0.0132	0.0019	0.0255
50 mph	-0.0281	-0.0041	-0.0206	0.0260	0.0288	0.0097	0.0102	0.0014	0.0233
55 mph	-0.0168	-0.0025	-0.0123	0.0250	0.0253	0.0085	0.0023	0.0003	0.0299
60 mph	-0.0075	-0.0011	-0.0055	0.0140	0.0137	0.0046	0.1355	0.0191	0.1727
65 mph	-0.0058	-0.0008	-0.0042	0.0036	0.0045	0.0015	0.0000	0.0000	-0.0012
70 mph	-0.1354	-0.0198	-0.0991	0.0857	0.1048	0.0354	0.0000	0.0000	-0.0284
total	-0.1049	-0.0154	-0.0768	0.3505	0.3451	0.1165	0.2406	0.0338	0.8895

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0011	0.0081	0.0150	0.0262
15 mph	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0023	0.0043	0.0073
20 mph	0.0000	0.0000	0.0000	0.0001	0.0025	0.0015	0.0069	0.0129	0.0239
25 mph	0.0001	0.0000	0.0000	0.0006	0.0103	0.0063	0.0288	0.0536	0.0997
30 mph	0.0001	0.0000	0.0000	0.0006	0.0099	0.0061	0.0231	0.0429	0.0825
35 mph	0.0000	0.0000	0.0000	0.0003	0.0058	0.0035	0.0092	0.0172	0.0361
40 mph	0.0000	0.0000	0.0000	0.0001	0.0025	0.0015	0.0081	0.0150	0.0272
45 mph	0.0000	0.0000	0.0000	0.0001	0.0016	0.0010	0.0104	0.0193	0.0324
50 mph	0.0000	0.0000	0.0000	0.0001	0.0016	0.0010	0.0127	0.0236	0.0390
55 mph	0.0000	0.0000	0.0000	0.0002	0.0029	0.0018	0.0012	0.0021	0.0081
60 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0011	0.0046	0.0086	0.0163
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0003	0.0000	0.0000	0.0023	0.0412	0.0253	0.1153	0.2145	0.3989

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0005	0.0054	0.0100	0.0169
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0008	0.0108	0.0201	0.0330
30 mph	0.0000	0.0000	0.0000	0.0001	0.0022	0.0013	0.0270	0.0502	0.0808
35 mph	0.0000	0.0000	0.0000	0.0001	0.0035	0.0021	0.0324	0.0603	0.0984
40 mph	-0.0001	0.0000	0.0000	0.0002	0.0052	0.0032	0.0378	0.0703	0.1166
45 mph	-0.0001	0.0000	0.0000	0.0004	0.0113	0.0069	0.0270	0.0502	0.0956
50 mph	-0.0001	0.0000	0.0000	0.0003	0.0095	0.0058	0.0162	0.0301	0.0619
55 mph	-0.0001	0.0000	0.0000	0.0002	0.0069	0.0042	0.0054	0.0100	0.0268
60 mph	0.0000	0.0000	0.0000	0.0001	0.0035	0.0021	0.3780	0.7035	1.0871
65 mph	0.0000	0.0000	0.0000	0.0001	0.0017	0.0011	0.0000	0.0000	0.0028
70 mph	-0.0004	0.0000	0.0000	0.0013	0.0407	0.0250	0.0000	0.0000	0.0665
total	-0.0009	0.0000	-0.0001	0.0029	0.0866	0.0531	0.5400	1.0049	1.6864

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
15 mph	0.0001	0.0000	0.0000	0.0001	0.0017	0.0011	0.0046	0.0085	0.0160
25 mph	0.0000	0.0000	0.0000	0.0000	0.0042	0.0026	0.0185	0.0344	0.0597
35 mph	0.0002	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0005
total	0.0003	0.0000	0.0000	0.0003	0.0063	0.0038	0.0240	0.0447	0.0795

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
10 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0011	0.0081	0.0150	0.0262
15 mph	0.0001	0.0000	0.0000	0.0001	0.0021	0.0013	0.0069	0.0128	0.0233
20 mph	0.0000	0.0000	0.0000	0.0002	0.0033	0.0020	0.0123	0.0229	0.0408
25 mph	0.0001	0.0000	0.0000	0.0006	0.0158	0.0097	0.0581	0.1082	0.1924
30 mph	0.0000	0.0000	0.0000	0.0006	0.0121	0.0074	0.0500	0.0931	0.1633
35 mph	0.0002	0.0000	0.0000	0.0007	0.0092	0.0057	0.0416	0.0775	0.1349
40 mph	0.0000	0.0000	0.0000	0.0003	0.0077	0.0047	0.0459	0.0854	0.1439
45 mph	-0.0001	0.0000	0.0000	0.0005	0.0129	0.0079	0.0374	0.0696	0.1281
50 mph	-0.0001	0.0000	0.0000	0.0004	0.0112	0.0069	0.0289	0.0537	0.1010
55 mph	-0.0001	0.0000	0.0000	0.0004	0.0098	0.0060	0.0066	0.0122	0.0349
60 mph	0.0000	0.0000	0.0000	0.0002	0.0053	0.0033	0.3826	0.7120	1.1034
65 mph	0.0000	0.0000	0.0000	0.0001	0.0017	0.0011	0.0000	0.0000	0.0028
70 mph	-0.0004	0.0000	0.0000	0.0013	0.0407	0.0250	0.0000	0.0000	0.0665
total	-0.0003	0.0000	0.0000	0.0055	0.1341	0.0822	0.6792	1.2642	2.1648

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.05
15 mph	0.02	0.00	0.02	0.01	0.01	0.00	0.01	0.01	0.09
20 mph	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.02	0.07
25 mph	0.02	0.00	0.01	0.04	0.06	0.02	0.08	0.11	0.34
30 mph	0.01	0.00	0.01	0.04	0.04	0.02	0.07	0.10	0.29
35 mph	0.07	0.01	0.05	0.04	0.03	0.01	0.06	0.08	0.36
40 mph	-0.01	0.00	-0.01	0.02	0.03	0.01	0.06	0.09	0.19
45 mph	-0.03	0.00	-0.02	0.03	0.05	0.02	0.05	0.07	0.15
50 mph	-0.03	0.00	-0.02	0.03	0.04	0.02	0.04	0.06	0.12
55 mph	-0.02	0.00	-0.01	0.03	0.04	0.01	0.01	0.01	0.06
60 mph	-0.01	0.00	-0.01	0.01	0.02	0.01	0.52	0.73	1.28
65 mph	-0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
70 mph	-0.14	-0.02	-0.10	0.09	0.15	0.06	0.00	0.00	0.04
total	-0.11	-0.02	-0.08	0.36	0.48	0.20	0.92	1.30	**3.05**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	5.2744	4.9417	8.2428	4.2908
10 mph	0.0145	0.0339	0.0187	0.0327	0.0477	0.0167	0.0537	0.5500
15 mph	0.0098	0.0235	0.0126	0.0219	0.0329	0.0112	0.0357	0.3605
20 mph	0.0069	0.0170	0.0089	0.0155	0.0240	0.0080	0.0251	0.2539
25 mph	0.0051	0.0126	0.0065	0.0116	0.0182	0.0060	0.0186	0.1869
30 mph	0.0039	0.0099	0.0051	0.0091	0.0145	0.0047	0.0146	0.1457
35 mph	0.0032	0.0080	0.0042	0.0075	0.0122	0.0039	0.0120	0.1202
40 mph	0.0028	0.0069	0.0036	0.0066	0.0109	0.0035	0.0105	0.1044
45 mph	0.0025	0.0063	0.0033	0.0060	0.0101	0.0032	0.0096	0.0955
50 mph	0.0024	0.0060	0.0032	0.0058	0.0099	0.0031	0.0092	0.0923
55 mph	0.0025	0.0061	0.0032	0.0059	0.0103	0.0032	0.0094	0.0944
60 mph	0.0026	0.0064	0.0034	0.0063	0.0112	0.0035	0.0101	0.1014
65 mph	0.0029	0.0069	0.0038	0.0070	0.0128	0.0040		
70 mph	0.0031	0.0069	0.0040	0.0080	0.0128	0.0039		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0079	0.0257
10 mph	0.0053	0.0180	0.0091	0.0054	0.0257	0.0253	0.0092	0.0223
15 mph	0.0028	0.0119	0.0045	0.0027	0.0135	0.0128	0.0064	0.0157
20 mph	0.0013	0.0081	0.0018	0.0011	0.0065	0.0055	0.0047	0.0113
25 mph	0.0009	0.0062	0.0011	0.0007	0.0044	0.0035	0.0034	0.0083
30 mph	0.0007	0.0050	0.0008	0.0005	0.0035	0.0027	0.0025	0.0061
35 mph	0.0005	0.0042	0.0006	0.0004	0.0030	0.0023	0.0019	0.0045
40 mph	0.0005	0.0038	0.0005	0.0004	0.0026	0.0020	0.0014	0.0033
45 mph	0.0004	0.0036	0.0005	0.0003	0.0024	0.0017	0.0010	0.0024
50 mph	0.0004	0.0036	0.0004	0.0003	0.0023	0.0016	0.0007	0.0018
55 mph	0.0004	0.0037	0.0004	0.0002	0.0022	0.0015	0.0006	0.0013
60 mph	0.0004	0.0040	0.0003	0.0002	0.0023	0.0015	0.0005	0.0012
65 mph	0.0004	0.0044	0.0003	0.0003	0.0027	0.0017		
70 mph	0.0003	0.0043	0.0003	0.0003	0.0045	0.0026		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0161	0.0030	0.0083	0.0331	0.0170	0.0020	0.0114	0.0165	0.1075
15 mph	0.0024	0.0005	0.0012	0.0049	0.0026	0.0003	0.0022	0.0031	0.0172
20 mph	0.0102	0.0020	0.0053	0.0209	0.0114	0.0013	0.0046	0.0065	0.0623
25 mph	0.0314	0.0063	0.0162	0.0650	0.0360	0.0040	0.0142	0.0200	0.1931
30 mph	0.0233	0.0047	0.0121	0.0490	0.0276	0.0030	0.0089	0.0125	0.1411
35 mph	0.0111	0.0022	0.0058	0.0237	0.0135	0.0015	0.0029	0.0041	0.0648
40 mph	0.0041	0.0008	0.0021	0.0088	0.0052	0.0006	0.0022	0.0031	0.0270
45 mph	0.0025	0.0005	0.0013	0.0054	0.0032	0.0003	0.0026	0.0037	0.0196
50 mph	0.0024	0.0005	0.0012	0.0052	0.0031	0.0003	0.0031	0.0044	0.0202
55 mph	0.0043	0.0008	0.0022	0.0093	0.0057	0.0006	0.0003	0.0004	0.0236
60 mph	0.0029	0.0006	0.0015	0.0063	0.0040	0.0004	0.0012	0.0017	0.0187
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.1107	0.0219	0.0573	0.2317	0.1293	0.0144	0.0537	0.0761	0.6950

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0055	-0.0011	-0.0028	0.0043	0.0040	0.0005	0.0036	0.0051	0.0080
25 mph	-0.0061	-0.0012	-0.0031	0.0048	0.0045	0.0005	0.0053	0.0075	0.0122
30 mph	-0.0078	-0.0016	-0.0041	0.0063	0.0060	0.0007	0.0104	0.0146	0.0245
35 mph	-0.0102	-0.0020	-0.0053	0.0083	0.0081	0.0009	0.0103	0.0145	0.0246
40 mph	-0.0132	-0.0027	-0.0069	0.0109	0.0108	0.0012	0.0105	0.0147	0.0252
45 mph	-0.0263	-0.0053	-0.0137	0.0215	0.0219	0.0023	0.0069	0.0096	0.0170
50 mph	-0.0213	-0.0042	-0.0111	0.0176	0.0181	0.0019	0.0040	0.0056	0.0105
55 mph	-0.0157	-0.0031	-0.0082	0.0130	0.0137	0.0014	0.0013	0.0019	0.0043
60 mph	-0.0084	-0.0016	-0.0044	0.0069	0.0074	0.0008	0.1010	0.1425	0.2442
65 mph	-0.0047	-0.0009	-0.0024	0.0039	0.0043	0.0004	0.0000	0.0000	0.0006
70 mph	-0.1149	-0.0207	-0.0594	0.1044	0.1001	0.0104	0.0000	0.0000	0.0199
total	-0.2342	-0.0443	-0.1214	0.2019	0.1990	0.0210	0.1532	0.2160	0.3911

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2085	0.0154	0.6837
15 mph	0.0645	0.0124	0.0332	0.0170	0.0109	0.0013	0.0043	0.0061	0.1497
25 mph	0.0000	0.0000	0.0000	0.0000	0.0146	0.0016	0.0091	0.0129	0.0382
35 mph	0.0620	0.0124	0.0323	0.0169	0.0000	0.0000	0.0000	0.0000	0.1236
total	0.1265	0.0248	0.0655	0.0339	0.3749	0.1134	0.2219	0.0344	0.9952

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2085	0.0154	0.6837
10 mph	0.0161	0.0030	0.0083	0.0331	0.0170	0.0020	0.0114	0.0165	0.1075
15 mph	0.0669	0.0129	0.0344	0.0219	0.0135	0.0016	0.0065	0.0092	0.1669
20 mph	0.0047	0.0009	0.0024	0.0252	0.0154	0.0017	0.0082	0.0116	0.0703
25 mph	0.0253	0.0050	0.0131	0.0698	0.0552	0.0062	0.0286	0.0404	0.2436
30 mph	0.0155	0.0031	0.0080	0.0553	0.0336	0.0037	0.0193	0.0271	0.1656
35 mph	0.0629	0.0126	0.0327	0.0489	0.0216	0.0024	0.0132	0.0186	0.2129
40 mph	-0.0091	-0.0018	-0.0048	0.0197	0.0160	0.0017	0.0127	0.0178	0.0522
45 mph	-0.0238	-0.0048	-0.0124	0.0269	0.0251	0.0027	0.0095	0.0133	0.0366
50 mph	-0.0189	-0.0038	-0.0098	0.0228	0.0213	0.0023	0.0071	0.0099	0.0307
55 mph	-0.0115	-0.0023	-0.0060	0.0223	0.0194	0.0020	0.0016	0.0023	0.0279
60 mph	-0.0055	-0.0011	-0.0028	0.0132	0.0114	0.0012	0.1022	0.1442	0.2629
65 mph	-0.0047	-0.0009	-0.0024	0.0039	0.0043	0.0004	0.0000	0.0000	0.0006
70 mph	-0.1149	-0.0207	-0.0594	0.1044	0.1001	0.0104	0.0000	0.0000	0.0199
total	0.0030	0.0023	0.0013	0.4675	0.7032	0.1487	0.4288	0.3264	2.0813

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0001	0.0099	0.0060	0.0154	0.0698	0.1013
15 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0007	0.0031	0.0140	0.0190
20 mph	0.0000	0.0000	0.0000	0.0000	0.0033	0.0017	0.0067	0.0303	0.0421
25 mph	0.0001	0.0000	0.0000	0.0001	0.0094	0.0046	0.0205	0.0925	0.1271
30 mph	0.0000	0.0000	0.0000	0.0001	0.0072	0.0035	0.0121	0.0545	0.0774
35 mph	0.0000	0.0000	0.0000	0.0000	0.0036	0.0017	0.0036	0.0161	0.0249
40 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0006	0.0023	0.0104	0.0147
45 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0022	0.0098	0.0132
50 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0003	0.0020	0.0089	0.0120
55 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0006	0.0001	0.0006	0.0026
60 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0005	0.0021	0.0038
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0003	0.0000	0.0000	0.0004	0.0398	0.0204	0.0683	0.3089	0.4381

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0006	0.0052	0.0236	0.0306
25 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0006	0.0077	0.0347	0.0441
30 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0141	0.0639	0.0803
35 mph	0.0000	0.0000	0.0000	0.0000	0.0022	0.0010	0.0125	0.0565	0.0721
40 mph	0.0000	0.0000	0.0000	0.0000	0.0029	0.0013	0.0108	0.0486	0.0635
45 mph	0.0000	0.0000	0.0000	0.0000	0.0056	0.0025	0.0057	0.0256	0.0394
50 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0019	0.0025	0.0114	0.0203
55 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0013	0.0006	0.0028	0.0080
60 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0007	0.0373	0.1688	0.2085
65 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0004	0.0000	0.0000	0.0013
70 mph	-0.0001	0.0000	0.0000	0.0001	0.0385	0.0136	0.0000	0.0000	0.0520
total	-0.0004	0.0000	0.0000	0.0002	0.0635	0.0247	0.0965	0.4358	0.6202

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0016	0.0095	0.0282
15 mph	0.0002	0.0000	0.0000	0.0000	0.0049	0.0028	0.0061	0.0277	0.0418
25 mph	0.0000	0.0000	0.0000	0.0000	0.0038	0.0019	0.0131	0.0594	0.0782
35 mph	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
total	0.0003	0.0000	0.0000	0.0001	0.0193	0.0112	0.0208	0.0967	0.1484

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0016	0.0095	0.0282
10 mph	0.0001	0.0000	0.0000	0.0001	0.0099	0.0060	0.0154	0.0698	0.1013
15 mph	0.0002	0.0000	0.0000	0.0001	0.0060	0.0035	0.0092	0.0417	0.0608
20 mph	0.0000	0.0000	0.0000	0.0000	0.0045	0.0024	0.0119	0.0539	0.0727
25 mph	0.0000	0.0000	0.0000	0.0001	0.0144	0.0071	0.0413	0.1866	0.2495
30 mph	0.0000	0.0000	0.0000	0.0001	0.0088	0.0042	0.0262	0.1184	0.1577
35 mph	0.0001	0.0000	0.0000	0.0001	0.0057	0.0027	0.0161	0.0725	0.0972
40 mph	0.0000	0.0000	0.0000	0.0000	0.0042	0.0019	0.0131	0.0590	0.0782
45 mph	0.0000	0.0000	0.0000	0.0000	0.0065	0.0029	0.0079	0.0355	0.0526
50 mph	0.0000	0.0000	0.0000	0.0000	0.0054	0.0023	0.0045	0.0202	0.0323
55 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0019	0.0008	0.0034	0.0106
60 mph	0.0000	0.0000	0.0000	0.0000	0.0026	0.0010	0.0378	0.1709	0.2122
65 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0004	0.0000	0.0000	0.0013
70 mph	-0.0001	0.0000	0.0000	0.0001	0.0385	0.0136	0.0000	0.0000	0.0520
total	0.0002	0.0000	0.0000	0.0006	0.1226	0.0563	0.1856	0.8414	1.2068

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.36	0.12	0.21	0.02	0.71
10 mph	0.02	0.00	0.01	0.03	0.03	0.01	0.03	0.09	0.21
15 mph	0.07	0.01	0.03	0.02	0.02	0.01	0.02	0.05	0.23
20 mph	0.00	0.00	0.00	0.03	0.02	0.00	0.02	0.07	0.14
25 mph	0.03	0.01	0.01	0.07	0.07	0.01	0.07	0.23	0.49
30 mph	0.02	0.00	0.01	0.06	0.04	0.01	0.05	0.15	0.32
35 mph	0.06	0.01	0.03	0.05	0.03	0.01	0.03	0.09	0.31
40 mph	-0.01	0.00	0.00	0.02	0.02	0.00	0.03	0.08	0.13
45 mph	-0.02	0.00	-0.01	0.03	0.03	0.01	0.02	0.05	0.09
50 mph	-0.02	0.00	-0.01	0.02	0.03	0.00	0.01	0.03	0.06
55 mph	-0.01	0.00	-0.01	0.02	0.02	0.00	0.00	0.01	0.04
60 mph	-0.01	0.00	0.00	0.01	0.01	0.00	0.14	0.32	0.48
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
70 mph	-0.12	-0.02	-0.06	0.10	0.14	0.02	0.00	0.00	0.07
total	0.00	0.00	0.00	0.47	0.83	0.20	0.61	1.17	**3.29**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Unmitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,672.38	5,322.67	13,802.35	19,545.57
10 mph	565.07	664.40	736.21	1,001.81	1,335.77	1,474.10	3,195.44	3,326.64
15 mph	435.34	511.83	566.95	769.55	926.81	1,036.15	2,202.99	2,394.92
20 mph	347.84	408.97	453.01	615.18	804.97	907.00	1,548.51	1,936.58
25 mph	288.17	338.61	375.30	510.55	737.83	820.09	1,352.45	1,820.64
30 mph	247.75	290.93	322.69	440.04	669.80	741.28	1,243.07	1,733.17
35 mph	221.05	259.35	287.90	393.91	670.13	741.45	1,147.70	1,662.81
40 mph	204.90	240.34	266.86	365.44	667.72	724.57	1,067.71	1,603.01
45 mph	197.23	231.35	256.84	351.52	664.73	707.53	992.18	1,567.57
50 mph	196.99	230.93	256.40	351.40	701.22	737.51	927.95	1,547.86
55 mph	204.25	239.50	265.88	364.57	738.94	771.15	902.10	1,519.70
60 mph	219.75	257.63	286.03	392.06	749.65	779.15	907.61	1,498.23
65 mph	245.11	287.04	318.98	438.63	759.93	786.71		
70 mph	262.64	304.98	339.53	477.50	757.34	771.23		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	3,828.47	6,054.46	6,576.98	5,840.84
10 mph	478.42	672.54	622.39	770.07	1,002.32	1,101.22	1,914.50	2,577.72
15 mph	393.85	559.63	516.66	653.56	652.60	731.87	1,606.42	2,162.25
20 mph	323.04	459.69	424.41	542.70	556.77	624.56	1,403.06	1,886.51
25 mph	270.71	383.29	355.47	458.76	493.77	556.56	1,294.90	1,740.49
30 mph	234.38	329.22	306.97	396.02	448.74	502.14	1,224.22	1,641.96
35 mph	211.78	294.52	276.56	359.07	449.41	502.55	1,168.01	1,563.23
40 mph	198.16	274.26	258.01	335.80	437.51	484.44	1,121.64	1,498.06
45 mph	191.45	264.74	248.83	323.22	426.86	465.74	1,082.41	1,442.90
50 mph	192.04	264.45	249.10	324.77	447.69	483.07	1,048.70	1,394.67
55 mph	200.90	276.76	260.43	342.67	467.61	499.86	1,020.58	1,357.17
60 mph	217.85	299.64	282.12	371.10	472.02	501.44	1,007.80	1,340.86
65 mph	244.83	333.15	316.34	416.41	479.14	503.47		
70 mph	265.74	339.94	338.04	446.27	484.06	505.19		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	630.17	59.14	327.81	1,012.96	475.86	177.25	681.37	99.81	3,464.37
15 mph	107.89	10.12	56.10	172.91	73.37	27.69	134.21	20.53	602.83
20 mph	517.21	48.54	268.95	829.36	382.36	145.41	283.02	49.80	2,524.66
25 mph	1,785.37	167.45	928.40	2,867.92	1,460.27	547.83	1,029.95	195.08	8,982.28
30 mph	1,473.58	138.12	766.32	2,372.98	1,272.60	475.38	757.32	148.57	7,404.86
35 mph	766.95	71.82	398.82	1,239.15	742.72	277.37	279.69	57.01	3,833.53
40 mph	304.68	28.53	158.43	492.68	317.16	116.17	227.67	48.09	1,693.41
45 mph	195.51	18.31	101.66	315.94	210.50	75.62	272.01	60.47	1,250.01
50 mph	195.28	18.27	101.48	315.84	222.05	78.83	310.93	72.98	1,315.65
55 mph	354.32	33.16	184.16	573.41	409.49	144.24	27.48	6.51	1,732.78
60 mph	245.07	22.93	127.36	396.42	267.06	93.69	110.59	25.69	1,288.81
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	6,576.03	616.41	3,419.51	10,589.57	5,833.44	2,159.47	4,114.23	784.53	34,093.19

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	-278.29	-26.12	-144.71	169.97	133.92	50.93	220.99	38.89	165.57
25 mph	-345.83	-32.44	-179.83	211.59	184.12	69.08	386.02	73.12	365.83
30 mph	-495.55	-46.45	-257.71	303.95	278.58	104.06	887.01	174.01	947.90
35 mph	-707.43	-66.25	-367.87	435.34	445.95	166.54	982.75	200.33	1,089.36
40 mph	-983.62	-92.09	-511.48	605.81	666.51	244.12	1,066.62	225.32	1,221.18
45 mph	-2,051.35	-192.07	-1,066.60	1,262.57	1,437.66	516.48	707.98	157.38	772.05
50 mph	-1,733.68	-162.23	-900.96	1,067.99	1,283.24	455.54	397.29	93.24	500.43
55 mph	-1,307.29	-122.36	-679.48	805.81	983.48	346.42	128.74	30.52	185.84
60 mph	-703.27	-65.81	-365.48	433.29	498.87	175.01	9,066.93	2,105.89	11,145.42
65 mph	-392.21	-36.66	-203.79	242.38	252.85	88.35	0.00	0.00	-49.08
70 mph	-9,875.95	-915.41	-5,097.68	6,200.67	5,921.78	2,035.42	0.00	0.00	-1,731.17
total	-18,874.47	-1,757.88	-9,775.60	11,739.35	12,086.96	4,251.95	13,844.33	3,098.69	14,613.32

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	349.09	70.08	847.66
15 mph	2,879.02	270.18	1,497.01	598.37	308.12	116.27	265.55	40.62	5,975.15
25 mph	0.00	0.00	0.00	0.00	591.82	222.02	661.49	125.29	1,600.63
35 mph	4,302.95	402.97	2,237.60	881.23	0.00	0.00	0.00	0.00	7,824.74
total	7,181.97	673.15	3,734.61	1,479.60	1,209.43	457.29	1,276.13	235.99	16,248.18

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	349.09	70.08	847.66
10 mph	630.17	59.14	327.81	1,012.96	475.86	177.25	681.37	99.81	3,464.37
15 mph	2,986.91	280.31	1,553.11	771.29	381.49	143.96	399.76	61.15	6,577.97
20 mph	238.92	22.42	124.24	999.33	516.28	196.34	504.01	88.69	2,690.23
25 mph	1,439.54	135.02	748.57	3,079.51	2,236.22	838.93	2,077.46	393.49	10,948.73
30 mph	978.03	91.67	508.62	2,676.92	1,551.17	579.44	1,644.32	322.58	8,352.76
35 mph	4,362.47	408.54	2,268.55	2,555.71	1,188.67	443.90	1,262.44	257.35	12,747.63
40 mph	-678.94	-63.57	-353.05	1,098.49	983.67	360.29	1,294.29	273.41	2,914.59
45 mph	-1,855.84	-173.76	-964.95	1,578.51	1,648.15	592.11	979.99	217.85	2,022.06
50 mph	-1,538.40	-143.95	-799.48	1,383.82	1,505.29	534.37	708.22	166.22	1,816.09
55 mph	-952.97	-89.20	-495.32	1,379.22	1,392.97	490.66	156.22	37.03	1,918.62
60 mph	-458.20	-42.88	-238.12	829.72	765.93	268.69	9,177.51	2,131.57	12,434.22
65 mph	-392.21	-36.66	-203.79	242.38	252.85	88.35	0.00	0.00	-49.08
70 mph	-9,875.95	-915.41	-5,097.68	6,200.67	5,921.78	2,035.42	0.00	0.00	-1,731.17
total	-5,116.47	-468.32	-2,621.48	23,808.52	19,129.83	6,868.71	19,234.70	4,119.21	64,954.69

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	6.21	0.06	0.57	16.80	387.36	260.81	3,217.86	8,063.54	11,953.20
15 mph	1.14	0.01	0.11	3.17	56.05	38.52	771.44	1,932.54	2,802.96
20 mph	5.59	0.05	0.52	15.79	286.89	197.22	2,021.34	5,058.27	7,585.67
25 mph	19.51	0.18	1.81	55.60	1,060.13	732.30	7,773.03	19,444.80	29,087.36
30 mph	16.22	0.15	1.50	46.08	924.91	634.27	5,879.00	14,675.18	22,177.31
35 mph	8.55	0.08	0.79	24.37	540.33	370.29	2,243.62	5,588.60	8,776.62
40 mph	3.43	0.03	0.31	9.77	225.44	152.98	1,885.23	4,686.19	6,963.37
45 mph	2.21	0.02	0.20	6.27	146.63	98.05	2,339.08	5,803.22	8,395.68
50 mph	2.21	0.02	0.20	6.30	153.79	101.70	2,769.85	6,855.75	9,889.83
55 mph	4.06	0.04	0.37	11.63	281.11	184.15	245.05	606.49	1,332.90
60 mph	2.83	0.03	0.26	8.10	182.42	118.76	967.94	2,396.81	3,677.13
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	71.95	0.67	6.64	203.85	4,245.06	2,889.04	30,113.44	75,111.39	112,642.03

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	-3.01	-0.03	-0.28	3.23	100.48	69.08	1,578.33	3,949.66	5,697.48
25 mph	-3.78	-0.04	-0.35	4.10	133.67	92.33	2,913.33	7,287.91	10,427.18
30 mph	-5.45	-0.05	-0.50	5.90	202.47	138.84	6,885.78	17,188.30	24,415.29
35 mph	-7.89	-0.07	-0.73	8.56	324.43	222.33	7,883.50	19,636.93	28,067.06
40 mph	-11.07	-0.10	-1.02	12.01	473.76	321.48	8,832.29	21,954.77	31,582.12
45 mph	-23.17	-0.21	-2.12	25.05	1,001.49	669.65	6,088.11	15,104.49	22,863.27
50 mph	-19.66	-0.18	-1.80	21.29	888.78	587.71	3,539.11	8,759.78	13,775.03
55 mph	-14.96	-0.14	-1.37	16.34	675.14	442.28	1,148.07	2,841.41	5,106.78
60 mph	-8.11	-0.07	-0.74	8.85	340.75	221.84	79,358.86	196,508.18	276,429.56
65 mph	-4.56	-0.04	-0.42	4.96	172.95	111.37	0.00	0.00	284.26
70 mph	-116.27	-0.99	-10.43	125.03	4,105.99	2,626.11	0.00	0.00	6,729.43
total	-217.93	-1.93	-19.76	235.33	8,419.90	5,503.03	118,227.39	293,231.43	425,377.46

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,311.22	2,167.23	4,020.16
15 mph	30.30	0.29	2.80	10.96	235.36	161.76	1,526.32	3,823.59	5,791.39
25 mph	0.00	0.00	0.00	0.00	429.65	296.78	4,992.31	12,488.64	18,207.38
35 mph	47.97	0.44	4.42	17.33	0.00	0.00	0.00	0.00	70.16
total	78.27	0.73	7.22	28.29	940.11	725.15	7,829.86	18,479.46	28,089.09

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,311.22	2,167.23	4,020.16
10 mph	6.21	0.06	0.57	16.80	387.36	260.81	3,217.86	8,063.54	11,953.20
15 mph	31.44	0.30	2.91	14.13	291.41	200.27	2,297.76	5,756.13	8,594.34
20 mph	2.58	0.02	0.24	19.02	387.38	266.30	3,599.67	9,007.94	13,283.15
25 mph	15.73	0.15	1.46	59.70	1,623.45	1,121.42	15,678.68	39,221.34	57,721.93
30 mph	10.77	0.10	0.99	51.98	1,127.38	773.11	12,764.78	31,863.49	46,592.60
35 mph	48.63	0.45	4.48	50.26	864.76	592.62	10,127.12	25,225.52	36,913.84
40 mph	-7.64	-0.07	-0.70	21.78	699.20	474.46	10,717.52	26,640.96	38,545.49
45 mph	-20.96	-0.19	-1.92	31.31	1,148.12	767.69	8,427.19	20,907.71	31,258.95
50 mph	-17.45	-0.16	-1.60	27.59	1,042.57	689.41	6,308.96	15,615.53	23,664.86
55 mph	-10.91	-0.10	-1.00	27.97	956.24	626.44	1,393.13	3,447.90	6,439.68
60 mph	-5.29	-0.05	-0.48	16.94	523.17	340.60	80,326.80	198,904.99	280,106.69
65 mph	-4.56	-0.04	-0.42	4.96	172.95	111.37	0.00	0.00	284.26
70 mph	-116.27	-0.99	-10.43	125.03	4,105.99	2,626.11	0.00	0.00	6,729.43
total	-67.71	-0.52	-5.90	467.48	13,605.07	9,117.22	156,170.68	386,822.27	566,108.59

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	584.59	385.61	1,660.32	2,237.30	4,867.83
10 mph	636.38	59.20	328.38	1,029.76	863.22	438.06	3,899.22	8,163.34	15,417.57
15 mph	3,018.35	280.61	1,556.02	785.42	672.90	344.23	2,697.52	5,817.27	15,172.32
20 mph	241.50	22.45	124.48	1,018.35	903.65	462.65	4,103.68	9,096.62	15,973.38
25 mph	1,455.27	135.17	750.03	3,139.21	3,859.67	1,960.35	17,756.14	39,614.84	68,670.66
30 mph	988.80	91.77	509.61	2,728.90	2,678.55	1,352.56	14,409.11	32,186.06	54,945.36
35 mph	4,411.10	408.99	2,273.03	2,605.97	2,053.44	1,036.52	11,389.55	25,482.87	49,661.47
40 mph	-686.58	-63.64	-353.75	1,120.27	1,682.87	834.74	12,011.81	26,914.37	41,460.08
45 mph	-1,876.80	-173.95	-966.87	1,609.82	2,796.28	1,359.80	9,407.18	21,125.56	33,281.01
50 mph	-1,555.85	-144.11	-801.08	1,411.41	2,547.86	1,223.78	7,017.19	15,781.74	25,480.94
55 mph	-963.87	-89.30	-496.31	1,407.19	2,349.22	1,117.10	1,549.35	3,484.93	8,358.30
60 mph	-463.48	-42.93	-238.61	846.66	1,289.10	609.29	89,504.32	201,036.56	292,540.91
65 mph	-396.77	-36.70	-204.21	247.34	425.80	199.72	0.00	0.00	235.18
70 mph	-9,992.22	-916.40	-5,108.11	6,325.70	10,027.77	4,661.53	0.00	0.00	4,998.26
total	-5,184.17	-468.85	-2,627.38	24,276.00	32,734.90	15,985.93	175,405.38	390,941.48	**631,063.28**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
166.63	991.52	1,107.43	6.74	532.59	142.01	681.35	6.36	130.73	55.71	192.80	4.61	10.07	9.44	1,280,163.65

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
30.41	180.95	202.11	1.23	97.20	25.92	124.35	1.16	23.86	10.17	35.19	0.84	1.84	1.72	233,629.87

World Logistics Center

Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated

VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	15,049.9	175.1	1,082.7	301,109.9	3,503.5	21,661.2
LDT1	1,201.3	1.2	0.7	24,035.0	23.3	14.5
LDT2	6,009.0	12.4	0.0	120,224.9	247.2	0.0
MDT	1,714.0	37.0	0.0	25,397.2	547.9	0.0
LHDT1	721.1	782.2	0.0	17,208.9	18,668.4	0.0
LHDT2	243.4	479.4	0.0	5,808.5	11,440.6	0.0
MHDT	275.3	2,169.8	0.0	12,118.8	95,525.8	0.0
HHDT	38.7	4,038.2	0.0	1,705.1	177,786.7	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	156,558.2	1,821.6	11,262.5	144,551.7	1,681.9	10,398.8
LDT1	12,496.7	12.1	7.5	11,538.3	11.2	6.9
LDT2	62,509.4	128.5	0.0	57,715.5	118.6	0.0
MDT	11,795.1	254.5	0.0	13,602.1	293.5	0.0
LHDT1	6,765.3	7,339.0	0.0	10,443.6	11,329.4	0.0
LHDT2	2,283.5	4,497.6	0.0	3,525.0	6,943.0	0.0
MHDT	2,537.3	20,000.2	0.0	9,581.5	75,525.5	0.0
HHDT	357.0	37,223.2	0.0	1,348.1	140,563.5	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	5%	7%	0%	0%
15	1%	2%	0%	0%
20	6%	6%	1%	1%
25	25%	25%	2%	2%
30	24%	20%	3%	5%
35	14%	8%	4%	6%
40	6%	7%	6%	7%
45	4%	9%	13%	5%
50	4%	11%	11%	3%
55	7%	1%	8%	1%
60	5%	4%	4%	70%
65	0%	0%	2%	0%
70	0%	0%	47%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	7,045.1	562.4	2,812.9	530.8	304.4	102.8	177.6	25.0	11,561.0
15 mph	1,565.6	125.0	625.1	118.0	67.7	22.8	50.7	7.1	2,582.0
20 mph	9,393.5	749.8	3,750.6	707.7	405.9	137.0	152.2	21.4	15,318.1
25 mph	39,139.6	3,124.2	15,627.4	2,948.8	1,691.3	570.9	634.3	89.3	63,825.6
30 mph	37,574.0	2,999.2	15,002.3	2,830.8	1,623.7	548.0	507.5	71.4	61,156.8
35 mph	21,918.2	1,749.5	8,751.3	1,651.3	947.1	319.7	203.0	28.6	35,568.7
40 mph	9,393.5	749.8	3,750.6	707.7	405.9	137.0	177.6	25.0	15,347.1
45 mph	6,262.3	499.9	2,500.4	471.8	270.6	91.3	228.4	32.1	10,356.8
50 mph	6,262.3	499.9	2,500.4	471.8	270.6	91.3	279.1	39.3	10,414.7
55 mph	10,959.1	874.8	4,375.7	825.7	473.6	159.8	25.4	3.6	17,697.5
60 mph	7,045.1	562.4	2,812.9	530.8	304.4	102.8	101.5	14.3	11,474.1
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	156,558.2	12,496.7	62,509.4	11,795.1	6,765.3	2,283.5	2,537.3	357.0	255,302.4

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	1,445.5	115.4	577.2	136.0	104.4	35.2	95.8	13.5	2,523.1
25 mph	2,168.3	173.1	865.7	204.0	156.7	52.9	191.6	27.0	3,839.2
30 mph	3,613.8	288.5	1,442.9	340.1	261.1	88.1	479.1	67.4	6,580.9
35 mph	5,782.1	461.5	2,308.6	544.1	417.7	141.0	574.9	80.9	10,310.8
40 mph	8,673.1	692.3	3,462.9	816.1	626.6	211.5	670.7	94.4	15,247.6
45 mph	18,791.7	1,500.0	7,503.0	1,768.3	1,357.7	458.2	479.1	67.4	31,925.4
50 mph	15,900.7	1,269.2	6,348.7	1,496.2	1,148.8	387.7	287.4	40.4	26,879.3
55 mph	11,564.1	923.1	4,617.2	1,088.2	835.5	282.0	95.8	13.5	19,419.4
60 mph	5,782.1	461.5	2,308.6	544.1	417.7	141.0	6,707.0	943.7	17,305.8
65 mph	2,891.0	230.8	1,154.3	272.0	208.9	70.5	0.0	0.0	4,827.5
70 mph	67,939.3	5,423.0	27,126.3	6,393.0	4,908.5	1,656.7	0.0	0.0	113,446.8
total	144,551.7	11,538.3	57,715.5	13,602.1	10,443.6	3,525.0	9,581.5	1,348.1	252,305.9

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
15 mph	2,999.2	239.4	1,197.5	352.6	150.8	50.9	54.7	7.7	5,052.7
25 mph	0.0	0.0	0.0	0.0	443.7	149.8	238.4	33.5	865.4
35 mph	46,226.7	3,689.9	18,457.1	2,269.0	0.0	0.0	0.0	0.0	70,642.7
total	49,225.9	3,929.3	19,654.6	2,621.7	594.5	200.6	293.0	41.2	76,560.8

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
10 mph	7,045.1	562.4	2,812.9	530.8	304.4	102.8	177.6	25.0	11,561.0
15 mph	4,564.8	364.4	1,822.6	470.6	218.4	73.7	105.4	14.8	7,634.7
20 mph	10,839.0	865.2	4,327.7	843.7	510.4	172.3	248.1	34.9	17,841.2
25 mph	41,307.8	3,297.2	16,493.1	3,152.8	2,291.7	773.5	1,064.3	149.8	68,530.2
30 mph	41,187.8	3,287.7	16,445.1	3,170.9	1,884.8	636.2	986.5	138.8	67,737.7
35 mph	73,927.0	5,900.9	29,517.0	4,464.4	1,364.9	460.7	777.9	109.4	116,522.2
40 mph	18,066.6	1,442.1	7,213.5	1,523.8	1,032.5	348.5	848.3	119.4	30,594.7
45 mph	25,054.1	1,999.8	10,003.4	2,240.1	1,628.3	549.6	707.4	99.5	42,282.2
50 mph	22,163.0	1,769.1	8,849.1	1,968.0	1,419.4	479.1	566.5	79.7	37,294.0
55 mph	22,523.2	1,797.8	8,992.9	1,913.8	1,309.1	441.8	121.2	17.1	37,116.9
60 mph	12,827.2	1,023.9	5,121.5	1,074.9	722.2	243.8	6,808.5	958.0	28,779.9
65 mph	2,891.0	230.8	1,154.3	272.0	208.9	70.5	0.0	0.0	4,827.5
70 mph	67,939.3	5,423.0	27,126.3	6,393.0	4,908.5	1,656.7	0.0	0.0	113,446.8
total	350,335.9	27,964.2	139,879.5	28,018.8	17,803.3	6,009.1	12,411.8	1,746.4	584,169.1

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	82.0	0.5	5.8	11.5	330.3	202.4	1,400.0	2,605.6	4,638.0
15 mph	18.2	0.1	1.3	2.5	73.4	45.0	400.0	744.5	1,285.0
20 mph	109.3	0.7	7.7	15.3	440.3	269.9	1,200.0	2,233.4	4,276.6
25 mph	455.4	3.0	32.1	63.6	1,834.8	1,124.4	5,000.1	9,305.8	17,819.2
30 mph	437.2	2.9	30.8	61.1	1,761.4	1,079.4	4,000.0	7,444.6	14,817.5
35 mph	255.0	1.7	18.0	35.6	1,027.5	629.7	1,600.0	2,977.9	6,545.3
40 mph	109.3	0.7	7.7	15.3	440.3	269.9	1,400.0	2,605.6	4,848.8
45 mph	72.9	0.5	5.1	10.2	293.6	179.9	1,800.0	3,350.1	5,712.2
50 mph	72.9	0.5	5.1	10.2	293.6	179.9	2,200.0	4,094.6	6,856.7
55 mph	127.5	0.8	9.0	17.8	513.7	314.8	200.0	372.2	1,556.0
60 mph	82.0	0.5	5.8	11.5	330.3	202.4	800.0	1,488.9	2,921.3
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	1,821.6	12.1	128.5	254.5	7,339.0	4,497.6	20,000.2	37,223.2	71,276.8

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	16.8	0.1	1.2	2.9	113.3	69.4	755.3	1,405.6	2,364.7
25 mph	25.2	0.2	1.8	4.4	169.9	104.1	1,510.5	2,811.3	4,627.4
30 mph	42.0	0.3	3.0	7.3	283.2	173.6	3,776.3	7,028.2	11,313.9
35 mph	67.3	0.4	4.7	11.7	453.2	277.7	4,531.5	8,433.8	13,780.4
40 mph	100.9	0.7	7.1	17.6	679.8	416.6	5,286.8	9,839.4	16,348.9
45 mph	218.6	1.5	15.4	38.1	1,472.8	902.6	3,776.3	7,028.2	13,453.5
50 mph	185.0	1.2	13.1	32.3	1,246.2	763.7	2,265.8	4,216.9	8,724.2
55 mph	134.6	0.9	9.5	23.5	906.4	555.4	755.3	1,405.6	3,791.1
60 mph	67.3	0.4	4.7	11.7	453.2	277.7	52,867.9	98,394.5	152,077.5
65 mph	33.6	0.2	2.4	5.9	226.6	138.9	0.0	0.0	407.6
70 mph	790.5	5.3	55.8	137.9	5,324.8	3,263.2	0.0	0.0	9,577.5
total	1,681.9	11.2	118.6	293.5	11,329.4	6,943.0	75,525.5	140,563.5	236,466.7

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
15 mph	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0	1,541.9
25 mph	0.0	0.0	0.0	0.0	481.3	295.0	1,878.9	3,496.9	6,152.1
35 mph	537.9	3.6	37.9	49.0	0.0	0.0	0.0	0.0	628.3
total	572.8	3.8	40.4	56.6	644.9	395.2	2,309.8	4,298.9	8,322.3

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
10 mph	82.0	0.5	5.8	11.5	330.3	202.4	1,400.0	2,605.6	4,638.0
15 mph	53.1	0.4	3.7	10.2	237.0	145.2	830.9	1,546.4	2,826.9
20 mph	126.1	0.8	8.9	18.2	553.6	339.3	1,955.3	3,639.0	6,641.3
25 mph	480.6	3.2	33.9	68.0	2,486.0	1,523.5	8,389.5	15,614.0	28,598.8
30 mph	479.2	3.2	33.8	68.4	2,044.6	1,253.0	7,776.3	14,472.8	26,131.4
35 mph	860.2	5.7	60.7	96.3	1,480.6	907.4	6,131.6	11,411.7	20,954.1
40 mph	210.2	1.4	14.8	32.9	1,120.1	686.4	6,686.8	12,445.1	21,197.7
45 mph	291.5	1.9	20.6	48.3	1,766.4	1,082.5	5,576.3	10,378.3	19,165.8
50 mph	257.9	1.7	18.2	42.5	1,539.8	943.6	4,465.8	8,311.5	15,580.9
55 mph	262.1	1.7	18.5	41.3	1,420.1	870.3	955.3	1,777.9	5,347.1
60 mph	149.2	1.0	10.5	23.2	783.4	480.1	53,667.9	99,883.4	154,998.8
65 mph	33.6	0.2	2.4	5.9	226.6	138.9	0.0	0.0	407.6
70 mph	790.5	5.3	55.8	137.9	5,324.8	3,263.2	0.0	0.0	9,577.5
total	4,076.2	27.2	287.6	604.5	19,313.3	11,835.8	97,835.6	182,085.6	316,065.8

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	506.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	507.2
15 mph	112.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	112.7
20 mph	675.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	676.2
25 mph	2,815.6	1.9	0.0	0.0	0.0	0.0	0.0	0.0	2,817.5
30 mph	2,703.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	2,704.8
35 mph	1,576.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1,577.8
40 mph	675.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	676.2
45 mph	450.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	450.8
50 mph	450.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	450.8
55 mph	450.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	451.0
60 mph	506.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	507.2
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	10,924.6	7.5	0.0	0.0	0.0	0.0	0.0	0.0	10,932.1

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	104.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	104.1
25 mph	156.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	156.1
30 mph	260.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	260.1
35 mph	416.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	416.2
40 mph	623.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	624.3
45 mph	1,351.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1,352.7
50 mph	1,143.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1,144.6
55 mph	831.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	832.5
60 mph	416.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	416.2
65 mph	208.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	208.1
70 mph	4,887.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	4,890.7
total	10,398.8	6.9	0.0	0.0	0.0	0.0	0.0	0.0	10,405.7

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	215.9
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,496.9	3,496.9
35 mph	3,325.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	3,327.7
total	3,541.2	2.4	0.0	0.0	0.0	0.0	0.0	3,496.9	7,040.5

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	506.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	507.2
15 mph	328.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	328.6
20 mph	779.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	780.3
25 mph	2,971.6	2.0	0.0	0.0	0.0	0.0	0.0	3,496.9	6,470.5
30 mph	2,963.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2,964.9
35 mph	5,318.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0	5,321.7
40 mph	1,299.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1,300.5
45 mph	1,802.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1,803.5
50 mph	1,594.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1,595.4
55 mph	1,282.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1,283.5
60 mph	922.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	923.4
65 mph	208.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	208.1
70 mph	4,887.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	4,890.7
total	12,867.7	8.6	0.0	0.0	0.0	0.0	0.0	3,496.9	28,378.3

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	9,475	1,895	515	103	1,365	273	2,275	455	2,726	6.75	0.035	0.0002	0.5	0.0007	2.0
2	A	731	0.45	5,175	2,329	258	116	680	306	1,133	510	3,260	6.46	0.035	0.0002	0.6	0.0007	2.3
3	A	2352	1.46	1,580	2,307	115	168	187	273	312	455	3,203	6.14	0.035	0.0002	0.5	0.0007	2.1
5	A	953	0.59	4,555	2,687	207	122	-	-	-	-	2,810	2.28	0.035	0.0001	0.2	0.0002	0.7
6	A	1099	0.68	10,700	7,276	553	376	1,484	1,009	2,474	1,682	10,343	6.63	0.035	0.0002	1.8	0.0007	7.4
8	A	1091	0.68	3,310	2,251	195	133	-	-	-	-	2,383	2.32	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	7,310	5,483	68	51	-	-	-	-	5,534	2.16	0.035	0.0001	0.3	0.0002	1.3
12	A	824	0.51	12,320	6,283	45	23	2	1	3	2	6,309	2.15	0.035	0.0001	0.4	0.0002	1.4
14	A	1618	1.01	2,585	2,611	35	36	101	102	168	170	2,918	3.74	0.035	0.0001	0.3	0.0004	1.2
18	A	1412	0.88	1,055	928	-	-	-	-	-	-	928	2.13	0.035	0.0001	0.1	0.0002	0.2
19	A	2386	1.48	1,930	2,023	-	-	-	-	-	-	2,023	2.13	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	1,425	1,112	26	20	19	15	31	24	1,170	2.75	0.035	0.0001	0.1	0.0003	0.3
24	A	1946	1.21	1,790	2,166	62	75	58	70	97	117	2,428	3.54	0.035	0.0001	0.2	0.0004	0.9
30	A	2827	1.76	14,320	25,203	47	83	-	-	-	-	25,286	2.14	0.035	0.0001	1.4	0.0002	5.7
29	A	675	0.42	4,555	1,913	44	19	-	-	-	-	1,932	2.16	0.035	0.0001	0.1	0.0002	0.4
31	A	820	0.51	15,945	8,132	90	46	135	69	225	115	8,362	2.52	0.035	0.0001	0.5	0.0003	2.2
TOTAL				98,031		2,260		4,029		6,719						7.2		29.3

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				25283.24	496764.63	2,226.00	53,126.35	2,445.03	107,644.59	4,076.97	179,491.88	837,027.44	5.58	0.035	0.0001	123.54512	0.0006	503.33197

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	2961.4	34.5	213.0
	LDT1	15	1127	330	0.21	236.8	236.4	0.2	0.1
	LDT2	15	5642	330	0.21	1184.8	1182.4	2.4	0.0
	MDT	15	1700	330	0.21	357.0	349.4	7.5	0.0
	LHDT1	15	1494	330	0.21	313.6	150.4	163.2	0.0
	LHDT2	15	718	330	0.21	150.8	50.8	100.0	0.0
	MHDT	15	2286	330	0.21	480.2	54.1	426.1	0.0
	HHDT	15	3813	330	0.21	800.6	7.6	793.0	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.5	0.1	0.3
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.4	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.1	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.0	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.1	0.1	0.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.2	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.5	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	18.5	0.2	1.3
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.6	0.0	0.2
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2999.2	239.4	1197.5	352.6	150.8	50.9	54.7	7.7
Diesel	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0
Electric	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	358	389	0	1790.9	1942.8	0.0
	LHDT2	5	359	121	238	0	604.5	1190.6	0.0
	MHDT	5	1143	129	1015	0	643.5	5072.6	0.0
	HHDT	5	1906	18	1888	0	90.5	9440.8	0.0
Travel at Light Logistics	LHDT1	5	1	1	1	0	2.9	3.2	0.0
	LHDT2	5	1	0	0	0	1.0	1.9	0.0
	MHDT	5	2	0	1	0	0.8	6.7	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	2	0	8.5	9.3	0.0
	LHDT2	5	2	1	1	0	2.9	5.7	0.0
	MHDT	5	7	1	6	0	3.8	30.1	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	8	63	0	40.0	315.5	0.0
	HHDT	5	119	1	117	0	5.6	587.2	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	30.0	10.1	11.5	1.6
Diesel	32.6	20.0	90.4	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	13.0528	12.2296	20.3988	10.6186
10 mph	0.0358	0.0838	0.0464	0.0810	0.1181	0.0412	0.1328	1.3612
15 mph	0.0241	0.0581	0.0311	0.0541	0.0814	0.0277	0.0885	0.8922
20 mph	0.0170	0.0420	0.0220	0.0385	0.0594	0.0199	0.0622	0.6284
25 mph	0.0125	0.0313	0.0162	0.0287	0.0451	0.0149	0.0461	0.4626
30 mph	0.0097	0.0244	0.0126	0.0225	0.0359	0.0117	0.0361	0.3606
35 mph	0.0079	0.0198	0.0103	0.0187	0.0302	0.0098	0.0297	0.2974
40 mph	0.0068	0.0172	0.0089	0.0162	0.0269	0.0086	0.0259	0.2584
45 mph	0.0063	0.0157	0.0081	0.0148	0.0251	0.0080	0.0238	0.2364
50 mph	0.0060	0.0149	0.0078	0.0143	0.0245	0.0077	0.0229	0.2284
55 mph	0.0061	0.0150	0.0079	0.0146	0.0254	0.0080	0.0233	0.2336
60 mph	0.0065	0.0158	0.0085	0.0155	0.0276	0.0086	0.0250	0.2509
65 mph	0.0072	0.0170	0.0094	0.0174	0.0317	0.0098		
70 mph	0.0076	0.0170	0.0098	0.0199	0.0317	0.0097		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1695	0.5532
10 mph	0.1140	0.3876	0.1950	0.1170	0.5540	0.5438	0.1972	0.4801
15 mph	0.0602	0.2571	0.0959	0.0582	0.2914	0.2750	0.1388	0.3376
20 mph	0.0281	0.1751	0.0380	0.0238	0.1395	0.1187	0.1001	0.2429
25 mph	0.0185	0.1332	0.0230	0.0147	0.0940	0.0759	0.0734	0.1783
30 mph	0.0143	0.1079	0.0174	0.0113	0.0752	0.0592	0.0541	0.1314
35 mph	0.0115	0.0909	0.0139	0.0091	0.0641	0.0489	0.0399	0.0968
40 mph	0.0098	0.0818	0.0115	0.0076	0.0568	0.0421	0.0294	0.0714
45 mph	0.0089	0.0778	0.0098	0.0066	0.0518	0.0373	0.0217	0.0527
50 mph	0.0082	0.0768	0.0086	0.0058	0.0495	0.0344	0.0160	0.0389
55 mph	0.0078	0.0797	0.0076	0.0053	0.0482	0.0323	0.0119	0.0288
60 mph	0.0080	0.0866	0.0073	0.0052	0.0497	0.0323	0.0102	0.0248
65 mph	0.0084	0.0954	0.0074	0.0054	0.0581	0.0362		
70 mph	0.0073	0.0920	0.0073	0.0057	0.0978	0.0563		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.5556	0.1039	0.2877	0.0948	0.0793	0.0093	0.0520	0.0750	1.2576
15 mph	0.0833	0.0160	0.0429	0.0141	0.0121	0.0014	0.0099	0.0140	0.1938
20 mph	0.3525	0.0695	0.1817	0.0600	0.0531	0.0060	0.0209	0.0297	0.7734
25 mph	1.0814	0.2156	0.5585	0.1864	0.1680	0.0187	0.0645	0.0910	2.3842
30 mph	0.8034	0.1612	0.4164	0.1406	0.1286	0.0142	0.0404	0.0568	1.7615
35 mph	0.3809	0.0764	0.1983	0.0679	0.0630	0.0069	0.0133	0.0187	0.8255
40 mph	0.1413	0.0284	0.0736	0.0253	0.0240	0.0026	0.0101	0.0142	0.3196
45 mph	0.0863	0.0173	0.0449	0.0154	0.0149	0.0016	0.0120	0.0168	0.2092
50 mph	0.0829	0.0165	0.0431	0.0149	0.0146	0.0016	0.0141	0.0198	0.2073
55 mph	0.1471	0.0290	0.0766	0.0265	0.0265	0.0028	0.0013	0.0018	0.3118
60 mph	0.1011	0.0196	0.0525	0.0181	0.0185	0.0019	0.0056	0.0079	0.2253
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	3.8158	0.7534	1.9761	0.6642	0.6029	0.0670	0.2441	0.3458	8.4692

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0542	0.0107	0.0280	0.0115	0.0137	0.0015	0.0131	0.0187	0.1515
25 mph	0.0599	0.0119	0.0309	0.0129	0.0156	0.0017	0.0195	0.0275	0.1800
30 mph	0.0773	0.0155	0.0400	0.0169	0.0207	0.0023	0.0381	0.0536	0.2644
35 mph	0.1005	0.0202	0.0523	0.0224	0.0278	0.0030	0.0377	0.0530	0.3169
40 mph	0.1304	0.0262	0.0680	0.0292	0.0371	0.0040	0.0383	0.0538	0.3870
45 mph	0.2590	0.0520	0.1347	0.0579	0.0750	0.0080	0.0251	0.0351	0.6468
50 mph	0.2104	0.0418	0.1093	0.0473	0.0621	0.0066	0.0145	0.0204	0.5124
55 mph	0.1552	0.0306	0.0809	0.0350	0.0468	0.0049	0.0049	0.0069	0.3654
60 mph	0.0830	0.0161	0.0431	0.0186	0.0254	0.0027	0.3700	0.5221	1.0810
65 mph	0.0461	0.0086	0.0240	0.0104	0.0146	0.0015	0.0000	0.0000	0.1053
70 mph	1.1325	0.2036	0.5861	0.2807	0.3429	0.0355	0.0000	0.0000	2.5812
total	2.3086	0.4372	1.1973	0.5427	0.6816	0.0718	0.5613	0.7912	6.5918

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5159	0.0381	1.6920
15 mph	0.1597	0.0307	0.0821	0.0421	0.0271	0.0031	0.0107	0.0151	0.3705
25 mph	0.0000	0.0000	0.0000	0.0000	0.0441	0.0049	0.0242	0.0342	0.1075
35 mph	0.8034	0.1611	0.4181	0.0933	0.0000	0.0000	0.0000	0.0000	1.4761
total	0.9631	0.1918	0.5003	0.1354	0.9357	0.2814	0.5508	0.0874	3.6460

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5159	0.0381	1.6920
10 mph	0.5556	0.1039	0.2877	0.0948	0.0793	0.0093	0.0520	0.0750	1.2576
15 mph	0.2430	0.0467	0.1250	0.0562	0.0392	0.0045	0.0206	0.0292	0.5643
20 mph	0.4067	0.0801	0.2096	0.0716	0.0668	0.0076	0.0340	0.0484	0.9248
25 mph	1.1413	0.2275	0.5894	0.1993	0.2277	0.0254	0.1083	0.1528	2.6716
30 mph	0.8807	0.1768	0.4564	0.1575	0.1493	0.0164	0.0785	0.1104	2.0259
35 mph	1.2849	0.2577	0.6687	0.1836	0.0909	0.0099	0.0510	0.0718	2.6185
40 mph	0.2717	0.0546	0.1416	0.0545	0.0611	0.0066	0.0484	0.0680	0.7066
45 mph	0.3453	0.0693	0.1796	0.0733	0.0900	0.0096	0.0371	0.0519	0.8560
50 mph	0.2933	0.0583	0.1524	0.0622	0.0767	0.0081	0.0286	0.0401	0.7197
55 mph	0.3024	0.0597	0.1575	0.0615	0.0734	0.0078	0.0062	0.0088	0.6772
60 mph	0.1841	0.0356	0.0956	0.0367	0.0440	0.0046	0.3756	0.5300	1.3063
65 mph	0.0461	0.0086	0.0240	0.0104	0.0146	0.0015	0.0000	0.0000	0.1053
70 mph	1.1325	0.2036	0.5861	0.2807	0.3429	0.0355	0.0000	0.0000	2.5812
total	7.0875	1.3824	3.6737	1.3423	2.2202	0.4203	1.3563	1.2244	18.7071

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0206	0.0005	0.0025	0.0030	0.4034	0.2427	0.6088	2.7581	4.0395
15 mph	0.0024	0.0001	0.0003	0.0003	0.0472	0.0273	0.1224	0.5542	0.7541
20 mph	0.0068	0.0003	0.0006	0.0008	0.1355	0.0706	0.2649	1.1963	1.6759
25 mph	0.0186	0.0009	0.0016	0.0021	0.3802	0.1882	0.8094	3.6585	5.0593
30 mph	0.0138	0.0007	0.0012	0.0015	0.2920	0.1409	0.4775	2.1564	3.0839
35 mph	0.0065	0.0003	0.0006	0.0007	0.1453	0.0680	0.1408	0.6354	0.9976
40 mph	0.0024	0.0001	0.0002	0.0003	0.0551	0.0250	0.0909	0.4102	0.5841
45 mph	0.0014	0.0001	0.0001	0.0001	0.0335	0.0148	0.0862	0.3892	0.5255
50 mph	0.0013	0.0001	0.0001	0.0001	0.0320	0.0136	0.0778	0.3513	0.4764
55 mph	0.0022	0.0001	0.0002	0.0002	0.0547	0.0224	0.0052	0.0237	0.1087
60 mph	0.0015	0.0001	0.0001	0.0001	0.0362	0.0144	0.0180	0.0814	0.1518
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0773	0.0033	0.0074	0.0093	1.6150	0.8279	2.7020	12.2147	17.4569

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0010	0.0000	0.0001	0.0002	0.0349	0.0182	0.1668	0.7529	0.9741
25 mph	0.0010	0.0000	0.0001	0.0001	0.0352	0.0174	0.2445	1.1052	1.4037
30 mph	0.0013	0.0001	0.0001	0.0002	0.0470	0.0227	0.4508	2.0358	2.5578
35 mph	0.0017	0.0001	0.0001	0.0002	0.0641	0.0300	0.3989	1.7997	2.2948
40 mph	0.0022	0.0001	0.0002	0.0003	0.0851	0.0386	0.3431	1.5489	2.0185
45 mph	0.0043	0.0003	0.0003	0.0006	0.1681	0.0742	0.1808	0.8165	1.2450
50 mph	0.0033	0.0002	0.0002	0.0004	0.1360	0.0579	0.0802	0.3618	0.6400
55 mph	0.0023	0.0002	0.0002	0.0003	0.0964	0.0396	0.0198	0.0893	0.2480
60 mph	0.0012	0.0001	0.0001	0.0001	0.0497	0.0198	1.1900	5.3803	6.6412
65 mph	0.0006	0.0000	0.0000	0.0001	0.0290	0.0111	0.0000	0.0000	0.0409
70 mph	0.0127	0.0011	0.0009	0.0017	1.1484	0.4053	0.0000	0.0000	1.5701
total	0.0317	0.0022	0.0024	0.0042	1.8938	0.7346	3.0749	13.8905	19.6342

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0338	0.2053	0.6068
15 mph	0.0046	0.0001	0.0005	0.0010	0.1051	0.0608	0.1318	0.5970	0.9009
25 mph	0.0000	0.0000	0.0000	0.0000	0.0997	0.0494	0.3042	1.3748	1.8280
35 mph	0.0136	0.0007	0.0012	0.0010	0.0000	0.0000	0.0000	0.0000	0.0165
total	0.0183	0.0009	0.0017	0.0020	0.4328	0.2499	0.4698	2.1770	3.3522

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0338	0.2053	0.6068
10 mph	0.0206	0.0005	0.0025	0.0030	0.4034	0.2427	0.6088	2.7581	4.0395
15 mph	0.0071	0.0002	0.0008	0.0013	0.1522	0.0881	0.2542	1.1511	1.6550
20 mph	0.0078	0.0003	0.0007	0.0010	0.1703	0.0888	0.4317	1.9493	2.6500
25 mph	0.0196	0.0009	0.0017	0.0022	0.5151	0.2549	1.3581	6.1385	8.2911
30 mph	0.0151	0.0008	0.0013	0.0017	0.3389	0.1635	0.9283	4.1921	5.6418
35 mph	0.0218	0.0011	0.0019	0.0019	0.2094	0.0979	0.5397	2.4351	3.3089
40 mph	0.0046	0.0003	0.0004	0.0005	0.1402	0.0637	0.4340	1.9591	2.6027
45 mph	0.0057	0.0003	0.0004	0.0007	0.2016	0.0889	0.2670	1.2058	1.7705
50 mph	0.0046	0.0003	0.0003	0.0005	0.1680	0.0715	0.1580	0.7131	1.1165
55 mph	0.0045	0.0003	0.0003	0.0005	0.1511	0.0621	0.0250	0.1130	0.3567
60 mph	0.0026	0.0002	0.0002	0.0003	0.0859	0.0342	1.2080	5.4617	6.7930
65 mph	0.0006	0.0000	0.0000	0.0001	0.0290	0.0111	0.0000	0.0000	0.0409
70 mph	0.0127	0.0011	0.0009	0.0017	1.1484	0.4053	0.0000	0.0000	1.5701
total	0.1273	0.0063	0.0115	0.0154	3.9416	1.8124	6.2466	28.2822	40.4433

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.04	0.15	0.06	0.09	0.65	0.19	0.16	0.04
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	29.45	9.08	17.45	5.50	25.46	2.57	4.28	0.15
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**29.45**	**9.08**	**17.45**	**5.50**	**25.46**	**2.57**	**4.28**	**0.15**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.41	1.21	0.52	0.84	0.12	0.06	0.06	0.04
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.74	1.60	3.44	1.60	0.10	0.02	0.02	0.00
Electric	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**6.78**	**1.60**	**3.44**	**1.60**	**0.10**	**0.02**	**0.02**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.09	0.41	0.55	0.24	2.30
10 mph	0.58	0.10	0.29	0.10	0.48	0.25	0.66	2.83	5.30
15 mph	0.25	0.05	0.13	0.06	0.19	0.09	0.27	1.18	2.22
20 mph	0.41	0.08	0.21	0.07	0.24	0.10	0.47	2.00	3.57
25 mph	1.16	0.23	0.59	0.20	0.74	0.28	1.47	6.29	10.96
30 mph	0.90	0.18	0.46	0.16	0.49	0.18	1.01	4.30	7.67
35 mph	1.31	0.26	0.67	0.19	0.30	0.11	0.59	2.51	5.93
40 mph	0.28	0.05	0.14	0.06	0.20	0.07	0.48	2.03	3.31
45 mph	0.35	0.07	0.18	0.07	0.29	0.10	0.30	1.26	2.63
50 mph	0.30	0.06	0.15	0.06	0.24	0.08	0.19	0.75	1.84
55 mph	0.31	0.06	0.16	0.06	0.22	0.07	0.03	0.12	1.03
60 mph	0.19	0.04	0.10	0.04	0.13	0.04	1.58	5.99	8.10
65 mph	0.05	0.01	0.02	0.01	0.04	0.01	0.00	0.00	0.15
70 mph	1.15	0.20	0.59	0.28	1.49	0.44	0.00	0.00	4.15
RUNLOSS	29.45	9.08	17.45	5.50	25.46	2.57	4.28	0.15	93.94
RESTLOSS DIURI	6.78	1.60	3.44	1.60	0.10	0.02	0.02	0.00	13.55
total	43.44	12.07	24.58	8.45	31.72	4.82	11.90	29.66	**166.63**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.1346	1.0612	1.8059	25.9645
10 mph	0.0629	0.1686	0.0898	0.1579	0.3531	0.1672	0.3966	4.5535
15 mph	0.0557	0.1462	0.0788	0.1369	0.3115	0.1463	0.3507	3.9973
20 mph	0.0498	0.1287	0.0703	0.1222	0.2870	0.1331	0.3153	3.5963
25 mph	0.0449	0.1138	0.0633	0.1107	0.2655	0.1218	0.2881	3.2732
30 mph	0.0412	0.1027	0.0581	0.1024	0.2505	0.1135	0.2673	3.0321
35 mph	0.0384	0.0943	0.0541	0.0967	0.2409	0.1080	0.2520	2.8583
40 mph	0.0366	0.0902	0.0517	0.0929	0.2345	0.1041	0.2415	2.7365
45 mph	0.0357	0.0889	0.0504	0.0907	0.2310	0.1018	0.2352	2.6594
50 mph	0.0353	0.0887	0.0498	0.0905	0.2310	0.1005	0.2315	2.6264
55 mph	0.0356	0.0915	0.0504	0.0922	0.2345	0.1016	0.2321	2.6414
60 mph	0.0365	0.0959	0.0517	0.0951	0.2392	0.1035	0.2363	2.6927
65 mph	0.0376	0.1001	0.0534	0.1003	0.2489	0.1072		
70 mph	0.0374	0.0959	0.0524	0.1105	0.2674	0.1084		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	55.1536	49.5342	18.9307	18.2067
10 mph	0.0972	0.5625	0.1311	0.0885	1.2043	0.7272	7.5265	15.5674
15 mph	0.0761	0.5746	0.0898	0.0620	1.0397	0.5966	4.6201	9.6526
20 mph	0.0609	0.5819	0.0612	0.0436	1.0463	0.5555	2.7027	5.7332
25 mph	0.0538	0.5876	0.0479	0.0353	1.0526	0.5389	1.5622	3.4228
30 mph	0.0499	0.5918	0.0408	0.0310	1.1106	0.5536	1.0276	2.3120
35 mph	0.0468	0.5903	0.0360	0.0282	1.2082	0.5878	0.7323	1.6900
40 mph	0.0457	0.6066	0.0328	0.0264	1.2914	0.6187	0.5525	1.3097
45 mph	0.0459	0.6349	0.0306	0.0252	1.3494	0.6409	0.4348	1.0595
50 mph	0.0458	0.6540	0.0288	0.0243	1.4275	0.6759	0.3553	0.8804
55 mph	0.0458	0.6773	0.0275	0.0238	1.4541	0.6854	0.2977	0.7561
60 mph	0.0470	0.7035	0.0270	0.0237	1.4750	0.6919	0.2749	0.7091
65 mph	0.0464	0.6954	0.0269	0.0240	1.6623	0.7796		
70 mph	0.0401	0.5666	0.0259	0.0254	3.0371	1.4913		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.9777	0.2090	0.5567	0.1848	0.2370	0.0379	0.1553	0.2509	2.6093
15 mph	0.1923	0.0403	0.1086	0.0356	0.0465	0.0074	0.0392	0.0629	0.5328
20 mph	1.0309	0.2128	0.5817	0.1907	0.2568	0.0402	0.1058	0.1699	2.5888
25 mph	3.8776	0.7840	2.1828	0.7197	0.9902	0.1533	0.4029	0.6442	9.7547
30 mph	3.4135	0.6793	1.9208	0.6393	0.8968	0.1372	0.2991	0.4774	8.4633
35 mph	1.8538	0.3639	1.0435	0.3522	0.5032	0.0761	0.1128	0.1800	4.4855
40 mph	0.7586	0.1491	0.4273	0.1450	0.2098	0.0315	0.0946	0.1508	1.9666
45 mph	0.4933	0.0979	0.2777	0.0943	0.1378	0.0205	0.1184	0.1884	1.4284
50 mph	0.4875	0.0978	0.2744	0.0942	0.1378	0.0202	0.1425	0.2274	1.4818
55 mph	0.8595	0.1765	0.4864	0.1679	0.2448	0.0358	0.0130	0.0208	2.0048
60 mph	0.5664	0.1189	0.3207	0.1113	0.1606	0.0235	0.0529	0.0848	1.4390
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	14.5111	2.9295	8.1806	2.7350	3.8214	0.5835	1.5365	2.4574	36.7550

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.1586	0.0327	0.0895	0.0366	0.0661	0.0103	0.0666	0.1069	0.5675
25 mph	0.2148	0.0434	0.1209	0.0498	0.0917	0.0142	0.1217	0.1946	0.8512
30 mph	0.3283	0.0653	0.1847	0.0768	0.1442	0.0221	0.2824	0.4507	1.5545
35 mph	0.4890	0.0960	0.2753	0.1161	0.2219	0.0336	0.3194	0.5098	2.0611
40 mph	0.7004	0.1377	0.3945	0.1672	0.3239	0.0486	0.3572	0.5694	2.6988
45 mph	1.4802	0.2939	0.8334	0.3535	0.6915	0.1028	0.2484	0.3953	4.3991
50 mph	1.2378	0.2484	0.6967	0.2987	0.5851	0.0860	0.1467	0.2342	3.5335
55 mph	0.9070	0.1863	0.5132	0.2213	0.4320	0.0631	0.0490	0.0785	2.4504
60 mph	0.4649	0.0976	0.2632	0.1141	0.2203	0.0322	3.4952	5.6031	10.2905
65 mph	0.2397	0.0510	0.1360	0.0602	0.1146	0.0167	0.0000	0.0000	0.6181
70 mph	5.5958	1.1468	3.1360	1.5574	2.8946	0.3961	0.0000	0.0000	14.7267
total	11.8165	2.3990	6.6435	3.0516	5.7860	0.8256	5.0866	8.1425	43.7514

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0457	0.0931	0.2376
15 mph	0.3684	0.0772	0.2080	0.1064	0.1035	0.0164	0.0423	0.0678	0.9901
25 mph	0.0000	0.0000	0.0000	0.0000	0.2598	0.0402	0.1514	0.2421	0.6934
35 mph	3.9097	0.7675	2.2009	0.4840	0.0000	0.0000	0.0000	0.0000	7.3621
total	4.2781	0.8447	2.4089	0.5904	0.4385	0.0804	0.2394	0.4029	9.2833

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0457	0.0931	0.2376
10 mph	0.9777	0.2090	0.5567	0.1848	0.2370	0.0379	0.1553	0.2509	2.6093
15 mph	0.5608	0.1175	0.3166	0.1420	0.1500	0.0238	0.0815	0.1307	1.5229
20 mph	1.1896	0.2455	0.6712	0.2273	0.3229	0.0505	0.1725	0.2768	3.1563
25 mph	4.0924	0.8274	2.3038	0.7695	1.3416	0.2077	0.6760	1.0808	11.2993
30 mph	3.7419	0.7446	2.1055	0.7160	1.0410	0.1593	0.5815	0.9280	10.0178
35 mph	6.2525	1.2274	3.5197	0.9523	0.7251	0.1097	0.4321	0.6898	13.9086
40 mph	1.4590	0.2867	0.8217	0.3121	0.5338	0.0800	0.4518	0.7202	4.6654
45 mph	1.9735	0.3918	1.1112	0.4478	0.8293	0.1233	0.3668	0.5837	5.8275
50 mph	1.7253	0.3462	0.9711	0.3929	0.7229	0.1062	0.2892	0.4617	5.0153
55 mph	1.7665	0.3628	0.9996	0.3893	0.6768	0.0989	0.0620	0.0993	4.4552
60 mph	1.0313	0.2165	0.5838	0.2253	0.3809	0.0556	3.5481	5.6879	11.7294
65 mph	0.2397	0.0510	0.1360	0.0602	0.1146	0.0167	0.0000	0.0000	0.6181
70 mph	5.5958	1.1468	3.1360	1.5574	2.8946	0.3961	0.0000	0.0000	14.7267
total	30.6058	6.1732	17.2330	6.3770	10.0458	1.4894	6.8625	11.0029	89.7896

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0176	0.0007	0.0017	0.0022	0.8770	0.3246	23.2345	89.4411	113.8993
15 mph	0.0031	0.0002	0.0003	0.0003	0.1683	0.0592	4.0750	15.8451	20.1513
20 mph	0.0147	0.0009	0.0010	0.0015	1.0159	0.3305	7.1513	28.2338	36.7496
25 mph	0.0541	0.0039	0.0034	0.0049	4.2585	1.3361	17.2239	70.2327	93.1175
30 mph	0.0481	0.0038	0.0028	0.0042	4.3132	1.3176	9.0636	37.9526	52.7060
35 mph	0.0263	0.0022	0.0014	0.0022	2.7373	0.8162	2.5836	11.0971	17.2664
40 mph	0.0110	0.0010	0.0006	0.0009	1.2539	0.3682	1.7055	7.5245	10.8655
45 mph	0.0074	0.0007	0.0003	0.0006	0.8735	0.2542	1.7257	7.8262	10.6886
50 mph	0.0074	0.0007	0.0003	0.0005	0.9240	0.2681	1.7237	7.9486	10.8734
55 mph	0.0129	0.0013	0.0005	0.0009	1.6472	0.4758	0.1313	0.6206	2.8905
60 mph	0.0085	0.0008	0.0003	0.0006	1.0742	0.3088	0.4849	2.3280	4.2061
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.2109	0.0162	0.0127	0.0189	19.1431	5.8592	69.1029	279.0503	373.4142

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0023	0.0001	0.0002	0.0003	0.2614	0.0850	4.5008	17.7696	22.6197
25 mph	0.0030	0.0002	0.0002	0.0003	0.3944	0.1238	5.2033	21.2172	26.9425
30 mph	0.0046	0.0004	0.0003	0.0005	0.6936	0.2119	8.5566	35.8295	45.2973
35 mph	0.0069	0.0006	0.0004	0.0007	1.2073	0.3600	7.3172	31.4290	40.3221
40 mph	0.0102	0.0009	0.0005	0.0010	1.9357	0.5683	6.4404	28.4144	37.3714
45 mph	0.0221	0.0020	0.0010	0.0021	4.3823	1.2754	3.6203	16.4186	25.7241
50 mph	0.0187	0.0018	0.0008	0.0017	3.9227	1.1382	1.7752	8.1861	15.0453
55 mph	0.0136	0.0013	0.0006	0.0012	2.9061	0.8395	0.4957	2.3435	6.6015
60 mph	0.0070	0.0007	0.0003	0.0006	1.4739	0.4237	32.0419	153.8452	187.7932
65 mph	0.0034	0.0003	0.0001	0.0003	0.8305	0.2387	0.0000	0.0000	1.0735
70 mph	0.0699	0.0066	0.0032	0.0077	35.6591	10.7308	0.0000	0.0000	46.4773
total	0.1617	0.0150	0.0076	0.0166	53.6672	15.9953	69.9514	315.4531	455.2678

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.7741	6.7555	16.6741
15 mph	0.0059	0.0003	0.0005	0.0010	0.3750	0.1319	4.3898	17.0690	21.9733
25 mph	0.0000	0.0000	0.0000	0.0000	1.1172	0.3505	6.4724	26.3919	34.3319
35 mph	0.0555	0.0047	0.0030	0.0030	0.0000	0.0000	0.0000	0.0000	0.0662
total	0.0614	0.0050	0.0035	0.0041	5.4553	2.6636	14.6363	50.2164	73.0456

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.7741	6.7555	16.6741
10 mph	0.0176	0.0007	0.0017	0.0022	0.8770	0.3246	23.2345	89.4411	113.8993
15 mph	0.0089	0.0004	0.0007	0.0014	0.5432	0.1910	8.4648	32.9141	42.1246
20 mph	0.0169	0.0011	0.0012	0.0018	1.2773	0.4156	11.6521	46.0034	59.3693
25 mph	0.0571	0.0041	0.0036	0.0053	5.7701	1.8103	28.8996	117.8417	154.3919
30 mph	0.0527	0.0042	0.0030	0.0047	5.0068	1.5295	17.6202	73.7822	98.0033
35 mph	0.0888	0.0075	0.0048	0.0060	3.9446	1.1761	9.9008	42.5262	57.6548
40 mph	0.0212	0.0019	0.0011	0.0019	3.1896	0.9365	8.1459	35.9389	48.2369
45 mph	0.0295	0.0027	0.0014	0.0027	5.2558	1.5296	5.3460	24.2448	36.4126
50 mph	0.0260	0.0025	0.0012	0.0023	4.8467	1.4063	3.4989	16.1347	25.9186
55 mph	0.0265	0.0026	0.0011	0.0022	4.5533	1.3153	0.6270	2.9641	9.4921
60 mph	0.0155	0.0015	0.0006	0.0012	2.5481	0.7325	32.5267	156.1732	191.9994
65 mph	0.0034	0.0003	0.0001	0.0003	0.8305	0.2387	0.0000	0.0000	1.0735
70 mph	0.0699	0.0066	0.0032	0.0077	35.6591	10.7308	0.0000	0.0000	46.4773
total	0.4340	0.0361	0.0237	0.0396	78.2655	24.5182	153.6906	644.7199	901.7276

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.04	2.21	3.82	6.85	16.91
10 mph	1.00	0.21	0.56	0.19	1.11	0.36	23.39	89.69	116.51
15 mph	0.57	0.12	0.32	0.14	0.69	0.21	8.55	33.04	43.65
20 mph	1.21	0.25	0.67	0.23	1.60	0.47	11.82	46.28	62.53
25 mph	4.15	0.83	2.31	0.77	7.11	2.02	29.58	118.92	165.69
30 mph	3.79	0.75	2.11	0.72	6.05	1.69	18.20	74.71	108.02
35 mph	6.34	1.23	3.52	0.96	4.67	1.29	10.33	43.22	71.56
40 mph	1.48	0.29	0.82	0.31	3.72	1.02	8.60	36.66	52.90
45 mph	2.00	0.39	1.11	0.45	6.09	1.65	5.71	24.83	42.24
50 mph	1.75	0.35	0.97	0.40	5.57	1.51	3.79	16.60	30.93
55 mph	1.79	0.37	1.00	0.39	5.23	1.41	0.69	3.06	13.95
60 mph	1.05	0.22	0.58	0.23	2.93	0.79	36.07	161.86	203.73
65 mph	0.24	0.05	0.14	0.06	0.95	0.26	0.00	0.00	1.69
70 mph	5.67	1.15	3.14	1.57	38.55	11.13	0.00	0.00	61.20
total	31.04	6.21	17.26	6.42	88.31	26.01	160.55	655.72	**991.52**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	124.4483	127.5595	318.3050	265.7938
10 mph	0.8342	1.8852	1.0329	1.5242	1.6491	0.5168	1.4643	48.7806
15 mph	0.7621	1.6847	0.9389	1.3700	1.3665	0.4410	1.3147	44.2787
20 mph	0.6952	1.5094	0.8566	1.2475	1.1722	0.3904	1.1917	40.6098
25 mph	0.6334	1.3434	0.7801	1.1396	1.0226	0.3470	1.0873	37.2076
30 mph	0.5786	1.2041	0.7132	1.0480	0.9137	0.3134	0.9976	34.2317
35 mph	0.5298	1.0843	0.6538	0.9702	0.8379	0.2882	0.9197	31.6221
40 mph	0.4895	0.9986	0.6042	0.8994	0.7899	0.2697	0.8534	29.2893
45 mph	0.4550	0.9330	0.5613	0.8354	0.7608	0.2554	0.7964	27.1820
50 mph	0.4235	0.8729	0.5220	0.7826	0.7512	0.2447	0.7433	25.2918
55 mph	0.3960	0.8303	0.4893	0.7370	0.7725	0.2425	0.7016	23.6550
60 mph	0.3716	0.7925	0.4588	0.6945	0.8234	0.2456	0.6691	22.1485
65 mph	0.3475	0.7484	0.4295	0.6611	0.9259	0.2599		
70 mph	0.3314	0.6885	0.4068	0.6759	0.8817	0.2368		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2697	2.0572
10 mph	2.2519	2.4137	1.8620	2.5084	2.3491	2.2520	1.0309	2.8106
15 mph	1.1202	1.5176	0.9138	1.2314	1.2440	1.1438	0.7267	1.9814
20 mph	0.4584	0.9766	0.3589	0.4844	0.6147	0.5060	0.5254	1.4300
25 mph	0.2847	0.7494	0.2166	0.2932	0.4263	0.3305	0.3853	1.0501
30 mph	0.2182	0.6262	0.1639	0.2223	0.3518	0.2635	0.2842	0.7737
35 mph	0.1759	0.5477	0.1305	0.1776	0.3125	0.2245	0.2095	0.5699
40 mph	0.1484	0.5150	0.1081	0.1474	0.2899	0.2000	0.1545	0.4204
45 mph	0.1303	0.5165	0.0923	0.1261	0.2791	0.1849	0.1139	0.3101
50 mph	0.1178	0.5395	0.0805	0.1106	0.2852	0.1807	0.0841	0.2288
55 mph	0.1100	0.5986	0.0719	0.0992	0.2995	0.1814	0.0621	0.1692
60 mph	0.1116	0.7027	0.0690	0.0957	0.3348	0.1949	0.0534	0.1454
65 mph	0.1183	0.8376	0.0701	0.0985	0.4331	0.2417		
70 mph	0.1131	0.7928	0.0692	0.1024	0.8203	0.4490		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	12.9584	2.3376	6.4069	1.7839	1.1070	0.1171	0.5735	2.6880	27.9723
15 mph	2.6310	0.4642	1.2941	0.3563	0.2038	0.0222	0.1471	0.6971	5.8159
20 mph	14.3995	2.4955	7.0841	1.9467	1.0492	0.1179	0.4000	1.9181	29.4111
25 mph	54.6601	9.2544	26.8815	7.4098	3.8135	0.4368	1.5208	7.3224	111.2993
30 mph	47.9356	7.9630	23.5912	6.5418	3.2713	0.3787	1.1162	5.3894	96.1873
35 mph	25.6040	4.1830	12.6157	3.5326	1.7499	0.2032	0.4116	1.9914	50.2914
40 mph	10.1381	1.6510	4.9969	1.4035	0.7070	0.0815	0.3342	1.6139	20.9261
45 mph	6.2833	1.0283	3.0946	0.8691	0.4540	0.0514	0.4010	1.9258	14.1075
50 mph	5.8474	0.9621	2.8779	0.8141	0.4483	0.0493	0.4575	2.1901	13.6466
55 mph	9.5704	1.6016	4.7208	1.3418	0.8066	0.0855	0.0393	0.1862	18.3522
60 mph	5.7732	0.9827	2.8458	0.8129	0.5527	0.0557	0.1497	0.6974	11.8701
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	195.8010	32.9234	96.4093	26.8126	14.1633	1.5992	5.5510	26.6197	399.8797

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	2.2159	0.3840	1.0901	0.3742	0.2699	0.0303	0.2518	1.2072	5.8234
25 mph	3.0281	0.5127	1.4892	0.5127	0.3532	0.0405	0.4594	2.2121	8.6079
30 mph	4.6104	0.7659	2.2690	0.7858	0.5260	0.0609	1.0538	5.0879	15.1596
35 mph	6.7544	1.1035	3.3281	1.1639	0.7718	0.0896	1.1659	5.6400	20.0172
40 mph	9.3606	1.5244	4.6136	1.6186	1.0913	0.1258	1.2621	6.0946	25.6910
45 mph	18.8546	3.0858	9.2862	3.2571	2.2776	0.2580	0.8413	4.0401	41.9007
50 mph	14.8471	2.4430	7.3072	2.5819	1.9029	0.2092	0.4711	2.2555	32.0179
55 mph	10.0988	1.6900	4.9815	1.7684	1.4231	0.1508	0.1482	0.7032	20.9639
60 mph	4.7382	0.8065	2.3356	0.8332	0.7584	0.0764	9.8952	46.0874	65.5310
65 mph	2.2150	0.3808	1.0932	0.3966	0.4264	0.0404	0.0000	0.0000	4.5524
70 mph	49.6467	8.2324	24.3316	9.5272	9.5428	0.8650	0.0000	0.0000	102.1457
total	126.3698	20.9289	62.1252	22.8197	19.3437	1.9469	15.5488	73.3280	342.4108

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.0507	0.9530	20.0988
15 mph	5.0402	0.8893	2.4791	1.0653	0.4543	0.0495	0.1585	0.7510	10.8871
25 mph	0.0000	0.0000	0.0000	0.0000	1.0004	0.1146	0.5715	2.7516	4.4381
35 mph	54.0003	8.8221	26.6073	4.8541	0.0000	0.0000	0.0000	0.0000	94.2839
total	59.0405	9.7115	29.0864	5.9194	9.6980	3.0159	8.7807	4.4555	129.7079

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.0507	0.9530	20.0988
10 mph	12.9584	2.3376	6.4069	1.7839	1.1070	0.1171	0.5735	2.6880	27.9723
15 mph	7.6712	1.3536	3.7731	1.4216	0.6581	0.0717	0.3056	1.4481	16.7030
20 mph	16.6154	2.8795	8.1742	2.3209	1.3192	0.1483	0.6518	3.1252	35.2345
25 mph	57.6882	9.7671	28.3707	7.9225	5.1672	0.5918	2.5518	12.2861	124.3453
30 mph	52.5460	8.7289	25.8602	7.3276	3.7973	0.4396	2.1700	10.4773	111.3469
35 mph	86.3587	14.1085	42.5511	9.5507	2.5217	0.2928	1.5775	7.6315	164.5924
40 mph	19.4988	3.1753	9.6105	3.0221	1.7983	0.2072	1.5963	7.7086	46.6171
45 mph	25.1379	4.1141	12.3808	4.1262	2.7316	0.3095	1.2423	5.9659	56.0082
50 mph	20.6945	3.4051	10.1850	3.3960	2.3512	0.2585	0.9286	4.4455	45.6645
55 mph	19.6692	3.2916	9.7023	3.1103	2.2297	0.2362	0.1875	0.8894	39.3161
60 mph	10.5114	1.7893	5.1814	1.6461	1.3111	0.1320	10.0449	46.7848	77.4011
65 mph	2.2150	0.3808	1.0932	0.3966	0.4264	0.0404	0.0000	0.0000	4.5524
70 mph	49.6467	8.2324	24.3316	9.5272	9.5428	0.8650	0.0000	0.0000	102.1457
total	381.2113	63.5637	187.6209	55.5517	43.2050	6.5620	29.8804	104.4033	871.9984

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.4070	0.0029	0.0237	0.0633	1.7106	1.0050	3.1825	16.1482	22.5434
15 mph	0.0450	0.0004	0.0026	0.0069	0.2013	0.1134	0.6409	3.2525	4.2631
20 mph	0.1105	0.0016	0.0061	0.0163	0.5968	0.3011	1.3902	7.0424	9.4650
25 mph	0.2858	0.0050	0.0153	0.0411	1.7247	0.8195	4.2483	21.5480	28.6877
30 mph	0.2103	0.0040	0.0111	0.0299	1.3665	0.6272	2.5063	12.7004	17.4558
35 mph	0.0989	0.0021	0.0052	0.0139	0.7080	0.3117	0.7392	3.7423	5.6214
40 mph	0.0358	0.0008	0.0018	0.0050	0.2815	0.1190	0.4768	2.4152	3.3360
45 mph	0.0209	0.0006	0.0010	0.0028	0.1807	0.0733	0.4522	2.2908	3.0224
50 mph	0.0189	0.0006	0.0009	0.0025	0.1846	0.0717	0.4080	2.0660	2.7532
55 mph	0.0309	0.0011	0.0014	0.0039	0.3393	0.1259	0.0274	0.1389	0.6689
60 mph	0.0202	0.0008	0.0009	0.0024	0.2438	0.0870	0.0941	0.4773	0.9265
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2843	0.0199	0.0702	0.1882	7.5379	3.6549	14.1661	71.8220	98.7434

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0170	0.0002	0.0009	0.0031	0.1536	0.0775	0.8750	4.4323	5.5596
25 mph	0.0158	0.0003	0.0009	0.0028	0.1597	0.0759	1.2834	6.5096	8.0485
30 mph	0.0202	0.0004	0.0011	0.0036	0.2197	0.1009	2.3661	11.9899	14.7019
35 mph	0.0261	0.0005	0.0014	0.0046	0.3123	0.1375	2.0937	10.5989	13.1749
40 mph	0.0330	0.0008	0.0017	0.0057	0.4346	0.1837	1.8007	9.1205	11.5806
45 mph	0.0628	0.0017	0.0031	0.0106	0.9066	0.3680	0.9487	4.8060	7.1074
50 mph	0.0481	0.0015	0.0023	0.0079	0.7838	0.3042	0.4202	2.1277	3.6956
55 mph	0.0326	0.0012	0.0015	0.0051	0.5986	0.2222	0.1034	0.5246	1.4892
60 mph	0.0165	0.0007	0.0007	0.0025	0.3345	0.1194	6.2213	31.5437	38.2394
65 mph	0.0088	0.0004	0.0004	0.0013	0.2164	0.0740	0.0000	0.0000	0.3012
70 mph	0.1971	0.0092	0.0085	0.0312	9.6318	3.2310	0.0000	0.0000	13.1087
total	0.4782	0.0168	0.0225	0.0784	13.7515	4.8941	16.1124	81.6531	117.0070

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2531	0.7633	4.0644
15 mph	0.0862	0.0008	0.0050	0.0207	0.4487	0.2528	0.6904	3.5038	5.0082
25 mph	0.0000	0.0000	0.0000	0.0000	0.4525	0.2150	1.5964	8.0973	10.3611
35 mph	0.2086	0.0043	0.0109	0.0192	0.0000	0.0000	0.0000	0.0000	0.2430
total	0.2948	0.0051	0.0159	0.0398	2.7909	1.6259	2.5400	12.3643	19.6767

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2531	0.7633	4.0644
10 mph	0.4070	0.0029	0.0237	0.0633	1.7106	1.0050	3.1825	16.1482	22.5434
15 mph	0.1312	0.0012	0.0075	0.0276	0.6500	0.3662	1.3314	6.7563	9.2713
20 mph	0.1275	0.0018	0.0070	0.0194	0.7504	0.3785	2.2652	11.4747	15.0246
25 mph	0.3017	0.0053	0.0162	0.0440	2.3369	1.1104	7.1281	36.1548	47.0973
30 mph	0.2305	0.0044	0.0122	0.0335	1.5862	0.7281	4.8724	24.6902	32.1576
35 mph	0.3336	0.0069	0.0175	0.0377	1.0203	0.4492	2.8329	14.3412	19.0393
40 mph	0.0688	0.0016	0.0035	0.0107	0.7161	0.3026	2.2775	11.5357	14.9165
45 mph	0.0838	0.0022	0.0042	0.0134	1.0872	0.4413	1.4009	7.0968	10.1298
50 mph	0.0670	0.0020	0.0032	0.0104	0.9684	0.3759	0.8282	4.1937	6.4488
55 mph	0.0636	0.0023	0.0029	0.0090	0.9379	0.3481	0.1308	0.6635	2.1582
60 mph	0.0367	0.0015	0.0016	0.0049	0.5783	0.2063	6.3155	32.0211	39.1659
65 mph	0.0088	0.0004	0.0004	0.0013	0.2164	0.0740	0.0000	0.0000	0.3012
70 mph	0.1971	0.0092	0.0085	0.0312	9.6318	3.2310	0.0000	0.0000	13.1087
total	2.0573	0.0418	0.1086	0.3064	24.0803	10.1749	32.8184	165.8395	235.4272

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	10.13	4.01	8.30	1.72	24.16
10 mph	13.37	2.34	6.43	1.85	2.82	1.12	3.76	18.84	50.52
15 mph	7.80	1.35	3.78	1.45	1.31	0.44	1.64	8.20	25.97
20 mph	16.74	2.88	8.18	2.34	2.07	0.53	2.92	14.60	50.26
25 mph	57.99	9.77	28.39	7.97	7.50	1.70	9.68	48.44	171.44
30 mph	52.78	8.73	25.87	7.36	5.38	1.17	7.04	35.17	143.50
35 mph	86.69	14.12	42.57	9.59	3.54	0.74	4.41	21.97	183.63
40 mph	19.57	3.18	9.61	3.03	2.51	0.51	3.87	19.24	61.53
45 mph	25.22	4.12	12.38	4.14	3.82	0.75	2.64	13.06	66.14
50 mph	20.76	3.41	10.19	3.41	3.32	0.63	1.76	8.64	52.11
55 mph	19.73	3.29	9.71	3.12	3.17	0.58	0.32	1.55	41.47
60 mph	10.55	1.79	5.18	1.65	1.89	0.34	16.36	78.81	116.57
65 mph	2.22	0.38	1.09	0.40	0.64	0.11	0.00	0.00	4.85
70 mph	49.84	8.24	24.34	9.56	19.17	4.10	0.00	0.00	115.25
total	383.27	63.61	187.73	55.86	67.29	16.74	62.70	270.24	**1,107.43**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0402	0.0337	0.0337	0.0330
10 mph	0.0075	0.0098	0.0075	0.0075	0.0051	0.0042	0.0043	0.0041
15 mph	0.0050	0.0066	0.0050	0.0050	0.0034	0.0028	0.0028	0.0027
20 mph	0.0035	0.0047	0.0035	0.0035	0.0024	0.0020	0.0020	0.0019
25 mph	0.0026	0.0035	0.0026	0.0026	0.0018	0.0015	0.0015	0.0014
30 mph	0.0020	0.0027	0.0020	0.0020	0.0014	0.0011	0.0011	0.0011
35 mph	0.0017	0.0022	0.0017	0.0017	0.0012	0.0009	0.0009	0.0009
40 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
45 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
50 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
55 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
60 mph	0.0014	0.0018	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
65 mph	0.0016	0.0020	0.0016	0.0016	0.0011	0.0009		
70 mph	0.0017	0.0021	0.0017	0.0017	0.0012	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.6569	0.6555	0.0041	0.0097
10 mph	0.0178	0.2161	0.0101	0.0090	0.0371	0.0270	0.0057	0.0117
15 mph	0.0142	0.1606	0.0085	0.0074	0.0275	0.0214	0.0048	0.0099
20 mph	0.0111	0.1227	0.0072	0.0061	0.0226	0.0178	0.0043	0.0086
25 mph	0.0088	0.0964	0.0060	0.0051	0.0186	0.0149	0.0039	0.0078
30 mph	0.0073	0.0789	0.0053	0.0044	0.0162	0.0131	0.0035	0.0072
35 mph	0.0062	0.0671	0.0047	0.0039	0.0148	0.0119	0.0033	0.0066
40 mph	0.0056	0.0609	0.0043	0.0036	0.0137	0.0110	0.0031	0.0062
45 mph	0.0053	0.0585	0.0040	0.0034	0.0130	0.0103	0.0029	0.0058
50 mph	0.0052	0.0582	0.0038	0.0032	0.0127	0.0099	0.0027	0.0055
55 mph	0.0052	0.0608	0.0036	0.0031	0.0126	0.0096	0.0026	0.0052
60 mph	0.0055	0.0664	0.0036	0.0032	0.0130	0.0097	0.0025	0.0051
65 mph	0.0058	0.0734	0.0036	0.0033	0.0147	0.0105		
70 mph	0.0048	0.0716	0.0036	0.0035	0.0228	0.0149		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1159	0.0121	0.0466	0.0088	0.0035	0.0010	0.0017	0.0002	0.1897
15 mph	0.0171	0.0018	0.0069	0.0013	0.0005	0.0001	0.0003	0.0000	0.0282
20 mph	0.0722	0.0078	0.0290	0.0055	0.0022	0.0006	0.0007	0.0001	0.1179
25 mph	0.2224	0.0241	0.0892	0.0169	0.0067	0.0019	0.0021	0.0003	0.3634
30 mph	0.1665	0.0180	0.0667	0.0126	0.0051	0.0014	0.0013	0.0002	0.2717
35 mph	0.0798	0.0086	0.0320	0.0060	0.0024	0.0007	0.0004	0.0001	0.1300
40 mph	0.0297	0.0032	0.0119	0.0022	0.0009	0.0002	0.0003	0.0000	0.0485
45 mph	0.0181	0.0019	0.0072	0.0014	0.0006	0.0002	0.0004	0.0001	0.0298
50 mph	0.0175	0.0019	0.0070	0.0013	0.0005	0.0001	0.0004	0.0001	0.0288
55 mph	0.0311	0.0033	0.0124	0.0023	0.0010	0.0003	0.0000	0.0000	0.0505
60 mph	0.0214	0.0023	0.0086	0.0016	0.0007	0.0002	0.0002	0.0000	0.0349
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.7917	0.0849	0.3174	0.0599	0.0240	0.0066	0.0078	0.0011	1.2935

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0111	0.0012	0.0045	0.0011	0.0006	0.0002	0.0004	0.0001	0.0190
25 mph	0.0123	0.0013	0.0049	0.0012	0.0006	0.0002	0.0006	0.0001	0.0213
30 mph	0.0160	0.0017	0.0064	0.0015	0.0008	0.0002	0.0012	0.0002	0.0281
35 mph	0.0211	0.0023	0.0084	0.0020	0.0011	0.0003	0.0012	0.0002	0.0365
40 mph	0.0274	0.0029	0.0110	0.0026	0.0014	0.0004	0.0012	0.0002	0.0471
45 mph	0.0543	0.0058	0.0217	0.0051	0.0028	0.0008	0.0008	0.0001	0.0915
50 mph	0.0443	0.0047	0.0177	0.0042	0.0023	0.0006	0.0005	0.0001	0.0744
55 mph	0.0328	0.0035	0.0131	0.0031	0.0017	0.0005	0.0002	0.0000	0.0548
60 mph	0.0176	0.0019	0.0070	0.0017	0.0009	0.0002	0.0117	0.0016	0.0426
65 mph	0.0099	0.0010	0.0040	0.0009	0.0005	0.0001	0.0000	0.0000	0.0165
70 mph	0.2530	0.0255	0.1014	0.0234	0.0128	0.0035	0.0000	0.0000	0.4197
total	0.4999	0.0519	0.2003	0.0467	0.0256	0.0070	0.0178	0.0024	0.8515

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
15 mph	0.0328	0.0035	0.0132	0.0039	0.0011	0.0003	0.0003	0.0000	0.0553
25 mph	0.0000	0.0000	0.0000	0.0000	0.0018	0.0005	0.0008	0.0001	0.0031
35 mph	0.1684	0.0181	0.0674	0.0083	0.0000	0.0000	0.0000	0.0000	0.2622
total	0.2012	0.0216	0.0806	0.0122	0.0056	0.0016	0.0020	0.0003	0.3250

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
10 mph	0.1159	0.0121	0.0466	0.0088	0.0035	0.0010	0.0017	0.0002	0.1897
15 mph	0.0500	0.0053	0.0201	0.0052	0.0017	0.0005	0.0007	0.0001	0.0834
20 mph	0.0833	0.0090	0.0334	0.0065	0.0027	0.0008	0.0011	0.0001	0.1369
25 mph	0.2347	0.0254	0.0941	0.0180	0.0091	0.0025	0.0034	0.0005	0.3878
30 mph	0.1825	0.0197	0.0731	0.0141	0.0059	0.0016	0.0025	0.0003	0.2998
35 mph	0.2693	0.0290	0.1078	0.0163	0.0035	0.0010	0.0016	0.0002	0.4287
40 mph	0.0571	0.0061	0.0229	0.0048	0.0023	0.0006	0.0015	0.0002	0.0956
45 mph	0.0724	0.0078	0.0290	0.0065	0.0034	0.0009	0.0012	0.0002	0.1213
50 mph	0.0618	0.0066	0.0247	0.0055	0.0028	0.0008	0.0009	0.0001	0.1032
55 mph	0.0639	0.0068	0.0256	0.0054	0.0027	0.0007	0.0002	0.0000	0.1053
60 mph	0.0390	0.0041	0.0156	0.0033	0.0016	0.0004	0.0119	0.0016	0.0776
65 mph	0.0099	0.0010	0.0040	0.0009	0.0005	0.0001	0.0000	0.0000	0.0165
70 mph	0.2530	0.0255	0.1014	0.0234	0.0128	0.0035	0.0000	0.0000	0.4197
total	1.4928	0.1584	0.5983	0.1188	0.0552	0.0151	0.0275	0.0037	2.4699

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0032	0.0003	0.0001	0.0002	0.0270	0.0120	0.0175	0.0674	0.1278
15 mph	0.0006	0.0000	0.0000	0.0000	0.0045	0.0021	0.0043	0.0163	0.0278
20 mph	0.0027	0.0002	0.0001	0.0002	0.0219	0.0106	0.0113	0.0424	0.0893
25 mph	0.0089	0.0006	0.0004	0.0007	0.0754	0.0370	0.0425	0.1602	0.3258
30 mph	0.0070	0.0005	0.0004	0.0006	0.0631	0.0312	0.0312	0.1174	0.2514
35 mph	0.0035	0.0003	0.0002	0.0003	0.0335	0.0165	0.0116	0.0434	0.1092
40 mph	0.0014	0.0001	0.0001	0.0001	0.0133	0.0065	0.0095	0.0355	0.0664
45 mph	0.0009	0.0001	0.0000	0.0001	0.0084	0.0041	0.0115	0.0429	0.0679
50 mph	0.0008	0.0001	0.0000	0.0001	0.0082	0.0039	0.0133	0.0495	0.0759
55 mph	0.0015	0.0001	0.0001	0.0001	0.0142	0.0067	0.0011	0.0043	0.0281
60 mph	0.0010	0.0001	0.0000	0.0001	0.0094	0.0043	0.0045	0.0168	0.0363
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0313	0.0023	0.0015	0.0026	0.2790	0.1350	0.1582	0.5960	1.2060

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0004	0.0000	0.0000	0.0000	0.0056	0.0027	0.0071	0.0267	0.0426
25 mph	0.0005	0.0000	0.0000	0.0000	0.0070	0.0034	0.0128	0.0484	0.0723
30 mph	0.0007	0.0000	0.0000	0.0001	0.0101	0.0050	0.0295	0.1108	0.1563
35 mph	0.0009	0.0001	0.0000	0.0001	0.0148	0.0073	0.0328	0.1229	0.1789
40 mph	0.0012	0.0001	0.0001	0.0001	0.0206	0.0101	0.0358	0.1339	0.2019
45 mph	0.0026	0.0002	0.0001	0.0003	0.0422	0.0205	0.0240	0.0900	0.1799
50 mph	0.0021	0.0002	0.0001	0.0002	0.0349	0.0167	0.0137	0.0510	0.1188
55 mph	0.0015	0.0001	0.0001	0.0002	0.0251	0.0118	0.0043	0.0162	0.0593
60 mph	0.0008	0.0001	0.0000	0.0001	0.0129	0.0059	0.2969	1.1111	1.4279
65 mph	0.0004	0.0000	0.0000	0.0000	0.0074	0.0032	0.0000	0.0000	0.0111
70 mph	0.0084	0.0008	0.0004	0.0011	0.2683	0.1072	0.0000	0.0000	0.3862
total	0.0196	0.0017	0.0010	0.0023	0.4489	0.1938	0.4570	1.7110	2.8353

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0008	0.0036	0.0805
15 mph	0.0011	0.0001	0.0000	0.0001	0.0099	0.0047	0.0046	0.0175	0.0381
25 mph	0.0000	0.0000	0.0000	0.0000	0.0198	0.0097	0.0160	0.0602	0.1057
35 mph	0.0073	0.0005	0.0004	0.0004	0.0000	0.0000	0.0000	0.0000	0.0087
total	0.0084	0.0006	0.0004	0.0005	0.0769	0.0433	0.0214	0.0813	0.2330

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0008	0.0036	0.0805
10 mph	0.0032	0.0003	0.0001	0.0002	0.0270	0.0120	0.0175	0.0674	0.1278
15 mph	0.0017	0.0001	0.0001	0.0002	0.0144	0.0068	0.0089	0.0338	0.0659
20 mph	0.0031	0.0002	0.0001	0.0002	0.0276	0.0133	0.0184	0.0690	0.1319
25 mph	0.0094	0.0007	0.0005	0.0008	0.1021	0.0501	0.0713	0.2689	0.5037
30 mph	0.0077	0.0006	0.0004	0.0007	0.0732	0.0362	0.0607	0.2283	0.4078
35 mph	0.0117	0.0008	0.0006	0.0008	0.0483	0.0238	0.0444	0.1663	0.2968
40 mph	0.0026	0.0002	0.0001	0.0003	0.0339	0.0166	0.0453	0.1694	0.2683
45 mph	0.0034	0.0003	0.0002	0.0004	0.0506	0.0246	0.0355	0.1328	0.2477
50 mph	0.0029	0.0002	0.0002	0.0003	0.0431	0.0206	0.0269	0.1005	0.1947
55 mph	0.0030	0.0002	0.0001	0.0003	0.0394	0.0184	0.0055	0.0205	0.0875
60 mph	0.0018	0.0001	0.0001	0.0002	0.0224	0.0102	0.3014	1.1280	1.4642
65 mph	0.0004	0.0000	0.0000	0.0000	0.0074	0.0032	0.0000	0.0000	0.0111
70 mph	0.0084	0.0008	0.0004	0.0011	0.2683	0.1072	0.0000	0.0000	0.3862
total	0.0593	0.0046	0.0030	0.0054	0.8048	0.3721	0.6366	2.3884	4.2742

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.12	0.01	0.05	0.01	0.03	0.01	0.02	0.07	0.32
15 mph	0.05	0.01	0.02	0.01	0.02	0.01	0.01	0.03	0.15
20 mph	0.09	0.01	0.03	0.01	0.03	0.01	0.02	0.07	0.27
25 mph	0.24	0.03	0.09	0.02	0.11	0.05	0.07	0.27	0.89
30 mph	0.19	0.02	0.07	0.01	0.08	0.04	0.06	0.23	0.71
35 mph	0.28	0.03	0.11	0.02	0.05	0.02	0.05	0.17	0.73
40 mph	0.06	0.01	0.02	0.01	0.04	0.02	0.05	0.17	0.36
45 mph	0.08	0.01	0.03	0.01	0.05	0.03	0.04	0.13	0.37
50 mph	0.06	0.01	0.02	0.01	0.05	0.02	0.03	0.10	0.30
55 mph	0.07	0.01	0.03	0.01	0.04	0.02	0.01	0.02	0.19
60 mph	0.04	0.00	0.02	0.00	0.02	0.01	0.31	1.13	1.54
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03
70 mph	0.26	0.03	0.10	0.02	0.28	0.11	0.00	0.00	0.81
total	1.55	0.16	0.60	0.12	0.86	0.39	0.66	2.39	**6.74**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	15.45	1.23	6.17	1.16	1.26	0.49	0.80	0.06
Diesel	0.18	0.00	0.01	0.03	1.43	1.00	6.28	8.02
Electric	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	16.71	1.24	6.18	1.19	2.69	1.49	7.07	8.09

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	14.26	1.14	5.70	1.34	1.94	0.76	3.01	0.24
Diesel	0.17	0.00	0.01	0.03	2.21	1.55	23.70	30.29
Electric	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	15.46	1.14	5.71	1.37	4.15	2.30	26.71	30.54

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.86	0.39	1.94	0.26	0.11	0.04	0.09	0.01
Diesel	0.06	0.00	0.00	0.01	0.13	0.09	0.72	0.93
Electric	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.26	0.39	1.94	0.26	0.24	0.13	0.82	0.93

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	34.57	2.76	13.80	2.76	3.31	1.29	3.90	0.31	62.71
Diesel	0.40	0.00	0.03	0.06	3.77	2.64	30.71	39.24	76.85
Electric	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46
Total	37.42	2.76	13.83	2.82	7.08	3.93	34.60	39.56	**142.01**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	503.33
Internal	29.26
Total	**532.59**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0370	0.0310	0.0310	0.0304
10 mph	0.0069	0.0090	0.0069	0.0069	0.0047	0.0039	0.0039	0.0038
15 mph	0.0046	0.0061	0.0046	0.0046	0.0032	0.0026	0.0026	0.0025
20 mph	0.0032	0.0043	0.0032	0.0032	0.0022	0.0018	0.0018	0.0018
25 mph	0.0024	0.0032	0.0024	0.0024	0.0017	0.0014	0.0013	0.0013
30 mph	0.0018	0.0025	0.0019	0.0019	0.0013	0.0011	0.0011	0.0010
35 mph	0.0015	0.0020	0.0015	0.0015	0.0011	0.0009	0.0009	0.0008
40 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0008	0.0008	0.0007
45 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
50 mph	0.0012	0.0016	0.0012	0.0012	0.0008	0.0007	0.0007	0.0006
55 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
60 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
65 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008		
70 mph	0.0016	0.0020	0.0016	0.0015	0.0011	0.0009		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.6285	0.6272	0.0039	0.0093
10 mph	0.0170	0.2067	0.0096	0.0086	0.0355	0.0258	0.0054	0.0112
15 mph	0.0135	0.1537	0.0082	0.0071	0.0263	0.0204	0.0046	0.0095
20 mph	0.0106	0.1174	0.0068	0.0058	0.0216	0.0170	0.0041	0.0082
25 mph	0.0085	0.0923	0.0058	0.0049	0.0178	0.0143	0.0037	0.0075
30 mph	0.0070	0.0755	0.0050	0.0042	0.0155	0.0125	0.0034	0.0068
35 mph	0.0059	0.0642	0.0045	0.0037	0.0141	0.0114	0.0031	0.0063
40 mph	0.0054	0.0583	0.0041	0.0034	0.0131	0.0105	0.0029	0.0059
45 mph	0.0051	0.0560	0.0038	0.0032	0.0124	0.0099	0.0028	0.0056
50 mph	0.0049	0.0557	0.0036	0.0031	0.0121	0.0095	0.0026	0.0052
55 mph	0.0049	0.0581	0.0035	0.0030	0.0120	0.0092	0.0025	0.0050
60 mph	0.0052	0.0635	0.0034	0.0030	0.0124	0.0092	0.0024	0.0049
65 mph	0.0055	0.0702	0.0035	0.0032	0.0141	0.0101		
70 mph	0.0046	0.0685	0.0034	0.0033	0.0219	0.0143		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1066	0.0112	0.0428	0.0080	0.0032	0.0009	0.0015	0.0002	0.1744
15 mph	0.0158	0.0017	0.0063	0.0012	0.0005	0.0001	0.0003	0.0000	0.0259
20 mph	0.0664	0.0072	0.0266	0.0050	0.0020	0.0006	0.0006	0.0001	0.1084
25 mph	0.2045	0.0221	0.0820	0.0155	0.0062	0.0017	0.0019	0.0003	0.3342
30 mph	0.1531	0.0165	0.0613	0.0116	0.0047	0.0013	0.0012	0.0002	0.2498
35 mph	0.0734	0.0079	0.0294	0.0055	0.0022	0.0006	0.0004	0.0001	0.1195
40 mph	0.0273	0.0029	0.0109	0.0021	0.0008	0.0002	0.0003	0.0000	0.0446
45 mph	0.0166	0.0018	0.0067	0.0013	0.0005	0.0001	0.0003	0.0000	0.0274
50 mph	0.0161	0.0017	0.0064	0.0012	0.0005	0.0001	0.0004	0.0001	0.0265
55 mph	0.0286	0.0030	0.0114	0.0022	0.0009	0.0002	0.0000	0.0000	0.0464
60 mph	0.0197	0.0021	0.0079	0.0015	0.0006	0.0002	0.0002	0.0000	0.0321
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.7280	0.0781	0.2919	0.0551	0.0221	0.0061	0.0071	0.0010	1.1893

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0102	0.0011	0.0041	0.0010	0.0005	0.0001	0.0004	0.0001	0.0175
25 mph	0.0113	0.0012	0.0045	0.0011	0.0006	0.0002	0.0006	0.0001	0.0196
30 mph	0.0147	0.0016	0.0059	0.0014	0.0007	0.0002	0.0011	0.0002	0.0258
35 mph	0.0194	0.0021	0.0078	0.0018	0.0010	0.0003	0.0011	0.0001	0.0335
40 mph	0.0252	0.0027	0.0101	0.0024	0.0013	0.0004	0.0011	0.0002	0.0433
45 mph	0.0499	0.0054	0.0200	0.0047	0.0026	0.0007	0.0007	0.0001	0.0841
50 mph	0.0408	0.0044	0.0163	0.0038	0.0021	0.0006	0.0004	0.0001	0.0684
55 mph	0.0302	0.0032	0.0121	0.0028	0.0016	0.0004	0.0001	0.0000	0.0504
60 mph	0.0162	0.0017	0.0065	0.0015	0.0008	0.0002	0.0108	0.0015	0.0392
65 mph	0.0091	0.0009	0.0037	0.0009	0.0005	0.0001	0.0000	0.0000	0.0152
70 mph	0.2326	0.0234	0.0932	0.0215	0.0118	0.0032	0.0000	0.0000	0.3859
total	0.4596	0.0477	0.1842	0.0429	0.0235	0.0064	0.0164	0.0022	0.7829

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
15 mph	0.0302	0.0032	0.0121	0.0036	0.0011	0.0003	0.0003	0.0000	0.0508
25 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0004	0.0007	0.0001	0.0029
35 mph	0.1548	0.0166	0.0620	0.0076	0.0000	0.0000	0.0000	0.0000	0.2411
total	0.1850	0.0199	0.0741	0.0112	0.0051	0.0014	0.0018	0.0002	0.2988

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
10 mph	0.1066	0.0112	0.0428	0.0080	0.0032	0.0009	0.0015	0.0002	0.1744
15 mph	0.0460	0.0049	0.0184	0.0048	0.0015	0.0004	0.0006	0.0001	0.0767
20 mph	0.0766	0.0083	0.0307	0.0060	0.0025	0.0007	0.0010	0.0001	0.1259
25 mph	0.2158	0.0233	0.0865	0.0166	0.0084	0.0023	0.0032	0.0004	0.3566
30 mph	0.1678	0.0181	0.0672	0.0130	0.0054	0.0015	0.0023	0.0003	0.2756
35 mph	0.2476	0.0266	0.0991	0.0150	0.0032	0.0009	0.0015	0.0002	0.3941
40 mph	0.0525	0.0056	0.0210	0.0044	0.0021	0.0006	0.0014	0.0002	0.0879
45 mph	0.0666	0.0072	0.0267	0.0060	0.0031	0.0008	0.0011	0.0001	0.1115
50 mph	0.0568	0.0061	0.0227	0.0051	0.0026	0.0007	0.0008	0.0001	0.0949
55 mph	0.0587	0.0062	0.0235	0.0050	0.0025	0.0007	0.0002	0.0000	0.0968
60 mph	0.0359	0.0038	0.0144	0.0030	0.0015	0.0004	0.0110	0.0015	0.0713
65 mph	0.0091	0.0009	0.0037	0.0009	0.0005	0.0001	0.0000	0.0000	0.0152
70 mph	0.2326	0.0234	0.0932	0.0215	0.0118	0.0032	0.0000	0.0000	0.3859
total	1.3726	0.1457	0.5501	0.1092	0.0507	0.0139	0.0253	0.0034	2.2710

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0031	0.0002	0.0001	0.0002	0.0259	0.0115	0.0168	0.0645	0.1223
15 mph	0.0005	0.0000	0.0000	0.0000	0.0043	0.0020	0.0041	0.0156	0.0266
20 mph	0.0026	0.0002	0.0001	0.0002	0.0210	0.0101	0.0108	0.0405	0.0855
25 mph	0.0085	0.0006	0.0004	0.0007	0.0721	0.0354	0.0407	0.1533	0.3117
30 mph	0.0067	0.0005	0.0003	0.0006	0.0604	0.0298	0.0299	0.1123	0.2405
35 mph	0.0033	0.0002	0.0002	0.0003	0.0320	0.0158	0.0111	0.0415	0.1045
40 mph	0.0013	0.0001	0.0001	0.0001	0.0128	0.0063	0.0091	0.0339	0.0636
45 mph	0.0008	0.0001	0.0000	0.0001	0.0080	0.0039	0.0110	0.0410	0.0649
50 mph	0.0008	0.0001	0.0000	0.0001	0.0079	0.0038	0.0127	0.0474	0.0726
55 mph	0.0014	0.0001	0.0001	0.0001	0.0136	0.0064	0.0011	0.0041	0.0269
60 mph	0.0009	0.0001	0.0000	0.0001	0.0090	0.0041	0.0043	0.0161	0.0347
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0300	0.0022	0.0015	0.0024	0.2669	0.1291	0.1514	0.5702	1.1538

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0004	0.0000	0.0000	0.0000	0.0054	0.0026	0.0068	0.0255	0.0408
25 mph	0.0005	0.0000	0.0000	0.0000	0.0067	0.0033	0.0123	0.0463	0.0691
30 mph	0.0006	0.0000	0.0000	0.0001	0.0097	0.0048	0.0282	0.1061	0.1496
35 mph	0.0009	0.0001	0.0000	0.0001	0.0141	0.0070	0.0314	0.1176	0.1712
40 mph	0.0012	0.0001	0.0001	0.0001	0.0197	0.0097	0.0342	0.1281	0.1932
45 mph	0.0025	0.0002	0.0001	0.0003	0.0404	0.0196	0.0230	0.0861	0.1721
50 mph	0.0020	0.0002	0.0001	0.0002	0.0334	0.0160	0.0131	0.0488	0.1137
55 mph	0.0015	0.0001	0.0001	0.0002	0.0240	0.0113	0.0042	0.0155	0.0568
60 mph	0.0008	0.0001	0.0000	0.0001	0.0124	0.0057	0.2841	1.0631	1.3661
65 mph	0.0004	0.0000	0.0000	0.0000	0.0070	0.0031	0.0000	0.0000	0.0106
70 mph	0.0080	0.0008	0.0004	0.0010	0.2567	0.1026	0.0000	0.0000	0.3695
total	0.0187	0.0016	0.0010	0.0022	0.4295	0.1855	0.4372	1.6370	2.7126

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0008	0.0035	0.0770
15 mph	0.0010	0.0001	0.0000	0.0001	0.0095	0.0045	0.0044	0.0168	0.0364
25 mph	0.0000	0.0000	0.0000	0.0000	0.0189	0.0093	0.0153	0.0576	0.1011
35 mph	0.0070	0.0005	0.0004	0.0004	0.0000	0.0000	0.0000	0.0000	0.0083
total	0.0081	0.0006	0.0004	0.0005	0.0736	0.0414	0.0205	0.0778	0.2229

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0008	0.0035	0.0770
10 mph	0.0031	0.0002	0.0001	0.0002	0.0259	0.0115	0.0168	0.0645	0.1223
15 mph	0.0016	0.0001	0.0001	0.0002	0.0138	0.0065	0.0085	0.0323	0.0630
20 mph	0.0029	0.0002	0.0001	0.0002	0.0264	0.0127	0.0176	0.0660	0.1262
25 mph	0.0090	0.0007	0.0004	0.0007	0.0977	0.0480	0.0682	0.2572	0.4819
30 mph	0.0074	0.0005	0.0004	0.0006	0.0701	0.0346	0.0581	0.2184	0.3901
35 mph	0.0112	0.0008	0.0006	0.0008	0.0462	0.0228	0.0425	0.1591	0.2840
40 mph	0.0025	0.0002	0.0001	0.0002	0.0325	0.0159	0.0433	0.1620	0.2567
45 mph	0.0033	0.0002	0.0002	0.0003	0.0484	0.0235	0.0339	0.1271	0.2370
50 mph	0.0028	0.0002	0.0001	0.0003	0.0412	0.0197	0.0258	0.0961	0.1863
55 mph	0.0029	0.0002	0.0001	0.0003	0.0377	0.0176	0.0052	0.0196	0.0837
60 mph	0.0017	0.0001	0.0001	0.0002	0.0214	0.0098	0.2884	1.0792	1.4008
65 mph	0.0004	0.0000	0.0000	0.0000	0.0070	0.0031	0.0000	0.0000	0.0106
70 mph	0.0080	0.0008	0.0004	0.0010	0.2567	0.1026	0.0000	0.0000	0.3695
total	0.0568	0.0044	0.0028	0.0051	0.7700	0.3560	0.6091	2.2851	4.0893

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.11	0.01	0.04	0.01	0.03	0.01	0.02	0.06	0.30
15 mph	0.05	0.01	0.02	0.00	0.02	0.01	0.01	0.03	0.14
20 mph	0.08	0.01	0.03	0.01	0.03	0.01	0.02	0.07	0.25
25 mph	0.22	0.02	0.09	0.02	0.11	0.05	0.07	0.26	0.84
30 mph	0.18	0.02	0.07	0.01	0.08	0.04	0.06	0.22	0.67
35 mph	0.26	0.03	0.10	0.02	0.05	0.02	0.04	0.16	0.68
40 mph	0.05	0.01	0.02	0.00	0.03	0.02	0.04	0.16	0.34
45 mph	0.07	0.01	0.03	0.01	0.05	0.02	0.04	0.13	0.35
50 mph	0.06	0.01	0.02	0.01	0.04	0.02	0.03	0.10	0.28
55 mph	0.06	0.01	0.02	0.01	0.04	0.02	0.01	0.02	0.18
60 mph	0.04	0.00	0.01	0.00	0.02	0.01	0.30	1.08	1.47
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03
70 mph	0.24	0.02	0.09	0.02	0.27	0.11	0.00	0.00	0.76
total	1.43	0.15	0.55	0.11	0.82	0.37	0.63	2.29	**6.36**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.13	0.49	2.45	0.46	0.52	0.20	0.33	0.02
Diesel	0.07	0.00	0.01	0.01	0.58	0.41	2.60	2.91
Electric	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.63	0.49	2.45	0.47	1.10	0.61	2.93	2.94

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5.66	0.45	2.26	0.53	0.80	0.31	1.24	0.09
Diesel	0.07	0.00	0.00	0.01	0.89	0.63	9.80	10.99
Electric	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.13	0.45	2.26	0.54	1.69	0.94	11.05	11.08

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.93	0.15	0.77	0.10	0.05	0.02	0.04	0.00
Diesel	0.02	0.00	0.00	0.00	0.05	0.04	0.30	0.34
Electric	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.09	0.15	0.77	0.10	0.10	0.05	0.34	0.34

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	13.71	1.09	5.47	1.10	1.36	0.53	1.61	0.12	25.01
Diesel	0.16	0.00	0.01	0.02	1.52	1.08	12.70	14.24	29.73
Electric	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
Total	14.84	1.10	5.49	1.12	2.89	1.61	14.31	14.36	**55.71**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	123.55
Internal	7.18
Total	**130.73**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.06
10 mph	0.07	0.01	0.03	0.01	0.02	0.01	0.01	0.05	0.21
15 mph	0.03	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.10
20 mph	0.05	0.01	0.02	0.00	0.02	0.01	0.01	0.05	0.18
25 mph	0.14	0.02	0.06	0.01	0.08	0.04	0.05	0.20	0.60
30 mph	0.11	0.01	0.04	0.01	0.06	0.03	0.05	0.17	0.48
35 mph	0.17	0.02	0.06	0.01	0.04	0.02	0.03	0.12	0.47
40 mph	0.04	0.00	0.01	0.00	0.03	0.01	0.03	0.12	0.25
45 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.03	0.10	0.25
50 mph	0.04	0.00	0.01	0.00	0.03	0.02	0.02	0.07	0.20
55 mph	0.04	0.00	0.02	0.00	0.03	0.01	0.00	0.02	0.13
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.23	0.83	1.13
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02
70 mph	0.15	0.02	0.06	0.01	0.21	0.08	0.00	0.00	0.53
total	0.91	0.10	0.35	0.07	0.63	0.28	0.49	1.76	4.61

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0559	0.0082	0.0409	0.0077	0.0090	0.0030	0.0052	0.0007	0.1308
15 mph	0.0124	0.0018	0.0091	0.0017	0.0020	0.0007	0.0015	0.0002	0.0294
20 mph	0.0746	0.0109	0.0546	0.0103	0.0120	0.0040	0.0045	0.0006	0.1715
25 mph	0.3107	0.0455	0.2274	0.0429	0.0500	0.0169	0.0187	0.0026	0.7147
30 mph	0.2983	0.0436	0.2183	0.0412	0.0480	0.0162	0.0150	0.0021	0.6827
35 mph	0.1740	0.0255	0.1274	0.0240	0.0280	0.0094	0.0060	0.0008	0.3951
40 mph	0.0746	0.0109	0.0546	0.0103	0.0120	0.0040	0.0052	0.0007	0.1724
45 mph	0.0497	0.0073	0.0364	0.0069	0.0080	0.0027	0.0067	0.0009	0.1186
50 mph	0.0497	0.0073	0.0364	0.0069	0.0080	0.0027	0.0082	0.0012	0.1203
55 mph	0.0870	0.0127	0.0637	0.0120	0.0140	0.0047	0.0007	0.0001	0.1950
60 mph	0.0559	0.0082	0.0409	0.0077	0.0090	0.0030	0.0030	0.0004	0.1282
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2428	0.1819	0.9097	0.1717	0.1999	0.0675	0.0750	0.0105	2.8589

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0115	0.0017	0.0084	0.0020	0.0031	0.0010	0.0028	0.0004	0.0309
25 mph	0.0172	0.0025	0.0126	0.0030	0.0046	0.0016	0.0057	0.0008	0.0479
30 mph	0.0287	0.0042	0.0210	0.0049	0.0077	0.0026	0.0142	0.0020	0.0853
35 mph	0.0459	0.0067	0.0336	0.0079	0.0123	0.0042	0.0170	0.0024	0.1300
40 mph	0.0688	0.0101	0.0504	0.0119	0.0185	0.0062	0.0198	0.0028	0.1886
45 mph	0.1492	0.0218	0.1092	0.0257	0.0401	0.0135	0.0142	0.0020	0.3757
50 mph	0.1262	0.0185	0.0924	0.0218	0.0339	0.0115	0.0085	0.0012	0.3139
55 mph	0.0918	0.0134	0.0672	0.0158	0.0247	0.0083	0.0028	0.0004	0.2245
60 mph	0.0459	0.0067	0.0336	0.0079	0.0123	0.0042	0.1982	0.0279	0.3367
65 mph	0.0229	0.0034	0.0168	0.0040	0.0062	0.0021	0.0000	0.0000	0.0553
70 mph	0.5393	0.0789	0.3948	0.0930	0.1450	0.0490	0.0000	0.0000	1.3000
total	1.1475	0.1679	0.8399	0.1980	0.3086	0.1042	0.2831	0.0398	3.0889

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
15 mph	0.0238	0.0035	0.0174	0.0051	0.0045	0.0015	0.0016	0.0002	0.0577
25 mph	0.0000	0.0000	0.0000	0.0000	0.0131	0.0044	0.0070	0.0010	0.0256
35 mph	0.3669	0.0537	0.2686	0.0330	0.0000	0.0000	0.0000	0.0000	0.7223
total	0.3908	0.0572	0.2860	0.0382	0.0185	0.0062	0.0090	0.0013	0.8071

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
10 mph	0.0559	0.0082	0.0409	0.0077	0.0090	0.0030	0.0052	0.0007	0.1308
15 mph	0.0362	0.0053	0.0265	0.0068	0.0065	0.0022	0.0031	0.0004	0.0871
20 mph	0.0860	0.0126	0.0630	0.0123	0.0151	0.0051	0.0073	0.0010	0.2024
25 mph	0.3279	0.0480	0.2400	0.0459	0.0677	0.0229	0.0314	0.0044	0.7882
30 mph	0.3269	0.0478	0.2393	0.0461	0.0557	0.0188	0.0291	0.0041	0.7680
35 mph	0.5868	0.0859	0.4296	0.0650	0.0403	0.0136	0.0230	0.0032	1.2474
40 mph	0.1434	0.0210	0.1050	0.0222	0.0305	0.0103	0.0251	0.0035	0.3610
45 mph	0.1989	0.0291	0.1456	0.0326	0.0481	0.0162	0.0209	0.0029	0.4944
50 mph	0.1759	0.0257	0.1288	0.0286	0.0419	0.0142	0.0167	0.0024	0.4343
55 mph	0.1788	0.0262	0.1309	0.0279	0.0387	0.0131	0.0036	0.0005	0.4195
60 mph	0.1018	0.0149	0.0745	0.0156	0.0213	0.0072	0.2012	0.0283	0.4649
65 mph	0.0229	0.0034	0.0168	0.0040	0.0062	0.0021	0.0000	0.0000	0.0553
70 mph	0.5393	0.0789	0.3948	0.0930	0.1450	0.0490	0.0000	0.0000	1.3000
total	2.7810	0.4070	2.0357	0.4078	0.5269	0.1779	0.3671	0.0516	6.7548

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0001	0.0035	0.0021	0.0148	0.0276	0.0484
15 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0005	0.0042	0.0079	0.0134
20 mph	0.0002	0.0000	0.0000	0.0002	0.0047	0.0029	0.0127	0.0236	0.0443
25 mph	0.0010	0.0000	0.0001	0.0007	0.0194	0.0119	0.0529	0.0985	0.1845
30 mph	0.0010	0.0000	0.0001	0.0006	0.0186	0.0114	0.0423	0.0788	0.1529
35 mph	0.0006	0.0000	0.0001	0.0004	0.0109	0.0067	0.0169	0.0315	0.0670
40 mph	0.0002	0.0000	0.0000	0.0002	0.0047	0.0029	0.0148	0.0276	0.0503
45 mph	0.0002	0.0000	0.0000	0.0001	0.0031	0.0019	0.0191	0.0355	0.0598
50 mph	0.0002	0.0000	0.0000	0.0001	0.0031	0.0019	0.0233	0.0433	0.0719
55 mph	0.0003	0.0000	0.0000	0.0002	0.0054	0.0033	0.0021	0.0039	0.0153
60 mph	0.0002	0.0000	0.0000	0.0001	0.0035	0.0021	0.0085	0.0158	0.0302
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0040	0.0000	0.0004	0.0027	0.0777	0.0476	0.2117	0.3940	0.7381

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0007	0.0080	0.0149	0.0249
25 mph	0.0001	0.0000	0.0000	0.0000	0.0018	0.0011	0.0160	0.0298	0.0488
30 mph	0.0001	0.0000	0.0000	0.0001	0.0030	0.0018	0.0400	0.0744	0.1194
35 mph	0.0001	0.0000	0.0000	0.0001	0.0048	0.0029	0.0480	0.0893	0.1453
40 mph	0.0002	0.0000	0.0000	0.0002	0.0072	0.0044	0.0560	0.1041	0.1721
45 mph	0.0005	0.0000	0.0001	0.0004	0.0156	0.0096	0.0400	0.0744	0.1404
50 mph	0.0004	0.0000	0.0000	0.0003	0.0132	0.0081	0.0240	0.0446	0.0907
55 mph	0.0003	0.0000	0.0000	0.0002	0.0096	0.0059	0.0080	0.0149	0.0389
60 mph	0.0001	0.0000	0.0000	0.0001	0.0048	0.0029	0.5596	1.0414	1.6090
65 mph	0.0001	0.0000	0.0000	0.0001	0.0024	0.0015	0.0000	0.0000	0.0040
70 mph	0.0017	0.0000	0.0002	0.0015	0.0564	0.0345	0.0000	0.0000	0.0943
total	0.0037	0.0000	0.0004	0.0031	0.1199	0.0735	0.7994	1.4877	2.4877

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
15 mph	0.0001	0.0000	0.0000	0.0001	0.0017	0.0011	0.0046	0.0085	0.0160
25 mph	0.0000	0.0000	0.0000	0.0000	0.0051	0.0031	0.0199	0.0370	0.0651
35 mph	0.0012	0.0000	0.0001	0.0005	0.0000	0.0000	0.0000	0.0000	0.0018
total	0.0013	0.0000	0.0001	0.0006	0.0072	0.0044	0.0254	0.0473	0.0863

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
10 mph	0.0002	0.0000	0.0000	0.0001	0.0035	0.0021	0.0148	0.0276	0.0484
15 mph	0.0001	0.0000	0.0000	0.0001	0.0025	0.0015	0.0088	0.0164	0.0294
20 mph	0.0003	0.0000	0.0000	0.0002	0.0059	0.0036	0.0207	0.0385	0.0692
25 mph	0.0011	0.0000	0.0001	0.0007	0.0263	0.0161	0.0888	0.1653	0.2984
30 mph	0.0011	0.0000	0.0001	0.0007	0.0216	0.0133	0.0823	0.1532	0.2723
35 mph	0.0019	0.0000	0.0002	0.0010	0.0157	0.0096	0.0649	0.1208	0.2141
40 mph	0.0005	0.0000	0.0000	0.0003	0.0119	0.0073	0.0708	0.1317	0.2225
45 mph	0.0006	0.0000	0.0001	0.0005	0.0187	0.0115	0.0590	0.1098	0.2002
50 mph	0.0006	0.0000	0.0001	0.0004	0.0163	0.0100	0.0473	0.0880	0.1626
55 mph	0.0006	0.0000	0.0001	0.0004	0.0150	0.0092	0.0101	0.0188	0.0543
60 mph	0.0003	0.0000	0.0000	0.0002	0.0083	0.0051	0.5680	1.0572	1.6392
65 mph	0.0001	0.0000	0.0000	0.0001	0.0024	0.0015	0.0000	0.0000	0.0040
70 mph	0.0017	0.0000	0.0002	0.0015	0.0564	0.0345	0.0000	0.0000	0.0943
total	0.0090	0.0001	0.0010	0.0064	0.2048	0.1255	1.0364	1.9290	3.3121

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.06	0.01	0.04	0.01	0.01	0.01	0.02	0.03	0.18
15 mph	0.04	0.01	0.03	0.01	0.01	0.00	0.01	0.02	0.12
20 mph	0.09	0.01	0.06	0.01	0.02	0.01	0.03	0.04	0.27
25 mph	0.33	0.05	0.24	0.05	0.09	0.04	0.12	0.17	1.09
30 mph	0.33	0.05	0.24	0.05	0.08	0.03	0.11	0.16	1.04
35 mph	0.59	0.09	0.43	0.07	0.06	0.02	0.09	0.12	1.46
40 mph	0.14	0.02	0.11	0.02	0.04	0.02	0.10	0.14	0.58
45 mph	0.20	0.03	0.15	0.03	0.07	0.03	0.08	0.11	0.69
50 mph	0.18	0.03	0.13	0.03	0.06	0.02	0.06	0.09	0.60
55 mph	0.18	0.03	0.13	0.03	0.05	0.02	0.01	0.02	0.47
60 mph	0.10	0.01	0.07	0.02	0.03	0.01	0.77	1.09	2.10
65 mph	0.02	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.06
70 mph	0.54	0.08	0.39	0.09	0.20	0.08	0.00	0.00	1.39
total	2.79	0.41	2.04	0.41	0.73	0.30	1.40	1.98	**10.07**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	5.2744	4.9417	8.2428	4.2908
10 mph	0.0145	0.0339	0.0187	0.0327	0.0477	0.0167	0.0537	0.5500
15 mph	0.0098	0.0235	0.0126	0.0219	0.0329	0.0112	0.0357	0.3605
20 mph	0.0069	0.0170	0.0089	0.0155	0.0240	0.0080	0.0251	0.2539
25 mph	0.0051	0.0126	0.0065	0.0116	0.0182	0.0060	0.0186	0.1869
30 mph	0.0039	0.0099	0.0051	0.0091	0.0145	0.0047	0.0146	0.1457
35 mph	0.0032	0.0080	0.0042	0.0075	0.0122	0.0039	0.0120	0.1202
40 mph	0.0028	0.0069	0.0036	0.0066	0.0109	0.0035	0.0105	0.1044
45 mph	0.0025	0.0063	0.0033	0.0060	0.0101	0.0032	0.0096	0.0955
50 mph	0.0024	0.0060	0.0032	0.0058	0.0099	0.0031	0.0092	0.0923
55 mph	0.0025	0.0061	0.0032	0.0059	0.0103	0.0032	0.0094	0.0944
60 mph	0.0026	0.0064	0.0034	0.0063	0.0112	0.0035	0.0101	0.1014
65 mph	0.0029	0.0069	0.0038	0.0070	0.0128	0.0040		
70 mph	0.0031	0.0069	0.0040	0.0080	0.0128	0.0039		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0079	0.0257
10 mph	0.0053	0.0180	0.0091	0.0054	0.0257	0.0253	0.0092	0.0223
15 mph	0.0028	0.0119	0.0045	0.0027	0.0135	0.0128	0.0064	0.0157
20 mph	0.0013	0.0081	0.0018	0.0011	0.0065	0.0055	0.0047	0.0113
25 mph	0.0009	0.0062	0.0011	0.0007	0.0044	0.0035	0.0034	0.0083
30 mph	0.0007	0.0050	0.0008	0.0005	0.0035	0.0027	0.0025	0.0061
35 mph	0.0005	0.0042	0.0006	0.0004	0.0030	0.0023	0.0019	0.0045
40 mph	0.0005	0.0038	0.0005	0.0004	0.0026	0.0020	0.0014	0.0033
45 mph	0.0004	0.0036	0.0005	0.0003	0.0024	0.0017	0.0010	0.0024
50 mph	0.0004	0.0036	0.0004	0.0003	0.0023	0.0016	0.0007	0.0018
55 mph	0.0004	0.0037	0.0004	0.0002	0.0022	0.0015	0.0006	0.0013
60 mph	0.0004	0.0040	0.0003	0.0002	0.0023	0.0015	0.0005	0.0012
65 mph	0.0004	0.0044	0.0003	0.0003	0.0027	0.0017		
70 mph	0.0003	0.0043	0.0003	0.0003	0.0045	0.0026		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.2245	0.0420	0.1162	0.0383	0.0320	0.0038	0.0210	0.0303	0.5082
15 mph	0.0337	0.0065	0.0173	0.0057	0.0049	0.0006	0.0040	0.0057	0.0783
20 mph	0.1424	0.0281	0.0734	0.0242	0.0215	0.0024	0.0084	0.0120	0.3125
25 mph	0.4370	0.0871	0.2257	0.0753	0.0679	0.0076	0.0261	0.0368	0.9634
30 mph	0.3247	0.0652	0.1682	0.0568	0.0520	0.0057	0.0163	0.0229	0.7118
35 mph	0.1539	0.0309	0.0801	0.0274	0.0255	0.0028	0.0054	0.0076	0.3336
40 mph	0.0571	0.0115	0.0297	0.0102	0.0097	0.0010	0.0041	0.0058	0.1291
45 mph	0.0349	0.0070	0.0181	0.0062	0.0060	0.0006	0.0048	0.0068	0.0845
50 mph	0.0335	0.0067	0.0174	0.0060	0.0059	0.0006	0.0057	0.0080	0.0838
55 mph	0.0594	0.0117	0.0310	0.0107	0.0107	0.0011	0.0005	0.0007	0.1260
60 mph	0.0409	0.0079	0.0212	0.0073	0.0075	0.0008	0.0023	0.0032	0.0910
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.5419	0.3044	0.7985	0.2682	0.2436	0.0271	0.0986	0.1397	3.4221

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0219	0.0043	0.0113	0.0047	0.0055	0.0006	0.0053	0.0075	0.0612
25 mph	0.0242	0.0048	0.0125	0.0052	0.0063	0.0007	0.0079	0.0111	0.0727
30 mph	0.0312	0.0063	0.0162	0.0068	0.0084	0.0009	0.0154	0.0217	0.1068
35 mph	0.0406	0.0081	0.0211	0.0090	0.0112	0.0012	0.0152	0.0214	0.1281
40 mph	0.0527	0.0106	0.0275	0.0118	0.0150	0.0016	0.0155	0.0217	0.1564
45 mph	0.1046	0.0210	0.0544	0.0234	0.0303	0.0032	0.0101	0.0142	0.2613
50 mph	0.0850	0.0169	0.0442	0.0191	0.0251	0.0027	0.0059	0.0082	0.2070
55 mph	0.0627	0.0124	0.0327	0.0141	0.0189	0.0020	0.0020	0.0028	0.1476
60 mph	0.0335	0.0065	0.0174	0.0075	0.0103	0.0011	0.1495	0.2110	0.4368
65 mph	0.0186	0.0035	0.0097	0.0042	0.0059	0.0006	0.0000	0.0000	0.0426
70 mph	0.4576	0.0823	0.2368	0.1134	0.1385	0.0143	0.0000	0.0000	1.0430
total	0.9329	0.1767	0.4838	0.2192	0.2754	0.0290	0.2268	0.3197	2.6635

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2085	0.0154	0.6837
15 mph	0.0645	0.0124	0.0332	0.0170	0.0109	0.0013	0.0043	0.0061	0.1497
25 mph	0.0000	0.0000	0.0000	0.0000	0.0178	0.0020	0.0098	0.0138	0.0434
35 mph	0.3246	0.0651	0.1690	0.0377	0.0000	0.0000	0.0000	0.0000	0.5964
total	0.3892	0.0775	0.2022	0.0547	0.3781	0.1137	0.2226	0.0353	1.4733

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2085	0.0154	0.6837
10 mph	0.2245	0.0420	0.1162	0.0383	0.0320	0.0038	0.0210	0.0303	0.5082
15 mph	0.0982	0.0189	0.0505	0.0227	0.0158	0.0018	0.0083	0.0118	0.2280
20 mph	0.1643	0.0324	0.0847	0.0289	0.0270	0.0031	0.0137	0.0195	0.3737
25 mph	0.4612	0.0919	0.2382	0.0805	0.0920	0.0103	0.0437	0.0617	1.0795
30 mph	0.3559	0.0714	0.1844	0.0636	0.0603	0.0066	0.0317	0.0446	0.8186
35 mph	0.5192	0.1041	0.2702	0.0742	0.0367	0.0040	0.0206	0.0290	1.0580
40 mph	0.1098	0.0221	0.0572	0.0220	0.0247	0.0027	0.0196	0.0275	0.2855
45 mph	0.1395	0.0280	0.0726	0.0296	0.0363	0.0039	0.0150	0.0210	0.3459
50 mph	0.1185	0.0236	0.0616	0.0251	0.0310	0.0033	0.0116	0.0162	0.2908
55 mph	0.1222	0.0241	0.0636	0.0248	0.0297	0.0031	0.0025	0.0035	0.2736
60 mph	0.0744	0.0144	0.0386	0.0148	0.0178	0.0019	0.1518	0.2142	0.5278
65 mph	0.0186	0.0035	0.0097	0.0042	0.0059	0.0006	0.0000	0.0000	0.0426
70 mph	0.4576	0.0823	0.2368	0.1134	0.1385	0.0143	0.0000	0.0000	1.0430
total	2.8639	0.5586	1.4845	0.5421	0.8972	0.1698	0.5481	0.4947	7.5588

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0010	0.0000	0.0001	0.0001	0.0187	0.0113	0.0283	0.1281	0.1876
15 mph	0.0001	0.0000	0.0000	0.0000	0.0022	0.0013	0.0057	0.0257	0.0350
20 mph	0.0003	0.0000	0.0000	0.0000	0.0063	0.0033	0.0123	0.0556	0.0778
25 mph	0.0009	0.0000	0.0001	0.0001	0.0177	0.0087	0.0376	0.1699	0.2350
30 mph	0.0006	0.0000	0.0001	0.0001	0.0136	0.0065	0.0222	0.1002	0.1432
35 mph	0.0003	0.0000	0.0000	0.0000	0.0067	0.0032	0.0065	0.0295	0.0463
40 mph	0.0001	0.0000	0.0000	0.0000	0.0026	0.0012	0.0042	0.0191	0.0271
45 mph	0.0001	0.0000	0.0000	0.0000	0.0016	0.0007	0.0040	0.0181	0.0244
50 mph	0.0001	0.0000	0.0000	0.0000	0.0015	0.0006	0.0036	0.0163	0.0221
55 mph	0.0001	0.0000	0.0000	0.0000	0.0025	0.0010	0.0002	0.0011	0.0050
60 mph	0.0001	0.0000	0.0000	0.0000	0.0017	0.0007	0.0008	0.0038	0.0071
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0036	0.0002	0.0003	0.0004	0.0750	0.0385	0.1255	0.5673	0.8108

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0077	0.0350	0.0452
25 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0114	0.0513	0.0652
30 mph	0.0001	0.0000	0.0000	0.0000	0.0022	0.0011	0.0209	0.0946	0.1188
35 mph	0.0001	0.0000	0.0000	0.0000	0.0030	0.0014	0.0185	0.0836	0.1066
40 mph	0.0001	0.0000	0.0000	0.0000	0.0040	0.0018	0.0159	0.0719	0.0938
45 mph	0.0002	0.0000	0.0000	0.0000	0.0078	0.0034	0.0084	0.0379	0.0578
50 mph	0.0002	0.0000	0.0000	0.0000	0.0063	0.0027	0.0037	0.0168	0.0297
55 mph	0.0001	0.0000	0.0000	0.0000	0.0045	0.0018	0.0009	0.0041	0.0115
60 mph	0.0001	0.0000	0.0000	0.0000	0.0023	0.0009	0.0553	0.2499	0.3085
65 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0000	0.0000	0.0019
70 mph	0.0006	0.0000	0.0000	0.0001	0.0533	0.0188	0.0000	0.0000	0.0729
total	0.0015	0.0001	0.0001	0.0002	0.0880	0.0341	0.1428	0.6452	0.9120

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0016	0.0095	0.0282
15 mph	0.0002	0.0000	0.0000	0.0000	0.0049	0.0028	0.0061	0.0277	0.0418
25 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0023	0.0141	0.0639	0.0849
35 mph	0.0006	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008
total	0.0008	0.0000	0.0001	0.0001	0.0201	0.0116	0.0218	0.1011	0.1557

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0016	0.0095	0.0282
10 mph	0.0010	0.0000	0.0001	0.0001	0.0187	0.0113	0.0283	0.1281	0.1876
15 mph	0.0003	0.0000	0.0000	0.0001	0.0071	0.0041	0.0118	0.0535	0.0769
20 mph	0.0004	0.0000	0.0000	0.0000	0.0079	0.0041	0.0201	0.0905	0.1231
25 mph	0.0009	0.0000	0.0001	0.0001	0.0239	0.0118	0.0631	0.2851	0.3851
30 mph	0.0007	0.0000	0.0001	0.0001	0.0157	0.0076	0.0431	0.1947	0.2620
35 mph	0.0010	0.0001	0.0001	0.0001	0.0097	0.0045	0.0251	0.1131	0.1537
40 mph	0.0002	0.0000	0.0000	0.0000	0.0065	0.0030	0.0202	0.0910	0.1209
45 mph	0.0003	0.0000	0.0000	0.0000	0.0094	0.0041	0.0124	0.0560	0.0822
50 mph	0.0002	0.0000	0.0000	0.0000	0.0078	0.0033	0.0073	0.0331	0.0519
55 mph	0.0002	0.0000	0.0000	0.0000	0.0070	0.0029	0.0012	0.0052	0.0166
60 mph	0.0001	0.0000	0.0000	0.0000	0.0040	0.0016	0.0561	0.2537	0.3155
65 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0000	0.0000	0.0019
70 mph	0.0006	0.0000	0.0000	0.0001	0.0533	0.0188	0.0000	0.0000	0.0729
total	0.0059	0.0003	0.0005	0.0007	0.1831	0.0842	0.2901	1.3136	1.8785

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.36	0.12	0.21	0.02	0.71
10 mph	0.23	0.04	0.12	0.04	0.05	0.02	0.05	0.16	0.70
15 mph	0.10	0.02	0.05	0.02	0.02	0.01	0.02	0.07	0.30
20 mph	0.16	0.03	0.08	0.03	0.03	0.01	0.03	0.11	0.50
25 mph	0.46	0.09	0.24	0.08	0.12	0.02	0.11	0.35	1.46
30 mph	0.36	0.07	0.18	0.06	0.08	0.01	0.07	0.24	1.08
35 mph	0.52	0.10	0.27	0.07	0.05	0.01	0.05	0.14	1.21
40 mph	0.11	0.02	0.06	0.02	0.03	0.01	0.04	0.12	0.41
45 mph	0.14	0.03	0.07	0.03	0.05	0.01	0.03	0.08	0.43
50 mph	0.12	0.02	0.06	0.03	0.04	0.01	0.02	0.05	0.34
55 mph	0.12	0.02	0.06	0.02	0.04	0.01	0.00	0.01	0.29
60 mph	0.07	0.01	0.04	0.01	0.02	0.00	0.21	0.47	0.84
65 mph	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.04
70 mph	0.46	0.08	0.24	0.11	0.19	0.03	0.00	0.00	1.12
total	2.87	0.56	1.48	0.54	1.08	0.25	0.84	1.81	**9.44**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Unmitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,672.38	5,322.67	13,802.35	19,545.57
10 mph	565.07	664.40	736.21	1,001.81	1,335.77	1,474.10	3,195.44	3,326.64
15 mph	435.34	511.83	566.95	769.55	926.81	1,036.15	2,202.99	2,394.92
20 mph	347.84	408.97	453.01	615.18	804.97	907.00	1,548.51	1,936.58
25 mph	288.17	338.61	375.30	510.55	737.83	820.09	1,352.45	1,820.64
30 mph	247.75	290.93	322.69	440.04	669.80	741.28	1,243.07	1,733.17
35 mph	221.05	259.35	287.90	393.91	670.13	741.45	1,147.70	1,662.81
40 mph	204.90	240.34	266.86	365.44	667.72	724.57	1,067.71	1,603.01
45 mph	197.23	231.35	256.84	351.52	664.73	707.53	992.18	1,567.57
50 mph	196.99	230.93	256.40	351.40	701.22	737.51	927.95	1,547.86
55 mph	204.25	239.50	265.88	364.57	738.94	771.15	902.10	1,519.70
60 mph	219.75	257.63	286.03	392.06	749.65	779.15	907.61	1,498.23
65 mph	245.11	287.04	318.98	438.63	759.93	786.71		
70 mph	262.64	304.98	339.53	477.50	757.34	771.23		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	3,828.47	6,054.46	6,576.98	5,840.84
10 mph	478.42	672.54	622.39	770.07	1,002.32	1,101.22	1,914.50	2,577.72
15 mph	393.85	559.63	516.66	653.56	652.60	731.87	1,606.42	2,162.25
20 mph	323.04	459.69	424.41	542.70	556.77	624.56	1,403.06	1,886.51
25 mph	270.71	383.29	355.47	458.76	493.77	556.56	1,294.90	1,740.49
30 mph	234.38	329.22	306.97	396.02	448.74	502.14	1,224.22	1,641.96
35 mph	211.78	294.52	276.56	359.07	449.41	502.55	1,168.01	1,563.23
40 mph	198.16	274.26	258.01	335.80	437.51	484.44	1,121.64	1,498.06
45 mph	191.45	264.74	248.83	323.22	426.86	465.74	1,082.41	1,442.90
50 mph	192.04	264.45	249.10	324.77	447.69	483.07	1,048.70	1,394.67
55 mph	200.90	276.76	260.43	342.67	467.61	499.86	1,020.58	1,357.17
60 mph	217.85	299.64	282.12	371.10	472.02	501.44	1,007.80	1,340.86
65 mph	244.83	333.15	316.34	416.41	479.14	503.47		
70 mph	265.74	339.94	338.04	446.27	484.06	505.19		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	8,778.09	823.84	4,566.34	1,172.49	896.68	334.00	1,251.45	183.31	18,006.19
15 mph	1,502.86	141.04	781.45	200.15	138.26	52.17	246.51	37.71	3,100.12
20 mph	7,204.63	676.16	3,746.42	959.98	720.48	274.01	519.81	91.47	14,192.96
25 mph	24,869.59	2,332.60	12,932.36	3,319.59	2,751.63	1,032.29	1,891.67	358.30	49,488.02
30 mph	20,526.56	1,924.01	10,674.62	2,746.69	2,397.98	895.77	1,390.94	272.87	40,829.44
35 mph	10,683.35	1,000.48	5,555.50	1,434.30	1,399.53	522.65	513.69	104.72	21,214.23
40 mph	4,244.11	397.36	2,206.94	570.27	597.63	218.89	418.15	88.33	8,741.69
45 mph	2,723.42	254.99	1,416.04	365.69	396.64	142.50	499.59	111.06	5,909.94
50 mph	2,720.16	254.53	1,413.62	365.58	418.41	148.53	571.08	134.03	6,025.94
55 mph	4,935.57	461.97	2,565.32	663.72	771.62	271.79	50.47	11.96	9,732.42
60 mph	3,413.73	319.46	1,774.10	458.86	503.23	176.54	203.12	47.18	6,896.21
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	91,602.07	8,586.44	47,632.72	12,257.30	10,992.09	4,069.13	7,556.48	1,440.93	184,137.16

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	1,108.68	104.05	576.52	184.51	185.37	70.50	327.16	57.57	2,614.35
25 mph	1,377.74	129.22	716.43	229.69	254.86	95.61	571.47	108.24	3,483.28
30 mph	1,974.21	185.05	1,026.67	329.95	385.60	144.04	1,313.13	257.60	5,616.24
35 mph	2,818.30	263.93	1,465.56	472.58	617.28	230.52	1,454.87	296.57	7,619.61
40 mph	3,918.63	366.89	2,037.69	657.63	922.58	337.91	1,579.04	333.56	10,153.92
45 mph	8,172.33	765.17	4,249.20	1,370.58	1,989.99	714.91	1,048.10	232.99	18,543.27
50 mph	6,906.76	646.29	3,589.31	1,159.35	1,776.25	630.56	588.15	138.04	15,434.70
55 mph	5,208.06	487.47	2,706.96	874.74	1,361.32	479.51	190.59	45.17	11,353.83
60 mph	2,801.72	262.19	1,456.04	470.36	690.52	242.24	13,422.72	3,117.57	22,463.36
65 mph	1,562.53	146.06	811.88	263.11	349.99	122.30	0.00	0.00	3,255.87
70 mph	39,344.53	3,646.86	20,308.50	6,731.10	8,196.87	2,817.40	0.00	0.00	81,045.27
total	75,193.48	7,003.19	38,944.76	12,743.59	16,730.64	5,885.50	20,495.22	4,587.32	181,583.70

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	349.09	70.08	847.66
15 mph	2,879.02	270.18	1,497.01	598.37	308.12	116.27	265.55	40.62	5,975.15
25 mph	0.00	0.00	0.00	0.00	721.85	270.81	710.85	134.64	1,838.15
35 mph	22,531.86	2,110.08	11,716.90	1,970.85	0.00	0.00	0.00	0.00	38,329.69
total	25,410.89	2,380.26	13,213.92	2,569.22	1,339.47	506.08	1,325.49	245.34	46,990.66

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	349.09	70.08	847.66
10 mph	8,778.09	823.84	4,566.34	1,172.49	896.68	334.00	1,251.45	183.31	18,006.19
15 mph	4,381.88	411.22	2,278.46	798.52	446.38	168.44	512.05	78.32	9,075.27
20 mph	8,313.32	780.21	4,322.94	1,144.48	905.85	344.50	846.97	149.04	16,807.31
25 mph	26,247.33	2,461.82	13,648.80	3,549.27	3,728.34	1,398.71	3,173.99	601.18	54,809.45
30 mph	22,500.76	2,109.05	11,701.29	3,076.64	2,783.59	1,039.81	2,704.07	530.47	46,445.68
35 mph	36,033.52	3,374.49	18,737.97	3,877.72	2,016.81	753.17	1,968.56	401.29	67,163.53
40 mph	8,162.74	764.25	4,244.63	1,227.90	1,520.21	556.80	1,997.19	421.89	18,895.61
45 mph	10,895.75	1,020.16	5,665.25	1,736.27	2,386.63	857.41	1,547.69	344.05	24,453.21
50 mph	9,626.92	900.82	5,002.93	1,524.92	2,194.66	779.09	1,159.23	272.07	21,460.64
55 mph	10,143.63	949.44	5,272.28	1,538.46	2,132.94	751.30	241.06	57.14	21,086.25
60 mph	6,215.45	581.65	3,230.14	929.21	1,193.75	418.78	13,625.84	3,164.75	29,359.57
65 mph	1,562.53	146.06	811.88	263.11	349.99	122.30	0.00	0.00	3,255.87
70 mph	39,344.53	3,646.86	20,308.50	6,731.10	8,196.87	2,817.40	0.00	0.00	81,045.27
total	192,206.44	17,969.89	99,791.40	27,570.10	29,062.20	10,460.71	29,377.19	6,273.58	412,711.52

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	86.47	0.81	7.94	19.44	729.91	491.44	5,910.14	14,810.06	22,056.21
15 mph	15.82	0.15	1.46	3.67	105.61	72.58	1,416.88	3,549.43	5,165.59
20 mph	77.85	0.74	7.22	18.27	540.60	371.63	3,712.53	9,290.37	14,019.22
25 mph	271.84	2.56	25.18	64.35	1,997.63	1,379.88	14,276.49	35,713.67	53,731.61
30 mph	225.94	2.11	20.88	53.33	1,742.83	1,195.17	10,797.79	26,953.46	40,991.50
35 mph	119.09	1.10	10.97	28.21	1,018.16	697.74	4,120.78	10,264.41	16,260.46
40 mph	47.76	0.44	4.39	11.31	424.80	288.26	3,462.54	8,606.97	12,846.46
45 mph	30.76	0.28	2.82	7.25	276.31	184.75	4,296.12	10,658.60	15,456.90
50 mph	30.85	0.28	2.82	7.29	289.79	191.63	5,087.30	12,591.75	18,201.72
55 mph	56.49	0.52	5.17	13.46	529.70	347.01	450.08	1,113.93	2,516.34
60 mph	39.38	0.36	3.60	9.37	343.73	223.78	1,777.78	4,402.14	6,800.14
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	1,002.24	9.37	92.44	235.96	7,999.07	5,443.88	55,308.43	137,954.79	208,046.17

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	11.98	0.11	1.11	3.51	139.09	95.62	2,336.57	5,847.10	8,435.09
25 mph	15.06	0.14	1.39	4.45	185.03	127.81	4,312.91	10,789.06	15,435.85
30 mph	21.73	0.20	2.01	6.41	280.25	192.19	10,193.74	25,445.65	36,142.18
35 mph	31.42	0.29	2.89	9.29	449.07	307.75	11,670.77	29,070.61	41,542.10
40 mph	44.09	0.41	4.05	13.04	655.77	444.99	13,075.37	32,501.95	46,739.67
45 mph	92.30	0.85	8.46	27.19	1,386.25	926.92	9,012.87	22,360.76	33,815.60
50 mph	78.34	0.72	7.17	23.12	1,230.24	813.51	5,239.32	12,968.02	20,360.43
55 mph	59.61	0.55	5.45	17.74	934.52	612.21	1,699.61	4,206.44	7,536.12
60 mph	32.32	0.30	2.95	9.61	471.67	307.07	117,483.27	290,911.72	409,218.90
65 mph	18.16	0.16	1.66	5.39	239.39	154.16	0.00	0.00	418.92
70 mph	463.19	3.95	41.57	135.72	5,683.46	3,635.04	0.00	0.00	9,962.92
total	868.19	7.68	78.71	255.46	11,654.73	7,617.24	175,024.43	434,101.31	629,607.76

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,311.22	2,167.23	4,020.16
15 mph	30.30	0.29	2.80	10.96	235.36	161.76	1,526.32	3,823.59	5,791.39
25 mph	0.00	0.00	0.00	0.00	524.05	361.99	5,364.79	13,420.42	19,671.26
35 mph	251.17	2.33	23.14	38.76	0.00	0.00	0.00	0.00	315.39
total	281.47	2.61	25.94	49.72	1,034.51	790.36	8,202.33	19,411.24	29,798.20

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,311.22	2,167.23	4,020.16
10 mph	86.47	0.81	7.94	19.44	729.91	491.44	5,910.14	14,810.06	22,056.21
15 mph	46.12	0.44	4.27	14.63	340.97	234.34	2,943.19	7,373.02	10,956.98
20 mph	89.83	0.85	8.33	21.78	679.69	467.25	6,049.10	15,137.48	22,454.31
25 mph	286.89	2.71	26.58	68.81	2,706.71	1,869.69	23,954.19	59,923.14	88,838.72
30 mph	247.67	2.32	22.88	59.74	2,023.08	1,387.35	20,991.53	52,399.11	77,133.69
35 mph	401.67	3.72	37.00	76.26	1,467.23	1,005.49	15,791.55	39,335.01	58,117.95
40 mph	91.85	0.85	8.44	24.34	1,080.57	733.25	16,537.91	41,108.93	59,586.13
45 mph	123.06	1.13	11.28	34.44	1,662.56	1,111.67	13,308.99	33,019.36	49,272.49
50 mph	109.19	1.00	9.99	30.41	1,520.03	1,005.14	10,326.62	25,559.77	38,562.15
55 mph	116.09	1.07	10.62	31.20	1,464.21	959.21	2,149.69	5,320.37	10,052.46
60 mph	71.69	0.66	6.55	18.98	815.40	530.85	119,261.06	295,313.86	416,019.04
65 mph	18.16	0.16	1.66	5.39	239.39	154.16	0.00	0.00	418.92
70 mph	463.19	3.95	41.57	135.72	5,683.46	3,635.04	0.00	0.00	9,962.92
total	2,151.90	19.66	197.09	541.14	20,688.31	13,851.48	238,535.20	591,467.34	867,452.13

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	584.59	385.61	1,660.32	2,237.30	4,867.83
10 mph	8,864.56	824.65	4,574.28	1,191.93	1,626.59	825.44	7,161.59	14,993.37	40,062.40
15 mph	4,428.01	411.66	2,282.73	813.15	787.34	402.78	3,455.25	7,451.34	20,032.25
20 mph	8,403.15	781.06	4,331.26	1,166.27	1,585.54	811.75	6,896.07	15,286.51	39,261.62
25 mph	26,534.23	2,464.52	13,675.37	3,618.08	6,435.05	3,268.40	27,128.18	60,524.33	143,648.16
30 mph	22,748.43	2,111.37	11,724.17	3,136.38	4,806.66	2,427.17	23,695.60	52,929.59	123,579.36
35 mph	36,435.19	3,378.22	18,774.97	3,953.98	3,484.04	1,758.66	17,760.11	39,736.30	125,281.48
40 mph	8,254.59	765.10	4,253.06	1,252.25	2,600.78	1,290.05	18,535.09	41,530.82	78,481.74
45 mph	11,018.81	1,021.30	5,676.53	1,770.71	4,049.19	1,969.08	14,856.68	33,363.41	73,725.71
50 mph	9,736.11	901.83	5,012.92	1,555.33	3,714.69	1,784.23	11,485.85	25,831.83	60,022.79
55 mph	10,259.72	950.51	5,282.90	1,569.66	3,597.15	1,710.51	2,390.75	5,377.51	31,138.71
60 mph	6,287.15	582.31	3,236.69	948.19	2,009.15	949.63	132,886.89	298,478.61	445,378.62
65 mph	1,580.69	146.22	813.53	268.50	589.39	276.45	0.00	0.00	3,674.78
70 mph	39,807.72	3,650.81	20,350.07	6,866.82	13,880.33	6,452.44	0.00	0.00	91,008.19
total	194,358.34	17,989.56	99,988.50	28,111.25	49,750.51	24,312.19	267,912.38	597,740.92	**1,280,163.65**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated

Pounds per day

ROG	NOX	CO	PM10 Exhaust	Dust	Brake	PM10 Total	PM2.5 Exhaust	Dust	Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
56.76	562.75	308.46	2.79	256.64	56.17	315.59	2.66	62.99	21.87	87.53	2.04	3.05	3.10	627,401.81

Tons per year

ROG	NOX	CO	PM10 Exhaust	Dust	Brake	PM10 Total	PM2.5 Exhaust	Dust	Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
10.36	102.70	56.29	0.51	46.84	10.25	57.60	0.49	11.50	3.99	15.97	0.37	0.56	0.57	114,500.83

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	982.7	11.4	70.7	-25045.1	-291.4	-1801.7
LDT1	78.4	0.1	0.0	-1999.1	-1.9	-1.2
LDT2	392.4	0.8	0.0	-9999.8	-20.6	0.0
MDT	1484.1	32.0	0.0	22720.4	490.2	0.0
LHDT1	437.1	474.1	0.0	11135.2	12079.6	0.0
LHDT2	147.5	290.6	0.0	3758.4	7402.8	0.0
MHDT	174.5	1375.4	0.0	7853.7	61906.2	0.0
HHDT	24.6	2559.8	0.0	1105.0	115216.1	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	11239.2	130.8	808.5	-36284.2	-422.2	-2610.2
LDT1	897.1	0.9	0.5	-2896.3	-2.8	-1.7
LDT2	4487.5	9.2	0.0	-14487.3	-29.8	0.0
MDT	10190.2	219.9	0.0	12530.2	270.3	0.0
LHDT1	3590.3	3894.8	0.0	7544.9	8184.8	0.0
LHDT2	1211.8	2386.9	0.0	2546.6	5015.9	0.0
MHDT	1381.5	10889.4	0.0	6472.2	51016.8	0.0
HHDT	194.4	20266.7	0.0	910.6	94949.4	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	5%	7%	0%	0%
15	1%	2%	0%	0%
20	6%	6%	1%	1%
25	25%	25%	2%	2%
30	24%	20%	3%	5%
35	14%	8%	4%	6%
40	6%	7%	6%	7%
45	4%	9%	13%	5%
50	4%	11%	11%	3%
55	7%	1%	8%	1%
60	5%	4%	4%	70%
65	0%	0%	2%	0%
70	0%	0%	47%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	505.8	40.4	201.9	458.6	161.6	54.5	96.7	13.6	1,533.0
15 mph	112.4	9.0	44.9	101.9	35.9	12.1	27.6	3.9	347.7
20 mph	674.4	53.8	269.2	611.4	215.4	72.7	82.9	11.7	1,991.5
25 mph	2,809.8	224.3	1,121.9	2,547.6	897.6	303.0	345.4	48.6	8,298.0
30 mph	2,697.4	215.3	1,077.0	2,445.7	861.7	290.8	276.3	38.9	7,903.0
35 mph	1,573.5	125.6	628.2	1,426.6	502.6	169.7	110.5	15.6	4,552.3
40 mph	674.4	53.8	269.2	611.4	215.4	72.7	96.7	13.6	2,007.3
45 mph	449.6	35.9	179.5	407.6	143.6	48.5	124.3	17.5	1,406.5
50 mph	449.6	35.9	179.5	407.6	143.6	48.5	152.0	21.4	1,438.0
55 mph	786.7	62.8	314.1	713.3	251.3	84.8	13.8	1.9	2,228.9
60 mph	505.8	40.4	201.9	458.6	161.6	54.5	55.3	7.8	1,485.8
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	11,239.2	897.1	4,487.5	10,190.2	3,590.3	1,211.8	1,381.5	194.4	33,192.0

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-362.8	-29.0	-144.9	125.3	75.4	25.5	64.7	9.1	-236.6
25 mph	-544.3	-43.4	-217.3	188.0	113.2	38.2	129.4	18.2	-318.0
30 mph	-907.1	-72.4	-362.2	313.3	188.6	63.7	323.6	45.5	-407.0
35 mph	-1,451.4	-115.9	-579.5	501.2	301.8	101.9	388.3	54.6	-798.9
40 mph	-2,177.1	-173.8	-869.2	751.8	452.7	152.8	453.1	63.7	-1,346.0
45 mph	-4,716.9	-376.5	-1,883.3	1,628.9	980.8	331.1	323.6	45.5	-3,666.8
50 mph	-3,991.3	-318.6	-1,593.6	1,378.3	829.9	280.1	194.2	27.3	-3,193.6
55 mph	-2,902.7	-231.7	-1,159.0	1,002.4	603.6	203.7	64.7	9.1	-2,409.9
60 mph	-1,451.4	-115.9	-579.5	501.2	301.8	101.9	4,530.5	637.5	3,926.2
65 mph	-725.7	-57.9	-289.7	250.6	150.9	50.9	0.0	0.0	-620.9
70 mph	-17,053.6	-1,361.2	-6,809.0	5,889.2	3,546.1	1,196.9	0.0	0.0	-14,591.6
total	-36,284.2	-2,896.3	-14,487.3	12,530.2	7,544.9	2,546.6	6,472.2	910.6	-23,663.2

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
15 mph	2,999.2	239.4	1,197.5	352.6	150.8	50.9	54.7	7.7	5,052.7
25 mph	0.0	0.0	0.0	0.0	363.8	122.8	221.8	31.2	739.6
35 mph	8,828.0	704.7	3,524.8	1,014.6	0.0	0.0	0.0	0.0	14,072.0
total	11,827.2	944.1	4,722.3	1,367.2	514.5	173.7	276.5	38.9	19,864.3

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
10 mph	505.8	40.4	201.9	458.6	161.6	54.5	96.7	13.6	1,533.0
15 mph	3,111.6	248.4	1,242.4	454.5	186.7	63.0	82.3	11.6	5,400.4
20 mph	311.5	24.9	124.4	736.7	290.9	98.2	147.6	20.8	1,754.9
25 mph	2,265.5	180.8	904.6	2,735.5	1,374.5	463.9	696.6	98.0	8,719.5
30 mph	1,790.3	142.9	714.8	2,758.9	1,050.3	354.5	599.9	84.4	7,496.0
35 mph	8,950.1	714.4	3,573.5	2,942.4	804.4	271.5	498.9	70.2	17,825.5
40 mph	-1,502.7	-119.9	-600.0	1,363.2	668.1	225.5	549.8	77.4	661.3
45 mph	-4,267.4	-340.6	-1,703.8	2,036.5	1,124.5	379.5	447.9	63.0	-2,260.4
50 mph	-3,541.7	-282.7	-1,414.1	1,785.9	973.6	328.6	346.1	48.7	-1,755.6
55 mph	-2,116.0	-168.9	-844.9	1,715.7	854.9	288.6	78.5	11.1	-181.0
60 mph	-945.6	-75.5	-377.6	959.8	463.4	156.4	4,585.8	645.2	5,411.9
65 mph	-725.7	-57.9	-289.7	250.6	150.9	50.9	0.0	0.0	-620.9
70 mph	-17,053.6	-1,361.2	-6,809.0	5,889.2	3,546.1	1,196.9	0.0	0.0	-14,591.6
total	-13,217.9	-1,055.1	-5,277.5	24,087.6	11,649.8	3,932.1	8,130.2	1,143.9	29,393.1

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	5.9	0.0	0.4	9.9	175.3	107.4	762.3	1,418.7	2,479.8
15 mph	1.3	0.0	0.1	2.2	38.9	23.9	217.8	405.3	689.5
20 mph	7.8	0.1	0.6	13.2	233.7	143.2	653.4	1,216.0	2,267.9
25 mph	32.7	0.2	2.3	55.0	973.7	596.7	2,722.3	5,066.7	9,449.6
30 mph	31.4	0.2	2.2	52.8	934.7	572.8	2,177.9	4,053.3	7,825.4
35 mph	18.3	0.1	1.3	30.8	545.3	334.2	871.2	1,621.3	3,422.4
40 mph	7.8	0.1	0.6	13.2	233.7	143.2	762.3	1,418.7	2,579.5
45 mph	5.2	0.0	0.4	8.8	155.8	95.5	980.0	1,824.0	3,069.7
50 mph	5.2	0.0	0.4	8.8	155.8	95.5	1,197.8	2,229.3	3,692.9
55 mph	9.2	0.1	0.6	15.4	272.6	167.1	108.9	202.7	776.5
60 mph	5.9	0.0	0.4	9.9	175.3	107.4	435.6	810.7	1,545.1
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	130.8	0.9	9.2	219.9	3,894.8	2,386.9	10,889.4	20,266.7	37,798.4

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-4.2	0.0	-0.3	2.7	81.8	50.2	510.2	949.5	1,589.8
25 mph	-6.3	0.0	-0.4	4.1	122.8	75.2	1,020.3	1,899.0	3,114.6
30 mph	-10.6	-0.1	-0.7	6.8	204.6	125.4	2,550.8	4,747.5	7,623.7
35 mph	-16.9	-0.1	-1.2	10.8	327.4	200.6	3,061.0	5,697.0	9,278.6
40 mph	-25.3	-0.2	-1.8	16.2	491.1	301.0	3,571.2	6,646.5	10,998.6
45 mph	-54.9	-0.4	-3.9	35.1	1,064.0	652.1	2,550.8	4,747.5	8,990.4
50 mph	-46.4	-0.3	-3.3	29.7	900.3	551.8	1,530.5	2,848.5	5,810.8
55 mph	-33.8	-0.2	-2.4	21.6	654.8	401.3	510.2	949.5	2,501.0
60 mph	-16.9	-0.1	-1.2	10.8	327.4	200.6	35,711.8	66,464.6	102,697.0
65 mph	-8.4	-0.1	-0.6	5.4	163.7	100.3	0.0	0.0	260.3
70 mph	-198.4	-1.3	-14.0	127.1	3,846.9	2,357.5	0.0	0.0	6,117.7
total	-422.2	-2.8	-29.8	270.3	8,184.8	5,015.9	51,016.8	94,949.4	158,982.5

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
15 mph	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0	1,541.9
25 mph	0.0	0.0	0.0	0.0	394.6	241.8	1,748.5	3,254.1	5,639.0
35 mph	102.7	0.7	7.2	21.9	0.0	0.0	0.0	0.0	132.5
total	137.6	0.9	9.7	29.5	558.2	342.1	2,179.4	4,056.1	7,313.4

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
10 mph	5.9	0.0	0.4	9.9	175.3	107.4	762.3	1,418.7	2,479.8
15 mph	36.2	0.2	2.6	9.8	202.5	124.1	648.7	1,207.3	2,231.4
20 mph	3.6	0.0	0.3	15.9	315.5	193.4	1,163.5	2,165.5	3,857.7
25 mph	26.4	0.2	1.9	59.0	1,491.1	913.8	5,491.1	10,219.8	18,203.2
30 mph	20.8	0.1	1.5	59.5	1,139.4	698.2	4,728.7	8,800.8	15,449.1
35 mph	104.1	0.7	7.3	63.5	872.7	534.8	3,932.2	7,318.3	12,833.6
40 mph	-17.5	-0.1	-1.2	29.4	724.8	444.2	4,333.4	8,065.1	13,578.1
45 mph	-49.7	-0.3	-3.5	43.9	1,219.8	747.5	3,530.9	6,571.5	12,060.2
50 mph	-41.2	-0.3	-2.9	38.5	1,056.1	647.2	2,728.3	5,077.8	9,503.6
55 mph	-24.6	-0.2	-1.7	37.0	927.4	568.4	619.1	1,152.2	3,277.5
60 mph	-11.0	-0.1	-0.8	20.7	502.7	308.0	36,147.3	67,275.2	104,242.1
65 mph	-8.4	-0.1	-0.6	5.4	163.7	100.3	0.0	0.0	260.3
70 mph	-198.4	-1.3	-14.0	127.1	3,846.9	2,357.5	0.0	0.0	6,117.7
total	-153.8	-1.0	-10.8	519.7	12,637.8	7,744.9	64,085.6	119,272.2	204,094.4

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4
15 mph	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
20 mph	48.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.5
25 mph	202.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	202.3
30 mph	194.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	194.2
35 mph	113.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	113.3
40 mph	48.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.5
45 mph	32.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4
50 mph	32.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4
55 mph	32.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4
60 mph	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	784.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	784.8

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1
25 mph	-39.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-39.2
30 mph	-65.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-65.3
35 mph	-104.4	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-104.5
40 mph	-156.6	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-156.7
45 mph	-339.3	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-339.6
50 mph	-287.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-287.3
55 mph	-208.8	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-209.0
60 mph	-104.4	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-104.5
65 mph	-52.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-52.2
70 mph	-1,226.8	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-1,227.6
total	-2,610.2	-1.7	0.0	0.0	0.0	0.0	0.0	0.0	-2,612.0

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	215.9
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,254.1	3,254.1
35 mph	635.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	635.5
total	850.8	0.6	0.0	0.0	0.0	0.0	0.0	3,254.1	4,105.5

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4
15 mph	223.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	224.0
20 mph	22.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4
25 mph	163.0	0.1	0.0	0.0	0.0	0.0	0.0	3,254.1	3,417.2
30 mph	128.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	128.9
35 mph	643.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	644.3
40 mph	-108.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-108.2
45 mph	-307.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-307.2
50 mph	-254.8	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-255.0
55 mph	-176.5	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-176.6
60 mph	-68.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-68.1
65 mph	-52.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-52.2
70 mph	-1,226.8	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-1,227.6
total	1,218.3	0.8	0.0	0.0	0.0	0.0	0.0	3,254.1	2,278.4

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	7,415	1,483	515	103	1,353	271	2,256	451	2,308	7.54	0.035	0.0002	0.5	0.0008	1.9
2	A	731	0.45	4,575	2,059	258	116	680	306	1,133	510	2,990	6.85	0.035	0.0002	0.5	0.0007	2.2
3	A	2352	1.46	1,580	2,307	115	168	187	273	312	455	3,203	6.14	0.035	0.0002	0.5	0.0007	2.1
5	A	953	0.59	2,130	1,257	207	122	-	-	-	-	1,379	2.44	0.035	0.0001	0.1	0.0003	0.4
6	A	1099	0.68	9,030	6,140	553	376	1,482	1,008	2,471	1,680	9,204	7.18	0.035	0.0002	1.8	0.0008	7.2
8	A	1091	0.68	3,310	2,251	195	133	-	-	-	-	2,383	2.32	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	(3,215)	(2,411)	11	9	(2)	(1)	(3)	(2)	(2,407)	2.14	0.035	0.0001	-0.1	0.0002	-0.5
12	A	824	0.51	(160)	(82)	(8)	(4)	(4)	(2)	(6)	(3)	(91)	3.23	0.035	0.0001	0.0	0.0003	0.0
14	A	1618	1.01	345	348	(90)	(90)	(10)	(10)	(16)	(16)	232	1.09	0.035	0.0000	0.0	0.0001	0.0
18	A	1412	0.88	100	88	-	-	-	-	-	-	88	2.13	0.035	0.0001	0.0	0.0002	0.0
19	A	2386	1.48	1,930	2,023	-	-	-	-	-	-	2,023	2.13	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	895	698	21	16	19	15	31	24	753	3.07	0.035	0.0001	0.1	0.0003	0.2
24	A	1946	1.21	545	659	57	69	58	70	97	117	916	5.84	0.035	0.0002	0.1	0.0006	0.6
30	A	2827	1.76	(925)	(1,628)	47	83	-	-	-	-	(1,545)	1.94	0.035	0.0001	-0.1	0.0002	-0.3
29	A	675	0.42	2,130	895	44	19	-	-	-	-	913	2.20	0.035	0.0001	0.1	0.0002	0.2
31	A	820	0.51	(2,445)	(1,247)	10	5	81	41	134	69	(1,132)	0.49	0.035	0.0000	0.0	0.0000	-0.1
TOTAL				27,240		1,935		3,844		6,410						3.7		14.9

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				3052.68	-15950.16	1,349.28	34,376.07	1,549.91	69,759.90	2,584.39	116,321.09	204,506.89	10.82	0.035	0.0003	59.33109079	0.0012	241.7192588

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	2961.4	34.5	213.0
	LDT1	15	1127	330	0.21	236.8	236.4	0.2	0.1
	LDT2	15	5642	330	0.21	1184.8	1182.4	2.4	0.0
	MDT	15	1700	330	0.21	357.0	349.4	7.5	0.0
	LHDT1	15	1494	330	0.21	313.6	150.4	163.2	0.0
	LHDT2	15	718	330	0.21	150.8	50.8	100.0	0.0
	MHDT	15	2286	330	0.21	480.2	54.1	426.1	0.0
	HHDT	15	3813	330	0.21	800.6	7.6	793.0	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.5	0.1	0.3
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.4	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.1	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.0	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.1	0.1	0.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.2	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.5	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	18.5	0.2	1.3
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.6	0.0	0.2
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2999.2	239.4	1197.5	352.6	150.8	50.9	54.7	7.7
Diesel	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0
Electric	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	358	389	0	1790.9	1942.8	0.0
	LHDT2	5	359	121	238	0	604.5	1190.6	0.0
	MHDT	5	1143	129	1015	0	643.5	5072.6	0.0
	HHDT	5	1906	18	1888	0	90.5	9440.8	0.0
Travel at Light Logistics	LHDT1	5	1	1	1	0	2.9	3.2	0.0
	LHDT2	5	1	0	0	0	1.0	1.9	0.0
	MHDT	5	2	0	1	0	0.8	6.7	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	2	0	8.5	9.3	0.0
	LHDT2	5	2	1	1	0	2.9	5.7	0.0
	MHDT	5	7	1	6	0	3.8	30.1	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	8	63	0	40.0	315.5	0.0
	HHDT	5	119	1	117	0	5.6	587.2	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	30.0	10.1	11.5	1.6
Diesel	32.6	20.0	90.4	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					13.0528	12.2296	21.0325	9.5728
10 mph	0.0358	0.0838	0.0464	0.0810	0.1181	0.0412	0.0375	1.2102
15 mph	0.0241	0.0581	0.0311	0.0541	0.0814	0.0277	0.0249	0.8013
20 mph	0.0170	0.0420	0.0220	0.0385	0.0594	0.0199	0.0174	0.5616
25 mph	0.0125	0.0313	0.0162	0.0287	0.0451	0.0149	0.0129	0.4145
30 mph	0.0097	0.0244	0.0126	0.0225	0.0359	0.0117	0.0100	0.3230
35 mph	0.0079	0.0198	0.0103	0.0187	0.0302	0.0098	0.0082	0.2656
40 mph	0.0068	0.0172	0.0089	0.0162	0.0269	0.0086	0.0071	0.2305
45 mph	0.0063	0.0157	0.0081	0.0148	0.0251	0.0080	0.0065	0.2108
50 mph	0.0060	0.0149	0.0078	0.0143	0.0245	0.0077	0.0063	0.2034
55 mph	0.0061	0.0150	0.0079	0.0146	0.0254	0.0080	0.0064	0.2072
60 mph	0.0065	0.0158	0.0085	0.0155	0.0276	0.0086	0.0069	0.2225
65 mph	0.0072	0.0170	0.0094	0.0174	0.0317	0.0098		
70 mph	0.0076	0.0170	0.0098	0.0199	0.0317	0.0097		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					3.1731	3.1731	0.1621	0.5150
10 mph	0.1140	0.3876	0.1950	0.1170	0.5540	0.5438	0.1960	0.4963
15 mph	0.0602	0.2571	0.0959	0.0582	0.2914	0.2750	0.1382	0.3484
20 mph	0.0281	0.1751	0.0380	0.0238	0.1395	0.1187	0.0999	0.2464
25 mph	0.0185	0.1332	0.0230	0.0147	0.0940	0.0759	0.0732	0.1775
30 mph	0.0143	0.1079	0.0174	0.0113	0.0752	0.0592	0.0540	0.1308
35 mph	0.0115	0.0909	0.0139	0.0091	0.0641	0.0489	0.0398	0.0964
40 mph	0.0098	0.0818	0.0115	0.0076	0.0568	0.0421	0.0293	0.0713
45 mph	0.0089	0.0778	0.0098	0.0066	0.0518	0.0373	0.0216	0.0527
50 mph	0.0082	0.0768	0.0086	0.0058	0.0495	0.0344	0.0159	0.0387
55 mph	0.0078	0.0797	0.0076	0.0053	0.0482	0.0323	0.0118	0.0290
60 mph	0.0080	0.0866	0.0073	0.0052	0.0497	0.0323	0.0101	0.0246
65 mph	0.0084	0.0954	0.0074	0.0054	0.0581	0.0362		
70 mph	0.0073	0.0920	0.0073	0.0057	0.0978	0.0563		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0399	0.0075	0.0207	0.0819	0.0421	0.0050	0.0080	0.0363	0.2412
15 mph	0.0060	0.0011	0.0031	0.0122	0.0064	0.0007	0.0015	0.0069	0.0379
20 mph	0.0253	0.0050	0.0130	0.0519	0.0282	0.0032	0.0032	0.0144	0.1442
25 mph	0.0776	0.0155	0.0401	0.1610	0.0892	0.0099	0.0098	0.0444	0.4476
30 mph	0.0577	0.0116	0.0299	0.1215	0.0682	0.0075	0.0061	0.0277	0.3302
35 mph	0.0273	0.0055	0.0142	0.0587	0.0335	0.0037	0.0020	0.0091	0.1540
40 mph	0.0101	0.0020	0.0053	0.0219	0.0128	0.0014	0.0015	0.0069	0.0619
45 mph	0.0062	0.0012	0.0032	0.0133	0.0079	0.0009	0.0018	0.0081	0.0427
50 mph	0.0059	0.0012	0.0031	0.0129	0.0078	0.0008	0.0021	0.0096	0.0434
55 mph	0.0106	0.0021	0.0055	0.0229	0.0141	0.0015	0.0002	0.0009	0.0577
60 mph	0.0073	0.0014	0.0038	0.0157	0.0098	0.0010	0.0008	0.0038	0.0436
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.2739	0.0541	0.1419	0.5738	0.3200	0.0356	0.0371	0.1682	1.6045

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0136	-0.0027	-0.0070	0.0106	0.0099	0.0011	0.0025	0.0113	0.0121
25 mph	-0.0150	-0.0030	-0.0078	0.0119	0.0112	0.0013	0.0037	0.0166	0.0189
30 mph	-0.0194	-0.0039	-0.0101	0.0156	0.0149	0.0016	0.0072	0.0324	0.0384
35 mph	-0.0252	-0.0051	-0.0131	0.0206	0.0201	0.0022	0.0071	0.0320	0.0385
40 mph	-0.0327	-0.0066	-0.0171	0.0269	0.0268	0.0029	0.0071	0.0324	0.0398
45 mph	-0.0650	-0.0130	-0.0338	0.0533	0.0542	0.0058	0.0047	0.0212	0.0273
50 mph	-0.0528	-0.0105	-0.0274	0.0435	0.0448	0.0048	0.0027	0.0122	0.0173
55 mph	-0.0390	-0.0077	-0.0203	0.0322	0.0338	0.0036	0.0009	0.0042	0.0077
60 mph	-0.0208	-0.0040	-0.0108	0.0171	0.0184	0.0019	0.0691	0.3127	0.3836
65 mph	-0.0116	-0.0022	-0.0060	0.0096	0.0105	0.0011	0.0000	0.0000	0.0015
70 mph	-0.2843	-0.0511	-0.1471	0.2586	0.2477	0.0256	0.0000	0.0000	0.0494
total	-0.5795	-0.1097	-0.3005	0.5000	0.4924	0.0519	0.1049	0.4750	0.6345

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5320	0.0343	1.7043
15 mph	0.1597	0.0307	0.0821	0.0421	0.0271	0.0031	0.0030	0.0136	0.3613
25 mph	0.0000	0.0000	0.0000	0.0000	0.0361	0.0040	0.0063	0.0285	0.0750
35 mph	0.1534	0.0308	0.0799	0.0417	0.0000	0.0000	0.0000	0.0000	0.3058
total	0.3131	0.0614	0.1620	0.0838	0.9278	0.2806	0.5413	0.0764	2.4464

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5320	0.0343	1.7043
10 mph	0.0399	0.0075	0.0207	0.0819	0.0421	0.0050	0.0080	0.0363	0.2412
15 mph	0.1656	0.0318	0.0852	0.0543	0.0335	0.0038	0.0045	0.0205	0.3993
20 mph	0.0117	0.0023	0.0060	0.0625	0.0381	0.0043	0.0057	0.0257	0.1563
25 mph	0.0626	0.0125	0.0323	0.1729	0.1365	0.0152	0.0198	0.0896	0.5415
30 mph	0.0383	0.0077	0.0198	0.1370	0.0832	0.0092	0.0133	0.0601	0.3685
35 mph	0.1556	0.0312	0.0810	0.1210	0.0535	0.0058	0.0091	0.0411	0.4983
40 mph	-0.0226	-0.0045	-0.0118	0.0488	0.0396	0.0043	0.0087	0.0393	0.1017
45 mph	-0.0588	-0.0118	-0.0306	0.0666	0.0621	0.0067	0.0065	0.0293	0.0700
50 mph	-0.0469	-0.0093	-0.0244	0.0564	0.0526	0.0056	0.0048	0.0218	0.0607
55 mph	-0.0284	-0.0056	-0.0148	0.0551	0.0479	0.0051	0.0011	0.0050	0.0655
60 mph	-0.0136	-0.0026	-0.0071	0.0328	0.0282	0.0030	0.0699	0.3165	0.4272
65 mph	-0.0116	-0.0022	-0.0060	0.0096	0.0105	0.0011	0.0000	0.0000	0.0015
70 mph	-0.2843	-0.0511	-0.1471	0.2586	0.2477	0.0256	0.0000	0.0000	0.0494
total	0.0075	0.0058	0.0033	1.1576	1.7402	0.3680	0.6832	0.7197	4.6853

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0015	0.0000	0.0002	0.0026	0.2141	0.1288	0.3294	1.5524	2.2290
15 mph	0.0002	0.0000	0.0000	0.0003	0.0250	0.0145	0.0663	0.3114	0.4177
20 mph	0.0005	0.0000	0.0000	0.0007	0.0719	0.0375	0.1439	0.6607	0.9152
25 mph	0.0013	0.0001	0.0001	0.0018	0.2017	0.0999	0.4397	1.9833	2.7279
30 mph	0.0010	0.0000	0.0001	0.0013	0.1550	0.0748	0.2593	1.1693	1.6607
35 mph	0.0005	0.0000	0.0000	0.0006	0.0771	0.0361	0.0764	0.3446	0.5353
40 mph	0.0002	0.0000	0.0000	0.0002	0.0292	0.0133	0.0493	0.2230	0.3152
45 mph	0.0001	0.0000	0.0000	0.0001	0.0178	0.0078	0.0467	0.2119	0.2845
50 mph	0.0001	0.0000	0.0000	0.0001	0.0170	0.0072	0.0421	0.1901	0.2566
55 mph	0.0002	0.0000	0.0000	0.0002	0.0290	0.0119	0.0028	0.0129	0.0570
60 mph	0.0001	0.0000	0.0000	0.0001	0.0192	0.0077	0.0097	0.0440	0.0808
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0056	0.0002	0.0005	0.0080	0.8570	0.4394	1.4657	6.7036	9.4800

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0003	0.0000	0.0000	0.0001	0.0252	0.0131	0.1124	0.5159	0.6664
25 mph	-0.0003	0.0000	0.0000	0.0001	0.0254	0.0126	0.1648	0.7433	0.9460
30 mph	-0.0003	0.0000	0.0000	0.0002	0.0339	0.0164	0.3037	1.3695	1.7233
35 mph	-0.0004	0.0000	0.0000	0.0002	0.0463	0.0217	0.2686	1.2107	1.5470
40 mph	-0.0005	0.0000	0.0000	0.0003	0.0615	0.0279	0.2309	1.0448	1.3647
45 mph	-0.0011	-0.0001	-0.0001	0.0005	0.1214	0.0536	0.1216	0.5515	0.8474
50 mph	-0.0008	-0.0001	-0.0001	0.0004	0.0983	0.0418	0.0538	0.2429	0.4362
55 mph	-0.0006	0.0000	0.0000	0.0003	0.0697	0.0286	0.0132	0.0606	0.1717
60 mph	-0.0003	0.0000	0.0000	0.0001	0.0359	0.0143	0.7939	3.6082	4.4521
65 mph	-0.0002	0.0000	0.0000	0.0001	0.0210	0.0080	0.0000	0.0000	0.0289
70 mph	-0.0032	-0.0003	-0.0002	0.0016	0.8297	0.2928	0.0000	0.0000	1.1204
total	-0.0080	-0.0005	-0.0006	0.0039	1.3682	0.5307	2.0628	9.3475	13.3040

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0323	0.1911	0.5911
15 mph	0.0046	0.0001	0.0005	0.0010	0.1051	0.0608	0.1313	0.6161	0.9195
25 mph	0.0000	0.0000	0.0000	0.0000	0.0818	0.0405	0.2824	1.2738	1.6784
35 mph	0.0026	0.0001	0.0002	0.0004	0.0000	0.0000	0.0000	0.0000	0.0034
total	0.0072	0.0003	0.0007	0.0014	0.4149	0.2410	0.4460	2.0809	3.1924

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0323	0.1911	0.5911
10 mph	0.0015	0.0000	0.0002	0.0026	0.2141	0.1288	0.3294	1.5524	2.2290
15 mph	0.0048	0.0001	0.0005	0.0013	0.1301	0.0753	0.1976	0.9274	1.3371
20 mph	0.0002	0.0000	0.0000	0.0008	0.0971	0.0506	0.2563	1.1766	1.5817
25 mph	0.0011	0.0001	0.0001	0.0019	0.3090	0.1529	0.8868	4.0004	5.3522
30 mph	0.0007	0.0000	0.0001	0.0015	0.1889	0.0911	0.5630	2.5388	3.3840
35 mph	0.0026	0.0001	0.0002	0.0013	0.1234	0.0577	0.3451	1.5553	2.0857
40 mph	-0.0004	0.0000	0.0000	0.0005	0.0907	0.0412	0.2802	1.2678	1.6799
45 mph	-0.0010	-0.0001	-0.0001	0.0006	0.1392	0.0614	0.1683	0.7634	1.1319
50 mph	-0.0007	0.0000	-0.0001	0.0005	0.1153	0.0491	0.0959	0.4329	0.6928
55 mph	-0.0004	0.0000	0.0000	0.0004	0.0987	0.0405	0.0160	0.0736	0.2288
60 mph	-0.0002	0.0000	0.0000	0.0002	0.0551	0.0220	0.8036	3.6522	4.5329
65 mph	-0.0002	0.0000	0.0000	0.0001	0.0210	0.0080	0.0000	0.0000	0.0289
70 mph	-0.0032	-0.0003	-0.0002	0.0016	0.8297	0.2928	0.0000	0.0000	1.1204
total	0.0048	0.0000	0.0007	0.0133	2.6401	1.2111	3.9745	18.1320	25.9763

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.0381	0.1472	0.0566	0.0890	0.6486	0.1940	0.1565	0.0383
Electric	0	0	0	0	0	0	0	0

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.1110	-0.3426	-0.6583	4.7286	16.6608	1.6819	2.8053	0.0966
Electric	0	0	0	0	0	0	0	0
Total	**-1.1110**	**-0.3426**	**-0.6583**	**4.7286**	**16.6608**	**1.6819**	**2.8053**	**0.0966**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.4062	1.2062	0.5198	0.8447	0.1225	0.0591	0.0590	0.0447
Electric	0.0317	0.0310	0	0	0	0	0	0

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.4401	0.1043	0.2248	1.3821	0.0590	0.0096	0.0114	0.0012
Electric	0.0025	0.0000	0	0	0	0	0	0
Total	**0.4425**	**0.1043**	**0.2248**	**1.3821**	**0.0590**	**0.0096**	**0.0114**	**0.0012**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.09	0.41	0.56	0.23	2.30
10 mph	0.04	0.01	0.02	0.08	0.26	0.13	0.34	1.59	2.47
15 mph	0.17	0.03	0.09	0.06	0.16	0.08	0.20	0.95	1.74
20 mph	0.01	0.00	0.01	0.06	0.14	0.05	0.26	1.20	1.74
25 mph	0.06	0.01	0.03	0.17	0.45	0.17	0.91	4.09	5.89
30 mph	0.04	0.01	0.02	0.14	0.27	0.10	0.58	2.60	3.75
35 mph	0.16	0.03	0.08	0.12	0.18	0.06	0.35	1.60	2.58
40 mph	-0.02	0.00	-0.01	0.05	0.13	0.05	0.29	1.31	1.78
45 mph	-0.06	-0.01	-0.03	0.07	0.20	0.07	0.17	0.79	1.20
50 mph	-0.05	-0.01	-0.02	0.06	0.17	0.05	0.10	0.45	0.75
55 mph	-0.03	-0.01	-0.01	0.06	0.15	0.05	0.02	0.08	0.29
60 mph	-0.01	0.00	-0.01	0.03	0.08	0.02	0.87	3.97	4.96
65 mph	-0.01	0.00	-0.01	0.01	0.03	0.01	0.00	0.00	0.03
70 mph	-0.29	-0.05	-0.15	0.26	1.08	0.32	0.00	0.00	1.17
RUNLOSS	-1.11	-0.34	-0.66	4.73	16.66	1.68	2.81	0.10	23.86
RESTLOSS DIURI	0.44	0.10	0.22	1.38	0.06	0.01	0.01	0.00	2.24
total	**-0.66**	**-0.23**	**-0.43**	**7.28**	**21.10**	**3.27**	**7.47**	**18.95**	**56.76**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					1.1346	1.0612	1.8600	24.8479
10 mph	0.0629	0.1686	0.0898	0.1579	0.3531	0.1672	0.1296	4.3316
15 mph	0.0557	0.1462	0.0788	0.1369	0.3115	0.1463	0.1144	3.8178
20 mph	0.0498	0.1287	0.0703	0.1222	0.2870	0.1331	0.1026	3.4275
25 mph	0.0449	0.1138	0.0633	0.1107	0.2655	0.1218	0.0935	3.1229
30 mph	0.0412	0.1027	0.0581	0.1024	0.2505	0.1135	0.0867	2.8925
35 mph	0.0384	0.0943	0.0541	0.0967	0.2409	0.1080	0.0816	2.7233
40 mph	0.0366	0.0902	0.0517	0.0929	0.2345	0.1041	0.0780	2.6053
45 mph	0.0357	0.0889	0.0504	0.0907	0.2310	0.1018	0.0758	2.5319
50 mph	0.0353	0.0887	0.0498	0.0905	0.2310	0.1005	0.0749	2.4991
55 mph	0.0356	0.0915	0.0504	0.0922	0.2345	0.1016	0.0752	2.5087
60 mph	0.0365	0.0959	0.0517	0.0951	0.2392	0.1035	0.0767	2.5574
65 mph	0.0376	0.1001	0.0534	0.1003	0.2489	0.1072		
70 mph	0.0374	0.0959	0.0524	0.1105	0.2674	0.1084		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					55.1536	49.5342	17.6446	15.6146
10 mph	0.0972	0.5625	0.1311	0.0885	1.2043	0.7272	7.4918	15.9066
15 mph	0.0761	0.5746	0.0898	0.0620	1.0397	0.5966	4.5923	9.8391
20 mph	0.0609	0.5819	0.0612	0.0436	1.0463	0.5555	2.6774	5.6815
25 mph	0.0538	0.5876	0.0479	0.0353	1.0526	0.5389	1.5361	3.2303
30 mph	0.0499	0.5918	0.0408	0.0310	1.1106	0.5536	1.0019	2.1347
35 mph	0.0468	0.5903	0.0360	0.0282	1.2082	0.5878	0.7073	1.5254
40 mph	0.0457	0.6066	0.0328	0.0264	1.2914	0.6187	0.5276	1.1608
45 mph	0.0459	0.6349	0.0306	0.0252	1.3494	0.6409	0.4107	0.9188
50 mph	0.0458	0.6540	0.0288	0.0243	1.4275	0.6759	0.3304	0.7366
55 mph	0.0458	0.6773	0.0275	0.0238	1.4541	0.6854	0.2720	0.6362
60 mph	0.0470	0.7035	0.0270	0.0237	1.4750	0.6919	0.2488	0.5702
65 mph	0.0464	0.6954	0.0269	0.0240	1.6623	0.7796		
70 mph	0.0401	0.5666	0.0259	0.0254	3.0371	1.4913		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0702	0.0150	0.0400	0.1597	0.1258	0.0201	0.0276	0.1300	0.5883
15 mph	0.0138	0.0029	0.0078	0.0308	0.0247	0.0039	0.0070	0.0327	0.1235
20 mph	0.0740	0.0153	0.0418	0.1647	0.1363	0.0213	0.0188	0.0881	0.5603
25 mph	0.2784	0.0563	0.1567	0.6218	0.5255	0.0813	0.0712	0.3346	2.1259
30 mph	0.2451	0.0488	0.1379	0.5523	0.4759	0.0728	0.0528	0.2479	1.8335
35 mph	0.1331	0.0261	0.0749	0.3043	0.2670	0.0404	0.0199	0.0934	0.9591
40 mph	0.0545	0.0107	0.0307	0.1252	0.1114	0.0167	0.0166	0.0782	0.4439
45 mph	0.0354	0.0070	0.0199	0.0815	0.0731	0.0109	0.0208	0.0977	0.3463
50 mph	0.0350	0.0070	0.0197	0.0814	0.0731	0.0107	0.0251	0.1178	0.3699
55 mph	0.0617	0.0127	0.0349	0.1451	0.1299	0.0190	0.0023	0.0108	0.4164
60 mph	0.0407	0.0085	0.0230	0.0961	0.0852	0.0124	0.0093	0.0438	0.3192
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.0417	0.2103	0.5873	2.3629	2.0280	0.3097	0.2714	1.2750	8.0862

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0398	-0.0082	-0.0225	0.0338	0.0477	0.0075	0.0146	0.0688	0.1019
25 mph	-0.0539	-0.0109	-0.0304	0.0459	0.0663	0.0103	0.0267	0.1254	0.1793
30 mph	-0.0824	-0.0164	-0.0464	0.0707	0.1042	0.0159	0.0618	0.2904	0.3979
35 mph	-0.1228	-0.0241	-0.0691	0.1069	0.1603	0.0242	0.0699	0.3281	0.4735
40 mph	-0.1758	-0.0346	-0.0990	0.1540	0.2340	0.0351	0.0779	0.3662	0.5579
45 mph	-0.3716	-0.0738	-0.2092	0.3256	0.4996	0.0743	0.0541	0.2542	0.5533
50 mph	-0.3107	-0.0623	-0.1749	0.2752	0.4227	0.0621	0.0321	0.1505	0.3946
55 mph	-0.2277	-0.0468	-0.1288	0.2039	0.3121	0.0456	0.0107	0.0504	0.2194
60 mph	-0.1167	-0.0245	-0.0661	0.1051	0.1592	0.0232	0.7658	3.5946	4.4406
65 mph	-0.0602	-0.0128	-0.0341	0.0554	0.0828	0.0120	0.0000	0.0000	0.0432
70 mph	-1.4046	-0.2879	-0.7872	1.4347	2.0912	0.2861	0.0000	0.0000	1.3323
total	-2.9661	-0.6022	-1.6676	2.8111	4.1801	0.5964	1.1137	5.2287	8.6941

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0470	0.0891	0.2350
15 mph	0.3684	0.0772	0.2080	0.1064	0.1035	0.0164	0.0138	0.0648	0.9586
25 mph	0.0000	0.0000	0.0000	0.0000	0.2130	0.0330	0.0458	0.2149	0.5066
35 mph	0.7466	0.1466	0.4203	0.2164	0.0000	0.0000	0.0000	0.0000	1.5299
total	1.1151	0.2238	0.6283	0.3228	0.3917	0.0731	0.1066	0.3688	3.2301

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0470	0.0891	0.2350
10 mph	0.0702	0.0150	0.0400	0.1597	0.1258	0.0201	0.0276	0.1300	0.5883
15 mph	0.3823	0.0801	0.2158	0.1372	0.1282	0.0203	0.0208	0.0975	1.0821
20 mph	0.0342	0.0071	0.0193	0.1985	0.1840	0.0288	0.0334	0.1570	0.6622
25 mph	0.2244	0.0454	0.1264	0.6677	0.8047	0.1246	0.1437	0.6750	2.8118
30 mph	0.1626	0.0324	0.0915	0.6230	0.5801	0.0888	0.1146	0.5383	2.2314
35 mph	0.7570	0.1486	0.4261	0.6276	0.4274	0.0646	0.0897	0.4215	2.9625
40 mph	-0.1214	-0.0239	-0.0683	0.2792	0.3454	0.0518	0.0946	0.4444	1.0018
45 mph	-0.3361	-0.0667	-0.1893	0.4071	0.5727	0.0852	0.0749	0.3519	0.8996
50 mph	-0.2757	-0.0553	-0.1552	0.3565	0.4958	0.0728	0.0572	0.2684	0.7645
55 mph	-0.1660	-0.0341	-0.0939	0.3490	0.4420	0.0646	0.0130	0.0611	0.6358
60 mph	-0.0760	-0.0160	-0.0430	0.2012	0.2444	0.0357	0.7751	3.6385	4.7598
65 mph	-0.0602	-0.0128	-0.0341	0.0554	0.0828	0.0120	0.0000	0.0000	0.0432
70 mph	-1.4046	-0.2879	-0.7872	1.4347	2.0912	0.2861	0.0000	0.0000	1.3323
total	-0.8093	-0.1681	-0.4520	5.4969	6.5997	0.9792	1.4917	6.8724	20.0105

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0013	0.0000	0.0001	0.0019	0.4654	0.1722	12.5921	49.7585	62.9916
15 mph	0.0002	0.0000	0.0000	0.0003	0.0893	0.0314	2.2053	8.7938	11.1203
20 mph	0.0011	0.0001	0.0001	0.0013	0.5391	0.1754	3.8572	15.2336	19.8078
25 mph	0.0039	0.0003	0.0002	0.0043	2.2600	0.7090	9.2211	36.0888	48.2876
30 mph	0.0035	0.0003	0.0002	0.0036	2.2890	0.6993	4.8112	19.0793	26.8863
35 mph	0.0019	0.0002	0.0001	0.0019	1.4527	0.4331	1.3587	5.4532	8.7018
40 mph	0.0008	0.0001	0.0000	0.0008	0.6654	0.1954	0.8869	3.6312	5.3806
45 mph	0.0005	0.0000	0.0000	0.0005	0.4636	0.1349	0.8875	3.6953	5.1823
50 mph	0.0005	0.0001	0.0000	0.0005	0.4904	0.1423	0.8727	3.6207	5.1271
55 mph	0.0009	0.0001	0.0000	0.0008	0.8742	0.2525	0.0653	0.2843	1.4782
60 mph	0.0006	0.0001	0.0000	0.0005	0.5700	0.1639	0.2390	1.0193	1.9934
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0151	0.0012	0.0009	0.0164	10.1591	3.1095	36.9969	146.6578	196.9569

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0006	0.0000	0.0000	0.0003	0.1888	0.0614	3.0118	11.8949	15.1566
25 mph	-0.0008	-0.0001	0.0000	0.0003	0.2850	0.0894	3.4561	13.5261	17.3560
30 mph	-0.0012	-0.0001	-0.0001	0.0005	0.5011	0.1531	5.6351	22.3466	28.6350
35 mph	-0.0017	-0.0001	-0.0001	0.0007	0.8722	0.2601	4.7740	19.1613	25.0663
40 mph	-0.0026	-0.0002	-0.0001	0.0009	1.3984	0.4106	4.1549	17.0124	22.9743
45 mph	-0.0056	-0.0005	-0.0003	0.0020	3.1660	0.9214	2.3099	9.6179	16.0108
50 mph	-0.0047	-0.0004	-0.0002	0.0016	2.8339	0.8223	1.1151	4.6262	9.3938
55 mph	-0.0034	-0.0003	-0.0001	0.0011	2.0995	0.6065	0.3060	1.3319	4.3411
60 mph	-0.0018	-0.0002	-0.0001	0.0006	1.0648	0.3061	19.5952	83.5658	104.5305
65 mph	-0.0009	-0.0001	0.0000	0.0003	0.6000	0.1725	0.0000	0.0000	0.7718
70 mph	-0.0175	-0.0017	-0.0008	0.0071	25.7617	7.7524	0.0000	0.0000	33.5013
total	-0.0406	-0.0038	-0.0019	0.0153	38.7715	11.5557	44.3582	183.0831	277.7375

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.5177	5.7938	15.4559
15 mph	0.0059	0.0003	0.0005	0.0010	0.3750	0.1319	4.3633	17.3988	22.2766
25 mph	0.0000	0.0000	0.0000	0.0000	0.9159	0.2874	5.9223	23.1784	30.3041
35 mph	0.0106	0.0009	0.0006	0.0014	0.0000	0.0000	0.0000	0.0000	0.0134
total	0.0165	0.0012	0.0011	0.0024	5.2540	2.6005	13.8034	46.3710	68.0500

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.5177	5.7938	15.4559
10 mph	0.0013	0.0000	0.0001	0.0019	0.4654	0.1722	12.5921	49.7585	62.9916
15 mph	0.0061	0.0003	0.0005	0.0013	0.4643	0.1633	6.5686	26.1926	33.3969
20 mph	0.0005	0.0000	0.0000	0.0015	0.7280	0.2368	6.8691	27.1285	34.9644
25 mph	0.0031	0.0002	0.0002	0.0046	3.4609	1.0858	18.5995	72.7933	95.9476
30 mph	0.0023	0.0002	0.0001	0.0041	2.7901	0.8523	10.4463	41.4259	55.5214
35 mph	0.0107	0.0009	0.0006	0.0040	2.3249	0.6932	6.1327	24.6145	33.7815
40 mph	-0.0018	-0.0002	-0.0001	0.0017	2.0639	0.6060	5.0418	20.6436	28.3549
45 mph	-0.0050	-0.0005	-0.0002	0.0024	3.6296	1.0563	3.1974	13.3132	21.1931
50 mph	-0.0042	-0.0004	-0.0002	0.0021	3.3243	0.9646	1.9878	8.2469	14.5209
55 mph	-0.0025	-0.0002	-0.0001	0.0019	2.9736	0.8590	0.3714	1.6162	5.8193
60 mph	-0.0011	-0.0001	0.0000	0.0011	1.6349	0.4700	19.8342	84.5851	106.5239
65 mph	-0.0009	-0.0001	0.0000	0.0003	0.6000	0.1725	0.0000	0.0000	0.7718
70 mph	-0.0175	-0.0017	-0.0008	0.0071	25.7617	7.7524	0.0000	0.0000	33.5013
total	-0.0090	-0.0014	0.0001	0.0341	54.1847	17.2657	95.1584	376.1119	542.7444

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.04	2.21	3.56	5.88	15.69
10 mph	0.07	0.02	0.04	0.16	0.59	0.19	12.62	49.89	63.58
15 mph	0.39	0.08	0.22	0.14	0.59	0.18	6.59	26.29	34.48
20 mph	0.03	0.01	0.02	0.20	0.91	0.27	6.90	27.29	35.63
25 mph	0.23	0.05	0.13	0.67	4.27	1.21	18.74	73.47	98.76
30 mph	0.16	0.03	0.09	0.63	3.37	0.94	10.56	41.96	57.75
35 mph	0.77	0.15	0.43	0.63	2.75	0.76	6.22	25.04	36.74
40 mph	-0.12	-0.02	-0.07	0.28	2.41	0.66	5.14	21.09	29.36
45 mph	-0.34	-0.07	-0.19	0.41	4.20	1.14	3.27	13.67	22.09
50 mph	-0.28	-0.06	-0.16	0.36	3.82	1.04	2.04	8.52	15.29
55 mph	-0.17	-0.03	-0.09	0.35	3.42	0.92	0.38	1.68	6.46
60 mph	-0.08	-0.02	-0.04	0.20	1.88	0.51	20.61	88.22	111.28
65 mph	-0.06	-0.01	-0.03	0.06	0.68	0.18	0.00	0.00	0.81
70 mph	-1.42	-0.29	-0.79	1.44	27.85	8.04	0.00	0.00	34.83
total	-0.82	-0.17	-0.45	5.53	60.78	18.24	96.65	382.98	**562.75**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					124.4483	127.5595	325.0887	256.6478
10 mph	0.8342	1.8852	1.0329	1.5242	1.6491	0.5168	0.2957	46.9374
15 mph	0.7621	1.6847	0.9389	1.3700	1.3665	0.4410	0.2701	42.7646
20 mph	0.6952	1.5094	0.8566	1.2475	1.1722	0.3904	0.2472	39.1899
25 mph	0.6334	1.3434	0.7801	1.1396	1.0226	0.3470	0.2270	35.9537
30 mph	0.5786	1.2041	0.7132	1.0480	0.9137	0.3134	0.2091	33.0913
35 mph	0.5298	1.0843	0.6538	0.9702	0.8379	0.2882	0.1930	30.5536
40 mph	0.4895	0.9986	0.6042	0.8994	0.7899	0.2697	0.1786	28.2868
45 mph	0.4550	0.9330	0.5613	0.8354	0.7608	0.2554	0.1658	26.2500
50 mph	0.4235	0.8729	0.5220	0.7826	0.7512	0.2447	0.1543	24.4088
55 mph	0.3960	0.8303	0.4893	0.7370	0.7725	0.2425	0.1439	22.7853
60 mph	0.3716	0.7925	0.4588	0.6945	0.8234	0.2456	0.1346	21.3105
65 mph	0.3475	0.7484	0.4295	0.6611	0.9259	0.2599		
70 mph	0.3314	0.6885	0.4068	0.6759	0.8817	0.2368		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					26.3000	26.3000	1.2120	1.9063
10 mph	2.2519	2.4137	1.8620	2.5084	2.3491	2.2520	1.0314	2.9137
15 mph	1.1202	1.5176	0.9138	1.2314	1.2440	1.1438	0.7270	2.0526
20 mph	0.4584	0.9766	0.3589	0.4844	0.6147	0.5060	0.5257	1.4537
25 mph	0.2847	0.7494	0.2166	0.2932	0.4263	0.3305	0.3854	1.0469
30 mph	0.2182	0.6262	0.1639	0.2223	0.3518	0.2635	0.2841	0.7717
35 mph	0.1759	0.5477	0.1305	0.1776	0.3125	0.2245	0.2094	0.5679
40 mph	0.1484	0.5150	0.1081	0.1474	0.2899	0.2000	0.1543	0.4203
45 mph	0.1303	0.5165	0.0923	0.1261	0.2791	0.1849	0.1137	0.3107
50 mph	0.1178	0.5395	0.0805	0.1106	0.2852	0.1807	0.0839	0.2282
55 mph	0.1100	0.5986	0.0719	0.0992	0.2995	0.1814	0.0618	0.1710
60 mph	0.1116	0.7027	0.0690	0.0957	0.3348	0.1949	0.0531	0.1453
65 mph	0.1183	0.8376	0.0701	0.0985	0.4331	0.2417		
70 mph	0.1131	0.7928	0.0692	0.1024	0.8203	0.4490		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.9303	0.1678	0.4599	1.5412	0.5875	0.0621	0.0631	1.4082	5.2201
15 mph	0.1889	0.0333	0.0929	0.3078	0.1082	0.0118	0.0165	0.3666	1.1259
20 mph	1.0337	0.1791	0.5086	1.6819	0.5568	0.0626	0.0452	1.0078	5.0757
25 mph	3.9240	0.6644	1.9298	6.4016	2.0238	0.2318	0.1729	3.8524	19.2007
30 mph	3.4413	0.5717	1.6936	5.6517	1.7361	0.2010	0.1274	2.8366	16.2593
35 mph	1.8381	0.3003	0.9057	3.0520	0.9287	0.1078	0.0470	1.0476	8.2272
40 mph	0.7278	0.1185	0.3587	1.2126	0.3752	0.0432	0.0381	0.8487	3.7228
45 mph	0.4511	0.0738	0.2222	0.7508	0.2409	0.0273	0.0455	1.0126	2.8241
50 mph	0.4198	0.0691	0.2066	0.7034	0.2379	0.0262	0.0517	1.1508	2.8653
55 mph	0.6870	0.1150	0.3389	1.1593	0.4281	0.0454	0.0044	0.0977	2.8756
60 mph	0.4145	0.0705	0.2043	0.7023	0.2933	0.0295	0.0164	0.3653	2.0962
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	14.0564	2.3635	6.9211	23.1645	7.5164	0.8487	0.6280	13.9942	69.4929

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.5562	-0.0964	-0.2736	0.3447	0.1950	0.0219	0.0353	0.7869	0.4576
25 mph	-0.7601	-0.1287	-0.3738	0.4723	0.2552	0.0292	0.0648	1.4439	1.0028
30 mph	-1.1573	-0.1922	-0.5695	0.7239	0.3800	0.0440	0.1492	3.3223	2.7004
35 mph	-1.6954	-0.2770	-0.8354	1.0722	0.5576	0.0647	0.1653	3.6811	2.7331
40 mph	-2.3496	-0.3826	-1.1581	1.4910	0.7884	0.0909	0.1785	3.9760	2.6344
45 mph	-4.7327	-0.7746	-2.3309	3.0004	1.6455	0.1864	0.1183	2.6355	-0.2521
50 mph	-3.7268	-0.6132	-1.8342	2.3784	1.3748	0.1511	0.0661	1.4704	-0.7335
55 mph	-2.5349	-0.4242	-1.2504	1.6291	1.0281	0.1089	0.0205	0.4575	-0.9654
60 mph	-1.1893	-0.2025	-0.5863	0.7676	0.5479	0.0552	1.3450	29.9538	30.6914
65 mph	-0.5560	-0.0956	-0.2744	0.3653	0.3081	0.0292	0.0000	0.0000	-0.2234
70 mph	-12.4619	-2.0664	-6.1075	8.7764	6.8942	0.6249	0.0000	0.0000	-4.3404
total	-31.7203	-5.2534	-15.5942	21.0214	13.9747	1.4065	2.1429	47.7273	33.7049

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.2223	0.9202	20.2376
15 mph	5.0402	0.8893	2.4791	1.0653	0.4543	0.0495	0.0326	0.7253	10.7355
25 mph	0.0000	0.0000	0.0000	0.0000	0.8202	0.0939	0.1110	2.4743	3.4995
35 mph	10.3125	1.6848	5.0812	2.1704	0.0000	0.0000	0.0000	0.0000	19.2490
total	15.3527	2.5741	7.5603	3.2357	9.5178	2.9953	8.3659	4.1197	53.7215

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.2223	0.9202	20.2376
10 mph	0.9303	0.1678	0.4599	1.5412	0.5875	0.0621	0.0631	1.4082	5.2201
15 mph	5.2291	0.9227	2.5720	1.3731	0.5625	0.0613	0.0490	1.0919	11.8615
20 mph	0.4775	0.0828	0.2349	2.0265	0.7518	0.0845	0.0805	1.7947	5.5333
25 mph	3.1639	0.5357	1.5560	6.8739	3.0992	0.3550	0.3487	7.7706	23.7030
30 mph	2.2840	0.3794	1.1241	6.3756	2.1161	0.2450	0.2766	6.1589	18.9597
35 mph	10.4552	1.7081	5.1515	6.2946	1.4862	0.1726	0.2123	4.7287	30.2092
40 mph	-1.6218	-0.2641	-0.7994	2.7036	1.1636	0.1341	0.2166	4.8246	6.3572
45 mph	-4.2817	-0.7007	-2.1088	3.7513	1.8864	0.2137	0.1638	3.6480	2.5720
50 mph	-3.3070	-0.5441	-1.6276	3.0818	1.6126	0.1773	0.1178	2.6211	2.1319
55 mph	-1.8479	-0.3092	-0.9115	2.7883	1.4562	0.1543	0.0249	0.5552	1.9103
60 mph	-0.7749	-0.1319	-0.3820	1.4698	0.8412	0.0847	1.3614	30.3191	32.7875
65 mph	-0.5560	-0.0956	-0.2744	0.3653	0.3081	0.0292	0.0000	0.0000	-0.2234
70 mph	-12.4619	-2.0664	-6.1075	8.7764	6.8942	0.6249	0.0000	0.0000	-4.3404
total	-2.3112	-0.3158	-1.1127	47.4216	31.0089	5.2505	11.1368	65.8412	156.9194

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0292	0.0002	0.0017	0.0547	0.9078	0.5334	1.7336	9.1146	12.3752
15 mph	0.0032	0.0000	0.0002	0.0060	0.1068	0.0602	0.3491	1.8345	2.3601
20 mph	0.0079	0.0001	0.0004	0.0141	0.3167	0.1598	0.7573	3.8978	5.1542
25 mph	0.0205	0.0004	0.0011	0.0355	0.9153	0.4349	2.3137	11.6960	15.4174
30 mph	0.0151	0.0003	0.0008	0.0259	0.7252	0.3329	1.3645	6.8970	9.3615
35 mph	0.0071	0.0001	0.0004	0.0121	0.3757	0.1654	0.4023	2.0302	2.9934
40 mph	0.0026	0.0001	0.0001	0.0043	0.1494	0.0631	0.2594	1.3146	1.7936
45 mph	0.0015	0.0000	0.0001	0.0024	0.0959	0.0389	0.2458	1.2496	1.6342
50 mph	0.0014	0.0000	0.0001	0.0021	0.0980	0.0380	0.2215	1.1216	1.4827
55 mph	0.0022	0.0001	0.0001	0.0034	0.1801	0.0668	0.0148	0.0764	0.3439
60 mph	0.0014	0.0001	0.0001	0.0021	0.1294	0.0462	0.0510	0.2598	0.4899
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0922	0.0014	0.0050	0.1626	4.0003	1.9396	7.7130	39.4921	53.4062

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0043	-0.0001	-0.0002	0.0029	0.1109	0.0560	0.5913	3.0435	3.8001
25 mph	-0.0040	-0.0001	-0.0002	0.0026	0.1154	0.0548	0.8672	4.3837	5.4194
30 mph	-0.0051	-0.0001	-0.0003	0.0033	0.1587	0.0729	1.5982	8.0781	9.9057
35 mph	-0.0065	-0.0001	-0.0003	0.0042	0.2256	0.0993	1.4136	7.1337	8.8695
40 mph	-0.0083	-0.0002	-0.0004	0.0053	0.3139	0.1327	1.2151	6.1590	7.8171
45 mph	-0.0158	-0.0004	-0.0008	0.0098	0.6549	0.2658	0.6397	3.2523	4.8056
50 mph	-0.0121	-0.0004	-0.0006	0.0073	0.5662	0.2198	0.2830	1.4331	2.4964
55 mph	-0.0082	-0.0003	-0.0004	0.0047	0.4325	0.1605	0.0696	0.3579	1.0164
60 mph	-0.0042	-0.0002	-0.0002	0.0023	0.2417	0.0862	4.1779	21.2988	25.8023
65 mph	-0.0022	-0.0001	-0.0001	0.0012	0.1563	0.0535	0.0000	0.0000	0.2086
70 mph	-0.0495	-0.0023	-0.0021	0.0287	6.9584	2.3342	0.0000	0.0000	9.2674
total	-0.1200	-0.0042	-0.0056	0.0722	9.9347	3.5357	10.8555	55.1401	79.4084

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2416	0.7073	3.9969
15 mph	0.0862	0.0008	0.0050	0.0207	0.4487	0.2528	0.6908	3.6297	5.1345
25 mph	0.0000	0.0000	0.0000	0.0000	0.3709	0.1763	1.4860	7.5119	9.5451
35 mph	0.0398	0.0008	0.0021	0.0086	0.0000	0.0000	0.0000	0.0000	0.0513
total	0.1260	0.0016	0.0070	0.0292	2.7094	1.5872	2.4184	11.8489	18.7278

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2416	0.7073	3.9969
10 mph	0.0292	0.0002	0.0017	0.0547	0.9078	0.5334	1.7336	9.1146	12.3752
15 mph	0.0894	0.0008	0.0051	0.0266	0.5555	0.3130	1.0399	5.4642	7.4946
20 mph	0.0037	0.0001	0.0002	0.0170	0.4277	0.2157	1.3487	6.9413	8.9542
25 mph	0.0165	0.0003	0.0009	0.0381	1.4016	0.6660	4.6669	23.5915	30.3819
30 mph	0.0100	0.0002	0.0005	0.0292	0.8839	0.4057	2.9627	14.9750	19.2673
35 mph	0.0404	0.0008	0.0021	0.0249	0.6014	0.2648	1.8159	9.1640	11.9142
40 mph	-0.0057	-0.0001	-0.0003	0.0096	0.4633	0.1958	1.4744	7.4737	9.6107
45 mph	-0.0143	-0.0004	-0.0007	0.0122	0.7508	0.3048	0.8855	4.5019	6.4398
50 mph	-0.0107	-0.0003	-0.0005	0.0094	0.6642	0.2578	0.5045	2.5547	3.9791
55 mph	-0.0060	-0.0002	-0.0003	0.0081	0.6126	0.2274	0.0844	0.4343	1.3603
60 mph	-0.0027	-0.0001	-0.0001	0.0044	0.3710	0.1324	4.2288	21.5586	26.2922
65 mph	-0.0022	-0.0001	-0.0001	0.0012	0.1563	0.0535	0.0000	0.0000	0.2086
70 mph	-0.0495	-0.0023	-0.0021	0.0287	6.9584	2.3342	0.0000	0.0000	9.2674
total	0.0982	-0.0012	0.0064	0.2640	16.6444	7.0625	20.9869	106.4811	151.5424

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	10.13	4.01	8.46	1.63	24.23
10 mph	0.96	0.17	0.46	1.60	1.50	0.60	1.80	10.52	17.60
15 mph	5.32	0.92	2.58	1.40	1.12	0.37	1.09	6.56	19.36
20 mph	0.48	0.08	0.24	2.04	1.18	0.30	1.43	8.74	14.49
25 mph	3.18	0.54	1.56	6.91	4.50	1.02	5.02	31.36	54.08
30 mph	2.29	0.38	1.12	6.40	3.00	0.65	3.24	21.13	38.23
35 mph	10.50	1.71	5.15	6.32	2.09	0.44	2.03	13.89	42.12
40 mph	-1.63	-0.26	-0.80	2.71	1.63	0.33	1.69	12.30	15.97
45 mph	-4.30	-0.70	-2.11	3.76	2.64	0.52	1.05	8.15	9.01
50 mph	-3.32	-0.54	-1.63	3.09	2.28	0.44	0.62	5.18	6.11
55 mph	-1.85	-0.31	-0.91	2.80	2.07	0.38	0.11	0.99	3.27
60 mph	-0.78	-0.13	-0.38	1.47	1.21	0.22	5.59	51.88	59.08
65 mph	-0.56	-0.10	-0.27	0.37	0.46	0.08	0.00	0.00	-0.01
70 mph	-12.51	-2.07	-6.11	8.81	13.85	2.96	0.00	0.00	4.93
total	-2.21	-0.32	-1.11	47.69	47.65	12.31	32.12	172.32	**308.46**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.0402	0.0337	0.0339	0.0345
10 mph	0.0075	0.0098	0.0075	0.0075	0.0051	0.0042	0.0043	0.0043
15 mph	0.0050	0.0066	0.0050	0.0050	0.0034	0.0028	0.0029	0.0029
20 mph	0.0035	0.0047	0.0035	0.0035	0.0024	0.0020	0.0020	0.0020
25 mph	0.0026	0.0035	0.0026	0.0026	0.0018	0.0015	0.0015	0.0015
30 mph	0.0020	0.0027	0.0020	0.0020	0.0014	0.0011	0.0011	0.0012
35 mph	0.0017	0.0022	0.0017	0.0017	0.0012	0.0009	0.0009	0.0010
40 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
45 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0007	0.0007	0.0008
50 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
55 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
60 mph	0.0014	0.0018	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
65 mph	0.0016	0.0020	0.0016	0.0016	0.0011	0.0009		
70 mph	0.0017	0.0021	0.0017	0.0017	0.0012	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.6569	0.6555	0.0014	0.0015
10 mph	0.0178	0.2161	0.0101	0.0090	0.0371	0.0270	0.0053	0.0109
15 mph	0.0142	0.1606	0.0085	0.0074	0.0275	0.0214	0.0046	0.0093
20 mph	0.0111	0.1227	0.0072	0.0061	0.0226	0.0178	0.0041	0.0080
25 mph	0.0088	0.0964	0.0060	0.0051	0.0186	0.0149	0.0037	0.0072
30 mph	0.0073	0.0789	0.0053	0.0044	0.0162	0.0131	0.0034	0.0066
35 mph	0.0062	0.0671	0.0047	0.0039	0.0148	0.0119	0.0032	0.0061
40 mph	0.0056	0.0609	0.0043	0.0036	0.0137	0.0110	0.0030	0.0057
45 mph	0.0053	0.0585	0.0040	0.0034	0.0130	0.0103	0.0028	0.0054
50 mph	0.0052	0.0582	0.0038	0.0032	0.0127	0.0099	0.0026	0.0051
55 mph	0.0052	0.0608	0.0036	0.0031	0.0126	0.0096	0.0025	0.0049
60 mph	0.0055	0.0664	0.0036	0.0032	0.0130	0.0097	0.0024	0.0047
65 mph	0.0058	0.0734	0.0036	0.0033	0.0147	0.0105		
70 mph	0.0048	0.0716	0.0036	0.0035	0.0228	0.0149		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0083	0.0009	0.0033	0.0076	0.0018	0.0005	0.0009	0.0001	0.0235
15 mph	0.0012	0.0001	0.0005	0.0011	0.0003	0.0001	0.0002	0.0000	0.0035
20 mph	0.0052	0.0006	0.0021	0.0047	0.0012	0.0003	0.0004	0.0001	0.0144
25 mph	0.0160	0.0017	0.0064	0.0146	0.0036	0.0010	0.0011	0.0002	0.0445
30 mph	0.0120	0.0013	0.0048	0.0109	0.0027	0.0007	0.0007	0.0001	0.0331
35 mph	0.0057	0.0006	0.0023	0.0052	0.0013	0.0004	0.0002	0.0000	0.0158
40 mph	0.0021	0.0002	0.0009	0.0019	0.0005	0.0001	0.0002	0.0000	0.0060
45 mph	0.0013	0.0001	0.0005	0.0012	0.0003	0.0001	0.0002	0.0000	0.0038
50 mph	0.0013	0.0001	0.0005	0.0011	0.0003	0.0001	0.0002	0.0000	0.0037
55 mph	0.0022	0.0002	0.0009	0.0020	0.0005	0.0001	0.0000	0.0000	0.0061
60 mph	0.0015	0.0002	0.0006	0.0014	0.0004	0.0001	0.0001	0.0000	0.0043
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0568	0.0061	0.0228	0.0518	0.0128	0.0035	0.0042	0.0006	0.1586

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0028	-0.0003	-0.0011	0.0010	0.0004	0.0001	0.0003	0.0000	-0.0024
25 mph	-0.0031	-0.0003	-0.0012	0.0011	0.0005	0.0001	0.0004	0.0001	-0.0025
30 mph	-0.0040	-0.0004	-0.0016	0.0014	0.0006	0.0002	0.0008	0.0001	-0.0030
35 mph	-0.0053	-0.0006	-0.0021	0.0018	0.0008	0.0002	0.0008	0.0001	-0.0042
40 mph	-0.0069	-0.0007	-0.0028	0.0024	0.0010	0.0003	0.0008	0.0001	-0.0058
45 mph	-0.0136	-0.0015	-0.0055	0.0047	0.0020	0.0005	0.0005	0.0001	-0.0127
50 mph	-0.0111	-0.0012	-0.0045	0.0039	0.0017	0.0004	0.0003	0.0000	-0.0105
55 mph	-0.0082	-0.0009	-0.0033	0.0028	0.0012	0.0003	0.0001	0.0000	-0.0079
60 mph	-0.0044	-0.0005	-0.0018	0.0015	0.0007	0.0002	0.0079	0.0011	0.0048
65 mph	-0.0025	-0.0003	-0.0010	0.0009	0.0004	0.0001	0.0000	0.0000	-0.0024
70 mph	-0.0635	-0.0064	-0.0255	0.0216	0.0093	0.0025	0.0000	0.0000	-0.0620
total	-0.1255	-0.0130	-0.0503	0.0430	0.0185	0.0050	0.0120	0.0017	-0.1085

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
15 mph	0.0328	0.0035	0.0132	0.0039	0.0011	0.0003	0.0003	0.0000	0.0553
25 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0004	0.0007	0.0001	0.0027
35 mph	0.0322	0.0035	0.0129	0.0037	0.0000	0.0000	0.0000	0.0000	0.0522
total	0.0650	0.0070	0.0261	0.0076	0.0053	0.0015	0.0019	0.0003	0.1145

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
10 mph	0.0083	0.0009	0.0033	0.0076	0.0018	0.0005	0.0009	0.0001	0.0235
15 mph	0.0341	0.0036	0.0137	0.0050	0.0014	0.0004	0.0005	0.0001	0.0588
20 mph	0.0024	0.0003	0.0010	0.0057	0.0016	0.0004	0.0007	0.0001	0.0121
25 mph	0.0129	0.0014	0.0052	0.0157	0.0055	0.0015	0.0023	0.0003	0.0447
30 mph	0.0079	0.0009	0.0032	0.0123	0.0033	0.0009	0.0015	0.0002	0.0302
35 mph	0.0326	0.0035	0.0131	0.0107	0.0021	0.0006	0.0010	0.0001	0.0637
40 mph	-0.0047	-0.0005	-0.0019	0.0043	0.0015	0.0004	0.0010	0.0001	0.0002
45 mph	-0.0123	-0.0013	-0.0049	0.0059	0.0023	0.0006	0.0007	0.0001	-0.0089
50 mph	-0.0099	-0.0011	-0.0040	0.0050	0.0019	0.0005	0.0006	0.0001	-0.0068
55 mph	-0.0060	-0.0006	-0.0024	0.0049	0.0017	0.0005	0.0001	0.0000	-0.0018
60 mph	-0.0029	-0.0003	-0.0012	0.0029	0.0010	0.0003	0.0080	0.0011	0.0090
65 mph	-0.0025	-0.0003	-0.0010	0.0009	0.0004	0.0001	0.0000	0.0000	-0.0024
70 mph	-0.0635	-0.0064	-0.0255	0.0216	0.0093	0.0025	0.0000	0.0000	-0.0620
total	-0.0036	0.0000	-0.0014	0.1024	0.0365	0.0100	0.0182	0.0026	0.1646

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0002	0.0144	0.0064	0.0089	0.0340	0.0641
15 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0011	0.0022	0.0083	0.0140
20 mph	0.0002	0.0000	0.0000	0.0002	0.0116	0.0056	0.0059	0.0215	0.0450
25 mph	0.0006	0.0000	0.0000	0.0006	0.0400	0.0196	0.0222	0.0799	0.1631
30 mph	0.0005	0.0000	0.0000	0.0005	0.0335	0.0165	0.0164	0.0588	0.1263
35 mph	0.0002	0.0000	0.0000	0.0003	0.0178	0.0088	0.0061	0.0219	0.0550
40 mph	0.0001	0.0000	0.0000	0.0001	0.0071	0.0035	0.0050	0.0179	0.0337
45 mph	0.0001	0.0000	0.0000	0.0001	0.0045	0.0022	0.0060	0.0217	0.0345
50 mph	0.0001	0.0000	0.0000	0.0001	0.0044	0.0021	0.0069	0.0248	0.0383
55 mph	0.0001	0.0000	0.0000	0.0001	0.0076	0.0035	0.0006	0.0022	0.0141
60 mph	0.0001	0.0000	0.0000	0.0001	0.0050	0.0023	0.0023	0.0084	0.0181
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0022	0.0002	0.0001	0.0022	0.1481	0.0716	0.0823	0.2995	0.6062

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0001	0.0000	0.0000	0.0000	0.0041	0.0020	0.0046	0.0168	0.0273
25 mph	-0.0001	0.0000	0.0000	0.0000	0.0050	0.0025	0.0083	0.0300	0.0457
30 mph	-0.0002	0.0000	0.0000	0.0001	0.0073	0.0036	0.0192	0.0689	0.0989
35 mph	-0.0002	0.0000	0.0000	0.0001	0.0107	0.0053	0.0213	0.0769	0.1140
40 mph	-0.0003	0.0000	0.0000	0.0001	0.0149	0.0073	0.0232	0.0841	0.1293
45 mph	-0.0006	0.0000	0.0000	0.0003	0.0305	0.0148	0.0156	0.0565	0.1169
50 mph	-0.0005	0.0000	0.0000	0.0002	0.0252	0.0120	0.0088	0.0317	0.0774
55 mph	-0.0004	0.0000	0.0000	0.0001	0.0182	0.0085	0.0028	0.0102	0.0393
60 mph	-0.0002	0.0000	0.0000	0.0001	0.0094	0.0043	0.1886	0.6846	0.8867
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0053	0.0023	0.0000	0.0000	0.0076
70 mph	-0.0021	-0.0002	-0.0001	0.0010	0.1938	0.0775	0.0000	0.0000	0.2698
total	-0.0049	-0.0004	-0.0003	0.0021	0.3243	0.1400	0.2924	1.0596	1.8129

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0003	0.0006	0.0769
15 mph	0.0011	0.0001	0.0000	0.0001	0.0099	0.0047	0.0043	0.0164	0.0367
25 mph	0.0000	0.0000	0.0000	0.0000	0.0162	0.0080	0.0143	0.0513	0.0898
35 mph	0.0014	0.0001	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0018
total	0.0025	0.0002	0.0001	0.0003	0.0733	0.0415	0.0188	0.0683	0.2051

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0003	0.0006	0.0769
10 mph	0.0002	0.0000	0.0000	0.0002	0.0144	0.0064	0.0089	0.0340	0.0641
15 mph	0.0011	0.0001	0.0000	0.0002	0.0123	0.0058	0.0065	0.0247	0.0507
20 mph	0.0001	0.0000	0.0000	0.0002	0.0157	0.0076	0.0104	0.0383	0.0723
25 mph	0.0005	0.0000	0.0000	0.0007	0.0613	0.0301	0.0448	0.1612	0.2985
30 mph	0.0003	0.0000	0.0000	0.0006	0.0408	0.0202	0.0355	0.1278	0.2252
35 mph	0.0014	0.0001	0.0001	0.0005	0.0284	0.0140	0.0274	0.0988	0.1708
40 mph	-0.0002	0.0000	0.0000	0.0002	0.0220	0.0108	0.0282	0.1020	0.1629
45 mph	-0.0006	0.0000	0.0000	0.0003	0.0349	0.0170	0.0216	0.0782	0.1514
50 mph	-0.0005	0.0000	0.0000	0.0003	0.0296	0.0141	0.0157	0.0566	0.1157
55 mph	-0.0003	0.0000	0.0000	0.0003	0.0257	0.0120	0.0034	0.0124	0.0534
60 mph	-0.0001	0.0000	0.0000	0.0001	0.0144	0.0066	0.1909	0.6929	0.9048
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0053	0.0023	0.0000	0.0000	0.0076
70 mph	-0.0021	-0.0002	-0.0001	0.0010	0.1938	0.0775	0.0000	0.0000	0.2698
total	-0.0002	-0.0001	0.0000	0.0046	0.5457	0.2532	0.3935	1.4274	2.6242

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.01	0.00	0.00	0.01	0.02	0.01	0.01	0.03	0.09
15 mph	0.04	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.11
20 mph	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.08
25 mph	0.01	0.00	0.01	0.02	0.07	0.03	0.05	0.16	0.34
30 mph	0.01	0.00	0.00	0.01	0.04	0.02	0.04	0.13	0.26
35 mph	0.03	0.00	0.01	0.01	0.03	0.01	0.03	0.10	0.23
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.10	0.16
45 mph	-0.01	0.00	0.00	0.01	0.04	0.02	0.02	0.08	0.14
50 mph	-0.01	0.00	0.00	0.01	0.03	0.01	0.02	0.06	0.11
55 mph	-0.01	0.00	0.00	0.01	0.03	0.01	0.00	0.01	0.05
60 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.20	0.69	0.91
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
70 mph	-0.07	-0.01	-0.03	0.02	0.20	0.08	0.00	0.00	0.21
total	0.00	0.00	0.00	0.11	0.58	0.26	0.41	1.43	**2.79**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.0368	0.0368	0.0367	0.0368	0.0764	0.0892	0.1303	0.0617
Tires	0.0080	0.0080	0.0080	0.0080	0.0080	0.0080	0.0120	0.0200
Total	0.0448	0.0448	0.0447	0.0448	0.0844	0.0972	0.1423	0.0817

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.0368	0.0368	0.0367	0.0368	0.0764	0.0892	0.1303	0.0617
Tires	0.0080	0.0080	0.0080	0.0080	0.0120	0.0120	0.0120	0.0360
Total	0.0448	0.0448	0.0447	0.0448	0.0884	0.1012	0.1423	0.0977

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.0368	0.0368	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tires	0.0080	0.0080	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0448	0.0448	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.11	0.09	0.44	1.01	0.67	0.26	0.43	0.04
Diesel	0.01	0.00	0.00	0.02	0.76	0.53	3.42	4.37
Electric	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.20	0.09	0.44	1.03	1.43	0.79	3.85	4.40

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-3.58	-0.29	-1.43	1.24	1.40	0.55	2.03	0.16
Diesel	-0.04	0.00	0.00	0.03	1.60	1.12	16.01	20.46
Electric	-0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-3.88	-0.29	-1.43	1.26	3.00	1.66	18.04	20.63

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.17	0.09	0.47	0.13	0.10	0.04	0.09	0.01
Diesel	0.01	0.00	0.00	0.00	0.11	0.08	0.68	0.87
Electric	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.26	0.09	0.47	0.14	0.20	0.11	0.77	0.88

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-1.30	-0.10	-0.52	2.38	2.17	0.84	2.55	0.21	6.22
Diesel	-0.02	0.00	0.00	0.05	2.46	1.73	20.11	25.71	50.05
Electric	-0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.10
Total	-1.42	-0.10	-0.52	2.43	4.63	2.57	22.67	25.91	**56.17**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	241.72
Internal	14.92
Total	**256.64**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.0370	0.0310	0.0311	0.0317
10 mph	0.0069	0.0090	0.0069	0.0069	0.0047	0.0039	0.0040	0.0040
15 mph	0.0046	0.0061	0.0046	0.0046	0.0032	0.0026	0.0026	0.0026
20 mph	0.0032	0.0043	0.0032	0.0032	0.0022	0.0018	0.0018	0.0018
25 mph	0.0024	0.0032	0.0024	0.0024	0.0017	0.0014	0.0014	0.0014
30 mph	0.0018	0.0025	0.0019	0.0019	0.0013	0.0011	0.0011	0.0011
35 mph	0.0015	0.0020	0.0015	0.0015	0.0011	0.0009	0.0009	0.0009
40 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0008	0.0008	0.0008
45 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
50 mph	0.0012	0.0016	0.0012	0.0012	0.0008	0.0007	0.0007	0.0007
55 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
60 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
65 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008		
70 mph	0.0016	0.0020	0.0016	0.0015	0.0011	0.0009		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.6285	0.6272	0.0013	0.0014
10 mph	0.0170	0.2067	0.0096	0.0086	0.0355	0.0258	0.0051	0.0104
15 mph	0.0135	0.1537	0.0082	0.0071	0.0263	0.0204	0.0044	0.0089
20 mph	0.0106	0.1174	0.0068	0.0058	0.0216	0.0170	0.0039	0.0077
25 mph	0.0085	0.0923	0.0058	0.0049	0.0178	0.0143	0.0035	0.0068
30 mph	0.0070	0.0755	0.0050	0.0042	0.0155	0.0125	0.0033	0.0063
35 mph	0.0059	0.0642	0.0045	0.0037	0.0141	0.0114	0.0030	0.0059
40 mph	0.0054	0.0583	0.0041	0.0034	0.0131	0.0105	0.0028	0.0055
45 mph	0.0051	0.0560	0.0038	0.0032	0.0124	0.0099	0.0027	0.0052
50 mph	0.0049	0.0557	0.0036	0.0031	0.0121	0.0095	0.0025	0.0048
55 mph	0.0049	0.0581	0.0035	0.0030	0.0120	0.0092	0.0024	0.0047
60 mph	0.0052	0.0635	0.0034	0.0030	0.0124	0.0092	0.0023	0.0045
65 mph	0.0055	0.0702	0.0035	0.0032	0.0141	0.0101		
70 mph	0.0046	0.0685	0.0034	0.0033	0.0219	0.0143		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0077	0.0008	0.0031	0.0070	0.0017	0.0005	0.0008	0.0001	0.0216
15 mph	0.0011	0.0001	0.0005	0.0010	0.0003	0.0001	0.0002	0.0000	0.0032
20 mph	0.0048	0.0005	0.0019	0.0044	0.0011	0.0003	0.0003	0.0000	0.0133
25 mph	0.0147	0.0016	0.0059	0.0134	0.0033	0.0009	0.0010	0.0001	0.0409
30 mph	0.0110	0.0012	0.0044	0.0100	0.0025	0.0007	0.0006	0.0001	0.0305
35 mph	0.0053	0.0006	0.0021	0.0048	0.0012	0.0003	0.0002	0.0000	0.0145
40 mph	0.0020	0.0002	0.0008	0.0018	0.0004	0.0001	0.0002	0.0000	0.0055
45 mph	0.0012	0.0001	0.0005	0.0011	0.0003	0.0001	0.0002	0.0000	0.0034
50 mph	0.0012	0.0001	0.0005	0.0010	0.0003	0.0001	0.0002	0.0000	0.0034
55 mph	0.0021	0.0002	0.0008	0.0019	0.0005	0.0001	0.0000	0.0000	0.0056
60 mph	0.0014	0.0001	0.0006	0.0013	0.0003	0.0001	0.0001	0.0000	0.0039
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0523	0.0056	0.0210	0.0476	0.0117	0.0032	0.0039	0.0006	0.1458

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0026	-0.0003	-0.0010	0.0009	0.0004	0.0001	0.0003	0.0000	-0.0022
25 mph	-0.0028	-0.0003	-0.0011	0.0010	0.0004	0.0001	0.0004	0.0001	-0.0023
30 mph	-0.0037	-0.0004	-0.0015	0.0013	0.0005	0.0001	0.0008	0.0001	-0.0027
35 mph	-0.0049	-0.0005	-0.0019	0.0017	0.0007	0.0002	0.0007	0.0001	-0.0039
40 mph	-0.0063	-0.0007	-0.0025	0.0022	0.0009	0.0003	0.0008	0.0001	-0.0053
45 mph	-0.0125	-0.0013	-0.0050	0.0043	0.0019	0.0005	0.0005	0.0001	-0.0116
50 mph	-0.0102	-0.0011	-0.0041	0.0035	0.0015	0.0004	0.0003	0.0000	-0.0096
55 mph	-0.0076	-0.0008	-0.0030	0.0026	0.0011	0.0003	0.0001	0.0000	-0.0072
60 mph	-0.0041	-0.0004	-0.0016	0.0014	0.0006	0.0002	0.0073	0.0010	0.0044
65 mph	-0.0023	-0.0002	-0.0009	0.0008	0.0003	0.0001	0.0000	0.0000	-0.0022
70 mph	-0.0584	-0.0059	-0.0234	0.0198	0.0085	0.0023	0.0000	0.0000	-0.0570
total	-0.1154	-0.0120	-0.0462	0.0396	0.0170	0.0046	0.0110	0.0016	-0.0998

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
15 mph	0.0302	0.0032	0.0121	0.0036	0.0011	0.0003	0.0003	0.0000	0.0508
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0004	0.0007	0.0001	0.0025
35 mph	0.0296	0.0032	0.0118	0.0034	0.0000	0.0000	0.0000	0.0000	0.0480
total	0.0598	0.0064	0.0240	0.0070	0.0048	0.0014	0.0018	0.0003	0.1053

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
10 mph	0.0077	0.0008	0.0031	0.0070	0.0017	0.0005	0.0008	0.0001	0.0216
15 mph	0.0313	0.0033	0.0126	0.0046	0.0013	0.0004	0.0005	0.0001	0.0541
20 mph	0.0022	0.0002	0.0009	0.0052	0.0014	0.0004	0.0006	0.0001	0.0111
25 mph	0.0118	0.0013	0.0047	0.0144	0.0050	0.0014	0.0021	0.0003	0.0411
30 mph	0.0073	0.0008	0.0029	0.0113	0.0030	0.0008	0.0014	0.0002	0.0277
35 mph	0.0300	0.0032	0.0120	0.0099	0.0019	0.0005	0.0010	0.0001	0.0586
40 mph	-0.0044	-0.0005	-0.0017	0.0040	0.0014	0.0004	0.0009	0.0001	0.0002
45 mph	-0.0113	-0.0012	-0.0045	0.0054	0.0021	0.0006	0.0007	0.0001	-0.0082
50 mph	-0.0091	-0.0010	-0.0036	0.0046	0.0018	0.0005	0.0005	0.0001	-0.0062
55 mph	-0.0055	-0.0006	-0.0022	0.0045	0.0016	0.0004	0.0001	0.0000	-0.0017
60 mph	-0.0026	-0.0003	-0.0011	0.0027	0.0009	0.0003	0.0074	0.0010	0.0083
65 mph	-0.0023	-0.0002	-0.0009	0.0008	0.0003	0.0001	0.0000	0.0000	-0.0022
70 mph	-0.0584	-0.0059	-0.0234	0.0198	0.0085	0.0023	0.0000	0.0000	-0.0570
total	-0.0033	0.0000	-0.0013	0.0941	0.0335	0.0092	0.0167	0.0024	0.1514

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0002	0.0137	0.0061	0.0085	0.0326	0.0614
15 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0011	0.0021	0.0079	0.0134
20 mph	0.0002	0.0000	0.0000	0.0002	0.0111	0.0054	0.0056	0.0206	0.0431
25 mph	0.0006	0.0000	0.0000	0.0006	0.0383	0.0188	0.0212	0.0765	0.1560
30 mph	0.0005	0.0000	0.0000	0.0005	0.0320	0.0158	0.0156	0.0563	0.1208
35 mph	0.0002	0.0000	0.0000	0.0003	0.0170	0.0084	0.0058	0.0209	0.0527
40 mph	0.0001	0.0000	0.0000	0.0001	0.0068	0.0033	0.0047	0.0172	0.0322
45 mph	0.0001	0.0000	0.0000	0.0001	0.0043	0.0021	0.0057	0.0208	0.0330
50 mph	0.0001	0.0000	0.0000	0.0001	0.0042	0.0020	0.0066	0.0238	0.0366
55 mph	0.0001	0.0000	0.0000	0.0001	0.0072	0.0034	0.0006	0.0021	0.0135
60 mph	0.0001	0.0000	0.0000	0.0001	0.0048	0.0022	0.0022	0.0080	0.0173
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0022	0.0002	0.0001	0.0021	0.1417	0.0685	0.0787	0.2865	0.5800

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0001	0.0000	0.0000	0.0000	0.0039	0.0019	0.0044	0.0161	0.0261
25 mph	-0.0001	0.0000	0.0000	0.0000	0.0048	0.0024	0.0080	0.0287	0.0437
30 mph	-0.0002	0.0000	0.0000	0.0001	0.0070	0.0035	0.0183	0.0659	0.0946
35 mph	-0.0002	0.0000	0.0000	0.0001	0.0102	0.0050	0.0204	0.0735	0.1091
40 mph	-0.0003	0.0000	0.0000	0.0001	0.0142	0.0070	0.0222	0.0804	0.1237
45 mph	-0.0006	0.0000	0.0000	0.0002	0.0292	0.0142	0.0149	0.0541	0.1119
50 mph	-0.0005	0.0000	0.0000	0.0002	0.0241	0.0115	0.0084	0.0304	0.0741
55 mph	-0.0004	0.0000	0.0000	0.0001	0.0174	0.0081	0.0027	0.0097	0.0376
60 mph	-0.0002	0.0000	0.0000	0.0001	0.0089	0.0041	0.1805	0.6550	0.8483
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0051	0.0022	0.0000	0.0000	0.0072
70 mph	-0.0020	-0.0002	-0.0001	0.0009	0.1854	0.0741	0.0000	0.0000	0.2582
total	-0.0047	-0.0004	-0.0002	0.0020	0.3103	0.1340	0.2798	1.0138	1.7345

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0003	0.0005	0.0736
15 mph	0.0010	0.0001	0.0000	0.0001	0.0095	0.0045	0.0041	0.0157	0.0351
25 mph	0.0000	0.0000	0.0000	0.0000	0.0155	0.0076	0.0136	0.0491	0.0859
35 mph	0.0013	0.0001	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0017
total	0.0024	0.0002	0.0001	0.0003	0.0702	0.0398	0.0180	0.0653	0.1962

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0003	0.0005	0.0736
10 mph	0.0002	0.0000	0.0000	0.0002	0.0137	0.0061	0.0085	0.0326	0.0614
15 mph	0.0011	0.0001	0.0000	0.0002	0.0118	0.0056	0.0062	0.0236	0.0485
20 mph	0.0001	0.0000	0.0000	0.0002	0.0150	0.0073	0.0100	0.0366	0.0692
25 mph	0.0005	0.0000	0.0000	0.0006	0.0586	0.0288	0.0428	0.1542	0.2856
30 mph	0.0003	0.0000	0.0000	0.0006	0.0390	0.0193	0.0340	0.1222	0.2155
35 mph	0.0014	0.0001	0.0001	0.0005	0.0272	0.0134	0.0262	0.0945	0.1634
40 mph	-0.0002	0.0000	0.0000	0.0002	0.0210	0.0103	0.0270	0.0976	0.1559
45 mph	-0.0006	0.0000	0.0000	0.0003	0.0334	0.0162	0.0206	0.0748	0.1448
50 mph	-0.0004	0.0000	0.0000	0.0003	0.0283	0.0135	0.0150	0.0541	0.1107
55 mph	-0.0003	0.0000	0.0000	0.0002	0.0246	0.0115	0.0032	0.0118	0.0511
60 mph	-0.0001	0.0000	0.0000	0.0001	0.0137	0.0063	0.1827	0.6630	0.8657
65 mph	-0.0001	0.0000	0.0000	0.0000	0.0051	0.0022	0.0000	0.0000	0.0072
70 mph	-0.0020	-0.0002	-0.0001	0.0009	0.1854	0.0741	0.0000	0.0000	0.2582
total	-0.0002	-0.0001	0.0000	0.0044	0.5221	0.2423	0.3765	1.3656	2.5107

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.01	0.00	0.00	0.01	0.02	0.01	0.01	0.03	0.08
15 mph	0.03	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.10
20 mph	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.08
25 mph	0.01	0.00	0.00	0.02	0.06	0.03	0.04	0.15	0.33
30 mph	0.01	0.00	0.00	0.01	0.04	0.02	0.04	0.12	0.24
35 mph	0.03	0.00	0.01	0.01	0.03	0.01	0.03	0.09	0.22
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.10	0.16
45 mph	-0.01	0.00	0.00	0.01	0.04	0.02	0.02	0.07	0.14
50 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.02	0.05	0.10
55 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.05
60 mph	0.00	0.00	0.00	0.00	0.01	0.01	0.19	0.66	0.87
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
70 mph	-0.06	-0.01	-0.02	0.02	0.19	0.08	0.00	0.00	0.20
total	0.00	0.00	0.00	0.10	0.56	0.25	0.39	1.37	**2.66**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.0157	0.0158	0.0158	0.0158	0.0328	0.0382	0.0559	0.0265
Tires	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0030	0.0050
Total	0.0177	0.0178	0.0178	0.0178	0.0348	0.0402	0.0589	0.0315

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.0157	0.0157	0.0158	0.0158	0.0328	0.0382	0.0559	0.0265
Tires	0.0020	0.0020	0.0020	0.0020	0.0030	0.0030	0.0030	0.0090
Total	0.0177	0.0177	0.0178	0.0178	0.0358	0.0412	0.0589	0.0355

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.0158	0.0158	0	0	0	0	0	0
Tires	0.0020	0.0020	0	0	0	0	0	0
Total	0.0178	0.0178	0	0	0	0	0	0

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.44	0.04	0.18	0.40	0.28	0.11	0.18	0.01
Diesel	0.01	0.00	0.00	0.01	0.31	0.22	1.41	1.58
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.48	0.04	0.18	0.41	0.58	0.32	1.59	1.60

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.42	-0.11	-0.57	0.49	0.58	0.23	0.84	0.06
Diesel	-0.02	0.00	0.00	0.01	0.65	0.46	6.62	7.42
Electric	-0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	-1.54	-0.11	-0.57	0.50	1.22	0.68	7.46	7.49

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.46	0.04	0.18	0.05	0.04	0.02	0.04	0.00
Diesel	0.01	0.00	0.00	0.00	0.04	0.03	0.28	0.32
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.50	0.04	0.19	0.05	0.08	0.05	0.32	0.32

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-0.52	-0.04	-0.21	0.94	0.89	0.35	1.06	0.08	2.55
Diesel	-0.01	0.00	0.00	0.02	1.00	0.70	8.32	9.33	19.36
Electric	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04
Total	-0.56	-0.04	-0.21	0.96	1.89	1.05	9.37	9.41	**21.87**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	59.33
Internal	3.66
Total	**62.99**

Black Carbon

percent of PM2.5 Exhaust	
LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.06
10 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.06
15 mph	0.02	0.00	0.01	0.00	0.01	0.00	0.01	0.02	0.07
20 mph	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.06
25 mph	0.01	0.00	0.00	0.01	0.05	0.02	0.03	0.12	0.25
30 mph	0.00	0.00	0.00	0.01	0.03	0.02	0.03	0.09	0.18
35 mph	0.02	0.00	0.01	0.01	0.02	0.01	0.02	0.07	0.16
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.08	0.12
45 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.02	0.06	0.11
50 mph	-0.01	0.00	0.00	0.00	0.02	0.01	0.01	0.04	0.08
55 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.04
60 mph	0.00	0.00	0.00	0.00	0.01	0.01	0.15	0.51	0.67
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	-0.04	0.00	-0.02	0.01	0.15	0.06	0.00	0.00	0.16
total	0.00	0.00	0.00	0.06	0.43	0.19	0.30	1.05	2.04

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0040	0.0006	0.0029	0.0067	0.0048	0.0016	0.0029	0.0004	0.0239
15 mph	0.0009	0.0001	0.0007	0.0015	0.0011	0.0004	0.0008	0.0001	0.0055
20 mph	0.0054	0.0008	0.0039	0.0089	0.0064	0.0021	0.0024	0.0003	0.0303
25 mph	0.0223	0.0033	0.0163	0.0371	0.0265	0.0090	0.0102	0.0014	0.1261
30 mph	0.0214	0.0031	0.0157	0.0356	0.0255	0.0086	0.0082	0.0011	0.1192
35 mph	0.0125	0.0018	0.0091	0.0208	0.0149	0.0050	0.0033	0.0005	0.0678
40 mph	0.0054	0.0008	0.0039	0.0089	0.0064	0.0021	0.0029	0.0004	0.0307
45 mph	0.0036	0.0005	0.0026	0.0059	0.0042	0.0014	0.0037	0.0005	0.0225
50 mph	0.0036	0.0005	0.0026	0.0059	0.0042	0.0014	0.0045	0.0006	0.0234
55 mph	0.0062	0.0009	0.0046	0.0104	0.0074	0.0025	0.0004	0.0001	0.0325
60 mph	0.0040	0.0006	0.0029	0.0067	0.0048	0.0016	0.0016	0.0002	0.0225
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0892	0.0131	0.0653	0.1483	0.1061	0.0358	0.0408	0.0057	0.5043

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0029	-0.0004	-0.0021	0.0018	0.0022	0.0008	0.0019	0.0003	0.0016
25 mph	-0.0043	-0.0006	-0.0032	0.0027	0.0033	0.0011	0.0038	0.0005	0.0035
30 mph	-0.0072	-0.0011	-0.0053	0.0046	0.0056	0.0019	0.0096	0.0013	0.0094
35 mph	-0.0115	-0.0017	-0.0084	0.0073	0.0089	0.0030	0.0115	0.0016	0.0107
40 mph	-0.0173	-0.0025	-0.0127	0.0109	0.0134	0.0045	0.0134	0.0019	0.0116
45 mph	-0.0374	-0.0055	-0.0274	0.0237	0.0290	0.0098	0.0096	0.0013	0.0030
50 mph	-0.0317	-0.0046	-0.0232	0.0201	0.0245	0.0083	0.0057	0.0008	-0.0001
55 mph	-0.0230	-0.0034	-0.0169	0.0146	0.0178	0.0060	0.0019	0.0003	-0.0027
60 mph	-0.0115	-0.0017	-0.0084	0.0073	0.0089	0.0030	0.1339	0.0188	0.1503
65 mph	-0.0058	-0.0008	-0.0042	0.0036	0.0045	0.0015	0.0000	0.0000	-0.0012
70 mph	-0.1354	-0.0198	-0.0991	0.0857	0.1048	0.0354	0.0000	0.0000	-0.0284
total	-0.2880	-0.0421	-0.2108	0.1824	0.2229	0.0752	0.1912	0.0269	0.1577

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
15 mph	0.0238	0.0035	0.0174	0.0051	0.0045	0.0015	0.0016	0.0002	0.0577
25 mph	0.0000	0.0000	0.0000	0.0000	0.0107	0.0036	0.0066	0.0009	0.0219
35 mph	0.0701	0.0103	0.0513	0.0148	0.0000	0.0000	0.0000	0.0000	0.1464
total	0.0939	0.0137	0.0687	0.0199	0.0161	0.0054	0.0085	0.0012	0.2275

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
10 mph	0.0040	0.0006	0.0029	0.0067	0.0048	0.0016	0.0029	0.0004	0.0239
15 mph	0.0247	0.0036	0.0181	0.0066	0.0055	0.0019	0.0024	0.0003	0.0632
20 mph	0.0025	0.0004	0.0018	0.0107	0.0086	0.0029	0.0044	0.0006	0.0318
25 mph	0.0180	0.0026	0.0132	0.0398	0.0406	0.0137	0.0206	0.0029	0.1514
30 mph	0.0142	0.0021	0.0104	0.0402	0.0310	0.0105	0.0177	0.0025	0.1286
35 mph	0.0710	0.0104	0.0520	0.0428	0.0238	0.0080	0.0147	0.0021	0.2249
40 mph	-0.0119	-0.0017	-0.0087	0.0198	0.0197	0.0067	0.0162	0.0023	0.0424
45 mph	-0.0339	-0.0050	-0.0248	0.0296	0.0332	0.0112	0.0132	0.0019	0.0255
50 mph	-0.0281	-0.0041	-0.0206	0.0260	0.0288	0.0097	0.0102	0.0014	0.0233
55 mph	-0.0168	-0.0025	-0.0123	0.0250	0.0253	0.0085	0.0023	0.0003	0.0299
60 mph	-0.0075	-0.0011	-0.0055	0.0140	0.0137	0.0046	0.1355	0.0191	0.1727
65 mph	-0.0058	-0.0008	-0.0042	0.0036	0.0045	0.0015	0.0000	0.0000	-0.0012
70 mph	-0.1354	-0.0198	-0.0991	0.0857	0.1048	0.0354	0.0000	0.0000	-0.0284
total	-0.1049	-0.0154	-0.0768	0.3505	0.3451	0.1165	0.2406	0.0338	0.8895

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0011	0.0081	0.0150	0.0262
15 mph	0.0000	0.0000	0.0000	0.0000	0.0004	0.0003	0.0023	0.0043	0.0073
20 mph	0.0000	0.0000	0.0000	0.0001	0.0025	0.0015	0.0069	0.0129	0.0239
25 mph	0.0001	0.0000	0.0000	0.0006	0.0103	0.0063	0.0288	0.0536	0.0997
30 mph	0.0001	0.0000	0.0000	0.0006	0.0099	0.0061	0.0231	0.0429	0.0825
35 mph	0.0000	0.0000	0.0000	0.0003	0.0058	0.0035	0.0092	0.0172	0.0361
40 mph	0.0000	0.0000	0.0000	0.0001	0.0025	0.0015	0.0081	0.0150	0.0272
45 mph	0.0000	0.0000	0.0000	0.0001	0.0016	0.0010	0.0104	0.0193	0.0324
50 mph	0.0000	0.0000	0.0000	0.0001	0.0016	0.0010	0.0127	0.0236	0.0390
55 mph	0.0000	0.0000	0.0000	0.0002	0.0029	0.0018	0.0012	0.0021	0.0081
60 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0011	0.0046	0.0086	0.0163
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0003	0.0000	0.0000	0.0023	0.0412	0.0253	0.1153	0.2145	0.3989

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0005	0.0054	0.0100	0.0169
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0008	0.0108	0.0201	0.0330
30 mph	0.0000	0.0000	0.0000	0.0001	0.0022	0.0013	0.0270	0.0502	0.0808
35 mph	0.0000	0.0000	0.0000	0.0001	0.0035	0.0021	0.0324	0.0603	0.0984
40 mph	-0.0001	0.0000	0.0000	0.0002	0.0052	0.0032	0.0378	0.0703	0.1166
45 mph	-0.0001	0.0000	0.0000	0.0004	0.0113	0.0069	0.0270	0.0502	0.0956
50 mph	-0.0001	0.0000	0.0000	0.0003	0.0095	0.0058	0.0162	0.0301	0.0619
55 mph	-0.0001	0.0000	0.0000	0.0002	0.0069	0.0042	0.0054	0.0100	0.0268
60 mph	0.0000	0.0000	0.0000	0.0001	0.0035	0.0021	0.3780	0.7035	1.0871
65 mph	0.0000	0.0000	0.0000	0.0001	0.0017	0.0011	0.0000	0.0000	0.0028
70 mph	-0.0004	0.0000	0.0000	0.0013	0.0407	0.0250	0.0000	0.0000	0.0665
total	-0.0009	0.0000	-0.0001	0.0029	0.0866	0.0531	0.5400	1.0049	1.6864

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
15 mph	0.0001	0.0000	0.0000	0.0001	0.0017	0.0011	0.0046	0.0085	0.0160
25 mph	0.0000	0.0000	0.0000	0.0000	0.0042	0.0026	0.0185	0.0344	0.0597
35 mph	0.0002	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0005
total	0.0003	0.0000	0.0000	0.0003	0.0063	0.0038	0.0240	0.0447	0.0795

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
10 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0011	0.0081	0.0150	0.0262
15 mph	0.0001	0.0000	0.0000	0.0001	0.0021	0.0013	0.0069	0.0128	0.0233
20 mph	0.0000	0.0000	0.0000	0.0002	0.0033	0.0020	0.0123	0.0229	0.0408
25 mph	0.0001	0.0000	0.0000	0.0006	0.0158	0.0097	0.0581	0.1082	0.1924
30 mph	0.0000	0.0000	0.0000	0.0006	0.0121	0.0074	0.0500	0.0931	0.1633
35 mph	0.0002	0.0000	0.0000	0.0007	0.0092	0.0057	0.0416	0.0775	0.1349
40 mph	0.0000	0.0000	0.0000	0.0003	0.0077	0.0047	0.0459	0.0854	0.1439
45 mph	-0.0001	0.0000	0.0000	0.0005	0.0129	0.0079	0.0374	0.0696	0.1281
50 mph	-0.0001	0.0000	0.0000	0.0004	0.0112	0.0069	0.0289	0.0537	0.1010
55 mph	-0.0001	0.0000	0.0000	0.0004	0.0098	0.0060	0.0066	0.0122	0.0349
60 mph	0.0000	0.0000	0.0000	0.0002	0.0053	0.0033	0.3826	0.7120	1.1034
65 mph	0.0000	0.0000	0.0000	0.0001	0.0017	0.0011	0.0000	0.0000	0.0028
70 mph	-0.0004	0.0000	0.0000	0.0013	0.0407	0.0250	0.0000	0.0000	0.0665
total	-0.0003	0.0000	0.0000	0.0055	0.1341	0.0822	0.6792	1.2642	2.1648

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.05
15 mph	0.02	0.00	0.02	0.01	0.01	0.00	0.01	0.01	0.09
20 mph	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.02	0.07
25 mph	0.02	0.00	0.01	0.04	0.06	0.02	0.08	0.11	0.34
30 mph	0.01	0.00	0.01	0.04	0.04	0.02	0.07	0.10	0.29
35 mph	0.07	0.01	0.05	0.04	0.03	0.01	0.06	0.08	0.36
40 mph	-0.01	0.00	-0.01	0.02	0.03	0.01	0.06	0.09	0.19
45 mph	-0.03	0.00	-0.02	0.03	0.05	0.02	0.05	0.07	0.15
50 mph	-0.03	0.00	-0.02	0.03	0.04	0.02	0.04	0.06	0.12
55 mph	-0.02	0.00	-0.01	0.03	0.04	0.01	0.01	0.01	0.06
60 mph	-0.01	0.00	-0.01	0.01	0.02	0.01	0.52	0.73	1.28
65 mph	-0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
70 mph	-0.14	-0.02	-0.10	0.09	0.15	0.06	0.00	0.00	0.04
total	-0.11	-0.02	-0.08	0.36	0.48	0.20	0.92	1.30	**3.05**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					5.2744	4.9417	8.4988	3.8682
10 mph	0.0145	0.0339	0.0187	0.0327	0.0477	0.0167	0.0151	0.4890
15 mph	0.0098	0.0235	0.0126	0.0219	0.0329	0.0112	0.0101	0.3238
20 mph	0.0069	0.0170	0.0089	0.0155	0.0240	0.0080	0.0070	0.2269
25 mph	0.0051	0.0126	0.0065	0.0116	0.0182	0.0060	0.0052	0.1675
30 mph	0.0039	0.0099	0.0051	0.0091	0.0145	0.0047	0.0041	0.1305
35 mph	0.0032	0.0080	0.0042	0.0075	0.0122	0.0039	0.0033	0.1073
40 mph	0.0028	0.0069	0.0036	0.0066	0.0109	0.0035	0.0029	0.0931
45 mph	0.0025	0.0063	0.0033	0.0060	0.0101	0.0032	0.0026	0.0852
50 mph	0.0024	0.0060	0.0032	0.0058	0.0099	0.0031	0.0026	0.0822
55 mph	0.0025	0.0061	0.0032	0.0059	0.0103	0.0032	0.0026	0.0837
60 mph	0.0026	0.0064	0.0034	0.0063	0.0112	0.0035	0.0028	0.0899
65 mph	0.0029	0.0069	0.0038	0.0070	0.0128	0.0040		
70 mph	0.0031	0.0069	0.0040	0.0080	0.0128	0.0039		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.1474	0.1474	0.0075	0.0239
10 mph	0.0053	0.0180	0.0091	0.0054	0.0257	0.0253	0.0091	0.0231
15 mph	0.0028	0.0119	0.0045	0.0027	0.0135	0.0128	0.0064	0.0162
20 mph	0.0013	0.0081	0.0018	0.0011	0.0065	0.0055	0.0046	0.0114
25 mph	0.0009	0.0062	0.0011	0.0007	0.0044	0.0035	0.0034	0.0082
30 mph	0.0007	0.0050	0.0008	0.0005	0.0035	0.0027	0.0025	0.0061
35 mph	0.0005	0.0042	0.0006	0.0004	0.0030	0.0023	0.0018	0.0045
40 mph	0.0005	0.0038	0.0005	0.0004	0.0026	0.0020	0.0014	0.0033
45 mph	0.0004	0.0036	0.0005	0.0003	0.0024	0.0017	0.0010	0.0024
50 mph	0.0004	0.0036	0.0004	0.0003	0.0023	0.0016	0.0007	0.0018
55 mph	0.0004	0.0037	0.0004	0.0002	0.0022	0.0015	0.0005	0.0013
60 mph	0.0004	0.0040	0.0003	0.0002	0.0023	0.0015	0.0005	0.0011
65 mph	0.0004	0.0044	0.0003	0.0003	0.0027	0.0017		
70 mph	0.0003	0.0043	0.0003	0.0003	0.0045	0.0026		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0161	0.0030	0.0083	0.0331	0.0170	0.0020	0.0032	0.0147	0.0975
15 mph	0.0024	0.0005	0.0012	0.0049	0.0026	0.0003	0.0006	0.0028	0.0153
20 mph	0.0102	0.0020	0.0053	0.0209	0.0114	0.0013	0.0013	0.0058	0.0583
25 mph	0.0314	0.0063	0.0162	0.0650	0.0360	0.0040	0.0040	0.0179	0.1808
30 mph	0.0233	0.0047	0.0121	0.0490	0.0276	0.0030	0.0025	0.0112	0.1334
35 mph	0.0111	0.0022	0.0058	0.0237	0.0135	0.0015	0.0008	0.0037	0.0622
40 mph	0.0041	0.0008	0.0021	0.0088	0.0052	0.0006	0.0006	0.0028	0.0250
45 mph	0.0025	0.0005	0.0013	0.0054	0.0032	0.0003	0.0007	0.0033	0.0173
50 mph	0.0024	0.0005	0.0012	0.0052	0.0031	0.0003	0.0009	0.0039	0.0175
55 mph	0.0043	0.0008	0.0022	0.0093	0.0057	0.0006	0.0001	0.0004	0.0233
60 mph	0.0029	0.0006	0.0015	0.0063	0.0040	0.0004	0.0003	0.0015	0.0176
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.1107	0.0219	0.0573	0.2317	0.1293	0.0144	0.0150	0.0680	0.6482

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0055	-0.0011	-0.0028	0.0043	0.0040	0.0005	0.0010	0.0046	0.0049
25 mph	-0.0061	-0.0012	-0.0031	0.0048	0.0045	0.0005	0.0015	0.0067	0.0076
30 mph	-0.0078	-0.0016	-0.0041	0.0063	0.0060	0.0007	0.0029	0.0131	0.0155
35 mph	-0.0102	-0.0020	-0.0053	0.0083	0.0081	0.0009	0.0029	0.0129	0.0156
40 mph	-0.0132	-0.0027	-0.0069	0.0109	0.0108	0.0012	0.0029	0.0131	0.0161
45 mph	-0.0263	-0.0053	-0.0137	0.0215	0.0219	0.0023	0.0019	0.0086	0.0110
50 mph	-0.0213	-0.0042	-0.0111	0.0176	0.0181	0.0019	0.0011	0.0049	0.0070
55 mph	-0.0157	-0.0031	-0.0082	0.0130	0.0137	0.0014	0.0004	0.0017	0.0031
60 mph	-0.0084	-0.0016	-0.0044	0.0069	0.0074	0.0008	0.0279	0.1264	0.1550
65 mph	-0.0047	-0.0009	-0.0024	0.0039	0.0043	0.0004	0.0000	0.0000	0.0006
70 mph	-0.1149	-0.0207	-0.0594	0.1044	0.1001	0.0104	0.0000	0.0000	0.0199
total	-0.2342	-0.0443	-0.1214	0.2019	0.1990	0.0210	0.0424	0.1920	0.2563

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2150	0.0139	0.6887
15 mph	0.0645	0.0124	0.0332	0.0170	0.0109	0.0013	0.0012	0.0055	0.1460
25 mph	0.0000	0.0000	0.0000	0.0000	0.0146	0.0016	0.0025	0.0115	0.0303
35 mph	0.0620	0.0124	0.0323	0.0169	0.0000	0.0000	0.0000	0.0000	0.1236
total	0.1265	0.0248	0.0655	0.0339	0.3749	0.1134	0.2187	0.0309	0.9885

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2150	0.0139	0.6887
10 mph	0.0161	0.0030	0.0083	0.0331	0.0170	0.0020	0.0032	0.0147	0.0975
15 mph	0.0669	0.0129	0.0344	0.0219	0.0135	0.0016	0.0018	0.0083	0.1613
20 mph	0.0047	0.0009	0.0024	0.0252	0.0154	0.0017	0.0023	0.0104	0.0631
25 mph	0.0253	0.0050	0.0131	0.0698	0.0552	0.0062	0.0080	0.0362	0.2187
30 mph	0.0155	0.0031	0.0080	0.0553	0.0336	0.0037	0.0054	0.0243	0.1489
35 mph	0.0629	0.0126	0.0327	0.0489	0.0216	0.0024	0.0037	0.0166	0.2013
40 mph	-0.0091	-0.0018	-0.0048	0.0197	0.0160	0.0017	0.0035	0.0159	0.0411
45 mph	-0.0238	-0.0048	-0.0124	0.0269	0.0251	0.0027	0.0026	0.0118	0.0283
50 mph	-0.0189	-0.0038	-0.0098	0.0228	0.0213	0.0023	0.0019	0.0088	0.0245
55 mph	-0.0115	-0.0023	-0.0060	0.0223	0.0194	0.0020	0.0005	0.0020	0.0264
60 mph	-0.0055	-0.0011	-0.0028	0.0132	0.0114	0.0012	0.0283	0.1279	0.1726
65 mph	-0.0047	-0.0009	-0.0024	0.0039	0.0043	0.0004	0.0000	0.0000	0.0006
70 mph	-0.1149	-0.0207	-0.0594	0.1044	0.1001	0.0104	0.0000	0.0000	0.0199
total	0.0030	0.0023	0.0013	0.4675	0.7032	0.1487	0.2761	0.2908	1.8929

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0001	0.0099	0.0060	0.0153	0.0721	0.1035
15 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0007	0.0031	0.0145	0.0194
20 mph	0.0000	0.0000	0.0000	0.0000	0.0033	0.0017	0.0067	0.0307	0.0425
25 mph	0.0001	0.0000	0.0000	0.0001	0.0094	0.0046	0.0204	0.0921	0.1267
30 mph	0.0000	0.0000	0.0000	0.0001	0.0072	0.0035	0.0120	0.0543	0.0771
35 mph	0.0000	0.0000	0.0000	0.0000	0.0036	0.0017	0.0036	0.0160	0.0249
40 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0006	0.0023	0.0104	0.0146
45 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0022	0.0098	0.0132
50 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0003	0.0020	0.0088	0.0119
55 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0006	0.0001	0.0006	0.0026
60 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0004	0.0020	0.0038
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0003	0.0000	0.0000	0.0004	0.0398	0.0204	0.0681	0.3114	0.4403

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0006	0.0052	0.0240	0.0310
25 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0006	0.0077	0.0345	0.0439
30 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0141	0.0636	0.0800
35 mph	0.0000	0.0000	0.0000	0.0000	0.0022	0.0010	0.0125	0.0562	0.0719
40 mph	0.0000	0.0000	0.0000	0.0000	0.0029	0.0013	0.0107	0.0485	0.0634
45 mph	0.0000	0.0000	0.0000	0.0000	0.0056	0.0025	0.0056	0.0256	0.0394
50 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0019	0.0025	0.0113	0.0203
55 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0013	0.0006	0.0028	0.0080
60 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0007	0.0369	0.1676	0.2068
65 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0004	0.0000	0.0000	0.0013
70 mph	-0.0001	0.0000	0.0000	0.0001	0.0385	0.0136	0.0000	0.0000	0.0520
total	-0.0004	0.0000	0.0000	0.0002	0.0635	0.0247	0.0958	0.4342	0.6179

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0015	0.0089	0.0275
15 mph	0.0002	0.0000	0.0000	0.0000	0.0049	0.0028	0.0061	0.0286	0.0427
25 mph	0.0000	0.0000	0.0000	0.0000	0.0038	0.0019	0.0131	0.0592	0.0780
35 mph	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
total	0.0003	0.0000	0.0000	0.0001	0.0193	0.0112	0.0207	0.0967	0.1483

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0015	0.0089	0.0275
10 mph	0.0001	0.0000	0.0000	0.0001	0.0099	0.0060	0.0153	0.0721	0.1035
15 mph	0.0002	0.0000	0.0000	0.0001	0.0060	0.0035	0.0092	0.0431	0.0621
20 mph	0.0000	0.0000	0.0000	0.0000	0.0045	0.0024	0.0119	0.0547	0.0735
25 mph	0.0000	0.0000	0.0000	0.0001	0.0144	0.0071	0.0412	0.1858	0.2486
30 mph	0.0000	0.0000	0.0000	0.0001	0.0088	0.0042	0.0261	0.1179	0.1572
35 mph	0.0001	0.0000	0.0000	0.0001	0.0057	0.0027	0.0160	0.0722	0.0969
40 mph	0.0000	0.0000	0.0000	0.0000	0.0042	0.0019	0.0130	0.0589	0.0780
45 mph	0.0000	0.0000	0.0000	0.0000	0.0065	0.0029	0.0078	0.0355	0.0526
50 mph	0.0000	0.0000	0.0000	0.0000	0.0054	0.0023	0.0045	0.0201	0.0322
55 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0019	0.0007	0.0034	0.0106
60 mph	0.0000	0.0000	0.0000	0.0000	0.0026	0.0010	0.0373	0.1696	0.2105
65 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0004	0.0000	0.0000	0.0013
70 mph	-0.0001	0.0000	0.0000	0.0001	0.0385	0.0136	0.0000	0.0000	0.0520
total	0.0002	0.0000	0.0000	0.0006	0.1226	0.0563	0.1846	0.8422	1.2065

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.36	0.12	0.22	0.02	0.72
10 mph	0.02	0.00	0.01	0.03	0.03	0.01	0.02	0.09	0.20
15 mph	0.07	0.01	0.03	0.02	0.02	0.01	0.01	0.05	0.22
20 mph	0.00	0.00	0.00	0.03	0.02	0.00	0.01	0.07	0.14
25 mph	0.03	0.01	0.01	0.07	0.07	0.01	0.05	0.22	0.47
30 mph	0.02	0.00	0.01	0.06	0.04	0.01	0.03	0.14	0.31
35 mph	0.06	0.01	0.03	0.05	0.03	0.01	0.02	0.09	0.30
40 mph	-0.01	0.00	0.00	0.02	0.02	0.00	0.02	0.07	0.12
45 mph	-0.02	0.00	-0.01	0.03	0.03	0.01	0.01	0.05	0.08
50 mph	-0.02	0.00	-0.01	0.02	0.03	0.00	0.01	0.03	0.06
55 mph	-0.01	0.00	-0.01	0.02	0.02	0.00	0.00	0.01	0.04
60 mph	-0.01	0.00	0.00	0.01	0.01	0.00	0.07	0.30	0.38
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
70 mph	-0.12	-0.02	-0.06	0.10	0.14	0.02	0.00	0.00	0.07
total	0.00	0.00	0.00	0.47	0.83	0.20	0.46	1.13	**3.10**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Net Regional) - Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					4,672.3837	5,322.6669	13,563.3728	19,327.7615
10 mph	565.0710	664.3980	736.2102	1,001.8120	1,335.7691	1,474.1002	3,165.7499	3,284.7958
15 mph	435.3447	511.8313	566.9498	769.5477	926.8095	1,036.1500	2,182.3574	2,367.0691
20 mph	347.8372	408.9738	453.0134	615.1765	804.9703	907.0018	1,533.9315	1,913.2060
25 mph	288.1670	338.6075	375.3047	510.5451	737.8305	820.0881	1,339.8062	1,799.2773
30 mph	247.7538	290.9324	322.6914	440.0369	669.7951	741.2829	1,231.5800	1,712.9612
35 mph	221.0524	259.3456	287.8999	393.9135	670.1347	741.4485	1,137.2025	1,643.1079
40 mph	204.9042	240.3445	266.8610	365.4426	667.7159	724.5729	1,057.9219	1,583.8370
45 mph	197.2289	231.3474	256.8401	351.5167	664.7338	707.5259	983.1419	1,548.9357
50 mph	196.9925	230.9318	256.3997	351.4042	701.2155	737.5062	919.5204	1,529.3156
55 mph	204.2464	239.5030	265.8828	364.5661	738.9443	771.1495	893.8771	1,500.8795
60 mph	219.7520	257.6349	286.0303	392.0613	749.6518	779.1472	899.3267	1,479.6741
65 mph	245.1124	287.0450	318.9777	438.6300	759.9260	786.7120		
70 mph	262.6362	304.9800	339.5304	477.5014	757.3399	771.2287		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					3,828.4689	6,054.4588	6,568.0482	5,870.7113
10 mph	478.4168	672.5405	622.3902	770.0667	1,002.3241	1,101.2162	1,913.6713	2,572.7262
15 mph	393.8465	559.6330	516.6636	653.5560	652.5978	731.8687	1,605.7941	2,153.4644
20 mph	323.0444	459.6863	424.4082	542.6971	556.7741	624.5608	1,402.7369	1,876.3928
25 mph	270.7115	383.2871	355.4736	458.7620	493.7727	556.5611	1,294.7258	1,721.6340
30 mph	234.3802	329.2183	306.9700	396.0244	448.7402	502.1432	1,224.0996	1,624.5289
35 mph	211.7813	294.5173	276.5625	359.0740	449.4079	502.5486	1,167.9296	1,547.8644
40 mph	198.1612	274.2624	258.0070	335.7997	437.5078	484.4425	1,121.5906	1,484.4480
45 mph	191.4496	264.7412	248.8333	323.2151	426.8585	465.7380	1,082.3693	1,430.5467
50 mph	192.0369	264.4496	249.0996	324.7672	447.6943	483.0721	1,048.6499	1,381.4304
55 mph	200.9044	276.7632	260.4285	342.6660	467.6082	499.8627	1,020.3550	1,348.8818
60 mph	217.8475	299.6384	282.1219	371.0988	472.0205	501.4413	1,007.6906	1,329.1593
65 mph	244.8333	333.1509	316.3370	416.4140	479.1421	503.4682		
70 mph	265.7369	339.9365	338.0438	446.2694	484.0614	505.1898		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	630.17	59.14	327.81	1,012.96	475.86	177.25	675.04	98.55	3,456.78
15 mph	107.89	10.12	56.10	172.91	73.37	27.69	132.96	20.29	601.33
20 mph	517.21	48.54	268.95	829.36	382.36	145.41	280.36	49.20	2,521.39
25 mph	1,785.37	167.45	928.40	2,867.92	1,460.27	547.83	1,020.31	192.79	8,970.36
30 mph	1,473.58	138.12	766.32	2,372.98	1,272.60	475.38	750.32	146.83	7,396.13
35 mph	766.95	71.82	398.82	1,239.15	742.72	277.37	277.13	56.34	3,830.30
40 mph	304.68	28.53	158.43	492.68	317.16	116.17	225.58	47.52	1,690.75
45 mph	195.51	18.31	101.66	315.94	210.50	75.62	269.53	59.75	1,246.81
50 mph	195.28	18.27	101.48	315.84	222.05	78.83	308.11	72.10	1,311.95
55 mph	354.32	33.16	184.16	573.41	409.49	144.24	27.23	6.43	1,732.45
60 mph	245.07	22.93	127.36	396.42	267.06	93.69	109.58	25.37	1,287.48
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	6,576.03	616.41	3,419.51	10,589.57	5,833.44	2,159.47	4,076.14	775.17	34,045.74

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	-278.29	-26.12	-144.71	169.97	133.92	50.93	218.91	38.42	163.02
25 mph	-345.83	-32.44	-179.83	211.59	184.12	69.08	382.41	72.26	361.36
30 mph	-495.55	-46.45	-257.71	303.95	278.58	104.06	878.81	171.98	937.67
35 mph	-707.43	-66.25	-367.87	435.34	445.95	166.54	973.76	197.96	1,077.99
40 mph	-983.62	-92.09	-511.48	605.81	666.51	244.12	1,056.85	222.62	1,208.71
45 mph	-2,051.35	-192.07	-1,066.60	1,262.57	1,437.66	516.48	701.53	155.51	763.73
50 mph	-1,733.68	-162.23	-900.96	1,067.99	1,283.24	455.54	393.68	92.13	495.71
55 mph	-1,307.29	-122.36	-679.48	805.81	983.48	346.42	127.57	30.14	184.28
60 mph	-703.27	-65.81	-365.48	433.29	498.87	175.01	8,984.15	2,079.81	11,036.56
65 mph	-392.21	-36.66	-203.79	242.38	252.85	88.35	0.00	0.00	-49.08
70 mph	-9,875.95	-915.41	-5,097.68	6,200.67	5,921.78	2,035.42	0.00	0.00	-1,731.17
total	-18,874.47	-1,757.88	-9,775.60	11,739.35	12,086.96	4,251.95	13,717.67	3,060.82	14,448.79

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	343.05	69.30	840.84
15 mph	2,879.02	270.18	1,497.01	598.37	308.12	116.27	263.06	40.15	5,972.19
25 mph	0.00	0.00	0.00	0.00	591.82	222.02	655.31	123.82	1,592.97
35 mph	4,302.95	402.97	2,237.60	881.23	0.00	0.00	0.00	0.00	7,824.74
total	7,181.97	673.15	3,734.61	1,479.60	1,209.43	457.29	1,261.42	233.26	16,230.74

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	343.05	69.30	840.84
10 mph	630.17	59.14	327.81	1,012.96	475.86	177.25	675.04	98.55	3,456.78
15 mph	2,986.91	280.31	1,553.11	771.29	381.49	143.96	396.01	60.44	6,573.52
20 mph	238.92	22.42	124.24	999.33	516.28	196.34	499.27	87.62	2,684.42
25 mph	1,439.54	135.02	748.57	3,079.51	2,236.22	838.93	2,058.04	388.87	10,924.69
30 mph	978.03	91.67	508.62	2,676.92	1,551.17	579.44	1,629.13	318.81	8,333.80
35 mph	4,362.47	408.54	2,268.55	2,555.71	1,188.67	443.90	1,250.88	254.30	12,733.03
40 mph	-678.94	-63.57	-353.05	1,098.49	983.67	360.29	1,282.43	270.14	2,899.46
45 mph	-1,855.84	-173.76	-964.95	1,578.51	1,648.15	592.11	971.06	215.26	2,010.54
50 mph	-1,538.40	-143.95	-799.48	1,383.82	1,505.29	534.37	701.79	164.23	1,807.66
55 mph	-952.97	-89.20	-495.32	1,379.22	1,392.97	490.66	154.80	36.57	1,916.74
60 mph	-458.20	-42.88	-238.12	829.72	765.93	268.69	9,093.73	2,105.18	12,324.04
65 mph	-392.21	-36.66	-203.79	242.38	252.85	88.35	0.00	0.00	-49.08
70 mph	-9,875.95	-915.41	-5,097.68	6,200.67	5,921.78	2,035.42	0.00	0.00	-1,731.17
total	-5,116.47	-468.32	-2,621.48	23,808.52	19,129.83	6,868.71	19,055.23	4,069.26	64,725.27

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	6.21	0.06	0.57	16.80	387.36	260.81	3,216.46	8,047.91	11,936.16
15 mph	1.14	0.01	0.11	3.17	56.05	38.52	771.14	1,924.68	2,794.80
20 mph	5.59	0.05	0.52	15.79	286.89	197.22	2,020.88	5,031.14	7,558.08
25 mph	19.51	0.18	1.81	55.60	1,060.13	732.30	7,771.96	19,234.11	28,875.60
30 mph	16.22	0.15	1.50	46.08	924.91	634.27	5,878.40	14,519.40	22,020.93
35 mph	8.55	0.08	0.79	24.37	540.33	370.29	2,243.46	5,533.68	8,721.55
40 mph	3.43	0.03	0.31	9.77	225.44	152.98	1,885.15	4,643.60	6,920.70
45 mph	2.21	0.02	0.20	6.27	146.63	98.05	2,339.00	5,753.55	8,345.93
50 mph	2.21	0.02	0.20	6.30	153.79	101.70	2,769.72	6,790.68	9,824.62
55 mph	4.06	0.04	0.37	11.63	281.11	184.15	245.00	602.79	1,329.14
60 mph	2.83	0.03	0.26	8.10	182.42	118.76	967.83	2,375.90	3,656.11
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	71.95	0.67	6.64	203.85	4,245.06	2,889.04	30,108.99	74,457.43	111,983.63

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	-3.01	-0.03	-0.28	3.23	100.48	69.08	1,577.97	3,928.48	5,675.93
25 mph	-3.78	-0.04	-0.35	4.10	133.67	92.33	2,912.93	7,208.94	10,347.81
30 mph	-5.45	-0.05	-0.50	5.90	202.47	138.84	6,885.07	17,005.84	24,232.12
35 mph	-7.89	-0.07	-0.73	8.56	324.43	222.33	7,882.97	19,443.97	27,873.57
40 mph	-11.07	-0.10	-1.02	12.01	473.76	321.48	8,831.90	21,755.23	31,382.20
45 mph	-23.17	-0.21	-2.12	25.05	1,001.49	669.65	6,087.90	14,975.20	22,733.78
50 mph	-19.66	-0.18	-1.80	21.29	888.78	587.71	3,538.94	8,676.63	13,691.71
55 mph	-14.96	-0.14	-1.37	16.34	675.14	442.28	1,147.82	2,824.06	5,089.18
60 mph	-8.11	-0.07	-0.74	8.85	340.75	221.84	79,350.04	194,794.09	274,706.65
65 mph	-4.56	-0.04	-0.42	4.96	172.95	111.37	0.00	0.00	284.26
70 mph	-116.27	-0.99	-10.43	125.03	4,105.99	2,626.11	0.00	0.00	6,729.43
total	-217.93	-1.93	-19.76	235.33	8,419.90	5,503.03	118,215.55	290,612.45	422,746.64

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,309.44	2,178.31	4,029.47
15 mph	30.30	0.29	2.80	10.96	235.36	161.76	1,525.73	3,808.05	5,775.26
25 mph	0.00	0.00	0.00	0.00	429.65	296.78	4,991.62	12,353.32	18,071.38
35 mph	47.97	0.44	4.42	17.33	0.00	0.00	0.00	0.00	70.16
total	78.27	0.73	7.22	28.29	940.11	725.15	7,826.79	18,339.68	27,946.26

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,309.44	2,178.31	4,029.47
10 mph	6.21	0.06	0.57	16.80	387.36	260.81	3,216.46	8,047.91	11,936.16
15 mph	31.44	0.30	2.91	14.13	291.41	200.27	2,296.86	5,732.74	8,570.06
20 mph	2.58	0.02	0.24	19.02	387.38	266.30	3,598.85	8,959.62	13,234.01
25 mph	15.73	0.15	1.46	59.70	1,623.45	1,121.42	15,676.51	38,796.37	57,294.79
30 mph	10.77	0.10	0.99	51.98	1,127.38	773.11	12,763.48	31,525.24	46,253.05
35 mph	48.63	0.45	4.48	50.26	864.76	592.62	10,126.43	24,977.65	36,665.28
40 mph	-7.64	-0.07	-0.70	21.78	699.20	474.46	10,717.05	26,398.83	38,302.90
45 mph	-20.96	-0.19	-1.92	31.31	1,148.12	767.69	8,426.90	20,728.75	31,079.71
50 mph	-17.45	-0.16	-1.60	27.59	1,042.57	689.41	6,308.66	15,467.30	23,516.33
55 mph	-10.91	-0.10	-1.00	27.97	956.24	626.44	1,392.82	3,426.85	6,418.32
60 mph	-5.29	-0.05	-0.48	16.94	523.17	340.60	80,317.87	197,169.99	278,362.76
65 mph	-4.56	-0.04	-0.42	4.96	172.95	111.37	0.00	0.00	284.26
70 mph	-116.27	-0.99	-10.43	125.03	4,105.99	2,626.11	0.00	0.00	6,729.43
total	-67.71	-0.52	-5.90	467.48	13,605.07	9,117.22	156,151.33	383,409.57	562,676.53

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	584.59	385.61	1,652.49	2,247.61	4,870.30
10 mph	636.38	59.20	328.38	1,029.76	863.22	438.06	3,891.49	8,146.46	15,392.95
15 mph	3,018.35	280.61	1,556.02	785.42	672.90	344.23	2,692.88	5,793.17	15,143.58
20 mph	241.50	22.45	124.48	1,018.35	903.65	462.65	4,098.11	9,047.23	15,918.43
25 mph	1,455.27	135.17	750.03	3,139.21	3,859.67	1,960.35	17,734.54	39,185.25	68,219.48
30 mph	988.80	91.77	509.61	2,728.90	2,678.55	1,352.56	14,392.60	31,844.06	54,586.85
35 mph	4,411.10	408.99	2,273.03	2,605.97	2,053.44	1,036.52	11,377.32	25,231.95	49,398.31
40 mph	-686.58	-63.64	-353.75	1,120.27	1,682.87	834.74	11,999.48	26,668.97	41,202.36
45 mph	-1,876.80	-173.95	-966.87	1,609.82	2,796.28	1,359.80	9,397.96	20,944.01	33,090.25
50 mph	-1,555.85	-144.11	-801.08	1,411.41	2,547.86	1,223.78	7,010.45	15,631.53	25,324.00
55 mph	-963.87	-89.30	-496.31	1,407.19	2,349.22	1,117.10	1,547.61	3,463.42	8,335.06
60 mph	-463.48	-42.93	-238.61	846.66	1,289.10	609.29	89,411.60	199,275.17	290,686.81
65 mph	-396.77	-36.70	-204.21	247.34	425.80	199.72	0.00	0.00	235.18
70 mph	-9,992.22	-916.40	-5,108.11	6,325.70	10,027.77	4,661.53	0.00	0.00	4,998.26
total	-5,184.17	-468.85	-2,627.38	24,276.00	32,734.90	15,985.93	175,206.56	387,478.83	**627,401.81**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
165.92	924.33	1,087.19	6.51	532.59	142.01	681.12	6.14	130.73	55.71	192.58	4.44	10.07	9.14	1,274,557.99

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
30.28	168.69	198.41	1.19	97.20	25.92	124.30	1.12	23.86	10.17	35.15	0.81	1.84	1.67	232,606.83

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	15,049.9	175.1	1,082.7	301,109.9	3,503.5	21,661.2
LDT1	1,201.3	1.2	0.7	24,035.0	23.3	14.5
LDT2	6,009.0	12.4	0.0	120,224.9	247.2	0.0
MDT	1,714.0	37.0	0.0	25,397.2	547.9	0.0
LHDT1	721.1	782.2	0.0	17,208.9	18,668.4	0.0
LHDT2	243.4	479.4	0.0	5,808.5	11,440.6	0.0
MHDT	275.3	2,169.8	0.0	12,118.8	95,525.8	0.0
HHDT	38.7	4,038.2	0.0	1,705.1	177,786.7	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	156,558.2	1,821.6	11,262.5	144,551.7	1,681.9	10,398.8
LDT1	12,496.7	12.1	7.5	11,538.3	11.2	6.9
LDT2	62,509.4	128.5	0.0	57,715.5	118.6	0.0
MDT	11,795.1	254.5	0.0	13,602.1	293.5	0.0
LHDT1	6,765.3	7,339.0	0.0	10,443.6	11,329.4	0.0
LHDT2	2,283.5	4,497.6	0.0	3,525.0	6,943.0	0.0
MHDT	2,537.3	20,000.2	0.0	9,581.5	75,525.5	0.0
HHDT	357.0	37,223.2	0.0	1,348.1	140,563.5	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	4.5%	7.0%	0.0%	0.0%
15	1.0%	2.0%	0.0%	0.0%
20	6.0%	6.0%	1.0%	1.0%
25	25.0%	25.0%	1.5%	2.0%
30	24.0%	20.0%	2.5%	5.0%
35	14.0%	8.0%	4.0%	6.0%
40	6.0%	7.0%	6.0%	7.0%
45	4.0%	9.0%	13.0%	5.0%
50	4.0%	11.0%	11.0%	3.0%
55	7.0%	1.0%	8.0%	1.0%
60	4.5%	4.0%	4.0%	70.0%
65	0.0%	0.0%	2.0%	0.0%
70	0.0%	0.0%	47.0%	0.0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	7,045.1	562.4	2,812.9	530.8	304.4	102.8	177.6	25.0	11,561.0
15 mph	1,565.6	125.0	625.1	118.0	67.7	22.8	50.7	7.1	2,582.0
20 mph	9,393.5	749.8	3,750.6	707.7	405.9	137.0	152.2	21.4	15,318.1
25 mph	39,139.6	3,124.2	15,627.4	2,948.8	1,691.3	570.9	634.3	89.3	63,825.6
30 mph	37,574.0	2,999.2	15,002.3	2,830.8	1,623.7	548.0	507.5	71.4	61,156.8
35 mph	21,918.2	1,749.5	8,751.3	1,651.3	947.1	319.7	203.0	28.6	35,568.7
40 mph	9,393.5	749.8	3,750.6	707.7	405.9	137.0	177.6	25.0	15,347.1
45 mph	6,262.3	499.9	2,500.4	471.8	270.6	91.3	228.4	32.1	10,356.8
50 mph	6,262.3	499.9	2,500.4	471.8	270.6	91.3	279.1	39.3	10,414.7
55 mph	10,959.1	874.8	4,375.7	825.7	473.6	159.8	25.4	3.6	17,697.5
60 mph	7,045.1	562.4	2,812.9	530.8	304.4	102.8	101.5	14.3	11,474.1
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	156,558.2	12,496.7	62,509.4	11,795.1	6,765.3	2,283.5	2,537.3	357.0	255,302.4

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	1,445.5	115.4	577.2	136.0	104.4	35.2	95.8	13.5	2,523.1
25 mph	2,168.3	173.1	865.7	204.0	156.7	52.9	191.6	27.0	3,839.2
30 mph	3,613.8	288.5	1,442.9	340.1	261.1	88.1	479.1	67.4	6,580.9
35 mph	5,782.1	461.5	2,308.6	544.1	417.7	141.0	574.9	80.9	10,310.8
40 mph	8,673.1	692.3	3,462.9	816.1	626.6	211.5	670.7	94.4	15,247.6
45 mph	18,791.7	1,500.0	7,503.0	1,768.3	1,357.7	458.2	479.1	67.4	31,925.4
50 mph	15,900.7	1,269.2	6,348.7	1,496.2	1,148.8	387.7	287.4	40.4	26,879.3
55 mph	11,564.1	923.1	4,617.2	1,088.2	835.5	282.0	95.8	13.5	19,419.4
60 mph	5,782.1	461.5	2,308.6	544.1	417.7	141.0	6,707.0	943.7	17,305.8
65 mph	2,891.0	230.8	1,154.3	272.0	208.9	70.5	0.0	0.0	4,827.5
70 mph	67,939.3	5,423.0	27,126.3	6,393.0	4,908.5	1,656.7	0.0	0.0	113,446.8
total	144,551.7	11,538.3	57,715.5	13,602.1	10,443.6	3,525.0	9,581.5	1,348.1	252,305.9

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
15 mph	2,999.2	239.4	1,197.5	352.6	150.8	50.9	54.7	7.7	5,052.7
25 mph	0.0	0.0	0.0	0.0	443.7	149.8	238.4	33.5	865.4
35 mph	46,226.7	3,689.9	18,457.1	2,269.0	0.0	0.0	0.0	0.0	70,642.7
total	49,225.9	3,929.3	19,654.6	2,621.7	594.5	200.6	293.0	41.2	76,560.8

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	30.0	10.1	11.5	1.6	53.3
10 mph	7,045.1	562.4	2,812.9	530.8	304.4	102.8	177.6	25.0	11,561.0
15 mph	4,564.8	364.4	1,822.6	470.6	218.4	73.7	105.4	14.8	7,634.7
20 mph	10,839.0	865.2	4,327.7	843.7	510.4	172.3	248.1	34.9	17,841.2
25 mph	41,307.8	3,297.2	16,493.1	3,152.8	2,291.7	773.5	1,064.3	149.8	68,530.2
30 mph	41,187.8	3,287.7	16,445.1	3,170.9	1,884.8	636.2	986.5	138.8	67,737.7
35 mph	73,927.0	5,900.9	29,517.0	4,464.4	1,364.9	460.7	777.9	109.4	116,522.2
40 mph	18,066.6	1,442.1	7,213.5	1,523.8	1,032.5	348.5	848.3	119.4	30,594.7
45 mph	25,054.1	1,999.8	10,003.4	2,240.1	1,628.3	549.6	707.4	99.5	42,282.2
50 mph	22,163.0	1,769.1	8,849.1	1,968.0	1,419.4	479.1	566.5	79.7	37,294.0
55 mph	22,523.2	1,797.8	8,992.9	1,913.8	1,309.1	441.8	121.2	17.1	37,116.9
60 mph	12,827.2	1,023.9	5,121.5	1,074.9	722.2	243.8	6,808.5	958.0	28,779.9
65 mph	2,891.0	230.8	1,154.3	272.0	208.9	70.5	0.0	0.0	4,827.5
70 mph	67,939.3	5,423.0	27,126.3	6,393.0	4,908.5	1,656.7	0.0	0.0	113,446.8
total	350,335.9	27,964.2	139,879.5	28,018.8	17,803.3	6,009.1	12,411.8	1,746.4	584,169.1

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	82.0	0.5	5.8	11.5	330.3	202.4	1,400.0	2,605.6	4,638.0
15 mph	18.2	0.1	1.3	2.5	73.4	45.0	400.0	744.5	1,285.0
20 mph	109.3	0.7	7.7	15.3	440.3	269.9	1,200.0	2,233.4	4,276.6
25 mph	455.4	3.0	32.1	63.6	1,834.8	1,124.4	5,000.1	9,305.8	17,819.2
30 mph	437.2	2.9	30.8	61.1	1,761.4	1,079.4	4,000.0	7,444.6	14,817.5
35 mph	255.0	1.7	18.0	35.6	1,027.5	629.7	1,600.0	2,977.9	6,545.3
40 mph	109.3	0.7	7.7	15.3	440.3	269.9	1,400.0	2,605.6	4,848.8
45 mph	72.9	0.5	5.1	10.2	293.6	179.9	1,800.0	3,350.1	5,712.2
50 mph	72.9	0.5	5.1	10.2	293.6	179.9	2,200.0	4,094.6	6,856.7
55 mph	127.5	0.8	9.0	17.8	513.7	314.8	200.0	372.2	1,556.0
60 mph	82.0	0.5	5.8	11.5	330.3	202.4	800.0	1,488.9	2,921.3
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	1,821.6	12.1	128.5	254.5	7,339.0	4,497.6	20,000.2	37,223.2	71,276.8

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	16.8	0.1	1.2	2.9	113.3	69.4	755.3	1,405.6	2,364.7
25 mph	25.2	0.2	1.8	4.4	169.9	104.1	1,510.5	2,811.3	4,627.4
30 mph	42.0	0.3	3.0	7.3	283.2	173.6	3,776.3	7,028.2	11,313.9
35 mph	67.3	0.4	4.7	11.7	453.2	277.7	4,531.5	8,433.8	13,780.4
40 mph	100.9	0.7	7.1	17.6	679.8	416.6	5,286.8	9,839.4	16,348.9
45 mph	218.6	1.5	15.4	38.1	1,472.8	902.6	3,776.3	7,028.2	13,453.5
50 mph	185.0	1.2	13.1	32.3	1,246.2	763.7	2,265.8	4,216.9	8,724.2
55 mph	134.6	0.9	9.5	23.5	906.4	555.4	755.3	1,405.6	3,791.1
60 mph	67.3	0.4	4.7	11.7	453.2	277.7	52,867.9	98,394.5	152,077.5
65 mph	33.6	0.2	2.4	5.9	226.6	138.9	0.0	0.0	407.6
70 mph	790.5	5.3	55.8	137.9	5,324.8	3,263.2	0.0	0.0	9,577.5
total	1,681.9	11.2	118.6	293.5	11,329.4	6,943.0	75,525.5	140,563.5	236,466.7

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
15 mph	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0	1,541.9
25 mph	0.0	0.0	0.0	0.0	481.3	295.0	1,878.9	3,496.9	6,152.1
35 mph	537.9	3.6	37.9	49.0	0.0	0.0	0.0	0.0	628.3
total	572.8	3.8	40.4	56.6	644.9	395.2	2,309.8	4,298.9	8,322.3

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	32.6	20.0	90.4	168.3	311.2
10 mph	82.0	0.5	5.8	11.5	330.3	202.4	1,400.0	2,605.6	4,638.0
15 mph	53.1	0.4	3.7	10.2	237.0	145.2	830.9	1,546.4	2,826.9
20 mph	126.1	0.8	8.9	18.2	553.6	339.3	1,955.3	3,639.0	6,641.3
25 mph	480.6	3.2	33.9	68.0	2,486.0	1,523.5	8,389.5	15,614.0	28,598.8
30 mph	479.2	3.2	33.8	68.4	2,044.6	1,253.0	7,776.3	14,472.8	26,131.4
35 mph	860.2	5.7	60.7	96.3	1,480.6	907.4	6,131.6	11,411.7	20,954.1
40 mph	210.2	1.4	14.8	32.9	1,120.1	686.4	6,686.8	12,445.1	21,197.7
45 mph	291.5	1.9	20.6	48.3	1,766.4	1,082.5	5,576.3	10,378.3	19,165.8
50 mph	257.9	1.7	18.2	42.5	1,539.8	943.6	4,465.8	8,311.5	15,580.9
55 mph	262.1	1.7	18.5	41.3	1,420.1	870.3	955.3	1,777.9	5,347.1
60 mph	149.2	1.0	10.5	23.2	783.4	480.1	53,667.9	99,883.4	154,998.8
65 mph	33.6	0.2	2.4	5.9	226.6	138.9	0.0	0.0	407.6
70 mph	790.5	5.3	55.8	137.9	5,324.8	3,263.2	0.0	0.0	9,577.5
total	4,076.2	27.2	287.6	604.5	19,313.3	11,835.8	97,835.6	182,085.6	316,065.8

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	506.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	507.2
15 mph	112.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	112.7
20 mph	675.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	676.2
25 mph	2,815.6	1.9	0.0	0.0	0.0	0.0	0.0	0.0	2,817.5
30 mph	2,703.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	2,704.8
35 mph	1,576.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1,577.8
40 mph	675.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	676.2
45 mph	450.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	450.8
50 mph	450.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	450.8
55 mph	450.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	451.0
60 mph	506.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	507.2
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	10,924.6	7.5	0.0	0.0	0.0	0.0	0.0	0.0	10,932.1

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	104.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	104.1
25 mph	156.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	156.1
30 mph	260.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	260.1
35 mph	416.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	416.2
40 mph	623.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	624.3
45 mph	1,351.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1,352.7
50 mph	1,143.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1,144.6
55 mph	831.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	832.5
60 mph	416.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	416.2
65 mph	208.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	208.1
70 mph	4,887.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	4,890.7
total	10,398.8	6.9	0.0	0.0	0.0	0.0	0.0	0.0	10,405.7

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	215.9
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,496.9	3,496.9
35 mph	3,325.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	3,327.7
total	3,541.2	2.4	0.0	0.0	0.0	0.0	0.0	3,496.9	7,040.5

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	506.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	507.2
15 mph	328.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	328.6
20 mph	779.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	780.3
25 mph	2,971.6	2.0	0.0	0.0	0.0	0.0	0.0	3,496.9	6,470.5
30 mph	2,963.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2,964.9
35 mph	5,318.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0	5,321.7
40 mph	1,299.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1,300.5
45 mph	1,802.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1,803.5
50 mph	1,594.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1,595.4
55 mph	1,282.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1,283.5
60 mph	922.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	923.4
65 mph	208.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	208.1
70 mph	4,887.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	4,890.7
total	12,867.7	8.6	0.0	0.0	0.0	0.0	0.0	3,496.9	28,378.3

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	9,475	1,895	515	103	1,365	273	2,275	455	2,726	6.75	0.035	0.0002	0.5	0.0007	2.0
2	A	731	0.45	5,175	2,329	258	116	680	306	1,133	510	3,260	6.46	0.035	0.0002	0.6	0.0007	2.3
3	A	2352	1.46	1,580	2,307	115	168	187	273	312	455	3,203	6.14	0.035	0.0002	0.5	0.0007	2.1
5	A	953	0.59	4,555	2,687	207	122	-	-	-	-	2,810	2.28	0.035	0.0001	0.2	0.0002	0.7
6	A	1099	0.68	10,700	7,276	553	376	1,484	1,009	2,474	1,682	10,343	6.63	0.035	0.0002	1.8	0.0007	7.4
8	A	1091	0.68	3,310	2,251	195	133	-	-	-	-	2,383	2.32	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	7,310	5,483	68	51	-	-	-	-	5,534	2.16	0.035	0.0001	0.3	0.0002	1.3
12	A	824	0.51	12,320	6,283	45	23	2	1	3	2	6,309	2.15	0.035	0.0001	0.4	0.0002	1.4
14	A	1618	1.01	2,585	2,611	35	36	101	102	168	170	2,918	3.74	0.035	0.0001	0.3	0.0004	1.2
18	A	1412	0.88	1,055	928	-	-	-	-	-	-	928	2.13	0.035	0.0001	0.1	0.0002	0.2
19	A	2386	1.48	1,930	2,023	-	-	-	-	-	-	2,023	2.13	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	1,425	1,112	26	20	19	15	31	24	1,170	2.75	0.035	0.0001	0.1	0.0003	0.3
24	A	1946	1.21	1,790	2,166	62	75	58	70	97	117	2,428	3.54	0.035	0.0001	0.2	0.0004	0.9
30	A	2827	1.76	14,320	25,203	47	83	-	-	-	-	25,286	2.14	0.035	0.0001	1.4	0.0002	5.7
29	A	675	0.42	4,555	1,913	44	19	-	-	-	-	1,932	2.16	0.035	0.0001	0.1	0.0002	0.4
31	A	820	0.51	15,945	8,132	90	46	135	69	225	115	8,362	2.52	0.035	0.0001	0.5	0.0003	2.2
TOTAL				98,031		2,260		4,029		6,719						7.2		29.3

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				25283.24	496764.63	2,226.00	53,126.35	2,445.03	107,644.59	4,076.97	179,491.88	837,027.44	5.58	0.035	0.0001	123.5451199	0.0006	503.33197

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	2961.4	34.5	213.0
	LDT1	15	1127	330	0.21	236.8	236.4	0.2	0.1
	LDT2	15	5642	330	0.21	1184.8	1182.4	2.4	0.0
	MDT	15	1700	330	0.21	357.0	349.4	7.5	0.0
	LHDT1	15	1494	330	0.21	313.6	150.4	163.2	0.0
	LHDT2	15	718	330	0.21	150.8	50.8	100.0	0.0
	MHDT	15	2286	330	0.21	480.2	54.1	426.1	0.0
	HHDT	15	3813	330	0.21	800.6	7.6	793.0	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.5	0.1	0.3
	LDT1	15	3	175	0.11	0.4	0.4	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.8	0.0	0.0
	MDT	15	4	175	0.11	0.5	0.4	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.1	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.0	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.1	0.1	0.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.2	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.5	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	18.5	0.2	1.3
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.6	0.0	0.2
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2999.2	239.4	1197.5	352.6	150.8	50.9	54.7	7.7
Diesel	34.9	0.2	2.5	7.6	163.6	100.2	430.9	802.0
Electric	215.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center

Mobile Emissions - 2025 Phase 1 (Project) - Mitigated

On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	358	389	0	1790.9	1942.8	0.0
	LHDT2	5	359	121	238	0	604.5	1190.6	0.0
	MHDT	5	1143	129	1015	0	643.5	5072.6	0.0
	HHDT	5	1906	18	1888	0	90.5	9440.8	0.0
Travel at Light Logistics	LHDT1	5	1	1	1	0	2.9	3.2	0.0
	LHDT2	5	1	0	0	0	1.0	1.9	0.0
	MHDT	5	2	0	1	0	0.8	6.7	0.0
	HHDT	5	3	0	2	0	0.1	12.4	0.0
Travel at Utility	LHDT1	5	4	2	2	0	8.5	9.3	0.0
	LHDT2	5	2	1	1	0	2.9	5.7	0.0
	MHDT	5	7	1	6	0	3.8	30.1	0.0
	HHDT	5	11	0	11	0	0.5	56.1	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	8	63	0	40.0	315.5	0.0
	HHDT	5	119	1	117	0	5.6	587.2	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	30.0	10.1	11.5	1.6
Diesel	32.6	20.0	90.4	168.3
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					13.0528	12.2296	21.0325	9.5728
10 mph	0.0358	0.0838	0.0464	0.0810	0.1181	0.0412	0.0375	1.2102
15 mph	0.0241	0.0581	0.0311	0.0541	0.0814	0.0277	0.0249	0.8013
20 mph	0.0170	0.0420	0.0220	0.0385	0.0594	0.0199	0.0174	0.5616
25 mph	0.0125	0.0313	0.0162	0.0287	0.0451	0.0149	0.0129	0.4145
30 mph	0.0097	0.0244	0.0126	0.0225	0.0359	0.0117	0.0100	0.3230
35 mph	0.0079	0.0198	0.0103	0.0187	0.0302	0.0098	0.0082	0.2656
40 mph	0.0068	0.0172	0.0089	0.0162	0.0269	0.0086	0.0071	0.2305
45 mph	0.0063	0.0157	0.0081	0.0148	0.0251	0.0080	0.0065	0.2108
50 mph	0.0060	0.0149	0.0078	0.0143	0.0245	0.0077	0.0063	0.2034
55 mph	0.0061	0.0150	0.0079	0.0146	0.0254	0.0080	0.0064	0.2072
60 mph	0.0065	0.0158	0.0085	0.0155	0.0276	0.0086	0.0069	0.2225
65 mph	0.0072	0.0170	0.0094	0.0174	0.0317	0.0098		
70 mph	0.0076	0.0170	0.0098	0.0199	0.0317	0.0097		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					3.1731	3.1731	0.1621	0.5150
10 mph	0.1140	0.3876	0.1950	0.1170	0.5540	0.5438	0.1960	0.4963
15 mph	0.0602	0.2571	0.0959	0.0582	0.2914	0.2750	0.1382	0.3484
20 mph	0.0281	0.1751	0.0380	0.0238	0.1395	0.1187	0.0999	0.2464
25 mph	0.0185	0.1332	0.0230	0.0147	0.0940	0.0759	0.0732	0.1775
30 mph	0.0143	0.1079	0.0174	0.0113	0.0752	0.0592	0.0540	0.1308
35 mph	0.0115	0.0909	0.0139	0.0091	0.0641	0.0489	0.0398	0.0964
40 mph	0.0098	0.0818	0.0115	0.0076	0.0568	0.0421	0.0293	0.0713
45 mph	0.0089	0.0778	0.0098	0.0066	0.0518	0.0373	0.0216	0.0527
50 mph	0.0082	0.0768	0.0086	0.0058	0.0495	0.0344	0.0159	0.0387
55 mph	0.0078	0.0797	0.0076	0.0053	0.0482	0.0323	0.0118	0.0290
60 mph	0.0080	0.0866	0.0073	0.0052	0.0497	0.0323	0.0101	0.0246
65 mph	0.0084	0.0954	0.0074	0.0054	0.0581	0.0362		
70 mph	0.0073	0.0920	0.0073	0.0057	0.0978	0.0563		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.5556	0.1039	0.2877	0.0948	0.0793	0.0093	0.0147	0.0667	1.2120
15 mph	0.0833	0.0160	0.0429	0.0141	0.0121	0.0014	0.0028	0.0126	0.1852
20 mph	0.3525	0.0695	0.1817	0.0600	0.0531	0.0060	0.0059	0.0265	0.7552
25 mph	1.0814	0.2156	0.5585	0.1864	0.1680	0.0187	0.0180	0.0816	2.3282
30 mph	0.8034	0.1612	0.4164	0.1406	0.1286	0.0142	0.0112	0.0509	1.7265
35 mph	0.3809	0.0764	0.1983	0.0679	0.0630	0.0069	0.0037	0.0167	0.8139
40 mph	0.1413	0.0284	0.0736	0.0253	0.0240	0.0026	0.0028	0.0127	0.3107
45 mph	0.0863	0.0173	0.0449	0.0154	0.0149	0.0016	0.0033	0.0149	0.1987
50 mph	0.0829	0.0165	0.0431	0.0149	0.0146	0.0016	0.0039	0.0176	0.1950
55 mph	0.1471	0.0290	0.0766	0.0265	0.0265	0.0028	0.0004	0.0016	0.3107
60 mph	0.1011	0.0196	0.0525	0.0181	0.0185	0.0019	0.0015	0.0070	0.2204
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	3.8158	0.7534	1.9761	0.6642	0.6029	0.0670	0.0681	0.3089	8.2563

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0542	0.0107	0.0280	0.0115	0.0137	0.0015	0.0037	0.0167	0.1400
25 mph	0.0599	0.0119	0.0309	0.0129	0.0156	0.0017	0.0054	0.0246	0.1631
30 mph	0.0773	0.0155	0.0400	0.0169	0.0207	0.0023	0.0106	0.0480	0.2313
35 mph	0.1005	0.0202	0.0523	0.0224	0.0278	0.0030	0.0104	0.0474	0.2840
40 mph	0.1304	0.0262	0.0680	0.0292	0.0371	0.0040	0.0106	0.0480	0.3534
45 mph	0.2590	0.0520	0.1347	0.0579	0.0750	0.0080	0.0069	0.0313	0.6248
50 mph	0.2104	0.0418	0.1093	0.0473	0.0621	0.0066	0.0040	0.0181	0.4996
55 mph	0.1552	0.0306	0.0809	0.0350	0.0468	0.0049	0.0014	0.0062	0.3610
60 mph	0.0830	0.0161	0.0431	0.0186	0.0254	0.0027	0.1023	0.4630	0.7541
65 mph	0.0461	0.0086	0.0240	0.0104	0.0146	0.0015	0.0000	0.0000	0.1053
70 mph	1.1325	0.2036	0.5861	0.2807	0.3429	0.0355	0.0000	0.0000	2.5812
total	2.3086	0.4372	1.1973	0.5427	0.6816	0.0718	0.1553	0.7033	6.0979

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5320	0.0343	1.7043
15 mph	0.1597	0.0307	0.0821	0.0421	0.0271	0.0031	0.0030	0.0136	0.3613
25 mph	0.0000	0.0000	0.0000	0.0000	0.0441	0.0049	0.0068	0.0307	0.0864
35 mph	0.8034	0.1611	0.4181	0.0933	0.0000	0.0000	0.0000	0.0000	1.4761
total	0.9631	0.1918	0.5003	0.1354	0.9357	0.2814	0.5417	0.0786	3.6281

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8646	0.2734	0.5320	0.0343	1.7043
10 mph	0.5556	0.1039	0.2877	0.0948	0.0793	0.0093	0.0147	0.0667	1.2120
15 mph	0.2430	0.0467	0.1250	0.0562	0.0392	0.0045	0.0058	0.0262	0.5466
20 mph	0.4067	0.0801	0.2096	0.0716	0.0668	0.0076	0.0095	0.0432	0.8952
25 mph	1.1413	0.2275	0.5894	0.1993	0.2277	0.0254	0.0302	0.1369	2.5777
30 mph	0.8807	0.1768	0.4564	0.1575	0.1493	0.0164	0.0218	0.0989	1.9577
35 mph	1.2849	0.2577	0.6687	0.1836	0.0909	0.0099	0.0141	0.0641	2.5739
40 mph	0.2717	0.0546	0.1416	0.0545	0.0611	0.0066	0.0134	0.0607	0.6641
45 mph	0.3453	0.0693	0.1796	0.0733	0.0900	0.0096	0.0102	0.0463	0.8235
50 mph	0.2933	0.0583	0.1524	0.0622	0.0767	0.0081	0.0079	0.0357	0.6946
55 mph	0.3024	0.0597	0.1575	0.0615	0.0734	0.0078	0.0017	0.0078	0.6717
60 mph	0.1841	0.0356	0.0956	0.0367	0.0440	0.0046	0.1038	0.4700	0.9744
65 mph	0.0461	0.0086	0.0240	0.0104	0.0146	0.0015	0.0000	0.0000	0.1053
70 mph	1.1325	0.2036	0.5861	0.2807	0.3429	0.0355	0.0000	0.0000	2.5812
total	7.0875	1.3824	3.6737	1.3423	2.2202	0.4203	0.7651	1.0907	17.9823

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0206	0.0005	0.0025	0.0030	0.4034	0.2427	0.6051	2.8513	4.1290
15 mph	0.0024	0.0001	0.0003	0.0003	0.0472	0.0273	0.1219	0.5719	0.7712
20 mph	0.0068	0.0003	0.0006	0.0008	0.1355	0.0706	0.2643	1.2135	1.6924
25 mph	0.0186	0.0009	0.0016	0.0021	0.3802	0.1882	0.8075	3.6426	5.0416
30 mph	0.0138	0.0007	0.0012	0.0015	0.2920	0.1409	0.4762	2.1475	3.0738
35 mph	0.0065	0.0003	0.0006	0.0007	0.1453	0.0680	0.1404	0.6329	0.9946
40 mph	0.0024	0.0001	0.0002	0.0003	0.0551	0.0250	0.0905	0.4096	0.5832
45 mph	0.0014	0.0001	0.0001	0.0001	0.0335	0.0148	0.0858	0.3892	0.5250
50 mph	0.0013	0.0001	0.0001	0.0001	0.0320	0.0136	0.0773	0.3491	0.4737
55 mph	0.0022	0.0001	0.0002	0.0002	0.0547	0.0224	0.0052	0.0238	0.1088
60 mph	0.0015	0.0001	0.0001	0.0001	0.0362	0.0144	0.0178	0.0808	0.1510
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0773	0.0033	0.0074	0.0093	1.6150	0.8279	2.6920	12.3122	17.5444

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0010	0.0000	0.0001	0.0002	0.0349	0.0182	0.1664	0.7637	0.9845
25 mph	0.0010	0.0000	0.0001	0.0001	0.0352	0.0174	0.2440	1.1004	1.3983
30 mph	0.0013	0.0001	0.0001	0.0002	0.0470	0.0227	0.4496	2.0274	2.5483
35 mph	0.0017	0.0001	0.0001	0.0002	0.0641	0.0300	0.3977	1.7923	2.2862
40 mph	0.0022	0.0001	0.0002	0.0003	0.0851	0.0386	0.3418	1.5467	2.0150
45 mph	0.0043	0.0003	0.0003	0.0006	0.1681	0.0742	0.1800	0.8165	1.2441
50 mph	0.0033	0.0002	0.0002	0.0004	0.1360	0.0579	0.0796	0.3595	0.6373
55 mph	0.0023	0.0002	0.0002	0.0003	0.0964	0.0396	0.0196	0.0898	0.2483
60 mph	0.0012	0.0001	0.0001	0.0001	0.0497	0.0198	1.1753	5.3416	6.5879
65 mph	0.0006	0.0000	0.0000	0.0001	0.0290	0.0111	0.0000	0.0000	0.0409
70 mph	0.0127	0.0011	0.0009	0.0017	1.1484	0.4053	0.0000	0.0000	1.5701
total	0.0317	0.0022	0.0024	0.0042	1.8938	0.7346	3.0538	13.8381	19.5608

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0323	0.1911	0.5911
15 mph	0.0046	0.0001	0.0005	0.0010	0.1051	0.0608	0.1313	0.6161	0.9195
25 mph	0.0000	0.0000	0.0000	0.0000	0.0997	0.0494	0.3034	1.3688	1.8214
35 mph	0.0136	0.0007	0.0012	0.0010	0.0000	0.0000	0.0000	0.0000	0.0165
total	0.0183	0.0009	0.0017	0.0020	0.4328	0.2499	0.4670	2.1760	3.3484

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2280	0.1397	0.0323	0.1911	0.5911
10 mph	0.0206	0.0005	0.0025	0.0030	0.4034	0.2427	0.6051	2.8513	4.1290
15 mph	0.0071	0.0002	0.0008	0.0013	0.1522	0.0881	0.2531	1.1879	1.6907
20 mph	0.0078	0.0003	0.0007	0.0010	0.1703	0.0888	0.4307	1.9772	2.6769
25 mph	0.0196	0.0009	0.0017	0.0022	0.5151	0.2549	1.3549	6.1119	8.2614
30 mph	0.0151	0.0008	0.0013	0.0017	0.3389	0.1635	0.9258	4.1750	5.6221
35 mph	0.0218	0.0011	0.0019	0.0019	0.2094	0.0979	0.5381	2.4252	3.2973
40 mph	0.0046	0.0003	0.0004	0.0005	0.1402	0.0637	0.4323	1.9563	2.5982
45 mph	0.0057	0.0003	0.0004	0.0007	0.2016	0.0889	0.2657	1.2057	1.7691
50 mph	0.0046	0.0003	0.0003	0.0005	0.1680	0.0715	0.1569	0.7087	1.1110
55 mph	0.0045	0.0003	0.0003	0.0005	0.1511	0.0621	0.0248	0.1135	0.3570
60 mph	0.0026	0.0002	0.0002	0.0003	0.0859	0.0342	1.1931	5.4225	6.7389
65 mph	0.0006	0.0000	0.0000	0.0001	0.0290	0.0111	0.0000	0.0000	0.0409
70 mph	0.0127	0.0011	0.0009	0.0017	1.1484	0.4053	0.0000	0.0000	1.5701
total	0.1273	0.0063	0.0115	0.0154	3.9416	1.8124	6.2128	28.3263	40.4536

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.04	0.15	0.06	0.09	0.65	0.19	0.16	0.04
Electric	0	0	0	0	0	0	0	0

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	29.45	9.08	17.45	5.50	25.46	2.57	4.28	0.15
Electric	0	0	0	0	0	0	0	0
Total	**29.45**	**9.08**	**17.45**	**5.50**	**25.46**	**2.57**	**4.28**	**0.15**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.41	1.21	0.52	0.84	0.12	0.06	0.06	0.04
Electric	0.03	0.03	0	0	0	0	0	0

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.74	1.60	3.44	1.60	0.10	0.02	0.02	0.00
Electric	0.04	0.00	0	0	0	0	0	0
Total	**6.78**	**1.60**	**3.44**	**1.60**	**0.10**	**0.02**	**0.02**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.09	0.41	0.56	0.23	2.30
10 mph	0.58	0.10	0.29	0.10	0.48	0.25	0.62	2.92	5.34
15 mph	0.25	0.05	0.13	0.06	0.19	0.09	0.26	1.21	2.24
20 mph	0.41	0.08	0.21	0.07	0.24	0.10	0.44	2.02	3.57
25 mph	1.16	0.23	0.59	0.20	0.74	0.28	1.39	6.25	10.84
30 mph	0.90	0.18	0.46	0.16	0.49	0.18	0.95	4.27	7.58
35 mph	1.31	0.26	0.67	0.19	0.30	0.11	0.55	2.49	5.87
40 mph	0.28	0.05	0.14	0.06	0.20	0.07	0.45	2.02	3.26
45 mph	0.35	0.07	0.18	0.07	0.29	0.10	0.28	1.25	2.59
50 mph	0.30	0.06	0.15	0.06	0.24	0.08	0.16	0.74	1.81
55 mph	0.31	0.06	0.16	0.06	0.22	0.07	0.03	0.12	1.03
60 mph	0.19	0.04	0.10	0.04	0.13	0.04	1.30	5.89	7.71
65 mph	0.05	0.01	0.02	0.01	0.04	0.01	0.00	0.00	0.15
70 mph	1.15	0.20	0.59	0.28	1.49	0.44	0.00	0.00	4.15
RUNLOSS	29.45	9.08	17.45	5.50	25.46	2.57	4.28	0.15	93.94
RESTLOSS DIUR	6.78	1.60	3.44	1.60	0.10	0.02	0.02	0.00	13.55
total	43.44	12.07	24.58	8.45	31.72	4.82	11.28	29.57	**165.92**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					1.1346	1.0612	1.8600	24.8479
10 mph	0.0629	0.1686	0.0898	0.1579	0.3531	0.1672	0.1296	4.3316
15 mph	0.0557	0.1462	0.0788	0.1369	0.3115	0.1463	0.1144	3.8178
20 mph	0.0498	0.1287	0.0703	0.1222	0.2870	0.1331	0.1026	3.4275
25 mph	0.0449	0.1138	0.0633	0.1107	0.2655	0.1218	0.0935	3.1229
30 mph	0.0412	0.1027	0.0581	0.1024	0.2505	0.1135	0.0867	2.8925
35 mph	0.0384	0.0943	0.0541	0.0967	0.2409	0.1080	0.0816	2.7233
40 mph	0.0366	0.0902	0.0517	0.0929	0.2345	0.1041	0.0780	2.6053
45 mph	0.0357	0.0889	0.0504	0.0907	0.2310	0.1018	0.0758	2.5319
50 mph	0.0353	0.0887	0.0498	0.0905	0.2310	0.1005	0.0749	2.4991
55 mph	0.0356	0.0915	0.0504	0.0922	0.2345	0.1016	0.0752	2.5087
60 mph	0.0365	0.0959	0.0517	0.0951	0.2392	0.1035	0.0767	2.5574
65 mph	0.0376	0.1001	0.0534	0.1003	0.2489	0.1072		
70 mph	0.0374	0.0959	0.0524	0.1105	0.2674	0.1084		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					55.1536	49.5342	17.6446	15.6146
10 mph	0.0972	0.5625	0.1311	0.0885	1.2043	0.7272	7.4918	15.9066
15 mph	0.0761	0.5746	0.0898	0.0620	1.0397	0.5966	4.5923	9.8391
20 mph	0.0609	0.5819	0.0612	0.0436	1.0463	0.5555	2.6774	5.6815
25 mph	0.0538	0.5876	0.0479	0.0353	1.0526	0.5389	1.5361	3.2303
30 mph	0.0499	0.5918	0.0408	0.0310	1.1106	0.5536	1.0019	2.1347
35 mph	0.0468	0.5903	0.0360	0.0282	1.2082	0.5878	0.7073	1.5254
40 mph	0.0457	0.6066	0.0328	0.0264	1.2914	0.6187	0.5276	1.1608
45 mph	0.0459	0.6349	0.0306	0.0252	1.3494	0.6409	0.4107	0.9188
50 mph	0.0458	0.6540	0.0288	0.0243	1.4275	0.6759	0.3304	0.7366
55 mph	0.0458	0.6773	0.0275	0.0238	1.4541	0.6854	0.2720	0.6362
60 mph	0.0470	0.7035	0.0270	0.0237	1.4750	0.6919	0.2488	0.5702
65 mph	0.0464	0.6954	0.0269	0.0240	1.6623	0.7796		
70 mph	0.0401	0.5666	0.0259	0.0254	3.0371	1.4913		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.9777	0.2090	0.5567	0.1848	0.2370	0.0379	0.0507	0.2387	2.4925
15 mph	0.1923	0.0403	0.1086	0.0356	0.0465	0.0074	0.0128	0.0601	0.5035
20 mph	1.0309	0.2128	0.5817	0.1907	0.2568	0.0402	0.0344	0.1619	2.5094
25 mph	3.8776	0.7840	2.1828	0.7197	0.9902	0.1533	0.1308	0.6146	9.4531
30 mph	3.4135	0.6793	1.9208	0.6393	0.8968	0.1372	0.0970	0.4554	8.2392
35 mph	1.8538	0.3639	1.0435	0.3522	0.5032	0.0761	0.0365	0.1715	4.4007
40 mph	0.7586	0.1491	0.4273	0.1450	0.2098	0.0315	0.0306	0.1436	1.8953
45 mph	0.4933	0.0979	0.2777	0.0943	0.1378	0.0205	0.0382	0.1794	1.3392
50 mph	0.4875	0.0978	0.2744	0.0942	0.1378	0.0202	0.0461	0.2164	1.3744
55 mph	0.8595	0.1765	0.4864	0.1679	0.2448	0.0358	0.0042	0.0197	1.9949
60 mph	0.5664	0.1189	0.3207	0.1113	0.1606	0.0235	0.0172	0.0805	1.3990
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	14.5111	2.9295	8.1806	2.7350	3.8214	0.5835	0.4985	2.3418	35.6013

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.1586	0.0327	0.0895	0.0366	0.0661	0.0103	0.0217	0.1019	0.5175
25 mph	0.2148	0.0434	0.1209	0.0498	0.0917	0.0142	0.0395	0.1857	0.7601
30 mph	0.3283	0.0653	0.1847	0.0768	0.1442	0.0221	0.0915	0.4299	1.3429
35 mph	0.4890	0.0960	0.2753	0.1161	0.2219	0.0336	0.1034	0.4857	1.8210
40 mph	0.7004	0.1377	0.3945	0.1672	0.3239	0.0486	0.1154	0.5421	2.4297
45 mph	1.4802	0.2939	0.8334	0.3535	0.6915	0.1028	0.0801	0.3763	4.2118
50 mph	1.2378	0.2484	0.6967	0.2987	0.5851	0.0860	0.0475	0.2229	3.4229
55 mph	0.9070	0.1863	0.5132	0.2213	0.4320	0.0631	0.0159	0.0746	2.4134
60 mph	0.4649	0.0976	0.2632	0.1141	0.2203	0.0322	1.1336	5.3215	7.6473
65 mph	0.2397	0.0510	0.1360	0.0602	0.1146	0.0167	0.0000	0.0000	0.6181
70 mph	5.5958	1.1468	3.1360	1.5574	2.8946	0.3961	0.0000	0.0000	14.7267
total	11.8165	2.3990	6.6435	3.0516	5.7860	0.8256	1.6487	7.7405	39.9115

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0470	0.0891	0.2350
15 mph	0.3684	0.0772	0.2080	0.1064	0.1035	0.0164	0.0138	0.0648	0.9586
25 mph	0.0000	0.0000	0.0000	0.0000	0.2598	0.0402	0.0492	0.2309	0.5801
35 mph	3.9097	0.7675	2.2009	0.4840	0.0000	0.0000	0.0000	0.0000	7.3621
total	4.2781	0.8447	2.4089	0.5904	0.4385	0.0804	0.1100	0.3848	9.1358

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0752	0.0237	0.0470	0.0891	0.2350
10 mph	0.9777	0.2090	0.5567	0.1848	0.2370	0.0379	0.0507	0.2387	2.4925
15 mph	0.5608	0.1175	0.3166	0.1420	0.1500	0.0238	0.0266	0.1249	1.4621
20 mph	1.1896	0.2455	0.6712	0.2273	0.3229	0.0505	0.0561	0.2638	3.0270
25 mph	4.0924	0.8274	2.3038	0.7695	1.3416	0.2077	0.2195	1.0312	10.7932
30 mph	3.7419	0.7446	2.1055	0.7160	1.0410	0.1593	0.1885	0.8853	9.5821
35 mph	6.2525	1.2274	3.5197	0.9523	0.7251	0.1097	0.1399	0.6572	13.5838
40 mph	1.4590	0.2867	0.8217	0.3121	0.5338	0.0800	0.1460	0.6857	4.3250
45 mph	1.9735	0.3918	1.1112	0.4478	0.8293	0.1233	0.1183	0.5557	5.5510
50 mph	1.7253	0.3462	0.9711	0.3929	0.7229	0.1062	0.0936	0.4393	4.7973
55 mph	1.7665	0.3628	0.9996	0.3893	0.6768	0.0989	0.0201	0.0943	4.4083
60 mph	1.0313	0.2165	0.5838	0.2253	0.3809	0.0556	1.1508	5.4020	9.0463
65 mph	0.2397	0.0510	0.1360	0.0602	0.1146	0.0167	0.0000	0.0000	0.6181
70 mph	5.5958	1.1468	3.1360	1.5574	2.8946	0.3961	0.0000	0.0000	14.7267
total	30.6058	6.1732	17.2330	6.3770	10.0458	1.4894	2.2572	10.4671	84.6485

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0176	0.0007	0.0017	0.0022	0.8770	0.3246	23.1274	91.3899	115.7410
15 mph	0.0031	0.0002	0.0003	0.0003	0.1683	0.0592	4.0504	16.1512	20.4329
20 mph	0.0147	0.0009	0.0010	0.0015	1.0159	0.3305	7.0844	27.9791	36.4281
25 mph	0.0541	0.0039	0.0034	0.0049	4.2585	1.3361	16.9361	66.2832	88.8802
30 mph	0.0481	0.0038	0.0028	0.0042	4.3132	1.3176	8.8366	35.0424	49.5687
35 mph	0.0263	0.0022	0.0014	0.0022	2.7373	0.8162	2.4954	10.0158	16.0969
40 mph	0.0110	0.0010	0.0006	0.0009	1.2539	0.3682	1.6289	6.6694	9.9338
45 mph	0.0074	0.0007	0.0003	0.0006	0.8735	0.2542	1.6300	6.7870	9.5536
50 mph	0.0074	0.0007	0.0003	0.0005	0.9240	0.2681	1.6029	6.6500	9.4539
55 mph	0.0129	0.0013	0.0005	0.0009	1.6472	0.4758	0.1200	0.5222	2.7808
60 mph	0.0085	0.0008	0.0003	0.0006	1.0742	0.3088	0.4390	1.8720	3.7042
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.2109	0.0162	0.0127	0.0189	19.1431	5.8592	67.9511	269.3620	362.5741

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0023	0.0001	0.0002	0.0003	0.2614	0.0850	4.4587	17.6093	22.4173
25 mph	0.0030	0.0002	0.0002	0.0003	0.3944	0.1238	5.1164	20.0241	25.6624
30 mph	0.0046	0.0004	0.0003	0.0005	0.6936	0.2119	8.3423	33.0821	42.3356
35 mph	0.0069	0.0006	0.0004	0.0007	1.2073	0.3600	7.0675	28.3664	37.0098
40 mph	0.0102	0.0009	0.0005	0.0010	1.9357	0.5683	6.1510	25.1852	33.8528
45 mph	0.0221	0.0020	0.0010	0.0021	4.3823	1.2754	3.4196	14.2384	23.3431
50 mph	0.0187	0.0018	0.0008	0.0017	3.9227	1.1382	1.6508	6.8487	13.5833
55 mph	0.0136	0.0013	0.0006	0.0012	2.9061	0.8395	0.4531	1.9718	6.1871
60 mph	0.0070	0.0007	0.0003	0.0006	1.4739	0.4237	29.0088	123.7113	154.6263
65 mph	0.0034	0.0003	0.0001	0.0003	0.8305	0.2387	0.0000	0.0000	1.0735
70 mph	0.0699	0.0066	0.0032	0.0077	35.6591	10.7308	0.0000	0.0000	46.4773
total	0.1617	0.0150	0.0076	0.0166	53.6672	15.9953	65.6681	271.0371	406.5684

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.5177	5.7938	15.4559
15 mph	0.0059	0.0003	0.0005	0.0010	0.3750	0.1319	4.3633	17.3988	22.2766
25 mph	0.0000	0.0000	0.0000	0.0000	1.1172	0.3505	6.3642	24.9078	32.7397
35 mph	0.0555	0.0047	0.0030	0.0030	0.0000	0.0000	0.0000	0.0000	0.0662
total	0.0614	0.0050	0.0035	0.0041	5.4553	2.6636	14.2452	48.1003	70.5384

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	3.9631	2.1813	3.5177	5.7938	15.4559
10 mph	0.0176	0.0007	0.0017	0.0022	0.8770	0.3246	23.1274	91.3899	115.7410
15 mph	0.0089	0.0004	0.0007	0.0014	0.5432	0.1910	8.4137	33.5500	42.7095
20 mph	0.0169	0.0011	0.0012	0.0018	1.2773	0.4156	11.5432	45.5883	58.8453
25 mph	0.0571	0.0041	0.0036	0.0053	5.7701	1.8103	28.4167	111.2150	147.2823
30 mph	0.0527	0.0042	0.0030	0.0047	5.0068	1.5295	17.1789	68.1244	91.9043
35 mph	0.0888	0.0075	0.0048	0.0060	3.9446	1.1761	9.5629	38.3822	53.1729
40 mph	0.0212	0.0019	0.0011	0.0019	3.1896	0.9365	7.7799	31.8546	43.7866
45 mph	0.0295	0.0027	0.0014	0.0027	5.2558	1.5296	5.0496	21.0254	32.8967
50 mph	0.0260	0.0025	0.0012	0.0023	4.8467	1.4063	3.2536	13.4986	23.0372
55 mph	0.0265	0.0026	0.0011	0.0022	4.5533	1.3153	0.5730	2.4939	8.9679
60 mph	0.0155	0.0015	0.0006	0.0012	2.5481	0.7325	29.4478	125.5833	158.3305
65 mph	0.0034	0.0003	0.0001	0.0003	0.8305	0.2387	0.0000	0.0000	1.0735
70 mph	0.0699	0.0066	0.0032	0.0077	35.6591	10.7308	0.0000	0.0000	46.4773
total	0.4340	0.0361	0.0237	0.0396	78.2655	24.5182	147.8644	588.4994	839.6809

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.04	2.21	3.56	5.88	15.69
10 mph	1.00	0.21	0.56	0.19	1.11	0.36	23.18	91.63	118.23
15 mph	0.57	0.12	0.32	0.14	0.69	0.21	8.44	33.67	44.17
20 mph	1.21	0.25	0.67	0.23	1.60	0.47	11.60	45.85	61.87
25 mph	4.15	0.83	2.31	0.77	7.11	2.02	28.64	112.25	158.08
30 mph	3.79	0.75	2.11	0.72	6.05	1.69	17.37	69.01	101.49
35 mph	6.34	1.23	3.52	0.96	4.67	1.29	9.70	39.04	66.76
40 mph	1.48	0.29	0.82	0.31	3.72	1.02	7.93	32.54	48.11
45 mph	2.00	0.39	1.11	0.45	6.09	1.65	5.17	21.58	38.45
50 mph	1.75	0.35	0.97	0.40	5.57	1.51	3.35	13.94	27.83
55 mph	1.79	0.37	1.00	0.39	5.23	1.41	0.59	2.59	13.38
60 mph	1.05	0.22	0.58	0.23	2.93	0.79	30.60	130.99	167.38
65 mph	0.24	0.05	0.14	0.06	0.95	0.26	0.00	0.00	1.69
70 mph	5.67	1.15	3.14	1.57	38.55	11.13	0.00	0.00	61.20
total	31.04	6.21	17.26	6.42	88.31	26.01	150.12	598.97	**924.33**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	124.4483	127.5595	325.0887	256.6478
10 mph	0.8342	1.8852	1.0329	1.5242	1.6491	0.5168	0.2957	46.9374
15 mph	0.7621	1.6847	0.9389	1.3700	1.3665	0.4410	0.2701	42.7646
20 mph	0.6952	1.5094	0.8566	1.2475	1.1722	0.3904	0.2472	39.1899
25 mph	0.6334	1.3434	0.7801	1.1396	1.0226	0.3470	0.2270	35.9537
30 mph	0.5786	1.2041	0.7132	1.0480	0.9137	0.3134	0.2091	33.0913
35 mph	0.5298	1.0843	0.6538	0.9702	0.8379	0.2882	0.1930	30.5536
40 mph	0.4895	0.9986	0.6042	0.8994	0.7899	0.2697	0.1786	28.2868
45 mph	0.4550	0.9330	0.5613	0.8354	0.7608	0.2554	0.1658	26.2500
50 mph	0.4235	0.8729	0.5220	0.7826	0.7512	0.2447	0.1543	24.4088
55 mph	0.3960	0.8303	0.4893	0.7370	0.7725	0.2425	0.1439	22.7853
60 mph	0.3716	0.7925	0.4588	0.6945	0.8234	0.2456	0.1346	21.3105
65 mph	0.3475	0.7484	0.4295	0.6611	0.9259	0.2599		
70 mph	0.3314	0.6885	0.4068	0.6759	0.8817	0.2368		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2120	1.9063
10 mph	2.2519	2.4137	1.8620	2.5084	2.3491	2.2520	1.0314	2.9137
15 mph	1.1202	1.5176	0.9138	1.2314	1.2440	1.1438	0.7270	2.0526
20 mph	0.4584	0.9766	0.3589	0.4844	0.6147	0.5060	0.5257	1.4537
25 mph	0.2847	0.7494	0.2166	0.2932	0.4263	0.3305	0.3854	1.0469
30 mph	0.2182	0.6262	0.1639	0.2223	0.3518	0.2635	0.2841	0.7717
35 mph	0.1759	0.5477	0.1305	0.1776	0.3125	0.2245	0.2094	0.5679
40 mph	0.1484	0.5150	0.1081	0.1474	0.2899	0.2000	0.1543	0.4203
45 mph	0.1303	0.5165	0.0923	0.1261	0.2791	0.1849	0.1137	0.3107
50 mph	0.1178	0.5395	0.0805	0.1106	0.2852	0.1807	0.0839	0.2282
55 mph	0.1100	0.5986	0.0719	0.0992	0.2995	0.1814	0.0618	0.1710
60 mph	0.1116	0.7027	0.0690	0.0957	0.3348	0.1949	0.0531	0.1453
65 mph	0.1183	0.8376	0.0701	0.0985	0.4331	0.2417		
70 mph	0.1131	0.7928	0.0692	0.1024	0.8203	0.4490		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	12.9584	2.3376	6.4069	1.7839	1.1070	0.1171	0.1158	2.5864	27.4131
15 mph	2.6310	0.4642	1.2941	0.3563	0.2038	0.0222	0.0302	0.6733	5.6752
20 mph	14.3995	2.4955	7.0841	1.9467	1.0492	0.1179	0.0830	1.8510	29.0269
25 mph	54.6601	9.2544	26.8815	7.4098	3.8135	0.4368	0.3175	7.0756	109.8493
30 mph	47.9356	7.9630	23.5912	6.5418	3.2713	0.3787	0.2339	5.2098	95.1255
35 mph	25.6040	4.1830	12.6157	3.5326	1.7499	0.2032	0.0864	1.9241	49.8988
40 mph	10.1381	1.6510	4.9969	1.4035	0.7070	0.0815	0.0700	1.5587	20.6066
45 mph	6.2833	1.0283	3.0946	0.8691	0.4540	0.0514	0.0835	1.8597	13.7239
50 mph	5.8474	0.9621	2.8779	0.8141	0.4483	0.0493	0.0950	2.1136	13.2076
55 mph	9.5704	1.6016	4.7208	1.3418	0.8066	0.0855	0.0081	0.1794	18.3141
60 mph	5.7732	0.9827	2.8458	0.8129	0.5527	0.0557	0.0301	0.6710	11.7241
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	195.8010	32.9234	96.4093	26.8126	14.1633	1.5992	1.1535	25.7027	394.5651

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	2.2159	0.3840	1.0901	0.3742	0.2699	0.0303	0.0522	1.1650	5.5817
25 mph	3.0281	0.5127	1.4892	0.5127	0.3532	0.0405	0.0959	2.1375	8.1698
30 mph	4.6104	0.7659	2.2690	0.7858	0.5260	0.0609	0.2209	4.9184	14.1572
35 mph	6.7544	1.1035	3.3281	1.1639	0.7718	0.0896	0.2447	5.4495	18.9055
40 mph	9.3606	1.5244	4.6136	1.6186	1.0913	0.1258	0.2642	5.8860	24.4845
45 mph	18.8546	3.0858	9.2862	3.2571	2.2776	0.2580	0.1752	3.9016	41.0961
50 mph	14.8471	2.4430	7.3072	2.5819	1.9029	0.2092	0.0978	2.1767	31.5658
55 mph	10.0988	1.6900	4.9815	1.7684	1.4231	0.1508	0.0304	0.6773	20.8203
60 mph	4.7382	0.8065	2.3356	0.8332	0.7584	0.0764	1.9911	44.3437	55.8832
65 mph	2.2150	0.3808	1.0932	0.3966	0.4264	0.0404	0.0000	0.0000	4.5524
70 mph	49.6467	8.2324	24.3316	9.5272	9.5428	0.8650	0.0000	0.0000	102.1457
total	126.3698	20.9289	62.1252	22.8197	19.3437	1.9469	3.1724	70.6558	327.3622

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.2223	0.9202	20.2376
15 mph	5.0402	0.8893	2.4791	1.0653	0.4543	0.0495	0.0326	0.7253	10.7355
25 mph	0.0000	0.0000	0.0000	0.0000	1.0004	0.1146	0.1193	2.6589	3.8932
35 mph	54.0003	8.8221	26.6073	4.8541	0.0000	0.0000	0.0000	0.0000	94.2839
total	59.0405	9.7115	29.0864	5.9194	9.6980	3.0159	8.3742	4.3043	129.1502

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	8.2433	2.8519	8.2223	0.9202	20.2376
10 mph	12.9584	2.3376	6.4069	1.7839	1.1070	0.1171	0.1158	2.5864	27.4131
15 mph	7.6712	1.3536	3.7731	1.4216	0.6581	0.0717	0.0628	1.3986	16.4107
20 mph	16.6154	2.8795	8.1742	2.3209	1.3192	0.1483	0.1352	3.0160	34.6086
25 mph	57.6882	9.7671	28.3707	7.9225	5.1672	0.5918	0.5328	11.8720	121.9123
30 mph	52.5460	8.7289	25.8602	7.3276	3.7973	0.4396	0.4548	10.1282	109.2827
35 mph	86.3587	14.1085	42.5511	9.5507	2.5217	0.2928	0.3311	7.3736	163.0882
40 mph	19.4988	3.1753	9.6105	3.0221	1.7983	0.2072	0.3342	7.4447	45.0911
45 mph	25.1379	4.1141	12.3808	4.1262	2.7316	0.3095	0.2587	5.7613	54.8200
50 mph	20.6945	3.4051	10.1850	3.3960	2.3512	0.2585	0.1927	4.2903	44.7734
55 mph	19.6692	3.2916	9.7023	3.1103	2.2297	0.2362	0.0385	0.8567	39.1344
60 mph	10.5114	1.7893	5.1814	1.6461	1.3111	0.1320	2.0212	45.0148	67.6073
65 mph	2.2150	0.3808	1.0932	0.3966	0.4264	0.0404	0.0000	0.0000	4.5524
70 mph	49.6467	8.2324	24.3316	9.5272	9.5428	0.8650	0.0000	0.0000	102.1457
total	381.2113	63.5637	187.6209	55.5517	43.2050	6.5620	12.7001	100.6628	851.0775

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.4070	0.0029	0.0237	0.0633	1.7106	1.0050	3.1841	16.7405	23.1372
15 mph	0.0450	0.0004	0.0026	0.0069	0.2013	0.1134	0.6412	3.3694	4.3803
20 mph	0.1105	0.0016	0.0061	0.0163	0.5968	0.3011	1.3909	7.1589	9.5822
25 mph	0.2858	0.0050	0.0153	0.0411	1.7247	0.8195	4.2495	21.4817	28.6227
30 mph	0.2103	0.0040	0.0111	0.0299	1.3665	0.6272	2.5062	12.6674	17.4227
35 mph	0.0989	0.0021	0.0052	0.0139	0.7080	0.3117	0.7389	3.7289	5.6076
40 mph	0.0358	0.0008	0.0018	0.0050	0.2815	0.1190	0.4764	2.4145	3.3348
45 mph	0.0209	0.0006	0.0010	0.0028	0.1807	0.0733	0.4514	2.2950	3.0258
50 mph	0.0189	0.0006	0.0009	0.0025	0.1846	0.0717	0.4068	2.0600	2.7460
55 mph	0.0309	0.0011	0.0014	0.0039	0.3393	0.1259	0.0273	0.1403	0.6702
60 mph	0.0202	0.0008	0.0009	0.0024	0.2438	0.0870	0.0936	0.4771	0.9258
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2843	0.0199	0.0702	0.1882	7.5379	3.6549	14.1662	72.5339	99.4554

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0170	0.0002	0.0009	0.0031	0.1536	0.0775	0.8754	4.5056	5.6334
25 mph	0.0158	0.0003	0.0009	0.0028	0.1597	0.0759	1.2838	6.4896	8.0288
30 mph	0.0202	0.0004	0.0011	0.0036	0.2197	0.1009	2.3660	11.9588	14.6706
35 mph	0.0261	0.0005	0.0014	0.0046	0.3123	0.1375	2.0927	10.5608	13.1359
40 mph	0.0330	0.0008	0.0017	0.0057	0.4346	0.1837	1.7988	9.1179	11.5761
45 mph	0.0628	0.0017	0.0031	0.0106	0.9066	0.3680	0.9470	4.8148	7.1145
50 mph	0.0481	0.0015	0.0023	0.0079	0.7838	0.3042	0.4190	2.1216	3.6882
55 mph	0.0326	0.0012	0.0015	0.0051	0.5986	0.2222	0.1030	0.5299	1.4942
60 mph	0.0165	0.0007	0.0007	0.0025	0.3345	0.1194	6.1849	31.5308	38.1901
65 mph	0.0088	0.0004	0.0004	0.0013	0.2164	0.0740	0.0000	0.0000	0.3012
70 mph	0.1971	0.0092	0.0085	0.0312	9.6318	3.2310	0.0000	0.0000	13.1087
total	0.4782	0.0168	0.0225	0.0784	13.7515	4.8941	16.0705	81.6297	116.9418

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2416	0.7073	3.9969
15 mph	0.0862	0.0008	0.0050	0.0207	0.4487	0.2528	0.6908	3.6297	5.1345
25 mph	0.0000	0.0000	0.0000	0.0000	0.4525	0.2150	1.5969	8.0723	10.3366
35 mph	0.2086	0.0043	0.0109	0.0192	0.0000	0.0000	0.0000	0.0000	0.2430
total	0.2948	0.0051	0.0159	0.0398	2.7909	1.6259	2.5293	12.4093	19.7111

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	1.8898	1.1581	0.2416	0.7073	3.9969
10 mph	0.4070	0.0029	0.0237	0.0633	1.7106	1.0050	3.1841	16.7405	23.1372
15 mph	0.1312	0.0012	0.0075	0.0276	0.6500	0.3662	1.3320	6.9991	9.5148
20 mph	0.1275	0.0018	0.0070	0.0194	0.7504	0.3785	2.2664	11.6645	15.2156
25 mph	0.3017	0.0053	0.0162	0.0440	2.3369	1.1104	7.1301	36.0436	46.9882
30 mph	0.2305	0.0044	0.0122	0.0335	1.5862	0.7281	4.8721	24.6262	32.0933
35 mph	0.3336	0.0069	0.0175	0.0377	1.0203	0.4492	2.8315	14.2897	18.9865
40 mph	0.0688	0.0016	0.0035	0.0107	0.7161	0.3026	2.2752	11.5324	14.9109
45 mph	0.0838	0.0022	0.0042	0.0134	1.0872	0.4413	1.3984	7.1098	10.1403
50 mph	0.0670	0.0020	0.0032	0.0104	0.9684	0.3759	0.8258	4.1816	6.4343
55 mph	0.0636	0.0023	0.0029	0.0090	0.9379	0.3481	0.1303	0.6702	2.1644
60 mph	0.0367	0.0015	0.0016	0.0049	0.5783	0.2063	6.2785	32.0080	39.1159
65 mph	0.0088	0.0004	0.0004	0.0013	0.2164	0.0740	0.0000	0.0000	0.3012
70 mph	0.1971	0.0092	0.0085	0.0312	9.6318	3.2310	0.0000	0.0000	13.1087
total	2.0573	0.0418	0.1086	0.3064	24.0803	10.1749	32.7660	166.5729	236.1082

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	10.13	4.01	8.46	1.63	24.23
10 mph	13.37	2.34	6.43	1.85	2.82	1.12	3.30	19.33	50.55
15 mph	7.80	1.35	3.78	1.45	1.31	0.44	1.39	8.40	25.93
20 mph	16.74	2.88	8.18	2.34	2.07	0.53	2.40	14.68	49.82
25 mph	57.99	9.77	28.39	7.97	7.50	1.70	7.66	47.92	168.90
30 mph	52.78	8.73	25.87	7.36	5.38	1.17	5.33	34.75	141.38
35 mph	86.69	14.12	42.57	9.59	3.54	0.74	3.16	21.66	182.07
40 mph	19.57	3.18	9.61	3.03	2.51	0.51	2.61	18.98	60.00
45 mph	25.22	4.12	12.38	4.14	3.82	0.75	1.66	12.87	64.96
50 mph	20.76	3.41	10.19	3.41	3.32	0.63	1.02	8.47	51.21
55 mph	19.73	3.29	9.71	3.12	3.17	0.58	0.17	1.53	41.30
60 mph	10.55	1.79	5.18	1.65	1.89	0.34	8.30	77.02	106.72
65 mph	2.22	0.38	1.09	0.40	0.64	0.11	0.00	0.00	4.85
70 mph	49.84	8.24	24.34	9.56	19.17	4.10	0.00	0.00	115.25
total	383.27	63.61	187.73	55.86	67.29	16.74	45.47	267.24	**1,087.19**

World Logistics Center

Mobile Emissions - 2025 Phase 1 (Project) - Mitigated

PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.0402	0.0337	0.0339	0.0345
10 mph	0.0075	0.0098	0.0075	0.0075	0.0051	0.0042	0.0043	0.0043
15 mph	0.0050	0.0066	0.0050	0.0050	0.0034	0.0028	0.0029	0.0029
20 mph	0.0035	0.0047	0.0035	0.0035	0.0024	0.0020	0.0020	0.0020
25 mph	0.0026	0.0035	0.0026	0.0026	0.0018	0.0015	0.0015	0.0015
30 mph	0.0020	0.0027	0.0020	0.0020	0.0014	0.0011	0.0011	0.0012
35 mph	0.0017	0.0022	0.0017	0.0017	0.0012	0.0009	0.0009	0.0010
40 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
45 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0007	0.0007	0.0008
50 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
55 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
60 mph	0.0014	0.0018	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
65 mph	0.0016	0.0020	0.0016	0.0016	0.0011	0.0009		
70 mph	0.0017	0.0021	0.0017	0.0017	0.0012	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.6569	0.6555	0.0014	0.0015
10 mph	0.0178	0.2161	0.0101	0.0090	0.0371	0.0270	0.0053	0.0109
15 mph	0.0142	0.1606	0.0085	0.0074	0.0275	0.0214	0.0046	0.0093
20 mph	0.0111	0.1227	0.0072	0.0061	0.0226	0.0178	0.0041	0.0080
25 mph	0.0088	0.0964	0.0060	0.0051	0.0186	0.0149	0.0037	0.0072
30 mph	0.0073	0.0789	0.0053	0.0044	0.0162	0.0131	0.0034	0.0066
35 mph	0.0062	0.0671	0.0047	0.0039	0.0148	0.0119	0.0032	0.0061
40 mph	0.0056	0.0609	0.0043	0.0036	0.0137	0.0110	0.0030	0.0057
45 mph	0.0053	0.0585	0.0040	0.0034	0.0130	0.0103	0.0028	0.0054
50 mph	0.0052	0.0582	0.0038	0.0032	0.0127	0.0099	0.0026	0.0051
55 mph	0.0052	0.0608	0.0036	0.0031	0.0126	0.0096	0.0025	0.0049
60 mph	0.0055	0.0664	0.0036	0.0032	0.0130	0.0097	0.0024	0.0047
65 mph	0.0058	0.0734	0.0036	0.0033	0.0147	0.0105		
70 mph	0.0048	0.0716	0.0036	0.0035	0.0228	0.0149		

*Idling emission factor - g/hour

Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1159	0.0121	0.0466	0.0088	0.0035	0.0010	0.0017	0.0002	0.1897
15 mph	0.0171	0.0018	0.0069	0.0013	0.0005	0.0001	0.0003	0.0000	0.0282
20 mph	0.0722	0.0078	0.0290	0.0055	0.0022	0.0006	0.0007	0.0001	0.1179
25 mph	0.2224	0.0241	0.0892	0.0169	0.0067	0.0019	0.0021	0.0003	0.3635
30 mph	0.1665	0.0180	0.0667	0.0126	0.0051	0.0014	0.0013	0.0002	0.2717
35 mph	0.0798	0.0086	0.0320	0.0060	0.0024	0.0007	0.0004	0.0001	0.1300
40 mph	0.0297	0.0032	0.0119	0.0022	0.0009	0.0002	0.0003	0.0000	0.0485
45 mph	0.0181	0.0019	0.0072	0.0014	0.0006	0.0002	0.0004	0.0001	0.0298
50 mph	0.0175	0.0019	0.0070	0.0013	0.0005	0.0001	0.0004	0.0001	0.0288
55 mph	0.0311	0.0033	0.0124	0.0023	0.0010	0.0003	0.0000	0.0000	0.0505
60 mph	0.0214	0.0023	0.0086	0.0016	0.0007	0.0002	0.0002	0.0000	0.0349
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.7917	0.0849	0.3174	0.0599	0.0240	0.0066	0.0078	0.0011	1.2935

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0111	0.0012	0.0045	0.0011	0.0006	0.0002	0.0004	0.0001	0.0190
25 mph	0.0123	0.0013	0.0049	0.0012	0.0006	0.0002	0.0006	0.0001	0.0213
30 mph	0.0160	0.0017	0.0064	0.0015	0.0008	0.0002	0.0012	0.0002	0.0281
35 mph	0.0211	0.0023	0.0084	0.0020	0.0011	0.0003	0.0012	0.0002	0.0365
40 mph	0.0274	0.0029	0.0110	0.0026	0.0014	0.0004	0.0012	0.0002	0.0471
45 mph	0.0543	0.0058	0.0217	0.0051	0.0028	0.0008	0.0008	0.0001	0.0915
50 mph	0.0443	0.0047	0.0177	0.0042	0.0023	0.0006	0.0005	0.0001	0.0744
55 mph	0.0328	0.0035	0.0131	0.0031	0.0017	0.0005	0.0002	0.0000	0.0548
60 mph	0.0176	0.0019	0.0070	0.0017	0.0009	0.0002	0.0117	0.0017	0.0427
65 mph	0.0099	0.0010	0.0040	0.0009	0.0005	0.0001	0.0000	0.0000	0.0165
70 mph	0.2530	0.0255	0.1014	0.0234	0.0128	0.0035	0.0000	0.0000	0.4197
total	0.4999	0.0519	0.2003	0.0467	0.0256	0.0070	0.0178	0.0025	0.8516

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
15 mph	0.0328	0.0035	0.0132	0.0039	0.0011	0.0003	0.0003	0.0000	0.0553
25 mph	0.0000	0.0000	0.0000	0.0000	0.0018	0.0005	0.0008	0.0001	0.0031
35 mph	0.1684	0.0181	0.0674	0.0083	0.0000	0.0000	0.0000	0.0000	0.2622
total	0.2012	0.0216	0.0806	0.0122	0.0056	0.0016	0.0020	0.0003	0.3250

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0008	0.0009	0.0001	0.0044
10 mph	0.1159	0.0121	0.0466	0.0088	0.0035	0.0010	0.0017	0.0002	0.1897
15 mph	0.0500	0.0053	0.0201	0.0052	0.0017	0.0005	0.0007	0.0001	0.0834
20 mph	0.0833	0.0090	0.0334	0.0065	0.0027	0.0008	0.0011	0.0002	0.1370
25 mph	0.2347	0.0254	0.0941	0.0180	0.0091	0.0025	0.0035	0.0005	0.3879
30 mph	0.1825	0.0197	0.0731	0.0141	0.0059	0.0016	0.0025	0.0004	0.2998
35 mph	0.2693	0.0290	0.1078	0.0163	0.0035	0.0010	0.0016	0.0002	0.4287
40 mph	0.0571	0.0061	0.0229	0.0048	0.0023	0.0006	0.0015	0.0002	0.0956
45 mph	0.0724	0.0078	0.0290	0.0065	0.0034	0.0009	0.0012	0.0002	0.1213
50 mph	0.0618	0.0066	0.0247	0.0055	0.0028	0.0008	0.0009	0.0001	0.1032
55 mph	0.0639	0.0068	0.0256	0.0054	0.0027	0.0007	0.0002	0.0000	0.1053
60 mph	0.0390	0.0041	0.0156	0.0033	0.0016	0.0004	0.0119	0.0017	0.0776
65 mph	0.0099	0.0010	0.0040	0.0009	0.0005	0.0001	0.0000	0.0000	0.0165
70 mph	0.2530	0.0255	0.1014	0.0234	0.0128	0.0035	0.0000	0.0000	0.4197
total	1.4928	0.1584	0.5983	0.1188	0.0552	0.0151	0.0276	0.0039	2.4701

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0032	0.0003	0.0001	0.0002	0.0270	0.0120	0.0163	0.0625	0.1218
15 mph	0.0006	0.0000	0.0000	0.0000	0.0045	0.0021	0.0040	0.0152	0.0265
20 mph	0.0027	0.0002	0.0001	0.0002	0.0219	0.0106	0.0107	0.0395	0.0859
25 mph	0.0089	0.0006	0.0004	0.0007	0.0754	0.0370	0.0408	0.1468	0.3106
30 mph	0.0070	0.0005	0.0004	0.0006	0.0631	0.0312	0.0300	0.1081	0.2409
35 mph	0.0035	0.0003	0.0002	0.0003	0.0335	0.0165	0.0112	0.0402	0.1056
40 mph	0.0014	0.0001	0.0001	0.0001	0.0133	0.0065	0.0091	0.0330	0.0636
45 mph	0.0009	0.0001	0.0000	0.0001	0.0084	0.0041	0.0110	0.0399	0.0644
50 mph	0.0008	0.0001	0.0000	0.0001	0.0082	0.0039	0.0127	0.0456	0.0714
55 mph	0.0015	0.0001	0.0001	0.0001	0.0142	0.0067	0.0011	0.0040	0.0277
60 mph	0.0010	0.0001	0.0000	0.0001	0.0094	0.0043	0.0042	0.0153	0.0345
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0313	0.0023	0.0015	0.0026	0.2790	0.1350	0.1511	0.5501	1.1529

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0004	0.0000	0.0000	0.0000	0.0056	0.0027	0.0068	0.0249	0.0405
25 mph	0.0005	0.0000	0.0000	0.0000	0.0070	0.0034	0.0123	0.0443	0.0677
30 mph	0.0007	0.0000	0.0000	0.0001	0.0101	0.0050	0.0284	0.1020	0.1464
35 mph	0.0009	0.0001	0.0000	0.0001	0.0148	0.0073	0.0316	0.1138	0.1686
40 mph	0.0012	0.0001	0.0001	0.0001	0.0206	0.0101	0.0344	0.1245	0.1911
45 mph	0.0026	0.0002	0.0001	0.0003	0.0422	0.0205	0.0231	0.0837	0.1726
50 mph	0.0021	0.0002	0.0001	0.0002	0.0349	0.0167	0.0130	0.0470	0.1142
55 mph	0.0015	0.0001	0.0001	0.0002	0.0251	0.0118	0.0041	0.0151	0.0580
60 mph	0.0008	0.0001	0.0000	0.0001	0.0129	0.0059	0.2792	1.0135	1.3126
65 mph	0.0004	0.0000	0.0000	0.0000	0.0074	0.0032	0.0000	0.0000	0.0111
70 mph	0.0084	0.0008	0.0004	0.0011	0.2683	0.1072	0.0000	0.0000	0.3862
total	0.0196	0.0017	0.0010	0.0023	0.4489	0.1938	0.4329	1.5687	2.6689

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0003	0.0006	0.0769
15 mph	0.0011	0.0001	0.0000	0.0001	0.0099	0.0047	0.0043	0.0164	0.0367
25 mph	0.0000	0.0000	0.0000	0.0000	0.0198	0.0097	0.0153	0.0552	0.1000
35 mph	0.0073	0.0005	0.0004	0.0004	0.0000	0.0000	0.0000	0.0000	0.0087
total	0.0084	0.0006	0.0004	0.0005	0.0769	0.0433	0.0199	0.0721	0.2222

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0472	0.0289	0.0003	0.0006	0.0769
10 mph	0.0032	0.0003	0.0001	0.0002	0.0270	0.0120	0.0163	0.0625	0.1218
15 mph	0.0017	0.0001	0.0001	0.0002	0.0144	0.0068	0.0083	0.0316	0.0632
20 mph	0.0031	0.0002	0.0001	0.0002	0.0276	0.0133	0.0175	0.0644	0.1264
25 mph	0.0094	0.0007	0.0005	0.0008	0.1021	0.0501	0.0684	0.2463	0.4782
30 mph	0.0077	0.0006	0.0004	0.0007	0.0732	0.0362	0.0584	0.2101	0.3873
35 mph	0.0117	0.0008	0.0006	0.0008	0.0483	0.0238	0.0427	0.1540	0.2828
40 mph	0.0026	0.0002	0.0001	0.0003	0.0339	0.0166	0.0435	0.1574	0.2547
45 mph	0.0034	0.0003	0.0002	0.0004	0.0506	0.0246	0.0341	0.1235	0.2370
50 mph	0.0029	0.0002	0.0002	0.0003	0.0431	0.0206	0.0257	0.0926	0.1856
55 mph	0.0030	0.0002	0.0001	0.0003	0.0394	0.0184	0.0052	0.0191	0.0857
60 mph	0.0018	0.0001	0.0001	0.0002	0.0224	0.0102	0.2835	1.0288	1.3471
65 mph	0.0004	0.0000	0.0000	0.0000	0.0074	0.0032	0.0000	0.0000	0.0111
70 mph	0.0084	0.0008	0.0004	0.0011	0.2683	0.1072	0.0000	0.0000	0.3862
total	0.0593	0.0046	0.0030	0.0054	0.8048	0.3721	0.6039	2.1909	4.0440

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.12	0.01	0.05	0.01	0.03	0.01	0.02	0.06	0.31
15 mph	0.05	0.01	0.02	0.01	0.02	0.01	0.01	0.03	0.15
20 mph	0.09	0.01	0.03	0.01	0.03	0.01	0.02	0.06	0.26
25 mph	0.24	0.03	0.09	0.02	0.11	0.05	0.07	0.25	0.87
30 mph	0.19	0.02	0.07	0.01	0.08	0.04	0.06	0.21	0.69
35 mph	0.28	0.03	0.11	0.02	0.05	0.02	0.04	0.15	0.71
40 mph	0.06	0.01	0.02	0.01	0.04	0.02	0.05	0.16	0.35
45 mph	0.08	0.01	0.03	0.01	0.05	0.03	0.04	0.12	0.36
50 mph	0.06	0.01	0.02	0.01	0.05	0.02	0.03	0.09	0.29
55 mph	0.07	0.01	0.03	0.01	0.04	0.02	0.01	0.02	0.19
60 mph	0.04	0.00	0.02	0.00	0.02	0.01	0.30	1.03	1.42
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03
70 mph	0.26	0.03	0.10	0.02	0.28	0.11	0.00	0.00	0.81
total	1.55	0.16	0.60	0.12	0.86	0.39	0.63	2.19	**6.51**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	15.45	1.23	6.17	1.16	1.26	0.49	0.80	0.06
Diesel	0.18	0.00	0.01	0.03	1.43	1.00	6.28	8.02
Electric	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	16.71	1.24	6.18	1.19	2.69	1.49	7.07	8.09

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	14.26	1.14	5.70	1.34	1.94	0.76	3.01	0.24
Diesel	0.17	0.00	0.01	0.03	2.21	1.55	23.70	30.29
Electric	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	15.46	1.14	5.71	1.37	4.15	2.30	26.71	30.54

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.86	0.39	1.94	0.26	0.11	0.04	0.09	0.01
Diesel	0.06	0.00	0.00	0.01	0.13	0.09	0.72	0.93
Electric	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	5.26	0.39	1.94	0.26	0.24	0.13	0.82	0.93

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	34.57	2.76	13.80	2.76	3.31	1.29	3.90	0.31	62.71
Diesel	0.40	0.00	0.03	0.06	3.77	2.64	30.71	39.24	76.85
Electric	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46
Total	37.42	2.76	13.83	2.82	7.08	3.93	34.60	39.56	**142.01**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	503.33
Internal	29.26
Total	**532.59**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.0370	0.0310	0.0311	0.0317
10 mph	0.0069	0.0090	0.0069	0.0069	0.0047	0.0039	0.0040	0.0040
15 mph	0.0046	0.0061	0.0046	0.0046	0.0032	0.0026	0.0026	0.0026
20 mph	0.0032	0.0043	0.0032	0.0032	0.0022	0.0018	0.0018	0.0018
25 mph	0.0024	0.0032	0.0024	0.0024	0.0017	0.0014	0.0014	0.0014
30 mph	0.0018	0.0025	0.0019	0.0019	0.0013	0.0011	0.0011	0.0011
35 mph	0.0015	0.0020	0.0015	0.0015	0.0011	0.0009	0.0009	0.0009
40 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0008	0.0008	0.0008
45 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
50 mph	0.0012	0.0016	0.0012	0.0012	0.0008	0.0007	0.0007	0.0007
55 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
60 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
65 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008		
70 mph	0.0016	0.0020	0.0016	0.0015	0.0011	0.0009		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.6285	0.6272	0.0013	0.0014
10 mph	0.0170	0.2067	0.0096	0.0086	0.0355	0.0258	0.0051	0.0104
15 mph	0.0135	0.1537	0.0082	0.0071	0.0263	0.0204	0.0044	0.0089
20 mph	0.0106	0.1174	0.0068	0.0058	0.0216	0.0170	0.0039	0.0077
25 mph	0.0085	0.0923	0.0058	0.0049	0.0178	0.0143	0.0035	0.0068
30 mph	0.0070	0.0755	0.0050	0.0042	0.0155	0.0125	0.0033	0.0063
35 mph	0.0059	0.0642	0.0045	0.0037	0.0141	0.0114	0.0030	0.0059
40 mph	0.0054	0.0583	0.0041	0.0034	0.0131	0.0105	0.0028	0.0055
45 mph	0.0051	0.0560	0.0038	0.0032	0.0124	0.0099	0.0027	0.0052
50 mph	0.0049	0.0557	0.0036	0.0031	0.0121	0.0095	0.0025	0.0048
55 mph	0.0049	0.0581	0.0035	0.0030	0.0120	0.0092	0.0024	0.0047
60 mph	0.0052	0.0635	0.0034	0.0030	0.0124	0.0092	0.0023	0.0045
65 mph	0.0055	0.0702	0.0035	0.0032	0.0141	0.0101		
70 mph	0.0046	0.0685	0.0034	0.0033	0.0219	0.0143		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1066	0.0112	0.0428	0.0080	0.0032	0.0009	0.0015	0.0002	0.1744
15 mph	0.0158	0.0017	0.0063	0.0012	0.0005	0.0001	0.0003	0.0000	0.0259
20 mph	0.0664	0.0072	0.0266	0.0050	0.0020	0.0006	0.0006	0.0001	0.1084
25 mph	0.2045	0.0221	0.0820	0.0155	0.0062	0.0017	0.0019	0.0003	0.3342
30 mph	0.1531	0.0165	0.0613	0.0116	0.0047	0.0013	0.0012	0.0002	0.2498
35 mph	0.0734	0.0079	0.0294	0.0055	0.0022	0.0006	0.0004	0.0001	0.1195
40 mph	0.0273	0.0029	0.0109	0.0021	0.0008	0.0002	0.0003	0.0000	0.0446
45 mph	0.0166	0.0018	0.0067	0.0013	0.0005	0.0001	0.0003	0.0000	0.0274
50 mph	0.0161	0.0017	0.0064	0.0012	0.0005	0.0001	0.0004	0.0001	0.0265
55 mph	0.0286	0.0030	0.0114	0.0022	0.0009	0.0002	0.0000	0.0000	0.0464
60 mph	0.0197	0.0021	0.0079	0.0015	0.0006	0.0002	0.0002	0.0000	0.0321
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.7280	0.0781	0.2919	0.0551	0.0221	0.0061	0.0072	0.0010	1.1894

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0102	0.0011	0.0041	0.0010	0.0005	0.0001	0.0004	0.0001	0.0175
25 mph	0.0113	0.0012	0.0045	0.0011	0.0006	0.0002	0.0006	0.0001	0.0196
30 mph	0.0147	0.0016	0.0059	0.0014	0.0007	0.0002	0.0011	0.0002	0.0258
35 mph	0.0194	0.0021	0.0078	0.0018	0.0010	0.0003	0.0011	0.0002	0.0335
40 mph	0.0252	0.0027	0.0101	0.0024	0.0013	0.0004	0.0011	0.0002	0.0433
45 mph	0.0499	0.0054	0.0200	0.0047	0.0026	0.0007	0.0007	0.0001	0.0841
50 mph	0.0408	0.0044	0.0163	0.0038	0.0021	0.0006	0.0004	0.0001	0.0684
55 mph	0.0302	0.0032	0.0121	0.0028	0.0016	0.0004	0.0001	0.0000	0.0504
60 mph	0.0162	0.0017	0.0065	0.0015	0.0008	0.0002	0.0108	0.0015	0.0393
65 mph	0.0091	0.0009	0.0037	0.0009	0.0005	0.0001	0.0000	0.0000	0.0152
70 mph	0.2326	0.0234	0.0932	0.0215	0.0118	0.0032	0.0000	0.0000	0.3859
total	0.4596	0.0477	0.1842	0.0429	0.0235	0.0064	0.0164	0.0023	0.7830

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
15 mph	0.0302	0.0032	0.0121	0.0036	0.0011	0.0003	0.0003	0.0000	0.0508
25 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0004	0.0007	0.0001	0.0029
35 mph	0.1548	0.0166	0.0620	0.0076	0.0000	0.0000	0.0000	0.0000	0.2411
total	0.1850	0.0199	0.0741	0.0112	0.0051	0.0014	0.0018	0.0003	0.2988

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0024	0.0007	0.0008	0.0001	0.0040
10 mph	0.1066	0.0112	0.0428	0.0080	0.0032	0.0009	0.0015	0.0002	0.1744
15 mph	0.0460	0.0049	0.0184	0.0048	0.0015	0.0004	0.0006	0.0001	0.0767
20 mph	0.0766	0.0083	0.0307	0.0060	0.0025	0.0007	0.0010	0.0001	0.1259
25 mph	0.2158	0.0233	0.0865	0.0166	0.0084	0.0023	0.0032	0.0005	0.3566
30 mph	0.1678	0.0181	0.0672	0.0130	0.0054	0.0015	0.0023	0.0003	0.2757
35 mph	0.2476	0.0266	0.0991	0.0150	0.0032	0.0009	0.0015	0.0002	0.3941
40 mph	0.0525	0.0056	0.0210	0.0044	0.0021	0.0006	0.0014	0.0002	0.0879
45 mph	0.0666	0.0072	0.0267	0.0060	0.0031	0.0008	0.0011	0.0002	0.1115
50 mph	0.0568	0.0061	0.0227	0.0051	0.0026	0.0007	0.0008	0.0001	0.0949
55 mph	0.0587	0.0062	0.0235	0.0050	0.0025	0.0007	0.0002	0.0000	0.0968
60 mph	0.0359	0.0038	0.0144	0.0030	0.0015	0.0004	0.0109	0.0016	0.0714
65 mph	0.0091	0.0009	0.0037	0.0009	0.0005	0.0001	0.0000	0.0000	0.0152
70 mph	0.2326	0.0234	0.0932	0.0215	0.0118	0.0032	0.0000	0.0000	0.3859
total	1.3726	0.1457	0.5501	0.1092	0.0507	0.0139	0.0253	0.0036	2.2712

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0031	0.0002	0.0001	0.0002	0.0259	0.0115	0.0156	0.0598	0.1165
15 mph	0.0005	0.0000	0.0000	0.0000	0.0043	0.0020	0.0038	0.0146	0.0253
20 mph	0.0026	0.0002	0.0001	0.0002	0.0210	0.0101	0.0103	0.0378	0.0822
25 mph	0.0085	0.0006	0.0004	0.0007	0.0721	0.0354	0.0390	0.1404	0.2972
30 mph	0.0067	0.0005	0.0003	0.0006	0.0604	0.0298	0.0287	0.1034	0.2305
35 mph	0.0033	0.0002	0.0002	0.0003	0.0320	0.0158	0.0107	0.0384	0.1010
40 mph	0.0013	0.0001	0.0001	0.0001	0.0128	0.0063	0.0087	0.0315	0.0608
45 mph	0.0008	0.0001	0.0000	0.0001	0.0080	0.0039	0.0105	0.0382	0.0616
50 mph	0.0008	0.0001	0.0000	0.0001	0.0079	0.0038	0.0121	0.0436	0.0683
55 mph	0.0014	0.0001	0.0001	0.0001	0.0136	0.0064	0.0010	0.0038	0.0265
60 mph	0.0009	0.0001	0.0000	0.0001	0.0090	0.0041	0.0040	0.0147	0.0330
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0300	0.0022	0.0015	0.0024	0.2669	0.1291	0.1446	0.5263	1.1030

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0004	0.0000	0.0000	0.0000	0.0054	0.0026	0.0065	0.0238	0.0387
25 mph	0.0005	0.0000	0.0000	0.0000	0.0067	0.0033	0.0118	0.0424	0.0647
30 mph	0.0006	0.0000	0.0000	0.0001	0.0097	0.0048	0.0271	0.0976	0.1400
35 mph	0.0009	0.0001	0.0000	0.0001	0.0141	0.0070	0.0302	0.1089	0.1613
40 mph	0.0012	0.0001	0.0001	0.0001	0.0197	0.0097	0.0329	0.1191	0.1828
45 mph	0.0025	0.0002	0.0001	0.0003	0.0404	0.0196	0.0221	0.0800	0.1651
50 mph	0.0020	0.0002	0.0001	0.0002	0.0334	0.0160	0.0125	0.0449	0.1092
55 mph	0.0015	0.0001	0.0001	0.0002	0.0240	0.0113	0.0039	0.0144	0.0554
60 mph	0.0008	0.0001	0.0000	0.0001	0.0124	0.0057	0.2672	0.9696	1.2558
65 mph	0.0004	0.0000	0.0000	0.0000	0.0070	0.0031	0.0000	0.0000	0.0106
70 mph	0.0080	0.0008	0.0004	0.0010	0.2567	0.1026	0.0000	0.0000	0.3695
total	0.0187	0.0016	0.0010	0.0022	0.4295	0.1855	0.4142	1.5008	2.5534

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0003	0.0005	0.0736
15 mph	0.0010	0.0001	0.0000	0.0001	0.0095	0.0045	0.0041	0.0157	0.0351
25 mph	0.0000	0.0000	0.0000	0.0000	0.0189	0.0093	0.0147	0.0528	0.0956
35 mph	0.0070	0.0005	0.0004	0.0004	0.0000	0.0000	0.0000	0.0000	0.0083
total	0.0081	0.0006	0.0004	0.0005	0.0736	0.0414	0.0191	0.0690	0.2126

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0452	0.0276	0.0003	0.0005	0.0736
10 mph	0.0031	0.0002	0.0001	0.0002	0.0259	0.0115	0.0156	0.0598	0.1165
15 mph	0.0016	0.0001	0.0001	0.0002	0.0138	0.0065	0.0080	0.0302	0.0604
20 mph	0.0029	0.0002	0.0001	0.0002	0.0264	0.0127	0.0168	0.0616	0.1210
25 mph	0.0090	0.0007	0.0004	0.0007	0.0977	0.0480	0.0654	0.2356	0.4575
30 mph	0.0074	0.0005	0.0004	0.0006	0.0701	0.0346	0.0559	0.2010	0.3705
35 mph	0.0112	0.0008	0.0006	0.0008	0.0462	0.0228	0.0409	0.1473	0.2706
40 mph	0.0025	0.0002	0.0001	0.0002	0.0325	0.0159	0.0416	0.1506	0.2437
45 mph	0.0033	0.0002	0.0002	0.0003	0.0484	0.0235	0.0326	0.1182	0.2268
50 mph	0.0028	0.0002	0.0001	0.0003	0.0412	0.0197	0.0246	0.0886	0.1776
55 mph	0.0029	0.0002	0.0001	0.0003	0.0377	0.0176	0.0050	0.0182	0.0820
60 mph	0.0017	0.0001	0.0001	0.0002	0.0214	0.0098	0.2712	0.9843	1.2888
65 mph	0.0004	0.0000	0.0000	0.0000	0.0070	0.0031	0.0000	0.0000	0.0106
70 mph	0.0080	0.0008	0.0004	0.0010	0.2567	0.1026	0.0000	0.0000	0.3695
total	0.0568	0.0044	0.0028	0.0051	0.7700	0.3560	0.5778	2.0961	3.8691

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.11	0.01	0.04	0.01	0.03	0.01	0.02	0.06	0.29
15 mph	0.05	0.01	0.02	0.00	0.02	0.01	0.01	0.03	0.14
20 mph	0.08	0.01	0.03	0.01	0.03	0.01	0.02	0.06	0.25
25 mph	0.22	0.02	0.09	0.02	0.11	0.05	0.07	0.24	0.81
30 mph	0.18	0.02	0.07	0.01	0.08	0.04	0.06	0.20	0.65
35 mph	0.26	0.03	0.10	0.02	0.05	0.02	0.04	0.15	0.66
40 mph	0.05	0.01	0.02	0.00	0.03	0.02	0.04	0.15	0.33
45 mph	0.07	0.01	0.03	0.01	0.05	0.02	0.03	0.12	0.34
50 mph	0.06	0.01	0.02	0.01	0.04	0.02	0.03	0.09	0.27
55 mph	0.06	0.01	0.02	0.01	0.04	0.02	0.01	0.02	0.18
60 mph	0.04	0.00	0.01	0.00	0.02	0.01	0.28	0.99	1.36
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03
70 mph	0.24	0.02	0.09	0.02	0.27	0.11	0.00	0.00	0.76
total	1.43	0.15	0.55	0.11	0.82	0.37	0.60	2.10	**6.14**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.13	0.49	2.45	0.46	0.52	0.20	0.33	0.02
Diesel	0.07	0.00	0.01	0.01	0.58	0.41	2.60	2.91
Electric	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.63	0.49	2.45	0.47	1.10	0.61	2.93	2.94

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5.66	0.45	2.26	0.53	0.80	0.31	1.24	0.09
Diesel	0.07	0.00	0.00	0.01	0.89	0.63	9.80	10.99
Electric	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.13	0.45	2.26	0.54	1.69	0.94	11.05	11.08

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.93	0.15	0.77	0.10	0.05	0.02	0.04	0.00
Diesel	0.02	0.00	0.00	0.00	0.05	0.04	0.30	0.34
Electric	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.09	0.15	0.77	0.10	0.10	0.05	0.34	0.34

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	13.71	1.09	5.47	1.10	1.36	0.53	1.61	0.12	25.01
Diesel	0.16	0.00	0.01	0.02	1.52	1.08	12.70	14.24	29.73
Electric	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
Total	14.84	1.10	5.49	1.12	2.89	1.61	14.31	14.36	**55.71**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	123.55
Internal	7.18
Total	**130.73**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.06
10 mph	0.07	0.01	0.03	0.01	0.02	0.01	0.01	0.05	0.20
15 mph	0.03	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.10
20 mph	0.05	0.01	0.02	0.00	0.02	0.01	0.01	0.05	0.17
25 mph	0.14	0.02	0.06	0.01	0.08	0.04	0.05	0.18	0.58
30 mph	0.11	0.01	0.04	0.01	0.06	0.03	0.04	0.16	0.46
35 mph	0.17	0.02	0.06	0.01	0.04	0.02	0.03	0.11	0.46
40 mph	0.04	0.00	0.01	0.00	0.03	0.01	0.03	0.12	0.24
45 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.03	0.09	0.25
50 mph	0.04	0.00	0.01	0.00	0.03	0.02	0.02	0.07	0.20
55 mph	0.04	0.00	0.02	0.00	0.03	0.01	0.00	0.01	0.13
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.22	0.76	1.04
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02
70 mph	0.15	0.02	0.06	0.01	0.21	0.08	0.00	0.00	0.53
total	0.91	0.10	0.35	0.07	0.63	0.28	0.46	1.62	4.44

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0559	0.0082	0.0409	0.0077	0.0090	0.0030	0.0052	0.0007	0.1308
15 mph	0.0124	0.0018	0.0091	0.0017	0.0020	0.0007	0.0015	0.0002	0.0294
20 mph	0.0746	0.0109	0.0546	0.0103	0.0120	0.0040	0.0045	0.0006	0.1715
25 mph	0.3107	0.0455	0.2274	0.0429	0.0500	0.0169	0.0187	0.0026	0.7147
30 mph	0.2983	0.0436	0.2183	0.0412	0.0480	0.0162	0.0150	0.0021	0.6827
35 mph	0.1740	0.0255	0.1274	0.0240	0.0280	0.0094	0.0060	0.0008	0.3951
40 mph	0.0746	0.0109	0.0546	0.0103	0.0120	0.0040	0.0052	0.0007	0.1724
45 mph	0.0497	0.0073	0.0364	0.0069	0.0080	0.0027	0.0067	0.0009	0.1186
50 mph	0.0497	0.0073	0.0364	0.0069	0.0080	0.0027	0.0082	0.0012	0.1203
55 mph	0.0870	0.0127	0.0637	0.0120	0.0140	0.0047	0.0007	0.0001	0.1950
60 mph	0.0559	0.0082	0.0409	0.0077	0.0090	0.0030	0.0030	0.0004	0.1282
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2428	0.1819	0.9097	0.1717	0.1999	0.0675	0.0750	0.0105	2.8589

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0115	0.0017	0.0084	0.0020	0.0031	0.0010	0.0028	0.0004	0.0309
25 mph	0.0172	0.0025	0.0126	0.0030	0.0046	0.0016	0.0057	0.0008	0.0479
30 mph	0.0287	0.0042	0.0210	0.0049	0.0077	0.0026	0.0142	0.0020	0.0853
35 mph	0.0459	0.0067	0.0336	0.0079	0.0123	0.0042	0.0170	0.0024	0.1300
40 mph	0.0688	0.0101	0.0504	0.0119	0.0185	0.0062	0.0198	0.0028	0.1886
45 mph	0.1492	0.0218	0.1092	0.0257	0.0401	0.0135	0.0142	0.0020	0.3757
50 mph	0.1262	0.0185	0.0924	0.0218	0.0339	0.0115	0.0085	0.0012	0.3139
55 mph	0.0918	0.0134	0.0672	0.0158	0.0247	0.0083	0.0028	0.0004	0.2245
60 mph	0.0459	0.0067	0.0336	0.0079	0.0123	0.0042	0.1982	0.0279	0.3367
65 mph	0.0229	0.0034	0.0168	0.0040	0.0062	0.0021	0.0000	0.0000	0.0553
70 mph	0.5393	0.0789	0.3948	0.0930	0.1450	0.0490	0.0000	0.0000	1.3000
total	1.1475	0.1679	0.8399	0.1980	0.3086	0.1042	0.2831	0.0398	3.0889

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
15 mph	0.0238	0.0035	0.0174	0.0051	0.0045	0.0015	0.0016	0.0002	0.0577
25 mph	0.0000	0.0000	0.0000	0.0000	0.0131	0.0044	0.0070	0.0010	0.0256
35 mph	0.3669	0.0537	0.2686	0.0330	0.0000	0.0000	0.0000	0.0000	0.7223
total	0.3908	0.0572	0.2860	0.0382	0.0185	0.0062	0.0090	0.0013	0.8071

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0003	0.0000	0.0016
10 mph	0.0559	0.0082	0.0409	0.0077	0.0090	0.0030	0.0052	0.0007	0.1308
15 mph	0.0362	0.0053	0.0265	0.0068	0.0065	0.0022	0.0031	0.0004	0.0871
20 mph	0.0860	0.0126	0.0630	0.0123	0.0151	0.0051	0.0073	0.0010	0.2024
25 mph	0.3279	0.0480	0.2400	0.0459	0.0677	0.0229	0.0314	0.0044	0.7882
30 mph	0.3269	0.0478	0.2393	0.0461	0.0557	0.0188	0.0291	0.0041	0.7680
35 mph	0.5868	0.0859	0.4296	0.0650	0.0403	0.0136	0.0230	0.0032	1.2474
40 mph	0.1434	0.0210	0.1050	0.0222	0.0305	0.0103	0.0251	0.0035	0.3610
45 mph	0.1989	0.0291	0.1456	0.0326	0.0481	0.0162	0.0209	0.0029	0.4944
50 mph	0.1759	0.0257	0.1288	0.0286	0.0419	0.0142	0.0167	0.0024	0.4343
55 mph	0.1788	0.0262	0.1309	0.0279	0.0387	0.0131	0.0036	0.0005	0.4195
60 mph	0.1018	0.0149	0.0745	0.0156	0.0213	0.0072	0.2012	0.0283	0.4649
65 mph	0.0229	0.0034	0.0168	0.0040	0.0062	0.0021	0.0000	0.0000	0.0553
70 mph	0.5393	0.0789	0.3948	0.0930	0.1450	0.0490	0.0000	0.0000	1.3000
total	2.7810	0.4070	2.0357	0.4078	0.5269	0.1779	0.3671	0.0516	6.7548

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0001	0.0035	0.0021	0.0148	0.0276	0.0484
15 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0005	0.0042	0.0079	0.0134
20 mph	0.0002	0.0000	0.0000	0.0002	0.0047	0.0029	0.0127	0.0236	0.0443
25 mph	0.0010	0.0000	0.0001	0.0007	0.0194	0.0119	0.0529	0.0985	0.1845
30 mph	0.0010	0.0000	0.0001	0.0006	0.0186	0.0114	0.0423	0.0788	0.1529
35 mph	0.0006	0.0000	0.0001	0.0004	0.0109	0.0067	0.0169	0.0315	0.0670
40 mph	0.0002	0.0000	0.0000	0.0002	0.0047	0.0029	0.0148	0.0276	0.0503
45 mph	0.0002	0.0000	0.0000	0.0001	0.0031	0.0019	0.0191	0.0355	0.0598
50 mph	0.0002	0.0000	0.0000	0.0001	0.0031	0.0019	0.0233	0.0433	0.0719
55 mph	0.0003	0.0000	0.0000	0.0002	0.0054	0.0033	0.0021	0.0039	0.0153
60 mph	0.0002	0.0000	0.0000	0.0001	0.0035	0.0021	0.0085	0.0158	0.0302
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0040	0.0000	0.0004	0.0027	0.0777	0.0476	0.2117	0.3940	0.7381

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0007	0.0080	0.0149	0.0249
25 mph	0.0001	0.0000	0.0000	0.0000	0.0018	0.0011	0.0160	0.0298	0.0488
30 mph	0.0001	0.0000	0.0000	0.0001	0.0030	0.0018	0.0400	0.0744	0.1194
35 mph	0.0001	0.0000	0.0000	0.0001	0.0048	0.0029	0.0480	0.0893	0.1453
40 mph	0.0002	0.0000	0.0000	0.0002	0.0072	0.0044	0.0560	0.1041	0.1721
45 mph	0.0005	0.0000	0.0001	0.0004	0.0156	0.0096	0.0400	0.0744	0.1404
50 mph	0.0004	0.0000	0.0000	0.0003	0.0132	0.0081	0.0240	0.0446	0.0907
55 mph	0.0003	0.0000	0.0000	0.0002	0.0096	0.0059	0.0080	0.0149	0.0389
60 mph	0.0001	0.0000	0.0000	0.0001	0.0048	0.0029	0.5596	1.0414	1.6090
65 mph	0.0001	0.0000	0.0000	0.0001	0.0024	0.0015	0.0000	0.0000	0.0040
70 mph	0.0017	0.0000	0.0002	0.0015	0.0564	0.0345	0.0000	0.0000	0.0943
total	0.0037	0.0000	0.0004	0.0031	0.1199	0.0735	0.7994	1.4877	2.4877

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
15 mph	0.0001	0.0000	0.0000	0.0001	0.0017	0.0011	0.0046	0.0085	0.0160
25 mph	0.0000	0.0000	0.0000	0.0000	0.0051	0.0031	0.0199	0.0370	0.0651
35 mph	0.0012	0.0000	0.0001	0.0005	0.0000	0.0000	0.0000	0.0000	0.0018
total	0.0013	0.0000	0.0001	0.0006	0.0072	0.0044	0.0254	0.0473	0.0863

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0010	0.0018	0.0033
10 mph	0.0002	0.0000	0.0000	0.0001	0.0035	0.0021	0.0148	0.0276	0.0484
15 mph	0.0001	0.0000	0.0000	0.0001	0.0025	0.0015	0.0088	0.0164	0.0294
20 mph	0.0003	0.0000	0.0000	0.0002	0.0059	0.0036	0.0207	0.0385	0.0692
25 mph	0.0011	0.0000	0.0001	0.0007	0.0263	0.0161	0.0888	0.1653	0.2984
30 mph	0.0011	0.0000	0.0001	0.0007	0.0216	0.0133	0.0823	0.1532	0.2723
35 mph	0.0019	0.0000	0.0002	0.0010	0.0157	0.0096	0.0649	0.1208	0.2141
40 mph	0.0005	0.0000	0.0000	0.0003	0.0119	0.0073	0.0708	0.1317	0.2225
45 mph	0.0006	0.0000	0.0001	0.0005	0.0187	0.0115	0.0590	0.1098	0.2002
50 mph	0.0006	0.0000	0.0001	0.0004	0.0163	0.0100	0.0473	0.0880	0.1626
55 mph	0.0006	0.0000	0.0001	0.0004	0.0150	0.0092	0.0101	0.0188	0.0543
60 mph	0.0003	0.0000	0.0000	0.0002	0.0083	0.0051	0.5680	1.0572	1.6392
65 mph	0.0001	0.0000	0.0000	0.0001	0.0024	0.0015	0.0000	0.0000	0.0040
70 mph	0.0017	0.0000	0.0002	0.0015	0.0564	0.0345	0.0000	0.0000	0.0943
total	0.0090	0.0001	0.0010	0.0064	0.2048	0.1255	1.0364	1.9290	3.3121

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.06	0.01	0.04	0.01	0.01	0.01	0.02	0.03	0.18
15 mph	0.04	0.01	0.03	0.01	0.01	0.00	0.01	0.02	0.12
20 mph	0.09	0.01	0.06	0.01	0.02	0.01	0.03	0.04	0.27
25 mph	0.33	0.05	0.24	0.05	0.09	0.04	0.12	0.17	1.09
30 mph	0.33	0.05	0.24	0.05	0.08	0.03	0.11	0.16	1.04
35 mph	0.59	0.09	0.43	0.07	0.06	0.02	0.09	0.12	1.46
40 mph	0.14	0.02	0.11	0.02	0.04	0.02	0.10	0.14	0.58
45 mph	0.20	0.03	0.15	0.03	0.07	0.03	0.08	0.11	0.69
50 mph	0.18	0.03	0.13	0.03	0.06	0.02	0.06	0.09	0.60
55 mph	0.18	0.03	0.13	0.03	0.05	0.02	0.01	0.02	0.47
60 mph	0.10	0.01	0.07	0.02	0.03	0.01	0.77	1.09	2.10
65 mph	0.02	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.06
70 mph	0.54	0.08	0.39	0.09	0.20	0.08	0.00	0.00	1.39
total	2.79	0.41	2.04	0.41	0.73	0.30	1.40	1.98	**10.07**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					5.2744	4.9417	8.4988	3.8682
10 mph	0.0145	0.0339	0.0187	0.0327	0.0477	0.0167	0.0151	0.4890
15 mph	0.0098	0.0235	0.0126	0.0219	0.0329	0.0112	0.0101	0.3238
20 mph	0.0069	0.0170	0.0089	0.0155	0.0240	0.0080	0.0070	0.2269
25 mph	0.0051	0.0126	0.0065	0.0116	0.0182	0.0060	0.0052	0.1675
30 mph	0.0039	0.0099	0.0051	0.0091	0.0145	0.0047	0.0041	0.1305
35 mph	0.0032	0.0080	0.0042	0.0075	0.0122	0.0039	0.0033	0.1073
40 mph	0.0028	0.0069	0.0036	0.0066	0.0109	0.0035	0.0029	0.0931
45 mph	0.0025	0.0063	0.0033	0.0060	0.0101	0.0032	0.0026	0.0852
50 mph	0.0024	0.0060	0.0032	0.0058	0.0099	0.0031	0.0026	0.0822
55 mph	0.0025	0.0061	0.0032	0.0059	0.0103	0.0032	0.0026	0.0837
60 mph	0.0026	0.0064	0.0034	0.0063	0.0112	0.0035	0.0028	0.0899
65 mph	0.0029	0.0069	0.0038	0.0070	0.0128	0.0040		
70 mph	0.0031	0.0069	0.0040	0.0080	0.0128	0.0039		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.1474	0.1474	0.0075	0.0239
10 mph	0.0053	0.0180	0.0091	0.0054	0.0257	0.0253	0.0091	0.0231
15 mph	0.0028	0.0119	0.0045	0.0027	0.0135	0.0128	0.0064	0.0162
20 mph	0.0013	0.0081	0.0018	0.0011	0.0065	0.0055	0.0046	0.0114
25 mph	0.0009	0.0062	0.0011	0.0007	0.0044	0.0035	0.0034	0.0082
30 mph	0.0007	0.0050	0.0008	0.0005	0.0035	0.0027	0.0025	0.0061
35 mph	0.0005	0.0042	0.0006	0.0004	0.0030	0.0023	0.0018	0.0045
40 mph	0.0005	0.0038	0.0005	0.0004	0.0026	0.0020	0.0014	0.0033
45 mph	0.0004	0.0036	0.0005	0.0003	0.0024	0.0017	0.0010	0.0024
50 mph	0.0004	0.0036	0.0004	0.0003	0.0023	0.0016	0.0007	0.0018
55 mph	0.0004	0.0037	0.0004	0.0002	0.0022	0.0015	0.0005	0.0013
60 mph	0.0004	0.0040	0.0003	0.0002	0.0023	0.0015	0.0005	0.0011
65 mph	0.0004	0.0044	0.0003	0.0003	0.0027	0.0017		
70 mph	0.0003	0.0043	0.0003	0.0003	0.0045	0.0026		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.2245	0.0420	0.1162	0.0383	0.0320	0.0038	0.0059	0.0269	0.4897
15 mph	0.0337	0.0065	0.0173	0.0057	0.0049	0.0006	0.0011	0.0051	0.0748
20 mph	0.1424	0.0281	0.0734	0.0242	0.0215	0.0024	0.0024	0.0107	0.3051
25 mph	0.4370	0.0871	0.2257	0.0753	0.0679	0.0076	0.0073	0.0330	0.9407
30 mph	0.3247	0.0652	0.1682	0.0568	0.0520	0.0057	0.0045	0.0205	0.6976
35 mph	0.1539	0.0309	0.0801	0.0274	0.0255	0.0028	0.0015	0.0068	0.3289
40 mph	0.0571	0.0115	0.0297	0.0102	0.0097	0.0010	0.0011	0.0051	0.1255
45 mph	0.0349	0.0070	0.0181	0.0062	0.0060	0.0006	0.0013	0.0060	0.0803
50 mph	0.0335	0.0067	0.0174	0.0060	0.0059	0.0006	0.0016	0.0071	0.0788
55 mph	0.0594	0.0117	0.0310	0.0107	0.0107	0.0011	0.0001	0.0007	0.1255
60 mph	0.0409	0.0079	0.0212	0.0073	0.0075	0.0008	0.0006	0.0028	0.0890
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.5419	0.3044	0.7985	0.2682	0.2436	0.0271	0.0275	0.1248	3.3360

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0219	0.0043	0.0113	0.0047	0.0055	0.0006	0.0015	0.0067	0.0566
25 mph	0.0242	0.0048	0.0125	0.0052	0.0063	0.0007	0.0022	0.0100	0.0659
30 mph	0.0312	0.0063	0.0162	0.0068	0.0084	0.0009	0.0043	0.0194	0.0934
35 mph	0.0406	0.0081	0.0211	0.0090	0.0112	0.0012	0.0042	0.0191	0.1148
40 mph	0.0527	0.0106	0.0275	0.0118	0.0150	0.0016	0.0043	0.0194	0.1428
45 mph	0.1046	0.0210	0.0544	0.0234	0.0303	0.0032	0.0028	0.0127	0.2525
50 mph	0.0850	0.0169	0.0442	0.0191	0.0251	0.0027	0.0016	0.0073	0.2019
55 mph	0.0627	0.0124	0.0327	0.0141	0.0189	0.0020	0.0005	0.0025	0.1459
60 mph	0.0335	0.0065	0.0174	0.0075	0.0103	0.0011	0.0413	0.1871	0.3047
65 mph	0.0186	0.0035	0.0097	0.0042	0.0059	0.0006	0.0000	0.0000	0.0426
70 mph	0.4576	0.0823	0.2368	0.1134	0.1385	0.0143	0.0000	0.0000	1.0430
total	0.9329	0.1767	0.4838	0.2192	0.2754	0.0290	0.0627	0.2842	2.4639

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2150	0.0139	0.6887
15 mph	0.0645	0.0124	0.0332	0.0170	0.0109	0.0013	0.0012	0.0055	0.1460
25 mph	0.0000	0.0000	0.0000	0.0000	0.0178	0.0020	0.0027	0.0124	0.0349
35 mph	0.3246	0.0651	0.1690	0.0377	0.0000	0.0000	0.0000	0.0000	0.5964
total	0.3892	0.0775	0.2022	0.0547	0.3781	0.1137	0.2189	0.0317	1.4660

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3494	0.1105	0.2150	0.0139	0.6887
10 mph	0.2245	0.0420	0.1162	0.0383	0.0320	0.0038	0.0059	0.0269	0.4897
15 mph	0.0982	0.0189	0.0505	0.0227	0.0158	0.0018	0.0023	0.0106	0.2208
20 mph	0.1643	0.0324	0.0847	0.0289	0.0270	0.0031	0.0039	0.0175	0.3617
25 mph	0.4612	0.0919	0.2382	0.0805	0.0920	0.0103	0.0122	0.0553	1.0415
30 mph	0.3559	0.0714	0.1844	0.0636	0.0603	0.0066	0.0088	0.0399	0.7910
35 mph	0.5192	0.1041	0.2702	0.0742	0.0367	0.0040	0.0057	0.0259	1.0400
40 mph	0.1098	0.0221	0.0572	0.0220	0.0247	0.0027	0.0054	0.0245	0.2684
45 mph	0.1395	0.0280	0.0726	0.0296	0.0363	0.0039	0.0041	0.0187	0.3328
50 mph	0.1185	0.0236	0.0616	0.0251	0.0310	0.0033	0.0032	0.0144	0.2807
55 mph	0.1222	0.0241	0.0636	0.0248	0.0297	0.0031	0.0007	0.0031	0.2714
60 mph	0.0744	0.0144	0.0386	0.0148	0.0178	0.0019	0.0420	0.1899	0.3937
65 mph	0.0186	0.0035	0.0097	0.0042	0.0059	0.0006	0.0000	0.0000	0.0426
70 mph	0.4576	0.0823	0.2368	0.1134	0.1385	0.0143	0.0000	0.0000	1.0430
total	2.8639	0.5586	1.4845	0.5421	0.8972	0.1698	0.3092	0.4407	7.2659

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0010	0.0000	0.0001	0.0001	0.0187	0.0113	0.0281	0.1324	0.1918
15 mph	0.0001	0.0000	0.0000	0.0000	0.0022	0.0013	0.0057	0.0266	0.0358
20 mph	0.0003	0.0000	0.0000	0.0000	0.0063	0.0033	0.0123	0.0564	0.0786
25 mph	0.0009	0.0000	0.0001	0.0001	0.0177	0.0087	0.0375	0.1692	0.2342
30 mph	0.0006	0.0000	0.0001	0.0001	0.0136	0.0065	0.0221	0.0997	0.1428
35 mph	0.0003	0.0000	0.0000	0.0000	0.0067	0.0032	0.0065	0.0294	0.0462
40 mph	0.0001	0.0000	0.0000	0.0000	0.0026	0.0012	0.0042	0.0190	0.0271
45 mph	0.0001	0.0000	0.0000	0.0000	0.0016	0.0007	0.0040	0.0181	0.0244
50 mph	0.0001	0.0000	0.0000	0.0000	0.0015	0.0006	0.0036	0.0162	0.0220
55 mph	0.0001	0.0000	0.0000	0.0000	0.0025	0.0010	0.0002	0.0011	0.0051
60 mph	0.0001	0.0000	0.0000	0.0000	0.0017	0.0007	0.0008	0.0038	0.0070
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0036	0.0002	0.0003	0.0004	0.0750	0.0385	0.1250	0.5719	0.8149

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0077	0.0355	0.0457
25 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0113	0.0511	0.0649
30 mph	0.0001	0.0000	0.0000	0.0000	0.0022	0.0011	0.0209	0.0942	0.1184
35 mph	0.0001	0.0000	0.0000	0.0000	0.0030	0.0014	0.0185	0.0832	0.1062
40 mph	0.0001	0.0000	0.0000	0.0000	0.0040	0.0018	0.0159	0.0718	0.0936
45 mph	0.0002	0.0000	0.0000	0.0000	0.0078	0.0034	0.0084	0.0379	0.0578
50 mph	0.0002	0.0000	0.0000	0.0000	0.0063	0.0027	0.0037	0.0167	0.0296
55 mph	0.0001	0.0000	0.0000	0.0000	0.0045	0.0018	0.0009	0.0042	0.0115
60 mph	0.0001	0.0000	0.0000	0.0000	0.0023	0.0009	0.0546	0.2481	0.3060
65 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0000	0.0000	0.0019
70 mph	0.0006	0.0000	0.0000	0.0001	0.0533	0.0188	0.0000	0.0000	0.0729
total	0.0015	0.0001	0.0001	0.0002	0.0880	0.0341	0.1418	0.6427	0.9085

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0015	0.0089	0.0275
15 mph	0.0002	0.0000	0.0000	0.0000	0.0049	0.0028	0.0061	0.0286	0.0427
25 mph	0.0000	0.0000	0.0000	0.0000	0.0046	0.0023	0.0141	0.0636	0.0846
35 mph	0.0006	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008
total	0.0008	0.0000	0.0001	0.0001	0.0201	0.0116	0.0217	0.1011	0.1555

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0106	0.0065	0.0015	0.0089	0.0275
10 mph	0.0010	0.0000	0.0001	0.0001	0.0187	0.0113	0.0281	0.1324	0.1918
15 mph	0.0003	0.0000	0.0000	0.0001	0.0071	0.0041	0.0118	0.0552	0.0785
20 mph	0.0004	0.0000	0.0000	0.0000	0.0079	0.0041	0.0200	0.0918	0.1243
25 mph	0.0009	0.0000	0.0001	0.0001	0.0239	0.0118	0.0629	0.2839	0.3837
30 mph	0.0007	0.0000	0.0001	0.0001	0.0157	0.0076	0.0430	0.1939	0.2611
35 mph	0.0010	0.0001	0.0001	0.0001	0.0097	0.0045	0.0250	0.1126	0.1531
40 mph	0.0002	0.0000	0.0000	0.0000	0.0065	0.0030	0.0201	0.0909	0.1207
45 mph	0.0003	0.0000	0.0000	0.0000	0.0094	0.0041	0.0123	0.0560	0.0822
50 mph	0.0002	0.0000	0.0000	0.0000	0.0078	0.0033	0.0073	0.0329	0.0516
55 mph	0.0002	0.0000	0.0000	0.0000	0.0070	0.0029	0.0011	0.0053	0.0166
60 mph	0.0001	0.0000	0.0000	0.0000	0.0040	0.0016	0.0554	0.2519	0.3130
65 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0000	0.0000	0.0019
70 mph	0.0006	0.0000	0.0000	0.0001	0.0533	0.0188	0.0000	0.0000	0.0729
total	0.0059	0.0003	0.0005	0.0007	0.1831	0.0842	0.2886	1.3157	1.8790

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.36	0.12	0.22	0.02	0.72
10 mph	0.23	0.04	0.12	0.04	0.05	0.02	0.03	0.16	0.68
15 mph	0.10	0.02	0.05	0.02	0.02	0.01	0.01	0.07	0.30
20 mph	0.16	0.03	0.08	0.03	0.03	0.01	0.02	0.11	0.49
25 mph	0.46	0.09	0.24	0.08	0.12	0.02	0.08	0.34	1.43
30 mph	0.36	0.07	0.18	0.06	0.08	0.01	0.05	0.23	1.05
35 mph	0.52	0.10	0.27	0.07	0.05	0.01	0.03	0.14	1.19
40 mph	0.11	0.02	0.06	0.02	0.03	0.01	0.03	0.12	0.39
45 mph	0.14	0.03	0.07	0.03	0.05	0.01	0.02	0.07	0.41
50 mph	0.12	0.02	0.06	0.03	0.04	0.01	0.01	0.05	0.33
55 mph	0.12	0.02	0.06	0.02	0.04	0.01	0.00	0.01	0.29
60 mph	0.07	0.01	0.04	0.01	0.02	0.00	0.10	0.44	0.71
65 mph	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.04
70 mph	0.46	0.08	0.24	0.11	0.19	0.03	0.00	0.00	1.12
total	2.87	0.56	1.48	0.54	1.08	0.25	0.60	1.76	**9.14**

World Logistics Center
Mobile Emissions - 2025 Phase 1 (Project) - Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					4,672.38	5,322.67	13,563.37	19,327.76
10 mph	565.07	664.40	736.21	1,001.81	1,335.77	1,474.10	3,165.75	3,284.80
15 mph	435.34	511.83	566.95	769.55	926.81	1,036.15	2,182.36	2,367.07
20 mph	347.84	408.97	453.01	615.18	804.97	907.00	1,533.93	1,913.21
25 mph	288.17	338.61	375.30	510.55	737.83	820.09	1,339.81	1,799.28
30 mph	247.75	290.93	322.69	440.04	669.80	741.28	1,231.58	1,712.96
35 mph	221.05	259.35	287.90	393.91	670.13	741.45	1,137.20	1,643.11
40 mph	204.90	240.34	266.86	365.44	667.72	724.57	1,057.92	1,583.84
45 mph	197.23	231.35	256.84	351.52	664.73	707.53	983.14	1,548.94
50 mph	196.99	230.93	256.40	351.40	701.22	737.51	919.52	1,529.32
55 mph	204.25	239.50	265.88	364.57	738.94	771.15	893.88	1,500.88
60 mph	219.75	257.63	286.03	392.06	749.65	779.15	899.33	1,479.67
65 mph	245.11	287.04	318.98	438.63	759.93	786.71		
70 mph	262.64	304.98	339.53	477.50	757.34	771.23		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					3,828.47	6,054.46	6,568.05	5,870.71
10 mph	478.42	672.54	622.39	770.07	1,002.32	1,101.22	1,913.67	2,572.73
15 mph	393.85	559.63	516.66	653.56	652.60	731.87	1,605.79	2,153.46
20 mph	323.04	459.69	424.41	542.70	556.77	624.56	1,402.74	1,876.39
25 mph	270.71	383.29	355.47	458.76	493.77	556.56	1,294.73	1,721.63
30 mph	234.38	329.22	306.97	396.02	448.74	502.14	1,224.10	1,624.53
35 mph	211.78	294.52	276.56	359.07	449.41	502.55	1,167.93	1,547.86
40 mph	198.16	274.26	258.01	335.80	437.51	484.44	1,121.59	1,484.45
45 mph	191.45	264.74	248.83	323.22	426.86	465.74	1,082.37	1,430.55
50 mph	192.04	264.45	249.10	324.77	447.69	483.07	1,048.65	1,381.43
55 mph	200.90	276.76	260.43	342.67	467.61	499.86	1,020.36	1,348.88
60 mph	217.85	299.64	282.12	371.10	472.02	501.44	1,007.69	1,329.16
65 mph	244.83	333.15	316.34	416.41	479.14	503.47		
70 mph	265.74	339.94	338.04	446.27	484.06	505.19		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	8,778.09	823.84	4,566.34	1,172.49	896.68	334.00	1,239.82	181.00	17,992.25
15 mph	1,502.86	141.04	781.45	200.15	138.26	52.17	244.20	37.27	3,097.37
20 mph	7,204.63	676.16	3,746.42	959.98	720.48	274.01	514.92	90.36	14,186.96
25 mph	24,869.59	2,332.60	12,932.36	3,319.59	2,751.63	1,032.29	1,873.98	354.09	49,466.13
30 mph	20,526.56	1,924.01	10,674.62	2,746.69	2,397.98	895.77	1,378.08	269.69	40,813.40
35 mph	10,683.35	1,000.48	5,555.50	1,434.30	1,399.53	522.65	508.99	103.48	21,208.29
40 mph	4,244.11	397.36	2,206.94	570.27	597.63	218.89	414.32	87.28	8,736.80
45 mph	2,723.42	254.99	1,416.04	365.69	396.64	142.50	495.04	109.74	5,904.07
50 mph	2,720.16	254.53	1,413.62	365.58	418.41	148.53	565.90	132.43	6,019.15
55 mph	4,935.57	461.97	2,565.32	663.72	771.62	271.79	50.01	11.81	9,731.81
60 mph	3,413.73	319.46	1,774.10	458.86	503.23	176.54	201.26	46.59	6,893.77
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	91,602.07	8,586.44	47,632.72	12,257.30	10,992.09	4,069.13	7,486.52	1,423.74	184,050.01

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	1,108.68	104.05	576.52	184.51	185.37	70.50	324.08	56.87	2,610.58
25 mph	1,377.74	129.22	716.43	229.69	254.86	95.61	566.13	106.97	3,476.66
30 mph	1,974.21	185.05	1,026.67	329.95	385.60	144.04	1,300.99	254.60	5,601.10
35 mph	2,818.30	263.93	1,465.56	472.58	617.28	230.52	1,441.55	293.06	7,602.78
40 mph	3,918.63	366.89	2,037.69	657.63	922.58	337.91	1,564.57	329.57	10,135.46
45 mph	8,172.33	765.17	4,249.20	1,370.58	1,989.99	714.91	1,038.55	230.22	18,530.95
50 mph	6,906.76	646.29	3,589.31	1,159.35	1,776.25	630.56	582.81	136.38	15,427.70
55 mph	5,208.06	487.47	2,706.96	874.74	1,361.32	479.51	188.85	44.62	11,351.54
60 mph	2,801.72	262.19	1,456.04	470.36	690.52	242.24	13,300.18	3,078.96	22,302.22
65 mph	1,562.53	146.06	811.88	263.11	349.99	122.30	0.00	0.00	3,255.87
70 mph	39,344.53	3,646.86	20,308.50	6,731.10	8,196.87	2,817.40	0.00	0.00	81,045.27
total	75,193.48	7,003.19	38,944.76	12,743.59	16,730.64	5,885.50	20,307.71	4,531.26	181,340.13

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	343.05	69.30	840.84
15 mph	2,879.02	270.18	1,497.01	598.37	308.12	116.27	263.06	40.15	5,972.19
25 mph	0.00	0.00	0.00	0.00	721.85	270.81	704.20	133.06	1,829.92
35 mph	22,531.86	2,110.08	11,716.90	1,970.85	0.00	0.00	0.00	0.00	38,329.69
total	25,410.89	2,380.26	13,213.92	2,569.22	1,339.47	506.08	1,310.31	242.50	46,972.64

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	309.49	119.00	343.05	69.30	840.84
10 mph	8,778.09	823.84	4,566.34	1,172.49	896.68	334.00	1,239.82	181.00	17,992.25
15 mph	4,381.88	411.22	2,278.46	798.52	446.38	168.44	507.25	77.41	9,069.56
20 mph	8,313.32	780.21	4,322.94	1,144.48	905.85	344.50	839.00	147.24	16,797.54
25 mph	26,247.33	2,461.82	13,648.80	3,549.27	3,728.34	1,398.71	3,144.31	594.13	54,772.71
30 mph	22,500.76	2,109.05	11,701.29	3,076.64	2,783.59	1,039.81	2,679.08	524.29	46,414.50
35 mph	36,033.52	3,374.49	18,737.97	3,877.72	2,016.81	753.17	1,950.55	396.54	67,140.76
40 mph	8,162.74	764.25	4,244.63	1,227.90	1,520.21	556.80	1,978.88	416.85	18,872.27
45 mph	10,895.75	1,020.16	5,665.25	1,736.27	2,386.63	857.41	1,533.59	339.96	24,435.02
50 mph	9,626.92	900.82	5,002.93	1,524.92	2,194.66	779.09	1,148.70	268.81	21,446.86
55 mph	10,143.63	949.44	5,272.28	1,538.46	2,132.94	751.30	238.86	56.43	21,083.35
60 mph	6,215.45	581.65	3,230.14	929.21	1,193.75	418.78	13,501.44	3,125.56	29,195.99
65 mph	1,562.53	146.06	811.88	263.11	349.99	122.30	0.00	0.00	3,255.87
70 mph	39,344.53	3,646.86	20,308.50	6,731.10	8,196.87	2,817.40	0.00	0.00	81,045.27
total	192,206.44	17,969.89	99,791.40	27,570.10	29,062.20	10,460.71	29,104.54	6,197.50	412,362.78

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	86.47	0.81	7.94	19.44	729.91	491.44	5,907.57	14,781.34	22,024.93
15 mph	15.82	0.15	1.46	3.67	105.61	72.58	1,416.33	3,535.00	5,150.62
20 mph	77.85	0.74	7.22	18.27	540.60	371.63	3,711.68	9,240.54	13,968.54
25 mph	271.84	2.56	25.18	64.35	1,997.63	1,379.88	14,274.51	35,326.71	53,342.67
30 mph	225.94	2.11	20.88	53.33	1,742.83	1,195.17	10,796.68	26,667.34	40,704.28
35 mph	119.09	1.10	10.97	28.21	1,018.16	697.74	4,120.50	10,163.55	16,159.32
40 mph	47.76	0.44	4.39	11.31	424.80	288.26	3,462.39	8,528.75	12,768.09
45 mph	30.76	0.28	2.82	7.25	276.31	184.75	4,295.97	10,567.37	15,365.52
50 mph	30.85	0.28	2.82	7.29	289.79	191.63	5,087.06	12,472.23	18,081.96
55 mph	56.49	0.52	5.17	13.46	529.70	347.01	449.98	1,107.12	2,509.44
60 mph	39.38	0.36	3.60	9.37	343.73	223.78	1,777.59	4,363.74	6,761.55
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	1,002.24	9.37	92.44	235.96	7,999.07	5,443.88	55,300.27	136,753.69	206,836.91

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	11.98	0.11	1.11	3.51	139.09	95.62	2,336.03	5,815.74	8,403.19
25 mph	15.06	0.14	1.39	4.45	185.03	127.81	4,312.31	10,672.15	15,318.35
30 mph	21.73	0.20	2.01	6.41	280.25	192.19	10,192.70	25,175.54	35,871.02
35 mph	31.42	0.29	2.89	9.29	449.07	307.75	11,669.99	28,784.95	41,255.65
40 mph	44.09	0.41	4.05	13.04	655.77	444.99	13,074.80	32,206.56	46,443.70
45 mph	92.30	0.85	8.46	27.19	1,386.25	926.92	9,012.56	22,169.37	33,623.90
50 mph	78.34	0.72	7.17	23.12	1,230.24	813.51	5,239.07	12,844.92	20,237.08
55 mph	59.61	0.55	5.45	17.74	934.52	612.21	1,699.24	4,180.76	7,510.06
60 mph	32.32	0.30	2.95	9.61	471.67	307.07	117,470.21	288,374.17	406,668.29
65 mph	18.16	0.16	1.66	5.39	239.39	154.16	0.00	0.00	418.92
70 mph	463.19	3.95	41.57	135.72	5,683.46	3,635.04	0.00	0.00	9,962.92
total	868.19	7.68	78.71	255.46	11,654.73	7,617.24	175,006.90	430,224.16	625,713.09

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,309.44	2,178.31	4,029.47
15 mph	30.30	0.29	2.80	10.96	235.36	161.76	1,525.73	3,808.05	5,775.26
25 mph	0.00	0.00	0.00	0.00	524.05	361.99	5,364.05	13,275.00	19,525.10
35 mph	251.17	2.33	23.14	38.76	0.00	0.00	0.00	0.00	315.39
total	281.47	2.61	25.94	49.72	1,034.51	790.36	8,199.22	19,261.37	29,645.22

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	275.10	266.61	1,309.44	2,178.31	4,029.47
10 mph	86.47	0.81	7.94	19.44	729.91	491.44	5,907.57	14,781.34	22,024.93
15 mph	46.12	0.44	4.27	14.63	340.97	234.34	2,942.05	7,343.06	10,925.88
20 mph	89.83	0.85	8.33	21.78	679.69	467.25	6,047.72	15,056.28	22,371.73
25 mph	286.89	2.71	26.58	68.81	2,706.71	1,869.69	23,950.88	59,273.86	88,186.12
30 mph	247.67	2.32	22.88	59.74	2,023.08	1,387.35	20,989.38	51,842.88	76,575.30
35 mph	401.67	3.72	37.00	76.26	1,467.23	1,005.49	15,790.49	38,948.49	57,730.37
40 mph	91.85	0.85	8.44	24.34	1,080.57	733.25	16,537.18	40,735.31	59,211.79
45 mph	123.06	1.13	11.28	34.44	1,662.56	1,111.67	13,308.53	32,736.74	48,989.41
50 mph	109.19	1.00	9.99	30.41	1,520.03	1,005.14	10,326.13	25,317.15	38,319.04
55 mph	116.09	1.07	10.62	31.20	1,464.21	959.21	2,149.22	5,287.88	10,019.50
60 mph	71.69	0.66	6.55	18.98	815.40	530.85	119,247.80	292,737.92	413,429.84
65 mph	18.16	0.16	1.66	5.39	239.39	154.16	0.00	0.00	418.92
70 mph	463.19	3.95	41.57	135.72	5,683.46	3,635.04	0.00	0.00	9,962.92
total	2,151.90	19.66	197.09	541.14	20,688.31	13,851.48	238,506.39	586,239.23	862,195.21

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	584.59	385.61	1,652.49	2,247.61	4,870.30
10 mph	8,864.56	824.65	4,574.28	1,191.93	1,626.59	825.44	7,147.39	14,962.35	40,017.18
15 mph	4,428.01	411.66	2,282.73	813.15	787.34	402.78	3,449.31	7,420.47	19,995.44
20 mph	8,403.15	781.06	4,331.26	1,166.27	1,585.54	811.75	6,886.71	15,203.52	39,169.27
25 mph	26,534.23	2,464.52	13,675.37	3,618.08	6,435.05	3,268.40	27,095.19	59,867.99	142,958.83
30 mph	22,748.43	2,111.37	11,724.17	3,136.38	4,806.66	2,427.17	23,668.46	52,367.16	122,989.80
35 mph	36,435.19	3,378.22	18,774.97	3,953.98	3,484.04	1,758.66	17,741.04	39,345.03	124,871.13
40 mph	8,254.59	765.10	4,253.06	1,252.25	2,600.78	1,290.05	18,516.07	41,152.15	78,084.05
45 mph	11,018.81	1,021.30	5,676.53	1,770.71	4,049.19	1,969.08	14,842.12	33,076.70	73,424.44
50 mph	9,736.11	901.83	5,012.92	1,555.33	3,714.69	1,784.23	11,474.83	25,585.96	59,765.90
55 mph	10,259.72	950.51	5,282.90	1,569.66	3,597.15	1,710.51	2,388.08	5,344.31	31,102.85
60 mph	6,287.15	582.31	3,236.69	948.19	2,009.15	949.63	132,749.24	295,863.47	442,625.83
65 mph	1,580.69	146.22	813.53	268.50	589.39	276.45	0.00	0.00	3,674.78
70 mph	39,807.72	3,650.81	20,350.07	6,866.82	13,880.33	6,452.44	0.00	0.00	91,008.19
total	194,358.34	17,989.56	99,988.50	28,111.25	49,750.51	24,312.19	267,610.93	592,436.72	**1,274,557.99**

B-18 Mobile Source Emissions Calculations – 2040

ESA

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
102.61	802.88	771.74	4.88	797.22	142.98	945.08	4.64	195.68	55.97	256.29	3.47	9.29	5.74	1,267,143.96

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
18.73	146.52	140.84	0.89	145.49	26.09	172.48	0.85	35.71	10.22	46.77	0.63	1.70	1.05	231,253.77

World Logistics Center

Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated

VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	4,137.8	56.6	720.5	215,261.6	2,945.0	37,480.3
LDT1	362.2	0.2	0.2	18,844.9	10.7	9.2
LDT2	1,810.8	4.0	0.0	94,202.8	205.8	0.0
MDT	2,595.8	70.9	0.0	39,772.4	1,086.9	0.0
LHDT1	538.6	1,070.1	0.0	12,670.7	25,174.9	0.0
LHDT2	224.6	548.8	0.0	5,284.0	12,911.5	0.0
MHDT	284.2	2,456.4	0.0	12,803.7	110,665.2	0.0
HHDT	50.7	4,519.2	0.0	2,285.2	203,592.9	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	152,286.8	2,083.5	26,515.5	62,974.8	861.6	10,964.9
LDT1	13,331.8	7.6	6.5	5,513.1	3.1	2.7
LDT2	66,643.8	145.6	0.0	27,559.0	60.2	0.0
MDT	21,341.1	583.2	0.0	18,431.2	503.7	0.0
LHDT1	6,114.7	12,149.1	0.0	6,556.0	13,025.9	0.0
LHDT2	2,550.0	6,230.9	0.0	2,734.0	6,680.6	0.0
MHDT	2,780.1	24,028.9	0.0	10,023.6	86,636.3	0.0
HHDT	496.2	44,206.4	0.0	1,789.0	159,386.5	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	5%	6%	1%	0%
15	2%	2%	1%	0%
20	4%	4%	1%	2%
25	20%	22%	2%	4%
30	22%	20%	4%	6%
35	18%	9%	9%	6%
40	6%	10%	10%	6%
45	5%	8%	8%	4%
50	5%	13%	9%	2%
55	4%	3%	5%	1%
60	8%	3%	3%	70%
65	1%	0%	1%	0%
70	0%	0%	46%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	7,614.3	666.6	3,332.2	1,067.1	305.7	127.5	166.8	29.8	13,310.0
15 mph	3,045.7	266.6	1,332.9	426.8	122.3	51.0	55.6	9.9	5,310.9
20 mph	6,091.5	533.3	2,665.8	853.6	244.6	102.0	111.2	19.8	10,621.8
25 mph	30,457.4	2,666.4	13,328.8	4,268.2	1,222.9	510.0	611.6	109.2	53,174.4
30 mph	33,503.1	2,933.0	14,661.6	4,695.0	1,345.2	561.0	556.0	99.2	58,354.3
35 mph	27,411.6	2,399.7	11,995.9	3,841.4	1,100.6	459.0	250.2	44.7	47,503.1
40 mph	9,137.2	799.9	3,998.6	1,280.5	366.9	153.0	278.0	49.6	16,063.7
45 mph	7,614.3	666.6	3,332.2	1,067.1	305.7	127.5	222.4	39.7	13,375.5
50 mph	7,614.3	666.6	3,332.2	1,067.1	305.7	127.5	361.4	64.5	13,539.3
55 mph	6,091.5	533.3	2,665.8	853.6	244.6	102.0	83.4	14.9	10,589.0
60 mph	12,182.9	1,066.5	5,331.5	1,707.3	489.2	204.0	83.4	14.9	21,079.7
65 mph	1,522.9	133.3	666.4	213.4	61.1	25.5	0.0	0.0	2,622.7
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	152,286.8	13,331.8	66,643.8	21,341.1	6,114.7	2,550.0	2,780.1	496.2	265,544.5

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	629.7	55.1	275.6	184.3	65.6	27.3	0.0	0.0	1,237.7
15 mph	629.7	55.1	275.6	184.3	65.6	27.3	0.0	0.0	1,237.7
20 mph	629.7	55.1	275.6	184.3	65.6	27.3	200.5	35.8	1,473.9
25 mph	1,259.5	110.3	551.2	368.6	131.1	54.7	350.8	62.6	2,888.8
30 mph	2,519.0	220.5	1,102.4	737.2	262.2	109.4	601.4	107.3	5,659.5
35 mph	5,667.7	496.2	2,480.3	1,658.8	590.0	246.1	601.4	107.3	11,847.9
40 mph	6,297.5	551.3	2,755.9	1,843.1	655.6	273.4	551.3	98.4	13,026.5
45 mph	5,038.0	441.0	2,204.7	1,474.5	524.5	218.7	400.9	71.6	10,374.0
50 mph	5,667.7	496.2	2,480.3	1,658.8	590.0	246.1	200.5	35.8	11,375.4
55 mph	3,148.7	275.7	1,378.0	921.6	327.8	136.7	100.2	17.9	6,306.5
60 mph	1,889.2	165.4	826.8	552.9	196.7	82.0	7,016.5	1,252.3	11,981.9
65 mph	629.7	55.1	275.6	184.3	65.6	27.3	0.0	0.0	1,237.7
70 mph	28,968.4	2,536.0	12,677.2	8,478.4	3,015.8	1,257.6	0.0	0.0	56,933.4
total	62,974.8	5,513.1	27,559.0	18,431.2	6,556.0	2,734.0	10,023.6	1,789.0	135,580.9

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
15 mph	4,814.3	421.5	2,106.8	617.7	185.8	77.5	88.5	15.8	8,327.9
25 mph	0.0	0.0	0.0	0.0	352.8	147.1	387.4	69.1	956.5
35 mph	20,714.2	1,813.4	9,065.0	2,442.3	0.0	0.0	0.0	0.0	34,034.9
total	25,528.5	2,234.9	11,171.8	3,060.0	538.6	224.6	475.9	84.9	43,319.2

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
10 mph	8,244.1	721.7	3,607.8	1,251.4	371.3	154.8	166.8	29.8	14,547.7
15 mph	8,489.8	743.2	3,715.3	1,228.8	373.6	155.8	144.1	25.7	14,876.5
20 mph	6,721.2	588.4	2,941.3	1,038.0	310.1	129.3	311.7	55.6	12,095.7
25 mph	31,716.9	2,776.6	13,879.9	4,636.9	1,706.9	711.8	1,349.8	240.9	57,019.7
30 mph	36,022.1	3,153.5	15,764.0	5,432.3	1,607.5	670.4	1,157.4	206.6	64,013.7
35 mph	53,793.6	4,709.3	23,541.2	7,942.5	1,690.7	705.1	851.6	152.0	93,385.9
40 mph	15,434.7	1,351.2	6,754.5	3,123.6	1,022.5	426.4	829.3	148.0	29,090.2
45 mph	12,652.3	1,107.6	5,536.9	2,541.6	830.2	346.2	623.4	111.3	23,749.5
50 mph	13,282.1	1,162.8	5,812.5	2,725.9	895.8	373.6	561.9	100.3	24,914.7
55 mph	9,240.2	808.9	4,043.7	1,775.2	572.4	238.7	183.6	32.8	16,895.6
60 mph	14,072.2	1,231.9	6,158.3	2,260.2	685.9	286.0	7,099.9	1,267.2	33,061.7
65 mph	2,152.6	188.4	942.0	397.7	126.7	52.8	0.0	0.0	3,860.4
70 mph	28,968.4	2,536.0	12,677.2	8,478.4	3,015.8	1,257.6	0.0	0.0	56,933.4
total	240,790.1	21,079.8	105,374.6	42,832.3	13,209.4	5,508.6	13,279.6	2,370.2	444,444.6

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	104.2	0.4	7.3	29.2	607.5	311.5	1,441.7	2,652.4	5,154.1
15 mph	41.7	0.2	2.9	11.7	243.0	124.6	480.6	884.1	1,788.7
20 mph	83.3	0.3	5.8	23.3	486.0	249.2	961.2	1,768.3	3,577.4
25 mph	416.7	1.5	29.1	116.6	2,429.8	1,246.2	5,286.4	9,725.4	19,251.7
30 mph	458.4	1.7	32.0	128.3	2,672.8	1,370.8	4,805.8	8,841.3	18,311.0
35 mph	375.0	1.4	26.2	105.0	2,186.8	1,121.6	2,162.6	3,978.6	9,957.1
40 mph	125.0	0.5	8.7	35.0	728.9	373.9	2,402.9	4,420.6	8,095.5
45 mph	104.2	0.4	7.3	29.2	607.5	311.5	1,922.3	3,536.5	6,518.8
50 mph	104.2	0.4	7.3	29.2	607.5	311.5	3,123.8	5,746.8	9,930.6
55 mph	83.3	0.3	5.8	23.3	486.0	249.2	720.9	1,326.2	2,895.1
60 mph	166.7	0.6	11.6	46.7	971.9	498.5	720.9	1,326.2	3,743.0
65 mph	20.8	0.1	1.5	5.8	121.5	62.3	0.0	0.0	212.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	2,083.5	7.6	145.6	583.2	12,149.1	6,230.9	24,028.9	44,206.4	89,435.1

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	8.6	0.0	0.6	5.0	130.3	66.8	0.0	0.0	211.4
15 mph	8.6	0.0	0.6	5.0	130.3	66.8	0.0	0.0	211.4
20 mph	8.6	0.0	0.6	5.0	130.3	66.8	1,732.7	3,187.7	5,131.8
25 mph	17.2	0.1	1.2	10.1	260.5	133.6	3,032.3	5,578.5	9,033.5
30 mph	34.5	0.1	2.4	20.1	521.0	267.2	5,198.2	9,563.2	15,606.8
35 mph	77.5	0.3	5.4	45.3	1,172.3	601.3	5,198.2	9,563.2	16,663.5
40 mph	86.2	0.3	6.0	50.4	1,302.6	668.1	4,765.0	8,766.3	15,644.8
45 mph	68.9	0.3	4.8	40.3	1,042.1	534.4	3,465.5	6,375.5	11,531.7
50 mph	77.5	0.3	5.4	45.3	1,172.3	601.3	1,732.7	3,187.7	6,822.6
55 mph	43.1	0.2	3.0	25.2	651.3	334.0	866.4	1,593.9	3,517.0
60 mph	25.8	0.1	1.8	15.1	390.8	200.4	60,645.4	111,570.6	172,850.0
65 mph	8.6	0.0	0.6	5.0	130.3	66.8	0.0	0.0	211.4
70 mph	396.3	1.4	27.7	231.7	5,991.9	3,073.1	0.0	0.0	9,722.1
total	861.6	3.1	60.2	503.7	13,025.9	6,680.6	86,636.3	159,386.5	267,157.9

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
15 mph	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1,407.5	2,818.7
25 mph	0.0	0.0	0.0	0.0	701.0	359.5	3,348.0	6,159.3	10,567.9
35 mph	283.4	1.0	19.8	66.7	0.0	0.0	0.0	0.0	371.0
total	349.3	1.3	24.4	83.6	1,070.2	548.9	4,113.1	7,566.9	13,757.5

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
10 mph	112.8	0.4	7.9	34.2	737.7	378.4	1,441.7	2,652.4	5,365.5
15 mph	116.2	0.4	8.1	33.6	742.4	380.7	1,245.7	2,291.7	4,818.7
20 mph	92.0	0.3	6.4	28.4	616.2	316.0	2,693.9	4,956.0	8,709.2
25 mph	433.9	1.6	30.3	126.7	3,391.4	1,739.3	11,666.6	21,463.3	38,853.1
30 mph	492.8	1.8	34.4	148.4	3,193.8	1,638.0	10,004.0	18,404.5	33,917.8
35 mph	736.0	2.7	51.4	217.0	3,359.2	1,722.8	7,360.8	13,541.8	26,991.6
40 mph	211.2	0.8	14.8	85.4	2,031.5	1,041.9	7,167.9	13,186.9	23,740.3
45 mph	173.1	0.6	12.1	69.5	1,649.5	846.0	5,387.8	9,912.0	18,050.5
50 mph	181.7	0.7	12.7	74.5	1,779.8	912.8	4,856.5	8,934.6	16,753.2
55 mph	126.4	0.5	8.8	48.5	1,137.3	583.3	1,587.2	2,920.1	6,412.0
60 mph	192.5	0.7	13.5	61.8	1,362.7	698.9	61,366.3	112,896.8	176,593.1
65 mph	29.5	0.1	2.1	10.9	251.7	129.1	0.0	0.0	423.3
70 mph	396.3	1.4	27.7	231.7	5,991.9	3,073.1	0.0	0.0	9,722.1
total	3,294.3	12.0	230.2	1,170.5	26,245.1	13,460.3	114,778.3	211,159.8	370,350.5

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.1
15 mph	530.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	530.4
20 mph	1,060.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,060.9
25 mph	5,303.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	5,304.4
30 mph	5,833.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5,834.8
35 mph	4,772.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	4,773.9
40 mph	1,590.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,591.3
45 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.1
50 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.1
55 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.0
60 mph	2,121.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,121.8
65 mph	265.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	265.2
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	26,780.6	6.5	0.0	0.0	0.0	0.0	0.0	0.0	26,787.1

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
15 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
20 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
25 mph	219.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	219.4
30 mph	438.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	438.7
35 mph	986.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	987.1
40 mph	1,096.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,096.8
45 mph	877.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	877.4
50 mph	986.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	987.1
55 mph	548.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	548.4
60 mph	328.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	329.0
65 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
70 mph	5,043.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	5,045.1
total	10,964.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0	10,967.6

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	838.5
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,159.3	6,159.3
35 mph	3,606.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	3,607.5
total	4,444.9	1.1	0.0	0.0	0.0	0.0	0.0	6,159.3	10,605.3

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	1,435.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,435.8
15 mph	1,478.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,478.6
20 mph	1,170.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,170.6
25 mph	5,522.4	1.3	0.0	0.0	0.0	0.0	0.0	6,159.3	11,683.1
30 mph	6,272.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	6,273.5
35 mph	9,366.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	9,368.6
40 mph	2,687.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2,688.1
45 mph	2,203.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,203.5
50 mph	2,312.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,313.2
55 mph	1,874.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,874.4
60 mph	2,450.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,450.8
65 mph	374.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	374.9
70 mph	5,043.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	5,045.1
total	25,244.6	6.2	0.0	0.0	0.0	0.0	0.0	6,159.3	48,360.0

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	8,405	1,681	662	132	1,980	396	3,301	660	2,870	8.48	0.035	0.0002	0.6	0.0009	2.6
2	A	731	0.45	6,015	2,707	340	153	977	440	1,629	733	4,033	7.15	0.035	0.0002	0.8	0.0008	3.1
3	A	2352	1.46	1,640	2,394	215	314	287	419	478	698	3,825	7.32	0.035	0.0002	0.7	0.0008	3.0
5	A	953	0.59	10,225	6,033	257	152	-	-	-	-	6,185	2.22	0.035	0.0001	0.4	0.0002	1.4
6	A	1099	0.68	12,145	8,259	650	442	2,038	1,386	3,398	2,311	12,398	7.27	0.035	0.0002	2.4	0.0008	9.8
8	A	1091	0.68	13,365	9,088	225	153	-	-	-	-	9,241	2.19	0.035	0.0001	0.5	0.0002	2.1
11	A	1201	0.75	(2,500)	(1,875)	32	24	(6)	(4)	(9)	(7)	(1,862)	2.19	0.035	0.0001	-0.1	0.0002	-0.4
12	A	824	0.51	(5,690)	(2,902)	69	35	21	11	34	18	(2,839)	1.92	0.035	0.0000	-0.1	0.0002	-0.6
14	A	1618	1.01	(1,665)	(1,682)	109	110	19	19	31	32	(1,521)	1.32	0.035	0.0000	-0.1	0.0001	-0.2
18	A	1412	0.88	1,565	1,377	70	62	71	63	119	105	1,606	4.02	0.035	0.0001	0.2	0.0004	0.7
19	A	2386	1.48	5,940	6,225	129	135	463	485	772	809	7,654	5.03	0.035	0.0001	1.0	0.0005	4.1
21	A	1258	0.78	4,655	3,631	60	46	122	96	204	159	3,932	3.26	0.035	0.0001	0.3	0.0003	1.4
24	A	1946	1.21	6,345	7,678	86	104	330	399	550	665	8,845	4.19	0.035	0.0001	1.0	0.0004	4.0
30	A	2827	1.76	(4,860)	(8,554)	(11)	(20)	(24)	(43)	(41)	(72)	(8,688)	2.36	0.035	0.0001	-0.5	0.0002	-2.2
29	A	675	0.42	10,225	4,295	(268)	(113)	(21)	(9)	(34)	(14)	4,159	1.94	0.035	0.0001	0.2	0.0002	0.9
31	A	820	0.51	(670)	(342)	(332)	(169)	156	79	259	132	(299)	7.77	0.035	0.0002	-0.1	0.0008	-0.3
TOTAL				65,141		2,292		6,412		10,692						7.2		29.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				9759.05	409819.60	2,382.19	56,041.09	2,740.65	123,468.94	4,569.90	205,878.18	795,207.82	8.88	0.035	0.0002	188.4302927	0.0010	767.6789701

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	4766.0	65.2	829.8
	LDT1	15	1989	330	0.21	417.7	417.2	0.2	0.2
	LDT2	15	9954	330	0.21	2090.3	2085.7	4.6	0.0
	MDT	15	2999	330	0.21	629.8	613.0	16.8	0.0
	LHDT1	15	2635	330	0.21	553.3	185.3	368.1	0.0
	LHDT2	15	1267	330	0.21	266.0	77.3	188.8	0.0
	MHDT	15	4034	330	0.21	847.1	87.8	759.2	0.0
	HHDT	15	6726	330	0.21	1412.5	15.7	1396.8	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	17.9	0.2	3.1
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.8	0.0	0.0
	MDT	15	18	175	0.11	2.0	1.9	0.1	0.0
	LHDT1	15	11	175	0.11	1.2	0.4	0.8	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.4	0.0
	MHDT	15	13	175	0.11	1.4	0.1	1.3	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	11.1	0.2	1.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.1	0.3	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.4	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	16.9	0.2	2.9
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.4	0.0	0.4
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4814.3	421.5	2106.8	617.7	185.8	77.5	88.5	15.8
Diesel	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1407.5
Electric	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	441	876	0	2205.4	4381.8	0.0
	LHDT2	5	633	184	449	0	919.7	2247.3	0.0
	MHDT	5	2017	209	1808	0	1045.7	9038.6	0.0
	HHDT	5	3363	37	3326	0	186.6	16628.5	0.0
Travel at Light Logistics	LHDT1	5	5	2	4	0	8.9	17.6	0.0
	LHDT2	5	3	1	2	0	3.7	9.0	0.0
	MHDT	5	7	1	6	0	3.4	29.2	0.0
	HHDT	5	11	0	11	0	0.6	53.8	0.0
Travel at Utility	LHDT1	5	4	1	2	0	6.0	11.8	0.0
	LHDT2	5	2	0	1	0	2.5	6.1	0.0
	MHDT	5	7	1	6	0	3.5	30.4	0.0
	HHDT	5	11	0	11	0	0.6	56.0	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	7	64	0	36.9	318.7	0.0
	HHDT	5	119	1	117	0	6.6	586.3	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	37.0	15.4	18.2	3.3
Diesel	73.5	37.7	156.9	288.7
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	9.8375	8.7720	42.9576	10.7657
10 mph	0.0160	0.0212	0.0208	0.0304	0.0166	0.0136	0.0410	1.3542
15 mph	0.0106	0.0141	0.0138	0.0201	0.0109	0.0090	0.0273	0.8999
20 mph	0.0075	0.0099	0.0097	0.0142	0.0077	0.0063	0.0191	0.6299
25 mph	0.0055	0.0073	0.0071	0.0105	0.0056	0.0047	0.0141	0.4654
30 mph	0.0043	0.0056	0.0055	0.0082	0.0044	0.0036	0.0110	0.3626
35 mph	0.0035	0.0046	0.0045	0.0067	0.0036	0.0030	0.0090	0.2980
40 mph	0.0030	0.0040	0.0039	0.0059	0.0032	0.0026	0.0078	0.2584
45 mph	0.0028	0.0036	0.0036	0.0054	0.0029	0.0024	0.0072	0.2364
50 mph	0.0027	0.0035	0.0035	0.0052	0.0028	0.0023	0.0069	0.2281
55 mph	0.0027	0.0036	0.0035	0.0053	0.0029	0.0023	0.0070	0.2322
60 mph	0.0029	0.0038	0.0038	0.0056	0.0031	0.0025	0.0076	0.2495
65 mph	0.0033	0.0043	0.0043	0.0064	0.0035	0.0028		
70 mph	0.0036	0.0044	0.0046	0.0071	0.0039	0.0031		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1623	0.5136
10 mph	0.0594	0.2009	0.1966	0.0708	0.5670	0.5585	0.1922	0.4549
15 mph	0.0290	0.1002	0.0960	0.0346	0.2794	0.2731	0.1353	0.3204
20 mph	0.0113	0.0412	0.0373	0.0135	0.1118	0.1065	0.0979	0.2311
25 mph	0.0068	0.0255	0.0224	0.0081	0.0682	0.0640	0.0717	0.1696
30 mph	0.0051	0.0193	0.0169	0.0061	0.0520	0.0484	0.0529	0.1249
35 mph	0.0041	0.0153	0.0134	0.0048	0.0419	0.0386	0.0390	0.0920
40 mph	0.0034	0.0128	0.0111	0.0040	0.0350	0.0318	0.0287	0.0678
45 mph	0.0028	0.0110	0.0094	0.0034	0.0301	0.0270	0.0212	0.0500
50 mph	0.0025	0.0097	0.0081	0.0029	0.0266	0.0234	0.0156	0.0368
55 mph	0.0022	0.0088	0.0071	0.0026	0.0238	0.0206	0.0115	0.0272
60 mph	0.0020	0.0086	0.0067	0.0024	0.0230	0.0194	0.0099	0.0233
65 mph	0.0021	0.0086	0.0067	0.0024	0.0239	0.0195		
70 mph	0.0021	0.0073	0.0067	0.0024	0.0301	0.0201		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.2691	0.0311	0.1528	0.0715	0.0112	0.0038	0.0151	0.0889	0.6436
15 mph	0.0715	0.0083	0.0405	0.0190	0.0029	0.0010	0.0033	0.0197	0.1663
20 mph	0.1001	0.0116	0.0568	0.0267	0.0041	0.0014	0.0047	0.0276	0.2331
25 mph	0.3692	0.0428	0.2093	0.0986	0.0152	0.0053	0.0190	0.1120	0.8715
30 mph	0.3158	0.0365	0.1789	0.0847	0.0131	0.0045	0.0135	0.0794	0.7264
35 mph	0.2119	0.0243	0.1199	0.0571	0.0088	0.0030	0.0050	0.0293	0.4594
40 mph	0.0612	0.0070	0.0346	0.0165	0.0026	0.0009	0.0048	0.0283	0.1559
45 mph	0.0467	0.0053	0.0264	0.0126	0.0020	0.0007	0.0035	0.0207	0.1179
50 mph	0.0451	0.0051	0.0254	0.0122	0.0019	0.0006	0.0055	0.0324	0.1283
55 mph	0.0367	0.0042	0.0208	0.0099	0.0015	0.0005	0.0013	0.0076	0.0826
60 mph	0.0790	0.0090	0.0445	0.0212	0.0033	0.0011	0.0014	0.0082	0.1677
65 mph	0.0112	0.0013	0.0063	0.0030	0.0005	0.0002	0.0000	0.0000	0.0223
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.6175	0.1866	0.9164	0.4330	0.0671	0.0231	0.0771	0.4541	3.7749

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0223	0.0026	0.0126	0.0124	0.0024	0.0008	0.0000	0.0000	0.0531
15 mph	0.0148	0.0017	0.0084	0.0082	0.0016	0.0005	0.0000	0.0000	0.0352
20 mph	0.0104	0.0012	0.0059	0.0058	0.0011	0.0004	0.0084	0.0497	0.0828
25 mph	0.0153	0.0018	0.0087	0.0085	0.0016	0.0006	0.0109	0.0643	0.1116
30 mph	0.0237	0.0027	0.0135	0.0133	0.0026	0.0009	0.0146	0.0858	0.1571
35 mph	0.0438	0.0050	0.0248	0.0247	0.0047	0.0016	0.0120	0.0705	0.1872
40 mph	0.0422	0.0048	0.0239	0.0238	0.0046	0.0016	0.0095	0.0561	0.1664
45 mph	0.0309	0.0035	0.0175	0.0174	0.0034	0.0011	0.0063	0.0373	0.1175
50 mph	0.0336	0.0038	0.0189	0.0189	0.0036	0.0012	0.0031	0.0180	0.1011
55 mph	0.0190	0.0022	0.0107	0.0107	0.0021	0.0007	0.0016	0.0092	0.0561
60 mph	0.0122	0.0014	0.0069	0.0069	0.0013	0.0005	0.1170	0.6890	0.8352
65 mph	0.0046	0.0005	0.0026	0.0026	0.0005	0.0002	0.0000	0.0000	0.0110
70 mph	0.2315	0.0246	0.1280	0.1331	0.0262	0.0086	0.0000	0.0000	0.5519
total	0.5042	0.0559	0.2823	0.2861	0.0556	0.0187	0.1835	1.0799	2.4661

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	1.7200	0.0780	2.8992
15 mph	0.1130	0.0131	0.0641	0.0274	0.0045	0.0015	0.0053	0.0314	0.2604
25 mph	0.0000	0.0000	0.0000	0.0000	0.0044	0.0015	0.0121	0.0710	0.0889
35 mph	0.1601	0.0184	0.0906	0.0363	0.0000	0.0000	0.0000	0.0000	0.3054
total	0.2731	0.0315	0.1547	0.0637	0.8115	0.3015	1.7374	0.1803	3.5538

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	1.7200	0.0780	2.8992
10 mph	0.2914	0.0337	0.1654	0.0839	0.0136	0.0047	0.0151	0.0889	0.6967
15 mph	0.1993	0.0231	0.1130	0.0546	0.0090	0.0031	0.0087	0.0510	0.4619
20 mph	0.1105	0.0129	0.0627	0.0324	0.0052	0.0018	0.0131	0.0773	0.3159
25 mph	0.3845	0.0446	0.2180	0.1071	0.0212	0.0073	0.0420	0.2473	1.0720
30 mph	0.3395	0.0392	0.1924	0.0980	0.0156	0.0054	0.0281	0.1652	0.8834
35 mph	0.4158	0.0477	0.2353	0.1181	0.0136	0.0047	0.0170	0.0999	0.9520
40 mph	0.1034	0.0118	0.0585	0.0403	0.0071	0.0024	0.0143	0.0844	0.3224
45 mph	0.0776	0.0089	0.0439	0.0300	0.0053	0.0018	0.0099	0.0580	0.2354
50 mph	0.0786	0.0089	0.0444	0.0310	0.0055	0.0019	0.0086	0.0504	0.2294
55 mph	0.0557	0.0063	0.0315	0.0206	0.0036	0.0012	0.0029	0.0168	0.1386
60 mph	0.0912	0.0104	0.0515	0.0280	0.0046	0.0016	0.1184	0.6972	1.0029
65 mph	0.0158	0.0018	0.0089	0.0056	0.0010	0.0003	0.0000	0.0000	0.0333
70 mph	0.2315	0.0246	0.1280	0.1331	0.0262	0.0086	0.0000	0.0000	0.5519
total	2.3949	0.2739	1.3534	0.7828	0.9343	0.3434	1.9980	1.7143	9.7949

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0136	0.0002	0.0032	0.0046	0.7594	0.3836	0.6109	2.6606	4.4360
15 mph	0.0027	0.0000	0.0006	0.0009	0.1497	0.0750	0.1434	0.6247	0.9970
20 mph	0.0021	0.0000	0.0005	0.0007	0.1197	0.0585	0.2074	0.9011	1.2901
25 mph	0.0062	0.0001	0.0014	0.0021	0.3652	0.1760	0.8362	3.6369	5.0242
30 mph	0.0052	0.0001	0.0012	0.0017	0.3065	0.1464	0.5603	2.4353	3.4566
35 mph	0.0034	0.0000	0.0008	0.0011	0.2021	0.0953	0.1859	0.8068	1.2954
40 mph	0.0009	0.0000	0.0002	0.0003	0.0563	0.0262	0.1522	0.6608	0.8969
45 mph	0.0007	0.0000	0.0002	0.0002	0.0404	0.0185	0.0897	0.3895	0.5392
50 mph	0.0006	0.0000	0.0001	0.0002	0.0357	0.0161	0.1075	0.4664	0.6265
55 mph	0.0004	0.0000	0.0001	0.0001	0.0255	0.0113	0.0183	0.0795	0.1352
60 mph	0.0008	0.0000	0.0002	0.0002	0.0493	0.0214	0.0157	0.0682	0.1557
65 mph	0.0001	0.0000	0.0000	0.0000	0.0064	0.0027	0.0000	0.0000	0.0092
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0366	0.0005	0.0084	0.0122	2.1161	1.0311	2.9275	12.7298	18.8622

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0011	0.0000	0.0003	0.0008	0.1628	0.0823	0.0000	0.0000	0.2473
15 mph	0.0006	0.0000	0.0001	0.0004	0.0802	0.0402	0.0000	0.0000	0.1215
20 mph	0.0002	0.0000	0.0000	0.0001	0.0321	0.0157	0.3740	1.6245	2.0467
25 mph	0.0003	0.0000	0.0001	0.0002	0.0392	0.0189	0.4797	2.0862	2.6243
30 mph	0.0004	0.0000	0.0001	0.0003	0.0597	0.0285	0.6061	2.6341	3.3292
35 mph	0.0007	0.0000	0.0002	0.0005	0.1083	0.0511	0.4467	1.9393	2.5469
40 mph	0.0006	0.0000	0.0001	0.0004	0.1006	0.0469	0.3018	1.3104	1.7608
45 mph	0.0004	0.0000	0.0001	0.0003	0.0692	0.0318	0.1618	0.7022	0.9659
50 mph	0.0004	0.0000	0.0001	0.0003	0.0688	0.0310	0.0596	0.2587	0.4190
55 mph	0.0002	0.0000	0.0000	0.0001	0.0342	0.0152	0.0220	0.0955	0.1672
60 mph	0.0001	0.0000	0.0000	0.0001	0.0198	0.0086	1.3206	5.7379	7.0872
65 mph	0.0000	0.0000	0.0000	0.0000	0.0069	0.0029	0.0000	0.0000	0.0098
70 mph	0.0018	0.0000	0.0004	0.0012	0.3973	0.1359	0.0000	0.0000	0.5367
total	0.0069	0.0001	0.0016	0.0048	1.1792	0.5089	3.7721	16.3889	21.8625

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0562	0.3270	1.1614
15 mph	0.0042	0.0001	0.0010	0.0013	0.2274	0.1140	0.2283	0.9945	1.5707
25 mph	0.0000	0.0000	0.0000	0.0000	0.1054	0.0508	0.5296	2.3034	2.9891
35 mph	0.0025	0.0000	0.0006	0.0007	0.0000	0.0000	0.0000	0.0000	0.0039
total	0.0068	0.0001	0.0016	0.0020	0.8472	0.4286	0.8141	3.6248	5.7250

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0562	0.3270	1.1614
10 mph	0.0148	0.0002	0.0034	0.0053	0.9223	0.4659	0.6109	2.6606	4.6834
15 mph	0.0074	0.0001	0.0017	0.0026	0.4573	0.2293	0.3717	1.6191	2.6892
20 mph	0.0023	0.0000	0.0005	0.0008	0.1518	0.0742	0.5814	2.5256	3.3368
25 mph	0.0065	0.0001	0.0015	0.0023	0.5097	0.2456	1.8455	8.0264	10.6376
30 mph	0.0056	0.0001	0.0013	0.0020	0.3662	0.1749	1.1664	5.0694	6.7858
35 mph	0.0066	0.0001	0.0015	0.0023	0.3104	0.1465	0.6326	2.7462	3.8461
40 mph	0.0016	0.0000	0.0004	0.0007	0.1568	0.0731	0.4539	1.9712	2.6578
45 mph	0.0011	0.0000	0.0003	0.0005	0.1096	0.0503	0.2515	1.0918	1.5051
50 mph	0.0010	0.0000	0.0002	0.0005	0.1045	0.0471	0.1671	0.7251	1.0455
55 mph	0.0006	0.0000	0.0001	0.0003	0.0597	0.0265	0.0403	0.1750	0.3024
60 mph	0.0009	0.0000	0.0002	0.0003	0.0691	0.0300	1.3363	5.8062	7.2429
65 mph	0.0001	0.0000	0.0000	0.0001	0.0133	0.0056	0.0000	0.0000	0.0191
70 mph	0.0018	0.0000	0.0004	0.0012	0.3973	0.1359	0.0000	0.0000	0.5367
total	0.0502	0.0007	0.0116	0.0189	4.1424	1.9687	7.5137	32.7435	46.4497

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.03	0.05	0.03	0.05	0.21	0.10	0.12	0.05
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	17.11	2.19	7.79	4.98	6.16	1.22	3.44	0.25
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**17.11**	**2.19**	**7.79**	**4.98**	**6.16**	**1.22**	**3.44**	**0.25**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.17	0.32	0.26	0.60	0.07	0.04	0.05	0.05
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.76	0.13	0.53	1.71	0.04	0.01	0.01	0.00
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.79**	**0.13**	**0.53**	**1.71**	**0.04**	**0.01**	**0.01**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.32	0.56	1.78	0.41	4.06
10 mph	0.31	0.03	0.17	0.09	0.94	0.47	0.63	2.75	5.38
15 mph	0.21	0.02	0.11	0.06	0.47	0.23	0.38	1.67	3.15
20 mph	0.11	0.01	0.06	0.03	0.16	0.08	0.59	2.60	3.65
25 mph	0.39	0.04	0.22	0.11	0.53	0.25	1.89	8.27	11.71
30 mph	0.35	0.04	0.19	0.10	0.38	0.18	1.19	5.23	7.67
35 mph	0.42	0.05	0.24	0.12	0.32	0.15	0.65	2.85	4.80
40 mph	0.11	0.01	0.06	0.04	0.16	0.08	0.47	2.06	2.98
45 mph	0.08	0.01	0.04	0.03	0.11	0.05	0.26	1.15	1.74
50 mph	0.08	0.01	0.04	0.03	0.11	0.05	0.18	0.78	1.27
55 mph	0.06	0.01	0.03	0.02	0.06	0.03	0.04	0.19	0.44
60 mph	0.09	0.01	0.05	0.03	0.07	0.03	1.45	6.50	8.25
65 mph	0.02	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.05
70 mph	0.23	0.02	0.13	0.13	0.42	0.14	0.00	0.00	1.09
RUNLOSS	17.11	2.19	7.79	4.98	6.16	1.22	3.44	0.25	43.15
RESTLOSS DIURI	0.79	0.13	0.53	1.71	0.04	0.01	0.01	0.00	3.22
total	20.34	2.59	9.68	7.50	11.28	3.54	12.97	34.71	**102.61**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8853	0.7879	1.9470	28.2228
10 mph	0.0328	0.0412	0.0402	0.0586	0.0802	0.0526	0.1477	4.9030
15 mph	0.0289	0.0364	0.0354	0.0512	0.0690	0.0463	0.1306	4.3328
20 mph	0.0259	0.0326	0.0318	0.0458	0.0626	0.0416	0.1171	3.8859
25 mph	0.0236	0.0295	0.0289	0.0415	0.0566	0.0379	0.1068	3.5434
30 mph	0.0219	0.0272	0.0267	0.0384	0.0528	0.0351	0.0989	3.2817
35 mph	0.0205	0.0254	0.0250	0.0362	0.0502	0.0331	0.0931	3.0879
40 mph	0.0196	0.0242	0.0239	0.0346	0.0482	0.0316	0.0890	2.9534
45 mph	0.0191	0.0236	0.0232	0.0337	0.0470	0.0307	0.0865	2.8700
50 mph	0.0189	0.0232	0.0229	0.0335	0.0465	0.0303	0.0854	2.8427
55 mph	0.0189	0.0234	0.0230	0.0338	0.0466	0.0304	0.0856	2.8427
60 mph	0.0193	0.0239	0.0235	0.0346	0.0474	0.0310	0.0873	2.8988
65 mph	0.0200	0.0246	0.0243	0.0362	0.0491	0.0321		
70 mph	0.0206	0.0243	0.0245	0.0384	0.0552	0.0326		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	29.7332	25.2881	17.7719	16.0092
10 mph	0.0366	0.1672	0.1282	0.0430	0.3339	0.2201	7.7508	15.5932
15 mph	0.0247	0.1298	0.0858	0.0288	0.2473	0.1503	4.6365	9.3379
20 mph	0.0164	0.1029	0.0565	0.0191	0.2073	0.1035	2.5855	5.1931
25 mph	0.0126	0.0893	0.0429	0.0145	0.1836	0.0815	1.3893	2.8028
30 mph	0.0106	0.0805	0.0356	0.0121	0.1809	0.0707	0.8550	1.7291
35 mph	0.0092	0.0724	0.0308	0.0105	0.1875	0.0642	0.5717	1.1595
40 mph	0.0083	0.0697	0.0273	0.0094	0.1926	0.0597	0.4054	0.8269
45 mph	0.0076	0.0691	0.0248	0.0085	0.1981	0.0565	0.3007	0.6169
50 mph	0.0071	0.0667	0.0227	0.0078	0.2056	0.0544	0.2310	0.4761
55 mph	0.0066	0.0679	0.0211	0.0073	0.1988	0.0515	0.1823	0.3798
60 mph	0.0065	0.0703	0.0204	0.0071	0.2031	0.0508	0.1634	0.3423
65 mph	0.0065	0.0653	0.0204	0.0071	0.2228	0.0529		
70 mph	0.0067	0.0339	0.0203	0.0072	0.4433	0.0743		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.5501	0.0606	0.2954	0.1380	0.0540	0.0148	0.0543	0.3219	1.4891
15 mph	0.1943	0.0214	0.1041	0.0482	0.0186	0.0052	0.0160	0.0948	0.5026
20 mph	0.3485	0.0383	0.1867	0.0861	0.0338	0.0094	0.0287	0.1701	0.9016
25 mph	1.5869	0.1736	0.8485	0.3910	0.1527	0.0426	0.1441	0.8529	4.1922
30 mph	1.6147	0.1757	0.8618	0.3978	0.1566	0.0434	0.1213	0.7181	4.0894
35 mph	1.2416	0.1342	0.6613	0.3065	0.1219	0.0335	0.0514	0.3041	2.8544
40 mph	0.3958	0.0427	0.2107	0.0978	0.0390	0.0107	0.0546	0.3231	1.1744
45 mph	0.3207	0.0346	0.1706	0.0794	0.0317	0.0086	0.0424	0.2512	0.9393
50 mph	0.3167	0.0341	0.1683	0.0787	0.0314	0.0085	0.0681	0.4043	1.1101
55 mph	0.2544	0.0275	0.1354	0.0636	0.0251	0.0068	0.0157	0.0933	0.6219
60 mph	0.5188	0.0562	0.2763	0.1302	0.0511	0.0140	0.0161	0.0951	1.1578
65 mph	0.0671	0.0072	0.0357	0.0170	0.0066	0.0018	0.0000	0.0000	0.1355
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	7.4096	0.8062	3.9547	1.8344	0.7225	0.1994	0.6127	3.6290	19.1683

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0455	0.0050	0.0244	0.0238	0.0116	0.0032	0.0000	0.0000	0.1135
15 mph	0.0402	0.0044	0.0215	0.0208	0.0100	0.0028	0.0000	0.0000	0.0997
20 mph	0.0360	0.0040	0.0193	0.0186	0.0091	0.0025	0.0518	0.3066	0.4478
25 mph	0.0656	0.0072	0.0351	0.0338	0.0164	0.0046	0.0826	0.4892	0.7345
30 mph	0.1214	0.0132	0.0648	0.0625	0.0305	0.0085	0.1312	0.7768	1.2088
35 mph	0.2567	0.0277	0.1367	0.1324	0.0653	0.0179	0.1235	0.7309	1.4912
40 mph	0.2728	0.0294	0.1452	0.1408	0.0696	0.0191	0.1082	0.6408	1.4260
45 mph	0.2122	0.0229	0.1129	0.1097	0.0543	0.0148	0.0765	0.4529	1.0562
50 mph	0.2357	0.0254	0.1253	0.1224	0.0605	0.0165	0.0377	0.2243	0.8478
55 mph	0.1315	0.0142	0.0700	0.0687	0.0337	0.0092	0.0189	0.1121	0.4583
60 mph	0.0804	0.0087	0.0428	0.0422	0.0205	0.0056	1.3508	8.0048	9.5559
65 mph	0.0278	0.0030	0.0148	0.0147	0.0071	0.0019	0.0000	0.0000	0.0692
70 mph	1.3137	0.1356	0.6862	0.7180	0.3668	0.0903	0.0000	0.0000	3.3107
total	2.8395	0.3008	1.4990	1.5083	0.7555	0.1969	1.9813	11.7383	20.8197

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0780	0.2046	0.3816
15 mph	0.3071	0.0338	0.1646	0.0697	0.0283	0.0079	0.0255	0.1509	0.7878
25 mph	0.0000	0.0000	0.0000	0.0000	0.0441	0.0123	0.0912	0.5402	0.6878
35 mph	0.9383	0.1014	0.4997	0.1949	0.0000	0.0000	0.0000	0.0000	1.7343
total	1.2454	0.1352	0.6643	0.2646	0.1446	0.0470	0.1947	0.8957	3.5914

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0780	0.2046	0.3816
10 mph	0.5956	0.0656	0.3198	0.1618	0.0656	0.0180	0.0543	0.3219	1.6026
15 mph	0.5416	0.0596	0.2903	0.1386	0.0569	0.0159	0.0415	0.2458	1.3901
20 mph	0.3846	0.0423	0.2060	0.1047	0.0428	0.0119	0.0805	0.4767	1.3495
25 mph	1.6525	0.1808	0.8835	0.4248	0.2132	0.0595	0.3179	1.8823	5.6144
30 mph	1.7361	0.1889	0.9266	0.4603	0.1871	0.0519	0.2525	1.4949	5.2983
35 mph	2.4366	0.2634	1.2977	0.6338	0.1872	0.0514	0.1748	1.0349	6.0799
40 mph	0.6686	0.0722	0.3559	0.2387	0.1086	0.0297	0.1628	0.9639	2.6004
45 mph	0.5328	0.0575	0.2835	0.1891	0.0860	0.0235	0.1189	0.7041	1.9955
50 mph	0.5524	0.0595	0.2936	0.2011	0.0919	0.0250	0.1058	0.6286	1.9579
55 mph	0.3859	0.0417	0.2054	0.1323	0.0588	0.0160	0.0347	0.2055	1.0802
60 mph	0.5992	0.0649	0.3191	0.1724	0.0716	0.0196	1.3669	8.0999	10.7137
65 mph	0.0949	0.0102	0.0504	0.0317	0.0137	0.0037	0.0000	0.0000	0.2047
70 mph	1.3137	0.1356	0.6862	0.7180	0.3668	0.0903	0.0000	0.0000	3.3107
total	11.4945	1.2422	6.1180	3.6073	1.6225	0.4433	2.7887	16.2630	43.5794

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0084	0.0001	0.0021	0.0028	0.4473	0.1512	24.6398	91.1969	116.4486
15 mph	0.0023	0.0000	0.0006	0.0007	0.1325	0.0413	4.9132	18.2042	23.2948
20 mph	0.0030	0.0001	0.0007	0.0010	0.2222	0.0569	5.4796	20.2481	26.0116
25 mph	0.0116	0.0003	0.0028	0.0037	0.9839	0.2239	16.1941	60.1040	77.5243
30 mph	0.0107	0.0003	0.0025	0.0034	1.0663	0.2137	9.0602	33.7090	44.0661
35 mph	0.0076	0.0002	0.0018	0.0024	0.9044	0.1588	2.7260	10.1721	13.9733
40 mph	0.0023	0.0001	0.0005	0.0007	0.3095	0.0492	2.1480	8.0605	10.5708
45 mph	0.0017	0.0001	0.0004	0.0005	0.2653	0.0388	1.2744	4.8107	6.3920
50 mph	0.0016	0.0001	0.0004	0.0005	0.2754	0.0373	1.5908	6.0336	7.9397
55 mph	0.0012	0.0000	0.0003	0.0004	0.2130	0.0283	0.2897	1.1106	1.6435
60 mph	0.0024	0.0001	0.0005	0.0007	0.4352	0.0559	0.2597	1.0010	1.7555
65 mph	0.0003	0.0000	0.0001	0.0001	0.0597	0.0073	0.0000	0.0000	0.0674
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0531	0.0014	0.0125	0.0170	5.3146	1.0625	68.5756	254.6508	329.6875

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0007	0.0000	0.0002	0.0005	0.0959	0.0324	0.0000	0.0000	0.1297
15 mph	0.0005	0.0000	0.0001	0.0003	0.0710	0.0221	0.0000	0.0000	0.0941
20 mph	0.0003	0.0000	0.0001	0.0002	0.0595	0.0152	9.8784	36.5024	46.4562
25 mph	0.0005	0.0000	0.0001	0.0003	0.1055	0.0240	9.2890	34.4759	43.8953
30 mph	0.0008	0.0000	0.0002	0.0005	0.2079	0.0417	9.7999	36.4615	46.5125
35 mph	0.0016	0.0000	0.0004	0.0010	0.4848	0.0851	6.5525	24.4503	31.5758
40 mph	0.0016	0.0000	0.0004	0.0010	0.5531	0.0879	4.2595	15.9841	20.8877
45 mph	0.0012	0.0000	0.0003	0.0008	0.4552	0.0665	2.2975	8.6725	11.4939
50 mph	0.0012	0.0000	0.0003	0.0008	0.5315	0.0721	0.8824	3.3468	4.8351
55 mph	0.0006	0.0000	0.0001	0.0004	0.2855	0.0379	0.3482	1.3347	2.0075
60 mph	0.0004	0.0000	0.0001	0.0002	0.1750	0.0225	21.8490	84.2138	106.2610
65 mph	0.0001	0.0000	0.0000	0.0001	0.0640	0.0078	0.0000	0.0000	0.0720
70 mph	0.0059	0.0001	0.0012	0.0037	5.8564	0.5036	0.0000	0.0000	6.3709
total	0.0153	0.0004	0.0034	0.0099	8.9453	1.0189	65.1565	245.4420	320.5916

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1504	10.1927	23.2657
15 mph	0.0036	0.0001	0.0009	0.0011	0.2013	0.0627	7.8219	28.9813	37.0728
25 mph	0.0000	0.0000	0.0000	0.0000	0.2839	0.0646	10.2561	38.0654	48.6700
35 mph	0.0058	0.0002	0.0013	0.0015	0.0000	0.0000	0.0000	0.0000	0.0088
total	0.0093	0.0002	0.0022	0.0026	5.3053	2.2298	24.2284	77.2394	109.0172

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1504	10.1927	23.2657
10 mph	0.0091	0.0002	0.0022	0.0032	0.5432	0.1836	24.6398	91.1969	116.5782
15 mph	0.0063	0.0001	0.0015	0.0021	0.4049	0.1262	12.7351	47.1855	60.4617
20 mph	0.0033	0.0001	0.0008	0.0012	0.2817	0.0721	15.3580	56.7505	72.4677
25 mph	0.0121	0.0003	0.0029	0.0041	1.3732	0.3125	35.7392	132.6453	170.0895
30 mph	0.0115	0.0003	0.0027	0.0040	1.2741	0.2554	18.8601	70.1705	90.5786
35 mph	0.0150	0.0004	0.0035	0.0050	1.3892	0.2440	9.2785	34.6224	45.5579
40 mph	0.0039	0.0001	0.0009	0.0018	0.8626	0.1371	6.4075	24.0446	31.4584
45 mph	0.0029	0.0001	0.0007	0.0013	0.7205	0.1053	3.5719	13.4832	17.8859
50 mph	0.0028	0.0001	0.0006	0.0013	0.8069	0.1094	2.4733	9.3804	12.7748
55 mph	0.0018	0.0001	0.0004	0.0008	0.4986	0.0662	0.6379	2.4453	3.6511
60 mph	0.0027	0.0001	0.0006	0.0010	0.6101	0.0783	22.1087	85.2149	108.0165
65 mph	0.0004	0.0000	0.0001	0.0002	0.1237	0.0151	0.0000	0.0000	0.1394
70 mph	0.0059	0.0001	0.0012	0.0037	5.8564	0.5036	0.0000	0.0000	6.3709
total	0.0777	0.0020	0.0182	0.0295	19.5651	4.3111	157.9606	577.3321	759.2963

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.89	2.13	6.23	10.40	23.65
10 mph	0.60	0.07	0.32	0.17	0.61	0.20	24.69	91.52	118.18
15 mph	0.55	0.06	0.29	0.14	0.46	0.14	12.78	47.43	61.85
20 mph	0.39	0.04	0.21	0.11	0.32	0.08	15.44	57.23	73.82
25 mph	1.66	0.18	0.89	0.43	1.59	0.37	36.06	134.53	175.70
30 mph	1.75	0.19	0.93	0.46	1.46	0.31	19.11	71.67	95.88
35 mph	2.45	0.26	1.30	0.64	1.58	0.30	9.45	35.66	51.64
40 mph	0.67	0.07	0.36	0.24	0.97	0.17	6.57	25.01	34.06
45 mph	0.54	0.06	0.28	0.19	0.81	0.13	3.69	14.19	19.88
50 mph	0.56	0.06	0.29	0.20	0.90	0.13	2.58	10.01	14.73
55 mph	0.39	0.04	0.21	0.13	0.56	0.08	0.67	2.65	4.73
60 mph	0.60	0.07	0.32	0.17	0.68	0.10	23.48	93.31	118.73
65 mph	0.10	0.01	0.05	0.03	0.14	0.02	0.00	0.00	0.34
70 mph	1.32	0.14	0.69	0.72	6.22	0.59	0.00	0.00	9.68
total	11.57	1.24	6.14	3.64	21.19	4.75	160.75	593.60	**802.88**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.7236	129.4807	323.0973	277.8418
10 mph	0.4796	0.5803	0.6288	0.7906	0.2207	0.1981	0.3089	50.5799
15 mph	0.4381	0.5304	0.5737	0.7186	0.2001	0.1808	0.3089	46.2403
20 mph	0.4010	0.4849	0.5252	0.6577	0.1838	0.1656	0.2826	42.3203
25 mph	0.3676	0.4427	0.4809	0.6028	0.1684	0.1520	0.2597	38.8654
30 mph	0.3378	0.4047	0.4414	0.5546	0.1553	0.1399	0.2390	35.7695
35 mph	0.3112	0.3703	0.4061	0.5119	0.1437	0.1292	0.2205	33.0023
40 mph	0.2880	0.3421	0.3756	0.4738	0.1331	0.1196	0.2040	30.5450
45 mph	0.2674	0.3175	0.3485	0.4398	0.1237	0.1110	0.1894	28.3423
50 mph	0.2488	0.2944	0.3239	0.4096	0.1152	0.1032	0.1760	26.3641
55 mph	0.2323	0.2754	0.3027	0.3829	0.1074	0.0963	0.1640	24.5937
60 mph	0.2173	0.2581	0.2832	0.3580	0.1004	0.0901	0.1534	23.0116
65 mph	0.2036	0.2402	0.2648	0.3364	0.0942	0.0845		
70 mph	0.1985	0.2228	0.2538	0.3323	0.0938	0.0817		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2149	1.9074
10 mph	1.9150	2.0788	1.9787	2.2231	2.6354	2.5044	1.0109	2.6821
15 mph	0.9347	1.0348	0.9661	1.0863	1.3008	1.2263	0.7120	1.8899
20 mph	0.3637	0.4234	0.3756	0.4224	0.5214	0.4782	0.5151	1.3637
25 mph	0.2183	0.2616	0.2251	0.2532	0.3192	0.2879	0.3775	1.0008
30 mph	0.1648	0.1990	0.1696	0.1910	0.2447	0.2177	0.2783	0.7371
35 mph	0.1310	0.1585	0.1345	0.1515	0.1986	0.1734	0.2051	0.5427
40 mph	0.1081	0.1332	0.1109	0.1249	0.1675	0.1433	0.1511	0.4000
45 mph	0.0916	0.1163	0.0939	0.1058	0.1462	0.1218	0.1114	0.2948
50 mph	0.0792	0.1037	0.0810	0.0914	0.1318	0.1057	0.0821	0.2172
55 mph	0.0697	0.0971	0.0712	0.0803	0.1206	0.0935	0.0605	0.1603
60 mph	0.0657	0.0984	0.0671	0.0757	0.1204	0.0888	0.0520	0.1376
65 mph	0.0658	0.1010	0.0670	0.0756	0.1314	0.0899		
70 mph	0.0668	0.0783	0.0664	0.0753	0.1904	0.0945		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	8.0527	0.8530	4.6201	1.8602	0.1488	0.0557	0.1136	3.3204	19.0246
15 mph	2.9420	0.3118	1.6862	0.6763	0.0540	0.0203	0.0379	1.0118	6.7404
20 mph	5.3866	0.5702	3.0869	1.2380	0.0991	0.0372	0.0693	1.8521	12.3395
25 mph	24.6905	2.6029	14.1332	5.6737	0.4540	0.1709	0.3502	9.3551	57.4306
30 mph	24.9578	2.6174	14.2708	5.7414	0.4605	0.1731	0.2930	7.8272	56.3413
35 mph	18.8115	1.9595	10.7410	4.3358	0.3488	0.1307	0.1217	3.2498	39.6988
40 mph	5.8023	0.6035	3.3117	1.3378	0.1077	0.0403	0.1251	3.3420	14.6704
45 mph	4.4893	0.4667	2.5609	1.0349	0.0834	0.0312	0.0929	2.4808	11.2400
50 mph	4.1775	0.4328	2.3796	0.9638	0.0776	0.0290	0.1403	3.7499	11.9505
55 mph	3.1201	0.3239	1.7791	0.7208	0.0579	0.0217	0.0302	0.8073	6.8609
60 mph	5.8386	0.6070	3.3290	1.3478	0.1083	0.0405	0.0282	0.7553	12.0548
65 mph	0.6837	0.0706	0.3891	0.1583	0.0127	0.0048	0.0000	0.0000	1.3192
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	108.9527	11.4192	62.2877	25.0888	2.0129	0.7556	1.4023	37.7518	249.6709

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.6660	0.0705	0.3821	0.3213	0.0319	0.0119	0.0000	0.0000	1.4838
15 mph	0.6083	0.0645	0.3486	0.2920	0.0289	0.0109	0.0000	0.0000	1.3533
20 mph	0.5569	0.0589	0.3191	0.2673	0.0266	0.0100	0.1249	3.3389	4.7027
25 mph	1.0210	0.1076	0.5844	0.4900	0.0487	0.0183	0.2009	5.3661	7.8371
30 mph	1.8765	0.1968	1.0730	0.9016	0.0898	0.0337	0.3170	8.4663	12.9547
35 mph	3.8895	0.4051	2.2209	1.8723	0.1870	0.0701	0.2925	7.8113	16.7487
40 mph	3.9990	0.4159	2.2825	1.9257	0.1925	0.0721	0.2480	6.6272	15.7629
45 mph	2.9703	0.3088	1.6944	1.4300	0.1430	0.0535	0.1674	4.4723	11.2397
50 mph	3.1096	0.3221	1.7713	1.4982	0.1499	0.0560	0.0778	2.0800	9.0649
55 mph	1.6128	0.1674	0.9196	0.7781	0.0776	0.0290	0.0362	0.9702	4.5911
60 mph	0.9054	0.0941	0.5162	0.4365	0.0436	0.0163	2.3736	63.5442	67.9300
65 mph	0.2827	0.0292	0.1609	0.1367	0.0136	0.0051	0.0000	0.0000	0.6283
70 mph	12.6762	1.2459	7.0959	6.2122	0.6240	0.2266	0.0000	0.0000	28.0808
total	34.1744	3.4870	19.3690	16.5621	1.6570	0.6136	3.8383	102.6767	182.3781

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9368	2.0140	29.8592
15 mph	4.6504	0.4929	2.6653	0.9788	0.0820	0.0309	0.0603	1.6109	10.5714
25 mph	0.0000	0.0000	0.0000	0.0000	0.1310	0.0493	0.2218	5.9248	6.3269
35 mph	14.2154	1.4807	8.1167	2.7566	0.0000	0.0000	0.0000	0.0000	26.5694
total	18.8658	1.9736	10.7820	3.7353	10.7157	4.4858	13.2189	9.5497	73.3268

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9368	2.0140	29.8592
10 mph	8.7187	0.9235	5.0022	2.1816	0.1807	0.0676	0.1136	3.3204	20.5084
15 mph	8.2008	0.8692	4.7000	1.9471	0.1648	0.0621	0.0982	2.6227	18.6650
20 mph	5.9434	0.6292	3.4060	1.5053	0.1257	0.0472	0.1942	5.1911	17.0421
25 mph	25.7115	2.7105	14.7177	6.1637	0.6336	0.2386	0.7729	20.6461	71.5947
30 mph	26.8343	2.8142	15.3438	6.6430	0.5503	0.2068	0.6100	16.2935	69.2960
35 mph	36.9164	3.8453	21.0786	8.9647	0.5358	0.2008	0.4141	11.0611	83.0169
40 mph	9.8014	1.0194	5.5942	3.2635	0.3002	0.1124	0.3731	9.9692	30.4333
45 mph	7.4596	0.7754	4.2552	2.4649	0.2264	0.0847	0.2603	6.9530	22.4797
50 mph	7.2871	0.7549	4.1509	2.4620	0.2275	0.0850	0.2180	5.8300	21.0154
55 mph	4.7329	0.4913	2.6988	1.4989	0.1356	0.0507	0.0664	1.7774	11.4521
60 mph	6.7440	0.7011	3.8452	1.7844	0.1519	0.0568	2.4018	64.2996	79.9848
65 mph	0.9665	0.0998	0.5500	0.2950	0.0263	0.0098	0.0000	0.0000	1.9475
70 mph	12.6762	1.2459	7.0959	6.2122	0.6240	0.2266	0.0000	0.0000	28.0808
total	161.9929	16.8798	92.4386	45.3862	14.3856	5.8550	18.4595	149.9782	505.3758

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.4399	0.0017	0.0318	0.1429	3.5300	1.7204	3.2136	15.6861	24.7665
15 mph	0.0859	0.0003	0.0062	0.0279	0.6970	0.3370	0.7545	3.6843	5.5931
20 mph	0.0668	0.0003	0.0048	0.0217	0.5587	0.2628	1.0916	5.3172	7.3240
25 mph	0.2006	0.0009	0.0145	0.0651	1.7102	0.7910	4.4004	21.4616	28.6442
30 mph	0.1666	0.0007	0.0120	0.0540	1.4420	0.6581	2.9485	14.3707	19.6527
35 mph	0.1084	0.0005	0.0078	0.0351	0.9576	0.4289	0.9780	4.7611	7.2774
40 mph	0.0298	0.0001	0.0021	0.0096	0.2693	0.1181	0.8008	3.8994	5.1293
45 mph	0.0210	0.0001	0.0015	0.0068	0.1958	0.0836	0.4722	2.2986	3.0797
50 mph	0.0182	0.0001	0.0013	0.0059	0.1765	0.0726	0.5656	2.7520	3.5922
55 mph	0.0128	0.0001	0.0009	0.0041	0.1293	0.0514	0.0962	0.4688	0.7635
60 mph	0.0242	0.0001	0.0017	0.0078	0.2580	0.0976	0.0826	0.4023	0.8742
65 mph	0.0030	0.0000	0.0002	0.0010	0.0352	0.0124	0.0000	0.0000	0.0518
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.1771	0.0050	0.0848	0.3820	9.9594	4.6341	15.4042	75.1022	106.7488

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0364	0.0001	0.0026	0.0247	0.7570	0.3689	0.0000	0.0000	1.1897
15 mph	0.0178	0.0001	0.0013	0.0121	0.3736	0.1806	0.0000	0.0000	0.5854
20 mph	0.0069	0.0000	0.0005	0.0047	0.1497	0.0704	1.9679	9.5856	11.7859
25 mph	0.0083	0.0000	0.0006	0.0056	0.1834	0.0848	2.5241	12.3104	15.1173
30 mph	0.0125	0.0001	0.0009	0.0085	0.2811	0.1283	3.1893	15.5441	19.1648
35 mph	0.0224	0.0001	0.0016	0.0151	0.5134	0.2299	2.3509	11.4442	14.5776
40 mph	0.0205	0.0001	0.0015	0.0139	0.4812	0.2111	1.5880	7.7326	10.0489
45 mph	0.0139	0.0001	0.0010	0.0094	0.3359	0.1435	0.8513	4.1439	5.4989
50 mph	0.0135	0.0001	0.0010	0.0091	0.3406	0.1402	0.3138	1.5265	2.3448
55 mph	0.0066	0.0000	0.0005	0.0045	0.1732	0.0689	0.1156	0.5634	0.9326
60 mph	0.0037	0.0000	0.0003	0.0025	0.1037	0.0392	6.9482	33.8408	40.9385
65 mph	0.0013	0.0000	0.0001	0.0008	0.0377	0.0132	0.0000	0.0000	0.0532
70 mph	0.0584	0.0002	0.0041	0.0385	2.5150	0.6402	0.0000	0.0000	3.2564
total	0.2223	0.0010	0.0158	0.1494	6.2456	2.3195	19.8490	96.6916	125.4941

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4205	1.2144	8.0850
15 mph	0.1358	0.0005	0.0098	0.0404	1.0588	0.5119	1.2012	5.8655	8.8239
25 mph	0.0000	0.0000	0.0000	0.0000	0.4934	0.2282	2.7869	13.5922	17.1007
35 mph	0.0819	0.0004	0.0059	0.0223	0.0000	0.0000	0.0000	0.0000	0.1104
total	0.2176	0.0009	0.0157	0.0627	5.8157	2.9268	4.4085	20.6721	34.1200

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4205	1.2144	8.0850
10 mph	0.4763	0.0019	0.0344	0.1676	4.2870	2.0893	3.2136	15.6861	25.9562
15 mph	0.2394	0.0010	0.0173	0.0804	2.1294	1.0295	1.9557	9.5499	15.0025
20 mph	0.0737	0.0003	0.0053	0.0264	0.7084	0.3333	3.0595	14.9029	19.1098
25 mph	0.2088	0.0009	0.0151	0.0708	2.3870	1.1040	9.7114	47.3642	60.8622
30 mph	0.1791	0.0008	0.0129	0.0625	1.7230	0.7864	6.1379	29.9148	38.8175
35 mph	0.2127	0.0009	0.0153	0.0725	1.4710	0.6589	3.3289	16.2053	21.9655
40 mph	0.0503	0.0002	0.0036	0.0235	0.7505	0.3293	2.3888	11.6320	15.1783
45 mph	0.0350	0.0002	0.0025	0.0162	0.5317	0.2271	1.3235	6.4425	8.5786
50 mph	0.0318	0.0002	0.0023	0.0150	0.5171	0.2128	0.8794	4.2786	5.9370
55 mph	0.0194	0.0001	0.0014	0.0086	0.3025	0.1202	0.2118	1.0321	1.6961
60 mph	0.0279	0.0002	0.0020	0.0103	0.3617	0.1369	7.0308	34.2430	41.8128
65 mph	0.0043	0.0000	0.0003	0.0018	0.0730	0.0256	0.0000	0.0000	0.1050
70 mph	0.0584	0.0002	0.0041	0.0385	2.5150	0.6402	0.0000	0.0000	3.2564
total	1.6170	0.0068	0.1163	0.5942	22.0207	9.8803	39.6617	192.4658	266.3629

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	14.77	6.59	13.36	3.23	37.94
10 mph	9.19	0.93	5.04	2.35	4.47	2.16	3.33	19.01	46.46
15 mph	8.44	0.87	4.72	2.03	2.29	1.09	2.05	12.17	33.67
20 mph	6.02	0.63	3.41	1.53	0.83	0.38	3.25	20.09	36.15
25 mph	25.92	2.71	14.73	6.23	3.02	1.34	10.48	68.01	132.46
30 mph	27.01	2.82	15.36	6.71	2.27	0.99	6.75	46.21	108.11
35 mph	37.13	3.85	21.09	9.04	2.01	0.86	3.74	27.27	104.98
40 mph	9.85	1.02	5.60	3.29	1.05	0.44	2.76	21.60	45.61
45 mph	7.49	0.78	4.26	2.48	0.76	0.31	1.58	13.40	31.06
50 mph	7.32	0.76	4.15	2.48	0.74	0.30	1.10	10.11	26.95
55 mph	4.75	0.49	2.70	1.51	0.44	0.17	0.28	2.81	13.15
60 mph	6.77	0.70	3.85	1.79	0.51	0.19	9.43	98.54	121.80
65 mph	0.97	0.10	0.55	0.30	0.10	0.04	0.00	0.00	2.05
70 mph	12.73	1.25	7.10	6.25	3.14	0.87	0.00	0.00	31.34
total	163.61	16.89	92.55	45.98	36.41	15.74	58.12	342.44	**771.74**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0377	0.0386	0.0386	0.0389
10 mph	0.0033	0.0038	0.0034	0.0037	0.0047	0.0049	0.0049	0.0049
15 mph	0.0022	0.0025	0.0022	0.0025	0.0032	0.0032	0.0032	0.0032
20 mph	0.0016	0.0017	0.0016	0.0017	0.0022	0.0023	0.0023	0.0023
25 mph	0.0011	0.0013	0.0012	0.0013	0.0016	0.0017	0.0017	0.0017
30 mph	0.0009	0.0010	0.0009	0.0010	0.0013	0.0013	0.0013	0.0013
35 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0011	0.0011	0.0011
40 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
45 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0009
50 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
55 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
60 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
65 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0010		
70 mph	0.0008	0.0008	0.0007	0.0008	0.0011	0.0011		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3973	0.4668	0.0015	0.0023
10 mph	0.0017	0.0135	0.0086	0.0022	0.0149	0.0149	0.0052	0.0099
15 mph	0.0015	0.0113	0.0075	0.0019	0.0124	0.0130	0.0045	0.0085
20 mph	0.0012	0.0092	0.0064	0.0016	0.0105	0.0111	0.0040	0.0076
25 mph	0.0011	0.0076	0.0055	0.0014	0.0089	0.0095	0.0036	0.0069
30 mph	0.0009	0.0065	0.0048	0.0012	0.0079	0.0084	0.0033	0.0063
35 mph	0.0008	0.0057	0.0044	0.0011	0.0071	0.0076	0.0031	0.0059
40 mph	0.0008	0.0052	0.0040	0.0010	0.0066	0.0069	0.0029	0.0055
45 mph	0.0007	0.0048	0.0037	0.0009	0.0061	0.0064	0.0027	0.0051
50 mph	0.0007	0.0045	0.0035	0.0009	0.0058	0.0060	0.0026	0.0048
55 mph	0.0006	0.0044	0.0033	0.0008	0.0055	0.0057	0.0024	0.0046
60 mph	0.0006	0.0044	0.0032	0.0008	0.0054	0.0055	0.0024	0.0045
65 mph	0.0006	0.0044	0.0032	0.0008	0.0056	0.0055		
70 mph	0.0006	0.0036	0.0031	0.0008	0.0068	0.0055		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0562	0.0055	0.0247	0.0087	0.0032	0.0014	0.0018	0.0003	0.1018
15 mph	0.0149	0.0015	0.0066	0.0023	0.0009	0.0004	0.0004	0.0001	0.0270
20 mph	0.0209	0.0021	0.0092	0.0032	0.0012	0.0005	0.0006	0.0001	0.0378
25 mph	0.0771	0.0076	0.0338	0.0120	0.0044	0.0019	0.0023	0.0004	0.1395
30 mph	0.0660	0.0065	0.0289	0.0103	0.0038	0.0016	0.0016	0.0003	0.1189
35 mph	0.0443	0.0043	0.0194	0.0069	0.0025	0.0011	0.0006	0.0001	0.0792
40 mph	0.0128	0.0012	0.0056	0.0020	0.0007	0.0003	0.0006	0.0001	0.0234
45 mph	0.0098	0.0009	0.0043	0.0015	0.0006	0.0002	0.0004	0.0001	0.0178
50 mph	0.0094	0.0009	0.0041	0.0015	0.0005	0.0002	0.0007	0.0001	0.0175
55 mph	0.0077	0.0007	0.0034	0.0012	0.0004	0.0002	0.0002	0.0000	0.0138
60 mph	0.0165	0.0016	0.0072	0.0026	0.0009	0.0004	0.0002	0.0000	0.0294
65 mph	0.0023	0.0002	0.0010	0.0004	0.0001	0.0001	0.0000	0.0000	0.0041
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.3379	0.0331	0.1483	0.0525	0.0193	0.0082	0.0091	0.0016	0.6101

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0046	0.0005	0.0020	0.0015	0.0007	0.0003	0.0000	0.0000	0.0096
15 mph	0.0031	0.0003	0.0014	0.0010	0.0005	0.0002	0.0000	0.0000	0.0064
20 mph	0.0022	0.0002	0.0009	0.0007	0.0003	0.0001	0.0010	0.0002	0.0057
25 mph	0.0032	0.0003	0.0014	0.0010	0.0005	0.0002	0.0013	0.0002	0.0081
30 mph	0.0050	0.0005	0.0022	0.0016	0.0007	0.0003	0.0017	0.0003	0.0123
35 mph	0.0092	0.0009	0.0040	0.0030	0.0014	0.0006	0.0014	0.0003	0.0206
40 mph	0.0088	0.0009	0.0039	0.0029	0.0013	0.0006	0.0011	0.0002	0.0196
45 mph	0.0065	0.0006	0.0028	0.0021	0.0010	0.0004	0.0008	0.0001	0.0143
50 mph	0.0070	0.0007	0.0031	0.0023	0.0010	0.0004	0.0004	0.0001	0.0149
55 mph	0.0040	0.0004	0.0017	0.0013	0.0006	0.0003	0.0002	0.0000	0.0084
60 mph	0.0026	0.0002	0.0011	0.0008	0.0004	0.0002	0.0139	0.0025	0.0217
65 mph	0.0010	0.0001	0.0004	0.0003	0.0001	0.0001	0.0000	0.0000	0.0020
70 mph	0.0483	0.0045	0.0209	0.0156	0.0071	0.0031	0.0000	0.0000	0.0994
total	0.1052	0.0101	0.0459	0.0341	0.0156	0.0067	0.0217	0.0039	0.2431

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0015	0.0003	0.0062
15 mph	0.0236	0.0023	0.0104	0.0034	0.0013	0.0006	0.0006	0.0001	0.0422
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0014	0.0003	0.0035
35 mph	0.0335	0.0033	0.0147	0.0044	0.0000	0.0000	0.0000	0.0000	0.0558
total	0.0571	0.0056	0.0250	0.0077	0.0056	0.0024	0.0036	0.0007	0.1077

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0015	0.0003	0.0062
10 mph	0.0609	0.0060	0.0267	0.0102	0.0039	0.0017	0.0018	0.0003	0.1115
15 mph	0.0416	0.0041	0.0183	0.0067	0.0026	0.0011	0.0010	0.0002	0.0756
20 mph	0.0231	0.0023	0.0101	0.0040	0.0015	0.0006	0.0016	0.0003	0.0434
25 mph	0.0803	0.0079	0.0352	0.0130	0.0061	0.0026	0.0050	0.0009	0.1511
30 mph	0.0709	0.0069	0.0311	0.0119	0.0045	0.0019	0.0033	0.0006	0.1312
35 mph	0.0869	0.0085	0.0381	0.0142	0.0039	0.0017	0.0020	0.0004	0.1556
40 mph	0.0216	0.0021	0.0095	0.0049	0.0020	0.0009	0.0017	0.0003	0.0430
45 mph	0.0162	0.0016	0.0071	0.0036	0.0015	0.0006	0.0012	0.0002	0.0321
50 mph	0.0164	0.0016	0.0072	0.0037	0.0016	0.0007	0.0010	0.0002	0.0324
55 mph	0.0116	0.0011	0.0051	0.0025	0.0010	0.0004	0.0003	0.0001	0.0222
60 mph	0.0191	0.0019	0.0083	0.0034	0.0013	0.0006	0.0140	0.0025	0.0511
65 mph	0.0033	0.0003	0.0014	0.0007	0.0003	0.0001	0.0000	0.0000	0.0061
70 mph	0.0483	0.0045	0.0209	0.0156	0.0071	0.0031	0.0000	0.0000	0.0994
total	0.5002	0.0487	0.2192	0.0944	0.0405	0.0173	0.0345	0.0062	0.9610

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0004	0.0000	0.0001	0.0001	0.0200	0.0102	0.0166	0.0582	0.1057
15 mph	0.0001	0.0000	0.0000	0.0000	0.0066	0.0036	0.0048	0.0166	0.0318
20 mph	0.0002	0.0000	0.0001	0.0001	0.0113	0.0061	0.0085	0.0295	0.0557
25 mph	0.0010	0.0000	0.0004	0.0004	0.0477	0.0260	0.0424	0.1475	0.2653
30 mph	0.0009	0.0000	0.0003	0.0003	0.0464	0.0253	0.0355	0.1233	0.2322
35 mph	0.0007	0.0000	0.0003	0.0003	0.0345	0.0187	0.0148	0.0514	0.1207
40 mph	0.0002	0.0000	0.0001	0.0001	0.0106	0.0057	0.0154	0.0534	0.0854
45 mph	0.0002	0.0000	0.0001	0.0001	0.0082	0.0044	0.0116	0.0401	0.0646
50 mph	0.0002	0.0000	0.0001	0.0001	0.0078	0.0041	0.0177	0.0613	0.0912
55 mph	0.0001	0.0000	0.0000	0.0000	0.0059	0.0031	0.0039	0.0134	0.0265
60 mph	0.0002	0.0000	0.0001	0.0001	0.0117	0.0061	0.0038	0.0130	0.0350
65 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0008	0.0000	0.0000	0.0023
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0043	0.0001	0.0015	0.0015	0.2122	0.1142	0.1748	0.6077	1.1163

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0043	0.0022	0.0000	0.0000	0.0066
15 mph	0.0000	0.0000	0.0000	0.0000	0.0036	0.0019	0.0000	0.0000	0.0055
20 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0016	0.0153	0.0531	0.0731
25 mph	0.0000	0.0000	0.0000	0.0000	0.0051	0.0028	0.0243	0.0846	0.1169
30 mph	0.0001	0.0000	0.0000	0.0001	0.0090	0.0049	0.0384	0.1334	0.1859
35 mph	0.0001	0.0000	0.0001	0.0001	0.0185	0.0100	0.0356	0.1236	0.1881
40 mph	0.0001	0.0000	0.0001	0.0001	0.0189	0.0102	0.0305	0.1059	0.1658
45 mph	0.0001	0.0000	0.0000	0.0001	0.0141	0.0076	0.0208	0.0722	0.1150
50 mph	0.0001	0.0000	0.0000	0.0001	0.0150	0.0080	0.0098	0.0340	0.0671
55 mph	0.0001	0.0000	0.0000	0.0000	0.0079	0.0042	0.0046	0.0161	0.0330
60 mph	0.0000	0.0000	0.0000	0.0000	0.0047	0.0024	0.3155	1.0977	1.4204
65 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0000	0.0000	0.0025
70 mph	0.0006	0.0000	0.0002	0.0004	0.0896	0.0376	0.0000	0.0000	0.1284
total	0.0014	0.0000	0.0005	0.0010	0.1953	0.0943	0.4949	1.7206	2.5081

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0014	0.1052
15 mph	0.0002	0.0000	0.0001	0.0001	0.0101	0.0054	0.0076	0.0265	0.0499
25 mph	0.0000	0.0000	0.0000	0.0000	0.0138	0.0075	0.0268	0.0934	0.1415
35 mph	0.0005	0.0000	0.0002	0.0002	0.0000	0.0000	0.0000	0.0000	0.0009
total	0.0007	0.0000	0.0003	0.0002	0.0883	0.0517	0.0349	0.1213	0.2975

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0014	0.1052
10 mph	0.0004	0.0000	0.0001	0.0002	0.0243	0.0124	0.0166	0.0582	0.1122
15 mph	0.0004	0.0000	0.0001	0.0001	0.0203	0.0109	0.0123	0.0431	0.0873
20 mph	0.0003	0.0000	0.0001	0.0001	0.0143	0.0077	0.0237	0.0825	0.1288
25 mph	0.0010	0.0000	0.0004	0.0004	0.0666	0.0363	0.0936	0.3255	0.5238
30 mph	0.0010	0.0000	0.0004	0.0004	0.0555	0.0303	0.0739	0.2567	0.4181
35 mph	0.0014	0.0000	0.0005	0.0005	0.0529	0.0288	0.0505	0.1750	0.3096
40 mph	0.0004	0.0000	0.0001	0.0002	0.0295	0.0160	0.0459	0.1592	0.2512
45 mph	0.0003	0.0000	0.0001	0.0001	0.0223	0.0120	0.0324	0.1123	0.1796
50 mph	0.0003	0.0000	0.0001	0.0001	0.0228	0.0121	0.0275	0.0953	0.1582
55 mph	0.0002	0.0000	0.0001	0.0001	0.0138	0.0073	0.0085	0.0295	0.0595
60 mph	0.0003	0.0000	0.0001	0.0001	0.0164	0.0085	0.3193	1.1108	1.4554
65 mph	0.0000	0.0000	0.0000	0.0000	0.0031	0.0016	0.0000	0.0000	0.0048
70 mph	0.0006	0.0000	0.0002	0.0004	0.0896	0.0376	0.0000	0.0000	0.1284
total	0.0064	0.0002	0.0023	0.0028	0.4958	0.2603	0.7046	2.4497	3.9220

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00	0.11
10 mph	0.06	0.01	0.03	0.01	0.03	0.01	0.02	0.06	0.22
15 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.01	0.04	0.16
20 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.08	0.17
25 mph	0.08	0.01	0.04	0.01	0.07	0.04	0.10	0.33	0.67
30 mph	0.07	0.01	0.03	0.01	0.06	0.03	0.08	0.26	0.55
35 mph	0.09	0.01	0.04	0.01	0.06	0.03	0.05	0.18	0.47
40 mph	0.02	0.00	0.01	0.01	0.03	0.02	0.05	0.16	0.29
45 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.11	0.21
50 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.10	0.19
55 mph	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.03	0.08
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.33	1.11	1.51
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.05	0.00	0.02	0.02	0.10	0.04	0.00	0.00	0.23
total	0.51	0.05	0.22	0.10	0.54	0.28	0.74	2.46	**4.88**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	15.03	1.32	6.58	2.11	1.14	0.55	0.87	0.09
Diesel	0.21	0.00	0.01	0.06	2.37	1.39	7.54	9.53
Electric	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	17.87	1.32	6.59	2.16	3.51	1.94	8.41	9.62

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.21	0.54	2.72	1.82	1.22	0.59	3.15	0.32
Diesel	0.09	0.00	0.01	0.05	2.54	1.49	27.19	34.35
Electric	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.38	0.54	2.73	1.87	3.76	2.08	30.34	34.67

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.52	0.22	1.10	0.30	0.10	0.05	0.15	0.02
Diesel	0.03	0.00	0.00	0.01	0.21	0.12	1.29	1.63
Electric	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.99	0.22	1.10	0.31	0.31	0.17	1.44	1.65

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	23.76	2.08	10.40	4.23	2.46	1.18	4.17	0.43	48.70
Diesel	0.33	0.00	0.02	0.12	5.12	3.00	36.02	45.51	90.12
Electric	4.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.16
Total	28.25	2.08	10.42	4.34	7.58	4.18	40.19	45.94	**142.98**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	767.68
Internal	29.54
Total	**797.22**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0347	0.0355	0.0355	0.0357
10 mph	0.0031	0.0035	0.0031	0.0034	0.0044	0.0045	0.0045	0.0045
15 mph	0.0020	0.0023	0.0021	0.0023	0.0029	0.0030	0.0030	0.0030
20 mph	0.0014	0.0016	0.0014	0.0016	0.0020	0.0021	0.0021	0.0021
25 mph	0.0011	0.0012	0.0011	0.0012	0.0015	0.0015	0.0015	0.0015
30 mph	0.0008	0.0009	0.0008	0.0009	0.0012	0.0012	0.0012	0.0012
35 mph	0.0007	0.0007	0.0007	0.0007	0.0010	0.0010	0.0010	0.0010
40 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0009	0.0009	0.0009
45 mph	0.0005	0.0006	0.0005	0.0006	0.0008	0.0008	0.0008	0.0008
50 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
55 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
60 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
65 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009		
70 mph	0.0007	0.0007	0.0007	0.0008	0.0010	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3801	0.4466	0.0014	0.0022
10 mph	0.0016	0.0130	0.0082	0.0021	0.0143	0.0143	0.0050	0.0095
15 mph	0.0014	0.0108	0.0072	0.0018	0.0119	0.0124	0.0043	0.0082
20 mph	0.0012	0.0088	0.0061	0.0015	0.0101	0.0106	0.0038	0.0072
25 mph	0.0010	0.0073	0.0052	0.0013	0.0085	0.0091	0.0035	0.0066
30 mph	0.0009	0.0062	0.0046	0.0012	0.0075	0.0080	0.0032	0.0061
35 mph	0.0008	0.0054	0.0042	0.0010	0.0068	0.0072	0.0030	0.0056
40 mph	0.0007	0.0049	0.0038	0.0010	0.0063	0.0066	0.0028	0.0052
45 mph	0.0007	0.0046	0.0035	0.0009	0.0059	0.0062	0.0026	0.0049
50 mph	0.0006	0.0043	0.0033	0.0008	0.0055	0.0058	0.0025	0.0046
55 mph	0.0006	0.0042	0.0031	0.0008	0.0053	0.0054	0.0023	0.0044
60 mph	0.0006	0.0042	0.0030	0.0008	0.0052	0.0053	0.0023	0.0043
65 mph	0.0006	0.0042	0.0030	0.0008	0.0054	0.0053		
70 mph	0.0006	0.0034	0.0030	0.0008	0.0065	0.0053		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0517	0.0051	0.0227	0.0080	0.0029	0.0013	0.0016	0.0003	0.0936
15 mph	0.0137	0.0013	0.0060	0.0021	0.0008	0.0003	0.0004	0.0001	0.0248
20 mph	0.0192	0.0019	0.0084	0.0030	0.0011	0.0005	0.0005	0.0001	0.0347
25 mph	0.0709	0.0070	0.0311	0.0110	0.0040	0.0017	0.0021	0.0004	0.1282
30 mph	0.0607	0.0059	0.0266	0.0094	0.0035	0.0015	0.0015	0.0003	0.1093
35 mph	0.0407	0.0040	0.0179	0.0063	0.0023	0.0010	0.0005	0.0001	0.0728
40 mph	0.0118	0.0011	0.0052	0.0018	0.0007	0.0003	0.0005	0.0001	0.0215
45 mph	0.0090	0.0009	0.0039	0.0014	0.0005	0.0002	0.0004	0.0001	0.0164
50 mph	0.0087	0.0008	0.0038	0.0013	0.0005	0.0002	0.0006	0.0001	0.0161
55 mph	0.0071	0.0007	0.0031	0.0011	0.0004	0.0002	0.0001	0.0000	0.0127
60 mph	0.0152	0.0015	0.0066	0.0024	0.0009	0.0004	0.0002	0.0000	0.0271
65 mph	0.0021	0.0002	0.0009	0.0003	0.0001	0.0001	0.0000	0.0000	0.0038
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.3107	0.0304	0.1363	0.0483	0.0177	0.0076	0.0084	0.0015	0.5610

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0043	0.0004	0.0019	0.0014	0.0006	0.0003	0.0000	0.0000	0.0089
15 mph	0.0028	0.0003	0.0012	0.0009	0.0004	0.0002	0.0000	0.0000	0.0059
20 mph	0.0020	0.0002	0.0009	0.0006	0.0003	0.0001	0.0009	0.0002	0.0052
25 mph	0.0029	0.0003	0.0013	0.0010	0.0004	0.0002	0.0012	0.0002	0.0075
30 mph	0.0046	0.0004	0.0020	0.0015	0.0007	0.0003	0.0016	0.0003	0.0113
35 mph	0.0084	0.0008	0.0037	0.0027	0.0012	0.0005	0.0013	0.0002	0.0190
40 mph	0.0081	0.0008	0.0036	0.0026	0.0012	0.0005	0.0010	0.0002	0.0180
45 mph	0.0059	0.0006	0.0026	0.0019	0.0009	0.0004	0.0007	0.0001	0.0131
50 mph	0.0064	0.0006	0.0028	0.0021	0.0010	0.0004	0.0003	0.0001	0.0137
55 mph	0.0036	0.0004	0.0016	0.0012	0.0005	0.0002	0.0002	0.0000	0.0078
60 mph	0.0024	0.0002	0.0010	0.0008	0.0003	0.0001	0.0128	0.0023	0.0199
65 mph	0.0009	0.0001	0.0004	0.0003	0.0001	0.0001	0.0000	0.0000	0.0018
70 mph	0.0444	0.0041	0.0192	0.0143	0.0066	0.0028	0.0000	0.0000	0.0914
total	0.0968	0.0092	0.0422	0.0314	0.0143	0.0061	0.0200	0.0036	0.2236

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
15 mph	0.0217	0.0021	0.0095	0.0031	0.0012	0.0005	0.0006	0.0001	0.0388
25 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0005	0.0013	0.0002	0.0032
35 mph	0.0308	0.0030	0.0135	0.0040	0.0000	0.0000	0.0000	0.0000	0.0513
total	0.0525	0.0051	0.0230	0.0071	0.0052	0.0022	0.0033	0.0006	0.0990

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
10 mph	0.0560	0.0055	0.0246	0.0094	0.0036	0.0015	0.0016	0.0003	0.1025
15 mph	0.0383	0.0038	0.0168	0.0061	0.0024	0.0010	0.0009	0.0002	0.0695
20 mph	0.0212	0.0021	0.0093	0.0036	0.0014	0.0006	0.0014	0.0003	0.0399
25 mph	0.0738	0.0072	0.0324	0.0120	0.0056	0.0024	0.0046	0.0008	0.1389
30 mph	0.0652	0.0064	0.0286	0.0109	0.0041	0.0018	0.0031	0.0005	0.1207
35 mph	0.0799	0.0078	0.0350	0.0131	0.0036	0.0015	0.0018	0.0003	0.1431
40 mph	0.0199	0.0019	0.0087	0.0045	0.0019	0.0008	0.0016	0.0003	0.0395
45 mph	0.0149	0.0015	0.0065	0.0033	0.0014	0.0006	0.0011	0.0002	0.0295
50 mph	0.0151	0.0015	0.0066	0.0034	0.0015	0.0006	0.0009	0.0002	0.0298
55 mph	0.0107	0.0010	0.0047	0.0023	0.0009	0.0004	0.0003	0.0001	0.0204
60 mph	0.0175	0.0017	0.0077	0.0031	0.0012	0.0005	0.0129	0.0023	0.0470
65 mph	0.0030	0.0003	0.0013	0.0006	0.0003	0.0001	0.0000	0.0000	0.0056
70 mph	0.0444	0.0041	0.0192	0.0143	0.0066	0.0028	0.0000	0.0000	0.0914
total	0.4600	0.0448	0.2015	0.0868	0.0372	0.0159	0.0317	0.0057	0.8836

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0004	0.0000	0.0001	0.0001	0.0191	0.0098	0.0159	0.0556	0.1011
15 mph	0.0001	0.0000	0.0000	0.0000	0.0064	0.0034	0.0045	0.0159	0.0304
20 mph	0.0002	0.0000	0.0001	0.0001	0.0108	0.0058	0.0081	0.0282	0.0533
25 mph	0.0009	0.0000	0.0003	0.0003	0.0457	0.0249	0.0406	0.1411	0.2539
30 mph	0.0009	0.0000	0.0003	0.0003	0.0444	0.0242	0.0340	0.1180	0.2221
35 mph	0.0007	0.0000	0.0002	0.0002	0.0330	0.0179	0.0142	0.0492	0.1154
40 mph	0.0002	0.0000	0.0001	0.0001	0.0101	0.0055	0.0147	0.0511	0.0817
45 mph	0.0002	0.0000	0.0001	0.0001	0.0079	0.0042	0.0111	0.0383	0.0618
50 mph	0.0001	0.0000	0.0001	0.0001	0.0074	0.0040	0.0169	0.0587	0.0872
55 mph	0.0001	0.0000	0.0000	0.0000	0.0056	0.0030	0.0037	0.0128	0.0253
60 mph	0.0002	0.0000	0.0001	0.0001	0.0112	0.0058	0.0036	0.0125	0.0334
65 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0007	0.0000	0.0000	0.0022
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0041	0.0001	0.0015	0.0015	0.2030	0.1093	0.1672	0.5814	1.0680

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0041	0.0021	0.0000	0.0000	0.0063
15 mph	0.0000	0.0000	0.0000	0.0000	0.0034	0.0018	0.0000	0.0000	0.0053
20 mph	0.0000	0.0000	0.0000	0.0000	0.0029	0.0016	0.0146	0.0508	0.0699
25 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0027	0.0233	0.0809	0.1119
30 mph	0.0001	0.0000	0.0000	0.0001	0.0087	0.0047	0.0367	0.1276	0.1778
35 mph	0.0001	0.0000	0.0000	0.0001	0.0177	0.0096	0.0341	0.1183	0.1799
40 mph	0.0001	0.0000	0.0001	0.0001	0.0181	0.0098	0.0292	0.1013	0.1586
45 mph	0.0001	0.0000	0.0000	0.0001	0.0135	0.0073	0.0199	0.0691	0.1100
50 mph	0.0001	0.0000	0.0000	0.0001	0.0143	0.0076	0.0094	0.0325	0.0642
55 mph	0.0001	0.0000	0.0000	0.0000	0.0076	0.0040	0.0044	0.0154	0.0315
60 mph	0.0000	0.0000	0.0000	0.0000	0.0045	0.0023	0.3019	1.0502	1.3590
65 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0008	0.0000	0.0000	0.0024
70 mph	0.0005	0.0000	0.0002	0.0004	0.0858	0.0359	0.0000	0.0000	0.1228
total	0.0013	0.0000	0.0005	0.0010	0.1869	0.0902	0.4735	1.6462	2.3996

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0005	0.0014	0.1006
15 mph	0.0002	0.0000	0.0001	0.0001	0.0097	0.0052	0.0072	0.0253	0.0477
25 mph	0.0000	0.0000	0.0000	0.0000	0.0132	0.0072	0.0257	0.0894	0.1354
35 mph	0.0005	0.0000	0.0002	0.0002	0.0000	0.0000	0.0000	0.0000	0.0009
total	0.0007	0.0000	0.0003	0.0002	0.0845	0.0495	0.0334	0.1161	0.2846

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0005	0.0014	0.1006
10 mph	0.0004	0.0000	0.0001	0.0002	0.0232	0.0119	0.0159	0.0556	0.1074
15 mph	0.0004	0.0000	0.0001	0.0001	0.0194	0.0104	0.0118	0.0412	0.0835
20 mph	0.0002	0.0000	0.0001	0.0001	0.0137	0.0074	0.0227	0.0790	0.1232
25 mph	0.0010	0.0000	0.0003	0.0004	0.0638	0.0347	0.0895	0.3114	0.5011
30 mph	0.0010	0.0000	0.0004	0.0004	0.0531	0.0290	0.0707	0.2456	0.4000
35 mph	0.0013	0.0000	0.0005	0.0005	0.0506	0.0275	0.0483	0.1675	0.2962
40 mph	0.0003	0.0000	0.0001	0.0002	0.0282	0.0153	0.0439	0.1524	0.2404
45 mph	0.0003	0.0000	0.0001	0.0001	0.0213	0.0115	0.0310	0.1075	0.1718
50 mph	0.0003	0.0000	0.0001	0.0001	0.0218	0.0116	0.0263	0.0912	0.1514
55 mph	0.0002	0.0000	0.0001	0.0001	0.0132	0.0070	0.0081	0.0282	0.0569
60 mph	0.0003	0.0000	0.0001	0.0001	0.0157	0.0082	0.3055	1.0627	1.3924
65 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0015	0.0000	0.0000	0.0046
70 mph	0.0005	0.0000	0.0002	0.0004	0.0858	0.0359	0.0000	0.0000	0.1228
total	0.0061	0.0002	0.0022	0.0027	0.4743	0.2490	0.6741	2.3437	3.7523

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.11
10 mph	0.06	0.01	0.02	0.01	0.03	0.01	0.02	0.06	0.21
15 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.01	0.04	0.15
20 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.02	0.08	0.16
25 mph	0.07	0.01	0.03	0.01	0.07	0.04	0.09	0.31	0.64
30 mph	0.07	0.01	0.03	0.01	0.06	0.03	0.07	0.25	0.52
35 mph	0.08	0.01	0.04	0.01	0.05	0.03	0.05	0.17	0.44
40 mph	0.02	0.00	0.01	0.00	0.03	0.02	0.05	0.15	0.28
45 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.11	0.20
50 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.09	0.18
55 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.08
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.32	1.07	1.44
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.04	0.00	0.02	0.01	0.09	0.04	0.00	0.00	0.21
total	0.47	0.04	0.20	0.09	0.51	0.26	0.71	2.35	**4.64**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5.96	0.52	2.61	0.84	0.47	0.23	0.36	0.03
Diesel	0.08	0.00	0.01	0.02	0.96	0.57	3.12	3.46
Electric	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.09	0.52	2.61	0.86	1.43	0.79	3.48	3.49

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.46	0.22	1.08	0.72	0.50	0.24	1.30	0.12
Diesel	0.03	0.00	0.00	0.02	1.03	0.61	11.24	12.46
Electric	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.93	0.22	1.08	0.74	1.53	0.85	12.55	12.59

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.00	0.09	0.44	0.12	0.04	0.02	0.06	0.01
Diesel	0.01	0.00	0.00	0.00	0.08	0.05	0.53	0.59
Electric	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.19	0.09	0.44	0.12	0.13	0.07	0.60	0.60

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	9.42	0.83	4.12	1.68	1.01	0.49	1.72	0.16	19.44
Diesel	0.13	0.00	0.01	0.05	2.07	1.22	14.90	16.51	34.88
Electric	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65
Total	11.20	0.83	4.13	1.72	3.08	1.71	16.62	16.67	**55.97**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	188.43
Internal	7.25
Total	**195.68**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.01	0.04	0.15
15 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.01	0.03	0.11
20 mph	0.01	0.00	0.01	0.00	0.01	0.01	0.02	0.06	0.12
25 mph	0.05	0.00	0.02	0.01	0.05	0.03	0.07	0.24	0.48
30 mph	0.04	0.00	0.02	0.01	0.04	0.02	0.06	0.19	0.39
35 mph	0.05	0.01	0.02	0.01	0.04	0.02	0.04	0.13	0.32
40 mph	0.01	0.00	0.01	0.00	0.02	0.01	0.04	0.12	0.21
45 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.02	0.08	0.15
50 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.02	0.07	0.14
55 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.06
60 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.25	0.82	1.10
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.03	0.00	0.01	0.01	0.07	0.03	0.00	0.00	0.15
total	0.30	0.03	0.13	0.06	0.39	0.20	0.54	1.81	3.47

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0604	0.0097	0.0485	0.0155	0.0090	0.0038	0.0049	0.0009	0.1528
15 mph	0.0242	0.0039	0.0194	0.0062	0.0036	0.0015	0.0016	0.0003	0.0607
20 mph	0.0484	0.0078	0.0388	0.0124	0.0072	0.0030	0.0033	0.0006	0.1214
25 mph	0.2418	0.0388	0.1940	0.0621	0.0361	0.0151	0.0181	0.0032	0.6092
30 mph	0.2659	0.0427	0.2134	0.0683	0.0397	0.0166	0.0164	0.0029	0.6660
35 mph	0.2176	0.0349	0.1746	0.0559	0.0325	0.0136	0.0074	0.0013	0.5378
40 mph	0.0725	0.0116	0.0582	0.0186	0.0108	0.0045	0.0082	0.0015	0.1860
45 mph	0.0604	0.0097	0.0485	0.0155	0.0090	0.0038	0.0066	0.0012	0.1547
50 mph	0.0604	0.0097	0.0485	0.0155	0.0090	0.0038	0.0107	0.0019	0.1596
55 mph	0.0484	0.0078	0.0388	0.0124	0.0072	0.0030	0.0025	0.0004	0.1205
60 mph	0.0967	0.0155	0.0776	0.0248	0.0145	0.0060	0.0025	0.0004	0.2381
65 mph	0.0121	0.0019	0.0097	0.0031	0.0018	0.0008	0.0000	0.0000	0.0294
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2089	0.1940	0.9699	0.3106	0.1807	0.0753	0.0821	0.0147	3.0361

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0000	0.0000	0.0152
15 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0000	0.0000	0.0152
20 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0059	0.0011	0.0222
25 mph	0.0100	0.0016	0.0080	0.0054	0.0039	0.0016	0.0104	0.0019	0.0427
30 mph	0.0200	0.0032	0.0160	0.0107	0.0077	0.0032	0.0178	0.0032	0.0819
35 mph	0.0450	0.0072	0.0361	0.0241	0.0174	0.0073	0.0178	0.0032	0.1581
40 mph	0.0500	0.0080	0.0401	0.0268	0.0194	0.0081	0.0163	0.0029	0.1716
45 mph	0.0400	0.0064	0.0321	0.0215	0.0155	0.0065	0.0118	0.0021	0.1359
50 mph	0.0450	0.0072	0.0361	0.0241	0.0174	0.0073	0.0059	0.0011	0.1441
55 mph	0.0250	0.0040	0.0201	0.0134	0.0097	0.0040	0.0030	0.0005	0.0797
60 mph	0.0150	0.0024	0.0120	0.0080	0.0058	0.0024	0.2073	0.0370	0.2900
65 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0000	0.0000	0.0152
70 mph	0.2300	0.0369	0.1845	0.1234	0.0891	0.0372	0.0000	0.0000	0.7010
total	0.4999	0.0802	0.4011	0.2682	0.1937	0.0808	0.2962	0.0529	1.8729

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
15 mph	0.0382	0.0061	0.0307	0.0090	0.0055	0.0023	0.0026	0.0005	0.0949
25 mph	0.0000	0.0000	0.0000	0.0000	0.0104	0.0043	0.0114	0.0020	0.0283
35 mph	0.1644	0.0264	0.1319	0.0355	0.0000	0.0000	0.0000	0.0000	0.3583
total	0.2026	0.0325	0.1626	0.0445	0.0170	0.0071	0.0146	0.0026	0.4836

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
10 mph	0.0654	0.0105	0.0525	0.0182	0.0110	0.0046	0.0049	0.0009	0.1680
15 mph	0.0674	0.0108	0.0541	0.0179	0.0110	0.0046	0.0043	0.0008	0.1708
20 mph	0.0534	0.0086	0.0428	0.0151	0.0092	0.0038	0.0092	0.0016	0.1437
25 mph	0.2518	0.0404	0.2020	0.0675	0.0504	0.0210	0.0399	0.0071	0.6801
30 mph	0.2859	0.0459	0.2294	0.0791	0.0475	0.0198	0.0342	0.0061	0.7479
35 mph	0.4270	0.0685	0.3426	0.1156	0.0500	0.0208	0.0252	0.0045	1.0542
40 mph	0.1225	0.0197	0.0983	0.0455	0.0302	0.0126	0.0245	0.0044	0.3576
45 mph	0.1004	0.0161	0.0806	0.0370	0.0245	0.0102	0.0184	0.0033	0.2906
50 mph	0.1054	0.0169	0.0846	0.0397	0.0265	0.0110	0.0166	0.0030	0.3037
55 mph	0.0733	0.0118	0.0588	0.0258	0.0169	0.0071	0.0054	0.0010	0.2002
60 mph	0.1117	0.0179	0.0896	0.0329	0.0203	0.0085	0.2098	0.0374	0.5281
65 mph	0.0171	0.0027	0.0137	0.0058	0.0037	0.0016	0.0000	0.0000	0.0446
70 mph	0.2300	0.0369	0.1845	0.1234	0.0891	0.0372	0.0000	0.0000	0.7010
total	1.9114	0.3068	1.5335	0.6233	0.3914	0.1632	0.3929	0.0701	5.3927

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0003	0.0064	0.0033	0.0153	0.0281	0.0536
15 mph	0.0001	0.0000	0.0000	0.0001	0.0026	0.0013	0.0051	0.0094	0.0186
20 mph	0.0002	0.0000	0.0000	0.0002	0.0051	0.0026	0.0102	0.0187	0.0371
25 mph	0.0009	0.0000	0.0001	0.0012	0.0257	0.0132	0.0560	0.1029	0.2000
30 mph	0.0010	0.0000	0.0001	0.0014	0.0283	0.0145	0.0509	0.0936	0.1897
35 mph	0.0008	0.0000	0.0001	0.0011	0.0231	0.0119	0.0229	0.0421	0.1020
40 mph	0.0003	0.0000	0.0000	0.0004	0.0077	0.0040	0.0254	0.0468	0.0846
45 mph	0.0002	0.0000	0.0000	0.0003	0.0064	0.0033	0.0203	0.0374	0.0681
50 mph	0.0002	0.0000	0.0000	0.0003	0.0064	0.0033	0.0331	0.0608	0.1042
55 mph	0.0002	0.0000	0.0000	0.0002	0.0051	0.0026	0.0076	0.0140	0.0299
60 mph	0.0004	0.0000	0.0000	0.0005	0.0103	0.0053	0.0076	0.0140	0.0381
65 mph	0.0000	0.0000	0.0000	0.0001	0.0013	0.0007	0.0000	0.0000	0.0021
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0046	0.0000	0.0005	0.0062	0.1286	0.0659	0.2543	0.4679	0.9280

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0000	0.0000	0.0022
15 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0000	0.0000	0.0022
20 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0183	0.0337	0.0542
25 mph	0.0000	0.0000	0.0000	0.0001	0.0028	0.0014	0.0321	0.0590	0.0955
30 mph	0.0001	0.0000	0.0000	0.0002	0.0055	0.0028	0.0550	0.1012	0.1649
35 mph	0.0002	0.0000	0.0000	0.0005	0.0124	0.0064	0.0550	0.1012	0.1757
40 mph	0.0002	0.0000	0.0000	0.0005	0.0138	0.0071	0.0504	0.0928	0.1648
45 mph	0.0002	0.0000	0.0000	0.0004	0.0110	0.0057	0.0367	0.0675	0.1214
50 mph	0.0002	0.0000	0.0000	0.0005	0.0124	0.0064	0.0183	0.0337	0.0715
55 mph	0.0001	0.0000	0.0000	0.0003	0.0069	0.0035	0.0092	0.0169	0.0368
60 mph	0.0001	0.0000	0.0000	0.0002	0.0041	0.0021	0.6419	1.1809	1.8292
65 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0000	0.0000	0.0022
70 mph	0.0009	0.0000	0.0001	0.0025	0.0634	0.0325	0.0000	0.0000	0.0994
total	0.0019	0.0000	0.0002	0.0053	0.1379	0.0707	0.9170	1.6869	2.8199

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
15 mph	0.0001	0.0000	0.0000	0.0002	0.0039	0.0020	0.0081	0.0149	0.0292
25 mph	0.0000	0.0000	0.0000	0.0000	0.0074	0.0038	0.0354	0.0652	0.1119
35 mph	0.0006	0.0000	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0014
total	0.0008	0.0000	0.0001	0.0009	0.0121	0.0062	0.0452	0.0831	0.1484

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
10 mph	0.0002	0.0000	0.0000	0.0004	0.0078	0.0040	0.0153	0.0281	0.0558
15 mph	0.0003	0.0000	0.0000	0.0004	0.0079	0.0040	0.0132	0.0243	0.0500
20 mph	0.0002	0.0000	0.0000	0.0003	0.0065	0.0033	0.0285	0.0525	0.0914
25 mph	0.0010	0.0000	0.0001	0.0013	0.0359	0.0184	0.1235	0.2272	0.4074
30 mph	0.0011	0.0000	0.0001	0.0016	0.0338	0.0173	0.1059	0.1948	0.3546
35 mph	0.0016	0.0000	0.0002	0.0023	0.0356	0.0182	0.0779	0.1433	0.2791
40 mph	0.0005	0.0000	0.0000	0.0009	0.0215	0.0110	0.0759	0.1396	0.2494
45 mph	0.0004	0.0000	0.0000	0.0007	0.0175	0.0090	0.0570	0.1049	0.1895
50 mph	0.0004	0.0000	0.0000	0.0008	0.0188	0.0097	0.0514	0.0946	0.1757
55 mph	0.0003	0.0000	0.0000	0.0005	0.0120	0.0062	0.0168	0.0309	0.0667
60 mph	0.0004	0.0000	0.0000	0.0007	0.0144	0.0074	0.6495	1.1949	1.8673
65 mph	0.0001	0.0000	0.0000	0.0001	0.0027	0.0014	0.0000	0.0000	0.0042
70 mph	0.0009	0.0000	0.0001	0.0025	0.0634	0.0325	0.0000	0.0000	0.0994
total	0.0073	0.0000	0.0008	0.0124	0.2786	0.1429	1.2165	2.2380	3.8963

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10 mph	0.07	0.01	0.05	0.02	0.02	0.01	0.02	0.03	0.22
15 mph	0.07	0.01	0.05	0.02	0.02	0.01	0.02	0.03	0.22
20 mph	0.05	0.01	0.04	0.02	0.02	0.01	0.04	0.05	0.24
25 mph	0.25	0.04	0.20	0.07	0.09	0.04	0.16	0.23	1.09
30 mph	0.29	0.05	0.23	0.08	0.08	0.04	0.14	0.20	1.10
35 mph	0.43	0.07	0.34	0.12	0.09	0.04	0.10	0.15	1.33
40 mph	0.12	0.02	0.10	0.05	0.05	0.02	0.10	0.14	0.61
45 mph	0.10	0.02	0.08	0.04	0.04	0.02	0.08	0.11	0.48
50 mph	0.11	0.02	0.08	0.04	0.05	0.02	0.07	0.10	0.48
55 mph	0.07	0.01	0.06	0.03	0.03	0.01	0.02	0.03	0.27
60 mph	0.11	0.02	0.09	0.03	0.03	0.02	0.86	1.23	2.40
65 mph	0.02	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.05
70 mph	0.23	0.04	0.18	0.13	0.15	0.07	0.00	0.00	0.80
total	1.92	0.31	1.53	0.64	0.67	0.31	1.61	2.31	**9.29**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.9751	3.5446	7.9858	4.3502
10 mph	0.0065	0.0086	0.0084	0.0123	0.0067	0.0055	0.0166	0.5472
15 mph	0.0043	0.0057	0.0056	0.0081	0.0044	0.0037	0.0110	0.3636
20 mph	0.0030	0.0040	0.0039	0.0057	0.0031	0.0026	0.0077	0.2545
25 mph	0.0022	0.0029	0.0029	0.0042	0.0023	0.0019	0.0057	0.1881
30 mph	0.0017	0.0023	0.0022	0.0033	0.0018	0.0015	0.0044	0.1465
35 mph	0.0014	0.0019	0.0018	0.0027	0.0015	0.0012	0.0037	0.1204
40 mph	0.0012	0.0016	0.0016	0.0024	0.0013	0.0011	0.0032	0.1044
45 mph	0.0011	0.0015	0.0015	0.0022	0.0012	0.0010	0.0029	0.0955
50 mph	0.0011	0.0014	0.0014	0.0021	0.0011	0.0009	0.0028	0.0922
55 mph	0.0011	0.0014	0.0014	0.0021	0.0012	0.0009	0.0028	0.0938
60 mph	0.0012	0.0015	0.0015	0.0023	0.0012	0.0010	0.0031	0.1008
65 mph	0.0013	0.0017	0.0017	0.0026	0.0014	0.0012		
70 mph	0.0015	0.0018	0.0019	0.0029	0.0016	0.0013		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0075	0.0239
10 mph	0.0028	0.0093	0.0091	0.0033	0.0263	0.0259	0.0089	0.0211
15 mph	0.0013	0.0047	0.0045	0.0016	0.0130	0.0127	0.0063	0.0149
20 mph	0.0005	0.0019	0.0017	0.0006	0.0052	0.0049	0.0045	0.0107
25 mph	0.0003	0.0012	0.0010	0.0004	0.0032	0.0030	0.0033	0.0079
30 mph	0.0002	0.0009	0.0008	0.0003	0.0024	0.0022	0.0025	0.0058
35 mph	0.0002	0.0007	0.0006	0.0002	0.0019	0.0018	0.0018	0.0043
40 mph	0.0002	0.0006	0.0005	0.0002	0.0016	0.0015	0.0013	0.0031
45 mph	0.0001	0.0005	0.0004	0.0002	0.0014	0.0013	0.0010	0.0023
50 mph	0.0001	0.0004	0.0004	0.0001	0.0012	0.0011	0.0007	0.0017
55 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0010	0.0005	0.0013
60 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009	0.0005	0.0011
65 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009		
70 mph	0.0001	0.0003	0.0003	0.0001	0.0014	0.0009		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1088	0.0126	0.0617	0.0289	0.0045	0.0016	0.0061	0.0359	0.2601
15 mph	0.0289	0.0034	0.0164	0.0077	0.0012	0.0004	0.0014	0.0080	0.0672
20 mph	0.0405	0.0047	0.0230	0.0108	0.0017	0.0006	0.0019	0.0111	0.0942
25 mph	0.1492	0.0173	0.0846	0.0398	0.0061	0.0021	0.0077	0.0453	0.3522
30 mph	0.1276	0.0147	0.0723	0.0342	0.0053	0.0018	0.0054	0.0321	0.2935
35 mph	0.0856	0.0098	0.0484	0.0231	0.0036	0.0012	0.0020	0.0119	0.1856
40 mph	0.0247	0.0028	0.0140	0.0067	0.0010	0.0004	0.0019	0.0114	0.0630
45 mph	0.0189	0.0022	0.0107	0.0051	0.0008	0.0003	0.0014	0.0084	0.0476
50 mph	0.0182	0.0021	0.0103	0.0049	0.0008	0.0003	0.0022	0.0131	0.0518
55 mph	0.0148	0.0017	0.0084	0.0040	0.0006	0.0002	0.0005	0.0031	0.0334
60 mph	0.0319	0.0036	0.0180	0.0086	0.0013	0.0005	0.0006	0.0033	0.0677
65 mph	0.0045	0.0005	0.0025	0.0012	0.0002	0.0001	0.0000	0.0000	0.0090
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.6536	0.0754	0.3703	0.1750	0.0271	0.0093	0.0312	0.1835	1.5254

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0090	0.0010	0.0051	0.0050	0.0010	0.0003	0.0000	0.0000	0.0214
15 mph	0.0060	0.0007	0.0034	0.0033	0.0006	0.0002	0.0000	0.0000	0.0142
20 mph	0.0042	0.0005	0.0024	0.0023	0.0004	0.0002	0.0034	0.0201	0.0335
25 mph	0.0062	0.0007	0.0035	0.0034	0.0007	0.0002	0.0044	0.0260	0.0451
30 mph	0.0096	0.0011	0.0054	0.0054	0.0010	0.0004	0.0059	0.0347	0.0635
35 mph	0.0177	0.0020	0.0100	0.0100	0.0019	0.0007	0.0048	0.0285	0.0756
40 mph	0.0171	0.0020	0.0096	0.0096	0.0018	0.0006	0.0039	0.0227	0.0673
45 mph	0.0125	0.0014	0.0071	0.0070	0.0014	0.0005	0.0026	0.0151	0.0475
50 mph	0.0136	0.0015	0.0076	0.0076	0.0015	0.0005	0.0012	0.0073	0.0409
55 mph	0.0077	0.0009	0.0043	0.0043	0.0008	0.0003	0.0006	0.0037	0.0227
60 mph	0.0049	0.0006	0.0028	0.0028	0.0005	0.0002	0.0473	0.2784	0.3375
65 mph	0.0019	0.0002	0.0010	0.0010	0.0002	0.0001	0.0000	0.0000	0.0044
70 mph	0.0935	0.0099	0.0517	0.0538	0.0106	0.0035	0.0000	0.0000	0.2230
total	0.2037	0.0226	0.1141	0.1156	0.0225	0.0076	0.0741	0.4364	0.9965

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3197	0.0315	0.7962
15 mph	0.0457	0.0053	0.0259	0.0111	0.0018	0.0006	0.0022	0.0127	0.1052
25 mph	0.0000	0.0000	0.0000	0.0000	0.0018	0.0006	0.0049	0.0287	0.0359
35 mph	0.0647	0.0074	0.0366	0.0147	0.0000	0.0000	0.0000	0.0000	0.1234
total	0.1104	0.0127	0.0625	0.0258	0.3279	0.1218	0.3268	0.0729	1.0608

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3197	0.0315	0.7962
10 mph	0.1178	0.0136	0.0668	0.0339	0.0055	0.0019	0.0061	0.0359	0.2815
15 mph	0.0805	0.0094	0.0457	0.0220	0.0036	0.0013	0.0035	0.0206	0.1866
20 mph	0.0446	0.0052	0.0253	0.0131	0.0021	0.0007	0.0053	0.0312	0.1276
25 mph	0.1554	0.0180	0.0881	0.0433	0.0086	0.0030	0.0170	0.0999	0.4332
30 mph	0.1372	0.0158	0.0777	0.0396	0.0063	0.0022	0.0113	0.0667	0.3570
35 mph	0.1680	0.0193	0.0951	0.0477	0.0055	0.0019	0.0069	0.0404	0.3847
40 mph	0.0418	0.0048	0.0236	0.0163	0.0029	0.0010	0.0058	0.0341	0.1303
45 mph	0.0314	0.0036	0.0177	0.0121	0.0021	0.0007	0.0040	0.0234	0.0951
50 mph	0.0318	0.0036	0.0179	0.0125	0.0022	0.0008	0.0035	0.0204	0.0927
55 mph	0.0225	0.0026	0.0127	0.0083	0.0015	0.0005	0.0012	0.0068	0.0560
60 mph	0.0368	0.0042	0.0208	0.0113	0.0019	0.0006	0.0479	0.2817	0.4052
65 mph	0.0064	0.0007	0.0036	0.0023	0.0004	0.0001	0.0000	0.0000	0.0135
70 mph	0.0935	0.0099	0.0517	0.0538	0.0106	0.0035	0.0000	0.0000	0.2230
total	0.9677	0.1107	0.5469	0.3163	0.3775	0.1387	0.4321	0.6927	3.5827

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0006	0.0000	0.0001	0.0002	0.0353	0.0178	0.0284	0.1236	0.2060
15 mph	0.0001	0.0000	0.0000	0.0000	0.0070	0.0035	0.0067	0.0290	0.0463
20 mph	0.0001	0.0000	0.0000	0.0000	0.0056	0.0027	0.0096	0.0419	0.0599
25 mph	0.0003	0.0000	0.0001	0.0001	0.0170	0.0082	0.0388	0.1689	0.2334
30 mph	0.0002	0.0000	0.0001	0.0001	0.0142	0.0068	0.0260	0.1131	0.1606
35 mph	0.0002	0.0000	0.0000	0.0001	0.0094	0.0044	0.0086	0.0375	0.0602
40 mph	0.0000	0.0000	0.0000	0.0000	0.0026	0.0012	0.0071	0.0307	0.0417
45 mph	0.0000	0.0000	0.0000	0.0000	0.0019	0.0009	0.0042	0.0181	0.0250
50 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0007	0.0050	0.0217	0.0291
55 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0005	0.0008	0.0037	0.0063
60 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0010	0.0007	0.0032	0.0072
65 mph	0.0000	0.0000	0.0000	0.0000	0.0003	0.0001	0.0000	0.0000	0.0004
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0017	0.0000	0.0004	0.0006	0.0983	0.0479	0.1360	0.5913	0.8761

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0000	0.0076	0.0038	0.0000	0.0000	0.0115
15 mph	0.0000	0.0000	0.0000	0.0000	0.0037	0.0019	0.0000	0.0000	0.0056
20 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0007	0.0174	0.0755	0.0951
25 mph	0.0000	0.0000	0.0000	0.0000	0.0018	0.0009	0.0223	0.0969	0.1219
30 mph	0.0000	0.0000	0.0000	0.0000	0.0028	0.0013	0.0282	0.1223	0.1546
35 mph	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0207	0.0901	0.1183
40 mph	0.0000	0.0000	0.0000	0.0000	0.0047	0.0022	0.0140	0.0609	0.0818
45 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0015	0.0075	0.0326	0.0449
50 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0014	0.0028	0.0120	0.0195
55 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0007	0.0010	0.0044	0.0078
60 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0613	0.2665	0.3292
65 mph	0.0000	0.0000	0.0000	0.0000	0.0003	0.0001	0.0000	0.0000	0.0005
70 mph	0.0001	0.0000	0.0000	0.0001	0.0185	0.0063	0.0000	0.0000	0.0249
total	0.0003	0.0000	0.0001	0.0002	0.0548	0.0236	0.1752	0.7612	1.0155

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0152	0.0539
15 mph	0.0002	0.0000	0.0000	0.0001	0.0106	0.0053	0.0106	0.0462	0.0730
25 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0024	0.0246	0.1070	0.1388
35 mph	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
total	0.0003	0.0000	0.0001	0.0001	0.0393	0.0199	0.0378	0.1684	0.2659

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0152	0.0539
10 mph	0.0007	0.0000	0.0002	0.0002	0.0428	0.0216	0.0284	0.1236	0.2175
15 mph	0.0003	0.0000	0.0001	0.0001	0.0212	0.0106	0.0173	0.0752	0.1249
20 mph	0.0001	0.0000	0.0000	0.0000	0.0071	0.0034	0.0270	0.1173	0.1550
25 mph	0.0003	0.0000	0.0001	0.0001	0.0237	0.0114	0.0857	0.3728	0.4941
30 mph	0.0003	0.0000	0.0001	0.0001	0.0170	0.0081	0.0542	0.2355	0.3152
35 mph	0.0003	0.0000	0.0001	0.0001	0.0144	0.0068	0.0294	0.1276	0.1786
40 mph	0.0001	0.0000	0.0000	0.0000	0.0073	0.0034	0.0211	0.0916	0.1234
45 mph	0.0001	0.0000	0.0000	0.0000	0.0051	0.0023	0.0117	0.0507	0.0699
50 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0022	0.0078	0.0337	0.0486
55 mph	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0019	0.0081	0.0140
60 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0014	0.0621	0.2697	0.3364
65 mph	0.0000	0.0000	0.0000	0.0000	0.0006	0.0003	0.0000	0.0000	0.0009
70 mph	0.0001	0.0000	0.0000	0.0001	0.0185	0.0063	0.0000	0.0000	0.0249
total	0.0023	0.0000	0.0005	0.0009	0.1924	0.0914	0.3490	1.5209	2.1575

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.35	0.13	0.32	0.05	0.85
10 mph	0.12	0.01	0.07	0.03	0.05	0.02	0.03	0.16	0.50
15 mph	0.08	0.01	0.05	0.02	0.02	0.01	0.02	0.10	0.31
20 mph	0.04	0.01	0.03	0.01	0.01	0.00	0.03	0.15	0.28
25 mph	0.16	0.02	0.09	0.04	0.03	0.01	0.10	0.47	0.93
30 mph	0.14	0.02	0.08	0.04	0.02	0.01	0.07	0.30	0.67
35 mph	0.17	0.02	0.10	0.05	0.02	0.01	0.04	0.17	0.56
40 mph	0.04	0.00	0.02	0.02	0.01	0.00	0.03	0.13	0.25
45 mph	0.03	0.00	0.02	0.01	0.01	0.00	0.02	0.07	0.17
50 mph	0.03	0.00	0.02	0.01	0.01	0.00	0.01	0.05	0.14
55 mph	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.07
60 mph	0.04	0.00	0.02	0.01	0.01	0.00	0.11	0.55	0.74
65 mph	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.09	0.01	0.05	0.05	0.03	0.01	0.00	0.00	0.25
total	0.97	0.11	0.55	0.32	0.57	0.23	0.78	2.21	**5.74**

World Logistics Center

Mobile Emissions - 2040 Buildout (Net Regional) - Unmitigated

CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,436.77	5,082.76	12,393.44	18,944.56
10 mph	453.37	498.75	562.92	749.83	1,273.21	1,421.78	3,121.36	3,214.22
15 mph	349.08	384.15	433.26	576.76	884.06	1,000.13	2,151.66	2,318.53
20 mph	278.91	306.89	346.19	460.91	767.72	875.30	1,512.78	1,873.26
25 mph	231.24	254.25	287.01	382.23	703.63	791.48	1,321.00	1,762.27
30 mph	198.97	218.56	246.97	329.08	638.66	715.38	1,213.95	1,677.87
35 mph	177.67	194.91	220.56	294.09	638.78	715.38	1,120.78	1,609.22
40 mph	164.73	180.66	204.50	272.71	636.41	699.04	1,042.71	1,551.00
45 mph	158.54	173.85	196.79	262.45	633.52	682.56	968.84	1,516.88
50 mph	158.34	173.52	196.53	262.19	668.12	711.58	906.29	1,498.03
55 mph	164.16	179.95	203.78	271.87	703.92	743.97	881.28	1,469.84
60 mph	176.64	193.67	219.25	292.42	714.26	751.76	886.76	1,449.26
65 mph	197.20	215.90	244.76	326.70	724.00	759.14		
70 mph	211.26	229.17	262.04	351.75	718.35	743.75		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	3,586.55	5,720.08	6,414.96	5,595.47
10 mph	396.09	442.60	488.14	611.90	951.54	1,054.49	1,869.91	2,468.18
15 mph	325.82	367.38	404.72	518.99	621.07	701.90	1,568.91	2,070.68
20 mph	267.27	301.70	332.51	431.01	529.51	598.68	1,370.19	1,807.82
25 mph	224.01	252.30	278.73	364.39	469.55	533.51	1,264.30	1,667.40
30 mph	193.99	217.41	240.97	314.64	426.47	481.15	1,196.65	1,577.46
35 mph	175.33	195.33	217.42	285.39	426.60	481.17	1,142.85	1,505.70
40 mph	164.06	182.13	202.91	266.93	414.98	463.60	1,097.64	1,443.70
45 mph	158.48	175.58	195.64	256.88	404.82	445.64	1,060.68	1,394.80
50 mph	158.88	175.52	195.94	258.14	424.43	462.06	1,027.93	1,349.92
55 mph	166.26	183.73	204.90	272.45	443.40	478.24	998.95	1,309.62
60 mph	180.25	199.13	221.94	295.02	447.78	479.91	984.76	1,288.73
65 mph	202.61	222.61	249.22	331.17	453.71	481.18		
70 mph	218.85	234.13	268.65	356.15	450.48	475.58		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	7,611.98	733.08	4,136.07	1,764.25	858.33	399.71	1,148.05	211.00	16,862.47
15 mph	2,344.39	225.86	1,273.36	542.82	238.39	112.47	263.80	50.73	5,051.82
20 mph	3,746.22	360.86	2,034.90	867.57	414.05	196.86	370.94	81.98	8,073.38
25 mph	15,529.65	1,494.84	8,435.30	3,597.38	1,897.41	890.04	1,781.53	424.19	34,050.34
30 mph	14,698.53	1,413.46	7,984.41	3,406.79	1,894.42	884.91	1,488.33	367.16	32,138.00
35 mph	10,739.14	1,031.36	5,834.14	2,491.04	1,550.28	724.02	618.34	158.46	23,146.78
40 mph	3,318.94	318.65	1,803.05	769.98	514.84	235.83	639.19	169.70	7,770.18
45 mph	2,661.78	255.54	1,445.93	617.50	427.09	191.89	475.13	132.77	6,207.62
50 mph	2,658.45	255.04	1,443.99	616.89	450.41	200.05	722.24	213.07	6,560.14
55 mph	2,204.94	211.60	1,197.83	511.73	379.64	167.32	162.07	48.25	4,883.37
60 mph	4,745.15	455.47	2,577.46	1,100.84	770.43	338.15	163.08	47.57	10,198.15
65 mph	662.18	63.47	359.68	153.73	97.62	42.68	0.00	0.00	1,379.36
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	70,921.35	6,819.22	38,526.10	16,440.52	9,492.89	4,383.94	7,832.70	1,904.89	156,321.61

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	629.55	60.63	342.08	304.74	184.06	85.71	0.00	0.00	1,606.76
15 mph	484.74	46.70	263.28	234.40	127.80	60.29	0.00	0.00	1,217.21
20 mph	387.29	37.31	210.37	187.32	110.98	52.77	668.71	147.79	1,802.55
25 mph	642.19	61.82	348.82	310.69	203.43	95.43	1,021.89	243.32	2,927.59
30 mph	1,105.14	106.27	600.32	534.96	369.30	172.50	1,609.86	397.14	4,895.49
35 mph	2,220.47	213.25	1,206.29	1,075.69	831.08	388.14	1,486.30	380.89	7,802.10
40 mph	2,287.46	219.62	1,242.69	1,108.32	919.99	421.41	1,267.54	336.52	7,803.55
45 mph	1,761.15	169.07	956.69	853.28	732.66	329.18	856.54	239.35	5,897.93
50 mph	1,978.81	189.84	1,074.83	959.00	869.26	386.07	400.62	118.19	5,976.63
55 mph	1,139.75	109.38	619.17	552.45	508.80	224.25	194.78	57.98	3,406.56
60 mph	735.84	70.63	399.69	356.53	309.76	135.96	13,719.42	4,001.99	19,729.83
65 mph	273.83	26.25	148.74	132.77	104.66	45.76	0.00	0.00	732.01
70 mph	13,494.25	1,281.48	7,324.71	6,575.89	4,776.88	2,062.48	0.00	0.00	35,515.71
total	27,140.48	2,592.24	14,737.69	13,186.04	10,048.66	4,459.97	21,225.65	5,923.17	99,313.91

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	496.23	137.32	1,168.50
15 mph	3,705.72	357.00	2,012.77	785.57	362.16	170.86	419.97	80.77	7,894.81
25 mph	0.00	0.00	0.00	0.00	547.43	256.79	1,128.29	268.65	2,201.16
35 mph	8,115.28	779.37	4,408.70	1,583.74	0.00	0.00	0.00	0.00	14,887.09
total	11,821.00	1,136.37	6,421.47	2,369.30	1,271.59	600.59	2,044.49	486.74	26,151.56

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	496.23	137.32	1,168.50
10 mph	8,241.54	793.71	4,478.14	2,068.99	1,042.38	485.42	1,148.05	211.00	18,469.24
15 mph	6,534.85	629.56	3,549.41	1,562.78	728.35	343.62	683.77	131.51	14,163.84
20 mph	4,133.51	398.17	2,245.27	1,054.89	525.03	249.63	1,039.65	229.78	9,875.92
25 mph	16,171.85	1,556.65	8,784.12	3,908.06	2,648.28	1,242.26	3,931.70	936.16	39,179.09
30 mph	15,803.67	1,519.73	8,584.73	3,941.74	2,263.72	1,057.41	3,098.19	764.29	37,033.49
35 mph	21,074.89	2,023.98	11,449.13	5,150.47	2,381.36	1,112.16	2,104.64	539.35	45,835.96
40 mph	5,606.40	538.27	3,045.74	1,878.30	1,434.83	657.24	1,906.73	506.21	15,573.73
45 mph	4,422.93	424.61	2,402.62	1,470.78	1,159.74	521.07	1,331.67	372.13	12,105.55
50 mph	4,637.26	444.88	2,518.82	1,575.89	1,319.67	586.12	1,122.85	331.26	12,536.77
55 mph	3,344.69	320.98	1,816.99	1,064.18	888.44	391.58	356.85	106.23	8,289.93
60 mph	5,480.99	526.10	2,977.15	1,457.37	1,080.19	474.11	13,882.50	4,049.56	29,927.97
65 mph	936.01	89.71	508.42	286.51	202.28	88.45	0.00	0.00	2,111.37
70 mph	13,494.25	1,281.48	7,324.71	6,575.89	4,776.88	2,062.48	0.00	0.00	35,515.71
total	109,882.84	10,547.83	59,685.26	31,995.87	20,813.15	9,444.50	31,102.84	8,314.80	281,787.08

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	90.98	0.37	7.84	39.34	1,274.53	724.39	5,944.49	14,435.16	22,517.09
15 mph	29.94	0.12	2.60	13.35	332.75	192.87	1,662.54	4,036.79	6,270.96
20 mph	49.11	0.20	4.27	22.17	567.39	329.02	2,903.91	7,048.70	10,924.78
25 mph	205.82	0.84	17.90	93.72	2,515.73	1,466.00	14,737.24	35,756.63	54,793.88
30 mph	196.07	0.80	17.02	89.01	2,513.39	1,454.33	12,680.61	30,752.64	47,703.87
35 mph	144.98	0.59	12.57	66.06	2,057.03	1,189.95	5,449.73	13,209.13	22,130.03
40 mph	45.22	0.18	3.91	20.60	667.00	382.17	5,815.69	14,072.49	21,007.26
45 mph	36.40	0.15	3.14	16.52	542.23	306.13	4,495.89	10,876.63	16,277.09
50 mph	36.50	0.15	3.15	16.60	568.50	317.41	7,080.24	17,105.91	25,128.45
55 mph	30.55	0.12	2.63	14.01	475.13	262.82	1,587.84	3,829.66	6,202.78
60 mph	66.25	0.27	5.70	30.35	959.63	527.48	1,565.29	3,768.56	6,923.53
65 mph	9.31	0.04	0.80	4.26	121.54	66.11	0.00	0.00	202.06
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	941.14	3.82	81.52	425.98	12,594.86	7,218.67	63,923.47	154,892.31	240,081.77

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	7.52	0.03	0.65	6.80	273.30	155.33	0.00	0.00	443.64
15 mph	6.19	0.03	0.54	5.76	178.38	103.39	0.00	0.00	294.29
20 mph	5.08	0.02	0.44	4.79	152.09	88.19	5,235.04	12,707.08	18,192.72
25 mph	8.51	0.03	0.74	8.09	269.73	157.18	8,453.33	20,510.12	29,407.74
30 mph	14.74	0.06	1.28	13.98	489.96	283.51	13,716.01	33,263.65	47,783.19
35 mph	29.98	0.12	2.60	28.53	1,102.75	637.91	13,099.35	31,750.40	46,651.64
40 mph	31.17	0.13	2.69	29.64	1,191.90	682.92	11,532.68	27,906.15	41,377.28
45 mph	24.09	0.10	2.08	22.82	930.18	525.17	8,104.98	19,607.88	29,217.28
50 mph	27.17	0.11	2.34	25.80	1,097.15	612.58	3,927.36	9,488.53	15,181.04
55 mph	15.79	0.06	1.36	15.13	636.77	352.24	1,908.32	4,602.63	7,532.31
60 mph	10.27	0.04	0.88	9.83	385.83	212.08	131,685.82	317,043.63	449,348.39
65 mph	3.85	0.02	0.33	3.68	130.31	70.88	0.00	0.00	209.07
70 mph	191.25	0.74	16.41	181.95	5,951.88	3,222.57	0.00	0.00	9,564.80
total	375.61	1.49	32.34	356.80	12,790.25	7,103.95	197,662.89	476,880.08	695,203.39

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,220.05	3,562.51	6,839.56
15 mph	47.32	0.19	4.11	19.32	505.50	293.00	2,646.78	6,426.62	9,942.83
25 mph	0.00	0.00	0.00	0.00	725.83	422.97	9,333.47	22,645.57	33,127.83
35 mph	109.56	0.44	9.50	42.00	0.00	0.00	0.00	0.00	161.50
total	156.88	0.64	13.60	61.32	1,812.75	1,191.54	14,200.29	32,634.70	50,071.72

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,220.05	3,562.51	6,839.56
10 mph	98.51	0.40	8.48	46.14	1,547.83	879.72	5,944.49	14,435.16	22,960.73
15 mph	83.45	0.34	7.24	38.43	1,016.64	589.26	4,309.31	10,463.41	16,508.08
20 mph	54.19	0.22	4.71	26.96	719.48	417.21	8,138.95	19,755.78	29,117.50
25 mph	214.33	0.88	18.64	101.81	3,511.29	2,046.14	32,524.04	78,912.33	117,329.46
30 mph	210.81	0.86	18.30	102.99	3,003.35	1,737.84	26,396.62	64,016.30	95,487.06
35 mph	284.52	1.15	24.66	136.58	3,159.78	1,827.86	18,549.08	44,959.53	68,943.16
40 mph	76.39	0.31	6.60	50.24	1,858.91	1,065.08	17,348.37	41,978.64	62,384.54
45 mph	60.49	0.24	5.22	39.34	1,472.40	831.30	12,600.87	30,484.51	45,494.37
50 mph	63.66	0.26	5.49	42.40	1,665.65	929.99	11,007.60	26,594.44	40,309.49
55 mph	46.35	0.19	3.99	29.14	1,111.90	615.06	3,496.17	8,432.29	13,735.08
60 mph	76.52	0.31	6.58	40.18	1,345.47	739.56	133,251.11	320,812.20	456,271.92
65 mph	13.16	0.05	1.13	7.94	251.86	136.99	0.00	0.00	411.13
70 mph	191.25	0.74	16.41	181.95	5,951.88	3,222.57	0.00	0.00	9,564.80
total	1,473.63	5.94	127.46	844.09	27,197.86	15,514.16	275,786.65	664,407.09	985,356.88

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	943.42	648.52	2,716.28	3,699.83	8,008.06
10 mph	8,340.04	794.11	4,486.63	2,115.13	2,590.22	1,365.14	7,092.55	14,646.16	41,429.97
15 mph	6,618.29	629.90	3,556.65	1,601.21	1,744.99	932.88	4,993.08	10,594.91	30,671.92
20 mph	4,187.70	398.39	2,249.98	1,081.85	1,244.51	666.83	9,178.61	19,985.56	38,993.42
25 mph	16,386.18	1,557.53	8,802.76	4,009.87	6,159.57	3,288.41	36,455.74	79,848.48	156,508.55
30 mph	16,014.48	1,520.59	8,603.03	4,044.73	5,267.07	2,795.25	29,494.80	64,780.59	132,520.55
35 mph	21,359.41	2,025.13	11,473.78	5,287.05	5,541.14	2,940.02	20,653.72	45,498.88	114,779.13
40 mph	5,682.79	538.58	3,052.34	1,928.54	3,293.74	1,722.33	19,255.10	42,484.85	77,958.27
45 mph	4,483.42	424.85	2,407.83	1,510.12	2,632.15	1,352.37	13,932.53	30,856.63	57,599.92
50 mph	4,700.92	445.14	2,524.31	1,618.29	2,985.32	1,516.11	12,130.45	26,925.71	52,846.26
55 mph	3,391.03	321.16	1,820.98	1,093.32	2,000.34	1,006.63	3,853.02	8,538.52	22,025.02
60 mph	5,557.51	526.41	2,983.74	1,497.55	2,425.66	1,213.67	147,133.61	324,861.76	486,199.90
65 mph	949.16	89.77	509.55	294.44	454.14	225.44	0.00	0.00	2,522.50
70 mph	13,685.51	1,282.23	7,341.12	6,757.84	10,728.76	5,285.06	0.00	0.00	45,080.50
total	111,356.46	10,553.78	59,812.72	32,839.96	48,011.01	24,958.66	306,889.49	672,721.89	**1,267,143.96**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
184.65	1,185.46	1,359.65	7.75	947.33	250.14	1,205.23	7.34	232.53	98.16	338.03	5.42	17.35	9.35	2,009,567.86

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
33.70	216.35	248.14	1.41	172.89	45.65	219.95	1.34	42.44	17.91	61.69	0.99	3.17	1.71	366,746.13

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	23,686.2	324.1	4,124.1	503,829.9	6,893.0	87,724.5
LDT1	2,073.6	1.2	1.0	44,107.4	25.0	21.4
LDT2	10,365.6	22.6	0.0	220,486.1	481.7	0.0
MDT	2,982.5	81.5	0.0	44,155.1	1,206.6	0.0
LHDT1	888.1	1,764.5	0.0	19,362.9	38,471.3	0.0
LHDT2	370.4	905.0	0.0	8,074.7	19,730.8	0.0
MHDT	435.8	3,766.7	0.0	18,730.7	161,892.8	0.0
HHDT	77.8	6,929.7	0.0	3,343.1	297,837.4	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	284,472.8	3,891.9	49,531.1	219,357.1	3,001.1	38,193.4
LDT1	24,903.9	14.1	12.1	19,203.4	10.9	9.3
LDT2	124,491.0	272.0	0.0	95,995.1	209.7	0.0
MDT	23,442.5	640.6	0.0	20,712.6	566.0	0.0
LHDT1	9,020.0	17,921.5	0.0	10,342.9	20,549.8	0.0
LHDT2	3,761.5	9,191.4	0.0	4,313.2	10,539.4	0.0
MHDT	4,542.3	39,260.4	0.0	14,188.3	122,632.4	0.0
HHDT	810.7	72,228.2	0.0	2,532.4	225,609.3	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	5%	6%	1%	0%
15	2%	2%	1%	0%
20	4%	4%	1%	2%
25	20%	22%	2%	4%
30	22%	20%	4%	6%
35	18%	9%	9%	6%
40	6%	10%	10%	6%
45	5%	8%	8%	4%
50	5%	13%	9%	2%
55	4%	3%	5%	1%
60	8%	3%	3%	70%
65	1%	0%	1%	0%
70	0%	0%	46%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	14,223.6	1,245.2	6,224.6	1,172.1	451.0	188.1	272.5	48.6	23,825.8
15 mph	5,689.5	498.1	2,489.8	468.8	180.4	75.2	90.8	16.2	9,508.9
20 mph	11,378.9	996.2	4,979.6	937.7	360.8	150.5	181.7	32.4	19,017.8
25 mph	56,894.6	4,980.8	24,898.2	4,688.5	1,804.0	752.3	999.3	178.4	95,196.0
30 mph	62,584.0	5,478.9	27,388.0	5,157.3	1,984.4	827.5	908.5	162.1	104,490.8
35 mph	51,205.1	4,482.7	22,408.4	4,219.6	1,623.6	677.1	408.8	73.0	85,098.3
40 mph	17,068.4	1,494.2	7,469.5	1,406.5	541.2	225.7	454.2	81.1	28,740.8
45 mph	14,223.6	1,245.2	6,224.6	1,172.1	451.0	188.1	363.4	64.9	23,932.8
50 mph	14,223.6	1,245.2	6,224.6	1,172.1	451.0	188.1	590.5	105.4	24,200.5
55 mph	11,378.9	996.2	4,979.6	937.7	360.8	150.5	136.3	24.3	18,964.3
60 mph	22,757.8	1,992.3	9,959.3	1,875.4	721.6	300.9	136.3	24.3	37,767.9
65 mph	2,844.7	249.0	1,244.9	234.4	90.2	37.6	0.0	0.0	4,700.9
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	284,472.8	24,903.9	124,491.0	23,442.5	9,020.0	3,761.5	4,542.3	810.7	475,444.9

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	0.0	0.0	3,699.2
15 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	0.0	0.0	3,699.2
20 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	283.8	50.6	4,033.7
25 mph	4,387.1	384.1	1,919.9	414.3	206.9	86.3	496.6	88.6	7,983.7
30 mph	8,774.3	768.1	3,839.8	828.5	413.7	172.5	851.3	151.9	15,800.2
35 mph	19,742.1	1,728.3	8,639.6	1,864.1	930.9	388.2	851.3	151.9	34,296.4
40 mph	21,935.7	1,920.3	9,599.5	2,071.3	1,034.3	431.3	780.4	139.3	37,912.1
45 mph	17,548.6	1,536.3	7,679.6	1,657.0	827.4	345.1	567.5	101.3	30,262.8
50 mph	19,742.1	1,728.3	8,639.6	1,864.1	930.9	388.2	283.8	50.6	33,627.6
55 mph	10,967.9	960.2	4,799.8	1,035.6	517.1	215.7	141.9	25.3	18,663.4
60 mph	6,580.7	576.1	2,879.9	621.4	310.3	129.4	9,931.8	1,772.7	22,802.2
65 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	0.0	0.0	3,699.2
70 mph	100,904.3	8,833.6	44,157.7	9,527.8	4,757.7	1,984.1	0.0	0.0	170,165.1
total	219,357.1	19,203.4	95,995.1	20,712.6	10,342.9	4,313.2	14,188.3	2,532.4	386,644.9

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
15 mph	4,814.3	421.5	2,106.8	617.7	185.8	77.5	88.5	15.8	8,327.9
25 mph	0.0	0.0	0.0	0.0	600.6	250.5	401.3	71.6	1,324.0
35 mph	97,628.4	8,546.8	42,724.1	4,115.3	0.0	0.0	0.0	0.0	153,014.6
total	102,442.7	8,968.3	44,831.0	4,733.0	786.4	327.9	489.9	87.4	162,666.5

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
10 mph	16,417.2	1,437.2	7,184.5	1,379.2	554.4	231.2	272.5	48.6	27,525.0
15 mph	12,697.3	1,111.6	5,556.6	1,293.7	469.6	195.8	179.4	32.0	21,536.0
20 mph	13,572.5	1,188.2	5,939.6	1,144.8	464.2	193.6	465.5	83.1	23,051.5
25 mph	61,281.7	5,364.9	26,818.1	5,102.7	2,611.4	1,089.0	1,897.2	338.6	104,503.7
30 mph	71,358.3	6,247.0	31,227.8	5,985.8	2,398.1	1,000.1	1,759.8	314.1	120,291.0
35 mph	168,575.6	14,757.8	73,772.1	10,199.1	2,554.5	1,065.3	1,260.1	224.9	272,409.3
40 mph	39,004.1	3,414.6	17,069.0	3,477.8	1,575.5	657.0	1,234.6	220.4	66,652.9
45 mph	31,772.2	2,781.5	13,904.2	2,829.1	1,278.4	533.1	930.9	166.2	54,195.6
50 mph	33,965.8	2,973.5	14,864.1	3,036.3	1,381.9	576.3	874.3	156.0	57,828.1
55 mph	22,346.8	1,956.3	9,779.4	1,973.3	877.9	366.1	278.2	49.6	37,627.7
60 mph	29,338.5	2,568.4	12,839.1	2,496.8	1,031.9	430.3	10,068.1	1,797.0	60,570.1
65 mph	5,038.3	441.1	2,204.9	441.6	193.6	80.7	0.0	0.0	8,400.2
70 mph	100,904.3	8,833.6	44,157.7	9,527.8	4,757.7	1,984.1	0.0	0.0	170,165.1
total	606,272.6	53,075.6	265,317.1	48,888.1	20,149.2	8,402.6	19,220.5	3,430.5	1,024,756.3

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	194.6	0.7	13.6	32.0	896.1	459.6	2,355.6	4,333.7	8,285.9
15 mph	77.8	0.3	5.4	12.8	358.4	183.8	785.2	1,444.6	2,868.4
20 mph	155.7	0.6	10.9	25.6	716.9	367.7	1,570.4	2,889.1	5,736.8
25 mph	778.4	2.8	54.4	128.1	3,584.3	1,838.3	8,637.3	15,890.2	30,913.8
30 mph	856.2	3.1	59.8	140.9	3,942.7	2,022.1	7,852.1	14,445.6	29,322.7
35 mph	700.5	2.5	49.0	115.3	3,225.9	1,654.5	3,533.4	6,500.5	15,781.7
40 mph	233.5	0.8	16.3	38.4	1,075.3	551.5	3,926.0	7,222.8	13,064.8
45 mph	194.6	0.7	13.6	32.0	896.1	459.6	3,140.8	5,778.3	10,515.7
50 mph	194.6	0.7	13.6	32.0	896.1	459.6	5,103.9	9,389.7	16,090.1
55 mph	155.7	0.6	10.9	25.6	716.9	367.7	1,177.8	2,166.8	4,621.9
60 mph	311.4	1.1	21.8	51.2	1,433.7	735.3	1,177.8	2,166.8	5,899.2
65 mph	38.9	0.1	2.7	6.4	179.2	91.9	0.0	0.0	319.3
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	3,891.9	14.1	272.0	640.6	17,921.5	9,191.4	39,260.4	72,228.2	143,420.2

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	30.0	0.1	2.1	5.7	205.5	105.4	0.0	0.0	348.8
15 mph	30.0	0.1	2.1	5.7	205.5	105.4	0.0	0.0	348.8
20 mph	30.0	0.1	2.1	5.7	205.5	105.4	2,452.6	4,512.2	7,313.6
25 mph	60.0	0.2	4.2	11.3	411.0	210.8	4,292.1	7,896.3	12,886.0
30 mph	120.0	0.4	8.4	22.6	822.0	421.6	7,357.9	13,536.6	22,289.6
35 mph	270.1	1.0	18.9	50.9	1,849.5	948.5	7,357.9	13,536.6	24,033.4
40 mph	300.1	1.1	21.0	56.6	2,055.0	1,053.9	6,744.8	12,408.5	22,641.0
45 mph	240.1	0.9	16.8	45.3	1,644.0	843.1	4,905.3	9,024.4	16,719.8
50 mph	270.1	1.0	18.9	50.9	1,849.5	948.5	2,452.6	4,512.2	10,103.8
55 mph	150.1	0.5	10.5	28.3	1,027.5	527.0	1,226.3	2,256.1	5,226.3
60 mph	90.0	0.3	6.3	17.0	616.5	316.2	85,842.7	157,926.5	244,815.5
65 mph	30.0	0.1	2.1	5.7	205.5	105.4	0.0	0.0	348.8
70 mph	1,380.5	5.0	96.5	260.4	9,452.9	4,848.1	0.0	0.0	16,043.4
total	3,001.1	10.9	209.7	566.0	20,549.8	10,539.4	122,632.4	225,609.3	383,118.6

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
15 mph	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1,407.5	2,818.7
25 mph	0.0	0.0	0.0	0.0	1,193.3	612.0	3,468.8	6,381.6	11,655.6
35 mph	1,335.7	4.9	93.3	112.5	0.0	0.0	0.0	0.0	1,546.3
total	1,401.5	5.1	97.9	129.3	1,562.4	801.3	4,233.9	7,789.2	16,020.6

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
10 mph	224.6	0.8	15.7	37.7	1,101.6	565.0	2,355.6	4,333.7	8,634.7
15 mph	173.7	0.6	12.1	35.4	933.1	478.5	1,550.3	2,852.1	6,035.8
20 mph	185.7	0.7	13.0	31.3	922.4	473.1	4,023.1	7,401.3	13,050.4
25 mph	838.4	3.0	58.6	139.4	5,188.6	2,661.1	16,398.2	30,168.1	55,455.4
30 mph	976.3	3.5	68.2	163.6	4,764.7	2,443.7	15,210.0	27,982.2	51,612.2
35 mph	2,306.3	8.4	161.2	278.7	5,075.4	2,603.0	10,891.4	20,037.1	41,361.4
40 mph	533.6	1.9	37.3	95.0	3,130.3	1,605.4	10,670.8	19,631.3	35,705.7
45 mph	434.7	1.6	30.4	77.3	2,540.1	1,302.7	8,046.1	14,802.6	27,235.5
50 mph	464.7	1.7	32.5	83.0	2,745.6	1,408.1	7,556.5	13,901.8	26,193.8
55 mph	305.7	1.1	21.4	53.9	1,744.4	894.6	2,404.1	4,422.9	9,848.2
60 mph	401.4	1.5	28.1	68.2	2,050.2	1,051.5	87,020.5	160,093.3	250,714.7
65 mph	68.9	0.3	4.8	12.1	384.7	197.3	0.0	0.0	668.1
70 mph	1,380.5	5.0	96.5	260.4	9,452.9	4,848.1	0.0	0.0	16,043.4
total	8,294.6	30.1	579.7	1,336.0	40,033.7	20,532.1	166,126.7	305,626.6	542,559.4

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	2,476.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,477.2
15 mph	990.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	990.9
20 mph	1,981.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1,981.7
25 mph	9,906.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	9,908.6
30 mph	10,896.8	2.7	0.0	0.0	0.0	0.0	0.0	0.0	10,899.5
35 mph	8,915.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	8,917.8
40 mph	2,971.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2,972.6
45 mph	2,476.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,477.2
50 mph	2,476.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,477.2
55 mph	2,476.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,477.0
60 mph	3,962.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3,963.5
65 mph	495.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	495.4
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	50,026.4	12.1	0.0	0.0	0.0	0.0	0.0	0.0	50,038.5

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
15 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
20 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
25 mph	763.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	764.1
30 mph	1,527.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,528.1
35 mph	3,437.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	3,438.2
40 mph	3,819.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	3,820.3
45 mph	3,055.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	3,056.2
50 mph	3,437.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	3,438.2
55 mph	1,909.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1,910.1
60 mph	1,145.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,146.1
65 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
70 mph	17,569.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	17,573.3
total	38,193.4	9.3	0.0	0.0	0.0	0.0	0.0	0.0	38,202.8

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	838.5
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,381.6	6,381.6
35 mph	16,998.6	4.2	0.0	0.0	0.0	0.0	0.0	0.0	17,002.7
total	17,836.8	4.4	0.0	0.0	0.0	0.0	0.0	6,381.6	24,222.8

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	2,858.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2,859.2
15 mph	2,210.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,211.3
20 mph	2,363.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,363.8
25 mph	10,670.1	2.6	0.0	0.0	0.0	0.0	0.0	6,381.6	17,054.3
30 mph	12,424.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	12,427.6
35 mph	29,351.6	7.2	0.0	0.0	0.0	0.0	0.0	0.0	29,358.8
40 mph	6,791.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	6,792.9
45 mph	5,532.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5,533.4
50 mph	5,914.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5,915.4
55 mph	4,386.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	4,387.2
60 mph	5,108.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	5,109.5
65 mph	877.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	877.5
70 mph	17,569.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	17,573.3
total	59,878.7	14.6	0.0	0.0	0.0	0.0	0.0	6,381.6	112,464.1

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2040 Buildout (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	12,055	2,411	671	134	1,995	399	3,327	665	3,610	7.22	0.035	0.0002	0.7	0.0008	2.8
2	A	731	0.45	6,800	3,060	345	155	977	440	1,629	733	4,388	6.75	0.035	0.0002	0.8	0.0007	3.2
3	A	2352	1.46	1,640	2,394	215	314	287	419	478	698	3,825	7.32	0.035	0.0002	0.7	0.0008	3.0
5	A	953	0.59	12,900	7,611	257	152	-	-	-	-	7,763	2.20	0.035	0.0001	0.4	0.0002	1.8
6	A	1099	0.68	14,175	9,639	655	445	2,040	1,387	3,402	2,313	13,785	6.76	0.035	0.0002	2.5	0.0007	10.1
8	A	1091	0.68	13,365	9,088	225	153	-	-	-	-	9,241	2.19	0.035	0.0001	0.5	0.0002	2.1
11	A	1201	0.75	9,765	7,324	90	67	-	-	-	-	7,391	2.16	0.035	0.0001	0.4	0.0002	1.7
12	A	824	0.51	12,780	6,518	144	74	22	11	38	19	6,622	2.25	0.035	0.0001	0.4	0.0002	1.6
14	A	1618	1.01	5,250	5,303	169	171	75	76	125	126	5,675	2.83	0.035	0.0001	0.4	0.0003	1.7
18	A	1412	0.88	3,370	2,966	70	62	71	63	119	105	3,195	3.08	0.035	0.0001	0.3	0.0003	1.0
19	A	2386	1.48	5,940	6,225	129	135	463	485	772	809	7,654	5.03	0.035	0.0001	1.0	0.0005	4.1
21	A	1258	0.78	8,440	6,583	105	82	122	96	204	159	6,920	2.79	0.035	0.0001	0.5	0.0003	2.1
24	A	1946	1.21	10,540	12,754	126	153	330	399	550	665	13,970	3.45	0.035	0.0001	1.3	0.0004	5.1
30	A	2827	1.76	35,375	62,261	301	529	-	-	-	-	62,790	2.16	0.035	0.0001	3.5	0.0002	14.3
29	A	675	0.42	12,900	5,418	44	18	4	2	6	3	5,441	2.15	0.035	0.0001	0.3	0.0002	1.2
31	A	820	0.51	43,155	22,009	26	13	186	95	309	158	22,275	2.32	0.035	0.0001	1.3	0.0002	5.5
TOTAL				208,452		3,570		6,572		10,959						15.1		61.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2040 Buildout (Project) - Unmitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				43662.41	908930.78	3,928.00	85,639.69	4,202.52	180,623.51	7,007.48	301,180.51	1,476,374.48	5.57	0.035	0.0001	217.435473	0.0006	885.848223

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	4766.0	65.2	829.8
	LDT1	15	1989	330	0.21	417.7	417.2	0.2	0.2
	LDT2	15	9954	330	0.21	2090.3	2085.7	4.6	0.0
	MDT	15	2999	330	0.21	629.8	613.0	16.8	0.0
	LHDT1	15	2635	330	0.21	553.3	185.3	368.1	0.0
	LHDT2	15	1267	330	0.21	266.0	77.3	188.8	0.0
	MHDT	15	4034	330	0.21	847.1	87.8	759.2	0.0
	HHDT	15	6726	330	0.21	1412.5	15.7	1396.8	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	17.9	0.2	3.1
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.8	0.0	0.0
	MDT	15	18	175	0.11	2.0	1.9	0.1	0.0
	LHDT1	15	11	175	0.11	1.2	0.4	0.8	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.4	0.0
	MHDT	15	13	175	0.11	1.4	0.1	1.3	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	11.1	0.2	1.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.1	0.3	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.4	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	16.9	0.2	2.9
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.4	0.0	0.4
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4814.3	421.5	2106.8	617.7	185.8	77.5	88.5	15.8
Diesel	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1407.5
Electric	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	441	876	0	2205.4	4381.8	0.0
	LHDT2	5	633	184	449	0	919.7	2247.3	0.0
	MHDT	5	2017	209	1808	0	1045.7	9038.6	0.0
	HHDT	5	3363	37	3326	0	186.6	16628.5	0.0
Travel at Light Logistics	LHDT1	5	5	2	4	0	8.9	17.6	0.0
	LHDT2	5	3	1	2	0	3.7	9.0	0.0
	MHDT	5	7	1	6	0	3.4	29.2	0.0
	HHDT	5	11	0	11	0	0.6	53.8	0.0
Travel at Utility	LHDT1	5	4	1	2	0	6.0	11.8	0.0
	LHDT2	5	2	0	1	0	2.5	6.1	0.0
	MHDT	5	7	1	6	0	3.5	30.4	0.0
	HHDT	5	11	0	11	0	0.6	56.0	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	7	64	0	36.9	318.7	0.0
	HHDT	5	119	1	117	0	6.6	586.3	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	37.0	15.4	18.2	3.3
Diesel	73.5	37.7	156.9	288.7
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	9.8375	8.7720	42.9576	10.7657
10 mph	0.0160	0.0212	0.0208	0.0304	0.0166	0.0136	0.0410	1.3542
15 mph	0.0106	0.0141	0.0138	0.0201	0.0109	0.0090	0.0273	0.8999
20 mph	0.0075	0.0099	0.0097	0.0142	0.0077	0.0063	0.0191	0.6299
25 mph	0.0055	0.0073	0.0071	0.0105	0.0056	0.0047	0.0141	0.4654
30 mph	0.0043	0.0056	0.0055	0.0082	0.0044	0.0036	0.0110	0.3626
35 mph	0.0035	0.0046	0.0045	0.0067	0.0036	0.0030	0.0090	0.2980
40 mph	0.0030	0.0040	0.0039	0.0059	0.0032	0.0026	0.0078	0.2584
45 mph	0.0028	0.0036	0.0036	0.0054	0.0029	0.0024	0.0072	0.2364
50 mph	0.0027	0.0035	0.0035	0.0052	0.0028	0.0023	0.0069	0.2281
55 mph	0.0027	0.0036	0.0035	0.0053	0.0029	0.0023	0.0070	0.2322
60 mph	0.0029	0.0038	0.0038	0.0056	0.0031	0.0025	0.0076	0.2495
65 mph	0.0033	0.0043	0.0043	0.0064	0.0035	0.0028		
70 mph	0.0036	0.0044	0.0046	0.0071	0.0039	0.0031		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1623	0.5136
10 mph	0.0594	0.2009	0.1966	0.0708	0.5670	0.5585	0.1922	0.4549
15 mph	0.0290	0.1002	0.0960	0.0346	0.2794	0.2731	0.1353	0.3204
20 mph	0.0113	0.0412	0.0373	0.0135	0.1118	0.1065	0.0979	0.2311
25 mph	0.0068	0.0255	0.0224	0.0081	0.0682	0.0640	0.0717	0.1696
30 mph	0.0051	0.0193	0.0169	0.0061	0.0520	0.0484	0.0529	0.1249
35 mph	0.0041	0.0153	0.0134	0.0048	0.0419	0.0386	0.0390	0.0920
40 mph	0.0034	0.0128	0.0111	0.0040	0.0350	0.0318	0.0287	0.0678
45 mph	0.0028	0.0110	0.0094	0.0034	0.0301	0.0270	0.0212	0.0500
50 mph	0.0025	0.0097	0.0081	0.0029	0.0266	0.0234	0.0156	0.0368
55 mph	0.0022	0.0088	0.0071	0.0026	0.0238	0.0206	0.0115	0.0272
60 mph	0.0020	0.0086	0.0067	0.0024	0.0230	0.0194	0.0099	0.0233
65 mph	0.0021	0.0086	0.0067	0.0024	0.0239	0.0195		
70 mph	0.0021	0.0073	0.0067	0.0024	0.0301	0.0201		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.5028	0.0582	0.2854	0.0786	0.0165	0.0057	0.0247	0.1453	1.1170
15 mph	0.1336	0.0155	0.0757	0.0208	0.0043	0.0015	0.0055	0.0322	0.2891
20 mph	0.1871	0.0218	0.1061	0.0293	0.0061	0.0021	0.0076	0.0450	0.4051
25 mph	0.6897	0.0800	0.3910	0.1083	0.0224	0.0078	0.0311	0.1831	1.5134
30 mph	0.5899	0.0681	0.3342	0.0931	0.0193	0.0067	0.0220	0.1297	1.2630
35 mph	0.3958	0.0454	0.2240	0.0628	0.0130	0.0045	0.0081	0.0479	0.8015
40 mph	0.1144	0.0131	0.0647	0.0182	0.0038	0.0013	0.0079	0.0462	0.2695
45 mph	0.0873	0.0100	0.0493	0.0138	0.0029	0.0010	0.0057	0.0338	0.2038
50 mph	0.0842	0.0096	0.0475	0.0134	0.0028	0.0010	0.0090	0.0530	0.2204
55 mph	0.0686	0.0078	0.0388	0.0109	0.0023	0.0008	0.0021	0.0125	0.1437
60 mph	0.1475	0.0168	0.0832	0.0232	0.0049	0.0017	0.0023	0.0134	0.2929
65 mph	0.0209	0.0023	0.0117	0.0033	0.0007	0.0002	0.0000	0.0000	0.0391
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	3.0216	0.3485	1.7118	0.4756	0.0990	0.0341	0.1261	0.7420	6.5586

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0775	0.0090	0.0440	0.0139	0.0038	0.0013	0.0000	0.0000	0.1495
15 mph	0.0515	0.0060	0.0292	0.0092	0.0025	0.0009	0.0000	0.0000	0.0992
20 mph	0.0361	0.0042	0.0205	0.0065	0.0017	0.0006	0.0119	0.0703	0.1518
25 mph	0.0532	0.0062	0.0302	0.0096	0.0026	0.0009	0.0155	0.0910	0.2090
30 mph	0.0827	0.0096	0.0469	0.0150	0.0040	0.0014	0.0206	0.1215	0.3016
35 mph	0.1526	0.0175	0.0863	0.0277	0.0075	0.0026	0.0170	0.0998	0.4110
40 mph	0.1470	0.0168	0.0832	0.0267	0.0072	0.0025	0.0135	0.0794	0.3763
45 mph	0.1077	0.0123	0.0608	0.0196	0.0053	0.0018	0.0090	0.0528	0.2693
50 mph	0.1169	0.0133	0.0659	0.0212	0.0058	0.0020	0.0043	0.0255	0.2549
55 mph	0.0662	0.0075	0.0374	0.0120	0.0033	0.0011	0.0022	0.0130	0.1426
60 mph	0.0426	0.0049	0.0241	0.0077	0.0021	0.0007	0.1657	0.9753	1.2230
65 mph	0.0161	0.0018	0.0090	0.0029	0.0008	0.0003	0.0000	0.0000	0.0309
70 mph	0.8062	0.0856	0.4460	0.1496	0.0413	0.0135	0.0000	0.0000	1.5422
total	1.7562	0.1946	0.9834	0.3215	0.0878	0.0295	0.2597	1.5285	5.1612

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	1.7200	0.0780	2.8992
15 mph	0.1130	0.0131	0.0641	0.0274	0.0045	0.0015	0.0053	0.0314	0.2604
25 mph	0.0000	0.0000	0.0000	0.0000	0.0075	0.0026	0.0125	0.0735	0.0961
35 mph	0.7546	0.0865	0.4270	0.0612	0.0000	0.0000	0.0000	0.0000	1.3293
total	0.8676	0.0996	0.4911	0.0886	0.8146	0.3026	1.7378	0.1829	4.5849

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	1.7200	0.0780	2.8992
10 mph	0.5803	0.0671	0.3294	0.0925	0.0203	0.0070	0.0247	0.1453	1.2665
15 mph	0.2981	0.0346	0.1690	0.0574	0.0113	0.0039	0.0108	0.0635	0.6487
20 mph	0.2231	0.0259	0.1266	0.0357	0.0079	0.0027	0.0196	0.1154	0.5569
25 mph	0.7429	0.0862	0.4212	0.1179	0.0325	0.0112	0.0590	0.3475	1.8184
30 mph	0.6726	0.0777	0.3811	0.1080	0.0233	0.0080	0.0427	0.2511	1.5646
35 mph	1.3030	0.1494	0.7373	0.1517	0.0205	0.0070	0.0251	0.1478	2.5418
40 mph	0.2614	0.0299	0.1479	0.0449	0.0110	0.0038	0.0213	0.1256	0.6457
45 mph	0.1949	0.0223	0.1102	0.0334	0.0082	0.0028	0.0147	0.0866	0.4731
50 mph	0.2011	0.0229	0.1134	0.0346	0.0085	0.0029	0.0133	0.0785	0.4753
55 mph	0.1348	0.0153	0.0761	0.0229	0.0055	0.0019	0.0043	0.0254	0.2863
60 mph	0.1901	0.0216	0.1073	0.0309	0.0070	0.0024	0.1679	0.9887	1.5159
65 mph	0.0369	0.0042	0.0208	0.0062	0.0015	0.0005	0.0000	0.0000	0.0700
70 mph	0.8062	0.0856	0.4460	0.1496	0.0413	0.0135	0.0000	0.0000	1.5422
total	5.6454	0.6428	3.1863	0.8857	1.0014	0.3662	2.1236	2.4534	16.3048

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0255	0.0003	0.0059	0.0050	1.1202	0.5659	0.9981	4.3471	7.0681
15 mph	0.0050	0.0001	0.0012	0.0010	0.2208	0.1107	0.2343	1.0206	1.5936
20 mph	0.0039	0.0001	0.0009	0.0008	0.1766	0.0863	0.3389	1.4723	2.0798
25 mph	0.0117	0.0002	0.0027	0.0023	0.5387	0.2596	1.3663	5.9423	8.1237
30 mph	0.0097	0.0001	0.0022	0.0019	0.4521	0.2159	0.9155	3.9790	5.5764
35 mph	0.0063	0.0001	0.0015	0.0012	0.2981	0.1407	0.3037	1.3183	2.0697
40 mph	0.0017	0.0000	0.0004	0.0003	0.0830	0.0387	0.2486	1.0797	1.4525
45 mph	0.0012	0.0000	0.0003	0.0002	0.0595	0.0274	0.1466	0.6365	0.8717
50 mph	0.0011	0.0000	0.0002	0.0002	0.0526	0.0237	0.1756	0.7621	1.0155
55 mph	0.0007	0.0000	0.0002	0.0001	0.0376	0.0167	0.0299	0.1298	0.2151
60 mph	0.0014	0.0000	0.0003	0.0003	0.0727	0.0315	0.0256	0.1114	0.2433
65 mph	0.0002	0.0000	0.0000	0.0000	0.0095	0.0040	0.0000	0.0000	0.0137
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0683	0.0009	0.0158	0.0134	3.1215	1.5211	4.7832	20.7991	30.3231

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0039	0.0000	0.0009	0.0009	0.2569	0.1298	0.0000	0.0000	0.3925
15 mph	0.0019	0.0000	0.0004	0.0004	0.1266	0.0635	0.0000	0.0000	0.1929
20 mph	0.0007	0.0000	0.0002	0.0002	0.0506	0.0247	0.5293	2.2994	2.9053
25 mph	0.0009	0.0000	0.0002	0.0002	0.0618	0.0298	0.6790	2.9529	3.7247
30 mph	0.0014	0.0000	0.0003	0.0003	0.0943	0.0450	0.8579	3.7286	4.7277
35 mph	0.0024	0.0000	0.0006	0.0005	0.1709	0.0806	0.6323	2.7451	3.6325
40 mph	0.0022	0.0000	0.0005	0.0005	0.1586	0.0740	0.4271	1.8548	2.5178
45 mph	0.0015	0.0000	0.0003	0.0003	0.1092	0.0502	0.2290	0.9940	1.3846
50 mph	0.0015	0.0000	0.0003	0.0003	0.1086	0.0489	0.0844	0.3662	0.6102
55 mph	0.0007	0.0000	0.0002	0.0002	0.0539	0.0239	0.0311	0.1352	0.2452
60 mph	0.0004	0.0000	0.0001	0.0001	0.0312	0.0136	1.8693	8.1220	10.0367
65 mph	0.0001	0.0000	0.0000	0.0000	0.0108	0.0045	0.0000	0.0000	0.0156
70 mph	0.0063	0.0001	0.0014	0.0014	0.6268	0.2144	0.0000	0.0000	0.8504
total	0.0241	0.0003	0.0055	0.0054	1.8603	0.8029	5.3394	23.1982	31.2361

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0562	0.3270	1.1614
15 mph	0.0042	0.0001	0.0010	0.0013	0.2274	0.1140	0.2283	0.9945	1.5707
25 mph	0.0000	0.0000	0.0000	0.0000	0.1793	0.0864	0.5487	2.3865	3.2010
35 mph	0.0120	0.0002	0.0028	0.0012	0.0000	0.0000	0.0000	0.0000	0.0161
total	0.0162	0.0002	0.0037	0.0025	0.9211	0.4642	0.8332	3.7079	5.9491

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0562	0.3270	1.1614
10 mph	0.0294	0.0004	0.0068	0.0059	1.3772	0.6957	0.9981	4.3471	7.4605
15 mph	0.0111	0.0001	0.0026	0.0027	0.5748	0.2882	0.4626	2.0151	3.3572
20 mph	0.0046	0.0001	0.0011	0.0009	0.2273	0.1111	0.8683	3.7717	4.9851
25 mph	0.0125	0.0002	0.0029	0.0025	0.7798	0.3758	2.5940	11.2817	15.0494
30 mph	0.0110	0.0002	0.0025	0.0022	0.5463	0.2609	1.7734	7.7075	10.3041
35 mph	0.0207	0.0003	0.0048	0.0030	0.4690	0.2213	0.9360	4.0634	5.7184
40 mph	0.0040	0.0001	0.0009	0.0008	0.2416	0.1127	0.6758	2.9345	3.9703
45 mph	0.0027	0.0000	0.0006	0.0006	0.1687	0.0775	0.3756	1.6305	2.2563
50 mph	0.0025	0.0000	0.0006	0.0005	0.1612	0.0726	0.2600	1.1283	1.6258
55 mph	0.0015	0.0000	0.0003	0.0003	0.0916	0.0406	0.0610	0.2650	0.4603
60 mph	0.0018	0.0000	0.0004	0.0004	0.1039	0.0451	1.8949	8.2334	10.2800
65 mph	0.0003	0.0000	0.0001	0.0001	0.0203	0.0085	0.0000	0.0000	0.0292
70 mph	0.0063	0.0001	0.0014	0.0014	0.6268	0.2144	0.0000	0.0000	0.8504
total	0.1086	0.0014	0.0250	0.0212	5.9029	2.7882	10.9557	47.7052	67.5083

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.03	0.05	0.03	0.05	0.21	0.10	0.12	0.05
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	43.08	5.51	19.62	5.69	9.40	1.86	4.98	0.36
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**43.08**	**5.51**	**19.62**	**5.69**	**9.40**	**1.86**	**4.98**	**0.36**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.17	0.32	0.26	0.60	0.07	0.04	0.05	0.05
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.36	0.73	3.02	1.97	0.06	0.02	0.02	0.00
Electric	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**4.50**	**0.73**	**3.02**	**1.97**	**0.06**	**0.02**	**0.02**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.32	0.56	1.78	0.41	4.06
10 mph	0.61	0.07	0.34	0.10	1.40	0.70	1.02	4.49	8.73
15 mph	0.31	0.03	0.17	0.06	0.59	0.29	0.47	2.08	4.01
20 mph	0.23	0.03	0.13	0.04	0.24	0.11	0.89	3.89	5.54
25 mph	0.76	0.09	0.42	0.12	0.81	0.39	2.65	11.63	16.87
30 mph	0.68	0.08	0.38	0.11	0.57	0.27	1.82	7.96	11.87
35 mph	1.32	0.15	0.74	0.15	0.49	0.23	0.96	4.21	8.26
40 mph	0.27	0.03	0.15	0.05	0.25	0.12	0.70	3.06	4.62
45 mph	0.20	0.02	0.11	0.03	0.18	0.08	0.39	1.72	2.73
50 mph	0.20	0.02	0.11	0.04	0.17	0.08	0.27	1.21	2.10
55 mph	0.14	0.02	0.08	0.02	0.10	0.04	0.07	0.29	0.75
60 mph	0.19	0.02	0.11	0.03	0.11	0.05	2.06	9.22	11.80
65 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.00	0.00	0.10
70 mph	0.81	0.09	0.45	0.15	0.67	0.23	0.00	0.00	2.39
RUNLOSS	43.08	5.51	19.62	5.69	9.40	1.86	4.98	0.36	90.50
RESTLOSS DIURI	4.50	0.73	3.02	1.97	0.06	0.02	0.02	0.00	10.33
total	53.34	6.89	25.85	8.56	16.37	5.03	18.09	50.53	**184.65**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8853	0.7879	1.9470	28.2228
10 mph	0.0328	0.0412	0.0402	0.0586	0.0802	0.0526	0.1477	4.9030
15 mph	0.0289	0.0364	0.0354	0.0512	0.0690	0.0463	0.1306	4.3328
20 mph	0.0259	0.0326	0.0318	0.0458	0.0626	0.0416	0.1171	3.8859
25 mph	0.0236	0.0295	0.0289	0.0415	0.0566	0.0379	0.1068	3.5434
30 mph	0.0219	0.0272	0.0267	0.0384	0.0528	0.0351	0.0989	3.2817
35 mph	0.0205	0.0254	0.0250	0.0362	0.0502	0.0331	0.0931	3.0879
40 mph	0.0196	0.0242	0.0239	0.0346	0.0482	0.0316	0.0890	2.9534
45 mph	0.0191	0.0236	0.0232	0.0337	0.0470	0.0307	0.0865	2.8700
50 mph	0.0189	0.0232	0.0229	0.0335	0.0465	0.0303	0.0854	2.8427
55 mph	0.0189	0.0234	0.0230	0.0338	0.0466	0.0304	0.0856	2.8427
60 mph	0.0193	0.0239	0.0235	0.0346	0.0474	0.0310	0.0873	2.8988
65 mph	0.0200	0.0246	0.0243	0.0362	0.0491	0.0321		
70 mph	0.0206	0.0243	0.0245	0.0384	0.0552	0.0326		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	29.7332	25.2881	17.7719	16.0092
10 mph	0.0366	0.1672	0.1282	0.0430	0.3339	0.2201	7.7508	15.5932
15 mph	0.0247	0.1298	0.0858	0.0288	0.2473	0.1503	4.6365	9.3379
20 mph	0.0164	0.1029	0.0565	0.0191	0.2073	0.1035	2.5855	5.1931
25 mph	0.0126	0.0893	0.0429	0.0145	0.1836	0.0815	1.3893	2.8028
30 mph	0.0106	0.0805	0.0356	0.0121	0.1809	0.0707	0.8550	1.7291
35 mph	0.0092	0.0724	0.0308	0.0105	0.1875	0.0642	0.5717	1.1595
40 mph	0.0083	0.0697	0.0273	0.0094	0.1926	0.0597	0.4054	0.8269
45 mph	0.0076	0.0691	0.0248	0.0085	0.1981	0.0565	0.3007	0.6169
50 mph	0.0071	0.0667	0.0227	0.0078	0.2056	0.0544	0.2310	0.4761
55 mph	0.0066	0.0679	0.0211	0.0073	0.1988	0.0515	0.1823	0.3798
60 mph	0.0065	0.0703	0.0204	0.0071	0.2031	0.0508	0.1634	0.3423
65 mph	0.0065	0.0653	0.0204	0.0071	0.2228	0.0529		
70 mph	0.0067	0.0339	0.0203	0.0072	0.4433	0.0743		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	1.0276	0.1132	0.5518	0.1516	0.0797	0.0218	0.0887	0.5259	2.5603
15 mph	0.3629	0.0400	0.1945	0.0529	0.0274	0.0077	0.0262	0.1549	0.8665
20 mph	0.6511	0.0716	0.3488	0.0946	0.0498	0.0138	0.0469	0.2779	1.5545
25 mph	2.9643	0.3242	1.5849	0.4295	0.2253	0.0629	0.2354	1.3936	7.2200
30 mph	3.0163	0.3282	1.6098	0.4370	0.2310	0.0641	0.1982	1.1733	7.0579
35 mph	2.3194	0.2507	1.2352	0.3367	0.1798	0.0494	0.0839	0.4968	4.9519
40 mph	0.7393	0.0798	0.3936	0.1075	0.0575	0.0157	0.0892	0.5280	2.0106
45 mph	0.5990	0.0647	0.3188	0.0872	0.0467	0.0127	0.0693	0.4104	1.6089
50 mph	0.5916	0.0637	0.3144	0.0865	0.0463	0.0126	0.1112	0.6606	1.8868
55 mph	0.4752	0.0513	0.2530	0.0699	0.0371	0.0101	0.0257	0.1525	1.0747
60 mph	0.9691	0.1050	0.5161	0.1430	0.0754	0.0206	0.0262	0.1555	2.0109
65 mph	0.1254	0.0135	0.0666	0.0187	0.0098	0.0027	0.0000	0.0000	0.2367
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	13.8412	1.5060	7.3874	2.0150	1.0657	0.2941	1.0010	5.9293	33.0397

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1585	0.0175	0.0851	0.0268	0.0183	0.0050	0.0000	0.0000	0.3111
15 mph	0.1399	0.0154	0.0750	0.0234	0.0157	0.0044	0.0000	0.0000	0.2738
20 mph	0.1255	0.0138	0.0672	0.0209	0.0143	0.0040	0.0733	0.4340	0.7529
25 mph	0.2286	0.0250	0.1222	0.0379	0.0258	0.0072	0.1170	0.6925	1.2562
30 mph	0.4229	0.0460	0.2257	0.0702	0.0482	0.0134	0.1857	1.0995	2.1115
35 mph	0.8942	0.0967	0.4762	0.1487	0.1031	0.0283	0.1748	1.0345	2.9566
40 mph	0.9502	0.1026	0.5058	0.1583	0.1098	0.0301	0.1532	0.9070	2.9170
45 mph	0.7390	0.0798	0.3933	0.1233	0.0857	0.0234	0.1083	0.6410	2.1938
50 mph	0.8211	0.0884	0.4363	0.1375	0.0955	0.0260	0.0534	0.3175	1.9757
55 mph	0.4580	0.0495	0.2438	0.0772	0.0531	0.0145	0.0268	0.1587	1.0816
60 mph	0.2802	0.0304	0.1492	0.0474	0.0324	0.0089	1.9121	11.3307	13.7912
65 mph	0.0967	0.0104	0.0514	0.0165	0.0112	0.0031	0.0000	0.0000	0.1893
70 mph	4.5758	0.4724	2.3902	0.8069	0.5787	0.1425	0.0000	0.0000	8.9666
total	9.8907	1.0478	5.2216	1.6950	1.1918	0.3106	2.8045	16.6154	38.7775

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0780	0.2046	0.3816
15 mph	0.3071	0.0338	0.1646	0.0697	0.0283	0.0079	0.0255	0.1509	0.7878
25 mph	0.0000	0.0000	0.0000	0.0000	0.0750	0.0209	0.0945	0.5597	0.7501
35 mph	4.4222	0.4780	2.3551	0.3284	0.0000	0.0000	0.0000	0.0000	7.5836
total	4.7293	0.5118	2.5197	0.3981	0.1755	0.0557	0.1980	0.9152	9.5031

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0780	0.2046	0.3816
10 mph	1.1860	0.1307	0.6369	0.1784	0.0980	0.0268	0.0887	0.5259	2.8714
15 mph	0.8099	0.0892	0.4341	0.1459	0.0715	0.0200	0.0517	0.3059	1.9282
20 mph	0.7766	0.0853	0.4161	0.1155	0.0641	0.0178	0.1202	0.7118	2.3074
25 mph	3.1929	0.3493	1.7071	0.4674	0.3261	0.0910	0.4469	2.6457	9.2264
30 mph	3.4392	0.3742	1.8355	0.5072	0.2791	0.0774	0.3839	2.2728	9.1694
35 mph	7.6358	0.8253	4.0666	0.8138	0.2829	0.0777	0.2587	1.5314	15.4922
40 mph	1.6895	0.1824	0.8994	0.2657	0.1673	0.0458	0.2424	1.4350	4.9276
45 mph	1.3381	0.1445	0.7120	0.2105	0.1324	0.0361	0.1776	1.0515	3.8027
50 mph	1.4127	0.1522	0.7507	0.2240	0.1417	0.0385	0.1646	0.9781	3.8626
55 mph	0.9332	0.1008	0.4968	0.1471	0.0902	0.0246	0.0525	0.3112	2.1564
60 mph	1.2493	0.1354	0.6653	0.1904	0.1078	0.0295	1.9383	11.4861	15.8021
65 mph	0.2221	0.0239	0.1180	0.0352	0.0210	0.0057	0.0000	0.0000	0.4260
70 mph	4.5758	0.4724	2.3902	0.8069	0.5787	0.1425	0.0000	0.0000	8.9666
total	28.4612	3.0656	15.1287	4.1081	2.4330	0.6604	4.0035	23.4599	81.3204

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0157	0.0003	0.0038	0.0030	0.6598	0.2230	40.2586	149.0052	190.1694
15 mph	0.0042	0.0001	0.0010	0.0008	0.1955	0.0609	8.0276	29.7436	38.0337
20 mph	0.0056	0.0001	0.0014	0.0011	0.3277	0.0839	8.9531	33.0831	42.4559
25 mph	0.0216	0.0006	0.0051	0.0041	1.4514	0.3302	26.4593	98.2030	126.4753
30 mph	0.0200	0.0006	0.0047	0.0038	1.5729	0.3152	14.8033	55.0767	71.7970
35 mph	0.0142	0.0004	0.0033	0.0027	1.3340	0.2343	4.4540	16.6200	22.6630
40 mph	0.0043	0.0001	0.0010	0.0008	0.4566	0.0726	3.5096	13.1698	17.2147
45 mph	0.0033	0.0001	0.0007	0.0006	0.3914	0.0572	2.0823	7.8601	10.3957
50 mph	0.0030	0.0001	0.0007	0.0006	0.4062	0.0551	2.5993	9.8582	12.9232
55 mph	0.0023	0.0001	0.0005	0.0004	0.3143	0.0417	0.4733	1.8145	2.6472
60 mph	0.0044	0.0002	0.0010	0.0008	0.6419	0.0824	0.4243	1.6355	2.7906
65 mph	0.0006	0.0000	0.0001	0.0001	0.0880	0.0107	0.0000	0.0000	0.0996
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0992	0.0026	0.0234	0.0187	7.8397	1.5673	112.0446	416.0698	537.6654

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0024	0.0000	0.0006	0.0005	0.1513	0.0511	0.0000	0.0000	0.2060
15 mph	0.0016	0.0000	0.0004	0.0004	0.1121	0.0349	0.0000	0.0000	0.1494
20 mph	0.0011	0.0000	0.0003	0.0002	0.0939	0.0240	13.9828	51.6685	65.7709
25 mph	0.0017	0.0000	0.0004	0.0004	0.1664	0.0379	13.1484	48.8001	62.1553
30 mph	0.0028	0.0001	0.0007	0.0006	0.3279	0.0657	13.8717	51.6107	65.8801
35 mph	0.0055	0.0002	0.0013	0.0012	0.7648	0.1343	9.2749	34.6090	44.7913
40 mph	0.0055	0.0002	0.0013	0.0012	0.8726	0.1387	6.0293	22.6253	29.6739
45 mph	0.0040	0.0001	0.0009	0.0008	0.7181	0.1050	3.2521	12.2758	16.3568
50 mph	0.0042	0.0001	0.0009	0.0009	0.8385	0.1137	1.2491	4.7374	6.9448
55 mph	0.0022	0.0001	0.0005	0.0005	0.4505	0.0598	0.4928	1.8893	2.8956
60 mph	0.0013	0.0001	0.0003	0.0003	0.2760	0.0354	30.9270	119.2034	150.4438
65 mph	0.0004	0.0000	0.0001	0.0001	0.1009	0.0123	0.0000	0.0000	0.1139
70 mph	0.0205	0.0004	0.0043	0.0041	9.2392	0.7945	0.0000	0.0000	10.0629
total	0.0532	0.0013	0.0119	0.0111	14.1122	1.6074	92.2281	347.4194	455.4446

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1504	10.1927	23.2657
15 mph	0.0036	0.0001	0.0009	0.0011	0.2013	0.0627	7.8219	28.9813	37.0728
25 mph	0.0000	0.0000	0.0000	0.0000	0.4832	0.1099	10.6262	39.4390	50.6583
35 mph	0.0272	0.0008	0.0063	0.0026	0.0000	0.0000	0.0000	0.0000	0.0369
total	0.0307	0.0008	0.0072	0.0037	5.5046	2.2752	24.5985	78.6130	111.0337

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1504	10.1927	23.2657
10 mph	0.0181	0.0003	0.0044	0.0036	0.8111	0.2742	40.2586	149.0052	190.3755
15 mph	0.0095	0.0002	0.0023	0.0022	0.5088	0.1586	15.8495	58.7249	75.2559
20 mph	0.0067	0.0002	0.0016	0.0013	0.4217	0.1079	22.9358	84.7516	108.2268
25 mph	0.0233	0.0006	0.0055	0.0045	2.1010	0.4780	50.2339	186.4421	239.2890
30 mph	0.0228	0.0006	0.0054	0.0044	1.9008	0.3810	28.6749	106.6873	137.6771
35 mph	0.0469	0.0013	0.0109	0.0064	2.0989	0.3686	13.7290	51.2290	67.4911
40 mph	0.0097	0.0003	0.0022	0.0020	1.3291	0.2112	9.5389	35.7951	46.8886
45 mph	0.0073	0.0002	0.0017	0.0015	1.1095	0.1622	5.3344	20.1359	26.7525
50 mph	0.0072	0.0002	0.0016	0.0014	1.2447	0.1688	3.8483	14.5956	19.8680
55 mph	0.0045	0.0002	0.0010	0.0009	0.7647	0.1015	0.9662	3.7038	5.5428
60 mph	0.0057	0.0002	0.0013	0.0011	0.9180	0.1179	31.3513	120.8390	153.2344
65 mph	0.0010	0.0000	0.0002	0.0002	0.1890	0.0230	0.0000	0.0000	0.2134
70 mph	0.0205	0.0004	0.0043	0.0041	9.2392	0.7945	0.0000	0.0000	10.0629
total	0.1832	0.0048	0.0425	0.0335	27.4564	5.4498	228.8712	842.1022	1,104.1437

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.89	2.13	6.23	10.40	23.65
10 mph	1.20	0.13	0.64	0.18	0.91	0.30	40.35	149.53	193.25
15 mph	0.82	0.09	0.44	0.15	0.58	0.18	15.90	59.03	77.18
20 mph	0.78	0.09	0.42	0.12	0.49	0.13	23.06	85.46	110.53
25 mph	3.22	0.35	1.71	0.47	2.43	0.57	50.68	189.09	248.52
30 mph	3.46	0.37	1.84	0.51	2.18	0.46	29.06	108.96	146.85
35 mph	7.68	0.83	4.08	0.82	2.38	0.45	13.99	52.76	82.98
40 mph	1.70	0.18	0.90	0.27	1.50	0.26	9.78	37.23	51.82
45 mph	1.35	0.14	0.71	0.21	1.24	0.20	5.51	21.19	30.56
50 mph	1.42	0.15	0.75	0.23	1.39	0.21	4.01	15.57	23.73
55 mph	0.94	0.10	0.50	0.15	0.85	0.13	1.02	4.02	7.70
60 mph	1.26	0.14	0.67	0.19	1.03	0.15	33.29	132.33	169.04
65 mph	0.22	0.02	0.12	0.04	0.21	0.03	0.00	0.00	0.64
70 mph	4.60	0.47	2.39	0.81	9.82	0.94	0.00	0.00	19.03
total	28.64	3.07	15.17	4.14	29.89	6.11	232.87	865.56	**1,185.46**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.7236	129.4807	323.0973	277.8418
10 mph	0.4796	0.5803	0.6288	0.7906	0.2207	0.1981	0.3089	50.5799
15 mph	0.4381	0.5304	0.5737	0.7186	0.2001	0.1808	0.3089	46.2403
20 mph	0.4010	0.4849	0.5252	0.6577	0.1838	0.1656	0.2826	42.3203
25 mph	0.3676	0.4427	0.4809	0.6028	0.1684	0.1520	0.2597	38.8654
30 mph	0.3378	0.4047	0.4414	0.5546	0.1553	0.1399	0.2390	35.7695
35 mph	0.3112	0.3703	0.4061	0.5119	0.1437	0.1292	0.2205	33.0023
40 mph	0.2880	0.3421	0.3756	0.4738	0.1331	0.1196	0.2040	30.5450
45 mph	0.2674	0.3175	0.3485	0.4398	0.1237	0.1110	0.1894	28.3423
50 mph	0.2488	0.2944	0.3239	0.4096	0.1152	0.1032	0.1760	26.3641
55 mph	0.2323	0.2754	0.3027	0.3829	0.1074	0.0963	0.1640	24.5937
60 mph	0.2173	0.2581	0.2832	0.3580	0.1004	0.0901	0.1534	23.0116
65 mph	0.2036	0.2402	0.2648	0.3364	0.0942	0.0845		
70 mph	0.1985	0.2228	0.2538	0.3323	0.0938	0.0817		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2149	1.9074
10 mph	1.9150	2.0788	1.9787	2.2231	2.6354	2.5044	1.0109	2.6821
15 mph	0.9347	1.0348	0.9661	1.0863	1.3008	1.2263	0.7120	1.8899
20 mph	0.3637	0.4234	0.3756	0.4224	0.5214	0.4782	0.5151	1.3637
25 mph	0.2183	0.2616	0.2251	0.2532	0.3192	0.2879	0.3775	1.0008
30 mph	0.1648	0.1990	0.1696	0.1910	0.2447	0.2177	0.2783	0.7371
35 mph	0.1310	0.1585	0.1345	0.1515	0.1986	0.1734	0.2051	0.5427
40 mph	0.1081	0.1332	0.1109	0.1249	0.1675	0.1433	0.1511	0.4000
45 mph	0.0916	0.1163	0.0939	0.1058	0.1462	0.1218	0.1114	0.2948
50 mph	0.0792	0.1037	0.0810	0.0914	0.1318	0.1057	0.0821	0.2172
55 mph	0.0697	0.0971	0.0712	0.0803	0.1206	0.0935	0.0605	0.1603
60 mph	0.0657	0.0984	0.0671	0.0757	0.1204	0.0888	0.0520	0.1376
65 mph	0.0658	0.1010	0.0670	0.0756	0.1314	0.0899		
70 mph	0.0668	0.0783	0.0664	0.0753	0.1904	0.0945		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	15.0425	1.5934	8.6305	2.0434	0.2195	0.0821	0.1857	5.4252	33.2222
15 mph	5.4957	0.5825	3.1497	0.7429	0.0796	0.0300	0.0619	1.6532	11.7956
20 mph	10.0621	1.0652	5.7664	1.3599	0.1462	0.0549	0.1132	3.0262	21.5941
25 mph	46.1220	4.8622	26.4010	6.2323	0.6697	0.2522	0.5722	15.2852	100.3968
30 mph	46.6214	4.8894	26.6579	6.3068	0.6793	0.2553	0.4788	12.7888	98.6777
35 mph	35.1401	3.6603	20.0644	4.7627	0.5146	0.1929	0.1988	5.3097	69.8434
40 mph	10.8388	1.1273	6.1863	1.4695	0.1589	0.0595	0.2044	5.4604	25.5050
45 mph	8.3861	0.8718	4.7837	1.1368	0.1230	0.0460	0.1517	4.0533	19.5524
50 mph	7.8037	0.8084	4.4452	1.0587	0.1145	0.0428	0.2292	6.1269	20.6293
55 mph	5.8284	0.6050	3.3234	0.7918	0.0855	0.0320	0.0493	1.3190	12.0343
60 mph	10.9065	1.1339	6.2185	1.4806	0.1598	0.0598	0.0461	1.2341	21.2393
65 mph	1.2772	0.1319	0.7269	0.1739	0.0187	0.0070	0.0000	0.0000	2.3356
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	203.5245	21.3312	116.3538	27.5592	2.9693	1.1145	2.2912	61.6820	436.8257

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	2.3199	0.2457	1.3310	0.3611	0.0503	0.0188	0.0000	0.0000	4.3268
15 mph	2.1189	0.2246	1.2144	0.3282	0.0456	0.0172	0.0000	0.0000	3.9489
20 mph	1.9397	0.2053	1.1116	0.3004	0.0419	0.0157	0.1768	4.7262	8.5178
25 mph	3.5565	0.3749	2.0358	0.5507	0.0768	0.0289	0.2843	7.5957	14.5036
30 mph	6.5363	0.6855	3.7374	1.0132	0.1416	0.0532	0.4487	11.9840	24.5999
35 mph	13.5483	1.4112	7.7358	2.1040	0.2950	0.1106	0.4140	11.0568	36.6757
40 mph	13.9297	1.4488	7.9504	2.1640	0.3036	0.1137	0.3511	9.3808	35.6420
45 mph	10.3464	1.0755	5.9019	1.6071	0.2256	0.0844	0.2370	6.3304	25.8084
50 mph	10.8314	1.1221	6.1698	1.6837	0.2364	0.0884	0.1101	2.9443	23.1861
55 mph	5.6179	0.5832	3.2033	0.8745	0.1225	0.0458	0.0513	1.3733	11.8717
60 mph	3.1538	0.3279	1.7982	0.4906	0.0687	0.0257	3.3598	89.9459	99.1705
65 mph	0.9849	0.1017	0.5605	0.1536	0.0215	0.0080	0.0000	0.0000	1.8302
70 mph	44.1545	4.3397	24.7168	6.9812	0.9844	0.3575	0.0000	0.0000	81.5340
total	119.0380	12.1461	67.4669	18.6121	2.6141	0.9680	5.4331	145.3374	371.6156

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9368	2.0140	29.8592
15 mph	4.6504	0.4929	2.6653	0.9788	0.0820	0.0309	0.0603	1.6109	10.5714
25 mph	0.0000	0.0000	0.0000	0.0000	0.2229	0.0839	0.2298	6.1387	6.6753
35 mph	66.9985	6.9788	38.2550	4.6449	0.0000	0.0000	0.0000	0.0000	116.8772
total	71.6489	7.4717	40.9202	5.6237	10.8077	4.5205	13.2269	9.7635	163.9831

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9368	2.0140	29.8592
10 mph	17.3623	1.8391	9.9614	2.4045	0.2698	0.1010	0.1857	5.4252	37.5490
15 mph	12.2650	1.3000	7.0294	2.0499	0.2072	0.0781	0.1222	3.2641	26.3159
20 mph	12.0019	1.2705	6.8780	1.6603	0.1882	0.0707	0.2900	7.7524	30.1119
25 mph	49.6785	5.2372	28.4368	6.7830	0.9694	0.3650	1.0863	29.0196	121.5758
30 mph	53.1577	5.5749	30.3954	7.3199	0.8209	0.3086	0.9275	24.7727	123.2776
35 mph	115.6868	12.0503	66.0551	11.5117	0.8096	0.3034	0.6128	16.3666	223.3963
40 mph	24.7685	2.5760	14.1366	3.6335	0.4625	0.1732	0.5555	14.8412	61.1470
45 mph	18.7325	1.9473	10.6856	2.7438	0.3486	0.1304	0.3887	10.3837	45.3607
50 mph	18.6350	1.9305	10.6150	2.7423	0.3510	0.1312	0.3393	9.0712	43.8154
55 mph	11.4463	1.1882	6.5267	1.6662	0.2080	0.0778	0.1006	2.6922	23.9060
60 mph	14.0602	1.4617	8.0167	1.9711	0.2285	0.0855	3.4059	91.1800	120.4098
65 mph	2.2621	0.2336	1.2874	0.3275	0.0402	0.0151	0.0000	0.0000	4.1659
70 mph	44.1545	4.3397	24.7168	6.9812	0.9844	0.3575	0.0000	0.0000	81.5340
total	394.2114	40.9489	224.7410	51.7949	16.3910	6.6030	20.9512	216.7829	972.4243

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.8217	0.0032	0.0593	0.1570	5.2072	2.5378	5.2507	25.6293	39.6664
15 mph	0.1604	0.0006	0.0116	0.0307	1.0281	0.4971	1.2328	6.0198	8.9811
20 mph	0.1248	0.0005	0.0090	0.0239	0.8241	0.3877	1.7836	8.6877	11.8413
25 mph	0.3746	0.0016	0.0270	0.0715	2.5228	1.1668	7.1898	35.0658	46.4200
30 mph	0.3112	0.0014	0.0224	0.0593	2.1271	0.9708	4.8176	23.4801	31.7899
35 mph	0.2024	0.0009	0.0145	0.0385	1.4127	0.6327	1.5980	7.7791	11.6789
40 mph	0.0556	0.0002	0.0040	0.0106	0.3972	0.1743	1.3084	6.3712	8.3216
45 mph	0.0393	0.0002	0.0028	0.0075	0.2888	0.1234	0.7715	3.7557	4.9892
50 mph	0.0340	0.0002	0.0024	0.0065	0.2603	0.1072	0.9242	4.4965	5.8312
55 mph	0.0239	0.0001	0.0017	0.0045	0.1907	0.0758	0.1572	0.7659	1.2198
60 mph	0.0451	0.0002	0.0032	0.0086	0.3806	0.1440	0.1349	0.6572	1.3739
65 mph	0.0056	0.0000	0.0004	0.0011	0.0519	0.0182	0.0000	0.0000	0.0773
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	2.1989	0.0093	0.1584	0.4196	14.6915	6.8359	25.1686	122.7083	172.1905

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1267	0.0005	0.0092	0.0277	1.1942	0.5820	0.0000	0.0000	1.9403
15 mph	0.0619	0.0002	0.0045	0.0136	0.5894	0.2850	0.0000	0.0000	0.9546
20 mph	0.0241	0.0001	0.0017	0.0053	0.2362	0.1111	2.7855	13.5683	16.7324
25 mph	0.0289	0.0001	0.0021	0.0063	0.2893	0.1338	3.5728	17.4253	21.4586
30 mph	0.0436	0.0002	0.0031	0.0095	0.4435	0.2024	4.5144	22.0025	27.2192
35 mph	0.0780	0.0003	0.0056	0.0170	0.8099	0.3628	3.3276	16.1991	20.8004
40 mph	0.0715	0.0003	0.0051	0.0156	0.7592	0.3331	2.2478	10.9454	14.3780
45 mph	0.0485	0.0002	0.0035	0.0106	0.5299	0.2264	1.2050	5.8656	7.8896
50 mph	0.0472	0.0002	0.0034	0.0103	0.5373	0.2212	0.4441	2.1608	3.4244
55 mph	0.0231	0.0001	0.0016	0.0050	0.2733	0.1086	0.1636	0.7974	1.3728
60 mph	0.0130	0.0001	0.0009	0.0028	0.1636	0.0619	9.8351	47.9011	57.9787
65 mph	0.0044	0.0000	0.0003	0.0009	0.0596	0.0209	0.0000	0.0000	0.0861
70 mph	0.2033	0.0009	0.0141	0.0433	3.9677	1.0101	0.0000	0.0000	5.2393
total	0.7742	0.0034	0.0552	0.1679	9.8531	3.6592	28.0960	136.8655	179.4744

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4205	1.2144	8.0850
15 mph	0.1358	0.0005	0.0098	0.0404	1.0588	0.5119	1.2012	5.8655	8.8239
25 mph	0.0000	0.0000	0.0000	0.0000	0.8399	0.3885	2.8875	14.0827	18.1984
35 mph	0.3859	0.0017	0.0277	0.0376	0.0000	0.0000	0.0000	0.0000	0.4529
total	0.5217	0.0022	0.0375	0.0780	6.1622	3.0870	4.5091	21.1625	35.5602

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4205	1.2144	8.0850
10 mph	0.9484	0.0037	0.0685	0.1848	6.4014	3.1199	5.2507	25.6293	41.6067
15 mph	0.3580	0.0014	0.0259	0.0847	2.6763	1.2940	2.4339	11.8853	18.7595
20 mph	0.1489	0.0006	0.0107	0.0291	1.0603	0.4988	4.5691	22.2561	28.5738
25 mph	0.4035	0.0018	0.0291	0.0779	3.6519	1.6891	13.6501	66.5737	86.0770
30 mph	0.3548	0.0016	0.0255	0.0689	2.5705	1.1732	9.3320	45.4825	59.0091
35 mph	0.6664	0.0029	0.0478	0.0931	2.2226	0.9955	4.9256	23.9782	32.9321
40 mph	0.1272	0.0006	0.0091	0.0262	1.1564	0.5074	3.5562	17.3166	22.6996
45 mph	0.0878	0.0004	0.0063	0.0180	0.8187	0.3498	1.9765	9.6213	12.8788
50 mph	0.0812	0.0004	0.0058	0.0167	0.7976	0.3283	1.3683	6.6573	9.2556
55 mph	0.0470	0.0002	0.0034	0.0095	0.4640	0.1844	0.3208	1.5633	2.5926
60 mph	0.0582	0.0003	0.0042	0.0114	0.5442	0.2059	9.9701	48.5583	59.3525
65 mph	0.0100	0.0001	0.0007	0.0020	0.1115	0.0391	0.0000	0.0000	0.1634
70 mph	0.2033	0.0009	0.0141	0.0433	3.9677	1.0101	0.0000	0.0000	5.2393
total	3.4947	0.0149	0.2511	0.6656	30.7067	13.5821	57.7737	280.7363	387.2250

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	14.77	6.59	13.36	3.23	37.94
10 mph	18.31	1.84	10.03	2.59	6.67	3.22	5.44	31.05	79.16
15 mph	12.62	1.30	7.06	2.13	2.88	1.37	2.56	15.15	45.08
20 mph	12.15	1.27	6.89	1.69	1.25	0.57	4.86	30.01	58.69
25 mph	50.08	5.24	28.47	6.86	4.62	2.05	14.74	95.59	207.65
30 mph	53.51	5.58	30.42	7.39	3.39	1.48	10.26	70.26	182.29
35 mph	116.35	12.05	66.10	11.60	3.03	1.30	5.54	40.34	256.33
40 mph	24.90	2.58	14.15	3.66	1.62	0.68	4.11	32.16	83.85
45 mph	18.82	1.95	10.69	2.76	1.17	0.48	2.37	20.01	58.24
50 mph	18.72	1.93	10.62	2.76	1.15	0.46	1.71	15.73	53.07
55 mph	11.49	1.19	6.53	1.68	0.67	0.26	0.42	4.26	26.50
60 mph	14.12	1.46	8.02	1.98	0.77	0.29	13.38	139.74	179.76
65 mph	2.27	0.23	1.29	0.33	0.15	0.05	0.00	0.00	4.33
70 mph	44.36	4.34	24.73	7.02	4.95	1.37	0.00	0.00	86.77
total	397.71	40.96	224.99	52.46	47.10	20.19	78.72	497.52	**1,359.65**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0377	0.0386	0.0386	0.0389
10 mph	0.0033	0.0038	0.0034	0.0037	0.0047	0.0049	0.0049	0.0049
15 mph	0.0022	0.0025	0.0022	0.0025	0.0032	0.0032	0.0032	0.0032
20 mph	0.0016	0.0017	0.0016	0.0017	0.0022	0.0023	0.0023	0.0023
25 mph	0.0011	0.0013	0.0012	0.0013	0.0016	0.0017	0.0017	0.0017
30 mph	0.0009	0.0010	0.0009	0.0010	0.0013	0.0013	0.0013	0.0013
35 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0011	0.0011	0.0011
40 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
45 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0009
50 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
55 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
60 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
65 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0010		
70 mph	0.0008	0.0008	0.0007	0.0008	0.0011	0.0011		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3973	0.4668	0.0015	0.0023
10 mph	0.0017	0.0135	0.0086	0.0022	0.0149	0.0149	0.0052	0.0099
15 mph	0.0015	0.0113	0.0075	0.0019	0.0124	0.0130	0.0045	0.0085
20 mph	0.0012	0.0092	0.0064	0.0016	0.0105	0.0111	0.0040	0.0076
25 mph	0.0011	0.0076	0.0055	0.0014	0.0089	0.0095	0.0036	0.0069
30 mph	0.0009	0.0065	0.0048	0.0012	0.0079	0.0084	0.0033	0.0063
35 mph	0.0008	0.0057	0.0044	0.0011	0.0071	0.0076	0.0031	0.0059
40 mph	0.0008	0.0052	0.0040	0.0010	0.0066	0.0069	0.0029	0.0055
45 mph	0.0007	0.0048	0.0037	0.0009	0.0061	0.0064	0.0027	0.0051
50 mph	0.0007	0.0045	0.0035	0.0009	0.0058	0.0060	0.0026	0.0048
55 mph	0.0006	0.0044	0.0033	0.0008	0.0055	0.0057	0.0024	0.0046
60 mph	0.0006	0.0044	0.0032	0.0008	0.0054	0.0055	0.0024	0.0045
65 mph	0.0006	0.0044	0.0032	0.0008	0.0056	0.0055		
70 mph	0.0006	0.0036	0.0031	0.0008	0.0068	0.0055		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1050	0.0103	0.0461	0.0096	0.0047	0.0020	0.0029	0.0005	0.1812
15 mph	0.0279	0.0027	0.0122	0.0025	0.0013	0.0005	0.0006	0.0001	0.0480
20 mph	0.0391	0.0038	0.0172	0.0036	0.0018	0.0007	0.0009	0.0002	0.0672
25 mph	0.1441	0.0141	0.0632	0.0132	0.0065	0.0028	0.0037	0.0007	0.2482
30 mph	0.1232	0.0121	0.0541	0.0113	0.0056	0.0024	0.0026	0.0005	0.2117
35 mph	0.0827	0.0081	0.0363	0.0076	0.0037	0.0016	0.0010	0.0002	0.1411
40 mph	0.0239	0.0023	0.0105	0.0022	0.0011	0.0005	0.0009	0.0002	0.0415
45 mph	0.0182	0.0018	0.0080	0.0017	0.0008	0.0004	0.0007	0.0001	0.0316
50 mph	0.0176	0.0017	0.0077	0.0016	0.0008	0.0003	0.0011	0.0002	0.0310
55 mph	0.0143	0.0014	0.0063	0.0013	0.0006	0.0003	0.0003	0.0000	0.0245
60 mph	0.0308	0.0030	0.0135	0.0028	0.0014	0.0006	0.0003	0.0000	0.0524
65 mph	0.0044	0.0004	0.0019	0.0004	0.0002	0.0001	0.0000	0.0000	0.0074
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.6313	0.0617	0.2770	0.0577	0.0285	0.0121	0.0149	0.0027	1.0859

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0162	0.0016	0.0071	0.0017	0.0011	0.0005	0.0000	0.0000	0.0281
15 mph	0.0108	0.0011	0.0047	0.0011	0.0007	0.0003	0.0000	0.0000	0.0187
20 mph	0.0075	0.0007	0.0033	0.0008	0.0005	0.0002	0.0014	0.0003	0.0148
25 mph	0.0111	0.0011	0.0049	0.0012	0.0007	0.0003	0.0018	0.0003	0.0215
30 mph	0.0173	0.0017	0.0076	0.0018	0.0012	0.0005	0.0024	0.0004	0.0329
35 mph	0.0319	0.0031	0.0140	0.0033	0.0021	0.0009	0.0020	0.0004	0.0577
40 mph	0.0307	0.0030	0.0135	0.0032	0.0021	0.0009	0.0016	0.0003	0.0552
45 mph	0.0225	0.0022	0.0099	0.0024	0.0015	0.0006	0.0011	0.0002	0.0403
50 mph	0.0244	0.0024	0.0107	0.0026	0.0016	0.0007	0.0005	0.0001	0.0430
55 mph	0.0138	0.0013	0.0061	0.0014	0.0009	0.0004	0.0003	0.0000	0.0243
60 mph	0.0089	0.0009	0.0039	0.0009	0.0006	0.0003	0.0196	0.0035	0.0386
65 mph	0.0034	0.0003	0.0015	0.0004	0.0002	0.0001	0.0000	0.0000	0.0058
70 mph	0.1681	0.0157	0.0727	0.0175	0.0112	0.0048	0.0000	0.0000	0.2901
total	0.3666	0.0350	0.1598	0.0383	0.0246	0.0105	0.0308	0.0055	0.6711

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0015	0.0003	0.0062
15 mph	0.0236	0.0023	0.0104	0.0034	0.0013	0.0006	0.0006	0.0001	0.0422
25 mph	0.0000	0.0000	0.0000	0.0000	0.0022	0.0009	0.0015	0.0003	0.0048
35 mph	0.1577	0.0154	0.0692	0.0074	0.0000	0.0000	0.0000	0.0000	0.2496
total	0.1813	0.0177	0.0795	0.0107	0.0065	0.0028	0.0037	0.0007	0.3029

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0015	0.0003	0.0062
10 mph	0.1212	0.0119	0.0533	0.0113	0.0058	0.0025	0.0029	0.0005	0.2094
15 mph	0.0623	0.0061	0.0273	0.0070	0.0033	0.0014	0.0013	0.0002	0.1089
20 mph	0.0466	0.0046	0.0205	0.0044	0.0023	0.0010	0.0023	0.0004	0.0820
25 mph	0.1552	0.0152	0.0681	0.0143	0.0094	0.0040	0.0070	0.0013	0.2745
30 mph	0.1405	0.0137	0.0617	0.0131	0.0067	0.0029	0.0050	0.0009	0.2446
35 mph	0.2723	0.0265	0.1194	0.0183	0.0059	0.0025	0.0030	0.0005	0.4484
40 mph	0.0546	0.0053	0.0240	0.0054	0.0031	0.0013	0.0025	0.0005	0.0968
45 mph	0.0407	0.0040	0.0178	0.0040	0.0023	0.0010	0.0017	0.0003	0.0720
50 mph	0.0420	0.0041	0.0184	0.0042	0.0024	0.0010	0.0016	0.0003	0.0740
55 mph	0.0282	0.0027	0.0123	0.0028	0.0016	0.0007	0.0005	0.0001	0.0488
60 mph	0.0397	0.0039	0.0174	0.0037	0.0020	0.0009	0.0199	0.0036	0.0911
65 mph	0.0077	0.0007	0.0034	0.0007	0.0004	0.0002	0.0000	0.0000	0.0132
70 mph	0.1681	0.0157	0.0727	0.0175	0.0112	0.0048	0.0000	0.0000	0.2901
total	1.1791	0.1145	0.5163	0.1068	0.0596	0.0255	0.0493	0.0089	2.0598

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0007	0.0000	0.0003	0.0002	0.0295	0.0151	0.0271	0.0950	0.1679
15 mph	0.0003	0.0000	0.0001	0.0001	0.0098	0.0053	0.0078	0.0272	0.0504
20 mph	0.0004	0.0000	0.0002	0.0001	0.0166	0.0090	0.0138	0.0481	0.0882
25 mph	0.0018	0.0000	0.0007	0.0004	0.0704	0.0384	0.0693	0.2410	0.4220
30 mph	0.0018	0.0000	0.0006	0.0004	0.0685	0.0374	0.0580	0.2015	0.3681
35 mph	0.0013	0.0000	0.0005	0.0003	0.0508	0.0276	0.0242	0.0840	0.1888
40 mph	0.0004	0.0000	0.0001	0.0001	0.0156	0.0084	0.0251	0.0872	0.1370
45 mph	0.0003	0.0000	0.0001	0.0001	0.0121	0.0065	0.0189	0.0655	0.1035
50 mph	0.0003	0.0000	0.0001	0.0001	0.0115	0.0061	0.0289	0.1002	0.1471
55 mph	0.0002	0.0000	0.0001	0.0000	0.0087	0.0046	0.0063	0.0219	0.0419
60 mph	0.0004	0.0000	0.0002	0.0001	0.0172	0.0090	0.0061	0.0213	0.0543
65 mph	0.0001	0.0000	0.0000	0.0000	0.0022	0.0011	0.0000	0.0000	0.0034
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0080	0.0002	0.0029	0.0017	0.3130	0.1685	0.2855	0.9929	1.7727

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0000	0.0068	0.0035	0.0000	0.0000	0.0104
15 mph	0.0001	0.0000	0.0000	0.0000	0.0056	0.0030	0.0000	0.0000	0.0088
20 mph	0.0001	0.0000	0.0000	0.0000	0.0048	0.0026	0.0216	0.0752	0.1043
25 mph	0.0001	0.0000	0.0001	0.0000	0.0081	0.0044	0.0344	0.1198	0.1669
30 mph	0.0002	0.0000	0.0001	0.0001	0.0143	0.0078	0.0543	0.1888	0.2656
35 mph	0.0005	0.0000	0.0002	0.0001	0.0291	0.0158	0.0504	0.1750	0.2712
40 mph	0.0005	0.0000	0.0002	0.0001	0.0298	0.0161	0.0432	0.1498	0.2398
45 mph	0.0004	0.0000	0.0001	0.0001	0.0222	0.0120	0.0295	0.1023	0.1666
50 mph	0.0004	0.0000	0.0001	0.0001	0.0237	0.0126	0.0139	0.0482	0.0989
55 mph	0.0002	0.0000	0.0001	0.0001	0.0125	0.0066	0.0066	0.0228	0.0488
60 mph	0.0001	0.0000	0.0000	0.0000	0.0074	0.0039	0.4466	1.5538	2.0119
65 mph	0.0000	0.0000	0.0000	0.0000	0.0025	0.0013	0.0000	0.0000	0.0039
70 mph	0.0019	0.0000	0.0007	0.0005	0.1414	0.0593	0.0000	0.0000	0.2038
total	0.0048	0.0001	0.0017	0.0011	0.3082	0.1488	0.7005	2.4355	3.6008

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0014	0.1052
15 mph	0.0002	0.0000	0.0001	0.0001	0.0101	0.0054	0.0076	0.0265	0.0499
25 mph	0.0000	0.0000	0.0000	0.0000	0.0234	0.0128	0.0278	0.0968	0.1608
35 mph	0.0025	0.0001	0.0009	0.0003	0.0000	0.0000	0.0000	0.0000	0.0037
total	0.0027	0.0001	0.0010	0.0003	0.0979	0.0570	0.0359	0.1247	0.3196

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0014	0.1052
10 mph	0.0008	0.0000	0.0003	0.0002	0.0363	0.0186	0.0271	0.0950	0.1783
15 mph	0.0006	0.0000	0.0002	0.0001	0.0255	0.0137	0.0153	0.0536	0.1091
20 mph	0.0005	0.0000	0.0002	0.0001	0.0214	0.0115	0.0355	0.1233	0.1925
25 mph	0.0020	0.0001	0.0007	0.0004	0.1019	0.0555	0.1315	0.4575	0.7497
30 mph	0.0020	0.0001	0.0007	0.0004	0.0827	0.0452	0.1123	0.3902	0.6337
35 mph	0.0043	0.0001	0.0015	0.0007	0.0800	0.0435	0.0747	0.2590	0.4637
40 mph	0.0009	0.0000	0.0003	0.0002	0.0454	0.0246	0.0683	0.2371	0.3768
45 mph	0.0007	0.0000	0.0002	0.0002	0.0344	0.0185	0.0484	0.1677	0.2701
50 mph	0.0007	0.0000	0.0002	0.0002	0.0351	0.0187	0.0428	0.1484	0.2461
55 mph	0.0004	0.0000	0.0002	0.0001	0.0212	0.0112	0.0129	0.0447	0.0906
60 mph	0.0005	0.0000	0.0002	0.0001	0.0246	0.0128	0.4527	1.5751	2.0662
65 mph	0.0001	0.0000	0.0000	0.0000	0.0048	0.0024	0.0000	0.0000	0.0073
70 mph	0.0019	0.0000	0.0007	0.0005	0.1414	0.0593	0.0000	0.0000	0.2038
total	0.0154	0.0004	0.0055	0.0032	0.7191	0.3743	1.0220	3.5531	5.6931

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00	0.11
10 mph	0.12	0.01	0.05	0.01	0.04	0.02	0.03	0.10	0.39
15 mph	0.06	0.01	0.03	0.01	0.03	0.02	0.02	0.05	0.22
20 mph	0.05	0.00	0.02	0.00	0.02	0.01	0.04	0.12	0.27
25 mph	0.16	0.02	0.07	0.01	0.11	0.06	0.14	0.46	1.02
30 mph	0.14	0.01	0.06	0.01	0.09	0.05	0.12	0.39	0.88
35 mph	0.28	0.03	0.12	0.02	0.09	0.05	0.08	0.26	0.91
40 mph	0.06	0.01	0.02	0.01	0.05	0.03	0.07	0.24	0.47
45 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.05	0.17	0.34
50 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.04	0.15	0.32
55 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.01	0.04	0.14
60 mph	0.04	0.00	0.02	0.00	0.03	0.01	0.47	1.58	2.16
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02
70 mph	0.17	0.02	0.07	0.02	0.15	0.06	0.00	0.00	0.49
total	1.19	0.11	0.52	0.11	0.78	0.40	1.07	3.56	**7.75**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	28.07	2.46	12.28	2.31	1.68	0.81	1.43	0.15
Diesel	0.38	0.00	0.03	0.06	3.49	2.05	12.32	15.57
Electric	4.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	33.39	2.46	12.31	2.38	5.17	2.86	13.75	15.71

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	21.64	1.89	9.47	2.04	1.93	0.92	4.45	0.46
Diesel	0.30	0.00	0.02	0.06	4.01	2.35	38.49	48.62
Electric	3.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	25.71	1.90	9.49	2.10	5.93	3.28	42.94	49.08

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	10.11	0.88	4.42	0.47	0.15	0.07	0.15	0.02
Diesel	0.14	0.00	0.01	0.01	0.30	0.18	1.33	1.68
Electric	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.01	0.89	4.43	0.48	0.45	0.25	1.48	1.69

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	59.82	5.24	26.18	4.82	3.75	1.80	6.03	0.62	108.27
Diesel	0.82	0.00	0.06	0.13	7.81	4.58	52.14	65.87	131.41
Electric	10.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.47
Total	71.11	5.24	26.24	4.96	11.56	6.38	58.17	66.49	**250.14**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	885.85
Internal	61.49
Total	**947.33**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0347	0.0355	0.0355	0.0357
10 mph	0.0031	0.0035	0.0031	0.0034	0.0044	0.0045	0.0045	0.0045
15 mph	0.0020	0.0023	0.0021	0.0023	0.0029	0.0030	0.0030	0.0030
20 mph	0.0014	0.0016	0.0014	0.0016	0.0020	0.0021	0.0021	0.0021
25 mph	0.0011	0.0012	0.0011	0.0012	0.0015	0.0015	0.0015	0.0015
30 mph	0.0008	0.0009	0.0008	0.0009	0.0012	0.0012	0.0012	0.0012
35 mph	0.0007	0.0007	0.0007	0.0007	0.0010	0.0010	0.0010	0.0010
40 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0009	0.0009	0.0009
45 mph	0.0005	0.0006	0.0005	0.0006	0.0008	0.0008	0.0008	0.0008
50 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
55 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
60 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
65 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009		
70 mph	0.0007	0.0007	0.0007	0.0008	0.0010	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3801	0.4466	0.0014	0.0022
10 mph	0.0016	0.0130	0.0082	0.0021	0.0143	0.0143	0.0050	0.0095
15 mph	0.0014	0.0108	0.0072	0.0018	0.0119	0.0124	0.0043	0.0082
20 mph	0.0012	0.0088	0.0061	0.0015	0.0101	0.0106	0.0038	0.0072
25 mph	0.0010	0.0073	0.0052	0.0013	0.0085	0.0091	0.0035	0.0066
30 mph	0.0009	0.0062	0.0046	0.0012	0.0075	0.0080	0.0032	0.0061
35 mph	0.0008	0.0054	0.0042	0.0010	0.0068	0.0072	0.0030	0.0056
40 mph	0.0007	0.0049	0.0038	0.0010	0.0063	0.0066	0.0028	0.0052
45 mph	0.0007	0.0046	0.0035	0.0009	0.0059	0.0062	0.0026	0.0049
50 mph	0.0006	0.0043	0.0033	0.0008	0.0055	0.0058	0.0025	0.0046
55 mph	0.0006	0.0042	0.0031	0.0008	0.0053	0.0054	0.0023	0.0044
60 mph	0.0006	0.0042	0.0030	0.0008	0.0052	0.0053	0.0023	0.0043
65 mph	0.0006	0.0042	0.0030	0.0008	0.0054	0.0053		
70 mph	0.0006	0.0034	0.0030	0.0008	0.0065	0.0053		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0966	0.0095	0.0424	0.0088	0.0043	0.0019	0.0027	0.0005	0.1666
15 mph	0.0257	0.0025	0.0113	0.0023	0.0012	0.0005	0.0006	0.0001	0.0441
20 mph	0.0359	0.0035	0.0158	0.0033	0.0016	0.0007	0.0008	0.0001	0.0618
25 mph	0.1325	0.0130	0.0581	0.0121	0.0060	0.0025	0.0034	0.0006	0.2282
30 mph	0.1133	0.0111	0.0497	0.0104	0.0051	0.0022	0.0024	0.0004	0.1946
35 mph	0.0760	0.0074	0.0334	0.0070	0.0034	0.0015	0.0009	0.0002	0.1297
40 mph	0.0220	0.0021	0.0096	0.0020	0.0010	0.0004	0.0009	0.0002	0.0382
45 mph	0.0168	0.0016	0.0073	0.0015	0.0008	0.0003	0.0006	0.0001	0.0291
50 mph	0.0162	0.0016	0.0071	0.0015	0.0007	0.0003	0.0010	0.0002	0.0285
55 mph	0.0132	0.0013	0.0058	0.0012	0.0006	0.0003	0.0002	0.0000	0.0226
60 mph	0.0283	0.0028	0.0124	0.0026	0.0013	0.0005	0.0002	0.0000	0.0482
65 mph	0.0040	0.0004	0.0018	0.0004	0.0002	0.0001	0.0000	0.0000	0.0068
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.5804	0.0568	0.2547	0.0531	0.0262	0.0112	0.0137	0.0025	0.9984

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0149	0.0015	0.0065	0.0016	0.0010	0.0004	0.0000	0.0000	0.0259
15 mph	0.0099	0.0010	0.0043	0.0010	0.0007	0.0003	0.0000	0.0000	0.0172
20 mph	0.0069	0.0007	0.0030	0.0007	0.0005	0.0002	0.0013	0.0002	0.0136
25 mph	0.0102	0.0010	0.0045	0.0011	0.0007	0.0003	0.0017	0.0003	0.0197
30 mph	0.0159	0.0016	0.0070	0.0017	0.0011	0.0005	0.0022	0.0004	0.0302
35 mph	0.0293	0.0029	0.0129	0.0031	0.0020	0.0008	0.0018	0.0003	0.0531
40 mph	0.0282	0.0027	0.0124	0.0030	0.0019	0.0008	0.0015	0.0003	0.0508
45 mph	0.0207	0.0020	0.0091	0.0022	0.0014	0.0006	0.0010	0.0002	0.0371
50 mph	0.0225	0.0022	0.0098	0.0024	0.0015	0.0006	0.0005	0.0001	0.0395
55 mph	0.0127	0.0012	0.0056	0.0013	0.0009	0.0004	0.0002	0.0000	0.0223
60 mph	0.0082	0.0008	0.0036	0.0009	0.0006	0.0002	0.0181	0.0032	0.0355
65 mph	0.0031	0.0003	0.0014	0.0003	0.0002	0.0001	0.0000	0.0000	0.0054
70 mph	0.1546	0.0144	0.0669	0.0161	0.0103	0.0044	0.0000	0.0000	0.2667
total	0.3371	0.0322	0.1469	0.0352	0.0226	0.0097	0.0283	0.0051	0.6170

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
15 mph	0.0217	0.0021	0.0095	0.0031	0.0012	0.0005	0.0006	0.0001	0.0388
25 mph	0.0000	0.0000	0.0000	0.0000	0.0020	0.0008	0.0014	0.0002	0.0044
35 mph	0.1450	0.0141	0.0636	0.0068	0.0000	0.0000	0.0000	0.0000	0.2295
total	0.1667	0.0163	0.0731	0.0099	0.0060	0.0026	0.0034	0.0006	0.2785

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
10 mph	0.1114	0.0109	0.0490	0.0104	0.0053	0.0023	0.0027	0.0005	0.1925
15 mph	0.0573	0.0056	0.0251	0.0065	0.0030	0.0013	0.0012	0.0002	0.1002
20 mph	0.0428	0.0042	0.0188	0.0040	0.0021	0.0009	0.0021	0.0004	0.0754
25 mph	0.1427	0.0140	0.0626	0.0132	0.0086	0.0037	0.0064	0.0012	0.2524
30 mph	0.1292	0.0126	0.0567	0.0120	0.0062	0.0026	0.0046	0.0008	0.2249
35 mph	0.2503	0.0244	0.1098	0.0168	0.0054	0.0023	0.0027	0.0005	0.4123
40 mph	0.0502	0.0049	0.0220	0.0050	0.0029	0.0012	0.0023	0.0004	0.0890
45 mph	0.0374	0.0036	0.0164	0.0037	0.0021	0.0009	0.0016	0.0003	0.0662
50 mph	0.0386	0.0037	0.0169	0.0038	0.0022	0.0010	0.0015	0.0003	0.0680
55 mph	0.0259	0.0025	0.0113	0.0025	0.0014	0.0006	0.0005	0.0001	0.0449
60 mph	0.0365	0.0035	0.0160	0.0034	0.0018	0.0008	0.0183	0.0033	0.0837
65 mph	0.0071	0.0007	0.0031	0.0007	0.0004	0.0002	0.0000	0.0000	0.0121
70 mph	0.1546	0.0144	0.0669	0.0161	0.0103	0.0044	0.0000	0.0000	0.2667
total	1.0842	0.1052	0.4747	0.0982	0.0548	0.0234	0.0454	0.0081	1.8939

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0007	0.0000	0.0002	0.0001	0.0282	0.0145	0.0259	0.0909	0.1607
15 mph	0.0002	0.0000	0.0001	0.0001	0.0094	0.0050	0.0074	0.0260	0.0482
20 mph	0.0004	0.0000	0.0001	0.0001	0.0159	0.0086	0.0132	0.0460	0.0844
25 mph	0.0017	0.0000	0.0006	0.0004	0.0674	0.0367	0.0663	0.2306	0.4037
30 mph	0.0017	0.0000	0.0006	0.0004	0.0655	0.0357	0.0555	0.1927	0.3522
35 mph	0.0012	0.0000	0.0004	0.0003	0.0486	0.0264	0.0232	0.0804	0.1806
40 mph	0.0004	0.0000	0.0001	0.0001	0.0149	0.0081	0.0241	0.0834	0.1311
45 mph	0.0003	0.0000	0.0001	0.0001	0.0116	0.0062	0.0181	0.0626	0.0990
50 mph	0.0003	0.0000	0.0001	0.0001	0.0110	0.0058	0.0276	0.0959	0.1408
55 mph	0.0002	0.0000	0.0001	0.0000	0.0083	0.0044	0.0060	0.0210	0.0400
60 mph	0.0004	0.0000	0.0001	0.0001	0.0165	0.0086	0.0059	0.0204	0.0520
65 mph	0.0001	0.0000	0.0000	0.0000	0.0021	0.0011	0.0000	0.0000	0.0033
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0076	0.0002	0.0027	0.0016	0.2994	0.1612	0.2732	0.9500	1.6960

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0000	0.0065	0.0033	0.0000	0.0000	0.0100
15 mph	0.0001	0.0000	0.0000	0.0000	0.0054	0.0029	0.0000	0.0000	0.0084
20 mph	0.0001	0.0000	0.0000	0.0000	0.0046	0.0025	0.0207	0.0719	0.0997
25 mph	0.0001	0.0000	0.0000	0.0000	0.0077	0.0042	0.0329	0.1146	0.1597
30 mph	0.0002	0.0000	0.0001	0.0001	0.0137	0.0075	0.0520	0.1806	0.2541
35 mph	0.0005	0.0000	0.0002	0.0001	0.0279	0.0152	0.0483	0.1674	0.2595
40 mph	0.0005	0.0000	0.0002	0.0001	0.0285	0.0154	0.0413	0.1434	0.2294
45 mph	0.0004	0.0000	0.0001	0.0001	0.0213	0.0115	0.0282	0.0978	0.1594
50 mph	0.0004	0.0000	0.0001	0.0001	0.0226	0.0121	0.0133	0.0461	0.0947
55 mph	0.0002	0.0000	0.0001	0.0000	0.0119	0.0063	0.0063	0.0218	0.0467
60 mph	0.0001	0.0000	0.0000	0.0000	0.0071	0.0037	0.4273	1.4866	1.9248
65 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0012	0.0000	0.0000	0.0037
70 mph	0.0018	0.0000	0.0006	0.0004	0.1353	0.0567	0.0000	0.0000	0.1950
total	0.0046	0.0001	0.0016	0.0011	0.2948	0.1424	0.6702	2.3302	3.4450

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0005	0.0014	0.1006
15 mph	0.0002	0.0000	0.0001	0.0001	0.0097	0.0052	0.0072	0.0253	0.0477
25 mph	0.0000	0.0000	0.0000	0.0000	0.0224	0.0122	0.0266	0.0926	0.1539
35 mph	0.0024	0.0001	0.0009	0.0003	0.0000	0.0000	0.0000	0.0000	0.0035
total	0.0026	0.0001	0.0009	0.0003	0.0937	0.0545	0.0344	0.1193	0.3058

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0005	0.0014	0.1006
10 mph	0.0008	0.0000	0.0003	0.0002	0.0347	0.0178	0.0259	0.0909	0.1706
15 mph	0.0005	0.0000	0.0002	0.0001	0.0244	0.0131	0.0147	0.0513	0.1044
20 mph	0.0005	0.0000	0.0002	0.0001	0.0205	0.0110	0.0339	0.1179	0.1842
25 mph	0.0019	0.0000	0.0007	0.0004	0.0975	0.0531	0.1258	0.4378	0.7172
30 mph	0.0019	0.0000	0.0007	0.0004	0.0792	0.0432	0.1075	0.3734	0.6063
35 mph	0.0041	0.0001	0.0015	0.0006	0.0765	0.0416	0.0714	0.2478	0.4437
40 mph	0.0009	0.0000	0.0003	0.0002	0.0434	0.0235	0.0654	0.2268	0.3605
45 mph	0.0007	0.0000	0.0002	0.0002	0.0329	0.0177	0.0463	0.1605	0.2584
50 mph	0.0007	0.0000	0.0002	0.0002	0.0336	0.0179	0.0409	0.1419	0.2354
55 mph	0.0004	0.0000	0.0001	0.0001	0.0202	0.0107	0.0123	0.0428	0.0867
60 mph	0.0005	0.0000	0.0002	0.0001	0.0236	0.0123	0.4331	1.5070	1.9768
65 mph	0.0001	0.0000	0.0000	0.0000	0.0046	0.0023	0.0000	0.0000	0.0070
70 mph	0.0018	0.0000	0.0006	0.0004	0.1353	0.0567	0.0000	0.0000	0.1950
total	0.0148	0.0004	0.0053	0.0031	0.6880	0.3581	0.9778	3.3994	5.4468

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.11
10 mph	0.11	0.01	0.05	0.01	0.04	0.02	0.03	0.09	0.36
15 mph	0.06	0.01	0.03	0.01	0.03	0.01	0.02	0.05	0.20
20 mph	0.04	0.00	0.02	0.00	0.02	0.01	0.04	0.12	0.26
25 mph	0.14	0.01	0.06	0.01	0.11	0.06	0.13	0.44	0.97
30 mph	0.13	0.01	0.06	0.01	0.09	0.05	0.11	0.37	0.83
35 mph	0.25	0.02	0.11	0.02	0.08	0.04	0.07	0.25	0.86
40 mph	0.05	0.00	0.02	0.01	0.05	0.02	0.07	0.23	0.45
45 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.05	0.16	0.32
50 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.04	0.14	0.30
55 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.01	0.04	0.13
60 mph	0.04	0.00	0.02	0.00	0.03	0.01	0.45	1.51	2.06
65 mph	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
70 mph	0.16	0.01	0.07	0.02	0.15	0.06	0.00	0.00	0.46
total	1.10	0.11	0.48	0.10	0.74	0.38	1.02	3.41	**7.34**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.13	0.97	4.87	0.92	0.69	0.33	0.59	0.06
Diesel	0.15	0.00	0.01	0.03	1.41	0.84	5.10	5.65
Electric	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	13.24	0.98	4.88	0.94	2.10	1.17	5.68	5.70

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	8.59	0.75	3.76	0.81	0.79	0.38	1.84	0.18
Diesel	0.12	0.00	0.01	0.02	1.62	0.96	15.92	17.64
Electric	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	10.20	0.75	3.77	0.83	2.41	1.34	17.76	17.82

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.01	0.35	1.75	0.19	0.06	0.03	0.06	0.01
Diesel	0.05	0.00	0.00	0.01	0.12	0.07	0.55	0.61
Electric	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.76	0.35	1.76	0.19	0.18	0.10	0.61	0.62

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	23.73	2.08	10.38	1.91	1.54	0.75	2.49	0.24	43.13
Diesel	0.32	0.00	0.02	0.05	3.16	1.87	21.56	23.90	50.88
Electric	4.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15
Total	28.20	2.08	10.41	1.97	4.70	2.61	24.06	24.13	**98.16**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	217.44
Internal	15.09
Total	**232.53**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.07	0.01	0.03	0.01	0.03	0.02	0.02	0.07	0.26
15 mph	0.04	0.00	0.02	0.00	0.02	0.01	0.01	0.04	0.15
20 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.03	0.09	0.19
25 mph	0.09	0.01	0.04	0.01	0.08	0.04	0.10	0.34	0.72
30 mph	0.08	0.01	0.04	0.01	0.07	0.04	0.09	0.29	0.61
35 mph	0.16	0.02	0.07	0.01	0.06	0.03	0.06	0.19	0.61
40 mph	0.03	0.00	0.01	0.00	0.04	0.02	0.05	0.17	0.34
45 mph	0.02	0.00	0.01	0.00	0.03	0.01	0.04	0.12	0.24
50 mph	0.03	0.00	0.01	0.00	0.03	0.01	0.03	0.11	0.23
55 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.01	0.03	0.10
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.35	1.16	1.58
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.10	0.01	0.04	0.01	0.11	0.05	0.00	0.00	0.32
total	0.70	0.07	0.31	0.06	0.57	0.29	0.79	2.62	5.42

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1129	0.0181	0.0906	0.0171	0.0133	0.0056	0.0081	0.0014	0.2670
15 mph	0.0452	0.0072	0.0362	0.0068	0.0053	0.0022	0.0027	0.0005	0.1062
20 mph	0.0903	0.0145	0.0725	0.0136	0.0107	0.0044	0.0054	0.0010	0.2124
25 mph	0.4516	0.0725	0.3623	0.0682	0.0533	0.0222	0.0295	0.0053	1.0650
30 mph	0.4968	0.0797	0.3986	0.0751	0.0586	0.0245	0.0268	0.0048	1.1649
35 mph	0.4065	0.0652	0.3261	0.0614	0.0480	0.0200	0.0121	0.0022	0.9414
40 mph	0.1355	0.0217	0.1087	0.0205	0.0160	0.0067	0.0134	0.0024	0.3249
45 mph	0.1129	0.0181	0.0906	0.0171	0.0133	0.0056	0.0107	0.0019	0.2702
50 mph	0.1129	0.0181	0.0906	0.0171	0.0133	0.0056	0.0174	0.0031	0.2781
55 mph	0.0903	0.0145	0.0725	0.0136	0.0107	0.0044	0.0040	0.0007	0.2108
60 mph	0.1807	0.0290	0.1449	0.0273	0.0213	0.0089	0.0040	0.0007	0.4168
65 mph	0.0226	0.0036	0.0181	0.0034	0.0027	0.0011	0.0000	0.0000	0.0515
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	2.2581	0.3624	1.8117	0.3412	0.2665	0.1111	0.1342	0.0240	5.3093

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0000	0.0000	0.0415
15 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0000	0.0000	0.0415
20 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0084	0.0015	0.0514
25 mph	0.0348	0.0056	0.0279	0.0060	0.0061	0.0025	0.0147	0.0026	0.1003
30 mph	0.0697	0.0112	0.0559	0.0121	0.0122	0.0051	0.0252	0.0045	0.1957
35 mph	0.1567	0.0252	0.1257	0.0271	0.0275	0.0115	0.0252	0.0045	0.4033
40 mph	0.1741	0.0279	0.1397	0.0301	0.0306	0.0127	0.0231	0.0041	0.4424
45 mph	0.1393	0.0224	0.1118	0.0241	0.0244	0.0102	0.0168	0.0030	0.3519
50 mph	0.1567	0.0252	0.1257	0.0271	0.0275	0.0115	0.0084	0.0015	0.3836
55 mph	0.0871	0.0140	0.0699	0.0151	0.0153	0.0064	0.0042	0.0007	0.2126
60 mph	0.0522	0.0084	0.0419	0.0090	0.0092	0.0038	0.2935	0.0524	0.4704
65 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0000	0.0000	0.0415
70 mph	0.8010	0.1286	0.6426	0.1387	0.1406	0.0586	0.0000	0.0000	1.9100
total	1.7413	0.2795	1.3970	0.3014	0.3056	0.1274	0.4192	0.0748	4.6463

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
15 mph	0.0382	0.0061	0.0307	0.0090	0.0055	0.0023	0.0026	0.0005	0.0949
25 mph	0.0000	0.0000	0.0000	0.0000	0.0177	0.0074	0.0119	0.0021	0.0391
35 mph	0.7750	0.1244	0.6218	0.0599	0.0000	0.0000	0.0000	0.0000	1.5810
total	0.8132	0.1305	0.6524	0.0689	0.0243	0.0101	0.0150	0.0027	1.7172

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
10 mph	0.1303	0.0209	0.1046	0.0201	0.0164	0.0068	0.0081	0.0014	0.3086
15 mph	0.1008	0.0162	0.0809	0.0188	0.0139	0.0058	0.0053	0.0009	0.2426
20 mph	0.1077	0.0173	0.0864	0.0167	0.0137	0.0057	0.0138	0.0025	0.2638
25 mph	0.4865	0.0781	0.3903	0.0743	0.0772	0.0322	0.0561	0.0100	1.2045
30 mph	0.5664	0.0909	0.4545	0.0871	0.0709	0.0295	0.0520	0.0093	1.3606
35 mph	1.3382	0.2148	1.0736	0.1484	0.0755	0.0315	0.0372	0.0066	2.9258
40 mph	0.3096	0.0497	0.2484	0.0506	0.0466	0.0194	0.0365	0.0065	0.7673
45 mph	0.2522	0.0405	0.2023	0.0412	0.0378	0.0158	0.0275	0.0049	0.6221
50 mph	0.2696	0.0433	0.2163	0.0442	0.0408	0.0170	0.0258	0.0046	0.6617
55 mph	0.1774	0.0285	0.1423	0.0287	0.0259	0.0108	0.0082	0.0015	0.4233
60 mph	0.2329	0.0374	0.1868	0.0363	0.0305	0.0127	0.2975	0.0531	0.8872
65 mph	0.0400	0.0064	0.0321	0.0064	0.0057	0.0024	0.0000	0.0000	0.0930
70 mph	0.8010	0.1286	0.6426	0.1387	0.1406	0.0586	0.0000	0.0000	1.9100
total	4.8126	0.7724	3.8612	0.7115	0.5964	0.2487	0.5684	0.1015	11.6727

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0004	0.0000	0.0000	0.0003	0.0095	0.0049	0.0249	0.0459	0.0860
15 mph	0.0002	0.0000	0.0000	0.0001	0.0038	0.0019	0.0083	0.0153	0.0297
20 mph	0.0003	0.0000	0.0000	0.0003	0.0076	0.0039	0.0166	0.0306	0.0593
25 mph	0.0017	0.0000	0.0002	0.0014	0.0379	0.0195	0.0914	0.1682	0.3203
30 mph	0.0019	0.0000	0.0002	0.0015	0.0417	0.0214	0.0831	0.1529	0.3027
35 mph	0.0015	0.0000	0.0002	0.0012	0.0341	0.0175	0.0374	0.0688	0.1608
40 mph	0.0005	0.0000	0.0001	0.0004	0.0114	0.0058	0.0416	0.0764	0.1362
45 mph	0.0004	0.0000	0.0000	0.0003	0.0095	0.0049	0.0332	0.0612	0.1096
50 mph	0.0004	0.0000	0.0000	0.0003	0.0095	0.0049	0.0540	0.0994	0.1686
55 mph	0.0003	0.0000	0.0000	0.0003	0.0076	0.0039	0.0125	0.0229	0.0475
60 mph	0.0007	0.0000	0.0001	0.0005	0.0152	0.0078	0.0125	0.0229	0.0597
65 mph	0.0001	0.0000	0.0000	0.0001	0.0019	0.0010	0.0000	0.0000	0.0030
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0086	0.0000	0.0009	0.0068	0.1897	0.0973	0.4155	0.7645	1.4833

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0000	0.0000	0.0034
15 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0000	0.0000	0.0034
20 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0260	0.0478	0.0771
25 mph	0.0001	0.0000	0.0000	0.0001	0.0043	0.0022	0.0454	0.0836	0.1359
30 mph	0.0003	0.0000	0.0000	0.0002	0.0087	0.0045	0.0779	0.1433	0.2348
35 mph	0.0006	0.0000	0.0001	0.0005	0.0196	0.0100	0.0779	0.1433	0.2520
40 mph	0.0007	0.0000	0.0001	0.0006	0.0217	0.0112	0.0714	0.1313	0.2370
45 mph	0.0005	0.0000	0.0001	0.0005	0.0174	0.0089	0.0519	0.0955	0.1748
50 mph	0.0006	0.0000	0.0001	0.0005	0.0196	0.0100	0.0260	0.0478	0.1045
55 mph	0.0003	0.0000	0.0000	0.0003	0.0109	0.0056	0.0130	0.0239	0.0540
60 mph	0.0002	0.0000	0.0000	0.0002	0.0065	0.0033	0.9086	1.6715	2.5903
65 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0000	0.0000	0.0034
70 mph	0.0030	0.0000	0.0003	0.0028	0.1000	0.0513	0.0000	0.0000	0.1575
total	0.0066	0.0000	0.0007	0.0060	0.2175	0.1115	1.2979	2.3878	4.0282

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
15 mph	0.0001	0.0000	0.0000	0.0002	0.0039	0.0020	0.0081	0.0149	0.0292
25 mph	0.0000	0.0000	0.0000	0.0000	0.0126	0.0065	0.0367	0.0675	0.1234
35 mph	0.0029	0.0000	0.0003	0.0012	0.0000	0.0000	0.0000	0.0000	0.0045
total	0.0031	0.0000	0.0003	0.0014	0.0173	0.0089	0.0465	0.0855	0.1630

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
10 mph	0.0005	0.0000	0.0001	0.0004	0.0117	0.0060	0.0249	0.0459	0.0894
15 mph	0.0004	0.0000	0.0000	0.0004	0.0099	0.0051	0.0164	0.0302	0.0623
20 mph	0.0004	0.0000	0.0000	0.0003	0.0098	0.0050	0.0426	0.0783	0.1365
25 mph	0.0018	0.0000	0.0002	0.0015	0.0549	0.0282	0.1736	0.3193	0.5795
30 mph	0.0022	0.0000	0.0002	0.0017	0.0504	0.0259	0.1610	0.2962	0.5376
35 mph	0.0051	0.0000	0.0005	0.0029	0.0537	0.0276	0.1153	0.2121	0.4172
40 mph	0.0012	0.0000	0.0001	0.0010	0.0331	0.0170	0.1129	0.2078	0.3732
45 mph	0.0010	0.0000	0.0001	0.0008	0.0269	0.0138	0.0852	0.1567	0.2844
50 mph	0.0010	0.0000	0.0001	0.0009	0.0291	0.0149	0.0800	0.1471	0.2731
55 mph	0.0007	0.0000	0.0001	0.0006	0.0185	0.0095	0.0254	0.0468	0.1015
60 mph	0.0009	0.0000	0.0001	0.0007	0.0217	0.0111	0.9210	1.6944	2.6500
65 mph	0.0002	0.0000	0.0000	0.0001	0.0041	0.0021	0.0000	0.0000	0.0065
70 mph	0.0030	0.0000	0.0003	0.0028	0.1000	0.0513	0.0000	0.0000	0.1575
total	0.0183	0.0001	0.0019	0.0141	0.4245	0.2177	1.7599	3.2378	5.6744

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10 mph	0.13	0.02	0.10	0.02	0.03	0.01	0.03	0.05	0.40
15 mph	0.10	0.02	0.08	0.02	0.02	0.01	0.02	0.03	0.30
20 mph	0.11	0.02	0.09	0.02	0.02	0.01	0.06	0.08	0.40
25 mph	0.49	0.08	0.39	0.08	0.13	0.06	0.23	0.33	1.78
30 mph	0.57	0.09	0.45	0.09	0.12	0.06	0.21	0.31	1.90
35 mph	1.34	0.21	1.07	0.15	0.13	0.06	0.15	0.22	3.34
40 mph	0.31	0.05	0.25	0.05	0.08	0.04	0.15	0.21	1.14
45 mph	0.25	0.04	0.20	0.04	0.06	0.03	0.11	0.16	0.91
50 mph	0.27	0.04	0.22	0.05	0.07	0.03	0.11	0.15	0.93
55 mph	0.18	0.03	0.14	0.03	0.04	0.02	0.03	0.05	0.52
60 mph	0.23	0.04	0.19	0.04	0.05	0.02	1.22	1.75	3.54
65 mph	0.04	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.10
70 mph	0.80	0.13	0.64	0.14	0.24	0.11	0.00	0.00	2.07
total	4.83	0.77	3.86	0.73	1.02	0.47	2.33	3.34	**17.35**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.9751	3.5446	7.9858	4.3502
10 mph	0.0065	0.0086	0.0084	0.0123	0.0067	0.0055	0.0166	0.5472
15 mph	0.0043	0.0057	0.0056	0.0081	0.0044	0.0037	0.0110	0.3636
20 mph	0.0030	0.0040	0.0039	0.0057	0.0031	0.0026	0.0077	0.2545
25 mph	0.0022	0.0029	0.0029	0.0042	0.0023	0.0019	0.0057	0.1881
30 mph	0.0017	0.0023	0.0022	0.0033	0.0018	0.0015	0.0044	0.1465
35 mph	0.0014	0.0019	0.0018	0.0027	0.0015	0.0012	0.0037	0.1204
40 mph	0.0012	0.0016	0.0016	0.0024	0.0013	0.0011	0.0032	0.1044
45 mph	0.0011	0.0015	0.0015	0.0022	0.0012	0.0010	0.0029	0.0955
50 mph	0.0011	0.0014	0.0014	0.0021	0.0011	0.0009	0.0028	0.0922
55 mph	0.0011	0.0014	0.0014	0.0021	0.0012	0.0009	0.0028	0.0938
60 mph	0.0012	0.0015	0.0015	0.0023	0.0012	0.0010	0.0031	0.1008
65 mph	0.0013	0.0017	0.0017	0.0026	0.0014	0.0012		
70 mph	0.0015	0.0018	0.0019	0.0029	0.0016	0.0013		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0075	0.0239
10 mph	0.0028	0.0093	0.0091	0.0033	0.0263	0.0259	0.0089	0.0211
15 mph	0.0013	0.0047	0.0045	0.0016	0.0130	0.0127	0.0063	0.0149
20 mph	0.0005	0.0019	0.0017	0.0006	0.0052	0.0049	0.0045	0.0107
25 mph	0.0003	0.0012	0.0010	0.0004	0.0032	0.0030	0.0033	0.0079
30 mph	0.0002	0.0009	0.0008	0.0003	0.0024	0.0022	0.0025	0.0058
35 mph	0.0002	0.0007	0.0006	0.0002	0.0019	0.0018	0.0018	0.0043
40 mph	0.0002	0.0006	0.0005	0.0002	0.0016	0.0015	0.0013	0.0031
45 mph	0.0001	0.0005	0.0004	0.0002	0.0014	0.0013	0.0010	0.0023
50 mph	0.0001	0.0004	0.0004	0.0001	0.0012	0.0011	0.0007	0.0017
55 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0010	0.0005	0.0013
60 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009	0.0005	0.0011
65 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009		
70 mph	0.0001	0.0003	0.0003	0.0001	0.0014	0.0009		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.2032	0.0235	0.1153	0.0318	0.0067	0.0023	0.0100	0.0587	0.4514
15 mph	0.0540	0.0063	0.0306	0.0084	0.0018	0.0006	0.0022	0.0130	0.1168
20 mph	0.0756	0.0088	0.0429	0.0118	0.0025	0.0008	0.0031	0.0182	0.1637
25 mph	0.2787	0.0323	0.1580	0.0438	0.0091	0.0031	0.0126	0.0740	0.6115
30 mph	0.2384	0.0275	0.1351	0.0376	0.0078	0.0027	0.0089	0.0524	0.5103
35 mph	0.1599	0.0183	0.0905	0.0254	0.0053	0.0018	0.0033	0.0194	0.3239
40 mph	0.0462	0.0053	0.0261	0.0073	0.0015	0.0005	0.0032	0.0187	0.1089
45 mph	0.0353	0.0040	0.0199	0.0056	0.0012	0.0004	0.0023	0.0137	0.0824
50 mph	0.0340	0.0039	0.0192	0.0054	0.0011	0.0004	0.0036	0.0214	0.0891
55 mph	0.0277	0.0032	0.0157	0.0044	0.0009	0.0003	0.0009	0.0050	0.0581
60 mph	0.0596	0.0068	0.0336	0.0094	0.0020	0.0007	0.0009	0.0054	0.1184
65 mph	0.0084	0.0009	0.0047	0.0013	0.0003	0.0001	0.0000	0.0000	0.0158
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2210	0.1408	0.6917	0.1922	0.0400	0.0138	0.0509	0.2998	2.6502

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0313	0.0036	0.0178	0.0056	0.0015	0.0005	0.0000	0.0000	0.0604
15 mph	0.0208	0.0024	0.0118	0.0037	0.0010	0.0003	0.0000	0.0000	0.0401
20 mph	0.0146	0.0017	0.0083	0.0026	0.0007	0.0002	0.0048	0.0284	0.0613
25 mph	0.0215	0.0025	0.0122	0.0039	0.0010	0.0004	0.0062	0.0368	0.0844
30 mph	0.0334	0.0039	0.0189	0.0060	0.0016	0.0006	0.0083	0.0491	0.1219
35 mph	0.0617	0.0071	0.0349	0.0112	0.0030	0.0010	0.0069	0.0403	0.1661
40 mph	0.0594	0.0068	0.0336	0.0108	0.0029	0.0010	0.0055	0.0321	0.1520
45 mph	0.0435	0.0050	0.0246	0.0079	0.0021	0.0007	0.0036	0.0213	0.1088
50 mph	0.0472	0.0054	0.0266	0.0086	0.0023	0.0008	0.0017	0.0103	0.1030
55 mph	0.0267	0.0030	0.0151	0.0049	0.0013	0.0004	0.0009	0.0052	0.0576
60 mph	0.0172	0.0020	0.0097	0.0031	0.0008	0.0003	0.0669	0.3941	0.4942
65 mph	0.0065	0.0007	0.0037	0.0012	0.0003	0.0001	0.0000	0.0000	0.0125
70 mph	0.3258	0.0346	0.1802	0.0604	0.0167	0.0055	0.0000	0.0000	0.6232
total	0.7096	0.0786	0.3974	0.1299	0.0355	0.0119	0.1049	0.6176	2.0856

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3197	0.0315	0.7962
15 mph	0.0457	0.0053	0.0259	0.0111	0.0018	0.0006	0.0022	0.0127	0.1052
25 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0010	0.0050	0.0297	0.0388
35 mph	0.3049	0.0350	0.1725	0.0247	0.0000	0.0000	0.0000	0.0000	0.5372
total	0.3506	0.0403	0.1984	0.0358	0.3292	0.1223	0.3269	0.0739	1.4774

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3197	0.0315	0.7962
10 mph	0.2345	0.0271	0.1331	0.0374	0.0082	0.0028	0.0100	0.0587	0.5118
15 mph	0.1205	0.0140	0.0683	0.0232	0.0046	0.0016	0.0044	0.0257	0.2621
20 mph	0.0902	0.0105	0.0512	0.0144	0.0032	0.0011	0.0079	0.0466	0.2251
25 mph	0.3002	0.0348	0.1702	0.0476	0.0131	0.0045	0.0239	0.1404	0.7348
30 mph	0.2718	0.0314	0.1540	0.0437	0.0094	0.0033	0.0172	0.1015	0.6322
35 mph	0.5265	0.0604	0.2979	0.0613	0.0083	0.0028	0.0102	0.0597	1.0271
40 mph	0.1056	0.0121	0.0597	0.0181	0.0044	0.0015	0.0086	0.0507	0.2609
45 mph	0.0788	0.0090	0.0445	0.0135	0.0033	0.0011	0.0060	0.0350	0.1912
50 mph	0.0813	0.0092	0.0458	0.0140	0.0035	0.0012	0.0054	0.0317	0.1921
55 mph	0.0545	0.0062	0.0308	0.0093	0.0022	0.0008	0.0017	0.0103	0.1157
60 mph	0.0768	0.0087	0.0434	0.0125	0.0028	0.0010	0.0679	0.3995	0.6126
65 mph	0.0149	0.0017	0.0084	0.0025	0.0006	0.0002	0.0000	0.0000	0.0283
70 mph	0.3258	0.0346	0.1802	0.0604	0.0167	0.0055	0.0000	0.0000	0.6232
total	2.2812	0.2597	1.2875	0.3579	0.4046	0.1480	0.4828	0.9914	6.2132

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0012	0.0000	0.0003	0.0002	0.0520	0.0263	0.0464	0.2019	0.3283
15 mph	0.0002	0.0000	0.0001	0.0000	0.0103	0.0051	0.0109	0.0474	0.0740
20 mph	0.0002	0.0000	0.0000	0.0000	0.0082	0.0040	0.0157	0.0684	0.0966
25 mph	0.0005	0.0000	0.0001	0.0001	0.0250	0.0121	0.0635	0.2760	0.3773
30 mph	0.0004	0.0000	0.0001	0.0001	0.0210	0.0100	0.0425	0.1848	0.2590
35 mph	0.0003	0.0000	0.0001	0.0001	0.0138	0.0065	0.0141	0.0612	0.0961
40 mph	0.0001	0.0000	0.0000	0.0000	0.0039	0.0018	0.0115	0.0501	0.0675
45 mph	0.0001	0.0000	0.0000	0.0000	0.0028	0.0013	0.0068	0.0296	0.0405
50 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0011	0.0082	0.0354	0.0472
55 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0008	0.0014	0.0060	0.0100
60 mph	0.0001	0.0000	0.0000	0.0000	0.0034	0.0015	0.0012	0.0052	0.0113
65 mph	0.0000	0.0000	0.0000	0.0000	0.0004	0.0002	0.0000	0.0000	0.0006
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0032	0.0000	0.0007	0.0006	0.1450	0.0707	0.2222	0.9661	1.4084

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0000	0.0119	0.0060	0.0000	0.0000	0.0182
15 mph	0.0001	0.0000	0.0000	0.0000	0.0059	0.0029	0.0000	0.0000	0.0090
20 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0011	0.0246	0.1068	0.1349
25 mph	0.0000	0.0000	0.0000	0.0000	0.0029	0.0014	0.0315	0.1372	0.1730
30 mph	0.0001	0.0000	0.0000	0.0000	0.0044	0.0021	0.0398	0.1732	0.2196
35 mph	0.0001	0.0000	0.0000	0.0000	0.0079	0.0037	0.0294	0.1275	0.1687
40 mph	0.0001	0.0000	0.0000	0.0000	0.0074	0.0034	0.0198	0.0862	0.1169
45 mph	0.0001	0.0000	0.0000	0.0000	0.0051	0.0023	0.0106	0.0462	0.0643
50 mph	0.0001	0.0000	0.0000	0.0000	0.0050	0.0023	0.0039	0.0170	0.0283
55 mph	0.0000	0.0000	0.0000	0.0000	0.0025	0.0011	0.0014	0.0063	0.0114
60 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0006	0.0868	0.3772	0.4662
65 mph	0.0000	0.0000	0.0000	0.0000	0.0005	0.0002	0.0000	0.0000	0.0007
70 mph	0.0003	0.0000	0.0001	0.0001	0.0291	0.0100	0.0000	0.0000	0.0395
total	0.0011	0.0000	0.0003	0.0002	0.0864	0.0373	0.2480	1.0775	1.4508

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0152	0.0539
15 mph	0.0002	0.0000	0.0000	0.0001	0.0106	0.0053	0.0106	0.0462	0.0730
25 mph	0.0000	0.0000	0.0000	0.0000	0.0083	0.0040	0.0255	0.1108	0.1487
35 mph	0.0006	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0007
total	0.0008	0.0000	0.0002	0.0001	0.0428	0.0216	0.0387	0.1722	0.2763

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0152	0.0539
10 mph	0.0014	0.0000	0.0003	0.0003	0.0640	0.0323	0.0464	0.2019	0.3465
15 mph	0.0005	0.0000	0.0001	0.0001	0.0267	0.0134	0.0215	0.0936	0.1559
20 mph	0.0002	0.0000	0.0000	0.0000	0.0106	0.0052	0.0403	0.1752	0.2315
25 mph	0.0006	0.0000	0.0001	0.0001	0.0362	0.0175	0.1205	0.5240	0.6990
30 mph	0.0005	0.0000	0.0001	0.0001	0.0254	0.0121	0.0824	0.3580	0.4786
35 mph	0.0010	0.0000	0.0002	0.0001	0.0218	0.0103	0.0435	0.1887	0.2656
40 mph	0.0002	0.0000	0.0000	0.0000	0.0112	0.0052	0.0314	0.1363	0.1844
45 mph	0.0001	0.0000	0.0000	0.0000	0.0078	0.0036	0.0174	0.0757	0.1048
50 mph	0.0001	0.0000	0.0000	0.0000	0.0075	0.0034	0.0121	0.0524	0.0755
55 mph	0.0001	0.0000	0.0000	0.0000	0.0043	0.0019	0.0028	0.0123	0.0214
60 mph	0.0001	0.0000	0.0000	0.0000	0.0048	0.0021	0.0880	0.3824	0.4775
65 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0000	0.0000	0.0014
70 mph	0.0003	0.0000	0.0001	0.0001	0.0291	0.0100	0.0000	0.0000	0.0395
total	0.0050	0.0001	0.0012	0.0010	0.2742	0.1295	0.5089	2.2158	3.1356

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.35	0.13	0.32	0.05	0.85
10 mph	0.24	0.03	0.13	0.04	0.07	0.04	0.06	0.26	0.86
15 mph	0.12	0.01	0.07	0.02	0.03	0.01	0.03	0.12	0.42
20 mph	0.09	0.01	0.05	0.01	0.01	0.01	0.05	0.22	0.46
25 mph	0.30	0.03	0.17	0.05	0.05	0.02	0.14	0.66	1.43
30 mph	0.27	0.03	0.15	0.04	0.03	0.02	0.10	0.46	1.11
35 mph	0.53	0.06	0.30	0.06	0.03	0.01	0.05	0.25	1.29
40 mph	0.11	0.01	0.06	0.02	0.02	0.01	0.04	0.19	0.45
45 mph	0.08	0.01	0.04	0.01	0.01	0.00	0.02	0.11	0.30
50 mph	0.08	0.01	0.05	0.01	0.01	0.00	0.02	0.08	0.27
55 mph	0.05	0.01	0.03	0.01	0.01	0.00	0.00	0.02	0.14
60 mph	0.08	0.01	0.04	0.01	0.01	0.00	0.16	0.78	1.09
65 mph	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03
70 mph	0.33	0.03	0.18	0.06	0.05	0.02	0.00	0.00	0.66
total	2.29	0.26	1.29	0.36	0.68	0.28	0.99	3.21	**9.35**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Unmitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,436.77	5,082.76	12,393.44	18,944.56
10 mph	453.37	498.75	562.92	749.83	1,273.21	1,421.78	3,121.36	3,214.22
15 mph	349.08	384.15	433.26	576.76	884.06	1,000.13	2,151.66	2,318.53
20 mph	278.91	306.89	346.19	460.91	767.72	875.30	1,512.78	1,873.26
25 mph	231.24	254.25	287.01	382.23	703.63	791.48	1,321.00	1,762.27
30 mph	198.97	218.56	246.97	329.08	638.66	715.38	1,213.95	1,677.87
35 mph	177.67	194.91	220.56	294.09	638.78	715.38	1,120.78	1,609.22
40 mph	164.73	180.66	204.50	272.71	636.41	699.04	1,042.71	1,551.00
45 mph	158.54	173.85	196.79	262.45	633.52	682.56	968.84	1,516.88
50 mph	158.34	173.52	196.53	262.19	668.12	711.58	906.29	1,498.03
55 mph	164.16	179.95	203.78	271.87	703.92	743.97	881.28	1,469.84
60 mph	176.64	193.67	219.25	292.42	714.26	751.76	886.76	1,449.26
65 mph	197.20	215.90	244.76	326.70	724.00	759.14		
70 mph	211.26	229.17	262.04	351.75	718.35	743.75		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	3,586.55	5,720.08	6,414.96	5,595.47
10 mph	396.09	442.60	488.14	611.90	951.54	1,054.49	1,869.91	2,468.18
15 mph	325.82	367.38	404.72	518.99	621.07	701.90	1,568.91	2,070.68
20 mph	267.27	301.70	332.51	431.01	529.51	598.68	1,370.19	1,807.82
25 mph	224.01	252.30	278.73	364.39	469.55	533.51	1,264.30	1,667.40
30 mph	193.99	217.41	240.97	314.64	426.47	481.15	1,196.65	1,577.46
35 mph	175.33	195.33	217.42	285.39	426.60	481.17	1,142.85	1,505.70
40 mph	164.06	182.13	202.91	266.93	414.98	463.60	1,097.64	1,443.70
45 mph	158.48	175.58	195.64	256.88	404.82	445.64	1,060.68	1,394.80
50 mph	158.88	175.52	195.94	258.14	424.43	462.06	1,027.93	1,349.92
55 mph	166.26	183.73	204.90	272.45	443.40	478.24	998.95	1,309.62
60 mph	180.25	199.13	221.94	295.02	447.78	479.91	984.76	1,288.73
65 mph	202.61	222.61	249.22	331.17	453.71	481.18		
70 mph	218.85	234.13	268.65	356.15	450.48	475.58		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	14,219.24	1,369.39	7,726.20	1,937.97	1,266.15	589.63	1,875.79	344.76	29,329.12
15 mph	4,379.34	421.90	2,378.64	596.26	351.66	165.91	431.02	82.90	8,807.63
20 mph	6,997.96	674.09	3,801.21	953.00	610.78	290.40	606.07	133.95	14,067.45
25 mph	29,009.51	2,792.37	15,757.20	3,951.59	2,798.94	1,312.94	2,910.81	693.08	59,226.42
30 mph	27,456.97	2,640.35	14,914.93	3,742.23	2,794.53	1,305.36	2,431.76	599.89	55,886.03
35 mph	20,060.79	1,926.58	10,898.21	2,736.32	2,286.87	1,068.03	1,010.30	258.91	40,246.01
40 mph	6,199.81	595.24	3,368.11	845.80	759.46	347.88	1,044.37	277.27	13,437.93
45 mph	4,972.22	477.34	2,701.00	678.30	630.01	283.06	776.30	216.93	10,735.18
50 mph	4,966.00	476.42	2,697.38	677.63	664.42	295.10	1,180.05	348.14	11,305.14
55 mph	4,118.84	395.27	2,237.55	562.12	560.02	246.83	264.80	78.83	8,464.25
60 mph	8,863.97	850.82	4,814.71	1,209.24	1,136.49	498.82	266.45	77.72	17,718.22
65 mph	1,236.95	118.56	671.88	168.87	144.00	62.96	0.00	0.00	2,403.23
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	132,481.60	12,738.34	71,967.04	18,059.33	14,003.32	6,466.91	12,797.72	3,112.36	271,626.62

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	2,192.89	211.19	1,191.54	342.46	290.37	135.22	0.00	0.00	4,363.66
15 mph	1,688.45	162.66	917.09	263.41	201.62	95.12	0.00	0.00	3,328.36
20 mph	1,349.03	129.95	732.78	210.50	175.09	83.25	946.55	209.20	3,836.35
25 mph	2,236.92	215.32	1,215.04	349.14	320.94	150.55	1,446.47	344.41	6,278.80
30 mph	3,849.47	370.18	2,091.07	601.17	582.61	272.15	2,278.73	562.14	10,607.52
35 mph	7,734.44	742.79	4,201.81	1,208.84	1,311.12	612.33	2,103.83	539.14	18,454.31
40 mph	7,967.79	764.99	4,328.59	1,245.51	1,451.39	664.83	1,794.18	476.33	18,693.61
45 mph	6,134.54	588.93	3,332.39	958.90	1,155.85	519.32	1,212.42	338.80	14,241.14
50 mph	6,892.71	661.26	3,743.92	1,077.70	1,371.35	609.07	567.07	167.30	15,090.38
55 mph	3,970.05	380.99	2,156.72	620.83	802.68	353.78	275.71	82.07	8,642.83
60 mph	2,563.13	246.03	1,392.24	400.66	488.68	214.49	19,419.64	5,664.76	30,389.61
65 mph	953.81	91.42	518.09	149.21	165.12	72.20	0.00	0.00	1,949.85
70 mph	47,003.87	4,463.73	25,513.82	7,389.83	7,536.06	3,253.80	0.00	0.00	95,161.11
total	94,537.11	9,029.44	51,335.07	14,818.16	15,852.88	7,036.10	30,044.59	8,384.16	231,037.51

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	496.23	137.32	1,168.50
15 mph	3,705.72	357.00	2,012.77	785.57	362.16	170.86	419.97	80.77	7,894.81
25 mph	0.00	0.00	0.00	0.00	931.79	437.09	1,169.00	278.34	2,816.23
35 mph	38,248.19	3,673.25	20,778.68	2,668.65	0.00	0.00	0.00	0.00	65,368.77
total	41,953.91	4,030.26	22,791.45	3,454.22	1,655.95	780.89	2,085.20	496.44	77,248.31

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	496.23	137.32	1,168.50
10 mph	16,412.13	1,580.58	8,917.74	2,280.43	1,556.52	724.85	1,875.79	344.76	33,692.79
15 mph	9,773.51	941.57	5,308.50	1,645.25	915.44	431.88	850.99	163.67	20,030.79
20 mph	8,347.00	804.04	4,533.99	1,163.50	785.86	373.64	1,552.62	343.15	17,903.80
25 mph	31,246.43	3,007.69	16,972.24	4,300.73	4,051.67	1,900.57	5,526.28	1,315.83	68,321.45
30 mph	31,306.44	3,010.53	17,006.01	4,343.41	3,377.14	1,577.51	4,710.49	1,162.03	66,493.54
35 mph	66,043.42	6,342.63	35,878.69	6,613.81	3,597.99	1,680.36	3,114.13	798.05	124,069.09
40 mph	14,167.60	1,360.23	7,696.70	2,091.30	2,210.85	1,012.71	2,838.54	753.60	32,131.54
45 mph	11,106.76	1,066.27	6,033.39	1,637.20	1,785.86	802.39	1,988.72	555.74	24,976.32
50 mph	11,858.71	1,137.68	6,441.30	1,755.34	2,035.77	904.17	1,747.12	515.43	26,395.52
55 mph	8,088.88	776.26	4,394.26	1,182.95	1,362.70	600.61	540.52	160.90	17,107.08
60 mph	11,427.10	1,096.85	6,206.95	1,609.89	1,625.17	713.31	19,686.08	5,742.48	48,107.83
65 mph	2,190.77	209.98	1,189.98	318.08	309.11	135.16	0.00	0.00	4,353.08
70 mph	47,003.87	4,463.73	25,513.82	7,389.83	7,536.06	3,253.80	0.00	0.00	95,161.11
total	268,972.62	25,798.04	146,093.56	36,331.71	31,512.15	14,283.90	44,927.52	11,992.96	579,912.45

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	169.96	0.69	14.64	43.22	1,880.10	1,068.57	9,712.61	23,585.37	36,475.15
15 mph	55.92	0.23	4.85	14.66	490.86	284.51	2,716.39	6,595.65	10,163.07
20 mph	91.75	0.38	7.98	24.35	836.98	485.34	4,744.66	11,516.77	17,708.20
25 mph	384.47	1.57	33.43	102.94	3,711.04	2,162.55	24,078.94	58,422.19	88,897.15
30 mph	366.26	1.49	31.79	97.78	3,707.60	2,145.34	20,718.64	50,246.25	77,315.14
35 mph	270.83	1.10	23.47	72.56	3,034.40	1,755.33	8,904.22	21,582.18	35,644.11
40 mph	84.48	0.34	7.30	22.62	983.92	563.75	9,502.16	22,992.81	34,157.39
45 mph	68.00	0.27	5.87	18.14	799.86	451.59	7,345.76	17,771.15	26,460.64
50 mph	68.17	0.27	5.88	18.23	838.61	468.23	11,568.29	27,949.07	40,916.76
55 mph	57.07	0.23	4.92	15.39	700.88	387.70	2,594.35	6,257.23	10,017.76
60 mph	123.75	0.50	10.65	33.34	1,415.59	778.10	2,557.51	6,157.40	11,076.83
65 mph	17.39	0.07	1.49	4.68	179.29	97.52	0.00	0.00	300.44
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	1,758.05	7.14	152.27	467.92	18,579.14	10,648.53	104,443.54	253,076.06	389,132.65

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	26.21	0.11	2.26	7.64	431.17	245.06	0.00	0.00	712.43
15 mph	21.56	0.09	1.87	6.48	281.42	163.12	0.00	0.00	474.53
20 mph	17.69	0.07	1.54	5.38	239.93	139.13	7,410.12	17,986.68	25,800.54
25 mph	29.65	0.12	2.58	9.10	425.53	247.97	11,965.57	29,031.77	41,712.28
30 mph	51.35	0.21	4.46	15.71	772.97	447.27	19,414.80	47,084.21	67,790.97
35 mph	104.42	0.42	9.05	32.06	1,739.71	1,006.38	18,541.93	44,942.22	66,376.19
40 mph	108.57	0.44	9.38	33.31	1,880.36	1,077.38	16,324.34	39,500.74	58,934.52
45 mph	83.90	0.34	7.24	25.65	1,467.46	828.51	11,472.48	27,754.66	41,640.23
50 mph	94.62	0.38	8.16	29.00	1,730.88	966.41	5,559.12	13,430.88	21,819.45
55 mph	55.01	0.22	4.74	17.00	1,004.58	555.69	2,701.20	6,514.95	10,853.40
60 mph	35.78	0.14	3.08	11.05	608.70	334.58	186,399.32	448,770.56	636,163.21
65 mph	13.41	0.05	1.15	4.13	205.59	111.82	0.00	0.00	336.16
70 mph	666.18	2.59	57.15	204.47	9,389.75	5,083.97	0.00	0.00	15,404.10
total	1,308.34	5.18	112.65	400.96	20,178.04	11,207.27	279,788.88	675,016.67	988,018.00

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,220.05	3,562.51	6,839.56
15 mph	47.32	0.19	4.11	19.32	505.50	293.00	2,646.78	6,426.62	9,942.83
25 mph	0.00	0.00	0.00	0.00	1,235.44	719.93	9,670.27	23,462.75	35,088.40
35 mph	516.37	2.09	44.75	70.77	0.00	0.00	0.00	0.00	633.98
total	563.69	2.28	48.86	90.09	2,322.36	1,488.51	14,537.09	33,451.88	52,504.77

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,220.05	3,562.51	6,839.56
10 mph	196.17	0.80	16.90	50.85	2,311.27	1,313.62	9,712.61	23,585.37	37,187.59
15 mph	124.80	0.51	10.83	40.46	1,277.78	740.62	5,363.17	13,022.27	20,580.44
20 mph	109.43	0.45	9.51	29.73	1,076.91	624.47	12,154.78	29,503.44	43,508.73
25 mph	414.12	1.69	36.01	112.04	5,372.02	3,130.45	45,714.78	110,916.71	165,697.82
30 mph	417.61	1.70	36.25	113.48	4,480.57	2,592.60	40,133.45	97,330.46	145,106.11
35 mph	891.63	3.61	77.27	175.39	4,774.11	2,761.71	27,446.15	66,524.41	102,654.28
40 mph	193.04	0.78	16.69	55.94	2,864.28	1,641.12	25,826.50	62,493.55	93,091.91
45 mph	151.90	0.61	13.10	43.79	2,267.32	1,280.10	18,818.24	45,525.81	68,100.87
50 mph	162.80	0.65	14.03	47.23	2,569.50	1,434.64	17,127.41	41,379.95	62,736.20
55 mph	112.08	0.45	9.65	32.40	1,705.46	943.39	5,295.55	12,772.17	20,871.16
60 mph	159.53	0.64	13.73	44.38	2,024.29	1,112.68	188,956.83	454,927.95	647,240.04
65 mph	30.79	0.12	2.65	8.81	384.88	209.35	0.00	0.00	636.60
70 mph	666.18	2.59	57.15	204.47	9,389.75	5,083.97	0.00	0.00	15,404.10
total	3,630.09	14.60	313.78	958.97	41,079.54	23,344.31	398,769.51	961,544.61	1,429,655.41

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
96.41	802.23	772.61	4.87	797.22	142.98	945.07	4.63	195.68	55.97	256.28	3.46	9.29	5.77	1,266,473.60

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
17.59	146.41	141.00	0.89	145.49	26.09	172.48	0.84	35.71	10.22	46.77	0.63	1.70	1.05	231,131.43

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
VMT

	Net Trips			Net VMT		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	4,137.8	56.6	720.5	215,261.6	2,945.0	37,480.3
LDT1	362.2	0.2	0.2	18,844.9	10.7	9.2
LDT2	1,810.8	4.0	-	94,202.8	205.8	-
MDT	2,595.8	70.9	-	39,772.4	1,086.9	-
LHDT1	538.6	1,070.1	-	12,670.7	25,174.9	-
LHDT2	224.6	548.8	-	5,284.0	12,911.5	-
MHDT	284.2	2,456.4	-	12,803.7	110,665.2	-
HHDT	50.7	4,519.2	-	2,285.2	203,592.9	-

	Surface Street VMT			Freeway VMT		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	152,286.8	2,083.5	26,515.5	62,974.8	861.6	10,964.9
LDT1	13,331.8	7.6	6.5	5,513.1	3.1	2.7
LDT2	66,643.8	145.6	-	27,559.0	60.2	-
MDT	21,341.1	583.2	-	18,431.2	503.7	-
LHDT1	6,114.7	12,149.1	-	6,556.0	13,025.9	-
LHDT2	2,550.0	6,230.9	-	2,734.0	6,680.6	-
MHDT	2,780.1	24,028.9	-	10,023.6	86,636.3	-
HHDT	496.2	44,206.4	-	1,789.0	159,386.5	-

	% of Surface Street VMT		% of Freeway VMT	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	5%	6%	1%	0%
15	2%	2%	1%	0%
20	4%	4%	1%	2%
25	20%	22%	2%	4%
30	22%	20%	4%	6%
35	18%	9%	9%	6%
40	6%	10%	10%	6%
45	5%	8%	8%	4%
50	5%	13%	9%	2%
55	4%	3%	5%	1%
60	8%	3%	3%	70%
65	1%	0%	1%	0%
70	0%	0%	46%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	7,614.3	666.6	3,332.2	1,067.1	305.7	127.5	166.8	29.8	13,310.0
15 mph	3,045.7	266.6	1,332.9	426.8	122.3	51.0	55.6	9.9	5,310.9
20 mph	6,091.5	533.3	2,665.8	853.6	244.6	102.0	111.2	19.8	10,621.8
25 mph	30,457.4	2,666.4	13,328.8	4,268.2	1,222.9	510.0	611.6	109.2	53,174.4
30 mph	33,503.1	2,933.0	14,661.6	4,695.0	1,345.2	561.0	556.0	99.2	58,354.3
35 mph	27,411.6	2,399.7	11,995.9	3,841.4	1,100.6	459.0	250.2	44.7	47,503.1
40 mph	9,137.2	799.9	3,998.6	1,280.5	366.9	153.0	278.0	49.6	16,063.7
45 mph	7,614.3	666.6	3,332.2	1,067.1	305.7	127.5	222.4	39.7	13,375.5
50 mph	7,614.3	666.6	3,332.2	1,067.1	305.7	127.5	361.4	64.5	13,539.3
55 mph	6,091.5	533.3	2,665.8	853.6	244.6	102.0	83.4	14.9	10,589.0
60 mph	12,182.9	1,066.5	5,331.5	1,707.3	489.2	204.0	83.4	14.9	21,079.7
65 mph	1,522.9	133.3	666.4	213.4	61.1	25.5	0.0	0.0	2,622.7
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	152,286.8	13,331.8	66,643.8	21,341.1	6,114.7	2,550.0	2,780.1	496.2	265,544.5

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	629.7	55.1	275.6	184.3	65.6	27.3	0.0	0.0	1,237.7
15 mph	629.7	55.1	275.6	184.3	65.6	27.3	0.0	0.0	1,237.7
20 mph	629.7	55.1	275.6	184.3	65.6	27.3	200.5	35.8	1,473.9
25 mph	1,259.5	110.3	551.2	368.6	131.1	54.7	350.8	62.6	2,888.8
30 mph	2,519.0	220.5	1,102.4	737.2	262.2	109.4	601.4	107.3	5,659.5
35 mph	5,667.7	496.2	2,480.3	1,658.8	590.0	246.1	601.4	107.3	11,847.9
40 mph	6,297.5	551.3	2,755.9	1,843.1	655.6	273.4	551.3	98.4	13,026.5
45 mph	5,038.0	441.0	2,204.7	1,474.5	524.5	218.7	400.9	71.6	10,374.0
50 mph	5,667.7	496.2	2,480.3	1,658.8	590.0	246.1	200.5	35.8	11,375.4
55 mph	3,148.7	275.7	1,378.0	921.6	327.8	136.7	100.2	17.9	6,306.5
60 mph	1,889.2	165.4	826.8	552.9	196.7	82.0	7,016.5	1,252.3	11,981.9
65 mph	629.7	55.1	275.6	184.3	65.6	27.3	0.0	0.0	1,237.7
70 mph	28,968.4	2,536.0	12,677.2	8,478.4	3,015.8	1,257.6	0.0	0.0	56,933.4
total	62,974.8	5,513.1	27,559.0	18,431.2	6,556.0	2,734.0	10,023.6	1,789.0	135,580.9

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
15 mph	4,814.3	421.5	2,106.8	617.7	185.8	77.5	88.5	15.8	8,327.9
25 mph	0.0	0.0	0.0	0.0	352.8	147.1	387.4	69.1	956.5
35 mph	20,714.2	1,813.4	9,065.0	2,442.3	0.0	0.0	0.0	0.0	34,034.9
total	25,528.5	2,234.9	11,171.8	3,060.0	538.6	224.6	475.9	84.9	43,319.2

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
10 mph	8,244.1	721.7	3,607.8	1,251.4	371.3	154.8	166.8	29.8	14,547.7
15 mph	8,489.8	743.2	3,715.3	1,228.8	373.6	155.8	144.1	25.7	14,876.5
20 mph	6,721.2	588.4	2,941.3	1,038.0	310.1	129.3	311.7	55.6	12,095.7
25 mph	31,716.9	2,776.6	13,879.9	4,636.9	1,706.9	711.8	1,349.8	240.9	57,019.7
30 mph	36,022.1	3,153.5	15,764.0	5,432.3	1,607.5	670.4	1,157.4	206.6	64,013.7
35 mph	53,793.6	4,709.3	23,541.2	7,942.5	1,690.7	705.1	851.6	152.0	93,385.9
40 mph	15,434.7	1,351.2	6,754.5	3,123.6	1,022.5	426.4	829.3	148.0	29,090.2
45 mph	12,652.3	1,107.6	5,536.9	2,541.6	830.2	346.2	623.4	111.3	23,749.5
50 mph	13,282.1	1,162.8	5,812.5	2,725.9	895.8	373.6	561.9	100.3	24,914.7
55 mph	9,240.2	808.9	4,043.7	1,775.2	572.4	238.7	183.6	32.8	16,895.6
60 mph	14,072.2	1,231.9	6,158.3	2,260.2	685.9	286.0	7,099.9	1,267.2	33,061.7
65 mph	2,152.6	188.4	942.0	397.7	126.7	52.8	0.0	0.0	3,860.4
70 mph	28,968.4	2,536.0	12,677.2	8,478.4	3,015.8	1,257.6	0.0	0.0	56,933.4
total	240,790.1	21,079.8	105,374.6	42,832.3	13,209.4	5,508.6	13,279.6	2,370.2	444,444.6

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	104.2	0.4	7.3	29.2	607.5	311.5	1,441.7	2,652.4	5,154.1
15 mph	41.7	0.2	2.9	11.7	243.0	124.6	480.6	884.1	1,788.7
20 mph	83.3	0.3	5.8	23.3	486.0	249.2	961.2	1,768.3	3,577.4
25 mph	416.7	1.5	29.1	116.6	2,429.8	1,246.2	5,286.4	9,725.4	19,251.7
30 mph	458.4	1.7	32.0	128.3	2,672.8	1,370.8	4,805.8	8,841.3	18,311.0
35 mph	375.0	1.4	26.2	105.0	2,186.8	1,121.6	2,162.6	3,978.6	9,957.1
40 mph	125.0	0.5	8.7	35.0	728.9	373.9	2,402.9	4,420.6	8,095.5
45 mph	104.2	0.4	7.3	29.2	607.5	311.5	1,922.3	3,536.5	6,518.8
50 mph	104.2	0.4	7.3	29.2	607.5	311.5	3,123.8	5,746.8	9,930.6
55 mph	83.3	0.3	5.8	23.3	486.0	249.2	720.9	1,326.2	2,895.1
60 mph	166.7	0.6	11.6	46.7	971.9	498.5	720.9	1,326.2	3,743.0
65 mph	20.8	0.1	1.5	5.8	121.5	62.3	0.0	0.0	212.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	2,083.5	7.6	145.6	583.2	12,149.1	6,230.9	24,028.9	44,206.4	89,435.1

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	8.6	0.0	0.6	5.0	130.3	66.8	0.0	0.0	211.4
15 mph	8.6	0.0	0.6	5.0	130.3	66.8	0.0	0.0	211.4
20 mph	8.6	0.0	0.6	5.0	130.3	66.8	1,732.7	3,187.7	5,131.8
25 mph	17.2	0.1	1.2	10.1	260.5	133.6	3,032.3	5,578.5	9,033.5
30 mph	34.5	0.1	2.4	20.1	521.0	267.2	5,198.2	9,563.2	15,606.8
35 mph	77.5	0.3	5.4	45.3	1,172.3	601.3	5,198.2	9,563.2	16,663.5
40 mph	86.2	0.3	6.0	50.4	1,302.6	668.1	4,765.0	8,766.3	15,644.8
45 mph	68.9	0.3	4.8	40.3	1,042.1	534.4	3,465.5	6,375.5	11,531.7
50 mph	77.5	0.3	5.4	45.3	1,172.3	601.3	1,732.7	3,187.7	6,822.6
55 mph	43.1	0.2	3.0	25.2	651.3	334.0	866.4	1,593.9	3,517.0
60 mph	25.8	0.1	1.8	15.1	390.8	200.4	60,645.4	111,570.6	172,850.0
65 mph	8.6	0.0	0.6	5.0	130.3	66.8	0.0	0.0	211.4
70 mph	396.3	1.4	27.7	231.7	5,991.9	3,073.1	0.0	0.0	9,722.1
total	861.6	3.1	60.2	503.7	13,025.9	6,680.6	86,636.3	159,386.5	267,157.9

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
15 mph	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1,407.5	2,818.7
25 mph	0.0	0.0	0.0	0.0	701.0	359.5	3,348.0	6,159.3	10,567.9
35 mph	283.4	1.0	19.8	66.7	0.0	0.0	0.0	0.0	371.0
total	349.3	1.3	24.4	83.6	1,070.2	548.9	4,113.1	7,566.9	13,757.5

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
10 mph	112.8	0.4	7.9	34.2	737.7	378.4	1,441.7	2,652.4	5,365.5
15 mph	116.2	0.4	8.1	33.6	742.4	380.7	1,245.7	2,291.7	4,818.7
20 mph	92.0	0.3	6.4	28.4	616.2	316.0	2,693.9	4,956.0	8,709.2
25 mph	433.9	1.6	30.3	126.7	3,391.4	1,739.3	11,666.6	21,463.3	38,853.1
30 mph	492.8	1.8	34.4	148.4	3,193.8	1,638.0	10,004.0	18,404.5	33,917.8
35 mph	736.0	2.7	51.4	217.0	3,359.2	1,722.8	7,360.8	13,541.8	26,991.6
40 mph	211.2	0.8	14.8	85.4	2,031.5	1,041.9	7,167.9	13,186.9	23,740.3
45 mph	173.1	0.6	12.1	69.5	1,649.5	846.0	5,387.8	9,912.0	18,050.5
50 mph	181.7	0.7	12.7	74.5	1,779.8	912.8	4,856.5	8,934.6	16,753.2
55 mph	126.4	0.5	8.8	48.5	1,137.3	583.3	1,587.2	2,920.1	6,412.0
60 mph	192.5	0.7	13.5	61.8	1,362.7	698.9	61,366.3	112,896.8	176,593.1
65 mph	29.5	0.1	2.1	10.9	251.7	129.1	0.0	0.0	423.3
70 mph	396.3	1.4	27.7	231.7	5,991.9	3,073.1	0.0	0.0	9,722.1
total	3,294.3	12.0	230.2	1,170.5	26,245.1	13,460.3	114,778.3	211,159.8	370,350.5

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.1
15 mph	530.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	530.4
20 mph	1,060.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,060.9
25 mph	5,303.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	5,304.4
30 mph	5,833.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5,834.8
35 mph	4,772.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	4,773.9
40 mph	1,590.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,591.3
45 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.1
50 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.1
55 mph	1,325.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,326.0
60 mph	2,121.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,121.8
65 mph	265.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	265.2
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	26,780.6	6.5	0.0	0.0	0.0	0.0	0.0	0.0	26,787.1

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
15 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
20 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
25 mph	219.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	219.4
30 mph	438.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	438.7
35 mph	986.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	987.1
40 mph	1,096.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,096.8
45 mph	877.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	877.4
50 mph	986.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	987.1
55 mph	548.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	548.4
60 mph	328.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	329.0
65 mph	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.7
70 mph	5,043.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	5,045.1
total	10,964.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0	10,967.6

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	838.5
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,159.3	6,159.3
35 mph	3,606.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	3,607.5
total	4,444.9	1.1	0.0	0.0	0.0	0.0	0.0	6,159.3	10,605.3

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	1,435.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,435.8
15 mph	1,478.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,478.6
20 mph	1,170.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,170.6
25 mph	5,522.4	1.3	0.0	0.0	0.0	0.0	0.0	6,159.3	11,683.1
30 mph	6,272.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	6,273.5
35 mph	9,366.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	9,368.6
40 mph	2,687.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2,688.1
45 mph	2,203.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,203.5
50 mph	2,312.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,313.2
55 mph	1,874.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,874.4
60 mph	2,450.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,450.8
65 mph	374.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	374.9
70 mph	5,043.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	5,045.1
total	25,244.6	6.2	0.0	0.0	0.0	0.0	0.0	6,159.3	48,360.0

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	8,405	1,681	662	132	1,980	396	3,301	660	2,870	8.48	0.035	0.0002	0.6	0.0009	2.6
2	A	731	0.45	6,015	2,707	340	153	977	440	1,629	733	4,033	7.15	0.035	0.0002	0.8	0.0008	3.1
3	A	2352	1.46	1,640	2,394	215	314	287	419	478	698	3,825	7.32	0.035	0.0002	0.7	0.0008	3.0
5	A	953	0.59	10,225	6,033	257	152	-	-	-	-	6,185	2.22	0.035	0.0001	0.4	0.0002	1.4
6	A	1099	0.68	12,145	8,259	650	442	2,038	1,386	3,398	2,311	12,398	7.27	0.035	0.0002	2.4	0.0008	9.8
8	A	1091	0.68	13,365	9,088	225	153	-	-	-	-	9,241	2.19	0.035	0.0001	0.5	0.0002	2.1
11	A	1201	0.75	(2,500)	(1,875)	32	24	(6)	(4)	(9)	(7)	(1,862)	2.19	0.035	0.0001	-0.1	0.0002	-0.4
12	A	824	0.51	(5,690)	(2,902)	69	35	21	11	34	18	(2,839)	1.92	0.035	0.0000	-0.1	0.0002	-0.6
14	A	1618	1.01	(1,665)	(1,682)	109	110	19	19	31	32	(1,521)	1.32	0.035	0.0000	-0.1	0.0001	-0.2
18	A	1412	0.88	1,565	1,377	70	62	71	63	119	105	1,606	4.02	0.035	0.0001	0.2	0.0004	0.7
19	A	2386	1.48	5,940	6,225	129	135	463	485	772	809	7,654	5.03	0.035	0.0001	1.0	0.0005	4.1
21	A	1258	0.78	4,655	3,631	60	46	122	96	204	159	3,932	3.26	0.035	0.0001	0.3	0.0003	1.4
24	A	1946	1.21	6,345	7,678	86	104	330	399	550	665	8,845	4.19	0.035	0.0001	1.0	0.0004	4.0
30	A	2827	1.76	(4,860)	(8,554)	(11)	(20)	(24)	(43)	(41)	(72)	(8,688)	2.36	0.035	0.0001	-0.5	0.0002	-2.2
29	A	675	0.42	10,225	4,295	(268)	(113)	(21)	(9)	(34)	(14)	4,159	1.94	0.035	0.0001	0.2	0.0002	0.9
31	A	820	0.51	(670)	(342)	(332)	(169)	156	79	259	132	(299)	7.77	0.035	0.0002	-0.1	0.0008	-0.3
TOTAL				65,141		2,292		6,412		10,692						7.2		29.5

World Logistics Center
Off-Site Road Dust
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				9759.05	409819.60	2,382.19	56,041.09	2,740.65	123,468.94	4,569.90	205,878.18	795,207.82	8.88	0.035	0.0002	188.430293	0.0010	767.67897

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	4766.0	65.2	829.8
	LDT1	15	1989	330	0.21	417.7	417.2	0.2	0.2
	LDT2	15	9954	330	0.21	2090.3	2085.7	4.6	0.0
	MDT	15	2999	330	0.21	629.8	613.0	16.8	0.0
	LHDT1	15	2635	330	0.21	553.3	185.3	368.1	0.0
	LHDT2	15	1267	330	0.21	266.0	77.3	188.8	0.0
	MHDT	15	4034	330	0.21	847.1	87.8	759.2	0.0
	HHDT	15	6726	330	0.21	1412.5	15.7	1396.8	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	17.9	0.2	3.1
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.8	0.0	0.0
	MDT	15	18	175	0.11	2.0	1.9	0.1	0.0
	LHDT1	15	11	175	0.11	1.2	0.4	0.8	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.4	0.0
	MHDT	15	13	175	0.11	1.4	0.1	1.3	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	11.1	0.2	1.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.1	0.3	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.4	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	16.9	0.2	2.9
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.4	0.0	0.4
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4814.3	421.5	2106.8	617.7	185.8	77.5	88.5	15.8
Diesel	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1407.5
Electric	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	441	876	0	2205.4	4381.8	0.0
	LHDT2	5	633	184	449	0	919.7	2247.3	0.0
	MHDT	5	2017	209	1808	0	1045.7	9038.6	0.0
	HHDT	5	3363	37	3326	0	186.6	16628.5	0.0
Travel at Light Logistics	LHDT1	5	5	2	4	0	8.9	17.6	0.0
	LHDT2	5	3	1	2	0	3.7	9.0	0.0
	MHDT	5	7	1	6	0	3.4	29.2	0.0
	HHDT	5	11	0	11	0	0.6	53.8	0.0
Travel at Utility	LHDT1	5	4	1	2	0	6.0	11.8	0.0
	LHDT2	5	2	0	1	0	2.5	6.1	0.0
	MHDT	5	7	1	6	0	3.5	30.4	0.0
	HHDT	5	11	0	11	0	0.6	56.0	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	7	64	0	36.9	318.7	0.0
	HHDT	5	119	1	117	0	6.6	586.3	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	37.0	15.4	18.2	3.3
Diesel	73.5	37.7	156.9	288.7
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					9.8375	8.7720	21.3002	10.7534
10 mph	0.0160	0.0212	0.0208	0.0304	0.0166	0.0136	0.1923	1.3523
15 mph	0.0106	0.0141	0.0138	0.0201	0.0109	0.0090	0.1354	0.8988
20 mph	0.0075	0.0099	0.0097	0.0142	0.0077	0.0063	0.0980	0.6291
25 mph	0.0055	0.0073	0.0071	0.0105	0.0056	0.0047	0.0718	0.4649
30 mph	0.0043	0.0056	0.0055	0.0082	0.0044	0.0036	0.0529	0.3622
35 mph	0.0035	0.0046	0.0045	0.0067	0.0036	0.0030	0.0390	0.2976
40 mph	0.0030	0.0040	0.0039	0.0059	0.0032	0.0026	0.0287	0.2581
45 mph	0.0028	0.0036	0.0036	0.0054	0.0029	0.0024	0.0212	0.2361
50 mph	0.0027	0.0035	0.0035	0.0052	0.0028	0.0023	0.0156	0.2278
55 mph	0.0027	0.0036	0.0035	0.0053	0.0029	0.0023	0.0115	0.2319
60 mph	0.0029	0.0038	0.0038	0.0056	0.0031	0.0025	0.0099	0.2492
65 mph	0.0033	0.0043	0.0043	0.0064	0.0035	0.0028		
70 mph	0.0036	0.0044	0.0046	0.0071	0.0039	0.0031		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					3.1731	3.1731	0.1619	0.5100
10 mph	0.0594	0.2009	0.1966	0.0708	0.5670	0.5585	0.0381	0.4748
15 mph	0.0290	0.1002	0.0960	0.0346	0.2794	0.2731	0.0252	0.3321
20 mph	0.0113	0.0412	0.0373	0.0135	0.1118	0.1065	0.0177	0.2354
25 mph	0.0068	0.0255	0.0224	0.0081	0.0682	0.0640	0.0131	0.1690
30 mph	0.0051	0.0193	0.0169	0.0061	0.0520	0.0484	0.0102	0.1246
35 mph	0.0041	0.0153	0.0134	0.0048	0.0419	0.0386	0.0084	0.0920
40 mph	0.0034	0.0128	0.0111	0.0040	0.0350	0.0318	0.0073	0.0680
45 mph	0.0028	0.0110	0.0094	0.0034	0.0301	0.0270	0.0066	0.0502
50 mph	0.0025	0.0097	0.0081	0.0029	0.0266	0.0234	0.0064	0.0368
55 mph	0.0022	0.0088	0.0071	0.0026	0.0238	0.0206	0.0065	0.0275
60 mph	0.0020	0.0086	0.0067	0.0024	0.0230	0.0194	0.0070	0.0234
65 mph	0.0021	0.0086	0.0067	0.0024	0.0239	0.0195		
70 mph	0.0021	0.0073	0.0067	0.0024	0.0301	0.0201		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.2691	0.0311	0.1528	0.0715	0.0112	0.0038	0.0707	0.0888	0.6991
15 mph	0.0715	0.0083	0.0405	0.0190	0.0029	0.0010	0.0166	0.0197	0.1795
20 mph	0.1001	0.0116	0.0568	0.0267	0.0041	0.0014	0.0240	0.0275	0.2524
25 mph	0.3692	0.0428	0.2093	0.0986	0.0152	0.0053	0.0968	0.1119	0.9492
30 mph	0.3158	0.0365	0.1789	0.0847	0.0131	0.0045	0.0649	0.0793	0.7777
35 mph	0.2119	0.0243	0.1199	0.0571	0.0088	0.0030	0.0215	0.0293	0.4759
40 mph	0.0612	0.0070	0.0346	0.0165	0.0026	0.0009	0.0176	0.0282	0.1687
45 mph	0.0467	0.0053	0.0264	0.0126	0.0020	0.0007	0.0104	0.0207	0.1247
50 mph	0.0451	0.0051	0.0254	0.0122	0.0019	0.0006	0.0124	0.0324	0.1352
55 mph	0.0367	0.0042	0.0208	0.0099	0.0015	0.0005	0.0021	0.0076	0.0834
60 mph	0.0790	0.0090	0.0445	0.0212	0.0033	0.0011	0.0018	0.0082	0.1681
65 mph	0.0112	0.0013	0.0063	0.0030	0.0005	0.0002	0.0000	0.0000	0.0223
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.6175	0.1866	0.9164	0.4330	0.0671	0.0231	0.3390	0.4535	4.0362

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0223	0.0026	0.0126	0.0124	0.0024	0.0008	0.0000	0.0000	0.0531
15 mph	0.0148	0.0017	0.0084	0.0082	0.0016	0.0005	0.0000	0.0000	0.0352
20 mph	0.0104	0.0012	0.0059	0.0058	0.0011	0.0004	0.0433	0.0496	0.1176
25 mph	0.0153	0.0018	0.0087	0.0085	0.0016	0.0006	0.0555	0.0642	0.1561
30 mph	0.0237	0.0027	0.0135	0.0133	0.0026	0.0009	0.0702	0.0857	0.2126
35 mph	0.0438	0.0050	0.0248	0.0247	0.0047	0.0016	0.0517	0.0704	0.2268
40 mph	0.0422	0.0048	0.0239	0.0238	0.0046	0.0016	0.0349	0.0560	0.1918
45 mph	0.0309	0.0035	0.0175	0.0174	0.0034	0.0011	0.0187	0.0373	0.1298
50 mph	0.0336	0.0038	0.0189	0.0189	0.0036	0.0012	0.0069	0.0180	0.1050
55 mph	0.0190	0.0022	0.0107	0.0107	0.0021	0.0007	0.0025	0.0091	0.0570
60 mph	0.0122	0.0014	0.0069	0.0069	0.0013	0.0005	0.1528	0.6881	0.8701
65 mph	0.0046	0.0005	0.0026	0.0026	0.0005	0.0002	0.0000	0.0000	0.0110
70 mph	0.2315	0.0246	0.1280	0.1331	0.0262	0.0086	0.0000	0.0000	0.5519
total	0.5042	0.0559	0.2823	0.2861	0.0556	0.0187	0.4367	1.0785	2.7181

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	0.8529	0.0779	2.0319
15 mph	0.1130	0.0131	0.0641	0.0274	0.0045	0.0015	0.0264	0.0313	0.2814
25 mph	0.0000	0.0000	0.0000	0.0000	0.0044	0.0015	0.0613	0.0709	0.1381
35 mph	0.1601	0.0184	0.0906	0.0363	0.0000	0.0000	0.0000	0.0000	0.3054
total	0.2731	0.0315	0.1547	0.0637	0.8115	0.3015	0.9406	0.1801	2.7569

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	0.8529	0.0779	2.0319
10 mph	0.2914	0.0337	0.1654	0.0839	0.0136	0.0047	0.0707	0.0888	0.7522
15 mph	0.1993	0.0231	0.1130	0.0546	0.0090	0.0031	0.0430	0.0510	0.4962
20 mph	0.1105	0.0129	0.0627	0.0324	0.0052	0.0018	0.0673	0.0772	0.3700
25 mph	0.3845	0.0446	0.2180	0.1071	0.0212	0.0073	0.2137	0.2470	1.2435
30 mph	0.3395	0.0392	0.1924	0.0980	0.0156	0.0054	0.1351	0.1650	0.9902
35 mph	0.4158	0.0477	0.2353	0.1181	0.0136	0.0047	0.0733	0.0997	1.0081
40 mph	0.1034	0.0118	0.0585	0.0403	0.0071	0.0024	0.0526	0.0842	0.3605
45 mph	0.0776	0.0089	0.0439	0.0300	0.0053	0.0018	0.0291	0.0579	0.2545
50 mph	0.0786	0.0089	0.0444	0.0310	0.0055	0.0019	0.0193	0.0504	0.2401
55 mph	0.0557	0.0063	0.0315	0.0206	0.0036	0.0012	0.0047	0.0168	0.1404
60 mph	0.0912	0.0104	0.0515	0.0280	0.0046	0.0016	0.1547	0.6963	1.0382
65 mph	0.0158	0.0018	0.0089	0.0056	0.0010	0.0003	0.0000	0.0000	0.0333
70 mph	0.2315	0.0246	0.1280	0.1331	0.0262	0.0086	0.0000	0.0000	0.5519
total	2.3949	0.2739	1.3534	0.7828	0.9343	0.3434	1.7164	1.7122	9.5111

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0136	0.0002	0.0032	0.0046	0.7594	0.3836	0.1210	2.7767	4.0623
15 mph	0.0027	0.0000	0.0006	0.0009	0.1497	0.0750	0.0268	0.6473	0.9030
20 mph	0.0021	0.0000	0.0005	0.0007	0.1197	0.0585	0.0375	0.9176	1.1367
25 mph	0.0062	0.0001	0.0014	0.0021	0.3652	0.1760	0.1522	3.6252	4.3284
30 mph	0.0052	0.0001	0.0012	0.0017	0.3065	0.1464	0.1079	2.4284	2.9973
35 mph	0.0034	0.0000	0.0008	0.0011	0.2021	0.0953	0.0399	0.8068	1.1494
40 mph	0.0009	0.0000	0.0002	0.0003	0.0563	0.0262	0.0385	0.6626	0.7850
45 mph	0.0007	0.0000	0.0002	0.0002	0.0404	0.0185	0.0282	0.3917	0.4798
50 mph	0.0006	0.0000	0.0001	0.0002	0.0357	0.0161	0.0442	0.4668	0.5636
55 mph	0.0004	0.0000	0.0001	0.0001	0.0255	0.0113	0.0104	0.0805	0.1284
60 mph	0.0008	0.0000	0.0002	0.0002	0.0493	0.0214	0.0112	0.0686	0.1515
65 mph	0.0001	0.0000	0.0000	0.0000	0.0064	0.0027	0.0000	0.0000	0.0092
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0366	0.0005	0.0084	0.0122	2.1161	1.0311	0.6176	12.8722	16.6947

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0011	0.0000	0.0003	0.0008	0.1628	0.0823	0.0000	0.0000	0.2473
15 mph	0.0006	0.0000	0.0001	0.0004	0.0802	0.0402	0.0000	0.0000	0.1215
20 mph	0.0002	0.0000	0.0000	0.0001	0.0321	0.0157	0.0676	1.6543	1.7700
25 mph	0.0003	0.0000	0.0001	0.0002	0.0392	0.0189	0.0873	2.0794	2.2253
30 mph	0.0004	0.0000	0.0001	0.0003	0.0597	0.0285	0.1167	2.6267	2.8324
35 mph	0.0007	0.0000	0.0002	0.0005	0.1083	0.0511	0.0960	1.9393	2.1960
40 mph	0.0006	0.0000	0.0001	0.0004	0.1006	0.0469	0.0763	1.3139	1.5388
45 mph	0.0004	0.0000	0.0001	0.0003	0.0692	0.0318	0.0508	0.7061	0.8588
50 mph	0.0004	0.0000	0.0001	0.0003	0.0688	0.0310	0.0245	0.2589	0.3841
55 mph	0.0002	0.0000	0.0000	0.0001	0.0342	0.0152	0.0125	0.0968	0.1590
60 mph	0.0001	0.0000	0.0000	0.0001	0.0198	0.0086	0.9386	5.7675	6.7348
65 mph	0.0000	0.0000	0.0000	0.0000	0.0069	0.0029	0.0000	0.0000	0.0098
70 mph	0.0018	0.0000	0.0004	0.0012	0.3973	0.1359	0.0000	0.0000	0.5367
total	0.0069	0.0001	0.0016	0.0048	1.1792	0.5089	1.4702	16.4429	19.6146

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0560	0.3247	1.1589
15 mph	0.0042	0.0001	0.0010	0.0013	0.2274	0.1140	0.0426	1.0306	1.4211
25 mph	0.0000	0.0000	0.0000	0.0000	0.1054	0.0508	0.0964	2.2959	2.5485
35 mph	0.0025	0.0000	0.0006	0.0007	0.0000	0.0000	0.0000	0.0000	0.0039
total	0.0068	0.0001	0.0016	0.0020	0.8472	0.4286	0.1950	3.6512	5.1324

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0560	0.3247	1.1589
10 mph	0.0148	0.0002	0.0034	0.0053	0.9223	0.4659	0.1210	2.7767	4.3096
15 mph	0.0074	0.0001	0.0017	0.0026	0.4573	0.2293	0.0693	1.6779	2.4457
20 mph	0.0023	0.0000	0.0005	0.0008	0.1518	0.0742	0.1050	2.5719	2.9067
25 mph	0.0065	0.0001	0.0015	0.0023	0.5097	0.2456	0.3360	8.0005	9.1022
30 mph	0.0056	0.0001	0.0013	0.0020	0.3662	0.1749	0.2246	5.0552	5.8298
35 mph	0.0066	0.0001	0.0015	0.0023	0.3104	0.1465	0.1359	2.7460	3.3493
40 mph	0.0016	0.0000	0.0004	0.0007	0.1568	0.0731	0.1148	1.9764	2.3238
45 mph	0.0011	0.0000	0.0003	0.0005	0.1096	0.0503	0.0789	1.0978	1.3386
50 mph	0.0010	0.0000	0.0002	0.0005	0.1045	0.0471	0.0687	0.7257	0.9477
55 mph	0.0006	0.0000	0.0001	0.0003	0.0597	0.0265	0.0229	0.1773	0.2874
60 mph	0.0009	0.0000	0.0002	0.0003	0.0691	0.0300	0.9498	5.8361	6.8863
65 mph	0.0001	0.0000	0.0000	0.0001	0.0133	0.0056	0.0000	0.0000	0.0191
70 mph	0.0018	0.0000	0.0004	0.0012	0.3973	0.1359	0.0000	0.0000	0.5367
total	0.0502	0.0007	0.0116	0.0189	4.1424	1.9687	2.2828	32.9663	41.4416

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.03	0.05	0.03	0.05	0.21	0.10	0.12	0.05
Electric	0	0	0	0	0	0	0	0

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	17.11	2.19	7.79	4.98	6.16	1.22	3.44	0.25
Electric	0	0	0	0	0	0	0	0
Total	**17.11**	**2.19**	**7.79**	**4.98**	**6.16**	**1.22**	**3.44**	**0.25**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.17	0.32	0.26	0.60	0.07	0.04	0.05	0.05
Electric	0.32	0.26	0	0	0	0	0	0

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.76	0.13	0.53	1.71	0.04	0.01	0.01	0.00
Electric	0.13	0.53	0	0	0	0	0	0
Total	0.00	0.00	**0.53**	**1.71**	**0.04**	**0.01**	**0.01**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.32	0.56	0.91	0.40	3.19
10 mph	0.31	0.03	0.17	0.09	0.94	0.47	0.19	2.87	5.06
15 mph	0.21	0.02	0.11	0.06	0.47	0.23	0.11	1.73	2.94
20 mph	0.11	0.01	0.06	0.03	0.16	0.08	0.17	2.65	3.28
25 mph	0.39	0.04	0.22	0.11	0.53	0.25	0.55	8.25	10.35
30 mph	0.35	0.04	0.19	0.10	0.38	0.18	0.36	5.22	6.82
35 mph	0.42	0.05	0.24	0.12	0.32	0.15	0.21	2.85	4.36
40 mph	0.11	0.01	0.06	0.04	0.16	0.08	0.17	2.06	2.68
45 mph	0.08	0.01	0.04	0.03	0.11	0.05	0.11	1.16	1.59
50 mph	0.08	0.01	0.04	0.03	0.11	0.05	0.09	0.78	1.19
55 mph	0.06	0.01	0.03	0.02	0.06	0.03	0.03	0.19	0.43
60 mph	0.09	0.01	0.05	0.03	0.07	0.03	1.10	6.53	7.92
65 mph	0.02	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.05
70 mph	0.23	0.02	0.13	0.13	0.42	0.14	0.00	0.00	1.09
RUNLOSS	17.11	2.19	7.79	4.98	6.16	1.22	3.44	0.25	43.15
RESTLOSS DIUR	0.00	0.00	0.53	1.71	0.04	0.01	0.01	0.00	2.31
total	19.55	2.46	9.68	7.50	11.28	3.54	7.46	34.93	**96.41**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.8853	0.7879	1.9495	28.2228
10 mph	0.0328	0.0412	0.0402	0.0586	0.0802	0.0526	0.1384	4.9000
15 mph	0.0289	0.0364	0.0354	0.0512	0.0690	0.0463	0.1222	4.3305
20 mph	0.0259	0.0326	0.0318	0.0458	0.0626	0.0416	0.1096	3.8838
25 mph	0.0236	0.0295	0.0289	0.0415	0.0566	0.0379	0.1000	3.5415
30 mph	0.0219	0.0272	0.0267	0.0384	0.0528	0.0351	0.0926	3.2800
35 mph	0.0205	0.0254	0.0250	0.0362	0.0502	0.0331	0.0872	3.0863
40 mph	0.0196	0.0242	0.0239	0.0346	0.0482	0.0316	0.0834	2.9518
45 mph	0.0191	0.0236	0.0232	0.0337	0.0470	0.0307	0.0810	2.8684
50 mph	0.0189	0.0232	0.0229	0.0335	0.0465	0.0303	0.0800	2.8319
55 mph	0.0189	0.0234	0.0230	0.0338	0.0466	0.0304	0.0803	2.8411
60 mph	0.0193	0.0239	0.0235	0.0346	0.0474	0.0310	0.0819	2.8972
65 mph	0.0200	0.0246	0.0243	0.0362	0.0491	0.0321		
70 mph	0.0206	0.0243	0.0245	0.0384	0.0552	0.0326		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					29.7332	25.2881	17.6319	15.5339
10 mph	0.0366	0.1672	0.1282	0.0430	0.3339	0.2201	7.7617	16.5008
15 mph	0.0247	0.1298	0.0858	0.0288	0.2473	0.1503	4.6426	9.7855
20 mph	0.0164	0.1029	0.0565	0.0191	0.2073	0.1035	2.5883	5.3050
25 mph	0.0126	0.0893	0.0429	0.0145	0.1836	0.0815	1.3899	2.7692
30 mph	0.0106	0.0805	0.0356	0.0121	0.1809	0.0707	0.8547	1.7022
35 mph	0.0092	0.0724	0.0308	0.0105	0.1875	0.0642	0.5710	1.1407
40 mph	0.0083	0.0697	0.0273	0.0094	0.1926	0.0597	0.4045	0.8111
45 mph	0.0076	0.0691	0.0248	0.0085	0.1981	0.0565	0.2996	0.6026
50 mph	0.0071	0.0667	0.0227	0.0078	0.2056	0.0544	0.2297	0.4583
55 mph	0.0066	0.0679	0.0211	0.0073	0.1988	0.0515	0.1809	0.3670
60 mph	0.0065	0.0703	0.0204	0.0071	0.2031	0.0508	0.1620	0.3251
65 mph	0.0065	0.0653	0.0204	0.0071	0.2228	0.0529		
70 mph	0.0067	0.0339	0.0203	0.0072	0.4433	0.0743		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.5501	0.0606	0.2954	0.1380	0.0540	0.0148	0.0509	0.3217	1.4855
15 mph	0.1943	0.0214	0.1041	0.0482	0.0186	0.0052	0.0150	0.0948	0.5015
20 mph	0.3485	0.0383	0.1867	0.0861	0.0338	0.0094	0.0269	0.1700	0.8997
25 mph	1.5869	0.1736	0.8485	0.3910	0.1527	0.0426	0.1348	0.8525	4.1825
30 mph	1.6147	0.1757	0.8618	0.3978	0.1566	0.0434	0.1135	0.7177	4.0813
35 mph	1.2416	0.1342	0.6613	0.3065	0.1219	0.0335	0.0481	0.3039	2.8510
40 mph	0.3958	0.0427	0.2107	0.0978	0.0390	0.0107	0.0511	0.3230	1.1708
45 mph	0.3207	0.0346	0.1706	0.0794	0.0317	0.0086	0.0397	0.2511	0.9364
50 mph	0.3167	0.0341	0.1683	0.0787	0.0314	0.0085	0.0638	0.4028	1.1043
55 mph	0.2544	0.0275	0.1354	0.0636	0.0251	0.0068	0.0148	0.0933	0.6209
60 mph	0.5188	0.0562	0.2763	0.1302	0.0511	0.0140	0.0151	0.0951	1.1567
65 mph	0.0671	0.0072	0.0357	0.0170	0.0066	0.0018	0.0000	0.0000	0.1355
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	7.4096	0.8062	3.9547	1.8344	0.7225	0.1994	0.5737	3.6257	19.1261

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0455	0.0050	0.0244	0.0238	0.0116	0.0032	0.0000	0.0000	0.1135
15 mph	0.0402	0.0044	0.0215	0.0208	0.0100	0.0028	0.0000	0.0000	0.0997
20 mph	0.0360	0.0040	0.0193	0.0186	0.0091	0.0025	0.0485	0.3064	0.4443
25 mph	0.0656	0.0072	0.0351	0.0338	0.0164	0.0046	0.0773	0.4890	0.7289
30 mph	0.1214	0.0132	0.0648	0.0625	0.0305	0.0085	0.1228	0.7763	1.2000
35 mph	0.2567	0.0277	0.1367	0.1324	0.0653	0.0179	0.1156	0.7305	1.4829
40 mph	0.2728	0.0294	0.1452	0.1408	0.0696	0.0191	0.1013	0.6405	1.4188
45 mph	0.2122	0.0229	0.1129	0.1097	0.0543	0.0148	0.0716	0.4526	1.0511
50 mph	0.2357	0.0254	0.1253	0.1224	0.0605	0.0165	0.0354	0.2234	0.8445
55 mph	0.1315	0.0142	0.0700	0.0687	0.0337	0.0092	0.0177	0.1121	0.4571
60 mph	0.0804	0.0087	0.0428	0.0422	0.0205	0.0056	1.2669	8.0004	9.4676
65 mph	0.0278	0.0030	0.0148	0.0147	0.0071	0.0019	0.0000	0.0000	0.0692
70 mph	1.3137	0.1356	0.6862	0.7180	0.3668	0.0903	0.0000	0.0000	3.3107
total	2.8395	0.3008	1.4990	1.5083	0.7555	0.1969	1.8572	11.7312	20.6884

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0781	0.2046	0.3817
15 mph	0.3071	0.0338	0.1646	0.0697	0.0283	0.0079	0.0239	0.1509	0.7861
25 mph	0.0000	0.0000	0.0000	0.0000	0.0441	0.0123	0.0854	0.5399	0.6816
35 mph	0.9383	0.1014	0.4997	0.1949	0.0000	0.0000	0.0000	0.0000	1.7343
total	1.2454	0.1352	0.6643	0.2646	0.1446	0.0470	0.1873	0.8953	3.5837

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0781	0.2046	0.3817
10 mph	0.5956	0.0656	0.3198	0.1618	0.0656	0.0180	0.0509	0.3217	1.5990
15 mph	0.5416	0.0596	0.2903	0.1386	0.0569	0.0159	0.0388	0.2456	1.3873
20 mph	0.3846	0.0423	0.2060	0.1047	0.0428	0.0119	0.0754	0.4764	1.3441
25 mph	1.6525	0.1808	0.8835	0.4248	0.2132	0.0595	0.2975	1.8813	5.5931
30 mph	1.7361	0.1889	0.9266	0.4603	0.1871	0.0519	0.2363	1.4941	5.2813
35 mph	2.4366	0.2634	1.2977	0.6338	0.1872	0.0514	0.1637	1.0344	6.0682
40 mph	0.6686	0.0722	0.3559	0.2387	0.1086	0.0297	0.1525	0.9634	2.5895
45 mph	0.5328	0.0575	0.2835	0.1891	0.0860	0.0235	0.1114	0.7037	1.9875
50 mph	0.5524	0.0595	0.2936	0.2011	0.0919	0.0250	0.0991	0.6262	1.9488
55 mph	0.3859	0.0417	0.2054	0.1323	0.0588	0.0160	0.0325	0.2053	1.0780
60 mph	0.5992	0.0649	0.3191	0.1724	0.0716	0.0196	1.2820	8.0955	10.6243
65 mph	0.0949	0.0102	0.0504	0.0317	0.0137	0.0037	0.0000	0.0000	0.2047
70 mph	1.3137	0.1356	0.6862	0.7180	0.3668	0.0903	0.0000	0.0000	3.3107
total	11.4945	1.2422	6.1180	3.6073	1.6225	0.4433	2.6182	16.2522	43.3982

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0084	0.0001	0.0021	0.0028	0.4473	0.1512	24.6748	96.5048	121.7914
15 mph	0.0023	0.0000	0.0006	0.0007	0.1325	0.0413	4.9196	19.0768	24.1738
20 mph	0.0030	0.0001	0.0007	0.0010	0.2222	0.0569	5.4855	20.6841	26.4534
25 mph	0.0116	0.0003	0.0028	0.0037	0.9839	0.2239	16.2013	59.3837	76.8111
30 mph	0.0107	0.0003	0.0025	0.0034	1.0663	0.2137	9.0572	33.1835	43.5376
35 mph	0.0076	0.0002	0.0018	0.0024	0.9044	0.1588	2.7228	10.0072	13.8053
40 mph	0.0023	0.0001	0.0005	0.0007	0.3095	0.0492	2.1429	7.9063	10.4115
45 mph	0.0017	0.0001	0.0004	0.0005	0.2653	0.0388	1.2699	4.6989	6.2757
50 mph	0.0016	0.0001	0.0004	0.0005	0.2754	0.0373	1.5823	5.8071	7.7047
55 mph	0.0012	0.0000	0.0003	0.0004	0.2130	0.0283	0.2875	1.0732	1.6040
60 mph	0.0024	0.0001	0.0005	0.0007	0.4352	0.0559	0.2574	0.9508	1.7030
65 mph	0.0003	0.0000	0.0001	0.0001	0.0597	0.0073	0.0000	0.0000	0.0674
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0531	0.0014	0.0125	0.0170	5.3146	1.0625	68.6012	259.2765	334.3388

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0007	0.0000	0.0002	0.0005	0.0959	0.0324	0.0000	0.0000	0.1297
15 mph	0.0005	0.0000	0.0001	0.0003	0.0710	0.0221	0.0000	0.0000	0.0941
20 mph	0.0003	0.0000	0.0001	0.0002	0.0595	0.0152	9.8889	37.2884	47.2527
25 mph	0.0005	0.0000	0.0001	0.0003	0.1055	0.0240	9.2931	34.0627	43.4862
30 mph	0.0008	0.0000	0.0002	0.0005	0.2079	0.0417	9.7967	35.8930	45.9408
35 mph	0.0016	0.0000	0.0004	0.0010	0.4848	0.0851	6.5448	24.0540	31.1718
40 mph	0.0016	0.0000	0.0004	0.0010	0.5531	0.0879	4.2495	15.6784	20.5719
45 mph	0.0012	0.0000	0.0003	0.0008	0.4552	0.0665	2.2893	8.4710	11.2842
50 mph	0.0012	0.0000	0.0003	0.0008	0.5315	0.0721	0.8777	3.2212	4.7047
55 mph	0.0006	0.0000	0.0001	0.0004	0.2855	0.0379	0.3455	1.2898	1.9600
60 mph	0.0004	0.0000	0.0001	0.0002	0.1750	0.0225	21.6587	79.9868	101.8436
65 mph	0.0001	0.0000	0.0000	0.0001	0.0640	0.0078	0.0000	0.0000	0.0720
70 mph	0.0059	0.0001	0.0012	0.0037	5.8564	0.5036	0.0000	0.0000	6.3709
total	0.0153	0.0004	0.0034	0.0099	8.9453	1.0189	64.9443	239.9452	314.8826

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1019	9.8901	22.9146
15 mph	0.0036	0.0001	0.0009	0.0011	0.2013	0.0627	7.8321	30.3705	38.4722
25 mph	0.0000	0.0000	0.0000	0.0000	0.2839	0.0646	10.2607	37.6092	48.2183
35 mph	0.0058	0.0002	0.0013	0.0015	0.0000	0.0000	0.0000	0.0000	0.0088
total	0.0093	0.0002	0.0022	0.0026	5.3053	2.2298	24.1947	77.8698	109.6139

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1019	9.8901	22.9146
10 mph	0.0091	0.0002	0.0022	0.0032	0.5432	0.1836	24.6748	96.5048	121.9211
15 mph	0.0063	0.0001	0.0015	0.0021	0.4049	0.1262	12.7517	49.4473	62.7401
20 mph	0.0033	0.0001	0.0008	0.0012	0.2817	0.0721	15.3744	57.9726	73.7062
25 mph	0.0121	0.0003	0.0029	0.0041	1.3732	0.3125	35.7551	131.0555	168.5156
30 mph	0.0115	0.0003	0.0027	0.0040	1.2741	0.2554	18.8539	69.0765	89.4784
35 mph	0.0150	0.0004	0.0035	0.0050	1.3892	0.2440	9.2676	34.0613	44.9859
40 mph	0.0039	0.0001	0.0009	0.0018	0.8626	0.1371	6.3924	23.5846	30.9834
45 mph	0.0029	0.0001	0.0007	0.0013	0.7205	0.1053	3.5592	13.1699	17.5598
50 mph	0.0028	0.0001	0.0006	0.0013	0.8069	0.1094	2.4600	9.0283	12.4094
55 mph	0.0018	0.0001	0.0004	0.0008	0.4986	0.0662	0.6330	2.3630	3.5640
60 mph	0.0027	0.0001	0.0006	0.0010	0.6101	0.0783	21.9161	80.9376	103.5466
65 mph	0.0004	0.0000	0.0001	0.0002	0.1237	0.0151	0.0000	0.0000	0.1394
70 mph	0.0059	0.0001	0.0012	0.0037	5.8564	0.5036	0.0000	0.0000	6.3709
total	0.0777	0.0020	0.0182	0.0295	19.5651	4.3111	157.7402	577.0915	758.8353

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.89	2.13	6.18	10.09	23.30
10 mph	0.60	0.07	0.32	0.17	0.61	0.20	24.73	96.83	123.52
15 mph	0.55	0.06	0.29	0.14	0.46	0.14	12.79	49.69	64.13
20 mph	0.39	0.04	0.21	0.11	0.32	0.08	15.45	58.45	75.05
25 mph	1.66	0.18	0.89	0.43	1.59	0.37	36.05	132.94	174.11
30 mph	1.75	0.19	0.93	0.46	1.46	0.31	19.09	70.57	94.76
35 mph	2.45	0.26	1.30	0.64	1.58	0.30	9.43	35.10	51.05
40 mph	0.67	0.07	0.36	0.24	0.97	0.17	6.54	24.55	33.57
45 mph	0.54	0.06	0.28	0.19	0.81	0.13	3.67	13.87	19.55
50 mph	0.56	0.06	0.29	0.20	0.90	0.13	2.56	9.65	14.36
55 mph	0.39	0.04	0.21	0.13	0.56	0.08	0.67	2.57	4.64
60 mph	0.60	0.07	0.32	0.17	0.68	0.10	23.20	89.03	114.17
65 mph	0.10	0.01	0.05	0.03	0.14	0.02	0.00	0.00	0.34
70 mph	1.32	0.14	0.69	0.72	6.22	0.59	0.00	0.00	9.68
total	11.57	1.24	6.14	3.64	21.19	4.75	160.36	593.34	**802.23**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					128.7236	129.4807	323.4536	277.8418
10 mph	0.4796	0.5803	0.6288	0.7906	0.2207	0.1981	0.3035	50.5614
15 mph	0.4381	0.5304	0.5737	0.7186	0.2001	0.1808	0.2772	46.2256
20 mph	0.4010	0.4849	0.5252	0.6577	0.1838	0.1656	0.2538	42.3062
25 mph	0.3676	0.4427	0.4809	0.6028	0.1684	0.1520	0.2330	38.8531
30 mph	0.3378	0.4047	0.4414	0.5546	0.1553	0.1399	0.2145	35.7582
35 mph	0.3112	0.3703	0.4061	0.5119	0.1437	0.1292	0.1980	32.9917
40 mph	0.2880	0.3421	0.3756	0.4738	0.1331	0.1196	0.1833	30.5350
45 mph	0.2674	0.3175	0.3485	0.4398	0.1237	0.1110	0.1701	28.3332
50 mph	0.2488	0.2944	0.3239	0.4096	0.1152	0.1032	0.1582	26.3556
55 mph	0.2323	0.2754	0.3027	0.3829	0.1074	0.0963	0.1476	24.5855
60 mph	0.2173	0.2581	0.2832	0.3580	0.1004	0.0901	0.1381	23.0040
65 mph	0.2036	0.2402	0.2648	0.3364	0.0942	0.0845		
70 mph	0.1985	0.2228	0.2538	0.3323	0.0938	0.0817		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					26.3000	26.3000	1.2102	1.8859
10 mph	1.9150	2.0788	1.9787	2.2231	2.6354	2.5044	1.0121	2.8004
15 mph	0.9347	1.0348	0.9661	1.0863	1.3008	1.2263	0.7129	1.9599
20 mph	0.3637	0.4234	0.3756	0.4224	0.5214	0.4782	0.5157	1.3894
25 mph	0.2183	0.2616	0.2251	0.2532	0.3192	0.2879	0.3780	0.9979
30 mph	0.1648	0.1990	0.1696	0.1910	0.2447	0.2177	0.2786	0.7353
35 mph	0.1310	0.1585	0.1345	0.1515	0.1986	0.1734	0.2053	0.5428
40 mph	0.1081	0.1332	0.1109	0.1249	0.1675	0.1433	0.1513	0.4012
45 mph	0.0916	0.1163	0.0939	0.1058	0.1462	0.1218	0.1115	0.2965
50 mph	0.0792	0.1037	0.0810	0.0914	0.1318	0.1057	0.0822	0.2175
55 mph	0.0697	0.0971	0.0712	0.0803	0.1206	0.0935	0.0606	0.1626
60 mph	0.0657	0.0984	0.0671	0.0757	0.1204	0.0888	0.0520	0.1384
65 mph	0.0658	0.1010	0.0670	0.0756	0.1314	0.0899		
70 mph	0.0668	0.0783	0.0664	0.0753	0.1904	0.0945		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	8.0527	0.8530	4.6201	1.8602	0.1488	0.0557	0.1116	3.3192	19.0213
15 mph	2.9420	0.3118	1.6862	0.6763	0.0540	0.0203	0.0340	1.0115	6.7361
20 mph	5.3866	0.5702	3.0869	1.2380	0.0991	0.0372	0.0622	1.8515	12.3318
25 mph	24.6905	2.6029	14.1332	5.6737	0.4540	0.1709	0.3143	9.3522	57.3917
30 mph	24.9578	2.6174	14.2708	5.7414	0.4605	0.1731	0.2630	7.8248	56.3088
35 mph	18.8115	1.9595	10.7410	4.3358	0.3488	0.1307	0.1092	3.2487	39.6853
40 mph	5.8023	0.6035	3.3117	1.3378	0.1077	0.0403	0.1123	3.3409	14.6566
45 mph	4.4893	0.4667	2.5609	1.0349	0.0834	0.0312	0.0834	2.4800	11.2297
50 mph	4.1775	0.4328	2.3796	0.9638	0.0776	0.0290	0.1261	3.7487	11.9352
55 mph	3.1201	0.3239	1.7791	0.7208	0.0579	0.0217	0.0272	0.8070	6.8576
60 mph	5.8386	0.6070	3.3290	1.3478	0.1083	0.0405	0.0254	0.7551	12.0517
65 mph	0.6837	0.0706	0.3891	0.1583	0.0127	0.0048	0.0000	0.0000	1.3192
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	108.9527	11.4192	62.2877	25.0888	2.0129	0.7556	1.2687	37.7396	249.5251

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.6660	0.0705	0.3821	0.3213	0.0319	0.0119	0.0000	0.0000	1.4838
15 mph	0.6083	0.0645	0.3486	0.2920	0.0289	0.0109	0.0000	0.0000	1.3533
20 mph	0.5569	0.0589	0.3191	0.2673	0.0266	0.0100	0.1122	3.3378	4.6888
25 mph	1.0210	0.1076	0.5844	0.4900	0.0487	0.0183	0.1803	5.3644	7.8148
30 mph	1.8765	0.1968	1.0730	0.9016	0.0898	0.0337	0.2845	8.4637	12.9195
35 mph	3.8895	0.4051	2.2209	1.8723	0.1870	0.0701	0.2626	7.8088	16.7163
40 mph	3.9990	0.4159	2.2825	1.9257	0.1925	0.0721	0.2228	6.6251	15.7355
45 mph	2.9703	0.3088	1.6944	1.4300	0.1430	0.0535	0.1504	4.4708	11.2212
50 mph	3.1096	0.3221	1.7713	1.4982	0.1499	0.0560	0.0700	2.0794	9.0564
55 mph	1.6128	0.1674	0.9196	0.7781	0.0776	0.0290	0.0326	0.9699	4.5872
60 mph	0.9054	0.0941	0.5162	0.4365	0.0436	0.0163	2.1373	63.5231	67.6725
65 mph	0.2827	0.0292	0.1609	0.1367	0.0136	0.0051	0.0000	0.0000	0.6283
70 mph	12.6762	1.2459	7.0959	6.2122	0.6240	0.2266	0.0000	0.0000	28.0808
total	34.1744	3.4870	19.3690	16.5621	1.6570	0.6136	3.4524	102.6430	181.9584

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9511	2.0140	29.8734
15 mph	4.6504	0.4929	2.6653	0.9788	0.0820	0.0309	0.0541	1.6104	10.5647
25 mph	0.0000	0.0000	0.0000	0.0000	0.1310	0.0493	0.1990	5.9230	6.3023
35 mph	14.2154	1.4807	8.1167	2.7566	0.0000	0.0000	0.0000	0.0000	26.5694
total	18.8658	1.9736	10.7820	3.7353	10.7157	4.4858	13.2042	9.5473	73.3098

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9511	2.0140	29.8734
10 mph	8.7187	0.9235	5.0022	2.1816	0.1807	0.0676	0.1116	3.3192	20.5051
15 mph	8.2008	0.8692	4.7000	1.9471	0.1648	0.0621	0.0881	2.6219	18.6541
20 mph	5.9434	0.6292	3.4060	1.5053	0.1257	0.0472	0.1744	5.1894	17.0206
25 mph	25.7115	2.7105	14.7177	6.1637	0.6336	0.2386	0.6935	20.6396	71.5088
30 mph	26.8343	2.8142	15.3438	6.6430	0.5503	0.2068	0.5474	16.2884	69.2283
35 mph	36.9164	3.8453	21.0786	8.9647	0.5358	0.2008	0.3718	11.0576	82.9711
40 mph	9.8014	1.0194	5.5942	3.2635	0.3002	0.1124	0.3351	9.9660	30.3920
45 mph	7.4596	0.7754	4.2552	2.4649	0.2264	0.0847	0.2338	6.9508	22.4509
50 mph	7.2871	0.7549	4.1509	2.4620	0.2275	0.0850	0.1961	5.8281	20.9916
55 mph	4.7329	0.4913	2.6988	1.4989	0.1356	0.0507	0.0598	1.7768	11.4448
60 mph	6.7440	0.7011	3.8452	1.7844	0.1519	0.0568	2.1627	64.2782	79.7242
65 mph	0.9665	0.0998	0.5500	0.2950	0.0263	0.0098	0.0000	0.0000	1.9475
70 mph	12.6762	1.2459	7.0959	6.2122	0.6240	0.2266	0.0000	0.0000	28.0808
total	161.9929	16.8798	92.4386	45.3862	14.3856	5.8550	17.9253	149.9299	504.7933

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.4399	0.0017	0.0318	0.1429	3.5300	1.7204	3.2175	16.3784	25.4626
15 mph	0.0859	0.0003	0.0062	0.0279	0.6970	0.3370	0.7554	3.8207	5.7304
20 mph	0.0668	0.0003	0.0048	0.0217	0.5587	0.2628	1.0929	5.4173	7.4253
25 mph	0.2006	0.0009	0.0145	0.0651	1.7102	0.7910	4.4057	21.3992	28.5870
30 mph	0.1666	0.0007	0.0120	0.0540	1.4420	0.6581	2.9520	14.3356	19.6210
35 mph	0.1084	0.0005	0.0078	0.0351	0.9576	0.4289	0.9791	4.7616	7.2790
40 mph	0.0298	0.0001	0.0021	0.0096	0.2693	0.1181	0.8017	3.9108	5.1416
45 mph	0.0210	0.0001	0.0015	0.0068	0.1958	0.0836	0.4727	2.3122	3.0937
50 mph	0.0182	0.0001	0.0013	0.0059	0.1765	0.0726	0.5662	2.7559	3.5966
55 mph	0.0128	0.0001	0.0009	0.0041	0.1293	0.0514	0.0963	0.4755	0.7703
60 mph	0.0242	0.0001	0.0017	0.0078	0.2580	0.0976	0.0826	0.4048	0.8768
65 mph	0.0030	0.0000	0.0002	0.0010	0.0352	0.0124	0.0000	0.0000	0.0518
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.1771	0.0050	0.0848	0.3820	9.9594	4.6341	15.4220	75.9719	107.6363

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0364	0.0001	0.0026	0.0247	0.7570	0.3689	0.0000	0.0000	1.1897
15 mph	0.0178	0.0001	0.0013	0.0121	0.3736	0.1806	0.0000	0.0000	0.5854
20 mph	0.0069	0.0000	0.0005	0.0047	0.1497	0.0704	1.9703	9.7660	11.9686
25 mph	0.0083	0.0000	0.0006	0.0056	0.1834	0.0848	2.5271	12.2746	15.0845
30 mph	0.0125	0.0001	0.0009	0.0085	0.2811	0.1283	3.1930	15.5062	19.1305
35 mph	0.0224	0.0001	0.0016	0.0151	0.5134	0.2299	2.3535	11.4453	14.5814
40 mph	0.0205	0.0001	0.0015	0.0139	0.4812	0.2111	1.5897	7.7552	10.0732
45 mph	0.0139	0.0001	0.0010	0.0094	0.3359	0.1435	0.8522	4.1683	5.5242
50 mph	0.0135	0.0001	0.0010	0.0091	0.3406	0.1402	0.3141	1.5287	2.3472
55 mph	0.0066	0.0000	0.0005	0.0045	0.1732	0.0689	0.1157	0.5715	0.9409
60 mph	0.0037	0.0000	0.0003	0.0025	0.1037	0.0392	6.9532	34.0527	41.1555
65 mph	0.0013	0.0000	0.0001	0.0008	0.0377	0.0132	0.0000	0.0000	0.0532
70 mph	0.0584	0.0002	0.0041	0.0385	2.5150	0.6402	0.0000	0.0000	3.2564
total	0.2223	0.0010	0.0158	0.1494	6.2456	2.3195	19.8688	97.0684	125.8906

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4188	1.2007	8.0697
15 mph	0.1358	0.0005	0.0098	0.0404	1.0588	0.5119	1.2026	6.0827	9.0425
25 mph	0.0000	0.0000	0.0000	0.0000	0.4934	0.2282	2.7902	13.5526	17.0645
35 mph	0.0819	0.0004	0.0059	0.0223	0.0000	0.0000	0.0000	0.0000	0.1104
total	0.2176	0.0009	0.0157	0.0627	5.8157	2.9268	4.4116	20.8360	34.2871

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4188	1.2007	8.0697
10 mph	0.4763	0.0019	0.0344	0.1676	4.2870	2.0893	3.2175	16.3784	26.6523
15 mph	0.2394	0.0010	0.0173	0.0804	2.1294	1.0295	1.9580	9.9034	15.3584
20 mph	0.0737	0.0003	0.0053	0.0264	0.7084	0.3333	3.0632	15.1832	19.3939
25 mph	0.2088	0.0009	0.0151	0.0708	2.3870	1.1040	9.7230	47.2264	60.7360
30 mph	0.1791	0.0008	0.0129	0.0625	1.7230	0.7864	6.1450	29.8418	38.7516
35 mph	0.2127	0.0009	0.0153	0.0725	1.4710	0.6589	3.3327	16.2068	21.9708
40 mph	0.0503	0.0002	0.0036	0.0235	0.7505	0.3293	2.3914	11.6660	15.2148
45 mph	0.0350	0.0002	0.0025	0.0162	0.5317	0.2271	1.3249	6.4804	8.6179
50 mph	0.0318	0.0002	0.0023	0.0150	0.5171	0.2128	0.8802	4.2845	5.9438
55 mph	0.0194	0.0001	0.0014	0.0086	0.3025	0.1202	0.2120	1.0470	1.7112
60 mph	0.0279	0.0002	0.0020	0.0103	0.3617	0.1369	7.0359	34.4575	42.0323
65 mph	0.0043	0.0000	0.0003	0.0018	0.0730	0.0256	0.0000	0.0000	0.1050
70 mph	0.0584	0.0002	0.0041	0.0385	2.5150	0.6402	0.0000	0.0000	3.2564
total	1.6170	0.0068	0.1163	0.5942	22.0207	9.8803	39.7025	193.8763	267.8140

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	14.77	6.59	13.37	3.21	37.94
10 mph	9.19	0.93	5.04	2.35	4.47	2.16	3.33	19.70	47.16
15 mph	8.44	0.87	4.72	2.03	2.29	1.09	2.05	12.53	34.01
20 mph	6.02	0.63	3.41	1.53	0.83	0.38	3.24	20.37	36.41
25 mph	25.92	2.71	14.73	6.23	3.02	1.34	10.42	67.87	132.24
30 mph	27.01	2.82	15.36	6.71	2.27	0.99	6.69	46.13	107.98
35 mph	37.13	3.85	21.09	9.04	2.01	0.86	3.70	27.26	104.94
40 mph	9.85	1.02	5.60	3.29	1.05	0.44	2.73	21.63	45.61
45 mph	7.49	0.78	4.26	2.48	0.76	0.31	1.56	13.43	31.07
50 mph	7.32	0.76	4.15	2.48	0.74	0.30	1.08	10.11	26.94
55 mph	4.75	0.49	2.70	1.51	0.44	0.17	0.27	2.82	13.16
60 mph	6.77	0.70	3.85	1.79	0.51	0.19	9.20	98.74	121.76
65 mph	0.97	0.10	0.55	0.30	0.10	0.04	0.00	0.00	2.05
70 mph	12.73	1.25	7.10	6.25	3.14	0.87	0.00	0.00	31.34
total	163.61	16.89	92.55	45.98	36.41	15.74	57.63	343.81	**772.61**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.0377	0.0386	0.0387	0.0389
10 mph	0.0033	0.0038	0.0034	0.0037	0.0047	0.0049	0.0049	0.0049
15 mph	0.0022	0.0025	0.0022	0.0025	0.0032	0.0032	0.0032	0.0032
20 mph	0.0016	0.0017	0.0016	0.0017	0.0022	0.0023	0.0023	0.0023
25 mph	0.0011	0.0013	0.0012	0.0013	0.0016	0.0017	0.0017	0.0017
30 mph	0.0009	0.0010	0.0009	0.0010	0.0013	0.0013	0.0013	0.0013
35 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0011	0.0011	0.0011
40 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
45 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0009	0.0009
50 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
55 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
60 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
65 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0010		
70 mph	0.0008	0.0008	0.0007	0.0008	0.0011	0.0011		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.3973	0.4668	0.0014	0.0015
10 mph	0.0017	0.0135	0.0086	0.0022	0.0149	0.0149	0.0052	0.0104
15 mph	0.0015	0.0113	0.0075	0.0019	0.0124	0.0130	0.0045	0.0088
20 mph	0.0012	0.0092	0.0064	0.0016	0.0105	0.0111	0.0040	0.0077
25 mph	0.0011	0.0076	0.0055	0.0014	0.0089	0.0095	0.0036	0.0068
30 mph	0.0009	0.0065	0.0048	0.0012	0.0079	0.0084	0.0033	0.0063
35 mph	0.0008	0.0057	0.0044	0.0011	0.0071	0.0076	0.0031	0.0058
40 mph	0.0008	0.0052	0.0040	0.0010	0.0066	0.0069	0.0029	0.0055
45 mph	0.0007	0.0048	0.0037	0.0009	0.0061	0.0064	0.0027	0.0051
50 mph	0.0007	0.0045	0.0035	0.0009	0.0058	0.0060	0.0026	0.0048
55 mph	0.0006	0.0044	0.0033	0.0008	0.0055	0.0057	0.0024	0.0046
60 mph	0.0006	0.0044	0.0032	0.0008	0.0054	0.0055	0.0024	0.0044
65 mph	0.0006	0.0044	0.0032	0.0008	0.0056	0.0055		
70 mph	0.0006	0.0036	0.0031	0.0008	0.0068	0.0055		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0562	0.0055	0.0247	0.0087	0.0032	0.0014	0.0018	0.0003	0.1018
15 mph	0.0149	0.0015	0.0066	0.0023	0.0009	0.0004	0.0004	0.0001	0.0270
20 mph	0.0209	0.0021	0.0092	0.0032	0.0012	0.0005	0.0006	0.0001	0.0378
25 mph	0.0771	0.0076	0.0338	0.0120	0.0044	0.0019	0.0023	0.0004	0.1395
30 mph	0.0660	0.0065	0.0289	0.0103	0.0038	0.0016	0.0016	0.0003	0.1189
35 mph	0.0443	0.0043	0.0194	0.0069	0.0025	0.0011	0.0006	0.0001	0.0792
40 mph	0.0128	0.0012	0.0056	0.0020	0.0007	0.0003	0.0006	0.0001	0.0234
45 mph	0.0098	0.0009	0.0043	0.0015	0.0006	0.0002	0.0004	0.0001	0.0178
50 mph	0.0094	0.0009	0.0041	0.0015	0.0005	0.0002	0.0007	0.0001	0.0175
55 mph	0.0077	0.0007	0.0034	0.0012	0.0004	0.0002	0.0002	0.0000	0.0138
60 mph	0.0165	0.0016	0.0072	0.0026	0.0009	0.0004	0.0002	0.0000	0.0294
65 mph	0.0023	0.0002	0.0010	0.0004	0.0001	0.0001	0.0000	0.0000	0.0041
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.3379	0.0331	0.1483	0.0525	0.0193	0.0082	0.0092	0.0016	0.6101

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0046	0.0005	0.0020	0.0015	0.0007	0.0003	0.0000	0.0000	0.0096
15 mph	0.0031	0.0003	0.0014	0.0010	0.0005	0.0002	0.0000	0.0000	0.0064
20 mph	0.0022	0.0002	0.0009	0.0007	0.0003	0.0001	0.0010	0.0002	0.0057
25 mph	0.0032	0.0003	0.0014	0.0010	0.0005	0.0002	0.0013	0.0002	0.0081
30 mph	0.0050	0.0005	0.0022	0.0016	0.0007	0.0003	0.0017	0.0003	0.0123
35 mph	0.0092	0.0009	0.0040	0.0030	0.0014	0.0006	0.0014	0.0003	0.0207
40 mph	0.0088	0.0009	0.0039	0.0029	0.0013	0.0006	0.0011	0.0002	0.0196
45 mph	0.0065	0.0006	0.0028	0.0021	0.0010	0.0004	0.0008	0.0001	0.0143
50 mph	0.0070	0.0007	0.0031	0.0023	0.0010	0.0004	0.0004	0.0001	0.0150
55 mph	0.0040	0.0004	0.0017	0.0013	0.0006	0.0003	0.0002	0.0000	0.0084
60 mph	0.0026	0.0002	0.0011	0.0008	0.0004	0.0002	0.0139	0.0025	0.0217
65 mph	0.0010	0.0001	0.0004	0.0003	0.0001	0.0001	0.0000	0.0000	0.0020
70 mph	0.0483	0.0045	0.0209	0.0156	0.0071	0.0031	0.0000	0.0000	0.0994
total	0.1052	0.0101	0.0459	0.0341	0.0156	0.0067	0.0218	0.0039	0.2432

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0016	0.0003	0.0062
15 mph	0.0236	0.0023	0.0104	0.0034	0.0013	0.0006	0.0006	0.0001	0.0422
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0014	0.0003	0.0035
35 mph	0.0335	0.0033	0.0147	0.0044	0.0000	0.0000	0.0000	0.0000	0.0558
total	0.0571	0.0056	0.0250	0.0077	0.0056	0.0024	0.0036	0.0007	0.1077

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0016	0.0003	0.0062
10 mph	0.0609	0.0060	0.0267	0.0102	0.0039	0.0017	0.0018	0.0003	0.1115
15 mph	0.0416	0.0041	0.0183	0.0067	0.0026	0.0011	0.0010	0.0002	0.0756
20 mph	0.0231	0.0023	0.0101	0.0040	0.0015	0.0006	0.0016	0.0003	0.0434
25 mph	0.0803	0.0079	0.0352	0.0130	0.0061	0.0026	0.0050	0.0009	0.1511
30 mph	0.0709	0.0069	0.0311	0.0119	0.0045	0.0019	0.0033	0.0006	0.1312
35 mph	0.0869	0.0085	0.0381	0.0142	0.0039	0.0017	0.0020	0.0004	0.1556
40 mph	0.0216	0.0021	0.0095	0.0049	0.0020	0.0009	0.0017	0.0003	0.0430
45 mph	0.0162	0.0016	0.0071	0.0036	0.0015	0.0006	0.0012	0.0002	0.0321
50 mph	0.0164	0.0016	0.0072	0.0037	0.0016	0.0007	0.0010	0.0002	0.0324
55 mph	0.0116	0.0011	0.0051	0.0025	0.0010	0.0004	0.0003	0.0001	0.0222
60 mph	0.0191	0.0019	0.0083	0.0034	0.0013	0.0006	0.0141	0.0025	0.0511
65 mph	0.0033	0.0003	0.0014	0.0007	0.0003	0.0001	0.0000	0.0000	0.0061
70 mph	0.0483	0.0045	0.0209	0.0156	0.0071	0.0031	0.0000	0.0000	0.0994
total	0.5002	0.0487	0.2192	0.0944	0.0405	0.0173	0.0346	0.0062	0.9610

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0004	0.0000	0.0001	0.0001	0.0200	0.0102	0.0166	0.0607	0.1081
15 mph	0.0001	0.0000	0.0000	0.0000	0.0066	0.0036	0.0047	0.0172	0.0324
20 mph	0.0002	0.0000	0.0001	0.0001	0.0113	0.0061	0.0085	0.0299	0.0561
25 mph	0.0010	0.0000	0.0004	0.0004	0.0477	0.0260	0.0423	0.1457	0.2635
30 mph	0.0009	0.0000	0.0003	0.0003	0.0464	0.0253	0.0355	0.1219	0.2308
35 mph	0.0007	0.0000	0.0003	0.0003	0.0345	0.0187	0.0148	0.0511	0.1203
40 mph	0.0002	0.0000	0.0001	0.0001	0.0106	0.0057	0.0154	0.0532	0.0852
45 mph	0.0002	0.0000	0.0001	0.0001	0.0082	0.0044	0.0115	0.0401	0.0645
50 mph	0.0002	0.0000	0.0001	0.0001	0.0078	0.0041	0.0177	0.0609	0.0907
55 mph	0.0001	0.0000	0.0000	0.0000	0.0059	0.0031	0.0038	0.0135	0.0266
60 mph	0.0002	0.0000	0.0001	0.0001	0.0117	0.0061	0.0037	0.0130	0.0349
65 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0008	0.0000	0.0000	0.0023
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0043	0.0001	0.0015	0.0015	0.2122	0.1142	0.1745	0.6071	1.1155

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0043	0.0022	0.0000	0.0000	0.0066
15 mph	0.0000	0.0000	0.0000	0.0000	0.0036	0.0019	0.0000	0.0000	0.0055
20 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0016	0.0153	0.0538	0.0738
25 mph	0.0000	0.0000	0.0000	0.0000	0.0051	0.0028	0.0243	0.0836	0.1159
30 mph	0.0001	0.0000	0.0000	0.0001	0.0090	0.0049	0.0383	0.1319	0.1844
35 mph	0.0001	0.0000	0.0001	0.0001	0.0185	0.0100	0.0356	0.1228	0.1872
40 mph	0.0001	0.0000	0.0001	0.0001	0.0189	0.0102	0.0305	0.1055	0.1654
45 mph	0.0001	0.0000	0.0000	0.0001	0.0141	0.0076	0.0208	0.0722	0.1149
50 mph	0.0001	0.0000	0.0000	0.0001	0.0150	0.0080	0.0098	0.0338	0.0668
55 mph	0.0001	0.0000	0.0000	0.0000	0.0079	0.0042	0.0046	0.0162	0.0331
60 mph	0.0000	0.0000	0.0000	0.0000	0.0047	0.0024	0.3146	1.0934	1.4152
65 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0000	0.0000	0.0025
70 mph	0.0006	0.0000	0.0002	0.0004	0.0896	0.0376	0.0000	0.0000	0.1284
total	0.0014	0.0000	0.0005	0.0010	0.1953	0.0943	0.4937	1.7132	2.4996

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0010	0.1046
15 mph	0.0002	0.0000	0.0001	0.0001	0.0101	0.0054	0.0075	0.0274	0.0508
25 mph	0.0000	0.0000	0.0000	0.0000	0.0138	0.0075	0.0268	0.0923	0.1404
35 mph	0.0005	0.0000	0.0002	0.0002	0.0000	0.0000	0.0000	0.0000	0.0009
total	0.0007	0.0000	0.0003	0.0002	0.0883	0.0517	0.0348	0.1206	0.2967

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0010	0.1046
10 mph	0.0004	0.0000	0.0001	0.0002	0.0243	0.0124	0.0166	0.0607	0.1147
15 mph	0.0004	0.0000	0.0001	0.0001	0.0203	0.0109	0.0123	0.0446	0.0888
20 mph	0.0003	0.0000	0.0001	0.0001	0.0143	0.0077	0.0237	0.0837	0.1299
25 mph	0.0010	0.0000	0.0004	0.0004	0.0666	0.0363	0.0934	0.3216	0.5197
30 mph	0.0010	0.0000	0.0004	0.0004	0.0555	0.0303	0.0738	0.2538	0.4152
35 mph	0.0014	0.0000	0.0005	0.0005	0.0529	0.0288	0.0504	0.1739	0.3084
40 mph	0.0004	0.0000	0.0001	0.0002	0.0295	0.0160	0.0459	0.1587	0.2506
45 mph	0.0003	0.0000	0.0001	0.0001	0.0223	0.0120	0.0323	0.1123	0.1795
50 mph	0.0003	0.0000	0.0001	0.0001	0.0228	0.0121	0.0274	0.0947	0.1575
55 mph	0.0002	0.0000	0.0001	0.0001	0.0138	0.0073	0.0085	0.0298	0.0597
60 mph	0.0003	0.0000	0.0001	0.0001	0.0164	0.0085	0.3183	1.1064	1.4501
65 mph	0.0000	0.0000	0.0000	0.0000	0.0031	0.0016	0.0000	0.0000	0.0048
70 mph	0.0006	0.0000	0.0002	0.0004	0.0896	0.0376	0.0000	0.0000	0.1284
total	0.0064	0.0002	0.0023	0.0028	0.4958	0.2603	0.7031	2.4410	3.9118

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00	0.11
10 mph	0.06	0.01	0.03	0.01	0.03	0.01	0.02	0.06	0.23
15 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.01	0.04	0.16
20 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.08	0.17
25 mph	0.08	0.01	0.04	0.01	0.07	0.04	0.10	0.32	0.67
30 mph	0.07	0.01	0.03	0.01	0.06	0.03	0.08	0.25	0.55
35 mph	0.09	0.01	0.04	0.01	0.06	0.03	0.05	0.17	0.46
40 mph	0.02	0.00	0.01	0.01	0.03	0.02	0.05	0.16	0.29
45 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.11	0.21
50 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.09	0.19
55 mph	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.03	0.08
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.33	1.11	1.50
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.05	0.00	0.02	0.02	0.10	0.04	0.00	0.00	0.23
total	0.51	0.05	0.22	0.10	0.54	0.28	0.74	2.45	**4.87**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	15.03	1.32	6.58	2.11	1.14	0.55	0.87	0.09
Diesel	0.21	0.00	0.01	0.06	2.37	1.39	7.54	9.53
Electric	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	17.87	1.32	6.59	2.16	3.51	1.94	8.41	9.62

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	6.21	0.54	2.72	1.82	1.22	0.59	3.15	0.32
Diesel	0.09	0.00	0.01	0.05	2.54	1.49	27.19	34.35
Electric	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.38	0.54	2.73	1.87	3.76	2.08	30.34	34.67

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.52	0.22	1.10	0.30	0.10	0.05	0.15	0.02
Diesel	0.03	0.00	0.00	0.01	0.21	0.12	1.29	1.63
Electric	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.99	0.22	1.10	0.31	0.31	0.17	1.44	1.65

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	23.76	2.08	10.40	4.23	2.46	1.18	4.17	0.43	48.70
Diesel	0.33	0.00	0.02	0.12	5.12	3.00	36.02	45.51	90.12
Electric	4.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.16
Total	28.25	2.08	10.42	4.34	7.58	4.18	40.19	45.94	**142.98**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	767.68
Internal	29.54
Total	**797.22**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.0347	0.0355	0.0356	0.0358
10 mph	0.0031	0.0035	0.0031	0.0034	0.0044	0.0045	0.0045	0.0045
15 mph	0.0020	0.0023	0.0021	0.0023	0.0029	0.0030	0.0030	0.0030
20 mph	0.0014	0.0016	0.0014	0.0016	0.0020	0.0021	0.0021	0.0021
25 mph	0.0011	0.0012	0.0011	0.0012	0.0015	0.0015	0.0015	0.0015
30 mph	0.0008	0.0009	0.0008	0.0009	0.0012	0.0012	0.0012	0.0012
35 mph	0.0007	0.0007	0.0007	0.0007	0.0010	0.0010	0.0010	0.0010
40 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0009	0.0009	0.0009
45 mph	0.0005	0.0006	0.0005	0.0006	0.0008	0.0008	0.0008	0.0008
50 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
55 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
60 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
65 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009		
70 mph	0.0007	0.0007	0.0007	0.0008	0.0010	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.3801	0.4466	0.0013	0.0014
10 mph	0.0016	0.0130	0.0082	0.0021	0.0143	0.0143	0.0050	0.0099
15 mph	0.0014	0.0108	0.0072	0.0018	0.0119	0.0124	0.0043	0.0084
20 mph	0.0012	0.0088	0.0061	0.0015	0.0101	0.0106	0.0038	0.0073
25 mph	0.0010	0.0073	0.0052	0.0013	0.0085	0.0091	0.0035	0.0065
30 mph	0.0009	0.0062	0.0046	0.0012	0.0075	0.0080	0.0032	0.0060
35 mph	0.0008	0.0054	0.0042	0.0010	0.0068	0.0072	0.0030	0.0056
40 mph	0.0007	0.0049	0.0038	0.0010	0.0063	0.0066	0.0028	0.0052
45 mph	0.0007	0.0046	0.0035	0.0009	0.0059	0.0062	0.0026	0.0049
50 mph	0.0006	0.0043	0.0033	0.0008	0.0055	0.0058	0.0025	0.0046
55 mph	0.0006	0.0042	0.0031	0.0008	0.0053	0.0054	0.0023	0.0044
60 mph	0.0006	0.0042	0.0030	0.0008	0.0052	0.0053	0.0023	0.0043
65 mph	0.0006	0.0042	0.0030	0.0008	0.0054	0.0053		
70 mph	0.0006	0.0034	0.0030	0.0008	0.0065	0.0053		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0517	0.0051	0.0227	0.0080	0.0029	0.0013	0.0016	0.0003	0.0936
15 mph	0.0137	0.0013	0.0060	0.0021	0.0008	0.0003	0.0004	0.0001	0.0248
20 mph	0.0192	0.0019	0.0084	0.0030	0.0011	0.0005	0.0005	0.0001	0.0347
25 mph	0.0709	0.0070	0.0311	0.0110	0.0040	0.0017	0.0021	0.0004	0.1282
30 mph	0.0607	0.0059	0.0266	0.0094	0.0035	0.0015	0.0015	0.0003	0.1093
35 mph	0.0407	0.0040	0.0179	0.0063	0.0023	0.0010	0.0005	0.0001	0.0728
40 mph	0.0118	0.0011	0.0052	0.0018	0.0007	0.0003	0.0005	0.0001	0.0215
45 mph	0.0090	0.0009	0.0039	0.0014	0.0005	0.0002	0.0004	0.0001	0.0164
50 mph	0.0087	0.0008	0.0038	0.0013	0.0005	0.0002	0.0006	0.0001	0.0161
55 mph	0.0071	0.0007	0.0031	0.0011	0.0004	0.0002	0.0001	0.0000	0.0127
60 mph	0.0152	0.0015	0.0066	0.0024	0.0009	0.0004	0.0002	0.0000	0.0271
65 mph	0.0021	0.0002	0.0009	0.0003	0.0001	0.0001	0.0000	0.0000	0.0038
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.3107	0.0304	0.1363	0.0483	0.0177	0.0076	0.0084	0.0015	0.5610

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0043	0.0004	0.0019	0.0014	0.0006	0.0003	0.0000	0.0000	0.0089
15 mph	0.0028	0.0003	0.0012	0.0009	0.0004	0.0002	0.0000	0.0000	0.0059
20 mph	0.0020	0.0002	0.0009	0.0006	0.0003	0.0001	0.0009	0.0002	0.0052
25 mph	0.0029	0.0003	0.0013	0.0010	0.0004	0.0002	0.0012	0.0002	0.0075
30 mph	0.0046	0.0004	0.0020	0.0015	0.0007	0.0003	0.0016	0.0003	0.0113
35 mph	0.0084	0.0008	0.0037	0.0027	0.0012	0.0005	0.0013	0.0002	0.0190
40 mph	0.0081	0.0008	0.0036	0.0026	0.0012	0.0005	0.0010	0.0002	0.0180
45 mph	0.0059	0.0006	0.0026	0.0019	0.0009	0.0004	0.0007	0.0001	0.0131
50 mph	0.0064	0.0006	0.0028	0.0021	0.0010	0.0004	0.0003	0.0001	0.0137
55 mph	0.0036	0.0004	0.0016	0.0012	0.0005	0.0002	0.0002	0.0000	0.0078
60 mph	0.0024	0.0002	0.0010	0.0008	0.0003	0.0001	0.0128	0.0023	0.0200
65 mph	0.0009	0.0001	0.0004	0.0003	0.0001	0.0001	0.0000	0.0000	0.0018
70 mph	0.0444	0.0041	0.0192	0.0143	0.0066	0.0028	0.0000	0.0000	0.0914
total	0.0968	0.0092	0.0422	0.0314	0.0143	0.0061	0.0200	0.0036	0.2236

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
15 mph	0.0217	0.0021	0.0095	0.0031	0.0012	0.0005	0.0006	0.0001	0.0388
25 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0005	0.0013	0.0002	0.0032
35 mph	0.0308	0.0030	0.0135	0.0040	0.0000	0.0000	0.0000	0.0000	0.0513
total	0.0525	0.0051	0.0230	0.0071	0.0052	0.0022	0.0033	0.0006	0.0991

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
10 mph	0.0560	0.0055	0.0246	0.0094	0.0036	0.0015	0.0016	0.0003	0.1025
15 mph	0.0383	0.0038	0.0168	0.0061	0.0024	0.0010	0.0009	0.0002	0.0695
20 mph	0.0212	0.0021	0.0093	0.0036	0.0014	0.0006	0.0014	0.0003	0.0399
25 mph	0.0738	0.0072	0.0324	0.0120	0.0056	0.0024	0.0046	0.0008	0.1389
30 mph	0.0652	0.0064	0.0286	0.0109	0.0041	0.0018	0.0031	0.0005	0.1207
35 mph	0.0799	0.0078	0.0350	0.0131	0.0036	0.0015	0.0019	0.0003	0.1431
40 mph	0.0199	0.0019	0.0087	0.0045	0.0019	0.0008	0.0016	0.0003	0.0395
45 mph	0.0149	0.0015	0.0065	0.0033	0.0014	0.0006	0.0011	0.0002	0.0295
50 mph	0.0151	0.0015	0.0066	0.0034	0.0015	0.0006	0.0009	0.0002	0.0298
55 mph	0.0107	0.0010	0.0047	0.0023	0.0009	0.0004	0.0003	0.0001	0.0204
60 mph	0.0175	0.0017	0.0077	0.0031	0.0012	0.0005	0.0129	0.0023	0.0470
65 mph	0.0030	0.0003	0.0013	0.0006	0.0003	0.0001	0.0000	0.0000	0.0056
70 mph	0.0444	0.0041	0.0192	0.0143	0.0066	0.0028	0.0000	0.0000	0.0914
total	0.4600	0.0448	0.2015	0.0868	0.0372	0.0159	0.0318	0.0057	0.8836

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0004	0.0000	0.0001	0.0001	0.0191	0.0098	0.0158	0.0580	0.1035
15 mph	0.0001	0.0000	0.0000	0.0000	0.0064	0.0034	0.0045	0.0165	0.0310
20 mph	0.0002	0.0000	0.0001	0.0001	0.0108	0.0058	0.0081	0.0286	0.0537
25 mph	0.0009	0.0000	0.0003	0.0003	0.0457	0.0249	0.0405	0.1394	0.2521
30 mph	0.0009	0.0000	0.0003	0.0003	0.0444	0.0242	0.0339	0.1167	0.2208
35 mph	0.0007	0.0000	0.0002	0.0002	0.0330	0.0179	0.0142	0.0489	0.1151
40 mph	0.0002	0.0000	0.0001	0.0001	0.0101	0.0055	0.0147	0.0509	0.0815
45 mph	0.0002	0.0000	0.0001	0.0001	0.0079	0.0042	0.0110	0.0383	0.0617
50 mph	0.0001	0.0000	0.0001	0.0001	0.0074	0.0040	0.0169	0.0583	0.0868
55 mph	0.0001	0.0000	0.0000	0.0000	0.0056	0.0030	0.0037	0.0129	0.0254
60 mph	0.0002	0.0000	0.0001	0.0001	0.0112	0.0058	0.0036	0.0124	0.0334
65 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0007	0.0000	0.0000	0.0022
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0041	0.0001	0.0015	0.0015	0.2030	0.1093	0.1670	0.5808	1.0672

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0041	0.0021	0.0000	0.0000	0.0063
15 mph	0.0000	0.0000	0.0000	0.0000	0.0034	0.0018	0.0000	0.0000	0.0053
20 mph	0.0000	0.0000	0.0000	0.0000	0.0029	0.0016	0.0146	0.0515	0.0706
25 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0027	0.0232	0.0800	0.1108
30 mph	0.0001	0.0000	0.0000	0.0001	0.0087	0.0047	0.0367	0.1262	0.1764
35 mph	0.0001	0.0000	0.0000	0.0001	0.0177	0.0096	0.0341	0.1175	0.1791
40 mph	0.0001	0.0000	0.0001	0.0001	0.0181	0.0098	0.0292	0.1009	0.1582
45 mph	0.0001	0.0000	0.0000	0.0001	0.0135	0.0073	0.0199	0.0691	0.1100
50 mph	0.0001	0.0000	0.0000	0.0001	0.0143	0.0076	0.0094	0.0323	0.0639
55 mph	0.0001	0.0000	0.0000	0.0000	0.0076	0.0040	0.0044	0.0155	0.0316
60 mph	0.0000	0.0000	0.0000	0.0000	0.0045	0.0023	0.3009	1.0461	1.3540
65 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0008	0.0000	0.0000	0.0024
70 mph	0.0005	0.0000	0.0002	0.0004	0.0858	0.0359	0.0000	0.0000	0.1228
total	0.0013	0.0000	0.0005	0.0010	0.1869	0.0902	0.4724	1.6391	2.3914

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0004	0.0009	0.1001
15 mph	0.0002	0.0000	0.0001	0.0001	0.0097	0.0052	0.0072	0.0262	0.0486
25 mph	0.0000	0.0000	0.0000	0.0000	0.0132	0.0072	0.0257	0.0883	0.1343
35 mph	0.0005	0.0000	0.0002	0.0002	0.0000	0.0000	0.0000	0.0000	0.0009
total	0.0007	0.0000	0.0003	0.0002	0.0845	0.0495	0.0333	0.1154	0.2839

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0004	0.0009	0.1001
10 mph	0.0004	0.0000	0.0001	0.0002	0.0232	0.0119	0.0158	0.0580	0.1097
15 mph	0.0004	0.0000	0.0001	0.0001	0.0194	0.0104	0.0118	0.0427	0.0849
20 mph	0.0002	0.0000	0.0001	0.0001	0.0137	0.0074	0.0227	0.0801	0.1243
25 mph	0.0010	0.0000	0.0003	0.0004	0.0638	0.0347	0.0894	0.3076	0.4973
30 mph	0.0010	0.0000	0.0004	0.0004	0.0531	0.0290	0.0706	0.2429	0.3972
35 mph	0.0013	0.0000	0.0005	0.0005	0.0506	0.0275	0.0482	0.1663	0.2951
40 mph	0.0003	0.0000	0.0001	0.0002	0.0282	0.0153	0.0439	0.1518	0.2398
45 mph	0.0003	0.0000	0.0001	0.0001	0.0213	0.0115	0.0309	0.1074	0.1717
50 mph	0.0003	0.0000	0.0001	0.0001	0.0218	0.0116	0.0263	0.0906	0.1507
55 mph	0.0002	0.0000	0.0001	0.0001	0.0132	0.0070	0.0081	0.0285	0.0571
60 mph	0.0003	0.0000	0.0001	0.0001	0.0157	0.0082	0.3045	1.0586	1.3874
65 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0015	0.0000	0.0000	0.0046
70 mph	0.0005	0.0000	0.0002	0.0004	0.0858	0.0359	0.0000	0.0000	0.1228
total	0.0061	0.0002	0.0022	0.0027	0.4743	0.2490	0.6727	2.3354	3.7425

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.11
10 mph	0.06	0.01	0.02	0.01	0.03	0.01	0.02	0.06	0.21
15 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.01	0.04	0.15
20 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.02	0.08	0.16
25 mph	0.07	0.01	0.03	0.01	0.07	0.04	0.09	0.31	0.64
30 mph	0.07	0.01	0.03	0.01	0.06	0.03	0.07	0.24	0.52
35 mph	0.08	0.01	0.04	0.01	0.05	0.03	0.05	0.17	0.44
40 mph	0.02	0.00	0.01	0.00	0.03	0.02	0.05	0.15	0.28
45 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.11	0.20
50 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.09	0.18
55 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.08
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.32	1.06	1.43
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.04	0.00	0.02	0.01	0.09	0.04	0.00	0.00	0.21
total	0.47	0.04	0.20	0.09	0.51	0.26	0.70	2.34	**4.63**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5.96	0.52	2.61	0.84	0.47	0.23	0.36	0.03
Diesel	0.08	0.00	0.01	0.02	0.96	0.57	3.12	3.46
Electric	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.09	0.52	2.61	0.86	1.43	0.79	3.48	3.49

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.46	0.22	1.08	0.72	0.50	0.24	1.30	0.12
Diesel	0.03	0.00	0.00	0.02	1.03	0.61	11.24	12.46
Electric	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.93	0.22	1.08	0.74	1.53	0.85	12.55	12.59

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.00	0.09	0.44	0.12	0.04	0.02	0.06	0.01
Diesel	0.01	0.00	0.00	0.00	0.08	0.05	0.53	0.59
Electric	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.19	0.09	0.44	0.12	0.13	0.07	0.60	0.60

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	9.42	0.83	4.12	1.68	1.01	0.49	1.72	0.16	19.44
Diesel	0.13	0.00	0.01	0.05	2.07	1.22	14.90	16.51	34.88
Electric	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65
Total	11.20	0.83	4.13	1.72	3.08	1.71	16.62	16.67	**55.97**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	188.43
Internal	7.25
Total	**195.68**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.01	0.04	0.15
15 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.01	0.03	0.11
20 mph	0.01	0.00	0.01	0.00	0.01	0.01	0.02	0.06	0.12
25 mph	0.05	0.00	0.02	0.01	0.05	0.03	0.07	0.24	0.47
30 mph	0.04	0.00	0.02	0.01	0.04	0.02	0.06	0.19	0.38
35 mph	0.05	0.01	0.02	0.01	0.04	0.02	0.04	0.13	0.32
40 mph	0.01	0.00	0.01	0.00	0.02	0.01	0.03	0.12	0.21
45 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.02	0.08	0.15
50 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.02	0.07	0.14
55 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.06
60 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.24	0.82	1.10
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.03	0.00	0.01	0.01	0.07	0.03	0.00	0.00	0.15
total	0.30	0.03	0.13	0.06	0.39	0.20	0.54	1.80	3.46

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.001	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0604	0.0097	0.0485	0.0155	0.0090	0.0038	0.0049	0.0009	0.1528
15 mph	0.0242	0.0039	0.0194	0.0062	0.0036	0.0015	0.0016	0.0003	0.0607
20 mph	0.0484	0.0078	0.0388	0.0124	0.0072	0.0030	0.0033	0.0006	0.1214
25 mph	0.2418	0.0388	0.1940	0.0621	0.0361	0.0151	0.0181	0.0032	0.6092
30 mph	0.2659	0.0427	0.2134	0.0683	0.0397	0.0166	0.0164	0.0029	0.6660
35 mph	0.2176	0.0349	0.1746	0.0559	0.0325	0.0136	0.0074	0.0013	0.5378
40 mph	0.0725	0.0116	0.0582	0.0186	0.0108	0.0045	0.0082	0.0015	0.1860
45 mph	0.0604	0.0097	0.0485	0.0155	0.0090	0.0038	0.0066	0.0012	0.1547
50 mph	0.0604	0.0097	0.0485	0.0155	0.0090	0.0038	0.0107	0.0019	0.1596
55 mph	0.0484	0.0078	0.0388	0.0124	0.0072	0.0030	0.0025	0.0004	0.1205
60 mph	0.0967	0.0155	0.0776	0.0248	0.0145	0.0060	0.0025	0.0004	0.2381
65 mph	0.0121	0.0019	0.0097	0.0031	0.0018	0.0008	0.0000	0.0000	0.0294
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2089	0.1940	0.9699	0.3106	0.1807	0.0753	0.0821	0.0147	3.0361

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0000	0.0000	0.0152
15 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0000	0.0000	0.0152
20 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0059	0.0011	0.0222
25 mph	0.0100	0.0016	0.0080	0.0054	0.0039	0.0016	0.0104	0.0019	0.0427
30 mph	0.0200	0.0032	0.0160	0.0107	0.0077	0.0032	0.0178	0.0032	0.0819
35 mph	0.0450	0.0072	0.0361	0.0241	0.0174	0.0073	0.0178	0.0032	0.1581
40 mph	0.0500	0.0080	0.0401	0.0268	0.0194	0.0081	0.0163	0.0029	0.1716
45 mph	0.0400	0.0064	0.0321	0.0215	0.0155	0.0065	0.0118	0.0021	0.1359
50 mph	0.0450	0.0072	0.0361	0.0241	0.0174	0.0073	0.0059	0.0011	0.1441
55 mph	0.0250	0.0040	0.0201	0.0134	0.0097	0.0040	0.0030	0.0005	0.0797
60 mph	0.0150	0.0024	0.0120	0.0080	0.0058	0.0024	0.2073	0.0370	0.2900
65 mph	0.0050	0.0008	0.0040	0.0027	0.0019	0.0008	0.0000	0.0000	0.0152
70 mph	0.2300	0.0369	0.1845	0.1234	0.0891	0.0372	0.0000	0.0000	0.7010
total	0.4999	0.0802	0.4011	0.2682	0.1937	0.0808	0.2962	0.0529	1.8729

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
15 mph	0.0382	0.0061	0.0307	0.0090	0.0055	0.0023	0.0026	0.0005	0.0949
25 mph	0.0000	0.0000	0.0000	0.0000	0.0104	0.0043	0.0114	0.0020	0.0283
35 mph	0.1644	0.0264	0.1319	0.0355	0.0000	0.0000	0.0000	0.0000	0.3583
total	0.2026	0.0325	0.1626	0.0445	0.0170	0.0071	0.0146	0.0026	0.4836

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
10 mph	0.0654	0.0105	0.0525	0.0182	0.0110	0.0046	0.0049	0.0009	0.1680
15 mph	0.0674	0.0108	0.0541	0.0179	0.0110	0.0046	0.0043	0.0008	0.1708
20 mph	0.0534	0.0086	0.0428	0.0151	0.0092	0.0038	0.0092	0.0016	0.1437
25 mph	0.2518	0.0404	0.2020	0.0675	0.0504	0.0210	0.0399	0.0071	0.6801
30 mph	0.2859	0.0459	0.2294	0.0791	0.0475	0.0198	0.0342	0.0061	0.7479
35 mph	0.4270	0.0685	0.3426	0.1156	0.0500	0.0208	0.0252	0.0045	1.0542
40 mph	0.1225	0.0197	0.0983	0.0455	0.0302	0.0126	0.0245	0.0044	0.3576
45 mph	0.1004	0.0161	0.0806	0.0370	0.0245	0.0102	0.0184	0.0033	0.2906
50 mph	0.1054	0.0169	0.0846	0.0397	0.0265	0.0110	0.0166	0.0030	0.3037
55 mph	0.0733	0.0118	0.0588	0.0258	0.0169	0.0071	0.0054	0.0010	0.2002
60 mph	0.1117	0.0179	0.0896	0.0329	0.0203	0.0085	0.2098	0.0374	0.5281
65 mph	0.0171	0.0027	0.0137	0.0058	0.0037	0.0016	0.0000	0.0000	0.0446
70 mph	0.2300	0.0369	0.1845	0.1234	0.0891	0.0372	0.0000	0.0000	0.7010
total	1.9114	0.3068	1.5335	0.6233	0.3914	0.1632	0.3929	0.0701	5.3927

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0003	0.0064	0.0033	0.0153	0.0281	0.0536
15 mph	0.0001	0.0000	0.0000	0.0001	0.0026	0.0013	0.0051	0.0094	0.0186
20 mph	0.0002	0.0000	0.0000	0.0002	0.0051	0.0026	0.0102	0.0187	0.0371
25 mph	0.0009	0.0000	0.0001	0.0012	0.0257	0.0132	0.0560	0.1029	0.2000
30 mph	0.0010	0.0000	0.0001	0.0014	0.0283	0.0145	0.0509	0.0936	0.1897
35 mph	0.0008	0.0000	0.0001	0.0011	0.0231	0.0119	0.0229	0.0421	0.1020
40 mph	0.0003	0.0000	0.0000	0.0004	0.0077	0.0040	0.0254	0.0468	0.0846
45 mph	0.0002	0.0000	0.0000	0.0003	0.0064	0.0033	0.0203	0.0374	0.0681
50 mph	0.0002	0.0000	0.0000	0.0003	0.0064	0.0033	0.0331	0.0608	0.1042
55 mph	0.0002	0.0000	0.0000	0.0002	0.0051	0.0026	0.0076	0.0140	0.0299
60 mph	0.0004	0.0000	0.0000	0.0005	0.0103	0.0053	0.0076	0.0140	0.0381
65 mph	0.0000	0.0000	0.0000	0.0001	0.0013	0.0007	0.0000	0.0000	0.0021
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0046	0.0000	0.0005	0.0062	0.1286	0.0659	0.2543	0.4679	0.9280

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0000	0.0000	0.0022
15 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0000	0.0000	0.0022
20 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0183	0.0337	0.0542
25 mph	0.0000	0.0000	0.0000	0.0001	0.0028	0.0014	0.0321	0.0590	0.0955
30 mph	0.0001	0.0000	0.0000	0.0002	0.0055	0.0028	0.0550	0.1012	0.1649
35 mph	0.0002	0.0000	0.0000	0.0005	0.0124	0.0064	0.0550	0.1012	0.1757
40 mph	0.0002	0.0000	0.0000	0.0005	0.0138	0.0071	0.0504	0.0928	0.1648
45 mph	0.0002	0.0000	0.0000	0.0004	0.0110	0.0057	0.0367	0.0675	0.1214
50 mph	0.0002	0.0000	0.0000	0.0005	0.0124	0.0064	0.0183	0.0337	0.0715
55 mph	0.0001	0.0000	0.0000	0.0003	0.0069	0.0035	0.0092	0.0169	0.0368
60 mph	0.0001	0.0000	0.0000	0.0002	0.0041	0.0021	0.6419	1.1809	1.8292
65 mph	0.0000	0.0000	0.0000	0.0001	0.0014	0.0007	0.0000	0.0000	0.0022
70 mph	0.0009	0.0000	0.0001	0.0025	0.0634	0.0325	0.0000	0.0000	0.0994
total	0.0019	0.0000	0.0002	0.0053	0.1379	0.0707	0.9170	1.6869	2.8199

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
15 mph	0.0001	0.0000	0.0000	0.0002	0.0039	0.0020	0.0081	0.0149	0.0292
25 mph	0.0000	0.0000	0.0000	0.0000	0.0074	0.0038	0.0354	0.0652	0.1119
35 mph	0.0006	0.0000	0.0001	0.0007	0.0000	0.0000	0.0000	0.0000	0.0014
total	0.0008	0.0000	0.0001	0.0009	0.0121	0.0062	0.0452	0.0831	0.1484

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
10 mph	0.0002	0.0000	0.0000	0.0004	0.0078	0.0040	0.0153	0.0281	0.0558
15 mph	0.0003	0.0000	0.0000	0.0004	0.0079	0.0040	0.0132	0.0243	0.0500
20 mph	0.0002	0.0000	0.0000	0.0003	0.0065	0.0033	0.0285	0.0525	0.0914
25 mph	0.0010	0.0000	0.0001	0.0013	0.0359	0.0184	0.1235	0.2272	0.4074
30 mph	0.0011	0.0000	0.0001	0.0016	0.0338	0.0173	0.1059	0.1948	0.3546
35 mph	0.0016	0.0000	0.0002	0.0023	0.0356	0.0182	0.0779	0.1433	0.2791
40 mph	0.0005	0.0000	0.0000	0.0009	0.0215	0.0110	0.0759	0.1396	0.2494
45 mph	0.0004	0.0000	0.0000	0.0007	0.0175	0.0090	0.0570	0.1049	0.1895
50 mph	0.0004	0.0000	0.0000	0.0008	0.0188	0.0097	0.0514	0.0946	0.1757
55 mph	0.0003	0.0000	0.0000	0.0005	0.0120	0.0062	0.0168	0.0309	0.0667
60 mph	0.0004	0.0000	0.0000	0.0007	0.0144	0.0074	0.6495	1.1949	1.8673
65 mph	0.0001	0.0000	0.0000	0.0001	0.0027	0.0014	0.0000	0.0000	0.0042
70 mph	0.0009	0.0000	0.0001	0.0025	0.0634	0.0325	0.0000	0.0000	0.0994
total	0.0073	0.0000	0.0008	0.0124	0.2786	0.1429	1.2165	2.2380	3.8963

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10 mph	0.07	0.01	0.05	0.02	0.02	0.01	0.02	0.03	0.22
15 mph	0.07	0.01	0.05	0.02	0.02	0.01	0.02	0.03	0.22
20 mph	0.05	0.01	0.04	0.02	0.02	0.01	0.04	0.05	0.24
25 mph	0.25	0.04	0.20	0.07	0.09	0.04	0.16	0.23	1.09
30 mph	0.29	0.05	0.23	0.08	0.08	0.04	0.14	0.20	1.10
35 mph	0.43	0.07	0.34	0.12	0.09	0.04	0.10	0.15	1.33
40 mph	0.12	0.02	0.10	0.05	0.05	0.02	0.10	0.14	0.61
45 mph	0.10	0.02	0.08	0.04	0.04	0.02	0.08	0.11	0.48
50 mph	0.11	0.02	0.08	0.04	0.05	0.02	0.07	0.10	0.48
55 mph	0.07	0.01	0.06	0.03	0.03	0.01	0.02	0.03	0.27
60 mph	0.11	0.02	0.09	0.03	0.03	0.02	0.86	1.23	2.40
65 mph	0.02	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.05
70 mph	0.23	0.04	0.18	0.13	0.15	0.07	0.00	0.00	0.80
total	1.92	0.31	1.53	0.64	0.67	0.31	1.61	2.31	**9.29**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					3.9751	3.5446	8.6070	4.3502
10 mph	0.0065	0.0086	0.0084	0.0123	0.0067	0.0055	0.0154	0.5464
15 mph	0.0043	0.0057	0.0056	0.0081	0.0044	0.0037	0.0102	0.3632
20 mph	0.0030	0.0040	0.0039	0.0057	0.0031	0.0026	0.0071	0.2542
25 mph	0.0022	0.0029	0.0029	0.0042	0.0023	0.0019	0.0053	0.1878
30 mph	0.0017	0.0023	0.0022	0.0033	0.0018	0.0015	0.0041	0.1464
35 mph	0.0014	0.0019	0.0018	0.0027	0.0015	0.0012	0.0034	0.1203
40 mph	0.0012	0.0016	0.0016	0.0024	0.0013	0.0011	0.0029	0.1043
45 mph	0.0011	0.0015	0.0015	0.0022	0.0012	0.0010	0.0027	0.0954
50 mph	0.0011	0.0014	0.0014	0.0021	0.0011	0.0009	0.0026	0.0921
55 mph	0.0011	0.0014	0.0014	0.0021	0.0012	0.0009	0.0026	0.0937
60 mph	0.0012	0.0015	0.0015	0.0023	0.0012	0.0010	0.0028	0.1007
65 mph	0.0013	0.0017	0.0017	0.0026	0.0014	0.0012		
70 mph	0.0015	0.0018	0.0019	0.0029	0.0016	0.0013		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					0.1474	0.1474	0.0075	0.0237
10 mph	0.0028	0.0093	0.0091	0.0033	0.0263	0.0259	0.0089	0.0221
15 mph	0.0013	0.0047	0.0045	0.0016	0.0130	0.0127	0.0063	0.0154
20 mph	0.0005	0.0019	0.0017	0.0006	0.0052	0.0049	0.0046	0.0109
25 mph	0.0003	0.0012	0.0010	0.0004	0.0032	0.0030	0.0033	0.0079
30 mph	0.0002	0.0009	0.0008	0.0003	0.0024	0.0022	0.0025	0.0058
35 mph	0.0002	0.0007	0.0006	0.0002	0.0019	0.0018	0.0018	0.0043
40 mph	0.0002	0.0006	0.0005	0.0002	0.0016	0.0015	0.0013	0.0032
45 mph	0.0001	0.0005	0.0004	0.0002	0.0014	0.0013	0.0010	0.0023
50 mph	0.0001	0.0004	0.0004	0.0001	0.0012	0.0011	0.0007	0.0017
55 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0010	0.0005	0.0013
60 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009	0.0005	0.0011
65 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009		
70 mph	0.0001	0.0003	0.0003	0.0001	0.0014	0.0009		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1088	0.0126	0.0617	0.0289	0.0045	0.0016	0.0057	0.0359	0.2596
15 mph	0.0289	0.0034	0.0164	0.0077	0.0012	0.0004	0.0013	0.0079	0.0671
20 mph	0.0405	0.0047	0.0230	0.0108	0.0017	0.0006	0.0018	0.0111	0.0940
25 mph	0.1492	0.0173	0.0846	0.0398	0.0061	0.0021	0.0071	0.0452	0.3515
30 mph	0.1276	0.0147	0.0723	0.0342	0.0053	0.0018	0.0050	0.0320	0.2931
35 mph	0.0856	0.0098	0.0484	0.0231	0.0036	0.0012	0.0019	0.0118	0.1855
40 mph	0.0247	0.0028	0.0140	0.0067	0.0010	0.0004	0.0018	0.0114	0.0629
45 mph	0.0189	0.0022	0.0107	0.0051	0.0008	0.0003	0.0013	0.0084	0.0475
50 mph	0.0182	0.0021	0.0103	0.0049	0.0008	0.0003	0.0021	0.0131	0.0517
55 mph	0.0148	0.0017	0.0084	0.0040	0.0006	0.0002	0.0005	0.0031	0.0333
60 mph	0.0319	0.0036	0.0180	0.0086	0.0013	0.0005	0.0005	0.0033	0.0677
65 mph	0.0045	0.0005	0.0025	0.0012	0.0002	0.0001	0.0000	0.0000	0.0090
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.6536	0.0754	0.3703	0.1750	0.0271	0.0093	0.0289	0.1833	1.5229

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0090	0.0010	0.0051	0.0050	0.0010	0.0003	0.0000	0.0000	0.0214
15 mph	0.0060	0.0007	0.0034	0.0033	0.0006	0.0002	0.0000	0.0000	0.0142
20 mph	0.0042	0.0005	0.0024	0.0023	0.0004	0.0002	0.0032	0.0201	0.0332
25 mph	0.0062	0.0007	0.0035	0.0034	0.0007	0.0002	0.0041	0.0259	0.0447
30 mph	0.0096	0.0011	0.0054	0.0054	0.0010	0.0004	0.0055	0.0346	0.0630
35 mph	0.0177	0.0020	0.0100	0.0100	0.0019	0.0007	0.0045	0.0285	0.0752
40 mph	0.0171	0.0020	0.0096	0.0096	0.0018	0.0006	0.0036	0.0226	0.0669
45 mph	0.0125	0.0014	0.0071	0.0070	0.0014	0.0005	0.0024	0.0151	0.0473
50 mph	0.0136	0.0015	0.0076	0.0076	0.0015	0.0005	0.0011	0.0073	0.0408
55 mph	0.0077	0.0009	0.0043	0.0043	0.0008	0.0003	0.0006	0.0037	0.0226
60 mph	0.0049	0.0006	0.0028	0.0028	0.0005	0.0002	0.0439	0.2781	0.3337
65 mph	0.0019	0.0002	0.0010	0.0010	0.0002	0.0001	0.0000	0.0000	0.0044
70 mph	0.0935	0.0099	0.0517	0.0538	0.0106	0.0035	0.0000	0.0000	0.2230
total	0.2037	0.0226	0.1141	0.1156	0.0225	0.0076	0.0687	0.4358	0.9906

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3446	0.0315	0.8211
15 mph	0.0457	0.0053	0.0259	0.0111	0.0018	0.0006	0.0020	0.0127	0.1050
25 mph	0.0000	0.0000	0.0000	0.0000	0.0018	0.0006	0.0045	0.0286	0.0355
35 mph	0.0647	0.0074	0.0366	0.0147	0.0000	0.0000	0.0000	0.0000	0.1234
total	0.1104	0.0127	0.0625	0.0258	0.3279	0.1218	0.3511	0.0728	1.0851

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3446	0.0315	0.8211
10 mph	0.1178	0.0136	0.0668	0.0339	0.0055	0.0019	0.0057	0.0359	0.2810
15 mph	0.0805	0.0094	0.0457	0.0220	0.0036	0.0013	0.0032	0.0206	0.1863
20 mph	0.0446	0.0052	0.0253	0.0131	0.0021	0.0007	0.0049	0.0312	0.1272
25 mph	0.1554	0.0180	0.0881	0.0433	0.0086	0.0030	0.0157	0.0998	0.4318
30 mph	0.1372	0.0158	0.0777	0.0396	0.0063	0.0022	0.0105	0.0667	0.3561
35 mph	0.1680	0.0193	0.0951	0.0477	0.0055	0.0019	0.0064	0.0403	0.3841
40 mph	0.0418	0.0048	0.0236	0.0163	0.0029	0.0010	0.0054	0.0340	0.1298
45 mph	0.0314	0.0036	0.0177	0.0121	0.0021	0.0007	0.0037	0.0234	0.0948
50 mph	0.0318	0.0036	0.0179	0.0125	0.0022	0.0008	0.0032	0.0204	0.0924
55 mph	0.0225	0.0026	0.0127	0.0083	0.0015	0.0005	0.0011	0.0068	0.0559
60 mph	0.0368	0.0042	0.0208	0.0113	0.0019	0.0006	0.0444	0.2814	0.4014
65 mph	0.0064	0.0007	0.0036	0.0023	0.0004	0.0001	0.0000	0.0000	0.0135
70 mph	0.0935	0.0099	0.0517	0.0538	0.0106	0.0035	0.0000	0.0000	0.2230
total	0.9677	0.1107	0.5469	0.3163	0.3775	0.1387	0.4487	0.6919	3.5985

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0006	0.0000	0.0001	0.0002	0.0353	0.0178	0.0284	0.1290	0.2115
15 mph	0.0001	0.0000	0.0000	0.0000	0.0070	0.0035	0.0067	0.0301	0.0474
20 mph	0.0001	0.0000	0.0000	0.0000	0.0056	0.0027	0.0096	0.0426	0.0607
25 mph	0.0003	0.0000	0.0001	0.0001	0.0170	0.0082	0.0389	0.1684	0.2329
30 mph	0.0002	0.0000	0.0001	0.0001	0.0142	0.0068	0.0260	0.1128	0.1603
35 mph	0.0002	0.0000	0.0000	0.0001	0.0094	0.0044	0.0086	0.0375	0.0602
40 mph	0.0000	0.0000	0.0000	0.0000	0.0026	0.0012	0.0071	0.0308	0.0417
45 mph	0.0000	0.0000	0.0000	0.0000	0.0019	0.0009	0.0042	0.0182	0.0251
50 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0007	0.0050	0.0217	0.0291
55 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0005	0.0008	0.0037	0.0063
60 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0010	0.0007	0.0032	0.0072
65 mph	0.0000	0.0000	0.0000	0.0000	0.0003	0.0001	0.0000	0.0000	0.0004
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0017	0.0000	0.0004	0.0006	0.0983	0.0479	0.1361	0.5979	0.8828

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0000	0.0076	0.0038	0.0000	0.0000	0.0115
15 mph	0.0000	0.0000	0.0000	0.0000	0.0037	0.0019	0.0000	0.0000	0.0056
20 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0007	0.0174	0.0768	0.0965
25 mph	0.0000	0.0000	0.0000	0.0000	0.0018	0.0009	0.0223	0.0966	0.1216
30 mph	0.0000	0.0000	0.0000	0.0000	0.0028	0.0013	0.0282	0.1220	0.1543
35 mph	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0208	0.0901	0.1183
40 mph	0.0000	0.0000	0.0000	0.0000	0.0047	0.0022	0.0140	0.0610	0.0820
45 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0015	0.0075	0.0328	0.0450
50 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0014	0.0028	0.0120	0.0195
55 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0007	0.0010	0.0045	0.0078
60 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0614	0.2679	0.3306
65 mph	0.0000	0.0000	0.0000	0.0000	0.0003	0.0001	0.0000	0.0000	0.0005
70 mph	0.0001	0.0000	0.0000	0.0001	0.0185	0.0063	0.0000	0.0000	0.0249
total	0.0003	0.0000	0.0001	0.0002	0.0548	0.0236	0.1753	0.7637	1.0181

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0151	0.0538
15 mph	0.0002	0.0000	0.0000	0.0001	0.0106	0.0053	0.0106	0.0479	0.0746
25 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0024	0.0246	0.1066	0.1385
35 mph	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
total	0.0003	0.0000	0.0001	0.0001	0.0393	0.0199	0.0378	0.1696	0.2672

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0151	0.0538
10 mph	0.0007	0.0000	0.0002	0.0002	0.0428	0.0216	0.0284	0.1290	0.2229
15 mph	0.0003	0.0000	0.0001	0.0001	0.0212	0.0106	0.0173	0.0779	0.1277
20 mph	0.0001	0.0000	0.0000	0.0000	0.0071	0.0034	0.0270	0.1195	0.1572
25 mph	0.0003	0.0000	0.0001	0.0001	0.0237	0.0114	0.0858	0.3716	0.4930
30 mph	0.0003	0.0000	0.0001	0.0001	0.0170	0.0081	0.0542	0.2348	0.3146
35 mph	0.0003	0.0000	0.0001	0.0001	0.0144	0.0068	0.0294	0.1275	0.1787
40 mph	0.0001	0.0000	0.0000	0.0000	0.0073	0.0034	0.0211	0.0918	0.1237
45 mph	0.0001	0.0000	0.0000	0.0000	0.0051	0.0023	0.0117	0.0510	0.0702
50 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0022	0.0078	0.0337	0.0486
55 mph	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0019	0.0082	0.0142
60 mph	0.0000	0.0000	0.0000	0.0000	0.0032	0.0014	0.0621	0.2711	0.3378
65 mph	0.0000	0.0000	0.0000	0.0000	0.0006	0.0003	0.0000	0.0000	0.0009
70 mph	0.0001	0.0000	0.0000	0.0001	0.0185	0.0063	0.0000	0.0000	0.0249
total	0.0023	0.0000	0.0005	0.0009	0.1924	0.0914	0.3493	1.5312	2.1681

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.35	0.13	0.35	0.05	0.87
10 mph	0.12	0.01	0.07	0.03	0.05	0.02	0.03	0.16	0.50
15 mph	0.08	0.01	0.05	0.02	0.02	0.01	0.02	0.10	0.31
20 mph	0.04	0.01	0.03	0.01	0.01	0.00	0.03	0.15	0.28
25 mph	0.16	0.02	0.09	0.04	0.03	0.01	0.10	0.47	0.92
30 mph	0.14	0.02	0.08	0.04	0.02	0.01	0.06	0.30	0.67
35 mph	0.17	0.02	0.10	0.05	0.02	0.01	0.04	0.17	0.56
40 mph	0.04	0.00	0.02	0.02	0.01	0.00	0.03	0.13	0.25
45 mph	0.03	0.00	0.02	0.01	0.01	0.00	0.02	0.07	0.16
50 mph	0.03	0.00	0.02	0.01	0.01	0.00	0.01	0.05	0.14
55 mph	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.02	0.07
60 mph	0.04	0.00	0.02	0.01	0.01	0.00	0.11	0.55	0.74
65 mph	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.09	0.01	0.05	0.05	0.03	0.01	0.00	0.00	0.25
total	0.97	0.11	0.55	0.32	0.57	0.23	0.80	2.22	**5.77**

World Logistics Center
Mobile Emissions - 2040 Buildout (Net Regional) - Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					4,436.7712	5,082.7635	13,319.9556	18,944.5582
10 mph	453.3745	498.7482	562.9234	749.8329	1,273.2082	1,421.7833	3,120.0580	3,213.6689
15 mph	349.0834	384.1520	433.2642	576.7626	884.0569	1,000.1307	2,150.7415	2,318.1840
20 mph	278.9089	306.8889	346.1903	460.9132	767.7246	875.2985	1,512.1389	1,872.9605
25 mph	231.2389	254.2528	287.0136	382.2344	703.6332	791.4799	1,320.4352	1,762.0081
30 mph	198.9668	218.5559	246.9744	329.0759	638.6588	715.3763	1,213.4398	1,677.6167
35 mph	177.6749	194.9121	220.5647	294.0914	638.7813	715.3820	1,120.3114	1,608.9729
40 mph	164.7319	180.6623	204.4979	272.7111	636.4085	699.0415	1,042.2755	1,550.7608
45 mph	158.5373	173.8531	196.7923	262.4458	633.5206	682.5610	968.4414	1,516.6494
50 mph	158.3387	173.5179	196.5287	262.1882	668.1236	711.5757	905.9193	1,497.8049
55 mph	164.1592	179.9516	203.7818	271.8680	703.9240	743.9741	880.9245	1,469.6101
60 mph	176.6400	193.6741	219.2471	292.4211	714.2635	751.7607	886.3935	1,449.0370
65 mph	197.1985	215.9047	244.7643	326.6957	724.0046	759.1425		
70 mph	211.2592	229.1673	262.0354	351.7496	718.3521	743.7491		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle					3,586.5523	5,720.0816	6,413.5021	5,603.6295
10 mph	396.0897	442.6046	488.1438	611.8999	951.5428	1,054.4883	1,869.8570	2,467.1737
15 mph	325.8212	367.3759	404.7183	518.9931	621.0691	701.8981	1,568.8714	2,068.7196
20 mph	267.2703	301.6985	332.5050	431.0051	529.5067	598.6840	1,370.1706	1,809.4034
25 mph	224.0072	252.2956	278.7324	364.3890	469.5509	533.5130	1,264.2912	1,665.2072
30 mph	193.9949	217.4059	240.9676	314.6359	426.4680	481.1518	1,196.6441	1,575.3844
35 mph	175.3291	195.3267	217.4211	285.3936	426.5967	481.1678	1,142.8476	1,504.0661
40 mph	164.0638	182.1340	202.9126	266.9301	414.9785	463.6006	1,097.6343	1,442.1601
45 mph	158.4801	175.5832	195.6389	256.8849	404.8183	445.6389	1,060.6754	1,393.3777
50 mph	158.8822	175.5175	195.9390	258.1444	424.4329	462.0566	1,027.9235	1,348.3149
55 mph	166.2612	183.7257	204.8978	272.4504	443.4041	478.2369	998.9424	1,308.6644
60 mph	180.2529	199.1277	221.9402	295.0224	447.7791	479.9056	984.7539	1,287.3335
65 mph	202.6091	222.6082	249.2189	331.1657	453.7072	481.1832		
70 mph	218.8495	234.1269	268.6518	356.1476	450.4850	475.5779		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	7,611.98	733.08	4,136.07	1,764.25	858.33	399.71	1,147.58	210.97	16,861.96
15 mph	2,344.39	225.86	1,273.36	542.82	238.39	112.47	263.69	50.73	5,051.70
20 mph	3,746.22	360.86	2,034.90	867.57	414.05	196.86	370.78	81.97	8,073.21
25 mph	15,529.65	1,494.84	8,435.30	3,597.38	1,897.41	890.04	1,780.77	424.13	34,049.51
30 mph	14,698.53	1,413.46	7,984.41	3,406.79	1,894.42	884.91	1,487.70	367.10	32,137.32
35 mph	10,739.14	1,031.36	5,834.14	2,491.04	1,550.28	724.02	618.09	158.44	23,146.50
40 mph	3,318.94	318.65	1,803.05	769.98	514.84	235.83	638.93	169.67	7,769.89
45 mph	2,661.78	255.54	1,445.93	617.50	427.09	191.89	474.93	132.75	6,207.40
50 mph	2,658.45	255.04	1,443.99	616.89	450.41	200.05	721.94	213.04	6,559.81
55 mph	2,204.94	211.60	1,197.83	511.73	379.64	167.32	162.00	48.24	4,883.30
60 mph	4,745.15	455.47	2,577.46	1,100.84	770.43	338.15	163.01	47.56	10,198.07
65 mph	662.18	63.47	359.68	153.73	97.62	42.68	0.00	0.00	1,379.36
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	70,921.35	6,819.22	38,526.10	16,440.52	9,492.89	4,383.94	7,829.41	1,904.60	156,318.03

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	629.55	60.63	342.08	304.74	184.06	85.71	0.00	0.00	1,606.76
15 mph	484.74	46.70	263.28	234.40	127.80	60.29	0.00	0.00	1,217.21
20 mph	387.29	37.31	210.37	187.32	110.98	52.77	668.43	147.77	1,802.24
25 mph	642.19	61.82	348.82	310.69	203.43	95.43	1,021.45	243.28	2,927.12
30 mph	1,105.14	106.27	600.32	534.96	369.30	172.50	1,609.18	397.08	4,894.75
35 mph	2,220.47	213.25	1,206.29	1,075.69	831.08	388.14	1,485.68	380.83	7,801.42
40 mph	2,287.46	219.62	1,242.69	1,108.32	919.99	421.41	1,267.01	336.46	7,802.97
45 mph	1,761.15	169.07	956.69	853.28	732.66	329.18	856.18	239.32	5,897.54
50 mph	1,978.81	189.84	1,074.83	959.00	869.26	386.07	400.45	118.17	5,976.45
55 mph	1,139.75	109.38	619.17	552.45	508.80	224.25	194.70	57.97	3,406.47
60 mph	735.84	70.63	399.69	356.53	309.76	135.96	13,713.82	4,001.37	19,723.61
65 mph	273.83	26.25	148.74	132.77	104.66	45.76	0.00	0.00	732.01
70 mph	13,494.25	1,281.48	7,324.71	6,575.89	4,776.88	2,062.48	0.00	0.00	35,515.71
total	27,140.48	2,592.24	14,737.69	13,186.04	10,048.66	4,459.97	21,216.91	5,922.25	99,304.25

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	533.33	137.32	1,205.60
15 mph	3,705.72	357.00	2,012.77	785.57	362.16	170.86	419.79	80.76	7,894.62
25 mph	0.00	0.00	0.00	0.00	547.43	256.79	1,127.81	268.61	2,200.64
35 mph	8,115.28	779.37	4,408.70	1,583.74	0.00	0.00	0.00	0.00	14,887.09
total	11,821.00	1,136.37	6,421.47	2,369.30	1,271.59	600.59	2,080.93	486.69	26,187.95

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	533.33	137.32	1,205.60
10 mph	8,241.54	793.71	4,478.14	2,068.99	1,042.38	485.42	1,147.58	210.97	18,468.73
15 mph	6,534.85	629.56	3,549.41	1,562.78	728.35	343.62	683.48	131.49	14,163.53
20 mph	4,133.51	398.17	2,245.27	1,054.89	525.03	249.63	1,039.21	229.74	9,875.45
25 mph	16,171.85	1,556.65	8,784.12	3,908.06	2,648.28	1,242.26	3,930.03	936.02	39,177.27
30 mph	15,803.67	1,519.73	8,584.73	3,941.74	2,263.72	1,057.41	3,096.88	764.18	37,032.07
35 mph	21,074.89	2,023.98	11,449.13	5,150.47	2,381.36	1,112.16	2,103.76	539.27	45,835.00
40 mph	5,606.40	538.27	3,045.74	1,878.30	1,434.83	657.24	1,905.93	506.14	15,572.86
45 mph	4,422.93	424.61	2,402.62	1,470.78	1,159.74	521.07	1,331.12	372.07	12,104.94
50 mph	4,637.26	444.88	2,518.82	1,575.89	1,319.67	586.12	1,122.39	331.21	12,536.26
55 mph	3,344.69	320.98	1,816.99	1,064.18	888.44	391.58	356.71	106.21	8,289.77
60 mph	5,480.99	526.10	2,977.15	1,457.37	1,080.19	474.11	13,876.83	4,048.93	29,921.68
65 mph	936.01	89.71	508.42	286.51	202.28	88.45	0.00	0.00	2,111.37
70 mph	13,494.25	1,281.48	7,324.71	6,575.89	4,776.88	2,062.48	0.00	0.00	35,515.71
total	109,882.84	10,547.83	59,685.26	31,995.87	20,813.15	9,444.50	31,127.25	8,313.54	281,810.23

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	90.98	0.37	7.84	39.34	1,274.53	724.39	5,944.32	14,429.29	22,511.05
15 mph	29.94	0.12	2.60	13.35	332.75	192.87	1,662.49	4,032.97	6,267.09
20 mph	49.11	0.20	4.27	22.17	567.39	329.02	2,903.87	7,054.87	10,930.90
25 mph	205.82	0.84	17.90	93.72	2,515.73	1,466.00	14,737.10	35,709.59	54,746.69
30 mph	196.07	0.80	17.02	89.01	2,513.39	1,454.33	12,680.53	30,712.17	47,663.31
35 mph	144.98	0.59	12.57	66.06	2,057.03	1,189.95	5,449.71	13,194.82	22,115.70
40 mph	45.22	0.18	3.91	20.60	667.00	382.17	5,815.67	14,057.48	20,992.23
45 mph	36.40	0.15	3.14	16.52	542.23	306.13	4,495.88	10,865.58	16,266.02
50 mph	36.50	0.15	3.15	16.60	568.50	317.41	7,080.22	17,085.54	25,108.05
55 mph	30.55	0.12	2.63	14.01	475.13	262.82	1,587.83	3,826.87	6,199.97
60 mph	66.25	0.27	5.70	30.35	959.63	527.48	1,565.28	3,764.49	6,919.44
65 mph	9.31	0.04	0.80	4.26	121.54	66.11	0.00	0.00	202.06
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	941.14	3.82	81.52	425.98	12,594.86	7,218.67	63,922.89	154,733.65	239,922.52

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	7.52	0.03	0.65	6.80	273.30	155.33	0.00	0.00	443.64
15 mph	6.19	0.03	0.54	5.76	178.38	103.39	0.00	0.00	294.29
20 mph	5.08	0.02	0.44	4.79	152.09	88.19	5,234.96	12,718.20	18,203.76
25 mph	8.51	0.03	0.74	8.09	269.73	157.18	8,453.25	20,483.14	29,380.68
30 mph	14.74	0.06	1.28	13.98	489.96	283.51	13,715.92	33,219.87	47,739.32
35 mph	29.98	0.12	2.60	28.53	1,102.75	637.91	13,099.30	31,715.99	46,617.18
40 mph	31.17	0.13	2.69	29.64	1,191.90	682.92	11,532.65	27,876.38	41,347.48
45 mph	24.09	0.10	2.08	22.82	930.18	525.17	8,104.96	19,587.95	29,197.34
50 mph	27.17	0.11	2.34	25.80	1,097.15	612.58	3,927.35	9,477.23	15,169.73
55 mph	15.79	0.06	1.36	15.13	636.77	352.24	1,908.31	4,599.27	7,528.93
60 mph	10.27	0.04	0.88	9.83	385.83	212.08	131,684.41	316,700.90	449,004.25
65 mph	3.85	0.02	0.33	3.68	130.31	70.88	0.00	0.00	209.07
70 mph	191.25	0.74	16.41	181.95	5,951.88	3,222.57	0.00	0.00	9,564.80
total	375.61	1.49	32.34	356.80	12,790.25	7,103.95	197,661.11	476,378.93	694,700.47

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,219.54	3,567.71	6,844.25
15 mph	47.32	0.19	4.11	19.32	505.50	293.00	2,646.71	6,420.54	9,936.68
25 mph	0.00	0.00	0.00	0.00	725.83	422.97	9,333.38	22,615.78	33,097.95
35 mph	109.56	0.44	9.50	42.00	0.00	0.00	0.00	0.00	161.50
total	156.88	0.64	13.60	61.32	1,812.75	1,191.54	14,199.63	32,604.03	50,040.38

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,219.54	3,567.71	6,844.25
10 mph	98.51	0.40	8.48	46.14	1,547.83	879.72	5,944.32	14,429.29	22,954.68
15 mph	83.45	0.34	7.24	38.43	1,016.64	589.26	4,309.20	10,453.51	16,498.07
20 mph	54.19	0.22	4.71	26.96	719.48	417.21	8,138.83	19,773.07	29,134.66
25 mph	214.33	0.88	18.64	101.81	3,511.29	2,046.14	32,523.73	78,808.51	117,225.33
30 mph	210.81	0.86	18.30	102.99	3,003.35	1,737.84	26,396.44	63,932.04	95,402.63
35 mph	284.52	1.15	24.66	136.58	3,159.78	1,827.86	18,549.01	44,910.81	68,894.38
40 mph	76.39	0.31	6.60	50.24	1,858.91	1,065.08	17,348.32	41,933.86	62,339.71
45 mph	60.49	0.24	5.22	39.34	1,472.40	831.30	12,600.84	30,453.53	45,463.37
50 mph	63.66	0.26	5.49	42.40	1,665.65	929.99	11,007.56	26,562.77	40,277.78
55 mph	46.35	0.19	3.99	29.14	1,111.90	615.06	3,496.14	8,426.13	13,728.90
60 mph	76.52	0.31	6.58	40.18	1,345.47	739.56	133,249.69	320,465.39	455,923.69
65 mph	13.16	0.05	1.13	7.94	251.86	136.99	0.00	0.00	411.13
70 mph	191.25	0.74	16.41	181.95	5,951.88	3,222.57	0.00	0.00	9,564.80
total	1,473.63	5.94	127.46	844.09	27,197.86	15,514.16	275,783.63	663,716.61	984,663.38

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	943.42	648.52	2,752.87	3,705.03	8,049.85
10 mph	8,340.04	794.11	4,486.63	2,115.13	2,590.22	1,365.14	7,091.89	14,640.25	41,423.41
15 mph	6,618.29	629.90	3,556.65	1,601.21	1,744.99	932.88	4,992.67	10,585.00	30,661.60
20 mph	4,187.70	398.39	2,249.98	1,081.85	1,244.51	666.83	9,178.04	20,002.81	39,010.11
25 mph	16,386.18	1,557.53	8,802.76	4,009.87	6,159.57	3,288.41	36,453.76	79,744.52	156,402.60
30 mph	16,014.48	1,520.59	8,603.03	4,044.73	5,267.07	2,795.25	29,493.32	64,696.22	132,434.70
35 mph	21,359.41	2,025.13	11,473.78	5,287.05	5,541.14	2,940.02	20,652.77	45,450.08	114,729.38
40 mph	5,682.79	538.58	3,052.34	1,928.54	3,293.74	1,722.33	19,254.25	42,439.99	77,912.57
45 mph	4,483.42	424.85	2,407.83	1,510.12	2,632.15	1,352.37	13,931.96	30,825.60	57,568.31
50 mph	4,700.92	445.14	2,524.31	1,618.29	2,985.32	1,516.11	12,129.96	26,893.98	52,814.04
55 mph	3,391.03	321.16	1,820.98	1,093.32	2,000.34	1,006.63	3,852.85	8,532.34	22,018.67
60 mph	5,557.51	526.41	2,983.74	1,497.55	2,425.66	1,213.67	147,126.52	324,514.32	485,845.37
65 mph	949.16	89.77	509.55	294.44	454.14	225.44	0.00	0.00	2,522.50
70 mph	13,685.51	1,282.23	7,341.12	6,757.84	10,728.76	5,285.06	0.00	0.00	45,080.50
total	111,356.46	10,553.78	59,812.72	32,839.96	48,011.01	24,958.66	306,910.87	672,030.15	**1,266,473.60**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated

Pounds per day

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
177.30	1,185.30	1,360.98	7.74	947.33	250.14	1,205.21	7.33	232.53	98.16	338.01	5.41	17.35	9.38	2,008,580.22

Tons per year

ROG	NOX	CO	PM10			PM10	PM2.5			PM2.5	Black Carbon	N2O	CH4	CO2
			Exhaust	Dust	Brake	Total	Exhaust	Dust	Brake	Total				
32.36	216.32	248.38	1.41	172.89	45.65	219.95	1.34	42.44	17.91	61.69	0.99	3.17	1.71	366,565.89

World Logistics Center

Mobile Emissions - 2040 Buildout (Project) - Mitigated

VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	23,686.2	324.1	4,124.1	503,829.9	6,893.0	87,724.5
LDT1	2,073.6	1.2	1.0	44,107.4	25.0	21.4
LDT2	10,365.6	22.6	0.0	220,486.1	481.7	0.0
MDT	2,982.5	81.5	0.0	44,155.1	1,206.6	0.0
LHDT1	888.1	1,764.5	0.0	19,362.9	38,471.3	0.0
LHDT2	370.4	905.0	0.0	8,074.7	19,730.8	0.0
MHDT	435.8	3,766.7	0.0	18,730.7	161,892.8	0.0
HHDT	77.8	6,929.7	0.0	3,343.1	297,837.4	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	284,472.8	3,891.9	49,531.1	219,357.1	3,001.1	38,193.4
LDT1	24,903.9	14.1	12.1	19,203.4	10.9	9.3
LDT2	124,491.0	272.0	0.0	95,995.1	209.7	0.0
MDT	23,442.5	640.6	0.0	20,712.6	566.0	0.0
LHDT1	9,020.0	17,921.5	0.0	10,342.9	20,549.8	0.0
LHDT2	3,761.5	9,191.4	0.0	4,313.2	10,539.4	0.0
MHDT	4,542.3	39,260.4	0.0	14,188.3	122,632.4	0.0
HHDT	810.7	72,228.2	0.0	2,532.4	225,609.3	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	5%	6%	1%	0%
15	2%	2%	1%	0%
20	4%	4%	1%	2%
25	20%	22%	2%	4%
30	22%	20%	4%	6%
35	18%	9%	9%	6%
40	6%	10%	10%	6%
45	5%	8%	8%	4%
50	5%	13%	9%	2%
55	4%	3%	5%	1%
60	8%	3%	3%	70%
65	1%	0%	1%	0%
70	0%	0%	46%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	14,223.6	1,245.2	6,224.6	1,172.1	451.0	188.1	272.5	48.6	23,825.8
15 mph	5,689.5	498.1	2,489.8	468.8	180.4	75.2	90.8	16.2	9,508.9
20 mph	11,378.9	996.2	4,979.6	937.7	360.8	150.5	181.7	32.4	19,017.8
25 mph	56,894.6	4,980.8	24,898.2	4,688.5	1,804.0	752.3	999.3	178.4	95,196.0
30 mph	62,584.0	5,478.9	27,388.0	5,157.3	1,984.4	827.5	908.5	162.1	104,490.8
35 mph	51,205.1	4,482.7	22,408.4	4,219.6	1,623.6	677.1	408.8	73.0	85,098.3
40 mph	17,068.4	1,494.2	7,469.5	1,406.5	541.2	225.7	454.2	81.1	28,740.8
45 mph	14,223.6	1,245.2	6,224.6	1,172.1	451.0	188.1	363.4	64.9	23,932.8
50 mph	14,223.6	1,245.2	6,224.6	1,172.1	451.0	188.1	590.5	105.4	24,200.5
55 mph	11,378.9	996.2	4,979.6	937.7	360.8	150.5	136.3	24.3	18,964.3
60 mph	22,757.8	1,992.3	9,959.3	1,875.4	721.6	300.9	136.3	24.3	37,767.9
65 mph	2,844.7	249.0	1,244.9	234.4	90.2	37.6	0.0	0.0	4,700.9
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	284,472.8	24,903.9	124,491.0	23,442.5	9,020.0	3,761.5	4,542.3	810.7	475,444.9

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	0.0	0.0	3,699.2
15 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	0.0	0.0	3,699.2
20 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	283.8	50.6	4,033.7
25 mph	4,387.1	384.1	1,919.9	414.3	206.9	86.3	496.6	88.6	7,983.7
30 mph	8,774.3	768.1	3,839.8	828.5	413.7	172.5	851.3	151.9	15,800.2
35 mph	19,742.1	1,728.3	8,639.6	1,864.1	930.9	388.2	851.3	151.9	34,296.4
40 mph	21,935.7	1,920.3	9,599.5	2,071.3	1,034.3	431.3	780.4	139.3	37,912.1
45 mph	17,548.6	1,536.3	7,679.6	1,657.0	827.4	345.1	567.5	101.3	30,262.8
50 mph	19,742.1	1,728.3	8,639.6	1,864.1	930.9	388.2	283.8	50.6	33,627.6
55 mph	10,967.9	960.2	4,799.8	1,035.6	517.1	215.7	141.9	25.3	18,663.4
60 mph	6,580.7	576.1	2,879.9	621.4	310.3	129.4	9,931.8	1,772.7	22,802.2
65 mph	2,193.6	192.0	960.0	207.1	103.4	43.1	0.0	0.0	3,699.2
70 mph	100,904.3	8,833.6	44,157.7	9,527.8	4,757.7	1,984.1	0.0	0.0	170,165.1
total	219,357.1	19,203.4	95,995.1	20,712.6	10,342.9	4,313.2	14,188.3	2,532.4	386,644.9

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
15 mph	4,814.3	421.5	2,106.8	617.7	185.8	77.5	88.5	15.8	8,327.9
25 mph	0.0	0.0	0.0	0.0	600.6	250.5	401.3	71.6	1,324.0
35 mph	97,628.4	8,546.8	42,724.1	4,115.3	0.0	0.0	0.0	0.0	153,014.6
total	102,442.7	8,968.3	44,831.0	4,733.0	786.4	327.9	489.9	87.4	162,666.5

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	37.0	15.4	18.2	3.3	73.9
10 mph	16,417.2	1,437.2	7,184.5	1,379.2	554.4	231.2	272.5	48.6	27,525.0
15 mph	12,697.3	1,111.6	5,556.6	1,293.7	469.6	195.8	179.4	32.0	21,536.0
20 mph	13,572.5	1,188.2	5,939.6	1,144.8	464.2	193.6	465.5	83.1	23,051.5
25 mph	61,281.7	5,364.9	26,818.1	5,102.7	2,611.4	1,089.0	1,897.2	338.6	104,503.7
30 mph	71,358.3	6,247.0	31,227.8	5,985.8	2,398.1	1,000.1	1,759.8	314.1	120,291.0
35 mph	168,575.6	14,757.8	73,772.1	10,199.1	2,554.5	1,065.3	1,260.1	224.9	272,409.3
40 mph	39,004.1	3,414.6	17,069.0	3,477.8	1,575.5	657.0	1,234.6	220.4	66,652.9
45 mph	31,772.2	2,781.5	13,904.2	2,829.1	1,278.4	533.1	930.9	166.2	54,195.6
50 mph	33,965.8	2,973.5	14,864.1	3,036.3	1,381.9	576.3	874.3	156.0	57,828.1
55 mph	22,346.8	1,956.3	9,779.4	1,973.3	877.9	366.1	278.2	49.6	37,627.7
60 mph	29,338.5	2,568.4	12,839.1	2,496.8	1,031.9	430.3	10,068.1	1,797.0	60,570.1
65 mph	5,038.3	441.1	2,204.9	441.6	193.6	80.7	0.0	0.0	8,400.2
70 mph	100,904.3	8,833.6	44,157.7	9,527.8	4,757.7	1,984.1	0.0	0.0	170,165.1
total	606,272.6	53,075.6	265,317.1	48,888.1	20,149.2	8,402.6	19,220.5	3,430.5	1,024,756.3

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	194.6	0.7	13.6	32.0	896.1	459.6	2,355.6	4,333.7	8,285.9
15 mph	77.8	0.3	5.4	12.8	358.4	183.8	785.2	1,444.6	2,868.4
20 mph	155.7	0.6	10.9	25.6	716.9	367.7	1,570.4	2,889.1	5,736.8
25 mph	778.4	2.8	54.4	128.1	3,584.3	1,838.3	8,637.3	15,890.2	30,913.8
30 mph	856.2	3.1	59.8	140.9	3,942.7	2,022.1	7,852.1	14,445.6	29,322.7
35 mph	700.5	2.5	49.0	115.3	3,225.9	1,654.5	3,533.4	6,500.5	15,781.7
40 mph	233.5	0.8	16.3	38.4	1,075.3	551.5	3,926.0	7,222.8	13,064.8
45 mph	194.6	0.7	13.6	32.0	896.1	459.6	3,140.8	5,778.3	10,515.7
50 mph	194.6	0.7	13.6	32.0	896.1	459.6	5,103.9	9,389.7	16,090.1
55 mph	155.7	0.6	10.9	25.6	716.9	367.7	1,177.8	2,166.8	4,621.9
60 mph	311.4	1.1	21.8	51.2	1,433.7	735.3	1,177.8	2,166.8	5,899.2
65 mph	38.9	0.1	2.7	6.4	179.2	91.9	0.0	0.0	319.3
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	3,891.9	14.1	272.0	640.6	17,921.5	9,191.4	39,260.4	72,228.2	143,420.2

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	30.0	0.1	2.1	5.7	205.5	105.4	0.0	0.0	348.8
15 mph	30.0	0.1	2.1	5.7	205.5	105.4	0.0	0.0	348.8
20 mph	30.0	0.1	2.1	5.7	205.5	105.4	2,452.6	4,512.2	7,313.6
25 mph	60.0	0.2	4.2	11.3	411.0	210.8	4,292.1	7,896.3	12,886.0
30 mph	120.0	0.4	8.4	22.6	822.0	421.6	7,357.9	13,536.6	22,289.6
35 mph	270.1	1.0	18.9	50.9	1,849.5	948.5	7,357.9	13,536.6	24,033.4
40 mph	300.1	1.1	21.0	56.6	2,055.0	1,053.9	6,744.8	12,408.5	22,641.0
45 mph	240.1	0.9	16.8	45.3	1,644.0	843.1	4,905.3	9,024.4	16,719.8
50 mph	270.1	1.0	18.9	50.9	1,849.5	948.5	2,452.6	4,512.2	10,103.8
55 mph	150.1	0.5	10.5	28.3	1,027.5	527.0	1,226.3	2,256.1	5,226.3
60 mph	90.0	0.3	6.3	17.0	616.5	316.2	85,842.7	157,926.5	244,815.5
65 mph	30.0	0.1	2.1	5.7	205.5	105.4	0.0	0.0	348.8
70 mph	1,380.5	5.0	96.5	260.4	9,452.9	4,848.1	0.0	0.0	16,043.4
total	3,001.1	10.9	209.7	566.0	20,549.8	10,539.4	122,632.4	225,609.3	383,118.6

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
15 mph	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1,407.5	2,818.7
25 mph	0.0	0.0	0.0	0.0	1,193.3	612.0	3,468.8	6,381.6	11,655.6
35 mph	1,335.7	4.9	93.3	112.5	0.0	0.0	0.0	0.0	1,546.3
total	1,401.5	5.1	97.9	129.3	1,562.4	801.3	4,233.9	7,789.2	16,020.6

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	73.5	37.7	156.9	288.7	556.9
10 mph	224.6	0.8	15.7	37.7	1,101.6	565.0	2,355.6	4,333.7	8,634.7
15 mph	173.7	0.6	12.1	35.4	933.1	478.5	1,550.3	2,852.1	6,035.8
20 mph	185.7	0.7	13.0	31.3	922.4	473.1	4,023.1	7,401.3	13,050.4
25 mph	838.4	3.0	58.6	139.4	5,188.6	2,661.1	16,398.2	30,168.1	55,455.4
30 mph	976.3	3.5	68.2	163.6	4,764.7	2,443.7	15,210.0	27,982.2	51,612.2
35 mph	2,306.3	8.4	161.2	278.7	5,075.4	2,603.0	10,891.4	20,037.1	41,361.4
40 mph	533.6	1.9	37.3	95.0	3,130.3	1,605.4	10,670.8	19,631.3	35,705.7
45 mph	434.7	1.6	30.4	77.3	2,540.1	1,302.7	8,046.1	14,802.6	27,235.5
50 mph	464.7	1.7	32.5	83.0	2,745.6	1,408.1	7,556.5	13,901.8	26,193.8
55 mph	305.7	1.1	21.4	53.9	1,744.4	894.6	2,404.1	4,422.9	9,848.2
60 mph	401.4	1.5	28.1	68.2	2,050.2	1,051.5	87,020.5	160,093.3	250,714.7
65 mph	68.9	0.3	4.8	12.1	384.7	197.3	0.0	0.0	668.1
70 mph	1,380.5	5.0	96.5	260.4	9,452.9	4,848.1	0.0	0.0	16,043.4
total	8,294.6	30.1	579.7	1,336.0	40,033.7	20,532.1	166,126.7	305,626.6	542,559.4

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	2,476.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,477.2
15 mph	990.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	990.9
20 mph	1,981.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1,981.7
25 mph	9,906.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	9,908.6
30 mph	10,896.8	2.7	0.0	0.0	0.0	0.0	0.0	0.0	10,899.5
35 mph	8,915.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	8,917.8
40 mph	2,971.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2,972.6
45 mph	2,476.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,477.2
50 mph	2,476.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,477.2
55 mph	2,476.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,477.0
60 mph	3,962.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3,963.5
65 mph	495.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	495.4
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	50,026.4	12.1	0.0	0.0	0.0	0.0	0.0	0.0	50,038.5

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
15 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
20 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
25 mph	763.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	764.1
30 mph	1,527.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1,528.1
35 mph	3,437.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	3,438.2
40 mph	3,819.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	3,820.3
45 mph	3,055.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	3,056.2
50 mph	3,437.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	3,438.2
55 mph	1,909.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1,910.1
60 mph	1,145.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1,146.1
65 mph	381.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	382.0
70 mph	17,569.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	17,573.3
total	38,193.4	9.3	0.0	0.0	0.0	0.0	0.0	0.0	38,202.8

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	838.5
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,381.6	6,381.6
35 mph	16,998.6	4.2	0.0	0.0	0.0	0.0	0.0	0.0	17,002.7
total	17,836.8	4.4	0.0	0.0	0.0	0.0	0.0	6,381.6	24,222.8

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	2,858.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2,859.2
15 mph	2,210.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2,211.3
20 mph	2,363.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2,363.8
25 mph	10,670.1	2.6	0.0	0.0	0.0	0.0	0.0	6,381.6	17,054.3
30 mph	12,424.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	12,427.6
35 mph	29,351.6	7.2	0.0	0.0	0.0	0.0	0.0	0.0	29,358.8
40 mph	6,791.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	6,792.9
45 mph	5,532.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5,533.4
50 mph	5,914.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5,915.4
55 mph	4,386.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	4,387.2
60 mph	5,108.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	5,109.5
65 mph	877.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	877.5
70 mph	17,569.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	17,573.3
total	59,878.7	14.6	0.0	0.0	0.0	0.0	0.0	6,381.6	112,464.1

World Logistics Center
Internal Roadway Road Dust
Mobile Emissions - 2040 Buildout (Project) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	12,055	2,411	671	134	1,995	399	3,327	665	3,610	7.22	0.035	0.0002	0.7	0.0008	2.8
2	A	731	0.45	6,800	3,060	345	155	977	440	1,629	733	4,388	6.75	0.035	0.0002	0.8	0.0007	3.2
3	A	2352	1.46	1,640	2,394	215	314	287	419	478	698	3,825	7.32	0.035	0.0002	0.7	0.0008	3.0
5	A	953	0.59	12,900	7,611	257	152	-	-	-	-	7,763	2.20	0.035	0.0001	0.4	0.0002	1.8
6	A	1099	0.68	14,175	9,639	655	445	2,040	1,387	3,402	2,313	13,785	6.76	0.035	0.0002	2.5	0.0007	10.1
8	A	1091	0.68	13,365	9,088	225	153	-	-	-	-	9,241	2.19	0.035	0.0001	0.5	0.0002	2.1
11	A	1201	0.75	9,765	7,324	90	67	-	-	-	-	7,391	2.16	0.035	0.0001	0.4	0.0002	1.7
12	A	824	0.51	12,780	6,518	144	74	22	11	38	19	6,622	2.25	0.035	0.0001	0.4	0.0002	1.6
14	A	1618	1.01	5,250	5,303	169	171	75	76	125	126	5,675	2.83	0.035	0.0001	0.4	0.0003	1.7
18	A	1412	0.88	3,370	2,966	70	62	71	63	119	105	3,195	3.08	0.035	0.0001	0.3	0.0003	1.0
19	A	2386	1.48	5,940	6,225	129	135	463	485	772	809	7,654	5.03	0.035	0.0001	1.0	0.0005	4.1
21	A	1258	0.78	8,440	6,583	105	82	122	96	204	159	6,920	2.79	0.035	0.0001	0.5	0.0003	2.1
24	A	1946	1.21	10,540	12,754	126	153	330	399	550	665	13,970	3.45	0.035	0.0001	1.3	0.0004	5.1
30	A	2827	1.76	35,375	62,261	301	529	-	-	-	-	62,790	2.16	0.035	0.0001	3.5	0.0002	14.3
29	A	675	0.42	12,900	5,418	44	18	4	2	6	3	5,441	2.15	0.035	0.0001	0.3	0.0002	1.2
31	A	820	0.51	43,155	22,009	26	13	186	95	309	158	22,275	2.32	0.035	0.0001	1.3	0.0002	5.5
TOTAL				208,452		3,570		6,572		10,959						15.1		61.5

World Logistics Center

Off-Site Road Dust

Mobile Emissions - 2040 Buildout (Project) - Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				43662.41	908930.78	3,928.00	85,639.69	4,202.52	180,623.51	7,007.48	301,180.51	##########	5.57	0.035	0.0001	217.435473	0.0006	885.848223

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	4766.0	65.2	829.8
	LDT1	15	1989	330	0.21	417.7	417.2	0.2	0.2
	LDT2	15	9954	330	0.21	2090.3	2085.7	4.6	0.0
	MDT	15	2999	330	0.21	629.8	613.0	16.8	0.0
	LHDT1	15	2635	330	0.21	553.3	185.3	368.1	0.0
	LHDT2	15	1267	330	0.21	266.0	77.3	188.8	0.0
	MHDT	15	4034	330	0.21	847.1	87.8	759.2	0.0
	HHDT	15	6726	330	0.21	1412.5	15.7	1396.8	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	17.9	0.2	3.1
	LDT1	15	14	175	0.11	1.6	1.6	0.0	0.0
	LDT2	15	72	175	0.11	7.9	7.8	0.0	0.0
	MDT	15	18	175	0.11	2.0	1.9	0.1	0.0
	LHDT1	15	11	175	0.11	1.2	0.4	0.8	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.4	0.0
	MHDT	15	13	175	0.11	1.4	0.1	1.3	0.0
	HHDT	15	22	175	0.11	2.4	0.0	2.4	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	11.1	0.2	1.9
	LDT1	15	16	100	0.06	1.0	1.0	0.0	0.0
	LDT2	15	81	100	0.06	4.9	4.8	0.0	0.0
	MDT	15	47	100	0.06	2.8	2.7	0.1	0.0
	LHDT1	15	7	100	0.06	0.4	0.1	0.3	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.7	0.0
	HHDT	15	23	100	0.06	1.4	0.0	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.4	3.8	0.0
	HHDT	15	237	50	0.03	7.1	0.1	7.0	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	16.9	0.2	2.9
	LDT1	15	49	50	0.03	1.5	1.5	0.0	0.0
	LDT2	15	247	50	0.03	7.4	7.4	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.4	0.0	0.4
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4814.3	421.5	2106.8	617.7	185.8	77.5	88.5	15.8
Diesel	65.9	0.2	4.6	16.9	369.1	189.3	765.1	1407.5
Electric	838.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	441	876	0	2205.4	4381.8	0.0
	LHDT2	5	633	184	449	0	919.7	2247.3	0.0
	MHDT	5	2017	209	1808	0	1045.7	9038.6	0.0
	HHDT	5	3363	37	3326	0	186.6	16628.5	0.0
Travel at Light Logistics	LHDT1	5	5	2	4	0	8.9	17.6	0.0
	LHDT2	5	3	1	2	0	3.7	9.0	0.0
	MHDT	5	7	1	6	0	3.4	29.2	0.0
	HHDT	5	11	0	11	0	0.6	53.8	0.0
Travel at Utility	LHDT1	5	4	1	2	0	6.0	11.8	0.0
	LHDT2	5	2	0	1	0	2.5	6.1	0.0
	MHDT	5	7	1	6	0	3.5	30.4	0.0
	HHDT	5	11	0	11	0	0.6	56.0	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	7	64	0	36.9	318.7	0.0
	HHDT	5	119	1	117	0	6.6	586.3	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	37.0	15.4	18.2	3.3
Diesel	73.5	37.7	156.9	288.7
Electric	0.0	0.0	0.0	0.0

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	9.8375	8.7720	21.3002	10.7534
10 mph	0.0160	0.0212	0.0208	0.0304	0.0166	0.0136	0.1923	1.3523
15 mph	0.0106	0.0141	0.0138	0.0201	0.0109	0.0090	0.1354	0.8988
20 mph	0.0075	0.0099	0.0097	0.0142	0.0077	0.0063	0.0980	0.6291
25 mph	0.0055	0.0073	0.0071	0.0105	0.0056	0.0047	0.0718	0.4649
30 mph	0.0043	0.0056	0.0055	0.0082	0.0044	0.0036	0.0529	0.3622
35 mph	0.0035	0.0046	0.0045	0.0067	0.0036	0.0030	0.0390	0.2976
40 mph	0.0030	0.0040	0.0039	0.0059	0.0032	0.0026	0.0287	0.2581
45 mph	0.0028	0.0036	0.0036	0.0054	0.0029	0.0024	0.0212	0.2361
50 mph	0.0027	0.0035	0.0035	0.0052	0.0028	0.0023	0.0156	0.2278
55 mph	0.0027	0.0036	0.0035	0.0053	0.0029	0.0023	0.0115	0.2319
60 mph	0.0029	0.0038	0.0038	0.0056	0.0031	0.0025	0.0099	0.2492
65 mph	0.0033	0.0043	0.0043	0.0064	0.0035	0.0028		
70 mph	0.0036	0.0044	0.0046	0.0071	0.0039	0.0031		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1619	0.5100
10 mph	0.0594	0.2009	0.1966	0.0708	0.5670	0.5585	0.0381	0.4748
15 mph	0.0290	0.1002	0.0960	0.0346	0.2794	0.2731	0.0252	0.3321
20 mph	0.0113	0.0412	0.0373	0.0135	0.1118	0.1065	0.0177	0.2354
25 mph	0.0068	0.0255	0.0224	0.0081	0.0682	0.0640	0.0131	0.1690
30 mph	0.0051	0.0193	0.0169	0.0061	0.0520	0.0484	0.0102	0.1246
35 mph	0.0041	0.0153	0.0134	0.0048	0.0419	0.0386	0.0084	0.0920
40 mph	0.0034	0.0128	0.0111	0.0040	0.0350	0.0318	0.0073	0.0680
45 mph	0.0028	0.0110	0.0094	0.0034	0.0301	0.0270	0.0066	0.0502
50 mph	0.0025	0.0097	0.0081	0.0029	0.0266	0.0234	0.0064	0.0368
55 mph	0.0022	0.0088	0.0071	0.0026	0.0238	0.0206	0.0065	0.0275
60 mph	0.0020	0.0086	0.0067	0.0024	0.0230	0.0194	0.0070	0.0234
65 mph	0.0021	0.0086	0.0067	0.0024	0.0239	0.0195		
70 mph	0.0021	0.0073	0.0067	0.0024	0.0301	0.0201		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.5028	0.0582	0.2854	0.0786	0.0165	0.0057	0.1156	0.1450	1.2077
15 mph	0.1336	0.0155	0.0757	0.0208	0.0043	0.0015	0.0271	0.0321	0.3108
20 mph	0.1871	0.0218	0.1061	0.0293	0.0061	0.0021	0.0393	0.0450	0.4367
25 mph	0.6897	0.0800	0.3910	0.1083	0.0224	0.0078	0.1582	0.1828	1.6403
30 mph	0.5899	0.0681	0.3342	0.0931	0.0193	0.0067	0.1060	0.1295	1.3468
35 mph	0.3958	0.0454	0.2240	0.0628	0.0130	0.0045	0.0352	0.0479	0.8284
40 mph	0.1144	0.0131	0.0647	0.0182	0.0038	0.0013	0.0288	0.0461	0.2903
45 mph	0.0873	0.0100	0.0493	0.0138	0.0029	0.0010	0.0170	0.0338	0.2150
50 mph	0.0842	0.0096	0.0475	0.0134	0.0028	0.0010	0.0203	0.0529	0.2317
55 mph	0.0686	0.0078	0.0388	0.0109	0.0023	0.0008	0.0035	0.0124	0.1450
60 mph	0.1475	0.0168	0.0832	0.0232	0.0049	0.0017	0.0030	0.0134	0.2936
65 mph	0.0209	0.0023	0.0117	0.0033	0.0007	0.0002	0.0000	0.0000	0.0391
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	3.0216	0.3485	1.7118	0.4756	0.0990	0.0341	0.5539	0.7410	6.9855

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0775	0.0090	0.0440	0.0139	0.0038	0.0013	0.0000	0.0000	0.1495
15 mph	0.0515	0.0060	0.0292	0.0092	0.0025	0.0009	0.0000	0.0000	0.0992
20 mph	0.0361	0.0042	0.0205	0.0065	0.0017	0.0006	0.0613	0.0703	0.2011
25 mph	0.0532	0.0062	0.0302	0.0096	0.0026	0.0009	0.0786	0.0909	0.2720
30 mph	0.0827	0.0096	0.0469	0.0150	0.0040	0.0014	0.0993	0.1213	0.3802
35 mph	0.1526	0.0175	0.0863	0.0277	0.0075	0.0026	0.0732	0.0997	0.4671
40 mph	0.1470	0.0168	0.0832	0.0267	0.0072	0.0025	0.0495	0.0793	0.4122
45 mph	0.1077	0.0123	0.0608	0.0196	0.0053	0.0018	0.0265	0.0527	0.2867
50 mph	0.1169	0.0133	0.0659	0.0212	0.0058	0.0020	0.0098	0.0254	0.2603
55 mph	0.0662	0.0075	0.0374	0.0120	0.0033	0.0011	0.0036	0.0130	0.1440
60 mph	0.0426	0.0049	0.0241	0.0077	0.0021	0.0007	0.2163	0.9740	1.2724
65 mph	0.0161	0.0018	0.0090	0.0029	0.0008	0.0003	0.0000	0.0000	0.0309
70 mph	0.8062	0.0856	0.4460	0.1496	0.0413	0.0135	0.0000	0.0000	1.5422
total	1.7562	0.1946	0.9834	0.3215	0.0878	0.0295	0.6182	1.5266	5.5178

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	0.8529	0.0779	2.0319
15 mph	0.1130	0.0131	0.0641	0.0274	0.0045	0.0015	0.0264	0.0313	0.2814
25 mph	0.0000	0.0000	0.0000	0.0000	0.0075	0.0026	0.0635	0.0734	0.1470
35 mph	0.7546	0.0865	0.4270	0.0612	0.0000	0.0000	0.0000	0.0000	1.3293
total	0.8676	0.0996	0.4911	0.0886	0.8146	0.3026	0.9428	0.1827	3.7897

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.8027	0.2985	0.8529	0.0779	2.0319
10 mph	0.5803	0.0671	0.3294	0.0925	0.0203	0.0070	0.1156	0.1450	1.3572
15 mph	0.2981	0.0346	0.1690	0.0574	0.0113	0.0039	0.0536	0.0634	0.6914
20 mph	0.2231	0.0259	0.1266	0.0357	0.0079	0.0027	0.1006	0.1152	0.6378
25 mph	0.7429	0.0862	0.4212	0.1179	0.0325	0.0112	0.3004	0.3471	2.0594
30 mph	0.6726	0.0777	0.3811	0.1080	0.0233	0.0080	0.2054	0.2508	1.7270
35 mph	1.3030	0.1494	0.7373	0.1517	0.0205	0.0070	0.1084	0.1476	2.6249
40 mph	0.2614	0.0299	0.1479	0.0449	0.0110	0.0038	0.0783	0.1254	0.7025
45 mph	0.1949	0.0223	0.1102	0.0334	0.0082	0.0028	0.0435	0.0865	0.5017
50 mph	0.2011	0.0229	0.1134	0.0346	0.0085	0.0029	0.0301	0.0784	0.4919
55 mph	0.1348	0.0153	0.0761	0.0229	0.0055	0.0019	0.0071	0.0254	0.2890
60 mph	0.1901	0.0216	0.1073	0.0309	0.0070	0.0024	0.2193	0.9874	1.5660
65 mph	0.0369	0.0042	0.0208	0.0062	0.0015	0.0005	0.0000	0.0000	0.0700
70 mph	0.8062	0.0856	0.4460	0.1496	0.0413	0.0135	0.0000	0.0000	1.5422
total	5.6454	0.6428	3.1863	0.8857	1.0014	0.3662	2.1149	2.4503	16.2930

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0255	0.0003	0.0059	0.0050	1.1202	0.5659	0.1977	4.5369	6.4574
15 mph	0.0050	0.0001	0.0012	0.0010	0.2208	0.1107	0.0437	1.0577	1.4401
20 mph	0.0039	0.0001	0.0009	0.0008	0.1766	0.0863	0.0612	1.4993	1.8291
25 mph	0.0117	0.0002	0.0027	0.0023	0.5387	0.2596	0.2487	5.9231	6.9870
30 mph	0.0097	0.0001	0.0022	0.0019	0.4521	0.2159	0.1763	3.9678	4.8260
35 mph	0.0063	0.0001	0.0015	0.0012	0.2981	0.1407	0.0652	1.3182	1.8312
40 mph	0.0017	0.0000	0.0004	0.0003	0.0830	0.0387	0.0629	1.0825	1.2696
45 mph	0.0012	0.0000	0.0003	0.0002	0.0595	0.0274	0.0460	0.6400	0.7746
50 mph	0.0011	0.0000	0.0002	0.0002	0.0526	0.0237	0.0722	0.7627	0.9127
55 mph	0.0007	0.0000	0.0002	0.0001	0.0376	0.0167	0.0170	0.1316	0.2040
60 mph	0.0014	0.0000	0.0003	0.0003	0.0727	0.0315	0.0182	0.1120	0.2365
65 mph	0.0002	0.0000	0.0000	0.0000	0.0095	0.0040	0.0000	0.0000	0.0137
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0683	0.0009	0.0158	0.0134	3.1215	1.5211	1.0091	21.0318	26.7817

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0039	0.0000	0.0009	0.0009	0.2569	0.1298	0.0000	0.0000	0.3925
15 mph	0.0019	0.0000	0.0004	0.0004	0.1266	0.0635	0.0000	0.0000	0.1929
20 mph	0.0007	0.0000	0.0002	0.0002	0.0506	0.0247	0.0956	2.3416	2.5137
25 mph	0.0009	0.0000	0.0002	0.0002	0.0618	0.0298	0.1236	2.9434	3.1598
30 mph	0.0014	0.0000	0.0003	0.0003	0.0943	0.0450	0.1652	3.7181	4.0245
35 mph	0.0024	0.0000	0.0006	0.0005	0.1709	0.0806	0.1358	2.7450	3.1359
40 mph	0.0022	0.0000	0.0005	0.0005	0.1586	0.0740	0.1080	1.8598	2.2036
45 mph	0.0015	0.0000	0.0003	0.0003	0.1092	0.0502	0.0719	0.9995	1.2330
50 mph	0.0015	0.0000	0.0003	0.0003	0.1086	0.0489	0.0347	0.3665	0.5608
55 mph	0.0007	0.0000	0.0002	0.0002	0.0539	0.0239	0.0177	0.1370	0.2336
60 mph	0.0004	0.0000	0.0001	0.0001	0.0312	0.0136	1.3286	8.1638	9.5378
65 mph	0.0001	0.0000	0.0000	0.0000	0.0108	0.0045	0.0000	0.0000	0.0156
70 mph	0.0063	0.0001	0.0014	0.0014	0.6268	0.2144	0.0000	0.0000	0.8504
total	0.0241	0.0003	0.0055	0.0054	1.8603	0.8029	2.0810	23.2747	28.0542

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0560	0.3247	1.1589
15 mph	0.0042	0.0001	0.0010	0.0013	0.2274	0.1140	0.0426	1.0306	1.4211
25 mph	0.0000	0.0000	0.0000	0.0000	0.1793	0.0864	0.0999	2.3788	2.7444
35 mph	0.0120	0.0002	0.0028	0.0012	0.0000	0.0000	0.0000	0.0000	0.0161
total	0.0162	0.0002	0.0037	0.0025	0.9211	0.4642	0.1985	3.7340	5.3406

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5144	0.2638	0.0560	0.3247	1.1589
10 mph	0.0294	0.0004	0.0068	0.0059	1.3772	0.6957	0.1977	4.5369	6.8498
15 mph	0.0111	0.0001	0.0026	0.0027	0.5748	0.2882	0.0863	2.0883	3.0541
20 mph	0.0046	0.0001	0.0011	0.0009	0.2273	0.1111	0.1569	3.8409	4.3428
25 mph	0.0125	0.0002	0.0029	0.0025	0.7798	0.3758	0.4723	11.2453	12.8912
30 mph	0.0110	0.0002	0.0025	0.0022	0.5463	0.2609	0.3414	7.6859	8.8505
35 mph	0.0207	0.0003	0.0048	0.0030	0.4690	0.2213	0.2010	4.0632	4.9832
40 mph	0.0040	0.0001	0.0009	0.0008	0.2416	0.1127	0.1708	2.9423	3.4732
45 mph	0.0027	0.0000	0.0006	0.0006	0.1687	0.0775	0.1179	1.6395	2.0076
50 mph	0.0025	0.0000	0.0006	0.0005	0.1612	0.0726	0.1069	1.1292	1.4735
55 mph	0.0015	0.0000	0.0003	0.0003	0.0916	0.0406	0.0346	0.2686	0.4375
60 mph	0.0018	0.0000	0.0004	0.0004	0.1039	0.0451	1.3468	8.2758	9.7743
65 mph	0.0003	0.0000	0.0001	0.0001	0.0203	0.0085	0.0000	0.0000	0.0292
70 mph	0.0063	0.0001	0.0014	0.0014	0.6268	0.2144	0.0000	0.0000	0.8504
total	0.1086	0.0014	0.0250	0.0212	5.9029	2.7882	3.2886	48.0405	60.1765

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.03	0.05	0.03	0.05	0.21	0.10	0.12	0.05
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	43.08	5.51	19.62	5.69	9.40	1.86	4.98	0.36
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**43.08**	**5.51**	**19.62**	**5.69**	**9.40**	**1.86**	**4.98**	**0.36**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.17	0.32	0.26	0.60	0.07	0.04	0.05	0.05
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.36	0.73	3.02	1.97	0.06	0.02	0.02	0.00
Electric	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**4.50**	**0.73**	**3.02**	**1.97**	**0.06**	**0.02**	**0.02**	**0.00**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.32	0.56	0.91	0.40	3.19
10 mph	0.61	0.07	0.34	0.10	1.40	0.70	0.31	4.68	8.21
15 mph	0.31	0.03	0.17	0.06	0.59	0.29	0.14	2.15	3.75
20 mph	0.23	0.03	0.13	0.04	0.24	0.11	0.26	3.96	4.98
25 mph	0.76	0.09	0.42	0.12	0.81	0.39	0.77	11.59	14.95
30 mph	0.68	0.08	0.38	0.11	0.57	0.27	0.55	7.94	10.58
35 mph	1.32	0.15	0.74	0.15	0.49	0.23	0.31	4.21	7.61
40 mph	0.27	0.03	0.15	0.05	0.25	0.12	0.25	3.07	4.18
45 mph	0.20	0.02	0.11	0.03	0.18	0.08	0.16	1.73	2.51
50 mph	0.20	0.02	0.11	0.04	0.17	0.08	0.14	1.21	1.97
55 mph	0.14	0.02	0.08	0.02	0.10	0.04	0.04	0.29	0.73
60 mph	0.19	0.02	0.11	0.03	0.11	0.05	1.57	9.26	11.34
65 mph	0.04	0.00	0.02	0.01	0.02	0.01	0.00	0.00	0.10
70 mph	0.81	0.09	0.45	0.15	0.67	0.23	0.00	0.00	2.39
RUNLOSS	43.08	5.51	19.62	5.69	9.40	1.86	4.98	0.36	90.50
RESTLOSS DIURI	4.50	0.73	3.02	1.97	0.06	0.02	0.02	0.00	10.33
total	53.34	6.89	25.85	8.56	16.37	5.03	10.41	50.86	**177.30**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8853	0.7879	1.9495	28.2228
10 mph	0.0328	0.0412	0.0402	0.0586	0.0802	0.0526	0.1384	4.9000
15 mph	0.0289	0.0364	0.0354	0.0512	0.0690	0.0463	0.1222	4.3305
20 mph	0.0259	0.0326	0.0318	0.0458	0.0626	0.0416	0.1096	3.8838
25 mph	0.0236	0.0295	0.0289	0.0415	0.0566	0.0379	0.1000	3.5415
30 mph	0.0219	0.0272	0.0267	0.0384	0.0528	0.0351	0.0926	3.2800
35 mph	0.0205	0.0254	0.0250	0.0362	0.0502	0.0331	0.0872	3.0863
40 mph	0.0196	0.0242	0.0239	0.0346	0.0482	0.0316	0.0834	2.9518
45 mph	0.0191	0.0236	0.0232	0.0337	0.0470	0.0307	0.0810	2.8684
50 mph	0.0189	0.0232	0.0229	0.0335	0.0465	0.0303	0.0800	2.8319
55 mph	0.0189	0.0234	0.0230	0.0338	0.0466	0.0304	0.0803	2.8411
60 mph	0.0193	0.0239	0.0235	0.0346	0.0474	0.0310	0.0819	2.8972
65 mph	0.0200	0.0246	0.0243	0.0362	0.0491	0.0321		
70 mph	0.0206	0.0243	0.0245	0.0384	0.0552	0.0326		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	29.7332	25.2881	17.6319	15.5339
10 mph	0.0366	0.1672	0.1282	0.0430	0.3339	0.2201	7.7617	16.5008
15 mph	0.0247	0.1298	0.0858	0.0288	0.2473	0.1503	4.6426	9.7855
20 mph	0.0164	0.1029	0.0565	0.0191	0.2073	0.1035	2.5883	5.3050
25 mph	0.0126	0.0893	0.0429	0.0145	0.1836	0.0815	1.3899	2.7692
30 mph	0.0106	0.0805	0.0356	0.0121	0.1809	0.0707	0.8547	1.7022
35 mph	0.0092	0.0724	0.0308	0.0105	0.1875	0.0642	0.5710	1.1407
40 mph	0.0083	0.0697	0.0273	0.0094	0.1926	0.0597	0.4045	0.8111
45 mph	0.0076	0.0691	0.0248	0.0085	0.1981	0.0565	0.2996	0.6026
50 mph	0.0071	0.0667	0.0227	0.0078	0.2056	0.0544	0.2297	0.4583
55 mph	0.0066	0.0679	0.0211	0.0073	0.1988	0.0515	0.1809	0.3670
60 mph	0.0065	0.0703	0.0204	0.0071	0.2031	0.0508	0.1620	0.3251
65 mph	0.0065	0.0653	0.0204	0.0071	0.2228	0.0529		
70 mph	0.0067	0.0339	0.0203	0.0072	0.4433	0.0743		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	1.0276	0.1132	0.5518	0.1516	0.0797	0.0218	0.0832	0.5256	2.5544
15 mph	0.3629	0.0400	0.1945	0.0529	0.0274	0.0077	0.0245	0.1548	0.8647
20 mph	0.6511	0.0716	0.3488	0.0946	0.0498	0.0138	0.0439	0.2777	1.5514
25 mph	2.9643	0.3242	1.5849	0.4295	0.2253	0.0629	0.2203	1.3928	7.2042
30 mph	3.0163	0.3282	1.6098	0.4370	0.2310	0.0641	0.1855	1.1727	7.0445
35 mph	2.3194	0.2507	1.2352	0.3367	0.1798	0.0494	0.0786	0.4965	4.9463
40 mph	0.7393	0.0798	0.3936	0.1075	0.0575	0.0157	0.0835	0.5277	2.0046
45 mph	0.5990	0.0647	0.3188	0.0872	0.0467	0.0127	0.0649	0.4102	1.6043
50 mph	0.5916	0.0637	0.3144	0.0865	0.0463	0.0126	0.1042	0.6581	1.8773
55 mph	0.4752	0.0513	0.2530	0.0699	0.0371	0.0101	0.0241	0.1524	1.0730
60 mph	0.9691	0.1050	0.5161	0.1430	0.0754	0.0206	0.0246	0.1554	2.0092
65 mph	0.1254	0.0135	0.0666	0.0187	0.0098	0.0027	0.0000	0.0000	0.2367
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	13.8412	1.5060	7.3874	2.0150	1.0657	0.2941	0.9373	5.9240	32.9707

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1585	0.0175	0.0851	0.0268	0.0183	0.0050	0.0000	0.0000	0.3111
15 mph	0.1399	0.0154	0.0750	0.0234	0.0157	0.0044	0.0000	0.0000	0.2738
20 mph	0.1255	0.0138	0.0672	0.0209	0.0143	0.0040	0.0686	0.4337	0.7480
25 mph	0.2286	0.0250	0.1222	0.0379	0.0258	0.0072	0.1095	0.6921	1.2484
30 mph	0.4229	0.0460	0.2257	0.0702	0.0482	0.0134	0.1738	1.0989	2.0990
35 mph	0.8942	0.0967	0.4762	0.1487	0.1031	0.0283	0.1636	1.0340	2.9449
40 mph	0.9502	0.1026	0.5058	0.1583	0.1098	0.0301	0.1435	0.9065	2.9067
45 mph	0.7390	0.0798	0.3933	0.1233	0.0857	0.0234	0.1014	0.6407	2.1865
50 mph	0.8211	0.0884	0.4363	0.1375	0.0955	0.0260	0.0501	0.3163	1.9712
55 mph	0.4580	0.0495	0.2438	0.0772	0.0531	0.0145	0.0251	0.1586	1.0799
60 mph	0.2802	0.0304	0.1492	0.0474	0.0324	0.0089	1.7933	11.3244	13.6662
65 mph	0.0967	0.0104	0.0514	0.0165	0.0112	0.0031	0.0000	0.0000	0.1893
70 mph	4.5758	0.4724	2.3902	0.8069	0.5787	0.1425	0.0000	0.0000	8.9666
total	9.8907	1.0478	5.2216	1.6950	1.1918	0.3106	2.6288	16.6053	38.5917

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0781	0.2046	0.3817
15 mph	0.3071	0.0338	0.1646	0.0697	0.0283	0.0079	0.0239	0.1509	0.7861
25 mph	0.0000	0.0000	0.0000	0.0000	0.0750	0.0209	0.0885	0.5594	0.7438
35 mph	4.4222	0.4780	2.3551	0.3284	0.0000	0.0000	0.0000	0.0000	7.5836
total	4.7293	0.5118	2.5197	0.3981	0.1755	0.0557	0.1904	0.9148	9.4952

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0722	0.0268	0.0781	0.2046	0.3817
10 mph	1.1860	0.1307	0.6369	0.1784	0.0980	0.0268	0.0832	0.5256	2.8655
15 mph	0.8099	0.0892	0.4341	0.1459	0.0715	0.0200	0.0483	0.3057	1.9247
20 mph	0.7766	0.0853	0.4161	0.1155	0.0641	0.0178	0.1125	0.7115	2.2994
25 mph	3.1929	0.3493	1.7071	0.4674	0.3261	0.0910	0.4182	2.6444	9.1964
30 mph	3.4392	0.3742	1.8355	0.5072	0.2791	0.0774	0.3593	2.2716	9.1436
35 mph	7.6358	0.8253	4.0666	0.8138	0.2829	0.0777	0.2422	1.5305	15.4749
40 mph	1.6895	0.1824	0.8994	0.2657	0.1673	0.0458	0.2270	1.4342	4.9114
45 mph	1.3381	0.1445	0.7120	0.2105	0.1324	0.0361	0.1663	1.0509	3.7908
50 mph	1.4127	0.1522	0.7507	0.2240	0.1417	0.0385	0.1543	0.9744	3.8485
55 mph	0.9332	0.1008	0.4968	0.1471	0.0902	0.0246	0.0493	0.3110	2.1529
60 mph	1.2493	0.1354	0.6653	0.1904	0.1078	0.0295	1.8179	11.4798	15.6753
65 mph	0.2221	0.0239	0.1180	0.0352	0.0210	0.0057	0.0000	0.0000	0.4260
70 mph	4.5758	0.4724	2.3902	0.8069	0.5787	0.1425	0.0000	0.0000	8.9666
total	28.4612	3.0656	15.1287	4.1081	2.4330	0.6604	3.7565	23.4441	81.0576

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0157	0.0003	0.0038	0.0030	0.6598	0.2230	40.3157	157.6777	198.8990
15 mph	0.0042	0.0001	0.0010	0.0008	0.1955	0.0609	8.0381	31.1693	39.4699
20 mph	0.0056	0.0001	0.0014	0.0011	0.3277	0.0839	8.9626	33.7955	43.1779
25 mph	0.0216	0.0006	0.0051	0.0041	1.4514	0.3302	26.4710	97.0260	125.3101
30 mph	0.0200	0.0006	0.0047	0.0038	1.5729	0.3152	14.7984	54.2180	70.9335
35 mph	0.0142	0.0004	0.0033	0.0027	1.3340	0.2343	4.4488	16.3506	22.3884
40 mph	0.0043	0.0001	0.0010	0.0008	0.4566	0.0726	3.5013	12.9179	16.9545
45 mph	0.0033	0.0001	0.0007	0.0006	0.3914	0.0572	2.0749	7.6775	10.2056
50 mph	0.0030	0.0001	0.0007	0.0006	0.4062	0.0551	2.5853	9.4881	12.5391
55 mph	0.0023	0.0001	0.0005	0.0004	0.3143	0.0417	0.4698	1.7535	2.5825
60 mph	0.0044	0.0002	0.0010	0.0008	0.6419	0.0824	0.4206	1.5534	2.7048
65 mph	0.0006	0.0000	0.0001	0.0001	0.0880	0.0107	0.0000	0.0000	0.0996
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0992	0.0026	0.0234	0.0187	7.8397	1.5673	112.0865	423.6276	545.2650

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0024	0.0000	0.0006	0.0005	0.1513	0.0511	0.0000	0.0000	0.2060
15 mph	0.0016	0.0000	0.0004	0.0004	0.1121	0.0349	0.0000	0.0000	0.1494
20 mph	0.0011	0.0000	0.0003	0.0002	0.0939	0.0240	13.9976	52.7812	66.8984
25 mph	0.0017	0.0000	0.0004	0.0004	0.1664	0.0379	13.1543	48.2152	61.5762
30 mph	0.0028	0.0001	0.0007	0.0006	0.3279	0.0657	13.8671	50.8060	65.0709
35 mph	0.0055	0.0002	0.0013	0.0012	0.7648	0.1343	9.2640	34.0481	44.2195
40 mph	0.0055	0.0002	0.0013	0.0012	0.8726	0.1387	6.0151	22.1925	29.2269
45 mph	0.0040	0.0001	0.0009	0.0008	0.7181	0.1050	3.2405	11.9905	16.0600
50 mph	0.0042	0.0001	0.0009	0.0009	0.8385	0.1137	1.2424	4.5595	6.7602
55 mph	0.0022	0.0001	0.0005	0.0005	0.4505	0.0598	0.4891	1.8257	2.8283
60 mph	0.0013	0.0001	0.0003	0.0003	0.2760	0.0354	30.6575	113.2201	144.1910
65 mph	0.0004	0.0000	0.0001	0.0001	0.1009	0.0123	0.0000	0.0000	0.1139
70 mph	0.0205	0.0004	0.0043	0.0041	9.2392	0.7945	0.0000	0.0000	10.0629
total	0.0532	0.0013	0.0119	0.0111	14.1122	1.6074	91.9276	339.6389	447.3636

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1019	9.8901	22.9146
15 mph	0.0036	0.0001	0.0009	0.0011	0.2013	0.0627	7.8321	30.3705	38.4722
25 mph	0.0000	0.0000	0.0000	0.0000	0.4832	0.1099	10.6309	38.9663	50.1904
35 mph	0.0272	0.0008	0.0063	0.0026	0.0000	0.0000	0.0000	0.0000	0.0369
total	0.0307	0.0008	0.0072	0.0037	5.5046	2.2752	24.5650	79.2269	111.6141

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.8201	2.1025	6.1019	9.8901	22.9146
10 mph	0.0181	0.0003	0.0044	0.0036	0.8111	0.2742	40.3157	157.6777	199.1051
15 mph	0.0095	0.0002	0.0023	0.0022	0.5088	0.1586	15.8702	61.5398	78.0916
20 mph	0.0067	0.0002	0.0016	0.0013	0.4217	0.1079	22.9602	86.5767	110.0763
25 mph	0.0233	0.0006	0.0055	0.0045	2.1010	0.4780	50.2562	184.2076	237.0767
30 mph	0.0228	0.0006	0.0054	0.0044	1.9008	0.3810	28.6655	105.0241	136.0045
35 mph	0.0469	0.0013	0.0109	0.0064	2.0989	0.3686	13.7128	50.3988	66.6447
40 mph	0.0097	0.0003	0.0022	0.0020	1.3291	0.2112	9.5164	35.1104	46.1814
45 mph	0.0073	0.0002	0.0017	0.0015	1.1095	0.1622	5.3153	19.6680	26.2656
50 mph	0.0072	0.0002	0.0016	0.0014	1.2447	0.1688	3.8277	14.0477	19.2993
55 mph	0.0045	0.0002	0.0010	0.0009	0.7647	0.1015	0.9589	3.5792	5.4108
60 mph	0.0057	0.0002	0.0013	0.0011	0.9180	0.1179	31.0782	114.7736	146.8958
65 mph	0.0010	0.0000	0.0002	0.0002	0.1890	0.0230	0.0000	0.0000	0.2134
70 mph	0.0205	0.0004	0.0043	0.0041	9.2392	0.7945	0.0000	0.0000	10.0629
total	0.1832	0.0048	0.0425	0.0335	27.4564	5.4498	228.5791	842.4935	1,104.2428

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.89	2.13	6.18	10.09	23.30
10 mph	1.20	0.13	0.64	0.18	0.91	0.30	40.40	158.20	201.97
15 mph	0.82	0.09	0.44	0.15	0.58	0.18	15.92	61.85	80.02
20 mph	0.78	0.09	0.42	0.12	0.49	0.13	23.07	87.29	112.38
25 mph	3.22	0.35	1.71	0.47	2.43	0.57	50.67	186.85	246.27
30 mph	3.46	0.37	1.84	0.51	2.18	0.46	29.02	107.30	145.15
35 mph	7.68	0.83	4.08	0.82	2.38	0.45	13.96	51.93	82.12
40 mph	1.70	0.18	0.90	0.27	1.50	0.26	9.74	36.54	51.09
45 mph	1.35	0.14	0.71	0.21	1.24	0.20	5.48	20.72	30.06
50 mph	1.42	0.15	0.75	0.23	1.39	0.21	3.98	15.02	23.15
55 mph	0.94	0.10	0.50	0.15	0.85	0.13	1.01	3.89	7.56
60 mph	1.26	0.14	0.67	0.19	1.03	0.15	32.90	126.25	162.57
65 mph	0.22	0.02	0.12	0.04	0.21	0.03	0.00	0.00	0.64
70 mph	4.60	0.47	2.39	0.81	9.82	0.94	0.00	0.00	19.03
total	28.64	3.07	15.17	4.14	29.89	6.11	232.34	865.94	**1,185.30**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.7236	129.4807	323.4536	277.8418
10 mph	0.4796	0.5803	0.6288	0.7906	0.2207	0.1981	0.3035	50.5614
15 mph	0.4381	0.5304	0.5737	0.7186	0.2001	0.1808	0.2772	46.2256
20 mph	0.4010	0.4849	0.5252	0.6577	0.1838	0.1656	0.2538	42.3062
25 mph	0.3676	0.4427	0.4809	0.6028	0.1684	0.1520	0.2330	38.8531
30 mph	0.3378	0.4047	0.4414	0.5546	0.1553	0.1399	0.2145	35.7582
35 mph	0.3112	0.3703	0.4061	0.5119	0.1437	0.1292	0.1980	32.9917
40 mph	0.2880	0.3421	0.3756	0.4738	0.1331	0.1196	0.1833	30.5350
45 mph	0.2674	0.3175	0.3485	0.4398	0.1237	0.1110	0.1701	28.3332
50 mph	0.2488	0.2944	0.3239	0.4096	0.1152	0.1032	0.1582	26.3556
55 mph	0.2323	0.2754	0.3027	0.3829	0.1074	0.0963	0.1476	24.5855
60 mph	0.2173	0.2581	0.2832	0.3580	0.1004	0.0901	0.1381	23.0040
65 mph	0.2036	0.2402	0.2648	0.3364	0.0942	0.0845		
70 mph	0.1985	0.2228	0.2538	0.3323	0.0938	0.0817		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2102	1.8859
10 mph	1.9150	2.0788	1.9787	2.2231	2.6354	2.5044	1.0121	2.8004
15 mph	0.9347	1.0348	0.9661	1.0863	1.3008	1.2263	0.7129	1.9599
20 mph	0.3637	0.4234	0.3756	0.4224	0.5214	0.4782	0.5157	1.3894
25 mph	0.2183	0.2616	0.2251	0.2532	0.3192	0.2879	0.3780	0.9979
30 mph	0.1648	0.1990	0.1696	0.1910	0.2447	0.2177	0.2786	0.7353
35 mph	0.1310	0.1585	0.1345	0.1515	0.1986	0.1734	0.2053	0.5428
40 mph	0.1081	0.1332	0.1109	0.1249	0.1675	0.1433	0.1513	0.4012
45 mph	0.0916	0.1163	0.0939	0.1058	0.1462	0.1218	0.1115	0.2965
50 mph	0.0792	0.1037	0.0810	0.0914	0.1318	0.1057	0.0822	0.2175
55 mph	0.0697	0.0971	0.0712	0.0803	0.1206	0.0935	0.0606	0.1626
60 mph	0.0657	0.0984	0.0671	0.0757	0.1204	0.0888	0.0520	0.1384
65 mph	0.0658	0.1010	0.0670	0.0756	0.1314	0.0899		
70 mph	0.0668	0.0783	0.0664	0.0753	0.1904	0.0945		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	15.0425	1.5934	8.6305	2.0434	0.2195	0.0821	0.1824	5.4232	33.2169
15 mph	5.4957	0.5825	3.1497	0.7429	0.0796	0.0300	0.0555	1.6527	11.7887
20 mph	10.0621	1.0652	5.7664	1.3599	0.1462	0.0549	0.1017	3.0252	21.5815
25 mph	46.1220	4.8622	26.4010	6.2323	0.6697	0.2522	0.5134	15.2804	100.3333
30 mph	46.6214	4.8894	26.6579	6.3068	0.6793	0.2553	0.4297	12.7847	98.6245
35 mph	35.1401	3.6603	20.0644	4.7627	0.5146	0.1929	0.1785	5.3080	69.8213
40 mph	10.8388	1.1273	6.1863	1.4695	0.1589	0.0595	0.1835	5.4586	25.4824
45 mph	8.3861	0.8718	4.7837	1.1368	0.1230	0.0460	0.1363	4.0520	19.5356
50 mph	7.8037	0.8084	4.4452	1.0587	0.1145	0.0428	0.2060	6.1249	20.6043
55 mph	5.8284	0.6050	3.3234	0.7918	0.0855	0.0320	0.0444	1.3185	12.0289
60 mph	10.9065	1.1339	6.2185	1.4806	0.1598	0.0598	0.0415	1.2337	21.2343
65 mph	1.2772	0.1319	0.7269	0.1739	0.0187	0.0070	0.0000	0.0000	2.3356
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	203.5245	21.3312	116.3538	27.5592	2.9693	1.1145	2.0729	61.6620	436.5874

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	2.3199	0.2457	1.3310	0.3611	0.0503	0.0188	0.0000	0.0000	4.3268
15 mph	2.1189	0.2246	1.2144	0.3282	0.0456	0.0172	0.0000	0.0000	3.9489
20 mph	1.9397	0.2053	1.1116	0.3004	0.0419	0.0157	0.1588	4.7247	8.4982
25 mph	3.5565	0.3749	2.0358	0.5507	0.0768	0.0289	0.2551	7.5933	14.4720
30 mph	6.5363	0.6855	3.7374	1.0132	0.1416	0.0532	0.4027	11.9802	24.5501
35 mph	13.5483	1.4112	7.7358	2.1040	0.2950	0.1106	0.3717	11.0533	36.6299
40 mph	13.9297	1.4488	7.9504	2.1640	0.3036	0.1137	0.3153	9.3777	35.6032
45 mph	10.3464	1.0755	5.9019	1.6071	0.2256	0.0844	0.2128	6.3284	25.7822
50 mph	10.8314	1.1221	6.1698	1.6837	0.2364	0.0884	0.0990	2.9433	23.1740
55 mph	5.6179	0.5832	3.2033	0.8745	0.1225	0.0458	0.0462	1.3728	11.8661
60 mph	3.1538	0.3279	1.7982	0.4906	0.0687	0.0257	3.0253	89.9160	98.8061
65 mph	0.9849	0.1017	0.5605	0.1536	0.0215	0.0080	0.0000	0.0000	1.8302
70 mph	44.1545	4.3397	24.7168	6.9812	0.9844	0.3575	0.0000	0.0000	81.5340
total	119.0380	12.1461	67.4669	18.6121	2.6141	0.9680	4.8869	145.2897	371.0217

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9511	2.0140	29.8734
15 mph	4.6504	0.4929	2.6653	0.9788	0.0820	0.0309	0.0541	1.6104	10.5647
25 mph	0.0000	0.0000	0.0000	0.0000	0.2229	0.0839	0.2062	6.1367	6.6498
35 mph	66.9985	6.9788	38.2550	4.6449	0.0000	0.0000	0.0000	0.0000	116.8772
total	71.6489	7.4717	40.9202	5.6237	10.8077	4.5205	13.2114	9.7610	163.9651

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.5028	4.4056	12.9511	2.0140	29.8734
10 mph	17.3623	1.8391	9.9614	2.4045	0.2698	0.1010	0.1824	5.4232	37.5437
15 mph	12.2650	1.3000	7.0294	2.0499	0.2072	0.0781	0.1096	3.2631	26.3023
20 mph	12.0019	1.2705	6.8780	1.6603	0.1882	0.0707	0.2605	7.7498	30.0797
25 mph	49.6785	5.2372	28.4368	6.7830	0.9694	0.3650	0.9748	29.0104	121.4551
30 mph	53.1577	5.5749	30.3954	7.3199	0.8209	0.3086	0.8323	24.7649	123.1746
35 mph	115.6868	12.0503	66.0551	11.5117	0.8096	0.3034	0.5501	16.3613	223.3284
40 mph	24.7685	2.5760	14.1366	3.6335	0.4625	0.1732	0.4989	14.8364	61.0856
45 mph	18.7325	1.9473	10.6856	2.7438	0.3486	0.1304	0.3491	10.3804	45.3178
50 mph	18.6350	1.9305	10.6150	2.7423	0.3510	0.1312	0.3051	9.0683	43.7783
55 mph	11.4463	1.1882	6.5267	1.6662	0.2080	0.0778	0.0906	2.6913	23.8950
60 mph	14.0602	1.4617	8.0167	1.9711	0.2285	0.0855	3.0668	91.1497	120.0403
65 mph	2.2621	0.2336	1.2874	0.3275	0.0402	0.0151	0.0000	0.0000	4.1659
70 mph	44.1545	4.3397	24.7168	6.9812	0.9844	0.3575	0.0000	0.0000	81.5340
total	394.2114	40.9489	224.7410	51.7949	16.3910	6.6030	20.1712	216.7128	971.5741

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.8217	0.0032	0.0593	0.1570	5.2072	2.5378	5.2570	26.7604	40.8038
15 mph	0.1604	0.0006	0.0116	0.0307	1.0281	0.4971	1.2342	6.2427	9.2054
20 mph	0.1248	0.0005	0.0090	0.0239	0.8241	0.3877	1.7857	8.8512	12.0069
25 mph	0.3746	0.0016	0.0270	0.0715	2.5228	1.1668	7.1983	34.9637	46.3265
30 mph	0.3112	0.0014	0.0224	0.0593	2.1271	0.9708	4.8232	23.4228	31.7382
35 mph	0.2024	0.0009	0.0145	0.0385	1.4127	0.6327	1.5998	7.7799	11.6814
40 mph	0.0556	0.0002	0.0040	0.0106	0.3972	0.1743	1.3098	6.3898	8.3416
45 mph	0.0393	0.0002	0.0028	0.0075	0.2888	0.1234	0.7723	3.7778	5.0121
50 mph	0.0340	0.0002	0.0024	0.0065	0.2603	0.1072	0.9251	4.5027	5.8383
55 mph	0.0239	0.0001	0.0017	0.0045	0.1907	0.0758	0.1573	0.7769	1.2310
60 mph	0.0451	0.0002	0.0032	0.0086	0.3806	0.1440	0.1350	0.6613	1.3781
65 mph	0.0056	0.0000	0.0004	0.0011	0.0519	0.0182	0.0000	0.0000	0.0773
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	2.1989	0.0093	0.1584	0.4196	14.6915	6.8359	25.1978	124.1292	173.6406

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1267	0.0005	0.0092	0.0277	1.1942	0.5820	0.0000	0.0000	1.9403
15 mph	0.0619	0.0002	0.0045	0.0136	0.5894	0.2850	0.0000	0.0000	0.9546
20 mph	0.0241	0.0001	0.0017	0.0053	0.2362	0.1111	2.7889	13.8236	16.9910
25 mph	0.0289	0.0001	0.0021	0.0063	0.2893	0.1338	3.5771	17.3746	21.4121
30 mph	0.0436	0.0002	0.0031	0.0095	0.4435	0.2024	4.5197	21.9487	27.1708
35 mph	0.0780	0.0003	0.0056	0.0170	0.8099	0.3628	3.3314	16.2006	20.8057
40 mph	0.0715	0.0003	0.0051	0.0156	0.7592	0.3331	2.2502	10.9774	14.4124
45 mph	0.0485	0.0002	0.0035	0.0106	0.5299	0.2264	1.2062	5.9001	7.9253
50 mph	0.0472	0.0002	0.0034	0.0103	0.5373	0.2212	0.4445	2.1638	3.4278
55 mph	0.0231	0.0001	0.0016	0.0050	0.2733	0.1086	0.1638	0.8089	1.3845
60 mph	0.0130	0.0001	0.0009	0.0028	0.1636	0.0619	9.8422	48.2012	58.2858
65 mph	0.0044	0.0000	0.0003	0.0009	0.0596	0.0209	0.0000	0.0000	0.0861
70 mph	0.2033	0.0009	0.0141	0.0433	3.9677	1.0101	0.0000	0.0000	5.2393
total	0.7742	0.0034	0.0552	0.1679	9.8531	3.6592	28.1240	137.3988	180.0357

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4188	1.2007	8.0697
15 mph	0.1358	0.0005	0.0098	0.0404	1.0588	0.5119	1.2026	6.0827	9.0425
25 mph	0.0000	0.0000	0.0000	0.0000	0.8399	0.3885	2.8909	14.0417	18.1609
35 mph	0.3859	0.0017	0.0277	0.0376	0.0000	0.0000	0.0000	0.0000	0.4529
total	0.5217	0.0022	0.0375	0.0780	6.1622	3.0870	4.5123	21.3251	35.7260

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2635	2.1866	0.4188	1.2007	8.0697
10 mph	0.9484	0.0037	0.0685	0.1848	6.4014	3.1199	5.2570	26.7604	42.7441
15 mph	0.3580	0.0014	0.0259	0.0847	2.6763	1.2940	2.4368	12.3253	19.2025
20 mph	0.1489	0.0006	0.0107	0.0291	1.0603	0.4988	4.5746	22.6748	28.9979
25 mph	0.4035	0.0018	0.0291	0.0779	3.6519	1.6891	13.6663	66.3800	85.8995
30 mph	0.3548	0.0016	0.0255	0.0689	2.5705	1.1732	9.3429	45.3715	58.9089
35 mph	0.6664	0.0029	0.0478	0.0931	2.2226	0.9955	4.9312	23.9805	32.9400
40 mph	0.1272	0.0006	0.0091	0.0262	1.1564	0.5074	3.5601	17.3671	22.7540
45 mph	0.0878	0.0004	0.0063	0.0180	0.8187	0.3498	1.9786	9.6779	12.9374
50 mph	0.0812	0.0004	0.0058	0.0167	0.7976	0.3283	1.3696	6.6665	9.2662
55 mph	0.0470	0.0002	0.0034	0.0095	0.4640	0.1844	0.3211	1.5859	2.6155
60 mph	0.0582	0.0003	0.0042	0.0114	0.5442	0.2059	9.9772	48.8625	59.6638
65 mph	0.0100	0.0001	0.0007	0.0020	0.1115	0.0391	0.0000	0.0000	0.1634
70 mph	0.2033	0.0009	0.0141	0.0433	3.9677	1.0101	0.0000	0.0000	5.2393
total	3.4947	0.0149	0.2511	0.6656	30.7067	13.5821	57.8341	282.8531	389.4022

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	14.77	6.59	13.37	3.21	37.94
10 mph	18.31	1.84	10.03	2.59	6.67	3.22	5.44	32.18	80.29
15 mph	12.62	1.30	7.06	2.13	2.88	1.37	2.55	15.59	45.50
20 mph	12.15	1.27	6.89	1.69	1.25	0.57	4.84	30.42	59.08
25 mph	50.08	5.24	28.47	6.86	4.62	2.05	14.64	95.39	207.35
30 mph	53.51	5.58	30.42	7.39	3.39	1.48	10.18	70.14	182.08
35 mph	116.35	12.05	66.10	11.60	3.03	1.30	5.48	40.34	256.27
40 mph	24.90	2.58	14.15	3.66	1.62	0.68	4.06	32.20	83.84
45 mph	18.82	1.95	10.69	2.76	1.17	0.48	2.33	20.06	58.26
50 mph	18.72	1.93	10.62	2.76	1.15	0.46	1.67	15.73	53.04
55 mph	11.49	1.19	6.53	1.68	0.67	0.26	0.41	4.28	26.51
60 mph	14.12	1.46	8.02	1.98	0.77	0.29	13.04	140.01	179.70
65 mph	2.27	0.23	1.29	0.33	0.15	0.05	0.00	0.00	4.33
70 mph	44.36	4.34	24.73	7.02	4.95	1.37	0.00	0.00	86.77
total	397.71	40.96	224.99	52.46	47.10	20.19	78.01	499.57	**1,360.98**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0377	0.0386	0.0387	0.0389
10 mph	0.0033	0.0038	0.0034	0.0037	0.0047	0.0049	0.0049	0.0049
15 mph	0.0022	0.0025	0.0022	0.0025	0.0032	0.0032	0.0032	0.0032
20 mph	0.0016	0.0017	0.0016	0.0017	0.0022	0.0023	0.0023	0.0023
25 mph	0.0011	0.0013	0.0012	0.0013	0.0016	0.0017	0.0017	0.0017
30 mph	0.0009	0.0010	0.0009	0.0010	0.0013	0.0013	0.0013	0.0013
35 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0011	0.0011	0.0011
40 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
45 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0009	0.0009
50 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
55 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
60 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
65 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0010		
70 mph	0.0008	0.0008	0.0007	0.0008	0.0011	0.0011		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3973	0.4668	0.0014	0.0015
10 mph	0.0017	0.0135	0.0086	0.0022	0.0149	0.0149	0.0052	0.0104
15 mph	0.0015	0.0113	0.0075	0.0019	0.0124	0.0130	0.0045	0.0088
20 mph	0.0012	0.0092	0.0064	0.0016	0.0105	0.0111	0.0040	0.0077
25 mph	0.0011	0.0076	0.0055	0.0014	0.0089	0.0095	0.0036	0.0068
30 mph	0.0009	0.0065	0.0048	0.0012	0.0079	0.0084	0.0033	0.0063
35 mph	0.0008	0.0057	0.0044	0.0011	0.0071	0.0076	0.0031	0.0058
40 mph	0.0008	0.0052	0.0040	0.0010	0.0066	0.0069	0.0029	0.0055
45 mph	0.0007	0.0048	0.0037	0.0009	0.0061	0.0064	0.0027	0.0051
50 mph	0.0007	0.0045	0.0035	0.0009	0.0058	0.0060	0.0026	0.0048
55 mph	0.0006	0.0044	0.0033	0.0008	0.0055	0.0057	0.0024	0.0046
60 mph	0.0006	0.0044	0.0032	0.0008	0.0054	0.0055	0.0024	0.0044
65 mph	0.0006	0.0044	0.0032	0.0008	0.0056	0.0055		
70 mph	0.0006	0.0036	0.0031	0.0008	0.0068	0.0055		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1050	0.0103	0.0461	0.0096	0.0047	0.0020	0.0029	0.0005	0.1812
15 mph	0.0279	0.0027	0.0122	0.0025	0.0013	0.0005	0.0006	0.0001	0.0480
20 mph	0.0391	0.0038	0.0172	0.0036	0.0018	0.0007	0.0009	0.0002	0.0672
25 mph	0.1441	0.0141	0.0632	0.0132	0.0065	0.0028	0.0037	0.0007	0.2482
30 mph	0.1232	0.0121	0.0541	0.0113	0.0056	0.0024	0.0026	0.0005	0.2117
35 mph	0.0827	0.0081	0.0363	0.0076	0.0037	0.0016	0.0010	0.0002	0.1411
40 mph	0.0239	0.0023	0.0105	0.0022	0.0011	0.0005	0.0009	0.0002	0.0415
45 mph	0.0182	0.0018	0.0080	0.0017	0.0008	0.0004	0.0007	0.0001	0.0316
50 mph	0.0176	0.0017	0.0077	0.0016	0.0008	0.0003	0.0011	0.0002	0.0310
55 mph	0.0143	0.0014	0.0063	0.0013	0.0006	0.0003	0.0003	0.0000	0.0245
60 mph	0.0308	0.0030	0.0135	0.0028	0.0014	0.0006	0.0003	0.0000	0.0524
65 mph	0.0044	0.0004	0.0019	0.0004	0.0002	0.0001	0.0000	0.0000	0.0074
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.6313	0.0617	0.2770	0.0577	0.0285	0.0121	0.0150	0.0027	1.0859

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0162	0.0016	0.0071	0.0017	0.0011	0.0005	0.0000	0.0000	0.0281
15 mph	0.0108	0.0011	0.0047	0.0011	0.0007	0.0003	0.0000	0.0000	0.0187
20 mph	0.0075	0.0007	0.0033	0.0008	0.0005	0.0002	0.0014	0.0003	0.0148
25 mph	0.0111	0.0011	0.0049	0.0012	0.0007	0.0003	0.0018	0.0003	0.0215
30 mph	0.0173	0.0017	0.0076	0.0018	0.0012	0.0005	0.0024	0.0004	0.0329
35 mph	0.0319	0.0031	0.0140	0.0033	0.0021	0.0009	0.0020	0.0004	0.0578
40 mph	0.0307	0.0030	0.0135	0.0032	0.0021	0.0009	0.0016	0.0003	0.0552
45 mph	0.0225	0.0022	0.0099	0.0024	0.0015	0.0006	0.0011	0.0002	0.0403
50 mph	0.0244	0.0024	0.0107	0.0026	0.0016	0.0007	0.0005	0.0001	0.0430
55 mph	0.0138	0.0013	0.0061	0.0014	0.0009	0.0004	0.0003	0.0000	0.0243
60 mph	0.0089	0.0009	0.0039	0.0009	0.0006	0.0003	0.0197	0.0035	0.0387
65 mph	0.0034	0.0003	0.0015	0.0004	0.0002	0.0001	0.0000	0.0000	0.0058
70 mph	0.1681	0.0157	0.0727	0.0175	0.0112	0.0048	0.0000	0.0000	0.2901
total	0.3666	0.0350	0.1598	0.0383	0.0246	0.0105	0.0308	0.0055	0.6711

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0016	0.0003	0.0062
15 mph	0.0236	0.0023	0.0104	0.0034	0.0013	0.0006	0.0006	0.0001	0.0422
25 mph	0.0000	0.0000	0.0000	0.0000	0.0022	0.0009	0.0015	0.0003	0.0048
35 mph	0.1577	0.0154	0.0692	0.0074	0.0000	0.0000	0.0000	0.0000	0.2496
total	0.1813	0.0177	0.0795	0.0107	0.0065	0.0028	0.0037	0.0007	0.3029

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0031	0.0013	0.0016	0.0003	0.0062
10 mph	0.1212	0.0119	0.0533	0.0113	0.0058	0.0025	0.0029	0.0005	0.2094
15 mph	0.0623	0.0061	0.0273	0.0070	0.0033	0.0014	0.0013	0.0002	0.1089
20 mph	0.0466	0.0046	0.0205	0.0044	0.0023	0.0010	0.0023	0.0004	0.0820
25 mph	0.1552	0.0152	0.0681	0.0143	0.0094	0.0040	0.0070	0.0013	0.2745
30 mph	0.1405	0.0137	0.0617	0.0131	0.0067	0.0029	0.0051	0.0009	0.2446
35 mph	0.2723	0.0265	0.1194	0.0183	0.0059	0.0025	0.0030	0.0005	0.4484
40 mph	0.0546	0.0053	0.0240	0.0054	0.0031	0.0013	0.0025	0.0005	0.0968
45 mph	0.0407	0.0040	0.0178	0.0040	0.0023	0.0010	0.0017	0.0003	0.0720
50 mph	0.0420	0.0041	0.0184	0.0042	0.0024	0.0010	0.0016	0.0003	0.0740
55 mph	0.0282	0.0027	0.0123	0.0028	0.0016	0.0007	0.0005	0.0001	0.0489
60 mph	0.0397	0.0039	0.0174	0.0037	0.0020	0.0009	0.0200	0.0036	0.0911
65 mph	0.0077	0.0007	0.0034	0.0007	0.0004	0.0002	0.0000	0.0000	0.0132
70 mph	0.1681	0.0157	0.0727	0.0175	0.0112	0.0048	0.0000	0.0000	0.2901
total	1.1791	0.1145	0.5163	0.1068	0.0596	0.0255	0.0495	0.0089	2.0600

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0007	0.0000	0.0003	0.0002	0.0295	0.0151	0.0270	0.0991	0.1719
15 mph	0.0003	0.0000	0.0001	0.0001	0.0098	0.0053	0.0077	0.0281	0.0513
20 mph	0.0004	0.0000	0.0002	0.0001	0.0166	0.0090	0.0138	0.0488	0.0889
25 mph	0.0018	0.0000	0.0007	0.0004	0.0704	0.0384	0.0692	0.2381	0.4190
30 mph	0.0018	0.0000	0.0006	0.0004	0.0685	0.0374	0.0579	0.1992	0.3658
35 mph	0.0013	0.0000	0.0005	0.0003	0.0508	0.0276	0.0242	0.0835	0.1882
40 mph	0.0004	0.0000	0.0001	0.0001	0.0156	0.0084	0.0251	0.0869	0.1367
45 mph	0.0003	0.0000	0.0001	0.0001	0.0121	0.0065	0.0189	0.0655	0.1035
50 mph	0.0003	0.0000	0.0001	0.0001	0.0115	0.0061	0.0288	0.0995	0.1464
55 mph	0.0002	0.0000	0.0001	0.0000	0.0087	0.0046	0.0063	0.0221	0.0420
60 mph	0.0004	0.0000	0.0002	0.0001	0.0172	0.0090	0.0061	0.0212	0.0542
65 mph	0.0001	0.0000	0.0000	0.0000	0.0022	0.0011	0.0000	0.0000	0.0034
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0080	0.0002	0.0029	0.0017	0.3130	0.1685	0.2851	0.9920	1.7713

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0000	0.0068	0.0035	0.0000	0.0000	0.0104
15 mph	0.0001	0.0000	0.0000	0.0000	0.0056	0.0030	0.0000	0.0000	0.0088
20 mph	0.0001	0.0000	0.0000	0.0000	0.0048	0.0026	0.0216	0.0762	0.1053
25 mph	0.0001	0.0000	0.0001	0.0000	0.0081	0.0044	0.0344	0.1183	0.1654
30 mph	0.0002	0.0000	0.0001	0.0001	0.0143	0.0078	0.0543	0.1867	0.2634
35 mph	0.0005	0.0000	0.0002	0.0001	0.0291	0.0158	0.0504	0.1738	0.2700
40 mph	0.0005	0.0000	0.0002	0.0001	0.0298	0.0161	0.0431	0.1493	0.2392
45 mph	0.0004	0.0000	0.0001	0.0001	0.0222	0.0120	0.0294	0.1022	0.1665
50 mph	0.0004	0.0000	0.0001	0.0001	0.0237	0.0126	0.0139	0.0478	0.0986
55 mph	0.0002	0.0000	0.0001	0.0001	0.0125	0.0066	0.0065	0.0230	0.0489
60 mph	0.0001	0.0000	0.0000	0.0000	0.0074	0.0039	0.4453	1.5477	2.0044
65 mph	0.0000	0.0000	0.0000	0.0000	0.0025	0.0013	0.0000	0.0000	0.0039
70 mph	0.0019	0.0000	0.0007	0.0005	0.1414	0.0593	0.0000	0.0000	0.2038
total	0.0048	0.0001	0.0017	0.0011	0.3082	0.1488	0.6989	2.4251	3.5887

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0010	0.1046
15 mph	0.0002	0.0000	0.0001	0.0001	0.0101	0.0054	0.0075	0.0274	0.0508
25 mph	0.0000	0.0000	0.0000	0.0000	0.0234	0.0128	0.0278	0.0956	0.1596
35 mph	0.0025	0.0001	0.0009	0.0003	0.0000	0.0000	0.0000	0.0000	0.0037
total	0.0027	0.0001	0.0010	0.0003	0.0979	0.0570	0.0358	0.1240	0.3188

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0644	0.0388	0.0005	0.0010	0.1046
10 mph	0.0008	0.0000	0.0003	0.0002	0.0363	0.0186	0.0270	0.0991	0.1823
15 mph	0.0006	0.0000	0.0002	0.0001	0.0255	0.0137	0.0153	0.0555	0.1109
20 mph	0.0005	0.0000	0.0002	0.0001	0.0214	0.0115	0.0354	0.1250	0.1942
25 mph	0.0020	0.0001	0.0007	0.0004	0.1019	0.0555	0.1314	0.4520	0.7439
30 mph	0.0020	0.0001	0.0007	0.0004	0.0827	0.0452	0.1122	0.3859	0.6292
35 mph	0.0043	0.0001	0.0015	0.0007	0.0800	0.0435	0.0746	0.2572	0.4619
40 mph	0.0009	0.0000	0.0003	0.0002	0.0454	0.0246	0.0683	0.2362	0.3759
45 mph	0.0007	0.0000	0.0002	0.0002	0.0344	0.0185	0.0483	0.1677	0.2700
50 mph	0.0007	0.0000	0.0002	0.0002	0.0351	0.0187	0.0427	0.1473	0.2449
55 mph	0.0004	0.0000	0.0002	0.0001	0.0212	0.0112	0.0128	0.0451	0.0910
60 mph	0.0005	0.0000	0.0002	0.0001	0.0246	0.0128	0.4514	1.5690	2.0587
65 mph	0.0001	0.0000	0.0000	0.0000	0.0048	0.0024	0.0000	0.0000	0.0073
70 mph	0.0019	0.0000	0.0007	0.0005	0.1414	0.0593	0.0000	0.0000	0.2038
total	0.0154	0.0004	0.0055	0.0032	0.7191	0.3743	1.0198	3.5410	5.6788

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00	0.11
10 mph	0.12	0.01	0.05	0.01	0.04	0.02	0.03	0.10	0.39
15 mph	0.06	0.01	0.03	0.01	0.03	0.02	0.02	0.06	0.22
20 mph	0.05	0.00	0.02	0.00	0.02	0.01	0.04	0.13	0.28
25 mph	0.16	0.02	0.07	0.01	0.11	0.06	0.14	0.45	1.02
30 mph	0.14	0.01	0.06	0.01	0.09	0.05	0.12	0.39	0.87
35 mph	0.28	0.03	0.12	0.02	0.09	0.05	0.08	0.26	0.91
40 mph	0.06	0.01	0.02	0.01	0.05	0.03	0.07	0.24	0.47
45 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.05	0.17	0.34
50 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.04	0.15	0.32
55 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.01	0.05	0.14
60 mph	0.04	0.00	0.02	0.00	0.03	0.01	0.47	1.57	2.15
65 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02
70 mph	0.17	0.02	0.07	0.02	0.15	0.06	0.00	0.00	0.49
total	1.19	0.11	0.52	0.11	0.78	0.40	1.07	3.55	**7.74**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	28.07	2.46	12.28	2.31	1.68	0.81	1.43	0.15
Diesel	0.38	0.00	0.03	0.06	3.49	2.05	12.32	15.57
Electric	4.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	33.39	2.46	12.31	2.38	5.17	2.86	13.75	15.71

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	21.64	1.89	9.47	2.04	1.93	0.92	4.45	0.46
Diesel	0.30	0.00	0.02	0.06	4.01	2.35	38.49	48.62
Electric	3.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	25.71	1.90	9.49	2.10	5.93	3.28	42.94	49.08

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	10.11	0.88	4.42	0.47	0.15	0.07	0.15	0.02
Diesel	0.14	0.00	0.01	0.01	0.30	0.18	1.33	1.68
Electric	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	12.01	0.89	4.43	0.48	0.45	0.25	1.48	1.69

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	59.82	5.24	26.18	4.82	3.75	1.80	6.03	0.62	108.27
Diesel	0.82	0.00	0.06	0.13	7.81	4.58	52.14	65.87	131.41
Electric	10.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.47
Total	71.11	5.24	26.24	4.96	11.56	6.38	58.17	66.49	**250.14**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	885.85
Internal	61.49
Total	**947.33**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0347	0.0355	0.0356	0.0358
10 mph	0.0031	0.0035	0.0031	0.0034	0.0044	0.0045	0.0045	0.0045
15 mph	0.0020	0.0023	0.0021	0.0023	0.0029	0.0030	0.0030	0.0030
20 mph	0.0014	0.0016	0.0014	0.0016	0.0020	0.0021	0.0021	0.0021
25 mph	0.0011	0.0012	0.0011	0.0012	0.0015	0.0015	0.0015	0.0015
30 mph	0.0008	0.0009	0.0008	0.0009	0.0012	0.0012	0.0012	0.0012
35 mph	0.0007	0.0007	0.0007	0.0007	0.0010	0.0010	0.0010	0.0010
40 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0009	0.0009	0.0009
45 mph	0.0005	0.0006	0.0005	0.0006	0.0008	0.0008	0.0008	0.0008
50 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
55 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
60 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
65 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009		
70 mph	0.0007	0.0007	0.0007	0.0008	0.0010	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3801	0.4466	0.0013	0.0014
10 mph	0.0016	0.0130	0.0082	0.0021	0.0143	0.0143	0.0050	0.0099
15 mph	0.0014	0.0108	0.0072	0.0018	0.0119	0.0124	0.0043	0.0084
20 mph	0.0012	0.0088	0.0061	0.0015	0.0101	0.0106	0.0038	0.0073
25 mph	0.0010	0.0073	0.0052	0.0013	0.0085	0.0091	0.0035	0.0065
30 mph	0.0009	0.0062	0.0046	0.0012	0.0075	0.0080	0.0032	0.0060
35 mph	0.0008	0.0054	0.0042	0.0010	0.0068	0.0072	0.0030	0.0056
40 mph	0.0007	0.0049	0.0038	0.0010	0.0063	0.0066	0.0028	0.0052
45 mph	0.0007	0.0046	0.0035	0.0009	0.0059	0.0062	0.0026	0.0049
50 mph	0.0006	0.0043	0.0033	0.0008	0.0055	0.0058	0.0025	0.0046
55 mph	0.0006	0.0042	0.0031	0.0008	0.0053	0.0054	0.0023	0.0044
60 mph	0.0006	0.0042	0.0030	0.0008	0.0052	0.0053	0.0023	0.0043
65 mph	0.0006	0.0042	0.0030	0.0008	0.0054	0.0053		
70 mph	0.0006	0.0034	0.0030	0.0008	0.0065	0.0053		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0966	0.0095	0.0424	0.0088	0.0043	0.0019	0.0027	0.0005	0.1666
15 mph	0.0257	0.0025	0.0113	0.0023	0.0012	0.0005	0.0006	0.0001	0.0441
20 mph	0.0359	0.0035	0.0158	0.0033	0.0016	0.0007	0.0008	0.0001	0.0618
25 mph	0.1325	0.0130	0.0581	0.0121	0.0060	0.0025	0.0034	0.0006	0.2282
30 mph	0.1133	0.0111	0.0497	0.0104	0.0051	0.0022	0.0024	0.0004	0.1946
35 mph	0.0760	0.0074	0.0334	0.0070	0.0034	0.0015	0.0009	0.0002	0.1297
40 mph	0.0220	0.0021	0.0096	0.0020	0.0010	0.0004	0.0009	0.0002	0.0382
45 mph	0.0168	0.0016	0.0073	0.0015	0.0008	0.0003	0.0006	0.0001	0.0291
50 mph	0.0162	0.0016	0.0071	0.0015	0.0007	0.0003	0.0010	0.0002	0.0285
55 mph	0.0132	0.0013	0.0058	0.0012	0.0006	0.0003	0.0002	0.0000	0.0226
60 mph	0.0283	0.0028	0.0124	0.0026	0.0013	0.0005	0.0002	0.0000	0.0482
65 mph	0.0040	0.0004	0.0018	0.0004	0.0002	0.0001	0.0000	0.0000	0.0068
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.5804	0.0568	0.2547	0.0531	0.0262	0.0112	0.0138	0.0025	0.9985

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0149	0.0015	0.0065	0.0016	0.0010	0.0004	0.0000	0.0000	0.0259
15 mph	0.0099	0.0010	0.0043	0.0010	0.0007	0.0003	0.0000	0.0000	0.0172
20 mph	0.0069	0.0007	0.0030	0.0007	0.0005	0.0002	0.0013	0.0002	0.0136
25 mph	0.0102	0.0010	0.0045	0.0011	0.0007	0.0003	0.0017	0.0003	0.0197
30 mph	0.0159	0.0016	0.0070	0.0017	0.0011	0.0005	0.0023	0.0004	0.0303
35 mph	0.0293	0.0029	0.0129	0.0031	0.0020	0.0008	0.0019	0.0003	0.0531
40 mph	0.0282	0.0027	0.0124	0.0030	0.0019	0.0008	0.0015	0.0003	0.0508
45 mph	0.0207	0.0020	0.0091	0.0022	0.0014	0.0006	0.0010	0.0002	0.0371
50 mph	0.0225	0.0022	0.0098	0.0024	0.0015	0.0006	0.0005	0.0001	0.0395
55 mph	0.0127	0.0012	0.0056	0.0013	0.0009	0.0004	0.0002	0.0000	0.0223
60 mph	0.0082	0.0008	0.0036	0.0009	0.0006	0.0002	0.0181	0.0032	0.0356
65 mph	0.0031	0.0003	0.0014	0.0003	0.0002	0.0001	0.0000	0.0000	0.0054
70 mph	0.1546	0.0144	0.0669	0.0161	0.0103	0.0044	0.0000	0.0000	0.2667
total	0.3371	0.0322	0.1469	0.0352	0.0226	0.0097	0.0284	0.0051	0.6171

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
15 mph	0.0217	0.0021	0.0095	0.0031	0.0012	0.0005	0.0006	0.0001	0.0388
25 mph	0.0000	0.0000	0.0000	0.0000	0.0020	0.0008	0.0014	0.0002	0.0044
35 mph	0.1450	0.0141	0.0636	0.0068	0.0000	0.0000	0.0000	0.0000	0.2295
total	0.1667	0.0163	0.0731	0.0099	0.0060	0.0026	0.0034	0.0006	0.2785

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0028	0.0012	0.0014	0.0003	0.0057
10 mph	0.1114	0.0109	0.0490	0.0104	0.0053	0.0023	0.0027	0.0005	0.1925
15 mph	0.0573	0.0056	0.0251	0.0065	0.0030	0.0013	0.0012	0.0002	0.1002
20 mph	0.0428	0.0042	0.0188	0.0040	0.0021	0.0009	0.0021	0.0004	0.0754
25 mph	0.1427	0.0140	0.0626	0.0132	0.0086	0.0037	0.0064	0.0012	0.2524
30 mph	0.1292	0.0126	0.0567	0.0120	0.0062	0.0026	0.0047	0.0008	0.2249
35 mph	0.2503	0.0244	0.1098	0.0168	0.0054	0.0023	0.0027	0.0005	0.4123
40 mph	0.0502	0.0049	0.0220	0.0050	0.0029	0.0012	0.0023	0.0004	0.0890
45 mph	0.0374	0.0036	0.0164	0.0037	0.0021	0.0009	0.0016	0.0003	0.0662
50 mph	0.0386	0.0037	0.0169	0.0038	0.0022	0.0010	0.0015	0.0003	0.0680
55 mph	0.0259	0.0025	0.0113	0.0025	0.0014	0.0006	0.0005	0.0001	0.0449
60 mph	0.0365	0.0035	0.0160	0.0034	0.0018	0.0008	0.0184	0.0033	0.0838
65 mph	0.0071	0.0007	0.0031	0.0007	0.0004	0.0002	0.0000	0.0000	0.0121
70 mph	0.1546	0.0144	0.0669	0.0161	0.0103	0.0044	0.0000	0.0000	0.2667
total	1.0842	0.1052	0.4747	0.0982	0.0548	0.0234	0.0455	0.0082	1.8941

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0007	0.0000	0.0002	0.0001	0.0282	0.0145	0.0259	0.0948	0.1645
15 mph	0.0002	0.0000	0.0001	0.0001	0.0094	0.0050	0.0074	0.0269	0.0491
20 mph	0.0004	0.0000	0.0001	0.0001	0.0159	0.0086	0.0132	0.0467	0.0851
25 mph	0.0017	0.0000	0.0006	0.0004	0.0674	0.0367	0.0662	0.2278	0.4008
30 mph	0.0017	0.0000	0.0006	0.0004	0.0655	0.0357	0.0554	0.1906	0.3500
35 mph	0.0012	0.0000	0.0004	0.0003	0.0486	0.0264	0.0232	0.0798	0.1801
40 mph	0.0004	0.0000	0.0001	0.0001	0.0149	0.0081	0.0240	0.0832	0.1308
45 mph	0.0003	0.0000	0.0001	0.0001	0.0116	0.0062	0.0180	0.0626	0.0990
50 mph	0.0003	0.0000	0.0001	0.0001	0.0110	0.0058	0.0276	0.0952	0.1400
55 mph	0.0002	0.0000	0.0001	0.0000	0.0083	0.0044	0.0060	0.0211	0.0402
60 mph	0.0004	0.0000	0.0001	0.0001	0.0165	0.0086	0.0058	0.0203	0.0519
65 mph	0.0001	0.0000	0.0000	0.0000	0.0021	0.0011	0.0000	0.0000	0.0033
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0076	0.0002	0.0027	0.0016	0.2994	0.1612	0.2728	0.9490	1.6947

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0000	0.0065	0.0033	0.0000	0.0000	0.0100
15 mph	0.0001	0.0000	0.0000	0.0000	0.0054	0.0029	0.0000	0.0000	0.0084
20 mph	0.0001	0.0000	0.0000	0.0000	0.0046	0.0025	0.0207	0.0729	0.1007
25 mph	0.0001	0.0000	0.0000	0.0000	0.0077	0.0042	0.0329	0.1132	0.1582
30 mph	0.0002	0.0000	0.0001	0.0001	0.0137	0.0075	0.0519	0.1786	0.2520
35 mph	0.0005	0.0000	0.0002	0.0001	0.0279	0.0152	0.0482	0.1663	0.2583
40 mph	0.0005	0.0000	0.0002	0.0001	0.0285	0.0154	0.0413	0.1429	0.2289
45 mph	0.0004	0.0000	0.0001	0.0001	0.0213	0.0115	0.0282	0.0978	0.1593
50 mph	0.0004	0.0000	0.0001	0.0001	0.0226	0.0121	0.0133	0.0457	0.0943
55 mph	0.0002	0.0000	0.0001	0.0000	0.0119	0.0063	0.0063	0.0220	0.0468
60 mph	0.0001	0.0000	0.0000	0.0000	0.0071	0.0037	0.4260	1.4808	1.9177
65 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0012	0.0000	0.0000	0.0037
70 mph	0.0018	0.0000	0.0006	0.0004	0.1353	0.0567	0.0000	0.0000	0.1950
total	0.0046	0.0001	0.0016	0.0011	0.2948	0.1424	0.6687	2.3202	3.4334

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0004	0.0009	0.1001
15 mph	0.0002	0.0000	0.0001	0.0001	0.0097	0.0052	0.0072	0.0262	0.0486
25 mph	0.0000	0.0000	0.0000	0.0000	0.0224	0.0122	0.0266	0.0915	0.1527
35 mph	0.0024	0.0001	0.0009	0.0003	0.0000	0.0000	0.0000	0.0000	0.0035
total	0.0026	0.0001	0.0009	0.0003	0.0937	0.0545	0.0343	0.1186	0.3050

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0616	0.0371	0.0004	0.0009	0.1001
10 mph	0.0008	0.0000	0.0003	0.0002	0.0347	0.0178	0.0259	0.0948	0.1745
15 mph	0.0005	0.0000	0.0002	0.0001	0.0244	0.0131	0.0146	0.0531	0.1061
20 mph	0.0005	0.0000	0.0002	0.0001	0.0205	0.0110	0.0339	0.1196	0.1858
25 mph	0.0019	0.0000	0.0007	0.0004	0.0975	0.0531	0.1257	0.4324	0.7118
30 mph	0.0019	0.0000	0.0007	0.0004	0.0792	0.0432	0.1073	0.3692	0.6020
35 mph	0.0041	0.0001	0.0015	0.0006	0.0765	0.0416	0.0714	0.2461	0.4419
40 mph	0.0009	0.0000	0.0003	0.0002	0.0434	0.0235	0.0653	0.2260	0.3597
45 mph	0.0007	0.0000	0.0002	0.0002	0.0329	0.0177	0.0462	0.1604	0.2583
50 mph	0.0007	0.0000	0.0002	0.0002	0.0336	0.0179	0.0409	0.1409	0.2343
55 mph	0.0004	0.0000	0.0001	0.0001	0.0202	0.0107	0.0123	0.0431	0.0870
60 mph	0.0005	0.0000	0.0002	0.0001	0.0236	0.0123	0.4318	1.5011	1.9696
65 mph	0.0001	0.0000	0.0000	0.0000	0.0046	0.0023	0.0000	0.0000	0.0070
70 mph	0.0018	0.0000	0.0006	0.0004	0.1353	0.0567	0.0000	0.0000	0.1950
total	0.0148	0.0004	0.0053	0.0031	0.6880	0.3581	0.9757	3.3878	5.4331

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.11
10 mph	0.11	0.01	0.05	0.01	0.04	0.02	0.03	0.10	0.37
15 mph	0.06	0.01	0.03	0.01	0.03	0.01	0.02	0.05	0.21
20 mph	0.04	0.00	0.02	0.00	0.02	0.01	0.04	0.12	0.26
25 mph	0.14	0.01	0.06	0.01	0.11	0.06	0.13	0.43	0.96
30 mph	0.13	0.01	0.06	0.01	0.09	0.05	0.11	0.37	0.83
35 mph	0.25	0.02	0.11	0.02	0.08	0.04	0.07	0.25	0.85
40 mph	0.05	0.00	0.02	0.01	0.05	0.02	0.07	0.23	0.45
45 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.05	0.16	0.32
50 mph	0.04	0.00	0.02	0.00	0.04	0.02	0.04	0.14	0.30
55 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.01	0.04	0.13
60 mph	0.04	0.00	0.02	0.00	0.03	0.01	0.45	1.50	2.05
65 mph	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
70 mph	0.16	0.01	0.07	0.02	0.15	0.06	0.00	0.00	0.46
total	1.10	0.11	0.48	0.10	0.74	0.38	1.02	3.40	**7.33**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	11.13	0.97	4.87	0.92	0.69	0.33	0.59	0.06
Diesel	0.15	0.00	0.01	0.03	1.41	0.84	5.10	5.65
Electric	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	13.24	0.98	4.88	0.94	2.10	1.17	5.68	5.70

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	8.59	0.75	3.76	0.81	0.79	0.38	1.84	0.18
Diesel	0.12	0.00	0.01	0.02	1.62	0.96	15.92	17.64
Electric	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	10.20	0.75	3.77	0.83	2.41	1.34	17.76	17.82

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.01	0.35	1.75	0.19	0.06	0.03	0.06	0.01
Diesel	0.05	0.00	0.00	0.01	0.12	0.07	0.55	0.61
Electric	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.76	0.35	1.76	0.19	0.18	0.10	0.61	0.62

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	23.73	2.08	10.38	1.91	1.54	0.75	2.49	0.24	43.13
Diesel	0.32	0.00	0.02	0.05	3.16	1.87	21.56	23.90	50.88
Electric	4.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15
Total	28.20	2.08	10.41	1.97	4.70	2.61	24.06	24.13	**98.16**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	217.44
Internal	15.09
Total	**232.53**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.07	0.01	0.03	0.01	0.03	0.02	0.02	0.07	0.26
15 mph	0.04	0.00	0.02	0.00	0.02	0.01	0.01	0.04	0.15
20 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.03	0.09	0.19
25 mph	0.09	0.01	0.04	0.01	0.08	0.04	0.10	0.33	0.71
30 mph	0.08	0.01	0.04	0.01	0.07	0.04	0.09	0.28	0.61
35 mph	0.16	0.02	0.07	0.01	0.06	0.03	0.06	0.19	0.60
40 mph	0.03	0.00	0.01	0.00	0.04	0.02	0.05	0.17	0.33
45 mph	0.02	0.00	0.01	0.00	0.03	0.01	0.04	0.12	0.24
50 mph	0.03	0.00	0.01	0.00	0.03	0.01	0.03	0.11	0.22
55 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.01	0.03	0.10
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.35	1.16	1.57
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.10	0.01	0.04	0.01	0.11	0.05	0.00	0.00	0.32
total	0.70	0.07	0.31	0.06	0.57	0.29	0.79	2.61	5.41

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N_2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.1129	0.0181	0.0906	0.0171	0.0133	0.0056	0.0081	0.0014	0.2670
15 mph	0.0452	0.0072	0.0362	0.0068	0.0053	0.0022	0.0027	0.0005	0.1062
20 mph	0.0903	0.0145	0.0725	0.0136	0.0107	0.0044	0.0054	0.0010	0.2124
25 mph	0.4516	0.0725	0.3623	0.0682	0.0533	0.0222	0.0295	0.0053	1.0650
30 mph	0.4968	0.0797	0.3986	0.0751	0.0586	0.0245	0.0268	0.0048	1.1649
35 mph	0.4065	0.0652	0.3261	0.0614	0.0480	0.0200	0.0121	0.0022	0.9414
40 mph	0.1355	0.0217	0.1087	0.0205	0.0160	0.0067	0.0134	0.0024	0.3249
45 mph	0.1129	0.0181	0.0906	0.0171	0.0133	0.0056	0.0107	0.0019	0.2702
50 mph	0.1129	0.0181	0.0906	0.0171	0.0133	0.0056	0.0174	0.0031	0.2781
55 mph	0.0903	0.0145	0.0725	0.0136	0.0107	0.0044	0.0040	0.0007	0.2108
60 mph	0.1807	0.0290	0.1449	0.0273	0.0213	0.0089	0.0040	0.0007	0.4168
65 mph	0.0226	0.0036	0.0181	0.0034	0.0027	0.0011	0.0000	0.0000	0.0515
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	2.2581	0.3624	1.8117	0.3412	0.2665	0.1111	0.1342	0.0240	5.3093

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0000	0.0000	0.0415
15 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0000	0.0000	0.0415
20 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0084	0.0015	0.0514
25 mph	0.0348	0.0056	0.0279	0.0060	0.0061	0.0025	0.0147	0.0026	0.1003
30 mph	0.0697	0.0112	0.0559	0.0121	0.0122	0.0051	0.0252	0.0045	0.1957
35 mph	0.1567	0.0252	0.1257	0.0271	0.0275	0.0115	0.0252	0.0045	0.4033
40 mph	0.1741	0.0279	0.1397	0.0301	0.0306	0.0127	0.0231	0.0041	0.4424
45 mph	0.1393	0.0224	0.1118	0.0241	0.0244	0.0102	0.0168	0.0030	0.3519
50 mph	0.1567	0.0252	0.1257	0.0271	0.0275	0.0115	0.0084	0.0015	0.3836
55 mph	0.0871	0.0140	0.0699	0.0151	0.0153	0.0064	0.0042	0.0007	0.2126
60 mph	0.0522	0.0084	0.0419	0.0090	0.0092	0.0038	0.2935	0.0524	0.4704
65 mph	0.0174	0.0028	0.0140	0.0030	0.0031	0.0013	0.0000	0.0000	0.0415
70 mph	0.8010	0.1286	0.6426	0.1387	0.1406	0.0586	0.0000	0.0000	1.9100
total	1.7413	0.2795	1.3970	0.3014	0.3056	0.1274	0.4192	0.0748	4.6463

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
15 mph	0.0382	0.0061	0.0307	0.0090	0.0055	0.0023	0.0026	0.0005	0.0949
25 mph	0.0000	0.0000	0.0000	0.0000	0.0177	0.0074	0.0119	0.0021	0.0391
35 mph	0.7750	0.1244	0.6218	0.0599	0.0000	0.0000	0.0000	0.0000	1.5810
total	0.8132	0.1305	0.6524	0.0689	0.0243	0.0101	0.0150	0.0027	1.7172

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0011	0.0005	0.0005	0.0001	0.0022
10 mph	0.1303	0.0209	0.1046	0.0201	0.0164	0.0068	0.0081	0.0014	0.3086
15 mph	0.1008	0.0162	0.0809	0.0188	0.0139	0.0058	0.0053	0.0009	0.2426
20 mph	0.1077	0.0173	0.0864	0.0167	0.0137	0.0057	0.0138	0.0025	0.2638
25 mph	0.4865	0.0781	0.3903	0.0743	0.0772	0.0322	0.0561	0.0100	1.2045
30 mph	0.5664	0.0909	0.4545	0.0871	0.0709	0.0295	0.0520	0.0093	1.3606
35 mph	1.3382	0.2148	1.0736	0.1484	0.0755	0.0315	0.0372	0.0066	2.9258
40 mph	0.3096	0.0497	0.2484	0.0506	0.0466	0.0194	0.0365	0.0065	0.7673
45 mph	0.2522	0.0405	0.2023	0.0412	0.0378	0.0158	0.0275	0.0049	0.6221
50 mph	0.2696	0.0433	0.2163	0.0442	0.0408	0.0170	0.0258	0.0046	0.6617
55 mph	0.1774	0.0285	0.1423	0.0287	0.0259	0.0108	0.0082	0.0015	0.4233
60 mph	0.2329	0.0374	0.1868	0.0363	0.0305	0.0127	0.2975	0.0531	0.8872
65 mph	0.0400	0.0064	0.0321	0.0064	0.0057	0.0024	0.0000	0.0000	0.0930
70 mph	0.8010	0.1286	0.6426	0.1387	0.1406	0.0586	0.0000	0.0000	1.9100
total	4.8126	0.7724	3.8612	0.7115	0.5964	0.2487	0.5684	0.1015	11.6727

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0004	0.0000	0.0000	0.0003	0.0095	0.0049	0.0249	0.0459	0.0860
15 mph	0.0002	0.0000	0.0000	0.0001	0.0038	0.0019	0.0083	0.0153	0.0297
20 mph	0.0003	0.0000	0.0000	0.0003	0.0076	0.0039	0.0166	0.0306	0.0593
25 mph	0.0017	0.0000	0.0002	0.0014	0.0379	0.0195	0.0914	0.1682	0.3203
30 mph	0.0019	0.0000	0.0002	0.0015	0.0417	0.0214	0.0831	0.1529	0.3027
35 mph	0.0015	0.0000	0.0002	0.0012	0.0341	0.0175	0.0374	0.0688	0.1608
40 mph	0.0005	0.0000	0.0001	0.0004	0.0114	0.0058	0.0416	0.0764	0.1362
45 mph	0.0004	0.0000	0.0000	0.0003	0.0095	0.0049	0.0332	0.0612	0.1096
50 mph	0.0004	0.0000	0.0000	0.0003	0.0095	0.0049	0.0540	0.0994	0.1686
55 mph	0.0003	0.0000	0.0000	0.0003	0.0076	0.0039	0.0125	0.0229	0.0475
60 mph	0.0007	0.0000	0.0001	0.0005	0.0152	0.0078	0.0125	0.0229	0.0597
65 mph	0.0001	0.0000	0.0000	0.0001	0.0019	0.0010	0.0000	0.0000	0.0030
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0086	0.0000	0.0009	0.0068	0.1897	0.0973	0.4155	0.7645	1.4833

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0000	0.0000	0.0034
15 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0000	0.0000	0.0034
20 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0260	0.0478	0.0771
25 mph	0.0001	0.0000	0.0000	0.0001	0.0043	0.0022	0.0454	0.0836	0.1359
30 mph	0.0003	0.0000	0.0000	0.0002	0.0087	0.0045	0.0779	0.1433	0.2348
35 mph	0.0006	0.0000	0.0001	0.0005	0.0196	0.0100	0.0779	0.1433	0.2520
40 mph	0.0007	0.0000	0.0001	0.0006	0.0217	0.0112	0.0714	0.1313	0.2370
45 mph	0.0005	0.0000	0.0001	0.0005	0.0174	0.0089	0.0519	0.0955	0.1748
50 mph	0.0006	0.0000	0.0001	0.0005	0.0196	0.0100	0.0260	0.0478	0.1045
55 mph	0.0003	0.0000	0.0000	0.0003	0.0109	0.0056	0.0130	0.0239	0.0540
60 mph	0.0002	0.0000	0.0000	0.0002	0.0065	0.0033	0.9086	1.6715	2.5903
65 mph	0.0001	0.0000	0.0000	0.0001	0.0022	0.0011	0.0000	0.0000	0.0034
70 mph	0.0030	0.0000	0.0003	0.0028	0.1000	0.0513	0.0000	0.0000	0.1575
total	0.0066	0.0000	0.0007	0.0060	0.2175	0.1115	1.2979	2.3878	4.0282

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
15 mph	0.0001	0.0000	0.0000	0.0002	0.0039	0.0020	0.0081	0.0149	0.0292
25 mph	0.0000	0.0000	0.0000	0.0000	0.0126	0.0065	0.0367	0.0675	0.1234
35 mph	0.0029	0.0000	0.0003	0.0012	0.0000	0.0000	0.0000	0.0000	0.0045
total	0.0031	0.0000	0.0003	0.0014	0.0173	0.0089	0.0465	0.0855	0.1630

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0031	0.0059
10 mph	0.0005	0.0000	0.0001	0.0004	0.0117	0.0060	0.0249	0.0459	0.0894
15 mph	0.0004	0.0000	0.0000	0.0004	0.0099	0.0051	0.0164	0.0302	0.0623
20 mph	0.0004	0.0000	0.0000	0.0003	0.0098	0.0050	0.0426	0.0783	0.1365
25 mph	0.0018	0.0000	0.0002	0.0015	0.0549	0.0282	0.1736	0.3193	0.5795
30 mph	0.0022	0.0000	0.0002	0.0017	0.0504	0.0259	0.1610	0.2962	0.5376
35 mph	0.0051	0.0000	0.0005	0.0029	0.0537	0.0276	0.1153	0.2121	0.4172
40 mph	0.0012	0.0000	0.0001	0.0010	0.0331	0.0170	0.1129	0.2078	0.3732
45 mph	0.0010	0.0000	0.0001	0.0008	0.0269	0.0138	0.0852	0.1567	0.2844
50 mph	0.0010	0.0000	0.0001	0.0009	0.0291	0.0149	0.0800	0.1471	0.2731
55 mph	0.0007	0.0000	0.0001	0.0006	0.0185	0.0095	0.0254	0.0468	0.1015
60 mph	0.0009	0.0000	0.0001	0.0007	0.0217	0.0111	0.9210	1.6944	2.6500
65 mph	0.0002	0.0000	0.0000	0.0001	0.0041	0.0021	0.0000	0.0000	0.0065
70 mph	0.0030	0.0000	0.0003	0.0028	0.1000	0.0513	0.0000	0.0000	0.1575
total	0.0183	0.0001	0.0019	0.0141	0.4245	0.2177	1.7599	3.2378	5.6744

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10 mph	0.13	0.02	0.10	0.02	0.03	0.01	0.03	0.05	0.40
15 mph	0.10	0.02	0.08	0.02	0.02	0.01	0.02	0.03	0.30
20 mph	0.11	0.02	0.09	0.02	0.02	0.01	0.06	0.08	0.40
25 mph	0.49	0.08	0.39	0.08	0.13	0.06	0.23	0.33	1.78
30 mph	0.57	0.09	0.45	0.09	0.12	0.06	0.21	0.31	1.90
35 mph	1.34	0.21	1.07	0.15	0.13	0.06	0.15	0.22	3.34
40 mph	0.31	0.05	0.25	0.05	0.08	0.04	0.15	0.21	1.14
45 mph	0.25	0.04	0.20	0.04	0.06	0.03	0.11	0.16	0.91
50 mph	0.27	0.04	0.22	0.05	0.07	0.03	0.11	0.15	0.93
55 mph	0.18	0.03	0.14	0.03	0.04	0.02	0.03	0.05	0.52
60 mph	0.23	0.04	0.19	0.04	0.05	0.02	1.22	1.75	3.54
65 mph	0.04	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.10
70 mph	0.80	0.13	0.64	0.14	0.24	0.11	0.00	0.00	2.07
total	4.83	0.77	3.86	0.73	1.02	0.47	2.33	3.34	**17.35**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.9751	3.5446	8.6070	4.3502
10 mph	0.0065	0.0086	0.0084	0.0123	0.0067	0.0055	0.0154	0.5464
15 mph	0.0043	0.0057	0.0056	0.0081	0.0044	0.0037	0.0102	0.3632
20 mph	0.0030	0.0040	0.0039	0.0057	0.0031	0.0026	0.0071	0.2542
25 mph	0.0022	0.0029	0.0029	0.0042	0.0023	0.0019	0.0053	0.1878
30 mph	0.0017	0.0023	0.0022	0.0033	0.0018	0.0015	0.0041	0.1464
35 mph	0.0014	0.0019	0.0018	0.0027	0.0015	0.0012	0.0034	0.1203
40 mph	0.0012	0.0016	0.0016	0.0024	0.0013	0.0011	0.0029	0.1043
45 mph	0.0011	0.0015	0.0015	0.0022	0.0012	0.0010	0.0027	0.0954
50 mph	0.0011	0.0014	0.0014	0.0021	0.0011	0.0009	0.0026	0.0921
55 mph	0.0011	0.0014	0.0014	0.0021	0.0012	0.0009	0.0026	0.0937
60 mph	0.0012	0.0015	0.0015	0.0023	0.0012	0.0010	0.0028	0.1007
65 mph	0.0013	0.0017	0.0017	0.0026	0.0014	0.0012		
70 mph	0.0015	0.0018	0.0019	0.0029	0.0016	0.0013		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0075	0.0237
10 mph	0.0028	0.0093	0.0091	0.0033	0.0263	0.0259	0.0089	0.0221
15 mph	0.0013	0.0047	0.0045	0.0016	0.0130	0.0127	0.0063	0.0154
20 mph	0.0005	0.0019	0.0017	0.0006	0.0052	0.0049	0.0046	0.0109
25 mph	0.0003	0.0012	0.0010	0.0004	0.0032	0.0030	0.0033	0.0079
30 mph	0.0002	0.0009	0.0008	0.0003	0.0024	0.0022	0.0025	0.0058
35 mph	0.0002	0.0007	0.0006	0.0002	0.0019	0.0018	0.0018	0.0043
40 mph	0.0002	0.0006	0.0005	0.0002	0.0016	0.0015	0.0013	0.0032
45 mph	0.0001	0.0005	0.0004	0.0002	0.0014	0.0013	0.0010	0.0023
50 mph	0.0001	0.0004	0.0004	0.0001	0.0012	0.0011	0.0007	0.0017
55 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0010	0.0005	0.0013
60 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009	0.0005	0.0011
65 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009		
70 mph	0.0001	0.0003	0.0003	0.0001	0.0014	0.0009		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.2032	0.0235	0.1153	0.0318	0.0067	0.0023	0.0092	0.0586	0.4505
15 mph	0.0540	0.0063	0.0306	0.0084	0.0018	0.0006	0.0020	0.0130	0.1167
20 mph	0.0756	0.0088	0.0429	0.0118	0.0025	0.0008	0.0029	0.0182	0.1635
25 mph	0.2787	0.0323	0.1580	0.0438	0.0091	0.0031	0.0116	0.0739	0.6105
30 mph	0.2384	0.0275	0.1351	0.0376	0.0078	0.0027	0.0082	0.0523	0.5096
35 mph	0.1599	0.0183	0.0905	0.0254	0.0053	0.0018	0.0030	0.0193	0.3236
40 mph	0.0462	0.0053	0.0261	0.0073	0.0015	0.0005	0.0029	0.0186	0.1086
45 mph	0.0353	0.0040	0.0199	0.0056	0.0012	0.0004	0.0022	0.0136	0.0822
50 mph	0.0340	0.0039	0.0192	0.0054	0.0011	0.0004	0.0034	0.0214	0.0888
55 mph	0.0277	0.0032	0.0157	0.0044	0.0009	0.0003	0.0008	0.0050	0.0580
60 mph	0.0596	0.0068	0.0336	0.0094	0.0020	0.0007	0.0009	0.0054	0.1183
65 mph	0.0084	0.0009	0.0047	0.0013	0.0003	0.0001	0.0000	0.0000	0.0158
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.2210	0.1408	0.6917	0.1922	0.0400	0.0138	0.0472	0.2994	2.6461

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0313	0.0036	0.0178	0.0056	0.0015	0.0005	0.0000	0.0000	0.0604
15 mph	0.0208	0.0024	0.0118	0.0037	0.0010	0.0003	0.0000	0.0000	0.0401
20 mph	0.0146	0.0017	0.0083	0.0026	0.0007	0.0002	0.0045	0.0284	0.0610
25 mph	0.0215	0.0025	0.0122	0.0039	0.0010	0.0004	0.0058	0.0367	0.0839
30 mph	0.0334	0.0039	0.0189	0.0060	0.0016	0.0006	0.0077	0.0490	0.1212
35 mph	0.0617	0.0071	0.0349	0.0112	0.0030	0.0010	0.0063	0.0403	0.1655
40 mph	0.0594	0.0068	0.0336	0.0108	0.0029	0.0010	0.0050	0.0320	0.1516
45 mph	0.0435	0.0050	0.0246	0.0079	0.0021	0.0007	0.0034	0.0213	0.1085
50 mph	0.0472	0.0054	0.0266	0.0086	0.0023	0.0008	0.0016	0.0103	0.1028
55 mph	0.0267	0.0030	0.0151	0.0049	0.0013	0.0004	0.0008	0.0052	0.0576
60 mph	0.0172	0.0020	0.0097	0.0031	0.0008	0.0003	0.0621	0.3936	0.4889
65 mph	0.0065	0.0007	0.0037	0.0012	0.0003	0.0001	0.0000	0.0000	0.0125
70 mph	0.3258	0.0346	0.1802	0.0604	0.0167	0.0055	0.0000	0.0000	0.6232
total	0.7096	0.0786	0.3974	0.1299	0.0355	0.0119	0.0973	0.6169	2.0771

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3446	0.0315	0.8211
15 mph	0.0457	0.0053	0.0259	0.0111	0.0018	0.0006	0.0020	0.0127	0.1050
25 mph	0.0000	0.0000	0.0000	0.0000	0.0030	0.0010	0.0047	0.0297	0.0384
35 mph	0.3049	0.0350	0.1725	0.0247	0.0000	0.0000	0.0000	0.0000	0.5372
total	0.3506	0.0403	0.1984	0.0358	0.3292	0.1223	0.3513	0.0739	1.5017

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3243	0.1206	0.3446	0.0315	0.8211
10 mph	0.2345	0.0271	0.1331	0.0374	0.0082	0.0028	0.0092	0.0586	0.5110
15 mph	0.1205	0.0140	0.0683	0.0232	0.0046	0.0016	0.0040	0.0256	0.2618
20 mph	0.0902	0.0105	0.0512	0.0144	0.0032	0.0011	0.0073	0.0466	0.2244
25 mph	0.3002	0.0348	0.1702	0.0476	0.0131	0.0045	0.0221	0.1403	0.7329
30 mph	0.2718	0.0314	0.1540	0.0437	0.0094	0.0033	0.0160	0.1014	0.6308
35 mph	0.5265	0.0604	0.2979	0.0613	0.0083	0.0028	0.0094	0.0596	1.0263
40 mph	0.1056	0.0121	0.0597	0.0181	0.0044	0.0015	0.0080	0.0507	0.2602
45 mph	0.0788	0.0090	0.0445	0.0135	0.0033	0.0011	0.0055	0.0350	0.1907
50 mph	0.0813	0.0092	0.0458	0.0140	0.0035	0.0012	0.0050	0.0317	0.1916
55 mph	0.0545	0.0062	0.0308	0.0093	0.0022	0.0008	0.0016	0.0103	0.1156
60 mph	0.0768	0.0087	0.0434	0.0125	0.0028	0.0010	0.0630	0.3990	0.6071
65 mph	0.0149	0.0017	0.0084	0.0025	0.0006	0.0002	0.0000	0.0000	0.0283
70 mph	0.3258	0.0346	0.1802	0.0604	0.0167	0.0055	0.0000	0.0000	0.6232
total	2.2812	0.2597	1.2875	0.3579	0.4046	0.1480	0.4958	0.9902	6.2249

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0012	0.0000	0.0003	0.0002	0.0520	0.0263	0.0464	0.2107	0.3371
15 mph	0.0002	0.0000	0.0001	0.0000	0.0103	0.0051	0.0109	0.0491	0.0757
20 mph	0.0002	0.0000	0.0000	0.0000	0.0082	0.0040	0.0158	0.0696	0.0979
25 mph	0.0005	0.0000	0.0001	0.0001	0.0250	0.0121	0.0635	0.2751	0.3765
30 mph	0.0004	0.0000	0.0001	0.0001	0.0210	0.0100	0.0426	0.1843	0.2585
35 mph	0.0003	0.0000	0.0001	0.0001	0.0138	0.0065	0.0141	0.0612	0.0961
40 mph	0.0001	0.0000	0.0000	0.0000	0.0039	0.0018	0.0116	0.0503	0.0676
45 mph	0.0001	0.0000	0.0000	0.0000	0.0028	0.0013	0.0068	0.0297	0.0407
50 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0011	0.0082	0.0354	0.0472
55 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0008	0.0014	0.0061	0.0101
60 mph	0.0001	0.0000	0.0000	0.0000	0.0034	0.0015	0.0012	0.0052	0.0113
65 mph	0.0000	0.0000	0.0000	0.0000	0.0004	0.0002	0.0000	0.0000	0.0006
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0032	0.0000	0.0007	0.0006	0.1450	0.0707	0.2224	0.9769	1.4194

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0000	0.0000	0.0000	0.0119	0.0060	0.0000	0.0000	0.0182
15 mph	0.0001	0.0000	0.0000	0.0000	0.0059	0.0029	0.0000	0.0000	0.0090
20 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0011	0.0246	0.1088	0.1369
25 mph	0.0000	0.0000	0.0000	0.0000	0.0029	0.0014	0.0316	0.1367	0.1726
30 mph	0.0001	0.0000	0.0000	0.0000	0.0044	0.0021	0.0399	0.1727	0.2191
35 mph	0.0001	0.0000	0.0000	0.0000	0.0079	0.0037	0.0294	0.1275	0.1687
40 mph	0.0001	0.0000	0.0000	0.0000	0.0074	0.0034	0.0199	0.0864	0.1172
45 mph	0.0001	0.0000	0.0000	0.0000	0.0051	0.0023	0.0106	0.0464	0.0646
50 mph	0.0001	0.0000	0.0000	0.0000	0.0050	0.0023	0.0039	0.0170	0.0284
55 mph	0.0000	0.0000	0.0000	0.0000	0.0025	0.0011	0.0014	0.0064	0.0115
60 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0006	0.0869	0.3792	0.4681
65 mph	0.0000	0.0000	0.0000	0.0000	0.0005	0.0002	0.0000	0.0000	0.0007
70 mph	0.0003	0.0000	0.0001	0.0001	0.0291	0.0100	0.0000	0.0000	0.0395
total	0.0011	0.0000	0.0003	0.0002	0.0864	0.0373	0.2482	1.0810	1.4546

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0151	0.0538
15 mph	0.0002	0.0000	0.0000	0.0001	0.0106	0.0053	0.0106	0.0479	0.0746
25 mph	0.0000	0.0000	0.0000	0.0000	0.0083	0.0040	0.0255	0.1105	0.1483
35 mph	0.0006	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0007
total	0.0008	0.0000	0.0002	0.0001	0.0428	0.0216	0.0387	0.1734	0.2776

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0239	0.0123	0.0026	0.0151	0.0538
10 mph	0.0014	0.0000	0.0003	0.0003	0.0640	0.0323	0.0464	0.2107	0.3554
15 mph	0.0005	0.0000	0.0001	0.0001	0.0267	0.0134	0.0215	0.0970	0.1593
20 mph	0.0002	0.0000	0.0000	0.0000	0.0106	0.0052	0.0404	0.1784	0.2348
25 mph	0.0006	0.0000	0.0001	0.0001	0.0362	0.0175	0.1206	0.5223	0.6974
30 mph	0.0005	0.0000	0.0001	0.0001	0.0254	0.0121	0.0824	0.3570	0.4777
35 mph	0.0010	0.0000	0.0002	0.0001	0.0218	0.0103	0.0435	0.1887	0.2656
40 mph	0.0002	0.0000	0.0000	0.0000	0.0112	0.0052	0.0314	0.1367	0.1848
45 mph	0.0001	0.0000	0.0000	0.0000	0.0078	0.0036	0.0175	0.0762	0.1052
50 mph	0.0001	0.0000	0.0000	0.0000	0.0075	0.0034	0.0121	0.0524	0.0756
55 mph	0.0001	0.0000	0.0000	0.0000	0.0043	0.0019	0.0028	0.0125	0.0215
60 mph	0.0001	0.0000	0.0000	0.0000	0.0048	0.0021	0.0880	0.3844	0.4795
65 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0000	0.0000	0.0014
70 mph	0.0003	0.0000	0.0001	0.0001	0.0291	0.0100	0.0000	0.0000	0.0395
total	0.0050	0.0001	0.0012	0.0010	0.2742	0.1295	0.5093	2.2314	3.1516

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.35	0.13	0.35	0.05	0.87
10 mph	0.24	0.03	0.13	0.04	0.07	0.04	0.06	0.27	0.87
15 mph	0.12	0.01	0.07	0.02	0.03	0.01	0.03	0.12	0.42
20 mph	0.09	0.01	0.05	0.01	0.01	0.01	0.05	0.22	0.46
25 mph	0.30	0.03	0.17	0.05	0.05	0.02	0.14	0.66	1.43
30 mph	0.27	0.03	0.15	0.04	0.03	0.02	0.10	0.46	1.11
35 mph	0.53	0.06	0.30	0.06	0.03	0.01	0.05	0.25	1.29
40 mph	0.11	0.01	0.06	0.02	0.02	0.01	0.04	0.19	0.45
45 mph	0.08	0.01	0.04	0.01	0.01	0.00	0.02	0.11	0.30
50 mph	0.08	0.01	0.05	0.01	0.01	0.00	0.02	0.08	0.27
55 mph	0.05	0.01	0.03	0.01	0.01	0.00	0.00	0.02	0.14
60 mph	0.08	0.01	0.04	0.01	0.01	0.00	0.15	0.78	1.09
65 mph	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03
70 mph	0.33	0.03	0.18	0.06	0.05	0.02	0.00	0.00	0.66
total	2.29	0.26	1.29	0.36	0.68	0.28	1.01	3.22	**9.38**

World Logistics Center
Mobile Emissions - 2040 Buildout (Project) - Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,436.77	5,082.76	13,319.96	18,944.56
10 mph	453.37	498.75	562.92	749.83	1,273.21	1,421.78	3,120.06	3,213.67
15 mph	349.08	384.15	433.26	576.76	884.06	1,000.13	2,150.74	2,318.18
20 mph	278.91	306.89	346.19	460.91	767.72	875.30	1,512.14	1,872.96
25 mph	231.24	254.25	287.01	382.23	703.63	791.48	1,320.44	1,762.01
30 mph	198.97	218.56	246.97	329.08	638.66	715.38	1,213.44	1,677.62
35 mph	177.67	194.91	220.56	294.09	638.78	715.38	1,120.31	1,608.97
40 mph	164.73	180.66	204.50	272.71	636.41	699.04	1,042.28	1,550.76
45 mph	158.54	173.85	196.79	262.45	633.52	682.56	968.44	1,516.65
50 mph	158.34	173.52	196.53	262.19	668.12	711.58	905.92	1,497.80
55 mph	164.16	179.95	203.78	271.87	703.92	743.97	880.92	1,469.61
60 mph	176.64	193.67	219.25	292.42	714.26	751.76	886.39	1,449.04
65 mph	197.20	215.90	244.76	326.70	724.00	759.14		
70 mph	211.26	229.17	262.04	351.75	718.35	743.75		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	3,586.55	5,720.08	6,413.50	5,603.63
10 mph	396.09	442.60	488.14	611.90	951.54	1,054.49	1,869.86	2,467.17
15 mph	325.82	367.38	404.72	518.99	621.07	701.90	1,568.87	2,068.72
20 mph	267.27	301.70	332.51	431.01	529.51	598.68	1,370.17	1,809.40
25 mph	224.01	252.30	278.73	364.39	469.55	533.51	1,264.29	1,665.21
30 mph	193.99	217.41	240.97	314.64	426.47	481.15	1,196.64	1,575.38
35 mph	175.33	195.33	217.42	285.39	426.60	481.17	1,142.85	1,504.07
40 mph	164.06	182.13	202.91	266.93	414.98	463.60	1,097.63	1,442.16
45 mph	158.48	175.58	195.64	256.88	404.82	445.64	1,060.68	1,393.38
50 mph	158.88	175.52	195.94	258.14	424.43	462.06	1,027.92	1,348.31
55 mph	166.26	183.73	204.90	272.45	443.40	478.24	998.94	1,308.66
60 mph	180.25	199.13	221.94	295.02	447.78	479.91	984.75	1,287.33
65 mph	202.61	222.61	249.22	331.17	453.71	481.18		
70 mph	218.85	234.13	268.65	356.15	450.48	475.58		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	14,219.24	1,369.39	7,726.20	1,937.97	1,266.15	589.63	1,875.01	344.70	29,328.29
15 mph	4,379.34	421.90	2,378.64	596.26	351.66	165.91	430.83	82.88	8,807.43
20 mph	6,997.96	674.09	3,801.21	953.00	610.78	290.40	605.82	133.93	14,067.17
25 mph	29,009.51	2,792.37	15,757.20	3,951.59	2,798.94	1,312.94	2,909.57	692.97	59,225.08
30 mph	27,456.97	2,640.35	14,914.93	3,742.23	2,794.53	1,305.36	2,430.73	599.80	55,884.91
35 mph	20,060.79	1,926.58	10,898.21	2,736.32	2,286.87	1,068.03	1,009.88	258.87	40,245.55
40 mph	6,199.81	595.24	3,368.11	845.80	759.46	347.88	1,043.93	277.22	13,437.46
45 mph	4,972.22	477.34	2,701.00	678.30	630.01	283.06	775.98	216.90	10,734.83
50 mph	4,966.00	476.42	2,697.38	677.63	664.42	295.10	1,179.56	348.08	11,304.60
55 mph	4,118.84	395.27	2,237.55	562.12	560.02	246.83	264.70	78.82	8,464.13
60 mph	8,863.97	850.82	4,814.71	1,209.24	1,136.49	498.82	266.34	77.71	17,718.10
65 mph	1,236.95	118.56	671.88	168.87	144.00	62.96	0.00	0.00	2,403.23
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	132,481.60	12,738.34	71,967.04	18,059.33	14,003.32	6,466.91	12,792.35	3,111.89	271,620.78

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	2,192.89	211.19	1,191.54	342.46	290.37	135.22	0.00	0.00	4,363.66
15 mph	1,688.45	162.66	917.09	263.41	201.62	95.12	0.00	0.00	3,328.36
20 mph	1,349.03	129.95	732.78	210.50	175.09	83.25	946.15	209.17	3,835.92
25 mph	2,236.92	215.32	1,215.04	349.14	320.94	150.55	1,445.85	344.36	6,278.13
30 mph	3,849.47	370.18	2,091.07	601.17	582.61	272.15	2,277.76	562.06	10,606.47
35 mph	7,734.44	742.79	4,201.81	1,208.84	1,311.12	612.33	2,102.95	539.06	18,453.35
40 mph	7,967.79	764.99	4,328.59	1,245.51	1,451.39	664.83	1,793.43	476.26	18,692.79
45 mph	6,134.54	588.93	3,332.39	958.90	1,155.85	519.32	1,211.92	338.75	14,240.58
50 mph	6,892.71	661.26	3,743.92	1,077.70	1,371.35	609.07	566.84	167.27	15,090.12
55 mph	3,970.05	380.99	2,156.72	620.83	802.68	353.78	275.60	82.06	8,642.70
60 mph	2,563.13	246.03	1,392.24	400.66	488.68	214.49	19,411.71	5,663.87	30,380.81
65 mph	953.81	91.42	518.09	149.21	165.12	72.20	0.00	0.00	1,949.85
70 mph	47,003.87	4,463.73	25,513.82	7,389.83	7,536.06	3,253.80	0.00	0.00	95,161.11
total	94,537.11	9,029.44	51,335.07	14,818.16	15,852.88	7,036.10	30,032.22	8,382.86	231,023.84

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	533.33	137.32	1,205.60
15 mph	3,705.72	357.00	2,012.77	785.57	362.16	170.86	419.79	80.76	7,894.62
25 mph	0.00	0.00	0.00	0.00	931.79	437.09	1,168.50	278.30	2,815.69
35 mph	38,248.19	3,673.25	20,778.68	2,668.65	0.00	0.00	0.00	0.00	65,368.77
total	41,953.91	4,030.26	22,791.45	3,454.22	1,655.95	780.89	2,121.62	496.38	77,284.68

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	362.00	172.94	533.33	137.32	1,205.60
10 mph	16,412.13	1,580.58	8,917.74	2,280.43	1,556.52	724.85	1,875.01	344.70	33,691.95
15 mph	9,773.51	941.57	5,308.50	1,645.25	915.44	431.88	850.62	163.64	20,030.41
20 mph	8,347.00	804.04	4,533.99	1,163.50	785.86	373.64	1,551.97	343.10	17,903.09
25 mph	31,246.43	3,007.69	16,972.24	4,300.73	4,051.67	1,900.57	5,523.93	1,315.64	68,318.89
30 mph	31,306.44	3,010.53	17,006.01	4,343.41	3,377.14	1,577.51	4,708.50	1,161.86	66,491.38
35 mph	66,043.42	6,342.63	35,878.69	6,613.81	3,597.99	1,680.36	3,112.83	797.93	124,067.67
40 mph	14,167.60	1,360.23	7,696.70	2,091.30	2,210.85	1,012.71	2,837.36	753.48	32,130.24
45 mph	11,106.76	1,066.27	6,033.39	1,637.20	1,785.86	802.39	1,987.90	555.65	24,975.41
50 mph	11,858.71	1,137.68	6,441.30	1,755.34	2,035.77	904.17	1,746.40	515.36	26,394.73
55 mph	8,088.88	776.26	4,394.26	1,182.95	1,362.70	600.61	540.30	160.88	17,106.83
60 mph	11,427.10	1,096.85	6,206.95	1,609.89	1,625.17	713.31	19,678.05	5,741.59	48,098.91
65 mph	2,190.77	209.98	1,189.98	318.08	309.11	135.16	0.00	0.00	4,353.08
70 mph	47,003.87	4,463.73	25,513.82	7,389.83	7,536.06	3,253.80	0.00	0.00	95,161.11
total	268,972.62	25,798.04	146,093.56	36,331.71	31,512.15	14,283.90	44,946.19	11,991.13	579,929.30

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	169.96	0.69	14.64	43.22	1,880.10	1,068.57	9,712.32	23,575.78	36,465.28
15 mph	55.92	0.23	4.85	14.66	490.86	284.51	2,716.32	6,589.41	10,156.76
20 mph	91.75	0.38	7.98	24.35	836.98	485.34	4,744.58	11,526.85	17,718.20
25 mph	384.47	1.57	33.43	102.94	3,711.04	2,162.55	24,078.72	58,345.32	88,820.05
30 mph	366.26	1.49	31.79	97.78	3,707.60	2,145.34	20,718.51	50,180.11	77,248.88
35 mph	270.83	1.10	23.47	72.56	3,034.40	1,755.33	8,904.19	21,558.80	35,620.69
40 mph	84.48	0.34	7.30	22.62	983.92	563.75	9,502.13	22,968.29	34,132.83
45 mph	68.00	0.27	5.87	18.14	799.86	451.59	7,345.75	17,753.09	26,442.57
50 mph	68.17	0.27	5.88	18.23	838.61	468.23	11,568.25	27,915.78	40,883.43
55 mph	57.07	0.23	4.92	15.39	700.88	387.70	2,594.33	6,252.66	10,013.18
60 mph	123.75	0.50	10.65	33.34	1,415.59	778.10	2,557.48	6,150.74	11,070.15
65 mph	17.39	0.07	1.49	4.68	179.29	97.52	0.00	0.00	300.44
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	1,758.05	7.14	152.27	467.92	18,579.14	10,648.53	104,442.59	252,816.83	388,872.46

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	26.21	0.11	2.26	7.64	431.17	245.06	0.00	0.00	712.43
15 mph	21.56	0.09	1.87	6.48	281.42	163.12	0.00	0.00	474.53
20 mph	17.69	0.07	1.54	5.38	239.93	139.13	7,410.01	18,002.42	25,816.16
25 mph	29.65	0.12	2.58	9.10	425.53	247.97	11,965.45	28,993.58	41,673.97
30 mph	51.35	0.21	4.46	15.71	772.97	447.27	19,414.68	47,022.24	67,728.87
35 mph	104.42	0.42	9.05	32.06	1,739.71	1,006.38	18,541.87	44,893.52	66,327.42
40 mph	108.57	0.44	9.38	33.31	1,880.36	1,077.38	16,324.29	39,458.60	58,892.33
45 mph	83.90	0.34	7.24	25.65	1,467.46	828.51	11,472.46	27,726.46	41,612.00
50 mph	94.62	0.38	8.16	29.00	1,730.88	966.41	5,559.10	13,414.88	21,803.43
55 mph	55.01	0.22	4.74	17.00	1,004.58	555.69	2,701.19	6,510.19	10,848.63
60 mph	35.78	0.14	3.08	11.05	608.70	334.58	186,397.33	448,285.42	635,676.08
65 mph	13.41	0.05	1.15	4.13	205.59	111.82	0.00	0.00	336.16
70 mph	666.18	2.59	57.15	204.47	9,389.75	5,083.97	0.00	0.00	15,404.10
total	1,308.34	5.18	112.65	400.96	20,178.04	11,207.27	279,786.37	674,307.31	987,306.12

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,219.54	3,567.71	6,844.25
15 mph	47.32	0.19	4.11	19.32	505.50	293.00	2,646.71	6,420.54	9,936.68
25 mph	0.00	0.00	0.00	0.00	1,235.44	719.93	9,670.18	23,431.88	35,057.43
35 mph	516.37	2.09	44.75	70.77	0.00	0.00	0.00	0.00	633.98
total	563.69	2.28	48.86	90.09	2,322.36	1,488.51	14,536.43	33,420.13	52,472.35

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	581.42	475.58	2,219.54	3,567.71	6,844.25
10 mph	196.17	0.80	16.90	50.85	2,311.27	1,313.62	9,712.32	23,575.78	37,177.71
15 mph	124.80	0.51	10.83	40.46	1,277.78	740.62	5,363.03	13,009.95	20,567.98
20 mph	109.43	0.45	9.51	29.73	1,076.91	624.47	12,154.59	29,529.27	43,534.37
25 mph	414.12	1.69	36.01	112.04	5,372.02	3,130.45	45,714.34	110,770.78	165,551.46
30 mph	417.61	1.70	36.25	113.48	4,480.57	2,592.60	40,133.19	97,202.35	144,977.75
35 mph	891.63	3.61	77.27	175.39	4,774.11	2,761.71	27,446.06	66,452.32	102,582.09
40 mph	193.04	0.78	16.69	55.94	2,864.28	1,641.12	25,826.42	62,426.89	93,025.16
45 mph	151.90	0.61	13.10	43.79	2,267.32	1,280.10	18,818.20	45,479.55	68,054.57
50 mph	162.80	0.65	14.03	47.23	2,569.50	1,434.64	17,127.35	41,330.66	62,686.86
55 mph	112.08	0.45	9.65	32.40	1,705.46	943.39	5,295.52	12,762.85	20,861.80
60 mph	159.53	0.64	13.73	44.38	2,024.29	1,112.68	188,954.81	454,436.16	646,746.23
65 mph	30.79	0.12	2.65	8.81	384.88	209.35	0.00	0.00	636.60
70 mph	666.18	2.59	57.15	204.47	9,389.75	5,083.97	0.00	0.00	15,404.10
total	3,630.09	14.60	313.78	958.97	41,079.54	23,344.31	398,765.38	960,544.26	1,428,650.93

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	943.42	648.52	2,752.87	3,705.03	8,049.85
10 mph	16,608.30	1,581.38	8,934.63	2,331.28	3,867.79	2,038.47	11,587.33	23,920.48	70,869.66
15 mph	9,898.32	942.08	5,319.33	1,685.70	2,193.21	1,172.50	6,213.65	13,173.59	40,598.39
20 mph	8,456.43	804.49	4,543.50	1,193.23	1,862.77	998.11	13,706.56	29,872.36	61,437.46
25 mph	31,660.55	3,009.38	17,008.25	4,412.77	9,423.69	5,031.03	51,238.27	112,086.42	233,870.35
30 mph	31,724.04	3,012.23	17,042.26	4,456.89	7,857.70	4,170.11	44,841.68	98,364.21	211,469.13
35 mph	66,935.05	6,346.24	35,955.97	6,789.20	8,372.10	4,442.08	30,558.89	67,250.24	226,649.76
40 mph	14,360.64	1,361.01	7,713.39	2,147.24	5,075.13	2,653.83	28,663.78	63,180.37	125,155.40
45 mph	11,258.66	1,066.88	6,046.50	1,680.99	4,053.17	2,082.48	20,806.10	46,035.20	93,029.98
50 mph	12,021.51	1,138.34	6,455.33	1,802.56	4,605.27	2,338.81	18,873.76	41,846.02	89,081.58
55 mph	8,200.96	776.71	4,403.92	1,215.34	3,068.16	1,544.00	5,835.81	12,923.73	37,968.64
60 mph	11,586.63	1,097.49	6,220.68	1,654.28	3,649.46	1,825.99	208,632.86	460,177.75	694,845.14
65 mph	2,221.56	210.10	1,192.62	326.89	693.99	344.51	0.00	0.00	4,989.68
70 mph	47,670.05	4,466.32	25,570.97	7,594.30	16,925.81	8,337.76	0.00	0.00	110,565.21
total	272,602.71	25,812.64	146,407.34	37,290.67	72,591.70	37,628.21	443,711.57	972,535.39	**2,008,580.22**

B-19 Mobile Source Emissions Calculations – Medium EV Penetration

World Logistics Center
2025 Medium EV Mitigated

Pounds per day

ROG	NOX	CO	PM10 Exhaust	Dust	Brake	PM10 Total	PM2.5 Exhaust	Dust	Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
58.83	589.37	754.01	2.71	260.77	55.67	319.14	2.59	64.01	21.72	88.31	1.98	3.13	4.94	628,295.42

Tons per year

ROG	NOX	CO	PM10 Exhaust	Dust	Brake	PM10 Total	PM2.5 Exhaust	Dust	Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
10.74	107.56	137.61	0.49	47.59	10.16	58.24	0.47	11.68	3.96	16.12	0.36	0.57	0.90	114,663.91

World Logistics Center
2025 Medium EV Mitigated
VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	994.5	8.5	61.8	-25,347.0	-217.1	-1,574.0
LDT1	73.4	0.6	4.6	-1,870.1	-16.0	-116.1
LDT2	367.2	3.1	0.0	-9,359.0	-80.2	-581.2
MDT	1,335.7	28.8	0.0	20,448.6	441.0	0.0
LHDT1	403.7	507.5	0.0	10,284.2	12,930.7	0.0
LHDT2	194.1	244.0	0.0	4,944.4	6,216.8	2,321.1
MHDT	117.8	1,432.1	0.0	5,301.8	64,458.1	0.0
HHDT	196.4	2,388.0	0.0	8,840.4	107,480.7	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	11,374.7	97.4	706.4	-36,721.7	-314.5	-2,280.4
LDT1	839.2	7.2	52.1	-2,709.4	-23.2	-168.2
LDT2	4,199.9	36.0	260.8	-13,559.0	-116.1	-842.0
MDT	9,171.3	197.8	1,041.0	11,277.3	243.2	1,280.1
LHDT1	3,315.9	4,169.2	0.0	6,968.3	8,761.5	0.0
LHDT2	1,594.2	2,004.5	0.0	3,350.2	4,212.3	0.0
MHDT	932.6	11,338.3	0.0	4,369.2	53,119.9	0.0
HHDT	1,555.0	18,906.0	0.0	7,285.4	88,574.7	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	4.5%	7.0%	0.0%	0.0%
15	1.0%	2.0%	0.0%	0.0%
20	6.0%	6.0%	1.0%	1.0%
25	25.0%	25.0%	1.5%	2.0%
30	24.0%	20.0%	2.5%	5.0%
35	14.0%	8.0%	4.0%	6.0%
40	6.0%	7.0%	6.0%	7.0%
45	4.0%	9.0%	13.0%	5.0%
50	4.0%	11.0%	11.0%	3.0%
55	7.0%	1.0%	8.0%	1.0%
60	4.5%	4.0%	4.0%	70.0%
65	0.0%	0.0%	2.0%	0.0%
70	0.0%	0.0%	47.0%	0.0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	511.9	37.8	189.0	412.7	149.2	71.7	65.3	108.9	1,546.4
15 mph	113.7	8.4	42.0	91.7	33.2	15.9	18.7	31.1	354.7
20 mph	682.5	50.4	252.0	550.3	199.0	95.7	56.0	93.3	1,979.0
25 mph	2,843.7	209.8	1,050.0	2,292.8	829.0	398.6	233.1	388.8	8,245.7
30 mph	2,729.9	201.4	1,008.0	2,201.1	795.8	382.6	186.5	311.0	7,816.4
35 mph	1,592.5	117.5	588.0	1,284.0	464.2	223.2	74.6	124.4	4,468.3
40 mph	682.5	50.4	252.0	550.3	199.0	95.7	65.3	108.9	2,003.8
45 mph	455.0	33.6	168.0	366.9	132.6	63.8	83.9	140.0	1,443.7
50 mph	455.0	33.6	168.0	366.9	132.6	63.8	102.6	171.1	1,493.4
55 mph	796.2	58.7	294.0	642.0	232.1	111.6	9.3	15.6	2,159.5
60 mph	511.9	37.8	189.0	412.7	149.2	71.7	37.3	62.2	1,471.8
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	11,374.7	839.2	4,199.9	9,171.3	3,315.9	1,594.2	932.6	1,555.0	32,982.9

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-367.2	-27.1	-135.6	112.8	69.7	33.5	43.7	72.9	-197.4
25 mph	-550.8	-40.6	-203.4	169.2	104.5	50.3	87.4	145.7	-237.8
30 mph	-918.0	-67.7	-339.0	281.9	174.2	83.8	218.5	364.3	-202.1
35 mph	-1,468.9	-108.4	-542.4	451.1	278.7	134.0	262.1	437.1	-556.5
40 mph	-2,203.3	-162.6	-813.5	676.6	418.1	201.0	305.8	510.0	-1,067.8
45 mph	-4,773.8	-352.2	-1,762.7	1,466.0	905.9	435.5	218.5	364.3	-3,498.5
50 mph	-4,039.4	-298.0	-1,491.5	1,240.5	766.5	368.5	131.1	218.6	-3,103.7
55 mph	-2,937.7	-216.7	-1,084.7	902.2	557.5	268.0	43.7	72.9	-2,395.0
60 mph	-1,468.9	-108.4	-542.4	451.1	278.7	134.0	3,058.4	5,099.8	6,902.4
65 mph	-734.4	-54.2	-271.2	225.5	139.4	67.0	0.0	0.0	-627.9
70 mph	-17,259.2	-1,273.4	-6,372.7	5,300.3	3,275.1	1,574.6	0.0	0.0	-14,755.3
total	-36,721.7	-2,709.4	-13,559.0	11,277.3	6,968.3	3,350.2	4,369.2	7,285.4	-19,739.7

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	27.7	13.3	7.7	12.9	61.7
15 mph	3,035.3	224.0	1,120.8	317.4	139.2	66.9	36.9	61.5	5,002.1
25 mph	0.0	0.0	0.0	0.0	336.0	161.5	149.7	249.7	896.9
35 mph	8,934.4	659.2	3,298.9	913.1	0.0	0.0	0.0	0.0	13,805.7
total	11,969.8	883.1	4,419.7	1,230.5	475.2	228.5	186.6	311.2	19,704.6

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	27.7	13.3	7.7	12.9	61.7
10 mph	511.9	37.8	189.0	412.7	149.2	71.7	65.3	108.9	1,546.4
15 mph	3,149.1	232.3	1,162.8	409.1	172.4	82.9	55.6	92.6	5,356.8
20 mph	315.3	23.3	116.4	663.1	268.6	129.2	99.6	166.2	1,781.6
25 mph	2,292.8	169.2	846.6	2,462.0	1,269.5	610.3	470.3	784.2	8,904.8
30 mph	1,811.9	133.7	669.0	2,483.0	970.0	466.4	405.0	675.3	7,614.3
35 mph	9,058.0	668.3	3,344.5	2,648.2	743.0	357.2	336.8	561.5	17,717.5
40 mph	-1,520.8	-112.2	-561.5	1,226.9	617.1	296.7	371.1	618.8	936.0
45 mph	-4,318.8	-318.6	-1,594.7	1,832.9	1,038.5	499.3	302.4	504.2	-2,054.8
50 mph	-3,584.4	-264.5	-1,323.5	1,607.3	899.1	432.3	233.7	389.6	-1,610.3
55 mph	-2,141.5	-158.0	-790.7	1,544.2	789.6	379.6	53.0	88.4	-235.5
60 mph	-957.0	-70.6	-353.4	863.8	427.9	205.7	3,095.7	5,162.0	8,374.2
65 mph	-734.4	-54.2	-271.2	225.5	139.4	67.0	0.0	0.0	-627.9
70 mph	-17,259.2	-1,273.4	-6,372.7	5,300.3	3,275.1	1,574.6	0.0	0.0	-14,755.3
total	-13,377.2	-987.0	-4,939.3	21,679.0	10,759.4	5,172.9	5,488.4	9,151.6	32,947.8

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	4.4	0.3	1.6	8.9	187.6	90.2	793.7	1,323.4	2,410.1
15 mph	1.0	0.1	0.4	2.0	41.7	20.0	226.8	378.1	670.0
20 mph	5.8	0.4	2.2	11.9	250.2	120.3	680.3	1,134.4	2,205.4
25 mph	24.4	1.8	9.0	49.4	1,042.3	501.1	2,834.6	4,726.5	9,189.1
30 mph	23.4	1.7	8.6	47.5	1,000.6	481.1	2,267.7	3,781.2	7,611.7
35 mph	13.6	1.0	5.0	27.7	583.7	280.6	907.1	1,512.5	3,331.2
40 mph	5.8	0.4	2.2	11.9	250.2	120.3	793.7	1,323.4	2,507.8
45 mph	3.9	0.3	1.4	7.9	166.8	80.2	1,020.4	1,701.5	2,982.5
50 mph	3.9	0.3	1.4	7.9	166.8	80.2	1,247.2	2,079.7	3,587.4
55 mph	6.8	0.5	2.5	13.8	291.8	140.3	113.4	189.1	758.3
60 mph	4.4	0.3	1.6	8.9	187.6	90.2	453.5	756.2	1,502.8
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	97.4	7.2	36.0	197.8	4,169.2	2,004.5	11,338.3	18,906.0	36,756.3

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-3.1	-0.2	-1.2	2.4	87.6	42.1	531.2	885.7	1,544.6
25 mph	-4.7	-0.3	-1.7	3.6	131.4	63.2	1,062.4	1,771.5	3,025.3
30 mph	-7.9	-0.6	-2.9	6.1	219.0	105.3	2,656.0	4,428.7	7,403.8
35 mph	-12.6	-0.9	-4.6	9.7	350.5	168.5	3,187.2	5,314.5	9,012.2
40 mph	-18.9	-1.4	-7.0	14.6	525.7	252.7	3,718.4	6,200.2	10,684.4
45 mph	-40.9	-3.0	-15.1	31.6	1,139.0	547.6	2,656.0	4,428.7	8,743.9
50 mph	-34.6	-2.6	-12.8	26.8	963.8	463.4	1,593.6	2,657.2	5,654.8
55 mph	-25.2	-1.9	-9.3	19.5	700.9	337.0	531.2	885.7	2,438.0
60 mph	-12.6	-0.9	-4.6	9.7	350.5	168.5	37,183.9	62,002.3	99,696.7
65 mph	-6.3	-0.5	-2.3	4.9	175.2	84.2	0.0	0.0	255.3
70 mph	-147.8	-10.9	-54.6	114.3	4,117.9	1,979.8	0.0	0.0	5,998.7
total	-314.5	-23.2	-116.1	243.2	8,761.5	4,212.3	53,119.9	88,574.7	154,457.7

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	34.9	16.8	94.1	157.0	302.8
15 mph	26.0	1.9	9.6	6.8	175.1	84.2	448.7	748.1	1,500.4
25 mph	0.0	0.0	0.0	0.0	422.4	203.1	1,820.5	3,035.6	5,481.7
35 mph	76.5	5.6	28.3	19.7	0.0	0.0	0.0	0.0	130.1
total	102.5	7.6	37.9	26.5	597.5	287.3	2,269.2	3,783.8	7,112.2

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	34.9	16.8	94.1	157.0	302.8
10 mph	4.4	0.3	1.6	8.9	187.6	90.2	793.7	1,323.4	2,410.1
15 mph	27.0	2.0	10.0	8.8	216.8	104.2	675.4	1,126.2	2,170.4
20 mph	2.7	0.2	1.0	14.3	337.8	162.4	1,211.5	2,020.1	3,750.0
25 mph	19.6	1.4	7.3	53.1	1,596.1	767.4	5,717.5	9,533.6	17,696.1
30 mph	15.5	1.1	5.7	53.6	1,219.6	586.4	4,923.7	8,209.9	15,015.6
35 mph	77.6	5.7	28.6	57.1	934.1	449.1	4,094.3	6,827.0	12,473.5
40 mph	-13.0	-1.0	-4.8	26.5	775.8	373.0	4,512.1	7,523.6	13,192.2
45 mph	-37.0	-2.7	-13.7	39.5	1,305.8	627.8	3,676.4	6,130.3	11,726.4
50 mph	-30.7	-2.3	-11.3	34.7	1,130.5	543.5	2,840.8	4,736.9	9,242.1
55 mph	-18.3	-1.4	-6.8	33.3	992.8	477.3	644.6	1,074.8	3,196.3
60 mph	-8.2	-0.6	-3.0	18.6	538.1	258.7	37,637.4	62,758.5	101,199.5
65 mph	-6.3	-0.5	-2.3	4.9	175.2	84.2	0.0	0.0	255.3
70 mph	-147.8	-10.9	-54.6	114.3	4,117.9	1,979.8	0.0	0.0	5,998.7
total	-114.6	-8.5	-42.3	467.5	13,528.2	6,504.1	66,727.3	111,264.5	198,326.2

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	31.8	2.3	11.7	46.8	0.0	0.0	0.0	0.0	92.7
15 mph	7.1	0.5	2.6	10.4	0.0	0.0	0.0	0.0	20.6
20 mph	42.4	3.1	15.6	62.5	0.0	0.0	0.0	0.0	123.6
25 mph	176.6	13.0	65.2	260.3	0.0	0.0	0.0	0.0	515.1
30 mph	169.5	12.5	62.6	249.8	0.0	0.0	0.0	0.0	494.5
35 mph	98.9	7.3	36.5	145.7	0.0	0.0	0.0	0.0	288.4
40 mph	42.4	3.1	15.6	62.5	0.0	0.0	0.0	0.0	123.6
45 mph	28.3	2.1	10.4	41.6	0.0	0.0	0.0	0.0	82.4
50 mph	28.3	2.1	10.4	41.6	0.0	0.0	0.0	0.0	82.4
55 mph	28.3	3.6	18.3	72.9	0.0	0.0	0.0	0.0	123.0
60 mph	31.8	2.3	11.7	46.8	0.0	0.0	0.0	0.0	92.7
65 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	685.2	52.1	260.8	1,041.0	0.0	0.0	0.0	0.0	2,039.1

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 mph	-22.8	-1.7	-8.4	12.8	0.0	0.0	0.0	0.0	-20.1
25 mph	-34.2	-2.5	-12.6	19.2	0.0	0.0	0.0	0.0	-30.2
30 mph	-57.0	-4.2	-21.0	32.0	0.0	0.0	0.0	0.0	-50.3
35 mph	-91.2	-6.7	-33.7	51.2	0.0	0.0	0.0	0.0	-80.4
40 mph	-136.8	-10.1	-50.5	76.8	0.0	0.0	0.0	0.0	-120.6
45 mph	-296.4	-21.9	-109.5	166.4	0.0	0.0	0.0	0.0	-261.4
50 mph	-250.8	-18.5	-92.6	140.8	0.0	0.0	0.0	0.0	-221.2
55 mph	-182.4	-13.5	-67.4	102.4	0.0	0.0	0.0	0.0	-160.8
60 mph	-91.2	-6.7	-33.7	51.2	0.0	0.0	0.0	0.0	-80.4
65 mph	-45.6	-3.4	-16.8	25.6	0.0	0.0	0.0	0.0	-40.2
70 mph	-1,071.8	-79.1	-395.7	601.6	0.0	0.0	0.0	0.0	-945.0
total	-2,280.4	-168.2	-842.0	1,280.1	0.0	0.0	0.0	0.0	-2,010.5

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 mph	188.5	13.9	69.6	36.0	0.0	0.0	0.0	0.0	308.0
25 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,035.6	3,035.6
35 mph	554.8	40.9	204.9	0.0	0.0	0.0	0.0	0.0	800.6
total	743.3	54.8	274.5	36.0	0.0	0.0	0.0	3,035.6	4,144.3

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 mph	31.8	2.3	11.7	46.8	0.0	0.0	0.0	0.0	92.7
15 mph	195.6	14.4	72.2	46.4	0.0	0.0	0.0	0.0	328.6
20 mph	19.6	1.4	7.2	75.3	0.0	0.0	0.0	0.0	103.5
25 mph	142.4	10.5	52.6	279.5	0.0	0.0	0.0	3,035.6	3,520.6
30 mph	112.5	8.3	41.5	281.8	0.0	0.0	0.0	0.0	444.2
35 mph	562.5	41.5	207.7	196.9	0.0	0.0	0.0	0.0	1,008.6
40 mph	-94.4	-7.0	-34.9	139.3	0.0	0.0	0.0	0.0	3.0
45 mph	-268.2	-19.8	-99.0	208.0	0.0	0.0	0.0	0.0	-179.0
50 mph	-222.6	-16.4	-82.2	182.4	0.0	0.0	0.0	0.0	-138.7
55 mph	-154.2	-9.8	-49.1	175.3	0.0	0.0	0.0	0.0	-37.8
60 mph	-59.4	-4.4	-21.9	98.0	0.0	0.0	0.0	0.0	12.3
65 mph	-45.6	-3.4	-16.8	25.6	0.0	0.0	0.0	0.0	-40.2
70 mph	-1,071.8	-79.1	-395.7	601.6	0.0	0.0	0.0	0.0	-945.0
total	1,064.3	78.5	393.0	926.8	0.0	0.0	0.0	3,035.6	4,172.8

World Logistics Center
Internal Roadway Road Dust
2025 Medium EV Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass		LHDT		MHDT		HHDT		Total	Avg Weight	Silt Loading	PM2.5 EF	PM2.5 dust	PM10 EF	PM10 dust
				Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	Trips/day	VMT	VMT			lb/VMT	lb/day	lb/VMT	lb/day
1	A	327	0.20	7,415	1,483	515	103	1,353	271	2,256	451	2,308	7.54	0.035	0.0002	0.5	0.0008	1.9
2	A	731	0.45	4,575	2,059	258	116	680	306	1,133	510	2,990	6.85	0.035	0.0002	0.5	0.0007	2.2
3	A	2352	1.46	1,580	2,307	115	168	187	273	312	455	3,203	6.14	0.035	0.0002	0.5	0.0007	2.1
5	A	953	0.59	2,130	1,257	207	122	-	-	-	-	1,379	2.44	0.035	0.0001	0.1	0.0003	0.4
6	A	1099	0.68	9,030	6,140	553	376	1,482	1,008	2,471	1,680	9,204	7.18	0.035	0.0002	1.8	0.0008	7.2
8	A	1091	0.68	3,310	2,251	195	133	-	-	-	-	2,383	2.32	0.035	0.0001	0.1	0.0002	0.6
11	A	1201	0.75	(3,215)	(2,411)	11	9	(2)	(1)	(3)	(2)	(2,407)	2.14	0.035	0.0001	-0.1	0.0002	-0.5
12	A	824	0.51	(160)	(82)	(8)	(4)	(4)	(2)	(6)	(3)	(91)	3.23	0.035	0.0001	0.0	0.0003	0.0
14	A	1618	1.01	345	348	(90)	(90)	(10)	(10)	(16)	(16)	232	1.09	0.035	0.0000	0.0	0.0001	0.0
18	A	1412	0.88	100	88	-	-	-	-	-	-	88	2.13	0.035	0.0001	0.0	0.0002	0.0
19	A	2386	1.48	1,930	2,023	-	-	-	-	-	-	2,023	2.13	0.035	0.0001	0.1	0.0002	0.5
21	A	1258	0.78	895	698	21	16	19	15	31	24	753	3.07	0.035	0.0001	0.1	0.0003	0.2
24	A	1946	1.21	545	659	57	69	58	70	97	117	916	5.84	0.035	0.0002	0.1	0.0006	0.6
29	A	2827	1.76	(925)	(1,628)	47	83	-	-	-	-	(1,545)	1.94	0.035	0.0001	-0.1	0.0002	-0.3
30	A	675	0.42	2,130	895	44	19	-	-	-	-	913	2.20	0.035	0.0001	0.1	0.0002	0.2
31	A	820	0.51	(2,445)	(1,247)	10	5	81	41	134	69	(1,132)	0.49	0.035	0.0000	0.0	0.0000	-0.1
TOTAL				27,240		1,935		3,844		6,410						3.7		14.9

World Logistics Center
Off-Site Road Dust
2025 Medium EV Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL																		
				2878.27	-15950.16	1,349.28	34,376.07	1,549.91	69,759.90	2,584.39	116,321.09	204,506.89	11.01	0.035	0.0003	60.34518177	0.0012	245.8507405

World Logistics Center
2025 Medium EV Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	15280	330	0.21	3208.9	2997.1	25.7	186.1
	LDT1	15	1127	330	0.21	236.8	221.1	1.9	13.7
	LDT2	15	5642	330	0.21	1184.8	1106.6	9.5	68.7
	MDT	15	1700	330	0.21	357.0	314.5	6.8	35.7
	LHDT1	15	1494	330	0.21	313.6	138.9	174.7	0.0
	LHDT2	15	718	330	0.21	150.8	66.8	84.0	0.0
	MHDT	15	2286	330	0.21	480.2	36.5	443.7	0.0
	HHDT	15	3813	330	0.21	800.6	60.8	739.8	0.0
Travel at Light Logistics	LDA	15	45	175	0.11	4.9	4.6	0.0	0.3
	LDT1	15	3	175	0.11	0.4	0.3	0.0	0.0
	LDT2	15	16	175	0.11	1.8	1.7	0.0	0.1
	MDT	15	4	175	0.11	0.5	0.4	0.0	0.0
	LHDT1	15	2	175	0.11	0.3	0.1	0.1	0.0
	LHDT2	15	1	175	0.11	0.1	0.1	0.1	0.0
	MHDT	15	3	175	0.11	0.3	0.0	0.3	0.0
	HHDT	15	5	175	0.11	0.6	0.0	0.5	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	12.3	0.1	0.8
	LDT1	15	16	100	0.06	1.0	0.9	0.0	0.1
	LDT2	15	81	100	0.06	4.9	4.5	0.0	0.3
	MDT	15	47	100	0.06	2.8	2.5	0.1	0.3
	LHDT1	15	7	100	0.06	0.4	0.2	0.2	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.8	0.0
	HHDT	15	23	100	0.06	1.4	0.1	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.3	3.9	0.0
	HHDT	15	237	50	0.03	7.1	0.5	6.6	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	18.8	0.2	1.2
	LDT1	15	49	50	0.03	1.5	1.4	0.0	0.1
	LDT2	15	247	50	0.03	7.4	6.9	0.1	0.4
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.7	0.0	0.2
	LDT1	15	7	50	0.03	0.2	0.2	0.0	0.0
	LDT2	15	35	50	0.03	1.1	1.0	0.0	0.1
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3035.3	224.0	1120.8	317.4	139.2	66.9	36.9	61.5
Diesel	26.0	1.9	9.6	6.8	175.1	84.2	448.7	748.1
Electric	188.5	13.9	69.6	36.0	0.0	0.0	0.0	0.0

World Logistics Center
2025 Medium EV Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	747	331	416	0	1654.1	2079.7	0.0
	LHDT2	5	359	159	200	0	795.2	999.9	0.0
	MHDT	5	1143	87	1056	0	434.4	5281.7	0.0
	HHDT	5	1906	145	1761	0	724.4	8807.0	0.0
Travel at Light Logistics	LHDT1	5	1	1	1	0	2.7	3.4	0.0
	LHDT2	5	1	0	0	0	1.3	1.6	0.0
	MHDT	5	2	0	1	0	0.6	6.9	0.0
	HHDT	5	3	0	2	0	1.0	11.6	0.0
Travel at Utility	LHDT1	5	4	2	2	0	7.9	9.9	0.0
	LHDT2	5	2	1	1	0	3.8	4.8	0.0
	MHDT	5	7	1	6	0	2.6	31.4	0.0
	HHDT	5	11	1	10	0	4.3	52.3	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	5	66	0	27.0	328.5	0.0
	HHDT	5	119	9	110	0	45.1	547.8	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	27.7	13.3	7.7	12.9
Diesel	34.9	16.8	94.1	157.0
Electric	0.0	0.0	0.0	0.0

World Logistics Center
2025 Medium EV Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	13.0528	12.2296	21.0325	9.5728
10 mph	0.0358	0.0838	0.0464	0.0810	0.1181	0.0412	0.0375	1.2102
15 mph	0.0241	0.0581	0.0311	0.0541	0.0814	0.0277	0.0249	0.8013
20 mph	0.0170	0.0420	0.0220	0.0385	0.0594	0.0199	0.0174	0.5616
25 mph	0.0125	0.0313	0.0162	0.0287	0.0451	0.0149	0.0129	0.4145
30 mph	0.0097	0.0244	0.0126	0.0225	0.0359	0.0117	0.0100	0.3230
35 mph	0.0079	0.0198	0.0103	0.0187	0.0302	0.0098	0.0082	0.2656
40 mph	0.0068	0.0172	0.0089	0.0162	0.0269	0.0086	0.0071	0.2305
45 mph	0.0063	0.0157	0.0081	0.0148	0.0251	0.0080	0.0065	0.2108
50 mph	0.0060	0.0149	0.0078	0.0143	0.0245	0.0077	0.0063	0.2034
55 mph	0.0061	0.0150	0.0079	0.0146	0.0254	0.0080	0.0064	0.2072
60 mph	0.0065	0.0158	0.0085	0.0155	0.0276	0.0086	0.0069	0.2225
65 mph	0.0072	0.0170	0.0094	0.0174	0.0317	0.0098		
70 mph	0.0076	0.0170	0.0098	0.0199	0.0317	0.0097		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1621	0.5150
10 mph	0.1140	0.3876	0.1950	0.1170	0.5540	0.5438	0.1960	0.4963
15 mph	0.0602	0.2571	0.0959	0.0582	0.2914	0.2750	0.1382	0.3484
20 mph	0.0281	0.1751	0.0380	0.0238	0.1395	0.1187	0.0999	0.2464
25 mph	0.0185	0.1332	0.0230	0.0147	0.0940	0.0759	0.0732	0.1775
30 mph	0.0143	0.1079	0.0174	0.0113	0.0752	0.0592	0.0540	0.1308
35 mph	0.0115	0.0909	0.0139	0.0091	0.0641	0.0489	0.0398	0.0964
40 mph	0.0098	0.0818	0.0115	0.0076	0.0568	0.0421	0.0293	0.0713
45 mph	0.0089	0.0778	0.0098	0.0066	0.0518	0.0373	0.0216	0.0527
50 mph	0.0082	0.0768	0.0086	0.0058	0.0495	0.0344	0.0159	0.0387
55 mph	0.0078	0.0797	0.0076	0.0053	0.0482	0.0323	0.0118	0.0290
60 mph	0.0080	0.0866	0.0073	0.0052	0.0497	0.0323	0.0101	0.0246
65 mph	0.0084	0.0954	0.0074	0.0054	0.0581	0.0362		
70 mph	0.0073	0.0920	0.0073	0.0057	0.0978	0.0563		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0404	0.0070	0.0193	0.0737	0.0389	0.0065	0.0054	0.2905	0.4816
15 mph	0.0061	0.0011	0.0029	0.0109	0.0059	0.0010	0.0010	0.0549	0.0839
20 mph	0.0256	0.0047	0.0122	0.0467	0.0260	0.0042	0.0022	0.1155	0.2371
25 mph	0.0786	0.0145	0.0375	0.1449	0.0824	0.0131	0.0066	0.3553	0.7329
30 mph	0.0584	0.0108	0.0280	0.1093	0.0630	0.0099	0.0041	0.2215	0.5050
35 mph	0.0277	0.0051	0.0133	0.0528	0.0309	0.0048	0.0014	0.0729	0.2089
40 mph	0.0103	0.0019	0.0049	0.0197	0.0118	0.0018	0.0010	0.0553	0.1067
45 mph	0.0063	0.0012	0.0030	0.0120	0.0073	0.0011	0.0012	0.0651	0.0972
50 mph	0.0060	0.0011	0.0029	0.0116	0.0072	0.0011	0.0014	0.0767	0.1080
55 mph	0.0107	0.0019	0.0051	0.0206	0.0130	0.0020	0.0001	0.0071	0.0606
60 mph	0.0073	0.0013	0.0035	0.0141	0.0091	0.0014	0.0006	0.0305	0.0678
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.2772	0.0506	0.1328	0.5164	0.2955	0.0468	0.0250	1.3454	2.6897

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0138	-0.0025	-0.0066	0.0096	0.0091	0.0015	0.0017	0.0902	0.0892
25 mph	-0.0152	-0.0028	-0.0073	0.0107	0.0104	0.0016	0.0025	0.1332	0.1331
30 mph	-0.0196	-0.0036	-0.0094	0.0140	0.0138	0.0022	0.0048	0.2594	0.2615
35 mph	-0.0255	-0.0047	-0.0123	0.0186	0.0186	0.0029	0.0048	0.2560	0.2582
40 mph	-0.0331	-0.0062	-0.0160	0.0242	0.0248	0.0038	0.0048	0.2591	0.2615
45 mph	-0.0658	-0.0122	-0.0316	0.0480	0.0500	0.0076	0.0032	0.1694	0.1685
50 mph	-0.0535	-0.0098	-0.0257	0.0392	0.0414	0.0063	0.0018	0.0980	0.0977
55 mph	-0.0394	-0.0072	-0.0190	0.0290	0.0312	0.0047	0.0006	0.0333	0.0332
60 mph	-0.0211	-0.0038	-0.0101	0.0154	0.0170	0.0025	0.0466	2.5018	2.5484
65 mph	-0.0117	-0.0020	-0.0056	0.0087	0.0097	0.0015	0.0000	0.0000	0.0005
70 mph	-0.2877	-0.0478	-0.1377	0.2327	0.2288	0.0337	0.0000	0.0000	0.0220
total	-0.5865	-0.1027	-0.2813	0.4500	0.4548	0.0683	0.0708	3.8005	3.8739

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.7985	0.3597	0.3591	0.2724	1.7897
15 mph	0.1616	0.0287	0.0769	0.0379	0.0250	0.0041	0.0020	0.1087	0.4449
25 mph	0.0000	0.0000	0.0000	0.0000	0.0334	0.0053	0.0042	0.2282	0.2712
35 mph	0.1553	0.0288	0.0747	0.0376	0.0000	0.0000	0.0000	0.0000	0.2964
total	0.3169	0.0575	0.1516	0.0754	0.8569	0.3691	0.3654	0.6093	2.8021

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.7985	0.3597	0.3591	0.2724	1.7897
10 mph	0.0404	0.0070	0.0193	0.0737	0.0389	0.0065	0.0054	0.2905	0.4816
15 mph	0.1676	0.0298	0.0798	0.0488	0.0309	0.0051	0.0030	0.1637	0.5287
20 mph	0.0118	0.0022	0.0056	0.0562	0.0352	0.0057	0.0038	0.2058	0.3263
25 mph	0.0634	0.0117	0.0303	0.1556	0.1261	0.0200	0.0133	0.7168	1.1372
30 mph	0.0387	0.0072	0.0186	0.1233	0.0768	0.0121	0.0090	0.4809	0.7666
35 mph	0.1574	0.0292	0.0758	0.1089	0.0495	0.0077	0.0061	0.3289	0.7635
40 mph	-0.0229	-0.0042	-0.0110	0.0439	0.0365	0.0056	0.0059	0.3145	0.3683
45 mph	-0.0595	-0.0110	-0.0286	0.0600	0.0574	0.0088	0.0044	0.2344	0.2657
50 mph	-0.0474	-0.0087	-0.0228	0.0508	0.0486	0.0073	0.0033	0.1747	0.2057
55 mph	-0.0287	-0.0052	-0.0138	0.0496	0.0443	0.0067	0.0008	0.0404	0.0938
60 mph	-0.0137	-0.0025	-0.0066	0.0295	0.0261	0.0039	0.0472	2.5324	2.6162
65 mph	-0.0117	-0.0020	-0.0056	0.0087	0.0097	0.0015	0.0000	0.0000	0.0005
70 mph	-0.2877	-0.0478	-0.1377	0.2327	0.2288	0.0337	0.0000	0.0000	0.0220
total	0.0076	0.0054	0.0031	1.0418	1.6072	0.4842	0.4612	5.7552	9.3657

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0011	0.0003	0.0007	0.0023	0.2292	0.1082	0.3430	1.4482	2.1329
15 mph	0.0001	0.0000	0.0001	0.0003	0.0268	0.0122	0.0691	0.2905	0.3990
20 mph	0.0004	0.0002	0.0002	0.0006	0.0769	0.0315	0.1498	0.6163	0.8760
25 mph	0.0010	0.0005	0.0005	0.0016	0.2160	0.0839	0.4578	1.8501	2.6113
30 mph	0.0007	0.0004	0.0003	0.0012	0.1659	0.0628	0.2700	1.0908	1.5921
35 mph	0.0003	0.0002	0.0002	0.0006	0.0825	0.0303	0.0796	0.3214	0.5151
40 mph	0.0001	0.0001	0.0001	0.0002	0.0313	0.0112	0.0513	0.2080	0.3023
45 mph	0.0001	0.0000	0.0000	0.0001	0.0190	0.0066	0.0486	0.1977	0.2722
50 mph	0.0001	0.0000	0.0000	0.0001	0.0182	0.0061	0.0438	0.1773	0.2457
55 mph	0.0001	0.0001	0.0000	0.0002	0.0310	0.0100	0.0029	0.0121	0.0565
60 mph	0.0001	0.0001	0.0000	0.0001	0.0206	0.0064	0.0101	0.0411	0.0784
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0041	0.0019	0.0021	0.0072	0.9174	0.3690	1.5261	6.2535	9.0814

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0002	-0.0001	-0.0001	0.0001	0.0270	0.0110	0.1170	0.4813	0.6360
25 mph	-0.0002	-0.0001	-0.0001	0.0001	0.0272	0.0106	0.1716	0.6934	0.9025
30 mph	-0.0002	-0.0001	-0.0001	0.0002	0.0363	0.0137	0.3162	1.2776	1.6435
35 mph	-0.0003	-0.0002	-0.0001	0.0002	0.0496	0.0182	0.2797	1.1294	1.4764
40 mph	-0.0004	-0.0003	-0.0002	0.0002	0.0658	0.0234	0.2404	0.9746	1.3037
45 mph	-0.0008	-0.0005	-0.0003	0.0005	0.1300	0.0450	0.1266	0.5145	0.8149
50 mph	-0.0006	-0.0004	-0.0002	0.0003	0.1052	0.0351	0.0560	0.2266	0.4219
55 mph	-0.0004	-0.0003	-0.0002	0.0002	0.0746	0.0240	0.0138	0.0566	0.1682
60 mph	-0.0002	-0.0002	-0.0001	0.0001	0.0384	0.0120	0.8266	3.3660	4.2427
65 mph	-0.0001	-0.0001	0.0000	0.0001	0.0225	0.0067	0.0000	0.0000	0.0290
70 mph	-0.0024	-0.0022	-0.0009	0.0014	0.8881	0.2459	0.0000	0.0000	1.1300
total	-0.0059	-0.0045	-0.0023	0.0035	1.4645	0.4457	2.1479	8.7199	12.7687

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2441	0.1173	0.0336	0.1783	0.5733
15 mph	0.0035	0.0011	0.0020	0.0009	0.1125	0.0510	0.1367	0.5747	0.8824
25 mph	0.0000	0.0000	0.0000	0.0000	0.0875	0.0340	0.2940	1.1883	1.6038
35 mph	0.0019	0.0011	0.0009	0.0004	0.0000	0.0000	0.0000	0.0000	0.0043
total	0.0054	0.0022	0.0029	0.0013	0.4441	0.2024	0.4643	1.9412	3.0638

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.2441	0.1173	0.0336	0.1783	0.5733
10 mph	0.0011	0.0003	0.0007	0.0023	0.2292	0.1082	0.3430	1.4482	2.1329
15 mph	0.0036	0.0011	0.0021	0.0011	0.1393	0.0632	0.2058	0.8652	1.2813
20 mph	0.0002	0.0001	0.0001	0.0008	0.1039	0.0425	0.2668	1.0976	1.5120
25 mph	0.0008	0.0004	0.0004	0.0017	0.3307	0.1284	0.9234	3.7318	5.1177
30 mph	0.0005	0.0003	0.0002	0.0013	0.2022	0.0765	0.5862	2.3683	3.2355
35 mph	0.0020	0.0011	0.0009	0.0011	0.1321	0.0485	0.3593	1.4509	1.9958
40 mph	-0.0003	-0.0002	-0.0001	0.0004	0.0971	0.0346	0.2917	1.1827	1.6059
45 mph	-0.0007	-0.0005	-0.0003	0.0006	0.1490	0.0516	0.1752	0.7122	1.0871
50 mph	-0.0006	-0.0004	-0.0002	0.0004	0.1234	0.0412	0.0998	0.4039	0.6676
55 mph	-0.0003	-0.0002	-0.0001	0.0004	0.1056	0.0340	0.0167	0.0686	0.2247
60 mph	-0.0001	-0.0001	0.0000	0.0002	0.0590	0.0184	0.8367	3.4070	4.3211
65 mph	-0.0001	-0.0001	0.0000	0.0001	0.0225	0.0067	0.0000	0.0000	0.0290
70 mph	-0.0024	-0.0022	-0.0009	0.0014	0.8881	0.2459	0.0000	0.0000	1.1300
total	0.0036	-0.0004	0.0026	0.0119	2.8261	1.0171	4.1383	16.9146	24.9139

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.04	0.15	0.06	0.09	0.65	0.19	0.16	0.04
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.12	-0.32	-0.62	4.26	15.39	2.21	1.89	0.77
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**-1.12**	**-0.32**	**-0.62**	**4.26**	**15.39**	**2.21**	**1.89**	**0.77**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.41	1.21	0.52	0.84	0.12	0.06	0.06	0.04
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.45	0.10	0.21	1.24	0.05	0.01	0.01	0.01
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.45**	**0.10**	**0.21**	**1.24**	**0.05**	**0.01**	**0.01**	**0.01**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.04	0.48	0.39	0.45	2.36
10 mph	0.04	0.01	0.02	0.08	0.27	0.11	0.35	1.74	2.61
15 mph	0.17	0.03	0.08	0.05	0.17	0.07	0.21	1.03	1.81
20 mph	0.01	0.00	0.01	0.06	0.14	0.05	0.27	1.30	1.84
25 mph	0.06	0.01	0.03	0.16	0.46	0.15	0.94	4.45	6.25
30 mph	0.04	0.01	0.02	0.12	0.28	0.09	0.60	2.85	4.00
35 mph	0.16	0.03	0.08	0.11	0.18	0.06	0.37	1.78	2.76
40 mph	-0.02	0.00	-0.01	0.04	0.13	0.04	0.30	1.50	1.97
45 mph	-0.06	-0.01	-0.03	0.06	0.21	0.06	0.18	0.95	1.35
50 mph	-0.05	-0.01	-0.02	0.05	0.17	0.05	0.10	0.58	0.87
55 mph	-0.03	-0.01	-0.01	0.05	0.15	0.04	0.02	0.11	0.32
60 mph	-0.01	0.00	-0.01	0.03	0.09	0.02	0.88	5.94	6.94
65 mph	-0.01	0.00	-0.01	0.01	0.03	0.01	0.00	0.00	0.03
70 mph	-0.29	-0.05	-0.14	0.23	1.12	0.28	0.00	0.00	1.15
RUNLOSS	-1.12	-0.32	-0.62	4.26	15.39	2.21	1.89	0.77	22.46
RESTLOSS DIURI	0.45	0.10	0.21	1.24	0.05	0.01	0.01	0.01	2.08
total	-0.67	-0.22	-0.40	6.55	19.88	3.73	6.50	23.45	**58.83**

World Logistics Center
2025 Medium EV Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	1.1346	1.0612	1.8600	24.8479
10 mph	0.0629	0.1686	0.0898	0.1579	0.3531	0.1672	0.1296	4.3316
15 mph	0.0557	0.1462	0.0788	0.1369	0.3115	0.1463	0.1144	3.8178
20 mph	0.0498	0.1287	0.0703	0.1222	0.2870	0.1331	0.1026	3.4275
25 mph	0.0449	0.1138	0.0633	0.1107	0.2655	0.1218	0.0935	3.1229
30 mph	0.0412	0.1027	0.0581	0.1024	0.2505	0.1135	0.0867	2.8925
35 mph	0.0384	0.0943	0.0541	0.0967	0.2409	0.1080	0.0816	2.7233
40 mph	0.0366	0.0902	0.0517	0.0929	0.2345	0.1041	0.0780	2.6053
45 mph	0.0357	0.0889	0.0504	0.0907	0.2310	0.1018	0.0758	2.5319
50 mph	0.0353	0.0887	0.0498	0.0905	0.2310	0.1005	0.0749	2.4991
55 mph	0.0356	0.0915	0.0504	0.0922	0.2345	0.1016	0.0752	2.5087
60 mph	0.0365	0.0959	0.0517	0.0951	0.2392	0.1035	0.0767	2.5574
65 mph	0.0376	0.1001	0.0534	0.1003	0.2489	0.1072		
70 mph	0.0374	0.0959	0.0524	0.1105	0.2674	0.1084		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	55.1536	49.5342	17.6446	15.6146
10 mph	0.0972	0.5625	0.1311	0.0885	1.2043	0.7272	7.4918	15.9066
15 mph	0.0761	0.5746	0.0898	0.0620	1.0397	0.5966	4.5923	9.8391
20 mph	0.0609	0.5819	0.0612	0.0436	1.0463	0.5555	2.6774	5.6815
25 mph	0.0538	0.5876	0.0479	0.0353	1.0526	0.5389	1.5361	3.2303
30 mph	0.0499	0.5918	0.0408	0.0310	1.1106	0.5536	1.0019	2.1347
35 mph	0.0468	0.5903	0.0360	0.0282	1.2082	0.5878	0.7073	1.5254
40 mph	0.0457	0.6066	0.0328	0.0264	1.2914	0.6187	0.5276	1.1608
45 mph	0.0459	0.6349	0.0306	0.0252	1.3494	0.6409	0.4107	0.9188
50 mph	0.0458	0.6540	0.0288	0.0243	1.4275	0.6759	0.3304	0.7366
55 mph	0.0458	0.6773	0.0275	0.0238	1.4541	0.6854	0.2720	0.6362
60 mph	0.0470	0.7035	0.0270	0.0237	1.4750	0.6919	0.2488	0.5702
65 mph	0.0464	0.6954	0.0269	0.0240	1.6623	0.7796		
70 mph	0.0401	0.5666	0.0259	0.0254	3.0371	1.4913		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0710	0.0140	0.0374	0.1437	0.1162	0.0265	0.0186	1.0397	1.4671
15 mph	0.0140	0.0027	0.0073	0.0277	0.0228	0.0051	0.0047	0.2618	0.3461
20 mph	0.0749	0.0143	0.0391	0.1483	0.1259	0.0281	0.0127	0.7051	1.1483
25 mph	0.2817	0.0527	0.1467	0.5596	0.4853	0.1070	0.0481	2.6770	4.3581
30 mph	0.2480	0.0456	0.1291	0.4971	0.4396	0.0958	0.0356	1.9836	3.4743
35 mph	0.1347	0.0244	0.0701	0.2739	0.2466	0.0531	0.0134	0.7470	1.5633
40 mph	0.0551	0.0100	0.0287	0.1127	0.1029	0.0220	0.0112	0.6253	0.9679
45 mph	0.0358	0.0066	0.0187	0.0733	0.0676	0.0143	0.0140	0.7813	1.0117
50 mph	0.0354	0.0066	0.0184	0.0732	0.0676	0.0141	0.0169	0.9426	1.1749
55 mph	0.0624	0.0119	0.0327	0.1306	0.1200	0.0250	0.0015	0.0860	0.4701
60 mph	0.0412	0.0080	0.0215	0.0865	0.0787	0.0164	0.0063	0.3508	0.6093
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.0543	0.1967	0.5496	2.1266	1.8730	0.4074	0.1832	10.2003	16.5912

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0403	-0.0077	-0.0210	0.0304	0.0441	0.0098	0.0099	0.5506	0.5758
25 mph	-0.0546	-0.0102	-0.0284	0.0413	0.0612	0.0135	0.0180	1.0034	1.0442
30 mph	-0.0834	-0.0153	-0.0434	0.0637	0.0962	0.0210	0.0417	2.3233	2.4037
35 mph	-0.1242	-0.0225	-0.0647	0.0962	0.1481	0.0319	0.0472	2.6248	2.7367
40 mph	-0.1779	-0.0323	-0.0927	0.1386	0.2161	0.0461	0.0526	2.9296	3.0802
45 mph	-0.3760	-0.0690	-0.1958	0.2931	0.4614	0.0977	0.0365	2.0336	2.2816
50 mph	-0.3144	-0.0583	-0.1637	0.2476	0.3904	0.0817	0.0216	1.2044	1.4093
55 mph	-0.2304	-0.0437	-0.1206	0.1835	0.2882	0.0600	0.0072	0.4030	0.5473
60 mph	-0.1181	-0.0229	-0.0618	0.0946	0.1470	0.0306	0.5169	28.7576	29.3438
65 mph	-0.0609	-0.0120	-0.0320	0.0499	0.0765	0.0158	0.0000	0.0000	0.0374
70 mph	-1.4216	-0.2693	-0.7367	1.2912	1.9314	0.3764	0.0000	0.0000	1.1714
total	-3.0019	-0.5633	-1.5607	2.5301	3.8606	0.7847	0.7518	41.8303	44.6314

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0694	0.0312	0.0318	0.7071	0.8395
15 mph	0.3729	0.0722	0.1947	0.0958	0.0956	0.0216	0.0093	0.5180	1.3801
25 mph	0.0000	0.0000	0.0000	0.0000	0.1967	0.0434	0.0309	1.7194	1.9903
35 mph	0.7556	0.1371	0.3934	0.1948	0.0000	0.0000	0.0000	0.0000	1.4809
total	1.1285	0.2093	0.5881	0.2906	0.3617	0.0962	0.0720	2.9444	5.6908

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0694	0.0312	0.0318	0.7071	0.8395
10 mph	0.0710	0.0140	0.0374	0.1437	0.1162	0.0265	0.0186	1.0397	1.4671
15 mph	0.3869	0.0749	0.2020	0.1235	0.1184	0.0267	0.0140	0.7798	1.7262
20 mph	0.0346	0.0066	0.0181	0.1786	0.1700	0.0379	0.0225	1.2558	1.7241
25 mph	0.2272	0.0425	0.1183	0.6009	0.7432	0.1639	0.0970	5.3997	7.3926
30 mph	0.1646	0.0303	0.0857	0.5607	0.5358	0.1168	0.0774	4.3069	5.8781
35 mph	0.7661	0.1390	0.3988	0.5649	0.3947	0.0850	0.0606	3.3719	5.7810
40 mph	-0.1228	-0.0223	-0.0640	0.2513	0.3190	0.0681	0.0639	3.5549	4.0481
45 mph	-0.3402	-0.0624	-0.1771	0.3664	0.5290	0.1120	0.0506	2.8150	3.2932
50 mph	-0.2790	-0.0518	-0.1452	0.3209	0.4579	0.0958	0.0386	2.1469	2.5842
55 mph	-0.1680	-0.0319	-0.0879	0.3141	0.4082	0.0850	0.0088	0.4890	1.0174
60 mph	-0.0769	-0.0149	-0.0403	0.1811	0.2257	0.0470	0.5232	29.1083	29.9532
65 mph	-0.0609	-0.0120	-0.0320	0.0499	0.0765	0.0158	0.0000	0.0000	0.0374
70 mph	-1.4216	-0.2693	-0.7367	1.2912	1.9314	0.3764	0.0000	0.0000	1.1714
total	-0.8190	-0.1573	-0.4230	4.9472	6.0953	1.2882	1.0070	54.9750	66.9133

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0009	0.0004	0.0005	0.0017	0.4982	0.1446	13.1111	46.4178	60.1753
15 mph	0.0002	0.0001	0.0001	0.0003	0.0956	0.0264	2.2962	8.2034	10.6221
20 mph	0.0008	0.0006	0.0003	0.0011	0.5771	0.1473	4.0162	14.2108	18.9543
25 mph	0.0029	0.0023	0.0009	0.0038	2.4192	0.5955	9.6012	33.6659	46.2917
30 mph	0.0026	0.0023	0.0008	0.0032	2.4503	0.5872	5.0095	17.7984	25.8543
35 mph	0.0014	0.0013	0.0004	0.0017	1.5550	0.3637	1.4147	5.0871	8.4254
40 mph	0.0006	0.0006	0.0002	0.0007	0.7123	0.1641	0.9234	3.3874	5.1893
45 mph	0.0004	0.0004	0.0001	0.0004	0.4962	0.1133	0.9241	3.4472	4.9821
50 mph	0.0004	0.0004	0.0001	0.0004	0.5249	0.1195	0.9087	3.3776	4.9320
55 mph	0.0007	0.0008	0.0002	0.0007	0.9358	0.2121	0.0680	0.2652	1.4834
60 mph	0.0005	0.0005	0.0001	0.0005	0.6102	0.1376	0.2489	0.9508	1.9490
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0113	0.0096	0.0036	0.0147	10.8749	2.6113	38.5220	136.8115	188.8588

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0004	-0.0003	-0.0002	0.0002	0.2021	0.0516	3.1360	11.0963	14.4854
25 mph	-0.0006	-0.0005	-0.0002	0.0003	0.3050	0.0751	3.5985	12.6180	16.5957
30 mph	-0.0009	-0.0008	-0.0003	0.0004	0.5364	0.1285	5.8674	20.8463	27.3772
35 mph	-0.0013	-0.0012	-0.0004	0.0006	0.9337	0.2184	4.9708	17.8748	23.9954
40 mph	-0.0019	-0.0019	-0.0005	0.0009	1.4969	0.3448	4.3262	15.8702	22.0347
45 mph	-0.0041	-0.0042	-0.0010	0.0018	3.3890	0.7738	2.4051	8.9722	15.5325
50 mph	-0.0035	-0.0037	-0.0008	0.0014	3.0336	0.6905	1.1610	4.3156	9.1942
55 mph	-0.0025	-0.0028	-0.0006	0.0010	2.2474	0.5093	0.3186	1.2425	4.3130
60 mph	-0.0013	-0.0014	-0.0003	0.0005	1.1399	0.2571	20.4029	77.9554	99.7527
65 mph	-0.0006	-0.0007	-0.0001	0.0003	0.6423	0.1448	0.0000	0.0000	0.7859
70 mph	-0.0131	-0.0136	-0.0031	0.0064	27.5767	6.5104	0.0000	0.0000	34.0637
total	-0.0302	-0.0310	-0.0074	0.0138	41.5031	9.7044	46.1867	170.7912	268.1305

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2423	1.8318	3.6627	5.4048	15.1417
15 mph	0.0044	0.0024	0.0019	0.0009	0.4014	0.1107	4.5432	16.2307	21.2956
25 mph	0.0000	0.0000	0.0000	0.0000	0.9805	0.2413	6.1665	21.6223	29.0105
35 mph	0.0079	0.0073	0.0022	0.0012	0.0000	0.0000	0.0000	0.0000	0.0187
total	0.0123	0.0098	0.0041	0.0022	5.6242	2.1839	14.3724	43.2577	65.4665

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.2423	1.8318	3.6627	5.4048	15.1417
10 mph	0.0009	0.0004	0.0005	0.0017	0.4982	0.1446	13.1111	46.4178	60.1753
15 mph	0.0045	0.0025	0.0020	0.0012	0.4970	0.1371	6.8394	24.4340	31.9177
20 mph	0.0004	0.0003	0.0001	0.0014	0.7793	0.1989	7.1522	25.3071	33.4396
25 mph	0.0023	0.0019	0.0008	0.0041	3.7047	0.9119	19.3662	67.9061	91.8980
30 mph	0.0017	0.0015	0.0005	0.0037	2.9867	0.7158	10.8770	38.6447	53.2315
35 mph	0.0080	0.0075	0.0023	0.0036	2.4887	0.5821	6.3855	22.9619	32.4395
40 mph	-0.0013	-0.0013	-0.0003	0.0015	2.2093	0.5089	5.2496	19.2576	27.2240
45 mph	-0.0037	-0.0038	-0.0009	0.0022	3.8853	0.8871	3.3292	12.4194	20.5146
50 mph	-0.0031	-0.0033	-0.0007	0.0019	3.5585	0.8100	2.0697	7.6932	14.1262
55 mph	-0.0019	-0.0020	-0.0004	0.0017	3.1831	0.7214	0.3867	1.5077	5.7964
60 mph	-0.0008	-0.0009	-0.0002	0.0010	1.7501	0.3947	20.6518	78.9062	101.7018
65 mph	-0.0006	-0.0007	-0.0001	0.0003	0.6423	0.1448	0.0000	0.0000	0.7859
70 mph	-0.0131	-0.0136	-0.0031	0.0064	27.5767	6.5104	0.0000	0.0000	34.0637
total	-0.0067	-0.0117	0.0003	0.0306	58.0021	14.4996	99.0811	350.8605	522.4559

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.31	1.86	3.69	6.11	15.98
10 mph	0.07	0.01	0.04	0.15	0.61	0.17	13.13	47.46	61.64
15 mph	0.39	0.08	0.20	0.12	0.62	0.16	6.85	25.21	33.64
20 mph	0.03	0.01	0.02	0.18	0.95	0.24	7.17	26.56	35.16
25 mph	0.23	0.04	0.12	0.61	4.45	1.08	19.46	73.31	99.29
30 mph	0.17	0.03	0.09	0.56	3.52	0.83	10.95	42.95	59.11
35 mph	0.77	0.15	0.40	0.57	2.88	0.67	6.45	26.33	38.22
40 mph	-0.12	-0.02	-0.06	0.25	2.53	0.58	5.31	22.81	31.27
45 mph	-0.34	-0.07	-0.18	0.37	4.41	1.00	3.38	15.23	23.81
50 mph	-0.28	-0.06	-0.15	0.32	4.02	0.91	2.11	9.84	16.71
55 mph	-0.17	-0.03	-0.09	0.32	3.59	0.81	0.40	2.00	6.81
60 mph	-0.08	-0.02	-0.04	0.18	1.98	0.44	21.18	108.01	131.65
65 mph	-0.06	-0.01	-0.03	0.05	0.72	0.16	0.00	0.00	0.82
70 mph	-1.43	-0.28	-0.74	1.30	29.51	6.89	0.00	0.00	35.24
total	-0.83	-0.17	-0.42	4.98	64.10	15.79	100.09	405.84	**589.37**

World Logistics Center
2025 Medium EV Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	124.4483	127.5595	325.0887	256.6478
10 mph	0.8342	1.8852	1.0329	1.5242	1.6491	0.5168	0.2957	46.9374
15 mph	0.7621	1.6847	0.9389	1.3700	1.3665	0.4410	0.2701	42.7646
20 mph	0.6952	1.5094	0.8566	1.2475	1.1722	0.3904	0.2472	39.1899
25 mph	0.6334	1.3434	0.7801	1.1396	1.0226	0.3470	0.2270	35.9537
30 mph	0.5786	1.2041	0.7132	1.0480	0.9137	0.3134	0.2091	33.0913
35 mph	0.5298	1.0843	0.6538	0.9702	0.8379	0.2882	0.1930	30.5536
40 mph	0.4895	0.9986	0.6042	0.8994	0.7899	0.2697	0.1786	28.2868
45 mph	0.4550	0.9330	0.5613	0.8354	0.7608	0.2554	0.1658	26.2500
50 mph	0.4235	0.8729	0.5220	0.7826	0.7512	0.2447	0.1543	24.4088
55 mph	0.3960	0.8303	0.4893	0.7370	0.7725	0.2425	0.1439	22.7853
60 mph	0.3716	0.7925	0.4588	0.6945	0.8234	0.2456	0.1346	21.3105
65 mph	0.3475	0.7484	0.4295	0.6611	0.9259	0.2599		
70 mph	0.3314	0.6885	0.4068	0.6759	0.8817	0.2368		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2120	1.9063
10 mph	2.2519	2.4137	1.8620	2.5084	2.3491	2.2520	1.0314	2.9137
15 mph	1.1202	1.5176	0.9138	1.2314	1.2440	1.1438	0.7270	2.0526
20 mph	0.4584	0.9766	0.3589	0.4844	0.6147	0.5060	0.5257	1.4537
25 mph	0.2847	0.7494	0.2166	0.2932	0.4263	0.3305	0.3854	1.0469
30 mph	0.2182	0.6262	0.1639	0.2223	0.3518	0.2635	0.2841	0.7717
35 mph	0.1759	0.5477	0.1305	0.1776	0.3125	0.2245	0.2094	0.5679
40 mph	0.1484	0.5150	0.1081	0.1474	0.2899	0.2000	0.1543	0.4203
45 mph	0.1303	0.5165	0.0923	0.1261	0.2791	0.1849	0.1137	0.3107
50 mph	0.1178	0.5395	0.0805	0.1106	0.2852	0.1807	0.0839	0.2282
55 mph	0.1100	0.5986	0.0719	0.0992	0.2995	0.1814	0.0618	0.1710
60 mph	0.1116	0.7027	0.0690	0.0957	0.3348	0.1949	0.0531	0.1453
65 mph	0.1183	0.8376	0.0701	0.0985	0.4331	0.2417		
70 mph	0.1131	0.7928	0.0692	0.1024	0.8203	0.4490		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.9415	0.1570	0.4305	1.3871	0.5426	0.0817	0.0426	11.2659	14.8489
15 mph	0.1912	0.0312	0.0869	0.2771	0.0999	0.0155	0.0111	2.9327	3.6455
20 mph	1.0462	0.1676	0.4760	1.5137	0.5143	0.0823	0.0305	8.0626	11.8932
25 mph	3.9713	0.6215	1.8061	5.7615	1.8691	0.3049	0.1167	30.8201	45.2714
30 mph	3.4827	0.5348	1.5851	5.0866	1.6034	0.2644	0.0860	22.6931	35.3361
35 mph	1.8602	0.2809	0.8476	2.7468	0.8577	0.1418	0.0318	8.3811	15.1480
40 mph	0.7366	0.1109	0.3357	1.0913	0.3465	0.0569	0.0257	6.7894	9.4930
45 mph	0.4565	0.0691	0.2079	0.6757	0.2225	0.0359	0.0307	8.1007	9.7990
50 mph	0.4248	0.0646	0.1934	0.6330	0.2197	0.0344	0.0349	9.2064	10.8112
55 mph	0.6953	0.1076	0.3172	1.0433	0.3954	0.0597	0.0030	0.7813	3.4027
60 mph	0.4195	0.0660	0.1912	0.6320	0.2709	0.0389	0.0111	2.9228	4.5524
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	14.2259	2.2110	6.4776	20.8482	6.9419	1.1165	0.4240	111.9562	164.2013

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.5629	-0.0902	-0.2561	0.3102	0.1801	0.0288	0.0238	6.2956	5.9293
25 mph	-0.7693	-0.1204	-0.3499	0.4251	0.2357	0.0384	0.0437	11.5514	11.0548
30 mph	-1.1712	-0.1798	-0.5330	0.6515	0.3510	0.0579	0.1007	26.5793	25.8563
35 mph	-1.7159	-0.2591	-0.7819	0.9650	0.5150	0.0852	0.1116	29.4492	28.3691
40 mph	-2.3780	-0.3579	-1.0839	1.3419	0.7282	0.1195	0.1205	31.8084	30.2987
45 mph	-4.7898	-0.7246	-2.1816	2.7004	1.5197	0.2453	0.0799	21.0843	17.9335
50 mph	-3.7717	-0.5736	-1.7167	2.1406	1.2697	0.1988	0.0446	11.7632	9.3549
55 mph	-2.5655	-0.3968	-1.1703	1.4662	0.9495	0.1433	0.0139	3.6603	2.1005
60 mph	-1.2037	-0.1894	-0.5487	0.6908	0.5060	0.0726	0.9079	239.6357	239.8713
65 mph	-0.5627	-0.0894	-0.2568	0.3288	0.2845	0.0384	0.0000	0.0000	-0.2572
70 mph	-12.6122	-1.9331	-5.7162	7.8989	6.3673	0.8221	0.0000	0.0000	-5.1732
total	-32.1028	-4.9144	-14.5949	18.9194	12.9067	1.8503	1.4466	381.8272	365.3382

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	7.6132	3.7518	5.5506	7.3032	24.2188
15 mph	5.1010	0.8319	2.3202	0.9588	0.4196	0.0651	0.0220	5.8024	15.5210
25 mph	0.0000	0.0000	0.0000	0.0000	0.7575	0.1236	0.0750	19.7946	20.7506
35 mph	10.4369	1.5761	4.7556	1.9534	0.0000	0.0000	0.0000	0.0000	18.7220
total	15.5378	2.4080	7.0758	2.9122	8.7903	3.9405	5.6475	32.9002	79.2124

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	7.6132	3.7518	5.5506	7.3032	24.2188
10 mph	0.9415	0.1570	0.4305	1.3871	0.5426	0.0817	0.0426	11.2659	14.8489
15 mph	5.2921	0.8631	2.4071	1.2358	0.5195	0.0806	0.0331	8.7351	19.1665
20 mph	0.4833	0.0774	0.2199	1.8239	0.6944	0.1112	0.0543	14.3582	17.8225
25 mph	3.2021	0.5011	1.4563	6.1866	2.8624	0.4670	0.2354	62.1661	77.0768
30 mph	2.3115	0.3549	1.0520	5.7381	1.9544	0.3223	0.1867	49.2724	61.1924
35 mph	10.5812	1.5979	4.8214	5.6652	1.3726	0.2270	0.1433	37.8304	62.2391
40 mph	-1.6414	-0.2471	-0.7481	2.4333	1.0747	0.1764	0.1462	38.5978	39.7917
45 mph	-4.3333	-0.6555	-1.9737	3.3762	1.7422	0.2812	0.1106	29.1849	27.7326
50 mph	-3.3469	-0.5090	-1.5233	2.7736	1.4894	0.2332	0.0795	20.9696	20.1661
55 mph	-1.8701	-0.2893	-0.8531	2.5095	1.3449	0.2030	0.0168	4.4416	5.5032
60 mph	-0.7842	-0.1234	-0.3575	1.3229	0.7770	0.1114	0.9190	242.5585	244.4236
65 mph	-0.5627	-0.0894	-0.2568	0.3288	0.2845	0.0384	0.0000	0.0000	-0.2572
70 mph	-12.6122	-1.9331	-5.7162	7.8989	6.3673	0.8221	0.0000	0.0000	-5.1732
total	-2.3391	-0.2954	-1.0414	42.6798	28.6390	6.9073	7.5181	526.6836	608.7518

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0218	0.0017	0.0066	0.0492	0.9718	0.4479	1.8051	8.5027	11.8068
15 mph	0.0024	0.0002	0.0007	0.0054	0.1144	0.0506	0.3635	1.7114	2.2485
20 mph	0.0059	0.0009	0.0017	0.0127	0.3391	0.1342	0.7885	3.6361	4.9191
25 mph	0.0153	0.0030	0.0043	0.0320	0.9798	0.3652	2.4091	10.9108	14.7193
30 mph	0.0112	0.0024	0.0031	0.0233	0.7763	0.2795	1.4208	6.4339	8.9505
35 mph	0.0053	0.0012	0.0014	0.0108	0.4022	0.1389	0.4189	1.8939	2.8728
40 mph	0.0019	0.0005	0.0005	0.0039	0.1599	0.0530	0.2700	1.2264	1.7161
45 mph	0.0011	0.0003	0.0003	0.0022	0.1026	0.0327	0.2559	1.1657	1.5608
50 mph	0.0010	0.0003	0.0003	0.0019	0.1049	0.0319	0.2306	1.0463	1.4173
55 mph	0.0017	0.0007	0.0004	0.0030	0.1928	0.0561	0.0155	0.0713	0.3414
60 mph	0.0011	0.0005	0.0002	0.0019	0.1385	0.0388	0.0531	0.2423	0.4764
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0687	0.0118	0.0197	0.1462	4.2821	1.6289	8.0309	36.8406	51.0290

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0032	-0.0005	-0.0009	0.0026	0.1188	0.0470	0.6157	2.8392	3.6186
25 mph	-0.0030	-0.0006	-0.0008	0.0024	0.1235	0.0461	0.9029	4.0893	5.1598
30 mph	-0.0038	-0.0008	-0.0010	0.0030	0.1699	0.0612	1.6641	7.5357	9.4282
35 mph	-0.0049	-0.0011	-0.0013	0.0038	0.2415	0.0834	1.4718	6.6548	8.4480
40 mph	-0.0062	-0.0016	-0.0017	0.0047	0.3361	0.1114	1.2652	5.7455	7.4535
45 mph	-0.0117	-0.0034	-0.0031	0.0088	0.7011	0.2232	0.6661	3.0340	4.6149
50 mph	-0.0090	-0.0030	-0.0023	0.0065	0.6061	0.1846	0.2947	1.3369	2.4145
55 mph	-0.0061	-0.0025	-0.0015	0.0043	0.4629	0.1348	0.0724	0.3339	0.9983
60 mph	-0.0031	-0.0014	-0.0007	0.0021	0.2587	0.0724	4.3501	19.8688	24.5468
65 mph	-0.0016	-0.0009	-0.0004	0.0011	0.1673	0.0449	0.0000	0.0000	0.2104
70 mph	-0.0369	-0.0191	-0.0083	0.0258	7.4486	1.9602	0.0000	0.0000	9.3704
total	-0.0894	-0.0349	-0.0220	0.0650	10.6346	2.9693	11.3030	51.4381	76.2637

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.0230	0.9726	0.2516	0.6598	3.9070
15 mph	0.0642	0.0064	0.0193	0.0186	0.4803	0.2123	0.7192	3.3860	4.9063
25 mph	0.0000	0.0000	0.0000	0.0000	0.3971	0.1480	1.5473	7.0075	9.0999
35 mph	0.0297	0.0068	0.0081	0.0077	0.0000	0.0000	0.0000	0.0000	0.0523
total	0.0939	0.0132	0.0275	0.0263	2.9003	1.3329	2.5181	11.0534	17.9656

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	2.0230	0.9726	0.2516	0.6598	3.9070
10 mph	0.0218	0.0017	0.0066	0.0492	0.9718	0.4479	1.8051	8.5027	11.8068
15 mph	0.0666	0.0067	0.0201	0.0240	0.5946	0.2628	1.0828	5.0973	7.1549
20 mph	0.0027	0.0004	0.0008	0.0153	0.4578	0.1812	1.4043	6.4752	8.5377
25 mph	0.0123	0.0024	0.0035	0.0343	1.5004	0.5593	4.8592	22.0076	28.9791
30 mph	0.0075	0.0016	0.0021	0.0263	0.9462	0.3407	3.0848	13.9696	18.3787
35 mph	0.0301	0.0069	0.0082	0.0224	0.6437	0.2224	1.8907	8.5487	11.3731
40 mph	-0.0043	-0.0011	-0.0011	0.0086	0.4960	0.1645	1.5352	6.9719	9.1697
45 mph	-0.0106	-0.0031	-0.0028	0.0110	0.8037	0.2559	0.9220	4.1996	6.1757
50 mph	-0.0080	-0.0027	-0.0020	0.0085	0.7110	0.2165	0.5253	2.3832	3.8318
55 mph	-0.0044	-0.0018	-0.0011	0.0073	0.6557	0.1909	0.0879	0.4052	1.3397
60 mph	-0.0020	-0.0009	-0.0005	0.0039	0.3972	0.1112	4.4031	20.1112	25.0232
65 mph	-0.0016	-0.0009	-0.0004	0.0011	0.1673	0.0449	0.0000	0.0000	0.2104
70 mph	-0.0369	-0.0191	-0.0083	0.0258	7.4486	1.9602	0.0000	0.0000	9.3704
total	0.0732	-0.0098	0.0251	0.2375	17.8171	5.9311	21.8520	99.3321	145.2583

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	9.64	4.72	5.80	7.96	28.13
10 mph	0.96	0.16	0.44	1.44	1.51	0.53	1.85	19.77	26.66
15 mph	5.36	0.87	2.43	1.26	1.11	0.34	1.12	13.83	26.32
20 mph	0.49	0.08	0.22	1.84	1.15	0.29	1.46	20.83	26.36
25 mph	3.21	0.50	1.46	6.22	4.36	1.03	5.09	84.17	106.06
30 mph	2.32	0.36	1.05	5.76	2.90	0.66	3.27	63.24	79.57
35 mph	10.61	1.60	4.83	5.69	2.02	0.45	2.03	46.38	73.61
40 mph	-1.65	-0.25	-0.75	2.44	1.57	0.34	1.68	45.57	48.96
45 mph	-4.34	-0.66	-1.98	3.39	2.55	0.54	1.03	33.38	33.91
50 mph	-3.35	-0.51	-1.53	2.78	2.20	0.45	0.60	23.35	24.00
55 mph	-1.87	-0.29	-0.85	2.52	2.00	0.39	0.10	4.85	6.84
60 mph	-0.79	-0.12	-0.36	1.33	1.17	0.22	5.32	262.67	269.45
65 mph	-0.56	-0.09	-0.26	0.33	0.45	0.08	0.00	0.00	-0.05
70 mph	-12.65	-1.95	-5.72	7.92	13.82	2.78	0.00	0.00	4.20
total	-2.27	-0.31	-1.02	42.92	46.46	12.84	29.37	626.02	**754.01**

World Logistics Center
2025 Medium EV Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0402	0.0337	0.0339	0.0345
10 mph	0.0075	0.0098	0.0075	0.0075	0.0051	0.0042	0.0043	0.0043
15 mph	0.0050	0.0066	0.0050	0.0050	0.0034	0.0028	0.0029	0.0029
20 mph	0.0035	0.0047	0.0035	0.0035	0.0024	0.0020	0.0020	0.0020
25 mph	0.0026	0.0035	0.0026	0.0026	0.0018	0.0015	0.0015	0.0015
30 mph	0.0020	0.0027	0.0020	0.0020	0.0014	0.0011	0.0011	0.0012
35 mph	0.0017	0.0022	0.0017	0.0017	0.0012	0.0009	0.0009	0.0010
40 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
45 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0007	0.0007	0.0008
50 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
55 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
60 mph	0.0014	0.0018	0.0014	0.0014	0.0010	0.0008	0.0008	0.0008
65 mph	0.0016	0.0020	0.0016	0.0016	0.0011	0.0009		
70 mph	0.0017	0.0021	0.0017	0.0017	0.0012	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.6569	0.6555	0.0014	0.0015
10 mph	0.0178	0.2161	0.0101	0.0090	0.0371	0.0270	0.0053	0.0109
15 mph	0.0142	0.1606	0.0085	0.0074	0.0275	0.0214	0.0046	0.0093
20 mph	0.0111	0.1227	0.0072	0.0061	0.0226	0.0178	0.0041	0.0080
25 mph	0.0088	0.0964	0.0060	0.0051	0.0186	0.0149	0.0037	0.0072
30 mph	0.0073	0.0789	0.0053	0.0044	0.0162	0.0131	0.0034	0.0066
35 mph	0.0062	0.0671	0.0047	0.0039	0.0148	0.0119	0.0032	0.0061
40 mph	0.0056	0.0609	0.0043	0.0036	0.0137	0.0110	0.0030	0.0057
45 mph	0.0053	0.0585	0.0040	0.0034	0.0130	0.0103	0.0028	0.0054
50 mph	0.0052	0.0582	0.0038	0.0032	0.0127	0.0099	0.0026	0.0051
55 mph	0.0052	0.0608	0.0036	0.0031	0.0126	0.0096	0.0025	0.0049
60 mph	0.0055	0.0664	0.0036	0.0032	0.0130	0.0097	0.0024	0.0047
65 mph	0.0058	0.0734	0.0036	0.0033	0.0147	0.0105		
70 mph	0.0048	0.0716	0.0036	0.0035	0.0228	0.0149		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0084	0.0008	0.0031	0.0068	0.0017	0.0007	0.0006	0.0010	0.0232
15 mph	0.0012	0.0001	0.0005	0.0010	0.0003	0.0001	0.0001	0.0002	0.0035
20 mph	0.0052	0.0005	0.0019	0.0043	0.0011	0.0004	0.0002	0.0004	0.0141
25 mph	0.0162	0.0016	0.0060	0.0131	0.0033	0.0013	0.0008	0.0013	0.0435
30 mph	0.0121	0.0012	0.0045	0.0098	0.0025	0.0010	0.0005	0.0008	0.0323
35 mph	0.0058	0.0006	0.0021	0.0047	0.0012	0.0005	0.0002	0.0003	0.0153
40 mph	0.0022	0.0002	0.0008	0.0017	0.0004	0.0002	0.0001	0.0002	0.0058
45 mph	0.0013	0.0001	0.0005	0.0011	0.0003	0.0001	0.0001	0.0002	0.0037
50 mph	0.0013	0.0001	0.0005	0.0010	0.0003	0.0001	0.0002	0.0003	0.0037
55 mph	0.0023	0.0002	0.0008	0.0018	0.0005	0.0002	0.0000	0.0000	0.0058
60 mph	0.0016	0.0002	0.0006	0.0013	0.0003	0.0001	0.0001	0.0001	0.0042
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0575	0.0057	0.0213	0.0466	0.0118	0.0046	0.0029	0.0048	0.1552

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0028	-0.0003	-0.0010	0.0009	0.0004	0.0001	0.0002	0.0003	-0.0022
25 mph	-0.0031	-0.0003	-0.0012	0.0010	0.0004	0.0002	0.0003	0.0005	-0.0023
30 mph	-0.0041	-0.0004	-0.0015	0.0013	0.0005	0.0002	0.0006	0.0009	-0.0025
35 mph	-0.0054	-0.0005	-0.0020	0.0016	0.0007	0.0003	0.0005	0.0009	-0.0038
40 mph	-0.0070	-0.0007	-0.0026	0.0021	0.0009	0.0004	0.0006	0.0009	-0.0053
45 mph	-0.0138	-0.0014	-0.0051	0.0043	0.0019	0.0007	0.0004	0.0006	-0.0125
50 mph	-0.0113	-0.0011	-0.0042	0.0035	0.0015	0.0006	0.0002	0.0004	-0.0104
55 mph	-0.0083	-0.0008	-0.0031	0.0026	0.0011	0.0004	0.0001	0.0001	-0.0079
60 mph	-0.0045	-0.0004	-0.0017	0.0014	0.0006	0.0002	0.0053	0.0090	0.0100
65 mph	-0.0025	-0.0002	-0.0009	0.0008	0.0003	0.0001	0.0000	0.0000	-0.0024
70 mph	-0.0643	-0.0060	-0.0238	0.0194	0.0086	0.0034	0.0000	0.0000	-0.0627
total	-0.1270	-0.0122	-0.0471	0.0387	0.0171	0.0066	0.0081	0.0136	-0.1021

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0025	0.0010	0.0006	0.0010	0.0050
15 mph	0.0332	0.0033	0.0123	0.0035	0.0011	0.0004	0.0002	0.0004	0.0544
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0005	0.0008	0.0032
35 mph	0.0325	0.0032	0.0120	0.0033	0.0000	0.0000	0.0000	0.0000	0.0512
total	0.0658	0.0065	0.0244	0.0068	0.0049	0.0019	0.0013	0.0022	0.1138

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0025	0.0010	0.0006	0.0010	0.0050
10 mph	0.0084	0.0008	0.0031	0.0068	0.0017	0.0007	0.0006	0.0010	0.0232
15 mph	0.0345	0.0034	0.0128	0.0045	0.0013	0.0005	0.0003	0.0006	0.0579
20 mph	0.0024	0.0002	0.0009	0.0051	0.0014	0.0006	0.0004	0.0007	0.0119
25 mph	0.0130	0.0013	0.0048	0.0141	0.0051	0.0020	0.0015	0.0026	0.0444
30 mph	0.0080	0.0008	0.0030	0.0111	0.0030	0.0012	0.0010	0.0017	0.0298
35 mph	0.0330	0.0033	0.0122	0.0097	0.0019	0.0007	0.0007	0.0012	0.0627
40 mph	-0.0048	-0.0005	-0.0018	0.0039	0.0014	0.0005	0.0007	0.0011	0.0005
45 mph	-0.0125	-0.0012	-0.0046	0.0053	0.0021	0.0008	0.0005	0.0008	-0.0087
50 mph	-0.0100	-0.0010	-0.0037	0.0045	0.0018	0.0007	0.0004	0.0006	-0.0067
55 mph	-0.0061	-0.0006	-0.0022	0.0044	0.0016	0.0006	0.0001	0.0001	-0.0021
60 mph	-0.0029	-0.0003	-0.0011	0.0026	0.0009	0.0004	0.0054	0.0091	0.0142
65 mph	-0.0025	-0.0002	-0.0009	0.0008	0.0003	0.0001	0.0000	0.0000	-0.0024
70 mph	-0.0643	-0.0060	-0.0238	0.0194	0.0086	0.0034	0.0000	0.0000	-0.0627
total	-0.0037	0.0000	-0.0013	0.0922	0.0337	0.0132	0.0123	0.0206	0.1669

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0002	0.0000	0.0002	0.0154	0.0054	0.0093	0.0318	0.0623
15 mph	0.0000	0.0000	0.0000	0.0000	0.0025	0.0009	0.0023	0.0077	0.0136
20 mph	0.0001	0.0001	0.0000	0.0002	0.0125	0.0047	0.0061	0.0201	0.0438
25 mph	0.0005	0.0004	0.0001	0.0006	0.0428	0.0165	0.0231	0.0746	0.1585
30 mph	0.0004	0.0003	0.0001	0.0005	0.0358	0.0139	0.0170	0.0549	0.1229
35 mph	0.0002	0.0001	0.0001	0.0002	0.0190	0.0074	0.0063	0.0204	0.0537
40 mph	0.0001	0.0001	0.0000	0.0001	0.0076	0.0029	0.0052	0.0167	0.0326
45 mph	0.0000	0.0000	0.0000	0.0001	0.0048	0.0018	0.0062	0.0203	0.0332
50 mph	0.0000	0.0000	0.0000	0.0001	0.0047	0.0018	0.0072	0.0232	0.0369
55 mph	0.0001	0.0001	0.0000	0.0001	0.0081	0.0030	0.0006	0.0020	0.0140
60 mph	0.0001	0.0000	0.0000	0.0001	0.0054	0.0019	0.0024	0.0078	0.0176
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0017	0.0014	0.0004	0.0020	0.1585	0.0602	0.0857	0.2794	0.5892

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0001	-0.0001	0.0000	0.0000	0.0044	0.0017	0.0048	0.0157	0.0263
25 mph	-0.0001	-0.0001	0.0000	0.0000	0.0054	0.0021	0.0087	0.0279	0.0439
30 mph	-0.0001	-0.0001	0.0000	0.0001	0.0078	0.0030	0.0199	0.0643	0.0949
35 mph	-0.0002	-0.0001	0.0000	0.0001	0.0114	0.0044	0.0222	0.0717	0.1095
40 mph	-0.0002	-0.0002	-0.0001	0.0001	0.0159	0.0061	0.0242	0.0784	0.1243
45 mph	-0.0005	-0.0004	-0.0001	0.0002	0.0326	0.0124	0.0162	0.0527	0.1132
50 mph	-0.0004	-0.0003	-0.0001	0.0002	0.0270	0.0101	0.0092	0.0296	0.0752
55 mph	-0.0003	-0.0002	-0.0001	0.0001	0.0194	0.0071	0.0029	0.0095	0.0385
60 mph	-0.0002	-0.0001	0.0000	0.0001	0.0100	0.0036	0.1964	0.6386	0.8484
65 mph	-0.0001	-0.0001	0.0000	0.0000	0.0057	0.0020	0.0000	0.0000	0.0075
70 mph	-0.0016	-0.0017	-0.0004	0.0009	0.2075	0.0651	0.0000	0.0000	0.2697
total	-0.0037	-0.0035	-0.0010	0.0019	0.3472	0.1176	0.3045	0.9885	1.7515

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0505	0.0242	0.0003	0.0005	0.0756
15 mph	0.0008	0.0007	0.0002	0.0001	0.0106	0.0040	0.0045	0.0153	0.0362
25 mph	0.0000	0.0000	0.0000	0.0000	0.0174	0.0067	0.0148	0.0479	0.0868
35 mph	0.0010	0.0008	0.0003	0.0002	0.0000	0.0000	0.0000	0.0000	0.0023
total	0.0019	0.0015	0.0005	0.0003	0.0785	0.0349	0.0196	0.0637	0.2008

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0505	0.0242	0.0003	0.0005	0.0756
10 mph	0.0002	0.0002	0.0000	0.0002	0.0154	0.0054	0.0093	0.0318	0.0623
15 mph	0.0008	0.0007	0.0002	0.0001	0.0132	0.0049	0.0068	0.0230	0.0497
20 mph	0.0001	0.0001	0.0000	0.0002	0.0168	0.0064	0.0108	0.0357	0.0701
25 mph	0.0004	0.0003	0.0001	0.0006	0.0656	0.0253	0.0466	0.1504	0.2892
30 mph	0.0002	0.0002	0.0001	0.0005	0.0437	0.0169	0.0370	0.1192	0.2178
35 mph	0.0011	0.0008	0.0003	0.0005	0.0305	0.0118	0.0285	0.0921	0.1656
40 mph	-0.0002	-0.0001	0.0000	0.0002	0.0235	0.0090	0.0294	0.0952	0.1570
45 mph	-0.0004	-0.0004	-0.0001	0.0003	0.0374	0.0143	0.0225	0.0730	0.1465
50 mph	-0.0003	-0.0003	-0.0001	0.0002	0.0316	0.0119	0.0163	0.0528	0.1121
55 mph	-0.0002	-0.0002	-0.0001	0.0002	0.0275	0.0101	0.0035	0.0115	0.0524
60 mph	-0.0001	-0.0001	0.0000	0.0001	0.0154	0.0055	0.1988	0.6464	0.8660
65 mph	-0.0001	-0.0001	0.0000	0.0000	0.0057	0.0020	0.0000	0.0000	0.0075
70 mph	-0.0016	-0.0017	-0.0004	0.0009	0.2075	0.0651	0.0000	0.0000	0.2697
total	-0.0001	-0.0006	-0.0001	0.0041	0.5842	0.2127	0.4098	1.3316	2.5415

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.01	0.00	0.00	0.01	0.02	0.01	0.01	0.03	0.09
15 mph	0.04	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.11
20 mph	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.04	0.08
25 mph	0.01	0.00	0.00	0.01	0.07	0.03	0.05	0.15	0.33
30 mph	0.01	0.00	0.00	0.01	0.05	0.02	0.04	0.12	0.25
35 mph	0.03	0.00	0.01	0.01	0.03	0.01	0.03	0.09	0.23
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.10	0.16
45 mph	-0.01	0.00	0.00	0.01	0.04	0.02	0.02	0.07	0.14
50 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.02	0.05	0.11
55 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.05
60 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.20	0.66	0.88
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
70 mph	-0.07	-0.01	-0.02	0.02	0.22	0.07	0.00	0.00	0.21
total	0.00	0.00	0.00	0.10	0.62	0.23	0.42	1.35	**2.71**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.12	0.08	0.41	0.90	0.62	0.34	0.29	0.28
Diesel	0.01	0.00	0.00	0.02	0.81	0.45	3.56	4.07
Electric	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.20	0.09	0.42	0.92	1.43	0.79	3.85	4.35

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-3.62	-0.27	-1.34	1.11	1.30	0.72	1.37	1.31
Diesel	-0.03	0.00	-0.01	0.02	1.71	0.94	16.67	19.09
Electric	-0.23	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
Total	-3.88	-0.29	-1.35	1.14	3.01	1.66	18.04	20.40

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	1.18	0.09	0.44	0.12	0.09	0.05	0.06	0.06
Diesel	0.01	0.00	0.00	0.00	0.12	0.06	0.71	0.82
Electric	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.26	0.09	0.44	0.12	0.20	0.11	0.77	0.87

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-1.32	-0.10	-0.49	2.14	2.00	1.11	1.72	1.65	6.72
Diesel	-0.01	0.00	0.00	0.05	2.64	1.45	20.94	23.98	49.04
Electric	-0.08	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.09
Total	-1.42	-0.10	-0.49	2.19	4.64	2.56	22.67	25.63	**55.67**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	245.85
Internal	14.92
Total	**260.77**

World Logistics Center
2025 Medium EV Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0370	0.0310	0.0311	0.0317
10 mph	0.0069	0.0090	0.0069	0.0069	0.0047	0.0039	0.0040	0.0040
15 mph	0.0046	0.0061	0.0046	0.0046	0.0032	0.0026	0.0026	0.0026
20 mph	0.0032	0.0043	0.0032	0.0032	0.0022	0.0018	0.0018	0.0018
25 mph	0.0024	0.0032	0.0024	0.0024	0.0017	0.0014	0.0014	0.0014
30 mph	0.0018	0.0025	0.0019	0.0019	0.0013	0.0011	0.0011	0.0011
35 mph	0.0015	0.0020	0.0015	0.0015	0.0011	0.0009	0.0009	0.0009
40 mph	0.0013	0.0018	0.0013	0.0013	0.0009	0.0008	0.0008	0.0008
45 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
50 mph	0.0012	0.0016	0.0012	0.0012	0.0008	0.0007	0.0007	0.0007
55 mph	0.0012	0.0016	0.0012	0.0012	0.0009	0.0007	0.0007	0.0007
60 mph	0.0013	0.0017	0.0013	0.0013	0.0009	0.0007	0.0007	0.0007
65 mph	0.0014	0.0019	0.0014	0.0014	0.0010	0.0008		
70 mph	0.0016	0.0020	0.0016	0.0015	0.0011	0.0009		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.6285	0.6272	0.0013	0.0014
10 mph	0.0170	0.2067	0.0096	0.0086	0.0355	0.0258	0.0051	0.0104
15 mph	0.0135	0.1537	0.0082	0.0071	0.0263	0.0204	0.0044	0.0089
20 mph	0.0106	0.1174	0.0068	0.0058	0.0216	0.0170	0.0039	0.0077
25 mph	0.0085	0.0923	0.0058	0.0049	0.0178	0.0143	0.0035	0.0068
30 mph	0.0070	0.0755	0.0050	0.0042	0.0155	0.0125	0.0033	0.0063
35 mph	0.0059	0.0642	0.0045	0.0037	0.0141	0.0114	0.0030	0.0059
40 mph	0.0054	0.0583	0.0041	0.0034	0.0131	0.0105	0.0028	0.0055
45 mph	0.0051	0.0560	0.0038	0.0032	0.0124	0.0099	0.0027	0.0052
50 mph	0.0049	0.0557	0.0036	0.0031	0.0121	0.0095	0.0025	0.0048
55 mph	0.0049	0.0581	0.0035	0.0030	0.0120	0.0092	0.0024	0.0047
60 mph	0.0052	0.0635	0.0034	0.0030	0.0124	0.0092	0.0023	0.0045
65 mph	0.0055	0.0702	0.0035	0.0032	0.0141	0.0101		
70 mph	0.0046	0.0685	0.0034	0.0033	0.0219	0.0143		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0077	0.0007	0.0029	0.0063	0.0016	0.0006	0.0006	0.0010	0.0213
15 mph	0.0011	0.0001	0.0004	0.0009	0.0002	0.0001	0.0001	0.0002	0.0032
20 mph	0.0048	0.0005	0.0018	0.0039	0.0010	0.0004	0.0002	0.0004	0.0130
25 mph	0.0149	0.0015	0.0055	0.0121	0.0030	0.0012	0.0007	0.0012	0.0400
30 mph	0.0111	0.0011	0.0041	0.0090	0.0023	0.0009	0.0004	0.0007	0.0297
35 mph	0.0053	0.0005	0.0020	0.0043	0.0011	0.0004	0.0001	0.0002	0.0141
40 mph	0.0020	0.0002	0.0007	0.0016	0.0004	0.0002	0.0001	0.0002	0.0054
45 mph	0.0012	0.0001	0.0004	0.0010	0.0003	0.0001	0.0001	0.0002	0.0034
50 mph	0.0012	0.0001	0.0004	0.0009	0.0002	0.0001	0.0002	0.0003	0.0034
55 mph	0.0021	0.0002	0.0008	0.0017	0.0004	0.0002	0.0000	0.0000	0.0054
60 mph	0.0014	0.0001	0.0005	0.0012	0.0003	0.0001	0.0001	0.0001	0.0038
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0529	0.0052	0.0196	0.0428	0.0108	0.0042	0.0026	0.0044	0.1427

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0026	-0.0003	-0.0010	0.0008	0.0003	0.0001	0.0002	0.0003	-0.0021
25 mph	-0.0029	-0.0003	-0.0011	0.0009	0.0004	0.0001	0.0003	0.0004	-0.0021
30 mph	-0.0037	-0.0004	-0.0014	0.0012	0.0005	0.0002	0.0005	0.0009	-0.0023
35 mph	-0.0049	-0.0005	-0.0018	0.0015	0.0007	0.0003	0.0005	0.0008	-0.0035
40 mph	-0.0064	-0.0006	-0.0024	0.0020	0.0009	0.0003	0.0005	0.0009	-0.0049
45 mph	-0.0127	-0.0013	-0.0047	0.0039	0.0017	0.0007	0.0003	0.0006	-0.0115
50 mph	-0.0104	-0.0010	-0.0038	0.0032	0.0014	0.0005	0.0002	0.0003	-0.0096
55 mph	-0.0077	-0.0008	-0.0028	0.0024	0.0010	0.0004	0.0001	0.0001	-0.0073
60 mph	-0.0041	-0.0004	-0.0015	0.0013	0.0006	0.0002	0.0049	0.0083	0.0092
65 mph	-0.0023	-0.0002	-0.0009	0.0007	0.0003	0.0001	0.0000	0.0000	-0.0023
70 mph	-0.0591	-0.0055	-0.0219	0.0178	0.0079	0.0031	0.0000	0.0000	-0.0577
total	-0.1168	-0.0112	-0.0433	0.0356	0.0157	0.0061	0.0075	0.0125	-0.0938

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0023	0.0009	0.0005	0.0009	0.0046
15 mph	0.0306	0.0030	0.0113	0.0032	0.0010	0.0004	0.0002	0.0004	0.0501
25 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0005	0.0004	0.0008	0.0029
35 mph	0.0299	0.0030	0.0111	0.0031	0.0000	0.0000	0.0000	0.0000	0.0470
total	0.0605	0.0060	0.0224	0.0063	0.0045	0.0018	0.0012	0.0020	0.1046

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0023	0.0009	0.0005	0.0009	0.0046
10 mph	0.0077	0.0007	0.0029	0.0063	0.0016	0.0006	0.0006	0.0010	0.0213
15 mph	0.0317	0.0031	0.0118	0.0041	0.0012	0.0005	0.0003	0.0005	0.0533
20 mph	0.0022	0.0002	0.0008	0.0047	0.0013	0.0005	0.0004	0.0007	0.0109
25 mph	0.0120	0.0012	0.0044	0.0130	0.0047	0.0018	0.0014	0.0024	0.0408
30 mph	0.0074	0.0007	0.0027	0.0102	0.0028	0.0011	0.0009	0.0016	0.0274
35 mph	0.0303	0.0030	0.0112	0.0089	0.0018	0.0007	0.0006	0.0011	0.0576
40 mph	-0.0044	-0.0004	-0.0016	0.0036	0.0013	0.0005	0.0006	0.0010	0.0005
45 mph	-0.0115	-0.0011	-0.0042	0.0049	0.0020	0.0008	0.0005	0.0008	-0.0080
50 mph	-0.0092	-0.0009	-0.0034	0.0041	0.0016	0.0006	0.0003	0.0006	-0.0062
55 mph	-0.0056	-0.0005	-0.0021	0.0040	0.0015	0.0006	0.0001	0.0001	-0.0019
60 mph	-0.0027	-0.0003	-0.0010	0.0024	0.0009	0.0003	0.0050	0.0084	0.0130
65 mph	-0.0023	-0.0002	-0.0009	0.0007	0.0003	0.0001	0.0000	0.0000	-0.0023
70 mph	-0.0591	-0.0055	-0.0219	0.0178	0.0079	0.0031	0.0000	0.0000	-0.0577
total	-0.0034	0.0000	-0.0012	0.0847	0.0310	0.0121	0.0113	0.0190	0.1535

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0002	0.0001	0.0000	0.0002	0.0147	0.0051	0.0089	0.0304	0.0596
15 mph	0.0000	0.0000	0.0000	0.0000	0.0024	0.0009	0.0022	0.0074	0.0130
20 mph	0.0001	0.0001	0.0000	0.0002	0.0119	0.0045	0.0058	0.0192	0.0419
25 mph	0.0005	0.0004	0.0001	0.0005	0.0410	0.0158	0.0221	0.0713	0.1516
30 mph	0.0004	0.0003	0.0001	0.0004	0.0343	0.0133	0.0163	0.0525	0.1176
35 mph	0.0002	0.0001	0.0000	0.0002	0.0182	0.0070	0.0061	0.0195	0.0514
40 mph	0.0001	0.0001	0.0000	0.0001	0.0072	0.0028	0.0049	0.0160	0.0312
45 mph	0.0000	0.0000	0.0000	0.0001	0.0046	0.0017	0.0060	0.0194	0.0318
50 mph	0.0000	0.0000	0.0000	0.0001	0.0045	0.0017	0.0069	0.0222	0.0353
55 mph	0.0001	0.0001	0.0000	0.0001	0.0077	0.0028	0.0006	0.0019	0.0134
60 mph	0.0001	0.0000	0.0000	0.0001	0.0051	0.0018	0.0023	0.0075	0.0169
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0016	0.0013	0.0004	0.0019	0.1516	0.0576	0.0820	0.2673	0.5637

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0001	-0.0001	0.0000	0.0000	0.0042	0.0016	0.0046	0.0150	0.0252
25 mph	-0.0001	-0.0001	0.0000	0.0000	0.0052	0.0020	0.0083	0.0267	0.0420
30 mph	-0.0001	-0.0001	0.0000	0.0001	0.0075	0.0029	0.0191	0.0615	0.0908
35 mph	-0.0002	-0.0001	0.0000	0.0001	0.0109	0.0042	0.0213	0.0686	0.1048
40 mph	-0.0002	-0.0002	-0.0001	0.0001	0.0152	0.0059	0.0232	0.0750	0.1189
45 mph	-0.0005	-0.0004	-0.0001	0.0002	0.0312	0.0119	0.0155	0.0504	0.1083
50 mph	-0.0004	-0.0003	-0.0001	0.0002	0.0258	0.0097	0.0088	0.0283	0.0720
55 mph	-0.0003	-0.0002	-0.0001	0.0001	0.0186	0.0068	0.0028	0.0091	0.0368
60 mph	-0.0001	-0.0001	0.0000	0.0001	0.0096	0.0034	0.1879	0.6110	0.8117
65 mph	-0.0001	-0.0001	0.0000	0.0000	0.0054	0.0019	0.0000	0.0000	0.0072
70 mph	-0.0015	-0.0016	-0.0004	0.0008	0.1985	0.0622	0.0000	0.0000	0.2580
total	-0.0035	-0.0033	-0.0009	0.0018	0.3321	0.1125	0.2913	0.9457	1.6757

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0483	0.0232	0.0003	0.0005	0.0723
15 mph	0.0008	0.0006	0.0002	0.0001	0.0102	0.0038	0.0043	0.0146	0.0346
25 mph	0.0000	0.0000	0.0000	0.0000	0.0166	0.0064	0.0142	0.0458	0.0830
35 mph	0.0010	0.0008	0.0003	0.0002	0.0000	0.0000	0.0000	0.0000	0.0022
total	0.0018	0.0014	0.0005	0.0003	0.0751	0.0334	0.0188	0.0609	0.1921

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0483	0.0232	0.0003	0.0005	0.0723
10 mph	0.0002	0.0001	0.0000	0.0002	0.0147	0.0051	0.0089	0.0304	0.0596
15 mph	0.0008	0.0007	0.0002	0.0001	0.0126	0.0047	0.0065	0.0220	0.0476
20 mph	0.0001	0.0001	0.0000	0.0002	0.0161	0.0061	0.0104	0.0342	0.0671
25 mph	0.0004	0.0003	0.0001	0.0006	0.0627	0.0242	0.0446	0.1439	0.2767
30 mph	0.0002	0.0002	0.0001	0.0005	0.0418	0.0162	0.0354	0.1140	0.2084
35 mph	0.0010	0.0008	0.0003	0.0005	0.0291	0.0113	0.0273	0.0881	0.1584
40 mph	-0.0002	-0.0001	0.0000	0.0002	0.0225	0.0086	0.0281	0.0911	0.1502
45 mph	-0.0004	-0.0003	-0.0001	0.0003	0.0358	0.0136	0.0215	0.0698	0.1401
50 mph	-0.0003	-0.0003	-0.0001	0.0002	0.0303	0.0114	0.0156	0.0505	0.1073
55 mph	-0.0002	-0.0002	-0.0001	0.0002	0.0263	0.0097	0.0034	0.0110	0.0502
60 mph	-0.0001	-0.0001	0.0000	0.0001	0.0147	0.0053	0.1902	0.6185	0.8286
65 mph	-0.0001	-0.0001	0.0000	0.0000	0.0054	0.0019	0.0000	0.0000	0.0072
70 mph	-0.0015	-0.0016	-0.0004	0.0008	0.1985	0.0622	0.0000	0.0000	0.2580
total	-0.0001	-0.0005	-0.0001	0.0040	0.5589	0.2035	0.3920	1.2740	2.4316

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.02	0.00	0.00	0.08
10 mph	0.01	0.00	0.00	0.01	0.02	0.01	0.01	0.03	0.08
15 mph	0.03	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.10
20 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.03	0.08
25 mph	0.01	0.00	0.00	0.01	0.07	0.03	0.05	0.15	0.32
30 mph	0.01	0.00	0.00	0.01	0.04	0.02	0.04	0.12	0.24
35 mph	0.03	0.00	0.01	0.01	0.03	0.01	0.03	0.09	0.22
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.03	0.09	0.15
45 mph	-0.01	0.00	0.00	0.01	0.04	0.01	0.02	0.07	0.13
50 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.02	0.05	0.10
55 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.00	0.01	0.05
60 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.20	0.63	0.84
65 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
70 mph	-0.06	-0.01	-0.02	0.02	0.21	0.07	0.00	0.00	0.20
total	0.00	0.00	0.00	0.09	0.59	0.22	0.40	1.29	**2.59**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.45	0.03	0.16	0.36	0.25	0.14	0.12	0.11
Diesel	0.00	0.00	0.00	0.01	0.33	0.18	1.47	1.48
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.48	0.04	0.17	0.37	0.58	0.32	1.59	1.59

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	-1.44	-0.11	-0.53	0.44	0.53	0.30	0.57	0.51
Diesel	-0.01	0.00	0.00	0.01	0.69	0.38	6.89	6.93
Electric	-0.09	-0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	-1.54	-0.11	-0.54	0.45	1.22	0.68	7.46	7.43

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.47	0.03	0.17	0.05	0.04	0.02	0.02	0.02
Diesel	0.00	0.00	0.00	0.00	0.05	0.03	0.29	0.30
Electric	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.50	0.04	0.17	0.05	0.08	0.05	0.32	0.32

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	-0.52	-0.04	-0.19	0.85	0.82	0.46	0.71	0.63	2.72
Diesel	0.00	0.00	0.00	0.02	1.07	0.59	8.66	8.70	19.03
Electric	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04
Total	-0.56	-0.04	-0.19	0.87	1.89	1.05	9.37	9.33	**21.72**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	60.35
Internal	3.66
Total	**64.01**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.06
10 mph	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.02	0.06
15 mph	0.02	0.00	0.01	0.00	0.01	0.00	0.01	0.02	0.07
20 mph	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.06
25 mph	0.01	0.00	0.00	0.01	0.05	0.02	0.04	0.11	0.24
30 mph	0.00	0.00	0.00	0.01	0.03	0.01	0.03	0.09	0.18
35 mph	0.02	0.00	0.01	0.01	0.02	0.01	0.02	0.07	0.16
40 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.07	0.12
45 mph	-0.01	0.00	0.00	0.00	0.03	0.01	0.02	0.05	0.10
50 mph	-0.01	0.00	0.00	0.00	0.02	0.01	0.01	0.04	0.08
55 mph	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01	0.04
60 mph	0.00	0.00	0.00	0.00	0.01	0.00	0.15	0.48	0.65
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	-0.04	0.00	-0.01	0.01	0.16	0.05	0.00	0.00	0.16
total	0.00	0.00	0.00	0.06	0.45	0.17	0.31	1.00	1.98

World Logistics Center
2025 Medium EV Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0041	0.0005	0.0028	0.0060	0.0044	0.0021	0.0019	0.0032	0.0250
15 mph	0.0009	0.0001	0.0006	0.0013	0.0010	0.0005	0.0006	0.0009	0.0059
20 mph	0.0054	0.0007	0.0037	0.0080	0.0059	0.0028	0.0017	0.0028	0.0309
25 mph	0.0226	0.0031	0.0153	0.0334	0.0245	0.0118	0.0069	0.0115	0.1289
30 mph	0.0217	0.0029	0.0147	0.0320	0.0235	0.0113	0.0055	0.0092	0.1208
35 mph	0.0126	0.0017	0.0086	0.0187	0.0137	0.0066	0.0022	0.0037	0.0678
40 mph	0.0054	0.0007	0.0037	0.0080	0.0059	0.0028	0.0019	0.0032	0.0317
45 mph	0.0036	0.0005	0.0024	0.0053	0.0039	0.0019	0.0025	0.0041	0.0243
50 mph	0.0036	0.0005	0.0024	0.0053	0.0039	0.0019	0.0030	0.0051	0.0258
55 mph	0.0063	0.0009	0.0043	0.0093	0.0069	0.0033	0.0003	0.0005	0.0317
60 mph	0.0041	0.0005	0.0028	0.0060	0.0044	0.0021	0.0011	0.0018	0.0228
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0903	0.0122	0.0611	0.1335	0.0980	0.0471	0.0276	0.0459	0.5157

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0029	-0.0004	-0.0020	0.0016	0.0021	0.0010	0.0013	0.0022	0.0029
25 mph	-0.0044	-0.0006	-0.0030	0.0025	0.0031	0.0015	0.0026	0.0043	0.0060
30 mph	-0.0073	-0.0010	-0.0049	0.0041	0.0051	0.0025	0.0065	0.0108	0.0157
35 mph	-0.0117	-0.0016	-0.0079	0.0066	0.0082	0.0040	0.0077	0.0129	0.0183
40 mph	-0.0175	-0.0024	-0.0118	0.0098	0.0124	0.0059	0.0090	0.0151	0.0205
45 mph	-0.0379	-0.0051	-0.0257	0.0213	0.0268	0.0129	0.0065	0.0108	0.0095
50 mph	-0.0321	-0.0043	-0.0217	0.0181	0.0226	0.0109	0.0039	0.0065	0.0038
55 mph	-0.0233	-0.0032	-0.0158	0.0131	0.0165	0.0079	0.0013	0.0022	-0.0013
60 mph	-0.0117	-0.0016	-0.0079	0.0066	0.0082	0.0040	0.0904	0.1507	0.2387
65 mph	-0.0058	-0.0008	-0.0039	0.0033	0.0041	0.0020	0.0000	0.0000	-0.0012
70 mph	-0.1370	-0.0185	-0.0927	0.0771	0.0968	0.0465	0.0000	0.0000	-0.0278
total	-0.2915	-0.0394	-0.1973	0.1641	0.2059	0.0990	0.1291	0.2153	0.2851

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0002	0.0004	0.0018
15 mph	0.0241	0.0033	0.0163	0.0046	0.0041	0.0020	0.0011	0.0018	0.0573
25 mph	0.0000	0.0000	0.0000	0.0000	0.0099	0.0048	0.0044	0.0074	0.0265
35 mph	0.0709	0.0096	0.0480	0.0133	0.0000	0.0000	0.0000	0.0000	0.1418
total	0.0950	0.0129	0.0643	0.0179	0.0149	0.0071	0.0057	0.0096	0.2274

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0002	0.0004	0.0018
10 mph	0.0041	0.0005	0.0028	0.0060	0.0044	0.0021	0.0019	0.0032	0.0250
15 mph	0.0250	0.0034	0.0169	0.0060	0.0051	0.0024	0.0016	0.0027	0.0632
20 mph	0.0025	0.0003	0.0017	0.0096	0.0079	0.0038	0.0029	0.0049	0.0338
25 mph	0.0182	0.0025	0.0123	0.0358	0.0375	0.0180	0.0139	0.0232	0.1614
30 mph	0.0144	0.0019	0.0097	0.0361	0.0287	0.0138	0.0120	0.0200	0.1366
35 mph	0.0719	0.0097	0.0487	0.0385	0.0220	0.0106	0.0100	0.0166	0.2279
40 mph	-0.0121	-0.0016	-0.0082	0.0179	0.0182	0.0088	0.0110	0.0183	0.0522
45 mph	-0.0343	-0.0046	-0.0232	0.0267	0.0307	0.0148	0.0089	0.0149	0.0338
50 mph	-0.0285	-0.0038	-0.0193	0.0234	0.0266	0.0128	0.0069	0.0115	0.0296
55 mph	-0.0170	-0.0023	-0.0115	0.0225	0.0233	0.0112	0.0016	0.0026	0.0304
60 mph	-0.0076	-0.0010	-0.0051	0.0126	0.0126	0.0061	0.0915	0.1525	0.2615
65 mph	-0.0058	-0.0008	-0.0039	0.0033	0.0041	0.0020	0.0000	0.0000	-0.0012
70 mph	-0.1370	-0.0185	-0.0927	0.0771	0.0968	0.0465	0.0000	0.0000	-0.0278
total	-0.1062	-0.0144	-0.0719	0.3155	0.3187	0.1532	0.1624	0.2708	1.0282

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0001	0.0020	0.0010	0.0084	0.0140	0.0255
15 mph	0.0000	0.0000	0.0000	0.0000	0.0004	0.0002	0.0024	0.0040	0.0071
20 mph	0.0000	0.0000	0.0000	0.0001	0.0026	0.0013	0.0072	0.0120	0.0233
25 mph	0.0001	0.0000	0.0000	0.0005	0.0110	0.0053	0.0300	0.0500	0.0970
30 mph	0.0001	0.0000	0.0000	0.0005	0.0106	0.0051	0.0240	0.0400	0.0803
35 mph	0.0000	0.0000	0.0000	0.0003	0.0062	0.0030	0.0096	0.0160	0.0351
40 mph	0.0000	0.0000	0.0000	0.0001	0.0026	0.0013	0.0084	0.0140	0.0265
45 mph	0.0000	0.0000	0.0000	0.0001	0.0018	0.0008	0.0108	0.0180	0.0315
50 mph	0.0000	0.0000	0.0000	0.0001	0.0018	0.0008	0.0132	0.0220	0.0379
55 mph	0.0000	0.0000	0.0000	0.0001	0.0031	0.0015	0.0012	0.0020	0.0079
60 mph	0.0000	0.0000	0.0000	0.0001	0.0020	0.0010	0.0048	0.0080	0.0159
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0002	0.0000	0.0001	0.0021	0.0441	0.0212	0.1200	0.2001	0.3879

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0056	0.0094	0.0164
25 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0007	0.0112	0.0187	0.0321
30 mph	0.0000	0.0000	0.0000	0.0001	0.0023	0.0011	0.0281	0.0469	0.0785
35 mph	0.0000	0.0000	0.0000	0.0001	0.0037	0.0018	0.0337	0.0562	0.0955
40 mph	0.0000	0.0000	0.0000	0.0002	0.0056	0.0027	0.0394	0.0656	0.1133
45 mph	-0.0001	0.0000	0.0000	0.0003	0.0121	0.0058	0.0281	0.0469	0.0930
50 mph	-0.0001	0.0000	0.0000	0.0003	0.0102	0.0049	0.0169	0.0281	0.0603
55 mph	-0.0001	0.0000	0.0000	0.0002	0.0074	0.0036	0.0056	0.0094	0.0261
60 mph	0.0000	0.0000	0.0000	0.0001	0.0037	0.0018	0.3936	0.6562	1.0553
65 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0009	0.0000	0.0000	0.0028
70 mph	-0.0003	0.0000	-0.0002	0.0012	0.0436	0.0210	0.0000	0.0000	0.0652
total	-0.0007	-0.0001	-0.0004	0.0026	0.0927	0.0446	0.5622	0.9375	1.6384

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0004	0.0002	0.0010	0.0017	0.0032
15 mph	0.0001	0.0000	0.0000	0.0001	0.0019	0.0009	0.0047	0.0079	0.0156
25 mph	0.0000	0.0000	0.0000	0.0000	0.0045	0.0021	0.0193	0.0321	0.0580
35 mph	0.0002	0.0000	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0005
total	0.0002	0.0000	0.0001	0.0003	0.0067	0.0032	0.0250	0.0417	0.0773

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0004	0.0002	0.0010	0.0017	0.0032
10 mph	0.0000	0.0000	0.0000	0.0001	0.0020	0.0010	0.0084	0.0140	0.0255
15 mph	0.0001	0.0000	0.0000	0.0001	0.0023	0.0011	0.0071	0.0119	0.0227
20 mph	0.0000	0.0000	0.0000	0.0002	0.0036	0.0017	0.0128	0.0214	0.0397
25 mph	0.0000	0.0000	0.0000	0.0006	0.0169	0.0081	0.0605	0.1009	0.1871
30 mph	0.0000	0.0000	0.0000	0.0006	0.0129	0.0062	0.0521	0.0869	0.1587
35 mph	0.0002	0.0000	0.0001	0.0006	0.0099	0.0048	0.0433	0.0723	0.1311
40 mph	0.0000	0.0000	0.0000	0.0003	0.0082	0.0039	0.0478	0.0796	0.1398
45 mph	-0.0001	0.0000	0.0000	0.0004	0.0138	0.0066	0.0389	0.0649	0.1245
50 mph	-0.0001	0.0000	0.0000	0.0004	0.0120	0.0058	0.0301	0.0501	0.0982
55 mph	0.0000	0.0000	0.0000	0.0004	0.0105	0.0051	0.0068	0.0114	0.0340
60 mph	0.0000	0.0000	0.0000	0.0002	0.0057	0.0027	0.3984	0.6642	1.0712
65 mph	0.0000	0.0000	0.0000	0.0001	0.0019	0.0009	0.0000	0.0000	0.0028
70 mph	-0.0003	0.0000	-0.0002	0.0012	0.0436	0.0210	0.0000	0.0000	0.0652
total	-0.0003	0.0000	-0.0001	0.0049	0.1436	0.0690	0.7072	1.1793	2.1036

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10 mph	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.05
15 mph	0.03	0.00	0.02	0.01	0.01	0.00	0.01	0.01	0.09
20 mph	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.03	0.07
25 mph	0.02	0.00	0.01	0.04	0.05	0.03	0.07	0.12	0.35
30 mph	0.01	0.00	0.01	0.04	0.04	0.02	0.06	0.11	0.30
35 mph	0.07	0.01	0.05	0.04	0.03	0.02	0.05	0.09	0.36
40 mph	-0.01	0.00	-0.01	0.02	0.03	0.01	0.06	0.10	0.19
45 mph	-0.03	0.00	-0.02	0.03	0.04	0.02	0.05	0.08	0.16
50 mph	-0.03	0.00	-0.02	0.02	0.04	0.02	0.04	0.06	0.13
55 mph	-0.02	0.00	-0.01	0.02	0.03	0.02	0.01	0.01	0.06
60 mph	-0.01	0.00	-0.01	0.01	0.02	0.01	0.49	0.82	1.33
65 mph	-0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
70 mph	-0.14	-0.02	-0.09	0.08	0.14	0.07	0.00	0.00	0.04
total	-0.11	-0.01	-0.07	0.32	0.46	0.22	0.87	1.45	**3.13**

World Logistics Center
2025 Medium EV Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	5.2744	4.9417	8.4988	3.8682
10 mph	0.0145	0.0339	0.0187	0.0327	0.0477	0.0167	0.0151	0.4890
15 mph	0.0098	0.0235	0.0126	0.0219	0.0329	0.0112	0.0101	0.3238
20 mph	0.0069	0.0170	0.0089	0.0155	0.0240	0.0080	0.0070	0.2269
25 mph	0.0051	0.0126	0.0065	0.0116	0.0182	0.0060	0.0052	0.1675
30 mph	0.0039	0.0099	0.0051	0.0091	0.0145	0.0047	0.0041	0.1305
35 mph	0.0032	0.0080	0.0042	0.0075	0.0122	0.0039	0.0033	0.1073
40 mph	0.0028	0.0069	0.0036	0.0066	0.0109	0.0035	0.0029	0.0931
45 mph	0.0025	0.0063	0.0033	0.0060	0.0101	0.0032	0.0026	0.0852
50 mph	0.0024	0.0060	0.0032	0.0058	0.0099	0.0031	0.0026	0.0822
55 mph	0.0025	0.0061	0.0032	0.0059	0.0103	0.0032	0.0026	0.0837
60 mph	0.0026	0.0064	0.0034	0.0063	0.0112	0.0035	0.0028	0.0899
65 mph	0.0029	0.0069	0.0038	0.0070	0.0128	0.0040		
70 mph	0.0031	0.0069	0.0040	0.0080	0.0128	0.0039		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0075	0.0239
10 mph	0.0053	0.0180	0.0091	0.0054	0.0257	0.0253	0.0091	0.0231
15 mph	0.0028	0.0119	0.0045	0.0027	0.0135	0.0128	0.0064	0.0162
20 mph	0.0013	0.0081	0.0018	0.0011	0.0065	0.0055	0.0046	0.0114
25 mph	0.0009	0.0062	0.0011	0.0007	0.0044	0.0035	0.0034	0.0082
30 mph	0.0007	0.0050	0.0008	0.0005	0.0035	0.0027	0.0025	0.0061
35 mph	0.0005	0.0042	0.0006	0.0004	0.0030	0.0023	0.0018	0.0045
40 mph	0.0005	0.0038	0.0005	0.0004	0.0026	0.0020	0.0014	0.0033
45 mph	0.0004	0.0036	0.0005	0.0003	0.0024	0.0017	0.0010	0.0024
50 mph	0.0004	0.0036	0.0004	0.0003	0.0023	0.0016	0.0007	0.0018
55 mph	0.0004	0.0037	0.0004	0.0002	0.0022	0.0015	0.0005	0.0013
60 mph	0.0004	0.0040	0.0003	0.0002	0.0023	0.0015	0.0005	0.0011
65 mph	0.0004	0.0044	0.0003	0.0003	0.0027	0.0017		
70 mph	0.0003	0.0043	0.0003	0.0003	0.0045	0.0026		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0163	0.0028	0.0078	0.0298	0.0157	0.0026	0.0022	0.1174	0.1946
15 mph	0.0024	0.0004	0.0012	0.0044	0.0024	0.0004	0.0004	0.0222	0.0339
20 mph	0.0103	0.0019	0.0049	0.0188	0.0105	0.0017	0.0009	0.0467	0.0958
25 mph	0.0317	0.0059	0.0152	0.0585	0.0333	0.0053	0.0027	0.1436	0.2961
30 mph	0.0236	0.0044	0.0113	0.0441	0.0255	0.0040	0.0017	0.0895	0.2040
35 mph	0.0112	0.0021	0.0054	0.0213	0.0125	0.0019	0.0005	0.0294	0.0844
40 mph	0.0041	0.0008	0.0020	0.0080	0.0048	0.0007	0.0004	0.0224	0.0431
45 mph	0.0025	0.0005	0.0012	0.0048	0.0030	0.0005	0.0005	0.0263	0.0393
50 mph	0.0024	0.0004	0.0012	0.0047	0.0029	0.0004	0.0006	0.0310	0.0436
55 mph	0.0043	0.0008	0.0021	0.0083	0.0053	0.0008	0.0001	0.0029	0.0245
60 mph	0.0030	0.0005	0.0014	0.0057	0.0037	0.0005	0.0002	0.0123	0.0274
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.1120	0.0204	0.0536	0.2085	0.1194	0.0189	0.0101	0.5436	1.0867

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	-0.0056	-0.0010	-0.0027	0.0039	0.0037	0.0006	0.0007	0.0365	0.0360
25 mph	-0.0061	-0.0011	-0.0029	0.0043	0.0042	0.0007	0.0010	0.0538	0.0538
30 mph	-0.0079	-0.0015	-0.0038	0.0057	0.0056	0.0009	0.0020	0.1048	0.1057
35 mph	-0.0103	-0.0019	-0.0050	0.0075	0.0075	0.0012	0.0019	0.1035	0.1043
40 mph	-0.0134	-0.0025	-0.0065	0.0098	0.0100	0.0015	0.0019	0.1047	0.1057
45 mph	-0.0266	-0.0049	-0.0128	0.0194	0.0202	0.0031	0.0013	0.0684	0.0681
50 mph	-0.0216	-0.0040	-0.0104	0.0158	0.0167	0.0025	0.0007	0.0396	0.0395
55 mph	-0.0159	-0.0029	-0.0077	0.0117	0.0126	0.0019	0.0003	0.0134	0.0134
60 mph	-0.0085	-0.0015	-0.0041	0.0062	0.0069	0.0010	0.0188	1.0109	1.0298
65 mph	-0.0047	-0.0008	-0.0023	0.0035	0.0039	0.0006	0.0000	0.0000	0.0002
70 mph	-0.1163	-0.0193	-0.0556	0.0940	0.0924	0.0136	0.0000	0.0000	0.0089
total	-0.2370	-0.0415	-0.1137	0.1817	0.1838	0.0276	0.0286	1.5357	1.5653

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3227	0.1453	0.1451	0.1101	0.7232
15 mph	0.0653	0.0116	0.0311	0.0153	0.0101	0.0017	0.0008	0.0439	0.1797
25 mph	0.0000	0.0000	0.0000	0.0000	0.0135	0.0021	0.0017	0.0922	0.1096
35 mph	0.0627	0.0116	0.0302	0.0152	0.0000	0.0000	0.0000	0.0000	0.1197
total	0.1280	0.0232	0.0613	0.0305	0.3462	0.1491	0.1476	0.2462	1.1323

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3227	0.1453	0.1451	0.1101	0.7232
10 mph	0.0163	0.0028	0.0078	0.0298	0.0157	0.0026	0.0022	0.1174	0.1946
15 mph	0.0677	0.0120	0.0322	0.0197	0.0125	0.0020	0.0012	0.0661	0.2136
20 mph	0.0048	0.0009	0.0023	0.0227	0.0142	0.0023	0.0015	0.0831	0.1318
25 mph	0.0256	0.0047	0.0122	0.0628	0.0510	0.0081	0.0054	0.2896	0.4595
30 mph	0.0157	0.0029	0.0075	0.0498	0.0310	0.0049	0.0036	0.1943	0.3097
35 mph	0.0636	0.0118	0.0306	0.0440	0.0200	0.0031	0.0025	0.1329	0.3085
40 mph	-0.0092	-0.0017	-0.0045	0.0177	0.0148	0.0023	0.0024	0.1271	0.1488
45 mph	-0.0241	-0.0045	-0.0116	0.0242	0.0232	0.0035	0.0018	0.0947	0.1073
50 mph	-0.0192	-0.0035	-0.0092	0.0205	0.0196	0.0030	0.0013	0.0706	0.0831
55 mph	-0.0116	-0.0021	-0.0056	0.0200	0.0179	0.0027	0.0003	0.0163	0.0379
60 mph	-0.0055	-0.0010	-0.0027	0.0119	0.0105	0.0016	0.0191	1.0233	1.0572
65 mph	-0.0047	-0.0008	-0.0023	0.0035	0.0039	0.0006	0.0000	0.0000	0.0002
70 mph	-0.1163	-0.0193	-0.0556	0.0940	0.0924	0.0136	0.0000	0.0000	0.0089
total	0.0031	0.0022	0.0013	0.4207	0.6494	0.1956	0.1864	2.3256	3.7842

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0000	0.0001	0.0106	0.0050	0.0159	0.0673	0.0991
15 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0006	0.0032	0.0135	0.0185
20 mph	0.0000	0.0000	0.0000	0.0000	0.0036	0.0015	0.0070	0.0286	0.0407
25 mph	0.0000	0.0000	0.0000	0.0001	0.0100	0.0039	0.0213	0.0859	0.1213
30 mph	0.0000	0.0000	0.0000	0.0001	0.0077	0.0029	0.0125	0.0507	0.0739
35 mph	0.0000	0.0000	0.0000	0.0000	0.0038	0.0014	0.0037	0.0149	0.0239
40 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0005	0.0024	0.0097	0.0140
45 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0003	0.0023	0.0092	0.0126
50 mph	0.0000	0.0000	0.0000	0.0000	0.0008	0.0003	0.0020	0.0082	0.0114
55 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0005	0.0001	0.0006	0.0026
60 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0003	0.0005	0.0019	0.0036
65 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0002	0.0001	0.0001	0.0003	0.0426	0.0171	0.0709	0.2905	0.4218

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0054	0.0224	0.0295
25 mph	0.0000	0.0000	0.0000	0.0000	0.0013	0.0005	0.0080	0.0322	0.0419
30 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0006	0.0147	0.0593	0.0763
35 mph	0.0000	0.0000	0.0000	0.0000	0.0023	0.0008	0.0130	0.0525	0.0686
40 mph	0.0000	0.0000	0.0000	0.0000	0.0031	0.0011	0.0112	0.0453	0.0606
45 mph	0.0000	0.0000	0.0000	0.0000	0.0060	0.0021	0.0059	0.0239	0.0378
50 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0016	0.0026	0.0105	0.0196
55 mph	0.0000	0.0000	0.0000	0.0000	0.0035	0.0011	0.0006	0.0026	0.0078
60 mph	0.0000	0.0000	0.0000	0.0000	0.0018	0.0006	0.0384	0.1563	0.1971
65 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0003	0.0000	0.0000	0.0013
70 mph	-0.0001	-0.0001	0.0000	0.0001	0.0413	0.0114	0.0000	0.0000	0.0525
total	-0.0003	-0.0002	-0.0001	0.0002	0.0680	0.0207	0.0998	0.4050	0.5931

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0113	0.0055	0.0016	0.0083	0.0266
15 mph	0.0002	0.0001	0.0001	0.0000	0.0052	0.0024	0.0063	0.0267	0.0410
25 mph	0.0000	0.0000	0.0000	0.0000	0.0041	0.0016	0.0137	0.0552	0.0745
35 mph	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002
total	0.0003	0.0001	0.0001	0.0001	0.0206	0.0094	0.0216	0.0902	0.1423

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0113	0.0055	0.0016	0.0083	0.0266
10 mph	0.0001	0.0000	0.0000	0.0001	0.0106	0.0050	0.0159	0.0673	0.0991
15 mph	0.0002	0.0001	0.0001	0.0001	0.0065	0.0029	0.0096	0.0402	0.0595
20 mph	0.0000	0.0000	0.0000	0.0000	0.0048	0.0020	0.0124	0.0510	0.0702
25 mph	0.0000	0.0000	0.0000	0.0001	0.0154	0.0060	0.0429	0.1733	0.2377
30 mph	0.0000	0.0000	0.0000	0.0001	0.0094	0.0036	0.0272	0.1100	0.1503
35 mph	0.0001	0.0001	0.0000	0.0001	0.0061	0.0023	0.0167	0.0674	0.0927
40 mph	0.0000	0.0000	0.0000	0.0000	0.0045	0.0016	0.0136	0.0549	0.0746
45 mph	0.0000	0.0000	0.0000	0.0000	0.0069	0.0024	0.0081	0.0331	0.0505
50 mph	0.0000	0.0000	0.0000	0.0000	0.0057	0.0019	0.0046	0.0188	0.0310
55 mph	0.0000	0.0000	0.0000	0.0000	0.0049	0.0016	0.0008	0.0032	0.0104
60 mph	0.0000	0.0000	0.0000	0.0000	0.0027	0.0009	0.0389	0.1582	0.2007
65 mph	0.0000	0.0000	0.0000	0.0000	0.0010	0.0003	0.0000	0.0000	0.0013
70 mph	-0.0001	-0.0001	0.0000	0.0001	0.0413	0.0114	0.0000	0.0000	0.0525
total	0.0002	0.0000	0.0001	0.0006	0.1313	0.0472	0.1922	0.7856	1.1572

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.33	0.15	0.15	0.12	0.75
10 mph	0.02	0.00	0.01	0.03	0.03	0.01	0.02	0.18	0.29
15 mph	0.07	0.01	0.03	0.02	0.02	0.00	0.01	0.11	0.27
20 mph	0.00	0.00	0.00	0.02	0.02	0.00	0.01	0.13	0.20
25 mph	0.03	0.00	0.01	0.06	0.07	0.01	0.05	0.46	0.70
30 mph	0.02	0.00	0.01	0.05	0.04	0.01	0.03	0.30	0.46
35 mph	0.06	0.01	0.03	0.04	0.03	0.01	0.02	0.20	0.40
40 mph	-0.01	0.00	0.00	0.02	0.02	0.00	0.02	0.18	0.22
45 mph	-0.02	0.00	-0.01	0.02	0.03	0.01	0.01	0.13	0.16
50 mph	-0.02	0.00	-0.01	0.02	0.03	0.00	0.01	0.09	0.11
55 mph	-0.01	0.00	-0.01	0.02	0.02	0.00	0.00	0.02	0.05
60 mph	-0.01	0.00	0.00	0.01	0.01	0.00	0.06	1.18	1.26
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	-0.12	-0.02	-0.06	0.09	0.13	0.03	0.00	0.00	0.06
total	0.00	0.00	0.00	0.42	0.78	0.24	0.38	3.11	**4.94**

World Logistics Center
2025 Medium EV Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,672.38	5,322.67	13,563.37	19,327.76
10 mph	565.07	664.40	736.21	1,001.81	1,335.77	1,474.10	3,165.75	3,284.80
15 mph	435.34	511.83	566.95	769.55	926.81	1,036.15	2,182.36	2,367.07
20 mph	347.84	408.97	453.01	615.18	804.97	907.00	1,533.93	1,913.21
25 mph	288.17	338.61	375.30	510.55	737.83	820.09	1,339.81	1,799.28
30 mph	247.75	290.93	322.69	440.04	669.80	741.28	1,231.58	1,712.96
35 mph	221.05	259.35	287.90	393.91	670.13	741.45	1,137.20	1,643.11
40 mph	204.90	240.34	266.86	365.44	667.72	724.57	1,057.92	1,583.84
45 mph	197.23	231.35	256.84	351.52	664.73	707.53	983.14	1,548.94
50 mph	196.99	230.93	256.40	351.40	701.22	737.51	919.52	1,529.32
55 mph	204.25	239.50	265.88	364.57	738.94	771.15	893.88	1,500.88
60 mph	219.75	257.63	286.03	392.06	749.65	779.15	899.33	1,479.67
65 mph	245.11	287.04	318.98	438.63	759.93	786.71		
70 mph	262.64	304.98	339.53	477.50	757.34	771.23		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	3,828.47	6,054.46	6,568.05	5,870.71
10 mph	478.42	672.54	622.39	770.07	1,002.32	1,101.22	1,913.67	2,572.73
15 mph	393.85	559.63	516.66	653.56	652.60	731.87	1,605.79	2,153.46
20 mph	323.04	459.69	424.41	542.70	556.77	624.56	1,402.74	1,876.39
25 mph	270.71	383.29	355.47	458.76	493.77	556.56	1,294.73	1,721.63
30 mph	234.38	329.22	306.97	396.02	448.74	502.14	1,224.10	1,624.53
35 mph	211.78	294.52	276.56	359.07	449.41	502.55	1,167.93	1,547.86
40 mph	198.16	274.26	258.01	335.80	437.51	484.44	1,121.59	1,484.45
45 mph	191.45	264.74	248.83	323.22	426.86	465.74	1,082.37	1,430.55
50 mph	192.04	264.45	249.10	324.77	447.69	483.07	1,048.65	1,381.43
55 mph	200.90	276.76	260.43	342.67	467.61	499.86	1,020.36	1,348.88
60 mph	217.85	299.64	282.12	371.10	472.02	501.44	1,007.69	1,329.16
65 mph	244.83	333.15	316.34	416.41	479.14	503.47		
70 mph	265.74	339.94	338.04	446.27	484.06	505.19		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	637.77	55.33	306.81	911.67	439.49	233.18	455.69	788.42	3,828.36
15 mph	109.19	9.47	52.50	155.62	67.76	36.42	89.75	162.33	683.06
20 mph	523.45	45.41	251.72	746.43	353.13	191.30	189.26	393.61	2,694.31
25 mph	1,806.89	156.65	868.91	2,581.15	1,348.67	720.70	688.78	1,542.37	9,714.12
30 mph	1,491.35	129.21	717.22	2,135.70	1,175.33	625.39	506.51	1,174.70	7,955.41
35 mph	776.20	67.19	373.27	1,115.24	685.96	364.89	187.08	450.72	4,020.54
40 mph	308.35	26.69	148.28	443.41	292.92	152.82	152.28	380.15	1,904.92
45 mph	197.87	17.12	95.14	284.34	194.41	99.48	181.95	478.00	1,548.32
50 mph	197.63	17.09	94.98	284.25	205.08	103.70	207.99	576.82	1,687.55
55 mph	358.59	31.02	172.36	516.08	378.20	189.75	18.38	51.46	1,715.85
60 mph	248.02	21.45	119.20	356.78	246.65	123.25	73.97	202.94	1,392.28
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	6,655.32	576.64	3,200.39	9,530.69	5,387.61	2,840.89	2,751.66	6,201.52	37,144.72

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	-281.65	-24.43	-135.44	152.97	123.68	67.00	147.78	307.34	357.26
25 mph	-350.00	-30.34	-168.31	190.43	170.05	90.87	258.15	578.08	738.94
30 mph	-501.52	-43.45	-241.19	273.55	257.29	136.90	593.25	1,375.87	1,850.69
35 mph	-715.96	-61.97	-344.30	391.81	411.87	219.09	657.35	1,583.72	2,141.60
40 mph	-995.48	-86.15	-478.71	545.23	615.57	321.15	713.44	1,781.02	2,416.08
45 mph	-2,076.09	-179.67	-998.25	1,136.32	1,327.78	679.46	473.58	1,244.12	1,607.25
50 mph	-1,754.58	-151.76	-843.23	961.20	1,185.17	599.29	265.76	737.02	998.86
55 mph	-1,323.05	-114.47	-635.94	725.23	908.32	455.73	86.12	241.10	343.05
60 mph	-711.74	-61.57	-342.06	389.97	460.74	230.23	6,064.89	16,638.87	22,669.32
65 mph	-396.94	-34.30	-190.73	218.14	233.53	116.23	0.00	0.00	-54.07
70 mph	-9,995.03	-856.33	-4,771.02	5,580.65	5,469.20	2,677.70	0.00	0.00	-1,894.84
total	-19,102.05	-1,644.45	-9,149.18	10,565.50	11,163.18	5,593.67	9,260.32	24,487.14	31,174.13

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	285.84	156.55	231.58	549.99	1,223.96
15 mph	2,913.74	252.75	1,401.09	538.54	284.57	152.96	177.58	321.17	6,042.39
25 mph	0.00	0.00	0.00	0.00	546.59	292.09	442.38	990.60	2,271.65
35 mph	4,354.83	376.96	2,094.21	793.11	0.00	0.00	0.00	0.00	7,619.11
total	7,268.57	629.71	3,495.30	1,331.65	1,117.00	601.59	851.54	1,861.77	17,157.12

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	285.84	156.55	231.58	549.99	1,223.96
10 mph	637.77	55.33	306.81	911.67	439.49	233.18	455.69	788.42	3,828.36
15 mph	3,022.93	262.22	1,453.59	694.16	352.34	189.38	267.34	483.50	6,725.45
20 mph	241.80	20.98	116.28	899.40	476.82	258.30	337.04	700.95	3,051.57
25 mph	1,456.89	126.31	700.60	2,771.58	2,065.31	1,103.66	1,389.31	3,111.05	12,724.71
30 mph	989.83	85.76	476.02	2,409.25	1,432.62	762.29	1,099.77	2,550.57	9,806.10
35 mph	4,415.07	382.18	2,123.18	2,300.16	1,097.83	583.98	844.43	2,034.43	13,781.25
40 mph	-687.13	-59.47	-330.43	988.65	908.49	473.98	865.72	2,161.17	4,320.99
45 mph	-1,878.22	-162.55	-903.11	1,420.67	1,522.19	778.95	655.53	1,722.12	3,155.58
50 mph	-1,556.95	-134.66	-748.25	1,245.45	1,390.24	702.99	473.75	1,313.84	2,686.41
55 mph	-964.46	-83.44	-463.58	1,241.31	1,286.51	645.49	104.50	292.57	2,058.90
60 mph	-463.72	-40.11	-222.86	746.75	707.39	353.48	6,138.86	16,841.81	24,061.59
65 mph	-396.94	-34.30	-190.73	218.14	233.53	116.23	0.00	0.00	-54.07
70 mph	-9,995.03	-856.33	-4,771.02	5,580.65	5,469.20	2,677.70	0.00	0.00	-1,894.84
total	-5,178.16	-438.10	-2,453.50	21,427.84	17,667.79	9,036.16	12,863.52	32,550.43	85,475.97

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	4.62	0.48	2.22	15.11	414.65	219.02	3,349.05	7,507.59	11,512.75
15 mph	0.85	0.09	0.41	2.85	59.99	32.35	802.93	1,795.46	2,694.93
20 mph	4.16	0.44	2.02	14.20	307.11	165.63	2,104.18	4,693.36	7,291.10
25 mph	14.54	1.52	7.05	50.02	1,134.82	614.98	8,092.34	17,942.77	27,858.03
30 mph	12.08	1.25	5.84	41.45	990.07	532.65	6,120.73	13,544.60	21,248.68
35 mph	6.37	0.65	3.07	21.92	578.40	310.97	2,335.95	5,162.16	8,419.49
40 mph	2.55	0.26	1.23	8.79	241.32	128.47	1,962.86	4,331.83	6,677.31
45 mph	1.65	0.17	0.79	5.64	156.97	82.34	2,435.42	5,367.27	8,050.23
50 mph	1.65	0.17	0.79	5.67	164.63	85.40	2,883.89	6,334.76	9,476.96
55 mph	3.02	0.31	1.45	10.46	300.91	154.65	255.10	562.32	1,288.22
60 mph	2.11	0.21	1.01	7.28	195.27	99.73	1,007.73	2,216.39	3,529.73
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	53.60	5.55	25.88	183.40	4,544.13	2,426.19	31,350.16	69,458.51	108,047.43

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 mph	-2.24	-0.24	-1.09	2.91	107.56	58.01	1,643.02	3,664.73	5,472.67
25 mph	-2.82	-0.29	-1.37	3.69	143.09	77.54	3,033.01	6,724.95	9,977.80
30 mph	-4.06	-0.42	-1.97	5.31	216.73	116.60	7,168.90	15,864.10	23,365.19
35 mph	-5.88	-0.60	-2.83	7.70	347.29	186.71	8,207.93	18,138.54	26,878.85
40 mph	-8.25	-0.84	-3.96	10.80	507.13	269.98	9,195.98	20,294.63	30,265.47
45 mph	-17.26	-1.76	-8.28	22.53	1,072.05	562.36	6,338.86	13,969.80	21,938.29
50 mph	-14.65	-1.49	-7.02	19.16	951.39	493.56	3,684.83	8,094.10	13,219.88
55 mph	-11.15	-1.13	-5.34	14.70	722.70	371.43	1,195.13	2,634.46	4,920.81
60 mph	-6.04	-0.61	-2.89	7.96	364.76	186.30	82,621.06	181,716.00	264,886.54
65 mph	-3.40	-0.34	-1.62	4.47	185.13	93.53	0.00	0.00	277.77
70 mph	-86.62	-8.18	-40.69	112.48	4,395.26	2,205.39	0.00	0.00	6,577.65
total	-162.36	-15.91	-77.05	211.72	9,013.10	4,621.40	123,088.70	271,101.31	407,780.91

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	294.48	223.90	1,363.42	2,032.06	3,913.87
15 mph	22.58	2.37	10.94	9.86	251.94	135.84	1,588.62	3,552.39	5,574.54
25 mph	0.00	0.00	0.00	0.00	459.92	249.24	5,197.39	11,523.94	17,430.49
35 mph	35.74	3.67	17.23	15.59	0.00	0.00	0.00	0.00	72.23
total	58.31	6.03	28.17	25.46	1,006.34	608.98	8,149.43	17,108.39	26,991.12

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	294.48	223.90	1,363.42	2,032.06	3,913.87
10 mph	4.62	0.48	2.22	15.11	414.65	219.02	3,349.05	7,507.59	11,512.75
15 mph	23.42	2.46	11.35	12.71	311.94	168.19	2,391.55	5,347.85	8,269.46
20 mph	1.92	0.20	0.93	17.11	414.67	223.64	3,747.20	8,358.09	12,763.76
25 mph	11.72	1.22	5.68	53.71	1,737.83	941.76	16,322.73	36,191.66	55,266.32
30 mph	8.02	0.83	3.88	46.76	1,206.80	649.25	13,289.62	29,408.70	44,613.87
35 mph	36.23	3.72	17.47	45.22	925.69	497.68	10,543.87	23,300.70	35,370.57
40 mph	-5.69	-0.58	-2.74	19.59	748.46	398.45	11,158.83	24,626.46	36,942.78
45 mph	-15.62	-1.59	-7.49	28.17	1,229.01	644.70	8,774.28	19,337.07	29,988.53
50 mph	-13.00	-1.32	-6.23	24.82	1,116.02	578.96	6,568.72	14,428.86	22,696.84
55 mph	-8.13	-0.83	-3.89	25.16	1,023.61	526.08	1,450.23	3,196.78	6,209.03
60 mph	-3.94	-0.40	-1.88	15.24	560.03	286.03	83,628.79	183,932.39	268,416.26
65 mph	-3.40	-0.34	-1.62	4.47	185.13	93.53	0.00	0.00	277.77
70 mph	-86.62	-8.18	-40.69	112.48	4,395.26	2,205.39	0.00	0.00	6,577.65
total	-50.44	-4.33	-23.00	420.57	14,563.57	7,656.57	162,588.30	357,668.21	542,819.45

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	580.32	380.45	1,595.00	2,582.06	5,137.83
10 mph	642.39	55.81	309.03	926.78	854.14	452.20	3,804.74	8,296.00	15,341.11
15 mph	3,046.35	264.67	1,464.94	706.88	664.27	357.57	2,658.88	5,831.35	14,994.91
20 mph	243.73	21.18	117.21	916.52	891.49	481.94	4,084.24	9,059.04	15,815.33
25 mph	1,468.62	127.53	706.28	2,825.29	3,803.13	2,045.41	17,712.04	39,302.71	67,991.03
30 mph	997.85	86.59	479.90	2,456.01	2,639.42	1,411.54	14,389.39	31,959.27	54,419.97
35 mph	4,451.30	385.89	2,140.65	2,345.38	2,023.51	1,081.66	11,388.30	25,335.13	49,151.82
40 mph	-692.82	-60.05	-333.16	1,008.24	1,656.95	872.42	12,024.56	26,787.63	41,263.77
45 mph	-1,893.83	-164.14	-910.61	1,448.84	2,751.20	1,423.65	9,429.81	21,059.19	33,144.11
50 mph	-1,569.95	-135.98	-754.47	1,270.27	2,506.27	1,281.95	7,042.48	15,742.70	25,383.26
55 mph	-972.58	-84.27	-467.47	1,266.47	2,310.12	1,171.56	1,554.73	3,489.35	8,267.92
60 mph	-467.66	-40.51	-224.75	761.99	1,267.42	639.51	89,767.65	200,774.20	292,477.86
65 mph	-400.34	-34.64	-192.35	222.61	418.66	209.76	0.00	0.00	223.70
70 mph	-10,081.65	-864.51	-4,811.71	5,693.13	9,864.46	4,883.08	0.00	0.00	4,682.80
total	-5,228.60	-442.43	-2,476.50	21,848.41	32,231.36	16,692.72	175,451.82	390,218.64	**628,295.42**

World Logistics Center
2040 Medium EV Mitigated

Pounds per day

ROG	NOX	CO	PM10 Exhaust	Dust	Brake	PM10 Total	PM2.5 Exhaust	Dust	Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
95.31	855.84	1,506.95	4.60	836.12	138.44	979.16	4.37	205.23	54.24	263.84	3.28	8.40	8.89	1,224,090.09

Tons per year

ROG	NOX	CO	PM10 Exhaust	Dust	Brake	PM10 Total	PM2.5 Exhaust	Dust	Brake	PM2.5 Total	Black Carbon	N2O	CH4	CO2
17.39	156.19	275.02	0.84	152.59	25.27	178.70	0.80	37.45	9.90	48.15	0.60	1.53	1.62	223,396.44

World Logistics Center
2040 Medium EV Mitigated
VMT

	Net Trips			**Net VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	3,391.3	98.3	1,425.3	176,424.0	5,113.7	74,149.2
LDT1	250.2	7.3	105.2	13,016.7	377.3	5,470.8
LDT2	1,252.2	36.3	0.0	65,142.0	1,888.2	27,378.5
MDT	1,946.8	53.3	0.0	29,827.2	817.2	0.0
LHDT1	516.4	1,092.3	0.0	12,148.5	25,697.2	0.0
LHDT2	248.3	525.2	0.0	5,840.7	12,354.7	10,214.8
MHDT	197.3	2,543.3	0.0	8,889.8	114,579.2	0.0
HHDT	329.0	4,240.9	0.0	14,823.2	191,055.0	0.0

	Surface Street VMT			**Freeway VMT**		
	Gas	**Dsl**	**Elec**	**Gas**	**Dsl**	**Elec**
LDA	124,811.1	3,617.7	52,456.9	51,612.9	1,496.0	21,692.4
LDT1	9,208.6	266.9	3,870.3	3,808.0	110.4	1,600.5
LDT2	46,084.7	1,335.8	19,368.9	19,057.3	552.4	8,009.6
MDT	16,004.8	438.5	5,481.1	13,822.5	378.7	4,733.7
LHDT1	5,862.7	12,401.1	0.0	6,285.8	13,296.1	0.0
LHDT2	2,818.7	5,962.2	0.0	3,022.1	6,392.5	0.0
MHDT	1,930.2	24,878.7	0.0	6,959.5	89,700.4	0.0
HHDT	3,218.6	41,484.0	0.0	11,604.6	149,570.9	0.0

	% of Surface Street VMT		**% of Freeway VMT**	
Speed	**All Other**	**MHDT/HHDT**	**All Other**	**MHDT/HHDT**
10	5%	6%	1%	0%
15	2%	2%	1%	0%
20	4%	4%	1%	2%
25	20%	22%	2%	4%
30	22%	20%	4%	6%
35	18%	9%	9%	6%
40	6%	10%	10%	6%
45	5%	8%	8%	4%
50	5%	13%	9%	2%
55	4%	3%	5%	1%
60	8%	3%	3%	70%
65	1%	0%	1%	0%
70	0%	0%	46%	0%

Surface Street VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	6,240.56	460.43	2,304.23	800.24	293.13	140.93	115.81	193.12	10,548.46
15 mph	2,496.22	184.17	921.69	320.10	117.25	56.37	38.60	64.37	4,198.79
20 mph	4,992.45	368.35	1,843.39	640.19	234.51	112.75	77.21	128.74	8,397.57
25 mph	24,962.23	1,841.73	9,216.93	3,200.95	1,172.53	563.73	424.65	708.09	42,090.85
30 mph	27,458.45	2,025.90	10,138.63	3,521.05	1,289.79	620.10	386.05	643.72	46,083.68
35 mph	22,466.01	1,657.56	8,295.24	2,880.86	1,055.28	507.36	173.72	289.67	37,325.69
40 mph	7,488.67	552.52	2,765.08	960.29	351.76	169.12	193.02	321.86	12,802.32
45 mph	6,240.56	460.43	2,304.23	800.24	293.13	140.93	154.42	257.49	10,651.43
50 mph	6,240.56	460.43	2,304.23	800.24	293.13	140.93	250.93	418.42	10,908.87
55 mph	4,992.45	368.35	1,843.39	640.19	234.51	112.75	57.91	96.56	8,346.09
60 mph	9,984.89	736.69	3,686.77	1,280.38	469.01	225.49	57.91	96.56	16,537.71
65 mph	1,248.11	92.09	460.85	160.05	58.63	28.19	0.00	0.00	2,047.91
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	124,811.14	9,208.65	46,084.67	16,004.75	5,862.67	2,818.65	1,930.25	3,218.59	209,939.36

Freeway VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	516.13	38.08	190.57	138.22	62.86	30.22	0.00	0.00	976.09
15 mph	516.13	38.08	190.57	138.22	62.86	30.22	0.00	0.00	976.09
20 mph	516.13	38.08	190.57	138.22	62.86	30.22	139.19	232.09	1,347.37
25 mph	1,032.26	76.16	381.15	276.45	125.72	60.44	243.58	406.16	2,601.92
30 mph	2,064.51	152.32	762.29	552.90	251.43	120.88	417.57	696.28	5,018.19
35 mph	4,645.16	342.72	1,715.16	1,244.02	565.72	271.99	417.57	696.28	9,898.62
40 mph	5,161.29	380.80	1,905.73	1,382.25	628.58	302.21	382.77	638.26	10,781.88
45 mph	4,129.03	304.64	1,524.58	1,105.80	502.86	241.77	278.38	464.19	8,551.25
50 mph	4,645.16	342.72	1,715.16	1,244.02	565.72	271.99	139.19	232.09	9,156.05
55 mph	2,580.64	190.40	952.86	691.12	314.29	151.10	69.60	116.05	5,066.07
60 mph	1,548.39	114.24	571.72	414.67	188.57	90.66	4,871.66	8,123.25	15,923.17
65 mph	516.13	38.08	190.57	138.22	62.86	30.22	0.00	0.00	976.09
70 mph	23,741.92	1,751.69	8,766.35	6,358.34	2,891.46	1,390.16	0.00	0.00	44,899.93
total	51,612.87	3,808.03	19,057.29	13,822.49	6,285.79	3,022.08	6,959.52	11,604.64	116,172.71

Internal VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	35.48	17.06	12.61	21.00	86.14
15 mph	3,945.72	291.12	1,456.90	463.24	178.13	85.64	61.46	102.48	6,584.68
25 mph	0.00	0.00	0.00	0.00	338.30	162.65	268.94	448.45	1,218.34
35 mph	16,976.96	1,252.57	6,268.49	1,831.57	0.00	0.00	0.00	0.00	26,329.59
total	20,922.67	1,543.69	7,725.39	2,294.81	516.42	248.29	330.40	550.93	34,132.61

Total VMT Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	35.48	17.06	12.61	21.00	86.14
10 mph	6,756.69	498.51	2,494.81	938.46	355.99	171.15	115.81	193.12	11,524.54
15 mph	6,958.07	513.37	2,569.16	921.56	358.24	172.23	100.06	166.85	11,759.55
20 mph	5,508.57	406.43	2,033.96	778.41	297.36	142.97	216.40	360.84	9,744.94
25 mph	25,994.49	1,917.89	9,598.08	3,477.40	1,636.55	786.82	937.18	1,562.70	45,911.10
30 mph	29,522.97	2,178.22	10,900.92	4,073.95	1,541.22	740.99	803.62	1,340.00	51,101.87
35 mph	44,088.12	3,252.85	16,278.89	5,956.45	1,621.00	779.34	591.29	985.95	73,553.90
40 mph	12,649.96	933.32	4,670.81	2,342.53	980.34	471.33	575.80	960.11	23,584.20
45 mph	10,369.59	765.08	3,828.82	1,906.04	796.00	382.70	432.80	721.67	19,202.68
50 mph	10,885.72	803.16	4,019.39	2,044.26	858.85	412.92	390.12	650.51	20,064.93
55 mph	7,573.09	558.75	2,796.25	1,331.31	548.80	263.85	127.50	212.60	13,412.16
60 mph	11,533.28	850.93	4,258.49	1,695.05	657.59	316.15	4,929.57	8,219.81	32,460.87
65 mph	1,764.24	130.17	651.42	298.27	121.48	58.41	0.00	0.00	3,023.99
70 mph	23,741.92	1,751.69	8,766.35	6,358.34	2,891.46	1,390.16	0.00	0.00	44,899.93
total	197,346.69	14,560.37	72,867.35	32,122.05	12,664.88	6,089.02	9,220.17	15,374.16	360,244.68

Surface Street VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	180.89	13.35	66.79	21.92	620.05	298.11	1,492.72	2,489.04	5,182.88
15 mph	72.35	5.34	26.72	8.77	248.02	119.24	497.57	829.68	1,807.70
20 mph	144.71	10.68	53.43	17.54	496.04	238.49	995.15	1,659.36	3,615.40
25 mph	723.54	53.38	267.16	87.70	2,480.22	1,192.44	5,473.32	9,126.49	19,404.25
30 mph	795.90	58.72	293.87	96.47	2,728.24	1,311.68	4,975.75	8,296.81	18,557.43
35 mph	651.19	48.05	240.44	78.93	2,232.20	1,073.19	2,239.09	3,733.56	10,296.64
40 mph	217.06	16.02	80.15	26.31	744.07	357.73	2,487.87	4,148.40	8,077.61
45 mph	180.89	13.35	66.79	21.92	620.05	298.11	1,990.30	3,318.72	6,510.13
50 mph	180.89	13.35	66.79	21.92	620.05	298.11	3,234.24	5,392.92	9,828.27
55 mph	144.71	10.68	53.43	17.54	496.04	238.49	746.36	1,244.52	2,951.77
60 mph	289.42	21.35	106.86	35.08	992.09	476.98	746.36	1,244.52	3,912.66
65 mph	36.18	2.67	13.36	4.38	124.01	59.62	0.00	0.00	240.22
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	3,617.71	266.92	1,335.79	438.49	12,401.10	5,962.19	24,878.74	41,484.03	90,384.95

Freeway VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	14.96	1.10	5.52	3.79	132.96	63.92	0.00	0.00	222.26
15 mph	14.96	1.10	5.52	3.79	132.96	63.92	0.00	0.00	222.26
20 mph	14.96	1.10	5.52	3.79	132.96	63.92	1,794.01	2,991.42	5,007.69
25 mph	29.92	2.21	11.05	7.57	265.92	127.85	3,139.52	5,234.98	8,819.02
30 mph	59.84	4.42	22.10	15.15	531.84	255.70	5,382.03	8,974.26	15,245.33
35 mph	134.64	9.93	49.71	34.08	1,196.65	575.32	5,382.03	8,974.26	16,356.63
40 mph	149.60	11.04	55.24	37.87	1,329.61	639.25	4,933.52	8,226.40	15,382.54
45 mph	119.68	8.83	44.19	30.30	1,063.69	511.40	3,588.02	5,982.84	11,348.94
50 mph	134.64	9.93	49.71	34.08	1,196.65	575.32	1,794.01	2,991.42	6,785.78
55 mph	74.80	5.52	27.62	18.93	664.81	319.62	897.00	1,495.71	3,504.02
60 mph	44.88	3.31	16.57	11.36	398.88	191.77	62,790.31	104,699.65	168,156.74
65 mph	14.96	1.10	5.52	3.79	132.96	63.92	0.00	0.00	222.26
70 mph	688.17	50.77	254.10	174.20	6,116.21	2,940.55	0.00	0.00	10,224.01
total	1,496.03	110.38	552.39	378.70	13,296.12	6,392.50	89,700.44	149,570.93	261,497.47

Internal VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	75.04	36.08	162.50	270.96	544.59
15 mph	114.37	8.44	42.23	12.69	376.78	181.15	792.14	1,320.86	2,848.66
25 mph	0.00	0.00	0.00	0.00	715.59	344.04	3,466.39	5,780.03	10,306.05
35 mph	492.09	36.31	181.70	50.18	0.00	0.00	0.00	0.00	760.27
total	606.45	44.74	223.92	62.87	1,092.37	525.19	4,258.54	7,100.89	13,914.98

Total VMT Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	75.04	36.08	162.50	270.96	544.59
10 mph	195.85	14.45	72.31	25.71	753.02	362.03	1,492.72	2,489.04	5,405.14
15 mph	201.68	14.88	74.47	25.25	757.77	364.32	1,289.72	2,150.54	4,878.62
20 mph	159.67	11.78	58.96	21.33	629.00	302.41	2,789.16	4,650.78	8,623.09
25 mph	753.46	55.59	278.21	95.27	3,461.73	1,664.33	12,079.23	20,141.50	38,529.32
30 mph	855.74	63.14	315.97	111.61	3,260.09	1,567.38	10,357.77	17,271.06	33,802.76
35 mph	1,277.92	94.29	471.85	163.19	3,428.85	1,648.52	7,621.11	12,707.82	27,413.54
40 mph	366.67	27.05	135.39	64.18	2,073.68	996.98	7,421.40	12,374.80	23,460.14
45 mph	300.57	22.18	110.98	52.22	1,683.74	809.51	5,578.32	9,301.56	17,859.07
50 mph	315.53	23.28	116.50	56.01	1,816.71	873.43	5,028.24	8,384.34	16,614.05
55 mph	219.51	16.20	81.05	36.47	1,160.85	558.11	1,643.37	2,740.23	6,455.79
60 mph	334.30	24.66	123.43	46.44	1,390.97	668.75	63,536.67	105,944.17	172,069.40
65 mph	51.14	3.77	18.88	8.17	256.97	123.55	0.00	0.00	462.48
70 mph	688.17	50.77	254.10	174.20	6,116.21	2,940.55	0.00	0.00	10,224.01
total	5,720.19	422.04	2,112.10	880.06	26,789.58	12,879.88	118,837.72	198,155.85	365,797.41

Surface Street VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	2,622.84	193.52	968.45	274.05	0.00	0.00	0.00	0.00	4,058.86
15 mph	1,049.14	77.41	387.38	109.62	0.00	0.00	0.00	0.00	1,623.54
20 mph	2,098.27	154.81	774.76	219.24	0.00	0.00	0.00	0.00	3,247.09
25 mph	10,491.37	774.06	3,873.78	1,096.22	0.00	0.00	0.00	0.00	16,235.43
30 mph	11,540.51	851.47	4,261.16	1,205.84	0.00	0.00	0.00	0.00	17,858.97
35 mph	9,442.23	696.65	3,486.41	986.59	0.00	0.00	0.00	0.00	14,611.89
40 mph	3,147.41	232.22	1,162.14	328.86	0.00	0.00	0.00	0.00	4,870.63
45 mph	2,622.84	193.52	968.45	274.05	0.00	0.00	0.00	0.00	4,058.86
50 mph	2,622.84	193.52	968.45	274.05	0.00	0.00	0.00	0.00	4,058.86
55 mph	2,622.84	154.81	774.76	219.24	0.00	0.00	0.00	0.00	3,771.65
60 mph	4,196.55	309.62	1,549.51	438.49	0.00	0.00	0.00	0.00	6,494.17
65 mph	524.57	38.70	193.69	54.81	0.00	0.00	0.00	0.00	811.77
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	52,981.42	3,870.30	19,368.92	5,481.08	0.00	0.00	0.00	0.00	81,701.72

Freeway VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	216.92	16.00	80.10	47.34	0.00	0.00	0.00	0.00	360.36
15 mph	216.92	16.00	80.10	47.34	0.00	0.00	0.00	0.00	360.36
20 mph	216.92	16.00	80.10	47.34	0.00	0.00	0.00	0.00	360.36
25 mph	433.85	32.01	160.19	94.67	0.00	0.00	0.00	0.00	720.72
30 mph	867.69	64.02	320.38	189.35	0.00	0.00	0.00	0.00	1,441.45
35 mph	1,952.31	144.04	720.86	426.04	0.00	0.00	0.00	0.00	3,243.25
40 mph	2,169.24	160.05	800.96	473.37	0.00	0.00	0.00	0.00	3,603.62
45 mph	1,735.39	128.04	640.77	378.70	0.00	0.00	0.00	0.00	2,882.89
50 mph	1,952.31	144.04	720.86	426.04	0.00	0.00	0.00	0.00	3,243.25
55 mph	1,084.62	80.02	400.48	236.69	0.00	0.00	0.00	0.00	1,801.81
60 mph	650.77	48.01	240.29	142.01	0.00	0.00	0.00	0.00	1,081.08
65 mph	216.92	16.00	80.10	47.34	0.00	0.00	0.00	0.00	360.36
70 mph	9,978.49	736.22	3,684.41	2,177.52	0.00	0.00	0.00	0.00	16,576.63
total	21,692.37	1,600.48	8,009.59	4,733.73	0.00	0.00	0.00	0.00	36,036.16

Internal VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 mph	1,658.34	122.35	612.32	158.64	0.00	0.00	0.00	0.00	2,551.66
25 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,780.03	5,780.03
35 mph	7,135.24	526.44	2,634.58	0.00	0.00	0.00	0.00	0.00	10,296.27
total	8,793.59	648.80	3,246.90	158.64	0.00	0.00	0.00	5,780.03	18,627.96

Total VMT Electric

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	2,839.77	209.52	1,048.54	321.39	0.00	0.00	0.00	0.00	4,419.22
15 mph	2,924.41	215.76	1,079.79	315.60	0.00	0.00	0.00	0.00	4,535.57
20 mph	2,315.20	170.82	854.85	266.58	0.00	0.00	0.00	0.00	3,607.45
25 mph	10,925.22	806.07	4,033.98	1,190.89	0.00	0.00	0.00	5,780.03	22,736.19
30 mph	12,408.20	915.49	4,581.55	1,395.19	0.00	0.00	0.00	0.00	19,300.42
35 mph	18,529.79	1,367.14	6,841.85	1,412.63	0.00	0.00	0.00	0.00	28,151.41
40 mph	5,316.65	392.27	1,963.09	802.24	0.00	0.00	0.00	0.00	8,474.25
45 mph	4,358.23	321.55	1,609.21	652.75	0.00	0.00	0.00	0.00	6,941.75
50 mph	4,575.16	337.56	1,689.31	700.09	0.00	0.00	0.00	0.00	7,302.11
55 mph	3,707.46	234.84	1,175.24	455.93	0.00	0.00	0.00	0.00	5,573.46
60 mph	4,847.32	357.64	1,789.80	580.50	0.00	0.00	0.00	0.00	7,575.26
65 mph	741.49	54.71	273.79	102.15	0.00	0.00	0.00	0.00	1,172.13
70 mph	9,978.49	736.22	3,684.41	2,177.52	0.00	0.00	0.00	0.00	16,576.63
total	49,942.58	3,684.80	18,440.56	4,902.28	0.00	0.00	0.00	5,780.03	136,365.85

World Logistics Center
Internal Roadway Road Dust
2040 Medium EV Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Internal Roadways

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	Pass VMT	LHDT Trips/day	LHDT VMT	MHDT Trips/day	MHDT VMT	HHDT Trips/day	HHDT VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
1	A	327	0.20	8,405	1,681	662	132	1,980	396	3,301	660	2,870	8.48	0.035	0.0002	0.6	0.0009	2.6
2	A	731	0.45	6,015	2,707	340	153	977	440	1,629	733	4,033	7.15	0.035	0.0002	0.8	0.0008	3.1
3	A	2352	1.46	1,640	2,394	215	314	287	419	478	698	3,825	7.32	0.035	0.0002	0.7	0.0008	3.0
5	A	953	0.59	10,225	6,033	257	152	-	-	-	-	6,185	2.22	0.035	0.0001	0.4	0.0002	1.4
6	A	1099	0.68	12,145	8,259	650	442	2,038	1,386	3,398	2,311	12,398	7.27	0.035	0.0002	2.4	0.0008	9.8
8	A	1091	0.68	13,365	9,088	225	153	-	-	-	-	9,241	2.19	0.035	0.0001	0.5	0.0002	2.1
11	A	1201	0.75	(2,500)	(1,875)	32	24	(6)	(4)	(9)	(7)	(1,862)	2.19	0.035	0.0001	-0.1	0.0002	-0.4
12	A	824	0.51	(5,690)	(2,902)	69	35	21	11	34	18	(2,839)	1.92	0.035	0.0000	-0.1	0.0002	-0.6
14	A	1618	1.01	(1,665)	(1,682)	109	110	19	19	31	32	(1,521)	1.32	0.035	0.0000	-0.1	0.0001	-0.2
18	A	1412	0.88	1,565	1,377	70	62	71	63	119	105	1,606	4.02	0.035	0.0001	0.2	0.0004	0.7
19	A	2386	1.48	5,940	6,225	129	135	463	485	772	809	7,654	5.03	0.035	0.0001	1.0	0.0005	4.1
21	A	1258	0.78	4,655	3,631	60	46	122	96	204	159	3,932	3.26	0.035	0.0001	0.3	0.0003	1.4
24	A	1946	1.21	6,345	7,678	86	104	330	399	550	665	8,845	4.19	0.035	0.0001	1.0	0.0004	4.0
29	A	2827	1.76	(4,860)	(8,554)	(11)	(20)	(24)	(43)	(41)	(72)	(8,688)	2.36	0.035	0.0001	-0.5	0.0002	-2.2
30	A	675	0.42	10,225	4,295	(268)	(113)	(21)	(9)	(34)	(14)	4,159	1.94	0.035	0.0001	0.2	0.0002	0.9
31	A	820	0.51	(670)	(342)	(332)	(169)	156	79	259	132	(299)	7.77	0.035	0.0002	-0.1	0.0008	-0.3
TOTAL				65,141		2,292		6,412		10,692						7.2		29.5

World Logistics Center
Off-Site Road Dust
2040 Medium EV Mitigated

dust = EF * VMT

EF= K * SL^0.91 * W^1.02

Vehicle Class	Avg Weight (Tons)
Pass, LDT, MDT	2.13
LHDT	5.63
MHDT	11.75
HHDT	23.25

Silt Loading

Roadway Type		Silt Loading (g/m2)	
Freeway	F	0.022	
Arterial, Maj Collector	A	0.035	
Particle Size PM10 (K)		0.0022	lb/VMT
Particle Size PM2.5 (k)		0.00054	lb/VMT

Surface Streets

Segment	Road Type	Length (m)	Length (mi)	Pass Trips/day	VMT	LHDT Trips/day	VMT	MHDT Trips/day	VMT	HHDT Trips/day	VMT	Total VMT	Avg Weight	Silt Loading	PM2.5 EF lb/VMT	PM2.5 dust lb/day	PM10 EF lb/VMT	PM10 dust lb/day
TOTAL				8566.08	409819.60	2,382.19	56,041.09	2,740.65	123,468.94	4,569.90	205,878.18	795,207.82	9.32	0.035	0.0002	197.9790744	0.0010	806.5814144

World Logistics Center
2040 Medium EV Mitigated
Area Source Diesel Vehicle Miles Traveled

Link	Vehicle Type	Average Speed (mph)	Trips Per Day	Trip Length (m)	Trip Length (mi)	Total Vehicle Miles Traveled	Total Gas VMT	Total Diesel VMT	Total Electric VMT
Travel at High Cube Warehouse	LDA	15	26957	330	0.21	5661.1	3906.1	113.2	1641.7
	LDT1	15	1989	330	0.21	417.7	288.2	8.4	121.1
	LDT2	15	9954	330	0.21	2090.3	1442.3	41.8	606.2
	MDT	15	2999	330	0.21	629.8	459.7	12.6	157.4
	LHDT1	15	2635	330	0.21	553.3	177.6	375.7	0.0
	LHDT2	15	1267	330	0.21	266.0	85.4	180.6	0.0
	MHDT	15	4034	330	0.21	847.1	61.0	786.1	0.0
	HHDT	15	6726	330	0.21	1412.5	101.7	1310.8	0.0
Travel at Light Logistics	LDA	15	194	175	0.11	21.3	14.7	0.4	6.2
	LDT1	15	14	175	0.11	1.6	1.1	0.0	0.5
	LDT2	15	72	175	0.11	7.9	5.4	0.2	2.3
	MDT	15	18	175	0.11	2.0	1.5	0.0	0.5
	LHDT1	15	11	175	0.11	1.2	0.4	0.8	0.0
	LHDT2	15	5	175	0.11	0.6	0.2	0.4	0.0
	MHDT	15	13	175	0.11	1.4	0.1	1.3	0.0
	HHDT	15	22	175	0.11	2.4	0.2	2.2	0.0
Travel at Utility	LDA	15	219	100	0.06	13.1	9.1	0.3	3.8
	LDT1	15	16	100	0.06	1.0	0.7	0.0	0.3
	LDT2	15	81	100	0.06	4.9	3.3	0.1	1.4
	MDT	15	47	100	0.06	2.8	2.0	0.1	0.7
	LHDT1	15	7	100	0.06	0.4	0.1	0.3	0.0
	LHDT2	15	3	100	0.06	0.2	0.1	0.1	0.0
	MHDT	15	14	100	0.06	0.8	0.1	0.8	0.0
	HHDT	15	23	100	0.06	1.4	0.1	1.3	0.0
Travel at Gas Station/Convenience Store	LDA	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	142	50	0.03	4.3	0.3	4.0	0.0
	HHDT	15	237	50	0.03	7.1	0.5	6.6	0.0
Travel at Convenience Store	LDA	15	669	50	0.03	20.1	13.9	0.4	5.8
	LDT1	15	49	50	0.03	1.5	1.0	0.0	0.4
	LDT2	15	247	50	0.03	7.4	5.1	0.1	2.1
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
Travel at Fire Station	LDA	15	95	50	0.03	2.8	2.0	0.1	0.8
	LDT1	15	7	50	0.03	0.2	0.1	0.0	0.1
	LDT2	15	35	50	0.03	1.1	0.7	0.0	0.3
	MDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT1	15	0	50	0.03	0.0	0.0	0.0	0.0
	LHDT2	15	0	50	0.03	0.0	0.0	0.0	0.0
	MHDT	15	0	50	0.03	0.0	0.0	0.0	0.0
	HHDT	15	0	50	0.03	0.0	0.0	0.0	0.0

Total Vehicle Miles Traveled

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	3945.7	291.1	1456.9	463.2	178.1	85.6	61.5	102.5
Diesel	114.4	8.4	42.2	12.7	376.8	181.1	792.1	1320.9
Electric	1658.3	122.4	612.3	158.6	0.0	0.0	0.0	0.0

World Logistics Center
2040 Medium EV Mitigated
On-Site Idling

Link	Vehicle Type	Idle Time (min)	Idling Vehicles Per Day	Total Gas Idling Vehicles	Total Diesel Idling Vehicles	Total Electric Idling Vehicles	Total Gas Idling (min)	Total Diesel Idling (min)	Total Electric Idling (min)
Travel at High Cube Warehouse	LHDT1	5	1317	423	895	0	2114.5	4472.7	0.0
	LHDT2	5	633	203	430	0	1016.6	2150.4	0.0
	MHDT	5	2017	145	1872	0	726.1	9358.3	0.0
	HHDT	5	3363	242	3121	0	1210.7	15604.5	0.0
Travel at Light Logistics	LHDT1	5	5	2	4	0	8.5	18.0	0.0
	LHDT2	5	3	1	2	0	4.1	8.6	0.0
	MHDT	5	7	0	6	0	2.3	30.3	0.0
	HHDT	5	11	1	10	0	3.9	50.5	0.0
Travel at Utility	LHDT1	5	4	1	2	0	5.7	12.1	0.0
	LHDT2	5	2	1	1	0	2.7	5.8	0.0
	MHDT	5	7	0	6	0	2.4	31.5	0.0
	HHDT	5	11	1	11	0	4.1	52.5	0.0
Travel at Gas Station/Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	71	5	66	0	25.6	329.9	0.0
	HHDT	5	119	9	110	0	42.7	550.2	0.0
Travel at Convenience Store	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0
Travel at Fire Station	LHDT1	5	0	0	0	0	0.0	0.0	0.0
	LHDT2	5	0	0	0	0	0.0	0.0	0.0
	MHDT	5	0	0	0	0	0.0	0.0	0.0
	HHDT	5	0	0	0	0	0.0	0.0	0.0

Total Idling Hours

	LHDT1	LHDT2	MHDT	HHDT
Gas	35.5	17.1	12.6	21.0
Diesel	75.0	36.1	162.5	271.0
Electric	0.0	0.0	0.0	0.0

World Logistics Center
2040 Medium EV Mitigated
ROG Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - ROG

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	9.8375	8.7720	21.3002	10.7534
10 mph	0.0160	0.0212	0.0208	0.0304	0.0166	0.0136	0.1923	1.3523
15 mph	0.0106	0.0141	0.0138	0.0201	0.0109	0.0090	0.1354	0.8988
20 mph	0.0075	0.0099	0.0097	0.0142	0.0077	0.0063	0.0980	0.6291
25 mph	0.0055	0.0073	0.0071	0.0105	0.0056	0.0047	0.0718	0.4649
30 mph	0.0043	0.0056	0.0055	0.0082	0.0044	0.0036	0.0529	0.3622
35 mph	0.0035	0.0046	0.0045	0.0067	0.0036	0.0030	0.0390	0.2976
40 mph	0.0030	0.0040	0.0039	0.0059	0.0032	0.0026	0.0287	0.2581
45 mph	0.0028	0.0036	0.0036	0.0054	0.0029	0.0024	0.0212	0.2361
50 mph	0.0027	0.0035	0.0035	0.0052	0.0028	0.0023	0.0156	0.2278
55 mph	0.0027	0.0036	0.0035	0.0053	0.0029	0.0023	0.0115	0.2319
60 mph	0.0029	0.0038	0.0038	0.0056	0.0031	0.0025	0.0099	0.2492
65 mph	0.0033	0.0043	0.0043	0.0064	0.0035	0.0028		
70 mph	0.0036	0.0044	0.0046	0.0071	0.0039	0.0031		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.1731	3.1731	0.1619	0.5100
10 mph	0.0594	0.2009	0.1966	0.0708	0.5670	0.5585	0.0381	0.4748
15 mph	0.0290	0.1002	0.0960	0.0346	0.2794	0.2731	0.0252	0.3321
20 mph	0.0113	0.0412	0.0373	0.0135	0.1118	0.1065	0.0177	0.2354
25 mph	0.0068	0.0255	0.0224	0.0081	0.0682	0.0640	0.0131	0.1690
30 mph	0.0051	0.0193	0.0169	0.0061	0.0520	0.0484	0.0102	0.1246
35 mph	0.0041	0.0153	0.0134	0.0048	0.0419	0.0386	0.0084	0.0920
40 mph	0.0034	0.0128	0.0111	0.0040	0.0350	0.0318	0.0073	0.0680
45 mph	0.0028	0.0110	0.0094	0.0034	0.0301	0.0270	0.0066	0.0502
50 mph	0.0025	0.0097	0.0081	0.0029	0.0266	0.0234	0.0064	0.0368
55 mph	0.0022	0.0088	0.0071	0.0026	0.0238	0.0206	0.0065	0.0275
60 mph	0.0020	0.0086	0.0067	0.0024	0.0230	0.0194	0.0070	0.0234
65 mph	0.0021	0.0086	0.0067	0.0024	0.0239	0.0195		
70 mph	0.0021	0.0073	0.0067	0.0024	0.0301	0.0201		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

ROG Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.2206	0.0215	0.1057	0.0537	0.0107	0.0042	0.0491	0.5758	1.0413
15 mph	0.0586	0.0057	0.0280	0.0142	0.0028	0.0011	0.0115	0.1276	0.2496
20 mph	0.0821	0.0080	0.0393	0.0200	0.0040	0.0016	0.0167	0.1786	0.3502
25 mph	0.3026	0.0296	0.1448	0.0740	0.0146	0.0058	0.0672	0.7258	1.3644
30 mph	0.2588	0.0252	0.1237	0.0635	0.0125	0.0050	0.0451	0.5141	1.0480
35 mph	0.1736	0.0168	0.0829	0.0428	0.0085	0.0034	0.0149	0.1901	0.5330
40 mph	0.0502	0.0048	0.0240	0.0124	0.0025	0.0010	0.0122	0.1832	0.2902
45 mph	0.0383	0.0037	0.0183	0.0094	0.0019	0.0007	0.0072	0.1341	0.2136
50 mph	0.0369	0.0035	0.0176	0.0091	0.0018	0.0007	0.0086	0.2102	0.2886
55 mph	0.0301	0.0029	0.0143	0.0074	0.0015	0.0006	0.0015	0.0494	0.1077
60 mph	0.0647	0.0062	0.0308	0.0159	0.0032	0.0013	0.0013	0.0531	0.1763
65 mph	0.0091	0.0009	0.0043	0.0022	0.0004	0.0002	0.0000	0.0000	0.0172
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	1.3257	0.1289	0.6337	0.3247	0.0644	0.0255	0.2354	2.9419	5.6801

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0182	0.0018	0.0087	0.0093	0.0023	0.0009	0.0000	0.0000	0.0412
15 mph	0.0121	0.0012	0.0058	0.0061	0.0015	0.0006	0.0000	0.0000	0.0274
20 mph	0.0085	0.0008	0.0041	0.0043	0.0011	0.0004	0.0301	0.3219	0.3712
25 mph	0.0125	0.0012	0.0060	0.0064	0.0016	0.0006	0.0386	0.4163	0.4832
30 mph	0.0195	0.0019	0.0093	0.0100	0.0024	0.0010	0.0487	0.5561	0.6488
35 mph	0.0359	0.0035	0.0171	0.0185	0.0045	0.0018	0.0359	0.4569	0.5742
40 mph	0.0346	0.0033	0.0165	0.0178	0.0044	0.0017	0.0243	0.3633	0.4659
45 mph	0.0253	0.0024	0.0121	0.0131	0.0032	0.0013	0.0130	0.2417	0.3121
50 mph	0.0275	0.0026	0.0131	0.0142	0.0035	0.0014	0.0048	0.1166	0.1837
55 mph	0.0156	0.0015	0.0074	0.0080	0.0020	0.0008	0.0018	0.0593	0.0964
60 mph	0.0100	0.0010	0.0048	0.0051	0.0013	0.0005	0.1061	4.4634	4.5922
65 mph	0.0038	0.0004	0.0018	0.0019	0.0005	0.0002	0.0000	0.0000	0.0085
70 mph	0.1897	0.0170	0.0885	0.0998	0.0251	0.0095	0.0000	0.0000	0.4296
total	0.4132	0.0386	0.1952	0.2146	0.0534	0.0207	0.3032	6.9956	8.2344

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.7696	0.3299	0.5921	0.4979	2.1895
15 mph	0.0926	0.0091	0.0443	0.0206	0.0043	0.0017	0.0184	0.2031	0.3940
25 mph	0.0000	0.0000	0.0000	0.0000	0.0042	0.0017	0.0426	0.4597	0.5082
35 mph	0.1312	0.0127	0.0627	0.0272	0.0000	0.0000	0.0000	0.0000	0.2338
total	0.2239	0.0217	0.1070	0.0478	0.7781	0.3333	0.6531	1.1607	3.3255

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.7696	0.3299	0.5921	0.4979	2.1895
10 mph	0.2388	0.0233	0.1144	0.0629	0.0130	0.0052	0.0491	0.5758	1.0825
15 mph	0.1634	0.0160	0.0782	0.0409	0.0086	0.0034	0.0299	0.3307	0.6710
20 mph	0.0906	0.0089	0.0434	0.0243	0.0050	0.0020	0.0467	0.5005	0.7214
25 mph	0.3151	0.0308	0.1507	0.0803	0.0204	0.0081	0.1484	1.6019	2.3558
30 mph	0.2783	0.0271	0.1330	0.0735	0.0150	0.0060	0.0938	1.0702	1.6968
35 mph	0.3408	0.0329	0.1627	0.0886	0.0130	0.0052	0.0509	0.6470	1.3410
40 mph	0.0848	0.0082	0.0405	0.0302	0.0068	0.0027	0.0365	0.5465	0.7562
45 mph	0.0636	0.0061	0.0303	0.0225	0.0051	0.0020	0.0202	0.3758	0.5257
50 mph	0.0644	0.0062	0.0307	0.0233	0.0053	0.0021	0.0134	0.3268	0.4722
55 mph	0.0457	0.0044	0.0218	0.0154	0.0035	0.0014	0.0032	0.1087	0.2041
60 mph	0.0747	0.0072	0.0356	0.0210	0.0044	0.0018	0.1074	4.5164	4.7685
65 mph	0.0129	0.0012	0.0061	0.0042	0.0009	0.0004	0.0000	0.0000	0.0258
70 mph	0.1897	0.0170	0.0885	0.0998	0.0251	0.0095	0.0000	0.0000	0.4296
total	1.9628	0.1892	0.9359	0.5871	0.8958	0.3795	1.1917	11.0981	17.2400

ROG Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0237	0.0059	0.0290	0.0034	0.7752	0.3671	0.1253	2.6057	3.9352
15 mph	0.0046	0.0012	0.0057	0.0007	0.1528	0.0718	0.0277	0.6075	0.8719
20 mph	0.0036	0.0010	0.0044	0.0005	0.1222	0.0560	0.0388	0.8611	1.0877
25 mph	0.0108	0.0030	0.0132	0.0016	0.3728	0.1684	0.1576	3.4019	4.1293
30 mph	0.0090	0.0025	0.0110	0.0013	0.3128	0.1401	0.1117	2.2789	2.8672
35 mph	0.0058	0.0016	0.0071	0.0008	0.2063	0.0912	0.0413	0.7571	1.1114
40 mph	0.0016	0.0005	0.0020	0.0002	0.0574	0.0251	0.0398	0.6218	0.7484
45 mph	0.0011	0.0003	0.0014	0.0002	0.0412	0.0177	0.0292	0.3676	0.4587
50 mph	0.0010	0.0003	0.0012	0.0001	0.0364	0.0154	0.0457	0.4380	0.5382
55 mph	0.0007	0.0002	0.0008	0.0001	0.0260	0.0108	0.0108	0.0756	0.1250
60 mph	0.0013	0.0004	0.0016	0.0002	0.0503	0.0205	0.0116	0.0643	0.1501
65 mph	0.0002	0.0001	0.0002	0.0000	0.0065	0.0026	0.0000	0.0000	0.0095
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0635	0.0169	0.0774	0.0092	2.1600	0.9867	0.6394	12.0795	16.0326

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0020	0.0005	0.0024	0.0006	0.1662	0.0787	0.0000	0.0000	0.2504
15 mph	0.0010	0.0002	0.0012	0.0003	0.0819	0.0385	0.0000	0.0000	0.1231
20 mph	0.0004	0.0001	0.0005	0.0001	0.0328	0.0150	0.0699	1.5524	1.6712
25 mph	0.0004	0.0001	0.0005	0.0001	0.0400	0.0181	0.0904	1.9514	2.1010
30 mph	0.0007	0.0002	0.0008	0.0002	0.0610	0.0273	0.1208	2.4650	2.6759
35 mph	0.0012	0.0003	0.0015	0.0004	0.1106	0.0489	0.0993	1.8198	2.0820
40 mph	0.0011	0.0003	0.0013	0.0003	0.1026	0.0449	0.0790	1.2330	1.4625
45 mph	0.0008	0.0002	0.0009	0.0002	0.0707	0.0304	0.0526	0.6626	0.8184
50 mph	0.0007	0.0002	0.0009	0.0002	0.0703	0.0297	0.0254	0.2430	0.3703
55 mph	0.0004	0.0001	0.0004	0.0001	0.0349	0.0145	0.0129	0.0908	0.1542
60 mph	0.0002	0.0001	0.0002	0.0001	0.0202	0.0082	0.9718	5.4123	6.4132
65 mph	0.0001	0.0000	0.0001	0.0000	0.0070	0.0028	0.0000	0.0000	0.0100
70 mph	0.0032	0.0008	0.0037	0.0009	0.4055	0.1300	0.0000	0.0000	0.5442
total	0.0120	0.0032	0.0145	0.0036	1.2037	0.4870	1.5222	15.4303	18.6764

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5251	0.2524	0.0580	0.3047	1.1402
15 mph	0.0073	0.0019	0.0089	0.0010	0.2321	0.1091	0.0441	0.9671	1.3715
25 mph	0.0000	0.0000	0.0000	0.0000	0.1075	0.0486	0.0998	2.1545	2.4105
35 mph	0.0044	0.0012	0.0054	0.0005	0.0000	0.0000	0.0000	0.0000	0.0116
total	0.0117	0.0031	0.0143	0.0015	0.8647	0.4101	0.2019	3.4263	4.9338

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.5251	0.2524	0.0580	0.3047	1.1402
10 mph	0.0256	0.0064	0.0314	0.0040	0.9414	0.4458	0.1253	2.6057	4.1856
15 mph	0.0129	0.0033	0.0158	0.0019	0.4668	0.2194	0.0718	1.5746	2.3665
20 mph	0.0040	0.0011	0.0049	0.0006	0.1550	0.0710	0.1087	2.4135	2.7588
25 mph	0.0113	0.0031	0.0137	0.0017	0.5203	0.2350	0.3479	7.5078	8.6408
30 mph	0.0097	0.0027	0.0118	0.0015	0.3738	0.1674	0.2325	4.7438	5.5432
35 mph	0.0115	0.0032	0.0140	0.0017	0.3168	0.1401	0.1407	2.5769	3.2050
40 mph	0.0027	0.0008	0.0033	0.0006	0.1601	0.0700	0.1188	1.8547	2.2109
45 mph	0.0019	0.0005	0.0023	0.0004	0.1118	0.0482	0.0817	1.0302	1.2771
50 mph	0.0017	0.0005	0.0021	0.0004	0.1067	0.0450	0.0711	0.6810	0.9085
55 mph	0.0011	0.0003	0.0013	0.0002	0.0609	0.0253	0.0237	0.1664	0.2792
60 mph	0.0015	0.0005	0.0018	0.0002	0.0705	0.0287	0.9834	5.4767	6.5633
65 mph	0.0002	0.0001	0.0003	0.0000	0.0136	0.0053	0.0000	0.0000	0.0195
70 mph	0.0032	0.0008	0.0037	0.0009	0.4055	0.1300	0.0000	0.0000	0.5442
total	0.0872	0.0232	0.1063	0.0142	4.2283	1.8838	2.3636	30.9361	39.6428

ROG Emissions

EMFAC2014 RUNLOSS Emission Factors (g/mile) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.03	0.05	0.03	0.05	0.21	0.10	0.12	0.05
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RUNLOSS Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	14.02	1.51	5.39	3.74	5.91	1.35	2.39	1.63
Electric	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**14.02**	**1.51**	**5.39**	**3.74**	**5.91**	**1.35**	**2.39**	**1.63**

EMFAC2014 RESTLOSS & DIURN Emission Factors (g/vehicle/day) - ROG

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.17	0.32	0.26	0.60	0.07	0.04	0.05	0.05
Electric	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00

RESTLOSS & DIURN Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.62	0.09	0.37	1.28	0.04	0.01	0.01	0.02
Electric	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.67**	**0.09**	**0.37**	**1.28**	**0.04**	**0.01**	**0.01**	**0.02**

Total ROG Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	1.29	0.58	0.65	0.80	3.33
10 mph	0.26	0.03	0.15	0.07	0.95	0.45	0.17	3.18	5.27
15 mph	0.18	0.02	0.09	0.04	0.48	0.22	0.10	1.91	3.04
20 mph	0.09	0.01	0.05	0.02	0.16	0.07	0.16	2.91	3.48
25 mph	0.33	0.03	0.16	0.08	0.54	0.24	0.50	9.11	11.00
30 mph	0.29	0.03	0.14	0.08	0.39	0.17	0.33	5.81	7.24
35 mph	0.35	0.04	0.18	0.09	0.33	0.15	0.19	3.22	4.55
40 mph	0.09	0.01	0.04	0.03	0.17	0.07	0.16	2.40	2.97
45 mph	0.07	0.01	0.03	0.02	0.12	0.05	0.10	1.41	1.80
50 mph	0.07	0.01	0.03	0.02	0.11	0.05	0.08	1.01	1.38
55 mph	0.05	0.00	0.02	0.02	0.06	0.03	0.03	0.28	0.48
60 mph	0.08	0.01	0.04	0.02	0.07	0.03	1.09	9.99	11.33
65 mph	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.05
70 mph	0.19	0.02	0.09	0.10	0.43	0.14	0.00	0.00	0.97
RUNLOSS	14.02	1.51	5.39	3.74	5.91	1.35	2.39	1.63	35.94
RESTLOSS DIURI	0.67	0.09	0.37	1.28	0.04	0.01	0.01	0.02	2.49
total	16.75	1.82	6.79	5.62	11.07	3.62	5.96	43.69	**95.31**

World Logistics Center
2040 Medium EV Mitigated
NOX Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - NOX

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.8853	0.7879	1.9495	28.2228
10 mph	0.0328	0.0412	0.0402	0.0586	0.0802	0.0526	0.1384	4.9000
15 mph	0.0289	0.0364	0.0354	0.0512	0.0690	0.0463	0.1222	4.3305
20 mph	0.0259	0.0326	0.0318	0.0458	0.0626	0.0416	0.1096	3.8838
25 mph	0.0236	0.0295	0.0289	0.0415	0.0566	0.0379	0.1000	3.5415
30 mph	0.0219	0.0272	0.0267	0.0384	0.0528	0.0351	0.0926	3.2800
35 mph	0.0205	0.0254	0.0250	0.0362	0.0502	0.0331	0.0872	3.0863
40 mph	0.0196	0.0242	0.0239	0.0346	0.0482	0.0316	0.0834	2.9518
45 mph	0.0191	0.0236	0.0232	0.0337	0.0470	0.0307	0.0810	2.8684
50 mph	0.0189	0.0232	0.0229	0.0335	0.0465	0.0303	0.0800	2.8319
55 mph	0.0189	0.0234	0.0230	0.0338	0.0466	0.0304	0.0803	2.8411
60 mph	0.0193	0.0239	0.0235	0.0346	0.0474	0.0310	0.0819	2.8972
65 mph	0.0200	0.0246	0.0243	0.0362	0.0491	0.0321		
70 mph	0.0206	0.0243	0.0245	0.0384	0.0552	0.0326		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	29.7332	25.2881	17.6319	15.5339
10 mph	0.0366	0.1672	0.1282	0.0430	0.3339	0.2201	7.7617	16.5008
15 mph	0.0247	0.1298	0.0858	0.0288	0.2473	0.1503	4.6426	9.7855
20 mph	0.0164	0.1029	0.0565	0.0191	0.2073	0.1035	2.5883	5.3050
25 mph	0.0126	0.0893	0.0429	0.0145	0.1836	0.0815	1.3899	2.7692
30 mph	0.0106	0.0805	0.0356	0.0121	0.1809	0.0707	0.8547	1.7022
35 mph	0.0092	0.0724	0.0308	0.0105	0.1875	0.0642	0.5710	1.1407
40 mph	0.0083	0.0697	0.0273	0.0094	0.1926	0.0597	0.4045	0.8111
45 mph	0.0076	0.0691	0.0248	0.0085	0.1981	0.0565	0.2996	0.6026
50 mph	0.0071	0.0667	0.0227	0.0078	0.2056	0.0544	0.2297	0.4583
55 mph	0.0066	0.0679	0.0211	0.0073	0.1988	0.0515	0.1809	0.3670
60 mph	0.0065	0.0703	0.0204	0.0071	0.2031	0.0508	0.1620	0.3251
65 mph	0.0065	0.0653	0.0204	0.0071	0.2228	0.0529		
70 mph	0.0067	0.0339	0.0203	0.0072	0.4433	0.0743		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

NOX Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.4508	0.0419	0.2043	0.1035	0.0518	0.0163	0.0353	2.0865	2.9905
15 mph	0.1592	0.0148	0.0720	0.0361	0.0178	0.0058	0.0104	0.6147	0.9308
20 mph	0.2857	0.0265	0.1291	0.0646	0.0324	0.0103	0.0187	1.1025	1.6698
25 mph	1.3006	0.1199	0.5867	0.2932	0.1464	0.0471	0.0936	5.5295	8.1171
30 mph	1.3234	0.1213	0.5959	0.2983	0.1501	0.0480	0.0788	4.6556	7.2716
35 mph	1.0176	0.0927	0.4573	0.2299	0.1169	0.0370	0.0334	1.9713	3.9560
40 mph	0.3244	0.0295	0.1457	0.0734	0.0373	0.0118	0.0355	2.0949	2.7525
45 mph	0.2628	0.0239	0.1180	0.0595	0.0304	0.0096	0.0276	1.6286	2.1603
50 mph	0.2596	0.0236	0.1164	0.0590	0.0301	0.0094	0.0443	2.6127	3.1550
55 mph	0.2085	0.0190	0.0936	0.0477	0.0241	0.0076	0.0103	0.6049	1.0156
60 mph	0.4252	0.0388	0.1910	0.0977	0.0490	0.0154	0.0105	0.6168	1.4444
65 mph	0.0550	0.0050	0.0247	0.0128	0.0063	0.0020	0.0000	0.0000	0.1058
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	6.0728	0.5569	2.7347	1.3757	0.6927	0.2204	0.3983	23.5181	35.5695

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0373	0.0035	0.0169	0.0179	0.0111	0.0035	0.0000	0.0000	0.0901
15 mph	0.0329	0.0031	0.0149	0.0156	0.0096	0.0031	0.0000	0.0000	0.0791
20 mph	0.0295	0.0027	0.0133	0.0139	0.0087	0.0028	0.0337	1.9876	2.0923
25 mph	0.0538	0.0050	0.0243	0.0253	0.0157	0.0051	0.0537	3.1718	3.3545
30 mph	0.0995	0.0091	0.0448	0.0468	0.0293	0.0094	0.0853	5.0358	5.3599
35 mph	0.2104	0.0192	0.0945	0.0993	0.0626	0.0198	0.0803	4.7383	5.3244
40 mph	0.2236	0.0203	0.1004	0.1056	0.0667	0.0211	0.0704	4.1543	4.7624
45 mph	0.1739	0.0158	0.0781	0.0823	0.0521	0.0164	0.0497	2.9359	3.4042
50 mph	0.1932	0.0175	0.0866	0.0918	0.0580	0.0182	0.0246	1.4492	1.9392
55 mph	0.1078	0.0098	0.0484	0.0515	0.0323	0.0101	0.0123	0.7270	0.9992
60 mph	0.0659	0.0060	0.0296	0.0316	0.0197	0.0062	0.8796	51.8943	52.9331
65 mph	0.0228	0.0021	0.0102	0.0110	0.0068	0.0021	0.0000	0.0000	0.0550
70 mph	1.0767	0.0937	0.4745	0.5385	0.3517	0.0999	0.0000	0.0000	2.6349
total	2.3272	0.2078	1.0366	1.1312	0.7243	0.2176	1.2895	76.0942	83.0284

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0693	0.0296	0.0542	1.3067	1.4597
15 mph	0.2517	0.0234	0.1138	0.0523	0.0271	0.0088	0.0166	0.9786	1.4721
25 mph	0.0000	0.0000	0.0000	0.0000	0.0422	0.0136	0.0593	3.5020	3.6171
35 mph	0.7690	0.0700	0.3455	0.1461	0.0000	0.0000	0.0000	0.0000	1.3307
total	1.0207	0.0934	0.4594	0.1984	0.1386	0.0520	0.1300	5.7872	7.8797

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0693	0.0296	0.0542	1.3067	1.4597
10 mph	0.4881	0.0453	0.2211	0.1214	0.0629	0.0199	0.0353	2.0865	3.0806
15 mph	0.4438	0.0412	0.2007	0.1040	0.0545	0.0176	0.0270	1.5932	2.4820
20 mph	0.3152	0.0292	0.1425	0.0785	0.0411	0.0131	0.0523	3.0901	3.7620
25 mph	1.3544	0.1249	0.6110	0.3185	0.2044	0.0658	0.2066	12.2033	15.0887
30 mph	1.4229	0.1305	0.6407	0.3452	0.1794	0.0574	0.1641	9.6914	12.6316
35 mph	1.9970	0.1819	0.8973	0.4753	0.1795	0.0568	0.1136	6.7096	10.6112
40 mph	0.5480	0.0499	0.2461	0.1790	0.1041	0.0329	0.1059	6.2492	7.5149
45 mph	0.4367	0.0397	0.1961	0.1418	0.0824	0.0259	0.0773	4.5645	5.5645
50 mph	0.4528	0.0411	0.2030	0.1508	0.0881	0.0276	0.0688	4.0619	5.0941
55 mph	0.3162	0.0288	0.1420	0.0992	0.0564	0.0177	0.0226	1.3319	2.0149
60 mph	0.4911	0.0449	0.2207	0.1293	0.0687	0.0216	0.8901	52.5112	54.3775
65 mph	0.0778	0.0071	0.0349	0.0238	0.0132	0.0041	0.0000	0.0000	0.1608
70 mph	1.0767	0.0937	0.4745	0.5385	0.3517	0.0999	0.0000	0.0000	2.6349
total	9.4206	0.8580	4.2307	2.7053	1.5556	0.4900	1.8178	105.3996	126.4776

NOX Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0146	0.0049	0.0189	0.0021	0.4565	0.1447	25.5475	90.5617	116.7509
15 mph	0.0039	0.0015	0.0051	0.0006	0.1353	0.0395	5.0936	17.9020	23.1815
20 mph	0.0052	0.0024	0.0067	0.0007	0.2268	0.0544	5.6795	19.4103	25.3860
25 mph	0.0201	0.0105	0.0252	0.0028	1.0043	0.2142	16.7743	55.7266	73.7781
30 mph	0.0186	0.0104	0.0231	0.0026	1.0884	0.2045	9.3775	31.1400	41.8650
35 mph	0.0132	0.0077	0.0163	0.0018	0.9231	0.1520	2.8191	9.3909	13.3242
40 mph	0.0040	0.0025	0.0048	0.0005	0.3159	0.0471	2.2187	7.4194	10.0129
45 mph	0.0030	0.0020	0.0036	0.0004	0.2708	0.0371	1.3148	4.4095	6.0414
50 mph	0.0028	0.0020	0.0033	0.0004	0.2811	0.0357	1.6383	5.4495	7.4131
55 mph	0.0021	0.0016	0.0025	0.0003	0.2175	0.0271	0.2977	1.0071	1.5558
60 mph	0.0041	0.0033	0.0048	0.0006	0.4442	0.0535	0.2666	0.8922	1.6692
65 mph	0.0005	0.0004	0.0006	0.0001	0.0609	0.0070	0.0000	0.0000	0.0694
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0922	0.0492	0.1150	0.0128	5.4248	1.0166	71.0275	243.3093	321.0475

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0012	0.0004	0.0016	0.0004	0.0979	0.0310	0.0000	0.0000	0.1325
15 mph	0.0008	0.0003	0.0010	0.0002	0.0725	0.0212	0.0000	0.0000	0.0961
20 mph	0.0005	0.0003	0.0007	0.0002	0.0608	0.0146	10.2387	34.9921	45.3077
25 mph	0.0008	0.0004	0.0010	0.0002	0.1077	0.0230	9.6218	31.9650	41.7200
30 mph	0.0014	0.0008	0.0017	0.0004	0.2122	0.0399	10.1432	33.6826	44.0822
35 mph	0.0027	0.0016	0.0034	0.0008	0.4949	0.0815	6.7763	22.5727	29.9338
40 mph	0.0027	0.0017	0.0033	0.0008	0.5646	0.0841	4.3998	14.7128	19.7698
45 mph	0.0020	0.0013	0.0024	0.0006	0.4646	0.0637	2.3703	7.9493	10.8542
50 mph	0.0021	0.0015	0.0025	0.0006	0.5425	0.0690	0.9087	3.0228	4.5496
55 mph	0.0011	0.0008	0.0013	0.0003	0.2915	0.0363	0.3578	1.2104	1.8994
60 mph	0.0006	0.0005	0.0007	0.0002	0.1786	0.0215	22.4247	75.0609	97.6878
65 mph	0.0002	0.0002	0.0002	0.0001	0.0653	0.0075	0.0000	0.0000	0.0735
70 mph	0.0102	0.0038	0.0114	0.0028	5.9779	0.4819	0.0000	0.0000	6.4880
total	0.0265	0.0136	0.0314	0.0074	9.1309	0.9749	67.2412	225.1686	302.5944

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.9201	2.0118	6.3177	9.2810	22.5307
15 mph	0.0062	0.0024	0.0080	0.0008	0.2055	0.0600	8.1091	28.5002	36.8922
25 mph	0.0000	0.0000	0.0000	0.0000	0.2898	0.0618	10.6236	35.2931	46.2682
35 mph	0.0100	0.0058	0.0123	0.0012	0.0000	0.0000	0.0000	0.0000	0.0293
total	0.0162	0.0082	0.0203	0.0020	5.4153	2.1337	25.0504	73.0743	105.7204

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.9201	2.0118	6.3177	9.2810	22.5307
10 mph	0.0158	0.0053	0.0204	0.0024	0.5544	0.1757	25.5475	90.5617	116.8833
15 mph	0.0110	0.0043	0.0141	0.0016	0.4132	0.1207	13.2027	46.4022	60.1698
20 mph	0.0058	0.0027	0.0073	0.0009	0.2875	0.0690	15.9181	54.4024	70.6938
25 mph	0.0209	0.0109	0.0263	0.0030	1.4017	0.2990	37.0196	122.9846	161.7662
30 mph	0.0200	0.0112	0.0248	0.0030	1.3005	0.2443	19.5207	64.8226	85.9472
35 mph	0.0260	0.0150	0.0320	0.0038	1.4180	0.2334	9.5954	31.9636	43.2873
40 mph	0.0067	0.0042	0.0082	0.0013	0.8805	0.1312	6.6185	22.1322	29.7827
45 mph	0.0050	0.0034	0.0061	0.0010	0.7354	0.1008	3.6851	12.3588	16.8956
50 mph	0.0049	0.0034	0.0058	0.0010	0.8236	0.1047	2.5470	8.4723	11.9627
55 mph	0.0032	0.0024	0.0038	0.0006	0.5089	0.0633	0.6554	2.2175	3.4552
60 mph	0.0048	0.0038	0.0056	0.0007	0.6228	0.0750	22.6912	75.9531	99.3570
65 mph	0.0007	0.0005	0.0009	0.0001	0.1262	0.0144	0.0000	0.0000	0.1429
70 mph	0.0102	0.0038	0.0114	0.0028	5.9779	0.4819	0.0000	0.0000	6.4880
total	0.1350	0.0710	0.1667	0.0222	19.9710	4.1252	163.3191	541.5521	729.3623

NOX Emissions

Total NOX RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	4.99	2.04	6.37	10.59	23.99
10 mph	0.50	0.05	0.24	0.12	0.62	0.20	25.58	92.65	119.96
15 mph	0.45	0.05	0.21	0.11	0.47	0.14	13.23	48.00	62.65
20 mph	0.32	0.03	0.15	0.08	0.33	0.08	15.97	57.49	74.46
25 mph	1.38	0.14	0.64	0.32	1.61	0.36	37.23	135.19	176.85
30 mph	1.44	0.14	0.67	0.35	1.48	0.30	19.68	74.51	98.58
35 mph	2.02	0.20	0.93	0.48	1.60	0.29	9.71	38.67	53.90
40 mph	0.55	0.05	0.25	0.18	0.98	0.16	6.72	28.38	37.30
45 mph	0.44	0.04	0.20	0.14	0.82	0.13	3.76	16.92	22.46
50 mph	0.46	0.04	0.21	0.15	0.91	0.13	2.62	12.53	17.06
55 mph	0.32	0.03	0.15	0.10	0.57	0.08	0.68	3.55	5.47
60 mph	0.50	0.05	0.23	0.13	0.69	0.10	23.58	128.46	153.73
65 mph	0.08	0.01	0.04	0.02	0.14	0.02	0.00	0.00	0.30
70 mph	1.09	0.10	0.49	0.54	6.33	0.58	0.00	0.00	9.12
total	9.56	0.93	4.40	2.73	21.53	4.62	165.14	646.95	**855.84**

World Logistics Center
2040 Medium EV Mitigated
CO Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	128.7236	129.4807	323.4536	277.8418
10 mph	0.4796	0.5803	0.6288	0.7906	0.2207	0.1981	0.3035	50.5614
15 mph	0.4381	0.5304	0.5737	0.7186	0.2001	0.1808	0.2772	46.2256
20 mph	0.4010	0.4849	0.5252	0.6577	0.1838	0.1656	0.2538	42.3062
25 mph	0.3676	0.4427	0.4809	0.6028	0.1684	0.1520	0.2330	38.8531
30 mph	0.3378	0.4047	0.4414	0.5546	0.1553	0.1399	0.2145	35.7582
35 mph	0.3112	0.3703	0.4061	0.5119	0.1437	0.1292	0.1980	32.9917
40 mph	0.2880	0.3421	0.3756	0.4738	0.1331	0.1196	0.1833	30.5350
45 mph	0.2674	0.3175	0.3485	0.4398	0.1237	0.1110	0.1701	28.3332
50 mph	0.2488	0.2944	0.3239	0.4096	0.1152	0.1032	0.1582	26.3556
55 mph	0.2323	0.2754	0.3027	0.3829	0.1074	0.0963	0.1476	24.5855
60 mph	0.2173	0.2581	0.2832	0.3580	0.1004	0.0901	0.1381	23.0040
65 mph	0.2036	0.2402	0.2648	0.3364	0.0942	0.0845		
70 mph	0.1985	0.2228	0.2538	0.3323	0.0938	0.0817		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	26.3000	26.3000	1.2102	1.8859
10 mph	1.9150	2.0788	1.9787	2.2231	2.6354	2.5044	1.0121	2.8004
15 mph	0.9347	1.0348	0.9661	1.0863	1.3008	1.2263	0.7129	1.9599
20 mph	0.3637	0.4234	0.3756	0.4224	0.5214	0.4782	0.5157	1.3894
25 mph	0.2183	0.2616	0.2251	0.2532	0.3192	0.2879	0.3780	0.9979
30 mph	0.1648	0.1990	0.1696	0.1910	0.2447	0.2177	0.2786	0.7353
35 mph	0.1310	0.1585	0.1345	0.1515	0.1986	0.1734	0.2053	0.5428
40 mph	0.1081	0.1332	0.1109	0.1249	0.1675	0.1433	0.1513	0.4012
45 mph	0.0916	0.1163	0.0939	0.1058	0.1462	0.1218	0.1115	0.2965
50 mph	0.0792	0.1037	0.0810	0.0914	0.1318	0.1057	0.0822	0.2175
55 mph	0.0697	0.0971	0.0712	0.0803	0.1206	0.0935	0.0606	0.1626
60 mph	0.0657	0.0984	0.0671	0.0757	0.1204	0.0888	0.0520	0.1384
65 mph	0.0658	0.1010	0.0670	0.0756	0.1314	0.0899		
70 mph	0.0668	0.0783	0.0664	0.0753	0.1904	0.0945		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	6.5998	0.5892	3.1949	1.3951	0.1426	0.0616	0.0775	21.5300	33.5906
15 mph	2.4112	0.2154	1.1660	0.5072	0.0517	0.0225	0.0236	6.5613	10.9589
20 mph	4.4147	0.3939	2.1346	0.9284	0.0950	0.0412	0.0432	12.0099	20.0609
25 mph	20.2358	1.7979	9.7732	4.2550	0.4353	0.1890	0.2182	60.6628	97.5672
30 mph	20.4549	1.8079	9.8684	4.3058	0.4415	0.1913	0.1826	50.7552	88.0076
35 mph	15.4175	1.3535	7.4275	3.2516	0.3345	0.1445	0.0758	21.0727	49.0777
40 mph	4.7555	0.4168	2.2901	1.0033	0.1033	0.0446	0.0780	21.6707	30.3622
45 mph	3.6794	0.3223	1.7709	0.7761	0.0799	0.0345	0.0579	16.0864	22.8074
50 mph	3.4238	0.2989	1.6455	0.7228	0.0744	0.0321	0.0876	24.3159	30.6010
55 mph	2.5572	0.2237	1.2303	0.5406	0.0555	0.0239	0.0189	5.2345	9.8846
60 mph	4.7852	0.4193	2.3020	1.0108	0.1039	0.0448	0.0176	4.8978	13.5813
65 mph	0.5604	0.0488	0.2691	0.1187	0.0122	0.0053	0.0000	0.0000	1.0144
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	89.2954	7.8876	43.0724	18.8153	1.9299	0.8352	0.8809	244.7971	407.5137

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.5458	0.0487	0.2642	0.2410	0.0306	0.0132	0.0000	0.0000	1.1436
15 mph	0.4986	0.0445	0.2411	0.2190	0.0277	0.0120	0.0000	0.0000	1.0430
20 mph	0.4564	0.0407	0.2207	0.2005	0.0255	0.0110	0.0779	21.6508	22.6835
25 mph	0.8368	0.0743	0.4042	0.3675	0.0467	0.0203	0.1252	34.7964	36.6713
30 mph	1.5379	0.1359	0.7420	0.6761	0.0861	0.0373	0.1975	54.8994	58.3123
35 mph	3.1878	0.2798	1.5357	1.4041	0.1793	0.0775	0.1823	50.6519	57.4985
40 mph	3.2775	0.2873	1.5783	1.4441	0.1845	0.0797	0.1547	42.9736	49.9797
45 mph	2.4344	0.2133	1.1717	1.0725	0.1371	0.0591	0.1044	28.9999	34.1924
50 mph	2.5485	0.2225	1.2249	1.1236	0.1437	0.0619	0.0486	13.4878	18.8615
55 mph	1.3218	0.1156	0.6359	0.5836	0.0744	0.0321	0.0227	6.2910	9.0772
60 mph	0.7421	0.0650	0.3570	0.3274	0.0418	0.0180	1.4839	412.0418	415.0769
65 mph	0.2317	0.0202	0.1113	0.1025	0.0131	0.0056	0.0000	0.0000	0.4844
70 mph	10.3892	0.8606	4.9069	4.6589	0.5982	0.2505	0.0000	0.0000	21.6642
total	28.0086	2.4086	13.3938	12.4207	1.5887	0.6783	2.3971	665.7926	726.6883

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.0699	4.8699	8.9921	12.8635	36.7952
15 mph	3.8114	0.3405	1.8430	0.7340	0.0786	0.0341	0.0376	10.4456	17.3248
25 mph	0.0000	0.0000	0.0000	0.0000	0.1256	0.0545	0.1382	38.4193	38.7376
35 mph	11.6506	1.0228	5.6128	2.0673	0.0000	0.0000	0.0000	0.0000	20.3535
total	15.4620	1.3632	7.4558	2.8013	10.2740	4.9585	9.1678	61.7283	113.2111

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	10.0699	4.8699	8.9921	12.8635	36.7952
10 mph	7.1457	0.6379	3.4591	1.6361	0.1732	0.0748	0.0775	21.5300	34.7342
15 mph	6.7212	0.6004	3.2501	1.4602	0.1580	0.0687	0.0612	17.0068	29.3266
20 mph	4.8711	0.4346	2.3553	1.1289	0.1205	0.0522	0.1211	33.6607	42.7444
25 mph	21.0726	1.8722	10.1774	4.6224	0.6075	0.2637	0.4815	133.8785	172.9760
30 mph	21.9928	1.9439	10.6103	4.9819	0.5276	0.2286	0.3801	105.6546	146.3199
35 mph	30.2559	2.6561	14.5760	6.7230	0.5138	0.2220	0.2581	71.7247	126.9297
40 mph	8.0330	0.7041	3.8684	2.4474	0.2878	0.1243	0.2327	64.6442	80.3419
45 mph	6.1138	0.5356	2.9425	1.8486	0.2171	0.0936	0.1623	45.0863	56.9998
50 mph	5.9724	0.5214	2.8704	1.8464	0.2181	0.0940	0.1361	37.8037	49.4625
55 mph	3.8790	0.3394	1.8662	1.1241	0.1300	0.0560	0.0415	11.5255	18.9617
60 mph	5.5272	0.4843	2.6590	1.3382	0.1456	0.0628	1.5016	416.9395	428.6582
65 mph	0.7921	0.0689	0.3804	0.2212	0.0252	0.0109	0.0000	0.0000	1.4988
70 mph	10.3892	0.8606	4.9069	4.6589	0.5982	0.2505	0.0000	0.0000	21.6642
total	132.7661	11.6594	63.9220	34.0373	13.7926	6.4719	12.4457	972.3180	1,247.4131

CO Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.7638	0.0612	0.2914	0.1075	3.6032	1.6462	3.3313	15.3698	25.1744
15 mph	0.1491	0.0122	0.0569	0.0210	0.7114	0.3224	0.7821	3.5854	5.6406
20 mph	0.1160	0.0100	0.0443	0.0163	0.5703	0.2515	1.1316	5.0836	7.2235
25 mph	0.3482	0.0308	0.1326	0.0490	1.7457	0.7569	4.5615	20.0813	27.7060
30 mph	0.2893	0.0258	0.1099	0.0406	1.4719	0.6298	3.0564	13.4528	19.0764
35 mph	0.1882	0.0168	0.0713	0.0264	0.9775	0.4104	1.0138	4.4683	7.1727
40 mph	0.0517	0.0047	0.0196	0.0072	0.2749	0.1131	0.8300	3.6699	4.9712
45 mph	0.0365	0.0034	0.0138	0.0051	0.1998	0.0800	0.4894	2.1698	2.9980
50 mph	0.0316	0.0031	0.0119	0.0044	0.1801	0.0695	0.5862	2.5861	3.4730
55 mph	0.0222	0.0023	0.0084	0.0031	0.1319	0.0492	0.0997	0.4462	0.7630
60 mph	0.0419	0.0046	0.0158	0.0059	0.2633	0.0934	0.0856	0.3798	0.8904
65 mph	0.0053	0.0006	0.0020	0.0007	0.0359	0.0118	0.0000	0.0000	0.0563
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	2.0439	0.1754	0.7779	0.2872	10.1660	4.4342	15.9675	71.2932	105.1455

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0632	0.0051	0.0241	0.0186	0.7727	0.3530	0.0000	0.0000	1.2366
15 mph	0.0308	0.0025	0.0118	0.0091	0.3814	0.1729	0.0000	0.0000	0.6084
20 mph	0.0120	0.0010	0.0046	0.0035	0.1529	0.0674	2.0400	9.1646	11.4459
25 mph	0.0144	0.0013	0.0055	0.0042	0.1872	0.0812	2.6165	11.5187	14.4289
30 mph	0.0217	0.0019	0.0083	0.0064	0.2869	0.1228	3.3060	14.5512	18.3052
35 mph	0.0389	0.0035	0.0147	0.0114	0.5240	0.2200	2.4368	10.7404	13.9898
40 mph	0.0356	0.0032	0.0135	0.0104	0.4912	0.2020	1.6460	7.2776	9.6796
45 mph	0.0242	0.0023	0.0091	0.0071	0.3428	0.1373	0.8823	3.9116	5.3166
50 mph	0.0235	0.0023	0.0089	0.0069	0.3476	0.1341	0.3252	1.4345	2.2830
55 mph	0.0115	0.0012	0.0043	0.0034	0.1768	0.0659	0.1198	0.5363	0.9192
60 mph	0.0065	0.0007	0.0025	0.0019	0.1059	0.0376	7.1991	31.9557	39.3098
65 mph	0.0022	0.0002	0.0008	0.0006	0.0385	0.0127	0.0000	0.0000	0.0551
70 mph	0.1013	0.0088	0.0372	0.0289	2.5672	0.6126	0.0000	0.0000	3.3561
total	0.3859	0.0340	0.1453	0.1123	6.3751	2.2194	20.5715	91.0906	120.9341

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.3520	2.0923	0.4336	1.1268	8.0047
15 mph	0.2357	0.0193	0.0900	0.0304	1.0807	0.4898	1.2451	5.7081	8.8991
25 mph	0.0000	0.0000	0.0000	0.0000	0.5037	0.2184	2.8889	12.7180	16.3289
35 mph	0.1422	0.0127	0.0539	0.0168	0.0000	0.0000	0.0000	0.0000	0.2255
total	0.3779	0.0319	0.1439	0.0472	5.9364	2.8006	4.5677	19.5529	33.4583

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	4.3520	2.0923	0.4336	1.1268	8.0047
10 mph	0.8270	0.0662	0.3155	0.1260	4.3759	1.9992	3.3313	15.3698	26.4109
15 mph	0.4157	0.0340	0.1586	0.0605	2.1735	0.9851	2.0272	9.2935	15.1482
20 mph	0.1280	0.0110	0.0488	0.0199	0.7231	0.3189	3.1715	14.2482	18.6694
25 mph	0.3626	0.0321	0.1381	0.0532	2.4365	1.0564	10.0668	44.3180	58.4638
30 mph	0.3110	0.0277	0.1182	0.0470	1.7588	0.7525	6.3623	28.0040	37.3816
35 mph	0.3692	0.0330	0.1400	0.0545	1.5015	0.6305	3.4505	15.2088	21.3880
40 mph	0.0874	0.0079	0.0331	0.0177	0.7661	0.3151	2.4760	10.9475	14.6508
45 mph	0.0607	0.0057	0.0230	0.0122	0.5427	0.2173	1.3717	6.0813	8.3146
50 mph	0.0551	0.0053	0.0208	0.0113	0.5278	0.2037	0.9114	4.0207	5.7560
55 mph	0.0337	0.0035	0.0127	0.0065	0.3088	0.1150	0.2195	0.9825	1.6822
60 mph	0.0484	0.0053	0.0183	0.0078	0.3692	0.1310	7.2847	32.3355	40.2002
65 mph	0.0074	0.0008	0.0028	0.0014	0.0745	0.0245	0.0000	0.0000	0.1114
70 mph	0.1013	0.0088	0.0372	0.0289	2.5672	0.6126	0.0000	0.0000	3.3561
total	2.8078	0.2413	1.0671	0.4468	22.4775	9.4542	41.1066	181.9367	259.5379

CO Emissions

Total CO RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	14.42	6.96	9.43	13.99	44.80
10 mph	7.97	0.70	3.77	1.76	4.55	2.07	3.41	36.90	61.15
15 mph	7.14	0.63	3.41	1.52	2.33	1.05	2.09	26.30	44.47
20 mph	5.00	0.45	2.40	1.15	0.84	0.37	3.29	47.91	61.41
25 mph	21.44	1.90	10.32	4.68	3.04	1.32	10.55	178.20	231.44
30 mph	22.30	1.97	10.73	5.03	2.29	0.98	6.74	133.66	183.70
35 mph	30.63	2.69	14.72	6.78	2.02	0.85	3.71	86.93	148.32
40 mph	8.12	0.71	3.90	2.47	1.05	0.44	2.71	75.59	94.99
45 mph	6.17	0.54	2.97	1.86	0.76	0.31	1.53	51.17	65.31
50 mph	6.03	0.53	2.89	1.86	0.75	0.30	1.05	41.82	55.22
55 mph	3.91	0.34	1.88	1.13	0.44	0.17	0.26	12.51	20.64
60 mph	5.58	0.49	2.68	1.35	0.51	0.19	8.79	449.28	468.86
65 mph	0.80	0.07	0.38	0.22	0.10	0.04	0.00	0.00	1.61
70 mph	10.49	0.87	4.94	4.69	3.17	0.86	0.00	0.00	25.02
total	135.57	11.90	64.99	34.48	36.27	15.93	53.55	1,154.25	**1,506.95**

World Logistics Center
2040 Medium EV Mitigated
PM10 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM10

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0377	0.0386	0.0387	0.0389
10 mph	0.0033	0.0038	0.0034	0.0037	0.0047	0.0049	0.0049	0.0049
15 mph	0.0022	0.0025	0.0022	0.0025	0.0032	0.0032	0.0032	0.0032
20 mph	0.0016	0.0017	0.0016	0.0017	0.0022	0.0023	0.0023	0.0023
25 mph	0.0011	0.0013	0.0012	0.0013	0.0016	0.0017	0.0017	0.0017
30 mph	0.0009	0.0010	0.0009	0.0010	0.0013	0.0013	0.0013	0.0013
35 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0011	0.0011	0.0011
40 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
45 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0009	0.0009
50 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
55 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
60 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009	0.0009	0.0009
65 mph	0.0007	0.0008	0.0007	0.0008	0.0010	0.0010		
70 mph	0.0008	0.0008	0.0007	0.0008	0.0011	0.0011		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3973	0.4668	0.0014	0.0015
10 mph	0.0017	0.0135	0.0086	0.0022	0.0149	0.0149	0.0052	0.0104
15 mph	0.0015	0.0113	0.0075	0.0019	0.0124	0.0130	0.0045	0.0088
20 mph	0.0012	0.0092	0.0064	0.0016	0.0105	0.0111	0.0040	0.0077
25 mph	0.0011	0.0076	0.0055	0.0014	0.0089	0.0095	0.0036	0.0068
30 mph	0.0009	0.0065	0.0048	0.0012	0.0079	0.0084	0.0033	0.0063
35 mph	0.0008	0.0057	0.0044	0.0011	0.0071	0.0076	0.0031	0.0058
40 mph	0.0008	0.0052	0.0040	0.0010	0.0066	0.0069	0.0029	0.0055
45 mph	0.0007	0.0048	0.0037	0.0009	0.0061	0.0064	0.0027	0.0051
50 mph	0.0007	0.0045	0.0035	0.0009	0.0058	0.0060	0.0026	0.0048
55 mph	0.0006	0.0044	0.0033	0.0008	0.0055	0.0057	0.0024	0.0046
60 mph	0.0006	0.0044	0.0032	0.0008	0.0054	0.0055	0.0024	0.0044
65 mph	0.0006	0.0044	0.0032	0.0008	0.0056	0.0055		
70 mph	0.0006	0.0036	0.0031	0.0008	0.0068	0.0055		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM10 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0461	0.0038	0.0171	0.0065	0.0031	0.0015	0.0012	0.0021	0.0814
15 mph	0.0122	0.0010	0.0045	0.0017	0.0008	0.0004	0.0003	0.0005	0.0215
20 mph	0.0171	0.0014	0.0063	0.0024	0.0011	0.0006	0.0004	0.0006	0.0301
25 mph	0.0632	0.0052	0.0234	0.0090	0.0042	0.0021	0.0016	0.0026	0.1113
30 mph	0.0541	0.0045	0.0200	0.0077	0.0036	0.0018	0.0011	0.0019	0.0946
35 mph	0.0363	0.0030	0.0134	0.0052	0.0024	0.0012	0.0004	0.0007	0.0626
40 mph	0.0105	0.0009	0.0039	0.0015	0.0007	0.0003	0.0004	0.0007	0.0188
45 mph	0.0080	0.0007	0.0030	0.0011	0.0005	0.0003	0.0003	0.0005	0.0143
50 mph	0.0077	0.0006	0.0029	0.0011	0.0005	0.0003	0.0005	0.0008	0.0143
55 mph	0.0063	0.0005	0.0023	0.0009	0.0004	0.0002	0.0001	0.0002	0.0109
60 mph	0.0135	0.0011	0.0050	0.0019	0.0009	0.0004	0.0001	0.0002	0.0232
65 mph	0.0019	0.0002	0.0007	0.0003	0.0001	0.0001	0.0000	0.0000	0.0032
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.2770	0.0228	0.1025	0.0394	0.0185	0.0091	0.0064	0.0106	0.4863

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0038	0.0003	0.0014	0.0011	0.0007	0.0003	0.0000	0.0000	0.0077
15 mph	0.0025	0.0002	0.0009	0.0008	0.0004	0.0002	0.0000	0.0000	0.0051
20 mph	0.0018	0.0001	0.0007	0.0005	0.0003	0.0002	0.0007	0.0012	0.0054
25 mph	0.0026	0.0002	0.0010	0.0008	0.0005	0.0002	0.0009	0.0015	0.0077
30 mph	0.0041	0.0003	0.0015	0.0012	0.0007	0.0003	0.0012	0.0020	0.0114
35 mph	0.0075	0.0006	0.0028	0.0022	0.0013	0.0006	0.0010	0.0017	0.0177
40 mph	0.0072	0.0006	0.0027	0.0021	0.0013	0.0006	0.0008	0.0013	0.0166
45 mph	0.0053	0.0004	0.0020	0.0016	0.0009	0.0005	0.0005	0.0009	0.0120
50 mph	0.0057	0.0005	0.0021	0.0017	0.0010	0.0005	0.0003	0.0004	0.0122
55 mph	0.0033	0.0003	0.0012	0.0010	0.0006	0.0003	0.0001	0.0002	0.0069
60 mph	0.0021	0.0002	0.0008	0.0006	0.0004	0.0002	0.0097	0.0162	0.0300
65 mph	0.0008	0.0001	0.0003	0.0002	0.0001	0.0001	0.0000	0.0000	0.0016
70 mph	0.0396	0.0031	0.0144	0.0117	0.0068	0.0034	0.0000	0.0000	0.0790
total	0.0863	0.0069	0.0317	0.0256	0.0149	0.0074	0.0151	0.0253	0.2132

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0030	0.0015	0.0011	0.0018	0.0073
15 mph	0.0194	0.0016	0.0072	0.0025	0.0012	0.0006	0.0004	0.0007	0.0337
25 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0006	0.0010	0.0017	0.0045
35 mph	0.0274	0.0023	0.0101	0.0033	0.0000	0.0000	0.0000	0.0000	0.0431
total	0.0468	0.0039	0.0173	0.0058	0.0054	0.0027	0.0025	0.0042	0.0885

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0030	0.0015	0.0011	0.0018	0.0073
10 mph	0.0499	0.0041	0.0185	0.0077	0.0037	0.0018	0.0012	0.0021	0.0891
15 mph	0.0341	0.0028	0.0126	0.0050	0.0025	0.0012	0.0007	0.0012	0.0602
20 mph	0.0189	0.0016	0.0070	0.0030	0.0014	0.0007	0.0011	0.0018	0.0355
25 mph	0.0658	0.0054	0.0244	0.0098	0.0059	0.0029	0.0035	0.0058	0.1234
30 mph	0.0581	0.0048	0.0215	0.0089	0.0043	0.0021	0.0023	0.0039	0.1060
35 mph	0.0712	0.0058	0.0264	0.0107	0.0037	0.0018	0.0014	0.0023	0.1234
40 mph	0.0177	0.0015	0.0066	0.0036	0.0020	0.0010	0.0012	0.0020	0.0354
45 mph	0.0133	0.0011	0.0049	0.0027	0.0015	0.0007	0.0008	0.0014	0.0264
50 mph	0.0135	0.0011	0.0050	0.0028	0.0015	0.0007	0.0007	0.0012	0.0265
55 mph	0.0095	0.0008	0.0035	0.0019	0.0010	0.0005	0.0002	0.0004	0.0178
60 mph	0.0156	0.0013	0.0058	0.0025	0.0013	0.0006	0.0098	0.0164	0.0532
65 mph	0.0027	0.0002	0.0010	0.0005	0.0003	0.0001	0.0000	0.0000	0.0048
70 mph	0.0396	0.0031	0.0144	0.0117	0.0068	0.0034	0.0000	0.0000	0.0790
total	0.4100	0.0336	0.1516	0.0708	0.0388	0.0191	0.0240	0.0402	0.7881

PM10 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0007	0.0004	0.0013	0.0001	0.0204	0.0098	0.0171	0.0569	0.1067
15 mph	0.0002	0.0001	0.0004	0.0000	0.0068	0.0034	0.0049	0.0161	0.0321
20 mph	0.0004	0.0002	0.0008	0.0001	0.0115	0.0058	0.0088	0.0280	0.0555
25 mph	0.0017	0.0009	0.0032	0.0003	0.0487	0.0249	0.0438	0.1367	0.2603
30 mph	0.0016	0.0008	0.0031	0.0003	0.0474	0.0242	0.0367	0.1144	0.2286
35 mph	0.0012	0.0006	0.0023	0.0002	0.0352	0.0179	0.0153	0.0479	0.1207
40 mph	0.0004	0.0002	0.0007	0.0001	0.0108	0.0055	0.0159	0.0499	0.0834
45 mph	0.0003	0.0001	0.0005	0.0000	0.0084	0.0042	0.0119	0.0376	0.0632
50 mph	0.0003	0.0001	0.0005	0.0000	0.0079	0.0040	0.0183	0.0571	0.0883
55 mph	0.0002	0.0001	0.0004	0.0000	0.0060	0.0030	0.0040	0.0127	0.0264
60 mph	0.0004	0.0002	0.0007	0.0001	0.0119	0.0058	0.0039	0.0122	0.0352
65 mph	0.0000	0.0000	0.0001	0.0000	0.0015	0.0007	0.0000	0.0000	0.0024
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0074	0.0039	0.0141	0.0012	0.2166	0.1093	0.1807	0.5697	1.1028

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0001	0.0000	0.0044	0.0021	0.0000	0.0000	0.0067
15 mph	0.0000	0.0000	0.0001	0.0000	0.0036	0.0018	0.0000	0.0000	0.0056
20 mph	0.0000	0.0000	0.0001	0.0000	0.0031	0.0016	0.0158	0.0505	0.0711
25 mph	0.0001	0.0000	0.0001	0.0000	0.0052	0.0027	0.0251	0.0784	0.1117
30 mph	0.0001	0.0001	0.0002	0.0000	0.0092	0.0047	0.0397	0.1238	0.1779
35 mph	0.0003	0.0001	0.0005	0.0001	0.0189	0.0096	0.0369	0.1152	0.1815
40 mph	0.0003	0.0001	0.0005	0.0001	0.0193	0.0098	0.0316	0.0990	0.1606
45 mph	0.0002	0.0001	0.0004	0.0001	0.0144	0.0073	0.0215	0.0678	0.1117
50 mph	0.0002	0.0001	0.0004	0.0001	0.0153	0.0076	0.0101	0.0317	0.0655
55 mph	0.0001	0.0001	0.0002	0.0000	0.0081	0.0040	0.0048	0.0152	0.0325
60 mph	0.0001	0.0000	0.0001	0.0000	0.0048	0.0023	0.3257	1.0261	1.3591
65 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0008	0.0000	0.0000	0.0025
70 mph	0.0010	0.0004	0.0018	0.0003	0.0915	0.0359	0.0000	0.0000	0.1309
total	0.0024	0.0011	0.0045	0.0008	0.1994	0.0903	0.5112	1.6077	2.4173

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0657	0.0371	0.0005	0.0009	0.1043
15 mph	0.0004	0.0002	0.0007	0.0001	0.0103	0.0052	0.0078	0.0257	0.0503
25 mph	0.0000	0.0000	0.0000	0.0000	0.0141	0.0072	0.0278	0.0866	0.1356
35 mph	0.0009	0.0005	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	0.0032
total	0.0013	0.0007	0.0024	0.0002	0.0901	0.0495	0.0361	0.1132	0.2934

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0657	0.0371	0.0005	0.0009	0.1043
10 mph	0.0007	0.0004	0.0014	0.0001	0.0248	0.0119	0.0171	0.0569	0.1134
15 mph	0.0006	0.0004	0.0012	0.0001	0.0207	0.0104	0.0127	0.0419	0.0881
20 mph	0.0004	0.0002	0.0008	0.0001	0.0146	0.0074	0.0246	0.0786	0.1267
25 mph	0.0018	0.0009	0.0033	0.0003	0.0680	0.0347	0.0968	0.3018	0.5076
30 mph	0.0018	0.0009	0.0034	0.0003	0.0566	0.0290	0.0764	0.2382	0.4065
35 mph	0.0024	0.0012	0.0045	0.0004	0.0540	0.0275	0.0522	0.1631	0.3054
40 mph	0.0006	0.0003	0.0012	0.0001	0.0301	0.0153	0.0475	0.1489	0.2440
45 mph	0.0005	0.0002	0.0009	0.0001	0.0228	0.0115	0.0335	0.1054	0.1749
50 mph	0.0005	0.0002	0.0009	0.0001	0.0232	0.0116	0.0284	0.0888	0.1538
55 mph	0.0003	0.0002	0.0006	0.0001	0.0141	0.0070	0.0088	0.0279	0.0589
60 mph	0.0005	0.0002	0.0009	0.0001	0.0167	0.0082	0.3296	1.0383	1.3944
65 mph	0.0001	0.0000	0.0001	0.0000	0.0032	0.0015	0.0000	0.0000	0.0050
70 mph	0.0010	0.0004	0.0018	0.0003	0.0915	0.0359	0.0000	0.0000	0.1309
total	0.0111	0.0057	0.0210	0.0021	0.5061	0.2490	0.7280	2.2907	3.8136

PM10 Emissions

Total PM10 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00	0.11
10 mph	0.05	0.00	0.02	0.01	0.03	0.01	0.02	0.06	0.20
15 mph	0.03	0.00	0.01	0.01	0.02	0.01	0.01	0.04	0.15
20 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.03	0.08	0.16
25 mph	0.07	0.01	0.03	0.01	0.07	0.04	0.10	0.31	0.63
30 mph	0.06	0.01	0.02	0.01	0.06	0.03	0.08	0.24	0.51
35 mph	0.07	0.01	0.03	0.01	0.06	0.03	0.05	0.17	0.43
40 mph	0.02	0.00	0.01	0.00	0.03	0.02	0.05	0.15	0.28
45 mph	0.01	0.00	0.01	0.00	0.02	0.01	0.03	0.11	0.20
50 mph	0.01	0.00	0.01	0.00	0.02	0.01	0.03	0.09	0.18
55 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.01	0.03	0.08
60 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.34	1.05	1.45
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.04	0.00	0.02	0.01	0.10	0.04	0.00	0.00	0.21
total	0.42	0.04	0.17	0.07	0.54	0.27	0.75	2.33	**4.60**

PM10 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Total	0.04	0.04	0.04	0.04	0.08	0.10	0.14	0.08

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.04	0.04	0.08	0.09	0.13	0.06
Tires	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
Total	0.04	0.04	0.04	0.04	0.09	0.10	0.14	0.10

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	12.32	0.91	4.55	1.58	1.09	0.60	0.61	0.58
Diesel	0.36	0.03	0.13	0.04	2.42	1.33	7.81	8.94
Electric	5.23	0.38	0.00	0.00	0.00	0.00	0.00	0.00
Total	17.90	1.32	4.68	1.62	3.51	1.93	8.41	9.52

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	5.09	0.38	1.88	1.36	1.17	0.65	2.18	2.09
Diesel	0.15	0.01	0.05	0.04	2.59	1.43	28.15	32.24
Electric	2.14	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.38	0.54	1.93	1.40	3.76	2.07	30.34	34.33

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.06	0.15	0.76	0.23	0.10	0.05	0.10	0.10
Diesel	0.06	0.00	0.02	0.01	0.21	0.12	1.34	1.53
Electric	0.87	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.99	0.22	0.78	0.23	0.31	0.17	1.44	1.63

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	19.47	1.44	7.19	3.17	2.36	1.30	2.89	2.77	40.60
Diesel	0.56	0.04	0.21	0.09	5.22	2.87	37.30	42.71	89.00
Electric	8.24	0.60	0.00	0.00	0.00	0.00	0.00	0.00	8.84
Total	28.27	2.08	7.40	3.26	7.58	4.18	40.19	45.48	**138.44**

Paved Road Dust (pounds/day)

Source	PM10
Off-Site	806.58
Internal	29.54
Total	**836.12**

World Logistics Center
2040 Medium EV Mitigated
PM2.5 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - PM2.5

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.0347	0.0355	0.0356	0.0358
10 mph	0.0031	0.0035	0.0031	0.0034	0.0044	0.0045	0.0045	0.0045
15 mph	0.0020	0.0023	0.0021	0.0023	0.0029	0.0030	0.0030	0.0030
20 mph	0.0014	0.0016	0.0014	0.0016	0.0020	0.0021	0.0021	0.0021
25 mph	0.0011	0.0012	0.0011	0.0012	0.0015	0.0015	0.0015	0.0015
30 mph	0.0008	0.0009	0.0008	0.0009	0.0012	0.0012	0.0012	0.0012
35 mph	0.0007	0.0007	0.0007	0.0007	0.0010	0.0010	0.0010	0.0010
40 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0009	0.0009	0.0009
45 mph	0.0005	0.0006	0.0005	0.0006	0.0008	0.0008	0.0008	0.0008
50 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
55 mph	0.0005	0.0006	0.0005	0.0006	0.0007	0.0008	0.0008	0.0008
60 mph	0.0006	0.0006	0.0006	0.0006	0.0008	0.0008	0.0008	0.0008
65 mph	0.0006	0.0007	0.0006	0.0007	0.0009	0.0009		
70 mph	0.0007	0.0007	0.0007	0.0008	0.0010	0.0010		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.3801	0.4466	0.0013	0.0014
10 mph	0.0016	0.0130	0.0082	0.0021	0.0143	0.0143	0.0050	0.0099
15 mph	0.0014	0.0108	0.0072	0.0018	0.0119	0.0124	0.0043	0.0084
20 mph	0.0012	0.0088	0.0061	0.0015	0.0101	0.0106	0.0038	0.0073
25 mph	0.0010	0.0073	0.0052	0.0013	0.0085	0.0091	0.0035	0.0065
30 mph	0.0009	0.0062	0.0046	0.0012	0.0075	0.0080	0.0032	0.0060
35 mph	0.0008	0.0054	0.0042	0.0010	0.0068	0.0072	0.0030	0.0056
40 mph	0.0007	0.0049	0.0038	0.0010	0.0063	0.0066	0.0028	0.0052
45 mph	0.0007	0.0046	0.0035	0.0009	0.0059	0.0062	0.0026	0.0049
50 mph	0.0006	0.0043	0.0033	0.0008	0.0055	0.0058	0.0025	0.0046
55 mph	0.0006	0.0042	0.0031	0.0008	0.0053	0.0054	0.0023	0.0044
60 mph	0.0006	0.0042	0.0030	0.0008	0.0052	0.0053	0.0023	0.0043
65 mph	0.0006	0.0042	0.0030	0.0008	0.0054	0.0053		
70 mph	0.0006	0.0034	0.0030	0.0008	0.0065	0.0053		

*Idling emission factor - g/hour
Idling emission factor for LHDT1, LHDT2, MHDT, HHDT (Gas) 5 mph*5

PM2.5 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0424	0.0035	0.0157	0.0060	0.0028	0.0014	0.0011	0.0019	0.0749
15 mph	0.0113	0.0009	0.0042	0.0016	0.0007	0.0004	0.0003	0.0004	0.0198
20 mph	0.0158	0.0013	0.0058	0.0022	0.0010	0.0005	0.0004	0.0006	0.0277
25 mph	0.0581	0.0048	0.0215	0.0083	0.0039	0.0019	0.0014	0.0024	0.1024
30 mph	0.0497	0.0041	0.0184	0.0071	0.0033	0.0016	0.0010	0.0017	0.0870
35 mph	0.0334	0.0027	0.0123	0.0048	0.0022	0.0011	0.0004	0.0006	0.0575
40 mph	0.0096	0.0008	0.0036	0.0014	0.0006	0.0003	0.0004	0.0006	0.0173
45 mph	0.0074	0.0006	0.0027	0.0010	0.0005	0.0002	0.0003	0.0004	0.0132
50 mph	0.0071	0.0006	0.0026	0.0010	0.0005	0.0002	0.0004	0.0007	0.0131
55 mph	0.0058	0.0005	0.0021	0.0008	0.0004	0.0002	0.0001	0.0002	0.0101
60 mph	0.0124	0.0010	0.0046	0.0018	0.0008	0.0004	0.0001	0.0002	0.0213
65 mph	0.0018	0.0001	0.0006	0.0002	0.0001	0.0001	0.0000	0.0000	0.0030
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.2547	0.0210	0.0943	0.0362	0.0170	0.0084	0.0058	0.0098	0.4472

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0035	0.0003	0.0013	0.0010	0.0006	0.0003	0.0000	0.0000	0.0070
15 mph	0.0023	0.0002	0.0009	0.0007	0.0004	0.0002	0.0000	0.0000	0.0047
20 mph	0.0016	0.0001	0.0006	0.0005	0.0003	0.0001	0.0006	0.0011	0.0050
25 mph	0.0024	0.0002	0.0009	0.0007	0.0004	0.0002	0.0008	0.0014	0.0070
30 mph	0.0037	0.0003	0.0014	0.0011	0.0006	0.0003	0.0011	0.0018	0.0105
35 mph	0.0069	0.0006	0.0026	0.0021	0.0012	0.0006	0.0009	0.0015	0.0163
40 mph	0.0066	0.0005	0.0025	0.0020	0.0012	0.0006	0.0007	0.0012	0.0153
45 mph	0.0049	0.0004	0.0018	0.0014	0.0008	0.0004	0.0005	0.0008	0.0111
50 mph	0.0053	0.0004	0.0020	0.0016	0.0009	0.0005	0.0002	0.0004	0.0112
55 mph	0.0030	0.0002	0.0011	0.0009	0.0005	0.0003	0.0001	0.0002	0.0063
60 mph	0.0019	0.0002	0.0007	0.0006	0.0003	0.0002	0.0089	0.0149	0.0276
65 mph	0.0007	0.0001	0.0003	0.0002	0.0001	0.0001	0.0000	0.0000	0.0015
70 mph	0.0364	0.0029	0.0133	0.0108	0.0063	0.0031	0.0000	0.0000	0.0726
total	0.0793	0.0064	0.0292	0.0235	0.0137	0.0068	0.0139	0.0233	0.1961

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0013	0.0010	0.0017	0.0067
15 mph	0.0178	0.0015	0.0066	0.0023	0.0011	0.0006	0.0004	0.0007	0.0309
25 mph	0.0000	0.0000	0.0000	0.0000	0.0011	0.0006	0.0009	0.0015	0.0041
35 mph	0.0252	0.0021	0.0093	0.0030	0.0000	0.0000	0.0000	0.0000	0.0396
total	0.0430	0.0035	0.0159	0.0053	0.0050	0.0024	0.0023	0.0039	0.0814

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0027	0.0013	0.0010	0.0017	0.0067
10 mph	0.0459	0.0038	0.0170	0.0071	0.0034	0.0017	0.0011	0.0019	0.0819
15 mph	0.0314	0.0026	0.0116	0.0046	0.0023	0.0011	0.0007	0.0011	0.0554
20 mph	0.0174	0.0014	0.0064	0.0027	0.0013	0.0007	0.0010	0.0017	0.0326
25 mph	0.0605	0.0050	0.0224	0.0090	0.0054	0.0027	0.0032	0.0053	0.1135
30 mph	0.0535	0.0044	0.0198	0.0082	0.0040	0.0020	0.0021	0.0036	0.0974
35 mph	0.0655	0.0054	0.0242	0.0098	0.0034	0.0017	0.0013	0.0022	0.1135
40 mph	0.0163	0.0013	0.0060	0.0033	0.0018	0.0009	0.0011	0.0018	0.0326
45 mph	0.0122	0.0010	0.0045	0.0025	0.0013	0.0007	0.0007	0.0013	0.0242
50 mph	0.0124	0.0010	0.0046	0.0026	0.0014	0.0007	0.0006	0.0011	0.0244
55 mph	0.0088	0.0007	0.0032	0.0017	0.0009	0.0004	0.0002	0.0004	0.0164
60 mph	0.0144	0.0012	0.0053	0.0023	0.0012	0.0006	0.0090	0.0150	0.0490
65 mph	0.0025	0.0002	0.0009	0.0005	0.0002	0.0001	0.0000	0.0000	0.0044
70 mph	0.0364	0.0029	0.0133	0.0108	0.0063	0.0031	0.0000	0.0000	0.0726
total	0.3770	0.0309	0.1394	0.0651	0.0357	0.0176	0.0221	0.0369	0.7246

PM2.5 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0006	0.0004	0.0012	0.0001	0.0195	0.0094	0.0164	0.0545	0.1021
15 mph	0.0002	0.0001	0.0004	0.0000	0.0065	0.0033	0.0047	0.0154	0.0307
20 mph	0.0004	0.0002	0.0007	0.0001	0.0110	0.0056	0.0084	0.0268	0.0531
25 mph	0.0016	0.0009	0.0031	0.0003	0.0466	0.0238	0.0419	0.1308	0.2490
30 mph	0.0016	0.0008	0.0030	0.0002	0.0453	0.0232	0.0351	0.1095	0.2187
35 mph	0.0012	0.0006	0.0022	0.0002	0.0337	0.0171	0.0147	0.0459	0.1155
40 mph	0.0004	0.0002	0.0007	0.0001	0.0103	0.0052	0.0152	0.0478	0.0798
45 mph	0.0003	0.0001	0.0005	0.0000	0.0080	0.0041	0.0114	0.0360	0.0604
50 mph	0.0003	0.0001	0.0005	0.0000	0.0076	0.0038	0.0175	0.0547	0.0844
55 mph	0.0002	0.0001	0.0004	0.0000	0.0058	0.0029	0.0038	0.0121	0.0252
60 mph	0.0004	0.0002	0.0007	0.0001	0.0114	0.0056	0.0037	0.0117	0.0337
65 mph	0.0000	0.0000	0.0001	0.0000	0.0015	0.0007	0.0000	0.0000	0.0023
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0071	0.0037	0.0135	0.0011	0.2072	0.1046	0.1729	0.5451	1.0551

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0001	0.0000	0.0042	0.0020	0.0000	0.0000	0.0064
15 mph	0.0000	0.0000	0.0001	0.0000	0.0035	0.0017	0.0000	0.0000	0.0054
20 mph	0.0000	0.0000	0.0001	0.0000	0.0030	0.0015	0.0151	0.0483	0.0680
25 mph	0.0001	0.0000	0.0001	0.0000	0.0050	0.0026	0.0241	0.0750	0.1069
30 mph	0.0001	0.0001	0.0002	0.0000	0.0088	0.0045	0.0380	0.1184	0.1702
35 mph	0.0002	0.0001	0.0005	0.0001	0.0180	0.0092	0.0353	0.1102	0.1736
40 mph	0.0002	0.0001	0.0005	0.0001	0.0184	0.0094	0.0302	0.0947	0.1536
45 mph	0.0002	0.0001	0.0003	0.0001	0.0138	0.0069	0.0206	0.0648	0.1068
50 mph	0.0002	0.0001	0.0004	0.0001	0.0146	0.0073	0.0097	0.0303	0.0627
55 mph	0.0001	0.0001	0.0002	0.0000	0.0077	0.0038	0.0046	0.0146	0.0311
60 mph	0.0001	0.0000	0.0001	0.0000	0.0046	0.0022	0.3116	0.9817	1.3003
65 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0007	0.0000	0.0000	0.0024
70 mph	0.0009	0.0004	0.0017	0.0003	0.0875	0.0344	0.0000	0.0000	0.1252
total	0.0023	0.0011	0.0043	0.0007	0.1908	0.0864	0.4891	1.5382	2.3128

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0629	0.0355	0.0005	0.0009	0.0997
15 mph	0.0004	0.0002	0.0007	0.0001	0.0099	0.0050	0.0075	0.0246	0.0482
25 mph	0.0000	0.0000	0.0000	0.0000	0.0135	0.0069	0.0266	0.0828	0.1297
35 mph	0.0009	0.0004	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	0.0031
total	0.0012	0.0006	0.0023	0.0002	0.0862	0.0474	0.0345	0.1083	0.2807

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0629	0.0355	0.0005	0.0009	0.0997
10 mph	0.0007	0.0004	0.0013	0.0001	0.0237	0.0114	0.0164	0.0545	0.1085
15 mph	0.0006	0.0004	0.0012	0.0001	0.0198	0.0100	0.0122	0.0400	0.0843
20 mph	0.0004	0.0002	0.0008	0.0001	0.0140	0.0070	0.0235	0.0752	0.1212
25 mph	0.0017	0.0009	0.0032	0.0003	0.0651	0.0332	0.0926	0.2887	0.4856
30 mph	0.0017	0.0009	0.0032	0.0003	0.0542	0.0277	0.0731	0.2279	0.3889
35 mph	0.0023	0.0011	0.0043	0.0004	0.0517	0.0263	0.0499	0.1561	0.2922
40 mph	0.0006	0.0003	0.0011	0.0001	0.0288	0.0146	0.0454	0.1425	0.2334
45 mph	0.0005	0.0002	0.0009	0.0001	0.0218	0.0110	0.0320	0.1008	0.1673
50 mph	0.0004	0.0002	0.0009	0.0001	0.0222	0.0111	0.0272	0.0850	0.1471
55 mph	0.0003	0.0001	0.0006	0.0001	0.0135	0.0067	0.0084	0.0267	0.0563
60 mph	0.0004	0.0002	0.0008	0.0001	0.0160	0.0078	0.3153	0.9934	1.3340
65 mph	0.0001	0.0000	0.0001	0.0000	0.0030	0.0014	0.0000	0.0000	0.0047
70 mph	0.0009	0.0004	0.0017	0.0003	0.0875	0.0344	0.0000	0.0000	0.1252
total	0.0106	0.0054	0.0201	0.0020	0.4842	0.2383	0.6965	2.1916	3.6486

PM2.5 Emissions

Total PM2.5 Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00	0.11
10 mph	0.05	0.00	0.02	0.01	0.03	0.01	0.02	0.06	0.19
15 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.01	0.04	0.14
20 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.02	0.08	0.15
25 mph	0.06	0.01	0.03	0.01	0.07	0.04	0.10	0.29	0.60
30 mph	0.06	0.01	0.02	0.01	0.06	0.03	0.08	0.23	0.49
35 mph	0.07	0.01	0.03	0.01	0.06	0.03	0.05	0.16	0.41
40 mph	0.02	0.00	0.01	0.00	0.03	0.02	0.05	0.14	0.27
45 mph	0.01	0.00	0.01	0.00	0.02	0.01	0.03	0.10	0.19
50 mph	0.01	0.00	0.01	0.00	0.02	0.01	0.03	0.09	0.17
55 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.07
60 mph	0.01	0.00	0.01	0.00	0.02	0.01	0.32	1.01	1.38
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.04	0.00	0.01	0.01	0.09	0.04	0.00	0.00	0.20
total	0.39	0.04	0.16	0.07	0.52	0.26	0.72	2.23	**4.37**

PM2.5 Emissions

Brake and Tire Dust Emissions Factors - g/mi (EMFAC2014)

Gas

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03

Diesel

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.03
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	0.02	0.02	0.02	0.02	0.04	0.04	0.06	0.04

Electric

Source	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Brake	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Tires	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Brake and Tire Dust Emissions (pounds/day)

Surface Streets

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4.88	0.36	1.80	0.63	0.45	0.25	0.25	0.22
Diesel	0.14	0.01	0.05	0.02	0.98	0.54	3.23	3.24
Electric	2.07	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.10	0.52	1.86	0.64	1.43	0.79	3.48	3.47

Freeway

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	2.02	0.15	0.75	0.54	0.48	0.27	0.90	0.81
Diesel	0.06	0.00	0.02	0.01	1.05	0.58	11.64	11.69
Electric	0.85	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.93	0.22	0.77	0.56	1.53	0.85	12.55	12.50

Internal

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	0.82	0.06	0.30	0.09	0.04	0.02	0.04	0.04
Diesel	0.02	0.00	0.01	0.00	0.09	0.05	0.55	0.56
Electric	0.34	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.19	0.09	0.31	0.09	0.13	0.07	0.60	0.59

Total

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	Total
Gas	7.72	0.57	2.85	1.26	0.97	0.54	1.20	1.07	16.18
Diesel	0.22	0.02	0.08	0.03	2.11	1.17	15.42	15.49	34.56
Electric	3.27	0.24	0.00	0.00	0.00	0.00	0.00	0.00	3.51
Total	11.21	0.83	2.93	1.29	3.08	1.71	16.62	16.56	**54.24**

Paved Road Dust (pounds/day)

Source	PM2.5
Off-Site	197.98
Internal	7.25
Total	**205.23**

Black Carbon

percent of PM2.5 Exhaust

LDT1, LDT2, MDT	0.64
LHDT1, LDHT2, MHDT, HHDT	0.77

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.08
10 mph	0.03	0.00	0.01	0.00	0.02	0.01	0.01	0.04	0.14
15 mph	0.02	0.00	0.01	0.00	0.02	0.01	0.01	0.03	0.10
20 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.06	0.11
25 mph	0.04	0.00	0.02	0.01	0.05	0.03	0.07	0.23	0.45
30 mph	0.04	0.00	0.01	0.01	0.04	0.02	0.06	0.18	0.36
35 mph	0.04	0.00	0.02	0.01	0.04	0.02	0.04	0.12	0.30
40 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.04	0.11	0.20
45 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.03	0.08	0.14
50 mph	0.01	0.00	0.00	0.00	0.02	0.01	0.02	0.07	0.13
55 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.05
60 mph	0.01	0.00	0.00	0.00	0.01	0.01	0.25	0.78	1.06
65 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.02	0.00	0.01	0.01	0.07	0.03	0.00	0.00	0.14
total	0.25	0.02	0.10	0.04	0.40	0.20	0.55	1.72	3.28

World Logistics Center
2040 Medium EV Mitigated
N2O Emissions

EPA Emission Factors (g/mi) - N2O

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
10 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
15 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
20 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
25 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
30 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
35 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
40 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
45 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
50 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
55 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
60 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
65 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134
70 mph	0.0036	0.0066	0.0066	0.0066	0.0134	0.0134	0.0134	0.0134

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
10 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
15 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
20 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
25 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
30 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
35 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
40 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
45 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
50 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
55 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
60 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
65 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048
70 mph	0.0010	0.0015	0.0015	0.0048	0.0048	0.0048	0.0048	0.0048

*US EPA Emission Factors for Greenhouse Gas Inventories.
https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

N2O Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0495	0.0067	0.0335	0.0116	0.0087	0.0042	0.0034	0.0057	0.1234
15 mph	0.0198	0.0027	0.0134	0.0047	0.0035	0.0017	0.0011	0.0019	0.0487
20 mph	0.0396	0.0054	0.0268	0.0093	0.0069	0.0033	0.0023	0.0038	0.0975
25 mph	0.1982	0.0268	0.1341	0.0466	0.0346	0.0167	0.0125	0.0209	0.4904
30 mph	0.2180	0.0295	0.1475	0.0512	0.0381	0.0183	0.0114	0.0190	0.5331
35 mph	0.1783	0.0241	0.1207	0.0419	0.0312	0.0150	0.0051	0.0086	0.4250
40 mph	0.0594	0.0080	0.0402	0.0140	0.0104	0.0050	0.0057	0.0095	0.1523
45 mph	0.0495	0.0067	0.0335	0.0116	0.0087	0.0042	0.0046	0.0076	0.1264
50 mph	0.0495	0.0067	0.0335	0.0116	0.0087	0.0042	0.0074	0.0124	0.1340
55 mph	0.0396	0.0054	0.0268	0.0093	0.0069	0.0033	0.0017	0.0029	0.0960
60 mph	0.0793	0.0107	0.0537	0.0186	0.0139	0.0067	0.0017	0.0029	0.1874
65 mph	0.0099	0.0013	0.0067	0.0023	0.0017	0.0008	0.0000	0.0000	0.0228
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.9908	0.1340	0.6707	0.2329	0.1732	0.0833	0.0570	0.0951	2.4370

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0041	0.0006	0.0028	0.0020	0.0019	0.0009	0.0000	0.0000	0.0122
15 mph	0.0041	0.0006	0.0028	0.0020	0.0019	0.0009	0.0000	0.0000	0.0122
20 mph	0.0041	0.0006	0.0028	0.0020	0.0019	0.0009	0.0041	0.0069	0.0232
25 mph	0.0082	0.0011	0.0055	0.0040	0.0037	0.0018	0.0072	0.0120	0.0436
30 mph	0.0164	0.0022	0.0111	0.0080	0.0074	0.0036	0.0123	0.0206	0.0817
35 mph	0.0369	0.0050	0.0250	0.0181	0.0167	0.0080	0.0123	0.0206	0.1426
40 mph	0.0410	0.0055	0.0277	0.0201	0.0186	0.0089	0.0113	0.0189	0.1520
45 mph	0.0328	0.0044	0.0222	0.0161	0.0149	0.0071	0.0082	0.0137	0.1194
50 mph	0.0369	0.0050	0.0250	0.0181	0.0167	0.0080	0.0041	0.0069	0.1206
55 mph	0.0205	0.0028	0.0139	0.0101	0.0093	0.0045	0.0021	0.0034	0.0664
60 mph	0.0123	0.0017	0.0083	0.0060	0.0056	0.0027	0.1439	0.2400	0.4205
65 mph	0.0041	0.0006	0.0028	0.0020	0.0019	0.0009	0.0000	0.0000	0.0122
70 mph	0.1885	0.0255	0.1276	0.0925	0.0854	0.0411	0.0000	0.0000	0.5606
total	0.4097	0.0554	0.2773	0.2012	0.1857	0.0893	0.2056	0.3429	1.7672

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0010	0.0005	0.0004	0.0006	0.0025
15 mph	0.0313	0.0042	0.0212	0.0067	0.0053	0.0025	0.0018	0.0030	0.0761
25 mph	0.0000	0.0000	0.0000	0.0000	0.0100	0.0048	0.0079	0.0133	0.0360
35 mph	0.1348	0.0182	0.0912	0.0267	0.0000	0.0000	0.0000	0.0000	0.2709
total	0.1661	0.0225	0.1124	0.0334	0.0163	0.0078	0.0101	0.0169	0.3856

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0010	0.0005	0.0004	0.0006	0.0025
10 mph	0.0536	0.0073	0.0363	0.0137	0.0105	0.0051	0.0034	0.0057	0.1356
15 mph	0.0552	0.0075	0.0374	0.0134	0.0106	0.0051	0.0030	0.0049	0.1371
20 mph	0.0437	0.0059	0.0296	0.0113	0.0088	0.0042	0.0064	0.0107	0.1206
25 mph	0.2063	0.0279	0.1397	0.0506	0.0484	0.0232	0.0277	0.0462	0.5700
30 mph	0.2344	0.0317	0.1586	0.0593	0.0455	0.0219	0.0237	0.0396	0.6148
35 mph	0.3500	0.0473	0.2369	0.0867	0.0479	0.0230	0.0175	0.0291	0.8384
40 mph	0.1004	0.0136	0.0680	0.0341	0.0290	0.0139	0.0170	0.0284	0.3043
45 mph	0.0823	0.0111	0.0557	0.0277	0.0235	0.0113	0.0128	0.0213	0.2458
50 mph	0.0864	0.0117	0.0585	0.0298	0.0254	0.0122	0.0115	0.0192	0.2547
55 mph	0.0601	0.0081	0.0407	0.0194	0.0162	0.0078	0.0038	0.0063	0.1624
60 mph	0.0916	0.0124	0.0620	0.0247	0.0194	0.0093	0.1457	0.2429	0.6079
65 mph	0.0140	0.0019	0.0095	0.0043	0.0036	0.0017	0.0000	0.0000	0.0350
70 mph	0.1885	0.0255	0.1276	0.0925	0.0854	0.0411	0.0000	0.0000	0.5606
total	1.5665	0.2119	1.0604	0.4675	0.3753	0.1804	0.2728	0.4549	4.5897

N2O Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0004	0.0000	0.0002	0.0002	0.0066	0.0032	0.0158	0.0263	0.0528
15 mph	0.0002	0.0000	0.0001	0.0001	0.0026	0.0013	0.0053	0.0088	0.0183
20 mph	0.0003	0.0000	0.0002	0.0002	0.0053	0.0025	0.0105	0.0176	0.0366
25 mph	0.0016	0.0002	0.0009	0.0009	0.0263	0.0126	0.0579	0.0966	0.1970
30 mph	0.0018	0.0002	0.0010	0.0010	0.0289	0.0139	0.0527	0.0878	0.1872
35 mph	0.0014	0.0002	0.0008	0.0008	0.0236	0.0114	0.0237	0.0395	0.1014
40 mph	0.0005	0.0001	0.0003	0.0003	0.0079	0.0038	0.0263	0.0439	0.0830
45 mph	0.0004	0.0000	0.0002	0.0002	0.0066	0.0032	0.0211	0.0351	0.0668
50 mph	0.0004	0.0000	0.0002	0.0002	0.0066	0.0032	0.0342	0.0571	0.1019
55 mph	0.0003	0.0000	0.0002	0.0002	0.0053	0.0025	0.0079	0.0132	0.0296
60 mph	0.0006	0.0001	0.0004	0.0004	0.0105	0.0050	0.0079	0.0132	0.0381
65 mph	0.0001	0.0000	0.0000	0.0000	0.0013	0.0006	0.0000	0.0000	0.0021
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0080	0.0009	0.0044	0.0046	0.1313	0.0631	0.2633	0.4391	0.9147

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0007	0.0000	0.0000	0.0022
15 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0007	0.0000	0.0000	0.0022
20 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0007	0.0190	0.0317	0.0528
25 mph	0.0001	0.0000	0.0000	0.0001	0.0028	0.0014	0.0332	0.0554	0.0930
30 mph	0.0001	0.0000	0.0001	0.0002	0.0056	0.0027	0.0570	0.0950	0.1607
35 mph	0.0003	0.0000	0.0002	0.0004	0.0127	0.0061	0.0570	0.0950	0.1716
40 mph	0.0003	0.0000	0.0002	0.0004	0.0141	0.0068	0.0522	0.0871	0.1611
45 mph	0.0003	0.0000	0.0001	0.0003	0.0113	0.0054	0.0380	0.0633	0.1187
50 mph	0.0003	0.0000	0.0002	0.0004	0.0127	0.0061	0.0190	0.0317	0.0703
55 mph	0.0002	0.0000	0.0001	0.0002	0.0070	0.0034	0.0095	0.0158	0.0362
60 mph	0.0001	0.0000	0.0001	0.0001	0.0042	0.0020	0.6646	1.1081	1.7793
65 mph	0.0000	0.0000	0.0000	0.0000	0.0014	0.0007	0.0000	0.0000	0.0022
70 mph	0.0015	0.0002	0.0008	0.0018	0.0647	0.0311	0.0000	0.0000	0.1002
total	0.0033	0.0004	0.0018	0.0040	0.1407	0.0677	0.9494	1.5831	2.7503

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0029	0.0058
15 mph	0.0003	0.0000	0.0001	0.0001	0.0040	0.0019	0.0084	0.0140	0.0288
25 mph	0.0000	0.0000	0.0000	0.0000	0.0076	0.0036	0.0367	0.0612	0.1091
35 mph	0.0011	0.0001	0.0006	0.0005	0.0000	0.0000	0.0000	0.0000	0.0023
total	0.0013	0.0001	0.0007	0.0007	0.0124	0.0059	0.0468	0.0780	0.1460

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0008	0.0004	0.0017	0.0029	0.0058
10 mph	0.0004	0.0000	0.0002	0.0003	0.0080	0.0038	0.0158	0.0263	0.0549
15 mph	0.0004	0.0000	0.0002	0.0003	0.0080	0.0039	0.0137	0.0228	0.0493
20 mph	0.0004	0.0000	0.0002	0.0002	0.0067	0.0032	0.0295	0.0492	0.0894
25 mph	0.0017	0.0002	0.0009	0.0010	0.0366	0.0176	0.1278	0.2132	0.3991
30 mph	0.0019	0.0002	0.0010	0.0012	0.0345	0.0166	0.1096	0.1828	0.3478
35 mph	0.0028	0.0003	0.0016	0.0017	0.0363	0.0174	0.0807	0.1345	0.2753
40 mph	0.0008	0.0001	0.0004	0.0007	0.0219	0.0106	0.0785	0.1310	0.2440
45 mph	0.0007	0.0001	0.0004	0.0006	0.0178	0.0086	0.0590	0.0984	0.1855
50 mph	0.0007	0.0001	0.0004	0.0006	0.0192	0.0092	0.0532	0.0887	0.1722
55 mph	0.0005	0.0001	0.0003	0.0004	0.0123	0.0059	0.0174	0.0290	0.0658
60 mph	0.0007	0.0001	0.0004	0.0005	0.0147	0.0071	0.6725	1.1213	1.8173
65 mph	0.0001	0.0000	0.0001	0.0001	0.0027	0.0013	0.0000	0.0000	0.0043
70 mph	0.0015	0.0002	0.0008	0.0018	0.0647	0.0311	0.0000	0.0000	0.1002
total	0.0126	0.0014	0.0070	0.0093	0.2843	0.1367	1.2595	2.1001	3.8110

N2O Emissions

Total N2O RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10 mph	0.05	0.01	0.04	0.01	0.02	0.01	0.02	0.03	0.19
15 mph	0.06	0.01	0.04	0.01	0.02	0.01	0.02	0.03	0.19
20 mph	0.04	0.01	0.03	0.01	0.02	0.01	0.04	0.06	0.21
25 mph	0.21	0.03	0.14	0.05	0.08	0.04	0.16	0.26	0.97
30 mph	0.24	0.03	0.16	0.06	0.08	0.04	0.13	0.22	0.96
35 mph	0.35	0.05	0.24	0.09	0.08	0.04	0.10	0.16	1.11
40 mph	0.10	0.01	0.07	0.03	0.05	0.02	0.10	0.16	0.55
45 mph	0.08	0.01	0.06	0.03	0.04	0.02	0.07	0.12	0.43
50 mph	0.09	0.01	0.06	0.03	0.04	0.02	0.06	0.11	0.43
55 mph	0.06	0.01	0.04	0.02	0.03	0.01	0.02	0.04	0.23
60 mph	0.09	0.01	0.06	0.03	0.03	0.02	0.82	1.36	2.43
65 mph	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.04
70 mph	0.19	0.03	0.13	0.09	0.15	0.07	0.00	0.00	0.66
total	1.58	0.21	1.07	0.48	0.66	0.32	1.53	2.56	**8.40**

World Logistics Center
2040 Medium EV Mitigated
CH4 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CH4

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	3.9751	3.5446	8.6070	4.3502
10 mph	0.0065	0.0086	0.0084	0.0123	0.0067	0.0055	0.0154	0.5464
15 mph	0.0043	0.0057	0.0056	0.0081	0.0044	0.0037	0.0102	0.3632
20 mph	0.0030	0.0040	0.0039	0.0057	0.0031	0.0026	0.0071	0.2542
25 mph	0.0022	0.0029	0.0029	0.0042	0.0023	0.0019	0.0053	0.1878
30 mph	0.0017	0.0023	0.0022	0.0033	0.0018	0.0015	0.0041	0.1464
35 mph	0.0014	0.0019	0.0018	0.0027	0.0015	0.0012	0.0034	0.1203
40 mph	0.0012	0.0016	0.0016	0.0024	0.0013	0.0011	0.0029	0.1043
45 mph	0.0011	0.0015	0.0015	0.0022	0.0012	0.0010	0.0027	0.0954
50 mph	0.0011	0.0014	0.0014	0.0021	0.0011	0.0009	0.0026	0.0921
55 mph	0.0011	0.0014	0.0014	0.0021	0.0012	0.0009	0.0026	0.0937
60 mph	0.0012	0.0015	0.0015	0.0023	0.0012	0.0010	0.0028	0.1007
65 mph	0.0013	0.0017	0.0017	0.0026	0.0014	0.0012		
70 mph	0.0015	0.0018	0.0019	0.0029	0.0016	0.0013		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.0000	0.0000	0.0000	0.0000	0.1474	0.1474	0.0075	0.0237
10 mph	0.0028	0.0093	0.0091	0.0033	0.0263	0.0259	0.0089	0.0221
15 mph	0.0013	0.0047	0.0045	0.0016	0.0130	0.0127	0.0063	0.0154
20 mph	0.0005	0.0019	0.0017	0.0006	0.0052	0.0049	0.0046	0.0109
25 mph	0.0003	0.0012	0.0010	0.0004	0.0032	0.0030	0.0033	0.0079
30 mph	0.0002	0.0009	0.0008	0.0003	0.0024	0.0022	0.0025	0.0058
35 mph	0.0002	0.0007	0.0006	0.0002	0.0019	0.0018	0.0018	0.0043
40 mph	0.0002	0.0006	0.0005	0.0002	0.0016	0.0015	0.0013	0.0032
45 mph	0.0001	0.0005	0.0004	0.0002	0.0014	0.0013	0.0010	0.0023
50 mph	0.0001	0.0004	0.0004	0.0001	0.0012	0.0011	0.0007	0.0017
55 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0010	0.0005	0.0013
60 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009	0.0005	0.0011
65 mph	0.0001	0.0004	0.0003	0.0001	0.0011	0.0009		
70 mph	0.0001	0.0003	0.0003	0.0001	0.0014	0.0009		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CH4 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0891	0.0087	0.0427	0.0217	0.0043	0.0017	0.0039	0.2327	0.4049
15 mph	0.0237	0.0023	0.0113	0.0057	0.0011	0.0005	0.0009	0.0516	0.0971
20 mph	0.0332	0.0033	0.0159	0.0081	0.0016	0.0006	0.0012	0.0722	0.1360
25 mph	0.1223	0.0120	0.0585	0.0299	0.0059	0.0024	0.0049	0.2933	0.5291
30 mph	0.1046	0.0102	0.0500	0.0257	0.0051	0.0020	0.0035	0.2077	0.4088
35 mph	0.0702	0.0068	0.0335	0.0173	0.0034	0.0014	0.0013	0.0768	0.2107
40 mph	0.0203	0.0020	0.0097	0.0050	0.0010	0.0004	0.0012	0.0740	0.1136
45 mph	0.0155	0.0015	0.0074	0.0038	0.0008	0.0003	0.0009	0.0542	0.0843
50 mph	0.0149	0.0014	0.0071	0.0037	0.0007	0.0003	0.0014	0.0849	0.1145
55 mph	0.0122	0.0012	0.0058	0.0030	0.0006	0.0002	0.0003	0.0200	0.0433
60 mph	0.0261	0.0025	0.0124	0.0064	0.0013	0.0005	0.0004	0.0214	0.0711
65 mph	0.0037	0.0004	0.0018	0.0009	0.0002	0.0001	0.0000	0.0000	0.0070
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.5357	0.0521	0.2561	0.1312	0.0260	0.0103	0.0200	1.1888	2.2202

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0074	0.0007	0.0035	0.0037	0.0009	0.0004	0.0000	0.0000	0.0167
15 mph	0.0049	0.0005	0.0023	0.0025	0.0006	0.0002	0.0000	0.0000	0.0111
20 mph	0.0034	0.0003	0.0016	0.0017	0.0004	0.0002	0.0022	0.1301	0.1400
25 mph	0.0051	0.0005	0.0024	0.0026	0.0006	0.0003	0.0028	0.1682	0.1825
30 mph	0.0079	0.0008	0.0038	0.0040	0.0010	0.0004	0.0038	0.2247	0.2463
35 mph	0.0145	0.0014	0.0069	0.0075	0.0018	0.0007	0.0031	0.1846	0.2206
40 mph	0.0140	0.0013	0.0067	0.0072	0.0018	0.0007	0.0025	0.1468	0.1809
45 mph	0.0102	0.0010	0.0049	0.0053	0.0013	0.0005	0.0016	0.0977	0.1225
50 mph	0.0111	0.0011	0.0053	0.0057	0.0014	0.0006	0.0008	0.0471	0.0731
55 mph	0.0063	0.0006	0.0030	0.0032	0.0008	0.0003	0.0004	0.0240	0.0386
60 mph	0.0041	0.0004	0.0019	0.0021	0.0005	0.0002	0.0305	1.8036	1.8432
65 mph	0.0015	0.0001	0.0007	0.0008	0.0002	0.0001	0.0000	0.0000	0.0035
70 mph	0.0767	0.0069	0.0358	0.0403	0.0101	0.0038	0.0000	0.0000	0.1736
total	0.1670	0.0156	0.0789	0.0867	0.0216	0.0084	0.0477	2.8268	3.2526

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3110	0.1333	0.2393	0.2014	0.8850
15 mph	0.0374	0.0037	0.0179	0.0083	0.0017	0.0007	0.0014	0.0821	0.1532
25 mph	0.0000	0.0000	0.0000	0.0000	0.0017	0.0007	0.0031	0.1858	0.1913
35 mph	0.0530	0.0051	0.0253	0.0110	0.0000	0.0000	0.0000	0.0000	0.0945
total	0.0905	0.0088	0.0432	0.0193	0.3144	0.1347	0.2438	0.4692	1.3239

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.3110	0.1333	0.2393	0.2014	0.8850
10 mph	0.0965	0.0094	0.0462	0.0254	0.0053	0.0021	0.0039	0.2327	0.4215
15 mph	0.0660	0.0065	0.0316	0.0165	0.0035	0.0014	0.0023	0.1336	0.2613
20 mph	0.0366	0.0036	0.0175	0.0098	0.0020	0.0008	0.0034	0.2023	0.2760
25 mph	0.1273	0.0124	0.0609	0.0325	0.0082	0.0033	0.0109	0.6473	0.9029
30 mph	0.1124	0.0109	0.0538	0.0297	0.0061	0.0024	0.0073	0.4324	0.6550
35 mph	0.1377	0.0133	0.0657	0.0358	0.0053	0.0021	0.0044	0.2614	0.5257
40 mph	0.0343	0.0033	0.0163	0.0122	0.0028	0.0011	0.0037	0.2208	0.2945
45 mph	0.0257	0.0025	0.0123	0.0091	0.0021	0.0008	0.0026	0.1518	0.2068
50 mph	0.0260	0.0025	0.0124	0.0094	0.0021	0.0008	0.0022	0.1321	0.1876
55 mph	0.0185	0.0018	0.0088	0.0062	0.0014	0.0006	0.0007	0.0439	0.0819
60 mph	0.0302	0.0029	0.0144	0.0085	0.0018	0.0007	0.0308	1.8250	1.9143
65 mph	0.0052	0.0005	0.0025	0.0017	0.0004	0.0001	0.0000	0.0000	0.0104
70 mph	0.0767	0.0069	0.0358	0.0403	0.0101	0.0038	0.0000	0.0000	0.1736
total	0.7931	0.0765	0.3782	0.2372	0.3620	0.1534	0.3116	4.4848	6.7966

CH4 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0011	0.0003	0.0013	0.0002	0.0360	0.0171	0.0294	0.1210	0.2064
15 mph	0.0002	0.0001	0.0003	0.0000	0.0071	0.0033	0.0069	0.0282	0.0461
20 mph	0.0002	0.0000	0.0002	0.0000	0.0057	0.0026	0.0100	0.0400	0.0587
25 mph	0.0005	0.0001	0.0006	0.0001	0.0173	0.0078	0.0403	0.1580	0.2247
30 mph	0.0004	0.0001	0.0005	0.0001	0.0145	0.0065	0.0270	0.1058	0.1550
35 mph	0.0003	0.0001	0.0003	0.0000	0.0096	0.0042	0.0089	0.0352	0.0586
40 mph	0.0001	0.0000	0.0001	0.0000	0.0027	0.0012	0.0073	0.0289	0.0402
45 mph	0.0001	0.0000	0.0001	0.0000	0.0019	0.0008	0.0043	0.0171	0.0243
50 mph	0.0000	0.0000	0.0001	0.0000	0.0017	0.0007	0.0052	0.0203	0.0280
55 mph	0.0000	0.0000	0.0000	0.0000	0.0012	0.0005	0.0009	0.0035	0.0062
60 mph	0.0001	0.0000	0.0001	0.0000	0.0023	0.0010	0.0008	0.0030	0.0072
65 mph	0.0000	0.0000	0.0000	0.0000	0.0003	0.0001	0.0000	0.0000	0.0004
70 mph	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
total	0.0029	0.0008	0.0036	0.0004	0.1003	0.0458	0.1409	0.5611	0.8559

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10 mph	0.0001	0.0000	0.0001	0.0000	0.0077	0.0037	0.0000	0.0000	0.0116
15 mph	0.0000	0.0000	0.0001	0.0000	0.0038	0.0018	0.0000	0.0000	0.0057
20 mph	0.0000	0.0000	0.0000	0.0000	0.0015	0.0007	0.0180	0.0721	0.0924
25 mph	0.0000	0.0000	0.0000	0.0000	0.0019	0.0008	0.0231	0.0906	0.1165
30 mph	0.0000	0.0000	0.0000	0.0000	0.0028	0.0013	0.0292	0.1145	0.1479
35 mph	0.0001	0.0000	0.0001	0.0000	0.0051	0.0023	0.0215	0.0845	0.1136
40 mph	0.0001	0.0000	0.0001	0.0000	0.0048	0.0021	0.0145	0.0573	0.0788
45 mph	0.0000	0.0000	0.0000	0.0000	0.0033	0.0014	0.0078	0.0308	0.0434
50 mph	0.0000	0.0000	0.0000	0.0000	0.0033	0.0014	0.0029	0.0113	0.0189
55 mph	0.0000	0.0000	0.0000	0.0000	0.0016	0.0007	0.0011	0.0042	0.0076
60 mph	0.0000	0.0000	0.0000	0.0000	0.0009	0.0004	0.0635	0.2514	0.3163
65 mph	0.0000	0.0000	0.0000	0.0000	0.0003	0.0001	0.0000	0.0000	0.0005
70 mph	0.0001	0.0000	0.0002	0.0000	0.0188	0.0060	0.0000	0.0000	0.0253
total	0.0006	0.0001	0.0007	0.0002	0.0559	0.0226	0.1815	0.7167	0.9783

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0244	0.0117	0.0027	0.0142	0.0530
15 mph	0.0003	0.0001	0.0004	0.0000	0.0108	0.0051	0.0110	0.0449	0.0726
25 mph	0.0000	0.0000	0.0000	0.0000	0.0050	0.0023	0.0255	0.1001	0.1328
35 mph	0.0002	0.0001	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005
total	0.0005	0.0001	0.0007	0.0001	0.0402	0.0190	0.0392	0.1591	0.2590

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.0000	0.0000	0.0000	0.0000	0.0244	0.0117	0.0027	0.0142	0.0530
10 mph	0.0012	0.0003	0.0015	0.0002	0.0437	0.0207	0.0294	0.1210	0.2180
15 mph	0.0006	0.0002	0.0007	0.0001	0.0217	0.0102	0.0179	0.0731	0.1245
20 mph	0.0002	0.0000	0.0002	0.0000	0.0072	0.0033	0.0280	0.1121	0.1511
25 mph	0.0005	0.0001	0.0006	0.0001	0.0242	0.0109	0.0888	0.3487	0.4740
30 mph	0.0004	0.0001	0.0005	0.0001	0.0174	0.0078	0.0561	0.2203	0.3028
35 mph	0.0005	0.0001	0.0006	0.0001	0.0147	0.0065	0.0304	0.1197	0.1728
40 mph	0.0001	0.0000	0.0002	0.0000	0.0074	0.0032	0.0218	0.0861	0.1190
45 mph	0.0001	0.0000	0.0001	0.0000	0.0052	0.0022	0.0121	0.0479	0.0676
50 mph	0.0001	0.0000	0.0001	0.0000	0.0050	0.0021	0.0080	0.0316	0.0469
55 mph	0.0000	0.0000	0.0001	0.0000	0.0028	0.0012	0.0019	0.0077	0.0138
60 mph	0.0001	0.0000	0.0001	0.0000	0.0033	0.0013	0.0643	0.2544	0.3235
65 mph	0.0000	0.0000	0.0000	0.0000	0.0006	0.0002	0.0000	0.0000	0.0009
70 mph	0.0001	0.0000	0.0002	0.0000	0.0188	0.0060	0.0000	0.0000	0.0253
total	0.0041	0.0011	0.0049	0.0007	0.1964	0.0875	0.3616	1.4369	2.0931

CH4 Emissions

Total CH4 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.34	0.15	0.24	0.22	0.94
10 mph	0.10	0.01	0.05	0.03	0.05	0.02	0.03	0.35	0.64
15 mph	0.07	0.01	0.03	0.02	0.03	0.01	0.02	0.21	0.39
20 mph	0.04	0.00	0.02	0.01	0.01	0.00	0.03	0.31	0.43
25 mph	0.13	0.01	0.06	0.03	0.03	0.01	0.10	1.00	1.38
30 mph	0.11	0.01	0.05	0.03	0.02	0.01	0.06	0.65	0.96
35 mph	0.14	0.01	0.07	0.04	0.02	0.01	0.03	0.38	0.70
40 mph	0.03	0.00	0.02	0.01	0.01	0.00	0.03	0.31	0.41
45 mph	0.03	0.00	0.01	0.01	0.01	0.00	0.01	0.20	0.27
50 mph	0.03	0.00	0.01	0.01	0.01	0.00	0.01	0.16	0.23
55 mph	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.05	0.10
60 mph	0.03	0.00	0.01	0.01	0.01	0.00	0.10	2.08	2.24
65 mph	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70 mph	0.08	0.01	0.04	0.04	0.03	0.01	0.00	0.00	0.20
total	0.80	0.08	0.38	0.24	0.56	0.24	0.67	5.92	**8.89**

World Logistics Center
2040 Medium EV Mitigated
CO2 Emissions

EMFAC2014 RUNEX Emission Factors (g/mi) - CO2

GAS

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	4,436.77	5,082.76	13,319.96	18,944.56
10 mph	453.37	498.75	562.92	749.83	1,273.21	1,421.78	3,120.06	3,213.67
15 mph	349.08	384.15	433.26	576.76	884.06	1,000.13	2,150.74	2,318.18
20 mph	278.91	306.89	346.19	460.91	767.72	875.30	1,512.14	1,872.96
25 mph	231.24	254.25	287.01	382.23	703.63	791.48	1,320.44	1,762.01
30 mph	198.97	218.56	246.97	329.08	638.66	715.38	1,213.44	1,677.62
35 mph	177.67	194.91	220.56	294.09	638.78	715.38	1,120.31	1,608.97
40 mph	164.73	180.66	204.50	272.71	636.41	699.04	1,042.28	1,550.76
45 mph	158.54	173.85	196.79	262.45	633.52	682.56	968.44	1,516.65
50 mph	158.34	173.52	196.53	262.19	668.12	711.58	905.92	1,497.80
55 mph	164.16	179.95	203.78	271.87	703.92	743.97	880.92	1,469.61
60 mph	176.64	193.67	219.25	292.42	714.26	751.76	886.39	1,449.04
65 mph	197.20	215.90	244.76	326.70	724.00	759.14		
70 mph	211.26	229.17	262.04	351.75	718.35	743.75		

Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Idle	0.00	0.00	0.00	0.00	3,586.55	5,720.08	6,413.50	5,603.63
10 mph	396.09	442.60	488.14	611.90	951.54	1,054.49	1,869.86	2,467.17
15 mph	325.82	367.38	404.72	518.99	621.07	701.90	1,568.87	2,068.72
20 mph	267.27	301.70	332.51	431.01	529.51	598.68	1,370.17	1,809.40
25 mph	224.01	252.30	278.73	364.39	469.55	533.51	1,264.29	1,665.21
30 mph	193.99	217.41	240.97	314.64	426.47	481.15	1,196.64	1,575.38
35 mph	175.33	195.33	217.42	285.39	426.60	481.17	1,142.85	1,504.07
40 mph	164.06	182.13	202.91	266.93	414.98	463.60	1,097.63	1,442.16
45 mph	158.48	175.58	195.64	256.88	404.82	445.64	1,060.68	1,393.38
50 mph	158.88	175.52	195.94	258.14	424.43	462.06	1,027.92	1,348.31
55 mph	166.26	183.73	204.90	272.45	443.40	478.24	998.94	1,308.66
60 mph	180.25	199.13	221.94	295.02	447.78	479.91	984.75	1,287.33
65 mph	202.61	222.61	249.22	331.17	453.71	481.18		
70 mph	218.85	234.13	268.65	356.15	450.48	475.58		

*Idling emission factor - g/hour
Idling emission factor for HHDT (Gas) 5 mph*5

CO2 Emissions (pounds/day) - Gas

Surface Street Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	6,238.63	506.36	2,860.12	1,323.10	822.95	441.83	796.77	1,368.44	14,358.20
15 mph	1,921.42	156.00	880.54	407.08	228.57	124.32	183.08	329.04	4,230.05
20 mph	3,070.32	249.26	1,407.15	650.63	396.98	217.60	257.44	531.70	6,781.08
25 mph	12,727.79	1,032.52	5,833.07	2,697.85	1,819.20	983.83	1,236.41	2,751.09	29,081.76
30 mph	12,046.62	976.31	5,521.28	2,554.91	1,816.33	978.15	1,032.93	2,381.20	27,307.74
35 mph	8,801.58	712.39	4,034.35	1,868.15	1,486.38	800.31	429.14	1,027.70	19,160.00
40 mph	2,720.14	220.10	1,246.82	577.45	493.62	260.68	443.61	1,100.57	7,062.99
45 mph	2,181.54	176.50	999.87	463.09	409.48	212.11	329.75	861.09	5,633.44
50 mph	2,178.81	176.16	998.53	462.64	431.85	221.13	501.25	1,381.89	6,352.25
55 mph	1,807.12	146.16	828.31	383.77	363.99	184.96	112.48	312.89	4,139.68
60 mph	3,889.03	314.61	1,782.33	825.57	738.67	373.78	113.18	308.51	8,345.69
65 mph	542.71	43.84	248.72	115.29	93.59	47.18	0.00	0.00	1,091.34
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	58,125.70	4,710.22	26,641.09	12,329.55	9,101.61	4,845.88	5,436.04	12,354.13	133,544.21

Freeway Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	515.97	41.88	236.55	228.54	176.47	94.74	0.00	0.00	1,294.15
15 mph	397.28	32.26	182.06	175.79	122.53	66.65	0.00	0.00	976.57
20 mph	317.42	25.77	145.47	140.48	106.41	58.33	464.10	958.52	2,216.49
25 mph	526.33	42.70	241.21	233.00	195.05	105.48	709.21	1,578.03	3,631.01
30 mph	905.75	73.41	415.13	401.19	354.08	190.68	1,117.27	2,575.63	6,033.13
35 mph	1,819.85	147.30	834.16	806.71	796.83	429.04	1,031.52	2,470.25	8,335.65
40 mph	1,874.75	151.70	859.33	831.18	882.07	465.82	879.70	2,182.47	8,127.02
45 mph	1,443.40	116.78	661.56	639.92	702.46	363.87	594.46	1,552.34	6,074.78
50 mph	1,621.80	131.13	743.26	719.20	833.43	426.75	278.04	766.52	5,520.13
55 mph	934.12	75.55	428.16	414.31	487.83	247.88	135.18	376.05	3,099.07
60 mph	603.08	48.79	276.39	267.38	296.99	150.28	9,521.65	25,954.81	37,119.38
65 mph	224.42	18.13	102.85	99.57	100.35	50.59	0.00	0.00	595.91
70 mph	11,059.62	885.16	5,065.10	4,931.58	4,579.98	2,279.81	0.00	0.00	28,801.24
total	22,243.79	1,790.53	10,191.22	9,888.85	9,634.47	4,929.93	14,731.12	38,414.61	111,824.53

Internal Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	347.08	191.17	370.30	877.09	1,785.64
15 mph	3,037.13	246.59	1,391.84	589.13	347.23	188.86	291.46	523.84	6,616.10
25 mph	0.00	0.00	0.00	0.00	524.87	283.85	783.05	1,742.33	3,334.10
35 mph	6,651.12	538.33	3,048.65	1,187.72	0.00	0.00	0.00	0.00	11,425.82
total	9,688.25	784.92	4,440.49	1,776.86	1,219.18	663.88	1,444.81	3,143.26	23,161.65

Total Emissions Gas

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	347.08	191.17	370.30	877.09	1,785.64
10 mph	6,754.60	548.23	3,096.67	1,551.64	999.42	536.57	796.77	1,368.44	15,652.34
15 mph	5,355.83	434.85	2,454.44	1,172.01	698.33	379.82	474.54	852.88	11,822.71
20 mph	3,387.74	275.02	1,552.62	791.11	503.39	275.93	721.54	1,490.21	8,997.57
25 mph	13,254.12	1,075.22	6,074.29	2,930.85	2,539.12	1,373.16	2,728.66	6,071.46	36,046.87
30 mph	12,952.37	1,049.72	5,936.41	2,956.11	2,170.41	1,168.84	2,150.19	4,956.84	33,340.88
35 mph	17,272.55	1,398.01	7,917.16	3,862.59	2,283.20	1,229.35	1,460.66	3,497.94	38,921.47
40 mph	4,594.89	371.80	2,106.15	1,408.63	1,375.69	726.50	1,323.31	3,283.04	15,190.01
45 mph	3,624.95	293.29	1,661.43	1,103.01	1,111.94	575.98	924.21	2,413.43	11,708.22
50 mph	3,800.61	307.29	1,741.79	1,181.84	1,265.28	647.88	779.29	2,148.41	11,872.38
55 mph	2,741.24	221.71	1,256.46	798.08	851.82	432.84	247.67	688.94	7,238.75
60 mph	4,492.11	363.39	2,058.72	1,092.95	1,035.67	524.07	9,634.83	26,263.32	45,465.07
65 mph	767.13	61.97	351.57	214.86	193.94	97.77	0.00	0.00	1,687.25
70 mph	11,059.62	885.16	5,065.10	4,931.58	4,579.98	2,279.81	0.00	0.00	28,801.24
total	90,057.73	7,285.67	41,272.81	23,995.26	19,955.26	10,439.68	21,611.97	53,912.00	268,530.39

CO2 Emissions (pounds/day) - Diesel

Surface Street Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	157.98	13.02	71.89	29.58	1,300.97	693.15	6,154.55	13,540.68	21,961.83
15 mph	51.98	4.32	23.84	10.04	339.66	184.55	1,721.29	3,784.61	6,120.29
20 mph	85.28	7.10	39.17	16.67	579.16	314.83	3,006.57	6,620.41	10,669.20
25 mph	357.38	29.70	164.20	70.46	2,567.92	1,402.78	15,258.32	33,510.47	53,361.22
30 mph	340.45	28.15	156.14	66.93	2,565.53	1,391.62	13,129.01	28,820.80	46,498.63
35 mph	251.75	20.69	115.27	49.67	2,099.71	1,138.63	5,642.45	12,382.23	21,700.40
40 mph	78.52	6.43	35.86	15.49	680.84	365.69	6,021.36	13,191.77	20,395.96
45 mph	63.21	5.17	28.81	12.42	553.48	292.93	4,654.89	10,196.43	15,807.34
50 mph	63.37	5.17	28.86	12.48	580.29	303.72	7,330.63	16,033.35	24,357.86
55 mph	53.05	4.33	24.14	10.54	484.99	251.49	1,643.99	3,591.20	6,063.71
60 mph	115.03	9.38	52.30	22.82	979.54	504.73	1,620.64	3,532.66	6,837.09
65 mph	16.16	1.31	7.34	3.20	124.06	63.26	0.00	0.00	215.34
70 mph	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
total	1,634.18	134.77	747.82	320.29	12,856.15	6,907.38	66,183.69	145,204.60	233,988.87

Freeway Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 mph	13.07	1.08	5.95	5.11	278.97	148.63	0.00	0.00	452.81
15 mph	10.75	0.89	4.93	4.33	182.08	98.94	0.00	0.00	301.93
20 mph	8.82	0.73	4.05	3.60	155.24	84.39	5,420.11	11,934.97	17,611.90
25 mph	14.78	1.23	6.79	6.09	275.33	150.40	8,752.22	19,221.71	28,428.55
30 mph	25.60	2.12	11.74	10.51	500.13	271.28	14,201.02	31,174.08	46,196.46
35 mph	52.05	4.28	23.83	21.45	1,125.62	610.41	13,562.59	29,762.81	45,163.05
40 mph	54.12	4.43	24.71	22.29	1,216.63	653.47	11,940.53	26,159.65	40,075.83
45 mph	41.82	3.42	19.06	17.16	949.47	502.52	8,391.62	18,381.66	28,306.73
50 mph	47.17	3.84	21.48	19.40	1,119.91	586.16	4,066.25	8,893.59	14,757.81
55 mph	27.42	2.24	12.48	11.38	649.98	337.05	1,975.80	4,316.03	7,332.37
60 mph	17.84	1.45	8.11	7.39	393.84	202.93	136,341.77	297,197.32	434,170.66
65 mph	6.68	0.54	3.04	2.77	133.02	67.82	0.00	0.00	213.87
70 mph	332.09	26.21	150.52	136.80	6,075.35	3,083.61	0.00	0.00	9,804.58
total	652.20	52.47	296.69	268.27	13,055.59	6,797.61	204,651.91	447,041.81	672,816.55

Internal Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	593.48	455.07	2,298.04	3,348.00	6,694.59
15 mph	82.17	6.84	37.69	14.52	515.99	280.36	2,740.31	6,025.14	9,703.02
25 mph	0.00	0.00	0.00	0.00	740.89	404.73	9,663.48	21,223.02	32,032.11
35 mph	190.24	15.64	87.11	31.58	0.00	0.00	0.00	0.00	324.56
total	272.41	22.47	124.79	46.10	1,850.36	1,140.16	14,701.83	30,596.15	48,754.28

Total Emissions Diesel

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	593.48	455.07	2,298.04	3,348.00	6,694.59
10 mph	171.05	14.10	77.83	34.69	1,579.94	841.78	6,154.55	13,540.68	22,414.63
15 mph	144.90	12.05	66.46	28.89	1,037.73	563.85	4,461.60	9,809.75	16,125.23
20 mph	94.10	7.84	43.22	20.27	734.40	399.21	8,426.68	18,555.38	28,281.10
25 mph	372.16	30.93	170.99	76.55	3,584.13	1,957.91	33,674.02	73,955.20	113,821.88
30 mph	366.05	30.27	167.88	77.44	3,065.66	1,662.90	27,330.02	59,994.88	92,695.09
35 mph	494.04	40.61	226.21	102.69	3,225.33	1,749.04	19,205.04	42,145.04	67,188.01
40 mph	132.65	10.86	60.57	37.77	1,897.47	1,019.15	17,961.89	39,351.42	60,471.79
45 mph	105.03	8.59	47.88	29.58	1,502.95	795.45	13,046.51	28,578.09	44,114.07
50 mph	110.54	9.01	50.34	31.88	1,700.21	889.89	11,396.88	24,926.94	39,115.67
55 mph	80.47	6.56	36.62	21.91	1,134.97	588.54	3,619.79	7,907.22	13,396.08
60 mph	132.87	10.83	60.41	30.21	1,373.38	707.67	137,962.41	300,729.98	441,007.76
65 mph	22.85	1.85	10.38	5.97	257.08	131.08	0.00	0.00	429.21
70 mph	332.09	26.21	150.52	136.80	6,075.35	3,083.61	0.00	0.00	9,804.58
total	2,558.79	209.71	1,169.31	634.65	27,762.09	14,845.15	285,537.44	622,842.57	955,559.70

CO2 Emissions

Total CO2 RUNEX Emissions (pounds/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	total
Idle (hours)	0.00	0.00	0.00	0.00	940.56	646.24	2,668.34	4,225.09	8,480.23
10 mph	6,925.64	562.34	3,174.50	1,586.33	2,579.36	1,378.35	6,951.33	14,909.12	38,066.98
15 mph	5,500.72	446.91	2,520.90	1,200.90	1,736.06	943.67	4,936.15	10,662.63	27,947.94
20 mph	3,481.84	282.86	1,595.85	811.38	1,237.79	675.15	9,148.21	20,045.59	37,278.66
25 mph	13,626.28	1,106.15	6,245.27	3,007.39	6,123.25	3,331.07	36,402.68	80,026.65	149,868.75
30 mph	13,318.42	1,079.99	6,104.29	3,033.54	5,236.07	2,831.73	29,480.22	64,951.72	126,035.97
35 mph	17,766.59	1,438.62	8,143.37	3,965.28	5,508.53	2,978.39	20,665.71	45,642.99	106,109.48
40 mph	4,727.54	382.66	2,166.73	1,446.41	3,273.16	1,745.65	19,285.20	42,634.46	75,661.80
45 mph	3,729.98	301.87	1,709.30	1,132.59	2,614.89	1,371.43	13,970.71	30,991.52	55,822.30
50 mph	3,911.15	316.30	1,792.12	1,213.72	2,965.48	1,537.77	12,176.17	27,075.35	50,988.05
55 mph	2,821.71	228.27	1,293.08	819.99	1,986.79	1,021.37	3,867.46	8,596.16	20,634.84
60 mph	4,624.98	374.22	2,119.13	1,123.16	2,409.05	1,231.73	147,597.24	326,993.31	486,472.82
65 mph	789.98	63.82	361.95	220.83	451.02	228.85	0.00	0.00	2,116.46
70 mph	11,391.70	911.37	5,215.62	5,068.38	10,655.34	5,363.42	0.00	0.00	38,605.82
total	92,616.52	7,495.38	42,442.11	24,629.91	47,717.35	25,284.83	307,149.41	676,754.57	**1,224,090.09**

B-20 CalEEMod Output

World Logistics Center - Operational Emissions

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	932.05	40,600,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

World Logistics Center - Operational Emissions - South Coast Air Basin, Summer

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment - Operational only.

Trips and VMT - Operational only

Vehicle Trips - Operational water and waste only.

Energy Use - Operational waste and water only.

Water And Wastewater - Project-specific water consumption during operation.

Solid Waste -

Stationary Sources - Process Boilers -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	2.00	2.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	9,388,750,000.00	148,190,000.00
tblWater	OutdoorWaterUseRate	0.00	495,670,000.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Energy	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**909.8529**	**22.6107**	**23.0807**	**0.1358**	**0.0000**	**1.7302**	**1.7302**	**0.0000**	**1.7302**	**1.7302**		**27,097.3624**	**27,097.3624**	**0.5421**	**0.4966**	**27,258.9080**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Energy	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**909.8529**	**22.6107**	**23.0807**	**0.1358**	**0.0000**	**1.7302**	**1.7302**	**0.0000**	**1.7302**	**1.7302**		**27,097.3624**	**27,097.3624**	**0.5421**	**0.4966**	**27,258.9080**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/27/2018	2/24/2022	5	1000	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.552848	0.041144	0.205921	0.110574	0.011987	0.005763	0.023182	0.038654	0.002242	0.001394	0.004854	0.000710	0.000727

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
NaturalGas Unmitigated	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	230252	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Total		**2.4831**	**22.5737**	**18.9619**	**0.1354**		**1.7156**	**1.7156**		**1.7156**	**1.7156**		**27,088.4770**	**27,088.4770**	**0.5192**	**0.4966**	**27,249.4503**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	230.252	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Total		**2.4831**	**22.5737**	**18.9619**	**0.1354**		**1.7156**	**1.7156**		**1.7156**	**1.7156**		**27,088.4770**	**27,088.4770**	**0.5192**	**0.4966**	**27,249.4503**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Unmitigated	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	103.1129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	803.8800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3769	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Total	**907.3698**	**0.0370**	**4.1188**	**3.1000e-004**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**8.8854**	**8.8854**	**0.0229**		**9.4577**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	103.1129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	803.8800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3769	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Total	**907.3698**	**0.0370**	**4.1188**	**3.1000e-004**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**8.8854**	**8.8854**	**0.0229**		**9.4577**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

World Logistics Center - Operational Emissions

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	932.05	40,600,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment - Operational only.

Trips and VMT - Operational only

Vehicle Trips - Operational water and waste only.

Energy Use - Operational waste and water only.

Water And Wastewater - Project-specific water consumption during operation.

Solid Waste -

Stationary Sources - Process Boilers -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	2.00	2.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	9,388,750,000.00	148,190,000.00
tblWater	OutdoorWaterUseRate	0.00	495,670,000.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Energy	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**909.8529**	**22.6107**	**23.0807**	**0.1358**	**0.0000**	**1.7302**	**1.7302**	**0.0000**	**1.7302**	**1.7302**		**27,097.3624**	**27,097.3624**	**0.5421**	**0.4966**	**27,258.9080**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Energy	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**909.8529**	**22.6107**	**23.0807**	**0.1358**	**0.0000**	**1.7302**	**1.7302**	**0.0000**	**1.7302**	**1.7302**		**27,097.3624**	**27,097.3624**	**0.5421**	**0.4966**	**27,258.9080**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/27/2018	2/24/2022	5	1000	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.552848	0.041144	0.205921	0.110574	0.011987	0.005763	0.023182	0.038654	0.002242	0.001394	0.004854	0.000710	0.000727

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
NaturalGas Unmitigated	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	230252	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Total		**2.4831**	**22.5737**	**18.9619**	**0.1354**		**1.7156**	**1.7156**		**1.7156**	**1.7156**		**27,088.4770**	**27,088.4770**	**0.5192**	**0.4966**	**27,249.4503**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	230.252	2.4831	22.5737	18.9619	0.1354		1.7156	1.7156		1.7156	1.7156		27,088.4770	27,088.4770	0.5192	0.4966	27,249.4503
Total		**2.4831**	**22.5737**	**18.9619**	**0.1354**		**1.7156**	**1.7156**		**1.7156**	**1.7156**		**27,088.4770**	**27,088.4770**	**0.5192**	**0.4966**	**27,249.4503**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Unmitigated	907.3698	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	103.1129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	803.8800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3769	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Total	**907.3698**	**0.0370**	**4.1188**	**3.1000e-004**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**8.8854**	**8.8854**	**0.0229**		**9.4577**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	103.1129					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	803.8800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3769	0.0370	4.1188	3.1000e-004		0.0146	0.0146		0.0146	0.0146		8.8854	8.8854	0.0229		9.4577
Total	**907.3698**	**0.0370**	**4.1188**	**3.1000e-004**		**0.0146**	**0.0146**		**0.0146**	**0.0146**		**8.8854**	**8.8854**	**0.0229**		**9.4577**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

World Logistics Center - Operational Emissions

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	40,600.00	1000sqft	932.05	40,600,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

World Logistics Center - Operational Emissions - South Coast Air Basin, Annual

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment - Operational only.

Trips and VMT - Operational only

Vehicle Trips - Operational water and waste only.

Energy Use - Operational waste and water only.

Water And Wastewater - Project-specific water consumption during operation.

Solid Waste -

Stationary Sources - Process Boilers -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	2.00	2.07
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	9,388,750,000.00	148,190,000.00
tblWater	OutdoorWaterUseRate	0.00	495,670,000.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	165.5733	4.6300e-003	0.5148	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	1.0076	1.0076	2.6000e-003	0.0000	1.0725
Energy	0.4532	4.1197	3.4606	0.0247		0.3131	0.3131		0.3131	0.3131	0.0000	4,484.8012	4,484.8012	0.0860	0.0822	4,511.4521
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7,746.9471	0.0000	7,746.9471	457.8315	0.0000	19,192.7336
Water						0.0000	0.0000		0.0000	0.0000	47.0139	2,369.4205	2,416.4343	4.9266	0.1343	2,579.6076
Total	**166.0265**	**4.1243**	**3.9754**	**0.0248**	**0.0000**	**0.3149**	**0.3149**	**0.0000**	**0.3149**	**0.3149**	**7,793.9610**	**6,855.2292**	**14,649.1902**	**462.8466**	**0.2165**	**26,284.8658**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	165.5733	4.6300e-003	0.5148	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	1.0076	1.0076	2.6000e-003	0.0000	1.0725
Energy	0.4532	4.1197	3.4606	0.0247		0.3131	0.3131		0.3131	0.3131	0.0000	4,484.8012	4,484.8012	0.0860	0.0822	4,511.4521
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1,936.7368	0.0000	1,936.7368	114.4579	0.0000	4,798.1834
Water						0.0000	0.0000		0.0000	0.0000	37.6111	2,139.4278	2,177.0389	3.9513	0.1095	2,308.4500
Total	**166.0265**	**4.1243**	**3.9754**	**0.0248**	**0.0000**	**0.3149**	**0.3149**	**0.0000**	**0.3149**	**0.3149**	**1,974.3479**	**6,625.2365**	**8,599.5844**	**118.4978**	**0.1917**	**11,619.1580**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**74.67**	**3.35**	**41.30**	**74.40**	**11.44**	**55.80**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/27/2018	2/24/2022	5	1000	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.552848	0.041144	0.205921	0.110574	0.011987	0.005763	0.023182	0.038654	0.002242	0.001394	0.004854	0.000710	0.000727

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						tons/yr							MT/yr			
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.4532	4.1197	3.4606	0.0247		0.3131	0.3131		0.3131	0.3131	0.0000	4,484.8012	4,484.8012	0.0860	0.0822	4,511.4521
NaturalGas Unmitigated	0.4532	4.1197	3.4606	0.0247		0.3131	0.3131		0.3131	0.3131	0.0000	4,484.8012	4,484.8012	0.0860	0.0822	4,511.4521

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	8.4042e+007	0.4532	4.1197	3.4606	0.0247		0.3131	0.3131		0.3131	0.3131	0.0000	4,484.8012	4,484.8012	0.0860	0.0822	4,511.4521
Total		**0.4532**	**4.1197**	**3.4606**	**0.0247**		**0.3131**	**0.3131**		**0.3131**	**0.3131**	**0.0000**	**4,484.8012**	**4,484.8012**	**0.0860**	**0.0822**	**4,511.4521**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	8.4042e+007	0.4532	4.1197	3.4606	0.0247		0.3131	0.3131		0.3131	0.3131	0.0000	4,484.8012	4,484.8012	0.0860	0.0822	4,511.4521
Total		**0.4532**	**4.1197**	**3.4606**	**0.0247**		**0.3131**	**0.3131**		**0.3131**	**0.3131**	**0.0000**	**4,484.8012**	**4,484.8012**	**0.0860**	**0.0822**	**4,511.4521**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	165.5733	4.6300e-003	0.5148	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	1.0076	1.0076	2.6000e-003	0.0000	1.0725
Unmitigated	165.5733	4.6300e-003	0.5148	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	1.0076	1.0076	2.6000e-003	0.0000	1.0725

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	18.8181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	146.7081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0471	4.6300e-003	0.5148	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	1.0076	1.0076	2.6000e-003	0.0000	1.0725
Total	**165.5733**	**4.6300e-003**	**0.5148**	**4.0000e-005**		**1.8300e-003**	**1.8300e-003**		**1.8300e-003**	**1.8300e-003**	**0.0000**	**1.0076**	**1.0076**	**2.6000e-003**	**0.0000**	**1.0725**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	18.8181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	146.7081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0471	4.6300e-003	0.5148	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	1.0076	1.0076	2.6000e-003	0.0000	1.0725
Total	**165.5733**	**4.6300e-003**	**0.5148**	**4.0000e-005**		**1.8300e-003**	**1.8300e-003**		**1.8300e-003**	**1.8300e-003**	**0.0000**	**1.0076**	**1.0076**	**2.6000e-003**	**0.0000**	**1.0725**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,177.0389	3.9513	0.1095	2,308.4500
Unmitigated	2,416.4343	4.9266	0.1343	2,579.6076

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	148.19 / 495.67	2,416.4343	4.9266	0.1343	2,579.6076
Total		**2,416.4343**	**4.9266**	**0.1343**	**2,579.6076**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	118.552 / 465.434	2,177.0389	3.9513	0.1095	2,308.4500
Total		**2,177.0389**	**3.9513**	**0.1095**	**2,308.4500**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,936.7368	114.4579	0.0000	4,798.1834
Unmitigated	7,746.9471	457.8315	0.0000	19,192.7336

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	38164	7,746.9471	457.8315	0.0000	19,192.7336
Total		**7,746.9471**	**457.8315**	**0.0000**	**19,192.7336**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	9541	1,936.7368	114.4579	0.0000	4,798.1834
Total		**1,936.7368**	**114.4579**	**0.0000**	**4,798.1834**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

```
                         Riverside (SC) - 2025 - Annual.EF

       File Name:       Riverside (SC) - 2025 - Annual.EF
CT-EMFAC Version:       6.0.0.18677
        Run Date:       4/30/2018 10:28:00 AM
            Area:       Riverside (SC)
   Analysis Year:       2025
          Season:       Annual

=======================================================================

Vehicle Category        VMT Fraction        Diesel VMT Fraction
                        Across Category   Within Category
         Truck 1               0.017               0.616
         Truck 2               0.064               0.981
       Non-Truck               0.919               0.012

=======================================================================

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

       Pollutant Name         5 mph          10 mph          15 mph          20 mph
     25 mph          30 mph          35 mph          40 mph          45 mph
50 mph       55 mph          60 mph          65 mph          70 mph          75 mph
                   CO      1.401917        1.210071        1.027944        0.893186
   0.793993        0.715027        0.650224        0.596786        0.552870
0.517361           0.489805        0.471800        0.464123        0.464506
0.464506

=======================================================================

Fleet Average Idling Exhaust Emission Factors (grams/veh-idle hour)

       Pollutant Name   Emission Factor
                   CO          4.019755

=======================================================================

Fleet Average Running Loss Emission Factors (grams/veh-hour)

       Pollutant Name   Emission Factor

=======================================================================

Fleet Average Tire Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor

=======================================================================
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Fleet Average Brake Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor

=============================END=======================================
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: 2025_wProject_Alessandro&CanyonCrest_PM
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT:


  I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 100. CM            ALT=   467. (M)
       BRG= WORST CASE            VD=  0.0 CM/S
      CLAS=     7 (G)             VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  0.0 PPM
     SIGTH=    5. DEGREES       TEMP= 16.3 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2   * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NBExternal   *    15     0    15   600 *  AG   3020   1.2    0.0  18.3
B. NBApproach   *    15   600    15   756 *  AG   3010   4.0    0.0  18.3
C. NBDepart     *    15   756    15   912 *  AG   2430   1.4    0.0  18.3
D. NBExternal   *    15   912    15  1512 *  AG   2450   1.2    0.0  18.3
E. NBLeft       *    15   600     8   756 *  AG     10   4.0    0.0  18.3
F. SBLeft       *     0   912     8   756 *  AG     80   4.0    0.0  18.3
G. SBExternal   *     0  1512     0   912 *  AG   3370   1.2    0.0  18.3
H. SBApproach   *     0   912     0   756 *  AG   3290   4.0    0.0  18.3
I. SBDepart     *     0   756     0   600 *  AG   3290   1.4    0.0  18.3
J. SBExternal   *     0   600     0     0 *  AG   3950   1.2    0.0  18.3
K. EBExternal   *  -750   750  -150   750 *  AG     40   1.2    0.0  18.3
L. EBApproach   *  -150   750     8   750 *  AG     20   4.0    0.0  18.3
M. EBDepart     *     8   750   165   750 *  AG    630   1.4    0.0  18.3
N. EBExternal   *   165   750   765   750 *  AG    710   1.2    0.0  18.3
O. WBExternal   *   765   765   165   762 *  AG    710   1.2    0.0  18.3
P. WBApproach   *   165   765     8   762 *  AG     50   4.0    0.0  18.3
Q. WBDepart     *     8   765  -150   762 *  AG     20   1.4    0.0  18.3
R. WBExternal   *  -150   765  -750   762 *  AG     30   1.2    0.0  18.3
S. EBLeft       *  -150   750     8   756 *  AG     20   4.0    0.0  18.3
T. WBLeft       *   165   765     8   756 *  AG    660   4.0    0.0  18.3
```

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                 2025_wProject_Alessandro&CanyonCrest_PM.dat.out
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2

              JOB: 2025_wProject_Alessandro&CanyonCrest_PM
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT:


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. 1        *    -11    741   2.0
 2. 2        *     26    741   2.0
 3. 3        *     26    771   2.0
 4. 4        *    -11    771   2.0


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                  (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*----------------------------------------
 1. 1        *    7. *   1.7 *  0.0  0.0  0.1  0.1  0.0  0.0  0.1  1.4
 2. 2        *  188. *   1.7 *  0.1  1.4  0.0  0.0  0.0  0.0  0.0  0.0
 3. 3        *  187. *   1.8 *  0.1  1.3  0.0  0.0  0.0  0.0  0.0  0.0
 4. 4        *    9. *   1.8 *  0.0  0.0  0.1  0.1  0.0  0.0  0.0  1.5



             *                            CONC/LINK
             *                              (PPM)
  RECEPTOR   *  I    J    K    L    M    N    O    P    Q    R    S    T
 ------------*------------------------------------------------------------
 1. 1        * 0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 2. 2        * 0.1  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 3. 3        * 0.1  0.2  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1
 4. 4        * 0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0


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                    2025_wProject_Alessandro&Chicago_PM.dat.out

           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   1

               JOB: 2025_wProject_Alessandro&Chicago_PM
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT:


   I.  SITE VARIABLES

          U=   0.5 M/S            Z0= 100. CM            ALT=   349. (M)
        BRG= WORST CASE           VD=  0.0 CM/S
       CLAS=     7 (G)            VS=  0.0 CM/S
       MIXH= 1000. M             AMB=  0.0 PPM
      SIGTH=    5. DEGREES      TEMP= 16.3 DEGREE (C)


  II.  LINK VARIABLES

       LINK      *  LINK COORDINATES (M)   *              EF     H     W
    DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
 A. NBExternal   *    14     0    14   600 *  AG   2400   1.2    0.0  17.1
 B. NBApproach   *    14   600    14   757 *  AG   1390   4.0    0.0  17.1
 C. NBDepart     *    14   757    14   914 *  AG   1450   1.4    0.0  17.1
 D. NBExternal   *    14   914    14  1514 *  AG   1510   1.2    0.0  17.1
 E. NBLeft       *    14   600     7   757 *  AG   1010   4.0    0.0  17.1
 F. SBLeft       *     0   914     7   757 *  AG    480   4.0    0.0  17.1
 G. SBExternal   *     0  1514     0   914 *  AG   2240   1.2    0.0  17.1
 H. SBApproach   *     0   914     0   757 *  AG   1760   4.0    0.0  17.1
 I. SBDepart     *     0   757     0   600 *  AG   3330   1.4    0.0  17.1
 J. SBExternal   *     0   600     0     0 *  AG   3850   1.2    0.0  17.1
 K. EBExternal   *  -750   750  -150   750 *  AG   2850   1.2    0.0  17.1
 L. EBApproach   *  -150   750     7   750 *  AG   2790   4.0    0.0  17.1
 M. EBDepart     *     7   750   164   750 *  AG   1380   1.4    0.0  17.1
 N. EBExternal   *   164   750   764   750 *  AG   1860   1.2    0.0  17.1
 O. WBExternal   *   764   764   164   764 *  AG   1620   1.2    0.0  17.1
 P. WBApproach   *   164   764     7   764 *  AG   1100   4.0    0.0  17.1
 Q. WBDepart     *     7   764  -150   764 *  AG    880   1.4    0.0  17.1
 R. WBExternal   *  -150   764  -750   764 *  AG   1890   1.2    0.0  17.1
 S. EBLeft       *  -150   750     7   757 *  AG     60   4.0    0.0  17.1
 T. WBLeft       *   164   764     7   757 *  AG    520   4.0    0.0  17.1


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                    2025_wProject_Alessandro&Chicago_PM.dat.out
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: 2025_wProject_Alessandro&Chicago_PM
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT:


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. 1        *    -10    740   2.0
 2. 2        *     24    740   2.0
 3. 3        *     24    774   2.0
 4. 4        *    -10    774   2.0


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                  (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*---------------------------------------
 1. 1        *    6. *   2.0 *  0.0  0.0  0.0  0.1  0.0  0.2  0.1  0.8
 2. 2        *  276. *   2.2 *  0.0  0.3  0.0  0.0  0.2  0.0  0.0  0.0
 3. 3        *  186. *   1.8 *  0.1  0.7  0.0  0.0  0.3  0.0  0.0  0.0
 4. 4        *  168. *   1.8 *  0.0  0.3  0.0  0.0  0.3  0.0  0.0  0.2



             *                         CONC/LINK
             *                           (PPM)
  RECEPTOR   *  I    J    K    L    M    N    O    P    Q    R    S    T
 ------------*-----------------------------------------------------------
 1. 1        *  0.1  0.0  0.0  0.6  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 2. 2        *  0.2  0.0  0.1  1.2  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 3. 3        *  0.1  0.2  0.0  0.0  0.1  0.0  0.0  0.3  0.0  0.0  0.0  0.1
 4. 4        *  0.4  0.0  0.0  0.4  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0


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                 2025_wProject_Alessandro&MissionGrove_PM.dat.out

           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   1

               JOB: 2025_wProject_Alessandro&MissionGrove_PM
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: 


  I.  SITE VARIABLES

         U=   0.5 M/S            Z0= 100. CM           ALT=   490. (M)
       BRG= WORST CASE           VD=  0.0 CM/S
      CLAS=     7 (G)            VS=  0.0 CM/S
      MIXH= 1000. M             AMB=  0.0 PPM
     SIGTH=    5. DEGREES      TEMP= 16.3 DEGREE (C)


 II.  LINK VARIABLES

      LINK       *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*-----------------------------
 A. NBExternal   *    11     0    11   600 *  AG    600   1.2    0.0  14.3
 B. NBApproach   *    11   600    11   759 *  AG    450   4.0    0.0  14.3
 C. NBDepart     *    11   759    11   919 *  AG    290   1.4    0.0  14.3
 D. NBExternal   *    11   919    11  1519 *  AG    340   1.2    0.0  14.3
 E. NBLeft       *    11   600     6   759 *  AG    150   4.0    0.0  14.3
 F. SBLeft       *     0   919     6   759 *  AG    180   4.0    0.0  14.3
 G. SBExternal   *     0  1519     0   919 *  AG    380   1.2    0.0  14.3
 H. SBApproach   *     0   919     0   759 *  AG    200   4.0    0.0  14.3
 I. SBDepart     *     0   759     0   600 *  AG    290   1.4    0.0  14.3
 J. SBExternal   *     0   600     0     0 *  AG    530   1.2    0.0  14.3
 K. EBExternal   *  -750   750  -150   750 *  AG   2650   1.2    0.0  14.3
 L. EBApproach   *  -150   750     6   750 *  AG   2600   4.0    0.0  14.3
 M. EBDepart     *     6   750   161   750 *  AG   2770   1.4    0.0  14.3
 N. EBExternal   *   161   750   761   750 *  AG   2950   1.2    0.0  14.3
 O. WBExternal   *   761   769   161   769 *  AG   2220   1.2    0.0  14.3
 P. WBApproach   *   161   769     6   769 *  AG   1980   4.0    0.0  14.3
 Q. WBDepart     *     6   769  -150   769 *  AG   1880   1.4    0.0  14.3
 R. WBExternal   *  -150   769  -750   769 *  AG   2030   1.2    0.0  14.3
 S. EBLeft       *  -150   750     6   759 *  AG     50   4.0    0.0  14.3
 T. WBLeft       *   161   769     6   759 *  AG    240   4.0    0.0  14.3


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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: 2025_wProject_Alessandro&MissionGrove_PM
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT:


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. 1        *     -9    738   2.0
 2. 2        *     20    738   2.0
 3. 3        *     20    781   2.0
 4. 4        *     -9    781   2.0


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                  (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*----------------------------------------
 1. 1        *  279. *   1.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 2. 2        *  278. *   1.3 *  0.0  0.1  0.0  0.0  0.0  0.0  0.0  0.0
 3. 3        *   99. *   1.0 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 4. 4        *   98. *   1.2 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0



             *                          CONC/LINK
             *                            (PPM)
  RECEPTOR   *   I    J    K    L    M    N    O    P    Q    R    S    T
 ------------*------------------------------------------------------------
 1. 1        *  0.0  0.0  0.0  0.9  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 2. 2        *  0.0  0.0  0.0  1.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 3. 3        *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.8  0.0  0.0  0.0  0.1
 4. 4        *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.8  0.0  0.0  0.0  0.1


↑
```

```
                    2025_wProject_Alessandro&Sycamore_AM.dat.out

            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   1

                JOB: 2025_wProject_Alessandro&Sycamore_PM
                RUN: Hour 1           (WORST CASE ANGLE)
          POLLUTANT:


    I.  SITE VARIABLES

           U=   0.5 M/S             Z0= 100. CM            ALT=   470. (M)
         BRG= WORST CASE            VD=  0.0 CM/S
        CLAS=     7 (G)             VS=  0.0 CM/S
        MIXH= 1000. M              AMB=  0.0 PPM
       SIGTH=    5. DEGREES       TEMP= 16.3 DEGREE (C)


   II.  LINK VARIABLES

        LINK      *  LINK COORDINATES (M)   *              EF     H     W
     DESCRIPTION  *   X1     Y1     X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
  ----------------*-------------------------*------------------------------
  A. NBExternal   *     15      0     15    600 *  AG   1350    1.2    0.0  18.0
  B. NBApproach   *     15    600     15    760 *  AG    670    4.0    0.0  18.0
  C. NBDepart     *     15    760     15    920 *  AG   1020    1.4    0.0  18.0
  D. NBExternal   *     15    920     15   1520 *  AG   1170    1.2    0.0  18.0
  E. NBLeft       *     15    600      7    760 *  AG    680    4.0    0.0  18.0
  F. SBLeft       *      0    920      7    760 *  AG    110    4.0    0.0  18.0
  G. SBExternal   *      0   1520      0    920 *  AG    320    1.2    0.0  18.0
  H. SBApproach   *      0    920      0    760 *  AG    210    4.0    0.0  18.0
  I. SBDepart     *      0    760      0    600 *  AG    240    1.4    0.0  18.0
  J. SBExternal   *      0    600      0      0 *  AG    330    1.2    0.0  18.0
  K. EBExternal   *   -750    750   -150    750 *  AG   1450    1.2    0.0  18.0
  L. EBApproach   *   -150    750      7    750 *  AG   1300    4.0    0.0  18.0
  M. EBDepart     *      7    750    165    750 *  AG   1220    1.4    0.0  18.0
  N. EBExternal   *    165    750    765    750 *  AG   1330    1.2    0.0  18.0
  O. WBExternal   *    765    770    165    770 *  AG   2800    1.2    0.0  18.0
  P. WBApproach   *    165    770      7    770 *  AG   2710    4.0    0.0  18.0
  Q. WBDepart     *      7    770   -150    770 *  AG   2410    1.4    0.0  18.0
  R. WBExternal   *   -150    770   -750    770 *  AG   3090    1.2    0.0  18.0
  S. EBLeft       *   -150    750      7    760 *  AG    150    4.0    0.0  18.0
  T. WBLeft       *    165    770      7    760 *  AG     90    4.0    0.0  18.0


↑
```

```
                   2025_wProject_Alessandro&Sycamore_AM.dat.out
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: 2025_wProject_Alessandro&Sycamore_PM
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT:


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. 1        *    -10    737   2.0
 2. 2        *     25    737   2.0
 3. 3        *     25    783   2.0
 4. 4        *    -10    783   2.0


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                  (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*-----------------------------------------
 1. 1        *   72. *   0.9 *  0.0  0.1  0.0  0.0  0.1  0.0  0.0  0.0
 2. 2        *  277. *   1.1 *  0.0  0.2  0.0  0.0  0.1  0.0  0.0  0.0
 3. 3        *  186. *   1.3 *  0.0  0.3  0.1  0.0  0.2  0.0  0.0  0.0
 4. 4        *   98. *   1.3 *  0.0  0.0  0.1  0.0  0.0  0.0  0.0  0.1



             *                          CONC/LINK
             *                            (PPM)
  RECEPTOR   *   I    J    K    L    M    N    O    P    Q    R    S    T
 ------------*-------------------------------------------------------------
 1. 1        *  0.0  0.0  0.0  0.1  0.1  0.0  0.0  0.5  0.0  0.0  0.0  0.0
 2. 2        *  0.0  0.0  0.0  0.5  0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.0
 3. 3        *  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.6  0.0  0.0  0.0  0.0
 4. 4        *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  1.0  0.0  0.0  0.0  0.0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: 2025_wProject_Arlington&Victoria_PM
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT:


  I.  SITE VARIABLES

        U=   0.5 M/S            Z0= 100. CM            ALT=   265. (M)
      BRG= WORST CASE           VD=  0.0 CM/S
     CLAS=     7 (G)            VS=  0.0 CM/S
     MIXH= 1000. M             AMB=  0.0 PPM
    SIGTH=    5. DEGREES      TEMP= 16.3 DEGREE (C)


 II.  LINK VARIABLES

      LINK       *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
-----------------*-------------------------*-----------------------------
A. NBExternal    *    11     0    11   600 *  AG    840   1.2    0.0  17.6
B. NBApproach    *    11   600    11   759 *  AG    820   4.0    0.0  17.6
C. NBDepart      *    11   759    11   919 *  AG    230   1.4    0.0  17.6
D. NBExternal    *    11   919    11  1519 *  AG    370   1.2    0.0  17.6
E. NBLeft        *    11   600     6   759 *  AG     20   4.0    0.0  17.6
F. SBLeft        *     0   919     6   759 *  AG    190   4.0    0.0  17.6
G. SBExternal    *     0  1519     0   919 *  AG    580   1.2    0.0  17.6
H. SBApproach    *     0   919     0   759 *  AG    390   4.0    0.0  17.6
I. SBDepart      *     0   759     0   600 *  AG    290   1.4    0.0  17.6
J. SBExternal    *     0   600     0     0 *  AG    720   1.2    0.0  17.6
K. EBExternal    *  -750   750  -150   750 *  AG   2250   1.2    0.0  17.6
L. EBApproach    *  -150   750     6   750 *  AG   2110   4.0    0.0  17.6
M. EBDepart      *     6   750   161   750 *  AG   2720   1.4    0.0  17.6
N. EBExternal    *   161   750   761   750 *  AG   2910   1.2    0.0  17.6
O. WBExternal    *   761   769   161   769 *  AG   1950   1.2    0.0  17.6
P. WBApproach    *   161   769     6   769 *  AG   1520   4.0    0.0  17.6
Q. WBDepart      *     6   769  -150   769 *  AG   1600   1.4    0.0  17.6
R. WBExternal    *  -150   769  -750   769 *  AG   1620   1.2    0.0  17.6
S. EBLeft        *  -150   750     6   759 *  AG    140   4.0    0.0  17.6
T. WBLeft        *   161   769     6   759 *  AG    430   4.0    0.0  17.6
```

```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: 2025_wProject_Arlington&Victoria_PM
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT:


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. 1        *     -9    738   2.0
 2. 2        *     20    738   2.0
 3. 3        *     20    781   2.0
 4. 4        *     -9    781   2.0


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                 CONC/LINK
             *  BRG  * CONC  *                   (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*---------------------------------------
 1. 1        *  279. *   1.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 2. 2        *  278. *   1.3 *  0.0  0.2  0.0  0.0  0.0  0.0  0.0  0.0
 3. 3        *   99. *   1.0 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 4. 4        *   98. *   1.1 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1



             *                         CONC/LINK
             *                           (PPM)
  RECEPTOR   *  I    J    K    L    M    N    O    P    Q    R    S    T
 ------------*-----------------------------------------------------------
 1. 1        *  0.0  0.0  0.0  0.9  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0
 2. 2        *  0.0  0.0  0.0  0.9  0.0  0.0  0.0  0.0  0.0  0.1  0.1  0.0
 3. 3        *  0.0  0.0  0.0  0.0  0.0  0.2  0.0  0.6  0.0  0.0  0.0  0.1
 4. 4        *  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.7  0.0  0.0  0.0  0.1
```

```
                         Riverside (SC) - 2050 - Annual.EF

       File Name:       Riverside (SC) - 2050 - Annual.EF
CT-EMFAC Version:       6.0.0.18677
        Run Date:       54/042018 10:/6:32 AM
            Area:       Riverside (SC)
   Analysis Year:       2050
          Season:       Annual

=======================================================================

Vehicle Category        VMT Fraction        Diesel VMT Fraction
                        Across Category   Within Category
         Truck 1               0.012               0.670
         Truck 2               0.063               0.981
       Non-Truck               0.92/               0.012

=======================================================================

Fleet Average Running Exhaust Emission Factors (grams4veh-mile)

       Pollutant Name         3 mph          10 mph          13 mph          20 mph
     23 mph          /0 mph          /3 mph          50 mph          53 mph
30 mph       33 mph          60 mph          63 mph          70 mph          73 mph
                   CO      0.928631        0.792926        0.635789        0.336/91
   0.58792/        0.5/5913        0./92121        0./37/52        0./29128
0./06385           0.289/01        0.27871/        0.273093        0.27391/
0.27391/

=======================================================================

Fleet Average Idling Exhaust Emission Factors (grams4veh-idle hour)

       Pollutant Name   Emission Factor
                   CO          2.318075

=======================================================================

Fleet Average Running Loss Emission Factors (grams4veh-hour)

       Pollutant Name   Emission Factor

=======================================================================

Fleet Average Tire Wear Factors (grams4veh-mile)

       Pollutant Name   Emission Factor

=======================================================================
```

```
Fleet Average Brake Wear Factors (grams4veh-mile)

       Pollutant Name   Emission Factor

=============================END=======================================
```

```
            CALINE54 CALI:FONIA LINE RFSOCE UIRPEORIFN MFUEL
                     DSNE J191 8EORIFN
                     PAVE   J

                DFG4 2050_wProject_Alessandro&CanyonCrest_PM
                OSN4 Bour J           H(FORW CARE ANVLET
          PFLLSWANW4


    I.  RIWE 8AOIAGLER

           S)   0.= M/R             Z0) J00. CM            ALW)   567. HMT
         GOV) (FORW CARE            8U)  0.0 CM/R
        CLAR)     7 HVT             8R)  0.0 CM/R
        MIXB) J000. M              AMG)  0.0 PPM
       RIVWB)    =. UEVOEER       WEMP) J6.3 UEVOEE HCT


   II.  LINK 8AOIAGLER

        LINK      *  LINK CFFOUINAWER HMT   *              E:     B     (
     UERCOIPWIFN  *   XJ    YJ    X2    Y2  * WYPE  8PB  HV/MIT  HMT   HMT
  ----------------*-------------------------*------------------------------
  A. NGExternal   *    J=     0    J=   600 *  AV   5J90   0.9    0.0  J9.3
  G. NGApproach   *    J=   600    J=   7=6 *  AV   3=70   2.=    0.0  J9.3
  C. NGUepart     *    J=   7=6    J=   1J2 *  AV   2590   0.1    0.0  J9.3
  U. NGExternal   *    J=   1J2    J=  J=J2 *  AV   27J0   0.9    0.0  J9.3
  E. NGLeft       *    J=   600     9   7=6 *  AV    6J0   2.=    0.0  J9.3
  :. RGLeft       *     0   1J2     9   7=6 *  AV     20   2.=    0.0  J9.3
  V. RGExternal   *     0  J=J2     0   1J2 *  AV   2960   0.9    0.0  J9.3
  B. RGApproach   *     0   1J2     0   7=6 *  AV   2950   2.=    0.0  J9.3
  I. RGUepart     *     0   7=6     0   600 *  AV   3270   0.1    0.0  J9.3
  D. RGExternal   *     0   600     0     0 *  AV   5650   0.9    0.0  J9.3
  K. EGExternal   *  -7=0   7=0  -J=0   7=0 *  AV    1=0   0.9    0.0  J9.3
  L. EGApproach   *  -J=0   7=0     9   7=0 *  AV    720   2.=    0.0  J9.3
  M. EGUepart     *     9   7=0   J6=   7=0 *  AV   J250   0.1    0.0  J9.3
  N. EGExternal   *   J6=   7=0   76=   7=0 *  AV   J260   0.9    0.0  J9.3
  F. (GExternal   *   76=   76=   J6=   76= *  AV   J700   0.9    0.0  J9.3
  P. (GApproach   *   J6=   76=     9   76= *  AV    330   2.=    0.0  J9.3
  Q. (GUepart     *     9   76=  -J=0   76= *  AV    570   0.1    0.0  J9.3
  O. (GExternal   *  -J=0   76=  -7=0   76= *  AV   J090   0.9    0.0  J9.3
  R. EGLeft       *  -J=0   7=0     9   7=6 *  AV    230   2.=    0.0  J9.3
  W. (GLeft       *   J6=   76=     9   7=6 *  AV   J370   2.=    0.0  J9.3


↑
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```
                2050_wProject_Alessandro&CanyonCrest_PM.dat.out
          CALINE54 CALI:FONIA LINE RFSOCE UIRPEORIFN MFUEL
                   DSNE J191 8EORIFN
                   PAVE   2

              DFG4 2050_wProject_Alessandro&CanyonCrest_PM
              OSN4 Bour J           H(FORW CARE ANVLET
        PFLLSWANW4


  III.  OECEPWFO LFCAWIFNR

              *    CFFOUINAWER HMT
    OECEPWFO  *    X      Y      Z
  ------------*---------------------
  J. J        *    -JJ    75J   2.0
  2. 2        *     26    75J   2.0
  3. 3        *     26    77J   2.0
  5. 5        *    -JJ    77J   2.0


   I8.  MFUEL OERSLWR H(FORW CARE (INU ANVLE T

              *       * POEU  *                 CFNC/LINK
              *  GOV  * CFNC  *                   HPPMT
   OECEPWFO   * HUEVT * HPPMT *   A    G    C    U    E    :    V    B
 -------------*-------*-------*----------------------------------------
  J. J        *   71. *   J.J *  0.0  0.3  0.0  0.0  0.J  0.0  0.0  0.0
  2. 2        *  J91. *   J.5 *  0.0  J.0  0.0  0.0  0.J  0.0  0.0  0.0
  3. 3        *  J97. *   J.6 *  0.0  0.1  0.0  0.0  0.J  0.0  0.0  0.0
  5. 5        *  J66. *   J.J *  0.0  0.5  0.0  0.0  0.J  0.0  0.0  0.2


              *                            CFNC/LINK
              *                              HPPMT
   OECEPWFO   *   I    D    K    L    M    N    F    P    Q    O    R    W
  ------------*------------------------------------------------------------
  J. J        *  0.2  0.0  0.0  0.J  0.J  0.0  0.0  0.J  0.0  0.0  0.0  0.3
  2. 2        *  0.J  0.J  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  3. 3        *  0.J  0.J  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.2
  5. 5        *  0.3  0.0  0.0  0.J  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
```

```
          CALINE54 CALI:FONIA LINE RFSOCE UIRPEORIFN MFUEL
                   DSNE J191 8EORIFN
                   PAVE   J

              DFG4 2050_wProject_Alessandro&Chicago_PM
              OSN4 Bour J           H(FORW CARE ANVLET
        PFLLSWANW4


  I.  RIWE 8AOIAGLER

         S)   0.= M/R             Z0) J00. CM            ALW)   351. HMT
       GOV) (FORW CARE            8U)  0.0 CM/R
      CLAR)     7 HVT             8R)  0.0 CM/R
      MIXB) J000. M              AMG)  0.0 PPM
     RIVWB)    =. UEVOEER       WEMP) J6.3 UEVOEE HCT


 II.  LINK 8AOIAGLER

       LINK       *  LINK CFFOUINAWER HMT    *              E:     B     (
    UERCOIPWIFN   *   XJ     YJ     X2     Y2  * WYPE  8PB  HV/MIT  HMT   HMT
  ----------------*-------------------------*------------------------------
  A. NGExternal   *    J5      0     J5    600 *  AV   2120   0.9    0.0  J7.J
  G. NGApproach   *    J5    600     J5    7=7 *  AV   J930   2.=    0.0  J7.J
  C. NGUepart     *    J5    7=7     J5    1J5 *  AV   J170   0.1    0.0  J7.J
  U. NGExternal   *    J5    1J5     J5   J=J5 *  AV   20=0   0.9    0.0  J7.J
  E. NGLeft       *    J5    600      7    7=7 *  AV   J010   2.=    0.0  J7.J
  :. RGLeft       *     0    1J5      7    7=7 *  AV    660   2.=    0.0  J7.J
  V. RGExternal   *     0   J=J5      0    1J5 *  AV   2530   0.9    0.0  J7.J
  B. RGApproach   *     0    1J5      0    7=7 *  AV   J770   2.=    0.0  J7.J
  I. RGUepart     *     0    7=7      0    600 *  AV   3J00   0.1    0.0  J7.J
  D. RGExternal   *     0    600      0      0 *  AV   3620   0.9    0.0  J7.J
  K. EGExternal   *  -7=0    7=0   -J=0    7=0 *  AV   2160   0.9    0.0  J7.J
  L. EGApproach   *  -J=0    7=0      7    7=0 *  AV   2990   2.=    0.0  J7.J
  M. EGUepart     *     7    7=0    J65    7=0 *  AV   J750   0.1    0.0  J7.J
  N. EGExternal   *   J65    7=0    765    7=0 *  AV   2500   0.9    0.0  J7.J
  F. (GExternal   *   765    765    J65    765 *  AV   J1=0   0.9    0.0  J7.J
  P. (GApproach   *   J65    765      7    765 *  AV   J530   2.=    0.0  J7.J
  Q. (GUepart     *     7    765   -J=0    765 *  AV   JJ00   0.1    0.0  J7.J
  O. (GExternal   *  -J=0    765   -7=0    765 *  AV   2J10   0.9    0.0  J7.J
  R. EGLeft       *  -J=0    7=0      7    7=7 *  AV     90   2.=    0.0  J7.J
  W. (GLeft       *   J65    765      7    7=7 *  AV    =20   2.=    0.0  J7.J
```

```
      CALINE54 CALI:FONIA LINE RFSOCE UIRPEORIFN MFUEL
               DSNE J191 8EORIFN
               PAVE   2

          DFG4 2050_wProject_Alessandro&Chicago_PM
          OSN4 Bour J           H(FORW CARE ANVLET
    PFLLSWANW4


III.  OECEPWFO LFCAWIFNR

            *    CFFOUINAWER HMT
  OECEPWFO  *    X      Y      Z
------------*---------------------
J. J        *    -J0    750   2.0
2. 2        *     25    750   2.0
3. 3        *     25    775   2.0
5. 5        *    -J0    775   2.0


 I8.  MFUEL OERSLWR H(FORW CARE (INU ANVLE T

            *       * POEU  *                 CFNC/LINK
            *  GOV  * CFNC  *                   HPPMT
 OECEPWFO   * HUEVT * HPPMT *   A    G    C    U    E    :    V    B
-------------*-------*-------*----------------------------------------
J. J        *    6. *   J.3 *  0.0  0.0  0.0  0.J  0.0  0.J  0.0  0.=
2. 2        *  276. *   J.= *  0.0  0.3  0.0  0.0  0.J  0.0  0.0  0.0
3. 3        *  J96. *   J.3 *  0.0  0.=  0.0  0.0  0.2  0.0  0.0  0.0
5. 5        *  J69. *   J.2 *  0.0  0.3  0.0  0.0  0.2  0.0  0.0  0.J



            *                           CFNC/LINK
            *                             HPPMT
 OECEPWFO   *  I    D    K    L    M    N    F    P    Q    O    R    W
------------*------------------------------------------------------------
J. J        *  0.0  0.0  0.0  0.5  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
2. 2        *  0.J  0.0  0.J  0.9  0.0  0.0  0.0  0.0  0.0  0.J  0.0  0.0
3. 3        *  0.J  0.J  0.0  0.0  0.J  0.0  0.0  0.2  0.0  0.0  0.0  0.J
5. 5        *  0.3  0.0  0.0  0.2  0.0  0.0  0.0  0.0  0.J  0.0  0.0  0.0
```

```
          CALINE54 CALI:FONIA LINE RFSOCE UIRPEORIFN MFUEL
                   DSNE J191 8EORIFN
                   PAGE   J

              DFV4 2050_wProject_Alessandro&MissionGrove_PM
              OSN4 Bour J          H(FORW CARE ANGLET
        PFLLSWANW4


  I.  RIWE 8AOIAVLER

         S)   0.= M/R            Z0) J00. CM           ALW)   510. HMT
       VOG) (FORW CARE           8U)  0.0 CM/R
      CLAR)     7 HGT            8R)  0.0 CM/R
      MIXB) J000. M             AMV)  0.0 PPM
     RIGWB)    =. UEGOEER      WEMP) J6.3 UEGOEE HCT


 II.  LINK 8AOIAVLER

      LINK      *  LINK CFFOUINAWER HMT   *              E:     B     (
   UERCOIPWIFN  *   XJ    YJ    X2    Y2  * WYPE  8PB  HG/MIT  HMT   HMT
----------------*-------------------------*-----------------------------
A. NVExternal   *    JJ     0    JJ   600 *  AG    190   0.9    0.0  26.0
V. NVApproach   *    JJ   600    JJ   7=1 *  AG    650   2.=    0.0  26.0
C. NVUepart     *    JJ   7=1    JJ   1J1 *  AG    =50   0.1    0.0  26.0
U. NVExternal   *    JJ   1J1    JJ  J=J1 *  AG    690   0.9    0.0  26.0
E. NVLeft       *    JJ   600     6   7=1 *  AG    350   2.=    0.0  26.0
:. RVLeft       *     0   1J1     6   7=1 *  AG    590   2.=    0.0  26.0
G. RVExternal   *     0  J=J1     0   1J1 *  AG   J650   0.9    0.0  26.0
B. RVApproach   *     0   1J1     0   760 *  AG   JJ60   2.=    0.0  26.0
I. RVUepart     *     0   7=1     0   600 *  AG   J230   0.1    0.0  26.0
D. RVExternal   *     0   600     0     0 *  AG   J=30   0.9    0.0  26.0
K. EVExternal   *  -7=0   7=0  -J=0   7=0 *  AG   3J20   0.9    0.0  26.0
L. EVApproach   *  -J=0   7=0     6   7=0 *  AG   2190   2.=    0.0  26.0
M. EVUepart     *     6   7=0   J6J   7=0 *  AG   2170   0.1    0.0  26.0
N. EVExternal   *   J6J   7=0   76J   7=0 *  AG   35=0   0.9    0.0  26.0
F. (VExternal   *   76J   761   J6J   761 *  AG   2130   0.9    0.0  26.0
P. (VApproach   *   J6J   761     6   761 *  AG   2630   2.=    0.0  26.0
Q. (VUepart     *     6   761  -J=0   761 *  AG   2670   0.1    0.0  26.0
O. (VExternal   *  -J=0   761  -7=0   761 *  AG   30J0   0.9    0.0  26.0
R. EVLeft       *  -J=0   7=0     6   7=1 *  AG    J50   2.=    0.0  26.0
W. (VLeft       *   J6J   761     6   7=1 *  AG    300   2.=    0.0  26.0
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         CALINE54 CALI:FONIA LINE RFSOCE UIRPEORIFN MFUEL
                  DSNE J191 8EORIFN
                  PAGE   2

             DFV4 2050_wProject_Alessandro&MissionGrove_PM
             OSN4 Bour J           H(FORW CARE ANGLET
        PFLLSWANW4


  III.  OECEPWFO LFCAWIFNR

              *    CFFOUINAWER HMT
    OECEPWFO  *    X      Y      Z
  ------------*---------------------
  J. J        *     -1    739   2.0
  2. 2        *     20    739   2.0
  3. 3        *     20    79J   2.0
  5. 5        *     -1    79J   2.0


   I8.  MFUEL OERSLWR H(FORW CARE (INU ANGLE T

              *       * POEU  *                CFNC/LINK
              *  VOG  * CFNC  *                  HPPMT
   OECEPWFO   * HUEGT * HPPMT *   A    V    C    U    E    :    G    B
 -------------*-------*-------*----------------------------------------
  J. J        *  27=. *   J.J *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  2. 2        *  27=. *   J.2 *  0.0  0.J  0.0  0.0  0.0  0.0  0.0  0.0
  3. 3        *   1=. *   J.J *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  5. 5        *   1=. *   J.2 *  0.0  0.0  0.0  0.0  0.0  0.J  0.0  0.J



              *                          CFNC/LINK
              *                            HPPMT
   OECEPWFO   *   I    D    K    L    M    N    F    P    Q    O    R    W
  ------------*-----------------------------------------------------------
  J. J        *  0.0  0.0  0.J  0.1  0.0  0.0  0.0  0.0  0.0  0.J  0.0  0.0
  2. 2        *  0.0  0.0  0.J  0.7  0.J  0.0  0.0  0.0  0.0  0.J  0.0  0.0
  3. 3        *  0.0  0.0  0.0  0.0  0.0  0.J  0.J  0.9  0.0  0.0  0.0  0.0
  5. 5        *  0.0  0.0  0.0  0.0  0.0  0.J  0.J  0.6  0.J  0.0  0.0  0.0
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          CALINE54 CALI:FONIA LINE SFROCE UISPEOSIFN MFUEL
                   DRNE J191 8EOSIFN
                   PAVE   J

              DFG4 2050_wProject_Alessandro&Sycamore_PM
              ORN4 Bour J           H(FOSW CASE ANVLET
        PFLLRWANW4


  I.  SIWE 8AOIAGLES

         R)   0.= M/S              Z0) J00. CM            ALW)   570. HMT
       GOV) (FOSW CASE             8U)  0.0 CM/S
      CLAS)     7 HVT              8S)  0.0 CM/S
      MIXB) J000. M               AMG)  0.0 PPM
     SIVWB)    =. UEVOEES        WEMP) J6.3 UEVOEE HCT


 II.  LINK 8AOIAGLES

      LINK       *  LINK CFFOUINAWES HMT   *              E:     B     (
   UESCOIPWIFN   *   XJ    YJ    X2    Y2  * WYPE  8PB  HV/MIT  HMT   HMT
-----------------*-------------------------*------------------------------
A. NGExternal    *    J=     0    J=   600 *  AV    170   0.9    0.0  J9.0
G. NGApproach    *    J=   600    J=   760 *  AV    =J0   2.=    0.0  J9.0
C. NGUepart      *    J=   760    J=   120 *  AV    =50   0.1    0.0  J9.0
U. NGExternal    *    J=   120    J=  J=20 *  AV    710   0.9    0.0  J9.0
E. NGLeft        *    J=   600     7   760 *  AV    560   2.=    0.0  J9.0
:. SGLeft        *     0   120     7   760 *  AV    J50   2.=    0.0  J9.0
V. SGExternal    *     0  J=20     0   120 *  AV    970   0.9    0.0  J9.0
B. SGApproach    *     0   120     0   760 *  AV    730   2.=    0.0  J9.0
I. SGUepart      *     0   760     0   600 *  AV   J290   0.1    0.0  J9.0
D. SGExternal    *     0   600     0     0 *  AV   J590   0.9    0.0  J9.0
K. EGExternal    *  -7=0   7=0  -J=0   7=0 *  AV   31=0   0.9    0.0  J9.0
L. EGApproach    *  -J=0   7=0     7   7=0 *  AV   3700   2.=    0.0  J9.0
M. EGUepart      *     7   7=0   J6=   7=0 *  AV   3070   0.1    0.0  J9.0
N. EGExternal    *   J6=   7=0   76=   7=0 *  AV   32J0   0.9    0.0  J9.0
F. (GExternal    *   76=   770   J6=   770 *  AV   2100   0.9    0.0  J9.0
P. (GApproach    *   J6=   770     7   770 *  AV   2700   2.=    0.0  J9.0
Q. (GUepart      *     7   770  -J=0   770 *  AV   27=0   0.1    0.0  J9.0
O. (GExternal    *  -J=0   770  -7=0   760 *  AV   32J0   0.9    0.0  J9.0
S. EGLeft        *  -J=0   7=0     7   760 *  AV    2=0   2.=    0.0  J9.0
W. (GLeft        *   J6=   770     7   760 *  AV    200   2.=    0.0  J9.0
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                  2050_wProject_Alessandro&Sycamore_PM.dat.out
          CALINE54 CALI:FONIA LINE SFROCE UISPEOSIFN MFUEL
                   DRNE J191 8EOSIFN
                   PAVE   2

              DFG4 2050_wProject_Alessandro&Sycamore_PM
              ORN4 Bour J           H(FOSW CASE ANVLET
        PFLLRWANW4


  III.  OECEPWFO LFCAWIFNS

              *    CFFOUINAWES HMT
    OECEPWFO  *    X      Y      Z
  ------------*---------------------
  J. J        *    -J0    737   2.0
  2. 2        *     2=    737   2.0
  3. 3        *     2=    793   2.0
  5. 5        *    -J0    793   2.0


   I8.  MFUEL OESRLWS H(FOSW CASE (INU ANVLE T

              *       * POEU  *                 CFNC/LINK
              *  GOV  * CFNC  *                   HPPMT
   OECEPWFO   * HUEVT * HPPMT *   A    G    C    U    E    :    V    B
 -------------*-------*-------*----------------------------------------
  J. J        *  290. *   J.0 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  2. 2        *  279. *   J.2 *  0.0  0.J  0.0  0.0  0.J  0.0  0.0  0.0
  3. 3        *  220. *   0.9 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
  5. 5        *   19. *   J.0 *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.J



              *                          CFNC/LINK
              *                            HPPMT
   OECEPWFO   *  I    D    K    L    M    N    F    P    Q    O    S    W
  ------------*-----------------------------------------------------------
  J. J        *  0.0  0.0  0.0  0.9  0.0  0.0  0.0  0.0  0.0  0.J  0.0  0.0
  2. 2        *  0.0  0.0  0.0  0.9  0.0  0.0  0.0  0.0  0.0  0.J  0.0  0.0
  3. 3        *  0.0  0.0  0.0  0.3  0.0  0.0  0.0  0.5  0.0  0.0  0.0  0.0
  5. 5        *  0.0  0.0  0.0  0.0  0.0  0.J  0.0  0.6  0.0  0.0  0.0  0.0
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                   2040_wProject_Ramona&Sanderson_PM.dat.out

          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: 2040_wProject_Ramona&Sanderson_PM
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT:


  I.  SITE VARIABLES

         U=   0.5 M/S             Z0= 100. CM            ALT=   445. (M)
       BRG= WORST CASE            VD=  0.0 CM/S
      CLAS=     7 (G)             VS=  0.0 CM/S
      MIXH= 1000. M              AMB=  0.0 PPM
     SIGTH=    5. DEGREES       TEMP= 16.3 DEGREE (C)


 II.  LINK VARIABLES

      LINK       *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NBExternal   *    15     0    15   600 *  AG   2660   0.8    0.0  26.0
B. NBApproach   *    15   600    15   760 *  AG   2390   2.5    0.0  26.0
C. NBDepart     *    15   760    15   920 *  AG   2820   0.9    0.0  26.0
D. NBExternal   *    15   920    15  1520 *  AG   3000   0.8    0.0  26.0
E. NBLeft       *    15   600     7   760 *  AG    270   2.5    0.0  26.0
F. SBLeft       *     0   920     7   760 *  AG    860   2.5    0.0  26.0
G. SBExternal   *     0  1520     0   920 *  AG   4980   0.8    0.0  26.0
H. SBApproach   *     0   920     0   760 *  AG   4120   2.5    0.0  26.0
I. SBDepart     *     0   760     0   600 *  AG   3750   0.9    0.0  26.0
J. SBExternal   *     0   600     0     0 *  AG   3830   0.8    0.0  26.0
K. EBExternal   *  -750   750  -150   750 *  AG    510   0.8    0.0  26.0
L. EBApproach   *  -150   750     7   750 *  AG    330   2.5    0.0  26.0
M. EBDepart     *     7   750   165   750 *  AG    300   0.9    0.0  26.0
N. EBExternal   *   165   750   765   750 *  AG   1160   0.8    0.0  26.0
O. WBExternal   *   765   770   165   770 *  AG    920   0.8    0.0  26.0
P. WBApproach   *   165   770     7   770 *  AG    840   2.5    0.0  26.0
Q. WBDepart     *     7   770  -150   770 *  AG    810   0.9    0.0  26.0
R. WBExternal   *  -150   770  -750   760 *  AG   1080   0.8    0.0  26.0
S. EBLeft       *  -150   750     7   760 *  AG    180   2.5    0.0  26.0
T. WBLeft       *   165   770     7   760 *  AG     80   2.5    0.0  26.0


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           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   2

               JOB: 2040_wProject_Ramona&Sanderson_PM
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT:


 III.  RECEPTOR LOCATIONS

             *    COORDINATES (M)
   RECEPTOR  *    X      Y      Z
 ------------*---------------------
 1. 1        *    -10    737   2.0
 2. 2        *     25    737   2.0
 3. 3        *     25    783   2.0
 4. 4        *    -10    783   2.0


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

             *       * PRED  *                CONC/LINK
             *  BRG  * CONC  *                  (PPM)
  RECEPTOR   * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
-------------*-------*-------*-----------------------------------------
 1. 1        *    4. *   1.6 *  0.0  0.0  0.0  0.1  0.0  0.2  0.1  0.9
 2. 2        *  349. *   1.3 *  0.0  0.2  0.2  0.0  0.0  0.2  0.0  0.5
 3. 3        *  185. *   1.1 *  0.1  0.6  0.1  0.0  0.1  0.0  0.0  0.0
 4. 4        *    5. *   1.7 *  0.0  0.0  0.0  0.1  0.0  0.2  0.2  1.2



             *                          CONC/LINK
             *                            (PPM)
  RECEPTOR   *   I    J    K    L    M    N    O    P    Q    R    S    T
 ------------*-------------------------------------------------------------
 1. 1        *  0.1  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 2. 2        *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 3. 3        *  0.1  0.1  0.0  0.0  0.0  0.0  0.0  0.1  0.0  0.0  0.0  0.0
 4. 4        *  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0


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D-1 Localized Significance Analysis Summary

ESA

Riverside-Rubidoux Monitoring Site					
CO	2014	2015	2016	2017	Highest 3-Year Rolling Average
1-hr (ppm)	2.4	2.5	1.6	2.4	2.2
8-hr (ppm)	1.9	1.7	1.3	1.8	1.6
NOX	2014	2015	2016	2017	
1-hr (ppm)	0.06	0.057	0.073	0.063	0.064
Annual (ppm)	0.015	0.0144	0.015	0.015	0.015

Source: CARB 2018 for the SCAQMD Riverside-Rubidoux air monitoring station.

Phase 1 Buildout-2018

UNMITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487026.20	3754364.03	CO	1-hr,ppm	2.2	14.99	0.01	2.2	20	No
487026.20	3754364.03		8-hr,ppm	1.6	12.31	0.01	1.6	9	No
487026.20	3754364.03	NO2	State-1 hr,ppm	0.064	19.79	0.01	0.08	0.18	No
487026.20	3754364.03		National-1 hr,ppm	0.053	19.32	0.01	0.06	0.100	No
487026.20	3754364.03		Annual,ppm	0.015	6.36	0.004	0.02	0.03	No
487026.20	3754364.03	PM10	24-hour,ug/m^3	N/A	1.7	0.000	1.7	2.5	No
487216.79	3754364.72		Annual, ug/m^3	N/A	1.00	0.00	0.999	1	No
487026.20	3754364.03	PM2.5	24-hour,ug/m^3	N/A	0.5	0.000	0.5	2.5	No

UNMITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	12.95	0.01	2.2	20	No
490249.86	3753432.39		8-hr,ppm	1.6	8.89	0.01	1.6	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	12.03	0.01	0.07	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	11.30	0.01	0.06	0.100	No
485899.86	3753382.39		Annual,ppm	0.015	1.98	0.001	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	0.8	0.000	0.8	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	0.4	0.000	0.4	1	No
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.2	0.000	0.2	2.5	No

Phase 1 Buildout-2018

MITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487026.20	3754364.03	CO	1-hr,ppm	2.2	13.94	0.01	2.2	20	No
487026.20	3754364.03		8-hr,ppm	1.6	11.43	0.01	1.6	9	No
487026.20	3754364.03	NO2	State-1 hr,ppm	0.064	11.28	0.006	0.07	0.18	No
487026.20	3754364.03		National-1 hr,ppm	0.053	11.10	0.006	0.06	0.100	No
487026.20	3754364.03		Annual,ppm	0.015	3.60	0.002	0.02	0.03	No
487026.20	3754364.03	PM10	24-hour,ug/m^3	N/A	1.60	0.000	1.6	2.5	No
487216.79	3754364.72		Annual, ug/m^3	N/A	0.97	0.000	1.0	1	No
487026.20	3754364.03	PM2.5	24-hour,ug/m^3	N/A	0.46	0.000	0.5	2.5	No

MITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	12.90	0.01	2.2	20	No
490249.86	3753432.39		8-hr,ppm	1.6	8.83	0.01	1.6	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	6.95	0.00	0.1	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	6.53	0.00	0.1	0.100	No
485899.86	3753382.39		Annual,ppm	0.015	1.11	0.001	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	0.8	0.00	0.8	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	0.4	0.000	0.4	1	No
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.2	0.000	0.2	2.5	No

Full Buildout-2018

UNMITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487216.79	3754364.72	CO	1-hr,ppm	2.2	20.21	0.02	2.2	20	No
487216.79	3754364.72		8-hr,ppm	1.6	15.94	0.01	1.6	9	No
487189.19	3754820.49	NO2	State-1 hr,ppm	0.064	27.12	0.02	0.08	0.18	No
487189.19	3754820.49		National-1 hr,ppm	0.053	26.51	0.01	0.07	0.100	No
487216.79	3754364.72		Annual,ppm	0.015	8.42	0.005	0.02	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	1.6	0.000	1.6	2.5	No
487216.79	3754364.72		Annual, ug/m^3	N/A	1.0	0.00	1.0	1	Yes
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.5	0.000	0.5	2.5	No

UNMITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	15.27	0.01	2.2	20	No
490249.86	3753432.39		8-hr,ppm	1.6	11.79	0.01	1.6	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	19.89	0.01	0.08	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	18.91	0.01	0.06	0.1	No
487249.86	3755532.39		Annual,ppm	0.015	2.77	0.002	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	0.8	0.000	0.8	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	0.5	0.000	0.5	1	No
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.2	0.000	0.2	2.5	No

Full Buildout-2018

MITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487216.79	3754364.72	CO	1-hr,ppm	2.2	18.80	0.016	2.18	20	No
487216.79	3754364.72		8-hr,ppm	1.6	14.79	0.013	1.6	9	No
487189.19	3754820.49	NO2	State-1 hr,ppm	0.064	15.67	0.009	0.07	0.18	No
487189.19	3754820.49		National-1 hr,ppm	0.053	15.32	0.009	0.06	0.1	No
487216.79	3754364.72		Annual,ppm	0.015	4.84	0.003	0.02	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	1.54	0.000	1.5	2.5	No
487216.79	3754364.72		Annual, ug/m^3	N/A	0.97	0.000	1.0	1	No
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.43	0.000	0.4	2.5	No

MITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	14.98	0.013	2.2	20	No
490249.86	3753432.39		8-hr,ppm	1.6	11.42	0.010	1.6	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	11.43	0.006	0.1	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	10.86	0.006	0.1	0.1	No
487249.86	3755532.39		Annual,ppm	0.015	0.62	0.000	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	0.78	0.00	0.8	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	0.46	0.000	0.5	1	No
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.23	0.000	0.2	2.5	No

Phase 1 Buildout-2025

UNMITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2027 CSTN Impact (ug/m^3)	2027 CSTN Impact (ppm)	Project OPS Local Impact (ug/m^3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487026.20	3754364.03	CO	1-hr,ppm	2.17	41.43	0.04	12.13	0.01	0.05	2.2	20	No
487026.20	3754364.03		8-hr,ppm	1.6	8.60	0.01	9.92	0.009	0.02	1.6	9	No
487026.20	3754364.03	NO2	State-1 hr,ppm	0.064	31.65	0.02	15.70	0.009	0.03	0.09	0.18	No
487026.20	3754364.03		National-1 hr,ppm	0.053	26.48	0.01	14.59	0.008	0.02	0.08	0.1	No
487026.20	3754364.03		Annual,ppm	0.015	0.079	0.00004	5.00	0.003	0.003	0.02	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	0.848	-	2.46	0.000	3.3	3.3	2.5	Yes
487216.79	3754364.72		Annual, ug/m^3	N/A	0.040	-	1.53	0.00	1.6	1.6	1	Yes
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.159	-	0.67	0.000	0.8	0.8	2.5	No

UNMITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2027 CSTN Impact (ug/m3)	2027 CSTN Impact (ppm)	Project OPS Local Impact (ug/m3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
485449.86	3754682.39	CO	1-hr,ppm	2.2	39.64	0.03	10.92	0.010	0.04	2.21	20	No
485449.86	3754682.39		8-hr,ppm	1.6	5.98	0.01	7.37	0.006	0.01	1.64	9	No
485449.86	3754782.39	NO2	State-1 hr,ppm	0.064	27.58	0.015	9.93	0.006	0.02	0.09	0.18	No
485449.86	3754782.39		National-1 hr,ppm	0.053	21.05	0.012	8.94	0.005	0.02	0.07	0.1	No
485899.86	3753382.39		Annual,ppm	0.015	0.21	0.0001	1.63	0.001	0.001	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	0.94	-	1.15	0.000	2.09	2.1	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	0.04	-	0.67	0.000	0.72	0.7	1	No
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.18	-	0.31	0.000	0.49	0.5	2.5	No

Phase 1 Buildout-2025

MITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2027 CSTN Impact (ug/m3)	2027 CSTN Impact (ppm)	Project OPS Local Impact (ug/m3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487026.20	3754364.03	CO	1-hr,ppm	2.2	49.6	0.0	12.06	0.011	0.054	2.22	20	No
487026.20	3754364.03		8-hr,ppm	1.6	10.1	0.0	9.86	0.009	0.017	1.7	9	No
487026.20	3754364.03	NO2	State-1 hr,ppm	0.064	9.55	0.005	11.70	0.007	0.012	0.08	0.18	No
487026.20	3754364.03		National-1 hr,ppm	0.053	7.96	0.004	11.45	0.006	0.011	0.06	0.1	No
487026.20	3754364.03		Annual,ppm	0.015	0.02	0.000	3.75	0.002	0.002	0.02	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	0.78	-	2.45	0.000	3.229	3.2	2.5	Yes
487216.79	3754364.72		Annual, ug/m^3	N/A	0.04	-	1.53	0.000	1.568	1.6	1	Yes
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.09	-	0.66	0.000	0.758	0.8	2.5	No

MITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2027 CSTN Impact (ug/m3)	2027 CSTN Impact (ppm)	Project OPS Local Impact (ug/m3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
485449.86	3754682.39	CO	1-hr,ppm	2.2	47.4	0.041	10.94	0.010	0.051	2.2	20	No
485449.86	3754682.39		8-hr,ppm	1.6	7.1	0.006	7.38	0.006	0.013	1.6	9	No
485449.86	3754782.39	NO2	State-1 hr,ppm	0.064	8.295	0.005	6.48	0.004	0.008	0.1	0.18	No
485449.86	3754782.39		National-1 hr,ppm	0.053	6.299	0.003	5.97	0.003	0.007	0.1	0.1	No
485899.86	3753382.39		Annual,ppm	0.015	0.064	0.000	1.12	0.001	0.001	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	0.86	-	1.15	0.00	2.01	2.0	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	0.04	-	0.67	0.000	0.712	0.7	1	No
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.10	-	0.31	0.000	0.416	0.4	2.5	No

Worst-case Year-2032

UNMITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2032 CSTN Impact (ug/m3)	2032 CSTN Impact (ppm)	Project OPS Local Impact (ug/m3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487216.79	3754364.72	CO	1-hr,ppm	2.2	55.81	0.05	11.80	0.010	0.06	2.2	20	No
487216.79	3754364.72		8-hr,ppm	1.6	12.5	0.0	9.25	0.008	0.02	1.7	9	No
487216.79	3754364.72	NO2	State-1 hr,ppm	0.064	30.544	0.017	15.00	0.008	0.03	0.09	0.18	No
487216.79	3754364.72		National-1 hr,ppm	0.053	28.564	0.016	13.15	0.007	0.02	0.08	0.1	No
487216.79	3754364.72		Annual,ppm	0.015	0.111	0.0001	4.96	0.003	0.003	0.02	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	1.280	-	2.62	0.000	3.90	3.9	2.5	Yes
487216.79	3754364.72		Annual, ug/m^3	N/A	0.063	-	1.67	0.00	1.7	1.7	1	Yes
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.201	-	0.71	0.000	0.9	0.9	2.5	No

UNMITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2032 CSTN Impact (ug/m3)	2032 CSTN Impact (ppm)	Project OPS Local Impact (ug/m3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	93.0	0.1	10.60	0.009	0.09	2.3	20	No
490249.86	3753432.39		8-hr,ppm	1.6	25.3	0.0	7.82	0.007	0.03	1.7	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	23.094	0.013	10.27	0.006	0.02	0.08	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	14.837	0.008	9.77	0.005	0.01	0.07	0.1	No
490249.86	3753432.39		Annual,ppm	0.015	0.889	0.0005	1.61	0.001	0.001	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	3.009	-	1.67	0.000	4.7	4.7	2.5	Yes
490249.86	3753432.39		Annual, ug/m^3	N/A	0.476	-	0.99	0.000	1.5	1.5	1	Yes
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.495	-	0.45	0.000	0.9	0.9	2.5	No

Worst-case Year-2032

MITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2032 CSTN Impact (ug/m3)	2032 CSTN Impact (ppm)	Project OPS Local Impact (ug/m3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487216.79	3754364.72	CO	1-hr,ppm	2.2	73.3	0.1	11.75	0.010	0.074	2.24	20	No
487216.79	3754364.72		8-hr,ppm	1.6	16.0	0.0	9.20	0.008	0.022	1.7	9	No
487216.79	3754364.72	NO2	State-1 hr,ppm	0.064	11.315	0.006	11.54	0.006	0.013	0.08	0.18	No
487216.79	3754364.72		National-1 hr,ppm	0.053	10.573	0.006	10.16	0.006	0.012	0.06	0.1	No
487216.79	3754364.72		Annual,ppm	0.015	0.041	0.00002	3.96	0.002	0.002	0.0172	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	1.267	-	2.62	0.000	3.890	3.9	2.5	Yes
487216.79	3754364.72		Annual, ug/m^3	N/A	0.061	-	1.67	0.000	1.728	1.7	1	Yes
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.148	-	0.71	0.000	0.861	0.9	2.5	No

MITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	2032 CSTN Impact (ug/m3)	2032 CSTN Impact (ppm)	Project OPS Local Impact (ug/m3)	Project OPS Local Impact (ppm)	Total Project Localized Impacts	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	122.1	0.1	10.58	0.009	0.116	2.3	20	No
490249.86	3753432.39		8-hr,ppm	1.6	32.2	0.0	7.81	0.007	0.035	1.7	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	8.541	0.005	8.11	0.005	0.009	0.1	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	5.447	0.003	7.71	0.004	0.007	0.1	0.1	No
490249.86	3753432.39		Annual,ppm	0.015	0.359	0.000	1.21	0.001	0.001	0.016	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	2.957	-	1.66	0.000	4.6	4.6	2.5	Yes
490249.86	3753432.39		Annual, ug/m^3	N/A	0.458	-	0.99	0.000	1.4	1.4	1	Yes
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.352	-	0.45	0.000	0.803	0.8	2.5	No

Full Buildout-2040

UNMITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487216.79	3754364.72	CO	1-hr,ppm	2.2	12.68	0.01	2.2	20	No
487216.79	3754364.72		8-hr,ppm	1.6	9.83	0.009	1.6	9	No
487216.79	3754364.72	NO2	State-1 hr,ppm	0.064	16.00	0.009	0.07	0.18	No
487216.79	3754364.72		National-1 hr,ppm	0.053	14.02	0.008	0.06	0.1	No
487216.79	3754364.72		Annual,ppm	0.015	5.14	0.003	0.02	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	2.9	0.000	2.9	2.5	Yes
487216.79	3754364.72		Annual, ug/m^3	N/A	1.8	0.00	1.8	1	Yes
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.8	0.000	0.8	2.5	No

UNMITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	12.26	0.01	2.2	20	No
490249.86	3753432.39		8-hr,ppm	1.6	9.14	0.01	1.6	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	10.76	0.006	0.07	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	10.24	0.006	0.06	0.1	No
490249.86	3753432.39		Annual,ppm	0.015	1.73	0.001	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	2.2	0.000	2.2	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	1.3	0.000	1.3	1	Yes
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.6	0.000	0.6	2.5	No

Full Buildout-2040

MITIGATED-ONSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
487216.79	3754364.72	CO	1-hr,ppm	2.2	12.69	0.011	2.18	20	No
487216.79	3754364.72		8-hr,ppm	1.6	9.83	0.009	1.6	9	No
487216.79	3754364.72	NO2	State-1 hr,ppm	0.064	12.19	0.007	0.07	0.18	No
487216.79	3754364.72		National-1 hr,ppm	0.053	10.68	0.006	0.06	0.1	No
487216.79	3754364.72		Annual,ppm	0.015	4.05	0.002	0.02	0.03	No
487216.79	3754364.72	PM10	24-hour,ug/m^3	N/A	2.88	0.000	2.9	2.5	Yes
487216.79	3754364.72		Annual, ug/m^3	N/A	1.83	0.000	1.8	1	Yes
487216.79	3754364.72	PM2.5	24-hour,ug/m^3	N/A	0.79	0.000	0.8	2.5	No

MITIGATED-OFFSITE RECEPTOR

X	Y	Pollutant	Averaging Time, Units	Background (ppm)	Project Local Impact (ug/m^3)	Project Local Impact (ppm)	Total (Background + Project)	Standard/ Threshold	Total Impact Exceeds Threshold?
490249.86	3753432.39	CO	1-hr,ppm	2.2	12.26	0.011	2.2	20	No
490249.86	3753432.39		8-hr,ppm	1.6	9.15	0.008	1.6	9	No
487249.86	3755532.39	NO2	State-1 hr,ppm	0.064	8.40	0.005	0.1	0.18	No
487249.86	3755532.39		National-1 hr,ppm	0.053	8.00	0.004	0.1	0.1	No
490249.86	3753432.39		Annual,ppm	0.015	0.48	0.0003	0.02	0.03	No
490249.86	3753432.39	PM10	24-hour,ug/m^3	N/A	2.23	0.00	2.2	2.5	No
490249.86	3753432.39		Annual, ug/m^3	N/A	1.33	0.000	1.3	1	Yes
490249.86	3753432.39	PM2.5	24-hour,ug/m^3	N/A	0.60	0.000	0.6	2.5	No

D-2 2027 CSTN LST Analysis Summary

ESA

AERMOD Results

Non-Concrete Construction LST

NO2

AERMOD Concentration @ 1g/s

1st High 1-Hour NO2	**X**	**Y**	**ug/m^3**
Max Onsite	487026.20	3754364.03	6.419
Max Offsite	485449.86	3754782.39	5.523

8th High 1-hour NO2	**X**	**Y**	**ug/m^3**
Max Onsite	487026.20	3754364.03	5.307
Max Offsite	485449.86	3754782.39	4.126

Annual NO2	**X**	**Y**	**ug/m^3**
Max Onsite	487026.20	3754364.03	0.011
Max Offsite	485899.86	3753382.39	0.029

Non-Concrete Construction LST

CO

AERMOD Concentration @ 1g/s

1-Hour CO	**X**	**Y**	**ug/m^3**
Max Onsite	487026.20	3754364.03	7.13
Max Offsite	485449.86	3754682.39	6.74

8-Hour CO	**X**	**Y**	**ug/m^3**
Max Onsite	487026.20	3754364.03	1.28
Max Offsite	485449.86	3754682.39	0.89

AERMOD Results

Non-Concrete Construction LST

PM10
Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	0.411
Max Offsite	490249.86	3753432.39	0.476

Annual	X	Y	ug/m^3
Max Onsite	487216.79	3754364.72	0.013
Max Offsite	490249.86	3753432.39	0.021

PM10 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	0.482
Max Offsite	490249.86	3753432.39	0.575

Annual	X	Y	ug/m^3
Max Onsite	487216.79	3754364.72	0.013
Max Offsite	490249.86	3753432.39	0.022

Non-Concrete Construction LST

PM2.5 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	0.412
Max Offsite	490249.86	3753432.39	0.476

PM2.5 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	0.482
Max Offsite	490249.86	3753432.39	0.575

AERMOD Results

Concrete Construction LST

NO2

1st High 1-Hour NO2	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487026.20	3754364.03	6.64
Max Offsite	485449.86	3754782.39	6.72

8th High 1-hour NO2	X	Y	ug/m^3
Max Onsite	487026.20	3754364.03	6.376
Max Offsite	485449.86	3754782.39	6.267

Annual NO2	X	Y	ug/m^3
Max Onsite	487026.20	3754364.03	0.07
Max Offsite	485899.86	3753382.39	0.20

Concrete Construction LST

CO

1-Hour CO	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487026.20	3754364.03	7.38
Max Offsite	485449.86	3754682.39	7.91

8-Hour CO	X	Y	ug/m^3
Max Onsite	487026.20	3754364.03	3.54
Max Offsite	485449.86	3754682.39	2.44

AERMOD Results
AERMOD Results
Concrete Construction LST

PM10
Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	1.065
Max Offsite	490249.86	3753432.39	0.868
	0.00	0.00	

Annual	X	Y	ug/m^3
Max Onsite	487216.79	3754364.72	0.080
Max Offsite	490249.86	3753432.39	0.069

PM10 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	1.169
Max Offsite	490249.86	3753432.39	1.022

Annual	X	Y	
Max Onsite	487216.79	3754364.72	0.088
Max Offsite	490249.86	3753432.39	0.066

Concrete Construction LST

PM2.5 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	1.065
Max Offsite	490249.86	3753432.39	0.868

PM2.5 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m^3
Max Onsite	487216.79	3754364.72	1.169
Max Offsite	490249.86	3753432.39	1.022

Construction Emissions Summary

Unmitgated Emissions

Non-Concrete Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
			lb/day		
362.15	417.59	93.94	14.18	9.62	13.05
			g/s		
4.56	5.26	1.18	0.18	0.12	0.16

Concrete Pour Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
			lb/day		
28.12	41.98	12.88	1.06	1.30	1.00
			g/s		
0.3543	0.5289	0.162	0.013	0.016	0.013

Mitgated Emissions

Non-Concrete Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
			lb/day		
111.35	506.35	93.94	2.73	9.62	2.62
			g/s		
1.40	6.38	1.18	0.03	0.12	0.03

Concrete Pour Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
			lb/day		
6.45	44.52	12.88	0.14	1.30	0.14
			g/s		
0.08	0.56	0.16	0.00	0.02	0.00

Unmitigated NO2

Non-Concrete Construction LST

NO2			AERMOD Concentration @ 1 g/s	NOX	Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487026.2	3754364.03	6.419	4.563	29.292
Max Offsite	485449.86	3754782.39	5.523	4.563	25.201

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	5.307	4.563	24.217
Max Offsite	485449.86	3754782.39	4.126	4.563	18.829

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	0.011	3.14E+00	0.035
Max Offsite	485899.86	3753382.39	0.029	3.14E+00	0.092

			Total Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	31.646
Max Offsite	487349.86	3752332.39	27.583

8th High 1-hour NO2	X	Y	(ug/m3)
Max Onsite	485642.82	3754267.27	26.476
Max Offsite	487349.86	3752332.39	21.049

			0.000
Annual NO2	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	0.079
Max Offsite	487349.86	3752332.39	0.212

Concrete Construction LST

NO2			AERMOD Concentration @ 1g/s	NOX	Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487026.2	3754364.03	6.641	0.3543	2.353
Max Offsite	485449.86	3754782.39	6.720	0.3543	2.381

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	6.376	0.3543	2.259
Max Offsite	485449.86	3754782.39	6.267	0.3543	2.221

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	0.075	5.91E-01	4.40E-02
Max Offsite	485899.86	3753382.39	0.202	5.91E-01	1.19E-01

Mitigated NO2

Non-Concrete Construction LST

NO2			AERMOD Concentration @ 1 g/s	NOX	Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487026.2	3754364.03	6.419	1.403	9.007
Max Offsite	485449.86	3754782.39	5.523	1.403	7.749

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	5.307	1.403	7.446
Max Offsite	485449.86	3754782.39	4.126	1.403	5.789

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	0.011	1.25E+00	0.014
Max Offsite	485899.86	3753382.39	0.029	1.25E+00	0.037

			Total Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	9.546
Max Offsite	487349.86	3752332.39	8.295

8th High 1-hour NO2	X	Y	(ug/m3)
Max Onsite	485642.82	3754267.27	7.964
Max Offsite	487349.86	3752332.39	6.299

Annual NO2	X	Y	(ug/m3)
Max Onsite	485642.82	3754267.27	0.024
Max Offsite	487349.86	3752332.39	0.064

Concrete Construction LST

NO2			AERMOD Concentration @ 1g/s	NOX	Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487026.2	3754364.03	6.641	0.0812	0.539
Max Offsite	485449.86	3754782.39	6.720	0.0812	0.546

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	6.376	0.0812	0.518
Max Offsite	485449.86	3754782.39	6.267	0.0812	0.509

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.2	3754364.03	0.075	1.35E-01	1.01E-02
Max Offsite	485899.86	3753382.39	0.202	1.35E-01	2.73E-02

Unmitigated CO

Non-Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m^3)**
Max Onsite	487026.20	3754364.03	7.13	5.26	37.53
Max Offsite	485449.86	3754682.39	6.74	5.26	35.46

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.20	3754364.03	1.28	5.26	6.73
Max Offsite	485449.86	3754682.39	0.89	5.26	4.69

			Total Project Concentration
1-Hour CO	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	41.43
Max Offsite	487349.86	3752332.39	39.64

8-Hour CO	X	Y	(ug/m3)
Max Onsite	487026.20	3754364.03	8.60
Max Offsite	487799.86	3752282.39	5.98

Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487026.20	3754364.03	7.38	0.53	3.90
Max Offsite	485449.86	3754682.39	7.91	0.53	4.18

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.20	3754364.03	3.54	0.53	1.87
Max Offsite	485449.86	3754682.39	2.44	0.53	1.29

Mitigated CO

Non-Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m^{3})**
Max Onsite	487026.20	3754364.03	7.13	6.38	45.51
Max Offsite	485449.86	3754682.39	6.74	6.38	43.00

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.20	3754364.03	1.28	6.38	8.16
Max Offsite	485449.86	3754682.39	0.89	6.38	5.69

			Total Project Concentration
1-Hour CO	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	49.65
Max Offsite	487349.86	3752332.39	47.43

8-Hour CO	X	Y	(ug/m3)
Max Onsite	487026.20	3754364.03	10.14
Max Offsite	487799.86	3752282.39	7.06

Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487026.20	3754364.03	7.38	0.56	4.14
Max Offsite	485449.86	3754682.39	7.91	0.56	4.44

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487026.20	3754364.03	3.54	0.56	1.99
Max Offsite	485449.86	3754682.39	2.44	0.56	1.37

Unmitigated PM10

Non-Concrete

PM10 Exhaust			AERMOD Concentration @ 1g/s	PM10	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	0.41116	1.79E-01	7.35E-02
Max Offsite	490249.86	3753432.39	0.47642	1.79E-01	8.51E-02

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.01253	1.23E-01	1.54E-03
Max Offsite	490249.86	3753432.39	0.02093	1.23E-01	2.58E-03

PM10 Exhaust			Total Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	8.77E-02
Max Offsite	487799.86	3752282.39	9.67E-02

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	3.32E-03
Max Offsite	487149.86	3752582.39	4.12E-03

TOTAL PM10			Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	8.48E-01
Max Offsite	487799.86	3752282.39	9.43E-01

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	3.95E-02
Max Offsite	487149.86	3752582.39	4.21E-02

PM10 Dust			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	0.4823	1.18E+00	5.71E-01
Max Offsite	490249.86	3753432.39	0.57482	1.18E+00	6.80E-01

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.01346	9.23E-01	1.24E-02
Max Offsite	490249.86	3753432.39	0.02178	9.23E-01	2.01E-02

PM10 Dust			Total Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	7.61E-01
Max Offsite	487799.86	3752282.39	8.46E-01

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	3.62E-02
Max Offsite	487149.86	3752582.39	3.80E-02

Concrete Pour

PM10 Exhaust			AERMOD Concentration @ 1g/s	PM10	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	1.0654	1.33E-02	1.42E-02
Max Offsite	490249.86	3753432.39	0.86788	1.33E-02	1.15E-02

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.07991	2.22E-02	1.77E-03
Max Offsite	490249.86	3753432.39	0.0693	2.22E-02	1.54E-03

PM10 Dust			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	1.16947	1.62E-01	1.90E-01
Max Offsite	490249.86	3753432.39	1.02203	1.62E-01	1.66E-01

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.08796	2.71E-01	2.38E-02
Max Offsite	490249.86	3753432.39	0.06625	2.71E-01	1.79E-02

Mitigated PM10

Non-Concrete

PM10 Exhaust

			AERMOD Concentration @ 1g/s	PM10	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	0.41116	3.45E-02	1.42E-02
Max Offsite	490249.86	3753432.39	0.47642	3.45E-02	1.64E-02

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.01253	3.01E-02	3.78E-04
Max Offsite	490249.86	3753432.39	0.02093	3.01E-02	6.31E-04

PM10 Exhaust

			Total Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	1.60E-02
Max Offsite	487799.86	3752282.39	1.79E-02

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	6.08E-04
Max Offsite	487149.86	3752582.39	8.31E-04

TOTAL PM10

			Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	7.77E-01
Max Offsite	487799.86	3752282.39	8.64E-01

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	3.68E-02
Max Offsite	487149.86	3752582.39	3.89E-02

PM10 Dust

			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	0.4823	1.18E+00	5.71E-01
Max Offsite	490249.86	3753432.39	0.57482	1.18E+00	6.80E-01

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.01346	9.23E-01	1.24E-02
Max Offsite	490249.86	3753432.39	0.02178	9.23E-01	2.01E-02

PM10 Dust

			Total Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	7.61E-01
Max Offsite	487799.86	3752282.39	8.46E-01

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	3.62E-02
Max Offsite	487149.86	3752582.39	3.80E-02

Concrete Pour

PM10 Exhaust

			AERMOD Concentration @ 1g/s	PM10	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	1.0654	1.73E-03	1.84E-03
Max Offsite	490249.86	3753432.39	0.86788	1.73E-03	1.50E-03

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.07991	2.88E-03	2.30E-04
Max Offsite	490249.86	3753432.39	0.0693	2.88E-03	2.00E-04

PM10 Dust

			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	1.16947	1.62E-01	1.90E-01
Max Offsite	490249.86	3753432.39	1.02203	1.62E-01	1.66E-01

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.08796	2.71E-01	2.38E-02
Max Offsite	490249.86	3753432.39	0.06625	2.71E-01	1.79E-02

Unmitigated PM2.5

Non-Concrete

			AERMOD Concentration		
PM2.5 Exhaust			**@ 1g/s**	**PM2.5**	**Project Concentration**
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	4.12E-01	1.64E-01	6.77E-02
Max Offsite	490249.86	3753432.39	4.76E-01	1.64E-01	7.84E-02

				Project
Total PM2.5				**Concentration**
24-hour	**X**	**Y**		**ug/m3**
Max Onsite	487026.20	3754364.03		1.59E-01
Max Offsite	487799.86	3752282.39		1.76E-01

			AERMOD Concentration		
PM2.5 Dust			**@ 1g/s**		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	4.82E-01	1.21E-01	5.85E-02
Max Offsite	490249.86	3753432.39	5.75E-01	1.21E-01	6.97E-02

Concrete Pour

			AERMOD Concentration		
PM2.5 Exhaust			**@ 1g/s**	**PM2.5**	**Project Concentration**
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	1.07E+00	1.25E-02	1.34E-02
Max Offsite	490249.86	3753432.39	8.68E-01	1.25E-02	1.09E-02

			AERMOD Concentration		
PM2.5 Dust			**@ 1g/s**		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	1.17E+00	1.63E-02	1.91E-02
Max Offsite	490249.86	3753432.39	1.02E+00	1.63E-02	1.67E-02

Mitigated PM2.5

Non-Concrete

PM2.5 Exhaust

			AERMOD Concentration @ 1g/s	PM2.5	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	4.12E-01	3.30E-02	1.36E-02
Max Offsite	490249.86	3753432.39	4.76E-01	3.30E-02	1.57E-02

Total PM2.5

			Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	9.30E-02
Max Offsite	487799.86	3752282.39	1.04E-01

PM2.5 Dust

			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	4.82E-01	1.21E-01	5.85E-02
Max Offsite	490249.86	3753432.39	5.75E-01	1.21E-01	6.97E-02

Concrete Pour

PM2.5 Exhaust

			AERMOD Concentration @ 1g/s	PM2.5	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	1.07E+00	1.73E-03	1.84E-03
Max Offsite	490249.86	3753432.39	8.68E-01	1.73E-03	1.50E-03

PM2.5 Dust

			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	1.17E+00	1.63E-02	1.91E-02
Max Offsite	490249.86	3753432.39	1.02E+00	1.63E-02	1.67E-02

D-3 2040 CSTN LST Analysis Summary

ESA

AERMOD Results

Non-Concrete Construction LST

NO2

			AERMOD Concentration @ 1g/s
1st High 1-Hour NO2	**X**	**Y**	**ug/m^3**
Max Onsite	487216.79	3754364.72	6.6447
Max Offsite	487249.86	3755532.39	4.98605
8th High 1-hour NO2	**X**	**Y**	**ug/m^3**
Max Onsite	487216.79	3754364.72	6.19095
Max Offsite	487249.86	3755532.39	3.09604

Annual NO2	**X**	**Y**	**ug/m^3**
Max Onsite	487216.79	3754364.72	0.01877
Max Offsite	490249.86	3753432.39	0.21961

CO

			AERMOD Concentration @ 1g/s
1-Hour CO	**X**	**Y**	**ug/m^3**
Max Onsite	487216.79	3754364.72	7.383
Max Offsite	490249.86	3753432.39	12.2919
8-Hour CO	**X**	**Y**	**ug/m^3**
Max Onsite	487216.79	3754364.72	1.46716
Max Offsite	490249.86	3753432.39	2.89955

AERMOD Results

PM10 Exhaust

24-hour	**X**	**Y**	AERMOD Concentration @ 1g/s **ug/m^3**
Max Onsite	487216.79	3754364.72	0.50291
Max Offsite	490249.86	3753432.39	1.3782

Annual	**X**	**Y**	
Max Onsite	487216.79	3754364.72	0.02086
Max Offsite	490249.86	3753432.39	0.24401

PM10 Dust

24-hour	**X**	**Y**	AERMOD Concentration @ 1g/s **ug/m^3**
Max Onsite	487216.79	3754364.72	0.67904
Max Offsite	490249.86	3753432.39	1.5588

Annual	**X**	**Y**	
Max Onsite	487216.79	3754364.72	0.02096
Max Offsite	490249.86	3753432.39	0.23594

PM2.5 Exhaust

24-hour	**X**	**Y**	AERMOD Concentration @ 1g/s **ug/m^3**
Max Onsite	487216.79	3754364.72	0.50291
Max Offsite	490249.86	3753432.39	1.3782

PM2.5 Dust

24-hour	**X**	**Y**	AERMOD Concentration @ 1g/s **ug/m^3**
Max Onsite	487216.79	3754364.72	0.67904
Max Offsite	490249.86	3753432.39	1.5588

AERMOD Results

Concrete Construction LST

NO2

1st High 1-Hour NO2	X	Y	AERMOD Concentration @ 1g/s ug/m3
Max Onsite	487216.79	3754364.72	6.80478
Max Offsite	487249.86	3755532.39	5.73407

8th High 1-hour NO2	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	6.71974
Max Offsite	487249.86	3755532.39	5.34146

Annual NO2	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	0.12161
Max Offsite	490249.86	3753432.39	0.5498

CO

1-Hour CO	X	Y	AERMOD Concentration @ 1g/s ug/m3
Max Onsite	487216.79	3754364.72	7.56086
Max Offsite	490249.86	3753432.39	12.77866

8-Hour CO	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	4.15052
Max Offsite	490249.86	3753432.39	9.08996

AERMOD Results

PM10 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3
Max Onsite	487216.79	3754364.72	1.38351
Max Offsite	490249.86	3753432.39	3.02999

Annual	X	Y	
Max Onsite	487216.79	3754364.72	0.13512
Max Offsite	490249.86	3753432.39	0.61089

PM10 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3
Max Onsite	487216.79	3754364.72	1.62059
Max Offsite	490249.86	3753432.39	3.96174

Annual	X	Y	
Max Onsite	487216.79	3754364.72	0.14244
Max Offsite	490249.86	3753432.39	0.76147

PM2.5 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3
Max Onsite	487216.79	3754364.72	1.38351
Max Offsite	490249.86	3753432.39	3.02999

PM2.5 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3
Max Onsite	487216.79	3754364.72	1.62059
Max Offsite	490249.86	3753432.39	3.96174

Construction Emissions Summary

Unmitgated Emissions

Non-Concrete Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
342.15	555.38	109.81	11.14	11.26	11.14
4.31	7.00	1.38	0.14	0.14	0.14

Concrete Pour Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
22.13	43.54	12.88	0.41	1.30	0.41
0.28	0.55	0.16	0.01	0.02	0.01

Mitgated Emissions

Non-Concrete Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
128.61	741.84	114.95	2.93	11.78	2.93
1.62	9.35	1.45	0.04	0.15	0.04

Concrete Pour Max Day

NOX	CO	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
6.38	44.52	12.88	0.14	1.30	0.14
0.08	0.56	0.16	0.00	0.02	0.00

Unmitigated NO2
Non-Concrete Construction LST

NO2

1st High 1-Hour NO2	X	Y	AERMOD Concentration @ 1 g/s ug/m3	NOX g/s	Project Concentration (ug/m3)
Max Onsite	487216.79	3754364.72	6.645	4.311	28.646
Max Offsite	487249.86	3755532.39	4.986	4.311	21.495

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	6.191	4.311	26.690
Max Offsite	487249.86	3755532.39	3.096	4.311	13.347

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.019	2.883	0.054
Max Offsite	490249.86	3753432.39	0.220	2.883	0.633

1st High 1-Hour NO2	X	Y	Total Project Concentration (ug/m3)
Max Onsite	485642.82	3754267.27	30.54
Max Offsite	487349.86	3752332.39	23.09

8th High 1-hour NO2	X	Y	(ug/m3)
Max Onsite	485642.82	3754267.27	28.56
Max Offsite	487349.86	3752332.39	14.84

0.000

Annual NO2	X	Y	(ug/m3)
Max Onsite	485642.82	3754267.27	0.11
Max Offsite	487349.86	3752332.39	0.89

Concrete Construction LST

NO2

1st High 1-Hour NO2	X	Y	AERMOD Concentration @ 1g/s ug/m3	NOX g/s	Project Concentration (ug/m3)
Max Onsite	487216.79	3754364.72	6.805	0.279	1.897
Max Offsite	487249.86	3755532.39	5.734	0.279	1.599

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	6.720	0.279	1.874
Max Offsite	487249.86	3755532.39	5.341	0.279	1.489

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.122	0.465	0.057
Max Offsite	490249.86	3753432.39	0.550	0.465	0.256

Mitigated NO2
Non-Concrete Construction LST

NO2			AERMOD Concentration @ 1 g/s	NOX	Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	6.645	1.620	10.768
Max Offsite	487249.86	3755532.39	4.986	1.620	8.080

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	6.191	1.620	10.032
Max Offsite	487249.86	3755532.39	3.096	1.620	5.017

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.019	1.300	0.024
Max Offsite	490249.86	3753432.39	0.220	1.300	0.285

			Total Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	11.31
Max Offsite	487349.86	3752332.39	8.54

8th High 1-hour NO2	X	Y	(ug/m3)
Max Onsite	485642.82	3754267.27	10.57
Max Offsite	487349.86	3752332.39	5.45

Annual NO2	X	Y	(ug/m3)
Max Onsite	485642.82	3754267.27	0.04
Max Offsite	487349.86	3752332.39	0.36

Concrete Construction LST

NO2			AERMOD Concentration @ 1g/s	NOX	Project Concentration
1st High 1-Hour NO2	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	6.805	0.080	0.547
Max Offsite	487249.86	3755532.39	5.734	0.080	0.461

8th High 1-hour NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	6.720	0.080	0.540
Max Offsite	487249.86	3755532.39	5.341	0.080	0.429

Annual NO2	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.122	0.134	0.016
Max Offsite	490249.86	3753432.39	0.550	0.134	0.074

Unmitigated CO

Non-Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	7.383	6.998	51.66
Max Offsite	490249.86	3753432.39	12.292	6.998	86.02

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	1.467	6.998	10.27
Max Offsite	490249.86	3753432.39	2.900	6.998	20.29

			Total Project Concentration
1-Hour CO	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	55.81
Max Offsite	487349.86	3752332.39	93.03

8-Hour CO	X	Y	(ug/m3)
Max Onsite	487026.20	3754364.03	12.54
Max Offsite	487799.86	3752282.39	25.28

Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	7.561	0.549	4.15
Max Offsite	490249.86	3753432.39	12.779	0.549	7.01

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	4.151	0.549	2.28
Max Offsite	490249.86	3753432.39	9.090	0.549	4.99

Mitigated CO

Non-Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	7.383	9.347	69.01
Max Offsite	490249.86	3753432.39	12.292	9.347	114.89

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	1.467	9.347	13.71
Max Offsite	490249.86	3753432.39	2.900	9.347	27.10

			Total Project Concentration
1-Hour CO	**X**	**Y**	**(ug/m3)**
Max Onsite	485642.82	3754267.27	73.25
Max Offsite	487349.86	3752332.39	122.06

8-Hour CO	X	Y	(ug/m3)
Max Onsite	487026.20	3754364.03	16.04
Max Offsite	487799.86	3752282.39	32.20

Concrete

CO			AERMOD Concentration @ 1g/s	CO	Project Concentration
1-Hour CO	**X**	**Y**	**ug/m3**	**g/s**	**(ug/m3)**
Max Onsite	487216.79	3754364.72	7.561	0.561	4.24
Max Offsite	490249.86	3753432.39	12.779	0.561	7.17

8-Hour CO	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	4.151	0.561	2.33
Max Offsite	490249.86	3753432.39	9.090	0.561	5.10

Unmitigated PM10

Non-Concrete

PM10 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	PM10 g/s	Project Concentration (ug/m3)
Max Onsite	487216.79	3754364.72	0.50291	0.1403	0.0706
Max Offsite	490249.86	3753432.39	1.3782	0.1403	0.1934
					0

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.02086	0.0872	0.0018
Max Offsite	490249.86	3753432.39	0.24401	0.0872	0.0213

PM10 Exhaust

24-hour	X	Y	Total Project Concentration ug/m3
Max Onsite	487026.20	3754364.03	7.77E-02
Max Offsite	487799.86	3752282.39	2.09E-01

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	2.98E-03
Max Offsite	487149.86	3752582.39	2.65E-02

TOTAL PM10

24-hour	X	Y	Project Concentration ug/m3
Max Onsite	487026.20	3754364.03	1.28E+00
Max Offsite	487799.86	3752282.39	3.01E+00

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	6.32E-02
Max Offsite	487149.86	3752582.39	4.76E-01

PM10 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.67904	1.3836	0.9395
Max Offsite	490249.86	3753432.39	1.5588	1.3836	2.1568

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.02096	1.0325	0.0216
Max Offsite	490249.86	3753432.39	0.23594	1.0325	0.2436

PM10 Dust

24-hour	X	Y	Total Project Concentration ug/m3
Max Onsite	487026.20	3754364.03	1.20E+00
Max Offsite	487799.86	3752282.39	2.80E+00

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	6.02E-02
Max Offsite	487149.86	3752582.39	4.50E-01

Concrete Pour

PM10 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	PM10 g/s	Project Concentration (ug/m3)
Max Onsite	487216.79	3754364.72	1.38351	0.0052	0.0071
Max Offsite	490249.86	3753432.39	3.02999	0.0052	0.0156

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.13512	0.0086	0.0012
Max Offsite	490249.86	3753432.39	0.61089	0.0086	0.0053

PM10 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	1.62059	0.1623	0.2630
Max Offsite	490249.86	3753432.39	3.96174	0.1623	0.6431

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.14244	0.2705	0.0385
Max Offsite	490249.86	3753432.39	0.76147	0.2705	0.2060

Mitigated PM10

Non-Concrete

PM10 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	PM10 g/s	Project Concentration (ug/m3)
Max Onsite	487216.79	3754364.72	0.50291	0.0369	0.0185
Max Offsite	490249.86	3753432.39	1.3782	0.0369	0.0508

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.02086	0.0281	0.0006
Max Offsite	490249.86	3753432.39	0.24401	0.0281	0.0069

PM10 Exhaust

24-hour	X	Y	Total Project Concentration ug/m3
Max Onsite	487026.20	3754364.03	2.09E-02
Max Offsite	487799.86	3752282.39	5.60E-02

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	9.75E-04
Max Offsite	487149.86	3752582.39	8.62E-03

TOTAL PM10

24-hour	X	Y	Project Concentration ug/m3
Max Onsite	487026.20	3754364.03	1.27E+00
Max Offsite	487799.86	3752282.39	2.96E+00

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	6.12E-02
Max Offsite	487149.86	3752582.39	4.58E-01

PM10 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.67904	1.4484	0.9835
Max Offsite	490249.86	3753432.39	1.5588	1.4484	2.2577

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.02096	1.0325	0.0216
Max Offsite	490249.86	3753432.39	0.23594	1.0325	0.2436

PM10 Dust

24-hour	X	Y	Total Project Concentration ug/m3
Max Onsite	487026.20	3754364.03	1.25E+00
Max Offsite	487799.86	3752282.39	2.90E+00

Annual	X	Y	ug/m3
Max Onsite	487216.79	3754364.72	6.02E-02
Max Offsite	487149.86	3752582.39	4.50E-01

Concrete Pour

PM10 Exhaust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	PM10 g/s	Project Concentration (ug/m3)
Max Onsite	487216.79	3754364.72	1.38351	0.0017	0.0024
Max Offsite	490249.86	3753432.39	3.02999	0.0017	0.0052

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.13512	0.0029	0.0004
Max Offsite	490249.86	3753432.39	0.61089	0.0029	0.0018

PM10 Dust

24-hour	X	Y	AERMOD Concentration @ 1g/s ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	1.62059	0.1623	0.2630
Max Offsite	490249.86	3753432.39	3.96174	0.1623	0.6431

Annual	X	Y	ug/m3	g/s	(ug/m3)
Max Onsite	487216.79	3754364.72	0.14244	0.2705	0.0385
Max Offsite	490249.86	3753432.39	0.76147	0.2705	0.2060

Unmitigated PM2.5
Non-Concrete

PM2.5 Exhaust

			AERMOD Concentration @ 1g/s	PM2.5	Project Concentration
24-hour	X	Y	ug/m3	g/s	ug/m3
Max Onsite	487216.79	3754364.72	0.5029	0.1403	0.0706
Max Offsite	490249.86	3753432.39	1.3782	0.1403	0.1934

Total PM2.5

			Project Concentration
24-hour	X	Y	ug/m3
Max Onsite	487026.20	3754364.03	0.2005
Max Offsite	487799.86	3752282.39	0.4949

PM2.5 Dust

			AERMOD Concentration @ 1g/s		
24-hour	X	Y	ug/m3	g/s	ug/m3
Max Onsite	487216.79	3754364.72	0.6790	0.1419	0.0963
Max Offsite	490249.86	3753432.39	1.5588	0.1419	0.2212

Concrete Pour

PM2.5 Exhaust

			AERMOD Concentration @ 1g/s	PM2.5	Project Concentration
24-hour	X	Y	ug/m3	g/s	ug/m3
Max Onsite	487216.79	3754364.72	1.3835	0.0052	0.0071
Max Offsite	490249.86	3753432.39	3.0300	0.0052	0.0156

PM2.5 Dust

			AERMOD Concentration @ 1g/s		
24-hour	X	Y	ug/m3	g/s	ug/m3
Max Onsite	487216.79	3754364.72	1.6206	0.0163	0.0265
Max Offsite	490249.86	3753432.39	3.9617	0.0163	0.0647

Mitigated PM2.5
Non-Concrete

PM2.5 Exhaust			AERMOD Concentration @ 1g/s	PM2.5	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	0.5029	0.0369	0.0185
Max Offsite	490249.86	3753432.39	1.3782	0.0369	0.0508

Total PM2.5			Project Concentration
24-hour	**X**	**Y**	**ug/m3**
Max Onsite	487026.20	3754364.03	0.1482
Max Offsite	487799.86	3752282.39	0.3522

PM2.5 Dust			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	0.6790	0.1485	0.1008
Max Offsite	490249.86	3753432.39	1.5588	0.1485	0.2314

Concrete Pour

PM2.5 Exhaust			AERMOD Concentration @ 1g/s	PM2.5	Project Concentration
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	1.3835	0.0017	0.0024
Max Offsite	490249.86	3753432.39	3.0300	0.0017	0.0052

PM2.5 Dust			AERMOD Concentration @ 1g/s		
24-hour	**X**	**Y**	**ug/m3**	**g/s**	**ug/m3**
Max Onsite	487216.79	3754364.72	1.6206	0.0163	0.0265
Max Offsite	490249.86	3753432.39	3.9617	0.0163	0.0647

Appendix E:
Health Risk Assessment Spreadsheets

E.1 - Project Construction Diesel PM Emissions
E.2 - Project Operational Diesel PM Emissions
E.3 - Project Construction and Operational AERMOD Model Output
E.4 - Project Construction and Operational Diesel PM, Residential Cancer Risk (2020-2049) and Cancer Burden
E.5 - Project Full Operational Diesel PM and Residential Cancer Risk (2040 -2069)
E.6 - Worker Receptor and Student Receptor Cancer Risk Summary
E.7 - Project Chronic Non-cancer Hazard Index
E.8 - Project-Related PM and TOG Emissions and Acute Non-cancer Hazard Index
E.9 - Assessment of Mortality and Morbidity

Note: All AERMOD input and output files are available digitally by contacting the City of Moreno Valley. They are not included herein to save paper resources.

E-1 Project Construction Diesel PM Emissions

Non-concrete pour construction (6am - 4pm)

	Annual Avg DPM Emissions (g/sec)			
SRC Group	**3rd**	**Age 0-2**	**Age 2-16**	**Age >16**
PLOT_1	-	-	0.01	-
PLOT_2	0.21	0.12	-	-
PLOT_4	-	0.03	0.01	-
PLOT_5&10	-	-	0.01	-
PLOT_6	-	-	0.00	-
PLOT_7	-	-	0.01	-
PLOT_9	-	-	0.02	-
PLOT_11	-	-	0.01	-
PLOT_12	-	-	0.01	-
PLOT_30				

Concrete pour construction (MN - 6am)

	Annual Avg DPM Emissions (g/sec)			
SRC Group	**3rd**	**Age 0-2**	**Age 2-16**	**Age >16**
PLOT_1	-	-	1.10E-03	-
PLOT_2	-	1.49E-02	-	-
PLOT_4	-	3.09E-03	2.82E-03	-
PLOT_5&10	-	-	2.19E-03	-
PLOT_6	-	-	2.78E-04	-
PLOT_7	-	-	1.10E-03	-
PLOT_9	-	-	2.41E-03	-
PLOT_11	-	-	1.30E-03	-
PLOT_12	-	-	8.63E-04	-
PLOT_30				

	3rd Tri	*Age 0-2*	*Age 2-16*	*Age >16*
From	1/1/2020	4/1/2020	4/1/2022	4/1/2036
To	4/1/2020	4/1/2022	4/1/2036	4/1/2050
Total Days	91	730	5110	5110

Construction Assumptions					***PM10 Exhaust***		**Days per age group**				**Weighted Annual Average DPM Calculation**			
Construction Phase	**From**	**To**	**Days**	**hrs/day**	**lbs/day**	**gr/sec**	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***
Plot 2 (2020) Mass Excavation	1/1/2020	6/30/2020	130	10	16.03	0.193973	66	64			12.80	12.41	-	-
Plot 2 (2020) Utilities	1/1/2020	12/29/2020	260	10	6.18	0.07478	66	194			4.94	14.51	-	-
Plot 2 (2020) Landscaping	1/1/2020	12/29/2020	260	10	1.93	0.023366	66	194			1.54	4.53	-	-
Plot 2 (2020) Finish Grading	5/7/2020	7/1/2020	40	10	0.69	0.008389		40			0.00	0.34	-	-
Plot 2 (2020) Building-Wet Utilities	7/2/2020	12/30/2020	130	10	3.59	0.0434		130			0.00	5.64	-	-
Plot 2 (2020) Building-Electrical	7/2/2020	12/30/2020	130	10	2.49	0.030185		130			0.00	3.92	-	-
Plot 2 (2020) Temporary Utilities	7/2/2020	12/30/2020	130	10	0.88	0.010659					0.00	0.00	-	-
Plot 2 (2020) Curbing/Drive Approaches	11/5/2020	12/30/2020	40	10	0.53	0.006463		40			0.00	0.26	-	-
Plot 2 (2020) Paving	12/3/2020	12/30/2020	20	10	2.85	0.034512		20			0.00	0.69	-	-
Plot 2 (2021) Utilities	1/1/2021	12/30/2021	260	10	5.37	0.064961		260			0.00	16.89	-	-
Plot 2 (2021) Building-Wet Utilities	1/1/2021	12/30/2021	260	10	3.11	0.037597		260			0.00	9.78	-	-
Plot 2 (2021) Building-Electrical	1/1/2021	12/30/2021	260	10	2.14	0.025927		260			0.00	6.74	-	-
Plot 2 (2021) Building-Landscaping	1/1/2021	12/30/2021	260	10	1.61	0.019494		260			0.00	5.07	-	-
Plot 2 (2021) Landscaping	1/1/2021	12/30/2021	260	10	1.69	0.0205		260			0.00	5.33	-	-
Plot 2 (2021) Curbing/Drive Approaches	5/1/2021	8/20/2021	80	10	0.46	0.005559		80			0.00	0.44	-	-
Plot 2 (2021) Paving	6/1/2021	7/26/2021	40	10	2.53	0.030609		40			0.00	1.22	-	-
Plot 2 (2021) Temporary Utilities	7/2/2021	12/30/2021	130	10	0.79	0.009536		130			0.00	1.24	-	-
										Weighted Average	**0.21**	**0.12**	-	-

Plot 4 (2022) Mass Excavation	1/1/2022	7/1/2022	130	10	14.31	0.173184		65	65		-	11.26	11.26	-
Plot 4 (2022) Utilities	1/1/2022	12/30/2022	260	10	4.37	0.052889		65	195		-	3.44	10.31	-
Plot 4 (2022) Building-Wet Utilities	1/1/2022	12/30/2022	260	10	2.52	0.030523		65	195		-	1.98	5.95	-
Plot 4 (2022) Building-Electrical	1/1/2022	12/30/2022	260	10	1.75	0.021141		65	195		-	1.37	4.12	-
Plot 4 (2022) Building-Landscaping	1/1/2022	12/30/2022	260	10	1.33	0.016153		65	195		-	1.05	3.15	-
Plot 4 (2022) Landscaping	1/1/2022	12/30/2022	260	10	1.41	0.017062		65	195		-	1.11	3.33	-
Plot 4 (2022) Curbing/Drive Approaches	5/1/2022	8/20/2022	80	10	0.38	0.004656			80		-	-	0.37	-
Plot 4 (2022) Finish Grading	5/7/2022	7/1/2022	40	10	0.54	0.006488			40		-	-	0.26	-
Plot 4 (2022) Paving	6/1/2022	7/26/2022	40	10	2.12	0.025599			40		-	-	1.02	-
Plot 4 (2022) Temporary Utilities	7/2/2022	12/30/2022	130	10	0.67	0.008076			130		-	-	1.05	-
Plot 4 (2023) Utilities	1/1/2023	12/30/2023	260	10	3.80	0.04597			260		-	-	11.95	-
Plot 4 (2023) Building-Wet Utilities	1/1/2023	12/30/2023	260	10	2.18	0.026394			260		-	-	6.86	-
Plot 4 (2023) Building-Electrical	1/1/2023	12/30/2023	260	10	1.49	0.018029			260		-	-	4.69	-
Plot 4 (2023) Building-Landscaping	1/1/2023	12/30/2023	260	10	1.13	0.013689			260		-	-	3.56	-
Plot 4 (2023) Landscaping	1/1/2023	12/30/2023	260	10	1.20	0.01454			260		-	-	3.78	-
Plot 4 (2023) Curbing/Drive Approaches	5/1/2023	8/20/2023	80	10	0.34	0.004144			80		-	-	0.33	-
Plot 4 (2023) Paving	6/1/2023	7/26/2023	40	10	1.90	0.02303			40		-	-	0.92	-
Plot 4 (2023) Temporary Utilities	7/2/2023	12/30/2023	130	10	0.58	0.006991			130		-	-	0.91	-
										Weighted Average	**-**	**0.03**	**0.01**	**-**

Construction Assumptions					*PM10 Exhaust*		Days per age group				Weighted Annual Average DPM Calculation			
Construction Phase	From	To	Days	hrs/day	lbs/day	gr/sec	*3rd Tri*	*Age 0-2*	*Age 2-16*	*Age >16*	*3rd Tri*	*Age 0-2*	*Age 2-16*	*Age >16*
Plot 9 (2024) Mass Excavation	1/1/2024	6/30/2024	130	10	33.51	0.405483			130		0	0	52.712803	0
Plot 9 (2024) Utilities	1/1/2024	12/29/2024	260	10	3.44429	0.041676			260		0	0	10.835737	0
Plot 9 (2024) Building-Wet Utilities	1/1/2024	12/29/2024	260	10	1.92713	0.023318			260		0	0	6.0627502	0
Plot 9 (2024) Building-Electrical	1/1/2024	12/29/2024	260	10	1.29505	0.01567			260		0	0	4.0742286	0
Plot 9 (2024) Building-Landscaping	1/1/2024	12/29/2024	260	10	1.0034	0.012141			260		0	0	3.1566964	0
Plot 9 (2024) Landscaping	1/1/2024	12/29/2024	260	10	1.0742	0.012998			260		0	0	3.3794332	0
Plot 9 (2024) Curbing/Drive Approaches	5/1/2024	8/20/2024	80	10	0.3306	0.004			80		0	0	0.3200208	0
Plot 9 (2024) Finish Grading	5/7/2024	7/1/2024	40	10	1.33402	0.016142			40		0	0	0.6456656	0
Plot 9 (2024) Paving	6/1/2024	7/26/2024	40	10	1.74387	0.021101			40		0	0	0.8440332	0
Plot 9 (2024) Temporary Utilities	7/2/2024	12/30/2024	130	10	0.5481	0.006632			130		0	0	0.8621613	0
Plot 9 (2025) Utilities	1/1/2025	12/30/2025	260	10	3.00165	0.03632			260		0	0	9.4431922	0
Plot 9 (2025) Building-Wet Utilities	1/1/2025	12/30/2025	260	10	1.6172	0.019568			260		0	0	5.0877112	0
Plot 9 (2025) Building-Electrical	1/1/2025	12/30/2025	260	10	1.1078	0.013404			260		0	0	3.4851388	0
Plot 9 (2025) Building-Landscaping	1/1/2025	12/30/2025	260	10	0.8425	0.010194			260		0	0	2.650505	0
Plot 9 (2025) Interchange	1/1/2025	12/30/2025	260	10	1.9506	0.023602			260		0	0	6.1365876	0
Plot 9 (2025) Landscaping	1/1/2025	12/30/2025	260	10	0.89388	0.010816			260		0	0	2.812147	0
Plot 9 (2025) Curbing/Drive Approaches	5/1/2025	8/20/2025	80	10	0.26488	0.003205			80		0	0	0.256404	0
Plot 9 (2025) Paving	6/1/2025	7/26/2025	40	10	1.47894	0.017895			40		0	0	0.7158068	0
Plot 9 (2025) Temporary Utilities	7/2/2025	12/30/2025	130	10	0.5002	0.006052			130		0	0	0.7868146	0
										Weighted Average	-	-	**0.02**	-

Plots 1 3 20 (2026) Mass Excavation	1/1/2026	7/1/2026	130	10	7.2621	0.087871			130		0	0	11.423283	0
Plots 1 3 20 (2026) Utilities	1/1/2026	12/30/2026	260	10	3.0176	0.036513			260		0	0	9.4933696	0
Plots 1 3 20 (2026) Building-Wet Utilities	1/1/2026	12/30/2026	260	10	1.61682	0.019564			260		0	0	5.0865152	0
Plots 1 3 20 (2026) Building-Electrical	1/1/2026	12/30/2026	260	10	1.10412	0.01336			260		0	0	3.473561	0
Plots 1 3 20 (2026) Building-Landscaping	1/1/2026	12/30/2026	260	10	0.83573	0.010112			260		0	0	2.6292058	0
Plots 1 3 20 (2026) Interchange	1/1/2026	7/1/2026	130	10	1.9424	0.023503			130		0	0	3.0553952	0
Plots 1 3 20 (2026) Landscaping	1/1/2026	12/30/2026	260	10	0.88878	0.010754			260		0	0	2.7961024	0
Plots 1 3 20 (2026) Curbing/Drive Approaches	5/1/2026	8/20/2026	80	10	0.2667	0.003227			80		0	0	0.2581656	0
Plots 1 3 20 (2026) Finish Grading	5/7/2026	7/1/2026	40	10	0.36869	0.004461			40		0	0	0.178446	0
Plots 1 3 20 (2026) Paving	6/1/2026	7/26/2026	40	10	1.48509	0.01797			40		0	0	0.7187836	0
Plots 1 3 20 (2026) Temporary Utilities	7/2/2026	12/30/2026	130	10	0.5002	0.006052			130		0	0	0.7868146	0
										Weighted Average	-	-	**0.01**	-

Construction Assumptions					PM10 Exhaust		Days per age group				Weighted Annual Average DPM Calculation			
Construction Phase	**From**	**To**	**Days**	**hrs/day**	**lbs/day**	**gr/sec**	*3rd Tri*	*Age 0-2*	*Age 2-16*	*Age >16*	*3rd Tri*	*Age 0-2*	*Age 2-16*	*Age >16*
Plots 5 and 10 (2027) Utilities	1/1/2027	12/30/2027	260	10	3.02	0.036507			260		0	0	9.4917966	0
Plots 5 and 10 (2027) Building-Wet Utilities	1/1/2027	12/30/2027	260	10	1.61656	0.01956			260		0	0	5.0856988	0
Plots 5 and 10 (2027) Building-Electrical	1/1/2027	12/30/2027	260	10	1.1039	0.013357			260		0	0	3.4728694	0
Plots 5 and 10 (2027) Building-Landscaping	1/1/2027	12/30/2027	260	10	0.83564	0.010111			260		0	0	2.6289224	0
Plots 5 and 10 (2027) Landscaping	1/1/2027	12/30/2027	260	10	0.88869	0.010753			260		0	0	2.795819	0
Plots 5 and 10 (2027) Curbing/Drive Approaches	5/1/2027	8/20/2027	80	10	0.26657	0.003226			80		0	0	0.25804	0
Plots 5 and 10 (2027) Paving	6/1/2027	7/26/2027	40	10	1.48483	0.017966			40		0	0	0.7186576	0
Plots 5 and 10 (2027) Temporary Utilities	7/2/2027	12/30/2027	130	10	0.5002	0.006052			130		0	0	0.7868146	0
Plots 5 and 10 (2027) Mass Excavation	9/16/2027	12/31/2027	77	10	5.8868	0.07123			77		0	0	5.4847316	0
Plots 5 and 10 (2027) Finish Grading	11/6/2027	12/31/2027	40	10	0.39078	0.004728			40		0	0	0.1891376	0
Plots 5 and 10 (2028) Mass Excavation	1/1/2028	4/18/2028	77	10	16.5147	0.199828			77		0	0	15.386746	0
Plots 5 and 10 (2028) Finish Grading	1/1/2028	2/25/2028	40	10	0.73485	0.008892			40		0	0	0.3556676	0
Plots 5 and 10 (2028) Utilities	1/1/2028	12/30/2028	260	10	3.0167	0.036502			260		0	0	9.4905382	0
Plots 5 and 10 (2028) Building-Wet Utilities	1/1/2028	12/30/2028	260	10	1.61628	0.019557			260		0	0	5.0848174	0
Plots 5 and 10 (2028) Building-Electrical	1/1/2028	12/30/2028	260	10	1.10368	0.013355			260		0	0	3.4721778	0
Plots 5 and 10 (2028) Building-Landscaping	1/1/2028	12/30/2028	260	10	0.83554	0.01011			260		0	0	2.6286078	0
Plots 5 and 10 (2028) Landscaping	1/1/2028	12/30/2028	260	10	0.8886	0.010752			260		0	0	2.7955356	0
Plots 5 and 10 (2028) Curbing/Drive Approaches	5/1/2028	8/20/2028	80	10	0.26645	0.003224			80		0	0	0.257924	0
Plots 5 and 10 (2028) Paving	6/1/2028	7/26/2028	40	10	1.48456	0.017963			40		0	0	0.7185272	0
Plots 5 and 10 (2028) Temporary Utilities	7/2/2028	12/30/2028	130	10	0.5002	0.006052			130		0	0	0.7868146	0
										Weighted Average	-	-	**0.01**	-
Plots 7 8 21 22 (2029) Utilities	1/1/2029	12/30/2029	260	10	3.0162	0.036496			260		0	0	9.4889652	0
Plots 7 8 21 22 (2029) Building-Wet Utilities	1/1/2029	12/30/2029	260	10	1.616	0.019554			260		0	0	5.083936	0
Plots 7 8 21 22 (2029) Building-Electrical	1/1/2029	12/30/2029	260	10	1.10345	0.013352			260		0	0	3.471455	0
Plots 7 8 21 22 (2029) Building-Landscaping	1/1/2029	12/30/2029	260	10	0.83544	0.010109			260		0	0	2.6282932	0
Plots 7 8 21 22 (2029) Landscaping	1/1/2029	12/30/2029	260	10	0.8885	0.010751			260		0	0	2.795221	0
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	5/1/2029	8/20/2029	80	10	0.00097	1.17E-05			80		0	0	0.0009392	0
Plots 7 8 21 22 (2029) Paving	6/1/2029	7/26/2029	40	10	0.00243	2.94E-05			40		0	0	0.001176	0
Plots 7 8 21 22 (2029) Temporary Utilities	7/2/2029	12/30/2029	130	10	0.5002	0.006052			130		0	0	0.7868146	0
Plots 7 8 21 22 (2029) Mass Excavation	9/14/2029	12/31/2029	77	10	10.7012	0.129485			77		0	0	9.970308	0
Plots 7 8 21 22 (2029) Finish Grading	11/6/2029	12/31/2029	40	10	0.36953	0.004471			40		0	0	0.1788524	0
										Weighted Average	-	-	**0.01**	-

Construction Assumptions					*PM10 Exhaust*		Days per age group				Weighted Annual Average DPM Calculation			
Construction Phase	**From**	**To**	**Days**	**hrs/day**	**lbs/day**	**gr/sec**	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***
Plot 11 (2030) Mass Excavation	1/1/2030	4/17/2030	77	10	7.76	0.093838			77		0	0	7.2255198	0
Plot 11 (2030) Finish Grading	1/1/2030	2/25/2030	40	10	0.33736	0.004082			40		0	0	0.1632824	0
Plot 11 (2030) Utilities	1/1/2030	12/30/2030	260	10	1.3753	0.016641			260		0	0	4.3266938	0
Plot 11 (2030) Building-Wet Utilities	1/1/2030	12/30/2030	260	10	0.68455	0.008283			260		0	0	2.1535956	0
Plot 11 (2030) Building-Electrical	1/1/2030	12/30/2030	260	10	0.36604	0.004429			260		0	0	1.1515608	0
Plot 11 (2030) Building-Landscaping	1/1/2030	12/30/2030	260	10	0.36846	0.004458			260		0	0	1.1591762	0
Plot 11 (2030) Landscaping	1/1/2030	12/30/2030	260	10	0.38883	0.004705			260		0	0	1.2232584	0
Plot 11 (2030) Curbing/Drive Approaches	5/1/2030	8/20/2030	80	10	0.2073	0.002508			80		0	0	0.2006664	0
Plot 11 (2030) Paving	6/1/2030	7/26/2030	40	10	0.85933	0.010398			40		0	0	0.4159156	0
Plot 11 (2030) Temporary Utilities	7/2/2030	12/30/2030	130	10	0.1309	0.001584			130		0	0	0.2059057	0
Plot 11 (2031) Utilities	1/1/2031	12/30/2031	260	10	1.375	0.016638			260		0	0	4.32575	0
Plot 11 (2031) Building-Wet Utilities	1/1/2031	12/30/2031	260	10	0.68435	0.008281			260		0	0	2.1529664	0
Plot 11 (2031) Building-Electrical	1/1/2031	12/30/2031	260	10	0.36588	0.004427			260		0	0	1.151059	0
Plot 11 (2031) Building-Landscaping	1/1/2031	12/30/2031	260	10	0.36839	0.004458			260		0	0	1.1589552	0
Plot 11 (2031) Landscaping	1/1/2031	12/30/2031	260	10	0.38876	0.004704			260		0	0	1.22304	0
Plot 11 (2031) Curbing/Drive Approaches	5/1/2031	8/20/2031	80	10	0.20722	0.002507			80		0	0	0.2005888	0
Plot 11 (2031) Paving	6/1/2031	7/26/2031	40	10	0.85914	0.010396			40		0	0	0.4158236	0
Plot 11 (2031) Temporary Utilities	7/2/2031	12/30/2031	130	10	0.1309	0.001584			130		0	0	0.2059057	0
Plot 11 (2032) Mass Excavation	1/1/2032	6/30/2032	130	10	6.9461	0.084048			130		0	0	10.926215	0
Plot 11 (2032) Finish Grading	1/1/2032	2/25/2032	40	10	0.33751	0.004084			40		0	0	0.1633548	0
Plot 11 (2032) Utilities	1/1/2032	12/29/2032	260	10	1.3746	0.016633			260		0	0	4.3244916	0
Plot 11 (2032) Building-Wet Utilities	1/1/2032	12/29/2032	260	10	0.68414	0.008278			260		0	0	2.1523034	0
Plot 11 (2032) Building-Electrical	1/1/2032	12/29/2032	260	10	0.36569	0.004425			260		0	0	1.150461	0
Plot 11 (2032) Building-Landscaping	1/1/2032	12/29/2032	260	10	0.36831	0.004457			260		0	0	1.158703	0
Plot 11 (2032) Landscaping	1/1/2032	12/29/2032	260	10	0.38868	0.004703			260		0	0	1.2227878	0
Plot 11 (2032) Curbing/Drive Approaches	5/1/2032	8/20/2032	80	10	0.20712	0.002506			80		0	0	0.200492	0
Plot 11 (2032) Paving	6/1/2032	7/26/2032	40	10	0.85892	0.010393			40		0	0	0.4157172	0
Plot 11 (2032) Temporary Utilities	7/2/2032	12/30/2032	130	10	0.1309	0.001584			130		0	0	0.2059057	0
										Weighted Average	-	-	**0.01**	-
Plot 12 (2033) Mass Excavation	1/1/2033	7/1/2033	130	10	5.04	0.060954			130		0	0	7.9239719	0
Plot 12 (2033) Finish Grading	1/1/2033	2/25/2033	40	10	0.17	0.002072			40		0	0	0.0828852	0
Plot 12 (2033) Utilities	1/1/2033	12/30/2033	260	10	1.37	0.016629			260		0	0	4.3235478	0
Plot 12 (2033) Building-Wet Utilities	1/1/2033	12/30/2033	260	10	0.68	0.008276			260		0	0	2.1518328	0
Plot 12 (2033) Building-Electrical	1/1/2033	12/30/2033	260	10	0.37	0.004424			260		0	0	1.1501776	0
Plot 12 (2033) Building-Landscaping	1/1/2033	12/30/2033	260	10	0.37	0.004456			260		0	0	1.158547	0
Plot 12 (2033) Landscaping	1/1/2033	12/30/2033	260	10	0.39	0.004702			260		0	0	1.2226292	0
Plot 12 (2033) Curbing/Drive Approaches	5/1/2033	8/20/2033	80	10	0.21	0.002505			80		0	0	0.2004248	0
Plot 12 (2033) Paving	6/1/2033	7/26/2033	40	10	0.86	0.010391			40		0	0	0.4156448	0
Plot 12 (2033) Temporary Utilities	7/2/2033	12/30/2033	130	10	0.13	0.001584			130		0	0	0.2059057	0
Plot 12 (2034) Utilities	1/1/2034	12/31/2034	260	10	1.37	0.016625			260		0	0	4.322604	0
Plot 12 (2034) Building-Wet Utilities	1/1/2034	12/31/2034	260	10	0.68	0.008274			260		0	0	2.151266	0
Plot 12 (2034) Building-Electrical	1/1/2034	12/31/2034	260	10	0.37	0.004422			260		0	0	1.149642	0
Plot 12 (2034) Building-Landscaping	1/1/2034	12/31/2034	260	10	0.37	0.004455			260		0	0	1.158326	0
Plot 12 (2034) Landscaping	1/1/2034	12/31/2034	260	10	0.39	0.004702			260		0	0	1.2224108	0
Plot 12 (2034) Curbing/Drive Approaches	5/1/2034	8/20/2034	80	10	0.21	0.002504			80		0	0	0.2003472	0
Plot 12 (2034) Paving	6/1/2034	7/26/2034	40	10	0.86	0.010389			40		0	0	0.4155528	0
Plot 12 (2034) Temporary Utilities	7/2/2034	12/31/2034	130	10	0.13	0.001584			130		0	0	0.2059057	0
										Weighted Average	-	-	**0.0058**	-

Construction Assumptions					*PM10 Exhaust*		Days per age group				Weighted Annual Average DPM Calculation			
Construction Phase	**From**	**To**	**Days**	**hrs/day**	**lbs/day**	**gr/sec**	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***
Plot 6 (2035) Mass Excavation	1/1/2035	6/30/2035	130	10	2.34	0.028275			130		0	0	3.6757864	0
Plot 6 (2035) Finish Grading	1/1/2035	2/25/2035	40	10	0.11	0.001349			40		0	0	0.0539756	0
Plot 6 (2035) Utilities	1/1/2035	12/29/2035	260	10	1.05	0.012645			260		0	0	3.28757	0
Plot 6 (2035) Building-Wet Utilities	1/1/2035	12/29/2035	260	10	0.46	0.005513			260		0	0	1.4334762	0
Plot 6 (2035) Building-Electrical	1/1/2035	12/29/2035	260	10	0.25	0.003032			260		0	0	0.7884188	0
Plot 6 (2035) Building-Landscaping	1/1/2035	12/29/2035	260	10	0.23	0.002818			260		0	0	0.732797	0
Plot 6 (2035) Landscaping	1/1/2035	12/29/2035	260	10	0.24	0.002958			260		0	0	0.769197	0
Plot 6 (2035) Curbing/Drive Approaches	5/1/2035	8/20/2035	80	10	0.12	0.001511			80		0	0	0.1208936	0
Plot 6 (2035) Paving	6/1/2035	7/26/2035	40	10	0.53	0.006373			40		0	0	0.2549372	0
Plot 6 (2035) Temporary Utilities	7/2/2035	12/29/2035	130	10	0.09	0.001101			130		0	0	0.143143	0
										Weighted Average	-	-	**0.0022**	-

	3rd Tri	*Age 0-2*	*Age 2-16*	*Age >16*
From	1/1/2020	4/1/2020	4/1/2022	4/1/2036
To	4/1/2020	4/1/2022	4/1/2036	4/1/2050
Total Days	91	730	5110	5110

Construction Assumptions					***PM10 Exhaust***		**Days per age group**				**Weighted Annual Average DPM Calculation**			
Construction Phase	**From**	**To**	**Days**	**hrs/day**	**lbs/day**	**gr/sec**	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***
Plot 2 (2021) Building-Concrete	1/1/2021	12/30/2021	260	6	2.08	0.042		260			-	10.91	-	-
										Weighted Average	**-**	**0.01**	**-**	**-**
Plot 4 (2022) Building-Concrete	1/1/2022	12/30/2022	260	6	1.72	0.035		65	195		-	2.26	6.77	-
Plot 4 (2023) Building-Concrete	1/1/2023	12/30/2023	260	6	1.46	0.029			260		-	-	7.64	-
										Weighted Average	**-**	**0.0031**	**0.0028**	**-**
Plot 9 (2024) Building-Concrete	1/1/2024	12/29/2024	260	6	1.2856	0.026			260		0	0	6.74	0
Plot 9 (2025) Building-Concrete	1/1/2025	12/30/2025	260	6	1.06069	0.021			260		0	0	5.56	0
										Weighted Average	**-**	**-**	**0.0024**	**-**
Plots 1 3 20 (2026) Building-Concrete	1/1/2026	12/30/2026	260	6	1.0685	0.022			260		0	0	5.60	0
										Weighted Average	**-**	**-**	**0.0011**	**-**
Plots 5 and 10 (2027) Building-Concrete	1/1/2027	12/30/2027	260	6	1.0682	0.022			260		0	0	5.60	0
Plots 5 and 10 (2028) Building-Concrete	1/1/2028	12/30/2028	260	6	1.0679	0.022			260		0	0	5.60	0
										Weighted Average	**-**	**-**	**0.0022**	**-**
Plots 7 8 21 22 (2029) Building-Concrete	1/1/2029	12/30/2029	260	6	1.0676	0.022			260		0	0	5.60	0
										Weighted Average	**-**	**-**	**0.0011**	**-**
Plot 11 (2030) Building-Concrete	1/1/2030	12/30/2030	260	6	0.4211	0.008			260		0	0	2.21	0
Plot 11 (2031) Building-Concrete	1/1/2031	12/30/2031	260	6	0.4209	0.008			260		0	0	2.21	0
Plot 11 (2032) Building-Concrete	1/1/2032	12/29/2032	260	6	0.4206	0.008			260		0	0	2.21	0
										Weighted Average	**-**	**-**	**0.0013**	**-**
Plot 12 (2033) Building-Concrete	1/1/2033	12/30/2033	260	6	0.42	0.008			260		0	0	2.20	0
Plot 12 (2034) Building-Concrete	1/1/2034	12/31/2034	260	6	0.42	0.008			260		0	0	2.20	0
										Weighted Average	**-**	**-**	**0.00086**	**-**
Plot 6 (2035) Building-Concrete	1/1/2035	12/29/2035	260	6	0.27	0.005			260		0	0	1.42	0
										Weighted Average	**-**	**-**	**0.00028**	**-**

Non-concrete pour construction (6am - 4pm)

	Annual Avg DPM Emissions (g/sec)			
SRC Group	**3rd**	**Age 0-2**	**Age 2-16**	**Age >16**
PLOT_1	0.00E+00	0.00E+00	1.64E-03	0.00E+00
PLOT_2	2.89E-02	2.58E-02	0.00E+00	0.00E+00
PLOT_4	0.00E+00	4.11E-03	3.14E-03	0.00E+00
PLOT_5&10	0.00E+00	0.00E+00	3.16E-03	0.00E+00
PLOT_6	0.00E+00	0.00E+00	1.08E-03	0.00E+00
PLOT_7	0.00E+00	0.00E+00	1.57E-03	0.00E+00
PLOT_9	0.00E+00	0.00E+00	3.69E-03	0.00E+00
PLOT_11	0.00E+00	0.00E+00	3.74E-03	0.00E+00
PLOT_12	0.00E+00	0.00E+00	2.36E-03	0.00E+00
PLOT_30				

Concrete pour construction (MN - 6am)

	Annual Avg DPM Emissions (g/sec)			
SRC Group	**3rd**	**Age 0-2**	**Age 2-16**	**Age >16**
PLOT_1	0.00E+00	0.00E+00	1.41E-04	0.00E+00
PLOT_2	0.00E+00	1.22E-03	0.00E+00	0.00E+00
PLOT_4	0.00E+00	2.96E-04	2.81E-04	0.00E+00
PLOT_5&10	0.00E+00	0.00E+00	3.06E-04	0.00E+00
PLOT_6	0.00E+00	0.00E+00	1.44E-04	0.00E+00
PLOT_7	0.00E+00	0.00E+00	1.52E-04	0.00E+00
PLOT_9	0.00E+00	0.00E+00	2.81E-04	0.00E+00
PLOT_11	0.00E+00	0.00E+00	4.55E-04	0.00E+00
PLOT_12	0.00E+00	0.00E+00	3.02E-04	0.00E+00
PLOT_30				

	3rd Tri	Age 0-2	Age 2-16	Age >16
From	1/1/2020	4/1/2020	4/1/2022	4/1/2036
To	4/1/2020	4/1/2022	4/1/2036	4/1/2050
Total Days	91	730	5110	5110

Construction Assumptions					PM10 Exhaust		Days per age group				Weighted Annual Average DPM Calculation			
Construction Phase	**From**	**To**	**Days**	**hrs/day**	**lbs/day**	**gr/sec**	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***
Plot 2 (2020) Mass Excavation	1/1/2020	6/30/2020	130	10	0.88	0.011	66	64			0.70	0.68	-	-
Plot 2 (2020) Utilities	1/1/2020	12/29/2020	260	10	1.99	0.024	66	194			1.59	4.68	-	-
Plot 2 (2020) Landscaping	1/1/2020	12/29/2020	260	10	0.44	0.005	66	194			0.35	1.02	-	-
Plot 2 (2020) Finish Grading	5/7/2020	7/1/2020	40	10	0.02	0.000		40			-	0.01	-	-
Plot 2 (2020) Building-Wet Utilities	7/2/2020	12/30/2020	130	10	0.54	0.007		130			-	0.85	-	-
Plot 2 (2020) Building-Electrical	7/2/2020	12/30/2020	130	10	0.41	0.005		130			-	0.64	-	-
Plot 2 (2020) Temporary Utilities	7/2/2020	12/30/2020	130	10	0.05	0.001		130			-	0.07	-	-
Plot 2 (2020) Curbing/Drive Approaches	11/5/2020	12/30/2020	40	10	0.06	0.001		40			-	0.03	-	-
Plot 2 (2020) Paving	12/3/2020	12/30/2020	20	10	0.20	0.002		20			-	0.05	-	-
Plot 2 (2021) Utilities	1/1/2021	12/30/2021	260	10	1.77	0.021		260			-	5.57	-	-
Plot 2 (2021) Building-Wet Utilities	1/1/2021	12/30/2021	260	10	0.47	0.006		260			-	1.48	-	-
Plot 2 (2021) Building-Electrical	1/1/2021	12/30/2021	260	10	0.35	0.004		260			-	1.11	-	-
Plot 2 (2021) Building-Landscaping	1/1/2021	12/30/2021	260	10	0.38	0.005		260			-	1.21	-	-
Plot 2 (2021) Landscaping	1/1/2021	12/30/2021	260	10	0.39	0.005		260			-	1.22	-	-
Plot 2 (2021) Curbing/Drive Approaches	5/1/2021	8/20/2021	80	10	0.05	0.001		80			-	0.04	-	-
Plot 2 (2021) Paving	6/1/2021	7/26/2021	40	10	0.17	0.002		40			-	0.08	-	-
Plot 2 (2021) Temporary Utilities	7/2/2021	12/30/2021	130	10	0.05	0.001		130			-	0.07	-	-
										Weighted Average	**0.03**	**0.03**	-	-

Construction Phase	From	To	Days	hrs/day	lbs/day	gr/sec	3rd Tri	Age 0-2	Age 2-16	Age >16	3rd Tri	Age 0-2	Age 2-16	Age >16
Plot 4 (2022) Mass Excavation	1/1/2022	7/1/2022	130	10	0.91	0.011		65	65		-	0.72	0.72	-
Plot 4 (2022) Utilities	1/1/2022	12/30/2022	260	10	1.50	0.018		65	195		-	1.18	3.53	-
Plot 4 (2022) Building-Wet Utilities	1/1/2022	12/30/2022	260	10	0.41	0.005		65	195		-	0.33	0.98	-
Plot 4 (2022) Building-Electrical	1/1/2022	12/30/2022	260	10	0.30	0.004		65	195		-	0.24	0.71	-
Plot 4 (2022) Building-Landscaping	1/1/2022	12/30/2022	260	10	0.34	0.004		65	195		-	0.27	0.81	-
Plot 4 (2022) Landscaping	1/1/2022	12/30/2022	260	10	0.35	0.004		65	195		-	0.27	0.82	-
Plot 4 (2022) Curbing/Drive Approaches	5/1/2022	8/20/2022	80	10	0.04	0.001			80		-	-	0.04	-
Plot 4 (2022) Finish Grading	5/7/2022	7/1/2022	40	10	0.02	0.0003			40		-	-	0.01	-
Plot 4 (2022) Paving	6/1/2022	7/26/2022	40	10	0.17	0.002			40		-	-	0.08	-
Plot 4 (2022) Temporary Utilities	7/2/2022	12/30/2022	130	10	0.05	0.001			130		-	-	0.07	-
Plot 4 (2023) Utilities	1/1/2023	12/30/2023	260	10	1.35	0.016			260		-	-	4.24	-
Plot 4 (2023) Building-Wet Utilities	1/1/2023	12/30/2023	260	10	0.38	0.005			260		-	-	1.19	-
Plot 4 (2023) Building-Electrical	1/1/2023	12/30/2023	260	10	0.27	0.003			260		-	-	0.84	-
Plot 4 (2023) Building-Landscaping	1/1/2023	12/30/2023	260	10	0.29	0.003			260		-	-	0.90	-
Plot 4 (2023) Landscaping	1/1/2023	12/30/2023	260	10	0.29	0.004			260		-	-	0.92	-
Plot 4 (2023) Curbing/Drive Approaches	5/1/2023	8/20/2023	80	10	0.04	0.000			80		-	-	0.04	-
Plot 4 (2023) Paving	6/1/2023	7/26/2023	40	10	0.16	0.002			40		-	-	0.08	-
Plot 4 (2023) Temporary Utilities	7/2/2023	12/30/2023	130	10	0.05	0.001			130		-	-	0.07	-
										Weighted Average	-	**0.004**	**0.003**	-

Plot 9 (2024) Mass Excavation	1/1/2024	6/30/2024	130	10	2.23	0.027	130	-	-	3.51	-
Plot 9 (2024) Utilities	1/1/2024	12/29/2024	260	10	1.2606	0.015	260	-	-	3.97	-
Plot 9 (2024) Building-Wet Utilities	1/1/2024	12/29/2024	260	10	0.35431	0.004	260	-	-	1.11	-
Plot 9 (2024) Building-Electrical	1/1/2024	12/29/2024	260	10	0.23533	0.003	260	-	-	0.74	-
Plot 9 (2024) Building-Landscaping	1/1/2024	12/29/2024	260	10	0.2612	0.003	260	-	-	0.82	-
Plot 9 (2024) Landscaping	1/1/2024	12/29/2024	260	10	0.26745	0.003	260	-	-	0.84	-
Plot 9 (2024) Curbing/Drive Approaches	5/1/2024	8/20/2024	80	10	0.03526	0.0004	80	-	-	0.03	-
Plot 9 (2024) Finish Grading	5/7/2024	7/1/2024	40	10	0.05348	0.001	40	-	-	0.03	-
Plot 9 (2024) Paving	6/1/2024	7/26/2024	40	10	0.14867	0.002	40	-	-	0.07	-
Plot 9 (2024) Temporary Utilities	7/2/2024	12/30/2024	130	10	0.0455	0.001	130	-	-	0.07	-
Plot 9 (2025) Utilities	1/1/2025	12/30/2025	260	10	1.17348	0.014	260	-	-	3.69	-
Plot 9 (2025) Building-Wet Utilities	1/1/2025	12/30/2025	260	10	0.33211	0.004	260	-	-	1.04	-
Plot 9 (2025) Building-Electrical	1/1/2025	12/30/2025	260	10	0.22236	0.003	260	-	-	0.70	-
Plot 9 (2025) Building-Landscaping	1/1/2025	12/30/2025	260	10	0.22959	0.003	260	-	-	0.72	-
Plot 9 (2025) Interchange	1/1/2025	12/30/2025	260	10	0.18578	0.002	260	-	-	0.58	-
Plot 9 (2025) Landscaping	1/1/2025	12/30/2025	260	10	0.23539	0.003	260	-	-	0.74	-
Plot 9 (2025) Curbing/Drive Approaches	5/1/2025	8/20/2025	80	10	0.03377	0.0004	80	-	-	0.03	-
Plot 9 (2025) Paving	6/1/2025	7/26/2025	40	10	0.14866	0.002	40	-	-	0.07	-
Plot 9 (2025) Temporary Utilities	7/2/2025	12/30/2025	130	10	0.0455	0.001	130	-	-	0.07	-
							Weighted Average	-	-	**0.004**	-

Plots 1 3 20 (2026) Mass Excavation	1/1/2026	7/1/2026	130	10	0.63617	0.008	130	-	-	1.00	-
Plots 1 3 20 (2026) Utilities	1/1/2026	12/30/2026	260	10	1.17442	0.014	260	-	-	3.69	-
Plots 1 3 20 (2026) Building-Wet Utilities	1/1/2026	12/30/2026	260	10	0.33206	0.004	260	-	-	1.04	-
Plots 1 3 20 (2026) Building-Electrical	1/1/2026	12/30/2026	260	10	0.22208	0.003	260	-	-	0.70	-
Plots 1 3 20 (2026) Building-Landscaping	1/1/2026	12/30/2026	260	10	0.22917	0.003	260	-	-	0.72	-
Plots 1 3 20 (2026) Interchange	1/1/2026	7/1/2026	130	10	0.18528	0.002	130	-	-	0.29	-
Plots 1 3 20 (2026) Landscaping	1/1/2026	12/30/2026	260	10	0.23506	0.003	260	-	-	0.74	-
Plots 1 3 20 (2026) Curbing/Drive Approaches	5/1/2026	8/20/2026	80	10	0.03388	0.0004	80	-	-	0.03	-
Plots 1 3 20 (2026) Finish Grading	5/7/2026	7/1/2026	40	10	0.01803	0.0002	40	-	-	0.01	-
Plots 1 3 20 (2026) Paving	6/1/2026	7/26/2026	40	10	0.14904	0.002	40	-	-	0.07	-
Plots 1 3 20 (2026) Temporary Utilities	7/2/2026	12/30/2026	130	10	0.0455	0.001	130	-	-	0.07	-
							Weighted Average	-	-	**0.002**	-

Plots 5 and 10 (2027) Utilities	1/1/2027	12/30/2027	260	10	1.19	0.014	260	-	-	3.75	-
Plots 5 and 10 (2027) Building-Wet Utilities	1/1/2027	12/30/2027	260	10	0.34076	0.004	260	-	-	1.07	-
Plots 5 and 10 (2027) Building-Electrical	1/1/2027	12/30/2027	260	10	0.231	0.003	260	-	-	0.73	-
Plots 5 and 10 (2027) Building-Landscaping	1/1/2027	12/30/2027	260	10	0.23184	0.003	260	-	-	0.73	-
Plots 5 and 10 (2027) Landscaping	1/1/2027	12/30/2027	260	10	0.23749	0.003	260	-	-	0.75	-
Plots 5 and 10 (2027) Curbing/Drive Approaches	5/1/2027	8/20/2027	80	10	0.03827	0.0005	80	-	-	0.04	-
Plots 5 and 10 (2027) Paving	6/1/2027	7/26/2027	40	10	0.15713	0.002	40	-	-	0.08	-
Plots 5 and 10 (2027) Temporary Utilities	7/2/2027	12/30/2027	130	10	0.0455	0.001	130	-	-	0.07	-
Plots 5 and 10 (2027) Mass Excavation	9/16/2027	12/31/2027	77	10	0.4869	0.006	77	-	-	0.45	-
Plots 5 and 10 (2027) Finish Grading	11/6/2027	12/31/2027	40	10	0.02448	0.000	40	-	-	0.01	-
Plots 5 and 10 (2028) Mass Excavation	1/1/2028	4/18/2028	77	10	1.352	0.016	77	-	-	1.26	-
Plots 5 and 10 (2028) Finish Grading	1/1/2028	2/25/2028	40	10	0.04025	0.0005	40	-	-	0.02	-
Plots 5 and 10 (2028) Utilities	1/1/2028	12/30/2028	260	10	1.1914	0.014	260	-	-	3.75	-
Plots 5 and 10 (2028) Building-Wet Utilities	1/1/2028	12/30/2028	260	10	0.34048	0.004	260	-	-	1.07	-
Plots 5 and 10 (2028) Building-Electrical	1/1/2028	12/30/2028	260	10	0.23078	0.003	260	-	-	0.73	-
Plots 5 and 10 (2028) Building-Landscaping	1/1/2028	12/30/2028	260	10	0.23174	0.003	260	-	-	0.73	-
Plots 5 and 10 (2028) Landscaping	1/1/2028	12/30/2028	260	10	0.2374	0.003	260	-	-	0.75	-
Plots 5 and 10 (2028) Curbing/Drive Approaches	5/1/2028	8/20/2028	80	10	0.03815	0.0005	80	-	-	0.04	-
Plots 5 and 10 (2028) Paving	6/1/2028	7/26/2028	40	10	0.15686	0.002	40	-	-	0.08	-
Plots 5 and 10 (2028) Temporary Utilities	7/2/2028	12/30/2028	130	10	0.0455	0.001	130	-	-	0.07	-
							Weighted Average	-	-	**0.003**	-

Plots 7 8 21 22 (2029) Utilities	1/1/2029	12/30/2029	260	10	1.1909	0.014	260	-	-	3.75	-
Plots 7 8 21 22 (2029) Building-Wet Utilities	1/1/2029	12/30/2029	260	10	0.3402	0.004	260	-	-	1.07	-
Plots 7 8 21 22 (2029) Building-Electrical	1/1/2029	12/30/2029	260	10	0.23055	0.003	260	-	-	0.73	-
Plots 7 8 21 22 (2029) Building-Landscaping	1/1/2029	12/30/2029	260	10	0.23164	0.003	260	-	-	0.73	-
Plots 7 8 21 22 (2029) Landscaping	1/1/2029	12/30/2029	260	10	0.2373	0.003	260	-	-	0.75	-
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	5/1/2029	8/20/2029	80	10	0.03801	0.0005	80	-	-	0.04	-
Plots 7 8 21 22 (2029) Paving	6/1/2029	7/26/2029	40	10	0.15658	0.002	40	-	-	0.08	-
Plots 7 8 21 22 (2029) Temporary Utilities	7/2/2029	12/30/2029	130	10	0.0455	0.001	130	-	-	0.07	-
Plots 7 8 21 22 (2029) Mass Excavation	9/14/2029	12/31/2029	77	10	0.8815	0.011	77	-	-	0.82	-
Plots 7 8 21 22 (2029) Finish Grading	11/6/2029	12/31/2029	40	10	0.02223	0.0003	40	-	-	0.01	-
							Weighted Average	-	-	**0.002**	-

Plot 11 (2030) Mass Excavation	1/1/2030	4/17/2030	77	10	1.35	0.016	77	-	-	1.26	-
Plot 11 (2030) Finish Grading	1/1/2030	2/25/2030	40	10	0.04076	0.0005	40	-	-	0.02	-
Plot 11 (2030) Utilities	1/1/2030	12/30/2030	260	10	0.8173	0.010	260	-	-	2.57	-
Plot 11 (2030) Building-Wet Utilities	1/1/2030	12/30/2030	260	10	0.25895	0.003	260	-	-	0.81	-
Plot 11 (2030) Building-Electrical	1/1/2030	12/30/2030	260	10	0.15214	0.002	260	-	-	0.48	-
Plot 11 (2030) Building-Landscaping	1/1/2030	12/30/2030	260	10	0.20106	0.002	260	-	-	0.63	-
Plot 11 (2030) Landscaping	1/1/2030	12/30/2030	260	10	0.20673	0.003	260	-	-	0.65	-
Plot 11 (2030) Curbing/Drive Approaches	5/1/2030	8/20/2030	80	10	0.0379	0.0005	80	-	-	0.04	-
Plot 11 (2030) Paving	6/1/2030	7/26/2030	40	10	0.15633	0.002	40	-	-	0.08	-
Plot 11 (2030) Temporary Utilities	7/2/2030	12/30/2030	130	10	0.0455	0.001	130	-	-	0.07	-
Plot 11 (2031) Utilities	1/1/2031	12/30/2031	260	10	0.817	0.010	260	-	-	2.57	-
Plot 11 (2031) Building-Wet Utilities	1/1/2031	12/30/2031	260	10	0.25875	0.003	260	-	-	0.81	-
Plot 11 (2031) Building-Electrical	1/1/2031	12/30/2031	260	10	0.15198	0.002	260	-	-	0.48	-
Plot 11 (2031) Building-Landscaping	1/1/2031	12/30/2031	260	10	0.20099	0.002	260	-	-	0.63	-
Plot 11 (2031) Landscaping	1/1/2031	12/30/2031	260	10	0.20666	0.003	260	-	-	0.65	-
Plot 11 (2031) Curbing/Drive Approaches	5/1/2031	8/20/2031	80	10	0.03782	0.0005	80	-	-	0.04	-
Plot 11 (2031) Paving	6/1/2031	7/26/2031	40	10	0.15614	0.002	40	-	-	0.08	-
Plot 11 (2031) Temporary Utilities	7/2/2031	12/30/2031	130	10	0.0455	0.001	130	-	-	0.07	-
Plot 11 (2032) Mass Excavation	1/1/2032	6/30/2032	130	10	1.1551	0.014	130	-	-	1.82	-
Plot 11 (2032) Finish Grading	1/1/2032	2/25/2032	40	10	0.04091	0.0005	40	-	-	0.02	-
Plot 11 (2032) Utilities	1/1/2032	12/29/2032	260	10	0.8166	0.010	260	-	-	2.57	-
Plot 11 (2032) Building-Wet Utilities	1/1/2032	12/29/2032	260	10	0.25854	0.003	260	-	-	0.81	-
Plot 11 (2032) Building-Electrical	1/1/2032	12/29/2032	260	10	0.15179	0.002	260	-	-	0.48	-
Plot 11 (2032) Building-Landscaping	1/1/2032	12/29/2032	260	10	0.20091	0.002	260	-	-	0.63	-
Plot 11 (2032) Landscaping	1/1/2032	12/29/2032	260	10	0.20658	0.002	260	-	-	0.65	-
Plot 11 (2032) Curbing/Drive Approaches	5/1/2032	8/20/2032	80	10	0.03772	0.0005	80	-	-	0.04	-
Plot 11 (2032) Paving	6/1/2032	7/26/2032	40	10	0.15592	0.002	40	-	-	0.08	-
Plot 11 (2032) Temporary Utilities	7/2/2032	12/30/2032	130	10	0.0455	0.001	130	-	-	0.07	-
							Weighted Average	-	-	**0.004**	-

Plot 12 (2033) Mass Excavation	1/1/2033	7/1/2033	130	10	0.88	0.011	130	-	-	1.38	-
Plot 12 (2033) Finish Grading	1/1/2033	2/25/2033	40	10	0.02	0.0003	40	-	-	0.01	-
Plot 12 (2033) Utilities	1/1/2033	12/30/2033	260	10	0.82	0.010	260	-	-	2.57	-
Plot 12 (2033) Building-Wet Utilities	1/1/2033	12/30/2033	260	10	0.26	0.003	260	-	-	0.81	-
Plot 12 (2033) Building-Electrical	1/1/2033	12/30/2033	260	10	0.15	0.002	260	-	-	0.48	-
Plot 12 (2033) Building-Landscaping	1/1/2033	12/30/2033	260	10	0.20	0.002	260	-	-	0.63	-
Plot 12 (2033) Landscaping	1/1/2033	12/30/2033	260	10	0.21	0.002	260	-	-	0.65	-
Plot 12 (2033) Curbing/Drive Approaches	5/1/2033	8/20/2033	80	10	0.04	0.0005	80	-	-	0.04	-
Plot 12 (2033) Paving	6/1/2033	7/26/2033	40	10	0.16	0.002	40	-	-	0.08	-
Plot 12 (2033) Temporary Utilities	7/2/2033	12/30/2033	130	10	0.05	0.001	130	-	-	0.07	-
Plot 12 (2034) Utilities	1/1/2034	12/31/2034	260	10	0.82	0.010	260	-	-	2.57	-
Plot 12 (2034) Building-Wet Utilities	1/1/2034	12/31/2034	260	10	0.26	0.003	260	-	-	0.81	-
Plot 12 (2034) Building-Electrical	1/1/2034	12/31/2034	260	10	0.15	0.002	260	-	-	0.48	-
Plot 12 (2034) Building-Landscaping	1/1/2034	12/31/2034	260	10	0.20	0.002	260	-	-	0.63	-
Plot 12 (2034) Landscaping	1/1/2034	12/31/2034	260	10	0.21	0.002	260	-	-	0.65	-
Plot 12 (2034) Curbing/Drive Approaches	5/1/2034	8/20/2034	80	10	0.04	0.0005	80	-	-	0.04	-
Plot 12 (2034) Paving	6/1/2034	7/26/2034	40	10	0.16	0.002	40	-	-	0.08	-
Plot 12 (2034) Temporary Utilities	7/2/2034	12/31/2034	130	10	0.05	0.001	130	-	-	0.07	-
							Weighted Average	-	-	**0.002**	-

Plot 6 (2035) Mass Excavation	1/1/2035	6/30/2035	130	10	0.57	0.007	130	-	-	0.90	-
Plot 6 (2035) Finish Grading	1/1/2035	2/25/2035	40	10	0.02	0.0003	40	-	-	0.01	-
Plot 6 (2035) Utilities	1/1/2035	12/29/2035	260	10	0.73	0.009	260	-	-	2.30	-
Plot 6 (2035) Building-Wet Utilities	1/1/2035	12/29/2035	260	10	0.24	0.003	260	-	-	0.75	-
Plot 6 (2035) Building-Electrical	1/1/2035	12/29/2035	260	10	0.14	0.002	260	-	-	0.43	-
Plot 6 (2035) Building-Landscaping	1/1/2035	12/29/2035	260	10	0.15	0.002	260	-	-	0.46	-
Plot 6 (2035) Landscaping	1/1/2035	12/29/2035	260	10	0.15	0.002	260	-	-	0.48	-
Plot 6 (2035) Curbing/Drive Approaches	5/1/2035	8/20/2035	80	10	0.04	0.0005	80	-	-	0.04	-
Plot 6 (2035) Paving	6/1/2035	7/26/2035	40	10	0.16	0.002	40	-	-	0.08	-
Plot 6 (2035) Temporary Utilities	7/2/2035	12/29/2035	130	10	0.05	0.001	130	-	-	0.07	-
							Weighted Average	-	-	**0.001**	-

	3rd Tri	*Age 0-2*	*Age 2-16*	*Age >16*
From	1/1/2020	4/1/2020	4/1/2022	4/1/2036
To	4/1/2020	4/1/2022	4/1/2036	4/1/2050
Total Days	91	730	5110	5110

Construction Assumptions						***PM10 Exhaust***		**Days per age group**				**Weighted Annual Average DPM Calculation**			
Construction Phase		**From**	**To**	**Days**	**hrs/day**	**lbs/day**	**gr/sec**	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***	***3rd Tri***	***Age 0-2***	***Age 2-16***	***Age >16***
Plot 2 (2021) Building-Concrete	Building Construction	1/1/2021	12/30/2021	260	6	0.17	0.003		260			-	0.89	-	-
						Weighted Average						-	0.00	-	-
Plot 4 (2022) Building-Concrete	Building Construction	1/1/2022	12/30/2022	260	6	0.17	0.003		65	195		-	0.22	0.65	-
Plot 4 (2023) Building-Concrete	Building Construction	1/1/2023	12/30/2023	260	6	0.15	0.003			260		-	-	0.79	-
										Weighted Average		-	**0.0003**	**0.0003**	-
Plot 9 (2024) Building-Concrete	Building Construction	1/1/2024	12/29/2024	260	6	0.1374	0.003			260		-	-	0.72	-
Plot 9 (2025) Building-Concrete	Building Construction	1/1/2025	12/30/2025	260	6	0.13673	0.003			260		-	-	0.72	-
										Weighted Average		-	-	**0.0003**	-
Plots 1 3 20 (2026) Building-Concrete	Building Construction	1/1/2026	12/30/2026	260	6	0.1372	0.003			260		-	-	0.72	-
										Weighted Average		-	-	**0.0001**	-
Plots 5 and 10 (2027) Building-Concrete	Building Construction	1/1/2027	12/30/2027	260	6	0.1492	0.003			260		-	-	0.78	-
Plots 5 and 10 (2028) Building-Concrete	Building Construction	1/1/2028	12/30/2028	260	6	0.1489	0.003			260		-	-	0.78	-
										Weighted Average		-	-	**0.0003**	-
Plots 7 8 21 22 (2029) Building-Concrete	Building Construction	1/1/2029	12/30/2029	260	6	0.1486	0.003			260		-	-	0.78	-
										Weighted Average		-	-	**0.0002**	-
Plot 11 (2030) Building-Concrete	Building Construction	1/1/2030	12/30/2030	260	6	0.1482	0.003			260		-	-	0.78	-
Plot 11 (2031) Building-Concrete	Building Construction	1/1/2031	12/30/2031	260	6	0.148	0.003			260		-	-	0.78	-
Plot 11 (2032) Building-Concrete	Building Construction	1/1/2032	12/29/2032	260	6	0.1477	0.003			260		-	-	0.77	-
										Weighted Average		-	-	**0.0005**	-
Plot 12 (2033) Building-Concrete	Building Construction	1/1/2033	12/30/2033	260	6	0.15	0.003			260		-	-	0.77	-
Plot 12 (2034) Building-Concrete	Building Construction	1/1/2034	12/31/2034	260	6	0.15	0.003			260		-	-	0.77	-
										Weighted Average		-	-	**0.0003**	-
Plot 6 (2035) Building-Concrete	Building Construction	1/1/2035	12/29/2035	260	6	0.14	0.003			260		-	-	0.73	-
										Weighted Average		-	-	**0.0001**	-

E-2 Project Operational Diesel PM Emissions

ESA

Occupancy Schedule Assumptions

Year	Phase 1 (MSF)	Phase 2 (MSF)	Total (MSF)	Cumulative (MSF)	% Phase 1	% Total
2020	0.0	0.0	0.0	0.0	0%	
2021	2.1	0.0	2.1	2.1	9%	
2022	2.1	0.0	2.1	4.2	18%	
2023	2.8	0.0	2.8	7.0	31%	
2024	2.8	0.0	2.8	9.8	43%	
2025	5.2	0.0	5.2	15.0	65%	
2026	5.2	0.0	5.2	20.2	88%	
2027	2.7	0.0	2.7	22.9	100%	
2028	0.0	1.7	1.7	24.6		61%
2029	0.0	1.7	1.7	26.2		65%
2030	0.0	2.4	2.4	28.6		70%
2031	0.0	2.7	2.7	31.3		77%
2032	0.0	2.7	2.7	33.9		84%
2033	0.0	2.7	2.7	36.6		90%
2034	0.0	1.8	1.8	38.4		94%
2035	0.0	1.8	1.8	40.1		99%
2036	0.0	0.5	0.5	40.6		100%

Year	Scenario	PhaseI (2027)	PhaseII (2040)
2020	3rd	0.0000%	0.0000%
2021	Age0-2	9.1521%	0.0000%
2022	Age0-2	18.3042%	0.0000%
2023	Age2-16	30.5071%	0.0000%
2024	Age2-16	42.7099%	0.0000%
2025	Age2-16	65.3723%	0.0000%
2026	Age2-16	88.0347%	0.0000%
2027	Age2-16	100.0000%	0.0000%
2028	Age2-16	0.0000%	60.5651%
2029	Age2-16	0.0000%	64.6282%
2030	Age2-16	0.0000%	70.4260%
2031	Age2-16	0.0000%	77.0007%
2032	Age2-16	0.0000%	83.5755%
2033	Age2-16	0.0000%	90.1502%
2034	Age2-16	0.0000%	94.4595%
2035	Age2-16	0.0000%	98.7688%
2036	Age2-16	0.0000%	100.0000%
2037	Age>16	0.0000%	100.0000%
2038	Age>16	0.0000%	100.0000%
2039	Age>16	0.0000%	100.0000%
2040	Age>16	0.0000%	100.0000%
2041	Age>16	0.0000%	100.0000%
2042	Age>16	0.0000%	100.0000%
2043	Age>16	0.0000%	100.0000%
2044	Age>16	0.0000%	100.0000%
2045	Age>16	0.0000%	100.0000%
2046	Age>16	0.0000%	100.0000%
2047	Age>16	0.0000%	100.0000%
2048	Age>16	0.0000%	100.0000%
2049	Age>16	0.0000%	100.0000%

Fleet Mix Conversion from Traffci Study to Emfac Vehicle Categories

Auto			Light	Med		Heavy	
69%	5%	26%	100%	68%	32%	37%	63%
LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT

Conversion from Total VMT to VMT by Fuel by Vehicle Type

	2025 VMT			2040 VMT		
	Gas	Diesel	Elec	Gas	Diesel	Elec
LDA	92.29%	1.07%	6.64%	84.19%	1.15%	14.66%
LDT1	99.84%	0.10%	0.06%	99.89%	0.06%	0.05%
LDT2	99.79%	0.21%		99.78%	0.22%	
MDV	97.89%	2.11%		97.34%	2.66%	
LHDT1	47.97%	52.03%		33.48%	66.52%	
LHDT2	33.67%	66.33%		29.04%	70.96%	
MHDT	11.26%	88.74%		10.37%	89.63%	
HHDT	0.95%	99.05%		1.11%	98.89%	

	Speed	**Emfac Emission Factors Diesel -2025 unmitigated**								
Scenario	**(mph)**	**LDA**	**LDT1**	**LDT2**	**MDT**	**LHDT1**	**LHDT2**	**MHDT**	**HHDT**	**Unit**
Idle		0	0	0	0	0.656874549	0.655521632	0.004109246	0.009735638	g/hour
Within Truck Yard	15	0.014152718	0.160619105	0.008532792	0.007390899	0.027515327	0.021361166	0.004831248	0.009907276	g/mile
Onsite Street	35/25	0.006190976	0.067122702	0.004705518	0.003917549	0.018633218	0.014927204	0.003856058	0.007808927	g/mile
SurfaceStreet	composite	0.007800382	0.086698808	0.005380941	0.004554997	0.017241713	0.013610573	0.003588326	0.007261637	g/mile
Freeway	composite	0.005280091	0.067633397	0.003851273	0.003488264	0.017969765	0.012662158	0.002743943	0.005520507	g/mile

	Speed	**Emfac Emission Factors Diesel -2040 unmitigated**								
Scenario	**(mph)**	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	**Unit**
Idle		0	0	0	0	0.397274029	0.46684213	0.001509492	0.002256636	g/hour
Within Truck Yard	15	0.001460661	0.011253057	0.007475014	0.001884617	0.012410633	0.012968648	0.004484655	0.008660846	g/mile
Onsite Street	35/25	0.00084251	0.005652533	0.004355645	0.001091883	0.008911102	0.009465393	0.003636682	0.006878273	g/mile
SurfaceStreet	composite	0.000929602	0.006590335	0.00478475	0.001202381	0.007920328	0.008312804	0.003298377	0.006234529	g/mile
Freeway	composite	0.000721837	0.004606498	0.003662582	0.000920755	0.006800898	0.006403662	0.002590694	0.004895859	g/mile

	Speed	**Emfac Emission Factors Diesel -2025 mitigated**								
Scenario	**(mph)**	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	**Unit**
Idle		0	0	0	0	0.656874549	0.655521632	0.001355598	0.001497141	g/hour
Within Truck Yard	15	0.014152718	0.160619105	0.012432912	0.007390899	0.027515327	0.021361166	0.004554597	0.009265715	g/mile
Onsite Street	35/25	0.006190976	0.067122702	0.004705518	0.003917549	0.018633218	0.014927204	0.003696645	0.007153239	g/mile
SurfaceStreet	composite	0.007800382	0.086698808	0.005380941	0.004554997	0.01724	0.013610573	0.003427017	0.006701623	g/mile
Freeway	composite	0.0053	0.067633397	0.003851273	0.003488264	0.017969765	0.012662158	0.002599408	0.005061283	g/mile

	Speed	**Emfac Emission Factors Diesel -2040 mitigated**								
Scenario	**(mph)**	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	**Unit**
Idle		0	0	0	0	0.397274029	0.46684213	0.001355598	0.001497141	g/hour
Within Truck Yard	15	0.001460661	0.011253057	0.009929122	0.001884617	0.012410633	0.012968648	0.004475357	0.008604211	g/mile
Onsite Street	35/25	0.00084251	0.005652533	0.004355645	0.001091883	0.008911102	0.009465393	0.003632664	0.006794393	g/mile
SurfaceStreet	composite	0.000929602	0.006590335	0.00478475	0.001202381	0.007920328	0.008312804	0.003293741	0.006228387	g/mile
Freeway	composite	0.000721837	0.004606498	0.003662582	0.000920755	0.006800898	0.006403662	0.00258462	0.00487482	g/mile

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Onsite Street Speed	35	35	35	35	25	25	25	25

Total Diesel Vehicle Idling and Miles Traveled Within Truck Yards

		LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
2025	idling (hours)					32.587887	19.97091	90.415258	168.27536
2025	running (miles/day)	34.896208	0.2325105	2.4617559	7.6080042	163.56039	100.23509	430.90144	801.96747
2040	idling (hours)					73.519756	37.706077	156.94943	288.74289
2040	running (miles/day)	65.865815	0.2391714	4.6031647	16.87982	369.12531	189.31329	765.08514	1407.5419

Truck Yard Emissions (g/day)

2025	idling	0	0	0	0	21.406154	13.091363	0.3715385	1.638268
2025	running	0.4938762	0.0373456	0.0210057	0.05623	4.5004176	2.1411384	2.0817916	7.9453134
2040	idling	0	0	0	0	29.20749	17.602785	0.2369138	0.6515876
2040	running	0.0962076	0.0026914	0.0344087	0.031812	4.5810788	2.4551375	3.4311433	12.190503

						Peak Hour Trips																				
AERMOD	AERMOD	Traffic Study				Traffic Study Vehicles				Emfac Vehicle Categories								Segment Length,	Total Miles							
SRCGRP ID	Category	Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
IN01	Onsite	SEGMENT01	Street A	State Route 60	Eucalyptus Ave	6731	400	489	3460	4665	344	1722	400	331	159	1297	2163	0.203165814	948	70	350	81	67	32	264	439
IN02	Onsite	SEGMENT02	Street A	Eucalyptus Ave	Street F	3892	360	253	1815	2697	199	996	360	171	82	680	1135	0.454245633	1225	90	452	164	77	37	309	515
IN03	Onsite	SEGMENT03	Street E	west of Street A	0	2583	141	104	499	1790	132	661	141	70	34	187	312	1.461130123	2616	193	966	206	102	49	273	456
IN05	Onsite	SEGMENT05	Street E	Street D	Street A	4766	243	189	0	3303	244	1220	243	128	61	0	0	0.592368856	1957	144	722	144	76	36	0	0
IN06	Onsite	SEGMENT06	Street A	Street F	Street C	7667	760	553	3975	5314	392	1962	760	373	179	1490	2485	0.682667957	3627	268	1339	519	255	122	1017	1696
IN08	Onsite	SEGMENT08	Street D	Street E	Cactus Ave	6322	278	178	0	4381	323	1618	278	120	58	0	0	0.678048351	2971	219	1097	188	81	39	0	0
IN11	Onsite	SEGMENT11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	-2431	-72	29	-15	-1684	-124	-622	-72	20	9	-6	-9	0.746504229	0	0	0	0	15	7	0	0
IN12	Onsite	SEGMENT12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	-1100	12	2	0	-763	-56	-282	12	1	1	0	0	0.511705351	0	0	0	6	1	0	0	0
IN14	Onsite	SEGMENT14	Eucalyptus Ave	east of Redlands blvd	0	2890	237	72	465	2003	148	739	237	49	23	174	290	1.005509519	2014	149	744	238	49	23	175	292
IN18	Onsite	SEGMENT18	Street B	east of Street A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.877859209	0	0	0	0	0	0	0	0
IN19	Onsite	SEGMENT19	Street F	east of Street A	0	2136	25	23	62	1480	109	547	25	15	7	23	39	1.420723361	2103	155	777	36	22	10	33	55
IN21	Onsite	SEGMENT21	Street C	east of Street A	0	316	0	16	40	219	16	81	0	11	5	15	25	0.781511386	171	13	63	0	8	4	12	20
IN24	Onsite	SEGMENT24	Street C	Street F	Street H	426	35	35	108	295	22	109	35	24	11	41	68	1.208923018	357	26	132	43	29	14	49	82
IN29	Onsite	SEGMENT29	Gilman Springs Rd	Eucalyptus Ave	Street C	461	-9	-10	-68	319	24	118	-9	-7	-3	-26	-43	0.419193437	134	10	49	0	0	0	0	0
IN30	Onsite	SEGMENT30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	461	-9	-10	-68	319	24	118	-9	-7	-3	-26	-43	1.756583849	561	41	207	0	0	0	0	0
IN31	Onsite	SEGMENT31	Gilman Springs Rd	south of Street C	0	644	23	25	55	446	33	165	23	17	8	21	34	0.509374921	227	17	84	12	9	4	10	17
SF09	SurSt	SEGMENT09	John F Kennedy Dr	south of Cactus Ave	0	990	117	142	0	686	51	253	117	96	46	0	0	1.130729006	776	57	286	132	109	52	0	0
SF10	SurSt	SEGMENT10	Redlands Blvd	Alessandro Blvd	Cactus Ave	-2700	-72	20	-5	-1871	-138	-691	-72	13	6	-2	-3	0.513129024	0	0	0	0	7	3	0	0
SF104	SurSt	SEGMENT104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	1376	10	5	25	953	70	352	10	3	2	9	16	0.250863701	239	18	88	3	1	0	2	4
SF106	SurSt	SEGMENT106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd	529	0	3	0	367	27	135	0	2	1	0	0	1.120483752	411	30	152	0	2	1	0	0
SF107	SurSt	SEGMENT107	Alessandro Blvd	Old 215 Frontage Rd	Day St	1322	10	5	25	916	68	338	10	3	2	9	16	0.241096627	221	16	82	2	1	0	2	4
SF108	SurSt	SEGMENT108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave	1044	1	-3	1	723	53	267	1	-2	-1	0	0	0.619357143	448	33	165	0	0	0	0	0
SF109	SurSt	SEGMENT109	Day St	Cottonwood Ave	Alessandro Blvd	424	0	0	0	294	22	109	0	0	0	0	0	0.488916878	144	11	53	0	0	0	0	0
SF110	SurSt	SEGMENT110	Alessandro Blvd	Day St	Elsworth St	1127	8	5	25	781	58	288	8	3	2	9	16	0.469424982	367	27	135	4	2	1	4	7
SF111	SurSt	SEGMENT111	Elsworth St	Cottonwood Ave	Alessandro Blvd	296	0	0	0	205	15	76	0	0	0	0	0	0.496840368	102	8	38	0	0	0	0	0
SF112	SurSt	SEGMENT112	Alessandro Blvd	Elsworth St	Frederick St	1026	3	4	120	711	52	263	3	3	1	45	75	0.507553224	361	27	133	1	1	1	23	38
SF113	SurSt	SEGMENT113	Elsworth St	Alessandro Blvd	Cactus Ave	235	-1	1	10	163	12	60	-1	0	0	4	6	0.491497999	80	6	30	0	0	0	2	3
SF114	SurSt	SEGMENT114	Frederick St	Cottonwood Ave	Alessandro Blvd	384	0	0	20	266	20	98	0	0	0	7	13	0.491497999	131	10	48	0	0	0	4	6
SF115	SurSt	SEGMENT115	Alessandro Blvd	Frederick St	Graham St	870	3	8	35	603	44	223	3	6	3	13	22	0.528921566	319	24	118	2	3	1	7	12
SF116	SurSt	SEGMENT116	Frederick St	Alessandro Blvd	Cactus Ave	425	5	0	5	295	22	109	5	0	0	2	3	0.508975635	150	11	55	3	0	0	1	2
SF117	SurSt	SEGMENT117	Graham St	Cottonwood Ave	Alessandro Blvd	509	0	0	0	353	26	130	0	0	0	0	0	0.47012852	166	12	61	0	0	0	0	0
SF118	SurSt	SEGMENT118	Alessandro Blvd	Graham St	Heacock St	807	1	7	21	559	41	206	1	5	2	8	13	0.475500902	266	20	98	1	2	1	4	6
SF119	SurSt	SEGMENT119	Graham St	Alessandro Blvd	Cactus Ave	334	0	1	0	232	17	86	0	1	0	0	0	0.486184982	113	8	42	0	0	0	0	0
SF120	SurSt	SEGMENT120	Heacock St	Cottonwood Ave	Alessandro Blvd	88	0	0	72	61	4	22	0	0	0	27	45	0.505798955	31	2	11	0	0	0	14	23
SF121	SurSt	SEGMENT121	Alessandro Blvd	Heacock St	Indian St	634	55	-12	0	440	32	162	55	-8	-4	0	0	0.512895301	225	17	83	28	0	0	0	0
SF122	SurSt	SEGMENT122	Heacock St	Alessandro Blvd	Cactus Ave	182	0	0	52	126	9	47	0	0	0	19	32	0.486180029	61	5	23	0	0	0	9	16
SF123	SurSt	SEGMENT123	Indian St	Cottonwood Ave	Alessandro Blvd	306	0	-1	0	212	16	78	0	0	0	0	0	0.491614123	104	8	38	0	0	0	0	0
SF124	SurSt	SEGMENT124	Alessandro Blvd	Indian St	Perris Blvd	659	0	-1	34	456	34	169	0	-1	0	13	21	0.49686909	227	17	84	0	0	0	6	11
SF125	SurSt	SEGMENT125	Indian St	Alessandro Blvd	Cactus Ave	271	0	-1	0	188	14	69	0	0	0	0	0	0.507559157	95	7	35	0	0	0	0	0
SF126	SurSt	SEGMENT126	Alessandro Blvd	Perris Blvd	Kitching St	275	0	0	34	191	14	70	0	0	0	13	21	0.480842938	92	7	34	0	0	0	6	10
SF127	SurSt	SEGMENT127	Perris Blvd	Alessandro Blvd	Cactus Ave	-202	0	-6	195	-140	-10	-52	0	-4	-2	73	122	0.512895301	0	0	0	0	0	0	37	62
SF128	SurSt	SEGMENT128	Kitching St	Cottonwood Ave	Alessandro Blvd	325	0	0	0	225	17	83	0	0	0	0	0	0.480842938	108	8	40	0	0	0	0	0
SF129	SurSt	SEGMENT129	Alessandro Blvd	Kitching St	Lasselle St	248	0	0	35	172	13	64	0	0	0	13	22	0.511426356	88	6	32	0	0	0	7	11
SF13	SurSt	SEGMENT13	Redlands Blvd	State Route 60	Eucalyptus Ave	406	32	29	371	281	21	104	32	19	9	139	232	0.214415088	60	4	22	7	4	2	30	50
SF130	SurSt	SEGMENT130	Kitching St	Alessandro Blvd	Cactus Ave	264	0	0	0	183	14	68	0	0	0	0	0	0.496959859	91	7	34	0	0	0	0	0
SF131	SurSt	SEGMENT131	Lasselle St	Cottonwood Ave	Alessandro Blvd	359	0	0	0	249	18	92	0	0	0	0	0	0.481444058	120	9	44	0	0	0	0	0
SF133	SurSt	SEGMENT133	Lasselle St	Alessandro Blvd	Cactus Ave	365	0	0	0	253	19	93	0	0	0	0	0	0.499672097	126	9	47	0	0	0	0	0
SF134	SurSt	SEGMENT134	Morrison St	Cottonwood Ave	Alessandro Blvd	402	40	43	113	278	21	103	40	29	14	42	70	0.47237817	131	10	49	19	14	7	20	33
SF135	SurSt	SEGMENT135	Alessandro Blvd	Morrison St	Nason St	356	0	-1	31	247	18	91	0	0	0	11	19	0.506974737	125	9	46	0	0	0	6	10
SF136	SurSt	SEGMENT136	Nason St	Cottonwood Ave	Alessandro Blvd	460	2	0	0	319	23	118	2	0	0	0	0	0.488434706	156	11	57	1	0	0	0	0
SF137	SurSt	SEGMENT137	Nason St	Alessandro Blvd	Cactus Ave	267	0	0	10	185	14	68	0	0	0	4	6	0.490822873	91	7	34	0	0	0	2	3
SF139	SurSt	SEGMENT139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps	645	5	3	-5	447	33	165	5	2	1	-2	-3	0.313207313	140	10	52	2	1	0	0	0
SF140	SurSt	SEGMENT140	I-215 SB Ramps	South of Cactus Ave	0	230	0	2	0	159	12	59	0	1	1	0	0	0.327350721	52	4	19	0	0	0	0	0
SF141	SurSt	SEGMENT141	Cactus Ave	Meridian Pkwy	Elsworth St	1102	7	1	-3	763	56	282	7	1	0	-1	-2	0.622099336	475	35	175	4	1	0	0	0
SF142	SurSt	SEGMENT142	I-215 NB Ramps	South of Cactus Ave	0	350	0	0	0	243	18	90	0	0	0	0	0	0.180833626	44	3	16	0	0	0	0	0
SF143	SurSt	SEGMENT143	Cactus Ave	Elsworth St	Frederick St	757	5	4	-5	525	39	194	5	3	1	-2	-3	0.525086071	275	20	102	3	1	1	0	0
SF144	SurSt	SEGMENT144	Cactus Ave	Frederick St	Graham St	804	5	6	-5	557	41	206	5	4	2	-2	-3	0.486523028	271	20	100	2	2	1	0	0
SF145	SurSt	SEGMENT145	Cactus Ave	Graham St	Heacock St	549	10	10	-4	380	28	140	10	7	3	-1	-2	0.489275962	186	14	69	5	3	2	0	0
SF146	SurSt	SEGMENT146	Riverside Dr	Cactus Ave	Meyer Dr	506	0	0	0	350	26	129	0	0	0	0	0	0.505608008	177	13	65	0	0	0	0	0
SF147	SurSt	SEGMENT147	Cactus Ave	Heacock St	Indian St	295	10	10	-5	205	15	76	10	7	3	-2	-3	0.495690953	101	7	37	5	3	2	0	0
SF148	SurSt	SEGMENT148	Heacock St	Cactus Ave	John F Kennedy Dr	305	0	0	43	212	16	78	0	0	0	16	27	0.454437389	96	7	36	0	0	0	7	12
SF149	SurSt	SEGMENT149	Cactus Ave	Indian St	Perris Blvd	136	15	14	-5	94	7	35	15	9	5	-2	-3	0.502253823	47	3	17	8	5	2	0	0
SF150	SurSt	SEGMENT150	Indian St	Cactus Ave	John F Kennedy Dr	285	0	0	0	198	15	73	0	0	0	0	0	0.492409531	97	7	36	0	0	0	0	0
SF151	SurSt	SEGMENT151	Cactus Ave	Perris Blvd	Kitching St	249	15	14	5	173	13	64	15	10	5	2	3	0.489040019	84	6	31	7	5	2	1	2
SF152	SurSt	SEGMENT152	Perris Blvd	Cactus Ave	John F Kennedy Dr	-330	-5	24	187	-228	-17	-84	-5	16	8	70	117	0.485746931	0	0	0	0	8	4	34	57
SF153	SurSt	SEGMENT153	Cactus Ave	Kitching St	Lasselle St	344	25	13	0	238	18	88	25	9	4	0	0	0.495636622	118	9	44	12	4	2	0	0
SF154	SurSt	SEGMENT154	Kitching St	Cactus Ave	John F Kennedy Dr	254	0	0	0	176	13	65	0	0	0	0	0	0.559716498	99	7	36	0	0	0	0	0
SF155	SurSt	SEGMENT155	Cactus Ave	Lasselle St	Morrison St	466	40	23	0	323	24	119	40	16	8	0	0	0.481288044	155	11	57	19	8	4	0	0
SF156	SurSt	SEGMENT156	Lasselle St	Cactus Ave	John F Kennedy Dr	362	15	13	0	251	19	93	15	9	4	0	0	0.479227741	120	9	44	7	4	2	0	0

						Peak Hour Trips																				
						Traffic Study Vehicles				Emfac Vehicle Categories									Total Miles							
AERMOD SRCGRP ID	AERMOD Category	Traffic Study Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Segment Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF157	SurSt	SEGMENT157	Cactus Ave	Morrison St	Nason St	257	38	25	0	178	13	66	38	17	8	0	0	0.499520289	89	7	33	19	8	4	0	0
SF160	SurSt	SEGMENT160	Kitching St	Gentian Ave	Iris Ave	431	0	0	0	299	22	110	0	0	0	0	0	0.445242916	133	10	49	0	0	0	0	0
SF161	SurSt	SEGMENT161	Iris Ave	Perris Blvd	Kitching St	107	65	77	0	74	5	27	65	52	25	0	0	0.487301852	36	3	13	32	25	12	0	0
SF162	SurSt	SEGMENT162	Iris Ave	Kitching St	Lasselle St	1326	85	106	0	919	68	339	85	72	35	0	0	0.653622267	600	44	222	56	47	23	0	0
SF163	SurSt	SEGMENT163	Kitching St	Iris Ave	Ivory Ave	847	20	19	0	587	43	217	20	13	6	0	0	0.217614851	128	9	47	4	3	1	0	0
SF164	SurSt	SEGMENT164	Lasselle St	Gentian Ave	Iris Ave	444	0	0	0	307	23	114	0	0	0	0	0	0.293601177	90	7	33	0	0	0	0	0
SF165	SurSt	SEGMENT165	Iris Ave	Lasselle St	Nason St	1546	110	121	0	1071	79	396	110	82	39	0	0	0.957237495	1025	76	379	105	78	38	0	0
SF168	SurSt	SEGMENT168	Krameria Ave	Perris Blvd	Kitching St	1432	22	25	0	992	73	366	22	17	8	0	0	0.471253959	468	35	173	10	8	4	0	0
SF169	SurSt	SEGMENT169	Krameria Ave	Kitching St	Lasselle St	505	1	0	0	350	26	129	1	0	0	0	0	0.578393344	202	15	75	1	0	0	0	0
SF170	SurSt	SEGMENT170	Kitching St	Krameria Ave	Lurin Ave	4315	177	50	5	2990	221	1104	177	34	16	2	3	0.153769089	460	34	170	27	5	2	0	0
SF171	SurSt	SEGMENT171	Lasselle St	Cahuilla Dr	Krameria Ave	413	18	10	0	286	21	106	18	7	3	0	0	0.324286469	93	7	34	6	2	1	0	0
SF172	SurSt	SEGMENT172	Lasselle St	Krameria Ave	Arroyo Park Dr	514	23	10	0	356	26	131	23	7	3	0	0	0.617022786	220	16	81	14	4	2	0	0
SF173	SurSt	SEGMENT173	Oleander Ave	Perris Blvd	Lasselle St	0	0	0	0	0	0	0	0	0	0	0	0	1.003753863	0	0	0	0	0	0	0	0
SF174	SurSt	SEGMENT174	Oleander Ave	Lasselle St	Lake Perris Dr	0	0	0	0	0	0	0	0	0	0	0	0	0.204920149	0	0	0	0	0	0	0	0
SF177	SurSt	SEGMENT177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	-186	51	57	228	-129	-9	-47	51	39	19	85	142	0.68990263	0	0	0	35	27	13	59	98
SF178	SurSt	SEGMENT178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	169	0	5	30	117	9	43	0	3	1	11	18	4.431297539	520	38	192	0	14	7	49	82
SF179	SurSt	SEGMENT179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	-256	49	63	253	-177	-13	-65	49	43	21	95	158	1.359947171	0	0	0	67	58	28	129	215
SF180	SurSt	SEGMENT180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	100	-1	0	0	70	5	26	-1	0	0	0	0	4.314023941	300	22	111	0	0	0	0	0
SF181	SurSt	SEGMENT181	Potrero Blvd	North of SR 60 WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0	0.388554542	0	0	0	0	0	0	0	0
SF182	SurSt	SEGMENT182	SR 60 WB On Ramp	West of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.216952965	0	0	0	0	0	0	0	0
SF183	SurSt	SEGMENT183	SR 60 WB Off Ramp	East of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.251371425	0	0	0	0	0	0	0	0
SF184	SurSt	SEGMENT184	SR 60 EB Off Ramp	West of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.181561175	0	0	0	0	0	0	0	0
SF185	SurSt	SEGMENT185	SR 60 EB On Ramp	East of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.178323852	0	0	0	0	0	0	0	0
SF186	SurSt	SEGMENT186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	0	0	0	0	0	0	0	0	0	0	0	0	0.296202935	0	0	0	0	0	0	0	0
SF190	SurSt	SEGMENT190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	138	18	28	51	96	7	35	18	19	9	19	32	3.956921646	378	28	140	71	74	36	76	127
SF191	SurSt	SEGMENT191	Gilman Springs Rd	Bridge St	Beaumont Ave	208	12	12	36	144	11	53	12	8	4	13	23	3.048371476	440	32	163	37	25	12	41	69
SF192	SurSt	SEGMENT192	Bridge St	Gilman Springs Rd	Marvin Rd	104	0	0	23	72	5	27	0	0	0	8	14	2.708693859	195	14	72	0	0	0	23	38
SF194	SurSt	SEGMENT194	Crescent Ave	West of Alessandro Rd	0	222	4	19	0	154	11	57	4	13	6	0	0	0.213801484	33	2	12	1	3	1	0	0
SF195	SurSt	SEGMENT195	Crescent Ave	Alessandro Rd	Center St	177	18	15	0	123	9	45	18	10	5	0	0	0.246610762	30	2	11	5	2	1	0	0
SF196	SurSt	SEGMENT196	Alessandro Rd	Crescent Ave	Sunset St	79	19	26	0	55	4	20	19	17	8	0	0	0.445161919	24	2	9	9	8	4	0	0
SF198	SurSt	SEGMENT198	Sunset Dr	Crown St	Alessandro Rd	240	0	0	0	166	12	61	0	0	0	0	0	0.62708051	104	8	38	0	0	0	0	0
SF199	SurSt	SEGMENT199	Sunset Dr	Alessandro Rd	Cameo Dr	255	0	0	0	177	13	65	0	0	0	0	0	0.234604226	41	3	15	0	0	0	0	0
SF200	SurSt	SEGMENT200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	134	30	23	0	93	7	34	30	16	8	0	0	0.871974622	81	6	30	26	14	7	0	0
SF205	SurSt	SEGMENT205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	673	10	10	0	467	34	172	10	7	3	0	0	0.9325292	435	32	161	9	6	3	0	0
SF206	SurSt	SEGMENT206	Reche Canyon Rd	Reche Vista Dr	High Contry Dr	190	0	0	0	132	10	49	0	0	0	0	0	1.651496283	217	16	80	0	0	0	0	0
SF207	SurSt	SEGMENT207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	597	10	10	0	414	31	153	10	7	3	0	0	1.622364173	671	50	248	16	11	5	0	0
SF283	SurSt	SEGMENT283	SR-60 EB Off-Ramp	SR-60	Heacock St	130	0	0	20	90	7	33	0	0	0	7	13	0.251869003	23	2	8	0	0	0	2	3
SF284	SurSt	SEGMENT284	SR-60 EB On-Ramp	Heacock St	SR-60	1	6	0	58	0	0	0	6	0	0	22	36	0.226814738	0	0	0	1	0	0	5	8
SF285	SurSt	SEGMENT285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	-2	-32	-5	35	-2	0	-1	-32	-3	-2	13	22	0.142869402	0	0	0	0	0	0	2	3
SF286	SurSt	SEGMENT286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	500	15	15	0	346	26	128	15	10	5	0	0	0.129593457	45	3	17	2	1	1	0	0
SF287	SurSt	SEGMENT287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	282	10	6	136	195	14	72	10	4	2	51	85	0.181317237	35	3	13	2	1	0	9	15
SF288	SurSt	SEGMENT288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	442	-5	-5	0	306	23	113	-5	-3	-2	0	0	0.094363838	29	2	11	0	0	0	0	0
SF289	SurSt	SEGMENT289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	205	5	6	82	142	10	52	5	4	2	31	51	0.176862171	25	2	9	1	1	0	5	9
SF290	SurSt	SEGMENT290	Perris Blvd	Sunnymead Blvd	Fir Ave	-199	0	-2	212	-138	-10	-51	0	-1	-1	80	133	0.203880884	0	0	0	0	0	0	16	27
SF294	SurSt	SEGMENT294	Via Del Lago	South of Iris Ave	0	260	0	0	0	180	13	66	0	0	0	0	0	0.511826793	92	7	34	0	0	0	0	0
SF301	SurSt	SEGMENT301	John F. Kennedy Dr	Indian St	Perris Blvd	383	5	10	0	265	20	98	5	7	3	0	0	0.480725087	128	9	47	2	3	2	0	0
SF302	SurSt	SEGMENT302	John F. Kennedy Dr	Perris Blvd	Kitching St	482	5	10	0	334	25	123	5	7	3	0	0	0.494656262	165	12	61	2	3	2	0	0
SF303	SurSt	SEGMENT303	Perris Blvd	John F. Kennedy Dr	Iris Ave	-745	-5	-1	185	-516	-38	-191	-5	-1	0	69	116	0.940553521	0	0	0	0	0	0	65	109
SF304	SurSt	SEGMENT304	Iris Ave	Indian St	Perris Blvd	-526	46	10	0	-364	-27	-134	46	7	3	0	0	0.452809414	0	0	0	21	3	1	0	0
SF306	SurSt	SEGMENT306	Perris Blvd	Iris Ave	Krameria Ave	107	50	71	185	74	5	27	50	48	23	69	116	0.508539804	38	3	14	25	24	12	35	59
SF32	SurSt	SEGMENT32	Cactus Ave	west of Redlands Blvd	0	-196	14	46	0	-136	-10	-50	14	31	15	0	0	0.963744898	0	0	0	14	30	14	0	0
SF33	SurSt	SEGMENT33	Alessandro Blvd	west of Redlands Blvd	0	-2087	-27	12	-5	-1447	-107	-534	-27	8	4	-2	-3	0.954784363	0	0	0	0	8	4	0	0
SF340	SurSt	SEGMENT340	Alessandro blvd	North of San Timoteo Canyon Rd	0	147	26	23	0	102	7	38	26	16	8	0	0	0.181638149	18	1	7	5	3	1	0	0
SF35	SurSt	SEGMENT35	Redlands Blvd	Ironwood Ave	State Route 60	-198	12	20	255	-137	-10	-51	12	14	6	96	159	0.497420642	0	0	0	6	7	3	48	79
SF36	SurSt	SEGMENT36	Ironwood Ave	Redlands Blvd	Highland Blvd	779	56	58	0	540	40	199	56	39	19	0	0	1.011016271	546	40	202	56	39	19	0	0
SF37	SurSt	SEGMENT37	San Timoteo Canyon Rd	west Live Oak Canyon	0	-1419	29	62	228	-983	-73	-363	29	42	20	85	142	0.135767572	0	0	0	4	6	3	12	19
SF375	SurSt	SEGMENT375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.241120496	0	0	0	0	0	0	0	0
SF376	SurSt	SEGMENT376	3rd St	Marvin Rd	Mid County Pkwy WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0.29622411	0	0	0	0	0	0	0	0
SF377	SurSt	SEGMENT377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.210620673	0	0	0	0	0	0	0	0
SF378	SurSt	SEGMENT378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0.131991944	0	0	0	0	0	0	0	0
SF379	SurSt	SEGMENT379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.205922223	0	0	0	0	0	0	0	0
SF38	SurSt	SEGMENT38	Theodore St	State Route 60	Highland Blvd	812	55	55	0	563	42	208	55	37	18	0	0	0.409361148	230	17	85	23	15	7	0	0
SF380	SurSt	SEGMENT380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	0	0	0	0	0	0	0	0	0	0	0	0	0.17577309	0	0	0	0	0	0	0	0
SF381	SurSt	SEGMENT381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.291357802	0	0	0	0	0	0	0	0
SF386	SurSt	SEGMENT386	Harley Know Blvd	Indian St	Perris Blvd	366	0	0	2	253	19	94	0	0	0	1	1	0.503420269	128	9	47	0	0	0	0	1
SF387	SurSt	SEGMENT387	Perris Blvd	Kramerian Ave	Harley Know Blvd	21	35	55	138	14	1	5	35	37	18	52	87	1.715293831	24	2	9	60	64	31	89	148
SF388	SurSt	SEGMENT388	Kramerian Ave	Lasselle St	Spirit Rd	304	0	0	0	211	16	78	0	0	0	0	0	0.109006596	23	2	8	0	0	0	0	0
SF390	SurSt	SEGMENT390	Ramona Expy	Webster Ave	Indian St	553	16	17	8	383	28	142	16	12	6	3	5	0.738713783	283	21	105	12	9	4	2	4
SF392	SurSt	SEGMENT392	Ramona Expy	Indian St	Perris Blvd	519	21	9	39	360	27	133	21	6	3	15	24	0.270652483	97	7	36	6	2	1	4	7

AERMOD SRCGRP ID	AERMOD Category	Traffic Study Segment No.	Arterial	From	To	Peak Hour Trips												Segment Length, mi	Total Miles							
						Traffic Study Vehicles				Emfac Vehicle Categories																
						Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF393	SurSt	SEGMENT393	Indian St	Ramona Expy	Morgan St	267	0	-3	-1	185	14	68	0	-2	-1	0	0	0.58014511	107	8	40	0	0	0	0	0
SF394	SurSt	SEGMENT394	Perris Blvd	Harley Know blvd	Ramona Expy	488	44	57	127	338	25	125	44	38	18	48	80	0.80283802	272	20	100	35	31	15	38	64
SF396	SurSt	SEGMENT396	Perris Blvd	Ramona Expy	Rider St	289	19	26	50	200	15	74	19	17	8	19	31	1.470187351	295	22	109	29	25	12	28	46
SF397	SurSt	SEGMENT397	Ramona Expy	Perris Blvd	Evans Rd	238	-1	1	23	165	12	61	-1	0	0	8	14	0.986630966	163	12	60	0	0	0	8	14
SF398	SurSt	SEGMENT398	Evans Rd	Marbella Gate	Ramona Expy	526	10	9	0	365	27	135	10	6	3	0	0	0.347836483	127	9	47	3	2	1	0	0
SF399	SurSt	SEGMENT399	Ramona Expy	Evans Rd	Rider St	482	10	2	13	334	25	123	10	1	1	5	8	2.105990148	704	52	260	21	3	1	10	16
SF400	SurSt	SEGMENT400	Evans Rd	Ramona Expy	Rider St	286	0	0	0	198	15	73	0	0	0	0	0	1.058765142	210	15	77	0	0	0	0	0
SF401	SurSt	SEGMENT401	Morgan St	Indian St	Perris Blvd	341	0	0	0	236	17	87	0	0	0	0	0	0.490874763	116	9	43	0	0	0	0	0
SF402	SurSt	SEGMENT402	Morgan St	Perris Blvd	Silver Creed Industires	376	0	0	0	260	19	96	0	0	0	0	0	0.745035501	194	14	72	0	0	0	0	0
SF404	SurSt	SEGMENT404	Morgan St	Morgan Park	Evans Rd	281	0	0	0	195	14	72	0	0	0	0	0	0.477225311	93	7	34	0	0	0	0	0
SF405	SurSt	SEGMENT405	Morgan St	Evans Rd	Bradley Rd	265	0	0	0	184	14	68	0	0	0	0	0	0.627837619	115	9	43	0	0	0	0	0
SF406	SurSt	SEGMENT406	Ironwood Ave	East of Thedore St	0	256	0	0	0	178	13	66	0	0	0	0	0	0.245503002	44	3	16	0	0	0	0	0
SF408	SurSt	SEGMENT408	Rider St	Perris Blvd	Redlands Ave	585	0	0	0	405	30	150	0	0	0	0	0	0.666071438	270	20	100	0	0	0	0	0
SF409	SurSt	SEGMENT409	Ironwood Ave	Nason St	Moreno Beach Dr	555	0	5	0	385	28	142	0	3	2	0	0	0.706361059	272	20	100	0	2	1	0	0
SF410	SurSt	SEGMENT410	Rider St	Wilson St	Evans Rd	288	0	0	0	200	15	74	0	0	0	0	0	0.549239068	110	8	41	0	0	0	0	0
SF411	SurSt	SEGMENT411	Rider St	Evans Rd	Ramona Expy	189	0	0	0	131	10	48	0	0	0	0	0	1.449029623	190	14	70	0	0	0	0	0
SF42	SurSt	SEGMENT42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	-409	61	63	255	-283	-21	-105	61	42	20	96	159	3.316937394	0	0	0	203	140	67	317	529
SF424	SurSt	SEGMENT424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	-62	0	0	205	-43	-3	-16	0	0	0	77	128	0.514207542	0	0	0	0	0	0	40	66
SF425	SurSt	SEGMENT425	Mid County Pkwy WB On-Ramp	West of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.125962301	0	0	0	0	0	0	0	0
SF426	SurSt	SEGMENT426	Mid County Pkwy WB Off-Ramp	East of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.171358678	0	0	0	0	0	0	0	0
SF427	SurSt	SEGMENT427	Day St	South of Alessandro Blvd	0	370	0	0	0	256	19	95	0	0	0	0	0	0.406592346	104	8	38	0	0	0	0	0
SF429	SurSt	SEGMENT429	Mid County Pkwy EB On-Ramp	East of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.135834789	0	0	0	0	0	0	0	0
SF43	SurSt	SEGMENT43	Moreno Beach Dr	Alessandro Blvd	SR 60	641	-36	-5	-85	444	33	164	-36	-3	-2	-32	-53	1.61413653	717	53	265	0	0	0	0	0
SF432	SurSt	SEGMENT432	Placentia Ave	Evans Rd	El Nido Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.390502928	0	0	0	0	0	0	0	0
SF433	SurSt	SEGMENT433	Evans Rd	Rider St	Orange Ave	294	0	0	0	204	15	75	0	0	0	0	0	1.119814504	228	17	84	0	0	0	0	0
SF436	SurSt	SEGMENT436	Elsworth St	North of Cactus Ave	0	294	0	1	0	204	15	75	0	0	0	0	0	0.110385914	23	2	8	0	0	0	0	0
SF458	SurSt	SEGMENT458	Nason St	South of Cactus Ave	0	331	-1	0	0	229	17	85	-1	0	0	0	0	0.147088371	34	2	12	0	0	0	0	0
SF46	SurSt	SEGMENT46	Moreno Beach Dr	State Route 60	Ironwood Ave	2577	3	5	-6	1786	132	659	3	3	2	-2	-4	0.500755897	894	66	330	2	2	1	0	0
SF464	SurSt	SEGMENT464	Quincy	South of Eucalyptus	0	0	0	0	0	0	0	0	0	0	0	0	0	0.436415902	0	0	0	0	0	0	0	0
SF47	SurSt	SEGMENT47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	1622	20	5	0	1124	83	415	20	3	2	0	0	1.239676544	1393	103	514	25	4	2	0	0
SF479	SurSt	SEGMENT479	Oliver St	North of Irris Ave	0	296	0	0	0	205	15	76	0	0	0	0	0	0.286402125	59	4	22	0	0	0	0	0
SF48	SurSt	SEGMENT48	Alessandro Blvd	Lesselle St	Morrison St	317	5	-2	27	219	16	81	5	-1	-1	10	17	0.493727137	108	8	40	2	0	0	5	8
SF488	SurSt	SEGMENT488	Nason St	North of Iris Ave	0	0	0	0	0	0	0	0	0	0	0	0	0	0.89553676	0	0	0	0	0	0	0	0
SF494	SurSt	SEGMENT494	Evans Rd	North of Harley Knox Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.645332557	0	0	0	0	0	0	0	0
SF498	SurSt	SEGMENT498	Morrison St	Alessandro Blvd	Cactus Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.492153693	0	0	0	0	0	0	0	0
SF499	SurSt	SEGMENT499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave	-243	0	-5	210	-168	-12	-62	0	-3	-2	79	131	0.409911701	0	0	0	0	0	0	32	54
SF50	SurSt	SEGMENT50	Cactus Ave	Redlands Blvd	Street D	4487	243	189	0	3110	229	1148	243	128	61	0	0	0.297503443	925	68	342	72	38	18	0	0
SF500	SurSt	SEGMENT500	Perris Blvd	North of Eucalyptus Ave	0	-193	0	-5	210	-134	-10	-49	0	-3	-2	79	131	0.245304101	0	0	0	0	0	0	19	32
SF502	SurSt	SEGMENT502	Quincy	Cottonwood Ave	Alessandro Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.531348818	0	0	0	0	0	0	0	0
SF503	SurSt	SEGMENT503	Quincy	Alessandro Blvd	Cactus Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.509629552	0	0	0	0	0	0	0	0
SF504	SurSt	SEGMENT504	Krameria Ave	West of Perris Blvd	0	311	4	5	0	215	16	80	4	3	2	0	0	0.223585508	48	4	18	1	1	0	0	0
SF51	SurSt	SEGMENT51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	657	6	5	0	455	34	168	6	3	2	0	0	0.605726665	276	20	102	4	2	1	0	0
SF52	SurSt	SEGMENT52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	1348	124	112	0	934	69	345	124	76	36	0	0	0.788562683	737	54	272	98	60	29	0	0
SF53	SurSt	SEGMENT53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	319	21	0	0	221	16	82	21	0	0	0	0	0.493787875	109	8	40	10	0	0	0	0
SF54	SurSt	SEGMENT54	Locust Ave	Moreno Beach Dr	Smiley Blvd	240	0	0	0	166	12	61	0	0	0	0	0	0.20192973	34	2	12	0	0	0	0	0
SF55	SurSt	SEGMENT55	Locust Ave	Moreno Beach Dr	Redlands Blvd	1015	5	5	0	703	52	260	5	3	2	0	0	1.26872719	892	66	329	6	4	2	0	0
SF56	SurSt	SEGMENT56	Moreno Beach Dr	Locust Ave	Ironwood Ave	1065	0	5	0	738	54	273	0	3	2	0	0	0.716065399	528	39	195	0	2	1	0	0
SF57	SurSt	SEGMENT57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	169	0	5	30	117	9	43	0	3	1	11	18	0.152653196	18	1	7	0	0	0	2	3
SF58	SurSt	SEGMENT58	SR 60 EB Ramps	West of Moreno Beach Dr	0	2225	0	0	0	1542	114	569	0	0	0	0	0	0.106579533	164	12	61	0	0	0	0	0
SF59	SurSt	SEGMENT59	Eualyptus Ave	Moreno Beach Dr	Quincy Dr	652	13	5	21	452	33	167	13	3	2	8	13	0.488213727	221	16	81	6	2	1	4	6
SF60	SurSt	SEGMENT60	SR 60 WB Ramps	East of Redlands Blvd	0	689	20	24	220	478	35	176	20	16	8	82	138	0.098638204	47	3	17	2	2	1	8	14
SF61	SurSt	SEGMENT61	SR 60 EB Ramps	West fo Redlands Blvd	0	3553	39	10	121	2462	182	909	39	7	3	45	76	0.060073815	148	11	55	2	0	0	3	5
SF62	SurSt	SEGMENT62	Fir Ave	Quincy Dr	Redlands Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.485537151	0	0	0	0	0	0	0	0
SF65	SurSt	SEGMENT65	Alessandro Blvd	Nason St	Oliver St	630	6	0	40	436	32	161	6	0	0	15	25	0.494265687	216	16	80	3	0	0	7	12
SF66	SurSt	SEGMENT66	Alessandro Blvd	Oliver St	Moreno Beach Dr	360	5	-3	30	249	18	92	5	-2	-1	11	19	0.504352003	126	9	46	3	0	0	6	9
SF67	SurSt	SEGMENT67	Oliver St	Alessandro Blvd	Cactus Ave	405	0	0	0	280	21	104	0	0	0	0	0	0.483632193	136	10	50	0	0	0	0	0
SF68	SurSt	SEGMENT68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	516	1	4	0	358	26	132	1	3	1	0	0	0.505890101	181	13	67	0	1	1	0	0
SF69	SurSt	SEGMENT69	Cactus Ave	Nason St	Oliver St	1740	40	25	0	1206	89	445	40	17	8	0	0	0.509145955	614	45	227	20	9	4	0	0
SF70	SurSt	SEGMENT70	Cactus Ave	Oliver St	Moreno Beach Dr	472	45	25	0	327	24	121	45	17	8	0	0	0.494148133	162	12	60	22	8	4	0	0
SF71	SurSt	SEGMENT71	Oliver St	Cactus Ave	John F Kennedy Dr	464	0	0	0	321	24	119	0	0	0	0	0	0.498675792	160	12	59	0	0	0	0	0
SF72	SurSt	SEGMENT72	Oliver St	John F Kennedy Dr	Iris Ave	296	0	0	0	205	15	76	0	0	0	0	0	0.50625515	104	8	38	0	0	0	0	0
SF73	SurSt	SEGMENT73	Iris Ave	Nason St	Oliver St	1500	110	115	0	1039	77	384	110	78	37	0	0	0.460896591	479	35	177	50	36	17	0	0
SF74	SurSt	SEGMENT74	Heacock St	Manzanita Ave	Ironwood Ave	266	0	0	0	184	14	68	0	0	0	0	0	0.977763694	180	13	67	0	0	0	0	0
SF75	SurSt	SEGMENT75	Ironwood Ave	Graham St	Heacock St	452	0	5	0	313	23	116	0	3	2	0	0	0.500096556	157	12	58	0	2	1	0	0
SF76	SurSt	SEGMENT76	Ironwood Ave	Heacock St	Indian Ave	441	0	5	0	305	23	113	0	3	2	0	0	0.992313249	303	22	112	0	3	2	0	0
SF77	SurSt	SEGMENT77	Heacock St	Ironwood Ave	Hemlock Ave	311	0	0	0	216	16	80	0	0	0	0	0	0.272348654	59	4	22	0	0	0	0	0
SF80	SurSt	SEGMENT80	Heacock St	Hemlock Ave	SR 60 WB Ramps	242	-2	0	0	167	12	62	-2	0	0	0	0	0.08565919	14	1	5	0	0	0	0	0
SF81	SurSt	SEGMENT81	SR 60 WB Ramps	West of Heacock St	0	168	-1	0	-5	117	9	43	-1	0	0	-2	-3	0.252621193	29	2	11	0	0	0	0	0
SF82	SurSt	SEGMENT82	SR 60 WB Ramps	East of Heacock St	0	1	6	0	58	0	0	0	6	0	0	22	36	0.200113685	0	0	0	1	0	0	4	7

						Peak Hour Trips																				
						Traffic Study Vehicles				Emfac Vehicle Categories									Total Miles							
AERMOD SRCGRP ID	AERMOD Category	Traffic Study Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Segment Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF83	SurSt	SEGMENT83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	112	10	-5	34	77	6	29	10	-3	-2	13	21	0.058807864	5	0	2	1	0	0	1	1
SF85	SurSt	SEGMENT85	SR 60 WB Onramp	West of Perris Blvd	0	175	-5	0	0	121	9	45	-5	0	0	0	0	0.182340793	22	2	8	0	0	0	0	0
SF86	SurSt	SEGMENT86	SR 60 WB Offramp	East of Perris Blvd	0	205	5	6	82	142	10	52	5	4	2	31	51	0.176358151	25	2	9	1	1	0	5	9
SF87	SurSt	SEGMENT87	Eualyptus Ave	Indian St	Perris Blvd	330	0	0	0	229	17	85	0	0	0	0	0	0.496859122	114	8	42	0	0	0	0	0
SF88	SurSt	SEGMENT88	Eualyptus Ave	Perris Blvd	Kitching St	276	0	0	0	191	14	70	0	0	0	0	0	0.502673831	96	7	35	0	0	0	0	0
FRWY27	Freeway	FRWY27	SR-60	I-215 to Day St		120	380	950	4800	83	6	31	380	642	308	1799	3001	1.864366517	155	11	57	708	1196	575	3355	5594
FRWY28	Freeway	FRWY28	SR-60	Day St to Pigeon Pass Rd/Frederick St		590	400	980	4800	409	30	151	400	662	318	1799	3001	1.553879015	635	47	235	622	1028	494	2796	4662
FRWY29	Freeway	FRWY29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St		660	410	1020	4830	457	34	169	410	689	331	1811	3019	0.705152395	323	24	119	289	486	234	1277	2129
FRWY30	Freeway	FRWY30	SR-60	Heacock St to Perris Blvd		1440	440	1050	4970	998	74	368	440	709	341	1863	3107	1.058474253	1056	78	390	466	751	361	1972	3288
FRWY31	Freeway	FRWY31	SR-60	Perris Blvd to Nason St		2360	490	1110	5260	1635	121	604	490	750	360	1972	3288	0.736854569	1205	89	445	361	552	266	1453	2423
FRWY32	Freeway	FRWY32	SR-60	Nason St to Moreno Beach Dr		3460	530	1130	5260	2398	177	885	530	763	367	1972	3288	1.020389528	2447	181	903	541	779	374	2012	3355
FRWY33	Freeway	FRWY33	SR-60	Moreno Beach Dr to Redlands Blvd		4140	560	1170	5310	2869	212	1059	560	790	380	1991	3319	1.01638354	2916	215	1077	569	803	386	2023	3374
FRWY34	Freeway	FRWY34	SR-60	Redlands Blvd to Theodore St		4130	620	1260	5530	2862	211	1057	620	851	409	2073	3457	0.966277306	2766	204	1021	599	822	395	2003	3340
FRWY35	Freeway	FRWY35	SR-60	Theodore St to Gilman Springs Rd		-1300	110	250	530	-901	-66	-333	110	169	81	199	331	2.102877608	0	0	0	231	355	171	418	697
FRWY36	Freeway	FRWY36	SR-60	Gilman Springs Rd to Jack Rabbit Trail		450	110	230	500	312	23	115	110	155	75	187	313	0.691070432	216	16	80	76	107	52	130	216
FRWY37	Freeway	FRWY37	SR-60	Jack Rabbit Trail to I-10		450	110	230	500	312	23	115	110	155	75	187	313	1.20220631	375	28	138	132	187	90	225	376
FRWY101	Freeway	FRWY101	I-10	SR-60 to Beaumont Ave		-110	60	150	430	-76	-6	-28	60	101	49	161	269	1.04106943	0	0	0	62	105	51	168	280
172	Freeway	172	SR-215	Harley Knox Blvd to Van Buren Blvd		-70	20	40	320	-49	-4	-18	20	27	13	120	200	0.709924786	0	0	0	14	19	9	85	142
173	Freeway	173	SR-215	Van Buren Blvd to Cactus Ave		-170	30	70	390	-118	-9	-43	30	47	23	146	244	5.666735459	0	0	0	170	268	129	829	1381
174	Freeway	174	SR-215	Cactus Ave to Alessandro Blvd		-160	30	60	390	-111	-8	-41	30	41	19	146	244	2.362452141	0	0	0	71	96	46	345	576

										Total Diesel Miles																									
AERMOD	Traffic Study	Total Miles								1.07%	0.10%	0.21%	2.11%	52.03%	66.33%	88.74%	99.05%	2025 DPM PM10 Emission Factors, g/mi								DPM PM10 Grams per Day									DPM
SRCGRP ID	Segment No.	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Total	g/s
IN01	SEGMENT01	948	70	350	81	67	32	264	439	10	0	1	2	35	21	234	435	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	6.28E-02	4.69E-03	3.46E-03	6.71E-03	6.51E-01	3.20E-01	9.02E-01	3.40E+00	5.35E+00	6.19E-05
IN02	SEGMENT02	1225	90	452	164	77	37	309	515	13	0	1	3	40	25	274	510	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	8.12E-02	6.07E-03	4.47E-03	1.35E-02	7.51E-01	3.69E-01	1.06E+00	3.99E+00	6.27E+00	7.26E-05
IN03	SEGMENT03	2616	193	966	206	102	49	273	456	28	0	2	4	53	33	243	452	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	1.73E-01	1.30E-02	9.54E-03	1.70E-02	9.93E-01	4.87E-01	9.36E-01	3.53E+00	6.16E+00	7.12E-05
IN05	SEGMENT05	1957	144	722	144	76	36	0	0	21	0	2	3	39	24	0	0	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	1.30E-01	9.69E-03	7.14E-03	1.19E-02	7.33E-01	3.60E-01	0.00E+00	0.00E+00	1.25E+00	1.45E-05
IN06	SEGMENT06	3627	268	1339	519	255	122	1017	1696	39	0	3	11	133	81	903	1680	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	2.40E-01	1.80E-02	1.32E-02	4.29E-02	2.47E+00	1.21E+00	3.48E+00	1.31E+01	2.06E+01	2.38E-04
IN08	SEGMENT08	2971	219	1097	188	81	39	0	0	32	0	2	4	42	26	0	0	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	1.97E-01	1.47E-02	1.08E-02	1.56E-02	7.88E-01	3.87E-01	0.00E+00	0.00E+00	1.41E+00	1.64E-05
IN11	SEGMENT11	0	0	0	0	15	7	0	0	0	0	0	0	8	5	0	0	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.43E-01	7.00E-02	0.00E+00	0.00E+00	2.13E-01	2.46E-06
IN12	SEGMENT12	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	0.00E+00	0.00E+00	0.00E+00	5.01E-04	6.28E-03	3.08E-03	0.00E+00	0.00E+00	9.87E-03	1.14E-07
IN14	SEGMENT14	2014	149	744	238	49	23	175	292	22	0	2	5	25	16	155	289	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	1.33E-01	9.97E-03	7.35E-03	1.97E-02	4.73E-01	2.32E-01	5.99E-01	2.26E+00	3.73E+00	4.32E-05
IN18	SEGMENT18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
IN19	SEGMENT19	2103	155	777	36	22	10	33	55	23	0	2	1	11	7	29	54	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	1.39E-01	1.04E-02	7.67E-03	2.94E-03	2.09E-01	1.03E-01	1.13E-01	4.25E-01	1.01E+00	1.17E-05
IN21	SEGMENT21	171	13	63	0	8	4	12	20	2	0	0	0	4	3	10	19	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	1.13E-02	8.47E-04	6.24E-04	1.73E-05	8.14E-02	4.00E-02	4.01E-02	1.51E-01	3.25E-01	3.77E-06
IN24	SEGMENT24	357	26	132	43	29	14	49	82	4	0	0	1	15	9	44	81	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	2.36E-02	1.77E-03	1.30E-03	3.52E-03	2.77E-01	1.36E-01	1.68E-01	6.33E-01	1.24E+00	1.44E-05
IN29	SEGMENT29	134	10	49	0	0	0	0	0	1	0	0	0	0	0	0	0	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	8.87E-03	6.63E-04	4.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02	1.16E-07
IN30	SEGMENT30	561	41	207	0	0	0	0	0	6	0	0	0	0	0	0	0	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	3.72E-02	2.78E-03	2.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-02	4.86E-07
IN31	SEGMENT31	227	17	84	12	9	4	10	17	2	0	0	0	4	3	9	17	6.19E-03	6.71E-02	4.71E-03	3.92E-03	1.86E-02	1.49E-02	3.86E-03	7.81E-03	1.51E-02	1.13E-03	8.29E-04	9.86E-04	8.34E-02	4.09E-02	3.58E-02	1.35E-01	3.13E-01	3.63E-06
SF09	SEGMENT09	776	57	286	132	109	52	0	0	8	0	1	3	56	35	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	6.48E-02	4.96E-03	3.24E-03	1.27E-02	9.74E-01	4.71E-01	0.00E+00	0.00E+00	1.53E+00	1.77E-05
SF10	SEGMENT10	0	0	0	0	7	3	0	0	0	0	0	0	4	2	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-02	2.99E-02	0.00E+00	0.00E+00	9.17E-02	1.06E-06
SF104	SEGMENT104	239	18	88	3	1	0	2	4	3	0	0	0	0	0	2	4	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.00E-02	1.53E-03	9.98E-04	2.41E-04	7.60E-03	3.68E-03	7.49E-03	2.82E-02	6.97E-02	8.07E-07
SF106	SEGMENT106	411	30	152	0	2	1	0	0	4	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.43E-02	2.63E-03	1.71E-03	0.00E+00	1.70E-02	8.21E-03	0.00E+00	0.00E+00	6.38E-02	7.39E-07
SF107	SEGMENT107	221	16	82	2	1	0	2	4	2	0	0	0	0	0	2	4	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.84E-02	1.41E-03	9.21E-04	2.32E-04	7.30E-03	3.53E-03	7.20E-03	2.71E-02	6.61E-02	7.65E-07
SF108	SEGMENT108	448	33	165	0	0	0	0	0	5	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.74E-02	2.87E-03	1.87E-03	3.72E-05	0.00E+00	0.00E+00	5.21E-04	1.96E-03	4.47E-02	5.17E-07
SF109	SEGMENT109	144	11	53	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.20E-02	9.20E-04	6.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E-02	1.56E-07
SF110	SEGMENT110	367	27	135	4	2	1	4	7	4	0	0	0	1	1	4	7	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.06E-02	2.34E-03	1.53E-03	3.50E-04	1.42E-02	6.88E-03	1.40E-02	5.28E-02	1.23E-01	1.42E-06
SF111	SEGMENT111	102	8	38	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.51E-03	6.52E-04	4.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.59E-03	1.11E-07
SF112	SEGMENT112	361	27	133	1	1	1	23	38	4	0	0	0	1	0	20	38	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.01E-02	2.31E-03	1.51E-03	1.34E-04	1.32E-02	6.38E-03	7.27E-02	2.74E-01	4.00E-01	4.63E-06
SF113	SEGMENT113	80	6	30	0	0	0	2	3	1	0	0	0	0	0	2	3	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	6.68E-03	5.12E-04	3.34E-04	0.00E+00	1.75E-03	8.47E-04	5.87E-03	2.21E-02	3.81E-02	4.41E-07
SF114	SEGMENT114	131	10	48	0	0	0	4	6	1	0	0	0	0	0	3	6	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.09E-02	8.37E-04	5.46E-04	0.00E+00	0.00E+00	0.00E+00	1.17E-02	4.42E-02	6.82E-02	7.90E-07
SF115	SEGMENT115	319	24	118	2	3	1	7	12	3	0	0	0	2	1	6	11	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.66E-02	2.04E-03	1.33E-03	1.46E-04	2.64E-02	1.28E-02	2.21E-02	8.32E-02	1.75E-01	2.02E-06
SF116	SEGMENT116	150	11	55	3	0	0	1	2	2	0	0	0	0	0	1	2	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.25E-02	9.60E-04	6.26E-04	2.45E-04	6.88E-04	3.33E-04	3.04E-03	1.14E-02	2.99E-02	3.46E-07
SF117	SEGMENT117	166	12	61	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.38E-02	1.06E-03	6.91E-04	1.44E-05	1.29E-03	6.26E-04	0.00E+00	0.00E+00	1.75E-02	2.03E-07
SF118	SEGMENT118	266	20	98	1	2	1	4	6	3	0	0	0	1	1	3	6	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.22E-02	1.70E-03	1.11E-03	6.32E-05	1.96E-02	9.50E-03	1.20E-02	4.52E-02	1.11E-01	1.29E-06
SF119	SEGMENT119	113	8	42	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.40E-03	7.20E-04	4.70E-04	1.99E-05	2.68E-03	1.30E-03	0.00E+00	0.00E+00	1.46E-02	1.69E-07
SF120	SEGMENT120	31	2	11	0	0	0	14	23	0	0	0	0	0	0	12	23	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.57E-03	1.97E-04	1.28E-04	0.00E+00	0.00E+00	0.00E+00	4.37E-02	1.65E-01	2.11E-01	2.45E-06
SF121	SEGMENT121	225	17	83	28	0	0	0	0	2	0	0	1	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.88E-02	1.44E-03	9.41E-04	2.71E-03	0.00E+00	0.00E+00	2.62E-04	9.88E-04	2.52E-02	2.91E-07
SF122	SEGMENT122	61	5	23	0	0	0	9	16	1	0	0	0	0	0	8	16	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	5.12E-03	3.92E-04	2.56E-04	0.00E+00	0.00E+00	0.00E+00	3.00E-02	1.13E-01	1.49E-01	1.72E-06
SF123	SEGMENT123	104	8	38	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.70E-03	6.67E-04	4.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.80E-03	1.13E-07
SF124	SEGMENT124	227	17	84	0	0	0	6	11	2	0	0	0	0	0	6	11	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.89E-02	1.45E-03	9.46E-04	0.00E+00	0.00E+00	0.00E+00	2.03E-02	7.63E-02	1.18E-01	1.36E-06
SF125	SEGMENT125	95	7	35	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.96E-03	6.10E-04	3.98E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.96E-03	1.04E-07
SF126	SEGMENT126	92	7	34	0	0	0	6	10	1	0	0	0	0	0	5	10	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.65E-03	5.86E-04	3.83E-04	0.00E+00	0.00E+00	0.00E+00	1.96E-02	7.38E-02	1.02E-01	1.18E-06
SF127	SEGMENT127	0	0	0	0	0	0	37	62	0	0	0	0	0	0	33	62	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-01	4.50E-01	5.69E-01	6.58E-06
SF128	SEGMENT128	108	8	40	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.04E-03	6.93E-04	4.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-02	1.18E-07
SF129	SEGMENT129	88	6	32	0	0	0	7	11	1	0	0	0	0	0	6	11	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.34E-03	5.63E-04	3.67E-04	0.00E+00	0.00E+00	0.00E+00	2.14E-02	8.05E-02	1.10E-01	1.27E-06
SF13	SEGMENT13	60	4	22	7	4	2	30	50	1	0	0	0	2	1	26	49	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	5.03E-03	3.86E-04	2.52E-04	6.54E-04	3.71E-02	1.79E-02	9.49E-02	3.58E-01	5.14E-01	5.95E-06
SF130	SEGMENT130	91	7	34	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.60E-03	5.82E-04	3.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.56E-03	9.91E-08
SF131	SEGMENT131	120	9	44	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.00E-02	7.66E-04	5.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E-02	1.30E-07
SF133	SEGMENT133	126	9	47	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.05E-02	8.08E-04	5.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-02	1.37E-07
SF134	SEGMENT134	131	10	49	19	14	7	20	33	1	0	0	0	7	4	18	33	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.10E-02	8.41E-04	5.48E-04	1.82E-03	1.23E-01	5.93E-02	6.36E-02	2.39E-01	4.99E-01	5.78E-06
SF135	SEGMENT135	125	9	46	0	0	0	6	10	1	0	0	0	0	0	5	10	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.04E-02	8.00E-04	5.22E-04	1.62E-05	0.00E+00	0.00E+00	1.85E-02	6.97E-02	1.00E-01	1.16E-06
SF136	SEGMENT136	156	11	57	1	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.30E-02	9.95E-04	6.49E-04	8.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-02	1.70E-07
SF137	SEGMENT137	91	7	34	0	0	0	2	3	1	0	0	0	0	0	2	3	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.58E-03	5.81E-04	3.79E-04	8.58E-06	0.00E+00	0.00E+00	5.86E-03	2.21E-02	3.65E-02	4.22E-07
SF139	SEGMENT139	140	10	52	2	1	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.17E-02	8.96E-04	5.84E-04	1.51E-04	6.32E-03	3.06E-03	0.00E+00	0.00E+00	2.27E-02	2.63E-07
SF140	SEGMENT140	52	4	19	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.35E-03	3.33E-04	2.17E-04	0.00E+00	3.31E-03	1.60E-03	0.00E+00	0.00E+00	9.80E-03	1.13E-07
SF141	SEGMENT141	475	35	175	4	1	0	0	0	5	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.96E-02	3.04E-03	1.98E-03	3.96E-04	4.59E-03	2.22E-03	0.00E+00	0.00E+00	5.19E-02	6.00E-07
SF142	SEGMENT142	44	3	16	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.66E-03	2.81E-04	1.83E-04	0.00E+00	0.00E+00	0.00E+00	5.54E-05	2.08E-04	4.39E-03	5.08E-08
SF143	SEGMENT143	275	20	102	3	1	1	0	0	3	0	0	0	1	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.30E-02	1.76E-03	1.15E-03	2.52E-04	1.31E-02	6.34E-03	0.00E+00	0.00E+00	4.56E-02	5.28E-07
SF144	SEGMENT144	271	20	100	2	2	1	0	0	3	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.26E-02	1.73E-03	1.13E-03	2.34E-04	1.89E-02	9.15E-03	0.00E+00	0.00E+00	5.38E-02	6.22E-07
SF145	SEGMENT145	186	14	69	5	3	2	0	0	2	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.55E-02	1.19E-03	7.76E-04	4.70E-04	2.96E-02	1.43E-02	0.00E+00	0.00E+00	6.20E-02	7.17E-07
SF146	SEGMENT146	177	13	65	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.48E-02	1.13E-03	7.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-02	1.93E-07
SF147	SEGMENT147	101	7	37	5	3	2	0	0	1	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.47E-03	6.49E-04	4.23E-04	4.76E-04	3.00E-02	1.45E-02	0.00E+00	0.00E+00	5.46E-02	6.32E-07
SF148	SEGMENT148	96	7	36	0	0	0	7	12	1	0	0	0	0	0	6	12	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.03E-03	6.15E-04	4.01E-04	0.00E+00	0.00E+00	0.00E+00	2.33E-02	8.78E-02	1.20E-01	1.39E-06
SF149	SEGMENT149	47	3	17	8	5	2	0	0	1	0	0	0	2	2	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.96E-03	3.03E-04	1.98E-04	7.24E-04	4.23E-02	2.04E-02	0.00E+00	0.00E+00	6.79E-02	7.86E-07
SF150	SEGMENT150	97	7	36	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.12E-03	6.22E-04	4.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.14E-03	1.06E-07
SF151	SEGMENT151	84	6	31	7	5	2	1	2	1	0	0	0	2	2	1	2	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.05E-03	5.40E-04	3.52E-04	7.05E-04	4.28E-02	2.07E-02	2.92E-03	1.10E-02	8.61E-02	9.96E-07
SF152	SEGMENT152	0	0	0	0	8	4	34	57	0	0	0	0	4	3	30	56	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.17E-02	3.47E-02	1.08E-01	4.08E-01	6.22E-01	7.20E-06
SF153	SEGMENT153	118	9	44	12	4	2	0	0	1	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.86E-03	7.56E-04	4.93E-04	1.19E-03	4.00E-02	1.94E-02	0.00E+00	0.00E+00	7.17E-02	8.30E-07
SF154	SEGMENT154	99	7	36	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.22E-03	6.30E-04	4.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.26E-03	1.07E-07
SF155	SEGMENT155	155	11	57	19	8	4	0	0	2	0	0	0	4	2	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.30E-02	9.94E-04	6.48E-04	1.85E-03	6.80E-02	3.29E-02	0.00E+00	0.00E+00	1.17E-01	1.36E-06
SF156	SEGMENT156	120	9	44	7	4	2	0	0	1	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.00E-02	7.70E-04	5.02E-04	6.91E-04	3.87E-02	1.87E-02	0.00E+00	0.00E+00	6.94E-02	8.04E-07
SF157	SEGMENT157	89	7	33	19	8	4	0	0	1	0	0	0	4	3	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.41E-03	5.68E-04	3.71E-04	1.83E-03	7.57E-02	3.66E-02	0.00E+00	0.00E+00	1.22E-01	1.42E-06
SF160	SEGMENT160	133	10	49	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.11E-02	8.51E-04	5.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.25E-02	1.45E-07
SF161	SEGMENT161	36	3	13	32	25	12	0	0	0	0	0	1	13	8	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.03E-03	2.32E-04	1.51E-04	3.03E-03	2.26E-01	1.09E-01	0.00E+00	0.00E+00	3.42E-01	3.95E-06
SF162	SEGMENT162	600	44	222	56	47	23	0	0	6	0	0	1	24	15	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	5.01E-02	3.84E-03	2.51E-03	5.34E-03	4.21E-01	2.04E-01	0.00E+00	0.00E+00	6.86E-01	7.94E-06
SF163	SEGMENT163	128	9	47	4	3	1	0	0	1	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.07E-02	8.17E-04	5.33E-04	4.18E-04	2.44E-02	1.18E-02	0.00E+00	0.00E+00	4.87E-02	5.63E-07
SF164	SEGMENT164	90	7	33	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.53E-03	5.77E-04	3.77E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.49E-03	9.82E-08
SF165	SEGMENT165	1025	76	379	105	78	38	0	0	11	0	1	2	41	25	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.56E-02	6.56E-03	4.28E-03	1.01E-02	7.03E-01	3.40E-01	0.00E+00	0.00E+00	1.15E+00	1.33E-05
SF168	SEGMENT168	468	35	173	10	8	4	0	0	5	0	0	0	4	3	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.90E-02	2.99E-03	1.95E-03	9.90E-04	7.14E-02	3.45E-02	0.00E+00	0.00E+00	1.51E-01	1.75E-06

AERMOD	Traffic Study	Total Miles								Total Diesel Miles								2025 DPM PM10 Emission Factors, g/mi								DPM PM10 Grams per Day									DPM
										1.07%	0.10%	0.21%	2.11%	52.03%	66.33%	88.74%	99.05%																		
SRCGRP ID	Segment No.	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Total	g/s
SF169	SEGMENT169	202	15	75	1	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.69E-02	1.29E-03	8.44E-04	5.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E-02	2.21E-07
SF170	SEGMENT170	460	34	170	27	5	2	0	0	5	0	0	1	3	2	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.84E-02	2.94E-03	1.92E-03	2.62E-03	4.66E-02	2.25E-02	9.18E-04	3.46E-03	1.19E-01	1.38E-06
SF171	SEGMENT171	93	7	34	6	2	1	0	0	1	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.74E-03	5.93E-04	3.87E-04	5.61E-04	1.96E-02	9.51E-03	0.00E+00	0.00E+00	3.84E-02	4.45E-07
SF172	SEGMENT172	220	16	81	14	4	2	0	0	2	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.83E-02	1.41E-03	9.17E-04	1.36E-03	3.74E-02	1.81E-02	0.00E+00	0.00E+00	7.75E-02	8.97E-07
SF173	SEGMENT173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF174	SEGMENT174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF177	SEGMENT177	0	0	0	35	27	13	59	98	0	0	0	1	14	9	52	97	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	3.37E-03	2.40E-01	1.16E-01	1.88E-01	7.07E-01	1.25E+00	1.45E-05
SF178	SEGMENT178	520	38	192	0	14	7	49	82	6	0	0	0	7	4	44	81	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.34E-02	3.32E-03	2.17E-03	0.00E+00	1.22E-01	5.90E-02	1.56E-01	5.88E-01	9.75E-01	1.13E-05
SF179	SEGMENT179	0	0	0	67	58	28	129	215	0	0	0	1	30	19	114	213	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	6.43E-03	5.21E-01	2.52E-01	4.10E-01	1.54E+00	2.73E+00	3.16E-05
SF180	SEGMENT180	300	22	111	0	0	0	0	0	3	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.50E-02	1.92E-03	1.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-02	3.26E-07
SF181	SEGMENT181	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF182	SEGMENT182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF183	SEGMENT183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF184	SEGMENT184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF185	SEGMENT185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF186	SEGMENT186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF190	SEGMENT190	378	28	140	71	74	36	76	127	4	0	0	2	39	24	68	126	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.16E-02	2.42E-03	1.58E-03	6.85E-03	6.65E-01	3.22E-01	2.42E-01	9.13E-01	2.19E+00	2.53E-05
SF191	SEGMENT191	440	32	163	37	25	12	41	69	5	0	0	1	13	8	37	68	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.67E-02	2.82E-03	1.84E-03	3.57E-03	2.26E-01	1.09E-01	1.31E-01	4.93E-01	1.01E+00	1.16E-05
SF192	SEGMENT192	195	14	72	0	0	0	23	38	2	0	0	0	0	0	20	38	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.62E-02	1.24E-03	8.12E-04	0.00E+00	0.00E+00	0.00E+00	7.33E-02	2.76E-01	3.68E-01	4.26E-06
SF194	SEGMENT194	33	2	12	1	3	1	0	0	0	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.74E-03	2.10E-04	1.37E-04	7.71E-05	2.48E-02	1.20E-02	0.00E+00	0.00E+00	4.00E-02	4.63E-07
SF195	SEGMENT195	30	2	11	5	2	1	0	0	0	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.52E-03	1.93E-04	1.26E-04	4.35E-04	2.24E-02	1.08E-02	0.00E+00	0.00E+00	3.65E-02	4.23E-07
SF196	SEGMENT196	24	2	9	9	8	4	0	0	0	0	0	0	4	2	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.03E-03	1.56E-04	1.02E-04	8.31E-04	6.97E-02	3.37E-02	0.00E+00	0.00E+00	1.06E-01	1.23E-06
SF198	SEGMENT198	104	8	38	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.70E-03	6.67E-04	4.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.80E-03	1.13E-07
SF199	SEGMENT199	41	3	15	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.46E-03	2.65E-04	1.73E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E-03	4.51E-08
SF200	SEGMENT200	81	6	30	26	14	7	0	0	1	0	0	1	7	4	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	6.78E-03	5.20E-04	3.39E-04	2.50E-03	1.24E-01	6.00E-02	0.00E+00	0.00E+00	1.94E-01	2.25E-06
SF205	SEGMENT205	435	32	161	9	6	3	0	0	5	0	0	0	3	2	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.63E-02	2.78E-03	1.82E-03	8.96E-04	5.65E-02	2.73E-02	0.00E+00	0.00E+00	1.26E-01	1.45E-06
SF206	SEGMENT206	217	16	80	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.81E-02	1.39E-03	9.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-02	2.37E-07
SF207	SEGMENT207	671	50	248	16	11	5	0	0	7	0	1	0	6	3	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	5.60E-02	4.29E-03	2.80E-03	1.56E-03	9.83E-02	4.76E-02	0.00E+00	0.00E+00	2.11E-01	2.44E-06
SF283	SEGMENT283	23	2	8	0	0	0	2	3	0	0	0	0	0	0	2	3	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.89E-03	1.45E-04	9.47E-05	0.00E+00	0.00E+00	0.00E+00	6.01E-03	2.26E-02	3.08E-02	3.56E-07
SF284	SEGMENT284	0	0	0	1	0	0	5	8	0	0	0	0	0	0	4	8	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.13E-06	7.00E-07	4.57E-07	1.24E-04	0.00E+00	0.00E+00	1.56E-02	5.87E-02	7.44E-02	8.62E-07
SF285	SEGMENT285	0	0	0	0	0	0	2	3	0	0	0	0	0	0	2	3	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.97E-03	2.25E-02	2.85E-02	3.29E-07
SF286	SEGMENT286	45	3	17	2	1	1	0	0	0	0	0	0	1	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.75E-03	2.87E-04	1.87E-04	1.87E-04	1.15E-02	5.57E-03	0.00E+00	0.00E+00	2.15E-02	2.49E-07
SF287	SEGMENT287	35	3	13	2	1	0	9	15	0	0	0	0	0	0	8	15	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.95E-03	2.26E-04	1.48E-04	1.74E-04	6.64E-03	3.21E-03	2.94E-02	1.11E-01	1.53E-01	1.77E-06
SF288	SEGMENT288	29	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.41E-03	1.85E-04	1.21E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-03	3.15E-08
SF289	SEGMENT289	25	2	9	1	1	0	5	9	0	0	0	0	0	0	5	9	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.10E-03	1.61E-04	1.05E-04	8.50E-05	6.89E-03	3.33E-03	1.73E-02	6.53E-02	9.53E-02	1.10E-06
SF290	SEGMENT290	0	0	0	0	0	0	16	27	0	0	0	0	0	0	14	27	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E-02	1.94E-01	2.46E-01	2.85E-06
SF294	SEGMENT294	92	7	34	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.68E-03	5.89E-04	3.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.66E-03	1.00E-07
SF301	SEGMENT301	128	9	47	2	3	2	0	0	1	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.06E-02	8.16E-04	5.32E-04	2.31E-04	2.91E-02	1.41E-02	0.00E+00	0.00E+00	5.54E-02	6.42E-07
SF302	SEGMENT302	165	12	61	2	3	2	0	0	2	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.38E-02	1.06E-03	6.89E-04	2.38E-04	3.00E-02	1.45E-02	0.00E+00	0.00E+00	6.02E-02	6.97E-07
SF303	SEGMENT303	0	0	0	0	0	0	65	109	0	0	0	0	0	0	58	108	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-01	7.82E-01	9.90E-01	1.15E-05
SF304	SEGMENT304	0	0	0	21	3	1	0	0	0	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	1.98E-03	2.74E-02	1.33E-02	0.00E+00	0.00E+00	4.27E-02	4.94E-07
SF306	SEGMENT306	38	3	14	25	24	12	35	59	0	0	0	1	13	8	31	58	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.15E-03	2.41E-04	1.57E-04	2.42E-03	2.19E-01	1.06E-01	1.12E-01	4.23E-01	8.66E-01	1.00E-05
SF32	SEGMENT32	0	0	0	14	30	14	0	0	0	0	0	0	16	10	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	1.32E-03	2.70E-01	1.31E-01	0.00E+00	0.00E+00	4.02E-01	4.65E-06
SF33	SEGMENT33	0	0	0	0	8	4	0	0	0	0	0	0	4	2	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.75E-02	3.27E-02	0.00E+00	0.00E+00	1.00E-01	1.16E-06
SF340	SEGMENT340	18	1	7	5	3	1	0	0	0	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.54E-03	1.18E-04	7.70E-05	4.60E-04	2.58E-02	1.25E-02	0.00E+00	0.00E+00	4.05E-02	4.69E-07
SF35	SEGMENT35	0	0	0	6	7	3	48	79	0	0	0	0	3	2	42	79	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	5.72E-04	6.03E-02	2.92E-02	1.51E-01	5.70E-01	8.12E-01	9.39E-06
SF36	SEGMENT36	546	40	202	56	39	19	0	0	6	0	0	1	20	13	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.56E-02	3.49E-03	2.28E-03	5.41E-03	3.52E-01	1.70E-01	0.00E+00	0.00E+00	5.79E-01	6.71E-06
SF37	SEGMENT37	0	0	0	4	6	3	12	19	0	0	0	0	3	2	10	19	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	3.75E-04	5.12E-02	2.48E-02	3.69E-02	1.39E-01	2.52E-01	2.92E-06
SF375	SEGMENT375	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF376	SEGMENT376	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF377	SEGMENT377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF378	SEGMENT378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF379	SEGMENT379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF38	SEGMENT38	230	17	85	23	15	7	0	0	2	0	0	0	8	5	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.92E-02	1.47E-03	9.62E-04	2.18E-03	1.36E-01	6.60E-02	0.00E+00	0.00E+00	2.26E-01	2.62E-06
SF380	SEGMENT380	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF381	SEGMENT381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF386	SEGMENT386	128	9	47	0	0	0	0	1	1	0	0	0	0	0	0	1	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.06E-02	8.16E-04	5.32E-04	0.00E+00	0.00E+00	0.00E+00	1.32E-03	4.98E-03	1.83E-02	2.12E-07
SF387	SEGMENT387	24	2	9	60	64	31	89	148	0	0	0	1	33	20	79	147	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.03E-03	1.56E-04	1.02E-04	5.77E-03	5.72E-01	2.77E-01	2.83E-01	1.07E+00	2.21E+00	2.55E-05
SF388	SEGMENT388	23	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.92E-03	1.47E-04	9.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-03	2.50E-08
SF390	SEGMENT390	283	21	105	12	9	4	2	4	3	0	0	0	4	3	2	4	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.36E-02	1.81E-03	1.18E-03	1.16E-03	7.63E-02	3.69E-02	6.84E-03	2.58E-02	1.74E-01	2.01E-06
SF392	SEGMENT392	97	7	36	6	2	1	4	7	1	0	0	0	1	1	4	7	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.13E-03	6.23E-04	4.06E-04	5.39E-04	1.42E-02	6.88E-03	1.26E-02	4.75E-02	9.09E-02	1.05E-06
SF393	SEGMENT393	107	8	40	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.97E-03	6.87E-04	4.48E-04	5.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-02	1.17E-07
SF394	SEGMENT394	272	20	100	35	31	15	38	64	3	0	0	1	16	10	34	63	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.27E-02	1.74E-03	1.13E-03	3.37E-03	2.76E-01	1.34E-01	1.22E-01	4.60E-01	1.02E+00	1.18E-05
SF396	SEGMENT396	295	22	109	29	25	12	28	46	3	0	0	1	13	8	24	46	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.46E-02	1.88E-03	1.23E-03	2.75E-03	2.29E-01	1.11E-01	8.78E-02	3.31E-01	7.88E-01	9.12E-06
SF397	SEGMENT397	163	12	60	0	0	0	8	14	2	0	0	0	0	0	7	14	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.36E-02	1.04E-03	6.78E-04	0.00E+00	3.98E-03	1.93E-03	2.65E-02	9.98E-02	1.48E-01	1.71E-06
SF398	SEGMENT398	127	9	47	3	2	1	0	0	1	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.06E-02	8.11E-04	5.29E-04	3.34E-04	1.79E-02	8.67E-03	0.00E+00	0.00E+00	3.88E-02	4.49E-07
SF399	SEGMENT399	704	52	260	21	3	1	10	16	8	0	1	0	1	1	9	16	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	5.87E-02	4.50E-03	2.94E-03	2.02E-03	2.55E-02	1.23E-02	3.14E-02	1.18E-01	2.56E-01	2.96E-06
SF400	SEGMENT400	210	15	77	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.75E-02	1.34E-03	8.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-02	2.28E-07
SF401	SEGMENT401	116	9	43	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.67E-03	7.41E-04	4.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-02	1.26E-07
SF402	SEGMENT402	194	14	72	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.62E-02	1.24E-03	8.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-02	2.11E-07
SF404	SEGMENT404	93	7	34	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.77E-03	5.95E-04	3.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.75E-03	1.01E-07
SF405	SEGMENT405	115	9	43	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.63E-03	7.38E-04	4.81E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-02	1.26E-07
SF406	SEGMENT406	44	3	16	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.64E-03	2.79E-04	1.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.10E-03	4.74E-08
SF408	SEGMENT408	270	20	100	0	0	0	0	0	3	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.25E-02	1.73E-03	1.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-02	2.94E-07
SF409	SEGMENT409	272	20	100	0	2	1	0	0	3	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.27E-02	1.74E-03	1.13E-03	0.00E+00	2.14E-02	1.04E-02	0.00E+00	0.00E+00	5.73E-02	6.63E-07
SF410	SEGMENT410	110	8	41	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.16E-03	7.02E-04	4.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-02	1.19E-07
SF411	SEGMENT411	190	14	70	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.58E-02	1.21E-03	7.92E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-02	2.07E-07

AERMOD SRCGRP ID	Traffic Study Segment No.	Total Miles								Total Diesel Miles								2025 DPM PM10 Emission Factors, g/mi								DPM PM10 Grams per Day									DPM g/s
										1.07%	0.10%	0.21%	2.11%	52.03%	66.33%	88.74%	99.05%																		
		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Total	
SF42	SEGMENT42	0	0	0	203	140	67	317	529	0	0	0	4	73	45	281	524	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	1.95E-02	1.26E+00	6.08E-01	1.01E+00	3.80E+00	6.70E+00	7.75E-05
SF424	SEGMENT424	0	0	0	0	0	0	40	66	0	0	0	0	0	0	35	65	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-01	4.74E-01	6.00E-01	6.95E-06
SF425	SEGMENT425	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF426	SEGMENT426	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF427	SEGMENT427	104	8	38	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.70E-03	6.67E-04	4.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.80E-03	1.13E-07
SF429	SEGMENT429	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF43	SEGMENT43	717	53	265	0	0	0	0	0	8	0	1	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	5.98E-02	4.59E-03	2.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.74E-02	7.80E-07
SF432	SEGMENT432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF433	SEGMENT433	228	17	84	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.91E-02	1.46E-03	9.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-02	2.48E-07
SF436	SEGMENT436	23	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.88E-03	1.44E-04	9.39E-05	0.00E+00	3.93E-04	1.90E-04	0.00E+00	0.00E+00	2.70E-03	3.13E-08
SF458	SEGMENT458	34	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.82E-03	2.16E-04	1.41E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03	3.67E-08
SF46	SEGMENT46	894	66	330	2	2	1	0	0	10	0	1	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.46E-02	5.72E-03	3.73E-03	1.60E-04	1.52E-02	7.34E-03	0.00E+00	0.00E+00	1.07E-01	1.24E-06
SF464	SEGMENT464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF47	SEGMENT47	1393	103	514	25	4	2	0	0	15	0	1	1	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.16E-01	8.91E-03	5.81E-03	2.41E-03	3.76E-02	1.82E-02	0.00E+00	0.00E+00	1.89E-01	2.19E-06
SF479	SEGMENT479	59	4	22	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.91E-03	3.76E-04	2.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.53E-03	6.40E-08
SF48	SEGMENT48	108	8	40	2	0	0	5	8	1	0	0	0	0	0	4	8	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.04E-03	6.93E-04	4.52E-04	2.37E-04	0.00E+00	0.00E+00	1.57E-02	5.92E-02	8.53E-02	9.88E-07
SF488	SEGMENT488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF494	SEGMENT494	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF498	SEGMENT498	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF499	SEGMENT499	0	0	0	0	0	0	32	54	0	0	0	0	0	0	29	53	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-01	3.87E-01	4.90E-01	5.67E-06
SF50	SEGMENT50	925	68	342	72	38	18	0	0	10	0	1	2	20	12	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.72E-02	5.92E-03	3.86E-03	6.94E-03	3.41E-01	1.65E-01	0.00E+00	0.00E+00	5.99E-01	6.94E-06
SF500	SEGMENT500	0	0	0	0	0	0	19	32	0	0	0	0	0	0	17	32	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-02	2.32E-01	2.93E-01	3.39E-06
SF502	SEGMENT502	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF503	SEGMENT503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF504	SEGMENT504	48	4	18	1	1	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.02E-03	3.08E-04	2.01E-04	9.66E-05	6.77E-03	3.28E-03	0.00E+00	0.00E+00	1.47E-02	1.70E-07
SF51	SEGMENT51	276	20	102	4	2	1	0	0	3	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.30E-02	1.76E-03	1.15E-03	3.77E-04	1.83E-02	8.88E-03	0.00E+00	0.00E+00	5.35E-02	6.20E-07
SF52	SEGMENT52	737	54	272	98	60	29	0	0	8	0	1	2	31	19	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	6.15E-02	4.71E-03	3.07E-03	9.39E-03	5.35E-01	2.59E-01	0.00E+00	0.00E+00	8.73E-01	1.01E-05
SF53	SEGMENT53	109	8	40	10	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.12E-03	6.99E-04	4.56E-04	1.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E-02	1.31E-07
SF54	SEGMENT54	34	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.80E-03	2.15E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.16E-03	3.66E-08
SF55	SEGMENT55	892	66	329	6	4	2	0	0	10	0	1	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	7.45E-02	5.71E-03	3.72E-03	6.22E-04	3.84E-02	1.86E-02	0.00E+00	0.00E+00	1.42E-01	1.64E-06
SF56	SEGMENT56	528	39	195	0	2	1	0	0	6	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.41E-02	3.38E-03	2.21E-03	0.00E+00	2.17E-02	1.05E-02	0.00E+00	0.00E+00	8.19E-02	9.48E-07
SF57	SEGMENT57	18	1	7	0	0	0	2	3	0	0	0	0	0	0	1	3	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.49E-03	1.14E-04	7.47E-05	0.00E+00	4.20E-03	2.03E-03	5.38E-03	2.03E-02	3.36E-02	3.89E-07
SF58	SEGMENT58	164	12	61	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.37E-02	1.05E-03	6.86E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-02	1.79E-07
SF59	SEGMENT59	221	16	81	6	2	1	4	6	2	0	0	0	1	1	3	6	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.84E-02	1.41E-03	9.20E-04	5.87E-04	1.48E-02	7.16E-03	1.23E-02	4.64E-02	1.02E-01	1.18E-06
SF60	SEGMENT60	47	3	17	2	2	1	8	14	1	0	0	0	1	1	7	13	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.93E-03	3.01E-04	1.97E-04	1.90E-04	1.43E-02	6.94E-03	2.59E-02	9.76E-02	1.49E-01	1.73E-06
SF61	SEGMENT61	148	11	55	2	0	0	3	5	2	0	0	0	0	0	2	4	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.23E-02	9.46E-04	6.17E-04	2.26E-04	3.64E-03	1.76E-03	8.67E-03	3.26E-02	6.08E-02	7.04E-07
SF62	SEGMENT62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF65	SEGMENT65	216	16	80	3	0	0	7	12	2	0	0	0	0	0	7	12	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.80E-02	1.38E-03	9.00E-04	2.77E-04	0.00E+00	0.00E+00	2.36E-02	8.89E-02	1.33E-01	1.54E-06
SF66	SEGMENT66	126	9	46	3	0	0	6	9	1	0	0	0	0	0	5	9	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.05E-02	8.04E-04	5.25E-04	2.58E-04	0.00E+00	0.00E+00	1.81E-02	6.80E-02	9.82E-02	1.14E-06
SF67	SEGMENT67	136	10	50	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.13E-02	8.67E-04	5.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.27E-02	1.48E-07
SF68	SEGMENT68	181	13	67	0	1	1	0	0	2	0	0	0	1	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.51E-02	1.16E-03	7.55E-04	3.95E-05	1.23E-02	5.93E-03	0.00E+00	0.00E+00	3.52E-02	4.08E-07
SF69	SEGMENT69	614	45	227	20	9	4	0	0	7	0	0	0	4	3	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	5.12E-02	3.93E-03	2.56E-03	1.94E-03	7.71E-02	3.73E-02	0.00E+00	0.00E+00	1.74E-01	2.01E-06
SF70	SEGMENT70	162	12	60	22	8	4	0	0	2	0	0	0	4	3	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.35E-02	1.03E-03	6.75E-04	2.14E-03	7.48E-02	3.62E-02	0.00E+00	0.00E+00	1.28E-01	1.49E-06
SF71	SEGMENT71	160	12	59	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.34E-02	1.02E-03	6.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E-02	1.74E-07
SF72	SEGMENT72	104	8	38	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.67E-03	6.65E-04	4.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.77E-03	1.13E-07
SF73	SEGMENT73	479	35	177	50	36	17	0	0	5	0	0	1	19	11	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.00E-02	3.06E-03	2.00E-03	4.85E-03	3.21E-01	1.55E-01	0.00E+00	0.00E+00	5.26E-01	6.09E-06
SF74	SEGMENT74	180	13	67	0	0	0	0	0	2	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.50E-02	1.15E-03	7.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-02	1.96E-07
SF75	SEGMENT75	157	12	58	0	2	1	0	0	2	0	0	0	1	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.31E-02	1.00E-03	6.53E-04	0.00E+00	1.51E-02	7.33E-03	0.00E+00	0.00E+00	3.72E-02	4.31E-07
SF76	SEGMENT76	303	22	112	0	3	2	0	0	3	0	0	0	2	1	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.53E-02	1.94E-03	1.26E-03	0.00E+00	3.01E-02	1.45E-02	0.00E+00	0.00E+00	7.31E-02	8.46E-07
SF77	SEGMENT77	59	4	22	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	4.91E-03	3.76E-04	2.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.53E-03	6.40E-08
SF80	SEGMENT80	14	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.20E-03	9.17E-05	5.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E-03	1.56E-08
SF81	SEGMENT81	29	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.46E-03	1.88E-04	1.23E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E-03	3.21E-08
SF82	SEGMENT82	0	0	0	1	0	0	4	7	0	0	0	0	0	0	4	7	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.06E-06	6.18E-07	4.03E-07	1.09E-04	0.00E+00	0.00E+00	1.38E-02	5.18E-02	6.57E-02	7.60E-07
SF83	SEGMENT83	5	0	2	1	0	0	1	1	0	0	0	0	0	0	1	1	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	3.80E-04	2.91E-05	1.90E-05	5.58E-05	0.00E+00	0.00E+00	2.41E-03	9.09E-03	1.20E-02	1.39E-07
SF85	SEGMENT85	22	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	1.85E-03	1.42E-04	9.23E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-03	2.41E-08
SF86	SEGMENT86	25	2	9	1	1	0	5	9	0	0	0	0	0	0	5	9	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	2.09E-03	1.60E-04	1.05E-04	8.47E-05	6.87E-03	3.32E-03	1.73E-02	6.51E-02	9.51E-02	1.10E-06
SF87	SEGMENT87	114	8	42	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	9.50E-03	7.28E-04	4.75E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-02	1.24E-07
SF88	SEGMENT88	96	7	35	0	0	0	0	0	1	0	0	0	0	0	0	0	7.80E-03	8.67E-02	5.38E-03	4.55E-03	1.72E-02	1.36E-02	3.59E-03	7.26E-03	8.01E-03	6.14E-04	4.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.02E-03	1.04E-07
FRWY27	FRWY27	155	11	57	708	1196	575	3355	5594	2	0	0	15	622	381	2977	5541	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	8.76E-03	7.74E-04	4.63E-04	5.21E-02	1.12E+01	4.83E+00	8.17E+00	3.06E+01	5.48E+01	6.35E-04
FRWY28	FRWY28	635	47	235	622	1028	494	2796	4662	7	0	0	13	535	328	2481	4618	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	3.59E-02	3.17E-03	1.90E-03	4.57E-02	9.62E+00	4.15E+00	6.81E+00	2.55E+01	4.62E+01	5.34E-04
FRWY29	FRWY29	323	24	119	289	486	234	1277	2129	3	0	0	6	253	155	1133	2109	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	1.82E-02	1.61E-03	9.63E-04	2.13E-02	4.54E+00	1.96E+00	3.11E+00	1.16E+01	2.13E+01	2.46E-04
FRWY30	FRWY30	1056	78	390	466	751	361	1972	3288	11	0	1	10	391	239	1750	3257	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	5.97E-02	5.27E-03	3.15E-03	3.43E-02	7.02E+00	3.03E+00	4.80E+00	1.80E+01	3.29E+01	3.81E-04
FRWY31	FRWY31	1205	89	445	361	552	266	1453	2423	13	0	1	8	287	176	1289	2400	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	6.81E-02	6.01E-03	3.60E-03	2.66E-02	5.16E+00	2.23E+00	3.54E+00	1.32E+01	2.43E+01	2.81E-04
FRWY32	FRWY32	2447	181	903	541	779	374	2012	3355	26	0	2	11	405	248	1786	3323	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	1.38E-01	1.22E-02	7.31E-03	3.98E-02	7.28E+00	3.14E+00	4.90E+00	1.83E+01	3.39E+01	3.92E-04
FRWY33	FRWY33	2916	215	1077	569	803	386	2023	3374	31	0	2	12	418	256	1795	3342	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	1.65E-01	1.45E-02	8.71E-03	4.19E-02	7.51E+00	3.24E+00	4.93E+00	1.84E+01	3.44E+01	3.98E-04
FRWY34	FRWY34	2766	204	1021	599	822	395	2003	3340	30	0	2	13	428	262	1778	3309	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	1.56E-01	1.38E-02	8.26E-03	4.41E-02	7.69E+00	3.32E+00	4.88E+00	1.83E+01	3.44E+01	3.98E-04
FRWY35	FRWY35	0	0	0	231	355	171	418	697	0	0	0	5	185	113	371	690	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	0.00E+00	0.00E+00	0.00E+00	1.70E-02	3.32E+00	1.43E+00	1.02E+00	3.81E+00	9.60E+00	1.11E-04
FRWY36	FRWY36	216	16	80	76	107	52	130	216	2	0	0	2	56	34	115	214	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	1.22E-02	1.08E-03	6.44E-04	5.60E-03	1.00E+00	4.33E-01	3.15E-01	1.18E+00	2.95E+00	3.42E-05
FRWY37	FRWY37	375	28	138	132	187	90	225	376	4	0	0	3	97	60	200	372	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	2.12E-02	1.87E-03	1.12E-03	9.73E-03	1.75E+00	7.54E-01	5.49E-01	2.05E+00	5.14E+00	5.95E-05
FRWY101	FRWY101	0	0	0	62	105	51	168	280	0	0	0	1	55	34	149	277	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	0.00E+00	0.00E+00	0.00E+00	4.60E-03	9.86E-01	4.26E-01	4.09E-01	1.53E+00	3.36E+00	3.88E-05
172	172	0	0	0	14	19	9	85	142	0	0	0	0	10	6	76	141	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	0.00E+00	0.00E+00	0.00E+00	1.05E-03	1.79E-01	7.74E-02	2.07E-01	7.77E-01	1.24E+00	1.44E-05
173	173	0	0	0	170	268	129	829	1381	0	0	0	4	139	85	735	1368	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	0.00E+00	0.00E+00	0.00E+00	1.25E-02	2.50E+00	1.08E+00	2.02E+00	7.55E+00	1.32E+01	1.52E-04
174	174	0	0	0	71	96	46	345	576	0	0	0	1	50	31	307	570	5.28E-03	6.76E-02	3.85E-03	3.49E-03	1.80E-02	1.27E-02	2.74E-03	5.52E-03	0.00E+00	0.00E+00	0.00E+00	5.22E-03	8.95E-01	3.87E-01	8.41E-01	3.15E+00	5.28E+00	6.11E-05
																																		3.89E+02	4.50E-03

AERMOD SRCGRP ID	AERMOD Category	Traffic Study Segment No.	Arterial	From	To	Peak Hour Trips												Segment Length, mi	Total Miles							
						Traffic Study Vehicles				Emfac Vehicle Categories																
						Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
IN01	Onsite	SEGMENT01	Street A	State Route 60	Eucalyptus Ave	10140	622	705	4900	7027	518	2595	622	476	229	1837	3063	0.20316581	1428	105	527	126	97	47	373	622
IN02	Onsite	SEGMENT02	Street A	Eucalyptus Ave	Street F	5908	510	375	2685	4094	302	1512	510	253	122	1007	1678	0.45424563	1860	137	687	232	115	55	457	762
IN03	Onsite	SEGMENT03	Street E	west of Street A	0	333	22	17	58	231	17	85	22	12	6	22	36	1.46113012	337	25	124	33	17	8	32	53
IN05	Onsite	SEGMENT05	Street E	Street D	Street A	7047	463	318	181	4883	360	1803	463	214	103	68	113	0.59236886	2893	213	1068	274	127	61	40	67
IN06	Onsite	SEGMENT06	Street A	Street F	Street C	12003	1080	820	5905	8318	614	3071	1080	554	266	2214	3691	0.68266796	5679	419	2097	737	378	182	1511	2520
IN08	Onsite	SEGMENT08	Street D	Street E	Cactus Ave	9283	490	317	0	6433	475	2375	490	214	103	0	0	0.67804835	4362	322	1611	332	145	70	0	0
IN11	Onsite	SEGMENT11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	643	-57	26	-15	446	33	165	-57	17	8	-6	-9	0.74650423	333	25	123	0	13	6	0	0
IN12	Onsite	SEGMENT12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	-1781	24	1	0	-1235	-91	-456	24	1	0	0	0	0.51170535	0	0	0	12	0	0	0	0
IN14	Onsite	SEGMENT14	Eucalyptus Ave	east of Redlands blvd	0	3444	385	97	968	2387	176	881	385	65	31	363	605	1.00550952	2400	177	886	387	66	32	365	609
IN18	Onsite	SEGMENT18	Street B	east of Street A	0	929	60	30	170	644	48	238	60	20	10	64	106	0.87785921	565	42	209	53	18	9	56	93
IN19	Onsite	SEGMENT19	Street F	east of Street A	0	5834	283	229	1576	4043	298	1493	283	155	74	591	985	1.42072336	5744	424	2121	402	220	106	839	1399
IN21	Onsite	SEGMENT21	Street C	east of Street A	0	1808	220	169	432	1253	92	463	220	114	55	162	270	0.78151139	979	72	362	172	89	43	126	211
IN24	Onsite	SEGMENT24	Street C	Street F	Street H	2075	214	165	908	1438	106	531	214	112	54	340	567	1.20892302	1739	128	642	259	135	65	411	686
IN29	Onsite	SEGMENT29	Gilman Springs Rd	Eucalyptus Ave	Street C	2123	104	57	433	1471	109	543	104	39	19	162	270	0.41919344	617	45	228	43	16	8	68	113
IN30	Onsite	SEGMENT30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	-3730	85	47	582	-2585	-191	-954	85	31	15	218	364	1.75658385	0	0	0	149	55	27	383	639
IN31	Onsite	SEGMENT31	Gilman Springs Rd	south of Street C	0	1302	52	27	55	902	67	333	52	18	9	20	34	0.50937492	460	34	170	27	9	5	10	17
SF09	SurSt	SEGMENT09	John F Kennedy Dr	south of Cactus Ave	0	3195	207	197	0	2214	163	818	207	133	64	0	0	1.13072901	2504	185	925	234	150	72	0	0
SF10	SurSt	SEGMENT10	Redlands Blvd	Alessandro Blvd	Cactus Ave	128	-41	31	-5	89	7	33	-41	21	10	-2	-3	0.51312902	46	3	17	0	11	5	0	0
SF104	SurSt	SEGMENT104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	2209	13	9	62	1531	113	565	13	6	3	23	38	0.2508637	384	28	142	3	2	1	6	10
SF106	SurSt	SEGMENT106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd	631	1	-1	0	437	32	162	1	-1	0	0	0	1.12048375	490	36	181	1	0	0	0	0
SF107	SurSt	SEGMENT107	Alessandro Blvd	Old 215 Frontage Rd	Day St	2197	14	12	60	1523	112	562	14	8	4	22	38	0.24109663	367	27	136	3	2	1	5	9
SF108	SurSt	SEGMENT108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave	1096	0	-4	1	759	56	280	0	-3	-1	0	0	0.61935714	470	35	174	0	0	0	0	0
SF109	SurSt	SEGMENT109	Day St	Cottonwood Ave	Alessandro Blvd	576	0	0	0	399	29	147	0	0	0	0	0	0.48891688	195	14	72	0	0	0	0	0
SF110	SurSt	SEGMENT110	Alessandro Blvd	Day St	Elsworth St	1758	5	15	60	1219	90	450	5	10	5	22	38	0.46942498	572	42	211	3	5	2	11	18
SF111	SurSt	SEGMENT111	Elsworth St	Cottonwood Ave	Alessandro Blvd	346	-1	0	0	240	18	88	-1	0	0	0	0	0.49684037	119	9	44	0	0	0	0	0
SF112	SurSt	SEGMENT112	Alessandro Blvd	Elsworth St	Frederick St	1702	14	15	168	1179	87	435	14	10	5	63	105	0.50755322	599	44	221	7	5	2	32	53
SF113	SurSt	SEGMENT113	Elsworth St	Alessandro Blvd	Cactus Ave	287	0	-1	10	199	15	74	0	0	0	4	6	0.491498	98	7	36	0	0	0	2	3
SF114	SurSt	SEGMENT114	Frederick St	Cottonwood Ave	Alessandro Blvd	532	0	0	21	369	27	136	0	0	0	8	13	0.491498	181	13	67	0	0	0	4	6
SF115	SurSt	SEGMENT115	Alessandro Blvd	Frederick St	Graham St	1484	5	12	74	1028	76	380	5	8	4	28	46	0.52892157	544	40	201	3	4	2	15	24
SF116	SurSt	SEGMENT116	Frederick St	Alessandro Blvd	Cactus Ave	622	5	1	5	431	32	159	5	1	0	2	3	0.50897563	219	16	81	3	0	0	1	2
SF117	SurSt	SEGMENT117	Graham St	Cottonwood Ave	Alessandro Blvd	610	0	0	1	423	31	156	0	0	0	0	0	0.47012852	199	15	73	0	0	0	0	0
SF118	SurSt	SEGMENT118	Alessandro Blvd	Graham St	Heacock St	1299	8	11	71	900	66	332	8	8	4	27	44	0.4755009	428	32	158	4	4	2	13	21
SF119	SurSt	SEGMENT119	Graham St	Alessandro Blvd	Cactus Ave	335	1	0	0	232	17	86	1	0	0	0	0	0.48618498	113	8	42	0	0	0	0	0
SF120	SurSt	SEGMENT120	Heacock St	Cottonwood Ave	Alessandro Blvd	73	-1	1	108	51	4	19	-1	1	0	40	67	0.50579896	26	2	9	0	0	0	20	34
SF121	SurSt	SEGMENT121	Alessandro Blvd	Heacock St	Indian St	912	63	-4	34	632	47	233	63	-3	-1	13	21	0.5128953	324	24	120	33	0	0	7	11
SF122	SurSt	SEGMENT122	Heacock St	Alessandro Blvd	Cactus Ave	242	0	0	80	168	12	62	0	0	0	30	50	0.48618003	81	6	30	0	0	0	15	24
SF123	SurSt	SEGMENT123	Indian St	Cottonwood Ave	Alessandro Blvd	305	0	0	0	211	16	78	0	0	0	0	0	0.49161412	104	8	38	0	0	0	0	0
SF124	SurSt	SEGMENT124	Alessandro Blvd	Indian St	Perris Blvd	911	10	9	66	632	47	233	10	6	3	25	41	0.49686909	314	23	116	5	3	1	12	20
SF125	SurSt	SEGMENT125	Indian St	Alessandro Blvd	Cactus Ave	320	0	0	0	222	16	82	0	0	0	0	0	0.50755916	113	8	42	0	0	0	0	0
SF126	SurSt	SEGMENT126	Alessandro Blvd	Perris Blvd	Kitching St	403	10	9	61	280	21	103	10	6	3	23	38	0.48084294	134	10	50	5	3	1	11	18
SF127	SurSt	SEGMENT127	Perris Blvd	Alessandro Blvd	Cactus Ave	-554	1	-8	331	-384	-28	-142	1	-5	-3	124	207	0.5128953	0	0	0	1	0	0	64	106
SF128	SurSt	SEGMENT128	Kitching St	Cottonwood Ave	Alessandro Blvd	375	0	0	0	260	19	96	0	0	0	0	0	0.48084294	125	9	46	0	0	0	0	0
SF129	SurSt	SEGMENT129	Alessandro Blvd	Kitching St	Lasselle St	133	10	10	60	92	7	34	10	7	3	22	38	0.51142636	47	3	17	5	3	2	12	19
SF13	SurSt	SEGMENT13	Redlands Blvd	State Route 60	Eucalyptus Ave	350	60	68	869	242	18	89	60	46	22	326	544	0.21441509	52	4	19	13	10	5	70	117
SF130	SurSt	SEGMENT130	Kitching St	Alessandro Blvd	Cactus Ave	265	0	0	0	184	14	68	0	0	0	0	0	0.49695986	91	7	34	0	0	0	0	0
SF131	SurSt	SEGMENT131	Lasselle St	Cottonwood Ave	Alessandro Blvd	409	0	0	0	283	21	105	0	0	0	0	0	0.48144406	136	10	50	0	0	0	0	0
SF133	SurSt	SEGMENT133	Lasselle St	Alessandro Blvd	Cactus Ave	363	0	0	0	251	19	93	0	0	0	0	0	0.4996721	126	9	46	0	0	0	0	0
SF134	SurSt	SEGMENT134	Morrison St	Cottonwood Ave	Alessandro Blvd	244	0	0	0	169	12	62	0	0	0	0	0	0.47237817	80	6	30	0	0	0	0	0
SF135	SurSt	SEGMENT135	Alessandro Blvd	Morrison St	Nason St	218	10	10	60	151	11	56	10	7	3	22	38	0.50697474	77	6	28	5	3	2	11	19
SF136	SurSt	SEGMENT136	Nason St	Cottonwood Ave	Alessandro Blvd	705	5	0	0	489	36	180	5	0	0	0	0	0.48843471	239	18	88	2	0	0	0	0
SF137	SurSt	SEGMENT137	Nason St	Alessandro Blvd	Cactus Ave	268	0	-1	10	185	14	68	0	-1	0	4	6	0.49082287	91	7	34	0	0	0	2	3
SF139	SurSt	SEGMENT139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps	703	10	10	0	487	36	180	10	7	3	0	0	0.31320731	153	11	56	3	2	1	0	0
SF140	SurSt	SEGMENT140	I-215 SB Ramps	South of Cactus Ave	0	333	0	0	0	231	17	85	0	0	0	0	0	0.32735072	76	6	28	0	0	0	0	0
SF141	SurSt	SEGMENT141	Cactus Ave	Meridian Pkwy	Elsworth St	1518	12	-13	-3	1052	78	388	12	-9	-4	-1	-2	0.62209934	654	48	242	7	0	0	0	0
SF142	SurSt	SEGMENT142	I-215 NB Ramps	South of Cactus Ave	0	450	0	0	0	312	23	115	0	0	0	0	0	0.18083363	56	4	21	0	0	0	0	0
SF143	SurSt	SEGMENT143	Cactus Ave	Elsworth St	Frederick St	1083	18	14	-5	750	55	277	18	9	4	-2	-3	0.52508607	394	29	145	9	5	2	0	0
SF144	SurSt	SEGMENT144	Cactus Ave	Frederick St	Graham St	1157	17	9	-15	801	59	296	17	6	3	-6	-9	0.48652303	390	29	144	8	3	1	0	0
SF145	SurSt	SEGMENT145	Cactus Ave	Graham St	Heacock St	772	30	23	-14	535	39	198	30	15	7	-5	-9	0.48927596	262	19	97	15	8	4	0	0
SF146	SurSt	SEGMENT146	Riverside Dr	Cactus Ave	Meyer Dr	605	0	0	0	419	31	155	0	0	0	0	0	0.50560801	212	16	78	0	0	0	0	0
SF147	SurSt	SEGMENT147	Cactus Ave	Heacock St	Indian St	398	25	20	-5	276	20	102	25	14	7	-2	-3	0.49569095	137	10	50	13	7	3	0	0
SF148	SurSt	SEGMENT148	Heacock St	Cactus Ave	John F Kennedy Dr	488	2	-3	68	338	25	125	2	-2	-1	25	42	0.45443739	154	11	57	1	0	0	12	19
SF149	SurSt	SEGMENT149	Cactus Ave	Indian St	Perris Blvd	185	31	25	-5	128	9	47	31	17	8	-2	-3	0.50225382	64	5	24	16	8	4	0	0
SF150	SurSt	SEGMENT150	Indian St	Cactus Ave	John F Kennedy Dr	285	0	0	0	198	15	73	0	0	0	0	0	0.49240953	97	7	36	0	0	0	0	0
SF151	SurSt	SEGMENT151	Cactus Ave	Perris Blvd	Kitching St	378	36	30	5	262	19	97	36	20	10	2	3	0.48904002	128	9	47	18	10	5	1	2
SF152	SurSt	SEGMENT152	Perris Blvd	Cactus Ave	John F Kennedy Dr	-793	-3	23	328	-550	-41	-203	-3	16	7	123	205	0.48574693	0	0	0	0	8	4	60	100
SF153	SurSt	SEGMENT153	Cactus Ave	Kitching St	Lasselle St	594	35	32	0	412	30	152	35	22	10	0	0	0.49563662	204	15	75	17	11	5	0	0
SF154	SurSt	SEGMENT154	Kitching St	Cactus Ave	John F Kennedy Dr	255	0	0	0	177	13	65	0	0	0	0	0	0.5597165	99	7	37	0	0	0	0	0
SF155	SurSt	SEGMENT155	Cactus Ave	Lasselle St	Morrison St	814	70	57	0	564	42	208	70	38	19	0	0	0.48128804	271	20	100	34	19	9	0	0
SF156	SurSt	SEGMENT156	Lasselle St	Cactus Ave	John F Kennedy Dr	383	25	21	0	266	20	98	25	14	7	0	0	0.47922774	127	9	47	12	7	3	0	0
SF157	SurSt	SEGMENT157	Cactus Ave	Morrison St	Nason St	393	75	53	0	272	20	100	75	36	17	0	0	0.49952029	136	10	50	37	18	9	0	0
SF160	SurSt	SEGMENT160	Kitching St	Gentian Ave	Iris Ave	581	0	0	0	402	30	149	0	0	0	0	0	0.44524292	179	13	66	0	0	0	0	0
SF161	SurSt	SEGMENT161	Iris Ave	Perris Blvd	Kitching St	292	120	117	0	202	15	75	120	79	38	0	0	0.48730185	99	7	36	58	39	19	0	0
SF162	SurSt	SEGMENT162	Iris Ave	Kitching St	Lasselle St	2170	166	170	0	1504	111	555	166	115	55	0	0	0.65362227	983	73	363	109	75	36	0	0
SF163	SurSt	SEGMENT163	Kitching St	Iris Ave	Ivory Ave	1341	35	42	0	929	69	343	35	28	13	0	0	0.21761485	202	15	75	8	6	3	0	0
SF164	SurSt	SEGMENT164	Lasselle St	Gentian Ave	Iris Ave	599	0	0	0	415	31	153	0	0	0	0	0	0.29360118	122	9	45	0	0	0	0	0
SF165	SurSt	SEGMENT165	Iris Ave	Lasselle St	Nason St	2838	210	195	0	1967	145	726	210	132	63	0	0	0.95723749	1883	139	695	201	126	61	0	0
SF168	SurSt	SEGMENT168	Krameria Ave	Perris Blvd	Kitching St	2099	41	46	0	1455	107	537	41	31	15	0	0	0.47125396	686	51	253	19	15	7	0	0
SF169	SurSt	SEGMENT169	Krameria Ave	Kitching St	Lasselle St	563	-3	0	0	390	29	144	-3	0	0	0	0	0.57839334	226	17	83	0	0	0	0	0
SF170	SurSt	SEGMENT170	Kitching St	Krameria Ave	Lurin Ave	4945	191	70	5	3427	253	1265	191	47	23	2	3	0.15376909	527	39	195	29	7	3	0	0
SF171	SurSt	SEGMENT171	Lasselle St	Cahuilla Dr	Krameria Ave	566	35	20	0	392	29	145	35	14	6	0	0	0.32428647	127	9	47	11	4	2	0	0

						Peak Hour Trips																				
						Traffic Study Vehicles				Emfac Vehicle Categories									Total Miles							
AERMOD SRCGRP ID	AERMOD Category	Traffic Study Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Segment Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF172	SurSt	SEGMENT172	Lasselle St	Krameria Ave	Arroyo Park Dr	671	35	20	0	465	34	172	35	14	6	0	0	0.61702279	287	21	106	22	8	4	0	0
SF173	SurSt	SEGMENT173	Oleander Ave	Perris Blvd	Lasselle St	0	0	0	0	0	0	0	0	0	0	0	0	1.00375386	0	0	0	0	0	0	0	0
SF174	SurSt	SEGMENT174	Oleander Ave	Lasselle St	Lake Perris Dr	0	0	0	0	0	0	0	0	0	0	0	0	0.20492015	0	0	0	0	0	0	0	0
SF177	SurSt	SEGMENT177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	-336	93	93	400	-233	-17	-86	93	63	30	150	250	0.68990263	0	0	0	64	43	21	103	173
SF178	SurSt	SEGMENT178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	132	9	5	35	92	7	34	9	3	2	13	22	4.43129754	407	30	150	41	15	7	58	97
SF179	SurSt	SEGMENT179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	-569	108	102	435	-394	-29	-146	108	69	33	163	272	1.35994717	0	0	0	147	94	45	222	370
SF180	SurSt	SEGMENT180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	100	0	0	0	70	5	26	0	0	0	0	0	4.31402394	300	22	111	0	0	0	0	0
SF181	SurSt	SEGMENT181	Potrero Blvd	North of SR 60 WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0	0.38855454	0	0	0	0	0	0	0	0
SF182	SurSt	SEGMENT182	SR 60 WB On Ramp	West of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.21695296	0	0	0	0	0	0	0	0
SF183	SurSt	SEGMENT183	SR 60 WB Off Ramp	East of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.25137142	0	0	0	0	0	0	0	0
SF184	SurSt	SEGMENT184	SR 60 EB Off Ramp	West of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.18156117	0	0	0	0	0	0	0	0
SF185	SurSt	SEGMENT185	SR 60 EB On Ramp	East of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17832385	0	0	0	0	0	0	0	0
SF186	SurSt	SEGMENT186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	0	0	0	0	0	0	0	0	0	0	0	0	0.29620293	0	0	0	0	0	0	0	0
SF190	SurSt	SEGMENT190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	-22	45	23	54	-15	-1	-6	45	16	8	20	34	3.95692165	0	0	0	176	63	30	80	134
SF191	SurSt	SEGMENT191	Gilman Springs Rd	Bridge St	Beaumont Ave	101	35	27	24	70	5	26	35	18	9	9	15	3.04837148	212	16	78	106	56	27	27	45
SF192	SurSt	SEGMENT192	Bridge St	Gilman Springs Rd	Marvin Rd	181	21	9	42	125	9	46	21	6	3	16	26	2.70869386	340	25	125	56	17	8	43	71
SF194	SurSt	SEGMENT194	Crescent Ave	West of Alessandro Rd	0	242	20	21	0	168	12	62	20	14	7	0	0	0.21380148	36	3	13	4	3	1	0	0
SF195	SurSt	SEGMENT195	Crescent Ave	Alessandro Rd	Center St	146	25	21	0	101	7	37	25	14	7	0	0	0.24661076	25	2	9	6	4	2	0	0
SF196	SurSt	SEGMENT196	Alessandro Rd	Crescent Ave	Sunset St	47	45	48	0	32	2	12	45	32	16	0	0	0.44516192	14	1	5	20	14	7	0	0
SF198	SurSt	SEGMENT198	Sunset Dr	Crown St	Alessandro Rd	240	0	0	0	166	12	61	0	0	0	0	0	0.62708051	104	8	39	0	0	0	0	0
SF199	SurSt	SEGMENT199	Sunset Dr	Alessandro Rd	Cameo Dr	255	0	0	0	177	13	65	0	0	0	0	0	0.23460423	41	3	15	0	0	0	0	0
SF200	SurSt	SEGMENT200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	103	55	45	0	71	5	26	55	30	15	0	0	0.87197462	62	5	23	48	26	13	0	0
SF205	SurSt	SEGMENT205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	1023	15	30	0	709	52	262	15	20	10	0	0	0.9325292	661	49	244	14	19	9	0	0
SF206	SurSt	SEGMENT206	Reche Canyon Rd	Reche Vista Dr	High Contry Dr	190	0	0	0	132	10	49	0	0	0	0	0	1.65149628	217	16	80	0	0	0	0	0
SF207	SurSt	SEGMENT207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	947	15	30	0	656	48	242	15	20	10	0	0	1.62236417	1065	79	393	24	33	16	0	0
SF283	SurSt	SEGMENT283	SR-60 EB Off-Ramp	SR-60	Heacock St	15	0	5	55	10	1	4	0	3	2	21	34	0.251869	3	0	1	0	1	0	5	9
SF284	SurSt	SEGMENT284	SR-60 EB On-Ramp	Heacock St	SR-60	-40	11	14	115	-28	-2	-10	11	9	5	43	72	0.22681474	0	0	0	2	2	1	10	16
SF285	SurSt	SEGMENT285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	-172	-32	-8	78	-119	-9	-44	-32	-5	-2	29	49	0.1428694	0	0	0	0	0	0	4	7
SF286	SurSt	SEGMENT286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	652	30	31	0	452	33	167	30	21	10	0	0	0.12959346	59	4	22	4	3	1	0	0
SF287	SurSt	SEGMENT287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	218	25	9	216	151	11	56	25	6	3	81	135	0.18131724	27	2	10	5	1	1	15	24
SF288	SurSt	SEGMENT288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	727	-5	-5	5	504	37	186	-5	-3	-2	2	3	0.09436384	48	4	18	0	0	0	0	0
SF289	SurSt	SEGMENT289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	55	15	7	142	38	3	14	15	5	2	53	89	0.17686217	7	0	2	3	1	0	9	16
SF290	SurSt	SEGMENT290	Perris Blvd	Sunnymead Blvd	Fir Ave	-514	-5	-3	357	-356	-26	-131	-5	-2	-1	134	223	0.20388088	0	0	0	0	0	0	27	46
SF294	SurSt	SEGMENT294	Via Del Lago	South of Iris Ave	0	260	0	0	0	180	13	66	0	0	0	0	0	0.51182679	92	7	34	0	0	0	0	0
SF301	SurSt	SEGMENT301	John F. Kennedy Dr	Indian St	Perris Blvd	565	16	15	0	392	29	145	16	10	5	0	0	0.48072509	188	14	70	8	5	2	0	0
SF302	SurSt	SEGMENT302	John F. Kennedy Dr	Perris Blvd	Kitching St	850	21	19	0	589	43	217	21	13	6	0	0	0.49465626	291	21	108	10	6	3	0	0
SF303	SurSt	SEGMENT303	Perris Blvd	John F. Kennedy Dr	Iris Ave	-1284	-3	-11	320	-890	-66	-329	-3	-7	-4	120	200	0.94055352	0	0	0	0	0	0	113	188
SF304	SurSt	SEGMENT304	Iris Ave	Indian St	Perris Blvd	-808	59	10	0	-560	-41	-207	59	7	3	0	0	0.45280941	0	0	0	27	3	1	0	0
SF306	SurSt	SEGMENT306	Perris Blvd	Iris Ave	Krameria Ave	180	95	101	320	125	9	46	95	68	33	120	200	0.5085398	63	5	23	48	35	17	61	102
SF32	SurSt	SEGMENT32	Cactus Ave	west of Redlands Blvd	0	1765	91	85	0	1223	90	452	91	57	27	0	0	0.9637449	1179	87	435	87	55	26	0	0
SF33	SurSt	SEGMENT33	Alessandro Blvd	west of Redlands Blvd	0	-696	8	43	-5	-482	-36	-178	8	29	14	-2	-3	0.95478436	0	0	0	8	28	13	0	0
SF340	SurSt	SEGMENT340	Alessandro blvd	North of San Timoteo Canyon Rd	0	58	55	45	0	40	3	15	55	30	15	0	0	0.18163815	7	1	3	10	6	3	0	0
SF35	SurSt	SEGMENT35	Redlands Blvd	Ironwood Ave	State Route 60	-437	28	38	433	-303	-22	-112	28	25	12	162	271	0.49742064	0	0	0	14	13	6	81	135
SF36	SurSt	SEGMENT36	Ironwood Ave	Redlands Blvd	Highland Blvd	1414	91	90	0	980	72	362	91	61	29	0	0	1.01101627	991	73	366	92	61	30	0	0
SF37	SurSt	SEGMENT37	San Timoteo Canyon Rd	west Live Oak Canyon	0	-1607	73	93	400	-1114	-82	-411	73	63	30	150	250	0.13576757	0	0	0	10	9	4	20	34
SF375	SurSt	SEGMENT375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.2411205	0	0	0	0	0	0	0	0
SF376	SurSt	SEGMENT376	3rd St	Marvin Rd	Mid County Pkwy WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0.29622411	0	0	0	0	0	0	0	0
SF377	SurSt	SEGMENT377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.21062067	0	0	0	0	0	0	0	0
SF378	SurSt	SEGMENT378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0.13199194	0	0	0	0	0	0	0	0
SF379	SurSt	SEGMENT379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.20592222	0	0	0	0	0	0	0	0
SF38	SurSt	SEGMENT38	Theodore St	State Route 60	Highland Blvd	1440	91	91	0	998	74	369	91	61	30	0	0	0.40936115	409	30	151	37	25	12	0	0
SF380	SurSt	SEGMENT380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	0	0	0	0	0	0	0	0	0	0	0	0	0.17577309	0	0	0	0	0	0	0	0
SF381	SurSt	SEGMENT381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.2913578	0	0	0	0	0	0	0	0
SF386	SurSt	SEGMENT386	Harley Know Blvd	Indian St	Perris Blvd	597	0	4	5	414	31	153	0	3	1	2	3	0.50342027	208	15	77	0	2	1	1	2
SF387	SurSt	SEGMENT387	Perris Blvd	Kramerian Ave	Harley Know Blvd	138	77	93	235	96	7	35	77	63	30	88	147	1.71529383	164	12	60	132	108	52	151	252
SF388	SurSt	SEGMENT388	Kramerian Ave	Lasselle St	Spirit Rd	304	0	0	0	210	16	78	0	0	0	0	0	0.1090066	23	2	8	0	0	0	0	0
SF390	SurSt	SEGMENT390	Ramona Expy	Webster Ave	Indian St	1240	23	32	15	860	63	317	23	21	10	6	9	0.73871378	635	47	234	17	16	8	4	7
SF392	SurSt	SEGMENT392	Ramona Expy	Indian St	Perris Blvd	925	35	34	75	641	47	237	35	23	11	28	47	0.27065248	173	13	64	9	6	3	8	13
SF393	SurSt	SEGMENT393	Indian St	Ramona Expy	Morgan St	525	0	7	10	364	27	134	0	5	2	4	6	0.58014511	211	16	78	0	3	1	2	4
SF394	SurSt	SEGMENT394	Perris Blvd	Harley Know blvd	Ramona Expy	821	84	86	210	569	42	210	84	58	28	79	131	0.80283802	457	34	169	67	47	22	63	105
SF396	SurSt	SEGMENT396	Perris Blvd	Ramona Expy	Rider St	418	53	52	90	290	21	107	53	35	17	34	56	1.47018735	426	31	157	78	52	25	50	83
SF397	SurSt	SEGMENT397	Ramona Expy	Perris Blvd	Evans Rd	135	18	8	40	93	7	34	18	6	3	15	25	0.98663097	92	7	34	18	5	3	15	25
SF398	SurSt	SEGMENT398	Evans Rd	Marbella Gate	Ramona Expy	823	36	17	0	570	42	210	36	11	5	0	0	0.34783648	198	15	73	12	4	2	0	0
SF399	SurSt	SEGMENT399	Ramona Expy	Evans Rd	Rider St	653	16	18	25	452	33	167	16	12	6	9	16	2.10599015	952	70	352	35	26	13	20	33
SF400	SurSt	SEGMENT400	Evans Rd	Ramona Expy	Rider St	283	1	1	0	196	14	72	1	0	0	0	0	1.05876514	208	15	77	1	1	0	0	0
SF401	SurSt	SEGMENT401	Morgan St	Indian St	Perris Blvd	441	0	0	0	306	23	113	0	0	0	0	0	0.49087476	150	11	55	0	0	0	0	0
SF402	SurSt	SEGMENT402	Morgan St	Perris Blvd	Silver Creed Industires	711	5	5	0	493	36	182	5	3	1	0	0	0.7450355	367	27	136	3	2	1	0	0
SF404	SurSt	SEGMENT404	Morgan St	Morgan Park	Evans Rd	281	0	0	0	195	14	72	0	0	0	0	0	0.47722531	93	7	34	0	0	0	0	0
SF405	SurSt	SEGMENT405	Morgan St	Evans Rd	Bradley Rd	265	0	0	0	184	14	68	0	0	0	0	0	0.62783762	115	9	43	0	0	0	0	0
SF406	SurSt	SEGMENT406	Ironwood Ave	East of Thedore St	0	305	0	0	0	211	16	78	0	0	0	0	0	0.245503	52	4	19	0	0	0	0	0
SF408	SurSt	SEGMENT408	Rider St	Perris Blvd	Redlands Ave	953	5	5	5	660	49	244	5	3	2	2	3	0.66607144	440	32	162	4	2	1	1	2
SF409	SurSt	SEGMENT409	Ironwood Ave	Nason St	Moreno Beach Dr	942	10	7	0	653	48	241	10	5	2	0	0	0.70636106	461	34	170	7	3	2	0	0
SF410	SurSt	SEGMENT410	Rider St	Wilson St	Evans Rd	288	0	0	0	200	15	74	0	0	0	0	0	0.54923907	110	8	41	0	0	0	0	0
SF411	SurSt	SEGMENT411	Rider St	Evans Rd	Ramona Expy	189	0	0	0	131	10	48	0	0	0	0	0	1.44902962	190	14	70	0	0	0	0	0
SF42	SurSt	SEGMENT42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	-869	112	85	435	-602	-44	-222	112	57	28	163	272	3.31693739	0	0	0	372	190	92	541	902
SF424	SurSt	SEGMENT424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	-482	-5	-10	354	-334	-25	-123	-5	-7	-3	133	221	0.51420754	0	0	0	0	0	0	68	114
SF425	SurSt	SEGMENT425	Mid County Pkwy WB On-Ramp	West of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1259623	0	0	0	0	0	0	0	0
SF426	SurSt	SEGMENT426	Mid County Pkwy WB Off-Ramp	East of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17135868	0	0	0	0	0	0	0	0
SF427	SurSt	SEGMENT427	Day St	South of Alessandro Blvd	0	520	0	0	0	360	27	133	0	0	0	0	0	0.40659235	147	11	54	0	0	0	0	0
SF429	SurSt	SEGMENT429	Mid County Pkwy EB On-Ramp	East of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.13583479	0	0	0	0	0	0	0	0

						Peak Hour Trips																				
						Traffic Study Vehicles				Emfac Vehicle Categories									Total Miles							
AERMOD SRCGRP ID	AERMOD Category	Traffic Study Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Segment Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF43	SurSt	SEGMENT43	Moreno Beach Dr	Alessandro Blvd	SR 60	1767	30	23	86	1224	90	452	30	16	8	32	54	1.61413653	1976	146	730	48	25	12	52	87
SF432	SurSt	SEGMENT432	Placentia Ave	Evans Rd	El Nido Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.39050293	0	0	0	0	0	0	0	0
SF433	SurSt	SEGMENT433	Evans Rd	Rider St	Orange Ave	294	0	0	0	204	15	75	0	0	0	0	0	1.1198145	228	17	84	0	0	0	0	0
SF436	SurSt	SEGMENT436	Elsworth St	North of Cactus Ave	0	296	0	-1	0	205	15	76	0	0	0	0	0	0.11038591	23	2	8	0	0	0	0	0
SF458	SurSt	SEGMENT458	Nason St	South of Cactus Ave	0	382	0	-1	0	265	20	98	0	-1	0	0	0	0.14708837	39	3	14	0	0	0	0	0
SF46	SurSt	SEGMENT46	Moreno Beach Dr	State Route 60	Ironwood Ave	1901	15	15	-8	1317	97	486	15	10	5	-3	-5	0.5007559	660	49	244	8	5	2	0	0
SF464	SurSt	SEGMENT464	Quincy	South of Eucalyptus	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4364159	0	0	0	0	0	0	0	0
SF47	SurSt	SEGMENT47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	1807	26	10	0	1252	92	462	26	7	3	0	0	1.23967654	1552	115	573	32	8	4	0	0
SF479	SurSt	SEGMENT479	Oliver St	North of Irris Ave	0	343	0	0	0	238	18	88	0	0	0	0	0	0.28640212	68	5	25	0	0	0	0	0
SF48	SurSt	SEGMENT48	Alessandro Blvd	Lesselle St	Morrison St	181	15	10	60	126	9	46	15	7	3	22	38	0.49372714	62	5	23	7	3	2	11	19
SF488	SurSt	SEGMENT488	Nason St	North of Iris Ave	0	0	0	0	0	0	0	0	0	0	0	0	0	0.89553676	0	0	0	0	0	0	0	0
SF494	SurSt	SEGMENT494	Evans Rd	North of Harley Knox Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.64533256	0	0	0	0	0	0	0	0
SF498	SurSt	SEGMENT498	Morrison St	Alessandro Blvd	Cactus Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.49215369	0	0	0	0	0	0	0	0
SF499	SurSt	SEGMENT499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave	-800	-5	-10	350	-554	-41	-205	-5	-7	-3	131	219	0.4099117	0	0	0	0	0	0	54	90
SF50	SurSt	SEGMENT50	Cactus Ave	Redlands Blvd	Street D	5900	463	318	0	4089	302	1510	463	214	103	0	0	0.29750344	1216	90	449	138	64	31	0	0
SF500	SurSt	SEGMENT500	Perris Blvd	North of Eucalyptus Ave	0	-695	-5	-10	350	-482	-36	-178	-5	-7	-3	131	219	0.2453041	0	0	0	0	0	0	32	54
SF502	SurSt	SEGMENT502	Quincy	Cottonwood Ave	Alessandro Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.53134882	0	0	0	0	0	0	0	0
SF503	SurSt	SEGMENT503	Quincy	Alessandro Blvd	Cactus Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.50962955	0	0	0	0	0	0	0	0
SF504	SurSt	SEGMENT504	Krameria Ave	West of Perris Blvd	0	299	5	10	0	207	15	77	5	7	3	0	0	0.22358551	46	3	17	1	2	1	0	0
SF51	SurSt	SEGMENT51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	1430	30	24	0	991	73	366	30	16	8	0	0	0.60572666	600	44	222	18	10	5	0	0
SF52	SurSt	SEGMENT52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	2323	225	201	0	1610	119	594	225	136	65	0	0	0.78856268	1270	94	469	177	107	51	0	0
SF53	SurSt	SEGMENT53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	418	20	0	0	289	21	107	20	0	0	0	0	0.49378788	143	11	53	10	0	0	0	0
SF54	SurSt	SEGMENT54	Locust Ave	Moreno Beach Dr	Smiley Blvd	240	0	0	0	166	12	61	0	0	0	0	0	0.20192973	34	2	12	0	0	0	0	0
SF55	SurSt	SEGMENT55	Locust Ave	Moreno Beach Dr	Redlands Blvd	2355	20	20	0	1632	120	603	20	14	6	0	0	1.26872719	2071	153	765	25	17	8	0	0
SF56	SurSt	SEGMENT56	Moreno Beach Dr	Locust Ave	Ironwood Ave	2308	15	22	0	1599	118	591	15	15	7	0	0	0.7160654	1145	84	423	11	10	5	0	0
SF57	SurSt	SEGMENT57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	132	9	5	35	92	7	34	9	3	2	13	22	0.1526532	14	1	5	1	1	0	2	3
SF58	SurSt	SEGMENT58	SR 60 EB Ramps	West of Moreno Beach Dr	0	505	0	0	-10	350	26	129	0	0	0	-4	-6	0.10657953	37	3	14	0	0	0	0	0
SF59	SurSt	SEGMENT59	Eualyptus Ave	Moreno Beach Dr	Quincy Dr	105	10	8	51	72	5	27	10	6	3	19	32	0.48821373	35	3	13	5	3	1	9	16
SF60	SurSt	SEGMENT60	SR 60 WB Ramps	East of Redlands Blvd	0	897	54	57	563	621	46	229	54	39	19	211	352	0.0986382	61	5	23	5	4	2	21	35
SF61	SurSt	SEGMENT61	SR 60 EB Ramps	West fo Redlands Blvd	0	3672	56	18	315	2545	188	940	56	12	6	118	197	0.06007382	153	11	56	3	1	0	7	12
SF62	SurSt	SEGMENT62	Fir Ave	Quincy Dr	Redlands Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.48553715	0	0	0	0	0	0	0	0
SF65	SurSt	SEGMENT65	Alessandro Blvd	Nason St	Oliver St	899	16	13	70	623	46	230	16	9	4	26	44	0.49426569	308	23	114	8	4	2	13	22
SF66	SurSt	SEGMENT66	Alessandro Blvd	Oliver St	Moreno Beach Dr	709	23	14	60	492	36	181	23	9	4	22	38	0.504352	248	18	92	12	5	2	11	19
SF67	SurSt	SEGMENT67	Oliver St	Alessandro Blvd	Cactus Ave	602	0	0	0	417	31	154	0	0	0	0	0	0.48363219	202	15	74	0	0	0	0	0
SF68	SurSt	SEGMENT68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	964	4	4	0	668	49	247	4	3	1	0	0	0.5058901	338	25	125	2	1	1	0	0
SF69	SurSt	SEGMENT69	Cactus Ave	Nason St	Oliver St	1893	70	52	0	1312	97	484	70	35	17	0	0	0.50914595	668	49	247	36	18	9	0	0
SF70	SurSt	SEGMENT70	Cactus Ave	Oliver St	Moreno Beach Dr	923	75	55	0	640	47	236	75	37	18	0	0	0.49414813	316	23	117	37	18	9	0	0
SF71	SurSt	SEGMENT71	Oliver St	Cactus Ave	John F Kennedy Dr	661	0	0	0	458	34	169	0	0	0	0	0	0.49867579	228	17	84	0	0	0	0	0
SF72	SurSt	SEGMENT72	Oliver St	John F Kennedy Dr	Iris Ave	343	0	0	0	238	18	88	0	0	0	0	0	0.50625515	120	9	44	0	0	0	0	0
SF73	SurSt	SEGMENT73	Iris Ave	Nason St	Oliver St	2616	222	195	0	1813	134	669	222	132	63	0	0	0.46089659	836	62	309	102	61	29	0	0
SF74	SurSt	SEGMENT74	Heacock St	Manzanita Ave	Ironwood Ave	370	0	0	0	257	19	95	0	0	0	0	0	0.97776369	251	19	93	0	0	0	0	0
SF75	SurSt	SEGMENT75	Ironwood Ave	Graham St	Heacock St	600	3	3	0	416	31	154	3	2	1	0	0	0.50009656	208	15	77	2	1	1	0	0
SF76	SurSt	SEGMENT76	Ironwood Ave	Heacock St	Indian Ave	579	3	8	0	401	30	148	3	6	3	0	0	0.99231325	398	29	147	3	6	3	0	0
SF77	SurSt	SEGMENT77	Heacock St	Ironwood Ave	Hemlock Ave	310	3	-2	0	215	16	79	3	-1	-1	0	0	0.27234865	59	4	22	1	0	0	0	0
SF80	SurSt	SEGMENT80	Heacock St	Hemlock Ave	SR 60 WB Ramps	340	8	0	-1	235	17	87	8	0	0	0	0	0.08565919	20	1	7	1	0	0	0	0
SF81	SurSt	SEGMENT81	SR 60 WB Ramps	West of Heacock St	0	173	-2	-3	-7	120	9	44	-2	-2	-1	-3	-4	0.25262119	30	2	11	0	0	0	0	0
SF82	SurSt	SEGMENT82	SR 60 WB Ramps	East of Heacock St	0	-40	11	14	115	-28	-2	-10	11	9	5	43	72	0.20011369	0	0	0	2	2	1	9	14
SF83	SurSt	SEGMENT83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	-20	6	-6	78	-14	-1	-5	6	-4	-2	29	49	0.05880786	0	0	0	0	0	0	2	3
SF85	SurSt	SEGMENT85	SR 60 WB Onramp	West of Perris Blvd	0	192	-5	0	-5	133	10	49	-5	0	0	-2	-3	0.18234079	24	2	9	0	0	0	0	0
SF86	SurSt	SEGMENT86	SR 60 WB Offramp	East of Perris Blvd	0	55	15	7	142	38	3	14	15	5	2	53	89	0.17635815	7	0	2	3	1	0	9	16
SF87	SurSt	SEGMENT87	Eualyptus Ave	Indian St	Perris Blvd	380	0	0	0	263	19	97	0	0	0	0	0	0.49685912	131	10	48	0	0	0	0	0
SF88	SurSt	SEGMENT88	Eualyptus Ave	Perris Blvd	Kitching St	375	0	0	0	260	19	96	0	0	0	0	0	0.50267383	131	10	48	0	0	0	0	0
FRWY27	Freeway	FRWY27	SR-60	I-215 to Day St		80	720	1610	8180	55	4	20	720	1087	523	3067	5113	1.86436652	103	8	38	1342	2027	975	5717	9533
FRWY28	Freeway	FRWY28	SR-60	Day St to Pigeon Pass Rd/Frederick St		700	750	1660	8180	485	36	179	750	1121	539	3067	5113	1.55387901	754	56	278	1165	1742	837	4765	7946
FRWY29	Freeway	FRWY29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St		830	780	1720	8230	575	42	212	780	1162	558	3085	5145	0.70515239	406	30	150	550	819	394	2176	3628
FRWY30	Freeway	FRWY30	SR-60	Heacock St to Perris Blvd		1710	830	1770	8460	1185	87	438	830	1195	575	3172	5288	1.05847425	1254	93	463	879	1265	608	3357	5598
FRWY31	Freeway	FRWY31	SR-60	Perris Blvd to Nason St		3050	920	1880	8940	2114	156	780	920	1270	610	3352	5588	0.73685457	1557	115	575	678	936	450	2470	4118
FRWY32	Freeway	FRWY32	SR-60	Nason St to Moreno Beach Dr		4030	980	1910	8940	2793	206	1031	980	1290	620	3352	5588	1.02038953	2850	210	1052	1000	1316	633	3420	5702
FRWY33	Freeway	FRWY33	SR-60	Moreno Beach Dr to Redlands Blvd		4330	1030	1960	9030	3001	221	1108	1030	1324	636	3385	5645	1.01638354	3050	225	1126	1047	1345	647	3441	5737
FRWY34	Freeway	FRWY34	SR-60	Redlands Blvd to Theodore St		5040	1100	2040	9130	3493	258	1290	1100	1378	662	3423	5707	0.96627731	3375	249	1246	1063	1331	640	3307	5515
FRWY35	Freeway	FRWY35	SR-60	Theodore St to Gilman Springs Rd		-2970	330	580	1740	-2058	-152	-760	330	392	188	652	1088	2.10287761	0	0	0	694	824	396	1372	2287
FRWY36	Freeway	FRWY36	SR-60	Gilman Springs Rd to Jack Rabbit Trail		650	210	400	860	450	33	166	210	270	130	322	538	0.69107043	311	23	115	145	187	90	223	372
FRWY37	Freeway	FRWY37	SR-60	Jack Rabbit Trail to I-10		680	210	400	860	471	35	174	210	270	130	322	538	1.20220631	567	42	209	252	325	156	388	646
FRWY101	Freeway	FRWY101	I-10	SR-60 to Beaumont Ave		-220	120	270	740	-152	-11	-56	120	182	88	277	463	1.04106943	0	0	0	125	190	91	289	482
172	Freeway	172	SR-215	Harley Knox Blvd to Van Buren Blvd		-300	30	80	530	-208	-15	-77	30	54	26	199	331	0.70992479	0	0	0	21	38	18	141	235
173	Freeway	173	SR-215	Van Buren Blvd to Cactus Ave		-360	70	110	650	-249	-18	-92	70	74	36	244	406	5.66673546	0	0	0	397	421	202	1381	2302
174	Freeway	174	SR-215	Cactus Ave to Alessandro Blvd		-180	50	100	650	-125	-9	-46	50	68	32	244	406	2.36245214	0	0	0	118	160	77	576	960

AERMOD	Traffic Study	Total Miles								Total Diesel Miles								2040 DPM PM10 Emission Factors, g/mi								DPM PM10 Grams per Day									DPM
SRCGRP ID	Segment No.	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	1.15% LDA	0.06% LDT1	0.22% LDT2	2.66% MDV	66.52% LHDT1	70.96% LHDT2	89.63% MHDT	98.89% HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Total	g/s
IN01	SEGMENT01	1428	105	527	126	97	47	373	622	16	0	1	3	64	33	335	615	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	1.38E-02	3.57E-04	5.05E-03	3.67E-03	5.74E-01	3.12E-01	1.22E+00	4.23E+00	6.36E+00	7.36E-05
IN02	SEGMENT02	1860	137	687	232	115	55	457	762	21	0	2	6	76	39	410	754	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	1.80E-02	4.65E-04	6.58E-03	6.73E-03	6.81E-01	3.71E-01	1.49E+00	5.19E+00	7.76E+00	8.98E-05
IN03	SEGMENT03	337	25	124	33	17	8	32	53	4	0	0	1	11	6	28	52	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	3.27E-03	8.44E-05	1.19E-03	9.52E-04	1.02E-01	5.55E-02	1.03E-01	3.59E-01	6.25E-01	7.23E-06
IN05	SEGMENT05	2893	213	1068	274	127	61	40	67	33	0	2	7	85	43	36	66	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	2.80E-02	7.24E-04	1.02E-02	7.96E-03	7.53E-01	4.10E-01	1.31E-01	4.55E-01	1.80E+00	2.08E-05
IN06	SEGMENT06	5679	419	2097	737	378	182	1511	2520	65	0	5	20	251	129	1355	2492	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	5.50E-02	1.42E-03	2.01E-02	2.14E-02	2.24E+00	1.22E+00	4.93E+00	1.71E+01	2.56E+01	2.97E-04
IN08	SEGMENT08	4362	322	1611	332	145	70	0	0	50	0	4	9	97	50	0	0	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	4.23E-02	1.09E-03	1.54E-02	9.65E-03	8.61E-01	4.69E-01	0.00E+00	0.00E+00	1.40E+00	1.62E-05
IN11	SEGMENT11	333	25	123	0	13	6	0	0	4	0	0	0	9	4	0	0	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	3.22E-03	8.33E-05	1.18E-03	0.00E+00	7.72E-02	4.21E-02	0.00E+00	0.00E+00	1.24E-01	1.43E-06
IN12	SEGMENT12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	0.00E+00	0.00E+00	0.00E+00	3.50E-04	2.79E-03	1.52E-03	0.00E+00	0.00E+00	4.66E-03	5.40E-08
IN14	SEGMENT14	2400	177	886	387	66	32	365	609	28	0	2	10	44	22	327	602	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	2.33E-02	6.00E-04	8.49E-03	1.12E-02	3.90E-01	2.13E-01	1.19E+00	4.14E+00	5.98E+00	6.92E-05
IN18	SEGMENT18	565	42	209	53	18	9	56	93	7	0	0	1	12	6	50	92	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	5.48E-03	1.41E-04	2.00E-03	1.53E-03	1.06E-01	5.78E-02	1.82E-01	6.35E-01	9.90E-01	1.15E-05
IN19	SEGMENT19	5744	424	2121	402	220	106	839	1399	66	0	5	11	146	75	752	1384	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	5.57E-02	1.44E-03	2.03E-02	1.17E-02	1.30E+00	7.10E-01	2.74E+00	9.52E+00	1.44E+01	1.66E-04
IN21	SEGMENT21	979	72	362	172	89	43	126	211	11	0	1	5	59	30	113	209	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	9.49E-03	2.45E-04	3.46E-03	4.99E-03	5.28E-01	2.88E-01	4.12E-01	1.43E+00	2.68E+00	3.10E-05
IN24	SEGMENT24	1739	128	642	259	135	65	411	686	20	0	1	7	90	46	369	678	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	1.68E-02	4.35E-04	6.15E-03	7.52E-03	8.00E-01	4.36E-01	1.34E+00	4.67E+00	7.27E+00	8.42E-05
IN29	SEGMENT29	617	45	228	43	16	8	68	113	7	0	1	1	11	6	61	112	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	5.98E-03	1.54E-04	2.18E-03	1.26E-03	9.61E-02	5.24E-02	2.22E-01	7.71E-01	1.15E+00	1.33E-05
IN30	SEGMENT30	0	0	0	149	55	27	383	639	0	0	0	4	37	19	344	632	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	0.00E+00	0.00E+00	0.00E+00	4.34E-03	3.27E-01	1.78E-01	1.25E+00	4.35E+00	6.11E+00	7.07E-05
IN31	SEGMENT31	460	34	170	27	9	5	10	17	5	0	0	1	6	3	9	17	8.43E-04	5.65E-03	4.36E-03	1.09E-03	8.91E-03	9.47E-03	3.64E-03	6.88E-03	4.45E-03	1.15E-04	1.63E-03	7.75E-04	5.57E-02	3.03E-02	3.40E-02	1.18E-01	2.45E-01	2.84E-06
SF09	SEGMENT09	2504	185	925	234	150	72	0	0	29	0	2	6	100	51	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.68E-02	7.30E-04	9.73E-03	7.47E-03	7.92E-01	4.26E-01	0.00E+00	0.00E+00	1.26E+00	1.46E-05
SF10	SEGMENT10	46	3	17	0	11	5	0	0	1	0	0	0	7	4	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.88E-04	1.33E-05	1.77E-04	0.00E+00	5.60E-02	3.02E-02	0.00E+00	0.00E+00	8.68E-02	1.01E-06
SF104	SEGMENT104	384	28	142	3	2	1	6	10	4	0	0	0	1	1	5	10	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.11E-03	1.12E-04	1.49E-03	1.05E-04	8.11E-03	4.37E-03	1.71E-02	5.95E-02	9.49E-02	1.10E-06
SF106	SEGMENT106	490	36	181	1	0	0	0	0	6	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.24E-03	1.43E-04	1.90E-03	3.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.32E-03	8.47E-08
SF107	SEGMENT107	367	27	136	3	2	1	5	9	4	0	0	0	1	1	5	9	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.92E-03	1.07E-04	1.43E-03	1.07E-04	1.05E-02	5.67E-03	1.60E-02	5.58E-02	9.35E-02	1.08E-06
SF108	SEGMENT108	470	35	174	0	0	0	0	0	5	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.03E-03	1.37E-04	1.83E-03	1.74E-06	0.00E+00	0.00E+00	4.84E-04	1.68E-03	9.16E-03	1.06E-07
SF109	SEGMENT109	195	14	72	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.08E-03	5.69E-05	7.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-03	3.36E-08
SF110	SEGMENT110	572	42	211	3	5	2	11	18	7	0	0	0	3	2	9	17	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.12E-03	1.67E-04	2.22E-03	8.04E-05	2.51E-02	1.35E-02	3.12E-02	1.09E-01	1.87E-01	2.16E-06
SF111	SEGMENT111	119	9	44	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.27E-03	3.47E-05	4.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	2.05E-08
SF112	SEGMENT112	599	44	221	7	5	2	32	53	7	0	0	0	3	2	29	53	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.40E-03	1.75E-04	2.33E-03	2.20E-04	2.71E-02	1.46E-02	9.43E-02	3.28E-01	4.73E-01	5.48E-06
SF113	SEGMENT113	98	7	36	0	0	0	2	3	1	0	0	0	0	0	2	3	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.05E-03	2.85E-05	3.80E-04	0.00E+00	0.00E+00	0.00E+00	5.45E-03	1.89E-02	2.58E-02	2.99E-07
SF114	SEGMENT114	181	13	67	0	0	0	4	6	2	0	0	0	0	0	3	6	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.94E-03	5.29E-05	7.05E-04	0.00E+00	0.00E+00	0.00E+00	1.13E-02	3.91E-02	5.31E-02	6.15E-07
SF115	SEGMENT115	544	40	201	3	4	2	15	24	6	0	0	0	3	1	13	24	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.81E-03	1.59E-04	2.11E-03	8.46E-05	2.20E-02	1.18E-02	4.32E-02	1.50E-01	2.35E-01	2.72E-06
SF116	SEGMENT116	219	16	81	3	0	0	1	2	3	0	0	0	0	0	1	2	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.35E-03	6.40E-05	8.53E-04	8.14E-05	1.70E-03	9.14E-04	2.91E-03	1.01E-02	1.90E-02	2.20E-07
SF117	SEGMENT117	199	15	73	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.12E-03	5.80E-05	7.72E-04	0.00E+00	0.00E+00	0.00E+00	3.72E-04	1.29E-03	4.62E-03	5.35E-08
SF118	SEGMENT118	428	32	158	4	4	2	13	21	5	0	0	0	2	1	11	21	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.58E-03	1.25E-04	1.66E-03	1.18E-04	1.92E-02	1.03E-02	3.73E-02	1.30E-01	2.03E-01	2.35E-06
SF119	SEGMENT119	113	8	42	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.21E-03	3.29E-05	4.38E-04	7.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03	1.95E-08
SF120	SEGMENT120	26	2	9	0	0	0	20	34	0	0	0	0	0	0	18	34	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.75E-04	7.49E-06	9.98E-05	0.00E+00	1.80E-03	9.69E-04	6.05E-02	2.10E-01	2.74E-01	3.17E-06
SF121	SEGMENT121	324	24	120	33	0	0	7	11	4	0	0	1	0	0	6	11	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.47E-03	9.46E-05	1.26E-03	1.04E-03	0.00E+00	0.00E+00	1.95E-02	6.77E-02	9.30E-02	1.08E-06
SF122	SEGMENT122	81	6	30	0	0	0	15	24	1	0	0	0	0	0	13	24	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	8.71E-04	2.38E-05	3.17E-04	0.00E+00	5.41E-04	2.91E-04	4.32E-02	1.50E-01	1.95E-01	2.26E-06
SF123	SEGMENT123	104	8	38	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.11E-03	3.03E-05	4.04E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-03	1.79E-08
SF124	SEGMENT124	314	23	116	5	3	1	12	20	4	0	0	0	2	1	11	20	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.35E-03	9.15E-05	1.22E-03	1.59E-04	1.59E-02	8.56E-03	3.61E-02	1.26E-01	1.91E-01	2.21E-06
SF125	SEGMENT125	113	8	42	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.20E-03	3.28E-05	4.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-03	1.94E-08
SF126	SEGMENT126	134	10	50	5	3	1	11	18	2	0	0	0	2	1	10	18	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.44E-03	3.92E-05	5.22E-04	1.54E-04	1.54E-02	8.29E-03	3.25E-02	1.13E-01	1.71E-01	1.98E-06
SF127	SEGMENT127	0	0	0	1	0	0	64	106	0	0	0	0	0	0	57	105	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	2.34E-05	0.00E+00	0.00E+00	1.88E-01	6.55E-01	8.43E-01	9.76E-06
SF128	SEGMENT128	125	9	46	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.34E-03	3.65E-05	4.86E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03	2.15E-08
SF129	SEGMENT129	47	3	17	5	3	2	12	19	1	0	0	0	2	1	10	19	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.05E-04	1.38E-05	1.83E-04	1.64E-04	1.82E-02	9.79E-03	3.40E-02	1.18E-01	1.81E-01	2.10E-06
SF13	SEGMENT13	52	4	19	13	10	5	70	117	1	0	0	0	7	3	63	115	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.55E-04	1.52E-05	2.02E-04	4.13E-04	5.21E-02	2.81E-02	2.07E-01	7.18E-01	1.01E+00	1.16E-05
SF130	SEGMENT130	91	7	34	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	9.76E-04	2.66E-05	3.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-03	1.57E-08
SF131	SEGMENT131	136	10	50	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.46E-03	3.98E-05	5.30E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03	2.35E-08
SF133	SEGMENT133	126	9	46	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.34E-03	3.66E-05	4.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-03	2.16E-08
SF134	SEGMENT134	80	6	30	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	8.54E-04	2.33E-05	3.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E-03	1.38E-08
SF135	SEGMENT135	77	6	28	5	3	2	11	19	1	0	0	0	2	1	10	19	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	8.21E-04	2.24E-05	2.98E-04	1.62E-04	1.80E-02	9.71E-03	3.37E-02	1.17E-01	1.80E-01	2.08E-06
SF136	SEGMENT136	239	18	88	2	0	0	0	0	3	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.55E-03	6.96E-05	9.27E-04	7.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.63E-03	4.20E-08
SF137	SEGMENT137	91	7	34	0	0	0	2	3	1	0	0	0	0	0	2	3	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	9.73E-04	2.65E-05	3.54E-04	0.00E+00	0.00E+00	0.00E+00	5.44E-03	1.89E-02	2.57E-02	2.98E-07
SF139	SEGMENT139	153	11	56	3	2	1	0	0	2	0	0	0	1	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.63E-03	4.45E-05	5.93E-04	1.00E-04	1.11E-02	6.00E-03	0.00E+00	0.00E+00	1.95E-02	2.26E-07
SF140	SEGMENT140	76	6	28	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	8.08E-04	2.20E-05	2.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-03	1.30E-08
SF141	SEGMENT141	654	48	242	7	0	0	0	0	8	0	1	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.00E-03	1.91E-04	2.54E-03	2.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.97E-03	1.15E-07
SF142	SEGMENT142	56	4	21	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.03E-04	1.65E-05	2.19E-04	0.00E+00	0.00E+00	0.00E+00	5.14E-05	1.79E-04	1.07E-03	1.24E-08
SF143	SEGMENT143	394	29	145	9	5	2	0	0	5	0	0	0	3	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.21E-03	1.15E-04	1.53E-03	2.96E-04	2.53E-02	1.36E-02	0.00E+00	0.00E+00	4.51E-02	5.22E-07
SF144	SEGMENT144	390	29	144	8	3	1	0	0	4	0	0	0	2	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.17E-03	1.14E-04	1.52E-03	2.65E-04	1.49E-02	8.00E-03	0.00E+00	0.00E+00	2.89E-02	3.35E-07
SF145	SEGMENT145	262	19	97	15	8	4	0	0	3	0	0	0	5	3	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.80E-03	7.64E-05	1.02E-03	4.71E-04	3.97E-02	2.14E-02	0.00E+00	0.00E+00	6.55E-02	7.58E-07
SF146	SEGMENT146	212	16	78	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.26E-03	6.18E-05	8.23E-04	1.62E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-03	3.65E-08
SF147	SEGMENT147	137	10	50	13	7	3	0	0	2	0	0	0	5	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.46E-03	3.99E-05	5.31E-04	4.02E-04	3.58E-02	1.93E-02	0.00E+00	0.00E+00	5.75E-02	6.66E-07
SF148	SEGMENT148	154	11	57	1	0	0	12	19	2	0	0	0	0	0	10	19	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.64E-03	4.48E-05	5.97E-04	2.24E-05	0.00E+00	0.00E+00	3.41E-02	1.19E-01	1.55E-01	1.79E-06
SF149	SEGMENT149	64	5	24	16	8	4	0	0	1	0	0	0	6	3	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.89E-04	1.88E-05	2.51E-04	5.05E-04	4.47E-02	2.40E-02	0.00E+00	0.00E+00	7.02E-02	8.12E-07
SF150	SEGMENT150	97	7	36	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.04E-03	2.84E-05	3.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E-03	1.67E-08
SF151	SEGMENT151	128	9	47	18	10	5	1	2	1	0	0	0	7	3	1	2	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.37E-03	3.74E-05	4.98E-04	5.70E-04	5.22E-02	2.81E-02	2.71E-03	9.42E-03	9.49E-02	1.10E-06
SF152	SEGMENT152	0	0	0	0	8	4	60	100	0	0	0	0	5	3	54	99	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-02	2.14E-02	1.77E-01	6.15E-01	8.53E-01	9.87E-06
SF153	SEGMENT153	204	15	75	17	11	5	0	0	2	0	0	0	7	4	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.18E-03	5.95E-05	7.93E-04	5.55E-04	5.64E-02	3.04E-02	0.00E+00	0.00E+00	9.04E-02	1.05E-06
SF154	SEGMENT154	99	7	37	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.06E-03	2.89E-05	3.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-03	1.70E-08
SF155	SEGMENT155	271	20	100	34	19	9	0	0	3	0	0	1	12	6	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.90E-03	7.92E-05	1.06E-03	1.08E-03	9.76E-02	5.25E-02	0.00E+00	0.00E+00	1.55E-01	1.80E-06
SF156	SEGMENT156	127	9	47	12	7	3	0	0	1	0	0	0	5	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.36E-03	3.71E-05	4.95E-04	3.83E-04	3.58E-02	1.93E-02	0.00E+00	0.00E+00	5.74E-02	6.64E-07
SF157	SEGMENT157	136	10	50	37	18	9	0	0	2	0	0	1	12	6	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.45E-03	3.97E-05	5.28E-04	1.20E-03	9.45E-02	5.09E-02	0.00E+00	0.00E+00	1.49E-01	1.72E-06
SF160	SEGMENT160	179	13	66	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.92E-03	5.23E-05	6.96E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03	3.08E-08
SF161	SEGMENT161	99	7	36	58	39	19	0	0	1	0	0	2	26	13	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.05E-03	2.88E-05	3.83E-04	1.86E-03	2.04E-01	1.10E-01	0.00E+00	0.00E+00	3.16E-01	3.66E-06
SF162	SEGMENT162	983	73	363	109	75	36	0	0	11	0	1	3	50	26	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.05E-02	2.87E-04	3.82E-03	3.47E-03	3.95E-01	2.12E-01	0.00E+00	0.00E+00	6.25E-01	7.24E-06
SF163	SEGMENT163	202	15	75	8	6	3	0	0	2	0	0	0	4	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.16E-03	5.90E-05	7.86E-04	2.43E-04	3.21E-02	1.73E-02	0.00E+00	0.00E+00	5.27E-02	6.10E-07
SF164	SEGMENT164	122	9	45	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.30E-03	3.56E-05	4.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03	2.10E-08
SF165	SEGMENT165	1883	139	695	201	126	61	0	0	22	0	2	5	84	43	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.01E-02	5.49E-04	7.32E-03	6.43E-03	6.64E-01	3.57E-01	0.00E+00	0.00E+00	1.06E+00	1.22E-05
SF168	SEGMENT168	686	51	253	19	15	7	0	0	8	0	1	1	10	5	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.33E-03	2.00E-04	2.66E-03	6.18E-04	7.67E-02	4.13E-02	0.00E+00	0.00E+00	1.29E-01	1.49E-06

AERMOD SRCGRP ID	Traffic Study Segment No.	Total Miles								Total Diesel Miles								2040 DPM PM10 Emission Factors, g/mi								DPM PM10 Grams per Day									DPM g/s
										1.15%	0.06%	0.22%	2.66%	66.52%	70.96%	89.63%	98.89%																		
		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Total	
SF169	SEGMENT169	226	17	83	0	0	0	0	0	3	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.41E-03	6.59E-05	8.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-03	3.89E-08
SF170	SEGMENT170	527	39	195	29	7	3	0	0	6	0	0	1	5	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.63E-03	1.54E-04	2.05E-03	9.38E-04	3.83E-02	2.06E-02	8.52E-04	2.96E-03	7.15E-02	8.28E-07
SF171	SEGMENT171	127	9	47	11	4	2	0	0	1	0	0	0	3	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.36E-03	3.71E-05	4.94E-04	3.63E-04	2.31E-02	1.24E-02	0.00E+00	0.00E+00	3.78E-02	4.37E-07
SF172	SEGMENT172	287	21	106	22	8	4	0	0	3	0	0	1	6	3	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.07E-03	8.37E-05	1.12E-03	6.91E-04	4.39E-02	2.36E-02	0.00E+00	0.00E+00	7.25E-02	8.39E-07
SF173	SEGMENT173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF174	SEGMENT174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF177	SEGMENT177	0	0	0	64	43	21	103	173	0	0	0	2	29	15	93	171	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	2.05E-03	2.28E-01	1.23E-01	3.06E-01	1.06E+00	1.72E+00	1.99E-05
SF178	SEGMENT178	407	30	150	41	15	7	58	97	5	0	0	1	10	5	52	96	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.35E-03	1.19E-04	1.58E-03	1.30E-03	7.88E-02	4.24E-02	1.72E-01	5.98E-01	8.98E-01	1.04E-05
SF179	SEGMENT179	0	0	0	147	94	45	222	370	0	0	0	4	62	32	199	366	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	4.69E-03	4.93E-01	2.65E-01	6.56E-01	2.28E+00	3.70E+00	4.28E-05
SF180	SEGMENT180	300	22	111	0	0	0	0	0	3	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.21E-03	8.76E-05	1.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.47E-03	5.17E-08
SF181	SEGMENT181	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF182	SEGMENT182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF183	SEGMENT183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF184	SEGMENT184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF185	SEGMENT185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF186	SEGMENT186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF190	SEGMENT190	0	0	0	176	63	30	80	134	0	0	0	5	42	21	72	132	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	5.63E-03	3.29E-01	1.77E-01	2.37E-01	8.25E-01	1.57E+00	1.82E-05
SF191	SEGMENT191	212	16	78	106	56	27	27	45	2	0	0	3	37	19	24	45	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.27E-03	6.20E-05	8.25E-04	3.40E-03	2.96E-01	1.60E-01	8.05E-02	2.80E-01	8.23E-01	9.52E-06
SF192	SEGMENT192	340	25	125	56	17	8	43	71	4	0	0	1	11	6	38	70	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.63E-03	9.91E-05	1.32E-03	1.78E-03	8.95E-02	4.82E-02	1.26E-01	4.39E-01	7.10E-01	8.22E-06
SF194	SEGMENT194	36	3	13	4	3	1	0	0	0	0	0	0	2	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.83E-04	1.05E-05	1.39E-04	1.37E-04	1.58E-02	8.48E-03	0.00E+00	0.00E+00	2.49E-02	2.88E-07
SF195	SEGMENT195	25	2	9	6	4	2	0	0	0	0	0	0	2	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.67E-04	7.29E-06	9.72E-05	1.97E-04	1.88E-02	1.01E-02	0.00E+00	0.00E+00	2.95E-02	3.41E-07
SF196	SEGMENT196	14	1	5	20	14	7	0	0	0	0	0	1	10	5	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.54E-04	4.21E-06	5.61E-05	6.41E-04	7.58E-02	4.08E-02	0.00E+00	0.00E+00	1.17E-01	1.36E-06
SF198	SEGMENT198	104	8	39	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.11E-03	3.04E-05	4.05E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.55E-03	1.79E-08
SF199	SEGMENT199	41	3	15	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.43E-04	1.21E-05	1.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-04	7.13E-09
SF200	SEGMENT200	62	5	23	48	26	13	0	0	1	0	0	1	18	9	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.65E-04	1.81E-05	2.42E-04	1.53E-03	1.40E-01	7.51E-02	0.00E+00	0.00E+00	2.17E-01	2.51E-06
SF205	SEGMENT205	661	49	244	14	19	9	0	0	8	0	1	0	13	6	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.07E-03	1.93E-04	2.57E-03	4.47E-04	9.95E-02	5.36E-02	0.00E+00	0.00E+00	1.63E-01	1.89E-06
SF206	SEGMENT206	217	16	80	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.32E-03	6.34E-05	8.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03	3.74E-08
SF207	SEGMENT207	1065	79	393	24	33	16	0	0	12	0	1	1	22	11	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.14E-02	3.11E-04	4.14E-03	7.78E-04	1.73E-01	9.32E-02	0.00E+00	0.00E+00	2.83E-01	3.28E-06
SF283	SEGMENT283	3	0	1	0	1	0	5	9	0	0	0	0	1	0	5	9	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.80E-05	7.64E-07	1.02E-05	0.00E+00	4.48E-03	2.41E-03	1.54E-02	5.34E-02	7.57E-02	8.76E-07
SF284	SEGMENT284	0	0	0	2	2	1	10	16	0	0	0	0	1	1	9	16	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	7.81E-05	1.13E-02	6.08E-03	2.89E-02	1.01E-01	1.47E-01	1.70E-06
SF285	SEGMENT285	0	0	0	0	0	0	4	7	0	0	0	0	0	0	4	7	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-02	4.27E-02	5.50E-02	6.37E-07
SF286	SEGMENT286	59	4	22	4	3	1	0	0	1	0	0	0	2	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.26E-04	1.71E-05	2.28E-04	1.24E-04	1.44E-02	7.76E-03	0.00E+00	0.00E+00	2.32E-02	2.68E-07
SF287	SEGMENT287	27	2	10	5	1	1	15	24	0	0	0	0	1	0	13	24	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.93E-04	8.00E-06	1.07E-04	1.45E-04	6.11E-03	3.29E-03	4.33E-02	1.51E-01	2.04E-01	2.36E-06
SF288	SEGMENT288	48	4	18	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.08E-04	1.39E-05	1.85E-04	0.00E+00	0.00E+00	0.00E+00	5.23E-04	1.82E-03	3.05E-03	3.53E-08
SF289	SEGMENT289	7	0	2	3	1	0	9	16	0	0	0	0	1	0	8	16	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.20E-05	1.97E-06	2.62E-05	8.48E-05	4.33E-03	2.33E-03	2.79E-02	9.69E-02	1.32E-01	1.52E-06
SF290	SEGMENT290	0	0	0	0	0	0	27	46	0	0	0	0	0	0	24	45	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.07E-02	2.81E-01	3.61E-01	4.18E-06
SF294	SEGMENT294	92	7	34	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	9.85E-04	2.69E-05	3.58E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-03	1.59E-08
SF301	SEGMENT301	188	14	70	8	5	2	0	0	2	0	0	0	3	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.01E-03	5.49E-05	7.32E-04	2.41E-04	2.48E-02	1.33E-02	0.00E+00	0.00E+00	4.12E-02	4.77E-07
SF302	SEGMENT302	291	21	108	10	6	3	0	0	3	0	0	0	4	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.11E-03	8.50E-05	1.13E-03	3.33E-04	3.34E-02	1.80E-02	0.00E+00	0.00E+00	5.61E-02	6.49E-07
SF303	SEGMENT303	0	0	0	0	0	0	113	188	0	0	0	0	0	0	101	186	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-01	1.16E+00	1.49E+00	1.73E-05
SF304	SEGMENT304	0	0	0	27	3	1	0	0	0	0	0	1	2	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	8.61E-04	1.61E-02	8.67E-03	0.00E+00	0.00E+00	2.56E-02	2.97E-07
SF306	SEGMENT306	63	5	23	48	35	17	61	102	1	0	0	1	23	12	55	101	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.78E-04	1.85E-05	2.46E-04	1.55E-03	1.82E-01	9.81E-02	1.80E-01	6.27E-01	1.09E+00	1.26E-05
SF32	SEGMENT32	1179	87	435	87	55	26	0	0	14	0	1	2	37	19	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.26E-02	3.44E-04	4.58E-03	2.79E-03	2.90E-01	1.56E-01	0.00E+00	0.00E+00	4.66E-01	5.40E-06
SF33	SEGMENT33	0	0	0	8	28	13	0	0	0	0	0	0	19	10	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	2.59E-04	1.47E-01	7.92E-02	0.00E+00	0.00E+00	2.27E-01	2.62E-06
SF340	SEGMENT340	7	1	3	10	6	3	0	0	0	0	0	0	4	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.79E-05	2.13E-06	2.83E-05	3.20E-04	2.91E-02	1.57E-02	0.00E+00	0.00E+00	4.52E-02	5.23E-07
SF35	SEGMENT35	0	0	0	14	13	6	81	135	0	0	0	0	8	4	72	133	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	4.47E-04	6.64E-02	3.57E-02	2.39E-01	8.30E-01	1.17E+00	1.36E-05
SF36	SEGMENT36	991	73	366	92	61	30	0	0	11	0	1	2	41	21	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.06E-02	2.89E-04	3.85E-03	2.94E-03	3.24E-01	1.74E-01	0.00E+00	0.00E+00	5.16E-01	5.97E-06
SF37	SEGMENT37	0	0	0	10	9	4	20	34	0	0	0	0	6	3	18	34	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	3.17E-04	4.50E-02	2.42E-02	6.02E-02	2.09E-01	3.39E-01	3.92E-06
SF375	SEGMENT375	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF376	SEGMENT376	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF377	SEGMENT377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF378	SEGMENT378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF379	SEGMENT379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF38	SEGMENT38	409	30	151	37	25	12	0	0	5	0	0	1	17	9	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.37E-03	1.19E-04	1.59E-03	1.19E-03	1.33E-01	7.14E-02	0.00E+00	0.00E+00	2.11E-01	2.45E-06
SF380	SEGMENT380	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF381	SEGMENT381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF386	SEGMENT386	208	15	77	0	2	1	1	2	2	0	0	0	1	1	1	2	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.23E-03	6.07E-05	8.09E-04	2.44E-06	8.03E-03	4.32E-03	2.79E-03	9.70E-03	2.79E-02	3.23E-07
SF387	SEGMENT387	164	12	60	132	108	52	151	252	2	0	0	4	72	37	135	249	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.75E-03	4.78E-05	6.37E-04	4.23E-03	5.68E-01	3.06E-01	4.47E-01	1.55E+00	2.88E+00	3.33E-05
SF388	SEGMENT388	23	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.45E-04	6.69E-06	8.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E-04	3.95E-09
SF390	SEGMENT390	635	47	234	17	16	8	4	7	7	0	1	0	10	5	4	7	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.79E-03	1.85E-04	2.47E-03	5.45E-04	8.29E-02	4.46E-02	1.23E-02	4.27E-02	1.92E-01	2.23E-06
SF392	SEGMENT392	173	13	64	9	6	3	8	13	2	0	0	0	4	2	7	13	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.85E-03	5.06E-05	6.74E-04	3.01E-04	3.30E-02	1.78E-02	2.25E-02	7.82E-02	1.54E-01	1.79E-06
SF393	SEGMENT393	211	16	78	0	3	1	2	4	2	0	0	0	2	1	2	4	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.26E-03	6.16E-05	8.21E-04	0.00E+00	1.38E-02	7.41E-03	6.43E-03	2.24E-02	5.31E-02	6.15E-07
SF394	SEGMENT394	457	34	169	67	47	22	63	105	5	0	0	2	31	16	57	104	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.88E-03	1.33E-04	1.78E-03	2.15E-03	2.46E-01	1.33E-01	1.87E-01	6.50E-01	1.22E+00	1.42E-05
SF396	SEGMENT396	426	31	157	78	52	25	50	83	5	0	0	2	35	18	44	82	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.56E-03	1.24E-04	1.66E-03	2.50E-03	2.73E-01	1.47E-01	1.47E-01	5.10E-01	1.09E+00	1.26E-05
SF397	SEGMENT397	92	7	34	18	5	3	15	25	1	0	0	0	4	2	13	24	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	9.84E-04	2.69E-05	3.58E-04	5.61E-04	2.89E-02	1.55E-02	4.37E-02	1.52E-01	2.42E-01	2.80E-06
SF398	SEGMENT398	198	15	73	12	4	2	0	0	2	0	0	0	3	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.12E-03	5.78E-05	7.71E-04	3.96E-04	2.04E-02	1.10E-02	0.00E+00	0.00E+00	3.48E-02	4.02E-07
SF399	SEGMENT399	952	70	352	35	26	13	20	33	11	0	1	1	17	9	18	33	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.02E-02	2.78E-04	3.70E-03	1.11E-03	1.38E-01	7.40E-02	5.84E-02	2.03E-01	4.88E-01	5.65E-06
SF400	SEGMENT400	208	15	77	1	1	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.22E-03	6.06E-05	8.07E-04	4.39E-05	2.69E-03	1.45E-03	0.00E+00	0.00E+00	7.27E-03	8.41E-08
SF401	SEGMENT401	150	11	55	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.60E-03	4.38E-05	5.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-03	2.58E-08
SF402	SEGMENT402	367	27	136	3	2	1	0	0	4	0	0	0	2	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.93E-03	1.07E-04	1.43E-03	1.12E-04	1.22E-02	6.59E-03	0.00E+00	0.00E+00	2.44E-02	2.82E-07
SF404	SEGMENT404	93	7	34	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	9.95E-04	2.71E-05	3.62E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-03	1.60E-08
SF405	SEGMENT405	115	9	43	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.23E-03	3.36E-05	4.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	1.98E-08
SF406	SEGMENT406	52	4	19	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	5.54E-04	1.51E-05	2.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.71E-04	8.92E-09
SF408	SEGMENT408	440	32	162	4	2	1	1	2	5	0	0	0	1	1	1	2	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.70E-03	1.28E-04	1.71E-03	1.12E-04	1.18E-02	6.38E-03	3.69E-03	1.28E-02	4.14E-02	4.79E-07
SF409	SEGMENT409	461	34	170	7	3	2	0	0	5	0	0	0	2	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.93E-03	1.35E-04	1.79E-03	2.26E-04	1.68E-02	9.02E-03	0.00E+00	0.00E+00	3.29E-02	3.80E-07
SF410	SEGMENT410	110	8	41	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.17E-03	3.20E-05	4.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03	1.89E-08
SF411	SEGMENT411	190	14	70	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.03E-03	5.54E-05	7.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-03	3.27E-08

		Total Miles								Total Diesel Miles								2040 DPM PM10 Emission Factors, g/mi								DPM PM10 Grams per Day									DPM
AERMOD	Traffic Study									1.15%	0.06%	0.22%	2.66%	66.52%	70.96%	89.63%	98.89%																		
SRCGRP ID	Segment No.	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Total	g/s
SF42	SEGMENT42	0	0	0	372	190	92	541	902	0	0	0	10	127	65	485	892	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	1.19E-02	1.00E+00	5.40E-01	1.60E+00	5.56E+00	8.71E+00	1.01E-04
SF424	SEGMENT424	0	0	0	0	0	0	68	114	0	0	0	0	0	0	61	112	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-01	7.01E-01	9.03E-01	1.04E-05
SF425	SEGMENT425	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF426	SEGMENT426	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF427	SEGMENT427	147	11	54	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.57E-03	4.28E-05	5.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-03	2.52E-08
SF429	SEGMENT429	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF43	SEGMENT43	1976	146	730	48	25	12	52	87	23	0	2	1	17	9	47	86	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.11E-02	5.76E-04	7.68E-03	1.55E-03	1.34E-01	7.21E-02	1.54E-01	5.37E-01	9.29E-01	1.07E-05
SF432	SEGMENT432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF433	SEGMENT433	228	17	84	0	0	0	0	0	3	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.44E-03	6.66E-05	8.87E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-03	3.93E-08
SF436	SEGMENT436	23	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.42E-04	6.61E-06	8.80E-05	8.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.38E-04	3.91E-09
SF458	SEGMENT458	39	3	14	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.17E-04	1.14E-05	1.51E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.80E-04	6.71E-09
SF46	SEGMENT46	660	49	244	8	5	2	0	0	8	0	1	0	3	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.05E-03	1.92E-04	2.56E-03	2.40E-04	2.67E-02	1.44E-02	0.00E+00	0.00E+00	5.12E-02	5.92E-07
SF464	SEGMENT464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF47	SEGMENT47	1552	115	573	32	8	4	0	0	18	0	1	1	6	3	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.66E-02	4.53E-04	6.03E-03	1.02E-03	4.41E-02	2.37E-02	0.00E+00	0.00E+00	9.20E-02	1.06E-06
SF479	SEGMENT479	68	5	25	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.29E-04	1.99E-05	2.65E-04	2.41E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-03	1.18E-08
SF48	SEGMENT48	62	5	23	7	3	2	11	19	1	0	0	0	2	1	10	18	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.63E-04	1.81E-05	2.41E-04	2.37E-04	1.76E-02	9.46E-03	3.28E-02	1.14E-01	1.75E-01	2.03E-06
SF488	SEGMENT488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF494	SEGMENT494	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF498	SEGMENT498	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF499	SEGMENT499	0	0	0	0	0	0	54	90	0	0	0	0	0	0	48	89	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-01	5.53E-01	7.12E-01	8.24E-06
SF50	SEGMENT50	1216	90	449	138	64	31	0	0	14	0	1	4	42	22	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.30E-02	3.55E-04	4.73E-03	4.40E-03	3.36E-01	1.81E-01	0.00E+00	0.00E+00	5.40E-01	6.25E-06
SF500	SEGMENT500	0	0	0	0	0	0	32	54	0	0	0	0	0	0	29	53	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.52E-02	3.31E-01	4.26E-01	4.93E-06
SF502	SEGMENT502	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF503	SEGMENT503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF504	SEGMENT504	46	3	17	1	2	1	0	0	1	0	0	0	1	1	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.96E-04	1.35E-05	1.80E-04	3.92E-05	8.09E-03	4.35E-03	0.00E+00	0.00E+00	1.32E-02	1.52E-07
SF51	SEGMENT51	600	44	222	18	10	5	0	0	7	0	0	0	6	3	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.42E-03	1.75E-04	2.33E-03	5.81E-04	5.13E-02	2.76E-02	0.00E+00	0.00E+00	8.84E-02	1.02E-06
SF52	SEGMENT52	1270	94	469	177	107	51	0	0	15	0	1	5	71	36	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.36E-02	3.70E-04	4.93E-03	5.67E-03	5.63E-01	3.03E-01	0.00E+00	0.00E+00	8.91E-01	1.03E-05
SF53	SEGMENT53	143	11	53	10	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.53E-03	4.17E-05	5.56E-04	3.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03	2.83E-08
SF54	SEGMENT54	34	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.59E-04	9.80E-06	1.31E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.99E-04	5.78E-09
SF55	SEGMENT55	2071	153	765	25	17	8	0	0	24	0	2	1	11	6	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.21E-02	6.04E-04	8.05E-03	8.12E-04	9.03E-02	4.86E-02	0.00E+00	0.00E+00	1.70E-01	1.97E-06
SF56	SEGMENT56	1145	84	423	11	10	5	0	0	13	0	1	0	7	4	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.22E-02	3.34E-04	4.45E-03	3.44E-04	5.52E-02	2.97E-02	0.00E+00	0.00E+00	1.02E-01	1.18E-06
SF57	SEGMENT57	14	1	5	1	1	0	2	3	0	0	0	0	0	0	2	3	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.50E-04	4.09E-06	5.45E-05	4.47E-05	2.72E-03	1.46E-03	5.92E-03	2.06E-02	3.09E-02	3.58E-07
SF58	SEGMENT58	37	3	14	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.99E-04	1.09E-05	1.45E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.55E-04	6.42E-09
SF59	SEGMENT59	35	3	13	5	3	1	9	16	0	0	0	0	2	1	8	16	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.78E-04	1.03E-05	1.37E-04	1.56E-04	1.45E-02	7.79E-03	2.78E-02	9.68E-02	1.48E-01	1.71E-06
SF60	SEGMENT60	61	5	23	5	4	2	21	35	1	0	0	0	3	1	19	34	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.55E-04	1.79E-05	2.38E-04	1.71E-04	2.01E-02	1.08E-02	6.15E-02	2.14E-01	3.07E-01	3.56E-06
SF61	SEGMENT61	153	11	56	3	1	0	7	12	2	0	0	0	0	0	6	12	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.63E-03	4.46E-05	5.94E-04	1.08E-04	3.74E-03	2.01E-03	2.10E-02	7.29E-02	1.02E-01	1.18E-06
SF62	SEGMENT62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF65	SEGMENT65	308	23	114	8	4	2	13	22	4	0	0	0	3	2	12	21	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.29E-03	8.99E-05	1.20E-03	2.48E-04	2.34E-02	1.26E-02	3.83E-02	1.33E-01	2.13E-01	2.46E-06
SF66	SEGMENT66	248	18	92	12	5	2	11	19	3	0	0	0	3	2	10	19	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.65E-03	7.23E-05	9.64E-04	3.78E-04	2.48E-02	1.33E-02	3.35E-02	1.17E-01	1.92E-01	2.23E-06
SF67	SEGMENT67	202	15	74	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.16E-03	5.88E-05	7.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-03	3.47E-08
SF68	SEGMENT68	338	25	125	2	1	1	0	0	4	0	0	0	1	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.61E-03	9.86E-05	1.31E-03	6.47E-05	7.71E-03	4.15E-03	0.00E+00	0.00E+00	1.70E-02	1.96E-07
SF69	SEGMENT69	668	49	247	36	18	9	0	0	8	0	1	1	12	6	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.14E-03	1.95E-04	2.60E-03	1.14E-03	9.44E-02	5.08E-02	0.00E+00	0.00E+00	1.56E-01	1.81E-06
SF70	SEGMENT70	316	23	117	37	18	9	0	0	4	0	0	1	12	6	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.38E-03	9.22E-05	1.23E-03	1.19E-03	9.63E-02	5.18E-02	0.00E+00	0.00E+00	1.54E-01	1.78E-06
SF71	SEGMENT71	228	17	84	0	0	0	0	0	3	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.44E-03	6.66E-05	8.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03	3.93E-08
SF72	SEGMENT72	120	9	44	0	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.29E-03	3.51E-05	4.68E-04	4.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-03	2.08E-08
SF73	SEGMENT73	836	62	309	102	61	29	0	0	10	0	1	3	40	21	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	8.93E-03	2.44E-04	3.25E-03	3.28E-03	3.20E-01	1.72E-01	0.00E+00	0.00E+00	5.07E-01	5.87E-06
SF74	SEGMENT74	251	19	93	0	0	0	0	0	3	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.68E-03	7.32E-05	9.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.73E-03	4.32E-08
SF75	SEGMENT75	208	15	77	2	1	1	0	0	2	0	0	0	1	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.22E-03	6.07E-05	8.09E-04	5.54E-05	5.93E-03	3.19E-03	0.00E+00	0.00E+00	1.23E-02	1.42E-07
SF76	SEGMENT76	398	29	147	3	6	3	0	0	5	0	0	0	4	2	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	4.26E-03	1.16E-04	1.55E-03	1.10E-04	2.94E-02	1.58E-02	0.00E+00	0.00E+00	5.13E-02	5.94E-07
SF77	SEGMENT77	59	4	22	1	0	0	0	0	1	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	6.26E-04	1.71E-05	2.27E-04	3.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.00E-04	1.04E-08
SF80	SEGMENT80	20	1	7	1	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.15E-04	5.88E-06	7.83E-05	2.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.21E-04	3.72E-09
SF81	SEGMENT81	30	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	3.24E-04	8.83E-06	1.18E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.50E-04	5.21E-09
SF82	SEGMENT82	0	0	0	2	2	1	9	14	0	0	0	0	1	1	8	14	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	6.89E-05	9.97E-03	5.37E-03	2.55E-02	8.87E-02	1.30E-01	1.50E-06
SF83	SEGMENT83	0	0	0	0	0	0	2	3	0	0	0	0	0	0	2	3	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	0.00E+00	0.00E+00	0.00E+00	1.12E-05	0.00E+00	0.00E+00	5.06E-03	1.76E-02	2.27E-02	2.62E-07
SF85	SEGMENT85	24	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	2.59E-04	7.06E-06	9.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-04	4.17E-09
SF86	SEGMENT86	7	0	2	3	1	0	9	16	0	0	0	0	1	0	8	16	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	7.18E-05	1.96E-06	2.61E-05	8.46E-05	4.32E-03	2.32E-03	2.78E-02	9.67E-02	1.31E-01	1.52E-06
SF87	SEGMENT87	131	10	48	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.40E-03	3.82E-05	5.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03	2.25E-08
SF88	SEGMENT88	131	10	48	0	0	0	0	0	2	0	0	0	0	0	0	0	9.30E-04	6.59E-03	4.78E-03	1.20E-03	7.92E-03	8.31E-03	3.30E-03	6.23E-03	1.40E-03	3.81E-05	5.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03	2.25E-08
FRWY27	FRWY27	103	8	38	1342	2027	975	5717	9533	1	0	0	36	1348	692	5124	9427	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	8.58E-04	2.11E-05	3.08E-04	3.29E-02	9.17E+00	4.43E+00	1.33E+01	4.62E+01	7.31E+01	8.46E-04
FRWY28	FRWY28	754	56	278	1165	1742	837	4765	7946	9	0	1	31	1159	594	4271	7857	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	6.26E-03	1.54E-04	2.24E-03	2.85E-02	7.88E+00	3.81E+00	1.11E+01	3.85E+01	6.13E+01	7.09E-04
FRWY29	FRWY29	406	30	150	550	819	394	2176	3628	5	0	0	15	545	279	1950	3587	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	3.37E-03	8.27E-05	1.21E-03	1.35E-02	3.71E+00	1.79E+00	5.05E+00	1.76E+01	2.81E+01	3.26E-04
FRWY30	FRWY30	1254	93	463	879	1265	608	3357	5598	14	0	1	23	842	432	3009	5535	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	1.04E-02	2.56E-04	3.73E-03	2.15E-02	5.72E+00	2.76E+00	7.80E+00	2.71E+01	4.34E+01	5.03E-04
FRWY31	FRWY31	1557	115	575	678	936	450	2470	4118	18	0	1	18	622	319	2214	4072	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	1.29E-02	3.18E-04	4.63E-03	1.66E-02	4.23E+00	2.04E+00	5.73E+00	1.99E+01	3.20E+01	3.70E-04
FRWY32	FRWY32	2850	210	1052	1000	1316	633	3420	5702	33	0	2	27	876	449	3065	5639	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	2.37E-02	5.81E-04	8.48E-03	2.45E-02	5.95E+00	2.88E+00	7.94E+00	2.76E+01	4.44E+01	5.14E-04
FRWY33	FRWY33	3050	225	1126	1047	1345	647	3441	5737	35	0	2	28	895	459	3084	5673	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	2.53E-02	6.22E-04	9.07E-03	2.56E-02	6.09E+00	2.94E+00	7.99E+00	2.78E+01	4.49E+01	5.19E-04
FRWY34	FRWY34	3375	249	1246	1063	1331	640	3307	5515	39	0	3	28	886	454	2964	5454	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	2.80E-02	6.88E-04	1.00E-02	2.60E-02	6.02E+00	2.91E+00	7.68E+00	2.67E+01	4.34E+01	5.02E-04
FRWY35	FRWY35	0	0	0	694	824	396	1372	2287	0	0	0	18	548	281	1229	2262	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	0.00E+00	0.00E+00	0.00E+00	1.70E-02	3.73E+00	1.80E+00	3.19E+00	1.11E+01	1.98E+01	2.29E-04
FRWY36	FRWY36	311	23	115	145	187	90	223	372	4	0	0	4	124	64	200	367	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	2.58E-03	6.35E-05	9.26E-04	3.55E-03	8.45E-01	4.08E-01	5.17E-01	1.80E+00	3.58E+00	4.14E-05
FRWY37	FRWY37	567	42	209	252	325	156	388	646	7	0	0	7	216	111	347	639	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	4.70E-03	1.16E-04	1.69E-03	6.18E-03	1.47E+00	7.09E-01	9.00E-01	3.13E+00	6.22E+00	7.20E-05
FRWY101	FRWY101	0	0	0	125	190	91	289	482	0	0	0	3	126	65	259	476	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	0.00E+00	0.00E+00	0.00E+00	3.06E-03	8.59E-01	4.15E-01	6.71E-01	2.33E+00	4.28E+00	4.95E-05
172	172	0	0	0	21	38	18	141	235	0	0	0	1	26	13	126	233	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	0.00E+00	0.00E+00	0.00E+00	5.22E-04	1.74E-01	8.38E-02	3.28E-01	1.14E+00	1.72E+00	2.00E-05
173	173	0	0	0	397	421	202	1381	2302	0	0	0	11	280	144	1238	2277	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	0.00E+00	0.00E+00	0.00E+00	9.72E-03	1.90E+00	9.20E-01	3.21E+00	1.11E+01	1.72E+01	1.99E-04
174	174	0	0	0	118	160	77	576	960	0	0	0	3	106	54	516	949	7.22E-04	4.61E-03	3.66E-03	9.21E-04	6.80E-03	6.40E-03	2.59E-03	4.90E-03	0.00E+00	0.00E+00	0.00E+00	2.89E-03	7.22E-01	3.49E-01	1.34E+00	4.65E+00	7.06E+00	8.17E-05

World Logistics Center

Estimation of Operational Emissions - Emergency Generators

Unmitigated Scenario is Diesel Tier III generators; Mitigation measure is non-diesel generators

Generators:	1	per 1.5 million sf	Source: Highland Fairview 7/17/2013
Total Project Size	40.6	million sf	Source: Project Description
Generators:	27	total	
Generator Size:	314.9	horsepower	Source: Highland Fairview 7/17/2013 (235 kw)
Testing Schedule	50	hours/year/generator	Source: SCAQMD Rule 1470 (c)(2)(C)(i)
	1	maximum hours/day/generator	

Emission Rate for Tier III Diesel Engines

Pollutant	Emission Rate (g/hp-hr)	Peak Emission Rate (g/sec)
HC	0.1	0.008747222
PM	0.1	0.008747222

Source for HC, NOx, CO, PM: Kohler Power Systems, 200REOZJF, 60 HZ Diesel Industrial Generator Set, Emission Data Sheet. Source for CO2 and CH4: CalEEMod Appendix D, Table 3.4, OFFROAD Equipment Emission Factors for Generator Sets, for year 2015, between 251 and 500 horsepower.

Annual Emissions per Generator

Pollutant	Emissions (g/year)	Average Emissions (g/sec)
HC	1574.5	4.9927E-05
PM10	1574.5	4.9927E-05

Emissions from Emergency Generators

Project Phase	**Building Area (sq ft)**	**Percentage of Total**	**Number of Generators**	**HC (g/sec)**	**PM10 (g/sec)**
1	22700000	55.91%	15	7.56E-04	7.56E-04
2	17900000	44.09%	12	5.96E-04	5.96E-04

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2020	172	0	0
2020	173	0	0
2020	174	0	0
2020	EG	0	0
2020	FRWY101	0	0
2020	FRWY27	0	0
2020	FRWY28	0	0
2020	FRWY29	0	0
2020	FRWY30	0	0
2020	FRWY31	0	0
2020	FRWY32	0	0
2020	FRWY33	0	0
2020	FRWY34	0	0
2020	FRWY35	0	0
2020	FRWY36	0	0
2020	FRWY37	0	0
2020	IN01	0	0
2020	IN02	0	0
2020	IN03	0	0
2020	IN05	0	0
2020	IN06	0	0
2020	IN08	0	0
2020	IN11	0	0
2020	IN12	0	0
2020	IN14	0	0
2020	IN18	0	0
2020	IN19	0	0
2020	IN21	0	0
2020	IN24	0	0
2020	IN29	0	0
2020	IN30	0	0
2020	IN31	0	0
2020	PH1	0	0
2020	PH2	0	0
2020	SF09	0	0
2020	SF10	0	0
2020	SF104	0	0
2020	SF106	0	0
2020	SF107	0	0
2020	SF108	0	0
2020	SF109	0	0
2020	SF110	0	0
2020	SF111	0	0
2020	SF112	0	0
2020	SF113	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2020	SF114	0	0
2020	SF115	0	0
2020	SF116	0	0
2020	SF117	0	0
2020	SF118	0	0
2020	SF119	0	0
2020	SF120	0	0
2020	SF121	0	0
2020	SF122	0	0
2020	SF123	0	0
2020	SF124	0	0
2020	SF125	0	0
2020	SF126	0	0
2020	SF127	0	0
2020	SF128	0	0
2020	SF129	0	0
2020	SF13	0	0
2020	SF130	0	0
2020	SF131	0	0
2020	SF133	0	0
2020	SF134	0	0
2020	SF135	0	0
2020	SF136	0	0
2020	SF137	0	0
2020	SF139	0	0
2020	SF140	0	0
2020	SF141	0	0
2020	SF142	0	0
2020	SF143	0	0
2020	SF144	0	0
2020	SF145	0	0
2020	SF146	0	0
2020	SF147	0	0
2020	SF148	0	0
2020	SF149	0	0
2020	SF150	0	0
2020	SF151	0	0
2020	SF152	0	0
2020	SF153	0	0
2020	SF154	0	0
2020	SF155	0	0
2020	SF156	0	0
2020	SF157	0	0
2020	SF160	0	0
2020	SF161	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2020	SF162	0	0
2020	SF163	0	0
2020	SF164	0	0
2020	SF165	0	0
2020	SF168	0	0
2020	SF169	0	0
2020	SF170	0	0
2020	SF171	0	0
2020	SF172	0	0
2020	SF173	0	0
2020	SF174	0	0
2020	SF177	0	0
2020	SF178	0	0
2020	SF179	0	0
2020	SF180	0	0
2020	SF181	0	0
2020	SF182	0	0
2020	SF183	0	0
2020	SF184	0	0
2020	SF185	0	0
2020	SF186	0	0
2020	SF190	0	0
2020	SF191	0	0
2020	SF192	0	0
2020	SF194	0	0
2020	SF195	0	0
2020	SF196	0	0
2020	SF198	0	0
2020	SF199	0	0
2020	SF200	0	0
2020	SF205	0	0
2020	SF206	0	0
2020	SF207	0	0
2020	SF283	0	0
2020	SF284	0	0
2020	SF285	0	0
2020	SF286	0	0
2020	SF287	0	0
2020	SF288	0	0
2020	SF289	0	0
2020	SF290	0	0
2020	SF294	0	0
2020	SF301	0	0
2020	SF302	0	0
2020	SF303	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2020	SF304	0	0
2020	SF306	0	0
2020	SF32	0	0
2020	SF33	0	0
2020	SF340	0	0
2020	SF35	0	0
2020	SF36	0	0
2020	SF37	0	0
2020	SF375	0	0
2020	SF376	0	0
2020	SF377	0	0
2020	SF378	0	0
2020	SF379	0	0
2020	SF38	0	0
2020	SF380	0	0
2020	SF381	0	0
2020	SF386	0	0
2020	SF387	0	0
2020	SF388	0	0
2020	SF390	0	0
2020	SF392	0	0
2020	SF393	0	0
2020	SF394	0	0
2020	SF396	0	0
2020	SF397	0	0
2020	SF398	0	0
2020	SF399	0	0
2020	SF400	0	0
2020	SF401	0	0
2020	SF402	0	0
2020	SF404	0	0
2020	SF405	0	0
2020	SF406	0	0
2020	SF408	0	0
2020	SF409	0	0
2020	SF410	0	0
2020	SF411	0	0
2020	SF42	0	0
2020	SF424	0	0
2020	SF425	0	0
2020	SF426	0	0
2020	SF427	0	0
2020	SF429	0	0
2020	SF43	0	0
2020	SF432	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2020	SF433	0	0
2020	SF436	0	0
2020	SF458	0	0
2020	SF46	0	0
2020	SF464	0	0
2020	SF47	0	0
2020	SF479	0	0
2020	SF48	0	0
2020	SF488	0	0
2020	SF494	0	0
2020	SF498	0	0
2020	SF499	0	0
2020	SF50	0	0
2020	SF500	0	0
2020	SF502	0	0
2020	SF503	0	0
2020	SF504	0	0
2020	SF51	0	0
2020	SF52	0	0
2020	SF53	0	0
2020	SF54	0	0
2020	SF55	0	0
2020	SF56	0	0
2020	SF57	0	0
2020	SF58	0	0
2020	SF59	0	0
2020	SF60	0	0
2020	SF61	0	0
2020	SF62	0	0
2020	SF65	0	0
2020	SF66	0	0
2020	SF67	0	0
2020	SF68	0	0
2020	SF69	0	0
2020	SF70	0	0
2020	SF71	0	0
2020	SF72	0	0
2020	SF73	0	0
2020	SF74	0	0
2020	SF75	0	0
2020	SF76	0	0
2020	SF77	0	0
2020	SF80	0	0
2020	SF81	0	0
2020	SF82	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2020	SF83	0	0
2020	SF85	0	0
2020	SF86	0	0
2020	SF87	0	0
2020	SF88	0	0
2021	172	1.3153E-06	1.23528E-06
2021	173	1.3951E-05	1.31728E-05
2021	174	5.5899E-06	5.26548E-06
2021	EG	6.915E-05	0
2021	FRWY101	3.5541E-06	3.39648E-06
2021	FRWY27	5.8083E-05	5.49317E-05
2021	FRWY28	4.8893E-05	4.62669E-05
2021	FRWY29	2.2558E-05	2.13586E-05
2021	FRWY30	3.4886E-05	3.30338E-05
2021	FRWY31	2.5725E-05	2.43598E-05
2021	FRWY32	3.5875E-05	3.3985E-05
2021	FRWY33	3.6392E-05	3.44913E-05
2021	FRWY34	3.641E-05	3.45282E-05
2021	FRWY35	1.0166E-05	9.7734E-06
2021	FRWY36	3.1281E-06	3.00638E-06
2021	FRWY37	5.4417E-06	5.22999E-06
2021	IN01	5.6656E-06	5.32381E-06
2021	IN02	6.641E-06	6.24011E-06
2021	IN03	6.5206E-06	6.16592E-06
2021	IN05	1.3249E-06	1.32494E-06
2021	IN06	2.182E-05	2.05002E-05
2021	IN08	1.4965E-06	1.49653E-06
2021	IN11	2.2514E-07	2.25144E-07
2021	IN12	1.0451E-08	1.04513E-08
2021	IN14	3.9549E-06	3.72774E-06
2021	IN18	0	0
2021	IN19	1.0696E-06	1.02687E-06
2021	IN21	3.4472E-07	3.29522E-07
2021	IN24	1.3185E-06	1.25476E-06
2021	IN29	1.0612E-08	1.06125E-08
2021	IN30	4.447E-08	4.44705E-08
2021	IN31	3.3184E-07	3.18248E-07
2021	PH1	5.6972E-05	5.45791E-05
2021	PH2	0	0
2021	SF09	1.6213E-06	1.62125E-06
2021	SF10	9.7157E-08	9.71575E-08
2021	SF104	7.3824E-08	7.11638E-08
2021	SF106	6.7603E-08	6.76029E-08
2021	SF107	7.0051E-08	6.74945E-08
2021	SF108	4.7305E-08	4.712E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2021	SF109	1.4321E-08	1.43211E-08
2021	SF110	1.2996E-07	1.24985E-07
2021	SF111	1.0154E-08	1.01541E-08
2021	SF112	4.239E-07	3.98071E-07
2021	SF113	4.0353E-08	3.82682E-08
2021	SF114	7.2281E-08	6.81118E-08
2021	SF115	1.8503E-07	1.77177E-07
2021	SF116	3.1622E-08	3.05431E-08
2021	SF117	1.8558E-08	1.85577E-08
2021	SF118	1.1802E-07	1.13753E-07
2021	SF119	1.5444E-08	1.54438E-08
2021	SF120	2.2387E-07	2.08327E-07
2021	SF121	2.6652E-08	2.65592E-08
2021	SF122	1.5734E-07	1.46701E-07
2021	SF123	1.038E-08	1.038E-08
2021	SF124	1.2485E-07	1.17656E-07
2021	SF125	9.4941E-09	9.4941E-09
2021	SF126	1.081E-07	1.01136E-07
2021	SF127	6.0259E-07	5.60183E-07
2021	SF128	1.0787E-08	1.07871E-08
2021	SF129	1.1665E-07	1.09056E-07
2021	SF13	5.4427E-07	5.10539E-07
2021	SF130	9.0667E-09	9.06671E-09
2021	SF131	1.1932E-08	1.19318E-08
2021	SF133	1.2577E-08	1.25771E-08
2021	SF134	5.2877E-07	5.06183E-07
2021	SF135	1.0596E-07	9.93853E-08
2021	SF136	1.5587E-08	1.55866E-08
2021	SF137	3.8632E-08	3.65504E-08
2021	SF139	2.4047E-08	2.40474E-08
2021	SF140	1.0383E-08	1.03827E-08
2021	SF141	5.4939E-08	5.4939E-08
2021	SF142	4.6506E-09	4.6309E-09
2021	SF143	4.8301E-08	4.83005E-08
2021	SF144	5.6945E-08	5.69451E-08
2021	SF145	6.5622E-08	6.5622E-08
2021	SF146	1.7646E-08	1.76457E-08
2021	SF147	5.7815E-08	5.78151E-08
2021	SF148	1.2725E-07	1.18966E-07
2021	SF149	7.1912E-08	7.19119E-08
2021	SF150	9.687E-09	9.687E-09
2021	SF151	9.1163E-08	9.01256E-08
2021	SF152	6.592E-07	6.20742E-07
2021	SF153	7.5956E-08	7.5956E-08
2021	SF154	9.8123E-09	9.81232E-09

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2021	SF155	1.2438E-07	1.24376E-07
2021	SF156	7.3566E-08	7.3566E-08
2021	SF157	1.297E-07	1.29702E-07
2021	SF160	1.3253E-08	1.32534E-08
2021	SF161	3.6193E-07	3.61932E-07
2021	SF162	7.2699E-07	7.26988E-07
2021	SF163	5.1559E-08	5.15588E-08
2021	SF164	8.9904E-09	8.99036E-09
2021	SF165	1.2183E-06	1.21834E-06
2021	SF168	1.5981E-07	1.59814E-07
2021	SF169	2.0199E-08	2.01995E-08
2021	SF170	1.2642E-07	1.26094E-07
2021	SF171	4.0714E-08	4.07143E-08
2021	SF172	8.2079E-08	8.20792E-08
2021	SF173	0	0
2021	SF174	0	0
2021	SF177	1.3275E-06	1.26081E-06
2021	SF178	1.0323E-06	9.7678E-07
2021	SF179	2.8959E-06	2.7502E-06
2021	SF180	2.9876E-08	2.98758E-08
2021	SF181	0	0
2021	SF182	0	0
2021	SF183	0	0
2021	SF184	0	0
2021	SF185	0	0
2021	SF186	0	0
2021	SF190	2.3148E-06	2.22861E-06
2021	SF191	1.0647E-06	1.01811E-06
2021	SF192	3.8944E-07	3.63399E-07
2021	SF194	4.2375E-08	4.23755E-08
2021	SF195	3.8696E-08	3.86961E-08
2021	SF196	1.1281E-07	1.12812E-07
2021	SF198	1.038E-08	1.03804E-08
2021	SF199	4.1249E-09	4.1249E-09
2021	SF200	2.0558E-07	2.0558E-07
2021	SF205	1.3308E-07	1.3308E-07
2021	SF206	2.165E-08	2.16505E-08
2021	SF207	2.2298E-07	2.22981E-07
2021	SF283	3.2621E-08	3.04849E-08
2021	SF284	7.8851E-08	7.33125E-08
2021	SF285	3.0139E-08	2.80177E-08
2021	SF286	2.2768E-08	2.27683E-08
2021	SF287	1.6243E-07	1.51993E-07
2021	SF288	2.8807E-09	2.88073E-09
2021	SF289	1.01E-07	9.48365E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2021	SF290	2.6071E-07	2.42361E-07
2021	SF294	9.1683E-09	9.16826E-09
2021	SF301	5.8727E-08	5.87273E-08
2021	SF302	6.3806E-08	6.38064E-08
2021	SF303	1.0487E-06	9.74945E-07
2021	SF304	4.5216E-08	4.52156E-08
2021	SF306	9.1713E-07	8.77227E-07
2021	SF32	4.2545E-07	4.25453E-07
2021	SF33	1.0607E-07	1.06069E-07
2021	SF340	4.2912E-08	4.29117E-08
2021	SF35	8.5984E-07	8.06041E-07
2021	SF36	6.1366E-07	6.13656E-07
2021	SF37	2.6732E-07	2.54204E-07
2021	SF375	0	0
2021	SF376	0	0
2021	SF377	0	0
2021	SF378	0	0
2021	SF379	0	0
2021	SF38	2.3965E-07	2.39655E-07
2021	SF380	0	0
2021	SF381	0	0
2021	SF386	1.938E-08	1.89104E-08
2021	SF387	2.3377E-06	2.23702E-06
2021	SF388	2.2884E-09	2.28839E-09
2021	SF390	1.8382E-07	1.81395E-07
2021	SF392	9.6337E-08	9.18521E-08
2021	SF393	1.0709E-08	1.07088E-08
2021	SF394	1.0816E-06	1.0382E-06
2021	SF396	8.3463E-07	8.03447E-07
2021	SF397	1.5625E-07	1.46835E-07
2021	SF398	4.1137E-08	4.11372E-08
2021	SF399	2.71E-07	2.59836E-07
2021	SF400	2.0906E-08	2.09064E-08
2021	SF401	1.1544E-08	1.15443E-08
2021	SF402	1.9317E-08	1.93171E-08
2021	SF404	9.2686E-09	9.26861E-09
2021	SF405	1.1489E-08	1.14886E-08
2021	SF406	4.3411E-09	4.34114E-09
2021	SF408	2.6896E-08	2.68964E-08
2021	SF409	6.0691E-08	6.06912E-08
2021	SF410	1.0931E-08	1.09312E-08
2021	SF411	1.8909E-08	1.89091E-08
2021	SF42	7.0926E-06	6.73384E-06
2021	SF424	6.3567E-07	5.90939E-07
2021	SF425	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2021	SF426	0	0
2021	SF427	1.0381E-08	1.0381E-08
2021	SF429	0	0
2021	SF43	7.1404E-08	7.14037E-08
2021	SF432	0	0
2021	SF433	2.2736E-08	2.27363E-08
2021	SF436	2.8603E-09	2.8603E-09
2021	SF458	3.3608E-09	3.36076E-09
2021	SF46	1.131E-07	1.13098E-07
2021	SF464	0	0
2021	SF47	2.0036E-07	2.00359E-07
2021	SF479	5.8558E-09	5.85578E-09
2021	SF48	9.0399E-08	8.48152E-08
2021	SF488	0	0
2021	SF494	0	0
2021	SF498	0	0
2021	SF499	5.1883E-07	4.82319E-07
2021	SF50	6.3471E-07	6.34705E-07
2021	SF500	3.1048E-07	2.88635E-07
2021	SF502	0	0
2021	SF503	0	0
2021	SF504	1.5545E-08	1.55452E-08
2021	SF51	5.672E-08	5.67205E-08
2021	SF52	9.2432E-07	9.24317E-07
2021	SF53	1.1953E-08	1.19525E-08
2021	SF54	3.3453E-09	3.34526E-09
2021	SF55	1.4995E-07	1.4995E-07
2021	SF56	8.6733E-08	8.67332E-08
2021	SF57	3.5561E-08	3.3649E-08
2021	SF58	1.6369E-08	1.6369E-08
2021	SF59	1.0808E-07	1.03699E-07
2021	SF60	1.5823E-07	1.49025E-07
2021	SF61	6.4452E-08	6.13727E-08
2021	SF62	0	0
2021	SF65	1.4093E-07	1.32547E-07
2021	SF66	1.0399E-07	9.75769E-08
2021	SF67	1.3504E-08	1.35039E-08
2021	SF68	3.7338E-08	3.73381E-08
2021	SF69	1.8439E-07	1.84394E-07
2021	SF70	1.3601E-07	1.3601E-07
2021	SF71	1.5959E-08	1.59588E-08
2021	SF72	1.0351E-08	1.03509E-08
2021	SF73	5.5757E-07	5.57566E-07
2021	SF74	1.7951E-08	1.79509E-08
2021	SF75	3.9405E-08	3.94054E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2021	SF76	7.7435E-08	7.74354E-08
2021	SF77	5.856E-09	5.85596E-09
2021	SF80	1.4285E-09	1.42849E-09
2021	SF81	2.9341E-09	2.9341E-09
2021	SF82	6.9569E-08	6.4682E-08
2021	SF83	1.2704E-08	1.18456E-08
2021	SF85	2.2046E-09	2.20459E-09
2021	SF86	1.0071E-07	9.45663E-08
2021	SF87	1.1332E-08	1.13318E-08
2021	SF88	9.5594E-09	9.55938E-09
2022	172	2.6305E-06	2.47056E-06
2022	173	2.7902E-05	2.63456E-05
2022	174	1.118E-05	1.0531E-05
2022	EG	0.0001383	0
2022	FRWY101	7.1082E-06	6.79297E-06
2022	FRWY27	0.00011617	0.000109863
2022	FRWY28	9.7787E-05	9.25338E-05
2022	FRWY29	4.5116E-05	4.27172E-05
2022	FRWY30	6.9772E-05	6.60676E-05
2022	FRWY31	5.1449E-05	4.87197E-05
2022	FRWY32	7.175E-05	6.79701E-05
2022	FRWY33	7.2783E-05	6.89826E-05
2022	FRWY34	7.282E-05	6.90565E-05
2022	FRWY35	2.0332E-05	1.95468E-05
2022	FRWY36	6.2561E-06	6.01276E-06
2022	FRWY37	1.0883E-05	1.046E-05
2022	IN01	1.1331E-05	1.06476E-05
2022	IN02	1.3282E-05	1.24802E-05
2022	IN03	1.3041E-05	1.23318E-05
2022	IN05	2.6499E-06	2.64988E-06
2022	IN06	4.3639E-05	4.10004E-05
2022	IN08	2.9931E-06	2.99305E-06
2022	IN11	4.5029E-07	4.50287E-07
2022	IN12	2.0903E-08	2.09027E-08
2022	IN14	7.9097E-06	7.45548E-06
2022	IN18	0	0
2022	IN19	2.1391E-06	2.05374E-06
2022	IN21	6.8944E-07	6.59044E-07
2022	IN24	2.6369E-06	2.50953E-06
2022	IN29	2.1225E-08	2.1225E-08
2022	IN30	8.8941E-08	8.8941E-08
2022	IN31	6.6367E-07	6.36495E-07
2022	PH1	0.00011394	0.000109158
2022	PH2	0	0
2022	SF09	3.2425E-06	3.24251E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2022	SF10	1.9431E-07	1.94315E-07
2022	SF104	1.4765E-07	1.42328E-07
2022	SF106	1.3521E-07	1.35206E-07
2022	SF107	1.401E-07	1.34989E-07
2022	SF108	9.461E-08	9.424E-08
2022	SF109	2.8642E-08	2.86421E-08
2022	SF110	2.5993E-07	2.4997E-07
2022	SF111	2.0308E-08	2.03082E-08
2022	SF112	8.4781E-07	7.96141E-07
2022	SF113	8.0706E-08	7.65364E-08
2022	SF114	1.4456E-07	1.36224E-07
2022	SF115	3.7006E-07	3.54354E-07
2022	SF116	6.3245E-08	6.10862E-08
2022	SF117	3.7115E-08	3.71154E-08
2022	SF118	2.3603E-07	2.27506E-07
2022	SF119	3.0888E-08	3.08877E-08
2022	SF120	4.4773E-07	4.16655E-07
2022	SF121	5.3305E-08	5.31184E-08
2022	SF122	3.1469E-07	2.93403E-07
2022	SF123	2.076E-08	2.076E-08
2022	SF124	2.4971E-07	2.35312E-07
2022	SF125	1.8988E-08	1.89882E-08
2022	SF126	2.162E-07	2.02272E-07
2022	SF127	1.2052E-06	1.12037E-06
2022	SF128	2.1574E-08	2.15742E-08
2022	SF129	2.333E-07	2.18113E-07
2022	SF13	1.0885E-06	1.02108E-06
2022	SF130	1.8133E-08	1.81334E-08
2022	SF131	2.3864E-08	2.38637E-08
2022	SF133	2.5154E-08	2.51542E-08
2022	SF134	1.0575E-06	1.01237E-06
2022	SF135	2.1193E-07	1.98771E-07
2022	SF136	3.1173E-08	3.11733E-08
2022	SF137	7.7264E-08	7.31008E-08
2022	SF139	4.8095E-08	4.80949E-08
2022	SF140	2.0765E-08	2.07654E-08
2022	SF141	1.0988E-07	1.09878E-07
2022	SF142	9.3011E-09	9.2618E-09
2022	SF143	9.6601E-08	9.6601E-08
2022	SF144	1.1389E-07	1.1389E-07
2022	SF145	1.3124E-07	1.31244E-07
2022	SF146	3.5291E-08	3.52913E-08
2022	SF147	1.1563E-07	1.1563E-07
2022	SF148	2.5449E-07	2.37933E-07
2022	SF149	1.4382E-07	1.43824E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2022	SF150	1.9374E-08	1.9374E-08
2022	SF151	1.8233E-07	1.80251E-07
2022	SF152	1.3184E-06	1.24148E-06
2022	SF153	1.5191E-07	1.51912E-07
2022	SF154	1.9625E-08	1.96246E-08
2022	SF155	2.4875E-07	2.48753E-07
2022	SF156	1.4713E-07	1.47132E-07
2022	SF157	2.594E-07	2.59405E-07
2022	SF160	2.6507E-08	2.65067E-08
2022	SF161	7.2386E-07	7.23863E-07
2022	SF162	1.454E-06	1.45398E-06
2022	SF163	1.0312E-07	1.03118E-07
2022	SF164	1.7981E-08	1.79807E-08
2022	SF165	2.4367E-06	2.43668E-06
2022	SF168	3.1963E-07	3.19628E-07
2022	SF169	4.0399E-08	4.03989E-08
2022	SF170	2.5284E-07	2.52189E-07
2022	SF171	8.1429E-08	8.14286E-08
2022	SF172	1.6416E-07	1.64158E-07
2022	SF173	0	0
2022	SF174	0	0
2022	SF177	2.6549E-06	2.52162E-06
2022	SF178	2.0646E-06	1.95356E-06
2022	SF179	5.7919E-06	5.5004E-06
2022	SF180	5.9752E-08	5.97515E-08
2022	SF181	0	0
2022	SF182	0	0
2022	SF183	0	0
2022	SF184	0	0
2022	SF185	0	0
2022	SF186	0	0
2022	SF190	4.6295E-06	4.45721E-06
2022	SF191	2.1293E-06	2.03621E-06
2022	SF192	7.7888E-07	7.26798E-07
2022	SF194	8.4751E-08	8.47509E-08
2022	SF195	7.7392E-08	7.73922E-08
2022	SF196	2.2562E-07	2.25623E-07
2022	SF198	2.0761E-08	2.07607E-08
2022	SF199	8.2498E-09	8.2498E-09
2022	SF200	4.1116E-07	4.11159E-07
2022	SF205	2.6616E-07	2.66159E-07
2022	SF206	4.3301E-08	4.3301E-08
2022	SF207	4.4596E-07	4.45961E-07
2022	SF283	6.5243E-08	6.09697E-08
2022	SF284	1.577E-07	1.46625E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2022	SF285	6.0277E-08	5.60354E-08
2022	SF286	4.5537E-08	4.55365E-08
2022	SF287	3.2485E-07	3.03986E-07
2022	SF288	5.7615E-09	5.76146E-09
2022	SF289	2.02E-07	1.89673E-07
2022	SF290	5.2141E-07	4.84722E-07
2022	SF294	1.8337E-08	1.83365E-08
2022	SF301	1.1745E-07	1.17455E-07
2022	SF302	1.2761E-07	1.27613E-07
2022	SF303	2.0975E-06	1.94989E-06
2022	SF304	9.0431E-08	9.04311E-08
2022	SF306	1.8343E-06	1.75445E-06
2022	SF32	8.5091E-07	8.50906E-07
2022	SF33	2.1214E-07	2.12139E-07
2022	SF340	8.5823E-08	8.58235E-08
2022	SF35	1.7197E-06	1.61208E-06
2022	SF36	1.2273E-06	1.22731E-06
2022	SF37	5.3464E-07	5.08408E-07
2022	SF375	0	0
2022	SF376	0	0
2022	SF377	0	0
2022	SF378	0	0
2022	SF379	0	0
2022	SF38	4.7931E-07	4.79309E-07
2022	SF380	0	0
2022	SF381	0	0
2022	SF386	3.876E-08	3.78208E-08
2022	SF387	4.6754E-06	4.47405E-06
2022	SF388	4.5768E-09	4.57678E-09
2022	SF390	3.6765E-07	3.62789E-07
2022	SF392	1.9267E-07	1.83704E-07
2022	SF393	2.1418E-08	2.14175E-08
2022	SF394	2.1632E-06	2.0764E-06
2022	SF396	1.6693E-06	1.60689E-06
2022	SF397	3.125E-07	2.93671E-07
2022	SF398	8.2274E-08	8.22745E-08
2022	SF399	5.42E-07	5.19672E-07
2022	SF400	4.1813E-08	4.18129E-08
2022	SF401	2.3089E-08	2.30886E-08
2022	SF402	3.8634E-08	3.86341E-08
2022	SF404	1.8537E-08	1.85372E-08
2022	SF405	2.2977E-08	2.29772E-08
2022	SF406	8.6823E-09	8.68228E-09
2022	SF408	5.3793E-08	5.37929E-08
2022	SF409	1.2138E-07	1.21382E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2022	SF410	2.1862E-08	2.18625E-08
2022	SF411	3.7818E-08	3.78183E-08
2022	SF42	1.4185E-05	1.34677E-05
2022	SF424	1.2713E-06	1.18188E-06
2022	SF425	0	0
2022	SF426	0	0
2022	SF427	2.0762E-08	2.0762E-08
2022	SF429	0	0
2022	SF43	1.4281E-07	1.42807E-07
2022	SF432	0	0
2022	SF433	4.5473E-08	4.54726E-08
2022	SF436	5.7206E-09	5.7206E-09
2022	SF458	6.7215E-09	6.72152E-09
2022	SF46	2.262E-07	2.26195E-07
2022	SF464	0	0
2022	SF47	4.0072E-07	4.00718E-07
2022	SF479	1.1712E-08	1.17116E-08
2022	SF48	1.808E-07	1.6963E-07
2022	SF488	0	0
2022	SF494	0	0
2022	SF498	0	0
2022	SF499	1.0377E-06	9.64638E-07
2022	SF50	1.2694E-06	1.26941E-06
2022	SF500	6.2097E-07	5.7727E-07
2022	SF502	0	0
2022	SF503	0	0
2022	SF504	3.109E-08	3.10904E-08
2022	SF51	1.1344E-07	1.13441E-07
2022	SF52	1.8486E-06	1.84863E-06
2022	SF53	2.3905E-08	2.39051E-08
2022	SF54	6.6905E-09	6.69052E-09
2022	SF55	2.999E-07	2.99899E-07
2022	SF56	1.7347E-07	1.73466E-07
2022	SF57	7.1122E-08	6.72979E-08
2022	SF58	3.2738E-08	3.2738E-08
2022	SF59	2.1616E-07	2.07397E-07
2022	SF60	3.1646E-07	2.98051E-07
2022	SF61	1.289E-07	1.22745E-07
2022	SF62	0	0
2022	SF65	2.8186E-07	2.65094E-07
2022	SF66	2.0799E-07	1.95154E-07
2022	SF67	2.7008E-08	2.70079E-08
2022	SF68	7.4676E-08	7.46762E-08
2022	SF69	3.6879E-07	3.68788E-07
2022	SF70	2.7202E-07	2.72019E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2022	SF71	3.1918E-08	3.19177E-08
2022	SF72	2.0702E-08	2.07018E-08
2022	SF73	1.1151E-06	1.11513E-06
2022	SF74	3.5902E-08	3.59017E-08
2022	SF75	7.8811E-08	7.88108E-08
2022	SF76	1.5487E-07	1.54871E-07
2022	SF77	1.1712E-08	1.17119E-08
2022	SF80	2.857E-09	2.85699E-09
2022	SF81	5.8682E-09	5.86819E-09
2022	SF82	1.3914E-07	1.29364E-07
2022	SF83	2.5407E-08	2.36913E-08
2022	SF85	4.4092E-09	4.40918E-09
2022	SF86	2.0142E-07	1.89133E-07
2022	SF87	2.2664E-08	2.26636E-08
2022	SF88	1.9119E-08	1.91188E-08
2023	172	4.3842E-06	4.11759E-06
2023	173	4.6503E-05	4.39094E-05
2023	174	1.8633E-05	1.75516E-05
2023	EG	0.0002305	0
2023	FRWY101	1.1847E-05	1.13216E-05
2023	FRWY27	0.00019361	0.000183106
2023	FRWY28	0.00016298	0.000154223
2023	FRWY29	7.5193E-05	7.11953E-05
2023	FRWY30	0.00011629	0.000110113
2023	FRWY31	8.5749E-05	8.11995E-05
2023	FRWY32	0.00011958	0.000113283
2023	FRWY33	0.00012131	0.000114971
2023	FRWY34	0.00012137	0.000115094
2023	FRWY35	3.3886E-05	3.2578E-05
2023	FRWY36	1.0427E-05	1.00213E-05
2023	FRWY37	1.8139E-05	1.74333E-05
2023	IN01	1.8885E-05	1.7746E-05
2023	IN02	2.2137E-05	2.08004E-05
2023	IN03	2.1735E-05	2.05531E-05
2023	IN05	4.4165E-06	4.41647E-06
2023	IN06	7.2732E-05	6.83339E-05
2023	IN08	4.9884E-06	4.98842E-06
2023	IN11	7.5048E-07	7.50479E-07
2023	IN12	3.4838E-08	3.48378E-08
2023	IN14	1.3183E-05	1.24258E-05
2023	IN18	0	0
2023	IN19	3.5652E-06	3.42289E-06
2023	IN21	1.1491E-06	1.09841E-06
2023	IN24	4.3949E-06	4.18255E-06
2023	IN29	3.5375E-08	3.5375E-08

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2023	IN30	1.4823E-07	1.48235E-07
2023	IN31	1.1061E-06	1.06083E-06
2023	PH1	0.00018991	0.00018193
2023	PH2	0	0
2023	SF09	5.4042E-06	5.40418E-06
2023	SF10	3.2386E-07	3.23858E-07
2023	SF104	2.4608E-07	2.37213E-07
2023	SF106	2.2534E-07	2.25343E-07
2023	SF107	2.335E-07	2.24982E-07
2023	SF108	1.5768E-07	1.57067E-07
2023	SF109	4.7737E-08	4.77368E-08
2023	SF110	4.3321E-07	4.16617E-07
2023	SF111	3.3847E-08	3.3847E-08
2023	SF112	1.413E-06	1.3269E-06
2023	SF113	1.3451E-07	1.27561E-07
2023	SF114	2.4094E-07	2.27039E-07
2023	SF115	6.1676E-07	5.9059E-07
2023	SF116	1.0541E-07	1.0181E-07
2023	SF117	6.1859E-08	6.18589E-08
2023	SF118	3.9339E-07	3.79176E-07
2023	SF119	5.1479E-08	5.14795E-08
2023	SF120	7.4622E-07	6.94424E-07
2023	SF121	8.8841E-08	8.85307E-08
2023	SF122	5.2448E-07	4.89004E-07
2023	SF123	3.46E-08	3.46E-08
2023	SF124	4.1618E-07	3.92187E-07
2023	SF125	3.1647E-08	3.1647E-08
2023	SF126	3.6034E-07	3.3712E-07
2023	SF127	2.0086E-06	1.86728E-06
2023	SF128	3.5957E-08	3.5957E-08
2023	SF129	3.8883E-07	3.63521E-07
2023	SF13	1.8142E-06	1.7018E-06
2023	SF130	3.0222E-08	3.02224E-08
2023	SF131	3.9773E-08	3.97728E-08
2023	SF133	4.1924E-08	4.19237E-08
2023	SF134	1.7626E-06	1.68728E-06
2023	SF135	3.5321E-07	3.31284E-07
2023	SF136	5.1955E-08	5.19554E-08
2023	SF137	1.2877E-07	1.21835E-07
2023	SF139	8.0158E-08	8.01581E-08
2023	SF140	3.4609E-08	3.46089E-08
2023	SF141	1.8313E-07	1.8313E-07
2023	SF142	1.5502E-08	1.54363E-08
2023	SF143	1.61E-07	1.61002E-07
2023	SF144	1.8982E-07	1.89817E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2023	SF145	2.1874E-07	2.1874E-07
2023	SF146	5.8819E-08	5.88189E-08
2023	SF147	1.9272E-07	1.92717E-07
2023	SF148	4.2416E-07	3.96555E-07
2023	SF149	2.3971E-07	2.39706E-07
2023	SF150	3.229E-08	3.229E-08
2023	SF151	3.0388E-07	3.00419E-07
2023	SF152	2.1973E-06	2.06914E-06
2023	SF153	2.5319E-07	2.53187E-07
2023	SF154	3.2708E-08	3.27077E-08
2023	SF155	4.1459E-07	4.14588E-07
2023	SF156	2.4522E-07	2.4522E-07
2023	SF157	4.3234E-07	4.32341E-07
2023	SF160	4.4178E-08	4.41778E-08
2023	SF161	1.2064E-06	1.20644E-06
2023	SF162	2.4233E-06	2.42329E-06
2023	SF163	1.7186E-07	1.71863E-07
2023	SF164	2.9968E-08	2.99679E-08
2023	SF165	4.0611E-06	4.06113E-06
2023	SF168	5.3271E-07	5.32714E-07
2023	SF169	6.7332E-08	6.73316E-08
2023	SF170	4.214E-07	4.20315E-07
2023	SF171	1.3571E-07	1.35714E-07
2023	SF172	2.736E-07	2.73597E-07
2023	SF173	0	0
2023	SF174	0	0
2023	SF177	4.4249E-06	4.20269E-06
2023	SF178	3.4409E-06	3.25593E-06
2023	SF179	9.6531E-06	9.16733E-06
2023	SF180	9.9586E-08	9.95859E-08
2023	SF181	0	0
2023	SF182	0	0
2023	SF183	0	0
2023	SF184	0	0
2023	SF185	0	0
2023	SF186	0	0
2023	SF190	7.7159E-06	7.42869E-06
2023	SF191	3.5488E-06	3.39369E-06
2023	SF192	1.2981E-06	1.21133E-06
2023	SF194	1.4125E-07	1.41252E-07
2023	SF195	1.2899E-07	1.28987E-07
2023	SF196	3.7604E-07	3.76039E-07
2023	SF198	3.4601E-08	3.46012E-08
2023	SF199	1.375E-08	1.37497E-08
2023	SF200	6.8527E-07	6.85266E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2023	SF205	4.436E-07	4.43598E-07
2023	SF206	7.2168E-08	7.21683E-08
2023	SF207	7.4327E-07	7.43269E-07
2023	SF283	1.0874E-07	1.01616E-07
2023	SF284	2.6284E-07	2.44375E-07
2023	SF285	1.0046E-07	9.33923E-08
2023	SF286	7.5894E-08	7.58942E-08
2023	SF287	5.4142E-07	5.06643E-07
2023	SF288	9.6024E-09	9.60243E-09
2023	SF289	3.3667E-07	3.16122E-07
2023	SF290	8.6902E-07	8.07871E-07
2023	SF294	3.0561E-08	3.05609E-08
2023	SF301	1.9576E-07	1.95758E-07
2023	SF302	2.1269E-07	2.12688E-07
2023	SF303	3.4958E-06	3.24982E-06
2023	SF304	1.5072E-07	1.50719E-07
2023	SF306	3.0571E-06	2.92409E-06
2023	SF32	1.4182E-06	1.41818E-06
2023	SF33	3.5356E-07	3.53564E-07
2023	SF340	1.4304E-07	1.43039E-07
2023	SF35	2.8661E-06	2.6868E-06
2023	SF36	2.0455E-06	2.04552E-06
2023	SF37	8.9107E-07	8.47347E-07
2023	SF375	0	0
2023	SF376	0	0
2023	SF377	0	0
2023	SF378	0	0
2023	SF379	0	0
2023	SF38	7.9885E-07	7.98849E-07
2023	SF380	0	0
2023	SF381	0	0
2023	SF386	6.4601E-08	6.30347E-08
2023	SF387	7.7924E-06	7.45674E-06
2023	SF388	7.628E-09	7.62797E-09
2023	SF390	6.1275E-07	6.04649E-07
2023	SF392	3.2112E-07	3.06174E-07
2023	SF393	3.5696E-08	3.56959E-08
2023	SF394	3.6053E-06	3.46067E-06
2023	SF396	2.7821E-06	2.67816E-06
2023	SF397	5.2084E-07	4.89451E-07
2023	SF398	1.3712E-07	1.37124E-07
2023	SF399	9.0334E-07	8.66121E-07
2023	SF400	6.9688E-08	6.96881E-08
2023	SF401	3.8481E-08	3.8481E-08
2023	SF402	6.439E-08	6.43902E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2023	SF404	3.0895E-08	3.08954E-08
2023	SF405	3.8295E-08	3.82954E-08
2023	SF406	1.447E-08	1.44705E-08
2023	SF408	8.9655E-08	8.96548E-08
2023	SF409	2.023E-07	2.02304E-07
2023	SF410	3.6437E-08	3.64375E-08
2023	SF411	6.303E-08	6.30305E-08
2023	SF42	2.3642E-05	2.24461E-05
2023	SF424	2.1189E-06	1.9698E-06
2023	SF425	0	0
2023	SF426	0	0
2023	SF427	3.4603E-08	3.46033E-08
2023	SF429	0	0
2023	SF43	2.3801E-07	2.38012E-07
2023	SF432	0	0
2023	SF433	7.5788E-08	7.57877E-08
2023	SF436	9.5343E-09	9.53433E-09
2023	SF458	1.1203E-08	1.12025E-08
2023	SF46	3.7699E-07	3.76992E-07
2023	SF464	0	0
2023	SF47	6.6786E-07	6.67864E-07
2023	SF479	1.9519E-08	1.95193E-08
2023	SF48	3.0133E-07	2.82717E-07
2023	SF488	0	0
2023	SF494	0	0
2023	SF498	0	0
2023	SF499	1.7294E-06	1.60773E-06
2023	SF50	2.1157E-06	2.11568E-06
2023	SF500	1.0349E-06	9.62117E-07
2023	SF502	0	0
2023	SF503	0	0
2023	SF504	5.1817E-08	5.18174E-08
2023	SF51	1.8907E-07	1.89068E-07
2023	SF52	3.0811E-06	3.08106E-06
2023	SF53	3.9842E-08	3.98418E-08
2023	SF54	1.1151E-08	1.11509E-08
2023	SF55	4.9983E-07	4.99832E-07
2023	SF56	2.8911E-07	2.89111E-07
2023	SF57	1.1854E-07	1.12163E-07
2023	SF58	5.4563E-08	5.45633E-08
2023	SF59	3.6026E-07	3.45662E-07
2023	SF60	5.2743E-07	4.96751E-07
2023	SF61	2.1484E-07	2.04576E-07
2023	SF62	0	0
2023	SF65	4.6977E-07	4.41823E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2023	SF66	3.4665E-07	3.25256E-07
2023	SF67	4.5013E-08	4.50131E-08
2023	SF68	1.2446E-07	1.2446E-07
2023	SF69	6.1465E-07	6.14646E-07
2023	SF70	4.5337E-07	4.53365E-07
2023	SF71	5.3196E-08	5.31961E-08
2023	SF72	3.4503E-08	3.4503E-08
2023	SF73	1.8586E-06	1.85855E-06
2023	SF74	5.9836E-08	5.98362E-08
2023	SF75	1.3135E-07	1.31351E-07
2023	SF76	2.5812E-07	2.58118E-07
2023	SF77	1.952E-08	1.95199E-08
2023	SF80	4.7616E-09	4.76165E-09
2023	SF81	9.7803E-09	9.78032E-09
2023	SF82	2.319E-07	2.15607E-07
2023	SF83	4.2345E-08	3.94854E-08
2023	SF85	7.3486E-09	7.34863E-09
2023	SF86	3.3571E-07	3.15221E-07
2023	SF87	3.7773E-08	3.77727E-08
2023	SF88	3.1865E-08	3.18646E-08
2024	172	6.1379E-06	5.76463E-06
2024	173	6.5105E-05	6.14731E-05
2024	174	2.6086E-05	2.45722E-05
2024	EG	0.0003227	0
2024	FRWY101	1.6586E-05	1.58503E-05
2024	FRWY27	0.00027105	0.000256348
2024	FRWY28	0.00022817	0.000215912
2024	FRWY29	0.00010527	9.96734E-05
2024	FRWY30	0.0001628	0.000154158
2024	FRWY31	0.00012005	0.000113679
2024	FRWY32	0.00016742	0.000158597
2024	FRWY33	0.00016983	0.000160959
2024	FRWY34	0.00016991	0.000161132
2024	FRWY35	4.7441E-05	4.56092E-05
2024	FRWY36	1.4598E-05	1.40298E-05
2024	FRWY37	2.5394E-05	2.44066E-05
2024	IN01	2.6439E-05	2.48444E-05
2024	IN02	3.0991E-05	2.91205E-05
2024	IN03	3.043E-05	2.87743E-05
2024	IN05	6.1831E-06	6.18306E-06
2024	IN06	0.00010182	9.56675E-05
2024	IN08	6.9838E-06	6.98379E-06
2024	IN11	1.0507E-06	1.05067E-06
2024	IN12	4.8773E-08	4.87729E-08
2024	IN14	1.8456E-05	1.73961E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2024	IN18	0	0
2024	IN19	4.9913E-06	4.79205E-06
2024	IN21	1.6087E-06	1.53777E-06
2024	IN24	6.1528E-06	5.85556E-06
2024	IN29	4.9525E-08	4.9525E-08
2024	IN30	2.0753E-07	2.07529E-07
2024	IN31	1.5486E-06	1.48516E-06
2024	PH1	0.00026587	0.000254702
2024	PH2	0	0
2024	SF09	7.5658E-06	7.56585E-06
2024	SF10	4.534E-07	4.53401E-07
2024	SF104	3.4451E-07	3.32098E-07
2024	SF106	3.1548E-07	3.1548E-07
2024	SF107	3.269E-07	3.14974E-07
2024	SF108	2.2076E-07	2.19893E-07
2024	SF109	6.6832E-08	6.68316E-08
2024	SF110	6.0649E-07	5.83263E-07
2024	SF111	4.7386E-08	4.73858E-08
2024	SF112	1.9782E-06	1.85766E-06
2024	SF113	1.8831E-07	1.78585E-07
2024	SF114	3.3731E-07	3.17855E-07
2024	SF115	8.6347E-07	8.26826E-07
2024	SF116	1.4757E-07	1.42534E-07
2024	SF117	8.6602E-08	8.66025E-08
2024	SF118	5.5075E-07	5.30847E-07
2024	SF119	7.2071E-08	7.20712E-08
2024	SF120	1.0447E-06	9.72194E-07
2024	SF121	1.2438E-07	1.23943E-07
2024	SF122	7.3427E-07	6.84606E-07
2024	SF123	4.844E-08	4.84399E-08
2024	SF124	5.8265E-07	5.49062E-07
2024	SF125	4.4306E-08	4.43058E-08
2024	SF126	5.0447E-07	4.71969E-07
2024	SF127	2.8121E-06	2.61419E-06
2024	SF128	5.034E-08	5.03398E-08
2024	SF129	5.4436E-07	5.0893E-07
2024	SF13	2.5399E-06	2.38252E-06
2024	SF130	4.2311E-08	4.23113E-08
2024	SF131	5.5682E-08	5.56819E-08
2024	SF133	5.8693E-08	5.86932E-08
2024	SF134	2.4676E-06	2.36219E-06
2024	SF135	4.945E-07	4.63798E-07
2024	SF136	7.2738E-08	7.27376E-08
2024	SF137	1.8028E-07	1.70569E-07
2024	SF139	1.1222E-07	1.12221E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2024	SF140	4.8453E-08	4.84525E-08
2024	SF141	2.5638E-07	2.56382E-07
2024	SF142	2.1703E-08	2.16109E-08
2024	SF143	2.254E-07	2.25402E-07
2024	SF144	2.6574E-07	2.65744E-07
2024	SF145	3.0624E-07	3.06236E-07
2024	SF146	8.2346E-08	8.23464E-08
2024	SF147	2.698E-07	2.69804E-07
2024	SF148	5.9382E-07	5.55177E-07
2024	SF149	3.3559E-07	3.35589E-07
2024	SF150	4.5206E-08	4.5206E-08
2024	SF151	4.2543E-07	4.20586E-07
2024	SF152	3.0763E-06	2.8968E-06
2024	SF153	3.5446E-07	3.54461E-07
2024	SF154	4.5791E-08	4.57908E-08
2024	SF155	5.8042E-07	5.80423E-07
2024	SF156	3.4331E-07	3.43308E-07
2024	SF157	6.0528E-07	6.05278E-07
2024	SF160	6.1849E-08	6.1849E-08
2024	SF161	1.689E-06	1.68901E-06
2024	SF162	3.3926E-06	3.39261E-06
2024	SF163	2.4061E-07	2.40608E-07
2024	SF164	4.1955E-08	4.1955E-08
2024	SF165	5.6856E-06	5.68558E-06
2024	SF168	7.458E-07	7.458E-07
2024	SF169	9.4264E-08	9.42642E-08
2024	SF170	5.8996E-07	5.8844E-07
2024	SF171	1.9E-07	1.9E-07
2024	SF172	3.8304E-07	3.83036E-07
2024	SF173	0	0
2024	SF174	0	0
2024	SF177	6.1949E-06	5.88377E-06
2024	SF178	4.8173E-06	4.55831E-06
2024	SF179	1.3514E-05	1.28343E-05
2024	SF180	1.3942E-07	1.3942E-07
2024	SF181	0	0
2024	SF182	0	0
2024	SF183	0	0
2024	SF184	0	0
2024	SF185	0	0
2024	SF186	0	0
2024	SF190	1.0802E-05	1.04002E-05
2024	SF191	4.9684E-06	4.75116E-06
2024	SF192	1.8174E-06	1.69586E-06
2024	SF194	1.9775E-07	1.97752E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2024	SF195	1.8058E-07	1.80582E-07
2024	SF196	5.2645E-07	5.26454E-07
2024	SF198	4.8442E-08	4.84417E-08
2024	SF199	1.925E-08	1.92495E-08
2024	SF200	9.5937E-07	9.59372E-07
2024	SF205	6.2104E-07	6.21038E-07
2024	SF206	1.0104E-07	1.01036E-07
2024	SF207	1.0406E-06	1.04058E-06
2024	SF283	1.5223E-07	1.42263E-07
2024	SF284	3.6797E-07	3.42125E-07
2024	SF285	1.4065E-07	1.30749E-07
2024	SF286	1.0625E-07	1.06252E-07
2024	SF287	7.5799E-07	7.09301E-07
2024	SF288	1.3443E-08	1.34434E-08
2024	SF289	4.7133E-07	4.4257E-07
2024	SF290	1.2166E-06	1.13102E-06
2024	SF294	4.2785E-08	4.27852E-08
2024	SF301	2.7406E-07	2.74061E-07
2024	SF302	2.9776E-07	2.97763E-07
2024	SF303	4.8941E-06	4.54974E-06
2024	SF304	2.1101E-07	2.11006E-07
2024	SF306	4.2799E-06	4.09373E-06
2024	SF32	1.9854E-06	1.98545E-06
2024	SF33	4.9499E-07	4.9499E-07
2024	SF340	2.0025E-07	2.00255E-07
2024	SF35	4.0126E-06	3.76152E-06
2024	SF36	2.8637E-06	2.86373E-06
2024	SF37	1.2475E-06	1.18629E-06
2024	SF375	0	0
2024	SF376	0	0
2024	SF377	0	0
2024	SF378	0	0
2024	SF379	0	0
2024	SF38	1.1184E-06	1.11839E-06
2024	SF380	0	0
2024	SF381	0	0
2024	SF386	9.0441E-08	8.82486E-08
2024	SF387	1.0909E-05	1.04394E-05
2024	SF388	1.0679E-08	1.06792E-08
2024	SF390	8.5785E-07	8.46509E-07
2024	SF392	4.4957E-07	4.28643E-07
2024	SF393	4.9974E-08	4.99743E-08
2024	SF394	5.0474E-06	4.84494E-06
2024	SF396	3.8949E-06	3.74942E-06
2024	SF397	7.2917E-07	6.85231E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2024	SF398	1.9197E-07	1.91974E-07
2024	SF399	1.2647E-06	1.21257E-06
2024	SF400	9.7563E-08	9.75634E-08
2024	SF401	5.3873E-08	5.38734E-08
2024	SF402	9.0146E-08	9.01463E-08
2024	SF404	4.3254E-08	4.32535E-08
2024	SF405	5.3614E-08	5.36135E-08
2024	SF406	2.0259E-08	2.02586E-08
2024	SF408	1.2552E-07	1.25517E-07
2024	SF409	2.8323E-07	2.83226E-07
2024	SF410	5.1012E-08	5.10125E-08
2024	SF411	8.8243E-08	8.82427E-08
2024	SF42	3.3099E-05	3.14246E-05
2024	SF424	2.9665E-06	2.75771E-06
2024	SF425	0	0
2024	SF426	0	0
2024	SF427	4.8445E-08	4.84446E-08
2024	SF429	0	0
2024	SF43	3.3322E-07	3.33217E-07
2024	SF432	0	0
2024	SF433	1.061E-07	1.06103E-07
2024	SF436	1.3348E-08	1.33481E-08
2024	SF458	1.5684E-08	1.56836E-08
2024	SF46	5.2779E-07	5.27789E-07
2024	SF464	0	0
2024	SF47	9.3501E-07	9.3501E-07
2024	SF479	2.7327E-08	2.7327E-08
2024	SF48	4.2186E-07	3.95804E-07
2024	SF488	0	0
2024	SF494	0	0
2024	SF498	0	0
2024	SF499	2.4212E-06	2.25082E-06
2024	SF50	2.962E-06	2.96196E-06
2024	SF500	1.4489E-06	1.34696E-06
2024	SF502	0	0
2024	SF503	0	0
2024	SF504	7.2544E-08	7.25444E-08
2024	SF51	2.647E-07	2.64696E-07
2024	SF52	4.3135E-06	4.31348E-06
2024	SF53	5.5779E-08	5.57785E-08
2024	SF54	1.5611E-08	1.56112E-08
2024	SF55	6.9976E-07	6.99764E-07
2024	SF56	4.0475E-07	4.04755E-07
2024	SF57	1.6595E-07	1.57029E-07
2024	SF58	7.6389E-08	7.63886E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2024	SF59	5.0437E-07	4.83927E-07
2024	SF60	7.384E-07	6.95452E-07
2024	SF61	3.0078E-07	2.86406E-07
2024	SF62	0	0
2024	SF65	6.5768E-07	6.18552E-07
2024	SF66	4.8531E-07	4.55359E-07
2024	SF67	6.3018E-08	6.30184E-08
2024	SF68	1.7424E-07	1.74244E-07
2024	SF69	8.605E-07	8.60505E-07
2024	SF70	6.3471E-07	6.34712E-07
2024	SF71	7.4475E-08	7.44745E-08
2024	SF72	4.8304E-08	4.83042E-08
2024	SF73	2.602E-06	2.60197E-06
2024	SF74	8.3771E-08	8.37707E-08
2024	SF75	1.8389E-07	1.83892E-07
2024	SF76	3.6137E-07	3.61365E-07
2024	SF77	2.7328E-08	2.73278E-08
2024	SF80	6.6663E-09	6.66631E-09
2024	SF81	1.3692E-08	1.36924E-08
2024	SF82	3.2465E-07	3.01849E-07
2024	SF83	5.9283E-08	5.52796E-08
2024	SF85	1.0288E-08	1.02881E-08
2024	SF86	4.6999E-07	4.41309E-07
2024	SF87	5.2882E-08	5.28817E-08
2024	SF88	4.461E-08	4.46105E-08
2025	172	9.3948E-06	8.82341E-06
2025	173	9.965E-05	9.40915E-05
2025	174	3.9928E-05	3.76105E-05
2025	EG	0.00049393	0
2025	FRWY101	2.5387E-05	2.42606E-05
2025	FRWY27	0.00041488	0.000392369
2025	FRWY28	0.00034924	0.000330478
2025	FRWY29	0.00016113	0.000152561
2025	FRWY30	0.00024919	0.000235956
2025	FRWY31	0.00018375	0.000173999
2025	FRWY32	0.00025625	0.00024275
2025	FRWY33	0.00025994	0.000246366
2025	FRWY34	0.00026007	0.00024663
2025	FRWY35	7.2613E-05	6.981E-05
2025	FRWY36	2.2343E-05	2.14742E-05
2025	FRWY37	3.8869E-05	3.73571E-05
2025	IN01	4.0468E-05	3.80272E-05
2025	IN02	4.7436E-05	4.45722E-05
2025	IN03	4.6576E-05	4.40423E-05
2025	IN05	9.4639E-06	9.46387E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2025	IN06	0.00015585	0.00014643
2025	IN08	1.0689E-05	1.06895E-05
2025	IN11	1.6082E-06	1.60817E-06
2025	IN12	7.4652E-08	7.46524E-08
2025	IN14	2.8249E-05	2.66267E-05
2025	IN18	0	0
2025	IN19	7.6398E-06	7.33477E-06
2025	IN21	2.4623E-06	2.35373E-06
2025	IN24	9.4176E-06	8.9626E-06
2025	IN29	7.5804E-08	7.58035E-08
2025	IN30	3.1765E-07	3.17646E-07
2025	IN31	2.3703E-06	2.2732E-06
2025	PH1	0.00040695	0.000389851
2025	PH2	0	0
2025	SF09	1.158E-05	1.15804E-05
2025	SF10	6.9398E-07	6.93982E-07
2025	SF104	5.2731E-07	5.08313E-07
2025	SF106	4.8288E-07	4.82878E-07
2025	SF107	5.0036E-07	4.82103E-07
2025	SF108	3.3789E-07	3.36571E-07
2025	SF109	1.0229E-07	1.02293E-07
2025	SF110	9.283E-07	8.9275E-07
2025	SF111	7.2529E-08	7.25293E-08
2025	SF112	3.0279E-06	2.84336E-06
2025	SF113	2.8823E-07	2.73344E-07
2025	SF114	5.1629E-07	4.86513E-07
2025	SF115	1.3216E-06	1.26555E-06
2025	SF116	2.2587E-07	2.18165E-07
2025	SF117	1.3255E-07	1.32555E-07
2025	SF118	8.4298E-07	8.1252E-07
2025	SF119	1.1031E-07	1.10313E-07
2025	SF120	1.599E-06	1.48805E-06
2025	SF121	1.9037E-07	1.89709E-07
2025	SF122	1.1239E-06	1.04787E-06
2025	SF123	7.4143E-08	7.41428E-08
2025	SF124	8.9181E-07	8.40401E-07
2025	SF125	6.7815E-08	6.7815E-08
2025	SF126	7.7215E-07	7.22401E-07
2025	SF127	4.3042E-06	4.00131E-06
2025	SF128	7.7051E-08	7.70507E-08
2025	SF129	8.332E-07	7.78975E-07
2025	SF13	3.8876E-06	3.64671E-06
2025	SF130	6.4762E-08	6.47622E-08
2025	SF131	8.5227E-08	8.52275E-08
2025	SF133	8.9837E-08	8.98366E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2025	SF134	3.7769E-06	3.6156E-06
2025	SF135	7.5689E-07	7.09895E-07
2025	SF136	1.1133E-07	1.11333E-07
2025	SF137	2.7594E-07	2.61074E-07
2025	SF139	1.7177E-07	1.71767E-07
2025	SF140	7.4162E-08	7.4162E-08
2025	SF141	3.9242E-07	3.92422E-07
2025	SF142	3.3218E-08	3.30779E-08
2025	SF143	3.45E-07	3.45004E-07
2025	SF144	4.0675E-07	4.06751E-07
2025	SF145	4.6873E-07	4.68729E-07
2025	SF146	1.2604E-07	1.2604E-07
2025	SF147	4.1297E-07	4.12965E-07
2025	SF148	9.089E-07	8.4976E-07
2025	SF149	5.1366E-07	5.13656E-07
2025	SF150	6.9193E-08	6.91929E-08
2025	SF151	6.5116E-07	6.43755E-07
2025	SF152	4.7086E-06	4.43387E-06
2025	SF153	5.4254E-07	5.42543E-07
2025	SF154	7.0088E-08	7.0088E-08
2025	SF155	8.884E-07	8.88403E-07
2025	SF156	5.2547E-07	5.25471E-07
2025	SF157	9.2645E-07	9.26446E-07
2025	SF160	9.4667E-08	9.46668E-08
2025	SF161	2.5852E-06	2.58523E-06
2025	SF162	5.1928E-06	5.19277E-06
2025	SF163	3.6828E-07	3.68277E-07
2025	SF164	6.4217E-08	6.42169E-08
2025	SF165	8.7024E-06	8.70242E-06
2025	SF168	1.1415E-06	1.14153E-06
2025	SF169	1.4428E-07	1.44282E-07
2025	SF170	9.03E-07	9.00674E-07
2025	SF171	2.9082E-07	2.90816E-07
2025	SF172	5.8628E-07	5.8628E-07
2025	SF173	0	0
2025	SF174	0	0
2025	SF177	9.4819E-06	9.00577E-06
2025	SF178	7.3735E-06	6.977E-06
2025	SF179	2.0685E-05	1.96443E-05
2025	SF180	2.134E-07	2.13398E-07
2025	SF181	0	0
2025	SF182	0	0
2025	SF183	0	0
2025	SF184	0	0
2025	SF185	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2025	SF186	0	0
2025	SF190	1.6534E-05	1.59186E-05
2025	SF191	7.6047E-06	7.27219E-06
2025	SF192	2.7817E-06	2.59571E-06
2025	SF194	3.0268E-07	3.02682E-07
2025	SF195	2.764E-07	2.76401E-07
2025	SF196	8.058E-07	8.05798E-07
2025	SF198	7.4145E-08	7.41454E-08
2025	SF199	2.9464E-08	2.94636E-08
2025	SF200	1.4684E-06	1.46843E-06
2025	SF205	9.5057E-07	9.50568E-07
2025	SF206	1.5465E-07	1.54646E-07
2025	SF207	1.5927E-06	1.59272E-06
2025	SF283	2.3301E-07	2.17749E-07
2025	SF284	5.6322E-07	5.23661E-07
2025	SF285	2.1528E-07	2.00126E-07
2025	SF286	1.6263E-07	1.62631E-07
2025	SF287	1.1602E-06	1.08566E-06
2025	SF288	2.0577E-08	2.05766E-08
2025	SF289	7.2143E-07	6.77404E-07
2025	SF290	1.8622E-06	1.73115E-06
2025	SF294	6.5488E-08	6.54875E-08
2025	SF301	4.1948E-07	4.1948E-07
2025	SF302	4.5576E-07	4.5576E-07
2025	SF303	7.491E-06	6.96389E-06
2025	SF304	3.2297E-07	3.22968E-07
2025	SF306	6.5509E-06	6.26591E-06
2025	SF32	3.0389E-06	3.03895E-06
2025	SF33	7.5764E-07	7.57638E-07
2025	SF340	3.0651E-07	3.06512E-07
2025	SF35	6.1417E-06	5.75743E-06
2025	SF36	4.3833E-06	4.38326E-06
2025	SF37	1.9094E-06	1.81574E-06
2025	SF375	0	0
2025	SF376	0	0
2025	SF377	0	0
2025	SF378	0	0
2025	SF379	0	0
2025	SF38	1.7118E-06	1.71182E-06
2025	SF380	0	0
2025	SF381	0	0
2025	SF386	1.3843E-07	1.35074E-07
2025	SF387	1.6698E-05	1.59787E-05
2025	SF388	1.6346E-08	1.63457E-08
2025	SF390	1.313E-06	1.29568E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2025	SF392	6.8812E-07	6.56086E-07
2025	SF393	7.6491E-08	7.64912E-08
2025	SF394	7.7256E-06	7.41572E-06
2025	SF396	5.9616E-06	5.73891E-06
2025	SF397	1.1161E-06	1.04882E-06
2025	SF398	2.9384E-07	2.93837E-07
2025	SF399	1.9357E-06	1.85597E-06
2025	SF400	1.4933E-07	1.49332E-07
2025	SF401	8.2459E-08	8.24592E-08
2025	SF402	1.3798E-07	1.37979E-07
2025	SF404	6.6204E-08	6.62044E-08
2025	SF405	8.2062E-08	8.20615E-08
2025	SF406	3.1008E-08	3.10081E-08
2025	SF408	1.9212E-07	1.92117E-07
2025	SF409	4.3351E-07	4.33509E-07
2025	SF410	7.808E-08	7.80803E-08
2025	SF411	1.3507E-07	1.35065E-07
2025	SF42	5.0661E-05	4.80989E-05
2025	SF424	4.5405E-06	4.22099E-06
2025	SF425	0	0
2025	SF426	0	0
2025	SF427	7.415E-08	7.415E-08
2025	SF429	0	0
2025	SF43	5.1003E-07	5.10026E-07
2025	SF432	0	0
2025	SF433	1.624E-07	1.62402E-07
2025	SF436	2.0431E-08	2.04307E-08
2025	SF458	2.4005E-08	2.40054E-08
2025	SF46	8.0784E-07	8.0784E-07
2025	SF464	0	0
2025	SF47	1.4311E-06	1.43114E-06
2025	SF479	4.1827E-08	4.1827E-08
2025	SF48	6.4571E-07	6.05823E-07
2025	SF488	0	0
2025	SF494	0	0
2025	SF498	0	0
2025	SF499	3.7059E-06	3.44514E-06
2025	SF50	4.5336E-06	4.53361E-06
2025	SF500	2.2177E-06	2.06168E-06
2025	SF502	0	0
2025	SF503	0	0
2025	SF504	1.1104E-07	1.11037E-07
2025	SF51	4.0515E-07	4.05146E-07
2025	SF52	6.6023E-06	6.60227E-06
2025	SF53	8.5375E-08	8.53753E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2025	SF54	2.3895E-08	2.38947E-08
2025	SF55	1.0711E-06	1.07107E-06
2025	SF56	6.1952E-07	6.19523E-07
2025	SF57	2.5401E-07	2.4035E-07
2025	SF58	1.1692E-07	1.16921E-07
2025	SF59	7.7199E-07	7.40704E-07
2025	SF60	1.1302E-06	1.06447E-06
2025	SF61	4.6037E-07	4.38376E-07
2025	SF62	0	0
2025	SF65	1.0067E-06	9.46764E-07
2025	SF66	7.4282E-07	6.96978E-07
2025	SF67	9.6457E-08	9.64567E-08
2025	SF68	2.667E-07	2.66701E-07
2025	SF69	1.3171E-06	1.3171E-06
2025	SF70	9.715E-07	9.71497E-07
2025	SF71	1.1399E-07	1.13992E-07
2025	SF72	7.3935E-08	7.3935E-08
2025	SF73	3.9826E-06	3.98261E-06
2025	SF74	1.2822E-07	1.2822E-07
2025	SF75	2.8147E-07	2.81467E-07
2025	SF76	5.5311E-07	5.5311E-07
2025	SF77	4.1828E-08	4.18283E-08
2025	SF80	1.0204E-08	1.02035E-08
2025	SF81	2.0958E-08	2.09578E-08
2025	SF82	4.9692E-07	4.62014E-07
2025	SF83	9.0739E-08	8.46116E-08
2025	SF85	1.5747E-08	1.57471E-08
2025	SF86	7.1937E-07	6.75473E-07
2025	SF87	8.0941E-08	8.09414E-08
2025	SF88	6.8281E-08	6.82813E-08
2026	172	1.2652E-05	1.18822E-05
2026	173	0.0001342	0.00012671
2026	174	5.377E-05	5.06489E-05
2026	EG	0.00066516	0
2026	FRWY101	3.4187E-05	3.26709E-05
2026	FRWY27	0.0005587	0.00052839
2026	FRWY28	0.00047031	0.000445044
2026	FRWY29	0.00021699	0.000205449
2026	FRWY30	0.00033557	0.000317754
2026	FRWY31	0.00024745	0.000234319
2026	FRWY32	0.00034508	0.000326904
2026	FRWY33	0.00035005	0.000331773
2026	FRWY34	0.00035023	0.000332129
2026	FRWY35	9.7786E-05	9.40108E-05
2026	FRWY36	3.0089E-05	2.89185E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2026	FRWY37	5.2344E-05	5.03075E-05
2026	IN01	5.4497E-05	5.121E-05
2026	IN02	6.388E-05	6.00239E-05
2026	IN03	6.2722E-05	5.93103E-05
2026	IN05	1.2745E-05	1.27447E-05
2026	IN06	0.00020988	0.000197192
2026	IN08	1.4395E-05	1.43952E-05
2026	IN11	2.1657E-06	2.16567E-06
2026	IN12	1.0053E-07	1.00532E-07
2026	IN14	3.8042E-05	3.58573E-05
2026	IN18	0	0
2026	IN19	1.0288E-05	9.87749E-06
2026	IN21	3.3159E-06	3.16969E-06
2026	IN24	1.2682E-05	1.20696E-05
2026	IN29	1.0208E-07	1.02082E-07
2026	IN30	4.2776E-07	4.27764E-07
2026	IN31	3.1919E-06	3.06124E-06
2026	PH1	0.00054802	0.000524999
2026	PH2	0	0
2026	SF09	1.5595E-05	1.55949E-05
2026	SF10	9.3456E-07	9.34562E-07
2026	SF104	7.1011E-07	6.84528E-07
2026	SF106	6.5028E-07	6.50275E-07
2026	SF107	6.7382E-07	6.49233E-07
2026	SF108	4.5503E-07	4.53249E-07
2026	SF109	1.3775E-07	1.37755E-07
2026	SF110	1.2501E-06	1.20224E-06
2026	SF111	9.7673E-08	9.76729E-08
2026	SF112	4.0775E-06	3.82906E-06
2026	SF113	3.8816E-07	3.68103E-07
2026	SF114	6.9528E-07	6.55171E-07
2026	SF115	1.7798E-06	1.70427E-06
2026	SF116	3.0418E-07	2.93796E-07
2026	SF117	1.7851E-07	1.78507E-07
2026	SF118	1.1352E-06	1.09419E-06
2026	SF119	1.4856E-07	1.48555E-07
2026	SF120	2.1534E-06	2.00391E-06
2026	SF121	2.5637E-07	2.55474E-07
2026	SF122	1.5135E-06	1.41113E-06
2026	SF123	9.9846E-08	9.98456E-08
2026	SF124	1.201E-06	1.13174E-06
2026	SF125	9.1324E-08	9.13242E-08
2026	SF126	1.0398E-06	9.72833E-07
2026	SF127	5.7963E-06	5.38843E-06
2026	SF128	1.0376E-07	1.03762E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2026	SF129	1.122E-06	1.04902E-06
2026	SF13	5.2353E-06	4.9109E-06
2026	SF130	8.7213E-08	8.72131E-08
2026	SF131	1.1477E-07	1.14773E-07
2026	SF133	1.2098E-07	1.2098E-07
2026	SF134	5.0863E-06	4.869E-06
2026	SF135	1.0193E-06	9.55992E-07
2026	SF136	1.4993E-07	1.49929E-07
2026	SF137	3.716E-07	3.5158E-07
2026	SF139	2.3131E-07	2.31313E-07
2026	SF140	9.9872E-08	9.98715E-08
2026	SF141	5.2846E-07	5.28461E-07
2026	SF142	4.4734E-08	4.45449E-08
2026	SF143	4.646E-07	4.64605E-07
2026	SF144	5.4776E-07	5.47758E-07
2026	SF145	6.3122E-07	6.31221E-07
2026	SF146	1.6973E-07	1.69734E-07
2026	SF147	5.5613E-07	5.56126E-07
2026	SF148	1.224E-06	1.14434E-06
2026	SF149	6.9172E-07	6.91724E-07
2026	SF150	9.318E-08	9.31797E-08
2026	SF151	8.769E-07	8.66923E-07
2026	SF152	6.3409E-06	5.97095E-06
2026	SF153	7.3062E-07	7.30624E-07
2026	SF154	9.4385E-08	9.43852E-08
2026	SF155	1.1964E-06	1.19638E-06
2026	SF156	7.0763E-07	7.07635E-07
2026	SF157	1.2476E-06	1.24761E-06
2026	SF160	1.2748E-07	1.27485E-07
2026	SF161	3.4814E-06	3.48144E-06
2026	SF162	6.9929E-06	6.99294E-06
2026	SF163	4.9595E-07	4.95947E-07
2026	SF164	8.6479E-08	8.64787E-08
2026	SF165	1.1719E-05	1.17193E-05
2026	SF168	1.5373E-06	1.53726E-06
2026	SF169	1.943E-07	1.943E-07
2026	SF170	1.216E-06	1.21291E-06
2026	SF171	3.9163E-07	3.91633E-07
2026	SF172	7.8952E-07	7.89524E-07
2026	SF173	0	0
2026	SF174	0	0
2026	SF177	1.2769E-05	1.21278E-05
2026	SF178	9.9296E-06	9.39569E-06
2026	SF179	2.7856E-05	2.64543E-05
2026	SF180	2.8738E-07	2.87376E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2026	SF181	0	0
2026	SF182	0	0
2026	SF183	0	0
2026	SF184	0	0
2026	SF185	0	0
2026	SF186	0	0
2026	SF190	2.2266E-05	2.14371E-05
2026	SF191	1.0241E-05	9.79322E-06
2026	SF192	3.746E-06	3.49555E-06
2026	SF194	4.0761E-07	4.07612E-07
2026	SF195	3.7222E-07	3.7222E-07
2026	SF196	1.0851E-06	1.08514E-06
2026	SF198	9.9849E-08	9.98492E-08
2026	SF199	3.9678E-08	3.96776E-08
2026	SF200	1.9775E-06	1.97748E-06
2026	SF205	1.2801E-06	1.2801E-06
2026	SF206	2.0826E-07	2.08257E-07
2026	SF207	2.1449E-06	2.14486E-06
2026	SF283	3.1379E-07	2.93235E-07
2026	SF284	7.5847E-07	7.05196E-07
2026	SF285	2.899E-07	2.69503E-07
2026	SF286	2.1901E-07	2.19009E-07
2026	SF287	1.5624E-06	1.46203E-06
2026	SF288	2.771E-08	2.77099E-08
2026	SF289	9.7152E-07	9.12237E-07
2026	SF290	2.5078E-06	2.33128E-06
2026	SF294	8.819E-08	8.81899E-08
2026	SF301	5.649E-07	5.649E-07
2026	SF302	6.1376E-07	6.13757E-07
2026	SF303	1.0088E-05	9.37804E-06
2026	SF304	4.3493E-07	4.34931E-07
2026	SF306	8.8219E-06	8.43809E-06
2026	SF32	4.0925E-06	4.09245E-06
2026	SF33	1.0203E-06	1.02029E-06
2026	SF340	4.1277E-07	4.1277E-07
2026	SF35	8.2708E-06	7.75334E-06
2026	SF36	5.9028E-06	5.90278E-06
2026	SF37	2.5714E-06	2.4452E-06
2026	SF375	0	0
2026	SF376	0	0
2026	SF377	0	0
2026	SF378	0	0
2026	SF379	0	0
2026	SF38	2.3052E-06	2.30525E-06
2026	SF380	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2026	SF381	0	0
2026	SF386	1.8642E-07	1.819E-07
2026	SF387	2.2487E-05	2.1518E-05
2026	SF388	2.2012E-08	2.20121E-08
2026	SF390	1.7682E-06	1.74484E-06
2026	SF392	9.2667E-07	8.83529E-07
2026	SF393	1.0301E-07	1.03008E-07
2026	SF394	1.0404E-05	9.9865E-06
2026	SF396	8.0283E-06	7.72839E-06
2026	SF397	1.503E-06	1.41242E-06
2026	SF398	3.957E-07	3.95701E-07
2026	SF399	2.6068E-06	2.49938E-06
2026	SF400	2.011E-07	2.011E-07
2026	SF401	1.1105E-07	1.11045E-07
2026	SF402	1.8581E-07	1.85812E-07
2026	SF404	8.9155E-08	8.91552E-08
2026	SF405	1.1051E-07	1.1051E-07
2026	SF406	4.1758E-08	4.17576E-08
2026	SF408	2.5872E-07	2.58718E-07
2026	SF409	5.8379E-07	5.83792E-07
2026	SF410	1.0515E-07	1.05148E-07
2026	SF411	1.8189E-07	1.81888E-07
2026	SF42	6.8224E-05	6.47732E-05
2026	SF424	6.1146E-06	5.68427E-06
2026	SF425	0	0
2026	SF426	0	0
2026	SF427	9.9855E-08	9.98553E-08
2026	SF429	0	0
2026	SF43	6.8684E-07	6.86835E-07
2026	SF432	0	0
2026	SF433	2.187E-07	2.18702E-07
2026	SF436	2.7513E-08	2.75134E-08
2026	SF458	3.2327E-08	3.23273E-08
2026	SF46	1.0879E-06	1.08789E-06
2026	SF464	0	0
2026	SF47	1.9273E-06	1.92727E-06
2026	SF479	5.6327E-08	5.6327E-08
2026	SF48	8.6956E-07	8.15842E-07
2026	SF488	0	0
2026	SF494	0	0
2026	SF498	0	0
2026	SF499	4.9906E-06	4.63945E-06
2026	SF50	6.1053E-06	6.10526E-06
2026	SF500	2.9866E-06	2.77639E-06
2026	SF502	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2026	SF503	0	0
2026	SF504	1.4953E-07	1.4953E-07
2026	SF51	5.456E-07	5.45597E-07
2026	SF52	8.8911E-06	8.89105E-06
2026	SF53	1.1497E-07	1.14972E-07
2026	SF54	3.2178E-08	3.21782E-08
2026	SF55	1.4424E-06	1.44237E-06
2026	SF56	8.3429E-07	8.34291E-07
2026	SF57	3.4206E-07	3.23671E-07
2026	SF58	1.5745E-07	1.57454E-07
2026	SF59	1.0396E-06	9.97481E-07
2026	SF60	1.522E-06	1.43348E-06
2026	SF61	6.1997E-07	5.90347E-07
2026	SF62	0	0
2026	SF65	1.3556E-06	1.27498E-06
2026	SF66	1.0003E-06	9.38597E-07
2026	SF67	1.299E-07	1.29895E-07
2026	SF68	3.5916E-07	3.59157E-07
2026	SF69	1.7737E-06	1.77369E-06
2026	SF70	1.3083E-06	1.30828E-06
2026	SF71	1.5351E-07	1.53509E-07
2026	SF72	9.9566E-08	9.95658E-08
2026	SF73	5.3633E-06	5.36325E-06
2026	SF74	1.7267E-07	1.7267E-07
2026	SF75	3.7904E-07	3.79042E-07
2026	SF76	7.4485E-07	7.44855E-07
2026	SF77	5.6329E-08	5.63287E-08
2026	SF80	1.3741E-08	1.37408E-08
2026	SF81	2.8223E-08	2.82232E-08
2026	SF82	6.6919E-07	6.22179E-07
2026	SF83	1.222E-07	1.13944E-07
2026	SF85	2.1206E-08	2.1206E-08
2026	SF86	9.6875E-07	9.09637E-07
2026	SF87	1.09E-07	1.09001E-07
2026	SF88	9.1952E-08	9.19522E-08
2027	172	1.4371E-05	1.34972E-05
2027	173	0.00015243	0.000143932
2027	174	6.1078E-05	5.75328E-05
2027	EG	0.00075556	0
2027	FRWY101	3.8834E-05	3.71114E-05
2027	FRWY27	0.00063464	0.000600207
2027	FRWY28	0.00053423	0.000505532
2027	FRWY29	0.00024648	0.000233373
2027	FRWY30	0.00038118	0.000360941
2027	FRWY31	0.00028108	0.000266166

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2027	FRWY32	0.00039199	0.000371335
2027	FRWY33	0.00039763	0.000376867
2027	FRWY34	0.00039783	0.00037727
2027	FRWY35	0.00011108	0.000106788
2027	FRWY36	3.4178E-05	3.2849E-05
2027	FRWY37	5.9458E-05	5.71451E-05
2027	IN01	6.1904E-05	5.81702E-05
2027	IN02	7.2562E-05	6.81822E-05
2027	IN03	7.1247E-05	6.73715E-05
2027	IN05	1.4477E-05	1.44769E-05
2027	IN06	0.00023841	0.000223994
2027	IN08	1.6352E-05	1.63517E-05
2027	IN11	2.46E-06	2.46002E-06
2027	IN12	1.142E-07	1.14196E-07
2027	IN14	4.3212E-05	4.07309E-05
2027	IN18	0	0
2027	IN19	1.1687E-05	1.122E-05
2027	IN21	3.7666E-06	3.6005E-06
2027	IN24	1.4406E-05	1.37101E-05
2027	IN29	1.1596E-07	1.15957E-07
2027	IN30	4.859E-07	4.85904E-07
2027	IN31	3.6258E-06	3.47731E-06
2027	PH1	0.00062251	0.000596354
2027	PH2	0	0
2027	SF09	1.7715E-05	1.77145E-05
2027	SF10	1.0616E-06	1.06158E-06
2027	SF104	8.0663E-07	7.77566E-07
2027	SF106	7.3866E-07	7.38658E-07
2027	SF107	7.6541E-07	7.37474E-07
2027	SF108	5.1688E-07	5.14853E-07
2027	SF109	1.5648E-07	1.56478E-07
2027	SF110	1.42E-06	1.36564E-06
2027	SF111	1.1095E-07	1.10948E-07
2027	SF112	4.6318E-06	4.34949E-06
2027	SF113	4.4091E-07	4.18135E-07
2027	SF114	7.8977E-07	7.44219E-07
2027	SF115	2.0217E-06	1.93591E-06
2027	SF116	3.4552E-07	3.33727E-07
2027	SF117	2.0277E-07	2.02769E-07
2027	SF118	1.2895E-06	1.24291E-06
2027	SF119	1.6875E-07	1.68746E-07
2027	SF120	2.446E-06	2.27627E-06
2027	SF121	2.9122E-07	2.90197E-07
2027	SF122	1.7192E-06	1.60292E-06
2027	SF123	1.1342E-07	1.13416E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2027	SF124	1.3642E-06	1.28556E-06
2027	SF125	1.0374E-07	1.03737E-07
2027	SF126	1.1812E-06	1.10506E-06
2027	SF127	6.5841E-06	6.1208E-06
2027	SF128	1.1786E-07	1.17864E-07
2027	SF129	1.2746E-06	1.1916E-06
2027	SF13	5.9469E-06	5.57837E-06
2027	SF130	9.9067E-08	9.90668E-08
2027	SF131	1.3037E-07	1.30372E-07
2027	SF133	1.3742E-07	1.37423E-07
2027	SF134	5.7776E-06	5.53078E-06
2027	SF135	1.1578E-06	1.08593E-06
2027	SF136	1.7031E-07	1.70306E-07
2027	SF137	4.2211E-07	3.99365E-07
2027	SF139	2.6275E-07	2.62753E-07
2027	SF140	1.1345E-07	1.13446E-07
2027	SF141	6.0029E-07	6.00287E-07
2027	SF142	5.0814E-08	5.05992E-08
2027	SF143	5.2775E-07	5.27752E-07
2027	SF144	6.2221E-07	6.22207E-07
2027	SF145	7.1701E-07	7.17014E-07
2027	SF146	1.928E-07	1.92804E-07
2027	SF147	6.3171E-07	6.31713E-07
2027	SF148	1.3904E-06	1.29988E-06
2027	SF149	7.8574E-07	7.8574E-07
2027	SF150	1.0584E-07	1.05844E-07
2027	SF151	9.9608E-07	9.84751E-07
2027	SF152	7.2027E-06	6.7825E-06
2027	SF153	8.2993E-07	8.29927E-07
2027	SF154	1.0721E-07	1.07214E-07
2027	SF155	1.359E-06	1.35899E-06
2027	SF156	8.0381E-07	8.03813E-07
2027	SF157	1.4172E-06	1.41718E-06
2027	SF160	1.4481E-07	1.44812E-07
2027	SF161	3.9546E-06	3.95462E-06
2027	SF162	7.9434E-06	7.94339E-06
2027	SF163	5.6335E-07	5.63354E-07
2027	SF164	9.8233E-08	9.82326E-08
2027	SF165	1.3312E-05	1.33121E-05
2027	SF168	1.7462E-06	1.7462E-06
2027	SF169	2.2071E-07	2.20708E-07
2027	SF170	1.3813E-06	1.37776E-06
2027	SF171	4.4486E-07	4.44862E-07
2027	SF172	8.9683E-07	8.96833E-07
2027	SF173	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2027	SF174	0	0
2027	SF177	1.4505E-05	1.37761E-05
2027	SF178	1.1279E-05	1.06727E-05
2027	SF179	3.1642E-05	3.00498E-05
2027	SF180	3.2644E-07	3.26435E-07
2027	SF181	0	0
2027	SF182	0	0
2027	SF183	0	0
2027	SF184	0	0
2027	SF185	0	0
2027	SF186	0	0
2027	SF190	2.5292E-05	2.43507E-05
2027	SF191	1.1633E-05	1.11243E-05
2027	SF192	4.2552E-06	3.97065E-06
2027	SF194	4.6301E-07	4.63012E-07
2027	SF195	4.2281E-07	4.2281E-07
2027	SF196	1.2326E-06	1.23263E-06
2027	SF198	1.1342E-07	1.1342E-07
2027	SF199	4.507E-08	4.50705E-08
2027	SF200	2.2463E-06	2.24625E-06
2027	SF205	1.4541E-06	1.45408E-06
2027	SF206	2.3656E-07	2.36563E-07
2027	SF207	2.4364E-06	2.43638E-06
2027	SF283	3.5644E-07	3.33091E-07
2027	SF284	8.6156E-07	8.01044E-07
2027	SF285	3.2931E-07	3.06133E-07
2027	SF286	2.4878E-07	2.48776E-07
2027	SF287	1.7748E-06	1.66074E-06
2027	SF288	3.1476E-08	3.14761E-08
2027	SF289	1.1036E-06	1.03622E-06
2027	SF290	2.8486E-06	2.64814E-06
2027	SF294	1.0018E-07	1.00176E-07
2027	SF301	6.4168E-07	6.41679E-07
2027	SF302	6.9718E-07	6.97176E-07
2027	SF303	1.1459E-05	1.06527E-05
2027	SF304	4.9404E-07	4.94045E-07
2027	SF306	1.0021E-05	9.58496E-06
2027	SF32	4.6487E-06	4.64868E-06
2027	SF33	1.159E-06	1.15896E-06
2027	SF340	4.6887E-07	4.68872E-07
2027	SF35	9.395E-06	8.80714E-06
2027	SF36	6.7051E-06	6.70507E-06
2027	SF37	2.9209E-06	2.77754E-06
2027	SF375	0	0
2027	SF376	0	0

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2027	SF377	0	0
2027	SF378	0	0
2027	SF379	0	0
2027	SF38	2.6186E-06	2.61857E-06
2027	SF380	0	0
2027	SF381	0	0
2027	SF386	2.1176E-07	2.06623E-07
2027	SF387	2.5543E-05	2.44427E-05
2027	SF388	2.5004E-08	2.50039E-08
2027	SF390	2.0085E-06	1.982E-06
2027	SF392	1.0526E-06	1.00361E-06
2027	SF393	1.1701E-07	1.17009E-07
2027	SF394	1.1818E-05	1.13438E-05
2027	SF396	9.1195E-06	8.77881E-06
2027	SF397	1.7073E-06	1.60439E-06
2027	SF398	4.4948E-07	4.49483E-07
2027	SF399	2.9611E-06	2.83908E-06
2027	SF400	2.2843E-07	2.28433E-07
2027	SF401	1.2614E-07	1.26138E-07
2027	SF402	2.1107E-07	2.11067E-07
2027	SF404	1.0127E-07	1.01273E-07
2027	SF405	1.2553E-07	1.2553E-07
2027	SF406	4.7433E-08	4.74331E-08
2027	SF408	2.9388E-07	2.93882E-07
2027	SF409	6.6314E-07	6.63138E-07
2027	SF410	1.1944E-07	1.19439E-07
2027	SF411	2.0661E-07	2.06609E-07
2027	SF42	7.7497E-05	7.35769E-05
2027	SF424	6.9456E-06	6.45685E-06
2027	SF425	0	0
2027	SF426	0	0
2027	SF427	1.1343E-07	1.13427E-07
2027	SF429	0	0
2027	SF43	7.8019E-07	7.80187E-07
2027	SF432	0	0
2027	SF433	2.4843E-07	2.48427E-07
2027	SF436	3.1253E-08	3.12529E-08
2027	SF458	3.6721E-08	3.67211E-08
2027	SF46	1.2358E-06	1.23575E-06
2027	SF464	0	0
2027	SF47	2.1892E-06	2.18921E-06
2027	SF479	6.3983E-08	6.39828E-08
2027	SF48	9.8774E-07	9.26727E-07
2027	SF488	0	0
2027	SF494	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2027	SF498	0	0
2027	SF499	5.669E-06	5.27003E-06
2027	SF50	6.9351E-06	6.93506E-06
2027	SF500	3.3925E-06	3.15375E-06
2027	SF502	0	0
2027	SF503	0	0
2027	SF504	1.6985E-07	1.69854E-07
2027	SF51	6.1975E-07	6.19752E-07
2027	SF52	1.0099E-05	1.00995E-05
2027	SF53	1.306E-07	1.30599E-07
2027	SF54	3.6552E-08	3.65517E-08
2027	SF55	1.6384E-06	1.63841E-06
2027	SF56	9.4768E-07	9.47684E-07
2027	SF57	3.8855E-07	3.67663E-07
2027	SF58	1.7885E-07	1.78855E-07
2027	SF59	1.1809E-06	1.13305E-06
2027	SF60	1.7289E-06	1.62832E-06
2027	SF61	7.0423E-07	6.70584E-07
2027	SF62	0	0
2027	SF65	1.5399E-06	1.44826E-06
2027	SF66	1.1363E-06	1.06617E-06
2027	SF67	1.4755E-07	1.4755E-07
2027	SF68	4.0797E-07	4.07972E-07
2027	SF69	2.0148E-06	2.01477E-06
2027	SF70	1.4861E-06	1.4861E-06
2027	SF71	1.7437E-07	1.74373E-07
2027	SF72	1.131E-07	1.13098E-07
2027	SF73	6.0922E-06	6.0922E-06
2027	SF74	1.9614E-07	1.96139E-07
2027	SF75	4.3056E-07	4.3056E-07
2027	SF76	8.4609E-07	8.46092E-07
2027	SF77	6.3985E-08	6.39847E-08
2027	SF80	1.5608E-08	1.56083E-08
2027	SF81	3.2059E-08	3.20592E-08
2027	SF82	7.6014E-07	7.06743E-07
2027	SF83	1.388E-07	1.2943E-07
2027	SF85	2.4088E-08	2.40883E-08
2027	SF86	1.1004E-06	1.03327E-06
2027	SF87	1.2382E-07	1.23816E-07
2027	SF88	1.0445E-07	1.0445E-07
2028	172	1.2086E-05	1.2046E-05
2028	173	0.00012048	0.000120095
2028	174	4.9471E-05	4.93092E-05
2028	EG	0.00081845	0
2028	FRWY101	2.9993E-05	2.9912E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2028	FRWY27	0.00051217	0.000510558
2028	FRWY28	0.0004294	0.00042806
2028	FRWY29	0.00019718	0.000196566
2028	FRWY30	0.00030437	0.000303423
2028	FRWY31	0.00022419	0.000223493
2028	FRWY32	0.00031149	0.000310529
2028	FRWY33	0.00031441	0.000313439
2028	FRWY34	0.00030405	0.000303121
2028	FRWY35	0.00013881	0.000138421
2028	FRWY36	2.5064E-05	2.50013E-05
2028	FRWY37	4.3604E-05	4.3495E-05
2028	IN01	4.457E-05	4.41989E-05
2028	IN02	5.4399E-05	5.39443E-05
2028	IN03	4.3809E-06	4.3494E-06
2028	IN05	1.2591E-05	1.25509E-05
2028	IN06	0.00017962	0.000178119
2028	IN08	9.7979E-06	9.79786E-06
2028	IN11	8.6739E-07	8.67386E-07
2028	IN12	3.27E-08	3.27002E-08
2028	IN14	4.1886E-05	4.15226E-05
2028	IN18	6.9392E-06	6.88356E-06
2028	IN19	0.00010065	9.98129E-05
2028	IN21	1.8792E-05	1.86659E-05
2028	IN24	5.0993E-05	5.05839E-05
2028	IN29	8.0666E-06	7.99899E-06
2028	IN30	4.2812E-05	4.24305E-05
2028	IN31	1.7199E-06	1.70949E-06
2028	PH1	0.00027932	0.000278053
2028	PH2	0.00021503	0.000214058
2028	SF09	8.8528E-06	8.8528E-06
2028	SF10	6.0879E-07	6.08788E-07
2028	SF104	6.6492E-07	6.64345E-07
2028	SF106	5.1327E-08	5.13268E-08
2028	SF107	6.5573E-07	6.55183E-07
2028	SF108	6.4222E-08	6.42054E-08
2028	SF109	2.0325E-08	2.03251E-08
2028	SF110	1.3101E-06	1.30902E-06
2028	SF111	1.2407E-08	1.24072E-08
2028	SF112	3.3162E-06	3.31302E-06
2028	SF113	1.8117E-07	1.80981E-07
2028	SF114	3.7224E-07	3.71854E-07
2028	SF115	1.6492E-06	1.64771E-06
2028	SF116	1.3323E-07	1.33129E-07
2028	SF117	3.2396E-08	3.23834E-08
2028	SF118	1.4227E-06	1.42148E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2028	SF119	1.1813E-08	1.18131E-08
2028	SF120	1.9211E-06	1.91906E-06
2028	SF121	6.5195E-07	6.5129E-07
2028	SF122	1.3701E-06	1.36866E-06
2028	SF123	1.083E-08	1.08303E-08
2028	SF124	1.3399E-06	1.33867E-06
2028	SF125	1.1732E-08	1.17315E-08
2028	SF126	1.2007E-06	1.19961E-06
2028	SF127	5.9102E-06	5.90378E-06
2028	SF128	1.3024E-08	1.30242E-08
2028	SF129	1.2697E-06	1.26853E-06
2028	SF13	7.0551E-06	7.04812E-06
2028	SF130	9.5123E-09	9.51229E-09
2028	SF131	1.4223E-08	1.42235E-08
2028	SF133	1.3093E-08	1.30925E-08
2028	SF134	8.3308E-09	8.33085E-09
2028	SF135	1.2617E-06	1.26061E-06
2028	SF136	2.542E-08	2.54197E-08
2028	SF137	1.8022E-07	1.80034E-07
2028	SF139	1.3678E-07	1.36781E-07
2028	SF140	7.8775E-09	7.87754E-09
2028	SF141	6.9874E-08	6.98738E-08
2028	SF142	7.4939E-09	7.49217E-09
2028	SF143	3.1611E-07	3.16115E-07
2028	SF144	2.0278E-07	2.02782E-07
2028	SF145	4.5883E-07	4.58831E-07
2028	SF146	2.2091E-08	2.20909E-08
2028	SF147	4.0337E-07	4.03366E-07
2028	SF148	1.0864E-06	1.08527E-06
2028	SF149	4.92E-07	4.91998E-07
2028	SF150	1.0137E-08	1.01365E-08
2028	SF151	6.653E-07	6.65204E-07
2028	SF152	5.9772E-06	5.97122E-06
2028	SF153	6.3366E-07	6.33659E-07
2028	SF154	1.0309E-08	1.03092E-08
2028	SF155	1.0884E-06	1.08837E-06
2028	SF156	4.0206E-07	4.02059E-07
2028	SF157	1.0418E-06	1.04178E-06
2028	SF160	1.8672E-08	1.86722E-08
2028	SF161	2.2179E-06	2.21793E-06
2028	SF162	4.3825E-06	4.38254E-06
2028	SF163	3.6944E-07	3.69443E-07
2028	SF164	1.2705E-08	1.27055E-08
2028	SF165	7.4028E-06	7.40284E-06
2028	SF168	9.0304E-07	9.03044E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2028	SF169	2.354E-08	2.35404E-08
2028	SF170	5.0121E-07	5.01184E-07
2028	SF171	2.6464E-07	2.64636E-07
2028	SF172	5.0822E-07	5.08219E-07
2028	SF173	0	0
2028	SF174	0	0
2028	SF177	1.2077E-05	1.2067E-05
2028	SF178	6.2965E-06	6.29072E-06
2028	SF179	2.5929E-05	2.59066E-05
2028	SF180	3.1308E-08	3.1308E-08
2028	SF181	0	0
2028	SF182	0	0
2028	SF183	0	0
2028	SF184	0	0
2028	SF185	0	0
2028	SF186	0	0
2028	SF190	1.104E-05	1.10316E-05
2028	SF191	5.7675E-06	5.76481E-06
2028	SF192	4.9758E-06	4.9715E-06
2028	SF194	1.7461E-07	1.7461E-07
2028	SF195	2.0674E-07	2.06735E-07
2028	SF196	8.2336E-07	8.23359E-07
2028	SF198	1.0871E-08	1.08706E-08
2028	SF199	4.3211E-09	4.3211E-09
2028	SF200	1.5227E-06	1.52269E-06
2028	SF205	1.1454E-06	1.14538E-06
2028	SF206	2.2655E-08	2.26554E-08
2028	SF207	1.9837E-06	1.98375E-06
2028	SF283	5.3046E-07	5.29938E-07
2028	SF284	1.0297E-06	1.02872E-06
2028	SF285	3.8569E-07	3.85276E-07
2028	SF286	1.6235E-07	1.62348E-07
2028	SF287	1.4289E-06	1.42748E-06
2028	SF288	2.1368E-08	2.13505E-08
2028	SF289	9.2286E-07	9.21914E-07
2028	SF290	2.5339E-06	2.53115E-06
2028	SF294	9.6014E-09	9.60138E-09
2028	SF301	2.8875E-07	2.88746E-07
2028	SF302	3.9327E-07	3.93275E-07
2028	SF303	1.0469E-05	1.04582E-05
2028	SF304	1.7976E-07	1.79763E-07
2028	SF306	7.6441E-06	7.63801E-06
2028	SF32	3.2685E-06	3.26855E-06
2028	SF33	1.5892E-06	1.58919E-06
2028	SF340	3.166E-07	3.16595E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2028	SF35	8.2122E-06	8.20412E-06
2028	SF36	3.6149E-06	3.61488E-06
2028	SF37	2.3761E-06	2.37408E-06
2028	SF375	0	0
2028	SF376	0	0
2028	SF377	0	0
2028	SF378	0	0
2028	SF379	0	0
2028	SF38	1.481E-06	1.48096E-06
2028	SF380	0	0
2028	SF381	0	0
2028	SF386	1.9586E-07	1.95764E-07
2028	SF387	2.0195E-05	2.01803E-05
2028	SF388	2.3913E-09	2.39126E-09
2028	SF390	1.349E-06	1.34859E-06
2028	SF392	1.0826E-06	1.08181E-06
2028	SF393	3.722E-07	3.71982E-07
2028	SF394	8.5828E-06	8.5765E-06
2028	SF396	7.6133E-06	7.60832E-06
2028	SF397	1.6978E-06	1.69632E-06
2028	SF398	2.4363E-07	2.43634E-07
2028	SF399	3.4217E-06	3.41973E-06
2028	SF400	5.0964E-08	5.09641E-08
2028	SF401	1.5642E-08	1.56421E-08
2028	SF402	1.7098E-07	1.70979E-07
2028	SF404	9.6987E-09	9.69873E-09
2028	SF405	1.2022E-08	1.20217E-08
2028	SF406	5.4024E-09	5.4024E-09
2028	SF408	2.9024E-07	2.9011E-07
2028	SF409	2.3033E-07	2.30331E-07
2028	SF410	1.1439E-08	1.14385E-08
2028	SF411	1.9787E-08	1.97866E-08
2028	SF42	6.1091E-05	6.10364E-05
2028	SF424	6.3276E-06	6.32077E-06
2028	SF425	0	0
2028	SF426	0	0
2028	SF427	1.5276E-08	1.52759E-08
2028	SF429	0	0
2028	SF43	6.5089E-06	6.50366E-06
2028	SF432	0	0
2028	SF433	2.3791E-08	2.37914E-08
2028	SF436	2.3671E-09	2.36709E-09
2028	SF458	4.0625E-09	4.06253E-09
2028	SF46	3.5861E-07	3.58611E-07
2028	SF464	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2028	SF47	6.4456E-07	6.44556E-07
2028	SF479	7.1203E-09	7.12029E-09
2028	SF48	1.228E-06	1.2269E-06
2028	SF488	0	0
2028	SF494	0	0
2028	SF498	0	0
2028	SF499	4.9906E-06	4.98518E-06
2028	SF50	3.7825E-06	3.78248E-06
2028	SF500	2.9865E-06	2.98329E-06
2028	SF502	0	0
2028	SF503	0	0
2028	SF504	9.2313E-08	9.23129E-08
2028	SF51	6.1946E-07	6.19456E-07
2028	SF52	6.2451E-06	6.24511E-06
2028	SF53	1.7113E-08	1.71128E-08
2028	SF54	3.5005E-09	3.5005E-09
2028	SF55	1.195E-06	1.19503E-06
2028	SF56	7.1702E-07	7.1702E-07
2028	SF57	2.1691E-07	2.16708E-07
2028	SF58	3.8876E-09	3.88761E-09
2028	SF59	1.0349E-06	1.03392E-06
2028	SF60	2.1552E-06	2.15315E-06
2028	SF61	7.1527E-07	7.14556E-07
2028	SF62	0	0
2028	SF65	1.4902E-06	1.4889E-06
2028	SF66	1.3483E-06	1.3472E-06
2028	SF67	2.1014E-08	2.1014E-08
2028	SF68	1.1887E-07	1.18874E-07
2028	SF69	1.0952E-06	1.09516E-06
2028	SF70	1.0798E-06	1.07977E-06
2028	SF71	2.3808E-08	2.38082E-08
2028	SF72	1.2586E-08	1.25861E-08
2028	SF73	3.5574E-06	3.55737E-06
2028	SF74	2.6163E-08	2.61633E-08
2028	SF75	8.6032E-08	8.60317E-08
2028	SF76	3.5953E-07	3.59534E-07
2028	SF77	6.3119E-09	6.3119E-09
2028	SF80	2.2511E-09	2.25114E-09
2028	SF81	3.1552E-09	3.15523E-09
2028	SF82	9.0848E-07	9.07614E-07
2028	SF83	1.5884E-07	1.58665E-07
2028	SF85	2.5227E-09	2.52271E-09
2028	SF86	9.2023E-07	9.19287E-07
2028	SF87	1.3633E-08	1.36327E-08
2028	SF88	1.3621E-08	1.36206E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2029	172	1.2896E-05	1.28541E-05
2029	173	0.00012857	0.000128152
2029	174	5.279E-05	5.26171E-05
2029	EG	0.00087336	0
2029	FRWY101	3.2005E-05	3.19186E-05
2029	FRWY27	0.00054653	0.000544809
2029	FRWY28	0.00045821	0.000456776
2029	FRWY29	0.00021041	0.000209753
2029	FRWY30	0.00032479	0.000323779
2029	FRWY31	0.00023923	0.000238486
2029	FRWY32	0.00033239	0.000331361
2029	FRWY33	0.0003355	0.000334466
2029	FRWY34	0.00032445	0.000323456
2029	FRWY35	0.00014812	0.000147707
2029	FRWY36	2.6745E-05	2.66785E-05
2029	FRWY37	4.6529E-05	4.64128E-05
2029	IN01	4.756E-05	4.7164E-05
2029	IN02	5.8049E-05	5.75632E-05
2029	IN03	4.6748E-06	4.64118E-06
2029	IN05	1.3435E-05	1.33929E-05
2029	IN06	0.00019167	0.000190068
2029	IN08	1.0455E-05	1.04552E-05
2029	IN11	9.2557E-07	9.25575E-07
2029	IN12	3.4894E-08	3.48939E-08
2029	IN14	4.4696E-05	4.43082E-05
2029	IN18	7.4047E-06	7.34534E-06
2029	IN19	0.0001074	0.000106509
2029	IN21	2.0052E-05	1.99181E-05
2029	IN24	5.4414E-05	5.39774E-05
2029	IN29	8.6078E-06	8.53561E-06
2029	IN30	4.5684E-05	4.5277E-05
2029	IN31	1.8352E-06	1.82417E-06
2029	PH1	0.00029805	0.000296706
2029	PH2	0.00022946	0.000228418
2029	SF09	9.4467E-06	9.44669E-06
2029	SF10	6.4963E-07	6.49629E-07
2029	SF104	7.0953E-07	7.08913E-07
2029	SF106	5.477E-08	5.47701E-08
2029	SF107	6.9972E-07	6.99137E-07
2029	SF108	6.853E-08	6.85126E-08
2029	SF109	2.1689E-08	2.16886E-08
2029	SF110	1.398E-06	1.39683E-06
2029	SF111	1.324E-08	1.32396E-08
2029	SF112	3.5387E-06	3.53527E-06
2029	SF113	1.9332E-07	1.93123E-07

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2029	SF114	3.9721E-07	3.968E-07
2029	SF115	1.7598E-06	1.75825E-06
2029	SF116	1.4217E-07	1.4206E-07
2029	SF117	3.4569E-08	3.45559E-08
2029	SF118	1.5182E-06	1.51684E-06
2029	SF119	1.2606E-08	1.26056E-08
2029	SF120	2.05E-06	2.0478E-06
2029	SF121	6.9569E-07	6.94982E-07
2029	SF122	1.462E-06	1.46048E-06
2029	SF123	1.1557E-08	1.15569E-08
2029	SF124	1.4298E-06	1.42847E-06
2029	SF125	1.2519E-08	1.25185E-08
2029	SF126	1.2813E-06	1.28009E-06
2029	SF127	6.3066E-06	6.29983E-06
2029	SF128	1.3898E-08	1.3898E-08
2029	SF129	1.3549E-06	1.35363E-06
2029	SF13	7.5284E-06	7.52095E-06
2029	SF130	1.015E-08	1.01504E-08
2029	SF131	1.5178E-08	1.51777E-08
2029	SF133	1.3971E-08	1.39708E-08
2029	SF134	8.8897E-09	8.88973E-09
2029	SF135	1.3464E-06	1.34518E-06
2029	SF136	2.7125E-08	2.7125E-08
2029	SF137	1.9231E-07	1.92111E-07
2029	SF139	1.4596E-07	1.45957E-07
2029	SF140	8.406E-09	8.40601E-09
2029	SF141	7.4561E-08	7.45613E-08
2029	SF142	7.9966E-09	7.99479E-09
2029	SF143	3.3732E-07	3.37322E-07
2029	SF144	2.1639E-07	2.16386E-07
2029	SF145	4.8961E-07	4.89612E-07
2029	SF146	2.3573E-08	2.35729E-08
2029	SF147	4.3043E-07	4.30426E-07
2029	SF148	1.1593E-06	1.15807E-06
2029	SF149	5.25E-07	5.25004E-07
2029	SF150	1.0817E-08	1.08165E-08
2029	SF151	7.0993E-07	7.0983E-07
2029	SF152	6.3782E-06	6.3718E-06
2029	SF153	6.7617E-07	6.76169E-07
2029	SF154	1.1001E-08	1.10008E-08
2029	SF155	1.1614E-06	1.16138E-06
2029	SF156	4.2903E-07	4.29031E-07
2029	SF157	1.1117E-06	1.11167E-06
2029	SF160	1.9925E-08	1.99248E-08
2029	SF161	2.3667E-06	2.36673E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2029	SF162	4.6765E-06	4.67654E-06
2029	SF163	3.9423E-07	3.94227E-07
2029	SF164	1.3558E-08	1.35578E-08
2029	SF165	7.8995E-06	7.89946E-06
2029	SF168	9.6363E-07	9.63626E-07
2029	SF169	2.512E-08	2.51196E-08
2029	SF170	5.3484E-07	5.34807E-07
2029	SF171	2.8239E-07	2.82389E-07
2029	SF172	5.4231E-07	5.42313E-07
2029	SF173	0	0
2029	SF174	0	0
2029	SF177	1.2888E-05	1.28765E-05
2029	SF178	6.7189E-06	6.71273E-06
2029	SF179	2.7668E-05	2.76446E-05
2029	SF180	3.3408E-08	3.34083E-08
2029	SF181	0	0
2029	SF182	0	0
2029	SF183	0	0
2029	SF184	0	0
2029	SF185	0	0
2029	SF186	0	0
2029	SF190	1.178E-05	1.17717E-05
2029	SF191	6.1545E-06	6.15155E-06
2029	SF192	5.3096E-06	5.30501E-06
2029	SF194	1.8632E-07	1.86323E-07
2029	SF195	2.206E-07	2.20604E-07
2029	SF196	8.7859E-07	8.78594E-07
2029	SF198	1.16E-08	1.15998E-08
2029	SF199	4.611E-09	4.61098E-09
2029	SF200	1.6248E-06	1.62484E-06
2029	SF205	1.2222E-06	1.22222E-06
2029	SF206	2.4175E-08	2.41752E-08
2029	SF207	2.1168E-06	2.11683E-06
2029	SF283	5.6604E-07	5.65489E-07
2029	SF284	1.0988E-06	1.09773E-06
2029	SF285	4.1157E-07	4.11122E-07
2029	SF286	1.7324E-07	1.7324E-07
2029	SF287	1.5248E-06	1.52325E-06
2029	SF288	2.2802E-08	2.27828E-08
2029	SF289	9.8477E-07	9.83761E-07
2029	SF290	2.7039E-06	2.70095E-06
2029	SF294	1.0245E-08	1.02455E-08
2029	SF301	3.0812E-07	3.08116E-07
2029	SF302	4.1966E-07	4.19658E-07
2029	SF303	1.1172E-05	1.11598E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2029	SF304	1.9182E-07	1.91823E-07
2029	SF306	8.1569E-06	8.15041E-06
2029	SF32	3.4878E-06	3.48782E-06
2029	SF33	1.6958E-06	1.6958E-06
2029	SF340	3.3783E-07	3.37834E-07
2029	SF35	8.7631E-06	8.75449E-06
2029	SF36	3.8574E-06	3.85739E-06
2029	SF37	2.5355E-06	2.53334E-06
2029	SF375	0	0
2029	SF376	0	0
2029	SF377	0	0
2029	SF378	0	0
2029	SF379	0	0
2029	SF38	1.5803E-06	1.58032E-06
2029	SF380	0	0
2029	SF381	0	0
2029	SF386	2.09E-07	2.08897E-07
2029	SF387	2.155E-05	2.15341E-05
2029	SF388	2.5517E-09	2.55168E-09
2029	SF390	1.4395E-06	1.43906E-06
2029	SF392	1.1552E-06	1.15439E-06
2029	SF393	3.9717E-07	3.96936E-07
2029	SF394	9.1586E-06	9.15186E-06
2029	SF396	8.124E-06	8.11872E-06
2029	SF397	1.8117E-06	1.81012E-06
2029	SF398	2.5998E-07	2.59978E-07
2029	SF399	3.6513E-06	3.64914E-06
2029	SF400	5.4383E-08	5.43831E-08
2029	SF401	1.6691E-08	1.66914E-08
2029	SF402	1.8245E-07	1.8245E-07
2029	SF404	1.0349E-08	1.03494E-08
2029	SF405	1.2828E-08	1.28282E-08
2029	SF406	5.7648E-09	5.76482E-09
2029	SF408	3.0971E-07	3.09573E-07
2029	SF409	2.4578E-07	2.45783E-07
2029	SF410	1.2206E-08	1.22059E-08
2029	SF411	2.1114E-08	2.1114E-08
2029	SF42	6.5189E-05	6.5131E-05
2029	SF424	6.7521E-06	6.7448E-06
2029	SF425	0	0
2029	SF426	0	0
2029	SF427	1.6301E-08	1.63007E-08
2029	SF429	0	0
2029	SF43	6.9455E-06	6.93996E-06
2029	SF432	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2029	SF433	2.5387E-08	2.53875E-08
2029	SF436	2.5259E-09	2.52588E-09
2029	SF458	4.3351E-09	4.33506E-09
2029	SF46	3.8267E-07	3.82668E-07
2029	SF464	0	0
2029	SF47	6.878E-07	6.87797E-07
2029	SF479	7.598E-09	7.59796E-09
2029	SF48	1.3104E-06	1.3092E-06
2029	SF488	0	0
2029	SF494	0	0
2029	SF498	0	0
2029	SF499	5.3254E-06	5.31961E-06
2029	SF50	4.0362E-06	4.03623E-06
2029	SF500	3.1869E-06	3.18342E-06
2029	SF502	0	0
2029	SF503	0	0
2029	SF504	9.8506E-08	9.85058E-08
2029	SF51	6.6101E-07	6.61013E-07
2029	SF52	6.6641E-06	6.66407E-06
2029	SF53	1.8261E-08	1.82608E-08
2029	SF54	3.7353E-09	3.73533E-09
2029	SF55	1.2752E-06	1.2752E-06
2029	SF56	7.6512E-07	7.65122E-07
2029	SF57	2.3146E-07	2.31246E-07
2029	SF58	4.1484E-09	4.14842E-09
2029	SF59	1.1043E-06	1.10329E-06
2029	SF60	2.2998E-06	2.2976E-06
2029	SF61	7.6325E-07	7.62492E-07
2029	SF62	0	0
2029	SF65	1.5902E-06	1.58878E-06
2029	SF66	1.4388E-06	1.43758E-06
2029	SF67	2.2424E-08	2.24237E-08
2029	SF68	1.2685E-07	1.26849E-07
2029	SF69	1.1686E-06	1.16863E-06
2029	SF70	1.1522E-06	1.15221E-06
2029	SF71	2.5405E-08	2.54054E-08
2029	SF72	1.343E-08	1.34304E-08
2029	SF73	3.796E-06	3.79601E-06
2029	SF74	2.7918E-08	2.79185E-08
2029	SF75	9.1803E-08	9.18032E-08
2029	SF76	3.8365E-07	3.83653E-07
2029	SF77	6.7353E-09	6.73534E-09
2029	SF80	2.4022E-09	2.40216E-09
2029	SF81	3.3669E-09	3.3669E-09
2029	SF82	9.6942E-07	9.68502E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2029	SF83	1.6949E-07	1.6931E-07
2029	SF85	2.6919E-09	2.69195E-09
2029	SF86	9.8196E-07	9.80957E-07
2029	SF87	1.4547E-08	1.45472E-08
2029	SF88	1.4534E-08	1.45343E-08
2030	172	1.4053E-05	1.40073E-05
2030	173	0.0001401	0.000139649
2030	174	5.7526E-05	5.73374E-05
2030	EG	0.00095171	0
2030	FRWY101	3.4877E-05	3.47821E-05
2030	FRWY27	0.00059555	0.000593684
2030	FRWY28	0.00049931	0.000497754
2030	FRWY29	0.00022928	0.00022857
2030	FRWY30	0.00035392	0.000352825
2030	FRWY31	0.00026069	0.00025988
2030	FRWY32	0.00036221	0.000361087
2030	FRWY33	0.0003656	0.000364471
2030	FRWY34	0.00035356	0.000352473
2030	FRWY35	0.00016141	0.000160958
2030	FRWY36	2.9145E-05	2.90718E-05
2030	FRWY37	5.0703E-05	5.05766E-05
2030	IN01	5.1827E-05	5.13951E-05
2030	IN02	6.3256E-05	6.27272E-05
2030	IN03	5.0942E-06	5.05755E-06
2030	IN05	1.4641E-05	1.45944E-05
2030	IN06	0.00020887	0.000207119
2030	IN08	1.1393E-05	1.13931E-05
2030	IN11	1.0086E-06	1.00861E-06
2030	IN12	3.8024E-08	3.80242E-08
2030	IN14	4.8705E-05	4.82831E-05
2030	IN18	8.069E-06	8.0043E-06
2030	IN19	0.00011703	0.000116064
2030	IN21	2.1851E-05	2.17049E-05
2030	IN24	5.9296E-05	5.88197E-05
2030	IN29	9.38E-06	9.30135E-06
2030	IN30	4.9782E-05	4.93388E-05
2030	IN31	1.9999E-06	1.98782E-06
2030	PH1	0.00032479	0.000323324
2030	PH2	0.00025004	0.00024891
2030	SF09	1.0294E-05	1.02942E-05
2030	SF10	7.0791E-07	7.07908E-07
2030	SF104	7.7318E-07	7.7251E-07
2030	SF106	5.9684E-08	5.96836E-08
2030	SF107	7.6249E-07	7.61857E-07
2030	SF108	7.4678E-08	7.46589E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2030	SF109	2.3634E-08	2.36343E-08
2030	SF110	1.5234E-06	1.52214E-06
2030	SF111	1.4427E-08	1.44273E-08
2030	SF112	3.8561E-06	3.85243E-06
2030	SF113	2.1066E-07	2.10448E-07
2030	SF114	4.3284E-07	4.32397E-07
2030	SF115	1.9177E-06	1.91598E-06
2030	SF116	1.5492E-07	1.54804E-07
2030	SF117	3.7671E-08	3.76559E-08
2030	SF118	1.6544E-06	1.65292E-06
2030	SF119	1.3736E-08	1.37364E-08
2030	SF120	2.2339E-06	2.23151E-06
2030	SF121	7.581E-07	7.57329E-07
2030	SF122	1.5932E-06	1.5915E-06
2030	SF123	1.2594E-08	1.25937E-08
2030	SF124	1.558E-06	1.55662E-06
2030	SF125	1.3642E-08	1.36416E-08
2030	SF126	1.3962E-06	1.39493E-06
2030	SF127	6.8724E-06	6.865E-06
2030	SF128	1.5145E-08	1.51448E-08
2030	SF129	1.4764E-06	1.47506E-06
2030	SF13	8.2038E-06	8.19566E-06
2030	SF130	1.1061E-08	1.1061E-08
2030	SF131	1.6539E-08	1.65392E-08
2030	SF133	1.5224E-08	1.52242E-08
2030	SF134	9.6872E-09	9.68723E-09
2030	SF135	1.4672E-06	1.46585E-06
2030	SF136	2.9558E-08	2.95584E-08
2030	SF137	2.0956E-07	2.09346E-07
2030	SF139	1.5905E-07	1.59051E-07
2030	SF140	9.1601E-09	9.16012E-09
2030	SF141	8.125E-08	8.12503E-08
2030	SF142	8.714E-09	8.712E-09
2030	SF143	3.6758E-07	3.67583E-07
2030	SF144	2.358E-07	2.35798E-07
2030	SF145	5.3354E-07	5.33536E-07
2030	SF146	2.5688E-08	2.56876E-08
2030	SF147	4.6904E-07	4.6904E-07
2030	SF148	1.2633E-06	1.26197E-06
2030	SF149	5.721E-07	5.72103E-07
2030	SF150	1.1787E-08	1.17869E-08
2030	SF151	7.7362E-07	7.73509E-07
2030	SF152	6.9504E-06	6.94342E-06
2030	SF153	7.3683E-07	7.36828E-07
2030	SF154	1.1988E-08	1.19877E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2030	SF155	1.2656E-06	1.26557E-06
2030	SF156	4.6752E-07	4.6752E-07
2030	SF157	1.2114E-06	1.2114E-06
2030	SF160	2.1712E-08	2.17122E-08
2030	SF161	2.579E-06	2.57905E-06
2030	SF162	5.0961E-06	5.09608E-06
2030	SF163	4.2959E-07	4.29594E-07
2030	SF164	1.4774E-08	1.47741E-08
2030	SF165	8.6081E-06	8.60812E-06
2030	SF168	1.0501E-06	1.05007E-06
2030	SF169	2.7373E-08	2.73731E-08
2030	SF170	5.8282E-07	5.82784E-07
2030	SF171	3.0772E-07	3.07722E-07
2030	SF172	5.9096E-07	5.90964E-07
2030	SF173	0	0
2030	SF174	0	0
2030	SF177	1.4044E-05	1.40316E-05
2030	SF178	7.3217E-06	7.31494E-06
2030	SF179	3.015E-05	3.01246E-05
2030	SF180	3.6405E-08	3.64054E-08
2030	SF181	0	0
2030	SF182	0	0
2030	SF183	0	0
2030	SF184	0	0
2030	SF185	0	0
2030	SF186	0	0
2030	SF190	1.2837E-05	1.28277E-05
2030	SF191	6.7066E-06	6.70341E-06
2030	SF192	5.7859E-06	5.78093E-06
2030	SF194	2.0304E-07	2.03038E-07
2030	SF195	2.4039E-07	2.40395E-07
2030	SF196	9.5741E-07	9.57414E-07
2030	SF198	1.264E-08	1.26405E-08
2030	SF199	5.0246E-09	5.02463E-09
2030	SF200	1.7706E-06	1.7706E-06
2030	SF205	1.3319E-06	1.33187E-06
2030	SF206	2.6344E-08	2.6344E-08
2030	SF207	2.3067E-06	2.30673E-06
2030	SF283	6.1682E-07	6.16219E-07
2030	SF284	1.1973E-06	1.19621E-06
2030	SF285	4.4849E-07	4.48004E-07
2030	SF286	1.8878E-07	1.88781E-07
2030	SF287	1.6616E-06	1.6599E-06
2030	SF288	2.4847E-08	2.48267E-08
2030	SF289	1.0731E-06	1.07201E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2030	SF290	2.9464E-06	2.94325E-06
2030	SF294	1.1165E-08	1.11646E-08
2030	SF301	3.3576E-07	3.35758E-07
2030	SF302	4.5731E-07	4.57306E-07
2030	SF303	1.2174E-05	1.21609E-05
2030	SF304	2.0903E-07	2.09031E-07
2030	SF306	8.8887E-06	8.88159E-06
2030	SF32	3.8007E-06	3.80071E-06
2030	SF33	1.8479E-06	1.84793E-06
2030	SF340	3.6814E-07	3.68141E-07
2030	SF35	9.5493E-06	9.53987E-06
2030	SF36	4.2034E-06	4.20344E-06
2030	SF37	2.763E-06	2.76061E-06
2030	SF375	0	0
2030	SF376	0	0
2030	SF377	0	0
2030	SF378	0	0
2030	SF379	0	0
2030	SF38	1.7221E-06	1.72209E-06
2030	SF380	0	0
2030	SF381	0	0
2030	SF386	2.2775E-07	2.27637E-07
2030	SF387	2.3484E-05	2.34659E-05
2030	SF388	2.7806E-09	2.78059E-09
2030	SF390	1.5686E-06	1.56816E-06
2030	SF392	1.2588E-06	1.25795E-06
2030	SF393	4.328E-07	4.32546E-07
2030	SF394	9.9802E-06	9.97287E-06
2030	SF396	8.8528E-06	8.84706E-06
2030	SF397	1.9742E-06	1.9725E-06
2030	SF398	2.833E-07	2.83301E-07
2030	SF399	3.9788E-06	3.97651E-06
2030	SF400	5.9262E-08	5.92618E-08
2030	SF401	1.8189E-08	1.81888E-08
2030	SF402	1.9882E-07	1.98817E-07
2030	SF404	1.1278E-08	1.12778E-08
2030	SF405	1.3979E-08	1.39791E-08
2030	SF406	6.282E-09	6.28199E-09
2030	SF408	3.3749E-07	3.37344E-07
2030	SF409	2.6783E-07	2.67832E-07
2030	SF410	1.3301E-08	1.33009E-08
2030	SF411	2.3008E-08	2.30082E-08
2030	SF42	7.1037E-05	7.0974E-05
2030	SF424	7.3578E-06	7.34988E-06
2030	SF425	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2030	SF426	0	0
2030	SF427	1.7763E-08	1.77631E-08
2030	SF429	0	0
2030	SF43	7.5686E-06	7.56255E-06
2030	SF432	0	0
2030	SF433	2.7665E-08	2.7665E-08
2030	SF436	2.7525E-09	2.75248E-09
2030	SF458	4.724E-09	4.72397E-09
2030	SF46	4.17E-07	4.16998E-07
2030	SF464	0	0
2030	SF47	7.495E-07	7.49499E-07
2030	SF479	8.2796E-09	8.27958E-09
2030	SF48	1.4279E-06	1.42665E-06
2030	SF488	0	0
2030	SF494	0	0
2030	SF498	0	0
2030	SF499	5.8031E-06	5.79684E-06
2030	SF50	4.3983E-06	4.39832E-06
2030	SF500	3.4728E-06	3.46901E-06
2030	SF502	0	0
2030	SF503	0	0
2030	SF504	1.0734E-07	1.07343E-07
2030	SF51	7.2031E-07	7.20313E-07
2030	SF52	7.2619E-06	7.26191E-06
2030	SF53	1.9899E-08	1.9899E-08
2030	SF54	4.0704E-09	4.07043E-09
2030	SF55	1.3896E-06	1.3896E-06
2030	SF56	8.3376E-07	8.33762E-07
2030	SF57	2.5222E-07	2.51991E-07
2030	SF58	4.5206E-09	4.52057E-09
2030	SF59	1.2034E-06	1.20226E-06
2030	SF60	2.5061E-06	2.50371E-06
2030	SF61	8.3172E-07	8.30895E-07
2030	SF62	0	0
2030	SF65	1.7328E-06	1.73131E-06
2030	SF66	1.5679E-06	1.56655E-06
2030	SF67	2.4435E-08	2.44353E-08
2030	SF68	1.3823E-07	1.38229E-07
2030	SF69	1.2735E-06	1.27346E-06
2030	SF70	1.2556E-06	1.25558E-06
2030	SF71	2.7684E-08	2.76845E-08
2030	SF72	1.4635E-08	1.46353E-08
2030	SF73	4.1366E-06	4.13656E-06
2030	SF74	3.0423E-08	3.04231E-08
2030	SF75	1.0004E-07	1.00039E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2030	SF76	4.1807E-07	4.18071E-07
2030	SF77	7.3396E-09	7.33957E-09
2030	SF80	2.6177E-09	2.61766E-09
2030	SF81	3.6689E-09	3.66895E-09
2030	SF82	1.0564E-06	1.05539E-06
2030	SF83	1.847E-07	1.84499E-07
2030	SF85	2.9334E-09	2.93344E-09
2030	SF86	1.0701E-06	1.06896E-06
2030	SF87	1.5852E-08	1.58523E-08
2030	SF88	1.5838E-08	1.58382E-08
2031	172	1.5365E-05	1.5315E-05
2031	173	0.00015318	0.000152686
2031	174	6.2896E-05	6.26902E-05
2031	EG	0.00104056	0
2031	FRWY101	3.8133E-05	3.80292E-05
2031	FRWY27	0.00065115	0.000649108
2031	FRWY28	0.00054593	0.000544223
2031	FRWY29	0.00025069	0.000249908
2031	FRWY30	0.00038696	0.000385763
2031	FRWY31	0.00028503	0.000284142
2031	FRWY32	0.00039602	0.000394797
2031	FRWY33	0.00039973	0.000398497
2031	FRWY34	0.00038656	0.000385379
2031	FRWY35	0.00017648	0.000175985
2031	FRWY36	3.1866E-05	3.17859E-05
2031	FRWY37	5.5437E-05	5.52982E-05
2031	IN01	5.6665E-05	5.61932E-05
2031	IN02	6.9161E-05	6.85832E-05
2031	IN03	5.5697E-06	5.5297E-06
2031	IN05	1.6008E-05	1.59568E-05
2031	IN06	0.00022837	0.000226455
2031	IN08	1.2457E-05	1.24567E-05
2031	IN11	1.1028E-06	1.10277E-06
2031	IN12	4.1574E-08	4.15741E-08
2031	IN14	5.3252E-05	5.27906E-05
2031	IN18	8.8223E-06	8.75155E-06
2031	IN19	0.00012796	0.000126899
2031	IN21	2.3891E-05	2.37312E-05
2031	IN24	6.4831E-05	6.43109E-05
2031	IN29	1.0256E-05	1.01697E-05
2031	IN30	5.443E-05	5.39449E-05
2031	IN31	2.1866E-06	2.17339E-06
2031	PH1	0.00035511	0.000353509
2031	PH2	0.00027338	0.000272147
2031	SF09	1.1255E-05	1.12552E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2031	SF10	7.74E-07	7.73996E-07
2031	SF104	8.4537E-07	8.44629E-07
2031	SF106	6.5255E-08	6.52554E-08
2031	SF107	8.3367E-07	8.32981E-07
2031	SF108	8.165E-08	8.16288E-08
2031	SF109	2.5841E-08	2.58407E-08
2031	SF110	1.6656E-06	1.66425E-06
2031	SF111	1.5774E-08	1.57742E-08
2031	SF112	4.2161E-06	4.21207E-06
2031	SF113	2.3033E-07	2.30095E-07
2031	SF114	4.7325E-07	4.72765E-07
2031	SF115	2.0967E-06	2.09485E-06
2031	SF116	1.6938E-07	1.69256E-07
2031	SF117	4.1187E-08	4.11713E-08
2031	SF118	1.8088E-06	1.80723E-06
2031	SF119	1.5019E-08	1.50188E-08
2031	SF120	2.4424E-06	2.43983E-06
2031	SF121	8.2887E-07	8.28031E-07
2031	SF122	1.7419E-06	1.74007E-06
2031	SF123	1.3769E-08	1.37694E-08
2031	SF124	1.7035E-06	1.70194E-06
2031	SF125	1.4915E-08	1.49151E-08
2031	SF126	1.5266E-06	1.52516E-06
2031	SF127	7.514E-06	7.50589E-06
2031	SF128	1.6559E-08	1.65586E-08
2031	SF129	1.6142E-06	1.61277E-06
2031	SF13	8.9697E-06	8.96078E-06
2031	SF130	1.2094E-08	1.20936E-08
2031	SF131	1.8083E-08	1.80833E-08
2031	SF133	1.6645E-08	1.66454E-08
2031	SF134	1.0592E-08	1.05916E-08
2031	SF135	1.6042E-06	1.6027E-06
2031	SF136	3.2318E-08	3.23179E-08
2031	SF137	2.2912E-07	2.2889E-07
2031	SF139	1.739E-07	1.739E-07
2031	SF140	1.0015E-08	1.00153E-08
2031	SF141	8.8836E-08	8.88355E-08
2031	SF142	9.5275E-09	9.52533E-09
2031	SF143	4.019E-07	4.01899E-07
2031	SF144	2.5781E-07	2.57811E-07
2031	SF145	5.8334E-07	5.83345E-07
2031	SF146	2.8086E-08	2.80857E-08
2031	SF147	5.1283E-07	5.12828E-07
2031	SF148	1.3812E-06	1.37978E-06
2031	SF149	6.2551E-07	6.25512E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2031	SF150	1.2887E-08	1.28873E-08
2031	SF151	8.4584E-07	8.45721E-07
2031	SF152	7.5992E-06	7.59163E-06
2031	SF153	8.0562E-07	8.05616E-07
2031	SF154	1.3107E-08	1.31069E-08
2031	SF155	1.3837E-06	1.38372E-06
2031	SF156	5.1117E-07	5.11166E-07
2031	SF157	1.3245E-06	1.32449E-06
2031	SF160	2.3739E-08	2.37392E-08
2031	SF161	2.8198E-06	2.81982E-06
2031	SF162	5.5718E-06	5.57183E-06
2031	SF163	4.697E-07	4.69699E-07
2031	SF164	1.6153E-08	1.61534E-08
2031	SF165	9.4118E-06	9.41175E-06
2031	SF168	1.1481E-06	1.1481E-06
2031	SF169	2.9929E-08	2.99286E-08
2031	SF170	6.3723E-07	6.37191E-07
2031	SF171	3.3645E-07	3.3645E-07
2031	SF172	6.4613E-07	6.46135E-07
2031	SF173	0	0
2031	SF174	0	0
2031	SF177	1.5355E-05	1.53416E-05
2031	SF178	8.0052E-06	7.99784E-06
2031	SF179	3.2965E-05	3.29369E-05
2031	SF180	3.9804E-08	3.98041E-08
2031	SF181	0	0
2031	SF182	0	0
2031	SF183	0	0
2031	SF184	0	0
2031	SF185	0	0
2031	SF186	0	0
2031	SF190	1.4035E-05	1.40253E-05
2031	SF191	7.3327E-06	7.32922E-06
2031	SF192	6.3261E-06	6.32062E-06
2031	SF194	2.2199E-07	2.21993E-07
2031	SF195	2.6284E-07	2.62837E-07
2031	SF196	1.0468E-06	1.04679E-06
2031	SF198	1.3821E-08	1.38205E-08
2031	SF199	5.4937E-09	5.49372E-09
2031	SF200	1.9359E-06	1.9359E-06
2031	SF205	1.4562E-06	1.4562E-06
2031	SF206	2.8803E-08	2.88034E-08
2031	SF207	2.5221E-06	2.52208E-06
2031	SF283	6.7441E-07	6.73748E-07
2031	SF284	1.3091E-06	1.30788E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2031	SF285	4.9036E-07	4.89829E-07
2031	SF286	2.0641E-07	2.06405E-07
2031	SF287	1.8167E-06	1.81486E-06
2031	SF288	2.7167E-08	2.71444E-08
2031	SF289	1.1733E-06	1.17209E-06
2031	SF290	3.2215E-06	3.21803E-06
2031	SF294	1.2207E-08	1.22069E-08
2031	SF301	3.671E-07	3.67103E-07
2031	SF302	5E-07	4.99998E-07
2031	SF303	1.3311E-05	1.32962E-05
2031	SF304	2.2855E-07	2.28546E-07
2031	SF306	9.7185E-06	9.71075E-06
2031	SF32	4.1555E-06	4.15554E-06
2031	SF33	2.0204E-06	2.02045E-06
2031	SF340	4.0251E-07	4.0251E-07
2031	SF35	1.0441E-05	1.04305E-05
2031	SF36	4.5959E-06	4.59585E-06
2031	SF37	3.0209E-06	3.01833E-06
2031	SF375	0	0
2031	SF376	0	0
2031	SF377	0	0
2031	SF378	0	0
2031	SF379	0	0
2031	SF38	1.8829E-06	1.88285E-06
2031	SF380	0	0
2031	SF381	0	0
2031	SF386	2.4901E-07	2.48888E-07
2031	SF387	2.5676E-05	2.56566E-05
2031	SF388	3.0402E-09	3.04018E-09
2031	SF390	1.7151E-06	1.71456E-06
2031	SF392	1.3764E-06	1.37538E-06
2031	SF393	4.732E-07	4.72927E-07
2031	SF394	1.0912E-05	1.09039E-05
2031	SF396	9.6793E-06	9.67299E-06
2031	SF397	2.1585E-06	2.15665E-06
2031	SF398	3.0975E-07	3.09749E-07
2031	SF399	4.3503E-06	4.34774E-06
2031	SF400	6.4794E-08	6.47943E-08
2031	SF401	1.9887E-08	1.98869E-08
2031	SF402	2.1738E-07	2.17378E-07
2031	SF404	1.2331E-08	1.23307E-08
2031	SF405	1.5284E-08	1.52841E-08
2031	SF406	6.8685E-09	6.86845E-09
2031	SF408	3.69E-07	3.68838E-07
2031	SF409	2.9284E-07	2.92836E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2031	SF410	1.4543E-08	1.45426E-08
2031	SF411	2.5156E-08	2.51561E-08
2031	SF42	7.7669E-05	7.75999E-05
2031	SF424	8.0447E-06	8.03604E-06
2031	SF425	0	0
2031	SF426	0	0
2031	SF427	1.9421E-08	1.94214E-08
2031	SF429	0	0
2031	SF43	8.2752E-06	8.26856E-06
2031	SF432	0	0
2031	SF433	3.0248E-08	3.02477E-08
2031	SF436	3.0094E-09	3.00945E-09
2031	SF458	5.165E-09	5.16498E-09
2031	SF46	4.5593E-07	4.55927E-07
2031	SF464	0	0
2031	SF47	8.1947E-07	8.1947E-07
2031	SF479	9.0525E-09	9.05253E-09
2031	SF48	1.5613E-06	1.55984E-06
2031	SF488	0	0
2031	SF494	0	0
2031	SF498	0	0
2031	SF499	6.3449E-06	6.33801E-06
2031	SF50	4.8089E-06	4.80894E-06
2031	SF500	3.797E-06	3.79287E-06
2031	SF502	0	0
2031	SF503	0	0
2031	SF504	1.1736E-07	1.17364E-07
2031	SF51	7.8756E-07	7.87559E-07
2031	SF52	7.9399E-06	7.93985E-06
2031	SF53	2.1757E-08	2.17567E-08
2031	SF54	4.4504E-09	4.45043E-09
2031	SF55	1.5193E-06	1.51933E-06
2031	SF56	9.116E-07	9.11599E-07
2031	SF57	2.7577E-07	2.75516E-07
2031	SF58	4.9426E-09	4.9426E-09
2031	SF59	1.3157E-06	1.3145E-06
2031	SF60	2.7401E-06	2.73745E-06
2031	SF61	9.0937E-07	9.08465E-07
2031	SF62	0	0
2031	SF65	1.8946E-06	1.89294E-06
2031	SF66	1.7142E-06	1.7128E-06
2031	SF67	2.6717E-08	2.67165E-08
2031	SF68	1.5113E-07	1.51133E-07
2031	SF69	1.3924E-06	1.39235E-06
2031	SF70	1.3728E-06	1.37279E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2031	SF71	3.0269E-08	3.0269E-08
2031	SF72	1.6002E-08	1.60016E-08
2031	SF73	4.5227E-06	4.52273E-06
2031	SF74	3.3263E-08	3.32633E-08
2031	SF75	1.0938E-07	1.09378E-07
2031	SF76	4.571E-07	4.57101E-07
2031	SF77	8.0248E-09	8.02476E-09
2031	SF80	2.862E-09	2.86204E-09
2031	SF81	4.0115E-09	4.01147E-09
2031	SF82	1.155E-06	1.15391E-06
2031	SF83	2.0194E-07	2.01723E-07
2031	SF85	3.2073E-09	3.2073E-09
2031	SF86	1.17E-06	1.16875E-06
2031	SF87	1.7332E-08	1.73322E-08
2031	SF88	1.7317E-08	1.73168E-08
2032	172	1.6677E-05	1.66226E-05
2032	173	0.00016626	0.000165723
2032	174	6.8267E-05	6.80431E-05
2032	EG	0.0011294	0
2032	FRWY101	4.1388E-05	4.12763E-05
2032	FRWY27	0.00070675	0.000704533
2032	FRWY28	0.00059254	0.000590691
2032	FRWY29	0.00027209	0.000271247
2032	FRWY30	0.00042001	0.000418702
2032	FRWY31	0.00030936	0.000308403
2032	FRWY32	0.00042984	0.000428507
2032	FRWY33	0.00043386	0.000432522
2032	FRWY34	0.00041957	0.000418285
2032	FRWY35	0.00019154	0.000191011
2032	FRWY36	3.4586E-05	3.44999E-05
2032	FRWY37	6.017E-05	6.00199E-05
2032	IN01	6.1504E-05	6.09912E-05
2032	IN02	7.5067E-05	7.44392E-05
2032	IN03	6.0453E-06	6.00186E-06
2032	IN05	1.7374E-05	1.73193E-05
2032	IN06	0.00024787	0.000245791
2032	IN08	1.352E-05	1.35203E-05
2032	IN11	1.1969E-06	1.19693E-06
2032	IN12	4.5124E-08	4.51239E-08
2032	IN14	5.7799E-05	5.72982E-05
2032	IN18	9.5756E-06	9.49881E-06
2032	IN19	0.00013889	0.000137735
2032	IN21	2.5931E-05	2.57575E-05
2032	IN24	7.0367E-05	6.98021E-05
2032	IN29	1.1131E-05	1.1038E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2032	IN30	5.9077E-05	5.85511E-05
2032	IN31	2.3733E-06	2.35897E-06
2032	PH1	0.00038544	0.000383693
2032	PH2	0.00029673	0.000295385
2032	SF09	1.2216E-05	1.22162E-05
2032	SF10	8.4008E-07	8.40084E-07
2032	SF104	9.1755E-07	9.16748E-07
2032	SF106	7.0827E-08	7.08273E-08
2032	SF107	9.0485E-07	9.04105E-07
2032	SF108	8.8621E-08	8.85988E-08
2032	SF109	2.8047E-08	2.80471E-08
2032	SF110	1.8078E-06	1.80635E-06
2032	SF111	1.7121E-08	1.71211E-08
2032	SF112	4.5761E-06	4.57172E-06
2032	SF113	2.5E-07	2.49741E-07
2032	SF114	5.1366E-07	5.13132E-07
2032	SF115	2.2757E-06	2.27372E-06
2032	SF116	1.8384E-07	1.83708E-07
2032	SF117	4.4704E-08	4.46868E-08
2032	SF118	1.9633E-06	1.96154E-06
2032	SF119	1.6301E-08	1.63012E-08
2032	SF120	2.651E-06	2.64816E-06
2032	SF121	8.9964E-07	8.98733E-07
2032	SF122	1.8907E-06	1.88865E-06
2032	SF123	1.4945E-08	1.49451E-08
2032	SF124	1.849E-06	1.84726E-06
2032	SF125	1.6189E-08	1.61887E-08
2032	SF126	1.6569E-06	1.65538E-06
2032	SF127	8.1556E-06	8.14678E-06
2032	SF128	1.7973E-08	1.79725E-08
2032	SF129	1.7521E-06	1.75048E-06
2032	SF13	9.7356E-06	9.72589E-06
2032	SF130	1.3126E-08	1.31263E-08
2032	SF131	1.9627E-08	1.96273E-08
2032	SF133	1.8067E-08	1.80667E-08
2032	SF134	1.1496E-08	1.1496E-08
2032	SF135	1.7411E-06	1.73955E-06
2032	SF136	3.5077E-08	3.50773E-08
2032	SF137	2.4869E-07	2.48434E-07
2032	SF139	1.8875E-07	1.88748E-07
2032	SF140	1.087E-08	1.08704E-08
2032	SF141	9.6421E-08	9.64208E-08
2032	SF142	1.0341E-08	1.03387E-08
2032	SF143	4.3622E-07	4.36216E-07
2032	SF144	2.7982E-07	2.79824E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2032	SF145	6.3315E-07	6.33154E-07
2032	SF146	3.0484E-08	3.04838E-08
2032	SF147	5.5662E-07	5.56616E-07
2032	SF148	1.4992E-06	1.49759E-06
2032	SF149	6.7892E-07	6.78922E-07
2032	SF150	1.3988E-08	1.39877E-08
2032	SF151	9.1806E-07	9.17933E-07
2032	SF152	8.2481E-06	8.23985E-06
2032	SF153	8.744E-07	8.74404E-07
2032	SF154	1.4226E-08	1.4226E-08
2032	SF155	1.5019E-06	1.50187E-06
2032	SF156	5.5481E-07	5.54812E-07
2032	SF157	1.4376E-06	1.43758E-06
2032	SF160	2.5766E-08	2.57662E-08
2032	SF161	3.0606E-06	3.06059E-06
2032	SF162	6.0476E-06	6.04759E-06
2032	SF163	5.098E-07	5.09804E-07
2032	SF164	1.7533E-08	1.75326E-08
2032	SF165	1.0215E-05	1.02154E-05
2032	SF168	1.2461E-06	1.24614E-06
2032	SF169	3.2484E-08	3.24841E-08
2032	SF170	6.9164E-07	6.91598E-07
2032	SF171	3.6518E-07	3.65178E-07
2032	SF172	7.013E-07	7.01305E-07
2032	SF173	0	0
2032	SF174	0	0
2032	SF177	1.6666E-05	1.66515E-05
2032	SF178	8.6888E-06	8.68073E-06
2032	SF179	3.578E-05	3.57493E-05
2032	SF180	4.3203E-08	4.32027E-08
2032	SF181	0	0
2032	SF182	0	0
2032	SF183	0	0
2032	SF184	0	0
2032	SF185	0	0
2032	SF186	0	0
2032	SF190	1.5234E-05	1.52228E-05
2032	SF191	7.9588E-06	7.95502E-06
2032	SF192	6.8662E-06	6.8603E-06
2032	SF194	2.4095E-07	2.40948E-07
2032	SF195	2.8528E-07	2.8528E-07
2032	SF196	1.1362E-06	1.13618E-06
2032	SF198	1.5001E-08	1.50006E-08
2032	SF199	5.9628E-09	5.9628E-09
2032	SF200	2.1012E-06	2.1012E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2032	SF205	1.5805E-06	1.58054E-06
2032	SF206	3.1263E-08	3.12628E-08
2032	SF207	2.7374E-06	2.73743E-06
2032	SF283	7.3199E-07	7.31276E-07
2032	SF284	1.4209E-06	1.41955E-06
2032	SF285	5.3223E-07	5.31653E-07
2032	SF286	2.2403E-07	2.24029E-07
2032	SF287	1.9718E-06	1.96982E-06
2032	SF288	2.9487E-08	2.94622E-08
2032	SF289	1.2735E-06	1.27217E-06
2032	SF290	3.4966E-06	3.4928E-06
2032	SF294	1.3249E-08	1.32492E-08
2032	SF301	3.9845E-07	3.98448E-07
2032	SF302	5.4269E-07	5.42691E-07
2032	SF303	1.4447E-05	1.44315E-05
2032	SF304	2.4806E-07	2.4806E-07
2032	SF306	1.0548E-05	1.05399E-05
2032	SF32	4.5104E-06	4.51036E-06
2032	SF33	2.193E-06	2.19296E-06
2032	SF340	4.3688E-07	4.36878E-07
2032	SF35	1.1332E-05	1.13211E-05
2032	SF36	4.9883E-06	4.98827E-06
2032	SF37	3.2789E-06	3.27605E-06
2032	SF375	0	0
2032	SF376	0	0
2032	SF377	0	0
2032	SF378	0	0
2032	SF379	0	0
2032	SF38	2.0436E-06	2.04362E-06
2032	SF380	0	0
2032	SF381	0	0
2032	SF386	2.7027E-07	2.7014E-07
2032	SF387	2.7868E-05	2.78473E-05
2032	SF388	3.2998E-09	3.29977E-09
2032	SF390	1.8615E-06	1.86096E-06
2032	SF392	1.4939E-06	1.49282E-06
2032	SF393	5.1361E-07	5.13308E-07
2032	SF394	1.1844E-05	1.18349E-05
2032	SF396	1.0506E-05	1.04989E-05
2032	SF397	2.3428E-06	2.3408E-06
2032	SF398	3.362E-07	3.36197E-07
2032	SF399	4.7217E-06	4.71898E-06
2032	SF400	7.0327E-08	7.03268E-08
2032	SF401	2.1585E-08	2.15849E-08
2032	SF402	2.3594E-07	2.35939E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2032	SF404	1.3384E-08	1.33835E-08
2032	SF405	1.6589E-08	1.65891E-08
2032	SF406	7.4549E-09	7.45492E-09
2032	SF408	4.005E-07	4.00331E-07
2032	SF409	3.1784E-07	3.1784E-07
2032	SF410	1.5784E-08	1.57843E-08
2032	SF411	2.7304E-08	2.73041E-08
2032	SF42	8.43E-05	8.42257E-05
2032	SF424	8.7316E-06	8.7222E-06
2032	SF425	0	0
2032	SF426	0	0
2032	SF427	2.108E-08	2.10797E-08
2032	SF429	0	0
2032	SF43	8.9818E-06	8.97458E-06
2032	SF432	0	0
2032	SF433	3.283E-08	3.28304E-08
2032	SF436	3.2664E-09	3.26641E-09
2032	SF458	5.606E-09	5.60599E-09
2032	SF46	4.9486E-07	4.94857E-07
2032	SF464	0	0
2032	SF47	8.8944E-07	8.89441E-07
2032	SF479	9.8255E-09	9.82548E-09
2032	SF48	1.6946E-06	1.69303E-06
2032	SF488	0	0
2032	SF494	0	0
2032	SF498	0	0
2032	SF499	6.8866E-06	6.87918E-06
2032	SF50	5.2196E-06	5.21955E-06
2032	SF500	4.1212E-06	4.11672E-06
2032	SF502	0	0
2032	SF503	0	0
2032	SF504	1.2739E-07	1.27385E-07
2032	SF51	8.548E-07	8.54805E-07
2032	SF52	8.6178E-06	8.6178E-06
2032	SF53	2.3614E-08	2.36144E-08
2032	SF54	4.8304E-09	4.83043E-09
2032	SF55	1.6491E-06	1.64905E-06
2032	SF56	9.8944E-07	9.89436E-07
2032	SF57	2.9932E-07	2.99042E-07
2032	SF58	5.3646E-09	5.36462E-09
2032	SF59	1.428E-06	1.42674E-06
2032	SF60	2.9741E-06	2.97119E-06
2032	SF61	9.8701E-07	9.86035E-07
2032	SF62	0	0
2032	SF65	2.0564E-06	2.05457E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2032	SF66	1.8606E-06	1.85904E-06
2032	SF67	2.8998E-08	2.89977E-08
2032	SF68	1.6404E-07	1.64038E-07
2032	SF69	1.5112E-06	1.51124E-06
2032	SF70	1.49E-06	1.49001E-06
2032	SF71	3.2854E-08	3.28536E-08
2032	SF72	1.7368E-08	1.73679E-08
2032	SF73	4.9089E-06	4.90891E-06
2032	SF74	3.6103E-08	3.61035E-08
2032	SF75	1.1872E-07	1.18718E-07
2032	SF76	4.9613E-07	4.96131E-07
2032	SF77	8.71E-09	8.70996E-09
2032	SF80	3.1064E-09	3.10641E-09
2032	SF81	4.354E-09	4.35399E-09
2032	SF82	1.2536E-06	1.25244E-06
2032	SF83	2.1918E-07	2.18947E-07
2032	SF85	3.4812E-09	3.48116E-09
2032	SF86	1.2698E-06	1.26855E-06
2032	SF87	1.8812E-08	1.88121E-08
2032	SF88	1.8795E-08	1.87954E-08
2033	172	1.7989E-05	1.79303E-05
2033	173	0.00017934	0.00017876
2033	174	7.3637E-05	7.33959E-05
2033	EG	0.00121825	0
2033	FRWY101	4.4644E-05	4.45235E-05
2033	FRWY27	0.00076235	0.000759957
2033	FRWY28	0.00063916	0.00063716
2033	FRWY29	0.0002935	0.000292585
2033	FRWY30	0.00045305	0.000451641
2033	FRWY31	0.0003337	0.000332665
2033	FRWY32	0.00046365	0.000462217
2033	FRWY33	0.00046799	0.000466548
2033	FRWY34	0.00045258	0.00045119
2033	FRWY35	0.00020661	0.000206038
2033	FRWY36	3.7307E-05	3.7214E-05
2033	FRWY37	6.4904E-05	6.47415E-05
2033	IN01	6.6342E-05	6.57893E-05
2033	IN02	8.0972E-05	8.02952E-05
2033	IN03	6.5209E-06	6.47401E-06
2033	IN05	1.8741E-05	1.86818E-05
2033	IN06	0.00026736	0.000265127
2033	IN08	1.4584E-05	1.4584E-05
2033	IN11	1.2911E-06	1.29109E-06
2033	IN12	4.8674E-08	4.86737E-08
2033	IN14	6.2346E-05	6.18057E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2033	IN18	1.0329E-05	1.02461E-05
2033	IN19	0.00014981	0.00014857
2033	IN21	2.7971E-05	2.77838E-05
2033	IN24	7.5903E-05	7.52933E-05
2033	IN29	1.2007E-05	1.19064E-05
2033	IN30	6.3725E-05	6.31572E-05
2033	IN31	2.56E-06	2.54455E-06
2033	PH1	0.00041576	0.000413877
2033	PH2	0.00032007	0.000318622
2033	SF09	1.3177E-05	1.31772E-05
2033	SF10	9.0617E-07	9.06172E-07
2033	SF104	9.8973E-07	9.88867E-07
2033	SF106	7.6399E-08	7.63991E-08
2033	SF107	9.7604E-07	9.7523E-07
2033	SF108	9.5593E-08	9.55687E-08
2033	SF109	3.0254E-08	3.02535E-08
2033	SF110	1.95E-06	1.94845E-06
2033	SF111	1.8468E-08	1.8468E-08
2033	SF112	4.9361E-06	4.93137E-06
2033	SF113	2.6966E-07	2.69388E-07
2033	SF114	5.5407E-07	5.53499E-07
2033	SF115	2.4548E-06	2.45259E-06
2033	SF116	1.9831E-07	1.9816E-07
2033	SF117	4.8221E-08	4.82022E-08
2033	SF118	2.1177E-06	2.11585E-06
2033	SF119	1.7584E-08	1.75836E-08
2033	SF120	2.8595E-06	2.85649E-06
2033	SF121	9.7042E-07	9.69434E-07
2033	SF122	2.0394E-06	2.03723E-06
2033	SF123	1.6121E-08	1.61208E-08
2033	SF124	1.9944E-06	1.99258E-06
2033	SF125	1.7462E-08	1.74622E-08
2033	SF126	1.7872E-06	1.78561E-06
2033	SF127	8.7972E-06	8.78767E-06
2033	SF128	1.9386E-08	1.93864E-08
2033	SF129	1.8899E-06	1.88818E-06
2033	SF13	1.0501E-05	1.0491E-05
2033	SF130	1.4159E-08	1.41589E-08
2033	SF131	2.1171E-08	2.11714E-08
2033	SF133	1.9488E-08	1.9488E-08
2033	SF134	1.24E-08	1.24003E-08
2033	SF135	1.8781E-06	1.87639E-06
2033	SF136	3.7837E-08	3.78368E-08
2033	SF137	2.6825E-07	2.67977E-07
2033	SF139	2.036E-07	2.03597E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2033	SF140	1.1726E-08	1.17256E-08
2033	SF141	1.0401E-07	1.04006E-07
2033	SF142	1.1155E-08	1.1152E-08
2033	SF143	4.7053E-07	4.70532E-07
2033	SF144	3.0184E-07	3.01838E-07
2033	SF145	6.8296E-07	6.82963E-07
2033	SF146	3.2882E-08	3.28819E-08
2033	SF147	6.004E-07	6.00404E-07
2033	SF148	1.6171E-06	1.6154E-06
2033	SF149	7.3233E-07	7.32331E-07
2033	SF150	1.5088E-08	1.50881E-08
2033	SF151	9.9028E-07	9.90146E-07
2033	SF152	8.897E-06	8.88806E-06
2033	SF153	9.4319E-07	9.43191E-07
2033	SF154	1.5345E-08	1.53451E-08
2033	SF155	1.62E-06	1.62002E-06
2033	SF156	5.9846E-07	5.98458E-07
2033	SF157	1.5507E-06	1.55068E-06
2033	SF160	2.7793E-08	2.77932E-08
2033	SF161	3.3014E-06	3.30136E-06
2033	SF162	6.5233E-06	6.52334E-06
2033	SF163	5.4991E-07	5.4991E-07
2033	SF164	1.8912E-08	1.89119E-08
2033	SF165	1.1019E-05	1.1019E-05
2033	SF168	1.3442E-06	1.34417E-06
2033	SF169	3.504E-08	3.50395E-08
2033	SF170	7.4605E-07	7.46005E-07
2033	SF171	3.9391E-07	3.93906E-07
2033	SF172	7.5648E-07	7.56475E-07
2033	SF173	0	0
2033	SF174	0	0
2033	SF177	1.7977E-05	1.79615E-05
2033	SF178	9.3723E-06	9.36363E-06
2033	SF179	3.8595E-05	3.85616E-05
2033	SF180	4.6601E-08	4.66014E-08
2033	SF181	0	0
2033	SF182	0	0
2033	SF183	0	0
2033	SF184	0	0
2033	SF185	0	0
2033	SF186	0	0
2033	SF190	1.6432E-05	1.64204E-05
2033	SF191	8.5849E-06	8.58083E-06
2033	SF192	7.4064E-06	7.39999E-06
2033	SF194	2.599E-07	2.59903E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2033	SF195	3.0772E-07	3.07722E-07
2033	SF196	1.2256E-06	1.22556E-06
2033	SF198	1.6181E-08	1.61807E-08
2033	SF199	6.4319E-09	6.43188E-09
2033	SF200	2.2665E-06	2.26649E-06
2033	SF205	1.7049E-06	1.70488E-06
2033	SF206	3.3722E-08	3.37221E-08
2033	SF207	2.9528E-06	2.95278E-06
2033	SF283	7.8958E-07	7.88804E-07
2033	SF284	1.5327E-06	1.53123E-06
2033	SF285	5.741E-07	5.73477E-07
2033	SF286	2.4165E-07	2.41653E-07
2033	SF287	2.127E-06	2.12479E-06
2033	SF288	3.1806E-08	3.17799E-08
2033	SF289	1.3737E-06	1.37225E-06
2033	SF290	3.7716E-06	3.76757E-06
2033	SF294	1.4291E-08	1.42915E-08
2033	SF301	4.2979E-07	4.29793E-07
2033	SF302	5.8538E-07	5.85383E-07
2033	SF303	1.5584E-05	1.55668E-05
2033	SF304	2.6757E-07	2.67575E-07
2033	SF306	1.1378E-05	1.13691E-05
2033	SF32	4.8652E-06	4.86518E-06
2033	SF33	2.3655E-06	2.36548E-06
2033	SF340	4.7125E-07	4.71247E-07
2033	SF35	1.2224E-05	1.22117E-05
2033	SF36	5.3807E-06	5.38069E-06
2033	SF37	3.5368E-06	3.53377E-06
2033	SF375	0	0
2033	SF376	0	0
2033	SF377	0	0
2033	SF378	0	0
2033	SF379	0	0
2033	SF38	2.2044E-06	2.20439E-06
2033	SF380	0	0
2033	SF381	0	0
2033	SF386	2.9153E-07	2.91391E-07
2033	SF387	3.0061E-05	3.00381E-05
2033	SF388	3.5594E-09	3.55935E-09
2033	SF390	2.008E-06	2.00735E-06
2033	SF392	1.6114E-06	1.61026E-06
2033	SF393	5.5401E-07	5.53689E-07
2033	SF394	1.2775E-05	1.2766E-05
2033	SF396	1.1332E-05	1.13249E-05
2033	SF397	2.5271E-06	2.52494E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2033	SF398	3.6264E-07	3.62645E-07
2033	SF399	5.0932E-06	5.09021E-06
2033	SF400	7.5859E-08	7.58593E-08
2033	SF401	2.3283E-08	2.3283E-08
2033	SF402	2.545E-07	2.545E-07
2033	SF404	1.4436E-08	1.44364E-08
2033	SF405	1.7894E-08	1.78942E-08
2033	SF406	8.0414E-09	8.04138E-09
2033	SF408	4.3201E-07	4.31824E-07
2033	SF409	3.4284E-07	3.42844E-07
2033	SF410	1.7026E-08	1.7026E-08
2033	SF411	2.9452E-08	2.94521E-08
2033	SF42	9.0932E-05	9.08516E-05
2033	SF424	9.4185E-06	9.40836E-06
2033	SF425	0	0
2033	SF426	0	0
2033	SF427	2.2738E-08	2.2738E-08
2033	SF429	0	0
2033	SF43	9.6884E-06	9.68059E-06
2033	SF432	0	0
2033	SF433	3.5413E-08	3.54131E-08
2033	SF436	3.5234E-09	3.52337E-09
2033	SF458	6.047E-09	6.04701E-09
2033	SF46	5.3379E-07	5.33786E-07
2033	SF464	0	0
2033	SF47	9.5941E-07	9.59412E-07
2033	SF479	1.0598E-08	1.05984E-08
2033	SF48	1.8279E-06	1.82621E-06
2033	SF488	0	0
2033	SF494	0	0
2033	SF498	0	0
2033	SF499	7.4284E-06	7.42036E-06
2033	SF50	5.6302E-06	5.63016E-06
2033	SF500	4.4454E-06	4.44058E-06
2033	SF502	0	0
2033	SF503	0	0
2033	SF504	1.3741E-07	1.37406E-07
2033	SF51	9.2205E-07	9.22051E-07
2033	SF52	9.2957E-06	9.29575E-06
2033	SF53	2.5472E-08	2.54721E-08
2033	SF54	5.2104E-09	5.21043E-09
2033	SF55	1.7788E-06	1.77878E-06
2033	SF56	1.0673E-06	1.06727E-06
2033	SF57	3.2287E-07	3.22567E-07
2033	SF58	5.7867E-09	5.78665E-09

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2033	SF59	1.5404E-06	1.53898E-06
2033	SF60	3.208E-06	3.20493E-06
2033	SF61	1.0647E-06	1.0636E-06
2033	SF62	0	0
2033	SF65	2.2181E-06	2.2162E-06
2033	SF66	2.007E-06	2.00529E-06
2033	SF67	3.1279E-08	3.12789E-08
2033	SF68	1.7694E-07	1.76942E-07
2033	SF69	1.6301E-06	1.63012E-06
2033	SF70	1.6072E-06	1.60723E-06
2033	SF71	3.5438E-08	3.54381E-08
2033	SF72	1.8734E-08	1.87342E-08
2033	SF73	5.2951E-06	5.29508E-06
2033	SF74	3.8944E-08	3.89437E-08
2033	SF75	1.2806E-07	1.28057E-07
2033	SF76	5.3516E-07	5.3516E-07
2033	SF77	9.3952E-09	9.39516E-09
2033	SF80	3.3508E-09	3.35079E-09
2033	SF81	4.6965E-09	4.69651E-09
2033	SF82	1.3523E-06	1.35097E-06
2033	SF83	2.3643E-07	2.36171E-07
2033	SF85	3.755E-09	3.75501E-09
2033	SF86	1.3697E-06	1.36834E-06
2033	SF87	2.0292E-08	2.0292E-08
2033	SF88	2.0274E-08	2.0274E-08
2034	172	1.8849E-05	1.87874E-05
2034	173	0.00018791	0.000187305
2034	174	7.7157E-05	7.69043E-05
2034	EG	0.00127649	0
2034	FRWY101	4.6778E-05	4.66517E-05
2034	FRWY27	0.00079879	0.000796284
2034	FRWY28	0.00066971	0.000667617
2034	FRWY29	0.00030753	0.000306571
2034	FRWY30	0.0004747	0.000473229
2034	FRWY31	0.00034965	0.000348567
2034	FRWY32	0.00048581	0.000484312
2034	FRWY33	0.00049036	0.00048885
2034	FRWY34	0.00047421	0.000472758
2034	FRWY35	0.00021649	0.000215887
2034	FRWY36	3.9091E-05	3.89929E-05
2034	FRWY37	6.8006E-05	6.78363E-05
2034	IN01	6.9513E-05	6.89341E-05
2034	IN02	8.4843E-05	8.41334E-05
2034	IN03	6.8326E-06	6.78348E-06
2034	IN05	1.9637E-05	1.95748E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2034	IN06	0.00028014	0.0002778
2034	IN08	1.5281E-05	1.52811E-05
2034	IN11	1.3528E-06	1.35281E-06
2034	IN12	5.1E-08	5.10004E-08
2034	IN14	6.5326E-05	6.47601E-05
2034	IN18	1.0823E-05	1.07358E-05
2034	IN19	0.00015697	0.000155672
2034	IN21	2.9308E-05	2.91119E-05
2034	IN24	7.9531E-05	7.88924E-05
2034	IN29	1.2581E-05	1.24755E-05
2034	IN30	6.6771E-05	6.61761E-05
2034	IN31	2.6824E-06	2.66618E-06
2034	PH1	0.00043563	0.000433661
2034	PH2	0.00033537	0.000333852
2034	SF09	1.3807E-05	1.38071E-05
2034	SF10	9.4949E-07	9.49488E-07
2034	SF104	1.037E-06	1.03614E-06
2034	SF106	8.0051E-08	8.00511E-08
2034	SF107	1.0227E-06	1.02185E-06
2034	SF108	1.0016E-07	1.00137E-07
2034	SF109	3.17E-08	3.16997E-08
2034	SF110	2.0432E-06	2.04159E-06
2034	SF111	1.9351E-08	1.93507E-08
2034	SF112	5.1721E-06	5.1671E-06
2034	SF113	2.8255E-07	2.82265E-07
2034	SF114	5.8055E-07	5.79957E-07
2034	SF115	2.5721E-06	2.56983E-06
2034	SF116	2.0779E-07	2.07632E-07
2034	SF117	5.0526E-08	5.05063E-08
2034	SF118	2.219E-06	2.21699E-06
2034	SF119	1.8424E-08	1.84241E-08
2034	SF120	2.9962E-06	2.99303E-06
2034	SF121	1.0168E-06	1.01577E-06
2034	SF122	2.1369E-06	2.13461E-06
2034	SF123	1.6891E-08	1.68914E-08
2034	SF124	2.0897E-06	2.08783E-06
2034	SF125	1.8297E-08	1.82969E-08
2034	SF126	1.8727E-06	1.87096E-06
2034	SF127	9.2177E-06	9.20774E-06
2034	SF128	2.0313E-08	2.03131E-08
2034	SF129	1.9802E-06	1.97844E-06
2034	SF13	1.1003E-05	1.09925E-05
2034	SF130	1.4836E-08	1.48357E-08
2034	SF131	2.2183E-08	2.21834E-08
2034	SF133	2.042E-08	2.04195E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2034	SF134	1.2993E-08	1.29931E-08
2034	SF135	1.9679E-06	1.96609E-06
2034	SF136	3.9645E-08	3.96454E-08
2034	SF137	2.8107E-07	2.80787E-07
2034	SF139	2.1333E-07	2.13329E-07
2034	SF140	1.2286E-08	1.22861E-08
2034	SF141	1.0898E-07	1.08978E-07
2034	SF142	1.1688E-08	1.16851E-08
2034	SF143	4.9302E-07	4.93024E-07
2034	SF144	3.1627E-07	3.16266E-07
2034	SF145	7.1561E-07	7.1561E-07
2034	SF146	3.4454E-08	3.44537E-08
2034	SF147	6.291E-07	6.29104E-07
2034	SF148	1.6944E-06	1.69262E-06
2034	SF149	7.6734E-07	7.67338E-07
2034	SF150	1.5809E-08	1.58093E-08
2034	SF151	1.0376E-06	1.03748E-06
2034	SF152	9.3223E-06	9.31292E-06
2034	SF153	9.8828E-07	9.88277E-07
2034	SF154	1.6079E-08	1.60786E-08
2034	SF155	1.6975E-06	1.69746E-06
2034	SF156	6.2707E-07	6.27065E-07
2034	SF157	1.6248E-06	1.6248E-06
2034	SF160	2.9122E-08	2.91217E-08
2034	SF161	3.4592E-06	3.45917E-06
2034	SF162	6.8352E-06	6.83516E-06
2034	SF163	5.762E-07	5.76196E-07
2034	SF164	1.9816E-08	1.98159E-08
2034	SF165	1.1546E-05	1.15457E-05
2034	SF168	1.4084E-06	1.40842E-06
2034	SF169	3.6714E-08	3.67145E-08
2034	SF170	7.8171E-07	7.81665E-07
2034	SF171	4.1274E-07	4.12735E-07
2034	SF172	7.9264E-07	7.92636E-07
2034	SF173	0	0
2034	SF174	0	0
2034	SF177	1.8836E-05	1.88201E-05
2034	SF178	9.8203E-06	9.81122E-06
2034	SF179	4.044E-05	4.04049E-05
2034	SF180	4.8829E-08	4.8829E-08
2034	SF181	0	0
2034	SF182	0	0
2034	SF183	0	0
2034	SF184	0	0
2034	SF185	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2034	SF186	0	0
2034	SF190	1.7218E-05	1.72053E-05
2034	SF191	8.9953E-06	8.99101E-06
2034	SF192	7.7604E-06	7.75372E-06
2034	SF194	2.7233E-07	2.72327E-07
2034	SF195	3.2243E-07	3.22432E-07
2034	SF196	1.2841E-06	1.28414E-06
2034	SF198	1.6954E-08	1.69541E-08
2034	SF199	6.7393E-09	6.73933E-09
2034	SF200	2.3748E-06	2.37483E-06
2034	SF205	1.7864E-06	1.78638E-06
2034	SF206	3.5334E-08	3.53341E-08
2034	SF207	3.0939E-06	3.09392E-06
2034	SF283	8.2732E-07	8.2651E-07
2034	SF284	1.6059E-06	1.60442E-06
2034	SF285	6.0154E-07	6.0089E-07
2034	SF286	2.532E-07	2.53204E-07
2034	SF287	2.2286E-06	2.22635E-06
2034	SF288	3.3327E-08	3.3299E-08
2034	SF289	1.4393E-06	1.43785E-06
2034	SF290	3.9519E-06	3.94767E-06
2034	SF294	1.4975E-08	1.49746E-08
2034	SF301	4.5034E-07	4.50338E-07
2034	SF302	6.1337E-07	6.13365E-07
2034	SF303	1.6329E-05	1.63109E-05
2034	SF304	2.8037E-07	2.80365E-07
2034	SF306	1.1922E-05	1.19125E-05
2034	SF32	5.0977E-06	5.09774E-06
2034	SF33	2.4786E-06	2.47855E-06
2034	SF340	4.9377E-07	4.93773E-07
2034	SF35	1.2808E-05	1.27954E-05
2034	SF36	5.6379E-06	5.6379E-06
2034	SF37	3.7059E-06	3.70269E-06
2034	SF375	0	0
2034	SF376	0	0
2034	SF377	0	0
2034	SF378	0	0
2034	SF379	0	0
2034	SF38	2.3098E-06	2.30976E-06
2034	SF380	0	0
2034	SF381	0	0
2034	SF386	3.0547E-07	3.0532E-07
2034	SF387	3.1498E-05	3.14739E-05
2034	SF388	3.7295E-09	3.7295E-09
2034	SF390	2.104E-06	2.10331E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2034	SF392	1.6884E-06	1.68723E-06
2034	SF393	5.805E-07	5.80156E-07
2034	SF394	1.3386E-05	1.33762E-05
2034	SF396	1.1874E-05	1.18662E-05
2034	SF397	2.6479E-06	2.64564E-06
2034	SF398	3.7998E-07	3.7998E-07
2034	SF399	5.3366E-06	5.33353E-06
2034	SF400	7.9485E-08	7.94855E-08
2034	SF401	2.4396E-08	2.43959E-08
2034	SF402	2.6667E-07	2.66665E-07
2034	SF404	1.5126E-08	1.51265E-08
2034	SF405	1.875E-08	1.87495E-08
2034	SF406	8.4258E-09	8.42577E-09
2034	SF408	4.5266E-07	4.52466E-07
2034	SF409	3.5923E-07	3.59232E-07
2034	SF410	1.784E-08	1.78399E-08
2034	SF411	3.086E-08	3.08599E-08
2034	SF42	9.5279E-05	9.51944E-05
2034	SF424	9.8687E-06	9.85809E-06
2034	SF425	0	0
2034	SF426	0	0
2034	SF427	2.3825E-08	2.38249E-08
2034	SF429	0	0
2034	SF43	1.0151E-05	1.01433E-05
2034	SF432	0	0
2034	SF433	3.7106E-08	3.71059E-08
2034	SF436	3.6918E-09	3.69179E-09
2034	SF458	6.3361E-09	6.33606E-09
2034	SF46	5.593E-07	5.59302E-07
2034	SF464	0	0
2034	SF47	1.0053E-06	1.00527E-06
2034	SF479	1.1105E-08	1.11051E-08
2034	SF48	1.9152E-06	1.91351E-06
2034	SF488	0	0
2034	SF494	0	0
2034	SF498	0	0
2034	SF499	7.7835E-06	7.77506E-06
2034	SF50	5.8993E-06	5.89929E-06
2034	SF500	4.6579E-06	4.65284E-06
2034	SF502	0	0
2034	SF503	0	0
2034	SF504	1.4397E-07	1.43974E-07
2034	SF51	9.6613E-07	9.66126E-07
2034	SF52	9.7401E-06	9.7401E-06
2034	SF53	2.669E-08	2.66897E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2034	SF54	5.4595E-09	5.45949E-09
2034	SF55	1.8638E-06	1.86381E-06
2034	SF56	1.1183E-06	1.11829E-06
2034	SF57	3.383E-07	3.37986E-07
2034	SF58	6.0633E-09	6.06326E-09
2034	SF59	1.614E-06	1.61254E-06
2034	SF60	3.3614E-06	3.35813E-06
2034	SF61	1.1156E-06	1.11445E-06
2034	SF62	0	0
2034	SF65	2.3242E-06	2.32214E-06
2034	SF66	2.1029E-06	2.10115E-06
2034	SF67	3.2774E-08	3.27741E-08
2034	SF68	1.854E-07	1.854E-07
2034	SF69	1.708E-06	1.70805E-06
2034	SF70	1.6841E-06	1.68405E-06
2034	SF71	3.7132E-08	3.71321E-08
2034	SF72	1.963E-08	1.96297E-08
2034	SF73	5.5482E-06	5.54819E-06
2034	SF74	4.0805E-08	4.08052E-08
2034	SF75	1.3418E-07	1.34178E-07
2034	SF76	5.6074E-07	5.60742E-07
2034	SF77	9.8443E-09	9.84426E-09
2034	SF80	3.511E-09	3.51096E-09
2034	SF81	4.921E-09	4.92101E-09
2034	SF82	1.4169E-06	1.41555E-06
2034	SF83	2.4773E-07	2.4746E-07
2034	SF85	3.9345E-09	3.93451E-09
2034	SF86	1.4352E-06	1.43375E-06
2034	SF87	2.1262E-08	2.1262E-08
2034	SF88	2.1243E-08	2.12431E-08
2035	172	1.9709E-05	1.96445E-05
2035	173	0.00019648	0.00019585
2035	174	8.0677E-05	8.04127E-05
2035	EG	0.00133472	0
2035	FRWY101	4.8913E-05	4.878E-05
2035	FRWY27	0.00083523	0.000832611
2035	FRWY28	0.00070026	0.000698074
2035	FRWY29	0.00032156	0.000320557
2035	FRWY30	0.00049636	0.000494818
2035	FRWY31	0.0003656	0.000364469
2035	FRWY32	0.00050798	0.000506406
2035	FRWY33	0.00051273	0.000511151
2035	FRWY34	0.00049584	0.000494325
2035	FRWY35	0.00022637	0.000225736
2035	FRWY36	4.0874E-05	4.07717E-05

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2035	FRWY37	7.1109E-05	7.0931E-05
2035	IN01	7.2684E-05	7.20789E-05
2035	IN02	8.8713E-05	8.79716E-05
2035	IN03	7.1443E-06	7.09295E-06
2035	IN05	2.0533E-05	2.04678E-05
2035	IN06	0.00029292	0.000290473
2035	IN08	1.5978E-05	1.59782E-05
2035	IN11	1.4145E-06	1.41452E-06
2035	IN12	5.3327E-08	5.3327E-08
2035	IN14	6.8307E-05	6.77145E-05
2035	IN18	1.1316E-05	1.12256E-05
2035	IN19	0.00016414	0.000162774
2035	IN21	3.0645E-05	3.044E-05
2035	IN24	8.3159E-05	8.24916E-05
2035	IN29	1.3155E-05	1.30446E-05
2035	IN30	6.9817E-05	6.91951E-05
2035	IN31	2.8047E-06	2.78781E-06
2035	PH1	0.00045551	0.000453445
2035	PH2	0.00035067	0.000349083
2035	SF09	1.4437E-05	1.4437E-05
2035	SF10	9.928E-07	9.92804E-07
2035	SF104	1.0843E-06	1.0834E-06
2035	SF106	8.3703E-08	8.37031E-08
2035	SF107	1.0693E-06	1.06846E-06
2035	SF108	1.0473E-07	1.04705E-07
2035	SF109	3.3146E-08	3.31458E-08
2035	SF110	2.1365E-06	2.13473E-06
2035	SF111	2.0234E-08	2.02335E-08
2035	SF112	5.408E-06	5.40282E-06
2035	SF113	2.9544E-07	2.95142E-07
2035	SF114	6.0704E-07	6.06415E-07
2035	SF115	2.6894E-06	2.68706E-06
2035	SF116	2.1727E-07	2.17104E-07
2035	SF117	5.2831E-08	5.28104E-08
2035	SF118	2.3202E-06	2.31813E-06
2035	SF119	1.9265E-08	1.92646E-08
2035	SF120	3.1329E-06	3.12957E-06
2035	SF121	1.0632E-06	1.06211E-06
2035	SF122	2.2344E-06	2.23199E-06
2035	SF123	1.7662E-08	1.7662E-08
2035	SF124	2.1851E-06	2.18308E-06
2035	SF125	1.9132E-08	1.91316E-08
2035	SF126	1.9581E-06	1.95632E-06
2035	SF127	9.6382E-06	9.6278E-06
2035	SF128	2.124E-08	2.12398E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2035	SF129	2.0706E-06	2.0687E-06
2035	SF13	1.1505E-05	1.1494E-05
2035	SF130	1.5513E-08	1.55125E-08
2035	SF131	2.3195E-08	2.31954E-08
2035	SF133	2.1351E-08	2.13511E-08
2035	SF134	1.3586E-08	1.35858E-08
2035	SF135	2.0576E-06	2.05578E-06
2035	SF136	4.1454E-08	4.14541E-08
2035	SF137	2.939E-07	2.93597E-07
2035	SF139	2.2306E-07	2.23061E-07
2035	SF140	1.2847E-08	1.28466E-08
2035	SF141	1.1395E-07	1.13949E-07
2035	SF142	1.2221E-08	1.22181E-08
2035	SF143	5.1552E-07	5.15516E-07
2035	SF144	3.3069E-07	3.30694E-07
2035	SF145	7.4826E-07	7.48256E-07
2035	SF146	3.6026E-08	3.60255E-08
2035	SF147	6.578E-07	6.57804E-07
2035	SF148	1.7717E-06	1.76984E-06
2035	SF149	8.0234E-07	8.02344E-07
2035	SF150	1.6531E-08	1.65305E-08
2035	SF151	1.085E-06	1.08481E-06
2035	SF152	9.7475E-06	9.73778E-06
2035	SF153	1.0334E-06	1.03336E-06
2035	SF154	1.6812E-08	1.68122E-08
2035	SF155	1.7749E-06	1.77489E-06
2035	SF156	6.5567E-07	6.55672E-07
2035	SF157	1.6989E-06	1.69893E-06
2035	SF160	3.045E-08	3.04503E-08
2035	SF161	3.617E-06	3.61698E-06
2035	SF162	7.147E-06	7.14698E-06
2035	SF163	6.0248E-07	6.02482E-07
2035	SF164	2.072E-08	2.07199E-08
2035	SF165	1.2072E-05	1.20724E-05
2035	SF168	1.4727E-06	1.47267E-06
2035	SF169	3.8389E-08	3.83894E-08
2035	SF170	8.1737E-07	8.17324E-07
2035	SF171	4.3156E-07	4.31565E-07
2035	SF172	8.288E-07	8.28796E-07
2035	SF173	0	0
2035	SF174	0	0
2035	SF177	1.9696E-05	1.96786E-05
2035	SF178	1.0268E-05	1.02588E-05
2035	SF179	4.2284E-05	4.22482E-05
2035	SF180	5.1057E-08	5.10566E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2035	SF181	0	0
2035	SF182	0	0
2035	SF183	0	0
2035	SF184	0	0
2035	SF185	0	0
2035	SF186	0	0
2035	SF190	1.8003E-05	1.79902E-05
2035	SF191	9.4056E-06	9.40118E-06
2035	SF192	8.1144E-06	8.10745E-06
2035	SF194	2.8475E-07	2.84751E-07
2035	SF195	3.3714E-07	3.37141E-07
2035	SF196	1.3427E-06	1.34272E-06
2035	SF198	1.7728E-08	1.77276E-08
2035	SF199	7.0468E-09	7.04678E-09
2035	SF200	2.4832E-06	2.48317E-06
2035	SF205	1.8679E-06	1.86787E-06
2035	SF206	3.6946E-08	3.69461E-08
2035	SF207	3.2351E-06	3.23507E-06
2035	SF283	8.6506E-07	8.64216E-07
2035	SF284	1.6792E-06	1.67762E-06
2035	SF285	6.2898E-07	6.28303E-07
2035	SF286	2.6476E-07	2.64756E-07
2035	SF287	2.3303E-06	2.32792E-06
2035	SF288	3.4847E-08	3.48181E-08
2035	SF289	1.505E-06	1.50344E-06
2035	SF290	4.1322E-06	4.12776E-06
2035	SF294	1.5658E-08	1.56578E-08
2035	SF301	4.7088E-07	4.70882E-07
2035	SF302	6.4135E-07	6.41347E-07
2035	SF303	1.7073E-05	1.7055E-05
2035	SF304	2.9316E-07	2.93156E-07
2035	SF306	1.2466E-05	1.2456E-05
2035	SF32	5.3303E-06	5.3303E-06
2035	SF33	2.5916E-06	2.59162E-06
2035	SF340	5.163E-07	5.16299E-07
2035	SF35	1.3392E-05	1.33792E-05
2035	SF36	5.8951E-06	5.8951E-06
2035	SF37	3.8749E-06	3.87161E-06
2035	SF375	0	0
2035	SF376	0	0
2035	SF377	0	0
2035	SF378	0	0
2035	SF379	0	0
2035	SF38	2.4151E-06	2.41514E-06
2035	SF380	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2035	SF381	0	0
2035	SF386	3.194E-07	3.19249E-07
2035	SF387	3.2934E-05	3.29098E-05
2035	SF388	3.8996E-09	3.89964E-09
2035	SF390	2.1999E-06	2.19926E-06
2035	SF392	1.7654E-06	1.7642E-06
2035	SF393	6.0698E-07	6.06623E-07
2035	SF394	1.3997E-05	1.39864E-05
2035	SF396	1.2416E-05	1.24075E-05
2035	SF397	2.7688E-06	2.76633E-06
2035	SF398	3.9731E-07	3.97314E-07
2035	SF399	5.5801E-06	5.57685E-06
2035	SF400	8.3112E-08	8.31116E-08
2035	SF401	2.5509E-08	2.55089E-08
2035	SF402	2.7883E-07	2.78831E-07
2035	SF404	1.5817E-08	1.58165E-08
2035	SF405	1.9605E-08	1.96049E-08
2035	SF406	8.8102E-09	8.81016E-09
2035	SF408	4.7331E-07	4.73108E-07
2035	SF409	3.7562E-07	3.75621E-07
2035	SF410	1.8654E-08	1.86538E-08
2035	SF411	3.2268E-08	3.22677E-08
2035	SF42	9.9626E-05	9.95373E-05
2035	SF424	1.0319E-05	1.03078E-05
2035	SF425	0	0
2035	SF426	0	0
2035	SF427	2.4912E-08	2.49118E-08
2035	SF429	0	0
2035	SF43	1.0615E-05	1.06061E-05
2035	SF432	0	0
2035	SF433	3.8799E-08	3.87987E-08
2035	SF436	3.8602E-09	3.86021E-09
2035	SF458	6.6251E-09	6.62511E-09
2035	SF46	5.8482E-07	5.84817E-07
2035	SF464	0	0
2035	SF47	1.0511E-06	1.05113E-06
2035	SF479	1.1612E-08	1.16117E-08
2035	SF48	2.0026E-06	2.0008E-06
2035	SF488	0	0
2035	SF494	0	0
2035	SF498	0	0
2035	SF499	8.1385E-06	8.12976E-06
2035	SF50	6.1684E-06	6.16842E-06
2035	SF500	4.8704E-06	4.8651E-06
2035	SF502	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2035	SF503	0	0
2035	SF504	1.5054E-07	1.50543E-07
2035	SF51	1.0102E-06	1.0102E-06
2035	SF52	1.0184E-05	1.01844E-05
2035	SF53	2.7907E-08	2.79073E-08
2035	SF54	5.7086E-09	5.70856E-09
2035	SF55	1.9488E-06	1.94884E-06
2035	SF56	1.1693E-06	1.16931E-06
2035	SF57	3.5373E-07	3.53405E-07
2035	SF58	6.3399E-09	6.33987E-09
2035	SF59	1.6876E-06	1.68611E-06
2035	SF60	3.5147E-06	3.51133E-06
2035	SF61	1.1664E-06	1.16529E-06
2035	SF62	0	0
2035	SF65	2.4302E-06	2.42807E-06
2035	SF66	2.1989E-06	2.197E-06
2035	SF67	3.4269E-08	3.42693E-08
2035	SF68	1.9386E-07	1.93858E-07
2035	SF69	1.786E-06	1.78597E-06
2035	SF70	1.7609E-06	1.76088E-06
2035	SF71	3.8826E-08	3.88261E-08
2035	SF72	2.0525E-08	2.05252E-08
2035	SF73	5.8013E-06	5.8013E-06
2035	SF74	4.2667E-08	4.26668E-08
2035	SF75	1.403E-07	1.40299E-07
2035	SF76	5.8632E-07	5.86323E-07
2035	SF77	1.0293E-08	1.02934E-08
2035	SF80	3.6711E-09	3.67113E-09
2035	SF81	5.1455E-09	5.14551E-09
2035	SF82	1.4815E-06	1.48012E-06
2035	SF83	2.5903E-07	2.58749E-07
2035	SF85	4.114E-09	4.114E-09
2035	SF86	1.5007E-06	1.49916E-06
2035	SF87	2.2232E-08	2.2232E-08
2035	SF88	2.2212E-08	2.22123E-08
2036	172	1.9955E-05	1.98894E-05
2036	173	0.00019893	0.000198291
2036	174	8.1683E-05	8.14151E-05
2036	EG	0.00135136	0
2036	FRWY101	4.9522E-05	4.93881E-05
2036	FRWY27	0.00084565	0.00084299
2036	FRWY28	0.00070899	0.000706776
2036	FRWY29	0.00032556	0.000324553
2036	FRWY30	0.00050255	0.000500987
2036	FRWY31	0.00037016	0.000369012

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2036	FRWY32	0.00051431	0.000512719
2036	FRWY33	0.00051912	0.000517523
2036	FRWY34	0.00050202	0.000500487
2036	FRWY35	0.00022919	0.00022855
2036	FRWY36	4.1383E-05	4.128E-05
2036	FRWY37	7.1995E-05	7.18152E-05
2036	IN01	7.359E-05	7.29774E-05
2036	IN02	8.9819E-05	8.90682E-05
2036	IN03	7.2333E-06	7.18136E-06
2036	IN05	2.0789E-05	2.0723E-05
2036	IN06	0.00029658	0.000294094
2036	IN08	1.6177E-05	1.61774E-05
2036	IN11	1.4322E-06	1.43215E-06
2036	IN12	5.3992E-08	5.39918E-08
2036	IN14	6.9158E-05	6.85586E-05
2036	IN18	1.1457E-05	1.13655E-05
2036	IN19	0.00016618	0.000164803
2036	IN21	3.1027E-05	3.08195E-05
2036	IN24	8.4196E-05	8.35199E-05
2036	IN29	1.3319E-05	1.32073E-05
2036	IN30	7.0687E-05	7.00577E-05
2036	IN31	2.8397E-06	2.82256E-06
2036	PH1	0.00046118	0.000459098
2036	PH2	0.00035504	0.000353434
2036	SF09	1.4617E-05	1.4617E-05
2036	SF10	1.0052E-06	1.00518E-06
2036	SF104	1.0979E-06	1.09691E-06
2036	SF106	8.4746E-08	8.47465E-08
2036	SF107	1.0827E-06	1.08178E-06
2036	SF108	1.0604E-07	1.0601E-07
2036	SF109	3.3559E-08	3.3559E-08
2036	SF110	2.1631E-06	2.16134E-06
2036	SF111	2.0486E-08	2.04858E-08
2036	SF112	5.4754E-06	5.47017E-06
2036	SF113	2.9913E-07	2.98821E-07
2036	SF114	6.146E-07	6.13974E-07
2036	SF115	2.723E-06	2.72056E-06
2036	SF116	2.1997E-07	2.19811E-07
2036	SF117	5.349E-08	5.34688E-08
2036	SF118	2.3491E-06	2.34703E-06
2036	SF119	1.9505E-08	1.95047E-08
2036	SF120	3.172E-06	3.16859E-06
2036	SF121	1.0764E-06	1.07535E-06
2036	SF122	2.2622E-06	2.25982E-06
2036	SF123	1.7882E-08	1.78821E-08

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2036	SF124	2.2123E-06	2.21029E-06
2036	SF125	1.937E-08	1.93701E-08
2036	SF126	1.9825E-06	1.9807E-06
2036	SF127	9.7583E-06	9.74781E-06
2036	SF128	2.1505E-08	2.15045E-08
2036	SF129	2.0964E-06	2.09448E-06
2036	SF13	1.1649E-05	1.16373E-05
2036	SF130	1.5706E-08	1.57059E-08
2036	SF131	2.3485E-08	2.34846E-08
2036	SF133	2.1617E-08	2.16172E-08
2036	SF134	1.3755E-08	1.37552E-08
2036	SF135	2.0833E-06	2.08141E-06
2036	SF136	4.1971E-08	4.19708E-08
2036	SF137	2.9756E-07	2.97256E-07
2036	SF139	2.2584E-07	2.25841E-07
2036	SF140	1.3007E-08	1.30067E-08
2036	SF141	1.1537E-07	1.1537E-07
2036	SF142	1.2373E-08	1.23704E-08
2036	SF143	5.2194E-07	5.21942E-07
2036	SF144	3.3482E-07	3.34816E-07
2036	SF145	7.5758E-07	7.57584E-07
2036	SF146	3.6475E-08	3.64746E-08
2036	SF147	6.66E-07	6.66004E-07
2036	SF148	1.7938E-06	1.7919E-06
2036	SF149	8.1235E-07	8.12346E-07
2036	SF150	1.6737E-08	1.67366E-08
2036	SF151	1.0985E-06	1.09833E-06
2036	SF152	9.8691E-06	9.85917E-06
2036	SF153	1.0462E-06	1.04624E-06
2036	SF154	1.7022E-08	1.70217E-08
2036	SF155	1.797E-06	1.79702E-06
2036	SF156	6.6385E-07	6.63846E-07
2036	SF157	1.7201E-06	1.7201E-06
2036	SF160	3.083E-08	3.08299E-08
2036	SF161	3.6621E-06	3.66206E-06
2036	SF162	7.2361E-06	7.23608E-06
2036	SF163	6.0999E-07	6.09993E-07
2036	SF164	2.0978E-08	2.09782E-08
2036	SF165	1.2223E-05	1.22229E-05
2036	SF168	1.491E-06	1.49103E-06
2036	SF169	3.8868E-08	3.88679E-08
2036	SF170	8.2756E-07	8.27513E-07
2036	SF171	4.3694E-07	4.36944E-07
2036	SF172	8.3913E-07	8.39128E-07
2036	SF173	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2036	SF174	0	0
2036	SF177	1.9941E-05	1.99239E-05
2036	SF178	1.0396E-05	1.03867E-05
2036	SF179	4.2811E-05	4.27748E-05
2036	SF180	5.1693E-08	5.16931E-08
2036	SF181	0	0
2036	SF182	0	0
2036	SF183	0	0
2036	SF184	0	0
2036	SF185	0	0
2036	SF186	0	0
2036	SF190	1.8228E-05	1.82145E-05
2036	SF191	9.5229E-06	9.51837E-06
2036	SF192	8.2156E-06	8.20851E-06
2036	SF194	2.883E-07	2.883E-07
2036	SF195	3.4134E-07	3.41344E-07
2036	SF196	1.3595E-06	1.35946E-06
2036	SF198	1.7949E-08	1.79486E-08
2036	SF199	7.1346E-09	7.13463E-09
2036	SF200	2.5141E-06	2.51413E-06
2036	SF205	1.8912E-06	1.89116E-06
2036	SF206	3.7407E-08	3.74066E-08
2036	SF207	3.2754E-06	3.2754E-06
2036	SF283	8.7585E-07	8.74989E-07
2036	SF284	1.7001E-06	1.69853E-06
2036	SF285	6.3682E-07	6.36135E-07
2036	SF286	2.6806E-07	2.68056E-07
2036	SF287	2.3594E-06	2.35694E-06
2036	SF288	3.5281E-08	3.52522E-08
2036	SF289	1.5237E-06	1.52219E-06
2036	SF290	4.1837E-06	4.17922E-06
2036	SF294	1.5853E-08	1.5853E-08
2036	SF301	4.7675E-07	4.76752E-07
2036	SF302	6.4934E-07	6.49342E-07
2036	SF303	1.7286E-05	1.72676E-05
2036	SF304	2.9681E-07	2.9681E-07
2036	SF306	1.2621E-05	1.26112E-05
2036	SF32	5.3967E-06	5.39675E-06
2036	SF33	2.6239E-06	2.62393E-06
2036	SF340	5.2274E-07	5.22735E-07
2036	SF35	1.3559E-05	1.35459E-05
2036	SF36	5.9686E-06	5.96858E-06
2036	SF37	3.9232E-06	3.91987E-06
2036	SF375	0	0
2036	SF376	0	0

Year	SrcGroup	DPM (g/sec) Mitigated	DPM (g/sec) Unmitigated
2036	SF377	0	0
2036	SF378	0	0
2036	SF379	0	0
2036	SF38	2.4452E-06	2.44524E-06
2036	SF380	0	0
2036	SF381	0	0
2036	SF386	3.2338E-07	3.23228E-07
2036	SF387	3.3345E-05	3.332E-05
2036	SF388	3.9482E-09	3.94825E-09
2036	SF390	2.2274E-06	2.22668E-06
2036	SF392	1.7875E-06	1.7862E-06
2036	SF393	6.1454E-07	6.14185E-07
2036	SF394	1.4171E-05	1.41608E-05
2036	SF396	1.257E-05	1.25622E-05
2036	SF397	2.8033E-06	2.80082E-06
2036	SF398	4.0227E-07	4.02267E-07
2036	SF399	5.6496E-06	5.64637E-06
2036	SF400	8.4148E-08	8.41477E-08
2036	SF401	2.5827E-08	2.58269E-08
2036	SF402	2.8231E-07	2.82307E-07
2036	SF404	1.6014E-08	1.60137E-08
2036	SF405	1.9849E-08	1.98493E-08
2036	SF406	8.92E-09	8.91998E-09
2036	SF408	4.7921E-07	4.79006E-07
2036	SF409	3.803E-07	3.80303E-07
2036	SF410	1.8886E-08	1.88863E-08
2036	SF411	3.267E-08	3.267E-08
2036	SF42	0.00010087	0.000100778
2036	SF424	1.0448E-05	1.04363E-05
2036	SF425	0	0
2036	SF426	0	0
2036	SF427	2.5222E-08	2.52223E-08
2036	SF429	0	0
2036	SF43	1.0747E-05	1.07383E-05
2036	SF432	0	0
2036	SF433	3.9282E-08	3.92823E-08
2036	SF436	3.9083E-09	3.90833E-09
2036	SF458	6.7077E-09	6.7077E-09
2036	SF46	5.9211E-07	5.92108E-07
2036	SF464	0	0
2036	SF47	1.0642E-06	1.06424E-06
2036	SF479	1.1756E-08	1.17564E-08
2036	SF48	2.0276E-06	2.02575E-06
2036	SF488	0	0
2036	SF494	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2036	SF498	0	0
2036	SF499	8.24E-06	8.2311E-06
2036	SF50	6.2453E-06	6.24531E-06
2036	SF500	4.9311E-06	4.92575E-06
2036	SF502	0	0
2036	SF503	0	0
2036	SF504	1.5242E-07	1.52419E-07
2036	SF51	1.0228E-06	1.02279E-06
2036	SF52	1.0311E-05	1.03114E-05
2036	SF53	2.8255E-08	2.82552E-08
2036	SF54	5.7797E-09	5.77972E-09
2036	SF55	1.9731E-06	1.97313E-06
2036	SF56	1.1839E-06	1.18388E-06
2036	SF57	3.5814E-07	3.5781E-07
2036	SF58	6.4189E-09	6.4189E-09
2036	SF59	1.7087E-06	1.70713E-06
2036	SF60	3.5585E-06	3.5551E-06
2036	SF61	1.181E-06	1.17981E-06
2036	SF62	0	0
2036	SF65	2.4605E-06	2.45834E-06
2036	SF66	2.2263E-06	2.22439E-06
2036	SF67	3.4696E-08	3.46965E-08
2036	SF68	1.9628E-07	1.96275E-07
2036	SF69	1.8082E-06	1.80823E-06
2036	SF70	1.7828E-06	1.78283E-06
2036	SF71	3.931E-08	3.93101E-08
2036	SF72	2.0781E-08	2.07811E-08
2036	SF73	5.8736E-06	5.87362E-06
2036	SF74	4.3199E-08	4.31986E-08
2036	SF75	1.4205E-07	1.42048E-07
2036	SF76	5.9363E-07	5.93632E-07
2036	SF77	1.0422E-08	1.04217E-08
2036	SF80	3.7169E-09	3.7169E-09
2036	SF81	5.2097E-09	5.20965E-09
2036	SF82	1.5E-06	1.49858E-06
2036	SF83	2.6226E-07	2.61975E-07
2036	SF85	4.1653E-09	4.16528E-09
2036	SF86	1.5194E-06	1.51785E-06
2036	SF87	2.2509E-08	2.25091E-08
2036	SF88	2.2489E-08	2.24891E-08
2037	172	1.9955E-05	1.98894E-05
2037	173	0.00019893	0.000198291
2037	174	8.1683E-05	8.14151E-05
2037	EG	0.00135136	0
2037	FRWY101	4.9522E-05	4.93881E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2037	FRWY27	0.00084565	0.00084299
2037	FRWY28	0.00070899	0.000706776
2037	FRWY29	0.00032556	0.000324553
2037	FRWY30	0.00050255	0.000500987
2037	FRWY31	0.00037016	0.000369012
2037	FRWY32	0.00051431	0.000512719
2037	FRWY33	0.00051912	0.000517523
2037	FRWY34	0.00050202	0.000500487
2037	FRWY35	0.00022919	0.00022855
2037	FRWY36	4.1383E-05	4.128E-05
2037	FRWY37	7.1995E-05	7.18152E-05
2037	IN01	7.359E-05	7.29774E-05
2037	IN02	8.9819E-05	8.90682E-05
2037	IN03	7.2333E-06	7.18136E-06
2037	IN05	2.0789E-05	2.0723E-05
2037	IN06	0.00029658	0.000294094
2037	IN08	1.6177E-05	1.61774E-05
2037	IN11	1.4322E-06	1.43215E-06
2037	IN12	5.3992E-08	5.39918E-08
2037	IN14	6.9158E-05	6.85586E-05
2037	IN18	1.1457E-05	1.13655E-05
2037	IN19	0.00016618	0.000164803
2037	IN21	3.1027E-05	3.08195E-05
2037	IN24	8.4196E-05	8.35199E-05
2037	IN29	1.3319E-05	1.32073E-05
2037	IN30	7.0687E-05	7.00577E-05
2037	IN31	2.8397E-06	2.82256E-06
2037	PH1	0.00046118	0.000459098
2037	PH2	0.00035504	0.000353434
2037	SF09	1.4617E-05	1.4617E-05
2037	SF10	1.0052E-06	1.00518E-06
2037	SF104	1.0979E-06	1.09691E-06
2037	SF106	8.4746E-08	8.47465E-08
2037	SF107	1.0827E-06	1.08178E-06
2037	SF108	1.0604E-07	1.0601E-07
2037	SF109	3.3559E-08	3.3559E-08
2037	SF110	2.1631E-06	2.16134E-06
2037	SF111	2.0486E-08	2.04858E-08
2037	SF112	5.4754E-06	5.47017E-06
2037	SF113	2.9913E-07	2.98821E-07
2037	SF114	6.146E-07	6.13974E-07
2037	SF115	2.723E-06	2.72056E-06
2037	SF116	2.1997E-07	2.19811E-07
2037	SF117	5.349E-08	5.34688E-08
2037	SF118	2.3491E-06	2.34703E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2037	SF119	1.9505E-08	1.95047E-08
2037	SF120	3.172E-06	3.16859E-06
2037	SF121	1.0764E-06	1.07535E-06
2037	SF122	2.2622E-06	2.25982E-06
2037	SF123	1.7882E-08	1.78821E-08
2037	SF124	2.2123E-06	2.21029E-06
2037	SF125	1.937E-08	1.93701E-08
2037	SF126	1.9825E-06	1.9807E-06
2037	SF127	9.7583E-06	9.74781E-06
2037	SF128	2.1505E-08	2.15045E-08
2037	SF129	2.0964E-06	2.09448E-06
2037	SF13	1.1649E-05	1.16373E-05
2037	SF130	1.5706E-08	1.57059E-08
2037	SF131	2.3485E-08	2.34846E-08
2037	SF133	2.1617E-08	2.16172E-08
2037	SF134	1.3755E-08	1.37552E-08
2037	SF135	2.0833E-06	2.08141E-06
2037	SF136	4.1971E-08	4.19708E-08
2037	SF137	2.9756E-07	2.97256E-07
2037	SF139	2.2584E-07	2.25841E-07
2037	SF140	1.3007E-08	1.30067E-08
2037	SF141	1.1537E-07	1.1537E-07
2037	SF142	1.2373E-08	1.23704E-08
2037	SF143	5.2194E-07	5.21942E-07
2037	SF144	3.3482E-07	3.34816E-07
2037	SF145	7.5758E-07	7.57584E-07
2037	SF146	3.6475E-08	3.64746E-08
2037	SF147	6.66E-07	6.66004E-07
2037	SF148	1.7938E-06	1.7919E-06
2037	SF149	8.1235E-07	8.12346E-07
2037	SF150	1.6737E-08	1.67366E-08
2037	SF151	1.0985E-06	1.09833E-06
2037	SF152	9.8691E-06	9.85917E-06
2037	SF153	1.0462E-06	1.04624E-06
2037	SF154	1.7022E-08	1.70217E-08
2037	SF155	1.797E-06	1.79702E-06
2037	SF156	6.6385E-07	6.63846E-07
2037	SF157	1.7201E-06	1.7201E-06
2037	SF160	3.083E-08	3.08299E-08
2037	SF161	3.6621E-06	3.66206E-06
2037	SF162	7.2361E-06	7.23608E-06
2037	SF163	6.0999E-07	6.09993E-07
2037	SF164	2.0978E-08	2.09782E-08
2037	SF165	1.2223E-05	1.22229E-05
2037	SF168	1.491E-06	1.49103E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2037	SF169	3.8868E-08	3.88679E-08
2037	SF170	8.2756E-07	8.27513E-07
2037	SF171	4.3694E-07	4.36944E-07
2037	SF172	8.3913E-07	8.39128E-07
2037	SF173	0	0
2037	SF174	0	0
2037	SF177	1.9941E-05	1.99239E-05
2037	SF178	1.0396E-05	1.03867E-05
2037	SF179	4.2811E-05	4.27748E-05
2037	SF180	5.1693E-08	5.16931E-08
2037	SF181	0	0
2037	SF182	0	0
2037	SF183	0	0
2037	SF184	0	0
2037	SF185	0	0
2037	SF186	0	0
2037	SF190	1.8228E-05	1.82145E-05
2037	SF191	9.5229E-06	9.51837E-06
2037	SF192	8.2156E-06	8.20851E-06
2037	SF194	2.883E-07	2.883E-07
2037	SF195	3.4134E-07	3.41344E-07
2037	SF196	1.3595E-06	1.35946E-06
2037	SF198	1.7949E-08	1.79486E-08
2037	SF199	7.1346E-09	7.13463E-09
2037	SF200	2.5141E-06	2.51413E-06
2037	SF205	1.8912E-06	1.89116E-06
2037	SF206	3.7407E-08	3.74066E-08
2037	SF207	3.2754E-06	3.2754E-06
2037	SF283	8.7585E-07	8.74989E-07
2037	SF284	1.7001E-06	1.69853E-06
2037	SF285	6.3682E-07	6.36135E-07
2037	SF286	2.6806E-07	2.68056E-07
2037	SF287	2.3594E-06	2.35694E-06
2037	SF288	3.5281E-08	3.52522E-08
2037	SF289	1.5237E-06	1.52219E-06
2037	SF290	4.1837E-06	4.17922E-06
2037	SF294	1.5853E-08	1.5853E-08
2037	SF301	4.7675E-07	4.76752E-07
2037	SF302	6.4934E-07	6.49342E-07
2037	SF303	1.7286E-05	1.72676E-05
2037	SF304	2.9681E-07	2.9681E-07
2037	SF306	1.2621E-05	1.26112E-05
2037	SF32	5.3967E-06	5.39675E-06
2037	SF33	2.6239E-06	2.62393E-06
2037	SF340	5.2274E-07	5.22735E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2037	SF35	1.3559E-05	1.35459E-05
2037	SF36	5.9686E-06	5.96858E-06
2037	SF37	3.9232E-06	3.91987E-06
2037	SF375	0	0
2037	SF376	0	0
2037	SF377	0	0
2037	SF378	0	0
2037	SF379	0	0
2037	SF38	2.4452E-06	2.44524E-06
2037	SF380	0	0
2037	SF381	0	0
2037	SF386	3.2338E-07	3.23228E-07
2037	SF387	3.3345E-05	3.332E-05
2037	SF388	3.9482E-09	3.94825E-09
2037	SF390	2.2274E-06	2.22668E-06
2037	SF392	1.7875E-06	1.7862E-06
2037	SF393	6.1454E-07	6.14185E-07
2037	SF394	1.4171E-05	1.41608E-05
2037	SF396	1.257E-05	1.25622E-05
2037	SF397	2.8033E-06	2.80082E-06
2037	SF398	4.0227E-07	4.02267E-07
2037	SF399	5.6496E-06	5.64637E-06
2037	SF400	8.4148E-08	8.41477E-08
2037	SF401	2.5827E-08	2.58269E-08
2037	SF402	2.8231E-07	2.82307E-07
2037	SF404	1.6014E-08	1.60137E-08
2037	SF405	1.9849E-08	1.98493E-08
2037	SF406	8.92E-09	8.91998E-09
2037	SF408	4.7921E-07	4.79006E-07
2037	SF409	3.803E-07	3.80303E-07
2037	SF410	1.8886E-08	1.88863E-08
2037	SF411	3.267E-08	3.267E-08
2037	SF42	0.00010087	0.000100778
2037	SF424	1.0448E-05	1.04363E-05
2037	SF425	0	0
2037	SF426	0	0
2037	SF427	2.5222E-08	2.52223E-08
2037	SF429	0	0
2037	SF43	1.0747E-05	1.07383E-05
2037	SF432	0	0
2037	SF433	3.9282E-08	3.92823E-08
2037	SF436	3.9083E-09	3.90833E-09
2037	SF458	6.7077E-09	6.7077E-09
2037	SF46	5.9211E-07	5.92108E-07
2037	SF464	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2037	SF47	1.0642E-06	1.06424E-06
2037	SF479	1.1756E-08	1.17564E-08
2037	SF48	2.0276E-06	2.02575E-06
2037	SF488	0	0
2037	SF494	0	0
2037	SF498	0	0
2037	SF499	8.24E-06	8.2311E-06
2037	SF50	6.2453E-06	6.24531E-06
2037	SF500	4.9311E-06	4.92575E-06
2037	SF502	0	0
2037	SF503	0	0
2037	SF504	1.5242E-07	1.52419E-07
2037	SF51	1.0228E-06	1.02279E-06
2037	SF52	1.0311E-05	1.03114E-05
2037	SF53	2.8255E-08	2.82552E-08
2037	SF54	5.7797E-09	5.77972E-09
2037	SF55	1.9731E-06	1.97313E-06
2037	SF56	1.1839E-06	1.18388E-06
2037	SF57	3.5814E-07	3.5781E-07
2037	SF58	6.4189E-09	6.4189E-09
2037	SF59	1.7087E-06	1.70713E-06
2037	SF60	3.5585E-06	3.5551E-06
2037	SF61	1.181E-06	1.17981E-06
2037	SF62	0	0
2037	SF65	2.4605E-06	2.45834E-06
2037	SF66	2.2263E-06	2.22439E-06
2037	SF67	3.4696E-08	3.46965E-08
2037	SF68	1.9628E-07	1.96275E-07
2037	SF69	1.8082E-06	1.80823E-06
2037	SF70	1.7828E-06	1.78283E-06
2037	SF71	3.931E-08	3.93101E-08
2037	SF72	2.0781E-08	2.07811E-08
2037	SF73	5.8736E-06	5.87362E-06
2037	SF74	4.3199E-08	4.31986E-08
2037	SF75	1.4205E-07	1.42048E-07
2037	SF76	5.9363E-07	5.93632E-07
2037	SF77	1.0422E-08	1.04217E-08
2037	SF80	3.7169E-09	3.7169E-09
2037	SF81	5.2097E-09	5.20965E-09
2037	SF82	1.5E-06	1.49858E-06
2037	SF83	2.6226E-07	2.61975E-07
2037	SF85	4.1653E-09	4.16528E-09
2037	SF86	1.5194E-06	1.51785E-06
2037	SF87	2.2509E-08	2.25091E-08
2037	SF88	2.2489E-08	2.24891E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2038	172	1.9955E-05	1.98894E-05
2038	173	0.00019893	0.000198291
2038	174	8.1683E-05	8.14151E-05
2038	EG	0.00135136	0
2038	FRWY101	4.9522E-05	4.93881E-05
2038	FRWY27	0.00084565	0.00084299
2038	FRWY28	0.00070899	0.000706776
2038	FRWY29	0.00032556	0.000324553
2038	FRWY30	0.00050255	0.000500987
2038	FRWY31	0.00037016	0.000369012
2038	FRWY32	0.00051431	0.000512719
2038	FRWY33	0.00051912	0.000517523
2038	FRWY34	0.00050202	0.000500487
2038	FRWY35	0.00022919	0.00022855
2038	FRWY36	4.1383E-05	4.128E-05
2038	FRWY37	7.1995E-05	7.18152E-05
2038	IN01	7.359E-05	7.29774E-05
2038	IN02	8.9819E-05	8.90682E-05
2038	IN03	7.2333E-06	7.18136E-06
2038	IN05	2.0789E-05	2.0723E-05
2038	IN06	0.00029658	0.000294094
2038	IN08	1.6177E-05	1.61774E-05
2038	IN11	1.4322E-06	1.43215E-06
2038	IN12	5.3992E-08	5.39918E-08
2038	IN14	6.9158E-05	6.85586E-05
2038	IN18	1.1457E-05	1.13655E-05
2038	IN19	0.00016618	0.000164803
2038	IN21	3.1027E-05	3.08195E-05
2038	IN24	8.4196E-05	8.35199E-05
2038	IN29	1.3319E-05	1.32073E-05
2038	IN30	7.0687E-05	7.00577E-05
2038	IN31	2.8397E-06	2.82256E-06
2038	PH1	0.00046118	0.000459098
2038	PH2	0.00035504	0.000353434
2038	SF09	1.4617E-05	1.4617E-05
2038	SF10	1.0052E-06	1.00518E-06
2038	SF104	1.0979E-06	1.09691E-06
2038	SF106	8.4746E-08	8.47465E-08
2038	SF107	1.0827E-06	1.08178E-06
2038	SF108	1.0604E-07	1.0601E-07
2038	SF109	3.3559E-08	3.3559E-08
2038	SF110	2.1631E-06	2.16134E-06
2038	SF111	2.0486E-08	2.04858E-08
2038	SF112	5.4754E-06	5.47017E-06
2038	SF113	2.9913E-07	2.98821E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2038	SF114	6.146E-07	6.13974E-07
2038	SF115	2.723E-06	2.72056E-06
2038	SF116	2.1997E-07	2.19811E-07
2038	SF117	5.349E-08	5.34688E-08
2038	SF118	2.3491E-06	2.34703E-06
2038	SF119	1.9505E-08	1.95047E-08
2038	SF120	3.172E-06	3.16859E-06
2038	SF121	1.0764E-06	1.07535E-06
2038	SF122	2.2622E-06	2.25982E-06
2038	SF123	1.7882E-08	1.78821E-08
2038	SF124	2.2123E-06	2.21029E-06
2038	SF125	1.937E-08	1.93701E-08
2038	SF126	1.9825E-06	1.9807E-06
2038	SF127	9.7583E-06	9.74781E-06
2038	SF128	2.1505E-08	2.15045E-08
2038	SF129	2.0964E-06	2.09448E-06
2038	SF13	1.1649E-05	1.16373E-05
2038	SF130	1.5706E-08	1.57059E-08
2038	SF131	2.3485E-08	2.34846E-08
2038	SF133	2.1617E-08	2.16172E-08
2038	SF134	1.3755E-08	1.37552E-08
2038	SF135	2.0833E-06	2.08141E-06
2038	SF136	4.1971E-08	4.19708E-08
2038	SF137	2.9756E-07	2.97256E-07
2038	SF139	2.2584E-07	2.25841E-07
2038	SF140	1.3007E-08	1.30067E-08
2038	SF141	1.1537E-07	1.1537E-07
2038	SF142	1.2373E-08	1.23704E-08
2038	SF143	5.2194E-07	5.21942E-07
2038	SF144	3.3482E-07	3.34816E-07
2038	SF145	7.5758E-07	7.57584E-07
2038	SF146	3.6475E-08	3.64746E-08
2038	SF147	6.66E-07	6.66004E-07
2038	SF148	1.7938E-06	1.7919E-06
2038	SF149	8.1235E-07	8.12346E-07
2038	SF150	1.6737E-08	1.67366E-08
2038	SF151	1.0985E-06	1.09833E-06
2038	SF152	9.8691E-06	9.85917E-06
2038	SF153	1.0462E-06	1.04624E-06
2038	SF154	1.7022E-08	1.70217E-08
2038	SF155	1.797E-06	1.79702E-06
2038	SF156	6.6385E-07	6.63846E-07
2038	SF157	1.7201E-06	1.7201E-06
2038	SF160	3.083E-08	3.08299E-08
2038	SF161	3.6621E-06	3.66206E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2038	SF162	7.2361E-06	7.23608E-06
2038	SF163	6.0999E-07	6.09993E-07
2038	SF164	2.0978E-08	2.09782E-08
2038	SF165	1.2223E-05	1.22229E-05
2038	SF168	1.491E-06	1.49103E-06
2038	SF169	3.8868E-08	3.88679E-08
2038	SF170	8.2756E-07	8.27513E-07
2038	SF171	4.3694E-07	4.36944E-07
2038	SF172	8.3913E-07	8.39128E-07
2038	SF173	0	0
2038	SF174	0	0
2038	SF177	1.9941E-05	1.99239E-05
2038	SF178	1.0396E-05	1.03867E-05
2038	SF179	4.2811E-05	4.27748E-05
2038	SF180	5.1693E-08	5.16931E-08
2038	SF181	0	0
2038	SF182	0	0
2038	SF183	0	0
2038	SF184	0	0
2038	SF185	0	0
2038	SF186	0	0
2038	SF190	1.8228E-05	1.82145E-05
2038	SF191	9.5229E-06	9.51837E-06
2038	SF192	8.2156E-06	8.20851E-06
2038	SF194	2.883E-07	2.883E-07
2038	SF195	3.4134E-07	3.41344E-07
2038	SF196	1.3595E-06	1.35946E-06
2038	SF198	1.7949E-08	1.79486E-08
2038	SF199	7.1346E-09	7.13463E-09
2038	SF200	2.5141E-06	2.51413E-06
2038	SF205	1.8912E-06	1.89116E-06
2038	SF206	3.7407E-08	3.74066E-08
2038	SF207	3.2754E-06	3.2754E-06
2038	SF283	8.7585E-07	8.74989E-07
2038	SF284	1.7001E-06	1.69853E-06
2038	SF285	6.3682E-07	6.36135E-07
2038	SF286	2.6806E-07	2.68056E-07
2038	SF287	2.3594E-06	2.35694E-06
2038	SF288	3.5281E-08	3.52522E-08
2038	SF289	1.5237E-06	1.52219E-06
2038	SF290	4.1837E-06	4.17922E-06
2038	SF294	1.5853E-08	1.5853E-08
2038	SF301	4.7675E-07	4.76752E-07
2038	SF302	6.4934E-07	6.49342E-07
2038	SF303	1.7286E-05	1.72676E-05

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2038	SF304	2.9681E-07	2.9681E-07
2038	SF306	1.2621E-05	1.26112E-05
2038	SF32	5.3967E-06	5.39675E-06
2038	SF33	2.6239E-06	2.62393E-06
2038	SF340	5.2274E-07	5.22735E-07
2038	SF35	1.3559E-05	1.35459E-05
2038	SF36	5.9686E-06	5.96858E-06
2038	SF37	3.9232E-06	3.91987E-06
2038	SF375	0	0
2038	SF376	0	0
2038	SF377	0	0
2038	SF378	0	0
2038	SF379	0	0
2038	SF38	2.4452E-06	2.44524E-06
2038	SF380	0	0
2038	SF381	0	0
2038	SF386	3.2338E-07	3.23228E-07
2038	SF387	3.3345E-05	3.332E-05
2038	SF388	3.9482E-09	3.94825E-09
2038	SF390	2.2274E-06	2.22668E-06
2038	SF392	1.7875E-06	1.7862E-06
2038	SF393	6.1454E-07	6.14185E-07
2038	SF394	1.4171E-05	1.41608E-05
2038	SF396	1.257E-05	1.25622E-05
2038	SF397	2.8033E-06	2.80082E-06
2038	SF398	4.0227E-07	4.02267E-07
2038	SF399	5.6496E-06	5.64637E-06
2038	SF400	8.4148E-08	8.41477E-08
2038	SF401	2.5827E-08	2.58269E-08
2038	SF402	2.8231E-07	2.82307E-07
2038	SF404	1.6014E-08	1.60137E-08
2038	SF405	1.9849E-08	1.98493E-08
2038	SF406	8.92E-09	8.91998E-09
2038	SF408	4.7921E-07	4.79006E-07
2038	SF409	3.803E-07	3.80303E-07
2038	SF410	1.8886E-08	1.88863E-08
2038	SF411	3.267E-08	3.267E-08
2038	SF42	0.00010087	0.000100778
2038	SF424	1.0448E-05	1.04363E-05
2038	SF425	0	0
2038	SF426	0	0
2038	SF427	2.5222E-08	2.52223E-08
2038	SF429	0	0
2038	SF43	1.0747E-05	1.07383E-05
2038	SF432	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2038	SF433	3.9282E-08	3.92823E-08
2038	SF436	3.9083E-09	3.90833E-09
2038	SF458	6.7077E-09	6.7077E-09
2038	SF46	5.9211E-07	5.92108E-07
2038	SF464	0	0
2038	SF47	1.0642E-06	1.06424E-06
2038	SF479	1.1756E-08	1.17564E-08
2038	SF48	2.0276E-06	2.02575E-06
2038	SF488	0	0
2038	SF494	0	0
2038	SF498	0	0
2038	SF499	8.24E-06	8.2311E-06
2038	SF50	6.2453E-06	6.24531E-06
2038	SF500	4.9311E-06	4.92575E-06
2038	SF502	0	0
2038	SF503	0	0
2038	SF504	1.5242E-07	1.52419E-07
2038	SF51	1.0228E-06	1.02279E-06
2038	SF52	1.0311E-05	1.03114E-05
2038	SF53	2.8255E-08	2.82552E-08
2038	SF54	5.7797E-09	5.77972E-09
2038	SF55	1.9731E-06	1.97313E-06
2038	SF56	1.1839E-06	1.18388E-06
2038	SF57	3.5814E-07	3.5781E-07
2038	SF58	6.4189E-09	6.4189E-09
2038	SF59	1.7087E-06	1.70713E-06
2038	SF60	3.5585E-06	3.5551E-06
2038	SF61	1.181E-06	1.17981E-06
2038	SF62	0	0
2038	SF65	2.4605E-06	2.45834E-06
2038	SF66	2.2263E-06	2.22439E-06
2038	SF67	3.4696E-08	3.46965E-08
2038	SF68	1.9628E-07	1.96275E-07
2038	SF69	1.8082E-06	1.80823E-06
2038	SF70	1.7828E-06	1.78283E-06
2038	SF71	3.931E-08	3.93101E-08
2038	SF72	2.0781E-08	2.07811E-08
2038	SF73	5.8736E-06	5.87362E-06
2038	SF74	4.3199E-08	4.31986E-08
2038	SF75	1.4205E-07	1.42048E-07
2038	SF76	5.9363E-07	5.93632E-07
2038	SF77	1.0422E-08	1.04217E-08
2038	SF80	3.7169E-09	3.7169E-09
2038	SF81	5.2097E-09	5.20965E-09
2038	SF82	1.5E-06	1.49858E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2038	SF83	2.6226E-07	2.61975E-07
2038	SF85	4.1653E-09	4.16528E-09
2038	SF86	1.5194E-06	1.51785E-06
2038	SF87	2.2509E-08	2.25091E-08
2038	SF88	2.2489E-08	2.24891E-08
2039	172	1.9955E-05	1.98894E-05
2039	173	0.00019893	0.000198291
2039	174	8.1683E-05	8.14151E-05
2039	EG	0.00135136	0
2039	FRWY101	4.9522E-05	4.93881E-05
2039	FRWY27	0.00084565	0.00084299
2039	FRWY28	0.00070899	0.000706776
2039	FRWY29	0.00032556	0.000324553
2039	FRWY30	0.00050255	0.000500987
2039	FRWY31	0.00037016	0.000369012
2039	FRWY32	0.00051431	0.000512719
2039	FRWY33	0.00051912	0.000517523
2039	FRWY34	0.00050202	0.000500487
2039	FRWY35	0.00022919	0.00022855
2039	FRWY36	4.1383E-05	4.128E-05
2039	FRWY37	7.1995E-05	7.18152E-05
2039	IN01	7.359E-05	7.29774E-05
2039	IN02	8.9819E-05	8.90682E-05
2039	IN03	7.2333E-06	7.18136E-06
2039	IN05	2.0789E-05	2.0723E-05
2039	IN06	0.00029658	0.000294094
2039	IN08	1.6177E-05	1.61774E-05
2039	IN11	1.4322E-06	1.43215E-06
2039	IN12	5.3992E-08	5.39918E-08
2039	IN14	6.9158E-05	6.85586E-05
2039	IN18	1.1457E-05	1.13655E-05
2039	IN19	0.00016618	0.000164803
2039	IN21	3.1027E-05	3.08195E-05
2039	IN24	8.4196E-05	8.35199E-05
2039	IN29	1.3319E-05	1.32073E-05
2039	IN30	7.0687E-05	7.00577E-05
2039	IN31	2.8397E-06	2.82256E-06
2039	PH1	0.00046118	0.000459098
2039	PH2	0.00035504	0.000353434
2039	SF09	1.4617E-05	1.4617E-05
2039	SF10	1.0052E-06	1.00518E-06
2039	SF104	1.0979E-06	1.09691E-06
2039	SF106	8.4746E-08	8.47465E-08
2039	SF107	1.0827E-06	1.08178E-06
2039	SF108	1.0604E-07	1.0601E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2039	SF109	3.3559E-08	3.3559E-08
2039	SF110	2.1631E-06	2.16134E-06
2039	SF111	2.0486E-08	2.04858E-08
2039	SF112	5.4754E-06	5.47017E-06
2039	SF113	2.9913E-07	2.98821E-07
2039	SF114	6.146E-07	6.13974E-07
2039	SF115	2.723E-06	2.72056E-06
2039	SF116	2.1997E-07	2.19811E-07
2039	SF117	5.349E-08	5.34688E-08
2039	SF118	2.3491E-06	2.34703E-06
2039	SF119	1.9505E-08	1.95047E-08
2039	SF120	3.172E-06	3.16859E-06
2039	SF121	1.0764E-06	1.07535E-06
2039	SF122	2.2622E-06	2.25982E-06
2039	SF123	1.7882E-08	1.78821E-08
2039	SF124	2.2123E-06	2.21029E-06
2039	SF125	1.937E-08	1.93701E-08
2039	SF126	1.9825E-06	1.9807E-06
2039	SF127	9.7583E-06	9.74781E-06
2039	SF128	2.1505E-08	2.15045E-08
2039	SF129	2.0964E-06	2.09448E-06
2039	SF13	1.1649E-05	1.16373E-05
2039	SF130	1.5706E-08	1.57059E-08
2039	SF131	2.3485E-08	2.34846E-08
2039	SF133	2.1617E-08	2.16172E-08
2039	SF134	1.3755E-08	1.37552E-08
2039	SF135	2.0833E-06	2.08141E-06
2039	SF136	4.1971E-08	4.19708E-08
2039	SF137	2.9756E-07	2.97256E-07
2039	SF139	2.2584E-07	2.25841E-07
2039	SF140	1.3007E-08	1.30067E-08
2039	SF141	1.1537E-07	1.1537E-07
2039	SF142	1.2373E-08	1.23704E-08
2039	SF143	5.2194E-07	5.21942E-07
2039	SF144	3.3482E-07	3.34816E-07
2039	SF145	7.5758E-07	7.57584E-07
2039	SF146	3.6475E-08	3.64746E-08
2039	SF147	6.66E-07	6.66004E-07
2039	SF148	1.7938E-06	1.7919E-06
2039	SF149	8.1235E-07	8.12346E-07
2039	SF150	1.6737E-08	1.67366E-08
2039	SF151	1.0985E-06	1.09833E-06
2039	SF152	9.8691E-06	9.85917E-06
2039	SF153	1.0462E-06	1.04624E-06
2039	SF154	1.7022E-08	1.70217E-08

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2039	SF155	1.797E-06	1.79702E-06
2039	SF156	6.6385E-07	6.63846E-07
2039	SF157	1.7201E-06	1.7201E-06
2039	SF160	3.083E-08	3.08299E-08
2039	SF161	3.6621E-06	3.66206E-06
2039	SF162	7.2361E-06	7.23608E-06
2039	SF163	6.0999E-07	6.09993E-07
2039	SF164	2.0978E-08	2.09782E-08
2039	SF165	1.2223E-05	1.22229E-05
2039	SF168	1.491E-06	1.49103E-06
2039	SF169	3.8868E-08	3.88679E-08
2039	SF170	8.2756E-07	8.27513E-07
2039	SF171	4.3694E-07	4.36944E-07
2039	SF172	8.3913E-07	8.39128E-07
2039	SF173	0	0
2039	SF174	0	0
2039	SF177	1.9941E-05	1.99239E-05
2039	SF178	1.0396E-05	1.03867E-05
2039	SF179	4.2811E-05	4.27748E-05
2039	SF180	5.1693E-08	5.16931E-08
2039	SF181	0	0
2039	SF182	0	0
2039	SF183	0	0
2039	SF184	0	0
2039	SF185	0	0
2039	SF186	0	0
2039	SF190	1.8228E-05	1.82145E-05
2039	SF191	9.5229E-06	9.51837E-06
2039	SF192	8.2156E-06	8.20851E-06
2039	SF194	2.883E-07	2.883E-07
2039	SF195	3.4134E-07	3.41344E-07
2039	SF196	1.3595E-06	1.35946E-06
2039	SF198	1.7949E-08	1.79486E-08
2039	SF199	7.1346E-09	7.13463E-09
2039	SF200	2.5141E-06	2.51413E-06
2039	SF205	1.8912E-06	1.89116E-06
2039	SF206	3.7407E-08	3.74066E-08
2039	SF207	3.2754E-06	3.2754E-06
2039	SF283	8.7585E-07	8.74989E-07
2039	SF284	1.7001E-06	1.69853E-06
2039	SF285	6.3682E-07	6.36135E-07
2039	SF286	2.6806E-07	2.68056E-07
2039	SF287	2.3594E-06	2.35694E-06
2039	SF288	3.5281E-08	3.52522E-08
2039	SF289	1.5237E-06	1.52219E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2039	SF290	4.1837E-06	4.17922E-06
2039	SF294	1.5853E-08	1.5853E-08
2039	SF301	4.7675E-07	4.76752E-07
2039	SF302	6.4934E-07	6.49342E-07
2039	SF303	1.7286E-05	1.72676E-05
2039	SF304	2.9681E-07	2.9681E-07
2039	SF306	1.2621E-05	1.26112E-05
2039	SF32	5.3967E-06	5.39675E-06
2039	SF33	2.6239E-06	2.62393E-06
2039	SF340	5.2274E-07	5.22735E-07
2039	SF35	1.3559E-05	1.35459E-05
2039	SF36	5.9686E-06	5.96858E-06
2039	SF37	3.9232E-06	3.91987E-06
2039	SF375	0	0
2039	SF376	0	0
2039	SF377	0	0
2039	SF378	0	0
2039	SF379	0	0
2039	SF38	2.4452E-06	2.44524E-06
2039	SF380	0	0
2039	SF381	0	0
2039	SF386	3.2338E-07	3.23228E-07
2039	SF387	3.3345E-05	3.332E-05
2039	SF388	3.9482E-09	3.94825E-09
2039	SF390	2.2274E-06	2.22668E-06
2039	SF392	1.7875E-06	1.7862E-06
2039	SF393	6.1454E-07	6.14185E-07
2039	SF394	1.4171E-05	1.41608E-05
2039	SF396	1.257E-05	1.25622E-05
2039	SF397	2.8033E-06	2.80082E-06
2039	SF398	4.0227E-07	4.02267E-07
2039	SF399	5.6496E-06	5.64637E-06
2039	SF400	8.4148E-08	8.41477E-08
2039	SF401	2.5827E-08	2.58269E-08
2039	SF402	2.8231E-07	2.82307E-07
2039	SF404	1.6014E-08	1.60137E-08
2039	SF405	1.9849E-08	1.98493E-08
2039	SF406	8.92E-09	8.91998E-09
2039	SF408	4.7921E-07	4.79006E-07
2039	SF409	3.803E-07	3.80303E-07
2039	SF410	1.8886E-08	1.88863E-08
2039	SF411	3.267E-08	3.267E-08
2039	SF42	0.00010087	0.000100778
2039	SF424	1.0448E-05	1.04363E-05
2039	SF425	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2039	SF426	0	0
2039	SF427	2.5222E-08	2.52223E-08
2039	SF429	0	0
2039	SF43	1.0747E-05	1.07383E-05
2039	SF432	0	0
2039	SF433	3.9282E-08	3.92823E-08
2039	SF436	3.9083E-09	3.90833E-09
2039	SF458	6.7077E-09	6.7077E-09
2039	SF46	5.9211E-07	5.92108E-07
2039	SF464	0	0
2039	SF47	1.0642E-06	1.06424E-06
2039	SF479	1.1756E-08	1.17564E-08
2039	SF48	2.0276E-06	2.02575E-06
2039	SF488	0	0
2039	SF494	0	0
2039	SF498	0	0
2039	SF499	8.24E-06	8.2311E-06
2039	SF50	6.2453E-06	6.24531E-06
2039	SF500	4.9311E-06	4.92575E-06
2039	SF502	0	0
2039	SF503	0	0
2039	SF504	1.5242E-07	1.52419E-07
2039	SF51	1.0228E-06	1.02279E-06
2039	SF52	1.0311E-05	1.03114E-05
2039	SF53	2.8255E-08	2.82552E-08
2039	SF54	5.7797E-09	5.77972E-09
2039	SF55	1.9731E-06	1.97313E-06
2039	SF56	1.1839E-06	1.18388E-06
2039	SF57	3.5814E-07	3.5781E-07
2039	SF58	6.4189E-09	6.4189E-09
2039	SF59	1.7087E-06	1.70713E-06
2039	SF60	3.5585E-06	3.5551E-06
2039	SF61	1.181E-06	1.17981E-06
2039	SF62	0	0
2039	SF65	2.4605E-06	2.45834E-06
2039	SF66	2.2263E-06	2.22439E-06
2039	SF67	3.4696E-08	3.46965E-08
2039	SF68	1.9628E-07	1.96275E-07
2039	SF69	1.8082E-06	1.80823E-06
2039	SF70	1.7828E-06	1.78283E-06
2039	SF71	3.931E-08	3.93101E-08
2039	SF72	2.0781E-08	2.07811E-08
2039	SF73	5.8736E-06	5.87362E-06
2039	SF74	4.3199E-08	4.31986E-08
2039	SF75	1.4205E-07	1.42048E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2039	SF76	5.9363E-07	5.93632E-07
2039	SF77	1.0422E-08	1.04217E-08
2039	SF80	3.7169E-09	3.7169E-09
2039	SF81	5.2097E-09	5.20965E-09
2039	SF82	1.5E-06	1.49858E-06
2039	SF83	2.6226E-07	2.61975E-07
2039	SF85	4.1653E-09	4.16528E-09
2039	SF86	1.5194E-06	1.51785E-06
2039	SF87	2.2509E-08	2.25091E-08
2039	SF88	2.2489E-08	2.24891E-08
2040	172	1.9955E-05	1.98894E-05
2040	173	0.00019893	0.000198291
2040	174	8.1683E-05	8.14151E-05
2040	EG	0.00135136	0
2040	FRWY101	4.9522E-05	4.93881E-05
2040	FRWY27	0.00084565	0.00084299
2040	FRWY28	0.00070899	0.000706776
2040	FRWY29	0.00032556	0.000324553
2040	FRWY30	0.00050255	0.000500987
2040	FRWY31	0.00037016	0.000369012
2040	FRWY32	0.00051431	0.000512719
2040	FRWY33	0.00051912	0.000517523
2040	FRWY34	0.00050202	0.000500487
2040	FRWY35	0.00022919	0.00022855
2040	FRWY36	4.1383E-05	4.128E-05
2040	FRWY37	7.1995E-05	7.18152E-05
2040	IN01	7.359E-05	7.29774E-05
2040	IN02	8.9819E-05	8.90682E-05
2040	IN03	7.2333E-06	7.18136E-06
2040	IN05	2.0789E-05	2.0723E-05
2040	IN06	0.00029658	0.000294094
2040	IN08	1.6177E-05	1.61774E-05
2040	IN11	1.4322E-06	1.43215E-06
2040	IN12	5.3992E-08	5.39918E-08
2040	IN14	6.9158E-05	6.85586E-05
2040	IN18	1.1457E-05	1.13655E-05
2040	IN19	0.00016618	0.000164803
2040	IN21	3.1027E-05	3.08195E-05
2040	IN24	8.4196E-05	8.35199E-05
2040	IN29	1.3319E-05	1.32073E-05
2040	IN30	7.0687E-05	7.00577E-05
2040	IN31	2.8397E-06	2.82256E-06
2040	PH1	0.00046118	0.000459098
2040	PH2	0.00035504	0.000353434
2040	SF09	1.4617E-05	1.4617E-05

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2040	SF10	1.0052E-06	1.00518E-06
2040	SF104	1.0979E-06	1.09691E-06
2040	SF106	8.4746E-08	8.47465E-08
2040	SF107	1.0827E-06	1.08178E-06
2040	SF108	1.0604E-07	1.0601E-07
2040	SF109	3.3559E-08	3.3559E-08
2040	SF110	2.1631E-06	2.16134E-06
2040	SF111	2.0486E-08	2.04858E-08
2040	SF112	5.4754E-06	5.47017E-06
2040	SF113	2.9913E-07	2.98821E-07
2040	SF114	6.146E-07	6.13974E-07
2040	SF115	2.723E-06	2.72056E-06
2040	SF116	2.1997E-07	2.19811E-07
2040	SF117	5.349E-08	5.34688E-08
2040	SF118	2.3491E-06	2.34703E-06
2040	SF119	1.9505E-08	1.95047E-08
2040	SF120	3.172E-06	3.16859E-06
2040	SF121	1.0764E-06	1.07535E-06
2040	SF122	2.2622E-06	2.25982E-06
2040	SF123	1.7882E-08	1.78821E-08
2040	SF124	2.2123E-06	2.21029E-06
2040	SF125	1.937E-08	1.93701E-08
2040	SF126	1.9825E-06	1.9807E-06
2040	SF127	9.7583E-06	9.74781E-06
2040	SF128	2.1505E-08	2.15045E-08
2040	SF129	2.0964E-06	2.09448E-06
2040	SF13	1.1649E-05	1.16373E-05
2040	SF130	1.5706E-08	1.57059E-08
2040	SF131	2.3485E-08	2.34846E-08
2040	SF133	2.1617E-08	2.16172E-08
2040	SF134	1.3755E-08	1.37552E-08
2040	SF135	2.0833E-06	2.08141E-06
2040	SF136	4.1971E-08	4.19708E-08
2040	SF137	2.9756E-07	2.97256E-07
2040	SF139	2.2584E-07	2.25841E-07
2040	SF140	1.3007E-08	1.30067E-08
2040	SF141	1.1537E-07	1.1537E-07
2040	SF142	1.2373E-08	1.23704E-08
2040	SF143	5.2194E-07	5.21942E-07
2040	SF144	3.3482E-07	3.34816E-07
2040	SF145	7.5758E-07	7.57584E-07
2040	SF146	3.6475E-08	3.64746E-08
2040	SF147	6.66E-07	6.66004E-07
2040	SF148	1.7938E-06	1.7919E-06
2040	SF149	8.1235E-07	8.12346E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2040	SF150	1.6737E-08	1.67366E-08
2040	SF151	1.0985E-06	1.09833E-06
2040	SF152	9.8691E-06	9.85917E-06
2040	SF153	1.0462E-06	1.04624E-06
2040	SF154	1.7022E-08	1.70217E-08
2040	SF155	1.797E-06	1.79702E-06
2040	SF156	6.6385E-07	6.63846E-07
2040	SF157	1.7201E-06	1.7201E-06
2040	SF160	3.083E-08	3.08299E-08
2040	SF161	3.6621E-06	3.66206E-06
2040	SF162	7.2361E-06	7.23608E-06
2040	SF163	6.0999E-07	6.09993E-07
2040	SF164	2.0978E-08	2.09782E-08
2040	SF165	1.2223E-05	1.22229E-05
2040	SF168	1.491E-06	1.49103E-06
2040	SF169	3.8868E-08	3.88679E-08
2040	SF170	8.2756E-07	8.27513E-07
2040	SF171	4.3694E-07	4.36944E-07
2040	SF172	8.3913E-07	8.39128E-07
2040	SF173	0	0
2040	SF174	0	0
2040	SF177	1.9941E-05	1.99239E-05
2040	SF178	1.0396E-05	1.03867E-05
2040	SF179	4.2811E-05	4.27748E-05
2040	SF180	5.1693E-08	5.16931E-08
2040	SF181	0	0
2040	SF182	0	0
2040	SF183	0	0
2040	SF184	0	0
2040	SF185	0	0
2040	SF186	0	0
2040	SF190	1.8228E-05	1.82145E-05
2040	SF191	9.5229E-06	9.51837E-06
2040	SF192	8.2156E-06	8.20851E-06
2040	SF194	2.883E-07	2.883E-07
2040	SF195	3.4134E-07	3.41344E-07
2040	SF196	1.3595E-06	1.35946E-06
2040	SF198	1.7949E-08	1.79486E-08
2040	SF199	7.1346E-09	7.13463E-09
2040	SF200	2.5141E-06	2.51413E-06
2040	SF205	1.8912E-06	1.89116E-06
2040	SF206	3.7407E-08	3.74066E-08
2040	SF207	3.2754E-06	3.2754E-06
2040	SF283	8.7585E-07	8.74989E-07
2040	SF284	1.7001E-06	1.69853E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2040	SF285	6.3682E-07	6.36135E-07
2040	SF286	2.6806E-07	2.68056E-07
2040	SF287	2.3594E-06	2.35694E-06
2040	SF288	3.5281E-08	3.52522E-08
2040	SF289	1.5237E-06	1.52219E-06
2040	SF290	4.1837E-06	4.17922E-06
2040	SF294	1.5853E-08	1.5853E-08
2040	SF301	4.7675E-07	4.76752E-07
2040	SF302	6.4934E-07	6.49342E-07
2040	SF303	1.7286E-05	1.72676E-05
2040	SF304	2.9681E-07	2.9681E-07
2040	SF306	1.2621E-05	1.26112E-05
2040	SF32	5.3967E-06	5.39675E-06
2040	SF33	2.6239E-06	2.62393E-06
2040	SF340	5.2274E-07	5.22735E-07
2040	SF35	1.3559E-05	1.35459E-05
2040	SF36	5.9686E-06	5.96858E-06
2040	SF37	3.9232E-06	3.91987E-06
2040	SF375	0	0
2040	SF376	0	0
2040	SF377	0	0
2040	SF378	0	0
2040	SF379	0	0
2040	SF38	2.4452E-06	2.44524E-06
2040	SF380	0	0
2040	SF381	0	0
2040	SF386	3.2338E-07	3.23228E-07
2040	SF387	3.3345E-05	3.332E-05
2040	SF388	3.9482E-09	3.94825E-09
2040	SF390	2.2274E-06	2.22668E-06
2040	SF392	1.7875E-06	1.7862E-06
2040	SF393	6.1454E-07	6.14185E-07
2040	SF394	1.4171E-05	1.41608E-05
2040	SF396	1.257E-05	1.25622E-05
2040	SF397	2.8033E-06	2.80082E-06
2040	SF398	4.0227E-07	4.02267E-07
2040	SF399	5.6496E-06	5.64637E-06
2040	SF400	8.4148E-08	8.41477E-08
2040	SF401	2.5827E-08	2.58269E-08
2040	SF402	2.8231E-07	2.82307E-07
2040	SF404	1.6014E-08	1.60137E-08
2040	SF405	1.9849E-08	1.98493E-08
2040	SF406	8.92E-09	8.91998E-09
2040	SF408	4.7921E-07	4.79006E-07
2040	SF409	3.803E-07	3.80303E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2040	SF410	1.8886E-08	1.88863E-08
2040	SF411	3.267E-08	3.267E-08
2040	SF42	0.00010087	0.000100778
2040	SF424	1.0448E-05	1.04363E-05
2040	SF425	0	0
2040	SF426	0	0
2040	SF427	2.5222E-08	2.52223E-08
2040	SF429	0	0
2040	SF43	1.0747E-05	1.07383E-05
2040	SF432	0	0
2040	SF433	3.9282E-08	3.92823E-08
2040	SF436	3.9083E-09	3.90833E-09
2040	SF458	6.7077E-09	6.7077E-09
2040	SF46	5.9211E-07	5.92108E-07
2040	SF464	0	0
2040	SF47	1.0642E-06	1.06424E-06
2040	SF479	1.1756E-08	1.17564E-08
2040	SF48	2.0276E-06	2.02575E-06
2040	SF488	0	0
2040	SF494	0	0
2040	SF498	0	0
2040	SF499	8.24E-06	8.2311E-06
2040	SF50	6.2453E-06	6.24531E-06
2040	SF500	4.9311E-06	4.92575E-06
2040	SF502	0	0
2040	SF503	0	0
2040	SF504	1.5242E-07	1.52419E-07
2040	SF51	1.0228E-06	1.02279E-06
2040	SF52	1.0311E-05	1.03114E-05
2040	SF53	2.8255E-08	2.82552E-08
2040	SF54	5.7797E-09	5.77972E-09
2040	SF55	1.9731E-06	1.97313E-06
2040	SF56	1.1839E-06	1.18388E-06
2040	SF57	3.5814E-07	3.5781E-07
2040	SF58	6.4189E-09	6.4189E-09
2040	SF59	1.7087E-06	1.70713E-06
2040	SF60	3.5585E-06	3.5551E-06
2040	SF61	1.181E-06	1.17981E-06
2040	SF62	0	0
2040	SF65	2.4605E-06	2.45834E-06
2040	SF66	2.2263E-06	2.22439E-06
2040	SF67	3.4696E-08	3.46965E-08
2040	SF68	1.9628E-07	1.96275E-07
2040	SF69	1.8082E-06	1.80823E-06
2040	SF70	1.7828E-06	1.78283E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2040	SF71	3.931E-08	3.93101E-08
2040	SF72	2.0781E-08	2.07811E-08
2040	SF73	5.8736E-06	5.87362E-06
2040	SF74	4.3199E-08	4.31986E-08
2040	SF75	1.4205E-07	1.42048E-07
2040	SF76	5.9363E-07	5.93632E-07
2040	SF77	1.0422E-08	1.04217E-08
2040	SF80	3.7169E-09	3.7169E-09
2040	SF81	5.2097E-09	5.20965E-09
2040	SF82	1.5E-06	1.49858E-06
2040	SF83	2.6226E-07	2.61975E-07
2040	SF85	4.1653E-09	4.16528E-09
2040	SF86	1.5194E-06	1.51785E-06
2040	SF87	2.2509E-08	2.25091E-08
2040	SF88	2.2489E-08	2.24891E-08
2041	172	1.9955E-05	1.98894E-05
2041	173	0.00019893	0.000198291
2041	174	8.1683E-05	8.14151E-05
2041	EG	0.00135136	0
2041	FRWY101	4.9522E-05	4.93881E-05
2041	FRWY27	0.00084565	0.00084299
2041	FRWY28	0.00070899	0.000706776
2041	FRWY29	0.00032556	0.000324553
2041	FRWY30	0.00050255	0.000500987
2041	FRWY31	0.00037016	0.000369012
2041	FRWY32	0.00051431	0.000512719
2041	FRWY33	0.00051912	0.000517523
2041	FRWY34	0.00050202	0.000500487
2041	FRWY35	0.00022919	0.00022855
2041	FRWY36	4.1383E-05	4.128E-05
2041	FRWY37	7.1995E-05	7.18152E-05
2041	IN01	7.359E-05	7.29774E-05
2041	IN02	8.9819E-05	8.90682E-05
2041	IN03	7.2333E-06	7.18136E-06
2041	IN05	2.0789E-05	2.0723E-05
2041	IN06	0.00029658	0.000294094
2041	IN08	1.6177E-05	1.61774E-05
2041	IN11	1.4322E-06	1.43215E-06
2041	IN12	5.3992E-08	5.39918E-08
2041	IN14	6.9158E-05	6.85586E-05
2041	IN18	1.1457E-05	1.13655E-05
2041	IN19	0.00016618	0.000164803
2041	IN21	3.1027E-05	3.08195E-05
2041	IN24	8.4196E-05	8.35199E-05
2041	IN29	1.3319E-05	1.32073E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2041	IN30	7.0687E-05	7.00577E-05
2041	IN31	2.8397E-06	2.82256E-06
2041	PH1	0.00046118	0.000459098
2041	PH2	0.00035504	0.000353434
2041	SF09	1.4617E-05	1.4617E-05
2041	SF10	1.0052E-06	1.00518E-06
2041	SF104	1.0979E-06	1.09691E-06
2041	SF106	8.4746E-08	8.47465E-08
2041	SF107	1.0827E-06	1.08178E-06
2041	SF108	1.0604E-07	1.0601E-07
2041	SF109	3.3559E-08	3.3559E-08
2041	SF110	2.1631E-06	2.16134E-06
2041	SF111	2.0486E-08	2.04858E-08
2041	SF112	5.4754E-06	5.47017E-06
2041	SF113	2.9913E-07	2.98821E-07
2041	SF114	6.146E-07	6.13974E-07
2041	SF115	2.723E-06	2.72056E-06
2041	SF116	2.1997E-07	2.19811E-07
2041	SF117	5.349E-08	5.34688E-08
2041	SF118	2.3491E-06	2.34703E-06
2041	SF119	1.9505E-08	1.95047E-08
2041	SF120	3.172E-06	3.16859E-06
2041	SF121	1.0764E-06	1.07535E-06
2041	SF122	2.2622E-06	2.25982E-06
2041	SF123	1.7882E-08	1.78821E-08
2041	SF124	2.2123E-06	2.21029E-06
2041	SF125	1.937E-08	1.93701E-08
2041	SF126	1.9825E-06	1.9807E-06
2041	SF127	9.7583E-06	9.74781E-06
2041	SF128	2.1505E-08	2.15045E-08
2041	SF129	2.0964E-06	2.09448E-06
2041	SF13	1.1649E-05	1.16373E-05
2041	SF130	1.5706E-08	1.57059E-08
2041	SF131	2.3485E-08	2.34846E-08
2041	SF133	2.1617E-08	2.16172E-08
2041	SF134	1.3755E-08	1.37552E-08
2041	SF135	2.0833E-06	2.08141E-06
2041	SF136	4.1971E-08	4.19708E-08
2041	SF137	2.9756E-07	2.97256E-07
2041	SF139	2.2584E-07	2.25841E-07
2041	SF140	1.3007E-08	1.30067E-08
2041	SF141	1.1537E-07	1.1537E-07
2041	SF142	1.2373E-08	1.23704E-08
2041	SF143	5.2194E-07	5.21942E-07
2041	SF144	3.3482E-07	3.34816E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2041	SF145	7.5758E-07	7.57584E-07
2041	SF146	3.6475E-08	3.64746E-08
2041	SF147	6.66E-07	6.66004E-07
2041	SF148	1.7938E-06	1.7919E-06
2041	SF149	8.1235E-07	8.12346E-07
2041	SF150	1.6737E-08	1.67366E-08
2041	SF151	1.0985E-06	1.09833E-06
2041	SF152	9.8691E-06	9.85917E-06
2041	SF153	1.0462E-06	1.04624E-06
2041	SF154	1.7022E-08	1.70217E-08
2041	SF155	1.797E-06	1.79702E-06
2041	SF156	6.6385E-07	6.63846E-07
2041	SF157	1.7201E-06	1.7201E-06
2041	SF160	3.083E-08	3.08299E-08
2041	SF161	3.6621E-06	3.66206E-06
2041	SF162	7.2361E-06	7.23608E-06
2041	SF163	6.0999E-07	6.09993E-07
2041	SF164	2.0978E-08	2.09782E-08
2041	SF165	1.2223E-05	1.22229E-05
2041	SF168	1.491E-06	1.49103E-06
2041	SF169	3.8868E-08	3.88679E-08
2041	SF170	8.2756E-07	8.27513E-07
2041	SF171	4.3694E-07	4.36944E-07
2041	SF172	8.3913E-07	8.39128E-07
2041	SF173	0	0
2041	SF174	0	0
2041	SF177	1.9941E-05	1.99239E-05
2041	SF178	1.0396E-05	1.03867E-05
2041	SF179	4.2811E-05	4.27748E-05
2041	SF180	5.1693E-08	5.16931E-08
2041	SF181	0	0
2041	SF182	0	0
2041	SF183	0	0
2041	SF184	0	0
2041	SF185	0	0
2041	SF186	0	0
2041	SF190	1.8228E-05	1.82145E-05
2041	SF191	9.5229E-06	9.51837E-06
2041	SF192	8.2156E-06	8.20851E-06
2041	SF194	2.883E-07	2.883E-07
2041	SF195	3.4134E-07	3.41344E-07
2041	SF196	1.3595E-06	1.35946E-06
2041	SF198	1.7949E-08	1.79486E-08
2041	SF199	7.1346E-09	7.13463E-09
2041	SF200	2.5141E-06	2.51413E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2041	SF205	1.8912E-06	1.89116E-06
2041	SF206	3.7407E-08	3.74066E-08
2041	SF207	3.2754E-06	3.2754E-06
2041	SF283	8.7585E-07	8.74989E-07
2041	SF284	1.7001E-06	1.69853E-06
2041	SF285	6.3682E-07	6.36135E-07
2041	SF286	2.6806E-07	2.68056E-07
2041	SF287	2.3594E-06	2.35694E-06
2041	SF288	3.5281E-08	3.52522E-08
2041	SF289	1.5237E-06	1.52219E-06
2041	SF290	4.1837E-06	4.17922E-06
2041	SF294	1.5853E-08	1.5853E-08
2041	SF301	4.7675E-07	4.76752E-07
2041	SF302	6.4934E-07	6.49342E-07
2041	SF303	1.7286E-05	1.72676E-05
2041	SF304	2.9681E-07	2.9681E-07
2041	SF306	1.2621E-05	1.26112E-05
2041	SF32	5.3967E-06	5.39675E-06
2041	SF33	2.6239E-06	2.62393E-06
2041	SF340	5.2274E-07	5.22735E-07
2041	SF35	1.3559E-05	1.35459E-05
2041	SF36	5.9686E-06	5.96858E-06
2041	SF37	3.9232E-06	3.91987E-06
2041	SF375	0	0
2041	SF376	0	0
2041	SF377	0	0
2041	SF378	0	0
2041	SF379	0	0
2041	SF38	2.4452E-06	2.44524E-06
2041	SF380	0	0
2041	SF381	0	0
2041	SF386	3.2338E-07	3.23228E-07
2041	SF387	3.3345E-05	3.332E-05
2041	SF388	3.9482E-09	3.94825E-09
2041	SF390	2.2274E-06	2.22668E-06
2041	SF392	1.7875E-06	1.7862E-06
2041	SF393	6.1454E-07	6.14185E-07
2041	SF394	1.4171E-05	1.41608E-05
2041	SF396	1.257E-05	1.25622E-05
2041	SF397	2.8033E-06	2.80082E-06
2041	SF398	4.0227E-07	4.02267E-07
2041	SF399	5.6496E-06	5.64637E-06
2041	SF400	8.4148E-08	8.41477E-08
2041	SF401	2.5827E-08	2.58269E-08
2041	SF402	2.8231E-07	2.82307E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2041	SF404	1.6014E-08	1.60137E-08
2041	SF405	1.9849E-08	1.98493E-08
2041	SF406	8.92E-09	8.91998E-09
2041	SF408	4.7921E-07	4.79006E-07
2041	SF409	3.803E-07	3.80303E-07
2041	SF410	1.8886E-08	1.88863E-08
2041	SF411	3.267E-08	3.267E-08
2041	SF42	0.00010087	0.000100778
2041	SF424	1.0448E-05	1.04363E-05
2041	SF425	0	0
2041	SF426	0	0
2041	SF427	2.5222E-08	2.52223E-08
2041	SF429	0	0
2041	SF43	1.0747E-05	1.07383E-05
2041	SF432	0	0
2041	SF433	3.9282E-08	3.92823E-08
2041	SF436	3.9083E-09	3.90833E-09
2041	SF458	6.7077E-09	6.7077E-09
2041	SF46	5.9211E-07	5.92108E-07
2041	SF464	0	0
2041	SF47	1.0642E-06	1.06424E-06
2041	SF479	1.1756E-08	1.17564E-08
2041	SF48	2.0276E-06	2.02575E-06
2041	SF488	0	0
2041	SF494	0	0
2041	SF498	0	0
2041	SF499	8.24E-06	8.2311E-06
2041	SF50	6.2453E-06	6.24531E-06
2041	SF500	4.9311E-06	4.92575E-06
2041	SF502	0	0
2041	SF503	0	0
2041	SF504	1.5242E-07	1.52419E-07
2041	SF51	1.0228E-06	1.02279E-06
2041	SF52	1.0311E-05	1.03114E-05
2041	SF53	2.8255E-08	2.82552E-08
2041	SF54	5.7797E-09	5.77972E-09
2041	SF55	1.9731E-06	1.97313E-06
2041	SF56	1.1839E-06	1.18388E-06
2041	SF57	3.5814E-07	3.5781E-07
2041	SF58	6.4189E-09	6.4189E-09
2041	SF59	1.7087E-06	1.70713E-06
2041	SF60	3.5585E-06	3.5551E-06
2041	SF61	1.181E-06	1.17981E-06
2041	SF62	0	0
2041	SF65	2.4605E-06	2.45834E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2041	SF66	2.2263E-06	2.22439E-06
2041	SF67	3.4696E-08	3.46965E-08
2041	SF68	1.9628E-07	1.96275E-07
2041	SF69	1.8082E-06	1.80823E-06
2041	SF70	1.7828E-06	1.78283E-06
2041	SF71	3.931E-08	3.93101E-08
2041	SF72	2.0781E-08	2.07811E-08
2041	SF73	5.8736E-06	5.87362E-06
2041	SF74	4.3199E-08	4.31986E-08
2041	SF75	1.4205E-07	1.42048E-07
2041	SF76	5.9363E-07	5.93632E-07
2041	SF77	1.0422E-08	1.04217E-08
2041	SF80	3.7169E-09	3.7169E-09
2041	SF81	5.2097E-09	5.20965E-09
2041	SF82	1.5E-06	1.49858E-06
2041	SF83	2.6226E-07	2.61975E-07
2041	SF85	4.1653E-09	4.16528E-09
2041	SF86	1.5194E-06	1.51785E-06
2041	SF87	2.2509E-08	2.25091E-08
2041	SF88	2.2489E-08	2.24891E-08
2042	172	1.9955E-05	1.98894E-05
2042	173	0.00019893	0.000198291
2042	174	8.1683E-05	8.14151E-05
2042	EG	0.00135136	0
2042	FRWY101	4.9522E-05	4.93881E-05
2042	FRWY27	0.00084565	0.00084299
2042	FRWY28	0.00070899	0.000706776
2042	FRWY29	0.00032556	0.000324553
2042	FRWY30	0.00050255	0.000500987
2042	FRWY31	0.00037016	0.000369012
2042	FRWY32	0.00051431	0.000512719
2042	FRWY33	0.00051912	0.000517523
2042	FRWY34	0.00050202	0.000500487
2042	FRWY35	0.00022919	0.00022855
2042	FRWY36	4.1383E-05	4.128E-05
2042	FRWY37	7.1995E-05	7.18152E-05
2042	IN01	7.359E-05	7.29774E-05
2042	IN02	8.9819E-05	8.90682E-05
2042	IN03	7.2333E-06	7.18136E-06
2042	IN05	2.0789E-05	2.0723E-05
2042	IN06	0.00029658	0.000294094
2042	IN08	1.6177E-05	1.61774E-05
2042	IN11	1.4322E-06	1.43215E-06
2042	IN12	5.3992E-08	5.39918E-08
2042	IN14	6.9158E-05	6.85586E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2042	IN18	1.1457E-05	1.13655E-05
2042	IN19	0.00016618	0.000164803
2042	IN21	3.1027E-05	3.08195E-05
2042	IN24	8.4196E-05	8.35199E-05
2042	IN29	1.3319E-05	1.32073E-05
2042	IN30	7.0687E-05	7.00577E-05
2042	IN31	2.8397E-06	2.82256E-06
2042	PH1	0.00046118	0.000459098
2042	PH2	0.00035504	0.000353434
2042	SF09	1.4617E-05	1.4617E-05
2042	SF10	1.0052E-06	1.00518E-06
2042	SF104	1.0979E-06	1.09691E-06
2042	SF106	8.4746E-08	8.47465E-08
2042	SF107	1.0827E-06	1.08178E-06
2042	SF108	1.0604E-07	1.0601E-07
2042	SF109	3.3559E-08	3.3559E-08
2042	SF110	2.1631E-06	2.16134E-06
2042	SF111	2.0486E-08	2.04858E-08
2042	SF112	5.4754E-06	5.47017E-06
2042	SF113	2.9913E-07	2.98821E-07
2042	SF114	6.146E-07	6.13974E-07
2042	SF115	2.723E-06	2.72056E-06
2042	SF116	2.1997E-07	2.19811E-07
2042	SF117	5.349E-08	5.34688E-08
2042	SF118	2.3491E-06	2.34703E-06
2042	SF119	1.9505E-08	1.95047E-08
2042	SF120	3.172E-06	3.16859E-06
2042	SF121	1.0764E-06	1.07535E-06
2042	SF122	2.2622E-06	2.25982E-06
2042	SF123	1.7882E-08	1.78821E-08
2042	SF124	2.2123E-06	2.21029E-06
2042	SF125	1.937E-08	1.93701E-08
2042	SF126	1.9825E-06	1.9807E-06
2042	SF127	9.7583E-06	9.74781E-06
2042	SF128	2.1505E-08	2.15045E-08
2042	SF129	2.0964E-06	2.09448E-06
2042	SF13	1.1649E-05	1.16373E-05
2042	SF130	1.5706E-08	1.57059E-08
2042	SF131	2.3485E-08	2.34846E-08
2042	SF133	2.1617E-08	2.16172E-08
2042	SF134	1.3755E-08	1.37552E-08
2042	SF135	2.0833E-06	2.08141E-06
2042	SF136	4.1971E-08	4.19708E-08
2042	SF137	2.9756E-07	2.97256E-07
2042	SF139	2.2584E-07	2.25841E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2042	SF140	1.3007E-08	1.30067E-08
2042	SF141	1.1537E-07	1.1537E-07
2042	SF142	1.2373E-08	1.23704E-08
2042	SF143	5.2194E-07	5.21942E-07
2042	SF144	3.3482E-07	3.34816E-07
2042	SF145	7.5758E-07	7.57584E-07
2042	SF146	3.6475E-08	3.64746E-08
2042	SF147	6.66E-07	6.66004E-07
2042	SF148	1.7938E-06	1.7919E-06
2042	SF149	8.1235E-07	8.12346E-07
2042	SF150	1.6737E-08	1.67366E-08
2042	SF151	1.0985E-06	1.09833E-06
2042	SF152	9.8691E-06	9.85917E-06
2042	SF153	1.0462E-06	1.04624E-06
2042	SF154	1.7022E-08	1.70217E-08
2042	SF155	1.797E-06	1.79702E-06
2042	SF156	6.6385E-07	6.63846E-07
2042	SF157	1.7201E-06	1.7201E-06
2042	SF160	3.083E-08	3.08299E-08
2042	SF161	3.6621E-06	3.66206E-06
2042	SF162	7.2361E-06	7.23608E-06
2042	SF163	6.0999E-07	6.09993E-07
2042	SF164	2.0978E-08	2.09782E-08
2042	SF165	1.2223E-05	1.22229E-05
2042	SF168	1.491E-06	1.49103E-06
2042	SF169	3.8868E-08	3.88679E-08
2042	SF170	8.2756E-07	8.27513E-07
2042	SF171	4.3694E-07	4.36944E-07
2042	SF172	8.3913E-07	8.39128E-07
2042	SF173	0	0
2042	SF174	0	0
2042	SF177	1.9941E-05	1.99239E-05
2042	SF178	1.0396E-05	1.03867E-05
2042	SF179	4.2811E-05	4.27748E-05
2042	SF180	5.1693E-08	5.16931E-08
2042	SF181	0	0
2042	SF182	0	0
2042	SF183	0	0
2042	SF184	0	0
2042	SF185	0	0
2042	SF186	0	0
2042	SF190	1.8228E-05	1.82145E-05
2042	SF191	9.5229E-06	9.51837E-06
2042	SF192	8.2156E-06	8.20851E-06
2042	SF194	2.883E-07	2.883E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2042	SF195	3.4134E-07	3.41344E-07
2042	SF196	1.3595E-06	1.35946E-06
2042	SF198	1.7949E-08	1.79486E-08
2042	SF199	7.1346E-09	7.13463E-09
2042	SF200	2.5141E-06	2.51413E-06
2042	SF205	1.8912E-06	1.89116E-06
2042	SF206	3.7407E-08	3.74066E-08
2042	SF207	3.2754E-06	3.2754E-06
2042	SF283	8.7585E-07	8.74989E-07
2042	SF284	1.7001E-06	1.69853E-06
2042	SF285	6.3682E-07	6.36135E-07
2042	SF286	2.6806E-07	2.68056E-07
2042	SF287	2.3594E-06	2.35694E-06
2042	SF288	3.5281E-08	3.52522E-08
2042	SF289	1.5237E-06	1.52219E-06
2042	SF290	4.1837E-06	4.17922E-06
2042	SF294	1.5853E-08	1.5853E-08
2042	SF301	4.7675E-07	4.76752E-07
2042	SF302	6.4934E-07	6.49342E-07
2042	SF303	1.7286E-05	1.72676E-05
2042	SF304	2.9681E-07	2.9681E-07
2042	SF306	1.2621E-05	1.26112E-05
2042	SF32	5.3967E-06	5.39675E-06
2042	SF33	2.6239E-06	2.62393E-06
2042	SF340	5.2274E-07	5.22735E-07
2042	SF35	1.3559E-05	1.35459E-05
2042	SF36	5.9686E-06	5.96858E-06
2042	SF37	3.9232E-06	3.91987E-06
2042	SF375	0	0
2042	SF376	0	0
2042	SF377	0	0
2042	SF378	0	0
2042	SF379	0	0
2042	SF38	2.4452E-06	2.44524E-06
2042	SF380	0	0
2042	SF381	0	0
2042	SF386	3.2338E-07	3.23228E-07
2042	SF387	3.3345E-05	3.332E-05
2042	SF388	3.9482E-09	3.94825E-09
2042	SF390	2.2274E-06	2.22668E-06
2042	SF392	1.7875E-06	1.7862E-06
2042	SF393	6.1454E-07	6.14185E-07
2042	SF394	1.4171E-05	1.41608E-05
2042	SF396	1.257E-05	1.25622E-05
2042	SF397	2.8033E-06	2.80082E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2042	SF398	4.0227E-07	4.02267E-07
2042	SF399	5.6496E-06	5.64637E-06
2042	SF400	8.4148E-08	8.41477E-08
2042	SF401	2.5827E-08	2.58269E-08
2042	SF402	2.8231E-07	2.82307E-07
2042	SF404	1.6014E-08	1.60137E-08
2042	SF405	1.9849E-08	1.98493E-08
2042	SF406	8.92E-09	8.91998E-09
2042	SF408	4.7921E-07	4.79006E-07
2042	SF409	3.803E-07	3.80303E-07
2042	SF410	1.8886E-08	1.88863E-08
2042	SF411	3.267E-08	3.267E-08
2042	SF42	0.00010087	0.000100778
2042	SF424	1.0448E-05	1.04363E-05
2042	SF425	0	0
2042	SF426	0	0
2042	SF427	2.5222E-08	2.52223E-08
2042	SF429	0	0
2042	SF43	1.0747E-05	1.07383E-05
2042	SF432	0	0
2042	SF433	3.9282E-08	3.92823E-08
2042	SF436	3.9083E-09	3.90833E-09
2042	SF458	6.7077E-09	6.7077E-09
2042	SF46	5.9211E-07	5.92108E-07
2042	SF464	0	0
2042	SF47	1.0642E-06	1.06424E-06
2042	SF479	1.1756E-08	1.17564E-08
2042	SF48	2.0276E-06	2.02575E-06
2042	SF488	0	0
2042	SF494	0	0
2042	SF498	0	0
2042	SF499	8.24E-06	8.2311E-06
2042	SF50	6.2453E-06	6.24531E-06
2042	SF500	4.9311E-06	4.92575E-06
2042	SF502	0	0
2042	SF503	0	0
2042	SF504	1.5242E-07	1.52419E-07
2042	SF51	1.0228E-06	1.02279E-06
2042	SF52	1.0311E-05	1.03114E-05
2042	SF53	2.8255E-08	2.82552E-08
2042	SF54	5.7797E-09	5.77972E-09
2042	SF55	1.9731E-06	1.97313E-06
2042	SF56	1.1839E-06	1.18388E-06
2042	SF57	3.5814E-07	3.5781E-07
2042	SF58	6.4189E-09	6.4189E-09

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2042	SF59	1.7087E-06	1.70713E-06
2042	SF60	3.5585E-06	3.5551E-06
2042	SF61	1.181E-06	1.17981E-06
2042	SF62	0	0
2042	SF65	2.4605E-06	2.45834E-06
2042	SF66	2.2263E-06	2.22439E-06
2042	SF67	3.4696E-08	3.46965E-08
2042	SF68	1.9628E-07	1.96275E-07
2042	SF69	1.8082E-06	1.80823E-06
2042	SF70	1.7828E-06	1.78283E-06
2042	SF71	3.931E-08	3.93101E-08
2042	SF72	2.0781E-08	2.07811E-08
2042	SF73	5.8736E-06	5.87362E-06
2042	SF74	4.3199E-08	4.31986E-08
2042	SF75	1.4205E-07	1.42048E-07
2042	SF76	5.9363E-07	5.93632E-07
2042	SF77	1.0422E-08	1.04217E-08
2042	SF80	3.7169E-09	3.7169E-09
2042	SF81	5.2097E-09	5.20965E-09
2042	SF82	1.5E-06	1.49858E-06
2042	SF83	2.6226E-07	2.61975E-07
2042	SF85	4.1653E-09	4.16528E-09
2042	SF86	1.5194E-06	1.51785E-06
2042	SF87	2.2509E-08	2.25091E-08
2042	SF88	2.2489E-08	2.24891E-08
2043	172	1.9955E-05	1.98894E-05
2043	173	0.00019893	0.000198291
2043	174	8.1683E-05	8.14151E-05
2043	EG	0.00135136	0
2043	FRWY101	4.9522E-05	4.93881E-05
2043	FRWY27	0.00084565	0.00084299
2043	FRWY28	0.00070899	0.000706776
2043	FRWY29	0.00032556	0.000324553
2043	FRWY30	0.00050255	0.000500987
2043	FRWY31	0.00037016	0.000369012
2043	FRWY32	0.00051431	0.000512719
2043	FRWY33	0.00051912	0.000517523
2043	FRWY34	0.00050202	0.000500487
2043	FRWY35	0.00022919	0.00022855
2043	FRWY36	4.1383E-05	4.128E-05
2043	FRWY37	7.1995E-05	7.18152E-05
2043	IN01	7.359E-05	7.29774E-05
2043	IN02	8.9819E-05	8.90682E-05
2043	IN03	7.2333E-06	7.18136E-06
2043	IN05	2.0789E-05	2.0723E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2043	IN06	0.00029658	0.000294094
2043	IN08	1.6177E-05	1.61774E-05
2043	IN11	1.4322E-06	1.43215E-06
2043	IN12	5.3992E-08	5.39918E-08
2043	IN14	6.9158E-05	6.85586E-05
2043	IN18	1.1457E-05	1.13655E-05
2043	IN19	0.00016618	0.000164803
2043	IN21	3.1027E-05	3.08195E-05
2043	IN24	8.4196E-05	8.35199E-05
2043	IN29	1.3319E-05	1.32073E-05
2043	IN30	7.0687E-05	7.00577E-05
2043	IN31	2.8397E-06	2.82256E-06
2043	PH1	0.00046118	0.000459098
2043	PH2	0.00035504	0.000353434
2043	SF09	1.4617E-05	1.4617E-05
2043	SF10	1.0052E-06	1.00518E-06
2043	SF104	1.0979E-06	1.09691E-06
2043	SF106	8.4746E-08	8.47465E-08
2043	SF107	1.0827E-06	1.08178E-06
2043	SF108	1.0604E-07	1.0601E-07
2043	SF109	3.3559E-08	3.3559E-08
2043	SF110	2.1631E-06	2.16134E-06
2043	SF111	2.0486E-08	2.04858E-08
2043	SF112	5.4754E-06	5.47017E-06
2043	SF113	2.9913E-07	2.98821E-07
2043	SF114	6.146E-07	6.13974E-07
2043	SF115	2.723E-06	2.72056E-06
2043	SF116	2.1997E-07	2.19811E-07
2043	SF117	5.349E-08	5.34688E-08
2043	SF118	2.3491E-06	2.34703E-06
2043	SF119	1.9505E-08	1.95047E-08
2043	SF120	3.172E-06	3.16859E-06
2043	SF121	1.0764E-06	1.07535E-06
2043	SF122	2.2622E-06	2.25982E-06
2043	SF123	1.7882E-08	1.78821E-08
2043	SF124	2.2123E-06	2.21029E-06
2043	SF125	1.937E-08	1.93701E-08
2043	SF126	1.9825E-06	1.9807E-06
2043	SF127	9.7583E-06	9.74781E-06
2043	SF128	2.1505E-08	2.15045E-08
2043	SF129	2.0964E-06	2.09448E-06
2043	SF13	1.1649E-05	1.16373E-05
2043	SF130	1.5706E-08	1.57059E-08
2043	SF131	2.3485E-08	2.34846E-08
2043	SF133	2.1617E-08	2.16172E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2043	SF134	1.3755E-08	1.37552E-08
2043	SF135	2.0833E-06	2.08141E-06
2043	SF136	4.1971E-08	4.19708E-08
2043	SF137	2.9756E-07	2.97256E-07
2043	SF139	2.2584E-07	2.25841E-07
2043	SF140	1.3007E-08	1.30067E-08
2043	SF141	1.1537E-07	1.1537E-07
2043	SF142	1.2373E-08	1.23704E-08
2043	SF143	5.2194E-07	5.21942E-07
2043	SF144	3.3482E-07	3.34816E-07
2043	SF145	7.5758E-07	7.57584E-07
2043	SF146	3.6475E-08	3.64746E-08
2043	SF147	6.66E-07	6.66004E-07
2043	SF148	1.7938E-06	1.7919E-06
2043	SF149	8.1235E-07	8.12346E-07
2043	SF150	1.6737E-08	1.67366E-08
2043	SF151	1.0985E-06	1.09833E-06
2043	SF152	9.8691E-06	9.85917E-06
2043	SF153	1.0462E-06	1.04624E-06
2043	SF154	1.7022E-08	1.70217E-08
2043	SF155	1.797E-06	1.79702E-06
2043	SF156	6.6385E-07	6.63846E-07
2043	SF157	1.7201E-06	1.7201E-06
2043	SF160	3.083E-08	3.08299E-08
2043	SF161	3.6621E-06	3.66206E-06
2043	SF162	7.2361E-06	7.23608E-06
2043	SF163	6.0999E-07	6.09993E-07
2043	SF164	2.0978E-08	2.09782E-08
2043	SF165	1.2223E-05	1.22229E-05
2043	SF168	1.491E-06	1.49103E-06
2043	SF169	3.8868E-08	3.88679E-08
2043	SF170	8.2756E-07	8.27513E-07
2043	SF171	4.3694E-07	4.36944E-07
2043	SF172	8.3913E-07	8.39128E-07
2043	SF173	0	0
2043	SF174	0	0
2043	SF177	1.9941E-05	1.99239E-05
2043	SF178	1.0396E-05	1.03867E-05
2043	SF179	4.2811E-05	4.27748E-05
2043	SF180	5.1693E-08	5.16931E-08
2043	SF181	0	0
2043	SF182	0	0
2043	SF183	0	0
2043	SF184	0	0
2043	SF185	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2043	SF186	0	0
2043	SF190	1.8228E-05	1.82145E-05
2043	SF191	9.5229E-06	9.51837E-06
2043	SF192	8.2156E-06	8.20851E-06
2043	SF194	2.883E-07	2.883E-07
2043	SF195	3.4134E-07	3.41344E-07
2043	SF196	1.3595E-06	1.35946E-06
2043	SF198	1.7949E-08	1.79486E-08
2043	SF199	7.1346E-09	7.13463E-09
2043	SF200	2.5141E-06	2.51413E-06
2043	SF205	1.8912E-06	1.89116E-06
2043	SF206	3.7407E-08	3.74066E-08
2043	SF207	3.2754E-06	3.2754E-06
2043	SF283	8.7585E-07	8.74989E-07
2043	SF284	1.7001E-06	1.69853E-06
2043	SF285	6.3682E-07	6.36135E-07
2043	SF286	2.6806E-07	2.68056E-07
2043	SF287	2.3594E-06	2.35694E-06
2043	SF288	3.5281E-08	3.52522E-08
2043	SF289	1.5237E-06	1.52219E-06
2043	SF290	4.1837E-06	4.17922E-06
2043	SF294	1.5853E-08	1.5853E-08
2043	SF301	4.7675E-07	4.76752E-07
2043	SF302	6.4934E-07	6.49342E-07
2043	SF303	1.7286E-05	1.72676E-05
2043	SF304	2.9681E-07	2.9681E-07
2043	SF306	1.2621E-05	1.26112E-05
2043	SF32	5.3967E-06	5.39675E-06
2043	SF33	2.6239E-06	2.62393E-06
2043	SF340	5.2274E-07	5.22735E-07
2043	SF35	1.3559E-05	1.35459E-05
2043	SF36	5.9686E-06	5.96858E-06
2043	SF37	3.9232E-06	3.91987E-06
2043	SF375	0	0
2043	SF376	0	0
2043	SF377	0	0
2043	SF378	0	0
2043	SF379	0	0
2043	SF38	2.4452E-06	2.44524E-06
2043	SF380	0	0
2043	SF381	0	0
2043	SF386	3.2338E-07	3.23228E-07
2043	SF387	3.3345E-05	3.332E-05
2043	SF388	3.9482E-09	3.94825E-09
2043	SF390	2.2274E-06	2.22668E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2043	SF392	1.7875E-06	1.7862E-06
2043	SF393	6.1454E-07	6.14185E-07
2043	SF394	1.4171E-05	1.41608E-05
2043	SF396	1.257E-05	1.25622E-05
2043	SF397	2.8033E-06	2.80082E-06
2043	SF398	4.0227E-07	4.02267E-07
2043	SF399	5.6496E-06	5.64637E-06
2043	SF400	8.4148E-08	8.41477E-08
2043	SF401	2.5827E-08	2.58269E-08
2043	SF402	2.8231E-07	2.82307E-07
2043	SF404	1.6014E-08	1.60137E-08
2043	SF405	1.9849E-08	1.98493E-08
2043	SF406	8.92E-09	8.91998E-09
2043	SF408	4.7921E-07	4.79006E-07
2043	SF409	3.803E-07	3.80303E-07
2043	SF410	1.8886E-08	1.88863E-08
2043	SF411	3.267E-08	3.267E-08
2043	SF42	0.00010087	0.000100778
2043	SF424	1.0448E-05	1.04363E-05
2043	SF425	0	0
2043	SF426	0	0
2043	SF427	2.5222E-08	2.52223E-08
2043	SF429	0	0
2043	SF43	1.0747E-05	1.07383E-05
2043	SF432	0	0
2043	SF433	3.9282E-08	3.92823E-08
2043	SF436	3.9083E-09	3.90833E-09
2043	SF458	6.7077E-09	6.7077E-09
2043	SF46	5.9211E-07	5.92108E-07
2043	SF464	0	0
2043	SF47	1.0642E-06	1.06424E-06
2043	SF479	1.1756E-08	1.17564E-08
2043	SF48	2.0276E-06	2.02575E-06
2043	SF488	0	0
2043	SF494	0	0
2043	SF498	0	0
2043	SF499	8.24E-06	8.2311E-06
2043	SF50	6.2453E-06	6.24531E-06
2043	SF500	4.9311E-06	4.92575E-06
2043	SF502	0	0
2043	SF503	0	0
2043	SF504	1.5242E-07	1.52419E-07
2043	SF51	1.0228E-06	1.02279E-06
2043	SF52	1.0311E-05	1.03114E-05
2043	SF53	2.8255E-08	2.82552E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2043	SF54	5.7797E-09	5.77972E-09
2043	SF55	1.9731E-06	1.97313E-06
2043	SF56	1.1839E-06	1.18388E-06
2043	SF57	3.5814E-07	3.5781E-07
2043	SF58	6.4189E-09	6.4189E-09
2043	SF59	1.7087E-06	1.70713E-06
2043	SF60	3.5585E-06	3.5551E-06
2043	SF61	1.181E-06	1.17981E-06
2043	SF62	0	0
2043	SF65	2.4605E-06	2.45834E-06
2043	SF66	2.2263E-06	2.22439E-06
2043	SF67	3.4696E-08	3.46965E-08
2043	SF68	1.9628E-07	1.96275E-07
2043	SF69	1.8082E-06	1.80823E-06
2043	SF70	1.7828E-06	1.78283E-06
2043	SF71	3.931E-08	3.93101E-08
2043	SF72	2.0781E-08	2.07811E-08
2043	SF73	5.8736E-06	5.87362E-06
2043	SF74	4.3199E-08	4.31986E-08
2043	SF75	1.4205E-07	1.42048E-07
2043	SF76	5.9363E-07	5.93632E-07
2043	SF77	1.0422E-08	1.04217E-08
2043	SF80	3.7169E-09	3.7169E-09
2043	SF81	5.2097E-09	5.20965E-09
2043	SF82	1.5E-06	1.49858E-06
2043	SF83	2.6226E-07	2.61975E-07
2043	SF85	4.1653E-09	4.16528E-09
2043	SF86	1.5194E-06	1.51785E-06
2043	SF87	2.2509E-08	2.25091E-08
2043	SF88	2.2489E-08	2.24891E-08
2044	172	1.9955E-05	1.98894E-05
2044	173	0.00019893	0.000198291
2044	174	8.1683E-05	8.14151E-05
2044	EG	0.00135136	0
2044	FRWY101	4.9522E-05	4.93881E-05
2044	FRWY27	0.00084565	0.00084299
2044	FRWY28	0.00070899	0.000706776
2044	FRWY29	0.00032556	0.000324553
2044	FRWY30	0.00050255	0.000500987
2044	FRWY31	0.00037016	0.000369012
2044	FRWY32	0.00051431	0.000512719
2044	FRWY33	0.00051912	0.000517523
2044	FRWY34	0.00050202	0.000500487
2044	FRWY35	0.00022919	0.00022855
2044	FRWY36	4.1383E-05	4.128E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2044	FRWY37	7.1995E-05	7.18152E-05
2044	IN01	7.359E-05	7.29774E-05
2044	IN02	8.9819E-05	8.90682E-05
2044	IN03	7.2333E-06	7.18136E-06
2044	IN05	2.0789E-05	2.0723E-05
2044	IN06	0.00029658	0.000294094
2044	IN08	1.6177E-05	1.61774E-05
2044	IN11	1.4322E-06	1.43215E-06
2044	IN12	5.3992E-08	5.39918E-08
2044	IN14	6.9158E-05	6.85586E-05
2044	IN18	1.1457E-05	1.13655E-05
2044	IN19	0.00016618	0.000164803
2044	IN21	3.1027E-05	3.08195E-05
2044	IN24	8.4196E-05	8.35199E-05
2044	IN29	1.3319E-05	1.32073E-05
2044	IN30	7.0687E-05	7.00577E-05
2044	IN31	2.8397E-06	2.82256E-06
2044	PH1	0.00046118	0.000459098
2044	PH2	0.00035504	0.000353434
2044	SF09	1.4617E-05	1.4617E-05
2044	SF10	1.0052E-06	1.00518E-06
2044	SF104	1.0979E-06	1.09691E-06
2044	SF106	8.4746E-08	8.47465E-08
2044	SF107	1.0827E-06	1.08178E-06
2044	SF108	1.0604E-07	1.0601E-07
2044	SF109	3.3559E-08	3.3559E-08
2044	SF110	2.1631E-06	2.16134E-06
2044	SF111	2.0486E-08	2.04858E-08
2044	SF112	5.4754E-06	5.47017E-06
2044	SF113	2.9913E-07	2.98821E-07
2044	SF114	6.146E-07	6.13974E-07
2044	SF115	2.723E-06	2.72056E-06
2044	SF116	2.1997E-07	2.19811E-07
2044	SF117	5.349E-08	5.34688E-08
2044	SF118	2.3491E-06	2.34703E-06
2044	SF119	1.9505E-08	1.95047E-08
2044	SF120	3.172E-06	3.16859E-06
2044	SF121	1.0764E-06	1.07535E-06
2044	SF122	2.2622E-06	2.25982E-06
2044	SF123	1.7882E-08	1.78821E-08
2044	SF124	2.2123E-06	2.21029E-06
2044	SF125	1.937E-08	1.93701E-08
2044	SF126	1.9825E-06	1.9807E-06
2044	SF127	9.7583E-06	9.74781E-06
2044	SF128	2.1505E-08	2.15045E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2044	SF129	2.0964E-06	2.09448E-06
2044	SF13	1.1649E-05	1.16373E-05
2044	SF130	1.5706E-08	1.57059E-08
2044	SF131	2.3485E-08	2.34846E-08
2044	SF133	2.1617E-08	2.16172E-08
2044	SF134	1.3755E-08	1.37552E-08
2044	SF135	2.0833E-06	2.08141E-06
2044	SF136	4.1971E-08	4.19708E-08
2044	SF137	2.9756E-07	2.97256E-07
2044	SF139	2.2584E-07	2.25841E-07
2044	SF140	1.3007E-08	1.30067E-08
2044	SF141	1.1537E-07	1.1537E-07
2044	SF142	1.2373E-08	1.23704E-08
2044	SF143	5.2194E-07	5.21942E-07
2044	SF144	3.3482E-07	3.34816E-07
2044	SF145	7.5758E-07	7.57584E-07
2044	SF146	3.6475E-08	3.64746E-08
2044	SF147	6.66E-07	6.66004E-07
2044	SF148	1.7938E-06	1.7919E-06
2044	SF149	8.1235E-07	8.12346E-07
2044	SF150	1.6737E-08	1.67366E-08
2044	SF151	1.0985E-06	1.09833E-06
2044	SF152	9.8691E-06	9.85917E-06
2044	SF153	1.0462E-06	1.04624E-06
2044	SF154	1.7022E-08	1.70217E-08
2044	SF155	1.797E-06	1.79702E-06
2044	SF156	6.6385E-07	6.63846E-07
2044	SF157	1.7201E-06	1.7201E-06
2044	SF160	3.083E-08	3.08299E-08
2044	SF161	3.6621E-06	3.66206E-06
2044	SF162	7.2361E-06	7.23608E-06
2044	SF163	6.0999E-07	6.09993E-07
2044	SF164	2.0978E-08	2.09782E-08
2044	SF165	1.2223E-05	1.22229E-05
2044	SF168	1.491E-06	1.49103E-06
2044	SF169	3.8868E-08	3.88679E-08
2044	SF170	8.2756E-07	8.27513E-07
2044	SF171	4.3694E-07	4.36944E-07
2044	SF172	8.3913E-07	8.39128E-07
2044	SF173	0	0
2044	SF174	0	0
2044	SF177	1.9941E-05	1.99239E-05
2044	SF178	1.0396E-05	1.03867E-05
2044	SF179	4.2811E-05	4.27748E-05
2044	SF180	5.1693E-08	5.16931E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2044	SF181	0	0
2044	SF182	0	0
2044	SF183	0	0
2044	SF184	0	0
2044	SF185	0	0
2044	SF186	0	0
2044	SF190	1.8228E-05	1.82145E-05
2044	SF191	9.5229E-06	9.51837E-06
2044	SF192	8.2156E-06	8.20851E-06
2044	SF194	2.883E-07	2.883E-07
2044	SF195	3.4134E-07	3.41344E-07
2044	SF196	1.3595E-06	1.35946E-06
2044	SF198	1.7949E-08	1.79486E-08
2044	SF199	7.1346E-09	7.13463E-09
2044	SF200	2.5141E-06	2.51413E-06
2044	SF205	1.8912E-06	1.89116E-06
2044	SF206	3.7407E-08	3.74066E-08
2044	SF207	3.2754E-06	3.2754E-06
2044	SF283	8.7585E-07	8.74989E-07
2044	SF284	1.7001E-06	1.69853E-06
2044	SF285	6.3682E-07	6.36135E-07
2044	SF286	2.6806E-07	2.68056E-07
2044	SF287	2.3594E-06	2.35694E-06
2044	SF288	3.5281E-08	3.52522E-08
2044	SF289	1.5237E-06	1.52219E-06
2044	SF290	4.1837E-06	4.17922E-06
2044	SF294	1.5853E-08	1.5853E-08
2044	SF301	4.7675E-07	4.76752E-07
2044	SF302	6.4934E-07	6.49342E-07
2044	SF303	1.7286E-05	1.72676E-05
2044	SF304	2.9681E-07	2.9681E-07
2044	SF306	1.2621E-05	1.26112E-05
2044	SF32	5.3967E-06	5.39675E-06
2044	SF33	2.6239E-06	2.62393E-06
2044	SF340	5.2274E-07	5.22735E-07
2044	SF35	1.3559E-05	1.35459E-05
2044	SF36	5.9686E-06	5.96858E-06
2044	SF37	3.9232E-06	3.91987E-06
2044	SF375	0	0
2044	SF376	0	0
2044	SF377	0	0
2044	SF378	0	0
2044	SF379	0	0
2044	SF38	2.4452E-06	2.44524E-06
2044	SF380	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2044	SF381	0	0
2044	SF386	3.2338E-07	3.23228E-07
2044	SF387	3.3345E-05	3.332E-05
2044	SF388	3.9482E-09	3.94825E-09
2044	SF390	2.2274E-06	2.22668E-06
2044	SF392	1.7875E-06	1.7862E-06
2044	SF393	6.1454E-07	6.14185E-07
2044	SF394	1.4171E-05	1.41608E-05
2044	SF396	1.257E-05	1.25622E-05
2044	SF397	2.8033E-06	2.80082E-06
2044	SF398	4.0227E-07	4.02267E-07
2044	SF399	5.6496E-06	5.64637E-06
2044	SF400	8.4148E-08	8.41477E-08
2044	SF401	2.5827E-08	2.58269E-08
2044	SF402	2.8231E-07	2.82307E-07
2044	SF404	1.6014E-08	1.60137E-08
2044	SF405	1.9849E-08	1.98493E-08
2044	SF406	8.92E-09	8.91998E-09
2044	SF408	4.7921E-07	4.79006E-07
2044	SF409	3.803E-07	3.80303E-07
2044	SF410	1.8886E-08	1.88863E-08
2044	SF411	3.267E-08	3.267E-08
2044	SF42	0.00010087	0.000100778
2044	SF424	1.0448E-05	1.04363E-05
2044	SF425	0	0
2044	SF426	0	0
2044	SF427	2.5222E-08	2.52223E-08
2044	SF429	0	0
2044	SF43	1.0747E-05	1.07383E-05
2044	SF432	0	0
2044	SF433	3.9282E-08	3.92823E-08
2044	SF436	3.9083E-09	3.90833E-09
2044	SF458	6.7077E-09	6.7077E-09
2044	SF46	5.9211E-07	5.92108E-07
2044	SF464	0	0
2044	SF47	1.0642E-06	1.06424E-06
2044	SF479	1.1756E-08	1.17564E-08
2044	SF48	2.0276E-06	2.02575E-06
2044	SF488	0	0
2044	SF494	0	0
2044	SF498	0	0
2044	SF499	8.24E-06	8.2311E-06
2044	SF50	6.2453E-06	6.24531E-06
2044	SF500	4.9311E-06	4.92575E-06
2044	SF502	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2044	SF503	0	0
2044	SF504	1.5242E-07	1.52419E-07
2044	SF51	1.0228E-06	1.02279E-06
2044	SF52	1.0311E-05	1.03114E-05
2044	SF53	2.8255E-08	2.82552E-08
2044	SF54	5.7797E-09	5.77972E-09
2044	SF55	1.9731E-06	1.97313E-06
2044	SF56	1.1839E-06	1.18388E-06
2044	SF57	3.5814E-07	3.5781E-07
2044	SF58	6.4189E-09	6.4189E-09
2044	SF59	1.7087E-06	1.70713E-06
2044	SF60	3.5585E-06	3.5551E-06
2044	SF61	1.181E-06	1.17981E-06
2044	SF62	0	0
2044	SF65	2.4605E-06	2.45834E-06
2044	SF66	2.2263E-06	2.22439E-06
2044	SF67	3.4696E-08	3.46965E-08
2044	SF68	1.9628E-07	1.96275E-07
2044	SF69	1.8082E-06	1.80823E-06
2044	SF70	1.7828E-06	1.78283E-06
2044	SF71	3.931E-08	3.93101E-08
2044	SF72	2.0781E-08	2.07811E-08
2044	SF73	5.8736E-06	5.87362E-06
2044	SF74	4.3199E-08	4.31986E-08
2044	SF75	1.4205E-07	1.42048E-07
2044	SF76	5.9363E-07	5.93632E-07
2044	SF77	1.0422E-08	1.04217E-08
2044	SF80	3.7169E-09	3.7169E-09
2044	SF81	5.2097E-09	5.20965E-09
2044	SF82	1.5E-06	1.49858E-06
2044	SF83	2.6226E-07	2.61975E-07
2044	SF85	4.1653E-09	4.16528E-09
2044	SF86	1.5194E-06	1.51785E-06
2044	SF87	2.2509E-08	2.25091E-08
2044	SF88	2.2489E-08	2.24891E-08
2045	172	1.9955E-05	1.98894E-05
2045	173	0.00019893	0.000198291
2045	174	8.1683E-05	8.14151E-05
2045	EG	0.00135136	0
2045	FRWY101	4.9522E-05	4.93881E-05
2045	FRWY27	0.00084565	0.00084299
2045	FRWY28	0.00070899	0.000706776
2045	FRWY29	0.00032556	0.000324553
2045	FRWY30	0.00050255	0.000500987
2045	FRWY31	0.00037016	0.000369012

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2045	FRWY32	0.00051431	0.000512719
2045	FRWY33	0.00051912	0.000517523
2045	FRWY34	0.00050202	0.000500487
2045	FRWY35	0.00022919	0.00022855
2045	FRWY36	4.1383E-05	4.128E-05
2045	FRWY37	7.1995E-05	7.18152E-05
2045	IN01	7.359E-05	7.29774E-05
2045	IN02	8.9819E-05	8.90682E-05
2045	IN03	7.2333E-06	7.18136E-06
2045	IN05	2.0789E-05	2.0723E-05
2045	IN06	0.00029658	0.000294094
2045	IN08	1.6177E-05	1.61774E-05
2045	IN11	1.4322E-06	1.43215E-06
2045	IN12	5.3992E-08	5.39918E-08
2045	IN14	6.9158E-05	6.85586E-05
2045	IN18	1.1457E-05	1.13655E-05
2045	IN19	0.00016618	0.000164803
2045	IN21	3.1027E-05	3.08195E-05
2045	IN24	8.4196E-05	8.35199E-05
2045	IN29	1.3319E-05	1.32073E-05
2045	IN30	7.0687E-05	7.00577E-05
2045	IN31	2.8397E-06	2.82256E-06
2045	PH1	0.00046118	0.000459098
2045	PH2	0.00035504	0.000353434
2045	SF09	1.4617E-05	1.4617E-05
2045	SF10	1.0052E-06	1.00518E-06
2045	SF104	1.0979E-06	1.09691E-06
2045	SF106	8.4746E-08	8.47465E-08
2045	SF107	1.0827E-06	1.08178E-06
2045	SF108	1.0604E-07	1.0601E-07
2045	SF109	3.3559E-08	3.3559E-08
2045	SF110	2.1631E-06	2.16134E-06
2045	SF111	2.0486E-08	2.04858E-08
2045	SF112	5.4754E-06	5.47017E-06
2045	SF113	2.9913E-07	2.98821E-07
2045	SF114	6.146E-07	6.13974E-07
2045	SF115	2.723E-06	2.72056E-06
2045	SF116	2.1997E-07	2.19811E-07
2045	SF117	5.349E-08	5.34688E-08
2045	SF118	2.3491E-06	2.34703E-06
2045	SF119	1.9505E-08	1.95047E-08
2045	SF120	3.172E-06	3.16859E-06
2045	SF121	1.0764E-06	1.07535E-06
2045	SF122	2.2622E-06	2.25982E-06
2045	SF123	1.7882E-08	1.78821E-08

		DPM (g/sec)	
Year	SrcGroup	Mitigated	Unmitigated
2045	SF124	2.2123E-06	2.21029E-06
2045	SF125	1.937E-08	1.93701E-08
2045	SF126	1.9825E-06	1.9807E-06
2045	SF127	9.7583E-06	9.74781E-06
2045	SF128	2.1505E-08	2.15045E-08
2045	SF129	2.0964E-06	2.09448E-06
2045	SF13	1.1649E-05	1.16373E-05
2045	SF130	1.5706E-08	1.57059E-08
2045	SF131	2.3485E-08	2.34846E-08
2045	SF133	2.1617E-08	2.16172E-08
2045	SF134	1.3755E-08	1.37552E-08
2045	SF135	2.0833E-06	2.08141E-06
2045	SF136	4.1971E-08	4.19708E-08
2045	SF137	2.9756E-07	2.97256E-07
2045	SF139	2.2584E-07	2.25841E-07
2045	SF140	1.3007E-08	1.30067E-08
2045	SF141	1.1537E-07	1.1537E-07
2045	SF142	1.2373E-08	1.23704E-08
2045	SF143	5.2194E-07	5.21942E-07
2045	SF144	3.3482E-07	3.34816E-07
2045	SF145	7.5758E-07	7.57584E-07
2045	SF146	3.6475E-08	3.64746E-08
2045	SF147	6.66E-07	6.66004E-07
2045	SF148	1.7938E-06	1.7919E-06
2045	SF149	8.1235E-07	8.12346E-07
2045	SF150	1.6737E-08	1.67366E-08
2045	SF151	1.0985E-06	1.09833E-06
2045	SF152	9.8691E-06	9.85917E-06
2045	SF153	1.0462E-06	1.04624E-06
2045	SF154	1.7022E-08	1.70217E-08
2045	SF155	1.797E-06	1.79702E-06
2045	SF156	6.6385E-07	6.63846E-07
2045	SF157	1.7201E-06	1.7201E-06
2045	SF160	3.083E-08	3.08299E-08
2045	SF161	3.6621E-06	3.66206E-06
2045	SF162	7.2361E-06	7.23608E-06
2045	SF163	6.0999E-07	6.09993E-07
2045	SF164	2.0978E-08	2.09782E-08
2045	SF165	1.2223E-05	1.22229E-05
2045	SF168	1.491E-06	1.49103E-06
2045	SF169	3.8868E-08	3.88679E-08
2045	SF170	8.2756E-07	8.27513E-07
2045	SF171	4.3694E-07	4.36944E-07
2045	SF172	8.3913E-07	8.39128E-07
2045	SF173	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2045	SF174	0	0
2045	SF177	1.9941E-05	1.99239E-05
2045	SF178	1.0396E-05	1.03867E-05
2045	SF179	4.2811E-05	4.27748E-05
2045	SF180	5.1693E-08	5.16931E-08
2045	SF181	0	0
2045	SF182	0	0
2045	SF183	0	0
2045	SF184	0	0
2045	SF185	0	0
2045	SF186	0	0
2045	SF190	1.8228E-05	1.82145E-05
2045	SF191	9.5229E-06	9.51837E-06
2045	SF192	8.2156E-06	8.20851E-06
2045	SF194	2.883E-07	2.883E-07
2045	SF195	3.4134E-07	3.41344E-07
2045	SF196	1.3595E-06	1.35946E-06
2045	SF198	1.7949E-08	1.79486E-08
2045	SF199	7.1346E-09	7.13463E-09
2045	SF200	2.5141E-06	2.51413E-06
2045	SF205	1.8912E-06	1.89116E-06
2045	SF206	3.7407E-08	3.74066E-08
2045	SF207	3.2754E-06	3.2754E-06
2045	SF283	8.7585E-07	8.74989E-07
2045	SF284	1.7001E-06	1.69853E-06
2045	SF285	6.3682E-07	6.36135E-07
2045	SF286	2.6806E-07	2.68056E-07
2045	SF287	2.3594E-06	2.35694E-06
2045	SF288	3.5281E-08	3.52522E-08
2045	SF289	1.5237E-06	1.52219E-06
2045	SF290	4.1837E-06	4.17922E-06
2045	SF294	1.5853E-08	1.5853E-08
2045	SF301	4.7675E-07	4.76752E-07
2045	SF302	6.4934E-07	6.49342E-07
2045	SF303	1.7286E-05	1.72676E-05
2045	SF304	2.9681E-07	2.9681E-07
2045	SF306	1.2621E-05	1.26112E-05
2045	SF32	5.3967E-06	5.39675E-06
2045	SF33	2.6239E-06	2.62393E-06
2045	SF340	5.2274E-07	5.22735E-07
2045	SF35	1.3559E-05	1.35459E-05
2045	SF36	5.9686E-06	5.96858E-06
2045	SF37	3.9232E-06	3.91987E-06
2045	SF375	0	0
2045	SF376	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2045	SF377	0	0
2045	SF378	0	0
2045	SF379	0	0
2045	SF38	2.4452E-06	2.44524E-06
2045	SF380	0	0
2045	SF381	0	0
2045	SF386	3.2338E-07	3.23228E-07
2045	SF387	3.3345E-05	3.332E-05
2045	SF388	3.9482E-09	3.94825E-09
2045	SF390	2.2274E-06	2.22668E-06
2045	SF392	1.7875E-06	1.7862E-06
2045	SF393	6.1454E-07	6.14185E-07
2045	SF394	1.4171E-05	1.41608E-05
2045	SF396	1.257E-05	1.25622E-05
2045	SF397	2.8033E-06	2.80082E-06
2045	SF398	4.0227E-07	4.02267E-07
2045	SF399	5.6496E-06	5.64637E-06
2045	SF400	8.4148E-08	8.41477E-08
2045	SF401	2.5827E-08	2.58269E-08
2045	SF402	2.8231E-07	2.82307E-07
2045	SF404	1.6014E-08	1.60137E-08
2045	SF405	1.9849E-08	1.98493E-08
2045	SF406	8.92E-09	8.91998E-09
2045	SF408	4.7921E-07	4.79006E-07
2045	SF409	3.803E-07	3.80303E-07
2045	SF410	1.8886E-08	1.88863E-08
2045	SF411	3.267E-08	3.267E-08
2045	SF42	0.00010087	0.000100778
2045	SF424	1.0448E-05	1.04363E-05
2045	SF425	0	0
2045	SF426	0	0
2045	SF427	2.5222E-08	2.52223E-08
2045	SF429	0	0
2045	SF43	1.0747E-05	1.07383E-05
2045	SF432	0	0
2045	SF433	3.9282E-08	3.92823E-08
2045	SF436	3.9083E-09	3.90833E-09
2045	SF458	6.7077E-09	6.7077E-09
2045	SF46	5.9211E-07	5.92108E-07
2045	SF464	0	0
2045	SF47	1.0642E-06	1.06424E-06
2045	SF479	1.1756E-08	1.17564E-08
2045	SF48	2.0276E-06	2.02575E-06
2045	SF488	0	0
2045	SF494	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2045	SF498	0	0
2045	SF499	8.24E-06	8.2311E-06
2045	SF50	6.2453E-06	6.24531E-06
2045	SF500	4.9311E-06	4.92575E-06
2045	SF502	0	0
2045	SF503	0	0
2045	SF504	1.5242E-07	1.52419E-07
2045	SF51	1.0228E-06	1.02279E-06
2045	SF52	1.0311E-05	1.03114E-05
2045	SF53	2.8255E-08	2.82552E-08
2045	SF54	5.7797E-09	5.77972E-09
2045	SF55	1.9731E-06	1.97313E-06
2045	SF56	1.1839E-06	1.18388E-06
2045	SF57	3.5814E-07	3.5781E-07
2045	SF58	6.4189E-09	6.4189E-09
2045	SF59	1.7087E-06	1.70713E-06
2045	SF60	3.5585E-06	3.5551E-06
2045	SF61	1.181E-06	1.17981E-06
2045	SF62	0	0
2045	SF65	2.4605E-06	2.45834E-06
2045	SF66	2.2263E-06	2.22439E-06
2045	SF67	3.4696E-08	3.46965E-08
2045	SF68	1.9628E-07	1.96275E-07
2045	SF69	1.8082E-06	1.80823E-06
2045	SF70	1.7828E-06	1.78283E-06
2045	SF71	3.931E-08	3.93101E-08
2045	SF72	2.0781E-08	2.07811E-08
2045	SF73	5.8736E-06	5.87362E-06
2045	SF74	4.3199E-08	4.31986E-08
2045	SF75	1.4205E-07	1.42048E-07
2045	SF76	5.9363E-07	5.93632E-07
2045	SF77	1.0422E-08	1.04217E-08
2045	SF80	3.7169E-09	3.7169E-09
2045	SF81	5.2097E-09	5.20965E-09
2045	SF82	1.5E-06	1.49858E-06
2045	SF83	2.6226E-07	2.61975E-07
2045	SF85	4.1653E-09	4.16528E-09
2045	SF86	1.5194E-06	1.51785E-06
2045	SF87	2.2509E-08	2.25091E-08
2045	SF88	2.2489E-08	2.24891E-08
2046	172	1.9955E-05	1.98894E-05
2046	173	0.00019893	0.000198291
2046	174	8.1683E-05	8.14151E-05
2046	EG	0.00135136	0
2046	FRWY101	4.9522E-05	4.93881E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2046	FRWY27	0.00084565	0.00084299
2046	FRWY28	0.00070899	0.000706776
2046	FRWY29	0.00032556	0.000324553
2046	FRWY30	0.00050255	0.000500987
2046	FRWY31	0.00037016	0.000369012
2046	FRWY32	0.00051431	0.000512719
2046	FRWY33	0.00051912	0.000517523
2046	FRWY34	0.00050202	0.000500487
2046	FRWY35	0.00022919	0.00022855
2046	FRWY36	4.1383E-05	4.128E-05
2046	FRWY37	7.1995E-05	7.18152E-05
2046	IN01	7.359E-05	7.29774E-05
2046	IN02	8.9819E-05	8.90682E-05
2046	IN03	7.2333E-06	7.18136E-06
2046	IN05	2.0789E-05	2.0723E-05
2046	IN06	0.00029658	0.000294094
2046	IN08	1.6177E-05	1.61774E-05
2046	IN11	1.4322E-06	1.43215E-06
2046	IN12	5.3992E-08	5.39918E-08
2046	IN14	6.9158E-05	6.85586E-05
2046	IN18	1.1457E-05	1.13655E-05
2046	IN19	0.00016618	0.000164803
2046	IN21	3.1027E-05	3.08195E-05
2046	IN24	8.4196E-05	8.35199E-05
2046	IN29	1.3319E-05	1.32073E-05
2046	IN30	7.0687E-05	7.00577E-05
2046	IN31	2.8397E-06	2.82256E-06
2046	PH1	0.00046118	0.000459098
2046	PH2	0.00035504	0.000353434
2046	SF09	1.4617E-05	1.4617E-05
2046	SF10	1.0052E-06	1.00518E-06
2046	SF104	1.0979E-06	1.09691E-06
2046	SF106	8.4746E-08	8.47465E-08
2046	SF107	1.0827E-06	1.08178E-06
2046	SF108	1.0604E-07	1.0601E-07
2046	SF109	3.3559E-08	3.3559E-08
2046	SF110	2.1631E-06	2.16134E-06
2046	SF111	2.0486E-08	2.04858E-08
2046	SF112	5.4754E-06	5.47017E-06
2046	SF113	2.9913E-07	2.98821E-07
2046	SF114	6.146E-07	6.13974E-07
2046	SF115	2.723E-06	2.72056E-06
2046	SF116	2.1997E-07	2.19811E-07
2046	SF117	5.349E-08	5.34688E-08
2046	SF118	2.3491E-06	2.34703E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2046	SF119	1.9505E-08	1.95047E-08
2046	SF120	3.172E-06	3.16859E-06
2046	SF121	1.0764E-06	1.07535E-06
2046	SF122	2.2622E-06	2.25982E-06
2046	SF123	1.7882E-08	1.78821E-08
2046	SF124	2.2123E-06	2.21029E-06
2046	SF125	1.937E-08	1.93701E-08
2046	SF126	1.9825E-06	1.9807E-06
2046	SF127	9.7583E-06	9.74781E-06
2046	SF128	2.1505E-08	2.15045E-08
2046	SF129	2.0964E-06	2.09448E-06
2046	SF13	1.1649E-05	1.16373E-05
2046	SF130	1.5706E-08	1.57059E-08
2046	SF131	2.3485E-08	2.34846E-08
2046	SF133	2.1617E-08	2.16172E-08
2046	SF134	1.3755E-08	1.37552E-08
2046	SF135	2.0833E-06	2.08141E-06
2046	SF136	4.1971E-08	4.19708E-08
2046	SF137	2.9756E-07	2.97256E-07
2046	SF139	2.2584E-07	2.25841E-07
2046	SF140	1.3007E-08	1.30067E-08
2046	SF141	1.1537E-07	1.1537E-07
2046	SF142	1.2373E-08	1.23704E-08
2046	SF143	5.2194E-07	5.21942E-07
2046	SF144	3.3482E-07	3.34816E-07
2046	SF145	7.5758E-07	7.57584E-07
2046	SF146	3.6475E-08	3.64746E-08
2046	SF147	6.66E-07	6.66004E-07
2046	SF148	1.7938E-06	1.7919E-06
2046	SF149	8.1235E-07	8.12346E-07
2046	SF150	1.6737E-08	1.67366E-08
2046	SF151	1.0985E-06	1.09833E-06
2046	SF152	9.8691E-06	9.85917E-06
2046	SF153	1.0462E-06	1.04624E-06
2046	SF154	1.7022E-08	1.70217E-08
2046	SF155	1.797E-06	1.79702E-06
2046	SF156	6.6385E-07	6.63846E-07
2046	SF157	1.7201E-06	1.7201E-06
2046	SF160	3.083E-08	3.08299E-08
2046	SF161	3.6621E-06	3.66206E-06
2046	SF162	7.2361E-06	7.23608E-06
2046	SF163	6.0999E-07	6.09993E-07
2046	SF164	2.0978E-08	2.09782E-08
2046	SF165	1.2223E-05	1.22229E-05
2046	SF168	1.491E-06	1.49103E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2046	SF169	3.8868E-08	3.88679E-08
2046	SF170	8.2756E-07	8.27513E-07
2046	SF171	4.3694E-07	4.36944E-07
2046	SF172	8.3913E-07	8.39128E-07
2046	SF173	0	0
2046	SF174	0	0
2046	SF177	1.9941E-05	1.99239E-05
2046	SF178	1.0396E-05	1.03867E-05
2046	SF179	4.2811E-05	4.27748E-05
2046	SF180	5.1693E-08	5.16931E-08
2046	SF181	0	0
2046	SF182	0	0
2046	SF183	0	0
2046	SF184	0	0
2046	SF185	0	0
2046	SF186	0	0
2046	SF190	1.8228E-05	1.82145E-05
2046	SF191	9.5229E-06	9.51837E-06
2046	SF192	8.2156E-06	8.20851E-06
2046	SF194	2.883E-07	2.883E-07
2046	SF195	3.4134E-07	3.41344E-07
2046	SF196	1.3595E-06	1.35946E-06
2046	SF198	1.7949E-08	1.79486E-08
2046	SF199	7.1346E-09	7.13463E-09
2046	SF200	2.5141E-06	2.51413E-06
2046	SF205	1.8912E-06	1.89116E-06
2046	SF206	3.7407E-08	3.74066E-08
2046	SF207	3.2754E-06	3.2754E-06
2046	SF283	8.7585E-07	8.74989E-07
2046	SF284	1.7001E-06	1.69853E-06
2046	SF285	6.3682E-07	6.36135E-07
2046	SF286	2.6806E-07	2.68056E-07
2046	SF287	2.3594E-06	2.35694E-06
2046	SF288	3.5281E-08	3.52522E-08
2046	SF289	1.5237E-06	1.52219E-06
2046	SF290	4.1837E-06	4.17922E-06
2046	SF294	1.5853E-08	1.5853E-08
2046	SF301	4.7675E-07	4.76752E-07
2046	SF302	6.4934E-07	6.49342E-07
2046	SF303	1.7286E-05	1.72676E-05
2046	SF304	2.9681E-07	2.9681E-07
2046	SF306	1.2621E-05	1.26112E-05
2046	SF32	5.3967E-06	5.39675E-06
2046	SF33	2.6239E-06	2.62393E-06
2046	SF340	5.2274E-07	5.22735E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2046	SF35	1.3559E-05	1.35459E-05
2046	SF36	5.9686E-06	5.96858E-06
2046	SF37	3.9232E-06	3.91987E-06
2046	SF375	0	0
2046	SF376	0	0
2046	SF377	0	0
2046	SF378	0	0
2046	SF379	0	0
2046	SF38	2.4452E-06	2.44524E-06
2046	SF380	0	0
2046	SF381	0	0
2046	SF386	3.2338E-07	3.23228E-07
2046	SF387	3.3345E-05	3.332E-05
2046	SF388	3.9482E-09	3.94825E-09
2046	SF390	2.2274E-06	2.22668E-06
2046	SF392	1.7875E-06	1.7862E-06
2046	SF393	6.1454E-07	6.14185E-07
2046	SF394	1.4171E-05	1.41608E-05
2046	SF396	1.257E-05	1.25622E-05
2046	SF397	2.8033E-06	2.80082E-06
2046	SF398	4.0227E-07	4.02267E-07
2046	SF399	5.6496E-06	5.64637E-06
2046	SF400	8.4148E-08	8.41477E-08
2046	SF401	2.5827E-08	2.58269E-08
2046	SF402	2.8231E-07	2.82307E-07
2046	SF404	1.6014E-08	1.60137E-08
2046	SF405	1.9849E-08	1.98493E-08
2046	SF406	8.92E-09	8.91998E-09
2046	SF408	4.7921E-07	4.79006E-07
2046	SF409	3.803E-07	3.80303E-07
2046	SF410	1.8886E-08	1.88863E-08
2046	SF411	3.267E-08	3.267E-08
2046	SF42	0.00010087	0.000100778
2046	SF424	1.0448E-05	1.04363E-05
2046	SF425	0	0
2046	SF426	0	0
2046	SF427	2.5222E-08	2.52223E-08
2046	SF429	0	0
2046	SF43	1.0747E-05	1.07383E-05
2046	SF432	0	0
2046	SF433	3.9282E-08	3.92823E-08
2046	SF436	3.9083E-09	3.90833E-09
2046	SF458	6.7077E-09	6.7077E-09
2046	SF46	5.9211E-07	5.92108E-07
2046	SF464	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2046	SF47	1.0642E-06	1.06424E-06
2046	SF479	1.1756E-08	1.17564E-08
2046	SF48	2.0276E-06	2.02575E-06
2046	SF488	0	0
2046	SF494	0	0
2046	SF498	0	0
2046	SF499	8.24E-06	8.2311E-06
2046	SF50	6.2453E-06	6.24531E-06
2046	SF500	4.9311E-06	4.92575E-06
2046	SF502	0	0
2046	SF503	0	0
2046	SF504	1.5242E-07	1.52419E-07
2046	SF51	1.0228E-06	1.02279E-06
2046	SF52	1.0311E-05	1.03114E-05
2046	SF53	2.8255E-08	2.82552E-08
2046	SF54	5.7797E-09	5.77972E-09
2046	SF55	1.9731E-06	1.97313E-06
2046	SF56	1.1839E-06	1.18388E-06
2046	SF57	3.5814E-07	3.5781E-07
2046	SF58	6.4189E-09	6.4189E-09
2046	SF59	1.7087E-06	1.70713E-06
2046	SF60	3.5585E-06	3.5551E-06
2046	SF61	1.181E-06	1.17981E-06
2046	SF62	0	0
2046	SF65	2.4605E-06	2.45834E-06
2046	SF66	2.2263E-06	2.22439E-06
2046	SF67	3.4696E-08	3.46965E-08
2046	SF68	1.9628E-07	1.96275E-07
2046	SF69	1.8082E-06	1.80823E-06
2046	SF70	1.7828E-06	1.78283E-06
2046	SF71	3.931E-08	3.93101E-08
2046	SF72	2.0781E-08	2.07811E-08
2046	SF73	5.8736E-06	5.87362E-06
2046	SF74	4.3199E-08	4.31986E-08
2046	SF75	1.4205E-07	1.42048E-07
2046	SF76	5.9363E-07	5.93632E-07
2046	SF77	1.0422E-08	1.04217E-08
2046	SF80	3.7169E-09	3.7169E-09
2046	SF81	5.2097E-09	5.20965E-09
2046	SF82	1.5E-06	1.49858E-06
2046	SF83	2.6226E-07	2.61975E-07
2046	SF85	4.1653E-09	4.16528E-09
2046	SF86	1.5194E-06	1.51785E-06
2046	SF87	2.2509E-08	2.25091E-08
2046	SF88	2.2489E-08	2.24891E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2047	172	1.9955E-05	1.98894E-05
2047	173	0.00019893	0.000198291
2047	174	8.1683E-05	8.14151E-05
2047	EG	0.00135136	0
2047	FRWY101	4.9522E-05	4.93881E-05
2047	FRWY27	0.00084565	0.00084299
2047	FRWY28	0.00070899	0.000706776
2047	FRWY29	0.00032556	0.000324553
2047	FRWY30	0.00050255	0.000500987
2047	FRWY31	0.00037016	0.000369012
2047	FRWY32	0.00051431	0.000512719
2047	FRWY33	0.00051912	0.000517523
2047	FRWY34	0.00050202	0.000500487
2047	FRWY35	0.00022919	0.00022855
2047	FRWY36	4.1383E-05	4.128E-05
2047	FRWY37	7.1995E-05	7.18152E-05
2047	IN01	7.359E-05	7.29774E-05
2047	IN02	8.9819E-05	8.90682E-05
2047	IN03	7.2333E-06	7.18136E-06
2047	IN05	2.0789E-05	2.0723E-05
2047	IN06	0.00029658	0.000294094
2047	IN08	1.6177E-05	1.61774E-05
2047	IN11	1.4322E-06	1.43215E-06
2047	IN12	5.3992E-08	5.39918E-08
2047	IN14	6.9158E-05	6.85586E-05
2047	IN18	1.1457E-05	1.13655E-05
2047	IN19	0.00016618	0.000164803
2047	IN21	3.1027E-05	3.08195E-05
2047	IN24	8.4196E-05	8.35199E-05
2047	IN29	1.3319E-05	1.32073E-05
2047	IN30	7.0687E-05	7.00577E-05
2047	IN31	2.8397E-06	2.82256E-06
2047	PH1	0.00046118	0.000459098
2047	PH2	0.00035504	0.000353434
2047	SF09	1.4617E-05	1.4617E-05
2047	SF10	1.0052E-06	1.00518E-06
2047	SF104	1.0979E-06	1.09691E-06
2047	SF106	8.4746E-08	8.47465E-08
2047	SF107	1.0827E-06	1.08178E-06
2047	SF108	1.0604E-07	1.0601E-07
2047	SF109	3.3559E-08	3.3559E-08
2047	SF110	2.1631E-06	2.16134E-06
2047	SF111	2.0486E-08	2.04858E-08
2047	SF112	5.4754E-06	5.47017E-06
2047	SF113	2.9913E-07	2.98821E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2047	SF114	6.146E-07	6.13974E-07
2047	SF115	2.723E-06	2.72056E-06
2047	SF116	2.1997E-07	2.19811E-07
2047	SF117	5.349E-08	5.34688E-08
2047	SF118	2.3491E-06	2.34703E-06
2047	SF119	1.9505E-08	1.95047E-08
2047	SF120	3.172E-06	3.16859E-06
2047	SF121	1.0764E-06	1.07535E-06
2047	SF122	2.2622E-06	2.25982E-06
2047	SF123	1.7882E-08	1.78821E-08
2047	SF124	2.2123E-06	2.21029E-06
2047	SF125	1.937E-08	1.93701E-08
2047	SF126	1.9825E-06	1.9807E-06
2047	SF127	9.7583E-06	9.74781E-06
2047	SF128	2.1505E-08	2.15045E-08
2047	SF129	2.0964E-06	2.09448E-06
2047	SF13	1.1649E-05	1.16373E-05
2047	SF130	1.5706E-08	1.57059E-08
2047	SF131	2.3485E-08	2.34846E-08
2047	SF133	2.1617E-08	2.16172E-08
2047	SF134	1.3755E-08	1.37552E-08
2047	SF135	2.0833E-06	2.08141E-06
2047	SF136	4.1971E-08	4.19708E-08
2047	SF137	2.9756E-07	2.97256E-07
2047	SF139	2.2584E-07	2.25841E-07
2047	SF140	1.3007E-08	1.30067E-08
2047	SF141	1.1537E-07	1.1537E-07
2047	SF142	1.2373E-08	1.23704E-08
2047	SF143	5.2194E-07	5.21942E-07
2047	SF144	3.3482E-07	3.34816E-07
2047	SF145	7.5758E-07	7.57584E-07
2047	SF146	3.6475E-08	3.64746E-08
2047	SF147	6.66E-07	6.66004E-07
2047	SF148	1.7938E-06	1.7919E-06
2047	SF149	8.1235E-07	8.12346E-07
2047	SF150	1.6737E-08	1.67366E-08
2047	SF151	1.0985E-06	1.09833E-06
2047	SF152	9.8691E-06	9.85917E-06
2047	SF153	1.0462E-06	1.04624E-06
2047	SF154	1.7022E-08	1.70217E-08
2047	SF155	1.797E-06	1.79702E-06
2047	SF156	6.6385E-07	6.63846E-07
2047	SF157	1.7201E-06	1.7201E-06
2047	SF160	3.083E-08	3.08299E-08
2047	SF161	3.6621E-06	3.66206E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2047	SF162	7.2361E-06	7.23608E-06
2047	SF163	6.0999E-07	6.09993E-07
2047	SF164	2.0978E-08	2.09782E-08
2047	SF165	1.2223E-05	1.22229E-05
2047	SF168	1.491E-06	1.49103E-06
2047	SF169	3.8868E-08	3.88679E-08
2047	SF170	8.2756E-07	8.27513E-07
2047	SF171	4.3694E-07	4.36944E-07
2047	SF172	8.3913E-07	8.39128E-07
2047	SF173	0	0
2047	SF174	0	0
2047	SF177	1.9941E-05	1.99239E-05
2047	SF178	1.0396E-05	1.03867E-05
2047	SF179	4.2811E-05	4.27748E-05
2047	SF180	5.1693E-08	5.16931E-08
2047	SF181	0	0
2047	SF182	0	0
2047	SF183	0	0
2047	SF184	0	0
2047	SF185	0	0
2047	SF186	0	0
2047	SF190	1.8228E-05	1.82145E-05
2047	SF191	9.5229E-06	9.51837E-06
2047	SF192	8.2156E-06	8.20851E-06
2047	SF194	2.883E-07	2.883E-07
2047	SF195	3.4134E-07	3.41344E-07
2047	SF196	1.3595E-06	1.35946E-06
2047	SF198	1.7949E-08	1.79486E-08
2047	SF199	7.1346E-09	7.13463E-09
2047	SF200	2.5141E-06	2.51413E-06
2047	SF205	1.8912E-06	1.89116E-06
2047	SF206	3.7407E-08	3.74066E-08
2047	SF207	3.2754E-06	3.2754E-06
2047	SF283	8.7585E-07	8.74989E-07
2047	SF284	1.7001E-06	1.69853E-06
2047	SF285	6.3682E-07	6.36135E-07
2047	SF286	2.6806E-07	2.68056E-07
2047	SF287	2.3594E-06	2.35694E-06
2047	SF288	3.5281E-08	3.52522E-08
2047	SF289	1.5237E-06	1.52219E-06
2047	SF290	4.1837E-06	4.17922E-06
2047	SF294	1.5853E-08	1.5853E-08
2047	SF301	4.7675E-07	4.76752E-07
2047	SF302	6.4934E-07	6.49342E-07
2047	SF303	1.7286E-05	1.72676E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2047	SF304	2.9681E-07	2.9681E-07
2047	SF306	1.2621E-05	1.26112E-05
2047	SF32	5.3967E-06	5.39675E-06
2047	SF33	2.6239E-06	2.62393E-06
2047	SF340	5.2274E-07	5.22735E-07
2047	SF35	1.3559E-05	1.35459E-05
2047	SF36	5.9686E-06	5.96858E-06
2047	SF37	3.9232E-06	3.91987E-06
2047	SF375	0	0
2047	SF376	0	0
2047	SF377	0	0
2047	SF378	0	0
2047	SF379	0	0
2047	SF38	2.4452E-06	2.44524E-06
2047	SF380	0	0
2047	SF381	0	0
2047	SF386	3.2338E-07	3.23228E-07
2047	SF387	3.3345E-05	3.332E-05
2047	SF388	3.9482E-09	3.94825E-09
2047	SF390	2.2274E-06	2.22668E-06
2047	SF392	1.7875E-06	1.7862E-06
2047	SF393	6.1454E-07	6.14185E-07
2047	SF394	1.4171E-05	1.41608E-05
2047	SF396	1.257E-05	1.25622E-05
2047	SF397	2.8033E-06	2.80082E-06
2047	SF398	4.0227E-07	4.02267E-07
2047	SF399	5.6496E-06	5.64637E-06
2047	SF400	8.4148E-08	8.41477E-08
2047	SF401	2.5827E-08	2.58269E-08
2047	SF402	2.8231E-07	2.82307E-07
2047	SF404	1.6014E-08	1.60137E-08
2047	SF405	1.9849E-08	1.98493E-08
2047	SF406	8.92E-09	8.91998E-09
2047	SF408	4.7921E-07	4.79006E-07
2047	SF409	3.803E-07	3.80303E-07
2047	SF410	1.8886E-08	1.88863E-08
2047	SF411	3.267E-08	3.267E-08
2047	SF42	0.00010087	0.000100778
2047	SF424	1.0448E-05	1.04363E-05
2047	SF425	0	0
2047	SF426	0	0
2047	SF427	2.5222E-08	2.52223E-08
2047	SF429	0	0
2047	SF43	1.0747E-05	1.07383E-05
2047	SF432	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2047	SF433	3.9282E-08	3.92823E-08
2047	SF436	3.9083E-09	3.90833E-09
2047	SF458	6.7077E-09	6.7077E-09
2047	SF46	5.9211E-07	5.92108E-07
2047	SF464	0	0
2047	SF47	1.0642E-06	1.06424E-06
2047	SF479	1.1756E-08	1.17564E-08
2047	SF48	2.0276E-06	2.02575E-06
2047	SF488	0	0
2047	SF494	0	0
2047	SF498	0	0
2047	SF499	8.24E-06	8.2311E-06
2047	SF50	6.2453E-06	6.24531E-06
2047	SF500	4.9311E-06	4.92575E-06
2047	SF502	0	0
2047	SF503	0	0
2047	SF504	1.5242E-07	1.52419E-07
2047	SF51	1.0228E-06	1.02279E-06
2047	SF52	1.0311E-05	1.03114E-05
2047	SF53	2.8255E-08	2.82552E-08
2047	SF54	5.7797E-09	5.77972E-09
2047	SF55	1.9731E-06	1.97313E-06
2047	SF56	1.1839E-06	1.18388E-06
2047	SF57	3.5814E-07	3.5781E-07
2047	SF58	6.4189E-09	6.4189E-09
2047	SF59	1.7087E-06	1.70713E-06
2047	SF60	3.5585E-06	3.5551E-06
2047	SF61	1.181E-06	1.17981E-06
2047	SF62	0	0
2047	SF65	2.4605E-06	2.45834E-06
2047	SF66	2.2263E-06	2.22439E-06
2047	SF67	3.4696E-08	3.46965E-08
2047	SF68	1.9628E-07	1.96275E-07
2047	SF69	1.8082E-06	1.80823E-06
2047	SF70	1.7828E-06	1.78283E-06
2047	SF71	3.931E-08	3.93101E-08
2047	SF72	2.0781E-08	2.07811E-08
2047	SF73	5.8736E-06	5.87362E-06
2047	SF74	4.3199E-08	4.31986E-08
2047	SF75	1.4205E-07	1.42048E-07
2047	SF76	5.9363E-07	5.93632E-07
2047	SF77	1.0422E-08	1.04217E-08
2047	SF80	3.7169E-09	3.7169E-09
2047	SF81	5.2097E-09	5.20965E-09
2047	SF82	1.5E-06	1.49858E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2047	SF83	2.6226E-07	2.61975E-07
2047	SF85	4.1653E-09	4.16528E-09
2047	SF86	1.5194E-06	1.51785E-06
2047	SF87	2.2509E-08	2.25091E-08
2047	SF88	2.2489E-08	2.24891E-08
2048	172	1.9955E-05	1.98894E-05
2048	173	0.00019893	0.000198291
2048	174	8.1683E-05	8.14151E-05
2048	EG	0.00135136	0
2048	FRWY101	4.9522E-05	4.93881E-05
2048	FRWY27	0.00084565	0.00084299
2048	FRWY28	0.00070899	0.000706776
2048	FRWY29	0.00032556	0.000324553
2048	FRWY30	0.00050255	0.000500987
2048	FRWY31	0.00037016	0.000369012
2048	FRWY32	0.00051431	0.000512719
2048	FRWY33	0.00051912	0.000517523
2048	FRWY34	0.00050202	0.000500487
2048	FRWY35	0.00022919	0.00022855
2048	FRWY36	4.1383E-05	4.128E-05
2048	FRWY37	7.1995E-05	7.18152E-05
2048	IN01	7.359E-05	7.29774E-05
2048	IN02	8.9819E-05	8.90682E-05
2048	IN03	7.2333E-06	7.18136E-06
2048	IN05	2.0789E-05	2.0723E-05
2048	IN06	0.00029658	0.000294094
2048	IN08	1.6177E-05	1.61774E-05
2048	IN11	1.4322E-06	1.43215E-06
2048	IN12	5.3992E-08	5.39918E-08
2048	IN14	6.9158E-05	6.85586E-05
2048	IN18	1.1457E-05	1.13655E-05
2048	IN19	0.00016618	0.000164803
2048	IN21	3.1027E-05	3.08195E-05
2048	IN24	8.4196E-05	8.35199E-05
2048	IN29	1.3319E-05	1.32073E-05
2048	IN30	7.0687E-05	7.00577E-05
2048	IN31	2.8397E-06	2.82256E-06
2048	PH1	0.00046118	0.000459098
2048	PH2	0.00035504	0.000353434
2048	SF09	1.4617E-05	1.4617E-05
2048	SF10	1.0052E-06	1.00518E-06
2048	SF104	1.0979E-06	1.09691E-06
2048	SF106	8.4746E-08	8.47465E-08
2048	SF107	1.0827E-06	1.08178E-06
2048	SF108	1.0604E-07	1.0601E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2048	SF109	3.3559E-08	3.3559E-08
2048	SF110	2.1631E-06	2.16134E-06
2048	SF111	2.0486E-08	2.04858E-08
2048	SF112	5.4754E-06	5.47017E-06
2048	SF113	2.9913E-07	2.98821E-07
2048	SF114	6.146E-07	6.13974E-07
2048	SF115	2.723E-06	2.72056E-06
2048	SF116	2.1997E-07	2.19811E-07
2048	SF117	5.349E-08	5.34688E-08
2048	SF118	2.3491E-06	2.34703E-06
2048	SF119	1.9505E-08	1.95047E-08
2048	SF120	3.172E-06	3.16859E-06
2048	SF121	1.0764E-06	1.07535E-06
2048	SF122	2.2622E-06	2.25982E-06
2048	SF123	1.7882E-08	1.78821E-08
2048	SF124	2.2123E-06	2.21029E-06
2048	SF125	1.937E-08	1.93701E-08
2048	SF126	1.9825E-06	1.9807E-06
2048	SF127	9.7583E-06	9.74781E-06
2048	SF128	2.1505E-08	2.15045E-08
2048	SF129	2.0964E-06	2.09448E-06
2048	SF13	1.1649E-05	1.16373E-05
2048	SF130	1.5706E-08	1.57059E-08
2048	SF131	2.3485E-08	2.34846E-08
2048	SF133	2.1617E-08	2.16172E-08
2048	SF134	1.3755E-08	1.37552E-08
2048	SF135	2.0833E-06	2.08141E-06
2048	SF136	4.1971E-08	4.19708E-08
2048	SF137	2.9756E-07	2.97256E-07
2048	SF139	2.2584E-07	2.25841E-07
2048	SF140	1.3007E-08	1.30067E-08
2048	SF141	1.1537E-07	1.1537E-07
2048	SF142	1.2373E-08	1.23704E-08
2048	SF143	5.2194E-07	5.21942E-07
2048	SF144	3.3482E-07	3.34816E-07
2048	SF145	7.5758E-07	7.57584E-07
2048	SF146	3.6475E-08	3.64746E-08
2048	SF147	6.66E-07	6.66004E-07
2048	SF148	1.7938E-06	1.7919E-06
2048	SF149	8.1235E-07	8.12346E-07
2048	SF150	1.6737E-08	1.67366E-08
2048	SF151	1.0985E-06	1.09833E-06
2048	SF152	9.8691E-06	9.85917E-06
2048	SF153	1.0462E-06	1.04624E-06
2048	SF154	1.7022E-08	1.70217E-08

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2048	SF155	1.797E-06	1.79702E-06
2048	SF156	6.6385E-07	6.63846E-07
2048	SF157	1.7201E-06	1.7201E-06
2048	SF160	3.083E-08	3.08299E-08
2048	SF161	3.6621E-06	3.66206E-06
2048	SF162	7.2361E-06	7.23608E-06
2048	SF163	6.0999E-07	6.09993E-07
2048	SF164	2.0978E-08	2.09782E-08
2048	SF165	1.2223E-05	1.22229E-05
2048	SF168	1.491E-06	1.49103E-06
2048	SF169	3.8868E-08	3.88679E-08
2048	SF170	8.2756E-07	8.27513E-07
2048	SF171	4.3694E-07	4.36944E-07
2048	SF172	8.3913E-07	8.39128E-07
2048	SF173	0	0
2048	SF174	0	0
2048	SF177	1.9941E-05	1.99239E-05
2048	SF178	1.0396E-05	1.03867E-05
2048	SF179	4.2811E-05	4.27748E-05
2048	SF180	5.1693E-08	5.16931E-08
2048	SF181	0	0
2048	SF182	0	0
2048	SF183	0	0
2048	SF184	0	0
2048	SF185	0	0
2048	SF186	0	0
2048	SF190	1.8228E-05	1.82145E-05
2048	SF191	9.5229E-06	9.51837E-06
2048	SF192	8.2156E-06	8.20851E-06
2048	SF194	2.883E-07	2.883E-07
2048	SF195	3.4134E-07	3.41344E-07
2048	SF196	1.3595E-06	1.35946E-06
2048	SF198	1.7949E-08	1.79486E-08
2048	SF199	7.1346E-09	7.13463E-09
2048	SF200	2.5141E-06	2.51413E-06
2048	SF205	1.8912E-06	1.89116E-06
2048	SF206	3.7407E-08	3.74066E-08
2048	SF207	3.2754E-06	3.2754E-06
2048	SF283	8.7585E-07	8.74989E-07
2048	SF284	1.7001E-06	1.69853E-06
2048	SF285	6.3682E-07	6.36135E-07
2048	SF286	2.6806E-07	2.68056E-07
2048	SF287	2.3594E-06	2.35694E-06
2048	SF288	3.5281E-08	3.52522E-08
2048	SF289	1.5237E-06	1.52219E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2048	SF290	4.1837E-06	4.17922E-06
2048	SF294	1.5853E-08	1.5853E-08
2048	SF301	4.7675E-07	4.76752E-07
2048	SF302	6.4934E-07	6.49342E-07
2048	SF303	1.7286E-05	1.72676E-05
2048	SF304	2.9681E-07	2.9681E-07
2048	SF306	1.2621E-05	1.26112E-05
2048	SF32	5.3967E-06	5.39675E-06
2048	SF33	2.6239E-06	2.62393E-06
2048	SF340	5.2274E-07	5.22735E-07
2048	SF35	1.3559E-05	1.35459E-05
2048	SF36	5.9686E-06	5.96858E-06
2048	SF37	3.9232E-06	3.91987E-06
2048	SF375	0	0
2048	SF376	0	0
2048	SF377	0	0
2048	SF378	0	0
2048	SF379	0	0
2048	SF38	2.4452E-06	2.44524E-06
2048	SF380	0	0
2048	SF381	0	0
2048	SF386	3.2338E-07	3.23228E-07
2048	SF387	3.3345E-05	3.332E-05
2048	SF388	3.9482E-09	3.94825E-09
2048	SF390	2.2274E-06	2.22668E-06
2048	SF392	1.7875E-06	1.7862E-06
2048	SF393	6.1454E-07	6.14185E-07
2048	SF394	1.4171E-05	1.41608E-05
2048	SF396	1.257E-05	1.25622E-05
2048	SF397	2.8033E-06	2.80082E-06
2048	SF398	4.0227E-07	4.02267E-07
2048	SF399	5.6496E-06	5.64637E-06
2048	SF400	8.4148E-08	8.41477E-08
2048	SF401	2.5827E-08	2.58269E-08
2048	SF402	2.8231E-07	2.82307E-07
2048	SF404	1.6014E-08	1.60137E-08
2048	SF405	1.9849E-08	1.98493E-08
2048	SF406	8.92E-09	8.91998E-09
2048	SF408	4.7921E-07	4.79006E-07
2048	SF409	3.803E-07	3.80303E-07
2048	SF410	1.8886E-08	1.88863E-08
2048	SF411	3.267E-08	3.267E-08
2048	SF42	0.00010087	0.000100778
2048	SF424	1.0448E-05	1.04363E-05
2048	SF425	0	0

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2048	SF426	0	0
2048	SF427	2.5222E-08	2.52223E-08
2048	SF429	0	0
2048	SF43	1.0747E-05	1.07383E-05
2048	SF432	0	0
2048	SF433	3.9282E-08	3.92823E-08
2048	SF436	3.9083E-09	3.90833E-09
2048	SF458	6.7077E-09	6.7077E-09
2048	SF46	5.9211E-07	5.92108E-07
2048	SF464	0	0
2048	SF47	1.0642E-06	1.06424E-06
2048	SF479	1.1756E-08	1.17564E-08
2048	SF48	2.0276E-06	2.02575E-06
2048	SF488	0	0
2048	SF494	0	0
2048	SF498	0	0
2048	SF499	8.24E-06	8.2311E-06
2048	SF50	6.2453E-06	6.24531E-06
2048	SF500	4.9311E-06	4.92575E-06
2048	SF502	0	0
2048	SF503	0	0
2048	SF504	1.5242E-07	1.52419E-07
2048	SF51	1.0228E-06	1.02279E-06
2048	SF52	1.0311E-05	1.03114E-05
2048	SF53	2.8255E-08	2.82552E-08
2048	SF54	5.7797E-09	5.77972E-09
2048	SF55	1.9731E-06	1.97313E-06
2048	SF56	1.1839E-06	1.18388E-06
2048	SF57	3.5814E-07	3.5781E-07
2048	SF58	6.4189E-09	6.4189E-09
2048	SF59	1.7087E-06	1.70713E-06
2048	SF60	3.5585E-06	3.5551E-06
2048	SF61	1.181E-06	1.17981E-06
2048	SF62	0	0
2048	SF65	2.4605E-06	2.45834E-06
2048	SF66	2.2263E-06	2.22439E-06
2048	SF67	3.4696E-08	3.46965E-08
2048	SF68	1.9628E-07	1.96275E-07
2048	SF69	1.8082E-06	1.80823E-06
2048	SF70	1.7828E-06	1.78283E-06
2048	SF71	3.931E-08	3.93101E-08
2048	SF72	2.0781E-08	2.07811E-08
2048	SF73	5.8736E-06	5.87362E-06
2048	SF74	4.3199E-08	4.31986E-08
2048	SF75	1.4205E-07	1.42048E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2048	SF76	5.9363E-07	5.93632E-07
2048	SF77	1.0422E-08	1.04217E-08
2048	SF80	3.7169E-09	3.7169E-09
2048	SF81	5.2097E-09	5.20965E-09
2048	SF82	1.5E-06	1.49858E-06
2048	SF83	2.6226E-07	2.61975E-07
2048	SF85	4.1653E-09	4.16528E-09
2048	SF86	1.5194E-06	1.51785E-06
2048	SF87	2.2509E-08	2.25091E-08
2048	SF88	2.2489E-08	2.24891E-08
2049	172	1.9955E-05	1.98894E-05
2049	173	0.00019893	0.000198291
2049	174	8.1683E-05	8.14151E-05
2049	EG	0.00135136	0
2049	FRWY101	4.9522E-05	4.93881E-05
2049	FRWY27	0.00084565	0.00084299
2049	FRWY28	0.00070899	0.000706776
2049	FRWY29	0.00032556	0.000324553
2049	FRWY30	0.00050255	0.000500987
2049	FRWY31	0.00037016	0.000369012
2049	FRWY32	0.00051431	0.000512719
2049	FRWY33	0.00051912	0.000517523
2049	FRWY34	0.00050202	0.000500487
2049	FRWY35	0.00022919	0.00022855
2049	FRWY36	4.1383E-05	4.128E-05
2049	FRWY37	7.1995E-05	7.18152E-05
2049	IN01	7.359E-05	7.29774E-05
2049	IN02	8.9819E-05	8.90682E-05
2049	IN03	7.2333E-06	7.18136E-06
2049	IN05	2.0789E-05	2.0723E-05
2049	IN06	0.00029658	0.000294094
2049	IN08	1.6177E-05	1.61774E-05
2049	IN11	1.4322E-06	1.43215E-06
2049	IN12	5.3992E-08	5.39918E-08
2049	IN14	6.9158E-05	6.85586E-05
2049	IN18	1.1457E-05	1.13655E-05
2049	IN19	0.00016618	0.000164803
2049	IN21	3.1027E-05	3.08195E-05
2049	IN24	8.4196E-05	8.35199E-05
2049	IN29	1.3319E-05	1.32073E-05
2049	IN30	7.0687E-05	7.00577E-05
2049	IN31	2.8397E-06	2.82256E-06
2049	PH1	0.00046118	0.000459098
2049	PH2	0.00035504	0.000353434
2049	SF09	1.4617E-05	1.4617E-05

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2049	SF10	1.0052E-06	1.00518E-06
2049	SF104	1.0979E-06	1.09691E-06
2049	SF106	8.4746E-08	8.47465E-08
2049	SF107	1.0827E-06	1.08178E-06
2049	SF108	1.0604E-07	1.0601E-07
2049	SF109	3.3559E-08	3.3559E-08
2049	SF110	2.1631E-06	2.16134E-06
2049	SF111	2.0486E-08	2.04858E-08
2049	SF112	5.4754E-06	5.47017E-06
2049	SF113	2.9913E-07	2.98821E-07
2049	SF114	6.146E-07	6.13974E-07
2049	SF115	2.723E-06	2.72056E-06
2049	SF116	2.1997E-07	2.19811E-07
2049	SF117	5.349E-08	5.34688E-08
2049	SF118	2.3491E-06	2.34703E-06
2049	SF119	1.9505E-08	1.95047E-08
2049	SF120	3.172E-06	3.16859E-06
2049	SF121	1.0764E-06	1.07535E-06
2049	SF122	2.2622E-06	2.25982E-06
2049	SF123	1.7882E-08	1.78821E-08
2049	SF124	2.2123E-06	2.21029E-06
2049	SF125	1.937E-08	1.93701E-08
2049	SF126	1.9825E-06	1.9807E-06
2049	SF127	9.7583E-06	9.74781E-06
2049	SF128	2.1505E-08	2.15045E-08
2049	SF129	2.0964E-06	2.09448E-06
2049	SF13	1.1649E-05	1.16373E-05
2049	SF130	1.5706E-08	1.57059E-08
2049	SF131	2.3485E-08	2.34846E-08
2049	SF133	2.1617E-08	2.16172E-08
2049	SF134	1.3755E-08	1.37552E-08
2049	SF135	2.0833E-06	2.08141E-06
2049	SF136	4.1971E-08	4.19708E-08
2049	SF137	2.9756E-07	2.97256E-07
2049	SF139	2.2584E-07	2.25841E-07
2049	SF140	1.3007E-08	1.30067E-08
2049	SF141	1.1537E-07	1.1537E-07
2049	SF142	1.2373E-08	1.23704E-08
2049	SF143	5.2194E-07	5.21942E-07
2049	SF144	3.3482E-07	3.34816E-07
2049	SF145	7.5758E-07	7.57584E-07
2049	SF146	3.6475E-08	3.64746E-08
2049	SF147	6.66E-07	6.66004E-07
2049	SF148	1.7938E-06	1.7919E-06
2049	SF149	8.1235E-07	8.12346E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2049	SF150	1.6737E-08	1.67366E-08
2049	SF151	1.0985E-06	1.09833E-06
2049	SF152	9.8691E-06	9.85917E-06
2049	SF153	1.0462E-06	1.04624E-06
2049	SF154	1.7022E-08	1.70217E-08
2049	SF155	1.797E-06	1.79702E-06
2049	SF156	6.6385E-07	6.63846E-07
2049	SF157	1.7201E-06	1.7201E-06
2049	SF160	3.083E-08	3.08299E-08
2049	SF161	3.6621E-06	3.66206E-06
2049	SF162	7.2361E-06	7.23608E-06
2049	SF163	6.0999E-07	6.09993E-07
2049	SF164	2.0978E-08	2.09782E-08
2049	SF165	1.2223E-05	1.22229E-05
2049	SF168	1.491E-06	1.49103E-06
2049	SF169	3.8868E-08	3.88679E-08
2049	SF170	8.2756E-07	8.27513E-07
2049	SF171	4.3694E-07	4.36944E-07
2049	SF172	8.3913E-07	8.39128E-07
2049	SF173	0	0
2049	SF174	0	0
2049	SF177	1.9941E-05	1.99239E-05
2049	SF178	1.0396E-05	1.03867E-05
2049	SF179	4.2811E-05	4.27748E-05
2049	SF180	5.1693E-08	5.16931E-08
2049	SF181	0	0
2049	SF182	0	0
2049	SF183	0	0
2049	SF184	0	0
2049	SF185	0	0
2049	SF186	0	0
2049	SF190	1.8228E-05	1.82145E-05
2049	SF191	9.5229E-06	9.51837E-06
2049	SF192	8.2156E-06	8.20851E-06
2049	SF194	2.883E-07	2.883E-07
2049	SF195	3.4134E-07	3.41344E-07
2049	SF196	1.3595E-06	1.35946E-06
2049	SF198	1.7949E-08	1.79486E-08
2049	SF199	7.1346E-09	7.13463E-09
2049	SF200	2.5141E-06	2.51413E-06
2049	SF205	1.8912E-06	1.89116E-06
2049	SF206	3.7407E-08	3.74066E-08
2049	SF207	3.2754E-06	3.2754E-06
2049	SF283	8.7585E-07	8.74989E-07
2049	SF284	1.7001E-06	1.69853E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2049	SF285	6.3682E-07	6.36135E-07
2049	SF286	2.6806E-07	2.68056E-07
2049	SF287	2.3594E-06	2.35694E-06
2049	SF288	3.5281E-08	3.52522E-08
2049	SF289	1.5237E-06	1.52219E-06
2049	SF290	4.1837E-06	4.17922E-06
2049	SF294	1.5853E-08	1.5853E-08
2049	SF301	4.7675E-07	4.76752E-07
2049	SF302	6.4934E-07	6.49342E-07
2049	SF303	1.7286E-05	1.72676E-05
2049	SF304	2.9681E-07	2.9681E-07
2049	SF306	1.2621E-05	1.26112E-05
2049	SF32	5.3967E-06	5.39675E-06
2049	SF33	2.6239E-06	2.62393E-06
2049	SF340	5.2274E-07	5.22735E-07
2049	SF35	1.3559E-05	1.35459E-05
2049	SF36	5.9686E-06	5.96858E-06
2049	SF37	3.9232E-06	3.91987E-06
2049	SF375	0	0
2049	SF376	0	0
2049	SF377	0	0
2049	SF378	0	0
2049	SF379	0	0
2049	SF38	2.4452E-06	2.44524E-06
2049	SF380	0	0
2049	SF381	0	0
2049	SF386	3.2338E-07	3.23228E-07
2049	SF387	3.3345E-05	3.332E-05
2049	SF388	3.9482E-09	3.94825E-09
2049	SF390	2.2274E-06	2.22668E-06
2049	SF392	1.7875E-06	1.7862E-06
2049	SF393	6.1454E-07	6.14185E-07
2049	SF394	1.4171E-05	1.41608E-05
2049	SF396	1.257E-05	1.25622E-05
2049	SF397	2.8033E-06	2.80082E-06
2049	SF398	4.0227E-07	4.02267E-07
2049	SF399	5.6496E-06	5.64637E-06
2049	SF400	8.4148E-08	8.41477E-08
2049	SF401	2.5827E-08	2.58269E-08
2049	SF402	2.8231E-07	2.82307E-07
2049	SF404	1.6014E-08	1.60137E-08
2049	SF405	1.9849E-08	1.98493E-08
2049	SF406	8.92E-09	8.91998E-09
2049	SF408	4.7921E-07	4.79006E-07
2049	SF409	3.803E-07	3.80303E-07

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2049	SF410	1.8886E-08	1.88863E-08
2049	SF411	3.267E-08	3.267E-08
2049	SF42	0.00010087	0.000100778
2049	SF424	1.0448E-05	1.04363E-05
2049	SF425	0	0
2049	SF426	0	0
2049	SF427	2.5222E-08	2.52223E-08
2049	SF429	0	0
2049	SF43	1.0747E-05	1.07383E-05
2049	SF432	0	0
2049	SF433	3.9282E-08	3.92823E-08
2049	SF436	3.9083E-09	3.90833E-09
2049	SF458	6.7077E-09	6.7077E-09
2049	SF46	5.9211E-07	5.92108E-07
2049	SF464	0	0
2049	SF47	1.0642E-06	1.06424E-06
2049	SF479	1.1756E-08	1.17564E-08
2049	SF48	2.0276E-06	2.02575E-06
2049	SF488	0	0
2049	SF494	0	0
2049	SF498	0	0
2049	SF499	8.24E-06	8.2311E-06
2049	SF50	6.2453E-06	6.24531E-06
2049	SF500	4.9311E-06	4.92575E-06
2049	SF502	0	0
2049	SF503	0	0
2049	SF504	1.5242E-07	1.52419E-07
2049	SF51	1.0228E-06	1.02279E-06
2049	SF52	1.0311E-05	1.03114E-05
2049	SF53	2.8255E-08	2.82552E-08
2049	SF54	5.7797E-09	5.77972E-09
2049	SF55	1.9731E-06	1.97313E-06
2049	SF56	1.1839E-06	1.18388E-06
2049	SF57	3.5814E-07	3.5781E-07
2049	SF58	6.4189E-09	6.4189E-09
2049	SF59	1.7087E-06	1.70713E-06
2049	SF60	3.5585E-06	3.5551E-06
2049	SF61	1.181E-06	1.17981E-06
2049	SF62	0	0
2049	SF65	2.4605E-06	2.45834E-06
2049	SF66	2.2263E-06	2.22439E-06
2049	SF67	3.4696E-08	3.46965E-08
2049	SF68	1.9628E-07	1.96275E-07
2049	SF69	1.8082E-06	1.80823E-06
2049	SF70	1.7828E-06	1.78283E-06

Year	SrcGroup	DPM (g/sec)	
		Mitigated	Unmitigated
2049	SF71	3.931E-08	3.93101E-08
2049	SF72	2.0781E-08	2.07811E-08
2049	SF73	5.8736E-06	5.87362E-06
2049	SF74	4.3199E-08	4.31986E-08
2049	SF75	1.4205E-07	1.42048E-07
2049	SF76	5.9363E-07	5.93632E-07
2049	SF77	1.0422E-08	1.04217E-08
2049	SF80	3.7169E-09	3.7169E-09
2049	SF81	5.2097E-09	5.20965E-09
2049	SF82	1.5E-06	1.49858E-06
2049	SF83	2.6226E-07	2.61975E-07
2049	SF85	4.1653E-09	4.16528E-09
2049	SF86	1.5194E-06	1.51785E-06
2049	SF87	2.2509E-08	2.25091E-08
2049	SF88	2.2489E-08	2.24891E-08

E-3 Project Construction and Operational AERMOD Model Output

ESA

E.3: Project Construction and Operational AERMOD Model Output

Appendix E.3 contains the AERMOD project files for all construction and operational diesel particulate matter, unit emission rate was used in the dispersions modeling.

Construction model includes 1,017 volume sources. Operation model includes 7033 sources that represent the operational onsite emissions, local surface street emissions, and freeway emissions.

The AERMOD project files are not included to reduce paper consumption but project files are available on a separate CD.

E-4 Project Construction and Operational Diesel PM, Residential Cancer Risk (2020 – 2049) and Cancer Burden

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
1	489607.4	3753966.1	3rd	0.000815491	0.00595405
1	489607.4	3753966.1	Age>16	0	0
1	489607.4	3753966.1	Age0-2	0.001009069	0.006309197
1	489607.4	3753966.1	Age2-16	0.001303202	0.005287928
2	489738.7	3754023.9	3rd	0.000788867	0.005759666
2	489738.7	3754023.9	Age>16	0	0
2	489738.7	3754023.9	Age0-2	0.000965298	0.006016776
2	489738.7	3754023.9	Age2-16	0.00100785	0.004252076
3	489668.9	3754093.7	3rd	0.000810861	0.005920244
3	489668.9	3754093.7	Age>16	0	0
3	489668.9	3754093.7	Age0-2	0.000971536	0.005979352
3	489668.9	3754093.7	Age2-16	0.00089469	0.003822449
4	489690.1	3754161.6	3rd	0.000820121	0.005987856
4	489690.1	3754161.6	Age>16	0	0
4	489690.1	3754161.6	Age0-2	0.000974761	0.005989157
4	489690.1	3754161.6	Age2-16	0.000828899	0.003575735
5	490282.2	3753425.2	3rd	0.000501217	0.00365948
5	490282.2	3753425.2	Age>16	0	0
5	490282.2	3753425.2	Age0-2	0.000649399	0.004033291
5	490282.2	3753425.2	Age2-16	0.001696247	0.006015183
6	489797.3	3754554.1	3rd	0.000789446	0.005763892
6	489797.3	3754554.1	Age>16	0	0
6	489797.3	3754554.1	Age0-2	0.000923252	0.005699156
6	489797.3	3754554.1	Age2-16	0.000636311	0.002739816
7	490252.9	3754378.2	3rd	0.000687293	0.005018051
7	490252.9	3754378.2	Age>16	0	0
7	490252.9	3754378.2	Age0-2	0.000814597	0.00503935
7	490252.9	3754378.2	Age2-16	0.000592453	0.002574606
8	489006	3754140.3	3rd	0.001152915	0.008417649
8	489006	3754140.3	Age>16	0	0
8	489006	3754140.3	Age0-2	0.001399837	0.008755731
8	489006	3754140.3	Age2-16	0.002008572	0.007944973
9	485642.8	3754267.3	3rd	0.005716249	0.041735396
9	485642.8	3754267.3	Age>16	0	0
9	485642.8	3754267.3	Age0-2	0.006358769	0.038737688
9	485642.8	3754267.3	Age2-16	0.002367599	0.012325857
10	485736.4	3754259.5	3rd	0.006826335	0.049840341
10	485736.4	3754259.5	Age>16	0	0
10	485736.4	3754259.5	Age0-2	0.007533973	0.045609624
10	485736.4	3754259.5	Age2-16	0.002603271	0.013520063
11	487189.2	3754820.5	3rd	0.013733699	0.100272284
11	487189.2	3754820.5	Age>16	0	0
11	487189.2	3754820.5	Age0-2	0.013471902	0.073361762
11	487189.2	3754820.5	Age2-16	0.001923411	0.008419293

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
12	487233.1	3754689.5	3rd	0.012333069	0.090046024
12	487233.1	3754689.5	Age>16	0	0
12	487233.1	3754689.5	Age0-2	0.012278564	0.067843603
12	487233.1	3754689.5	Age2-16	0.002711616	0.012445903
13	487216.8	3754364.7	3rd	0.014153309	0.103335937
13	487216.8	3754364.7	Age>16	0	0
13	487216.8	3754364.7	Age0-2	0.014336805	0.079904309
13	487216.8	3754364.7	Age2-16	0.002872564	0.014352057
14	487388.8	3754380.1	3rd	0.0078852	0.057571309
14	487388.8	3754380.1	Age>16	0	0
14	487388.8	3754380.1	Age0-2	0.008356415	0.048502731
14	487388.8	3754380.1	Age2-16	0.003254647	0.016168144
15	484625	3751748	3rd	0.000513082	0.003746107
15	484625	3751748	Age>16	0	0
15	484625	3751748	Age0-2	0.000705859	0.004434877
15	484625	3751748	Age2-16	0.000573561	0.002911654
16	483279	3751798	3rd	0.000515976	0.003767236
16	483279	3751798	Age>16	0	0
16	483279	3751798	Age0-2	0.000633229	0.003841884
16	483279	3751798	Age2-16	0.000367633	0.001828006
17	483231	3751205	3rd	0.000417585	0.003048862
17	483231	3751205	Age>16	0	0
17	483231	3751205	Age0-2	0.000522578	0.003175994
17	483231	3751205	Age2-16	0.000350705	0.001726069
18	480165	3750195	3rd	0.000237297	0.001732548
18	480165	3750195	Age>16	0	0
18	480165	3750195	Age0-2	0.000280288	0.001660028
18	480165	3750195	Age2-16	0.00017357	0.000822145
19	481211	3749473	3rd	0.000242506	0.00177058
19	481211	3749473	Age>16	0	0
19	481211	3749473	Age0-2	0.000292642	0.001739431
19	481211	3749473	Age2-16	0.000206729	0.000977544
20	481867	3752785	3rd	0.000373887	0.00272982
20	481867	3752785	Age>16	0	0
20	481867	3752785	Age0-2	0.000440391	0.002650561
20	481867	3752785	Age2-16	0.000223414	0.001088619
21	480678	3751306	3rd	0.000276943	0.002022011
21	480678	3751306	Age>16	0	0
21	480678	3751306	Age0-2	0.000326968	0.001947915
21	480678	3751306	Age2-16	0.000187675	0.000897971
22	479989	3752645	3rd	0.000227458	0.001660711
22	479989	3752645	Age>16	0	0
22	479989	3752645	Age0-2	0.000265425	0.00157866
22	479989	3752645	Age2-16	0.00014609	0.000694285

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
23	479889	3756222	3rd	0.000129066	0.000942337
23	479889	3756222	Age>16	0	0
23	479889	3756222	Age0-2	0.00015808	0.00098345
23	479889	3756222	Age2-16	9.64499E-05	0.000459564
24	479234	3757080	3rd	0.000100706	0.000735277
24	479234	3757080	Age>16	0	0
24	479234	3757080	Age0-2	0.000121489	0.000743363
24	479234	3757080	Age2-16	7.66111E-05	0.000359291
25	480276	3756365	3rd	0.00012733	0.00092966
25	480276	3756365	Age>16	0	0
25	480276	3756365	Age0-2	0.000155341	0.000961981
25	480276	3756365	Age2-16	9.51495E-05	0.000451425
26	479887	3754007	3rd	0.000189259	0.001381813
26	479887	3754007	Age>16	0	0
26	479887	3754007	Age0-2	0.000221258	0.001324135
26	479887	3754007	Age2-16	0.000121995	0.000580243
27	480772	3755009	3rd	0.000211541	0.001544503
27	480772	3755009	Age>16	0	0
27	480772	3755009	Age0-2	0.000255971	0.001594392
27	480772	3755009	Age2-16	0.000138624	0.000672031
28	481560	3754548	3rd	0.000302409	0.002207943
28	481560	3754548	Age>16	0	0
28	481560	3754548	Age0-2	0.00036073	0.002232779
28	481560	3754548	Age2-16	0.000177801	0.00087033
29	481845	3754457	3rd	0.000340318	0.002484728
29	481845	3754457	Age>16	0	0
29	481845	3754457	Age0-2	0.000404889	0.002504992
29	481845	3754457	Age2-16	0.000194044	0.000953454
30	481754	3753876	3rd	0.000388935	0.002839689
30	481754	3753876	Age>16	0	0
30	481754	3753876	Age0-2	0.000456568	0.002783558
30	481754	3753876	Age2-16	0.000212518	0.001042605
31	489635.2	3750663.8	3rd	0.000166687	0.001217009
31	489635.2	3750663.8	Age>16	0	0
31	489635.2	3750663.8	Age0-2	0.000221141	0.001416459
31	489635.2	3750663.8	Age2-16	0.000370708	0.001536752
32	485424.1	3747672.3	3rd	0.000120964	0.000883177
32	485424.1	3747672.3	Age>16	0	0
32	485424.1	3747672.3	Age0-2	0.000153701	0.000954138
32	485424.1	3747672.3	Age2-16	0.000165204	0.000734109
33	482657.6	3753975.1	3rd	0.000544046	0.003972184
33	482657.6	3753975.1	Age>16	0	0
33	482657.6	3753975.1	Age0-2	0.000638422	0.003919221
33	482657.6	3753975.1	Age2-16	0.000273687	0.001363568

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
34	481495	3754633.7	3rd	0.00028765	0.002100186
34	481495	3754633.7	Age>16	0	0
34	481495	3754633.7	Age0-2	0.00034428	0.002135698
34	481495	3754633.7	Age2-16	0.000172202	0.000842106
35	481148.7	3756136.2	3rd	0.00015569	0.001136721
35	481148.7	3756136.2	Age>16	0	0
35	481148.7	3756136.2	Age0-2	0.000190824	0.001191076
35	481148.7	3756136.2	Age2-16	0.000112617	0.000539225
36	482346.5	3748872.9	3rd	0.000148166	0.001081786
36	482346.5	3748872.9	Age>16	0	0
36	482346.5	3748872.9	Age0-2	0.000179858	0.001029101
36	482346.5	3748872.9	Age2-16	0.000197834	0.000897746
37	480299	3751198	3rd	0.000255239	0.001863546
37	480299	3751198	Age>16	0	0
37	480299	3751198	Age0-2	0.000300633	0.001787196
37	480299	3751198	Age2-16	0.000174162	0.00082971
38	479598.7	3756506.3	3rd	0.000117201	0.00085571
38	479598.7	3756506.3	Age>16	0	0
38	479598.7	3756506.3	Age0-2	0.000143683	0.000892555
38	479598.7	3756506.3	Age2-16	8.93934E-05	0.000424112
39	478997.8	3753535.2	3rd	0.000168712	0.0012318
39	478997.8	3753535.2	Age>16	0	0
39	478997.8	3753535.2	Age0-2	0.000196261	0.001164906
39	478997.8	3753535.2	Age2-16	0.000111261	0.000524313
40	478978.3	3755233.1	3rd	0.000142957	0.001043755
40	478978.3	3755233.1	Age>16	0	0
40	478978.3	3755233.1	Age0-2	0.000171058	0.001049095
40	478978.3	3755233.1	Age2-16	9.86457E-05	0.000469753
41	479197.3	3754462.3	3rd	0.000154822	0.001130382
41	479197.3	3754462.3	Age>16	0	0
41	479197.3	3754462.3	Age0-2	0.00018111	0.001083746
41	479197.3	3754462.3	Age2-16	0.000103003	0.000487132
42	479493.3	3752408.8	3rd	0.000208358	0.001521262
42	479493.3	3752408.8	Age>16	0	0
42	479493.3	3752408.8	Age0-2	0.000242614	0.00143789
42	479493.3	3752408.8	Age2-16	0.000136	0.000643038
43	480295.4	3752408.4	3rd	0.000248872	0.001817063
43	480295.4	3752408.4	Age>16	0	0
43	480295.4	3752408.4	Age0-2	0.000291016	0.001732877
43	480295.4	3752408.4	Age2-16	0.000159272	0.000759432
44	480287.9	3754227.5	3rd	0.000211831	0.001546616
44	480287.9	3754227.5	Age>16	0	0
44	480287.9	3754227.5	Age0-2	0.000248616	0.001500439
44	480287.9	3754227.5	Age2-16	0.000132071	0.000632763

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
45	494397.4	3753977.6	3rd	0.000281284	0.002053703
45	494397.4	3753977.6	Age>16	0	0
45	494397.4	3753977.6	Age0-2	0.000315095	0.001800131
45	494397.4	3753977.6	Age2-16	0.000227316	0.000979699
46	481108.5	3750699	3rd	0.000289386	0.002112864
46	481108.5	3750699	Age>16	0	0
46	481108.5	3750699	Age0-2	0.000344261	0.002050724
46	481108.5	3750699	Age2-16	0.000208641	0.000999393
47	486794.1	3756878	3rd	0.000247425	0.001806498
47	486794.1	3756878	Age>16	0	0
47	486794.1	3756878	Age0-2	0.00028155	0.001676781
47	486794.1	3756878	Age2-16	0.000163916	0.000730663
48	482345	3752065.8	3rd	0.000432633	0.003158731
48	482345	3752065.8	Age>16	0	0
48	482345	3752065.8	Age0-2	0.00051592	0.003108255
48	482345	3752065.8	Age2-16	0.000274493	0.001346714
49	487553	3745938.3	3rd	8.04494E-05	0.000587376
49	487553	3745938.3	Age>16	0	0
49	487553	3745938.3	Age0-2	0.000101258	0.000628089
49	487553	3745938.3	Age2-16	0.000100112	0.000452068
50	484553	3746938.3	3rd	8.71053E-05	0.000635972
50	484553	3746938.3	Age>16	0	0
50	484553	3746938.3	Age0-2	0.000102956	0.000596948
50	484553	3746938.3	Age2-16	0.000130417	0.00053036
51	485553	3746938.3	3rd	0.000105047	0.00076697
51	485553	3746938.3	Age>16	0	0
51	485553	3746938.3	Age0-2	0.000132411	0.000818581
51	485553	3746938.3	Age2-16	0.000135949	0.00060695
52	486553	3746938.3	3rd	7.37935E-05	0.00053878
52	486553	3746938.3	Age>16	0	0
52	486553	3746938.3	Age0-2	8.56796E-05	0.000489816
52	486553	3746938.3	Age2-16	9.29493E-05	0.000385383
53	487553	3746938.3	3rd	9.54975E-05	0.000697245
53	487553	3746938.3	Age>16	0	0
53	487553	3746938.3	Age0-2	0.00012161	0.000760103
53	487553	3746938.3	Age2-16	0.000125958	0.000568921
54	488553	3746938.3	3rd	8.82628E-05	0.000644423
54	488553	3746938.3	Age>16	0	0
54	488553	3746938.3	Age0-2	0.00011255	0.000705095
54	488553	3746938.3	Age2-16	0.000117911	0.000530924
55	489553	3746938.3	3rd	8.68159E-05	0.000633859
55	489553	3746938.3	Age>16	0	0
55	489553	3746938.3	Age0-2	0.00011	0.000685896
55	489553	3746938.3	Age2-16	0.00011527	0.000515829

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
56	490553	3746938.3	3rd	8.07388E-05	0.000589489
56	490553	3746938.3	Age>16	0	0
56	490553	3746938.3	Age0-2	0.000101619	0.000631071
56	490553	3746938.3	Age2-16	0.000106001	0.000471901
57	491553	3746938.3	3rd	7.58192E-05	0.00055357
57	491553	3746938.3	Age>16	0	0
57	491553	3746938.3	Age0-2	9.47821E-05	0.000585559
57	491553	3746938.3	Age2-16	9.84813E-05	0.000435766
58	492553	3746938.3	3rd	7.14784E-05	0.000521877
58	492553	3746938.3	Age>16	0	0
58	492553	3746938.3	Age0-2	8.86433E-05	0.00054405
58	492553	3746938.3	Age2-16	9.09673E-05	0.000400228
59	482553	3747938.3	3rd	0.000111414	0.000813453
59	482553	3747938.3	Age>16	0	0
59	482553	3747938.3	Age0-2	0.000130308	0.000733938
59	482553	3747938.3	Age2-16	0.000160874	0.000696713
60	483553	3747938.3	3rd	0.000126751	0.000925434
60	483553	3747938.3	Age>16	0	0
60	483553	3747938.3	Age0-2	0.000155255	0.000921356
60	483553	3747938.3	Age2-16	0.000206647	0.000888892
61	484553	3747938.3	3rd	0.00013225	0.000965579
61	484553	3747938.3	Age>16	0	0
61	484553	3747938.3	Age0-2	0.000167054	0.001029449
61	484553	3747938.3	Age2-16	0.000181742	0.00080683
62	485553	3747938.3	3rd	0.000126751	0.000925434
62	485553	3747938.3	Age>16	0	0
62	485553	3747938.3	Age0-2	0.000161895	0.001008336
62	485553	3747938.3	Age2-16	0.000177186	0.000787694
63	486553	3747938.3	3rd	0.000105626	0.000771195
63	486553	3747938.3	Age>16	0	0
63	486553	3747938.3	Age0-2	0.000131603	0.000802997
63	486553	3747938.3	Age2-16	0.000154228	0.000661332
64	487553	3747938.3	3rd	7.58192E-05	0.00055357
64	487553	3747938.3	Age>16	0	0
64	487553	3747938.3	Age0-2	8.6695E-05	0.000487205
64	487553	3747938.3	Age2-16	9.53878E-05	0.000390318
65	488553	3747938.3	3rd	0.000104468	0.000762744
65	488553	3747938.3	Age>16	0	0
65	488553	3747938.3	Age0-2	0.000134973	0.000852656
65	488553	3747938.3	Age2-16	0.000150242	0.000675076
66	489553	3747938.3	3rd	9.86808E-05	0.000720487
66	489553	3747938.3	Age>16	0	0
66	489553	3747938.3	Age0-2	0.000126526	0.000795527
66	489553	3747938.3	Age2-16	0.000140811	0.00062758

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
67	490553	3747938.3	3rd	9.23143E-05	0.000674004
67	490553	3747938.3	Age>16	0	0
67	490553	3747938.3	Age0-2	0.000117244	0.000732513
67	490553	3747938.3	Age2-16	0.000129919	0.000574271
68	491553	3747938.3	3rd	8.62371E-05	0.000629633
68	491553	3747938.3	Age>16	0	0
68	491553	3747938.3	Age0-2	0.000108405	0.000672268
68	491553	3747938.3	Age2-16	0.000118603	0.000520338
69	492553	3747938.3	3rd	8.04494E-05	0.000587376
69	492553	3747938.3	Age>16	0	0
69	492553	3747938.3	Age0-2	0.000100106	0.000615937
69	492553	3747938.3	Age2-16	0.000107397	0.000468682
70	493553	3747938.3	3rd	7.49511E-05	0.000547232
70	493553	3747938.3	Age>16	0	0
70	493553	3747938.3	Age0-2	9.24905E-05	0.000564795
70	493553	3747938.3	Age2-16	9.72872E-05	0.000423221
71	481553	3748938.3	3rd	0.000252634	0.00184453
71	481553	3748938.3	Age>16	0	0
71	481553	3748938.3	Age0-2	0.000314278	0.001868176
71	481553	3748938.3	Age2-16	0.000281608	0.001320401
72	482553	3748938.3	3rd	0.00014643	0.001069109
72	482553	3748938.3	Age>16	0	0
72	482553	3748938.3	Age0-2	0.000177881	0.001017658
72	482553	3748938.3	Age2-16	0.000202737	0.000917457
73	483553	3748938.3	3rd	0.000153664	0.001121931
73	483553	3748938.3	Age>16	0	0
73	483553	3748938.3	Age0-2	0.00018756	0.001091136
73	483553	3748938.3	Age2-16	0.000269449	0.001186787
74	484553	3748938.3	3rd	0.000138905	0.001014175
74	484553	3748938.3	Age>16	0	0
74	484553	3748938.3	Age0-2	0.000171468	0.001016938
74	484553	3748938.3	Age2-16	0.000269053	0.001140424
75	485553	3748938.3	3rd	0.000129356	0.00094445
75	485553	3748938.3	Age>16	0	0
75	485553	3748938.3	Age0-2	0.000160861	0.00096937
75	485553	3748938.3	Age2-16	0.000242751	0.000999586
76	486553	3748938.3	3rd	0.000123857	0.000904306
76	486553	3748938.3	Age>16	0	0
76	486553	3748938.3	Age0-2	0.000155261	0.000946562
76	486553	3748938.3	Age2-16	0.00021825	0.000901661
77	487553	3748938.3	3rd	9.40506E-05	0.000686681
77	487553	3748938.3	Age>16	0	0
77	487553	3748938.3	Age0-2	0.00011115	0.000643604
77	487553	3748938.3	Age2-16	0.000149733	0.000599213

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
78	488553	3748938.3	3rd	0.000126751	0.000925434
78	488553	3748938.3	Age>16	0	0
78	488553	3748938.3	Age0-2	0.000166258	0.001059813
78	488553	3748938.3	Age2-16	0.000202345	0.000903228
79	489553	3748938.3	3rd	0.000116623	0.000851484
79	489553	3748938.3	Age>16	0	0
79	489553	3748938.3	Age0-2	0.000151319	0.000958627
79	489553	3748938.3	Age2-16	0.000183951	0.000811622
80	490553	3748938.3	3rd	0.000107652	0.000785985
80	490553	3748938.3	Age>16	0	0
80	490553	3748938.3	Age0-2	0.000137923	0.000866475
80	490553	3748938.3	Age2-16	0.000166124	0.000724422
81	491553	3748938.3	3rd	9.89701E-05	0.000722599
81	491553	3748938.3	Age>16	0	0
81	491553	3748938.3	Age0-2	0.000125157	0.000778831
81	491553	3748938.3	Age2-16	0.000147026	0.000636066
82	492553	3748938.3	3rd	9.11567E-05	0.000665552
82	492553	3748938.3	Age>16	0	0
82	492553	3748938.3	Age0-2	0.000114199	0.00070433
82	492553	3748938.3	Age2-16	0.000130775	0.000563709
83	493553	3748938.3	3rd	8.5369E-05	0.000623295
83	493553	3748938.3	Age>16	0	0
83	493553	3748938.3	Age0-2	0.000106128	0.000647935
83	493553	3748938.3	Age2-16	0.000117818	0.000508328
84	494553	3748938.3	3rd	8.18963E-05	0.00059794
84	494553	3748938.3	Age>16	0	0
84	494553	3748938.3	Age0-2	0.00010085	0.00060819
84	494553	3748938.3	Age2-16	0.000108087	0.000467595
85	480553	3749938.3	3rd	0.000244531	0.00178537
85	480553	3749938.3	Age>16	0	0
85	480553	3749938.3	Age0-2	0.000290254	0.001719932
85	480553	3749938.3	Age2-16	0.000185494	0.000879046
86	481553	3749938.3	3rd	0.000294306	0.002148782
86	481553	3749938.3	Age>16	0	0
86	481553	3749938.3	Age0-2	0.000356354	0.002125455
86	481553	3749938.3	Age2-16	0.000245313	0.001171522
87	482553	3749938.3	3rd	0.000319772	0.002334714
87	482553	3749938.3	Age>16	0	0
87	482553	3749938.3	Age0-2	0.000406443	0.002435229
87	482553	3749938.3	Age2-16	0.000366858	0.00174885
88	483553	3749938.3	3rd	0.00024048	0.00175579
88	483553	3749938.3	Age>16	0	0
88	483553	3749938.3	Age0-2	0.000313516	0.001879807
88	483553	3749938.3	Age2-16	0.000397011	0.001860052

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
89	484553	3749938.3	3rd	0.000166687	0.001217009
89	484553	3749938.3	Age>16	0	0
89	484553	3749938.3	Age0-2	0.000203895	0.001179462
89	484553	3749938.3	Age2-16	0.000318687	0.00140494
90	485553	3749938.3	3rd	0.000135722	0.000990933
90	485553	3749938.3	Age>16	0	0
90	485553	3749938.3	Age0-2	0.000161642	0.000922079
90	485553	3749938.3	Age2-16	0.000269136	0.001111235
91	486553	3749938.3	3rd	0.000128488	0.000938111
91	486553	3749938.3	Age>16	0	0
91	486553	3749938.3	Age0-2	0.000154184	0.000894042
91	486553	3749938.3	Age2-16	0.000278462	0.001082753
92	487553	3749938.3	3rd	0.000129934	0.000948676
92	487553	3749938.3	Age>16	0	0
92	487553	3749938.3	Age0-2	0.000163315	0.000994565
92	487553	3749938.3	Age2-16	0.000287198	0.001134308
93	488553	3749938.3	3rd	0.000157716	0.001151511
93	488553	3749938.3	Age>16	0	0
93	488553	3749938.3	Age0-2	0.000210784	0.001357497
93	488553	3749938.3	Age2-16	0.000297327	0.001305001
94	489553	3749938.3	3rd	0.000142378	0.001039529
94	489553	3749938.3	Age>16	0	0
94	489553	3749938.3	Age0-2	0.00018725	0.001195159
94	489553	3749938.3	Age2-16	0.000262745	0.001132506
95	490553	3749938.3	3rd	0.000128488	0.000938111
95	490553	3749938.3	Age>16	0	0
95	490553	3749938.3	Age0-2	0.000166016	0.001047327
95	490553	3749938.3	Age2-16	0.000227518	0.000965718
96	491553	3749938.3	3rd	0.000116044	0.000847258
96	491553	3749938.3	Age>16	0	0
96	491553	3749938.3	Age0-2	0.000148146	0.000923914
96	491553	3749938.3	Age2-16	0.00019492	0.000824036
97	492553	3749938.3	3rd	0.000107941	0.000788098
97	492553	3749938.3	Age>16	0	0
97	492553	3749938.3	Age0-2	0.000136496	0.000840102
97	492553	3749938.3	Age2-16	0.00017062	0.000724661
98	493553	3749938.3	3rd	0.000105626	0.000771195
98	493553	3749938.3	Age>16	0	0
98	493553	3749938.3	Age0-2	0.000131768	0.000797543
98	493553	3749938.3	Age2-16	0.000155781	0.000665564
99	494553	3749938.3	3rd	0.000105626	0.000771195
99	494553	3749938.3	Age>16	0	0
99	494553	3749938.3	Age0-2	0.000129678	0.000771055
99	494553	3749938.3	Age2-16	0.000145984	0.00062498

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
100	495553	3749938.3	3rd	8.39221E-05	0.00061273
100	495553	3749938.3	Age>16	0	0
100	495553	3749938.3	Age0-2	9.98756E-05	0.000569449
100	495553	3749938.3	Age2-16	0.000105731	0.000457967
101	480553	3750938.3	3rd	0.000265946	0.001941722
101	480553	3750938.3	Age>16	0	0
101	480553	3750938.3	Age0-2	0.000314318	0.001869597
101	480553	3750938.3	Age2-16	0.000185322	0.000884333
102	481553	3750938.3	3rd	0.00032093	0.002343166
102	481553	3750938.3	Age>16	0	0
102	481553	3750938.3	Age0-2	0.000383239	0.002289608
102	481553	3750938.3	Age2-16	0.000229535	0.001106186
103	482553	3750938.3	3rd	0.000368678	0.002691788
103	482553	3750938.3	Age>16	0	0
103	482553	3750938.3	Age0-2	0.000450902	0.00271511
103	482553	3750938.3	Age2-16	0.000290432	0.001413387
104	483553	3750938.3	3rd	0.000370993	0.002708691
104	483553	3750938.3	Age>16	0	0
104	483553	3750938.3	Age0-2	0.000478314	0.002932346
104	483553	3750938.3	Age2-16	0.000370862	0.001820015
105	484553	3750938.3	3rd	0.00030183	0.002203717
105	484553	3750938.3	Age>16	0	0
105	484553	3750938.3	Age0-2	0.000413039	0.002510619
105	484553	3750938.3	Age2-16	0.000574648	0.002765293
106	485553	3750938.3	3rd	0.000174789	0.00127617
106	485553	3750938.3	Age>16	0	0
106	485553	3750938.3	Age0-2	0.000215662	0.001231843
106	485553	3750938.3	Age2-16	0.000405055	0.001828648
107	486553	3750938.3	3rd	0.000147298	0.001075448
107	486553	3750938.3	Age>16	0	0
107	486553	3750938.3	Age0-2	0.00017544	0.000987159
107	486553	3750938.3	Age2-16	0.000378884	0.001566755
108	487553	3750938.3	3rd	0.000139484	0.0010184
108	487553	3750938.3	Age>16	0	0
108	487553	3750938.3	Age0-2	0.000171265	0.001010341
108	487553	3750938.3	Age2-16	0.00038949	0.001474636
109	488553	3750938.3	3rd	0.000208358	0.001521262
109	488553	3750938.3	Age>16	0	0
109	488553	3750938.3	Age0-2	0.000285326	0.001858398
109	488553	3750938.3	Age2-16	0.00052068	0.002221963
110	489553	3750938.3	3rd	0.000180866	0.00132054
110	489553	3750938.3	Age>16	0	0
110	489553	3750938.3	Age0-2	0.000241649	0.001552078
110	489553	3750938.3	Age2-16	0.000449648	0.001827186

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
111	490553	3750938.3	3rd	0.000158005	0.001153624
111	490553	3750938.3	Age>16	0	0
111	490553	3750938.3	Age0-2	0.00020765	0.001313009
111	490553	3750938.3	Age2-16	0.000365473	0.001468531
112	491553	3750938.3	3rd	0.000143825	0.001050093
112	491553	3750938.3	Age>16	0	0
112	491553	3750938.3	Age0-2	0.000186412	0.001157274
112	491553	3750938.3	Age2-16	0.000291745	0.001193583
113	492553	3750938.3	3rd	0.000140642	0.001026852
113	492553	3750938.3	Age>16	0	0
113	492553	3750938.3	Age0-2	0.000178569	0.001084763
113	492553	3750938.3	Age2-16	0.000248867	0.001035608
114	493553	3750938.3	3rd	0.000124436	0.000908531
114	493553	3750938.3	Age>16	0	0
114	493553	3750938.3	Age0-2	0.000157818	0.000950265
114	493553	3750938.3	Age2-16	0.000207649	0.000895843
115	494553	3750938.3	3rd	0.000125594	0.000916983
115	494553	3750938.3	Age>16	0	0
115	494553	3750938.3	Age0-2	0.000156881	0.00093372
115	494553	3750938.3	Age2-16	0.000196965	0.000849149
116	495553	3750938.3	3rd	0.000125304	0.00091487
116	495553	3750938.3	Age>16	0	0
116	495553	3750938.3	Age0-2	0.000153062	0.000895006
116	495553	3750938.3	Age2-16	0.000179186	0.000768623
117	479553	3751938.3	3rd	0.000217329	0.001586761
117	479553	3751938.3	Age>16	0	0
117	479553	3751938.3	Age0-2	0.000253496	0.001501784
117	479553	3751938.3	Age2-16	0.00014339	0.000678302
118	480553	3751938.3	3rd	0.000269708	0.001969189
118	480553	3751938.3	Age>16	0	0
118	480553	3751938.3	Age0-2	0.000316799	0.001888294
118	480553	3751938.3	Age2-16	0.000175457	0.000839025
119	481553	3751938.3	3rd	0.000344949	0.002518534
119	481553	3751938.3	Age>16	0	0
119	481553	3751938.3	Age0-2	0.000408487	0.002449189
119	481553	3751938.3	Age2-16	0.00022194	0.001075309
120	482553	3751938.3	3rd	0.0004526	0.003304519
120	482553	3751938.3	Age>16	0	0
120	482553	3751938.3	Age0-2	0.000542419	0.003270319
120	482553	3751938.3	Age2-16	0.000293732	0.001445036
121	483553	3751938.3	3rd	0.000564882	0.00412431
121	483553	3751938.3	Age>16	0	0
121	483553	3751938.3	Age0-2	0.000698484	0.004252644
121	483553	3751938.3	Age2-16	0.000404687	0.002025974

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
122	484553	3751938.3	3rd	0.000579352	0.004229953
122	484553	3751938.3	Age>16	0	0
122	484553	3751938.3	Age0-2	0.000783546	0.004901296
122	484553	3751938.3	Age2-16	0.000576405	0.002940298
123	485553	3751938.3	3rd	0.000427713	0.003122813
123	485553	3751938.3	Age>16	0	0
123	485553	3751938.3	Age0-2	0.00066362	0.004182571
123	485553	3751938.3	Age2-16	0.001030664	0.005218046
124	486553	3751938.3	3rd	0.000225432	0.001645921
124	486553	3751938.3	Age>16	0	0
124	486553	3751938.3	Age0-2	0.000293907	0.001703947
124	486553	3751938.3	Age2-16	0.000817066	0.003905725
125	487553	3751938.3	3rd	0.000201992	0.001474779
125	487553	3751938.3	Age>16	0	0
125	487553	3751938.3	Age0-2	0.000265136	0.00160908
125	487553	3751938.3	Age2-16	0.001018677	0.004439698
126	488553	3751938.3	3rd	0.000295463	0.002157234
126	488553	3751938.3	Age>16	0	0
126	488553	3751938.3	Age0-2	0.000420794	0.002769347
126	488553	3751938.3	Age2-16	0.001229876	0.00526475
127	489553	3751938.3	3rd	0.000245689	0.001793821
127	489553	3751938.3	Age>16	0	0
127	489553	3751938.3	Age0-2	0.000340613	0.002191586
127	489553	3751938.3	Age2-16	0.001300481	0.004603213
128	490553	3751938.3	3rd	0.000219065	0.001599438
128	490553	3751938.3	Age>16	0	0
128	490553	3751938.3	Age0-2	0.00029484	0.001845492
128	490553	3751938.3	Age2-16	0.001050871	0.003590958
129	491553	3751938.3	3rd	0.000211541	0.001544503
129	491553	3751938.3	Age>16	0	0
129	491553	3751938.3	Age0-2	0.000273646	0.001662737
129	491553	3751938.3	Age2-16	0.000611164	0.002260119
130	492553	3751938.3	3rd	0.000211541	0.001544503
130	492553	3751938.3	Age>16	0	0
130	492553	3751938.3	Age0-2	0.000263284	0.001557972
130	492553	3751938.3	Age2-16	0.000431793	0.001683228
131	493553	3751938.3	3rd	0.000181445	0.001324766
131	493553	3751938.3	Age>16	0	0
131	493553	3751938.3	Age0-2	0.000227111	0.001349507
131	493553	3751938.3	Age2-16	0.000322687	0.001336597
132	494553	3751938.3	3rd	0.00018376	0.001341668
132	494553	3751938.3	Age>16	0	0
132	494553	3751938.3	Age0-2	0.000224104	0.001315479
132	494553	3751938.3	Age2-16	0.00027894	0.00116943

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
133	495553	3751938.3	3rd	0.000181445	0.001324766
133	495553	3751938.3	Age>16	0	0
133	495553	3751938.3	Age0-2	0.000214415	0.001232719
133	495553	3751938.3	Age2-16	0.000237005	0.000997023
134	479553	3752938.3	3rd	0.000200834	0.001466327
134	479553	3752938.3	Age>16	0	0
134	479553	3752938.3	Age0-2	0.000233928	0.001389265
134	479553	3752938.3	Age2-16	0.000130292	0.000616662
135	480553	3752938.3	3rd	0.000253792	0.001852981
135	480553	3752938.3	Age>16	0	0
135	480553	3752938.3	Age0-2	0.000296709	0.001771768
135	480553	3752938.3	Age2-16	0.000159087	0.00076099
136	481553	3752938.3	3rd	0.00033482	0.002444583
136	481553	3752938.3	Age>16	0	0
136	481553	3752938.3	Age0-2	0.000393218	0.002362686
136	481553	3752938.3	Age2-16	0.000201145	0.000975285
137	482553	3752938.3	3rd	0.000469674	0.003429178
137	482553	3752938.3	Age>16	0	0
137	482553	3752938.3	Age0-2	0.000554926	0.003356707
137	482553	3752938.3	Age2-16	0.000269252	0.00132865
138	483553	3752938.3	3rd	0.000706392	0.0051575
138	483553	3752938.3	Age>16	0	0
138	483553	3752938.3	Age0-2	0.00084275	0.005131296
138	483553	3752938.3	Age2-16	0.000389886	0.001969222
139	484553	3752938.3	3rd	0.001073913	0.007840837
139	484553	3752938.3	Age>16	0	0
139	484553	3752938.3	Age0-2	0.001328761	0.008181278
139	484553	3752938.3	Age2-16	0.00064198	0.003345881
140	485553	3752938.3	3rd	0.001218895	0.008899382
140	485553	3752938.3	Age>16	0	0
140	485553	3752938.3	Age0-2	0.001846799	0.011933097
140	485553	3752938.3	Age2-16	0.001274664	0.006926145
141	486553	3752938.3	3rd	0.000991727	0.007240784
141	486553	3752938.3	Age>16	0	0
141	486553	3752938.3	Age0-2	0.003125561	0.021996993
141	486553	3752938.3	Age2-16	0.004627645	0.02498601
142	487553	3752938.3	3rd	0.000675428	0.004931424
142	487553	3752938.3	Age>16	0	0
142	487553	3752938.3	Age0-2	0.00136539	0.009369905
142	487553	3752938.3	Age2-16	0.005151974	0.02965139
143	488553	3752938.3	3rd	0.000488484	0.003566514
143	488553	3752938.3	Age>16	0	0
143	488553	3752938.3	Age0-2	0.000772441	0.005074193
143	488553	3752938.3	Age2-16	0.004855423	0.019486637

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
144	489553	3752938.3	3rd	0.000417585	0.003048862
144	489553	3752938.3	Age>16	0	0
144	489553	3752938.3	Age0-2	0.000583506	0.003657927
144	489553	3752938.3	Age2-16	0.004877918	0.015068354
145	490553	3752938.3	3rd	0.000383437	0.002799544
145	490553	3752938.3	Age>16	0	0
145	490553	3752938.3	Age0-2	0.000492155	0.002964017
145	490553	3752938.3	Age2-16	0.004096231	0.012152742
146	491553	3752938.3	3rd	0.000318904	0.002328376
146	491553	3752938.3	Age>16	0	0
146	491553	3752938.3	Age0-2	0.000411283	0.002523351
146	491553	3752938.3	Age2-16	0.000766508	0.002975483
147	492553	3752938.3	3rd	0.000310512	0.002267103
147	492553	3752938.3	Age>16	0	0
147	492553	3752938.3	Age0-2	0.000384459	0.002316137
147	492553	3752938.3	Age2-16	0.00054111	0.002199537
148	493553	3752938.3	3rd	0.00028302	0.002066381
148	493553	3752938.3	Age>16	0	0
148	493553	3752938.3	Age0-2	0.00034076	0.002022095
148	493553	3752938.3	Age2-16	0.000384237	0.001623202
149	494553	3752938.3	3rd	0.000258422	0.001886787
149	494553	3752938.3	Age>16	0	0
149	494553	3752938.3	Age0-2	0.000303724	0.001772178
149	494553	3752938.3	Age2-16	0.000303648	0.001295352
150	495553	3752938.3	3rd	0.000233245	0.001702968
150	495553	3752938.3	Age>16	0	0
150	495553	3752938.3	Age0-2	0.000266892	0.001521098
150	495553	3752938.3	Age2-16	0.000244117	0.001038717
151	479553	3753938.3	3rd	0.000178262	0.001301524
151	479553	3753938.3	Age>16	0	0
151	479553	3753938.3	Age0-2	0.000208114	0.001242487
151	479553	3753938.3	Age2-16	0.000116103	0.000550375
152	480553	3753938.3	3rd	0.000226879	0.001656485
152	480553	3753938.3	Age>16	0	0
152	480553	3753938.3	Age0-2	0.000265882	0.001598993
152	480553	3753938.3	Age2-16	0.00014141	0.000678055
153	481553	3753938.3	3rd	0.000362022	0.002643192
153	481553	3753938.3	Age>16	0	0
153	481553	3753938.3	Age0-2	0.00042527	0.002593597
153	481553	3753938.3	Age2-16	0.000200933	0.000983632
154	482553	3753938.3	3rd	0.000523211	0.003820058
154	482553	3753938.3	Age>16	0	0
154	482553	3753938.3	Age0-2	0.000613909	0.003763622
154	482553	3753938.3	Age2-16	0.000265911	0.001322246

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
155	483553	3753938.3	3rd	0.000825041	0.006023774
155	483553	3753938.3	Age>16	0	0
155	483553	3753938.3	Age0-2	0.000957818	0.005865807
155	483553	3753938.3	Age2-16	0.000371059	0.001869807
156	484553	3753938.3	3rd	0.001739212	0.012698311
156	484553	3753938.3	Age>16	0	0
156	484553	3753938.3	Age0-2	0.002014069	0.012430171
156	484553	3753938.3	Age2-16	0.000665237	0.003469486
157	485553	3753938.3	3rd	0.00477285	0.034847461
157	485553	3753938.3	Age>16	0	0
157	485553	3753938.3	Age0-2	0.005462939	0.033339786
157	485553	3753938.3	Age2-16	0.002375407	0.012637115
158	486553	3753938.3	3rd	0.006251325	0.045642081
158	486553	3753938.3	Age>16	0	0
158	486553	3753938.3	Age0-2	0.011320987	0.072775648
158	486553	3753938.3	Age2-16	0.005355057	0.028891182
159	487553	3753938.3	3rd	0.002342872	0.017105744
159	487553	3753938.3	Age>16	0	0
159	487553	3753938.3	Age0-2	0.003348788	0.021410344
159	487553	3753938.3	Age2-16	0.005178075	0.030611268
160	488553	3753938.3	3rd	0.001231628	0.008992348
160	488553	3753938.3	Age>16	0	0
160	488553	3753938.3	Age0-2	0.001568209	0.00984395
160	488553	3753938.3	Age2-16	0.003601966	0.014802671
161	489553	3753938.3	3rd	0.000829092	0.006053354
161	489553	3753938.3	Age>16	0	0
161	489553	3753938.3	Age0-2	0.001022391	0.006348559
161	489553	3753938.3	Age2-16	0.001547287	0.006056883
162	490553	3753938.3	3rd	0.000587454	0.004289113
162	490553	3753938.3	Age>16	0	0
162	490553	3753938.3	Age0-2	0.000703405	0.004280285
162	490553	3753938.3	Age2-16	0.000635751	0.002729656
163	491553	3753938.3	3rd	0.0004526	0.003304519
163	491553	3753938.3	Age>16	0	0
163	491553	3753938.3	Age0-2	0.000520886	0.003055767
163	491553	3753938.3	Age2-16	0.000418309	0.001794358
164	492553	3753938.3	3rd	0.000374755	0.002736158
164	492553	3753938.3	Age>16	0	0
164	492553	3753938.3	Age0-2	0.000428056	0.00249387
164	492553	3753938.3	Age2-16	0.000326619	0.001411131
165	493553	3753938.3	3rd	0.000318036	0.002322037
165	493553	3753938.3	Age>16	0	0
165	493553	3753938.3	Age0-2	0.000359638	0.002073517
165	493553	3753938.3	Age2-16	0.000266632	0.001151637

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
166	494553	3753938.3	3rd	0.00027839	0.002032575
166	494553	3753938.3	Age>16	0	0
166	494553	3753938.3	Age0-2	0.000314895	0.001815733
166	494553	3753938.3	Age2-16	0.000230582	0.000999116
167	495553	3753938.3	3rd	0.000243663	0.001779031
167	495553	3753938.3	Age>16	0	0
167	495553	3753938.3	Age0-2	0.000271383	0.001538409
167	495553	3753938.3	Age2-16	0.000195278	0.000839544
168	479553	3754938.3	3rd	0.000169291	0.001236025
168	479553	3754938.3	Age>16	0	0
168	479553	3754938.3	Age0-2	0.000201926	0.001238346
168	479553	3754938.3	Age2-16	0.000112239	0.00053722
169	480553	3754938.3	3rd	0.000207201	0.00151281
169	480553	3754938.3	Age>16	0	0
169	480553	3754938.3	Age0-2	0.000249757	0.001550423
169	480553	3754938.3	Age2-16	0.00013506	0.000653445
170	481553	3754938.3	3rd	0.000258711	0.0018889
170	481553	3754938.3	Age>16	0	0
170	481553	3754938.3	Age0-2	0.000313973	0.001966135
170	481553	3754938.3	Age2-16	0.000163391	0.000798697
171	482553	3754938.3	3rd	0.000332505	0.00242768
171	482553	3754938.3	Age>16	0	0
171	482553	3754938.3	Age0-2	0.000405546	0.00255856
171	482553	3754938.3	Age2-16	0.000200893	0.000992087
172	483553	3754938.3	3rd	0.000451153	0.003293954
172	483553	3754938.3	Age>16	0	0
172	483553	3754938.3	Age0-2	0.00055035	0.00349145
172	483553	3754938.3	Age2-16	0.000252606	0.001259966
173	484553	3754938.3	3rd	0.000739672	0.00540048
173	484553	3754938.3	Age>16	0	0
173	484553	3754938.3	Age0-2	0.000898751	0.00575541
173	484553	3754938.3	Age2-16	0.000355787	0.001805908
174	485553	3754938.3	3rd	0.001856703	0.013556133
174	485553	3754938.3	Age>16	0	0
174	485553	3754938.3	Age0-2	0.002182419	0.013910523
174	485553	3754938.3	Age2-16	0.000816259	0.004229469
175	486553	3754938.3	3rd	0.017409196	0.127107766
175	486553	3754938.3	Age>16	0	0
175	486553	3754938.3	Age0-2	0.017135815	0.093977714
175	486553	3754938.3	Age2-16	0.00085315	0.004001492
176	487553	3754938.3	3rd	0.003596205	0.026256557
176	487553	3754938.3	Age>16	0	0
176	487553	3754938.3	Age0-2	0.003759666	0.021666757
176	487553	3754938.3	Age2-16	0.002735122	0.010718802

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
177	488553	3754938.3	3rd	0.001207031	0.008812754
177	488553	3754938.3	Age>16	0	0
177	488553	3754938.3	Age0-2	0.001331467	0.007933567
177	488553	3754938.3	Age2-16	0.001359392	0.004622104
178	489553	3754938.3	3rd	0.000700894	0.005117356
178	489553	3754938.3	Age>16	0	0
178	489553	3754938.3	Age0-2	0.000776724	0.004585533
178	489553	3754938.3	Age2-16	0.000503111	0.002033552
179	490553	3754938.3	3rd	0.000488195	0.003564401
179	490553	3754938.3	Age>16	0	0
179	490553	3754938.3	Age0-2	0.000539124	0.003135464
179	490553	3754938.3	Age2-16	0.00033358	0.001377268
180	491553	3754938.3	3rd	0.000377649	0.002757287
180	491553	3754938.3	Age>16	0	0
180	491553	3754938.3	Age0-2	0.000416937	0.002404385
180	491553	3754938.3	Age2-16	0.000259352	0.001078589
181	492553	3754938.3	3rd	0.000309643	0.002260764
181	492553	3754938.3	Age>16	0	0
181	492553	3754938.3	Age0-2	0.000341543	0.001956049
181	492553	3754938.3	Age2-16	0.000213502	0.000894028
182	493553	3754938.3	3rd	0.000267104	0.001950173
182	493553	3754938.3	Age>16	0	0
182	493553	3754938.3	Age0-2	0.000295948	0.001694898
182	493553	3754938.3	Age2-16	0.000186095	0.000788669
183	494553	3754938.3	3rd	0.000231798	0.001692404
183	494553	3754938.3	Age>16	0	0
183	494553	3754938.3	Age0-2	0.000255321	0.001449017
183	494553	3754938.3	Age2-16	0.000161651	0.000685428
184	495553	3754938.3	3rd	0.000205175	0.00149802
184	495553	3754938.3	Age>16	0	0
184	495553	3754938.3	Age0-2	0.000225014	0.001268487
184	495553	3754938.3	Age2-16	0.00014333	0.000608158
185	479553	3755938.3	3rd	0.000135143	0.000986707
185	479553	3755938.3	Age>16	0	0
185	479553	3755938.3	Age0-2	0.000164909	0.001025687
185	479553	3755938.3	Age2-16	9.8979E-05	0.000473584
186	480553	3755938.3	3rd	0.000151349	0.001105028
186	480553	3755938.3	Age>16	0	0
186	480553	3755938.3	Age0-2	0.000185201	0.001154503
186	480553	3755938.3	Age2-16	0.00010959	0.000525266
187	481553	3755938.3	3rd	0.000172474	0.001259267
187	481553	3755938.3	Age>16	0	0
187	481553	3755938.3	Age0-2	0.00021093	0.001316247
187	481553	3755938.3	Age2-16	0.000121837	0.000584944

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
188	482553	3755938.3	3rd	0.000224274	0.001637469
188	482553	3755938.3	Age>16	0	0
188	482553	3755938.3	Age0-2	0.000276059	0.001745365
188	482553	3755938.3	Age2-16	0.00014925	0.000724781
189	483553	3755938.3	3rd	0.000280126	0.002045252
189	483553	3755938.3	Age>16	0	0
189	483553	3755938.3	Age0-2	0.000342035	0.00216572
189	483553	3755938.3	Age2-16	0.000171849	0.000837639
190	484553	3755938.3	3rd	0.000354498	0.002588258
190	484553	3755938.3	Age>16	0	0
190	484553	3755938.3	Age0-2	0.00043377	0.002770629
190	484553	3755938.3	Age2-16	0.000204872	0.001005537
191	485553	3755938.3	3rd	0.000510188	0.003724979
191	485553	3755938.3	Age>16	0	0
191	485553	3755938.3	Age0-2	0.000623338	0.004002358
191	485553	3755938.3	Age2-16	0.0002558	0.00123735
192	486553	3755938.3	3rd	0.000593821	0.004335596
192	486553	3755938.3	Age>16	0	0
192	486553	3755938.3	Age0-2	0.000682988	0.004194829
192	486553	3755938.3	Age2-16	0.000297967	0.001378187
193	487553	3755938.3	3rd	0.000515108	0.003760897
193	487553	3755938.3	Age>16	0	0
193	487553	3755938.3	Age0-2	0.000563909	0.003285537
193	487553	3755938.3	Age2-16	0.000290103	0.001220726
194	488553	3755938.3	3rd	0.000382279	0.002791093
194	488553	3755938.3	Age>16	0	0
194	488553	3755938.3	Age0-2	0.000419864	0.00240549
194	488553	3755938.3	Age2-16	0.000258119	0.001082023
195	489553	3755938.3	3rd	0.000315431	0.002303021
195	489553	3755938.3	Age>16	0	0
195	489553	3755938.3	Age0-2	0.000337748	0.001883072
195	489553	3755938.3	Age2-16	0.000210689	0.000893988
196	490553	3755938.3	3rd	0.000272313	0.001988205
196	490553	3755938.3	Age>16	0	0
196	490553	3755938.3	Age0-2	0.000289008	0.001590182
196	490553	3755938.3	Age2-16	0.000180405	0.000757544
197	491553	3755938.3	3rd	0.000240191	0.001753677
197	491553	3755938.3	Age>16	0	0
197	491553	3755938.3	Age0-2	0.0002547	0.001395612
197	491553	3755938.3	Age2-16	0.000157282	0.000653065
198	492553	3755938.3	3rd	0.000215593	0.001574083
198	492553	3755938.3	Age>16	0	0
198	492553	3755938.3	Age0-2	0.000229338	0.001258844
198	492553	3755938.3	Age2-16	0.000141831	0.000587976

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
199	493553	3755938.3	3rd	0.000191574	0.001398716
199	493553	3755938.3	Age>16	0	0
199	493553	3755938.3	Age0-2	0.000204659	0.001125005
199	493553	3755938.3	Age2-16	0.000127048	0.000528645
200	494553	3755938.3	3rd	0.000173053	0.001263492
200	494553	3755938.3	Age>16	0	0
200	494553	3755938.3	Age0-2	0.000186141	0.001026427
200	494553	3755938.3	Age2-16	0.00011613	0.000486125
201	479553	3756938.3	3rd	0.000104468	0.000762744
201	479553	3756938.3	Age>16	0	0
201	479553	3756938.3	Age0-2	0.000125828	0.000768964
201	479553	3756938.3	Age2-16	7.88878E-05	0.000370009
202	480553	3756938.3	3rd	0.000117201	0.00085571
202	480553	3756938.3	Age>16	0	0
202	480553	3756938.3	Age0-2	0.000138641	0.000838398
202	480553	3756938.3	Age2-16	8.25866E-05	0.000386817
203	481553	3756938.3	3rd	0.000129645	0.000946563
203	481553	3756938.3	Age>16	0	0
203	481553	3756938.3	Age0-2	0.000151371	0.000908019
203	481553	3756938.3	Age2-16	8.51878E-05	0.000397119
204	482553	3756938.3	3rd	0.000147008	0.001073335
204	482553	3756938.3	Age>16	0	0
204	482553	3756938.3	Age0-2	0.000172964	0.001048179
204	482553	3756938.3	Age2-16	9.49854E-05	0.000444627
205	483553	3756938.3	3rd	0.000182892	0.00133533
205	483553	3756938.3	Age>16	0	0
205	483553	3756938.3	Age0-2	0.000221659	0.001386446
205	483553	3756938.3	Age2-16	0.000123397	0.000589423
206	484553	3756938.3	3rd	0.000211541	0.001544503
206	484553	3756938.3	Age>16	0	0
206	484553	3756938.3	Age0-2	0.000259479	0.001637977
206	484553	3756938.3	Age2-16	0.000138664	0.000660754
207	485553	3756938.3	3rd	0.000269129	0.001964963
207	485553	3756938.3	Age>16	0	0
207	485553	3756938.3	Age0-2	0.000315085	0.001925
207	485553	3756938.3	Age2-16	0.000151854	0.000710369
208	486553	3756938.3	3rd	0.000248294	0.001812837
208	486553	3756938.3	Age>16	0	0
208	486553	3756938.3	Age0-2	0.000282379	0.001679205
208	486553	3756938.3	Age2-16	0.00015927	0.000716823
209	487553	3756938.3	3rd	0.00024048	0.00175579
209	487553	3756938.3	Age>16	0	0
209	487553	3756938.3	Age0-2	0.000267745	0.001559015
209	487553	3756938.3	Age2-16	0.000151491	0.000658511

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
210	488553	3756938.3	3rd	0.000237876	0.001736774
210	488553	3756938.3	Age>16	0	0
210	488553	3756938.3	Age0-2	0.000259965	0.001477034
210	488553	3756938.3	Age2-16	0.000143297	0.000619214
211	489553	3756938.3	3rd	0.000194468	0.001419844
211	489553	3756938.3	Age>16	0	0
211	489553	3756938.3	Age0-2	0.000214368	0.001210916
211	489553	3756938.3	Age2-16	0.000136142	0.00058812
212	490553	3756938.3	3rd	0.000176815	0.00129096
212	490553	3756938.3	Age>16	0	0
212	490553	3756938.3	Age0-2	0.000191867	0.001069014
212	490553	3756938.3	Age2-16	0.000124344	0.00053611
213	491553	3756938.3	3rd	0.000164082	0.001197994
213	491553	3756938.3	Age>16	0	0
213	491553	3756938.3	Age0-2	0.000175046	0.000959086
213	491553	3756938.3	Age2-16	0.000113169	0.000479844
214	492553	3756938.3	3rd	0.000148166	0.001081786
214	492553	3756938.3	Age>16	0	0
214	492553	3756938.3	Age0-2	0.000157727	0.000855978
214	492553	3756938.3	Age2-16	0.000103462	0.00043488
215	493553	3756938.3	3rd	0.000140642	0.001026852
215	493553	3756938.3	Age>16	0	0
215	493553	3756938.3	Age0-2	0.000149544	0.000809332
215	493553	3756938.3	Age2-16	9.72248E-05	0.000407606
216	494553	3756938.3	3rd	0.000134275	0.000980369
216	494553	3756938.3	Age>16	0	0
216	494553	3756938.3	Age0-2	0.00014213	0.000767207
216	494553	3756938.3	Age2-16	9.07576E-05	0.000380338
217	479553	3757938.3	3rd	8.62371E-05	0.000629633
217	479553	3757938.3	Age>16	0	0
217	479553	3757938.3	Age0-2	9.94324E-05	0.000585539
217	479553	3757938.3	Age2-16	6.00705E-05	0.000275608
218	480553	3757938.3	3rd	9.11567E-05	0.000665552
218	480553	3757938.3	Age>16	0	0
218	480553	3757938.3	Age0-2	0.000105956	0.000628461
218	480553	3757938.3	Age2-16	6.31595E-05	0.000288594
219	481553	3757938.3	3rd	0.000102732	0.000750067
219	481553	3757938.3	Age>16	0	0
219	481553	3757938.3	Age0-2	0.000118988	0.00070621
219	481553	3757938.3	Age2-16	6.93174E-05	0.000319133
220	482553	3757938.3	3rd	0.000116912	0.000853597
220	482553	3757938.3	Age>16	0	0
220	482553	3757938.3	Age0-2	0.000137504	0.000830951
220	482553	3757938.3	Age2-16	8.02719E-05	0.000373975

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
221	483553	3757938.3	3rd	0.00012733	0.00092966
221	483553	3757938.3	Age>16	0	0
221	483553	3757938.3	Age0-2	0.000152066	0.00093016
221	483553	3757938.3	Age2-16	8.79367E-05	0.000410357
222	484553	3757938.3	3rd	0.000159452	0.001164188
222	484553	3757938.3	Age>16	0	0
222	484553	3757938.3	Age0-2	0.000188861	0.001151571
222	484553	3757938.3	Age2-16	0.00010237	0.000478012
223	485553	3757938.3	3rd	0.000171317	0.001250815
223	485553	3757938.3	Age>16	0	0
223	485553	3757938.3	Age0-2	0.00019467	0.001144531
223	485553	3757938.3	Age2-16	0.00010525	0.000479268
224	486553	3757938.3	3rd	0.000154243	0.001126156
224	486553	3757938.3	Age>16	0	0
224	486553	3757938.3	Age0-2	0.000173151	0.001005747
224	486553	3757938.3	Age2-16	0.000107582	0.000474097
225	487553	3757938.3	3rd	0.000151928	0.001109253
225	487553	3757938.3	Age>16	0	0
225	487553	3757938.3	Age0-2	0.0001701	0.000984833
225	487553	3757938.3	Age2-16	0.000103319	0.000449386
226	488553	3757938.3	3rd	0.000158873	0.001159962
226	488553	3757938.3	Age>16	0	0
226	488553	3757938.3	Age0-2	0.000173743	0.000981649
226	488553	3757938.3	Age2-16	0.000100042	0.000435251
227	489553	3757938.3	3rd	0.000153085	0.001117705
227	489553	3757938.3	Age>16	0	0
227	489553	3757938.3	Age0-2	0.000167276	0.000938425
227	489553	3757938.3	Age2-16	9.8389E-05	0.000426226
228	490553	3757938.3	3rd	0.000132828	0.000969804
228	490553	3757938.3	Age>16	0	0
228	490553	3757938.3	Age0-2	0.00014564	0.000812237
228	490553	3757938.3	Age2-16	9.49512E-05	0.000411124
229	491553	3757938.3	3rd	0.000119227	0.0008705
229	491553	3757938.3	Age>16	0	0
229	491553	3757938.3	Age0-2	0.000130026	0.000720538
229	491553	3757938.3	Age2-16	8.90622E-05	0.000382885
230	492553	3757938.3	3rd	0.00011778	0.000859936
230	492553	3757938.3	Age>16	0	0
230	492553	3757938.3	Age0-2	0.000126293	0.000691966
230	492553	3757938.3	Age2-16	8.34388E-05	0.000354484
231	493553	3757938.3	3rd	0.000113729	0.000830355
231	493553	3757938.3	Age>16	0	0
231	493553	3757938.3	Age0-2	0.000121923	0.000666553
231	493553	3757938.3	Age2-16	8.0973E-05	0.000342092

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
232	480553	3758938.3	3rd	7.92919E-05	0.000578925
232	480553	3758938.3	Age>16	0	0
232	480553	3758938.3	Age0-2	9.04888E-05	0.000527474
232	480553	3758938.3	Age2-16	5.46195E-05	0.000249088
233	481553	3758938.3	3rd	8.62371E-05	0.000629633
233	481553	3758938.3	Age>16	0	0
233	481553	3758938.3	Age0-2	0.000100187	0.000595576
233	481553	3758938.3	Age2-16	6.07021E-05	0.000278485
234	482553	3758938.3	3rd	9.14461E-05	0.000667665
234	482553	3758938.3	Age>16	0	0
234	482553	3758938.3	Age0-2	0.000107448	0.000644788
234	482553	3758938.3	Age2-16	6.50763E-05	0.000299421
235	483553	3758938.3	3rd	0.000106205	0.000775421
235	483553	3758938.3	Age>16	0	0
235	483553	3758938.3	Age0-2	0.000124646	0.000747607
235	483553	3758938.3	Age2-16	7.19255E-05	0.000331538
236	484553	3758938.3	3rd	0.00012241	0.000893741
236	484553	3758938.3	Age>16	0	0
236	484553	3758938.3	Age0-2	0.000140866	0.000833552
236	484553	3758938.3	Age2-16	7.96455E-05	0.000365383
237	485553	3758938.3	3rd	0.000128198	0.000935999
237	485553	3758938.3	Age>16	0	0
237	485553	3758938.3	Age0-2	0.000144188	0.000833039
237	485553	3758938.3	Age2-16	8.59857E-05	0.000384277
238	486553	3758938.3	3rd	0.000111993	0.000817678
238	486553	3758938.3	Age>16	0	0
238	486553	3758938.3	Age0-2	0.00012487	0.00071513
238	486553	3758938.3	Age2-16	8.18854E-05	0.000357566
239	487553	3758938.3	3rd	0.000114886	0.000838807
239	487553	3758938.3	Age>16	0	0
239	487553	3758938.3	Age0-2	0.000129852	0.00075386
239	487553	3758938.3	Age2-16	8.32942E-05	0.000363344
240	488553	3758938.3	3rd	0.000115755	0.000845145
240	488553	3758938.3	Age>16	0	0
240	488553	3758938.3	Age0-2	0.000127339	0.000718564
240	488553	3758938.3	Age2-16	7.78372E-05	0.000338862
241	489553	3758938.3	3rd	0.000120095	0.000876838
241	489553	3758938.3	Age>16	0	0
241	489553	3758938.3	Age0-2	0.000130879	0.000731039
241	489553	3758938.3	Age2-16	7.83843E-05	0.000341516
242	490553	3758938.3	3rd	0.000117491	0.000857823
242	490553	3758938.3	Age>16	0	0
242	490553	3758938.3	Age0-2	0.000129897	0.000732457
242	490553	3758938.3	Age2-16	8.1141E-05	0.000354117

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
243	491553	3758938.3	3rd	0.000103022	0.000752179
243	491553	3758938.3	Age>16	0	0
243	491553	3758938.3	Age0-2	0.000113061	0.000628651
243	491553	3758938.3	Age2-16	7.59252E-05	0.000328703
244	492553	3758938.3	3rd	9.434E-05	0.000688794
244	492553	3758938.3	Age>16	0	0
244	492553	3758938.3	Age0-2	0.000104103	0.000580962
244	492553	3758938.3	Age2-16	7.43014E-05	0.00032088
245	481553	3759938.3	3rd	7.08997E-05	0.000517652
245	481553	3759938.3	Age>16	0	0
245	481553	3759938.3	Age0-2	8.23289E-05	0.000487172
245	481553	3759938.3	Age2-16	5.1399E-05	0.000233923
246	482553	3759938.3	3rd	7.87131E-05	0.000574699
246	482553	3759938.3	Age>16	0	0
246	482553	3759938.3	Age0-2	9.18853E-05	0.000545543
246	482553	3759938.3	Age2-16	5.63844E-05	0.000257615
247	483553	3759938.3	3rd	9.14461E-05	0.000667665
247	483553	3759938.3	Age>16	0	0
247	483553	3759938.3	Age0-2	0.000105062	0.00061766
247	483553	3759938.3	Age2-16	6.11808E-05	0.00027955
248	484553	3759938.3	3rd	0.000100128	0.000731051
248	484553	3759938.3	Age>16	0	0
248	484553	3759938.3	Age0-2	0.000114558	0.000671005
248	484553	3759938.3	Age2-16	7.00727E-05	0.000317225
249	485553	3759938.3	3rd	0.000109099	0.00079655
249	485553	3759938.3	Age>16	0	0
249	485553	3759938.3	Age0-2	0.000124143	0.000722886
249	485553	3759938.3	Age2-16	7.97341E-05	0.000355247
250	486553	3759938.3	3rd	9.86808E-05	0.000720487
250	486553	3759938.3	Age>16	0	0
250	486553	3759938.3	Age0-2	0.000114097	0.000675981
250	486553	3759938.3	Age2-16	8.14412E-05	0.000360286
251	487553	3759938.3	3rd	9.63657E-05	0.000703584
251	487553	3759938.3	Age>16	0	0
251	487553	3759938.3	Age0-2	0.000111951	0.000666341
251	487553	3759938.3	Age2-16	7.54258E-05	0.000332536
252	488553	3759938.3	3rd	0.000104179	0.000760631
252	488553	3759938.3	Age>16	0	0
252	488553	3759938.3	Age0-2	0.000119411	0.000702198
252	488553	3759938.3	Age2-16	7.81159E-05	0.000348247
253	489553	3759938.3	3rd	0.000104468	0.000762744
253	489553	3759938.3	Age>16	0	0
253	489553	3759938.3	Age0-2	0.00011837	0.000686621
253	489553	3759938.3	Age2-16	7.52764E-05	0.000334195

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
254	490553	3759938.3	3rd	9.95489E-05	0.000726825
254	490553	3759938.3	Age>16	0	0
254	490553	3759938.3	Age0-2	0.00010924	0.000611848
254	490553	3759938.3	Age2-16	6.7923E-05	0.000297682
255	491553	3759938.3	3rd	9.23143E-05	0.000674004
255	491553	3759938.3	Age>16	0	0
255	491553	3759938.3	Age0-2	0.000101798	0.000570462
255	491553	3759938.3	Age2-16	6.56626E-05	0.000284932
256	482553	3760938.3	3rd	7.32148E-05	0.000534555
256	482553	3760938.3	Age>16	0	0
256	482553	3760938.3	Age0-2	8.47774E-05	0.000499191
256	482553	3760938.3	Age2-16	5.16199E-05	0.000235353
257	483553	3760938.3	3rd	8.016E-05	0.000585263
257	483553	3760938.3	Age>16	0	0
257	483553	3760938.3	Age0-2	9.18704E-05	0.000537249
257	483553	3760938.3	Age2-16	5.67809E-05	0.000257956
258	484553	3760938.3	3rd	8.65265E-05	0.000631746
258	484553	3760938.3	Age>16	0	0
258	484553	3760938.3	Age0-2	9.90051E-05	0.000578469
258	484553	3760938.3	Age2-16	6.42088E-05	0.000287631
259	485553	3760938.3	3rd	9.95489E-05	0.000726825
259	485553	3760938.3	Age>16	0	0
259	485553	3760938.3	Age0-2	0.000115306	0.000683127
259	485553	3760938.3	Age2-16	7.60924E-05	0.000340842
260	486553	3760938.3	3rd	9.52081E-05	0.000695132
260	486553	3760938.3	Age>16	0	0
260	486553	3760938.3	Age0-2	0.000112262	0.000677425
260	486553	3760938.3	Age2-16	7.84589E-05	0.000352034
261	487553	3760938.3	3rd	8.62371E-05	0.000629633
261	487553	3760938.3	Age>16	0	0
261	487553	3760938.3	Age0-2	0.000101932	0.000616192
261	487553	3760938.3	Age2-16	6.98587E-05	0.000310444
262	488553	3760938.3	3rd	7.81343E-05	0.000570473
262	488553	3760938.3	Age>16	0	0
262	488553	3760938.3	Age0-2	8.71617E-05	0.000495318
262	488553	3760938.3	Age2-16	5.72516E-05	0.000251081
263	489553	3760938.3	3rd	7.75556E-05	0.000566247
263	489553	3760938.3	Age>16	0	0
263	489553	3760938.3	Age0-2	8.50172E-05	0.000473884
263	489553	3760938.3	Age2-16	5.38029E-05	0.000234093
264	490553	3760938.3	3rd	7.87131E-05	0.000574699
264	490553	3760938.3	Age>16	0	0
264	490553	3760938.3	Age0-2	8.5758E-05	0.000475666
264	490553	3760938.3	Age2-16	5.39107E-05	0.0002341

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
265	484551.7	3750934.4	3rd	0.000299804	0.002188927
265	484551.7	3750934.4	Age>16	0	0
265	484551.7	3750934.4	Age0-2	0.000409385	0.002485501
265	484551.7	3750934.4	Age2-16	0.000569886	0.002739475
266	484651.7	3750934.4	3rd	0.00028765	0.002100186
266	484651.7	3750934.4	Age>16	0	0
266	484651.7	3750934.4	Age0-2	0.000390699	0.002366114
266	484651.7	3750934.4	Age2-16	0.000567586	0.002716283
267	484751.7	3750934.4	3rd	0.000238454	0.001741
267	484751.7	3750934.4	Age>16	0	0
267	484751.7	3750934.4	Age0-2	0.00030912	0.001818805
267	484751.7	3750934.4	Age2-16	0.00044632	0.002090526
268	484851.7	3750934.4	3rd	0.000224853	0.001641695
268	484851.7	3750934.4	Age>16	0	0
268	484851.7	3750934.4	Age0-2	0.000288541	0.001685449
268	484851.7	3750934.4	Age2-16	0.000427476	0.001995363
269	484951.7	3750934.4	3rd	0.000225432	0.001645921
269	484951.7	3750934.4	Age>16	0	0
269	484951.7	3750934.4	Age0-2	0.000288965	0.001691968
269	484951.7	3750934.4	Age2-16	0.000445277	0.002068851
270	485051.7	3750934.4	3rd	0.00021212	0.001548729
270	485051.7	3750934.4	Age>16	0	0
270	485051.7	3750934.4	Age0-2	0.000268972	0.00156217
270	485051.7	3750934.4	Age2-16	0.000423965	0.001963695
271	485151.7	3750934.4	3rd	0.000199677	0.001457876
271	485151.7	3750934.4	Age>16	0	0
271	485151.7	3750934.4	Age0-2	0.000251106	0.001447694
271	485151.7	3750934.4	Age2-16	0.000410467	0.001897476
272	485251.7	3750934.4	3rd	0.000191574	0.001398716
272	485251.7	3750934.4	Age>16	0	0
272	485251.7	3750934.4	Age0-2	0.000239408	0.001374342
272	485251.7	3750934.4	Age2-16	0.000407237	0.001873043
273	485351.7	3750934.4	3rd	0.000185786	0.001356458
273	485351.7	3750934.4	Age>16	0	0
273	485351.7	3750934.4	Age0-2	0.000230996	0.00132284
273	485351.7	3750934.4	Age2-16	0.000406365	0.001857976
274	485451.7	3750934.4	3rd	0.000180288	0.001316314
274	485451.7	3750934.4	Age>16	0	0
274	485451.7	3750934.4	Age0-2	0.000223244	0.001276461
274	485451.7	3750934.4	Age2-16	0.000405724	0.001843481
275	484551.7	3751034.4	3rd	0.000329611	0.002406552
275	484551.7	3751034.4	Age>16	0	0
275	484551.7	3751034.4	Age0-2	0.000458166	0.002806247
275	484551.7	3751034.4	Age2-16	0.000611386	0.002972582

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
276	484651.7	3751034.4	3rd	0.000314274	0.00229457
276	484651.7	3751034.4	Age>16	0	0
276	484651.7	3751034.4	Age0-2	0.00043482	0.002655242
276	484651.7	3751034.4	Age2-16	0.000610135	0.002952751
277	484751.7	3751034.4	3rd	0.000284756	0.002079058
277	484751.7	3751034.4	Age>16	0	0
277	484751.7	3751034.4	Age0-2	0.000385022	0.002321342
277	484751.7	3751034.4	Age2-16	0.000563122	0.002689861
278	484851.7	3751034.4	3rd	0.000244531	0.00178537
278	484851.7	3751034.4	Age>16	0	0
278	484851.7	3751034.4	Age0-2	0.000318767	0.001878359
278	484851.7	3751034.4	Age2-16	0.000466166	0.002191221
279	484951.7	3751034.4	3rd	0.000251766	0.001838191
279	484951.7	3751034.4	Age>16	0	0
279	484951.7	3751034.4	Age0-2	0.000330741	0.001964475
279	484951.7	3751034.4	Age2-16	0.000511808	0.00240533
280	485051.7	3751034.4	3rd	0.000227168	0.001658598
280	485051.7	3751034.4	Age>16	0	0
280	485051.7	3751034.4	Age0-2	0.000291841	0.001706315
280	485051.7	3751034.4	Age2-16	0.000454489	0.002119932
281	485151.7	3751034.4	3rd	0.000213278	0.001557181
281	485151.7	3751034.4	Age>16	0	0
281	485151.7	3751034.4	Age0-2	0.000271362	0.001573913
281	485151.7	3751034.4	Age2-16	0.000435636	0.002028617
282	485251.7	3751034.4	3rd	0.00020286	0.001481117
282	485251.7	3751034.4	Age>16	0	0
282	485251.7	3751034.4	Age0-2	0.000256255	0.001477959
282	485251.7	3751034.4	Age2-16	0.000428941	0.001991262
283	485351.7	3751034.4	3rd	0.000195915	0.001430409
283	485351.7	3751034.4	Age>16	0	0
283	485351.7	3751034.4	Age0-2	0.000245986	0.001413901
283	485351.7	3751034.4	Age2-16	0.000427687	0.00197493
284	485451.7	3751034.4	3rd	0.000189548	0.001383926
284	485451.7	3751034.4	Age>16	0	0
284	485451.7	3751034.4	Age0-2	0.000236833	0.001358321
284	485451.7	3751034.4	Age2-16	0.000426968	0.001959936
285	484551.7	3751134.4	3rd	0.000357103	0.002607274
285	484551.7	3751134.4	Age>16	0	0
285	484551.7	3751134.4	Age0-2	0.000501459	0.003087256
285	484551.7	3751134.4	Age2-16	0.00063744	0.003124806
286	484651.7	3751134.4	3rd	0.000344659	0.002516421
286	484651.7	3751134.4	Age>16	0	0
286	484651.7	3751134.4	Age0-2	0.000484412	0.002982419
286	484651.7	3751134.4	Age2-16	0.000645642	0.003158216

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
287	484751.7	3751134.4	3rd	0.000326428	0.00238331
287	484751.7	3751134.4	Age>16	0	0
287	484751.7	3751134.4	Age0-2	0.000456651	0.002800704
287	484751.7	3751134.4	Age2-16	0.000645852	0.003142682
288	484851.7	3751134.4	3rd	0.000283599	0.002070606
288	484851.7	3751134.4	Age>16	0	0
288	484851.7	3751134.4	Age0-2	0.000382351	0.002296942
288	484851.7	3751134.4	Age2-16	0.000561305	0.002679105
289	484951.7	3751134.4	3rd	0.000282152	0.002060042
289	484951.7	3751134.4	Age>16	0	0
289	484951.7	3751134.4	Age0-2	0.000382092	0.002303863
289	484951.7	3751134.4	Age2-16	0.000590039	0.002817071
290	485051.7	3751134.4	3rd	0.000249162	0.001819176
290	485051.7	3751134.4	Age>16	0	0
290	485051.7	3751134.4	Age0-2	0.000326096	0.001926785
290	485051.7	3751134.4	Age2-16	0.000504259	0.002371541
291	485151.7	3751134.4	3rd	0.000231509	0.001690291
291	485151.7	3751134.4	Age>16	0	0
291	485151.7	3751134.4	Age0-2	0.000298773	0.001747439
291	485151.7	3751134.4	Age2-16	0.000472194	0.002211892
292	485251.7	3751134.4	3rd	0.000217908	0.001590986
292	485251.7	3751134.4	Age>16	0	0
292	485251.7	3751134.4	Age0-2	0.00027866	0.00161757
292	485251.7	3751134.4	Age2-16	0.000456131	0.002133736
293	485351.7	3751134.4	3rd	0.00020749	0.001514923
293	485351.7	3751134.4	Age>16	0	0
293	485351.7	3751134.4	Age0-2	0.000263386	0.001520502
293	485351.7	3751134.4	Age2-16	0.000450636	0.002101001
294	485451.7	3751134.4	3rd	0.000199677	0.001457876
294	485451.7	3751134.4	Age>16	0	0
294	485451.7	3751134.4	Age0-2	0.000251968	0.001449968
294	485451.7	3751134.4	Age2-16	0.000449355	0.002083785
295	484551.7	3751234.4	3rd	0.000384884	0.002810109
295	484551.7	3751234.4	Age>16	0	0
295	484551.7	3751234.4	Age0-2	0.000544329	0.003363442
295	484551.7	3751234.4	Age2-16	0.000658888	0.003252318
296	484651.7	3751234.4	3rd	0.000372151	0.002717143
296	484651.7	3751234.4	Age>16	0	0
296	484651.7	3751234.4	Age0-2	0.000527969	0.003265892
296	484651.7	3751234.4	Age2-16	0.000668556	0.003295672
297	484751.7	3751234.4	3rd	0.000352473	0.002573468
297	484751.7	3751234.4	Age>16	0	0
297	484751.7	3751234.4	Age0-2	0.000499398	0.003078673
297	484751.7	3751234.4	Age2-16	0.000675787	0.003315945

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
298	484851.7	3751234.4	3rd	0.000327296	0.002389649
298	484851.7	3751234.4	Age>16	0	0
298	484851.7	3751234.4	Age0-2	0.000458528	0.002805941
298	484851.7	3751234.4	Age2-16	0.000659886	0.003211432
299	484951.7	3751234.4	3rd	0.000307907	0.002248087
299	484951.7	3751234.4	Age>16	0	0
299	484951.7	3751234.4	Age0-2	0.000425972	0.002590824
299	484951.7	3751234.4	Age2-16	0.000641766	0.00310033
300	485051.7	3751234.4	3rd	0.000276653	0.002019898
300	485051.7	3751234.4	Age>16	0	0
300	485051.7	3751234.4	Age0-2	0.000371288	0.002222249
300	485051.7	3751234.4	Age2-16	0.000571206	0.002719032
301	485151.7	3751234.4	3rd	0.000249451	0.001821288
301	485151.7	3751234.4	Age>16	0	0
301	485151.7	3751234.4	Age0-2	0.000327021	0.001927316
301	485151.7	3751234.4	Age2-16	0.000509543	0.002404453
302	485251.7	3751234.4	3rd	0.000226011	0.001650147
302	485251.7	3751234.4	Age>16	0	0
302	485251.7	3751234.4	Age0-2	0.000292459	0.001701397
302	485251.7	3751234.4	Age2-16	0.000473234	0.002235623
303	485351.7	3751234.4	3rd	0.000216461	0.001580422
303	485351.7	3751234.4	Age>16	0	0
303	485351.7	3751234.4	Age0-2	0.000278103	0.001610734
303	485351.7	3751234.4	Age2-16	0.000471456	0.002219026
304	485451.7	3751234.4	3rd	0.000209226	0.0015276
304	485451.7	3751234.4	Age>16	0	0
304	485451.7	3751234.4	Age0-2	0.00026708	0.00154267
304	485451.7	3751234.4	Age2-16	0.000471831	0.002209988
305	484551.7	3751334.4	3rd	0.000419321	0.003061539
305	484551.7	3751334.4	Age>16	0	0
305	484551.7	3751334.4	Age0-2	0.000594532	0.003699287
305	484551.7	3751334.4	Age2-16	0.000661433	0.00329348
306	484651.7	3751334.4	3rd	0.0004008	0.002926316
306	484651.7	3751334.4	Age>16	0	0
306	484651.7	3751334.4	Age0-2	0.000572451	0.003553031
306	484651.7	3751334.4	Age2-16	0.000689053	0.00341969
307	484751.7	3751334.4	3rd	0.000377939	0.0027594
307	484751.7	3751334.4	Age>16	0	0
307	484751.7	3751334.4	Age0-2	0.000540484	0.003341823
307	484751.7	3751334.4	Age2-16	0.000700901	0.003461911
308	484851.7	3751334.4	3rd	0.000357103	0.002607274
308	484851.7	3751334.4	Age>16	0	0
308	484851.7	3751334.4	Age0-2	0.000508863	0.003135388
308	484851.7	3751334.4	Age2-16	0.000701153	0.003446193

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
309	484951.7	3751334.4	3rd	0.000342055	0.002497405
309	484951.7	3751334.4	Age>16	0	0
309	484951.7	3751334.4	Age0-2	0.000485963	0.002989796
309	484951.7	3751334.4	Age2-16	0.000705861	0.003457366
310	485051.7	3751334.4	3rd	0.000315721	0.002305134
310	485051.7	3751334.4	Age>16	0	0
310	485051.7	3751334.4	Age0-2	0.000440069	0.002681413
310	485051.7	3751334.4	Age2-16	0.000671396	0.00325498
311	485151.7	3751334.4	3rd	0.000276364	0.002017785
311	485151.7	3751334.4	Age>16	0	0
311	485151.7	3751334.4	Age0-2	0.00037063	0.002210841
311	485151.7	3751334.4	Age2-16	0.000572068	0.002725764
312	485251.7	3751334.4	3rd	0.000244821	0.001787483
312	485251.7	3751334.4	Age>16	0	0
312	485251.7	3751334.4	Age0-2	0.000321622	0.001885672
312	485251.7	3751334.4	Age2-16	0.000506842	0.002408209
313	485351.7	3751334.4	3rd	0.000228905	0.001671275
313	485351.7	3751334.4	Age>16	0	0
313	485351.7	3751334.4	Age0-2	0.000298244	0.001735709
313	485351.7	3751334.4	Age2-16	0.000496032	0.002355587
314	485451.7	3751334.4	3rd	0.000219934	0.001605776
314	485451.7	3751334.4	Age>16	0	0
314	485451.7	3751334.4	Age0-2	0.000284418	0.001649652
314	485451.7	3751334.4	Age2-16	0.000495778	0.002344654
315	484551.7	3751434.4	3rd	0.000446813	0.003262262
315	484551.7	3751434.4	Age>16	0	0
315	484551.7	3751434.4	Age0-2	0.00063077	0.003941356
315	484551.7	3751434.4	Age2-16	0.000643377	0.003224558
316	484651.7	3751434.4	3rd	0.00043379	0.003167183
316	484651.7	3751434.4	Age>16	0	0
316	484651.7	3751434.4	Age0-2	0.000621844	0.003875837
316	484651.7	3751434.4	Age2-16	0.000701647	0.003507024
317	484751.7	3751434.4	3rd	0.000414112	0.003023508
317	484751.7	3751434.4	Age>16	0	0
317	484751.7	3751434.4	Age0-2	0.000597669	0.003718328
317	484751.7	3751434.4	Age2-16	0.000725731	0.003616652
318	484851.7	3751434.4	3rd	0.000393855	0.002875607
318	484851.7	3751434.4	Age>16	0	0
318	484851.7	3751434.4	Age0-2	0.0005701	0.00354088
318	484851.7	3751434.4	Age2-16	0.000739888	0.003674961
319	484951.7	3751434.4	3rd	0.000374755	0.002736158
319	484951.7	3751434.4	Age>16	0	0
319	484951.7	3751434.4	Age0-2	0.000542022	0.003359838
319	484951.7	3751434.4	Age2-16	0.000748375	0.003703691

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
320	485051.7	3751434.4	3rd	0.000357103	0.002607274
320	485051.7	3751434.4	Age>16	0	0
320	485051.7	3751434.4	Age0-2	0.000514272	0.003179712
320	485051.7	3751434.4	Age2-16	0.00075277	0.003710116
321	485151.7	3751434.4	3rd	0.000307618	0.002245974
321	485151.7	3751434.4	Age>16	0	0
321	485151.7	3751434.4	Age0-2	0.000424186	0.002563171
321	485151.7	3751434.4	Age2-16	0.000645786	0.00311724
322	485251.7	3751434.4	3rd	0.000266525	0.001945947
322	485251.7	3751434.4	Age>16	0	0
322	485251.7	3751434.4	Age0-2	0.00035595	0.002104201
322	485251.7	3751434.4	Age2-16	0.000547414	0.002615819
323	485351.7	3751434.4	3rd	0.00024511	0.001789596
323	485351.7	3751434.4	Age>16	0	0
323	485351.7	3751434.4	Age0-2	0.000324332	0.001899076
323	485351.7	3751434.4	Age2-16	0.000524319	0.002509275
324	485451.7	3751434.4	3rd	0.000234692	0.001713532
324	485451.7	3751434.4	Age>16	0	0
324	485451.7	3751434.4	Age0-2	0.000308083	0.001795862
324	485451.7	3751434.4	Age2-16	0.000524416	0.00250239
325	484551.7	3751534.4	3rd	0.000456073	0.003329873
325	484551.7	3751534.4	Age>16	0	0
325	484551.7	3751534.4	Age0-2	0.000625773	0.003927137
325	484551.7	3751534.4	Age2-16	0.000536248	0.002699577
326	484651.7	3751534.4	3rd	0.000458099	0.003344663
326	484651.7	3751534.4	Age>16	0	0
326	484651.7	3751534.4	Age0-2	0.000644014	0.004041545
326	484651.7	3751534.4	Age2-16	0.000627065	0.003157726
327	484751.7	3751534.4	3rd	0.000452311	0.003302406
327	484751.7	3751534.4	Age>16	0	0
327	484751.7	3751534.4	Age0-2	0.000653695	0.004095685
327	484751.7	3751534.4	Age2-16	0.000723657	0.00363796
328	484851.7	3751534.4	3rd	0.00043379	0.003167183
328	484851.7	3751534.4	Age>16	0	0
328	484851.7	3751534.4	Age0-2	0.000632781	0.003961091
328	484851.7	3751534.4	Age2-16	0.000755327	0.003788493
329	484951.7	3751534.4	3rd	0.000416427	0.003040411
329	484951.7	3751534.4	Age>16	0	0
329	484951.7	3751534.4	Age0-2	0.000610477	0.003821073
329	484951.7	3751534.4	Age2-16	0.000775505	0.003881681
330	485051.7	3751534.4	3rd	0.000401379	0.002930542
330	485051.7	3751534.4	Age>16	0	0
330	485051.7	3751534.4	Age0-2	0.000589862	0.003694745
330	485051.7	3751534.4	Age2-16	0.000791042	0.003952729

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
331	485151.7	3751534.4	3rd	0.000379675	0.002772077
331	485151.7	3751534.4	Age>16	0	0
331	485151.7	3751534.4	Age0-2	0.000556797	0.003473084
331	485151.7	3751534.4	Age2-16	0.000809153	0.004023625
332	485251.7	3751534.4	3rd	0.000326138	0.002381197
332	485251.7	3751534.4	Age>16	0	0
332	485251.7	3751534.4	Age0-2	0.000458587	0.002793333
332	485251.7	3751534.4	Age2-16	0.000713731	0.00347465
333	485351.7	3751534.4	3rd	0.000280994	0.002051591
333	485351.7	3751534.4	Age>16	0	0
333	485351.7	3751534.4	Age0-2	0.000379756	0.002257769
333	485351.7	3751534.4	Age2-16	0.00059607	0.002859463
334	485451.7	3751534.4	3rd	0.000257843	0.001882562
334	485451.7	3751534.4	Age>16	0	0
334	485451.7	3751534.4	Age0-2	0.000344245	0.002024253
334	485451.7	3751534.4	Age2-16	0.000563841	0.002706631
335	484551.7	3751634.4	3rd	0.000483854	0.003532708
335	484551.7	3751634.4	Age>16	0	0
335	484551.7	3751634.4	Age0-2	0.000662628	0.004156001
335	484551.7	3751634.4	Age2-16	0.000547904	0.002768022
336	484651.7	3751634.4	3rd	0.000478066	0.003490451
336	484651.7	3751634.4	Age>16	0	0
336	484651.7	3751634.4	Age0-2	0.000660936	0.004158564
336	484651.7	3751634.4	Age2-16	0.000565207	0.002858398
337	484751.7	3751634.4	3rd	0.000475172	0.003469322
337	484751.7	3751634.4	Age>16	0	0
337	484751.7	3751634.4	Age0-2	0.000669351	0.004219443
337	484751.7	3751634.4	Age2-16	0.0006268	0.003172322
338	484851.7	3751634.4	3rd	0.000468806	0.003422839
338	484851.7	3751634.4	Age>16	0	0
338	484851.7	3751634.4	Age0-2	0.000676334	0.004264942
338	484851.7	3751634.4	Age2-16	0.000703984	0.003560648
339	484951.7	3751634.4	3rd	0.000455784	0.00332776
339	484951.7	3751634.4	Age>16	0	0
339	484951.7	3751634.4	Age0-2	0.000665243	0.004202414
339	484951.7	3751634.4	Age2-16	0.00074017	0.003742335
340	485051.7	3751634.4	3rd	0.000441893	0.003226343
340	485051.7	3751634.4	Age>16	0	0
340	485051.7	3751634.4	Age0-2	0.000650837	0.00411879
340	485051.7	3751634.4	Age2-16	0.000768055	0.003879984
341	485151.7	3751634.4	3rd	0.00042424	0.003097458
341	485151.7	3751634.4	Age>16	0	0
341	485151.7	3751634.4	Age0-2	0.000630611	0.003982916
341	485151.7	3751634.4	Age2-16	0.00082007	0.004129722

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
342	485251.7	3751634.4	3rd	0.000388067	0.00283335
342	485251.7	3751634.4	Age>16	0	0
342	485251.7	3751634.4	Age0-2	0.000575519	0.003594511
342	485251.7	3751634.4	Age2-16	0.000854908	0.004265689
343	485351.7	3751634.4	3rd	0.000355656	0.002596709
343	485351.7	3751634.4	Age>16	0	0
343	485351.7	3751634.4	Age0-2	0.000516646	0.00319154
343	485351.7	3751634.4	Age2-16	0.000823684	0.004065965
344	485451.7	3751634.4	3rd	0.000316299	0.00230936
344	485451.7	3751634.4	Age>16	0	0
344	485451.7	3751634.4	Age0-2	0.00044178	0.002677079
344	485451.7	3751634.4	Age2-16	0.000725991	0.003522684
345	484551.7	3751734.4	3rd	0.000512503	0.003741882
345	484551.7	3751734.4	Age>16	0	0
345	484551.7	3751734.4	Age0-2	0.000699836	0.004386744
345	484551.7	3751734.4	Age2-16	0.00055762	0.002826695
346	484651.7	3751734.4	3rd	0.000507584	0.003705963
346	484651.7	3751734.4	Age>16	0	0
346	484651.7	3751734.4	Age0-2	0.000700574	0.004406028
346	484651.7	3751734.4	Age2-16	0.000577539	0.002931462
347	484751.7	3751734.4	3rd	0.000501796	0.003663706
347	484751.7	3751734.4	Age>16	0	0
347	484751.7	3751734.4	Age0-2	0.000699626	0.004414457
347	484751.7	3751734.4	Age2-16	0.000597089	0.003034276
348	484851.7	3751734.4	3rd	0.00049514	0.00361511
348	484851.7	3751734.4	Age>16	0	0
348	484851.7	3751734.4	Age0-2	0.000697057	0.004412842
348	484851.7	3751734.4	Age2-16	0.000616175	0.003134795
349	484951.7	3751734.4	3rd	0.000488774	0.003568627
349	484951.7	3751734.4	Age>16	0	0
349	484951.7	3751734.4	Age0-2	0.000694082	0.004407686
349	484951.7	3751734.4	Age2-16	0.000635504	0.003236248
350	485051.7	3751734.4	3rd	0.000482407	0.003522144
350	485051.7	3751734.4	Age>16	0	0
350	485051.7	3751734.4	Age0-2	0.000690633	0.004399341
350	485051.7	3751734.4	Age2-16	0.000655567	0.003341158
351	485151.7	3751734.4	3rd	0.00046678	0.003408049
351	485151.7	3751734.4	Age>16	0	0
351	485151.7	3751734.4	Age0-2	0.000684952	0.004360829
351	485151.7	3751734.4	Age2-16	0.000755678	0.003844104
352	485251.7	3751734.4	3rd	0.000436973	0.003190424
352	485251.7	3751734.4	Age>16	0	0
352	485251.7	3751734.4	Age0-2	0.000659783	0.004173419
352	485251.7	3751734.4	Age2-16	0.000883544	0.004467284

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
353	485351.7	3751734.4	3rd	0.00040543	0.002960122
353	485351.7	3751734.4	Age>16	0	0
353	485351.7	3751734.4	Age0-2	0.000610762	0.00383406
353	485351.7	3751734.4	Age2-16	0.000912815	0.004583476
354	485451.7	3751734.4	3rd	0.000374177	0.002731933
354	485451.7	3751734.4	Age>16	0	0
354	485451.7	3751734.4	Age0-2	0.000554707	0.003451122
354	485451.7	3751734.4	Age2-16	0.000897085	0.00446429
355	484551.7	3751834.4	3rd	0.000543178	0.003965845
355	484551.7	3751834.4	Age>16	0	0
355	484551.7	3751834.4	Age0-2	0.000738604	0.004625571
355	484551.7	3751834.4	Age2-16	0.000566144	0.002878858
356	484651.7	3751834.4	3rd	0.000538548	0.003932039
356	484651.7	3751834.4	Age>16	0	0
356	484651.7	3751834.4	Age0-2	0.000740778	0.004655365
356	484651.7	3751834.4	Age2-16	0.000587311	0.0029913
357	484751.7	3751834.4	3rd	0.00053305	0.003891895
357	484751.7	3751834.4	Age>16	0	0
357	484751.7	3751834.4	Age0-2	0.000741687	0.004677556
357	484751.7	3751834.4	Age2-16	0.000608965	0.003106161
358	484851.7	3751834.4	3rd	0.000526683	0.003845412
358	484851.7	3751834.4	Age>16	0	0
358	484851.7	3751834.4	Age0-2	0.00074103	0.0046899
358	484851.7	3751834.4	Age2-16	0.00063071	0.003221448
359	484951.7	3751834.4	3rd	0.000519738	0.003794703
359	484951.7	3751834.4	Age>16	0	0
359	484951.7	3751834.4	Age0-2	0.000738866	0.004692183
359	484951.7	3751834.4	Age2-16	0.000651977	0.003334179
360	485051.7	3751834.4	3rd	0.000513371	0.00374822
360	485051.7	3751834.4	Age>16	0	0
360	485051.7	3751834.4	Age0-2	0.000736894	0.004695094
360	485051.7	3751834.4	Age2-16	0.000674663	0.003454128
361	485151.7	3751834.4	3rd	0.000507584	0.003705963
361	485151.7	3751834.4	Age>16	0	0
361	485151.7	3751834.4	Age0-2	0.000735168	0.004699268
361	485151.7	3751834.4	Age2-16	0.000698965	0.003582264
362	485251.7	3751834.4	3rd	0.000478645	0.003494677
362	485251.7	3751834.4	Age>16	0	0
362	485251.7	3751834.4	Age0-2	0.00072767	0.004635274
362	485251.7	3751834.4	Age2-16	0.000885432	0.004518958
363	485351.7	3751834.4	3rd	0.00044826	0.003272826
363	485351.7	3751834.4	Age>16	0	0
363	485351.7	3751834.4	Age0-2	0.000688452	0.004359669
363	485351.7	3751834.4	Age2-16	0.000952168	0.004832578

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
364	485451.7	3751834.4	3rd	0.000417874	0.003050975
364	485451.7	3751834.4	Age>16	0	0
364	485451.7	3751834.4	Age0-2	0.000639156	0.004023918
364	485451.7	3751834.4	Age2-16	0.000972158	0.004904322
365	484551.7	3751934.4	3rd	0.000577905	0.004219389
365	484551.7	3751934.4	Age>16	0	0
365	484551.7	3751934.4	Age0-2	0.000781675	0.004889698
365	484551.7	3751934.4	Age2-16	0.00057572	0.002936452
366	484651.7	3751934.4	3rd	0.000572696	0.004181357
366	484651.7	3751934.4	Age>16	0	0
366	484651.7	3751934.4	Age0-2	0.000784173	0.004923156
366	484651.7	3751934.4	Age2-16	0.000597242	0.003051592
367	484751.7	3751934.4	3rd	0.000566329	0.004134874
367	484751.7	3751934.4	Age>16	0	0
367	484751.7	3751934.4	Age0-2	0.000785134	0.004947565
367	484751.7	3751934.4	Age2-16	0.000619288	0.003169535
368	484851.7	3751934.4	3rd	0.000559963	0.004088391
368	484851.7	3751934.4	Age>16	0	0
368	484851.7	3751934.4	Age0-2	0.00078609	0.004972353
368	484851.7	3751934.4	Age2-16	0.000642884	0.003295679
369	484951.7	3751934.4	3rd	0.000553596	0.004041908
369	484951.7	3751934.4	Age>16	0	0
369	484951.7	3751934.4	Age0-2	0.000786456	0.004992747
369	484951.7	3751934.4	Age2-16	0.000667142	0.003425404
370	485051.7	3751934.4	3rd	0.000547519	0.003997538
370	485051.7	3751934.4	Age>16	0	0
370	485051.7	3751934.4	Age0-2	0.000786806	0.005012901
370	485051.7	3751934.4	Age2-16	0.000693005	0.003563399
371	485151.7	3751934.4	3rd	0.000541731	0.003955281
371	485151.7	3751934.4	Age>16	0	0
371	485151.7	3751934.4	Age0-2	0.000787051	0.005031992
371	485151.7	3751934.4	Age2-16	0.000720576	0.003709959
372	485251.7	3751934.4	3rd	0.000535365	0.003908798
372	485251.7	3751934.4	Age>16	0	0
372	485251.7	3751934.4	Age0-2	0.000785625	0.005040349
372	485251.7	3751934.4	Age2-16	0.000748243	0.003857143
373	485351.7	3751934.4	3rd	0.000496876	0.003627787
373	485351.7	3751934.4	Age>16	0	0
373	485351.7	3751934.4	Age0-2	0.000770341	0.004920959
373	485351.7	3751934.4	Age2-16	0.000958757	0.004917551
374	485451.7	3751934.4	3rd	0.000459835	0.00335734
374	485451.7	3751934.4	Age>16	0	0
374	485451.7	3751934.4	Age0-2	0.000718994	0.004560425
374	485451.7	3751934.4	Age2-16	0.001021807	0.005206635

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
375	484551.7	3752034.4	3rd	0.000616972	0.004504625
375	484551.7	3752034.4	Age>16	0	0
375	484551.7	3752034.4	Age0-2	0.000829427	0.005181626
375	484551.7	3752034.4	Age2-16	0.000586362	0.002999659
376	484651.7	3752034.4	3rd	0.000611763	0.004466594
376	484651.7	3752034.4	Age>16	0	0
376	484651.7	3752034.4	Age0-2	0.000833139	0.005224544
376	484651.7	3752034.4	Age2-16	0.000608957	0.003121406
377	484751.7	3752034.4	3rd	0.000605686	0.004422224
377	484751.7	3752034.4	Age>16	0	0
377	484751.7	3752034.4	Age0-2	0.000835926	0.005262328
377	484751.7	3752034.4	Age2-16	0.000632607	0.003248777
378	484851.7	3752034.4	3rd	0.00059903	0.004373628
378	484851.7	3752034.4	Age>16	0	0
378	484851.7	3752034.4	Age0-2	0.000837898	0.005295341
378	484851.7	3752034.4	Age2-16	0.000657238	0.003381581
379	484951.7	3752034.4	3rd	0.000592374	0.004325032
379	484951.7	3752034.4	Age>16	0	0
379	484951.7	3752034.4	Age0-2	0.000839859	0.005328644
379	484951.7	3752034.4	Age2-16	0.000683728	0.003524138
380	485051.7	3752034.4	3rd	0.000586007	0.004278549
380	485051.7	3752034.4	Age>16	0	0
380	485051.7	3752034.4	Age0-2	0.000841931	0.005362518
380	485051.7	3752034.4	Age2-16	0.000712011	0.003676466
381	485151.7	3752034.4	3rd	0.00057993	0.004234179
381	485151.7	3752034.4	Age>16	0	0
381	485151.7	3752034.4	Age0-2	0.000843922	0.005395602
381	485151.7	3752034.4	Age2-16	0.000742086	0.003837949
382	485251.7	3752034.4	3rd	0.000574143	0.004191922
382	485251.7	3752034.4	Age>16	0	0
382	485251.7	3752034.4	Age0-2	0.000845717	0.005426976
382	485251.7	3752034.4	Age2-16	0.00077429	0.004010438
383	485351.7	3752034.4	3rd	0.000555622	0.004056698
383	485351.7	3752034.4	Age>16	0	0
383	485351.7	3752034.4	Age0-2	0.000844283	0.005428105
383	485351.7	3752034.4	Age2-16	0.000883489	0.004574488
384	485451.7	3752034.4	3rd	0.000518291	0.003784139
384	485451.7	3752034.4	Age>16	0	0
384	485451.7	3752034.4	Age0-2	0.00082213	0.005271721
384	485451.7	3752034.4	Age2-16	0.001043452	0.005380064
385	484551.7	3752134.4	3rd	0.000659222	0.004813103
385	484551.7	3752134.4	Age>16	0	0
385	484551.7	3752134.4	Age0-2	0.000879956	0.005489329
385	484551.7	3752134.4	Age2-16	0.000596494	0.003060105

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
386	484651.7	3752134.4	3rd	0.000655171	0.004783523
386	484651.7	3752134.4	Age>16	0	0
386	484651.7	3752134.4	Age0-2	0.00088625	0.005549588
386	484651.7	3752134.4	Age2-16	0.000620663	0.003190979
387	484751.7	3752134.4	3rd	0.000649672	0.004743379
387	484751.7	3752134.4	Age>16	0	0
387	484751.7	3752134.4	Age0-2	0.000891309	0.00560375
387	484751.7	3752134.4	Age2-16	0.000646138	0.003329217
388	484851.7	3752134.4	3rd	0.000643017	0.004694783
388	484851.7	3752134.4	Age>16	0	0
388	484851.7	3752134.4	Age0-2	0.000895164	0.005651271
388	484851.7	3752134.4	Age2-16	0.000672783	0.003473785
389	484951.7	3752134.4	3rd	0.000636071	0.004644074
389	484951.7	3752134.4	Age>16	0	0
389	484951.7	3752134.4	Age0-2	0.000898582	0.00569624
389	484951.7	3752134.4	Age2-16	0.000700802	0.003625941
390	485051.7	3752134.4	3rd	0.000629126	0.004593366
390	485051.7	3752134.4	Age>16	0	0
390	485051.7	3752134.4	Age0-2	0.000902081	0.005742147
390	485051.7	3752134.4	Age2-16	0.000730895	0.003789178
391	485151.7	3752134.4	3rd	0.000621891	0.004540544
391	485151.7	3752134.4	Age>16	0	0
391	485151.7	3752134.4	Age0-2	0.000905082	0.00578547
391	485151.7	3752134.4	Age2-16	0.000762998	0.003963156
392	485251.7	3752134.4	3rd	0.000615814	0.004496174
392	485251.7	3752134.4	Age>16	0	0
392	485251.7	3752134.4	Age0-2	0.00090914	0.00583472
392	485251.7	3752134.4	Age2-16	0.000798164	0.00415335
393	485351.7	3752134.4	3rd	0.000608869	0.004445465
393	485351.7	3752134.4	Age>16	0	0
393	485351.7	3752134.4	Age0-2	0.000911353	0.005872374
393	485351.7	3752134.4	Age2-16	0.00083457	0.00434998
394	485451.7	3752134.4	3rd	0.00058948	0.004303903
394	485451.7	3752134.4	Age>16	0	0
394	485451.7	3752134.4	Age0-2	0.000907688	0.005865101
394	485451.7	3752134.4	Age2-16	0.000934019	0.004868957
395	484551.7	3752234.4	3rd	0.000703788	0.005138484
395	484551.7	3752234.4	Age>16	0	0
395	484551.7	3752234.4	Age0-2	0.000931909	0.005804231
395	484551.7	3752234.4	Age2-16	0.000605312	0.003113434
396	484651.7	3752234.4	3rd	0.000701762	0.005123694
396	484651.7	3752234.4	Age>16	0	0
396	484651.7	3752234.4	Age0-2	0.000941865	0.005888519
396	484651.7	3752234.4	Age2-16	0.00063157	0.003256453

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
397	484751.7	3752234.4	3rd	0.000697421	0.005092001
397	484751.7	3752234.4	Age>16	0	0
397	484751.7	3752234.4	Age0-2	0.000949857	0.005962842
397	484751.7	3752234.4	Age2-16	0.00065888	0.003405495
398	484851.7	3752234.4	3rd	0.000691633	0.005049744
398	484851.7	3752234.4	Age>16	0	0
398	484851.7	3752234.4	Age0-2	0.00095658	0.006030651
398	484851.7	3752234.4	Age2-16	0.000687641	0.003562503
399	484951.7	3752234.4	3rd	0.000684688	0.004999035
399	484951.7	3752234.4	Age>16	0	0
399	484951.7	3752234.4	Age0-2	0.000962212	0.006092682
399	484951.7	3752234.4	Age2-16	0.000717817	0.003727488
400	485051.7	3752234.4	3rd	0.000677164	0.004944101
400	485051.7	3752234.4	Age>16	0	0
400	485051.7	3752234.4	Age0-2	0.00096726	0.006151578
400	485051.7	3752234.4	Age2-16	0.000749681	0.003901722
401	485151.7	3752234.4	3rd	0.000669061	0.004884941
401	485151.7	3752234.4	Age>16	0	0
401	485151.7	3752234.4	Age0-2	0.00097154	0.006206274
401	485151.7	3752234.4	Age2-16	0.000783356	0.004085799
402	485251.7	3752234.4	3rd	0.000662116	0.004834232
402	485251.7	3752234.4	Age>16	0	0
402	485251.7	3752234.4	Age0-2	0.000977556	0.006272291
402	485251.7	3752234.4	Age2-16	0.000820996	0.004291279
403	485351.7	3752234.4	3rd	0.00065546	0.004785636
403	485351.7	3752234.4	Age>16	0	0
403	485351.7	3752234.4	Age0-2	0.000983746	0.006339629
403	485351.7	3752234.4	Age2-16	0.000861972	0.004514518
404	485451.7	3752234.4	3rd	0.000647936	0.004730702
404	485451.7	3752234.4	Age>16	0	0
404	485451.7	3752234.4	Age0-2	0.000987752	0.006392676
404	485451.7	3752234.4	Age2-16	0.000904427	0.004745257
405	484551.7	3752334.4	3rd	0.000752694	0.005495558
405	484551.7	3752334.4	Age>16	0	0
405	484551.7	3752334.4	Age0-2	0.000987925	0.006142514
405	484551.7	3752334.4	Age2-16	0.000614563	0.003169041
406	484651.7	3752334.4	3rd	0.000752405	0.005493446
406	484651.7	3752334.4	Age>16	0	0
406	484651.7	3752334.4	Age0-2	0.001001061	0.006247867
406	484651.7	3752334.4	Age2-16	0.000642225	0.003320404
407	484751.7	3752334.4	3rd	0.0007498	0.00547443
407	484751.7	3752334.4	Age>16	0	0
407	484751.7	3752334.4	Age0-2	0.001012414	0.006344445
407	484751.7	3752334.4	Age2-16	0.000671285	0.003479812

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
408	484851.7	3752334.4	3rd	0.00074517	0.005440624
408	484851.7	3752334.4	Age>16	0	0
408	484851.7	3752334.4	Age0-2	0.00102225	0.006433833
408	484851.7	3752334.4	Age2-16	0.000702002	0.003648496
409	484951.7	3752334.4	3rd	0.000739093	0.005396254
409	484951.7	3752334.4	Age>16	0	0
409	484951.7	3752334.4	Age0-2	0.001031283	0.006520239
409	484951.7	3752334.4	Age2-16	0.000734785	0.003828864
410	485051.7	3752334.4	3rd	0.000731858	0.005343432
410	485051.7	3752334.4	Age>16	0	0
410	485051.7	3752334.4	Age0-2	0.001039249	0.006600913
410	485051.7	3752334.4	Age2-16	0.000769212	0.004018452
411	485151.7	3752334.4	3rd	0.000723755	0.005284272
411	485151.7	3752334.4	Age>16	0	0
411	485151.7	3752334.4	Age0-2	0.00104674	0.006680214
411	485151.7	3752334.4	Age2-16	0.000806105	0.004221666
412	485251.7	3752334.4	3rd	0.000715363	0.005222999
412	485251.7	3752334.4	Age>16	0	0
412	485251.7	3752334.4	Age0-2	0.001054011	0.006758679
412	485251.7	3752334.4	Age2-16	0.000845487	0.004438536
413	485351.7	3752334.4	3rd	0.00070726	0.005163839
413	485351.7	3752334.4	Age>16	0	0
413	485351.7	3752334.4	Age0-2	0.001061826	0.006841296
413	485351.7	3752334.4	Age2-16	0.000888325	0.004674258
414	485451.7	3752334.4	3rd	0.000699447	0.005106792
414	485451.7	3752334.4	Age>16	0	0
414	485451.7	3752334.4	Age0-2	0.001070193	0.006928153
414	485451.7	3752334.4	Age2-16	0.00093584	0.004934948
415	484551.7	3752434.4	3rd	0.000803626	0.005867422
415	484551.7	3752434.4	Age>16	0	0
415	484551.7	3752434.4	Age0-2	0.001044986	0.00648603
415	484551.7	3752434.4	Age2-16	0.000622568	0.003217698
416	484651.7	3752434.4	3rd	0.00080623	0.005886438
416	484651.7	3752434.4	Age>16	0	0
416	484651.7	3752434.4	Age0-2	0.001062357	0.006618136
416	484651.7	3752434.4	Age2-16	0.000651777	0.003378235
417	484751.7	3752434.4	3rd	0.000805652	0.005882212
417	484751.7	3752434.4	Age>16	0	0
417	484751.7	3752434.4	Age0-2	0.001077332	0.006738725
417	484751.7	3752434.4	Age2-16	0.000682515	0.003547603
418	484851.7	3752434.4	3rd	0.000803626	0.005867422
418	484851.7	3752434.4	Age>16	0	0
418	484851.7	3752434.4	Age0-2	0.001092115	0.006860867
418	484851.7	3752434.4	Age2-16	0.000715929	0.003732154

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
419	484951.7	3752434.4	3rd	0.000798996	0.005833617
419	484951.7	3752434.4	Age>16	0	0
419	484951.7	3752434.4	Age0-2	0.001104983	0.006973805
419	484951.7	3752434.4	Age2-16	0.000751181	0.003927139
420	485051.7	3752434.4	3rd	0.000792919	0.005789246
420	485051.7	3752434.4	Age>16	0	0
420	485051.7	3752434.4	Age0-2	0.001117257	0.007085308
420	485051.7	3752434.4	Age2-16	0.000788937	0.004136365
421	485151.7	3752434.4	3rd	0.000785395	0.005734312
421	485151.7	3752434.4	Age>16	0	0
421	485151.7	3752434.4	Age0-2	0.001128807	0.007194508
421	485151.7	3752434.4	Age2-16	0.000829291	0.004360228
422	485251.7	3752434.4	3rd	0.000777002	0.005673039
422	485251.7	3752434.4	Age>16	0	0
422	485251.7	3752434.4	Age0-2	0.001139956	0.007302518
422	485251.7	3752434.4	Age2-16	0.000872367	0.004599208
423	485351.7	3752434.4	3rd	0.000768031	0.00560754
423	485351.7	3752434.4	Age>16	0	0
423	485351.7	3752434.4	Age0-2	0.001151185	0.007412839
423	485351.7	3752434.4	Age2-16	0.000918888	0.004857401
424	485451.7	3752434.4	3rd	0.000758771	0.005539929
424	485451.7	3752434.4	Age>16	0	0
424	485451.7	3752434.4	Age0-2	0.001162399	0.007524093
424	485451.7	3752434.4	Age2-16	0.000969335	0.005136791
425	484551.7	3752534.4	3rd	0.000856873	0.006256189
425	484551.7	3752534.4	Age>16	0	0
425	484551.7	3752534.4	Age0-2	0.001103297	0.006835617
425	484551.7	3752534.4	Age2-16	0.000629493	0.003260327
426	484651.7	3752534.4	3rd	0.00086324	0.006302672
426	484651.7	3752534.4	Age>16	0	0
426	484651.7	3752534.4	Age0-2	0.001125721	0.006999218
426	484651.7	3752534.4	Age2-16	0.000660328	0.003430447
427	484751.7	3752534.4	3rd	0.000866423	0.006325914
427	484751.7	3752534.4	Age>16	0	0
427	484751.7	3752534.4	Age0-2	0.001146311	0.007155519
427	484751.7	3752534.4	Age2-16	0.000693521	0.003613882
428	484851.7	3752534.4	3rd	0.000867291	0.006332252
428	484851.7	3752534.4	Age>16	0	0
428	484851.7	3752534.4	Age0-2	0.001165894	0.007308842
428	484851.7	3752534.4	Age2-16	0.000729067	0.003811087
429	484951.7	3752534.4	3rd	0.000864976	0.00631535
429	484951.7	3752534.4	Age>16	0	0
429	484951.7	3752534.4	Age0-2	0.001183563	0.007454133
429	484951.7	3752534.4	Age2-16	0.000767003	0.004021935

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
430	485051.7	3752534.4	3rd	0.000860924	0.006285769
430	485051.7	3752534.4	Age>16	0	0
430	485051.7	3752534.4	Age0-2	0.00120097	0.007601016
430	485051.7	3752534.4	Age2-16	0.000808056	0.004250706
431	485151.7	3752534.4	3rd	0.000854558	0.006239286
431	485151.7	3752534.4	Age>16	0	0
431	485151.7	3752534.4	Age0-2	0.001217354	0.007744994
431	485151.7	3752534.4	Age2-16	0.000852116	0.004496678
432	485251.7	3752534.4	3rd	0.000846455	0.006180126
432	485251.7	3752534.4	Age>16	0	0
432	485251.7	3752534.4	Age0-2	0.001233161	0.007888217
432	485251.7	3752534.4	Age2-16	0.000899339	0.004760581
433	485351.7	3752534.4	3rd	0.000837484	0.006114627
433	485351.7	3752534.4	Age>16	0	0
433	485351.7	3752534.4	Age0-2	0.001249213	0.008035232
433	485351.7	3752534.4	Age2-16	0.000950226	0.005045154
434	485451.7	3752534.4	3rd	0.000827645	0.00604279
434	485451.7	3752534.4	Age>16	0	0
434	485451.7	3752534.4	Age0-2	0.001265696	0.008187615
434	485451.7	3752534.4	Age2-16	0.001005745	0.005355423
435	484551.7	3752634.4	3rd	0.000910988	0.006651295
435	484551.7	3752634.4	Age>16	0	0
435	484551.7	3752634.4	Age0-2	0.001161289	0.007182412
435	484551.7	3752634.4	Age2-16	0.000634921	0.003294546
436	484651.7	3752634.4	3rd	0.000922274	0.006733697
436	484651.7	3752634.4	Age>16	0	0
436	484651.7	3752634.4	Age0-2	0.001189737	0.00738269
436	484651.7	3752634.4	Age2-16	0.000667492	0.003474724
437	484751.7	3752634.4	3rd	0.000930088	0.006790744
437	484751.7	3752634.4	Age>16	0	0
437	484751.7	3752634.4	Age0-2	0.001216368	0.007576322
437	484751.7	3752634.4	Age2-16	0.000702555	0.003669338
438	484851.7	3752634.4	3rd	0.000935297	0.006828775
438	484851.7	3752634.4	Age>16	0	0
438	484851.7	3752634.4	Age0-2	0.001242396	0.007770692
438	484851.7	3752634.4	Age2-16	0.000740964	0.003882915
439	484951.7	3752634.4	3rd	0.000936744	0.00683934
439	484951.7	3752634.4	Age>16	0	0
439	484951.7	3752634.4	Age0-2	0.001266266	0.007956339
439	484951.7	3752634.4	Age2-16	0.000781856	0.004111117
440	485051.7	3752634.4	3rd	0.000935586	0.006830888
440	485051.7	3752634.4	Age>16	0	0
440	485051.7	3752634.4	Age0-2	0.00128963	0.008143407
440	485051.7	3752634.4	Age2-16	0.000826377	0.0043603

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
441	485151.7	3752634.4	3rd	0.000931535	0.006801308
441	485151.7	3752634.4	Age>16	0	0
441	485151.7	3752634.4	Age0-2	0.001312041	0.00832907
441	485151.7	3752634.4	Age2-16	0.000874382	0.004629723
442	485251.7	3752634.4	3rd	0.000924879	0.006752712
442	485251.7	3752634.4	Age>16	0	0
442	485251.7	3752634.4	Age0-2	0.001333849	0.00851547
442	485251.7	3752634.4	Age2-16	0.000926334	0.004921747
443	485351.7	3752634.4	3rd	0.000916487	0.006691439
443	485351.7	3752634.4	Age>16	0	0
443	485351.7	3752634.4	Age0-2	0.001356168	0.008709306
443	485351.7	3752634.4	Age2-16	0.000982817	0.005239831
444	485451.7	3752634.4	3rd	0.000906937	0.006621715
444	485451.7	3752634.4	Age>16	0	0
444	485451.7	3752634.4	Age0-2	0.001379902	0.008916375
444	485451.7	3752634.4	Age2-16	0.001044969	0.005589851
445	484551.7	3752734.4	3rd	0.000965972	0.007052739
445	484551.7	3752734.4	Age>16	0	0
445	484551.7	3752734.4	Age0-2	0.001218957	0.007526328
445	484551.7	3752734.4	Age2-16	0.000639053	0.003321412
446	484651.7	3752734.4	3rd	0.000983335	0.007179511
446	484651.7	3752734.4	Age>16	0	0
446	484651.7	3752734.4	Age0-2	0.001254644	0.007770534
446	484651.7	3752734.4	Age2-16	0.000673688	0.003513375
447	484751.7	3752734.4	3rd	0.000997515	0.007283041
447	484751.7	3752734.4	Age>16	0	0
447	484751.7	3752734.4	Age0-2	0.001288977	0.008010821
447	484751.7	3752734.4	Age2-16	0.000711137	0.003721581
448	484851.7	3752734.4	3rd	0.001007643	0.007356991
448	484851.7	3752734.4	Age>16	0	0
448	484851.7	3752734.4	Age0-2	0.001321472	0.008245542
448	484851.7	3752734.4	Age2-16	0.000751703	0.00394799
449	484951.7	3752734.4	3rd	0.001014299	0.007405587
449	484951.7	3752734.4	Age>16	0	0
449	484951.7	3752734.4	Age0-2	0.001352784	0.008478139
449	484951.7	3752734.4	Age2-16	0.000795727	0.004194359
450	485051.7	3752734.4	3rd	0.001017483	0.007428829
450	485051.7	3752734.4	Age>16	0	0
450	485051.7	3752734.4	Age0-2	0.001383275	0.008711582
450	485051.7	3752734.4	Age2-16	0.000843824	0.004464466
451	485151.7	3752734.4	3rd	0.001016904	0.007424603
451	485151.7	3752734.4	Age>16	0	0
451	485151.7	3752734.4	Age0-2	0.001412779	0.008945019
451	485151.7	3752734.4	Age2-16	0.000896117	0.004759018

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
452	485251.7	3752734.4	3rd	0.001012852	0.007395023
452	485251.7	3752734.4	Age>16	0	0
452	485251.7	3752734.4	Age0-2	0.001441822	0.009181983
452	485251.7	3752734.4	Age2-16	0.000953127	0.005081109
453	485351.7	3752734.4	3rd	0.001006486	0.00734854
453	485351.7	3752734.4	Age>16	0	0
453	485351.7	3752734.4	Age0-2	0.001472072	0.009432621
453	485351.7	3752734.4	Age2-16	0.001016019	0.005437114
454	485451.7	3752734.4	3rd	0.000997515	0.007283041
454	485451.7	3752734.4	Age>16	0	0
454	485451.7	3752734.4	Age0-2	0.001503565	0.009697876
454	485451.7	3752734.4	Age2-16	0.001085353	0.005830165
455	484551.7	3752834.4	3rd	0.001019798	0.007445732
455	484551.7	3752834.4	Age>16	0	0
455	484551.7	3752834.4	Age0-2	0.001274251	0.007855931
455	484551.7	3752834.4	Age2-16	0.000641341	0.00333808
456	484651.7	3752834.4	3rd	0.001044685	0.007627438
456	484651.7	3752834.4	Age>16	0	0
456	484651.7	3752834.4	Age0-2	0.001318264	0.008149493
456	484651.7	3752834.4	Age2-16	0.000677864	0.003540839
457	484751.7	3752834.4	3rd	0.00106581	0.007781677
457	484751.7	3752834.4	Age>16	0	0
457	484751.7	3752834.4	Age0-2	0.001360617	0.008438205
457	484751.7	3752834.4	Age2-16	0.000717531	0.003761624
458	484851.7	3752834.4	3rd	0.001083463	0.007910562
458	484851.7	3752834.4	Age>16	0	0
458	484851.7	3752834.4	Age0-2	0.001402076	0.00872712
458	484851.7	3752834.4	Age2-16	0.000761004	0.004004541
459	484951.7	3752834.4	3rd	0.001096774	0.008007753
459	484951.7	3752834.4	Age>16	0	0
459	484951.7	3752834.4	Age0-2	0.001441957	0.009012833
459	484951.7	3752834.4	Age2-16	0.000808297	0.004269842
460	485051.7	3752834.4	3rd	0.001105745	0.008073252
460	485051.7	3752834.4	Age>16	0	0
460	485051.7	3752834.4	Age0-2	0.001480662	0.009298307
460	485051.7	3752834.4	Age2-16	0.000860083	0.004561325
461	485151.7	3752834.4	3rd	0.001110376	0.008107058
461	485151.7	3752834.4	Age>16	0	0
461	485151.7	3752834.4	Age0-2	0.0015186	0.009586591
461	485151.7	3752834.4	Age2-16	0.00091684	0.004881877
462	485251.7	3752834.4	3rd	0.001110954	0.008111284
462	485251.7	3752834.4	Age>16	0	0
462	485251.7	3752834.4	Age0-2	0.001556627	0.009883562
462	485251.7	3752834.4	Age2-16	0.000979502	0.00523688

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
463	485351.7	3752834.4	3rd	0.001107771	0.008088042
463	485351.7	3752834.4	Age>16	0	0
463	485351.7	3752834.4	Age0-2	0.001595632	0.010195312
463	485351.7	3752834.4	Age2-16	0.001048955	0.005631614
464	485451.7	3752834.4	3rd	0.001101405	0.008041559
464	485451.7	3752834.4	Age>16	0	0
464	485451.7	3752834.4	Age0-2	0.001637268	0.010533181
464	485451.7	3752834.4	Age2-16	0.001127006	0.006076185
465	484551.7	3752934.4	3rd	0.001071308	0.007821821
465	484551.7	3752934.4	Age>16	0	0
465	484551.7	3752934.4	Age0-2	0.001325947	0.008164343
465	484551.7	3752934.4	Age2-16	0.000641518	0.003343233
466	484651.7	3752934.4	3rd	0.001104588	0.008064801
466	484651.7	3752934.4	Age>16	0	0
466	484651.7	3752934.4	Age0-2	0.001378914	0.00851067
466	484651.7	3752934.4	Age2-16	0.000679852	0.00355621
467	484751.7	3752934.4	3rd	0.001134395	0.008282426
467	484751.7	3752934.4	Age>16	0	0
467	484751.7	3752934.4	Age0-2	0.001430846	0.008856411
467	484751.7	3752934.4	Age2-16	0.000721892	0.003790475
468	484851.7	3752934.4	3rd	0.001160729	0.008474696
468	484851.7	3752934.4	Age>16	0	0
468	484851.7	3752934.4	Age0-2	0.001482004	0.009203261
468	484851.7	3752934.4	Age2-16	0.000768063	0.004048768
469	484951.7	3752934.4	3rd	0.001182433	0.008633161
469	484951.7	3752934.4	Age>16	0	0
469	484951.7	3752934.4	Age0-2	0.001531738	0.009548725
469	484951.7	3752934.4	Age2-16	0.000818867	0.004333924
470	485051.7	3752934.4	3rd	0.001199217	0.008755707
470	485051.7	3752934.4	Age>16	0	0
470	485051.7	3752934.4	Age0-2	0.00158032	0.009895369
470	485051.7	3752934.4	Age2-16	0.000874857	0.004649356
471	485151.7	3752934.4	3rd	0.001211371	0.008844447
471	485151.7	3752934.4	Age>16	0	0
471	485151.7	3752934.4	Age0-2	0.001628545	0.010248297
471	485151.7	3752934.4	Age2-16	0.000936726	0.004999191
472	485251.7	3752934.4	3rd	0.001218895	0.008899382
472	485251.7	3752934.4	Age>16	0	0
472	485251.7	3752934.4	Age0-2	0.001677314	0.010614369
472	485251.7	3752934.4	Age2-16	0.001005539	0.00538964
473	485351.7	3752934.4	3rd	0.0012215	0.008918398
473	485351.7	3752934.4	Age>16	0	0
473	485351.7	3752934.4	Age0-2	0.001727341	0.010999462
473	485351.7	3752934.4	Age2-16	0.001082542	0.005827849

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
474	485451.7	3752934.4	3rd	0.001219764	0.00890572
474	485451.7	3752934.4	Age>16	0	0
474	485451.7	3752934.4	Age0-2	0.001780649	0.011417877
474	485451.7	3752934.4	Age2-16	0.001169823	0.006326159
475	484551.7	3753034.4	3rd	0.001119347	0.008172557
475	484551.7	3753034.4	Age>16	0	0
475	484551.7	3753034.4	Age0-2	0.001373015	0.008445662
475	484551.7	3753034.4	Age2-16	0.000639525	0.003336558
476	484651.7	3753034.4	3rd	0.001161597	0.008481035
476	484651.7	3753034.4	Age>16	0	0
476	484651.7	3753034.4	Age0-2	0.001435361	0.00884735
476	484651.7	3753034.4	Age2-16	0.00067955	0.003558937
477	484751.7	3753034.4	3rd	0.001201243	0.008770497
477	484751.7	3753034.4	Age>16	0	0
477	484751.7	3753034.4	Age0-2	0.001497602	0.009253806
477	484751.7	3753034.4	Age2-16	0.00072369	0.003805128
478	484851.7	3753034.4	3rd	0.001237416	0.009034605
478	484851.7	3753034.4	Age>16	0	0
478	484851.7	3753034.4	Age0-2	0.001559336	0.009663631
478	484851.7	3753034.4	Age2-16	0.000772603	0.004078984
479	484951.7	3753034.4	3rd	0.001269538	0.009269133
479	484951.7	3753034.4	Age>16	0	0
479	484951.7	3753034.4	Age0-2	0.001620515	0.010077373
479	484951.7	3753034.4	Age2-16	0.000827071	0.004384774
480	485051.7	3753034.4	3rd	0.00129703	0.009469855
480	485051.7	3753034.4	Age>16	0	0
480	485051.7	3753034.4	Age0-2	0.001681322	0.010497478
480	485051.7	3753034.4	Age2-16	0.000887955	0.004727589
481	485151.7	3753034.4	3rd	0.001319313	0.009632546
481	485151.7	3753034.4	Age>16	0	0
481	485151.7	3753034.4	Age0-2	0.001741872	0.010925903
481	485151.7	3753034.4	Age2-16	0.000955845	0.005111282
482	485251.7	3753034.4	3rd	0.001336097	0.009755092
482	485251.7	3753034.4	Age>16	0	0
482	485251.7	3753034.4	Age0-2	0.001802988	0.011369309
482	485251.7	3753034.4	Age2-16	0.001031986	0.005542964
483	485351.7	3753034.4	3rd	0.001347672	0.009839606
483	485351.7	3753034.4	Age>16	0	0
483	485351.7	3753034.4	Age0-2	0.001866321	0.011839197
483	485351.7	3753034.4	Age2-16	0.001117784	0.006030861
484	485451.7	3753034.4	3rd	0.001353171	0.009879751
484	485451.7	3753034.4	Age>16	0	0
484	485451.7	3753034.4	Age0-2	0.001932867	0.012345391
484	485451.7	3753034.4	Age2-16	0.001214835	0.00658545

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
485	484551.7	3753134.4	3rd	0.001284876	0.009381115
485	484551.7	3753134.4	Age>16	0	0
485	484551.7	3753134.4	Age0-2	0.001561898	0.009601465
485	484551.7	3753134.4	Age2-16	0.000682646	0.00357218
486	484651.7	3753134.4	3rd	0.001341306	0.009793123
486	484651.7	3753134.4	Age>16	0	0
486	484651.7	3753134.4	Age0-2	0.001640159	0.010096269
486	484651.7	3753134.4	Age2-16	0.000727243	0.003820447
487	484751.7	3753134.4	3rd	0.001396579	0.01019668
487	484751.7	3753134.4	Age>16	0	0
487	484751.7	3753134.4	Age0-2	0.001720357	0.01060779
487	484751.7	3753134.4	Age2-16	0.000777564	0.004101362
488	484851.7	3753134.4	3rd	0.00144317	0.010536851
488	484851.7	3753134.4	Age>16	0	0
488	484851.7	3753134.4	Age0-2	0.001794278	0.011087818
488	484851.7	3753134.4	Age2-16	0.000832051	0.004406631
489	484951.7	3753134.4	3rd	0.001484552	0.010838991
489	484951.7	3753134.4	Age>16	0	0
489	484951.7	3753134.4	Age0-2	0.001867	0.011568801
489	484951.7	3753134.4	Age2-16	0.000893599	0.004752358
490	485051.7	3753134.4	3rd	0.001517542	0.011079857
490	485051.7	3753134.4	Age>16	0	0
490	485051.7	3753134.4	Age0-2	0.001935606	0.012034432
490	485051.7	3753134.4	Age2-16	0.000962197	0.005138654
491	485151.7	3753134.4	3rd	0.001540693	0.011248886
491	485151.7	3753134.4	Age>16	0	0
491	485151.7	3753134.4	Age0-2	0.001999439	0.012483062
491	485151.7	3753134.4	Age2-16	0.001038468	0.005569397
492	485251.7	3753134.4	3rd	0.001494102	0.010908715
492	485251.7	3753134.4	Age>16	0	0
492	485251.7	3753134.4	Age0-2	0.001978006	0.012421778
492	485251.7	3753134.4	Age2-16	0.00108223	0.005823666
493	485351.7	3753134.4	3rd	0.00148571	0.010847442
493	485351.7	3753134.4	Age>16	0	0
493	485351.7	3753134.4	Age0-2	0.002011853	0.012711475
493	485351.7	3753134.4	Age2-16	0.001157186	0.006254494
494	485451.7	3753134.4	3rd	0.001502783	0.010972101
494	485451.7	3753134.4	Age>16	0	0
494	485451.7	3753134.4	Age0-2	0.002095032	0.013323148
494	485451.7	3753134.4	Age2-16	0.001267855	0.006884907
495	484551.7	3753234.4	3rd	0.001517832	0.01108197
495	484551.7	3753234.4	Age>16	0	0
495	484551.7	3753234.4	Age0-2	0.001826861	0.011228572
495	484551.7	3753234.4	Age2-16	0.000743973	0.003904722

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
496	484651.7	3753234.4	3rd	0.001628088	0.011886971
496	484651.7	3753234.4	Age>16	0	0
496	484651.7	3753234.4	Age0-2	0.001966779	0.012094128
496	484651.7	3753234.4	Age2-16	0.000805201	0.004243566
497	484751.7	3753234.4	3rd	0.001703328	0.012436316
497	484751.7	3753234.4	Age>16	0	0
497	484751.7	3753234.4	Age0-2	0.002069181	0.01273386
497	484751.7	3753234.4	Age2-16	0.000862501	0.004563788
498	484851.7	3753234.4	3rd	0.001765546	0.012890581
498	484851.7	3753234.4	Age>16	0	0
498	484851.7	3753234.4	Age0-2	0.002160734	0.013314288
498	484851.7	3753234.4	Age2-16	0.000924092	0.00490951
499	484951.7	3753234.4	3rd	0.001778279	0.012983547
499	484951.7	3753234.4	Age>16	0	0
499	484951.7	3753234.4	Age0-2	0.002199089	0.013579453
499	484951.7	3753234.4	Age2-16	0.000974596	0.005197051
500	485051.7	3753234.4	3rd	0.001821977	0.01330259
500	485051.7	3753234.4	Age>16	0	0
500	485051.7	3753234.4	Age0-2	0.002280935	0.014120801
500	485051.7	3753234.4	Age2-16	0.001053316	0.005640621
501	485151.7	3753234.4	3rd	0.001778858	0.012987773
501	485151.7	3753234.4	Age>16	0	0
501	485151.7	3753234.4	Age0-2	0.002262671	0.014064558
501	485151.7	3753234.4	Age2-16	0.001103513	0.005931766
502	485251.7	3753234.4	3rd	0.001779437	0.012991999
502	485251.7	3753234.4	Age>16	0	0
502	485251.7	3753234.4	Age0-2	0.00230648	0.014402465
502	485251.7	3753234.4	Age2-16	0.001193057	0.006439537
503	485351.7	3753234.4	3rd	0.00174963	0.012774374
503	485351.7	3753234.4	Age>16	0	0
503	485351.7	3753234.4	Age0-2	0.0023202	0.014573208
503	485351.7	3753234.4	Age2-16	0.001281295	0.006940647
504	485451.7	3753234.4	3rd	0.001760337	0.01285255
504	485451.7	3753234.4	Age>16	0	0
504	485451.7	3753234.4	Age0-2	0.00240143	0.015179488
504	485451.7	3753234.4	Age2-16	0.001412494	0.007683392
505	484551.7	3753334.4	3rd	0.001672943	0.012214465
505	484551.7	3753334.4	Age>16	0	0
505	484551.7	3753334.4	Age0-2	0.001995485	0.012266958
505	484551.7	3753334.4	Age2-16	0.000774987	0.004073094
506	484651.7	3753334.4	3rd	0.001775096	0.012960306
506	484651.7	3753334.4	Age>16	0	0
506	484651.7	3753334.4	Age0-2	0.002123092	0.013051629
506	484651.7	3753334.4	Age2-16	0.000830763	0.004383192

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
507	484751.7	3753334.4	3rd	0.001866542	0.013627971
507	484751.7	3753334.4	Age>16	0	0
507	484751.7	3753334.4	Age0-2	0.002241114	0.013780301
507	484751.7	3753334.4	Age2-16	0.000889349	0.004710661
508	484851.7	3753334.4	3rd	0.001959725	0.014308313
508	484851.7	3753334.4	Age>16	0	0
508	484851.7	3753334.4	Age0-2	0.00236531	0.014551558
508	484851.7	3753334.4	Age2-16	0.000958243	0.005096418
509	484951.7	3753334.4	3rd	0.002033518	0.014847093
509	484951.7	3753334.4	Age>16	0	0
509	484951.7	3753334.4	Age0-2	0.002472351	0.01522654
509	484951.7	3753334.4	Age2-16	0.00103227	0.005512735
510	485051.7	3753334.4	3rd	0.002098919	0.0153246
510	485051.7	3753334.4	Age>16	0	0
510	485051.7	3753334.4	Age0-2	0.002576558	0.015894733
510	485051.7	3753334.4	Age2-16	0.001119488	0.00600375
511	485151.7	3753334.4	3rd	0.002129016	0.015544338
511	485151.7	3753334.4	Age>16	0	0
511	485151.7	3753334.4	Age0-2	0.002647421	0.016374958
511	485151.7	3753334.4	Age2-16	0.00120814	0.006505254
512	485251.7	3753334.4	3rd	0.002153613	0.015723931
512	485251.7	3753334.4	Age>16	0	0
512	485251.7	3753334.4	Age0-2	0.002722452	0.016897765
512	485251.7	3753334.4	Age2-16	0.001319994	0.007136395
513	485351.7	3753334.4	3rd	0.002129016	0.015544338
513	485351.7	3753334.4	Age>16	0	0
513	485351.7	3753334.4	Age0-2	0.002751096	0.017162156
513	485351.7	3753334.4	Age2-16	0.001444132	0.007836195
514	485451.7	3753334.4	3rd	0.002115993	0.015449259
514	485451.7	3753334.4	Age>16	0	0
514	485451.7	3753334.4	Age0-2	0.002806483	0.017610008
514	485451.7	3753334.4	Age2-16	0.001614931	0.008789494
515	484551.7	3753434.4	3rd	0.001766993	0.012901146
515	484551.7	3753434.4	Age>16	0	0
515	484551.7	3753434.4	Age0-2	0.002091977	0.012868131
515	484551.7	3753434.4	Age2-16	0.000779415	0.004094735
516	484651.7	3753434.4	3rd	0.001886799	0.013775871
516	484651.7	3753434.4	Age>16	0	0
516	484651.7	3753434.4	Age0-2	0.002236997	0.013755758
516	484651.7	3753434.4	Age2-16	0.000835594	0.004406417
517	484751.7	3753434.4	3rd	0.002001975	0.014616791
517	484751.7	3753434.4	Age>16	0	0
517	484751.7	3753434.4	Age0-2	0.002378992	0.014625945
517	484751.7	3753434.4	Age2-16	0.000896016	0.004743485

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
518	484851.7	3753434.4	3rd	0.002120623	0.015483065
518	484851.7	3753434.4	Age>16	0	0
518	484851.7	3753434.4	Age0-2	0.002528366	0.015543959
518	484851.7	3753434.4	Age2-16	0.000966343	0.005136438
519	484951.7	3753434.4	3rd	0.002226249	0.01625426
519	484951.7	3753434.4	Age>16	0	0
519	484951.7	3753434.4	Age0-2	0.002667497	0.016405764
519	484951.7	3753434.4	Age2-16	0.001044311	0.005574306
520	485051.7	3753434.4	3rd	0.002320589	0.016943054
520	485051.7	3753434.4	Age>16	0	0
520	485051.7	3753434.4	Age0-2	0.002799896	0.017235213
520	485051.7	3753434.4	Age2-16	0.001135227	0.006085912
521	485151.7	3753434.4	3rd	0.002383386	0.017401545
521	485151.7	3753434.4	Age>16	0	0
521	485151.7	3753434.4	Age0-2	0.002904468	0.017906966
521	485151.7	3753434.4	Age2-16	0.00124027	0.006680132
522	485251.7	3753434.4	3rd	0.002459205	0.017955116
522	485251.7	3753434.4	Age>16	0	0
522	485251.7	3753434.4	Age0-2	0.003034731	0.018751148
522	485251.7	3753434.4	Age2-16	0.001383803	0.007484604
523	485351.7	3753434.4	3rd	0.002509269	0.018320641
523	485351.7	3753434.4	Age>16	0	0
523	485351.7	3753434.4	Age0-2	0.003149451	0.019524385
523	485351.7	3753434.4	Age2-16	0.001570928	0.008528108
524	485451.7	3753434.4	3rd	0.002539655	0.018542492
524	485451.7	3753434.4	Age>16	0	0
524	485451.7	3753434.4	Age0-2	0.003259592	0.020297679
524	485451.7	3753434.4	Age2-16	0.001850308	0.01006476
525	484551.7	3753534.4	3rd	0.00181561	0.013256107
525	484551.7	3753534.4	Age>16	0	0
525	484551.7	3753534.4	Age0-2	0.002136354	0.013150975
525	484551.7	3753534.4	Age2-16	0.000768063	0.004032142
526	484651.7	3753534.4	3rd	0.001941493	0.014175202
526	484651.7	3753534.4	Age>16	0	0
526	484651.7	3753534.4	Age0-2	0.002285958	0.014065733
526	484651.7	3753534.4	Age2-16	0.000820978	0.004325876
527	484751.7	3753534.4	3rd	0.002076347	0.015159797
527	484751.7	3753534.4	Age>16	0	0
527	484751.7	3753534.4	Age0-2	0.002447504	0.015053282
527	484751.7	3753534.4	Age2-16	0.000881453	0.004662499
528	484851.7	3753534.4	3rd	0.002227696	0.016264825
528	484851.7	3753534.4	Age>16	0	0
528	484851.7	3753534.4	Age0-2	0.00263002	0.016168464
528	484851.7	3753534.4	Age2-16	0.000953916	0.005065657

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
529	484951.7	3753534.4	3rd	0.002368338	0.017291676
529	484951.7	3753534.4	Age>16	0	0
529	484951.7	3753534.4	Age0-2	0.002804298	0.017237376
529	484951.7	3753534.4	Age2-16	0.001034292	0.005515866
530	485051.7	3753534.4	3rd	0.002503192	0.018276271
530	485051.7	3753534.4	Age>16	0	0
530	485051.7	3753534.4	Age0-2	0.002977218	0.018303733
530	485051.7	3753534.4	Age2-16	0.001129069	0.006047979
531	485151.7	3753534.4	3rd	0.002636889	0.019252414
531	485151.7	3753534.4	Age>16	0	0
531	485151.7	3753534.4	Age0-2	0.003155736	0.019411708
531	485151.7	3753534.4	Age2-16	0.001247214	0.006710592
532	485251.7	3753534.4	3rd	0.002763351	0.020175735
532	485251.7	3753534.4	Age>16	0	0
532	485251.7	3753534.4	Age0-2	0.003335742	0.020540327
532	485251.7	3753534.4	Age2-16	0.001399434	0.007562072
533	485351.7	3753534.4	3rd	0.002868687	0.020944818
533	485351.7	3753534.4	Age>16	0	0
533	485351.7	3753534.4	Age0-2	0.003505403	0.021625709
533	485351.7	3753534.4	Age2-16	0.001606882	0.008715747
534	485451.7	3753534.4	3rd	0.002944796	0.021500501
534	485451.7	3753534.4	Age>16	0	0
534	485451.7	3753534.4	Age0-2	0.003660095	0.022648572
534	485451.7	3753534.4	Age2-16	0.001937101	0.010525069
535	484551.7	3753634.4	3rd	0.001836735	0.013410346
535	484551.7	3753634.4	Age>16	0	0
535	484551.7	3753634.4	Age0-2	0.002149864	0.013244049
535	484551.7	3753634.4	Age2-16	0.000749803	0.003932102
536	484651.7	3753634.4	3rd	0.001979692	0.0144541
536	484651.7	3753634.4	Age>16	0	0
536	484651.7	3753634.4	Age0-2	0.002316804	0.014265027
536	484651.7	3753634.4	Age2-16	0.000803136	0.004227088
537	484751.7	3753634.4	3rd	0.002134803	0.015586595
537	484751.7	3753634.4	Age>16	0	0
537	484751.7	3753634.4	Age0-2	0.002498677	0.015376069
537	484751.7	3753634.4	Age2-16	0.000863585	0.004562431
538	484851.7	3753634.4	3rd	0.002301779	0.016805718
538	484851.7	3753634.4	Age>16	0	0
538	484851.7	3753634.4	Age0-2	0.002695517	0.016576996
538	484851.7	3753634.4	Age2-16	0.000933025	0.004948552
539	484951.7	3753634.4	3rd	0.002476569	0.018081887
539	484951.7	3753634.4	Age>16	0	0
539	484951.7	3753634.4	Age0-2	0.00290388	0.017848911
539	484951.7	3753634.4	Age2-16	0.001013716	0.005398837

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
540	485051.7	3753634.4	3rd	0.002654541	0.019381299
540	485051.7	3753634.4	Age>16	0	0
540	485051.7	3753634.4	Age0-2	0.003119825	0.019169509
540	485051.7	3753634.4	Age2-16	0.00110976	0.005936222
541	485151.7	3753634.4	3rd	0.002837434	0.020716628
541	485151.7	3753634.4	Age>16	0	0
541	485151.7	3753634.4	Age0-2	0.003346601	0.020559259
541	485151.7	3753634.4	Age2-16	0.001228587	0.006600738
542	485251.7	3753634.4	3rd	0.003018589	0.022039281
542	485251.7	3753634.4	Age>16	0	0
542	485251.7	3753634.4	Age0-2	0.003579161	0.021990747
542	485251.7	3753634.4	Age2-16	0.001381492	0.007453916
543	485351.7	3753634.4	3rd	0.003186723	0.023266855
543	485351.7	3753634.4	Age>16	0	0
543	485351.7	3753634.4	Age0-2	0.00380858	0.023416809
543	485351.7	3753634.4	Age2-16	0.001592819	0.008626428
544	485451.7	3753634.4	3rd	0.003332863	0.024333851
544	485451.7	3753634.4	Age>16	0	0
544	485451.7	3753634.4	Age0-2	0.004029804	0.024815313
544	485451.7	3753634.4	Age2-16	0.001932777	0.010484686
545	484551.7	3753734.4	3rd	0.001834131	0.01339133
545	484551.7	3753734.4	Age>16	0	0
545	484551.7	3753734.4	Age0-2	0.002136924	0.013172095
545	484551.7	3753734.4	Age2-16	0.00072667	0.003804796
546	484651.7	3753734.4	3rd	0.001987795	0.014513261
546	484651.7	3753734.4	Age>16	0	0
546	484651.7	3753734.4	Age0-2	0.002314367	0.014258775
546	484651.7	3753734.4	Age2-16	0.000779	0.004093462
547	484751.7	3753734.4	3rd	0.002157375	0.015751399
547	484751.7	3753734.4	Age>16	0	0
547	484751.7	3753734.4	Age0-2	0.002510374	0.015457085
547	484751.7	3753734.4	Age2-16	0.00083823	0.004421362
548	484851.7	3753734.4	3rd	0.002342872	0.017105744
548	484851.7	3753734.4	Age>16	0	0
548	484851.7	3753734.4	Age0-2	0.002725514	0.016770998
548	484851.7	3753734.4	Age2-16	0.000906359	0.004799697
549	484951.7	3753734.4	3rd	0.002545153	0.018582636
549	484951.7	3753734.4	Age>16	0	0
549	484951.7	3753734.4	Age0-2	0.002960903	0.018205885
549	484951.7	3753734.4	Age2-16	0.000985556	0.005240209
550	485051.7	3753734.4	3rd	0.002763061	0.020173622
550	485051.7	3753734.4	Age>16	0	0
550	485051.7	3753734.4	Age0-2	0.003216177	0.019760198
550	485051.7	3753734.4	Age2-16	0.001080031	0.005766351

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
551	485151.7	3753734.4	3rd	0.002993123	0.021853349
551	485151.7	3753734.4	Age>16	0	0
551	485151.7	3753734.4	Age0-2	0.003488955	0.021421742
551	485151.7	3753734.4	Age2-16	0.001196435	0.006414903
552	485251.7	3753734.4	3rd	0.003231867	0.023596462
552	485251.7	3753734.4	Age>16	0	0
552	485251.7	3753734.4	Age0-2	0.003777106	0.023178887
552	485251.7	3753734.4	Age2-16	0.001346475	0.007249723
553	485351.7	3753734.4	3rd	0.003473505	0.025360703
553	485351.7	3753734.4	Age>16	0	0
553	485351.7	3753734.4	Age0-2	0.004076867	0.025011443
553	485351.7	3753734.4	Age2-16	0.001553473	0.00839428
554	485451.7	3753734.4	3rd	0.003707908	0.027072122
554	485451.7	3753734.4	Age>16	0	0
554	485451.7	3753734.4	Age0-2	0.004381702	0.026887641
554	485451.7	3753734.4	Age2-16	0.001882253	0.010185924
555	484551.7	3753834.4	3rd	0.001800851	0.013148351
555	484551.7	3753834.4	Age>16	0	0
555	484551.7	3753834.4	Age0-2	0.00209085	0.012895928
555	484551.7	3753834.4	Age2-16	0.000698406	0.0036504
556	484651.7	3753834.4	3rd	0.001961172	0.014318877
556	484651.7	3753834.4	Age>16	0	0
556	484651.7	3753834.4	Age0-2	0.002274708	0.014025033
556	484651.7	3753834.4	Age2-16	0.000749628	0.00393252
557	484751.7	3753834.4	3rd	0.00214117	0.015633078
557	484751.7	3753834.4	Age>16	0	0
557	484751.7	3753834.4	Age0-2	0.002480774	0.01528725
557	484751.7	3753834.4	Age2-16	0.000807542	0.004252145
558	484851.7	3753834.4	3rd	0.00234374	0.017112083
558	484851.7	3753834.4	Age>16	0	0
558	484851.7	3753834.4	Age0-2	0.002712732	0.016705312
558	484851.7	3753834.4	Age2-16	0.000874377	0.00462226
559	484951.7	3753834.4	3rd	0.002568594	0.018753778
559	484951.7	3753834.4	Age>16	0	0
559	484951.7	3753834.4	Age0-2	0.002969766	0.018270829
559	484951.7	3753834.4	Age2-16	0.00095088	0.005045772
560	485051.7	3753834.4	3rd	0.002818334	0.020577179
560	485051.7	3753834.4	Age>16	0	0
560	485051.7	3753834.4	Age0-2	0.003256348	0.020015079
560	485051.7	3753834.4	Age2-16	0.001043044	0.005557427
561	485151.7	3753834.4	3rd	0.003092094	0.022575948
561	485151.7	3753834.4	Age>16	0	0
561	485151.7	3753834.4	Age0-2	0.003571672	0.02193063
561	485151.7	3753834.4	Age2-16	0.001155829	0.006183372

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
562	485251.7	3753834.4	3rd	0.003388136	0.024737408
562	485251.7	3753834.4	Age>16	0	0
562	485251.7	3753834.4	Age0-2	0.003914857	0.024011404
562	485251.7	3753834.4	Age2-16	0.001299404	0.00697797
563	485351.7	3753834.4	3rd	0.003705303	0.027053107
563	485351.7	3753834.4	Age>16	0	0
563	485351.7	3753834.4	Age0-2	0.004287112	0.026268157
563	485351.7	3753834.4	Age2-16	0.001498658	0.008074772
564	485451.7	3753834.4	3rd	0.004038387	0.029485013
564	485451.7	3753834.4	Age>16	0	0
564	485451.7	3753834.4	Age0-2	0.004685343	0.028682496
564	485451.7	3753834.4	Age2-16	0.00181109	0.009768393
565	484551.7	3753934.4	3rd	0.001740948	0.012710988
565	484551.7	3753934.4	Age>16	0	0
565	484551.7	3753934.4	Age0-2	0.002016389	0.01244488
565	484551.7	3753934.4	Age2-16	0.000666364	0.00347582
566	484651.7	3753934.4	3rd	0.001901558	0.013883627
566	484651.7	3753934.4	Age>16	0	0
566	484651.7	3753934.4	Age0-2	0.00219954	0.013571857
566	484651.7	3753934.4	Age2-16	0.000715177	0.003743697
567	484751.7	3753934.4	3rd	0.002091974	0.015273892
567	484751.7	3753934.4	Age>16	0	0
567	484751.7	3753934.4	Age0-2	0.00241689	0.014909716
567	484751.7	3753934.4	Age2-16	0.000773733	0.004066954
568	484851.7	3753934.4	3rd	0.002302358	0.016809943
568	484851.7	3753934.4	Age>16	0	0
568	484851.7	3753934.4	Age0-2	0.002655532	0.016370098
568	484851.7	3753934.4	Age2-16	0.000837704	0.004419525
569	484951.7	3753934.4	3rd	0.00254197	0.018559395
569	484951.7	3753934.4	Age>16	0	0
569	484951.7	3753934.4	Age0-2	0.002926697	0.018024454
569	484951.7	3753934.4	Age2-16	0.000911802	0.004828524
570	485051.7	3753934.4	3rd	0.002813993	0.020545486
570	485051.7	3753934.4	Age>16	0	0
570	485051.7	3753934.4	Age0-2	0.003234157	0.019894865
570	485051.7	3753934.4	Age2-16	0.000999478	0.00531287
571	485151.7	3753934.4	3rd	0.003123058	0.022802025
571	485151.7	3753934.4	Age>16	0	0
571	485151.7	3753934.4	Age0-2	0.003583539	0.022015531
571	485151.7	3753934.4	Age2-16	0.001107587	0.005910249
572	485251.7	3753934.4	3rd	0.003469743	0.025333235
572	485251.7	3753934.4	Age>16	0	0
572	485251.7	3753934.4	Age0-2	0.003975775	0.024389278
572	485251.7	3753934.4	Age2-16	0.001245444	0.006670037

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
573	485351.7	3753934.4	3rd	0.003857231	0.02816236
573	485351.7	3753934.4	Age>16	0	0
573	485351.7	3753934.4	Age0-2	0.004415696	0.027045441
573	485351.7	3753934.4	Age2-16	0.001436109	0.007714112
574	485451.7	3753934.4	3rd	0.004284944	0.031285172
574	485451.7	3753934.4	Age>16	0	0
574	485451.7	3753934.4	Age0-2	0.004903931	0.029985053
574	485451.7	3753934.4	Age2-16	0.001737174	0.00933666
575	484551.7	3754034.4	3rd	0.001644004	0.012003179
575	484551.7	3754034.4	Age>16	0	0
575	484551.7	3754034.4	Age0-2	0.001900643	0.011733442
575	484551.7	3754034.4	Age2-16	0.00062645	0.003256988
576	484651.7	3754034.4	3rd	0.001833552	0.013387104
576	484651.7	3754034.4	Age>16	0	0
576	484651.7	3754034.4	Age0-2	0.002119293	0.013098274
576	484651.7	3754034.4	Age2-16	0.000685112	0.003582427
577	484751.7	3754034.4	3rd	0.002011235	0.014684403
577	484751.7	3754034.4	Age>16	0	0
577	484751.7	3754034.4	Age0-2	0.002320277	0.014333267
577	484751.7	3754034.4	Age2-16	0.000736717	0.003864813
578	484851.7	3754034.4	3rd	0.002219304	0.016203552
578	484851.7	3754034.4	Age>16	0	0
578	484851.7	3754034.4	Age0-2	0.002555111	0.015773594
578	484851.7	3754034.4	Age2-16	0.000796911	0.004195007
579	484951.7	3754034.4	3rd	0.002465283	0.017999486
579	484951.7	3754034.4	Age>16	0	0
579	484951.7	3754034.4	Age0-2	0.002831932	0.017467045
579	484951.7	3754034.4	Age2-16	0.000868346	0.00458802
580	485051.7	3754034.4	3rd	0.002750907	0.020084882
580	485051.7	3754034.4	Age>16	0	0
580	485051.7	3754034.4	Age0-2	0.003152277	0.01942019
580	485051.7	3754034.4	Age2-16	0.000952938	0.005053634
581	485151.7	3754034.4	3rd	0.003082544	0.022506224
581	485151.7	3754034.4	Age>16	0	0
581	485151.7	3754034.4	Age0-2	0.003523062	0.021672821
581	485151.7	3754034.4	Age2-16	0.00105611	0.0056213
582	485251.7	3754034.4	3rd	0.003464823	0.025297317
582	485251.7	3754034.4	Age>16	0	0
582	485251.7	3754034.4	Age0-2	0.003949153	0.024250826
582	485251.7	3754034.4	Age2-16	0.001186706	0.006337341
583	485351.7	3754034.4	3rd	0.003905559	0.028515208
583	485351.7	3754034.4	Age>16	0	0
583	485351.7	3754034.4	Age0-2	0.004439433	0.027205279
583	485351.7	3754034.4	Age2-16	0.001365495	0.007310404

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
584	485451.7	3754034.4	3rd	0.004412564	0.032216945
584	485451.7	3754034.4	Age>16	0	0
584	485451.7	3754034.4	Age0-2	0.005002671	0.030584079
584	485451.7	3754034.4	Age2-16	0.001649207	0.00882912
585	484551.7	3754134.4	3rd	0.001573683	0.011489753
585	484551.7	3754134.4	Age>16	0	0
585	484551.7	3754134.4	Age0-2	0.001821614	0.011273119
585	484551.7	3754134.4	Age2-16	0.000601303	0.003124877
586	484651.7	3754134.4	3rd	0.001742685	0.012723665
586	484651.7	3754134.4	Age>16	0	0
586	484651.7	3754134.4	Age0-2	0.002015381	0.012481104
586	484651.7	3754134.4	Age2-16	0.000652166	0.003405106
587	484751.7	3754134.4	3rd	0.001911686	0.013957577
587	484751.7	3754134.4	Age>16	0	0
587	484751.7	3754134.4	Age0-2	0.002206284	0.013657643
587	484751.7	3754134.4	Age2-16	0.000700543	0.003668851
588	484851.7	3754134.4	3rd	0.002102971	0.01535418
588	484851.7	3754134.4	Age>16	0	0
588	484851.7	3754134.4	Age0-2	0.002421075	0.014975441
588	484851.7	3754134.4	Age2-16	0.000754023	0.003960051
589	484951.7	3754134.4	3rd	0.002344898	0.017120534
589	484951.7	3754134.4	Age>16	0	0
589	484951.7	3754134.4	Age0-2	0.002692958	0.016645745
589	484951.7	3754134.4	Age2-16	0.000822415	0.004335084
590	485051.7	3754134.4	3rd	0.002631101	0.019210157
590	485051.7	3754134.4	Age>16	0	0
590	485051.7	3754134.4	Age0-2	0.003012936	0.018603592
590	485051.7	3754134.4	Age2-16	0.000903347	0.004778919
591	485151.7	3754134.4	3rd	0.002969394	0.021680094
591	485151.7	3754134.4	Age>16	0	0
591	485151.7	3754134.4	Age0-2	0.003389226	0.020896142
591	485151.7	3754134.4	Age2-16	0.001001485	0.005316278
592	485251.7	3754134.4	3rd	0.003367879	0.024589507
592	485251.7	3754134.4	Age>16	0	0
592	485251.7	3754134.4	Age0-2	0.003830003	0.023567852
592	485251.7	3754134.4	Age2-16	0.001124738	0.005988265
593	485351.7	3754134.4	3rd	0.003834948	0.027999669
593	485351.7	3754134.4	Age>16	0	0
593	485351.7	3754134.4	Age0-2	0.004343755	0.026664111
593	485351.7	3754134.4	Age2-16	0.001290521	0.00688359
594	485451.7	3754134.4	3rd	0.004396358	0.032098625
594	485451.7	3754134.4	Age>16	0	0
594	485451.7	3754134.4	Age0-2	0.004958668	0.030351847
594	485451.7	3754134.4	Age2-16	0.001555083	0.008289425

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
595	484551.7	3754234.4	3rd	0.001495549	0.010919279
595	484551.7	3754234.4	Age>16	0	0
595	484551.7	3754234.4	Age0-2	0.00173667	0.010785208
595	484551.7	3754234.4	Age2-16	0.000577437	0.003000077
596	484651.7	3754234.4	3rd	0.001640242	0.011975711
596	484651.7	3754234.4	Age>16	0	0
596	484651.7	3754234.4	Age0-2	0.001901569	0.011810961
596	484651.7	3754234.4	Age2-16	0.000620082	0.003233053
597	484751.7	3754234.4	3rd	0.00179188	0.013082852
597	484751.7	3754234.4	Age>16	0	0
597	484751.7	3754234.4	Age0-2	0.002072354	0.012864118
597	484751.7	3754234.4	Age2-16	0.000662945	0.003465482
598	484851.7	3754234.4	3rd	0.001965223	0.014348457
598	484851.7	3754234.4	Age>16	0	0
598	484851.7	3754234.4	Age0-2	0.002266675	0.014058801
598	484851.7	3754234.4	Age2-16	0.000711224	0.003727113
599	484951.7	3754234.4	3rd	0.002187472	0.015971137
599	484951.7	3754234.4	Age>16	0	0
599	484951.7	3754234.4	Age0-2	0.002516068	0.015594779
599	484951.7	3754234.4	Age2-16	0.00077359	0.004067064
600	485051.7	3754234.4	3rd	0.002460942	0.017967793
600	485051.7	3754234.4	Age>16	0	0
600	485051.7	3754234.4	Age0-2	0.002822074	0.017476433
600	485051.7	3754234.4	Age2-16	0.00085046	0.004486899
601	485151.7	3754234.4	3rd	0.002788238	0.020357442
601	485151.7	3754234.4	Age>16	0	0
601	485151.7	3754234.4	Age0-2	0.003185903	0.019702817
601	485151.7	3754234.4	Age2-16	0.000943138	0.004991743
602	485251.7	3754234.4	3rd	0.003182382	0.023235162
602	485251.7	3754234.4	Age>16	0	0
602	485251.7	3754234.4	Age0-2	0.003621124	0.022351701
602	485251.7	3754234.4	Age2-16	0.001059618	0.005622985
603	485351.7	3754234.4	3rd	0.00365987	0.026721387
603	485351.7	3754234.4	Age>16	0	0
603	485351.7	3754234.4	Age0-2	0.004144713	0.025519527
603	485351.7	3754234.4	Age2-16	0.001218098	0.00647369
604	485451.7	3754234.4	3rd	0.004238642	0.030947114
604	485451.7	3754234.4	Age>16	0	0
604	485451.7	3754234.4	Age0-2	0.004774695	0.029304872
604	485451.7	3754234.4	Age2-16	0.00146875	0.007795849
605	484551.7	3754334.4	3rd	0.001394553	0.01018189
605	484551.7	3754334.4	Age>16	0	0
605	484551.7	3754334.4	Age0-2	0.001626791	0.010143201
605	484551.7	3754334.4	Age2-16	0.000548563	0.002845904

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
606	484651.7	3754334.4	3rd	0.001511176	0.011033374
606	484651.7	3754334.4	Age>16	0	0
606	484651.7	3754334.4	Age0-2	0.001758668	0.010959731
606	484651.7	3754334.4	Age2-16	0.000582042	0.003026901
607	484751.7	3754334.4	3rd	0.001643136	0.01199684
607	484751.7	3754334.4	Age>16	0	0
607	484751.7	3754334.4	Age0-2	0.001907063	0.011875515
607	484751.7	3754334.4	Age2-16	0.000619461	0.003228797
608	484851.7	3754334.4	3rd	0.001806929	0.013192721
608	484851.7	3754334.4	Age>16	0	0
608	484851.7	3754334.4	Age0-2	0.00209161	0.013017485
608	484851.7	3754334.4	Age2-16	0.000666382	0.003483314
609	484951.7	3754334.4	3rd	0.002005737	0.014644258
609	484951.7	3754334.4	Age>16	0	0
609	484951.7	3754334.4	Age0-2	0.002314909	0.014397418
609	484951.7	3754334.4	Age2-16	0.000723189	0.003791686
610	485051.7	3754334.4	3rd	0.002250847	0.016433854
610	485051.7	3754334.4	Age>16	0	0
610	485051.7	3754334.4	Age0-2	0.002589432	0.016091848
610	485051.7	3754334.4	Age2-16	0.000793459	0.004173332
611	485151.7	3754334.4	3rd	0.002553256	0.018641796
611	485151.7	3754334.4	Age>16	0	0
611	485151.7	3754334.4	Age0-2	0.002926364	0.01816427
611	485151.7	3754334.4	Age2-16	0.000880777	0.004646495
612	485251.7	3754334.4	3rd	0.002922802	0.021339923
612	485251.7	3754334.4	Age>16	0	0
612	485251.7	3754334.4	Age0-2	0.003334971	0.020663548
612	485251.7	3754334.4	Age2-16	0.000990531	0.005237725
613	485351.7	3754334.4	3rd	0.003378586	0.024667683
613	485351.7	3754334.4	Age>16	0	0
613	485351.7	3754334.4	Age0-2	0.003834813	0.023700853
613	485351.7	3754334.4	Age2-16	0.001139478	0.006031749
614	485451.7	3754334.4	3rd	0.003963147	0.028935668
614	485451.7	3754334.4	Age>16	0	0
614	485451.7	3754334.4	Age0-2	0.004471717	0.027550416
614	485451.7	3754334.4	Age2-16	0.001382323	0.007308742
615	484551.7	3754434.4	3rd	0.001241178	0.009062072
615	484551.7	3754434.4	Age>16	0	0
615	484551.7	3754434.4	Age0-2	0.001454417	0.009093668
615	484551.7	3754434.4	Age2-16	0.000503331	0.002597526
616	484651.7	3754434.4	3rd	0.001355486	0.009896653
616	484651.7	3754434.4	Age>16	0	0
616	484651.7	3754434.4	Age0-2	0.001585139	0.009911311
616	484651.7	3754434.4	Age2-16	0.000537106	0.002781063

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
617	484751.7	3754434.4	3rd	0.001481948	0.010819975
617	484751.7	3754434.4	Age>16	0	0
617	484751.7	3754434.4	Age0-2	0.001728854	0.010806888
617	484751.7	3754434.4	Age2-16	0.00057423	0.002982391
618	484851.7	3754434.4	3rd	0.001632718	0.011920777
618	484851.7	3754434.4	Age>16	0	0
618	484851.7	3754434.4	Age0-2	0.001899643	0.011870061
618	484851.7	3754434.4	Age2-16	0.000618592	0.00322313
619	484951.7	3754434.4	3rd	0.001808665	0.013205398
619	484951.7	3754434.4	Age>16	0	0
619	484951.7	3754434.4	Age0-2	0.002097915	0.013100882
619	484951.7	3754434.4	Age2-16	0.000670621	0.003505117
620	485051.7	3754434.4	3rd	0.002025994	0.014792159
620	485051.7	3754434.4	Age>16	0	0
620	485051.7	3754434.4	Age0-2	0.002342084	0.014614823
620	485051.7	3754434.4	Age2-16	0.000735747	0.00385765
621	485151.7	3754434.4	3rd	0.002293387	0.016744445
621	485151.7	3754434.4	Age>16	0	0
621	485151.7	3754434.4	Age0-2	0.002640915	0.01646182
621	485151.7	3754434.4	Age2-16	0.000817051	0.004296397
622	485251.7	3754434.4	3rd	0.002625892	0.019172125
622	485251.7	3754434.4	Age>16	0	0
622	485251.7	3754434.4	Age0-2	0.003009732	0.018729682
622	485251.7	3754434.4	Age2-16	0.000921416	0.004855876
623	485351.7	3754434.4	3rd	0.003044345	0.022227326
623	485351.7	3754434.4	Age>16	0	0
623	485351.7	3754434.4	Age0-2	0.003469931	0.021541165
623	485351.7	3754434.4	Age2-16	0.001064505	0.005615263
624	485451.7	3754434.4	3rd	0.003581735	0.026150914
624	485451.7	3754434.4	Age>16	0	0
624	485451.7	3754434.4	Age0-2	0.004055227	0.025089137
624	485451.7	3754434.4	Age2-16	0.001291182	0.006800945
625	484551.7	3754534.4	3rd	0.001118478	0.008166218
625	484551.7	3754534.4	Age>16	0	0
625	484551.7	3754534.4	Age0-2	0.001319735	0.008290844
625	484551.7	3754534.4	Age2-16	0.000469065	0.002412415
626	484651.7	3754534.4	3rd	0.001213976	0.008863463
626	484651.7	3754534.4	Age>16	0	0
626	484651.7	3754534.4	Age0-2	0.001429368	0.008979063
626	484651.7	3754534.4	Age2-16	0.000497784	0.002567658
627	484751.7	3754534.4	3rd	0.00132973	0.009708609
627	484751.7	3754534.4	Age>16	0	0
627	484751.7	3754534.4	Age0-2	0.001562122	0.009813244
627	484751.7	3754534.4	Age2-16	0.000532595	0.002756713

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
628	484851.7	3754534.4	3rd	0.001455324	0.010625591
628	484851.7	3754534.4	Age>16	0	0
628	484851.7	3754534.4	Age0-2	0.001704586	0.010702007
628	484851.7	3754534.4	Age2-16	0.000570277	0.002960341
629	484951.7	3754534.4	3rd	0.001607831	0.011739071
629	484951.7	3754534.4	Age>16	0	0
629	484951.7	3754534.4	Age0-2	0.001877166	0.011778162
629	484951.7	3754534.4	Age2-16	0.000616908	0.003212544
630	485051.7	3754534.4	3rd	0.001795643	0.013110319
630	485051.7	3754534.4	Age>16	0	0
630	485051.7	3754534.4	Age0-2	0.002088942	0.01309707
630	485051.7	3754534.4	Age2-16	0.000675857	0.003531126
631	485151.7	3754534.4	3rd	0.002025705	0.014790046
631	485151.7	3754534.4	Age>16	0	0
631	485151.7	3754534.4	Age0-2	0.002346931	0.014698575
631	485151.7	3754534.4	Age2-16	0.000750795	0.003934348
632	485251.7	3754534.4	3rd	0.002315959	0.016909248
632	485251.7	3754534.4	Age>16	0	0
632	485251.7	3754534.4	Age0-2	0.002670445	0.016699416
632	485251.7	3754534.4	Age2-16	0.000850258	0.004466415
633	485351.7	3754534.4	3rd	0.00268811	0.019626391
633	485351.7	3754534.4	Age>16	0	0
633	485351.7	3754534.4	Age0-2	0.00308174	0.019227906
633	485351.7	3754534.4	Age2-16	0.000990375	0.005208625
634	485451.7	3754534.4	3rd	0.003162125	0.023087261
634	485451.7	3754534.4	Age>16	0	0
634	485451.7	3754534.4	Age0-2	0.003599079	0.0223769
634	485451.7	3754534.4	Age2-16	0.001213223	0.00637081
635	484551.7	3754634.4	3rd	0.001005618	0.007342201
635	484551.7	3754634.4	Age>16	0	0
635	484551.7	3754634.4	Age0-2	0.001195876	0.007552247
635	484551.7	3754634.4	Age2-16	0.000437151	0.002240693
636	484651.7	3754634.4	3rd	0.001089829	0.007957045
636	484651.7	3754634.4	Age>16	0	0
636	484651.7	3754634.4	Age0-2	0.001293631	0.008171942
636	484651.7	3754634.4	Age2-16	0.000463151	0.002381136
637	484751.7	3754634.4	3rd	0.001183012	0.008637387
637	484751.7	3754634.4	Age>16	0	0
637	484751.7	3754634.4	Age0-2	0.001400923	0.008848811
637	484751.7	3754634.4	Age2-16	0.000491709	0.002535222
638	484851.7	3754634.4	3rd	0.001288059	0.009404356
638	484851.7	3754634.4	Age>16	0	0
638	484851.7	3754634.4	Age0-2	0.001520719	0.009600023
638	484851.7	3754634.4	Age2-16	0.00052395	0.002708943

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
639	484951.7	3754634.4	3rd	0.001417415	0.010348806
639	484951.7	3754634.4	Age>16	0	0
639	484951.7	3754634.4	Age0-2	0.001668044	0.010524397
639	484951.7	3754634.4	Age2-16	0.000564667	0.002928731
640	485051.7	3754634.4	3rd	0.001575709	0.011504543
640	485051.7	3754634.4	Age>16	0	0
640	485051.7	3754634.4	Age0-2	0.001847506	0.011648002
640	485051.7	3754634.4	Age2-16	0.000616321	0.003207411
641	485151.7	3754634.4	3rd	0.00176873	0.012913823
641	485151.7	3754634.4	Age>16	0	0
641	485151.7	3754634.4	Age0-2	0.002064919	0.013004041
641	485151.7	3754634.4	Age2-16	0.000683283	0.003567291
642	485251.7	3754634.4	3rd	0.002013261	0.014699193
642	485251.7	3754634.4	Age>16	0	0
642	485251.7	3754634.4	Age0-2	0.002338742	0.014706051
642	485251.7	3754634.4	Age2-16	0.000775396	0.004059794
643	485351.7	3754634.4	3rd	0.002326377	0.016985311
643	485351.7	3754634.4	Age>16	0	0
643	485351.7	3754634.4	Age0-2	0.002686547	0.016855846
643	485351.7	3754634.4	Age2-16	0.000909392	0.004769266
644	485451.7	3754634.4	3rd	0.00272573	0.019901063
644	485451.7	3754634.4	Age>16	0	0
644	485451.7	3754634.4	Age0-2	0.003124019	0.019531095
644	485451.7	3754634.4	Age2-16	0.00112697	0.005904054
645	484551.7	3754734.4	3rd	0.000906937	0.006621715
645	484551.7	3754734.4	Age>16	0	0
645	484551.7	3754734.4	Age0-2	0.001087414	0.006905077
645	484551.7	3754734.4	Age2-16	0.000408589	0.002087955
646	484651.7	3754734.4	3rd	0.00097639	0.007128802
646	484651.7	3754734.4	Age>16	0	0
646	484651.7	3754734.4	Age0-2	0.001168736	0.00742452
646	484651.7	3754734.4	Age2-16	0.000430458	0.002205559
647	484751.7	3754734.4	3rd	0.001053945	0.00769505
647	484751.7	3754734.4	Age>16	0	0
647	484751.7	3754734.4	Age0-2	0.001258625	0.007995234
647	484751.7	3754734.4	Age2-16	0.000454488	0.002334661
648	484851.7	3754734.4	3rd	0.001141629	0.008335247
648	484851.7	3754734.4	Age>16	0	0
648	484851.7	3754734.4	Age0-2	0.001359546	0.008633503
648	484851.7	3754734.4	Age2-16	0.000481903	0.002481892
649	484951.7	3754734.4	3rd	0.001247834	0.009110668
649	484951.7	3754734.4	Age>16	0	0
649	484951.7	3754734.4	Age0-2	0.00148128	0.009401995
649	484951.7	3754734.4	Age2-16	0.000515788	0.002664099

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
650	485051.7	3754734.4	3rd	0.001377479	0.010057231
650	485051.7	3754734.4	Age>16	0	0
650	485051.7	3754734.4	Age0-2	0.001629479	0.01033691
650	485051.7	3754734.4	Age2-16	0.000559155	0.002897532
651	485151.7	3754734.4	3rd	0.001538667	0.011234096
651	485151.7	3754734.4	Age>16	0	0
651	485151.7	3754734.4	Age0-2	0.001812782	0.011489949
651	485151.7	3754734.4	Age2-16	0.000617072	0.003208659
652	485251.7	3754734.4	3rd	0.001738923	0.012696198
652	485251.7	3754734.4	Age>16	0	0
652	485251.7	3754734.4	Age0-2	0.002038868	0.012905688
652	485251.7	3754734.4	Age2-16	0.000698296	0.003642937
653	485351.7	3754734.4	3rd	0.001986927	0.014506922
653	485351.7	3754734.4	Age>16	0	0
653	485351.7	3754734.4	Age0-2	0.002315443	0.014621976
653	485351.7	3754734.4	Age2-16	0.000820044	0.004287913
654	485451.7	3754734.4	3rd	0.002307278	0.016845862
654	485451.7	3754734.4	Age>16	0	0
654	485451.7	3754734.4	Age0-2	0.002668291	0.016791119
654	485451.7	3754734.4	Age2-16	0.001029052	0.005380934
655	484551.7	3754834.4	3rd	0.000819253	0.005981517
655	484551.7	3754834.4	Age>16	0	0
655	484551.7	3754834.4	Age0-2	0.000989652	0.00631492
655	484551.7	3754834.4	Age2-16	0.000381928	0.001945431
656	484651.7	3754834.4	3rd	0.000874236	0.006382961
656	484651.7	3754834.4	Age>16	0	0
656	484651.7	3754834.4	Age0-2	0.001054058	0.006726825
656	484651.7	3754834.4	Age2-16	0.000399186	0.002037654
657	484751.7	3754834.4	3rd	0.00093848	0.006852017
657	484751.7	3754834.4	Age>16	0	0
657	484751.7	3754834.4	Age0-2	0.001129217	0.007208026
657	484751.7	3754834.4	Age2-16	0.000419374	0.002145778
658	484851.7	3754834.4	3rd	0.001014589	0.0074077
658	484851.7	3754834.4	Age>16	0	0
658	484851.7	3754834.4	Age0-2	0.00121806	0.007776711
658	484851.7	3754834.4	Age2-16	0.000443452	0.002275053
659	484951.7	3754834.4	3rd	0.001102273	0.008047898
659	484951.7	3754834.4	Age>16	0	0
659	484951.7	3754834.4	Age0-2	0.001319777	0.008425676
659	484951.7	3754834.4	Age2-16	0.000471617	0.002426089
660	485051.7	3754834.4	3rd	0.001207609	0.00881698
660	485051.7	3754834.4	Age>16	0	0
660	485051.7	3754834.4	Age0-2	0.001441468	0.00920039
660	485051.7	3754834.4	Age2-16	0.000506853	0.002615028

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
661	485151.7	3754834.4	3rd	0.001335518	0.009750866
661	485151.7	3754834.4	Age>16	0	0
661	485151.7	3754834.4	Age0-2	0.001588483	0.010133631
661	485151.7	3754834.4	Age2-16	0.000552807	0.002860929
662	485251.7	3754834.4	3rd	0.001493523	0.010904489
662	485251.7	3754834.4	Age>16	0	0
662	485251.7	3754834.4	Age0-2	0.001768798	0.011273051
662	485251.7	3754834.4	Age2-16	0.000617372	0.003205654
663	485351.7	3754834.4	3rd	0.001685386	0.012305318
663	485351.7	3754834.4	Age>16	0	0
663	485351.7	3754834.4	Age0-2	0.001985036	0.012626867
663	485351.7	3754834.4	Age2-16	0.00071799	0.003739322
664	485451.7	3754834.4	3rd	0.00193368	0.014118155
664	485451.7	3754834.4	Age>16	0	0
664	485451.7	3754834.4	Age0-2	0.002261703	0.01434481
664	485451.7	3754834.4	Age2-16	0.000907229	0.004733179
665	484551.7	3754934.4	3rd	0.000741697	0.00541527
665	484551.7	3754934.4	Age>16	0	0
665	484551.7	3754934.4	Age0-2	0.000901056	0.005769469
665	484551.7	3754934.4	Age2-16	0.000356526	0.001809768
666	484651.7	3754934.4	3rd	0.000787999	0.005753328
666	484651.7	3754934.4	Age>16	0	0
666	484651.7	3754934.4	Age0-2	0.000955666	0.006121122
666	484651.7	3754934.4	Age2-16	0.000371212	0.001887969
667	484751.7	3754934.4	3rd	0.000842114	0.006148433
667	484751.7	3754934.4	Age>16	0	0
667	484751.7	3754934.4	Age0-2	0.001019477	0.006532648
667	484751.7	3754934.4	Age2-16	0.000388403	0.001979789
668	484851.7	3754934.4	3rd	0.000905201	0.006609038
668	484851.7	3754934.4	Age>16	0	0
668	484851.7	3754934.4	Age0-2	0.001093871	0.00701287
668	484851.7	3754934.4	Age2-16	0.000408513	0.002087398
669	484951.7	3754934.4	3rd	0.000978126	0.007141479
669	484951.7	3754934.4	Age>16	0	0
669	484951.7	3754934.4	Age0-2	0.001179354	0.007562985
669	484951.7	3754934.4	Age2-16	0.000431899	0.002212329
670	485051.7	3754934.4	3rd	0.001064363	0.007771113
670	485051.7	3754934.4	Age>16	0	0
670	485051.7	3754934.4	Age0-2	0.001280426	0.008213904
670	485051.7	3754934.4	Age2-16	0.000460389	0.002364752
671	485151.7	3754934.4	3rd	0.001165648	0.008510615
671	485151.7	3754934.4	Age>16	0	0
671	485151.7	3754934.4	Age0-2	0.001398166	0.008968164
671	485151.7	3754934.4	Age2-16	0.000495336	0.002550935

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
672	485251.7	3754934.4	3rd	0.001289216	0.009412808
672	485251.7	3754934.4	Age>16	0	0
672	485251.7	3754934.4	Age0-2	0.001541398	0.009884272
672	485251.7	3754934.4	Age2-16	0.000542396	0.002801074
673	485351.7	3754934.4	3rd	0.001436514	0.010488255
673	485351.7	3754934.4	Age>16	0	0
673	485351.7	3754934.4	Age0-2	0.001710009	0.010953376
673	485351.7	3754934.4	Age2-16	0.00061086	0.003163358
674	485451.7	3754934.4	3rd	0.0016223	0.011844714
674	485451.7	3754934.4	Age>16	0	0
674	485451.7	3754934.4	Age0-2	0.001920372	0.012276696
674	485451.7	3754934.4	Age2-16	0.000743812	0.003863354
675	484551.7	3755034.4	3rd	0.000676585	0.004939875
675	484551.7	3755034.4	Age>16	0	0
675	484551.7	3755034.4	Age0-2	0.000824886	0.00529227
675	484551.7	3755034.4	Age2-16	0.00033354	0.001687089
676	484651.7	3755034.4	3rd	0.000715942	0.005227225
676	484651.7	3755034.4	Age>16	0	0
676	484651.7	3755034.4	Age0-2	0.000871504	0.005593783
676	484651.7	3755034.4	Age2-16	0.00034613	0.001753937
677	484751.7	3755034.4	3rd	0.000762823	0.005569509
677	484751.7	3755034.4	Age>16	0	0
677	484751.7	3755034.4	Age0-2	0.000927353	0.005956946
677	484751.7	3755034.4	Age2-16	0.000361271	0.001834671
678	484851.7	3755034.4	3rd	0.000814044	0.005943486
678	484851.7	3755034.4	Age>16	0	0
678	484851.7	3755034.4	Age0-2	0.000987973	0.006349575
678	484851.7	3755034.4	Age2-16	0.000377705	0.001922084
679	484951.7	3755034.4	3rd	0.000874526	0.006385074
679	484951.7	3755034.4	Age>16	0	0
679	484951.7	3755034.4	Age0-2	0.001059697	0.006815345
679	484951.7	3755034.4	Age2-16	0.000397282	0.002026245
680	485051.7	3755034.4	3rd	0.000945136	0.006900613
680	485051.7	3755034.4	Age>16	0	0
680	485051.7	3755034.4	Age0-2	0.001143395	0.00735875
680	485051.7	3755034.4	Age2-16	0.000420385	0.002149212
681	485151.7	3755034.4	3rd	0.00102819	0.007507005
681	485151.7	3755034.4	Age>16	0	0
681	485151.7	3755034.4	Age0-2	0.001241574	0.007995454
681	485151.7	3755034.4	Age2-16	0.00044804	0.002295928
682	485251.7	3755034.4	3rd	0.001125134	0.008214814
682	485251.7	3755034.4	Age>16	0	0
682	485251.7	3755034.4	Age0-2	0.001355415	0.008730687
682	485251.7	3755034.4	Age2-16	0.00048167	0.002473485

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
683	485351.7	3755034.4	3rd	0.001241468	0.009064185
683	485351.7	3755034.4	Age>16	0	0
683	485351.7	3755034.4	Age0-2	0.001491214	0.0096043
683	485351.7	3755034.4	Age2-16	0.000525576	0.002704107
684	485451.7	3755034.4	3rd	0.001380662	0.010080473
684	485451.7	3755034.4	Age>16	0	0
684	485451.7	3755034.4	Age0-2	0.0016512	0.010622202
684	485451.7	3755034.4	Age2-16	0.000586786	0.003023126
685	485549.5	3750934.9	3rd	0.000174789	0.00127617
685	485549.5	3750934.9	Age>16	0	0
685	485549.5	3750934.9	Age0-2	0.000215656	0.001231781
685	485549.5	3750934.9	Age2-16	0.000404442	0.001825776
686	485649.5	3750934.9	3rd	0.000170738	0.00124659
686	485649.5	3750934.9	Age>16	0	0
686	485649.5	3750934.9	Age0-2	0.000209896	0.001197338
686	485649.5	3750934.9	Age2-16	0.000404198	0.001811877
687	485749.5	3750934.9	3rd	0.000168423	0.001229687
687	485749.5	3750934.9	Age>16	0	0
687	485749.5	3750934.9	Age0-2	0.000206217	0.00117434
687	485749.5	3750934.9	Age2-16	0.000404912	0.001801764
688	485849.5	3750934.9	3rd	0.00016495	0.001204332
688	485849.5	3750934.9	Age>16	0	0
688	485849.5	3750934.9	Age0-2	0.00020121	0.001144306
688	485849.5	3750934.9	Age2-16	0.000403755	0.001782683
689	485549.5	3751034.9	3rd	0.00018376	0.001341668
689	485549.5	3751034.9	Age>16	0	0
689	485549.5	3751034.9	Age0-2	0.000228589	0.001308985
689	485549.5	3751034.9	Age2-16	0.000426195	0.001944369
690	485649.5	3751034.9	3rd	0.000178551	0.001303637
690	485649.5	3751034.9	Age>16	0	0
690	485649.5	3751034.9	Age0-2	0.000221165	0.001264891
690	485649.5	3751034.9	Age2-16	0.000425698	0.001928974
691	485749.5	3751034.9	3rd	0.000175658	0.001282508
691	485749.5	3751034.9	Age>16	0	0
691	485749.5	3751034.9	Age0-2	0.000216779	0.001237823
691	485749.5	3751034.9	Age2-16	0.00042736	0.001922902
692	485849.5	3751034.9	3rd	0.000172474	0.001259267
692	485849.5	3751034.9	Age>16	0	0
692	485849.5	3751034.9	Age0-2	0.000212	0.001208718
692	485849.5	3751034.9	Age2-16	0.000427833	0.001910758
693	485549.5	3751134.9	3rd	0.000193021	0.00140928
693	485549.5	3751134.9	Age>16	0	0
693	485549.5	3751134.9	Age0-2	0.000242325	0.001391897
693	485549.5	3751134.9	Age2-16	0.000448616	0.002068412

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
694	485649.5	3751134.9	3rd	0.000187233	0.001367023
694	485649.5	3751134.9	Age>16	0	0
694	485649.5	3751134.9	Age0-2	0.00023402	0.001342326
694	485649.5	3751134.9	Age2-16	0.000448796	0.002056154
695	485749.5	3751134.9	3rd	0.00018405	0.001343781
695	485749.5	3751134.9	Age>16	0	0
695	485749.5	3751134.9	Age0-2	0.000229008	0.001311195
695	485749.5	3751134.9	Age2-16	0.000451012	0.002052395
696	485849.5	3751134.9	3rd	0.000179998	0.001314201
696	485849.5	3751134.9	Age>16	0	0
696	485849.5	3751134.9	Age0-2	0.000223038	0.001275155
696	485849.5	3751134.9	Age2-16	0.000452049	0.002042449
697	485549.5	3751234.9	3rd	0.000203439	0.001485343
697	485549.5	3751234.9	Age>16	0	0
697	485549.5	3751234.9	Age0-2	0.000258166	0.001487927
697	485549.5	3751234.9	Age2-16	0.000472934	0.002203581
698	485649.5	3751234.9	3rd	0.000196783	0.001436747
698	485649.5	3751234.9	Age>16	0	0
698	485649.5	3751234.9	Age0-2	0.000248442	0.001429613
698	485649.5	3751234.9	Age2-16	0.000473212	0.002191917
699	485749.5	3751234.9	3rd	0.000192731	0.001407167
699	485749.5	3751234.9	Age>16	0	0
699	485749.5	3751234.9	Age0-2	0.000242172	0.001390992
699	485749.5	3751234.9	Age2-16	0.00047598	0.002190718
700	485849.5	3751234.9	3rd	0.000189548	0.001383926
700	485849.5	3751234.9	Age>16	0	0
700	485849.5	3751234.9	Age0-2	0.000237102	0.001359632
700	485849.5	3751234.9	Age2-16	0.000479233	0.002190892
701	485549.5	3751334.9	3rd	0.000213857	0.001561406
701	485549.5	3751334.9	Age>16	0	0
701	485549.5	3751334.9	Age0-2	0.000274799	0.001590194
701	485549.5	3751334.9	Age2-16	0.000498166	0.002344992
702	485649.5	3751334.9	3rd	0.000208069	0.001519149
702	485649.5	3751334.9	Age>16	0	0
702	485649.5	3751334.9	Age0-2	0.000265748	0.001534543
702	485649.5	3751334.9	Age2-16	0.000500507	0.002343396
703	485749.5	3751334.9	3rd	0.00020286	0.001481117
703	485749.5	3751334.9	Age>16	0	0
703	485749.5	3751334.9	Age0-2	0.000257625	0.001484709
703	485749.5	3751334.9	Age2-16	0.000503046	0.002341574
704	485849.5	3751334.9	3rd	0.000199677	0.001457876
704	485849.5	3751334.9	Age>16	0	0
704	485849.5	3751334.9	Age0-2	0.000252413	0.001452405
704	485849.5	3751334.9	Age2-16	0.000507887	0.002349287

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
705	485549.5	3751434.9	3rd	0.000227168	0.001658598
705	485549.5	3751434.9	Age>16	0	0
705	485549.5	3751434.9	Age0-2	0.00029609	0.001721079
705	485549.5	3751434.9	Age2-16	0.000526953	0.002504479
706	485649.5	3751434.9	3rd	0.000221381	0.001616341
706	485649.5	3751434.9	Age>16	0	0
706	485649.5	3751434.9	Age0-2	0.000286615	0.001662042
706	485649.5	3751434.9	Age2-16	0.000530906	0.002511361
707	485749.5	3751434.9	3rd	0.000214725	0.001567745
707	485749.5	3751434.9	Age>16	0	0
707	485749.5	3751434.9	Age0-2	0.000276189	0.001597905
707	485749.5	3751434.9	Age2-16	0.000533282	0.002509516
708	485849.5	3751434.9	3rd	0.000211541	0.001544503
708	485849.5	3751434.9	Age>16	0	0
708	485849.5	3751434.9	Age0-2	0.00027072	0.001564405
708	485849.5	3751434.9	Age2-16	0.000539605	0.002524718
709	485549.5	3751534.9	3rd	0.000247136	0.001804386
709	485549.5	3751534.9	Age>16	0	0
709	485549.5	3751534.9	Age0-2	0.000327528	0.001917841
709	485549.5	3751534.9	Age2-16	0.000563603	0.002699996
710	485649.5	3751534.9	3rd	0.000239901	0.001751564
710	485649.5	3751534.9	Age>16	0	0
710	485649.5	3751534.9	Age0-2	0.000315609	0.001842893
710	485649.5	3751534.9	Age2-16	0.000568057	0.002710899
711	485749.5	3751534.9	3rd	0.000230062	0.001679727
711	485749.5	3751534.9	Age>16	0	0
711	485749.5	3751534.9	Age0-2	0.000300406	0.001747292
711	485749.5	3751534.9	Age2-16	0.000568594	0.002702995
712	485849.5	3751534.9	3rd	0.000223696	0.001633244
712	485849.5	3751534.9	Age>16	0	0
712	485849.5	3751534.9	Age0-2	0.000290126	0.001683581
712	485849.5	3751534.9	Age2-16	0.000572647	0.002708665
713	485549.5	3751634.9	3rd	0.000295174	0.002155121
713	485549.5	3751634.9	Age>16	0	0
713	485549.5	3751634.9	Age0-2	0.000404305	0.002425077
713	485549.5	3751634.9	Age2-16	0.000685646	0.003299947
714	485649.5	3751634.9	3rd	0.000267682	0.001954399
714	485649.5	3751634.9	Age>16	0	0
714	485649.5	3751634.9	Age0-2	0.000359425	0.002124437
714	485649.5	3751634.9	Age2-16	0.000628446	0.003012022
715	485749.5	3751634.9	3rd	0.000255239	0.001863546
715	485749.5	3751634.9	Age>16	0	0
715	485749.5	3751634.9	Age0-2	0.000339714	0.001997543
715	485749.5	3751634.9	Age2-16	0.000622166	0.002975349

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
716	485849.5	3751634.9	3rd	0.000236139	0.001724097
716	485849.5	3751634.9	Age>16	0	0
716	485849.5	3751634.9	Age0-2	0.000311099	0.001813522
716	485849.5	3751634.9	Age2-16	0.000607639	0.002904259
717	485549.5	3751734.9	3rd	0.000344659	0.002516421
717	485549.5	3751734.9	Age>16	0	0
717	485549.5	3751734.9	Age0-2	0.000497766	0.003060987
717	485549.5	3751734.9	Age2-16	0.000846766	0.004165917
718	485649.5	3751734.9	3rd	0.000322666	0.002355843
718	485649.5	3751734.9	Age>16	0	0
718	485649.5	3751734.9	Age0-2	0.000456326	0.002780848
718	485649.5	3751734.9	Age2-16	0.000809294	0.003944804
719	485749.5	3751734.9	3rd	0.000293438	0.002142444
719	485749.5	3751734.9	Age>16	0	0
719	485749.5	3751734.9	Age0-2	0.000403331	0.002419273
719	485749.5	3751734.9	Age2-16	0.00073298	0.003530884
720	485849.5	3751734.9	3rd	0.000255528	0.001865659
720	485849.5	3751734.9	Age>16	0	0
720	485849.5	3751734.9	Age0-2	0.000343161	0.002015235
720	485849.5	3751734.9	Age2-16	0.000652662	0.003146774
721	485549.5	3751834.9	3rd	0.00038199	0.00278898
721	485549.5	3751834.9	Age>16	0	0
721	485549.5	3751834.9	Age0-2	0.000571286	0.003555619
721	485549.5	3751834.9	Age2-16	0.000937278	0.004677516
722	485649.5	3751834.9	3rd	0.00035826	0.002615725
722	485649.5	3751834.9	Age>16	0	0
722	485649.5	3751834.9	Age0-2	0.000525885	0.003248938
722	485649.5	3751834.9	Age2-16	0.000912239	0.004516286
723	485749.5	3751834.9	3rd	0.000336846	0.002459373
723	485749.5	3751834.9	Age>16	0	0
723	485749.5	3751834.9	Age0-2	0.000485039	0.002973436
723	485749.5	3751834.9	Age2-16	0.000882898	0.00433473
724	485849.5	3751834.9	3rd	0.000298936	0.002182588
724	485849.5	3751834.9	Age>16	0	0
724	485849.5	3751834.9	Age0-2	0.000414641	0.002487645
724	485849.5	3751834.9	Age2-16	0.000770119	0.003727369
725	485549.5	3751934.9	3rd	0.000427134	0.003118587
725	485549.5	3751934.9	Age>16	0	0
725	485549.5	3751934.9	Age0-2	0.000662065	0.004171528
725	485549.5	3751934.9	Age2-16	0.001027659	0.005201414
726	485649.5	3751934.9	3rd	0.0004008	0.002926316
726	485649.5	3751934.9	Age>16	0	0
726	485649.5	3751934.9	Age0-2	0.000612579	0.003837116
726	485649.5	3751934.9	Age2-16	0.001021031	0.005134512

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
727	485749.5	3751934.9	3rd	0.000381122	0.002782641
727	485749.5	3751934.9	Age>16	0	0
727	485749.5	3751934.9	Age0-2	0.000575654	0.003592385
727	485749.5	3751934.9	Age2-16	0.00102348	0.005121068
728	485849.5	3751934.9	3rd	0.000357971	0.002613612
728	485849.5	3751934.9	Age>16	0	0
728	485849.5	3751934.9	Age0-2	0.000529968	0.003282598
728	485849.5	3751934.9	Age2-16	0.000996926	0.00494754
729	485549.5	3752034.9	3rd	0.000482407	0.003522144
729	485549.5	3752034.9	Age>16	0	0
729	485549.5	3752034.9	Age0-2	0.000770624	0.00491533
729	485549.5	3752034.9	Age2-16	0.001098349	0.005634276
730	485649.5	3752034.9	3rd	0.000449128	0.003279164
730	485649.5	3752034.9	Age>16	0	0
730	485649.5	3752034.9	Age0-2	0.000713162	0.004524153
730	485649.5	3752034.9	Age2-16	0.001116799	0.005695637
731	485749.5	3752034.9	3rd	0.000425109	0.003103797
731	485749.5	3752034.9	Age>16	0	0
731	485749.5	3752034.9	Age0-2	0.000668757	0.004227505
731	485749.5	3752034.9	Age2-16	0.001130822	0.005740937
732	485849.5	3752034.9	3rd	0.000399064	0.002913639
732	485849.5	3752034.9	Age>16	0	0
732	485849.5	3752034.9	Age0-2	0.000617077	0.003876155
732	485849.5	3752034.9	Age2-16	0.001121618	0.005655446
733	485549.5	3752134.9	3rd	0.000545783	0.003984861
733	485549.5	3752134.9	Age>16	0	0
733	485549.5	3752134.9	Age0-2	0.000883542	0.005698795
733	485549.5	3752134.9	Age2-16	0.00111245	0.005776543
734	485649.5	3752134.9	3rd	0.000518291	0.003784139
734	485649.5	3752134.9	Age>16	0	0
734	485649.5	3752134.9	Age0-2	0.000848025	0.005464842
734	485649.5	3752134.9	Age2-16	0.001178881	0.006104503
735	485749.5	3752134.9	3rd	0.000486459	0.003551724
735	485749.5	3752134.9	Age>16	0	0
735	485749.5	3752134.9	Age0-2	0.000797004	0.005117433
735	485749.5	3752134.9	Age2-16	0.001230574	0.006345503
736	485849.5	3752134.9	3rd	0.000453179	0.003308745
736	485849.5	3752134.9	Age>16	0	0
736	485849.5	3752134.9	Age0-2	0.000735899	0.004698093
736	485849.5	3752134.9	Age2-16	0.00125699	0.006443999
737	485549.5	3752234.9	3rd	0.000638386	0.004660977
737	485549.5	3752234.9	Age>16	0	0
737	485549.5	3752234.9	Age0-2	0.000987596	0.006419642
737	485549.5	3752234.9	Age2-16	0.000945983	0.004971572

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
738	485649.5	3752234.9	3rd	0.000596136	0.004352499
738	485649.5	3752234.9	Age>16	0	0
738	485649.5	3752234.9	Age0-2	0.000969149	0.006307428
738	485649.5	3752234.9	Age2-16	0.001127301	0.005909643
739	485749.5	3752234.9	3rd	0.000555332	0.004054585
739	485749.5	3752234.9	Age>16	0	0
739	485749.5	3752234.9	Age0-2	0.000929721	0.0060458
739	485749.5	3752234.9	Age2-16	0.001259477	0.00658019
740	485849.5	3752234.9	3rd	0.000515108	0.003760897
740	485849.5	3752234.9	Age>16	0	0
740	485849.5	3752234.9	Age0-2	0.000869854	0.005630683
740	485849.5	3752234.9	Age2-16	0.001347778	0.007005217
741	485549.5	3752334.9	3rd	0.000691923	0.005051857
741	485549.5	3752334.9	Age>16	0	0
741	485549.5	3752334.9	Age0-2	0.001077784	0.007008899
741	485549.5	3752334.9	Age2-16	0.000985702	0.005207776
742	485649.5	3752334.9	3rd	0.000682373	0.004982133
742	485649.5	3752334.9	Age>16	0	0
742	485649.5	3752334.9	Age0-2	0.001081603	0.007066195
742	485649.5	3752334.9	Age2-16	0.001038758	0.005497333
743	485749.5	3752334.9	3rd	0.000654013	0.004775072
743	485749.5	3752334.9	Age>16	0	0
743	485749.5	3752334.9	Age0-2	0.001072103	0.007031106
743	485749.5	3752334.9	Age2-16	0.001164181	0.006159515
744	485849.5	3752334.9	3rd	0.000596136	0.004352499
744	485849.5	3752334.9	Age>16	0	0
744	485849.5	3752334.9	Age0-2	0.001026665	0.006733089
744	485849.5	3752334.9	Age2-16	0.001360656	0.007167881
745	485549.5	3752434.9	3rd	0.000750379	0.005478656
745	485549.5	3752434.9	Age>16	0	0
745	485549.5	3752434.9	Age0-2	0.001174538	0.007641098
745	485549.5	3752434.9	Age2-16	0.001023785	0.005437895
746	485649.5	3752434.9	3rd	0.00074054	0.005406818
746	485649.5	3752434.9	Age>16	0	0
746	485649.5	3752434.9	Age0-2	0.001184652	0.007746439
746	485649.5	3752434.9	Age2-16	0.001083844	0.005768492
747	485749.5	3752434.9	3rd	0.000730411	0.005332868
747	485749.5	3752434.9	Age>16	0	0
747	485749.5	3752434.9	Age0-2	0.001193304	0.007842023
747	485749.5	3752434.9	Age2-16	0.001150118	0.006131624
748	485849.5	3752434.9	3rd	0.000718836	0.005248353
748	485849.5	3752434.9	Age>16	0	0
748	485849.5	3752434.9	Age0-2	0.001198134	0.00791313
748	485849.5	3752434.9	Age2-16	0.001222928	0.006529035

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
749	485549.5	3752534.9	3rd	0.000817806	0.005970953
749	485549.5	3752534.9	Age>16	0	0
749	485549.5	3752534.9	Age0-2	0.001282817	0.008345348
749	485549.5	3752534.9	Age2-16	0.001065206	0.00568736
750	485649.5	3752534.9	3rd	0.000807099	0.005892777
750	485649.5	3752534.9	Age>16	0	0
750	485649.5	3752534.9	Age0-2	0.001299909	0.008505031
750	485649.5	3752534.9	Age2-16	0.001131552	0.006056415
751	485749.5	3752534.9	3rd	0.000795813	0.005810375
751	485749.5	3752534.9	Age>16	0	0
751	485749.5	3752534.9	Age0-2	0.001316448	0.008662452
751	485749.5	3752534.9	Age2-16	0.001205458	0.006465545
752	485849.5	3752534.9	3rd	0.000784237	0.005725861
752	485849.5	3752534.9	Age>16	0	0
752	485849.5	3752534.9	Age0-2	0.001331874	0.008812855
752	485849.5	3752534.9	Age2-16	0.001289227	0.006926819
753	485549.5	3752634.9	3rd	0.000896519	0.006545652
753	485549.5	3752634.9	Age>16	0	0
753	485549.5	3752634.9	Age0-2	0.001404491	0.009131891
753	485549.5	3752634.9	Age2-16	0.00111156	0.005964822
754	485649.5	3752634.9	3rd	0.000884944	0.006461137
754	485649.5	3752634.9	Age>16	0	0
754	485649.5	3752634.9	Age0-2	0.00143091	0.009363829
754	485649.5	3752634.9	Age2-16	0.001186636	0.006386438
755	485749.5	3752634.9	3rd	0.000871921	0.006366058
755	485749.5	3752634.9	Age>16	0	0
755	485749.5	3752634.9	Age0-2	0.001457333	0.009598968
755	485749.5	3752634.9	Age2-16	0.001269161	0.006848118
756	485849.5	3752634.9	3rd	0.00085832	0.006266754
756	485849.5	3752634.9	Age>16	0	0
756	485849.5	3752634.9	Age0-2	0.00148416	0.009838753
756	485849.5	3752634.9	Age2-16	0.001362072	0.007365205
757	485549.5	3752734.9	3rd	0.000987965	0.007213317
757	485549.5	3752734.9	Age>16	0	0
757	485549.5	3752734.9	Age0-2	0.001538498	0.009990307
757	485549.5	3752734.9	Age2-16	0.001161722	0.006263255
758	485649.5	3752734.9	3rd	0.000975811	0.007124576
758	485649.5	3752734.9	Age>16	0	0
758	485649.5	3752734.9	Age0-2	0.001576729	0.010312903
758	485649.5	3752734.9	Age2-16	0.001248766	0.006755987
759	485749.5	3752734.9	3rd	0.00096192	0.007023159
759	485749.5	3752734.9	Age>16	0	0
759	485749.5	3752734.9	Age0-2	0.001618512	0.010665647
759	485749.5	3752734.9	Age2-16	0.001346287	0.007306347

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
760	485849.5	3752734.9	3rd	0.000946872	0.00691329
760	485849.5	3752734.9	Age>16	0	0
760	485849.5	3752734.9	Age0-2	0.001664366	0.011050916
760	485849.5	3752734.9	Age2-16	0.001455797	0.007922025
761	485549.5	3752834.9	3rd	0.001093012	0.007980286
761	485549.5	3752834.9	Age>16	0	0
761	485549.5	3752834.9	Age0-2	0.001683006	0.010905917
761	485549.5	3752834.9	Age2-16	0.00121422	0.006573301
762	485649.5	3752834.9	3rd	0.001081437	0.007895772
762	485649.5	3752834.9	Age>16	0	0
762	485649.5	3752834.9	Age0-2	0.001735427	0.011335107
762	485649.5	3752834.9	Age2-16	0.001316974	0.007158003
763	485749.5	3752834.9	3rd	0.001067546	0.007794354
763	485749.5	3752834.9	Age>16	0	0
763	485749.5	3752834.9	Age0-2	0.001796704	0.011835015
763	485749.5	3752834.9	Age2-16	0.001437152	0.00783973
764	485849.5	3752834.9	3rd	0.001051341	0.007676034
764	485849.5	3752834.9	Age>16	0	0
764	485849.5	3752834.9	Age0-2	0.001868896	0.012420121
764	485849.5	3752834.9	Age2-16	0.001576542	0.008627065
765	485549.5	3752934.9	3rd	0.001214555	0.008867689
765	485549.5	3752934.9	Age>16	0	0
765	485549.5	3752934.9	Age0-2	0.001838859	0.011879964
765	485549.5	3752934.9	Age2-16	0.001268803	0.006892399
766	485649.5	3752934.9	3rd	0.001205294	0.008800077
766	485649.5	3752934.9	Age>16	0	0
766	485649.5	3752934.9	Age0-2	0.001907269	0.012426493
766	485649.5	3752934.9	Age2-16	0.001389715	0.007583131
767	485749.5	3752934.9	3rd	0.001191983	0.008702885
767	485749.5	3752934.9	Age>16	0	0
767	485749.5	3752934.9	Age0-2	0.001989223	0.013082041
767	485749.5	3752934.9	Age2-16	0.00154011	0.008437508
768	485849.5	3752934.9	3rd	0.001175487	0.008582452
768	485849.5	3752934.9	Age>16	0	0
768	485849.5	3752934.9	Age0-2	0.002093756	0.01391121
768	485849.5	3752934.9	Age2-16	0.001735971	0.009540231
769	485549.5	3753034.9	3rd	0.001354039	0.009886089
769	485549.5	3753034.9	Age>16	0	0
769	485549.5	3753034.9	Age0-2	0.002005553	0.012906979
769	485549.5	3753034.9	Age2-16	0.001325824	0.007221668
770	485649.5	3753034.9	3rd	0.001349119	0.00985017
770	485649.5	3753034.9	Age>16	0	0
770	485649.5	3753034.9	Age0-2	0.002090627	0.013572848
770	485649.5	3753034.9	Age2-16	0.00146396	0.00801314

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
771	485749.5	3753034.9	3rd	0.001338991	0.00977622
771	485749.5	3753034.9	Age>16	0	0
771	485749.5	3753034.9	Age0-2	0.002194918	0.01439272
771	485749.5	3753034.9	Age2-16	0.001646586	0.009052187
772	485849.5	3753034.9	3rd	0.001323653	0.009664238
772	485849.5	3753034.9	Age>16	0	0
772	485849.5	3753034.9	Age0-2	0.002331201	0.015459779
772	485849.5	3753034.9	Age2-16	0.001921235	0.010589514
773	485549.5	3753134.9	3rd	0.001512912	0.011046051
773	485549.5	3753134.9	Age>16	0	0
773	485549.5	3753134.9	Age0-2	0.002183711	0.013990161
773	485549.5	3753134.9	Age2-16	0.001391655	0.007594837
774	485649.5	3753134.9	3rd	0.001515806	0.01106718
774	485649.5	3753134.9	Age>16	0	0
774	485649.5	3753134.9	Age0-2	0.002286698	0.014778922
774	485649.5	3753134.9	Age2-16	0.001544092	0.008471164
775	485749.5	3753134.9	3rd	0.001511465	0.011035487
775	485749.5	3753134.9	Age>16	0	0
775	485749.5	3753134.9	Age0-2	0.002412057	0.015749385
775	485749.5	3753134.9	Age2-16	0.001748713	0.009639352
776	485849.5	3753134.9	3rd	0.0014996	0.01094886
776	485849.5	3753134.9	Age>16	0	0
776	485849.5	3753134.9	Age0-2	0.002576949	0.017028382
776	485849.5	3753134.9	Age2-16	0.00207729	0.011480532
777	485549.5	3753234.9	3rd	0.001722717	0.012577877
777	485549.5	3753234.9	Age>16	0	0
777	485549.5	3753234.9	Age0-2	0.002426751	0.015462461
777	485549.5	3753234.9	Age2-16	0.00151654	0.0082844
778	485649.5	3753234.9	3rd	0.00170709	0.012463783
778	485649.5	3753234.9	Age>16	0	0
778	485649.5	3753234.9	Age0-2	0.002496177	0.016047699
778	485649.5	3753234.9	Age2-16	0.001649874	0.009061619
779	485749.5	3753234.9	3rd	0.001713167	0.012508153
779	485749.5	3753234.9	Age>16	0	0
779	485749.5	3753234.9	Age0-2	0.002643699	0.017169127
779	485749.5	3753234.9	Age2-16	0.001867221	0.010308402
780	485849.5	3753234.9	3rd	0.001709116	0.012478573
780	485849.5	3753234.9	Age>16	0	0
780	485849.5	3753234.9	Age0-2	0.002835811	0.018642759
780	485849.5	3753234.9	Age2-16	0.002214806	0.012265826
781	485549.5	3753334.9	3rd	0.002051749	0.014980203
781	485549.5	3753334.9	Age>16	0	0
781	485549.5	3753334.9	Age0-2	0.002807556	0.01775341
781	485549.5	3753334.9	Age2-16	0.001756514	0.009587384

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
782	485649.5	3753334.9	3rd	0.002048277	0.014954849
782	485649.5	3753334.9	Age>16	0	0
782	485649.5	3753334.9	Age0-2	0.002920444	0.018624768
782	485649.5	3753334.9	Age2-16	0.001946378	0.010674942
783	485749.5	3753334.9	3rd	0.002008342	0.014663274
783	485749.5	3753334.9	Age>16	0	0
783	485749.5	3753334.9	Age0-2	0.003014114	0.019430102
783	485749.5	3753334.9	Age2-16	0.002161592	0.011914244
784	485849.5	3753334.9	3rd	0.001991846	0.014542841
784	485849.5	3753334.9	Age>16	0	0
784	485849.5	3753334.9	Age0-2	0.003210968	0.020960293
784	485849.5	3753334.9	Age2-16	0.002507695	0.013876185
785	485549.5	3753434.9	3rd	0.00253242	0.01848967
785	485549.5	3753434.9	Age>16	0	0
785	485549.5	3753434.9	Age0-2	0.003344763	0.020953441
785	485549.5	3753434.9	Age2-16	0.002336229	0.01264771
786	485649.5	3753434.9	3rd	0.002506375	0.018299512
786	485649.5	3753434.9	Age>16	0	0
786	485649.5	3753434.9	Age0-2	0.003438636	0.021713556
786	485649.5	3753434.9	Age2-16	0.002751425	0.014881158
787	485749.5	3753434.9	3rd	0.002459205	0.017955116
787	485749.5	3753434.9	Age>16	0	0
787	485749.5	3753434.9	Age0-2	0.003548568	0.022636617
787	485749.5	3753434.9	Age2-16	0.003067755	0.016641862
788	485849.5	3753434.9	3rd	0.002407695	0.017579026
788	485849.5	3753434.9	Age>16	0	0
788	485849.5	3753434.9	Age0-2	0.003716751	0.024006273
788	485849.5	3753434.9	Age2-16	0.003439061	0.018725895
789	485508.5	3746711.3	3rd	0.000101285	0.000739502
789	485508.5	3746711.3	Age>16	0	0
789	485508.5	3746711.3	Age0-2	0.000127262	0.000785175
789	485508.5	3746711.3	Age2-16	0.000128951	0.000576128
790	491508.5	3746711.3	3rd	7.40829E-05	0.000540893
790	491508.5	3746711.3	Age>16	0	0
790	491508.5	3746711.3	Age0-2	9.24639E-05	0.000570648
790	491508.5	3746711.3	Age2-16	9.50321E-05	0.000421085
791	479508.5	3752711.3	3rd	0.000203439	0.001485343
791	479508.5	3752711.3	Age>16	0	0
791	479508.5	3752711.3	Age0-2	0.000236913	0.001405576
791	479508.5	3752711.3	Age2-16	0.000132429	0.000626354
792	485508.5	3752711.3	3rd	0.000969734	0.007080206
792	485508.5	3752711.3	Age>16	0	0
792	485508.5	3752711.3	Age0-2	0.001492266	0.009666397
792	485508.5	3752711.3	Age2-16	0.001117771	0.006011117

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
793	491508.5	3752711.3	3rd	0.000282152	0.002060042
793	491508.5	3752711.3	Age>16	0	0
793	491508.5	3752711.3	Age0-2	0.000372237	0.002299045
793	491508.5	3752711.3	Age2-16	0.000971088	0.003518963
794	485508.5	3758711.3	3rd	0.000133697	0.000976143
794	485508.5	3758711.3	Age>16	0	0
794	485508.5	3758711.3	Age0-2	0.000150086	0.000867063
794	485508.5	3758711.3	Age2-16	8.65686E-05	0.000387676
795	491508.5	3758711.3	3rd	0.000107362	0.000783872
795	491508.5	3758711.3	Age>16	0	0
795	491508.5	3758711.3	Age0-2	0.000118359	0.000660916
795	491508.5	3758711.3	Age2-16	8.07003E-05	0.000350226
796	485921.9	3750934.2	3rd	0.000162056	0.001183204
796	485921.9	3750934.2	Age>16	0	0
796	485921.9	3750934.2	Age0-2	0.000197	0.001119166
796	485921.9	3750934.2	Age2-16	0.000401583	0.00176236
797	486021.9	3750934.2	3rd	0.000158584	0.001157849
797	486021.9	3750934.2	Age>16	0	0
797	486021.9	3750934.2	Age0-2	0.000192099	0.001089907
797	486021.9	3750934.2	Age2-16	0.000399015	0.001736249
798	486121.9	3750934.2	3rd	0.000156558	0.001143059
798	486121.9	3750934.2	Age>16	0	0
798	486121.9	3750934.2	Age0-2	0.000189065	0.001070955
798	486121.9	3750934.2	Age2-16	0.000397439	0.001714341
799	485921.9	3751034.2	3rd	0.000169002	0.001233912
799	485921.9	3751034.2	Age>16	0	0
799	485921.9	3751034.2	Age0-2	0.000207019	0.001179139
799	485921.9	3751034.2	Age2-16	0.000425976	0.001891359
800	486021.9	3751034.2	3rd	0.000164082	0.001197994
800	486021.9	3751034.2	Age>16	0	0
800	486021.9	3751034.2	Age0-2	0.000199962	0.001137429
800	486021.9	3751034.2	Age2-16	0.000422241	0.00185893
801	486121.9	3751034.2	3rd	0.000161188	0.001176865
801	486121.9	3751034.2	Age>16	0	0
801	486121.9	3751034.2	Age0-2	0.000195764	0.00111182
801	486121.9	3751034.2	Age2-16	0.000420873	0.001837047
802	485921.9	3751134.2	3rd	0.000177104	0.001293073
802	485921.9	3751134.2	Age>16	0	0
802	485921.9	3751134.2	Age0-2	0.000218586	0.001248052
802	485921.9	3751134.2	Age2-16	0.000451645	0.002029319
803	486021.9	3751134.2	3rd	0.000171606	0.001252928
803	486021.9	3751134.2	Age>16	0	0
803	486021.9	3751134.2	Age0-2	0.000210749	0.00120181
803	486021.9	3751134.2	Age2-16	0.000449049	0.00200139

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
804	486121.9	3751134.2	3rd	0.000167265	0.001221235
804	486121.9	3751134.2	Age>16	0	0
804	486121.9	3751134.2	Age0-2	0.000204383	0.001163599
804	486121.9	3751134.2	Age2-16	0.000446629	0.001973851
805	485921.9	3751234.2	3rd	0.000185786	0.001356458
805	485921.9	3751234.2	Age>16	0	0
805	485921.9	3751234.2	Age0-2	0.000231396	0.001325048
805	485921.9	3751234.2	Age2-16	0.000478992	0.00217823
806	486021.9	3751234.2	3rd	0.000180288	0.001316314
806	486021.9	3751234.2	Age>16	0	0
806	486021.9	3751234.2	Age0-2	0.000223356	0.001277063
806	486021.9	3751234.2	Age2-16	0.000478032	0.00215748
807	486121.9	3751234.2	3rd	0.000175079	0.001278283
807	486121.9	3751234.2	Age>16	0	0
807	486121.9	3751234.2	Age0-2	0.000215646	0.001230934
807	486121.9	3751234.2	Age2-16	0.000476074	0.002131309
808	485921.9	3751334.2	3rd	0.000195625	0.001428296
808	485921.9	3751334.2	Age>16	0	0
808	485921.9	3751334.2	Age0-2	0.000246139	0.001414014
808	485921.9	3751334.2	Age2-16	0.00050842	0.002340213
809	486021.9	3751334.2	3rd	0.000190127	0.001388151
809	486021.9	3751334.2	Age>16	0	0
809	486021.9	3751334.2	Age0-2	0.000237918	0.001364378
809	486021.9	3751334.2	Age2-16	0.000509358	0.002328004
810	486121.9	3751334.2	3rd	0.00018376	0.001341668
810	486121.9	3751334.2	Age>16	0	0
810	486121.9	3751334.2	Age0-2	0.000228473	0.001307935
810	486121.9	3751334.2	Age2-16	0.000507849	0.002303616
811	485921.9	3751434.2	3rd	0.000206911	0.001510698
811	485921.9	3751434.2	Age>16	0	0
811	485921.9	3751434.2	Age0-2	0.000263461	0.001519507
811	485921.9	3751434.2	Age2-16	0.000540654	0.002518327
812	486021.9	3751434.2	3rd	0.000200545	0.001464215
812	486021.9	3751434.2	Age>16	0	0
812	486021.9	3751434.2	Age0-2	0.000253792	0.001460565
812	486021.9	3751434.2	Age2-16	0.000542307	0.002509646
813	486121.9	3751434.2	3rd	0.000194178	0.001417732
813	486121.9	3751434.2	Age>16	0	0
813	486121.9	3751434.2	Age0-2	0.000244081	0.001401652
813	486121.9	3751434.2	Age2-16	0.000542914	0.002495154
814	485921.9	3751534.2	3rd	0.000218487	0.001595212
814	485921.9	3751534.2	Age>16	0	0
814	485921.9	3751534.2	Age0-2	0.000281972	0.001633309
814	485921.9	3751534.2	Age2-16	0.000574612	0.002707245

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (μg/m^3)	Unmitigated CSTN Conc (μg/m3)
815	486021.9	3751534.2	3rd	0.000212699	0.001552955
815	486021.9	3751534.2	Age>16	0	0
815	486021.9	3751534.2	Age0-2	0.000272673	0.001575894
815	486021.9	3751534.2	Age2-16	0.000578645	0.002710371
816	486121.9	3751534.2	3rd	0.000205754	0.001502246
816	486121.9	3751534.2	Age>16	0	0
816	486121.9	3751534.2	Age0-2	0.000261762	0.001508588
816	486121.9	3751534.2	Age2-16	0.000580548	0.002702463
817	485921.9	3751634.2	3rd	0.000230352	0.001681839
817	485921.9	3751634.2	Age>16	0	0
817	485921.9	3751634.2	Age0-2	0.000301737	0.001755225
817	485921.9	3751634.2	Age2-16	0.000610258	0.002906671
818	486021.9	3751634.2	3rd	0.000227747	0.001662824
818	486021.9	3751634.2	Age>16	0	0
818	486021.9	3751634.2	Age0-2	0.000296332	0.001722156
818	486021.9	3751634.2	Age2-16	0.000620111	0.002937446
819	486121.9	3751634.2	3rd	0.000219065	0.001599438
819	486121.9	3751634.2	Age>16	0	0
819	486121.9	3751634.2	Age0-2	0.000282748	0.001637341
819	486121.9	3751634.2	Age2-16	0.0006224	0.002932766
820	485921.9	3751734.2	3rd	0.000246268	0.001798047
820	485921.9	3751734.2	Age>16	0	0
820	485921.9	3751734.2	Age0-2	0.000328516	0.001922367
820	485921.9	3751734.2	Age2-16	0.000652453	0.00313897
821	486021.9	3751734.2	3rd	0.000246268	0.001798047
821	486021.9	3751734.2	Age>16	0	0
821	486021.9	3751734.2	Age0-2	0.000326386	0.001911834
821	486021.9	3751734.2	Age2-16	0.000670457	0.0032053
822	486121.9	3751734.2	3rd	0.000232956	0.001700855
822	486121.9	3751734.2	Age>16	0	0
822	486121.9	3751734.2	Age0-2	0.000305593	0.001778976
822	486121.9	3751734.2	Age2-16	0.000667027	0.003179124
823	485921.9	3751834.2	3rd	0.000269419	0.001967076
823	485921.9	3751834.2	Age>16	0	0
823	485921.9	3751834.2	Age0-2	0.000367426	0.002170001
823	485921.9	3751834.2	Age2-16	0.000708046	0.003432039
824	486021.9	3751834.2	3rd	0.000262763	0.00191848
824	486021.9	3751834.2	Age>16	0	0
824	486021.9	3751834.2	Age0-2	0.000355297	0.002094285
824	486021.9	3751834.2	Age2-16	0.000719952	0.003474835
825	486121.9	3751834.2	3rd	0.000244821	0.001787483
825	486121.9	3751834.2	Age>16	0	0
825	486121.9	3751834.2	Age0-2	0.000326982	0.001912069
825	486121.9	3751834.2	Age2-16	0.000711329	0.003428343

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
826	485921.9	3751934.2	3rd	0.000324402	0.00236852
826	485921.9	3751934.2	Age>16	0	0
826	485921.9	3751934.2	Age0-2	0.000462923	0.002813522
826	485921.9	3751934.2	Age2-16	0.000883144	0.004317428
827	486021.9	3751934.2	3rd	0.000290255	0.002119202
827	486021.9	3751934.2	Age>16	0	0
827	486021.9	3751934.2	Age0-2	0.000403156	0.002405531
827	486021.9	3751934.2	Age2-16	0.000800116	0.003886809
828	486121.9	3751934.2	3rd	0.000267393	0.001952286
828	486121.9	3751934.2	Age>16	0	0
828	486121.9	3751934.2	Age0-2	0.000365667	0.002157421
828	486121.9	3751934.2	Age2-16	0.000774647	0.003766986
829	485921.9	3752034.2	3rd	0.00037244	0.002719256
829	485921.9	3752034.2	Age>16	0	0
829	485921.9	3752034.2	Age0-2	0.000561081	0.003486175
829	485921.9	3752034.2	Age2-16	0.001061638	0.005299133
830	486021.9	3752034.2	3rd	0.000324692	0.002370633
830	486021.9	3752034.2	Age>16	0	0
830	486021.9	3752034.2	Age0-2	0.000466668	0.002826615
830	486021.9	3752034.2	Age2-16	0.000910177	0.004463794
831	486121.9	3752034.2	3rd	0.000302119	0.00220583
831	486121.9	3752034.2	Age>16	0	0
831	486121.9	3752034.2	Age0-2	0.000426628	0.00255778
831	486121.9	3752034.2	Age2-16	0.000880702	0.004303912
832	485921.9	3752134.2	3rd	0.00042916	0.003133377
832	485921.9	3752134.2	Age>16	0	0
832	485921.9	3752134.2	Age0-2	0.000687214	0.004361908
832	485921.9	3752134.2	Age2-16	0.001252109	0.006383168
833	486021.9	3752134.2	3rd	0.000393855	0.002875607
833	486021.9	3752134.2	Age>16	0	0
833	486021.9	3752134.2	Age0-2	0.000611528	0.003834612
833	486021.9	3752134.2	Age2-16	0.001196082	0.006029149
834	486121.9	3752134.2	3rd	0.000351604	0.002567129
834	486121.9	3752134.2	Age>16	0	0
834	486121.9	3752134.2	Age0-2	0.000522236	0.003208248
834	486121.9	3752134.2	Age2-16	0.001069371	0.005300458
835	485921.9	3752234.2	3rd	0.000483854	0.003532708
835	485921.9	3752234.2	Age>16	0	0
835	485921.9	3752234.2	Age0-2	0.000811909	0.00522518
835	485921.9	3752234.2	Age2-16	0.001376753	0.007119217
836	486021.9	3752234.2	3rd	0.000452311	0.003302406
836	486021.9	3752234.2	Age>16	0	0
836	486021.9	3752234.2	Age0-2	0.000747614	0.004782883
836	486021.9	3752234.2	Age2-16	0.001396163	0.007176314

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
837	486121.9	3752234.2	3rd	0.000421925	0.003080555
837	486121.9	3752234.2	Age>16	0	0
837	486121.9	3752234.2	Age0-2	0.000680934	0.004320908
837	486121.9	3752234.2	Age2-16	0.001383294	0.007054872
838	485921.9	3752334.2	3rd	0.00056604	0.004132761
838	485921.9	3752334.2	Age>16	0	0
838	485921.9	3752334.2	Age0-2	0.000984769	0.006448426
838	485921.9	3752334.2	Age2-16	0.001446913	0.007601372
839	486021.9	3752334.2	3rd	0.000524079	0.003826396
839	486021.9	3752334.2	Age>16	0	0
839	486021.9	3752334.2	Age0-2	0.000915553	0.005966621
839	486021.9	3752334.2	Age2-16	0.001549274	0.008095399
840	486121.9	3752334.2	3rd	0.000490799	0.003583417
840	486121.9	3752334.2	Age>16	0	0
840	486121.9	3752334.2	Age0-2	0.000848604	0.005503745
840	486121.9	3752334.2	Age2-16	0.00161498	0.008396389
841	485921.9	3752434.2	3rd	0.000684688	0.004999035
841	485921.9	3752434.2	Age>16	0	0
841	485921.9	3752434.2	Age0-2	0.001178453	0.00780371
841	485921.9	3752434.2	Age2-16	0.001358066	0.007240413
842	486021.9	3752434.2	3rd	0.000619866	0.004525754
842	486021.9	3752434.2	Age>16	0	0
842	486021.9	3752434.2	Age0-2	0.001113995	0.007374012
842	486021.9	3752434.2	Age2-16	0.001580101	0.008380523
843	486121.9	3752434.2	3rd	0.000583114	0.00425742
843	486121.9	3752434.2	Age>16	0	0
843	486121.9	3752434.2	Age0-2	0.001059687	0.007012369
843	486121.9	3752434.2	Age2-16	0.001735644	0.009174236
844	485921.9	3752534.2	3rd	0.000774687	0.005656136
844	485921.9	3752534.2	Age>16	0	0
844	485921.9	3752534.2	Age0-2	0.001339862	0.00890108
844	485921.9	3752534.2	Age2-16	0.001356749	0.007296593
845	486021.9	3752534.2	3rd	0.000761086	0.005556831
845	486021.9	3752534.2	Age>16	0	0
845	486021.9	3752534.2	Age0-2	0.00134659	0.008992431
845	486021.9	3752534.2	Age2-16	0.001462215	0.007869728
846	486121.9	3752534.2	3rd	0.000746906	0.005453301
846	486121.9	3752534.2	Age>16	0	0
846	486121.9	3752534.2	Age0-2	0.001347319	0.00904163
846	486121.9	3752534.2	Age2-16	0.001591423	0.008563471
847	485921.9	3752634.2	3rd	0.000847613	0.006188578
847	485921.9	3752634.2	Age>16	0	0
847	485921.9	3752634.2	Age0-2	0.001501606	0.009999462
847	485921.9	3752634.2	Age2-16	0.001436547	0.00777742

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc ($\mu g/m^3$)	Unmitigated CSTN Conc (µg/m3)
848	486021.9	3752634.2	3rd	0.000832565	0.006078709
848	486021.9	3752634.2	Age>16	0	0
848	486021.9	3752634.2	Age0-2	0.001522263	0.010197273
848	486021.9	3752634.2	Age2-16	0.001553349	0.008418928
849	486121.9	3752634.2	3rd	0.000816359	0.005960388
849	486121.9	3752634.2	Age>16	0	0
849	486121.9	3752634.2	Age0-2	0.001535115	0.010341712
849	486121.9	3752634.2	Age2-16	0.001696637	0.009196244
850	485921.9	3752734.2	3rd	0.000934429	0.006822437
850	485921.9	3752734.2	Age>16	0	0
850	485921.9	3752734.2	Age0-2	0.001696848	0.011326857
850	485921.9	3752734.2	Age2-16	0.001541104	0.008399582
851	486021.9	3752734.2	3rd	0.000917065	0.006695665
851	486021.9	3752734.2	Age>16	0	0
851	486021.9	3752734.2	Age0-2	0.001742439	0.011714596
851	486021.9	3752734.2	Age2-16	0.001673441	0.009137236
852	486121.9	3752734.2	3rd	0.000898834	0.006562555
852	486121.9	3752734.2	Age>16	0	0
852	486121.9	3752734.2	Age0-2	0.001780765	0.012052702
852	486121.9	3752734.2	Age2-16	0.001831526	0.010008549
853	485921.9	3752834.2	3rd	0.00103774	0.007576729
853	485921.9	3752834.2	Age>16	0	0
853	485921.9	3752834.2	Age0-2	0.001928089	0.012897778
853	485921.9	3752834.2	Age2-16	0.00168747	0.009252658
854	486021.9	3752834.2	3rd	0.001018061	0.007433054
854	486021.9	3752834.2	Age>16	0	0
854	486021.9	3752834.2	Age0-2	0.002020887	0.013639696
854	486021.9	3752834.2	Age2-16	0.001851909	0.010181171
855	486121.9	3752834.2	3rd	0.000996936	0.007278815
855	486121.9	3752834.2	Age>16	0	0
855	486121.9	3752834.2	Age0-2	0.002113911	0.014385925
855	486121.9	3752834.2	Age2-16	0.002033714	0.011201386
856	485921.9	3752934.2	3rd	0.001160729	0.008474696
856	485921.9	3752934.2	Age>16	0	0
856	485921.9	3752934.2	Age0-2	0.002187878	0.014651555
856	485921.9	3752934.2	Age2-16	0.001909129	0.010507345
857	486021.9	3752934.2	3rd	0.001139025	0.008316231
857	486021.9	3752934.2	Age>16	0	0
857	486021.9	3752934.2	Age0-2	0.002364467	0.016017468
857	486021.9	3752934.2	Age2-16	0.002165577	0.011952668
858	486121.9	3752934.2	3rd	0.001114716	0.008138751
858	486121.9	3752934.2	Age>16	0	0
858	486121.9	3752934.2	Age0-2	0.002605032	0.017847437
858	486121.9	3752934.2	Age2-16	0.002427662	0.013437144

Receptor ID	UTM_X	UTM_Y	Scenario	Mitigated CSTN Conc (µg/m^3)	Unmitigated CSTN Conc (µg/m3)
859	487026.2	3754364	3rd	0.027176565	0.198421141
859	487026.2	3754364	Age>16	0	0
859	487026.2	3754364	Age0-2	0.026665551	0.144369823
859	487026.2	3754364	Age2-16	0.002193314	0.011113152

WLC Operational HRA

Year	Scenario	PhaseI (2027)	PhaseII (2040)
2020	3rd	0.0000%	0.0000%
2021	Age0-2	9.1521%	0.0000%
2022	Age0-2	18.3042%	0.0000%
2023	Age2-16	30.5071%	0.0000%
2024	Age2-16	42.7099%	0.0000%
2025	Age2-16	65.3723%	0.0000%
2026	Age2-16	88.0347%	0.0000%
2027	Age2-16	100.0000%	0.0000%
2028	Age2-16	0.0000%	60.5651%
2029	Age2-16	0.0000%	64.6282%
2030	Age2-16	0.0000%	70.4260%
2031	Age2-16	0.0000%	77.0007%
2032	Age2-16	0.0000%	83.5755%
2033	Age2-16	0.0000%	90.1502%
2034	Age2-16	0.0000%	94.4595%
2035	Age2-16	0.0000%	98.7688%
2036	Age2-16	0.0000%	100.0000%
2037	Age>16	0.0000%	100.0000%
2038	Age>16	0.0000%	100.0000%
2039	Age>16	0.0000%	100.0000%
2040	Age>16	0.0000%	100.0000%
2041	Age>16	0.0000%	100.0000%
2042	Age>16	0.0000%	100.0000%
2043	Age>16	0.0000%	100.0000%
2044	Age>16	0.0000%	100.0000%
2045	Age>16	0.0000%	100.0000%
2046	Age>16	0.0000%	100.0000%
2047	Age>16	0.0000%	100.0000%
2048	Age>16	0.0000%	100.0000%
2049	Age>16	0.0000%	100.0000%

				DPM Concentrations ($\mu g/m^3$)	
Year	ID	UTM_X	UTM_Y	Unmitigated	Mitigated
2020	1	489607.4	3753966.1	0	0
2020	2	489738.7	3754023.9	0	0
2020	3	489668.9	3754093.7	0	0
2020	4	489690.1	3754161.6	0	0
2020	5	490282.2	3753425.2	0	0
2020	6	489797.3	3754554.1	0	0
2020	7	490252.9	3754378.2	0	0
2020	8	489006	3754140.3	0	0
2020	9	485642.8	3754267.3	0	0
2020	10	485736.4	3754259.5	0	0
2020	11	487189.2	3754820.5	0	0
2020	12	487233.1	3754689.5	0	0
2020	13	487216.8	3754364.7	0	0
2020	14	487388.8	3754380.1	0	0
2020	15	484625	3751748	0	0
2020	16	483279	3751798	0	0
2020	17	483231	3751205	0	0
2020	18	480165	3750195	0	0
2020	19	481211	3749473	0	0
2020	20	481867	3752785	0	0
2020	21	480678	3751306	0	0
2020	22	479989	3752645	0	0
2020	23	479889	3756222	0	0
2020	24	479234	3757080	0	0
2020	25	480276	3756365	0	0
2020	26	479887	3754007	0	0
2020	27	480772	3755009	0	0
2020	28	481560	3754548	0	0
2020	29	481845	3754457	0	0
2020	30	481754	3753876	0	0
2020	31	489635.2	3750663.8	0	0
2020	32	485424.1	3747672.3	0	0
2020	33	482657.6	3753975.1	0	0
2020	34	481495	3754633.7	0	0
2020	35	481148.7	3756136.2	0	0
2020	36	482346.5	3748872.9	0	0
2020	37	480299	3751198	0	0
2020	38	479598.7	3756506.3	0	0
2020	39	478997.8	3753535.2	0	0
2020	40	478978.3	3755233.1	0	0
2020	41	479197.3	3754462.3	0	0
2020	42	479493.3	3752408.8	0	0
2020	43	480295.4	3752408.4	0	0
2020	44	480287.9	3754227.5	0	0

2020	45	494397.4	3753977.6	0	0
2020	46	481108.5	3750699	0	0
2020	47	486794.1	3756878	0	0
2020	48	482345	3752065.8	0	0
2020	49	487553	3745938.3	0	0
2020	50	484553	3746938.3	0	0
2020	51	485553	3746938.3	0	0
2020	52	486553	3746938.3	0	0
2020	53	487553	3746938.3	0	0
2020	54	488553	3746938.3	0	0
2020	55	489553	3746938.3	0	0
2020	56	490553	3746938.3	0	0
2020	57	491553	3746938.3	0	0
2020	58	492553	3746938.3	0	0
2020	59	482553	3747938.3	0	0
2020	60	483553	3747938.3	0	0
2020	61	484553	3747938.3	0	0
2020	62	485553	3747938.3	0	0
2020	63	486553	3747938.3	0	0
2020	64	487553	3747938.3	0	0
2020	65	488553	3747938.3	0	0
2020	66	489553	3747938.3	0	0
2020	67	490553	3747938.3	0	0
2020	68	491553	3747938.3	0	0
2020	69	492553	3747938.3	0	0
2020	70	493553	3747938.3	0	0
2020	71	481553	3748938.3	0	0
2020	72	482553	3748938.3	0	0
2020	73	483553	3748938.3	0	0
2020	74	484553	3748938.3	0	0
2020	75	485553	3748938.3	0	0
2020	76	486553	3748938.3	0	0
2020	77	487553	3748938.3	0	0
2020	78	488553	3748938.3	0	0
2020	79	489553	3748938.3	0	0
2020	80	490553	3748938.3	0	0
2020	81	491553	3748938.3	0	0
2020	82	492553	3748938.3	0	0
2020	83	493553	3748938.3	0	0
2020	84	494553	3748938.3	0	0
2020	85	480553	3749938.3	0	0
2020	86	481553	3749938.3	0	0
2020	87	482553	3749938.3	0	0
2020	88	483553	3749938.3	0	0
2020	89	484553	3749938.3	0	0
2020	90	485553	3749938.3	0	0
2020	91	486553	3749938.3	0	0

2020	92	487553	3749938.3	0	0
2020	93	488553	3749938.3	0	0
2020	94	489553	3749938.3	0	0
2020	95	490553	3749938.3	0	0
2020	96	491553	3749938.3	0	0
2020	97	492553	3749938.3	0	0
2020	98	493553	3749938.3	0	0
2020	99	494553	3749938.3	0	0
2020	100	495553	3749938.3	0	0
2020	101	480553	3750938.3	0	0
2020	102	481553	3750938.3	0	0
2020	103	482553	3750938.3	0	0
2020	104	483553	3750938.3	0	0
2020	105	484553	3750938.3	0	0
2020	106	485553	3750938.3	0	0
2020	107	486553	3750938.3	0	0
2020	108	487553	3750938.3	0	0
2020	109	488553	3750938.3	0	0
2020	110	489553	3750938.3	0	0
2020	111	490553	3750938.3	0	0
2020	112	491553	3750938.3	0	0
2020	113	492553	3750938.3	0	0
2020	114	493553	3750938.3	0	0
2020	115	494553	3750938.3	0	0
2020	116	495553	3750938.3	0	0
2020	117	479553	3751938.3	0	0
2020	118	480553	3751938.3	0	0
2020	119	481553	3751938.3	0	0
2020	120	482553	3751938.3	0	0
2020	121	483553	3751938.3	0	0
2020	122	484553	3751938.3	0	0
2020	123	485553	3751938.3	0	0
2020	124	486553	3751938.3	0	0
2020	125	487553	3751938.3	0	0
2020	126	488553	3751938.3	0	0
2020	127	489553	3751938.3	0	0
2020	128	490553	3751938.3	0	0
2020	129	491553	3751938.3	0	0
2020	130	492553	3751938.3	0	0
2020	131	493553	3751938.3	0	0
2020	132	494553	3751938.3	0	0
2020	133	495553	3751938.3	0	0
2020	134	479553	3752938.3	0	0
2020	135	480553	3752938.3	0	0
2020	136	481553	3752938.3	0	0
2020	137	482553	3752938.3	0	0
2020	138	483553	3752938.3	0	0

2020	139	484553	3752938.3	0	0
2020	140	485553	3752938.3	0	0
2020	141	486553	3752938.3	0	0
2020	142	487553	3752938.3	0	0
2020	143	488553	3752938.3	0	0
2020	144	489553	3752938.3	0	0
2020	145	490553	3752938.3	0	0
2020	146	491553	3752938.3	0	0
2020	147	492553	3752938.3	0	0
2020	148	493553	3752938.3	0	0
2020	149	494553	3752938.3	0	0
2020	150	495553	3752938.3	0	0
2020	151	479553	3753938.3	0	0
2020	152	480553	3753938.3	0	0
2020	153	481553	3753938.3	0	0
2020	154	482553	3753938.3	0	0
2020	155	483553	3753938.3	0	0
2020	156	484553	3753938.3	0	0
2020	157	485553	3753938.3	0	0
2020	158	486553	3753938.3	0	0
2020	159	487553	3753938.3	0	0
2020	160	488553	3753938.3	0	0
2020	161	489553	3753938.3	0	0
2020	162	490553	3753938.3	0	0
2020	163	491553	3753938.3	0	0
2020	164	492553	3753938.3	0	0
2020	165	493553	3753938.3	0	0
2020	166	494553	3753938.3	0	0
2020	167	495553	3753938.3	0	0
2020	168	479553	3754938.3	0	0
2020	169	480553	3754938.3	0	0
2020	170	481553	3754938.3	0	0
2020	171	482553	3754938.3	0	0
2020	172	483553	3754938.3	0	0
2020	173	484553	3754938.3	0	0
2020	174	485553	3754938.3	0	0
2020	175	486553	3754938.3	0	0
2020	176	487553	3754938.3	0	0
2020	177	488553	3754938.3	0	0
2020	178	489553	3754938.3	0	0
2020	179	490553	3754938.3	0	0
2020	180	491553	3754938.3	0	0
2020	181	492553	3754938.3	0	0
2020	182	493553	3754938.3	0	0
2020	183	494553	3754938.3	0	0
2020	184	495553	3754938.3	0	0
2020	185	479553	3755938.3	0	0

2020	186	480553	3755938.3	0	0
2020	187	481553	3755938.3	0	0
2020	188	482553	3755938.3	0	0
2020	189	483553	3755938.3	0	0
2020	190	484553	3755938.3	0	0
2020	191	485553	3755938.3	0	0
2020	192	486553	3755938.3	0	0
2020	193	487553	3755938.3	0	0
2020	194	488553	3755938.3	0	0
2020	195	489553	3755938.3	0	0
2020	196	490553	3755938.3	0	0
2020	197	491553	3755938.3	0	0
2020	198	492553	3755938.3	0	0
2020	199	493553	3755938.3	0	0
2020	200	494553	3755938.3	0	0
2020	201	479553	3756938.3	0	0
2020	202	480553	3756938.3	0	0
2020	203	481553	3756938.3	0	0
2020	204	482553	3756938.3	0	0
2020	205	483553	3756938.3	0	0
2020	206	484553	3756938.3	0	0
2020	207	485553	3756938.3	0	0
2020	208	486553	3756938.3	0	0
2020	209	487553	3756938.3	0	0
2020	210	488553	3756938.3	0	0
2020	211	489553	3756938.3	0	0
2020	212	490553	3756938.3	0	0
2020	213	491553	3756938.3	0	0
2020	214	492553	3756938.3	0	0
2020	215	493553	3756938.3	0	0
2020	216	494553	3756938.3	0	0
2020	217	479553	3757938.3	0	0
2020	218	480553	3757938.3	0	0
2020	219	481553	3757938.3	0	0
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2021	105	484553	3750938.3	5.44396E-05	4.29371E-05
2021	106	485553	3750938.3	2.21841E-05	1.66253E-05
2021	107	486553	3750938.3	1.98286E-05	1.47309E-05
2021	108	487553	3750938.3	3.11523E-05	2.42734E-05
2021	109	488553	3750938.3	3.35506E-05	2.45039E-05
2021	110	489553	3750938.3	3.00582E-05	2.22274E-05
2021	111	490553	3750938.3	2.74994E-05	2.05009E-05
2021	112	491553	3750938.3	2.63189E-05	1.96804E-05
2021	113	492553	3750938.3	3.44805E-05	2.74206E-05
2021	114	493553	3750938.3	2.59326E-05	1.92757E-05
2021	115	494553	3750938.3	2.50799E-05	1.88095E-05
2021	116	495553	3750938.3	2.35672E-05	1.83376E-05
2021	117	479553	3751938.3	5.17924E-05	4.52838E-05
2021	118	480553	3751938.3	5.13531E-05	4.40721E-05
2021	119	481553	3751938.3	5.39346E-05	4.52359E-05
2021	120	482553	3751938.3	6.01169E-05	4.92659E-05
2021	121	483553	3751938.3	6.85455E-05	5.48628E-05
2021	122	484553	3751938.3	8.16059E-05	6.44064E-05
2021	123	485553	3751938.3	0.000115007	9.4652E-05
2021	124	486553	3751938.3	3.76056E-05	2.83912E-05
2021	125	487553	3751938.3	5.61882E-05	4.21481E-05

2021	126	488553	3751938.3	5.84238E-05	3.73711E-05
2021	127	489553	3751938.3	5.37712E-05	3.35613E-05
2021	128	490553	3751938.3	4.78741E-05	3.08047E-05
2021	129	491553	3751938.3	6.01273E-05	4.3904E-05
2021	130	492553	3751938.3	4.17747E-05	2.71095E-05
2021	131	493553	3751938.3	3.82288E-05	2.81646E-05
2021	132	494553	3751938.3	3.57289E-05	2.65555E-05
2021	133	495553	3751938.3	3.19468E-05	2.43287E-05
2021	134	479553	3752938.3	6.1368E-05	5.44748E-05
2021	135	480553	3752938.3	6.20411E-05	5.42452E-05
2021	136	481553	3752938.3	6.87068E-05	5.92124E-05
2021	137	482553	3752938.3	7.5746E-05	6.36308E-05
2021	138	483553	3752938.3	8.64194E-05	7.01697E-05
2021	139	484553	3752938.3	0.000110168	8.58385E-05
2021	140	485553	3752938.3	0.000155053	0.000120328
2021	141	486553	3752938.3	0.000291709	0.000238756
2021	142	487553	3752938.3	0.000345429	0.000275377
2021	143	488553	3752938.3	0.000185044	0.000123529
2021	144	489553	3752938.3	0.000132288	7.72417E-05
2021	145	490553	3752938.3	0.000106036	5.87956E-05
2021	146	491553	3752938.3	8.10923E-05	5.34466E-05
2021	147	492553	3752938.3	6.50704E-05	4.15268E-05
2021	148	493553	3752938.3	5.59924E-05	3.95762E-05
2021	149	494553	3752938.3	4.93068E-05	3.65726E-05
2021	150	495553	3752938.3	4.05698E-05	3.11624E-05
2021	151	479553	3753938.3	7.17076E-05	6.45967E-05
2021	152	480553	3753938.3	7.30187E-05	6.50934E-05
2021	153	481553	3753938.3	8.62902E-05	7.64889E-05
2021	154	482553	3753938.3	9.45719E-05	8.2359E-05
2021	155	483553	3753938.3	0.000117996	0.000101586
2021	156	484553	3753938.3	0.000143575	0.000117109
2021	157	485553	3753938.3	0.000262492	0.000205806
2021	158	486553	3753938.3	0.000497157	0.000403563
2021	159	487553	3753938.3	0.00049947	0.00041948
2021	160	488553	3753938.3	0.00024997	0.000174148
2021	161	489553	3753938.3	0.000152334	9.39729E-05
2021	162	490553	3753938.3	0.000106561	7.77244E-05
2021	163	491553	3753938.3	7.79008E-05	6.04058E-05
2021	164	492553	3753938.3	6.48886E-05	5.10127E-05
2021	165	493553	3753938.3	5.35373E-05	4.25743E-05
2021	166	494553	3753938.3	4.89803E-05	3.92392E-05
2021	167	495553	3753938.3	3.84506E-05	3.10545E-05
2021	168	479553	3754938.3	0.000128811	0.000118999
2021	169	480553	3754938.3	0.000137621	0.000126803
2021	170	481553	3754938.3	0.000157849	0.000145134
2021	171	482553	3754938.3	0.000231453	0.000213738
2021	172	483553	3754938.3	0.000250561	0.000230129

2021	173	484553	3754938.3	0.000252878	0.000228416
2021	174	485553	3754938.3	0.000370796	0.000331188
2021	175	486553	3754938.3	0.000555321	0.00049787
2021	176	487553	3754938.3	0.00030558	0.000249487
2021	177	488553	3754938.3	0.000167813	0.000131089
2021	178	489553	3754938.3	0.00012852	0.000107644
2021	179	490553	3754938.3	8.92244E-05	7.63829E-05
2021	180	491553	3754938.3	5.97027E-05	5.08711E-05
2021	181	492553	3754938.3	4.32056E-05	3.64942E-05
2021	182	493553	3754938.3	4.41137E-05	3.7572E-05
2021	183	494553	3754938.3	3.3812E-05	2.86432E-05
2021	184	495553	3754938.3	2.85644E-05	2.41745E-05
2021	185	479553	3755938.3	0.000129993	0.000120657
2021	186	480553	3755938.3	0.000108787	0.000100334
2021	187	481553	3755938.3	0.000110228	0.000101384
2021	188	482553	3755938.3	0.000158382	0.000146078
2021	189	483553	3755938.3	0.000170385	0.000156992
2021	190	484553	3755938.3	0.000158237	0.000144053
2021	191	485553	3755938.3	0.000218724	0.000199558
2021	192	486553	3755938.3	0.000175051	0.000158117
2021	193	487553	3755938.3	9.08496E-05	8.12231E-05
2021	194	488553	3755938.3	6.39097E-05	5.6607E-05
2021	195	489553	3755938.3	4.4349E-05	3.89739E-05
2021	196	490553	3755938.3	3.69176E-05	3.23461E-05
2021	197	491553	3755938.3	3.05652E-05	2.67069E-05
2021	198	492553	3755938.3	3.86345E-05	3.46691E-05
2021	199	493553	3755938.3	2.77617E-05	2.45E-05
2021	200	494553	3755938.3	2.68712E-05	2.37941E-05
2021	201	479553	3756938.3	3.88993E-05	3.50955E-05
2021	202	480553	3756938.3	3.71402E-05	3.3377E-05
2021	203	481553	3756938.3	3.34784E-05	2.99889E-05
2021	204	482553	3756938.3	3.49533E-05	3.11933E-05
2021	205	483553	3756938.3	5.93431E-05	5.32429E-05
2021	206	484553	3756938.3	5.66719E-05	5.03084E-05
2021	207	485553	3756938.3	0.000125146	0.000115279
2021	208	486553	3756938.3	4.46559E-05	3.91709E-05
2021	209	487553	3756938.3	2.90999E-05	2.5185E-05
2021	210	488553	3756938.3	2.36345E-05	2.03147E-05
2021	211	489553	3756938.3	2.07605E-05	1.78111E-05
2021	212	490553	3756938.3	1.90715E-05	1.63692E-05
2021	213	491553	3756938.3	1.67344E-05	1.43541E-05
2021	214	492553	3756938.3	1.49627E-05	1.28454E-05
2021	215	493553	3756938.3	1.61065E-05	1.39926E-05
2021	216	494553	3756938.3	1.57069E-05	1.3693E-05
2021	217	479553	3757938.3	1.93842E-05	1.72481E-05
2021	218	480553	3757938.3	1.85858E-05	1.64887E-05
2021	219	481553	3757938.3	1.95752E-05	1.7278E-05

2021	220	482553	3757938.3	2.40272E-05	2.10851E-05
2021	221	483553	3757938.3	2.35522E-05	2.05786E-05
2021	222	484553	3757938.3	3.09226E-05	2.71627E-05
2021	223	485553	3757938.3	3.60493E-05	3.23158E-05
2021	224	486553	3757938.3	2.07275E-05	1.79166E-05
2021	225	487553	3757938.3	1.68929E-05	1.44543E-05
2021	226	488553	3757938.3	1.48537E-05	1.2655E-05
2021	227	489553	3757938.3	1.37244E-05	1.16713E-05
2021	228	490553	3757938.3	1.25433E-05	1.06603E-05
2021	229	491553	3757938.3	1.15181E-05	9.78307E-06
2021	230	492553	3757938.3	1.10988E-05	9.45868E-06
2021	231	493553	3757938.3	1.23674E-05	1.06313E-05
2021	232	480553	3758938.3	1.3861E-05	1.2183E-05
2021	233	481553	3758938.3	1.5369E-05	1.34256E-05
2021	234	482553	3758938.3	1.49609E-05	1.29912E-05
2021	235	483553	3758938.3	1.56519E-05	1.3548E-05
2021	236	484553	3758938.3	1.95239E-05	1.707E-05
2021	237	485553	3758938.3	4.65833E-05	4.26776E-05
2021	238	486553	3758938.3	1.44333E-05	1.24481E-05
2021	239	487553	3758938.3	1.58258E-05	1.36432E-05
2021	240	488553	3758938.3	1.17776E-05	1.00713E-05
2021	241	489553	3758938.3	1.19508E-05	1.02252E-05
2021	242	490553	3758938.3	1.3008E-05	1.11201E-05
2021	243	491553	3758938.3	1.0592E-05	9.04099E-06
2021	244	492553	3758938.3	1.10175E-05	9.41422E-06
2021	245	481553	3759938.3	1.1373E-05	9.89519E-06
2021	246	482553	3759938.3	1.17066E-05	1.01318E-05
2021	247	483553	3759938.3	1.23666E-05	1.06896E-05
2021	248	484553	3759938.3	1.7063E-05	1.48942E-05
2021	249	485553	3759938.3	4.61286E-05	4.22249E-05
2021	250	486553	3759938.3	2.10478E-05	1.8381E-05
2021	251	487553	3759938.3	1.71061E-05	1.48228E-05
2021	252	488553	3759938.3	1.70573E-05	1.4697E-05
2021	253	489553	3759938.3	1.48537E-05	1.27548E-05
2021	254	490553	3759938.3	1.14021E-05	9.7793E-06
2021	255	491553	3759938.3	9.92808E-06	8.49612E-06
2021	256	482553	3760938.3	1.10059E-05	9.53215E-06
2021	257	483553	3760938.3	1.26457E-05	1.09781E-05
2021	258	484553	3760938.3	1.61098E-05	1.40832E-05
2021	259	485553	3760938.3	3.77558E-05	3.42475E-05
2021	260	486553	3760938.3	2.42656E-05	2.13241E-05
2021	261	487553	3760938.3	1.92148E-05	1.68436E-05
2021	262	488553	3760938.3	1.09078E-05	9.4583E-06
2021	263	489553	3760938.3	8.24855E-06	7.09661E-06
2021	264	490553	3760938.3	7.86416E-06	6.7443E-06
2021	265	484551.7	3750934.4	5.40735E-05	4.26911E-05
2021	266	484651.7	3750934.4	5.29834E-05	4.17705E-05

2021	267	484751.7	3750934.4	3.93948E-05	3.12E-05
2021	268	484851.7	3750934.4	3.5661E-05	2.81726E-05
2021	269	484951.7	3750934.4	3.75943E-05	2.96199E-05
2021	270	485051.7	3750934.4	3.32309E-05	2.60943E-05
2021	271	485151.7	3750934.4	2.76267E-05	2.13934E-05
2021	272	485251.7	3750934.4	2.44655E-05	1.86486E-05
2021	273	485351.7	3750934.4	2.33724E-05	1.76803E-05
2021	274	485451.7	3750934.4	2.27233E-05	1.71055E-05
2021	275	484551.7	3751034.4	5.83484E-05	4.58431E-05
2021	276	484651.7	3751034.4	5.70355E-05	4.47531E-05
2021	277	484751.7	3751034.4	5.29141E-05	4.18847E-05
2021	278	484851.7	3751034.4	4.08094E-05	3.22713E-05
2021	279	484951.7	3751034.4	4.54767E-05	3.58544E-05
2021	280	485051.7	3751034.4	3.72735E-05	2.93281E-05
2021	281	485151.7	3751034.4	3.19304E-05	2.49415E-05
2021	282	485251.7	3751034.4	2.7303E-05	2.09899E-05
2021	283	485351.7	3751034.4	2.52055E-05	1.91525E-05
2021	284	485451.7	3751034.4	2.41274E-05	1.81966E-05
2021	285	484551.7	3751134.4	6.2005E-05	4.87066E-05
2021	286	484651.7	3751134.4	6.14476E-05	4.81035E-05
2021	287	484751.7	3751134.4	5.99451E-05	4.69005E-05
2021	288	484851.7	3751134.4	5.32605E-05	4.23255E-05
2021	289	484951.7	3751134.4	5.42323E-05	4.28091E-05
2021	290	485051.7	3751134.4	4.36436E-05	3.43958E-05
2021	291	485151.7	3751134.4	3.80561E-05	2.99323E-05
2021	292	485251.7	3751134.4	3.25876E-05	2.54074E-05
2021	293	485351.7	3751134.4	2.79184E-05	2.13987E-05
2021	294	485451.7	3751134.4	2.58176E-05	1.95481E-05
2021	295	484551.7	3751234.4	6.60014E-05	5.20352E-05
2021	296	484651.7	3751234.4	6.56093E-05	5.15275E-05
2021	297	484751.7	3751234.4	6.4266E-05	5.03969E-05
2021	298	484851.7	3751234.4	6.15741E-05	4.84204E-05
2021	299	484951.7	3751234.4	5.93342E-05	4.67556E-05
2021	300	485051.7	3751234.4	5.25288E-05	4.16373E-05
2021	301	485151.7	3751234.4	4.32639E-05	3.4165E-05
2021	302	485251.7	3751234.4	3.23581E-05	2.51783E-05
2021	303	485351.7	3751234.4	2.87415E-05	2.20206E-05
2021	304	485451.7	3751234.4	2.7381E-05	2.08012E-05
2021	305	484551.7	3751334.4	7.30961E-05	5.83798E-05
2021	306	484651.7	3751334.4	7.1243E-05	5.64767E-05
2021	307	484751.7	3751334.4	6.92078E-05	5.4675E-05
2021	308	484851.7	3751334.4	6.73028E-05	5.30808E-05
2021	309	484951.7	3751334.4	6.61184E-05	5.19903E-05
2021	310	485051.7	3751334.4	6.24914E-05	4.93698E-05
2021	311	485151.7	3751334.4	5.17706E-05	4.10694E-05
2021	312	485251.7	3751334.4	3.96734E-05	3.1349E-05
2021	313	485351.7	3751334.4	3.15749E-05	2.44198E-05

2021	314	485451.7	3751334.4	2.93083E-05	2.23917E-05
2021	315	484551.7	3751434.4	8.50656E-05	6.98084E-05
2021	316	484651.7	3751434.4	8.02231E-05	6.47682E-05
2021	317	484751.7	3751434.4	7.70871E-05	6.15906E-05
2021	318	484851.7	3751434.4	7.4876E-05	5.94527E-05
2021	319	484951.7	3751434.4	7.30768E-05	5.77792E-05
2021	320	485051.7	3751434.4	7.11978E-05	5.60928E-05
2021	321	485151.7	3751434.4	6.2472E-05	4.99639E-05
2021	322	485251.7	3751434.4	4.71422E-05	3.75884E-05
2021	323	485351.7	3751434.4	3.6873E-05	2.89752E-05
2021	324	485451.7	3751434.4	3.28773E-05	2.54474E-05
2021	325	484551.7	3751534.4	0.000113569	9.79187E-05
2021	326	484651.7	3751534.4	0.000100317	8.42976E-05
2021	327	484751.7	3751534.4	9.02662E-05	7.39808E-05
2021	328	484851.7	3751534.4	8.51399E-05	6.87097E-05
2021	329	484951.7	3751534.4	8.23335E-05	6.57932E-05
2021	330	485051.7	3751534.4	8.05812E-05	6.39198E-05
2021	331	485151.7	3751534.4	7.80823E-05	6.16008E-05
2021	332	485251.7	3751534.4	6.83947E-05	5.45635E-05
2021	333	485351.7	3751534.4	5.30515E-05	4.24009E-05
2021	334	485451.7	3751534.4	4.30417E-05	3.41467E-05
2021	335	484551.7	3751634.4	0.000100991	8.49418E-05
2021	336	484651.7	3751634.4	0.000104426	8.80041E-05
2021	337	484751.7	3751634.4	0.000107644	9.08059E-05
2021	338	484851.7	3751634.4	0.000109495	9.23642E-05
2021	339	484951.7	3751634.4	9.74947E-05	8.01426E-05
2021	340	485051.7	3751634.4	9.18406E-05	7.42839E-05
2021	341	485151.7	3751634.4	8.88187E-05	7.10673E-05
2021	342	485251.7	3751634.4	8.36952E-05	6.64683E-05
2021	343	485351.7	3751634.4	7.73515E-05	6.13192E-05
2021	344	485451.7	3751634.4	6.89518E-05	5.51822E-05
2021	345	484551.7	3751734.4	8.36459E-05	6.72625E-05
2021	346	484651.7	3751734.4	8.96837E-05	7.28125E-05
2021	347	484751.7	3751734.4	0.000100022	8.27216E-05
2021	348	484851.7	3751734.4	0.000113617	9.59686E-05
2021	349	484951.7	3751734.4	0.000113097	9.52102E-05
2021	350	485051.7	3751734.4	0.000126884	0.000108731
2021	351	485151.7	3751734.4	0.000108393	8.98035E-05
2021	352	485251.7	3751734.4	0.000101832	8.30556E-05
2021	353	485351.7	3751734.4	9.44901E-05	7.60889E-05
2021	354	485451.7	3751734.4	8.59053E-05	6.84389E-05
2021	355	484551.7	3751834.4	8.07916E-05	6.40947E-05
2021	356	484651.7	3751834.4	8.37175E-05	6.6549E-05
2021	357	484751.7	3751834.4	8.72669E-05	6.96274E-05
2021	358	484851.7	3751834.4	9.1787E-05	7.37236E-05
2021	359	484951.7	3751834.4	9.80029E-05	7.96327E-05
2021	360	485051.7	3751834.4	0.000112747	9.39992E-05

2021	361	485151.7	3751834.4	0.000112988	9.36294E-05
2021	362	485251.7	3751834.4	0.000120571	0.000100768
2021	363	485351.7	3751834.4	0.000120217	0.000100378
2021	364	485451.7	3751834.4	0.000118432	9.89904E-05
2021	365	484551.7	3751934.4	8.15015E-05	6.43302E-05
2021	366	484651.7	3751934.4	8.33622E-05	6.57866E-05
2021	367	484751.7	3751934.4	8.52749E-05	6.73185E-05
2021	368	484851.7	3751934.4	8.77477E-05	6.93436E-05
2021	369	484951.7	3751934.4	9.05692E-05	7.17227E-05
2021	370	485051.7	3751934.4	9.43116E-05	7.49534E-05
2021	371	485151.7	3751934.4	9.91595E-05	7.92026E-05
2021	372	485251.7	3751934.4	0.000105796	8.5144E-05
2021	373	485351.7	3751934.4	0.000116068	9.49444E-05
2021	374	485451.7	3751934.4	0.000121947	0.000101003
2021	375	484551.7	3752034.4	8.44191E-05	6.66228E-05
2021	376	484651.7	3752034.4	8.59367E-05	6.77403E-05
2021	377	484751.7	3752034.4	8.75724E-05	6.89658E-05
2021	378	484851.7	3752034.4	8.9313E-05	7.02883E-05
2021	379	484951.7	3752034.4	9.14929E-05	7.19787E-05
2021	380	485051.7	3752034.4	9.4161E-05	7.40838E-05
2021	381	485151.7	3752034.4	9.75032E-05	7.67839E-05
2021	382	485251.7	3752034.4	0.000102523	8.10118E-05
2021	383	485351.7	3752034.4	0.000109767	8.75954E-05
2021	384	485451.7	3752034.4	0.000130539	0.00010795
2021	385	484551.7	3752134.4	8.9943E-05	7.14878E-05
2021	386	484651.7	3752134.4	9.13469E-05	7.24626E-05
2021	387	484751.7	3752134.4	9.29152E-05	7.35758E-05
2021	388	484851.7	3752134.4	9.44893E-05	7.46942E-05
2021	389	484951.7	3752134.4	9.62372E-05	7.59612E-05
2021	390	485051.7	3752134.4	9.84367E-05	7.7607E-05
2021	391	485151.7	3752134.4	0.000101211	7.97589E-05
2021	392	485251.7	3752134.4	0.000105563	8.33227E-05
2021	393	485351.7	3752134.4	0.000113104	9.00083E-05
2021	394	485451.7	3752134.4	0.000133824	0.000110043
2021	395	484551.7	3752234.4	0.00010025	8.11778E-05
2021	396	484651.7	3752234.4	0.00010239	8.28065E-05
2021	397	484751.7	3752234.4	0.000103856	8.37745E-05
2021	398	484851.7	3752234.4	0.000105016	8.44344E-05
2021	399	484951.7	3752234.4	0.000112444	9.13515E-05
2021	400	485051.7	3752234.4	0.00010827	8.66474E-05
2021	401	485151.7	3752234.4	0.00011112	8.89367E-05
2021	402	485251.7	3752234.4	0.000114327	9.13818E-05
2021	403	485351.7	3752234.4	0.000121299	9.74341E-05
2021	404	485451.7	3752234.4	0.000145495	0.000120727
2021	405	484551.7	3752334.4	9.48867E-05	7.50618E-05
2021	406	484651.7	3752334.4	9.66523E-05	7.62984E-05
2021	407	484751.7	3752334.4	9.84028E-05	7.75254E-05

2021	408	484851.7	3752334.4	0.000100197	7.87893E-05
2021	409	484951.7	3752334.4	0.000102179	8.02018E-05
2021	410	485051.7	3752334.4	0.000104175	8.16373E-05
2021	411	485151.7	3752334.4	0.000106547	8.33895E-05
2021	412	485251.7	3752334.4	0.000109435	8.56091E-05
2021	413	485351.7	3752334.4	0.000113738	8.91135E-05
2021	414	485451.7	3752334.4	0.000122229	9.66111E-05
2021	415	484551.7	3752434.4	9.45429E-05	7.39697E-05
2021	416	484651.7	3752434.4	9.63758E-05	7.52417E-05
2021	417	484751.7	3752434.4	9.81723E-05	7.64969E-05
2021	418	484851.7	3752434.4	0.000100297	7.79943E-05
2021	419	484951.7	3752434.4	0.000102384	7.94798E-05
2021	420	485051.7	3752434.4	0.000104676	8.1132E-05
2021	421	485151.7	3752434.4	0.000107197	8.29741E-05
2021	422	485251.7	3752434.4	0.000110027	8.50928E-05
2021	423	485351.7	3752434.4	0.00011363	8.78892E-05
2021	424	485451.7	3752434.4	0.000119435	9.27986E-05
2021	425	484551.7	3752534.4	9.65405E-05	7.51972E-05
2021	426	484651.7	3752534.4	9.85218E-05	7.65727E-05
2021	427	484751.7	3752534.4	0.000100615	7.80384E-05
2021	428	484851.7	3752534.4	0.000102881	7.96379E-05
2021	429	484951.7	3752534.4	0.000105164	8.12706E-05
2021	430	485051.7	3752534.4	0.000107722	8.31168E-05
2021	431	485151.7	3752534.4	0.000110452	8.51135E-05
2021	432	485251.7	3752534.4	0.000113388	8.7301E-05
2021	433	485351.7	3752534.4	0.000116835	8.99355E-05
2021	434	485451.7	3752534.4	0.000122208	9.43872E-05
2021	435	484551.7	3752634.4	9.91989E-05	7.71039E-05
2021	436	484651.7	3752634.4	0.000101348	7.85962E-05
2021	437	484751.7	3752634.4	0.000103608	8.01808E-05
2021	438	484851.7	3752634.4	0.000106217	8.20207E-05
2021	439	484951.7	3752634.4	0.000108809	8.3879E-05
2021	440	485051.7	3752634.4	0.000111669	8.59532E-05
2021	441	485151.7	3752634.4	0.000114665	8.8161E-05
2021	442	485251.7	3752634.4	0.000117873	9.05669E-05
2021	443	485351.7	3752634.4	0.000121571	9.34056E-05
2021	444	485451.7	3752634.4	0.00012718	9.80266E-05
2021	445	484551.7	3752734.4	0.000102372	7.95132E-05
2021	446	484651.7	3752734.4	0.000104818	8.12002E-05
2021	447	484751.7	3752734.4	0.00010738	8.29893E-05
2021	448	484851.7	3752734.4	0.000110127	8.49341E-05
2021	449	484951.7	3752734.4	0.000113031	8.70195E-05
2021	450	485051.7	3752734.4	0.000116211	8.93388E-05
2021	451	485151.7	3752734.4	0.000119523	9.18002E-05
2021	452	485251.7	3752734.4	0.000123079	9.44988E-05
2021	453	485351.7	3752734.4	0.000127192	9.76933E-05
2021	454	485451.7	3752734.4	0.000133088	0.000102598

2021	455	484551.7	3752834.4	0.000105826	8.22393E-05
2021	456	484651.7	3752834.4	0.000108552	8.41041E-05
2021	457	484751.7	3752834.4	0.000111315	8.6025E-05
2021	458	484851.7	3752834.4	0.000114452	8.82356E-05
2021	459	484951.7	3752834.4	0.000117724	9.058E-05
2021	460	485051.7	3752834.4	0.000121195	9.31137E-05
2021	461	485151.7	3752834.4	0.000124844	9.58413E-05
2021	462	485251.7	3752834.4	0.000128831	9.88955E-05
2021	463	485351.7	3752834.4	0.00013334	0.000102467
2021	464	485451.7	3752834.4	0.000139836	0.000107932
2021	465	484551.7	3752934.4	0.000109939	8.56481E-05
2021	466	484651.7	3752934.4	0.000112954	8.76974E-05
2021	467	484751.7	3752934.4	0.00011605	8.98288E-05
2021	468	484851.7	3752934.4	0.000119514	9.22523E-05
2021	469	484951.7	3752934.4	0.000123151	9.48394E-05
2021	470	485051.7	3752934.4	0.000127066	9.7681E-05
2021	471	485151.7	3752934.4	0.000131072	0.000100672
2021	472	485251.7	3752934.4	0.000135567	0.000104122
2021	473	485351.7	3752934.4	0.000140439	0.000108033
2021	474	485451.7	3752934.4	0.000147405	0.000113956
2021	475	484551.7	3753034.4	0.000115907	9.09944E-05
2021	476	484651.7	3753034.4	0.000119399	9.3424E-05
2021	477	484751.7	3753034.4	0.000123258	9.61607E-05
2021	478	484851.7	3753034.4	0.000126833	9.85518E-05
2021	479	484951.7	3753034.4	0.000130793	0.000101312
2021	480	485051.7	3753034.4	0.000135078	0.000104409
2021	481	485151.7	3753034.4	0.000139864	0.000107991
2021	482	485251.7	3753034.4	0.000146617	0.000113572
2021	483	485351.7	3753034.4	0.000149938	0.00011584
2021	484	485451.7	3753034.4	0.000157209	0.000122043
2021	485	484551.7	3753134.4	0.000116147	9.06547E-05
2021	486	484651.7	3753134.4	0.000119862	9.31728E-05
2021	487	484751.7	3753134.4	0.000123913	9.59471E-05
2021	488	484851.7	3753134.4	0.000128127	9.88662E-05
2021	489	484951.7	3753134.4	0.000132692	0.000102073
2021	490	485051.7	3753134.4	0.000137572	0.000105567
2021	491	485151.7	3753134.4	0.000142747	0.000109357
2021	492	485251.7	3753134.4	0.000148489	0.000113711
2021	493	485351.7	3753134.4	0.000154874	0.000118798
2021	494	485451.7	3753134.4	0.000163855	0.000126555
2021	495	484551.7	3753234.4	0.000118471	9.24489E-05
2021	496	484651.7	3753234.4	0.000122594	9.52336E-05
2021	497	484751.7	3753234.4	0.000126956	9.82002E-05
2021	498	484851.7	3753234.4	0.000131594	0.000101386
2021	499	484951.7	3753234.4	0.000136649	0.000104903
2021	500	485051.7	3753234.4	0.000142181	0.000108827
2021	501	485151.7	3753234.4	0.000148102	0.000113116

2021	502	485251.7	3753234.4	0.000154718	0.000118052
2021	503	485351.7	3753234.4	0.000162183	0.000123886
2021	504	485451.7	3753234.4	0.000172534	0.000132676
2021	505	484551.7	3753334.4	0.000121522	9.50362E-05
2021	506	484651.7	3753334.4	0.000125918	9.79937E-05
2021	507	484751.7	3753334.4	0.000130534	0.000101105
2021	508	484851.7	3753334.4	0.00013573	0.000104656
2021	509	484951.7	3753334.4	0.000141178	0.000108406
2021	510	485051.7	3753334.4	0.000147292	0.000112691
2021	511	485151.7	3753334.4	0.000154035	0.00011752
2021	512	485251.7	3753334.4	0.000161901	0.000123302
2021	513	485351.7	3753334.4	0.000170932	0.000130202
2021	514	485451.7	3753334.4	0.000183042	0.000140203
2021	515	484551.7	3753434.4	0.000124633	9.78421E-05
2021	516	484651.7	3753434.4	0.000129266	0.000100959
2021	517	484751.7	3753434.4	0.000134182	0.000104256
2021	518	484851.7	3753434.4	0.000139731	0.000108029
2021	519	484951.7	3753434.4	0.000145638	0.000112035
2021	520	485051.7	3753434.4	0.000152247	0.0001166
2021	521	485151.7	3753434.4	0.000159943	0.000122064
2021	522	485251.7	3753434.4	0.000169033	0.00012868
2021	523	485351.7	3753434.4	0.000179832	0.000136835
2021	524	485451.7	3753434.4	0.000194975	0.000149066
2021	525	484551.7	3753534.4	0.000127723	0.000100776
2021	526	484651.7	3753534.4	0.000132218	0.000103733
2021	527	484751.7	3753534.4	0.000137297	0.00010712
2021	528	484851.7	3753534.4	0.000143414	0.000111327
2021	529	484951.7	3753534.4	0.000149758	0.000115641
2021	530	485051.7	3753534.4	0.000156861	0.000120524
2021	531	485151.7	3753534.4	0.000165303	0.00012648
2021	532	485251.7	3753534.4	0.000175434	0.000133828
2021	533	485351.7	3753534.4	0.000188009	0.000143264
2021	534	485451.7	3753534.4	0.000206016	0.000157685
2021	535	484551.7	3753634.4	0.000130749	0.000103764
2021	536	484651.7	3753634.4	0.000135467	0.000106885
2021	537	484751.7	3753634.4	0.000140819	0.000110471
2021	538	484851.7	3753634.4	0.000146869	0.000114568
2021	539	484951.7	3753634.4	0.000153633	0.000119188
2021	540	485051.7	3753634.4	0.000161205	0.000124416
2021	541	485151.7	3753634.4	0.000170169	0.000130757
2021	542	485251.7	3753634.4	0.000180986	0.000138652
2021	543	485351.7	3753634.4	0.000194384	0.000148815
2021	544	485451.7	3753634.4	0.000213836	0.000164643
2021	545	484551.7	3753734.4	0.000134775	0.000107836
2021	546	484651.7	3753734.4	0.000139449	0.000110877
2021	547	484751.7	3753734.4	0.000144641	0.000114259
2021	548	484851.7	3753734.4	0.000150421	0.00011804

2021	549	484951.7	3753734.4	0.000157361	0.000122756
2021	550	485051.7	3753734.4	0.000165378	0.000128299
2021	551	485151.7	3753734.4	0.000174723	0.000134895
2021	552	485251.7	3753734.4	0.000185909	0.000143026
2021	553	485351.7	3753734.4	0.000199948	0.000153677
2021	554	485451.7	3753734.4	0.000220242	0.000170265
2021	555	484551.7	3753834.4	0.000138832	0.000112082
2021	556	484651.7	3753834.4	0.000143336	0.000114952
2021	557	484751.7	3753834.4	0.000148553	0.000118346
2021	558	484851.7	3753834.4	0.000154417	0.000122169
2021	559	484951.7	3753834.4	0.000161504	0.000126963
2021	560	485051.7	3753834.4	0.000169476	0.000132354
2021	561	485151.7	3753834.4	0.000178898	0.00013888
2021	562	485251.7	3753834.4	0.000190626	0.000147345
2021	563	485351.7	3753834.4	0.000205211	0.000158299
2021	564	485451.7	3753834.4	0.000226306	0.00017534
2021	565	484551.7	3753934.4	0.000143242	0.000116781
2021	566	484651.7	3753934.4	0.000147977	0.000119877
2021	567	484751.7	3753934.4	0.000152541	0.000122627
2021	568	484851.7	3753934.4	0.000158522	0.000126571
2021	569	484951.7	3753934.4	0.000165561	0.00013131
2021	570	485051.7	3753934.4	0.000173768	0.00013692
2021	571	485151.7	3753934.4	0.000183421	0.000143623
2021	572	485251.7	3753934.4	0.000195122	0.000151966
2021	573	485351.7	3753934.4	0.000209913	0.000162904
2021	574	485451.7	3753934.4	0.000231461	0.000180003
2021	575	484551.7	3754034.4	0.000148505	0.000122516
2021	576	484651.7	3754034.4	0.000151183	0.000123472
2021	577	484751.7	3754034.4	0.000156814	0.00012731
2021	578	484851.7	3754034.4	0.00016307	0.000131534
2021	579	484951.7	3754034.4	0.000170005	0.000136184
2021	580	485051.7	3754034.4	0.000178009	0.000141609
2021	581	485151.7	3754034.4	0.000187548	0.000148216
2021	582	485251.7	3754034.4	0.000199256	0.000156578
2021	583	485351.7	3754034.4	0.000214102	0.000167603
2021	584	485451.7	3754034.4	0.000235762	0.000184909
2021	585	484551.7	3754134.4	0.000151834	0.000126192
2021	586	484651.7	3754134.4	0.000155144	0.000127895
2021	587	484751.7	3754134.4	0.000160766	0.000131788
2021	588	484851.7	3754134.4	0.000167455	0.000136534
2021	589	484951.7	3754134.4	0.000174333	0.000141151
2021	590	485051.7	3754134.4	0.000182427	0.000146654
2021	591	485151.7	3754134.4	0.000192009	0.000153311
2021	592	485251.7	3754134.4	0.000203683	0.000161676
2021	593	485351.7	3754134.4	0.000218527	0.000172719
2021	594	485451.7	3754134.4	0.000239995	0.000189848
2021	595	484551.7	3754234.4	0.000155248	0.000129963

2021	596	484651.7	3754234.4	0.000159376	0.000132613
2021	597	484751.7	3754234.4	0.000165344	0.000136946
2021	598	484851.7	3754234.4	0.000172105	0.000141868
2021	599	484951.7	3754234.4	0.000179136	0.000146747
2021	600	485051.7	3754234.4	0.000187025	0.000152154
2021	601	485151.7	3754234.4	0.000196544	0.000158825
2021	602	485251.7	3754234.4	0.000208114	0.000167111
2021	603	485351.7	3754234.4	0.0002227	0.000177889
2021	604	485451.7	3754234.4	0.000243793	0.000194617
2021	605	484551.7	3754334.4	0.000160444	0.000135557
2021	606	484651.7	3754334.4	0.000165616	0.000139381
2021	607	484751.7	3754334.4	0.000171464	0.000143723
2021	608	484851.7	3754334.4	0.000177563	0.000148074
2021	609	484951.7	3754334.4	0.000184514	0.000153005
2021	610	485051.7	3754334.4	0.000192491	0.000158636
2021	611	485151.7	3754334.4	0.000201833	0.000165267
2021	612	485251.7	3754334.4	0.000213214	0.000173531
2021	613	485351.7	3754334.4	0.000227264	0.000184029
2021	614	485451.7	3754334.4	0.000245343	0.00019804
2021	615	484551.7	3754434.4	0.000170563	0.000146196
2021	616	484651.7	3754434.4	0.000174396	0.000148735
2021	617	484751.7	3754434.4	0.000179092	0.000151997
2021	618	484851.7	3754434.4	0.000184504	0.000155767
2021	619	484951.7	3754434.4	0.000191088	0.000160471
2021	620	485051.7	3754434.4	0.000198785	0.00016598
2021	621	485151.7	3754434.4	0.000207981	0.000172635
2021	622	485251.7	3754434.4	0.000219115	0.000180818
2021	623	485351.7	3754434.4	0.00023288	0.000191178
2021	624	485451.7	3754434.4	0.000250587	0.000205001
2021	625	484551.7	3754534.4	0.000182235	0.000158202
2021	626	484651.7	3754534.4	0.00018594	0.00016074
2021	627	484751.7	3754534.4	0.000189348	0.000162813
2021	628	484851.7	3754534.4	0.000193572	0.000165605
2021	629	484951.7	3754534.4	0.000199384	0.0001697
2021	630	485051.7	3754534.4	0.000206622	0.000174894
2021	631	485151.7	3754534.4	0.00021551	0.000181388
2021	632	485251.7	3754534.4	0.000226338	0.000189429
2021	633	485351.7	3754534.4	0.000239777	0.000199615
2021	634	485451.7	3754534.4	0.000257647	0.000213645
2021	635	484551.7	3754634.4	0.000193351	0.000169626
2021	636	484651.7	3754634.4	0.000196579	0.000171781
2021	637	484751.7	3754634.4	0.000201133	0.000175139
2021	638	484851.7	3754634.4	0.00020448	0.000177252
2021	639	484951.7	3754634.4	0.00020951	0.000180774
2021	640	485051.7	3754634.4	0.000216245	0.000185709
2021	641	485151.7	3754634.4	0.00022468	0.000192025
2021	642	485251.7	3754634.4	0.000235161	0.000199945

2021	643	485351.7	3754634.4	0.000248497	0.000210167
2021	644	485451.7	3754634.4	0.000266551	0.000224492
2021	645	484551.7	3754734.4	0.000205679	0.000182102
2021	646	484651.7	3754734.4	0.000208886	0.000184364
2021	647	484751.7	3754734.4	0.000212616	0.000187066
2021	648	484851.7	3754734.4	0.000217083	0.000190395
2021	649	484951.7	3754734.4	0.000222451	0.000194438
2021	650	485051.7	3754734.4	0.000228909	0.000199339
2021	651	485151.7	3754734.4	0.000236809	0.000205395
2021	652	485251.7	3754734.4	0.000246778	0.000213193
2021	653	485351.7	3754734.4	0.000259816	0.000223707
2021	654	485451.7	3754734.4	0.000277631	0.000238515
2021	655	484551.7	3754834.4	0.00022419	0.000200424
2021	656	484651.7	3754834.4	0.000227512	0.000202941
2021	657	484751.7	3754834.4	0.000231211	0.00020573
2021	658	484851.7	3754834.4	0.00023543	0.000208912
2021	659	484951.7	3754834.4	0.000240535	0.000212853
2021	660	485051.7	3754834.4	0.000246551	0.000217535
2021	661	485151.7	3754834.4	0.000254012	0.000223446
2021	662	485251.7	3754834.4	0.000263606	0.000231223
2021	663	485351.7	3754834.4	0.000276756	0.00024229
2021	664	485451.7	3754834.4	0.000295053	0.000258123
2021	665	484551.7	3754934.4	0.000251572	0.000227159
2021	666	484651.7	3754934.4	0.000254657	0.000229534
2021	667	484751.7	3754934.4	0.000258099	0.000232172
2021	668	484851.7	3754934.4	0.000262039	0.0002352
2021	669	484951.7	3754934.4	0.000266764	0.000238905
2021	670	485051.7	3754934.4	0.000272213	0.000243192
2021	671	485151.7	3754934.4	0.000279207	0.00024887
2021	672	485251.7	3754934.4	0.000288355	0.00025647
2021	673	485351.7	3754934.4	0.000302339	0.000268613
2021	674	485451.7	3754934.4	0.000327578	0.000291343
2021	675	484551.7	3755034.4	0.000292446	0.000266631
2021	676	484651.7	3755034.4	0.000295169	0.000268736
2021	677	484751.7	3755034.4	0.000298064	0.000270919
2021	678	484851.7	3755034.4	0.000301875	0.000273947
2021	679	484951.7	3755034.4	0.000306284	0.000277457
2021	680	485051.7	3755034.4	0.000311648	0.000281796
2021	681	485151.7	3755034.4	0.00031811	0.000287097
2021	682	485251.7	3755034.4	0.000326779	0.000294435
2021	683	485351.7	3755034.4	0.000340027	0.000306035
2021	684	485451.7	3755034.4	0.000375236	0.000338365
2021	685	485549.5	3750934.9	2.2166E-05	1.66147E-05
2021	686	485649.5	3750934.9	2.17821E-05	1.62777E-05
2021	687	485749.5	3750934.9	2.15193E-05	1.60485E-05
2021	688	485849.5	3750934.9	2.1155E-05	1.57347E-05
2021	689	485549.5	3751034.9	2.34294E-05	1.75787E-05

2021	690	485649.5	3751034.9	2.2925E-05	1.71353E-05
2021	691	485749.5	3751034.9	2.26629E-05	1.69032E-05
2021	692	485849.5	3751034.9	2.23507E-05	1.6631E-05
2021	693	485549.5	3751134.9	2.48741E-05	1.87099E-05
2021	694	485649.5	3751134.9	2.4313E-05	1.82118E-05
2021	695	485749.5	3751134.9	2.40112E-05	1.79421E-05
2021	696	485849.5	3751134.9	2.36248E-05	1.76017E-05
2021	697	485549.5	3751234.9	2.6656E-05	2.01458E-05
2021	698	485649.5	3751234.9	2.59365E-05	1.95026E-05
2021	699	485749.5	3751234.9	2.55748E-05	1.91752E-05
2021	700	485849.5	3751234.9	2.53915E-05	1.90076E-05
2021	701	485549.5	3751334.9	2.86268E-05	2.17607E-05
2021	702	485649.5	3751334.9	2.79892E-05	2.11774E-05
2021	703	485749.5	3751334.9	2.74623E-05	2.06989E-05
2021	704	485849.5	3751334.9	2.75207E-05	2.07393E-05
2021	705	485549.5	3751434.9	3.14147E-05	2.41087E-05
2021	706	485649.5	3751434.9	3.08564E-05	2.35788E-05
2021	707	485749.5	3751434.9	2.98926E-05	2.27032E-05
2021	708	485849.5	3751434.9	3.05451E-05	2.32594E-05
2021	709	485549.5	3751534.9	3.91513E-05	3.07536E-05
2021	710	485649.5	3751534.9	3.78171E-05	2.95307E-05
2021	711	485749.5	3751534.9	3.43561E-05	2.64948E-05
2021	712	485849.5	3751534.9	3.34129E-05	2.56378E-05
2021	713	485549.5	3751634.9	6.17989E-05	4.92662E-05
2021	714	485649.5	3751634.9	5.07558E-05	4.03226E-05
2021	715	485749.5	3751634.9	4.65827E-05	3.67987E-05
2021	716	485849.5	3751634.9	3.62147E-05	2.79682E-05
2021	717	485549.5	3751734.9	7.88551E-05	6.27637E-05
2021	718	485649.5	3751734.9	7.38952E-05	5.88166E-05
2021	719	485749.5	3751734.9	6.40146E-05	5.09822E-05
2021	720	485849.5	3751734.9	4.40717E-05	3.46763E-05
2021	721	485549.5	3751834.9	9.39232E-05	7.58144E-05
2021	722	485649.5	3751834.9	8.60546E-05	6.88135E-05
2021	723	485749.5	3751834.9	8.02177E-05	6.38659E-05
2021	724	485849.5	3751834.9	6.60025E-05	5.26389E-05
2021	725	485549.5	3751934.9	0.000115228	9.4932E-05
2021	726	485649.5	3751934.9	9.92071E-05	7.95616E-05
2021	727	485749.5	3751934.9	9.38705E-05	7.45831E-05
2021	728	485849.5	3751934.9	8.78944E-05	6.95404E-05
2021	729	485549.5	3752034.9	0.000140925	0.000118428
2021	730	485649.5	3752034.9	0.000113049	9.10389E-05
2021	731	485749.5	3752034.9	0.000107436	8.57373E-05
2021	732	485849.5	3752034.9	0.000102634	8.1675E-05
2021	733	485549.5	3752134.9	0.000143783	0.00011951
2021	734	485649.5	3752134.9	0.000135234	0.000110685
2021	735	485749.5	3752134.9	0.000132941	0.000108429
2021	736	485849.5	3752134.9	0.000131397	0.000107379

2021	737	485549.5	3752234.9	0.000166158	0.000140591
2021	738	485649.5	3752234.9	0.000170296	0.000144094
2021	739	485749.5	3752234.9	0.000176516	0.000149824
2021	740	485849.5	3752234.9	0.000180135	0.000153433
2021	741	485549.5	3752334.9	0.00012964	0.000103019
2021	742	485649.5	3752334.9	0.000131604	0.000104016
2021	743	485749.5	3752334.9	0.000134502	0.000106088
2021	744	485849.5	3752334.9	0.000137564	0.000108517
2021	745	485549.5	3752434.9	0.000123765	9.6082E-05
2021	746	485649.5	3752434.9	0.000124554	9.58151E-05
2021	747	485749.5	3752434.9	0.000127087	9.72309E-05
2021	748	485849.5	3752434.9	0.000130375	9.93647E-05
2021	749	485549.5	3752534.9	0.000126229	9.7374E-05
2021	750	485649.5	3752534.9	0.000126781	9.67859E-05
2021	751	485749.5	3752534.9	0.00012952	9.82834E-05
2021	752	485849.5	3752534.9	0.000133029	0.000100439
2021	753	485549.5	3752634.9	0.000131663	0.000101444
2021	754	485649.5	3752634.9	0.000132522	0.000101065
2021	755	485749.5	3752634.9	0.000135564	0.000102804
2021	756	485849.5	3752634.9	0.000139343	0.00010512
2021	757	485549.5	3752734.9	0.000138587	0.000106935
2021	758	485649.5	3752734.9	0.000140075	0.000107092
2021	759	485749.5	3752734.9	0.000144213	0.000109738
2021	760	485849.5	3752734.9	0.000149134	0.000112971
2021	761	485549.5	3752834.9	0.000146334	0.000113253
2021	762	485649.5	3752834.9	0.000148715	0.00011424
2021	763	485749.5	3752834.9	0.000154549	0.000118411
2021	764	485849.5	3752834.9	0.000161464	0.0001234
2021	765	485549.5	3752934.9	0.000154874	0.000120254
2021	766	485649.5	3752934.9	0.000158264	0.000122215
2021	767	485749.5	3752934.9	0.000166266	0.000128495
2021	768	485849.5	3752934.9	0.000176984	0.000137041
2021	769	485549.5	3753034.9	0.000165287	0.000128927
2021	770	485649.5	3753034.9	0.000168103	0.00013035
2021	771	485749.5	3753034.9	0.00017854	0.000138993
2021	772	485849.5	3753034.9	0.000194904	0.000153082
2021	773	485549.5	3753134.9	0.000169992	0.000131469
2021	774	485649.5	3753134.9	0.000177848	0.000137997
2021	775	485749.5	3753134.9	0.000189726	0.000148234
2021	776	485849.5	3753134.9	0.000210429	0.000166727
2021	777	485549.5	3753234.9	0.000179671	0.000138445
2021	778	485649.5	3753234.9	0.000187954	0.000145511
2021	779	485749.5	3753234.9	0.000200458	0.000156687
2021	780	485849.5	3753234.9	0.000223129	0.000177409
2021	781	485549.5	3753334.9	0.000195129	0.000150389
2021	782	485649.5	3753334.9	0.000200546	0.000154321
2021	783	485749.5	3753334.9	0.000212901	0.000165671

2021	784	485849.5	3753334.9	0.000235396	0.000186907
2021	785	485549.5	3753434.9	0.000210986	0.000162098
2021	786	485649.5	3753434.9	0.000219904	0.000168382
2021	787	485749.5	3753434.9	0.000233797	0.000180688
2021	788	485849.5	3753434.9	0.000255207	0.000201891
2021	789	485508.5	3746711.3	1.53368E-05	1.25785E-05
2021	790	491508.5	3746711.3	1.07299E-05	8.82006E-06
2021	791	479508.5	3752711.3	5.74004E-05	5.0717E-05
2021	792	485508.5	3752711.3	0.000133594	0.000102769
2021	793	491508.5	3752711.3	7.77157E-05	4.84088E-05
2021	794	485508.5	3758711.3	2.89725E-05	2.6055E-05
2021	795	491508.5	3758711.3	1.18171E-05	1.00928E-05
2021	796	485921.9	3750934.2	2.0835E-05	1.54627E-05
2021	797	486021.9	3750934.2	2.04826E-05	1.51645E-05
2021	798	486121.9	3750934.2	2.02728E-05	1.49924E-05
2021	799	485921.9	3751034.2	2.19518E-05	1.62864E-05
2021	800	486021.9	3751034.2	2.14461E-05	1.58517E-05
2021	801	486121.9	3751034.2	2.11331E-05	1.55861E-05
2021	802	485921.9	3751134.2	2.32733E-05	1.72948E-05
2021	803	486021.9	3751134.2	2.27009E-05	1.67969E-05
2021	804	486121.9	3751134.2	2.22412E-05	1.63971E-05
2021	805	485921.9	3751234.2	2.485E-05	1.85311E-05
2021	806	486021.9	3751234.2	2.42089E-05	1.79665E-05
2021	807	486121.9	3751234.2	2.36357E-05	1.74624E-05
2021	808	485921.9	3751334.2	2.68201E-05	2.01172E-05
2021	809	486021.9	3751334.2	2.60772E-05	1.94557E-05
2021	810	486121.9	3751334.2	2.52735E-05	1.87424E-05
2021	811	485921.9	3751434.2	2.9509E-05	2.23396E-05
2021	812	486021.9	3751434.2	2.8325E-05	2.12823E-05
2021	813	486121.9	3751434.2	2.72992E-05	2.03649E-05
2021	814	485921.9	3751534.2	3.23586E-05	2.46999E-05
2021	815	486021.9	3751534.2	3.14634E-05	2.38947E-05
2021	816	486121.9	3751534.2	2.98537E-05	2.24555E-05
2021	817	485921.9	3751634.2	3.49107E-05	2.68004E-05
2021	818	486021.9	3751634.2	3.6579E-05	2.82083E-05
2021	819	486121.9	3751634.2	3.37298E-05	2.57092E-05
2021	820	485921.9	3751734.2	4.0038E-05	3.11567E-05
2021	821	486021.9	3751734.2	4.45638E-05	3.49045E-05
2021	822	486121.9	3751734.2	3.80212E-05	2.93004E-05
2021	823	485921.9	3751834.2	5.05597E-05	4.00498E-05
2021	824	486021.9	3751834.2	4.99981E-05	3.94113E-05
2021	825	486121.9	3751834.2	4.01297E-05	3.09733E-05
2021	826	485921.9	3751934.2	7.7685E-05	6.19094E-05
2021	827	486021.9	3751934.2	6.18613E-05	4.90727E-05
2021	828	486121.9	3751934.2	4.98483E-05	3.9101E-05
2021	829	485921.9	3752034.2	9.52344E-05	7.57986E-05
2021	830	486021.9	3752034.2	7.7771E-05	6.22009E-05

2021	831	486121.9	3752034.2	6.8121E-05	5.41809E-05
2021	832	485921.9	3752134.2	0.000130982	0.00010763
2021	833	486021.9	3752134.2	0.000124051	0.000102383
2021	834	486121.9	3752134.2	9.79604E-05	7.9433E-05
2021	835	485921.9	3752234.2	0.000181149	0.000154916
2021	836	486021.9	3752234.2	0.000185822	0.000160149
2021	837	486121.9	3752234.2	0.000162051	0.000137386
2021	838	485921.9	3752334.2	0.000139572	0.000110221
2021	839	486021.9	3752334.2	0.000145383	0.00011606
2021	840	486121.9	3752334.2	0.000171568	0.000142382
2021	841	485921.9	3752434.2	0.000133547	0.000101941
2021	842	486021.9	3752434.2	0.000138925	0.000106644
2021	843	486121.9	3752434.2	0.000150097	0.000117168
2021	844	485921.9	3752534.2	0.000136239	0.000102575
2021	845	486021.9	3752534.2	0.000140744	0.000105846
2021	846	486121.9	3752534.2	0.000147019	0.000110986
2021	847	485921.9	3752634.2	0.000142341	0.000107033
2021	848	486021.9	3752634.2	0.000146716	0.000109989
2021	849	486121.9	3752634.2	0.000151982	0.00011389
2021	850	485921.9	3752734.2	0.000152774	0.000115366
2021	851	486021.9	3752734.2	0.000158354	0.000119138
2021	852	486121.9	3752734.2	0.000164445	0.00012349
2021	853	485921.9	3752834.2	0.000167	0.000127348
2021	854	486021.9	3752834.2	0.000175434	0.0001334
2021	855	486121.9	3752834.2	0.000184325	0.00013989
2021	856	485921.9	3752934.2	0.000185764	0.00014402
2021	857	486021.9	3752934.2	0.000200648	0.000155817
2021	858	486121.9	3752934.2	0.000220403	0.000171931
2021	859	487026.2	3754364	0.000767406	0.000667208
2022	1	489607.4	3753966.1	0.000301252	0.000192429
2022	2	489738.7	3754023.9	0.000282756	0.000191633
2022	3	489668.9	3754093.7	0.000276096	0.000196975
2022	4	489690.1	3754161.6	0.000263825	0.000191887
2022	5	490282.2	3753425.2	0.000271977	0.000156361
2022	6	489797.3	3754554.1	0.00022006	0.000165571
2022	7	490252.9	3754378.2	0.000204358	0.000152039
2022	8	489006	3754140.3	0.000348049	0.000236082
2022	9	485642.8	3754267.3	0.000670206	0.000549256
2022	10	485736.4	3754259.5	0.000763183	0.000629569
2022	11	487189.2	3754820.5	0.001320588	0.00114825
2022	12	487233.1	3754689.5	0.001040183	0.000872342
2022	13	487216.8	3754364.7	0.001443104	0.001255123
2022	14	487388.8	3754380.1	0.000858232	0.000711003
2022	15	484625	3751748	0.000173156	0.000139587
2022	16	483279	3751798	0.000126604	0.000101696
2022	17	483231	3751205	0.000112047	9.02048E-05
2022	18	480165	3750195	8.76093E-05	7.53133E-05

2022	19	481211	3749473	7.67604E-05	6.38989E-05
2022	20	481867	3752785	0.000129194	0.000109366
2022	21	480678	3751306	9.27416E-05	7.83346E-05
2022	22	479989	3752645	0.000110441	9.66131E-05
2022	23	479889	3756222	0.000155358	0.000142519
2022	24	479234	3757080	7.42032E-05	6.68785E-05
2022	25	480276	3756365	0.000125901	0.000114783
2022	26	479887	3754007	0.000143864	0.000129277
2022	27	480772	3755009	0.000307281	0.000283763
2022	28	481560	3754548	0.000229849	0.000208189
2022	29	481845	3754457	0.000231907	0.00020924
2022	30	481754	3753876	0.000170065	0.000149839
2022	31	489635.2	3750663.8	5.37292E-05	4.06354E-05
2022	32	485424.1	3747672.3	3.73217E-05	3.01408E-05
2022	33	482657.6	3753975.1	0.000195417	0.000170215
2022	34	481495	3754633.7	0.00024122	0.000219268
2022	35	481148.7	3756136.2	0.000173483	0.000158799
2022	36	482346.5	3748872.9	2.93041E-05	2.31445E-05
2022	37	480299	3751198	9.00255E-05	7.64747E-05
2022	38	479598.7	3756506.3	0.000118489	0.000108022
2022	39	478997.8	3753535.2	0.000156704	0.000141695
2022	40	478978.3	3755233.1	0.000488498	0.000456936
2022	41	479197.3	3754462.3	0.000211678	0.000194065
2022	42	479493.3	3752408.8	0.000111706	9.84853E-05
2022	43	480295.4	3752408.4	0.000107306	9.30492E-05
2022	44	480287.9	3754227.5	0.000158122	0.000142352
2022	45	494397.4	3753977.6	9.00019E-05	7.22265E-05
2022	46	481108.5	3750699	9.26426E-05	7.81428E-05
2022	47	486794.1	3756878	8.57574E-05	7.50305E-05
2022	48	482345	3752065.8	0.000124245	0.000103237
2022	49	487553	3745938.3	2.31077E-05	1.92207E-05
2022	50	484553	3746938.3	3.00801E-05	2.44959E-05
2022	51	485553	3746938.3	3.18983E-05	2.60834E-05
2022	52	486553	3746938.3	2.56592E-05	2.14788E-05
2022	53	487553	3746938.3	2.79826E-05	2.29779E-05
2022	54	488553	3746938.3	2.54912E-05	2.10176E-05
2022	55	489553	3746938.3	2.52316E-05	2.06842E-05
2022	56	490553	3746938.3	2.31889E-05	1.9052E-05
2022	57	491553	3746938.3	2.21144E-05	1.81431E-05
2022	58	492553	3746938.3	2.13652E-05	1.75197E-05
2022	59	482553	3747938.3	2.55717E-05	2.02126E-05
2022	60	483553	3747938.3	4.40417E-05	3.51114E-05
2022	61	484553	3747938.3	4.20337E-05	3.36575E-05
2022	62	485553	3747938.3	3.91826E-05	3.15085E-05
2022	63	486553	3747938.3	3.66631E-05	2.98197E-05
2022	64	487553	3747938.3	2.37472E-05	1.97874E-05
2022	65	488553	3747938.3	3.04118E-05	2.47731E-05

2022	66	489553	3747938.3	2.86206E-05	2.33227E-05
2022	67	490553	3747938.3	2.70243E-05	2.19994E-05
2022	68	491553	3747938.3	2.57856E-05	2.09564E-05
2022	69	492553	3747938.3	2.49427E-05	2.02703E-05
2022	70	493553	3747938.3	2.45025E-05	1.99627E-05
2022	71	481553	3748938.3	6.20413E-05	4.99989E-05
2022	72	482553	3748938.3	3.04337E-05	2.40252E-05
2022	73	483553	3748938.3	4.99045E-05	3.96012E-05
2022	74	484553	3748938.3	5.22483E-05	4.11635E-05
2022	75	485553	3748938.3	4.99209E-05	3.94926E-05
2022	76	486553	3748938.3	4.64489E-05	3.70198E-05
2022	77	487553	3748938.3	3.70857E-05	3.06868E-05
2022	78	488553	3748938.3	3.72822E-05	2.98577E-05
2022	79	489553	3748938.3	3.44035E-05	2.76545E-05
2022	80	490553	3748938.3	3.24405E-05	2.60273E-05
2022	81	491553	3748938.3	3.08638E-05	2.47539E-05
2022	82	492553	3748938.3	3.00739E-05	2.41332E-05
2022	83	493553	3748938.3	3.08134E-05	2.49411E-05
2022	84	494553	3748938.3	4.95731E-05	4.31211E-05
2022	85	480553	3749938.3	0.000111803	9.94223E-05
2022	86	481553	3749938.3	8.82236E-05	7.33603E-05
2022	87	482553	3749938.3	8.24669E-05	6.66677E-05
2022	88	483553	3749938.3	7.81631E-05	6.20709E-05
2022	89	484553	3749938.3	5.40701E-05	4.25425E-05
2022	90	485553	3749938.3	4.29588E-05	3.37125E-05
2022	91	486553	3749938.3	5.1988E-05	4.15577E-05
2022	92	487553	3749938.3	5.52278E-05	4.34001E-05
2022	93	488553	3749938.3	4.7444E-05	3.69572E-05
2022	94	489553	3749938.3	4.34857E-05	3.40471E-05
2022	95	490553	3749938.3	4.06117E-05	3.18033E-05
2022	96	491553	3749938.3	3.86971E-05	3.02924E-05
2022	97	492553	3749938.3	3.89041E-05	3.05731E-05
2022	98	493553	3749938.3	4.93229E-05	4.03713E-05
2022	99	494553	3749938.3	3.6665E-05	2.82801E-05
2022	100	495553	3749938.3	2.93839E-05	2.41758E-05
2022	101	480553	3750938.3	8.83762E-05	7.46043E-05
2022	102	481553	3750938.3	9.61049E-05	8.02519E-05
2022	103	482553	3750938.3	0.000103849	8.52897E-05
2022	104	483553	3750938.3	0.000118842	9.68883E-05
2022	105	484553	3750938.3	0.000108879	8.58741E-05
2022	106	485553	3750938.3	4.43682E-05	3.32506E-05
2022	107	486553	3750938.3	3.96572E-05	2.94617E-05
2022	108	487553	3750938.3	6.23046E-05	4.85467E-05
2022	109	488553	3750938.3	6.71013E-05	4.90078E-05
2022	110	489553	3750938.3	6.01163E-05	4.44549E-05
2022	111	490553	3750938.3	5.49988E-05	4.10019E-05
2022	112	491553	3750938.3	5.26378E-05	3.93607E-05

2022	113	492553	3750938.3	6.89611E-05	5.48411E-05
2022	114	493553	3750938.3	5.18652E-05	3.85514E-05
2022	115	494553	3750938.3	5.01598E-05	3.7619E-05
2022	116	495553	3750938.3	4.71344E-05	3.66752E-05
2022	117	479553	3751938.3	0.000103585	9.05677E-05
2022	118	480553	3751938.3	0.000102706	8.81442E-05
2022	119	481553	3751938.3	0.000107869	9.04719E-05
2022	120	482553	3751938.3	0.000120234	9.85318E-05
2022	121	483553	3751938.3	0.000137091	0.000109726
2022	122	484553	3751938.3	0.000163212	0.000128813
2022	123	485553	3751938.3	0.000230014	0.000189304
2022	124	486553	3751938.3	7.52112E-05	5.67823E-05
2022	125	487553	3751938.3	0.000112376	8.42962E-05
2022	126	488553	3751938.3	0.000116848	7.47421E-05
2022	127	489553	3751938.3	0.000107542	6.71225E-05
2022	128	490553	3751938.3	9.57483E-05	6.16095E-05
2022	129	491553	3751938.3	0.000120255	8.78081E-05
2022	130	492553	3751938.3	8.35493E-05	5.42191E-05
2022	131	493553	3751938.3	7.64577E-05	5.63293E-05
2022	132	494553	3751938.3	7.14577E-05	5.31109E-05
2022	133	495553	3751938.3	6.38937E-05	4.86574E-05
2022	134	479553	3752938.3	0.000122736	0.00010895
2022	135	480553	3752938.3	0.000124082	0.00010849
2022	136	481553	3752938.3	0.000137414	0.000118425
2022	137	482553	3752938.3	0.000151492	0.000127262
2022	138	483553	3752938.3	0.000172839	0.000140339
2022	139	484553	3752938.3	0.000220336	0.000171677
2022	140	485553	3752938.3	0.000310105	0.000240656
2022	141	486553	3752938.3	0.000583418	0.000477513
2022	142	487553	3752938.3	0.000690859	0.000550754
2022	143	488553	3752938.3	0.000370087	0.000247057
2022	144	489553	3752938.3	0.000264576	0.000154483
2022	145	490553	3752938.3	0.000212072	0.000117591
2022	146	491553	3752938.3	0.000162185	0.000106893
2022	147	492553	3752938.3	0.000130141	8.30535E-05
2022	148	493553	3752938.3	0.000111985	7.91525E-05
2022	149	494553	3752938.3	9.86136E-05	7.31452E-05
2022	150	495553	3752938.3	8.11396E-05	6.23248E-05
2022	151	479553	3753938.3	0.000143415	0.000129193
2022	152	480553	3753938.3	0.000146037	0.000130187
2022	153	481553	3753938.3	0.00017258	0.000152978
2022	154	482553	3753938.3	0.000189144	0.000164718
2022	155	483553	3753938.3	0.000235993	0.000203171
2022	156	484553	3753938.3	0.000287149	0.000234218
2022	157	485553	3753938.3	0.000524984	0.000411613
2022	158	486553	3753938.3	0.000994313	0.000807126
2022	159	487553	3753938.3	0.00099894	0.000838961

2022	160	488553	3753938.3	0.00049994	0.000348296
2022	161	489553	3753938.3	0.000304668	0.000187946
2022	162	490553	3753938.3	0.000213121	0.000155449
2022	163	491553	3753938.3	0.000155802	0.000120812
2022	164	492553	3753938.3	0.000129777	0.000102025
2022	165	493553	3753938.3	0.000107075	8.51487E-05
2022	166	494553	3753938.3	9.79605E-05	7.84783E-05
2022	167	495553	3753938.3	7.69012E-05	6.21091E-05
2022	168	479553	3754938.3	0.000257622	0.000237998
2022	169	480553	3754938.3	0.000275242	0.000253607
2022	170	481553	3754938.3	0.000315698	0.000290268
2022	171	482553	3754938.3	0.000462906	0.000427476
2022	172	483553	3754938.3	0.000501121	0.000460257
2022	173	484553	3754938.3	0.000505755	0.000456832
2022	174	485553	3754938.3	0.000741593	0.000662377
2022	175	486553	3754938.3	0.001110642	0.00099574
2022	176	487553	3754938.3	0.00061116	0.000498974
2022	177	488553	3754938.3	0.000335626	0.000262178
2022	178	489553	3754938.3	0.00025704	0.000215289
2022	179	490553	3754938.3	0.000178449	0.000152766
2022	180	491553	3754938.3	0.000119405	0.000101742
2022	181	492553	3754938.3	8.64112E-05	7.29883E-05
2022	182	493553	3754938.3	8.82274E-05	7.51441E-05
2022	183	494553	3754938.3	6.76239E-05	5.72863E-05
2022	184	495553	3754938.3	5.71288E-05	4.83491E-05
2022	185	479553	3755938.3	0.000259987	0.000241314
2022	186	480553	3755938.3	0.000217574	0.000200669
2022	187	481553	3755938.3	0.000220456	0.000202767
2022	188	482553	3755938.3	0.000316763	0.000292156
2022	189	483553	3755938.3	0.000340769	0.000313984
2022	190	484553	3755938.3	0.000316473	0.000288105
2022	191	485553	3755938.3	0.000437447	0.000399116
2022	192	486553	3755938.3	0.000350103	0.000316234
2022	193	487553	3755938.3	0.000181699	0.000162446
2022	194	488553	3755938.3	0.000127819	0.000113214
2022	195	489553	3755938.3	8.86981E-05	7.79477E-05
2022	196	490553	3755938.3	7.38351E-05	6.46923E-05
2022	197	491553	3755938.3	6.11304E-05	5.34138E-05
2022	198	492553	3755938.3	7.72691E-05	6.93382E-05
2022	199	493553	3755938.3	5.55235E-05	4.9E-05
2022	200	494553	3755938.3	5.37424E-05	4.75881E-05
2022	201	479553	3756938.3	7.77986E-05	7.01909E-05
2022	202	480553	3756938.3	7.42804E-05	6.6754E-05
2022	203	481553	3756938.3	6.69568E-05	5.99779E-05
2022	204	482553	3756938.3	6.99066E-05	6.23865E-05
2022	205	483553	3756938.3	0.000118686	0.000106486
2022	206	484553	3756938.3	0.000113344	0.000100617

2022	207	485553	3756938.3	0.000250291	0.000230559
2022	208	486553	3756938.3	8.93119E-05	7.83418E-05
2022	209	487553	3756938.3	5.81998E-05	5.037E-05
2022	210	488553	3756938.3	4.7269E-05	4.06295E-05
2022	211	489553	3756938.3	4.1521E-05	3.56221E-05
2022	212	490553	3756938.3	3.8143E-05	3.27385E-05
2022	213	491553	3756938.3	3.34687E-05	2.87082E-05
2022	214	492553	3756938.3	2.99254E-05	2.56908E-05
2022	215	493553	3756938.3	3.22129E-05	2.79853E-05
2022	216	494553	3756938.3	3.14138E-05	2.7386E-05
2022	217	479553	3757938.3	3.87683E-05	3.44962E-05
2022	218	480553	3757938.3	3.71716E-05	3.29773E-05
2022	219	481553	3757938.3	3.91503E-05	3.4556E-05
2022	220	482553	3757938.3	4.80543E-05	4.21701E-05
2022	221	483553	3757938.3	4.71043E-05	4.11571E-05
2022	222	484553	3757938.3	6.18451E-05	5.43254E-05
2022	223	485553	3757938.3	7.20986E-05	6.46316E-05
2022	224	486553	3757938.3	4.1455E-05	3.58331E-05
2022	225	487553	3757938.3	3.37858E-05	2.89085E-05
2022	226	488553	3757938.3	2.97074E-05	2.531E-05
2022	227	489553	3757938.3	2.74489E-05	2.33426E-05
2022	228	490553	3757938.3	2.50866E-05	2.13205E-05
2022	229	491553	3757938.3	2.30362E-05	1.95661E-05
2022	230	492553	3757938.3	2.21977E-05	1.89174E-05
2022	231	493553	3757938.3	2.47348E-05	2.12626E-05
2022	232	480553	3758938.3	2.7722E-05	2.43659E-05
2022	233	481553	3758938.3	3.07381E-05	2.68512E-05
2022	234	482553	3758938.3	2.99218E-05	2.59824E-05
2022	235	483553	3758938.3	3.13039E-05	2.7096E-05
2022	236	484553	3758938.3	3.90478E-05	3.41401E-05
2022	237	485553	3758938.3	9.31666E-05	8.53553E-05
2022	238	486553	3758938.3	2.88667E-05	2.48961E-05
2022	239	487553	3758938.3	3.16516E-05	2.72865E-05
2022	240	488553	3758938.3	2.35553E-05	2.01426E-05
2022	241	489553	3758938.3	2.39016E-05	2.04504E-05
2022	242	490553	3758938.3	2.60161E-05	2.22402E-05
2022	243	491553	3758938.3	2.11839E-05	1.8082E-05
2022	244	492553	3758938.3	2.2035E-05	1.88284E-05
2022	245	481553	3759938.3	2.27461E-05	1.97904E-05
2022	246	482553	3759938.3	2.34132E-05	2.02636E-05
2022	247	483553	3759938.3	2.47331E-05	2.13791E-05
2022	248	484553	3759938.3	3.4126E-05	2.97884E-05
2022	249	485553	3759938.3	9.22572E-05	8.44498E-05
2022	250	486553	3759938.3	4.20957E-05	3.6762E-05
2022	251	487553	3759938.3	3.42121E-05	2.96455E-05
2022	252	488553	3759938.3	3.41145E-05	2.9394E-05
2022	253	489553	3759938.3	2.97074E-05	2.55096E-05

2022	254	490553	3759938.3	2.28043E-05	1.95586E-05
2022	255	491553	3759938.3	1.98562E-05	1.69922E-05
2022	256	482553	3760938.3	2.20118E-05	1.90643E-05
2022	257	483553	3760938.3	2.52914E-05	2.19562E-05
2022	258	484553	3760938.3	3.22196E-05	2.81665E-05
2022	259	485553	3760938.3	7.55116E-05	6.8495E-05
2022	260	486553	3760938.3	4.85312E-05	4.26481E-05
2022	261	487553	3760938.3	3.84296E-05	3.36872E-05
2022	262	488553	3760938.3	2.18156E-05	1.89166E-05
2022	263	489553	3760938.3	1.64971E-05	1.41932E-05
2022	264	490553	3760938.3	1.57283E-05	1.34886E-05
2022	265	484551.7	3750934.4	0.000108147	8.53823E-05
2022	266	484651.7	3750934.4	0.000105967	8.35411E-05
2022	267	484751.7	3750934.4	7.87895E-05	6.24001E-05
2022	268	484851.7	3750934.4	7.1322E-05	5.63452E-05
2022	269	484951.7	3750934.4	7.51886E-05	5.92397E-05
2022	270	485051.7	3750934.4	6.64617E-05	5.21885E-05
2022	271	485151.7	3750934.4	5.52533E-05	4.27868E-05
2022	272	485251.7	3750934.4	4.8931E-05	3.72972E-05
2022	273	485351.7	3750934.4	4.67448E-05	3.53605E-05
2022	274	485451.7	3750934.4	4.54467E-05	3.4211E-05
2022	275	484551.7	3751034.4	0.000116697	9.16861E-05
2022	276	484651.7	3751034.4	0.000114071	8.95062E-05
2022	277	484751.7	3751034.4	0.000105828	8.37694E-05
2022	278	484851.7	3751034.4	8.16189E-05	6.45427E-05
2022	279	484951.7	3751034.4	9.09535E-05	7.17087E-05
2022	280	485051.7	3751034.4	7.45469E-05	5.86563E-05
2022	281	485151.7	3751034.4	6.38607E-05	4.98829E-05
2022	282	485251.7	3751034.4	5.46061E-05	4.19799E-05
2022	283	485351.7	3751034.4	5.0411E-05	3.8305E-05
2022	284	485451.7	3751034.4	4.82548E-05	3.63932E-05
2022	285	484551.7	3751134.4	0.00012401	9.74132E-05
2022	286	484651.7	3751134.4	0.000122895	9.62069E-05
2022	287	484751.7	3751134.4	0.00011989	9.38009E-05
2022	288	484851.7	3751134.4	0.000106521	8.4651E-05
2022	289	484951.7	3751134.4	0.000108465	8.56183E-05
2022	290	485051.7	3751134.4	8.72872E-05	6.87916E-05
2022	291	485151.7	3751134.4	7.61121E-05	5.98646E-05
2022	292	485251.7	3751134.4	6.51752E-05	5.08148E-05
2022	293	485351.7	3751134.4	5.58369E-05	4.27975E-05
2022	294	485451.7	3751134.4	5.16353E-05	3.90963E-05
2022	295	484551.7	3751234.4	0.000132003	0.00010407
2022	296	484651.7	3751234.4	0.000131219	0.000103055
2022	297	484751.7	3751234.4	0.000128532	0.000100794
2022	298	484851.7	3751234.4	0.000123148	9.68408E-05
2022	299	484951.7	3751234.4	0.000118668	9.35112E-05
2022	300	485051.7	3751234.4	0.000105058	8.32745E-05

2022	301	485151.7	3751234.4	8.65278E-05	6.83299E-05
2022	302	485251.7	3751234.4	6.47163E-05	5.03566E-05
2022	303	485351.7	3751234.4	5.74831E-05	4.40412E-05
2022	304	485451.7	3751234.4	5.47621E-05	4.16025E-05
2022	305	484551.7	3751334.4	0.000146192	0.00011676
2022	306	484651.7	3751334.4	0.000142486	0.000112953
2022	307	484751.7	3751334.4	0.000138416	0.00010935
2022	308	484851.7	3751334.4	0.000134606	0.000106162
2022	309	484951.7	3751334.4	0.000132237	0.000103981
2022	310	485051.7	3751334.4	0.000124983	9.87395E-05
2022	311	485151.7	3751334.4	0.000103541	8.21389E-05
2022	312	485251.7	3751334.4	7.93469E-05	6.2698E-05
2022	313	485351.7	3751334.4	6.31499E-05	4.88396E-05
2022	314	485451.7	3751334.4	5.86167E-05	4.47834E-05
2022	315	484551.7	3751434.4	0.000170131	0.000139617
2022	316	484651.7	3751434.4	0.000160446	0.000129536
2022	317	484751.7	3751434.4	0.000154174	0.000123181
2022	318	484851.7	3751434.4	0.000149752	0.000118905
2022	319	484951.7	3751434.4	0.000146154	0.000115558
2022	320	485051.7	3751434.4	0.000142396	0.000112186
2022	321	485151.7	3751434.4	0.000124944	9.99278E-05
2022	322	485251.7	3751434.4	9.42843E-05	7.51768E-05
2022	323	485351.7	3751434.4	7.37461E-05	5.79505E-05
2022	324	485451.7	3751434.4	6.57546E-05	5.08947E-05
2022	325	484551.7	3751534.4	0.000227139	0.000195837
2022	326	484651.7	3751534.4	0.000200633	0.000168595
2022	327	484751.7	3751534.4	0.000180532	0.000147962
2022	328	484851.7	3751534.4	0.00017028	0.000137419
2022	329	484951.7	3751534.4	0.000164667	0.000131586
2022	330	485051.7	3751534.4	0.000161162	0.00012784
2022	331	485151.7	3751534.4	0.000156165	0.000123202
2022	332	485251.7	3751534.4	0.000136789	0.000109127
2022	333	485351.7	3751534.4	0.000106103	8.48017E-05
2022	334	485451.7	3751534.4	8.60835E-05	6.82935E-05
2022	335	484551.7	3751634.4	0.000201982	0.000169884
2022	336	484651.7	3751634.4	0.000208853	0.000176008
2022	337	484751.7	3751634.4	0.000215287	0.000181612
2022	338	484851.7	3751634.4	0.00021899	0.000184728
2022	339	484951.7	3751634.4	0.000194989	0.000160285
2022	340	485051.7	3751634.4	0.000183681	0.000148568
2022	341	485151.7	3751634.4	0.000177637	0.000142135
2022	342	485251.7	3751634.4	0.00016739	0.000132937
2022	343	485351.7	3751634.4	0.000154703	0.000122638
2022	344	485451.7	3751634.4	0.000137904	0.000110364
2022	345	484551.7	3751734.4	0.000167292	0.000134525
2022	346	484651.7	3751734.4	0.000179367	0.000145625
2022	347	484751.7	3751734.4	0.000200044	0.000165443

2022	348	484851.7	3751734.4	0.000227234	0.000191937
2022	349	484951.7	3751734.4	0.000226193	0.00019042
2022	350	485051.7	3751734.4	0.000253767	0.000217463
2022	351	485151.7	3751734.4	0.000216787	0.000179607
2022	352	485251.7	3751734.4	0.000203664	0.000166111
2022	353	485351.7	3751734.4	0.00018898	0.000152178
2022	354	485451.7	3751734.4	0.000171811	0.000136878
2022	355	484551.7	3751834.4	0.000161583	0.000128189
2022	356	484651.7	3751834.4	0.000167435	0.000133098
2022	357	484751.7	3751834.4	0.000174534	0.000139255
2022	358	484851.7	3751834.4	0.000183574	0.000147447
2022	359	484951.7	3751834.4	0.000196006	0.000159265
2022	360	485051.7	3751834.4	0.000225495	0.000187998
2022	361	485151.7	3751834.4	0.000225976	0.000187259
2022	362	485251.7	3751834.4	0.000241141	0.000201536
2022	363	485351.7	3751834.4	0.000240434	0.000200757
2022	364	485451.7	3751834.4	0.000236864	0.000197981
2022	365	484551.7	3751934.4	0.000163003	0.00012866
2022	366	484651.7	3751934.4	0.000166724	0.000131573
2022	367	484751.7	3751934.4	0.00017055	0.000134637
2022	368	484851.7	3751934.4	0.000175495	0.000138687
2022	369	484951.7	3751934.4	0.000181138	0.000143445
2022	370	485051.7	3751934.4	0.000188623	0.000149907
2022	371	485151.7	3751934.4	0.000198319	0.000158405
2022	372	485251.7	3751934.4	0.000211592	0.000170288
2022	373	485351.7	3751934.4	0.000232136	0.000189889
2022	374	485451.7	3751934.4	0.000243893	0.000202006
2022	375	484551.7	3752034.4	0.000168838	0.000133246
2022	376	484651.7	3752034.4	0.000171873	0.000135481
2022	377	484751.7	3752034.4	0.000175145	0.000137932
2022	378	484851.7	3752034.4	0.000178626	0.000140577
2022	379	484951.7	3752034.4	0.000182986	0.000143957
2022	380	485051.7	3752034.4	0.000188322	0.000148168
2022	381	485151.7	3752034.4	0.000195006	0.000153568
2022	382	485251.7	3752034.4	0.000205046	0.000162024
2022	383	485351.7	3752034.4	0.000219533	0.000175191
2022	384	485451.7	3752034.4	0.000261077	0.000215899
2022	385	484551.7	3752134.4	0.000179886	0.000142976
2022	386	484651.7	3752134.4	0.000182694	0.000144925
2022	387	484751.7	3752134.4	0.00018583	0.000147152
2022	388	484851.7	3752134.4	0.000188979	0.000149388
2022	389	484951.7	3752134.4	0.000192474	0.000151922
2022	390	485051.7	3752134.4	0.000196873	0.000155214
2022	391	485151.7	3752134.4	0.000202423	0.000159518
2022	392	485251.7	3752134.4	0.000211126	0.000166645
2022	393	485351.7	3752134.4	0.000226208	0.000180017
2022	394	485451.7	3752134.4	0.000267647	0.000220087

2022	395	484551.7	3752234.4	0.0002005	0.000162356
2022	396	484651.7	3752234.4	0.00020478	0.000165613
2022	397	484751.7	3752234.4	0.000207712	0.000167549
2022	398	484851.7	3752234.4	0.000210032	0.000168869
2022	399	484951.7	3752234.4	0.000224887	0.000182703
2022	400	485051.7	3752234.4	0.00021654	0.000173295
2022	401	485151.7	3752234.4	0.000222239	0.000177873
2022	402	485251.7	3752234.4	0.000228655	0.000182764
2022	403	485351.7	3752234.4	0.000242598	0.000194868
2022	404	485451.7	3752234.4	0.000290991	0.000241453
2022	405	484551.7	3752334.4	0.000189773	0.000150124
2022	406	484651.7	3752334.4	0.000193305	0.000152597
2022	407	484751.7	3752334.4	0.000196806	0.000155051
2022	408	484851.7	3752334.4	0.000200395	0.000157579
2022	409	484951.7	3752334.4	0.000204357	0.000160404
2022	410	485051.7	3752334.4	0.000208349	0.000163275
2022	411	485151.7	3752334.4	0.000213094	0.000166779
2022	412	485251.7	3752334.4	0.00021887	0.000171218
2022	413	485351.7	3752334.4	0.000227476	0.000178227
2022	414	485451.7	3752334.4	0.000244458	0.000193222
2022	415	484551.7	3752434.4	0.000189086	0.000147939
2022	416	484651.7	3752434.4	0.000192752	0.000150483
2022	417	484751.7	3752434.4	0.000196345	0.000152994
2022	418	484851.7	3752434.4	0.000200593	0.000155989
2022	419	484951.7	3752434.4	0.000204768	0.00015896
2022	420	485051.7	3752434.4	0.000209353	0.000162264
2022	421	485151.7	3752434.4	0.000214394	0.000165948
2022	422	485251.7	3752434.4	0.000220055	0.000170186
2022	423	485351.7	3752434.4	0.00022726	0.000175778
2022	424	485451.7	3752434.4	0.00023887	0.000185597
2022	425	484551.7	3752534.4	0.000193081	0.000150394
2022	426	484651.7	3752534.4	0.000197044	0.000153145
2022	427	484751.7	3752534.4	0.000201231	0.000156077
2022	428	484851.7	3752534.4	0.000205761	0.000159276
2022	429	484951.7	3752534.4	0.000210327	0.000162541
2022	430	485051.7	3752534.4	0.000215444	0.000166234
2022	431	485151.7	3752534.4	0.000220903	0.000170227
2022	432	485251.7	3752534.4	0.000226775	0.000174602
2022	433	485351.7	3752534.4	0.00023367	0.000179871
2022	434	485451.7	3752534.4	0.000244416	0.000188774
2022	435	484551.7	3752634.4	0.000198398	0.000154208
2022	436	484651.7	3752634.4	0.000202696	0.000157192
2022	437	484751.7	3752634.4	0.000207216	0.000160362
2022	438	484851.7	3752634.4	0.000212435	0.000164041
2022	439	484951.7	3752634.4	0.000217618	0.000167758
2022	440	485051.7	3752634.4	0.000223338	0.000171906
2022	441	485151.7	3752634.4	0.00022933	0.000176322

2022	442	485251.7	3752634.4	0.000235746	0.000181134
2022	443	485351.7	3752634.4	0.000243142	0.000186811
2022	444	485451.7	3752634.4	0.00025436	0.000196053
2022	445	484551.7	3752734.4	0.000204745	0.000159026
2022	446	484651.7	3752734.4	0.000209637	0.0001624
2022	447	484751.7	3752734.4	0.00021476	0.000165979
2022	448	484851.7	3752734.4	0.000220254	0.000169868
2022	449	484951.7	3752734.4	0.000226061	0.000174039
2022	450	485051.7	3752734.4	0.000232423	0.000178678
2022	451	485151.7	3752734.4	0.000239046	0.0001836
2022	452	485251.7	3752734.4	0.000246159	0.000188998
2022	453	485351.7	3752734.4	0.000254384	0.000195387
2022	454	485451.7	3752734.4	0.000266176	0.000205196
2022	455	484551.7	3752834.4	0.000211652	0.000164479
2022	456	484651.7	3752834.4	0.000217103	0.000168208
2022	457	484751.7	3752834.4	0.00022263	0.00017205
2022	458	484851.7	3752834.4	0.000228904	0.000176471
2022	459	484951.7	3752834.4	0.000235448	0.00018116
2022	460	485051.7	3752834.4	0.00024239	0.000186227
2022	461	485151.7	3752834.4	0.000249689	0.000191683
2022	462	485251.7	3752834.4	0.000257663	0.000197791
2022	463	485351.7	3752834.4	0.000266681	0.000204935
2022	464	485451.7	3752834.4	0.000279672	0.000215864
2022	465	484551.7	3752934.4	0.000219878	0.000171296
2022	466	484651.7	3752934.4	0.000225908	0.000175395
2022	467	484751.7	3752934.4	0.000232099	0.000179658
2022	468	484851.7	3752934.4	0.000239029	0.000184505
2022	469	484951.7	3752934.4	0.000246302	0.000189679
2022	470	485051.7	3752934.4	0.000254132	0.000195362
2022	471	485151.7	3752934.4	0.000262144	0.000201344
2022	472	485251.7	3752934.4	0.000271133	0.000208245
2022	473	485351.7	3752934.4	0.000280879	0.000216066
2022	474	485451.7	3752934.4	0.00029481	0.000227912
2022	475	484551.7	3753034.4	0.000231814	0.000181989
2022	476	484651.7	3753034.4	0.000238799	0.000186848
2022	477	484751.7	3753034.4	0.000246516	0.000192321
2022	478	484851.7	3753034.4	0.000253665	0.000197104
2022	479	484951.7	3753034.4	0.000261585	0.000202624
2022	480	485051.7	3753034.4	0.000270156	0.000208817
2022	481	485151.7	3753034.4	0.000279727	0.000215981
2022	482	485251.7	3753034.4	0.000293235	0.000227143
2022	483	485351.7	3753034.4	0.000299876	0.000231679
2022	484	485451.7	3753034.4	0.000314417	0.000244087
2022	485	484551.7	3753134.4	0.000232294	0.000181309
2022	486	484651.7	3753134.4	0.000239723	0.000186346
2022	487	484751.7	3753134.4	0.000247826	0.000191894
2022	488	484851.7	3753134.4	0.000256255	0.000197732

2022	489	484951.7	3753134.4	0.000265384	0.000204146
2022	490	485051.7	3753134.4	0.000275144	0.000211134
2022	491	485151.7	3753134.4	0.000285494	0.000218715
2022	492	485251.7	3753134.4	0.000296978	0.000227422
2022	493	485351.7	3753134.4	0.000309749	0.000237597
2022	494	485451.7	3753134.4	0.000327709	0.000253109
2022	495	484551.7	3753234.4	0.000236941	0.000184898
2022	496	484651.7	3753234.4	0.000245187	0.000190467
2022	497	484751.7	3753234.4	0.000253912	0.0001964
2022	498	484851.7	3753234.4	0.000263188	0.000202772
2022	499	484951.7	3753234.4	0.000273297	0.000209807
2022	500	485051.7	3753234.4	0.000284361	0.000217654
2022	501	485151.7	3753234.4	0.000296205	0.000226233
2022	502	485251.7	3753234.4	0.000309435	0.000236104
2022	503	485351.7	3753234.4	0.000324367	0.000247773
2022	504	485451.7	3753234.4	0.000345068	0.000265352
2022	505	484551.7	3753334.4	0.000243043	0.000190072
2022	506	484651.7	3753334.4	0.000251836	0.000195987
2022	507	484751.7	3753334.4	0.000261067	0.000202211
2022	508	484851.7	3753334.4	0.00027146	0.000209312
2022	509	484951.7	3753334.4	0.000282356	0.000216813
2022	510	485051.7	3753334.4	0.000294584	0.000225382
2022	511	485151.7	3753334.4	0.000308071	0.000235041
2022	512	485251.7	3753334.4	0.000323801	0.000246604
2022	513	485351.7	3753334.4	0.000341864	0.000260404
2022	514	485451.7	3753334.4	0.000366084	0.000280405
2022	515	484551.7	3753434.4	0.000249267	0.000195684
2022	516	484651.7	3753434.4	0.000258532	0.000201918
2022	517	484751.7	3753434.4	0.000268365	0.000208512
2022	518	484851.7	3753434.4	0.000279461	0.000216057
2022	519	484951.7	3753434.4	0.000291275	0.00022407
2022	520	485051.7	3753434.4	0.000304495	0.0002332
2022	521	485151.7	3753434.4	0.000319886	0.000244127
2022	522	485251.7	3753434.4	0.000338066	0.000257361
2022	523	485351.7	3753434.4	0.000359664	0.000273669
2022	524	485451.7	3753434.4	0.00038995	0.000298132
2022	525	484551.7	3753534.4	0.000255447	0.000201552
2022	526	484651.7	3753534.4	0.000264436	0.000207466
2022	527	484751.7	3753534.4	0.000274594	0.000214239
2022	528	484851.7	3753534.4	0.000286828	0.000222654
2022	529	484951.7	3753534.4	0.000299516	0.000231283
2022	530	485051.7	3753534.4	0.000313721	0.000241047
2022	531	485151.7	3753534.4	0.000330606	0.00025296
2022	532	485251.7	3753534.4	0.000350867	0.000267656
2022	533	485351.7	3753534.4	0.000376018	0.000286528
2022	534	485451.7	3753534.4	0.000412031	0.00031537
2022	535	484551.7	3753634.4	0.000261499	0.000207529

2022	536	484651.7	3753634.4	0.000270935	0.000213769
2022	537	484751.7	3753634.4	0.000281638	0.000220942
2022	538	484851.7	3753634.4	0.000293738	0.000229137
2022	539	484951.7	3753634.4	0.000307265	0.000238376
2022	540	485051.7	3753634.4	0.00032241	0.000248831
2022	541	485151.7	3753634.4	0.000340337	0.000261514
2022	542	485251.7	3753634.4	0.000361971	0.000277303
2022	543	485351.7	3753634.4	0.000388768	0.000297631
2022	544	485451.7	3753634.4	0.000427672	0.000329285
2022	545	484551.7	3753734.4	0.00026955	0.000215672
2022	546	484651.7	3753734.4	0.000278898	0.000221753
2022	547	484751.7	3753734.4	0.000289283	0.000228518
2022	548	484851.7	3753734.4	0.000300841	0.00023608
2022	549	484951.7	3753734.4	0.000314722	0.000245512
2022	550	485051.7	3753734.4	0.000330756	0.000256599
2022	551	485151.7	3753734.4	0.000349446	0.000269791
2022	552	485251.7	3753734.4	0.000371818	0.000286052
2022	553	485351.7	3753734.4	0.000399895	0.000307354
2022	554	485451.7	3753734.4	0.000440484	0.000340531
2022	555	484551.7	3753834.4	0.000277664	0.000224164
2022	556	484651.7	3753834.4	0.000286671	0.000229904
2022	557	484751.7	3753834.4	0.000297107	0.000236692
2022	558	484851.7	3753834.4	0.000308834	0.000244338
2022	559	484951.7	3753834.4	0.000323009	0.000253927
2022	560	485051.7	3753834.4	0.000338951	0.000264707
2022	561	485151.7	3753834.4	0.000357797	0.000277759
2022	562	485251.7	3753834.4	0.000381253	0.00029469
2022	563	485351.7	3753834.4	0.000410421	0.000316598
2022	564	485451.7	3753834.4	0.000452612	0.00035068
2022	565	484551.7	3753934.4	0.000286484	0.000233561
2022	566	484651.7	3753934.4	0.000295953	0.000239754
2022	567	484751.7	3753934.4	0.000305082	0.000245253
2022	568	484851.7	3753934.4	0.000317045	0.000253142
2022	569	484951.7	3753934.4	0.000331122	0.00026262
2022	570	485051.7	3753934.4	0.000347537	0.00027384
2022	571	485151.7	3753934.4	0.000366842	0.000287247
2022	572	485251.7	3753934.4	0.000390244	0.000303933
2022	573	485351.7	3753934.4	0.000419825	0.000325808
2022	574	485451.7	3753934.4	0.000462921	0.000360006
2022	575	484551.7	3754034.4	0.000297011	0.000245031
2022	576	484651.7	3754034.4	0.000302367	0.000246944
2022	577	484751.7	3754034.4	0.000313629	0.000254621
2022	578	484851.7	3754034.4	0.00032614	0.000263068
2022	579	484951.7	3754034.4	0.000340011	0.000272367
2022	580	485051.7	3754034.4	0.000356018	0.000283217
2022	581	485151.7	3754034.4	0.000375096	0.000296431
2022	582	485251.7	3754034.4	0.000398512	0.000313155

2022	583	485351.7	3754034.4	0.000428204	0.000335205
2022	584	485451.7	3754034.4	0.000471523	0.000369817
2022	585	484551.7	3754134.4	0.000303668	0.000252384
2022	586	484651.7	3754134.4	0.000310287	0.000255789
2022	587	484751.7	3754134.4	0.000321531	0.000263577
2022	588	484851.7	3754134.4	0.000334909	0.000273068
2022	589	484951.7	3754134.4	0.000348665	0.000282302
2022	590	485051.7	3754134.4	0.000364855	0.000293309
2022	591	485151.7	3754134.4	0.000384017	0.000306622
2022	592	485251.7	3754134.4	0.000407366	0.000323352
2022	593	485351.7	3754134.4	0.000437055	0.000345439
2022	594	485451.7	3754134.4	0.00047999	0.000379696
2022	595	484551.7	3754234.4	0.000310495	0.000259927
2022	596	484651.7	3754234.4	0.000318752	0.000265227
2022	597	484751.7	3754234.4	0.000330687	0.000273892
2022	598	484851.7	3754234.4	0.000344211	0.000283736
2022	599	484951.7	3754234.4	0.000358273	0.000293494
2022	600	485051.7	3754234.4	0.000374049	0.000304308
2022	601	485151.7	3754234.4	0.000393088	0.000317649
2022	602	485251.7	3754234.4	0.000416228	0.000334222
2022	603	485351.7	3754234.4	0.000445401	0.000355778
2022	604	485451.7	3754234.4	0.000487586	0.000389234
2022	605	484551.7	3754334.4	0.000320888	0.000271115
2022	606	484651.7	3754334.4	0.000331231	0.000278762
2022	607	484751.7	3754334.4	0.000342927	0.000287446
2022	608	484851.7	3754334.4	0.000355127	0.000296149
2022	609	484951.7	3754334.4	0.000369028	0.000306011
2022	610	485051.7	3754334.4	0.000384982	0.000317272
2022	611	485151.7	3754334.4	0.000403666	0.000330533
2022	612	485251.7	3754334.4	0.000426428	0.000347062
2022	613	485351.7	3754334.4	0.000454528	0.000368059
2022	614	485451.7	3754334.4	0.000490687	0.000396079
2022	615	484551.7	3754434.4	0.000341126	0.000292392
2022	616	484651.7	3754434.4	0.000348793	0.000297469
2022	617	484751.7	3754434.4	0.000358184	0.000303995
2022	618	484851.7	3754434.4	0.000369007	0.000311534
2022	619	484951.7	3754434.4	0.000382176	0.000320943
2022	620	485051.7	3754434.4	0.000397571	0.000331961
2022	621	485151.7	3754434.4	0.000415962	0.000345269
2022	622	485251.7	3754434.4	0.000438229	0.000361637
2022	623	485351.7	3754434.4	0.00046576	0.000382356
2022	624	485451.7	3754434.4	0.000501174	0.000410001
2022	625	484551.7	3754534.4	0.000364469	0.000316403
2022	626	484651.7	3754534.4	0.00037188	0.000321479
2022	627	484751.7	3754534.4	0.000378696	0.000325625
2022	628	484851.7	3754534.4	0.000387144	0.000331209
2022	629	484951.7	3754534.4	0.000398768	0.0003394

2022	630	485051.7	3754534.4	0.000413243	0.000349789
2022	631	485151.7	3754534.4	0.000431021	0.000362776
2022	632	485251.7	3754534.4	0.000452675	0.000378858
2022	633	485351.7	3754534.4	0.000479553	0.000399229
2022	634	485451.7	3754534.4	0.000515294	0.00042729
2022	635	484551.7	3754634.4	0.000386702	0.000339251
2022	636	484651.7	3754634.4	0.000393158	0.000343563
2022	637	484751.7	3754634.4	0.000402266	0.000350278
2022	638	484851.7	3754634.4	0.000408959	0.000354504
2022	639	484951.7	3754634.4	0.000419019	0.000361549
2022	640	485051.7	3754634.4	0.00043249	0.000371418
2022	641	485151.7	3754634.4	0.00044936	0.00038405
2022	642	485251.7	3754634.4	0.000470322	0.00039989
2022	643	485351.7	3754634.4	0.000496994	0.000420334
2022	644	485451.7	3754634.4	0.000533103	0.000448984
2022	645	484551.7	3754734.4	0.000411357	0.000364204
2022	646	484651.7	3754734.4	0.000417772	0.000368727
2022	647	484751.7	3754734.4	0.000425233	0.000374132
2022	648	484851.7	3754734.4	0.000434167	0.00038079
2022	649	484951.7	3754734.4	0.000444902	0.000388876
2022	650	485051.7	3754734.4	0.000457819	0.000398678
2022	651	485151.7	3754734.4	0.000473617	0.00041079
2022	652	485251.7	3754734.4	0.000493557	0.000426385
2022	653	485351.7	3754734.4	0.000519632	0.000447415
2022	654	485451.7	3754734.4	0.000555262	0.000477029
2022	655	484551.7	3754834.4	0.000448381	0.000400849
2022	656	484651.7	3754834.4	0.000455024	0.000405882
2022	657	484751.7	3754834.4	0.000462421	0.000411461
2022	658	484851.7	3754834.4	0.000470861	0.000417824
2022	659	484951.7	3754834.4	0.00048107	0.000425706
2022	660	485051.7	3754834.4	0.000493103	0.000435071
2022	661	485151.7	3754834.4	0.000508023	0.000446891
2022	662	485251.7	3754834.4	0.000527212	0.000462447
2022	663	485351.7	3754834.4	0.000553511	0.000484581
2022	664	485451.7	3754834.4	0.000590106	0.000516246
2022	665	484551.7	3754934.4	0.000503145	0.000454317
2022	666	484651.7	3754934.4	0.000509315	0.000459069
2022	667	484751.7	3754934.4	0.000516198	0.000464344
2022	668	484851.7	3754934.4	0.000524077	0.000470401
2022	669	484951.7	3754934.4	0.000533528	0.00047781
2022	670	485051.7	3754934.4	0.000544427	0.000486384
2022	671	485151.7	3754934.4	0.000558414	0.000497739
2022	672	485251.7	3754934.4	0.000576709	0.000512941
2022	673	485351.7	3754934.4	0.000604678	0.000537225
2022	674	485451.7	3754934.4	0.000655155	0.000582685
2022	675	484551.7	3755034.4	0.000584891	0.000533261
2022	676	484651.7	3755034.4	0.000590338	0.000537473

2022	677	484751.7	3755034.4	0.000596128	0.000541839
2022	678	484851.7	3755034.4	0.00060375	0.000547894
2022	679	484951.7	3755034.4	0.000612568	0.000554913
2022	680	485051.7	3755034.4	0.000623296	0.000563591
2022	681	485151.7	3755034.4	0.00063622	0.000574194
2022	682	485251.7	3755034.4	0.000653558	0.000588871
2022	683	485351.7	3755034.4	0.000680053	0.000612071
2022	684	485451.7	3755034.4	0.000750472	0.00067673
2022	685	485549.5	3750934.9	4.43319E-05	3.32294E-05
2022	686	485649.5	3750934.9	4.35642E-05	3.25554E-05
2022	687	485749.5	3750934.9	4.30386E-05	3.2097E-05
2022	688	485849.5	3750934.9	4.231E-05	3.14694E-05
2022	689	485549.5	3751034.9	4.68589E-05	3.51575E-05
2022	690	485649.5	3751034.9	4.58501E-05	3.42705E-05
2022	691	485749.5	3751034.9	4.53257E-05	3.38064E-05
2022	692	485849.5	3751034.9	4.47015E-05	3.32619E-05
2022	693	485549.5	3751134.9	4.97481E-05	3.74197E-05
2022	694	485649.5	3751134.9	4.8626E-05	3.64235E-05
2022	695	485749.5	3751134.9	4.80224E-05	3.58841E-05
2022	696	485849.5	3751134.9	4.72495E-05	3.52035E-05
2022	697	485549.5	3751234.9	5.3312E-05	4.02916E-05
2022	698	485649.5	3751234.9	5.18729E-05	3.90052E-05
2022	699	485749.5	3751234.9	5.11496E-05	3.83504E-05
2022	700	485849.5	3751234.9	5.0783E-05	3.80153E-05
2022	701	485549.5	3751334.9	5.72536E-05	4.35213E-05
2022	702	485649.5	3751334.9	5.59784E-05	4.23549E-05
2022	703	485749.5	3751334.9	5.49247E-05	4.13978E-05
2022	704	485849.5	3751334.9	5.50415E-05	4.14785E-05
2022	705	485549.5	3751434.9	6.28294E-05	4.82174E-05
2022	706	485649.5	3751434.9	6.17129E-05	4.71576E-05
2022	707	485749.5	3751434.9	5.97852E-05	4.54064E-05
2022	708	485849.5	3751434.9	6.10902E-05	4.65188E-05
2022	709	485549.5	3751534.9	7.83026E-05	6.15073E-05
2022	710	485649.5	3751534.9	7.56342E-05	5.90615E-05
2022	711	485749.5	3751534.9	6.87122E-05	5.29897E-05
2022	712	485849.5	3751534.9	6.68257E-05	5.12756E-05
2022	713	485549.5	3751634.9	0.000123598	9.85324E-05
2022	714	485649.5	3751634.9	0.000101512	8.06452E-05
2022	715	485749.5	3751634.9	9.31654E-05	7.35974E-05
2022	716	485849.5	3751634.9	7.24294E-05	5.59364E-05
2022	717	485549.5	3751734.9	0.00015771	0.000125527
2022	718	485649.5	3751734.9	0.00014779	0.000117633
2022	719	485749.5	3751734.9	0.000128029	0.000101964
2022	720	485849.5	3751734.9	8.81433E-05	6.93526E-05
2022	721	485549.5	3751834.9	0.000187846	0.000151629
2022	722	485649.5	3751834.9	0.000172109	0.000137627
2022	723	485749.5	3751834.9	0.000160435	0.000127732

2022	724	485849.5	3751834.9	0.000132005	0.000105278
2022	725	485549.5	3751934.9	0.000230456	0.000189864
2022	726	485649.5	3751934.9	0.000198414	0.000159123
2022	727	485749.5	3751934.9	0.000187741	0.000149166
2022	728	485849.5	3751934.9	0.000175789	0.000139081
2022	729	485549.5	3752034.9	0.000281849	0.000236856
2022	730	485649.5	3752034.9	0.000226098	0.000182078
2022	731	485749.5	3752034.9	0.000214873	0.000171475
2022	732	485849.5	3752034.9	0.000205268	0.00016335
2022	733	485549.5	3752134.9	0.000287566	0.00023902
2022	734	485649.5	3752134.9	0.000270469	0.000221369
2022	735	485749.5	3752134.9	0.000265882	0.000216858
2022	736	485849.5	3752134.9	0.000262795	0.000214758
2022	737	485549.5	3752234.9	0.000332316	0.000281182
2022	738	485649.5	3752234.9	0.000340592	0.000288187
2022	739	485749.5	3752234.9	0.000353033	0.000299648
2022	740	485849.5	3752234.9	0.00036027	0.000306867
2022	741	485549.5	3752334.9	0.00025928	0.000206037
2022	742	485649.5	3752334.9	0.000263208	0.000208032
2022	743	485749.5	3752334.9	0.000269005	0.000212176
2022	744	485849.5	3752334.9	0.000275128	0.000217034
2022	745	485549.5	3752434.9	0.00024753	0.000192164
2022	746	485649.5	3752434.9	0.000249107	0.00019163
2022	747	485749.5	3752434.9	0.000254174	0.000194462
2022	748	485849.5	3752434.9	0.000260749	0.000198729
2022	749	485549.5	3752534.9	0.000252457	0.000194748
2022	750	485649.5	3752534.9	0.000253563	0.000193572
2022	751	485749.5	3752534.9	0.00025904	0.000196567
2022	752	485849.5	3752534.9	0.000266059	0.000200878
2022	753	485549.5	3752634.9	0.000263326	0.000202888
2022	754	485649.5	3752634.9	0.000265043	0.000202129
2022	755	485749.5	3752634.9	0.000271127	0.000205607
2022	756	485849.5	3752634.9	0.000278685	0.00021024
2022	757	485549.5	3752734.9	0.000277175	0.000213871
2022	758	485649.5	3752734.9	0.00028015	0.000214184
2022	759	485749.5	3752734.9	0.000288426	0.000219475
2022	760	485849.5	3752734.9	0.000298269	0.000225942
2022	761	485549.5	3752834.9	0.000292669	0.000226506
2022	762	485649.5	3752834.9	0.00029743	0.00022848
2022	763	485749.5	3752834.9	0.000309098	0.000236821
2022	764	485849.5	3752834.9	0.000322928	0.000246799
2022	765	485549.5	3752934.9	0.000309747	0.000240508
2022	766	485649.5	3752934.9	0.000316528	0.000244429
2022	767	485749.5	3752934.9	0.000332532	0.00025699
2022	768	485849.5	3752934.9	0.000353968	0.000274081
2022	769	485549.5	3753034.9	0.000330574	0.000257855
2022	770	485649.5	3753034.9	0.000336206	0.0002607

2022	771	485749.5	3753034.9	0.000357081	0.000277985
2022	772	485849.5	3753034.9	0.000389808	0.000306164
2022	773	485549.5	3753134.9	0.000339983	0.000262938
2022	774	485649.5	3753134.9	0.000355696	0.000275993
2022	775	485749.5	3753134.9	0.000379451	0.000296469
2022	776	485849.5	3753134.9	0.000420858	0.000333453
2022	777	485549.5	3753234.9	0.000359342	0.00027689
2022	778	485649.5	3753234.9	0.000375908	0.000291021
2022	779	485749.5	3753234.9	0.000400916	0.000313374
2022	780	485849.5	3753234.9	0.000446259	0.000354818
2022	781	485549.5	3753334.9	0.000390259	0.000300777
2022	782	485649.5	3753334.9	0.000401092	0.000308643
2022	783	485749.5	3753334.9	0.000425801	0.000331343
2022	784	485849.5	3753334.9	0.000470793	0.000373815
2022	785	485549.5	3753434.9	0.000421973	0.000324195
2022	786	485649.5	3753434.9	0.000439808	0.000336764
2022	787	485749.5	3753434.9	0.000467593	0.000361376
2022	788	485849.5	3753434.9	0.000510414	0.000403782
2022	789	485508.5	3746711.3	3.06735E-05	2.5157E-05
2022	790	491508.5	3746711.3	2.14598E-05	1.76401E-05
2022	791	479508.5	3752711.3	0.000114801	0.000101434
2022	792	485508.5	3752711.3	0.000267187	0.000205539
2022	793	491508.5	3752711.3	0.000155431	9.68176E-05
2022	794	485508.5	3758711.3	5.79449E-05	5.211E-05
2022	795	491508.5	3758711.3	2.36341E-05	2.01856E-05
2022	796	485921.9	3750934.2	4.16699E-05	3.09253E-05
2022	797	486021.9	3750934.2	4.09651E-05	3.0329E-05
2022	798	486121.9	3750934.2	4.05455E-05	2.99847E-05
2022	799	485921.9	3751034.2	4.39036E-05	3.25728E-05
2022	800	486021.9	3751034.2	4.28921E-05	3.17034E-05
2022	801	486121.9	3751034.2	4.22663E-05	3.11721E-05
2022	802	485921.9	3751134.2	4.65466E-05	3.45896E-05
2022	803	486021.9	3751134.2	4.54017E-05	3.35938E-05
2022	804	486121.9	3751134.2	4.44823E-05	3.27942E-05
2022	805	485921.9	3751234.2	4.97E-05	3.70622E-05
2022	806	486021.9	3751234.2	4.84178E-05	3.59329E-05
2022	807	486121.9	3751234.2	4.72714E-05	3.49248E-05
2022	808	485921.9	3751334.2	5.36402E-05	4.02344E-05
2022	809	486021.9	3751334.2	5.21545E-05	3.89114E-05
2022	810	486121.9	3751334.2	5.0547E-05	3.74849E-05
2022	811	485921.9	3751434.2	5.9018E-05	4.46792E-05
2022	812	486021.9	3751434.2	5.665E-05	4.25645E-05
2022	813	486121.9	3751434.2	5.45985E-05	4.07299E-05
2022	814	485921.9	3751534.2	6.47172E-05	4.93999E-05
2022	815	486021.9	3751534.2	6.29268E-05	4.77894E-05
2022	816	486121.9	3751534.2	5.97075E-05	4.4911E-05
2022	817	485921.9	3751634.2	6.98214E-05	5.36008E-05

2022	818	486021.9	3751634.2	7.31581E-05	5.64165E-05
2022	819	486121.9	3751634.2	6.74596E-05	5.14185E-05
2022	820	485921.9	3751734.2	8.00761E-05	6.23134E-05
2022	821	486021.9	3751734.2	8.91277E-05	6.9809E-05
2022	822	486121.9	3751734.2	7.60424E-05	5.86008E-05
2022	823	485921.9	3751834.2	0.000101119	8.00996E-05
2022	824	486021.9	3751834.2	9.99962E-05	7.88226E-05
2022	825	486121.9	3751834.2	8.02593E-05	6.19466E-05
2022	826	485921.9	3751934.2	0.00015537	0.000123819
2022	827	486021.9	3751934.2	0.000123723	9.81454E-05
2022	828	486121.9	3751934.2	9.96966E-05	7.8202E-05
2022	829	485921.9	3752034.2	0.000190469	0.000151597
2022	830	486021.9	3752034.2	0.000155542	0.000124402
2022	831	486121.9	3752034.2	0.000136242	0.000108362
2022	832	485921.9	3752134.2	0.000261964	0.000215261
2022	833	486021.9	3752134.2	0.000248103	0.000204765
2022	834	486121.9	3752134.2	0.000195921	0.000158866
2022	835	485921.9	3752234.2	0.000362298	0.000309831
2022	836	486021.9	3752234.2	0.000371643	0.000320298
2022	837	486121.9	3752234.2	0.000324101	0.000274772
2022	838	485921.9	3752334.2	0.000279144	0.000220442
2022	839	486021.9	3752334.2	0.000290766	0.00023212
2022	840	486121.9	3752334.2	0.000343135	0.000284765
2022	841	485921.9	3752434.2	0.000267093	0.000203882
2022	842	486021.9	3752434.2	0.000277851	0.000213289
2022	843	486121.9	3752434.2	0.000300194	0.000234336
2022	844	485921.9	3752534.2	0.000272478	0.000205151
2022	845	486021.9	3752534.2	0.000281488	0.000211691
2022	846	486121.9	3752534.2	0.000294039	0.000221972
2022	847	485921.9	3752634.2	0.000284682	0.000214066
2022	848	486021.9	3752634.2	0.000293432	0.000219977
2022	849	486121.9	3752634.2	0.000303965	0.00022778
2022	850	485921.9	3752734.2	0.000305549	0.000230732
2022	851	486021.9	3752734.2	0.000316708	0.000238276
2022	852	486121.9	3752734.2	0.000328889	0.00024698
2022	853	485921.9	3752834.2	0.000333999	0.000254696
2022	854	486021.9	3752834.2	0.000350867	0.0002668
2022	855	486121.9	3752834.2	0.00036865	0.000279781
2022	856	485921.9	3752934.2	0.000371527	0.000288041
2022	857	486021.9	3752934.2	0.000401297	0.000311634
2022	858	486121.9	3752934.2	0.000440807	0.000343863
2022	859	487026.2	3754364	0.001534813	0.001334417
2023	1	489607.4	3753966.1	0.000502086	0.000320715
2023	2	489738.7	3754023.9	0.00047126	0.000319388
2023	3	489668.9	3754093.7	0.00046016	0.000328291
2023	4	489690.1	3754161.6	0.000439708	0.000319812
2023	5	490282.2	3753425.2	0.000453295	0.000260601

2023	6	489797.3	3754554.1	0.000366767	0.000275951
2023	7	490252.9	3754378.2	0.000340596	0.000253398
2023	8	489006	3754140.3	0.000580081	0.00039347
2023	9	485642.8	3754267.3	0.00111701	0.000915427
2023	10	485736.4	3754259.5	0.001271971	0.001049282
2023	11	487189.2	3754820.5	0.002200979	0.001913751
2023	12	487233.1	3754689.5	0.001733638	0.001453903
2023	13	487216.8	3754364.7	0.002405173	0.002091871
2023	14	487388.8	3754380.1	0.001430387	0.001185004
2023	15	484625	3751748	0.000288594	0.000232645
2023	16	483279	3751798	0.000211007	0.000169493
2023	17	483231	3751205	0.000186745	0.000150341
2023	18	480165	3750195	0.000146015	0.000125522
2023	19	481211	3749473	0.000127934	0.000106498
2023	20	481867	3752785	0.000215323	0.000182277
2023	21	480678	3751306	0.000154569	0.000130558
2023	22	479989	3752645	0.000184069	0.000161022
2023	23	479889	3756222	0.00025893	0.000237532
2023	24	479234	3757080	0.000123672	0.000111464
2023	25	480276	3756365	0.000209834	0.000191305
2023	26	479887	3754007	0.000239773	0.000215461
2023	27	480772	3755009	0.000512135	0.000472939
2023	28	481560	3754548	0.000383081	0.000346981
2023	29	481845	3754457	0.000386511	0.000348734
2023	30	481754	3753876	0.000283442	0.000249731
2023	31	489635.2	3750663.8	8.95486E-05	6.77257E-05
2023	32	485424.1	3747672.3	6.22028E-05	5.02347E-05
2023	33	482657.6	3753975.1	0.000325694	0.000283691
2023	34	481495	3754633.7	0.000402034	0.000365446
2023	35	481148.7	3756136.2	0.000289139	0.000264664
2023	36	482346.5	3748872.9	4.88402E-05	3.85741E-05
2023	37	480299	3751198	0.000150043	0.000127458
2023	38	479598.7	3756506.3	0.000197481	0.000180036
2023	39	478997.8	3753535.2	0.000261174	0.000236159
2023	40	478978.3	3755233.1	0.000814163	0.000761559
2023	41	479197.3	3754462.3	0.000352797	0.000323442
2023	42	479493.3	3752408.8	0.000186177	0.000164142
2023	43	480295.4	3752408.4	0.000178843	0.000155082
2023	44	480287.9	3754227.5	0.000263537	0.000237254
2023	45	494397.4	3753977.6	0.000150003	0.000120377
2023	46	481108.5	3750699	0.000154404	0.000130238
2023	47	486794.1	3756878	0.000142929	0.000125051
2023	48	482345	3752065.8	0.000207075	0.000172061
2023	49	487553	3745938.3	3.85129E-05	3.20345E-05
2023	50	484553	3746938.3	5.01335E-05	4.08264E-05
2023	51	485553	3746938.3	5.31639E-05	4.34723E-05
2023	52	486553	3746938.3	4.27653E-05	3.57979E-05

2023	53	487553	3746938.3	4.66377E-05	3.82965E-05
2023	54	488553	3746938.3	4.24853E-05	3.50294E-05
2023	55	489553	3746938.3	4.20527E-05	3.44737E-05
2023	56	490553	3746938.3	3.86482E-05	3.17533E-05
2023	57	491553	3746938.3	3.68574E-05	3.02385E-05
2023	58	492553	3746938.3	3.56087E-05	2.91995E-05
2023	59	482553	3747938.3	4.26195E-05	3.36876E-05
2023	60	483553	3747938.3	7.34029E-05	5.8519E-05
2023	61	484553	3747938.3	7.00562E-05	5.60959E-05
2023	62	485553	3747938.3	6.53044E-05	5.25142E-05
2023	63	486553	3747938.3	6.11051E-05	4.96994E-05
2023	64	487553	3747938.3	3.95787E-05	3.2979E-05
2023	65	488553	3747938.3	5.06864E-05	4.12885E-05
2023	66	489553	3747938.3	4.7701E-05	3.88711E-05
2023	67	490553	3747938.3	4.50405E-05	3.66657E-05
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2023	69	492553	3747938.3	4.15711E-05	3.37839E-05
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2023	71	481553	3748938.3	0.000103402	8.33315E-05
2023	72	482553	3748938.3	5.07229E-05	4.00419E-05
2023	73	483553	3748938.3	8.31742E-05	6.6002E-05
2023	74	484553	3748938.3	8.70805E-05	6.86058E-05
2023	75	485553	3748938.3	8.32015E-05	6.58211E-05
2023	76	486553	3748938.3	7.74149E-05	6.16996E-05
2023	77	487553	3748938.3	6.18095E-05	5.11446E-05
2023	78	488553	3748938.3	6.2137E-05	4.97629E-05
2023	79	489553	3748938.3	5.73391E-05	4.60908E-05
2023	80	490553	3748938.3	5.40675E-05	4.33789E-05
2023	81	491553	3748938.3	5.14397E-05	4.12564E-05
2023	82	492553	3748938.3	5.01231E-05	4.0222E-05
2023	83	493553	3748938.3	5.13556E-05	4.15685E-05
2023	84	494553	3748938.3	8.26218E-05	7.18685E-05
2023	85	480553	3749938.3	0.000186339	0.000165704
2023	86	481553	3749938.3	0.000147039	0.000122267
2023	87	482553	3749938.3	0.000137445	0.000111113
2023	88	483553	3749938.3	0.000130272	0.000103452
2023	89	484553	3749938.3	9.01168E-05	7.09041E-05
2023	90	485553	3749938.3	7.1598E-05	5.61874E-05
2023	91	486553	3749938.3	8.66467E-05	6.92629E-05
2023	92	487553	3749938.3	9.20464E-05	7.23334E-05
2023	93	488553	3749938.3	7.90734E-05	6.15953E-05
2023	94	489553	3749938.3	7.24762E-05	5.67452E-05
2023	95	490553	3749938.3	6.76861E-05	5.30055E-05
2023	96	491553	3749938.3	6.44951E-05	5.04874E-05
2023	97	492553	3749938.3	6.48402E-05	5.09551E-05
2023	98	493553	3749938.3	8.22049E-05	6.72855E-05
2023	99	494553	3749938.3	6.11083E-05	4.71335E-05

2023	100	495553	3749938.3	4.89732E-05	4.02929E-05
2023	101	480553	3750938.3	0.000147294	0.00012434
2023	102	481553	3750938.3	0.000160175	0.000133753
2023	103	482553	3750938.3	0.000173081	0.000142149
2023	104	483553	3750938.3	0.000198071	0.000161481
2023	105	484553	3750938.3	0.000181465	0.000143124
2023	106	485553	3750938.3	7.3947E-05	5.54177E-05
2023	107	486553	3750938.3	6.60953E-05	4.91029E-05
2023	108	487553	3750938.3	0.000103841	8.09112E-05
2023	109	488553	3750938.3	0.000111835	8.16796E-05
2023	110	489553	3750938.3	0.000100194	7.40914E-05
2023	111	490553	3750938.3	9.16647E-05	6.83365E-05
2023	112	491553	3750938.3	8.77296E-05	6.56012E-05
2023	113	492553	3750938.3	0.000114935	9.14019E-05
2023	114	493553	3750938.3	8.64419E-05	6.42524E-05
2023	115	494553	3750938.3	8.35997E-05	6.26984E-05
2023	116	495553	3750938.3	7.85573E-05	6.11254E-05
2023	117	479553	3751938.3	0.000172641	0.000150946
2023	118	480553	3751938.3	0.000171177	0.000146907
2023	119	481553	3751938.3	0.000179782	0.000150786
2023	120	482553	3751938.3	0.00020039	0.00016422
2023	121	483553	3751938.3	0.000228485	0.000182876
2023	122	484553	3751938.3	0.00027202	0.000214688
2023	123	485553	3751938.3	0.000383357	0.000315507
2023	124	486553	3751938.3	0.000125352	9.46372E-05
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2023	126	488553	3751938.3	0.000194746	0.00012457
2023	127	489553	3751938.3	0.000179237	0.000111871
2023	128	490553	3751938.3	0.00015958	0.000102682
2023	129	491553	3751938.3	0.000200424	0.000146347
2023	130	492553	3751938.3	0.000139249	9.03651E-05
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2023	132	494553	3751938.3	0.000119096	8.85182E-05
2023	133	495553	3751938.3	0.000106489	8.10957E-05
2023	134	479553	3752938.3	0.00020456	0.000181583
2023	135	480553	3752938.3	0.000206804	0.000180817
2023	136	481553	3752938.3	0.000229023	0.000197375
2023	137	482553	3752938.3	0.000252487	0.000212103
2023	138	483553	3752938.3	0.000288065	0.000233899
2023	139	484553	3752938.3	0.000367227	0.000286128
2023	140	485553	3752938.3	0.000516842	0.000401093
2023	141	486553	3752938.3	0.000972364	0.000795855
2023	142	487553	3752938.3	0.001151431	0.000917924
2023	143	488553	3752938.3	0.000616812	0.000411762
2023	144	489553	3752938.3	0.00044096	0.000257472
2023	145	490553	3752938.3	0.000353453	0.000195985
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2023	147	492553	3752938.3	0.000216901	0.000138423
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2023	149	494553	3752938.3	0.000164356	0.000121909
2023	150	495553	3752938.3	0.000135233	0.000103875
2023	151	479553	3753938.3	0.000239025	0.000215322
2023	152	480553	3753938.3	0.000243396	0.000216978
2023	153	481553	3753938.3	0.000287634	0.000254963
2023	154	482553	3753938.3	0.00031524	0.00027453
2023	155	483553	3753938.3	0.000393322	0.000338619
2023	156	484553	3753938.3	0.000478582	0.000390363
2023	157	485553	3753938.3	0.000874973	0.000686021
2023	158	486553	3753938.3	0.001657189	0.00134521
2023	159	487553	3753938.3	0.0016649	0.001398268
2023	160	488553	3753938.3	0.000833233	0.000580493
2023	161	489553	3753938.3	0.00050778	0.000313243
2023	162	490553	3753938.3	0.000355202	0.000259081
2023	163	491553	3753938.3	0.000259669	0.000201353
2023	164	492553	3753938.3	0.000216295	0.000170042
2023	165	493553	3753938.3	0.000178458	0.000141914
2023	166	494553	3753938.3	0.000163268	0.000130797
2023	167	495553	3753938.3	0.000128169	0.000103515
2023	168	479553	3754938.3	0.000429369	0.000396663
2023	169	480553	3754938.3	0.000458737	0.000422678
2023	170	481553	3754938.3	0.000526164	0.00048378
2023	171	482553	3754938.3	0.000771511	0.00071246
2023	172	483553	3754938.3	0.000835202	0.000767095
2023	173	484553	3754938.3	0.000842925	0.000761387
2023	174	485553	3754938.3	0.001235988	0.001103961
2023	175	486553	3754938.3	0.001851069	0.001659567
2023	176	487553	3754938.3	0.0010186	0.000831624
2023	177	488553	3754938.3	0.000559376	0.000436963
2023	178	489553	3754938.3	0.000428399	0.000358814
2023	179	490553	3754938.3	0.000297415	0.00025461
2023	180	491553	3754938.3	0.000199009	0.00016957
2023	181	492553	3754938.3	0.000144019	0.000121647
2023	182	493553	3754938.3	0.000147046	0.00012524
2023	183	494553	3754938.3	0.000112707	9.54772E-05
2023	184	495553	3754938.3	9.52147E-05	8.05818E-05
2023	185	479553	3755938.3	0.000433311	0.00040219
2023	186	480553	3755938.3	0.000362623	0.000334448
2023	187	481553	3755938.3	0.000367426	0.000337945
2023	188	482553	3755938.3	0.000527939	0.000486927
2023	189	483553	3755938.3	0.000567948	0.000523306
2023	190	484553	3755938.3	0.000527456	0.000480175
2023	191	485553	3755938.3	0.000729079	0.000665194
2023	192	486553	3755938.3	0.000583504	0.000527056
2023	193	487553	3755938.3	0.000302832	0.000270744

2023	194	488553	3755938.3	0.000213032	0.00018869
2023	195	489553	3755938.3	0.00014783	0.000129913
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2023	202	480553	3756938.3	0.000123801	0.000111257
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2023	206	484553	3756938.3	0.000188906	0.000167695
2023	207	485553	3756938.3	0.000417152	0.000384264
2023	208	486553	3756938.3	0.000148853	0.00013057
2023	209	487553	3756938.3	9.69997E-05	8.39499E-05
2023	210	488553	3756938.3	7.87817E-05	6.77158E-05
2023	211	489553	3756938.3	6.92017E-05	5.93702E-05
2023	212	490553	3756938.3	6.35717E-05	5.45641E-05
2023	213	491553	3756938.3	5.57812E-05	4.78469E-05
2023	214	492553	3756938.3	4.98756E-05	4.28181E-05
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2023	216	494553	3756938.3	5.23563E-05	4.56433E-05
2023	217	479553	3757938.3	6.46138E-05	5.74937E-05
2023	218	480553	3757938.3	6.19527E-05	5.49622E-05
2023	219	481553	3757938.3	6.52505E-05	5.75933E-05
2023	220	482553	3757938.3	8.00906E-05	7.02836E-05
2023	221	483553	3757938.3	7.85072E-05	6.85952E-05
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2023	224	486553	3757938.3	6.90916E-05	5.97219E-05
2023	225	487553	3757938.3	5.63097E-05	4.81809E-05
2023	226	488553	3757938.3	4.95124E-05	4.21834E-05
2023	227	489553	3757938.3	4.57482E-05	3.89044E-05
2023	228	490553	3757938.3	4.1811E-05	3.55342E-05
2023	229	491553	3757938.3	3.83937E-05	3.26102E-05
2023	230	492553	3757938.3	3.69961E-05	3.15289E-05
2023	231	493553	3757938.3	4.12246E-05	3.54376E-05
2023	232	480553	3758938.3	4.62033E-05	4.06099E-05
2023	233	481553	3758938.3	5.12302E-05	4.4752E-05
2023	234	482553	3758938.3	4.98696E-05	4.3304E-05
2023	235	483553	3758938.3	5.21731E-05	4.51599E-05
2023	236	484553	3758938.3	6.50797E-05	5.69001E-05
2023	237	485553	3758938.3	0.000155278	0.000142259
2023	238	486553	3758938.3	4.81111E-05	4.14936E-05
2023	239	487553	3758938.3	5.27527E-05	4.54774E-05
2023	240	488553	3758938.3	3.92588E-05	3.3571E-05

2023	241	489553	3758938.3	3.9836E-05	3.4084E-05
2023	242	490553	3758938.3	4.33601E-05	3.7067E-05
2023	243	491553	3758938.3	3.53066E-05	3.01366E-05
2023	244	492553	3758938.3	3.67249E-05	3.13807E-05
2023	245	481553	3759938.3	3.79101E-05	3.2984E-05
2023	246	482553	3759938.3	3.9022E-05	3.37726E-05
2023	247	483553	3759938.3	4.12219E-05	3.56319E-05
2023	248	484553	3759938.3	5.68767E-05	4.96473E-05
2023	249	485553	3759938.3	0.000153762	0.00014075
2023	250	486553	3759938.3	7.01595E-05	6.12699E-05
2023	251	487553	3759938.3	5.70202E-05	4.94092E-05
2023	252	488553	3759938.3	5.68576E-05	4.899E-05
2023	253	489553	3759938.3	4.95123E-05	4.25159E-05
2023	254	490553	3759938.3	3.80071E-05	3.25977E-05
2023	255	491553	3759938.3	3.30936E-05	2.83204E-05
2023	256	482553	3760938.3	3.66864E-05	3.17738E-05
2023	257	483553	3760938.3	4.21523E-05	3.65937E-05
2023	258	484553	3760938.3	5.36993E-05	4.69441E-05
2023	259	485553	3760938.3	0.000125853	0.000114158
2023	260	486553	3760938.3	8.08853E-05	7.10802E-05
2023	261	487553	3760938.3	6.40494E-05	5.61454E-05
2023	262	488553	3760938.3	3.63593E-05	3.15277E-05
2023	263	489553	3760938.3	2.74952E-05	2.36554E-05
2023	264	490553	3760938.3	2.62139E-05	2.2481E-05
2023	265	484551.7	3750934.4	0.000180245	0.000142304
2023	266	484651.7	3750934.4	0.000176611	0.000139235
2023	267	484751.7	3750934.4	0.000131316	0.000104
2023	268	484851.7	3750934.4	0.00011887	9.39087E-05
2023	269	484951.7	3750934.4	0.000125314	9.87328E-05
2023	270	485051.7	3750934.4	0.00011077	8.69809E-05
2023	271	485151.7	3750934.4	9.20889E-05	7.13113E-05
2023	272	485251.7	3750934.4	8.15516E-05	6.2162E-05
2023	273	485351.7	3750934.4	7.7908E-05	5.89342E-05
2023	274	485451.7	3750934.4	7.57445E-05	5.70183E-05
2023	275	484551.7	3751034.4	0.000194495	0.00015281
2023	276	484651.7	3751034.4	0.000190118	0.000149177
2023	277	484751.7	3751034.4	0.00017638	0.000139616
2023	278	484851.7	3751034.4	0.000136031	0.000107571
2023	279	484951.7	3751034.4	0.000151589	0.000119515
2023	280	485051.7	3751034.4	0.000124245	9.77604E-05
2023	281	485151.7	3751034.4	0.000106435	8.31382E-05
2023	282	485251.7	3751034.4	9.10101E-05	6.99665E-05
2023	283	485351.7	3751034.4	8.40183E-05	6.38416E-05
2023	284	485451.7	3751034.4	8.04247E-05	6.06554E-05
2023	285	484551.7	3751134.4	0.000206683	0.000162355
2023	286	484651.7	3751134.4	0.000204825	0.000160345
2023	287	484751.7	3751134.4	0.000199817	0.000156335

2023	288	484851.7	3751134.4	0.000177535	0.000141085
2023	289	484951.7	3751134.4	0.000180774	0.000142697
2023	290	485051.7	3751134.4	0.000145479	0.000114653
2023	291	485151.7	3751134.4	0.000126854	9.97743E-05
2023	292	485251.7	3751134.4	0.000108625	8.46914E-05
2023	293	485351.7	3751134.4	9.30615E-05	7.13291E-05
2023	294	485451.7	3751134.4	8.60588E-05	6.51604E-05
2023	295	484551.7	3751234.4	0.000220005	0.000173451
2023	296	484651.7	3751234.4	0.000218698	0.000171758
2023	297	484751.7	3751234.4	0.00021422	0.00016799
2023	298	484851.7	3751234.4	0.000205247	0.000161401
2023	299	484951.7	3751234.4	0.000197781	0.000155852
2023	300	485051.7	3751234.4	0.000175096	0.000138791
2023	301	485151.7	3751234.4	0.000144213	0.000113883
2023	302	485251.7	3751234.4	0.00010786	8.39276E-05
2023	303	485351.7	3751234.4	9.58051E-05	7.34019E-05
2023	304	485451.7	3751234.4	9.12701E-05	6.93374E-05
2023	305	484551.7	3751334.4	0.000243654	0.000194599
2023	306	484651.7	3751334.4	0.000237477	0.000188256
2023	307	484751.7	3751334.4	0.000230693	0.00018225
2023	308	484851.7	3751334.4	0.000224343	0.000176936
2023	309	484951.7	3751334.4	0.000220395	0.000173301
2023	310	485051.7	3751334.4	0.000208305	0.000164566
2023	311	485151.7	3751334.4	0.000172569	0.000136898
2023	312	485251.7	3751334.4	0.000132245	0.000104497
2023	313	485351.7	3751334.4	0.00010525	8.13994E-05
2023	314	485451.7	3751334.4	9.76945E-05	7.4639E-05
2023	315	484551.7	3751434.4	0.000283552	0.000232695
2023	316	484651.7	3751434.4	0.00026741	0.000215894
2023	317	484751.7	3751434.4	0.000256957	0.000205302
2023	318	484851.7	3751434.4	0.000249587	0.000198176
2023	319	484951.7	3751434.4	0.000243589	0.000192597
2023	320	485051.7	3751434.4	0.000237326	0.000186976
2023	321	485151.7	3751434.4	0.00020824	0.000166546
2023	322	485251.7	3751434.4	0.000157141	0.000125295
2023	323	485351.7	3751434.4	0.00012291	9.65842E-05
2023	324	485451.7	3751434.4	0.000109591	8.48245E-05
2023	325	484551.7	3751534.4	0.000378565	0.000326396
2023	326	484651.7	3751534.4	0.000334388	0.000280992
2023	327	484751.7	3751534.4	0.000300887	0.000246603
2023	328	484851.7	3751534.4	0.0002838	0.000229032
2023	329	484951.7	3751534.4	0.000274445	0.000219311
2023	330	485051.7	3751534.4	0.000268604	0.000213066
2023	331	485151.7	3751534.4	0.000260274	0.000205336
2023	332	485251.7	3751534.4	0.000227982	0.000181878
2023	333	485351.7	3751534.4	0.000176838	0.000141336
2023	334	485451.7	3751534.4	0.000143472	0.000113822

2023	335	484551.7	3751634.4	0.000336636	0.000283139
2023	336	484651.7	3751634.4	0.000348088	0.000293347
2023	337	484751.7	3751634.4	0.000358812	0.000302686
2023	338	484851.7	3751634.4	0.000364983	0.000307881
2023	339	484951.7	3751634.4	0.000324982	0.000267142
2023	340	485051.7	3751634.4	0.000306135	0.000247613
2023	341	485151.7	3751634.4	0.000296062	0.000236891
2023	342	485251.7	3751634.4	0.000278984	0.000221561
2023	343	485351.7	3751634.4	0.000257838	0.000204397
2023	344	485451.7	3751634.4	0.000229839	0.000183941
2023	345	484551.7	3751734.4	0.00027882	0.000224208
2023	346	484651.7	3751734.4	0.000298946	0.000242708
2023	347	484751.7	3751734.4	0.000333407	0.000275739
2023	348	484851.7	3751734.4	0.000378724	0.000319895
2023	349	484951.7	3751734.4	0.000376989	0.000317367
2023	350	485051.7	3751734.4	0.000422945	0.000362438
2023	351	485151.7	3751734.4	0.000361311	0.000299345
2023	352	485251.7	3751734.4	0.00033944	0.000276852
2023	353	485351.7	3751734.4	0.000314967	0.00025363
2023	354	485451.7	3751734.4	0.000286351	0.00022813
2023	355	484551.7	3751834.4	0.000269305	0.000213649
2023	356	484651.7	3751834.4	0.000279058	0.00022183
2023	357	484751.7	3751834.4	0.00029089	0.000232091
2023	358	484851.7	3751834.4	0.000305957	0.000245745
2023	359	484951.7	3751834.4	0.000326676	0.000265442
2023	360	485051.7	3751834.4	0.000375825	0.000313331
2023	361	485151.7	3751834.4	0.000376627	0.000312098
2023	362	485251.7	3751834.4	0.000401902	0.000335894
2023	363	485351.7	3751834.4	0.000400723	0.000334594
2023	364	485451.7	3751834.4	0.000394773	0.000329968
2023	365	484551.7	3751934.4	0.000271672	0.000214434
2023	366	484651.7	3751934.4	0.000277874	0.000219289
2023	367	484751.7	3751934.4	0.00028425	0.000224395
2023	368	484851.7	3751934.4	0.000292492	0.000231145
2023	369	484951.7	3751934.4	0.000301897	0.000239076
2023	370	485051.7	3751934.4	0.000314372	0.000249845
2023	371	485151.7	3751934.4	0.000330532	0.000264009
2023	372	485251.7	3751934.4	0.000352653	0.000283813
2023	373	485351.7	3751934.4	0.000386893	0.000316481
2023	374	485451.7	3751934.4	0.000406489	0.000336677
2023	375	484551.7	3752034.4	0.000281397	0.000222076
2023	376	484651.7	3752034.4	0.000286456	0.000225801
2023	377	484751.7	3752034.4	0.000291908	0.000229886
2023	378	484851.7	3752034.4	0.00029771	0.000234294
2023	379	484951.7	3752034.4	0.000304976	0.000239929
2023	380	485051.7	3752034.4	0.00031387	0.000246946
2023	381	485151.7	3752034.4	0.000325011	0.000255946

2023	382	485251.7	3752034.4	0.000341743	0.000270039
2023	383	485351.7	3752034.4	0.000365889	0.000291985
2023	384	485451.7	3752034.4	0.000435129	0.000359832
2023	385	484551.7	3752134.4	0.00029981	0.000238293
2023	386	484651.7	3752134.4	0.00030449	0.000241542
2023	387	484751.7	3752134.4	0.000309717	0.000245253
2023	388	484851.7	3752134.4	0.000314964	0.000248981
2023	389	484951.7	3752134.4	0.000320791	0.000253204
2023	390	485051.7	3752134.4	0.000328122	0.00025869
2023	391	485151.7	3752134.4	0.000337371	0.000265863
2023	392	485251.7	3752134.4	0.000351876	0.000277742
2023	393	485351.7	3752134.4	0.000377014	0.000300028
2023	394	485451.7	3752134.4	0.000446079	0.000366811
2023	395	484551.7	3752234.4	0.000334166	0.000270593
2023	396	484651.7	3752234.4	0.000341301	0.000276022
2023	397	484751.7	3752234.4	0.000346186	0.000279248
2023	398	484851.7	3752234.4	0.000350053	0.000281448
2023	399	484951.7	3752234.4	0.000374812	0.000304505
2023	400	485051.7	3752234.4	0.000360901	0.000288825
2023	401	485151.7	3752234.4	0.000370399	0.000296456
2023	402	485251.7	3752234.4	0.000381091	0.000304606
2023	403	485351.7	3752234.4	0.00040433	0.00032478
2023	404	485451.7	3752234.4	0.000484985	0.000402422
2023	405	484551.7	3752334.4	0.000316289	0.000250206
2023	406	484651.7	3752334.4	0.000322174	0.000254328
2023	407	484751.7	3752334.4	0.000328009	0.000258418
2023	408	484851.7	3752334.4	0.000333992	0.000262631
2023	409	484951.7	3752334.4	0.000340596	0.000267339
2023	410	485051.7	3752334.4	0.000347249	0.000272124
2023	411	485151.7	3752334.4	0.000355156	0.000277965
2023	412	485251.7	3752334.4	0.000364783	0.000285364
2023	413	485351.7	3752334.4	0.000379126	0.000297045
2023	414	485451.7	3752334.4	0.00040743	0.000322037
2023	415	484551.7	3752434.4	0.000315143	0.000246566
2023	416	484651.7	3752434.4	0.000321253	0.000250806
2023	417	484751.7	3752434.4	0.000327241	0.00025499
2023	418	484851.7	3752434.4	0.000334322	0.000259981
2023	419	484951.7	3752434.4	0.00034128	0.000264933
2023	420	485051.7	3752434.4	0.000348921	0.00027044
2023	421	485151.7	3752434.4	0.000357324	0.00027658
2023	422	485251.7	3752434.4	0.000366758	0.000283643
2023	423	485351.7	3752434.4	0.000378766	0.000292964
2023	424	485451.7	3752434.4	0.000398117	0.000309329
2023	425	484551.7	3752534.4	0.000321802	0.000250657
2023	426	484651.7	3752534.4	0.000328406	0.000255242
2023	427	484751.7	3752534.4	0.000335385	0.000260128
2023	428	484851.7	3752534.4	0.000342935	0.00026546

2023	429	484951.7	3752534.4	0.000350545	0.000270902
2023	430	485051.7	3752534.4	0.000359073	0.000277056
2023	431	485151.7	3752534.4	0.000368172	0.000283712
2023	432	485251.7	3752534.4	0.000377958	0.000291003
2023	433	485351.7	3752534.4	0.000389451	0.000299785
2023	434	485451.7	3752534.4	0.00040736	0.000314624
2023	435	484551.7	3752634.4	0.000330663	0.000257013
2023	436	484651.7	3752634.4	0.000337827	0.000261987
2023	437	484751.7	3752634.4	0.000345361	0.000267269
2023	438	484851.7	3752634.4	0.000354058	0.000273402
2023	439	484951.7	3752634.4	0.000362697	0.000279597
2023	440	485051.7	3752634.4	0.000372231	0.000286511
2023	441	485151.7	3752634.4	0.000382217	0.00029387
2023	442	485251.7	3752634.4	0.00039291	0.00030189
2023	443	485351.7	3752634.4	0.000405237	0.000311352
2023	444	485451.7	3752634.4	0.000423933	0.000326755
2023	445	484551.7	3752734.4	0.000341241	0.000265044
2023	446	484651.7	3752734.4	0.000349395	0.000270667
2023	447	484751.7	3752734.4	0.000357933	0.000276631
2023	448	484851.7	3752734.4	0.000367089	0.000283114
2023	449	484951.7	3752734.4	0.000376769	0.000290065
2023	450	485051.7	3752734.4	0.000387371	0.000297796
2023	451	485151.7	3752734.4	0.000398411	0.000306001
2023	452	485251.7	3752734.4	0.000410264	0.000314996
2023	453	485351.7	3752734.4	0.000423974	0.000325644
2023	454	485451.7	3752734.4	0.000443627	0.000341993
2023	455	484551.7	3752834.4	0.000352753	0.000274131
2023	456	484651.7	3752834.4	0.000361839	0.000280347
2023	457	484751.7	3752834.4	0.00037105	0.00028675
2023	458	484851.7	3752834.4	0.000381506	0.000294119
2023	459	484951.7	3752834.4	0.000392413	0.000301933
2023	460	485051.7	3752834.4	0.000403983	0.000310379
2023	461	485151.7	3752834.4	0.000416148	0.000319471
2023	462	485251.7	3752834.4	0.000429438	0.000329652
2023	463	485351.7	3752834.4	0.000444468	0.000341558
2023	464	485451.7	3752834.4	0.00046612	0.000359773
2023	465	484551.7	3752934.4	0.000366463	0.000285494
2023	466	484651.7	3752934.4	0.000376513	0.000292325
2023	467	484751.7	3752934.4	0.000386832	0.000299429
2023	468	484851.7	3752934.4	0.000398381	0.000307508
2023	469	484951.7	3752934.4	0.000410503	0.000316131
2023	470	485051.7	3752934.4	0.000423553	0.000325603
2023	471	485151.7	3752934.4	0.000436907	0.000335573
2023	472	485251.7	3752934.4	0.000451889	0.000347074
2023	473	485351.7	3752934.4	0.000468131	0.000360111
2023	474	485451.7	3752934.4	0.000491349	0.000379853
2023	475	484551.7	3753034.4	0.000386357	0.000303315

2023	476	484651.7	3753034.4	0.000397998	0.000311413
2023	477	484751.7	3753034.4	0.000410861	0.000320536
2023	478	484851.7	3753034.4	0.000422776	0.000328506
2023	479	484951.7	3753034.4	0.000435975	0.000337707
2023	480	485051.7	3753034.4	0.000450261	0.000348028
2023	481	485151.7	3753034.4	0.000466212	0.000359969
2023	482	485251.7	3753034.4	0.000488724	0.000378572
2023	483	485351.7	3753034.4	0.000499793	0.000386132
2023	484	485451.7	3753034.4	0.000524029	0.000406811
2023	485	484551.7	3753134.4	0.000387157	0.000302182
2023	486	484651.7	3753134.4	0.000399539	0.000310576
2023	487	484751.7	3753134.4	0.000413044	0.000319824
2023	488	484851.7	3753134.4	0.000427091	0.000329554
2023	489	484951.7	3753134.4	0.000442306	0.000340243
2023	490	485051.7	3753134.4	0.000458573	0.000351891
2023	491	485151.7	3753134.4	0.000475824	0.000364525
2023	492	485251.7	3753134.4	0.000494963	0.000379036
2023	493	485351.7	3753134.4	0.000516248	0.000395995
2023	494	485451.7	3753134.4	0.000546182	0.000421849
2023	495	484551.7	3753234.4	0.000394902	0.000308163
2023	496	484651.7	3753234.4	0.000408645	0.000317445
2023	497	484751.7	3753234.4	0.000423187	0.000327334
2023	498	484851.7	3753234.4	0.000438647	0.000337953
2023	499	484951.7	3753234.4	0.000455496	0.000349678
2023	500	485051.7	3753234.4	0.000473935	0.000362756
2023	501	485151.7	3753234.4	0.000493674	0.000377054
2023	502	485251.7	3753234.4	0.000515725	0.000393506
2023	503	485351.7	3753234.4	0.000540612	0.000412954
2023	504	485451.7	3753234.4	0.000575114	0.000442253
2023	505	484551.7	3753334.4	0.000405072	0.000316787
2023	506	484651.7	3753334.4	0.000419727	0.000326646
2023	507	484751.7	3753334.4	0.000435112	0.000337018
2023	508	484851.7	3753334.4	0.000452434	0.000348853
2023	509	484951.7	3753334.4	0.000470593	0.000361355
2023	510	485051.7	3753334.4	0.000490974	0.000375637
2023	511	485151.7	3753334.4	0.000513451	0.000391734
2023	512	485251.7	3753334.4	0.000539669	0.000411007
2023	513	485351.7	3753334.4	0.000569774	0.000434007
2023	514	485451.7	3753334.4	0.00061014	0.000467342
2023	515	484551.7	3753434.4	0.000415444	0.00032614
2023	516	484651.7	3753434.4	0.000430887	0.000336531
2023	517	484751.7	3753434.4	0.000447275	0.000347521
2023	518	484851.7	3753434.4	0.000465768	0.000360096
2023	519	484951.7	3753434.4	0.000485459	0.00037345
2023	520	485051.7	3753434.4	0.000507492	0.000388666
2023	521	485151.7	3753434.4	0.000533144	0.000406879
2023	522	485251.7	3753434.4	0.000563443	0.000428934

2023	523	485351.7	3753434.4	0.000599439	0.000456115
2023	524	485451.7	3753434.4	0.000649917	0.000496887
2023	525	484551.7	3753534.4	0.000425745	0.00033592
2023	526	484651.7	3753534.4	0.000440727	0.000345777
2023	527	484751.7	3753534.4	0.000457657	0.000357066
2023	528	484851.7	3753534.4	0.000478047	0.00037109
2023	529	484951.7	3753534.4	0.000499193	0.000385471
2023	530	485051.7	3753534.4	0.000522869	0.000401746
2023	531	485151.7	3753534.4	0.00055101	0.0004216
2023	532	485251.7	3753534.4	0.000584779	0.000446093
2023	533	485351.7	3753534.4	0.000626696	0.000477547
2023	534	485451.7	3753534.4	0.000686719	0.000525617
2023	535	484551.7	3753634.4	0.000435831	0.000345882
2023	536	484651.7	3753634.4	0.000451558	0.000356282
2023	537	484751.7	3753634.4	0.000469397	0.000368236
2023	538	484851.7	3753634.4	0.000489563	0.000381894
2023	539	484951.7	3753634.4	0.000512109	0.000397294
2023	540	485051.7	3753634.4	0.000537351	0.000414719
2023	541	485151.7	3753634.4	0.000567229	0.000435857
2023	542	485251.7	3753634.4	0.000603286	0.000462172
2023	543	485351.7	3753634.4	0.000647947	0.000496051
2023	544	485451.7	3753634.4	0.000712786	0.000548809
2023	545	484551.7	3753734.4	0.00044925	0.000359453
2023	546	484651.7	3753734.4	0.00046483	0.000369589
2023	547	484751.7	3753734.4	0.000482138	0.000380864
2023	548	484851.7	3753734.4	0.000501402	0.000393466
2023	549	484951.7	3753734.4	0.000524536	0.000409187
2023	550	485051.7	3753734.4	0.000551261	0.000427665
2023	551	485151.7	3753734.4	0.000582411	0.000449652
2023	552	485251.7	3753734.4	0.000619697	0.000476753
2023	553	485351.7	3753734.4	0.000666492	0.000512256
2023	554	485451.7	3753734.4	0.00073414	0.000567551
2023	555	484551.7	3753834.4	0.000462773	0.000373606
2023	556	484651.7	3753834.4	0.000477786	0.000383173
2023	557	484751.7	3753834.4	0.000495178	0.000394486
2023	558	484851.7	3753834.4	0.000514723	0.00040723
2023	559	484951.7	3753834.4	0.000538348	0.000423211
2023	560	485051.7	3753834.4	0.000564919	0.000441179
2023	561	485151.7	3753834.4	0.000596328	0.000462932
2023	562	485251.7	3753834.4	0.000635421	0.00049115
2023	563	485351.7	3753834.4	0.000684035	0.000527663
2023	564	485451.7	3753834.4	0.000754353	0.000584467
2023	565	484551.7	3753934.4	0.000477473	0.000389268
2023	566	484651.7	3753934.4	0.000493256	0.000399589
2023	567	484751.7	3753934.4	0.00050847	0.000408755
2023	568	484851.7	3753934.4	0.000528408	0.000421904
2023	569	484951.7	3753934.4	0.000551869	0.000437701

2023	570	485051.7	3753934.4	0.000579228	0.0004564
2023	571	485151.7	3753934.4	0.000611404	0.000478744
2023	572	485251.7	3753934.4	0.000650406	0.000506555
2023	573	485351.7	3753934.4	0.000699708	0.000543013
2023	574	485451.7	3753934.4	0.000771535	0.00060001
2023	575	484551.7	3754034.4	0.000495018	0.000408385
2023	576	484651.7	3754034.4	0.000503944	0.000411573
2023	577	484751.7	3754034.4	0.000522715	0.000424368
2023	578	484851.7	3754034.4	0.000543567	0.000438447
2023	579	484951.7	3754034.4	0.000566685	0.000453945
2023	580	485051.7	3754034.4	0.000593364	0.000472029
2023	581	485151.7	3754034.4	0.00062516	0.000494052
2023	582	485251.7	3754034.4	0.000664187	0.000521926
2023	583	485351.7	3754034.4	0.000713674	0.000558675
2023	584	485451.7	3754034.4	0.000785872	0.000616362
2023	585	484551.7	3754134.4	0.000506114	0.000420639
2023	586	484651.7	3754134.4	0.000517146	0.000426316
2023	587	484751.7	3754134.4	0.000535885	0.000439294
2023	588	484851.7	3754134.4	0.000558182	0.000455114
2023	589	484951.7	3754134.4	0.000581108	0.000470503
2023	590	485051.7	3754134.4	0.000608091	0.000488848
2023	591	485151.7	3754134.4	0.000640028	0.000511037
2023	592	485251.7	3754134.4	0.000678943	0.000538919
2023	593	485351.7	3754134.4	0.000728425	0.000575732
2023	594	485451.7	3754134.4	0.000799983	0.000632827
2023	595	484551.7	3754234.4	0.000517492	0.000433211
2023	596	484651.7	3754234.4	0.000531254	0.000442044
2023	597	484751.7	3754234.4	0.000551145	0.000456487
2023	598	484851.7	3754234.4	0.000573685	0.000472893
2023	599	484951.7	3754234.4	0.000597122	0.000489157
2023	600	485051.7	3754234.4	0.000623415	0.000507181
2023	601	485151.7	3754234.4	0.000655146	0.000529416
2023	602	485251.7	3754234.4	0.000693713	0.000557036
2023	603	485351.7	3754234.4	0.000742335	0.000592963
2023	604	485451.7	3754234.4	0.000812643	0.000648724
2023	605	484551.7	3754334.4	0.000534814	0.000451858
2023	606	484651.7	3754334.4	0.000552052	0.000464604
2023	607	484751.7	3754334.4	0.000571545	0.000479077
2023	608	484851.7	3754334.4	0.000591878	0.000493582
2023	609	484951.7	3754334.4	0.000615046	0.000510018
2023	610	485051.7	3754334.4	0.000641636	0.000528787
2023	611	485151.7	3754334.4	0.000672776	0.000550889
2023	612	485251.7	3754334.4	0.000710714	0.000578436
2023	613	485351.7	3754334.4	0.000757546	0.000613431
2023	614	485451.7	3754334.4	0.000817811	0.000660132
2023	615	484551.7	3754434.4	0.000568543	0.000487321
2023	616	484651.7	3754434.4	0.000581321	0.000495782

2023	617	484751.7	3754434.4	0.000596974	0.000506658
2023	618	484851.7	3754434.4	0.000615012	0.000519224
2023	619	484951.7	3754434.4	0.000636961	0.000534905
2023	620	485051.7	3754434.4	0.000662618	0.000553268
2023	621	485151.7	3754434.4	0.000693269	0.000575449
2023	622	485251.7	3754434.4	0.000730382	0.000602728
2023	623	485351.7	3754434.4	0.000776267	0.000637259
2023	624	485451.7	3754434.4	0.00083529	0.000683335
2023	625	484551.7	3754534.4	0.000607449	0.000527339
2023	626	484651.7	3754534.4	0.000619801	0.000535799
2023	627	484751.7	3754534.4	0.00063116	0.000542709
2023	628	484851.7	3754534.4	0.000645239	0.000552016
2023	629	484951.7	3754534.4	0.000664613	0.000565667
2023	630	485051.7	3754534.4	0.000688739	0.000582981
2023	631	485151.7	3754534.4	0.000718368	0.000604626
2023	632	485251.7	3754534.4	0.000754459	0.000631431
2023	633	485351.7	3754534.4	0.000799255	0.000665382
2023	634	485451.7	3754534.4	0.000858823	0.00071215
2023	635	484551.7	3754634.4	0.000644503	0.000565419
2023	636	484651.7	3754634.4	0.000655264	0.000572604
2023	637	484751.7	3754634.4	0.000670443	0.000583797
2023	638	484851.7	3754634.4	0.000681599	0.000590839
2023	639	484951.7	3754634.4	0.000698366	0.000602581
2023	640	485051.7	3754634.4	0.000720817	0.000619031
2023	641	485151.7	3754634.4	0.000748934	0.000640083
2023	642	485251.7	3754634.4	0.00078387	0.000666483
2023	643	485351.7	3754634.4	0.000828324	0.000700556
2023	644	485451.7	3754634.4	0.000888504	0.000748307
2023	645	484551.7	3754734.4	0.000685595	0.000607007
2023	646	484651.7	3754734.4	0.000696287	0.000614546
2023	647	484751.7	3754734.4	0.000708721	0.000623553
2023	648	484851.7	3754734.4	0.000723611	0.00063465
2023	649	484951.7	3754734.4	0.000741503	0.000648127
2023	650	485051.7	3754734.4	0.000763032	0.000664464
2023	651	485151.7	3754734.4	0.000789362	0.000684651
2023	652	485251.7	3754734.4	0.000822595	0.000710642
2023	653	485351.7	3754734.4	0.000866054	0.000745692
2023	654	485451.7	3754734.4	0.000925437	0.000795049
2023	655	484551.7	3754834.4	0.000747301	0.000668081
2023	656	484651.7	3754834.4	0.000758373	0.000676471
2023	657	484751.7	3754834.4	0.000770702	0.000685768
2023	658	484851.7	3754834.4	0.000784768	0.000696373
2023	659	484951.7	3754834.4	0.000801783	0.00070951
2023	660	485051.7	3754834.4	0.000821838	0.000725118
2023	661	485151.7	3754834.4	0.000846705	0.000744819
2023	662	485251.7	3754834.4	0.000878686	0.000770745
2023	663	485351.7	3754834.4	0.000922519	0.000807635

2023	664	485451.7	3754834.4	0.000983509	0.00086041
2023	665	484551.7	3754934.4	0.000838574	0.000757196
2023	666	484651.7	3754934.4	0.000848858	0.000765115
2023	667	484751.7	3754934.4	0.00086033	0.000773907
2023	668	484851.7	3754934.4	0.000873462	0.000784001
2023	669	484951.7	3754934.4	0.000889214	0.000796349
2023	670	485051.7	3754934.4	0.000907378	0.00081064
2023	671	485151.7	3754934.4	0.00093069	0.000829565
2023	672	485251.7	3754934.4	0.000961182	0.000854901
2023	673	485351.7	3754934.4	0.001007797	0.000895376
2023	674	485451.7	3754934.4	0.001091925	0.000971142
2023	675	484551.7	3755034.4	0.000974819	0.000888769
2023	676	484651.7	3755034.4	0.000983896	0.000895788
2023	677	484751.7	3755034.4	0.000993547	0.000903065
2023	678	484851.7	3755034.4	0.00100625	0.000913157
2023	679	484951.7	3755034.4	0.001020947	0.000924855
2023	680	485051.7	3755034.4	0.001038827	0.000939319
2023	681	485151.7	3755034.4	0.001060366	0.00095699
2023	682	485251.7	3755034.4	0.001089264	0.000981451
2023	683	485351.7	3755034.4	0.001133422	0.001020118
2023	684	485451.7	3755034.4	0.001250786	0.001127883
2023	685	485549.5	3750934.9	7.38865E-05	5.53824E-05
2023	686	485649.5	3750934.9	7.2607E-05	5.4259E-05
2023	687	485749.5	3750934.9	7.1731E-05	5.3495E-05
2023	688	485849.5	3750934.9	7.05167E-05	5.2449E-05
2023	689	485549.5	3751034.9	7.80981E-05	5.85958E-05
2023	690	485649.5	3751034.9	7.64168E-05	5.71175E-05
2023	691	485749.5	3751034.9	7.55429E-05	5.63441E-05
2023	692	485849.5	3751034.9	7.45025E-05	5.54365E-05
2023	693	485549.5	3751134.9	8.29135E-05	6.23662E-05
2023	694	485649.5	3751134.9	8.10433E-05	6.07059E-05
2023	695	485749.5	3751134.9	8.00374E-05	5.98069E-05
2023	696	485849.5	3751134.9	7.87492E-05	5.86725E-05
2023	697	485549.5	3751234.9	8.88533E-05	6.71526E-05
2023	698	485649.5	3751234.9	8.64549E-05	6.50087E-05
2023	699	485749.5	3751234.9	8.52494E-05	6.39173E-05
2023	700	485849.5	3751234.9	8.46383E-05	6.33588E-05
2023	701	485549.5	3751334.9	9.54227E-05	7.25356E-05
2023	702	485649.5	3751334.9	9.32974E-05	7.05915E-05
2023	703	485749.5	3751334.9	9.15412E-05	6.89963E-05
2023	704	485849.5	3751334.9	9.17358E-05	6.91309E-05
2023	705	485549.5	3751434.9	0.000104716	8.03623E-05
2023	706	485649.5	3751434.9	0.000102855	7.8596E-05
2023	707	485749.5	3751434.9	9.96421E-05	7.56773E-05
2023	708	485849.5	3751434.9	0.000101817	7.75313E-05
2023	709	485549.5	3751534.9	0.000130504	0.000102512
2023	710	485649.5	3751534.9	0.000126057	9.84358E-05

2023	711	485749.5	3751534.9	0.00011452	8.83161E-05
2023	712	485849.5	3751534.9	0.000111376	8.54593E-05
2023	713	485549.5	3751634.9	0.000205996	0.000164221
2023	714	485649.5	3751634.9	0.000169186	0.000134409
2023	715	485749.5	3751634.9	0.000155276	0.000122662
2023	716	485849.5	3751634.9	0.000120716	9.32274E-05
2023	717	485549.5	3751734.9	0.00026285	0.000209212
2023	718	485649.5	3751734.9	0.000246317	0.000196055
2023	719	485749.5	3751734.9	0.000213382	0.000169941
2023	720	485849.5	3751734.9	0.000146906	0.000115588
2023	721	485549.5	3751834.9	0.000313077	0.000252715
2023	722	485649.5	3751834.9	0.000286849	0.000229378
2023	723	485749.5	3751834.9	0.000267392	0.000212886
2023	724	485849.5	3751834.9	0.000220008	0.000175463
2023	725	485549.5	3751934.9	0.000384093	0.00031644
2023	726	485649.5	3751934.9	0.00033069	0.000265205
2023	727	485749.5	3751934.9	0.000312902	0.00024861
2023	728	485849.5	3751934.9	0.000292981	0.000231801
2023	729	485549.5	3752034.9	0.000469748	0.000394761
2023	730	485649.5	3752034.9	0.00037683	0.000303463
2023	731	485749.5	3752034.9	0.000358121	0.000285791
2023	732	485849.5	3752034.9	0.000342113	0.00027225
2023	733	485549.5	3752134.9	0.000479276	0.000398367
2023	734	485649.5	3752134.9	0.000450781	0.000368948
2023	735	485749.5	3752134.9	0.000443137	0.000361431
2023	736	485849.5	3752134.9	0.000437992	0.00035793
2023	737	485549.5	3752234.9	0.00055386	0.000468637
2023	738	485649.5	3752234.9	0.000567653	0.000480312
2023	739	485749.5	3752234.9	0.000588388	0.000499414
2023	740	485849.5	3752234.9	0.00060045	0.000511445
2023	741	485549.5	3752334.9	0.000432133	0.000343396
2023	742	485649.5	3752334.9	0.00043868	0.00034672
2023	743	485749.5	3752334.9	0.000448341	0.000353627
2023	744	485849.5	3752334.9	0.000458547	0.000361724
2023	745	485549.5	3752434.9	0.000412549	0.000320273
2023	746	485649.5	3752434.9	0.000415179	0.000319384
2023	747	485749.5	3752434.9	0.000423623	0.000324103
2023	748	485849.5	3752434.9	0.000434582	0.000331216
2023	749	485549.5	3752534.9	0.000420762	0.00032458
2023	750	485649.5	3752534.9	0.000422605	0.00032262
2023	751	485749.5	3752534.9	0.000431733	0.000327611
2023	752	485849.5	3752534.9	0.000443431	0.000334797
2023	753	485549.5	3752634.9	0.000438876	0.000338146
2023	754	485649.5	3752634.9	0.000441739	0.000336882
2023	755	485749.5	3752634.9	0.000451879	0.000342678
2023	756	485849.5	3752634.9	0.000464475	0.0003504
2023	757	485549.5	3752734.9	0.000461958	0.000356451

2023	758	485649.5	3752734.9	0.000466917	0.000356974
2023	759	485749.5	3752734.9	0.00048071	0.000365792
2023	760	485849.5	3752734.9	0.000497114	0.00037657
2023	761	485549.5	3752834.9	0.000487781	0.00037751
2023	762	485649.5	3752834.9	0.000495716	0.000380801
2023	763	485749.5	3752834.9	0.000515164	0.000394702
2023	764	485849.5	3752834.9	0.000538213	0.000411332
2023	765	485549.5	3752934.9	0.000516246	0.000400846
2023	766	485649.5	3752934.9	0.000527546	0.000407382
2023	767	485749.5	3752934.9	0.00055422	0.000428316
2023	768	485849.5	3752934.9	0.000589946	0.000456802
2023	769	485549.5	3753034.9	0.000550956	0.000429758
2023	770	485649.5	3753034.9	0.000560344	0.0004345
2023	771	485749.5	3753034.9	0.000595135	0.000463309
2023	772	485849.5	3753034.9	0.00064968	0.000510274
2023	773	485549.5	3753134.9	0.000566639	0.00043823
2023	774	485649.5	3753134.9	0.000592827	0.000459989
2023	775	485749.5	3753134.9	0.000632419	0.000494114
2023	776	485849.5	3753134.9	0.000701431	0.000555755
2023	777	485549.5	3753234.9	0.000598903	0.000461484
2023	778	485649.5	3753234.9	0.000626514	0.000485035
2023	779	485749.5	3753234.9	0.000668193	0.000522291
2023	780	485849.5	3753234.9	0.000743764	0.000591363
2023	781	485549.5	3753334.9	0.000650431	0.000501295
2023	782	485649.5	3753334.9	0.000668487	0.000514405
2023	783	485749.5	3753334.9	0.000709669	0.000552238
2023	784	485849.5	3753334.9	0.000784654	0.000623025
2023	785	485549.5	3753434.9	0.000703288	0.000540325
2023	786	485649.5	3753434.9	0.000733013	0.000561273
2023	787	485749.5	3753434.9	0.000779322	0.000602293
2023	788	485849.5	3753434.9	0.00085069	0.000672969
2023	789	485508.5	3746711.3	5.11225E-05	4.19283E-05
2023	790	491508.5	3746711.3	3.57663E-05	2.94002E-05
2023	791	479508.5	3752711.3	0.000191335	0.000169057
2023	792	485508.5	3752711.3	0.000445312	0.000342564
2023	793	491508.5	3752711.3	0.000259052	0.000161363
2023	794	485508.5	3758711.3	9.65749E-05	8.685E-05
2023	795	491508.5	3758711.3	3.93902E-05	3.36426E-05
2023	796	485921.9	3750934.2	6.94499E-05	5.15422E-05
2023	797	486021.9	3750934.2	6.82752E-05	5.05484E-05
2023	798	486121.9	3750934.2	6.75759E-05	4.99746E-05
2023	799	485921.9	3751034.2	7.31727E-05	5.42881E-05
2023	800	486021.9	3751034.2	7.14869E-05	5.2839E-05
2023	801	486121.9	3751034.2	7.04438E-05	5.19535E-05
2023	802	485921.9	3751134.2	7.75776E-05	5.76493E-05
2023	803	486021.9	3751134.2	7.56695E-05	5.59896E-05
2023	804	486121.9	3751134.2	7.41372E-05	5.46571E-05

2023	805	485921.9	3751234.2	8.28334E-05	6.17703E-05
2023	806	486021.9	3751234.2	8.06964E-05	5.98882E-05
2023	807	486121.9	3751234.2	7.87856E-05	5.8208E-05
2023	808	485921.9	3751334.2	8.94004E-05	6.70574E-05
2023	809	486021.9	3751334.2	8.69241E-05	6.48524E-05
2023	810	486121.9	3751334.2	8.4245E-05	6.24748E-05
2023	811	485921.9	3751434.2	9.83634E-05	7.44654E-05
2023	812	486021.9	3751434.2	9.44166E-05	7.09409E-05
2023	813	486121.9	3751434.2	9.09974E-05	6.78831E-05
2023	814	485921.9	3751534.2	0.000107862	8.23331E-05
2023	815	486021.9	3751534.2	0.000104878	7.9649E-05
2023	816	486121.9	3751534.2	9.95125E-05	7.48517E-05
2023	817	485921.9	3751634.2	0.000116369	8.93347E-05
2023	818	486021.9	3751634.2	0.00012193	9.40276E-05
2023	819	486121.9	3751634.2	0.000112433	8.56975E-05
2023	820	485921.9	3751734.2	0.00013346	0.000103856
2023	821	486021.9	3751734.2	0.000148546	0.000116348
2023	822	486121.9	3751734.2	0.000126737	9.76679E-05
2023	823	485921.9	3751834.2	0.000168532	0.000133499
2023	824	486021.9	3751834.2	0.00016666	0.000131371
2023	825	486121.9	3751834.2	0.000133766	0.000103244
2023	826	485921.9	3751934.2	0.00025895	0.000206365
2023	827	486021.9	3751934.2	0.000206204	0.000163576
2023	828	486121.9	3751934.2	0.000166161	0.000130337
2023	829	485921.9	3752034.2	0.000317448	0.000252662
2023	830	486021.9	3752034.2	0.000259237	0.000207336
2023	831	486121.9	3752034.2	0.00022707	0.000180603
2023	832	485921.9	3752134.2	0.000436607	0.000358768
2023	833	486021.9	3752134.2	0.000413505	0.000341275
2023	834	486121.9	3752134.2	0.000326535	0.000264777
2023	835	485921.9	3752234.2	0.000603831	0.000516385
2023	836	486021.9	3752234.2	0.000619406	0.00053383
2023	837	486121.9	3752234.2	0.000540168	0.000457954
2023	838	485921.9	3752334.2	0.00046524	0.000367403
2023	839	486021.9	3752334.2	0.00048461	0.000386867
2023	840	486121.9	3752334.2	0.000571892	0.000474608
2023	841	485921.9	3752434.2	0.000445155	0.000339803
2023	842	486021.9	3752434.2	0.000463085	0.000355481
2023	843	486121.9	3752434.2	0.000500324	0.000390559
2023	844	485921.9	3752534.2	0.00045413	0.000341918
2023	845	486021.9	3752534.2	0.000469146	0.000352819
2023	846	486121.9	3752534.2	0.000490065	0.000369953
2023	847	485921.9	3752634.2	0.00047447	0.000356776
2023	848	486021.9	3752634.2	0.000489053	0.000366629
2023	849	486121.9	3752634.2	0.000506608	0.000379633
2023	850	485921.9	3752734.2	0.000509248	0.000384553
2023	851	486021.9	3752734.2	0.000527847	0.000397126

2023	852	486121.9	3752734.2	0.000548149	0.000411633
2023	853	485921.9	3752834.2	0.000556666	0.000424493
2023	854	486021.9	3752834.2	0.000584779	0.000444666
2023	855	486121.9	3752834.2	0.000614417	0.000466301
2023	856	485921.9	3752934.2	0.000619212	0.000480068
2023	857	486021.9	3752934.2	0.000668828	0.00051939
2023	858	486121.9	3752934.2	0.000734678	0.000573104
2023	859	487026.2	3754364	0.002558021	0.002224028
2024	1	489607.4	3753966.1	0.00070292	0.000449001
2024	2	489738.7	3754023.9	0.000659764	0.000447143
2024	3	489668.9	3754093.7	0.000644225	0.000459607
2024	4	489690.1	3754161.6	0.000615591	0.000447737
2024	5	490282.2	3753425.2	0.000634613	0.000364842
2024	6	489797.3	3754554.1	0.000513474	0.000386332
2024	7	490252.9	3754378.2	0.000476835	0.000354757
2024	8	489006	3754140.3	0.000812113	0.000550858
2024	9	485642.8	3754267.3	0.001563814	0.001281598
2024	10	485736.4	3754259.5	0.001780759	0.001468995
2024	11	487189.2	3754820.5	0.003081371	0.002679251
2024	12	487233.1	3754689.5	0.002427094	0.002035465
2024	13	487216.8	3754364.7	0.003367242	0.00292862
2024	14	487388.8	3754380.1	0.002002542	0.001659006
2024	15	484625	3751748	0.000404032	0.000325704
2024	16	483279	3751798	0.00029541	0.00023729
2024	17	483231	3751205	0.000261443	0.000210478
2024	18	480165	3750195	0.000204422	0.000175731
2024	19	481211	3749473	0.000179108	0.000149097
2024	20	481867	3752785	0.000301452	0.000255188
2024	21	480678	3751306	0.000216397	0.000182781
2024	22	479989	3752645	0.000257696	0.000225431
2024	23	479889	3756222	0.000362502	0.000332544
2024	24	479234	3757080	0.000173141	0.00015605
2024	25	480276	3756365	0.000293768	0.000267826
2024	26	479887	3754007	0.000335682	0.000301646
2024	27	480772	3755009	0.000716988	0.000662114
2024	28	481560	3754548	0.000536313	0.000485774
2024	29	481845	3754457	0.000541116	0.000488227
2024	30	481754	3753876	0.000396819	0.000349623
2024	31	489635.2	3750663.8	0.000125368	9.4816E-05
2024	32	485424.1	3747672.3	8.70839E-05	7.03285E-05
2024	33	482657.6	3753975.1	0.000455972	0.000397168
2024	34	481495	3754633.7	0.000562848	0.000511625
2024	35	481148.7	3756136.2	0.000404794	0.00037053
2024	36	482346.5	3748872.9	6.83762E-05	5.40038E-05
2024	37	480299	3751198	0.00021006	0.000178441
2024	38	479598.7	3756506.3	0.000276474	0.000252051
2024	39	478997.8	3753535.2	0.000365643	0.000330622

2024	40	478978.3	3755233.1	0.001139828	0.001066183
2024	41	479197.3	3754462.3	0.000493916	0.000452818
2024	42	479493.3	3752408.8	0.000260648	0.000229799
2024	43	480295.4	3752408.4	0.00025038	0.000217115
2024	44	480287.9	3754227.5	0.000368952	0.000332155
2024	45	494397.4	3753977.6	0.000210004	0.000168528
2024	46	481108.5	3750699	0.000216166	0.000182333
2024	47	486794.1	3756878	0.000200101	0.000175071
2024	48	482345	3752065.8	0.000289904	0.000240886
2024	49	487553	3745938.3	5.3918E-05	4.48484E-05
2024	50	484553	3746938.3	7.01869E-05	5.7157E-05
2024	51	485553	3746938.3	7.44295E-05	6.08612E-05
2024	52	486553	3746938.3	5.98714E-05	5.01171E-05
2024	53	487553	3746938.3	6.52928E-05	5.36151E-05
2024	54	488553	3746938.3	5.94795E-05	4.90412E-05
2024	55	489553	3746938.3	5.88737E-05	4.82631E-05
2024	56	490553	3746938.3	5.41075E-05	4.44546E-05
2024	57	491553	3746938.3	5.16003E-05	4.2334E-05
2024	58	492553	3746938.3	4.98522E-05	4.08793E-05
2024	59	482553	3747938.3	5.96674E-05	4.71627E-05
2024	60	483553	3747938.3	0.000102764	8.19266E-05
2024	61	484553	3747938.3	9.80787E-05	7.85343E-05
2024	62	485553	3747938.3	9.14261E-05	7.35199E-05
2024	63	486553	3747938.3	8.55472E-05	6.95792E-05
2024	64	487553	3747938.3	5.54102E-05	4.61706E-05
2024	65	488553	3747938.3	7.09609E-05	5.7804E-05
2024	66	489553	3747938.3	6.67814E-05	5.44196E-05
2024	67	490553	3747938.3	6.30567E-05	5.1332E-05
2024	68	491553	3747938.3	6.01665E-05	4.88982E-05
2024	69	492553	3747938.3	5.81996E-05	4.72974E-05
2024	70	493553	3747938.3	5.71724E-05	4.65796E-05
2024	71	481553	3748938.3	0.000144763	0.000116664
2024	72	482553	3748938.3	7.10121E-05	5.60587E-05
2024	73	483553	3748938.3	0.000116444	9.24028E-05
2024	74	484553	3748938.3	0.000121913	9.60481E-05
2024	75	485553	3748938.3	0.000116482	9.21495E-05
2024	76	486553	3748938.3	0.000108381	8.63795E-05
2024	77	487553	3748938.3	8.65332E-05	7.16025E-05
2024	78	488553	3748938.3	8.69918E-05	6.96681E-05
2024	79	489553	3748938.3	8.02747E-05	6.45271E-05
2024	80	490553	3748938.3	7.56945E-05	6.07304E-05
2024	81	491553	3748938.3	7.20156E-05	5.7759E-05
2024	82	492553	3748938.3	7.01724E-05	5.63108E-05
2024	83	493553	3748938.3	7.18979E-05	5.81958E-05
2024	84	494553	3748938.3	0.00011567	0.000100616
2024	85	480553	3749938.3	0.000260875	0.000231985
2024	86	481553	3749938.3	0.000205855	0.000171174

2024	87	482553	3749938.3	0.000192423	0.000155558
2024	88	483553	3749938.3	0.000182381	0.000144832
2024	89	484553	3749938.3	0.000126163	9.92658E-05
2024	90	485553	3749938.3	0.000100237	7.86624E-05
2024	91	486553	3749938.3	0.000121305	9.6968E-05
2024	92	487553	3749938.3	0.000128865	0.000101267
2024	93	488553	3749938.3	0.000110703	8.62335E-05
2024	94	489553	3749938.3	0.000101467	7.94433E-05
2024	95	490553	3749938.3	9.47606E-05	7.42077E-05
2024	96	491553	3749938.3	9.02931E-05	7.06824E-05
2024	97	492553	3749938.3	9.07763E-05	7.13372E-05
2024	98	493553	3749938.3	0.000115087	9.41997E-05
2024	99	494553	3749938.3	8.55516E-05	6.5987E-05
2024	100	495553	3749938.3	6.85625E-05	5.64101E-05
2024	101	480553	3750938.3	0.000206211	0.000174077
2024	102	481553	3750938.3	0.000224245	0.000187254
2024	103	482553	3750938.3	0.000242313	0.000199009
2024	104	483553	3750938.3	0.000277299	0.000226073
2024	105	484553	3750938.3	0.000254052	0.000200373
2024	106	485553	3750938.3	0.000103526	7.75848E-05
2024	107	486553	3750938.3	9.25334E-05	6.87441E-05
2024	108	487553	3750938.3	0.000145377	0.000113276
2024	109	488553	3750938.3	0.00015657	0.000114351
2024	110	489553	3750938.3	0.000140271	0.000103728
2024	111	490553	3750938.3	0.000128331	9.56711E-05
2024	112	491553	3750938.3	0.000122821	9.18416E-05
2024	113	492553	3750938.3	0.000160909	0.000127963
2024	114	493553	3750938.3	0.000121019	8.99533E-05
2024	115	494553	3750938.3	0.00011704	8.77777E-05
2024	116	495553	3750938.3	0.00010998	8.55756E-05
2024	117	479553	3751938.3	0.000241698	0.000211325
2024	118	480553	3751938.3	0.000239648	0.00020567
2024	119	481553	3751938.3	0.000251695	0.000211101
2024	120	482553	3751938.3	0.000280545	0.000229907
2024	121	483553	3751938.3	0.000319879	0.000256026
2024	122	484553	3751938.3	0.000380828	0.000300563
2024	123	485553	3751938.3	0.000536699	0.000441709
2024	124	486553	3751938.3	0.000175493	0.000132492
2024	125	487553	3751938.3	0.000262212	0.000196691
2024	126	488553	3751938.3	0.000272644	0.000174398
2024	127	489553	3751938.3	0.000250932	0.000156619
2024	128	490553	3751938.3	0.000223413	0.000143755
2024	129	491553	3751938.3	0.000280594	0.000204886
2024	130	492553	3751938.3	0.000194948	0.000126511
2024	131	493553	3751938.3	0.000178401	0.000131435
2024	132	494553	3751938.3	0.000166735	0.000123926
2024	133	495553	3751938.3	0.000149085	0.000113534

2024	134	479553	3752938.3	0.000286384	0.000254216
2024	135	480553	3752938.3	0.000289525	0.000253144
2024	136	481553	3752938.3	0.000320632	0.000276325
2024	137	482553	3752938.3	0.000353481	0.000296944
2024	138	483553	3752938.3	0.00040329	0.000327459
2024	139	484553	3752938.3	0.000514118	0.00040058
2024	140	485553	3752938.3	0.000723579	0.000561531
2024	141	486553	3752938.3	0.001361309	0.001114197
2024	142	487553	3752938.3	0.001612003	0.001285093
2024	143	488553	3752938.3	0.000863537	0.000576467
2024	144	489553	3752938.3	0.000617344	0.000360461
2024	145	490553	3752938.3	0.000494834	0.000274379
2024	146	491553	3752938.3	0.000378431	0.000249417
2024	147	492553	3752938.3	0.000303662	0.000193792
2024	148	493553	3752938.3	0.000261298	0.000184689
2024	149	494553	3752938.3	0.000230098	0.000170672
2024	150	495553	3752938.3	0.000189326	0.000145425
2024	151	479553	3753938.3	0.000334635	0.000301451
2024	152	480553	3753938.3	0.000340754	0.000303769
2024	153	481553	3753938.3	0.000402688	0.000356948
2024	154	482553	3753938.3	0.000441336	0.000384342
2024	155	483553	3753938.3	0.00055065	0.000474066
2024	156	484553	3753938.3	0.000670015	0.000546508
2024	157	485553	3753938.3	0.001224963	0.000960429
2024	158	486553	3753938.3	0.002320064	0.001883294
2024	159	487553	3753938.3	0.00233086	0.001957575
2024	160	488553	3753938.3	0.001166526	0.00081269
2024	161	489553	3753938.3	0.000710892	0.00043854
2024	162	490553	3753938.3	0.000497283	0.000362714
2024	163	491553	3753938.3	0.000363537	0.000281894
2024	164	492553	3753938.3	0.000302813	0.000238059
2024	165	493553	3753938.3	0.000249841	0.00019868
2024	166	494553	3753938.3	0.000228575	0.000183116
2024	167	495553	3753938.3	0.000179436	0.000144921
2024	168	479553	3754938.3	0.000601117	0.000555328
2024	169	480553	3754938.3	0.000642231	0.00059175
2024	170	481553	3754938.3	0.000736629	0.000677291
2024	171	482553	3754938.3	0.001080115	0.000997445
2024	172	483553	3754938.3	0.001169283	0.001073933
2024	173	484553	3754938.3	0.001180095	0.001065942
2024	174	485553	3754938.3	0.001730383	0.001545546
2024	175	486553	3754938.3	0.002591497	0.002323394
2024	176	487553	3754938.3	0.001426041	0.001164274
2024	177	488553	3754938.3	0.000783127	0.000611749
2024	178	489553	3754938.3	0.000599759	0.00050234
2024	179	490553	3754938.3	0.00041638	0.000356453
2024	180	491553	3754938.3	0.000278612	0.000237398

2024	181	492553	3754938.3	0.000201626	0.000170306
2024	182	493553	3754938.3	0.000205864	0.000175336
2024	183	494553	3754938.3	0.000157789	0.000133668
2024	184	495553	3754938.3	0.000133301	0.000112814
2024	185	479553	3755938.3	0.000606636	0.000563066
2024	186	480553	3755938.3	0.000507672	0.000468227
2024	187	481553	3755938.3	0.000514396	0.000473124
2024	188	482553	3755938.3	0.000739114	0.000681698
2024	189	483553	3755938.3	0.000795128	0.000732629
2024	190	484553	3755938.3	0.000738438	0.000672245
2024	191	485553	3755938.3	0.00102071	0.000931271
2024	192	486553	3755938.3	0.000816906	0.000737879
2024	193	487553	3755938.3	0.000423965	0.000379041
2024	194	488553	3755938.3	0.000298245	0.000264166
2024	195	489553	3755938.3	0.000206962	0.000181878
2024	196	490553	3755938.3	0.000172282	0.000150949
2024	197	491553	3755938.3	0.000142638	0.000124632
2024	198	492553	3755938.3	0.000180295	0.000161789
2024	199	493553	3755938.3	0.000129555	0.000114333
2024	200	494553	3755938.3	0.000125399	0.000111039
2024	201	479553	3756938.3	0.00018153	0.000163779
2024	202	480553	3756938.3	0.000173321	0.000155759
2024	203	481553	3756938.3	0.000156233	0.000139948
2024	204	482553	3756938.3	0.000163115	0.000145569
2024	205	483553	3756938.3	0.000276934	0.000248467
2024	206	484553	3756938.3	0.000264469	0.000234772
2024	207	485553	3756938.3	0.000584013	0.00053797
2024	208	486553	3756938.3	0.000208394	0.000182798
2024	209	487553	3756938.3	0.0001358	0.00011753
2024	210	488553	3756938.3	0.000110294	9.48021E-05
2024	211	489553	3756938.3	9.68824E-05	8.31183E-05
2024	212	490553	3756938.3	8.90004E-05	7.63898E-05
2024	213	491553	3756938.3	7.80937E-05	6.69857E-05
2024	214	492553	3756938.3	6.98259E-05	5.99453E-05
2024	215	493553	3756938.3	7.51634E-05	6.5299E-05
2024	216	494553	3756938.3	7.32988E-05	6.39007E-05
2024	217	479553	3757938.3	9.04594E-05	8.04911E-05
2024	218	480553	3757938.3	8.67338E-05	7.69471E-05
2024	219	481553	3757938.3	9.13507E-05	8.06307E-05
2024	220	482553	3757938.3	0.000112127	9.8397E-05
2024	221	483553	3757938.3	0.00010991	9.60333E-05
2024	222	484553	3757938.3	0.000144305	0.000126759
2024	223	485553	3757938.3	0.00016823	0.000150807
2024	224	486553	3757938.3	9.67283E-05	8.36106E-05
2024	225	487553	3757938.3	7.88335E-05	6.74533E-05
2024	226	488553	3757938.3	6.93174E-05	5.90567E-05
2024	227	489553	3757938.3	6.40474E-05	5.44661E-05

2024	228	490553	3757938.3	5.85354E-05	4.97479E-05
2024	229	491553	3757938.3	5.37512E-05	4.56543E-05
2024	230	492553	3757938.3	5.17946E-05	4.41405E-05
2024	231	493553	3757938.3	5.77145E-05	4.96127E-05
2024	232	480553	3758938.3	6.46846E-05	5.68538E-05
2024	233	481553	3758938.3	7.17222E-05	6.26529E-05
2024	234	482553	3758938.3	6.98175E-05	6.06257E-05
2024	235	483553	3758938.3	7.30424E-05	6.32239E-05
2024	236	484553	3758938.3	9.11116E-05	7.96601E-05
2024	237	485553	3758938.3	0.000217389	0.000199162
2024	238	486553	3758938.3	6.73556E-05	5.8091E-05
2024	239	487553	3758938.3	7.38537E-05	6.36684E-05
2024	240	488553	3758938.3	5.49623E-05	4.69995E-05
2024	241	489553	3758938.3	5.57705E-05	4.77176E-05
2024	242	490553	3758938.3	6.07042E-05	5.18938E-05
2024	243	491553	3758938.3	4.94292E-05	4.21913E-05
2024	244	492553	3758938.3	5.14149E-05	4.3933E-05
2024	245	481553	3759938.3	5.30741E-05	4.61776E-05
2024	246	482553	3759938.3	5.46308E-05	4.72816E-05
2024	247	483553	3759938.3	5.77107E-05	4.98846E-05
2024	248	484553	3759938.3	7.96274E-05	6.95062E-05
2024	249	485553	3759938.3	0.000215267	0.00019705
2024	250	486553	3759938.3	9.82233E-05	8.57779E-05
2024	251	487553	3759938.3	7.98283E-05	6.91729E-05
2024	252	488553	3759938.3	7.96006E-05	6.8586E-05
2024	253	489553	3759938.3	6.93172E-05	5.95223E-05
2024	254	490553	3759938.3	5.321E-05	4.56367E-05
2024	255	491553	3759938.3	4.6331E-05	3.96486E-05
2024	256	482553	3760938.3	5.13609E-05	4.44834E-05
2024	257	483553	3760938.3	5.90132E-05	5.12312E-05
2024	258	484553	3760938.3	7.5179E-05	6.57218E-05
2024	259	485553	3760938.3	0.000176194	0.000159822
2024	260	486553	3760938.3	0.000113239	9.95123E-05
2024	261	487553	3760938.3	8.96692E-05	7.86036E-05
2024	262	488553	3760938.3	5.09031E-05	4.41387E-05
2024	263	489553	3760938.3	3.84932E-05	3.31175E-05
2024	264	490553	3760938.3	3.66994E-05	3.14734E-05
2024	265	484551.7	3750934.4	0.000252343	0.000199225
2024	266	484651.7	3750934.4	0.000247256	0.000194929
2024	267	484751.7	3750934.4	0.000183842	0.0001456
2024	268	484851.7	3750934.4	0.000166418	0.000131472
2024	269	484951.7	3750934.4	0.00017544	0.000138226
2024	270	485051.7	3750934.4	0.000155077	0.000121773
2024	271	485151.7	3750934.4	0.000128924	9.98358E-05
2024	272	485251.7	3750934.4	0.000114172	8.70268E-05
2024	273	485351.7	3750934.4	0.000109071	8.25078E-05
2024	274	485451.7	3750934.4	0.000106042	7.98256E-05

2024	275	484551.7	3751034.4	0.000272292	0.000213934
2024	276	484651.7	3751034.4	0.000266166	0.000208848
2024	277	484751.7	3751034.4	0.000246932	0.000195462
2024	278	484851.7	3751034.4	0.000190444	0.0001506
2024	279	484951.7	3751034.4	0.000212225	0.00016732
2024	280	485051.7	3751034.4	0.000173943	0.000136865
2024	281	485151.7	3751034.4	0.000149008	0.000116394
2024	282	485251.7	3751034.4	0.000127414	9.79531E-05
2024	283	485351.7	3751034.4	0.000117626	8.93782E-05
2024	284	485451.7	3751034.4	0.000112595	8.49175E-05
2024	285	484551.7	3751134.4	0.000289357	0.000227298
2024	286	484651.7	3751134.4	0.000286756	0.000224483
2024	287	484751.7	3751134.4	0.000279744	0.000218869
2024	288	484851.7	3751134.4	0.000248549	0.000197519
2024	289	484951.7	3751134.4	0.000253084	0.000199776
2024	290	485051.7	3751134.4	0.00020367	0.000160514
2024	291	485151.7	3751134.4	0.000177595	0.000139684
2024	292	485251.7	3751134.4	0.000152076	0.000118568
2024	293	485351.7	3751134.4	0.000130286	9.98607E-05
2024	294	485451.7	3751134.4	0.000120482	9.12246E-05
2024	295	484551.7	3751234.4	0.000308006	0.000242831
2024	296	484651.7	3751234.4	0.000306177	0.000240462
2024	297	484751.7	3751234.4	0.000299908	0.000235185
2024	298	484851.7	3751234.4	0.000287346	0.000225962
2024	299	484951.7	3751234.4	0.000276893	0.000218193
2024	300	485051.7	3751234.4	0.000245134	0.000194307
2024	301	485151.7	3751234.4	0.000201898	0.000159437
2024	302	485251.7	3751234.4	0.000151005	0.000117499
2024	303	485351.7	3751234.4	0.000134127	0.000102763
2024	304	485451.7	3751234.4	0.000127778	9.70724E-05
2024	305	484551.7	3751334.4	0.000341115	0.000272439
2024	306	484651.7	3751334.4	0.000332467	0.000263558
2024	307	484751.7	3751334.4	0.00032297	0.00025515
2024	308	484851.7	3751334.4	0.00031408	0.00024771
2024	309	484951.7	3751334.4	0.000308553	0.000242621
2024	310	485051.7	3751334.4	0.000291626	0.000230392
2024	311	485151.7	3751334.4	0.000241596	0.000191657
2024	312	485251.7	3751334.4	0.000185143	0.000146295
2024	313	485351.7	3751334.4	0.00014735	0.000113959
2024	314	485451.7	3751334.4	0.000136772	0.000104495
2024	315	484551.7	3751434.4	0.000396973	0.000325772
2024	316	484651.7	3751434.4	0.000374374	0.000302252
2024	317	484751.7	3751434.4	0.00035974	0.000287423
2024	318	484851.7	3751434.4	0.000349421	0.000277446
2024	319	484951.7	3751434.4	0.000341025	0.000269636
2024	320	485051.7	3751434.4	0.000332257	0.000261766
2024	321	485151.7	3751434.4	0.000291536	0.000233165

2024	322	485251.7	3751434.4	0.000219997	0.000175413
2024	323	485351.7	3751434.4	0.000172074	0.000135218
2024	324	485451.7	3751434.4	0.000153427	0.000118754
2024	325	484551.7	3751534.4	0.00052999	0.000456954
2024	326	484651.7	3751534.4	0.000468144	0.000393389
2024	327	484751.7	3751534.4	0.000421242	0.000345244
2024	328	484851.7	3751534.4	0.00039732	0.000320645
2024	329	484951.7	3751534.4	0.000384223	0.000307035
2024	330	485051.7	3751534.4	0.000376045	0.000298293
2024	331	485151.7	3751534.4	0.000364384	0.00028747
2024	332	485251.7	3751534.4	0.000319175	0.00025463
2024	333	485351.7	3751534.4	0.000247574	0.000197871
2024	334	485451.7	3751534.4	0.000200861	0.000159351
2024	335	484551.7	3751634.4	0.00047129	0.000396395
2024	336	484651.7	3751634.4	0.000487323	0.000410686
2024	337	484751.7	3751634.4	0.000502337	0.000423761
2024	338	484851.7	3751634.4	0.000510977	0.000431033
2024	339	484951.7	3751634.4	0.000454975	0.000373999
2024	340	485051.7	3751634.4	0.00042859	0.000346658
2024	341	485151.7	3751634.4	0.000414487	0.000331647
2024	342	485251.7	3751634.4	0.000390578	0.000310185
2024	343	485351.7	3751634.4	0.000360973	0.000286156
2024	344	485451.7	3751634.4	0.000321775	0.000257517
2024	345	484551.7	3751734.4	0.000390347	0.000313892
2024	346	484651.7	3751734.4	0.000418524	0.000339792
2024	347	484751.7	3751734.4	0.00046677	0.000386034
2024	348	484851.7	3751734.4	0.000530213	0.000447854
2024	349	484951.7	3751734.4	0.000527784	0.000444314
2024	350	485051.7	3751734.4	0.000592124	0.000507413
2024	351	485151.7	3751734.4	0.000505835	0.000419083
2024	352	485251.7	3751734.4	0.000475216	0.000387593
2024	353	485351.7	3751734.4	0.000440954	0.000355082
2024	354	485451.7	3751734.4	0.000400891	0.000319382
2024	355	484551.7	3751834.4	0.000377027	0.000299108
2024	356	484651.7	3751834.4	0.000390682	0.000310562
2024	357	484751.7	3751834.4	0.000407246	0.000324928
2024	358	484851.7	3751834.4	0.000428339	0.000344043
2024	359	484951.7	3751834.4	0.000457347	0.000371619
2024	360	485051.7	3751834.4	0.000526154	0.000438663
2024	361	485151.7	3751834.4	0.000527278	0.000436937
2024	362	485251.7	3751834.4	0.000562663	0.000470251
2024	363	485351.7	3751834.4	0.000561013	0.000468432
2024	364	485451.7	3751834.4	0.000552682	0.000461955
2024	365	484551.7	3751934.4	0.00038034	0.000300207
2024	366	484651.7	3751934.4	0.000389024	0.000307004
2024	367	484751.7	3751934.4	0.00039795	0.000314153
2024	368	484851.7	3751934.4	0.000409489	0.000323603

2024	369	484951.7	3751934.4	0.000422656	0.000334706
2024	370	485051.7	3751934.4	0.000440121	0.000349783
2024	371	485151.7	3751934.4	0.000462744	0.000369612
2024	372	485251.7	3751934.4	0.000493715	0.000397339
2024	373	485351.7	3751934.4	0.000541651	0.000443074
2024	374	485451.7	3751934.4	0.000569084	0.000471348
2024	375	484551.7	3752034.4	0.000393956	0.000310906
2024	376	484651.7	3752034.4	0.000401038	0.000316121
2024	377	484751.7	3752034.4	0.000408671	0.00032184
2024	378	484851.7	3752034.4	0.000416794	0.000328012
2024	379	484951.7	3752034.4	0.000426967	0.0003359
2024	380	485051.7	3752034.4	0.000439418	0.000345725
2024	381	485151.7	3752034.4	0.000455015	0.000358325
2024	382	485251.7	3752034.4	0.000478441	0.000378055
2024	383	485351.7	3752034.4	0.000512244	0.000408779
2024	384	485451.7	3752034.4	0.00060918	0.000503765
2024	385	484551.7	3752134.4	0.000419734	0.00033361
2024	386	484651.7	3752134.4	0.000426285	0.000338159
2024	387	484751.7	3752134.4	0.000433604	0.000343354
2024	388	484851.7	3752134.4	0.00044095	0.000348573
2024	389	484951.7	3752134.4	0.000449107	0.000354485
2024	390	485051.7	3752134.4	0.000459371	0.000362166
2024	391	485151.7	3752134.4	0.00047232	0.000372208
2024	392	485251.7	3752134.4	0.000492626	0.000388839
2024	393	485351.7	3752134.4	0.000527819	0.000420039
2024	394	485451.7	3752134.4	0.000624511	0.000513536
2024	395	484551.7	3752234.4	0.000467833	0.00037883
2024	396	484651.7	3752234.4	0.000477821	0.00038643
2024	397	484751.7	3752234.4	0.000484661	0.000390948
2024	398	484851.7	3752234.4	0.000490075	0.000394027
2024	399	484951.7	3752234.4	0.000524736	0.000426307
2024	400	485051.7	3752234.4	0.000505261	0.000404354
2024	401	485151.7	3752234.4	0.000518558	0.000415038
2024	402	485251.7	3752234.4	0.000533528	0.000426449
2024	403	485351.7	3752234.4	0.000566063	0.000454692
2024	404	485451.7	3752234.4	0.000678978	0.000563391
2024	405	484551.7	3752334.4	0.000442804	0.000350288
2024	406	484651.7	3752334.4	0.000451044	0.000356059
2024	407	484751.7	3752334.4	0.000459213	0.000361785
2024	408	484851.7	3752334.4	0.000467588	0.000367683
2024	409	484951.7	3752334.4	0.000476834	0.000374275
2024	410	485051.7	3752334.4	0.000486149	0.000380974
2024	411	485151.7	3752334.4	0.000497218	0.000389151
2024	412	485251.7	3752334.4	0.000510696	0.000399509
2024	413	485351.7	3752334.4	0.000530777	0.000415863
2024	414	485451.7	3752334.4	0.000570401	0.000450852
2024	415	484551.7	3752434.4	0.0004412	0.000345192

2024	416	484651.7	3752434.4	0.000449754	0.000351128
2024	417	484751.7	3752434.4	0.000458137	0.000356986
2024	418	484851.7	3752434.4	0.000468051	0.000363973
2024	419	484951.7	3752434.4	0.000477791	0.000370906
2024	420	485051.7	3752434.4	0.00048849	0.000378616
2024	421	485151.7	3752434.4	0.000500253	0.000387213
2024	422	485251.7	3752434.4	0.000513462	0.0003971
2024	423	485351.7	3752434.4	0.000530273	0.000410149
2024	424	485451.7	3752434.4	0.000557364	0.00043306
2024	425	484551.7	3752534.4	0.000450522	0.00035092
2024	426	484651.7	3752534.4	0.000459768	0.000357339
2024	427	484751.7	3752534.4	0.000469539	0.000364179
2024	428	484851.7	3752534.4	0.000480109	0.000371643
2024	429	484951.7	3752534.4	0.000490763	0.000379263
2024	430	485051.7	3752534.4	0.000502702	0.000387878
2024	431	485151.7	3752534.4	0.000515441	0.000397196
2024	432	485251.7	3752534.4	0.000529142	0.000407405
2024	433	485351.7	3752534.4	0.000545231	0.000419699
2024	434	485451.7	3752534.4	0.000570303	0.000440474
2024	435	484551.7	3752634.4	0.000462928	0.000359818
2024	436	484651.7	3752634.4	0.000472958	0.000366782
2024	437	484751.7	3752634.4	0.000483505	0.000374177
2024	438	484851.7	3752634.4	0.000495681	0.000382763
2024	439	484951.7	3752634.4	0.000507775	0.000391435
2024	440	485051.7	3752634.4	0.000521123	0.000401115
2024	441	485151.7	3752634.4	0.000535104	0.000411418
2024	442	485251.7	3752634.4	0.000550074	0.000422646
2024	443	485351.7	3752634.4	0.000567332	0.000435893
2024	444	485451.7	3752634.4	0.000593506	0.000457457
2024	445	484551.7	3752734.4	0.000477737	0.000371062
2024	446	484651.7	3752734.4	0.000489152	0.000378934
2024	447	484751.7	3752734.4	0.000501106	0.000387283
2024	448	484851.7	3752734.4	0.000513925	0.000396359
2024	449	484951.7	3752734.4	0.000527477	0.000406091
2024	450	485051.7	3752734.4	0.00054232	0.000416914
2024	451	485151.7	3752734.4	0.000557775	0.000428401
2024	452	485251.7	3752734.4	0.00057437	0.000440995
2024	453	485351.7	3752734.4	0.000593564	0.000455902
2024	454	485451.7	3752734.4	0.000621078	0.000478791
2024	455	484551.7	3752834.4	0.000493854	0.000383783
2024	456	484651.7	3752834.4	0.000506574	0.000392486
2024	457	484751.7	3752834.4	0.00051947	0.00040145
2024	458	484851.7	3752834.4	0.000534109	0.000411766
2024	459	484951.7	3752834.4	0.000549379	0.000422707
2024	460	485051.7	3752834.4	0.000565577	0.00043453
2024	461	485151.7	3752834.4	0.000582608	0.000447259
2024	462	485251.7	3752834.4	0.000601213	0.000461512

2024	463	485351.7	3752834.4	0.000622255	0.000478181
2024	464	485451.7	3752834.4	0.000652567	0.000503682
2024	465	484551.7	3752934.4	0.000513048	0.000399691
2024	466	484651.7	3752934.4	0.000527118	0.000409254
2024	467	484751.7	3752934.4	0.000541565	0.000419201
2024	468	484851.7	3752934.4	0.000557733	0.000430511
2024	469	484951.7	3752934.4	0.000574704	0.000442584
2024	470	485051.7	3752934.4	0.000592974	0.000455845
2024	471	485151.7	3752934.4	0.000611669	0.000469803
2024	472	485251.7	3752934.4	0.000632644	0.000485904
2024	473	485351.7	3752934.4	0.000655384	0.000504155
2024	474	485451.7	3752934.4	0.000687889	0.000531794
2024	475	484551.7	3753034.4	0.000540899	0.00042464
2024	476	484651.7	3753034.4	0.000557197	0.000435979
2024	477	484751.7	3753034.4	0.000575205	0.00044875
2024	478	484851.7	3753034.4	0.000591886	0.000459908
2024	479	484951.7	3753034.4	0.000610365	0.00047279
2024	480	485051.7	3753034.4	0.000630365	0.00048724
2024	481	485151.7	3753034.4	0.000652697	0.000503956
2024	482	485251.7	3753034.4	0.000684214	0.000530001
2024	483	485351.7	3753034.4	0.00069971	0.000540585
2024	484	485451.7	3753034.4	0.00073364	0.000569536
2024	485	484551.7	3753134.4	0.00054202	0.000423055
2024	486	484651.7	3753134.4	0.000559354	0.000434806
2024	487	484751.7	3753134.4	0.000578261	0.000447753
2024	488	484851.7	3753134.4	0.000597928	0.000461376
2024	489	484951.7	3753134.4	0.000619228	0.00047634
2024	490	485051.7	3753134.4	0.000642002	0.000492647
2024	491	485151.7	3753134.4	0.000666153	0.000510334
2024	492	485251.7	3753134.4	0.000692948	0.00053065
2024	493	485351.7	3753134.4	0.000722747	0.000554393
2024	494	485451.7	3753134.4	0.000764655	0.000590589
2024	495	484551.7	3753234.4	0.000552863	0.000431428
2024	496	484651.7	3753234.4	0.000572104	0.000444424
2024	497	484751.7	3753234.4	0.000592462	0.000458268
2024	498	484851.7	3753234.4	0.000614106	0.000473134
2024	499	484951.7	3753234.4	0.000637694	0.000489549
2024	500	485051.7	3753234.4	0.00066351	0.000507859
2024	501	485151.7	3753234.4	0.000691144	0.000527876
2024	502	485251.7	3753234.4	0.000722015	0.000550909
2024	503	485351.7	3753234.4	0.000756856	0.000578136
2024	504	485451.7	3753234.4	0.00080516	0.000619155
2024	505	484551.7	3753334.4	0.0005671	0.000443502
2024	506	484651.7	3753334.4	0.000587618	0.000457304
2024	507	484751.7	3753334.4	0.000609157	0.000471825
2024	508	484851.7	3753334.4	0.000633407	0.000488394
2024	509	484951.7	3753334.4	0.00065883	0.000505896

2024	510	485051.7	3753334.4	0.000687363	0.000525892
2024	511	485151.7	3753334.4	0.000718832	0.000548428
2024	512	485251.7	3753334.4	0.000755537	0.00057541
2024	513	485351.7	3753334.4	0.000797683	0.00060761
2024	514	485451.7	3753334.4	0.000854196	0.000654279
2024	515	484551.7	3753434.4	0.000581622	0.000456597
2024	516	484651.7	3753434.4	0.000603241	0.000471143
2024	517	484751.7	3753434.4	0.000626185	0.000486529
2024	518	484851.7	3753434.4	0.000652076	0.000504134
2024	519	484951.7	3753434.4	0.000679642	0.00052283
2024	520	485051.7	3753434.4	0.000710488	0.000544132
2024	521	485151.7	3753434.4	0.000746402	0.00056963
2024	522	485251.7	3753434.4	0.000788821	0.000600508
2024	523	485351.7	3753434.4	0.000839215	0.000638561
2024	524	485451.7	3753434.4	0.000909884	0.000695642
2024	525	484551.7	3753534.4	0.000596043	0.000470288
2024	526	484651.7	3753534.4	0.000617018	0.000484088
2024	527	484751.7	3753534.4	0.00064072	0.000499892
2024	528	484851.7	3753534.4	0.000669265	0.000519526
2024	529	484951.7	3753534.4	0.00069887	0.00053966
2024	530	485051.7	3753534.4	0.000732016	0.000562444
2024	531	485151.7	3753534.4	0.000771414	0.00059024
2024	532	485251.7	3753534.4	0.00081869	0.00062453
2024	533	485351.7	3753534.4	0.000877374	0.000668566
2024	534	485451.7	3753534.4	0.000961407	0.000735864
2024	535	484551.7	3753634.4	0.000610164	0.000484234
2024	536	484651.7	3753634.4	0.000632181	0.000498795
2024	537	484751.7	3753634.4	0.000657156	0.000515531
2024	538	484851.7	3753634.4	0.000685389	0.000534652
2024	539	484951.7	3753634.4	0.000716952	0.000556211
2024	540	485051.7	3753634.4	0.000752291	0.000580606
2024	541	485151.7	3753634.4	0.000794121	0.0006102
2024	542	485251.7	3753634.4	0.0008446	0.000647041
2024	543	485351.7	3753634.4	0.000907126	0.000694472
2024	544	485451.7	3753634.4	0.0009979	0.000768333
2024	545	484551.7	3753734.4	0.00062895	0.000503235
2024	546	484651.7	3753734.4	0.000650762	0.000517424
2024	547	484751.7	3753734.4	0.000674994	0.000533209
2024	548	484851.7	3753734.4	0.000701963	0.000550853
2024	549	484951.7	3753734.4	0.000734351	0.000572861
2024	550	485051.7	3753734.4	0.000771765	0.00059873
2024	551	485151.7	3753734.4	0.000815375	0.000629512
2024	552	485251.7	3753734.4	0.000867575	0.000667454
2024	553	485351.7	3753734.4	0.000933089	0.000717159
2024	554	485451.7	3753734.4	0.001027795	0.000794572
2024	555	484551.7	3753834.4	0.000647882	0.000523048
2024	556	484651.7	3753834.4	0.0006689	0.000536442

2024	557	484751.7	3753834.4	0.000693249	0.00055228
2024	558	484851.7	3753834.4	0.000720612	0.000570122
2024	559	484951.7	3753834.4	0.000753688	0.000592495
2024	560	485051.7	3753834.4	0.000790887	0.00061765
2024	561	485151.7	3753834.4	0.000834859	0.000648105
2024	562	485251.7	3753834.4	0.00088959	0.000687611
2024	563	485351.7	3753834.4	0.000957649	0.000738728
2024	564	485451.7	3753834.4	0.001056094	0.000818254
2024	565	484551.7	3753934.4	0.000668463	0.000544976
2024	566	484651.7	3753934.4	0.000690558	0.000559425
2024	567	484751.7	3753934.4	0.000711857	0.000572257
2024	568	484851.7	3753934.4	0.000739771	0.000590665
2024	569	484951.7	3753934.4	0.000772617	0.000612781
2024	570	485051.7	3753934.4	0.000810919	0.000638959
2024	571	485151.7	3753934.4	0.000855966	0.000670242
2024	572	485251.7	3753934.4	0.000910569	0.000709176
2024	573	485351.7	3753934.4	0.000979592	0.000760218
2024	574	485451.7	3753934.4	0.001080149	0.000840014
2024	575	484551.7	3754034.4	0.000693026	0.000571739
2024	576	484651.7	3754034.4	0.000705522	0.000576203
2024	577	484751.7	3754034.4	0.0007318	0.000594116
2024	578	484851.7	3754034.4	0.000760993	0.000613826
2024	579	484951.7	3754034.4	0.000793359	0.000635523
2024	580	485051.7	3754034.4	0.00083071	0.00066084
2024	581	485151.7	3754034.4	0.000875224	0.000691673
2024	582	485251.7	3754034.4	0.000929861	0.000730696
2024	583	485351.7	3754034.4	0.000999143	0.000782145
2024	584	485451.7	3754034.4	0.00110022	0.000862907
2024	585	484551.7	3754134.4	0.000708559	0.000588895
2024	586	484651.7	3754134.4	0.000724004	0.000596842
2024	587	484751.7	3754134.4	0.000750239	0.000615012
2024	588	484851.7	3754134.4	0.000781455	0.000637159
2024	589	484951.7	3754134.4	0.000813552	0.000658705
2024	590	485051.7	3754134.4	0.000851327	0.000684388
2024	591	485151.7	3754134.4	0.00089604	0.000715452
2024	592	485251.7	3754134.4	0.000950521	0.000754487
2024	593	485351.7	3754134.4	0.001019795	0.000806024
2024	594	485451.7	3754134.4	0.001119976	0.000885958
2024	595	484551.7	3754234.4	0.000724489	0.000606496
2024	596	484651.7	3754234.4	0.000743756	0.000618862
2024	597	484751.7	3754234.4	0.000771603	0.000639082
2024	598	484851.7	3754234.4	0.000803159	0.00066205
2024	599	484951.7	3754234.4	0.00083597	0.00068482
2024	600	485051.7	3754234.4	0.000872781	0.000710053
2024	601	485151.7	3754234.4	0.000917205	0.000741182
2024	602	485251.7	3754234.4	0.000971198	0.000779851
2024	603	485351.7	3754234.4	0.001039269	0.000830148

2024	604	485451.7	3754234.4	0.001137701	0.000908214
2024	605	484551.7	3754334.4	0.00074874	0.000632601
2024	606	484651.7	3754334.4	0.000772873	0.000650445
2024	607	484751.7	3754334.4	0.000800163	0.000670708
2024	608	484851.7	3754334.4	0.000828629	0.000691014
2024	609	484951.7	3754334.4	0.000861064	0.000714025
2024	610	485051.7	3754334.4	0.00089829	0.000740302
2024	611	485151.7	3754334.4	0.000941887	0.000771244
2024	612	485251.7	3754334.4	0.000995	0.000809811
2024	613	485351.7	3754334.4	0.001060565	0.000858803
2024	614	485451.7	3754334.4	0.001144936	0.000924185
2024	615	484551.7	3754434.4	0.00079596	0.000682249
2024	616	484651.7	3754434.4	0.00081385	0.000694095
2024	617	484751.7	3754434.4	0.000835763	0.000709321
2024	618	484851.7	3754434.4	0.000861017	0.000726914
2024	619	484951.7	3754434.4	0.000891745	0.000748866
2024	620	485051.7	3754434.4	0.000927665	0.000774575
2024	621	485151.7	3754434.4	0.000970577	0.000805628
2024	622	485251.7	3754434.4	0.001022534	0.00084382
2024	623	485351.7	3754434.4	0.001086773	0.000892163
2024	624	485451.7	3754434.4	0.001169406	0.000956669
2024	625	484551.7	3754534.4	0.000850428	0.000738274
2024	626	484651.7	3754534.4	0.000867721	0.000750118
2024	627	484751.7	3754534.4	0.000883625	0.000759792
2024	628	484851.7	3754534.4	0.000903335	0.000772822
2024	629	484951.7	3754534.4	0.000930459	0.000791934
2024	630	485051.7	3754534.4	0.000964234	0.000816173
2024	631	485151.7	3754534.4	0.001005715	0.000846476
2024	632	485251.7	3754534.4	0.001056242	0.000884003
2024	633	485351.7	3754534.4	0.001118957	0.000931535
2024	634	485451.7	3754534.4	0.001202352	0.00099701
2024	635	484551.7	3754634.4	0.000902304	0.000791586
2024	636	484651.7	3754634.4	0.000917369	0.000801646
2024	637	484751.7	3754634.4	0.000938621	0.000817316
2024	638	484851.7	3754634.4	0.000954239	0.000827175
2024	639	484951.7	3754634.4	0.000977712	0.000843614
2024	640	485051.7	3754634.4	0.001009143	0.000866643
2024	641	485151.7	3754634.4	0.001048507	0.000896116
2024	642	485251.7	3754634.4	0.001097418	0.000933076
2024	643	485351.7	3754634.4	0.001159654	0.000980778
2024	644	485451.7	3754634.4	0.001243906	0.00104763
2024	645	484551.7	3754734.4	0.000959834	0.00084981
2024	646	484651.7	3754734.4	0.000974802	0.000860364
2024	647	484751.7	3754734.4	0.00099221	0.000872975
2024	648	484851.7	3754734.4	0.001013055	0.00088851
2024	649	484951.7	3754734.4	0.001038104	0.000907378
2024	650	485051.7	3754734.4	0.001068244	0.00093025

2024	651	485151.7	3754734.4	0.001105107	0.000958511
2024	652	485251.7	3754734.4	0.001151633	0.000994899
2024	653	485351.7	3754734.4	0.001212475	0.001043968
2024	654	485451.7	3754734.4	0.001295611	0.001113068
2024	655	484551.7	3754834.4	0.001046222	0.000935314
2024	656	484651.7	3754834.4	0.001061722	0.000947059
2024	657	484751.7	3754834.4	0.001078983	0.000960075
2024	658	484851.7	3754834.4	0.001098675	0.000974922
2024	659	484951.7	3754834.4	0.001122496	0.000993314
2024	660	485051.7	3754834.4	0.001150573	0.001015165
2024	661	485151.7	3754834.4	0.001185388	0.001042746
2024	662	485251.7	3754834.4	0.00123016	0.001079042
2024	663	485351.7	3754834.4	0.001291527	0.001130689
2024	664	485451.7	3754834.4	0.001376913	0.001204574
2024	665	484551.7	3754934.4	0.001174004	0.001060074
2024	666	484651.7	3754934.4	0.001188401	0.00107116
2024	667	484751.7	3754934.4	0.001204462	0.00108347
2024	668	484851.7	3754934.4	0.001222847	0.001097601
2024	669	484951.7	3754934.4	0.001244899	0.001114889
2024	670	485051.7	3754934.4	0.001270329	0.001134896
2024	671	485151.7	3754934.4	0.001302966	0.001161392
2024	672	485251.7	3754934.4	0.001345655	0.001196861
2024	673	485351.7	3754934.4	0.001410915	0.001253526
2024	674	485451.7	3754934.4	0.001528695	0.001359599
2024	675	484551.7	3755034.4	0.001364746	0.001244277
2024	676	484651.7	3755034.4	0.001377454	0.001254103
2024	677	484751.7	3755034.4	0.001390966	0.001264291
2024	678	484851.7	3755034.4	0.00140875	0.00127842
2024	679	484951.7	3755034.4	0.001429326	0.001294798
2024	680	485051.7	3755034.4	0.001454358	0.001315046
2024	681	485151.7	3755034.4	0.001484513	0.001339786
2024	682	485251.7	3755034.4	0.001524969	0.001374032
2024	683	485351.7	3755034.4	0.00158679	0.001428165
2024	684	485451.7	3755034.4	0.0017511	0.001579036
2024	685	485549.5	3750934.9	0.000103441	7.75353E-05
2024	686	485649.5	3750934.9	0.00010165	7.59626E-05
2024	687	485749.5	3750934.9	0.000100423	7.4893E-05
2024	688	485849.5	3750934.9	9.87234E-05	7.34286E-05
2024	689	485549.5	3751034.9	0.000109337	8.20342E-05
2024	690	485649.5	3751034.9	0.000106984	7.99645E-05
2024	691	485749.5	3751034.9	0.00010576	7.88817E-05
2024	692	485849.5	3751034.9	0.000104303	7.76112E-05
2024	693	485549.5	3751134.9	0.000116079	8.73127E-05
2024	694	485649.5	3751134.9	0.000113461	8.49883E-05
2024	695	485749.5	3751134.9	0.000112052	8.37296E-05
2024	696	485849.5	3751134.9	0.000110249	8.21415E-05
2024	697	485549.5	3751234.9	0.000124395	9.40137E-05

2024	698	485649.5	3751234.9	0.000121037	9.10122E-05
2024	699	485749.5	3751234.9	0.000119349	8.94842E-05
2024	700	485849.5	3751234.9	0.000118494	8.87023E-05
2024	701	485549.5	3751334.9	0.000133592	0.00010155
2024	702	485649.5	3751334.9	0.000130616	9.88281E-05
2024	703	485749.5	3751334.9	0.000128158	9.65948E-05
2024	704	485849.5	3751334.9	0.00012843	9.67832E-05
2024	705	485549.5	3751434.9	0.000146602	0.000112507
2024	706	485649.5	3751434.9	0.000143997	0.000110034
2024	707	485749.5	3751434.9	0.000139499	0.000105948
2024	708	485849.5	3751434.9	0.000142544	0.000108544
2024	709	485549.5	3751534.9	0.000182706	0.000143517
2024	710	485649.5	3751534.9	0.00017648	0.00013781
2024	711	485749.5	3751534.9	0.000160329	0.000123643
2024	712	485849.5	3751534.9	0.000155927	0.000119643
2024	713	485549.5	3751634.9	0.000288395	0.000229909
2024	714	485649.5	3751634.9	0.00023686	0.000188172
2024	715	485749.5	3751634.9	0.000217386	0.000171727
2024	716	485849.5	3751634.9	0.000169002	0.000130518
2024	717	485549.5	3751734.9	0.000367991	0.000292897
2024	718	485649.5	3751734.9	0.000344844	0.000274478
2024	719	485749.5	3751734.9	0.000298735	0.000237917
2024	720	485849.5	3751734.9	0.000205668	0.000161823
2024	721	485549.5	3751834.9	0.000438308	0.0003538
2024	722	485649.5	3751834.9	0.000401588	0.00032113
2024	723	485749.5	3751834.9	0.000374349	0.000298041
2024	724	485849.5	3751834.9	0.000308012	0.000245648
2024	725	485549.5	3751934.9	0.00053773	0.000443016
2024	726	485649.5	3751934.9	0.000462967	0.000371287
2024	727	485749.5	3751934.9	0.000438062	0.000348054
2024	728	485849.5	3751934.9	0.000410174	0.000324522
2024	729	485549.5	3752034.9	0.000657648	0.000552665
2024	730	485649.5	3752034.9	0.000527561	0.000424848
2024	731	485749.5	3752034.9	0.000501369	0.000400107
2024	732	485849.5	3752034.9	0.000478958	0.00038115
2024	733	485549.5	3752134.9	0.000670987	0.000557713
2024	734	485649.5	3752134.9	0.000631094	0.000516528
2024	735	485749.5	3752134.9	0.000620391	0.000506003
2024	736	485849.5	3752134.9	0.000613188	0.000501101
2024	737	485549.5	3752234.9	0.000775404	0.000656092
2024	738	485649.5	3752234.9	0.000794714	0.000672437
2024	739	485749.5	3752234.9	0.000823744	0.00069918
2024	740	485849.5	3752234.9	0.00084063	0.000716023
2024	741	485549.5	3752334.9	0.000604987	0.000480754
2024	742	485649.5	3752334.9	0.000614153	0.000485409
2024	743	485749.5	3752334.9	0.000627678	0.000495078
2024	744	485849.5	3752334.9	0.000641966	0.000506413

2024	745	485549.5	3752434.9	0.000577569	0.000448382
2024	746	485649.5	3752434.9	0.00058125	0.000447137
2024	747	485749.5	3752434.9	0.000593073	0.000453744
2024	748	485849.5	3752434.9	0.000608415	0.000463702
2024	749	485549.5	3752534.9	0.000589067	0.000454412
2024	750	485649.5	3752534.9	0.000591646	0.000451667
2024	751	485749.5	3752534.9	0.000604427	0.000458656
2024	752	485849.5	3752534.9	0.000620804	0.000468716
2024	753	485549.5	3752634.9	0.000614427	0.000473405
2024	754	485649.5	3752634.9	0.000618434	0.000471634
2024	755	485749.5	3752634.9	0.00063263	0.00047975
2024	756	485849.5	3752634.9	0.000650265	0.000490561
2024	757	485549.5	3752734.9	0.000646741	0.000499032
2024	758	485649.5	3752734.9	0.000653683	0.000499764
2024	759	485749.5	3752734.9	0.000672995	0.000512108
2024	760	485849.5	3752734.9	0.00069596	0.000527198
2024	761	485549.5	3752834.9	0.000682894	0.000528514
2024	762	485649.5	3752834.9	0.000694003	0.000533121
2024	763	485749.5	3752834.9	0.00072123	0.000552583
2024	764	485849.5	3752834.9	0.000753499	0.000575865
2024	765	485549.5	3752934.9	0.000722744	0.000561185
2024	766	485649.5	3752934.9	0.000738565	0.000570334
2024	767	485749.5	3752934.9	0.000775908	0.000599643
2024	768	485849.5	3752934.9	0.000825925	0.000639523
2024	769	485549.5	3753034.9	0.000771339	0.000601661
2024	770	485649.5	3753034.9	0.000784482	0.0006083
2024	771	485749.5	3753034.9	0.000833189	0.000648633
2024	772	485849.5	3753034.9	0.000909552	0.000714383
2024	773	485549.5	3753134.9	0.000793295	0.000613522
2024	774	485649.5	3753134.9	0.000829958	0.000643984
2024	775	485749.5	3753134.9	0.000885387	0.00069176
2024	776	485849.5	3753134.9	0.000982003	0.000778057
2024	777	485549.5	3753234.9	0.000838464	0.000646077
2024	778	485649.5	3753234.9	0.000877119	0.000679049
2024	779	485749.5	3753234.9	0.000935471	0.000731207
2024	780	485849.5	3753234.9	0.00104127	0.000827908
2024	781	485549.5	3753334.9	0.000910604	0.000701814
2024	782	485649.5	3753334.9	0.000935882	0.000720166
2024	783	485749.5	3753334.9	0.000993536	0.000773133
2024	784	485849.5	3753334.9	0.001098516	0.000872234
2024	785	485549.5	3753434.9	0.000984604	0.000756455
2024	786	485649.5	3753434.9	0.001026218	0.000785782
2024	787	485749.5	3753434.9	0.001091051	0.000843211
2024	788	485849.5	3753434.9	0.001190966	0.000942157
2024	789	485508.5	3746711.3	7.15715E-05	5.86996E-05
2024	790	491508.5	3746711.3	5.00728E-05	4.11603E-05
2024	791	479508.5	3752711.3	0.000267868	0.000236679

2024	792	485508.5	3752711.3	0.000623437	0.00047959
2024	793	491508.5	3752711.3	0.000362673	0.000225908
2024	794	485508.5	3758711.3	0.000135205	0.00012159
2024	795	491508.5	3758711.3	5.51462E-05	4.70996E-05
2024	796	485921.9	3750934.2	9.72298E-05	7.21591E-05
2024	797	486021.9	3750934.2	9.55852E-05	7.07677E-05
2024	798	486121.9	3750934.2	9.46062E-05	6.99644E-05
2024	799	485921.9	3751034.2	0.000102442	7.60033E-05
2024	800	486021.9	3751034.2	0.000100082	7.39746E-05
2024	801	486121.9	3751034.2	9.86213E-05	7.2735E-05
2024	802	485921.9	3751134.2	0.000108609	8.0709E-05
2024	803	486021.9	3751134.2	0.000105937	7.83855E-05
2024	804	486121.9	3751134.2	0.000103792	7.65199E-05
2024	805	485921.9	3751234.2	0.000115967	8.64784E-05
2024	806	486021.9	3751234.2	0.000112975	8.38434E-05
2024	807	486121.9	3751234.2	0.0001103	8.14912E-05
2024	808	485921.9	3751334.2	0.000125161	9.38803E-05
2024	809	486021.9	3751334.2	0.000121694	9.07933E-05
2024	810	486121.9	3751334.2	0.000117943	8.74647E-05
2024	811	485921.9	3751434.2	0.000137709	0.000104251
2024	812	486021.9	3751434.2	0.000132183	9.93172E-05
2024	813	486121.9	3751434.2	0.000127396	9.50364E-05
2024	814	485921.9	3751534.2	0.000151007	0.000115266
2024	815	486021.9	3751534.2	0.000146829	0.000111509
2024	816	486121.9	3751534.2	0.000139317	0.000104792
2024	817	485921.9	3751634.2	0.000162917	0.000125069
2024	818	486021.9	3751634.2	0.000170702	0.000131639
2024	819	486121.9	3751634.2	0.000157406	0.000119976
2024	820	485921.9	3751734.2	0.000186844	0.000145398
2024	821	486021.9	3751734.2	0.000207965	0.000162888
2024	822	486121.9	3751734.2	0.000177432	0.000136735
2024	823	485921.9	3751834.2	0.000235945	0.000186899
2024	824	486021.9	3751834.2	0.000233324	0.000183919
2024	825	486121.9	3751834.2	0.000187272	0.000144542
2024	826	485921.9	3751934.2	0.00036253	0.000288911
2024	827	486021.9	3751934.2	0.000288686	0.000229006
2024	828	486121.9	3751934.2	0.000232625	0.000182471
2024	829	485921.9	3752034.2	0.000444427	0.000353727
2024	830	486021.9	3752034.2	0.000362931	0.000290271
2024	831	486121.9	3752034.2	0.000317898	0.000252844
2024	832	485921.9	3752134.2	0.000611249	0.000502275
2024	833	486021.9	3752134.2	0.000578907	0.000477785
2024	834	486121.9	3752134.2	0.000457149	0.000370687
2024	835	485921.9	3752234.2	0.000845363	0.00072294
2024	836	486021.9	3752234.2	0.000867168	0.000747363
2024	837	486121.9	3752234.2	0.000756236	0.000641135
2024	838	485921.9	3752334.2	0.000651336	0.000514364

2024	839	486021.9	3752334.2	0.000678455	0.000541614
2024	840	486121.9	3752334.2	0.000800649	0.000664452
2024	841	485921.9	3752434.2	0.000623217	0.000475724
2024	842	486021.9	3752434.2	0.000648318	0.000497674
2024	843	486121.9	3752434.2	0.000700453	0.000546783
2024	844	485921.9	3752534.2	0.000635781	0.000478685
2024	845	486021.9	3752534.2	0.000656805	0.000493947
2024	846	486121.9	3752534.2	0.000686091	0.000517934
2024	847	485921.9	3752634.2	0.000664257	0.000499487
2024	848	486021.9	3752634.2	0.000684674	0.000513281
2024	849	486121.9	3752634.2	0.000709251	0.000531486
2024	850	485921.9	3752734.2	0.000712947	0.000538374
2024	851	486021.9	3752734.2	0.000738986	0.000555977
2024	852	486121.9	3752734.2	0.000767408	0.000576286
2024	853	485921.9	3752834.2	0.000779332	0.00059429
2024	854	486021.9	3752834.2	0.00081869	0.000622533
2024	855	486121.9	3752834.2	0.000860184	0.000652822
2024	856	485921.9	3752934.2	0.000866897	0.000672095
2024	857	486021.9	3752934.2	0.00093636	0.000727146
2024	858	486121.9	3752934.2	0.001028549	0.000802346
2024	859	487026.2	3754364	0.003581229	0.003113639
2025	1	489607.4	3753966.1	0.001075899	0.000687247
2025	2	489738.7	3754023.9	0.001009842	0.000684402
2025	3	489668.9	3754093.7	0.000986058	0.000703481
2025	4	489690.1	3754161.6	0.000942231	0.000685312
2025	5	490282.2	3753425.2	0.000971347	0.000558432
2025	6	489797.3	3754554.1	0.000785929	0.000591324
2025	7	490252.9	3754378.2	0.000729849	0.000542995
2025	8	489006	3754140.3	0.001243031	0.00084315
2025	9	485642.8	3754267.3	0.002393593	0.001961629
2025	10	485736.4	3754259.5	0.002725652	0.002248462
2025	11	487189.2	3754820.5	0.004716384	0.004100894
2025	12	487233.1	3754689.5	0.00371494	0.003115507
2025	13	487216.8	3754364.7	0.005153942	0.004482581
2025	14	487388.8	3754380.1	0.003065116	0.002539295
2025	15	484625	3751748	0.000618416	0.000498526
2025	16	483279	3751798	0.000452158	0.000363199
2025	17	483231	3751205	0.000400168	0.00032216
2025	18	480165	3750195	0.00031289	0.000268976
2025	19	481211	3749473	0.000274144	0.00022821
2025	20	481867	3752785	0.000461406	0.000390595
2025	21	480678	3751306	0.00033122	0.000279767
2025	22	479989	3752645	0.000394433	0.000345047
2025	23	479889	3756222	0.00055485	0.000508997
2025	24	479234	3757080	0.000265011	0.000238852
2025	25	480276	3756365	0.000449645	0.000409938
2025	26	479887	3754007	0.000513798	0.000461703

2025	27	480772	3755009	0.001097431	0.00101344
2025	28	481560	3754548	0.000820888	0.000743531
2025	29	481845	3754457	0.000828238	0.000747287
2025	30	481754	3753876	0.000607375	0.000535138
2025	31	489635.2	3750663.8	0.00019189	0.000145127
2025	32	485424.1	3747672.3	0.000133292	0.000107646
2025	33	482657.6	3753975.1	0.000697917	0.00060791
2025	34	481495	3754633.7	0.000861502	0.000783099
2025	35	481148.7	3756136.2	0.000619583	0.000567138
2025	36	482346.5	3748872.9	0.000104658	8.26588E-05
2025	37	480299	3751198	0.00032152	0.000273124
2025	38	479598.7	3756506.3	0.000423174	0.000385792
2025	39	478997.8	3753535.2	0.000559658	0.000506055
2025	40	478978.3	3755233.1	0.001744635	0.001631913
2025	41	479197.3	3754462.3	0.000755993	0.000693089
2025	42	479493.3	3752408.8	0.00039895	0.000351733
2025	43	480295.4	3752408.4	0.000383234	0.000332319
2025	44	480287.9	3754227.5	0.000564723	0.0005084
2025	45	494397.4	3753977.6	0.000321435	0.000257952
2025	46	481108.5	3750699	0.000330866	0.000279081
2025	47	486794.1	3756878	0.000306277	0.000267966
2025	48	482345	3752065.8	0.000443731	0.000368703
2025	49	487553	3745938.3	8.25276E-05	6.86454E-05
2025	50	484553	3746938.3	0.000107429	8.74852E-05
2025	51	485553	3746938.3	0.000113923	9.31549E-05
2025	52	486553	3746938.3	9.16399E-05	7.67099E-05
2025	53	487553	3746938.3	9.9938E-05	8.2064E-05
2025	54	488553	3746938.3	9.104E-05	7.5063E-05
2025	55	489553	3746938.3	9.01129E-05	7.38721E-05
2025	56	490553	3746938.3	8.28176E-05	6.80428E-05
2025	57	491553	3746938.3	7.89801E-05	6.47969E-05
2025	58	492553	3746938.3	7.63044E-05	6.25704E-05
2025	59	482553	3747938.3	9.13276E-05	7.21878E-05
2025	60	483553	3747938.3	0.000157292	0.000125398
2025	61	484553	3747938.3	0.00015012	0.000120206
2025	62	485553	3747938.3	0.000139938	0.000112531
2025	63	486553	3747938.3	0.00013094	0.000106499
2025	64	487553	3747938.3	8.48115E-05	7.06693E-05
2025	65	488553	3747938.3	0.000108614	8.84754E-05
2025	66	489553	3747938.3	0.000102216	8.32952E-05
2025	67	490553	3747938.3	9.65154E-05	7.85694E-05
2025	68	491553	3747938.3	9.20916E-05	7.48442E-05
2025	69	492553	3747938.3	8.9081E-05	7.2394E-05
2025	70	493553	3747938.3	8.75088E-05	7.12953E-05
2025	71	481553	3748938.3	0.000221576	0.000178567
2025	72	482553	3748938.3	0.000108692	8.58041E-05
2025	73	483553	3748938.3	0.00017823	0.000141433

2025	74	484553	3748938.3	0.000186601	0.000147012
2025	75	485553	3748938.3	0.000178289	0.000141045
2025	76	486553	3748938.3	0.000165889	0.000132213
2025	77	487553	3748938.3	0.000132449	0.000109596
2025	78	488553	3748938.3	0.000133151	0.000106635
2025	79	489553	3748938.3	0.00012287	9.87659E-05
2025	80	490553	3748938.3	0.000115859	9.29547E-05
2025	81	491553	3748938.3	0.000110228	8.84066E-05
2025	82	492553	3748938.3	0.000107407	8.61899E-05
2025	83	493553	3748938.3	0.000110048	8.90753E-05
2025	84	494553	3748938.3	0.000177047	0.000154004
2025	85	480553	3749938.3	0.000399298	0.00035508
2025	86	481553	3749938.3	0.000315084	0.000262001
2025	87	482553	3749938.3	0.000294525	0.000238099
2025	88	483553	3749938.3	0.000279154	0.000221682
2025	89	484553	3749938.3	0.000193107	0.000151937
2025	90	485553	3749938.3	0.000153424	0.000120402
2025	91	486553	3749938.3	0.000185671	0.00014842
2025	92	487553	3749938.3	0.000197242	0.000155
2025	93	488553	3749938.3	0.000169443	0.00013199
2025	94	489553	3749938.3	0.000155306	0.000121597
2025	95	490553	3749938.3	0.000145042	0.000113583
2025	96	491553	3749938.3	0.000138204	0.000108187
2025	97	492553	3749938.3	0.000138943	0.00010919
2025	98	493553	3749938.3	0.000176153	0.000144183
2025	99	494553	3749938.3	0.000130946	0.000101
2025	100	495553	3749938.3	0.000104943	8.6342E-05
2025	101	480553	3750938.3	0.000315629	0.000266444
2025	102	481553	3750938.3	0.000343232	0.000286614
2025	103	482553	3750938.3	0.000370888	0.000304606
2025	104	483553	3750938.3	0.000424437	0.00034603
2025	105	484553	3750938.3	0.000388855	0.000306693
2025	106	485553	3750938.3	0.000158458	0.000118752
2025	107	486553	3750938.3	0.000141633	0.00010522
2025	108	487553	3750938.3	0.000222517	0.000173381
2025	109	488553	3750938.3	0.000239647	0.000175028
2025	110	489553	3750938.3	0.000214701	0.000158767
2025	111	490553	3750938.3	0.000196424	0.000146435
2025	112	491553	3750938.3	0.000187992	0.000140574
2025	113	492553	3750938.3	0.00024629	0.000195861
2025	114	493553	3750938.3	0.000185233	0.000137684
2025	115	494553	3750938.3	0.000179142	0.000134354
2025	116	495553	3750938.3	0.000168337	0.000130983
2025	117	479553	3751938.3	0.000369946	0.000323456
2025	118	480553	3751938.3	0.000366808	0.000314801
2025	119	481553	3751938.3	0.000385247	0.000323114
2025	120	482553	3751938.3	0.000429406	0.000351899

2025	121	483553	3751938.3	0.000489611	0.000391877
2025	122	484553	3751938.3	0.000582899	0.000460046
2025	123	485553	3751938.3	0.000821478	0.000676085
2025	124	486553	3751938.3	0.000268611	0.000202794
2025	125	487553	3751938.3	0.000401345	0.000301058
2025	126	488553	3751938.3	0.000417313	0.000266936
2025	127	489553	3751938.3	0.00038408	0.000239723
2025	128	490553	3751938.3	0.000341958	0.000220034
2025	129	491553	3751938.3	0.000429481	0.0003136
2025	130	492553	3751938.3	0.000298391	0.00019364
2025	131	493553	3751938.3	0.000273063	0.000201176
2025	132	494553	3751938.3	0.000255206	0.000189682
2025	133	495553	3751938.3	0.000228192	0.000173777
2025	134	479553	3752938.3	0.000438343	0.000389106
2025	135	480553	3752938.3	0.000443151	0.000387466
2025	136	481553	3752938.3	0.000490763	0.000422946
2025	137	482553	3752938.3	0.000541043	0.000454505
2025	138	483553	3752938.3	0.000617281	0.000501212
2025	139	484553	3752938.3	0.000786915	0.000613132
2025	140	485553	3752938.3	0.001107519	0.000859486
2025	141	486553	3752938.3	0.002083636	0.001705403
2025	142	487553	3752938.3	0.002467352	0.001966979
2025	143	488553	3752938.3	0.00132174	0.000882347
2025	144	489553	3752938.3	0.000944914	0.000551726
2025	145	490553	3752938.3	0.000757399	0.000419968
2025	146	491553	3752938.3	0.000579231	0.000381761
2025	147	492553	3752938.3	0.000464788	0.00029662
2025	148	493553	3752938.3	0.000399946	0.000282687
2025	149	494553	3752938.3	0.000352192	0.000261233
2025	150	495553	3752938.3	0.000289784	0.000222589
2025	151	479553	3753938.3	0.000512197	0.000461405
2025	152	480553	3753938.3	0.000521562	0.000464953
2025	153	481553	3753938.3	0.000616359	0.000546349
2025	154	482553	3753938.3	0.000675514	0.000588279
2025	155	483553	3753938.3	0.000842832	0.000725611
2025	156	484553	3753938.3	0.001025534	0.000836493
2025	157	485553	3753938.3	0.001874943	0.001470045
2025	158	486553	3753938.3	0.003551119	0.002882593
2025	159	487553	3753938.3	0.003567643	0.002996288
2025	160	488553	3753938.3	0.0017855	0.001243913
2025	161	489553	3753938.3	0.001088099	0.000671235
2025	162	490553	3753938.3	0.000761148	0.000555174
2025	163	491553	3753938.3	0.000556434	0.00043147
2025	164	492553	3753938.3	0.00046349	0.000364377
2025	165	493553	3753938.3	0.000382409	0.000304102
2025	166	494553	3753938.3	0.000349859	0.00028028
2025	167	495553	3753938.3	0.000274647	0.000221818

2025	168	479553	3754938.3	0.000920077	0.000849992
2025	169	480553	3754938.3	0.000983007	0.000905739
2025	170	481553	3754938.3	0.001127493	0.001036671
2025	171	482553	3754938.3	0.001653237	0.001526701
2025	172	483553	3754938.3	0.001789719	0.001643776
2025	173	484553	3754938.3	0.001806268	0.001631544
2025	174	485553	3754938.3	0.002648546	0.002365632
2025	175	486553	3754938.3	0.003966577	0.003556215
2025	176	487553	3754938.3	0.002182715	0.001782052
2025	177	488553	3754938.3	0.001198664	0.00093635
2025	178	489553	3754938.3	0.000917999	0.000768888
2025	179	490553	3754938.3	0.000637317	0.000545592
2025	180	491553	3754938.3	0.000426448	0.000363365
2025	181	492553	3754938.3	0.000308611	0.000260673
2025	182	493553	3754938.3	0.000315098	0.000268372
2025	183	494553	3754938.3	0.000241514	0.000204594
2025	184	495553	3754938.3	0.000204031	0.000172675
2025	185	479553	3755938.3	0.000928525	0.000861835
2025	186	480553	3755938.3	0.000777049	0.000716675
2025	187	481553	3755938.3	0.000787341	0.000724169
2025	188	482553	3755938.3	0.001131297	0.001043415
2025	189	483553	3755938.3	0.001217032	0.001121371
2025	190	484553	3755938.3	0.001130262	0.001028947
2025	191	485553	3755938.3	0.001562311	0.001425415
2025	192	486553	3755938.3	0.001250367	0.001129407
2025	193	487553	3755938.3	0.000648925	0.000580165
2025	194	488553	3755938.3	0.000456498	0.000404335
2025	195	489553	3755938.3	0.000316779	0.000278385
2025	196	490553	3755938.3	0.000263697	0.000231044
2025	197	491553	3755938.3	0.000218323	0.000190763
2025	198	492553	3755938.3	0.000275961	0.000247637
2025	199	493553	3755938.3	0.000198298	0.000175
2025	200	494553	3755938.3	0.000191937	0.000169958
2025	201	479553	3756938.3	0.000277852	0.000250682
2025	202	480553	3756938.3	0.000265287	0.000238407
2025	203	481553	3756938.3	0.000239132	0.000214207
2025	204	482553	3756938.3	0.000249667	0.000222809
2025	205	483553	3756938.3	0.000423879	0.000380306
2025	206	484553	3756938.3	0.000404799	0.000359346
2025	207	485553	3756938.3	0.000893898	0.000823424
2025	208	486553	3756938.3	0.000318971	0.000279792
2025	209	487553	3756938.3	0.000207856	0.000179893
2025	210	488553	3756938.3	0.000168818	0.000145105
2025	211	489553	3756938.3	0.000148289	0.000127222
2025	212	490553	3756938.3	0.000136225	0.000116923
2025	213	491553	3756938.3	0.000119531	0.000102529
2025	214	492553	3756938.3	0.000106876	9.1753E-05

2025	215	493553	3756938.3	0.000115046	9.99474E-05
2025	216	494553	3756938.3	0.000112192	9.78071E-05
2025	217	479553	3757938.3	0.000138458	0.000123201
2025	218	480553	3757938.3	0.000132756	0.000117776
2025	219	481553	3757938.3	0.000139823	0.000123414
2025	220	482553	3757938.3	0.000171623	0.000150608
2025	221	483553	3757938.3	0.00016823	0.00014699
2025	222	484553	3757938.3	0.000220875	0.000194019
2025	223	485553	3757938.3	0.000257495	0.000230827
2025	224	486553	3757938.3	0.000148053	0.000127975
2025	225	487553	3757938.3	0.000120664	0.000103245
2025	226	488553	3757938.3	0.000106098	9.03929E-05
2025	227	489553	3757938.3	9.80318E-05	8.33665E-05
2025	228	490553	3757938.3	8.9595E-05	7.61447E-05
2025	229	491553	3757938.3	8.22722E-05	6.98791E-05
2025	230	492553	3757938.3	7.92774E-05	6.7562E-05
2025	231	493553	3757938.3	8.83385E-05	7.59378E-05
2025	232	480553	3758938.3	9.9007E-05	8.70212E-05
2025	233	481553	3758938.3	0.000109779	9.58972E-05
2025	234	482553	3758938.3	0.000106863	9.27944E-05
2025	235	483553	3758938.3	0.0001118	9.67713E-05
2025	236	484553	3758938.3	0.000139457	0.000121929
2025	237	485553	3758938.3	0.000332738	0.00030484
2025	238	486553	3758938.3	0.000103095	8.89148E-05
2025	239	487553	3758938.3	0.000113041	9.74516E-05
2025	240	488553	3758938.3	8.4126E-05	7.19379E-05
2025	241	489553	3758938.3	8.5363E-05	7.30372E-05
2025	242	490553	3758938.3	9.29146E-05	7.94293E-05
2025	243	491553	3758938.3	7.5657E-05	6.45785E-05
2025	244	492553	3758938.3	7.86963E-05	6.72445E-05
2025	245	481553	3759938.3	8.12359E-05	7.06799E-05
2025	246	482553	3759938.3	8.36185E-05	7.23699E-05
2025	247	483553	3759938.3	8.83327E-05	7.6354E-05
2025	248	484553	3759938.3	0.000121879	0.000106387
2025	249	485553	3759938.3	0.00032949	0.000301606
2025	250	486553	3759938.3	0.000150342	0.000131293
2025	251	487553	3759938.3	0.000122186	0.000105877
2025	252	488553	3759938.3	0.000121838	0.000104979
2025	253	489553	3759938.3	0.000106098	9.11056E-05
2025	254	490553	3759938.3	8.14439E-05	6.98521E-05
2025	255	491553	3759938.3	7.09149E-05	6.06866E-05
2025	256	482553	3760938.3	7.86137E-05	6.80868E-05
2025	257	483553	3760938.3	9.03264E-05	7.84151E-05
2025	258	484553	3760938.3	0.00011507	0.000100595
2025	259	485553	3760938.3	0.000269684	0.000244625
2025	260	486553	3760938.3	0.000173326	0.000152315
2025	261	487553	3760938.3	0.000137249	0.000120312

2025	262	488553	3760938.3	7.79129E-05	6.75593E-05
2025	263	489553	3760938.3	5.89182E-05	5.06901E-05
2025	264	490553	3760938.3	5.61726E-05	4.81735E-05
2025	265	484551.7	3750934.4	0.00038624	0.000304937
2025	266	484651.7	3750934.4	0.000378453	0.000298361
2025	267	484751.7	3750934.4	0.000281391	0.000222857
2025	268	484851.7	3750934.4	0.000254721	0.000201233
2025	269	484951.7	3750934.4	0.000268531	0.00021157
2025	270	485051.7	3750934.4	0.000237363	0.000186388
2025	271	485151.7	3750934.4	0.000197333	0.00015281
2025	272	485251.7	3750934.4	0.000174753	0.000133204
2025	273	485351.7	3750934.4	0.000166946	0.000126288
2025	274	485451.7	3750934.4	0.00016231	0.000122182
2025	275	484551.7	3751034.4	0.000416774	0.00032745
2025	276	484651.7	3751034.4	0.000407396	0.000319665
2025	277	484751.7	3751034.4	0.000377958	0.000299177
2025	278	484851.7	3751034.4	0.000291496	0.000230509
2025	279	484951.7	3751034.4	0.000324834	0.000256103
2025	280	485051.7	3751034.4	0.000266239	0.000209487
2025	281	485151.7	3751034.4	0.000228074	0.000178153
2025	282	485251.7	3751034.4	0.000195022	0.000149928
2025	283	485351.7	3751034.4	0.000180039	0.000136803
2025	284	485451.7	3751034.4	0.000172339	0.000129976
2025	285	484551.7	3751134.4	0.000442893	0.000347904
2025	286	484651.7	3751134.4	0.000438912	0.000343596
2025	287	484751.7	3751134.4	0.000428179	0.000335003
2025	288	484851.7	3751134.4	0.000380432	0.000302325
2025	289	484951.7	3751134.4	0.000387373	0.00030578
2025	290	485051.7	3751134.4	0.00031174	0.000245684
2025	291	485151.7	3751134.4	0.000271829	0.000213802
2025	292	485251.7	3751134.4	0.000232769	0.000181482
2025	293	485351.7	3751134.4	0.000199417	0.000152848
2025	294	485451.7	3751134.4	0.000184412	0.000139629
2025	295	484551.7	3751234.4	0.000471438	0.00037168
2025	296	484651.7	3751234.4	0.000468638	0.000368054
2025	297	484751.7	3751234.4	0.000459043	0.000359978
2025	298	484851.7	3751234.4	0.000439815	0.00034586
2025	299	484951.7	3751234.4	0.000423816	0.000333969
2025	300	485051.7	3751234.4	0.000375206	0.000297409
2025	301	485151.7	3751234.4	0.000309028	0.000244035
2025	302	485251.7	3751234.4	0.000231129	0.000179845
2025	303	485351.7	3751234.4	0.000205297	0.00015729
2025	304	485451.7	3751234.4	0.000195579	0.00014858
2025	305	484551.7	3751334.4	0.000522115	0.000416998
2025	306	484651.7	3751334.4	0.000508878	0.000403405
2025	307	484751.7	3751334.4	0.000494341	0.000390536
2025	308	484851.7	3751334.4	0.000480734	0.000379148

2025	309	484951.7	3751334.4	0.000472275	0.000371359
2025	310	485051.7	3751334.4	0.000446367	0.000352641
2025	311	485151.7	3751334.4	0.00036979	0.000293353
2025	312	485251.7	3751334.4	0.000283382	0.000223922
2025	313	485351.7	3751334.4	0.000225535	0.000174427
2025	314	485451.7	3751334.4	0.000209345	0.000159941
2025	315	484551.7	3751434.4	0.000607611	0.000498631
2025	316	484651.7	3751434.4	0.000573022	0.00046263
2025	317	484751.7	3751434.4	0.000550622	0.000439933
2025	318	484851.7	3751434.4	0.000534829	0.000424662
2025	319	484951.7	3751434.4	0.000521977	0.000412709
2025	320	485051.7	3751434.4	0.000508556	0.000400663
2025	321	485151.7	3751434.4	0.000446228	0.000356885
2025	322	485251.7	3751434.4	0.00033673	0.000268489
2025	323	485351.7	3751434.4	0.000263379	0.000206966
2025	324	485451.7	3751434.4	0.000234838	0.000181767
2025	325	484551.7	3751534.4	0.00081121	0.00069942
2025	326	484651.7	3751534.4	0.000716547	0.000602126
2025	327	484751.7	3751534.4	0.000644759	0.000528434
2025	328	484851.7	3751534.4	0.000608142	0.000490784
2025	329	484951.7	3751534.4	0.000588096	0.000469952
2025	330	485051.7	3751534.4	0.00057558	0.00045657
2025	331	485151.7	3751534.4	0.000557731	0.000440006
2025	332	485251.7	3751534.4	0.000488534	0.000389739
2025	333	485351.7	3751534.4	0.00037894	0.000302863
2025	334	485451.7	3751534.4	0.000307441	0.000243905
2025	335	484551.7	3751634.4	0.000721363	0.000606727
2025	336	484651.7	3751634.4	0.000745902	0.000628601
2025	337	484751.7	3751634.4	0.000768884	0.000648613
2025	338	484851.7	3751634.4	0.000782107	0.000659744
2025	339	484951.7	3751634.4	0.000696391	0.000572447
2025	340	485051.7	3751634.4	0.000656005	0.000530599
2025	341	485151.7	3751634.4	0.000634419	0.000507623
2025	342	485251.7	3751634.4	0.000597823	0.000474774
2025	343	485351.7	3751634.4	0.00055251	0.000437995
2025	344	485451.7	3751634.4	0.000492513	0.000394159
2025	345	484551.7	3751734.4	0.00059747	0.000480446
2025	346	484651.7	3751734.4	0.000640598	0.000520089
2025	347	484751.7	3751734.4	0.000714444	0.000590869
2025	348	484851.7	3751734.4	0.000811551	0.00068549
2025	349	484951.7	3751734.4	0.000807833	0.000680073
2025	350	485051.7	3751734.4	0.000906312	0.000776652
2025	351	485151.7	3751734.4	0.000774238	0.000641454
2025	352	485251.7	3751734.4	0.000727372	0.000593255
2025	353	485351.7	3751734.4	0.000674929	0.000543492
2025	354	485451.7	3751734.4	0.000613609	0.000488849
2025	355	484551.7	3751834.4	0.000577083	0.000457819

2025	356	484651.7	3751834.4	0.000597982	0.00047535
2025	357	484751.7	3751834.4	0.000623335	0.000497338
2025	358	484851.7	3751834.4	0.000655621	0.000526597
2025	359	484951.7	3751834.4	0.000700021	0.000568805
2025	360	485051.7	3751834.4	0.000805338	0.000671423
2025	361	485151.7	3751834.4	0.000807059	0.000668782
2025	362	485251.7	3751834.4	0.000861218	0.000719772
2025	363	485351.7	3751834.4	0.000858693	0.000716988
2025	364	485451.7	3751834.4	0.000845941	0.000707074
2025	365	484551.7	3751934.4	0.000582154	0.000459501
2025	366	484651.7	3751934.4	0.000595444	0.000469905
2025	367	484751.7	3751934.4	0.000609107	0.000480847
2025	368	484851.7	3751934.4	0.000626769	0.000495311
2025	369	484951.7	3751934.4	0.000646923	0.000512305
2025	370	485051.7	3751934.4	0.000673655	0.000535382
2025	371	485151.7	3751934.4	0.000708282	0.000565733
2025	372	485251.7	3751934.4	0.000755686	0.000608172
2025	373	485351.7	3751934.4	0.000829057	0.000678174
2025	374	485451.7	3751934.4	0.000871047	0.000721451
2025	375	484551.7	3752034.4	0.000602994	0.000475877
2025	376	484651.7	3752034.4	0.000613834	0.000483859
2025	377	484751.7	3752034.4	0.000625517	0.000492613
2025	378	484851.7	3752034.4	0.00063795	0.00050206
2025	379	484951.7	3752034.4	0.000653521	0.000514133
2025	380	485051.7	3752034.4	0.000672578	0.00052917
2025	381	485151.7	3752034.4	0.000696452	0.000548456
2025	382	485251.7	3752034.4	0.000732307	0.000578655
2025	383	485351.7	3752034.4	0.000784047	0.000625682
2025	384	485451.7	3752034.4	0.000932419	0.000771069
2025	385	484551.7	3752134.4	0.00064245	0.000510627
2025	386	484651.7	3752134.4	0.000652478	0.00051759
2025	387	484751.7	3752134.4	0.00066368	0.000525541
2025	388	484851.7	3752134.4	0.000674924	0.00053353
2025	389	484951.7	3752134.4	0.000687409	0.00054258
2025	390	485051.7	3752134.4	0.000703119	0.000554335
2025	391	485151.7	3752134.4	0.000722939	0.000569706
2025	392	485251.7	3752134.4	0.00075402	0.000595162
2025	393	485351.7	3752134.4	0.000807886	0.000642917
2025	394	485451.7	3752134.4	0.000955884	0.000786025
2025	395	484551.7	3752234.4	0.000716071	0.000579842
2025	396	484651.7	3752234.4	0.000731358	0.000591475
2025	397	484751.7	3752234.4	0.000741828	0.000598389
2025	398	484851.7	3752234.4	0.000750114	0.000603103
2025	399	484951.7	3752234.4	0.000803168	0.000652511
2025	400	485051.7	3752234.4	0.000773358	0.00061891
2025	401	485151.7	3752234.4	0.000793712	0.000635262
2025	402	485251.7	3752234.4	0.000816624	0.000652727

2025	403	485351.7	3752234.4	0.000866422	0.000695958
2025	404	485451.7	3752234.4	0.001039253	0.000862333
2025	405	484551.7	3752334.4	0.000677762	0.000536156
2025	406	484651.7	3752334.4	0.000690373	0.000544989
2025	407	484751.7	3752334.4	0.000702877	0.000553753
2025	408	484851.7	3752334.4	0.000715696	0.000562781
2025	409	484951.7	3752334.4	0.000729848	0.00057287
2025	410	485051.7	3752334.4	0.000744105	0.000583124
2025	411	485151.7	3752334.4	0.000761048	0.000595639
2025	412	485251.7	3752334.4	0.000781678	0.000611493
2025	413	485351.7	3752334.4	0.000812413	0.000636525
2025	414	485451.7	3752334.4	0.000873063	0.000690079
2025	415	484551.7	3752434.4	0.000675306	0.000528355
2025	416	484651.7	3752434.4	0.000688398	0.00053744
2025	417	484751.7	3752434.4	0.000701231	0.000546407
2025	418	484851.7	3752434.4	0.000716405	0.000557102
2025	419	484951.7	3752434.4	0.000731313	0.000567713
2025	420	485051.7	3752434.4	0.000747688	0.000579514
2025	421	485151.7	3752434.4	0.000765693	0.000592672
2025	422	485251.7	3752434.4	0.000785911	0.000607806
2025	423	485351.7	3752434.4	0.000811642	0.00062778
2025	424	485451.7	3752434.4	0.000853108	0.000662847
2025	425	484551.7	3752534.4	0.000689575	0.000537123
2025	426	484651.7	3752534.4	0.000703727	0.000546948
2025	427	484751.7	3752534.4	0.000718682	0.000557417
2025	428	484851.7	3752534.4	0.000734861	0.000568842
2025	429	484951.7	3752534.4	0.000751168	0.000580505
2025	430	485051.7	3752534.4	0.000769442	0.000593691
2025	431	485151.7	3752534.4	0.00078894	0.000607953
2025	432	485251.7	3752534.4	0.000809911	0.000623579
2025	433	485351.7	3752534.4	0.000834537	0.000642397
2025	434	485451.7	3752534.4	0.000872913	0.000674194
2025	435	484551.7	3752634.4	0.000708563	0.000550742
2025	436	484651.7	3752634.4	0.000723915	0.000561402
2025	437	484751.7	3752634.4	0.000740059	0.00057272
2025	438	484851.7	3752634.4	0.000758696	0.000585862
2025	439	484951.7	3752634.4	0.000777207	0.000599136
2025	440	485051.7	3752634.4	0.000797637	0.000613952
2025	441	485151.7	3752634.4	0.000819036	0.000629721
2025	442	485251.7	3752634.4	0.00084195	0.000646907
2025	443	485351.7	3752634.4	0.000868365	0.000667183
2025	444	485451.7	3752634.4	0.000908427	0.00070019
2025	445	484551.7	3752734.4	0.00073123	0.000567951
2025	446	484651.7	3752734.4	0.000748703	0.000580002
2025	447	484751.7	3752734.4	0.000766999	0.000592781
2025	448	484851.7	3752734.4	0.00078662	0.000606672
2025	449	484951.7	3752734.4	0.000807362	0.000621568

2025	450	485051.7	3752734.4	0.000830081	0.000638134
2025	451	485151.7	3752734.4	0.000853737	0.000655716
2025	452	485251.7	3752734.4	0.000879138	0.000674992
2025	453	485351.7	3752734.4	0.000908516	0.000697809
2025	454	485451.7	3752734.4	0.000950629	0.000732843
2025	455	484551.7	3752834.4	0.000755899	0.000587423
2025	456	484651.7	3752834.4	0.000775369	0.000600743
2025	457	484751.7	3752834.4	0.000795107	0.000614464
2025	458	484851.7	3752834.4	0.000817513	0.000630254
2025	459	484951.7	3752834.4	0.000840886	0.000647
2025	460	485051.7	3752834.4	0.000865679	0.000665098
2025	461	485151.7	3752834.4	0.000891746	0.000684581
2025	462	485251.7	3752834.4	0.000920224	0.000706397
2025	463	485351.7	3752834.4	0.000952431	0.000731909
2025	464	485451.7	3752834.4	0.000998828	0.000770941
2025	465	484551.7	3752934.4	0.000785277	0.000611772
2025	466	484651.7	3752934.4	0.000806814	0.00062641
2025	467	484751.7	3752934.4	0.000828925	0.000641634
2025	468	484851.7	3752934.4	0.000853673	0.000658945
2025	469	484951.7	3752934.4	0.000879648	0.000677424
2025	470	485051.7	3752934.4	0.000907614	0.000697722
2025	471	485151.7	3752934.4	0.000936229	0.000719086
2025	472	485251.7	3752934.4	0.000968333	0.000743731
2025	473	485351.7	3752934.4	0.001003139	0.000771666
2025	474	485451.7	3752934.4	0.001052892	0.00081397
2025	475	484551.7	3753034.4	0.000827907	0.00064996
2025	476	484651.7	3753034.4	0.000852853	0.000667315
2025	477	484751.7	3753034.4	0.000880416	0.000686862
2025	478	484851.7	3753034.4	0.000905948	0.000703941
2025	479	484951.7	3753034.4	0.000934232	0.000723658
2025	480	485051.7	3753034.4	0.000964844	0.000745775
2025	481	485151.7	3753034.4	0.000999026	0.000771362
2025	482	485251.7	3753034.4	0.001047267	0.000811225
2025	483	485351.7	3753034.4	0.001070985	0.000827426
2025	484	485451.7	3753034.4	0.001122919	0.000871738
2025	485	484551.7	3753134.4	0.000829622	0.000647533
2025	486	484651.7	3753134.4	0.000856155	0.00066552
2025	487	484751.7	3753134.4	0.000885094	0.000685336
2025	488	484851.7	3753134.4	0.000915196	0.000706187
2025	489	484951.7	3753134.4	0.000947798	0.000729092
2025	490	485051.7	3753134.4	0.000982656	0.000754051
2025	491	485151.7	3753134.4	0.001019622	0.000781124
2025	492	485251.7	3753134.4	0.001060635	0.00081222
2025	493	485351.7	3753134.4	0.001106246	0.00084856
2025	494	485451.7	3753134.4	0.001170391	0.000903962
2025	495	484551.7	3753234.4	0.00084622	0.00066035
2025	496	484651.7	3753234.4	0.000875669	0.00068024

2025	497	484751.7	3753234.4	0.000906829	0.00070143
2025	498	484851.7	3753234.4	0.000939958	0.000724184
2025	499	484951.7	3753234.4	0.000976062	0.00074931
2025	500	485051.7	3753234.4	0.001015576	0.000777335
2025	501	485151.7	3753234.4	0.001057874	0.000807974
2025	502	485251.7	3753234.4	0.001105125	0.000843228
2025	503	485351.7	3753234.4	0.001158453	0.000884902
2025	504	485451.7	3753234.4	0.001232387	0.000947686
2025	505	484551.7	3753334.4	0.000868011	0.00067883
2025	506	484651.7	3753334.4	0.000899415	0.000699955
2025	507	484751.7	3753334.4	0.000932383	0.000722181
2025	508	484851.7	3753334.4	0.0009695	0.000747542
2025	509	484951.7	3753334.4	0.001008413	0.000774331
2025	510	485051.7	3753334.4	0.001052087	0.000804937
2025	511	485151.7	3753334.4	0.001100253	0.000839431
2025	512	485251.7	3753334.4	0.001156434	0.00088073
2025	513	485351.7	3753334.4	0.001220944	0.000930015
2025	514	485451.7	3753334.4	0.001307443	0.001001448
2025	515	484551.7	3753434.4	0.000890238	0.000698872
2025	516	484651.7	3753434.4	0.000923328	0.000721137
2025	517	484751.7	3753434.4	0.000958446	0.000744687
2025	518	484851.7	3753434.4	0.000998075	0.000771634
2025	519	484951.7	3753434.4	0.001040269	0.00080025
2025	520	485051.7	3753434.4	0.001087482	0.000832856
2025	521	485151.7	3753434.4	0.001142451	0.000871883
2025	522	485251.7	3753434.4	0.001207379	0.000919145
2025	523	485351.7	3753434.4	0.001284513	0.000977389
2025	524	485451.7	3753434.4	0.001392679	0.001064758
2025	525	484551.7	3753534.4	0.000912311	0.000719828
2025	526	484651.7	3753534.4	0.000944415	0.000740951
2025	527	484751.7	3753534.4	0.000980694	0.00076514
2025	528	484851.7	3753534.4	0.001024386	0.000795193
2025	529	484951.7	3753534.4	0.001069699	0.00082601
2025	530	485051.7	3753534.4	0.001120433	0.000860884
2025	531	485151.7	3753534.4	0.001180736	0.000903429
2025	532	485251.7	3753534.4	0.001253097	0.000955914
2025	533	485351.7	3753534.4	0.00134292	0.001023316
2025	534	485451.7	3753534.4	0.001471541	0.001126323
2025	535	484551.7	3753634.4	0.000933924	0.000741175
2025	536	484651.7	3753634.4	0.000967623	0.000763462
2025	537	484751.7	3753634.4	0.001005851	0.000789077
2025	538	484851.7	3753634.4	0.001049064	0.000818345
2025	539	484951.7	3753634.4	0.001097376	0.000851343
2025	540	485051.7	3753634.4	0.001151466	0.000888683
2025	541	485151.7	3753634.4	0.001215491	0.00093398
2025	542	485251.7	3753634.4	0.001292755	0.000990368
2025	543	485351.7	3753634.4	0.001388458	0.001062967

2025	544	485451.7	3753634.4	0.001527399	0.001176019
2025	545	484551.7	3753734.4	0.000962678	0.000770257
2025	546	484651.7	3753734.4	0.000996064	0.000791976
2025	547	484751.7	3753734.4	0.001033154	0.000816137
2025	548	484851.7	3753734.4	0.001074433	0.000843142
2025	549	484951.7	3753734.4	0.001124006	0.000876829
2025	550	485051.7	3753734.4	0.001181273	0.000916424
2025	551	485151.7	3753734.4	0.001248023	0.000963539
2025	552	485251.7	3753734.4	0.001327921	0.001021613
2025	553	485351.7	3753734.4	0.001428198	0.001097692
2025	554	485451.7	3753734.4	0.001573156	0.001216181
2025	555	484551.7	3753834.4	0.000991656	0.000800584
2025	556	484651.7	3753834.4	0.001023827	0.000821085
2025	557	484751.7	3753834.4	0.001061096	0.000845327
2025	558	484851.7	3753834.4	0.001102978	0.000872635
2025	559	484951.7	3753834.4	0.001153603	0.00090688
2025	560	485051.7	3753834.4	0.001210541	0.000945383
2025	561	485151.7	3753834.4	0.001277846	0.000991998
2025	562	485251.7	3753834.4	0.001361617	0.001052465
2025	563	485351.7	3753834.4	0.001465789	0.001130707
2025	564	485451.7	3753834.4	0.00161647	0.00125243
2025	565	484551.7	3753934.4	0.001023157	0.000834147
2025	566	484651.7	3753934.4	0.001056977	0.000856263
2025	567	484751.7	3753934.4	0.001089578	0.000875904
2025	568	484851.7	3753934.4	0.001132302	0.000904079
2025	569	484951.7	3753934.4	0.001182577	0.00093793
2025	570	485051.7	3753934.4	0.001241203	0.000977999
2025	571	485151.7	3753934.4	0.001310151	0.001025881
2025	572	485251.7	3753934.4	0.001393728	0.001085474
2025	573	485351.7	3753934.4	0.001499375	0.001163598
2025	574	485451.7	3753934.4	0.00165329	0.001285736
2025	575	484551.7	3754034.4	0.001060753	0.000875111
2025	576	484651.7	3754034.4	0.001079881	0.000881943
2025	577	484751.7	3754034.4	0.001120103	0.000909361
2025	578	484851.7	3754034.4	0.001164786	0.000939529
2025	579	484951.7	3754034.4	0.001214324	0.00097274
2025	580	485051.7	3754034.4	0.001271494	0.00101149
2025	581	485151.7	3754034.4	0.001339628	0.001058684
2025	582	485251.7	3754034.4	0.001423257	0.001118412
2025	583	485351.7	3754034.4	0.001529301	0.001197161
2025	584	485451.7	3754034.4	0.001684011	0.001320776
2025	585	484551.7	3754134.4	0.001084529	0.00090137
2025	586	484651.7	3754134.4	0.001108169	0.000913534
2025	587	484751.7	3754134.4	0.001148325	0.000941345
2025	588	484851.7	3754134.4	0.001196104	0.000975243
2025	589	484951.7	3754134.4	0.001245232	0.001008221
2025	590	485051.7	3754134.4	0.001303052	0.001047532

2025	591	485151.7	3754134.4	0.001371489	0.001095079
2025	592	485251.7	3754134.4	0.001454878	0.001154827
2025	593	485351.7	3754134.4	0.00156091	0.00123371
2025	594	485451.7	3754134.4	0.001714249	0.001356058
2025	595	484551.7	3754234.4	0.001108912	0.00092831
2025	596	484651.7	3754234.4	0.001138401	0.000947238
2025	597	484751.7	3754234.4	0.001181025	0.000978187
2025	598	484851.7	3754234.4	0.001229324	0.001013342
2025	599	484951.7	3754234.4	0.001279546	0.001048193
2025	600	485051.7	3754234.4	0.001335889	0.001086815
2025	601	485151.7	3754234.4	0.001403885	0.001134462
2025	602	485251.7	3754234.4	0.001486527	0.001193649
2025	603	485351.7	3754234.4	0.001590718	0.001270634
2025	604	485451.7	3754234.4	0.001741379	0.001390123
2025	605	484551.7	3754334.4	0.00114603	0.000968267
2025	606	484651.7	3754334.4	0.001182969	0.000995579
2025	607	484751.7	3754334.4	0.001224739	0.001026594
2025	608	484851.7	3754334.4	0.001268309	0.001057675
2025	609	484951.7	3754334.4	0.001317956	0.001092895
2025	610	485051.7	3754334.4	0.001374934	0.001133116
2025	611	485151.7	3754334.4	0.001441664	0.001180476
2025	612	485251.7	3754334.4	0.001522959	0.001239506
2025	613	485351.7	3754334.4	0.001623314	0.001314495
2025	614	485451.7	3754334.4	0.001752453	0.001414569
2025	615	484551.7	3754434.4	0.001218306	0.001044259
2025	616	484651.7	3754434.4	0.001245688	0.00106239
2025	617	484751.7	3754434.4	0.00127923	0.001085695
2025	618	484851.7	3754434.4	0.001317883	0.001112623
2025	619	484951.7	3754434.4	0.001364916	0.001146224
2025	620	485051.7	3754434.4	0.001419895	0.001185575
2025	621	485151.7	3754434.4	0.001485577	0.001233105
2025	622	485251.7	3754434.4	0.001565104	0.001291561
2025	623	485351.7	3754434.4	0.001663428	0.001365556
2025	624	485451.7	3754434.4	0.001789907	0.001464289
2025	625	484551.7	3754534.4	0.001301676	0.001130011
2025	626	484651.7	3754534.4	0.001328145	0.00114814
2025	627	484751.7	3754534.4	0.001352487	0.001162947
2025	628	484851.7	3754534.4	0.001382655	0.00118289
2025	629	484951.7	3754534.4	0.001424171	0.001212144
2025	630	485051.7	3754534.4	0.001475869	0.001249245
2025	631	485151.7	3754534.4	0.001539359	0.001295627
2025	632	485251.7	3754534.4	0.001616697	0.001353066
2025	633	485351.7	3754534.4	0.00171269	0.001425819
2025	634	485451.7	3754534.4	0.001840335	0.001526036
2025	635	484551.7	3754634.4	0.001381078	0.001211612
2025	636	484651.7	3754634.4	0.001404136	0.00122701
2025	637	484751.7	3754634.4	0.001436664	0.001250993

2025	638	484851.7	3754634.4	0.001460569	0.001266084
2025	639	484951.7	3754634.4	0.001496498	0.001291246
2025	640	485051.7	3754634.4	0.001544607	0.001326494
2025	641	485151.7	3754634.4	0.001604858	0.001371606
2025	642	485251.7	3754634.4	0.001679721	0.001428177
2025	643	485351.7	3754634.4	0.00177498	0.001501191
2025	644	485451.7	3754634.4	0.001903938	0.001603515
2025	645	484551.7	3754734.4	0.001469133	0.00130073
2025	646	484651.7	3754734.4	0.001492044	0.001316883
2025	647	484751.7	3754734.4	0.001518688	0.001336186
2025	648	484851.7	3754734.4	0.001550595	0.001359964
2025	649	484951.7	3754734.4	0.001588935	0.001388844
2025	650	485051.7	3754734.4	0.001635068	0.001423852
2025	651	485151.7	3754734.4	0.001691491	0.001467109
2025	652	485251.7	3754734.4	0.001762703	0.001522804
2025	653	485351.7	3754734.4	0.001855829	0.00159791
2025	654	485451.7	3754734.4	0.001983079	0.001703675
2025	655	484551.7	3754834.4	0.001601359	0.001431603
2025	656	484651.7	3754834.4	0.001625084	0.00144958
2025	657	484751.7	3754834.4	0.001651505	0.001469503
2025	658	484851.7	3754834.4	0.001681645	0.001492227
2025	659	484951.7	3754834.4	0.001718106	0.001520379
2025	660	485051.7	3754834.4	0.001761081	0.001553824
2025	661	485151.7	3754834.4	0.001814369	0.00159604
2025	662	485251.7	3754834.4	0.001882898	0.001651596
2025	663	485351.7	3754834.4	0.001976826	0.001730646
2025	664	485451.7	3754834.4	0.00210752	0.001843735
2025	665	484551.7	3754934.4	0.001796945	0.001622562
2025	666	484651.7	3754934.4	0.001818981	0.001639531
2025	667	484751.7	3754934.4	0.001843564	0.001658372
2025	668	484851.7	3754934.4	0.001871704	0.001680002
2025	669	484951.7	3754934.4	0.001905458	0.001706463
2025	670	485051.7	3754934.4	0.001944381	0.001737086
2025	671	485151.7	3754934.4	0.001994336	0.00177764
2025	672	485251.7	3754934.4	0.002059676	0.00183193
2025	673	485351.7	3754934.4	0.002159564	0.001918662
2025	674	485451.7	3754934.4	0.00233984	0.002081019
2025	675	484551.7	3755034.4	0.002088897	0.001904505
2025	676	484651.7	3755034.4	0.002108348	0.001919545
2025	677	484751.7	3755034.4	0.00212903	0.001935139
2025	678	484851.7	3755034.4	0.00215625	0.001956766
2025	679	484951.7	3755034.4	0.002187743	0.001981833
2025	680	485051.7	3755034.4	0.002226058	0.002012826
2025	681	485151.7	3755034.4	0.002272213	0.002050693
2025	682	485251.7	3755034.4	0.002334137	0.00210311
2025	683	485351.7	3755034.4	0.002428761	0.002185967
2025	684	485451.7	3755034.4	0.002680256	0.002416892

2025	685	485549.5	3750934.9	0.000158328	0.000118676
2025	686	485649.5	3750934.9	0.000155586	0.000116269
2025	687	485749.5	3750934.9	0.000153709	0.000114632
2025	688	485849.5	3750934.9	0.000151107	0.000112391
2025	689	485549.5	3751034.9	0.000167353	0.000125562
2025	690	485649.5	3751034.9	0.00016375	0.000122395
2025	691	485749.5	3751034.9	0.000161878	0.000120737
2025	692	485849.5	3751034.9	0.000159648	0.000118793
2025	693	485549.5	3751134.9	0.000177672	0.000133642
2025	694	485649.5	3751134.9	0.000173664	0.000130084
2025	695	485749.5	3751134.9	0.000171509	0.000128158
2025	696	485849.5	3751134.9	0.000168748	0.000125727
2025	697	485549.5	3751234.9	0.0001904	0.000143899
2025	698	485649.5	3751234.9	0.00018526	0.000139304
2025	699	485749.5	3751234.9	0.000182677	0.000136966
2025	700	485849.5	3751234.9	0.000181368	0.000135769
2025	701	485549.5	3751334.9	0.000204477	0.000155433
2025	702	485649.5	3751334.9	0.000199923	0.000151267
2025	703	485749.5	3751334.9	0.00019616	0.000147849
2025	704	485849.5	3751334.9	0.000196577	0.000148138
2025	705	485549.5	3751434.9	0.000224391	0.000172205
2025	706	485649.5	3751434.9	0.000220403	0.00016842
2025	707	485749.5	3751434.9	0.000213519	0.000162166
2025	708	485849.5	3751434.9	0.000218179	0.000166139
2025	709	485549.5	3751534.9	0.000279652	0.000219669
2025	710	485649.5	3751534.9	0.000270122	0.000210934
2025	711	485749.5	3751534.9	0.000245401	0.000189249
2025	712	485849.5	3751534.9	0.000238663	0.000183127
2025	713	485549.5	3751634.9	0.00044142	0.000351901
2025	714	485649.5	3751634.9	0.000362541	0.000288019
2025	715	485749.5	3751634.9	0.000332734	0.000262848
2025	716	485849.5	3751634.9	0.000258676	0.000199773
2025	717	485549.5	3751734.9	0.000563251	0.000448312
2025	718	485649.5	3751734.9	0.000527823	0.000420119
2025	719	485749.5	3751734.9	0.000457247	0.000364158
2025	720	485849.5	3751734.9	0.000314798	0.000247688
2025	721	485549.5	3751834.9	0.00067088	0.000541531
2025	722	485649.5	3751834.9	0.000614675	0.000491525
2025	723	485749.5	3751834.9	0.000572984	0.000456185
2025	724	485849.5	3751834.9	0.000471446	0.000375992
2025	725	485549.5	3751934.9	0.000823057	0.000678086
2025	726	485649.5	3751934.9	0.000708622	0.000568297
2025	727	485749.5	3751934.9	0.000670503	0.000532736
2025	728	485849.5	3751934.9	0.000627817	0.000496717
2025	729	485549.5	3752034.9	0.001006604	0.000845916
2025	730	485649.5	3752034.9	0.000807492	0.000650278
2025	731	485749.5	3752034.9	0.000767402	0.000612409

2025	732	485849.5	3752034.9	0.000733099	0.000583393
2025	733	485549.5	3752134.9	0.00102702	0.000853643
2025	734	485649.5	3752134.9	0.00096596	0.000790604
2025	735	485749.5	3752134.9	0.000949579	0.000774494
2025	736	485849.5	3752134.9	0.000938553	0.000766992
2025	737	485549.5	3752234.9	0.001186843	0.001004222
2025	738	485649.5	3752234.9	0.001216399	0.001029241
2025	739	485749.5	3752234.9	0.001260832	0.001070173
2025	740	485849.5	3752234.9	0.001286679	0.001095953
2025	741	485549.5	3752334.9	0.000926	0.000735848
2025	742	485649.5	3752334.9	0.000940029	0.000742972
2025	743	485749.5	3752334.9	0.000960732	0.000757773
2025	744	485849.5	3752334.9	0.000982601	0.000775122
2025	745	485549.5	3752434.9	0.000884035	0.0006863
2025	746	485649.5	3752434.9	0.000889669	0.000684394
2025	747	485749.5	3752434.9	0.000907764	0.000694506
2025	748	485849.5	3752434.9	0.000931248	0.000709748
2025	749	485549.5	3752534.9	0.000901634	0.000695529
2025	750	485649.5	3752534.9	0.000905581	0.000691328
2025	751	485749.5	3752534.9	0.000925143	0.000702024
2025	752	485849.5	3752534.9	0.00095021	0.000717423
2025	753	485549.5	3752634.9	0.000940449	0.000724599
2025	754	485649.5	3752634.9	0.000946583	0.000721889
2025	755	485749.5	3752634.9	0.000968311	0.000734311
2025	756	485849.5	3752634.9	0.000995304	0.000750858
2025	757	485549.5	3752734.9	0.000989909	0.000763824
2025	758	485649.5	3752734.9	0.001000535	0.000764945
2025	759	485749.5	3752734.9	0.001030094	0.000783839
2025	760	485849.5	3752734.9	0.001065245	0.000806936
2025	761	485549.5	3752834.9	0.001045246	0.00080895
2025	762	485649.5	3752834.9	0.001062249	0.000816002
2025	763	485749.5	3752834.9	0.001103923	0.000845791
2025	764	485849.5	3752834.9	0.001153314	0.000881427
2025	765	485549.5	3752934.9	0.00110624	0.000858956
2025	766	485649.5	3752934.9	0.001130457	0.000872961
2025	767	485749.5	3752934.9	0.001187615	0.000917821
2025	768	485849.5	3752934.9	0.001264171	0.000978861
2025	769	485549.5	3753034.9	0.00118062	0.00092091
2025	770	485649.5	3753034.9	0.001200737	0.000931071
2025	771	485749.5	3753034.9	0.001275289	0.000992805
2025	772	485849.5	3753034.9	0.001392172	0.001093443
2025	773	485549.5	3753134.9	0.001214227	0.000939064
2025	774	485649.5	3753134.9	0.001270344	0.00098569
2025	775	485749.5	3753134.9	0.001355184	0.001058816
2025	776	485849.5	3753134.9	0.001503066	0.001190904
2025	777	485549.5	3753234.9	0.001283363	0.000988894
2025	778	485649.5	3753234.9	0.001342529	0.001039361

2025	779	485749.5	3753234.9	0.001431843	0.001119195
2025	780	485849.5	3753234.9	0.001593781	0.001267206
2025	781	485549.5	3753334.9	0.001393781	0.001074205
2025	782	485649.5	3753334.9	0.001432472	0.001102295
2025	783	485749.5	3753334.9	0.001520719	0.001183366
2025	784	485849.5	3753334.9	0.001681402	0.001335053
2025	785	485549.5	3753434.9	0.001507046	0.001157839
2025	786	485649.5	3753434.9	0.001570742	0.001202727
2025	787	485749.5	3753434.9	0.001669976	0.001290628
2025	788	485849.5	3753434.9	0.001822908	0.001442077
2025	789	485508.5	3746711.3	0.000109548	8.98464E-05
2025	790	491508.5	3746711.3	7.6642E-05	6.30004E-05
2025	791	479508.5	3752711.3	0.000410003	0.000362264
2025	792	485508.5	3752711.3	0.00095424	0.000734066
2025	793	491508.5	3752711.3	0.000555112	0.000345777
2025	794	485508.5	3758711.3	0.000206946	0.000186107
2025	795	491508.5	3758711.3	8.44075E-05	7.20913E-05
2025	796	485921.9	3750934.2	0.000148821	0.000110448
2025	797	486021.9	3750934.2	0.000146304	0.000108318
2025	798	486121.9	3750934.2	0.000144805	0.000107088
2025	799	485921.9	3751034.2	0.000156799	0.000116332
2025	800	486021.9	3751034.2	0.000153186	0.000113226
2025	801	486121.9	3751034.2	0.000150951	0.000111329
2025	802	485921.9	3751134.2	0.000166238	0.000123534
2025	803	486021.9	3751134.2	0.000162149	0.000119978
2025	804	486121.9	3751134.2	0.000158865	0.000117122
2025	805	485921.9	3751234.2	0.0001775	0.000132365
2025	806	486021.9	3751234.2	0.000172921	0.000128332
2025	807	486121.9	3751234.2	0.000168826	0.000124731
2025	808	485921.9	3751334.2	0.000191572	0.000143694
2025	809	486021.9	3751334.2	0.000186266	0.000138969
2025	810	486121.9	3751334.2	0.000180525	0.000133874
2025	811	485921.9	3751434.2	0.000210779	0.000159569
2025	812	486021.9	3751434.2	0.000202321	0.000152016
2025	813	486121.9	3751434.2	0.000194995	0.000145464
2025	814	485921.9	3751534.2	0.000231133	0.000176428
2025	815	486021.9	3751534.2	0.000224739	0.000170676
2025	816	486121.9	3751534.2	0.000213241	0.000160396
2025	817	485921.9	3751634.2	0.000249362	0.000191431
2025	818	486021.9	3751634.2	0.000261279	0.000201488
2025	819	486121.9	3751634.2	0.000240927	0.000183637
2025	820	485921.9	3751734.2	0.000285986	0.000222548
2025	821	486021.9	3751734.2	0.000318313	0.000249318
2025	822	486121.9	3751734.2	0.00027158	0.000209288
2025	823	485921.9	3751834.2	0.000361141	0.00028607
2025	824	486021.9	3751834.2	0.000357129	0.000281509
2025	825	486121.9	3751834.2	0.00028664	0.000221238

2025	826	485921.9	3751934.2	0.000554893	0.00044221
2025	827	486021.9	3751934.2	0.000441867	0.000350519
2025	828	486121.9	3751934.2	0.000356059	0.000279293
2025	829	485921.9	3752034.2	0.000680246	0.000541419
2025	830	486021.9	3752034.2	0.000555507	0.000444292
2025	831	486121.9	3752034.2	0.000486579	0.000387007
2025	832	485921.9	3752134.2	0.000935586	0.000768788
2025	833	486021.9	3752134.2	0.000886081	0.000731304
2025	834	486121.9	3752134.2	0.000699717	0.000567379
2025	835	485921.9	3752234.2	0.001293923	0.00110654
2025	836	486021.9	3752234.2	0.001327298	0.001143922
2025	837	486121.9	3752234.2	0.001157504	0.00098133
2025	838	485921.9	3752334.2	0.000996943	0.000787292
2025	839	486021.9	3752334.2	0.001038451	0.000829001
2025	840	486121.9	3752334.2	0.001225484	0.001017018
2025	841	485921.9	3752434.2	0.000953904	0.000728149
2025	842	486021.9	3752434.2	0.000992324	0.000761745
2025	843	486121.9	3752434.2	0.001072122	0.000836913
2025	844	485921.9	3752534.2	0.000973135	0.000732681
2025	845	486021.9	3752534.2	0.001005314	0.000756041
2025	846	486121.9	3752534.2	0.001050139	0.000792755
2025	847	485921.9	3752634.2	0.00101672	0.000764521
2025	848	486021.9	3752634.2	0.00104797	0.000785634
2025	849	486121.9	3752634.2	0.001085588	0.000813499
2025	850	485921.9	3752734.2	0.001091245	0.000824041
2025	851	486021.9	3752734.2	0.001131101	0.000850985
2025	852	486121.9	3752734.2	0.001174604	0.00088207
2025	853	485921.9	3752834.2	0.001192855	0.000909627
2025	854	486021.9	3752834.2	0.001253097	0.000952857
2025	855	486121.9	3752834.2	0.001316609	0.000999217
2025	856	485921.9	3752934.2	0.001326883	0.001028716
2025	857	486021.9	3752934.2	0.001433203	0.001112978
2025	858	486121.9	3752934.2	0.00157431	0.00122808
2025	859	487026.2	3754364	0.005481473	0.004765773
2026	1	489607.4	3753966.1	0.001448877	0.000925493
2026	2	489738.7	3754023.9	0.001359921	0.000921662
2026	3	489668.9	3754093.7	0.001327892	0.000947354
2026	4	489690.1	3754161.6	0.001268871	0.000922887
2026	5	490282.2	3753425.2	0.00130808	0.000752021
2026	6	489797.3	3754554.1	0.001058385	0.000796316
2026	7	490252.9	3754378.2	0.000982864	0.000731233
2026	8	489006	3754140.3	0.001673948	0.001135442
2026	9	485642.8	3754267.3	0.003223372	0.002641661
2026	10	485736.4	3754259.5	0.003670545	0.003027929
2026	11	487189.2	3754820.5	0.006351398	0.005522538
2026	12	487233.1	3754689.5	0.005002785	0.00419555
2026	13	487216.8	3754364.7	0.006940642	0.006036543

2026	14	487388.8	3754380.1	0.004127689	0.003419584
2026	15	484625	3751748	0.0008328	0.000671348
2026	16	483279	3751798	0.000608906	0.000489108
2026	17	483231	3751205	0.000538892	0.000433842
2026	18	480165	3750195	0.000421359	0.000362221
2026	19	481211	3749473	0.000369181	0.000307323
2026	20	481867	3752785	0.00062136	0.000526001
2026	21	480678	3751306	0.000446043	0.000376752
2026	22	479989	3752645	0.00053117	0.000464663
2026	23	479889	3756222	0.000747197	0.000685449
2026	24	479234	3757080	0.000356882	0.000321654
2026	25	480276	3756365	0.000605522	0.00055205
2026	26	479887	3754007	0.000691915	0.00062176
2026	27	480772	3755009	0.001477874	0.001364766
2026	28	481560	3754548	0.001105462	0.001001289
2026	29	481845	3754457	0.001115361	0.001006346
2026	30	481754	3753876	0.000817932	0.000720652
2026	31	489635.2	3750663.8	0.000258412	0.000195437
2026	32	485424.1	3747672.3	0.000179499	0.000144963
2026	33	482657.6	3753975.1	0.000939861	0.000818652
2026	34	481495	3754633.7	0.001160155	0.001054574
2026	35	481148.7	3756136.2	0.000834371	0.000763745
2026	36	482346.5	3748872.9	0.000140939	0.000111314
2026	37	480299	3751198	0.00043298	0.000367807
2026	38	479598.7	3756506.3	0.000569875	0.000519534
2026	39	478997.8	3753535.2	0.000753673	0.000681487
2026	40	478978.3	3755233.1	0.002349442	0.002197642
2026	41	479197.3	3754462.3	0.001018071	0.00093336
2026	42	479493.3	3752408.8	0.000537253	0.000473667
2026	43	480295.4	3752408.4	0.000516089	0.000447523
2026	44	480287.9	3754227.5	0.000760493	0.000684646
2026	45	494397.4	3753977.6	0.000432866	0.000347375
2026	46	481108.5	3750699	0.000445567	0.000375829
2026	47	486794.1	3756878	0.000412452	0.000360861
2026	48	482345	3752065.8	0.000597558	0.00049652
2026	49	487553	3745938.3	0.000111137	9.24425E-05
2026	50	484553	3746938.3	0.000144671	0.000117813
2026	51	485553	3746938.3	0.000153416	0.000125449
2026	52	486553	3746938.3	0.000123408	0.000103303
2026	53	487553	3746938.3	0.000134583	0.000110513
2026	54	488553	3746938.3	0.000122601	0.000101085
2026	55	489553	3746938.3	0.000121352	9.94811E-05
2026	56	490553	3746938.3	0.000111528	9.1631E-05
2026	57	491553	3746938.3	0.00010636	8.72598E-05
2026	58	492553	3746938.3	0.000102757	8.42615E-05
2026	59	482553	3747938.3	0.000122988	9.72129E-05
2026	60	483553	3747938.3	0.00021182	0.000168869

2026	61	484553	3747938.3	0.000202162	0.000161877
2026	62	485553	3747938.3	0.00018845	0.000151541
2026	63	486553	3747938.3	0.000176332	0.000143418
2026	64	487553	3747938.3	0.000114213	9.5168E-05
2026	65	488553	3747938.3	0.000146266	0.000119147
2026	66	489553	3747938.3	0.000137652	0.000112171
2026	67	490553	3747938.3	0.000129974	0.000105807
2026	68	491553	3747938.3	0.000124017	0.00010079
2026	69	492553	3747938.3	0.000119962	9.74906E-05
2026	70	493553	3747938.3	0.000117845	9.6011E-05
2026	71	481553	3748938.3	0.000298389	0.000240471
2026	72	482553	3748938.3	0.000146372	0.00011555
2026	73	483553	3748938.3	0.000240017	0.000190463
2026	74	484553	3748938.3	0.00025129	0.000197977
2026	75	485553	3748938.3	0.000240096	0.000189941
2026	76	486553	3748938.3	0.000223397	0.000178048
2026	77	487553	3748938.3	0.000178364	0.000147589
2026	78	488553	3748938.3	0.00017931	0.000143602
2026	79	489553	3748938.3	0.000165464	0.000133005
2026	80	490553	3748938.3	0.000156023	0.000125179
2026	81	491553	3748938.3	0.00014844	0.000119054
2026	82	492553	3748938.3	0.000144641	0.000116069
2026	83	493553	3748938.3	0.000148198	0.000119955
2026	84	494553	3748938.3	0.000238423	0.000207392
2026	85	480553	3749938.3	0.000537721	0.000478174
2026	86	481553	3749938.3	0.000424314	0.000352828
2026	87	482553	3749938.3	0.000396626	0.00032064
2026	88	483553	3749938.3	0.000375927	0.000298532
2026	89	484553	3749938.3	0.000260051	0.000204609
2026	90	485553	3749938.3	0.000206612	0.000162141
2026	91	486553	3749938.3	0.000250038	0.000199873
2026	92	487553	3749938.3	0.00026562	0.000208734
2026	93	488553	3749938.3	0.000228183	0.000177747
2026	94	489553	3749938.3	0.000209146	0.00016375
2026	95	490553	3749938.3	0.000195323	0.000152959
2026	96	491553	3749938.3	0.000186114	0.000145692
2026	97	492553	3749938.3	0.00018711	0.000147042
2026	98	493553	3749938.3	0.00023722	0.000194167
2026	99	494553	3749938.3	0.000176341	0.000136014
2026	100	495553	3749938.3	0.000141323	0.000116274
2026	101	480553	3750938.3	0.000425047	0.000358811
2026	102	481553	3750938.3	0.000462219	0.000385973
2026	103	482553	3750938.3	0.000499462	0.000410203
2026	104	483553	3750938.3	0.000571575	0.000465987
2026	105	484553	3750938.3	0.000523658	0.000413014
2026	106	485553	3750938.3	0.00021339	0.00015992
2026	107	486553	3750938.3	0.000190732	0.000141697

2026	108	487553	3750938.3	0.000299656	0.000233487
2026	109	488553	3750938.3	0.000322725	0.000235704
2026	110	489553	3750938.3	0.000289131	0.000213807
2026	111	490553	3750938.3	0.000264518	0.0001972
2026	112	491553	3750938.3	0.000253163	0.000189306
2026	113	492553	3750938.3	0.00033167	0.00026376
2026	114	493553	3750938.3	0.000249447	0.000185414
2026	115	494553	3750938.3	0.000241245	0.00018093
2026	116	495553	3750938.3	0.000226694	0.00017639
2026	117	479553	3751938.3	0.000498194	0.000435587
2026	118	480553	3751938.3	0.000493968	0.000423932
2026	119	481553	3751938.3	0.000518799	0.000435127
2026	120	482553	3751938.3	0.000578267	0.000473891
2026	121	483553	3751938.3	0.000659342	0.000527727
2026	122	484553	3751938.3	0.000784971	0.000619528
2026	123	485553	3751938.3	0.001106257	0.000910462
2026	124	486553	3751938.3	0.00036173	0.000273096
2026	125	487553	3751938.3	0.000540477	0.000405425
2026	126	488553	3751938.3	0.000561981	0.000359474
2026	127	489553	3751938.3	0.000517227	0.000322827
2026	128	490553	3751938.3	0.000460504	0.000296312
2026	129	491553	3751938.3	0.000578368	0.000422315
2026	130	492553	3751938.3	0.000401833	0.000260768
2026	131	493553	3751938.3	0.000367725	0.000270917
2026	132	494553	3751938.3	0.000343678	0.000255438
2026	133	495553	3751938.3	0.000307298	0.000234019
2026	134	479553	3752938.3	0.000590302	0.000523996
2026	135	480553	3752938.3	0.000596776	0.000521787
2026	136	481553	3752938.3	0.000660894	0.000569567
2026	137	482553	3752938.3	0.000728604	0.000612067
2026	138	483553	3752938.3	0.000831272	0.000674966
2026	139	484553	3752938.3	0.001059712	0.000825684
2026	140	485553	3752938.3	0.001491459	0.001157441
2026	141	486553	3752938.3	0.002805964	0.002296609
2026	142	487553	3752938.3	0.003322701	0.002648865
2026	143	488553	3752938.3	0.001779943	0.001188227
2026	144	489553	3752938.3	0.001272484	0.000742991
2026	145	490553	3752938.3	0.001019964	0.000565557
2026	146	491553	3752938.3	0.00078003	0.000514105
2026	147	492553	3752938.3	0.000625915	0.000399448
2026	148	493553	3752938.3	0.000538593	0.000380686
2026	149	494553	3752938.3	0.000474285	0.000351794
2026	150	495553	3752938.3	0.000390243	0.000299753
2026	151	479553	3753938.3	0.000689758	0.000621359
2026	152	480553	3753938.3	0.00070237	0.000626136
2026	153	481553	3753938.3	0.00083003	0.00073575
2026	154	482553	3753938.3	0.000909692	0.000792215

2026	155	483553	3753938.3	0.001135014	0.000977156
2026	156	484553	3753938.3	0.001381052	0.001126477
2026	157	485553	3753938.3	0.002524923	0.00197966
2026	158	486553	3753938.3	0.004782173	0.003881892
2026	159	487553	3753938.3	0.004804426	0.004035001
2026	160	488553	3753938.3	0.002404473	0.001675136
2026	161	489553	3753938.3	0.001465307	0.00090393
2026	162	490553	3753938.3	0.001025013	0.000747634
2026	163	491553	3753938.3	0.000749331	0.000581047
2026	164	492553	3753938.3	0.000624166	0.000490694
2026	165	493553	3753938.3	0.000514978	0.000409525
2026	166	494553	3753938.3	0.000471143	0.000377443
2026	167	495553	3753938.3	0.000369858	0.000298715
2026	168	479553	3754938.3	0.001239037	0.001144656
2026	169	480553	3754938.3	0.001323783	0.001219729
2026	170	481553	3754938.3	0.001518358	0.00139605
2026	171	482553	3754938.3	0.00222636	0.002055957
2026	172	483553	3754938.3	0.002410156	0.002213618
2026	173	484553	3754938.3	0.002432441	0.002197145
2026	174	485553	3754938.3	0.003566708	0.003185717
2026	175	486553	3754938.3	0.005341657	0.004789036
2026	176	487553	3754938.3	0.00293939	0.00239983
2026	177	488553	3754938.3	0.001614201	0.001260951
2026	178	489553	3754938.3	0.001236238	0.001035436
2026	179	490553	3754938.3	0.000858254	0.000734731
2026	180	491553	3754938.3	0.000574283	0.000489331
2026	181	492553	3754938.3	0.000415597	0.000351039
2026	182	493553	3754938.3	0.000424332	0.000361407
2026	183	494553	3754938.3	0.000325239	0.00027552
2026	184	495553	3754938.3	0.000274762	0.000232536
2026	185	479553	3755938.3	0.001250413	0.001160605
2026	186	480553	3755938.3	0.001046426	0.000965122
2026	187	481553	3755938.3	0.001060286	0.000975214
2026	188	482553	3755938.3	0.00152348	0.001405132
2026	189	483553	3755938.3	0.001638937	0.001510113
2026	190	484553	3755938.3	0.001522087	0.001385648
2026	191	485553	3755938.3	0.002103913	0.001919558
2026	192	486553	3755938.3	0.001683827	0.001520934
2026	193	487553	3755938.3	0.000873886	0.000781289
2026	194	488553	3755938.3	0.00061475	0.000544505
2026	195	489553	3755938.3	0.000426596	0.000374891
2026	196	490553	3755938.3	0.000355112	0.000311139
2026	197	491553	3755938.3	0.000294008	0.000256895
2026	198	492553	3755938.3	0.000371628	0.000333484
2026	199	493553	3755938.3	0.000267042	0.000235667
2026	200	494553	3755938.3	0.000258475	0.000228876
2026	201	479553	3756938.3	0.000374174	0.000337585

2026	202	480553	3756938.3	0.000357253	0.000321055
2026	203	481553	3756938.3	0.000322031	0.000288465
2026	204	482553	3756938.3	0.000336218	0.00030005
2026	205	483553	3756938.3	0.000570824	0.000512146
2026	206	484553	3756938.3	0.000545129	0.000483919
2026	207	485553	3756938.3	0.001203783	0.001108877
2026	208	486553	3756938.3	0.000429548	0.000376787
2026	209	487553	3756938.3	0.000279913	0.000242256
2026	210	488553	3756938.3	0.000227341	0.000195408
2026	211	489553	3756938.3	0.000199696	0.000171325
2026	212	490553	3756938.3	0.00018345	0.000157457
2026	213	491553	3756938.3	0.000160969	0.000138073
2026	214	492553	3756938.3	0.000143927	0.000123561
2026	215	493553	3756938.3	0.000154929	0.000134596
2026	216	494553	3756938.3	0.000151085	0.000131714
2026	217	479553	3757938.3	0.000186457	0.00016591
2026	218	480553	3757938.3	0.000178778	0.000158605
2026	219	481553	3757938.3	0.000188294	0.000166198
2026	220	482553	3757938.3	0.000231118	0.000202818
2026	221	483553	3757938.3	0.000226549	0.000197946
2026	222	484553	3757938.3	0.000297446	0.000261279
2026	223	485553	3757938.3	0.00034676	0.000310847
2026	224	486553	3757938.3	0.000199379	0.00017234
2026	225	487553	3757938.3	0.000162494	0.000139036
2026	226	488553	3757938.3	0.000142879	0.000121729
2026	227	489553	3757938.3	0.000132016	0.000112267
2026	228	490553	3757938.3	0.000120655	0.000102542
2026	229	491553	3757938.3	0.000110793	9.41038E-05
2026	230	492553	3757938.3	0.00010676	9.09835E-05
2026	231	493553	3757938.3	0.000118963	0.000102263
2026	232	480553	3758938.3	0.000133329	0.000117189
2026	233	481553	3758938.3	0.000147836	0.000129142
2026	234	482553	3758938.3	0.000143909	0.000124963
2026	235	483553	3758938.3	0.000150557	0.000130319
2026	236	484553	3758938.3	0.000187801	0.000164197
2026	237	485553	3758938.3	0.000448087	0.000410518
2026	238	486553	3758938.3	0.000138835	0.000119739
2026	239	487553	3758938.3	0.000152229	0.000131235
2026	240	488553	3758938.3	0.00011329	9.68764E-05
2026	241	489553	3758938.3	0.000114955	9.83568E-05
2026	242	490553	3758938.3	0.000125125	0.000106965
2026	243	491553	3758938.3	0.000101885	8.69657E-05
2026	244	492553	3758938.3	0.000105978	9.05559E-05
2026	245	481553	3759938.3	0.000109398	9.51823E-05
2026	246	482553	3759938.3	0.000112606	9.74581E-05
2026	247	483553	3759938.3	0.000118955	0.000102823
2026	248	484553	3759938.3	0.00016413	0.000143268

2026	249	485553	3759938.3	0.000443713	0.000406163
2026	250	486553	3759938.3	0.00020246	0.000176808
2026	251	487553	3759938.3	0.000164544	0.000142581
2026	252	488553	3759938.3	0.000164075	0.000141371
2026	253	489553	3759938.3	0.000142878	0.000122689
2026	254	490553	3759938.3	0.000109678	9.40675E-05
2026	255	491553	3759938.3	9.54987E-05	8.17246E-05
2026	256	482553	3760938.3	0.000105866	9.16902E-05
2026	257	483553	3760938.3	0.00012164	0.000105599
2026	258	484553	3760938.3	0.000154961	0.000135467
2026	259	485553	3760938.3	0.000363175	0.000329428
2026	260	486553	3760938.3	0.000233412	0.000205117
2026	261	487553	3760938.3	0.000184828	0.00016202
2026	262	488553	3760938.3	0.000104923	9.09798E-05
2026	263	489553	3760938.3	7.93432E-05	6.82626E-05
2026	264	490553	3760938.3	7.56458E-05	6.48737E-05
2026	265	484551.7	3750934.4	0.000520136	0.000410648
2026	266	484651.7	3750934.4	0.00050965	0.000401793
2026	267	484751.7	3750934.4	0.00037894	0.000300115
2026	268	484851.7	3750934.4	0.000343025	0.000270994
2026	269	484951.7	3750934.4	0.000361621	0.000284915
2026	270	485051.7	3750934.4	0.000319649	0.000251002
2026	271	485151.7	3750934.4	0.000265742	0.000205784
2026	272	485251.7	3750934.4	0.000235335	0.000179382
2026	273	485351.7	3750934.4	0.00022482	0.000170067
2026	274	485451.7	3750934.4	0.000218577	0.000164538
2026	275	484551.7	3751034.4	0.000561256	0.000440967
2026	276	484651.7	3751034.4	0.000548627	0.000430482
2026	277	484751.7	3751034.4	0.000508983	0.000402891
2026	278	484851.7	3751034.4	0.000392548	0.000310419
2026	279	484951.7	3751034.4	0.000437443	0.000344885
2026	280	485051.7	3751034.4	0.000358535	0.000282109
2026	281	485151.7	3751034.4	0.00030714	0.000239913
2026	282	485251.7	3751034.4	0.000262629	0.000201903
2026	283	485351.7	3751034.4	0.000242453	0.000184229
2026	284	485451.7	3751034.4	0.000232083	0.000175034
2026	285	484551.7	3751134.4	0.000596429	0.000468511
2026	286	484651.7	3751134.4	0.000591067	0.000462709
2026	287	484751.7	3751134.4	0.000576615	0.000451138
2026	288	484851.7	3751134.4	0.000512315	0.000407131
2026	289	484951.7	3751134.4	0.000521663	0.000411783
2026	290	485051.7	3751134.4	0.00041981	0.000330855
2026	291	485151.7	3751134.4	0.000366063	0.00028792
2026	292	485251.7	3751134.4	0.000313462	0.000244395
2026	293	485351.7	3751134.4	0.000268549	0.000205835
2026	294	485451.7	3751134.4	0.000248341	0.000188034
2026	295	484551.7	3751234.4	0.00063487	0.000500529

2026	296	484651.7	3751234.4	0.000631099	0.000495646
2026	297	484751.7	3751234.4	0.000618178	0.00048477
2026	298	484851.7	3751234.4	0.000592284	0.000465758
2026	299	484951.7	3751234.4	0.000570739	0.000449744
2026	300	485051.7	3751234.4	0.000505277	0.000400511
2026	301	485151.7	3751234.4	0.000416157	0.000328634
2026	302	485251.7	3751234.4	0.000311254	0.000242191
2026	303	485351.7	3751234.4	0.000276466	0.000211817
2026	304	485451.7	3751234.4	0.000263379	0.000200088
2026	305	484551.7	3751334.4	0.000703115	0.000561558
2026	306	484651.7	3751334.4	0.00068529	0.000543252
2026	307	484751.7	3751334.4	0.000665713	0.000525922
2026	308	484851.7	3751334.4	0.000647389	0.000510587
2026	309	484951.7	3751334.4	0.000635996	0.000500097
2026	310	485051.7	3751334.4	0.000601108	0.00047489
2026	311	485151.7	3751334.4	0.000497984	0.000395049
2026	312	485251.7	3751334.4	0.000381621	0.000301548
2026	313	485351.7	3751334.4	0.000303721	0.000234895
2026	314	485451.7	3751334.4	0.000281918	0.000215387
2026	315	484551.7	3751434.4	0.00081825	0.00067149
2026	316	484651.7	3751434.4	0.00077167	0.000623009
2026	317	484751.7	3751434.4	0.000741504	0.000592443
2026	318	484851.7	3751434.4	0.000720236	0.000571878
2026	319	484951.7	3751434.4	0.000702929	0.000555781
2026	320	485051.7	3751434.4	0.000684855	0.000539559
2026	321	485151.7	3751434.4	0.000600921	0.000480605
2026	322	485251.7	3751434.4	0.000453463	0.000361565
2026	323	485351.7	3751434.4	0.000354684	0.000278714
2026	324	485451.7	3751434.4	0.000316248	0.000244779
2026	325	484551.7	3751534.4	0.001092429	0.000941885
2026	326	484651.7	3751534.4	0.000964949	0.000810863
2026	327	484751.7	3751534.4	0.000868275	0.000711625
2026	328	484851.7	3751534.4	0.000818965	0.000660922
2026	329	484951.7	3751534.4	0.00079197	0.000632868
2026	330	485051.7	3751534.4	0.000775114	0.000614848
2026	331	485151.7	3751534.4	0.000751078	0.000592541
2026	332	485251.7	3751534.4	0.000657892	0.000524849
2026	333	485351.7	3751534.4	0.000510305	0.000407856
2026	334	485451.7	3751534.4	0.000414021	0.000328459
2026	335	484551.7	3751634.4	0.000971435	0.000817059
2026	336	484651.7	3751634.4	0.001004482	0.000846516
2026	337	484751.7	3751634.4	0.00103543	0.000873466
2026	338	484851.7	3751634.4	0.001053238	0.000888456
2026	339	484951.7	3751634.4	0.000937806	0.000770895
2026	340	485051.7	3751634.4	0.00088342	0.00071454
2026	341	485151.7	3751634.4	0.000854351	0.000683599
2026	342	485251.7	3751634.4	0.000805068	0.000639362

2026	343	485351.7	3751634.4	0.000744047	0.000589833
2026	344	485451.7	3751634.4	0.000663251	0.0005308
2026	345	484551.7	3751734.4	0.000804594	0.000647001
2026	346	484651.7	3751734.4	0.000862672	0.000700387
2026	347	484751.7	3751734.4	0.000962118	0.000795703
2026	348	484851.7	3751734.4	0.001092889	0.000923127
2026	349	484951.7	3751734.4	0.001087882	0.000915831
2026	350	485051.7	3751734.4	0.0012205	0.001045892
2026	351	485151.7	3751734.4	0.00104264	0.000863824
2026	352	485251.7	3751734.4	0.000979527	0.000798916
2026	353	485351.7	3751734.4	0.000908905	0.000731903
2026	354	485451.7	3751734.4	0.000826327	0.000658317
2026	355	484551.7	3751834.4	0.000777138	0.00061653
2026	356	484651.7	3751834.4	0.000805283	0.000640138
2026	357	484751.7	3751834.4	0.000839425	0.000669749
2026	358	484851.7	3751834.4	0.000882904	0.000709151
2026	359	484951.7	3751834.4	0.000942695	0.00076599
2026	360	485051.7	3751834.4	0.001084522	0.000904183
2026	361	485151.7	3751834.4	0.001086839	0.000900626
2026	362	485251.7	3751834.4	0.001159774	0.000969293
2026	363	485351.7	3751834.4	0.001156373	0.000965543
2026	364	485451.7	3751834.4	0.001139201	0.000952193
2026	365	484551.7	3751934.4	0.000783967	0.000618795
2026	366	484651.7	3751934.4	0.000801865	0.000632805
2026	367	484751.7	3751934.4	0.000820264	0.00064754
2026	368	484851.7	3751934.4	0.00084405	0.000667019
2026	369	484951.7	3751934.4	0.000871189	0.000689904
2026	370	485051.7	3751934.4	0.000907188	0.000720981
2026	371	485151.7	3751934.4	0.00095382	0.000761853
2026	372	485251.7	3751934.4	0.001017657	0.000819005
2026	373	485351.7	3751934.4	0.001116463	0.000913275
2026	374	485451.7	3751934.4	0.00117301	0.000971554
2026	375	484551.7	3752034.4	0.000812032	0.000640848
2026	376	484651.7	3752034.4	0.00082663	0.000651597
2026	377	484751.7	3752034.4	0.000842363	0.000663385
2026	378	484851.7	3752034.4	0.000859106	0.000676107
2026	379	484951.7	3752034.4	0.000880075	0.000692366
2026	380	485051.7	3752034.4	0.000905739	0.000712616
2026	381	485151.7	3752034.4	0.000937888	0.000738588
2026	382	485251.7	3752034.4	0.000986174	0.000779256
2026	383	485351.7	3752034.4	0.00105585	0.000842585
2026	384	485451.7	3752034.4	0.001255657	0.001038373
2026	385	484551.7	3752134.4	0.000865166	0.000687645
2026	386	484651.7	3752134.4	0.00087867	0.000697021
2026	387	484751.7	3752134.4	0.000893756	0.000707729
2026	388	484851.7	3752134.4	0.000908897	0.000718487
2026	389	484951.7	3752134.4	0.000925711	0.000730674

2026	390	485051.7	3752134.4	0.000946867	0.000746505
2026	391	485151.7	3752134.4	0.000973558	0.000767205
2026	392	485251.7	3752134.4	0.001015414	0.000801485
2026	393	485351.7	3752134.4	0.001087954	0.000865795
2026	394	485451.7	3752134.4	0.001287257	0.001058513
2026	395	484551.7	3752234.4	0.000964308	0.000780853
2026	396	484651.7	3752234.4	0.000984896	0.00079652
2026	397	484751.7	3752234.4	0.000998995	0.000805831
2026	398	484851.7	3752234.4	0.001010154	0.000812179
2026	399	484951.7	3752234.4	0.001081599	0.000878715
2026	400	485051.7	3752234.4	0.001041456	0.000833465
2026	401	485151.7	3752234.4	0.001068865	0.000855486
2026	402	485251.7	3752234.4	0.00109972	0.000879006
2026	403	485351.7	3752234.4	0.001166782	0.000937223
2026	404	485451.7	3752234.4	0.001399527	0.001161275
2026	405	484551.7	3752334.4	0.000912719	0.000722023
2026	406	484651.7	3752334.4	0.000929703	0.000733918
2026	407	484751.7	3752334.4	0.000946541	0.000745721
2026	408	484851.7	3752334.4	0.000963804	0.000757878
2026	409	484951.7	3752334.4	0.000982862	0.000771465
2026	410	485051.7	3752334.4	0.001002061	0.000785273
2026	411	485151.7	3752334.4	0.001024878	0.000802128
2026	412	485251.7	3752334.4	0.001052659	0.000823478
2026	413	485351.7	3752334.4	0.00109405	0.000857187
2026	414	485451.7	3752334.4	0.001175725	0.000929307
2026	415	484551.7	3752434.4	0.000909413	0.000711518
2026	416	484651.7	3752434.4	0.000927043	0.000723753
2026	417	484751.7	3752434.4	0.000944324	0.000735828
2026	418	484851.7	3752434.4	0.000964759	0.000750231
2026	419	484951.7	3752434.4	0.000984835	0.00076452
2026	420	485051.7	3752434.4	0.001006887	0.000780413
2026	421	485151.7	3752434.4	0.001031134	0.000798132
2026	422	485251.7	3752434.4	0.00105836	0.000818512
2026	423	485351.7	3752434.4	0.001093011	0.00084541
2026	424	485451.7	3752434.4	0.001148852	0.000892634
2026	425	484551.7	3752534.4	0.000928627	0.000723325
2026	426	484651.7	3752534.4	0.000947686	0.000736556
2026	427	484751.7	3752534.4	0.000967825	0.000750655
2026	428	484851.7	3752534.4	0.000989613	0.00076604
2026	429	484951.7	3752534.4	0.001011574	0.000781746
2026	430	485051.7	3752534.4	0.001036182	0.000799504
2026	431	485151.7	3752534.4	0.001062439	0.000818711
2026	432	485251.7	3752534.4	0.00109068	0.000839752
2026	433	485351.7	3752534.4	0.001123844	0.000865094
2026	434	485451.7	3752534.4	0.001175523	0.000907915
2026	435	484551.7	3752634.4	0.000954198	0.000741666
2026	436	484651.7	3752634.4	0.000974873	0.000756021

2026	437	484751.7	3752634.4	0.000996613	0.000771263
2026	438	484851.7	3752634.4	0.001021711	0.000788961
2026	439	484951.7	3752634.4	0.001046639	0.000806836
2026	440	485051.7	3752634.4	0.001074152	0.000826788
2026	441	485151.7	3752634.4	0.001102969	0.000848025
2026	442	485251.7	3752634.4	0.001133825	0.000871168
2026	443	485351.7	3752634.4	0.001169398	0.000898473
2026	444	485451.7	3752634.4	0.001223348	0.000942923
2026	445	484551.7	3752734.4	0.000984724	0.000764841
2026	446	484651.7	3752734.4	0.001008253	0.000781069
2026	447	484751.7	3752734.4	0.001032893	0.000798278
2026	448	484851.7	3752734.4	0.001059314	0.000816985
2026	449	484951.7	3752734.4	0.001087248	0.000837045
2026	450	485051.7	3752734.4	0.001117843	0.000859354
2026	451	485151.7	3752734.4	0.001149699	0.000883031
2026	452	485251.7	3752734.4	0.001183906	0.000908989
2026	453	485351.7	3752734.4	0.001223468	0.000939717
2026	454	485451.7	3752734.4	0.001280181	0.000986895
2026	455	484551.7	3752834.4	0.001017944	0.000791063
2026	456	484651.7	3752834.4	0.001044163	0.000809001
2026	457	484751.7	3752834.4	0.001070744	0.000827479
2026	458	484851.7	3752834.4	0.001100918	0.000848742
2026	459	484951.7	3752834.4	0.001132393	0.000871293
2026	460	485051.7	3752834.4	0.001165781	0.000895665
2026	461	485151.7	3752834.4	0.001200885	0.000921902
2026	462	485251.7	3752834.4	0.001239234	0.000951281
2026	463	485351.7	3752834.4	0.001282607	0.000985638
2026	464	485451.7	3752834.4	0.001345088	0.001038201
2026	465	484551.7	3752934.4	0.001057506	0.000823854
2026	466	484651.7	3752934.4	0.001086509	0.000843565
2026	467	484751.7	3752934.4	0.001116286	0.000864067
2026	468	484851.7	3752934.4	0.001149614	0.00088738
2026	469	484951.7	3752934.4	0.001184593	0.000912265
2026	470	485051.7	3752934.4	0.001222253	0.000939598
2026	471	485151.7	3752934.4	0.001260788	0.000968369
2026	472	485251.7	3752934.4	0.001304021	0.001001558
2026	473	485351.7	3752934.4	0.001350893	0.001039176
2026	474	485451.7	3752934.4	0.001417894	0.001096146
2026	475	484551.7	3753034.4	0.001114915	0.000875279
2026	476	484651.7	3753034.4	0.001148509	0.00089865
2026	477	484751.7	3753034.4	0.001185626	0.000924974
2026	478	484851.7	3753034.4	0.00122001	0.000947975
2026	479	484951.7	3753034.4	0.001258099	0.000974527
2026	480	485051.7	3753034.4	0.001299324	0.00100431
2026	481	485151.7	3753034.4	0.001345356	0.001038767
2026	482	485251.7	3753034.4	0.001410319	0.00109245
2026	483	485351.7	3753034.4	0.00144226	0.001114268

2026	484	485451.7	3753034.4	0.001512198	0.001173941
2026	485	484551.7	3753134.4	0.001117224	0.000872011
2026	486	484651.7	3753134.4	0.001152955	0.000896234
2026	487	484751.7	3753134.4	0.001191926	0.00092292
2026	488	484851.7	3753134.4	0.001232464	0.000950999
2026	489	484951.7	3753134.4	0.001276368	0.000981844
2026	490	485051.7	3753134.4	0.00132331	0.001015456
2026	491	485151.7	3753134.4	0.001373091	0.001051914
2026	492	485251.7	3753134.4	0.001428322	0.00109379
2026	493	485351.7	3753134.4	0.001489744	0.001142728
2026	494	485451.7	3753134.4	0.001576126	0.001217336
2026	495	484551.7	3753234.4	0.001139576	0.000889271
2026	496	484651.7	3753234.4	0.001179234	0.000916057
2026	497	484751.7	3753234.4	0.001221197	0.000944592
2026	498	484851.7	3753234.4	0.00126581	0.000975235
2026	499	484951.7	3753234.4	0.001314431	0.001009071
2026	500	485051.7	3753234.4	0.001367642	0.001046811
2026	501	485151.7	3753234.4	0.001424603	0.001088071
2026	502	485251.7	3753234.4	0.001488235	0.001135547
2026	503	485351.7	3753234.4	0.001560051	0.001191669
2026	504	485451.7	3753234.4	0.001659615	0.001276217
2026	505	484551.7	3753334.4	0.001168921	0.000914157
2026	506	484651.7	3753334.4	0.001211212	0.000942606
2026	507	484751.7	3753334.4	0.001255609	0.000972537
2026	508	484851.7	3753334.4	0.001305594	0.00100669
2026	509	484951.7	3753334.4	0.001357996	0.001042766
2026	510	485051.7	3753334.4	0.00141681	0.001083982
2026	511	485151.7	3753334.4	0.001481674	0.001130434
2026	512	485251.7	3753334.4	0.001557331	0.00118605
2026	513	485351.7	3753334.4	0.001644204	0.00125242
2026	514	485451.7	3753334.4	0.001760689	0.001348616
2026	515	484551.7	3753434.4	0.001198854	0.000941148
2026	516	484651.7	3753434.4	0.001243416	0.000971132
2026	517	484751.7	3753434.4	0.001290707	0.001002845
2026	518	484851.7	3753434.4	0.001344074	0.001039134
2026	519	484951.7	3753434.4	0.001400895	0.00107767
2026	520	485051.7	3753434.4	0.001464476	0.001121579
2026	521	485151.7	3753434.4	0.001538501	0.001174136
2026	522	485251.7	3753434.4	0.001625937	0.001237782
2026	523	485351.7	3753434.4	0.00172981	0.001316218
2026	524	485451.7	3753434.4	0.001875474	0.001433874
2026	525	484551.7	3753534.4	0.001228578	0.000969369
2026	526	484651.7	3753534.4	0.001271813	0.000997814
2026	527	484751.7	3753534.4	0.001320668	0.001030389
2026	528	484851.7	3753534.4	0.001379506	0.00107086
2026	529	484951.7	3753534.4	0.001440528	0.00111236
2026	530	485051.7	3753534.4	0.00150885	0.001159323

2026	531	485151.7	3753534.4	0.001590058	0.001216618
2026	532	485251.7	3753534.4	0.001687504	0.001287297
2026	533	485351.7	3753534.4	0.001808465	0.001378065
2026	534	485451.7	3753534.4	0.001981675	0.001516782
2026	535	484551.7	3753634.4	0.001257684	0.000998116
2026	536	484651.7	3753634.4	0.001303066	0.001028129
2026	537	484751.7	3753634.4	0.001354545	0.001062624
2026	538	484851.7	3753634.4	0.00141274	0.001102038
2026	539	484951.7	3753634.4	0.0014778	0.001146476
2026	540	485051.7	3753634.4	0.001550641	0.00119676
2026	541	485151.7	3753634.4	0.001636861	0.00125776
2026	542	485251.7	3753634.4	0.00174091	0.001333696
2026	543	485351.7	3753634.4	0.00186979	0.001431462
2026	544	485451.7	3753634.4	0.002056897	0.001583706
2026	545	484551.7	3753734.4	0.001296407	0.001037279
2026	546	484651.7	3753734.4	0.001341366	0.001066527
2026	547	484751.7	3753734.4	0.001391313	0.001099064
2026	548	484851.7	3753734.4	0.001446904	0.001135431
2026	549	484951.7	3753734.4	0.001513662	0.001180796
2026	550	485051.7	3753734.4	0.00159078	0.001234118
2026	551	485151.7	3753734.4	0.00168067	0.001297566
2026	552	485251.7	3753734.4	0.001788267	0.001375772
2026	553	485351.7	3753734.4	0.001923307	0.001478225
2026	554	485451.7	3753734.4	0.002118517	0.001637791
2026	555	484551.7	3753834.4	0.00133543	0.00107812
2026	556	484651.7	3753834.4	0.001378753	0.001105727
2026	557	484751.7	3753834.4	0.001428943	0.001138373
2026	558	484851.7	3753834.4	0.001485344	0.001175149
2026	559	484951.7	3753834.4	0.001553519	0.001221266
2026	560	485051.7	3753834.4	0.001630195	0.001273115
2026	561	485151.7	3753834.4	0.001720833	0.00133589
2026	562	485251.7	3753834.4	0.001833644	0.00141732
2026	563	485351.7	3753834.4	0.00197393	0.001522685
2026	564	485451.7	3753834.4	0.002176846	0.001686606
2026	565	484551.7	3753934.4	0.001377852	0.001123317
2026	566	484651.7	3753934.4	0.001423395	0.001153101
2026	567	484751.7	3753934.4	0.001467298	0.00117955
2026	568	484851.7	3753934.4	0.001524834	0.001217494
2026	569	484951.7	3753934.4	0.001592537	0.001263079
2026	570	485051.7	3753934.4	0.001671486	0.001317039
2026	571	485151.7	3753934.4	0.001764337	0.001381519
2026	572	485251.7	3753934.4	0.001876887	0.001461772
2026	573	485351.7	3753934.4	0.002019158	0.001566979
2026	574	485451.7	3753934.4	0.00222643	0.001731458
2026	575	484551.7	3754034.4	0.001428481	0.001178483
2026	576	484651.7	3754034.4	0.001454239	0.001187683
2026	577	484751.7	3754034.4	0.001508405	0.001224606

2026	578	484851.7	3754034.4	0.001568578	0.001265232
2026	579	484951.7	3754034.4	0.00163529	0.001309956
2026	580	485051.7	3754034.4	0.001712279	0.00136214
2026	581	485151.7	3754034.4	0.001804033	0.001425694
2026	582	485251.7	3754034.4	0.001916653	0.001506128
2026	583	485351.7	3754034.4	0.002059459	0.001612177
2026	584	485451.7	3754034.4	0.002267801	0.001778645
2026	585	484551.7	3754134.4	0.0014605	0.001213845
2026	586	484651.7	3754134.4	0.001492335	0.001230226
2026	587	484751.7	3754134.4	0.001546411	0.001267678
2026	588	484851.7	3754134.4	0.001610753	0.001313328
2026	589	484951.7	3754134.4	0.001676913	0.001357738
2026	590	485051.7	3754134.4	0.001754777	0.001410676
2026	591	485151.7	3754134.4	0.001846939	0.001474707
2026	592	485251.7	3754134.4	0.001959236	0.001555168
2026	593	485351.7	3754134.4	0.002102026	0.001661397
2026	594	485451.7	3754134.4	0.002308522	0.001826158
2026	595	484551.7	3754234.4	0.001493335	0.001250124
2026	596	484651.7	3754234.4	0.001533047	0.001275614
2026	597	484751.7	3754234.4	0.001590448	0.001317292
2026	598	484851.7	3754234.4	0.00165549	0.001364634
2026	599	484951.7	3754234.4	0.001723122	0.001411567
2026	600	485051.7	3754234.4	0.001798998	0.001463578
2026	601	485151.7	3754234.4	0.001890565	0.001527742
2026	602	485251.7	3754234.4	0.002001856	0.001607447
2026	603	485351.7	3754234.4	0.002142166	0.001711121
2026	604	485451.7	3754234.4	0.002345057	0.001872032
2026	605	484551.7	3754334.4	0.001543321	0.001303933
2026	606	484651.7	3754334.4	0.001593064	0.001340713
2026	607	484751.7	3754334.4	0.001649316	0.001382479
2026	608	484851.7	3754334.4	0.001707989	0.001424335
2026	609	484951.7	3754334.4	0.001774847	0.001471766
2026	610	485051.7	3754334.4	0.001851578	0.001525929
2026	611	485151.7	3754334.4	0.00194144	0.001589707
2026	612	485251.7	3754334.4	0.002050918	0.001669202
2026	613	485351.7	3754334.4	0.002186062	0.001770186
2026	614	485451.7	3754334.4	0.00235997	0.001904953
2026	615	484551.7	3754434.4	0.001640652	0.001406269
2026	616	484651.7	3754434.4	0.001677527	0.001430685
2026	617	484751.7	3754434.4	0.001722696	0.001462069
2026	618	484851.7	3754434.4	0.001774749	0.001498333
2026	619	484951.7	3754434.4	0.001838086	0.001543582
2026	620	485051.7	3754434.4	0.001912126	0.001596574
2026	621	485151.7	3754434.4	0.002000577	0.001660581
2026	622	485251.7	3754434.4	0.002107673	0.001739302
2026	623	485351.7	3754434.4	0.002240084	0.001838949
2026	624	485451.7	3754434.4	0.002410408	0.00197191

2026	625	484551.7	3754534.4	0.001752924	0.001521748
2026	626	484651.7	3754534.4	0.001788568	0.001546162
2026	627	484751.7	3754534.4	0.001821349	0.001566102
2026	628	484851.7	3754534.4	0.001861976	0.001592959
2026	629	484951.7	3754534.4	0.001917884	0.001632354
2026	630	485051.7	3754534.4	0.001987503	0.001682316
2026	631	485151.7	3754534.4	0.002073004	0.001744778
2026	632	485251.7	3754534.4	0.002177152	0.001822129
2026	633	485351.7	3754534.4	0.002306422	0.001920103
2026	634	485451.7	3754534.4	0.002478317	0.002055061
2026	635	484551.7	3754634.4	0.001859852	0.001631637
2026	636	484651.7	3754634.4	0.001890904	0.001652373
2026	637	484751.7	3754634.4	0.001934708	0.001684671
2026	638	484851.7	3754634.4	0.0019669	0.001704993
2026	639	484951.7	3754634.4	0.002015284	0.001738877
2026	640	485051.7	3754634.4	0.002080071	0.001786345
2026	641	485151.7	3754634.4	0.002161209	0.001847095
2026	642	485251.7	3754634.4	0.002262025	0.001923279
2026	643	485351.7	3754634.4	0.002390306	0.002021604
2026	644	485451.7	3754634.4	0.00256397	0.002159401
2026	645	484551.7	3754734.4	0.001978433	0.00175165
2026	646	484651.7	3754734.4	0.002009286	0.001773403
2026	647	484751.7	3754734.4	0.002045167	0.001799397
2026	648	484851.7	3754734.4	0.002088135	0.001831418
2026	649	484951.7	3754734.4	0.002139766	0.00187031
2026	650	485051.7	3754734.4	0.002201891	0.001917454
2026	651	485151.7	3754734.4	0.002277874	0.001975707
2026	652	485251.7	3754734.4	0.002373774	0.00205071
2026	653	485351.7	3754734.4	0.002499183	0.002151853
2026	654	485451.7	3754734.4	0.002670546	0.002294283
2026	655	484551.7	3754834.4	0.002156497	0.001927892
2026	656	484651.7	3754834.4	0.002188447	0.001952101
2026	657	484751.7	3754834.4	0.002224027	0.00197893
2026	658	484851.7	3754834.4	0.002264615	0.002009532
2026	659	484951.7	3754834.4	0.002313717	0.002047443
2026	660	485051.7	3754834.4	0.002371589	0.002092482
2026	661	485151.7	3754834.4	0.00244335	0.002149334
2026	662	485251.7	3754834.4	0.002535636	0.002224149
2026	663	485351.7	3754834.4	0.002662126	0.002330604
2026	664	485451.7	3754834.4	0.002838127	0.002482897
2026	665	484551.7	3754934.4	0.002419886	0.00218505
2026	666	484651.7	3754934.4	0.002449562	0.002207902
2026	667	484751.7	3754934.4	0.002482666	0.002233275
2026	668	484851.7	3754934.4	0.002520561	0.002262403
2026	669	484951.7	3754934.4	0.002566017	0.002298037
2026	670	485051.7	3754934.4	0.002618434	0.002339275
2026	671	485151.7	3754934.4	0.002685705	0.002393889

2026	672	485251.7	3754934.4	0.002773697	0.002467
2026	673	485351.7	3754934.4	0.002908213	0.002583799
2026	674	485451.7	3754934.4	0.003150984	0.00280244
2026	675	484551.7	3755034.4	0.002813048	0.002564733
2026	676	484651.7	3755034.4	0.002839243	0.002584988
2026	677	484751.7	3755034.4	0.002867093	0.002605987
2026	678	484851.7	3755034.4	0.00290375	0.002635111
2026	679	484951.7	3755034.4	0.002946161	0.002668868
2026	680	485051.7	3755034.4	0.002997758	0.002710606
2026	681	485151.7	3755034.4	0.003059914	0.0027616
2026	682	485251.7	3755034.4	0.003143304	0.002832188
2026	683	485351.7	3755034.4	0.003270731	0.002943768
2026	684	485451.7	3755034.4	0.003609411	0.003254748
2026	685	485549.5	3750934.9	0.000213215	0.000159818
2026	686	485649.5	3750934.9	0.000209523	0.000156576
2026	687	485749.5	3750934.9	0.000206995	0.000154371
2026	688	485849.5	3750934.9	0.000203491	0.000151353
2026	689	485549.5	3751034.9	0.000225369	0.000169091
2026	690	485649.5	3751034.9	0.000220517	0.000164825
2026	691	485749.5	3751034.9	0.000217995	0.000162593
2026	692	485849.5	3751034.9	0.000214993	0.000159974
2026	693	485549.5	3751134.9	0.000239265	0.000179971
2026	694	485649.5	3751134.9	0.000233868	0.00017518
2026	695	485749.5	3751134.9	0.000230965	0.000172585
2026	696	485849.5	3751134.9	0.000227248	0.000169312
2026	697	485549.5	3751234.9	0.000256405	0.000193783
2026	698	485649.5	3751234.9	0.000249484	0.000187597
2026	699	485749.5	3751234.9	0.000246005	0.000184447
2026	700	485849.5	3751234.9	0.000244242	0.000182835
2026	701	485549.5	3751334.9	0.000275363	0.000209317
2026	702	485649.5	3751334.9	0.00026923	0.000203707
2026	703	485749.5	3751334.9	0.000264162	0.000199104
2026	704	485849.5	3751334.9	0.000264723	0.000199492
2026	705	485549.5	3751434.9	0.00030218	0.000231902
2026	706	485649.5	3751434.9	0.00029681	0.000226806
2026	707	485749.5	3751434.9	0.000287539	0.000218383
2026	708	485849.5	3751434.9	0.000293815	0.000223733
2026	709	485549.5	3751534.9	0.000376598	0.000295821
2026	710	485649.5	3751534.9	0.000363765	0.000284058
2026	711	485749.5	3751534.9	0.000330473	0.000254855
2026	712	485849.5	3751534.9	0.0003214	0.000246611
2026	713	485549.5	3751634.9	0.000594446	0.000473894
2026	714	485649.5	3751634.9	0.000488223	0.000387865
2026	715	485749.5	3751634.9	0.000448081	0.000353968
2026	716	485849.5	3751634.9	0.000348351	0.000269028
2026	717	485549.5	3751734.9	0.000758511	0.000603727
2026	718	485649.5	3751734.9	0.000710802	0.00056576

2026	719	485749.5	3751734.9	0.00061576	0.0004904
2026	720	485849.5	3751734.9	0.000423927	0.000333553
2026	721	485549.5	3751834.9	0.000903452	0.000729262
2026	722	485649.5	3751834.9	0.000827763	0.00066192
2026	723	485749.5	3751834.9	0.000771618	0.000614329
2026	724	485849.5	3751834.9	0.000634881	0.000506337
2026	725	485549.5	3751934.9	0.001108383	0.000913156
2026	726	485649.5	3751934.9	0.000954278	0.000765307
2026	727	485749.5	3751934.9	0.000902944	0.000717418
2026	728	485849.5	3751934.9	0.000845461	0.000668912
2026	729	485549.5	3752034.9	0.00135556	0.001139167
2026	730	485649.5	3752034.9	0.001087423	0.000875708
2026	731	485749.5	3752034.9	0.001033435	0.000824711
2026	732	485849.5	3752034.9	0.000987241	0.000785636
2026	733	485549.5	3752134.9	0.001383054	0.001149572
2026	734	485649.5	3752134.9	0.001300826	0.00106468
2026	735	485749.5	3752134.9	0.001278766	0.001042986
2026	736	485849.5	3752134.9	0.001263918	0.001032883
2026	737	485549.5	3752234.9	0.001598282	0.001352352
2026	738	485649.5	3752234.9	0.001638083	0.001386045
2026	739	485749.5	3752234.9	0.001697921	0.001441166
2026	740	485849.5	3752234.9	0.001732728	0.001475884
2026	741	485549.5	3752334.9	0.001247014	0.000990942
2026	742	485649.5	3752334.9	0.001265906	0.001000536
2026	743	485749.5	3752334.9	0.001293785	0.001020467
2026	744	485849.5	3752334.9	0.001323236	0.001043831
2026	745	485549.5	3752434.9	0.0011905	0.000924217
2026	746	485649.5	3752434.9	0.001198087	0.00092165
2026	747	485749.5	3752434.9	0.001222456	0.000935268
2026	748	485849.5	3752434.9	0.001254081	0.000955794
2026	749	485549.5	3752534.9	0.0012142	0.000936645
2026	750	485649.5	3752534.9	0.001219516	0.000930988
2026	751	485749.5	3752534.9	0.001245859	0.000945393
2026	752	485849.5	3752534.9	0.001279616	0.00096613
2026	753	485549.5	3752634.9	0.001266472	0.000975794
2026	754	485649.5	3752634.9	0.001274732	0.000972144
2026	755	485749.5	3752634.9	0.001303993	0.000988872
2026	756	485849.5	3752634.9	0.001340343	0.001011156
2026	757	485549.5	3752734.9	0.001333078	0.001028616
2026	758	485649.5	3752734.9	0.001347388	0.001030125
2026	759	485749.5	3752734.9	0.001387193	0.00105557
2026	760	485849.5	3752734.9	0.00143453	0.001086674
2026	761	485549.5	3752834.9	0.001407598	0.001089385
2026	762	485649.5	3752834.9	0.001430495	0.001098882
2026	763	485749.5	3752834.9	0.001486616	0.001138999
2026	764	485849.5	3752834.9	0.00155313	0.001186988
2026	765	485549.5	3752934.9	0.001489737	0.001156727

2026	766	485649.5	3752934.9	0.001522348	0.001175587
2026	767	485749.5	3752934.9	0.001599321	0.001235999
2026	768	485849.5	3752934.9	0.001702417	0.0013182
2026	769	485549.5	3753034.9	0.001589902	0.001240158
2026	770	485649.5	3753034.9	0.001616993	0.001253842
2026	771	485749.5	3753034.9	0.001717389	0.001336978
2026	772	485849.5	3753034.9	0.001874791	0.001472504
2026	773	485549.5	3753134.9	0.001635159	0.001264606
2026	774	485649.5	3753134.9	0.00171073	0.001327396
2026	775	485749.5	3753134.9	0.001824981	0.001425872
2026	776	485849.5	3753134.9	0.002024129	0.001603751
2026	777	485549.5	3753234.9	0.001728262	0.00133171
2026	778	485649.5	3753234.9	0.001807939	0.001399673
2026	779	485749.5	3753234.9	0.001928215	0.001507182
2026	780	485849.5	3753234.9	0.002146291	0.001706504
2026	781	485549.5	3753334.9	0.001876959	0.001446595
2026	782	485649.5	3753334.9	0.001929063	0.001484424
2026	783	485749.5	3753334.9	0.002047901	0.0015936
2026	784	485849.5	3753334.9	0.002264288	0.001797871
2026	785	485549.5	3753434.9	0.002029489	0.001559224
2026	786	485649.5	3753434.9	0.002115265	0.001619672
2026	787	485749.5	3753434.9	0.0022489	0.001738046
2026	788	485849.5	3753434.9	0.002454849	0.001941998
2026	789	485508.5	3746711.3	0.000147525	0.000120993
2026	790	491508.5	3746711.3	0.000103211	8.48405E-05
2026	791	479508.5	3752711.3	0.000552137	0.000487849
2026	792	485508.5	3752711.3	0.001285044	0.000988542
2026	793	491508.5	3752711.3	0.000747551	0.000465647
2026	794	485508.5	3758711.3	0.000278688	0.000250624
2026	795	491508.5	3758711.3	0.000113669	9.70829E-05
2026	796	485921.9	3750934.2	0.000200412	0.000148736
2026	797	486021.9	3750934.2	0.000197023	0.000145868
2026	798	486121.9	3750934.2	0.000195005	0.000144212
2026	799	485921.9	3751034.2	0.000211155	0.00015666
2026	800	486021.9	3751034.2	0.000206291	0.000152478
2026	801	486121.9	3751034.2	0.000203281	0.000149923
2026	802	485921.9	3751134.2	0.000223867	0.000166359
2026	803	486021.9	3751134.2	0.000218361	0.00016157
2026	804	486121.9	3751134.2	0.000213939	0.000157725
2026	805	485921.9	3751234.2	0.000239033	0.000178251
2026	806	486021.9	3751234.2	0.000232867	0.00017282
2026	807	486121.9	3751234.2	0.000227353	0.000167972
2026	808	485921.9	3751334.2	0.000257984	0.000193508
2026	809	486021.9	3751334.2	0.000250838	0.000187145
2026	810	486121.9	3751334.2	0.000243107	0.000180284
2026	811	485921.9	3751434.2	0.000283849	0.000214886
2026	812	486021.9	3751434.2	0.000272459	0.000204715

2026	813	486121.9	3751434.2	0.000262593	0.000195891
2026	814	485921.9	3751534.2	0.000311259	0.00023759
2026	815	486021.9	3751534.2	0.000302648	0.000229844
2026	816	486121.9	3751534.2	0.000287165	0.000216001
2026	817	485921.9	3751634.2	0.000335808	0.000257794
2026	818	486021.9	3751634.2	0.000351856	0.000271337
2026	819	486121.9	3751634.2	0.000324449	0.000247298
2026	820	485921.9	3751734.2	0.000385128	0.000299698
2026	821	486021.9	3751734.2	0.000428662	0.000335748
2026	822	486121.9	3751734.2	0.000365728	0.000281842
2026	823	485921.9	3751834.2	0.000486336	0.000385241
2026	824	486021.9	3751834.2	0.000480934	0.000379099
2026	825	486121.9	3751834.2	0.000386009	0.000297934
2026	826	485921.9	3751934.2	0.000747256	0.000595509
2026	827	486021.9	3751934.2	0.000595047	0.000472033
2026	828	486121.9	3751934.2	0.000479493	0.000376114
2026	829	485921.9	3752034.2	0.000916064	0.00072911
2026	830	486021.9	3752034.2	0.000748083	0.000598313
2026	831	486121.9	3752034.2	0.000655259	0.000521169
2026	832	485921.9	3752134.2	0.001259922	0.001035301
2026	833	486021.9	3752134.2	0.001193256	0.000984823
2026	834	486121.9	3752134.2	0.000942286	0.00076407
2026	835	485921.9	3752234.2	0.001742483	0.001490141
2026	836	486021.9	3752234.2	0.001787427	0.001540482
2026	837	486121.9	3752234.2	0.001558772	0.001321524
2026	838	485921.9	3752334.2	0.00134255	0.00106022
2026	839	486021.9	3752334.2	0.001398447	0.001116389
2026	840	486121.9	3752334.2	0.001650318	0.001369584
2026	841	485921.9	3752434.2	0.00128459	0.000980574
2026	842	486021.9	3752434.2	0.00133633	0.001025817
2026	843	486121.9	3752434.2	0.001443791	0.001127043
2026	844	485921.9	3752534.2	0.001310488	0.000986677
2026	845	486021.9	3752534.2	0.001353822	0.001018135
2026	846	486121.9	3752534.2	0.001414187	0.001067577
2026	847	485921.9	3752634.2	0.001369183	0.001029555
2026	848	486021.9	3752634.2	0.001411267	0.001057987
2026	849	486121.9	3752634.2	0.001461926	0.001095512
2026	850	485921.9	3752734.2	0.001469544	0.001109709
2026	851	486021.9	3752734.2	0.001523216	0.001145994
2026	852	486121.9	3752734.2	0.001581801	0.001187855
2026	853	485921.9	3752834.2	0.001606378	0.001224964
2026	854	486021.9	3752834.2	0.001687505	0.00128318
2026	855	486121.9	3752834.2	0.001773033	0.001345612
2026	856	485921.9	3752934.2	0.001786869	0.001385338
2026	857	486021.9	3752934.2	0.001930047	0.001498811
2026	858	486121.9	3752934.2	0.002120071	0.001653815
2026	859	487026.2	3754364	0.007381718	0.006417908

2027	1	489607.4	3753966.1	0.001645802	0.001051282
2027	2	489738.7	3754023.9	0.001544756	0.00104693
2027	3	489668.9	3754093.7	0.001508373	0.001076114
2027	4	489690.1	3754161.6	0.00144133	0.001048322
2027	5	490282.2	3753425.2	0.001485869	0.000854233
2027	6	489797.3	3754554.1	0.001202236	0.000904548
2027	7	490252.9	3754378.2	0.001116451	0.00083062
2027	8	489006	3754140.3	0.001901464	0.001289767
2027	9	485642.8	3754267.3	0.003661479	0.003000704
2027	10	485736.4	3754259.5	0.00416943	0.003439472
2027	11	487189.2	3754820.5	0.007214653	0.006273138
2027	12	487233.1	3754689.5	0.005682743	0.004765791
2027	13	487216.8	3754364.7	0.007883985	0.006857004
2027	14	487388.8	3754380.1	0.004688708	0.003884359
2027	15	484625	3751748	0.000945991	0.000762595
2027	16	483279	3751798	0.000691666	0.000555585
2027	17	483231	3751205	0.000612136	0.000492808
2027	18	480165	3750195	0.000478628	0.000411453
2027	19	481211	3749473	0.000419359	0.000349093
2027	20	481867	3752785	0.000705813	0.000597493
2027	21	480678	3751306	0.000506667	0.000427959
2027	22	479989	3752645	0.000603364	0.000527818
2027	23	479889	3756222	0.000848753	0.000778612
2027	24	479234	3757080	0.000405388	0.000365372
2027	25	480276	3756365	0.000687822	0.000627083
2027	26	479887	3754007	0.000785957	0.000706267
2027	27	480772	3755009	0.00167874	0.00155026
2027	28	481560	3754548	0.001255712	0.00113738
2027	29	481845	3754457	0.001266956	0.001143124
2027	30	481754	3753876	0.000929102	0.0008186
2027	31	489635.2	3750663.8	0.000293534	0.000222
2027	32	485424.1	3747672.3	0.000203896	0.000164666
2027	33	482657.6	3753975.1	0.001067603	0.00092992
2027	34	481495	3754633.7	0.001317839	0.001197907
2027	35	481148.7	3756136.2	0.000947776	0.000867551
2027	36	482346.5	3748872.9	0.000160095	0.000126443
2027	37	480299	3751198	0.000491829	0.000417798
2027	38	479598.7	3756506.3	0.00064733	0.000590147
2027	39	478997.8	3753535.2	0.000856109	0.000774112
2027	40	478978.3	3755233.1	0.002668768	0.002496337
2027	41	479197.3	3754462.3	0.001156443	0.001060219
2027	42	479493.3	3752408.8	0.000610274	0.000538046
2027	43	480295.4	3752408.4	0.000586233	0.000508348
2027	44	480287.9	3754227.5	0.000863856	0.0007777
2027	45	494397.4	3753977.6	0.000491699	0.000394589
2027	46	481108.5	3750699	0.000506126	0.000426911
2027	47	486794.1	3756878	0.000468511	0.000409908

2027	48	482345	3752065.8	0.000678776	0.000564005
2027	49	487553	3745938.3	0.000126242	0.000105007
2027	50	484553	3746938.3	0.000164334	0.000133826
2027	51	485553	3746938.3	0.000174267	0.000142499
2027	52	486553	3746938.3	0.000140182	0.000117343
2027	53	487553	3746938.3	0.000152875	0.000125533
2027	54	488553	3746938.3	0.000139264	0.000114824
2027	55	489553	3746938.3	0.000137846	0.000113002
2027	56	490553	3746938.3	0.000126686	0.000104085
2027	57	491553	3746938.3	0.000120816	9.91198E-05
2027	58	492553	3746938.3	0.000116723	9.5714E-05
2027	59	482553	3747938.3	0.000139704	0.000110426
2027	60	483553	3747938.3	0.000240609	0.000191821
2027	61	484553	3747938.3	0.000229639	0.000183878
2027	62	485553	3747938.3	0.000214063	0.000172138
2027	63	486553	3747938.3	0.000200298	0.000162911
2027	64	487553	3747938.3	0.000129736	0.000108103
2027	65	488553	3747938.3	0.000166146	0.000135341
2027	66	489553	3747938.3	0.000156361	0.000127417
2027	67	490553	3747938.3	0.00014764	0.000120188
2027	68	491553	3747938.3	0.000140872	0.000114489
2027	69	492553	3747938.3	0.000136267	0.000110741
2027	70	493553	3747938.3	0.000133862	0.00010906
2027	71	481553	3748938.3	0.000338945	0.000273155
2027	72	482553	3748938.3	0.000166266	0.000131255
2027	73	483553	3748938.3	0.000272639	0.00021635
2027	74	484553	3748938.3	0.000285444	0.000224885
2027	75	485553	3748938.3	0.000272729	0.000215757
2027	76	486553	3748938.3	0.00025376	0.000202247
2027	77	487553	3748938.3	0.000202607	0.000167648
2027	78	488553	3748938.3	0.000203681	0.000163119
2027	79	489553	3748938.3	0.000187953	0.000151082
2027	80	490553	3748938.3	0.000177229	0.000142193
2027	81	491553	3748938.3	0.000168616	0.000135236
2027	82	492553	3748938.3	0.0001643	0.000131845
2027	83	493553	3748938.3	0.00016834	0.000136258
2027	84	494553	3748938.3	0.000270828	0.00023558
2027	85	480553	3749938.3	0.000610806	0.000543166
2027	86	481553	3749938.3	0.000481985	0.000400783
2027	87	482553	3749938.3	0.000450534	0.00036422
2027	88	483553	3749938.3	0.000427022	0.000339107
2027	89	484553	3749938.3	0.000295396	0.000232419
2027	90	485553	3749938.3	0.000234693	0.000184178
2027	91	486553	3749938.3	0.000284022	0.000227039
2027	92	487553	3749938.3	0.000301722	0.000237104
2027	93	488553	3749938.3	0.000259197	0.000201905
2027	94	489553	3749938.3	0.000237572	0.000186007

2027	95	490553	3749938.3	0.00022187	0.000173748
2027	96	491553	3749938.3	0.00021141	0.000165494
2027	97	492553	3749938.3	0.000212542	0.000167027
2027	98	493553	3749938.3	0.000269462	0.000220557
2027	99	494553	3749938.3	0.000200309	0.0001545
2027	100	495553	3749938.3	0.000160531	0.000132077
2027	101	480553	3750938.3	0.000482818	0.000407579
2027	102	481553	3750938.3	0.000525042	0.000438433
2027	103	482553	3750938.3	0.000567347	0.000465956
2027	104	483553	3750938.3	0.000649262	0.000529322
2027	105	484553	3750938.3	0.000594831	0.000469149
2027	106	485553	3750938.3	0.000242393	0.000181655
2027	107	486553	3750938.3	0.000216656	0.000160956
2027	108	487553	3750938.3	0.000340384	0.000265221
2027	109	488553	3750938.3	0.000366589	0.00026774
2027	110	489553	3750938.3	0.000328428	0.000242866
2027	111	490553	3750938.3	0.00030047	0.000224002
2027	112	491553	3750938.3	0.000287571	0.000215036
2027	113	492553	3750938.3	0.000376749	0.000299609
2027	114	493553	3750938.3	0.00028335	0.000210615
2027	115	494553	3750938.3	0.000274034	0.000205521
2027	116	495553	3750938.3	0.000257505	0.000200365
2027	117	479553	3751938.3	0.000565906	0.000494791
2027	118	480553	3751938.3	0.000561106	0.000481551
2027	119	481553	3751938.3	0.000589312	0.000494267
2027	120	482553	3751938.3	0.000656863	0.0005383
2027	121	483553	3751938.3	0.000748957	0.000599454
2027	122	484553	3751938.3	0.000891661	0.000703732
2027	123	485553	3751938.3	0.001256615	0.001034208
2027	124	486553	3751938.3	0.000410895	0.000310214
2027	125	487553	3751938.3	0.000613937	0.000460528
2027	126	488553	3751938.3	0.000638363	0.000408332
2027	127	489553	3751938.3	0.000587527	0.000366705
2027	128	490553	3751938.3	0.000523093	0.000336586
2027	129	491553	3751938.3	0.000656977	0.000479714
2027	130	492553	3751938.3	0.000456448	0.00029621
2027	131	493553	3751938.3	0.000417705	0.000307739
2027	132	494553	3751938.3	0.000390389	0.000290156
2027	133	495553	3751938.3	0.000349065	0.000265826
2027	134	479553	3752938.3	0.000670534	0.000595215
2027	135	480553	3752938.3	0.000677888	0.000592706
2027	136	481553	3752938.3	0.00075072	0.00064698
2027	137	482553	3752938.3	0.000827633	0.000695257
2027	138	483553	3752938.3	0.000944255	0.000766704
2027	139	484553	3752938.3	0.001203744	0.000937908
2027	140	485553	3752938.3	0.001694172	0.001314755
2027	141	486553	3752938.3	0.003187339	0.002608755

2027	142	487553	3752938.3	0.003774308	0.003008888
2027	143	488553	3752938.3	0.002021866	0.001349726
2027	144	489553	3752938.3	0.001445435	0.000843976
2027	145	490553	3752938.3	0.001158593	0.000642425
2027	146	491553	3752938.3	0.000886049	0.00058398
2027	147	492553	3752938.3	0.000710987	0.000453739
2027	148	493553	3752938.3	0.000611797	0.000432427
2027	149	494553	3752938.3	0.000538747	0.000399608
2027	150	495553	3752938.3	0.000443283	0.000340494
2027	151	479553	3753938.3	0.000783508	0.000705812
2027	152	480553	3753938.3	0.000797833	0.000711238
2027	153	481553	3753938.3	0.000942844	0.00083575
2027	154	482553	3753938.3	0.001033334	0.00089989
2027	155	483553	3753938.3	0.00128928	0.001109967
2027	156	484553	3753938.3	0.001568759	0.001279583
2027	157	485553	3753938.3	0.0028681	0.002248727
2027	158	486553	3753938.3	0.005432146	0.004409502
2027	159	487553	3753938.3	0.005457424	0.004583422
2027	160	488553	3753938.3	0.002731279	0.001902813
2027	161	489553	3753938.3	0.001664466	0.001026788
2027	162	490553	3753938.3	0.001164328	0.00084925
2027	163	491553	3753938.3	0.000851178	0.00066002
2027	164	492553	3753938.3	0.000709001	0.000557387
2027	165	493553	3753938.3	0.000584971	0.000465186
2027	166	494553	3753938.3	0.000535179	0.000428744
2027	167	495553	3753938.3	0.000420128	0.000339315
2027	168	479553	3754938.3	0.001407442	0.001300232
2027	169	480553	3754938.3	0.001503706	0.001385509
2027	170	481553	3754938.3	0.001724727	0.001585795
2027	171	482553	3754938.3	0.002528957	0.002335394
2027	172	483553	3754938.3	0.002737734	0.002514484
2027	173	484553	3754938.3	0.002763048	0.002495772
2027	174	485553	3754938.3	0.004051481	0.003618707
2027	175	486553	3754938.3	0.006067673	0.005439942
2027	176	487553	3754938.3	0.0033389	0.002726004
2027	177	488553	3754938.3	0.001833596	0.001432334
2027	178	489553	3754938.3	0.001404263	0.001176168
2027	179	490553	3754938.3	0.000974904	0.000834592
2027	180	491553	3754938.3	0.000652337	0.000555839
2027	181	492553	3754938.3	0.000472083	0.000398751
2027	182	493553	3754938.3	0.000482005	0.000410528
2027	183	494553	3754938.3	0.000369444	0.000312968
2027	184	495553	3754938.3	0.000312107	0.000264141
2027	185	479553	3755938.3	0.001420364	0.001318349
2027	186	480553	3755938.3	0.001188652	0.001096297
2027	187	481553	3755938.3	0.001204396	0.001107761
2027	188	482553	3755938.3	0.001730545	0.001596112

2027	189	483553	3755938.3	0.001861695	0.001715361
2027	190	484553	3755938.3	0.001728962	0.00157398
2027	191	485553	3755938.3	0.002389868	0.002180457
2027	192	486553	3755938.3	0.001912686	0.001727653
2027	193	487553	3755938.3	0.000992661	0.000887479
2027	194	488553	3755938.3	0.000698305	0.000618512
2027	195	489553	3755938.3	0.000484577	0.000425845
2027	196	490553	3755938.3	0.000403377	0.000353428
2027	197	491553	3755938.3	0.000333969	0.000291811
2027	198	492553	3755938.3	0.000422138	0.00037881
2027	199	493553	3755938.3	0.000303337	0.000267697
2027	200	494553	3755938.3	0.000293606	0.000259984
2027	201	479553	3756938.3	0.00042503	0.000383468
2027	202	480553	3756938.3	0.00040581	0.000364691
2027	203	481553	3756938.3	0.0003658	0.000327672
2027	204	482553	3756938.3	0.000381915	0.000340831
2027	205	483553	3756938.3	0.000648408	0.000581754
2027	206	484553	3756938.3	0.000619221	0.000549691
2027	207	485553	3756938.3	0.001367396	0.001259591
2027	208	486553	3756938.3	0.00048793	0.000427998
2027	209	487553	3756938.3	0.000317958	0.000275182
2027	210	488553	3756938.3	0.000258241	0.000221967
2027	211	489553	3756938.3	0.000226838	0.000194611
2027	212	490553	3756938.3	0.000208384	0.000178857
2027	213	491553	3756938.3	0.000182847	0.000156839
2027	214	492553	3756938.3	0.000163489	0.000140355
2027	215	493553	3756938.3	0.000175986	0.00015289
2027	216	494553	3756938.3	0.00017162	0.000149616
2027	217	479553	3757938.3	0.0002118	0.00018846
2027	218	480553	3757938.3	0.000203077	0.000180162
2027	219	481553	3757938.3	0.000213887	0.000188787
2027	220	482553	3757938.3	0.000262531	0.000230384
2027	221	483553	3757938.3	0.000257341	0.00022485
2027	222	484553	3757938.3	0.000337873	0.000296791
2027	223	485553	3757938.3	0.00039389	0.000353096
2027	224	486553	3757938.3	0.000226477	0.000195764
2027	225	487553	3757938.3	0.000184579	0.000157934
2027	226	488553	3757938.3	0.000162298	0.000138274
2027	227	489553	3757938.3	0.000149959	0.000127526
2027	228	490553	3757938.3	0.000137054	0.000116479
2027	229	491553	3757938.3	0.000125852	0.000106894
2027	230	492553	3757938.3	0.000121271	0.00010335
2027	231	493553	3757938.3	0.000135131	0.000116162
2027	232	480553	3758938.3	0.000151451	0.000133116
2027	233	481553	3758938.3	0.000167929	0.000146694
2027	234	482553	3758938.3	0.000163469	0.000141948
2027	235	483553	3758938.3	0.00017102	0.000148031

2027	236	484553	3758938.3	0.000213327	0.000186514
2027	237	485553	3758938.3	0.000508989	0.000466314
2027	238	486553	3758938.3	0.000157705	0.000136013
2027	239	487553	3758938.3	0.00017292	0.000149072
2027	240	488553	3758938.3	0.000128688	0.000110043
2027	241	489553	3758938.3	0.00013058	0.000111725
2027	242	490553	3758938.3	0.000142131	0.000121503
2027	243	491553	3758938.3	0.000115732	9.87858E-05
2027	244	492553	3758938.3	0.000120382	0.000102864
2027	245	481553	3759938.3	0.000124267	0.000108119
2027	246	482553	3759938.3	0.000127911	0.000110704
2027	247	483553	3759938.3	0.000135122	0.000116799
2027	248	484553	3759938.3	0.000186438	0.00016274
2027	249	485553	3759938.3	0.000504021	0.000461367
2027	250	486553	3759938.3	0.000229978	0.000200838
2027	251	487553	3759938.3	0.000186908	0.00016196
2027	252	488553	3759938.3	0.000186375	0.000160586
2027	253	489553	3759938.3	0.000162298	0.000139364
2027	254	490553	3759938.3	0.000124585	0.000106853
2027	255	491553	3759938.3	0.000108478	9.28323E-05
2027	256	482553	3760938.3	0.000120255	0.000104152
2027	257	483553	3760938.3	0.000138172	0.000119952
2027	258	484553	3760938.3	0.000176022	0.00015388
2027	259	485553	3760938.3	0.000412536	0.000374203
2027	260	486553	3760938.3	0.000265136	0.000232996
2027	261	487553	3760938.3	0.000209949	0.000184041
2027	262	488553	3760938.3	0.000119183	0.000103345
2027	263	489553	3760938.3	9.01272E-05	7.75406E-05
2027	264	490553	3760938.3	8.59272E-05	7.36911E-05
2027	265	484551.7	3750934.4	0.000590831	0.000466462
2027	266	484651.7	3750934.4	0.00057892	0.000456403
2027	267	484751.7	3750934.4	0.000430444	0.000340905
2027	268	484851.7	3750934.4	0.000389647	0.000307826
2027	269	484951.7	3750934.4	0.000410771	0.000323639
2027	270	485051.7	3750934.4	0.000363095	0.000285117
2027	271	485151.7	3750934.4	0.000301861	0.000233753
2027	272	485251.7	3750934.4	0.00026732	0.000203763
2027	273	485351.7	3750934.4	0.000255377	0.000193182
2027	274	485451.7	3750934.4	0.000248285	0.000186902
2027	275	484551.7	3751034.4	0.000637539	0.000500901
2027	276	484651.7	3751034.4	0.000623194	0.000488991
2027	277	484751.7	3751034.4	0.000578162	0.00045765
2027	278	484851.7	3751034.4	0.000445902	0.00035261
2027	279	484951.7	3751034.4	0.000496898	0.00039176
2027	280	485051.7	3751034.4	0.000407266	0.000320452
2027	281	485151.7	3751034.4	0.000348885	0.000272521
2027	282	485251.7	3751034.4	0.000298325	0.000229345

2027	283	485351.7	3751034.4	0.000275406	0.000209268
2027	284	485451.7	3751034.4	0.000263626	0.000198824
2027	285	484551.7	3751134.4	0.000677493	0.000532189
2027	286	484651.7	3751134.4	0.000671403	0.000525599
2027	287	484751.7	3751134.4	0.000654986	0.000512454
2027	288	484851.7	3751134.4	0.000581947	0.000462466
2027	289	484951.7	3751134.4	0.000592565	0.000467751
2027	290	485051.7	3751134.4	0.000476869	0.000375823
2027	291	485151.7	3751134.4	0.000415817	0.000327053
2027	292	485251.7	3751134.4	0.000356066	0.000277612
2027	293	485351.7	3751134.4	0.000305049	0.000233812
2027	294	485451.7	3751134.4	0.000282095	0.000213591
2027	295	484551.7	3751234.4	0.000721159	0.000568559
2027	296	484651.7	3751234.4	0.000716875	0.000563012
2027	297	484751.7	3751234.4	0.000702198	0.000550658
2027	298	484851.7	3751234.4	0.000672785	0.000529062
2027	299	484951.7	3751234.4	0.000648311	0.000510872
2027	300	485051.7	3751234.4	0.000573952	0.000454947
2027	301	485151.7	3751234.4	0.00047272	0.000373301
2027	302	485251.7	3751234.4	0.000353559	0.000275109
2027	303	485351.7	3751234.4	0.000314042	0.000240606
2027	304	485451.7	3751234.4	0.000299177	0.000227283
2027	305	484551.7	3751334.4	0.000798679	0.000637883
2027	306	484651.7	3751334.4	0.000778431	0.000617089
2027	307	484751.7	3751334.4	0.000756194	0.000597403
2027	308	484851.7	3751334.4	0.000735379	0.000579983
2027	309	484951.7	3751334.4	0.000722438	0.000568068
2027	310	485051.7	3751334.4	0.000682808	0.000539435
2027	311	485151.7	3751334.4	0.000565668	0.000448742
2027	312	485251.7	3751334.4	0.000433489	0.000342533
2027	313	485351.7	3751334.4	0.000345001	0.000266821
2027	314	485451.7	3751334.4	0.000320235	0.000244661
2027	315	484551.7	3751434.4	0.000929463	0.000762756
2027	316	484651.7	3751434.4	0.000876552	0.000707685
2027	317	484751.7	3751434.4	0.000842287	0.000672966
2027	318	484851.7	3751434.4	0.000818127	0.000649605
2027	319	484951.7	3751434.4	0.000798468	0.00063132
2027	320	485051.7	3751434.4	0.000777938	0.000612894
2027	321	485151.7	3751434.4	0.000682596	0.000545927
2027	322	485251.7	3751434.4	0.000515095	0.000410707
2027	323	485351.7	3751434.4	0.000402891	0.000316596
2027	324	485451.7	3751434.4	0.000359231	0.000278049
2027	325	484551.7	3751534.4	0.001240908	0.001069902
2027	326	484651.7	3751534.4	0.001096101	0.000921072
2027	327	484751.7	3751534.4	0.000986288	0.000808346
2027	328	484851.7	3751534.4	0.000930275	0.000750752
2027	329	484951.7	3751534.4	0.000899611	0.000718885

2027	330	485051.7	3751534.4	0.000880464	0.000698416
2027	331	485151.7	3751534.4	0.000853161	0.000673077
2027	332	485251.7	3751534.4	0.00074731	0.000596184
2027	333	485351.7	3751534.4	0.000579664	0.00046329
2027	334	485451.7	3751534.4	0.000470292	0.000373102
2027	335	484551.7	3751634.4	0.001103468	0.00092811
2027	336	484651.7	3751634.4	0.001141007	0.000961571
2027	337	484751.7	3751634.4	0.001176162	0.000992184
2027	338	484851.7	3751634.4	0.00119639	0.001009211
2027	339	484951.7	3751634.4	0.001065269	0.000875672
2027	340	485051.7	3751634.4	0.00100349	0.000811658
2027	341	485151.7	3751634.4	0.000970471	0.000776511
2027	342	485251.7	3751634.4	0.000914489	0.000726261
2027	343	485351.7	3751634.4	0.000845175	0.00067
2027	344	485451.7	3751634.4	0.000753397	0.000602945
2027	345	484551.7	3751734.4	0.000913951	0.000734939
2027	346	484651.7	3751734.4	0.000979923	0.00079558
2027	347	484751.7	3751734.4	0.001092885	0.000903852
2027	348	484851.7	3751734.4	0.00124143	0.001048594
2027	349	484951.7	3751734.4	0.001235742	0.001040307
2027	350	485051.7	3751734.4	0.001386385	0.001188045
2027	351	485151.7	3751734.4	0.001184352	0.000981232
2027	352	485251.7	3751734.4	0.001112661	0.000907502
2027	353	485351.7	3751734.4	0.001032439	0.00083138
2027	354	485451.7	3751734.4	0.000938638	0.000747793
2027	355	484551.7	3751834.4	0.000882764	0.000700326
2027	356	484651.7	3751834.4	0.000914733	0.000727143
2027	357	484751.7	3751834.4	0.000953516	0.000760778
2027	358	484851.7	3751834.4	0.001002904	0.000805535
2027	359	484951.7	3751834.4	0.001070822	0.000870101
2027	360	485051.7	3751834.4	0.001231926	0.001027076
2027	361	485151.7	3751834.4	0.001234558	0.001023035
2027	362	485251.7	3751834.4	0.001317406	0.001101035
2027	363	485351.7	3751834.4	0.001313543	0.001096776
2027	364	485451.7	3751834.4	0.001294036	0.001081611
2027	365	484551.7	3751934.4	0.00089052	0.000702899
2027	366	484651.7	3751934.4	0.000910851	0.000718813
2027	367	484751.7	3751934.4	0.000931751	0.000735551
2027	368	484851.7	3751934.4	0.000958769	0.000757678
2027	369	484951.7	3751934.4	0.000989598	0.000783673
2027	370	485051.7	3751934.4	0.001030489	0.000818973
2027	371	485151.7	3751934.4	0.001083459	0.000865401
2027	372	485251.7	3751934.4	0.001155973	0.00093032
2027	373	485351.7	3751934.4	0.001268208	0.001037403
2027	374	485451.7	3751934.4	0.00133244	0.001103604
2027	375	484551.7	3752034.4	0.0009224	0.000727949
2027	376	484651.7	3752034.4	0.000938982	0.00074016

2027	377	484751.7	3752034.4	0.000956853	0.000753549
2027	378	484851.7	3752034.4	0.000975872	0.000768001
2027	379	484951.7	3752034.4	0.000999691	0.00078647
2027	380	485051.7	3752034.4	0.001028843	0.000809472
2027	381	485151.7	3752034.4	0.001065362	0.000838973
2027	382	485251.7	3752034.4	0.00112021	0.000885169
2027	383	485351.7	3752034.4	0.001199357	0.000957105
2027	384	485451.7	3752034.4	0.001426321	0.001179504
2027	385	484551.7	3752134.4	0.000982756	0.000781107
2027	386	484651.7	3752134.4	0.000998095	0.000791757
2027	387	484751.7	3752134.4	0.001015232	0.00080392
2027	388	484851.7	3752134.4	0.001032431	0.000816141
2027	389	484951.7	3752134.4	0.001051529	0.000829984
2027	390	485051.7	3752134.4	0.001075561	0.000847967
2027	391	485151.7	3752134.4	0.001105879	0.00087148
2027	392	485251.7	3752134.4	0.001153424	0.000910419
2027	393	485351.7	3752134.4	0.001235824	0.00098347
2027	394	485451.7	3752134.4	0.001462215	0.001202382
2027	395	484551.7	3752234.4	0.001095373	0.000886984
2027	396	484651.7	3752234.4	0.001118759	0.000904779
2027	397	484751.7	3752234.4	0.001134774	0.000915356
2027	398	484851.7	3752234.4	0.00114745	0.000922567
2027	399	484951.7	3752234.4	0.001228606	0.000998146
2027	400	485051.7	3752234.4	0.001183006	0.000946746
2027	401	485151.7	3752234.4	0.001214141	0.00097176
2027	402	485251.7	3752234.4	0.001249189	0.000998477
2027	403	485351.7	3752234.4	0.001325366	0.001064607
2027	404	485451.7	3752234.4	0.001589745	0.00131911
2027	405	484551.7	3752334.4	0.001036772	0.000820157
2027	406	484651.7	3752334.4	0.001056064	0.000833669
2027	407	484751.7	3752334.4	0.001075191	0.000847076
2027	408	484851.7	3752334.4	0.001094801	0.000860886
2027	409	484951.7	3752334.4	0.001116448	0.000876319
2027	410	485051.7	3752334.4	0.001138257	0.000892004
2027	411	485151.7	3752334.4	0.001164175	0.000911149
2027	412	485251.7	3752334.4	0.001195732	0.000935401
2027	413	485351.7	3752334.4	0.001242749	0.000973692
2027	414	485451.7	3752334.4	0.001335525	0.001055614
2027	415	484551.7	3752434.4	0.001033016	0.000808224
2027	416	484651.7	3752434.4	0.001053043	0.000822123
2027	417	484751.7	3752434.4	0.001072673	0.000835838
2027	418	484851.7	3752434.4	0.001095885	0.000852199
2027	419	484951.7	3752434.4	0.00111869	0.00086843
2027	420	485051.7	3752434.4	0.001143739	0.000886483
2027	421	485151.7	3752434.4	0.001171281	0.000906611
2027	422	485251.7	3752434.4	0.001202207	0.00092976
2027	423	485351.7	3752434.4	0.001241569	0.000960315

2027	424	485451.7	3752434.4	0.001304999	0.001013957
2027	425	484551.7	3752534.4	0.001054843	0.000821637
2027	426	484651.7	3752534.4	0.001076491	0.000836666
2027	427	484751.7	3752534.4	0.001099367	0.000852681
2027	428	484851.7	3752534.4	0.001124118	0.000870157
2027	429	484951.7	3752534.4	0.001149062	0.000887998
2027	430	485051.7	3752534.4	0.001177016	0.00090817
2027	431	485151.7	3752534.4	0.001206841	0.000929986
2027	432	485251.7	3752534.4	0.001238921	0.000953888
2027	433	485351.7	3752534.4	0.001276592	0.000982674
2027	434	485451.7	3752534.4	0.001335296	0.001031315
2027	435	484551.7	3752634.4	0.001083889	0.00084247
2027	436	484651.7	3752634.4	0.001107373	0.000858776
2027	437	484751.7	3752634.4	0.001132068	0.00087609
2027	438	484851.7	3752634.4	0.001160577	0.000896193
2027	439	484951.7	3752634.4	0.001188893	0.000916498
2027	440	485051.7	3752634.4	0.001220146	0.000939162
2027	441	485151.7	3752634.4	0.001252879	0.000963285
2027	442	485251.7	3752634.4	0.00128793	0.000989573
2027	443	485351.7	3752634.4	0.001328338	0.00102059
2027	444	485451.7	3752634.4	0.001389621	0.001071081
2027	445	484551.7	3752734.4	0.001118563	0.000868795
2027	446	484651.7	3752734.4	0.001145291	0.000887229
2027	447	484751.7	3752734.4	0.001173279	0.000906777
2027	448	484851.7	3752734.4	0.001203292	0.000928027
2027	449	484951.7	3752734.4	0.001235022	0.000950812
2027	450	485051.7	3752734.4	0.001269776	0.000976153
2027	451	485151.7	3752734.4	0.001305961	0.001003049
2027	452	485251.7	3752734.4	0.001344818	0.001032535
2027	453	485351.7	3752734.4	0.001389757	0.001067439
2027	454	485451.7	3752734.4	0.001454177	0.00112103
2027	455	484551.7	3752834.4	0.001156299	0.000898581
2027	456	484651.7	3752834.4	0.001186082	0.000918957
2027	457	484751.7	3752834.4	0.001216275	0.000939946
2027	458	484851.7	3752834.4	0.00125055	0.0009641
2027	459	484951.7	3752834.4	0.001286303	0.000989716
2027	460	485051.7	3752834.4	0.001324229	0.0010174
2027	461	485151.7	3752834.4	0.001364104	0.001047203
2027	462	485251.7	3752834.4	0.001407666	0.001080575
2027	463	485351.7	3752834.4	0.001456933	0.001119601
2027	464	485451.7	3752834.4	0.001527907	0.001179309
2027	465	484551.7	3752934.4	0.001201238	0.000935828
2027	466	484651.7	3752934.4	0.001234183	0.000958219
2027	467	484751.7	3752934.4	0.001268007	0.000981508
2027	468	484851.7	3752934.4	0.001305864	0.001007989
2027	469	484951.7	3752934.4	0.001345598	0.001036256
2027	470	485051.7	3752934.4	0.001388377	0.001067305

2027	471	485151.7	3752934.4	0.001432149	0.001099985
2027	472	485251.7	3752934.4	0.001481259	0.001137685
2027	473	485351.7	3752934.4	0.001534501	0.001180417
2027	474	485451.7	3752934.4	0.001610608	0.00124513
2027	475	484551.7	3753034.4	0.00126645	0.000994243
2027	476	484651.7	3753034.4	0.001304609	0.001020791
2027	477	484751.7	3753034.4	0.001346772	0.001050693
2027	478	484851.7	3753034.4	0.001385829	0.001076819
2027	479	484951.7	3753034.4	0.001429095	0.00110698
2027	480	485051.7	3753034.4	0.001475923	0.001140812
2027	481	485151.7	3753034.4	0.001528211	0.001179952
2027	482	485251.7	3753034.4	0.001602004	0.001240931
2027	483	485351.7	3753034.4	0.001638286	0.001265714
2027	484	485451.7	3753034.4	0.001717729	0.001333498
2027	485	484551.7	3753134.4	0.001269073	0.000990532
2027	486	484651.7	3753134.4	0.00130966	0.001018046
2027	487	484751.7	3753134.4	0.001353928	0.001048359
2027	488	484851.7	3753134.4	0.001399975	0.001080255
2027	489	484951.7	3753134.4	0.001449847	0.001115292
2027	490	485051.7	3753134.4	0.001503169	0.001153472
2027	491	485151.7	3753134.4	0.001559716	0.001194886
2027	492	485251.7	3753134.4	0.001622454	0.001242453
2027	493	485351.7	3753134.4	0.001692224	0.001298042
2027	494	485451.7	3753134.4	0.001790347	0.001382791
2027	495	484551.7	3753234.4	0.001294462	0.001010137
2027	496	484651.7	3753234.4	0.001339511	0.001040563
2027	497	484751.7	3753234.4	0.001387176	0.001072977
2027	498	484851.7	3753234.4	0.001437854	0.001107784
2027	499	484951.7	3753234.4	0.001493083	0.00114622
2027	500	485051.7	3753234.4	0.001553527	0.00118909
2027	501	485151.7	3753234.4	0.001618229	0.001235957
2027	502	485251.7	3753234.4	0.00169051	0.001289885
2027	503	485351.7	3753234.4	0.001772086	0.001353635
2027	504	485451.7	3753234.4	0.001885183	0.001449675
2027	505	484551.7	3753334.4	0.001327796	0.001038406
2027	506	484651.7	3753334.4	0.001375835	0.001070721
2027	507	484751.7	3753334.4	0.001426266	0.00110472
2027	508	484851.7	3753334.4	0.001483045	0.001143516
2027	509	484951.7	3753334.4	0.00154257	0.001184495
2027	510	485051.7	3753334.4	0.001609377	0.001231312
2027	511	485151.7	3753334.4	0.001683057	0.001284078
2027	512	485251.7	3753334.4	0.001768996	0.001347252
2027	513	485351.7	3753334.4	0.001867677	0.001422644
2027	514	485451.7	3753334.4	0.001999995	0.001531915
2027	515	484551.7	3753434.4	0.001361797	0.001069065
2027	516	484651.7	3753434.4	0.001412416	0.001103124
2027	517	484751.7	3753434.4	0.001466134	0.001139148

2027	518	484851.7	3753434.4	0.001526755	0.001180368
2027	519	484951.7	3753434.4	0.001591299	0.001224142
2027	520	485051.7	3753434.4	0.001663521	0.00127402
2027	521	485151.7	3753434.4	0.001747608	0.001333719
2027	522	485251.7	3753434.4	0.001846927	0.001406016
2027	523	485351.7	3753434.4	0.001964919	0.001495112
2027	524	485451.7	3753434.4	0.002130381	0.001628761
2027	525	484551.7	3753534.4	0.001395562	0.001101121
2027	526	484651.7	3753534.4	0.001444672	0.001133433
2027	527	484751.7	3753534.4	0.001500167	0.001170435
2027	528	484851.7	3753534.4	0.001567003	0.001216407
2027	529	484951.7	3753534.4	0.001636319	0.001263548
2027	530	485051.7	3753534.4	0.001713926	0.001316894
2027	531	485151.7	3753534.4	0.001806172	0.001381975
2027	532	485251.7	3753534.4	0.001916863	0.001462261
2027	533	485351.7	3753534.4	0.002054264	0.001565366
2027	534	485451.7	3753534.4	0.002251016	0.001722936
2027	535	484551.7	3753634.4	0.001428623	0.001133775
2027	536	484651.7	3753634.4	0.001480174	0.001167868
2027	537	484751.7	3753634.4	0.00153865	0.001207052
2027	538	484851.7	3753634.4	0.001604754	0.001251822
2027	539	484951.7	3753634.4	0.001678656	0.0013023
2027	540	485051.7	3753634.4	0.001761397	0.001359418
2027	541	485151.7	3753634.4	0.001859337	0.001428709
2027	542	485251.7	3753634.4	0.001977527	0.001514967
2027	543	485351.7	3753634.4	0.002123924	0.001626021
2027	544	485451.7	3753634.4	0.002336462	0.001798957
2027	545	484551.7	3753734.4	0.001472609	0.001178262
2027	546	484651.7	3753734.4	0.001523678	0.001211485
2027	547	484751.7	3753734.4	0.001580415	0.001248444
2027	548	484851.7	3753734.4	0.001643561	0.001289754
2027	549	484951.7	3753734.4	0.001719392	0.001341285
2027	550	485051.7	3753734.4	0.001806993	0.001401854
2027	551	485151.7	3753734.4	0.0019091	0.001473926
2027	552	485251.7	3753734.4	0.002031321	0.001562761
2027	553	485351.7	3753734.4	0.002184714	0.001679139
2027	554	485451.7	3753734.4	0.002406457	0.001860393
2027	555	484551.7	3753834.4	0.001516937	0.001224654
2027	556	484651.7	3753834.4	0.001566148	0.001256013
2027	557	484751.7	3753834.4	0.001623159	0.001293096
2027	558	484851.7	3753834.4	0.001687225	0.00133487
2027	559	484951.7	3753834.4	0.001764667	0.001387255
2027	560	485051.7	3753834.4	0.001851764	0.001446152
2027	561	485151.7	3753834.4	0.001954721	0.001517459
2027	562	485251.7	3753834.4	0.002082865	0.001609956
2027	563	485351.7	3753834.4	0.002242218	0.001729642
2027	564	485451.7	3753834.4	0.002472714	0.001915842

2027	565	484551.7	3753934.4	0.001565124	0.001275994
2027	566	484651.7	3753934.4	0.001616857	0.001309825
2027	567	484751.7	3753934.4	0.001666727	0.00133987
2027	568	484851.7	3753934.4	0.001732083	0.00138297
2027	569	484951.7	3753934.4	0.001808988	0.001434752
2027	570	485051.7	3753934.4	0.001898668	0.001496045
2027	571	485151.7	3753934.4	0.002004139	0.00156929
2027	572	485251.7	3753934.4	0.002131985	0.00166045
2027	573	485351.7	3753934.4	0.002293594	0.001779957
2027	574	485451.7	3753934.4	0.002529038	0.001966791
2027	575	484551.7	3754034.4	0.001622635	0.001338657
2027	576	484651.7	3754034.4	0.001651893	0.001349108
2027	577	484751.7	3754034.4	0.001713421	0.001391049
2027	578	484851.7	3754034.4	0.001781773	0.001437197
2027	579	484951.7	3754034.4	0.001857552	0.001488
2027	580	485051.7	3754034.4	0.001945005	0.001547276
2027	581	485151.7	3754034.4	0.002049229	0.001619469
2027	582	485251.7	3754034.4	0.002177157	0.001710835
2027	583	485351.7	3754034.4	0.002339372	0.001831298
2027	584	485451.7	3754034.4	0.002576032	0.002020391
2027	585	484551.7	3754134.4	0.001659005	0.001378826
2027	586	484651.7	3754134.4	0.001695167	0.001397433
2027	587	484751.7	3754134.4	0.001756593	0.001439975
2027	588	484851.7	3754134.4	0.00182968	0.00149183
2027	589	484951.7	3754134.4	0.001904832	0.001542276
2027	590	485051.7	3754134.4	0.001993278	0.00160241
2027	591	485151.7	3754134.4	0.002097967	0.001675143
2027	592	485251.7	3754134.4	0.002225528	0.00176654
2027	593	485351.7	3754134.4	0.002387724	0.001887207
2027	594	485451.7	3754134.4	0.002622287	0.002074362
2027	595	484551.7	3754234.4	0.001696303	0.001420035
2027	596	484651.7	3754234.4	0.001741413	0.00144899
2027	597	484751.7	3754234.4	0.001806615	0.001496333
2027	598	484851.7	3754234.4	0.001880498	0.00155011
2027	599	484951.7	3754234.4	0.001957322	0.001603421
2027	600	485051.7	3754234.4	0.00204351	0.001662502
2027	601	485151.7	3754234.4	0.002147523	0.001735386
2027	602	485251.7	3754234.4	0.00227394	0.001825925
2027	603	485351.7	3754234.4	0.002433321	0.001943689
2027	604	485451.7	3754234.4	0.002663787	0.002126471
2027	605	484551.7	3754334.4	0.001753083	0.001481158
2027	606	484651.7	3754334.4	0.001809587	0.001522938
2027	607	484751.7	3754334.4	0.001873484	0.00157038
2027	608	484851.7	3754334.4	0.001940132	0.001617925
2027	609	484951.7	3754334.4	0.002016077	0.001671802
2027	610	485051.7	3754334.4	0.002103236	0.001733327
2027	611	485151.7	3754334.4	0.002205313	0.001805774

2027	612	485251.7	3754334.4	0.00232967	0.001896073
2027	613	485351.7	3754334.4	0.002483183	0.002010783
2027	614	485451.7	3754334.4	0.002680727	0.002163867
2027	615	484551.7	3754434.4	0.001863642	0.001597403
2027	616	484651.7	3754434.4	0.001905529	0.001625138
2027	617	484751.7	3754434.4	0.001956838	0.001660788
2027	618	484851.7	3754434.4	0.002015966	0.00170198
2027	619	484951.7	3754434.4	0.002087911	0.001753379
2027	620	485051.7	3754434.4	0.002172014	0.001813573
2027	621	485151.7	3754434.4	0.002272487	0.00188628
2027	622	485251.7	3754434.4	0.002394139	0.0019757
2027	623	485351.7	3754434.4	0.002544547	0.002088891
2027	624	485451.7	3754434.4	0.002738021	0.002239924
2027	625	484551.7	3754534.4	0.001991174	0.001728578
2027	626	484651.7	3754534.4	0.002031663	0.00175631
2027	627	484751.7	3754534.4	0.002068899	0.001778961
2027	628	484851.7	3754534.4	0.002115048	0.001809467
2027	629	484951.7	3754534.4	0.002178555	0.001854217
2027	630	485051.7	3754534.4	0.002257636	0.00191097
2027	631	485151.7	3754534.4	0.002354758	0.001981921
2027	632	485251.7	3754534.4	0.002473062	0.002069785
2027	633	485351.7	3754534.4	0.002619901	0.002181076
2027	634	485451.7	3754534.4	0.00281516	0.002334377
2027	635	484551.7	3754634.4	0.002112635	0.001853402
2027	636	484651.7	3754634.4	0.002147907	0.001876956
2027	637	484751.7	3754634.4	0.002197665	0.001913645
2027	638	484851.7	3754634.4	0.002234233	0.001936729
2027	639	484951.7	3754634.4	0.002289193	0.001975218
2027	640	485051.7	3754634.4	0.002362785	0.002029138
2027	641	485151.7	3754634.4	0.002454951	0.002098145
2027	642	485251.7	3754634.4	0.00256947	0.002184683
2027	643	485351.7	3754634.4	0.002715187	0.002296372
2027	644	485451.7	3754634.4	0.002912454	0.002452898
2027	645	484551.7	3754734.4	0.002247333	0.001989727
2027	646	484651.7	3754734.4	0.00228238	0.002014436
2027	647	484751.7	3754734.4	0.002323137	0.002043963
2027	648	484851.7	3754734.4	0.002371945	0.002080336
2027	649	484951.7	3754734.4	0.002430594	0.002124515
2027	650	485051.7	3754734.4	0.002501163	0.002178066
2027	651	485151.7	3754734.4	0.002587473	0.002244236
2027	652	485251.7	3754734.4	0.002696407	0.002329434
2027	653	485351.7	3754734.4	0.002838862	0.002444324
2027	654	485451.7	3754734.4	0.003033515	0.002606112
2027	655	484551.7	3754834.4	0.0024496	0.002189923
2027	656	484651.7	3754834.4	0.002485891	0.002217423
2027	657	484751.7	3754834.4	0.002526307	0.002247898
2027	658	484851.7	3754834.4	0.002572412	0.002282659

2027	659	484951.7	3754834.4	0.002628187	0.002325723
2027	660	485051.7	3754834.4	0.002693926	0.002376884
2027	661	485151.7	3754834.4	0.00277544	0.002441462
2027	662	485251.7	3754834.4	0.00288027	0.002526446
2027	663	485351.7	3754834.4	0.003023951	0.00264737
2027	664	485451.7	3754834.4	0.003223874	0.002820362
2027	665	484551.7	3754934.4	0.002748787	0.002482033
2027	666	484651.7	3754934.4	0.002782496	0.002507991
2027	667	484751.7	3754934.4	0.002820099	0.002536812
2027	668	484851.7	3754934.4	0.002863146	0.002569899
2027	669	484951.7	3754934.4	0.002914779	0.002610377
2027	670	485051.7	3754934.4	0.00297432	0.00265722
2027	671	485151.7	3754934.4	0.003050735	0.002719256
2027	672	485251.7	3754934.4	0.003150686	0.002802304
2027	673	485351.7	3754934.4	0.003303485	0.002934978
2027	674	485451.7	3754934.4	0.003579253	0.003183336
2027	675	484551.7	3755034.4	0.003195386	0.002913321
2027	676	484651.7	3755034.4	0.003225141	0.002936329
2027	677	484751.7	3755034.4	0.003256777	0.002960182
2027	678	484851.7	3755034.4	0.003298415	0.002993264
2027	679	484951.7	3755034.4	0.003346591	0.00303161
2027	680	485051.7	3755034.4	0.003405201	0.00307902
2027	681	485151.7	3755034.4	0.003475804	0.003136945
2027	682	485251.7	3755034.4	0.003570529	0.003217127
2027	683	485351.7	3755034.4	0.003715276	0.003343873
2027	684	485451.7	3755034.4	0.004099987	0.003697119
2027	685	485549.5	3750934.9	0.000242195	0.000181539
2027	686	485649.5	3750934.9	0.000238001	0.000177857
2027	687	485749.5	3750934.9	0.000235129	0.000175353
2027	688	485849.5	3750934.9	0.000231149	0.000171924
2027	689	485549.5	3751034.9	0.000256	0.000192073
2027	690	485649.5	3751034.9	0.000250489	0.000187227
2027	691	485749.5	3751034.9	0.000247624	0.000184692
2027	692	485849.5	3751034.9	0.000244214	0.000181717
2027	693	485549.5	3751134.9	0.000271785	0.000204432
2027	694	485649.5	3751134.9	0.000265654	0.00019899
2027	695	485749.5	3751134.9	0.000262357	0.000196043
2027	696	485849.5	3751134.9	0.000258134	0.000192324
2027	697	485549.5	3751234.9	0.000291255	0.000220122
2027	698	485649.5	3751234.9	0.000283393	0.000213094
2027	699	485749.5	3751234.9	0.000279441	0.000209516
2027	700	485849.5	3751234.9	0.000277438	0.000207686
2027	701	485549.5	3751334.9	0.000312789	0.000237766
2027	702	485649.5	3751334.9	0.000305822	0.000231394
2027	703	485749.5	3751334.9	0.000300065	0.000226165
2027	704	485849.5	3751334.9	0.000300703	0.000226606
2027	705	485549.5	3751434.9	0.000343251	0.000263422

2027	706	485649.5	3751434.9	0.000337151	0.000257632
2027	707	485749.5	3751434.9	0.00032662	0.000248065
2027	708	485849.5	3751434.9	0.000333749	0.000254142
2027	709	485549.5	3751534.9	0.000427784	0.000336027
2027	710	485649.5	3751534.9	0.000413206	0.000322666
2027	711	485749.5	3751534.9	0.00037539	0.000289494
2027	712	485849.5	3751534.9	0.000365083	0.00028013
2027	713	485549.5	3751634.9	0.000675241	0.000538304
2027	714	485649.5	3751634.9	0.00055458	0.000440582
2027	715	485749.5	3751634.9	0.000508983	0.000402078
2027	716	485849.5	3751634.9	0.000395697	0.000305593
2027	717	485549.5	3751734.9	0.000861605	0.000685784
2027	718	485649.5	3751734.9	0.000807411	0.000642656
2027	719	485749.5	3751734.9	0.000699451	0.000557053
2027	720	485849.5	3751734.9	0.000481546	0.000378888
2027	721	485549.5	3751834.9	0.001026245	0.00082838
2027	722	485649.5	3751834.9	0.000940269	0.000751886
2027	723	485749.5	3751834.9	0.000876493	0.000697826
2027	724	485849.5	3751834.9	0.000721171	0.000575156
2027	725	485549.5	3751934.9	0.00125903	0.001037268
2027	726	485649.5	3751934.9	0.00108398	0.000869324
2027	727	485749.5	3751934.9	0.001025669	0.000814927
2027	728	485849.5	3751934.9	0.000960372	0.000759828
2027	729	485549.5	3752034.9	0.001539802	0.001293997
2027	730	485649.5	3752034.9	0.001235221	0.000994731
2027	731	485749.5	3752034.9	0.001173895	0.000936802
2027	732	485849.5	3752034.9	0.001121422	0.000892416
2027	733	485549.5	3752134.9	0.001571033	0.001305817
2027	734	485649.5	3752134.9	0.001477629	0.001209386
2027	735	485749.5	3752134.9	0.00145257	0.001184744
2027	736	485849.5	3752134.9	0.001435705	0.001173268
2027	737	485549.5	3752234.9	0.001815514	0.001536159
2027	738	485649.5	3752234.9	0.001860725	0.00157443
2027	739	485749.5	3752234.9	0.001928695	0.001637043
2027	740	485849.5	3752234.9	0.001968233	0.00167648
2027	741	485549.5	3752334.9	0.001416503	0.001125626
2027	742	485649.5	3752334.9	0.001437963	0.001136525
2027	743	485749.5	3752334.9	0.001469631	0.001159165
2027	744	485849.5	3752334.9	0.001503084	0.001185704
2027	745	485549.5	3752434.9	0.001352308	0.001049833
2027	746	485649.5	3752434.9	0.001360926	0.001046917
2027	747	485749.5	3752434.9	0.001388607	0.001062386
2027	748	485849.5	3752434.9	0.00142453	0.001085701
2027	749	485549.5	3752534.9	0.001379229	0.00106395
2027	750	485649.5	3752534.9	0.001385267	0.001057524
2027	751	485749.5	3752534.9	0.001415191	0.001073887
2027	752	485849.5	3752534.9	0.001453536	0.001097442

2027	753	485549.5	3752634.9	0.001438605	0.00110842
2027	754	485649.5	3752634.9	0.001447988	0.001104274
2027	755	485749.5	3752634.9	0.001481226	0.001123275
2027	756	485849.5	3752634.9	0.001522517	0.001148588
2027	757	485549.5	3752734.9	0.001514264	0.001168422
2027	758	485649.5	3752734.9	0.001530519	0.001170136
2027	759	485749.5	3752734.9	0.001575734	0.001199039
2027	760	485849.5	3752734.9	0.001629506	0.00123437
2027	761	485549.5	3752834.9	0.001598913	0.00123745
2027	762	485649.5	3752834.9	0.001624922	0.001248238
2027	763	485749.5	3752834.9	0.001688671	0.001293806
2027	764	485849.5	3752834.9	0.001764225	0.001348318
2027	765	485549.5	3752934.9	0.001692216	0.001313945
2027	766	485649.5	3752934.9	0.00172926	0.001335368
2027	767	485749.5	3752934.9	0.001816695	0.001403991
2027	768	485849.5	3752934.9	0.001933802	0.001497364
2027	769	485549.5	3753034.9	0.001805995	0.001408715
2027	770	485649.5	3753034.9	0.001836768	0.001424259
2027	771	485749.5	3753034.9	0.001950809	0.001518694
2027	772	485849.5	3753034.9	0.002129605	0.00167264
2027	773	485549.5	3753134.9	0.001857403	0.001436486
2027	774	485649.5	3753134.9	0.001943246	0.00150781
2027	775	485749.5	3753134.9	0.002073025	0.001619671
2027	776	485849.5	3753134.9	0.00229924	0.001821726
2027	777	485549.5	3753234.9	0.00196316	0.001512711
2027	778	485649.5	3753234.9	0.002053667	0.001589911
2027	779	485749.5	3753234.9	0.00219029	0.001712032
2027	780	485849.5	3753234.9	0.002438006	0.001938445
2027	781	485549.5	3753334.9	0.002132067	0.001643211
2027	782	485649.5	3753334.9	0.002191253	0.001686181
2027	783	485749.5	3753334.9	0.002326244	0.001810195
2027	784	485849.5	3753334.9	0.00257204	0.00204223
2027	785	485549.5	3753434.9	0.002305329	0.001771147
2027	786	485649.5	3753434.9	0.002402764	0.001839811
2027	787	485749.5	3753434.9	0.002554562	0.001974274
2027	788	485849.5	3753434.9	0.002788502	0.002205946
2027	789	485508.5	3746711.3	0.000167576	0.000137438
2027	790	491508.5	3746711.3	0.000117239	9.63717E-05
2027	791	479508.5	3752711.3	0.000627181	0.000554156
2027	792	485508.5	3752711.3	0.001459701	0.001122901
2027	793	491508.5	3752711.3	0.000849155	0.000528936
2027	794	485508.5	3758711.3	0.000316566	0.000284688
2027	795	491508.5	3758711.3	0.000129118	0.000110278
2027	796	485921.9	3750934.2	0.000227652	0.000168952
2027	797	486021.9	3750934.2	0.000223801	0.000165694
2027	798	486121.9	3750934.2	0.000221509	0.000163813
2027	799	485921.9	3751034.2	0.000239855	0.000177952

2027	800	486021.9	3751034.2	0.000234329	0.000173203
2027	801	486121.9	3751034.2	0.00023091	0.0001703
2027	802	485921.9	3751134.2	0.000254294	0.00018897
2027	803	486021.9	3751134.2	0.000248039	0.00018353
2027	804	486121.9	3751134.2	0.000243016	0.000179162
2027	805	485921.9	3751234.2	0.000271522	0.000202479
2027	806	486021.9	3751234.2	0.000264517	0.000196309
2027	807	486121.9	3751234.2	0.000258254	0.000190802
2027	808	485921.9	3751334.2	0.000293048	0.000219809
2027	809	486021.9	3751334.2	0.000284931	0.000212581
2027	810	486121.9	3751334.2	0.000276149	0.000204788
2027	811	485921.9	3751434.2	0.000322428	0.000244092
2027	812	486021.9	3751434.2	0.000309491	0.000232539
2027	813	486121.9	3751434.2	0.000298283	0.000222516
2027	814	485921.9	3751534.2	0.000353564	0.000269882
2027	815	486021.9	3751534.2	0.000343783	0.000261084
2027	816	486121.9	3751534.2	0.000326195	0.000245358
2027	817	485921.9	3751634.2	0.000381449	0.000292833
2027	818	486021.9	3751634.2	0.000399678	0.000308216
2027	819	486121.9	3751634.2	0.000368546	0.00028091
2027	820	485921.9	3751734.2	0.000437473	0.000340431
2027	821	486021.9	3751734.2	0.000486924	0.000381382
2027	822	486121.9	3751734.2	0.000415436	0.000320148
2027	823	485921.9	3751834.2	0.000552437	0.000437601
2027	824	486021.9	3751834.2	0.000546301	0.000430625
2027	825	486121.9	3751834.2	0.000438474	0.000338428
2027	826	485921.9	3751934.2	0.00084882	0.000676449
2027	827	486021.9	3751934.2	0.000675923	0.000536189
2027	828	486121.9	3751934.2	0.000544664	0.000427234
2027	829	485921.9	3752034.2	0.001040572	0.000828208
2027	830	486021.9	3752034.2	0.000849759	0.000679634
2027	831	486121.9	3752034.2	0.00074432	0.000592004
2027	832	485921.9	3752134.2	0.001431165	0.001176015
2027	833	486021.9	3752134.2	0.001355439	0.001118676
2027	834	486121.9	3752134.2	0.001070357	0.000867919
2027	835	485921.9	3752234.2	0.001979314	0.001692675
2027	836	486021.9	3752234.2	0.002030367	0.001749858
2027	837	486121.9	3752234.2	0.001770634	0.00150114
2027	838	485921.9	3752334.2	0.001525024	0.00120432
2027	839	486021.9	3752334.2	0.001588518	0.001268123
2027	840	486121.9	3752334.2	0.001874623	0.001555732
2027	841	485921.9	3752434.2	0.001459186	0.00111385
2027	842	486021.9	3752434.2	0.001517958	0.001165242
2027	843	486121.9	3752434.2	0.001640026	0.001280226
2027	844	485921.9	3752534.2	0.001488604	0.001120782
2027	845	486021.9	3752534.2	0.001537828	0.001156516
2027	846	486121.9	3752534.2	0.001606398	0.001212678

2027	847	485921.9	3752634.2	0.001555277	0.001169487
2027	848	486021.9	3752634.2	0.00160308	0.001201784
2027	849	486121.9	3752634.2	0.001660625	0.001244409
2027	850	485921.9	3752734.2	0.001669278	0.001260536
2027	851	486021.9	3752734.2	0.001730245	0.001301752
2027	852	486121.9	3752734.2	0.001796792	0.001349303
2027	853	485921.9	3752834.2	0.001824711	0.001391456
2027	854	486021.9	3752834.2	0.001916863	0.001457585
2027	855	486121.9	3752834.2	0.002014016	0.001528502
2027	856	485921.9	3752934.2	0.002029733	0.001573627
2027	857	486021.9	3752934.2	0.002192371	0.001702523
2027	858	486121.9	3752934.2	0.002408223	0.001878595
2027	859	487026.2	3754364	0.00838501	0.007290203
2028	1	489607.4	3753966.1	0.001820187	0.001226364
2028	2	489738.7	3754023.9	0.0016134	0.001125653
2028	3	489668.9	3754093.7	0.00153433	0.001119657
2028	4	489690.1	3754161.6	0.001454364	0.001081122
2028	5	490282.2	3753425.2	0.002148149	0.001499691
2028	6	489797.3	3754554.1	0.001188179	0.000912133
2028	7	490252.9	3754378.2	0.001087309	0.000820173
2028	8	489006	3754140.3	0.002760123	0.002152514
2028	9	485642.8	3754267.3	0.002483247	0.001916939
2028	10	485736.4	3754259.5	0.002738635	0.002118269
2028	11	487189.2	3754820.5	0.006112157	0.005448166
2028	12	487233.1	3754689.5	0.005025663	0.004296085
2028	13	487216.8	3754364.7	0.007657925	0.006922153
2028	14	487388.8	3754380.1	0.005780005	0.005100624
2028	15	484625	3751748	0.000747433	0.000577569
2028	16	483279	3751798	0.00056199	0.000440786
2028	17	483231	3751205	0.000499676	0.000392646
2028	18	480165	3750195	0.00037794	0.000323577
2028	19	481211	3749473	0.000341263	0.000280983
2028	20	481867	3752785	0.00057184	0.00048635
2028	21	480678	3751306	0.000410754	0.000347035
2028	22	479989	3752645	0.000491062	0.000438228
2028	23	479889	3756222	0.000687049	0.00065547
2028	24	479234	3757080	0.000331336	0.000308523
2028	25	480276	3756365	0.000558525	0.00052827
2028	26	479887	3754007	0.000639077	0.000593114
2028	27	480772	3755009	0.001352957	0.001302899
2028	28	481560	3754548	0.001014019	0.00095025
2028	29	481845	3754457	0.001023487	0.000953862
2028	30	481754	3753876	0.00073142	0.000656961
2028	31	489635.2	3750663.8	0.000278542	0.000212161
2028	32	485424.1	3747672.3	0.000181129	0.000147073
2028	33	482657.6	3753975.1	0.000866251	0.000768342
2028	34	481495	3754633.7	0.001063999	0.001002095

2028	35	481148.7	3756136.2	0.000767373	0.000729733
2028	36	482346.5	3748872.9	0.00014089	0.00011041
2028	37	480299	3751198	0.000399818	0.000341059
2028	38	479598.7	3756506.3	0.000525667	0.000497241
2028	39	478997.8	3753535.2	0.000716599	0.000676185
2028	40	478978.3	3755233.1	0.002156224	0.002117625
2028	41	479197.3	3754462.3	0.000949622	0.000910555
2028	42	479493.3	3752408.8	0.00049883	0.00045057
2028	43	480295.4	3752408.4	0.000475988	0.000418547
2028	44	480287.9	3754227.5	0.000700306	0.000651174
2028	45	494397.4	3753977.6	0.00043955	0.000355092
2028	46	481108.5	3750699	0.000403351	0.00033676
2028	47	486794.1	3756878	0.000407179	0.000365609
2028	48	482345	3752065.8	0.000541711	0.000443833
2028	49	487553	3745938.3	0.000110573	9.3057E-05
2028	50	484553	3746938.3	0.000146304	0.000120275
2028	51	485553	3746938.3	0.000153598	0.000126561
2028	52	486553	3746938.3	0.000122355	0.000103808
2028	53	487553	3746938.3	0.000134803	0.000111698
2028	54	488553	3746938.3	0.000122871	0.000102376
2028	55	489553	3746938.3	0.000121402	0.00010036
2028	56	490553	3746938.3	0.000111483	9.242E-05
2028	57	491553	3746938.3	0.000106084	8.77394E-05
2028	58	492553	3746938.3	0.000102013	8.42376E-05
2028	59	482553	3747938.3	0.00012849	0.000102309
2028	60	483553	3747938.3	0.000214616	0.000171609
2028	61	484553	3747938.3	0.000204397	0.000164183
2028	62	485553	3747938.3	0.000190732	0.000154098
2028	63	486553	3747938.3	0.00017753	0.00014545
2028	64	487553	3747938.3	0.000113495	9.5675E-05
2028	65	488553	3747938.3	0.000148055	0.000121681
2028	66	489553	3747938.3	0.000139017	0.000114253
2028	67	490553	3747938.3	0.000130875	0.000107346
2028	68	491553	3747938.3	0.000124146	0.000101466
2028	69	492553	3747938.3	0.000118748	9.67829E-05
2028	70	493553	3747938.3	0.000114882	9.3589E-05
2028	71	481553	3748938.3	0.000289052	0.000231107
2028	72	482553	3748938.3	0.000147511	0.000115822
2028	73	483553	3748938.3	0.000246842	0.000196753
2028	74	484553	3748938.3	0.000258909	0.000204635
2028	75	485553	3748938.3	0.000246875	0.000196058
2028	76	486553	3748938.3	0.000228722	0.000183177
2028	77	487553	3748938.3	0.000179539	0.000150297
2028	78	488553	3748938.3	0.000184289	0.000148697
2028	79	489553	3748938.3	0.000169324	0.000137122
2028	80	490553	3748938.3	0.00015883	0.000128146
2028	81	491553	3748938.3	0.000149408	0.000120135

2028	82	492553	3748938.3	0.000143086	0.000114595
2028	83	493553	3748938.3	0.000141264	0.000113295
2028	84	494553	3748938.3	0.000182567	0.000155241
2028	85	480553	3749938.3	0.000447289	0.000391093
2028	86	481553	3749938.3	0.000389443	0.0003192
2028	87	482553	3749938.3	0.000380061	0.000303457
2028	88	483553	3749938.3	0.000373249	0.000294175
2028	89	484553	3749938.3	0.000273587	0.00021651
2028	90	485553	3749938.3	0.000223947	0.000178141
2028	91	486553	3749938.3	0.000265075	0.00021468
2028	92	487553	3749938.3	0.000277647	0.000219452
2028	93	488553	3749938.3	0.000241027	0.000189169
2028	94	489553	3749938.3	0.000219088	0.000172643
2028	95	490553	3749938.3	0.000202304	0.000158944
2028	96	491553	3749938.3	0.000189614	0.000148179
2028	97	492553	3749938.3	0.000184662	0.000143629
2028	98	493553	3749938.3	0.000206803	0.000164241
2028	99	494553	3749938.3	0.000174095	0.00013212
2028	100	495553	3749938.3	0.000138186	0.000114067
2028	101	480553	3750938.3	0.000391471	0.000330272
2028	102	481553	3750938.3	0.000421152	0.000347388
2028	103	482553	3750938.3	0.000457504	0.000368083
2028	104	483553	3750938.3	0.000526259	0.00041749
2028	105	484553	3750938.3	0.0005227	0.000408204
2028	106	485553	3750938.3	0.00023124	0.000173614
2028	107	486553	3750938.3	0.000213354	0.000160498
2028	108	487553	3750938.3	0.000334118	0.000265683
2028	109	488553	3750938.3	0.000361697	0.000267939
2028	110	489553	3750938.3	0.000317707	0.000237105
2028	111	490553	3750938.3	0.000283609	0.00021188
2028	112	491553	3750938.3	0.000264149	0.000196152
2028	113	492553	3750938.3	0.000296863	0.000227303
2028	114	493553	3750938.3	0.000257215	0.000188759
2028	115	494553	3750938.3	0.000249267	0.000185235
2028	116	495553	3750938.3	0.000232494	0.000180683
2028	117	479553	3751938.3	0.000460695	0.000410565
2028	118	480553	3751938.3	0.000452538	0.000390567
2028	119	481553	3751938.3	0.000478008	0.000399573
2028	120	482553	3751938.3	0.000530634	0.000428124
2028	121	483553	3751938.3	0.000608886	0.000474846
2028	122	484553	3751938.3	0.00072468	0.000551448
2028	123	485553	3751938.3	0.00100077	0.000793449
2028	124	486553	3751938.3	0.00041034	0.000314323
2028	125	487553	3751938.3	0.000662462	0.000517614
2028	126	488553	3751938.3	0.000711331	0.000481728
2028	127	489553	3751938.3	0.000647211	0.000425504
2028	128	490553	3751938.3	0.000543182	0.000357276

2028	129	491553	3751938.3	0.000562896	0.000392855
2028	130	492553	3751938.3	0.00044977	0.000290517
2028	131	493553	3751938.3	0.000402942	0.000299112
2028	132	494553	3751938.3	0.000371763	0.000277719
2028	133	495553	3751938.3	0.000327624	0.00025089
2028	134	479553	3752938.3	0.000557049	0.000510009
2028	135	480553	3752938.3	0.000555956	0.000496719
2028	136	481553	3752938.3	0.000599584	0.000522486
2028	137	482553	3752938.3	0.000678404	0.000572382
2028	138	483553	3752938.3	0.000780107	0.000627551
2028	139	484553	3752938.3	0.000972446	0.000730589
2028	140	485553	3752938.3	0.001288484	0.000938703
2028	141	486553	3752938.3	0.002542468	0.00200304
2028	142	487553	3752938.3	0.002800609	0.002111515
2028	143	488553	3752938.3	0.002496064	0.001827803
2028	144	489553	3752938.3	0.002277222	0.001661313
2028	145	490553	3752938.3	0.00188869	0.00135613
2028	146	491553	3752938.3	0.000978433	0.000679289
2028	147	492553	3752938.3	0.000744106	0.000487414
2028	148	493553	3752938.3	0.000604839	0.000432122
2028	149	494553	3752938.3	0.000515556	0.000385094
2028	150	495553	3752938.3	0.000415223	0.000321282
2028	151	479553	3753938.3	0.00063996	0.00059677
2028	152	480553	3753938.3	0.000645401	0.000591591
2028	153	481553	3753938.3	0.000733106	0.000663406
2028	154	482553	3753938.3	0.000837518	0.000742519
2028	155	483553	3753938.3	0.001053304	0.000919606
2028	156	484553	3753938.3	0.001249299	0.001003887
2028	157	485553	3753938.3	0.002015628	0.001453342
2028	158	486553	3753938.3	0.003559843	0.002674265
2028	159	487553	3753938.3	0.003906395	0.00319118
2028	160	488553	3753938.3	0.003457043	0.002644432
2028	161	489553	3753938.3	0.001943134	0.001299982
2028	162	490553	3753938.3	0.001124272	0.000825971
2028	163	491553	3753938.3	0.000784593	0.000611761
2028	164	492553	3753938.3	0.000643688	0.000508558
2028	165	493553	3753938.3	0.000526553	0.000421184
2028	166	494553	3753938.3	0.000478492	0.000385679
2028	167	495553	3753938.3	0.000373163	0.000303389
2028	168	479553	3754938.3	0.001138031	0.001097589
2028	169	480553	3754938.3	0.001213189	0.001164811
2028	170	481553	3754938.3	0.001389634	0.001329754
2028	171	482553	3754938.3	0.00203067	0.001954046
2028	172	483553	3754938.3	0.002232315	0.002132354
2028	173	484553	3754938.3	0.00221255	0.002062583
2028	174	485553	3754938.3	0.003209975	0.002938752
2028	175	486553	3754938.3	0.004426325	0.004029381

2028	176	487553	3754938.3	0.00377557	0.003251619
2028	177	488553	3754938.3	0.002121347	0.001758012
2028	178	489553	3754938.3	0.001329408	0.001143956
2028	179	490553	3754938.3	0.00088591	0.000778031
2028	180	491553	3754938.3	0.00058222	0.000507281
2028	181	492553	3754938.3	0.000417923	0.000359708
2028	182	493553	3754938.3	0.000422515	0.000367016
2028	183	494553	3754938.3	0.000321471	0.000276918
2028	184	495553	3754938.3	0.000269818	0.000231747
2028	185	479553	3755938.3	0.001145097	0.001110574
2028	186	480553	3755938.3	0.000959934	0.000922656
2028	187	481553	3755938.3	0.000972562	0.0009309
2028	188	482553	3755938.3	0.001390601	0.001335466
2028	189	483553	3755938.3	0.001460639	0.001394762
2028	190	484553	3755938.3	0.00138855	0.001308158
2028	191	485553	3755938.3	0.001960303	0.001860628
2028	192	486553	3755938.3	0.001584531	0.001477509
2028	193	487553	3755938.3	0.000875626	0.000807964
2028	194	488553	3755938.3	0.000611677	0.000558221
2028	195	489553	3755938.3	0.000419206	0.000378524
2028	196	490553	3755938.3	0.000347037	0.000311986
2028	197	491553	3755938.3	0.000286017	0.000256004
2028	198	492553	3755938.3	0.000346581	0.000318692
2028	199	493553	3755938.3	0.000254117	0.000229466
2028	200	494553	3755938.3	0.000244145	0.000221154
2028	201	479553	3756938.3	0.000347264	0.000323795
2028	202	480553	3756938.3	0.000332439	0.000308268
2028	203	481553	3756938.3	0.000300271	0.000277197
2028	204	482553	3756938.3	0.0003134	0.000287708
2028	205	483553	3756938.3	0.000528514	0.000486372
2028	206	484553	3756938.3	0.000509861	0.000464343
2028	207	485553	3756938.3	0.001106592	0.001059979
2028	208	486553	3756938.3	0.000421317	0.000379315
2028	209	487553	3756938.3	0.0002772	0.000245623
2028	210	488553	3756938.3	0.000224845	0.000197465
2028	211	489553	3756938.3	0.000196957	0.0001725
2028	212	490553	3756938.3	0.000179943	0.000157564
2028	213	491553	3756938.3	0.000157314	0.000137557
2028	214	492553	3756938.3	0.00014013	0.000122606
2028	215	493553	3756938.3	0.000148921	0.000132018
2028	216	494553	3756938.3	0.000144554	0.000128651
2028	217	479553	3757938.3	0.000174626	0.000159825
2028	218	480553	3757938.3	0.000167175	0.000152361
2028	219	481553	3757938.3	0.00017659	0.00015983
2028	220	482553	3757938.3	0.000218432	0.000196191
2028	221	483553	3757938.3	0.000214214	0.000191247
2028	222	484553	3757938.3	0.000282043	0.000253584

2028	223	485553	3757938.3	0.000326804	0.000302091
2028	224	486553	3757938.3	0.000195439	0.000172756
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2028	226	488553	3757938.3	0.000140275	0.000121678
2028	227	489553	3757938.3	0.000129445	0.000111981
2028	228	490553	3757938.3	0.000118368	0.000102315
2028	229	491553	3757938.3	0.000108456	9.36333E-05
2028	230	492553	3757938.3	0.000104131	9.02349E-05
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2028	232	480553	3758938.3	0.000125471	0.000112951
2028	233	481553	3758938.3	0.000139967	0.00012499
2028	234	482553	3758938.3	0.000136346	0.000120775
2028	235	483553	3758938.3	0.000142949	0.000126101
2028	236	484553	3758938.3	0.000178873	0.000160003
2028	237	485553	3758938.3	0.000415391	0.00039523
2028	238	486553	3758938.3	0.00013526	0.000119137
2028	239	487553	3758938.3	0.0001485	0.000130725
2028	240	488553	3758938.3	0.000110259	9.59904E-05
2028	241	489553	3758938.3	0.000111781	9.73608E-05
2028	242	490553	3758938.3	0.000122046	0.000106199
2028	243	491553	3758938.3	9.9254E-05	8.61693E-05
2028	244	492553	3758938.3	0.000103268	8.97747E-05
2028	245	481553	3759938.3	0.000103565	9.19481E-05
2028	246	482553	3759938.3	0.000106876	9.42437E-05
2028	247	483553	3759938.3	0.000113248	9.97332E-05
2028	248	484553	3759938.3	0.000157516	0.000140689
2028	249	485553	3759938.3	0.000410902	0.000390487
2028	250	486553	3759938.3	0.000194711	0.000174076
2028	251	487553	3759938.3	0.000158836	0.00014058
2028	252	488553	3759938.3	0.00015852	0.000139182
2028	253	489553	3759938.3	0.000137372	0.000119915
2028	254	490553	3759938.3	0.000106215	9.27281E-05
2028	255	491553	3759938.3	9.25641E-05	8.05764E-05
2028	256	482553	3760938.3	0.00010081	8.89828E-05
2028	257	483553	3760938.3	0.000116589	0.000103339
2028	258	484553	3760938.3	0.000148902	0.000133286
2028	259	485553	3760938.3	0.000338128	0.00031748
2028	260	486553	3760938.3	0.00022182	0.00019976
2028	261	487553	3760938.3	0.000176871	0.000158858
2028	262	488553	3760938.3	0.000100774	8.9207E-05
2028	263	489553	3760938.3	7.64372E-05	6.69767E-05
2028	264	490553	3760938.3	7.31161E-05	6.38165E-05
2028	265	484551.7	3750934.4	0.000519534	0.00040637
2028	266	484651.7	3750934.4	0.00051292	0.000401463
2028	267	484751.7	3750934.4	0.000392038	0.000310721
2028	268	484851.7	3750934.4	0.000359747	0.000285235
2028	269	484951.7	3750934.4	0.000380235	0.00030087

2028	270	485051.7	3750934.4	0.000340818	0.000269514
2028	271	485151.7	3750934.4	0.000283787	0.000220653
2028	272	485251.7	3750934.4	0.000249957	0.000190264
2028	273	485351.7	3750934.4	0.00024038	0.000181667
2028	274	485451.7	3750934.4	0.000235295	0.000177189
2028	275	484551.7	3751034.4	0.000555013	0.000429808
2028	276	484651.7	3751034.4	0.000547545	0.000424694
2028	277	484751.7	3751034.4	0.000514347	0.00040531
2028	278	484851.7	3751034.4	0.000407222	0.000322449
2028	279	484951.7	3751034.4	0.000452458	0.000356976
2028	280	485051.7	3751034.4	0.000379507	0.000300327
2028	281	485151.7	3751034.4	0.000329027	0.000258836
2028	282	485251.7	3751034.4	0.000279841	0.000215523
2028	283	485351.7	3751034.4	0.000258458	0.000196236
2028	284	485451.7	3751034.4	0.000249184	0.000187917
2028	285	484551.7	3751134.4	0.000583045	0.000449497
2028	286	484651.7	3751134.4	0.000581769	0.000447512
2028	287	484751.7	3751134.4	0.000574184	0.00044322
2028	288	484851.7	3751134.4	0.00051858	0.000410884
2028	289	484951.7	3751134.4	0.000531189	0.000418011
2028	290	485051.7	3751134.4	0.000437916	0.000345928
2028	291	485151.7	3751134.4	0.000388667	0.000307612
2028	292	485251.7	3751134.4	0.000336188	0.000263901
2028	293	485351.7	3751134.4	0.00028592	0.000219289
2028	294	485451.7	3751134.4	0.000265331	0.000200668
2028	295	484551.7	3751234.4	0.000611869	0.000471413
2028	296	484651.7	3751234.4	0.000611915	0.000469924
2028	297	484751.7	3751234.4	0.000607142	0.000467581
2028	298	484851.7	3751234.4	0.000590142	0.000458605
2028	299	484951.7	3751234.4	0.000574669	0.000449398
2028	300	485051.7	3751234.4	0.000516608	0.000408862
2028	301	485151.7	3751234.4	0.000435834	0.000345237
2028	302	485251.7	3751234.4	0.000329081	0.000256376
2028	303	485351.7	3751234.4	0.000290997	0.000222042
2028	304	485451.7	3751234.4	0.000279473	0.000211586
2028	305	484551.7	3751334.4	0.000654741	0.000506083
2028	306	484651.7	3751334.4	0.00064998	0.000500939
2028	307	484751.7	3751334.4	0.00064266	0.000496417
2028	308	484851.7	3751334.4	0.000633555	0.00049074
2028	309	484951.7	3751334.4	0.000628575	0.000486597
2028	310	485051.7	3751334.4	0.000602819	0.000472032
2028	311	485151.7	3751334.4	0.000510143	0.000403864
2028	312	485251.7	3751334.4	0.000401638	0.000318309
2028	313	485351.7	3751334.4	0.000316613	0.000243443
2028	314	485451.7	3751334.4	0.000296176	0.000224814
2028	315	484551.7	3751434.4	0.000724281	0.000569944
2028	316	484651.7	3751434.4	0.000704838	0.000548556

2028	317	484751.7	3751434.4	0.000693103	0.000536475
2028	318	484851.7	3751434.4	0.000685034	0.000529265
2028	319	484951.7	3751434.4	0.000678497	0.000524082
2028	320	485051.7	3751434.4	0.000670256	0.000517841
2028	321	485151.7	3751434.4	0.000601842	0.000478328
2028	322	485251.7	3751434.4	0.000468717	0.000373572
2028	323	485351.7	3751434.4	0.000368589	0.000288587
2028	324	485451.7	3751434.4	0.000328075	0.000251843
2028	325	484551.7	3751534.4	0.000881915	0.000723542
2028	326	484651.7	3751534.4	0.000817271	0.000654853
2028	327	484751.7	3751534.4	0.0007694	0.000604136
2028	328	484851.7	3751534.4	0.000747359	0.000580569
2028	329	484951.7	3751534.4	0.00073678	0.000568673
2028	330	485051.7	3751534.4	0.000731112	0.000561425
2028	331	485151.7	3751534.4	0.000722412	0.000554829
2028	332	485251.7	3751534.4	0.000655369	0.000517874
2028	333	485351.7	3751534.4	0.000523918	0.00041789
2028	334	485451.7	3751534.4	0.000433233	0.000343822
2028	335	484551.7	3751634.4	0.000816791	0.000654503
2028	336	484651.7	3751634.4	0.000841682	0.000675197
2028	337	484751.7	3751634.4	0.000867761	0.000696634
2028	338	484851.7	3751634.4	0.000884323	0.00070993
2028	339	484951.7	3751634.4	0.000823734	0.000646716
2028	340	485051.7	3751634.4	0.000797833	0.000618341
2028	341	485151.7	3751634.4	0.000788387	0.000606729
2028	342	485251.7	3751634.4	0.000768953	0.000593877
2028	343	485351.7	3751634.4	0.000732279	0.000570738
2028	344	485451.7	3751634.4	0.000668319	0.000531776
2028	345	484551.7	3751734.4	0.000725728	0.00056025
2028	346	484651.7	3751734.4	0.000765857	0.000594956
2028	347	484751.7	3751734.4	0.000829154	0.000653445
2028	348	484851.7	3751734.4	0.000909895	0.0007302
2028	349	484951.7	3751734.4	0.000911451	0.000728877
2028	350	485051.7	3751734.4	0.000992014	0.00080626
2028	351	485151.7	3751734.4	0.000902337	0.000711795
2028	352	485251.7	3751734.4	0.000877265	0.00068498
2028	353	485351.7	3751734.4	0.000845246	0.000657604
2028	354	485451.7	3751734.4	0.000800167	0.00062318
2028	355	484551.7	3751834.4	0.000713777	0.000545388
2028	356	484651.7	3751834.4	0.000736613	0.000562979
2028	357	484751.7	3751834.4	0.000762996	0.000584079
2028	358	484851.7	3751834.4	0.000794364	0.000610634
2028	359	484951.7	3751834.4	0.000833741	0.000646409
2028	360	485051.7	3751834.4	0.000920903	0.000729196
2028	361	485151.7	3751834.4	0.000933937	0.000735447
2028	362	485251.7	3751834.4	0.000988539	0.000785365
2028	363	485351.7	3751834.4	0.000997946	0.000794812

2028	364	485451.7	3751834.4	0.000996091	0.000797728
2028	365	484551.7	3751934.4	0.000723724	0.000550774
2028	366	484651.7	3751934.4	0.000739721	0.000562242
2028	367	484751.7	3751934.4	0.000755971	0.000574187
2028	368	484851.7	3751934.4	0.000776346	0.000589508
2028	369	484951.7	3751934.4	0.000798793	0.000606925
2028	370	485051.7	3751934.4	0.000827464	0.000629784
2028	371	485151.7	3751934.4	0.000863708	0.000659261
2028	372	485251.7	3751934.4	0.000913571	0.000701412
2028	373	485351.7	3751934.4	0.000985443	0.000768459
2028	374	485451.7	3751934.4	0.001030196	0.000815869
2028	375	484551.7	3752034.4	0.000748936	0.000569898
2028	376	484651.7	3752034.4	0.000762756	0.000579237
2028	377	484751.7	3752034.4	0.000777643	0.000589521
2028	378	484851.7	3752034.4	0.00079342	0.00060057
2028	379	484951.7	3752034.4	0.000812788	0.000614413
2028	380	485051.7	3752034.4	0.000836029	0.000631304
2028	381	485151.7	3752034.4	0.000864373	0.000652394
2028	382	485251.7	3752034.4	0.000905223	0.000684433
2028	383	485351.7	3752034.4	0.000960379	0.000732342
2028	384	485451.7	3752034.4	0.001088919	0.000856551
2028	385	484551.7	3752134.4	0.000793262	0.000607822
2028	386	484651.7	3752134.4	0.000806383	0.000616164
2028	387	484751.7	3752134.4	0.00082104	0.000625747
2028	388	484851.7	3752134.4	0.000835921	0.00063552
2028	389	484951.7	3752134.4	0.000852386	0.000646571
2028	390	485051.7	3752134.4	0.000872648	0.000660605
2028	391	485151.7	3752134.4	0.000897359	0.000678288
2028	392	485251.7	3752134.4	0.000933411	0.000705485
2028	393	485351.7	3752134.4	0.000989986	0.000752532
2028	394	485451.7	3752134.4	0.001120019	0.000875006
2028	395	484551.7	3752234.4	0.000873555	0.000682174
2028	396	484651.7	3752234.4	0.000892504	0.000695487
2028	397	484751.7	3752234.4	0.000906399	0.000703876
2028	398	484851.7	3752234.4	0.000918175	0.000710097
2028	399	484951.7	3752234.4	0.000978363	0.000764596
2028	400	485051.7	3752234.4	0.000949662	0.000729943
2028	401	485151.7	3752234.4	0.000974988	0.000748956
2028	402	485251.7	3752234.4	0.001002972	0.000768378
2028	403	485351.7	3752234.4	0.001056755	0.000811837
2028	404	485451.7	3752234.4	0.001215065	0.000960028
2028	405	484551.7	3752334.4	0.00083363	0.0006349
2028	406	484651.7	3752334.4	0.000849501	0.000644968
2028	407	484751.7	3752334.4	0.000865399	0.000655112
2028	408	484851.7	3752334.4	0.000881869	0.000665735
2028	409	484951.7	3752334.4	0.000900109	0.000677699
2028	410	485051.7	3752334.4	0.000918641	0.000690012

2028	411	485151.7	3752334.4	0.000940362	0.000704829
2028	412	485251.7	3752334.4	0.000966009	0.000722989
2028	413	485351.7	3752334.4	0.001001658	0.000749668
2028	414	485451.7	3752334.4	0.001064183	0.000801019
2028	415	484551.7	3752434.4	0.000832199	0.000626186
2028	416	484651.7	3752434.4	0.000848321	0.000636182
2028	417	484751.7	3752434.4	0.000864244	0.000646192
2028	418	484851.7	3752434.4	0.00088311	0.000658221
2028	419	484951.7	3752434.4	0.000901793	0.000670328
2028	420	485051.7	3752434.4	0.000922369	0.000683898
2028	421	485151.7	3752434.4	0.000944973	0.000699041
2028	422	485251.7	3752434.4	0.000970135	0.000716332
2028	423	485351.7	3752434.4	0.001001288	0.000738518
2028	424	485451.7	3752434.4	0.001047551	0.000774745
2028	425	484551.7	3752534.4	0.000849014	0.000635519
2028	426	484651.7	3752534.4	0.000865966	0.000645884
2028	427	484751.7	3752534.4	0.000883941	0.000657046
2028	428	484851.7	3752534.4	0.000903458	0.000669353
2028	429	484951.7	3752534.4	0.000923176	0.00068203
2028	430	485051.7	3752534.4	0.000945318	0.000696462
2028	431	485151.7	3752534.4	0.000968965	0.000712157
2028	432	485251.7	3752534.4	0.000994381	0.000729424
2028	433	485351.7	3752534.4	0.00102398	0.000750114
2028	434	485451.7	3752534.4	0.001067188	0.000783154
2028	435	484551.7	3752634.4	0.000871254	0.000650509
2028	436	484651.7	3752634.4	0.000889132	0.000661263
2028	437	484751.7	3752634.4	0.000907954	0.000672786
2028	438	484851.7	3752634.4	0.000929806	0.000686354
2028	439	484951.7	3752634.4	0.000951423	0.000700095
2028	440	485051.7	3752634.4	0.000975269	0.000715519
2028	441	485151.7	3752634.4	0.001000159	0.000731973
2028	442	485251.7	3752634.4	0.001026718	0.000749946
2028	443	485351.7	3752634.4	0.001057109	0.000771107
2028	444	485451.7	3752634.4	0.001100961	0.000804278
2028	445	484551.7	3752734.4	0.000898394	0.000670354
2028	446	484651.7	3752734.4	0.00091828	0.000682021
2028	447	484751.7	3752734.4	0.000939075	0.000694487
2028	448	484851.7	3752734.4	0.000961346	0.000708152
2028	449	484951.7	3752734.4	0.000984798	0.000722862
2028	450	485051.7	3752734.4	0.001010373	0.000739284
2028	451	485151.7	3752734.4	0.001036701	0.00075662
2028	452	485251.7	3752734.4	0.001064626	0.000775514
2028	453	485351.7	3752734.4	0.001096476	0.000797695
2028	454	485451.7	3752734.4	0.001140221	0.000830993
2028	455	484551.7	3752834.4	0.000929345	0.000694437
2028	456	484651.7	3752834.4	0.00095102	0.00070679
2028	457	484751.7	3752834.4	0.000972748	0.000719433

2028	458	484851.7	3752834.4	0.00099766	0.000734428
2028	459	484951.7	3752834.4	0.00102337	0.000750257
2028	460	485051.7	3752834.4	0.001050334	0.00076731
2028	461	485151.7	3752834.4	0.001078135	0.000785447
2028	462	485251.7	3752834.4	0.001107796	0.000805428
2028	463	485351.7	3752834.4	0.00114044	0.000828448
2028	464	485451.7	3752834.4	0.001185777	0.000863255
2028	465	484551.7	3752934.4	0.000970102	0.000728626
2028	466	484651.7	3752934.4	0.000993559	0.000741626
2028	467	484751.7	3752934.4	0.001017396	0.00075506
2028	468	484851.7	3752934.4	0.001044211	0.000770724
2028	469	484951.7	3752934.4	0.001072036	0.000787377
2028	470	485051.7	3752934.4	0.00110167	0.000805673
2028	471	485151.7	3752934.4	0.001130963	0.000824362
2028	472	485251.7	3752934.4	0.00116301	0.000845653
2028	473	485351.7	3752934.4	0.001195449	0.00086841
2028	474	485451.7	3752934.4	0.001239849	0.000902495
2028	475	484551.7	3753034.4	0.001039066	0.000791965
2028	476	484651.7	3753034.4	0.001067321	0.000808703
2028	477	484751.7	3753034.4	0.001098927	0.000828219
2028	478	484851.7	3753034.4	0.001123794	0.000840413
2028	479	484951.7	3753034.4	0.001152584	0.000856425
2028	480	485051.7	3753034.4	0.001184369	0.000875623
2028	481	485151.7	3753034.4	0.001220122	0.000898786
2028	482	485251.7	3753034.4	0.001281094	0.000947676
2028	483	485351.7	3753034.4	0.001284421	0.000940438
2028	484	485451.7	3753034.4	0.001321195	0.000966927
2028	485	484551.7	3753134.4	0.001021935	0.000769698
2028	486	484651.7	3753134.4	0.001050375	0.000785196
2028	487	484751.7	3753134.4	0.001081312	0.000802396
2028	488	484851.7	3753134.4	0.00111296	0.000820124
2028	489	484951.7	3753134.4	0.001146935	0.000839604
2028	490	485051.7	3753134.4	0.001182678	0.000860655
2028	491	485151.7	3753134.4	0.001219553	0.000882977
2028	492	485251.7	3753134.4	0.001259047	0.000908108
2028	493	485351.7	3753134.4	0.001299765	0.000935723
2028	494	485451.7	3753134.4	0.001348408	0.000972497
2028	495	484551.7	3753234.4	0.001035907	0.000779183
2028	496	484651.7	3753234.4	0.001067043	0.000795879
2028	497	484751.7	3753234.4	0.001099847	0.00081364
2028	498	484851.7	3753234.4	0.001134418	0.000832597
2028	499	484951.7	3753234.4	0.001171686	0.000853415
2028	500	485051.7	3753234.4	0.001211895	0.000876522
2028	501	485151.7	3753234.4	0.001253814	0.000901202
2028	502	485251.7	3753234.4	0.001298964	0.00092885
2028	503	485351.7	3753234.4	0.00134656	0.000959758
2028	504	485451.7	3753234.4	0.001404493	0.001002274

2028	505	484551.7	3753334.4	0.00105979	0.000799436
2028	506	484651.7	3753334.4	0.001092816	0.000816928
2028	507	484751.7	3753334.4	0.001127269	0.00083514
2028	508	484851.7	3753334.4	0.001165895	0.000856078
2028	509	484951.7	3753334.4	0.001205696	0.000877656
2028	510	485051.7	3753334.4	0.001249627	0.00090207
2028	511	485151.7	3753334.4	0.001296878	0.000929048
2028	512	485251.7	3753334.4	0.001350596	0.000960929
2028	513	485351.7	3753334.4	0.00140913	0.000997413
2028	514	485451.7	3753334.4	0.001478951	0.001045899
2028	515	484551.7	3753434.4	0.001085161	0.0008231
2028	516	484651.7	3753434.4	0.001119754	0.000841343
2028	517	484751.7	3753434.4	0.001156376	0.000860458
2028	518	484851.7	3753434.4	0.001197448	0.000882428
2028	519	484951.7	3753434.4	0.001240532	0.000905015
2028	520	485051.7	3753434.4	0.001287877	0.000930433
2028	521	485151.7	3753434.4	0.001341838	0.000960706
2028	522	485251.7	3753434.4	0.001403738	0.000996599
2028	523	485351.7	3753434.4	0.001473648	0.001039036
2028	524	485451.7	3753434.4	0.001563011	0.001098688
2028	525	484551.7	3753534.4	0.001110929	0.000848985
2028	526	484651.7	3753534.4	0.001144288	0.000865626
2028	527	484751.7	3753534.4	0.00118195	0.00088496
2028	528	484851.7	3753534.4	0.001227154	0.00090973
2028	529	484951.7	3753534.4	0.001273267	0.000933993
2028	530	485051.7	3753534.4	0.001324011	0.000960903
2028	531	485151.7	3753534.4	0.001383138	0.000993596
2028	532	485251.7	3753534.4	0.001451935	0.001033102
2028	533	485351.7	3753534.4	0.001533618	0.001082139
2028	534	485451.7	3753534.4	0.001640441	0.001152352
2028	535	484551.7	3753634.4	0.001136845	0.000876461
2028	536	484651.7	3753634.4	0.0011718	0.000894077
2028	537	484751.7	3753634.4	0.00121141	0.000914607
2028	538	484851.7	3753634.4	0.001255944	0.000938115
2028	539	484951.7	3753634.4	0.001305016	0.000964151
2028	540	485051.7	3753634.4	0.001358992	0.000993004
2028	541	485151.7	3753634.4	0.001421436	0.001027604
2028	542	485251.7	3753634.4	0.001494352	0.001069864
2028	543	485351.7	3753634.4	0.001580143	0.001122239
2028	544	485451.7	3753634.4	0.001693497	0.001199215
2028	545	484551.7	3753734.4	0.001171511	0.000914361
2028	546	484651.7	3753734.4	0.00120595	0.000930982
2028	547	484751.7	3753734.4	0.001244087	0.000949374
2028	548	484851.7	3753734.4	0.001286251	0.000969754
2028	549	484951.7	3753734.4	0.001336612	0.000996174
2028	550	485051.7	3753734.4	0.001393821	0.0010269
2028	551	485151.7	3753734.4	0.001458925	0.001062785

2028	552	485251.7	3753734.4	0.001534255	0.00110599
2028	553	485351.7	3753734.4	0.001623983	0.001160735
2028	554	485451.7	3753734.4	0.001741572	0.001241347
2028	555	484551.7	3753834.4	0.001207159	0.00095506
2028	556	484651.7	3753834.4	0.001239981	0.000969945
2028	557	484751.7	3753834.4	0.001278209	0.000988265
2028	558	484851.7	3753834.4	0.001320942	0.001008736
2028	559	484951.7	3753834.4	0.001372358	0.001035423
2028	560	485051.7	3753834.4	0.001429222	0.001064423
2028	561	485151.7	3753834.4	0.001494912	0.001099072
2028	562	485251.7	3753834.4	0.001574599	0.001144355
2028	563	485351.7	3753834.4	0.0016688	0.001200838
2028	564	485451.7	3753834.4	0.00179265	0.00128378
2028	565	484551.7	3753934.4	0.001246409	0.001000838
2028	566	484651.7	3753934.4	0.001281028	0.00101761
2028	567	484751.7	3753934.4	0.001313803	0.001030177
2028	568	484851.7	3753934.4	0.001357314	0.001051536
2028	569	484951.7	3753934.4	0.001408215	0.001077592
2028	570	485051.7	3753934.4	0.001466845	0.001108278
2028	571	485151.7	3753934.4	0.001534508	0.001144368
2028	572	485251.7	3753934.4	0.001614193	0.001188417
2028	573	485351.7	3753934.4	0.001710718	0.001244539
2028	574	485451.7	3753934.4	0.00183932	0.001327514
2028	575	484551.7	3754034.4	0.001292497	0.001056281
2028	576	484651.7	3754034.4	0.001310897	0.001054506
2028	577	484751.7	3754034.4	0.001352431	0.001076783
2028	578	484851.7	3754034.4	0.001398258	0.00110069
2028	579	484951.7	3754034.4	0.001448399	0.001126087
2028	580	485051.7	3754034.4	0.001505331	0.001155185
2028	581	485151.7	3754034.4	0.001572106	0.001190527
2028	582	485251.7	3754034.4	0.001652047	0.001234966
2028	583	485351.7	3754034.4	0.001749302	0.001292221
2028	584	485451.7	3754034.4	0.001878974	0.001377445
2028	585	484551.7	3754134.4	0.00132412	0.001094496
2028	586	484651.7	3754134.4	0.001347587	0.00109963
2028	587	484751.7	3754134.4	0.001389325	0.001122915
2028	588	484851.7	3754134.4	0.001438757	0.001151813
2028	589	484951.7	3754134.4	0.001488337	0.001176935
2028	590	485051.7	3754134.4	0.001546268	0.001206939
2028	591	485151.7	3754134.4	0.001613863	0.001243224
2028	592	485251.7	3754134.4	0.001694002	0.001288308
2028	593	485351.7	3754134.4	0.001791929	0.001346496
2028	594	485451.7	3754134.4	0.001921133	0.00143126
2028	595	484551.7	3754234.4	0.001357061	0.001134211
2028	596	484651.7	3754234.4	0.001387057	0.001148005
2028	597	484751.7	3754234.4	0.001431664	0.001175565
2028	598	484851.7	3754234.4	0.001481495	0.001206212

2028	599	484951.7	3754234.4	0.001532741	0.001234464
2028	600	485051.7	3754234.4	0.001589715	0.001264767
2028	601	485151.7	3754234.4	0.001656982	0.001301654
2028	602	485251.7	3754234.4	0.001736845	0.001346769
2028	603	485351.7	3754234.4	0.001834585	0.001404644
2028	604	485451.7	3754234.4	0.001964278	0.001489641
2028	605	484551.7	3754334.4	0.001404736	0.001190271
2028	606	484651.7	3754334.4	0.001443454	0.001215099
2028	607	484751.7	3754334.4	0.001487214	0.001243363
2028	608	484851.7	3754334.4	0.001532206	0.001269921
2028	609	484951.7	3754334.4	0.00158298	0.001299322
2028	610	485051.7	3754334.4	0.001640519	0.00133195
2028	611	485151.7	3754334.4	0.001706782	0.001369454
2028	612	485251.7	3754334.4	0.001785991	0.001415923
2028	613	485351.7	3754334.4	0.001880798	0.00147391
2028	614	485451.7	3754334.4	0.00199592	0.001547526
2028	615	484551.7	3754434.4	0.00149411	0.001292612
2028	616	484651.7	3754434.4	0.001522089	0.001306542
2028	617	484751.7	3754434.4	0.001556651	0.001325834
2028	618	484851.7	3754434.4	0.001596335	0.001348028
2028	619	484951.7	3754434.4	0.001644543	0.001376408
2028	620	485051.7	3754434.4	0.001700226	0.001409007
2028	621	485151.7	3754434.4	0.001765716	0.001447804
2028	622	485251.7	3754434.4	0.00184343	0.00149475
2028	623	485351.7	3754434.4	0.001936843	0.001553065
2028	624	485451.7	3754434.4	0.002051435	0.001628518
2028	625	484551.7	3754534.4	0.001599605	0.00140945
2028	626	484651.7	3754534.4	0.001626833	0.001424174
2028	627	484751.7	3754534.4	0.001650416	0.001433029
2028	628	484851.7	3754534.4	0.001679494	0.001446665
2028	629	484951.7	3754534.4	0.00172161	0.001470601
2028	630	485051.7	3754534.4	0.001774278	0.001501759
2028	631	485151.7	3754534.4	0.001838235	0.001540699
2028	632	485251.7	3754534.4	0.001914418	0.001588008
2028	633	485351.7	3754534.4	0.002006209	0.00164644
2028	634	485451.7	3754534.4	0.002123334	0.001725111
2028	635	484551.7	3754634.4	0.001697493	0.001518374
2028	636	484651.7	3754634.4	0.001721139	0.001530441
2028	637	484751.7	3754634.4	0.001756287	0.001553186
2028	638	484851.7	3754634.4	0.001778155	0.001561638
2028	639	484951.7	3754634.4	0.001814341	0.001581858
2028	640	485051.7	3754634.4	0.001864006	0.001612789
2028	641	485151.7	3754634.4	0.001925632	0.001652609
2028	642	485251.7	3754634.4	0.002000722	0.001701463
2028	643	485351.7	3754634.4	0.002093515	0.001762603
2028	644	485451.7	3754634.4	0.002213474	0.001845609
2028	645	484551.7	3754734.4	0.001803662	0.001634607

2028	646	484651.7	3754734.4	0.001827874	0.001648813
2028	647	484751.7	3754734.4	0.001856131	0.00166636
2028	648	484851.7	3754734.4	0.00189011	0.001688676
2028	649	484951.7	3754734.4	0.001931211	0.001716268
2028	650	485051.7	3754734.4	0.001980502	0.001749726
2028	651	485151.7	3754734.4	0.002040128	0.001790723
2028	652	485251.7	3754734.4	0.002113825	0.001842789
2028	653	485351.7	3754734.4	0.002206681	0.001911254
2028	654	485451.7	3754734.4	0.002326074	0.002002569
2028	655	484551.7	3754834.4	0.00196392	0.001804427
2028	656	484651.7	3754834.4	0.001989764	0.001822119
2028	657	484751.7	3754834.4	0.002018767	0.001841866
2028	658	484851.7	3754834.4	0.002052017	0.001864546
2028	659	484951.7	3754834.4	0.002092449	0.00189335
2028	660	485051.7	3754834.4	0.00214011	0.001927752
2028	661	485151.7	3754834.4	0.002199143	0.001971639
2028	662	485251.7	3754834.4	0.002274533	0.002029738
2028	663	485351.7	3754834.4	0.002375645	0.002112176
2028	664	485451.7	3754834.4	0.002507985	0.002223674
2028	665	484551.7	3754934.4	0.002201262	0.002051069
2028	666	484651.7	3754934.4	0.002225755	0.002068465
2028	667	484751.7	3754934.4	0.002253317	0.002087952
2028	668	484851.7	3754934.4	0.002285109	0.002110609
2028	669	484951.7	3754934.4	0.002323623	0.002139081
2028	670	485051.7	3754934.4	0.002368234	0.0021723
2028	671	485151.7	3754934.4	0.002426493	0.002218158
2028	672	485251.7	3754934.4	0.002503928	0.002281568
2028	673	485351.7	3754934.4	0.002624843	0.002387625
2028	674	485451.7	3754934.4	0.002847934	0.002594079
2028	675	484551.7	3755034.4	0.002555523	0.002413629
2028	676	484651.7	3755034.4	0.002577465	0.00242941
2028	677	484751.7	3755034.4	0.002600939	0.002445628
2028	678	484851.7	3755034.4	0.002632384	0.002469491
2028	679	484951.7	3755034.4	0.002669128	0.002497551
2028	680	485051.7	3755034.4	0.002714276	0.00253302
2028	681	485151.7	3755034.4	0.002770356	0.002578415
2028	682	485251.7	3755034.4	0.002848391	0.002645019
2028	683	485351.7	3755034.4	0.002974201	0.002758359
2028	684	485451.7	3755034.4	0.003332123	0.003102318
2028	685	485549.5	3750934.9	0.000231	0.000173457
2028	686	485649.5	3750934.9	0.00022821	0.000171079
2028	687	485749.5	3750934.9	0.000226456	0.000169634
2028	688	485849.5	3750934.9	0.000223683	0.000167322
2028	689	485549.5	3751034.9	0.000243698	0.00018308
2028	690	485649.5	3751034.9	0.000239938	0.000179841
2028	691	485749.5	3751034.9	0.000238326	0.000178497
2028	692	485849.5	3751034.9	0.000236182	0.000176714

2028	693	485549.5	3751134.9	0.000257685	0.00019385
2028	694	485649.5	3751134.9	0.000253604	0.00019029
2028	695	485749.5	3751134.9	0.000251801	0.000188766
2028	696	485849.5	3751134.9	0.000249135	0.000186503
2028	697	485549.5	3751234.9	0.000274298	0.000206945
2028	698	485649.5	3751234.9	0.000269043	0.000202305
2028	699	485749.5	3751234.9	0.000266944	0.000200493
2028	700	485849.5	3751234.9	0.000266441	0.000200148
2028	701	485549.5	3751334.9	0.000291998	0.000221001
2028	702	485649.5	3751334.9	0.00028799	0.000217416
2028	703	485749.5	3751334.9	0.000284739	0.000214561
2028	704	485849.5	3751334.9	0.00028697	0.000216696
2028	705	485549.5	3751434.9	0.000316676	0.000241338
2028	706	485649.5	3751434.9	0.000314215	0.00023908
2028	707	485749.5	3751434.9	0.000307299	0.000232849
2028	708	485849.5	3751434.9	0.000316744	0.000241609
2028	709	485549.5	3751534.9	0.000396456	0.000311348
2028	710	485649.5	3751534.9	0.000386891	0.000302663
2028	711	485749.5	3751534.9	0.000351351	0.000270651
2028	712	485849.5	3751534.9	0.00034468	0.000264689
2028	713	485549.5	3751634.9	0.000611644	0.000486909
2028	714	485649.5	3751634.9	0.000517198	0.000412732
2028	715	485749.5	3751634.9	0.000481972	0.000383578
2028	716	485849.5	3751634.9	0.000370568	0.000285778
2028	717	485549.5	3751734.9	0.000755583	0.000593933
2028	718	485649.5	3751734.9	0.000722359	0.000571643
2028	719	485749.5	3751734.9	0.000642757	0.000512723
2028	720	485849.5	3751734.9	0.000453066	0.00035766
2028	721	485549.5	3751834.9	0.000862196	0.00067899
2028	722	485649.5	3751834.9	0.000817656	0.000643929
2028	723	485749.5	3751834.9	0.000782517	0.000618386
2028	724	485849.5	3751834.9	0.000668119	0.000534563
2028	725	485549.5	3751934.9	0.00100107	0.000794386
2028	726	485649.5	3751934.9	0.00091744	0.00071786
2028	727	485749.5	3751934.9	0.000892652	0.000696711
2028	728	485849.5	3751934.9	0.000859133	0.000673366
2028	729	485549.5	3752034.9	0.001159188	0.000928397
2028	730	485649.5	3752034.9	0.001017455	0.000792444
2028	731	485749.5	3752034.9	0.000995719	0.00077397
2028	732	485849.5	3752034.9	0.000975531	0.000761788
2028	733	485549.5	3752134.9	0.001192691	0.000942524
2028	734	485649.5	3752134.9	0.001161246	0.000908019
2028	735	485749.5	3752134.9	0.001164722	0.000912056
2028	736	485849.5	3752134.9	0.001172174	0.000925191
2028	737	485549.5	3752234.9	0.001338037	0.001074062
2028	738	485649.5	3752234.9	0.001378847	0.001107845
2028	739	485749.5	3752234.9	0.001434628	0.001158284

2028	740	485849.5	3752234.9	0.001477592	0.001201501
2028	741	485549.5	3752334.9	0.001120516	0.00084609
2028	742	485649.5	3752334.9	0.001148107	0.00086274
2028	743	485749.5	3752334.9	0.001185412	0.000890756
2028	744	485849.5	3752334.9	0.00122871	0.000927199
2028	745	485549.5	3752434.9	0.001086824	0.000802261
2028	746	485649.5	3752434.9	0.001106313	0.000809825
2028	747	485749.5	3752434.9	0.001140013	0.000830835
2028	748	485849.5	3752434.9	0.00118398	0.000861745
2028	749	485549.5	3752534.9	0.001103811	0.000808284
2028	750	485649.5	3752534.9	0.00112126	0.000812924
2028	751	485749.5	3752534.9	0.001155435	0.000833084
2028	752	485849.5	3752534.9	0.001198441	0.000860781
2028	753	485549.5	3752634.9	0.001139142	0.000830841
2028	754	485649.5	3752634.9	0.00115733	0.000835377
2028	755	485749.5	3752634.9	0.001191723	0.000855246
2028	756	485849.5	3752634.9	0.001234655	0.000881731
2028	757	485549.5	3752734.9	0.001183079	0.000861533
2028	758	485649.5	3752734.9	0.001202877	0.000867071
2028	759	485749.5	3752734.9	0.00124196	0.000889951
2028	760	485849.5	3752734.9	0.001289761	0.000919195
2028	761	485549.5	3752834.9	0.00123183	0.000897283
2028	762	485649.5	3752834.9	0.001253337	0.00090447
2028	763	485749.5	3752834.9	0.001298509	0.000932364
2028	764	485849.5	3752834.9	0.001353158	0.000966709
2028	765	485549.5	3752934.9	0.001287184	0.000938407
2028	766	485649.5	3752934.9	0.001309769	0.000947122
2028	767	485749.5	3752934.9	0.001360623	0.000981349
2028	768	485849.5	3752934.9	0.001427384	0.001027033
2028	769	485549.5	3753034.9	0.001357878	0.000992427
2028	770	485649.5	3753034.9	0.001368875	0.000990785
2028	771	485749.5	3753034.9	0.001426451	0.00103248
2028	772	485849.5	3753034.9	0.001510068	0.001097091
2028	773	485549.5	3753134.9	0.001383351	0.000996246
2028	774	485649.5	3753134.9	0.001426851	0.001028493
2028	775	485749.5	3753134.9	0.001488621	0.001077324
2028	776	485849.5	3753134.9	0.001583731	0.001156829
2028	777	485549.5	3753234.9	0.001447599	0.001032791
2028	778	485649.5	3753234.9	0.001493237	0.001068826
2028	779	485749.5	3753234.9	0.001553957	0.001120936
2028	780	485849.5	3753234.9	0.001651289	0.00120718
2028	781	485549.5	3753334.9	0.001546075	0.001094603
2028	782	485649.5	3753334.9	0.001582609	0.001118669
2028	783	485749.5	3753334.9	0.001638573	0.00117004
2028	784	485849.5	3753334.9	0.001727154	0.001256193
2028	785	485549.5	3753434.9	0.001655979	0.00116208
2028	786	485649.5	3753434.9	0.001716197	0.001197325

2028	787	485749.5	3753434.9	0.001782931	0.001253155
2028	788	485849.5	3753434.9	0.001857608	0.001337951
2028	789	485508.5	3746711.3	0.000147388	0.000121869
2028	790	491508.5	3746711.3	0.000102878	8.52976E-05
2028	791	479508.5	3752711.3	0.000515908	0.00046848
2028	792	485508.5	3752711.3	0.001147824	0.000834621
2028	793	491508.5	3752711.3	0.000949335	0.000627569
2028	794	485508.5	3758711.3	0.000261902	0.000243148
2028	795	491508.5	3758711.3	0.000111044	9.65254E-05
2028	796	485921.9	3750934.2	0.00022108	0.000165162
2028	797	486021.9	3750934.2	0.000218288	0.000162879
2028	798	486121.9	3750934.2	0.000216776	0.000161751
2028	799	485921.9	3751034.2	0.000232952	0.000173963
2028	800	486021.9	3751034.2	0.000228874	0.000170522
2028	801	486121.9	3751034.2	0.000226526	0.000168616
2028	802	485921.9	3751134.2	0.000246473	0.000184227
2028	803	486021.9	3751134.2	0.000241953	0.000180354
2028	804	486121.9	3751134.2	0.000238433	0.000177363
2028	805	485921.9	3751234.2	0.000262125	0.00019637
2028	806	486021.9	3751234.2	0.000257173	0.000192058
2028	807	486121.9	3751234.2	0.000252804	0.000188279
2028	808	485921.9	3751334.2	0.000281266	0.000211625
2028	809	486021.9	3751334.2	0.000275569	0.000206586
2028	810	486121.9	3751334.2	0.00026928	0.000201031
2028	811	485921.9	3751434.2	0.000307426	0.000233221
2028	812	486021.9	3751434.2	0.000297496	0.000224281
2028	813	486121.9	3751434.2	0.000289299	0.00021693
2028	814	485921.9	3751534.2	0.000335387	0.000256351
2028	815	486021.9	3751534.2	0.000328656	0.000250361
2028	816	486121.9	3751534.2	0.000314451	0.000237463
2028	817	485921.9	3751634.2	0.000359284	0.000275602
2028	818	486021.9	3751634.2	0.000383615	0.000297848
2028	819	486121.9	3751634.2	0.000354022	0.000271148
2028	820	485921.9	3751734.2	0.000411245	0.000320247
2028	821	486021.9	3751734.2	0.000471419	0.000373553
2028	822	486121.9	3751734.2	0.000399728	0.000310141
2028	823	485921.9	3751834.2	0.000524784	0.000418643
2028	824	486021.9	3751834.2	0.000528257	0.00042131
2028	825	486121.9	3751834.2	0.00041996	0.000325688
2028	826	485921.9	3751934.2	0.000783747	0.000626432
2028	827	486021.9	3751934.2	0.000653191	0.00052484
2028	828	486121.9	3751934.2	0.000532391	0.000423323
2028	829	485921.9	3752034.2	0.00093015	0.000733395
2028	830	486021.9	3752034.2	0.000802438	0.000647017
2028	831	486121.9	3752034.2	0.000730646	0.000590723
2028	832	485921.9	3752134.2	0.001182852	0.000943357
2028	833	486021.9	3752134.2	0.001152023	0.000931189

2028	834	486121.9	3752134.2	0.000987508	0.000801486
2028	835	485921.9	3752234.2	0.001502279	0.001231679
2028	836	486021.9	3752234.2	0.001568357	0.001303961
2028	837	486121.9	3752234.2	0.001447582	0.001194086
2028	838	485921.9	3752334.2	0.001261027	0.000956221
2028	839	486021.9	3752334.2	0.00132963	0.001025343
2028	840	486121.9	3752334.2	0.001538178	0.001235105
2028	841	485921.9	3752434.2	0.001224199	0.000895349
2028	842	486021.9	3752434.2	0.001291768	0.000955494
2028	843	486121.9	3752434.2	0.001405339	0.001061534
2028	844	485921.9	3752534.2	0.001238059	0.000888243
2028	845	486021.9	3752534.2	0.001296052	0.000932065
2028	846	486121.9	3752534.2	0.001373495	0.000996224
2028	847	485921.9	3752634.2	0.001270073	0.000904845
2028	848	486021.9	3752634.2	0.001324128	0.000942685
2028	849	486121.9	3752634.2	0.001390738	0.000993553
2028	850	485921.9	3752734.2	0.001327474	0.000943018
2028	851	486021.9	3752734.2	0.001387921	0.000983155
2028	852	486121.9	3752734.2	0.001458178	0.001033689
2028	853	485921.9	3752834.2	0.001398986	0.000995505
2028	854	486021.9	3752834.2	0.001472412	0.001043063
2028	855	486121.9	3752834.2	0.001558618	0.001102656
2028	856	485921.9	3752934.2	0.001481436	0.001063407
2028	857	486021.9	3752934.2	0.001573042	0.00112426
2028	858	486121.9	3752934.2	0.001700074	0.001214911
2028	859	487026.2	3754364	0.005881175	0.005098173
2029	1	489607.4	3753966.1	0.001942295	0.001308635
2029	2	489738.7	3754023.9	0.001721636	0.001201167
2029	3	489668.9	3754093.7	0.001637261	0.00119477
2029	4	489690.1	3754161.6	0.001551931	0.001153649
2029	5	490282.2	3753425.2	0.002292258	0.001600299
2029	6	489797.3	3754554.1	0.001267889	0.000973324
2029	7	490252.9	3754378.2	0.001160251	0.000875195
2029	8	489006	3754140.3	0.002945287	0.002296917
2029	9	485642.8	3754267.3	0.002649836	0.002045538
2029	10	485736.4	3754259.5	0.002922358	0.002260374
2029	11	487189.2	3754820.5	0.006522194	0.005813659
2029	12	487233.1	3754689.5	0.005362812	0.004584289
2029	13	487216.8	3754364.7	0.00817166	0.007386529
2029	14	487388.8	3754380.1	0.006167759	0.005442801
2029	15	484625	3751748	0.000797575	0.000616315
2029	16	483279	3751798	0.000599692	0.000470356
2029	17	483231	3751205	0.000533197	0.000418986
2029	18	480165	3750195	0.000403295	0.000345285
2029	19	481211	3749473	0.000364156	0.000299833
2029	20	481867	3752785	0.000610202	0.000518977
2029	21	480678	3751306	0.000438309	0.000370316

2029	22	479989	3752645	0.000524005	0.000467627
2029	23	479889	3756222	0.00073314	0.000699443
2029	24	479234	3757080	0.000353564	0.000329221
2029	25	480276	3756365	0.000595994	0.000563709
2029	26	479887	3754007	0.00068195	0.000632903
2029	27	480772	3755009	0.00144372	0.001390304
2029	28	481560	3754548	0.001082045	0.001013998
2029	29	481845	3754457	0.001092148	0.001017852
2029	30	481754	3753876	0.000780488	0.000701034
2029	31	489635.2	3750663.8	0.000297229	0.000226394
2029	32	485424.1	3747672.3	0.00019328	0.000156939
2029	33	482657.6	3753975.1	0.000924364	0.000819886
2029	34	481495	3754633.7	0.001135377	0.001069321
2029	35	481148.7	3756136.2	0.000818853	0.000778688
2029	36	482346.5	3748872.9	0.000150342	0.000117817
2029	37	480299	3751198	0.00042664	0.000363939
2029	38	479598.7	3756506.3	0.000560931	0.000530599
2029	39	478997.8	3753535.2	0.000764673	0.000721547
2029	40	478978.3	3755233.1	0.002300875	0.002259687
2029	41	479197.3	3754462.3	0.001013328	0.00097164
2029	42	479493.3	3752408.8	0.000532294	0.000480797
2029	43	480295.4	3752408.4	0.00050792	0.000446626
2029	44	480287.9	3754227.5	0.000747286	0.000694858
2029	45	494397.4	3753977.6	0.000469038	0.000378914
2029	46	481108.5	3750699	0.00043041	0.000359351
2029	47	486794.1	3756878	0.000434494	0.000390136
2029	48	482345	3752065.8	0.000578052	0.000473608
2029	49	487553	3745938.3	0.000117991	9.92998E-05
2029	50	484553	3746938.3	0.000156119	0.000128344
2029	51	485553	3746938.3	0.000163902	0.000135052
2029	52	486553	3746938.3	0.000130564	0.000110772
2029	53	487553	3746938.3	0.000143846	0.000119192
2029	54	488553	3746938.3	0.000131114	0.000109243
2029	55	489553	3746938.3	0.000129546	0.000107093
2029	56	490553	3746938.3	0.000118962	9.862E-05
2029	57	491553	3746938.3	0.000113201	9.36254E-05
2029	58	492553	3746938.3	0.000108856	8.98887E-05
2029	59	482553	3747938.3	0.00013711	0.000109173
2029	60	483553	3747938.3	0.000229014	0.000183122
2029	61	484553	3747938.3	0.000218109	0.000175198
2029	62	485553	3747938.3	0.000203527	0.000164436
2029	63	486553	3747938.3	0.000189439	0.000155207
2029	64	487553	3747938.3	0.000121109	0.000102093
2029	65	488553	3747938.3	0.000157987	0.000129844
2029	66	489553	3747938.3	0.000148343	0.000121918
2029	67	490553	3747938.3	0.000139654	0.000114547
2029	68	491553	3747938.3	0.000132474	0.000108273

2029	69	492553	3747938.3	0.000126714	0.000103276
2029	70	493553	3747938.3	0.000122589	9.98675E-05
2029	71	481553	3748938.3	0.000308443	0.000246611
2029	72	482553	3748938.3	0.000157407	0.000123592
2029	73	483553	3748938.3	0.000263402	0.000209952
2029	74	484553	3748938.3	0.000276278	0.000218363
2029	75	485553	3748938.3	0.000263437	0.000209211
2029	76	486553	3748938.3	0.000244066	0.000195465
2029	77	487553	3748938.3	0.000191583	0.00016038
2029	78	488553	3748938.3	0.000196652	0.000158673
2029	79	489553	3748938.3	0.000180683	0.000146321
2029	80	490553	3748938.3	0.000169486	0.000136743
2029	81	491553	3748938.3	0.000159431	0.000128194
2029	82	492553	3748938.3	0.000152685	0.000122283
2029	83	493553	3748938.3	0.000150741	0.000120895
2029	84	494553	3748938.3	0.000194815	0.000165655
2029	85	480553	3749938.3	0.000477295	0.00041733
2029	86	481553	3749938.3	0.000415569	0.000340614
2029	87	482553	3749938.3	0.000405558	0.000323815
2029	88	483553	3749938.3	0.000398288	0.000313909
2029	89	484553	3749938.3	0.000291941	0.000231035
2029	90	485553	3749938.3	0.000238971	0.000190092
2029	91	486553	3749938.3	0.000282858	0.000229082
2029	92	487553	3749938.3	0.000296273	0.000234174
2029	93	488553	3749938.3	0.000257197	0.000201859
2029	94	489553	3749938.3	0.000233786	0.000184224
2029	95	490553	3749938.3	0.000215876	0.000169607
2029	96	491553	3749938.3	0.000202334	0.000158119
2029	97	492553	3749938.3	0.00019705	0.000153264
2029	98	493553	3749938.3	0.000220676	0.000175259
2029	99	494553	3749938.3	0.000185775	0.000140984
2029	100	495553	3749938.3	0.000147456	0.000121719
2029	101	480553	3750938.3	0.000417733	0.000352429
2029	102	481553	3750938.3	0.000449405	0.000370692
2029	103	482553	3750938.3	0.000488196	0.000392776
2029	104	483553	3750938.3	0.000561563	0.000445497
2029	105	484553	3750938.3	0.000557766	0.000435589
2029	106	485553	3750938.3	0.000246753	0.000185261
2029	107	486553	3750938.3	0.000227667	0.000171265
2029	108	487553	3750938.3	0.000356533	0.000283507
2029	109	488553	3750938.3	0.000385961	0.000285914
2029	110	489553	3750938.3	0.000339021	0.000253011
2029	111	490553	3750938.3	0.000302635	0.000226094
2029	112	491553	3750938.3	0.000281869	0.000209311
2029	113	492553	3750938.3	0.000316778	0.000242552
2029	114	493553	3750938.3	0.000274471	0.000201422
2029	115	494553	3750938.3	0.00026599	0.000197661

2029	116	495553	3750938.3	0.000248091	0.000192804
2029	117	479553	3751938.3	0.000491601	0.000438108
2029	118	480553	3751938.3	0.000482897	0.000416768
2029	119	481553	3751938.3	0.000510075	0.000426379
2029	120	482553	3751938.3	0.000566232	0.000456845
2029	121	483553	3751938.3	0.000649733	0.000506701
2029	122	484553	3751938.3	0.000773296	0.000588442
2029	123	485553	3751938.3	0.001067907	0.000846678
2029	124	486553	3751938.3	0.000437867	0.00033541
2029	125	487553	3751938.3	0.000706903	0.000552338
2029	126	488553	3751938.3	0.000759051	0.000514044
2029	127	489553	3751938.3	0.000690629	0.000454049
2029	128	490553	3751938.3	0.000579621	0.000381244
2029	129	491553	3751938.3	0.000600658	0.00041921
2029	130	492553	3751938.3	0.000479943	0.000310006
2029	131	493553	3751938.3	0.000429974	0.000319178
2029	132	494553	3751938.3	0.000396703	0.00029635
2029	133	495553	3751938.3	0.000349603	0.000267722
2029	134	479553	3752938.3	0.000594419	0.000544223
2029	135	480553	3752938.3	0.000593253	0.000530041
2029	136	481553	3752938.3	0.000639808	0.000557537
2029	137	482553	3752938.3	0.000723915	0.000610781
2029	138	483553	3752938.3	0.000832441	0.00066965
2029	139	484553	3752938.3	0.001037683	0.0007796
2029	140	485553	3752938.3	0.001374922	0.001001677
2029	141	486553	3752938.3	0.002713031	0.002137415
2029	142	487553	3752938.3	0.002988489	0.002253166
2029	143	488553	3752938.3	0.002663513	0.001950422
2029	144	489553	3752938.3	0.002429991	0.001772763
2029	145	490553	3752938.3	0.002015393	0.001447106
2029	146	491553	3752938.3	0.001044071	0.000724859
2029	147	492553	3752938.3	0.000794025	0.000520112
2029	148	493553	3752938.3	0.000645415	0.000461111
2029	149	494553	3752938.3	0.000550142	0.000410929
2029	150	495553	3752938.3	0.000443078	0.000342835
2029	151	479553	3753938.3	0.000682892	0.000636805
2029	152	480553	3753938.3	0.000688698	0.000631278
2029	153	481553	3753938.3	0.000782287	0.000707911
2029	154	482553	3753938.3	0.000893703	0.000792331
2029	155	483553	3753938.3	0.001123966	0.000981298
2029	156	484553	3753938.3	0.001333108	0.001071233
2029	157	485553	3753938.3	0.002150847	0.00155084
2029	158	486553	3753938.3	0.003798656	0.002853669
2029	159	487553	3753938.3	0.004168457	0.003405262
2029	160	488553	3753938.3	0.00368896	0.002821835
2029	161	489553	3753938.3	0.00207349	0.001387192
2029	162	490553	3753938.3	0.001199695	0.000881382

2029	163	491553	3753938.3	0.000837228	0.000652801
2029	164	492553	3753938.3	0.00068687	0.000542675
2029	165	493553	3753938.3	0.000561877	0.000449439
2029	166	494553	3753938.3	0.000510592	0.000411552
2029	167	495553	3753938.3	0.000398196	0.000323742
2029	168	479553	3754938.3	0.001214376	0.001171221
2029	169	480553	3754938.3	0.001294576	0.001242953
2029	170	481553	3754938.3	0.001482858	0.001418961
2029	171	482553	3754938.3	0.002166899	0.002085134
2029	172	483553	3754938.3	0.002382071	0.002275404
2029	173	484553	3754938.3	0.00236098	0.002200952
2029	174	485553	3754938.3	0.003425317	0.003135899
2029	175	486553	3754938.3	0.004723267	0.004299694
2029	176	487553	3754938.3	0.004028856	0.003469755
2029	177	488553	3754938.3	0.002263659	0.00187595
2029	178	489553	3754938.3	0.001418592	0.001220698
2029	179	490553	3754938.3	0.000945341	0.000830225
2029	180	491553	3754938.3	0.000621279	0.000541312
2029	181	492553	3754938.3	0.00044596	0.000383839
2029	182	493553	3754938.3	0.00045086	0.000391638
2029	183	494553	3754938.3	0.000343037	0.000295495
2029	184	495553	3754938.3	0.000287918	0.000247294
2029	185	479553	3755938.3	0.001221917	0.001185077
2029	186	480553	3755938.3	0.001024332	0.000984553
2029	187	481553	3755938.3	0.001037807	0.00099335
2029	188	482553	3755938.3	0.001483891	0.001425056
2029	189	483553	3755938.3	0.001558626	0.00148833
2029	190	484553	3755938.3	0.001481701	0.001395916
2029	191	485553	3755938.3	0.002091811	0.001985449
2029	192	486553	3755938.3	0.00169083	0.001576629
2029	193	487553	3755938.3	0.000934368	0.000862166
2029	194	488553	3755938.3	0.000652712	0.000595669
2029	195	489553	3755938.3	0.000447329	0.000403917
2029	196	490553	3755938.3	0.000370319	0.000332916
2029	197	491553	3755938.3	0.000305205	0.000273178
2029	198	492553	3755938.3	0.000369832	0.000340072
2029	199	493553	3755938.3	0.000271165	0.00024486
2029	200	494553	3755938.3	0.000260524	0.00023599
2029	201	479553	3756938.3	0.000370561	0.000345517
2029	202	480553	3756938.3	0.000354741	0.000328948
2029	203	481553	3756938.3	0.000320415	0.000295792
2029	204	482553	3756938.3	0.000334425	0.000307009
2029	205	483553	3756938.3	0.000563969	0.000519
2029	206	484553	3756938.3	0.000544066	0.000495494
2029	207	485553	3756938.3	0.001180828	0.001131088
2029	208	486553	3756938.3	0.000449581	0.000404761
2029	209	487553	3756938.3	0.000295797	0.000262101

2029	210	488553	3756938.3	0.000239928	0.000210712
2029	211	489553	3756938.3	0.00021017	0.000184072
2029	212	490553	3756938.3	0.000192014	0.000168135
2029	213	491553	3756938.3	0.000167867	0.000146785
2029	214	492553	3756938.3	0.00014953	0.000130831
2029	215	493553	3756938.3	0.000158911	0.000140875
2029	216	494553	3756938.3	0.000154252	0.000137282
2029	217	479553	3757938.3	0.000186341	0.000170547
2029	218	480553	3757938.3	0.00017839	0.000162582
2029	219	481553	3757938.3	0.000188436	0.000170552
2029	220	482553	3757938.3	0.000233086	0.000209352
2029	221	483553	3757938.3	0.000228585	0.000204077
2029	222	484553	3757938.3	0.000300964	0.000270596
2029	223	485553	3757938.3	0.000348728	0.000322357
2029	224	486553	3757938.3	0.00020855	0.000184345
2029	225	487553	3757938.3	0.000170494	0.000148774
2029	226	488553	3757938.3	0.000149686	0.000129841
2029	227	489553	3757938.3	0.000138128	0.000119493
2029	228	490553	3757938.3	0.000126308	0.000109179
2029	229	491553	3757938.3	0.000115732	9.99148E-05
2029	230	492553	3757938.3	0.000111117	9.62883E-05
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2029	232	480553	3758938.3	0.000133888	0.000120529
2029	233	481553	3758938.3	0.000149356	0.000133375
2029	234	482553	3758938.3	0.000145493	0.000128878
2029	235	483553	3758938.3	0.000152539	0.000134561
2029	236	484553	3758938.3	0.000190873	0.000170737
2029	237	485553	3758938.3	0.000443258	0.000421744
2029	238	486553	3758938.3	0.000144333	0.000127129
2029	239	487553	3758938.3	0.000158463	0.000139494
2029	240	488553	3758938.3	0.000117656	0.00010243
2029	241	489553	3758938.3	0.00011928	0.000103892
2029	242	490553	3758938.3	0.000130233	0.000113323
2029	243	491553	3758938.3	0.000105913	9.195E-05
2029	244	492553	3758938.3	0.000110196	9.57973E-05
2029	245	481553	3759938.3	0.000110513	9.81165E-05
2029	246	482553	3759938.3	0.000114046	0.000100566
2029	247	483553	3759938.3	0.000120846	0.000106424
2029	248	484553	3759938.3	0.000168083	0.000150127
2029	249	485553	3759938.3	0.000438468	0.000416683
2029	250	486553	3759938.3	0.000207773	0.000185754
2029	251	487553	3759938.3	0.000169492	0.000150011
2029	252	488553	3759938.3	0.000169155	0.00014852
2029	253	489553	3759938.3	0.000146588	0.00012796
2029	254	490553	3759938.3	0.00011334	9.89488E-05
2029	255	491553	3759938.3	9.87738E-05	8.59819E-05
2029	256	482553	3760938.3	0.000107573	9.49522E-05

2029	257	483553	3760938.3	0.00012441	0.000110271
2029	258	484553	3760938.3	0.000158891	0.000142227
2029	259	485553	3760938.3	0.000360812	0.000338779
2029	260	486553	3760938.3	0.000236701	0.000213161
2029	261	487553	3760938.3	0.000188736	0.000169515
2029	262	488553	3760938.3	0.000107534	9.51915E-05
2029	263	489553	3760938.3	8.15651E-05	7.14699E-05
2029	264	490553	3760938.3	7.80211E-05	6.80976E-05
2029	265	484551.7	3750934.4	0.000554387	0.000433632
2029	266	484651.7	3750934.4	0.00054733	0.000428395
2029	267	484751.7	3750934.4	0.000418339	0.000331566
2029	268	484851.7	3750934.4	0.000383881	0.00030437
2029	269	484951.7	3750934.4	0.000405743	0.000321054
2029	270	485051.7	3750934.4	0.000363682	0.000287594
2029	271	485151.7	3750934.4	0.000302825	0.000235455
2029	272	485251.7	3750934.4	0.000266726	0.000203028
2029	273	485351.7	3750934.4	0.000256506	0.000193854
2029	274	485451.7	3750934.4	0.00025108	0.000189076
2029	275	484551.7	3751034.4	0.000592246	0.000458641
2029	276	484651.7	3751034.4	0.000584277	0.000453185
2029	277	484751.7	3751034.4	0.000548852	0.000432501
2029	278	484851.7	3751034.4	0.000434541	0.00034408
2029	279	484951.7	3751034.4	0.000482812	0.000380924
2029	280	485051.7	3751034.4	0.000404967	0.000320475
2029	281	485151.7	3751034.4	0.0003511	0.0002762
2029	282	485251.7	3751034.4	0.000298614	0.000229982
2029	283	485351.7	3751034.4	0.000275797	0.0002094
2029	284	485451.7	3751034.4	0.0002659	0.000200523
2029	285	484551.7	3751134.4	0.000622159	0.000479651
2029	286	484651.7	3751134.4	0.000620797	0.000477534
2029	287	484751.7	3751134.4	0.000612703	0.000472953
2029	288	484851.7	3751134.4	0.000553369	0.000438448
2029	289	484951.7	3751134.4	0.000566824	0.000446053
2029	290	485051.7	3751134.4	0.000467294	0.000369135
2029	291	485151.7	3751134.4	0.000414741	0.000328248
2029	292	485251.7	3751134.4	0.000358742	0.000281605
2029	293	485351.7	3751134.4	0.000305101	0.000234
2029	294	485451.7	3751134.4	0.000283131	0.00021413
2029	295	484551.7	3751234.4	0.000652916	0.000503038
2029	296	484651.7	3751234.4	0.000652965	0.000501449
2029	297	484751.7	3751234.4	0.000647873	0.000498949
2029	298	484851.7	3751234.4	0.000629732	0.000489371
2029	299	484951.7	3751234.4	0.000613221	0.000479546
2029	300	485051.7	3751234.4	0.000551265	0.00043629
2029	301	485151.7	3751234.4	0.000465072	0.000368397
2029	302	485251.7	3751234.4	0.000351158	0.000273576
2029	303	485351.7	3751234.4	0.000310519	0.000236938

2029	304	485451.7	3751234.4	0.000298222	0.000225781
2029	305	484551.7	3751334.4	0.000698665	0.000540034
2029	306	484651.7	3751334.4	0.000693584	0.000534545
2029	307	484751.7	3751334.4	0.000685773	0.000529719
2029	308	484851.7	3751334.4	0.000676057	0.000523662
2029	309	484951.7	3751334.4	0.000670744	0.000519241
2029	310	485051.7	3751334.4	0.00064326	0.000503698
2029	311	485151.7	3751334.4	0.000544366	0.000430958
2029	312	485251.7	3751334.4	0.000428582	0.000339663
2029	313	485351.7	3751334.4	0.000337853	0.000259775
2029	314	485451.7	3751334.4	0.000316045	0.000239896
2029	315	484551.7	3751434.4	0.00077287	0.000608179
2029	316	484651.7	3751434.4	0.000752122	0.000585356
2029	317	484751.7	3751434.4	0.0007396	0.000572464
2029	318	484851.7	3751434.4	0.00073099	0.000564771
2029	319	484951.7	3751434.4	0.000724015	0.00055924
2029	320	485051.7	3751434.4	0.000715221	0.000552581
2029	321	485151.7	3751434.4	0.000642216	0.000510416
2029	322	485251.7	3751434.4	0.000500161	0.000398633
2029	323	485351.7	3751434.4	0.000393316	0.000307947
2029	324	485451.7	3751434.4	0.000350085	0.000268739
2029	325	484551.7	3751534.4	0.000941078	0.000772081
2029	326	484651.7	3751534.4	0.000872098	0.000698784
2029	327	484751.7	3751534.4	0.000821015	0.000644665
2029	328	484851.7	3751534.4	0.000797495	0.000619517
2029	329	484951.7	3751534.4	0.000786207	0.000606823
2029	330	485051.7	3751534.4	0.000780159	0.000599089
2029	331	485151.7	3751534.4	0.000770875	0.00059205
2029	332	485251.7	3751534.4	0.000699335	0.000552616
2029	333	485351.7	3751534.4	0.000559065	0.000445925
2029	334	485451.7	3751534.4	0.000462297	0.000366888
2029	335	484551.7	3751634.4	0.000871586	0.000698411
2029	336	484651.7	3751634.4	0.000898147	0.000720493
2029	337	484751.7	3751634.4	0.000925975	0.000743368
2029	338	484851.7	3751634.4	0.000943648	0.000757556
2029	339	484951.7	3751634.4	0.000878994	0.000690101
2029	340	485051.7	3751634.4	0.000851356	0.000659822
2029	341	485151.7	3751634.4	0.000841276	0.000647432
2029	342	485251.7	3751634.4	0.000820539	0.000633717
2029	343	485351.7	3751634.4	0.000781404	0.000609026
2029	344	485451.7	3751634.4	0.000713153	0.00056745
2029	345	484551.7	3751734.4	0.000774414	0.000597834
2029	346	484651.7	3751734.4	0.000817235	0.000634868
2029	347	484751.7	3751734.4	0.000884778	0.000697282
2029	348	484851.7	3751734.4	0.000970936	0.000779186
2029	349	484951.7	3751734.4	0.000972597	0.000777774
2029	350	485051.7	3751734.4	0.001058564	0.000860349

2029	351	485151.7	3751734.4	0.00096287	0.000759546
2029	352	485251.7	3751734.4	0.000936116	0.000730932
2029	353	485351.7	3751734.4	0.000901949	0.000701719
2029	354	485451.7	3751734.4	0.000853847	0.000664987
2029	355	484551.7	3751834.4	0.000761661	0.000581975
2029	356	484651.7	3751834.4	0.000786029	0.000600747
2029	357	484751.7	3751834.4	0.000814182	0.000623263
2029	358	484851.7	3751834.4	0.000847655	0.000651598
2029	359	484951.7	3751834.4	0.000889672	0.000689774
2029	360	485051.7	3751834.4	0.000982682	0.000778114
2029	361	485151.7	3751834.4	0.000996591	0.000784785
2029	362	485251.7	3751834.4	0.001054855	0.000838052
2029	363	485351.7	3751834.4	0.001064893	0.000848132
2029	364	485451.7	3751834.4	0.001062914	0.000851244
2029	365	484551.7	3751934.4	0.000772276	0.000587723
2029	366	484651.7	3751934.4	0.000789345	0.000599961
2029	367	484751.7	3751934.4	0.000806686	0.000612707
2029	368	484851.7	3751934.4	0.000828428	0.000629055
2029	369	484951.7	3751934.4	0.00085238	0.000647641
2029	370	485051.7	3751934.4	0.000882974	0.000672034
2029	371	485151.7	3751934.4	0.00092165	0.000703488
2029	372	485251.7	3751934.4	0.000974858	0.000748467
2029	373	485351.7	3751934.4	0.001051552	0.000820011
2029	374	485451.7	3751934.4	0.001099308	0.000870602
2029	375	484551.7	3752034.4	0.000799179	0.00060813
2029	376	484651.7	3752034.4	0.000813926	0.000618096
2029	377	484751.7	3752034.4	0.000829811	0.000629069
2029	378	484851.7	3752034.4	0.000846646	0.00064086
2029	379	484951.7	3752034.4	0.000867314	0.000655631
2029	380	485051.7	3752034.4	0.000892114	0.000673655
2029	381	485151.7	3752034.4	0.00092236	0.00069616
2029	382	485251.7	3752034.4	0.000965951	0.000730348
2029	383	485351.7	3752034.4	0.001024806	0.000781472
2029	384	485451.7	3752034.4	0.00116197	0.000914013
2029	385	484551.7	3752134.4	0.000846479	0.000648598
2029	386	484651.7	3752134.4	0.000860479	0.0006575
2029	387	484751.7	3752134.4	0.00087612	0.000667725
2029	388	484851.7	3752134.4	0.000892	0.000678154
2029	389	484951.7	3752134.4	0.000909569	0.000689947
2029	390	485051.7	3752134.4	0.00093119	0.000704922
2029	391	485151.7	3752134.4	0.000957559	0.000723792
2029	392	485251.7	3752134.4	0.000996029	0.000752812
2029	393	485351.7	3752134.4	0.001056399	0.000803016
2029	394	485451.7	3752134.4	0.001195156	0.000933706
2029	395	484551.7	3752234.4	0.000932158	0.000727938
2029	396	484651.7	3752234.4	0.000952378	0.000742144
2029	397	484751.7	3752234.4	0.000967205	0.000751096

2029	398	484851.7	3752234.4	0.000979771	0.000757734
2029	399	484951.7	3752234.4	0.001043997	0.00081589
2029	400	485051.7	3752234.4	0.00101337	0.000778912
2029	401	485151.7	3752234.4	0.001040396	0.0007992
2029	402	485251.7	3752234.4	0.001070257	0.000819925
2029	403	485351.7	3752234.4	0.001127648	0.0008663
2029	404	485451.7	3752234.4	0.001296578	0.001024432
2029	405	484551.7	3752334.4	0.000889555	0.000677493
2029	406	484651.7	3752334.4	0.00090649	0.000688236
2029	407	484751.7	3752334.4	0.000923455	0.00069906
2029	408	484851.7	3752334.4	0.00094103	0.000710396
2029	409	484951.7	3752334.4	0.000960493	0.000723162
2029	410	485051.7	3752334.4	0.000980269	0.000736302
2029	411	485151.7	3752334.4	0.001003446	0.000752113
2029	412	485251.7	3752334.4	0.001030814	0.000771491
2029	413	485351.7	3752334.4	0.001068854	0.00079996
2029	414	485451.7	3752334.4	0.001135574	0.000854755
2029	415	484551.7	3752434.4	0.000888028	0.000668194
2029	416	484651.7	3752434.4	0.000905231	0.000678861
2029	417	484751.7	3752434.4	0.000922222	0.000689542
2029	418	484851.7	3752434.4	0.000942354	0.000702378
2029	419	484951.7	3752434.4	0.00096229	0.000715297
2029	420	485051.7	3752434.4	0.000984247	0.000729777
2029	421	485151.7	3752434.4	0.001008367	0.000745937
2029	422	485251.7	3752434.4	0.001035217	0.000764387
2029	423	485351.7	3752434.4	0.00106846	0.000788062
2029	424	485451.7	3752434.4	0.001117826	0.000826719
2029	425	484551.7	3752534.4	0.00090597	0.000678153
2029	426	484651.7	3752534.4	0.000924059	0.000689213
2029	427	484751.7	3752534.4	0.00094324	0.000701124
2029	428	484851.7	3752534.4	0.000964067	0.000714256
2029	429	484951.7	3752534.4	0.000985108	0.000727784
2029	430	485051.7	3752534.4	0.001008735	0.000743184
2029	431	485151.7	3752534.4	0.001033968	0.000759933
2029	432	485251.7	3752534.4	0.00106109	0.000778357
2029	433	485351.7	3752534.4	0.001092674	0.000800435
2029	434	485451.7	3752534.4	0.001138781	0.000835692
2029	435	484551.7	3752634.4	0.000929703	0.000694149
2029	436	484651.7	3752634.4	0.00094878	0.000705625
2029	437	484751.7	3752634.4	0.000968865	0.00071792
2029	438	484851.7	3752634.4	0.000992183	0.000732399
2029	439	484951.7	3752634.4	0.001015249	0.000747061
2029	440	485051.7	3752634.4	0.001040696	0.00076352
2029	441	485151.7	3752634.4	0.001067255	0.000781078
2029	442	485251.7	3752634.4	0.001095595	0.000800256
2029	443	485351.7	3752634.4	0.001128026	0.000822837
2029	444	485451.7	3752634.4	0.00117482	0.000858233

2029	445	484551.7	3752734.4	0.000958663	0.000715325
2029	446	484651.7	3752734.4	0.000979883	0.000727775
2029	447	484751.7	3752734.4	0.001002073	0.000741077
2029	448	484851.7	3752734.4	0.001025838	0.000755658
2029	449	484951.7	3752734.4	0.001050864	0.000771355
2029	450	485051.7	3752734.4	0.001078154	0.00078888
2029	451	485151.7	3752734.4	0.001106248	0.000807378
2029	452	485251.7	3752734.4	0.001136047	0.00082754
2029	453	485351.7	3752734.4	0.001170034	0.000851209
2029	454	485451.7	3752734.4	0.001216713	0.00088674
2029	455	484551.7	3752834.4	0.000991691	0.000741024
2029	456	484651.7	3752834.4	0.001014819	0.000754206
2029	457	484751.7	3752834.4	0.001038006	0.000767696
2029	458	484851.7	3752834.4	0.001064589	0.000783698
2029	459	484951.7	3752834.4	0.001092023	0.000800589
2029	460	485051.7	3752834.4	0.001120796	0.000818785
2029	461	485151.7	3752834.4	0.001150462	0.000838139
2029	462	485251.7	3752834.4	0.001182113	0.00085946
2029	463	485351.7	3752834.4	0.001216947	0.000884025
2029	464	485451.7	3752834.4	0.001265325	0.000921167
2029	465	484551.7	3752934.4	0.001035182	0.000777506
2029	466	484651.7	3752934.4	0.001060212	0.000791378
2029	467	484751.7	3752934.4	0.001085648	0.000805714
2029	468	484851.7	3752934.4	0.001114262	0.000822429
2029	469	484951.7	3752934.4	0.001143954	0.000840199
2029	470	485051.7	3752934.4	0.001175576	0.000859722
2029	471	485151.7	3752934.4	0.001206834	0.000879665
2029	472	485251.7	3752934.4	0.001241031	0.000902384
2029	473	485351.7	3752934.4	0.001275646	0.000926668
2029	474	485451.7	3752934.4	0.001323024	0.00096304
2029	475	484551.7	3753034.4	0.001108772	0.000845094
2029	476	484651.7	3753034.4	0.001138923	0.000862955
2029	477	484751.7	3753034.4	0.001172649	0.00088378
2029	478	484851.7	3753034.4	0.001199185	0.000896792
2029	479	484951.7	3753034.4	0.001229906	0.000913879
2029	480	485051.7	3753034.4	0.001263823	0.000934365
2029	481	485151.7	3753034.4	0.001301974	0.000959082
2029	482	485251.7	3753034.4	0.001367037	0.001011251
2029	483	485351.7	3753034.4	0.001370587	0.001003528
2029	484	485451.7	3753034.4	0.001409828	0.001031793
2029	485	484551.7	3753134.4	0.001090492	0.000821333
2029	486	484651.7	3753134.4	0.00112084	0.000837872
2029	487	484751.7	3753134.4	0.001153853	0.000856225
2029	488	484851.7	3753134.4	0.001187623	0.000875143
2029	489	484951.7	3753134.4	0.001223878	0.000895929
2029	490	485051.7	3753134.4	0.001262019	0.000918392
2029	491	485151.7	3753134.4	0.001301367	0.000942211

2029	492	485251.7	3753134.4	0.00134351	0.000969029
2029	493	485351.7	3753134.4	0.001386961	0.000998497
2029	494	485451.7	3753134.4	0.001438867	0.001037738
2029	495	484551.7	3753234.4	0.001105401	0.000831455
2029	496	484651.7	3753234.4	0.001138627	0.000849271
2029	497	484751.7	3753234.4	0.001173631	0.000868224
2029	498	484851.7	3753234.4	0.001210521	0.000888452
2029	499	484951.7	3753234.4	0.001250289	0.000910666
2029	500	485051.7	3753234.4	0.001293195	0.000935324
2029	501	485151.7	3753234.4	0.001337927	0.00096166
2029	502	485251.7	3753234.4	0.001386106	0.000991162
2029	503	485351.7	3753234.4	0.001436895	0.001024144
2029	504	485451.7	3753234.4	0.001498714	0.001069512
2029	505	484551.7	3753334.4	0.001130887	0.000853067
2029	506	484651.7	3753334.4	0.001166128	0.000871732
2029	507	484751.7	3753334.4	0.001202893	0.000891166
2029	508	484851.7	3753334.4	0.00124411	0.000913508
2029	509	484951.7	3753334.4	0.001286581	0.000936533
2029	510	485051.7	3753334.4	0.001333459	0.000962586
2029	511	485151.7	3753334.4	0.00138388	0.000991374
2029	512	485251.7	3753334.4	0.001441201	0.001025393
2029	513	485351.7	3753334.4	0.001503662	0.001064325
2029	514	485451.7	3753334.4	0.001578167	0.001116064
2029	515	484551.7	3753434.4	0.00115796	0.000878318
2029	516	484651.7	3753434.4	0.001194873	0.000897785
2029	517	484751.7	3753434.4	0.001233952	0.000918182
2029	518	484851.7	3753434.4	0.001277779	0.000941626
2029	519	484951.7	3753434.4	0.001323753	0.000965728
2029	520	485051.7	3753434.4	0.001374275	0.000992852
2029	521	485151.7	3753434.4	0.001431856	0.001025155
2029	522	485251.7	3753434.4	0.001497908	0.001063456
2029	523	485351.7	3753434.4	0.001572508	0.001108741
2029	524	485451.7	3753434.4	0.001667866	0.001172394
2029	525	484551.7	3753534.4	0.001185456	0.00090594
2029	526	484651.7	3753534.4	0.001221053	0.000923697
2029	527	484751.7	3753534.4	0.001261242	0.000944328
2029	528	484851.7	3753534.4	0.001309478	0.00097076
2029	529	484951.7	3753534.4	0.001358684	0.000996651
2029	530	485051.7	3753534.4	0.001412833	0.001025365
2029	531	485151.7	3753534.4	0.001475927	0.001060251
2029	532	485251.7	3753534.4	0.001549339	0.001102409
2029	533	485351.7	3753534.4	0.001636501	0.001154735
2029	534	485451.7	3753534.4	0.001750491	0.001229658
2029	535	484551.7	3753634.4	0.001213111	0.000935259
2029	536	484651.7	3753634.4	0.00125041	0.000954056
2029	537	484751.7	3753634.4	0.001292678	0.000975964
2029	538	484851.7	3753634.4	0.0013402	0.001001049

2029	539	484951.7	3753634.4	0.001392564	0.001028831
2029	540	485051.7	3753634.4	0.00145016	0.00105962
2029	541	485151.7	3753634.4	0.001516794	0.001096541
2029	542	485251.7	3753634.4	0.001594602	0.001141637
2029	543	485351.7	3753634.4	0.001686148	0.001197525
2029	544	485451.7	3753634.4	0.001807106	0.001279665
2029	545	484551.7	3753734.4	0.001250102	0.000975701
2029	546	484651.7	3753734.4	0.001286852	0.000993437
2029	547	484751.7	3753734.4	0.001327547	0.001013063
2029	548	484851.7	3753734.4	0.00137254	0.00103481
2029	549	484951.7	3753734.4	0.001426279	0.001063003
2029	550	485051.7	3753734.4	0.001487326	0.00109579
2029	551	485151.7	3753734.4	0.001556798	0.001134083
2029	552	485251.7	3753734.4	0.001637181	0.001180186
2029	553	485351.7	3753734.4	0.001732928	0.001238604
2029	554	485451.7	3753734.4	0.001858406	0.001324623
2029	555	484551.7	3753834.4	0.001288142	0.00101913
2029	556	484651.7	3753834.4	0.001323165	0.001035014
2029	557	484751.7	3753834.4	0.001363959	0.001054563
2029	558	484851.7	3753834.4	0.001409558	0.001076407
2029	559	484951.7	3753834.4	0.001464424	0.001104884
2029	560	485051.7	3753834.4	0.001525102	0.00113583
2029	561	485151.7	3753834.4	0.001595199	0.001172804
2029	562	485251.7	3753834.4	0.001680232	0.001221125
2029	563	485351.7	3753834.4	0.001780752	0.001281397
2029	564	485451.7	3753834.4	0.00191291	0.001369903
2029	565	484551.7	3753934.4	0.001330025	0.001067979
2029	566	484651.7	3753934.4	0.001366967	0.001085876
2029	567	484751.7	3753934.4	0.00140194	0.001099287
2029	568	484851.7	3753934.4	0.00144837	0.001122078
2029	569	484951.7	3753934.4	0.001502686	0.001149883
2029	570	485051.7	3753934.4	0.001565248	0.001182627
2029	571	485151.7	3753934.4	0.001637451	0.001221139
2029	572	485251.7	3753934.4	0.001722482	0.001268142
2029	573	485351.7	3753934.4	0.001825483	0.001328029
2029	574	485451.7	3753934.4	0.001962712	0.001416571
2029	575	484551.7	3754034.4	0.001379205	0.001127142
2029	576	484651.7	3754034.4	0.001398839	0.001125248
2029	577	484751.7	3754034.4	0.00144316	0.00114902
2029	578	484851.7	3754034.4	0.00149206	0.001174531
2029	579	484951.7	3754034.4	0.001545565	0.001201631
2029	580	485051.7	3754034.4	0.001606317	0.001232681
2029	581	485151.7	3754034.4	0.001677571	0.001270394
2029	582	485251.7	3754034.4	0.001762876	0.001317815
2029	583	485351.7	3754034.4	0.001866655	0.00137891
2029	584	485451.7	3754034.4	0.002005026	0.001469851
2029	585	484551.7	3754134.4	0.001412949	0.001167921

2029	586	484651.7	3754134.4	0.001437991	0.001173399
2029	587	484751.7	3754134.4	0.001482529	0.001198246
2029	588	484851.7	3754134.4	0.001535277	0.001229083
2029	589	484951.7	3754134.4	0.001588183	0.00125589
2029	590	485051.7	3754134.4	0.001650001	0.001287907
2029	591	485151.7	3754134.4	0.001722129	0.001326627
2029	592	485251.7	3754134.4	0.001807645	0.001374734
2029	593	485351.7	3754134.4	0.001912141	0.001436826
2029	594	485451.7	3754134.4	0.002050013	0.001527277
2029	595	484551.7	3754234.4	0.0014481	0.0012103
2029	596	484651.7	3754234.4	0.001480108	0.001225019
2029	597	484751.7	3754234.4	0.001527708	0.001254429
2029	598	484851.7	3754234.4	0.001580882	0.001287131
2029	599	484951.7	3754234.4	0.001635565	0.001317279
2029	600	485051.7	3754234.4	0.001696362	0.001349615
2029	601	485151.7	3754234.4	0.001768141	0.001388976
2029	602	485251.7	3754234.4	0.001853361	0.001437117
2029	603	485351.7	3754234.4	0.001957659	0.001498875
2029	604	485451.7	3754234.4	0.002096053	0.001589574
2029	605	484551.7	3754334.4	0.001498974	0.00127012
2029	606	484651.7	3754334.4	0.001540289	0.001296614
2029	607	484751.7	3754334.4	0.001586985	0.001326775
2029	608	484851.7	3754334.4	0.001634994	0.001355114
2029	609	484951.7	3754334.4	0.001689175	0.001386488
2029	610	485051.7	3754334.4	0.001750573	0.001421304
2029	611	485151.7	3754334.4	0.001821282	0.001461325
2029	612	485251.7	3754334.4	0.001905805	0.001510911
2029	613	485351.7	3754334.4	0.002006972	0.001572788
2029	614	485451.7	3754334.4	0.002129817	0.001651343
2029	615	484551.7	3754434.4	0.001594343	0.001379327
2029	616	484651.7	3754434.4	0.001624199	0.001394192
2029	617	484751.7	3754434.4	0.00166108	0.001414778
2029	618	484851.7	3754434.4	0.001703426	0.001438461
2029	619	484951.7	3754434.4	0.001754868	0.001468744
2029	620	485051.7	3754434.4	0.001814286	0.00150353
2029	621	485151.7	3754434.4	0.00188417	0.001544931
2029	622	485251.7	3754434.4	0.001967098	0.001595026
2029	623	485351.7	3754434.4	0.002066776	0.001657253
2029	624	485451.7	3754434.4	0.002189057	0.001737768
2029	625	484551.7	3754534.4	0.001706915	0.001504004
2029	626	484651.7	3754534.4	0.001735969	0.001519715
2029	627	484751.7	3754534.4	0.001761135	0.001529164
2029	628	484851.7	3754534.4	0.001792164	0.001543715
2029	629	484951.7	3754534.4	0.001837105	0.001569257
2029	630	485051.7	3754534.4	0.001893306	0.001602505
2029	631	485151.7	3754534.4	0.001961554	0.001644058
2029	632	485251.7	3754534.4	0.002042847	0.00169454

2029	633	485351.7	3754534.4	0.002140796	0.001756893
2029	634	485451.7	3754534.4	0.002265779	0.001840841
2029	635	484551.7	3754634.4	0.00181137	0.001620235
2029	636	484651.7	3754634.4	0.001836602	0.001633111
2029	637	484751.7	3754634.4	0.001874108	0.001657382
2029	638	484851.7	3754634.4	0.001897443	0.001666402
2029	639	484951.7	3754634.4	0.001936057	0.001687977
2029	640	485051.7	3754634.4	0.001989053	0.001720984
2029	641	485151.7	3754634.4	0.002054814	0.001763475
2029	642	485251.7	3754634.4	0.002134941	0.001815606
2029	643	485351.7	3754634.4	0.00223396	0.001880848
2029	644	485451.7	3754634.4	0.002361966	0.001969422
2029	645	484551.7	3754734.4	0.001924662	0.001744266
2029	646	484651.7	3754734.4	0.001950498	0.001759424
2029	647	484751.7	3754734.4	0.00198065	0.001778149
2029	648	484851.7	3754734.4	0.002016909	0.001801962
2029	649	484951.7	3754734.4	0.002060767	0.001831404
2029	650	485051.7	3754734.4	0.002113365	0.001867107
2029	651	485151.7	3754734.4	0.002176991	0.001910854
2029	652	485251.7	3754734.4	0.002255632	0.001966414
2029	653	485351.7	3754734.4	0.002354718	0.002039471
2029	654	485451.7	3754734.4	0.00248212	0.002136912
2029	655	484551.7	3754834.4	0.002095671	0.001925478
2029	656	484651.7	3754834.4	0.002123248	0.001944356
2029	657	484751.7	3754834.4	0.002154197	0.001965429
2029	658	484851.7	3754834.4	0.002189678	0.00198963
2029	659	484951.7	3754834.4	0.002232822	0.002020366
2029	660	485051.7	3754834.4	0.00228368	0.002057076
2029	661	485151.7	3754834.4	0.002346673	0.002103908
2029	662	485251.7	3754834.4	0.002427121	0.002165904
2029	663	485351.7	3754834.4	0.002535017	0.002253872
2029	664	485451.7	3754834.4	0.002676234	0.00237285
2029	665	484551.7	3754934.4	0.002348934	0.002188666
2029	666	484651.7	3754934.4	0.002375071	0.002207229
2029	667	484751.7	3754934.4	0.002404482	0.002228023
2029	668	484851.7	3754934.4	0.002438406	0.0022522
2029	669	484951.7	3754934.4	0.002479504	0.002282582
2029	670	485051.7	3754934.4	0.002527108	0.002318029
2029	671	485151.7	3754934.4	0.002589275	0.002366964
2029	672	485251.7	3754934.4	0.002671905	0.002434628
2029	673	485351.7	3754934.4	0.002800932	0.0025478
2029	674	485451.7	3754934.4	0.003038989	0.002768104
2029	675	484551.7	3755034.4	0.002726961	0.002575548
2029	676	484651.7	3755034.4	0.002750376	0.002592389
2029	677	484751.7	3755034.4	0.002775424	0.002609694
2029	678	484851.7	3755034.4	0.002808978	0.002635158
2029	679	484951.7	3755034.4	0.002848187	0.0026651

2029	680	485051.7	3755034.4	0.002896364	0.002702949
2029	681	485151.7	3755034.4	0.002956207	0.002751389
2029	682	485251.7	3755034.4	0.003039477	0.002822461
2029	683	485351.7	3755034.4	0.003173727	0.002943405
2029	684	485451.7	3755034.4	0.00355566	0.003310438
2029	685	485549.5	3750934.9	0.000246497	0.000185094
2029	686	485649.5	3750934.9	0.00024352	0.000182555
2029	687	485749.5	3750934.9	0.000241648	0.000181014
2029	688	485849.5	3750934.9	0.000238689	0.000178547
2029	689	485549.5	3751034.9	0.000260047	0.000195362
2029	690	485649.5	3751034.9	0.000256035	0.000191906
2029	691	485749.5	3751034.9	0.000254314	0.000190472
2029	692	485849.5	3751034.9	0.000252026	0.000188569
2029	693	485549.5	3751134.9	0.000274972	0.000206854
2029	694	485649.5	3751134.9	0.000270617	0.000203056
2029	695	485749.5	3751134.9	0.000268694	0.000201429
2029	696	485849.5	3751134.9	0.000265849	0.000199014
2029	697	485549.5	3751234.9	0.0002927	0.000220828
2029	698	485649.5	3751234.9	0.000287092	0.000215876
2029	699	485749.5	3751234.9	0.000284852	0.000213943
2029	700	485849.5	3751234.9	0.000284315	0.000213575
2029	701	485549.5	3751334.9	0.000311587	0.000235827
2029	702	485649.5	3751334.9	0.00030731	0.000232002
2029	703	485749.5	3751334.9	0.000303841	0.000228955
2029	704	485849.5	3751334.9	0.000306222	0.000231233
2029	705	485549.5	3751434.9	0.000337921	0.000257528
2029	706	485649.5	3751434.9	0.000335294	0.000255119
2029	707	485749.5	3751434.9	0.000327914	0.000248469
2029	708	485849.5	3751434.9	0.000337993	0.000257817
2029	709	485549.5	3751534.9	0.000423052	0.000332235
2029	710	485649.5	3751534.9	0.000412846	0.000322967
2029	711	485749.5	3751534.9	0.000374922	0.000288808
2029	712	485849.5	3751534.9	0.000367803	0.000282445
2029	713	485549.5	3751634.9	0.000652676	0.000519574
2029	714	485649.5	3751634.9	0.000551894	0.00044042
2029	715	485749.5	3751634.9	0.000514305	0.00040931
2029	716	485849.5	3751634.9	0.000395427	0.00030495
2029	717	485549.5	3751734.9	0.000806272	0.000633777
2029	718	485649.5	3751734.9	0.000770819	0.000609992
2029	719	485749.5	3751734.9	0.000685877	0.000547119
2029	720	485849.5	3751734.9	0.000483461	0.000381654
2029	721	485549.5	3751834.9	0.000920037	0.00072454
2029	722	485649.5	3751834.9	0.000872509	0.000687128
2029	723	485749.5	3751834.9	0.000835012	0.00065987
2029	724	485849.5	3751834.9	0.00071294	0.000570424
2029	725	485549.5	3751934.9	0.001068227	0.000847677
2029	726	485649.5	3751934.9	0.000978987	0.000766018

2029	727	485749.5	3751934.9	0.000952536	0.00074345
2029	728	485849.5	3751934.9	0.000916768	0.00071854
2029	729	485549.5	3752034.9	0.001236952	0.000990679
2029	730	485649.5	3752034.9	0.001085712	0.000845605
2029	731	485749.5	3752034.9	0.001062517	0.000825892
2029	732	485849.5	3752034.9	0.001040975	0.000812893
2029	733	485549.5	3752134.9	0.001272704	0.001005753
2029	734	485649.5	3752134.9	0.001239148	0.000968933
2029	735	485749.5	3752134.9	0.001242857	0.000973242
2029	736	485849.5	3752134.9	0.001250809	0.000987258
2029	737	485549.5	3752234.9	0.0014278	0.001146116
2029	738	485649.5	3752234.9	0.001471348	0.001182166
2029	739	485749.5	3752234.9	0.001530871	0.001235988
2029	740	485849.5	3752234.9	0.001576717	0.001282104
2029	741	485549.5	3752334.9	0.001195686	0.00090285
2029	742	485649.5	3752334.9	0.001225128	0.000920617
2029	743	485749.5	3752334.9	0.001264936	0.000950513
2029	744	485849.5	3752334.9	0.001311139	0.0009894
2029	745	485549.5	3752434.9	0.001159734	0.000856082
2029	746	485649.5	3752434.9	0.001180531	0.000864153
2029	747	485749.5	3752434.9	0.001216492	0.000886572
2029	748	485849.5	3752434.9	0.001263408	0.000919556
2029	749	485549.5	3752534.9	0.001177861	0.000862508
2029	750	485649.5	3752534.9	0.001196481	0.00086746
2029	751	485749.5	3752534.9	0.001232948	0.000888971
2029	752	485849.5	3752534.9	0.001278839	0.000918527
2029	753	485549.5	3752634.9	0.001215562	0.000886578
2029	754	485649.5	3752634.9	0.00123497	0.000891418
2029	755	485749.5	3752634.9	0.00127167	0.00091262
2029	756	485849.5	3752634.9	0.001317482	0.000940883
2029	757	485549.5	3752734.9	0.001262446	0.00091933
2029	758	485649.5	3752734.9	0.001283573	0.000925239
2029	759	485749.5	3752734.9	0.001325278	0.000949654
2029	760	485849.5	3752734.9	0.001376285	0.000980859
2029	761	485549.5	3752834.9	0.001314468	0.000957478
2029	762	485649.5	3752834.9	0.001337418	0.000965146
2029	763	485749.5	3752834.9	0.00138562	0.000994912
2029	764	485849.5	3752834.9	0.001443935	0.001031562
2029	765	485549.5	3752934.9	0.001373535	0.001001361
2029	766	485649.5	3752934.9	0.001397635	0.00101066
2029	767	485749.5	3752934.9	0.001451901	0.001047183
2029	768	485849.5	3752934.9	0.00152314	0.001095932
2029	769	485549.5	3753034.9	0.001448971	0.001059004
2029	770	485649.5	3753034.9	0.001460707	0.001057253
2029	771	485749.5	3753034.9	0.001522146	0.001101744
2029	772	485849.5	3753034.9	0.001611371	0.00117069
2029	773	485549.5	3753134.9	0.001476154	0.00106308

2029	774	485649.5	3753134.9	0.001522572	0.00109749
2029	775	485749.5	3753134.9	0.001588486	0.001149597
2029	776	485849.5	3753134.9	0.001689977	0.001234435
2029	777	485549.5	3753234.9	0.001544712	0.001102076
2029	778	485649.5	3753234.9	0.001593411	0.001140529
2029	779	485749.5	3753234.9	0.001658205	0.001196134
2029	780	485849.5	3753234.9	0.001762066	0.001288165
2029	781	485549.5	3753334.9	0.001649794	0.001168035
2029	782	485649.5	3753334.9	0.001688779	0.001193715
2029	783	485749.5	3753334.9	0.001748497	0.001248533
2029	784	485849.5	3753334.9	0.001843021	0.001340465
2029	785	485549.5	3753434.9	0.001767071	0.001240039
2029	786	485649.5	3753434.9	0.001831329	0.001277648
2029	787	485749.5	3753434.9	0.00190254	0.001337224
2029	788	485849.5	3753434.9	0.001982227	0.001427708
2029	789	485508.5	3746711.3	0.000157275	0.000130045
2029	790	491508.5	3746711.3	0.00010978	9.10198E-05
2029	791	479508.5	3752711.3	0.000550518	0.000499908
2029	792	485508.5	3752711.3	0.001224826	0.000890611
2029	793	491508.5	3752711.3	0.001013021	0.00066967
2029	794	485508.5	3758711.3	0.000279472	0.00025946
2029	795	491508.5	3758711.3	0.000118493	0.000103001
2029	796	485921.9	3750934.2	0.000235911	0.000176242
2029	797	486021.9	3750934.2	0.000232931	0.000173806
2029	798	486121.9	3750934.2	0.000231319	0.000172602
2029	799	485921.9	3751034.2	0.00024858	0.000185633
2029	800	486021.9	3751034.2	0.000244229	0.000181961
2029	801	486121.9	3751034.2	0.000241722	0.000179928
2029	802	485921.9	3751134.2	0.000263007	0.000196585
2029	803	486021.9	3751134.2	0.000258185	0.000192453
2029	804	486121.9	3751134.2	0.000254429	0.000189261
2029	805	485921.9	3751234.2	0.000279709	0.000209544
2029	806	486021.9	3751234.2	0.000274425	0.000204942
2029	807	486121.9	3751234.2	0.000269764	0.00020091
2029	808	485921.9	3751334.2	0.000300135	0.000225822
2029	809	486021.9	3751334.2	0.000294056	0.000220445
2029	810	486121.9	3751334.2	0.000287345	0.000214518
2029	811	485921.9	3751434.2	0.00032805	0.000248867
2029	812	486021.9	3751434.2	0.000317453	0.000239327
2029	813	486121.9	3751434.2	0.000308707	0.000231483
2029	814	485921.9	3751534.2	0.000357887	0.000273548
2029	815	486021.9	3751534.2	0.000350704	0.000267157
2029	816	486121.9	3751534.2	0.000335546	0.000253394
2029	817	485921.9	3751634.2	0.000383387	0.000294091
2029	818	486021.9	3751634.2	0.00040935	0.000317829
2029	819	486121.9	3751634.2	0.000377772	0.000289338
2029	820	485921.9	3751734.2	0.000438833	0.000341731

2029	821	486021.9	3751734.2	0.000503044	0.000398613
2029	822	486121.9	3751734.2	0.000426544	0.000330947
2029	823	485921.9	3751834.2	0.000559989	0.000446728
2029	824	486021.9	3751834.2	0.000563696	0.000449574
2029	825	486121.9	3751834.2	0.000448133	0.000347537
2029	826	485921.9	3751934.2	0.000836324	0.000668457
2029	827	486021.9	3751934.2	0.00069701	0.000560049
2029	828	486121.9	3751934.2	0.000568107	0.000451722
2029	829	485921.9	3752034.2	0.000992549	0.000782595
2029	830	486021.9	3752034.2	0.000856269	0.000690422
2029	831	486121.9	3752034.2	0.000779662	0.000630352
2029	832	485921.9	3752134.2	0.001262204	0.001006643
2029	833	486021.9	3752134.2	0.001229307	0.000993658
2029	834	486121.9	3752134.2	0.001053756	0.000855254
2029	835	485921.9	3752234.2	0.00160306	0.001314306
2029	836	486021.9	3752234.2	0.001673571	0.001391438
2029	837	486121.9	3752234.2	0.001544693	0.001274192
2029	838	485921.9	3752334.2	0.001345623	0.001020369
2029	839	486021.9	3752334.2	0.001418829	0.001094128
2029	840	486121.9	3752334.2	0.001641367	0.001317963
2029	841	485921.9	3752434.2	0.001306325	0.000955413
2029	842	486021.9	3752434.2	0.001378426	0.001019594
2029	843	486121.9	3752434.2	0.001499617	0.001132748
2029	844	485921.9	3752534.2	0.001321115	0.000947831
2029	845	486021.9	3752534.2	0.001382998	0.000994593
2029	846	486121.9	3752534.2	0.001465637	0.001063056
2029	847	485921.9	3752634.2	0.001355276	0.000965547
2029	848	486021.9	3752634.2	0.001412958	0.001005925
2029	849	486121.9	3752634.2	0.001484036	0.001060206
2029	850	485921.9	3752734.2	0.001416528	0.001006281
2029	851	486021.9	3752734.2	0.00148103	0.00104911
2029	852	486121.9	3752734.2	0.001556	0.001103034
2029	853	485921.9	3752834.2	0.001492838	0.001062289
2029	854	486021.9	3752834.2	0.00157119	0.001113038
2029	855	486121.9	3752834.2	0.001663179	0.001176628
2029	856	485921.9	3752934.2	0.001580819	0.001134746
2029	857	486021.9	3752934.2	0.001678571	0.001199681
2029	858	486121.9	3752934.2	0.001814124	0.001296414
2029	859	487026.2	3754364	0.006275716	0.005440186
2030	1	489607.4	3753966.1	0.002116539	0.001426033
2030	2	489738.7	3754023.9	0.001876085	0.001308925
2030	3	489668.9	3754093.7	0.001784141	0.001301954
2030	4	489690.1	3754161.6	0.001691155	0.001257144
2030	5	490282.2	3753425.2	0.002497898	0.001743862
2030	6	489797.3	3754554.1	0.001381632	0.001060641
2030	7	490252.9	3754378.2	0.001264338	0.000953709
2030	8	489006	3754140.3	0.003209511	0.002502974

2030	9	485642.8	3754267.3	0.002887555	0.002229044
2030	10	485736.4	3754259.5	0.003184524	0.002463153
2030	11	487189.2	3754820.5	0.007107304	0.006335206
2030	12	487233.1	3754689.5	0.005843913	0.004995549
2030	13	487216.8	3754364.7	0.008904745	0.008049179
2030	14	487388.8	3754380.1	0.006721072	0.005931078
2030	15	484625	3751748	0.000869126	0.000671605
2030	16	483279	3751798	0.00065349	0.000512552
2030	17	483231	3751205	0.000581031	0.000456574
2030	18	480165	3750195	0.000439475	0.00037626
2030	19	481211	3749473	0.000396825	0.000326731
2030	20	481867	3752785	0.000664944	0.000565535
2030	21	480678	3751306	0.00047763	0.000403537
2030	22	479989	3752645	0.000571014	0.000509578
2030	23	479889	3756222	0.00079891	0.00076219
2030	24	479234	3757080	0.000385282	0.000358755
2030	25	480276	3756365	0.000649461	0.00061428
2030	26	479887	3754007	0.000743128	0.000689682
2030	27	480772	3755009	0.001573237	0.001515029
2030	28	481560	3754548	0.001179116	0.001104964
2030	29	481845	3754457	0.001190125	0.001109164
2030	30	481754	3753876	0.000850506	0.000763924
2030	31	489635.2	3750663.8	0.000323893	0.000246704
2030	32	485424.1	3747672.3	0.000210619	0.000171018
2030	33	482657.6	3753975.1	0.001007289	0.000893439
2030	34	481495	3754633.7	0.001237233	0.00116525
2030	35	481148.7	3756136.2	0.000892312	0.000848544
2030	36	482346.5	3748872.9	0.000163829	0.000128387
2030	37	480299	3751198	0.000464914	0.000396589
2030	38	479598.7	3756506.3	0.000611253	0.000578199
2030	39	478997.8	3753535.2	0.000833272	0.000786277
2030	40	478978.3	3755233.1	0.002507288	0.002462405
2030	41	479197.3	3754462.3	0.001104235	0.001058807
2030	42	479493.3	3752408.8	0.000580046	0.000523929
2030	43	480295.4	3752408.4	0.000553485	0.000486693
2030	44	480287.9	3754227.5	0.000814326	0.000757195
2030	45	494397.4	3753977.6	0.000511115	0.000412907
2030	46	481108.5	3750699	0.000469022	0.000391589
2030	47	486794.1	3756878	0.000473473	0.000425135
2030	48	482345	3752065.8	0.00062991	0.000516096
2030	49	487553	3745938.3	0.000128576	0.000108208
2030	50	484553	3746938.3	0.000170124	0.000139858
2030	51	485553	3746938.3	0.000178606	0.000147167
2030	52	486553	3746938.3	0.000142277	0.000120709
2030	53	487553	3746938.3	0.000156751	0.000129884
2030	54	488553	3746938.3	0.000142876	0.000119044
2030	55	489553	3746938.3	0.000141168	0.0001167

2030	56	490553	3746938.3	0.000129634	0.000107467
2030	57	491553	3746938.3	0.000123356	0.000102025
2030	58	492553	3746938.3	0.000118622	9.79526E-05
2030	59	482553	3747938.3	0.00014941	0.000118966
2030	60	483553	3747938.3	0.000249559	0.00019955
2030	61	484553	3747938.3	0.000237676	0.000190915
2030	62	485553	3747938.3	0.000221786	0.000179187
2030	63	486553	3747938.3	0.000206434	0.000169131
2030	64	487553	3747938.3	0.000131974	0.000111252
2030	65	488553	3747938.3	0.00017216	0.000141493
2030	66	489553	3747938.3	0.000161651	0.000132855
2030	67	490553	3747938.3	0.000152183	0.000124823
2030	68	491553	3747938.3	0.000144359	0.000117986
2030	69	492553	3747938.3	0.000138081	0.000112541
2030	70	493553	3747938.3	0.000133586	0.000108827
2030	71	481553	3748938.3	0.000336114	0.000268735
2030	72	482553	3748938.3	0.000171528	0.00013468
2030	73	483553	3748938.3	0.000287032	0.000228787
2030	74	484553	3748938.3	0.000301063	0.000237953
2030	75	485553	3748938.3	0.00028707	0.000227979
2030	76	486553	3748938.3	0.000265962	0.000213001
2030	77	487553	3748938.3	0.00020877	0.000174768
2030	78	488553	3748938.3	0.000214294	0.000172907
2030	79	489553	3748938.3	0.000196893	0.000159448
2030	80	490553	3748938.3	0.00018469	0.00014901
2030	81	491553	3748938.3	0.000173734	0.000139694
2030	82	492553	3748938.3	0.000166382	0.000133253
2030	83	493553	3748938.3	0.000164264	0.000131741
2030	84	494553	3748938.3	0.000212292	0.000180516
2030	85	480553	3749938.3	0.000520114	0.000454769
2030	86	481553	3749938.3	0.00045285	0.000371171
2030	87	482553	3749938.3	0.000441941	0.000352864
2030	88	483553	3749938.3	0.000434019	0.00034207
2030	89	484553	3749938.3	0.000318131	0.000251761
2030	90	485553	3749938.3	0.000260409	0.000207145
2030	91	486553	3749938.3	0.000308233	0.000249633
2030	92	487553	3749938.3	0.000322852	0.000255182
2030	93	488553	3749938.3	0.00028027	0.000219968
2030	94	489553	3749938.3	0.000254759	0.000200751
2030	95	490553	3749938.3	0.000235242	0.000184822
2030	96	491553	3749938.3	0.000220486	0.000172304
2030	97	492553	3749938.3	0.000214727	0.000167014
2030	98	493553	3749938.3	0.000240473	0.000190981
2030	99	494553	3749938.3	0.000202441	0.000153631
2030	100	495553	3749938.3	0.000160685	0.000132638
2030	101	480553	3750938.3	0.000455208	0.000384045
2030	102	481553	3750938.3	0.000489722	0.000403947

2030	103	482553	3750938.3	0.000531992	0.000428012
2030	104	483553	3750938.3	0.000611942	0.000485463
2030	105	484553	3750938.3	0.000607804	0.000474666
2030	106	485553	3750938.3	0.000268889	0.000201881
2030	107	486553	3750938.3	0.000248092	0.000186629
2030	108	487553	3750938.3	0.000388517	0.00030894
2030	109	488553	3750938.3	0.000420586	0.000311563
2030	110	489553	3750938.3	0.000369435	0.000275709
2030	111	490553	3750938.3	0.000329785	0.000246377
2030	112	491553	3750938.3	0.000307156	0.000228088
2030	113	492553	3750938.3	0.000345196	0.000264311
2030	114	493553	3750938.3	0.000299094	0.000219492
2030	115	494553	3750938.3	0.000289852	0.000215393
2030	116	495553	3750938.3	0.000270347	0.000210101
2030	117	479553	3751938.3	0.000535703	0.000477411
2030	118	480553	3751938.3	0.000526218	0.000454157
2030	119	481553	3751938.3	0.000555834	0.000464629
2030	120	482553	3751938.3	0.000617029	0.000497829
2030	121	483553	3751938.3	0.000708021	0.000552157
2030	122	484553	3751938.3	0.000842668	0.000641232
2030	123	485553	3751938.3	0.00116371	0.000922634
2030	124	486553	3751938.3	0.000477149	0.000365499
2030	125	487553	3751938.3	0.00077032	0.000601889
2030	126	488553	3751938.3	0.000827146	0.00056016
2030	127	489553	3751938.3	0.000752586	0.000494782
2030	128	490553	3751938.3	0.000631619	0.000415445
2030	129	491553	3751938.3	0.000654544	0.000456817
2030	130	492553	3751938.3	0.000522999	0.000337817
2030	131	493553	3751938.3	0.000468547	0.000347811
2030	132	494553	3751938.3	0.000432292	0.000322936
2030	133	495553	3751938.3	0.000380966	0.000291739
2030	134	479553	3752938.3	0.000647745	0.000593046
2030	135	480553	3752938.3	0.000646474	0.000577592
2030	136	481553	3752938.3	0.000697205	0.000607554
2030	137	482553	3752938.3	0.000788858	0.000665575
2030	138	483553	3752938.3	0.00090712	0.000729725
2030	139	484553	3752938.3	0.001130774	0.000849539
2030	140	485553	3752938.3	0.001498267	0.001091538
2030	141	486553	3752938.3	0.002956419	0.002329164
2030	142	487553	3752938.3	0.003256588	0.002455299
2030	143	488553	3752938.3	0.002902459	0.002125395
2030	144	489553	3752938.3	0.002647987	0.001931799
2030	145	490553	3752938.3	0.002196195	0.001576927
2030	146	491553	3752938.3	0.001137736	0.000789887
2030	147	492553	3752938.3	0.000865257	0.000566772
2030	148	493553	3752938.3	0.000703315	0.000502478
2030	149	494553	3752938.3	0.000599495	0.000447793

2030	150	495553	3752938.3	0.000482827	0.000373591
2030	151	479553	3753938.3	0.000744155	0.000693933
2030	152	480553	3753938.3	0.000750481	0.000687911
2030	153	481553	3753938.3	0.000852466	0.000771419
2030	154	482553	3753938.3	0.000973878	0.000863411
2030	155	483553	3753938.3	0.001224797	0.001069331
2030	156	484553	3753938.3	0.001452702	0.001167334
2030	157	485553	3753938.3	0.002343801	0.001689967
2030	158	486553	3753938.3	0.004139436	0.003109674
2030	159	487553	3753938.3	0.004542412	0.00371075
2030	160	488553	3753938.3	0.004019899	0.003074983
2030	161	489553	3753938.3	0.002259504	0.001511637
2030	162	490553	3753938.3	0.00130732	0.000960451
2030	163	491553	3753938.3	0.000912336	0.000711365
2030	164	492553	3753938.3	0.00074849	0.000591358
2030	165	493553	3753938.3	0.000612283	0.000489759
2030	166	494553	3753938.3	0.000556397	0.000448472
2030	167	495553	3753938.3	0.000433919	0.000352785
2030	168	479553	3754938.3	0.001323318	0.001276292
2030	169	480553	3754938.3	0.001410713	0.001354459
2030	170	481553	3754938.3	0.001615886	0.001546257
2030	171	482553	3754938.3	0.002361293	0.002272193
2030	172	483553	3754938.3	0.002595768	0.002479532
2030	173	484553	3754938.3	0.002572785	0.002398401
2030	174	485553	3754938.3	0.003732605	0.003417223
2030	175	486553	3754938.3	0.005146994	0.004685422
2030	176	487553	3754938.3	0.004390287	0.003781029
2030	177	488553	3754938.3	0.002466733	0.002044242
2030	178	489553	3754938.3	0.001545855	0.001330208
2030	179	490553	3754938.3	0.001030149	0.000904705
2030	180	491553	3754938.3	0.000677014	0.000589874
2030	181	492553	3754938.3	0.000485967	0.000418273
2030	182	493553	3754938.3	0.000491307	0.000426772
2030	183	494553	3754938.3	0.000373812	0.000322004
2030	184	495553	3754938.3	0.000313748	0.000269479
2030	185	479553	3755938.3	0.001331536	0.001291391
2030	186	480553	3755938.3	0.001116225	0.001072878
2030	187	481553	3755938.3	0.001130909	0.001082464
2030	188	482553	3755938.3	0.001617011	0.001552899
2030	189	483553	3755938.3	0.001698452	0.001621849
2030	190	484553	3755938.3	0.001614626	0.001521145
2030	191	485553	3755938.3	0.002279469	0.002163565
2030	192	486553	3755938.3	0.001842516	0.001718069
2030	193	487553	3755938.3	0.001018191	0.000939512
2030	194	488553	3755938.3	0.000711267	0.000649107
2030	195	489553	3755938.3	0.000487459	0.000440153
2030	196	490553	3755938.3	0.00040354	0.000362782

2030	197	491553	3755938.3	0.000332585	0.000297685
2030	198	492553	3755938.3	0.00040301	0.00037058
2030	199	493553	3755938.3	0.000295491	0.000266826
2030	200	494553	3755938.3	0.000283896	0.000257161
2030	201	479553	3756938.3	0.000403804	0.000376513
2030	202	480553	3756938.3	0.000386565	0.000358458
2030	203	481553	3756938.3	0.00034916	0.000322328
2030	204	482553	3756938.3	0.000364426	0.000334551
2030	205	483553	3756938.3	0.000614563	0.00056556
2030	206	484553	3756938.3	0.000592874	0.000539945
2030	207	485553	3756938.3	0.001286761	0.001232559
2030	208	486553	3756938.3	0.000489913	0.000441072
2030	209	487553	3756938.3	0.000322333	0.000285614
2030	210	488553	3756938.3	0.000261453	0.000229616
2030	211	489553	3756938.3	0.000229025	0.000200585
2030	212	490553	3756938.3	0.00020924	0.000183218
2030	213	491553	3756938.3	0.000182926	0.000159953
2030	214	492553	3756938.3	0.000162945	0.000142568
2030	215	493553	3756938.3	0.000173167	0.000153513
2030	216	494553	3756938.3	0.00016809	0.000149597
2030	217	479553	3757938.3	0.000203058	0.000185847
2030	218	480553	3757938.3	0.000194393	0.000177167
2030	219	481553	3757938.3	0.000205341	0.000185853
2030	220	482553	3757938.3	0.000253996	0.000228133
2030	221	483553	3757938.3	0.000249091	0.000222385
2030	222	484553	3757938.3	0.000327964	0.000294871
2030	223	485553	3757938.3	0.000380012	0.000351276
2030	224	486553	3757938.3	0.000227259	0.000200883
2030	225	487553	3757938.3	0.000185789	0.00016212
2030	226	488553	3757938.3	0.000163114	0.000141489
2030	227	489553	3757938.3	0.00015052	0.000130213
2030	228	490553	3757938.3	0.00013764	0.000118973
2030	229	491553	3757938.3	0.000126114	0.000108878
2030	230	492553	3757938.3	0.000121086	0.000104926
2030	231	493553	3757938.3	0.000134293	0.000117606
2030	232	480553	3758938.3	0.000145899	0.000131341
2030	233	481553	3758938.3	0.000162755	0.00014534
2030	234	482553	3758938.3	0.000158545	0.000140439
2030	235	483553	3758938.3	0.000166223	0.000146633
2030	236	484553	3758938.3	0.000207996	0.000186053
2030	237	485553	3758938.3	0.000483023	0.000459579
2030	238	486553	3758938.3	0.000157282	0.000138534
2030	239	487553	3758938.3	0.000172678	0.000152008
2030	240	488553	3758938.3	0.000128211	0.000111619
2030	241	489553	3758938.3	0.000129981	0.000113213
2030	242	490553	3758938.3	0.000141916	0.00012349
2030	243	491553	3758938.3	0.000115414	0.000100199

2030	244	492553	3758938.3	0.000120081	0.000104391
2030	245	481553	3759938.3	0.000120427	0.000106919
2030	246	482553	3759938.3	0.000124277	0.000109588
2030	247	483553	3759938.3	0.000131687	0.000115971
2030	248	484553	3759938.3	0.000183162	0.000163595
2030	249	485553	3759938.3	0.000477803	0.000454064
2030	250	486553	3759938.3	0.000226413	0.000202418
2030	251	487553	3759938.3	0.000184697	0.000163469
2030	252	488553	3759938.3	0.00018433	0.000161843
2030	253	489553	3759938.3	0.000159738	0.000139439
2030	254	490553	3759938.3	0.000123508	0.000107826
2030	255	491553	3759938.3	0.000107635	9.36954E-05
2030	256	482553	3760938.3	0.000117223	0.00010347
2030	257	483553	3760938.3	0.000135571	0.000120164
2030	258	484553	3760938.3	0.000173146	0.000154987
2030	259	485553	3760938.3	0.000393181	0.000369171
2030	260	486553	3760938.3	0.000257935	0.000232283
2030	261	487553	3760938.3	0.000205668	0.000184722
2030	262	488553	3760938.3	0.000117181	0.000103731
2030	263	489553	3760938.3	8.88823E-05	7.78815E-05
2030	264	490553	3760938.3	8.50204E-05	7.42067E-05
2030	265	484551.7	3750934.4	0.000604121	0.000472533
2030	266	484651.7	3750934.4	0.000596431	0.000466827
2030	267	484751.7	3750934.4	0.000455868	0.000361311
2030	268	484851.7	3750934.4	0.000418319	0.000331675
2030	269	484951.7	3750934.4	0.000442143	0.000349855
2030	270	485051.7	3750934.4	0.000396308	0.000313395
2030	271	485151.7	3750934.4	0.000329992	0.000256578
2030	272	485251.7	3750934.4	0.000290654	0.000221241
2030	273	485351.7	3750934.4	0.000279517	0.000211245
2030	274	485451.7	3750934.4	0.000273605	0.000206038
2030	275	484551.7	3751034.4	0.000645377	0.000499786
2030	276	484651.7	3751034.4	0.000636693	0.00049384
2030	277	484751.7	3751034.4	0.00059809	0.000471301
2030	278	484851.7	3751034.4	0.000473524	0.000374948
2030	279	484951.7	3751034.4	0.000526125	0.000415097
2030	280	485051.7	3751034.4	0.000441296	0.000349225
2030	281	485151.7	3751034.4	0.000382598	0.000300978
2030	282	485251.7	3751034.4	0.000325403	0.000250614
2030	283	485351.7	3751034.4	0.000300539	0.000228185
2030	284	485451.7	3751034.4	0.000289754	0.000218512
2030	285	484551.7	3751134.4	0.000677973	0.000522681
2030	286	484651.7	3751134.4	0.000676489	0.000520374
2030	287	484751.7	3751134.4	0.000667669	0.000515382
2030	288	484851.7	3751134.4	0.000603012	0.000477782
2030	289	484951.7	3751134.4	0.000617674	0.000486069
2030	290	485051.7	3751134.4	0.000509215	0.00040225

2030	291	485151.7	3751134.4	0.000451947	0.000357695
2030	292	485251.7	3751134.4	0.000390924	0.000306868
2030	293	485351.7	3751134.4	0.000332472	0.000254993
2030	294	485451.7	3751134.4	0.000308531	0.00023334
2030	295	484551.7	3751234.4	0.00071149	0.000548166
2030	296	484651.7	3751234.4	0.000711543	0.000546434
2030	297	484751.7	3751234.4	0.000705994	0.00054371
2030	298	484851.7	3751234.4	0.000686226	0.000533272
2030	299	484951.7	3751234.4	0.000668234	0.000522566
2030	300	485051.7	3751234.4	0.00060072	0.00047543
2030	301	485151.7	3751234.4	0.000506794	0.000401446
2030	302	485251.7	3751234.4	0.00038266	0.000298118
2030	303	485351.7	3751234.4	0.000338376	0.000258193
2030	304	485451.7	3751234.4	0.000324975	0.000246036
2030	305	484551.7	3751334.4	0.000761342	0.000588481
2030	306	484651.7	3751334.4	0.000755806	0.000582499
2030	307	484751.7	3751334.4	0.000747294	0.00057724
2030	308	484851.7	3751334.4	0.000736706	0.00057064
2030	309	484951.7	3751334.4	0.000730916	0.000565822
2030	310	485051.7	3751334.4	0.000700967	0.000548885
2030	311	485151.7	3751334.4	0.000593201	0.000469619
2030	312	485251.7	3751334.4	0.00046703	0.000370134
2030	313	485351.7	3751334.4	0.000368162	0.000283079
2030	314	485451.7	3751334.4	0.000344397	0.000261417
2030	315	484551.7	3751434.4	0.000842204	0.00066274
2030	316	484651.7	3751434.4	0.000819595	0.000637868
2030	317	484751.7	3751434.4	0.00080595	0.00062382
2030	318	484851.7	3751434.4	0.000796568	0.000615436
2030	319	484951.7	3751434.4	0.000788966	0.00060941
2030	320	485051.7	3751434.4	0.000779384	0.000602153
2030	321	485151.7	3751434.4	0.00069983	0.000556206
2030	322	485251.7	3751434.4	0.000545031	0.000434395
2030	323	485351.7	3751434.4	0.000428601	0.000335573
2030	324	485451.7	3751434.4	0.000381491	0.000292847
2030	325	484551.7	3751534.4	0.001025503	0.000841345
2030	326	484651.7	3751534.4	0.000950335	0.000761472
2030	327	484751.7	3751534.4	0.000894669	0.000702498
2030	328	484851.7	3751534.4	0.000869039	0.000675094
2030	329	484951.7	3751534.4	0.000856738	0.000661261
2030	330	485051.7	3751534.4	0.000850147	0.000652833
2030	331	485151.7	3751534.4	0.000840031	0.000645163
2030	332	485251.7	3751534.4	0.000762072	0.000602192
2030	333	485351.7	3751534.4	0.000609219	0.000485929
2030	334	485451.7	3751534.4	0.00050377	0.000399801
2030	335	484551.7	3751634.4	0.000949776	0.000761066
2030	336	484651.7	3751634.4	0.00097872	0.000785129
2030	337	484751.7	3751634.4	0.001009045	0.000810056

2030	338	484851.7	3751634.4	0.001028303	0.000825516
2030	339	484951.7	3751634.4	0.000957849	0.000752011
2030	340	485051.7	3751634.4	0.000927731	0.000719015
2030	341	485151.7	3751634.4	0.000916748	0.000705514
2030	342	485251.7	3751634.4	0.00089415	0.000690569
2030	343	485351.7	3751634.4	0.000851504	0.000663662
2030	344	485451.7	3751634.4	0.000777131	0.000618357
2030	345	484551.7	3751734.4	0.000843887	0.000651466
2030	346	484651.7	3751734.4	0.00089055	0.000691823
2030	347	484751.7	3751734.4	0.000964152	0.000759836
2030	348	484851.7	3751734.4	0.001058039	0.000849087
2030	349	484951.7	3751734.4	0.001059849	0.000847549
2030	350	485051.7	3751734.4	0.001153528	0.000937531
2030	351	485151.7	3751734.4	0.00104925	0.000827686
2030	352	485251.7	3751734.4	0.001020096	0.000796505
2030	353	485351.7	3751734.4	0.000982864	0.000764671
2030	354	485451.7	3751734.4	0.000930446	0.000724643
2030	355	484551.7	3751834.4	0.00082999	0.000634185
2030	356	484651.7	3751834.4	0.000856544	0.000654641
2030	357	484751.7	3751834.4	0.000887223	0.000679176
2030	358	484851.7	3751834.4	0.000923698	0.000710054
2030	359	484951.7	3751834.4	0.000969485	0.000751654
2030	360	485051.7	3751834.4	0.001070839	0.000847919
2030	361	485151.7	3751834.4	0.001085996	0.000855188
2030	362	485251.7	3751834.4	0.001149487	0.000913234
2030	363	485351.7	3751834.4	0.001160425	0.000924219
2030	364	485451.7	3751834.4	0.001158269	0.00092761
2030	365	484551.7	3751934.4	0.000841557	0.000640448
2030	366	484651.7	3751934.4	0.000860158	0.000653783
2030	367	484751.7	3751934.4	0.000879054	0.000667673
2030	368	484851.7	3751934.4	0.000902747	0.000685488
2030	369	484951.7	3751934.4	0.000928848	0.000705741
2030	370	485051.7	3751934.4	0.000962187	0.000732322
2030	371	485151.7	3751934.4	0.001004332	0.000766599
2030	372	485251.7	3751934.4	0.001062313	0.000815612
2030	373	485351.7	3751934.4	0.001145887	0.000893575
2030	374	485451.7	3751934.4	0.001197927	0.000948704
2030	375	484551.7	3752034.4	0.000870874	0.000662685
2030	376	484651.7	3752034.4	0.000886943	0.000673546
2030	377	484751.7	3752034.4	0.000904254	0.000685503
2030	378	484851.7	3752034.4	0.0009226	0.000698352
2030	379	484951.7	3752034.4	0.000945122	0.000714448
2030	380	485051.7	3752034.4	0.000972146	0.000734089
2030	381	485151.7	3752034.4	0.001005105	0.000758613
2030	382	485251.7	3752034.4	0.001052607	0.000795868
2030	383	485351.7	3752034.4	0.001116742	0.000851578
2030	384	485451.7	3752034.4	0.001266211	0.00099601

2030	385	484551.7	3752134.4	0.000922417	0.000706784
2030	386	484651.7	3752134.4	0.000937673	0.000716484
2030	387	484751.7	3752134.4	0.000954718	0.000727628
2030	388	484851.7	3752134.4	0.000972021	0.000738991
2030	389	484951.7	3752134.4	0.000991167	0.000751842
2030	390	485051.7	3752134.4	0.001014728	0.000768161
2030	391	485151.7	3752134.4	0.001043462	0.000788724
2030	392	485251.7	3752134.4	0.001085383	0.000820348
2030	393	485351.7	3752134.4	0.00115117	0.000875055
2030	394	485451.7	3752134.4	0.001302374	0.001017469
2030	395	484551.7	3752234.4	0.001015782	0.000793242
2030	396	484651.7	3752234.4	0.001037817	0.000808722
2030	397	484751.7	3752234.4	0.001053973	0.000818477
2030	398	484851.7	3752234.4	0.001067667	0.000825711
2030	399	484951.7	3752234.4	0.001137654	0.000889084
2030	400	485051.7	3752234.4	0.00110428	0.000848789
2030	401	485151.7	3752234.4	0.00113373	0.000870896
2030	402	485251.7	3752234.4	0.001166271	0.000893481
2030	403	485351.7	3752234.4	0.00122881	0.000944016
2030	404	485451.7	3752234.4	0.001412895	0.001116335
2030	405	484551.7	3752334.4	0.000969357	0.000738271
2030	406	484651.7	3752334.4	0.000987812	0.000749978
2030	407	484751.7	3752334.4	0.001006299	0.000761773
2030	408	484851.7	3752334.4	0.00102545	0.000774126
2030	409	484951.7	3752334.4	0.00104666	0.000788038
2030	410	485051.7	3752334.4	0.001068209	0.000802356
2030	411	485151.7	3752334.4	0.001093466	0.000819586
2030	412	485251.7	3752334.4	0.001123289	0.000840702
2030	413	485351.7	3752334.4	0.001164742	0.000871725
2030	414	485451.7	3752334.4	0.001237447	0.000931436
2030	415	484551.7	3752434.4	0.000967693	0.000728138
2030	416	484651.7	3752434.4	0.00098644	0.000739762
2030	417	484751.7	3752434.4	0.001004955	0.000751401
2030	418	484851.7	3752434.4	0.001026893	0.000765389
2030	419	484951.7	3752434.4	0.001048618	0.000779467
2030	420	485051.7	3752434.4	0.001072544	0.000795246
2030	421	485151.7	3752434.4	0.001098828	0.000812855
2030	422	485251.7	3752434.4	0.001128087	0.000832961
2030	423	485351.7	3752434.4	0.001164312	0.00085876
2030	424	485451.7	3752434.4	0.001218107	0.000900884
2030	425	484551.7	3752534.4	0.000987245	0.000738991
2030	426	484651.7	3752534.4	0.001006957	0.000751043
2030	427	484751.7	3752534.4	0.001027859	0.000764023
2030	428	484851.7	3752534.4	0.001050554	0.000778333
2030	429	484951.7	3752534.4	0.001073482	0.000793074
2030	430	485051.7	3752534.4	0.00109923	0.000809856
2030	431	485151.7	3752534.4	0.001126726	0.000828107

2030	432	485251.7	3752534.4	0.001156281	0.000848184
2030	433	485351.7	3752534.4	0.001190699	0.000872243
2030	434	485451.7	3752534.4	0.001240942	0.000910662
2030	435	484551.7	3752634.4	0.001013107	0.000756422
2030	436	484651.7	3752634.4	0.001033896	0.000768927
2030	437	484751.7	3752634.4	0.001055782	0.000782325
2030	438	484851.7	3752634.4	0.001081192	0.000798103
2030	439	484951.7	3752634.4	0.001106328	0.000814081
2030	440	485051.7	3752634.4	0.001134057	0.000832015
2030	441	485151.7	3752634.4	0.001162999	0.000851149
2030	442	485251.7	3752634.4	0.001193882	0.000872048
2030	443	485351.7	3752634.4	0.001229222	0.000896654
2030	444	485451.7	3752634.4	0.001280214	0.000935226
2030	445	484551.7	3752734.4	0.001044665	0.000779497
2030	446	484651.7	3752734.4	0.001067789	0.000793064
2030	447	484751.7	3752734.4	0.00109197	0.00080756
2030	448	484851.7	3752734.4	0.001117867	0.000823449
2030	449	484951.7	3752734.4	0.001145138	0.000840554
2030	450	485051.7	3752734.4	0.001174876	0.00085965
2030	451	485151.7	3752734.4	0.00120549	0.000879809
2030	452	485251.7	3752734.4	0.001237962	0.000901779
2030	453	485351.7	3752734.4	0.001274998	0.000927571
2030	454	485451.7	3752734.4	0.001325865	0.00096629
2030	455	484551.7	3752834.4	0.001080656	0.000807502
2030	456	484651.7	3752834.4	0.001105859	0.000821866
2030	457	484751.7	3752834.4	0.001131126	0.000836566
2030	458	484851.7	3752834.4	0.001160094	0.000854004
2030	459	484951.7	3752834.4	0.001189989	0.00087241
2030	460	485051.7	3752834.4	0.001221343	0.000892239
2030	461	485151.7	3752834.4	0.001253671	0.000913329
2030	462	485251.7	3752834.4	0.001288161	0.000936563
2030	463	485351.7	3752834.4	0.00132612	0.000963331
2030	464	485451.7	3752834.4	0.001378838	0.001003805
2030	465	484551.7	3752934.4	0.001128049	0.000847257
2030	466	484651.7	3752934.4	0.001155325	0.000862373
2030	467	484751.7	3752934.4	0.001183042	0.000877995
2030	468	484851.7	3752934.4	0.001214223	0.000896209
2030	469	484951.7	3752934.4	0.001246579	0.000915574
2030	470	485051.7	3752934.4	0.001281037	0.000936848
2030	471	485151.7	3752934.4	0.0013151	0.00095858
2030	472	485251.7	3752934.4	0.001352365	0.000983337
2030	473	485351.7	3752934.4	0.001390085	0.0010098
2030	474	485451.7	3752934.4	0.001441714	0.001049435
2030	475	484551.7	3753034.4	0.001208241	0.000920908
2030	476	484651.7	3753034.4	0.001241096	0.000940371
2030	477	484751.7	3753034.4	0.001277849	0.000963065
2030	478	484851.7	3753034.4	0.001306764	0.000977244

2030	479	484951.7	3753034.4	0.001340242	0.000995863
2030	480	485051.7	3753034.4	0.001377201	0.001018187
2030	481	485151.7	3753034.4	0.001418775	0.001045121
2030	482	485251.7	3753034.4	0.001489674	0.001101971
2030	483	485351.7	3753034.4	0.001493543	0.001093555
2030	484	485451.7	3753034.4	0.001536305	0.001124356
2030	485	484551.7	3753134.4	0.00118832	0.000895015
2030	486	484651.7	3753134.4	0.001221391	0.000913038
2030	487	484751.7	3753134.4	0.001257366	0.000933038
2030	488	484851.7	3753134.4	0.001294166	0.000953652
2030	489	484951.7	3753134.4	0.001333673	0.000976304
2030	490	485051.7	3753134.4	0.001375235	0.001000782
2030	491	485151.7	3753134.4	0.001418114	0.001026738
2030	492	485251.7	3753134.4	0.001464038	0.001055961
2030	493	485351.7	3753134.4	0.001511386	0.001088072
2030	494	485451.7	3753134.4	0.001567948	0.001130834
2030	495	484551.7	3753234.4	0.001204568	0.000906045
2030	496	484651.7	3753234.4	0.001240773	0.00092546
2030	497	484751.7	3753234.4	0.001278918	0.000946113
2030	498	484851.7	3753234.4	0.001319118	0.000968156
2030	499	484951.7	3753234.4	0.001362453	0.000992363
2030	500	485051.7	3753234.4	0.001409208	0.001019233
2030	501	485151.7	3753234.4	0.001457953	0.001047931
2030	502	485251.7	3753234.4	0.001510454	0.00108008
2030	503	485351.7	3753234.4	0.0015658	0.001116021
2030	504	485451.7	3753234.4	0.001633165	0.001165459
2030	505	484551.7	3753334.4	0.001232339	0.000929596
2030	506	484651.7	3753334.4	0.001270742	0.000949935
2030	507	484751.7	3753334.4	0.001310805	0.000971113
2030	508	484851.7	3753334.4	0.00135572	0.00099546
2030	509	484951.7	3753334.4	0.001402001	0.00102055
2030	510	485051.7	3753334.4	0.001453084	0.00104894
2030	511	485151.7	3753334.4	0.001508029	0.001080311
2030	512	485251.7	3753334.4	0.001570492	0.001117382
2030	513	485351.7	3753334.4	0.001638556	0.001159806
2030	514	485451.7	3753334.4	0.001719745	0.001216186
2030	515	484551.7	3753434.4	0.001261841	0.000957112
2030	516	484651.7	3753434.4	0.001302065	0.000978326
2030	517	484751.7	3753434.4	0.00134465	0.001000553
2030	518	484851.7	3753434.4	0.00139241	0.0010261
2030	519	484951.7	3753434.4	0.001442508	0.001052364
2030	520	485051.7	3753434.4	0.001497562	0.001081921
2030	521	485151.7	3753434.4	0.001560308	0.001117123
2030	522	485251.7	3753434.4	0.001632286	0.001158859
2030	523	485351.7	3753434.4	0.001713579	0.001208206
2030	524	485451.7	3753434.4	0.001817491	0.00127757
2030	525	484551.7	3753534.4	0.001291804	0.000987212

2030	526	484651.7	3753534.4	0.001330594	0.001006563
2030	527	484751.7	3753534.4	0.001374389	0.001029045
2030	528	484851.7	3753534.4	0.001426953	0.001057847
2030	529	484951.7	3753534.4	0.001480573	0.001086061
2030	530	485051.7	3753534.4	0.001539579	0.001117352
2030	531	485151.7	3753534.4	0.001608333	0.001155367
2030	532	485251.7	3753534.4	0.001688331	0.001201306
2030	533	485351.7	3753534.4	0.001783313	0.001258327
2030	534	485451.7	3753534.4	0.001907528	0.001339971
2030	535	484551.7	3753634.4	0.00132194	0.001019161
2030	536	484651.7	3753634.4	0.001362585	0.001039645
2030	537	484751.7	3753634.4	0.001408644	0.001063518
2030	538	484851.7	3753634.4	0.00146043	0.001090854
2030	539	484951.7	3753634.4	0.001517492	0.001121128
2030	540	485051.7	3753634.4	0.001580255	0.001154679
2030	541	485151.7	3753634.4	0.001652866	0.001194913
2030	542	485251.7	3753634.4	0.001737654	0.001244054
2030	543	485351.7	3753634.4	0.001837413	0.001304956
2030	544	485451.7	3753634.4	0.001969223	0.001394464
2030	545	484551.7	3753734.4	0.00136225	0.001063232
2030	546	484651.7	3753734.4	0.001402296	0.001082559
2030	547	484751.7	3753734.4	0.001446642	0.001103945
2030	548	484851.7	3753734.4	0.001495671	0.001127644
2030	549	484951.7	3753734.4	0.001554232	0.001158365
2030	550	485051.7	3753734.4	0.001620755	0.001194094
2030	551	485151.7	3753734.4	0.001696459	0.001235822
2030	552	485251.7	3753734.4	0.001784054	0.001286061
2030	553	485351.7	3753734.4	0.00188839	0.001349719
2030	554	485451.7	3753734.4	0.002025125	0.001443456
2030	555	484551.7	3753834.4	0.001403702	0.001110557
2030	556	484651.7	3753834.4	0.001441867	0.001127866
2030	557	484751.7	3753834.4	0.00148632	0.001149169
2030	558	484851.7	3753834.4	0.00153601	0.001172972
2030	559	484951.7	3753834.4	0.001595798	0.001204004
2030	560	485051.7	3753834.4	0.001661919	0.001237726
2030	561	485151.7	3753834.4	0.001738305	0.001278017
2030	562	485251.7	3753834.4	0.001830967	0.001330672
2030	563	485351.7	3753834.4	0.001940504	0.001396352
2030	564	485451.7	3753834.4	0.002084519	0.001492797
2030	565	484551.7	3753934.4	0.001449342	0.001163788
2030	566	484651.7	3753934.4	0.001489598	0.001183291
2030	567	484751.7	3753934.4	0.001527709	0.001197905
2030	568	484851.7	3753934.4	0.001578304	0.001222741
2030	569	484951.7	3753934.4	0.001637492	0.00125304
2030	570	485051.7	3753934.4	0.001705668	0.001288722
2030	571	485151.7	3753934.4	0.001784348	0.001330688
2030	572	485251.7	3753934.4	0.001877007	0.001381908

2030	573	485351.7	3753934.4	0.001989248	0.001447167
2030	574	485451.7	3753934.4	0.002138788	0.001543653
2030	575	484551.7	3754034.4	0.001502934	0.001228259
2030	576	484651.7	3754034.4	0.00152433	0.001226194
2030	577	484751.7	3754034.4	0.001572626	0.001252099
2030	578	484851.7	3754034.4	0.001625914	0.001279899
2030	579	484951.7	3754034.4	0.001684219	0.001309431
2030	580	485051.7	3754034.4	0.00175042	0.001343265
2030	581	485151.7	3754034.4	0.001828067	0.001384362
2030	582	485251.7	3754034.4	0.001921024	0.001436037
2030	583	485351.7	3754034.4	0.002034113	0.001502613
2030	584	485451.7	3754034.4	0.002184898	0.001601713
2030	585	484551.7	3754134.4	0.001539705	0.001272696
2030	586	484651.7	3754134.4	0.001566994	0.001278665
2030	587	484751.7	3754134.4	0.001615528	0.001305741
2030	588	484851.7	3754134.4	0.001673007	0.001339345
2030	589	484951.7	3754134.4	0.001730659	0.001368557
2030	590	485051.7	3754134.4	0.001798023	0.001403446
2030	591	485151.7	3754134.4	0.001876623	0.001445639
2030	592	485251.7	3754134.4	0.00196981	0.001498063
2030	593	485351.7	3754134.4	0.00208368	0.001565724
2030	594	485451.7	3754134.4	0.00223392	0.00166429
2030	595	484551.7	3754234.4	0.001578009	0.001318877
2030	596	484651.7	3754234.4	0.001612889	0.001334917
2030	597	484751.7	3754234.4	0.00166476	0.001366964
2030	598	484851.7	3754234.4	0.001722704	0.0014026
2030	599	484951.7	3754234.4	0.001782293	0.001435453
2030	600	485051.7	3754234.4	0.001848544	0.00147069
2030	601	485151.7	3754234.4	0.001926762	0.001513582
2030	602	485251.7	3754234.4	0.002019628	0.001566042
2030	603	485351.7	3754234.4	0.002133281	0.00163334
2030	604	485451.7	3754234.4	0.002284091	0.001732176
2030	605	484551.7	3754334.4	0.001633448	0.001384064
2030	606	484651.7	3754334.4	0.001678469	0.001412934
2030	607	484751.7	3754334.4	0.001729354	0.001445801
2030	608	484851.7	3754334.4	0.001781671	0.001476682
2030	609	484951.7	3754334.4	0.001840712	0.001510871
2030	610	485051.7	3754334.4	0.001907618	0.00154881
2030	611	485151.7	3754334.4	0.001984671	0.001592421
2030	612	485251.7	3754334.4	0.002076776	0.001646456
2030	613	485351.7	3754334.4	0.002187019	0.001713883
2030	614	485451.7	3754334.4	0.002320884	0.001799486
2030	615	484551.7	3754434.4	0.001737373	0.001503067
2030	616	484651.7	3754434.4	0.001769907	0.001519266
2030	617	484751.7	3754434.4	0.001810096	0.001541698
2030	618	484851.7	3754434.4	0.001856241	0.001567506
2030	619	484951.7	3754434.4	0.001912298	0.001600506

2030	620	485051.7	3754434.4	0.001977047	0.001638413
2030	621	485151.7	3754434.4	0.0020532	0.001683528
2030	622	485251.7	3754434.4	0.002143567	0.001738117
2030	623	485351.7	3754434.4	0.002252188	0.001805927
2030	624	485451.7	3754434.4	0.002385438	0.001893664
2030	625	484551.7	3754534.4	0.001860044	0.001638929
2030	626	484651.7	3754534.4	0.001891704	0.00165605
2030	627	484751.7	3754534.4	0.001919127	0.001666346
2030	628	484851.7	3754534.4	0.00195294	0.001682203
2030	629	484951.7	3754534.4	0.002001913	0.001710036
2030	630	485051.7	3754534.4	0.002063156	0.001746267
2030	631	485151.7	3754534.4	0.002137526	0.001791547
2030	632	485251.7	3754534.4	0.002226112	0.001846558
2030	633	485351.7	3754534.4	0.002332848	0.001914505
2030	634	485451.7	3754534.4	0.002469043	0.002005984
2030	635	484551.7	3754634.4	0.001973869	0.001765587
2030	636	484651.7	3754634.4	0.002001365	0.001779619
2030	637	484751.7	3754634.4	0.002042236	0.001806067
2030	638	484851.7	3754634.4	0.002067664	0.001815896
2030	639	484951.7	3754634.4	0.002109742	0.001839407
2030	640	485051.7	3754634.4	0.002167492	0.001875374
2030	641	485151.7	3754634.4	0.002239153	0.001921677
2030	642	485251.7	3754634.4	0.002326468	0.001978485
2030	643	485351.7	3754634.4	0.00243437	0.002049581
2030	644	485451.7	3754634.4	0.002573859	0.0021461
2030	645	484551.7	3754734.4	0.002097324	0.001900745
2030	646	484651.7	3754734.4	0.002125478	0.001917263
2030	647	484751.7	3754734.4	0.002158336	0.001937668
2030	648	484851.7	3754734.4	0.002197847	0.001963617
2030	649	484951.7	3754734.4	0.00224564	0.001995701
2030	650	485051.7	3754734.4	0.002302957	0.002034606
2030	651	485151.7	3754734.4	0.00237229	0.002082278
2030	652	485251.7	3754734.4	0.002457986	0.002142822
2030	653	485351.7	3754734.4	0.002565961	0.002222433
2030	654	485451.7	3754734.4	0.002704792	0.002328616
2030	655	484551.7	3754834.4	0.002283675	0.002098214
2030	656	484651.7	3754834.4	0.002313726	0.002118786
2030	657	484751.7	3754834.4	0.002347451	0.002141749
2030	658	484851.7	3754834.4	0.002386115	0.002168121
2030	659	484951.7	3754834.4	0.00243313	0.002201615
2030	660	485051.7	3754834.4	0.00248855	0.002241617
2030	661	485151.7	3754834.4	0.002557195	0.002292651
2030	662	485251.7	3754834.4	0.002644859	0.002360208
2030	663	485351.7	3754834.4	0.002762435	0.002456068
2030	664	485451.7	3754834.4	0.00291632	0.00258572
2030	665	484551.7	3754934.4	0.002559659	0.002385012
2030	666	484651.7	3754934.4	0.00258814	0.002405241

2030	667	484751.7	3754934.4	0.002620189	0.0024279
2030	668	484851.7	3754934.4	0.002657157	0.002454247
2030	669	484951.7	3754934.4	0.002701942	0.002487354
2030	670	485051.7	3754934.4	0.002753816	0.002525981
2030	671	485151.7	3754934.4	0.002821561	0.002579305
2030	672	485251.7	3754934.4	0.002911603	0.00265304
2030	673	485351.7	3754934.4	0.003052205	0.002776364
2030	674	485451.7	3754934.4	0.003311619	0.003016433
2030	675	484551.7	3755034.4	0.002971599	0.002806603
2030	676	484651.7	3755034.4	0.002997114	0.002824953
2030	677	484751.7	3755034.4	0.003024409	0.002843811
2030	678	484851.7	3755034.4	0.003060974	0.002871559
2030	679	484951.7	3755034.4	0.0031037	0.002904188
2030	680	485051.7	3755034.4	0.003156199	0.002945432
2030	681	485151.7	3755034.4	0.00322141	0.002998218
2030	682	485251.7	3755034.4	0.00331215	0.003075666
2030	683	485351.7	3755034.4	0.003458444	0.00320746
2030	684	485451.7	3755034.4	0.003874641	0.00360742
2030	685	485549.5	3750934.9	0.000268611	0.000201699
2030	686	485649.5	3750934.9	0.000265366	0.000198933
2030	687	485749.5	3750934.9	0.000263326	0.000197253
2030	688	485849.5	3750934.9	0.000260102	0.000194564
2030	689	485549.5	3751034.9	0.000283376	0.000212888
2030	690	485649.5	3751034.9	0.000279004	0.000209122
2030	691	485749.5	3751034.9	0.000277128	0.000207559
2030	692	485849.5	3751034.9	0.000274636	0.000205486
2030	693	485549.5	3751134.9	0.00029964	0.000225411
2030	694	485649.5	3751134.9	0.000294894	0.000221272
2030	695	485749.5	3751134.9	0.000292798	0.000219499
2030	696	485849.5	3751134.9	0.000289698	0.000216868
2030	697	485549.5	3751234.9	0.000318958	0.000240638
2030	698	485649.5	3751234.9	0.000312847	0.000235243
2030	699	485749.5	3751234.9	0.000310407	0.000233136
2030	700	485849.5	3751234.9	0.000309822	0.000232735
2030	701	485549.5	3751334.9	0.000339539	0.000256983
2030	702	485649.5	3751334.9	0.000334879	0.000252815
2030	703	485749.5	3751334.9	0.000331099	0.000249494
2030	704	485849.5	3751334.9	0.000333693	0.000251977
2030	705	485549.5	3751434.9	0.000368236	0.000280631
2030	706	485649.5	3751434.9	0.000365374	0.000278005
2030	707	485749.5	3751434.9	0.000357332	0.00027076
2030	708	485849.5	3751434.9	0.000368315	0.000280946
2030	709	485549.5	3751534.9	0.000461005	0.00036204
2030	710	485649.5	3751534.9	0.000449882	0.000351941
2030	711	485749.5	3751534.9	0.000408556	0.000314717
2030	712	485849.5	3751534.9	0.000400799	0.000307784
2030	713	485549.5	3751634.9	0.000711228	0.000566185

2030	714	485649.5	3751634.9	0.000601405	0.000479931
2030	715	485749.5	3751634.9	0.000560444	0.000446029
2030	716	485849.5	3751634.9	0.000430901	0.000332307
2030	717	485549.5	3751734.9	0.000878603	0.000690633
2030	718	485649.5	3751734.9	0.000839969	0.000664715
2030	719	485749.5	3751734.9	0.000747408	0.000596202
2030	720	485849.5	3751734.9	0.000526832	0.000415892
2030	721	485549.5	3751834.9	0.001002574	0.000789539
2030	722	485649.5	3751834.9	0.000950782	0.00074877
2030	723	485749.5	3751834.9	0.000909922	0.000719068
2030	724	485849.5	3751834.9	0.000776898	0.000621598
2030	725	485549.5	3751934.9	0.001164058	0.000923723
2030	726	485649.5	3751934.9	0.001066813	0.000834738
2030	727	485749.5	3751934.9	0.001037989	0.000810146
2030	728	485849.5	3751934.9	0.000999012	0.000783
2030	729	485549.5	3752034.9	0.00134792	0.001079554
2030	730	485649.5	3752034.9	0.001183112	0.000921465
2030	731	485749.5	3752034.9	0.001157836	0.000899983
2030	732	485849.5	3752034.9	0.001134361	0.000885818
2030	733	485549.5	3752134.9	0.001386879	0.00109598
2030	734	485649.5	3752134.9	0.001350313	0.001055857
2030	735	485749.5	3752134.9	0.001354355	0.001060552
2030	736	485849.5	3752134.9	0.00136302	0.001075825
2030	737	485549.5	3752234.9	0.001555889	0.001248934
2030	738	485649.5	3752234.9	0.001603343	0.001288218
2030	739	485749.5	3752234.9	0.001668206	0.001346869
2030	740	485849.5	3752234.9	0.001718165	0.001397122
2030	741	485549.5	3752334.9	0.001302952	0.000983845
2030	742	485649.5	3752334.9	0.001335035	0.001003206
2030	743	485749.5	3752334.9	0.001378415	0.001035784
2030	744	485849.5	3752334.9	0.001428762	0.00107816
2030	745	485549.5	3752434.9	0.001263775	0.000932881
2030	746	485649.5	3752434.9	0.001286437	0.000941676
2030	747	485749.5	3752434.9	0.001325624	0.000966107
2030	748	485849.5	3752434.9	0.001376749	0.00100205
2030	749	485549.5	3752534.9	0.001283527	0.000939884
2030	750	485649.5	3752534.9	0.001303818	0.00094528
2030	751	485749.5	3752534.9	0.001343556	0.000968722
2030	752	485849.5	3752534.9	0.001393564	0.001000928
2030	753	485549.5	3752634.9	0.001324611	0.000966113
2030	754	485649.5	3752634.9	0.001345759	0.000971388
2030	755	485749.5	3752634.9	0.001385753	0.000994492
2030	756	485849.5	3752634.9	0.001435675	0.00102529
2030	757	485549.5	3752734.9	0.001375701	0.001001803
2030	758	485649.5	3752734.9	0.001398723	0.001008242
2030	759	485749.5	3752734.9	0.001444169	0.001034848
2030	760	485849.5	3752734.9	0.001499752	0.001068853

2030	761	485549.5	3752834.9	0.00143239	0.001043374
2030	762	485649.5	3752834.9	0.001457398	0.00105173
2030	763	485749.5	3752834.9	0.001509925	0.001084167
2030	764	485849.5	3752834.9	0.001573472	0.001124104
2030	765	485549.5	3752934.9	0.001496756	0.001091194
2030	766	485649.5	3752934.9	0.001523018	0.001101327
2030	767	485749.5	3752934.9	0.001582152	0.001141127
2030	768	485849.5	3752934.9	0.001659782	0.001194248
2030	769	485549.5	3753034.9	0.00157896	0.001154008
2030	770	485649.5	3753034.9	0.001591748	0.001152099
2030	771	485749.5	3753034.9	0.001658698	0.001200582
2030	772	485849.5	3753034.9	0.001755928	0.001275713
2030	773	485549.5	3753134.9	0.001608581	0.001158449
2030	774	485649.5	3753134.9	0.001659163	0.001195946
2030	775	485749.5	3753134.9	0.00173099	0.001252728
2030	776	485849.5	3753134.9	0.001841585	0.001345177
2030	777	485549.5	3753234.9	0.001683289	0.001200944
2030	778	485649.5	3753234.9	0.001736357	0.001242846
2030	779	485749.5	3753234.9	0.001806963	0.00130344
2030	780	485849.5	3753234.9	0.001920142	0.001403727
2030	781	485549.5	3753334.9	0.001797798	0.00127282
2030	782	485649.5	3753334.9	0.00184028	0.001300804
2030	783	485749.5	3753334.9	0.001905356	0.00136054
2030	784	485849.5	3753334.9	0.00200836	0.001460719
2030	785	485549.5	3753434.9	0.001925596	0.001351283
2030	786	485649.5	3753434.9	0.001995618	0.001392266
2030	787	485749.5	3753434.9	0.002073218	0.001457187
2030	788	485849.5	3753434.9	0.002160053	0.001555788
2030	789	485508.5	3746711.3	0.000171384	0.000141712
2030	790	491508.5	3746711.3	0.000119628	9.91852E-05
2030	791	479508.5	3752711.3	0.000599905	0.000544755
2030	792	485508.5	3752711.3	0.001334706	0.000970509
2030	793	491508.5	3752711.3	0.0011039	0.000729746
2030	794	485508.5	3758711.3	0.000304543	0.000282736
2030	795	491508.5	3758711.3	0.000129123	0.000112241
2030	796	485921.9	3750934.2	0.000257075	0.000192052
2030	797	486021.9	3750934.2	0.000253828	0.000189398
2030	798	486121.9	3750934.2	0.000252071	0.000188086
2030	799	485921.9	3751034.2	0.00027088	0.000202286
2030	800	486021.9	3751034.2	0.000266139	0.000198285
2030	801	486121.9	3751034.2	0.000263408	0.00019607
2030	802	485921.9	3751134.2	0.000286602	0.000214221
2030	803	486021.9	3751134.2	0.000281347	0.000209718
2030	804	486121.9	3751134.2	0.000277254	0.00020624
2030	805	485921.9	3751234.2	0.000304802	0.000228342
2030	806	486021.9	3751234.2	0.000299044	0.000223328
2030	807	486121.9	3751234.2	0.000293965	0.000218933

2030	808	485921.9	3751334.2	0.00032706	0.000246081
2030	809	486021.9	3751334.2	0.000320436	0.000240222
2030	810	486121.9	3751334.2	0.000313123	0.000233762
2030	811	485921.9	3751434.2	0.00035748	0.000271193
2030	812	486021.9	3751434.2	0.000345932	0.000260798
2030	813	486121.9	3751434.2	0.000336401	0.00025225
2030	814	485921.9	3751534.2	0.000389993	0.000298089
2030	815	486021.9	3751534.2	0.000382165	0.000291124
2030	816	486121.9	3751534.2	0.000365648	0.000276126
2030	817	485921.9	3751634.2	0.00041778	0.000320474
2030	818	486021.9	3751634.2	0.000446073	0.000346342
2030	819	486121.9	3751634.2	0.000411662	0.000315295
2030	820	485921.9	3751734.2	0.000478201	0.000372388
2030	821	486021.9	3751734.2	0.000548173	0.000434373
2030	822	486121.9	3751734.2	0.000464809	0.000360637
2030	823	485921.9	3751834.2	0.000610226	0.000486804
2030	824	486021.9	3751834.2	0.000614265	0.000489905
2030	825	486121.9	3751834.2	0.000488335	0.000378714
2030	826	485921.9	3751934.2	0.000911352	0.000728424
2030	827	486021.9	3751934.2	0.000759539	0.000610291
2030	828	486121.9	3751934.2	0.000619072	0.000492246
2030	829	485921.9	3752034.2	0.001081591	0.000852802
2030	830	486021.9	3752034.2	0.000933086	0.00075236
2030	831	486121.9	3752034.2	0.000849606	0.000686902
2030	832	485921.9	3752134.2	0.001375437	0.001096949
2030	833	486021.9	3752134.2	0.001339589	0.0010828
2030	834	486121.9	3752134.2	0.001148289	0.000931979
2030	835	485921.9	3752234.2	0.001746871	0.001432213
2030	836	486021.9	3752234.2	0.001823708	0.001516265
2030	837	486121.9	3752234.2	0.001683269	0.0013885
2030	838	485921.9	3752334.2	0.00146634	0.001111907
2030	839	486021.9	3752334.2	0.001546113	0.001192283
2030	840	486121.9	3752334.2	0.001788616	0.001436198
2030	841	485921.9	3752434.2	0.001423516	0.001041124
2030	842	486021.9	3752434.2	0.001502086	0.001111062
2030	843	486121.9	3752434.2	0.001634148	0.001234368
2030	844	485921.9	3752534.2	0.001439633	0.001032861
2030	845	486021.9	3752534.2	0.001507067	0.001083818
2030	846	486121.9	3752534.2	0.00159712	0.001158424
2030	847	485921.9	3752634.2	0.001476859	0.001052167
2030	848	486021.9	3752634.2	0.001539715	0.001096167
2030	849	486121.9	3752634.2	0.00161717	0.001155317
2030	850	485921.9	3752734.2	0.001543605	0.001096555
2030	851	486021.9	3752734.2	0.001613895	0.001143226
2030	852	486121.9	3752734.2	0.00169559	0.001201988
2030	853	485921.9	3752834.2	0.001626761	0.001157588
2030	854	486021.9	3752834.2	0.001712142	0.001212889

2030	855	486121.9	3752834.2	0.001812384	0.001282184
2030	856	485921.9	3752934.2	0.001722635	0.001236545
2030	857	486021.9	3752934.2	0.001829156	0.001307305
2030	858	486121.9	3752934.2	0.00197687	0.001412716
2030	859	487026.2	3754364	0.006838715	0.005928229
2031	1	489607.4	3753966.1	0.002314132	0.001559163
2031	2	489738.7	3754023.9	0.00205123	0.001431122
2031	3	489668.9	3754093.7	0.001950703	0.0014235
2031	4	489690.1	3754161.6	0.001849036	0.001374506
2031	5	490282.2	3753425.2	0.002731093	0.001906663
2031	6	489797.3	3754554.1	0.001510616	0.001159659
2031	7	490252.9	3754378.2	0.001382372	0.001042744
2031	8	489006	3754140.3	0.00350914	0.002736644
2031	9	485642.8	3754267.3	0.003157127	0.00243714
2031	10	485736.4	3754259.5	0.003481821	0.002693105
2031	11	487189.2	3754820.5	0.007770818	0.00692664
2031	12	487233.1	3754689.5	0.006389481	0.005461917
2031	13	487216.8	3754364.7	0.009736062	0.008800624
2031	14	487388.8	3754380.1	0.007348529	0.006484784
2031	15	484625	3751748	0.000950265	0.000734304
2031	16	483279	3751798	0.000714498	0.000560402
2031	17	483231	3751205	0.000635274	0.000499198
2031	18	480165	3750195	0.000480502	0.000411387
2031	19	481211	3749473	0.000433871	0.000357234
2031	20	481867	3752785	0.000727021	0.000618331
2031	21	480678	3751306	0.00052222	0.00044121
2031	22	479989	3752645	0.000624322	0.000557151
2031	23	479889	3756222	0.000873494	0.000833346
2031	24	479234	3757080	0.000421251	0.000392248
2031	25	480276	3756365	0.000710092	0.000671627
2031	26	479887	3754007	0.000812504	0.000754068
2031	27	480772	3755009	0.00172011	0.001656467
2031	28	481560	3754548	0.001289194	0.00120812
2031	29	481845	3754457	0.001301231	0.001212712
2031	30	481754	3753876	0.000929906	0.000835242
2031	31	489635.2	3750663.8	0.000354131	0.000269735
2031	32	485424.1	3747672.3	0.000230282	0.000186984
2031	33	482657.6	3753975.1	0.001101326	0.000976847
2031	34	481495	3754633.7	0.001352737	0.001274034
2031	35	481148.7	3756136.2	0.000975616	0.000927761
2031	36	482346.5	3748872.9	0.000179123	0.000140373
2031	37	480299	3751198	0.000508317	0.000433613
2031	38	479598.7	3756506.3	0.000668317	0.000632178
2031	39	478997.8	3753535.2	0.000911063	0.000859682
2031	40	478978.3	3755233.1	0.00274136	0.002692287
2031	41	479197.3	3754462.3	0.001207322	0.001157653
2031	42	479493.3	3752408.8	0.000634197	0.000572841

2031	43	480295.4	3752408.4	0.000605157	0.000532129
2031	44	480287.9	3754227.5	0.000890348	0.000827884
2031	45	494397.4	3753977.6	0.000558831	0.000451454
2031	46	481108.5	3750699	0.000512808	0.000428146
2031	47	486794.1	3756878	0.000517675	0.000464824
2031	48	482345	3752065.8	0.000688716	0.000564277
2031	49	487553	3745938.3	0.000140579	0.00011831
2031	50	484553	3746938.3	0.000186006	0.000152915
2031	51	485553	3746938.3	0.00019528	0.000160906
2031	52	486553	3746938.3	0.000155559	0.000131978
2031	53	487553	3746938.3	0.000171385	0.00014201
2031	54	488553	3746938.3	0.000156214	0.000130157
2031	55	489553	3746938.3	0.000154347	0.000127595
2031	56	490553	3746938.3	0.000141737	0.0001175
2031	57	491553	3746938.3	0.000134872	0.000111549
2031	58	492553	3746938.3	0.000129696	0.000107097
2031	59	482553	3747938.3	0.000163359	0.000130073
2031	60	483553	3747938.3	0.000272857	0.000218179
2031	61	484553	3747938.3	0.000259865	0.000208738
2031	62	485553	3747938.3	0.000242491	0.000195916
2031	63	486553	3747938.3	0.000225706	0.000184921
2031	64	487553	3747938.3	0.000144294	0.000121638
2031	65	488553	3747938.3	0.000188233	0.000154702
2031	66	489553	3747938.3	0.000176742	0.000145258
2031	67	490553	3747938.3	0.00016639	0.000136476
2031	68	491553	3747938.3	0.000157835	0.000129001
2031	69	492553	3747938.3	0.000150972	0.000123047
2031	70	493553	3747938.3	0.000146058	0.000118986
2031	71	481553	3748938.3	0.000367492	0.000293823
2031	72	482553	3748938.3	0.000187541	0.000147253
2031	73	483553	3748938.3	0.000313828	0.000250146
2031	74	484553	3748938.3	0.000329169	0.000260167
2031	75	485553	3748938.3	0.00031387	0.000249263
2031	76	486553	3748938.3	0.000290791	0.000232886
2031	77	487553	3748938.3	0.00022826	0.000191084
2031	78	488553	3748938.3	0.0002343	0.000189049
2031	79	489553	3748938.3	0.000215274	0.000174333
2031	80	490553	3748938.3	0.000201932	0.000162921
2031	81	491553	3748938.3	0.000189953	0.000152736
2031	82	492553	3748938.3	0.000181915	0.000145693
2031	83	493553	3748938.3	0.000179599	0.00014404
2031	84	494553	3748938.3	0.000232111	0.000197369
2031	85	480553	3749938.3	0.00056867	0.000497225
2031	86	481553	3749938.3	0.000495127	0.000405822
2031	87	482553	3749938.3	0.000483199	0.000385806
2031	88	483553	3749938.3	0.000474537	0.000374005
2031	89	484553	3749938.3	0.00034783	0.000275265

2031	90	485553	3749938.3	0.00028472	0.000226484
2031	91	486553	3749938.3	0.000337009	0.000272938
2031	92	487553	3749938.3	0.000352992	0.000279005
2031	93	488553	3749938.3	0.000306435	0.000240504
2031	94	489553	3749938.3	0.000278542	0.000219493
2031	95	490553	3749938.3	0.000257203	0.000202077
2031	96	491553	3749938.3	0.00024107	0.00018839
2031	97	492553	3749938.3	0.000234773	0.000182606
2031	98	493553	3749938.3	0.000262923	0.000208811
2031	99	494553	3749938.3	0.00022134	0.000167974
2031	100	495553	3749938.3	0.000175685	0.000145021
2031	101	480553	3750938.3	0.000497704	0.000419898
2031	102	481553	3750938.3	0.000535441	0.000441659
2031	103	482553	3750938.3	0.000581657	0.00046797
2031	104	483553	3750938.3	0.00066907	0.000530784
2031	105	484553	3750938.3	0.000664546	0.000518979
2031	106	485553	3750938.3	0.000293992	0.000220728
2031	107	486553	3750938.3	0.000271253	0.000204053
2031	108	487553	3750938.3	0.000424788	0.000337782
2031	109	488553	3750938.3	0.000459851	0.00034065
2031	110	489553	3750938.3	0.000403924	0.000301448
2031	111	490553	3750938.3	0.000360572	0.000269378
2031	112	491553	3750938.3	0.000335831	0.000249382
2031	113	492553	3750938.3	0.000377422	0.000288986
2031	114	493553	3750938.3	0.000327016	0.000239983
2031	115	494553	3750938.3	0.000316911	0.000235502
2031	116	495553	3750938.3	0.000295586	0.000229715
2031	117	479553	3751938.3	0.000585715	0.00052198
2031	118	480553	3751938.3	0.000575344	0.000496555
2031	119	481553	3751938.3	0.000607725	0.000508005
2031	120	482553	3751938.3	0.000674633	0.000544304
2031	121	483553	3751938.3	0.000774119	0.000603705
2031	122	484553	3751938.3	0.000921337	0.000701095
2031	123	485553	3751938.3	0.00127235	0.001008768
2031	124	486553	3751938.3	0.000521694	0.000399621
2031	125	487553	3751938.3	0.000842234	0.000658079
2031	126	488553	3751938.3	0.000904366	0.000612454
2031	127	489553	3751938.3	0.000822845	0.000540973
2031	128	490553	3751938.3	0.000690585	0.00045423
2031	129	491553	3751938.3	0.00071565	0.000499464
2031	130	492553	3751938.3	0.000571825	0.000369354
2031	131	493553	3751938.3	0.000512289	0.000380282
2031	132	494553	3751938.3	0.000472649	0.000353084
2031	133	495553	3751938.3	0.000416531	0.000318975
2031	134	479553	3752938.3	0.000708216	0.00064841
2031	135	480553	3752938.3	0.000706827	0.000631514
2031	136	481553	3752938.3	0.000762294	0.000664274

2031	137	482553	3752938.3	0.000862503	0.00072771
2031	138	483553	3752938.3	0.000991805	0.000797849
2031	139	484553	3752938.3	0.001236339	0.000928849
2031	140	485553	3752938.3	0.001638141	0.00119344
2031	141	486553	3752938.3	0.00323242	0.002546607
2031	142	487553	3752938.3	0.003560612	0.002684518
2031	143	488553	3752938.3	0.003173423	0.002323815
2031	144	489553	3752938.3	0.002895194	0.002112145
2031	145	490553	3752938.3	0.002401225	0.001724144
2031	146	491553	3752938.3	0.001243951	0.000863628
2031	147	492553	3752938.3	0.000946035	0.000619684
2031	148	493553	3752938.3	0.000768974	0.000549387
2031	149	494553	3752938.3	0.000655462	0.000489598
2031	150	495553	3752938.3	0.000527902	0.000408469
2031	151	479553	3753938.3	0.000813626	0.000758716
2031	152	480553	3753938.3	0.000820544	0.000752132
2031	153	481553	3753938.3	0.000932049	0.000843436
2031	154	482553	3753938.3	0.001064796	0.000944017
2031	155	483553	3753938.3	0.00133914	0.00116916
2031	156	484553	3753938.3	0.001588322	0.001276312
2031	157	485553	3753938.3	0.00256261	0.001847736
2031	158	486553	3753938.3	0.00452588	0.003399983
2031	159	487553	3753938.3	0.004966477	0.004057174
2031	160	488553	3753938.3	0.004395183	0.003362053
2031	161	489553	3753938.3	0.002470443	0.001652759
2031	162	490553	3753938.3	0.001429367	0.001050116
2031	163	491553	3753938.3	0.000997509	0.000777775
2031	164	492553	3753938.3	0.000818366	0.000646566
2031	165	493553	3753938.3	0.000669444	0.000535481
2031	166	494553	3753938.3	0.00060834	0.00049034
2031	167	495553	3753938.3	0.000474428	0.00038572
2031	168	479553	3754938.3	0.001446859	0.001395442
2031	169	480553	3754938.3	0.001542413	0.001480907
2031	170	481553	3754938.3	0.00176674	0.00169061
2031	171	482553	3754938.3	0.002581735	0.002484317
2031	172	483553	3754938.3	0.002838101	0.002711013
2031	173	484553	3754938.3	0.002812972	0.002622308
2031	174	485553	3754938.3	0.004081068	0.003736243
2031	175	486553	3754938.3	0.0056275	0.005122837
2031	176	487553	3754938.3	0.004800149	0.004134013
2031	177	488553	3754938.3	0.002697019	0.002235086
2031	178	489553	3754938.3	0.001690171	0.001454392
2031	179	490553	3754938.3	0.00112632	0.000989166
2031	180	491553	3754938.3	0.000740218	0.000644942
2031	181	492553	3754938.3	0.000531336	0.000457322
2031	182	493553	3754938.3	0.000537173	0.000466614
2031	183	494553	3754938.3	0.000408709	0.000352065

2031	184	495553	3754938.3	0.000343038	0.000294637
2031	185	479553	3755938.3	0.001455843	0.001411951
2031	186	480553	3755938.3	0.001220432	0.001173038
2031	187	481553	3755938.3	0.001236487	0.00118352
2031	188	482553	3755938.3	0.00176797	0.001697873
2031	189	483553	3755938.3	0.001857013	0.00177326
2031	190	484553	3755938.3	0.001765362	0.001663154
2031	191	485553	3755938.3	0.002492272	0.002365548
2031	192	486553	3755938.3	0.002014527	0.001878462
2031	193	487553	3755938.3	0.001113245	0.001027222
2031	194	488553	3755938.3	0.000777669	0.000709705
2031	195	489553	3755938.3	0.000532966	0.000481244
2031	196	490553	3755938.3	0.000441213	0.00039665
2031	197	491553	3755938.3	0.000363634	0.000325476
2031	198	492553	3755938.3	0.000440633	0.000405176
2031	199	493553	3755938.3	0.000323077	0.000291736
2031	200	494553	3755938.3	0.000310399	0.000281169
2031	201	479553	3756938.3	0.000441502	0.000411663
2031	202	480553	3756938.3	0.000422654	0.000391923
2031	203	481553	3756938.3	0.000381756	0.00035242
2031	204	482553	3756938.3	0.000398448	0.000365783
2031	205	483553	3756938.3	0.000671937	0.000618359
2031	206	484553	3756938.3	0.000648223	0.000590352
2031	207	485553	3756938.3	0.001406889	0.001347626
2031	208	486553	3756938.3	0.00053565	0.00048225
2031	209	487553	3756938.3	0.000352424	0.000312278
2031	210	488553	3756938.3	0.000285861	0.000251052
2031	211	489553	3756938.3	0.000250406	0.000219311
2031	212	490553	3756938.3	0.000228774	0.000200323
2031	213	491553	3756938.3	0.000200004	0.000174886
2031	214	492553	3756938.3	0.000178157	0.000155878
2031	215	493553	3756938.3	0.000189333	0.000167844
2031	216	494553	3756938.3	0.000183782	0.000163563
2031	217	479553	3757938.3	0.000222015	0.000203197
2031	218	480553	3757938.3	0.000212541	0.000193707
2031	219	481553	3757938.3	0.000224511	0.000203203
2031	220	482553	3757938.3	0.000277708	0.000249431
2031	221	483553	3757938.3	0.000272345	0.000243146
2031	222	484553	3757938.3	0.000358582	0.000322399
2031	223	485553	3757938.3	0.000415489	0.00038407
2031	224	486553	3757938.3	0.000248475	0.000219637
2031	225	487553	3757938.3	0.000203134	0.000177255
2031	226	488553	3757938.3	0.000178342	0.000154698
2031	227	489553	3757938.3	0.000164572	0.000142369
2031	228	490553	3757938.3	0.000150489	0.00013008
2031	229	491553	3757938.3	0.000137888	0.000119043
2031	230	492553	3757938.3	0.00013239	0.000114722

2031	231	493553	3757938.3	0.00014683	0.000128585
2031	232	480553	3758938.3	0.00015952	0.000143603
2031	233	481553	3758938.3	0.000177949	0.000158909
2031	234	482553	3758938.3	0.000173346	0.00015355
2031	235	483553	3758938.3	0.000181741	0.000160322
2031	236	484553	3758938.3	0.000227414	0.000203423
2031	237	485553	3758938.3	0.000528116	0.000502484
2031	238	486553	3758938.3	0.000171965	0.000151467
2031	239	487553	3758938.3	0.000188799	0.000166199
2031	240	488553	3758938.3	0.00014018	0.000122039
2031	241	489553	3758938.3	0.000142116	0.000123782
2031	242	490553	3758938.3	0.000155165	0.000135018
2031	243	491553	3758938.3	0.000126189	0.000109553
2031	244	492553	3758938.3	0.000131292	0.000114137
2031	245	481553	3759938.3	0.00013167	0.0001169
2031	246	482553	3759938.3	0.000135879	0.000119819
2031	247	483553	3759938.3	0.000143981	0.000126798
2031	248	484553	3759938.3	0.000200261	0.000178868
2031	249	485553	3759938.3	0.000522409	0.000496453
2031	250	486553	3759938.3	0.00024755	0.000221315
2031	251	487553	3759938.3	0.000201939	0.00017873
2031	252	488553	3759938.3	0.000201538	0.000176953
2031	253	489553	3759938.3	0.000174651	0.000152457
2031	254	490553	3759938.3	0.000135038	0.000117892
2031	255	491553	3759938.3	0.000117683	0.000102443
2031	256	482553	3760938.3	0.000128167	0.00011313
2031	257	483553	3760938.3	0.000148228	0.000131382
2031	258	484553	3760938.3	0.00018931	0.000169456
2031	259	485553	3760938.3	0.000429887	0.000403635
2031	260	486553	3760938.3	0.000282015	0.000253969
2031	261	487553	3760938.3	0.000224868	0.000201967
2031	262	488553	3760938.3	0.000128121	0.000113415
2031	263	489553	3760938.3	9.71801E-05	8.51522E-05
2031	264	490553	3760938.3	9.29576E-05	8.11344E-05
2031	265	484551.7	3750934.4	0.00066052	0.000516647
2031	266	484651.7	3750934.4	0.000652112	0.000510408
2031	267	484751.7	3750934.4	0.000498426	0.000395041
2031	268	484851.7	3750934.4	0.000457372	0.00036264
2031	269	484951.7	3750934.4	0.00048342	0.000382517
2031	270	485051.7	3750934.4	0.000433306	0.000342652
2031	271	485151.7	3750934.4	0.000360798	0.000280532
2031	272	485251.7	3750934.4	0.000317789	0.000241896
2031	273	485351.7	3750934.4	0.000305612	0.000230966
2031	274	485451.7	3750934.4	0.000299148	0.000225273
2031	275	484551.7	3751034.4	0.000705627	0.000546445
2031	276	484651.7	3751034.4	0.000696133	0.000539943
2031	277	484751.7	3751034.4	0.000653925	0.0005153

2031	278	484851.7	3751034.4	0.00051773	0.000409952
2031	279	484951.7	3751034.4	0.000575242	0.000453849
2031	280	485051.7	3751034.4	0.000482494	0.000381828
2031	281	485151.7	3751034.4	0.000418316	0.000329077
2031	282	485251.7	3751034.4	0.000355781	0.00027401
2031	283	485351.7	3751034.4	0.000328596	0.000249488
2031	284	485451.7	3751034.4	0.000316805	0.000238912
2031	285	484551.7	3751134.4	0.000741266	0.000571477
2031	286	484651.7	3751134.4	0.000739644	0.000568954
2031	287	484751.7	3751134.4	0.000730001	0.000563497
2031	288	484851.7	3751134.4	0.000659307	0.000522386
2031	289	484951.7	3751134.4	0.000675338	0.000531447
2031	290	485051.7	3751134.4	0.000556754	0.000439803
2031	291	485151.7	3751134.4	0.000494139	0.000391089
2031	292	485251.7	3751134.4	0.00042742	0.000335516
2031	293	485351.7	3751134.4	0.00036351	0.000278798
2031	294	485451.7	3751134.4	0.000337334	0.000255124
2031	295	484551.7	3751234.4	0.000777912	0.000599341
2031	296	484651.7	3751234.4	0.00077797	0.000597447
2031	297	484751.7	3751234.4	0.000771903	0.000594469
2031	298	484851.7	3751234.4	0.00075029	0.000583057
2031	299	484951.7	3751234.4	0.000730618	0.000571351
2031	300	485051.7	3751234.4	0.000656801	0.000519815
2031	301	485151.7	3751234.4	0.000554107	0.000438924
2031	302	485251.7	3751234.4	0.000418384	0.00032595
2031	303	485351.7	3751234.4	0.000369965	0.000282298
2031	304	485451.7	3751234.4	0.000355314	0.000269005
2031	305	484551.7	3751334.4	0.000832419	0.000643419
2031	306	484651.7	3751334.4	0.000826366	0.00063688
2031	307	484751.7	3751334.4	0.000817059	0.000631129
2031	308	484851.7	3751334.4	0.000805483	0.000623913
2031	309	484951.7	3751334.4	0.000799152	0.000618645
2031	310	485051.7	3751334.4	0.000766407	0.000600127
2031	311	485151.7	3751334.4	0.000648581	0.000513461
2031	312	485251.7	3751334.4	0.000510631	0.000404689
2031	313	485351.7	3751334.4	0.000402533	0.000309507
2031	314	485451.7	3751334.4	0.000376549	0.000285822
2031	315	484551.7	3751434.4	0.00092083	0.000724611
2031	316	484651.7	3751434.4	0.00089611	0.000697417
2031	317	484751.7	3751434.4	0.000881191	0.000682058
2031	318	484851.7	3751434.4	0.000870933	0.000672892
2031	319	484951.7	3751434.4	0.000862622	0.000666302
2031	320	485051.7	3751434.4	0.000852144	0.000658368
2031	321	485151.7	3751434.4	0.000765164	0.000608132
2031	322	485251.7	3751434.4	0.000595913	0.000474948
2031	323	485351.7	3751434.4	0.000468614	0.000366901
2031	324	485451.7	3751434.4	0.000417106	0.000320186

2031	325	484551.7	3751534.4	0.001121241	0.00091989
2031	326	484651.7	3751534.4	0.001039055	0.00083256
2031	327	484751.7	3751534.4	0.000978193	0.000768081
2031	328	484851.7	3751534.4	0.00095017	0.000738119
2031	329	484951.7	3751534.4	0.00093672	0.000722994
2031	330	485051.7	3751534.4	0.000929514	0.00071378
2031	331	485151.7	3751534.4	0.000918454	0.000705393
2031	332	485251.7	3751534.4	0.000833217	0.00065841
2031	333	485351.7	3751534.4	0.000666094	0.000531294
2031	334	485451.7	3751534.4	0.0005508	0.000437126
2031	335	484551.7	3751634.4	0.001038444	0.000832116
2031	336	484651.7	3751634.4	0.00107009	0.000858426
2031	337	484751.7	3751634.4	0.001103246	0.00088568
2031	338	484851.7	3751634.4	0.001124302	0.000902584
2031	339	484951.7	3751634.4	0.001047271	0.000822216
2031	340	485051.7	3751634.4	0.001014341	0.00078614
2031	341	485151.7	3751634.4	0.001002332	0.000771378
2031	342	485251.7	3751634.4	0.000977625	0.000755038
2031	343	485351.7	3751634.4	0.000930997	0.00072562
2031	344	485451.7	3751634.4	0.000849681	0.000676084
2031	345	484551.7	3751734.4	0.000922669	0.000712285
2031	346	484651.7	3751734.4	0.000973689	0.000756409
2031	347	484751.7	3751734.4	0.001054162	0.000830772
2031	348	484851.7	3751734.4	0.001156814	0.000928355
2031	349	484951.7	3751734.4	0.001158793	0.000926673
2031	350	485051.7	3751734.4	0.001261217	0.001025056
2031	351	485151.7	3751734.4	0.001147204	0.000904955
2031	352	485251.7	3751734.4	0.001115328	0.000870863
2031	353	485351.7	3751734.4	0.00107462	0.000836058
2031	354	485451.7	3751734.4	0.001017309	0.000792293
2031	355	484551.7	3751834.4	0.000907476	0.00069339
2031	356	484651.7	3751834.4	0.000936508	0.000715756
2031	357	484751.7	3751834.4	0.000970051	0.000742582
2031	358	484851.7	3751834.4	0.001009931	0.000776342
2031	359	484951.7	3751834.4	0.001059993	0.000821826
2031	360	485051.7	3751834.4	0.001170809	0.000927078
2031	361	485151.7	3751834.4	0.001187381	0.000935026
2031	362	485251.7	3751834.4	0.001256799	0.000998491
2031	363	485351.7	3751834.4	0.001268759	0.001010501
2031	364	485451.7	3751834.4	0.001266401	0.001014209
2031	365	484551.7	3751934.4	0.000920122	0.000700238
2031	366	484651.7	3751934.4	0.000940459	0.000714818
2031	367	484751.7	3751934.4	0.00096112	0.000730005
2031	368	484851.7	3751934.4	0.000987024	0.000749483
2031	369	484951.7	3751934.4	0.001015562	0.000771626
2031	370	485051.7	3751934.4	0.001052013	0.000800689
2031	371	485151.7	3751934.4	0.001098093	0.000838166

2031	372	485251.7	3751934.4	0.001161487	0.000891755
2031	373	485351.7	3751934.4	0.001252863	0.000976996
2031	374	485451.7	3751934.4	0.001309762	0.001037272
2031	375	484551.7	3752034.4	0.000952176	0.000724551
2031	376	484651.7	3752034.4	0.000969745	0.000736426
2031	377	484751.7	3752034.4	0.000988672	0.000749499
2031	378	484851.7	3752034.4	0.00100873	0.000763548
2031	379	484951.7	3752034.4	0.001033355	0.000781147
2031	380	485051.7	3752034.4	0.001062902	0.000802621
2031	381	485151.7	3752034.4	0.001098939	0.000829434
2031	382	485251.7	3752034.4	0.001150875	0.000870168
2031	383	485351.7	3752034.4	0.001220997	0.000931079
2031	384	485451.7	3752034.4	0.00138442	0.001088994
2031	385	484551.7	3752134.4	0.001008531	0.000772767
2031	386	484651.7	3752134.4	0.001025211	0.000783373
2031	387	484751.7	3752134.4	0.001043847	0.000795556
2031	388	484851.7	3752134.4	0.001062766	0.000807981
2031	389	484951.7	3752134.4	0.001083699	0.000822032
2031	390	485051.7	3752134.4	0.00110946	0.000839874
2031	391	485151.7	3752134.4	0.001140876	0.000862356
2031	392	485251.7	3752134.4	0.001186711	0.000896932
2031	393	485351.7	3752134.4	0.001258639	0.000956748
2031	394	485451.7	3752134.4	0.001423959	0.001112457
2031	395	484551.7	3752234.4	0.001110612	0.000867297
2031	396	484651.7	3752234.4	0.001134704	0.000884222
2031	397	484751.7	3752234.4	0.001152369	0.000894887
2031	398	484851.7	3752234.4	0.001167341	0.000902796
2031	399	484951.7	3752234.4	0.001243862	0.000972085
2031	400	485051.7	3752234.4	0.001207372	0.000928029
2031	401	485151.7	3752234.4	0.001239571	0.0009522
2031	402	485251.7	3752234.4	0.00127515	0.000976893
2031	403	485351.7	3752234.4	0.001343528	0.001032146
2031	404	485451.7	3752234.4	0.001544798	0.001220552
2031	405	484551.7	3752334.4	0.001059853	0.000807194
2031	406	484651.7	3752334.4	0.00108003	0.000819993
2031	407	484751.7	3752334.4	0.001100243	0.00083289
2031	408	484851.7	3752334.4	0.001121183	0.000846396
2031	409	484951.7	3752334.4	0.001144372	0.000861606
2031	410	485051.7	3752334.4	0.001167934	0.000877261
2031	411	485151.7	3752334.4	0.001195548	0.000896099
2031	412	485251.7	3752334.4	0.001228156	0.000919187
2031	413	485351.7	3752334.4	0.001273478	0.000953106
2031	414	485451.7	3752334.4	0.001352971	0.001018392
2031	415	484551.7	3752434.4	0.001058034	0.000796115
2031	416	484651.7	3752434.4	0.00107853	0.000808824
2031	417	484751.7	3752434.4	0.001098774	0.00082155
2031	418	484851.7	3752434.4	0.001122761	0.000836843

2031	419	484951.7	3752434.4	0.001146513	0.000852235
2031	420	485051.7	3752434.4	0.001172673	0.000869487
2031	421	485151.7	3752434.4	0.001201411	0.000888741
2031	422	485251.7	3752434.4	0.001233401	0.000910723
2031	423	485351.7	3752434.4	0.001273008	0.000938931
2031	424	485451.7	3752434.4	0.001331825	0.000984988
2031	425	484551.7	3752534.4	0.001079411	0.000807981
2031	426	484651.7	3752534.4	0.001100964	0.000821158
2031	427	484751.7	3752534.4	0.001123816	0.000835349
2031	428	484851.7	3752534.4	0.00114863	0.000850995
2031	429	484951.7	3752534.4	0.001173699	0.000867113
2031	430	485051.7	3752534.4	0.00120185	0.000885461
2031	431	485151.7	3752534.4	0.001231913	0.000905416
2031	432	485251.7	3752534.4	0.001264228	0.000927368
2031	433	485351.7	3752534.4	0.001301858	0.000953672
2031	434	485451.7	3752534.4	0.001356792	0.000995679
2031	435	484551.7	3752634.4	0.001107687	0.000827038
2031	436	484651.7	3752634.4	0.001130417	0.000840711
2031	437	484751.7	3752634.4	0.001154347	0.00085536
2031	438	484851.7	3752634.4	0.001182128	0.000872611
2031	439	484951.7	3752634.4	0.001209611	0.000890081
2031	440	485051.7	3752634.4	0.001239929	0.00090969
2031	441	485151.7	3752634.4	0.001271572	0.000930609
2031	442	485251.7	3752634.4	0.001305339	0.000953459
2031	443	485351.7	3752634.4	0.001343978	0.000980363
2031	444	485451.7	3752634.4	0.00139973	0.001022536
2031	445	484551.7	3752734.4	0.001142192	0.000852269
2031	446	484651.7	3752734.4	0.001167474	0.000867102
2031	447	484751.7	3752734.4	0.001193913	0.000882951
2031	448	484851.7	3752734.4	0.001222227	0.000900323
2031	449	484951.7	3752734.4	0.001252044	0.000919025
2031	450	485051.7	3752734.4	0.001284558	0.000939904
2031	451	485151.7	3752734.4	0.001318031	0.000961945
2031	452	485251.7	3752734.4	0.001353534	0.000985966
2031	453	485351.7	3752734.4	0.001394027	0.001014166
2031	454	485451.7	3752734.4	0.001449644	0.0010565
2031	455	484551.7	3752834.4	0.001181543	0.000882887
2031	456	484651.7	3752834.4	0.001209099	0.000898592
2031	457	484751.7	3752834.4	0.001236724	0.000914665
2031	458	484851.7	3752834.4	0.001268396	0.000933731
2031	459	484951.7	3752834.4	0.001301082	0.000953855
2031	460	485051.7	3752834.4	0.001335363	0.000975535
2031	461	485151.7	3752834.4	0.001370709	0.000998595
2031	462	485251.7	3752834.4	0.001408419	0.001023997
2031	463	485351.7	3752834.4	0.001449922	0.001053264
2031	464	485451.7	3752834.4	0.001507562	0.001097517
2031	465	484551.7	3752934.4	0.00123336	0.000926354

2031	466	484651.7	3752934.4	0.001263182	0.000942882
2031	467	484751.7	3752934.4	0.001293487	0.000959961
2031	468	484851.7	3752934.4	0.001327579	0.000979877
2031	469	484951.7	3752934.4	0.001362956	0.001001049
2031	470	485051.7	3752934.4	0.001400631	0.001024309
2031	471	485151.7	3752934.4	0.001437874	0.00104807
2031	472	485251.7	3752934.4	0.001478617	0.001075139
2031	473	485351.7	3752934.4	0.001519859	0.001104071
2031	474	485451.7	3752934.4	0.001576307	0.001147406
2031	475	484551.7	3753034.4	0.001321038	0.001006881
2031	476	484651.7	3753034.4	0.001356961	0.001028161
2031	477	484751.7	3753034.4	0.001397144	0.001052973
2031	478	484851.7	3753034.4	0.001428759	0.001068476
2031	479	484951.7	3753034.4	0.001465362	0.001088834
2031	480	485051.7	3753034.4	0.001505772	0.001113242
2031	481	485151.7	3753034.4	0.001551227	0.00114269
2031	482	485251.7	3753034.4	0.001628745	0.001204847
2031	483	485351.7	3753034.4	0.001632975	0.001195645
2031	484	485451.7	3753034.4	0.001679729	0.001229322
2031	485	484551.7	3753134.4	0.001299258	0.000978571
2031	486	484651.7	3753134.4	0.001335416	0.000998276
2031	487	484751.7	3753134.4	0.001374749	0.001020143
2031	488	484851.7	3753134.4	0.001414985	0.001042682
2031	489	484951.7	3753134.4	0.00145818	0.001067448
2031	490	485051.7	3753134.4	0.001503623	0.001094211
2031	491	485151.7	3753134.4	0.001550504	0.001122591
2031	492	485251.7	3753134.4	0.001600715	0.001154542
2031	493	485351.7	3753134.4	0.001652484	0.001189651
2031	494	485451.7	3753134.4	0.001714327	0.001236404
2031	495	484551.7	3753234.4	0.001317022	0.000990631
2031	496	484651.7	3753234.4	0.001356608	0.001011858
2031	497	484751.7	3753234.4	0.001398314	0.001034438
2031	498	484851.7	3753234.4	0.001442266	0.00105854
2031	499	484951.7	3753234.4	0.001489647	0.001085007
2031	500	485051.7	3753234.4	0.001540767	0.001114385
2031	501	485151.7	3753234.4	0.001594063	0.001145762
2031	502	485251.7	3753234.4	0.001651465	0.001180913
2031	503	485351.7	3753234.4	0.001711978	0.001220209
2031	504	485451.7	3753234.4	0.001785632	0.001274262
2031	505	484551.7	3753334.4	0.001347387	0.00101638
2031	506	484651.7	3753334.4	0.001389374	0.001038618
2031	507	484751.7	3753334.4	0.001433177	0.001061773
2031	508	484851.7	3753334.4	0.001482285	0.001088392
2031	509	484951.7	3753334.4	0.001532887	0.001115826
2031	510	485051.7	3753334.4	0.00158874	0.001146866
2031	511	485151.7	3753334.4	0.001648813	0.001181165
2031	512	485251.7	3753334.4	0.001717108	0.001221697

2031	513	485351.7	3753334.4	0.001791526	0.001268082
2031	514	485451.7	3753334.4	0.001880295	0.001329725
2031	515	484551.7	3753434.4	0.001379642	0.001046465
2031	516	484651.7	3753434.4	0.001423622	0.001069659
2031	517	484751.7	3753434.4	0.001470182	0.001093961
2031	518	484851.7	3753434.4	0.0015224	0.001121893
2031	519	484951.7	3753434.4	0.001577176	0.00115061
2031	520	485051.7	3753434.4	0.001637369	0.001182925
2031	521	485151.7	3753434.4	0.001705973	0.001221413
2031	522	485251.7	3753434.4	0.001784671	0.001267047
2031	523	485351.7	3753434.4	0.001873553	0.001321001
2031	524	485451.7	3753434.4	0.001987166	0.00139684
2031	525	484551.7	3753534.4	0.001412402	0.001079375
2031	526	484651.7	3753534.4	0.001454814	0.001100532
2031	527	484751.7	3753534.4	0.001502697	0.001125113
2031	528	484851.7	3753534.4	0.001560168	0.001156604
2031	529	484951.7	3753534.4	0.001618794	0.001187452
2031	530	485051.7	3753534.4	0.001683309	0.001221664
2031	531	485151.7	3753534.4	0.001758481	0.001263228
2031	532	485251.7	3753534.4	0.001845948	0.001313456
2031	533	485351.7	3753534.4	0.001949797	0.0013758
2031	534	485451.7	3753534.4	0.002085609	0.001465066
2031	535	484551.7	3753634.4	0.001445352	0.001114307
2031	536	484651.7	3753634.4	0.001489792	0.001136703
2031	537	484751.7	3753634.4	0.001540151	0.001162805
2031	538	484851.7	3753634.4	0.001596771	0.001192692
2031	539	484951.7	3753634.4	0.00165916	0.001225793
2031	540	485051.7	3753634.4	0.001727782	0.001262476
2031	541	485151.7	3753634.4	0.001807172	0.001306466
2031	542	485251.7	3753634.4	0.001899876	0.001360194
2031	543	485351.7	3753634.4	0.002008948	0.001426782
2031	544	485451.7	3753634.4	0.002153063	0.001524647
2031	545	484551.7	3753734.4	0.001489425	0.001162492
2031	546	484651.7	3753734.4	0.00153321	0.001183623
2031	547	484751.7	3753734.4	0.001581696	0.001207006
2031	548	484851.7	3753734.4	0.001635302	0.001232917
2031	549	484951.7	3753734.4	0.001699329	0.001266506
2031	550	485051.7	3753734.4	0.001772063	0.001305571
2031	551	485151.7	3753734.4	0.001854835	0.001351194
2031	552	485251.7	3753734.4	0.001950607	0.001406123
2031	553	485351.7	3753734.4	0.002064684	0.001475725
2031	554	485451.7	3753734.4	0.002214184	0.001578212
2031	555	484551.7	3753834.4	0.001534747	0.001214235
2031	556	484651.7	3753834.4	0.001576475	0.00123316
2031	557	484751.7	3753834.4	0.001625078	0.001256451
2031	558	484851.7	3753834.4	0.001679407	0.001282477
2031	559	484951.7	3753834.4	0.001744776	0.001316406

2031	560	485051.7	3753834.4	0.001817071	0.001353276
2031	561	485151.7	3753834.4	0.001900587	0.001397328
2031	562	485251.7	3753834.4	0.0020019	0.0014549
2031	563	485351.7	3753834.4	0.002121663	0.00152671
2031	564	485451.7	3753834.4	0.002279122	0.00163216
2031	565	484551.7	3753934.4	0.001584648	0.001272436
2031	566	484651.7	3753934.4	0.001628662	0.001293759
2031	567	484751.7	3753934.4	0.001670331	0.001309737
2031	568	484851.7	3753934.4	0.001725649	0.001336892
2031	569	484951.7	3753934.4	0.001790363	0.00137002
2031	570	485051.7	3753934.4	0.001864903	0.001409032
2031	571	485151.7	3753934.4	0.001950928	0.001454916
2031	572	485251.7	3753934.4	0.002052238	0.001510918
2031	573	485351.7	3753934.4	0.002174957	0.00158227
2031	574	485451.7	3753934.4	0.002338458	0.001687763
2031	575	484551.7	3754034.4	0.001643243	0.001342925
2031	576	484651.7	3754034.4	0.001666636	0.001340668
2031	577	484751.7	3754034.4	0.001719441	0.001368991
2031	578	484851.7	3754034.4	0.001777704	0.001399386
2031	579	484951.7	3754034.4	0.001841452	0.001431675
2031	580	485051.7	3754034.4	0.001913834	0.001468668
2031	581	485151.7	3754034.4	0.001998729	0.001513601
2031	582	485251.7	3754034.4	0.002100365	0.0015701
2031	583	485351.7	3754034.4	0.002224012	0.001642892
2031	584	485451.7	3754034.4	0.002388873	0.001751243
2031	585	484551.7	3754134.4	0.001683447	0.00139151
2031	586	484651.7	3754134.4	0.001713283	0.001398037
2031	587	484751.7	3754134.4	0.001766348	0.001427641
2031	588	484851.7	3754134.4	0.001829194	0.001464381
2031	589	484951.7	3754134.4	0.001892228	0.00149632
2031	590	485051.7	3754134.4	0.001965881	0.001534466
2031	591	485151.7	3754134.4	0.002051818	0.001580599
2031	592	485251.7	3754134.4	0.002153705	0.001637917
2031	593	485351.7	3754134.4	0.002278206	0.001711895
2031	594	485451.7	3754134.4	0.002442472	0.001819663
2031	595	484551.7	3754234.4	0.001725327	0.001442003
2031	596	484651.7	3754234.4	0.001763463	0.00145954
2031	597	484751.7	3754234.4	0.001820176	0.001494579
2031	598	484851.7	3754234.4	0.00188353	0.001533542
2031	599	484951.7	3754234.4	0.001948682	0.001569462
2031	600	485051.7	3754234.4	0.002021118	0.001607988
2031	601	485151.7	3754234.4	0.002106638	0.001654884
2031	602	485251.7	3754234.4	0.002208173	0.001712243
2031	603	485351.7	3754234.4	0.002332437	0.001785823
2031	604	485451.7	3754234.4	0.002497326	0.001893886
2031	605	484551.7	3754334.4	0.001785941	0.001513275
2031	606	484651.7	3754334.4	0.001835165	0.001544841

2031	607	484751.7	3754334.4	0.001890801	0.001580776
2031	608	484851.7	3754334.4	0.001948002	0.00161454
2031	609	484951.7	3754334.4	0.002012555	0.001651921
2031	610	485051.7	3754334.4	0.002085707	0.001693402
2031	611	485151.7	3754334.4	0.002169953	0.001741084
2031	612	485251.7	3754334.4	0.002270656	0.001800164
2031	613	485351.7	3754334.4	0.002391192	0.001873886
2031	614	485451.7	3754334.4	0.002537554	0.00196748
2031	615	484551.7	3754434.4	0.001899568	0.001643389
2031	616	484651.7	3754434.4	0.001935139	0.001661099
2031	617	484751.7	3754434.4	0.001979081	0.001685626
2031	618	484851.7	3754434.4	0.002029534	0.001713843
2031	619	484951.7	3754434.4	0.002090824	0.001749924
2031	620	485051.7	3754434.4	0.002161617	0.00179137
2031	621	485151.7	3754434.4	0.00224488	0.001840696
2031	622	485251.7	3754434.4	0.002343683	0.001900382
2031	623	485351.7	3754434.4	0.002462445	0.001974522
2031	624	485451.7	3754434.4	0.002608135	0.002070451
2031	625	484551.7	3754534.4	0.002033691	0.001791934
2031	626	484651.7	3754534.4	0.002068307	0.001810653
2031	627	484751.7	3754534.4	0.002098291	0.001821911
2031	628	484851.7	3754534.4	0.00213526	0.001839247
2031	629	484951.7	3754534.4	0.002188805	0.001869679
2031	630	485051.7	3754534.4	0.002255765	0.001909293
2031	631	485151.7	3754534.4	0.002337078	0.0019588
2031	632	485251.7	3754534.4	0.002433935	0.002018946
2031	633	485351.7	3754534.4	0.002550635	0.002093236
2031	634	485451.7	3754534.4	0.002699544	0.002193256
2031	635	484551.7	3754634.4	0.002158143	0.001930416
2031	636	484651.7	3754634.4	0.002188206	0.001945758
2031	637	484751.7	3754634.4	0.002232892	0.001974675
2031	638	484851.7	3754634.4	0.002260694	0.001985421
2031	639	484951.7	3754634.4	0.0023067	0.002011128
2031	640	485051.7	3754634.4	0.002369842	0.002050453
2031	641	485151.7	3754634.4	0.002448192	0.002101078
2031	642	485251.7	3754634.4	0.002543659	0.00216319
2031	643	485351.7	3754634.4	0.002661634	0.002240922
2031	644	485451.7	3754634.4	0.002814146	0.002346453
2031	645	484551.7	3754734.4	0.002293123	0.002078192
2031	646	484651.7	3754734.4	0.002323906	0.002096252
2031	647	484751.7	3754734.4	0.002359831	0.002118562
2031	648	484851.7	3754734.4	0.002403031	0.002146934
2031	649	484951.7	3754734.4	0.002455285	0.002182013
2031	650	485051.7	3754734.4	0.002517953	0.00222455
2031	651	485151.7	3754734.4	0.002593759	0.002276673
2031	652	485251.7	3754734.4	0.002687455	0.002342869
2031	653	485351.7	3754734.4	0.00280551	0.002429912

2031	654	485451.7	3754734.4	0.002957302	0.002546008
2031	655	484551.7	3754834.4	0.002496871	0.002294096
2031	656	484651.7	3754834.4	0.002529727	0.002316588
2031	657	484751.7	3754834.4	0.002566601	0.002341695
2031	658	484851.7	3754834.4	0.002608875	0.00237053
2031	659	484951.7	3754834.4	0.002660279	0.00240715
2031	660	485051.7	3754834.4	0.002720873	0.002450887
2031	661	485151.7	3754834.4	0.002795926	0.002506685
2031	662	485251.7	3754834.4	0.002891775	0.002580549
2031	663	485351.7	3754834.4	0.003020326	0.002685359
2031	664	485451.7	3754834.4	0.003188578	0.002827114
2031	665	484551.7	3754934.4	0.00279862	0.002607669
2031	666	484651.7	3754934.4	0.00282976	0.002629786
2031	667	484751.7	3754934.4	0.002864801	0.002654561
2031	668	484851.7	3754934.4	0.00290522	0.002683367
2031	669	484951.7	3754934.4	0.002954186	0.002719565
2031	670	485051.7	3754934.4	0.003010903	0.002761798
2031	671	485151.7	3754934.4	0.003084972	0.002820101
2031	672	485251.7	3754934.4	0.003183421	0.002900718
2031	673	485351.7	3754934.4	0.003337149	0.003035556
2031	674	485451.7	3754934.4	0.00362078	0.003298037
2031	675	484551.7	3755034.4	0.003249017	0.003068618
2031	676	484651.7	3755034.4	0.003276914	0.003088681
2031	677	484751.7	3755034.4	0.003306758	0.0031093
2031	678	484851.7	3755034.4	0.003346736	0.003139639
2031	679	484951.7	3755034.4	0.003393451	0.003175313
2031	680	485051.7	3755034.4	0.003450851	0.003220407
2031	681	485151.7	3755034.4	0.00352215	0.003278121
2031	682	485251.7	3755034.4	0.003621361	0.0033628
2031	683	485351.7	3755034.4	0.003781313	0.003506897
2031	684	485451.7	3755034.4	0.004236364	0.003944196
2031	685	485549.5	3750934.9	0.000293687	0.000220528
2031	686	485649.5	3750934.9	0.00029014	0.000217504
2031	687	485749.5	3750934.9	0.00028791	0.000215668
2031	688	485849.5	3750934.9	0.000284384	0.000212728
2031	689	485549.5	3751034.9	0.000309831	0.000232763
2031	690	485649.5	3751034.9	0.00030505	0.000228644
2031	691	485749.5	3751034.9	0.000303	0.000226936
2031	692	485849.5	3751034.9	0.000300275	0.000224669
2031	693	485549.5	3751134.9	0.000327613	0.000246455
2031	694	485649.5	3751134.9	0.000322424	0.00024193
2031	695	485749.5	3751134.9	0.000320133	0.000239991
2031	696	485849.5	3751134.9	0.000316743	0.000237114
2031	697	485549.5	3751234.9	0.000348735	0.000263103
2031	698	485649.5	3751234.9	0.000342053	0.000257204
2031	699	485749.5	3751234.9	0.000339385	0.0002549
2031	700	485849.5	3751234.9	0.000338745	0.000254463

2031	701	485549.5	3751334.9	0.000371238	0.000280974
2031	702	485649.5	3751334.9	0.000366143	0.000276417
2031	703	485749.5	3751334.9	0.000362009	0.000272786
2031	704	485849.5	3751334.9	0.000364845	0.000275501
2031	705	485549.5	3751434.9	0.000402613	0.00030683
2031	706	485649.5	3751434.9	0.000399484	0.000303959
2031	707	485749.5	3751434.9	0.000390691	0.000296037
2031	708	485849.5	3751434.9	0.0004027	0.000307174
2031	709	485549.5	3751534.9	0.000504042	0.000395838
2031	710	485649.5	3751534.9	0.000491882	0.000384797
2031	711	485749.5	3751534.9	0.000446698	0.000344098
2031	712	485849.5	3751534.9	0.000438217	0.000336517
2031	713	485549.5	3751634.9	0.000777626	0.000619042
2031	714	485649.5	3751634.9	0.00065755	0.000524736
2031	715	485749.5	3751634.9	0.000612765	0.000487669
2031	716	485849.5	3751634.9	0.000471129	0.00036333
2031	717	485549.5	3751734.9	0.000960626	0.000755109
2031	718	485649.5	3751734.9	0.000918386	0.00072677
2031	719	485749.5	3751734.9	0.000817183	0.000651861
2031	720	485849.5	3751734.9	0.000576015	0.000454719
2031	721	485549.5	3751834.9	0.001096171	0.000863248
2031	722	485649.5	3751834.9	0.001039544	0.000818673
2031	723	485749.5	3751834.9	0.000994869	0.000786197
2031	724	485849.5	3751834.9	0.000849427	0.000679628
2031	725	485549.5	3751934.9	0.001272731	0.001009959
2031	726	485649.5	3751934.9	0.001166407	0.000912666
2031	727	485749.5	3751934.9	0.001134892	0.000885778
2031	728	485849.5	3751934.9	0.001092276	0.000856098
2031	729	485549.5	3752034.9	0.001473757	0.001180337
2031	730	485649.5	3752034.9	0.001293563	0.00100749
2031	731	485749.5	3752034.9	0.001265928	0.000984003
2031	732	485849.5	3752034.9	0.001240261	0.000968515
2031	733	485549.5	3752134.9	0.001516353	0.001198297
2031	734	485649.5	3752134.9	0.001476374	0.001154428
2031	735	485749.5	3752134.9	0.001480793	0.001159561
2031	736	485849.5	3752134.9	0.001490267	0.00117626
2031	737	485549.5	3752234.9	0.001701141	0.001365531
2031	738	485649.5	3752234.9	0.001753026	0.001408482
2031	739	485749.5	3752234.9	0.001823945	0.001472608
2031	740	485849.5	3752234.9	0.001878567	0.001527553
2031	741	485549.5	3752334.9	0.001424592	0.001075694
2031	742	485649.5	3752334.9	0.001459669	0.001096862
2031	743	485749.5	3752334.9	0.001507099	0.001132481
2031	744	485849.5	3752334.9	0.001562146	0.001178814
2031	745	485549.5	3752434.9	0.001381756	0.001019972
2031	746	485649.5	3752434.9	0.001406534	0.001029588
2031	747	485749.5	3752434.9	0.00144938	0.0010563

2031	748	485849.5	3752434.9	0.001505277	0.001095598
2031	749	485549.5	3752534.9	0.001403353	0.001027629
2031	750	485649.5	3752534.9	0.001425538	0.001033528
2031	751	485749.5	3752534.9	0.001468986	0.001059158
2031	752	485849.5	3752534.9	0.001523662	0.001094372
2031	753	485549.5	3752634.9	0.001448272	0.001056306
2031	754	485649.5	3752634.9	0.001471395	0.001062074
2031	755	485749.5	3752634.9	0.001515122	0.001087334
2031	756	485849.5	3752634.9	0.001569704	0.001121008
2031	757	485549.5	3752734.9	0.001504132	0.001095328
2031	758	485649.5	3752734.9	0.001529303	0.001102368
2031	759	485749.5	3752734.9	0.001578992	0.001131458
2031	760	485849.5	3752734.9	0.001639764	0.001168637
2031	761	485549.5	3752834.9	0.001566113	0.00114078
2031	762	485649.5	3752834.9	0.001593456	0.001149916
2031	763	485749.5	3752834.9	0.001650886	0.001185381
2031	764	485849.5	3752834.9	0.001720366	0.001229046
2031	765	485549.5	3752934.9	0.001636488	0.001193064
2031	766	485649.5	3752934.9	0.001665202	0.001204143
2031	767	485749.5	3752934.9	0.001729857	0.001247659
2031	768	485849.5	3752934.9	0.001814734	0.001305739
2031	769	485549.5	3753034.9	0.001726366	0.001261742
2031	770	485649.5	3753034.9	0.001740348	0.001259656
2031	771	485749.5	3753034.9	0.001813549	0.001312665
2031	772	485849.5	3753034.9	0.001919856	0.00139481
2031	773	485549.5	3753134.9	0.001758752	0.001266598
2031	774	485649.5	3753134.9	0.001814057	0.001307596
2031	775	485749.5	3753134.9	0.001892589	0.001369678
2031	776	485849.5	3753134.9	0.00201351	0.001470758
2031	777	485549.5	3753234.9	0.001840436	0.00131306
2031	778	485649.5	3753234.9	0.001898458	0.001358874
2031	779	485749.5	3753234.9	0.001975655	0.001425125
2031	780	485849.5	3753234.9	0.0020994	0.001534774
2031	781	485549.5	3753334.9	0.001965635	0.001391646
2031	782	485649.5	3753334.9	0.002012082	0.001422243
2031	783	485749.5	3753334.9	0.002083233	0.001487555
2031	784	485849.5	3753334.9	0.002195853	0.001597087
2031	785	485549.5	3753434.9	0.002105363	0.001477435
2031	786	485649.5	3753434.9	0.002181922	0.001522244
2031	787	485749.5	3753434.9	0.002266766	0.001593225
2031	788	485849.5	3753434.9	0.002361709	0.001701031
2031	789	485508.5	3746711.3	0.000187384	0.000154941
2031	790	491508.5	3746711.3	0.000130796	0.000108445
2031	791	479508.5	3752711.3	0.00065591	0.000595611
2031	792	485508.5	3752711.3	0.00145931	0.001061112
2031	793	491508.5	3752711.3	0.001206956	0.000797873
2031	794	485508.5	3758711.3	0.000332974	0.000309132

2031	795	491508.5	3758711.3	0.000141178	0.00012272
2031	796	485921.9	3750934.2	0.000281074	0.000209982
2031	797	486021.9	3750934.2	0.000277524	0.00020708
2031	798	486121.9	3750934.2	0.000275603	0.000205646
2031	799	485921.9	3751034.2	0.000296169	0.000221171
2031	800	486021.9	3751034.2	0.000290984	0.000216796
2031	801	486121.9	3751034.2	0.000287998	0.000214374
2031	802	485921.9	3751134.2	0.000313358	0.00023422
2031	803	486021.9	3751134.2	0.000307612	0.000229296
2031	804	486121.9	3751134.2	0.000303137	0.000225494
2031	805	485921.9	3751234.2	0.000333258	0.00024966
2031	806	486021.9	3751234.2	0.000326962	0.000244177
2031	807	486121.9	3751234.2	0.000321408	0.000239372
2031	808	485921.9	3751334.2	0.000357594	0.000269054
2031	809	486021.9	3751334.2	0.000350351	0.000262648
2031	810	486121.9	3751334.2	0.000342355	0.000255585
2031	811	485921.9	3751434.2	0.000390853	0.000296511
2031	812	486021.9	3751434.2	0.000378227	0.000285145
2031	813	486121.9	3751434.2	0.000367806	0.000275799
2031	814	485921.9	3751534.2	0.000426402	0.000325917
2031	815	486021.9	3751534.2	0.000417843	0.000318302
2031	816	486121.9	3751534.2	0.000399783	0.000301904
2031	817	485921.9	3751634.2	0.000456783	0.000350393
2031	818	486021.9	3751634.2	0.000487717	0.000378675
2031	819	486121.9	3751634.2	0.000450094	0.00034473
2031	820	485921.9	3751734.2	0.000522845	0.000407153
2031	821	486021.9	3751734.2	0.000599348	0.000474924
2031	822	486121.9	3751734.2	0.000508202	0.000394305
2031	823	485921.9	3751834.2	0.000667194	0.000532251
2031	824	486021.9	3751834.2	0.000671611	0.000535641
2031	825	486121.9	3751834.2	0.000533924	0.00041407
2031	826	485921.9	3751934.2	0.000996432	0.000796428
2031	827	486021.9	3751934.2	0.000830448	0.000667266
2031	828	486121.9	3751934.2	0.000676866	0.000538201
2031	829	485921.9	3752034.2	0.001182565	0.000932417
2031	830	486021.9	3752034.2	0.001020196	0.000822598
2031	831	486121.9	3752034.2	0.000928922	0.000751028
2031	832	485921.9	3752134.2	0.001503844	0.001199357
2031	833	486021.9	3752134.2	0.001464648	0.001183887
2031	834	486121.9	3752134.2	0.001255489	0.001018985
2031	835	485921.9	3752234.2	0.001909954	0.00156592
2031	836	486021.9	3752234.2	0.001993963	0.001657818
2031	837	486121.9	3752234.2	0.001840413	0.001518126
2031	838	485921.9	3752334.2	0.001603233	0.001215711
2031	839	486021.9	3752334.2	0.001690452	0.001303591
2031	840	486121.9	3752334.2	0.001955595	0.001570277
2031	841	485921.9	3752434.2	0.001556411	0.00113832

2031	842	486021.9	3752434.2	0.001642316	0.001214787
2031	843	486121.9	3752434.2	0.001786707	0.001349604
2031	844	485921.9	3752534.2	0.001574032	0.001129286
2031	845	486021.9	3752534.2	0.001647762	0.001185
2031	846	486121.9	3752534.2	0.001746222	0.00126657
2031	847	485921.9	3752634.2	0.001614734	0.001150394
2031	848	486021.9	3752634.2	0.001683458	0.001198502
2031	849	486121.9	3752634.2	0.001768144	0.001263174
2031	850	485921.9	3752734.2	0.001687711	0.001198926
2031	851	486021.9	3752734.2	0.001764562	0.001249954
2031	852	486121.9	3752734.2	0.001853884	0.001314202
2031	853	485921.9	3752834.2	0.00177863	0.001265657
2031	854	486021.9	3752834.2	0.001871982	0.00132612
2031	855	486121.9	3752834.2	0.001981582	0.001401884
2031	856	485921.9	3752934.2	0.001883454	0.001351984
2031	857	486021.9	3752934.2	0.00199992	0.001429351
2031	858	486121.9	3752934.2	0.002161424	0.001544602
2031	859	487026.2	3754364	0.007477154	0.006481668
2032	1	489607.4	3753966.1	0.002511725	0.001692293
2032	2	489738.7	3754023.9	0.002226375	0.001553319
2032	3	489668.9	3754093.7	0.002117264	0.001545046
2032	4	489690.1	3754161.6	0.002006916	0.001491869
2032	5	490282.2	3753425.2	0.002964289	0.002069465
2032	6	489797.3	3754554.1	0.001639601	0.001258677
2032	7	490252.9	3754378.2	0.001500407	0.001131779
2032	8	489006	3754140.3	0.003808769	0.002970313
2032	9	485642.8	3754267.3	0.003426699	0.002645236
2032	10	485736.4	3754259.5	0.003779117	0.002923057
2032	11	487189.2	3754820.5	0.008434332	0.007518073
2032	12	487233.1	3754689.5	0.006935049	0.005928284
2032	13	487216.8	3754364.7	0.010567379	0.009552068
2032	14	487388.8	3754380.1	0.007975986	0.00703849
2032	15	484625	3751748	0.001031404	0.000797003
2032	16	483279	3751798	0.000775506	0.000608252
2032	17	483231	3751205	0.000689517	0.000541822
2032	18	480165	3750195	0.00052153	0.000446513
2032	19	481211	3749473	0.000470917	0.000387736
2032	20	481867	3752785	0.000789098	0.000671128
2032	21	480678	3751306	0.00056681	0.000478883
2032	22	479989	3752645	0.00067763	0.000604723
2032	23	479889	3756222	0.000948078	0.000904501
2032	24	479234	3757080	0.00045722	0.00042574
2032	25	480276	3756365	0.000770724	0.000728974
2032	26	479887	3754007	0.00088188	0.000818454
2032	27	480772	3755009	0.001866982	0.001797906
2032	28	481560	3754548	0.001399273	0.001311275
2032	29	481845	3754457	0.001412337	0.00131626

2032	30	481754	3753876	0.001009306	0.000906559
2032	31	489635.2	3750663.8	0.000384368	0.000292766
2032	32	485424.1	3747672.3	0.000249945	0.000202949
2032	33	482657.6	3753975.1	0.001195363	0.001060255
2032	34	481495	3754633.7	0.001468241	0.001382818
2032	35	481148.7	3756136.2	0.001058919	0.001006979
2032	36	482346.5	3748872.9	0.000194418	0.000152358
2032	37	480299	3751198	0.00055172	0.000470637
2032	38	479598.7	3756506.3	0.000725382	0.000686156
2032	39	478997.8	3753535.2	0.000988855	0.000933086
2032	40	478978.3	3755233.1	0.002975432	0.002922168
2032	41	479197.3	3754462.3	0.00131041	0.0012565
2032	42	479493.3	3752408.8	0.000688348	0.000621754
2032	43	480295.4	3752408.4	0.000656829	0.000577565
2032	44	480287.9	3754227.5	0.000966371	0.000898573
2032	45	494397.4	3753977.6	0.000606547	0.000490002
2032	46	481108.5	3750699	0.000556595	0.000464704
2032	47	486794.1	3756878	0.000561877	0.000504514
2032	48	482345	3752065.8	0.000747522	0.000612458
2032	49	487553	3745938.3	0.000152583	0.000128412
2032	50	484553	3746938.3	0.000201889	0.000165971
2032	51	485553	3746938.3	0.000211954	0.000174645
2032	52	486553	3746938.3	0.000168842	0.000143247
2032	53	487553	3746938.3	0.000186018	0.000154135
2032	54	488553	3746938.3	0.000169553	0.000141271
2032	55	489553	3746938.3	0.000167526	0.000138489
2032	56	490553	3746938.3	0.000153839	0.000127533
2032	57	491553	3746938.3	0.000146388	0.000121074
2032	58	492553	3746938.3	0.00014077	0.000116242
2032	59	482553	3747938.3	0.000177307	0.000141179
2032	60	483553	3747938.3	0.000296155	0.000236808
2032	61	484553	3747938.3	0.000282054	0.000226561
2032	62	485553	3747938.3	0.000263196	0.000212644
2032	63	486553	3747938.3	0.000244978	0.00020071
2032	64	487553	3747938.3	0.000156615	0.000132025
2032	65	488553	3747938.3	0.000204305	0.000167911
2032	66	489553	3747938.3	0.000191833	0.000157661
2032	67	490553	3747938.3	0.000180597	0.000148129
2032	68	491553	3747938.3	0.000171312	0.000140016
2032	69	492553	3747938.3	0.000163863	0.000133553
2032	70	493553	3747938.3	0.000158529	0.000129146
2032	71	481553	3748938.3	0.000398871	0.000318911
2032	72	482553	3748938.3	0.000203554	0.000159826
2032	73	483553	3748938.3	0.000340624	0.000271505
2032	74	484553	3748938.3	0.000357275	0.000282382
2032	75	485553	3748938.3	0.00034067	0.000270546
2032	76	486553	3748938.3	0.00031562	0.000252771

2032	77	487553	3748938.3	0.00024775	0.000207399
2032	78	488553	3748938.3	0.000254305	0.000205191
2032	79	489553	3748938.3	0.000233655	0.000189219
2032	80	490553	3748938.3	0.000219175	0.000176832
2032	81	491553	3748938.3	0.000206172	0.000165777
2032	82	492553	3748938.3	0.000197448	0.000158133
2032	83	493553	3748938.3	0.000194934	0.000156339
2032	84	494553	3748938.3	0.00025193	0.000214221
2032	85	480553	3749938.3	0.000617226	0.00053968
2032	86	481553	3749938.3	0.000537403	0.000440473
2032	87	482553	3749938.3	0.000524457	0.000418749
2032	88	483553	3749938.3	0.000515056	0.000405939
2032	89	484553	3749938.3	0.00037753	0.000298769
2032	90	485553	3749938.3	0.000309031	0.000245822
2032	91	486553	3749938.3	0.000365785	0.000296243
2032	92	487553	3749938.3	0.000383133	0.000302828
2032	93	488553	3749938.3	0.0003326	0.000261039
2032	94	489553	3749938.3	0.000302326	0.000238234
2032	95	490553	3749938.3	0.000279165	0.000219331
2032	96	491553	3749938.3	0.000261653	0.000204476
2032	97	492553	3749938.3	0.00025482	0.000198197
2032	98	493553	3749938.3	0.000285372	0.00022664
2032	99	494553	3749938.3	0.000240239	0.000182316
2032	100	495553	3749938.3	0.000190686	0.000157404
2032	101	480553	3750938.3	0.000540201	0.000455752
2032	102	481553	3750938.3	0.000581159	0.00047937
2032	103	482553	3750938.3	0.000631322	0.000507927
2032	104	483553	3750938.3	0.000726199	0.000576105
2032	105	484553	3750938.3	0.000721288	0.000563292
2032	106	485553	3750938.3	0.000319095	0.000239575
2032	107	486553	3750938.3	0.000294414	0.000221476
2032	108	487553	3750938.3	0.000461059	0.000366624
2032	109	488553	3750938.3	0.000499115	0.000369737
2032	110	489553	3750938.3	0.000438413	0.000327187
2032	111	490553	3750938.3	0.00039136	0.000292379
2032	112	491553	3750938.3	0.000364506	0.000270675
2032	113	492553	3750938.3	0.000409649	0.000313661
2032	114	493553	3750938.3	0.000354938	0.000260474
2032	115	494553	3750938.3	0.000343971	0.00025561
2032	116	495553	3750938.3	0.000320825	0.00024933
2032	117	479553	3751938.3	0.000635726	0.00056655
2032	118	480553	3751938.3	0.00062447	0.000538954
2032	119	481553	3751938.3	0.000659616	0.000551382
2032	120	482553	3751938.3	0.000732237	0.00059078
2032	121	483553	3751938.3	0.000840218	0.000655253
2032	122	484553	3751938.3	0.001000006	0.000760958
2032	123	485553	3751938.3	0.00138099	0.001094902

2032	124	486553	3751938.3	0.000566239	0.000433743
2032	125	487553	3751938.3	0.000914149	0.000714269
2032	126	488553	3751938.3	0.000981585	0.000664749
2032	127	489553	3751938.3	0.000893104	0.000587164
2032	128	490553	3751938.3	0.000749551	0.000493014
2032	129	491553	3751938.3	0.000776756	0.000542111
2032	130	492553	3751938.3	0.00062065	0.000400892
2032	131	493553	3751938.3	0.000556031	0.000412752
2032	132	494553	3751938.3	0.000513006	0.000383233
2032	133	495553	3751938.3	0.000452097	0.000346211
2032	134	479553	3752938.3	0.000768688	0.000703775
2032	135	480553	3752938.3	0.000767179	0.000685436
2032	136	481553	3752938.3	0.000827382	0.000720993
2032	137	482553	3752938.3	0.000936149	0.000789846
2032	138	483553	3752938.3	0.001076491	0.000865974
2032	139	484553	3752938.3	0.001341904	0.001008159
2032	140	485553	3752938.3	0.001778014	0.001295342
2032	141	486553	3752938.3	0.003508421	0.00276405
2032	142	487553	3752938.3	0.003864637	0.002913736
2032	143	488553	3752938.3	0.003444387	0.002522235
2032	144	489553	3752938.3	0.003142401	0.002292491
2032	145	490553	3752938.3	0.002606254	0.00187136
2032	146	491553	3752938.3	0.001350166	0.000937369
2032	147	492553	3752938.3	0.001026812	0.000672596
2032	148	493553	3752938.3	0.000834633	0.000596297
2032	149	494553	3752938.3	0.000711429	0.000531402
2032	150	495553	3752938.3	0.000572977	0.000443346
2032	151	479553	3753938.3	0.000883098	0.000823499
2032	152	480553	3753938.3	0.000890606	0.000816353
2032	153	481553	3753938.3	0.001011633	0.000915453
2032	154	482553	3753938.3	0.001155714	0.001024622
2032	155	483553	3753938.3	0.001453483	0.001268989
2032	156	484553	3753938.3	0.001723941	0.001385291
2032	157	485553	3753938.3	0.002781419	0.002005506
2032	158	486553	3753938.3	0.004912324	0.003690291
2032	159	487553	3753938.3	0.005390541	0.004403597
2032	160	488553	3753938.3	0.004770468	0.003649123
2032	161	489553	3753938.3	0.002681383	0.00179388
2032	162	490553	3753938.3	0.001551414	0.00113978
2032	163	491553	3753938.3	0.001082681	0.000844186
2032	164	492553	3753938.3	0.000888243	0.000701773
2032	165	493553	3753938.3	0.000726604	0.000581203
2032	166	494553	3753938.3	0.000660284	0.000532208
2032	167	495553	3753938.3	0.000514937	0.000418655
2032	168	479553	3754938.3	0.001570399	0.001514593
2032	169	480553	3754938.3	0.001674112	0.001607354
2032	170	481553	3754938.3	0.001917594	0.001834964

2032	171	482553	3754938.3	0.002802177	0.002696441
2032	172	483553	3754938.3	0.003080433	0.002942494
2032	173	484553	3754938.3	0.003053158	0.002846215
2032	174	485553	3754938.3	0.004429531	0.004055264
2032	175	486553	3754938.3	0.006108007	0.005560252
2032	176	487553	3754938.3	0.005210012	0.004486998
2032	177	488553	3754938.3	0.002927305	0.002425929
2032	178	489553	3754938.3	0.001834487	0.001578576
2032	179	490553	3754938.3	0.001222491	0.001073626
2032	180	491553	3754938.3	0.000803422	0.000700011
2032	181	492553	3754938.3	0.000576704	0.000496371
2032	182	493553	3754938.3	0.00058304	0.000506456
2032	183	494553	3754938.3	0.000443607	0.000382127
2032	184	495553	3754938.3	0.000372329	0.000319795
2032	185	479553	3755938.3	0.001580151	0.001532511
2032	186	480553	3755938.3	0.001324639	0.001273198
2032	187	481553	3755938.3	0.001342065	0.001284575
2032	188	482553	3755938.3	0.001918929	0.001842846
2032	189	483553	3755938.3	0.002015575	0.00192467
2032	190	484553	3755938.3	0.001916098	0.001805163
2032	191	485553	3755938.3	0.002705076	0.002567531
2032	192	486553	3755938.3	0.002186538	0.002038855
2032	193	487553	3755938.3	0.0012083	0.001114931
2032	194	488553	3755938.3	0.00084407	0.000770304
2032	195	489553	3755938.3	0.000578474	0.000522336
2032	196	490553	3755938.3	0.000478886	0.000430518
2032	197	491553	3755938.3	0.000394683	0.000353267
2032	198	492553	3755938.3	0.000478257	0.000439772
2032	199	493553	3755938.3	0.000350663	0.000316646
2032	200	494553	3755938.3	0.000336903	0.000305177
2032	201	479553	3756938.3	0.0004792	0.000446813
2032	202	480553	3756938.3	0.000458742	0.000425387
2032	203	481553	3756938.3	0.000414352	0.000382511
2032	204	482553	3756938.3	0.00043247	0.000397016
2032	205	483553	3756938.3	0.00072931	0.000671158
2032	206	484553	3756938.3	0.000703572	0.00064076
2032	207	485553	3756938.3	0.001527017	0.001462694
2032	208	486553	3756938.3	0.000581387	0.000523427
2032	209	487553	3756938.3	0.000382516	0.000338942
2032	210	488553	3756938.3	0.000310269	0.000272488
2032	211	489553	3756938.3	0.000271787	0.000238037
2032	212	490553	3756938.3	0.000248308	0.000217427
2032	213	491553	3756938.3	0.000217081	0.000189819
2032	214	492553	3756938.3	0.000193369	0.000169187
2032	215	493553	3756938.3	0.000205499	0.000182176
2032	216	494553	3756938.3	0.000199474	0.000177529
2032	217	479553	3757938.3	0.000240972	0.000220547

2032	218	480553	3757938.3	0.000230689	0.000210247
2032	219	481553	3757938.3	0.000243681	0.000220554
2032	220	482553	3757938.3	0.00030142	0.000270729
2032	221	483553	3757938.3	0.0002956	0.000263907
2032	222	484553	3757938.3	0.000389199	0.000349928
2032	223	485553	3757938.3	0.000450966	0.000416864
2032	224	486553	3757938.3	0.000269691	0.00023839
2032	225	487553	3757938.3	0.000220479	0.00019239
2032	226	488553	3757938.3	0.000193569	0.000167907
2032	227	489553	3757938.3	0.000178624	0.000154526
2032	228	490553	3757938.3	0.000163339	0.000141187
2032	229	491553	3757938.3	0.000149662	0.000129207
2032	230	492553	3757938.3	0.000143694	0.000124518
2032	231	493553	3757938.3	0.000159367	0.000139565
2032	232	480553	3758938.3	0.00017314	0.000155864
2032	233	481553	3758938.3	0.000193144	0.000172477
2032	234	482553	3758938.3	0.000188148	0.000166661
2032	235	483553	3758938.3	0.000197259	0.000174011
2032	236	484553	3758938.3	0.000246832	0.000220792
2032	237	485553	3758938.3	0.000573209	0.000545389
2032	238	486553	3758938.3	0.000186648	0.0001644
2032	239	487553	3758938.3	0.00020492	0.00018039
2032	240	488553	3758938.3	0.00015215	0.00013246
2032	241	489553	3758938.3	0.00015425	0.000134351
2032	242	490553	3758938.3	0.000168414	0.000146547
2032	243	491553	3758938.3	0.000136963	0.000118907
2032	244	492553	3758938.3	0.000142502	0.000123883
2032	245	481553	3759938.3	0.000142913	0.000126882
2032	246	482553	3759938.3	0.000147481	0.000130049
2032	247	483553	3759938.3	0.000156274	0.000137624
2032	248	484553	3759938.3	0.00021736	0.000194141
2032	249	485553	3759938.3	0.000567015	0.000538843
2032	250	486553	3759938.3	0.000268687	0.000240213
2032	251	487553	3759938.3	0.000219182	0.000193991
2032	252	488553	3759938.3	0.000218746	0.000192062
2032	253	489553	3759938.3	0.000189564	0.000165474
2032	254	490553	3759938.3	0.000146568	0.000127958
2032	255	491553	3759938.3	0.000127732	0.00011119
2032	256	482553	3760938.3	0.00013911	0.00012279
2032	257	483553	3760938.3	0.000160884	0.0001426
2032	258	484553	3760938.3	0.000205474	0.000183925
2032	259	485553	3760938.3	0.000466593	0.0004381
2032	260	486553	3760938.3	0.000306095	0.000275654
2032	261	487553	3760938.3	0.000244068	0.000219212
2032	262	488553	3760938.3	0.00013906	0.000123099
2032	263	489553	3760938.3	0.000105478	9.2423E-05
2032	264	490553	3760938.3	0.000100895	8.80621E-05

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2032	266	484651.7	3750934.4	0.000707793	0.000553989
2032	267	484751.7	3750934.4	0.000540985	0.000428772
2032	268	484851.7	3750934.4	0.000496425	0.000393604
2032	269	484951.7	3750934.4	0.000524697	0.000415178
2032	270	485051.7	3750934.4	0.000470305	0.00037191
2032	271	485151.7	3750934.4	0.000391605	0.000304485
2032	272	485251.7	3750934.4	0.000344923	0.00026255
2032	273	485351.7	3750934.4	0.000331706	0.000250687
2032	274	485451.7	3750934.4	0.000324691	0.000244508
2032	275	484551.7	3751034.4	0.000765877	0.000593103
2032	276	484651.7	3751034.4	0.000755572	0.000586047
2032	277	484751.7	3751034.4	0.000709761	0.000559299
2032	278	484851.7	3751034.4	0.000561937	0.000444956
2032	279	484951.7	3751034.4	0.00062436	0.000492601
2032	280	485051.7	3751034.4	0.000523692	0.00041443
2032	281	485151.7	3751034.4	0.000454034	0.000357175
2032	282	485251.7	3751034.4	0.00038616	0.000297407
2032	283	485351.7	3751034.4	0.000356653	0.000270791
2032	284	485451.7	3751034.4	0.000343855	0.000259312
2032	285	484551.7	3751134.4	0.00080456	0.000620273
2032	286	484651.7	3751134.4	0.000802799	0.000617534
2032	287	484751.7	3751134.4	0.000792332	0.000611611
2032	288	484851.7	3751134.4	0.000715603	0.00056699
2032	289	484951.7	3751134.4	0.000733002	0.000576825
2032	290	485051.7	3751134.4	0.000604293	0.000477356
2032	291	485151.7	3751134.4	0.000536332	0.000424482
2032	292	485251.7	3751134.4	0.000463915	0.000364165
2032	293	485351.7	3751134.4	0.000394549	0.000302603
2032	294	485451.7	3751134.4	0.000366138	0.000276908
2032	295	484551.7	3751234.4	0.000844335	0.000650516
2032	296	484651.7	3751234.4	0.000844398	0.000648461
2032	297	484751.7	3751234.4	0.000837812	0.000645228
2032	298	484851.7	3751234.4	0.000814353	0.000632841
2032	299	484951.7	3751234.4	0.000793002	0.000620136
2032	300	485051.7	3751234.4	0.000712882	0.000564199
2032	301	485151.7	3751234.4	0.000601419	0.000476402
2032	302	485251.7	3751234.4	0.000454108	0.000353781
2032	303	485351.7	3751234.4	0.000401555	0.000306402
2032	304	485451.7	3751234.4	0.000385653	0.000291974
2032	305	484551.7	3751334.4	0.000903495	0.000698358
2032	306	484651.7	3751334.4	0.000896925	0.00069126
2032	307	484751.7	3751334.4	0.000886824	0.000685019
2032	308	484851.7	3751334.4	0.000874259	0.000677186
2032	309	484951.7	3751334.4	0.000867388	0.000671469
2032	310	485051.7	3751334.4	0.000831847	0.00065137
2032	311	485151.7	3751334.4	0.00070396	0.000557303

2032	312	485251.7	3751334.4	0.000554231	0.000439243
2032	313	485351.7	3751334.4	0.000436903	0.000335934
2032	314	485451.7	3751334.4	0.000408701	0.000310227
2032	315	484551.7	3751434.4	0.000999455	0.000786482
2032	316	484651.7	3751434.4	0.000972625	0.000756967
2032	317	484751.7	3751434.4	0.000956432	0.000740296
2032	318	484851.7	3751434.4	0.000945298	0.000730347
2032	319	484951.7	3751434.4	0.000936277	0.000723195
2032	320	485051.7	3751434.4	0.000924905	0.000714584
2032	321	485151.7	3751434.4	0.000830498	0.000660057
2032	322	485251.7	3751434.4	0.000646795	0.000515502
2032	323	485351.7	3751434.4	0.000508626	0.000398228
2032	324	485451.7	3751434.4	0.00045272	0.000347526
2032	325	484551.7	3751534.4	0.001216978	0.000998435
2032	326	484651.7	3751534.4	0.001127775	0.000903649
2032	327	484751.7	3751534.4	0.001061716	0.000833664
2032	328	484851.7	3751534.4	0.0010313	0.000801143
2032	329	484951.7	3751534.4	0.001016702	0.000784727
2032	330	485051.7	3751534.4	0.001008881	0.000774726
2032	331	485151.7	3751534.4	0.000996876	0.000765623
2032	332	485251.7	3751534.4	0.000904361	0.000714629
2032	333	485351.7	3751534.4	0.000722968	0.000576658
2032	334	485451.7	3751534.4	0.00059783	0.00047445
2032	335	484551.7	3751634.4	0.001127112	0.000903167
2032	336	484651.7	3751634.4	0.00116146	0.000931723
2032	337	484751.7	3751634.4	0.001197447	0.000961304
2032	338	484851.7	3751634.4	0.001220301	0.000979651
2032	339	484951.7	3751634.4	0.001136693	0.000892421
2032	340	485051.7	3751634.4	0.001100951	0.000853265
2032	341	485151.7	3751634.4	0.001087917	0.000837242
2032	342	485251.7	3751634.4	0.0010611	0.000819507
2032	343	485351.7	3751634.4	0.001010491	0.000787577
2032	344	485451.7	3751634.4	0.000922231	0.000733812
2032	345	484551.7	3751734.4	0.001001452	0.000773104
2032	346	484651.7	3751734.4	0.001056827	0.000820995
2032	347	484751.7	3751734.4	0.001144172	0.000901707
2032	348	484851.7	3751734.4	0.001255589	0.001007623
2032	349	484951.7	3751734.4	0.001257737	0.001005797
2032	350	485051.7	3751734.4	0.001368907	0.001112581
2032	351	485151.7	3751734.4	0.001245159	0.000982225
2032	352	485251.7	3751734.4	0.001210561	0.000945222
2032	353	485351.7	3751734.4	0.001166377	0.000907445
2032	354	485451.7	3751734.4	0.001104172	0.000859943
2032	355	484551.7	3751834.4	0.000984961	0.000752596
2032	356	484651.7	3751834.4	0.001016472	0.000776871
2032	357	484751.7	3751834.4	0.00105288	0.000805987
2032	358	484851.7	3751834.4	0.001096165	0.00084263

2032	359	484951.7	3751834.4	0.001150501	0.000891997
2032	360	485051.7	3751834.4	0.001270779	0.001006237
2032	361	485151.7	3751834.4	0.001288765	0.001014863
2032	362	485251.7	3751834.4	0.001364112	0.001083747
2032	363	485351.7	3751834.4	0.001377092	0.001096783
2032	364	485451.7	3751834.4	0.001374533	0.001100807
2032	365	484551.7	3751934.4	0.000998687	0.000760028
2032	366	484651.7	3751934.4	0.001020761	0.000775853
2032	367	484751.7	3751934.4	0.001043185	0.000792337
2032	368	484851.7	3751934.4	0.001071302	0.000813478
2032	369	484951.7	3751934.4	0.001102276	0.000837512
2032	370	485051.7	3751934.4	0.00114184	0.000869057
2032	371	485151.7	3751934.4	0.001191854	0.000909733
2032	372	485251.7	3751934.4	0.001260661	0.000967898
2032	373	485351.7	3751934.4	0.001359839	0.001060417
2032	374	485451.7	3751934.4	0.001421596	0.00112584
2032	375	484551.7	3752034.4	0.001033478	0.000786418
2032	376	484651.7	3752034.4	0.001052547	0.000799306
2032	377	484751.7	3752034.4	0.001073091	0.000813496
2032	378	484851.7	3752034.4	0.001094861	0.000828743
2032	379	484951.7	3752034.4	0.001121589	0.000847845
2032	380	485051.7	3752034.4	0.001153659	0.000871153
2032	381	485151.7	3752034.4	0.001192772	0.000900256
2032	382	485251.7	3752034.4	0.001249142	0.000944468
2032	383	485351.7	3752034.4	0.001325253	0.001010579
2032	384	485451.7	3752034.4	0.001502629	0.001181978
2032	385	484551.7	3752134.4	0.001094644	0.00083875
2032	386	484651.7	3752134.4	0.001112749	0.000850262
2032	387	484751.7	3752134.4	0.001132976	0.000863485
2032	388	484851.7	3752134.4	0.001153511	0.000876971
2032	389	484951.7	3752134.4	0.001176231	0.000892221
2032	390	485051.7	3752134.4	0.001204191	0.000911586
2032	391	485151.7	3752134.4	0.00123829	0.000935989
2032	392	485251.7	3752134.4	0.001288039	0.000973517
2032	393	485351.7	3752134.4	0.001366108	0.00103844
2032	394	485451.7	3752134.4	0.001545544	0.001207444
2032	395	484551.7	3752234.4	0.001205442	0.000941351
2032	396	484651.7	3752234.4	0.001231591	0.000959722
2032	397	484751.7	3752234.4	0.001250764	0.000971298
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2032	399	484951.7	3752234.4	0.00135007	0.001055087
2032	400	485051.7	3752234.4	0.001310464	0.001007269
2032	401	485151.7	3752234.4	0.001345413	0.001033504
2032	402	485251.7	3752234.4	0.001384029	0.001060306
2032	403	485351.7	3752234.4	0.001458245	0.001120276
2032	404	485451.7	3752234.4	0.001676701	0.001324769
2032	405	484551.7	3752334.4	0.001150349	0.000876116

2032	406	484651.7	3752334.4	0.001172249	0.000890009
2032	407	484751.7	3752334.4	0.001194188	0.000904007
2032	408	484851.7	3752334.4	0.001216915	0.000918666
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2032	411	485151.7	3752334.4	0.001297631	0.000972613
2032	412	485251.7	3752334.4	0.001333022	0.000997672
2032	413	485351.7	3752334.4	0.001382215	0.001034488
2032	414	485451.7	3752334.4	0.001468495	0.001105347
2032	415	484551.7	3752434.4	0.001148375	0.000864092
2032	416	484651.7	3752434.4	0.001170621	0.000877885
2032	417	484751.7	3752434.4	0.001192593	0.000891698
2032	418	484851.7	3752434.4	0.001218628	0.000908297
2032	419	484951.7	3752434.4	0.001244409	0.000925003
2032	420	485051.7	3752434.4	0.001272802	0.000943729
2032	421	485151.7	3752434.4	0.001303993	0.000964626
2032	422	485251.7	3752434.4	0.001338715	0.000988486
2032	423	485351.7	3752434.4	0.001381705	0.001019102
2032	424	485451.7	3752434.4	0.001445544	0.001069091
2032	425	484551.7	3752534.4	0.001171577	0.00087697
2032	426	484651.7	3752534.4	0.00119497	0.000891273
2032	427	484751.7	3752534.4	0.001219774	0.000906676
2032	428	484851.7	3752534.4	0.001246706	0.000923658
2032	429	484951.7	3752534.4	0.001273916	0.000941152
2032	430	485051.7	3752534.4	0.00130447	0.000961067
2032	431	485151.7	3752534.4	0.001337101	0.000982725
2032	432	485251.7	3752534.4	0.001372174	0.001006551
2032	433	485351.7	3752534.4	0.001413018	0.001035102
2032	434	485451.7	3752534.4	0.001472642	0.001080695
2032	435	484551.7	3752634.4	0.001202268	0.000897655
2032	436	484651.7	3752634.4	0.001226938	0.000912495
2032	437	484751.7	3752634.4	0.001252911	0.000928395
2032	438	484851.7	3752634.4	0.001283065	0.000947119
2032	439	484951.7	3752634.4	0.001312894	0.00096608
2032	440	485051.7	3752634.4	0.0013458	0.000987364
2032	441	485151.7	3752634.4	0.001380146	0.00101007
2032	442	485251.7	3752634.4	0.001416795	0.001034871
2032	443	485351.7	3752634.4	0.001458734	0.001064071
2032	444	485451.7	3752634.4	0.001519246	0.001109845
2032	445	484551.7	3752734.4	0.001239718	0.00092504
2032	446	484651.7	3752734.4	0.001267159	0.00094114
2032	447	484751.7	3752734.4	0.001295855	0.000958342
2032	448	484851.7	3752734.4	0.001326587	0.000977198
2032	449	484951.7	3752734.4	0.00135895	0.000997497
2032	450	485051.7	3752734.4	0.001394241	0.001020159
2032	451	485151.7	3752734.4	0.001430572	0.00104408
2032	452	485251.7	3752734.4	0.001469106	0.001070153

2032	453	485351.7	3752734.4	0.001513057	0.001100761
2032	454	485451.7	3752734.4	0.001573422	0.00114671
2032	455	484551.7	3752834.4	0.001282429	0.000958273
2032	456	484651.7	3752834.4	0.001312338	0.000975319
2032	457	484751.7	3752834.4	0.001342322	0.000992765
2032	458	484851.7	3752834.4	0.001376698	0.001013458
2032	459	484951.7	3752834.4	0.001412176	0.001035301
2032	460	485051.7	3752834.4	0.001449384	0.001058831
2032	461	485151.7	3752834.4	0.001487748	0.00108386
2032	462	485251.7	3752834.4	0.001528678	0.001111432
2032	463	485351.7	3752834.4	0.001573724	0.001143198
2032	464	485451.7	3752834.4	0.001636286	0.001191229
2032	465	484551.7	3752934.4	0.001338671	0.001005451
2032	466	484651.7	3752934.4	0.001371039	0.00102339
2032	467	484751.7	3752934.4	0.001403932	0.001041928
2032	468	484851.7	3752934.4	0.001440935	0.001063544
2032	469	484951.7	3752934.4	0.001479332	0.001086523
2032	470	485051.7	3752934.4	0.001520224	0.00111177
2032	471	485151.7	3752934.4	0.001560647	0.00113756
2032	472	485251.7	3752934.4	0.00160487	0.00116694
2032	473	485351.7	3752934.4	0.001649632	0.001198343
2032	474	485451.7	3752934.4	0.001710901	0.001245378
2032	475	484551.7	3753034.4	0.001433836	0.001092854
2032	476	484651.7	3753034.4	0.001472825	0.001115951
2032	477	484751.7	3753034.4	0.00151644	0.001142881
2032	478	484851.7	3753034.4	0.001550754	0.001159708
2032	479	484951.7	3753034.4	0.001590482	0.001181804
2032	480	485051.7	3753034.4	0.001634343	0.001208296
2032	481	485151.7	3753034.4	0.001683679	0.00124026
2032	482	485251.7	3753034.4	0.001767816	0.001307724
2032	483	485351.7	3753034.4	0.001772407	0.001297736
2032	484	485451.7	3753034.4	0.001823154	0.001334288
2032	485	484551.7	3753134.4	0.001410196	0.001062127
2032	486	484651.7	3753134.4	0.001449441	0.001083514
2032	487	484751.7	3753134.4	0.001492132	0.001107248
2032	488	484851.7	3753134.4	0.001535804	0.001131712
2032	489	484951.7	3753134.4	0.001582687	0.001158593
2032	490	485051.7	3753134.4	0.00163201	0.001187641
2032	491	485151.7	3753134.4	0.001682895	0.001218443
2032	492	485251.7	3753134.4	0.001737393	0.001253123
2032	493	485351.7	3753134.4	0.001793582	0.00129123
2032	494	485451.7	3753134.4	0.001860705	0.001341975
2032	495	484551.7	3753234.4	0.001429476	0.001075216
2032	496	484651.7	3753234.4	0.001472442	0.001098255
2032	497	484751.7	3753234.4	0.001517709	0.001122764
2032	498	484851.7	3753234.4	0.001565415	0.001148924
2032	499	484951.7	3753234.4	0.001616841	0.00117765

2032	500	485051.7	3753234.4	0.001672326	0.001209537
2032	501	485151.7	3753234.4	0.001730172	0.001243594
2032	502	485251.7	3753234.4	0.001792476	0.001281745
2032	503	485351.7	3753234.4	0.001858155	0.001324397
2032	504	485451.7	3753234.4	0.001938098	0.001383066
2032	505	484551.7	3753334.4	0.001462434	0.001103164
2032	506	484651.7	3753334.4	0.001508006	0.001127301
2032	507	484751.7	3753334.4	0.00155555	0.001152432
2032	508	484851.7	3753334.4	0.001608851	0.001181325
2032	509	484951.7	3753334.4	0.001663773	0.001211101
2032	510	485051.7	3753334.4	0.001724395	0.001244791
2032	511	485151.7	3753334.4	0.001789598	0.001282019
2032	512	485251.7	3753334.4	0.001863724	0.001326012
2032	513	485351.7	3753334.4	0.001944496	0.001376357
2032	514	485451.7	3753334.4	0.002040844	0.001443265
2032	515	484551.7	3753434.4	0.001497443	0.001135817
2032	516	484651.7	3753434.4	0.001545178	0.001160992
2032	517	484751.7	3753434.4	0.001595714	0.001187369
2032	518	484851.7	3753434.4	0.001652391	0.001217687
2032	519	484951.7	3753434.4	0.001711844	0.001248855
2032	520	485051.7	3753434.4	0.001777176	0.00128393
2032	521	485151.7	3753434.4	0.001851639	0.001325704
2032	522	485251.7	3753434.4	0.001937056	0.001375234
2032	523	485351.7	3753434.4	0.002033527	0.001433795
2032	524	485451.7	3753434.4	0.002156841	0.001516109
2032	525	484551.7	3753534.4	0.001533001	0.001171538
2032	526	484651.7	3753534.4	0.001579034	0.001194501
2032	527	484751.7	3753534.4	0.001631005	0.001221181
2032	528	484851.7	3753534.4	0.001693384	0.001255362
2032	529	484951.7	3753534.4	0.001757015	0.001288843
2032	530	485051.7	3753534.4	0.001827038	0.001325976
2032	531	485151.7	3753534.4	0.00190863	0.00137109
2032	532	485251.7	3753534.4	0.002003565	0.001425606
2032	533	485351.7	3753534.4	0.002116281	0.001493273
2032	534	485451.7	3753534.4	0.002263689	0.001590161
2032	535	484551.7	3753634.4	0.001568764	0.001209452
2032	536	484651.7	3753634.4	0.001616998	0.001233761
2032	537	484751.7	3753634.4	0.001671657	0.001262091
2032	538	484851.7	3753634.4	0.001733111	0.00129453
2032	539	484951.7	3753634.4	0.001800827	0.001330458
2032	540	485051.7	3753634.4	0.00187531	0.001370273
2032	541	485151.7	3753634.4	0.001961478	0.001418019
2032	542	485251.7	3753634.4	0.002062097	0.001476335
2032	543	485351.7	3753634.4	0.002180482	0.001548608
2032	544	485451.7	3753634.4	0.002336903	0.001654829
2032	545	484551.7	3753734.4	0.0016166	0.001261752
2032	546	484651.7	3753734.4	0.001664124	0.001284687

2032	547	484751.7	3753734.4	0.001716749	0.001310066
2032	548	484851.7	3753734.4	0.001774933	0.00133819
2032	549	484951.7	3753734.4	0.001844427	0.001374647
2032	550	485051.7	3753734.4	0.001923371	0.001417048
2032	551	485151.7	3753734.4	0.00201321	0.001466567
2032	552	485251.7	3753734.4	0.002117161	0.001526185
2032	553	485351.7	3753734.4	0.002240978	0.00160173
2032	554	485451.7	3753734.4	0.002403243	0.001712969
2032	555	484551.7	3753834.4	0.001665792	0.001317913
2032	556	484651.7	3753834.4	0.001711083	0.001338453
2032	557	484751.7	3753834.4	0.001763836	0.001363734
2032	558	484851.7	3753834.4	0.001822804	0.001391982
2032	559	484951.7	3753834.4	0.001893754	0.001428808
2032	560	485051.7	3753834.4	0.001972222	0.001468826
2032	561	485151.7	3753834.4	0.00206287	0.00151664
2032	562	485251.7	3753834.4	0.002172832	0.001579127
2032	563	485351.7	3753834.4	0.002302822	0.001657069
2032	564	485451.7	3753834.4	0.002473726	0.001771523
2032	565	484551.7	3753934.4	0.001719953	0.001381083
2032	566	484651.7	3753934.4	0.001767726	0.001404227
2032	567	484751.7	3753934.4	0.001812953	0.00142157
2032	568	484851.7	3753934.4	0.001872994	0.001451043
2032	569	484951.7	3753934.4	0.001943234	0.001486999
2032	570	485051.7	3753934.4	0.002024139	0.001529343
2032	571	485151.7	3753934.4	0.002117509	0.001579145
2032	572	485251.7	3753934.4	0.002227469	0.001639928
2032	573	485351.7	3753934.4	0.002360667	0.001717373
2032	574	485451.7	3753934.4	0.002538128	0.001831873
2032	575	484551.7	3754034.4	0.001783552	0.001457591
2032	576	484651.7	3754034.4	0.001808942	0.001455141
2032	577	484751.7	3754034.4	0.001866257	0.001485882
2032	578	484851.7	3754034.4	0.001929494	0.001518873
2032	579	484951.7	3754034.4	0.001998685	0.001553919
2032	580	485051.7	3754034.4	0.002077247	0.001594071
2032	581	485151.7	3754034.4	0.002169391	0.001642841
2032	582	485251.7	3754034.4	0.002279705	0.001704164
2032	583	485351.7	3754034.4	0.00241391	0.001783171
2032	584	485451.7	3754034.4	0.002592848	0.001900774
2032	585	484551.7	3754134.4	0.001827189	0.001510325
2032	586	484651.7	3754134.4	0.001859572	0.001517409
2032	587	484751.7	3754134.4	0.001917168	0.001549541
2032	588	484851.7	3754134.4	0.00198538	0.001589418
2032	589	484951.7	3754134.4	0.002053796	0.001624084
2032	590	485051.7	3754134.4	0.002133738	0.001665487
2032	591	485151.7	3754134.4	0.002227013	0.001715559
2032	592	485251.7	3754134.4	0.0023376	0.001777771
2032	593	485351.7	3754134.4	0.002472731	0.001858066

2032	594	485451.7	3754134.4	0.002651023	0.001975035
2032	595	484551.7	3754234.4	0.001872645	0.001565129
2032	596	484651.7	3754234.4	0.001914037	0.001584163
2032	597	484751.7	3754234.4	0.001975592	0.001622195
2032	598	484851.7	3754234.4	0.002044355	0.001664484
2032	599	484951.7	3754234.4	0.002115071	0.001703471
2032	600	485051.7	3754234.4	0.002193692	0.001745287
2032	601	485151.7	3754234.4	0.002286515	0.001796187
2032	602	485251.7	3754234.4	0.002396719	0.001858443
2032	603	485351.7	3754234.4	0.002531593	0.001938307
2032	604	485451.7	3754234.4	0.002710561	0.002055596
2032	605	484551.7	3754334.4	0.001938434	0.001642487
2032	606	484651.7	3754334.4	0.001991861	0.001676748
2032	607	484751.7	3754334.4	0.002052247	0.001715751
2032	608	484851.7	3754334.4	0.002114332	0.001752398
2032	609	484951.7	3754334.4	0.002184397	0.00179297
2032	610	485051.7	3754334.4	0.002263796	0.001837994
2032	611	485151.7	3754334.4	0.002355235	0.001889747
2032	612	485251.7	3754334.4	0.002464537	0.001953871
2032	613	485351.7	3754334.4	0.002595365	0.002033888
2032	614	485451.7	3754334.4	0.002754224	0.002135474
2032	615	484551.7	3754434.4	0.002061763	0.00178371
2032	616	484651.7	3754434.4	0.002100372	0.001802933
2032	617	484751.7	3754434.4	0.002148065	0.001829554
2032	618	484851.7	3754434.4	0.002202826	0.00186018
2032	619	484951.7	3754434.4	0.002269349	0.001899342
2032	620	485051.7	3754434.4	0.002346188	0.001944327
2032	621	485151.7	3754434.4	0.002436559	0.001997865
2032	622	485251.7	3754434.4	0.0025438	0.002062647
2032	623	485351.7	3754434.4	0.002672702	0.002143117
2032	624	485451.7	3754434.4	0.002830831	0.002247237
2032	625	484551.7	3754534.4	0.002207339	0.001944939
2032	626	484651.7	3754534.4	0.002244911	0.001965256
2032	627	484751.7	3754534.4	0.002277454	0.001977475
2032	628	484851.7	3754534.4	0.00231758	0.001996292
2032	629	484951.7	3754534.4	0.002375697	0.002029322
2032	630	485051.7	3754534.4	0.002448375	0.002072318
2032	631	485151.7	3754534.4	0.00253663	0.002126053
2032	632	485251.7	3754534.4	0.002641757	0.002191335
2032	633	485351.7	3754534.4	0.002768422	0.002271968
2032	634	485451.7	3754534.4	0.002930046	0.002380528
2032	635	484551.7	3754634.4	0.002342417	0.002095245
2032	636	484651.7	3754634.4	0.002375046	0.002111897
2032	637	484751.7	3754634.4	0.002423548	0.002143283
2032	638	484851.7	3754634.4	0.002453724	0.002154947
2032	639	484951.7	3754634.4	0.002503659	0.002182848
2032	640	485051.7	3754634.4	0.002572192	0.002225532

2032	641	485151.7	3754634.4	0.002657232	0.00228048
2032	642	485251.7	3754634.4	0.00276085	0.002347895
2032	643	485351.7	3754634.4	0.002888899	0.002432264
2032	644	485451.7	3754634.4	0.003054433	0.002546806
2032	645	484551.7	3754734.4	0.002488923	0.002255639
2032	646	484651.7	3754734.4	0.002522333	0.002275241
2032	647	484751.7	3754734.4	0.002561326	0.002299456
2032	648	484851.7	3754734.4	0.002608214	0.00233025
2032	649	484951.7	3754734.4	0.002664931	0.002368325
2032	650	485051.7	3754734.4	0.002732949	0.002414494
2032	651	485151.7	3754734.4	0.002815228	0.002471067
2032	652	485251.7	3754734.4	0.002916925	0.002542915
2032	653	485351.7	3754734.4	0.00304506	0.002637391
2032	654	485451.7	3754734.4	0.003209813	0.0027634
2032	655	484551.7	3754834.4	0.002710067	0.002489979
2032	656	484651.7	3754834.4	0.002745729	0.002514391
2032	657	484751.7	3754834.4	0.002785752	0.002541642
2032	658	484851.7	3754834.4	0.002831634	0.002572938
2032	659	484951.7	3754834.4	0.002887428	0.002612685
2032	660	485051.7	3754834.4	0.002953196	0.002660157
2032	661	485151.7	3754834.4	0.003034657	0.002720719
2032	662	485251.7	3754834.4	0.00313869	0.00280089
2032	663	485351.7	3754834.4	0.003278218	0.002914649
2032	664	485451.7	3754834.4	0.003460836	0.003068508
2032	665	484551.7	3754934.4	0.003037581	0.002830325
2032	666	484651.7	3754934.4	0.003071381	0.002854332
2032	667	484751.7	3754934.4	0.003109414	0.002881221
2032	668	484851.7	3754934.4	0.003153284	0.002912487
2032	669	484951.7	3754934.4	0.00320643	0.002951776
2032	670	485051.7	3754934.4	0.003267991	0.002997615
2032	671	485151.7	3754934.4	0.003348384	0.003060896
2032	672	485251.7	3754934.4	0.003455238	0.003148397
2032	673	485351.7	3754934.4	0.003622092	0.003294748
2032	674	485451.7	3754934.4	0.003929942	0.003579641
2032	675	484551.7	3755034.4	0.003526436	0.003330633
2032	676	484651.7	3755034.4	0.003556715	0.00335241
2032	677	484751.7	3755034.4	0.003589106	0.003374789
2032	678	484851.7	3755034.4	0.003632498	0.003407718
2032	679	484951.7	3755034.4	0.003683202	0.003446438
2032	680	485051.7	3755034.4	0.003745503	0.003495383
2032	681	485151.7	3755034.4	0.00382289	0.003558025
2032	682	485251.7	3755034.4	0.003930572	0.003649934
2032	683	485351.7	3755034.4	0.004104181	0.003806335
2032	684	485451.7	3755034.4	0.004598088	0.004280973
2032	685	485549.5	3750934.9	0.000318764	0.000239358
2032	686	485649.5	3750934.9	0.000314914	0.000236076
2032	687	485749.5	3750934.9	0.000312493	0.000234083

2032	688	485849.5	3750934.9	0.000308666	0.000230892
2032	689	485549.5	3751034.9	0.000336286	0.000252637
2032	690	485649.5	3751034.9	0.000331097	0.000248167
2032	691	485749.5	3751034.9	0.000328872	0.000246313
2032	692	485849.5	3751034.9	0.000325914	0.000243853
2032	693	485549.5	3751134.9	0.000355587	0.000267499
2032	694	485649.5	3751134.9	0.000349955	0.000262587
2032	695	485749.5	3751134.9	0.000347468	0.000260483
2032	696	485849.5	3751134.9	0.000343789	0.00025736
2032	697	485549.5	3751234.9	0.000378512	0.000285568
2032	698	485649.5	3751234.9	0.00037126	0.000279166
2032	699	485749.5	3751234.9	0.000368364	0.000276665
2032	700	485849.5	3751234.9	0.000367669	0.00027619
2032	701	485549.5	3751334.9	0.000402936	0.000304966
2032	702	485649.5	3751334.9	0.000397406	0.000300018
2032	703	485749.5	3751334.9	0.000392919	0.000296078
2032	704	485849.5	3751334.9	0.000395998	0.000299025
2032	705	485549.5	3751434.9	0.00043699	0.000333029
2032	706	485649.5	3751434.9	0.000433594	0.000329913
2032	707	485749.5	3751434.9	0.00042405	0.000321314
2032	708	485849.5	3751434.9	0.000437084	0.000333402
2032	709	485549.5	3751534.9	0.00054708	0.000429637
2032	710	485649.5	3751534.9	0.000533881	0.000417653
2032	711	485749.5	3751534.9	0.000484839	0.000373479
2032	712	485849.5	3751534.9	0.000475634	0.000365251
2032	713	485549.5	3751634.9	0.000844024	0.0006719
2032	714	485649.5	3751634.9	0.000713696	0.00056954
2032	715	485749.5	3751634.9	0.000665086	0.000529309
2032	716	485849.5	3751634.9	0.000511356	0.000394353
2032	717	485549.5	3751734.9	0.00104265	0.000819584
2032	718	485649.5	3751734.9	0.000996803	0.000788826
2032	719	485749.5	3751734.9	0.000886959	0.000707521
2032	720	485849.5	3751734.9	0.000625199	0.000493545
2032	721	485549.5	3751834.9	0.001189768	0.000936957
2032	722	485649.5	3751834.9	0.001128306	0.000888576
2032	723	485749.5	3751834.9	0.001079816	0.000853327
2032	724	485849.5	3751834.9	0.000921956	0.000737658
2032	725	485549.5	3751934.9	0.001381403	0.001096194
2032	726	485649.5	3751934.9	0.001266001	0.000990595
2032	727	485749.5	3751934.9	0.001231795	0.000961411
2032	728	485849.5	3751934.9	0.001185541	0.000929197
2032	729	485549.5	3752034.9	0.001599595	0.001281121
2032	730	485649.5	3752034.9	0.001404014	0.001093514
2032	731	485749.5	3752034.9	0.00137402	0.001068022
2032	732	485849.5	3752034.9	0.001346161	0.001051212
2032	733	485549.5	3752134.9	0.001645827	0.001300614
2032	734	485649.5	3752134.9	0.001602435	0.001253

2032	735	485749.5	3752134.9	0.001607231	0.001258571
2032	736	485849.5	3752134.9	0.001617514	0.001276696
2032	737	485549.5	3752234.9	0.001846394	0.001482127
2032	738	485649.5	3752234.9	0.001902709	0.001528746
2032	739	485749.5	3752234.9	0.001979683	0.001598347
2032	740	485849.5	3752234.9	0.00203897	0.001657983
2032	741	485549.5	3752334.9	0.001546231	0.001167542
2032	742	485649.5	3752334.9	0.001584304	0.001190518
2032	743	485749.5	3752334.9	0.001635783	0.001229178
2032	744	485849.5	3752334.9	0.001695531	0.001279467
2032	745	485549.5	3752434.9	0.001499738	0.001107062
2032	746	485649.5	3752434.9	0.001526632	0.0011175
2032	747	485749.5	3752434.9	0.001573135	0.001146492
2032	748	485849.5	3752434.9	0.001633806	0.001189146
2032	749	485549.5	3752534.9	0.001523179	0.001115373
2032	750	485649.5	3752534.9	0.001547258	0.001121776
2032	751	485749.5	3752534.9	0.001594416	0.001149595
2032	752	485849.5	3752534.9	0.001653761	0.001187815
2032	753	485549.5	3752634.9	0.001571933	0.0011465
2032	754	485649.5	3752634.9	0.001597031	0.001152759
2032	755	485749.5	3752634.9	0.001644491	0.001180177
2032	756	485849.5	3752634.9	0.001703734	0.001216725
2032	757	485549.5	3752734.9	0.001632563	0.001188853
2032	758	485649.5	3752734.9	0.001659883	0.001196495
2032	759	485749.5	3752734.9	0.001713815	0.001228068
2032	760	485849.5	3752734.9	0.001779776	0.001268422
2032	761	485549.5	3752834.9	0.001699836	0.001238186
2032	762	485649.5	3752834.9	0.001729514	0.001248102
2032	763	485749.5	3752834.9	0.001791848	0.001286595
2032	764	485849.5	3752834.9	0.00186726	0.001333989
2032	765	485549.5	3752934.9	0.00177622	0.001294934
2032	766	485649.5	3752934.9	0.001807385	0.001306959
2032	767	485749.5	3752934.9	0.001877561	0.00135419
2032	768	485849.5	3752934.9	0.001969685	0.00141723
2032	769	485549.5	3753034.9	0.001873772	0.001369477
2032	770	485649.5	3753034.9	0.001888948	0.001367212
2032	771	485749.5	3753034.9	0.001968399	0.001424747
2032	772	485849.5	3753034.9	0.002083784	0.001513906
2032	773	485549.5	3753134.9	0.001908924	0.001374747
2032	774	485649.5	3753134.9	0.001968951	0.001419245
2032	775	485749.5	3753134.9	0.002054189	0.001486629
2032	776	485849.5	3753134.9	0.002185434	0.001596339
2032	777	485549.5	3753234.9	0.001997582	0.001425176
2032	778	485649.5	3753234.9	0.002060558	0.001474902
2032	779	485749.5	3753234.9	0.002144347	0.00154681
2032	780	485849.5	3753234.9	0.002278658	0.001665821
2032	781	485549.5	3753334.9	0.002133471	0.001510472

2032	782	485649.5	3753334.9	0.002183885	0.001543681
2032	783	485749.5	3753334.9	0.002261111	0.001614571
2032	784	485849.5	3753334.9	0.002383347	0.001733455
2032	785	485549.5	3753434.9	0.00228513	0.001603586
2032	786	485649.5	3753434.9	0.002368227	0.001652221
2032	787	485749.5	3753434.9	0.002460315	0.001729263
2032	788	485849.5	3753434.9	0.002563364	0.001846274
2032	789	485508.5	3746711.3	0.000203384	0.000168171
2032	790	491508.5	3746711.3	0.000141964	0.000117704
2032	791	479508.5	3752711.3	0.000711915	0.000646468
2032	792	485508.5	3752711.3	0.001583914	0.001151716
2032	793	491508.5	3752711.3	0.001310013	0.000865999
2032	794	485508.5	3758711.3	0.000361406	0.000335527
2032	795	491508.5	3758711.3	0.000153232	0.000133198
2032	796	485921.9	3750934.2	0.000305074	0.000227911
2032	797	486021.9	3750934.2	0.000301221	0.000224761
2032	798	486121.9	3750934.2	0.000299136	0.000223205
2032	799	485921.9	3751034.2	0.000321457	0.000240056
2032	800	486021.9	3751034.2	0.00031583	0.000235308
2032	801	486121.9	3751034.2	0.000312589	0.000232678
2032	802	485921.9	3751134.2	0.000340114	0.000254219
2032	803	486021.9	3751134.2	0.000333878	0.000248875
2032	804	486121.9	3751134.2	0.000329021	0.000244748
2032	805	485921.9	3751234.2	0.000361713	0.000270977
2032	806	486021.9	3751234.2	0.000354879	0.000265026
2032	807	486121.9	3751234.2	0.000348852	0.000259811
2032	808	485921.9	3751334.2	0.000388127	0.000292027
2032	809	486021.9	3751334.2	0.000380266	0.000285074
2032	810	486121.9	3751334.2	0.000371587	0.000277409
2032	811	485921.9	3751434.2	0.000424226	0.000321829
2032	812	486021.9	3751434.2	0.000410522	0.000309492
2032	813	486121.9	3751434.2	0.000399211	0.000299348
2032	814	485921.9	3751534.2	0.00046281	0.000353746
2032	815	486021.9	3751534.2	0.000453521	0.00034548
2032	816	486121.9	3751534.2	0.000433919	0.000327682
2032	817	485921.9	3751634.2	0.000495786	0.000380311
2032	818	486021.9	3751634.2	0.00052936	0.000411009
2032	819	486121.9	3751634.2	0.000488525	0.000374165
2032	820	485921.9	3751734.2	0.000567488	0.000441918
2032	821	486021.9	3751734.2	0.000650524	0.000515476
2032	822	486121.9	3751734.2	0.000551596	0.000427973
2032	823	485921.9	3751834.2	0.000724163	0.000577697
2032	824	486021.9	3751834.2	0.000728957	0.000581377
2032	825	486121.9	3751834.2	0.000579514	0.000449426
2032	826	485921.9	3751934.2	0.001081513	0.000864431
2032	827	486021.9	3751934.2	0.000901356	0.000724241
2032	828	486121.9	3751934.2	0.000734661	0.000584155

2032	829	485921.9	3752034.2	0.001283539	0.001012032
2032	830	486021.9	3752034.2	0.001107305	0.000892836
2032	831	486121.9	3752034.2	0.001008239	0.000815155
2032	832	485921.9	3752134.2	0.00163225	0.001301764
2032	833	486021.9	3752134.2	0.001589708	0.001284973
2032	834	486121.9	3752134.2	0.00136269	0.001105992
2032	835	485921.9	3752234.2	0.002073036	0.001699627
2032	836	486021.9	3752234.2	0.002164218	0.001799372
2032	837	486121.9	3752234.2	0.001997558	0.001647751
2032	838	485921.9	3752334.2	0.001740125	0.001319515
2032	839	486021.9	3752334.2	0.001834792	0.001414898
2032	840	486121.9	3752334.2	0.002122574	0.001704356
2032	841	485921.9	3752434.2	0.001689306	0.001235516
2032	842	486021.9	3752434.2	0.001782545	0.001318512
2032	843	486121.9	3752434.2	0.001939265	0.00146484
2032	844	485921.9	3752534.2	0.001708431	0.00122571
2032	845	486021.9	3752534.2	0.001788457	0.001286182
2032	846	486121.9	3752534.2	0.001895323	0.001374717
2032	847	485921.9	3752634.2	0.001752608	0.00124862
2032	848	486021.9	3752634.2	0.0018272	0.001300836
2032	849	486121.9	3752634.2	0.001919117	0.00137103
2032	850	485921.9	3752734.2	0.001831817	0.001301297
2032	851	486021.9	3752734.2	0.00191523	0.001356682
2032	852	486121.9	3752734.2	0.002012179	0.001426415
2032	853	485921.9	3752834.2	0.001930499	0.001373725
2032	854	486021.9	3752834.2	0.002031822	0.001439352
2032	855	486121.9	3752834.2	0.00215078	0.001521585
2032	856	485921.9	3752934.2	0.002044274	0.001467424
2032	857	486021.9	3752934.2	0.002170684	0.001551397
2032	858	486121.9	3752934.2	0.002345978	0.001676489
2032	859	487026.2	3754364	0.008115594	0.007035108
2033	1	489607.4	3753966.1	0.002709318	0.001825423
2033	2	489738.7	3754023.9	0.00240152	0.001675515
2033	3	489668.9	3754093.7	0.002283825	0.001666592
2033	4	489690.1	3754161.6	0.002164797	0.001609232
2033	5	490282.2	3753425.2	0.003197484	0.002232266
2033	6	489797.3	3754554.1	0.001768586	0.001357695
2033	7	490252.9	3754378.2	0.001618441	0.001220814
2033	8	489006	3754140.3	0.004108398	0.003203982
2033	9	485642.8	3754267.3	0.003696272	0.002853332
2033	10	485736.4	3754259.5	0.004076414	0.003153009
2033	11	487189.2	3754820.5	0.009097846	0.008109507
2033	12	487233.1	3754689.5	0.007480617	0.006394652
2033	13	487216.8	3754364.7	0.011398696	0.010303512
2033	14	487388.8	3754380.1	0.008603443	0.007592195
2033	15	484625	3751748	0.001112542	0.000859702
2033	16	483279	3751798	0.000836513	0.000656102

2033	17	483231	3751205	0.00074376	0.000584447
2033	18	480165	3750195	0.000562558	0.000481639
2033	19	481211	3749473	0.000507964	0.000418239
2033	20	481867	3752785	0.000851175	0.000723924
2033	21	480678	3751306	0.0006114	0.000516556
2033	22	479989	3752645	0.000730938	0.000652296
2033	23	479889	3756222	0.001022661	0.000975657
2033	24	479234	3757080	0.000493188	0.000459232
2033	25	480276	3756365	0.000831355	0.000786321
2033	26	479887	3754007	0.000951256	0.000882841
2033	27	480772	3755009	0.002013854	0.001939344
2033	28	481560	3754548	0.001509351	0.001414431
2033	29	481845	3754457	0.001523443	0.001419808
2033	30	481754	3753876	0.001088707	0.000977876
2033	31	489635.2	3750663.8	0.000414606	0.000315798
2033	32	485424.1	3747672.3	0.000269607	0.000218915
2033	33	482657.6	3753975.1	0.0012894	0.001143664
2033	34	481495	3754633.7	0.001583745	0.001491602
2033	35	481148.7	3756136.2	0.001142222	0.001086196
2033	36	482346.5	3748872.9	0.000209712	0.000164344
2033	37	480299	3751198	0.000595123	0.000507661
2033	38	479598.7	3756506.3	0.000782446	0.000740135
2033	39	478997.8	3753535.2	0.001066646	0.00100649
2033	40	478978.3	3755233.1	0.003209504	0.00315205
2033	41	479197.3	3754462.3	0.001413498	0.001355347
2033	42	479493.3	3752408.8	0.0007425	0.000670666
2033	43	480295.4	3752408.4	0.0007085	0.000623001
2033	44	480287.9	3754227.5	0.001042394	0.000969262
2033	45	494397.4	3753977.6	0.000654263	0.000528549
2033	46	481108.5	3750699	0.000600381	0.000501261
2033	47	486794.1	3756878	0.000606079	0.000544203
2033	48	482345	3752065.8	0.000806329	0.000660639
2033	49	487553	3745938.3	0.000164586	0.000138514
2033	50	484553	3746938.3	0.000217771	0.000179028
2033	51	485553	3746938.3	0.000228628	0.000188384
2033	52	486553	3746938.3	0.000182124	0.000154516
2033	53	487553	3746938.3	0.000200652	0.000166261
2033	54	488553	3746938.3	0.000182891	0.000152384
2033	55	489553	3746938.3	0.000180705	0.000149384
2033	56	490553	3746938.3	0.000165941	0.000137566
2033	57	491553	3746938.3	0.000157904	0.000130599
2033	58	492553	3746938.3	0.000151844	0.000125386
2033	59	482553	3747938.3	0.000191256	0.000152285
2033	60	483553	3747938.3	0.000319453	0.000255438
2033	61	484553	3747938.3	0.000304242	0.000244384
2033	62	485553	3747938.3	0.000283901	0.000229372
2033	63	486553	3747938.3	0.00026425	0.0002165

2033	64	487553	3747938.3	0.000168936	0.000142411
2033	65	488553	3747938.3	0.000220377	0.000181121
2033	66	489553	3747938.3	0.000206925	0.000170064
2033	67	490553	3747938.3	0.000194805	0.000159782
2033	68	491553	3747938.3	0.000184789	0.00015103
2033	69	492553	3747938.3	0.000176754	0.00014406
2033	70	493553	3747938.3	0.000171	0.000139306
2033	71	481553	3748938.3	0.000430249	0.000343999
2033	72	482553	3748938.3	0.000219567	0.0001724
2033	73	483553	3748938.3	0.000367421	0.000292864
2033	74	484553	3748938.3	0.000385381	0.000304596
2033	75	485553	3748938.3	0.00036747	0.000291829
2033	76	486553	3748938.3	0.000340449	0.000272656
2033	77	487553	3748938.3	0.000267241	0.000223715
2033	78	488553	3748938.3	0.000274311	0.000221333
2033	79	489553	3748938.3	0.000252036	0.000204104
2033	80	490553	3748938.3	0.000236417	0.000190744
2033	81	491553	3748938.3	0.000222391	0.000178819
2033	82	492553	3748938.3	0.000212981	0.000170573
2033	83	493553	3748938.3	0.000210269	0.000168638
2033	84	494553	3748938.3	0.000271749	0.000231074
2033	85	480553	3749938.3	0.000665782	0.000582136
2033	86	481553	3749938.3	0.00057968	0.000475125
2033	87	482553	3749938.3	0.000565715	0.000451691
2033	88	483553	3749938.3	0.000555574	0.000437874
2033	89	484553	3749938.3	0.00040723	0.000322272
2033	90	485553	3749938.3	0.000333342	0.00026516
2033	91	486553	3749938.3	0.00039456	0.000319548
2033	92	487553	3749938.3	0.000413273	0.000326651
2033	93	488553	3749938.3	0.000358765	0.000281575
2033	94	489553	3749938.3	0.000326109	0.000256976
2033	95	490553	3749938.3	0.000301126	0.000236585
2033	96	491553	3749938.3	0.000282237	0.000220562
2033	97	492553	3749938.3	0.000274866	0.000213789
2033	98	493553	3749938.3	0.000307822	0.00024447
2033	99	494553	3749938.3	0.000259138	0.000196659
2033	100	495553	3749938.3	0.000205687	0.000169786
2033	101	480553	3750938.3	0.000582698	0.000491605
2033	102	481553	3750938.3	0.000626878	0.000517081
2033	103	482553	3750938.3	0.000680987	0.000547885
2033	104	483553	3750938.3	0.000783328	0.000621426
2033	105	484553	3750938.3	0.000778031	0.000607605
2033	106	485553	3750938.3	0.000344197	0.000258422
2033	107	486553	3750938.3	0.000317575	0.000238899
2033	108	487553	3750938.3	0.000497329	0.000395465
2033	109	488553	3750938.3	0.00053838	0.000398823
2033	110	489553	3750938.3	0.000472902	0.000352926

2033	111	490553	3750938.3	0.000422147	0.00031538
2033	112	491553	3750938.3	0.000393181	0.000291969
2033	113	492553	3750938.3	0.000441875	0.000338337
2033	114	493553	3750938.3	0.000382861	0.000280965
2033	115	494553	3750938.3	0.00037103	0.000275719
2033	116	495553	3750938.3	0.000346064	0.000268944
2033	117	479553	3751938.3	0.000685737	0.000611119
2033	118	480553	3751938.3	0.000673596	0.000581353
2033	119	481553	3751938.3	0.000711507	0.000594758
2033	120	482553	3751938.3	0.000789841	0.000637256
2033	121	483553	3751938.3	0.000906316	0.0007068
2033	122	484553	3751938.3	0.001078674	0.000820822
2033	123	485553	3751938.3	0.00148963	0.001181036
2033	124	486553	3751938.3	0.000610784	0.000467865
2033	125	487553	3751938.3	0.000986063	0.000770459
2033	126	488553	3751938.3	0.001058805	0.000717044
2033	127	489553	3751938.3	0.000963362	0.000633355
2033	128	490553	3751938.3	0.000808517	0.000531799
2033	129	491553	3751938.3	0.000837862	0.000584758
2033	130	492553	3751938.3	0.000669476	0.000432429
2033	131	493553	3751938.3	0.000599773	0.000445223
2033	132	494553	3751938.3	0.000553364	0.000413381
2033	133	495553	3751938.3	0.000487663	0.000373446
2033	134	479553	3752938.3	0.000829159	0.00075914
2033	135	480553	3752938.3	0.000827532	0.000739358
2033	136	481553	3752938.3	0.000892471	0.000777712
2033	137	482553	3752938.3	0.001009794	0.000851982
2033	138	483553	3752938.3	0.001161177	0.000934099
2033	139	484553	3752938.3	0.001447469	0.001087469
2033	140	485553	3752938.3	0.001917887	0.001397245
2033	141	486553	3752938.3	0.003784423	0.002981493
2033	142	487553	3752938.3	0.004168661	0.003142955
2033	143	488553	3752938.3	0.00371535	0.002720654
2033	144	489553	3752938.3	0.003389608	0.002472838
2033	145	490553	3752938.3	0.002811284	0.002018577
2033	146	491553	3752938.3	0.001456381	0.00101111
2033	147	492553	3752938.3	0.00110759	0.000725508
2033	148	493553	3752938.3	0.000900293	0.000643207
2033	149	494553	3752938.3	0.000767396	0.000573207
2033	150	495553	3752938.3	0.000618052	0.000478223
2033	151	479553	3753938.3	0.00095257	0.000888282
2033	152	480553	3753938.3	0.000960669	0.000880574
2033	153	481553	3753938.3	0.001091216	0.00098747
2033	154	482553	3753938.3	0.001246632	0.001105227
2033	155	483553	3753938.3	0.001567826	0.001368818
2033	156	484553	3753938.3	0.001859561	0.001494269
2033	157	485553	3753938.3	0.003000229	0.002163276

2033	158	486553	3753938.3	0.005298768	0.0039806
2033	159	487553	3753938.3	0.005814605	0.00475002
2033	160	488553	3753938.3	0.005145752	0.003936193
2033	161	489553	3753938.3	0.002892323	0.001935002
2033	162	490553	3753938.3	0.001673461	0.001229445
2033	163	491553	3753938.3	0.001167854	0.000910597
2033	164	492553	3753938.3	0.000958119	0.00075698
2033	165	493553	3753938.3	0.000783765	0.000626925
2033	166	494553	3753938.3	0.000712227	0.000574076
2033	167	495553	3753938.3	0.000555446	0.00045159
2033	168	479553	3754938.3	0.00169394	0.001633743
2033	169	480553	3754938.3	0.001805811	0.001733802
2033	170	481553	3754938.3	0.002068447	0.001979317
2033	171	482553	3754938.3	0.00302262	0.002908565
2033	172	483553	3754938.3	0.003322765	0.003173974
2033	173	484553	3754938.3	0.003293345	0.003070121
2033	174	485553	3754938.3	0.004777995	0.004374284
2033	175	486553	3754938.3	0.006588513	0.005997668
2033	176	487553	3754938.3	0.005619874	0.004839982
2033	177	488553	3754938.3	0.003157591	0.002616773
2033	178	489553	3754938.3	0.001978803	0.001702759
2033	179	490553	3754938.3	0.001318662	0.001158086
2033	180	491553	3754938.3	0.000866625	0.00075508
2033	181	492553	3754938.3	0.000622072	0.000535419
2033	182	493553	3754938.3	0.000628907	0.000546298
2033	183	494553	3754938.3	0.000478505	0.000412188
2033	184	495553	3754938.3	0.000401619	0.000344952
2033	185	479553	3755938.3	0.001704459	0.001653071
2033	186	480553	3755938.3	0.001428846	0.001373359
2033	187	481553	3755938.3	0.001447643	0.00138563
2033	188	482553	3755938.3	0.002069888	0.001987819
2033	189	483553	3755938.3	0.002174137	0.00207608
2033	190	484553	3755938.3	0.002066834	0.001947172
2033	191	485553	3755938.3	0.002917879	0.002769514
2033	192	486553	3755938.3	0.002358549	0.002199248
2033	193	487553	3755938.3	0.001303355	0.001202641
2033	194	488553	3755938.3	0.000910472	0.000830902
2033	195	489553	3755938.3	0.000623981	0.000563427
2033	196	490553	3755938.3	0.00051656	0.000464386
2033	197	491553	3755938.3	0.000425732	0.000381058
2033	198	492553	3755938.3	0.000515881	0.000474368
2033	199	493553	3755938.3	0.00037825	0.000341556
2033	200	494553	3755938.3	0.000363406	0.000329184
2033	201	479553	3756938.3	0.000516897	0.000481963
2033	202	480553	3756938.3	0.00049483	0.000458852
2033	203	481553	3756938.3	0.000446949	0.000412602
2033	204	482553	3756938.3	0.000466491	0.000428248

2033	205	483553	3756938.3	0.000786684	0.000723956
2033	206	484553	3756938.3	0.000758921	0.000691167
2033	207	485553	3756938.3	0.001647144	0.001577761
2033	208	486553	3756938.3	0.000627123	0.000564604
2033	209	487553	3756938.3	0.000412608	0.000365606
2033	210	488553	3756938.3	0.000334678	0.000293924
2033	211	489553	3756938.3	0.000293168	0.000256763
2033	212	490553	3756938.3	0.000267842	0.000234532
2033	213	491553	3756938.3	0.000234159	0.000204751
2033	214	492553	3756938.3	0.000208581	0.000182497
2033	215	493553	3756938.3	0.000221666	0.000196507
2033	216	494553	3756938.3	0.000215166	0.000191495
2033	217	479553	3757938.3	0.000259929	0.000237897
2033	218	480553	3757938.3	0.000248837	0.000226787
2033	219	481553	3757938.3	0.000262851	0.000237904
2033	220	482553	3757938.3	0.000325132	0.000292027
2033	221	483553	3757938.3	0.000318854	0.000284668
2033	222	484553	3757938.3	0.000419817	0.000377456
2033	223	485553	3757938.3	0.000486442	0.000449658
2033	224	486553	3757938.3	0.000290907	0.000257144
2033	225	487553	3757938.3	0.000237823	0.000207525
2033	226	488553	3757938.3	0.000208797	0.000181116
2033	227	489553	3757938.3	0.000192676	0.000166682
2033	228	490553	3757938.3	0.000176188	0.000152294
2033	229	491553	3757938.3	0.000161435	0.000139372
2033	230	492553	3757938.3	0.000154998	0.000134313
2033	231	493553	3757938.3	0.000171904	0.000150544
2033	232	480553	3758938.3	0.000186761	0.000168126
2033	233	481553	3758938.3	0.000208338	0.000186046
2033	234	482553	3758938.3	0.000202949	0.000179772
2033	235	483553	3758938.3	0.000212777	0.0001877
2033	236	484553	3758938.3	0.00026625	0.000238161
2033	237	485553	3758938.3	0.000618303	0.000588294
2033	238	486553	3758938.3	0.000201332	0.000177333
2033	239	487553	3758938.3	0.000221041	0.000194581
2033	240	488553	3758938.3	0.000164119	0.00014288
2033	241	489553	3758938.3	0.000166385	0.00014492
2033	242	490553	3758938.3	0.000181663	0.000158075
2033	243	491553	3758938.3	0.000147738	0.000128262
2033	244	492553	3758938.3	0.000153713	0.000133628
2033	245	481553	3759938.3	0.000154156	0.000136863
2033	246	482553	3759938.3	0.000159083	0.00014028
2033	247	483553	3759938.3	0.000168568	0.000148451
2033	248	484553	3759938.3	0.00023446	0.000209413
2033	249	485553	3759938.3	0.000611622	0.000581233
2033	250	486553	3759938.3	0.000289824	0.00025911
2033	251	487553	3759938.3	0.000236425	0.000209252

2033	252	488553	3759938.3	0.000235955	0.000207171
2033	253	489553	3759938.3	0.000204476	0.000178492
2033	254	490553	3759938.3	0.000158099	0.000138024
2033	255	491553	3759938.3	0.00013778	0.000119937
2033	256	482553	3760938.3	0.000150054	0.000132449
2033	257	483553	3760938.3	0.00017354	0.000153818
2033	258	484553	3760938.3	0.000221639	0.000198394
2033	259	485553	3760938.3	0.000503299	0.000472564
2033	260	486553	3760938.3	0.000330175	0.000297339
2033	261	487553	3760938.3	0.000263269	0.000236457
2033	262	488553	3760938.3	0.00015	0.000132783
2033	263	489553	3760938.3	0.000113776	9.96937E-05
2033	264	490553	3760938.3	0.000108832	9.49898E-05
2033	265	484551.7	3750934.4	0.000773318	0.000604876
2033	266	484651.7	3750934.4	0.000763474	0.000597571
2033	267	484751.7	3750934.4	0.000583543	0.000462503
2033	268	484851.7	3750934.4	0.000535477	0.000424568
2033	269	484951.7	3750934.4	0.000565974	0.000447839
2033	270	485051.7	3750934.4	0.000507303	0.000401167
2033	271	485151.7	3750934.4	0.000422412	0.000328438
2033	272	485251.7	3750934.4	0.000372058	0.000283204
2033	273	485351.7	3750934.4	0.000357801	0.000270408
2033	274	485451.7	3750934.4	0.000350233	0.000263743
2033	275	484551.7	3751034.4	0.000826127	0.000639762
2033	276	484651.7	3751034.4	0.000815012	0.00063215
2033	277	484751.7	3751034.4	0.000765597	0.000603298
2033	278	484851.7	3751034.4	0.000606144	0.00047996
2033	279	484951.7	3751034.4	0.000673477	0.000531353
2033	280	485051.7	3751034.4	0.00056489	0.000447033
2033	281	485151.7	3751034.4	0.000489752	0.000385273
2033	282	485251.7	3751034.4	0.000416538	0.000320803
2033	283	485351.7	3751034.4	0.000384711	0.000292093
2033	284	485451.7	3751034.4	0.000370906	0.000279711
2033	285	484551.7	3751134.4	0.000867853	0.000669069
2033	286	484651.7	3751134.4	0.000865954	0.000666115
2033	287	484751.7	3751134.4	0.000854663	0.000659725
2033	288	484851.7	3751134.4	0.000771898	0.000611594
2033	289	484951.7	3751134.4	0.000790666	0.000622203
2033	290	485051.7	3751134.4	0.000651831	0.000514909
2033	291	485151.7	3751134.4	0.000578524	0.000457875
2033	292	485251.7	3751134.4	0.000500411	0.000392813
2033	293	485351.7	3751134.4	0.000425587	0.000326409
2033	294	485451.7	3751134.4	0.000394941	0.000298692
2033	295	484551.7	3751234.4	0.000910757	0.000701691
2033	296	484651.7	3751234.4	0.000910825	0.000699474
2033	297	484751.7	3751234.4	0.000903721	0.000695987
2033	298	484851.7	3751234.4	0.000878417	0.000682626

2033	299	484951.7	3751234.4	0.000855386	0.000668921
2033	300	485051.7	3751234.4	0.000768963	0.000608584
2033	301	485151.7	3751234.4	0.000648732	0.000513879
2033	302	485251.7	3751234.4	0.000489832	0.000381612
2033	303	485351.7	3751234.4	0.000433144	0.000330506
2033	304	485451.7	3751234.4	0.000415991	0.000314943
2033	305	484551.7	3751334.4	0.000974571	0.000753297
2033	306	484651.7	3751334.4	0.000967485	0.00074564
2033	307	484751.7	3751334.4	0.000956589	0.000738908
2033	308	484851.7	3751334.4	0.000943036	0.000730459
2033	309	484951.7	3751334.4	0.000935624	0.000724292
2033	310	485051.7	3751334.4	0.000897287	0.000702612
2033	311	485151.7	3751334.4	0.000759339	0.000601145
2033	312	485251.7	3751334.4	0.000597831	0.000473798
2033	313	485351.7	3751334.4	0.000471273	0.000362361
2033	314	485451.7	3751334.4	0.000440852	0.000334632
2033	315	484551.7	3751434.4	0.00107808	0.000848353
2033	316	484651.7	3751434.4	0.00104914	0.000816516
2033	317	484751.7	3751434.4	0.001031673	0.000798534
2033	318	484851.7	3751434.4	0.001019662	0.000787802
2033	319	484951.7	3751434.4	0.001009932	0.000780087
2033	320	485051.7	3751434.4	0.000997666	0.000770799
2033	321	485151.7	3751434.4	0.000895831	0.000711983
2033	322	485251.7	3751434.4	0.000697677	0.000556055
2033	323	485351.7	3751434.4	0.000548639	0.000429556
2033	324	485451.7	3751434.4	0.000488335	0.000374865
2033	325	484551.7	3751534.4	0.001312716	0.00107698
2033	326	484651.7	3751534.4	0.001216495	0.000974737
2033	327	484751.7	3751534.4	0.001145239	0.000899247
2033	328	484851.7	3751534.4	0.001112431	0.000864168
2033	329	484951.7	3751534.4	0.001096684	0.000846461
2033	330	485051.7	3751534.4	0.001088248	0.000835672
2033	331	485151.7	3751534.4	0.001075298	0.000825853
2033	332	485251.7	3751534.4	0.000975506	0.000770848
2033	333	485351.7	3751534.4	0.000779843	0.000622023
2033	334	485451.7	3751534.4	0.00064486	0.000511774
2033	335	484551.7	3751634.4	0.00121578	0.000974217
2033	336	484651.7	3751634.4	0.00125283	0.001005019
2033	337	484751.7	3751634.4	0.001291648	0.001036929
2033	338	484851.7	3751634.4	0.0013163	0.001056719
2033	339	484951.7	3751634.4	0.001226114	0.000962626
2033	340	485051.7	3751634.4	0.001187561	0.00092039
2033	341	485151.7	3751634.4	0.001173501	0.000903107
2033	342	485251.7	3751634.4	0.001144575	0.000883976
2033	343	485351.7	3751634.4	0.001089985	0.000849534
2033	344	485451.7	3751634.4	0.000994781	0.00079154
2033	345	484551.7	3751734.4	0.001080234	0.000833922

2033	346	484651.7	3751734.4	0.001139966	0.000885582
2033	347	484751.7	3751734.4	0.001234182	0.000972643
2033	348	484851.7	3751734.4	0.001354364	0.001086891
2033	349	484951.7	3751734.4	0.001356681	0.001084922
2033	350	485051.7	3751734.4	0.001476596	0.001200105
2033	351	485151.7	3751734.4	0.001343113	0.001059495
2033	352	485251.7	3751734.4	0.001305794	0.001019581
2033	353	485351.7	3751734.4	0.001258134	0.000978833
2033	354	485451.7	3751734.4	0.001191035	0.000927594
2033	355	484551.7	3751834.4	0.001062446	0.000811801
2033	356	484651.7	3751834.4	0.001096436	0.000837986
2033	357	484751.7	3751834.4	0.001135708	0.000869393
2033	358	484851.7	3751834.4	0.001182398	0.000908918
2033	359	484951.7	3751834.4	0.001241009	0.000962169
2033	360	485051.7	3751834.4	0.001370749	0.001085396
2033	361	485151.7	3751834.4	0.00139015	0.001094701
2033	362	485251.7	3751834.4	0.001471424	0.001169004
2033	363	485351.7	3751834.4	0.001485426	0.001183065
2033	364	485451.7	3751834.4	0.001482665	0.001187406
2033	365	484551.7	3751934.4	0.001077252	0.000819818
2033	366	484651.7	3751934.4	0.001101062	0.000836888
2033	367	484751.7	3751934.4	0.001125251	0.000854669
2033	368	484851.7	3751934.4	0.001155579	0.000877473
2033	369	484951.7	3751934.4	0.00118899	0.000903398
2033	370	485051.7	3751934.4	0.001231666	0.000937424
2033	371	485151.7	3751934.4	0.001285615	0.0009813
2033	372	485251.7	3751934.4	0.001359835	0.001044041
2033	373	485351.7	3751934.4	0.001466815	0.001143838
2033	374	485451.7	3751934.4	0.001533431	0.001214408
2033	375	484551.7	3752034.4	0.00111478	0.000848284
2033	376	484651.7	3752034.4	0.001135349	0.000862185
2033	377	484751.7	3752034.4	0.001157509	0.000877492
2033	378	484851.7	3752034.4	0.001180992	0.000893939
2033	379	484951.7	3752034.4	0.001209822	0.000914544
2033	380	485051.7	3752034.4	0.001244415	0.000939685
2033	381	485151.7	3752034.4	0.001286605	0.000971077
2033	382	485251.7	3752034.4	0.00134741	0.001018767
2033	383	485351.7	3752034.4	0.001429508	0.00109008
2033	384	485451.7	3752034.4	0.001620838	0.001274962
2033	385	484551.7	3752134.4	0.001180758	0.000904733
2033	386	484651.7	3752134.4	0.001200287	0.00091715
2033	387	484751.7	3752134.4	0.001222105	0.000931414
2033	388	484851.7	3752134.4	0.001244255	0.000945961
2033	389	484951.7	3752134.4	0.001268763	0.000962411
2033	390	485051.7	3752134.4	0.001298923	0.000983299
2033	391	485151.7	3752134.4	0.001335704	0.001009621
2033	392	485251.7	3752134.4	0.001389366	0.001050102

2033	393	485351.7	3752134.4	0.001473578	0.001120132
2033	394	485451.7	3752134.4	0.00166713	0.001302432
2033	395	484551.7	3752234.4	0.001300272	0.001015406
2033	396	484651.7	3752234.4	0.001328478	0.001035221
2033	397	484751.7	3752234.4	0.00134916	0.001047708
2033	398	484851.7	3752234.4	0.001366689	0.001056968
2033	399	484951.7	3752234.4	0.001456277	0.001138089
2033	400	485051.7	3752234.4	0.001413556	0.001086509
2033	401	485151.7	3752234.4	0.001451254	0.001114808
2033	402	485251.7	3752234.4	0.001492908	0.001143718
2033	403	485351.7	3752234.4	0.001572963	0.001208407
2033	404	485451.7	3752234.4	0.001808604	0.001428986
2033	405	484551.7	3752334.4	0.001240845	0.000945039
2033	406	484651.7	3752334.4	0.001264468	0.000960024
2033	407	484751.7	3752334.4	0.001288133	0.000975123
2033	408	484851.7	3752334.4	0.001312648	0.000990936
2033	409	484951.7	3752334.4	0.001339798	0.001008744
2033	410	485051.7	3752334.4	0.001367383	0.001027071
2033	411	485151.7	3752334.4	0.001399713	0.001049127
2033	412	485251.7	3752334.4	0.001437889	0.001076157
2033	413	485351.7	3752334.4	0.001490951	0.001115869
2033	414	485451.7	3752334.4	0.001584019	0.001192303
2033	415	484551.7	3752434.4	0.001238715	0.000932068
2033	416	484651.7	3752434.4	0.001262712	0.000946947
2033	417	484751.7	3752434.4	0.001286413	0.000961846
2033	418	484851.7	3752434.4	0.001314495	0.000979751
2033	419	484951.7	3752434.4	0.001342304	0.000997772
2033	420	485051.7	3752434.4	0.001372931	0.00101797
2033	421	485151.7	3752434.4	0.001406576	0.001040512
2033	422	485251.7	3752434.4	0.00144403	0.001066248
2033	423	485351.7	3752434.4	0.001490401	0.001099272
2033	424	485451.7	3752434.4	0.001559262	0.001153195
2033	425	484551.7	3752534.4	0.001263743	0.00094596
2033	426	484651.7	3752534.4	0.001288976	0.000961388
2033	427	484751.7	3752534.4	0.001315731	0.000978002
2033	428	484851.7	3752534.4	0.001344783	0.00099632
2033	429	484951.7	3752534.4	0.001374132	0.00101519
2033	430	485051.7	3752534.4	0.001407091	0.001036672
2033	431	485151.7	3752534.4	0.001442288	0.001060034
2033	432	485251.7	3752534.4	0.001480121	0.001085735
2033	433	485351.7	3752534.4	0.001524178	0.001116532
2033	434	485451.7	3752534.4	0.001588492	0.001165711
2033	435	484551.7	3752634.4	0.001296848	0.000968272
2033	436	484651.7	3752634.4	0.001323459	0.00098428
2033	437	484751.7	3752634.4	0.001351475	0.001001431
2033	438	484851.7	3752634.4	0.001384001	0.001021627
2033	439	484951.7	3752634.4	0.001416177	0.00104208

2033	440	485051.7	3752634.4	0.001451672	0.001065038
2033	441	485151.7	3752634.4	0.00148872	0.00108953
2033	442	485251.7	3752634.4	0.001528252	0.001116282
2033	443	485351.7	3752634.4	0.00157349	0.00114778
2033	444	485451.7	3752634.4	0.001638763	0.001197155
2033	445	484551.7	3752734.4	0.001337245	0.000997811
2033	446	484651.7	3752734.4	0.001366845	0.001015178
2033	447	484751.7	3752734.4	0.001397798	0.001033733
2033	448	484851.7	3752734.4	0.001430947	0.001054072
2033	449	484951.7	3752734.4	0.001465856	0.001075968
2033	450	485051.7	3752734.4	0.001503923	0.001100413
2033	451	485151.7	3752734.4	0.001543112	0.001126216
2033	452	485251.7	3752734.4	0.001584678	0.00115434
2033	453	485351.7	3752734.4	0.001632087	0.001187356
2033	454	485451.7	3752734.4	0.0016972	0.001236919
2033	455	484551.7	3752834.4	0.001383315	0.001033658
2033	456	484651.7	3752834.4	0.001415577	0.001052046
2033	457	484751.7	3752834.4	0.00144792	0.001070864
2033	458	484851.7	3752834.4	0.001485001	0.001093184
2033	459	484951.7	3752834.4	0.001523269	0.001116746
2033	460	485051.7	3752834.4	0.001563404	0.001142128
2033	461	485151.7	3752834.4	0.001604786	0.001169125
2033	462	485251.7	3752834.4	0.001648936	0.001198866
2033	463	485351.7	3752834.4	0.001697526	0.001233131
2033	464	485451.7	3752834.4	0.00176501	0.001284941
2033	465	484551.7	3752934.4	0.001443982	0.001084548
2033	466	484651.7	3752934.4	0.001478896	0.001103898
2033	467	484751.7	3752934.4	0.001514377	0.001123895
2033	468	484851.7	3752934.4	0.00155429	0.001147211
2033	469	484951.7	3752934.4	0.001595709	0.001171998
2033	470	485051.7	3752934.4	0.001639817	0.001199231
2033	471	485151.7	3752934.4	0.00168342	0.00122705
2033	472	485251.7	3752934.4	0.001731122	0.001258741
2033	473	485351.7	3752934.4	0.001779406	0.001292614
2033	474	485451.7	3752934.4	0.001845494	0.00134335
2033	475	484551.7	3753034.4	0.001546633	0.001178827
2033	476	484651.7	3753034.4	0.00158869	0.001203741
2033	477	484751.7	3753034.4	0.001635736	0.00123279
2033	478	484851.7	3753034.4	0.001672749	0.00125094
2033	479	484951.7	3753034.4	0.001715603	0.001274775
2033	480	485051.7	3753034.4	0.001762914	0.001303351
2033	481	485151.7	3753034.4	0.001816131	0.001337829
2033	482	485251.7	3753034.4	0.001906887	0.0014106
2033	483	485351.7	3753034.4	0.001911839	0.001399826
2033	484	485451.7	3753034.4	0.001966578	0.001439255
2033	485	484551.7	3753134.4	0.001521133	0.001145682
2033	486	484651.7	3753134.4	0.001563466	0.001168752

2033	487	484751.7	3753134.4	0.001609516	0.001194353
2033	488	484851.7	3753134.4	0.001656623	0.001220742
2033	489	484951.7	3753134.4	0.001707194	0.001249737
2033	490	485051.7	3753134.4	0.001760397	0.001281071
2033	491	485151.7	3753134.4	0.001815285	0.001314296
2033	492	485251.7	3753134.4	0.001874071	0.001351704
2033	493	485351.7	3753134.4	0.00193468	0.001392809
2033	494	485451.7	3753134.4	0.002007084	0.001447546
2033	495	484551.7	3753234.4	0.001541931	0.001159801
2033	496	484651.7	3753234.4	0.001588277	0.001184653
2033	497	484751.7	3753234.4	0.001637105	0.00121109
2033	498	484851.7	3753234.4	0.001688563	0.001239307
2033	499	484951.7	3753234.4	0.001744036	0.001270294
2033	500	485051.7	3753234.4	0.001803885	0.001304689
2033	501	485151.7	3753234.4	0.001866282	0.001341425
2033	502	485251.7	3753234.4	0.001933487	0.001382578
2033	503	485351.7	3753234.4	0.002004333	0.001428585
2033	504	485451.7	3753234.4	0.002090565	0.001491869
2033	505	484551.7	3753334.4	0.001577481	0.001189948
2033	506	484651.7	3753334.4	0.001626639	0.001215984
2033	507	484751.7	3753334.4	0.001677922	0.001243092
2033	508	484851.7	3753334.4	0.001735416	0.001274258
2033	509	484951.7	3753334.4	0.001794659	0.001306376
2033	510	485051.7	3753334.4	0.00186005	0.001342717
2033	511	485151.7	3753334.4	0.001930382	0.001382873
2033	512	485251.7	3753334.4	0.00201034	0.001430327
2033	513	485351.7	3753334.4	0.002097467	0.001484633
2033	514	485451.7	3753334.4	0.002201394	0.001556804
2033	515	484551.7	3753434.4	0.001615245	0.00122517
2033	516	484651.7	3753434.4	0.001666735	0.001252326
2033	517	484751.7	3753434.4	0.001721246	0.001280778
2033	518	484851.7	3753434.4	0.001782382	0.00131348
2033	519	484951.7	3753434.4	0.001846511	0.0013471
2033	520	485051.7	3753434.4	0.001916984	0.001384934
2033	521	485151.7	3753434.4	0.001997304	0.001429995
2033	522	485251.7	3753434.4	0.002089441	0.001483421
2033	523	485351.7	3753434.4	0.002193501	0.001546589
2033	524	485451.7	3753434.4	0.002326516	0.001635379
2033	525	484551.7	3753534.4	0.001653599	0.0012637
2033	526	484651.7	3753534.4	0.001703254	0.001288471
2033	527	484751.7	3753534.4	0.001759314	0.001317249
2033	528	484851.7	3753534.4	0.001826599	0.001354119
2033	529	484951.7	3753534.4	0.001895237	0.001390234
2033	530	485051.7	3753534.4	0.001970768	0.001430288
2033	531	485151.7	3753534.4	0.002058778	0.001478951
2033	532	485251.7	3753534.4	0.002161182	0.001537756
2033	533	485351.7	3753534.4	0.002282765	0.001610746

2033	534	485451.7	3753534.4	0.002441769	0.001715257
2033	535	484551.7	3753634.4	0.001692176	0.001304598
2033	536	484651.7	3753634.4	0.001744205	0.001330818
2033	537	484751.7	3753634.4	0.001803163	0.001361378
2033	538	484851.7	3753634.4	0.001869452	0.001396369
2033	539	484951.7	3753634.4	0.001942495	0.001435123
2033	540	485051.7	3753634.4	0.002022837	0.00147807
2033	541	485151.7	3753634.4	0.002115784	0.001529572
2033	542	485251.7	3753634.4	0.002224319	0.001592476
2033	543	485351.7	3753634.4	0.002352017	0.001670435
2033	544	485451.7	3753634.4	0.002520743	0.001785012
2033	545	484551.7	3753734.4	0.001743775	0.001361011
2033	546	484651.7	3753734.4	0.001795037	0.001385751
2033	547	484751.7	3753734.4	0.001851803	0.001413127
2033	548	484851.7	3753734.4	0.001914564	0.001443463
2033	549	484951.7	3753734.4	0.001989525	0.001482789
2033	550	485051.7	3753734.4	0.00207468	0.001528524
2033	551	485151.7	3753734.4	0.002171586	0.001581939
2033	552	485251.7	3753734.4	0.002283714	0.001646248
2033	553	485351.7	3753734.4	0.002417272	0.001727735
2033	554	485451.7	3753734.4	0.002592302	0.001847725
2033	555	484551.7	3753834.4	0.001796836	0.001421591
2033	556	484651.7	3753834.4	0.001845691	0.001443747
2033	557	484751.7	3753834.4	0.001902594	0.001471016
2033	558	484851.7	3753834.4	0.001966201	0.001501487
2033	559	484951.7	3753834.4	0.002042733	0.00154121
2033	560	485051.7	3753834.4	0.002127373	0.001584376
2033	561	485151.7	3753834.4	0.002225152	0.001635951
2033	562	485251.7	3753834.4	0.002343765	0.001703354
2033	563	485351.7	3753834.4	0.002483981	0.001787428
2033	564	485451.7	3753834.4	0.00266833	0.001910885
2033	565	484551.7	3753934.4	0.001855259	0.001489731
2033	566	484651.7	3753934.4	0.00190679	0.001514695
2033	567	484751.7	3753934.4	0.001955575	0.001533402
2033	568	484851.7	3753934.4	0.00202034	0.001565194
2033	569	484951.7	3753934.4	0.002096105	0.001603979
2033	570	485051.7	3753934.4	0.002183374	0.001649654
2033	571	485151.7	3753934.4	0.00228409	0.001703373
2033	572	485251.7	3753934.4	0.0024027	0.001768939
2033	573	485351.7	3753934.4	0.002546376	0.001852475
2033	574	485451.7	3753934.4	0.002737798	0.001975983
2033	575	484551.7	3754034.4	0.001923861	0.001572257
2033	576	484651.7	3754034.4	0.001951249	0.001569615
2033	577	484751.7	3754034.4	0.002013072	0.001602774
2033	578	484851.7	3754034.4	0.002081283	0.00163836
2033	579	484951.7	3754034.4	0.002155918	0.001676163
2033	580	485051.7	3754034.4	0.00224066	0.001719474

2033	581	485151.7	3754034.4	0.002340054	0.00177208
2033	582	485251.7	3754034.4	0.002459046	0.001838227
2033	583	485351.7	3754034.4	0.002603808	0.00192345
2033	584	485451.7	3754034.4	0.002796823	0.002050304
2033	585	484551.7	3754134.4	0.001970931	0.001629139
2033	586	484651.7	3754134.4	0.002005862	0.001636781
2033	587	484751.7	3754134.4	0.002067988	0.00167144
2033	588	484851.7	3754134.4	0.002141567	0.001714455
2033	589	484951.7	3754134.4	0.002215365	0.001751848
2033	590	485051.7	3754134.4	0.002301595	0.001796508
2033	591	485151.7	3754134.4	0.002402208	0.001850519
2033	592	485251.7	3754134.4	0.002521495	0.001917625
2033	593	485351.7	3754134.4	0.002667256	0.002004237
2033	594	485451.7	3754134.4	0.002859574	0.002130408
2033	595	484551.7	3754234.4	0.002019962	0.001688255
2033	596	484651.7	3754234.4	0.002064611	0.001708787
2033	597	484751.7	3754234.4	0.002131009	0.00174981
2033	598	484851.7	3754234.4	0.002205181	0.001795426
2033	599	484951.7	3754234.4	0.00228146	0.00183748
2033	600	485051.7	3754234.4	0.002366266	0.001882586
2033	601	485151.7	3754234.4	0.002466391	0.00193749
2033	602	485251.7	3754234.4	0.002585265	0.002004643
2033	603	485351.7	3754234.4	0.002730749	0.00209079
2033	604	485451.7	3754234.4	0.002923796	0.002217306
2033	605	484551.7	3754334.4	0.002090927	0.001771698
2033	606	484651.7	3754334.4	0.002148558	0.001808655
2033	607	484751.7	3754334.4	0.002213694	0.001850726
2033	608	484851.7	3754334.4	0.002280663	0.001890256
2033	609	484951.7	3754334.4	0.00235624	0.00193402
2033	610	485051.7	3754334.4	0.002441885	0.001982586
2033	611	485151.7	3754334.4	0.002540517	0.002038411
2033	612	485251.7	3754334.4	0.002658418	0.002107579
2033	613	485351.7	3754334.4	0.002799537	0.002193891
2033	614	485451.7	3754334.4	0.002970894	0.002303468
2033	615	484551.7	3754434.4	0.002223958	0.001924031
2033	616	484651.7	3754434.4	0.002265604	0.001944767
2033	617	484751.7	3754434.4	0.00231705	0.001973482
2033	618	484851.7	3754434.4	0.002376119	0.002006517
2033	619	484951.7	3754434.4	0.002447875	0.00204876
2033	620	485051.7	3754434.4	0.002530758	0.002097283
2033	621	485151.7	3754434.4	0.002628239	0.002155033
2033	622	485251.7	3754434.4	0.002743916	0.002224912
2033	623	485351.7	3754434.4	0.002882958	0.002311712
2033	624	485451.7	3754434.4	0.003053528	0.002424023
2033	625	484551.7	3754534.4	0.002380986	0.002097944
2033	626	484651.7	3754534.4	0.002421514	0.002119859
2033	627	484751.7	3754534.4	0.002456617	0.00213304

2033	628	484851.7	3754534.4	0.0024999	0.002153337
2033	629	484951.7	3754534.4	0.002562589	0.002188965
2033	630	485051.7	3754534.4	0.002640984	0.002235344
2033	631	485151.7	3754534.4	0.002736183	0.002293305
2033	632	485251.7	3754534.4	0.002849579	0.002363723
2033	633	485351.7	3754534.4	0.002986209	0.0024507
2033	634	485451.7	3754534.4	0.003160548	0.0025678
2033	635	484551.7	3754634.4	0.002526691	0.002260075
2033	636	484651.7	3754634.4	0.002561887	0.002278037
2033	637	484751.7	3754634.4	0.002614205	0.002311891
2033	638	484851.7	3754634.4	0.002646754	0.002324473
2033	639	484951.7	3754634.4	0.002700617	0.002354569
2033	640	485051.7	3754634.4	0.002774542	0.00240061
2033	641	485151.7	3754634.4	0.002866272	0.002459881
2033	642	485251.7	3754634.4	0.002978042	0.0025326
2033	643	485351.7	3754634.4	0.003116163	0.002623606
2033	644	485451.7	3754634.4	0.00329472	0.002747158
2033	645	484551.7	3754734.4	0.002684722	0.002433086
2033	646	484651.7	3754734.4	0.002720761	0.002454231
2033	647	484751.7	3754734.4	0.002762821	0.00248035
2033	648	484851.7	3754734.4	0.002813398	0.002513567
2033	649	484951.7	3754734.4	0.002874576	0.002554637
2033	650	485051.7	3754734.4	0.002947945	0.002604438
2033	651	485151.7	3754734.4	0.003036698	0.002665462
2033	652	485251.7	3754734.4	0.003146394	0.002742962
2033	653	485351.7	3754734.4	0.003284609	0.00284487
2033	654	485451.7	3754734.4	0.003462323	0.002980792
2033	655	484551.7	3754834.4	0.002923263	0.002685861
2033	656	484651.7	3754834.4	0.002961731	0.002712194
2033	657	484751.7	3754834.4	0.003004902	0.002741588
2033	658	484851.7	3754834.4	0.003054394	0.002775347
2033	659	484951.7	3754834.4	0.003114577	0.002818221
2033	660	485051.7	3754834.4	0.003185518	0.002869427
2033	661	485151.7	3754834.4	0.003273388	0.002934753
2033	662	485251.7	3754834.4	0.003385605	0.003021231
2033	663	485351.7	3754834.4	0.003536109	0.003143939
2033	664	485451.7	3754834.4	0.003733094	0.003309903
2033	665	484551.7	3754934.4	0.003276542	0.003052982
2033	666	484651.7	3754934.4	0.003313001	0.003078877
2033	667	484751.7	3754934.4	0.003354026	0.003107882
2033	668	484851.7	3754934.4	0.003401347	0.003141607
2033	669	484951.7	3754934.4	0.003458675	0.003183987
2033	670	485051.7	3754934.4	0.003525078	0.003233432
2033	671	485151.7	3754934.4	0.003611795	0.003301691
2033	672	485251.7	3754934.4	0.003727056	0.003396076
2033	673	485351.7	3754934.4	0.003907036	0.00355394
2033	674	485451.7	3754934.4	0.004239104	0.003861245

2033	675	484551.7	3755034.4	0.003803854	0.003592648
2033	676	484651.7	3755034.4	0.003836515	0.003616138
2033	677	484751.7	3755034.4	0.003871455	0.003640277
2033	678	484851.7	3755034.4	0.00391826	0.003675797
2033	679	484951.7	3755034.4	0.003972953	0.003717563
2033	680	485051.7	3755034.4	0.004040155	0.003770359
2033	681	485151.7	3755034.4	0.00412363	0.003837928
2033	682	485251.7	3755034.4	0.004239783	0.003937068
2033	683	485351.7	3755034.4	0.00442705	0.004105773
2033	684	485451.7	3755034.4	0.004959811	0.00461775
2033	685	485549.5	3750934.9	0.00034384	0.000258188
2033	686	485649.5	3750934.9	0.000339688	0.000254648
2033	687	485749.5	3750934.9	0.000337076	0.000252498
2033	688	485849.5	3750934.9	0.000332949	0.000249056
2033	689	485549.5	3751034.9	0.000362741	0.000272512
2033	690	485649.5	3751034.9	0.000357144	0.00026769
2033	691	485749.5	3751034.9	0.000354744	0.00026569
2033	692	485849.5	3751034.9	0.000351553	0.000263036
2033	693	485549.5	3751134.9	0.00038356	0.000288542
2033	694	485649.5	3751134.9	0.000377485	0.000283244
2033	695	485749.5	3751134.9	0.000374802	0.000280975
2033	696	485849.5	3751134.9	0.000370834	0.000277606
2033	697	485549.5	3751234.9	0.000408289	0.000308034
2033	698	485649.5	3751234.9	0.000400466	0.000301127
2033	699	485749.5	3751234.9	0.000397342	0.00029843
2033	700	485849.5	3751234.9	0.000396593	0.000297917
2033	701	485549.5	3751334.9	0.000434634	0.000328957
2033	702	485649.5	3751334.9	0.000428669	0.00032362
2033	703	485749.5	3751334.9	0.000423829	0.00031937
2033	704	485849.5	3751334.9	0.00042715	0.000322549
2033	705	485549.5	3751434.9	0.000471367	0.000359228
2033	706	485649.5	3751434.9	0.000467704	0.000355866
2033	707	485749.5	3751434.9	0.00045741	0.000346591
2033	708	485849.5	3751434.9	0.000471469	0.00035963
2033	709	485549.5	3751534.9	0.000590118	0.000463436
2033	710	485649.5	3751534.9	0.000575881	0.000450509
2033	711	485749.5	3751534.9	0.000522981	0.00040286
2033	712	485849.5	3751534.9	0.000513051	0.000393985
2033	713	485549.5	3751634.9	0.000910422	0.000724757
2033	714	485649.5	3751634.9	0.000769841	0.000614345
2033	715	485749.5	3751634.9	0.000717408	0.000570949
2033	716	485849.5	3751634.9	0.000551584	0.000425376
2033	717	485549.5	3751734.9	0.001124673	0.000884059
2033	718	485649.5	3751734.9	0.00107522	0.000850881
2033	719	485749.5	3751734.9	0.000956734	0.00076318
2033	720	485849.5	3751734.9	0.000674382	0.000532371
2033	721	485549.5	3751834.9	0.001283365	0.001010665

2033	722	485649.5	3751834.9	0.001217068	0.000958478
2033	723	485749.5	3751834.9	0.001164764	0.000920457
2033	724	485849.5	3751834.9	0.000994484	0.000795688
2033	725	485549.5	3751934.9	0.001490076	0.00118243
2033	726	485649.5	3751934.9	0.001365595	0.001068523
2033	727	485749.5	3751934.9	0.001328698	0.001037043
2033	728	485849.5	3751934.9	0.001278805	0.001002295
2033	729	485549.5	3752034.9	0.001725432	0.001381904
2033	730	485649.5	3752034.9	0.001514466	0.001179539
2033	731	485749.5	3752034.9	0.001482112	0.001152042
2033	732	485849.5	3752034.9	0.001452062	0.001133909
2033	733	485549.5	3752134.9	0.001775302	0.001402931
2033	734	485649.5	3752134.9	0.001728495	0.001351571
2033	735	485749.5	3752134.9	0.001733669	0.00135758
2033	736	485849.5	3752134.9	0.001744761	0.001377131
2033	737	485549.5	3752234.9	0.001991647	0.001598723
2033	738	485649.5	3752234.9	0.002052391	0.00164901
2033	739	485749.5	3752234.9	0.002135421	0.001724086
2033	740	485849.5	3752234.9	0.002199372	0.001788414
2033	741	485549.5	3752334.9	0.00166787	0.001259391
2033	742	485649.5	3752334.9	0.001708938	0.001284174
2033	743	485749.5	3752334.9	0.001764467	0.001325876
2033	744	485849.5	3752334.9	0.001828915	0.00138012
2033	745	485549.5	3752434.9	0.00161772	0.001194153
2033	746	485649.5	3752434.9	0.001646729	0.001205411
2033	747	485749.5	3752434.9	0.001696891	0.001236685
2033	748	485849.5	3752434.9	0.001762335	0.001282694
2033	749	485549.5	3752534.9	0.001643004	0.001203118
2033	750	485649.5	3752534.9	0.001668978	0.001210024
2033	751	485749.5	3752534.9	0.001719846	0.001240031
2033	752	485849.5	3752534.9	0.001783859	0.001281258
2033	753	485549.5	3752634.9	0.001695594	0.001236693
2033	754	485649.5	3752634.9	0.001722666	0.001243445
2033	755	485749.5	3752634.9	0.00177386	0.001273019
2033	756	485849.5	3752634.9	0.001837764	0.001312443
2033	757	485549.5	3752734.9	0.001760993	0.001282378
2033	758	485649.5	3752734.9	0.001790463	0.001290621
2033	759	485749.5	3752734.9	0.001848637	0.001324678
2033	760	485849.5	3752734.9	0.001919788	0.001368206
2033	761	485549.5	3752834.9	0.001833559	0.001335591
2033	762	485649.5	3752834.9	0.001865571	0.001346288
2033	763	485749.5	3752834.9	0.001932809	0.001387809
2033	764	485849.5	3752834.9	0.002014154	0.001438931
2033	765	485549.5	3752934.9	0.001915952	0.001396804
2033	766	485649.5	3752934.9	0.001949569	0.001409775
2033	767	485749.5	3752934.9	0.002025265	0.001460722
2033	768	485849.5	3752934.9	0.002124637	0.001528721

2033	769	485549.5	3753034.9	0.002021179	0.001477211
2033	770	485649.5	3753034.9	0.002037548	0.001474768
2033	771	485749.5	3753034.9	0.00212325	0.00153683
2033	772	485849.5	3753034.9	0.002247711	0.001633002
2033	773	485549.5	3753134.9	0.002059096	0.001482896
2033	774	485649.5	3753134.9	0.002123845	0.001530895
2033	775	485749.5	3753134.9	0.002215788	0.001603579
2033	776	485849.5	3753134.9	0.002357358	0.00172192
2033	777	485549.5	3753234.9	0.002154728	0.001537292
2033	778	485649.5	3753234.9	0.002222659	0.00159093
2033	779	485749.5	3753234.9	0.002313039	0.001668495
2033	780	485849.5	3753234.9	0.002457916	0.001796868
2033	781	485549.5	3753334.9	0.002301307	0.001629298
2033	782	485649.5	3753334.9	0.002355687	0.00166512
2033	783	485749.5	3753334.9	0.002438989	0.001741586
2033	784	485849.5	3753334.9	0.002570841	0.001869822
2033	785	485549.5	3753434.9	0.002464898	0.001729737
2033	786	485649.5	3753434.9	0.002554531	0.001782198
2033	787	485749.5	3753434.9	0.002653864	0.001865301
2033	788	485849.5	3753434.9	0.002765019	0.001991518
2033	789	485508.5	3746711.3	0.000219384	0.000181401
2033	790	491508.5	3746711.3	0.000153132	0.000126964
2033	791	479508.5	3752711.3	0.000767921	0.000697324
2033	792	485508.5	3752711.3	0.001708517	0.001242319
2033	793	491508.5	3752711.3	0.001413069	0.000934126
2033	794	485508.5	3758711.3	0.000389837	0.000361922
2033	795	491508.5	3758711.3	0.000165287	0.000143676
2033	796	485921.9	3750934.2	0.000329074	0.00024584
2033	797	486021.9	3750934.2	0.000324917	0.000242443
2033	798	486121.9	3750934.2	0.000322668	0.000240764
2033	799	485921.9	3751034.2	0.000346746	0.00025894
2033	800	486021.9	3751034.2	0.000340676	0.000253819
2033	801	486121.9	3751034.2	0.00033718	0.000250983
2033	802	485921.9	3751134.2	0.000366871	0.000274218
2033	803	486021.9	3751134.2	0.000360143	0.000268454
2033	804	486121.9	3751134.2	0.000354904	0.000264002
2033	805	485921.9	3751234.2	0.000390168	0.000292294
2033	806	486021.9	3751234.2	0.000382797	0.000285875
2033	807	486121.9	3751234.2	0.000376295	0.00028025
2033	808	485921.9	3751334.2	0.00041866	0.000315001
2033	809	486021.9	3751334.2	0.000410181	0.000307501
2033	810	486121.9	3751334.2	0.000400819	0.000299232
2033	811	485921.9	3751434.2	0.000457599	0.000347146
2033	812	486021.9	3751434.2	0.000442818	0.000333839
2033	813	486121.9	3751434.2	0.000430617	0.000322897
2033	814	485921.9	3751534.2	0.000499219	0.000381574
2033	815	486021.9	3751534.2	0.000489199	0.000372659

2033	816	486121.9	3751534.2	0.000468055	0.00035346
2033	817	485921.9	3751634.2	0.000534788	0.00041023
2033	818	486021.9	3751634.2	0.000571004	0.000443342
2033	819	486121.9	3751634.2	0.000526957	0.0004036
2033	820	485921.9	3751734.2	0.000612131	0.000476683
2033	821	486021.9	3751734.2	0.0007017	0.000556028
2033	822	486121.9	3751734.2	0.000594989	0.00046164
2033	823	485921.9	3751834.2	0.000781132	0.000623143
2033	824	486021.9	3751834.2	0.000786302	0.000627113
2033	825	486121.9	3751834.2	0.000625103	0.000484781
2033	826	485921.9	3751934.2	0.001166594	0.000932434
2033	827	486021.9	3751934.2	0.000972264	0.000781215
2033	828	486121.9	3751934.2	0.000792455	0.00063011
2033	829	485921.9	3752034.2	0.001384512	0.001091646
2033	830	486021.9	3752034.2	0.001194415	0.000963074
2033	831	486121.9	3752034.2	0.001087555	0.000879282
2033	832	485921.9	3752134.2	0.001760656	0.001404172
2033	833	486021.9	3752134.2	0.001714767	0.00138606
2033	834	486121.9	3752134.2	0.00146989	0.001192998
2033	835	485921.9	3752234.2	0.002236118	0.001833333
2033	836	486021.9	3752234.2	0.002334474	0.001940925
2033	837	486121.9	3752234.2	0.002154702	0.001777377
2033	838	485921.9	3752334.2	0.001877018	0.001423319
2033	839	486021.9	3752334.2	0.001979132	0.001526206
2033	840	486121.9	3752334.2	0.002289553	0.001838434
2033	841	485921.9	3752434.2	0.001822201	0.001332712
2033	842	486021.9	3752434.2	0.001922775	0.001422238
2033	843	486121.9	3752434.2	0.002091824	0.001580077
2033	844	485921.9	3752534.2	0.00184283	0.001322135
2033	845	486021.9	3752534.2	0.001929152	0.001387363
2033	846	486121.9	3752534.2	0.002044425	0.001482863
2033	847	485921.9	3752634.2	0.001890483	0.001346847
2033	848	486021.9	3752634.2	0.001970943	0.001403171
2033	849	486121.9	3752634.2	0.002070091	0.001478887
2033	850	485921.9	3752734.2	0.001975923	0.001403668
2033	851	486021.9	3752734.2	0.002065898	0.00146341
2033	852	486121.9	3752734.2	0.002170474	0.001538629
2033	853	485921.9	3752834.2	0.002082368	0.001481794
2033	854	486021.9	3752834.2	0.002191661	0.001552583
2033	855	486121.9	3752834.2	0.002319978	0.001641285
2033	856	485921.9	3752934.2	0.002205093	0.001582863
2033	857	486021.9	3752934.2	0.002341448	0.001673442
2033	858	486121.9	3752934.2	0.002530532	0.001808375
2033	859	487026.2	3754364	0.008754033	0.007588547
2034	1	489607.4	3753966.1	0.002838827	0.00191268
2034	2	489738.7	3754023.9	0.002516315	0.001755607
2034	3	489668.9	3754093.7	0.002392995	0.001746257

2034	4	489690.1	3754161.6	0.002268277	0.001686155
2034	5	490282.2	3753425.2	0.003350327	0.002338971
2034	6	489797.3	3754554.1	0.001853126	0.001422594
2034	7	490252.9	3754378.2	0.001695805	0.00127917
2034	8	489006	3754140.3	0.004304784	0.003357136
2034	9	485642.8	3754267.3	0.003872958	0.002989725
2034	10	485736.4	3754259.5	0.004271271	0.003303726
2034	11	487189.2	3754820.5	0.009532733	0.008497151
2034	12	487233.1	3754689.5	0.007838199	0.006700324
2034	13	487216.8	3754364.7	0.011943567	0.010796032
2034	14	487388.8	3754380.1	0.009014697	0.007955111
2034	15	484625	3751748	0.001165723	0.000900797
2034	16	483279	3751798	0.000876499	0.000687465
2034	17	483231	3751205	0.000779312	0.000612384
2034	18	480165	3750195	0.000589449	0.000504662
2034	19	481211	3749473	0.000532245	0.000438231
2034	20	481867	3752785	0.000891862	0.000758528
2034	21	480678	3751306	0.000640626	0.000541248
2034	22	479989	3752645	0.000765878	0.000683476
2034	23	479889	3756222	0.001071546	0.001022294
2034	24	479234	3757080	0.000516763	0.000481184
2034	25	480276	3756365	0.000871095	0.000823908
2034	26	479887	3754007	0.000996727	0.000925041
2034	27	480772	3755009	0.002110118	0.002032046
2034	28	481560	3754548	0.0015815	0.001482043
2034	29	481845	3754457	0.001596266	0.001487676
2034	30	481754	3753876	0.001140748	0.00102462
2034	31	489635.2	3750663.8	0.000434425	0.000330893
2034	32	485424.1	3747672.3	0.000282495	0.00022938
2034	33	482657.6	3753975.1	0.001351035	0.001198332
2034	34	481495	3754633.7	0.001659449	0.001562902
2034	35	481148.7	3756136.2	0.001196822	0.001138117
2034	36	482346.5	3748872.9	0.000219737	0.0001722
2034	37	480299	3751198	0.00062357	0.000531928
2034	38	479598.7	3756506.3	0.000819848	0.000775514
2034	39	478997.8	3753535.2	0.001117633	0.001054601
2034	40	478978.3	3755233.1	0.003362922	0.003302722
2034	41	479197.3	3754462.3	0.001481064	0.001420134
2034	42	479493.3	3752408.8	0.000777992	0.000702725
2034	43	480295.4	3752408.4	0.000742367	0.000652781
2034	44	480287.9	3754227.5	0.001092221	0.001015594
2034	45	494397.4	3753977.6	0.000685538	0.000553815
2034	46	481108.5	3750699	0.00062908	0.000525222
2034	47	486794.1	3756878	0.00063505	0.000570216
2034	48	482345	3752065.8	0.000844872	0.000692218
2034	49	487553	3745938.3	0.000172454	0.000145135
2034	50	484553	3746938.3	0.00022818	0.000187586

2034	51	485553	3746938.3	0.000239557	0.000197389
2034	52	486553	3746938.3	0.00019083	0.000161902
2034	53	487553	3746938.3	0.000210244	0.000174209
2034	54	488553	3746938.3	0.000191634	0.000159668
2034	55	489553	3746938.3	0.000189343	0.000156525
2034	56	490553	3746938.3	0.000173873	0.000144141
2034	57	491553	3746938.3	0.000165452	0.000136841
2034	58	492553	3746938.3	0.000159103	0.00013138
2034	59	482553	3747938.3	0.000200398	0.000159565
2034	60	483553	3747938.3	0.000334723	0.000267648
2034	61	484553	3747938.3	0.000318785	0.000256066
2034	62	485553	3747938.3	0.000297472	0.000240337
2034	63	486553	3747938.3	0.000276882	0.000226849
2034	64	487553	3747938.3	0.000177011	0.000149218
2034	65	488553	3747938.3	0.000230912	0.000189778
2034	66	489553	3747938.3	0.000216816	0.000178193
2034	67	490553	3747938.3	0.000204117	0.00016742
2034	68	491553	3747938.3	0.000193622	0.00015825
2034	69	492553	3747938.3	0.000185203	0.000150946
2034	70	493553	3747938.3	0.000179174	0.000145965
2034	71	481553	3748938.3	0.000450816	0.000360443
2034	72	482553	3748938.3	0.000230063	0.000180641
2034	73	483553	3748938.3	0.000384984	0.000306863
2034	74	484553	3748938.3	0.000403803	0.000319156
2034	75	485553	3748938.3	0.000385035	0.000305779
2034	76	486553	3748938.3	0.000356723	0.000285689
2034	77	487553	3748938.3	0.000280015	0.000234409
2034	78	488553	3748938.3	0.000287423	0.000231913
2034	79	489553	3748938.3	0.000264084	0.000213861
2034	80	490553	3748938.3	0.000247718	0.000199861
2034	81	491553	3748938.3	0.000233022	0.000187366
2034	82	492553	3748938.3	0.000223162	0.000178727
2034	83	493553	3748938.3	0.00022032	0.000176699
2034	84	494553	3748938.3	0.000284739	0.000242119
2034	85	480553	3749938.3	0.000697607	0.000609963
2034	86	481553	3749938.3	0.000607389	0.000497836
2034	87	482553	3749938.3	0.000592757	0.000473282
2034	88	483553	3749938.3	0.000582132	0.000458805
2034	89	484553	3749938.3	0.000426696	0.000337677
2034	90	485553	3749938.3	0.000349276	0.000277835
2034	91	486553	3749938.3	0.000413421	0.000334823
2034	92	487553	3749938.3	0.000433028	0.000342265
2034	93	488553	3749938.3	0.000375915	0.000295034
2034	94	489553	3749938.3	0.000341698	0.00026926
2034	95	490553	3749938.3	0.00031552	0.000247894
2034	96	491553	3749938.3	0.000295728	0.000231105
2034	97	492553	3749938.3	0.000288005	0.000224009

2034	98	493553	3749938.3	0.000322536	0.000256155
2034	99	494553	3749938.3	0.000271525	0.000206059
2034	100	495553	3749938.3	0.00021552	0.000177902
2034	101	480553	3750938.3	0.000610551	0.000515104
2034	102	481553	3750938.3	0.000656844	0.000541798
2034	103	482553	3750938.3	0.000713539	0.000574075
2034	104	483553	3750938.3	0.000820772	0.000651131
2034	105	484553	3750938.3	0.000815222	0.000636649
2034	106	485553	3750938.3	0.00036065	0.000270775
2034	107	486553	3750938.3	0.000332755	0.000250318
2034	108	487553	3750938.3	0.000521102	0.000414369
2034	109	488553	3750938.3	0.000564115	0.000417887
2034	110	489553	3750938.3	0.000495507	0.000369797
2034	111	490553	3750938.3	0.000442327	0.000330455
2034	112	491553	3750938.3	0.000411975	0.000305925
2034	113	492553	3750938.3	0.000462997	0.000354509
2034	114	493553	3750938.3	0.000401162	0.000294395
2034	115	494553	3750938.3	0.000388766	0.000288898
2034	116	495553	3750938.3	0.000362606	0.0002818
2034	117	479553	3751938.3	0.000718517	0.000640331
2034	118	480553	3751938.3	0.000705794	0.000609142
2034	119	481553	3751938.3	0.000745518	0.000623188
2034	120	482553	3751938.3	0.000827596	0.000667717
2034	121	483553	3751938.3	0.000949639	0.000740586
2034	122	484553	3751938.3	0.001130236	0.000860058
2034	123	485553	3751938.3	0.001560836	0.001237491
2034	124	486553	3751938.3	0.00063998	0.000490229
2034	125	487553	3751938.3	0.001033198	0.000807288
2034	126	488553	3751938.3	0.001109417	0.000751319
2034	127	489553	3751938.3	0.001009412	0.00066363
2034	128	490553	3751938.3	0.000847165	0.00055722
2034	129	491553	3751938.3	0.000877912	0.00061271
2034	130	492553	3751938.3	0.000701477	0.0004531
2034	131	493553	3751938.3	0.000628443	0.000466505
2034	132	494553	3751938.3	0.000579815	0.000433141
2034	133	495553	3751938.3	0.000510974	0.000391298
2034	134	479553	3752938.3	0.000868794	0.000795428
2034	135	480553	3752938.3	0.000867089	0.0007747
2034	136	481553	3752938.3	0.000935132	0.000814888
2034	137	482553	3752938.3	0.001058063	0.000892708
2034	138	483553	3752938.3	0.001216682	0.00097875
2034	139	484553	3752938.3	0.00151666	0.001139451
2034	140	485553	3752938.3	0.002009564	0.001464035
2034	141	486553	3752938.3	0.003965322	0.003124011
2034	142	487553	3752938.3	0.004367927	0.003293192
2034	143	488553	3752938.3	0.003892948	0.002850705
2034	144	489553	3752938.3	0.003551635	0.002591042

2034	145	490553	3752938.3	0.002945666	0.002115067
2034	146	491553	3752938.3	0.001525998	0.001059442
2034	147	492553	3752938.3	0.001160534	0.000760188
2034	148	493553	3752938.3	0.000943328	0.000673953
2034	149	494553	3752938.3	0.000804079	0.000600607
2034	150	495553	3752938.3	0.000647596	0.000501083
2034	151	479553	3753938.3	0.000998104	0.000930743
2034	152	480553	3753938.3	0.00100659	0.000922666
2034	153	481553	3753938.3	0.001143377	0.001034672
2034	154	482553	3753938.3	0.001306222	0.001158058
2034	155	483553	3753938.3	0.00164277	0.001434249
2034	156	484553	3753938.3	0.00194845	0.001565697
2034	157	485553	3753938.3	0.003143643	0.002266683
2034	158	486553	3753938.3	0.005552055	0.004170877
2034	159	487553	3753938.3	0.00609255	0.004977076
2034	160	488553	3753938.3	0.005391725	0.004124348
2034	161	489553	3753938.3	0.003030579	0.002027497
2034	162	490553	3753938.3	0.001753454	0.001288214
2034	163	491553	3753938.3	0.001223679	0.000954124
2034	164	492553	3753938.3	0.001003919	0.000793165
2034	165	493553	3753938.3	0.00082123	0.000656893
2034	166	494553	3753938.3	0.000746272	0.000601518
2034	167	495553	3753938.3	0.000581997	0.000473177
2034	168	479553	3754938.3	0.001774912	0.001711838
2034	169	480553	3754938.3	0.001892131	0.00181668
2034	170	481553	3754938.3	0.002167321	0.002073931
2034	171	482553	3754938.3	0.003167104	0.003047598
2034	172	483553	3754938.3	0.003481597	0.003325694
2034	173	484553	3754938.3	0.00345077	0.003216877
2034	174	485553	3754938.3	0.005006389	0.00458338
2034	175	486553	3754938.3	0.006903451	0.006284363
2034	176	487553	3754938.3	0.005888511	0.005071339
2034	177	488553	3754938.3	0.003308527	0.002741858
2034	178	489553	3754938.3	0.002073392	0.001784153
2034	179	490553	3754938.3	0.001381696	0.001213444
2034	180	491553	3754938.3	0.000908051	0.000791173
2034	181	492553	3754938.3	0.000651808	0.000561013
2034	182	493553	3754938.3	0.000658969	0.000572411
2034	183	494553	3754938.3	0.000501378	0.000431891
2034	184	495553	3754938.3	0.000420817	0.000361441
2034	185	479553	3755938.3	0.001785934	0.001732089
2034	186	480553	3755938.3	0.001497147	0.001439007
2034	187	481553	3755938.3	0.001516842	0.001451865
2034	188	482553	3755938.3	0.002168831	0.00208284
2034	189	483553	3755938.3	0.002278063	0.002175319
2034	190	484553	3755938.3	0.002165631	0.002040249
2034	191	485553	3755938.3	0.003057357	0.0029019

2034	192	486553	3755938.3	0.00247129	0.002304375
2034	193	487553	3755938.3	0.001365657	0.001260129
2034	194	488553	3755938.3	0.000953994	0.00087062
2034	195	489553	3755938.3	0.000653808	0.000590359
2034	196	490553	3755938.3	0.000541252	0.000486584
2034	197	491553	3755938.3	0.000446083	0.000399273
2034	198	492553	3755938.3	0.00054054	0.000497043
2034	199	493553	3755938.3	0.00039633	0.000357883
2034	200	494553	3755938.3	0.000380778	0.00034492
2034	201	479553	3756938.3	0.000541606	0.000505001
2034	202	480553	3756938.3	0.000518484	0.000480785
2034	203	481553	3756938.3	0.000468314	0.000432325
2034	204	482553	3756938.3	0.00048879	0.000448719
2034	205	483553	3756938.3	0.000824288	0.000758562
2034	206	484553	3756938.3	0.000795198	0.000724206
2034	207	485553	3756938.3	0.00172588	0.00165318
2034	208	486553	3756938.3	0.000657101	0.000591592
2034	209	487553	3756938.3	0.000432331	0.000383082
2034	210	488553	3756938.3	0.000350676	0.000307974
2034	211	489553	3756938.3	0.000307181	0.000269037
2034	212	490553	3756938.3	0.000280645	0.000245743
2034	213	491553	3756938.3	0.000245352	0.000214539
2034	214	492553	3756938.3	0.000218551	0.000191221
2034	215	493553	3756938.3	0.000232262	0.000205901
2034	216	494553	3756938.3	0.000225452	0.000200649
2034	217	479553	3757938.3	0.000272354	0.000249268
2034	218	480553	3757938.3	0.000260731	0.000237627
2034	219	481553	3757938.3	0.000275415	0.000249277
2034	220	482553	3757938.3	0.000340674	0.000305986
2034	221	483553	3757938.3	0.000334096	0.000298276
2034	222	484553	3757938.3	0.000439885	0.000395499
2034	223	485553	3757938.3	0.000509695	0.000471152
2034	224	486553	3757938.3	0.000304813	0.000269436
2034	225	487553	3757938.3	0.000249192	0.000217445
2034	226	488553	3757938.3	0.000218778	0.000189774
2034	227	489553	3757938.3	0.000201886	0.000174649
2034	228	490553	3757938.3	0.00018461	0.000159574
2034	229	491553	3757938.3	0.000169152	0.000146034
2034	230	492553	3757938.3	0.000162407	0.000140733
2034	231	493553	3757938.3	0.000180121	0.00015774
2034	232	480553	3758938.3	0.000195688	0.000176163
2034	233	481553	3758938.3	0.000218297	0.000194939
2034	234	482553	3758938.3	0.00021265	0.000188365
2034	235	483553	3758938.3	0.000222948	0.000196672
2034	236	484553	3758938.3	0.000278977	0.000249546
2034	237	485553	3758938.3	0.000647858	0.000616415
2034	238	486553	3758938.3	0.000210955	0.00018581

2034	239	487553	3758938.3	0.000231607	0.000203883
2034	240	488553	3758938.3	0.000171964	0.00014971
2034	241	489553	3758938.3	0.000174338	0.000151847
2034	242	490553	3758938.3	0.000190346	0.000165631
2034	243	491553	3758938.3	0.0001548	0.000134393
2034	244	492553	3758938.3	0.00016106	0.000140016
2034	245	481553	3759938.3	0.000161524	0.000143405
2034	246	482553	3759938.3	0.000166687	0.000146986
2034	247	483553	3759938.3	0.000176626	0.000155547
2034	248	484553	3759938.3	0.000245667	0.000219424
2034	249	485553	3759938.3	0.000640858	0.000609017
2034	250	486553	3759938.3	0.000303678	0.000271495
2034	251	487553	3759938.3	0.000247726	0.000219254
2034	252	488553	3759938.3	0.000247234	0.000217074
2034	253	489553	3759938.3	0.000214251	0.000187024
2034	254	490553	3759938.3	0.000165656	0.000144622
2034	255	491553	3759938.3	0.000144366	0.00012567
2034	256	482553	3760938.3	0.000157227	0.000138781
2034	257	483553	3760938.3	0.000181836	0.000161171
2034	258	484553	3760938.3	0.000232233	0.000207877
2034	259	485553	3760938.3	0.000527357	0.000495154
2034	260	486553	3760938.3	0.000345958	0.000311552
2034	261	487553	3760938.3	0.000275853	0.00024776
2034	262	488553	3760938.3	0.00015717	0.00013913
2034	263	489553	3760938.3	0.000119214	0.000104459
2034	264	490553	3760938.3	0.000114034	9.95304E-05
2034	265	484551.7	3750934.4	0.000810283	0.000633789
2034	266	484651.7	3750934.4	0.000799968	0.000626135
2034	267	484751.7	3750934.4	0.000611437	0.000484611
2034	268	484851.7	3750934.4	0.000561074	0.000444863
2034	269	484951.7	3750934.4	0.000593028	0.000469247
2034	270	485051.7	3750934.4	0.000531552	0.000420343
2034	271	485151.7	3750934.4	0.000442604	0.000344138
2034	272	485251.7	3750934.4	0.000389842	0.000296742
2034	273	485351.7	3750934.4	0.000374904	0.000283334
2034	274	485451.7	3750934.4	0.000366975	0.000276351
2034	275	484551.7	3751034.4	0.000865617	0.000670343
2034	276	484651.7	3751034.4	0.00085397	0.000662368
2034	277	484751.7	3751034.4	0.000802193	0.000632136
2034	278	484851.7	3751034.4	0.000635118	0.000502902
2034	279	484951.7	3751034.4	0.00070567	0.000556752
2034	280	485051.7	3751034.4	0.000591893	0.000468401
2034	281	485151.7	3751034.4	0.000513163	0.00040369
2034	282	485251.7	3751034.4	0.000436449	0.000336138
2034	283	485351.7	3751034.4	0.0004031	0.000306056
2034	284	485451.7	3751034.4	0.000388636	0.000293082
2034	285	484551.7	3751134.4	0.000909337	0.000701051

2034	286	484651.7	3751134.4	0.000907347	0.000697956
2034	287	484751.7	3751134.4	0.000895517	0.000691261
2034	288	484851.7	3751134.4	0.000808796	0.000640829
2034	289	484951.7	3751134.4	0.000828461	0.000651945
2034	290	485051.7	3751134.4	0.000682989	0.000539522
2034	291	485151.7	3751134.4	0.000606178	0.000479762
2034	292	485251.7	3751134.4	0.000524331	0.00041159
2034	293	485351.7	3751134.4	0.000445931	0.000342011
2034	294	485451.7	3751134.4	0.00041382	0.00031297
2034	295	484551.7	3751234.4	0.000954292	0.000735233
2034	296	484651.7	3751234.4	0.000954363	0.000732909
2034	297	484751.7	3751234.4	0.00094692	0.000729256
2034	298	484851.7	3751234.4	0.000920406	0.000715256
2034	299	484951.7	3751234.4	0.000896274	0.000700896
2034	300	485051.7	3751234.4	0.000805721	0.000637675
2034	301	485151.7	3751234.4	0.000679742	0.000538443
2034	302	485251.7	3751234.4	0.000513246	0.000399854
2034	303	485351.7	3751234.4	0.000453849	0.000346304
2034	304	485451.7	3751234.4	0.000435876	0.000329998
2034	305	484551.7	3751334.4	0.001021157	0.000789305
2034	306	484651.7	3751334.4	0.001013732	0.000781282
2034	307	484751.7	3751334.4	0.001002315	0.000774228
2034	308	484851.7	3751334.4	0.000988114	0.000765376
2034	309	484951.7	3751334.4	0.000980348	0.000758914
2034	310	485051.7	3751334.4	0.000940178	0.000736197
2034	311	485151.7	3751334.4	0.000795637	0.000629881
2034	312	485251.7	3751334.4	0.000626408	0.000496446
2034	313	485351.7	3751334.4	0.000493801	0.000379683
2034	314	485451.7	3751334.4	0.000461926	0.000350628
2034	315	484551.7	3751434.4	0.001129614	0.000888905
2034	316	484651.7	3751434.4	0.00109929	0.000855546
2034	317	484751.7	3751434.4	0.001080988	0.000836705
2034	318	484851.7	3751434.4	0.001068403	0.00082546
2034	319	484951.7	3751434.4	0.001058208	0.000817376
2034	320	485051.7	3751434.4	0.001045355	0.000807644
2034	321	485151.7	3751434.4	0.000938653	0.000746016
2034	322	485251.7	3751434.4	0.000731027	0.000582636
2034	323	485351.7	3751434.4	0.000574865	0.00045009
2034	324	485451.7	3751434.4	0.000511678	0.000392784
2034	325	484551.7	3751534.4	0.001375465	0.001128461
2034	326	484651.7	3751534.4	0.001274645	0.001021331
2034	327	484751.7	3751534.4	0.001199983	0.000942232
2034	328	484851.7	3751534.4	0.001165607	0.000905476
2034	329	484951.7	3751534.4	0.001149107	0.000886922
2034	330	485051.7	3751534.4	0.001140267	0.000875618
2034	331	485151.7	3751534.4	0.001126699	0.00086533
2034	332	485251.7	3751534.4	0.001022136	0.000807695

2034	333	485351.7	3751534.4	0.00081712	0.000651756
2034	334	485451.7	3751534.4	0.000675685	0.000536237
2034	335	484551.7	3751634.4	0.001273895	0.001020786
2034	336	484651.7	3751634.4	0.001312717	0.001053061
2034	337	484751.7	3751634.4	0.00135339	0.001086495
2034	338	484851.7	3751634.4	0.001379221	0.001107231
2034	339	484951.7	3751634.4	0.001284724	0.001008641
2034	340	485051.7	3751634.4	0.001244328	0.000964385
2034	341	485151.7	3751634.4	0.001229596	0.000946276
2034	342	485251.7	3751634.4	0.001199287	0.000926231
2034	343	485351.7	3751634.4	0.001142087	0.000890143
2034	344	485451.7	3751634.4	0.001042333	0.000829376
2034	345	484551.7	3751734.4	0.00113187	0.000873785
2034	346	484651.7	3751734.4	0.001194458	0.000927913
2034	347	484751.7	3751734.4	0.001293177	0.001019136
2034	348	484851.7	3751734.4	0.001419104	0.001138846
2034	349	484951.7	3751734.4	0.001421531	0.001136782
2034	350	485051.7	3751734.4	0.001547179	0.001257472
2034	351	485151.7	3751734.4	0.001407316	0.00111014
2034	352	485251.7	3751734.4	0.001368212	0.001068319
2034	353	485351.7	3751734.4	0.001318274	0.001025622
2034	354	485451.7	3751734.4	0.001247968	0.000971934
2034	355	484551.7	3751834.4	0.001113232	0.000850606
2034	356	484651.7	3751834.4	0.001148847	0.000878042
2034	357	484751.7	3751834.4	0.001189996	0.000910951
2034	358	484851.7	3751834.4	0.001238918	0.000952366
2034	359	484951.7	3751834.4	0.001300331	0.001008162
2034	360	485051.7	3751834.4	0.001436273	0.001137279
2034	361	485151.7	3751834.4	0.001456601	0.001147028
2034	362	485251.7	3751834.4	0.00154176	0.001224883
2034	363	485351.7	3751834.4	0.001556431	0.001239617
2034	364	485451.7	3751834.4	0.001553538	0.001244165
2034	365	484551.7	3751934.4	0.001128746	0.000859006
2034	366	484651.7	3751934.4	0.001153694	0.000876893
2034	367	484751.7	3751934.4	0.001179039	0.000895523
2034	368	484851.7	3751934.4	0.001210817	0.000919417
2034	369	484951.7	3751934.4	0.001245825	0.000946581
2034	370	485051.7	3751934.4	0.001290541	0.000982234
2034	371	485151.7	3751934.4	0.001347069	0.001028207
2034	372	485251.7	3751934.4	0.001424837	0.001093947
2034	373	485351.7	3751934.4	0.001536931	0.001198515
2034	374	485451.7	3751934.4	0.00160673	0.001272458
2034	375	484551.7	3752034.4	0.001168067	0.000888833
2034	376	484651.7	3752034.4	0.00118962	0.000903399
2034	377	484751.7	3752034.4	0.001212839	0.000919437
2034	378	484851.7	3752034.4	0.001237445	0.000936671
2034	379	484951.7	3752034.4	0.001267653	0.00095826

2034	380	485051.7	3752034.4	0.001303899	0.000984604
2034	381	485151.7	3752034.4	0.001348106	0.001017496
2034	382	485251.7	3752034.4	0.001411818	0.001067465
2034	383	485351.7	3752034.4	0.00149784	0.001142187
2034	384	485451.7	3752034.4	0.001698316	0.001335907
2034	385	484551.7	3752134.4	0.0012372	0.00094798
2034	386	484651.7	3752134.4	0.001257662	0.000960991
2034	387	484751.7	3752134.4	0.001280523	0.000975937
2034	388	484851.7	3752134.4	0.001303732	0.000991179
2034	389	484951.7	3752134.4	0.001329411	0.001008415
2034	390	485051.7	3752134.4	0.001361013	0.001030302
2034	391	485151.7	3752134.4	0.001399553	0.001057882
2034	392	485251.7	3752134.4	0.00145578	0.001100298
2034	393	485351.7	3752134.4	0.001544016	0.001173676
2034	394	485451.7	3752134.4	0.00174682	0.00136469
2034	395	484551.7	3752234.4	0.001362427	0.001063943
2034	396	484651.7	3752234.4	0.001391981	0.001084706
2034	397	484751.7	3752234.4	0.001413651	0.001097789
2034	398	484851.7	3752234.4	0.001432018	0.001107492
2034	399	484951.7	3752234.4	0.001525889	0.001192491
2034	400	485051.7	3752234.4	0.001481125	0.001138445
2034	401	485151.7	3752234.4	0.001520625	0.001168097
2034	402	485251.7	3752234.4	0.001564271	0.001198389
2034	403	485351.7	3752234.4	0.001648153	0.00126617
2034	404	485451.7	3752234.4	0.001895058	0.001497293
2034	405	484551.7	3752334.4	0.001300159	0.000990213
2034	406	484651.7	3752334.4	0.001324911	0.001005914
2034	407	484751.7	3752334.4	0.001349707	0.001021735
2034	408	484851.7	3752334.4	0.001375394	0.001038304
2034	409	484951.7	3752334.4	0.001403841	0.001056963
2034	410	485051.7	3752334.4	0.001432745	0.001076167
2034	411	485151.7	3752334.4	0.001466621	0.001099276
2034	412	485251.7	3752334.4	0.001506621	0.001127599
2034	413	485351.7	3752334.4	0.00156222	0.001169209
2034	414	485451.7	3752334.4	0.001659737	0.001249297
2034	415	484551.7	3752434.4	0.001297927	0.000976622
2034	416	484651.7	3752434.4	0.001323071	0.000992212
2034	417	484751.7	3752434.4	0.001347904	0.001007824
2034	418	484851.7	3752434.4	0.00137733	0.001026584
2034	419	484951.7	3752434.4	0.001406468	0.001045466
2034	420	485051.7	3752434.4	0.001438559	0.001066631
2034	421	485151.7	3752434.4	0.001473812	0.001090249
2034	422	485251.7	3752434.4	0.001513056	0.001117216
2034	423	485351.7	3752434.4	0.001561644	0.001151819
2034	424	485451.7	3752434.4	0.001633797	0.001208319
2034	425	484551.7	3752534.4	0.001324151	0.000991178
2034	426	484651.7	3752534.4	0.00135059	0.001007343

2034	427	484751.7	3752534.4	0.001378625	0.001024752
2034	428	484851.7	3752534.4	0.001409065	0.001043946
2034	429	484951.7	3752534.4	0.001439817	0.001063718
2034	430	485051.7	3752534.4	0.001474351	0.001086226
2034	431	485151.7	3752534.4	0.001511231	0.001110705
2034	432	485251.7	3752534.4	0.001550872	0.001137634
2034	433	485351.7	3752534.4	0.001597035	0.001169903
2034	434	485451.7	3752534.4	0.001664424	0.001221434
2034	435	484551.7	3752634.4	0.001358839	0.001014557
2034	436	484651.7	3752634.4	0.001386722	0.00103133
2034	437	484751.7	3752634.4	0.001416077	0.0010493
2034	438	484851.7	3752634.4	0.001450158	0.001070462
2034	439	484951.7	3752634.4	0.001483872	0.001091893
2034	440	485051.7	3752634.4	0.001521064	0.001115948
2034	441	485151.7	3752634.4	0.001559882	0.001141611
2034	442	485251.7	3752634.4	0.001601304	0.001169642
2034	443	485351.7	3752634.4	0.001648704	0.001202645
2034	444	485451.7	3752634.4	0.001717098	0.00125438
2034	445	484551.7	3752734.4	0.001401166	0.001045508
2034	446	484651.7	3752734.4	0.001432181	0.001063704
2034	447	484751.7	3752734.4	0.001464614	0.001083146
2034	448	484851.7	3752734.4	0.001499348	0.001104458
2034	449	484951.7	3752734.4	0.001535926	0.001127401
2034	450	485051.7	3752734.4	0.001575812	0.001153014
2034	451	485151.7	3752734.4	0.001616875	0.001180051
2034	452	485251.7	3752734.4	0.001660428	0.001209519
2034	453	485351.7	3752734.4	0.001710102	0.001244113
2034	454	485451.7	3752734.4	0.001778329	0.001296046
2034	455	484551.7	3752834.4	0.00144944	0.001083068
2034	456	484651.7	3752834.4	0.001483243	0.001102335
2034	457	484751.7	3752834.4	0.001517132	0.001122052
2034	458	484851.7	3752834.4	0.001555986	0.00114544
2034	459	484951.7	3752834.4	0.001596083	0.001170128
2034	460	485051.7	3752834.4	0.001638137	0.001196723
2034	461	485151.7	3752834.4	0.001681497	0.001225011
2034	462	485251.7	3752834.4	0.001727757	0.001256173
2034	463	485351.7	3752834.4	0.00177867	0.001292076
2034	464	485451.7	3752834.4	0.001849379	0.001346363
2034	465	484551.7	3752934.4	0.001513006	0.001136391
2034	466	484651.7	3752934.4	0.001549589	0.001156666
2034	467	484751.7	3752934.4	0.001586766	0.001177618
2034	468	484851.7	3752934.4	0.001628587	0.001202049
2034	469	484951.7	3752934.4	0.001671985	0.001228021
2034	470	485051.7	3752934.4	0.001718202	0.001256556
2034	471	485151.7	3752934.4	0.00176389	0.001285704
2034	472	485251.7	3752934.4	0.001813871	0.00131891
2034	473	485351.7	3752934.4	0.001864464	0.001354403

2034	474	485451.7	3752934.4	0.001933711	0.001407563
2034	475	484551.7	3753034.4	0.001620564	0.001235176
2034	476	484651.7	3753034.4	0.001664631	0.001261281
2034	477	484751.7	3753034.4	0.001713926	0.001291719
2034	478	484851.7	3753034.4	0.001752709	0.001310737
2034	479	484951.7	3753034.4	0.001797611	0.00133571
2034	480	485051.7	3753034.4	0.001847184	0.001365652
2034	481	485151.7	3753034.4	0.001902944	0.001401778
2034	482	485251.7	3753034.4	0.001998039	0.001478028
2034	483	485351.7	3753034.4	0.002003228	0.00146674
2034	484	485451.7	3753034.4	0.002060583	0.001508053
2034	485	484551.7	3753134.4	0.001593845	0.001200447
2034	486	484651.7	3753134.4	0.001638201	0.00122462
2034	487	484751.7	3753134.4	0.001686452	0.001251445
2034	488	484851.7	3753134.4	0.001735811	0.001279095
2034	489	484951.7	3753134.4	0.0017888	0.001309476
2034	490	485051.7	3753134.4	0.001844546	0.001342307
2034	491	485151.7	3753134.4	0.001902058	0.001377121
2034	492	485251.7	3753134.4	0.001963653	0.001416317
2034	493	485351.7	3753134.4	0.00202716	0.001459387
2034	494	485451.7	3753134.4	0.002103025	0.001516741
2034	495	484551.7	3753234.4	0.001615637	0.001215241
2034	496	484651.7	3753234.4	0.001664198	0.001241281
2034	497	484751.7	3753234.4	0.00171536	0.001268982
2034	498	484851.7	3753234.4	0.001769279	0.001298548
2034	499	484951.7	3753234.4	0.001827402	0.001331015
2034	500	485051.7	3753234.4	0.001890113	0.001367055
2034	501	485151.7	3753234.4	0.001955492	0.001405547
2034	502	485251.7	3753234.4	0.00202591	0.001448667
2034	503	485351.7	3753234.4	0.002100143	0.001496873
2034	504	485451.7	3753234.4	0.002190497	0.001563182
2034	505	484551.7	3753334.4	0.001652886	0.001246828
2034	506	484651.7	3753334.4	0.001704394	0.001274109
2034	507	484751.7	3753334.4	0.001758129	0.001302513
2034	508	484851.7	3753334.4	0.001818371	0.001335169
2034	509	484951.7	3753334.4	0.001880446	0.001368822
2034	510	485051.7	3753334.4	0.001948962	0.0014069
2034	511	485151.7	3753334.4	0.002022657	0.001448976
2034	512	485251.7	3753334.4	0.002106436	0.001498698
2034	513	485351.7	3753334.4	0.002197728	0.0015556
2034	514	485451.7	3753334.4	0.002306623	0.001631221
2034	515	484551.7	3753434.4	0.001692455	0.001283735
2034	516	484651.7	3753434.4	0.001746407	0.001312188
2034	517	484751.7	3753434.4	0.001803524	0.001342
2034	518	484851.7	3753434.4	0.001867582	0.001376266
2034	519	484951.7	3753434.4	0.001934777	0.001411493
2034	520	485051.7	3753434.4	0.002008618	0.001451136

2034	521	485151.7	3753434.4	0.002092777	0.00149835
2034	522	485251.7	3753434.4	0.002189318	0.00155433
2034	523	485351.7	3753434.4	0.002298353	0.001620517
2034	524	485451.7	3753434.4	0.002437726	0.001713552
2034	525	484551.7	3753534.4	0.001732643	0.001324107
2034	526	484651.7	3753534.4	0.001784671	0.001350061
2034	527	484751.7	3753534.4	0.001843411	0.001380215
2034	528	484851.7	3753534.4	0.001913913	0.001418847
2034	529	484951.7	3753534.4	0.001985831	0.001456689
2034	530	485051.7	3753534.4	0.002064973	0.001498658
2034	531	485151.7	3753534.4	0.00215719	0.001549646
2034	532	485251.7	3753534.4	0.002264489	0.001611263
2034	533	485351.7	3753534.4	0.002391884	0.001687741
2034	534	485451.7	3753534.4	0.002558489	0.001797248
2034	535	484551.7	3753634.4	0.001773064	0.001366959
2034	536	484651.7	3753634.4	0.00182758	0.001394433
2034	537	484751.7	3753634.4	0.001889357	0.001426453
2034	538	484851.7	3753634.4	0.001958814	0.001463117
2034	539	484951.7	3753634.4	0.002035349	0.001503723
2034	540	485051.7	3753634.4	0.002119531	0.001548723
2034	541	485151.7	3753634.4	0.002216921	0.001602687
2034	542	485251.7	3753634.4	0.002330644	0.001668598
2034	543	485351.7	3753634.4	0.002464446	0.001750283
2034	544	485451.7	3753634.4	0.002641238	0.001870337
2034	545	484551.7	3753734.4	0.001827129	0.001426069
2034	546	484651.7	3753734.4	0.001880842	0.001451992
2034	547	484751.7	3753734.4	0.001940321	0.001480676
2034	548	484851.7	3753734.4	0.002006082	0.001512462
2034	549	484951.7	3753734.4	0.002084627	0.001553668
2034	550	485051.7	3753734.4	0.002173852	0.00160159
2034	551	485151.7	3753734.4	0.00227539	0.001657557
2034	552	485251.7	3753734.4	0.002392878	0.00172494
2034	553	485351.7	3753734.4	0.00253282	0.001810323
2034	554	485451.7	3753734.4	0.002716217	0.001936048
2034	555	484551.7	3753834.4	0.001882727	0.001489544
2034	556	484651.7	3753834.4	0.001933917	0.00151276
2034	557	484751.7	3753834.4	0.00199354	0.001541333
2034	558	484851.7	3753834.4	0.002060187	0.00157326
2034	559	484951.7	3753834.4	0.002140378	0.001614881
2034	560	485051.7	3753834.4	0.002229064	0.001660111
2034	561	485151.7	3753834.4	0.002331517	0.001714151
2034	562	485251.7	3753834.4	0.0024558	0.001784776
2034	563	485351.7	3753834.4	0.002602718	0.001872869
2034	564	485451.7	3753834.4	0.002795879	0.002002228
2034	565	484551.7	3753934.4	0.001943943	0.001560941
2034	566	484651.7	3753934.4	0.001997936	0.001587099
2034	567	484751.7	3753934.4	0.002049053	0.001606701

2034	568	484851.7	3753934.4	0.002116914	0.001640012
2034	569	484951.7	3753934.4	0.002196301	0.001680651
2034	570	485051.7	3753934.4	0.002287742	0.001728509
2034	571	485151.7	3753934.4	0.002393272	0.001784797
2034	572	485251.7	3753934.4	0.002517551	0.001853496
2034	573	485351.7	3753934.4	0.002668096	0.001941026
2034	574	485451.7	3753934.4	0.002868668	0.002070437
2034	575	484551.7	3754034.4	0.002015823	0.001647413
2034	576	484651.7	3754034.4	0.00204452	0.001644644
2034	577	484751.7	3754034.4	0.002109299	0.001679388
2034	578	484851.7	3754034.4	0.002180771	0.001716675
2034	579	484951.7	3754034.4	0.002258973	0.001756285
2034	580	485051.7	3754034.4	0.002347766	0.001801666
2034	581	485151.7	3754034.4	0.002451911	0.001856788
2034	582	485251.7	3754034.4	0.002576591	0.001926097
2034	583	485351.7	3754034.4	0.002728273	0.002015393
2034	584	485451.7	3754034.4	0.002930514	0.002148311
2034	585	484551.7	3754134.4	0.002065143	0.001707014
2034	586	484651.7	3754134.4	0.002101744	0.001715021
2034	587	484751.7	3754134.4	0.00216684	0.001751337
2034	588	484851.7	3754134.4	0.002243936	0.001796408
2034	589	484951.7	3754134.4	0.002321262	0.001835588
2034	590	485051.7	3754134.4	0.002411614	0.001882384
2034	591	485151.7	3754134.4	0.002517037	0.001938976
2034	592	485251.7	3754134.4	0.002642025	0.00200929
2034	593	485351.7	3754134.4	0.002794754	0.002100041
2034	594	485451.7	3754134.4	0.002996265	0.002232244
2034	595	484551.7	3754234.4	0.002116519	0.001768955
2034	596	484651.7	3754234.4	0.002163302	0.001790469
2034	597	484751.7	3754234.4	0.002232874	0.001833453
2034	598	484851.7	3754234.4	0.002310591	0.00188125
2034	599	484951.7	3754234.4	0.002390516	0.001925313
2034	600	485051.7	3754234.4	0.002479376	0.001972575
2034	601	485151.7	3754234.4	0.002584287	0.002030104
2034	602	485251.7	3754234.4	0.002708843	0.002100468
2034	603	485351.7	3754234.4	0.002861282	0.002190732
2034	604	485451.7	3754234.4	0.003063557	0.002323296
2034	605	484551.7	3754334.4	0.002190876	0.001856387
2034	606	484651.7	3754334.4	0.002251261	0.00189511
2034	607	484751.7	3754334.4	0.002319511	0.001939193
2034	608	484851.7	3754334.4	0.002389682	0.001980613
2034	609	484951.7	3754334.4	0.002468871	0.002026469
2034	610	485051.7	3754334.4	0.00255861	0.002077356
2034	611	485151.7	3754334.4	0.002661957	0.002135849
2034	612	485251.7	3754334.4	0.002785493	0.002208324
2034	613	485351.7	3754334.4	0.002933358	0.002298761
2034	614	485451.7	3754334.4	0.003112906	0.002413576

2034	615	484551.7	3754434.4	0.002330266	0.002016002
2034	616	484651.7	3754434.4	0.002373903	0.002037729
2034	617	484751.7	3754434.4	0.002427807	0.002067816
2034	618	484851.7	3754434.4	0.0024897	0.002102431
2034	619	484951.7	3754434.4	0.002564886	0.002146693
2034	620	485051.7	3754434.4	0.002651731	0.002197536
2034	621	485151.7	3754434.4	0.002753872	0.002258046
2034	622	485251.7	3754434.4	0.002875078	0.002331265
2034	623	485351.7	3754434.4	0.003020767	0.002422215
2034	624	485451.7	3754434.4	0.00319949	0.002539894
2034	625	484551.7	3754534.4	0.0024948	0.002198228
2034	626	484651.7	3754534.4	0.002537265	0.002221191
2034	627	484751.7	3754534.4	0.002574047	0.002235002
2034	628	484851.7	3754534.4	0.002619398	0.002256269
2034	629	484951.7	3754534.4	0.002685084	0.0022936
2034	630	485051.7	3754534.4	0.002767226	0.002342196
2034	631	485151.7	3754534.4	0.002866975	0.002402928
2034	632	485251.7	3754534.4	0.002985792	0.002476712
2034	633	485351.7	3754534.4	0.003128953	0.002567846
2034	634	485451.7	3754534.4	0.003311625	0.002690544
2034	635	484551.7	3754634.4	0.00264747	0.002368109
2034	636	484651.7	3754634.4	0.002684348	0.002386929
2034	637	484751.7	3754634.4	0.002739167	0.002422402
2034	638	484851.7	3754634.4	0.002773272	0.002435586
2034	639	484951.7	3754634.4	0.00282971	0.00246712
2034	640	485051.7	3754634.4	0.002907168	0.002515362
2034	641	485151.7	3754634.4	0.003003283	0.002577466
2034	642	485251.7	3754634.4	0.003120395	0.002653661
2034	643	485351.7	3754634.4	0.00326512	0.002749018
2034	644	485451.7	3754634.4	0.003452211	0.002878476
2034	645	484551.7	3754734.4	0.002813055	0.00254939
2034	646	484651.7	3754734.4	0.002850816	0.002571546
2034	647	484751.7	3754734.4	0.002894887	0.002598914
2034	648	484851.7	3754734.4	0.002947881	0.002633718
2034	649	484951.7	3754734.4	0.003011984	0.002676751
2034	650	485051.7	3754734.4	0.003088861	0.002728933
2034	651	485151.7	3754734.4	0.003181855	0.002792874
2034	652	485251.7	3754734.4	0.003296795	0.002874079
2034	653	485351.7	3754734.4	0.003441617	0.002980858
2034	654	485451.7	3754734.4	0.003627826	0.003123277
2034	655	484551.7	3754834.4	0.003062999	0.002814248
2034	656	484651.7	3754834.4	0.003103305	0.00284184
2034	657	484751.7	3754834.4	0.00314854	0.002872639
2034	658	484851.7	3754834.4	0.003200398	0.002908012
2034	659	484951.7	3754834.4	0.003263457	0.002952935
2034	660	485051.7	3754834.4	0.00333779	0.003006589
2034	661	485151.7	3754834.4	0.00342986	0.003075038

2034	662	485251.7	3754834.4	0.003547441	0.00316565
2034	663	485351.7	3754834.4	0.00370514	0.003294223
2034	664	485451.7	3754834.4	0.00391154	0.00346812
2034	665	484551.7	3754934.4	0.003433165	0.003198918
2034	666	484651.7	3754934.4	0.003471366	0.003226051
2034	667	484751.7	3754934.4	0.003514352	0.003256442
2034	668	484851.7	3754934.4	0.003563935	0.00329178
2034	669	484951.7	3754934.4	0.003624003	0.003336185
2034	670	485051.7	3754934.4	0.00369358	0.003387994
2034	671	485151.7	3754934.4	0.003784443	0.003459516
2034	672	485251.7	3754934.4	0.003905213	0.003558413
2034	673	485351.7	3754934.4	0.004093797	0.003723823
2034	674	485451.7	3754934.4	0.004441738	0.004045816
2034	675	484551.7	3755034.4	0.003985683	0.00376438
2034	676	484651.7	3755034.4	0.004019905	0.003788993
2034	677	484751.7	3755034.4	0.004056515	0.003814287
2034	678	484851.7	3755034.4	0.004105558	0.003851504
2034	679	484951.7	3755034.4	0.004162864	0.003895267
2034	680	485051.7	3755034.4	0.004233279	0.003950586
2034	681	485151.7	3755034.4	0.004320744	0.004021385
2034	682	485251.7	3755034.4	0.00444245	0.004125264
2034	683	485351.7	3755034.4	0.004638668	0.004302033
2034	684	485451.7	3755034.4	0.005196896	0.004838483
2034	685	485549.5	3750934.9	0.000360276	0.00027053
2034	686	485649.5	3750934.9	0.000355925	0.00026682
2034	687	485749.5	3750934.9	0.000353189	0.000264567
2034	688	485849.5	3750934.9	0.000348864	0.000260961
2034	689	485549.5	3751034.9	0.00038008	0.000285538
2034	690	485649.5	3751034.9	0.000374216	0.000280486
2034	691	485749.5	3751034.9	0.000371701	0.00027839
2034	692	485849.5	3751034.9	0.000368358	0.000275609
2034	693	485549.5	3751134.9	0.000401895	0.000302335
2034	694	485649.5	3751134.9	0.000395529	0.000296784
2034	695	485749.5	3751134.9	0.000392718	0.000294406
2034	696	485849.5	3751134.9	0.00038856	0.000290876
2034	697	485549.5	3751234.9	0.000427805	0.000322758
2034	698	485649.5	3751234.9	0.000419609	0.000315521
2034	699	485749.5	3751234.9	0.000416336	0.000312695
2034	700	485849.5	3751234.9	0.000415551	0.000312158
2034	701	485549.5	3751334.9	0.00045541	0.000344681
2034	702	485649.5	3751334.9	0.00044916	0.00033909
2034	703	485749.5	3751334.9	0.000444089	0.000334637
2034	704	485849.5	3751334.9	0.000447569	0.000337967
2034	705	485549.5	3751434.9	0.000493899	0.000376399
2034	706	485649.5	3751434.9	0.000490061	0.000372877
2034	707	485749.5	3751434.9	0.000479274	0.000363159
2034	708	485849.5	3751434.9	0.000494006	0.000376821

2034	709	485549.5	3751534.9	0.000618326	0.000485589
2034	710	485649.5	3751534.9	0.000603408	0.000472044
2034	711	485749.5	3751534.9	0.00054798	0.000422117
2034	712	485849.5	3751534.9	0.000537576	0.000412818
2034	713	485549.5	3751634.9	0.000953941	0.000759401
2034	714	485649.5	3751634.9	0.00080664	0.000643711
2034	715	485749.5	3751634.9	0.0007517	0.000598241
2034	716	485849.5	3751634.9	0.00057795	0.00044571
2034	717	485549.5	3751734.9	0.001178434	0.000926318
2034	718	485649.5	3751734.9	0.001126616	0.000891555
2034	719	485749.5	3751734.9	0.001002467	0.000799661
2034	720	485849.5	3751734.9	0.000706618	0.000557819
2034	721	485549.5	3751834.9	0.001344711	0.001058976
2034	722	485649.5	3751834.9	0.001275245	0.001004295
2034	723	485749.5	3751834.9	0.001220441	0.000964456
2034	724	485849.5	3751834.9	0.001042022	0.000833723
2034	725	485549.5	3751934.9	0.001561303	0.001238951
2034	726	485649.5	3751934.9	0.001430872	0.0011196
2034	727	485749.5	3751934.9	0.001392211	0.001086615
2034	728	485849.5	3751934.9	0.001339934	0.001050206
2034	729	485549.5	3752034.9	0.00180791	0.001447961
2034	730	485649.5	3752034.9	0.001586859	0.001235923
2034	731	485749.5	3752034.9	0.001552958	0.001207111
2034	732	485849.5	3752034.9	0.001521472	0.001188112
2034	733	485549.5	3752134.9	0.001860163	0.001469993
2034	734	485649.5	3752134.9	0.001811119	0.001416178
2034	735	485749.5	3752134.9	0.00181654	0.001422474
2034	736	485849.5	3752134.9	0.001828163	0.00144296
2034	737	485549.5	3752234.9	0.00208685	0.001675144
2034	738	485649.5	3752234.9	0.002150498	0.001727834
2034	739	485749.5	3752234.9	0.002237496	0.0018065
2034	740	485849.5	3752234.9	0.002304504	0.001873902
2034	741	485549.5	3752334.9	0.001747596	0.001319591
2034	742	485649.5	3752334.9	0.001790627	0.001345559
2034	743	485749.5	3752334.9	0.001848811	0.001389254
2034	744	485849.5	3752334.9	0.001916339	0.001446092
2034	745	485549.5	3752434.9	0.001695049	0.001251235
2034	746	485649.5	3752434.9	0.001725445	0.001263031
2034	747	485749.5	3752434.9	0.001778004	0.0012958
2034	748	485849.5	3752434.9	0.001846576	0.001344008
2034	749	485549.5	3752534.9	0.001721542	0.001260628
2034	750	485649.5	3752534.9	0.001748757	0.001267865
2034	751	485749.5	3752534.9	0.001802057	0.001299306
2034	752	485849.5	3752534.9	0.00186913	0.001342504
2034	753	485549.5	3752634.9	0.001776646	0.001295808
2034	754	485649.5	3752634.9	0.001805012	0.001302883
2034	755	485749.5	3752634.9	0.001858653	0.001333871

2034	756	485849.5	3752634.9	0.001925611	0.001375179
2034	757	485549.5	3752734.9	0.001845171	0.001343677
2034	758	485649.5	3752734.9	0.001876049	0.001352314
2034	759	485749.5	3752734.9	0.001937004	0.001387999
2034	760	485849.5	3752734.9	0.002011556	0.001433608
2034	761	485549.5	3752834.9	0.001921206	0.001399434
2034	762	485649.5	3752834.9	0.001954748	0.001410643
2034	763	485749.5	3752834.9	0.0020252	0.001454148
2034	764	485849.5	3752834.9	0.002110433	0.001507714
2034	765	485549.5	3752934.9	0.002007537	0.001463573
2034	766	485649.5	3752934.9	0.002042761	0.001477164
2034	767	485749.5	3752934.9	0.002122075	0.001530546
2034	768	485849.5	3752934.9	0.002226197	0.001601796
2034	769	485549.5	3753034.9	0.002117793	0.001547823
2034	770	485649.5	3753034.9	0.002134945	0.001545263
2034	771	485749.5	3753034.9	0.002224743	0.001610292
2034	772	485849.5	3753034.9	0.002355154	0.001711062
2034	773	485549.5	3753134.9	0.002157523	0.00155378
2034	774	485649.5	3753134.9	0.002225367	0.001604073
2034	775	485749.5	3753134.9	0.002321705	0.001680232
2034	776	485849.5	3753134.9	0.002470043	0.00180423
2034	777	485549.5	3753234.9	0.002257726	0.001610776
2034	778	485649.5	3753234.9	0.002328904	0.001666979
2034	779	485749.5	3753234.9	0.002423605	0.001748251
2034	780	485849.5	3753234.9	0.002575407	0.001882761
2034	781	485549.5	3753334.9	0.002411312	0.001707181
2034	782	485649.5	3753334.9	0.002468292	0.001744715
2034	783	485749.5	3753334.9	0.002555575	0.001824836
2034	784	485849.5	3753334.9	0.00269373	0.001959202
2034	785	485549.5	3753434.9	0.002582722	0.001812421
2034	786	485649.5	3753434.9	0.00267664	0.001867389
2034	787	485749.5	3753434.9	0.002780721	0.001954465
2034	788	485849.5	3753434.9	0.00289719	0.002086714
2034	789	485508.5	3746711.3	0.000229871	0.000190072
2034	790	491508.5	3746711.3	0.000160452	0.000133033
2034	791	479508.5	3752711.3	0.000804628	0.000730657
2034	792	485508.5	3752711.3	0.001790186	0.001301703
2034	793	491508.5	3752711.3	0.001480616	0.000978778
2034	794	485508.5	3758711.3	0.000408471	0.000379222
2034	795	491508.5	3758711.3	0.000173187	0.000150544
2034	796	485921.9	3750934.2	0.000344804	0.000257592
2034	797	486021.9	3750934.2	0.000340449	0.000254032
2034	798	486121.9	3750934.2	0.000338092	0.000252273
2034	799	485921.9	3751034.2	0.000363321	0.000271318
2034	800	486021.9	3751034.2	0.000356961	0.000265952
2034	801	486121.9	3751034.2	0.000353298	0.00026298
2034	802	485921.9	3751134.2	0.000384407	0.000287326

2034	803	486021.9	3751134.2	0.000377359	0.000281286
2034	804	486121.9	3751134.2	0.000371869	0.000276621
2034	805	485921.9	3751234.2	0.000408819	0.000306266
2034	806	486021.9	3751234.2	0.000401095	0.00029954
2034	807	486121.9	3751234.2	0.000394282	0.000293646
2034	808	485921.9	3751334.2	0.000438673	0.000330058
2034	809	486021.9	3751334.2	0.000429788	0.000322199
2034	810	486121.9	3751334.2	0.000419979	0.000313535
2034	811	485921.9	3751434.2	0.000479473	0.00036374
2034	812	486021.9	3751434.2	0.000463985	0.000349797
2034	813	486121.9	3751434.2	0.000451201	0.000338332
2034	814	485921.9	3751534.2	0.000523082	0.000399814
2034	815	486021.9	3751534.2	0.000512583	0.000390472
2034	816	486121.9	3751534.2	0.000490428	0.000370356
2034	817	485921.9	3751634.2	0.000560352	0.000429839
2034	818	486021.9	3751634.2	0.000598299	0.000464534
2034	819	486121.9	3751634.2	0.000552146	0.000422892
2034	820	485921.9	3751734.2	0.000641392	0.000499469
2034	821	486021.9	3751734.2	0.000735242	0.000582606
2034	822	486121.9	3751734.2	0.00062343	0.000483707
2034	823	485921.9	3751834.2	0.000818471	0.00065293
2034	824	486021.9	3751834.2	0.000823889	0.00065709
2034	825	486121.9	3751834.2	0.000654984	0.000507954
2034	826	485921.9	3751934.2	0.001222358	0.000977006
2034	827	486021.9	3751934.2	0.001018739	0.000818558
2034	828	486121.9	3751934.2	0.000830336	0.00066023
2034	829	485921.9	3752034.2	0.001450694	0.001143828
2034	830	486021.9	3752034.2	0.00125151	0.00100911
2034	831	486121.9	3752034.2	0.001139542	0.000921313
2034	832	485921.9	3752134.2	0.001844817	0.001471293
2034	833	486021.9	3752134.2	0.001796735	0.001452315
2034	834	486121.9	3752134.2	0.001540152	0.001250025
2034	835	485921.9	3752234.2	0.002343007	0.001920969
2034	836	486021.9	3752234.2	0.002446064	0.002033704
2034	837	486121.9	3752234.2	0.002257699	0.001862338
2034	838	485921.9	3752334.2	0.001966741	0.001491355
2034	839	486021.9	3752334.2	0.002073737	0.00159916
2034	840	486121.9	3752334.2	0.002398996	0.001926314
2034	841	485921.9	3752434.2	0.001909304	0.001396417
2034	842	486021.9	3752434.2	0.002014686	0.001490222
2034	843	486121.9	3752434.2	0.002191816	0.001655606
2034	844	485921.9	3752534.2	0.00193092	0.001385334
2034	845	486021.9	3752534.2	0.002021367	0.001453681
2034	846	486121.9	3752534.2	0.002142151	0.001553746
2034	847	485921.9	3752634.2	0.00198085	0.001411228
2034	848	486021.9	3752634.2	0.002065156	0.001470244
2034	849	486121.9	3752634.2	0.002169044	0.001549579

2034	850	485921.9	3752734.2	0.002070374	0.001470764
2034	851	486021.9	3752734.2	0.00216465	0.001533363
2034	852	486121.9	3752734.2	0.002274225	0.001612177
2034	853	485921.9	3752834.2	0.002181908	0.001552625
2034	854	486021.9	3752834.2	0.002296425	0.001626798
2034	855	486121.9	3752834.2	0.002430875	0.00171974
2034	856	485921.9	3752934.2	0.002310499	0.001658526
2034	857	486021.9	3752934.2	0.002453372	0.001753435
2034	858	486121.9	3752934.2	0.002651494	0.001894817
2034	859	487026.2	3754364	0.009172486	0.007951288
2035	1	489607.4	3753966.1	0.002968336	0.001999937
2035	2	489738.7	3754023.9	0.00263111	0.001835699
2035	3	489668.9	3754093.7	0.002502164	0.001825922
2035	4	489690.1	3754161.6	0.002371757	0.001763078
2035	5	490282.2	3753425.2	0.003503171	0.002445675
2035	6	489797.3	3754554.1	0.001937666	0.001487494
2035	7	490252.9	3754378.2	0.001773168	0.001337527
2035	8	489006	3754140.3	0.00450117	0.00351029
2035	9	485642.8	3754267.3	0.004049644	0.003126117
2035	10	485736.4	3754259.5	0.004466128	0.003454444
2035	11	487189.2	3754820.5	0.00996762	0.008884794
2035	12	487233.1	3754689.5	0.008195781	0.007005995
2035	13	487216.8	3754364.7	0.012488437	0.011288552
2035	14	487388.8	3754380.1	0.009425952	0.008318026
2035	15	484625	3751748	0.001218904	0.000941891
2035	16	483279	3751798	0.000916486	0.000718827
2035	17	483231	3751205	0.000814865	0.000640321
2035	18	480165	3750195	0.00061634	0.000527685
2035	19	481211	3749473	0.000556526	0.000458223
2035	20	481867	3752785	0.000932549	0.000793133
2035	21	480678	3751306	0.000669852	0.00056594
2035	22	479989	3752645	0.000800817	0.000714657
2035	23	479889	3756222	0.00112043	0.001068932
2035	24	479234	3757080	0.000540338	0.000503136
2035	25	480276	3756365	0.000910834	0.000861495
2035	26	479887	3754007	0.001042198	0.000967242
2035	27	480772	3755009	0.002206383	0.002124749
2035	28	481560	3754548	0.001653648	0.001549654
2035	29	481845	3754457	0.001669088	0.001555545
2035	30	481754	3753876	0.00119279	0.001071364
2035	31	489635.2	3750663.8	0.000454243	0.000345989
2035	32	485424.1	3747672.3	0.000295382	0.000239844
2035	33	482657.6	3753975.1	0.00141267	0.001253001
2035	34	481495	3754633.7	0.001735154	0.001634202
2035	35	481148.7	3756136.2	0.001251421	0.001190039
2035	36	482346.5	3748872.9	0.000229761	0.000180056
2035	37	480299	3751198	0.000652018	0.000556195

2035	38	479598.7	3756506.3	0.00085725	0.000810894
2035	39	478997.8	3753535.2	0.00116862	0.001102713
2035	40	478978.3	3755233.1	0.00351634	0.003453393
2035	41	479197.3	3754462.3	0.001548631	0.001484921
2035	42	479493.3	3752408.8	0.000813484	0.000734783
2035	43	480295.4	3752408.4	0.000776234	0.000682561
2035	44	480287.9	3754227.5	0.001142049	0.001061926
2035	45	494397.4	3753977.6	0.000716812	0.00057908
2035	46	481108.5	3750699	0.000657779	0.000549183
2035	47	486794.1	3756878	0.000664021	0.00059623
2035	48	482345	3752065.8	0.000883416	0.000723797
2035	49	487553	3745938.3	0.000180321	0.000151756
2035	50	484553	3746938.3	0.00023859	0.000196143
2035	51	485553	3746938.3	0.000250485	0.000206394
2035	52	486553	3746938.3	0.000199535	0.000169288
2035	53	487553	3746938.3	0.000219835	0.000182156
2035	54	488553	3746938.3	0.000200376	0.000166953
2035	55	489553	3746938.3	0.000197981	0.000163665
2035	56	490553	3746938.3	0.000181805	0.000150717
2035	57	491553	3746938.3	0.000173	0.000143084
2035	58	492553	3746938.3	0.000166361	0.000137373
2035	59	482553	3747938.3	0.00020954	0.000166844
2035	60	483553	3747938.3	0.000349994	0.000279858
2035	61	484553	3747938.3	0.000333328	0.000267748
2035	62	485553	3747938.3	0.000311043	0.000251301
2035	63	486553	3747938.3	0.000289513	0.000237198
2035	64	487553	3747938.3	0.000185086	0.000156025
2035	65	488553	3747938.3	0.000241446	0.000198436
2035	66	489553	3747938.3	0.000226707	0.000186323
2035	67	490553	3747938.3	0.000213428	0.000175058
2035	68	491553	3747938.3	0.000202455	0.000165469
2035	69	492553	3747938.3	0.000193652	0.000157832
2035	70	493553	3747938.3	0.000187348	0.000152624
2035	71	481553	3748938.3	0.000471382	0.000376886
2035	72	482553	3748938.3	0.000240559	0.000188881
2035	73	483553	3748938.3	0.000402547	0.000320862
2035	74	484553	3748938.3	0.000422225	0.000333716
2035	75	485553	3748938.3	0.000402601	0.000319729
2035	76	486553	3748938.3	0.000372997	0.000298722
2035	77	487553	3748938.3	0.000292789	0.000245103
2035	78	488553	3748938.3	0.000300536	0.000242493
2035	79	489553	3748938.3	0.000276132	0.000223617
2035	80	490553	3748938.3	0.000259019	0.000208979
2035	81	491553	3748938.3	0.000243652	0.000195914
2035	82	492553	3748938.3	0.000233343	0.00018688
2035	83	493553	3748938.3	0.000230371	0.00018476
2035	84	494553	3748938.3	0.000297728	0.000253165

2035	85	480553	3749938.3	0.000729432	0.00063779
2035	86	481553	3749938.3	0.000635099	0.000520548
2035	87	482553	3749938.3	0.000619798	0.000494874
2035	88	483553	3749938.3	0.000608689	0.000479736
2035	89	484553	3749938.3	0.000446162	0.000353082
2035	90	485553	3749938.3	0.00036521	0.00029051
2035	91	486553	3749938.3	0.000432281	0.000350098
2035	92	487553	3749938.3	0.000452783	0.000357879
2035	93	488553	3749938.3	0.000393064	0.000308494
2035	94	489553	3749938.3	0.000357286	0.000281543
2035	95	490553	3749938.3	0.000329915	0.000259204
2035	96	491553	3749938.3	0.00030922	0.000241648
2035	97	492553	3749938.3	0.000301144	0.000234228
2035	98	493553	3749938.3	0.000337251	0.000267841
2035	99	494553	3749938.3	0.000283912	0.00021546
2035	100	495553	3749938.3	0.000225352	0.000186018
2035	101	480553	3750938.3	0.000638405	0.000538603
2035	102	481553	3750938.3	0.000686809	0.000566515
2035	103	482553	3750938.3	0.000746091	0.000600264
2035	104	483553	3750938.3	0.000858216	0.000680836
2035	105	484553	3750938.3	0.000852413	0.000665694
2035	106	485553	3750938.3	0.000377103	0.000283127
2035	107	486553	3750938.3	0.000347935	0.000261738
2035	108	487553	3750938.3	0.000544875	0.000433273
2035	109	488553	3750938.3	0.00058985	0.000436951
2035	110	489553	3750938.3	0.000518113	0.000386667
2035	111	490553	3750938.3	0.000462506	0.000345531
2035	112	491553	3750938.3	0.00043077	0.000319882
2035	113	492553	3750938.3	0.000484119	0.000370682
2035	114	493553	3750938.3	0.000419463	0.000307826
2035	115	494553	3750938.3	0.000406502	0.000302078
2035	116	495553	3750938.3	0.000379148	0.000294656
2035	117	479553	3751938.3	0.000751296	0.000669543
2035	118	480553	3751938.3	0.000737993	0.000636931
2035	119	481553	3751938.3	0.000779529	0.000651618
2035	120	482553	3751938.3	0.000865351	0.000698179
2035	121	483553	3751938.3	0.000992962	0.000774372
2035	122	484553	3751938.3	0.001181798	0.000899294
2035	123	485553	3751938.3	0.001632042	0.001293946
2035	124	486553	3751938.3	0.000669176	0.000512594
2035	125	487553	3751938.3	0.001080333	0.000844117
2035	126	488553	3751938.3	0.001160029	0.000785595
2035	127	489553	3751938.3	0.001055462	0.000693905
2035	128	490553	3751938.3	0.000885813	0.00058264
2035	129	491553	3751938.3	0.000917963	0.000640662
2035	130	492553	3751938.3	0.000733479	0.000473771
2035	131	493553	3751938.3	0.000657113	0.000487787

2035	132	494553	3751938.3	0.000606267	0.000452901
2035	133	495553	3751938.3	0.000534285	0.000409149
2035	134	479553	3752938.3	0.000908428	0.000831716
2035	135	480553	3752938.3	0.000906646	0.000810042
2035	136	481553	3752938.3	0.000977793	0.000852063
2035	137	482553	3752938.3	0.001106332	0.000933433
2035	138	483553	3752938.3	0.001272188	0.001023401
2035	139	484553	3752938.3	0.001585851	0.001191434
2035	140	485553	3752938.3	0.002101241	0.001530824
2035	141	486553	3752938.3	0.004146222	0.00326653
2035	142	487553	3752938.3	0.004567194	0.003443429
2035	143	488553	3752938.3	0.004070546	0.002980755
2035	144	489553	3752938.3	0.003713663	0.002709247
2035	145	490553	3752938.3	0.003080049	0.002211558
2035	146	491553	3752938.3	0.001595615	0.001107774
2035	147	492553	3752938.3	0.001213478	0.000794868
2035	148	493553	3752938.3	0.000986363	0.000704699
2035	149	494553	3752938.3	0.000840761	0.000628007
2035	150	495553	3752938.3	0.00067714	0.000523942
2035	151	479553	3753938.3	0.001043638	0.000973204
2035	152	480553	3753938.3	0.001052511	0.000964759
2035	153	481553	3753938.3	0.001195539	0.001081874
2035	154	482553	3753938.3	0.001365813	0.001210889
2035	155	483553	3753938.3	0.001717714	0.001499681
2035	156	484553	3753938.3	0.002037339	0.001637125
2035	157	485553	3753938.3	0.003287057	0.00237009
2035	158	486553	3753938.3	0.005805342	0.004361154
2035	159	487553	3753938.3	0.006370495	0.005204133
2035	160	488553	3753938.3	0.005637698	0.004312503
2035	161	489553	3753938.3	0.003168836	0.002119992
2035	162	490553	3753938.3	0.001833448	0.001346982
2035	163	491553	3753938.3	0.001279503	0.000997652
2035	164	492553	3753938.3	0.001049718	0.000829349
2035	165	493553	3753938.3	0.000858695	0.000686861
2035	166	494553	3753938.3	0.000780318	0.000628959
2035	167	495553	3753938.3	0.000608548	0.000494763
2035	168	479553	3754938.3	0.001855885	0.001789933
2035	169	480553	3754938.3	0.001978451	0.001899558
2035	170	481553	3754938.3	0.002266196	0.002168544
2035	171	482553	3754938.3	0.003311589	0.003186631
2035	172	483553	3754938.3	0.003640429	0.003477414
2035	173	484553	3754938.3	0.003608196	0.003363632
2035	174	485553	3754938.3	0.005234782	0.004792476
2035	175	486553	3754938.3	0.00721839	0.006571059
2035	176	487553	3754938.3	0.006157147	0.005302695
2035	177	488553	3754938.3	0.003459464	0.002866942
2035	178	489553	3754938.3	0.002167981	0.001865547

2035	179	490553	3754938.3	0.001444729	0.001268802
2035	180	491553	3754938.3	0.000949477	0.000827267
2035	181	492553	3754938.3	0.000681544	0.000586606
2035	182	493553	3754938.3	0.000689032	0.000598525
2035	183	494553	3754938.3	0.000524251	0.000451594
2035	184	495553	3754938.3	0.000440015	0.00037793
2035	185	479553	3755938.3	0.001867409	0.001811108
2035	186	480553	3755938.3	0.001565447	0.001504655
2035	187	481553	3755938.3	0.001586041	0.001518099
2035	188	482553	3755938.3	0.002267774	0.00217786
2035	189	483553	3755938.3	0.002381989	0.002274558
2035	190	484553	3755938.3	0.002264428	0.002133326
2035	191	485553	3755938.3	0.003196835	0.003034286
2035	192	486553	3755938.3	0.002584032	0.002409501
2035	193	487553	3755938.3	0.001427959	0.001317616
2035	194	488553	3755938.3	0.000997515	0.000910338
2035	195	489553	3755938.3	0.000683635	0.000617292
2035	196	490553	3755938.3	0.000565944	0.000508782
2035	197	491553	3755938.3	0.000466433	0.000417488
2035	198	492553	3755938.3	0.0005652	0.000519719
2035	199	493553	3755938.3	0.000414411	0.00037421
2035	200	494553	3755938.3	0.000398149	0.000360655
2035	201	479553	3756938.3	0.000566314	0.00052804
2035	202	480553	3756938.3	0.000542137	0.000502719
2035	203	481553	3756938.3	0.000489678	0.000452048
2035	204	482553	3756938.3	0.000511089	0.00046919
2035	205	483553	3756938.3	0.000861893	0.000793168
2035	206	484553	3756938.3	0.000831475	0.000757244
2035	207	485553	3756938.3	0.001804615	0.001728599
2035	208	486553	3756938.3	0.000687078	0.000618581
2035	209	487553	3756938.3	0.000452055	0.000400558
2035	210	488553	3756938.3	0.000366674	0.000322024
2035	211	489553	3756938.3	0.000321195	0.00028131
2035	212	490553	3756938.3	0.000293448	0.000256954
2035	213	491553	3756938.3	0.000256545	0.000224326
2035	214	492553	3756938.3	0.000228521	0.000199944
2035	215	493553	3756938.3	0.000242857	0.000215294
2035	216	494553	3756938.3	0.000235737	0.000209802
2035	217	479553	3757938.3	0.000284778	0.00026064
2035	218	480553	3757938.3	0.000272626	0.000248468
2035	219	481553	3757938.3	0.00028798	0.000260649
2035	220	482553	3757938.3	0.000356216	0.000319945
2035	221	483553	3757938.3	0.000349337	0.000311883
2035	222	484553	3757938.3	0.000459953	0.000413541
2035	223	485553	3757938.3	0.000532947	0.000492646
2035	224	486553	3757938.3	0.000318719	0.000281728
2035	225	487553	3757938.3	0.00026056	0.000227365

2035	226	488553	3757938.3	0.000228759	0.000198431
2035	227	489553	3757938.3	0.000211096	0.000182617
2035	228	490553	3757938.3	0.000193032	0.000166854
2035	229	491553	3757938.3	0.000176869	0.000152696
2035	230	492553	3757938.3	0.000169816	0.000147154
2035	231	493553	3757938.3	0.000188338	0.000164936
2035	232	480553	3758938.3	0.000204616	0.000184199
2035	233	481553	3758938.3	0.000228255	0.000203832
2035	234	482553	3758938.3	0.000222351	0.000196959
2035	235	483553	3758938.3	0.000233119	0.000205644
2035	236	484553	3758938.3	0.000291704	0.00026093
2035	237	485553	3758938.3	0.000677414	0.000644536
2035	238	486553	3758938.3	0.000220579	0.000194287
2035	239	487553	3758938.3	0.000242173	0.000213184
2035	240	488553	3758938.3	0.000179809	0.00015654
2035	241	489553	3758938.3	0.000182291	0.000158775
2035	242	490553	3758938.3	0.00019903	0.000173188
2035	243	491553	3758938.3	0.000161862	0.000140524
2035	244	492553	3758938.3	0.000168408	0.000146403
2035	245	481553	3759938.3	0.000168893	0.000149948
2035	246	482553	3759938.3	0.000174292	0.000153691
2035	247	483553	3759938.3	0.000184684	0.000162643
2035	248	484553	3759938.3	0.000256875	0.000229434
2035	249	485553	3759938.3	0.000670094	0.0006368
2035	250	486553	3759938.3	0.000317532	0.000283881
2035	251	487553	3759938.3	0.000259027	0.000229257
2035	252	488553	3759938.3	0.000258513	0.000226977
2035	253	489553	3759938.3	0.000224025	0.000195556
2035	254	490553	3759938.3	0.000173213	0.00015122
2035	255	491553	3759938.3	0.000150952	0.000131403
2035	256	482553	3760938.3	0.0001644	0.000145112
2035	257	483553	3760938.3	0.000190131	0.000168524
2035	258	484553	3760938.3	0.000242828	0.00021736
2035	259	485553	3760938.3	0.000551415	0.000517743
2035	260	486553	3760938.3	0.00036174	0.000325765
2035	261	487553	3760938.3	0.000288438	0.000259063
2035	262	488553	3760938.3	0.00016434	0.000145478
2035	263	489553	3760938.3	0.000124653	0.000109225
2035	264	490553	3760938.3	0.000119237	0.000104071
2035	265	484551.7	3750934.4	0.000847249	0.000662703
2035	266	484651.7	3750934.4	0.000836463	0.0006547
2035	267	484751.7	3750934.4	0.000639331	0.000506719
2035	268	484851.7	3750934.4	0.00058667	0.000465157
2035	269	484951.7	3750934.4	0.000620082	0.000490654
2035	270	485051.7	3750934.4	0.000555802	0.00043952
2035	271	485151.7	3750934.4	0.000462796	0.000359838
2035	272	485251.7	3750934.4	0.000407627	0.000310279

2035	273	485351.7	3750934.4	0.000392008	0.00029626
2035	274	485451.7	3750934.4	0.000383717	0.000288958
2035	275	484551.7	3751034.4	0.000905107	0.000700924
2035	276	484651.7	3751034.4	0.000892929	0.000692585
2035	277	484751.7	3751034.4	0.00083879	0.000660974
2035	278	484851.7	3751034.4	0.000664092	0.000525845
2035	279	484951.7	3751034.4	0.000737863	0.000582152
2035	280	485051.7	3751034.4	0.000618895	0.00048977
2035	281	485151.7	3751034.4	0.000536573	0.000422106
2035	282	485251.7	3751034.4	0.00045636	0.000351473
2035	283	485351.7	3751034.4	0.00042149	0.000320018
2035	284	485451.7	3751034.4	0.000406365	0.000306452
2035	285	484551.7	3751134.4	0.000950822	0.000733033
2035	286	484651.7	3751134.4	0.000948741	0.000729797
2035	287	484751.7	3751134.4	0.000936371	0.000722797
2035	288	484851.7	3751134.4	0.000845693	0.000670064
2035	289	484951.7	3751134.4	0.000866256	0.000681687
2035	290	485051.7	3751134.4	0.000714148	0.000564135
2035	291	485151.7	3751134.4	0.000633832	0.000501649
2035	292	485251.7	3751134.4	0.000548251	0.000430367
2035	293	485351.7	3751134.4	0.000466274	0.000357614
2035	294	485451.7	3751134.4	0.000432698	0.000327247
2035	295	484551.7	3751234.4	0.000997827	0.000768774
2035	296	484651.7	3751234.4	0.000997902	0.000766345
2035	297	484751.7	3751234.4	0.000990119	0.000762525
2035	298	484851.7	3751234.4	0.000962396	0.000747886
2035	299	484951.7	3751234.4	0.000937163	0.000732872
2035	300	485051.7	3751234.4	0.000842478	0.000666766
2035	301	485151.7	3751234.4	0.000710752	0.000563007
2035	302	485251.7	3751234.4	0.000536661	0.000418095
2035	303	485351.7	3751234.4	0.000474554	0.000362103
2035	304	485451.7	3751234.4	0.000455761	0.000345052
2035	305	484551.7	3751334.4	0.001067742	0.000825313
2035	306	484651.7	3751334.4	0.001059979	0.000816925
2035	307	484751.7	3751334.4	0.001048041	0.000809549
2035	308	484851.7	3751334.4	0.001033192	0.000800292
2035	309	484951.7	3751334.4	0.001025072	0.000793536
2035	310	485051.7	3751334.4	0.000983069	0.000769783
2035	311	485151.7	3751334.4	0.000831934	0.000658616
2035	312	485251.7	3751334.4	0.000654985	0.000519094
2035	313	485351.7	3751334.4	0.000516328	0.000397004
2035	314	485451.7	3751334.4	0.000482999	0.000366623
2035	315	484551.7	3751434.4	0.001181147	0.000929458
2035	316	484651.7	3751434.4	0.00114944	0.000894577
2035	317	484751.7	3751434.4	0.001130303	0.000874876
2035	318	484851.7	3751434.4	0.001117144	0.000863117
2035	319	484951.7	3751434.4	0.001106484	0.000854665

2035	320	485051.7	3751434.4	0.001093045	0.000844489
2035	321	485151.7	3751434.4	0.000981475	0.00078005
2035	322	485251.7	3751434.4	0.000764377	0.000609216
2035	323	485351.7	3751434.4	0.00060109	0.000470623
2035	324	485451.7	3751434.4	0.000535021	0.000410703
2035	325	484551.7	3751534.4	0.001438214	0.001179942
2035	326	484651.7	3751534.4	0.001332795	0.001067924
2035	327	484751.7	3751534.4	0.001254727	0.000985217
2035	328	484851.7	3751534.4	0.001218782	0.000946784
2035	329	484951.7	3751534.4	0.00120153	0.000927384
2035	330	485051.7	3751534.4	0.001192287	0.000915564
2035	331	485151.7	3751534.4	0.001178099	0.000904807
2035	332	485251.7	3751534.4	0.001068766	0.000844542
2035	333	485351.7	3751534.4	0.000854398	0.00068149
2035	334	485451.7	3751534.4	0.000706511	0.000560701
2035	335	484551.7	3751634.4	0.001332011	0.001067355
2035	336	484651.7	3751634.4	0.001372603	0.001101102
2035	337	484751.7	3751634.4	0.001415133	0.001136061
2035	338	484851.7	3751634.4	0.001442141	0.001157743
2035	339	484951.7	3751634.4	0.001343334	0.001054655
2035	340	485051.7	3751634.4	0.001301095	0.001008381
2035	341	485151.7	3751634.4	0.00128569	0.000989446
2035	342	485251.7	3751634.4	0.001253998	0.000968486
2035	343	485351.7	3751634.4	0.00119419	0.000930752
2035	344	485451.7	3751634.4	0.001089885	0.000867213
2035	345	484551.7	3751734.4	0.001183507	0.000913647
2035	346	484651.7	3751734.4	0.001248949	0.000970245
2035	347	484751.7	3751734.4	0.001352173	0.00106563
2035	348	484851.7	3751734.4	0.001483844	0.001190801
2035	349	484951.7	3751734.4	0.001486382	0.001188643
2035	350	485051.7	3751734.4	0.001617762	0.001314838
2035	351	485151.7	3751734.4	0.001471518	0.001160786
2035	352	485251.7	3751734.4	0.001430631	0.001117056
2035	353	485351.7	3751734.4	0.001378415	0.001072411
2035	354	485451.7	3751734.4	0.001304901	0.001016274
2035	355	484551.7	3751834.4	0.001164018	0.000889411
2035	356	484651.7	3751834.4	0.001201258	0.000918099
2035	357	484751.7	3751834.4	0.001244284	0.000952509
2035	358	484851.7	3751834.4	0.001295438	0.000995813
2035	359	484951.7	3751834.4	0.001359652	0.001054155
2035	360	485051.7	3751834.4	0.001501796	0.001189162
2035	361	485151.7	3751834.4	0.001523052	0.001199356
2035	362	485251.7	3751834.4	0.001612095	0.001280763
2035	363	485351.7	3751834.4	0.001627436	0.001296169
2035	364	485451.7	3751834.4	0.001624411	0.001300925
2035	365	484551.7	3751934.4	0.00118024	0.000898195
2035	366	484651.7	3751934.4	0.001206326	0.000916897

2035	367	484751.7	3751934.4	0.001232827	0.000936377
2035	368	484851.7	3751934.4	0.001266055	0.000961362
2035	369	484951.7	3751934.4	0.00130266	0.000989765
2035	370	485051.7	3751934.4	0.001349416	0.001027044
2035	371	485151.7	3751934.4	0.001408523	0.001075114
2035	372	485251.7	3751934.4	0.001489839	0.001143854
2035	373	485351.7	3751934.4	0.001607046	0.001253191
2035	374	485451.7	3751934.4	0.00168003	0.001330508
2035	375	484551.7	3752034.4	0.001221355	0.000929381
2035	376	484651.7	3752034.4	0.001243891	0.000944612
2035	377	484751.7	3752034.4	0.001268169	0.000961382
2035	378	484851.7	3752034.4	0.001293898	0.000979402
2035	379	484951.7	3752034.4	0.001325484	0.001001976
2035	380	485051.7	3752034.4	0.001363384	0.001029522
2035	381	485151.7	3752034.4	0.001409607	0.001063914
2035	382	485251.7	3752034.4	0.001476226	0.001116164
2035	383	485351.7	3752034.4	0.001566172	0.001194294
2035	384	485451.7	3752034.4	0.001775794	0.001396851
2035	385	484551.7	3752134.4	0.001293641	0.000991227
2035	386	484651.7	3752134.4	0.001315037	0.001004832
2035	387	484751.7	3752134.4	0.001338941	0.001020459
2035	388	484851.7	3752134.4	0.001363209	0.001036397
2035	389	484951.7	3752134.4	0.00139006	0.00105442
2035	390	485051.7	3752134.4	0.001423103	0.001077305
2035	391	485151.7	3752134.4	0.001463401	0.001106143
2035	392	485251.7	3752134.4	0.001522193	0.001150494
2035	393	485351.7	3752134.4	0.001614455	0.001227219
2035	394	485451.7	3752134.4	0.001826511	0.001426947
2035	395	484551.7	3752234.4	0.001424581	0.001112481
2035	396	484651.7	3752234.4	0.001455484	0.001134191
2035	397	484751.7	3752234.4	0.001478142	0.001147871
2035	398	484851.7	3752234.4	0.001497347	0.001158016
2035	399	484951.7	3752234.4	0.001595501	0.001246893
2035	400	485051.7	3752234.4	0.001548695	0.001190381
2035	401	485151.7	3752234.4	0.001589997	0.001221386
2035	402	485251.7	3752234.4	0.001635633	0.00125306
2035	403	485351.7	3752234.4	0.001723342	0.001323933
2035	404	485451.7	3752234.4	0.001981511	0.001565601
2035	405	484551.7	3752334.4	0.001359473	0.001035386
2035	406	484651.7	3752334.4	0.001385354	0.001051805
2035	407	484751.7	3752334.4	0.001411281	0.001068347
2035	408	484851.7	3752334.4	0.00143814	0.001085672
2035	409	484951.7	3752334.4	0.001467885	0.001105182
2035	410	485051.7	3752334.4	0.001498108	0.001125262
2035	411	485151.7	3752334.4	0.001533529	0.001149426
2035	412	485251.7	3752334.4	0.001575354	0.00117904
2035	413	485351.7	3752334.4	0.001633489	0.001222548

2035	414	485451.7	3752334.4	0.001735455	0.00130629
2035	415	484551.7	3752434.4	0.001357139	0.001021176
2035	416	484651.7	3752434.4	0.00138343	0.001037478
2035	417	484751.7	3752434.4	0.001409396	0.001053801
2035	418	484851.7	3752434.4	0.001440164	0.001073418
2035	419	484951.7	3752434.4	0.001470632	0.001093161
2035	420	485051.7	3752434.4	0.001504187	0.001115291
2035	421	485151.7	3752434.4	0.001541048	0.001139987
2035	422	485251.7	3752434.4	0.001582082	0.001168184
2035	423	485351.7	3752434.4	0.001632887	0.001204365
2035	424	485451.7	3752434.4	0.001708331	0.001263443
2035	425	484551.7	3752534.4	0.00138456	0.001036396
2035	426	484651.7	3752534.4	0.001412205	0.001053298
2035	427	484751.7	3752534.4	0.001441518	0.001071502
2035	428	484851.7	3752534.4	0.001473347	0.001091571
2035	429	484951.7	3752534.4	0.001505502	0.001112245
2035	430	485051.7	3752534.4	0.001541612	0.00113578
2035	431	485151.7	3752534.4	0.001580174	0.001161376
2035	432	485251.7	3752534.4	0.001621623	0.001189534
2035	433	485351.7	3752534.4	0.001669892	0.001223275
2035	434	485451.7	3752534.4	0.001740355	0.001277156
2035	435	484551.7	3752634.4	0.00142083	0.001060841
2035	436	484651.7	3752634.4	0.001449984	0.001078379
2035	437	484751.7	3752634.4	0.001480679	0.00109717
2035	438	484851.7	3752634.4	0.001516315	0.001119297
2035	439	484951.7	3752634.4	0.001551567	0.001141706
2035	440	485051.7	3752634.4	0.001590455	0.001166858
2035	441	485151.7	3752634.4	0.001631045	0.001193692
2035	442	485251.7	3752634.4	0.001674357	0.001223002
2035	443	485351.7	3752634.4	0.001723919	0.00125751
2035	444	485451.7	3752634.4	0.001795432	0.001311606
2035	445	484551.7	3752734.4	0.001465088	0.001093204
2035	446	484651.7	3752734.4	0.001497518	0.001112231
2035	447	484751.7	3752734.4	0.001531431	0.00113256
2035	448	484851.7	3752734.4	0.001567749	0.001154844
2035	449	484951.7	3752734.4	0.001605996	0.001178833
2035	450	485051.7	3752734.4	0.001647702	0.001205615
2035	451	485151.7	3752734.4	0.001690637	0.001233885
2035	452	485251.7	3752734.4	0.001736177	0.001264698
2035	453	485351.7	3752734.4	0.001788118	0.00130087
2035	454	485451.7	3752734.4	0.001859457	0.001355172
2035	455	484551.7	3752834.4	0.001515564	0.001132479
2035	456	484651.7	3752834.4	0.00155091	0.001152624
2035	457	484751.7	3752834.4	0.001586344	0.001173241
2035	458	484851.7	3752834.4	0.00162697	0.001197695
2035	459	484951.7	3752834.4	0.001668897	0.001223509
2035	460	485051.7	3752834.4	0.001712869	0.001251318

2035	461	485151.7	3752834.4	0.001758208	0.001280896
2035	462	485251.7	3752834.4	0.001806578	0.00131348
2035	463	485351.7	3752834.4	0.001859813	0.001351021
2035	464	485451.7	3752834.4	0.001933749	0.001407784
2035	465	484551.7	3752934.4	0.00158203	0.001188234
2035	466	484651.7	3752934.4	0.001620282	0.001209434
2035	467	484751.7	3752934.4	0.001659155	0.001231342
2035	468	484851.7	3752934.4	0.001702884	0.001256887
2035	469	484951.7	3752934.4	0.001748262	0.001284044
2035	470	485051.7	3752934.4	0.001796587	0.001313881
2035	471	485151.7	3752934.4	0.001844359	0.001344359
2035	472	485251.7	3752934.4	0.001896621	0.001379079
2035	473	485351.7	3752934.4	0.001949521	0.001416191
2035	474	485451.7	3752934.4	0.002021928	0.001471777
2035	475	484551.7	3753034.4	0.001694494	0.001291525
2035	476	484651.7	3753034.4	0.001740572	0.001318821
2035	477	484751.7	3753034.4	0.001792116	0.001350648
2035	478	484851.7	3753034.4	0.001832668	0.001370533
2035	479	484951.7	3753034.4	0.001879618	0.001396646
2035	480	485051.7	3753034.4	0.001931453	0.001427954
2035	481	485151.7	3753034.4	0.001989757	0.001465728
2035	482	485251.7	3753034.4	0.00208919	0.001545456
2035	483	485351.7	3753034.4	0.002094616	0.001533653
2035	484	485451.7	3753034.4	0.002154587	0.001576851
2035	485	484551.7	3753134.4	0.001666557	0.001255212
2035	486	484651.7	3753134.4	0.001712937	0.001280487
2035	487	484751.7	3753134.4	0.001763389	0.001308536
2035	488	484851.7	3753134.4	0.001815	0.001337447
2035	489	484951.7	3753134.4	0.001870406	0.001369215
2035	490	485051.7	3753134.4	0.001928695	0.001403544
2035	491	485151.7	3753134.4	0.00198883	0.001439946
2035	492	485251.7	3753134.4	0.002053236	0.00148093
2035	493	485351.7	3753134.4	0.002119639	0.001525964
2035	494	485451.7	3753134.4	0.002198965	0.001585935
2035	495	484551.7	3753234.4	0.001689343	0.001270681
2035	496	484651.7	3753234.4	0.00174012	0.001297909
2035	497	484751.7	3753234.4	0.001793616	0.001326873
2035	498	484851.7	3753234.4	0.001849994	0.001357788
2035	499	484951.7	3753234.4	0.001910769	0.001391737
2035	500	485051.7	3753234.4	0.001976341	0.00142942
2035	501	485151.7	3753234.4	0.002044703	0.001469668
2035	502	485251.7	3753234.4	0.002118333	0.001514756
2035	503	485351.7	3753234.4	0.002195952	0.001565161
2035	504	485451.7	3753234.4	0.002290428	0.001634495
2035	505	484551.7	3753334.4	0.001728291	0.001303709
2035	506	484651.7	3753334.4	0.001782149	0.001332235
2035	507	484751.7	3753334.4	0.001838335	0.001361935

2035	508	484851.7	3753334.4	0.001901326	0.00139608
2035	509	484951.7	3753334.4	0.001966233	0.001431269
2035	510	485051.7	3753334.4	0.002037875	0.001471084
2035	511	485151.7	3753334.4	0.002114931	0.001515079
2035	512	485251.7	3753334.4	0.002202533	0.001567069
2035	513	485351.7	3753334.4	0.002297989	0.001626567
2035	514	485451.7	3753334.4	0.002411852	0.001705638
2035	515	484551.7	3753434.4	0.001769666	0.001342299
2035	516	484651.7	3753434.4	0.001826079	0.001372051
2035	517	484751.7	3753434.4	0.001885801	0.001403223
2035	518	484851.7	3753434.4	0.001952782	0.001439052
2035	519	484951.7	3753434.4	0.002023042	0.001475886
2035	520	485051.7	3753434.4	0.002100252	0.001517337
2035	521	485151.7	3753434.4	0.00218825	0.001566706
2035	522	485251.7	3753434.4	0.002289196	0.001625239
2035	523	485351.7	3753434.4	0.002403205	0.001694446
2035	524	485451.7	3753434.4	0.002548936	0.001791725
2035	525	484551.7	3753534.4	0.001811687	0.001384513
2035	526	484651.7	3753534.4	0.001866089	0.001411651
2035	527	484751.7	3753534.4	0.001927508	0.001443181
2035	528	484851.7	3753534.4	0.002001226	0.001483575
2035	529	484951.7	3753534.4	0.002076426	0.001523144
2035	530	485051.7	3753534.4	0.002159178	0.001567027
2035	531	485151.7	3753534.4	0.002255602	0.001620342
2035	532	485251.7	3753534.4	0.002367796	0.001684769
2035	533	485351.7	3753534.4	0.002501003	0.001764737
2035	534	485451.7	3753534.4	0.002675208	0.001879239
2035	535	484551.7	3753634.4	0.001853952	0.00142932
2035	536	484651.7	3753634.4	0.001910955	0.001458048
2035	537	484751.7	3753634.4	0.00197555	0.001491529
2035	538	484851.7	3753634.4	0.002048176	0.001529865
2035	539	484951.7	3753634.4	0.002128202	0.001572324
2035	540	485051.7	3753634.4	0.002216225	0.001619376
2035	541	485151.7	3753634.4	0.002318058	0.001675803
2035	542	485251.7	3753634.4	0.002436969	0.00174472
2035	543	485351.7	3753634.4	0.002576875	0.001830132
2035	544	485451.7	3753634.4	0.002761732	0.001955663
2035	545	484551.7	3753734.4	0.001910484	0.001491127
2035	546	484651.7	3753734.4	0.001966647	0.001518232
2035	547	484751.7	3753734.4	0.00202884	0.001548225
2035	548	484851.7	3753734.4	0.002097601	0.001581461
2035	549	484951.7	3753734.4	0.002179728	0.001624547
2035	550	485051.7	3753734.4	0.002273024	0.001674655
2035	551	485151.7	3753734.4	0.002379195	0.001733176
2035	552	485251.7	3753734.4	0.002502042	0.001803633
2035	553	485351.7	3753734.4	0.002648368	0.001892911
2035	554	485451.7	3753734.4	0.002840132	0.002024372

2035	555	484551.7	3753834.4	0.001968618	0.001557498
2035	556	484651.7	3753834.4	0.002022143	0.001581773
2035	557	484751.7	3753834.4	0.002084486	0.001611649
2035	558	484851.7	3753834.4	0.002154174	0.001645032
2035	559	484951.7	3753834.4	0.002238023	0.001688553
2035	560	485051.7	3753834.4	0.002330755	0.001735846
2035	561	485151.7	3753834.4	0.002437882	0.001792352
2035	562	485251.7	3753834.4	0.002567835	0.001866198
2035	563	485351.7	3753834.4	0.002721456	0.00195831
2035	564	485451.7	3753834.4	0.002923428	0.00209357
2035	565	484551.7	3753934.4	0.002032626	0.001632152
2035	566	484651.7	3753934.4	0.002089083	0.001659503
2035	567	484751.7	3753934.4	0.002142532	0.001679999
2035	568	484851.7	3753934.4	0.002213489	0.00171483
2035	569	484951.7	3753934.4	0.002296497	0.001757323
2035	570	485051.7	3753934.4	0.00239211	0.001807365
2035	571	485151.7	3753934.4	0.002502454	0.00186622
2035	572	485251.7	3753934.4	0.002632403	0.001938053
2035	573	485351.7	3753934.4	0.002789816	0.002029576
2035	574	485451.7	3753934.4	0.002999538	0.002164892
2035	575	484551.7	3754034.4	0.002107786	0.001722569
2035	576	484651.7	3754034.4	0.002137792	0.001719673
2035	577	484751.7	3754034.4	0.002205526	0.001756003
2035	578	484851.7	3754034.4	0.002280259	0.001794991
2035	579	484951.7	3754034.4	0.002362028	0.001836408
2035	580	485051.7	3754034.4	0.002454872	0.001883859
2035	581	485151.7	3754034.4	0.002563768	0.001941495
2035	582	485251.7	3754034.4	0.002694136	0.002013966
2035	583	485351.7	3754034.4	0.002852737	0.002107336
2035	584	485451.7	3754034.4	0.003064205	0.002246318
2035	585	484551.7	3754134.4	0.002159356	0.001784889
2035	586	484651.7	3754134.4	0.002197626	0.001793261
2035	587	484751.7	3754134.4	0.002265693	0.001831234
2035	588	484851.7	3754134.4	0.002346305	0.001878361
2035	589	484951.7	3754134.4	0.002427159	0.001919329
2035	590	485051.7	3754134.4	0.002521633	0.001968259
2035	591	485151.7	3754134.4	0.002631865	0.002027433
2035	592	485251.7	3754134.4	0.002762555	0.002100954
2035	593	485351.7	3754134.4	0.002922252	0.002195846
2035	594	485451.7	3754134.4	0.003132956	0.002334079
2035	595	484551.7	3754234.4	0.002213076	0.001849656
2035	596	484651.7	3754234.4	0.002261993	0.001872151
2035	597	484751.7	3754234.4	0.002334738	0.001917096
2035	598	484851.7	3754234.4	0.002416002	0.001967073
2035	599	484951.7	3754234.4	0.002499572	0.002013147
2035	600	485051.7	3754234.4	0.002592486	0.002062565
2035	601	485151.7	3754234.4	0.002702183	0.002122719

2035	602	485251.7	3754234.4	0.002832422	0.002196292
2035	603	485351.7	3754234.4	0.002991815	0.002290674
2035	604	485451.7	3754234.4	0.003203318	0.002429285
2035	605	484551.7	3754334.4	0.002290825	0.001941077
2035	606	484651.7	3754334.4	0.002353965	0.001981566
2035	607	484751.7	3754334.4	0.002425328	0.00202766
2035	608	484851.7	3754334.4	0.0024987	0.002070969
2035	609	484951.7	3754334.4	0.002581502	0.002118917
2035	610	485051.7	3754334.4	0.002675335	0.002172125
2035	611	485151.7	3754334.4	0.002783397	0.002233287
2035	612	485251.7	3754334.4	0.002912569	0.002309068
2035	613	485351.7	3754334.4	0.003067179	0.002403632
2035	614	485451.7	3754334.4	0.003254918	0.002523684
2035	615	484551.7	3754434.4	0.002436574	0.002107973
2035	616	484651.7	3754434.4	0.002482201	0.002130691
2035	617	484751.7	3754434.4	0.002538565	0.002162151
2035	618	484851.7	3754434.4	0.002603281	0.002198345
2035	619	484951.7	3754434.4	0.002681898	0.002244626
2035	620	485051.7	3754434.4	0.002772704	0.002297788
2035	621	485151.7	3754434.4	0.002879505	0.002361059
2035	622	485251.7	3754434.4	0.00300624	0.002437618
2035	623	485351.7	3754434.4	0.003158576	0.002532717
2035	624	485451.7	3754434.4	0.003345452	0.002655765
2035	625	484551.7	3754534.4	0.002608614	0.002298512
2035	626	484651.7	3754534.4	0.002653016	0.002322523
2035	627	484751.7	3754534.4	0.002691476	0.002336963
2035	628	484851.7	3754534.4	0.002738896	0.002359201
2035	629	484951.7	3754534.4	0.002807578	0.002398235
2035	630	485051.7	3754534.4	0.002893468	0.002449048
2035	631	485151.7	3754534.4	0.002997768	0.002512551
2035	632	485251.7	3754534.4	0.003122006	0.002589701
2035	633	485351.7	3754534.4	0.003271697	0.002684992
2035	634	485451.7	3754534.4	0.003462703	0.002813288
2035	635	484551.7	3754634.4	0.002768248	0.002476143
2035	636	484651.7	3754634.4	0.002806809	0.002495822
2035	637	484751.7	3754634.4	0.002864129	0.002532914
2035	638	484851.7	3754634.4	0.00289979	0.002546698
2035	639	484951.7	3754634.4	0.002958803	0.002579671
2035	640	485051.7	3754634.4	0.003039794	0.002630114
2035	641	485151.7	3754634.4	0.003140294	0.002695051
2035	642	485251.7	3754634.4	0.003262749	0.002774722
2035	643	485351.7	3754634.4	0.003414076	0.002874429
2035	644	485451.7	3754634.4	0.003609703	0.003009793
2035	645	484551.7	3754734.4	0.002941387	0.002665695
2035	646	484651.7	3754734.4	0.002980872	0.002688861
2035	647	484751.7	3754734.4	0.003026953	0.002717477
2035	648	484851.7	3754734.4	0.003082365	0.00275387

2035	649	484951.7	3754734.4	0.003149392	0.002798866
2035	650	485051.7	3754734.4	0.003229776	0.002853428
2035	651	485151.7	3754734.4	0.003327013	0.002920286
2035	652	485251.7	3754734.4	0.003447197	0.003005196
2035	653	485351.7	3754734.4	0.003598625	0.003116846
2035	654	485451.7	3754734.4	0.003793329	0.003265762
2035	655	484551.7	3754834.4	0.003202734	0.002942635
2035	656	484651.7	3754834.4	0.003244879	0.002971486
2035	657	484751.7	3754834.4	0.003292177	0.00300369
2035	658	484851.7	3754834.4	0.003346401	0.003040676
2035	659	484951.7	3754834.4	0.003412338	0.003087649
2035	660	485051.7	3754834.4	0.003490061	0.003143751
2035	661	485151.7	3754834.4	0.003586332	0.003215322
2035	662	485251.7	3754834.4	0.003709277	0.003310068
2035	663	485351.7	3754834.4	0.00387417	0.003444507
2035	664	485451.7	3754834.4	0.004089987	0.003626337
2035	665	484551.7	3754934.4	0.003589787	0.003344854
2035	666	484651.7	3754934.4	0.003629731	0.003373224
2035	667	484751.7	3754934.4	0.003674678	0.003405003
2035	668	484851.7	3754934.4	0.003726523	0.003441952
2035	669	484951.7	3754934.4	0.003789332	0.003488383
2035	670	485051.7	3754934.4	0.003862083	0.003542556
2035	671	485151.7	3754934.4	0.003957091	0.00361734
2035	672	485251.7	3754934.4	0.004083371	0.003720749
2035	673	485351.7	3754934.4	0.004280558	0.003893705
2035	674	485451.7	3754934.4	0.004644372	0.004230388
2035	675	484551.7	3755034.4	0.004167511	0.003936113
2035	676	484651.7	3755034.4	0.004203295	0.003961849
2035	677	484751.7	3755034.4	0.004241575	0.003988296
2035	678	484851.7	3755034.4	0.004292855	0.004027211
2035	679	484951.7	3755034.4	0.004352776	0.004072971
2035	680	485051.7	3755034.4	0.004426403	0.004130814
2035	681	485151.7	3755034.4	0.004517858	0.004204843
2035	682	485251.7	3755034.4	0.004645116	0.00431346
2035	683	485351.7	3755034.4	0.004850286	0.004498294
2035	684	485451.7	3755034.4	0.005433981	0.005059217
2035	685	485549.5	3750934.9	0.000376712	0.000282872
2035	686	485649.5	3750934.9	0.000372163	0.000278993
2035	687	485749.5	3750934.9	0.000369302	0.000276637
2035	688	485849.5	3750934.9	0.000364779	0.000272866
2035	689	485549.5	3751034.9	0.00039742	0.000298565
2035	690	485649.5	3751034.9	0.000391288	0.000293282
2035	691	485749.5	3751034.9	0.000388658	0.000291091
2035	692	485849.5	3751034.9	0.000385162	0.000288183
2035	693	485549.5	3751134.9	0.000420229	0.000316128
2035	694	485649.5	3751134.9	0.000413574	0.000310323
2035	695	485749.5	3751134.9	0.000410634	0.000307836

2035	696	485849.5	3751134.9	0.000406287	0.000304146
2035	697	485549.5	3751234.9	0.000447322	0.000337482
2035	698	485649.5	3751234.9	0.000438752	0.000329915
2035	699	485749.5	3751234.9	0.000435329	0.00032696
2035	700	485849.5	3751234.9	0.000434508	0.000326399
2035	701	485549.5	3751334.9	0.000476186	0.000360406
2035	702	485649.5	3751334.9	0.000469651	0.000354559
2035	703	485749.5	3751334.9	0.000464349	0.000349903
2035	704	485849.5	3751334.9	0.000467987	0.000353385
2035	705	485549.5	3751434.9	0.000516431	0.000393571
2035	706	485649.5	3751434.9	0.000512418	0.000389888
2035	707	485749.5	3751434.9	0.000501139	0.000379726
2035	708	485849.5	3751434.9	0.000516542	0.000394012
2035	709	485549.5	3751534.9	0.000646535	0.000507742
2035	710	485649.5	3751534.9	0.000630936	0.000493579
2035	711	485749.5	3751534.9	0.000572979	0.000441374
2035	712	485849.5	3751534.9	0.0005621	0.00043165
2035	713	485549.5	3751634.9	0.00099746	0.000794045
2035	714	485649.5	3751634.9	0.000843439	0.000673078
2035	715	485749.5	3751634.9	0.000785993	0.000625533
2035	716	485849.5	3751634.9	0.000604317	0.000466043
2035	717	485549.5	3751734.9	0.001232194	0.000968577
2035	718	485649.5	3751734.9	0.001178013	0.000932228
2035	719	485749.5	3751734.9	0.0010482	0.000836142
2035	720	485849.5	3751734.9	0.000738855	0.000583267
2035	721	485549.5	3751834.9	0.001406057	0.001107287
2035	722	485649.5	3751834.9	0.001333422	0.001050111
2035	723	485749.5	3751834.9	0.001276118	0.001008455
2035	724	485849.5	3751834.9	0.001089559	0.000871758
2035	725	485549.5	3751934.9	0.001632531	0.001295473
2035	726	485649.5	3751934.9	0.001496149	0.001170676
2035	727	485749.5	3751934.9	0.001455725	0.001136187
2035	728	485849.5	3751934.9	0.001401062	0.001098117
2035	729	485549.5	3752034.9	0.001890387	0.001514017
2035	730	485649.5	3752034.9	0.001659252	0.001292306
2035	731	485749.5	3752034.9	0.001623805	0.001262179
2035	732	485849.5	3752034.9	0.001590882	0.001242314
2035	733	485549.5	3752134.9	0.001945024	0.001537055
2035	734	485649.5	3752134.9	0.001893743	0.001480784
2035	735	485749.5	3752134.9	0.001899412	0.001487368
2035	736	485849.5	3752134.9	0.001911565	0.001508788
2035	737	485549.5	3752234.9	0.002182053	0.001751565
2035	738	485649.5	3752234.9	0.002248605	0.001806659
2035	739	485749.5	3752234.9	0.002339572	0.001888913
2035	740	485849.5	3752234.9	0.002409637	0.00195939
2035	741	485549.5	3752334.9	0.001827322	0.001379792
2035	742	485649.5	3752334.9	0.001872316	0.001406944

2035	743	485749.5	3752334.9	0.001933154	0.001452632
2035	744	485849.5	3752334.9	0.002003764	0.001512063
2035	745	485549.5	3752434.9	0.001772378	0.001308317
2035	746	485649.5	3752434.9	0.00180416	0.001320651
2035	747	485749.5	3752434.9	0.001859118	0.001354915
2035	748	485849.5	3752434.9	0.001930818	0.001405322
2035	749	485549.5	3752534.9	0.001800079	0.001318139
2035	750	485649.5	3752534.9	0.001828536	0.001325706
2035	751	485749.5	3752534.9	0.001884267	0.001358581
2035	752	485849.5	3752534.9	0.0019544	0.00140375
2035	753	485549.5	3752634.9	0.001857697	0.001354923
2035	754	485649.5	3752634.9	0.001887357	0.001362321
2035	755	485749.5	3752634.9	0.001943446	0.001394723
2035	756	485849.5	3752634.9	0.002013458	0.001437915
2035	757	485549.5	3752734.9	0.001929348	0.001404977
2035	758	485649.5	3752734.9	0.001961636	0.001414007
2035	759	485749.5	3752734.9	0.002025371	0.00145132
2035	760	485849.5	3752734.9	0.002103324	0.00149901
2035	761	485549.5	3752834.9	0.002008852	0.001463277
2035	762	485649.5	3752834.9	0.002043924	0.001474997
2035	763	485749.5	3752834.9	0.00211759	0.001520487
2035	764	485849.5	3752834.9	0.002206711	0.001576496
2035	765	485549.5	3752934.9	0.002099122	0.001530342
2035	766	485649.5	3752934.9	0.002135953	0.001544553
2035	767	485749.5	3752934.9	0.002218886	0.001600371
2035	768	485849.5	3752934.9	0.002327757	0.00167487
2035	769	485549.5	3753034.9	0.002214408	0.001618436
2035	770	485649.5	3753034.9	0.002232342	0.001615759
2035	771	485749.5	3753034.9	0.002326237	0.001683754
2035	772	485849.5	3753034.9	0.002462597	0.001789121
2035	773	485549.5	3753134.9	0.00225595	0.001624664
2035	774	485649.5	3753134.9	0.00232689	0.001677252
2035	775	485749.5	3753134.9	0.002427623	0.001756885
2035	776	485849.5	3753134.9	0.002582727	0.00188654
2035	777	485549.5	3753234.9	0.002360725	0.001684261
2035	778	485649.5	3753234.9	0.00243515	0.001743027
2035	779	485749.5	3753234.9	0.002534171	0.001828007
2035	780	485849.5	3753234.9	0.002692898	0.001968653
2035	781	485549.5	3753334.9	0.002521318	0.001785063
2035	782	485649.5	3753334.9	0.002580896	0.001824309
2035	783	485749.5	3753334.9	0.002672161	0.001908086
2035	784	485849.5	3753334.9	0.002816619	0.002048582
2035	785	485549.5	3753434.9	0.002700547	0.001895104
2035	786	485649.5	3753434.9	0.00279875	0.00195258
2035	787	485749.5	3753434.9	0.002907579	0.002043628
2035	788	485849.5	3753434.9	0.003029362	0.002181911
2035	789	485508.5	3746711.3	0.000240358	0.000198743

2035	790	491508.5	3746711.3	0.000167772	0.000139102
2035	791	479508.5	3752711.3	0.000841336	0.00076399
2035	792	485508.5	3752711.3	0.001871855	0.001361088
2035	793	491508.5	3752711.3	0.001548162	0.00102343
2035	794	485508.5	3758711.3	0.000427106	0.000396523
2035	795	491508.5	3758711.3	0.000181088	0.000157412
2035	796	485921.9	3750934.2	0.000360534	0.000269343
2035	797	486021.9	3750934.2	0.00035598	0.000265621
2035	798	486121.9	3750934.2	0.000353516	0.000263781
2035	799	485921.9	3751034.2	0.000379895	0.000283696
2035	800	486021.9	3751034.2	0.000373245	0.000278084
2035	801	486121.9	3751034.2	0.000369415	0.000274977
2035	802	485921.9	3751134.2	0.000401944	0.000300434
2035	803	486021.9	3751134.2	0.000394574	0.000294118
2035	804	486121.9	3751134.2	0.000388834	0.000289241
2035	805	485921.9	3751234.2	0.000427469	0.000320238
2035	806	486021.9	3751234.2	0.000419393	0.000313205
2035	807	486121.9	3751234.2	0.00041227	0.000307043
2035	808	485921.9	3751334.2	0.000458685	0.000345116
2035	809	486021.9	3751334.2	0.000449395	0.000336898
2035	810	486121.9	3751334.2	0.000439139	0.000327839
2035	811	485921.9	3751434.2	0.000501346	0.000380334
2035	812	486021.9	3751434.2	0.000485152	0.000365755
2035	813	486121.9	3751434.2	0.000471785	0.000353767
2035	814	485921.9	3751534.2	0.000546945	0.000418054
2035	815	486021.9	3751534.2	0.000535967	0.000408286
2035	816	486121.9	3751534.2	0.000512802	0.000387252
2035	817	485921.9	3751634.2	0.000585915	0.000449449
2035	818	486021.9	3751634.2	0.000625594	0.000485727
2035	819	486121.9	3751634.2	0.000577335	0.000442185
2035	820	485921.9	3751734.2	0.000670652	0.000522255
2035	821	486021.9	3751734.2	0.000768784	0.000609185
2035	822	486121.9	3751734.2	0.000651871	0.000505774
2035	823	485921.9	3751834.2	0.00085581	0.000682717
2035	824	486021.9	3751834.2	0.000861475	0.000687067
2035	825	486121.9	3751834.2	0.000684864	0.000531127
2035	826	485921.9	3751934.2	0.001278123	0.001021577
2035	827	486021.9	3751934.2	0.001065214	0.000855901
2035	828	486121.9	3751934.2	0.000868216	0.00069035
2035	829	485921.9	3752034.2	0.001516875	0.00119601
2035	830	486021.9	3752034.2	0.001308604	0.001055146
2035	831	486121.9	3752034.2	0.001191528	0.000963344
2035	832	485921.9	3752134.2	0.001928979	0.001538414
2035	833	486021.9	3752134.2	0.001878703	0.00151857
2035	834	486121.9	3752134.2	0.001610415	0.001307052
2035	835	485921.9	3752234.2	0.002449896	0.002008604
2035	836	486021.9	3752234.2	0.002557655	0.002126482

2035	837	486121.9	3752234.2	0.002360696	0.001947299
2035	838	485921.9	3752334.2	0.002056465	0.001559391
2035	839	486021.9	3752334.2	0.002168342	0.001672114
2035	840	486121.9	3752334.2	0.00250844	0.002014193
2035	841	485921.9	3752434.2	0.001996407	0.001460122
2035	842	486021.9	3752434.2	0.002106597	0.001558207
2035	843	486121.9	3752434.2	0.002291807	0.001731136
2035	844	485921.9	3752534.2	0.002019009	0.001448534
2035	845	486021.9	3752534.2	0.002113583	0.001519998
2035	846	486121.9	3752534.2	0.002239877	0.001624628
2035	847	485921.9	3752634.2	0.002071217	0.001475609
2035	848	486021.9	3752634.2	0.002159369	0.001537317
2035	849	486121.9	3752634.2	0.002267996	0.001620272
2035	850	485921.9	3752734.2	0.002164826	0.001537861
2035	851	486021.9	3752734.2	0.002263403	0.001603315
2035	852	486121.9	3752734.2	0.002377976	0.001685725
2035	853	485921.9	3752834.2	0.002281447	0.001623456
2035	854	486021.9	3752834.2	0.002401189	0.001701013
2035	855	486121.9	3752834.2	0.002541773	0.001798196
2035	856	485921.9	3752934.2	0.002415905	0.001734189
2035	857	486021.9	3752934.2	0.002565296	0.001833427
2035	858	486121.9	3752934.2	0.002772456	0.00198126
2035	859	487026.2	3754364	0.009590939	0.00831403
2036	1	489607.4	3753966.1	0.003005338	0.002024868
2036	2	489738.7	3754023.9	0.002663909	0.001858582
2036	3	489668.9	3754093.7	0.002533356	0.001848683
2036	4	489690.1	3754161.6	0.002401322	0.001785056
2036	5	490282.2	3753425.2	0.00354684	0.002476163
2036	6	489797.3	3754554.1	0.001961821	0.001506036
2036	7	490252.9	3754378.2	0.001795272	0.0013542
2036	8	489006	3754140.3	0.004557281	0.003554049
2036	9	485642.8	3754267.3	0.004100126	0.003165087
2036	10	485736.4	3754259.5	0.004521802	0.003497506
2036	11	487189.2	3754820.5	0.010091874	0.00899555
2036	12	487233.1	3754689.5	0.008297948	0.00709333
2036	13	487216.8	3754364.7	0.012644115	0.011429272
2036	14	487388.8	3754380.1	0.009543453	0.008421717
2036	15	484625	3751748	0.001234098	0.000953633
2036	16	483279	3751798	0.00092791	0.000727788
2036	17	483231	3751205	0.000825023	0.000648303
2036	18	480165	3750195	0.000624023	0.000534263
2036	19	481211	3749473	0.000563464	0.000463935
2036	20	481867	3752785	0.000944174	0.00080302
2036	21	480678	3751306	0.000678202	0.000572995
2036	22	479989	3752645	0.0008108	0.000723565
2036	23	479889	3756222	0.001134397	0.001082257
2036	24	479234	3757080	0.000547074	0.000509408

2036	25	480276	3756365	0.000922189	0.000872234
2036	26	479887	3754007	0.001055189	0.0009793
2036	27	480772	3755009	0.002233887	0.002151236
2036	28	481560	3754548	0.001674262	0.001568972
2036	29	481845	3754457	0.001689894	0.001574936
2036	30	481754	3753876	0.001207659	0.001084719
2036	31	489635.2	3750663.8	0.000459906	0.000350302
2036	32	485424.1	3747672.3	0.000299065	0.000242834
2036	33	482657.6	3753975.1	0.00143028	0.00126862
2036	34	481495	3754633.7	0.001756784	0.001654574
2036	35	481148.7	3756136.2	0.001267021	0.001204873
2036	36	482346.5	3748872.9	0.000232626	0.0001823
2036	37	480299	3751198	0.000660146	0.000563128
2036	38	479598.7	3756506.3	0.000867936	0.000821002
2036	39	478997.8	3753535.2	0.001183188	0.001116459
2036	40	478978.3	3755233.1	0.003560174	0.003496442
2036	41	479197.3	3754462.3	0.001567936	0.001503431
2036	42	479493.3	3752408.8	0.000823625	0.000743943
2036	43	480295.4	3752408.4	0.000785911	0.00069107
2036	44	480287.9	3754227.5	0.001156285	0.001075163
2036	45	494397.4	3753977.6	0.000725748	0.000586299
2036	46	481108.5	3750699	0.000665979	0.000556029
2036	47	486794.1	3756878	0.000672299	0.000603662
2036	48	482345	3752065.8	0.000894428	0.00073282
2036	49	487553	3745938.3	0.000182569	0.000153648
2036	50	484553	3746938.3	0.000241564	0.000198588
2036	51	485553	3746938.3	0.000253608	0.000208967
2036	52	486553	3746938.3	0.000202023	0.000171399
2036	53	487553	3746938.3	0.000222575	0.000184427
2036	54	488553	3746938.3	0.000202874	0.000169034
2036	55	489553	3746938.3	0.000200449	0.000165706
2036	56	490553	3746938.3	0.000184072	0.000152596
2036	57	491553	3746938.3	0.000175157	0.000144868
2036	58	492553	3746938.3	0.000168435	0.000139086
2036	59	482553	3747938.3	0.000212152	0.000168924
2036	60	483553	3747938.3	0.000354356	0.000283347
2036	61	484553	3747938.3	0.000337484	0.000271086
2036	62	485553	3747938.3	0.00031492	0.000254433
2036	63	486553	3747938.3	0.000293122	0.000240154
2036	64	487553	3747938.3	0.000187394	0.00015797
2036	65	488553	3747938.3	0.000244456	0.00020091
2036	66	489553	3747938.3	0.000229533	0.000188645
2036	67	490553	3747938.3	0.000216089	0.00017724
2036	68	491553	3747938.3	0.000204979	0.000167532
2036	69	492553	3747938.3	0.000196066	0.0001598
2036	70	493553	3747938.3	0.000189683	0.000154526
2036	71	481553	3748938.3	0.000477258	0.000381585

2036	72	482553	3748938.3	0.000243557	0.000191236
2036	73	483553	3748938.3	0.000407565	0.000324862
2036	74	484553	3748938.3	0.000427488	0.000337876
2036	75	485553	3748938.3	0.000407619	0.000323715
2036	76	486553	3748938.3	0.000377647	0.000302446
2036	77	487553	3748938.3	0.000296439	0.000248158
2036	78	488553	3748938.3	0.000304282	0.000245516
2036	79	489553	3748938.3	0.000279574	0.000226405
2036	80	490553	3748938.3	0.000262247	0.000211584
2036	81	491553	3748938.3	0.00024669	0.000198356
2036	82	492553	3748938.3	0.000236251	0.00018921
2036	83	493553	3748938.3	0.000233243	0.000187063
2036	84	494553	3748938.3	0.00030144	0.000256321
2036	85	480553	3749938.3	0.000738525	0.00064574
2036	86	481553	3749938.3	0.000643016	0.000527037
2036	87	482553	3749938.3	0.000627525	0.000501042
2036	88	483553	3749938.3	0.000616276	0.000485716
2036	89	484553	3749938.3	0.000451724	0.000357484
2036	90	485553	3749938.3	0.000369763	0.000294132
2036	91	486553	3749938.3	0.00043767	0.000354462
2036	92	487553	3749938.3	0.000458427	0.000362341
2036	93	488553	3749938.3	0.000397964	0.000312339
2036	94	489553	3749938.3	0.00036174	0.000285053
2036	95	490553	3749938.3	0.000334027	0.000262435
2036	96	491553	3749938.3	0.000313074	0.00024466
2036	97	492553	3749938.3	0.000304898	0.000237148
2036	98	493553	3749938.3	0.000341455	0.00027118
2036	99	494553	3749938.3	0.000287451	0.000218146
2036	100	495553	3749938.3	0.000228161	0.000188337
2036	101	480553	3750938.3	0.000646363	0.000545317
2036	102	481553	3750938.3	0.000695371	0.000573577
2036	103	482553	3750938.3	0.000755391	0.000607747
2036	104	483553	3750938.3	0.000868914	0.000689323
2036	105	484553	3750938.3	0.000863038	0.000673992
2036	106	485553	3750938.3	0.000381804	0.000286657
2036	107	486553	3750938.3	0.000352273	0.000265001
2036	108	487553	3750938.3	0.000551668	0.000438674
2036	109	488553	3750938.3	0.000597203	0.000442398
2036	110	489553	3750938.3	0.000524571	0.000391487
2036	111	490553	3750938.3	0.000468271	0.000349838
2036	112	491553	3750938.3	0.00043614	0.000323869
2036	113	492553	3750938.3	0.000490154	0.000375303
2036	114	493553	3750938.3	0.000424692	0.000311663
2036	115	494553	3750938.3	0.000411569	0.000305844
2036	116	495553	3750938.3	0.000383874	0.000298329
2036	117	479553	3751938.3	0.000760661	0.00067789
2036	118	480553	3751938.3	0.000747192	0.000644871

2036	119	481553	3751938.3	0.000789246	0.000659741
2036	120	482553	3751938.3	0.000876139	0.000706882
2036	121	483553	3751938.3	0.00100534	0.000784025
2036	122	484553	3751938.3	0.00119653	0.000910504
2036	123	485553	3751938.3	0.001652386	0.001310076
2036	124	486553	3751938.3	0.000677518	0.000518984
2036	125	487553	3751938.3	0.0010938	0.00085464
2036	126	488553	3751938.3	0.00117449	0.000795388
2036	127	489553	3751938.3	0.001068619	0.000702555
2036	128	490553	3751938.3	0.000896855	0.000589903
2036	129	491553	3751938.3	0.000929406	0.000648649
2036	130	492553	3751938.3	0.000742622	0.000479676
2036	131	493553	3751938.3	0.000665304	0.000493868
2036	132	494553	3751938.3	0.000613824	0.000458547
2036	133	495553	3751938.3	0.000540945	0.000414249
2036	134	479553	3752938.3	0.000919753	0.000842083
2036	135	480553	3752938.3	0.000917948	0.00082014
2036	136	481553	3752938.3	0.000989982	0.000862685
2036	137	482553	3752938.3	0.001120124	0.000945069
2036	138	483553	3752938.3	0.001288046	0.001036158
2036	139	484553	3752938.3	0.00160562	0.001206286
2036	140	485553	3752938.3	0.002127435	0.001549907
2036	141	486553	3752938.3	0.004197908	0.00330725
2036	142	487553	3752938.3	0.004624128	0.003486353
2036	143	488553	3752938.3	0.004121289	0.003017912
2036	144	489553	3752938.3	0.003759956	0.002743019
2036	145	490553	3752938.3	0.003118444	0.002239126
2036	146	491553	3752938.3	0.001615505	0.001121584
2036	147	492553	3752938.3	0.001228605	0.000804777
2036	148	493553	3752938.3	0.000998658	0.000713483
2036	149	494553	3752938.3	0.000851242	0.000635835
2036	150	495553	3752938.3	0.000685581	0.000530474
2036	151	479553	3753938.3	0.001056648	0.000985336
2036	152	480553	3753938.3	0.001065631	0.000976785
2036	153	481553	3753938.3	0.001210442	0.00109536
2036	154	482553	3753938.3	0.001382839	0.001225984
2036	155	483553	3753938.3	0.001739126	0.001518375
2036	156	484553	3753938.3	0.002062736	0.001657532
2036	157	485553	3753938.3	0.003328033	0.002399635
2036	158	486553	3753938.3	0.00587771	0.004415519
2036	159	487553	3753938.3	0.006449908	0.005269006
2036	160	488553	3753938.3	0.005707975	0.004366261
2036	161	489553	3753938.3	0.003208337	0.002146419
2036	162	490553	3753938.3	0.001856303	0.001363774
2036	163	491553	3753938.3	0.001295453	0.001010088
2036	164	492553	3753938.3	0.001062803	0.000839688
2036	165	493553	3753938.3	0.000869399	0.000695423

2036	166	494553	3753938.3	0.000790045	0.0006368
2036	167	495553	3753938.3	0.000616134	0.000500931
2036	168	479553	3754938.3	0.001879019	0.001812246
2036	169	480553	3754938.3	0.002003114	0.001923237
2036	170	481553	3754938.3	0.002294445	0.002195577
2036	171	482553	3754938.3	0.00335287	0.003226354
2036	172	483553	3754938.3	0.00368581	0.003520762
2036	173	484553	3754938.3	0.003653175	0.003405562
2036	174	485553	3754938.3	0.005300037	0.004852217
2036	175	486553	3754938.3	0.007308372	0.006652972
2036	176	487553	3754938.3	0.0062339	0.005368797
2036	177	488553	3754938.3	0.003502589	0.002902681
2036	178	489553	3754938.3	0.002195006	0.001888802
2036	179	490553	3754938.3	0.001462739	0.001284618
2036	180	491553	3754938.3	0.000961313	0.000837579
2036	181	492553	3754938.3	0.00069004	0.000593919
2036	182	493553	3754938.3	0.000697621	0.000605986
2036	183	494553	3754938.3	0.000530786	0.000457223
2036	184	495553	3754938.3	0.0004455	0.000382642
2036	185	479553	3755938.3	0.001890688	0.001833685
2036	186	480553	3755938.3	0.001584961	0.001523412
2036	187	481553	3755938.3	0.001605812	0.001537024
2036	188	482553	3755938.3	0.002296043	0.002205008
2036	189	483553	3755938.3	0.002411683	0.002302912
2036	190	484553	3755938.3	0.002292656	0.002159919
2036	191	485553	3755938.3	0.003236686	0.003072111
2036	192	486553	3755938.3	0.002616244	0.002439538
2036	193	487553	3755938.3	0.001445759	0.001334041
2036	194	488553	3755938.3	0.00100995	0.000921686
2036	195	489553	3755938.3	0.000692157	0.000624987
2036	196	490553	3755938.3	0.000572999	0.000515125
2036	197	491553	3755938.3	0.000472248	0.000422692
2036	198	492553	3755938.3	0.000572246	0.000526197
2036	199	493553	3755938.3	0.000419577	0.000378874
2036	200	494553	3755938.3	0.000403112	0.000365151
2036	201	479553	3756938.3	0.000573374	0.000534622
2036	202	480553	3756938.3	0.000548895	0.000508986
2036	203	481553	3756938.3	0.000495782	0.000457683
2036	204	482553	3756938.3	0.00051746	0.000475038
2036	205	483553	3756938.3	0.000872637	0.000803056
2036	206	484553	3756938.3	0.00084184	0.000766684
2036	207	485553	3756938.3	0.001827111	0.001750147
2036	208	486553	3756938.3	0.000695643	0.000626292
2036	209	487553	3756938.3	0.00045769	0.000405552
2036	210	488553	3756938.3	0.000371244	0.000326038
2036	211	489553	3756938.3	0.000325199	0.000284817
2036	212	490553	3756938.3	0.000297106	0.000260157

2036	213	491553	3756938.3	0.000259743	0.000227122
2036	214	492553	3756938.3	0.00023137	0.000202437
2036	215	493553	3756938.3	0.000245885	0.000217978
2036	216	494553	3756938.3	0.000238675	0.000212418
2036	217	479553	3757938.3	0.000288328	0.000263889
2036	218	480553	3757938.3	0.000276024	0.000251565
2036	219	481553	3757938.3	0.00029157	0.000263898
2036	220	482553	3757938.3	0.000360656	0.000323934
2036	221	483553	3757938.3	0.000353692	0.000315771
2036	222	484553	3757938.3	0.000465686	0.000418696
2036	223	485553	3757938.3	0.000539591	0.000498787
2036	224	486553	3757938.3	0.000322692	0.00028524
2036	225	487553	3757938.3	0.000263808	0.000230199
2036	226	488553	3757938.3	0.00023161	0.000200905
2036	227	489553	3757938.3	0.000213728	0.000184893
2036	228	490553	3757938.3	0.000195439	0.000168934
2036	229	491553	3757938.3	0.000179074	0.000154599
2036	230	492553	3757938.3	0.000171933	0.000148988
2036	231	493553	3757938.3	0.000190686	0.000166992
2036	232	480553	3758938.3	0.000207166	0.000186495
2036	233	481553	3758938.3	0.000231101	0.000206373
2036	234	482553	3758938.3	0.000225123	0.000199414
2036	235	483553	3758938.3	0.000236025	0.000208208
2036	236	484553	3758938.3	0.00029534	0.000264183
2036	237	485553	3758938.3	0.000685858	0.00065257
2036	238	486553	3758938.3	0.000223329	0.000196708
2036	239	487553	3758938.3	0.000245191	0.000215841
2036	240	488553	3758938.3	0.000182051	0.000158491
2036	241	489553	3758938.3	0.000184564	0.000160754
2036	242	490553	3758938.3	0.000201511	0.000175347
2036	243	491553	3758938.3	0.00016388	0.000142275
2036	244	492553	3758938.3	0.000170507	0.000148228
2036	245	481553	3759938.3	0.000170999	0.000151817
2036	246	482553	3759938.3	0.000176464	0.000155607
2036	247	483553	3759938.3	0.000186986	0.000164671
2036	248	484553	3759938.3	0.000260077	0.000232294
2036	249	485553	3759938.3	0.000678447	0.000644739
2036	250	486553	3759938.3	0.00032149	0.00028742
2036	251	487553	3759938.3	0.000262256	0.000232114
2036	252	488553	3759938.3	0.000261735	0.000229806
2036	253	489553	3759938.3	0.000226817	0.000197994
2036	254	490553	3759938.3	0.000175373	0.000153105
2036	255	491553	3759938.3	0.000152834	0.000133041
2036	256	482553	3760938.3	0.000166449	0.000146921
2036	257	483553	3760938.3	0.000192501	0.000170624
2036	258	484553	3760938.3	0.000245855	0.00022007
2036	259	485553	3760938.3	0.000558289	0.000524197

2036	260	486553	3760938.3	0.00036625	0.000329826
2036	261	487553	3760938.3	0.000292034	0.000262292
2036	262	488553	3760938.3	0.000166389	0.000147291
2036	263	489553	3760938.3	0.000126207	0.000110586
2036	264	490553	3760938.3	0.000120723	0.000105368
2036	265	484551.7	3750934.4	0.00085781	0.000670964
2036	266	484651.7	3750934.4	0.00084689	0.000662861
2036	267	484751.7	3750934.4	0.000647301	0.000513036
2036	268	484851.7	3750934.4	0.000593984	0.000470956
2036	269	484951.7	3750934.4	0.000627812	0.00049677
2036	270	485051.7	3750934.4	0.00056273	0.000444998
2036	271	485151.7	3750934.4	0.000468565	0.000364323
2036	272	485251.7	3750934.4	0.000412708	0.000314147
2036	273	485351.7	3750934.4	0.000396894	0.000299953
2036	274	485451.7	3750934.4	0.0003885	0.00029256
2036	275	484551.7	3751034.4	0.00091639	0.000709662
2036	276	484651.7	3751034.4	0.00090406	0.000701219
2036	277	484751.7	3751034.4	0.000849246	0.000669214
2036	278	484851.7	3751034.4	0.000672371	0.0005324
2036	279	484951.7	3751034.4	0.000747061	0.000589409
2036	280	485051.7	3751034.4	0.00062661	0.000495875
2036	281	485151.7	3751034.4	0.000543262	0.000427368
2036	282	485251.7	3751034.4	0.000462049	0.000355854
2036	283	485351.7	3751034.4	0.000426744	0.000324007
2036	284	485451.7	3751034.4	0.000411431	0.000310272
2036	285	484551.7	3751134.4	0.000962674	0.000742171
2036	286	484651.7	3751134.4	0.000960568	0.000738894
2036	287	484751.7	3751134.4	0.000948044	0.000731807
2036	288	484851.7	3751134.4	0.000856235	0.000678417
2036	289	484951.7	3751134.4	0.000877054	0.000690184
2036	290	485051.7	3751134.4	0.00072305	0.000571168
2036	291	485151.7	3751134.4	0.000641733	0.000507903
2036	292	485251.7	3751134.4	0.000555085	0.000435731
2036	293	485351.7	3751134.4	0.000472087	0.000362072
2036	294	485451.7	3751134.4	0.000438092	0.000331327
2036	295	484551.7	3751234.4	0.001010266	0.000778358
2036	296	484651.7	3751234.4	0.001010341	0.000775898
2036	297	484751.7	3751234.4	0.001002462	0.00077203
2036	298	484851.7	3751234.4	0.000974393	0.000757209
2036	299	484951.7	3751234.4	0.000948845	0.000742007
2036	300	485051.7	3751234.4	0.00085298	0.000675077
2036	301	485151.7	3751234.4	0.000719612	0.000570026
2036	302	485251.7	3751234.4	0.000543351	0.000423307
2036	303	485351.7	3751234.4	0.00048047	0.000366617
2036	304	485451.7	3751234.4	0.000461442	0.000349354
2036	305	484551.7	3751334.4	0.001081053	0.000835602
2036	306	484651.7	3751334.4	0.001073192	0.000827108

2036	307	484751.7	3751334.4	0.001061106	0.000819641
2036	308	484851.7	3751334.4	0.001046072	0.000810269
2036	309	484951.7	3751334.4	0.00103785	0.000803428
2036	310	485051.7	3751334.4	0.000995324	0.000779379
2036	311	485151.7	3751334.4	0.000842305	0.000666826
2036	312	485251.7	3751334.4	0.00066315	0.000525565
2036	313	485351.7	3751334.4	0.000522765	0.000401953
2036	314	485451.7	3751334.4	0.00048902	0.000371194
2036	315	484551.7	3751434.4	0.001195871	0.000941044
2036	316	484651.7	3751434.4	0.001163768	0.000905728
2036	317	484751.7	3751434.4	0.001144393	0.000885781
2036	318	484851.7	3751434.4	0.00113107	0.000873877
2036	319	484951.7	3751434.4	0.001120277	0.000865319
2036	320	485051.7	3751434.4	0.00110667	0.000855016
2036	321	485151.7	3751434.4	0.00099371	0.000789774
2036	322	485251.7	3751434.4	0.000773905	0.00061681
2036	323	485351.7	3751434.4	0.000608583	0.00047649
2036	324	485451.7	3751434.4	0.00054169	0.000415823
2036	325	484551.7	3751534.4	0.001456143	0.001194651
2036	326	484651.7	3751534.4	0.001349409	0.001081237
2036	327	484751.7	3751534.4	0.001270368	0.000997498
2036	328	484851.7	3751534.4	0.001233975	0.000958587
2036	329	484951.7	3751534.4	0.001216508	0.000938945
2036	330	485051.7	3751534.4	0.00120715	0.000926978
2036	331	485151.7	3751534.4	0.001192785	0.000916086
2036	332	485251.7	3751534.4	0.001082089	0.00085507
2036	333	485351.7	3751534.4	0.000865048	0.000689985
2036	334	485451.7	3751534.4	0.000715318	0.00056769
2036	335	484551.7	3751634.4	0.001348616	0.00108066
2036	336	484651.7	3751634.4	0.001389714	0.001114828
2036	337	484751.7	3751634.4	0.001432773	0.001150223
2036	338	484851.7	3751634.4	0.001460119	0.001172175
2036	339	484951.7	3751634.4	0.001360079	0.001067802
2036	340	485051.7	3751634.4	0.001317314	0.001020951
2036	341	485151.7	3751634.4	0.001301717	0.00100178
2036	342	485251.7	3751634.4	0.00126963	0.000980559
2036	343	485351.7	3751634.4	0.001209076	0.000942354
2036	344	485451.7	3751634.4	0.001103471	0.000878023
2036	345	484551.7	3751734.4	0.00119826	0.000925036
2036	346	484651.7	3751734.4	0.001264518	0.00098234
2036	347	484751.7	3751734.4	0.001369029	0.001078914
2036	348	484851.7	3751734.4	0.001502342	0.001205645
2036	349	484951.7	3751734.4	0.001504911	0.00120346
2036	350	485051.7	3751734.4	0.001637929	0.001331229
2036	351	485151.7	3751734.4	0.001489861	0.001175256
2036	352	485251.7	3751734.4	0.001448465	0.001130981
2036	353	485351.7	3751734.4	0.001395598	0.00108578

2036	354	485451.7	3751734.4	0.001321168	0.001028942
2036	355	484551.7	3751834.4	0.001178528	0.000900498
2036	356	484651.7	3751834.4	0.001216232	0.000929544
2036	357	484751.7	3751834.4	0.001259795	0.000964382
2036	358	484851.7	3751834.4	0.001311587	0.001008227
2036	359	484951.7	3751834.4	0.001376602	0.001067296
2036	360	485051.7	3751834.4	0.001520517	0.001203986
2036	361	485151.7	3751834.4	0.001542038	0.001214307
2036	362	485251.7	3751834.4	0.001632191	0.001296729
2036	363	485351.7	3751834.4	0.001647723	0.001312326
2036	364	485451.7	3751834.4	0.00164466	0.001317141
2036	365	484551.7	3751934.4	0.001194952	0.000909391
2036	366	484651.7	3751934.4	0.001221364	0.000928327
2036	367	484751.7	3751934.4	0.001248195	0.00094805
2036	368	484851.7	3751934.4	0.001281837	0.000973346
2036	369	484951.7	3751934.4	0.001318899	0.001002103
2036	370	485051.7	3751934.4	0.001366238	0.001039846
2036	371	485151.7	3751934.4	0.001426081	0.001088516
2036	372	485251.7	3751934.4	0.00150841	0.001158113
2036	373	485351.7	3751934.4	0.001627079	0.001268813
2036	374	485451.7	3751934.4	0.001700973	0.001347094
2036	375	484551.7	3752034.4	0.00123658	0.000940967
2036	376	484651.7	3752034.4	0.001259397	0.000956388
2036	377	484751.7	3752034.4	0.001283978	0.000973366
2036	378	484851.7	3752034.4	0.001310027	0.000991611
2036	379	484951.7	3752034.4	0.001342007	0.001014467
2036	380	485051.7	3752034.4	0.001380379	0.001042355
2036	381	485151.7	3752034.4	0.001427179	0.001077177
2036	382	485251.7	3752034.4	0.001494628	0.001130077
2036	383	485351.7	3752034.4	0.001585696	0.001209182
2036	384	485451.7	3752034.4	0.001797931	0.001414264
2036	385	484551.7	3752134.4	0.001309768	0.001003584
2036	386	484651.7	3752134.4	0.00133143	0.001017358
2036	387	484751.7	3752134.4	0.001355632	0.00103318
2036	388	484851.7	3752134.4	0.001380202	0.001049316
2036	389	484951.7	3752134.4	0.001407388	0.001067564
2036	390	485051.7	3752134.4	0.001440843	0.001090734
2036	391	485151.7	3752134.4	0.001481643	0.001119932
2036	392	485251.7	3752134.4	0.001541168	0.001164836
2036	393	485351.7	3752134.4	0.00163458	0.001242518
2036	394	485451.7	3752134.4	0.00184928	0.001444735
2036	395	484551.7	3752234.4	0.00144234	0.001126349
2036	396	484651.7	3752234.4	0.001473627	0.001148329
2036	397	484751.7	3752234.4	0.001496568	0.00116218
2036	398	484851.7	3752234.4	0.001516013	0.001172452
2036	399	484951.7	3752234.4	0.00161539	0.001262436
2036	400	485051.7	3752234.4	0.001568001	0.00120522

2036	401	485151.7	3752234.4	0.001609817	0.001236612
2036	402	485251.7	3752234.4	0.001656023	0.001268681
2036	403	485351.7	3752234.4	0.001744825	0.001340437
2036	404	485451.7	3752234.4	0.002006212	0.001585117
2036	405	484551.7	3752334.4	0.00137642	0.001048293
2036	406	484651.7	3752334.4	0.001402623	0.001064916
2036	407	484751.7	3752334.4	0.001428874	0.001081665
2036	408	484851.7	3752334.4	0.001456068	0.001099205
2036	409	484951.7	3752334.4	0.001486183	0.001118959
2036	410	485051.7	3752334.4	0.001516782	0.001139289
2036	411	485151.7	3752334.4	0.001552645	0.001163754
2036	412	485251.7	3752334.4	0.001594992	0.001193738
2036	413	485351.7	3752334.4	0.001653852	0.001237788
2036	414	485451.7	3752334.4	0.001757089	0.001322574
2036	415	484551.7	3752434.4	0.001374057	0.001033906
2036	416	484651.7	3752434.4	0.001400675	0.00105041
2036	417	484751.7	3752434.4	0.001426966	0.001066937
2036	418	484851.7	3752434.4	0.001458117	0.001086799
2036	419	484951.7	3752434.4	0.001488964	0.001106788
2036	420	485051.7	3752434.4	0.001522938	0.001129194
2036	421	485151.7	3752434.4	0.001560259	0.001154198
2036	422	485251.7	3752434.4	0.001601804	0.001182746
2036	423	485351.7	3752434.4	0.001653242	0.001219379
2036	424	485451.7	3752434.4	0.001729627	0.001279192
2036	425	484551.7	3752534.4	0.001401819	0.001049316
2036	426	484651.7	3752534.4	0.001429809	0.001066429
2036	427	484751.7	3752534.4	0.001459488	0.001084859
2036	428	484851.7	3752534.4	0.001491713	0.001105178
2036	429	484951.7	3752534.4	0.00152427	0.00112611
2036	430	485051.7	3752534.4	0.001560829	0.001149939
2036	431	485151.7	3752534.4	0.001599872	0.001175854
2036	432	485251.7	3752534.4	0.001641838	0.001204362
2036	433	485351.7	3752534.4	0.001690709	0.001238524
2036	434	485451.7	3752534.4	0.00176205	0.001293077
2036	435	484551.7	3752634.4	0.001438541	0.001074066
2036	436	484651.7	3752634.4	0.001468059	0.001091822
2036	437	484751.7	3752634.4	0.001499137	0.001110847
2036	438	484851.7	3752634.4	0.001535217	0.00113325
2036	439	484951.7	3752634.4	0.001570908	0.001155938
2036	440	485051.7	3752634.4	0.001610282	0.001181404
2036	441	485151.7	3752634.4	0.001651377	0.001208572
2036	442	485251.7	3752634.4	0.001695229	0.001238247
2036	443	485351.7	3752634.4	0.001745409	0.001273186
2036	444	485451.7	3752634.4	0.001817814	0.001327956
2036	445	484551.7	3752734.4	0.001483352	0.001106832
2036	446	484651.7	3752734.4	0.001516186	0.001126096
2036	447	484751.7	3752734.4	0.001550521	0.001146678

2036	448	484851.7	3752734.4	0.001587292	0.00116924
2036	449	484951.7	3752734.4	0.001626016	0.001193528
2036	450	485051.7	3752734.4	0.001668241	0.001220643
2036	451	485151.7	3752734.4	0.001711712	0.001249267
2036	452	485251.7	3752734.4	0.00175782	0.001280463
2036	453	485351.7	3752734.4	0.001810408	0.001317086
2036	454	485451.7	3752734.4	0.001882636	0.001372065
2036	455	484551.7	3752834.4	0.001534456	0.001146596
2036	456	484651.7	3752834.4	0.001570243	0.001166992
2036	457	484751.7	3752834.4	0.001606119	0.001187866
2036	458	484851.7	3752834.4	0.001647252	0.001212626
2036	459	484951.7	3752834.4	0.001689701	0.001238761
2036	460	485051.7	3752834.4	0.001734221	0.001266916
2036	461	485151.7	3752834.4	0.001780125	0.001296864
2036	462	485251.7	3752834.4	0.001829099	0.001329854
2036	463	485351.7	3752834.4	0.001882997	0.001367863
2036	464	485451.7	3752834.4	0.001957854	0.001425333
2036	465	484551.7	3752934.4	0.001601751	0.001203046
2036	466	484651.7	3752934.4	0.00164048	0.00122451
2036	467	484751.7	3752934.4	0.001679838	0.001246691
2036	468	484851.7	3752934.4	0.001724112	0.001272555
2036	469	484951.7	3752934.4	0.001770055	0.001300051
2036	470	485051.7	3752934.4	0.001818983	0.001330259
2036	471	485151.7	3752934.4	0.00186735	0.001361117
2036	472	485251.7	3752934.4	0.001920264	0.00139627
2036	473	485351.7	3752934.4	0.001973824	0.001433845
2036	474	485451.7	3752934.4	0.002047133	0.001490124
2036	475	484551.7	3753034.4	0.001715618	0.001307625
2036	476	484651.7	3753034.4	0.00176227	0.001335261
2036	477	484751.7	3753034.4	0.001814456	0.001367484
2036	478	484851.7	3753034.4	0.001855514	0.001387618
2036	479	484951.7	3753034.4	0.001903049	0.001414056
2036	480	485051.7	3753034.4	0.00195553	0.001445755
2036	481	485151.7	3753034.4	0.002014561	0.001483999
2036	482	485251.7	3753034.4	0.002115233	0.001564722
2036	483	485351.7	3753034.4	0.002120727	0.001552771
2036	484	485451.7	3753034.4	0.002181446	0.001596507
2036	485	484551.7	3753134.4	0.001687332	0.001270859
2036	486	484651.7	3753134.4	0.00173429	0.001296449
2036	487	484751.7	3753134.4	0.001785371	0.001324848
2036	488	484851.7	3753134.4	0.001837625	0.00135412
2036	489	484951.7	3753134.4	0.001893722	0.001386283
2036	490	485051.7	3753134.4	0.001952738	0.00142104
2036	491	485151.7	3753134.4	0.002013623	0.001457896
2036	492	485251.7	3753134.4	0.002078831	0.001499391
2036	493	485351.7	3753134.4	0.002146062	0.001544987
2036	494	485451.7	3753134.4	0.002226377	0.001605705

2036	495	484551.7	3753234.4	0.001710402	0.001286521
2036	496	484651.7	3753234.4	0.001761812	0.001314088
2036	497	484751.7	3753234.4	0.001815975	0.001343414
2036	498	484851.7	3753234.4	0.001873055	0.001374714
2036	499	484951.7	3753234.4	0.001934588	0.001409086
2036	500	485051.7	3753234.4	0.002000977	0.001447239
2036	501	485151.7	3753234.4	0.002070191	0.001487989
2036	502	485251.7	3753234.4	0.00214474	0.001533638
2036	503	485351.7	3753234.4	0.002223326	0.001584671
2036	504	485451.7	3753234.4	0.00231898	0.00165487
2036	505	484551.7	3753334.4	0.001749836	0.001319961
2036	506	484651.7	3753334.4	0.001804365	0.001348842
2036	507	484751.7	3753334.4	0.001861251	0.001378912
2036	508	484851.7	3753334.4	0.001925027	0.001413483
2036	509	484951.7	3753334.4	0.001990743	0.00144911
2036	510	485051.7	3753334.4	0.002063278	0.001489422
2036	511	485151.7	3753334.4	0.002141295	0.001533966
2036	512	485251.7	3753334.4	0.002229989	0.001586604
2036	513	485351.7	3753334.4	0.002326635	0.001646844
2036	514	485451.7	3753334.4	0.002441918	0.0017269
2036	515	484551.7	3753434.4	0.001791726	0.001359032
2036	516	484651.7	3753434.4	0.001848842	0.001389154
2036	517	484751.7	3753434.4	0.001909309	0.001420715
2036	518	484851.7	3753434.4	0.001977124	0.00145699
2036	519	484951.7	3753434.4	0.002048261	0.001494284
2036	520	485051.7	3753434.4	0.002126433	0.001536252
2036	521	485151.7	3753434.4	0.002215529	0.001586236
2036	522	485251.7	3753434.4	0.002317732	0.001645499
2036	523	485351.7	3753434.4	0.002433163	0.001715569
2036	524	485451.7	3753434.4	0.00258071	0.00181406
2036	525	484551.7	3753534.4	0.001834271	0.001401772
2036	526	484651.7	3753534.4	0.001889351	0.001429249
2036	527	484751.7	3753534.4	0.001951536	0.001461171
2036	528	484851.7	3753534.4	0.002026173	0.001502069
2036	529	484951.7	3753534.4	0.00210231	0.001542131
2036	530	485051.7	3753534.4	0.002186094	0.001586561
2036	531	485151.7	3753534.4	0.00228372	0.001640541
2036	532	485251.7	3753534.4	0.002397312	0.001705771
2036	533	485351.7	3753534.4	0.00253218	0.001786736
2036	534	485451.7	3753534.4	0.002708557	0.001902665
2036	535	484551.7	3753634.4	0.001877063	0.001447138
2036	536	484651.7	3753634.4	0.001934776	0.001476223
2036	537	484751.7	3753634.4	0.002000177	0.001510122
2036	538	484851.7	3753634.4	0.002073708	0.001548936
2036	539	484951.7	3753634.4	0.002154732	0.001591924
2036	540	485051.7	3753634.4	0.002243852	0.001639563
2036	541	485151.7	3753634.4	0.002346954	0.001696693

2036	542	485251.7	3753634.4	0.002467347	0.001766469
2036	543	485351.7	3753634.4	0.002608998	0.001852946
2036	544	485451.7	3753634.4	0.002796159	0.001980042
2036	545	484551.7	3753734.4	0.001934299	0.001509715
2036	546	484651.7	3753734.4	0.001991163	0.001537158
2036	547	484751.7	3753734.4	0.00205413	0.001567525
2036	548	484851.7	3753734.4	0.002123749	0.001601175
2036	549	484951.7	3753734.4	0.0022069	0.001644798
2036	550	485051.7	3753734.4	0.002301359	0.001695531
2036	551	485151.7	3753734.4	0.002408853	0.001754781
2036	552	485251.7	3753734.4	0.002533232	0.001826116
2036	553	485351.7	3753734.4	0.002681382	0.001916507
2036	554	485451.7	3753734.4	0.002875536	0.002049607
2036	555	484551.7	3753834.4	0.001993158	0.001576913
2036	556	484651.7	3753834.4	0.002047351	0.001601491
2036	557	484751.7	3753834.4	0.002110471	0.001631739
2036	558	484851.7	3753834.4	0.002181027	0.001665539
2036	559	484951.7	3753834.4	0.002265921	0.001709602
2036	560	485051.7	3753834.4	0.002359809	0.001757485
2036	561	485151.7	3753834.4	0.002468271	0.001814695
2036	562	485251.7	3753834.4	0.002599845	0.001889462
2036	563	485351.7	3753834.4	0.00275538	0.001982722
2036	564	485451.7	3753834.4	0.002959871	0.002119668
2036	565	484551.7	3753934.4	0.002057964	0.001652498
2036	566	484651.7	3753934.4	0.002115125	0.00168019
2036	567	484751.7	3753934.4	0.00216924	0.001700941
2036	568	484851.7	3753934.4	0.002241081	0.001736206
2036	569	484951.7	3753934.4	0.002325125	0.001779229
2036	570	485051.7	3753934.4	0.002421929	0.001829895
2036	571	485151.7	3753934.4	0.002533649	0.001889484
2036	572	485251.7	3753934.4	0.002665218	0.001962212
2036	573	485351.7	3753934.4	0.002824593	0.002054876
2036	574	485451.7	3753934.4	0.003036929	0.002191879
2036	575	484551.7	3754034.4	0.002134061	0.001744042
2036	576	484651.7	3754034.4	0.002164441	0.00174111
2036	577	484751.7	3754034.4	0.002233019	0.001777893
2036	578	484851.7	3754034.4	0.002308684	0.001817367
2036	579	484951.7	3754034.4	0.002391473	0.0018593
2036	580	485051.7	3754034.4	0.002485474	0.001907343
2036	581	485151.7	3754034.4	0.002595727	0.001965697
2036	582	485251.7	3754034.4	0.00272772	0.002039071
2036	583	485351.7	3754034.4	0.002888299	0.002133606
2036	584	485451.7	3754034.4	0.003102403	0.00227432
2036	585	484551.7	3754134.4	0.002186274	0.001807139
2036	586	484651.7	3754134.4	0.002225021	0.001815615
2036	587	484751.7	3754134.4	0.002293936	0.001854061
2036	588	484851.7	3754134.4	0.002375554	0.001901776

2036	589	484951.7	3754134.4	0.002457415	0.001943255
2036	590	485051.7	3754134.4	0.002553067	0.001992794
2036	591	485151.7	3754134.4	0.002664673	0.002052706
2036	592	485251.7	3754134.4	0.002796993	0.002127144
2036	593	485351.7	3754134.4	0.00295868	0.002223219
2036	594	485451.7	3754134.4	0.003172011	0.002363175
2036	595	484551.7	3754234.4	0.002240663	0.001872713
2036	596	484651.7	3754234.4	0.00229019	0.001895488
2036	597	484751.7	3754234.4	0.002363842	0.001940994
2036	598	484851.7	3754234.4	0.002446119	0.001991594
2036	599	484951.7	3754234.4	0.002530731	0.002038242
2036	600	485051.7	3754234.4	0.002624803	0.002088277
2036	601	485151.7	3754234.4	0.002735868	0.00214918
2036	602	485251.7	3754234.4	0.00286773	0.00222367
2036	603	485351.7	3754234.4	0.003029111	0.002319229
2036	604	485451.7	3754234.4	0.00324325	0.002459568
2036	605	484551.7	3754334.4	0.002319381	0.001965274
2036	606	484651.7	3754334.4	0.002383308	0.002006268
2036	607	484751.7	3754334.4	0.002455562	0.002052936
2036	608	484851.7	3754334.4	0.002529848	0.002096785
2036	609	484951.7	3754334.4	0.002613682	0.002145331
2036	610	485051.7	3754334.4	0.002708685	0.002199202
2036	611	485151.7	3754334.4	0.002818094	0.002261127
2036	612	485251.7	3754334.4	0.002948876	0.002337852
2036	613	485351.7	3754334.4	0.003105414	0.002433595
2036	614	485451.7	3754334.4	0.003295493	0.002555144
2036	615	484551.7	3754434.4	0.002466948	0.002134251
2036	616	484651.7	3754434.4	0.002513144	0.002157251
2036	617	484751.7	3754434.4	0.00257021	0.002189104
2036	618	484851.7	3754434.4	0.002635733	0.002225749
2036	619	484951.7	3754434.4	0.002715329	0.002272607
2036	620	485051.7	3754434.4	0.002807268	0.002326432
2036	621	485151.7	3754434.4	0.0029154	0.002390492
2036	622	485251.7	3754434.4	0.003043715	0.002468005
2036	623	485351.7	3754434.4	0.00319795	0.002564289
2036	624	485451.7	3754434.4	0.003387155	0.002688871
2036	625	484551.7	3754534.4	0.002641132	0.002327165
2036	626	484651.7	3754534.4	0.002686088	0.002351475
2036	627	484751.7	3754534.4	0.002725027	0.002366095
2036	628	484851.7	3754534.4	0.002773038	0.00238861
2036	629	484951.7	3754534.4	0.002842577	0.002428131
2036	630	485051.7	3754534.4	0.002929537	0.002479577
2036	631	485151.7	3754534.4	0.003035137	0.002543871
2036	632	485251.7	3754534.4	0.003160924	0.002621983
2036	633	485351.7	3754534.4	0.003312481	0.002718463
2036	634	485451.7	3754534.4	0.003505868	0.002848357
2036	635	484551.7	3754634.4	0.002802756	0.00250701

2036	636	484651.7	3754634.4	0.002841798	0.002526934
2036	637	484751.7	3754634.4	0.002899832	0.002564488
2036	638	484851.7	3754634.4	0.002935938	0.002578445
2036	639	484951.7	3754634.4	0.002995686	0.002611829
2036	640	485051.7	3754634.4	0.003077688	0.0026629
2036	641	485151.7	3754634.4	0.00317944	0.002728647
2036	642	485251.7	3754634.4	0.003303422	0.002809311
2036	643	485351.7	3754634.4	0.003456635	0.002910261
2036	644	485451.7	3754634.4	0.0036547	0.003047312
2036	645	484551.7	3754734.4	0.002978054	0.002698924
2036	646	484651.7	3754734.4	0.003018031	0.002722379
2036	647	484751.7	3754734.4	0.003064686	0.002751352
2036	648	484851.7	3754734.4	0.003120789	0.002788199
2036	649	484951.7	3754734.4	0.003188652	0.002833756
2036	650	485051.7	3754734.4	0.003270037	0.002888999
2036	651	485151.7	3754734.4	0.003368486	0.00295669
2036	652	485251.7	3754734.4	0.003490168	0.003042657
2036	653	485351.7	3754734.4	0.003643485	0.0031557
2036	654	485451.7	3754734.4	0.003840616	0.003306472
2036	655	484551.7	3754834.4	0.003242658	0.002979317
2036	656	484651.7	3754834.4	0.003285329	0.003008528
2036	657	484751.7	3754834.4	0.003333217	0.003041133
2036	658	484851.7	3754834.4	0.003388116	0.003078581
2036	659	484951.7	3754834.4	0.003454875	0.003126139
2036	660	485051.7	3754834.4	0.003533567	0.00318294
2036	661	485151.7	3754834.4	0.003631038	0.003255403
2036	662	485251.7	3754834.4	0.003755515	0.003351331
2036	663	485351.7	3754834.4	0.003922464	0.003487445
2036	664	485451.7	3754834.4	0.004140971	0.003671542
2036	665	484551.7	3754934.4	0.003634536	0.00338655
2036	666	484651.7	3754934.4	0.003674978	0.003415274
2036	667	484751.7	3754934.4	0.003720486	0.003447449
2036	668	484851.7	3754934.4	0.003772977	0.003484859
2036	669	484951.7	3754934.4	0.003836569	0.003531869
2036	670	485051.7	3754934.4	0.003910227	0.003586716
2036	671	485151.7	3754934.4	0.004006419	0.003662433
2036	672	485251.7	3754934.4	0.004134273	0.003767131
2036	673	485351.7	3754934.4	0.004333918	0.003942243
2036	674	485451.7	3754934.4	0.004702267	0.004283123
2036	675	484551.7	3755034.4	0.004219462	0.003985179
2036	676	484651.7	3755034.4	0.004255692	0.004011236
2036	677	484751.7	3755034.4	0.004294449	0.004038013
2036	678	484851.7	3755034.4	0.004346369	0.004077414
2036	679	484951.7	3755034.4	0.004407037	0.004123743
2036	680	485051.7	3755034.4	0.004481581	0.004182307
2036	681	485151.7	3755034.4	0.004574177	0.004257259
2036	682	485251.7	3755034.4	0.004703021	0.004367231

2036	683	485351.7	3755034.4	0.004910749	0.004554369
2036	684	485451.7	3755034.4	0.005501719	0.005122284
2036	685	485549.5	3750934.9	0.000381408	0.000286398
2036	686	485649.5	3750934.9	0.000376802	0.00028247
2036	687	485749.5	3750934.9	0.000373905	0.000280085
2036	688	485849.5	3750934.9	0.000369327	0.000276267
2036	689	485549.5	3751034.9	0.000402374	0.000302286
2036	690	485649.5	3751034.9	0.000396166	0.000296938
2036	691	485749.5	3751034.9	0.000393503	0.000294719
2036	692	485849.5	3751034.9	0.000389964	0.000291775
2036	693	485549.5	3751134.9	0.000425468	0.000320068
2036	694	485649.5	3751134.9	0.000418729	0.000314191
2036	695	485749.5	3751134.9	0.000415753	0.000311674
2036	696	485849.5	3751134.9	0.000411351	0.000307938
2036	697	485549.5	3751234.9	0.000452898	0.000341689
2036	698	485649.5	3751234.9	0.000444221	0.000334028
2036	699	485749.5	3751234.9	0.000440756	0.000331036
2036	700	485849.5	3751234.9	0.000439925	0.000330468
2036	701	485549.5	3751334.9	0.000482122	0.000364898
2036	702	485649.5	3751334.9	0.000475505	0.000358979
2036	703	485749.5	3751334.9	0.000470137	0.000354265
2036	704	485849.5	3751334.9	0.000473821	0.00035779
2036	705	485549.5	3751434.9	0.000522869	0.000398477
2036	706	485649.5	3751434.9	0.000518805	0.000394748
2036	707	485749.5	3751434.9	0.000507386	0.00038446
2036	708	485849.5	3751434.9	0.000522982	0.000398924
2036	709	485549.5	3751534.9	0.000654594	0.000514071
2036	710	485649.5	3751534.9	0.000638801	0.000499731
2036	711	485749.5	3751534.9	0.000580121	0.000446876
2036	712	485849.5	3751534.9	0.000569107	0.000437031
2036	713	485549.5	3751634.9	0.001009894	0.000803943
2036	714	485649.5	3751634.9	0.000853953	0.000681468
2036	715	485749.5	3751634.9	0.000795791	0.000633331
2036	716	485849.5	3751634.9	0.00061185	0.000471853
2036	717	485549.5	3751734.9	0.001247554	0.000980651
2036	718	485649.5	3751734.9	0.001192698	0.000943849
2036	719	485749.5	3751734.9	0.001061267	0.000846565
2036	720	485849.5	3751734.9	0.000748065	0.000590538
2036	721	485549.5	3751834.9	0.001423585	0.00112109
2036	722	485649.5	3751834.9	0.001350044	0.001063201
2036	723	485749.5	3751834.9	0.001292025	0.001021026
2036	724	485849.5	3751834.9	0.001103141	0.000882625
2036	725	485549.5	3751934.9	0.001652881	0.001311622
2036	726	485649.5	3751934.9	0.001514799	0.00118527
2036	727	485749.5	3751934.9	0.001473871	0.00115035
2036	728	485849.5	3751934.9	0.001418527	0.001111805
2036	729	485549.5	3752034.9	0.001913952	0.001532891

2036	730	485649.5	3752034.9	0.001679936	0.001308415
2036	731	485749.5	3752034.9	0.001644047	0.001277913
2036	732	485849.5	3752034.9	0.001610713	0.0012578
2036	733	485549.5	3752134.9	0.001969271	0.001556215
2036	734	485649.5	3752134.9	0.00191735	0.001499243
2036	735	485749.5	3752134.9	0.001923089	0.001505909
2036	736	485849.5	3752134.9	0.001935394	0.001527596
2036	737	485549.5	3752234.9	0.002209253	0.001773399
2036	738	485649.5	3752234.9	0.002276635	0.00182918
2036	739	485749.5	3752234.9	0.002368736	0.00191246
2036	740	485849.5	3752234.9	0.002439675	0.001983816
2036	741	485549.5	3752334.9	0.001850101	0.001396992
2036	742	485649.5	3752334.9	0.001895656	0.001424482
2036	743	485749.5	3752334.9	0.001957252	0.00147074
2036	744	485849.5	3752334.9	0.002028742	0.001530912
2036	745	485549.5	3752434.9	0.001794472	0.001324626
2036	746	485649.5	3752434.9	0.00182665	0.001337114
2036	747	485749.5	3752434.9	0.001882293	0.001371805
2036	748	485849.5	3752434.9	0.001954887	0.00142284
2036	749	485549.5	3752534.9	0.001822519	0.00133457
2036	750	485649.5	3752534.9	0.00185133	0.001342231
2036	751	485749.5	3752534.9	0.001907756	0.001375517
2036	752	485849.5	3752534.9	0.001978763	0.001421248
2036	753	485549.5	3752634.9	0.001880855	0.001371813
2036	754	485649.5	3752634.9	0.001910884	0.001379303
2036	755	485749.5	3752634.9	0.001967672	0.001412109
2036	756	485849.5	3752634.9	0.002038557	0.00145584
2036	757	485549.5	3752734.9	0.001953399	0.001422491
2036	758	485649.5	3752734.9	0.001986089	0.001431634
2036	759	485749.5	3752734.9	0.002050619	0.001469412
2036	760	485849.5	3752734.9	0.002129544	0.001517696
2036	761	485549.5	3752834.9	0.002033894	0.001481518
2036	762	485649.5	3752834.9	0.002069403	0.001493384
2036	763	485749.5	3752834.9	0.002143987	0.001539441
2036	764	485849.5	3752834.9	0.00223422	0.001596148
2036	765	485549.5	3752934.9	0.002125289	0.001549419
2036	766	485649.5	3752934.9	0.002162579	0.001563807
2036	767	485749.5	3752934.9	0.002246546	0.00162032
2036	768	485849.5	3752934.9	0.002356775	0.001695749
2036	769	485549.5	3753034.9	0.002242012	0.001638611
2036	770	485649.5	3753034.9	0.00226017	0.001635901
2036	771	485749.5	3753034.9	0.002355235	0.001704743
2036	772	485849.5	3753034.9	0.002493296	0.001811424
2036	773	485549.5	3753134.9	0.002284072	0.001644917
2036	774	485649.5	3753134.9	0.002355896	0.00169816
2036	775	485749.5	3753134.9	0.002457885	0.001778786
2036	776	485849.5	3753134.9	0.002614922	0.001910057

2036	777	485549.5	3753234.9	0.002390153	0.001705256
2036	778	485649.5	3753234.9	0.002465506	0.001764755
2036	779	485749.5	3753234.9	0.002565761	0.001850794
2036	780	485849.5	3753234.9	0.002726467	0.001993194
2036	781	485549.5	3753334.9	0.002552748	0.001807315
2036	782	485649.5	3753334.9	0.002613069	0.001847051
2036	783	485749.5	3753334.9	0.002705472	0.001931871
2036	784	485849.5	3753334.9	0.00285173	0.002074119
2036	785	485549.5	3753434.9	0.002734212	0.001918728
2036	786	485649.5	3753434.9	0.002833638	0.001976921
2036	787	485749.5	3753434.9	0.002943824	0.002069103
2036	788	485849.5	3753434.9	0.003067125	0.00220911
2036	789	485508.5	3746711.3	0.000243354	0.00020122
2036	790	491508.5	3746711.3	0.000169864	0.000140836
2036	791	479508.5	3752711.3	0.000851823	0.000773514
2036	792	485508.5	3752711.3	0.001895189	0.001378055
2036	793	491508.5	3752711.3	0.001567461	0.001036188
2036	794	485508.5	3758711.3	0.00043243	0.000401466
2036	795	491508.5	3758711.3	0.000183346	0.000159375
2036	796	485921.9	3750934.2	0.000365028	0.000272701
2036	797	486021.9	3750934.2	0.000360418	0.000268932
2036	798	486121.9	3750934.2	0.000357923	0.00026707
2036	799	485921.9	3751034.2	0.000384631	0.000287232
2036	800	486021.9	3751034.2	0.000377898	0.000281551
2036	801	486121.9	3751034.2	0.00037402	0.000278405
2036	802	485921.9	3751134.2	0.000406955	0.000304179
2036	803	486021.9	3751134.2	0.000399493	0.000297785
2036	804	486121.9	3751134.2	0.000393681	0.000292847
2036	805	485921.9	3751234.2	0.000432798	0.00032423
2036	806	486021.9	3751234.2	0.000424621	0.00031711
2036	807	486121.9	3751234.2	0.000417409	0.00031087
2036	808	485921.9	3751334.2	0.000464403	0.000349418
2036	809	486021.9	3751334.2	0.000454997	0.000341098
2036	810	486121.9	3751334.2	0.000444613	0.000331926
2036	811	485921.9	3751434.2	0.000507596	0.000385075
2036	812	486021.9	3751434.2	0.0004912	0.000370314
2036	813	486121.9	3751434.2	0.000477666	0.000358177
2036	814	485921.9	3751534.2	0.000553763	0.000423265
2036	815	486021.9	3751534.2	0.000542648	0.000413375
2036	816	486121.9	3751534.2	0.000519194	0.000392079
2036	817	485921.9	3751634.2	0.000593219	0.000455051
2036	818	486021.9	3751634.2	0.000633392	0.000491781
2036	819	486121.9	3751634.2	0.000584532	0.000447697
2036	820	485921.9	3751734.2	0.000679013	0.000528765
2036	821	486021.9	3751734.2	0.000778367	0.000616779
2036	822	486121.9	3751734.2	0.000659997	0.000512079
2036	823	485921.9	3751834.2	0.000866478	0.000691228

2036	824	486021.9	3751834.2	0.000872214	0.000695631
2036	825	486121.9	3751834.2	0.000693402	0.000537748
2036	826	485921.9	3751934.2	0.001294056	0.001034312
2036	827	486021.9	3751934.2	0.001078493	0.000866571
2036	828	486121.9	3751934.2	0.000879039	0.000698955
2036	829	485921.9	3752034.2	0.001535784	0.001210919
2036	830	486021.9	3752034.2	0.001324917	0.001068299
2036	831	486121.9	3752034.2	0.001206381	0.000975352
2036	832	485921.9	3752134.2	0.001953025	0.001557591
2036	833	486021.9	3752134.2	0.001902123	0.001537501
2036	834	486121.9	3752134.2	0.00163049	0.001323345
2036	835	485921.9	3752234.2	0.002480435	0.002033643
2036	836	486021.9	3752234.2	0.002589538	0.00215299
2036	837	486121.9	3752234.2	0.002390124	0.001971573
2036	838	485921.9	3752334.2	0.0020821	0.00157883
2036	839	486021.9	3752334.2	0.002195372	0.001692959
2036	840	486121.9	3752334.2	0.002539709	0.002039301
2036	841	485921.9	3752434.2	0.002021294	0.001478324
2036	842	486021.9	3752434.2	0.002132857	0.001577631
2036	843	486121.9	3752434.2	0.002320376	0.001752716
2036	844	485921.9	3752534.2	0.002044178	0.001466591
2036	845	486021.9	3752534.2	0.00213993	0.001538946
2036	846	486121.9	3752534.2	0.002267798	0.001644881
2036	847	485921.9	3752634.2	0.002097036	0.001494003
2036	848	486021.9	3752634.2	0.002186288	0.001556481
2036	849	486121.9	3752634.2	0.002296269	0.00164047
2036	850	485921.9	3752734.2	0.002191812	0.001557032
2036	851	486021.9	3752734.2	0.002291617	0.001623302
2036	852	486121.9	3752734.2	0.002407619	0.001706739
2036	853	485921.9	3752834.2	0.002309887	0.001643694
2036	854	486021.9	3752834.2	0.002431122	0.001722218
2036	855	486121.9	3752834.2	0.002573458	0.001820611
2036	856	485921.9	3752934.2	0.002446021	0.001755807
2036	857	486021.9	3752934.2	0.002597274	0.001856282
2036	858	486121.9	3752934.2	0.002807017	0.002005958
2036	859	487026.2	3754364	0.009710497	0.00841767
2037	1	489607.4	3753966.1	0.003005338	0.002024868
2037	2	489738.7	3754023.9	0.002663909	0.001858582
2037	3	489668.9	3754093.7	0.002533356	0.001848683
2037	4	489690.1	3754161.6	0.002401322	0.001785056
2037	5	490282.2	3753425.2	0.00354684	0.002476163
2037	6	489797.3	3754554.1	0.001961821	0.001506036
2037	7	490252.9	3754378.2	0.001795272	0.0013542
2037	8	489006	3754140.3	0.004557281	0.003554049
2037	9	485642.8	3754267.3	0.004100126	0.003165087
2037	10	485736.4	3754259.5	0.004521802	0.003497506
2037	11	487189.2	3754820.5	0.010091874	0.00899555

2037	12	487233.1	3754689.5	0.008297948	0.00709333
2037	13	487216.8	3754364.7	0.012644115	0.011429272
2037	14	487388.8	3754380.1	0.009543453	0.008421717
2037	15	484625	3751748	0.001234098	0.000953633
2037	16	483279	3751798	0.00092791	0.000727788
2037	17	483231	3751205	0.000825023	0.000648303
2037	18	480165	3750195	0.000624023	0.000534263
2037	19	481211	3749473	0.000563464	0.000463935
2037	20	481867	3752785	0.000944174	0.00080302
2037	21	480678	3751306	0.000678202	0.000572995
2037	22	479989	3752645	0.0008108	0.000723565
2037	23	479889	3756222	0.001134397	0.001082257
2037	24	479234	3757080	0.000547074	0.000509408
2037	25	480276	3756365	0.000922189	0.000872234
2037	26	479887	3754007	0.001055189	0.0009793
2037	27	480772	3755009	0.002233887	0.002151236
2037	28	481560	3754548	0.001674262	0.001568972
2037	29	481845	3754457	0.001689894	0.001574936
2037	30	481754	3753876	0.001207659	0.001084719
2037	31	489635.2	3750663.8	0.000459906	0.000350302
2037	32	485424.1	3747672.3	0.000299065	0.000242834
2037	33	482657.6	3753975.1	0.00143028	0.00126862
2037	34	481495	3754633.7	0.001756784	0.001654574
2037	35	481148.7	3756136.2	0.001267021	0.001204873
2037	36	482346.5	3748872.9	0.000232626	0.0001823
2037	37	480299	3751198	0.000660146	0.000563128
2037	38	479598.7	3756506.3	0.000867936	0.000821002
2037	39	478997.8	3753535.2	0.001183188	0.001116459
2037	40	478978.3	3755233.1	0.003560174	0.003496442
2037	41	479197.3	3754462.3	0.001567936	0.001503431
2037	42	479493.3	3752408.8	0.000823625	0.000743943
2037	43	480295.4	3752408.4	0.000785911	0.00069107
2037	44	480287.9	3754227.5	0.001156285	0.001075163
2037	45	494397.4	3753977.6	0.000725748	0.000586299
2037	46	481108.5	3750699	0.000665979	0.000556029
2037	47	486794.1	3756878	0.000672299	0.000603662
2037	48	482345	3752065.8	0.000894428	0.00073282
2037	49	487553	3745938.3	0.000182569	0.000153648
2037	50	484553	3746938.3	0.000241564	0.000198588
2037	51	485553	3746938.3	0.000253608	0.000208967
2037	52	486553	3746938.3	0.000202023	0.000171399
2037	53	487553	3746938.3	0.000222575	0.000184427
2037	54	488553	3746938.3	0.000202874	0.000169034
2037	55	489553	3746938.3	0.000200449	0.000165706
2037	56	490553	3746938.3	0.000184072	0.000152596
2037	57	491553	3746938.3	0.000175157	0.000144868
2037	58	492553	3746938.3	0.000168435	0.000139086

2037	59	482553	3747938.3	0.000212152	0.000168924
2037	60	483553	3747938.3	0.000354356	0.000283347
2037	61	484553	3747938.3	0.000337484	0.000271086
2037	62	485553	3747938.3	0.00031492	0.000254433
2037	63	486553	3747938.3	0.000293122	0.000240154
2037	64	487553	3747938.3	0.000187394	0.00015797
2037	65	488553	3747938.3	0.000244456	0.00020091
2037	66	489553	3747938.3	0.000229533	0.000188645
2037	67	490553	3747938.3	0.000216089	0.00017724
2037	68	491553	3747938.3	0.000204979	0.000167532
2037	69	492553	3747938.3	0.000196066	0.0001598
2037	70	493553	3747938.3	0.000189683	0.000154526
2037	71	481553	3748938.3	0.000477258	0.000381585
2037	72	482553	3748938.3	0.000243557	0.000191236
2037	73	483553	3748938.3	0.000407565	0.000324862
2037	74	484553	3748938.3	0.000427488	0.000337876
2037	75	485553	3748938.3	0.000407619	0.000323715
2037	76	486553	3748938.3	0.000377647	0.000302446
2037	77	487553	3748938.3	0.000296439	0.000248158
2037	78	488553	3748938.3	0.000304282	0.000245516
2037	79	489553	3748938.3	0.000279574	0.000226405
2037	80	490553	3748938.3	0.000262247	0.000211584
2037	81	491553	3748938.3	0.00024669	0.000198356
2037	82	492553	3748938.3	0.000236251	0.00018921
2037	83	493553	3748938.3	0.000233243	0.000187063
2037	84	494553	3748938.3	0.00030144	0.000256321
2037	85	480553	3749938.3	0.000738525	0.00064574
2037	86	481553	3749938.3	0.000643016	0.000527037
2037	87	482553	3749938.3	0.000627525	0.000501042
2037	88	483553	3749938.3	0.000616276	0.000485716
2037	89	484553	3749938.3	0.000451724	0.000357484
2037	90	485553	3749938.3	0.000369763	0.000294132
2037	91	486553	3749938.3	0.00043767	0.000354462
2037	92	487553	3749938.3	0.000458427	0.000362341
2037	93	488553	3749938.3	0.000397964	0.000312339
2037	94	489553	3749938.3	0.00036174	0.000285053
2037	95	490553	3749938.3	0.000334027	0.000262435
2037	96	491553	3749938.3	0.000313074	0.00024466
2037	97	492553	3749938.3	0.000304898	0.000237148
2037	98	493553	3749938.3	0.000341455	0.00027118
2037	99	494553	3749938.3	0.000287451	0.000218146
2037	100	495553	3749938.3	0.000228161	0.000188337
2037	101	480553	3750938.3	0.000646363	0.000545317
2037	102	481553	3750938.3	0.000695371	0.000573577
2037	103	482553	3750938.3	0.000755391	0.000607747
2037	104	483553	3750938.3	0.000868914	0.000689323
2037	105	484553	3750938.3	0.000863038	0.000673992

2037	106	485553	3750938.3	0.000381804	0.000286657
2037	107	486553	3750938.3	0.000352273	0.000265001
2037	108	487553	3750938.3	0.000551668	0.000438674
2037	109	488553	3750938.3	0.000597203	0.000442398
2037	110	489553	3750938.3	0.000524571	0.000391487
2037	111	490553	3750938.3	0.000468271	0.000349838
2037	112	491553	3750938.3	0.00043614	0.000323869
2037	113	492553	3750938.3	0.000490154	0.000375303
2037	114	493553	3750938.3	0.000424692	0.000311663
2037	115	494553	3750938.3	0.000411569	0.000305844
2037	116	495553	3750938.3	0.000383874	0.000298329
2037	117	479553	3751938.3	0.000760661	0.00067789
2037	118	480553	3751938.3	0.000747192	0.000644871
2037	119	481553	3751938.3	0.000789246	0.000659741
2037	120	482553	3751938.3	0.000876139	0.000706882
2037	121	483553	3751938.3	0.00100534	0.000784025
2037	122	484553	3751938.3	0.00119653	0.000910504
2037	123	485553	3751938.3	0.001652386	0.001310076
2037	124	486553	3751938.3	0.000677518	0.000518984
2037	125	487553	3751938.3	0.0010938	0.00085464
2037	126	488553	3751938.3	0.00117449	0.000795388
2037	127	489553	3751938.3	0.001068619	0.000702555
2037	128	490553	3751938.3	0.000896855	0.000589903
2037	129	491553	3751938.3	0.000929406	0.000648649
2037	130	492553	3751938.3	0.000742622	0.000479676
2037	131	493553	3751938.3	0.000665304	0.000493868
2037	132	494553	3751938.3	0.000613824	0.000458547
2037	133	495553	3751938.3	0.000540945	0.000414249
2037	134	479553	3752938.3	0.000919753	0.000842083
2037	135	480553	3752938.3	0.000917948	0.00082014
2037	136	481553	3752938.3	0.000989982	0.000862685
2037	137	482553	3752938.3	0.001120124	0.000945069
2037	138	483553	3752938.3	0.001288046	0.001036158
2037	139	484553	3752938.3	0.00160562	0.001206286
2037	140	485553	3752938.3	0.002127435	0.001549907
2037	141	486553	3752938.3	0.004197908	0.00330725
2037	142	487553	3752938.3	0.004624128	0.003486353
2037	143	488553	3752938.3	0.004121289	0.003017912
2037	144	489553	3752938.3	0.003759956	0.002743019
2037	145	490553	3752938.3	0.003118444	0.002239126
2037	146	491553	3752938.3	0.001615505	0.001121584
2037	147	492553	3752938.3	0.001228605	0.000804777
2037	148	493553	3752938.3	0.000998658	0.000713483
2037	149	494553	3752938.3	0.000851242	0.000635835
2037	150	495553	3752938.3	0.000685581	0.000530474
2037	151	479553	3753938.3	0.001056648	0.000985336
2037	152	480553	3753938.3	0.001065631	0.000976785

2037	153	481553	3753938.3	0.001210442	0.00109536
2037	154	482553	3753938.3	0.001382839	0.001225984
2037	155	483553	3753938.3	0.001739126	0.001518375
2037	156	484553	3753938.3	0.002062736	0.001657532
2037	157	485553	3753938.3	0.003328033	0.002399635
2037	158	486553	3753938.3	0.00587771	0.004415519
2037	159	487553	3753938.3	0.006449908	0.005269006
2037	160	488553	3753938.3	0.005707975	0.004366261
2037	161	489553	3753938.3	0.003208337	0.002146419
2037	162	490553	3753938.3	0.001856303	0.001363774
2037	163	491553	3753938.3	0.001295453	0.001010088
2037	164	492553	3753938.3	0.001062803	0.000839688
2037	165	493553	3753938.3	0.000869399	0.000695423
2037	166	494553	3753938.3	0.000790045	0.0006368
2037	167	495553	3753938.3	0.000616134	0.000500931
2037	168	479553	3754938.3	0.001879019	0.001812246
2037	169	480553	3754938.3	0.002003114	0.001923237
2037	170	481553	3754938.3	0.002294445	0.002195577
2037	171	482553	3754938.3	0.00335287	0.003226354
2037	172	483553	3754938.3	0.00368581	0.003520762
2037	173	484553	3754938.3	0.003653175	0.003405562
2037	174	485553	3754938.3	0.005300037	0.004852217
2037	175	486553	3754938.3	0.007308372	0.006652972
2037	176	487553	3754938.3	0.0062339	0.005368797
2037	177	488553	3754938.3	0.003502589	0.002902681
2037	178	489553	3754938.3	0.002195006	0.001888802
2037	179	490553	3754938.3	0.001462739	0.001284618
2037	180	491553	3754938.3	0.000961313	0.000837579
2037	181	492553	3754938.3	0.00069004	0.000593919
2037	182	493553	3754938.3	0.000697621	0.000605986
2037	183	494553	3754938.3	0.000530786	0.000457223
2037	184	495553	3754938.3	0.0004455	0.000382642
2037	185	479553	3755938.3	0.001890688	0.001833685
2037	186	480553	3755938.3	0.001584961	0.001523412
2037	187	481553	3755938.3	0.001605812	0.001537024
2037	188	482553	3755938.3	0.002296043	0.002205008
2037	189	483553	3755938.3	0.002411683	0.002302912
2037	190	484553	3755938.3	0.002292656	0.002159919
2037	191	485553	3755938.3	0.003236686	0.003072111
2037	192	486553	3755938.3	0.002616244	0.002439538
2037	193	487553	3755938.3	0.001445759	0.001334041
2037	194	488553	3755938.3	0.00100995	0.000921686
2037	195	489553	3755938.3	0.000692157	0.000624987
2037	196	490553	3755938.3	0.000572999	0.000515125
2037	197	491553	3755938.3	0.000472248	0.000422692
2037	198	492553	3755938.3	0.000572246	0.000526197
2037	199	493553	3755938.3	0.000419577	0.000378874

2037	200	494553	3755938.3	0.000403112	0.000365151
2037	201	479553	3756938.3	0.000573374	0.000534622
2037	202	480553	3756938.3	0.000548895	0.000508986
2037	203	481553	3756938.3	0.000495782	0.000457683
2037	204	482553	3756938.3	0.00051746	0.000475038
2037	205	483553	3756938.3	0.000872637	0.000803056
2037	206	484553	3756938.3	0.00084184	0.000766684
2037	207	485553	3756938.3	0.001827111	0.001750147
2037	208	486553	3756938.3	0.000695643	0.000626292
2037	209	487553	3756938.3	0.00045769	0.000405552
2037	210	488553	3756938.3	0.000371244	0.000326038
2037	211	489553	3756938.3	0.000325199	0.000284817
2037	212	490553	3756938.3	0.000297106	0.000260157
2037	213	491553	3756938.3	0.000259743	0.000227122
2037	214	492553	3756938.3	0.00023137	0.000202437
2037	215	493553	3756938.3	0.000245885	0.000217978
2037	216	494553	3756938.3	0.000238675	0.000212418
2037	217	479553	3757938.3	0.000288328	0.000263889
2037	218	480553	3757938.3	0.000276024	0.000251565
2037	219	481553	3757938.3	0.00029157	0.000263898
2037	220	482553	3757938.3	0.000360656	0.000323934
2037	221	483553	3757938.3	0.000353692	0.000315771
2037	222	484553	3757938.3	0.000465686	0.000418696
2037	223	485553	3757938.3	0.000539591	0.000498787
2037	224	486553	3757938.3	0.000322692	0.00028524
2037	225	487553	3757938.3	0.000263808	0.000230199
2037	226	488553	3757938.3	0.00023161	0.000200905
2037	227	489553	3757938.3	0.000213728	0.000184893
2037	228	490553	3757938.3	0.000195439	0.000168934
2037	229	491553	3757938.3	0.000179074	0.000154599
2037	230	492553	3757938.3	0.000171933	0.000148988
2037	231	493553	3757938.3	0.000190686	0.000166992
2037	232	480553	3758938.3	0.000207166	0.000186495
2037	233	481553	3758938.3	0.000231101	0.000206373
2037	234	482553	3758938.3	0.000225123	0.000199414
2037	235	483553	3758938.3	0.000236025	0.000208208
2037	236	484553	3758938.3	0.00029534	0.000264183
2037	237	485553	3758938.3	0.000685858	0.00065257
2037	238	486553	3758938.3	0.000223329	0.000196708
2037	239	487553	3758938.3	0.000245191	0.000215841
2037	240	488553	3758938.3	0.000182051	0.000158491
2037	241	489553	3758938.3	0.000184564	0.000160754
2037	242	490553	3758938.3	0.000201511	0.000175347
2037	243	491553	3758938.3	0.00016388	0.000142275
2037	244	492553	3758938.3	0.000170507	0.000148228
2037	245	481553	3759938.3	0.000170999	0.000151817
2037	246	482553	3759938.3	0.000176464	0.000155607

2037	247	483553	3759938.3	0.000186986	0.000164671
2037	248	484553	3759938.3	0.000260077	0.000232294
2037	249	485553	3759938.3	0.000678447	0.000644739
2037	250	486553	3759938.3	0.00032149	0.00028742
2037	251	487553	3759938.3	0.000262256	0.000232114
2037	252	488553	3759938.3	0.000261735	0.000229806
2037	253	489553	3759938.3	0.000226817	0.000197994
2037	254	490553	3759938.3	0.000175373	0.000153105
2037	255	491553	3759938.3	0.000152834	0.000133041
2037	256	482553	3760938.3	0.000166449	0.000146921
2037	257	483553	3760938.3	0.000192501	0.000170624
2037	258	484553	3760938.3	0.000245855	0.00022007
2037	259	485553	3760938.3	0.000558289	0.000524197
2037	260	486553	3760938.3	0.00036625	0.000329826
2037	261	487553	3760938.3	0.000292034	0.000262292
2037	262	488553	3760938.3	0.000166389	0.000147291
2037	263	489553	3760938.3	0.000126207	0.000110586
2037	264	490553	3760938.3	0.000120723	0.000105368
2037	265	484551.7	3750934.4	0.00085781	0.000670964
2037	266	484651.7	3750934.4	0.00084689	0.000662861
2037	267	484751.7	3750934.4	0.000647301	0.000513036
2037	268	484851.7	3750934.4	0.000593984	0.000470956
2037	269	484951.7	3750934.4	0.000627812	0.00049677
2037	270	485051.7	3750934.4	0.00056273	0.000444998
2037	271	485151.7	3750934.4	0.000468565	0.000364323
2037	272	485251.7	3750934.4	0.000412708	0.000314147
2037	273	485351.7	3750934.4	0.000396894	0.000299953
2037	274	485451.7	3750934.4	0.0003885	0.00029256
2037	275	484551.7	3751034.4	0.00091639	0.000709662
2037	276	484651.7	3751034.4	0.00090406	0.000701219
2037	277	484751.7	3751034.4	0.000849246	0.000669214
2037	278	484851.7	3751034.4	0.000672371	0.0005324
2037	279	484951.7	3751034.4	0.000747061	0.000589409
2037	280	485051.7	3751034.4	0.00062661	0.000495875
2037	281	485151.7	3751034.4	0.000543262	0.000427368
2037	282	485251.7	3751034.4	0.000462049	0.000355854
2037	283	485351.7	3751034.4	0.000426744	0.000324007
2037	284	485451.7	3751034.4	0.000411431	0.000310272
2037	285	484551.7	3751134.4	0.000962674	0.000742171
2037	286	484651.7	3751134.4	0.000960568	0.000738894
2037	287	484751.7	3751134.4	0.000948044	0.000731807
2037	288	484851.7	3751134.4	0.000856235	0.000678417
2037	289	484951.7	3751134.4	0.000877054	0.000690184
2037	290	485051.7	3751134.4	0.00072305	0.000571168
2037	291	485151.7	3751134.4	0.000641733	0.000507903
2037	292	485251.7	3751134.4	0.000555085	0.000435731
2037	293	485351.7	3751134.4	0.000472087	0.000362072

2037	294	485451.7	3751134.4	0.000438092	0.000331327
2037	295	484551.7	3751234.4	0.001010266	0.000778358
2037	296	484651.7	3751234.4	0.001010341	0.000775898
2037	297	484751.7	3751234.4	0.001002462	0.00077203
2037	298	484851.7	3751234.4	0.000974393	0.000757209
2037	299	484951.7	3751234.4	0.000948845	0.000742007
2037	300	485051.7	3751234.4	0.00085298	0.000675077
2037	301	485151.7	3751234.4	0.000719612	0.000570026
2037	302	485251.7	3751234.4	0.000543351	0.000423307
2037	303	485351.7	3751234.4	0.00048047	0.000366617
2037	304	485451.7	3751234.4	0.000461442	0.000349354
2037	305	484551.7	3751334.4	0.001081053	0.000835602
2037	306	484651.7	3751334.4	0.001073192	0.000827108
2037	307	484751.7	3751334.4	0.001061106	0.000819641
2037	308	484851.7	3751334.4	0.001046072	0.000810269
2037	309	484951.7	3751334.4	0.00103785	0.000803428
2037	310	485051.7	3751334.4	0.000995324	0.000779379
2037	311	485151.7	3751334.4	0.000842305	0.000666826
2037	312	485251.7	3751334.4	0.00066315	0.000525565
2037	313	485351.7	3751334.4	0.000522765	0.000401953
2037	314	485451.7	3751334.4	0.00048902	0.000371194
2037	315	484551.7	3751434.4	0.001195871	0.000941044
2037	316	484651.7	3751434.4	0.001163768	0.000905728
2037	317	484751.7	3751434.4	0.001144393	0.000885781
2037	318	484851.7	3751434.4	0.00113107	0.000873877
2037	319	484951.7	3751434.4	0.001120277	0.000865319
2037	320	485051.7	3751434.4	0.00110667	0.000855016
2037	321	485151.7	3751434.4	0.00099371	0.000789774
2037	322	485251.7	3751434.4	0.000773905	0.00061681
2037	323	485351.7	3751434.4	0.000608583	0.00047649
2037	324	485451.7	3751434.4	0.00054169	0.000415823
2037	325	484551.7	3751534.4	0.001456143	0.001194651
2037	326	484651.7	3751534.4	0.001349409	0.001081237
2037	327	484751.7	3751534.4	0.001270368	0.000997498
2037	328	484851.7	3751534.4	0.001233975	0.000958587
2037	329	484951.7	3751534.4	0.001216508	0.000938945
2037	330	485051.7	3751534.4	0.00120715	0.000926978
2037	331	485151.7	3751534.4	0.001192785	0.000916086
2037	332	485251.7	3751534.4	0.001082089	0.00085507
2037	333	485351.7	3751534.4	0.000865048	0.000689985
2037	334	485451.7	3751534.4	0.000715318	0.00056769
2037	335	484551.7	3751634.4	0.001348616	0.00108066
2037	336	484651.7	3751634.4	0.001389714	0.001114828
2037	337	484751.7	3751634.4	0.001432773	0.001150223
2037	338	484851.7	3751634.4	0.001460119	0.001172175
2037	339	484951.7	3751634.4	0.001360079	0.001067802
2037	340	485051.7	3751634.4	0.001317314	0.001020951

2037	341	485151.7	3751634.4	0.001301717	0.00100178
2037	342	485251.7	3751634.4	0.00126963	0.000980559
2037	343	485351.7	3751634.4	0.001209076	0.000942354
2037	344	485451.7	3751634.4	0.001103471	0.000878023
2037	345	484551.7	3751734.4	0.00119826	0.000925036
2037	346	484651.7	3751734.4	0.001264518	0.00098234
2037	347	484751.7	3751734.4	0.001369029	0.001078914
2037	348	484851.7	3751734.4	0.001502342	0.001205645
2037	349	484951.7	3751734.4	0.001504911	0.00120346
2037	350	485051.7	3751734.4	0.001637929	0.001331229
2037	351	485151.7	3751734.4	0.001489861	0.001175256
2037	352	485251.7	3751734.4	0.001448465	0.001130981
2037	353	485351.7	3751734.4	0.001395598	0.00108578
2037	354	485451.7	3751734.4	0.001321168	0.001028942
2037	355	484551.7	3751834.4	0.001178528	0.000900498
2037	356	484651.7	3751834.4	0.001216232	0.000929544
2037	357	484751.7	3751834.4	0.001259795	0.000964382
2037	358	484851.7	3751834.4	0.001311587	0.001008227
2037	359	484951.7	3751834.4	0.001376602	0.001067296
2037	360	485051.7	3751834.4	0.001520517	0.001203986
2037	361	485151.7	3751834.4	0.001542038	0.001214307
2037	362	485251.7	3751834.4	0.001632191	0.001296729
2037	363	485351.7	3751834.4	0.001647723	0.001312326
2037	364	485451.7	3751834.4	0.00164466	0.001317141
2037	365	484551.7	3751934.4	0.001194952	0.000909391
2037	366	484651.7	3751934.4	0.001221364	0.000928327
2037	367	484751.7	3751934.4	0.001248195	0.00094805
2037	368	484851.7	3751934.4	0.001281837	0.000973346
2037	369	484951.7	3751934.4	0.001318899	0.001002103
2037	370	485051.7	3751934.4	0.001366238	0.001039846
2037	371	485151.7	3751934.4	0.001426081	0.001088516
2037	372	485251.7	3751934.4	0.00150841	0.001158113
2037	373	485351.7	3751934.4	0.001627079	0.001268813
2037	374	485451.7	3751934.4	0.001700973	0.001347094
2037	375	484551.7	3752034.4	0.00123658	0.000940967
2037	376	484651.7	3752034.4	0.001259397	0.000956388
2037	377	484751.7	3752034.4	0.001283978	0.000973366
2037	378	484851.7	3752034.4	0.001310027	0.000991611
2037	379	484951.7	3752034.4	0.001342007	0.001014467
2037	380	485051.7	3752034.4	0.001380379	0.001042355
2037	381	485151.7	3752034.4	0.001427179	0.001077177
2037	382	485251.7	3752034.4	0.001494628	0.001130077
2037	383	485351.7	3752034.4	0.001585696	0.001209182
2037	384	485451.7	3752034.4	0.001797931	0.001414264
2037	385	484551.7	3752134.4	0.001309768	0.001003584
2037	386	484651.7	3752134.4	0.00133143	0.001017358
2037	387	484751.7	3752134.4	0.001355632	0.00103318

2037	388	484851.7	3752134.4	0.001380202	0.001049316
2037	389	484951.7	3752134.4	0.001407388	0.001067564
2037	390	485051.7	3752134.4	0.001440843	0.001090734
2037	391	485151.7	3752134.4	0.001481643	0.001119932
2037	392	485251.7	3752134.4	0.001541168	0.001164836
2037	393	485351.7	3752134.4	0.00163458	0.001242518
2037	394	485451.7	3752134.4	0.00184928	0.001444735
2037	395	484551.7	3752234.4	0.00144234	0.001126349
2037	396	484651.7	3752234.4	0.001473627	0.001148329
2037	397	484751.7	3752234.4	0.001496568	0.00116218
2037	398	484851.7	3752234.4	0.001516013	0.001172452
2037	399	484951.7	3752234.4	0.00161539	0.001262436
2037	400	485051.7	3752234.4	0.001568001	0.00120522
2037	401	485151.7	3752234.4	0.001609817	0.001236612
2037	402	485251.7	3752234.4	0.001656023	0.001268681
2037	403	485351.7	3752234.4	0.001744825	0.001340437
2037	404	485451.7	3752234.4	0.002006212	0.001585117
2037	405	484551.7	3752334.4	0.00137642	0.001048293
2037	406	484651.7	3752334.4	0.001402623	0.001064916
2037	407	484751.7	3752334.4	0.001428874	0.001081665
2037	408	484851.7	3752334.4	0.001456068	0.001099205
2037	409	484951.7	3752334.4	0.001486183	0.001118959
2037	410	485051.7	3752334.4	0.001516782	0.001139289
2037	411	485151.7	3752334.4	0.001552645	0.001163754
2037	412	485251.7	3752334.4	0.001594992	0.001193738
2037	413	485351.7	3752334.4	0.001653852	0.001237788
2037	414	485451.7	3752334.4	0.001757089	0.001322574
2037	415	484551.7	3752434.4	0.001374057	0.001033906
2037	416	484651.7	3752434.4	0.001400675	0.00105041
2037	417	484751.7	3752434.4	0.001426966	0.001066937
2037	418	484851.7	3752434.4	0.001458117	0.001086799
2037	419	484951.7	3752434.4	0.001488964	0.001106788
2037	420	485051.7	3752434.4	0.001522938	0.001129194
2037	421	485151.7	3752434.4	0.001560259	0.001154198
2037	422	485251.7	3752434.4	0.001601804	0.001182746
2037	423	485351.7	3752434.4	0.001653242	0.001219379
2037	424	485451.7	3752434.4	0.001729627	0.001279192
2037	425	484551.7	3752534.4	0.001401819	0.001049316
2037	426	484651.7	3752534.4	0.001429809	0.001066429
2037	427	484751.7	3752534.4	0.001459488	0.001084859
2037	428	484851.7	3752534.4	0.001491713	0.001105178
2037	429	484951.7	3752534.4	0.00152427	0.00112611
2037	430	485051.7	3752534.4	0.001560829	0.001149939
2037	431	485151.7	3752534.4	0.001599872	0.001175854
2037	432	485251.7	3752534.4	0.001641838	0.001204362
2037	433	485351.7	3752534.4	0.001690709	0.001238524
2037	434	485451.7	3752534.4	0.00176205	0.001293077

2037	435	484551.7	3752634.4	0.001438541	0.001074066
2037	436	484651.7	3752634.4	0.001468059	0.001091822
2037	437	484751.7	3752634.4	0.001499137	0.001110847
2037	438	484851.7	3752634.4	0.001535217	0.00113325
2037	439	484951.7	3752634.4	0.001570908	0.001155938
2037	440	485051.7	3752634.4	0.001610282	0.001181404
2037	441	485151.7	3752634.4	0.001651377	0.001208572
2037	442	485251.7	3752634.4	0.001695229	0.001238247
2037	443	485351.7	3752634.4	0.001745409	0.001273186
2037	444	485451.7	3752634.4	0.001817814	0.001327956
2037	445	484551.7	3752734.4	0.001483352	0.001106832
2037	446	484651.7	3752734.4	0.001516186	0.001126096
2037	447	484751.7	3752734.4	0.001550521	0.001146678
2037	448	484851.7	3752734.4	0.001587292	0.00116924
2037	449	484951.7	3752734.4	0.001626016	0.001193528
2037	450	485051.7	3752734.4	0.001668241	0.001220643
2037	451	485151.7	3752734.4	0.001711712	0.001249267
2037	452	485251.7	3752734.4	0.00175782	0.001280463
2037	453	485351.7	3752734.4	0.001810408	0.001317086
2037	454	485451.7	3752734.4	0.001882636	0.001372065
2037	455	484551.7	3752834.4	0.001534456	0.001146596
2037	456	484651.7	3752834.4	0.001570243	0.001166992
2037	457	484751.7	3752834.4	0.001606119	0.001187866
2037	458	484851.7	3752834.4	0.001647252	0.001212626
2037	459	484951.7	3752834.4	0.001689701	0.001238761
2037	460	485051.7	3752834.4	0.001734221	0.001266916
2037	461	485151.7	3752834.4	0.001780125	0.001296864
2037	462	485251.7	3752834.4	0.001829099	0.001329854
2037	463	485351.7	3752834.4	0.001882997	0.001367863
2037	464	485451.7	3752834.4	0.001957854	0.001425333
2037	465	484551.7	3752934.4	0.001601751	0.001203046
2037	466	484651.7	3752934.4	0.00164048	0.00122451
2037	467	484751.7	3752934.4	0.001679838	0.001246691
2037	468	484851.7	3752934.4	0.001724112	0.001272555
2037	469	484951.7	3752934.4	0.001770055	0.001300051
2037	470	485051.7	3752934.4	0.001818983	0.001330259
2037	471	485151.7	3752934.4	0.00186735	0.001361117
2037	472	485251.7	3752934.4	0.001920264	0.00139627
2037	473	485351.7	3752934.4	0.001973824	0.001433845
2037	474	485451.7	3752934.4	0.002047133	0.001490124
2037	475	484551.7	3753034.4	0.001715618	0.001307625
2037	476	484651.7	3753034.4	0.00176227	0.001335261
2037	477	484751.7	3753034.4	0.001814456	0.001367484
2037	478	484851.7	3753034.4	0.001855514	0.001387618
2037	479	484951.7	3753034.4	0.001903049	0.001414056
2037	480	485051.7	3753034.4	0.00195553	0.001445755
2037	481	485151.7	3753034.4	0.002014561	0.001483999

2037	482	485251.7	3753034.4	0.002115233	0.001564722
2037	483	485351.7	3753034.4	0.002120727	0.001552771
2037	484	485451.7	3753034.4	0.002181446	0.001596507
2037	485	484551.7	3753134.4	0.001687332	0.001270859
2037	486	484651.7	3753134.4	0.00173429	0.001296449
2037	487	484751.7	3753134.4	0.001785371	0.001324848
2037	488	484851.7	3753134.4	0.001837625	0.00135412
2037	489	484951.7	3753134.4	0.001893722	0.001386283
2037	490	485051.7	3753134.4	0.001952738	0.00142104
2037	491	485151.7	3753134.4	0.002013623	0.001457896
2037	492	485251.7	3753134.4	0.002078831	0.001499391
2037	493	485351.7	3753134.4	0.002146062	0.001544987
2037	494	485451.7	3753134.4	0.002226377	0.001605705
2037	495	484551.7	3753234.4	0.001710402	0.001286521
2037	496	484651.7	3753234.4	0.001761812	0.001314088
2037	497	484751.7	3753234.4	0.001815975	0.001343414
2037	498	484851.7	3753234.4	0.001873055	0.001374714
2037	499	484951.7	3753234.4	0.001934588	0.001409086
2037	500	485051.7	3753234.4	0.002000977	0.001447239
2037	501	485151.7	3753234.4	0.002070191	0.001487989
2037	502	485251.7	3753234.4	0.00214474	0.001533638
2037	503	485351.7	3753234.4	0.002223326	0.001584671
2037	504	485451.7	3753234.4	0.00231898	0.00165487
2037	505	484551.7	3753334.4	0.001749836	0.001319961
2037	506	484651.7	3753334.4	0.001804365	0.001348842
2037	507	484751.7	3753334.4	0.001861251	0.001378912
2037	508	484851.7	3753334.4	0.001925027	0.001413483
2037	509	484951.7	3753334.4	0.001990743	0.00144911
2037	510	485051.7	3753334.4	0.002063278	0.001489422
2037	511	485151.7	3753334.4	0.002141295	0.001533966
2037	512	485251.7	3753334.4	0.002229989	0.001586604
2037	513	485351.7	3753334.4	0.002326635	0.001646844
2037	514	485451.7	3753334.4	0.002441918	0.0017269
2037	515	484551.7	3753434.4	0.001791726	0.001359032
2037	516	484651.7	3753434.4	0.001848842	0.001389154
2037	517	484751.7	3753434.4	0.001909309	0.001420715
2037	518	484851.7	3753434.4	0.001977124	0.00145699
2037	519	484951.7	3753434.4	0.002048261	0.001494284
2037	520	485051.7	3753434.4	0.002126433	0.001536252
2037	521	485151.7	3753434.4	0.002215529	0.001586236
2037	522	485251.7	3753434.4	0.002317732	0.001645499
2037	523	485351.7	3753434.4	0.002433163	0.001715569
2037	524	485451.7	3753434.4	0.00258071	0.00181406
2037	525	484551.7	3753534.4	0.001834271	0.001401772
2037	526	484651.7	3753534.4	0.001889351	0.001429249
2037	527	484751.7	3753534.4	0.001951536	0.001461171
2037	528	484851.7	3753534.4	0.002026173	0.001502069

2037	529	484951.7	3753534.4	0.00210231	0.001542131
2037	530	485051.7	3753534.4	0.002186094	0.001586561
2037	531	485151.7	3753534.4	0.00228372	0.001640541
2037	532	485251.7	3753534.4	0.002397312	0.001705771
2037	533	485351.7	3753534.4	0.00253218	0.001786736
2037	534	485451.7	3753534.4	0.002708557	0.001902665
2037	535	484551.7	3753634.4	0.001877063	0.001447138
2037	536	484651.7	3753634.4	0.001934776	0.001476223
2037	537	484751.7	3753634.4	0.002000177	0.001510122
2037	538	484851.7	3753634.4	0.002073708	0.001548936
2037	539	484951.7	3753634.4	0.002154732	0.001591924
2037	540	485051.7	3753634.4	0.002243852	0.001639563
2037	541	485151.7	3753634.4	0.002346954	0.001696693
2037	542	485251.7	3753634.4	0.002467347	0.001766469
2037	543	485351.7	3753634.4	0.002608998	0.001852946
2037	544	485451.7	3753634.4	0.002796159	0.001980042
2037	545	484551.7	3753734.4	0.001934299	0.001509715
2037	546	484651.7	3753734.4	0.001991163	0.001537158
2037	547	484751.7	3753734.4	0.00205413	0.001567525
2037	548	484851.7	3753734.4	0.002123749	0.001601175
2037	549	484951.7	3753734.4	0.0022069	0.001644798
2037	550	485051.7	3753734.4	0.002301359	0.001695531
2037	551	485151.7	3753734.4	0.002408853	0.001754781
2037	552	485251.7	3753734.4	0.002533232	0.001826116
2037	553	485351.7	3753734.4	0.002681382	0.001916507
2037	554	485451.7	3753734.4	0.002875536	0.002049607
2037	555	484551.7	3753834.4	0.001993158	0.001576913
2037	556	484651.7	3753834.4	0.002047351	0.001601491
2037	557	484751.7	3753834.4	0.002110471	0.001631739
2037	558	484851.7	3753834.4	0.002181027	0.001665539
2037	559	484951.7	3753834.4	0.002265921	0.001709602
2037	560	485051.7	3753834.4	0.002359809	0.001757485
2037	561	485151.7	3753834.4	0.002468271	0.001814695
2037	562	485251.7	3753834.4	0.002599845	0.001889462
2037	563	485351.7	3753834.4	0.00275538	0.001982722
2037	564	485451.7	3753834.4	0.002959871	0.002119668
2037	565	484551.7	3753934.4	0.002057964	0.001652498
2037	566	484651.7	3753934.4	0.002115125	0.00168019
2037	567	484751.7	3753934.4	0.00216924	0.001700941
2037	568	484851.7	3753934.4	0.002241081	0.001736206
2037	569	484951.7	3753934.4	0.002325125	0.001779229
2037	570	485051.7	3753934.4	0.002421929	0.001829895
2037	571	485151.7	3753934.4	0.002533649	0.001889484
2037	572	485251.7	3753934.4	0.002665218	0.001962212
2037	573	485351.7	3753934.4	0.002824593	0.002054876
2037	574	485451.7	3753934.4	0.003036929	0.002191879
2037	575	484551.7	3754034.4	0.002134061	0.001744042

2037	576	484651.7	3754034.4	0.002164441	0.00174111
2037	577	484751.7	3754034.4	0.002233019	0.001777893
2037	578	484851.7	3754034.4	0.002308684	0.001817367
2037	579	484951.7	3754034.4	0.002391473	0.0018593
2037	580	485051.7	3754034.4	0.002485474	0.001907343
2037	581	485151.7	3754034.4	0.002595727	0.001965697
2037	582	485251.7	3754034.4	0.00272772	0.002039071
2037	583	485351.7	3754034.4	0.002888299	0.002133606
2037	584	485451.7	3754034.4	0.003102403	0.00227432
2037	585	484551.7	3754134.4	0.002186274	0.001807139
2037	586	484651.7	3754134.4	0.002225021	0.001815615
2037	587	484751.7	3754134.4	0.002293936	0.001854061
2037	588	484851.7	3754134.4	0.002375554	0.001901776
2037	589	484951.7	3754134.4	0.002457415	0.001943255
2037	590	485051.7	3754134.4	0.002553067	0.001992794
2037	591	485151.7	3754134.4	0.002664673	0.002052706
2037	592	485251.7	3754134.4	0.002796993	0.002127144
2037	593	485351.7	3754134.4	0.00295868	0.002223219
2037	594	485451.7	3754134.4	0.003172011	0.002363175
2037	595	484551.7	3754234.4	0.002240663	0.001872713
2037	596	484651.7	3754234.4	0.00229019	0.001895488
2037	597	484751.7	3754234.4	0.002363842	0.001940994
2037	598	484851.7	3754234.4	0.002446119	0.001991594
2037	599	484951.7	3754234.4	0.002530731	0.002038242
2037	600	485051.7	3754234.4	0.002624803	0.002088277
2037	601	485151.7	3754234.4	0.002735868	0.00214918
2037	602	485251.7	3754234.4	0.00286773	0.00222367
2037	603	485351.7	3754234.4	0.003029111	0.002319229
2037	604	485451.7	3754234.4	0.00324325	0.002459568
2037	605	484551.7	3754334.4	0.002319381	0.001965274
2037	606	484651.7	3754334.4	0.002383308	0.002006268
2037	607	484751.7	3754334.4	0.002455562	0.002052936
2037	608	484851.7	3754334.4	0.002529848	0.002096785
2037	609	484951.7	3754334.4	0.002613682	0.002145331
2037	610	485051.7	3754334.4	0.002708685	0.002199202
2037	611	485151.7	3754334.4	0.002818094	0.002261127
2037	612	485251.7	3754334.4	0.002948876	0.002337852
2037	613	485351.7	3754334.4	0.003105414	0.002433595
2037	614	485451.7	3754334.4	0.003295493	0.002555144
2037	615	484551.7	3754434.4	0.002466948	0.002134251
2037	616	484651.7	3754434.4	0.002513144	0.002157251
2037	617	484751.7	3754434.4	0.00257021	0.002189104
2037	618	484851.7	3754434.4	0.002635733	0.002225749
2037	619	484951.7	3754434.4	0.002715329	0.002272607
2037	620	485051.7	3754434.4	0.002807268	0.002326432
2037	621	485151.7	3754434.4	0.0029154	0.002390492
2037	622	485251.7	3754434.4	0.003043715	0.002468005

2037	623	485351.7	3754434.4	0.00319795	0.002564289
2037	624	485451.7	3754434.4	0.003387155	0.002688871
2037	625	484551.7	3754534.4	0.002641132	0.002327165
2037	626	484651.7	3754534.4	0.002686088	0.002351475
2037	627	484751.7	3754534.4	0.002725027	0.002366095
2037	628	484851.7	3754534.4	0.002773038	0.00238861
2037	629	484951.7	3754534.4	0.002842577	0.002428131
2037	630	485051.7	3754534.4	0.002929537	0.002479577
2037	631	485151.7	3754534.4	0.003035137	0.002543871
2037	632	485251.7	3754534.4	0.003160924	0.002621983
2037	633	485351.7	3754534.4	0.003312481	0.002718463
2037	634	485451.7	3754534.4	0.003505868	0.002848357
2037	635	484551.7	3754634.4	0.002802756	0.00250701
2037	636	484651.7	3754634.4	0.002841798	0.002526934
2037	637	484751.7	3754634.4	0.002899832	0.002564488
2037	638	484851.7	3754634.4	0.002935938	0.002578445
2037	639	484951.7	3754634.4	0.002995686	0.002611829
2037	640	485051.7	3754634.4	0.003077688	0.0026629
2037	641	485151.7	3754634.4	0.00317944	0.002728647
2037	642	485251.7	3754634.4	0.003303422	0.002809311
2037	643	485351.7	3754634.4	0.003456635	0.002910261
2037	644	485451.7	3754634.4	0.0036547	0.003047312
2037	645	484551.7	3754734.4	0.002978054	0.002698924
2037	646	484651.7	3754734.4	0.003018031	0.002722379
2037	647	484751.7	3754734.4	0.003064686	0.002751352
2037	648	484851.7	3754734.4	0.003120789	0.002788199
2037	649	484951.7	3754734.4	0.003188652	0.002833756
2037	650	485051.7	3754734.4	0.003270037	0.002888999
2037	651	485151.7	3754734.4	0.003368486	0.00295669
2037	652	485251.7	3754734.4	0.003490168	0.003042657
2037	653	485351.7	3754734.4	0.003643485	0.0031557
2037	654	485451.7	3754734.4	0.003840616	0.003306472
2037	655	484551.7	3754834.4	0.003242658	0.002979317
2037	656	484651.7	3754834.4	0.003285329	0.003008528
2037	657	484751.7	3754834.4	0.003333217	0.003041133
2037	658	484851.7	3754834.4	0.003388116	0.003078581
2037	659	484951.7	3754834.4	0.003454875	0.003126139
2037	660	485051.7	3754834.4	0.003533567	0.00318294
2037	661	485151.7	3754834.4	0.003631038	0.003255403
2037	662	485251.7	3754834.4	0.003755515	0.003351331
2037	663	485351.7	3754834.4	0.003922464	0.003487445
2037	664	485451.7	3754834.4	0.004140971	0.003671542
2037	665	484551.7	3754934.4	0.003634536	0.00338655
2037	666	484651.7	3754934.4	0.003674978	0.003415274
2037	667	484751.7	3754934.4	0.003720486	0.003447449
2037	668	484851.7	3754934.4	0.003772977	0.003484859
2037	669	484951.7	3754934.4	0.003836569	0.003531869

2037	670	485051.7	3754934.4	0.003910227	0.003586716
2037	671	485151.7	3754934.4	0.004006419	0.003662433
2037	672	485251.7	3754934.4	0.004134273	0.003767131
2037	673	485351.7	3754934.4	0.004333918	0.003942243
2037	674	485451.7	3754934.4	0.004702267	0.004283123
2037	675	484551.7	3755034.4	0.004219462	0.003985179
2037	676	484651.7	3755034.4	0.004255692	0.004011236
2037	677	484751.7	3755034.4	0.004294449	0.004038013
2037	678	484851.7	3755034.4	0.004346369	0.004077414
2037	679	484951.7	3755034.4	0.004407037	0.004123743
2037	680	485051.7	3755034.4	0.004481581	0.004182307
2037	681	485151.7	3755034.4	0.004574177	0.004257259
2037	682	485251.7	3755034.4	0.004703021	0.004367231
2037	683	485351.7	3755034.4	0.004910749	0.004554369
2037	684	485451.7	3755034.4	0.005501719	0.005122284
2037	685	485549.5	3750934.9	0.000381408	0.000286398
2037	686	485649.5	3750934.9	0.000376802	0.00028247
2037	687	485749.5	3750934.9	0.000373905	0.000280085
2037	688	485849.5	3750934.9	0.000369327	0.000276267
2037	689	485549.5	3751034.9	0.000402374	0.000302286
2037	690	485649.5	3751034.9	0.000396166	0.000296938
2037	691	485749.5	3751034.9	0.000393503	0.000294719
2037	692	485849.5	3751034.9	0.000389964	0.000291775
2037	693	485549.5	3751134.9	0.000425468	0.000320068
2037	694	485649.5	3751134.9	0.000418729	0.000314191
2037	695	485749.5	3751134.9	0.000415753	0.000311674
2037	696	485849.5	3751134.9	0.000411351	0.000307938
2037	697	485549.5	3751234.9	0.000452898	0.000341689
2037	698	485649.5	3751234.9	0.000444221	0.000334028
2037	699	485749.5	3751234.9	0.000440756	0.000331036
2037	700	485849.5	3751234.9	0.000439925	0.000330468
2037	701	485549.5	3751334.9	0.000482122	0.000364898
2037	702	485649.5	3751334.9	0.000475505	0.000358979
2037	703	485749.5	3751334.9	0.000470137	0.000354265
2037	704	485849.5	3751334.9	0.000473821	0.00035779
2037	705	485549.5	3751434.9	0.000522869	0.000398477
2037	706	485649.5	3751434.9	0.000518805	0.000394748
2037	707	485749.5	3751434.9	0.000507386	0.00038446
2037	708	485849.5	3751434.9	0.000522982	0.000398924
2037	709	485549.5	3751534.9	0.000654594	0.000514071
2037	710	485649.5	3751534.9	0.000638801	0.000499731
2037	711	485749.5	3751534.9	0.000580121	0.000446876
2037	712	485849.5	3751534.9	0.000569107	0.000437031
2037	713	485549.5	3751634.9	0.001009894	0.000803943
2037	714	485649.5	3751634.9	0.000853953	0.000681468
2037	715	485749.5	3751634.9	0.000795791	0.000633331
2037	716	485849.5	3751634.9	0.00061185	0.000471853

2037	717	485549.5	3751734.9	0.001247554	0.000980651
2037	718	485649.5	3751734.9	0.001192698	0.000943849
2037	719	485749.5	3751734.9	0.001061267	0.000846565
2037	720	485849.5	3751734.9	0.000748065	0.000590538
2037	721	485549.5	3751834.9	0.001423585	0.00112109
2037	722	485649.5	3751834.9	0.001350044	0.001063201
2037	723	485749.5	3751834.9	0.001292025	0.001021026
2037	724	485849.5	3751834.9	0.001103141	0.000882625
2037	725	485549.5	3751934.9	0.001652881	0.001311622
2037	726	485649.5	3751934.9	0.001514799	0.00118527
2037	727	485749.5	3751934.9	0.001473871	0.00115035
2037	728	485849.5	3751934.9	0.001418527	0.001111805
2037	729	485549.5	3752034.9	0.001913952	0.001532891
2037	730	485649.5	3752034.9	0.001679936	0.001308415
2037	731	485749.5	3752034.9	0.001644047	0.001277913
2037	732	485849.5	3752034.9	0.001610713	0.0012578
2037	733	485549.5	3752134.9	0.001969271	0.001556215
2037	734	485649.5	3752134.9	0.00191735	0.001499243
2037	735	485749.5	3752134.9	0.001923089	0.001505909
2037	736	485849.5	3752134.9	0.001935394	0.001527596
2037	737	485549.5	3752234.9	0.002209253	0.001773399
2037	738	485649.5	3752234.9	0.002276635	0.00182918
2037	739	485749.5	3752234.9	0.002368736	0.00191246
2037	740	485849.5	3752234.9	0.002439675	0.001983816
2037	741	485549.5	3752334.9	0.001850101	0.001396992
2037	742	485649.5	3752334.9	0.001895656	0.001424482
2037	743	485749.5	3752334.9	0.001957252	0.00147074
2037	744	485849.5	3752334.9	0.002028742	0.001530912
2037	745	485549.5	3752434.9	0.001794472	0.001324626
2037	746	485649.5	3752434.9	0.00182665	0.001337114
2037	747	485749.5	3752434.9	0.001882293	0.001371805
2037	748	485849.5	3752434.9	0.001954887	0.00142284
2037	749	485549.5	3752534.9	0.001822519	0.00133457
2037	750	485649.5	3752534.9	0.00185133	0.001342231
2037	751	485749.5	3752534.9	0.001907756	0.001375517
2037	752	485849.5	3752534.9	0.001978763	0.001421248
2037	753	485549.5	3752634.9	0.001880855	0.001371813
2037	754	485649.5	3752634.9	0.001910884	0.001379303
2037	755	485749.5	3752634.9	0.001967672	0.001412109
2037	756	485849.5	3752634.9	0.002038557	0.00145584
2037	757	485549.5	3752734.9	0.001953399	0.001422491
2037	758	485649.5	3752734.9	0.001986089	0.001431634
2037	759	485749.5	3752734.9	0.002050619	0.001469412
2037	760	485849.5	3752734.9	0.002129544	0.001517696
2037	761	485549.5	3752834.9	0.002033894	0.001481518
2037	762	485649.5	3752834.9	0.002069403	0.001493384
2037	763	485749.5	3752834.9	0.002143987	0.001539441

2037	764	485849.5	3752834.9	0.00223422	0.001596148
2037	765	485549.5	3752934.9	0.002125289	0.001549419
2037	766	485649.5	3752934.9	0.002162579	0.001563807
2037	767	485749.5	3752934.9	0.002246546	0.00162032
2037	768	485849.5	3752934.9	0.002356775	0.001695749
2037	769	485549.5	3753034.9	0.002242012	0.001638611
2037	770	485649.5	3753034.9	0.00226017	0.001635901
2037	771	485749.5	3753034.9	0.002355235	0.001704743
2037	772	485849.5	3753034.9	0.002493296	0.001811424
2037	773	485549.5	3753134.9	0.002284072	0.001644917
2037	774	485649.5	3753134.9	0.002355896	0.00169816
2037	775	485749.5	3753134.9	0.002457885	0.001778786
2037	776	485849.5	3753134.9	0.002614922	0.001910057
2037	777	485549.5	3753234.9	0.002390153	0.001705256
2037	778	485649.5	3753234.9	0.002465506	0.001764755
2037	779	485749.5	3753234.9	0.002565761	0.001850794
2037	780	485849.5	3753234.9	0.002726467	0.001993194
2037	781	485549.5	3753334.9	0.002552748	0.001807315
2037	782	485649.5	3753334.9	0.002613069	0.001847051
2037	783	485749.5	3753334.9	0.002705472	0.001931871
2037	784	485849.5	3753334.9	0.00285173	0.002074119
2037	785	485549.5	3753434.9	0.002734212	0.001918728
2037	786	485649.5	3753434.9	0.002833638	0.001976921
2037	787	485749.5	3753434.9	0.002943824	0.002069103
2037	788	485849.5	3753434.9	0.003067125	0.00220911
2037	789	485508.5	3746711.3	0.000243354	0.00020122
2037	790	491508.5	3746711.3	0.000169864	0.000140836
2037	791	479508.5	3752711.3	0.000851823	0.000773514
2037	792	485508.5	3752711.3	0.001895189	0.001378055
2037	793	491508.5	3752711.3	0.001567461	0.001036188
2037	794	485508.5	3758711.3	0.00043243	0.000401466
2037	795	491508.5	3758711.3	0.000183346	0.000159375
2037	796	485921.9	3750934.2	0.000365028	0.000272701
2037	797	486021.9	3750934.2	0.000360418	0.000268932
2037	798	486121.9	3750934.2	0.000357923	0.00026707
2037	799	485921.9	3751034.2	0.000384631	0.000287232
2037	800	486021.9	3751034.2	0.000377898	0.000281551
2037	801	486121.9	3751034.2	0.00037402	0.000278405
2037	802	485921.9	3751134.2	0.000406955	0.000304179
2037	803	486021.9	3751134.2	0.000399493	0.000297785
2037	804	486121.9	3751134.2	0.000393681	0.000292847
2037	805	485921.9	3751234.2	0.000432798	0.00032423
2037	806	486021.9	3751234.2	0.000424621	0.00031711
2037	807	486121.9	3751234.2	0.000417409	0.00031087
2037	808	485921.9	3751334.2	0.000464403	0.000349418
2037	809	486021.9	3751334.2	0.000454997	0.000341098
2037	810	486121.9	3751334.2	0.000444613	0.000331926

2037	811	485921.9	3751434.2	0.000507596	0.000385075
2037	812	486021.9	3751434.2	0.0004912	0.000370314
2037	813	486121.9	3751434.2	0.000477666	0.000358177
2037	814	485921.9	3751534.2	0.000553763	0.000423265
2037	815	486021.9	3751534.2	0.000542648	0.000413375
2037	816	486121.9	3751534.2	0.000519194	0.000392079
2037	817	485921.9	3751634.2	0.000593219	0.000455051
2037	818	486021.9	3751634.2	0.000633392	0.000491781
2037	819	486121.9	3751634.2	0.000584532	0.000447697
2037	820	485921.9	3751734.2	0.000679013	0.000528765
2037	821	486021.9	3751734.2	0.000778367	0.000616779
2037	822	486121.9	3751734.2	0.000659997	0.000512079
2037	823	485921.9	3751834.2	0.000866478	0.000691228
2037	824	486021.9	3751834.2	0.000872214	0.000695631
2037	825	486121.9	3751834.2	0.000693402	0.000537748
2037	826	485921.9	3751934.2	0.001294056	0.001034312
2037	827	486021.9	3751934.2	0.001078493	0.000866571
2037	828	486121.9	3751934.2	0.000879039	0.000698955
2037	829	485921.9	3752034.2	0.001535784	0.001210919
2037	830	486021.9	3752034.2	0.001324917	0.001068299
2037	831	486121.9	3752034.2	0.001206381	0.000975352
2037	832	485921.9	3752134.2	0.001953025	0.001557591
2037	833	486021.9	3752134.2	0.001902123	0.001537501
2037	834	486121.9	3752134.2	0.00163049	0.001323345
2037	835	485921.9	3752234.2	0.002480435	0.002033643
2037	836	486021.9	3752234.2	0.002589538	0.00215299
2037	837	486121.9	3752234.2	0.002390124	0.001971573
2037	838	485921.9	3752334.2	0.0020821	0.00157883
2037	839	486021.9	3752334.2	0.002195372	0.001692959
2037	840	486121.9	3752334.2	0.002539709	0.002039301
2037	841	485921.9	3752434.2	0.002021294	0.001478324
2037	842	486021.9	3752434.2	0.002132857	0.001577631
2037	843	486121.9	3752434.2	0.002320376	0.001752716
2037	844	485921.9	3752534.2	0.002044178	0.001466591
2037	845	486021.9	3752534.2	0.00213993	0.001538946
2037	846	486121.9	3752534.2	0.002267798	0.001644881
2037	847	485921.9	3752634.2	0.002097036	0.001494003
2037	848	486021.9	3752634.2	0.002186288	0.001556481
2037	849	486121.9	3752634.2	0.002296269	0.00164047
2037	850	485921.9	3752734.2	0.002191812	0.001557032
2037	851	486021.9	3752734.2	0.002291617	0.001623302
2037	852	486121.9	3752734.2	0.002407619	0.001706739
2037	853	485921.9	3752834.2	0.002309887	0.001643694
2037	854	486021.9	3752834.2	0.002431122	0.001722218
2037	855	486121.9	3752834.2	0.002573458	0.001820611
2037	856	485921.9	3752934.2	0.002446021	0.001755807
2037	857	486021.9	3752934.2	0.002597274	0.001856282

2037	858	486121.9	3752934.2	0.002807017	0.002005958
2037	859	487026.2	3754364	0.009710497	0.00841767
2038	1	489607.4	3753966.1	0.003005338	0.002024868
2038	2	489738.7	3754023.9	0.002663909	0.001858582
2038	3	489668.9	3754093.7	0.002533356	0.001848683
2038	4	489690.1	3754161.6	0.002401322	0.001785056
2038	5	490282.2	3753425.2	0.00354684	0.002476163
2038	6	489797.3	3754554.1	0.001961821	0.001506036
2038	7	490252.9	3754378.2	0.001795272	0.0013542
2038	8	489006	3754140.3	0.004557281	0.003554049
2038	9	485642.8	3754267.3	0.004100126	0.003165087
2038	10	485736.4	3754259.5	0.004521802	0.003497506
2038	11	487189.2	3754820.5	0.010091874	0.00899555
2038	12	487233.1	3754689.5	0.008297948	0.00709333
2038	13	487216.8	3754364.7	0.012644115	0.011429272
2038	14	487388.8	3754380.1	0.009543453	0.008421717
2038	15	484625	3751748	0.001234098	0.000953633
2038	16	483279	3751798	0.00092791	0.000727788
2038	17	483231	3751205	0.000825023	0.000648303
2038	18	480165	3750195	0.000624023	0.000534263
2038	19	481211	3749473	0.000563464	0.000463935
2038	20	481867	3752785	0.000944174	0.00080302
2038	21	480678	3751306	0.000678202	0.000572995
2038	22	479989	3752645	0.0008108	0.000723565
2038	23	479889	3756222	0.001134397	0.001082257
2038	24	479234	3757080	0.000547074	0.000509408
2038	25	480276	3756365	0.000922189	0.000872234
2038	26	479887	3754007	0.001055189	0.0009793
2038	27	480772	3755009	0.002233887	0.002151236
2038	28	481560	3754548	0.001674262	0.001568972
2038	29	481845	3754457	0.001689894	0.001574936
2038	30	481754	3753876	0.001207659	0.001084719
2038	31	489635.2	3750663.8	0.000459906	0.000350302
2038	32	485424.1	3747672.3	0.000299065	0.000242834
2038	33	482657.6	3753975.1	0.00143028	0.00126862
2038	34	481495	3754633.7	0.001756784	0.001654574
2038	35	481148.7	3756136.2	0.001267021	0.001204873
2038	36	482346.5	3748872.9	0.000232626	0.0001823
2038	37	480299	3751198	0.000660146	0.000563128
2038	38	479598.7	3756506.3	0.000867936	0.000821002
2038	39	478997.8	3753535.2	0.001183188	0.001116459
2038	40	478978.3	3755233.1	0.003560174	0.003496442
2038	41	479197.3	3754462.3	0.001567936	0.001503431
2038	42	479493.3	3752408.8	0.000823625	0.000743943
2038	43	480295.4	3752408.4	0.000785911	0.00069107
2038	44	480287.9	3754227.5	0.001156285	0.001075163
2038	45	494397.4	3753977.6	0.000725748	0.000586299

2038	46	481108.5	3750699	0.000665979	0.000556029
2038	47	486794.1	3756878	0.000672299	0.000603662
2038	48	482345	3752065.8	0.000894428	0.00073282
2038	49	487553	3745938.3	0.000182569	0.000153648
2038	50	484553	3746938.3	0.000241564	0.000198588
2038	51	485553	3746938.3	0.000253608	0.000208967
2038	52	486553	3746938.3	0.000202023	0.000171399
2038	53	487553	3746938.3	0.000222575	0.000184427
2038	54	488553	3746938.3	0.000202874	0.000169034
2038	55	489553	3746938.3	0.000200449	0.000165706
2038	56	490553	3746938.3	0.000184072	0.000152596
2038	57	491553	3746938.3	0.000175157	0.000144868
2038	58	492553	3746938.3	0.000168435	0.000139086
2038	59	482553	3747938.3	0.000212152	0.000168924
2038	60	483553	3747938.3	0.000354356	0.000283347
2038	61	484553	3747938.3	0.000337484	0.000271086
2038	62	485553	3747938.3	0.00031492	0.000254433
2038	63	486553	3747938.3	0.000293122	0.000240154
2038	64	487553	3747938.3	0.000187394	0.00015797
2038	65	488553	3747938.3	0.000244456	0.00020091
2038	66	489553	3747938.3	0.000229533	0.000188645
2038	67	490553	3747938.3	0.000216089	0.00017724
2038	68	491553	3747938.3	0.000204979	0.000167532
2038	69	492553	3747938.3	0.000196066	0.0001598
2038	70	493553	3747938.3	0.000189683	0.000154526
2038	71	481553	3748938.3	0.000477258	0.000381585
2038	72	482553	3748938.3	0.000243557	0.000191236
2038	73	483553	3748938.3	0.000407565	0.000324862
2038	74	484553	3748938.3	0.000427488	0.000337876
2038	75	485553	3748938.3	0.000407619	0.000323715
2038	76	486553	3748938.3	0.000377647	0.000302446
2038	77	487553	3748938.3	0.000296439	0.000248158
2038	78	488553	3748938.3	0.000304282	0.000245516
2038	79	489553	3748938.3	0.000279574	0.000226405
2038	80	490553	3748938.3	0.000262247	0.000211584
2038	81	491553	3748938.3	0.00024669	0.000198356
2038	82	492553	3748938.3	0.000236251	0.00018921
2038	83	493553	3748938.3	0.000233243	0.000187063
2038	84	494553	3748938.3	0.00030144	0.000256321
2038	85	480553	3749938.3	0.000738525	0.00064574
2038	86	481553	3749938.3	0.000643016	0.000527037
2038	87	482553	3749938.3	0.000627525	0.000501042
2038	88	483553	3749938.3	0.000616276	0.000485716
2038	89	484553	3749938.3	0.000451724	0.000357484
2038	90	485553	3749938.3	0.000369763	0.000294132
2038	91	486553	3749938.3	0.00043767	0.000354462
2038	92	487553	3749938.3	0.000458427	0.000362341

2038	93	488553	3749938.3	0.000397964	0.000312339
2038	94	489553	3749938.3	0.00036174	0.000285053
2038	95	490553	3749938.3	0.000334027	0.000262435
2038	96	491553	3749938.3	0.000313074	0.00024466
2038	97	492553	3749938.3	0.000304898	0.000237148
2038	98	493553	3749938.3	0.000341455	0.00027118
2038	99	494553	3749938.3	0.000287451	0.000218146
2038	100	495553	3749938.3	0.000228161	0.000188337
2038	101	480553	3750938.3	0.000646363	0.000545317
2038	102	481553	3750938.3	0.000695371	0.000573577
2038	103	482553	3750938.3	0.000755391	0.000607747
2038	104	483553	3750938.3	0.000868914	0.000689323
2038	105	484553	3750938.3	0.000863038	0.000673992
2038	106	485553	3750938.3	0.000381804	0.000286657
2038	107	486553	3750938.3	0.000352273	0.000265001
2038	108	487553	3750938.3	0.000551668	0.000438674
2038	109	488553	3750938.3	0.000597203	0.000442398
2038	110	489553	3750938.3	0.000524571	0.000391487
2038	111	490553	3750938.3	0.000468271	0.000349838
2038	112	491553	3750938.3	0.00043614	0.000323869
2038	113	492553	3750938.3	0.000490154	0.000375303
2038	114	493553	3750938.3	0.000424692	0.000311663
2038	115	494553	3750938.3	0.000411569	0.000305844
2038	116	495553	3750938.3	0.000383874	0.000298329
2038	117	479553	3751938.3	0.000760661	0.00067789
2038	118	480553	3751938.3	0.000747192	0.000644871
2038	119	481553	3751938.3	0.000789246	0.000659741
2038	120	482553	3751938.3	0.000876139	0.000706882
2038	121	483553	3751938.3	0.00100534	0.000784025
2038	122	484553	3751938.3	0.00119653	0.000910504
2038	123	485553	3751938.3	0.001652386	0.001310076
2038	124	486553	3751938.3	0.000677518	0.000518984
2038	125	487553	3751938.3	0.0010938	0.00085464
2038	126	488553	3751938.3	0.00117449	0.000795388
2038	127	489553	3751938.3	0.001068619	0.000702555
2038	128	490553	3751938.3	0.000896855	0.000589903
2038	129	491553	3751938.3	0.000929406	0.000648649
2038	130	492553	3751938.3	0.000742622	0.000479676
2038	131	493553	3751938.3	0.000665304	0.000493868
2038	132	494553	3751938.3	0.000613824	0.000458547
2038	133	495553	3751938.3	0.000540945	0.000414249
2038	134	479553	3752938.3	0.000919753	0.000842083
2038	135	480553	3752938.3	0.000917948	0.00082014
2038	136	481553	3752938.3	0.000989982	0.000862685
2038	137	482553	3752938.3	0.001120124	0.000945069
2038	138	483553	3752938.3	0.001288046	0.001036158
2038	139	484553	3752938.3	0.00160562	0.001206286

2038	140	485553	3752938.3	0.002127435	0.001549907
2038	141	486553	3752938.3	0.004197908	0.00330725
2038	142	487553	3752938.3	0.004624128	0.003486353
2038	143	488553	3752938.3	0.004121289	0.003017912
2038	144	489553	3752938.3	0.003759956	0.002743019
2038	145	490553	3752938.3	0.003118444	0.002239126
2038	146	491553	3752938.3	0.001615505	0.001121584
2038	147	492553	3752938.3	0.001228605	0.000804777
2038	148	493553	3752938.3	0.000998658	0.000713483
2038	149	494553	3752938.3	0.000851242	0.000635835
2038	150	495553	3752938.3	0.000685581	0.000530474
2038	151	479553	3753938.3	0.001056648	0.000985336
2038	152	480553	3753938.3	0.001065631	0.000976785
2038	153	481553	3753938.3	0.001210442	0.00109536
2038	154	482553	3753938.3	0.001382839	0.001225984
2038	155	483553	3753938.3	0.001739126	0.001518375
2038	156	484553	3753938.3	0.002062736	0.001657532
2038	157	485553	3753938.3	0.003328033	0.002399635
2038	158	486553	3753938.3	0.00587771	0.004415519
2038	159	487553	3753938.3	0.006449908	0.005269006
2038	160	488553	3753938.3	0.005707975	0.004366261
2038	161	489553	3753938.3	0.003208337	0.002146419
2038	162	490553	3753938.3	0.001856303	0.001363774
2038	163	491553	3753938.3	0.001295453	0.001010088
2038	164	492553	3753938.3	0.001062803	0.000839688
2038	165	493553	3753938.3	0.000869399	0.000695423
2038	166	494553	3753938.3	0.000790045	0.0006368
2038	167	495553	3753938.3	0.000616134	0.000500931
2038	168	479553	3754938.3	0.001879019	0.001812246
2038	169	480553	3754938.3	0.002003114	0.001923237
2038	170	481553	3754938.3	0.002294445	0.002195577
2038	171	482553	3754938.3	0.00335287	0.003226354
2038	172	483553	3754938.3	0.00368581	0.003520762
2038	173	484553	3754938.3	0.003653175	0.003405562
2038	174	485553	3754938.3	0.005300037	0.004852217
2038	175	486553	3754938.3	0.007308372	0.006652972
2038	176	487553	3754938.3	0.0062339	0.005368797
2038	177	488553	3754938.3	0.003502589	0.002902681
2038	178	489553	3754938.3	0.002195006	0.001888802
2038	179	490553	3754938.3	0.001462739	0.001284618
2038	180	491553	3754938.3	0.000961313	0.000837579
2038	181	492553	3754938.3	0.00069004	0.000593919
2038	182	493553	3754938.3	0.000697621	0.000605986
2038	183	494553	3754938.3	0.000530786	0.000457223
2038	184	495553	3754938.3	0.0004455	0.000382642
2038	185	479553	3755938.3	0.001890688	0.001833685
2038	186	480553	3755938.3	0.001584961	0.001523412

2038	187	481553	3755938.3	0.001605812	0.001537024
2038	188	482553	3755938.3	0.002296043	0.002205008
2038	189	483553	3755938.3	0.002411683	0.002302912
2038	190	484553	3755938.3	0.002292656	0.002159919
2038	191	485553	3755938.3	0.003236686	0.003072111
2038	192	486553	3755938.3	0.002616244	0.002439538
2038	193	487553	3755938.3	0.001445759	0.001334041
2038	194	488553	3755938.3	0.00100995	0.000921686
2038	195	489553	3755938.3	0.000692157	0.000624987
2038	196	490553	3755938.3	0.000572999	0.000515125
2038	197	491553	3755938.3	0.000472248	0.000422692
2038	198	492553	3755938.3	0.000572246	0.000526197
2038	199	493553	3755938.3	0.000419577	0.000378874
2038	200	494553	3755938.3	0.000403112	0.000365151
2038	201	479553	3756938.3	0.000573374	0.000534622
2038	202	480553	3756938.3	0.000548895	0.000508986
2038	203	481553	3756938.3	0.000495782	0.000457683
2038	204	482553	3756938.3	0.00051746	0.000475038
2038	205	483553	3756938.3	0.000872637	0.000803056
2038	206	484553	3756938.3	0.00084184	0.000766684
2038	207	485553	3756938.3	0.001827111	0.001750147
2038	208	486553	3756938.3	0.000695643	0.000626292
2038	209	487553	3756938.3	0.00045769	0.000405552
2038	210	488553	3756938.3	0.000371244	0.000326038
2038	211	489553	3756938.3	0.000325199	0.000284817
2038	212	490553	3756938.3	0.000297106	0.000260157
2038	213	491553	3756938.3	0.000259743	0.000227122
2038	214	492553	3756938.3	0.00023137	0.000202437
2038	215	493553	3756938.3	0.000245885	0.000217978
2038	216	494553	3756938.3	0.000238675	0.000212418
2038	217	479553	3757938.3	0.000288328	0.000263889
2038	218	480553	3757938.3	0.000276024	0.000251565
2038	219	481553	3757938.3	0.00029157	0.000263898
2038	220	482553	3757938.3	0.000360656	0.000323934
2038	221	483553	3757938.3	0.000353692	0.000315771
2038	222	484553	3757938.3	0.000465686	0.000418696
2038	223	485553	3757938.3	0.000539591	0.000498787
2038	224	486553	3757938.3	0.000322692	0.00028524
2038	225	487553	3757938.3	0.000263808	0.000230199
2038	226	488553	3757938.3	0.00023161	0.000200905
2038	227	489553	3757938.3	0.000213728	0.000184893
2038	228	490553	3757938.3	0.000195439	0.000168934
2038	229	491553	3757938.3	0.000179074	0.000154599
2038	230	492553	3757938.3	0.000171933	0.000148988
2038	231	493553	3757938.3	0.000190686	0.000166992
2038	232	480553	3758938.3	0.000207166	0.000186495
2038	233	481553	3758938.3	0.000231101	0.000206373

2038	234	482553	3758938.3	0.000225123	0.000199414
2038	235	483553	3758938.3	0.000236025	0.000208208
2038	236	484553	3758938.3	0.00029534	0.000264183
2038	237	485553	3758938.3	0.000685858	0.00065257
2038	238	486553	3758938.3	0.000223329	0.000196708
2038	239	487553	3758938.3	0.000245191	0.000215841
2038	240	488553	3758938.3	0.000182051	0.000158491
2038	241	489553	3758938.3	0.000184564	0.000160754
2038	242	490553	3758938.3	0.000201511	0.000175347
2038	243	491553	3758938.3	0.00016388	0.000142275
2038	244	492553	3758938.3	0.000170507	0.000148228
2038	245	481553	3759938.3	0.000170999	0.000151817
2038	246	482553	3759938.3	0.000176464	0.000155607
2038	247	483553	3759938.3	0.000186986	0.000164671
2038	248	484553	3759938.3	0.000260077	0.000232294
2038	249	485553	3759938.3	0.000678447	0.000644739
2038	250	486553	3759938.3	0.00032149	0.00028742
2038	251	487553	3759938.3	0.000262256	0.000232114
2038	252	488553	3759938.3	0.000261735	0.000229806
2038	253	489553	3759938.3	0.000226817	0.000197994
2038	254	490553	3759938.3	0.000175373	0.000153105
2038	255	491553	3759938.3	0.000152834	0.000133041
2038	256	482553	3760938.3	0.000166449	0.000146921
2038	257	483553	3760938.3	0.000192501	0.000170624
2038	258	484553	3760938.3	0.000245855	0.00022007
2038	259	485553	3760938.3	0.000558289	0.000524197
2038	260	486553	3760938.3	0.00036625	0.000329826
2038	261	487553	3760938.3	0.000292034	0.000262292
2038	262	488553	3760938.3	0.000166389	0.000147291
2038	263	489553	3760938.3	0.000126207	0.000110586
2038	264	490553	3760938.3	0.000120723	0.000105368
2038	265	484551.7	3750934.4	0.00085781	0.000670964
2038	266	484651.7	3750934.4	0.00084689	0.000662861
2038	267	484751.7	3750934.4	0.000647301	0.000513036
2038	268	484851.7	3750934.4	0.000593984	0.000470956
2038	269	484951.7	3750934.4	0.000627812	0.00049677
2038	270	485051.7	3750934.4	0.00056273	0.000444998
2038	271	485151.7	3750934.4	0.000468565	0.000364323
2038	272	485251.7	3750934.4	0.000412708	0.000314147
2038	273	485351.7	3750934.4	0.000396894	0.000299953
2038	274	485451.7	3750934.4	0.0003885	0.00029256
2038	275	484551.7	3751034.4	0.00091639	0.000709662
2038	276	484651.7	3751034.4	0.00090406	0.000701219
2038	277	484751.7	3751034.4	0.000849246	0.000669214
2038	278	484851.7	3751034.4	0.000672371	0.0005324
2038	279	484951.7	3751034.4	0.000747061	0.000589409
2038	280	485051.7	3751034.4	0.00062661	0.000495875

2038	281	485151.7	3751034.4	0.000543262	0.000427368
2038	282	485251.7	3751034.4	0.000462049	0.000355854
2038	283	485351.7	3751034.4	0.000426744	0.000324007
2038	284	485451.7	3751034.4	0.000411431	0.000310272
2038	285	484551.7	3751134.4	0.000962674	0.000742171
2038	286	484651.7	3751134.4	0.000960568	0.000738894
2038	287	484751.7	3751134.4	0.000948044	0.000731807
2038	288	484851.7	3751134.4	0.000856235	0.000678417
2038	289	484951.7	3751134.4	0.000877054	0.000690184
2038	290	485051.7	3751134.4	0.00072305	0.000571168
2038	291	485151.7	3751134.4	0.000641733	0.000507903
2038	292	485251.7	3751134.4	0.000555085	0.000435731
2038	293	485351.7	3751134.4	0.000472087	0.000362072
2038	294	485451.7	3751134.4	0.000438092	0.000331327
2038	295	484551.7	3751234.4	0.001010266	0.000778358
2038	296	484651.7	3751234.4	0.001010341	0.000775898
2038	297	484751.7	3751234.4	0.001002462	0.00077203
2038	298	484851.7	3751234.4	0.000974393	0.000757209
2038	299	484951.7	3751234.4	0.000948845	0.000742007
2038	300	485051.7	3751234.4	0.00085298	0.000675077
2038	301	485151.7	3751234.4	0.000719612	0.000570026
2038	302	485251.7	3751234.4	0.000543351	0.000423307
2038	303	485351.7	3751234.4	0.00048047	0.000366617
2038	304	485451.7	3751234.4	0.000461442	0.000349354
2038	305	484551.7	3751334.4	0.001081053	0.000835602
2038	306	484651.7	3751334.4	0.001073192	0.000827108
2038	307	484751.7	3751334.4	0.001061106	0.000819641
2038	308	484851.7	3751334.4	0.001046072	0.000810269
2038	309	484951.7	3751334.4	0.00103785	0.000803428
2038	310	485051.7	3751334.4	0.000995324	0.000779379
2038	311	485151.7	3751334.4	0.000842305	0.000666826
2038	312	485251.7	3751334.4	0.00066315	0.000525565
2038	313	485351.7	3751334.4	0.000522765	0.000401953
2038	314	485451.7	3751334.4	0.00048902	0.000371194
2038	315	484551.7	3751434.4	0.001195871	0.000941044
2038	316	484651.7	3751434.4	0.001163768	0.000905728
2038	317	484751.7	3751434.4	0.001144393	0.000885781
2038	318	484851.7	3751434.4	0.00113107	0.000873877
2038	319	484951.7	3751434.4	0.001120277	0.000865319
2038	320	485051.7	3751434.4	0.00110667	0.000855016
2038	321	485151.7	3751434.4	0.00099371	0.000789774
2038	322	485251.7	3751434.4	0.000773905	0.00061681
2038	323	485351.7	3751434.4	0.000608583	0.00047649
2038	324	485451.7	3751434.4	0.00054169	0.000415823
2038	325	484551.7	3751534.4	0.001456143	0.001194651
2038	326	484651.7	3751534.4	0.001349409	0.001081237
2038	327	484751.7	3751534.4	0.001270368	0.000997498

2038	328	484851.7	3751534.4	0.001233975	0.000958587
2038	329	484951.7	3751534.4	0.001216508	0.000938945
2038	330	485051.7	3751534.4	0.00120715	0.000926978
2038	331	485151.7	3751534.4	0.001192785	0.000916086
2038	332	485251.7	3751534.4	0.001082089	0.00085507
2038	333	485351.7	3751534.4	0.000865048	0.000689985
2038	334	485451.7	3751534.4	0.000715318	0.00056769
2038	335	484551.7	3751634.4	0.001348616	0.00108066
2038	336	484651.7	3751634.4	0.001389714	0.001114828
2038	337	484751.7	3751634.4	0.001432773	0.001150223
2038	338	484851.7	3751634.4	0.001460119	0.001172175
2038	339	484951.7	3751634.4	0.001360079	0.001067802
2038	340	485051.7	3751634.4	0.001317314	0.001020951
2038	341	485151.7	3751634.4	0.001301717	0.00100178
2038	342	485251.7	3751634.4	0.00126963	0.000980559
2038	343	485351.7	3751634.4	0.001209076	0.000942354
2038	344	485451.7	3751634.4	0.001103471	0.000878023
2038	345	484551.7	3751734.4	0.00119826	0.000925036
2038	346	484651.7	3751734.4	0.001264518	0.00098234
2038	347	484751.7	3751734.4	0.001369029	0.001078914
2038	348	484851.7	3751734.4	0.001502342	0.001205645
2038	349	484951.7	3751734.4	0.001504911	0.00120346
2038	350	485051.7	3751734.4	0.001637929	0.001331229
2038	351	485151.7	3751734.4	0.001489861	0.001175256
2038	352	485251.7	3751734.4	0.001448465	0.001130981
2038	353	485351.7	3751734.4	0.001395598	0.00108578
2038	354	485451.7	3751734.4	0.001321168	0.001028942
2038	355	484551.7	3751834.4	0.001178528	0.000900498
2038	356	484651.7	3751834.4	0.001216232	0.000929544
2038	357	484751.7	3751834.4	0.001259795	0.000964382
2038	358	484851.7	3751834.4	0.001311587	0.001008227
2038	359	484951.7	3751834.4	0.001376602	0.001067296
2038	360	485051.7	3751834.4	0.001520517	0.001203986
2038	361	485151.7	3751834.4	0.001542038	0.001214307
2038	362	485251.7	3751834.4	0.001632191	0.001296729
2038	363	485351.7	3751834.4	0.001647723	0.001312326
2038	364	485451.7	3751834.4	0.00164466	0.001317141
2038	365	484551.7	3751934.4	0.001194952	0.000909391
2038	366	484651.7	3751934.4	0.001221364	0.000928327
2038	367	484751.7	3751934.4	0.001248195	0.00094805
2038	368	484851.7	3751934.4	0.001281837	0.000973346
2038	369	484951.7	3751934.4	0.001318899	0.001002103
2038	370	485051.7	3751934.4	0.001366238	0.001039846
2038	371	485151.7	3751934.4	0.001426081	0.001088516
2038	372	485251.7	3751934.4	0.00150841	0.001158113
2038	373	485351.7	3751934.4	0.001627079	0.001268813
2038	374	485451.7	3751934.4	0.001700973	0.001347094

2038	375	484551.7	3752034.4	0.00123658	0.000940967
2038	376	484651.7	3752034.4	0.001259397	0.000956388
2038	377	484751.7	3752034.4	0.001283978	0.000973366
2038	378	484851.7	3752034.4	0.001310027	0.000991611
2038	379	484951.7	3752034.4	0.001342007	0.001014467
2038	380	485051.7	3752034.4	0.001380379	0.001042355
2038	381	485151.7	3752034.4	0.001427179	0.001077177
2038	382	485251.7	3752034.4	0.001494628	0.001130077
2038	383	485351.7	3752034.4	0.001585696	0.001209182
2038	384	485451.7	3752034.4	0.001797931	0.001414264
2038	385	484551.7	3752134.4	0.001309768	0.001003584
2038	386	484651.7	3752134.4	0.00133143	0.001017358
2038	387	484751.7	3752134.4	0.001355632	0.00103318
2038	388	484851.7	3752134.4	0.001380202	0.001049316
2038	389	484951.7	3752134.4	0.001407388	0.001067564
2038	390	485051.7	3752134.4	0.001440843	0.001090734
2038	391	485151.7	3752134.4	0.001481643	0.001119932
2038	392	485251.7	3752134.4	0.001541168	0.001164836
2038	393	485351.7	3752134.4	0.00163458	0.001242518
2038	394	485451.7	3752134.4	0.00184928	0.001444735
2038	395	484551.7	3752234.4	0.00144234	0.001126349
2038	396	484651.7	3752234.4	0.001473627	0.001148329
2038	397	484751.7	3752234.4	0.001496568	0.00116218
2038	398	484851.7	3752234.4	0.001516013	0.001172452
2038	399	484951.7	3752234.4	0.00161539	0.001262436
2038	400	485051.7	3752234.4	0.001568001	0.00120522
2038	401	485151.7	3752234.4	0.001609817	0.001236612
2038	402	485251.7	3752234.4	0.001656023	0.001268681
2038	403	485351.7	3752234.4	0.001744825	0.001340437
2038	404	485451.7	3752234.4	0.002006212	0.001585117
2038	405	484551.7	3752334.4	0.00137642	0.001048293
2038	406	484651.7	3752334.4	0.001402623	0.001064916
2038	407	484751.7	3752334.4	0.001428874	0.001081665
2038	408	484851.7	3752334.4	0.001456068	0.001099205
2038	409	484951.7	3752334.4	0.001486183	0.001118959
2038	410	485051.7	3752334.4	0.001516782	0.001139289
2038	411	485151.7	3752334.4	0.001552645	0.001163754
2038	412	485251.7	3752334.4	0.001594992	0.001193738
2038	413	485351.7	3752334.4	0.001653852	0.001237788
2038	414	485451.7	3752334.4	0.001757089	0.001322574
2038	415	484551.7	3752434.4	0.001374057	0.001033906
2038	416	484651.7	3752434.4	0.001400675	0.00105041
2038	417	484751.7	3752434.4	0.001426966	0.001066937
2038	418	484851.7	3752434.4	0.001458117	0.001086799
2038	419	484951.7	3752434.4	0.001488964	0.001106788
2038	420	485051.7	3752434.4	0.001522938	0.001129194
2038	421	485151.7	3752434.4	0.001560259	0.001154198

2038	422	485251.7	3752434.4	0.001601804	0.001182746
2038	423	485351.7	3752434.4	0.001653242	0.001219379
2038	424	485451.7	3752434.4	0.001729627	0.001279192
2038	425	484551.7	3752534.4	0.001401819	0.001049316
2038	426	484651.7	3752534.4	0.001429809	0.001066429
2038	427	484751.7	3752534.4	0.001459488	0.001084859
2038	428	484851.7	3752534.4	0.001491713	0.001105178
2038	429	484951.7	3752534.4	0.00152427	0.00112611
2038	430	485051.7	3752534.4	0.001560829	0.001149939
2038	431	485151.7	3752534.4	0.001599872	0.001175854
2038	432	485251.7	3752534.4	0.001641838	0.001204362
2038	433	485351.7	3752534.4	0.001690709	0.001238524
2038	434	485451.7	3752534.4	0.00176205	0.001293077
2038	435	484551.7	3752634.4	0.001438541	0.001074066
2038	436	484651.7	3752634.4	0.001468059	0.001091822
2038	437	484751.7	3752634.4	0.001499137	0.001110847
2038	438	484851.7	3752634.4	0.001535217	0.00113325
2038	439	484951.7	3752634.4	0.001570908	0.001155938
2038	440	485051.7	3752634.4	0.001610282	0.001181404
2038	441	485151.7	3752634.4	0.001651377	0.001208572
2038	442	485251.7	3752634.4	0.001695229	0.001238247
2038	443	485351.7	3752634.4	0.001745409	0.001273186
2038	444	485451.7	3752634.4	0.001817814	0.001327956
2038	445	484551.7	3752734.4	0.001483352	0.001106832
2038	446	484651.7	3752734.4	0.001516186	0.001126096
2038	447	484751.7	3752734.4	0.001550521	0.001146678
2038	448	484851.7	3752734.4	0.001587292	0.00116924
2038	449	484951.7	3752734.4	0.001626016	0.001193528
2038	450	485051.7	3752734.4	0.001668241	0.001220643
2038	451	485151.7	3752734.4	0.001711712	0.001249267
2038	452	485251.7	3752734.4	0.00175782	0.001280463
2038	453	485351.7	3752734.4	0.001810408	0.001317086
2038	454	485451.7	3752734.4	0.001882636	0.001372065
2038	455	484551.7	3752834.4	0.001534456	0.001146596
2038	456	484651.7	3752834.4	0.001570243	0.001166992
2038	457	484751.7	3752834.4	0.001606119	0.001187866
2038	458	484851.7	3752834.4	0.001647252	0.001212626
2038	459	484951.7	3752834.4	0.001689701	0.001238761
2038	460	485051.7	3752834.4	0.001734221	0.001266916
2038	461	485151.7	3752834.4	0.001780125	0.001296864
2038	462	485251.7	3752834.4	0.001829099	0.001329854
2038	463	485351.7	3752834.4	0.001882997	0.001367863
2038	464	485451.7	3752834.4	0.001957854	0.001425333
2038	465	484551.7	3752934.4	0.001601751	0.001203046
2038	466	484651.7	3752934.4	0.00164048	0.00122451
2038	467	484751.7	3752934.4	0.001679838	0.001246691
2038	468	484851.7	3752934.4	0.001724112	0.001272555

2038	469	484951.7	3752934.4	0.001770055	0.001300051
2038	470	485051.7	3752934.4	0.001818983	0.001330259
2038	471	485151.7	3752934.4	0.00186735	0.001361117
2038	472	485251.7	3752934.4	0.001920264	0.00139627
2038	473	485351.7	3752934.4	0.001973824	0.001433845
2038	474	485451.7	3752934.4	0.002047133	0.001490124
2038	475	484551.7	3753034.4	0.001715618	0.001307625
2038	476	484651.7	3753034.4	0.00176227	0.001335261
2038	477	484751.7	3753034.4	0.001814456	0.001367484
2038	478	484851.7	3753034.4	0.001855514	0.001387618
2038	479	484951.7	3753034.4	0.001903049	0.001414056
2038	480	485051.7	3753034.4	0.00195553	0.001445755
2038	481	485151.7	3753034.4	0.002014561	0.001483999
2038	482	485251.7	3753034.4	0.002115233	0.001564722
2038	483	485351.7	3753034.4	0.002120727	0.001552771
2038	484	485451.7	3753034.4	0.002181446	0.001596507
2038	485	484551.7	3753134.4	0.001687332	0.001270859
2038	486	484651.7	3753134.4	0.00173429	0.001296449
2038	487	484751.7	3753134.4	0.001785371	0.001324848
2038	488	484851.7	3753134.4	0.001837625	0.00135412
2038	489	484951.7	3753134.4	0.001893722	0.001386283
2038	490	485051.7	3753134.4	0.001952738	0.00142104
2038	491	485151.7	3753134.4	0.002013623	0.001457896
2038	492	485251.7	3753134.4	0.002078831	0.001499391
2038	493	485351.7	3753134.4	0.002146062	0.001544987
2038	494	485451.7	3753134.4	0.002226377	0.001605705
2038	495	484551.7	3753234.4	0.001710402	0.001286521
2038	496	484651.7	3753234.4	0.001761812	0.001314088
2038	497	484751.7	3753234.4	0.001815975	0.001343414
2038	498	484851.7	3753234.4	0.001873055	0.001374714
2038	499	484951.7	3753234.4	0.001934588	0.001409086
2038	500	485051.7	3753234.4	0.002000977	0.001447239
2038	501	485151.7	3753234.4	0.002070191	0.001487989
2038	502	485251.7	3753234.4	0.00214474	0.001533638
2038	503	485351.7	3753234.4	0.002223326	0.001584671
2038	504	485451.7	3753234.4	0.00231898	0.00165487
2038	505	484551.7	3753334.4	0.001749836	0.001319961
2038	506	484651.7	3753334.4	0.001804365	0.001348842
2038	507	484751.7	3753334.4	0.001861251	0.001378912
2038	508	484851.7	3753334.4	0.001925027	0.001413483
2038	509	484951.7	3753334.4	0.001990743	0.00144911
2038	510	485051.7	3753334.4	0.002063278	0.001489422
2038	511	485151.7	3753334.4	0.002141295	0.001533966
2038	512	485251.7	3753334.4	0.002229989	0.001586604
2038	513	485351.7	3753334.4	0.002326635	0.001646844
2038	514	485451.7	3753334.4	0.002441918	0.0017269
2038	515	484551.7	3753434.4	0.001791726	0.001359032

2038	516	484651.7	3753434.4	0.001848842	0.001389154
2038	517	484751.7	3753434.4	0.001909309	0.001420715
2038	518	484851.7	3753434.4	0.001977124	0.00145699
2038	519	484951.7	3753434.4	0.002048261	0.001494284
2038	520	485051.7	3753434.4	0.002126433	0.001536252
2038	521	485151.7	3753434.4	0.002215529	0.001586236
2038	522	485251.7	3753434.4	0.002317732	0.001645499
2038	523	485351.7	3753434.4	0.002433163	0.001715569
2038	524	485451.7	3753434.4	0.00258071	0.00181406
2038	525	484551.7	3753534.4	0.001834271	0.001401772
2038	526	484651.7	3753534.4	0.001889351	0.001429249
2038	527	484751.7	3753534.4	0.001951536	0.001461171
2038	528	484851.7	3753534.4	0.002026173	0.001502069
2038	529	484951.7	3753534.4	0.00210231	0.001542131
2038	530	485051.7	3753534.4	0.002186094	0.001586561
2038	531	485151.7	3753534.4	0.00228372	0.001640541
2038	532	485251.7	3753534.4	0.002397312	0.001705771
2038	533	485351.7	3753534.4	0.00253218	0.001786736
2038	534	485451.7	3753534.4	0.002708557	0.001902665
2038	535	484551.7	3753634.4	0.001877063	0.001447138
2038	536	484651.7	3753634.4	0.001934776	0.001476223
2038	537	484751.7	3753634.4	0.002000177	0.001510122
2038	538	484851.7	3753634.4	0.002073708	0.001548936
2038	539	484951.7	3753634.4	0.002154732	0.001591924
2038	540	485051.7	3753634.4	0.002243852	0.001639563
2038	541	485151.7	3753634.4	0.002346954	0.001696693
2038	542	485251.7	3753634.4	0.002467347	0.001766469
2038	543	485351.7	3753634.4	0.002608998	0.001852946
2038	544	485451.7	3753634.4	0.002796159	0.001980042
2038	545	484551.7	3753734.4	0.001934299	0.001509715
2038	546	484651.7	3753734.4	0.001991163	0.001537158
2038	547	484751.7	3753734.4	0.00205413	0.001567525
2038	548	484851.7	3753734.4	0.002123749	0.001601175
2038	549	484951.7	3753734.4	0.0022069	0.001644798
2038	550	485051.7	3753734.4	0.002301359	0.001695531
2038	551	485151.7	3753734.4	0.002408853	0.001754781
2038	552	485251.7	3753734.4	0.002533232	0.001826116
2038	553	485351.7	3753734.4	0.002681382	0.001916507
2038	554	485451.7	3753734.4	0.002875536	0.002049607
2038	555	484551.7	3753834.4	0.001993158	0.001576913
2038	556	484651.7	3753834.4	0.002047351	0.001601491
2038	557	484751.7	3753834.4	0.002110471	0.001631739
2038	558	484851.7	3753834.4	0.002181027	0.001665539
2038	559	484951.7	3753834.4	0.002265921	0.001709602
2038	560	485051.7	3753834.4	0.002359809	0.001757485
2038	561	485151.7	3753834.4	0.002468271	0.001814695
2038	562	485251.7	3753834.4	0.002599845	0.001889462

2038	563	485351.7	3753834.4	0.00275538	0.001982722
2038	564	485451.7	3753834.4	0.002959871	0.002119668
2038	565	484551.7	3753934.4	0.002057964	0.001652498
2038	566	484651.7	3753934.4	0.002115125	0.00168019
2038	567	484751.7	3753934.4	0.00216924	0.001700941
2038	568	484851.7	3753934.4	0.002241081	0.001736206
2038	569	484951.7	3753934.4	0.002325125	0.001779229
2038	570	485051.7	3753934.4	0.002421929	0.001829895
2038	571	485151.7	3753934.4	0.002533649	0.001889484
2038	572	485251.7	3753934.4	0.002665218	0.001962212
2038	573	485351.7	3753934.4	0.002824593	0.002054876
2038	574	485451.7	3753934.4	0.003036929	0.002191879
2038	575	484551.7	3754034.4	0.002134061	0.001744042
2038	576	484651.7	3754034.4	0.002164441	0.00174111
2038	577	484751.7	3754034.4	0.002233019	0.001777893
2038	578	484851.7	3754034.4	0.002308684	0.001817367
2038	579	484951.7	3754034.4	0.002391473	0.0018593
2038	580	485051.7	3754034.4	0.002485474	0.001907343
2038	581	485151.7	3754034.4	0.002595727	0.001965697
2038	582	485251.7	3754034.4	0.00272772	0.002039071
2038	583	485351.7	3754034.4	0.002888299	0.002133606
2038	584	485451.7	3754034.4	0.003102403	0.00227432
2038	585	484551.7	3754134.4	0.002186274	0.001807139
2038	586	484651.7	3754134.4	0.002225021	0.001815615
2038	587	484751.7	3754134.4	0.002293936	0.001854061
2038	588	484851.7	3754134.4	0.002375554	0.001901776
2038	589	484951.7	3754134.4	0.002457415	0.001943255
2038	590	485051.7	3754134.4	0.002553067	0.001992794
2038	591	485151.7	3754134.4	0.002664673	0.002052706
2038	592	485251.7	3754134.4	0.002796993	0.002127144
2038	593	485351.7	3754134.4	0.00295868	0.002223219
2038	594	485451.7	3754134.4	0.003172011	0.002363175
2038	595	484551.7	3754234.4	0.002240663	0.001872713
2038	596	484651.7	3754234.4	0.00229019	0.001895488
2038	597	484751.7	3754234.4	0.002363842	0.001940994
2038	598	484851.7	3754234.4	0.002446119	0.001991594
2038	599	484951.7	3754234.4	0.002530731	0.002038242
2038	600	485051.7	3754234.4	0.002624803	0.002088277
2038	601	485151.7	3754234.4	0.002735868	0.00214918
2038	602	485251.7	3754234.4	0.00286773	0.00222367
2038	603	485351.7	3754234.4	0.003029111	0.002319229
2038	604	485451.7	3754234.4	0.00324325	0.002459568
2038	605	484551.7	3754334.4	0.002319381	0.001965274
2038	606	484651.7	3754334.4	0.002383308	0.002006268
2038	607	484751.7	3754334.4	0.002455562	0.002052936
2038	608	484851.7	3754334.4	0.002529848	0.002096785
2038	609	484951.7	3754334.4	0.002613682	0.002145331

2038	610	485051.7	3754334.4	0.002708685	0.002199202
2038	611	485151.7	3754334.4	0.002818094	0.002261127
2038	612	485251.7	3754334.4	0.002948876	0.002337852
2038	613	485351.7	3754334.4	0.003105414	0.002433595
2038	614	485451.7	3754334.4	0.003295493	0.002555144
2038	615	484551.7	3754434.4	0.002466948	0.002134251
2038	616	484651.7	3754434.4	0.002513144	0.002157251
2038	617	484751.7	3754434.4	0.00257021	0.002189104
2038	618	484851.7	3754434.4	0.002635733	0.002225749
2038	619	484951.7	3754434.4	0.002715329	0.002272607
2038	620	485051.7	3754434.4	0.002807268	0.002326432
2038	621	485151.7	3754434.4	0.0029154	0.002390492
2038	622	485251.7	3754434.4	0.003043715	0.002468005
2038	623	485351.7	3754434.4	0.00319795	0.002564289
2038	624	485451.7	3754434.4	0.003387155	0.002688871
2038	625	484551.7	3754534.4	0.002641132	0.002327165
2038	626	484651.7	3754534.4	0.002686088	0.002351475
2038	627	484751.7	3754534.4	0.002725027	0.002366095
2038	628	484851.7	3754534.4	0.002773038	0.00238861
2038	629	484951.7	3754534.4	0.002842577	0.002428131
2038	630	485051.7	3754534.4	0.002929537	0.002479577
2038	631	485151.7	3754534.4	0.003035137	0.002543871
2038	632	485251.7	3754534.4	0.003160924	0.002621983
2038	633	485351.7	3754534.4	0.003312481	0.002718463
2038	634	485451.7	3754534.4	0.003505868	0.002848357
2038	635	484551.7	3754634.4	0.002802756	0.00250701
2038	636	484651.7	3754634.4	0.002841798	0.002526934
2038	637	484751.7	3754634.4	0.002899832	0.002564488
2038	638	484851.7	3754634.4	0.002935938	0.002578445
2038	639	484951.7	3754634.4	0.002995686	0.002611829
2038	640	485051.7	3754634.4	0.003077688	0.0026629
2038	641	485151.7	3754634.4	0.00317944	0.002728647
2038	642	485251.7	3754634.4	0.003303422	0.002809311
2038	643	485351.7	3754634.4	0.003456635	0.002910261
2038	644	485451.7	3754634.4	0.0036547	0.003047312
2038	645	484551.7	3754734.4	0.002978054	0.002698924
2038	646	484651.7	3754734.4	0.003018031	0.002722379
2038	647	484751.7	3754734.4	0.003064686	0.002751352
2038	648	484851.7	3754734.4	0.003120789	0.002788199
2038	649	484951.7	3754734.4	0.003188652	0.002833756
2038	650	485051.7	3754734.4	0.003270037	0.002888999
2038	651	485151.7	3754734.4	0.003368486	0.00295669
2038	652	485251.7	3754734.4	0.003490168	0.003042657
2038	653	485351.7	3754734.4	0.003643485	0.0031557
2038	654	485451.7	3754734.4	0.003840616	0.003306472
2038	655	484551.7	3754834.4	0.003242658	0.002979317
2038	656	484651.7	3754834.4	0.003285329	0.003008528

2038	657	484751.7	3754834.4	0.003333217	0.003041133
2038	658	484851.7	3754834.4	0.003388116	0.003078581
2038	659	484951.7	3754834.4	0.003454875	0.003126139
2038	660	485051.7	3754834.4	0.003533567	0.00318294
2038	661	485151.7	3754834.4	0.003631038	0.003255403
2038	662	485251.7	3754834.4	0.003755515	0.003351331
2038	663	485351.7	3754834.4	0.003922464	0.003487445
2038	664	485451.7	3754834.4	0.004140971	0.003671542
2038	665	484551.7	3754934.4	0.003634536	0.00338655
2038	666	484651.7	3754934.4	0.003674978	0.003415274
2038	667	484751.7	3754934.4	0.003720486	0.003447449
2038	668	484851.7	3754934.4	0.003772977	0.003484859
2038	669	484951.7	3754934.4	0.003836569	0.003531869
2038	670	485051.7	3754934.4	0.003910227	0.003586716
2038	671	485151.7	3754934.4	0.004006419	0.003662433
2038	672	485251.7	3754934.4	0.004134273	0.003767131
2038	673	485351.7	3754934.4	0.004333918	0.003942243
2038	674	485451.7	3754934.4	0.004702267	0.004283123
2038	675	484551.7	3755034.4	0.004219462	0.003985179
2038	676	484651.7	3755034.4	0.004255692	0.004011236
2038	677	484751.7	3755034.4	0.004294449	0.004038013
2038	678	484851.7	3755034.4	0.004346369	0.004077414
2038	679	484951.7	3755034.4	0.004407037	0.004123743
2038	680	485051.7	3755034.4	0.004481581	0.004182307
2038	681	485151.7	3755034.4	0.004574177	0.004257259
2038	682	485251.7	3755034.4	0.004703021	0.004367231
2038	683	485351.7	3755034.4	0.004910749	0.004554369
2038	684	485451.7	3755034.4	0.005501719	0.005122284
2038	685	485549.5	3750934.9	0.000381408	0.000286398
2038	686	485649.5	3750934.9	0.000376802	0.00028247
2038	687	485749.5	3750934.9	0.000373905	0.000280085
2038	688	485849.5	3750934.9	0.000369327	0.000276267
2038	689	485549.5	3751034.9	0.000402374	0.000302286
2038	690	485649.5	3751034.9	0.000396166	0.000296938
2038	691	485749.5	3751034.9	0.000393503	0.000294719
2038	692	485849.5	3751034.9	0.000389964	0.000291775
2038	693	485549.5	3751134.9	0.000425468	0.000320068
2038	694	485649.5	3751134.9	0.000418729	0.000314191
2038	695	485749.5	3751134.9	0.000415753	0.000311674
2038	696	485849.5	3751134.9	0.000411351	0.000307938
2038	697	485549.5	3751234.9	0.000452898	0.000341689
2038	698	485649.5	3751234.9	0.000444221	0.000334028
2038	699	485749.5	3751234.9	0.000440756	0.000331036
2038	700	485849.5	3751234.9	0.000439925	0.000330468
2038	701	485549.5	3751334.9	0.000482122	0.000364898
2038	702	485649.5	3751334.9	0.000475505	0.000358979
2038	703	485749.5	3751334.9	0.000470137	0.000354265

2038	704	485849.5	3751334.9	0.000473821	0.00035779
2038	705	485549.5	3751434.9	0.000522869	0.000398477
2038	706	485649.5	3751434.9	0.000518805	0.000394748
2038	707	485749.5	3751434.9	0.000507386	0.00038446
2038	708	485849.5	3751434.9	0.000522982	0.000398924
2038	709	485549.5	3751534.9	0.000654594	0.000514071
2038	710	485649.5	3751534.9	0.000638801	0.000499731
2038	711	485749.5	3751534.9	0.000580121	0.000446876
2038	712	485849.5	3751534.9	0.000569107	0.000437031
2038	713	485549.5	3751634.9	0.001009894	0.000803943
2038	714	485649.5	3751634.9	0.000853953	0.000681468
2038	715	485749.5	3751634.9	0.000795791	0.000633331
2038	716	485849.5	3751634.9	0.00061185	0.000471853
2038	717	485549.5	3751734.9	0.001247554	0.000980651
2038	718	485649.5	3751734.9	0.001192698	0.000943849
2038	719	485749.5	3751734.9	0.001061267	0.000846565
2038	720	485849.5	3751734.9	0.000748065	0.000590538
2038	721	485549.5	3751834.9	0.001423585	0.00112109
2038	722	485649.5	3751834.9	0.001350044	0.001063201
2038	723	485749.5	3751834.9	0.001292025	0.001021026
2038	724	485849.5	3751834.9	0.001103141	0.000882625
2038	725	485549.5	3751934.9	0.001652881	0.001311622
2038	726	485649.5	3751934.9	0.001514799	0.00118527
2038	727	485749.5	3751934.9	0.001473871	0.00115035
2038	728	485849.5	3751934.9	0.001418527	0.001111805
2038	729	485549.5	3752034.9	0.001913952	0.001532891
2038	730	485649.5	3752034.9	0.001679936	0.001308415
2038	731	485749.5	3752034.9	0.001644047	0.001277913
2038	732	485849.5	3752034.9	0.001610713	0.0012578
2038	733	485549.5	3752134.9	0.001969271	0.001556215
2038	734	485649.5	3752134.9	0.00191735	0.001499243
2038	735	485749.5	3752134.9	0.001923089	0.001505909
2038	736	485849.5	3752134.9	0.001935394	0.001527596
2038	737	485549.5	3752234.9	0.002209253	0.001773399
2038	738	485649.5	3752234.9	0.002276635	0.00182918
2038	739	485749.5	3752234.9	0.002368736	0.00191246
2038	740	485849.5	3752234.9	0.002439675	0.001983816
2038	741	485549.5	3752334.9	0.001850101	0.001396992
2038	742	485649.5	3752334.9	0.001895656	0.001424482
2038	743	485749.5	3752334.9	0.001957252	0.00147074
2038	744	485849.5	3752334.9	0.002028742	0.001530912
2038	745	485549.5	3752434.9	0.001794472	0.001324626
2038	746	485649.5	3752434.9	0.00182665	0.001337114
2038	747	485749.5	3752434.9	0.001882293	0.001371805
2038	748	485849.5	3752434.9	0.001954887	0.00142284
2038	749	485549.5	3752534.9	0.001822519	0.00133457
2038	750	485649.5	3752534.9	0.00185133	0.001342231

2038	751	485749.5	3752534.9	0.001907756	0.001375517
2038	752	485849.5	3752534.9	0.001978763	0.001421248
2038	753	485549.5	3752634.9	0.001880855	0.001371813
2038	754	485649.5	3752634.9	0.001910884	0.001379303
2038	755	485749.5	3752634.9	0.001967672	0.001412109
2038	756	485849.5	3752634.9	0.002038557	0.00145584
2038	757	485549.5	3752734.9	0.001953399	0.001422491
2038	758	485649.5	3752734.9	0.001986089	0.001431634
2038	759	485749.5	3752734.9	0.002050619	0.001469412
2038	760	485849.5	3752734.9	0.002129544	0.001517696
2038	761	485549.5	3752834.9	0.002033894	0.001481518
2038	762	485649.5	3752834.9	0.002069403	0.001493384
2038	763	485749.5	3752834.9	0.002143987	0.001539441
2038	764	485849.5	3752834.9	0.00223422	0.001596148
2038	765	485549.5	3752934.9	0.002125289	0.001549419
2038	766	485649.5	3752934.9	0.002162579	0.001563807
2038	767	485749.5	3752934.9	0.002246546	0.00162032
2038	768	485849.5	3752934.9	0.002356775	0.001695749
2038	769	485549.5	3753034.9	0.002242012	0.001638611
2038	770	485649.5	3753034.9	0.00226017	0.001635901
2038	771	485749.5	3753034.9	0.002355235	0.001704743
2038	772	485849.5	3753034.9	0.002493296	0.001811424
2038	773	485549.5	3753134.9	0.002284072	0.001644917
2038	774	485649.5	3753134.9	0.002355896	0.00169816
2038	775	485749.5	3753134.9	0.002457885	0.001778786
2038	776	485849.5	3753134.9	0.002614922	0.001910057
2038	777	485549.5	3753234.9	0.002390153	0.001705256
2038	778	485649.5	3753234.9	0.002465506	0.001764755
2038	779	485749.5	3753234.9	0.002565761	0.001850794
2038	780	485849.5	3753234.9	0.002726467	0.001993194
2038	781	485549.5	3753334.9	0.002552748	0.001807315
2038	782	485649.5	3753334.9	0.002613069	0.001847051
2038	783	485749.5	3753334.9	0.002705472	0.001931871
2038	784	485849.5	3753334.9	0.00285173	0.002074119
2038	785	485549.5	3753434.9	0.002734212	0.001918728
2038	786	485649.5	3753434.9	0.002833638	0.001976921
2038	787	485749.5	3753434.9	0.002943824	0.002069103
2038	788	485849.5	3753434.9	0.003067125	0.00220911
2038	789	485508.5	3746711.3	0.000243354	0.00020122
2038	790	491508.5	3746711.3	0.000169864	0.000140836
2038	791	479508.5	3752711.3	0.000851823	0.000773514
2038	792	485508.5	3752711.3	0.001895189	0.001378055
2038	793	491508.5	3752711.3	0.001567461	0.001036188
2038	794	485508.5	3758711.3	0.00043243	0.000401466
2038	795	491508.5	3758711.3	0.000183346	0.000159375
2038	796	485921.9	3750934.2	0.000365028	0.000272701
2038	797	486021.9	3750934.2	0.000360418	0.000268932

2038	798	486121.9	3750934.2	0.000357923	0.00026707
2038	799	485921.9	3751034.2	0.000384631	0.000287232
2038	800	486021.9	3751034.2	0.000377898	0.000281551
2038	801	486121.9	3751034.2	0.00037402	0.000278405
2038	802	485921.9	3751134.2	0.000406955	0.000304179
2038	803	486021.9	3751134.2	0.000399493	0.000297785
2038	804	486121.9	3751134.2	0.000393681	0.000292847
2038	805	485921.9	3751234.2	0.000432798	0.00032423
2038	806	486021.9	3751234.2	0.000424621	0.00031711
2038	807	486121.9	3751234.2	0.000417409	0.00031087
2038	808	485921.9	3751334.2	0.000464403	0.000349418
2038	809	486021.9	3751334.2	0.000454997	0.000341098
2038	810	486121.9	3751334.2	0.000444613	0.000331926
2038	811	485921.9	3751434.2	0.000507596	0.000385075
2038	812	486021.9	3751434.2	0.0004912	0.000370314
2038	813	486121.9	3751434.2	0.000477666	0.000358177
2038	814	485921.9	3751534.2	0.000553763	0.000423265
2038	815	486021.9	3751534.2	0.000542648	0.000413375
2038	816	486121.9	3751534.2	0.000519194	0.000392079
2038	817	485921.9	3751634.2	0.000593219	0.000455051
2038	818	486021.9	3751634.2	0.000633392	0.000491781
2038	819	486121.9	3751634.2	0.000584532	0.000447697
2038	820	485921.9	3751734.2	0.000679013	0.000528765
2038	821	486021.9	3751734.2	0.000778367	0.000616779
2038	822	486121.9	3751734.2	0.000659997	0.000512079
2038	823	485921.9	3751834.2	0.000866478	0.000691228
2038	824	486021.9	3751834.2	0.000872214	0.000695631
2038	825	486121.9	3751834.2	0.000693402	0.000537748
2038	826	485921.9	3751934.2	0.001294056	0.001034312
2038	827	486021.9	3751934.2	0.001078493	0.000866571
2038	828	486121.9	3751934.2	0.000879039	0.000698955
2038	829	485921.9	3752034.2	0.001535784	0.001210919
2038	830	486021.9	3752034.2	0.001324917	0.001068299
2038	831	486121.9	3752034.2	0.001206381	0.000975352
2038	832	485921.9	3752134.2	0.001953025	0.001557591
2038	833	486021.9	3752134.2	0.001902123	0.001537501
2038	834	486121.9	3752134.2	0.00163049	0.001323345
2038	835	485921.9	3752234.2	0.002480435	0.002033643
2038	836	486021.9	3752234.2	0.002589538	0.00215299
2038	837	486121.9	3752234.2	0.002390124	0.001971573
2038	838	485921.9	3752334.2	0.0020821	0.00157883
2038	839	486021.9	3752334.2	0.002195372	0.001692959
2038	840	486121.9	3752334.2	0.002539709	0.002039301
2038	841	485921.9	3752434.2	0.002021294	0.001478324
2038	842	486021.9	3752434.2	0.002132857	0.001577631
2038	843	486121.9	3752434.2	0.002320376	0.001752716
2038	844	485921.9	3752534.2	0.002044178	0.001466591

2038	845	486021.9	3752534.2	0.00213993	0.001538946
2038	846	486121.9	3752534.2	0.002267798	0.001644881
2038	847	485921.9	3752634.2	0.002097036	0.001494003
2038	848	486021.9	3752634.2	0.002186288	0.001556481
2038	849	486121.9	3752634.2	0.002296269	0.00164047
2038	850	485921.9	3752734.2	0.002191812	0.001557032
2038	851	486021.9	3752734.2	0.002291617	0.001623302
2038	852	486121.9	3752734.2	0.002407619	0.001706739
2038	853	485921.9	3752834.2	0.002309887	0.001643694
2038	854	486021.9	3752834.2	0.002431122	0.001722218
2038	855	486121.9	3752834.2	0.002573458	0.001820611
2038	856	485921.9	3752934.2	0.002446021	0.001755807
2038	857	486021.9	3752934.2	0.002597274	0.001856282
2038	858	486121.9	3752934.2	0.002807017	0.002005958
2038	859	487026.2	3754364	0.009710497	0.00841767
2039	1	489607.4	3753966.1	0.003005338	0.002024868
2039	2	489738.7	3754023.9	0.002663909	0.001858582
2039	3	489668.9	3754093.7	0.002533356	0.001848683
2039	4	489690.1	3754161.6	0.002401322	0.001785056
2039	5	490282.2	3753425.2	0.00354684	0.002476163
2039	6	489797.3	3754554.1	0.001961821	0.001506036
2039	7	490252.9	3754378.2	0.001795272	0.0013542
2039	8	489006	3754140.3	0.004557281	0.003554049
2039	9	485642.8	3754267.3	0.004100126	0.003165087
2039	10	485736.4	3754259.5	0.004521802	0.003497506
2039	11	487189.2	3754820.5	0.010091874	0.00899555
2039	12	487233.1	3754689.5	0.008297948	0.00709333
2039	13	487216.8	3754364.7	0.012644115	0.011429272
2039	14	487388.8	3754380.1	0.009543453	0.008421717
2039	15	484625	3751748	0.001234098	0.000953633
2039	16	483279	3751798	0.00092791	0.000727788
2039	17	483231	3751205	0.000825023	0.000648303
2039	18	480165	3750195	0.000624023	0.000534263
2039	19	481211	3749473	0.000563464	0.000463935
2039	20	481867	3752785	0.000944174	0.00080302
2039	21	480678	3751306	0.000678202	0.000572995
2039	22	479989	3752645	0.0008108	0.000723565
2039	23	479889	3756222	0.001134397	0.001082257
2039	24	479234	3757080	0.000547074	0.000509408
2039	25	480276	3756365	0.000922189	0.000872234
2039	26	479887	3754007	0.001055189	0.0009793
2039	27	480772	3755009	0.002233887	0.002151236
2039	28	481560	3754548	0.001674262	0.001568972
2039	29	481845	3754457	0.001689894	0.001574936
2039	30	481754	3753876	0.001207659	0.001084719
2039	31	489635.2	3750663.8	0.000459906	0.000350302
2039	32	485424.1	3747672.3	0.000299065	0.000242834

2039	33	482657.6	3753975.1	0.00143028	0.00126862
2039	34	481495	3754633.7	0.001756784	0.001654574
2039	35	481148.7	3756136.2	0.001267021	0.001204873
2039	36	482346.5	3748872.9	0.000232626	0.0001823
2039	37	480299	3751198	0.000660146	0.000563128
2039	38	479598.7	3756506.3	0.000867936	0.000821002
2039	39	478997.8	3753535.2	0.001183188	0.001116459
2039	40	478978.3	3755233.1	0.003560174	0.003496442
2039	41	479197.3	3754462.3	0.001567936	0.001503431
2039	42	479493.3	3752408.8	0.000823625	0.000743943
2039	43	480295.4	3752408.4	0.000785911	0.00069107
2039	44	480287.9	3754227.5	0.001156285	0.001075163
2039	45	494397.4	3753977.6	0.000725748	0.000586299
2039	46	481108.5	3750699	0.000665979	0.000556029
2039	47	486794.1	3756878	0.000672299	0.000603662
2039	48	482345	3752065.8	0.000894428	0.00073282
2039	49	487553	3745938.3	0.000182569	0.000153648
2039	50	484553	3746938.3	0.000241564	0.000198588
2039	51	485553	3746938.3	0.000253608	0.000208967
2039	52	486553	3746938.3	0.000202023	0.000171399
2039	53	487553	3746938.3	0.000222575	0.000184427
2039	54	488553	3746938.3	0.000202874	0.000169034
2039	55	489553	3746938.3	0.000200449	0.000165706
2039	56	490553	3746938.3	0.000184072	0.000152596
2039	57	491553	3746938.3	0.000175157	0.000144868
2039	58	492553	3746938.3	0.000168435	0.000139086
2039	59	482553	3747938.3	0.000212152	0.000168924
2039	60	483553	3747938.3	0.000354356	0.000283347
2039	61	484553	3747938.3	0.000337484	0.000271086
2039	62	485553	3747938.3	0.00031492	0.000254433
2039	63	486553	3747938.3	0.000293122	0.000240154
2039	64	487553	3747938.3	0.000187394	0.00015797
2039	65	488553	3747938.3	0.000244456	0.00020091
2039	66	489553	3747938.3	0.000229533	0.000188645
2039	67	490553	3747938.3	0.000216089	0.00017724
2039	68	491553	3747938.3	0.000204979	0.000167532
2039	69	492553	3747938.3	0.000196066	0.0001598
2039	70	493553	3747938.3	0.000189683	0.000154526
2039	71	481553	3748938.3	0.000477258	0.000381585
2039	72	482553	3748938.3	0.000243557	0.000191236
2039	73	483553	3748938.3	0.000407565	0.000324862
2039	74	484553	3748938.3	0.000427488	0.000337876
2039	75	485553	3748938.3	0.000407619	0.000323715
2039	76	486553	3748938.3	0.000377647	0.000302446
2039	77	487553	3748938.3	0.000296439	0.000248158
2039	78	488553	3748938.3	0.000304282	0.000245516
2039	79	489553	3748938.3	0.000279574	0.000226405

2039	80	490553	3748938.3	0.000262247	0.000211584
2039	81	491553	3748938.3	0.00024669	0.000198356
2039	82	492553	3748938.3	0.000236251	0.00018921
2039	83	493553	3748938.3	0.000233243	0.000187063
2039	84	494553	3748938.3	0.00030144	0.000256321
2039	85	480553	3749938.3	0.000738525	0.00064574
2039	86	481553	3749938.3	0.000643016	0.000527037
2039	87	482553	3749938.3	0.000627525	0.000501042
2039	88	483553	3749938.3	0.000616276	0.000485716
2039	89	484553	3749938.3	0.000451724	0.000357484
2039	90	485553	3749938.3	0.000369763	0.000294132
2039	91	486553	3749938.3	0.00043767	0.000354462
2039	92	487553	3749938.3	0.000458427	0.000362341
2039	93	488553	3749938.3	0.000397964	0.000312339
2039	94	489553	3749938.3	0.00036174	0.000285053
2039	95	490553	3749938.3	0.000334027	0.000262435
2039	96	491553	3749938.3	0.000313074	0.00024466
2039	97	492553	3749938.3	0.000304898	0.000237148
2039	98	493553	3749938.3	0.000341455	0.00027118
2039	99	494553	3749938.3	0.000287451	0.000218146
2039	100	495553	3749938.3	0.000228161	0.000188337
2039	101	480553	3750938.3	0.000646363	0.000545317
2039	102	481553	3750938.3	0.000695371	0.000573577
2039	103	482553	3750938.3	0.000755391	0.000607747
2039	104	483553	3750938.3	0.000868914	0.000689323
2039	105	484553	3750938.3	0.000863038	0.000673992
2039	106	485553	3750938.3	0.000381804	0.000286657
2039	107	486553	3750938.3	0.000352273	0.000265001
2039	108	487553	3750938.3	0.000551668	0.000438674
2039	109	488553	3750938.3	0.000597203	0.000442398
2039	110	489553	3750938.3	0.000524571	0.000391487
2039	111	490553	3750938.3	0.000468271	0.000349838
2039	112	491553	3750938.3	0.00043614	0.000323869
2039	113	492553	3750938.3	0.000490154	0.000375303
2039	114	493553	3750938.3	0.000424692	0.000311663
2039	115	494553	3750938.3	0.000411569	0.000305844
2039	116	495553	3750938.3	0.000383874	0.000298329
2039	117	479553	3751938.3	0.000760661	0.00067789
2039	118	480553	3751938.3	0.000747192	0.000644871
2039	119	481553	3751938.3	0.000789246	0.000659741
2039	120	482553	3751938.3	0.000876139	0.000706882
2039	121	483553	3751938.3	0.00100534	0.000784025
2039	122	484553	3751938.3	0.00119653	0.000910504
2039	123	485553	3751938.3	0.001652386	0.001310076
2039	124	486553	3751938.3	0.000677518	0.000518984
2039	125	487553	3751938.3	0.0010938	0.00085464
2039	126	488553	3751938.3	0.00117449	0.000795388

2039	127	489553	3751938.3	0.001068619	0.000702555
2039	128	490553	3751938.3	0.000896855	0.000589903
2039	129	491553	3751938.3	0.000929406	0.000648649
2039	130	492553	3751938.3	0.000742622	0.000479676
2039	131	493553	3751938.3	0.000665304	0.000493868
2039	132	494553	3751938.3	0.000613824	0.000458547
2039	133	495553	3751938.3	0.000540945	0.000414249
2039	134	479553	3752938.3	0.000919753	0.000842083
2039	135	480553	3752938.3	0.000917948	0.00082014
2039	136	481553	3752938.3	0.000989982	0.000862685
2039	137	482553	3752938.3	0.001120124	0.000945069
2039	138	483553	3752938.3	0.001288046	0.001036158
2039	139	484553	3752938.3	0.00160562	0.001206286
2039	140	485553	3752938.3	0.002127435	0.001549907
2039	141	486553	3752938.3	0.004197908	0.00330725
2039	142	487553	3752938.3	0.004624128	0.003486353
2039	143	488553	3752938.3	0.004121289	0.003017912
2039	144	489553	3752938.3	0.003759956	0.002743019
2039	145	490553	3752938.3	0.003118444	0.002239126
2039	146	491553	3752938.3	0.001615505	0.001121584
2039	147	492553	3752938.3	0.001228605	0.000804777
2039	148	493553	3752938.3	0.000998658	0.000713483
2039	149	494553	3752938.3	0.000851242	0.000635835
2039	150	495553	3752938.3	0.000685581	0.000530474
2039	151	479553	3753938.3	0.001056648	0.000985336
2039	152	480553	3753938.3	0.001065631	0.000976785
2039	153	481553	3753938.3	0.001210442	0.00109536
2039	154	482553	3753938.3	0.001382839	0.001225984
2039	155	483553	3753938.3	0.001739126	0.001518375
2039	156	484553	3753938.3	0.002062736	0.001657532
2039	157	485553	3753938.3	0.003328033	0.002399635
2039	158	486553	3753938.3	0.00587771	0.004415519
2039	159	487553	3753938.3	0.006449908	0.005269006
2039	160	488553	3753938.3	0.005707975	0.004366261
2039	161	489553	3753938.3	0.003208337	0.002146419
2039	162	490553	3753938.3	0.001856303	0.001363774
2039	163	491553	3753938.3	0.001295453	0.001010088
2039	164	492553	3753938.3	0.001062803	0.000839688
2039	165	493553	3753938.3	0.000869399	0.000695423
2039	166	494553	3753938.3	0.000790045	0.0006368
2039	167	495553	3753938.3	0.000616134	0.000500931
2039	168	479553	3754938.3	0.001879019	0.001812246
2039	169	480553	3754938.3	0.002003114	0.001923237
2039	170	481553	3754938.3	0.002294445	0.002195577
2039	171	482553	3754938.3	0.00335287	0.003226354
2039	172	483553	3754938.3	0.00368581	0.003520762
2039	173	484553	3754938.3	0.003653175	0.003405562

2039	174	485553	3754938.3	0.005300037	0.004852217
2039	175	486553	3754938.3	0.007308372	0.006652972
2039	176	487553	3754938.3	0.0062339	0.005368797
2039	177	488553	3754938.3	0.003502589	0.002902681
2039	178	489553	3754938.3	0.002195006	0.001888802
2039	179	490553	3754938.3	0.001462739	0.001284618
2039	180	491553	3754938.3	0.000961313	0.000837579
2039	181	492553	3754938.3	0.00069004	0.000593919
2039	182	493553	3754938.3	0.000697621	0.000605986
2039	183	494553	3754938.3	0.000530786	0.000457223
2039	184	495553	3754938.3	0.0004455	0.000382642
2039	185	479553	3755938.3	0.001890688	0.001833685
2039	186	480553	3755938.3	0.001584961	0.001523412
2039	187	481553	3755938.3	0.001605812	0.001537024
2039	188	482553	3755938.3	0.002296043	0.002205008
2039	189	483553	3755938.3	0.002411683	0.002302912
2039	190	484553	3755938.3	0.002292656	0.002159919
2039	191	485553	3755938.3	0.003236686	0.003072111
2039	192	486553	3755938.3	0.002616244	0.002439538
2039	193	487553	3755938.3	0.001445759	0.001334041
2039	194	488553	3755938.3	0.00100995	0.000921686
2039	195	489553	3755938.3	0.000692157	0.000624987
2039	196	490553	3755938.3	0.000572999	0.000515125
2039	197	491553	3755938.3	0.000472248	0.000422692
2039	198	492553	3755938.3	0.000572246	0.000526197
2039	199	493553	3755938.3	0.000419577	0.000378874
2039	200	494553	3755938.3	0.000403112	0.000365151
2039	201	479553	3756938.3	0.000573374	0.000534622
2039	202	480553	3756938.3	0.000548895	0.000508986
2039	203	481553	3756938.3	0.000495782	0.000457683
2039	204	482553	3756938.3	0.00051746	0.000475038
2039	205	483553	3756938.3	0.000872637	0.000803056
2039	206	484553	3756938.3	0.00084184	0.000766684
2039	207	485553	3756938.3	0.001827111	0.001750147
2039	208	486553	3756938.3	0.000695643	0.000626292
2039	209	487553	3756938.3	0.00045769	0.000405552
2039	210	488553	3756938.3	0.000371244	0.000326038
2039	211	489553	3756938.3	0.000325199	0.000284817
2039	212	490553	3756938.3	0.000297106	0.000260157
2039	213	491553	3756938.3	0.000259743	0.000227122
2039	214	492553	3756938.3	0.00023137	0.000202437
2039	215	493553	3756938.3	0.000245885	0.000217978
2039	216	494553	3756938.3	0.000238675	0.000212418
2039	217	479553	3757938.3	0.000288328	0.000263889
2039	218	480553	3757938.3	0.000276024	0.000251565
2039	219	481553	3757938.3	0.00029157	0.000263898
2039	220	482553	3757938.3	0.000360656	0.000323934

2039	221	483553	3757938.3	0.000353692	0.000315771
2039	222	484553	3757938.3	0.000465686	0.000418696
2039	223	485553	3757938.3	0.000539591	0.000498787
2039	224	486553	3757938.3	0.000322692	0.00028524
2039	225	487553	3757938.3	0.000263808	0.000230199
2039	226	488553	3757938.3	0.00023161	0.000200905
2039	227	489553	3757938.3	0.000213728	0.000184893
2039	228	490553	3757938.3	0.000195439	0.000168934
2039	229	491553	3757938.3	0.000179074	0.000154599
2039	230	492553	3757938.3	0.000171933	0.000148988
2039	231	493553	3757938.3	0.000190686	0.000166992
2039	232	480553	3758938.3	0.000207166	0.000186495
2039	233	481553	3758938.3	0.000231101	0.000206373
2039	234	482553	3758938.3	0.000225123	0.000199414
2039	235	483553	3758938.3	0.000236025	0.000208208
2039	236	484553	3758938.3	0.00029534	0.000264183
2039	237	485553	3758938.3	0.000685858	0.00065257
2039	238	486553	3758938.3	0.000223329	0.000196708
2039	239	487553	3758938.3	0.000245191	0.000215841
2039	240	488553	3758938.3	0.000182051	0.000158491
2039	241	489553	3758938.3	0.000184564	0.000160754
2039	242	490553	3758938.3	0.000201511	0.000175347
2039	243	491553	3758938.3	0.00016388	0.000142275
2039	244	492553	3758938.3	0.000170507	0.000148228
2039	245	481553	3759938.3	0.000170999	0.000151817
2039	246	482553	3759938.3	0.000176464	0.000155607
2039	247	483553	3759938.3	0.000186986	0.000164671
2039	248	484553	3759938.3	0.000260077	0.000232294
2039	249	485553	3759938.3	0.000678447	0.000644739
2039	250	486553	3759938.3	0.00032149	0.00028742
2039	251	487553	3759938.3	0.000262256	0.000232114
2039	252	488553	3759938.3	0.000261735	0.000229806
2039	253	489553	3759938.3	0.000226817	0.000197994
2039	254	490553	3759938.3	0.000175373	0.000153105
2039	255	491553	3759938.3	0.000152834	0.000133041
2039	256	482553	3760938.3	0.000166449	0.000146921
2039	257	483553	3760938.3	0.000192501	0.000170624
2039	258	484553	3760938.3	0.000245855	0.00022007
2039	259	485553	3760938.3	0.000558289	0.000524197
2039	260	486553	3760938.3	0.00036625	0.000329826
2039	261	487553	3760938.3	0.000292034	0.000262292
2039	262	488553	3760938.3	0.000166389	0.000147291
2039	263	489553	3760938.3	0.000126207	0.000110586
2039	264	490553	3760938.3	0.000120723	0.000105368
2039	265	484551.7	3750934.4	0.00085781	0.000670964
2039	266	484651.7	3750934.4	0.00084689	0.000662861
2039	267	484751.7	3750934.4	0.000647301	0.000513036

2039	268	484851.7	3750934.4	0.000593984	0.000470956
2039	269	484951.7	3750934.4	0.000627812	0.00049677
2039	270	485051.7	3750934.4	0.00056273	0.000444998
2039	271	485151.7	3750934.4	0.000468565	0.000364323
2039	272	485251.7	3750934.4	0.000412708	0.000314147
2039	273	485351.7	3750934.4	0.000396894	0.000299953
2039	274	485451.7	3750934.4	0.0003885	0.00029256
2039	275	484551.7	3751034.4	0.00091639	0.000709662
2039	276	484651.7	3751034.4	0.00090406	0.000701219
2039	277	484751.7	3751034.4	0.000849246	0.000669214
2039	278	484851.7	3751034.4	0.000672371	0.0005324
2039	279	484951.7	3751034.4	0.000747061	0.000589409
2039	280	485051.7	3751034.4	0.00062661	0.000495875
2039	281	485151.7	3751034.4	0.000543262	0.000427368
2039	282	485251.7	3751034.4	0.000462049	0.000355854
2039	283	485351.7	3751034.4	0.000426744	0.000324007
2039	284	485451.7	3751034.4	0.000411431	0.000310272
2039	285	484551.7	3751134.4	0.000962674	0.000742171
2039	286	484651.7	3751134.4	0.000960568	0.000738894
2039	287	484751.7	3751134.4	0.000948044	0.000731807
2039	288	484851.7	3751134.4	0.000856235	0.000678417
2039	289	484951.7	3751134.4	0.000877054	0.000690184
2039	290	485051.7	3751134.4	0.00072305	0.000571168
2039	291	485151.7	3751134.4	0.000641733	0.000507903
2039	292	485251.7	3751134.4	0.000555085	0.000435731
2039	293	485351.7	3751134.4	0.000472087	0.000362072
2039	294	485451.7	3751134.4	0.000438092	0.000331327
2039	295	484551.7	3751234.4	0.001010266	0.000778358
2039	296	484651.7	3751234.4	0.001010341	0.000775898
2039	297	484751.7	3751234.4	0.001002462	0.00077203
2039	298	484851.7	3751234.4	0.000974393	0.000757209
2039	299	484951.7	3751234.4	0.000948845	0.000742007
2039	300	485051.7	3751234.4	0.00085298	0.000675077
2039	301	485151.7	3751234.4	0.000719612	0.000570026
2039	302	485251.7	3751234.4	0.000543351	0.000423307
2039	303	485351.7	3751234.4	0.00048047	0.000366617
2039	304	485451.7	3751234.4	0.000461442	0.000349354
2039	305	484551.7	3751334.4	0.001081053	0.000835602
2039	306	484651.7	3751334.4	0.001073192	0.000827108
2039	307	484751.7	3751334.4	0.001061106	0.000819641
2039	308	484851.7	3751334.4	0.001046072	0.000810269
2039	309	484951.7	3751334.4	0.00103785	0.000803428
2039	310	485051.7	3751334.4	0.000995324	0.000779379
2039	311	485151.7	3751334.4	0.000842305	0.000666826
2039	312	485251.7	3751334.4	0.00066315	0.000525565
2039	313	485351.7	3751334.4	0.000522765	0.000401953
2039	314	485451.7	3751334.4	0.00048902	0.000371194

2039	315	484551.7	3751434.4	0.001195871	0.000941044
2039	316	484651.7	3751434.4	0.001163768	0.000905728
2039	317	484751.7	3751434.4	0.001144393	0.000885781
2039	318	484851.7	3751434.4	0.00113107	0.000873877
2039	319	484951.7	3751434.4	0.001120277	0.000865319
2039	320	485051.7	3751434.4	0.00110667	0.000855016
2039	321	485151.7	3751434.4	0.00099371	0.000789774
2039	322	485251.7	3751434.4	0.000773905	0.00061681
2039	323	485351.7	3751434.4	0.000608583	0.00047649
2039	324	485451.7	3751434.4	0.00054169	0.000415823
2039	325	484551.7	3751534.4	0.001456143	0.001194651
2039	326	484651.7	3751534.4	0.001349409	0.001081237
2039	327	484751.7	3751534.4	0.001270368	0.000997498
2039	328	484851.7	3751534.4	0.001233975	0.000958587
2039	329	484951.7	3751534.4	0.001216508	0.000938945
2039	330	485051.7	3751534.4	0.00120715	0.000926978
2039	331	485151.7	3751534.4	0.001192785	0.000916086
2039	332	485251.7	3751534.4	0.001082089	0.00085507
2039	333	485351.7	3751534.4	0.000865048	0.000689985
2039	334	485451.7	3751534.4	0.000715318	0.00056769
2039	335	484551.7	3751634.4	0.001348616	0.00108066
2039	336	484651.7	3751634.4	0.001389714	0.001114828
2039	337	484751.7	3751634.4	0.001432773	0.001150223
2039	338	484851.7	3751634.4	0.001460119	0.001172175
2039	339	484951.7	3751634.4	0.001360079	0.001067802
2039	340	485051.7	3751634.4	0.001317314	0.001020951
2039	341	485151.7	3751634.4	0.001301717	0.00100178
2039	342	485251.7	3751634.4	0.00126963	0.000980559
2039	343	485351.7	3751634.4	0.001209076	0.000942354
2039	344	485451.7	3751634.4	0.001103471	0.000878023
2039	345	484551.7	3751734.4	0.00119826	0.000925036
2039	346	484651.7	3751734.4	0.001264518	0.00098234
2039	347	484751.7	3751734.4	0.001369029	0.001078914
2039	348	484851.7	3751734.4	0.001502342	0.001205645
2039	349	484951.7	3751734.4	0.001504911	0.00120346
2039	350	485051.7	3751734.4	0.001637929	0.001331229
2039	351	485151.7	3751734.4	0.001489861	0.001175256
2039	352	485251.7	3751734.4	0.001448465	0.001130981
2039	353	485351.7	3751734.4	0.001395598	0.00108578
2039	354	485451.7	3751734.4	0.001321168	0.001028942
2039	355	484551.7	3751834.4	0.001178528	0.000900498
2039	356	484651.7	3751834.4	0.001216232	0.000929544
2039	357	484751.7	3751834.4	0.001259795	0.000964382
2039	358	484851.7	3751834.4	0.001311587	0.001008227
2039	359	484951.7	3751834.4	0.001376602	0.001067296
2039	360	485051.7	3751834.4	0.001520517	0.001203986
2039	361	485151.7	3751834.4	0.001542038	0.001214307

2039	362	485251.7	3751834.4	0.001632191	0.001296729
2039	363	485351.7	3751834.4	0.001647723	0.001312326
2039	364	485451.7	3751834.4	0.00164466	0.001317141
2039	365	484551.7	3751934.4	0.001194952	0.000909391
2039	366	484651.7	3751934.4	0.001221364	0.000928327
2039	367	484751.7	3751934.4	0.001248195	0.00094805
2039	368	484851.7	3751934.4	0.001281837	0.000973346
2039	369	484951.7	3751934.4	0.001318899	0.001002103
2039	370	485051.7	3751934.4	0.001366238	0.001039846
2039	371	485151.7	3751934.4	0.001426081	0.001088516
2039	372	485251.7	3751934.4	0.00150841	0.001158113
2039	373	485351.7	3751934.4	0.001627079	0.001268813
2039	374	485451.7	3751934.4	0.001700973	0.001347094
2039	375	484551.7	3752034.4	0.00123658	0.000940967
2039	376	484651.7	3752034.4	0.001259397	0.000956388
2039	377	484751.7	3752034.4	0.001283978	0.000973366
2039	378	484851.7	3752034.4	0.001310027	0.000991611
2039	379	484951.7	3752034.4	0.001342007	0.001014467
2039	380	485051.7	3752034.4	0.001380379	0.001042355
2039	381	485151.7	3752034.4	0.001427179	0.001077177
2039	382	485251.7	3752034.4	0.001494628	0.001130077
2039	383	485351.7	3752034.4	0.001585696	0.001209182
2039	384	485451.7	3752034.4	0.001797931	0.001414264
2039	385	484551.7	3752134.4	0.001309768	0.001003584
2039	386	484651.7	3752134.4	0.00133143	0.001017358
2039	387	484751.7	3752134.4	0.001355632	0.00103318
2039	388	484851.7	3752134.4	0.001380202	0.001049316
2039	389	484951.7	3752134.4	0.001407388	0.001067564
2039	390	485051.7	3752134.4	0.001440843	0.001090734
2039	391	485151.7	3752134.4	0.001481643	0.001119932
2039	392	485251.7	3752134.4	0.001541168	0.001164836
2039	393	485351.7	3752134.4	0.00163458	0.001242518
2039	394	485451.7	3752134.4	0.00184928	0.001444735
2039	395	484551.7	3752234.4	0.00144234	0.001126349
2039	396	484651.7	3752234.4	0.001473627	0.001148329
2039	397	484751.7	3752234.4	0.001496568	0.00116218
2039	398	484851.7	3752234.4	0.001516013	0.001172452
2039	399	484951.7	3752234.4	0.00161539	0.001262436
2039	400	485051.7	3752234.4	0.001568001	0.00120522
2039	401	485151.7	3752234.4	0.001609817	0.001236612
2039	402	485251.7	3752234.4	0.001656023	0.001268681
2039	403	485351.7	3752234.4	0.001744825	0.001340437
2039	404	485451.7	3752234.4	0.002006212	0.001585117
2039	405	484551.7	3752334.4	0.00137642	0.001048293
2039	406	484651.7	3752334.4	0.001402623	0.001064916
2039	407	484751.7	3752334.4	0.001428874	0.001081665
2039	408	484851.7	3752334.4	0.001456068	0.001099205

2039	409	484951.7	3752334.4	0.001486183	0.001118959
2039	410	485051.7	3752334.4	0.001516782	0.001139289
2039	411	485151.7	3752334.4	0.001552645	0.001163754
2039	412	485251.7	3752334.4	0.001594992	0.001193738
2039	413	485351.7	3752334.4	0.001653852	0.001237788
2039	414	485451.7	3752334.4	0.001757089	0.001322574
2039	415	484551.7	3752434.4	0.001374057	0.001033906
2039	416	484651.7	3752434.4	0.001400675	0.00105041
2039	417	484751.7	3752434.4	0.001426966	0.001066937
2039	418	484851.7	3752434.4	0.001458117	0.001086799
2039	419	484951.7	3752434.4	0.001488964	0.001106788
2039	420	485051.7	3752434.4	0.001522938	0.001129194
2039	421	485151.7	3752434.4	0.001560259	0.001154198
2039	422	485251.7	3752434.4	0.001601804	0.001182746
2039	423	485351.7	3752434.4	0.001653242	0.001219379
2039	424	485451.7	3752434.4	0.001729627	0.001279192
2039	425	484551.7	3752534.4	0.001401819	0.001049316
2039	426	484651.7	3752534.4	0.001429809	0.001066429
2039	427	484751.7	3752534.4	0.001459488	0.001084859
2039	428	484851.7	3752534.4	0.001491713	0.001105178
2039	429	484951.7	3752534.4	0.00152427	0.00112611
2039	430	485051.7	3752534.4	0.001560829	0.001149939
2039	431	485151.7	3752534.4	0.001599872	0.001175854
2039	432	485251.7	3752534.4	0.001641838	0.001204362
2039	433	485351.7	3752534.4	0.001690709	0.001238524
2039	434	485451.7	3752534.4	0.00176205	0.001293077
2039	435	484551.7	3752634.4	0.001438541	0.001074066
2039	436	484651.7	3752634.4	0.001468059	0.001091822
2039	437	484751.7	3752634.4	0.001499137	0.001110847
2039	438	484851.7	3752634.4	0.001535217	0.00113325
2039	439	484951.7	3752634.4	0.001570908	0.001155938
2039	440	485051.7	3752634.4	0.001610282	0.001181404
2039	441	485151.7	3752634.4	0.001651377	0.001208572
2039	442	485251.7	3752634.4	0.001695229	0.001238247
2039	443	485351.7	3752634.4	0.001745409	0.001273186
2039	444	485451.7	3752634.4	0.001817814	0.001327956
2039	445	484551.7	3752734.4	0.001483352	0.001106832
2039	446	484651.7	3752734.4	0.001516186	0.001126096
2039	447	484751.7	3752734.4	0.001550521	0.001146678
2039	448	484851.7	3752734.4	0.001587292	0.00116924
2039	449	484951.7	3752734.4	0.001626016	0.001193528
2039	450	485051.7	3752734.4	0.001668241	0.001220643
2039	451	485151.7	3752734.4	0.001711712	0.001249267
2039	452	485251.7	3752734.4	0.00175782	0.001280463
2039	453	485351.7	3752734.4	0.001810408	0.001317086
2039	454	485451.7	3752734.4	0.001882636	0.001372065
2039	455	484551.7	3752834.4	0.001534456	0.001146596

2039	456	484651.7	3752834.4	0.001570243	0.001166992
2039	457	484751.7	3752834.4	0.001606119	0.001187866
2039	458	484851.7	3752834.4	0.001647252	0.001212626
2039	459	484951.7	3752834.4	0.001689701	0.001238761
2039	460	485051.7	3752834.4	0.001734221	0.001266916
2039	461	485151.7	3752834.4	0.001780125	0.001296864
2039	462	485251.7	3752834.4	0.001829099	0.001329854
2039	463	485351.7	3752834.4	0.001882997	0.001367863
2039	464	485451.7	3752834.4	0.001957854	0.001425333
2039	465	484551.7	3752934.4	0.001601751	0.001203046
2039	466	484651.7	3752934.4	0.00164048	0.00122451
2039	467	484751.7	3752934.4	0.001679838	0.001246691
2039	468	484851.7	3752934.4	0.001724112	0.001272555
2039	469	484951.7	3752934.4	0.001770055	0.001300051
2039	470	485051.7	3752934.4	0.001818983	0.001330259
2039	471	485151.7	3752934.4	0.00186735	0.001361117
2039	472	485251.7	3752934.4	0.001920264	0.00139627
2039	473	485351.7	3752934.4	0.001973824	0.001433845
2039	474	485451.7	3752934.4	0.002047133	0.001490124
2039	475	484551.7	3753034.4	0.001715618	0.001307625
2039	476	484651.7	3753034.4	0.00176227	0.001335261
2039	477	484751.7	3753034.4	0.001814456	0.001367484
2039	478	484851.7	3753034.4	0.001855514	0.001387618
2039	479	484951.7	3753034.4	0.001903049	0.001414056
2039	480	485051.7	3753034.4	0.00195553	0.001445755
2039	481	485151.7	3753034.4	0.002014561	0.001483999
2039	482	485251.7	3753034.4	0.002115233	0.001564722
2039	483	485351.7	3753034.4	0.002120727	0.001552771
2039	484	485451.7	3753034.4	0.002181446	0.001596507
2039	485	484551.7	3753134.4	0.001687332	0.001270859
2039	486	484651.7	3753134.4	0.00173429	0.001296449
2039	487	484751.7	3753134.4	0.001785371	0.001324848
2039	488	484851.7	3753134.4	0.001837625	0.00135412
2039	489	484951.7	3753134.4	0.001893722	0.001386283
2039	490	485051.7	3753134.4	0.001952738	0.00142104
2039	491	485151.7	3753134.4	0.002013623	0.001457896
2039	492	485251.7	3753134.4	0.002078831	0.001499391
2039	493	485351.7	3753134.4	0.002146062	0.001544987
2039	494	485451.7	3753134.4	0.002226377	0.001605705
2039	495	484551.7	3753234.4	0.001710402	0.001286521
2039	496	484651.7	3753234.4	0.001761812	0.001314088
2039	497	484751.7	3753234.4	0.001815975	0.001343414
2039	498	484851.7	3753234.4	0.001873055	0.001374714
2039	499	484951.7	3753234.4	0.001934588	0.001409086
2039	500	485051.7	3753234.4	0.002000977	0.001447239
2039	501	485151.7	3753234.4	0.002070191	0.001487989
2039	502	485251.7	3753234.4	0.00214474	0.001533638

2039	503	485351.7	3753234.4	0.002223326	0.001584671
2039	504	485451.7	3753234.4	0.00231898	0.00165487
2039	505	484551.7	3753334.4	0.001749836	0.001319961
2039	506	484651.7	3753334.4	0.001804365	0.001348842
2039	507	484751.7	3753334.4	0.001861251	0.001378912
2039	508	484851.7	3753334.4	0.001925027	0.001413483
2039	509	484951.7	3753334.4	0.001990743	0.00144911
2039	510	485051.7	3753334.4	0.002063278	0.001489422
2039	511	485151.7	3753334.4	0.002141295	0.001533966
2039	512	485251.7	3753334.4	0.002229989	0.001586604
2039	513	485351.7	3753334.4	0.002326635	0.001646844
2039	514	485451.7	3753334.4	0.002441918	0.0017269
2039	515	484551.7	3753434.4	0.001791726	0.001359032
2039	516	484651.7	3753434.4	0.001848842	0.001389154
2039	517	484751.7	3753434.4	0.001909309	0.001420715
2039	518	484851.7	3753434.4	0.001977124	0.00145699
2039	519	484951.7	3753434.4	0.002048261	0.001494284
2039	520	485051.7	3753434.4	0.002126433	0.001536252
2039	521	485151.7	3753434.4	0.002215529	0.001586236
2039	522	485251.7	3753434.4	0.002317732	0.001645499
2039	523	485351.7	3753434.4	0.002433163	0.001715569
2039	524	485451.7	3753434.4	0.00258071	0.00181406
2039	525	484551.7	3753534.4	0.001834271	0.001401772
2039	526	484651.7	3753534.4	0.001889351	0.001429249
2039	527	484751.7	3753534.4	0.001951536	0.001461171
2039	528	484851.7	3753534.4	0.002026173	0.001502069
2039	529	484951.7	3753534.4	0.00210231	0.001542131
2039	530	485051.7	3753534.4	0.002186094	0.001586561
2039	531	485151.7	3753534.4	0.00228372	0.001640541
2039	532	485251.7	3753534.4	0.002397312	0.001705771
2039	533	485351.7	3753534.4	0.00253218	0.001786736
2039	534	485451.7	3753534.4	0.002708557	0.001902665
2039	535	484551.7	3753634.4	0.001877063	0.001447138
2039	536	484651.7	3753634.4	0.001934776	0.001476223
2039	537	484751.7	3753634.4	0.002000177	0.001510122
2039	538	484851.7	3753634.4	0.002073708	0.001548936
2039	539	484951.7	3753634.4	0.002154732	0.001591924
2039	540	485051.7	3753634.4	0.002243852	0.001639563
2039	541	485151.7	3753634.4	0.002346954	0.001696693
2039	542	485251.7	3753634.4	0.002467347	0.001766469
2039	543	485351.7	3753634.4	0.002608998	0.001852946
2039	544	485451.7	3753634.4	0.002796159	0.001980042
2039	545	484551.7	3753734.4	0.001934299	0.001509715
2039	546	484651.7	3753734.4	0.001991163	0.001537158
2039	547	484751.7	3753734.4	0.00205413	0.001567525
2039	548	484851.7	3753734.4	0.002123749	0.001601175
2039	549	484951.7	3753734.4	0.0022069	0.001644798

2039	550	485051.7	3753734.4	0.002301359	0.001695531
2039	551	485151.7	3753734.4	0.002408853	0.001754781
2039	552	485251.7	3753734.4	0.002533232	0.001826116
2039	553	485351.7	3753734.4	0.002681382	0.001916507
2039	554	485451.7	3753734.4	0.002875536	0.002049607
2039	555	484551.7	3753834.4	0.001993158	0.001576913
2039	556	484651.7	3753834.4	0.002047351	0.001601491
2039	557	484751.7	3753834.4	0.002110471	0.001631739
2039	558	484851.7	3753834.4	0.002181027	0.001665539
2039	559	484951.7	3753834.4	0.002265921	0.001709602
2039	560	485051.7	3753834.4	0.002359809	0.001757485
2039	561	485151.7	3753834.4	0.002468271	0.001814695
2039	562	485251.7	3753834.4	0.002599845	0.001889462
2039	563	485351.7	3753834.4	0.00275538	0.001982722
2039	564	485451.7	3753834.4	0.002959871	0.002119668
2039	565	484551.7	3753934.4	0.002057964	0.001652498
2039	566	484651.7	3753934.4	0.002115125	0.00168019
2039	567	484751.7	3753934.4	0.00216924	0.001700941
2039	568	484851.7	3753934.4	0.002241081	0.001736206
2039	569	484951.7	3753934.4	0.002325125	0.001779229
2039	570	485051.7	3753934.4	0.002421929	0.001829895
2039	571	485151.7	3753934.4	0.002533649	0.001889484
2039	572	485251.7	3753934.4	0.002665218	0.001962212
2039	573	485351.7	3753934.4	0.002824593	0.002054876
2039	574	485451.7	3753934.4	0.003036929	0.002191879
2039	575	484551.7	3754034.4	0.002134061	0.001744042
2039	576	484651.7	3754034.4	0.002164441	0.00174111
2039	577	484751.7	3754034.4	0.002233019	0.001777893
2039	578	484851.7	3754034.4	0.002308684	0.001817367
2039	579	484951.7	3754034.4	0.002391473	0.0018593
2039	580	485051.7	3754034.4	0.002485474	0.001907343
2039	581	485151.7	3754034.4	0.002595727	0.001965697
2039	582	485251.7	3754034.4	0.00272772	0.002039071
2039	583	485351.7	3754034.4	0.002888299	0.002133606
2039	584	485451.7	3754034.4	0.003102403	0.00227432
2039	585	484551.7	3754134.4	0.002186274	0.001807139
2039	586	484651.7	3754134.4	0.002225021	0.001815615
2039	587	484751.7	3754134.4	0.002293936	0.001854061
2039	588	484851.7	3754134.4	0.002375554	0.001901776
2039	589	484951.7	3754134.4	0.002457415	0.001943255
2039	590	485051.7	3754134.4	0.002553067	0.001992794
2039	591	485151.7	3754134.4	0.002664673	0.002052706
2039	592	485251.7	3754134.4	0.002796993	0.002127144
2039	593	485351.7	3754134.4	0.00295868	0.002223219
2039	594	485451.7	3754134.4	0.003172011	0.002363175
2039	595	484551.7	3754234.4	0.002240663	0.001872713
2039	596	484651.7	3754234.4	0.00229019	0.001895488

2039	597	484751.7	3754234.4	0.002363842	0.001940994
2039	598	484851.7	3754234.4	0.002446119	0.001991594
2039	599	484951.7	3754234.4	0.002530731	0.002038242
2039	600	485051.7	3754234.4	0.002624803	0.002088277
2039	601	485151.7	3754234.4	0.002735868	0.00214918
2039	602	485251.7	3754234.4	0.00286773	0.00222367
2039	603	485351.7	3754234.4	0.003029111	0.002319229
2039	604	485451.7	3754234.4	0.00324325	0.002459568
2039	605	484551.7	3754334.4	0.002319381	0.001965274
2039	606	484651.7	3754334.4	0.002383308	0.002006268
2039	607	484751.7	3754334.4	0.002455562	0.002052936
2039	608	484851.7	3754334.4	0.002529848	0.002096785
2039	609	484951.7	3754334.4	0.002613682	0.002145331
2039	610	485051.7	3754334.4	0.002708685	0.002199202
2039	611	485151.7	3754334.4	0.002818094	0.002261127
2039	612	485251.7	3754334.4	0.002948876	0.002337852
2039	613	485351.7	3754334.4	0.003105414	0.002433595
2039	614	485451.7	3754334.4	0.003295493	0.002555144
2039	615	484551.7	3754434.4	0.002466948	0.002134251
2039	616	484651.7	3754434.4	0.002513144	0.002157251
2039	617	484751.7	3754434.4	0.00257021	0.002189104
2039	618	484851.7	3754434.4	0.002635733	0.002225749
2039	619	484951.7	3754434.4	0.002715329	0.002272607
2039	620	485051.7	3754434.4	0.002807268	0.002326432
2039	621	485151.7	3754434.4	0.0029154	0.002390492
2039	622	485251.7	3754434.4	0.003043715	0.002468005
2039	623	485351.7	3754434.4	0.00319795	0.002564289
2039	624	485451.7	3754434.4	0.003387155	0.002688871
2039	625	484551.7	3754534.4	0.002641132	0.002327165
2039	626	484651.7	3754534.4	0.002686088	0.002351475
2039	627	484751.7	3754534.4	0.002725027	0.002366095
2039	628	484851.7	3754534.4	0.002773038	0.00238861
2039	629	484951.7	3754534.4	0.002842577	0.002428131
2039	630	485051.7	3754534.4	0.002929537	0.002479577
2039	631	485151.7	3754534.4	0.003035137	0.002543871
2039	632	485251.7	3754534.4	0.003160924	0.002621983
2039	633	485351.7	3754534.4	0.003312481	0.002718463
2039	634	485451.7	3754534.4	0.003505868	0.002848357
2039	635	484551.7	3754634.4	0.002802756	0.00250701
2039	636	484651.7	3754634.4	0.002841798	0.002526934
2039	637	484751.7	3754634.4	0.002899832	0.002564488
2039	638	484851.7	3754634.4	0.002935938	0.002578445
2039	639	484951.7	3754634.4	0.002995686	0.002611829
2039	640	485051.7	3754634.4	0.003077688	0.0026629
2039	641	485151.7	3754634.4	0.00317944	0.002728647
2039	642	485251.7	3754634.4	0.003303422	0.002809311
2039	643	485351.7	3754634.4	0.003456635	0.002910261

2039	644	485451.7	3754634.4	0.0036547	0.003047312
2039	645	484551.7	3754734.4	0.002978054	0.002698924
2039	646	484651.7	3754734.4	0.003018031	0.002722379
2039	647	484751.7	3754734.4	0.003064686	0.002751352
2039	648	484851.7	3754734.4	0.003120789	0.002788199
2039	649	484951.7	3754734.4	0.003188652	0.002833756
2039	650	485051.7	3754734.4	0.003270037	0.002888999
2039	651	485151.7	3754734.4	0.003368486	0.00295669
2039	652	485251.7	3754734.4	0.003490168	0.003042657
2039	653	485351.7	3754734.4	0.003643485	0.0031557
2039	654	485451.7	3754734.4	0.003840616	0.003306472
2039	655	484551.7	3754834.4	0.003242658	0.002979317
2039	656	484651.7	3754834.4	0.003285329	0.003008528
2039	657	484751.7	3754834.4	0.003333217	0.003041133
2039	658	484851.7	3754834.4	0.003388116	0.003078581
2039	659	484951.7	3754834.4	0.003454875	0.003126139
2039	660	485051.7	3754834.4	0.003533567	0.00318294
2039	661	485151.7	3754834.4	0.003631038	0.003255403
2039	662	485251.7	3754834.4	0.003755515	0.003351331
2039	663	485351.7	3754834.4	0.003922464	0.003487445
2039	664	485451.7	3754834.4	0.004140971	0.003671542
2039	665	484551.7	3754934.4	0.003634536	0.00338655
2039	666	484651.7	3754934.4	0.003674978	0.003415274
2039	667	484751.7	3754934.4	0.003720486	0.003447449
2039	668	484851.7	3754934.4	0.003772977	0.003484859
2039	669	484951.7	3754934.4	0.003836569	0.003531869
2039	670	485051.7	3754934.4	0.003910227	0.003586716
2039	671	485151.7	3754934.4	0.004006419	0.003662433
2039	672	485251.7	3754934.4	0.004134273	0.003767131
2039	673	485351.7	3754934.4	0.004333918	0.003942243
2039	674	485451.7	3754934.4	0.004702267	0.004283123
2039	675	484551.7	3755034.4	0.004219462	0.003985179
2039	676	484651.7	3755034.4	0.004255692	0.004011236
2039	677	484751.7	3755034.4	0.004294449	0.004038013
2039	678	484851.7	3755034.4	0.004346369	0.004077414
2039	679	484951.7	3755034.4	0.004407037	0.004123743
2039	680	485051.7	3755034.4	0.004481581	0.004182307
2039	681	485151.7	3755034.4	0.004574177	0.004257259
2039	682	485251.7	3755034.4	0.004703021	0.004367231
2039	683	485351.7	3755034.4	0.004910749	0.004554369
2039	684	485451.7	3755034.4	0.005501719	0.005122284
2039	685	485549.5	3750934.9	0.000381408	0.000286398
2039	686	485649.5	3750934.9	0.000376802	0.00028247
2039	687	485749.5	3750934.9	0.000373905	0.000280085
2039	688	485849.5	3750934.9	0.000369327	0.000276267
2039	689	485549.5	3751034.9	0.000402374	0.000302286
2039	690	485649.5	3751034.9	0.000396166	0.000296938

2039	691	485749.5	3751034.9	0.000393503	0.000294719
2039	692	485849.5	3751034.9	0.000389964	0.000291775
2039	693	485549.5	3751134.9	0.000425468	0.000320068
2039	694	485649.5	3751134.9	0.000418729	0.000314191
2039	695	485749.5	3751134.9	0.000415753	0.000311674
2039	696	485849.5	3751134.9	0.000411351	0.000307938
2039	697	485549.5	3751234.9	0.000452898	0.000341689
2039	698	485649.5	3751234.9	0.000444221	0.000334028
2039	699	485749.5	3751234.9	0.000440756	0.000331036
2039	700	485849.5	3751234.9	0.000439925	0.000330468
2039	701	485549.5	3751334.9	0.000482122	0.000364898
2039	702	485649.5	3751334.9	0.000475505	0.000358979
2039	703	485749.5	3751334.9	0.000470137	0.000354265
2039	704	485849.5	3751334.9	0.000473821	0.00035779
2039	705	485549.5	3751434.9	0.000522869	0.000398477
2039	706	485649.5	3751434.9	0.000518805	0.000394748
2039	707	485749.5	3751434.9	0.000507386	0.00038446
2039	708	485849.5	3751434.9	0.000522982	0.000398924
2039	709	485549.5	3751534.9	0.000654594	0.000514071
2039	710	485649.5	3751534.9	0.000638801	0.000499731
2039	711	485749.5	3751534.9	0.000580121	0.000446876
2039	712	485849.5	3751534.9	0.000569107	0.000437031
2039	713	485549.5	3751634.9	0.001009894	0.000803943
2039	714	485649.5	3751634.9	0.000853953	0.000681468
2039	715	485749.5	3751634.9	0.000795791	0.000633331
2039	716	485849.5	3751634.9	0.00061185	0.000471853
2039	717	485549.5	3751734.9	0.001247554	0.000980651
2039	718	485649.5	3751734.9	0.001192698	0.000943849
2039	719	485749.5	3751734.9	0.001061267	0.000846565
2039	720	485849.5	3751734.9	0.000748065	0.000590538
2039	721	485549.5	3751834.9	0.001423585	0.00112109
2039	722	485649.5	3751834.9	0.001350044	0.001063201
2039	723	485749.5	3751834.9	0.001292025	0.001021026
2039	724	485849.5	3751834.9	0.001103141	0.000882625
2039	725	485549.5	3751934.9	0.001652881	0.001311622
2039	726	485649.5	3751934.9	0.001514799	0.00118527
2039	727	485749.5	3751934.9	0.001473871	0.00115035
2039	728	485849.5	3751934.9	0.001418527	0.001111805
2039	729	485549.5	3752034.9	0.001913952	0.001532891
2039	730	485649.5	3752034.9	0.001679936	0.001308415
2039	731	485749.5	3752034.9	0.001644047	0.001277913
2039	732	485849.5	3752034.9	0.001610713	0.0012578
2039	733	485549.5	3752134.9	0.001969271	0.001556215
2039	734	485649.5	3752134.9	0.00191735	0.001499243
2039	735	485749.5	3752134.9	0.001923089	0.001505909
2039	736	485849.5	3752134.9	0.001935394	0.001527596
2039	737	485549.5	3752234.9	0.002209253	0.001773399

2039	738	485649.5	3752234.9	0.002276635	0.00182918
2039	739	485749.5	3752234.9	0.002368736	0.00191246
2039	740	485849.5	3752234.9	0.002439675	0.001983816
2039	741	485549.5	3752334.9	0.001850101	0.001396992
2039	742	485649.5	3752334.9	0.001895656	0.001424482
2039	743	485749.5	3752334.9	0.001957252	0.00147074
2039	744	485849.5	3752334.9	0.002028742	0.001530912
2039	745	485549.5	3752434.9	0.001794472	0.001324626
2039	746	485649.5	3752434.9	0.00182665	0.001337114
2039	747	485749.5	3752434.9	0.001882293	0.001371805
2039	748	485849.5	3752434.9	0.001954887	0.00142284
2039	749	485549.5	3752534.9	0.001822519	0.00133457
2039	750	485649.5	3752534.9	0.00185133	0.001342231
2039	751	485749.5	3752534.9	0.001907756	0.001375517
2039	752	485849.5	3752534.9	0.001978763	0.001421248
2039	753	485549.5	3752634.9	0.001880855	0.001371813
2039	754	485649.5	3752634.9	0.001910884	0.001379303
2039	755	485749.5	3752634.9	0.001967672	0.001412109
2039	756	485849.5	3752634.9	0.002038557	0.00145584
2039	757	485549.5	3752734.9	0.001953399	0.001422491
2039	758	485649.5	3752734.9	0.001986089	0.001431634
2039	759	485749.5	3752734.9	0.002050619	0.001469412
2039	760	485849.5	3752734.9	0.002129544	0.001517696
2039	761	485549.5	3752834.9	0.002033894	0.001481518
2039	762	485649.5	3752834.9	0.002069403	0.001493384
2039	763	485749.5	3752834.9	0.002143987	0.001539441
2039	764	485849.5	3752834.9	0.00223422	0.001596148
2039	765	485549.5	3752934.9	0.002125289	0.001549419
2039	766	485649.5	3752934.9	0.002162579	0.001563807
2039	767	485749.5	3752934.9	0.002246546	0.00162032
2039	768	485849.5	3752934.9	0.002356775	0.001695749
2039	769	485549.5	3753034.9	0.002242012	0.001638611
2039	770	485649.5	3753034.9	0.00226017	0.001635901
2039	771	485749.5	3753034.9	0.002355235	0.001704743
2039	772	485849.5	3753034.9	0.002493296	0.001811424
2039	773	485549.5	3753134.9	0.002284072	0.001644917
2039	774	485649.5	3753134.9	0.002355896	0.00169816
2039	775	485749.5	3753134.9	0.002457885	0.001778786
2039	776	485849.5	3753134.9	0.002614922	0.001910057
2039	777	485549.5	3753234.9	0.002390153	0.001705256
2039	778	485649.5	3753234.9	0.002465506	0.001764755
2039	779	485749.5	3753234.9	0.002565761	0.001850794
2039	780	485849.5	3753234.9	0.002726467	0.001993194
2039	781	485549.5	3753334.9	0.002552748	0.001807315
2039	782	485649.5	3753334.9	0.002613069	0.001847051
2039	783	485749.5	3753334.9	0.002705472	0.001931871
2039	784	485849.5	3753334.9	0.00285173	0.002074119

2039	785	485549.5	3753434.9	0.002734212	0.001918728
2039	786	485649.5	3753434.9	0.002833638	0.001976921
2039	787	485749.5	3753434.9	0.002943824	0.002069103
2039	788	485849.5	3753434.9	0.003067125	0.00220911
2039	789	485508.5	3746711.3	0.000243354	0.00020122
2039	790	491508.5	3746711.3	0.000169864	0.000140836
2039	791	479508.5	3752711.3	0.000851823	0.000773514
2039	792	485508.5	3752711.3	0.001895189	0.001378055
2039	793	491508.5	3752711.3	0.001567461	0.001036188
2039	794	485508.5	3758711.3	0.00043243	0.000401466
2039	795	491508.5	3758711.3	0.000183346	0.000159375
2039	796	485921.9	3750934.2	0.000365028	0.000272701
2039	797	486021.9	3750934.2	0.000360418	0.000268932
2039	798	486121.9	3750934.2	0.000357923	0.00026707
2039	799	485921.9	3751034.2	0.000384631	0.000287232
2039	800	486021.9	3751034.2	0.000377898	0.000281551
2039	801	486121.9	3751034.2	0.00037402	0.000278405
2039	802	485921.9	3751134.2	0.000406955	0.000304179
2039	803	486021.9	3751134.2	0.000399493	0.000297785
2039	804	486121.9	3751134.2	0.000393681	0.000292847
2039	805	485921.9	3751234.2	0.000432798	0.00032423
2039	806	486021.9	3751234.2	0.000424621	0.00031711
2039	807	486121.9	3751234.2	0.000417409	0.00031087
2039	808	485921.9	3751334.2	0.000464403	0.000349418
2039	809	486021.9	3751334.2	0.000454997	0.000341098
2039	810	486121.9	3751334.2	0.000444613	0.000331926
2039	811	485921.9	3751434.2	0.000507596	0.000385075
2039	812	486021.9	3751434.2	0.0004912	0.000370314
2039	813	486121.9	3751434.2	0.000477666	0.000358177
2039	814	485921.9	3751534.2	0.000553763	0.000423265
2039	815	486021.9	3751534.2	0.000542648	0.000413375
2039	816	486121.9	3751534.2	0.000519194	0.000392079
2039	817	485921.9	3751634.2	0.000593219	0.000455051
2039	818	486021.9	3751634.2	0.000633392	0.000491781
2039	819	486121.9	3751634.2	0.000584532	0.000447697
2039	820	485921.9	3751734.2	0.000679013	0.000528765
2039	821	486021.9	3751734.2	0.000778367	0.000616779
2039	822	486121.9	3751734.2	0.000659997	0.000512079
2039	823	485921.9	3751834.2	0.000866478	0.000691228
2039	824	486021.9	3751834.2	0.000872214	0.000695631
2039	825	486121.9	3751834.2	0.000693402	0.000537748
2039	826	485921.9	3751934.2	0.001294056	0.001034312
2039	827	486021.9	3751934.2	0.001078493	0.000866571
2039	828	486121.9	3751934.2	0.000879039	0.000698955
2039	829	485921.9	3752034.2	0.001535784	0.001210919
2039	830	486021.9	3752034.2	0.001324917	0.001068299
2039	831	486121.9	3752034.2	0.001206381	0.000975352

2039	832	485921.9	3752134.2	0.001953025	0.001557591
2039	833	486021.9	3752134.2	0.001902123	0.001537501
2039	834	486121.9	3752134.2	0.00163049	0.001323345
2039	835	485921.9	3752234.2	0.002480435	0.002033643
2039	836	486021.9	3752234.2	0.002589538	0.00215299
2039	837	486121.9	3752234.2	0.002390124	0.001971573
2039	838	485921.9	3752334.2	0.0020821	0.00157883
2039	839	486021.9	3752334.2	0.002195372	0.001692959
2039	840	486121.9	3752334.2	0.002539709	0.002039301
2039	841	485921.9	3752434.2	0.002021294	0.001478324
2039	842	486021.9	3752434.2	0.002132857	0.001577631
2039	843	486121.9	3752434.2	0.002320376	0.001752716
2039	844	485921.9	3752534.2	0.002044178	0.001466591
2039	845	486021.9	3752534.2	0.00213993	0.001538946
2039	846	486121.9	3752534.2	0.002267798	0.001644881
2039	847	485921.9	3752634.2	0.002097036	0.001494003
2039	848	486021.9	3752634.2	0.002186288	0.001556481
2039	849	486121.9	3752634.2	0.002296269	0.00164047
2039	850	485921.9	3752734.2	0.002191812	0.001557032
2039	851	486021.9	3752734.2	0.002291617	0.001623302
2039	852	486121.9	3752734.2	0.002407619	0.001706739
2039	853	485921.9	3752834.2	0.002309887	0.001643694
2039	854	486021.9	3752834.2	0.002431122	0.001722218
2039	855	486121.9	3752834.2	0.002573458	0.001820611
2039	856	485921.9	3752934.2	0.002446021	0.001755807
2039	857	486021.9	3752934.2	0.002597274	0.001856282
2039	858	486121.9	3752934.2	0.002807017	0.002005958
2039	859	487026.2	3754364	0.009710497	0.00841767
2040	1	489607.4	3753966.1	0.003005338	0.002024868
2040	2	489738.7	3754023.9	0.002663909	0.001858582
2040	3	489668.9	3754093.7	0.002533356	0.001848683
2040	4	489690.1	3754161.6	0.002401322	0.001785056
2040	5	490282.2	3753425.2	0.00354684	0.002476163
2040	6	489797.3	3754554.1	0.001961821	0.001506036
2040	7	490252.9	3754378.2	0.001795272	0.0013542
2040	8	489006	3754140.3	0.004557281	0.003554049
2040	9	485642.8	3754267.3	0.004100126	0.003165087
2040	10	485736.4	3754259.5	0.004521802	0.003497506
2040	11	487189.2	3754820.5	0.010091874	0.00899555
2040	12	487233.1	3754689.5	0.008297948	0.00709333
2040	13	487216.8	3754364.7	0.012644115	0.011429272
2040	14	487388.8	3754380.1	0.009543453	0.008421717
2040	15	484625	3751748	0.001234098	0.000953633
2040	16	483279	3751798	0.00092791	0.000727788
2040	17	483231	3751205	0.000825023	0.000648303
2040	18	480165	3750195	0.000624023	0.000534263
2040	19	481211	3749473	0.000563464	0.000463935

2040	20	481867	3752785	0.000944174	0.00080302
2040	21	480678	3751306	0.000678202	0.000572995
2040	22	479989	3752645	0.0008108	0.000723565
2040	23	479889	3756222	0.001134397	0.001082257
2040	24	479234	3757080	0.000547074	0.000509408
2040	25	480276	3756365	0.000922189	0.000872234
2040	26	479887	3754007	0.001055189	0.0009793
2040	27	480772	3755009	0.002233887	0.002151236
2040	28	481560	3754548	0.001674262	0.001568972
2040	29	481845	3754457	0.001689894	0.001574936
2040	30	481754	3753876	0.001207659	0.001084719
2040	31	489635.2	3750663.8	0.000459906	0.000350302
2040	32	485424.1	3747672.3	0.000299065	0.000242834
2040	33	482657.6	3753975.1	0.00143028	0.00126862
2040	34	481495	3754633.7	0.001756784	0.001654574
2040	35	481148.7	3756136.2	0.001267021	0.001204873
2040	36	482346.5	3748872.9	0.000232626	0.0001823
2040	37	480299	3751198	0.000660146	0.000563128
2040	38	479598.7	3756506.3	0.000867936	0.000821002
2040	39	478997.8	3753535.2	0.001183188	0.001116459
2040	40	478978.3	3755233.1	0.003560174	0.003496442
2040	41	479197.3	3754462.3	0.001567936	0.001503431
2040	42	479493.3	3752408.8	0.000823625	0.000743943
2040	43	480295.4	3752408.4	0.000785911	0.00069107
2040	44	480287.9	3754227.5	0.001156285	0.001075163
2040	45	494397.4	3753977.6	0.000725748	0.000586299
2040	46	481108.5	3750699	0.000665979	0.000556029
2040	47	486794.1	3756878	0.000672299	0.000603662
2040	48	482345	3752065.8	0.000894428	0.00073282
2040	49	487553	3745938.3	0.000182569	0.000153648
2040	50	484553	3746938.3	0.000241564	0.000198588
2040	51	485553	3746938.3	0.000253608	0.000208967
2040	52	486553	3746938.3	0.000202023	0.000171399
2040	53	487553	3746938.3	0.000222575	0.000184427
2040	54	488553	3746938.3	0.000202874	0.000169034
2040	55	489553	3746938.3	0.000200449	0.000165706
2040	56	490553	3746938.3	0.000184072	0.000152596
2040	57	491553	3746938.3	0.000175157	0.000144868
2040	58	492553	3746938.3	0.000168435	0.000139086
2040	59	482553	3747938.3	0.000212152	0.000168924
2040	60	483553	3747938.3	0.000354356	0.000283347
2040	61	484553	3747938.3	0.000337484	0.000271086
2040	62	485553	3747938.3	0.00031492	0.000254433
2040	63	486553	3747938.3	0.000293122	0.000240154
2040	64	487553	3747938.3	0.000187394	0.00015797
2040	65	488553	3747938.3	0.000244456	0.00020091
2040	66	489553	3747938.3	0.000229533	0.000188645

2040	67	490553	3747938.3	0.000216089	0.00017724
2040	68	491553	3747938.3	0.000204979	0.000167532
2040	69	492553	3747938.3	0.000196066	0.0001598
2040	70	493553	3747938.3	0.000189683	0.000154526
2040	71	481553	3748938.3	0.000477258	0.000381585
2040	72	482553	3748938.3	0.000243557	0.000191236
2040	73	483553	3748938.3	0.000407565	0.000324862
2040	74	484553	3748938.3	0.000427488	0.000337876
2040	75	485553	3748938.3	0.000407619	0.000323715
2040	76	486553	3748938.3	0.000377647	0.000302446
2040	77	487553	3748938.3	0.000296439	0.000248158
2040	78	488553	3748938.3	0.000304282	0.000245516
2040	79	489553	3748938.3	0.000279574	0.000226405
2040	80	490553	3748938.3	0.000262247	0.000211584
2040	81	491553	3748938.3	0.00024669	0.000198356
2040	82	492553	3748938.3	0.000236251	0.00018921
2040	83	493553	3748938.3	0.000233243	0.000187063
2040	84	494553	3748938.3	0.00030144	0.000256321
2040	85	480553	3749938.3	0.000738525	0.00064574
2040	86	481553	3749938.3	0.000643016	0.000527037
2040	87	482553	3749938.3	0.000627525	0.000501042
2040	88	483553	3749938.3	0.000616276	0.000485716
2040	89	484553	3749938.3	0.000451724	0.000357484
2040	90	485553	3749938.3	0.000369763	0.000294132
2040	91	486553	3749938.3	0.00043767	0.000354462
2040	92	487553	3749938.3	0.000458427	0.000362341
2040	93	488553	3749938.3	0.000397964	0.000312339
2040	94	489553	3749938.3	0.00036174	0.000285053
2040	95	490553	3749938.3	0.000334027	0.000262435
2040	96	491553	3749938.3	0.000313074	0.00024466
2040	97	492553	3749938.3	0.000304898	0.000237148
2040	98	493553	3749938.3	0.000341455	0.00027118
2040	99	494553	3749938.3	0.000287451	0.000218146
2040	100	495553	3749938.3	0.000228161	0.000188337
2040	101	480553	3750938.3	0.000646363	0.000545317
2040	102	481553	3750938.3	0.000695371	0.000573577
2040	103	482553	3750938.3	0.000755391	0.000607747
2040	104	483553	3750938.3	0.000868914	0.000689323
2040	105	484553	3750938.3	0.000863038	0.000673992
2040	106	485553	3750938.3	0.000381804	0.000286657
2040	107	486553	3750938.3	0.000352273	0.000265001
2040	108	487553	3750938.3	0.000551668	0.000438674
2040	109	488553	3750938.3	0.000597203	0.000442398
2040	110	489553	3750938.3	0.000524571	0.000391487
2040	111	490553	3750938.3	0.000468271	0.000349838
2040	112	491553	3750938.3	0.00043614	0.000323869
2040	113	492553	3750938.3	0.000490154	0.000375303

2040	114	493553	3750938.3	0.000424692	0.000311663
2040	115	494553	3750938.3	0.000411569	0.000305844
2040	116	495553	3750938.3	0.000383874	0.000298329
2040	117	479553	3751938.3	0.000760661	0.00067789
2040	118	480553	3751938.3	0.000747192	0.000644871
2040	119	481553	3751938.3	0.000789246	0.000659741
2040	120	482553	3751938.3	0.000876139	0.000706882
2040	121	483553	3751938.3	0.00100534	0.000784025
2040	122	484553	3751938.3	0.00119653	0.000910504
2040	123	485553	3751938.3	0.001652386	0.001310076
2040	124	486553	3751938.3	0.000677518	0.000518984
2040	125	487553	3751938.3	0.0010938	0.00085464
2040	126	488553	3751938.3	0.00117449	0.000795388
2040	127	489553	3751938.3	0.001068619	0.000702555
2040	128	490553	3751938.3	0.000896855	0.000589903
2040	129	491553	3751938.3	0.000929406	0.000648649
2040	130	492553	3751938.3	0.000742622	0.000479676
2040	131	493553	3751938.3	0.000665304	0.000493868
2040	132	494553	3751938.3	0.000613824	0.000458547
2040	133	495553	3751938.3	0.000540945	0.000414249
2040	134	479553	3752938.3	0.000919753	0.000842083
2040	135	480553	3752938.3	0.000917948	0.00082014
2040	136	481553	3752938.3	0.000989982	0.000862685
2040	137	482553	3752938.3	0.001120124	0.000945069
2040	138	483553	3752938.3	0.001288046	0.001036158
2040	139	484553	3752938.3	0.00160562	0.001206286
2040	140	485553	3752938.3	0.002127435	0.001549907
2040	141	486553	3752938.3	0.004197908	0.00330725
2040	142	487553	3752938.3	0.004624128	0.003486353
2040	143	488553	3752938.3	0.004121289	0.003017912
2040	144	489553	3752938.3	0.003759956	0.002743019
2040	145	490553	3752938.3	0.003118444	0.002239126
2040	146	491553	3752938.3	0.001615505	0.001121584
2040	147	492553	3752938.3	0.001228605	0.000804777
2040	148	493553	3752938.3	0.000998658	0.000713483
2040	149	494553	3752938.3	0.000851242	0.000635835
2040	150	495553	3752938.3	0.000685581	0.000530474
2040	151	479553	3753938.3	0.001056648	0.000985336
2040	152	480553	3753938.3	0.001065631	0.000976785
2040	153	481553	3753938.3	0.001210442	0.00109536
2040	154	482553	3753938.3	0.001382839	0.001225984
2040	155	483553	3753938.3	0.001739126	0.001518375
2040	156	484553	3753938.3	0.002062736	0.001657532
2040	157	485553	3753938.3	0.003328033	0.002399635
2040	158	486553	3753938.3	0.00587771	0.004415519
2040	159	487553	3753938.3	0.006449908	0.005269006
2040	160	488553	3753938.3	0.005707975	0.004366261

2040	161	489553	3753938.3	0.003208337	0.002146419
2040	162	490553	3753938.3	0.001856303	0.001363774
2040	163	491553	3753938.3	0.001295453	0.001010088
2040	164	492553	3753938.3	0.001062803	0.000839688
2040	165	493553	3753938.3	0.000869399	0.000695423
2040	166	494553	3753938.3	0.000790045	0.0006368
2040	167	495553	3753938.3	0.000616134	0.000500931
2040	168	479553	3754938.3	0.001879019	0.001812246
2040	169	480553	3754938.3	0.002003114	0.001923237
2040	170	481553	3754938.3	0.002294445	0.002195577
2040	171	482553	3754938.3	0.00335287	0.003226354
2040	172	483553	3754938.3	0.00368581	0.003520762
2040	173	484553	3754938.3	0.003653175	0.003405562
2040	174	485553	3754938.3	0.005300037	0.004852217
2040	175	486553	3754938.3	0.007308372	0.006652972
2040	176	487553	3754938.3	0.0062339	0.005368797
2040	177	488553	3754938.3	0.003502589	0.002902681
2040	178	489553	3754938.3	0.002195006	0.001888802
2040	179	490553	3754938.3	0.001462739	0.001284618
2040	180	491553	3754938.3	0.000961313	0.000837579
2040	181	492553	3754938.3	0.00069004	0.000593919
2040	182	493553	3754938.3	0.000697621	0.000605986
2040	183	494553	3754938.3	0.000530786	0.000457223
2040	184	495553	3754938.3	0.0004455	0.000382642
2040	185	479553	3755938.3	0.001890688	0.001833685
2040	186	480553	3755938.3	0.001584961	0.001523412
2040	187	481553	3755938.3	0.001605812	0.001537024
2040	188	482553	3755938.3	0.002296043	0.002205008
2040	189	483553	3755938.3	0.002411683	0.002302912
2040	190	484553	3755938.3	0.002292656	0.002159919
2040	191	485553	3755938.3	0.003236686	0.003072111
2040	192	486553	3755938.3	0.002616244	0.002439538
2040	193	487553	3755938.3	0.001445759	0.001334041
2040	194	488553	3755938.3	0.00100995	0.000921686
2040	195	489553	3755938.3	0.000692157	0.000624987
2040	196	490553	3755938.3	0.000572999	0.000515125
2040	197	491553	3755938.3	0.000472248	0.000422692
2040	198	492553	3755938.3	0.000572246	0.000526197
2040	199	493553	3755938.3	0.000419577	0.000378874
2040	200	494553	3755938.3	0.000403112	0.000365151
2040	201	479553	3756938.3	0.000573374	0.000534622
2040	202	480553	3756938.3	0.000548895	0.000508986
2040	203	481553	3756938.3	0.000495782	0.000457683
2040	204	482553	3756938.3	0.00051746	0.000475038
2040	205	483553	3756938.3	0.000872637	0.000803056
2040	206	484553	3756938.3	0.00084184	0.000766684
2040	207	485553	3756938.3	0.001827111	0.001750147

2040	208	486553	3756938.3	0.000695643	0.000626292
2040	209	487553	3756938.3	0.00045769	0.000405552
2040	210	488553	3756938.3	0.000371244	0.000326038
2040	211	489553	3756938.3	0.000325199	0.000284817
2040	212	490553	3756938.3	0.000297106	0.000260157
2040	213	491553	3756938.3	0.000259743	0.000227122
2040	214	492553	3756938.3	0.00023137	0.000202437
2040	215	493553	3756938.3	0.000245885	0.000217978
2040	216	494553	3756938.3	0.000238675	0.000212418
2040	217	479553	3757938.3	0.000288328	0.000263889
2040	218	480553	3757938.3	0.000276024	0.000251565
2040	219	481553	3757938.3	0.00029157	0.000263898
2040	220	482553	3757938.3	0.000360656	0.000323934
2040	221	483553	3757938.3	0.000353692	0.000315771
2040	222	484553	3757938.3	0.000465686	0.000418696
2040	223	485553	3757938.3	0.000539591	0.000498787
2040	224	486553	3757938.3	0.000322692	0.00028524
2040	225	487553	3757938.3	0.000263808	0.000230199
2040	226	488553	3757938.3	0.00023161	0.000200905
2040	227	489553	3757938.3	0.000213728	0.000184893
2040	228	490553	3757938.3	0.000195439	0.000168934
2040	229	491553	3757938.3	0.000179074	0.000154599
2040	230	492553	3757938.3	0.000171933	0.000148988
2040	231	493553	3757938.3	0.000190686	0.000166992
2040	232	480553	3758938.3	0.000207166	0.000186495
2040	233	481553	3758938.3	0.000231101	0.000206373
2040	234	482553	3758938.3	0.000225123	0.000199414
2040	235	483553	3758938.3	0.000236025	0.000208208
2040	236	484553	3758938.3	0.00029534	0.000264183
2040	237	485553	3758938.3	0.000685858	0.00065257
2040	238	486553	3758938.3	0.000223329	0.000196708
2040	239	487553	3758938.3	0.000245191	0.000215841
2040	240	488553	3758938.3	0.000182051	0.000158491
2040	241	489553	3758938.3	0.000184564	0.000160754
2040	242	490553	3758938.3	0.000201511	0.000175347
2040	243	491553	3758938.3	0.00016388	0.000142275
2040	244	492553	3758938.3	0.000170507	0.000148228
2040	245	481553	3759938.3	0.000170999	0.000151817
2040	246	482553	3759938.3	0.000176464	0.000155607
2040	247	483553	3759938.3	0.000186986	0.000164671
2040	248	484553	3759938.3	0.000260077	0.000232294
2040	249	485553	3759938.3	0.000678447	0.000644739
2040	250	486553	3759938.3	0.00032149	0.00028742
2040	251	487553	3759938.3	0.000262256	0.000232114
2040	252	488553	3759938.3	0.000261735	0.000229806
2040	253	489553	3759938.3	0.000226817	0.000197994
2040	254	490553	3759938.3	0.000175373	0.000153105

2040	255	491553	3759938.3	0.000152834	0.000133041
2040	256	482553	3760938.3	0.000166449	0.000146921
2040	257	483553	3760938.3	0.000192501	0.000170624
2040	258	484553	3760938.3	0.000245855	0.00022007
2040	259	485553	3760938.3	0.000558289	0.000524197
2040	260	486553	3760938.3	0.00036625	0.000329826
2040	261	487553	3760938.3	0.000292034	0.000262292
2040	262	488553	3760938.3	0.000166389	0.000147291
2040	263	489553	3760938.3	0.000126207	0.000110586
2040	264	490553	3760938.3	0.000120723	0.000105368
2040	265	484551.7	3750934.4	0.00085781	0.000670964
2040	266	484651.7	3750934.4	0.00084689	0.000662861
2040	267	484751.7	3750934.4	0.000647301	0.000513036
2040	268	484851.7	3750934.4	0.000593984	0.000470956
2040	269	484951.7	3750934.4	0.000627812	0.00049677
2040	270	485051.7	3750934.4	0.00056273	0.000444998
2040	271	485151.7	3750934.4	0.000468565	0.000364323
2040	272	485251.7	3750934.4	0.000412708	0.000314147
2040	273	485351.7	3750934.4	0.000396894	0.000299953
2040	274	485451.7	3750934.4	0.0003885	0.00029256
2040	275	484551.7	3751034.4	0.00091639	0.000709662
2040	276	484651.7	3751034.4	0.00090406	0.000701219
2040	277	484751.7	3751034.4	0.000849246	0.000669214
2040	278	484851.7	3751034.4	0.000672371	0.0005324
2040	279	484951.7	3751034.4	0.000747061	0.000589409
2040	280	485051.7	3751034.4	0.00062661	0.000495875
2040	281	485151.7	3751034.4	0.000543262	0.000427368
2040	282	485251.7	3751034.4	0.000462049	0.000355854
2040	283	485351.7	3751034.4	0.000426744	0.000324007
2040	284	485451.7	3751034.4	0.000411431	0.000310272
2040	285	484551.7	3751134.4	0.000962674	0.000742171
2040	286	484651.7	3751134.4	0.000960568	0.000738894
2040	287	484751.7	3751134.4	0.000948044	0.000731807
2040	288	484851.7	3751134.4	0.000856235	0.000678417
2040	289	484951.7	3751134.4	0.000877054	0.000690184
2040	290	485051.7	3751134.4	0.00072305	0.000571168
2040	291	485151.7	3751134.4	0.000641733	0.000507903
2040	292	485251.7	3751134.4	0.000555085	0.000435731
2040	293	485351.7	3751134.4	0.000472087	0.000362072
2040	294	485451.7	3751134.4	0.000438092	0.000331327
2040	295	484551.7	3751234.4	0.001010266	0.000778358
2040	296	484651.7	3751234.4	0.001010341	0.000775898
2040	297	484751.7	3751234.4	0.001002462	0.00077203
2040	298	484851.7	3751234.4	0.000974393	0.000757209
2040	299	484951.7	3751234.4	0.000948845	0.000742007
2040	300	485051.7	3751234.4	0.00085298	0.000675077
2040	301	485151.7	3751234.4	0.000719612	0.000570026

2040	302	485251.7	3751234.4	0.000543351	0.000423307
2040	303	485351.7	3751234.4	0.00048047	0.000366617
2040	304	485451.7	3751234.4	0.000461442	0.000349354
2040	305	484551.7	3751334.4	0.001081053	0.000835602
2040	306	484651.7	3751334.4	0.001073192	0.000827108
2040	307	484751.7	3751334.4	0.001061106	0.000819641
2040	308	484851.7	3751334.4	0.001046072	0.000810269
2040	309	484951.7	3751334.4	0.00103785	0.000803428
2040	310	485051.7	3751334.4	0.000995324	0.000779379
2040	311	485151.7	3751334.4	0.000842305	0.000666826
2040	312	485251.7	3751334.4	0.00066315	0.000525565
2040	313	485351.7	3751334.4	0.000522765	0.000401953
2040	314	485451.7	3751334.4	0.00048902	0.000371194
2040	315	484551.7	3751434.4	0.001195871	0.000941044
2040	316	484651.7	3751434.4	0.001163768	0.000905728
2040	317	484751.7	3751434.4	0.001144393	0.000885781
2040	318	484851.7	3751434.4	0.00113107	0.000873877
2040	319	484951.7	3751434.4	0.001120277	0.000865319
2040	320	485051.7	3751434.4	0.00110667	0.000855016
2040	321	485151.7	3751434.4	0.00099371	0.000789774
2040	322	485251.7	3751434.4	0.000773905	0.00061681
2040	323	485351.7	3751434.4	0.000608583	0.00047649
2040	324	485451.7	3751434.4	0.00054169	0.000415823
2040	325	484551.7	3751534.4	0.001456143	0.001194651
2040	326	484651.7	3751534.4	0.001349409	0.001081237
2040	327	484751.7	3751534.4	0.001270368	0.000997498
2040	328	484851.7	3751534.4	0.001233975	0.000958587
2040	329	484951.7	3751534.4	0.001216508	0.000938945
2040	330	485051.7	3751534.4	0.00120715	0.000926978
2040	331	485151.7	3751534.4	0.001192785	0.000916086
2040	332	485251.7	3751534.4	0.001082089	0.00085507
2040	333	485351.7	3751534.4	0.000865048	0.000689985
2040	334	485451.7	3751534.4	0.000715318	0.00056769
2040	335	484551.7	3751634.4	0.001348616	0.00108066
2040	336	484651.7	3751634.4	0.001389714	0.001114828
2040	337	484751.7	3751634.4	0.001432773	0.001150223
2040	338	484851.7	3751634.4	0.001460119	0.001172175
2040	339	484951.7	3751634.4	0.001360079	0.001067802
2040	340	485051.7	3751634.4	0.001317314	0.001020951
2040	341	485151.7	3751634.4	0.001301717	0.00100178
2040	342	485251.7	3751634.4	0.00126963	0.000980559
2040	343	485351.7	3751634.4	0.001209076	0.000942354
2040	344	485451.7	3751634.4	0.001103471	0.000878023
2040	345	484551.7	3751734.4	0.00119826	0.000925036
2040	346	484651.7	3751734.4	0.001264518	0.00098234
2040	347	484751.7	3751734.4	0.001369029	0.001078914
2040	348	484851.7	3751734.4	0.001502342	0.001205645

2040	349	484951.7	3751734.4	0.001504911	0.00120346
2040	350	485051.7	3751734.4	0.001637929	0.001331229
2040	351	485151.7	3751734.4	0.001489861	0.001175256
2040	352	485251.7	3751734.4	0.001448465	0.001130981
2040	353	485351.7	3751734.4	0.001395598	0.00108578
2040	354	485451.7	3751734.4	0.001321168	0.001028942
2040	355	484551.7	3751834.4	0.001178528	0.000900498
2040	356	484651.7	3751834.4	0.001216232	0.000929544
2040	357	484751.7	3751834.4	0.001259795	0.000964382
2040	358	484851.7	3751834.4	0.001311587	0.001008227
2040	359	484951.7	3751834.4	0.001376602	0.001067296
2040	360	485051.7	3751834.4	0.001520517	0.001203986
2040	361	485151.7	3751834.4	0.001542038	0.001214307
2040	362	485251.7	3751834.4	0.001632191	0.001296729
2040	363	485351.7	3751834.4	0.001647723	0.001312326
2040	364	485451.7	3751834.4	0.00164466	0.001317141
2040	365	484551.7	3751934.4	0.001194952	0.000909391
2040	366	484651.7	3751934.4	0.001221364	0.000928327
2040	367	484751.7	3751934.4	0.001248195	0.00094805
2040	368	484851.7	3751934.4	0.001281837	0.000973346
2040	369	484951.7	3751934.4	0.001318899	0.001002103
2040	370	485051.7	3751934.4	0.001366238	0.001039846
2040	371	485151.7	3751934.4	0.001426081	0.001088516
2040	372	485251.7	3751934.4	0.00150841	0.001158113
2040	373	485351.7	3751934.4	0.001627079	0.001268813
2040	374	485451.7	3751934.4	0.001700973	0.001347094
2040	375	484551.7	3752034.4	0.00123658	0.000940967
2040	376	484651.7	3752034.4	0.001259397	0.000956388
2040	377	484751.7	3752034.4	0.001283978	0.000973366
2040	378	484851.7	3752034.4	0.001310027	0.000991611
2040	379	484951.7	3752034.4	0.001342007	0.001014467
2040	380	485051.7	3752034.4	0.001380379	0.001042355
2040	381	485151.7	3752034.4	0.001427179	0.001077177
2040	382	485251.7	3752034.4	0.001494628	0.001130077
2040	383	485351.7	3752034.4	0.001585696	0.001209182
2040	384	485451.7	3752034.4	0.001797931	0.001414264
2040	385	484551.7	3752134.4	0.001309768	0.001003584
2040	386	484651.7	3752134.4	0.00133143	0.001017358
2040	387	484751.7	3752134.4	0.001355632	0.00103318
2040	388	484851.7	3752134.4	0.001380202	0.001049316
2040	389	484951.7	3752134.4	0.001407388	0.001067564
2040	390	485051.7	3752134.4	0.001440843	0.001090734
2040	391	485151.7	3752134.4	0.001481643	0.001119932
2040	392	485251.7	3752134.4	0.001541168	0.001164836
2040	393	485351.7	3752134.4	0.00163458	0.001242518
2040	394	485451.7	3752134.4	0.00184928	0.001444735
2040	395	484551.7	3752234.4	0.00144234	0.001126349

2040	396	484651.7	3752234.4	0.001473627	0.001148329
2040	397	484751.7	3752234.4	0.001496568	0.00116218
2040	398	484851.7	3752234.4	0.001516013	0.001172452
2040	399	484951.7	3752234.4	0.00161539	0.001262436
2040	400	485051.7	3752234.4	0.001568001	0.00120522
2040	401	485151.7	3752234.4	0.001609817	0.001236612
2040	402	485251.7	3752234.4	0.001656023	0.001268681
2040	403	485351.7	3752234.4	0.001744825	0.001340437
2040	404	485451.7	3752234.4	0.002006212	0.001585117
2040	405	484551.7	3752334.4	0.00137642	0.001048293
2040	406	484651.7	3752334.4	0.001402623	0.001064916
2040	407	484751.7	3752334.4	0.001428874	0.001081665
2040	408	484851.7	3752334.4	0.001456068	0.001099205
2040	409	484951.7	3752334.4	0.001486183	0.001118959
2040	410	485051.7	3752334.4	0.001516782	0.001139289
2040	411	485151.7	3752334.4	0.001552645	0.001163754
2040	412	485251.7	3752334.4	0.001594992	0.001193738
2040	413	485351.7	3752334.4	0.001653852	0.001237788
2040	414	485451.7	3752334.4	0.001757089	0.001322574
2040	415	484551.7	3752434.4	0.001374057	0.001033906
2040	416	484651.7	3752434.4	0.001400675	0.00105041
2040	417	484751.7	3752434.4	0.001426966	0.001066937
2040	418	484851.7	3752434.4	0.001458117	0.001086799
2040	419	484951.7	3752434.4	0.001488964	0.001106788
2040	420	485051.7	3752434.4	0.001522938	0.001129194
2040	421	485151.7	3752434.4	0.001560259	0.001154198
2040	422	485251.7	3752434.4	0.001601804	0.001182746
2040	423	485351.7	3752434.4	0.001653242	0.001219379
2040	424	485451.7	3752434.4	0.001729627	0.001279192
2040	425	484551.7	3752534.4	0.001401819	0.001049316
2040	426	484651.7	3752534.4	0.001429809	0.001066429
2040	427	484751.7	3752534.4	0.001459488	0.001084859
2040	428	484851.7	3752534.4	0.001491713	0.001105178
2040	429	484951.7	3752534.4	0.00152427	0.00112611
2040	430	485051.7	3752534.4	0.001560829	0.001149939
2040	431	485151.7	3752534.4	0.001599872	0.001175854
2040	432	485251.7	3752534.4	0.001641838	0.001204362
2040	433	485351.7	3752534.4	0.001690709	0.001238524
2040	434	485451.7	3752534.4	0.00176205	0.001293077
2040	435	484551.7	3752634.4	0.001438541	0.001074066
2040	436	484651.7	3752634.4	0.001468059	0.001091822
2040	437	484751.7	3752634.4	0.001499137	0.001110847
2040	438	484851.7	3752634.4	0.001535217	0.00113325
2040	439	484951.7	3752634.4	0.001570908	0.001155938
2040	440	485051.7	3752634.4	0.001610282	0.001181404
2040	441	485151.7	3752634.4	0.001651377	0.001208572
2040	442	485251.7	3752634.4	0.001695229	0.001238247

2040	443	485351.7	3752634.4	0.001745409	0.001273186
2040	444	485451.7	3752634.4	0.001817814	0.001327956
2040	445	484551.7	3752734.4	0.001483352	0.001106832
2040	446	484651.7	3752734.4	0.001516186	0.001126096
2040	447	484751.7	3752734.4	0.001550521	0.001146678
2040	448	484851.7	3752734.4	0.001587292	0.00116924
2040	449	484951.7	3752734.4	0.001626016	0.001193528
2040	450	485051.7	3752734.4	0.001668241	0.001220643
2040	451	485151.7	3752734.4	0.001711712	0.001249267
2040	452	485251.7	3752734.4	0.00175782	0.001280463
2040	453	485351.7	3752734.4	0.001810408	0.001317086
2040	454	485451.7	3752734.4	0.001882636	0.001372065
2040	455	484551.7	3752834.4	0.001534456	0.001146596
2040	456	484651.7	3752834.4	0.001570243	0.001166992
2040	457	484751.7	3752834.4	0.001606119	0.001187866
2040	458	484851.7	3752834.4	0.001647252	0.001212626
2040	459	484951.7	3752834.4	0.001689701	0.001238761
2040	460	485051.7	3752834.4	0.001734221	0.001266916
2040	461	485151.7	3752834.4	0.001780125	0.001296864
2040	462	485251.7	3752834.4	0.001829099	0.001329854
2040	463	485351.7	3752834.4	0.001882997	0.001367863
2040	464	485451.7	3752834.4	0.001957854	0.001425333
2040	465	484551.7	3752934.4	0.001601751	0.001203046
2040	466	484651.7	3752934.4	0.00164048	0.00122451
2040	467	484751.7	3752934.4	0.001679838	0.001246691
2040	468	484851.7	3752934.4	0.001724112	0.001272555
2040	469	484951.7	3752934.4	0.001770055	0.001300051
2040	470	485051.7	3752934.4	0.001818983	0.001330259
2040	471	485151.7	3752934.4	0.00186735	0.001361117
2040	472	485251.7	3752934.4	0.001920264	0.00139627
2040	473	485351.7	3752934.4	0.001973824	0.001433845
2040	474	485451.7	3752934.4	0.002047133	0.001490124
2040	475	484551.7	3753034.4	0.001715618	0.001307625
2040	476	484651.7	3753034.4	0.00176227	0.001335261
2040	477	484751.7	3753034.4	0.001814456	0.001367484
2040	478	484851.7	3753034.4	0.001855514	0.001387618
2040	479	484951.7	3753034.4	0.001903049	0.001414056
2040	480	485051.7	3753034.4	0.00195553	0.001445755
2040	481	485151.7	3753034.4	0.002014561	0.001483999
2040	482	485251.7	3753034.4	0.002115233	0.001564722
2040	483	485351.7	3753034.4	0.002120727	0.001552771
2040	484	485451.7	3753034.4	0.002181446	0.001596507
2040	485	484551.7	3753134.4	0.001687332	0.001270859
2040	486	484651.7	3753134.4	0.00173429	0.001296449
2040	487	484751.7	3753134.4	0.001785371	0.001324848
2040	488	484851.7	3753134.4	0.001837625	0.00135412
2040	489	484951.7	3753134.4	0.001893722	0.001386283

2040	490	485051.7	3753134.4	0.001952738	0.00142104
2040	491	485151.7	3753134.4	0.002013623	0.001457896
2040	492	485251.7	3753134.4	0.002078831	0.001499391
2040	493	485351.7	3753134.4	0.002146062	0.001544987
2040	494	485451.7	3753134.4	0.002226377	0.001605705
2040	495	484551.7	3753234.4	0.001710402	0.001286521
2040	496	484651.7	3753234.4	0.001761812	0.001314088
2040	497	484751.7	3753234.4	0.001815975	0.001343414
2040	498	484851.7	3753234.4	0.001873055	0.001374714
2040	499	484951.7	3753234.4	0.001934588	0.001409086
2040	500	485051.7	3753234.4	0.002000977	0.001447239
2040	501	485151.7	3753234.4	0.002070191	0.001487989
2040	502	485251.7	3753234.4	0.00214474	0.001533638
2040	503	485351.7	3753234.4	0.002223326	0.001584671
2040	504	485451.7	3753234.4	0.00231898	0.00165487
2040	505	484551.7	3753334.4	0.001749836	0.001319961
2040	506	484651.7	3753334.4	0.001804365	0.001348842
2040	507	484751.7	3753334.4	0.001861251	0.001378912
2040	508	484851.7	3753334.4	0.001925027	0.001413483
2040	509	484951.7	3753334.4	0.001990743	0.00144911
2040	510	485051.7	3753334.4	0.002063278	0.001489422
2040	511	485151.7	3753334.4	0.002141295	0.001533966
2040	512	485251.7	3753334.4	0.002229989	0.001586604
2040	513	485351.7	3753334.4	0.002326635	0.001646844
2040	514	485451.7	3753334.4	0.002441918	0.0017269
2040	515	484551.7	3753434.4	0.001791726	0.001359032
2040	516	484651.7	3753434.4	0.001848842	0.001389154
2040	517	484751.7	3753434.4	0.001909309	0.001420715
2040	518	484851.7	3753434.4	0.001977124	0.00145699
2040	519	484951.7	3753434.4	0.002048261	0.001494284
2040	520	485051.7	3753434.4	0.002126433	0.001536252
2040	521	485151.7	3753434.4	0.002215529	0.001586236
2040	522	485251.7	3753434.4	0.002317732	0.001645499
2040	523	485351.7	3753434.4	0.002433163	0.001715569
2040	524	485451.7	3753434.4	0.00258071	0.00181406
2040	525	484551.7	3753534.4	0.001834271	0.001401772
2040	526	484651.7	3753534.4	0.001889351	0.001429249
2040	527	484751.7	3753534.4	0.001951536	0.001461171
2040	528	484851.7	3753534.4	0.002026173	0.001502069
2040	529	484951.7	3753534.4	0.00210231	0.001542131
2040	530	485051.7	3753534.4	0.002186094	0.001586561
2040	531	485151.7	3753534.4	0.00228372	0.001640541
2040	532	485251.7	3753534.4	0.002397312	0.001705771
2040	533	485351.7	3753534.4	0.00253218	0.001786736
2040	534	485451.7	3753534.4	0.002708557	0.001902665
2040	535	484551.7	3753634.4	0.001877063	0.001447138
2040	536	484651.7	3753634.4	0.001934776	0.001476223

2040	537	484751.7	3753634.4	0.002000177	0.001510122
2040	538	484851.7	3753634.4	0.002073708	0.001548936
2040	539	484951.7	3753634.4	0.002154732	0.001591924
2040	540	485051.7	3753634.4	0.002243852	0.001639563
2040	541	485151.7	3753634.4	0.002346954	0.001696693
2040	542	485251.7	3753634.4	0.002467347	0.001766469
2040	543	485351.7	3753634.4	0.002608998	0.001852946
2040	544	485451.7	3753634.4	0.002796159	0.001980042
2040	545	484551.7	3753734.4	0.001934299	0.001509715
2040	546	484651.7	3753734.4	0.001991163	0.001537158
2040	547	484751.7	3753734.4	0.00205413	0.001567525
2040	548	484851.7	3753734.4	0.002123749	0.001601175
2040	549	484951.7	3753734.4	0.0022069	0.001644798
2040	550	485051.7	3753734.4	0.002301359	0.001695531
2040	551	485151.7	3753734.4	0.002408853	0.001754781
2040	552	485251.7	3753734.4	0.002533232	0.001826116
2040	553	485351.7	3753734.4	0.002681382	0.001916507
2040	554	485451.7	3753734.4	0.002875536	0.002049607
2040	555	484551.7	3753834.4	0.001993158	0.001576913
2040	556	484651.7	3753834.4	0.002047351	0.001601491
2040	557	484751.7	3753834.4	0.002110471	0.001631739
2040	558	484851.7	3753834.4	0.002181027	0.001665539
2040	559	484951.7	3753834.4	0.002265921	0.001709602
2040	560	485051.7	3753834.4	0.002359809	0.001757485
2040	561	485151.7	3753834.4	0.002468271	0.001814695
2040	562	485251.7	3753834.4	0.002599845	0.001889462
2040	563	485351.7	3753834.4	0.00275538	0.001982722
2040	564	485451.7	3753834.4	0.002959871	0.002119668
2040	565	484551.7	3753934.4	0.002057964	0.001652498
2040	566	484651.7	3753934.4	0.002115125	0.00168019
2040	567	484751.7	3753934.4	0.00216924	0.001700941
2040	568	484851.7	3753934.4	0.002241081	0.001736206
2040	569	484951.7	3753934.4	0.002325125	0.001779229
2040	570	485051.7	3753934.4	0.002421929	0.001829895
2040	571	485151.7	3753934.4	0.002533649	0.001889484
2040	572	485251.7	3753934.4	0.002665218	0.001962212
2040	573	485351.7	3753934.4	0.002824593	0.002054876
2040	574	485451.7	3753934.4	0.003036929	0.002191879
2040	575	484551.7	3754034.4	0.002134061	0.001744042
2040	576	484651.7	3754034.4	0.002164441	0.00174111
2040	577	484751.7	3754034.4	0.002233019	0.001777893
2040	578	484851.7	3754034.4	0.002308684	0.001817367
2040	579	484951.7	3754034.4	0.002391473	0.0018593
2040	580	485051.7	3754034.4	0.002485474	0.001907343
2040	581	485151.7	3754034.4	0.002595727	0.001965697
2040	582	485251.7	3754034.4	0.00272772	0.002039071
2040	583	485351.7	3754034.4	0.002888299	0.002133606

2040	584	485451.7	3754034.4	0.003102403	0.00227432
2040	585	484551.7	3754134.4	0.002186274	0.001807139
2040	586	484651.7	3754134.4	0.002225021	0.001815615
2040	587	484751.7	3754134.4	0.002293936	0.001854061
2040	588	484851.7	3754134.4	0.002375554	0.001901776
2040	589	484951.7	3754134.4	0.002457415	0.001943255
2040	590	485051.7	3754134.4	0.002553067	0.001992794
2040	591	485151.7	3754134.4	0.002664673	0.002052706
2040	592	485251.7	3754134.4	0.002796993	0.002127144
2040	593	485351.7	3754134.4	0.00295868	0.002223219
2040	594	485451.7	3754134.4	0.003172011	0.002363175
2040	595	484551.7	3754234.4	0.002240663	0.001872713
2040	596	484651.7	3754234.4	0.00229019	0.001895488
2040	597	484751.7	3754234.4	0.002363842	0.001940994
2040	598	484851.7	3754234.4	0.002446119	0.001991594
2040	599	484951.7	3754234.4	0.002530731	0.002038242
2040	600	485051.7	3754234.4	0.002624803	0.002088277
2040	601	485151.7	3754234.4	0.002735868	0.00214918
2040	602	485251.7	3754234.4	0.00286773	0.00222367
2040	603	485351.7	3754234.4	0.003029111	0.002319229
2040	604	485451.7	3754234.4	0.00324325	0.002459568
2040	605	484551.7	3754334.4	0.002319381	0.001965274
2040	606	484651.7	3754334.4	0.002383308	0.002006268
2040	607	484751.7	3754334.4	0.002455562	0.002052936
2040	608	484851.7	3754334.4	0.002529848	0.002096785
2040	609	484951.7	3754334.4	0.002613682	0.002145331
2040	610	485051.7	3754334.4	0.002708685	0.002199202
2040	611	485151.7	3754334.4	0.002818094	0.002261127
2040	612	485251.7	3754334.4	0.002948876	0.002337852
2040	613	485351.7	3754334.4	0.003105414	0.002433595
2040	614	485451.7	3754334.4	0.003295493	0.002555144
2040	615	484551.7	3754434.4	0.002466948	0.002134251
2040	616	484651.7	3754434.4	0.002513144	0.002157251
2040	617	484751.7	3754434.4	0.00257021	0.002189104
2040	618	484851.7	3754434.4	0.002635733	0.002225749
2040	619	484951.7	3754434.4	0.002715329	0.002272607
2040	620	485051.7	3754434.4	0.002807268	0.002326432
2040	621	485151.7	3754434.4	0.0029154	0.002390492
2040	622	485251.7	3754434.4	0.003043715	0.002468005
2040	623	485351.7	3754434.4	0.00319795	0.002564289
2040	624	485451.7	3754434.4	0.003387155	0.002688871
2040	625	484551.7	3754534.4	0.002641132	0.002327165
2040	626	484651.7	3754534.4	0.002686088	0.002351475
2040	627	484751.7	3754534.4	0.002725027	0.002366095
2040	628	484851.7	3754534.4	0.002773038	0.00238861
2040	629	484951.7	3754534.4	0.002842577	0.002428131
2040	630	485051.7	3754534.4	0.002929537	0.002479577

2040	631	485151.7	3754534.4	0.003035137	0.002543871
2040	632	485251.7	3754534.4	0.003160924	0.002621983
2040	633	485351.7	3754534.4	0.003312481	0.002718463
2040	634	485451.7	3754534.4	0.003505868	0.002848357
2040	635	484551.7	3754634.4	0.002802756	0.00250701
2040	636	484651.7	3754634.4	0.002841798	0.002526934
2040	637	484751.7	3754634.4	0.002899832	0.002564488
2040	638	484851.7	3754634.4	0.002935938	0.002578445
2040	639	484951.7	3754634.4	0.002995686	0.002611829
2040	640	485051.7	3754634.4	0.003077688	0.0026629
2040	641	485151.7	3754634.4	0.00317944	0.002728647
2040	642	485251.7	3754634.4	0.003303422	0.002809311
2040	643	485351.7	3754634.4	0.003456635	0.002910261
2040	644	485451.7	3754634.4	0.0036547	0.003047312
2040	645	484551.7	3754734.4	0.002978054	0.002698924
2040	646	484651.7	3754734.4	0.003018031	0.002722379
2040	647	484751.7	3754734.4	0.003064686	0.002751352
2040	648	484851.7	3754734.4	0.003120789	0.002788199
2040	649	484951.7	3754734.4	0.003188652	0.002833756
2040	650	485051.7	3754734.4	0.003270037	0.002888999
2040	651	485151.7	3754734.4	0.003368486	0.00295669
2040	652	485251.7	3754734.4	0.003490168	0.003042657
2040	653	485351.7	3754734.4	0.003643485	0.0031557
2040	654	485451.7	3754734.4	0.003840616	0.003306472
2040	655	484551.7	3754834.4	0.003242658	0.002979317
2040	656	484651.7	3754834.4	0.003285329	0.003008528
2040	657	484751.7	3754834.4	0.003333217	0.003041133
2040	658	484851.7	3754834.4	0.003388116	0.003078581
2040	659	484951.7	3754834.4	0.003454875	0.003126139
2040	660	485051.7	3754834.4	0.003533567	0.00318294
2040	661	485151.7	3754834.4	0.003631038	0.003255403
2040	662	485251.7	3754834.4	0.003755515	0.003351331
2040	663	485351.7	3754834.4	0.003922464	0.003487445
2040	664	485451.7	3754834.4	0.004140971	0.003671542
2040	665	484551.7	3754934.4	0.003634536	0.00338655
2040	666	484651.7	3754934.4	0.003674978	0.003415274
2040	667	484751.7	3754934.4	0.003720486	0.003447449
2040	668	484851.7	3754934.4	0.003772977	0.003484859
2040	669	484951.7	3754934.4	0.003836569	0.003531869
2040	670	485051.7	3754934.4	0.003910227	0.003586716
2040	671	485151.7	3754934.4	0.004006419	0.003662433
2040	672	485251.7	3754934.4	0.004134273	0.003767131
2040	673	485351.7	3754934.4	0.004333918	0.003942243
2040	674	485451.7	3754934.4	0.004702267	0.004283123
2040	675	484551.7	3755034.4	0.004219462	0.003985179
2040	676	484651.7	3755034.4	0.004255692	0.004011236
2040	677	484751.7	3755034.4	0.004294449	0.004038013

2040	678	484851.7	3755034.4	0.004346369	0.004077414
2040	679	484951.7	3755034.4	0.004407037	0.004123743
2040	680	485051.7	3755034.4	0.004481581	0.004182307
2040	681	485151.7	3755034.4	0.004574177	0.004257259
2040	682	485251.7	3755034.4	0.004703021	0.004367231
2040	683	485351.7	3755034.4	0.004910749	0.004554369
2040	684	485451.7	3755034.4	0.005501719	0.005122284
2040	685	485549.5	3750934.9	0.000381408	0.000286398
2040	686	485649.5	3750934.9	0.000376802	0.00028247
2040	687	485749.5	3750934.9	0.000373905	0.000280085
2040	688	485849.5	3750934.9	0.000369327	0.000276267
2040	689	485549.5	3751034.9	0.000402374	0.000302286
2040	690	485649.5	3751034.9	0.000396166	0.000296938
2040	691	485749.5	3751034.9	0.000393503	0.000294719
2040	692	485849.5	3751034.9	0.000389964	0.000291775
2040	693	485549.5	3751134.9	0.000425468	0.000320068
2040	694	485649.5	3751134.9	0.000418729	0.000314191
2040	695	485749.5	3751134.9	0.000415753	0.000311674
2040	696	485849.5	3751134.9	0.000411351	0.000307938
2040	697	485549.5	3751234.9	0.000452898	0.000341689
2040	698	485649.5	3751234.9	0.000444221	0.000334028
2040	699	485749.5	3751234.9	0.000440756	0.000331036
2040	700	485849.5	3751234.9	0.000439925	0.000330468
2040	701	485549.5	3751334.9	0.000482122	0.000364898
2040	702	485649.5	3751334.9	0.000475505	0.000358979
2040	703	485749.5	3751334.9	0.000470137	0.000354265
2040	704	485849.5	3751334.9	0.000473821	0.00035779
2040	705	485549.5	3751434.9	0.000522869	0.000398477
2040	706	485649.5	3751434.9	0.000518805	0.000394748
2040	707	485749.5	3751434.9	0.000507386	0.00038446
2040	708	485849.5	3751434.9	0.000522982	0.000398924
2040	709	485549.5	3751534.9	0.000654594	0.000514071
2040	710	485649.5	3751534.9	0.000638801	0.000499731
2040	711	485749.5	3751534.9	0.000580121	0.000446876
2040	712	485849.5	3751534.9	0.000569107	0.000437031
2040	713	485549.5	3751634.9	0.001009894	0.000803943
2040	714	485649.5	3751634.9	0.000853953	0.000681468
2040	715	485749.5	3751634.9	0.000795791	0.000633331
2040	716	485849.5	3751634.9	0.00061185	0.000471853
2040	717	485549.5	3751734.9	0.001247554	0.000980651
2040	718	485649.5	3751734.9	0.001192698	0.000943849
2040	719	485749.5	3751734.9	0.001061267	0.000846565
2040	720	485849.5	3751734.9	0.000748065	0.000590538
2040	721	485549.5	3751834.9	0.001423585	0.00112109
2040	722	485649.5	3751834.9	0.001350044	0.001063201
2040	723	485749.5	3751834.9	0.001292025	0.001021026
2040	724	485849.5	3751834.9	0.001103141	0.000882625

2040	725	485549.5	3751934.9	0.001652881	0.001311622
2040	726	485649.5	3751934.9	0.001514799	0.00118527
2040	727	485749.5	3751934.9	0.001473871	0.00115035
2040	728	485849.5	3751934.9	0.001418527	0.001111805
2040	729	485549.5	3752034.9	0.001913952	0.001532891
2040	730	485649.5	3752034.9	0.001679936	0.001308415
2040	731	485749.5	3752034.9	0.001644047	0.001277913
2040	732	485849.5	3752034.9	0.001610713	0.0012578
2040	733	485549.5	3752134.9	0.001969271	0.001556215
2040	734	485649.5	3752134.9	0.00191735	0.001499243
2040	735	485749.5	3752134.9	0.001923089	0.001505909
2040	736	485849.5	3752134.9	0.001935394	0.001527596
2040	737	485549.5	3752234.9	0.002209253	0.001773399
2040	738	485649.5	3752234.9	0.002276635	0.00182918
2040	739	485749.5	3752234.9	0.002368736	0.00191246
2040	740	485849.5	3752234.9	0.002439675	0.001983816
2040	741	485549.5	3752334.9	0.001850101	0.001396992
2040	742	485649.5	3752334.9	0.001895656	0.001424482
2040	743	485749.5	3752334.9	0.001957252	0.00147074
2040	744	485849.5	3752334.9	0.002028742	0.001530912
2040	745	485549.5	3752434.9	0.001794472	0.001324626
2040	746	485649.5	3752434.9	0.00182665	0.001337114
2040	747	485749.5	3752434.9	0.001882293	0.001371805
2040	748	485849.5	3752434.9	0.001954887	0.00142284
2040	749	485549.5	3752534.9	0.001822519	0.00133457
2040	750	485649.5	3752534.9	0.00185133	0.001342231
2040	751	485749.5	3752534.9	0.001907756	0.001375517
2040	752	485849.5	3752534.9	0.001978763	0.001421248
2040	753	485549.5	3752634.9	0.001880855	0.001371813
2040	754	485649.5	3752634.9	0.001910884	0.001379303
2040	755	485749.5	3752634.9	0.001967672	0.001412109
2040	756	485849.5	3752634.9	0.002038557	0.00145584
2040	757	485549.5	3752734.9	0.001953399	0.001422491
2040	758	485649.5	3752734.9	0.001986089	0.001431634
2040	759	485749.5	3752734.9	0.002050619	0.001469412
2040	760	485849.5	3752734.9	0.002129544	0.001517696
2040	761	485549.5	3752834.9	0.002033894	0.001481518
2040	762	485649.5	3752834.9	0.002069403	0.001493384
2040	763	485749.5	3752834.9	0.002143987	0.001539441
2040	764	485849.5	3752834.9	0.00223422	0.001596148
2040	765	485549.5	3752934.9	0.002125289	0.001549419
2040	766	485649.5	3752934.9	0.002162579	0.001563807
2040	767	485749.5	3752934.9	0.002246546	0.00162032
2040	768	485849.5	3752934.9	0.002356775	0.001695749
2040	769	485549.5	3753034.9	0.002242012	0.001638611
2040	770	485649.5	3753034.9	0.00226017	0.001635901
2040	771	485749.5	3753034.9	0.002355235	0.001704743

2040	772	485849.5	3753034.9	0.002493296	0.001811424
2040	773	485549.5	3753134.9	0.002284072	0.001644917
2040	774	485649.5	3753134.9	0.002355896	0.00169816
2040	775	485749.5	3753134.9	0.002457885	0.001778786
2040	776	485849.5	3753134.9	0.002614922	0.001910057
2040	777	485549.5	3753234.9	0.002390153	0.001705256
2040	778	485649.5	3753234.9	0.002465506	0.001764755
2040	779	485749.5	3753234.9	0.002565761	0.001850794
2040	780	485849.5	3753234.9	0.002726467	0.001993194
2040	781	485549.5	3753334.9	0.002552748	0.001807315
2040	782	485649.5	3753334.9	0.002613069	0.001847051
2040	783	485749.5	3753334.9	0.002705472	0.001931871
2040	784	485849.5	3753334.9	0.00285173	0.002074119
2040	785	485549.5	3753434.9	0.002734212	0.001918728
2040	786	485649.5	3753434.9	0.002833638	0.001976921
2040	787	485749.5	3753434.9	0.002943824	0.002069103
2040	788	485849.5	3753434.9	0.003067125	0.00220911
2040	789	485508.5	3746711.3	0.000243354	0.00020122
2040	790	491508.5	3746711.3	0.000169864	0.000140836
2040	791	479508.5	3752711.3	0.000851823	0.000773514
2040	792	485508.5	3752711.3	0.001895189	0.001378055
2040	793	491508.5	3752711.3	0.001567461	0.001036188
2040	794	485508.5	3758711.3	0.00043243	0.000401466
2040	795	491508.5	3758711.3	0.000183346	0.000159375
2040	796	485921.9	3750934.2	0.000365028	0.000272701
2040	797	486021.9	3750934.2	0.000360418	0.000268932
2040	798	486121.9	3750934.2	0.000357923	0.00026707
2040	799	485921.9	3751034.2	0.000384631	0.000287232
2040	800	486021.9	3751034.2	0.000377898	0.000281551
2040	801	486121.9	3751034.2	0.00037402	0.000278405
2040	802	485921.9	3751134.2	0.000406955	0.000304179
2040	803	486021.9	3751134.2	0.000399493	0.000297785
2040	804	486121.9	3751134.2	0.000393681	0.000292847
2040	805	485921.9	3751234.2	0.000432798	0.00032423
2040	806	486021.9	3751234.2	0.000424621	0.00031711
2040	807	486121.9	3751234.2	0.000417409	0.00031087
2040	808	485921.9	3751334.2	0.000464403	0.000349418
2040	809	486021.9	3751334.2	0.000454997	0.000341098
2040	810	486121.9	3751334.2	0.000444613	0.000331926
2040	811	485921.9	3751434.2	0.000507596	0.000385075
2040	812	486021.9	3751434.2	0.0004912	0.000370314
2040	813	486121.9	3751434.2	0.000477666	0.000358177
2040	814	485921.9	3751534.2	0.000553763	0.000423265
2040	815	486021.9	3751534.2	0.000542648	0.000413375
2040	816	486121.9	3751534.2	0.000519194	0.000392079
2040	817	485921.9	3751634.2	0.000593219	0.000455051
2040	818	486021.9	3751634.2	0.000633392	0.000491781

2040	819	486121.9	3751634.2	0.000584532	0.000447697
2040	820	485921.9	3751734.2	0.000679013	0.000528765
2040	821	486021.9	3751734.2	0.000778367	0.000616779
2040	822	486121.9	3751734.2	0.000659997	0.000512079
2040	823	485921.9	3751834.2	0.000866478	0.000691228
2040	824	486021.9	3751834.2	0.000872214	0.000695631
2040	825	486121.9	3751834.2	0.000693402	0.000537748
2040	826	485921.9	3751934.2	0.001294056	0.001034312
2040	827	486021.9	3751934.2	0.001078493	0.000866571
2040	828	486121.9	3751934.2	0.000879039	0.000698955
2040	829	485921.9	3752034.2	0.001535784	0.001210919
2040	830	486021.9	3752034.2	0.001324917	0.001068299
2040	831	486121.9	3752034.2	0.001206381	0.000975352
2040	832	485921.9	3752134.2	0.001953025	0.001557591
2040	833	486021.9	3752134.2	0.001902123	0.001537501
2040	834	486121.9	3752134.2	0.00163049	0.001323345
2040	835	485921.9	3752234.2	0.002480435	0.002033643
2040	836	486021.9	3752234.2	0.002589538	0.00215299
2040	837	486121.9	3752234.2	0.002390124	0.001971573
2040	838	485921.9	3752334.2	0.0020821	0.00157883
2040	839	486021.9	3752334.2	0.002195372	0.001692959
2040	840	486121.9	3752334.2	0.002539709	0.002039301
2040	841	485921.9	3752434.2	0.002021294	0.001478324
2040	842	486021.9	3752434.2	0.002132857	0.001577631
2040	843	486121.9	3752434.2	0.002320376	0.001752716
2040	844	485921.9	3752534.2	0.002044178	0.001466591
2040	845	486021.9	3752534.2	0.00213993	0.001538946
2040	846	486121.9	3752534.2	0.002267798	0.001644881
2040	847	485921.9	3752634.2	0.002097036	0.001494003
2040	848	486021.9	3752634.2	0.002186288	0.001556481
2040	849	486121.9	3752634.2	0.002296269	0.00164047
2040	850	485921.9	3752734.2	0.002191812	0.001557032
2040	851	486021.9	3752734.2	0.002291617	0.001623302
2040	852	486121.9	3752734.2	0.002407619	0.001706739
2040	853	485921.9	3752834.2	0.002309887	0.001643694
2040	854	486021.9	3752834.2	0.002431122	0.001722218
2040	855	486121.9	3752834.2	0.002573458	0.001820611
2040	856	485921.9	3752934.2	0.002446021	0.001755807
2040	857	486021.9	3752934.2	0.002597274	0.001856282
2040	858	486121.9	3752934.2	0.002807017	0.002005958
2040	859	487026.2	3754364	0.009710497	0.00841767
2041	1	489607.4	3753966.1	0.003005338	0.002024868
2041	2	489738.7	3754023.9	0.002663909	0.001858582
2041	3	489668.9	3754093.7	0.002533356	0.001848683
2041	4	489690.1	3754161.6	0.002401322	0.001785056
2041	5	490282.2	3753425.2	0.00354684	0.002476163
2041	6	489797.3	3754554.1	0.001961821	0.001506036

2041	7	490252.9	3754378.2	0.001795272	0.0013542
2041	8	489006	3754140.3	0.004557281	0.003554049
2041	9	485642.8	3754267.3	0.004100126	0.003165087
2041	10	485736.4	3754259.5	0.004521802	0.003497506
2041	11	487189.2	3754820.5	0.010091874	0.00899555
2041	12	487233.1	3754689.5	0.008297948	0.00709333
2041	13	487216.8	3754364.7	0.012644115	0.011429272
2041	14	487388.8	3754380.1	0.009543453	0.008421717
2041	15	484625	3751748	0.001234098	0.000953633
2041	16	483279	3751798	0.00092791	0.000727788
2041	17	483231	3751205	0.000825023	0.000648303
2041	18	480165	3750195	0.000624023	0.000534263
2041	19	481211	3749473	0.000563464	0.000463935
2041	20	481867	3752785	0.000944174	0.00080302
2041	21	480678	3751306	0.000678202	0.000572995
2041	22	479989	3752645	0.0008108	0.000723565
2041	23	479889	3756222	0.001134397	0.001082257
2041	24	479234	3757080	0.000547074	0.000509408
2041	25	480276	3756365	0.000922189	0.000872234
2041	26	479887	3754007	0.001055189	0.0009793
2041	27	480772	3755009	0.002233887	0.002151236
2041	28	481560	3754548	0.001674262	0.001568972
2041	29	481845	3754457	0.001689894	0.001574936
2041	30	481754	3753876	0.001207659	0.001084719
2041	31	489635.2	3750663.8	0.000459906	0.000350302
2041	32	485424.1	3747672.3	0.000299065	0.000242834
2041	33	482657.6	3753975.1	0.00143028	0.00126862
2041	34	481495	3754633.7	0.001756784	0.001654574
2041	35	481148.7	3756136.2	0.001267021	0.001204873
2041	36	482346.5	3748872.9	0.000232626	0.0001823
2041	37	480299	3751198	0.000660146	0.000563128
2041	38	479598.7	3756506.3	0.000867936	0.000821002
2041	39	478997.8	3753535.2	0.001183188	0.001116459
2041	40	478978.3	3755233.1	0.003560174	0.003496442
2041	41	479197.3	3754462.3	0.001567936	0.001503431
2041	42	479493.3	3752408.8	0.000823625	0.000743943
2041	43	480295.4	3752408.4	0.000785911	0.00069107
2041	44	480287.9	3754227.5	0.001156285	0.001075163
2041	45	494397.4	3753977.6	0.000725748	0.000586299
2041	46	481108.5	3750699	0.000665979	0.000556029
2041	47	486794.1	3756878	0.000672299	0.000603662
2041	48	482345	3752065.8	0.000894428	0.00073282
2041	49	487553	3745938.3	0.000182569	0.000153648
2041	50	484553	3746938.3	0.000241564	0.000198588
2041	51	485553	3746938.3	0.000253608	0.000208967
2041	52	486553	3746938.3	0.000202023	0.000171399
2041	53	487553	3746938.3	0.000222575	0.000184427

2041	54	488553	3746938.3	0.000202874	0.000169034
2041	55	489553	3746938.3	0.000200449	0.000165706
2041	56	490553	3746938.3	0.000184072	0.000152596
2041	57	491553	3746938.3	0.000175157	0.000144868
2041	58	492553	3746938.3	0.000168435	0.000139086
2041	59	482553	3747938.3	0.000212152	0.000168924
2041	60	483553	3747938.3	0.000354356	0.000283347
2041	61	484553	3747938.3	0.000337484	0.000271086
2041	62	485553	3747938.3	0.00031492	0.000254433
2041	63	486553	3747938.3	0.000293122	0.000240154
2041	64	487553	3747938.3	0.000187394	0.00015797
2041	65	488553	3747938.3	0.000244456	0.00020091
2041	66	489553	3747938.3	0.000229533	0.000188645
2041	67	490553	3747938.3	0.000216089	0.00017724
2041	68	491553	3747938.3	0.000204979	0.000167532
2041	69	492553	3747938.3	0.000196066	0.0001598
2041	70	493553	3747938.3	0.000189683	0.000154526
2041	71	481553	3748938.3	0.000477258	0.000381585
2041	72	482553	3748938.3	0.000243557	0.000191236
2041	73	483553	3748938.3	0.000407565	0.000324862
2041	74	484553	3748938.3	0.000427488	0.000337876
2041	75	485553	3748938.3	0.000407619	0.000323715
2041	76	486553	3748938.3	0.000377647	0.000302446
2041	77	487553	3748938.3	0.000296439	0.000248158
2041	78	488553	3748938.3	0.000304282	0.000245516
2041	79	489553	3748938.3	0.000279574	0.000226405
2041	80	490553	3748938.3	0.000262247	0.000211584
2041	81	491553	3748938.3	0.00024669	0.000198356
2041	82	492553	3748938.3	0.000236251	0.00018921
2041	83	493553	3748938.3	0.000233243	0.000187063
2041	84	494553	3748938.3	0.00030144	0.000256321
2041	85	480553	3749938.3	0.000738525	0.00064574
2041	86	481553	3749938.3	0.000643016	0.000527037
2041	87	482553	3749938.3	0.000627525	0.000501042
2041	88	483553	3749938.3	0.000616276	0.000485716
2041	89	484553	3749938.3	0.000451724	0.000357484
2041	90	485553	3749938.3	0.000369763	0.000294132
2041	91	486553	3749938.3	0.00043767	0.000354462
2041	92	487553	3749938.3	0.000458427	0.000362341
2041	93	488553	3749938.3	0.000397964	0.000312339
2041	94	489553	3749938.3	0.00036174	0.000285053
2041	95	490553	3749938.3	0.000334027	0.000262435
2041	96	491553	3749938.3	0.000313074	0.00024466
2041	97	492553	3749938.3	0.000304898	0.000237148
2041	98	493553	3749938.3	0.000341455	0.00027118
2041	99	494553	3749938.3	0.000287451	0.000218146
2041	100	495553	3749938.3	0.000228161	0.000188337

2041	101	480553	3750938.3	0.000646363	0.000545317
2041	102	481553	3750938.3	0.000695371	0.000573577
2041	103	482553	3750938.3	0.000755391	0.000607747
2041	104	483553	3750938.3	0.000868914	0.000689323
2041	105	484553	3750938.3	0.000863038	0.000673992
2041	106	485553	3750938.3	0.000381804	0.000286657
2041	107	486553	3750938.3	0.000352273	0.000265001
2041	108	487553	3750938.3	0.000551668	0.000438674
2041	109	488553	3750938.3	0.000597203	0.000442398
2041	110	489553	3750938.3	0.000524571	0.000391487
2041	111	490553	3750938.3	0.000468271	0.000349838
2041	112	491553	3750938.3	0.00043614	0.000323869
2041	113	492553	3750938.3	0.000490154	0.000375303
2041	114	493553	3750938.3	0.000424692	0.000311663
2041	115	494553	3750938.3	0.000411569	0.000305844
2041	116	495553	3750938.3	0.000383874	0.000298329
2041	117	479553	3751938.3	0.000760661	0.00067789
2041	118	480553	3751938.3	0.000747192	0.000644871
2041	119	481553	3751938.3	0.000789246	0.000659741
2041	120	482553	3751938.3	0.000876139	0.000706882
2041	121	483553	3751938.3	0.00100534	0.000784025
2041	122	484553	3751938.3	0.00119653	0.000910504
2041	123	485553	3751938.3	0.001652386	0.001310076
2041	124	486553	3751938.3	0.000677518	0.000518984
2041	125	487553	3751938.3	0.0010938	0.00085464
2041	126	488553	3751938.3	0.00117449	0.000795388
2041	127	489553	3751938.3	0.001068619	0.000702555
2041	128	490553	3751938.3	0.000896855	0.000589903
2041	129	491553	3751938.3	0.000929406	0.000648649
2041	130	492553	3751938.3	0.000742622	0.000479676
2041	131	493553	3751938.3	0.000665304	0.000493868
2041	132	494553	3751938.3	0.000613824	0.000458547
2041	133	495553	3751938.3	0.000540945	0.000414249
2041	134	479553	3752938.3	0.000919753	0.000842083
2041	135	480553	3752938.3	0.000917948	0.00082014
2041	136	481553	3752938.3	0.000989982	0.000862685
2041	137	482553	3752938.3	0.001120124	0.000945069
2041	138	483553	3752938.3	0.001288046	0.001036158
2041	139	484553	3752938.3	0.00160562	0.001206286
2041	140	485553	3752938.3	0.002127435	0.001549907
2041	141	486553	3752938.3	0.004197908	0.00330725
2041	142	487553	3752938.3	0.004624128	0.003486353
2041	143	488553	3752938.3	0.004121289	0.003017912
2041	144	489553	3752938.3	0.003759956	0.002743019
2041	145	490553	3752938.3	0.003118444	0.002239126
2041	146	491553	3752938.3	0.001615505	0.001121584
2041	147	492553	3752938.3	0.001228605	0.000804777

2041	148	493553	3752938.3	0.000998658	0.000713483
2041	149	494553	3752938.3	0.000851242	0.000635835
2041	150	495553	3752938.3	0.000685581	0.000530474
2041	151	479553	3753938.3	0.001056648	0.000985336
2041	152	480553	3753938.3	0.001065631	0.000976785
2041	153	481553	3753938.3	0.001210442	0.00109536
2041	154	482553	3753938.3	0.001382839	0.001225984
2041	155	483553	3753938.3	0.001739126	0.001518375
2041	156	484553	3753938.3	0.002062736	0.001657532
2041	157	485553	3753938.3	0.003328033	0.002399635
2041	158	486553	3753938.3	0.00587771	0.004415519
2041	159	487553	3753938.3	0.006449908	0.005269006
2041	160	488553	3753938.3	0.005707975	0.004366261
2041	161	489553	3753938.3	0.003208337	0.002146419
2041	162	490553	3753938.3	0.001856303	0.001363774
2041	163	491553	3753938.3	0.001295453	0.001010088
2041	164	492553	3753938.3	0.001062803	0.000839688
2041	165	493553	3753938.3	0.000869399	0.000695423
2041	166	494553	3753938.3	0.000790045	0.0006368
2041	167	495553	3753938.3	0.000616134	0.000500931
2041	168	479553	3754938.3	0.001879019	0.001812246
2041	169	480553	3754938.3	0.002003114	0.001923237
2041	170	481553	3754938.3	0.002294445	0.002195577
2041	171	482553	3754938.3	0.00335287	0.003226354
2041	172	483553	3754938.3	0.00368581	0.003520762
2041	173	484553	3754938.3	0.003653175	0.003405562
2041	174	485553	3754938.3	0.005300037	0.004852217
2041	175	486553	3754938.3	0.007308372	0.006652972
2041	176	487553	3754938.3	0.0062339	0.005368797
2041	177	488553	3754938.3	0.003502589	0.002902681
2041	178	489553	3754938.3	0.002195006	0.001888802
2041	179	490553	3754938.3	0.001462739	0.001284618
2041	180	491553	3754938.3	0.000961313	0.000837579
2041	181	492553	3754938.3	0.00069004	0.000593919
2041	182	493553	3754938.3	0.000697621	0.000605986
2041	183	494553	3754938.3	0.000530786	0.000457223
2041	184	495553	3754938.3	0.0004455	0.000382642
2041	185	479553	3755938.3	0.001890688	0.001833685
2041	186	480553	3755938.3	0.001584961	0.001523412
2041	187	481553	3755938.3	0.001605812	0.001537024
2041	188	482553	3755938.3	0.002296043	0.002205008
2041	189	483553	3755938.3	0.002411683	0.002302912
2041	190	484553	3755938.3	0.002292656	0.002159919
2041	191	485553	3755938.3	0.003236686	0.003072111
2041	192	486553	3755938.3	0.002616244	0.002439538
2041	193	487553	3755938.3	0.001445759	0.001334041
2041	194	488553	3755938.3	0.00100995	0.000921686

2041	195	489553	3755938.3	0.000692157	0.000624987
2041	196	490553	3755938.3	0.000572999	0.000515125
2041	197	491553	3755938.3	0.000472248	0.000422692
2041	198	492553	3755938.3	0.000572246	0.000526197
2041	199	493553	3755938.3	0.000419577	0.000378874
2041	200	494553	3755938.3	0.000403112	0.000365151
2041	201	479553	3756938.3	0.000573374	0.000534622
2041	202	480553	3756938.3	0.000548895	0.000508986
2041	203	481553	3756938.3	0.000495782	0.000457683
2041	204	482553	3756938.3	0.00051746	0.000475038
2041	205	483553	3756938.3	0.000872637	0.000803056
2041	206	484553	3756938.3	0.00084184	0.000766684
2041	207	485553	3756938.3	0.001827111	0.001750147
2041	208	486553	3756938.3	0.000695643	0.000626292
2041	209	487553	3756938.3	0.00045769	0.000405552
2041	210	488553	3756938.3	0.000371244	0.000326038
2041	211	489553	3756938.3	0.000325199	0.000284817
2041	212	490553	3756938.3	0.000297106	0.000260157
2041	213	491553	3756938.3	0.000259743	0.000227122
2041	214	492553	3756938.3	0.00023137	0.000202437
2041	215	493553	3756938.3	0.000245885	0.000217978
2041	216	494553	3756938.3	0.000238675	0.000212418
2041	217	479553	3757938.3	0.000288328	0.000263889
2041	218	480553	3757938.3	0.000276024	0.000251565
2041	219	481553	3757938.3	0.00029157	0.000263898
2041	220	482553	3757938.3	0.000360656	0.000323934
2041	221	483553	3757938.3	0.000353692	0.000315771
2041	222	484553	3757938.3	0.000465686	0.000418696
2041	223	485553	3757938.3	0.000539591	0.000498787
2041	224	486553	3757938.3	0.000322692	0.00028524
2041	225	487553	3757938.3	0.000263808	0.000230199
2041	226	488553	3757938.3	0.00023161	0.000200905
2041	227	489553	3757938.3	0.000213728	0.000184893
2041	228	490553	3757938.3	0.000195439	0.000168934
2041	229	491553	3757938.3	0.000179074	0.000154599
2041	230	492553	3757938.3	0.000171933	0.000148988
2041	231	493553	3757938.3	0.000190686	0.000166992
2041	232	480553	3758938.3	0.000207166	0.000186495
2041	233	481553	3758938.3	0.000231101	0.000206373
2041	234	482553	3758938.3	0.000225123	0.000199414
2041	235	483553	3758938.3	0.000236025	0.000208208
2041	236	484553	3758938.3	0.00029534	0.000264183
2041	237	485553	3758938.3	0.000685858	0.00065257
2041	238	486553	3758938.3	0.000223329	0.000196708
2041	239	487553	3758938.3	0.000245191	0.000215841
2041	240	488553	3758938.3	0.000182051	0.000158491
2041	241	489553	3758938.3	0.000184564	0.000160754

2041	242	490553	3758938.3	0.000201511	0.000175347
2041	243	491553	3758938.3	0.00016388	0.000142275
2041	244	492553	3758938.3	0.000170507	0.000148228
2041	245	481553	3759938.3	0.000170999	0.000151817
2041	246	482553	3759938.3	0.000176464	0.000155607
2041	247	483553	3759938.3	0.000186986	0.000164671
2041	248	484553	3759938.3	0.000260077	0.000232294
2041	249	485553	3759938.3	0.000678447	0.000644739
2041	250	486553	3759938.3	0.00032149	0.00028742
2041	251	487553	3759938.3	0.000262256	0.000232114
2041	252	488553	3759938.3	0.000261735	0.000229806
2041	253	489553	3759938.3	0.000226817	0.000197994
2041	254	490553	3759938.3	0.000175373	0.000153105
2041	255	491553	3759938.3	0.000152834	0.000133041
2041	256	482553	3760938.3	0.000166449	0.000146921
2041	257	483553	3760938.3	0.000192501	0.000170624
2041	258	484553	3760938.3	0.000245855	0.00022007
2041	259	485553	3760938.3	0.000558289	0.000524197
2041	260	486553	3760938.3	0.00036625	0.000329826
2041	261	487553	3760938.3	0.000292034	0.000262292
2041	262	488553	3760938.3	0.000166389	0.000147291
2041	263	489553	3760938.3	0.000126207	0.000110586
2041	264	490553	3760938.3	0.000120723	0.000105368
2041	265	484551.7	3750934.4	0.00085781	0.000670964
2041	266	484651.7	3750934.4	0.00084689	0.000662861
2041	267	484751.7	3750934.4	0.000647301	0.000513036
2041	268	484851.7	3750934.4	0.000593984	0.000470956
2041	269	484951.7	3750934.4	0.000627812	0.00049677
2041	270	485051.7	3750934.4	0.00056273	0.000444998
2041	271	485151.7	3750934.4	0.000468565	0.000364323
2041	272	485251.7	3750934.4	0.000412708	0.000314147
2041	273	485351.7	3750934.4	0.000396894	0.000299953
2041	274	485451.7	3750934.4	0.0003885	0.00029256
2041	275	484551.7	3751034.4	0.00091639	0.000709662
2041	276	484651.7	3751034.4	0.00090406	0.000701219
2041	277	484751.7	3751034.4	0.000849246	0.000669214
2041	278	484851.7	3751034.4	0.000672371	0.0005324
2041	279	484951.7	3751034.4	0.000747061	0.000589409
2041	280	485051.7	3751034.4	0.00062661	0.000495875
2041	281	485151.7	3751034.4	0.000543262	0.000427368
2041	282	485251.7	3751034.4	0.000462049	0.000355854
2041	283	485351.7	3751034.4	0.000426744	0.000324007
2041	284	485451.7	3751034.4	0.000411431	0.000310272
2041	285	484551.7	3751134.4	0.000962674	0.000742171
2041	286	484651.7	3751134.4	0.000960568	0.000738894
2041	287	484751.7	3751134.4	0.000948044	0.000731807
2041	288	484851.7	3751134.4	0.000856235	0.000678417

2041	289	484951.7	3751134.4	0.000877054	0.000690184
2041	290	485051.7	3751134.4	0.00072305	0.000571168
2041	291	485151.7	3751134.4	0.000641733	0.000507903
2041	292	485251.7	3751134.4	0.000555085	0.000435731
2041	293	485351.7	3751134.4	0.000472087	0.000362072
2041	294	485451.7	3751134.4	0.000438092	0.000331327
2041	295	484551.7	3751234.4	0.001010266	0.000778358
2041	296	484651.7	3751234.4	0.001010341	0.000775898
2041	297	484751.7	3751234.4	0.001002462	0.00077203
2041	298	484851.7	3751234.4	0.000974393	0.000757209
2041	299	484951.7	3751234.4	0.000948845	0.000742007
2041	300	485051.7	3751234.4	0.00085298	0.000675077
2041	301	485151.7	3751234.4	0.000719612	0.000570026
2041	302	485251.7	3751234.4	0.000543351	0.000423307
2041	303	485351.7	3751234.4	0.00048047	0.000366617
2041	304	485451.7	3751234.4	0.000461442	0.000349354
2041	305	484551.7	3751334.4	0.001081053	0.000835602
2041	306	484651.7	3751334.4	0.001073192	0.000827108
2041	307	484751.7	3751334.4	0.001061106	0.000819641
2041	308	484851.7	3751334.4	0.001046072	0.000810269
2041	309	484951.7	3751334.4	0.00103785	0.000803428
2041	310	485051.7	3751334.4	0.000995324	0.000779379
2041	311	485151.7	3751334.4	0.000842305	0.000666826
2041	312	485251.7	3751334.4	0.00066315	0.000525565
2041	313	485351.7	3751334.4	0.000522765	0.000401953
2041	314	485451.7	3751334.4	0.00048902	0.000371194
2041	315	484551.7	3751434.4	0.001195871	0.000941044
2041	316	484651.7	3751434.4	0.001163768	0.000905728
2041	317	484751.7	3751434.4	0.001144393	0.000885781
2041	318	484851.7	3751434.4	0.00113107	0.000873877
2041	319	484951.7	3751434.4	0.001120277	0.000865319
2041	320	485051.7	3751434.4	0.00110667	0.000855016
2041	321	485151.7	3751434.4	0.00099371	0.000789774
2041	322	485251.7	3751434.4	0.000773905	0.00061681
2041	323	485351.7	3751434.4	0.000608583	0.00047649
2041	324	485451.7	3751434.4	0.00054169	0.000415823
2041	325	484551.7	3751534.4	0.001456143	0.001194651
2041	326	484651.7	3751534.4	0.001349409	0.001081237
2041	327	484751.7	3751534.4	0.001270368	0.000997498
2041	328	484851.7	3751534.4	0.001233975	0.000958587
2041	329	484951.7	3751534.4	0.001216508	0.000938945
2041	330	485051.7	3751534.4	0.00120715	0.000926978
2041	331	485151.7	3751534.4	0.001192785	0.000916086
2041	332	485251.7	3751534.4	0.001082089	0.00085507
2041	333	485351.7	3751534.4	0.000865048	0.000689985
2041	334	485451.7	3751534.4	0.000715318	0.00056769
2041	335	484551.7	3751634.4	0.001348616	0.00108066

2041	336	484651.7	3751634.4	0.001389714	0.001114828
2041	337	484751.7	3751634.4	0.001432773	0.001150223
2041	338	484851.7	3751634.4	0.001460119	0.001172175
2041	339	484951.7	3751634.4	0.001360079	0.001067802
2041	340	485051.7	3751634.4	0.001317314	0.001020951
2041	341	485151.7	3751634.4	0.001301717	0.00100178
2041	342	485251.7	3751634.4	0.00126963	0.000980559
2041	343	485351.7	3751634.4	0.001209076	0.000942354
2041	344	485451.7	3751634.4	0.001103471	0.000878023
2041	345	484551.7	3751734.4	0.00119826	0.000925036
2041	346	484651.7	3751734.4	0.001264518	0.00098234
2041	347	484751.7	3751734.4	0.001369029	0.001078914
2041	348	484851.7	3751734.4	0.001502342	0.001205645
2041	349	484951.7	3751734.4	0.001504911	0.00120346
2041	350	485051.7	3751734.4	0.001637929	0.001331229
2041	351	485151.7	3751734.4	0.001489861	0.001175256
2041	352	485251.7	3751734.4	0.001448465	0.001130981
2041	353	485351.7	3751734.4	0.001395598	0.00108578
2041	354	485451.7	3751734.4	0.001321168	0.001028942
2041	355	484551.7	3751834.4	0.001178528	0.000900498
2041	356	484651.7	3751834.4	0.001216232	0.000929544
2041	357	484751.7	3751834.4	0.001259795	0.000964382
2041	358	484851.7	3751834.4	0.001311587	0.001008227
2041	359	484951.7	3751834.4	0.001376602	0.001067296
2041	360	485051.7	3751834.4	0.001520517	0.001203986
2041	361	485151.7	3751834.4	0.001542038	0.001214307
2041	362	485251.7	3751834.4	0.001632191	0.001296729
2041	363	485351.7	3751834.4	0.001647723	0.001312326
2041	364	485451.7	3751834.4	0.00164466	0.001317141
2041	365	484551.7	3751934.4	0.001194952	0.000909391
2041	366	484651.7	3751934.4	0.001221364	0.000928327
2041	367	484751.7	3751934.4	0.001248195	0.00094805
2041	368	484851.7	3751934.4	0.001281837	0.000973346
2041	369	484951.7	3751934.4	0.001318899	0.001002103
2041	370	485051.7	3751934.4	0.001366238	0.001039846
2041	371	485151.7	3751934.4	0.001426081	0.001088516
2041	372	485251.7	3751934.4	0.00150841	0.001158113
2041	373	485351.7	3751934.4	0.001627079	0.001268813
2041	374	485451.7	3751934.4	0.001700973	0.001347094
2041	375	484551.7	3752034.4	0.00123658	0.000940967
2041	376	484651.7	3752034.4	0.001259397	0.000956388
2041	377	484751.7	3752034.4	0.001283978	0.000973366
2041	378	484851.7	3752034.4	0.001310027	0.000991611
2041	379	484951.7	3752034.4	0.001342007	0.001014467
2041	380	485051.7	3752034.4	0.001380379	0.001042355
2041	381	485151.7	3752034.4	0.001427179	0.001077177
2041	382	485251.7	3752034.4	0.001494628	0.001130077

2041	383	485351.7	3752034.4	0.001585696	0.001209182
2041	384	485451.7	3752034.4	0.001797931	0.001414264
2041	385	484551.7	3752134.4	0.001309768	0.001003584
2041	386	484651.7	3752134.4	0.00133143	0.001017358
2041	387	484751.7	3752134.4	0.001355632	0.00103318
2041	388	484851.7	3752134.4	0.001380202	0.001049316
2041	389	484951.7	3752134.4	0.001407388	0.001067564
2041	390	485051.7	3752134.4	0.001440843	0.001090734
2041	391	485151.7	3752134.4	0.001481643	0.001119932
2041	392	485251.7	3752134.4	0.001541168	0.001164836
2041	393	485351.7	3752134.4	0.00163458	0.001242518
2041	394	485451.7	3752134.4	0.00184928	0.001444735
2041	395	484551.7	3752234.4	0.00144234	0.001126349
2041	396	484651.7	3752234.4	0.001473627	0.001148329
2041	397	484751.7	3752234.4	0.001496568	0.00116218
2041	398	484851.7	3752234.4	0.001516013	0.001172452
2041	399	484951.7	3752234.4	0.00161539	0.001262436
2041	400	485051.7	3752234.4	0.001568001	0.00120522
2041	401	485151.7	3752234.4	0.001609817	0.001236612
2041	402	485251.7	3752234.4	0.001656023	0.001268681
2041	403	485351.7	3752234.4	0.001744825	0.001340437
2041	404	485451.7	3752234.4	0.002006212	0.001585117
2041	405	484551.7	3752334.4	0.00137642	0.001048293
2041	406	484651.7	3752334.4	0.001402623	0.001064916
2041	407	484751.7	3752334.4	0.001428874	0.001081665
2041	408	484851.7	3752334.4	0.001456068	0.001099205
2041	409	484951.7	3752334.4	0.001486183	0.001118959
2041	410	485051.7	3752334.4	0.001516782	0.001139289
2041	411	485151.7	3752334.4	0.001552645	0.001163754
2041	412	485251.7	3752334.4	0.001594992	0.001193738
2041	413	485351.7	3752334.4	0.001653852	0.001237788
2041	414	485451.7	3752334.4	0.001757089	0.001322574
2041	415	484551.7	3752434.4	0.001374057	0.001033906
2041	416	484651.7	3752434.4	0.001400675	0.00105041
2041	417	484751.7	3752434.4	0.001426966	0.001066937
2041	418	484851.7	3752434.4	0.001458117	0.001086799
2041	419	484951.7	3752434.4	0.001488964	0.001106788
2041	420	485051.7	3752434.4	0.001522938	0.001129194
2041	421	485151.7	3752434.4	0.001560259	0.001154198
2041	422	485251.7	3752434.4	0.001601804	0.001182746
2041	423	485351.7	3752434.4	0.001653242	0.001219379
2041	424	485451.7	3752434.4	0.001729627	0.001279192
2041	425	484551.7	3752534.4	0.001401819	0.001049316
2041	426	484651.7	3752534.4	0.001429809	0.001066429
2041	427	484751.7	3752534.4	0.001459488	0.001084859
2041	428	484851.7	3752534.4	0.001491713	0.001105178
2041	429	484951.7	3752534.4	0.00152427	0.00112611

2041	430	485051.7	3752534.4	0.001560829	0.001149939
2041	431	485151.7	3752534.4	0.001599872	0.001175854
2041	432	485251.7	3752534.4	0.001641838	0.001204362
2041	433	485351.7	3752534.4	0.001690709	0.001238524
2041	434	485451.7	3752534.4	0.00176205	0.001293077
2041	435	484551.7	3752634.4	0.001438541	0.001074066
2041	436	484651.7	3752634.4	0.001468059	0.001091822
2041	437	484751.7	3752634.4	0.001499137	0.001110847
2041	438	484851.7	3752634.4	0.001535217	0.00113325
2041	439	484951.7	3752634.4	0.001570908	0.001155938
2041	440	485051.7	3752634.4	0.001610282	0.001181404
2041	441	485151.7	3752634.4	0.001651377	0.001208572
2041	442	485251.7	3752634.4	0.001695229	0.001238247
2041	443	485351.7	3752634.4	0.001745409	0.001273186
2041	444	485451.7	3752634.4	0.001817814	0.001327956
2041	445	484551.7	3752734.4	0.001483352	0.001106832
2041	446	484651.7	3752734.4	0.001516186	0.001126096
2041	447	484751.7	3752734.4	0.001550521	0.001146678
2041	448	484851.7	3752734.4	0.001587292	0.00116924
2041	449	484951.7	3752734.4	0.001626016	0.001193528
2041	450	485051.7	3752734.4	0.001668241	0.001220643
2041	451	485151.7	3752734.4	0.001711712	0.001249267
2041	452	485251.7	3752734.4	0.00175782	0.001280463
2041	453	485351.7	3752734.4	0.001810408	0.001317086
2041	454	485451.7	3752734.4	0.001882636	0.001372065
2041	455	484551.7	3752834.4	0.001534456	0.001146596
2041	456	484651.7	3752834.4	0.001570243	0.001166992
2041	457	484751.7	3752834.4	0.001606119	0.001187866
2041	458	484851.7	3752834.4	0.001647252	0.001212626
2041	459	484951.7	3752834.4	0.001689701	0.001238761
2041	460	485051.7	3752834.4	0.001734221	0.001266916
2041	461	485151.7	3752834.4	0.001780125	0.001296864
2041	462	485251.7	3752834.4	0.001829099	0.001329854
2041	463	485351.7	3752834.4	0.001882997	0.001367863
2041	464	485451.7	3752834.4	0.001957854	0.001425333
2041	465	484551.7	3752934.4	0.001601751	0.001203046
2041	466	484651.7	3752934.4	0.00164048	0.00122451
2041	467	484751.7	3752934.4	0.001679838	0.001246691
2041	468	484851.7	3752934.4	0.001724112	0.001272555
2041	469	484951.7	3752934.4	0.001770055	0.001300051
2041	470	485051.7	3752934.4	0.001818983	0.001330259
2041	471	485151.7	3752934.4	0.00186735	0.001361117
2041	472	485251.7	3752934.4	0.001920264	0.00139627
2041	473	485351.7	3752934.4	0.001973824	0.001433845
2041	474	485451.7	3752934.4	0.002047133	0.001490124
2041	475	484551.7	3753034.4	0.001715618	0.001307625
2041	476	484651.7	3753034.4	0.00176227	0.001335261

2041	477	484751.7	3753034.4	0.001814456	0.001367484
2041	478	484851.7	3753034.4	0.001855514	0.001387618
2041	479	484951.7	3753034.4	0.001903049	0.001414056
2041	480	485051.7	3753034.4	0.00195553	0.001445755
2041	481	485151.7	3753034.4	0.002014561	0.001483999
2041	482	485251.7	3753034.4	0.002115233	0.001564722
2041	483	485351.7	3753034.4	0.002120727	0.001552771
2041	484	485451.7	3753034.4	0.002181446	0.001596507
2041	485	484551.7	3753134.4	0.001687332	0.001270859
2041	486	484651.7	3753134.4	0.00173429	0.001296449
2041	487	484751.7	3753134.4	0.001785371	0.001324848
2041	488	484851.7	3753134.4	0.001837625	0.00135412
2041	489	484951.7	3753134.4	0.001893722	0.001386283
2041	490	485051.7	3753134.4	0.001952738	0.00142104
2041	491	485151.7	3753134.4	0.002013623	0.001457896
2041	492	485251.7	3753134.4	0.002078831	0.001499391
2041	493	485351.7	3753134.4	0.002146062	0.001544987
2041	494	485451.7	3753134.4	0.002226377	0.001605705
2041	495	484551.7	3753234.4	0.001710402	0.001286521
2041	496	484651.7	3753234.4	0.001761812	0.001314088
2041	497	484751.7	3753234.4	0.001815975	0.001343414
2041	498	484851.7	3753234.4	0.001873055	0.001374714
2041	499	484951.7	3753234.4	0.001934588	0.001409086
2041	500	485051.7	3753234.4	0.002000977	0.001447239
2041	501	485151.7	3753234.4	0.002070191	0.001487989
2041	502	485251.7	3753234.4	0.00214474	0.001533638
2041	503	485351.7	3753234.4	0.002223326	0.001584671
2041	504	485451.7	3753234.4	0.00231898	0.00165487
2041	505	484551.7	3753334.4	0.001749836	0.001319961
2041	506	484651.7	3753334.4	0.001804365	0.001348842
2041	507	484751.7	3753334.4	0.001861251	0.001378912
2041	508	484851.7	3753334.4	0.001925027	0.001413483
2041	509	484951.7	3753334.4	0.001990743	0.00144911
2041	510	485051.7	3753334.4	0.002063278	0.001489422
2041	511	485151.7	3753334.4	0.002141295	0.001533966
2041	512	485251.7	3753334.4	0.002229989	0.001586604
2041	513	485351.7	3753334.4	0.002326635	0.001646844
2041	514	485451.7	3753334.4	0.002441918	0.0017269
2041	515	484551.7	3753434.4	0.001791726	0.001359032
2041	516	484651.7	3753434.4	0.001848842	0.001389154
2041	517	484751.7	3753434.4	0.001909309	0.001420715
2041	518	484851.7	3753434.4	0.001977124	0.00145699
2041	519	484951.7	3753434.4	0.002048261	0.001494284
2041	520	485051.7	3753434.4	0.002126433	0.001536252
2041	521	485151.7	3753434.4	0.002215529	0.001586236
2041	522	485251.7	3753434.4	0.002317732	0.001645499
2041	523	485351.7	3753434.4	0.002433163	0.001715569

2041	524	485451.7	3753434.4	0.00258071	0.00181406
2041	525	484551.7	3753534.4	0.001834271	0.001401772
2041	526	484651.7	3753534.4	0.001889351	0.001429249
2041	527	484751.7	3753534.4	0.001951536	0.001461171
2041	528	484851.7	3753534.4	0.002026173	0.001502069
2041	529	484951.7	3753534.4	0.00210231	0.001542131
2041	530	485051.7	3753534.4	0.002186094	0.001586561
2041	531	485151.7	3753534.4	0.00228372	0.001640541
2041	532	485251.7	3753534.4	0.002397312	0.001705771
2041	533	485351.7	3753534.4	0.00253218	0.001786736
2041	534	485451.7	3753534.4	0.002708557	0.001902665
2041	535	484551.7	3753634.4	0.001877063	0.001447138
2041	536	484651.7	3753634.4	0.001934776	0.001476223
2041	537	484751.7	3753634.4	0.002000177	0.001510122
2041	538	484851.7	3753634.4	0.002073708	0.001548936
2041	539	484951.7	3753634.4	0.002154732	0.001591924
2041	540	485051.7	3753634.4	0.002243852	0.001639563
2041	541	485151.7	3753634.4	0.002346954	0.001696693
2041	542	485251.7	3753634.4	0.002467347	0.001766469
2041	543	485351.7	3753634.4	0.002608998	0.001852946
2041	544	485451.7	3753634.4	0.002796159	0.001980042
2041	545	484551.7	3753734.4	0.001934299	0.001509715
2041	546	484651.7	3753734.4	0.001991163	0.001537158
2041	547	484751.7	3753734.4	0.00205413	0.001567525
2041	548	484851.7	3753734.4	0.002123749	0.001601175
2041	549	484951.7	3753734.4	0.0022069	0.001644798
2041	550	485051.7	3753734.4	0.002301359	0.001695531
2041	551	485151.7	3753734.4	0.002408853	0.001754781
2041	552	485251.7	3753734.4	0.002533232	0.001826116
2041	553	485351.7	3753734.4	0.002681382	0.001916507
2041	554	485451.7	3753734.4	0.002875536	0.002049607
2041	555	484551.7	3753834.4	0.001993158	0.001576913
2041	556	484651.7	3753834.4	0.002047351	0.001601491
2041	557	484751.7	3753834.4	0.002110471	0.001631739
2041	558	484851.7	3753834.4	0.002181027	0.001665539
2041	559	484951.7	3753834.4	0.002265921	0.001709602
2041	560	485051.7	3753834.4	0.002359809	0.001757485
2041	561	485151.7	3753834.4	0.002468271	0.001814695
2041	562	485251.7	3753834.4	0.002599845	0.001889462
2041	563	485351.7	3753834.4	0.00275538	0.001982722
2041	564	485451.7	3753834.4	0.002959871	0.002119668
2041	565	484551.7	3753934.4	0.002057964	0.001652498
2041	566	484651.7	3753934.4	0.002115125	0.00168019
2041	567	484751.7	3753934.4	0.00216924	0.001700941
2041	568	484851.7	3753934.4	0.002241081	0.001736206
2041	569	484951.7	3753934.4	0.002325125	0.001779229
2041	570	485051.7	3753934.4	0.002421929	0.001829895

2041	571	485151.7	3753934.4	0.002533649	0.001889484
2041	572	485251.7	3753934.4	0.002665218	0.001962212
2041	573	485351.7	3753934.4	0.002824593	0.002054876
2041	574	485451.7	3753934.4	0.003036929	0.002191879
2041	575	484551.7	3754034.4	0.002134061	0.001744042
2041	576	484651.7	3754034.4	0.002164441	0.00174111
2041	577	484751.7	3754034.4	0.002233019	0.001777893
2041	578	484851.7	3754034.4	0.002308684	0.001817367
2041	579	484951.7	3754034.4	0.002391473	0.0018593
2041	580	485051.7	3754034.4	0.002485474	0.001907343
2041	581	485151.7	3754034.4	0.002595727	0.001965697
2041	582	485251.7	3754034.4	0.00272772	0.002039071
2041	583	485351.7	3754034.4	0.002888299	0.002133606
2041	584	485451.7	3754034.4	0.003102403	0.00227432
2041	585	484551.7	3754134.4	0.002186274	0.001807139
2041	586	484651.7	3754134.4	0.002225021	0.001815615
2041	587	484751.7	3754134.4	0.002293936	0.001854061
2041	588	484851.7	3754134.4	0.002375554	0.001901776
2041	589	484951.7	3754134.4	0.002457415	0.001943255
2041	590	485051.7	3754134.4	0.002553067	0.001992794
2041	591	485151.7	3754134.4	0.002664673	0.002052706
2041	592	485251.7	3754134.4	0.002796993	0.002127144
2041	593	485351.7	3754134.4	0.00295868	0.002223219
2041	594	485451.7	3754134.4	0.003172011	0.002363175
2041	595	484551.7	3754234.4	0.002240663	0.001872713
2041	596	484651.7	3754234.4	0.00229019	0.001895488
2041	597	484751.7	3754234.4	0.002363842	0.001940994
2041	598	484851.7	3754234.4	0.002446119	0.001991594
2041	599	484951.7	3754234.4	0.002530731	0.002038242
2041	600	485051.7	3754234.4	0.002624803	0.002088277
2041	601	485151.7	3754234.4	0.002735868	0.00214918
2041	602	485251.7	3754234.4	0.00286773	0.00222367
2041	603	485351.7	3754234.4	0.003029111	0.002319229
2041	604	485451.7	3754234.4	0.00324325	0.002459568
2041	605	484551.7	3754334.4	0.002319381	0.001965274
2041	606	484651.7	3754334.4	0.002383308	0.002006268
2041	607	484751.7	3754334.4	0.002455562	0.002052936
2041	608	484851.7	3754334.4	0.002529848	0.002096785
2041	609	484951.7	3754334.4	0.002613682	0.002145331
2041	610	485051.7	3754334.4	0.002708685	0.002199202
2041	611	485151.7	3754334.4	0.002818094	0.002261127
2041	612	485251.7	3754334.4	0.002948876	0.002337852
2041	613	485351.7	3754334.4	0.003105414	0.002433595
2041	614	485451.7	3754334.4	0.003295493	0.002555144
2041	615	484551.7	3754434.4	0.002466948	0.002134251
2041	616	484651.7	3754434.4	0.002513144	0.002157251
2041	617	484751.7	3754434.4	0.00257021	0.002189104

2041	618	484851.7	3754434.4	0.002635733	0.002225749
2041	619	484951.7	3754434.4	0.002715329	0.002272607
2041	620	485051.7	3754434.4	0.002807268	0.002326432
2041	621	485151.7	3754434.4	0.0029154	0.002390492
2041	622	485251.7	3754434.4	0.003043715	0.002468005
2041	623	485351.7	3754434.4	0.00319795	0.002564289
2041	624	485451.7	3754434.4	0.003387155	0.002688871
2041	625	484551.7	3754534.4	0.002641132	0.002327165
2041	626	484651.7	3754534.4	0.002686088	0.002351475
2041	627	484751.7	3754534.4	0.002725027	0.002366095
2041	628	484851.7	3754534.4	0.002773038	0.00238861
2041	629	484951.7	3754534.4	0.002842577	0.002428131
2041	630	485051.7	3754534.4	0.002929537	0.002479577
2041	631	485151.7	3754534.4	0.003035137	0.002543871
2041	632	485251.7	3754534.4	0.003160924	0.002621983
2041	633	485351.7	3754534.4	0.003312481	0.002718463
2041	634	485451.7	3754534.4	0.003505868	0.002848357
2041	635	484551.7	3754634.4	0.002802756	0.00250701
2041	636	484651.7	3754634.4	0.002841798	0.002526934
2041	637	484751.7	3754634.4	0.002899832	0.002564488
2041	638	484851.7	3754634.4	0.002935938	0.002578445
2041	639	484951.7	3754634.4	0.002995686	0.002611829
2041	640	485051.7	3754634.4	0.003077688	0.0026629
2041	641	485151.7	3754634.4	0.00317944	0.002728647
2041	642	485251.7	3754634.4	0.003303422	0.002809311
2041	643	485351.7	3754634.4	0.003456635	0.002910261
2041	644	485451.7	3754634.4	0.0036547	0.003047312
2041	645	484551.7	3754734.4	0.002978054	0.002698924
2041	646	484651.7	3754734.4	0.003018031	0.002722379
2041	647	484751.7	3754734.4	0.003064686	0.002751352
2041	648	484851.7	3754734.4	0.003120789	0.002788199
2041	649	484951.7	3754734.4	0.003188652	0.002833756
2041	650	485051.7	3754734.4	0.003270037	0.002888999
2041	651	485151.7	3754734.4	0.003368486	0.00295669
2041	652	485251.7	3754734.4	0.003490168	0.003042657
2041	653	485351.7	3754734.4	0.003643485	0.0031557
2041	654	485451.7	3754734.4	0.003840616	0.003306472
2041	655	484551.7	3754834.4	0.003242658	0.002979317
2041	656	484651.7	3754834.4	0.003285329	0.003008528
2041	657	484751.7	3754834.4	0.003333217	0.003041133
2041	658	484851.7	3754834.4	0.003388116	0.003078581
2041	659	484951.7	3754834.4	0.003454875	0.003126139
2041	660	485051.7	3754834.4	0.003533567	0.00318294
2041	661	485151.7	3754834.4	0.003631038	0.003255403
2041	662	485251.7	3754834.4	0.003755515	0.003351331
2041	663	485351.7	3754834.4	0.003922464	0.003487445
2041	664	485451.7	3754834.4	0.004140971	0.003671542

2041	665	484551.7	3754934.4	0.003634536	0.00338655
2041	666	484651.7	3754934.4	0.003674978	0.003415274
2041	667	484751.7	3754934.4	0.003720486	0.003447449
2041	668	484851.7	3754934.4	0.003772977	0.003484859
2041	669	484951.7	3754934.4	0.003836569	0.003531869
2041	670	485051.7	3754934.4	0.003910227	0.003586716
2041	671	485151.7	3754934.4	0.004006419	0.003662433
2041	672	485251.7	3754934.4	0.004134273	0.003767131
2041	673	485351.7	3754934.4	0.004333918	0.003942243
2041	674	485451.7	3754934.4	0.004702267	0.004283123
2041	675	484551.7	3755034.4	0.004219462	0.003985179
2041	676	484651.7	3755034.4	0.004255692	0.004011236
2041	677	484751.7	3755034.4	0.004294449	0.004038013
2041	678	484851.7	3755034.4	0.004346369	0.004077414
2041	679	484951.7	3755034.4	0.004407037	0.004123743
2041	680	485051.7	3755034.4	0.004481581	0.004182307
2041	681	485151.7	3755034.4	0.004574177	0.004257259
2041	682	485251.7	3755034.4	0.004703021	0.004367231
2041	683	485351.7	3755034.4	0.004910749	0.004554369
2041	684	485451.7	3755034.4	0.005501719	0.005122284
2041	685	485549.5	3750934.9	0.000381408	0.000286398
2041	686	485649.5	3750934.9	0.000376802	0.00028247
2041	687	485749.5	3750934.9	0.000373905	0.000280085
2041	688	485849.5	3750934.9	0.000369327	0.000276267
2041	689	485549.5	3751034.9	0.000402374	0.000302286
2041	690	485649.5	3751034.9	0.000396166	0.000296938
2041	691	485749.5	3751034.9	0.000393503	0.000294719
2041	692	485849.5	3751034.9	0.000389964	0.000291775
2041	693	485549.5	3751134.9	0.000425468	0.000320068
2041	694	485649.5	3751134.9	0.000418729	0.000314191
2041	695	485749.5	3751134.9	0.000415753	0.000311674
2041	696	485849.5	3751134.9	0.000411351	0.000307938
2041	697	485549.5	3751234.9	0.000452898	0.000341689
2041	698	485649.5	3751234.9	0.000444221	0.000334028
2041	699	485749.5	3751234.9	0.000440756	0.000331036
2041	700	485849.5	3751234.9	0.000439925	0.000330468
2041	701	485549.5	3751334.9	0.000482122	0.000364898
2041	702	485649.5	3751334.9	0.000475505	0.000358979
2041	703	485749.5	3751334.9	0.000470137	0.000354265
2041	704	485849.5	3751334.9	0.000473821	0.00035779
2041	705	485549.5	3751434.9	0.000522869	0.000398477
2041	706	485649.5	3751434.9	0.000518805	0.000394748
2041	707	485749.5	3751434.9	0.000507386	0.00038446
2041	708	485849.5	3751434.9	0.000522982	0.000398924
2041	709	485549.5	3751534.9	0.000654594	0.000514071
2041	710	485649.5	3751534.9	0.000638801	0.000499731
2041	711	485749.5	3751534.9	0.000580121	0.000446876

2041	712	485849.5	3751534.9	0.000569107	0.000437031
2041	713	485549.5	3751634.9	0.001009894	0.000803943
2041	714	485649.5	3751634.9	0.000853953	0.000681468
2041	715	485749.5	3751634.9	0.000795791	0.000633331
2041	716	485849.5	3751634.9	0.00061185	0.000471853
2041	717	485549.5	3751734.9	0.001247554	0.000980651
2041	718	485649.5	3751734.9	0.001192698	0.000943849
2041	719	485749.5	3751734.9	0.001061267	0.000846565
2041	720	485849.5	3751734.9	0.000748065	0.000590538
2041	721	485549.5	3751834.9	0.001423585	0.00112109
2041	722	485649.5	3751834.9	0.001350044	0.001063201
2041	723	485749.5	3751834.9	0.001292025	0.001021026
2041	724	485849.5	3751834.9	0.001103141	0.000882625
2041	725	485549.5	3751934.9	0.001652881	0.001311622
2041	726	485649.5	3751934.9	0.001514799	0.00118527
2041	727	485749.5	3751934.9	0.001473871	0.00115035
2041	728	485849.5	3751934.9	0.001418527	0.001111805
2041	729	485549.5	3752034.9	0.001913952	0.001532891
2041	730	485649.5	3752034.9	0.001679936	0.001308415
2041	731	485749.5	3752034.9	0.001644047	0.001277913
2041	732	485849.5	3752034.9	0.001610713	0.0012578
2041	733	485549.5	3752134.9	0.001969271	0.001556215
2041	734	485649.5	3752134.9	0.00191735	0.001499243
2041	735	485749.5	3752134.9	0.001923089	0.001505909
2041	736	485849.5	3752134.9	0.001935394	0.001527596
2041	737	485549.5	3752234.9	0.002209253	0.001773399
2041	738	485649.5	3752234.9	0.002276635	0.00182918
2041	739	485749.5	3752234.9	0.002368736	0.00191246
2041	740	485849.5	3752234.9	0.002439675	0.001983816
2041	741	485549.5	3752334.9	0.001850101	0.001396992
2041	742	485649.5	3752334.9	0.001895656	0.001424482
2041	743	485749.5	3752334.9	0.001957252	0.00147074
2041	744	485849.5	3752334.9	0.002028742	0.001530912
2041	745	485549.5	3752434.9	0.001794472	0.001324626
2041	746	485649.5	3752434.9	0.00182665	0.001337114
2041	747	485749.5	3752434.9	0.001882293	0.001371805
2041	748	485849.5	3752434.9	0.001954887	0.00142284
2041	749	485549.5	3752534.9	0.001822519	0.00133457
2041	750	485649.5	3752534.9	0.00185133	0.001342231
2041	751	485749.5	3752534.9	0.001907756	0.001375517
2041	752	485849.5	3752534.9	0.001978763	0.001421248
2041	753	485549.5	3752634.9	0.001880855	0.001371813
2041	754	485649.5	3752634.9	0.001910884	0.001379303
2041	755	485749.5	3752634.9	0.001967672	0.001412109
2041	756	485849.5	3752634.9	0.002038557	0.00145584
2041	757	485549.5	3752734.9	0.001953399	0.001422491
2041	758	485649.5	3752734.9	0.001986089	0.001431634

2041	759	485749.5	3752734.9	0.002050619	0.001469412
2041	760	485849.5	3752734.9	0.002129544	0.001517696
2041	761	485549.5	3752834.9	0.002033894	0.001481518
2041	762	485649.5	3752834.9	0.002069403	0.001493384
2041	763	485749.5	3752834.9	0.002143987	0.001539441
2041	764	485849.5	3752834.9	0.00223422	0.001596148
2041	765	485549.5	3752934.9	0.002125289	0.001549419
2041	766	485649.5	3752934.9	0.002162579	0.001563807
2041	767	485749.5	3752934.9	0.002246546	0.00162032
2041	768	485849.5	3752934.9	0.002356775	0.001695749
2041	769	485549.5	3753034.9	0.002242012	0.001638611
2041	770	485649.5	3753034.9	0.00226017	0.001635901
2041	771	485749.5	3753034.9	0.002355235	0.001704743
2041	772	485849.5	3753034.9	0.002493296	0.001811424
2041	773	485549.5	3753134.9	0.002284072	0.001644917
2041	774	485649.5	3753134.9	0.002355896	0.00169816
2041	775	485749.5	3753134.9	0.002457885	0.001778786
2041	776	485849.5	3753134.9	0.002614922	0.001910057
2041	777	485549.5	3753234.9	0.002390153	0.001705256
2041	778	485649.5	3753234.9	0.002465506	0.001764755
2041	779	485749.5	3753234.9	0.002565761	0.001850794
2041	780	485849.5	3753234.9	0.002726467	0.001993194
2041	781	485549.5	3753334.9	0.002552748	0.001807315
2041	782	485649.5	3753334.9	0.002613069	0.001847051
2041	783	485749.5	3753334.9	0.002705472	0.001931871
2041	784	485849.5	3753334.9	0.00285173	0.002074119
2041	785	485549.5	3753434.9	0.002734212	0.001918728
2041	786	485649.5	3753434.9	0.002833638	0.001976921
2041	787	485749.5	3753434.9	0.002943824	0.002069103
2041	788	485849.5	3753434.9	0.003067125	0.00220911
2041	789	485508.5	3746711.3	0.000243354	0.00020122
2041	790	491508.5	3746711.3	0.000169864	0.000140836
2041	791	479508.5	3752711.3	0.000851823	0.000773514
2041	792	485508.5	3752711.3	0.001895189	0.001378055
2041	793	491508.5	3752711.3	0.001567461	0.001036188
2041	794	485508.5	3758711.3	0.00043243	0.000401466
2041	795	491508.5	3758711.3	0.000183346	0.000159375
2041	796	485921.9	3750934.2	0.000365028	0.000272701
2041	797	486021.9	3750934.2	0.000360418	0.000268932
2041	798	486121.9	3750934.2	0.000357923	0.00026707
2041	799	485921.9	3751034.2	0.000384631	0.000287232
2041	800	486021.9	3751034.2	0.000377898	0.000281551
2041	801	486121.9	3751034.2	0.00037402	0.000278405
2041	802	485921.9	3751134.2	0.000406955	0.000304179
2041	803	486021.9	3751134.2	0.000399493	0.000297785
2041	804	486121.9	3751134.2	0.000393681	0.000292847
2041	805	485921.9	3751234.2	0.000432798	0.00032423

2041	806	486021.9	3751234.2	0.000424621	0.00031711
2041	807	486121.9	3751234.2	0.000417409	0.00031087
2041	808	485921.9	3751334.2	0.000464403	0.000349418
2041	809	486021.9	3751334.2	0.000454997	0.000341098
2041	810	486121.9	3751334.2	0.000444613	0.000331926
2041	811	485921.9	3751434.2	0.000507596	0.000385075
2041	812	486021.9	3751434.2	0.0004912	0.000370314
2041	813	486121.9	3751434.2	0.000477666	0.000358177
2041	814	485921.9	3751534.2	0.000553763	0.000423265
2041	815	486021.9	3751534.2	0.000542648	0.000413375
2041	816	486121.9	3751534.2	0.000519194	0.000392079
2041	817	485921.9	3751634.2	0.000593219	0.000455051
2041	818	486021.9	3751634.2	0.000633392	0.000491781
2041	819	486121.9	3751634.2	0.000584532	0.000447697
2041	820	485921.9	3751734.2	0.000679013	0.000528765
2041	821	486021.9	3751734.2	0.000778367	0.000616779
2041	822	486121.9	3751734.2	0.000659997	0.000512079
2041	823	485921.9	3751834.2	0.000866478	0.000691228
2041	824	486021.9	3751834.2	0.000872214	0.000695631
2041	825	486121.9	3751834.2	0.000693402	0.000537748
2041	826	485921.9	3751934.2	0.001294056	0.001034312
2041	827	486021.9	3751934.2	0.001078493	0.000866571
2041	828	486121.9	3751934.2	0.000879039	0.000698955
2041	829	485921.9	3752034.2	0.001535784	0.001210919
2041	830	486021.9	3752034.2	0.001324917	0.001068299
2041	831	486121.9	3752034.2	0.001206381	0.000975352
2041	832	485921.9	3752134.2	0.001953025	0.001557591
2041	833	486021.9	3752134.2	0.001902123	0.001537501
2041	834	486121.9	3752134.2	0.00163049	0.001323345
2041	835	485921.9	3752234.2	0.002480435	0.002033643
2041	836	486021.9	3752234.2	0.002589538	0.00215299
2041	837	486121.9	3752234.2	0.002390124	0.001971573
2041	838	485921.9	3752334.2	0.0020821	0.00157883
2041	839	486021.9	3752334.2	0.002195372	0.001692959
2041	840	486121.9	3752334.2	0.002539709	0.002039301
2041	841	485921.9	3752434.2	0.002021294	0.001478324
2041	842	486021.9	3752434.2	0.002132857	0.001577631
2041	843	486121.9	3752434.2	0.002320376	0.001752716
2041	844	485921.9	3752534.2	0.002044178	0.001466591
2041	845	486021.9	3752534.2	0.00213993	0.001538946
2041	846	486121.9	3752534.2	0.002267798	0.001644881
2041	847	485921.9	3752634.2	0.002097036	0.001494003
2041	848	486021.9	3752634.2	0.002186288	0.001556481
2041	849	486121.9	3752634.2	0.002296269	0.00164047
2041	850	485921.9	3752734.2	0.002191812	0.001557032
2041	851	486021.9	3752734.2	0.002291617	0.001623302
2041	852	486121.9	3752734.2	0.002407619	0.001706739

2041	853	485921.9	3752834.2	0.002309887	0.001643694
2041	854	486021.9	3752834.2	0.002431122	0.001722218
2041	855	486121.9	3752834.2	0.002573458	0.001820611
2041	856	485921.9	3752934.2	0.002446021	0.001755807
2041	857	486021.9	3752934.2	0.002597274	0.001856282
2041	858	486121.9	3752934.2	0.002807017	0.002005958
2041	859	487026.2	3754364	0.009710497	0.00841767
2042	1	489607.4	3753966.1	0.003005338	0.002024868
2042	2	489738.7	3754023.9	0.002663909	0.001858582
2042	3	489668.9	3754093.7	0.002533356	0.001848683
2042	4	489690.1	3754161.6	0.002401322	0.001785056
2042	5	490282.2	3753425.2	0.00354684	0.002476163
2042	6	489797.3	3754554.1	0.001961821	0.001506036
2042	7	490252.9	3754378.2	0.001795272	0.0013542
2042	8	489006	3754140.3	0.004557281	0.003554049
2042	9	485642.8	3754267.3	0.004100126	0.003165087
2042	10	485736.4	3754259.5	0.004521802	0.003497506
2042	11	487189.2	3754820.5	0.010091874	0.00899555
2042	12	487233.1	3754689.5	0.008297948	0.00709333
2042	13	487216.8	3754364.7	0.012644115	0.011429272
2042	14	487388.8	3754380.1	0.009543453	0.008421717
2042	15	484625	3751748	0.001234098	0.000953633
2042	16	483279	3751798	0.00092791	0.000727788
2042	17	483231	3751205	0.000825023	0.000648303
2042	18	480165	3750195	0.000624023	0.000534263
2042	19	481211	3749473	0.000563464	0.000463935
2042	20	481867	3752785	0.000944174	0.00080302
2042	21	480678	3751306	0.000678202	0.000572995
2042	22	479989	3752645	0.0008108	0.000723565
2042	23	479889	3756222	0.001134397	0.001082257
2042	24	479234	3757080	0.000547074	0.000509408
2042	25	480276	3756365	0.000922189	0.000872234
2042	26	479887	3754007	0.001055189	0.0009793
2042	27	480772	3755009	0.002233887	0.002151236
2042	28	481560	3754548	0.001674262	0.001568972
2042	29	481845	3754457	0.001689894	0.001574936
2042	30	481754	3753876	0.001207659	0.001084719
2042	31	489635.2	3750663.8	0.000459906	0.000350302
2042	32	485424.1	3747672.3	0.000299065	0.000242834
2042	33	482657.6	3753975.1	0.00143028	0.00126862
2042	34	481495	3754633.7	0.001756784	0.001654574
2042	35	481148.7	3756136.2	0.001267021	0.001204873
2042	36	482346.5	3748872.9	0.000232626	0.0001823
2042	37	480299	3751198	0.000660146	0.000563128
2042	38	479598.7	3756506.3	0.000867936	0.000821002
2042	39	478997.8	3753535.2	0.001183188	0.001116459
2042	40	478978.3	3755233.1	0.003560174	0.003496442

2042	41	479197.3	3754462.3	0.001567936	0.001503431
2042	42	479493.3	3752408.8	0.000823625	0.000743943
2042	43	480295.4	3752408.4	0.000785911	0.00069107
2042	44	480287.9	3754227.5	0.001156285	0.001075163
2042	45	494397.4	3753977.6	0.000725748	0.000586299
2042	46	481108.5	3750699	0.000665979	0.000556029
2042	47	486794.1	3756878	0.000672299	0.000603662
2042	48	482345	3752065.8	0.000894428	0.00073282
2042	49	487553	3745938.3	0.000182569	0.000153648
2042	50	484553	3746938.3	0.000241564	0.000198588
2042	51	485553	3746938.3	0.000253608	0.000208967
2042	52	486553	3746938.3	0.000202023	0.000171399
2042	53	487553	3746938.3	0.000222575	0.000184427
2042	54	488553	3746938.3	0.000202874	0.000169034
2042	55	489553	3746938.3	0.000200449	0.000165706
2042	56	490553	3746938.3	0.000184072	0.000152596
2042	57	491553	3746938.3	0.000175157	0.000144868
2042	58	492553	3746938.3	0.000168435	0.000139086
2042	59	482553	3747938.3	0.000212152	0.000168924
2042	60	483553	3747938.3	0.000354356	0.000283347
2042	61	484553	3747938.3	0.000337484	0.000271086
2042	62	485553	3747938.3	0.00031492	0.000254433
2042	63	486553	3747938.3	0.000293122	0.000240154
2042	64	487553	3747938.3	0.000187394	0.00015797
2042	65	488553	3747938.3	0.000244456	0.00020091
2042	66	489553	3747938.3	0.000229533	0.000188645
2042	67	490553	3747938.3	0.000216089	0.00017724
2042	68	491553	3747938.3	0.000204979	0.000167532
2042	69	492553	3747938.3	0.000196066	0.0001598
2042	70	493553	3747938.3	0.000189683	0.000154526
2042	71	481553	3748938.3	0.000477258	0.000381585
2042	72	482553	3748938.3	0.000243557	0.000191236
2042	73	483553	3748938.3	0.000407565	0.000324862
2042	74	484553	3748938.3	0.000427488	0.000337876
2042	75	485553	3748938.3	0.000407619	0.000323715
2042	76	486553	3748938.3	0.000377647	0.000302446
2042	77	487553	3748938.3	0.000296439	0.000248158
2042	78	488553	3748938.3	0.000304282	0.000245516
2042	79	489553	3748938.3	0.000279574	0.000226405
2042	80	490553	3748938.3	0.000262247	0.000211584
2042	81	491553	3748938.3	0.00024669	0.000198356
2042	82	492553	3748938.3	0.000236251	0.00018921
2042	83	493553	3748938.3	0.000233243	0.000187063
2042	84	494553	3748938.3	0.00030144	0.000256321
2042	85	480553	3749938.3	0.000738525	0.00064574
2042	86	481553	3749938.3	0.000643016	0.000527037
2042	87	482553	3749938.3	0.000627525	0.000501042

2042	88	483553	3749938.3	0.000616276	0.000485716
2042	89	484553	3749938.3	0.000451724	0.000357484
2042	90	485553	3749938.3	0.000369763	0.000294132
2042	91	486553	3749938.3	0.00043767	0.000354462
2042	92	487553	3749938.3	0.000458427	0.000362341
2042	93	488553	3749938.3	0.000397964	0.000312339
2042	94	489553	3749938.3	0.00036174	0.000285053
2042	95	490553	3749938.3	0.000334027	0.000262435
2042	96	491553	3749938.3	0.000313074	0.00024466
2042	97	492553	3749938.3	0.000304898	0.000237148
2042	98	493553	3749938.3	0.000341455	0.00027118
2042	99	494553	3749938.3	0.000287451	0.000218146
2042	100	495553	3749938.3	0.000228161	0.000188337
2042	101	480553	3750938.3	0.000646363	0.000545317
2042	102	481553	3750938.3	0.000695371	0.000573577
2042	103	482553	3750938.3	0.000755391	0.000607747
2042	104	483553	3750938.3	0.000868914	0.000689323
2042	105	484553	3750938.3	0.000863038	0.000673992
2042	106	485553	3750938.3	0.000381804	0.000286657
2042	107	486553	3750938.3	0.000352273	0.000265001
2042	108	487553	3750938.3	0.000551668	0.000438674
2042	109	488553	3750938.3	0.000597203	0.000442398
2042	110	489553	3750938.3	0.000524571	0.000391487
2042	111	490553	3750938.3	0.000468271	0.000349838
2042	112	491553	3750938.3	0.00043614	0.000323869
2042	113	492553	3750938.3	0.000490154	0.000375303
2042	114	493553	3750938.3	0.000424692	0.000311663
2042	115	494553	3750938.3	0.000411569	0.000305844
2042	116	495553	3750938.3	0.000383874	0.000298329
2042	117	479553	3751938.3	0.000760661	0.00067789
2042	118	480553	3751938.3	0.000747192	0.000644871
2042	119	481553	3751938.3	0.000789246	0.000659741
2042	120	482553	3751938.3	0.000876139	0.000706882
2042	121	483553	3751938.3	0.00100534	0.000784025
2042	122	484553	3751938.3	0.00119653	0.000910504
2042	123	485553	3751938.3	0.001652386	0.001310076
2042	124	486553	3751938.3	0.000677518	0.000518984
2042	125	487553	3751938.3	0.0010938	0.00085464
2042	126	488553	3751938.3	0.00117449	0.000795388
2042	127	489553	3751938.3	0.001068619	0.000702555
2042	128	490553	3751938.3	0.000896855	0.000589903
2042	129	491553	3751938.3	0.000929406	0.000648649
2042	130	492553	3751938.3	0.000742622	0.000479676
2042	131	493553	3751938.3	0.000665304	0.000493868
2042	132	494553	3751938.3	0.000613824	0.000458547
2042	133	495553	3751938.3	0.000540945	0.000414249
2042	134	479553	3752938.3	0.000919753	0.000842083

2042	135	480553	3752938.3	0.000917948	0.00082014
2042	136	481553	3752938.3	0.000989982	0.000862685
2042	137	482553	3752938.3	0.001120124	0.000945069
2042	138	483553	3752938.3	0.001288046	0.001036158
2042	139	484553	3752938.3	0.00160562	0.001206286
2042	140	485553	3752938.3	0.002127435	0.001549907
2042	141	486553	3752938.3	0.004197908	0.00330725
2042	142	487553	3752938.3	0.004624128	0.003486353
2042	143	488553	3752938.3	0.004121289	0.003017912
2042	144	489553	3752938.3	0.003759956	0.002743019
2042	145	490553	3752938.3	0.003118444	0.002239126
2042	146	491553	3752938.3	0.001615505	0.001121584
2042	147	492553	3752938.3	0.001228605	0.000804777
2042	148	493553	3752938.3	0.000998658	0.000713483
2042	149	494553	3752938.3	0.000851242	0.000635835
2042	150	495553	3752938.3	0.000685581	0.000530474
2042	151	479553	3753938.3	0.001056648	0.000985336
2042	152	480553	3753938.3	0.001065631	0.000976785
2042	153	481553	3753938.3	0.001210442	0.00109536
2042	154	482553	3753938.3	0.001382839	0.001225984
2042	155	483553	3753938.3	0.001739126	0.001518375
2042	156	484553	3753938.3	0.002062736	0.001657532
2042	157	485553	3753938.3	0.003328033	0.002399635
2042	158	486553	3753938.3	0.00587771	0.004415519
2042	159	487553	3753938.3	0.006449908	0.005269006
2042	160	488553	3753938.3	0.005707975	0.004366261
2042	161	489553	3753938.3	0.003208337	0.002146419
2042	162	490553	3753938.3	0.001856303	0.001363774
2042	163	491553	3753938.3	0.001295453	0.001010088
2042	164	492553	3753938.3	0.001062803	0.000839688
2042	165	493553	3753938.3	0.000869399	0.000695423
2042	166	494553	3753938.3	0.000790045	0.0006368
2042	167	495553	3753938.3	0.000616134	0.000500931
2042	168	479553	3754938.3	0.001879019	0.001812246
2042	169	480553	3754938.3	0.002003114	0.001923237
2042	170	481553	3754938.3	0.002294445	0.002195577
2042	171	482553	3754938.3	0.00335287	0.003226354
2042	172	483553	3754938.3	0.00368581	0.003520762
2042	173	484553	3754938.3	0.003653175	0.003405562
2042	174	485553	3754938.3	0.005300037	0.004852217
2042	175	486553	3754938.3	0.007308372	0.006652972
2042	176	487553	3754938.3	0.0062339	0.005368797
2042	177	488553	3754938.3	0.003502589	0.002902681
2042	178	489553	3754938.3	0.002195006	0.001888802
2042	179	490553	3754938.3	0.001462739	0.001284618
2042	180	491553	3754938.3	0.000961313	0.000837579
2042	181	492553	3754938.3	0.00069004	0.000593919

2042	182	493553	3754938.3	0.000697621	0.000605986
2042	183	494553	3754938.3	0.000530786	0.000457223
2042	184	495553	3754938.3	0.0004455	0.000382642
2042	185	479553	3755938.3	0.001890688	0.001833685
2042	186	480553	3755938.3	0.001584961	0.001523412
2042	187	481553	3755938.3	0.001605812	0.001537024
2042	188	482553	3755938.3	0.002296043	0.002205008
2042	189	483553	3755938.3	0.002411683	0.002302912
2042	190	484553	3755938.3	0.002292656	0.002159919
2042	191	485553	3755938.3	0.003236686	0.003072111
2042	192	486553	3755938.3	0.002616244	0.002439538
2042	193	487553	3755938.3	0.001445759	0.001334041
2042	194	488553	3755938.3	0.00100995	0.000921686
2042	195	489553	3755938.3	0.000692157	0.000624987
2042	196	490553	3755938.3	0.000572999	0.000515125
2042	197	491553	3755938.3	0.000472248	0.000422692
2042	198	492553	3755938.3	0.000572246	0.000526197
2042	199	493553	3755938.3	0.000419577	0.000378874
2042	200	494553	3755938.3	0.000403112	0.000365151
2042	201	479553	3756938.3	0.000573374	0.000534622
2042	202	480553	3756938.3	0.000548895	0.000508986
2042	203	481553	3756938.3	0.000495782	0.000457683
2042	204	482553	3756938.3	0.00051746	0.000475038
2042	205	483553	3756938.3	0.000872637	0.000803056
2042	206	484553	3756938.3	0.00084184	0.000766684
2042	207	485553	3756938.3	0.001827111	0.001750147
2042	208	486553	3756938.3	0.000695643	0.000626292
2042	209	487553	3756938.3	0.00045769	0.000405552
2042	210	488553	3756938.3	0.000371244	0.000326038
2042	211	489553	3756938.3	0.000325199	0.000284817
2042	212	490553	3756938.3	0.000297106	0.000260157
2042	213	491553	3756938.3	0.000259743	0.000227122
2042	214	492553	3756938.3	0.00023137	0.000202437
2042	215	493553	3756938.3	0.000245885	0.000217978
2042	216	494553	3756938.3	0.000238675	0.000212418
2042	217	479553	3757938.3	0.000288328	0.000263889
2042	218	480553	3757938.3	0.000276024	0.000251565
2042	219	481553	3757938.3	0.00029157	0.000263898
2042	220	482553	3757938.3	0.000360656	0.000323934
2042	221	483553	3757938.3	0.000353692	0.000315771
2042	222	484553	3757938.3	0.000465686	0.000418696
2042	223	485553	3757938.3	0.000539591	0.000498787
2042	224	486553	3757938.3	0.000322692	0.00028524
2042	225	487553	3757938.3	0.000263808	0.000230199
2042	226	488553	3757938.3	0.00023161	0.000200905
2042	227	489553	3757938.3	0.000213728	0.000184893
2042	228	490553	3757938.3	0.000195439	0.000168934

2042	229	491553	3757938.3	0.000179074	0.000154599
2042	230	492553	3757938.3	0.000171933	0.000148988
2042	231	493553	3757938.3	0.000190686	0.000166992
2042	232	480553	3758938.3	0.000207166	0.000186495
2042	233	481553	3758938.3	0.000231101	0.000206373
2042	234	482553	3758938.3	0.000225123	0.000199414
2042	235	483553	3758938.3	0.000236025	0.000208208
2042	236	484553	3758938.3	0.00029534	0.000264183
2042	237	485553	3758938.3	0.000685858	0.00065257
2042	238	486553	3758938.3	0.000223329	0.000196708
2042	239	487553	3758938.3	0.000245191	0.000215841
2042	240	488553	3758938.3	0.000182051	0.000158491
2042	241	489553	3758938.3	0.000184564	0.000160754
2042	242	490553	3758938.3	0.000201511	0.000175347
2042	243	491553	3758938.3	0.00016388	0.000142275
2042	244	492553	3758938.3	0.000170507	0.000148228
2042	245	481553	3759938.3	0.000170999	0.000151817
2042	246	482553	3759938.3	0.000176464	0.000155607
2042	247	483553	3759938.3	0.000186986	0.000164671
2042	248	484553	3759938.3	0.000260077	0.000232294
2042	249	485553	3759938.3	0.000678447	0.000644739
2042	250	486553	3759938.3	0.00032149	0.00028742
2042	251	487553	3759938.3	0.000262256	0.000232114
2042	252	488553	3759938.3	0.000261735	0.000229806
2042	253	489553	3759938.3	0.000226817	0.000197994
2042	254	490553	3759938.3	0.000175373	0.000153105
2042	255	491553	3759938.3	0.000152834	0.000133041
2042	256	482553	3760938.3	0.000166449	0.000146921
2042	257	483553	3760938.3	0.000192501	0.000170624
2042	258	484553	3760938.3	0.000245855	0.00022007
2042	259	485553	3760938.3	0.000558289	0.000524197
2042	260	486553	3760938.3	0.00036625	0.000329826
2042	261	487553	3760938.3	0.000292034	0.000262292
2042	262	488553	3760938.3	0.000166389	0.000147291
2042	263	489553	3760938.3	0.000126207	0.000110586
2042	264	490553	3760938.3	0.000120723	0.000105368
2042	265	484551.7	3750934.4	0.00085781	0.000670964
2042	266	484651.7	3750934.4	0.00084689	0.000662861
2042	267	484751.7	3750934.4	0.000647301	0.000513036
2042	268	484851.7	3750934.4	0.000593984	0.000470956
2042	269	484951.7	3750934.4	0.000627812	0.00049677
2042	270	485051.7	3750934.4	0.00056273	0.000444998
2042	271	485151.7	3750934.4	0.000468565	0.000364323
2042	272	485251.7	3750934.4	0.000412708	0.000314147
2042	273	485351.7	3750934.4	0.000396894	0.000299953
2042	274	485451.7	3750934.4	0.0003885	0.00029256
2042	275	484551.7	3751034.4	0.00091639	0.000709662

2042	276	484651.7	3751034.4	0.00090406	0.000701219
2042	277	484751.7	3751034.4	0.000849246	0.000669214
2042	278	484851.7	3751034.4	0.000672371	0.0005324
2042	279	484951.7	3751034.4	0.000747061	0.000589409
2042	280	485051.7	3751034.4	0.00062661	0.000495875
2042	281	485151.7	3751034.4	0.000543262	0.000427368
2042	282	485251.7	3751034.4	0.000462049	0.000355854
2042	283	485351.7	3751034.4	0.000426744	0.000324007
2042	284	485451.7	3751034.4	0.000411431	0.000310272
2042	285	484551.7	3751134.4	0.000962674	0.000742171
2042	286	484651.7	3751134.4	0.000960568	0.000738894
2042	287	484751.7	3751134.4	0.000948044	0.000731807
2042	288	484851.7	3751134.4	0.000856235	0.000678417
2042	289	484951.7	3751134.4	0.000877054	0.000690184
2042	290	485051.7	3751134.4	0.00072305	0.000571168
2042	291	485151.7	3751134.4	0.000641733	0.000507903
2042	292	485251.7	3751134.4	0.000555085	0.000435731
2042	293	485351.7	3751134.4	0.000472087	0.000362072
2042	294	485451.7	3751134.4	0.000438092	0.000331327
2042	295	484551.7	3751234.4	0.001010266	0.000778358
2042	296	484651.7	3751234.4	0.001010341	0.000775898
2042	297	484751.7	3751234.4	0.001002462	0.00077203
2042	298	484851.7	3751234.4	0.000974393	0.000757209
2042	299	484951.7	3751234.4	0.000948845	0.000742007
2042	300	485051.7	3751234.4	0.00085298	0.000675077
2042	301	485151.7	3751234.4	0.000719612	0.000570026
2042	302	485251.7	3751234.4	0.000543351	0.000423307
2042	303	485351.7	3751234.4	0.00048047	0.000366617
2042	304	485451.7	3751234.4	0.000461442	0.000349354
2042	305	484551.7	3751334.4	0.001081053	0.000835602
2042	306	484651.7	3751334.4	0.001073192	0.000827108
2042	307	484751.7	3751334.4	0.001061106	0.000819641
2042	308	484851.7	3751334.4	0.001046072	0.000810269
2042	309	484951.7	3751334.4	0.00103785	0.000803428
2042	310	485051.7	3751334.4	0.000995324	0.000779379
2042	311	485151.7	3751334.4	0.000842305	0.000666826
2042	312	485251.7	3751334.4	0.00066315	0.000525565
2042	313	485351.7	3751334.4	0.000522765	0.000401953
2042	314	485451.7	3751334.4	0.00048902	0.000371194
2042	315	484551.7	3751434.4	0.001195871	0.000941044
2042	316	484651.7	3751434.4	0.001163768	0.000905728
2042	317	484751.7	3751434.4	0.001144393	0.000885781
2042	318	484851.7	3751434.4	0.00113107	0.000873877
2042	319	484951.7	3751434.4	0.001120277	0.000865319
2042	320	485051.7	3751434.4	0.00110667	0.000855016
2042	321	485151.7	3751434.4	0.00099371	0.000789774
2042	322	485251.7	3751434.4	0.000773905	0.00061681

2042	323	485351.7	3751434.4	0.000608583	0.00047649
2042	324	485451.7	3751434.4	0.00054169	0.000415823
2042	325	484551.7	3751534.4	0.001456143	0.001194651
2042	326	484651.7	3751534.4	0.001349409	0.001081237
2042	327	484751.7	3751534.4	0.001270368	0.000997498
2042	328	484851.7	3751534.4	0.001233975	0.000958587
2042	329	484951.7	3751534.4	0.001216508	0.000938945
2042	330	485051.7	3751534.4	0.00120715	0.000926978
2042	331	485151.7	3751534.4	0.001192785	0.000916086
2042	332	485251.7	3751534.4	0.001082089	0.00085507
2042	333	485351.7	3751534.4	0.000865048	0.000689985
2042	334	485451.7	3751534.4	0.000715318	0.00056769
2042	335	484551.7	3751634.4	0.001348616	0.00108066
2042	336	484651.7	3751634.4	0.001389714	0.001114828
2042	337	484751.7	3751634.4	0.001432773	0.001150223
2042	338	484851.7	3751634.4	0.001460119	0.001172175
2042	339	484951.7	3751634.4	0.001360079	0.001067802
2042	340	485051.7	3751634.4	0.001317314	0.001020951
2042	341	485151.7	3751634.4	0.001301717	0.00100178
2042	342	485251.7	3751634.4	0.00126963	0.000980559
2042	343	485351.7	3751634.4	0.001209076	0.000942354
2042	344	485451.7	3751634.4	0.001103471	0.000878023
2042	345	484551.7	3751734.4	0.00119826	0.000925036
2042	346	484651.7	3751734.4	0.001264518	0.00098234
2042	347	484751.7	3751734.4	0.001369029	0.001078914
2042	348	484851.7	3751734.4	0.001502342	0.001205645
2042	349	484951.7	3751734.4	0.001504911	0.00120346
2042	350	485051.7	3751734.4	0.001637929	0.001331229
2042	351	485151.7	3751734.4	0.001489861	0.001175256
2042	352	485251.7	3751734.4	0.001448465	0.001130981
2042	353	485351.7	3751734.4	0.001395598	0.00108578
2042	354	485451.7	3751734.4	0.001321168	0.001028942
2042	355	484551.7	3751834.4	0.001178528	0.000900498
2042	356	484651.7	3751834.4	0.001216232	0.000929544
2042	357	484751.7	3751834.4	0.001259795	0.000964382
2042	358	484851.7	3751834.4	0.001311587	0.001008227
2042	359	484951.7	3751834.4	0.001376602	0.001067296
2042	360	485051.7	3751834.4	0.001520517	0.001203986
2042	361	485151.7	3751834.4	0.001542038	0.001214307
2042	362	485251.7	3751834.4	0.001632191	0.001296729
2042	363	485351.7	3751834.4	0.001647723	0.001312326
2042	364	485451.7	3751834.4	0.00164466	0.001317141
2042	365	484551.7	3751934.4	0.001194952	0.000909391
2042	366	484651.7	3751934.4	0.001221364	0.000928327
2042	367	484751.7	3751934.4	0.001248195	0.00094805
2042	368	484851.7	3751934.4	0.001281837	0.000973346
2042	369	484951.7	3751934.4	0.001318899	0.001002103

2042	370	485051.7	3751934.4	0.001366238	0.001039846
2042	371	485151.7	3751934.4	0.001426081	0.001088516
2042	372	485251.7	3751934.4	0.00150841	0.001158113
2042	373	485351.7	3751934.4	0.001627079	0.001268813
2042	374	485451.7	3751934.4	0.001700973	0.001347094
2042	375	484551.7	3752034.4	0.00123658	0.000940967
2042	376	484651.7	3752034.4	0.001259397	0.000956388
2042	377	484751.7	3752034.4	0.001283978	0.000973366
2042	378	484851.7	3752034.4	0.001310027	0.000991611
2042	379	484951.7	3752034.4	0.001342007	0.001014467
2042	380	485051.7	3752034.4	0.001380379	0.001042355
2042	381	485151.7	3752034.4	0.001427179	0.001077177
2042	382	485251.7	3752034.4	0.001494628	0.001130077
2042	383	485351.7	3752034.4	0.001585696	0.001209182
2042	384	485451.7	3752034.4	0.001797931	0.001414264
2042	385	484551.7	3752134.4	0.001309768	0.001003584
2042	386	484651.7	3752134.4	0.00133143	0.001017358
2042	387	484751.7	3752134.4	0.001355632	0.00103318
2042	388	484851.7	3752134.4	0.001380202	0.001049316
2042	389	484951.7	3752134.4	0.001407388	0.001067564
2042	390	485051.7	3752134.4	0.001440843	0.001090734
2042	391	485151.7	3752134.4	0.001481643	0.001119932
2042	392	485251.7	3752134.4	0.001541168	0.001164836
2042	393	485351.7	3752134.4	0.00163458	0.001242518
2042	394	485451.7	3752134.4	0.00184928	0.001444735
2042	395	484551.7	3752234.4	0.00144234	0.001126349
2042	396	484651.7	3752234.4	0.001473627	0.001148329
2042	397	484751.7	3752234.4	0.001496568	0.00116218
2042	398	484851.7	3752234.4	0.001516013	0.001172452
2042	399	484951.7	3752234.4	0.00161539	0.001262436
2042	400	485051.7	3752234.4	0.001568001	0.00120522
2042	401	485151.7	3752234.4	0.001609817	0.001236612
2042	402	485251.7	3752234.4	0.001656023	0.001268681
2042	403	485351.7	3752234.4	0.001744825	0.001340437
2042	404	485451.7	3752234.4	0.002006212	0.001585117
2042	405	484551.7	3752334.4	0.00137642	0.001048293
2042	406	484651.7	3752334.4	0.001402623	0.001064916
2042	407	484751.7	3752334.4	0.001428874	0.001081665
2042	408	484851.7	3752334.4	0.001456068	0.001099205
2042	409	484951.7	3752334.4	0.001486183	0.001118959
2042	410	485051.7	3752334.4	0.001516782	0.001139289
2042	411	485151.7	3752334.4	0.001552645	0.001163754
2042	412	485251.7	3752334.4	0.001594992	0.001193738
2042	413	485351.7	3752334.4	0.001653852	0.001237788
2042	414	485451.7	3752334.4	0.001757089	0.001322574
2042	415	484551.7	3752434.4	0.001374057	0.001033906
2042	416	484651.7	3752434.4	0.001400675	0.00105041

2042	417	484751.7	3752434.4	0.001426966	0.001066937
2042	418	484851.7	3752434.4	0.001458117	0.001086799
2042	419	484951.7	3752434.4	0.001488964	0.001106788
2042	420	485051.7	3752434.4	0.001522938	0.001129194
2042	421	485151.7	3752434.4	0.001560259	0.001154198
2042	422	485251.7	3752434.4	0.001601804	0.001182746
2042	423	485351.7	3752434.4	0.001653242	0.001219379
2042	424	485451.7	3752434.4	0.001729627	0.001279192
2042	425	484551.7	3752534.4	0.001401819	0.001049316
2042	426	484651.7	3752534.4	0.001429809	0.001066429
2042	427	484751.7	3752534.4	0.001459488	0.001084859
2042	428	484851.7	3752534.4	0.001491713	0.001105178
2042	429	484951.7	3752534.4	0.00152427	0.00112611
2042	430	485051.7	3752534.4	0.001560829	0.001149939
2042	431	485151.7	3752534.4	0.001599872	0.001175854
2042	432	485251.7	3752534.4	0.001641838	0.001204362
2042	433	485351.7	3752534.4	0.001690709	0.001238524
2042	434	485451.7	3752534.4	0.00176205	0.001293077
2042	435	484551.7	3752634.4	0.001438541	0.001074066
2042	436	484651.7	3752634.4	0.001468059	0.001091822
2042	437	484751.7	3752634.4	0.001499137	0.001110847
2042	438	484851.7	3752634.4	0.001535217	0.00113325
2042	439	484951.7	3752634.4	0.001570908	0.001155938
2042	440	485051.7	3752634.4	0.001610282	0.001181404
2042	441	485151.7	3752634.4	0.001651377	0.001208572
2042	442	485251.7	3752634.4	0.001695229	0.001238247
2042	443	485351.7	3752634.4	0.001745409	0.001273186
2042	444	485451.7	3752634.4	0.001817814	0.001327956
2042	445	484551.7	3752734.4	0.001483352	0.001106832
2042	446	484651.7	3752734.4	0.001516186	0.001126096
2042	447	484751.7	3752734.4	0.001550521	0.001146678
2042	448	484851.7	3752734.4	0.001587292	0.00116924
2042	449	484951.7	3752734.4	0.001626016	0.001193528
2042	450	485051.7	3752734.4	0.001668241	0.001220643
2042	451	485151.7	3752734.4	0.001711712	0.001249267
2042	452	485251.7	3752734.4	0.00175782	0.001280463
2042	453	485351.7	3752734.4	0.001810408	0.001317086
2042	454	485451.7	3752734.4	0.001882636	0.001372065
2042	455	484551.7	3752834.4	0.001534456	0.001146596
2042	456	484651.7	3752834.4	0.001570243	0.001166992
2042	457	484751.7	3752834.4	0.001606119	0.001187866
2042	458	484851.7	3752834.4	0.001647252	0.001212626
2042	459	484951.7	3752834.4	0.001689701	0.001238761
2042	460	485051.7	3752834.4	0.001734221	0.001266916
2042	461	485151.7	3752834.4	0.001780125	0.001296864
2042	462	485251.7	3752834.4	0.001829099	0.001329854
2042	463	485351.7	3752834.4	0.001882997	0.001367863

2042	464	485451.7	3752834.4	0.001957854	0.001425333
2042	465	484551.7	3752934.4	0.001601751	0.001203046
2042	466	484651.7	3752934.4	0.00164048	0.00122451
2042	467	484751.7	3752934.4	0.001679838	0.001246691
2042	468	484851.7	3752934.4	0.001724112	0.001272555
2042	469	484951.7	3752934.4	0.001770055	0.001300051
2042	470	485051.7	3752934.4	0.001818983	0.001330259
2042	471	485151.7	3752934.4	0.00186735	0.001361117
2042	472	485251.7	3752934.4	0.001920264	0.00139627
2042	473	485351.7	3752934.4	0.001973824	0.001433845
2042	474	485451.7	3752934.4	0.002047133	0.001490124
2042	475	484551.7	3753034.4	0.001715618	0.001307625
2042	476	484651.7	3753034.4	0.00176227	0.001335261
2042	477	484751.7	3753034.4	0.001814456	0.001367484
2042	478	484851.7	3753034.4	0.001855514	0.001387618
2042	479	484951.7	3753034.4	0.001903049	0.001414056
2042	480	485051.7	3753034.4	0.00195553	0.001445755
2042	481	485151.7	3753034.4	0.002014561	0.001483999
2042	482	485251.7	3753034.4	0.002115233	0.001564722
2042	483	485351.7	3753034.4	0.002120727	0.001552771
2042	484	485451.7	3753034.4	0.002181446	0.001596507
2042	485	484551.7	3753134.4	0.001687332	0.001270859
2042	486	484651.7	3753134.4	0.00173429	0.001296449
2042	487	484751.7	3753134.4	0.001785371	0.001324848
2042	488	484851.7	3753134.4	0.001837625	0.00135412
2042	489	484951.7	3753134.4	0.001893722	0.001386283
2042	490	485051.7	3753134.4	0.001952738	0.00142104
2042	491	485151.7	3753134.4	0.002013623	0.001457896
2042	492	485251.7	3753134.4	0.002078831	0.001499391
2042	493	485351.7	3753134.4	0.002146062	0.001544987
2042	494	485451.7	3753134.4	0.002226377	0.001605705
2042	495	484551.7	3753234.4	0.001710402	0.001286521
2042	496	484651.7	3753234.4	0.001761812	0.001314088
2042	497	484751.7	3753234.4	0.001815975	0.001343414
2042	498	484851.7	3753234.4	0.001873055	0.001374714
2042	499	484951.7	3753234.4	0.001934588	0.001409086
2042	500	485051.7	3753234.4	0.002000977	0.001447239
2042	501	485151.7	3753234.4	0.002070191	0.001487989
2042	502	485251.7	3753234.4	0.00214474	0.001533638
2042	503	485351.7	3753234.4	0.002223326	0.001584671
2042	504	485451.7	3753234.4	0.00231898	0.00165487
2042	505	484551.7	3753334.4	0.001749836	0.001319961
2042	506	484651.7	3753334.4	0.001804365	0.001348842
2042	507	484751.7	3753334.4	0.001861251	0.001378912
2042	508	484851.7	3753334.4	0.001925027	0.001413483
2042	509	484951.7	3753334.4	0.001990743	0.00144911
2042	510	485051.7	3753334.4	0.002063278	0.001489422

2042	511	485151.7	3753334.4	0.002141295	0.001533966
2042	512	485251.7	3753334.4	0.002229989	0.001586604
2042	513	485351.7	3753334.4	0.002326635	0.001646844
2042	514	485451.7	3753334.4	0.002441918	0.0017269
2042	515	484551.7	3753434.4	0.001791726	0.001359032
2042	516	484651.7	3753434.4	0.001848842	0.001389154
2042	517	484751.7	3753434.4	0.001909309	0.001420715
2042	518	484851.7	3753434.4	0.001977124	0.00145699
2042	519	484951.7	3753434.4	0.002048261	0.001494284
2042	520	485051.7	3753434.4	0.002126433	0.001536252
2042	521	485151.7	3753434.4	0.002215529	0.001586236
2042	522	485251.7	3753434.4	0.002317732	0.001645499
2042	523	485351.7	3753434.4	0.002433163	0.001715569
2042	524	485451.7	3753434.4	0.00258071	0.00181406
2042	525	484551.7	3753534.4	0.001834271	0.001401772
2042	526	484651.7	3753534.4	0.001889351	0.001429249
2042	527	484751.7	3753534.4	0.001951536	0.001461171
2042	528	484851.7	3753534.4	0.002026173	0.001502069
2042	529	484951.7	3753534.4	0.00210231	0.001542131
2042	530	485051.7	3753534.4	0.002186094	0.001586561
2042	531	485151.7	3753534.4	0.00228372	0.001640541
2042	532	485251.7	3753534.4	0.002397312	0.001705771
2042	533	485351.7	3753534.4	0.00253218	0.001786736
2042	534	485451.7	3753534.4	0.002708557	0.001902665
2042	535	484551.7	3753634.4	0.001877063	0.001447138
2042	536	484651.7	3753634.4	0.001934776	0.001476223
2042	537	484751.7	3753634.4	0.002000177	0.001510122
2042	538	484851.7	3753634.4	0.002073708	0.001548936
2042	539	484951.7	3753634.4	0.002154732	0.001591924
2042	540	485051.7	3753634.4	0.002243852	0.001639563
2042	541	485151.7	3753634.4	0.002346954	0.001696693
2042	542	485251.7	3753634.4	0.002467347	0.001766469
2042	543	485351.7	3753634.4	0.002608998	0.001852946
2042	544	485451.7	3753634.4	0.002796159	0.001980042
2042	545	484551.7	3753734.4	0.001934299	0.001509715
2042	546	484651.7	3753734.4	0.001991163	0.001537158
2042	547	484751.7	3753734.4	0.00205413	0.001567525
2042	548	484851.7	3753734.4	0.002123749	0.001601175
2042	549	484951.7	3753734.4	0.0022069	0.001644798
2042	550	485051.7	3753734.4	0.002301359	0.001695531
2042	551	485151.7	3753734.4	0.002408853	0.001754781
2042	552	485251.7	3753734.4	0.002533232	0.001826116
2042	553	485351.7	3753734.4	0.002681382	0.001916507
2042	554	485451.7	3753734.4	0.002875536	0.002049607
2042	555	484551.7	3753834.4	0.001993158	0.001576913
2042	556	484651.7	3753834.4	0.002047351	0.001601491
2042	557	484751.7	3753834.4	0.002110471	0.001631739

2042	558	484851.7	3753834.4	0.002181027	0.001665539
2042	559	484951.7	3753834.4	0.002265921	0.001709602
2042	560	485051.7	3753834.4	0.002359809	0.001757485
2042	561	485151.7	3753834.4	0.002468271	0.001814695
2042	562	485251.7	3753834.4	0.002599845	0.001889462
2042	563	485351.7	3753834.4	0.00275538	0.001982722
2042	564	485451.7	3753834.4	0.002959871	0.002119668
2042	565	484551.7	3753934.4	0.002057964	0.001652498
2042	566	484651.7	3753934.4	0.002115125	0.00168019
2042	567	484751.7	3753934.4	0.00216924	0.001700941
2042	568	484851.7	3753934.4	0.002241081	0.001736206
2042	569	484951.7	3753934.4	0.002325125	0.001779229
2042	570	485051.7	3753934.4	0.002421929	0.001829895
2042	571	485151.7	3753934.4	0.002533649	0.001889484
2042	572	485251.7	3753934.4	0.002665218	0.001962212
2042	573	485351.7	3753934.4	0.002824593	0.002054876
2042	574	485451.7	3753934.4	0.003036929	0.002191879
2042	575	484551.7	3754034.4	0.002134061	0.001744042
2042	576	484651.7	3754034.4	0.002164441	0.00174111
2042	577	484751.7	3754034.4	0.002233019	0.001777893
2042	578	484851.7	3754034.4	0.002308684	0.001817367
2042	579	484951.7	3754034.4	0.002391473	0.0018593
2042	580	485051.7	3754034.4	0.002485474	0.001907343
2042	581	485151.7	3754034.4	0.002595727	0.001965697
2042	582	485251.7	3754034.4	0.00272772	0.002039071
2042	583	485351.7	3754034.4	0.002888299	0.002133606
2042	584	485451.7	3754034.4	0.003102403	0.00227432
2042	585	484551.7	3754134.4	0.002186274	0.001807139
2042	586	484651.7	3754134.4	0.002225021	0.001815615
2042	587	484751.7	3754134.4	0.002293936	0.001854061
2042	588	484851.7	3754134.4	0.002375554	0.001901776
2042	589	484951.7	3754134.4	0.002457415	0.001943255
2042	590	485051.7	3754134.4	0.002553067	0.001992794
2042	591	485151.7	3754134.4	0.002664673	0.002052706
2042	592	485251.7	3754134.4	0.002796993	0.002127144
2042	593	485351.7	3754134.4	0.00295868	0.002223219
2042	594	485451.7	3754134.4	0.003172011	0.002363175
2042	595	484551.7	3754234.4	0.002240663	0.001872713
2042	596	484651.7	3754234.4	0.00229019	0.001895488
2042	597	484751.7	3754234.4	0.002363842	0.001940994
2042	598	484851.7	3754234.4	0.002446119	0.001991594
2042	599	484951.7	3754234.4	0.002530731	0.002038242
2042	600	485051.7	3754234.4	0.002624803	0.002088277
2042	601	485151.7	3754234.4	0.002735868	0.00214918
2042	602	485251.7	3754234.4	0.00286773	0.00222367
2042	603	485351.7	3754234.4	0.003029111	0.002319229
2042	604	485451.7	3754234.4	0.00324325	0.002459568

2042	605	484551.7	3754334.4	0.002319381	0.001965274
2042	606	484651.7	3754334.4	0.002383308	0.002006268
2042	607	484751.7	3754334.4	0.002455562	0.002052936
2042	608	484851.7	3754334.4	0.002529848	0.002096785
2042	609	484951.7	3754334.4	0.002613682	0.002145331
2042	610	485051.7	3754334.4	0.002708685	0.002199202
2042	611	485151.7	3754334.4	0.002818094	0.002261127
2042	612	485251.7	3754334.4	0.002948876	0.002337852
2042	613	485351.7	3754334.4	0.003105414	0.002433595
2042	614	485451.7	3754334.4	0.003295493	0.002555144
2042	615	484551.7	3754434.4	0.002466948	0.002134251
2042	616	484651.7	3754434.4	0.002513144	0.002157251
2042	617	484751.7	3754434.4	0.00257021	0.002189104
2042	618	484851.7	3754434.4	0.002635733	0.002225749
2042	619	484951.7	3754434.4	0.002715329	0.002272607
2042	620	485051.7	3754434.4	0.002807268	0.002326432
2042	621	485151.7	3754434.4	0.0029154	0.002390492
2042	622	485251.7	3754434.4	0.003043715	0.002468005
2042	623	485351.7	3754434.4	0.00319795	0.002564289
2042	624	485451.7	3754434.4	0.003387155	0.002688871
2042	625	484551.7	3754534.4	0.002641132	0.002327165
2042	626	484651.7	3754534.4	0.002686088	0.002351475
2042	627	484751.7	3754534.4	0.002725027	0.002366095
2042	628	484851.7	3754534.4	0.002773038	0.00238861
2042	629	484951.7	3754534.4	0.002842577	0.002428131
2042	630	485051.7	3754534.4	0.002929537	0.002479577
2042	631	485151.7	3754534.4	0.003035137	0.002543871
2042	632	485251.7	3754534.4	0.003160924	0.002621983
2042	633	485351.7	3754534.4	0.003312481	0.002718463
2042	634	485451.7	3754534.4	0.003505868	0.002848357
2042	635	484551.7	3754634.4	0.002802756	0.00250701
2042	636	484651.7	3754634.4	0.002841798	0.002526934
2042	637	484751.7	3754634.4	0.002899832	0.002564488
2042	638	484851.7	3754634.4	0.002935938	0.002578445
2042	639	484951.7	3754634.4	0.002995686	0.002611829
2042	640	485051.7	3754634.4	0.003077688	0.0026629
2042	641	485151.7	3754634.4	0.00317944	0.002728647
2042	642	485251.7	3754634.4	0.003303422	0.002809311
2042	643	485351.7	3754634.4	0.003456635	0.002910261
2042	644	485451.7	3754634.4	0.0036547	0.003047312
2042	645	484551.7	3754734.4	0.002978054	0.002698924
2042	646	484651.7	3754734.4	0.003018031	0.002722379
2042	647	484751.7	3754734.4	0.003064686	0.002751352
2042	648	484851.7	3754734.4	0.003120789	0.002788199
2042	649	484951.7	3754734.4	0.003188652	0.002833756
2042	650	485051.7	3754734.4	0.003270037	0.002888999
2042	651	485151.7	3754734.4	0.003368486	0.00295669

2042	652	485251.7	3754734.4	0.003490168	0.003042657
2042	653	485351.7	3754734.4	0.003643485	0.0031557
2042	654	485451.7	3754734.4	0.003840616	0.003306472
2042	655	484551.7	3754834.4	0.003242658	0.002979317
2042	656	484651.7	3754834.4	0.003285329	0.003008528
2042	657	484751.7	3754834.4	0.003333217	0.003041133
2042	658	484851.7	3754834.4	0.003388116	0.003078581
2042	659	484951.7	3754834.4	0.003454875	0.003126139
2042	660	485051.7	3754834.4	0.003533567	0.00318294
2042	661	485151.7	3754834.4	0.003631038	0.003255403
2042	662	485251.7	3754834.4	0.003755515	0.003351331
2042	663	485351.7	3754834.4	0.003922464	0.003487445
2042	664	485451.7	3754834.4	0.004140971	0.003671542
2042	665	484551.7	3754934.4	0.003634536	0.00338655
2042	666	484651.7	3754934.4	0.003674978	0.003415274
2042	667	484751.7	3754934.4	0.003720486	0.003447449
2042	668	484851.7	3754934.4	0.003772977	0.003484859
2042	669	484951.7	3754934.4	0.003836569	0.003531869
2042	670	485051.7	3754934.4	0.003910227	0.003586716
2042	671	485151.7	3754934.4	0.004006419	0.003662433
2042	672	485251.7	3754934.4	0.004134273	0.003767131
2042	673	485351.7	3754934.4	0.004333918	0.003942243
2042	674	485451.7	3754934.4	0.004702267	0.004283123
2042	675	484551.7	3755034.4	0.004219462	0.003985179
2042	676	484651.7	3755034.4	0.004255692	0.004011236
2042	677	484751.7	3755034.4	0.004294449	0.004038013
2042	678	484851.7	3755034.4	0.004346369	0.004077414
2042	679	484951.7	3755034.4	0.004407037	0.004123743
2042	680	485051.7	3755034.4	0.004481581	0.004182307
2042	681	485151.7	3755034.4	0.004574177	0.004257259
2042	682	485251.7	3755034.4	0.004703021	0.004367231
2042	683	485351.7	3755034.4	0.004910749	0.004554369
2042	684	485451.7	3755034.4	0.005501719	0.005122284
2042	685	485549.5	3750934.9	0.000381408	0.000286398
2042	686	485649.5	3750934.9	0.000376802	0.00028247
2042	687	485749.5	3750934.9	0.000373905	0.000280085
2042	688	485849.5	3750934.9	0.000369327	0.000276267
2042	689	485549.5	3751034.9	0.000402374	0.000302286
2042	690	485649.5	3751034.9	0.000396166	0.000296938
2042	691	485749.5	3751034.9	0.000393503	0.000294719
2042	692	485849.5	3751034.9	0.000389964	0.000291775
2042	693	485549.5	3751134.9	0.000425468	0.000320068
2042	694	485649.5	3751134.9	0.000418729	0.000314191
2042	695	485749.5	3751134.9	0.000415753	0.000311674
2042	696	485849.5	3751134.9	0.000411351	0.000307938
2042	697	485549.5	3751234.9	0.000452898	0.000341689
2042	698	485649.5	3751234.9	0.000444221	0.000334028

2042	699	485749.5	3751234.9	0.000440756	0.000331036
2042	700	485849.5	3751234.9	0.000439925	0.000330468
2042	701	485549.5	3751334.9	0.000482122	0.000364898
2042	702	485649.5	3751334.9	0.000475505	0.000358979
2042	703	485749.5	3751334.9	0.000470137	0.000354265
2042	704	485849.5	3751334.9	0.000473821	0.00035779
2042	705	485549.5	3751434.9	0.000522869	0.000398477
2042	706	485649.5	3751434.9	0.000518805	0.000394748
2042	707	485749.5	3751434.9	0.000507386	0.00038446
2042	708	485849.5	3751434.9	0.000522982	0.000398924
2042	709	485549.5	3751534.9	0.000654594	0.000514071
2042	710	485649.5	3751534.9	0.000638801	0.000499731
2042	711	485749.5	3751534.9	0.000580121	0.000446876
2042	712	485849.5	3751534.9	0.000569107	0.000437031
2042	713	485549.5	3751634.9	0.001009894	0.000803943
2042	714	485649.5	3751634.9	0.000853953	0.000681468
2042	715	485749.5	3751634.9	0.000795791	0.000633331
2042	716	485849.5	3751634.9	0.00061185	0.000471853
2042	717	485549.5	3751734.9	0.001247554	0.000980651
2042	718	485649.5	3751734.9	0.001192698	0.000943849
2042	719	485749.5	3751734.9	0.001061267	0.000846565
2042	720	485849.5	3751734.9	0.000748065	0.000590538
2042	721	485549.5	3751834.9	0.001423585	0.00112109
2042	722	485649.5	3751834.9	0.001350044	0.001063201
2042	723	485749.5	3751834.9	0.001292025	0.001021026
2042	724	485849.5	3751834.9	0.001103141	0.000882625
2042	725	485549.5	3751934.9	0.001652881	0.001311622
2042	726	485649.5	3751934.9	0.001514799	0.00118527
2042	727	485749.5	3751934.9	0.001473871	0.00115035
2042	728	485849.5	3751934.9	0.001418527	0.001111805
2042	729	485549.5	3752034.9	0.001913952	0.001532891
2042	730	485649.5	3752034.9	0.001679936	0.001308415
2042	731	485749.5	3752034.9	0.001644047	0.001277913
2042	732	485849.5	3752034.9	0.001610713	0.0012578
2042	733	485549.5	3752134.9	0.001969271	0.001556215
2042	734	485649.5	3752134.9	0.00191735	0.001499243
2042	735	485749.5	3752134.9	0.001923089	0.001505909
2042	736	485849.5	3752134.9	0.001935394	0.001527596
2042	737	485549.5	3752234.9	0.002209253	0.001773399
2042	738	485649.5	3752234.9	0.002276635	0.00182918
2042	739	485749.5	3752234.9	0.002368736	0.00191246
2042	740	485849.5	3752234.9	0.002439675	0.001983816
2042	741	485549.5	3752334.9	0.001850101	0.001396992
2042	742	485649.5	3752334.9	0.001895656	0.001424482
2042	743	485749.5	3752334.9	0.001957252	0.00147074
2042	744	485849.5	3752334.9	0.002028742	0.001530912
2042	745	485549.5	3752434.9	0.001794472	0.001324626

2042	746	485649.5	3752434.9	0.00182665	0.001337114
2042	747	485749.5	3752434.9	0.001882293	0.001371805
2042	748	485849.5	3752434.9	0.001954887	0.00142284
2042	749	485549.5	3752534.9	0.001822519	0.00133457
2042	750	485649.5	3752534.9	0.00185133	0.001342231
2042	751	485749.5	3752534.9	0.001907756	0.001375517
2042	752	485849.5	3752534.9	0.001978763	0.001421248
2042	753	485549.5	3752634.9	0.001880855	0.001371813
2042	754	485649.5	3752634.9	0.001910884	0.001379303
2042	755	485749.5	3752634.9	0.001967672	0.001412109
2042	756	485849.5	3752634.9	0.002038557	0.00145584
2042	757	485549.5	3752734.9	0.001953399	0.001422491
2042	758	485649.5	3752734.9	0.001986089	0.001431634
2042	759	485749.5	3752734.9	0.002050619	0.001469412
2042	760	485849.5	3752734.9	0.002129544	0.001517696
2042	761	485549.5	3752834.9	0.002033894	0.001481518
2042	762	485649.5	3752834.9	0.002069403	0.001493384
2042	763	485749.5	3752834.9	0.002143987	0.001539441
2042	764	485849.5	3752834.9	0.00223422	0.001596148
2042	765	485549.5	3752934.9	0.002125289	0.001549419
2042	766	485649.5	3752934.9	0.002162579	0.001563807
2042	767	485749.5	3752934.9	0.002246546	0.00162032
2042	768	485849.5	3752934.9	0.002356775	0.001695749
2042	769	485549.5	3753034.9	0.002242012	0.001638611
2042	770	485649.5	3753034.9	0.00226017	0.001635901
2042	771	485749.5	3753034.9	0.002355235	0.001704743
2042	772	485849.5	3753034.9	0.002493296	0.001811424
2042	773	485549.5	3753134.9	0.002284072	0.001644917
2042	774	485649.5	3753134.9	0.002355896	0.00169816
2042	775	485749.5	3753134.9	0.002457885	0.001778786
2042	776	485849.5	3753134.9	0.002614922	0.001910057
2042	777	485549.5	3753234.9	0.002390153	0.001705256
2042	778	485649.5	3753234.9	0.002465506	0.001764755
2042	779	485749.5	3753234.9	0.002565761	0.001850794
2042	780	485849.5	3753234.9	0.002726467	0.001993194
2042	781	485549.5	3753334.9	0.002552748	0.001807315
2042	782	485649.5	3753334.9	0.002613069	0.001847051
2042	783	485749.5	3753334.9	0.002705472	0.001931871
2042	784	485849.5	3753334.9	0.00285173	0.002074119
2042	785	485549.5	3753434.9	0.002734212	0.001918728
2042	786	485649.5	3753434.9	0.002833638	0.001976921
2042	787	485749.5	3753434.9	0.002943824	0.002069103
2042	788	485849.5	3753434.9	0.003067125	0.00220911
2042	789	485508.5	3746711.3	0.000243354	0.00020122
2042	790	491508.5	3746711.3	0.000169864	0.000140836
2042	791	479508.5	3752711.3	0.000851823	0.000773514
2042	792	485508.5	3752711.3	0.001895189	0.001378055

2042	793	491508.5	3752711.3	0.001567461	0.001036188
2042	794	485508.5	3758711.3	0.00043243	0.000401466
2042	795	491508.5	3758711.3	0.000183346	0.000159375
2042	796	485921.9	3750934.2	0.000365028	0.000272701
2042	797	486021.9	3750934.2	0.000360418	0.000268932
2042	798	486121.9	3750934.2	0.000357923	0.00026707
2042	799	485921.9	3751034.2	0.000384631	0.000287232
2042	800	486021.9	3751034.2	0.000377898	0.000281551
2042	801	486121.9	3751034.2	0.00037402	0.000278405
2042	802	485921.9	3751134.2	0.000406955	0.000304179
2042	803	486021.9	3751134.2	0.000399493	0.000297785
2042	804	486121.9	3751134.2	0.000393681	0.000292847
2042	805	485921.9	3751234.2	0.000432798	0.00032423
2042	806	486021.9	3751234.2	0.000424621	0.00031711
2042	807	486121.9	3751234.2	0.000417409	0.00031087
2042	808	485921.9	3751334.2	0.000464403	0.000349418
2042	809	486021.9	3751334.2	0.000454997	0.000341098
2042	810	486121.9	3751334.2	0.000444613	0.000331926
2042	811	485921.9	3751434.2	0.000507596	0.000385075
2042	812	486021.9	3751434.2	0.0004912	0.000370314
2042	813	486121.9	3751434.2	0.000477666	0.000358177
2042	814	485921.9	3751534.2	0.000553763	0.000423265
2042	815	486021.9	3751534.2	0.000542648	0.000413375
2042	816	486121.9	3751534.2	0.000519194	0.000392079
2042	817	485921.9	3751634.2	0.000593219	0.000455051
2042	818	486021.9	3751634.2	0.000633392	0.000491781
2042	819	486121.9	3751634.2	0.000584532	0.000447697
2042	820	485921.9	3751734.2	0.000679013	0.000528765
2042	821	486021.9	3751734.2	0.000778367	0.000616779
2042	822	486121.9	3751734.2	0.000659997	0.000512079
2042	823	485921.9	3751834.2	0.000866478	0.000691228
2042	824	486021.9	3751834.2	0.000872214	0.000695631
2042	825	486121.9	3751834.2	0.000693402	0.000537748
2042	826	485921.9	3751934.2	0.001294056	0.001034312
2042	827	486021.9	3751934.2	0.001078493	0.000866571
2042	828	486121.9	3751934.2	0.000879039	0.000698955
2042	829	485921.9	3752034.2	0.001535784	0.001210919
2042	830	486021.9	3752034.2	0.001324917	0.001068299
2042	831	486121.9	3752034.2	0.001206381	0.000975352
2042	832	485921.9	3752134.2	0.001953025	0.001557591
2042	833	486021.9	3752134.2	0.001902123	0.001537501
2042	834	486121.9	3752134.2	0.00163049	0.001323345
2042	835	485921.9	3752234.2	0.002480435	0.002033643
2042	836	486021.9	3752234.2	0.002589538	0.00215299
2042	837	486121.9	3752234.2	0.002390124	0.001971573
2042	838	485921.9	3752334.2	0.0020821	0.00157883
2042	839	486021.9	3752334.2	0.002195372	0.001692959

2042	840	486121.9	3752334.2	0.002539709	0.002039301
2042	841	485921.9	3752434.2	0.002021294	0.001478324
2042	842	486021.9	3752434.2	0.002132857	0.001577631
2042	843	486121.9	3752434.2	0.002320376	0.001752716
2042	844	485921.9	3752534.2	0.002044178	0.001466591
2042	845	486021.9	3752534.2	0.00213993	0.001538946
2042	846	486121.9	3752534.2	0.002267798	0.001644881
2042	847	485921.9	3752634.2	0.002097036	0.001494003
2042	848	486021.9	3752634.2	0.002186288	0.001556481
2042	849	486121.9	3752634.2	0.002296269	0.00164047
2042	850	485921.9	3752734.2	0.002191812	0.001557032
2042	851	486021.9	3752734.2	0.002291617	0.001623302
2042	852	486121.9	3752734.2	0.002407619	0.001706739
2042	853	485921.9	3752834.2	0.002309887	0.001643694
2042	854	486021.9	3752834.2	0.002431122	0.001722218
2042	855	486121.9	3752834.2	0.002573458	0.001820611
2042	856	485921.9	3752934.2	0.002446021	0.001755807
2042	857	486021.9	3752934.2	0.002597274	0.001856282
2042	858	486121.9	3752934.2	0.002807017	0.002005958
2042	859	487026.2	3754364	0.009710497	0.00841767
2043	1	489607.4	3753966.1	0.003005338	0.002024868
2043	2	489738.7	3754023.9	0.002663909	0.001858582
2043	3	489668.9	3754093.7	0.002533356	0.001848683
2043	4	489690.1	3754161.6	0.002401322	0.001785056
2043	5	490282.2	3753425.2	0.00354684	0.002476163
2043	6	489797.3	3754554.1	0.001961821	0.001506036
2043	7	490252.9	3754378.2	0.001795272	0.0013542
2043	8	489006	3754140.3	0.004557281	0.003554049
2043	9	485642.8	3754267.3	0.004100126	0.003165087
2043	10	485736.4	3754259.5	0.004521802	0.003497506
2043	11	487189.2	3754820.5	0.010091874	0.00899555
2043	12	487233.1	3754689.5	0.008297948	0.00709333
2043	13	487216.8	3754364.7	0.012644115	0.011429272
2043	14	487388.8	3754380.1	0.009543453	0.008421717
2043	15	484625	3751748	0.001234098	0.000953633
2043	16	483279	3751798	0.00092791	0.000727788
2043	17	483231	3751205	0.000825023	0.000648303
2043	18	480165	3750195	0.000624023	0.000534263
2043	19	481211	3749473	0.000563464	0.000463935
2043	20	481867	3752785	0.000944174	0.00080302
2043	21	480678	3751306	0.000678202	0.000572995
2043	22	479989	3752645	0.0008108	0.000723565
2043	23	479889	3756222	0.001134397	0.001082257
2043	24	479234	3757080	0.000547074	0.000509408
2043	25	480276	3756365	0.000922189	0.000872234
2043	26	479887	3754007	0.001055189	0.0009793
2043	27	480772	3755009	0.002233887	0.002151236

2043	28	481560	3754548	0.001674262	0.001568972
2043	29	481845	3754457	0.001689894	0.001574936
2043	30	481754	3753876	0.001207659	0.001084719
2043	31	489635.2	3750663.8	0.000459906	0.000350302
2043	32	485424.1	3747672.3	0.000299065	0.000242834
2043	33	482657.6	3753975.1	0.00143028	0.00126862
2043	34	481495	3754633.7	0.001756784	0.001654574
2043	35	481148.7	3756136.2	0.001267021	0.001204873
2043	36	482346.5	3748872.9	0.000232626	0.0001823
2043	37	480299	3751198	0.000660146	0.000563128
2043	38	479598.7	3756506.3	0.000867936	0.000821002
2043	39	478997.8	3753535.2	0.001183188	0.001116459
2043	40	478978.3	3755233.1	0.003560174	0.003496442
2043	41	479197.3	3754462.3	0.001567936	0.001503431
2043	42	479493.3	3752408.8	0.000823625	0.000743943
2043	43	480295.4	3752408.4	0.000785911	0.00069107
2043	44	480287.9	3754227.5	0.001156285	0.001075163
2043	45	494397.4	3753977.6	0.000725748	0.000586299
2043	46	481108.5	3750699	0.000665979	0.000556029
2043	47	486794.1	3756878	0.000672299	0.000603662
2043	48	482345	3752065.8	0.000894428	0.00073282
2043	49	487553	3745938.3	0.000182569	0.000153648
2043	50	484553	3746938.3	0.000241564	0.000198588
2043	51	485553	3746938.3	0.000253608	0.000208967
2043	52	486553	3746938.3	0.000202023	0.000171399
2043	53	487553	3746938.3	0.000222575	0.000184427
2043	54	488553	3746938.3	0.000202874	0.000169034
2043	55	489553	3746938.3	0.000200449	0.000165706
2043	56	490553	3746938.3	0.000184072	0.000152596
2043	57	491553	3746938.3	0.000175157	0.000144868
2043	58	492553	3746938.3	0.000168435	0.000139086
2043	59	482553	3747938.3	0.000212152	0.000168924
2043	60	483553	3747938.3	0.000354356	0.000283347
2043	61	484553	3747938.3	0.000337484	0.000271086
2043	62	485553	3747938.3	0.00031492	0.000254433
2043	63	486553	3747938.3	0.000293122	0.000240154
2043	64	487553	3747938.3	0.000187394	0.00015797
2043	65	488553	3747938.3	0.000244456	0.00020091
2043	66	489553	3747938.3	0.000229533	0.000188645
2043	67	490553	3747938.3	0.000216089	0.00017724
2043	68	491553	3747938.3	0.000204979	0.000167532
2043	69	492553	3747938.3	0.000196066	0.0001598
2043	70	493553	3747938.3	0.000189683	0.000154526
2043	71	481553	3748938.3	0.000477258	0.000381585
2043	72	482553	3748938.3	0.000243557	0.000191236
2043	73	483553	3748938.3	0.000407565	0.000324862
2043	74	484553	3748938.3	0.000427488	0.000337876

2043	75	485553	3748938.3	0.000407619	0.000323715
2043	76	486553	3748938.3	0.000377647	0.000302446
2043	77	487553	3748938.3	0.000296439	0.000248158
2043	78	488553	3748938.3	0.000304282	0.000245516
2043	79	489553	3748938.3	0.000279574	0.000226405
2043	80	490553	3748938.3	0.000262247	0.000211584
2043	81	491553	3748938.3	0.00024669	0.000198356
2043	82	492553	3748938.3	0.000236251	0.00018921
2043	83	493553	3748938.3	0.000233243	0.000187063
2043	84	494553	3748938.3	0.00030144	0.000256321
2043	85	480553	3749938.3	0.000738525	0.00064574
2043	86	481553	3749938.3	0.000643016	0.000527037
2043	87	482553	3749938.3	0.000627525	0.000501042
2043	88	483553	3749938.3	0.000616276	0.000485716
2043	89	484553	3749938.3	0.000451724	0.000357484
2043	90	485553	3749938.3	0.000369763	0.000294132
2043	91	486553	3749938.3	0.00043767	0.000354462
2043	92	487553	3749938.3	0.000458427	0.000362341
2043	93	488553	3749938.3	0.000397964	0.000312339
2043	94	489553	3749938.3	0.00036174	0.000285053
2043	95	490553	3749938.3	0.000334027	0.000262435
2043	96	491553	3749938.3	0.000313074	0.00024466
2043	97	492553	3749938.3	0.000304898	0.000237148
2043	98	493553	3749938.3	0.000341455	0.00027118
2043	99	494553	3749938.3	0.000287451	0.000218146
2043	100	495553	3749938.3	0.000228161	0.000188337
2043	101	480553	3750938.3	0.000646363	0.000545317
2043	102	481553	3750938.3	0.000695371	0.000573577
2043	103	482553	3750938.3	0.000755391	0.000607747
2043	104	483553	3750938.3	0.000868914	0.000689323
2043	105	484553	3750938.3	0.000863038	0.000673992
2043	106	485553	3750938.3	0.000381804	0.000286657
2043	107	486553	3750938.3	0.000352273	0.000265001
2043	108	487553	3750938.3	0.000551668	0.000438674
2043	109	488553	3750938.3	0.000597203	0.000442398
2043	110	489553	3750938.3	0.000524571	0.000391487
2043	111	490553	3750938.3	0.000468271	0.000349838
2043	112	491553	3750938.3	0.00043614	0.000323869
2043	113	492553	3750938.3	0.000490154	0.000375303
2043	114	493553	3750938.3	0.000424692	0.000311663
2043	115	494553	3750938.3	0.000411569	0.000305844
2043	116	495553	3750938.3	0.000383874	0.000298329
2043	117	479553	3751938.3	0.000760661	0.00067789
2043	118	480553	3751938.3	0.000747192	0.000644871
2043	119	481553	3751938.3	0.000789246	0.000659741
2043	120	482553	3751938.3	0.000876139	0.000706882
2043	121	483553	3751938.3	0.00100534	0.000784025

2043	122	484553	3751938.3	0.00119653	0.000910504
2043	123	485553	3751938.3	0.001652386	0.001310076
2043	124	486553	3751938.3	0.000677518	0.000518984
2043	125	487553	3751938.3	0.0010938	0.00085464
2043	126	488553	3751938.3	0.00117449	0.000795388
2043	127	489553	3751938.3	0.001068619	0.000702555
2043	128	490553	3751938.3	0.000896855	0.000589903
2043	129	491553	3751938.3	0.000929406	0.000648649
2043	130	492553	3751938.3	0.000742622	0.000479676
2043	131	493553	3751938.3	0.000665304	0.000493868
2043	132	494553	3751938.3	0.000613824	0.000458547
2043	133	495553	3751938.3	0.000540945	0.000414249
2043	134	479553	3752938.3	0.000919753	0.000842083
2043	135	480553	3752938.3	0.000917948	0.00082014
2043	136	481553	3752938.3	0.000989982	0.000862685
2043	137	482553	3752938.3	0.001120124	0.000945069
2043	138	483553	3752938.3	0.001288046	0.001036158
2043	139	484553	3752938.3	0.00160562	0.001206286
2043	140	485553	3752938.3	0.002127435	0.001549907
2043	141	486553	3752938.3	0.004197908	0.00330725
2043	142	487553	3752938.3	0.004624128	0.003486353
2043	143	488553	3752938.3	0.004121289	0.003017912
2043	144	489553	3752938.3	0.003759956	0.002743019
2043	145	490553	3752938.3	0.003118444	0.002239126
2043	146	491553	3752938.3	0.001615505	0.001121584
2043	147	492553	3752938.3	0.001228605	0.000804777
2043	148	493553	3752938.3	0.000998658	0.000713483
2043	149	494553	3752938.3	0.000851242	0.000635835
2043	150	495553	3752938.3	0.000685581	0.000530474
2043	151	479553	3753938.3	0.001056648	0.000985336
2043	152	480553	3753938.3	0.001065631	0.000976785
2043	153	481553	3753938.3	0.001210442	0.00109536
2043	154	482553	3753938.3	0.001382839	0.001225984
2043	155	483553	3753938.3	0.001739126	0.001518375
2043	156	484553	3753938.3	0.002062736	0.001657532
2043	157	485553	3753938.3	0.003328033	0.002399635
2043	158	486553	3753938.3	0.00587771	0.004415519
2043	159	487553	3753938.3	0.006449908	0.005269006
2043	160	488553	3753938.3	0.005707975	0.004366261
2043	161	489553	3753938.3	0.003208337	0.002146419
2043	162	490553	3753938.3	0.001856303	0.001363774
2043	163	491553	3753938.3	0.001295453	0.001010088
2043	164	492553	3753938.3	0.001062803	0.000839688
2043	165	493553	3753938.3	0.000869399	0.000695423
2043	166	494553	3753938.3	0.000790045	0.0006368
2043	167	495553	3753938.3	0.000616134	0.000500931
2043	168	479553	3754938.3	0.001879019	0.001812246

2043	169	480553	3754938.3	0.002003114	0.001923237
2043	170	481553	3754938.3	0.002294445	0.002195577
2043	171	482553	3754938.3	0.00335287	0.003226354
2043	172	483553	3754938.3	0.00368581	0.003520762
2043	173	484553	3754938.3	0.003653175	0.003405562
2043	174	485553	3754938.3	0.005300037	0.004852217
2043	175	486553	3754938.3	0.007308372	0.006652972
2043	176	487553	3754938.3	0.0062339	0.005368797
2043	177	488553	3754938.3	0.003502589	0.002902681
2043	178	489553	3754938.3	0.002195006	0.001888802
2043	179	490553	3754938.3	0.001462739	0.001284618
2043	180	491553	3754938.3	0.000961313	0.000837579
2043	181	492553	3754938.3	0.00069004	0.000593919
2043	182	493553	3754938.3	0.000697621	0.000605986
2043	183	494553	3754938.3	0.000530786	0.000457223
2043	184	495553	3754938.3	0.0004455	0.000382642
2043	185	479553	3755938.3	0.001890688	0.001833685
2043	186	480553	3755938.3	0.001584961	0.001523412
2043	187	481553	3755938.3	0.001605812	0.001537024
2043	188	482553	3755938.3	0.002296043	0.002205008
2043	189	483553	3755938.3	0.002411683	0.002302912
2043	190	484553	3755938.3	0.002292656	0.002159919
2043	191	485553	3755938.3	0.003236686	0.003072111
2043	192	486553	3755938.3	0.002616244	0.002439538
2043	193	487553	3755938.3	0.001445759	0.001334041
2043	194	488553	3755938.3	0.00100995	0.000921686
2043	195	489553	3755938.3	0.000692157	0.000624987
2043	196	490553	3755938.3	0.000572999	0.000515125
2043	197	491553	3755938.3	0.000472248	0.000422692
2043	198	492553	3755938.3	0.000572246	0.000526197
2043	199	493553	3755938.3	0.000419577	0.000378874
2043	200	494553	3755938.3	0.000403112	0.000365151
2043	201	479553	3756938.3	0.000573374	0.000534622
2043	202	480553	3756938.3	0.000548895	0.000508986
2043	203	481553	3756938.3	0.000495782	0.000457683
2043	204	482553	3756938.3	0.00051746	0.000475038
2043	205	483553	3756938.3	0.000872637	0.000803056
2043	206	484553	3756938.3	0.00084184	0.000766684
2043	207	485553	3756938.3	0.001827111	0.001750147
2043	208	486553	3756938.3	0.000695643	0.000626292
2043	209	487553	3756938.3	0.00045769	0.000405552
2043	210	488553	3756938.3	0.000371244	0.000326038
2043	211	489553	3756938.3	0.000325199	0.000284817
2043	212	490553	3756938.3	0.000297106	0.000260157
2043	213	491553	3756938.3	0.000259743	0.000227122
2043	214	492553	3756938.3	0.00023137	0.000202437
2043	215	493553	3756938.3	0.000245885	0.000217978

2043	216	494553	3756938.3	0.000238675	0.000212418
2043	217	479553	3757938.3	0.000288328	0.000263889
2043	218	480553	3757938.3	0.000276024	0.000251565
2043	219	481553	3757938.3	0.00029157	0.000263898
2043	220	482553	3757938.3	0.000360656	0.000323934
2043	221	483553	3757938.3	0.000353692	0.000315771
2043	222	484553	3757938.3	0.000465686	0.000418696
2043	223	485553	3757938.3	0.000539591	0.000498787
2043	224	486553	3757938.3	0.000322692	0.00028524
2043	225	487553	3757938.3	0.000263808	0.000230199
2043	226	488553	3757938.3	0.00023161	0.000200905
2043	227	489553	3757938.3	0.000213728	0.000184893
2043	228	490553	3757938.3	0.000195439	0.000168934
2043	229	491553	3757938.3	0.000179074	0.000154599
2043	230	492553	3757938.3	0.000171933	0.000148988
2043	231	493553	3757938.3	0.000190686	0.000166992
2043	232	480553	3758938.3	0.000207166	0.000186495
2043	233	481553	3758938.3	0.000231101	0.000206373
2043	234	482553	3758938.3	0.000225123	0.000199414
2043	235	483553	3758938.3	0.000236025	0.000208208
2043	236	484553	3758938.3	0.00029534	0.000264183
2043	237	485553	3758938.3	0.000685858	0.00065257
2043	238	486553	3758938.3	0.000223329	0.000196708
2043	239	487553	3758938.3	0.000245191	0.000215841
2043	240	488553	3758938.3	0.000182051	0.000158491
2043	241	489553	3758938.3	0.000184564	0.000160754
2043	242	490553	3758938.3	0.000201511	0.000175347
2043	243	491553	3758938.3	0.00016388	0.000142275
2043	244	492553	3758938.3	0.000170507	0.000148228
2043	245	481553	3759938.3	0.000170999	0.000151817
2043	246	482553	3759938.3	0.000176464	0.000155607
2043	247	483553	3759938.3	0.000186986	0.000164671
2043	248	484553	3759938.3	0.000260077	0.000232294
2043	249	485553	3759938.3	0.000678447	0.000644739
2043	250	486553	3759938.3	0.00032149	0.00028742
2043	251	487553	3759938.3	0.000262256	0.000232114
2043	252	488553	3759938.3	0.000261735	0.000229806
2043	253	489553	3759938.3	0.000226817	0.000197994
2043	254	490553	3759938.3	0.000175373	0.000153105
2043	255	491553	3759938.3	0.000152834	0.000133041
2043	256	482553	3760938.3	0.000166449	0.000146921
2043	257	483553	3760938.3	0.000192501	0.000170624
2043	258	484553	3760938.3	0.000245855	0.00022007
2043	259	485553	3760938.3	0.000558289	0.000524197
2043	260	486553	3760938.3	0.00036625	0.000329826
2043	261	487553	3760938.3	0.000292034	0.000262292
2043	262	488553	3760938.3	0.000166389	0.000147291

2043	263	489553	3760938.3	0.000126207	0.000110586
2043	264	490553	3760938.3	0.000120723	0.000105368
2043	265	484551.7	3750934.4	0.00085781	0.000670964
2043	266	484651.7	3750934.4	0.00084689	0.000662861
2043	267	484751.7	3750934.4	0.000647301	0.000513036
2043	268	484851.7	3750934.4	0.000593984	0.000470956
2043	269	484951.7	3750934.4	0.000627812	0.00049677
2043	270	485051.7	3750934.4	0.00056273	0.000444998
2043	271	485151.7	3750934.4	0.000468565	0.000364323
2043	272	485251.7	3750934.4	0.000412708	0.000314147
2043	273	485351.7	3750934.4	0.000396894	0.000299953
2043	274	485451.7	3750934.4	0.0003885	0.00029256
2043	275	484551.7	3751034.4	0.00091639	0.000709662
2043	276	484651.7	3751034.4	0.00090406	0.000701219
2043	277	484751.7	3751034.4	0.000849246	0.000669214
2043	278	484851.7	3751034.4	0.000672371	0.0005324
2043	279	484951.7	3751034.4	0.000747061	0.000589409
2043	280	485051.7	3751034.4	0.00062661	0.000495875
2043	281	485151.7	3751034.4	0.000543262	0.000427368
2043	282	485251.7	3751034.4	0.000462049	0.000355854
2043	283	485351.7	3751034.4	0.000426744	0.000324007
2043	284	485451.7	3751034.4	0.000411431	0.000310272
2043	285	484551.7	3751134.4	0.000962674	0.000742171
2043	286	484651.7	3751134.4	0.000960568	0.000738894
2043	287	484751.7	3751134.4	0.000948044	0.000731807
2043	288	484851.7	3751134.4	0.000856235	0.000678417
2043	289	484951.7	3751134.4	0.000877054	0.000690184
2043	290	485051.7	3751134.4	0.00072305	0.000571168
2043	291	485151.7	3751134.4	0.000641733	0.000507903
2043	292	485251.7	3751134.4	0.000555085	0.000435731
2043	293	485351.7	3751134.4	0.000472087	0.000362072
2043	294	485451.7	3751134.4	0.000438092	0.000331327
2043	295	484551.7	3751234.4	0.001010266	0.000778358
2043	296	484651.7	3751234.4	0.001010341	0.000775898
2043	297	484751.7	3751234.4	0.001002462	0.00077203
2043	298	484851.7	3751234.4	0.000974393	0.000757209
2043	299	484951.7	3751234.4	0.000948845	0.000742007
2043	300	485051.7	3751234.4	0.00085298	0.000675077
2043	301	485151.7	3751234.4	0.000719612	0.000570026
2043	302	485251.7	3751234.4	0.000543351	0.000423307
2043	303	485351.7	3751234.4	0.00048047	0.000366617
2043	304	485451.7	3751234.4	0.000461442	0.000349354
2043	305	484551.7	3751334.4	0.001081053	0.000835602
2043	306	484651.7	3751334.4	0.001073192	0.000827108
2043	307	484751.7	3751334.4	0.001061106	0.000819641
2043	308	484851.7	3751334.4	0.001046072	0.000810269
2043	309	484951.7	3751334.4	0.00103785	0.000803428

2043	310	485051.7	3751334.4	0.000995324	0.000779379
2043	311	485151.7	3751334.4	0.000842305	0.000666826
2043	312	485251.7	3751334.4	0.00066315	0.000525565
2043	313	485351.7	3751334.4	0.000522765	0.000401953
2043	314	485451.7	3751334.4	0.00048902	0.000371194
2043	315	484551.7	3751434.4	0.001195871	0.000941044
2043	316	484651.7	3751434.4	0.001163768	0.000905728
2043	317	484751.7	3751434.4	0.001144393	0.000885781
2043	318	484851.7	3751434.4	0.00113107	0.000873877
2043	319	484951.7	3751434.4	0.001120277	0.000865319
2043	320	485051.7	3751434.4	0.00110667	0.000855016
2043	321	485151.7	3751434.4	0.00099371	0.000789774
2043	322	485251.7	3751434.4	0.000773905	0.00061681
2043	323	485351.7	3751434.4	0.000608583	0.00047649
2043	324	485451.7	3751434.4	0.00054169	0.000415823
2043	325	484551.7	3751534.4	0.001456143	0.001194651
2043	326	484651.7	3751534.4	0.001349409	0.001081237
2043	327	484751.7	3751534.4	0.001270368	0.000997498
2043	328	484851.7	3751534.4	0.001233975	0.000958587
2043	329	484951.7	3751534.4	0.001216508	0.000938945
2043	330	485051.7	3751534.4	0.00120715	0.000926978
2043	331	485151.7	3751534.4	0.001192785	0.000916086
2043	332	485251.7	3751534.4	0.001082089	0.00085507
2043	333	485351.7	3751534.4	0.000865048	0.000689985
2043	334	485451.7	3751534.4	0.000715318	0.00056769
2043	335	484551.7	3751634.4	0.001348616	0.00108066
2043	336	484651.7	3751634.4	0.001389714	0.001114828
2043	337	484751.7	3751634.4	0.001432773	0.001150223
2043	338	484851.7	3751634.4	0.001460119	0.001172175
2043	339	484951.7	3751634.4	0.001360079	0.001067802
2043	340	485051.7	3751634.4	0.001317314	0.001020951
2043	341	485151.7	3751634.4	0.001301717	0.00100178
2043	342	485251.7	3751634.4	0.00126963	0.000980559
2043	343	485351.7	3751634.4	0.001209076	0.000942354
2043	344	485451.7	3751634.4	0.001103471	0.000878023
2043	345	484551.7	3751734.4	0.00119826	0.000925036
2043	346	484651.7	3751734.4	0.001264518	0.00098234
2043	347	484751.7	3751734.4	0.001369029	0.001078914
2043	348	484851.7	3751734.4	0.001502342	0.001205645
2043	349	484951.7	3751734.4	0.001504911	0.00120346
2043	350	485051.7	3751734.4	0.001637929	0.001331229
2043	351	485151.7	3751734.4	0.001489861	0.001175256
2043	352	485251.7	3751734.4	0.001448465	0.001130981
2043	353	485351.7	3751734.4	0.001395598	0.00108578
2043	354	485451.7	3751734.4	0.001321168	0.001028942
2043	355	484551.7	3751834.4	0.001178528	0.000900498
2043	356	484651.7	3751834.4	0.001216232	0.000929544

2043	357	484751.7	3751834.4	0.001259795	0.000964382
2043	358	484851.7	3751834.4	0.001311587	0.001008227
2043	359	484951.7	3751834.4	0.001376602	0.001067296
2043	360	485051.7	3751834.4	0.001520517	0.001203986
2043	361	485151.7	3751834.4	0.001542038	0.001214307
2043	362	485251.7	3751834.4	0.001632191	0.001296729
2043	363	485351.7	3751834.4	0.001647723	0.001312326
2043	364	485451.7	3751834.4	0.00164466	0.001317141
2043	365	484551.7	3751934.4	0.001194952	0.000909391
2043	366	484651.7	3751934.4	0.001221364	0.000928327
2043	367	484751.7	3751934.4	0.001248195	0.00094805
2043	368	484851.7	3751934.4	0.001281837	0.000973346
2043	369	484951.7	3751934.4	0.001318899	0.001002103
2043	370	485051.7	3751934.4	0.001366238	0.001039846
2043	371	485151.7	3751934.4	0.001426081	0.001088516
2043	372	485251.7	3751934.4	0.00150841	0.001158113
2043	373	485351.7	3751934.4	0.001627079	0.001268813
2043	374	485451.7	3751934.4	0.001700973	0.001347094
2043	375	484551.7	3752034.4	0.00123658	0.000940967
2043	376	484651.7	3752034.4	0.001259397	0.000956388
2043	377	484751.7	3752034.4	0.001283978	0.000973366
2043	378	484851.7	3752034.4	0.001310027	0.000991611
2043	379	484951.7	3752034.4	0.001342007	0.001014467
2043	380	485051.7	3752034.4	0.001380379	0.001042355
2043	381	485151.7	3752034.4	0.001427179	0.001077177
2043	382	485251.7	3752034.4	0.001494628	0.001130077
2043	383	485351.7	3752034.4	0.001585696	0.001209182
2043	384	485451.7	3752034.4	0.001797931	0.001414264
2043	385	484551.7	3752134.4	0.001309768	0.001003584
2043	386	484651.7	3752134.4	0.00133143	0.001017358
2043	387	484751.7	3752134.4	0.001355632	0.00103318
2043	388	484851.7	3752134.4	0.001380202	0.001049316
2043	389	484951.7	3752134.4	0.001407388	0.001067564
2043	390	485051.7	3752134.4	0.001440843	0.001090734
2043	391	485151.7	3752134.4	0.001481643	0.001119932
2043	392	485251.7	3752134.4	0.001541168	0.001164836
2043	393	485351.7	3752134.4	0.00163458	0.001242518
2043	394	485451.7	3752134.4	0.00184928	0.001444735
2043	395	484551.7	3752234.4	0.00144234	0.001126349
2043	396	484651.7	3752234.4	0.001473627	0.001148329
2043	397	484751.7	3752234.4	0.001496568	0.00116218
2043	398	484851.7	3752234.4	0.001516013	0.001172452
2043	399	484951.7	3752234.4	0.00161539	0.001262436
2043	400	485051.7	3752234.4	0.001568001	0.00120522
2043	401	485151.7	3752234.4	0.001609817	0.001236612
2043	402	485251.7	3752234.4	0.001656023	0.001268681
2043	403	485351.7	3752234.4	0.001744825	0.001340437

2043	404	485451.7	3752234.4	0.002006212	0.001585117
2043	405	484551.7	3752334.4	0.00137642	0.001048293
2043	406	484651.7	3752334.4	0.001402623	0.001064916
2043	407	484751.7	3752334.4	0.001428874	0.001081665
2043	408	484851.7	3752334.4	0.001456068	0.001099205
2043	409	484951.7	3752334.4	0.001486183	0.001118959
2043	410	485051.7	3752334.4	0.001516782	0.001139289
2043	411	485151.7	3752334.4	0.001552645	0.001163754
2043	412	485251.7	3752334.4	0.001594992	0.001193738
2043	413	485351.7	3752334.4	0.001653852	0.001237788
2043	414	485451.7	3752334.4	0.001757089	0.001322574
2043	415	484551.7	3752434.4	0.001374057	0.001033906
2043	416	484651.7	3752434.4	0.001400675	0.00105041
2043	417	484751.7	3752434.4	0.001426966	0.001066937
2043	418	484851.7	3752434.4	0.001458117	0.001086799
2043	419	484951.7	3752434.4	0.001488964	0.001106788
2043	420	485051.7	3752434.4	0.001522938	0.001129194
2043	421	485151.7	3752434.4	0.001560259	0.001154198
2043	422	485251.7	3752434.4	0.001601804	0.001182746
2043	423	485351.7	3752434.4	0.001653242	0.001219379
2043	424	485451.7	3752434.4	0.001729627	0.001279192
2043	425	484551.7	3752534.4	0.001401819	0.001049316
2043	426	484651.7	3752534.4	0.001429809	0.001066429
2043	427	484751.7	3752534.4	0.001459488	0.001084859
2043	428	484851.7	3752534.4	0.001491713	0.001105178
2043	429	484951.7	3752534.4	0.00152427	0.00112611
2043	430	485051.7	3752534.4	0.001560829	0.001149939
2043	431	485151.7	3752534.4	0.001599872	0.001175854
2043	432	485251.7	3752534.4	0.001641838	0.001204362
2043	433	485351.7	3752534.4	0.001690709	0.001238524
2043	434	485451.7	3752534.4	0.00176205	0.001293077
2043	435	484551.7	3752634.4	0.001438541	0.001074066
2043	436	484651.7	3752634.4	0.001468059	0.001091822
2043	437	484751.7	3752634.4	0.001499137	0.001110847
2043	438	484851.7	3752634.4	0.001535217	0.00113325
2043	439	484951.7	3752634.4	0.001570908	0.001155938
2043	440	485051.7	3752634.4	0.001610282	0.001181404
2043	441	485151.7	3752634.4	0.001651377	0.001208572
2043	442	485251.7	3752634.4	0.001695229	0.001238247
2043	443	485351.7	3752634.4	0.001745409	0.001273186
2043	444	485451.7	3752634.4	0.001817814	0.001327956
2043	445	484551.7	3752734.4	0.001483352	0.001106832
2043	446	484651.7	3752734.4	0.001516186	0.001126096
2043	447	484751.7	3752734.4	0.001550521	0.001146678
2043	448	484851.7	3752734.4	0.001587292	0.00116924
2043	449	484951.7	3752734.4	0.001626016	0.001193528
2043	450	485051.7	3752734.4	0.001668241	0.001220643

2043	451	485151.7	3752734.4	0.001711712	0.001249267
2043	452	485251.7	3752734.4	0.00175782	0.001280463
2043	453	485351.7	3752734.4	0.001810408	0.001317086
2043	454	485451.7	3752734.4	0.001882636	0.001372065
2043	455	484551.7	3752834.4	0.001534456	0.001146596
2043	456	484651.7	3752834.4	0.001570243	0.001166992
2043	457	484751.7	3752834.4	0.001606119	0.001187866
2043	458	484851.7	3752834.4	0.001647252	0.001212626
2043	459	484951.7	3752834.4	0.001689701	0.001238761
2043	460	485051.7	3752834.4	0.001734221	0.001266916
2043	461	485151.7	3752834.4	0.001780125	0.001296864
2043	462	485251.7	3752834.4	0.001829099	0.001329854
2043	463	485351.7	3752834.4	0.001882997	0.001367863
2043	464	485451.7	3752834.4	0.001957854	0.001425333
2043	465	484551.7	3752934.4	0.001601751	0.001203046
2043	466	484651.7	3752934.4	0.00164048	0.00122451
2043	467	484751.7	3752934.4	0.001679838	0.001246691
2043	468	484851.7	3752934.4	0.001724112	0.001272555
2043	469	484951.7	3752934.4	0.001770055	0.001300051
2043	470	485051.7	3752934.4	0.001818983	0.001330259
2043	471	485151.7	3752934.4	0.00186735	0.001361117
2043	472	485251.7	3752934.4	0.001920264	0.00139627
2043	473	485351.7	3752934.4	0.001973824	0.001433845
2043	474	485451.7	3752934.4	0.002047133	0.001490124
2043	475	484551.7	3753034.4	0.001715618	0.001307625
2043	476	484651.7	3753034.4	0.00176227	0.001335261
2043	477	484751.7	3753034.4	0.001814456	0.001367484
2043	478	484851.7	3753034.4	0.001855514	0.001387618
2043	479	484951.7	3753034.4	0.001903049	0.001414056
2043	480	485051.7	3753034.4	0.00195553	0.001445755
2043	481	485151.7	3753034.4	0.002014561	0.001483999
2043	482	485251.7	3753034.4	0.002115233	0.001564722
2043	483	485351.7	3753034.4	0.002120727	0.001552771
2043	484	485451.7	3753034.4	0.002181446	0.001596507
2043	485	484551.7	3753134.4	0.001687332	0.001270859
2043	486	484651.7	3753134.4	0.00173429	0.001296449
2043	487	484751.7	3753134.4	0.001785371	0.001324848
2043	488	484851.7	3753134.4	0.001837625	0.00135412
2043	489	484951.7	3753134.4	0.001893722	0.001386283
2043	490	485051.7	3753134.4	0.001952738	0.00142104
2043	491	485151.7	3753134.4	0.002013623	0.001457896
2043	492	485251.7	3753134.4	0.002078831	0.001499391
2043	493	485351.7	3753134.4	0.002146062	0.001544987
2043	494	485451.7	3753134.4	0.002226377	0.001605705
2043	495	484551.7	3753234.4	0.001710402	0.001286521
2043	496	484651.7	3753234.4	0.001761812	0.001314088
2043	497	484751.7	3753234.4	0.001815975	0.001343414

2043	498	484851.7	3753234.4	0.001873055	0.001374714
2043	499	484951.7	3753234.4	0.001934588	0.001409086
2043	500	485051.7	3753234.4	0.002000977	0.001447239
2043	501	485151.7	3753234.4	0.002070191	0.001487989
2043	502	485251.7	3753234.4	0.00214474	0.001533638
2043	503	485351.7	3753234.4	0.002223326	0.001584671
2043	504	485451.7	3753234.4	0.00231898	0.00165487
2043	505	484551.7	3753334.4	0.001749836	0.001319961
2043	506	484651.7	3753334.4	0.001804365	0.001348842
2043	507	484751.7	3753334.4	0.001861251	0.001378912
2043	508	484851.7	3753334.4	0.001925027	0.001413483
2043	509	484951.7	3753334.4	0.001990743	0.00144911
2043	510	485051.7	3753334.4	0.002063278	0.001489422
2043	511	485151.7	3753334.4	0.002141295	0.001533966
2043	512	485251.7	3753334.4	0.002229989	0.001586604
2043	513	485351.7	3753334.4	0.002326635	0.001646844
2043	514	485451.7	3753334.4	0.002441918	0.0017269
2043	515	484551.7	3753434.4	0.001791726	0.001359032
2043	516	484651.7	3753434.4	0.001848842	0.001389154
2043	517	484751.7	3753434.4	0.001909309	0.001420715
2043	518	484851.7	3753434.4	0.001977124	0.00145699
2043	519	484951.7	3753434.4	0.002048261	0.001494284
2043	520	485051.7	3753434.4	0.002126433	0.001536252
2043	521	485151.7	3753434.4	0.002215529	0.001586236
2043	522	485251.7	3753434.4	0.002317732	0.001645499
2043	523	485351.7	3753434.4	0.002433163	0.001715569
2043	524	485451.7	3753434.4	0.00258071	0.00181406
2043	525	484551.7	3753534.4	0.001834271	0.001401772
2043	526	484651.7	3753534.4	0.001889351	0.001429249
2043	527	484751.7	3753534.4	0.001951536	0.001461171
2043	528	484851.7	3753534.4	0.002026173	0.001502069
2043	529	484951.7	3753534.4	0.00210231	0.001542131
2043	530	485051.7	3753534.4	0.002186094	0.001586561
2043	531	485151.7	3753534.4	0.00228372	0.001640541
2043	532	485251.7	3753534.4	0.002397312	0.001705771
2043	533	485351.7	3753534.4	0.00253218	0.001786736
2043	534	485451.7	3753534.4	0.002708557	0.001902665
2043	535	484551.7	3753634.4	0.001877063	0.001447138
2043	536	484651.7	3753634.4	0.001934776	0.001476223
2043	537	484751.7	3753634.4	0.002000177	0.001510122
2043	538	484851.7	3753634.4	0.002073708	0.001548936
2043	539	484951.7	3753634.4	0.002154732	0.001591924
2043	540	485051.7	3753634.4	0.002243852	0.001639563
2043	541	485151.7	3753634.4	0.002346954	0.001696693
2043	542	485251.7	3753634.4	0.002467347	0.001766469
2043	543	485351.7	3753634.4	0.002608998	0.001852946
2043	544	485451.7	3753634.4	0.002796159	0.001980042

2043	545	484551.7	3753734.4	0.001934299	0.001509715
2043	546	484651.7	3753734.4	0.001991163	0.001537158
2043	547	484751.7	3753734.4	0.00205413	0.001567525
2043	548	484851.7	3753734.4	0.002123749	0.001601175
2043	549	484951.7	3753734.4	0.0022069	0.001644798
2043	550	485051.7	3753734.4	0.002301359	0.001695531
2043	551	485151.7	3753734.4	0.002408853	0.001754781
2043	552	485251.7	3753734.4	0.002533232	0.001826116
2043	553	485351.7	3753734.4	0.002681382	0.001916507
2043	554	485451.7	3753734.4	0.002875536	0.002049607
2043	555	484551.7	3753834.4	0.001993158	0.001576913
2043	556	484651.7	3753834.4	0.002047351	0.001601491
2043	557	484751.7	3753834.4	0.002110471	0.001631739
2043	558	484851.7	3753834.4	0.002181027	0.001665539
2043	559	484951.7	3753834.4	0.002265921	0.001709602
2043	560	485051.7	3753834.4	0.002359809	0.001757485
2043	561	485151.7	3753834.4	0.002468271	0.001814695
2043	562	485251.7	3753834.4	0.002599845	0.001889462
2043	563	485351.7	3753834.4	0.00275538	0.001982722
2043	564	485451.7	3753834.4	0.002959871	0.002119668
2043	565	484551.7	3753934.4	0.002057964	0.001652498
2043	566	484651.7	3753934.4	0.002115125	0.00168019
2043	567	484751.7	3753934.4	0.00216924	0.001700941
2043	568	484851.7	3753934.4	0.002241081	0.001736206
2043	569	484951.7	3753934.4	0.002325125	0.001779229
2043	570	485051.7	3753934.4	0.002421929	0.001829895
2043	571	485151.7	3753934.4	0.002533649	0.001889484
2043	572	485251.7	3753934.4	0.002665218	0.001962212
2043	573	485351.7	3753934.4	0.002824593	0.002054876
2043	574	485451.7	3753934.4	0.003036929	0.002191879
2043	575	484551.7	3754034.4	0.002134061	0.001744042
2043	576	484651.7	3754034.4	0.002164441	0.00174111
2043	577	484751.7	3754034.4	0.002233019	0.001777893
2043	578	484851.7	3754034.4	0.002308684	0.001817367
2043	579	484951.7	3754034.4	0.002391473	0.0018593
2043	580	485051.7	3754034.4	0.002485474	0.001907343
2043	581	485151.7	3754034.4	0.002595727	0.001965697
2043	582	485251.7	3754034.4	0.00272772	0.002039071
2043	583	485351.7	3754034.4	0.002888299	0.002133606
2043	584	485451.7	3754034.4	0.003102403	0.00227432
2043	585	484551.7	3754134.4	0.002186274	0.001807139
2043	586	484651.7	3754134.4	0.002225021	0.001815615
2043	587	484751.7	3754134.4	0.002293936	0.001854061
2043	588	484851.7	3754134.4	0.002375554	0.001901776
2043	589	484951.7	3754134.4	0.002457415	0.001943255
2043	590	485051.7	3754134.4	0.002553067	0.001992794
2043	591	485151.7	3754134.4	0.002664673	0.002052706

2043	592	485251.7	3754134.4	0.002796993	0.002127144
2043	593	485351.7	3754134.4	0.00295868	0.002223219
2043	594	485451.7	3754134.4	0.003172011	0.002363175
2043	595	484551.7	3754234.4	0.002240663	0.001872713
2043	596	484651.7	3754234.4	0.00229019	0.001895488
2043	597	484751.7	3754234.4	0.002363842	0.001940994
2043	598	484851.7	3754234.4	0.002446119	0.001991594
2043	599	484951.7	3754234.4	0.002530731	0.002038242
2043	600	485051.7	3754234.4	0.002624803	0.002088277
2043	601	485151.7	3754234.4	0.002735868	0.00214918
2043	602	485251.7	3754234.4	0.00286773	0.00222367
2043	603	485351.7	3754234.4	0.003029111	0.002319229
2043	604	485451.7	3754234.4	0.00324325	0.002459568
2043	605	484551.7	3754334.4	0.002319381	0.001965274
2043	606	484651.7	3754334.4	0.002383308	0.002006268
2043	607	484751.7	3754334.4	0.002455562	0.002052936
2043	608	484851.7	3754334.4	0.002529848	0.002096785
2043	609	484951.7	3754334.4	0.002613682	0.002145331
2043	610	485051.7	3754334.4	0.002708685	0.002199202
2043	611	485151.7	3754334.4	0.002818094	0.002261127
2043	612	485251.7	3754334.4	0.002948876	0.002337852
2043	613	485351.7	3754334.4	0.003105414	0.002433595
2043	614	485451.7	3754334.4	0.003295493	0.002555144
2043	615	484551.7	3754434.4	0.002466948	0.002134251
2043	616	484651.7	3754434.4	0.002513144	0.002157251
2043	617	484751.7	3754434.4	0.00257021	0.002189104
2043	618	484851.7	3754434.4	0.002635733	0.002225749
2043	619	484951.7	3754434.4	0.002715329	0.002272607
2043	620	485051.7	3754434.4	0.002807268	0.002326432
2043	621	485151.7	3754434.4	0.0029154	0.002390492
2043	622	485251.7	3754434.4	0.003043715	0.002468005
2043	623	485351.7	3754434.4	0.00319795	0.002564289
2043	624	485451.7	3754434.4	0.003387155	0.002688871
2043	625	484551.7	3754534.4	0.002641132	0.002327165
2043	626	484651.7	3754534.4	0.002686088	0.002351475
2043	627	484751.7	3754534.4	0.002725027	0.002366095
2043	628	484851.7	3754534.4	0.002773038	0.00238861
2043	629	484951.7	3754534.4	0.002842577	0.002428131
2043	630	485051.7	3754534.4	0.002929537	0.002479577
2043	631	485151.7	3754534.4	0.003035137	0.002543871
2043	632	485251.7	3754534.4	0.003160924	0.002621983
2043	633	485351.7	3754534.4	0.003312481	0.002718463
2043	634	485451.7	3754534.4	0.003505868	0.002848357
2043	635	484551.7	3754634.4	0.002802756	0.00250701
2043	636	484651.7	3754634.4	0.002841798	0.002526934
2043	637	484751.7	3754634.4	0.002899832	0.002564488
2043	638	484851.7	3754634.4	0.002935938	0.002578445

2043	639	484951.7	3754634.4	0.002995686	0.002611829
2043	640	485051.7	3754634.4	0.003077688	0.0026629
2043	641	485151.7	3754634.4	0.00317944	0.002728647
2043	642	485251.7	3754634.4	0.003303422	0.002809311
2043	643	485351.7	3754634.4	0.003456635	0.002910261
2043	644	485451.7	3754634.4	0.0036547	0.003047312
2043	645	484551.7	3754734.4	0.002978054	0.002698924
2043	646	484651.7	3754734.4	0.003018031	0.002722379
2043	647	484751.7	3754734.4	0.003064686	0.002751352
2043	648	484851.7	3754734.4	0.003120789	0.002788199
2043	649	484951.7	3754734.4	0.003188652	0.002833756
2043	650	485051.7	3754734.4	0.003270037	0.002888999
2043	651	485151.7	3754734.4	0.003368486	0.00295669
2043	652	485251.7	3754734.4	0.003490168	0.003042657
2043	653	485351.7	3754734.4	0.003643485	0.0031557
2043	654	485451.7	3754734.4	0.003840616	0.003306472
2043	655	484551.7	3754834.4	0.003242658	0.002979317
2043	656	484651.7	3754834.4	0.003285329	0.003008528
2043	657	484751.7	3754834.4	0.003333217	0.003041133
2043	658	484851.7	3754834.4	0.003388116	0.003078581
2043	659	484951.7	3754834.4	0.003454875	0.003126139
2043	660	485051.7	3754834.4	0.003533567	0.00318294
2043	661	485151.7	3754834.4	0.003631038	0.003255403
2043	662	485251.7	3754834.4	0.003755515	0.003351331
2043	663	485351.7	3754834.4	0.003922464	0.003487445
2043	664	485451.7	3754834.4	0.004140971	0.003671542
2043	665	484551.7	3754934.4	0.003634536	0.00338655
2043	666	484651.7	3754934.4	0.003674978	0.003415274
2043	667	484751.7	3754934.4	0.003720486	0.003447449
2043	668	484851.7	3754934.4	0.003772977	0.003484859
2043	669	484951.7	3754934.4	0.003836569	0.003531869
2043	670	485051.7	3754934.4	0.003910227	0.003586716
2043	671	485151.7	3754934.4	0.004006419	0.003662433
2043	672	485251.7	3754934.4	0.004134273	0.003767131
2043	673	485351.7	3754934.4	0.004333918	0.003942243
2043	674	485451.7	3754934.4	0.004702267	0.004283123
2043	675	484551.7	3755034.4	0.004219462	0.003985179
2043	676	484651.7	3755034.4	0.004255692	0.004011236
2043	677	484751.7	3755034.4	0.004294449	0.004038013
2043	678	484851.7	3755034.4	0.004346369	0.004077414
2043	679	484951.7	3755034.4	0.004407037	0.004123743
2043	680	485051.7	3755034.4	0.004481581	0.004182307
2043	681	485151.7	3755034.4	0.004574177	0.004257259
2043	682	485251.7	3755034.4	0.004703021	0.004367231
2043	683	485351.7	3755034.4	0.004910749	0.004554369
2043	684	485451.7	3755034.4	0.005501719	0.005122284
2043	685	485549.5	3750934.9	0.000381408	0.000286398

2043	686	485649.5	3750934.9	0.000376802	0.00028247
2043	687	485749.5	3750934.9	0.000373905	0.000280085
2043	688	485849.5	3750934.9	0.000369327	0.000276267
2043	689	485549.5	3751034.9	0.000402374	0.000302286
2043	690	485649.5	3751034.9	0.000396166	0.000296938
2043	691	485749.5	3751034.9	0.000393503	0.000294719
2043	692	485849.5	3751034.9	0.000389964	0.000291775
2043	693	485549.5	3751134.9	0.000425468	0.000320068
2043	694	485649.5	3751134.9	0.000418729	0.000314191
2043	695	485749.5	3751134.9	0.000415753	0.000311674
2043	696	485849.5	3751134.9	0.000411351	0.000307938
2043	697	485549.5	3751234.9	0.000452898	0.000341689
2043	698	485649.5	3751234.9	0.000444221	0.000334028
2043	699	485749.5	3751234.9	0.000440756	0.000331036
2043	700	485849.5	3751234.9	0.000439925	0.000330468
2043	701	485549.5	3751334.9	0.000482122	0.000364898
2043	702	485649.5	3751334.9	0.000475505	0.000358979
2043	703	485749.5	3751334.9	0.000470137	0.000354265
2043	704	485849.5	3751334.9	0.000473821	0.00035779
2043	705	485549.5	3751434.9	0.000522869	0.000398477
2043	706	485649.5	3751434.9	0.000518805	0.000394748
2043	707	485749.5	3751434.9	0.000507386	0.00038446
2043	708	485849.5	3751434.9	0.000522982	0.000398924
2043	709	485549.5	3751534.9	0.000654594	0.000514071
2043	710	485649.5	3751534.9	0.000638801	0.000499731
2043	711	485749.5	3751534.9	0.000580121	0.000446876
2043	712	485849.5	3751534.9	0.000569107	0.000437031
2043	713	485549.5	3751634.9	0.001009894	0.000803943
2043	714	485649.5	3751634.9	0.000853953	0.000681468
2043	715	485749.5	3751634.9	0.000795791	0.000633331
2043	716	485849.5	3751634.9	0.00061185	0.000471853
2043	717	485549.5	3751734.9	0.001247554	0.000980651
2043	718	485649.5	3751734.9	0.001192698	0.000943849
2043	719	485749.5	3751734.9	0.001061267	0.000846565
2043	720	485849.5	3751734.9	0.000748065	0.000590538
2043	721	485549.5	3751834.9	0.001423585	0.00112109
2043	722	485649.5	3751834.9	0.001350044	0.001063201
2043	723	485749.5	3751834.9	0.001292025	0.001021026
2043	724	485849.5	3751834.9	0.001103141	0.000882625
2043	725	485549.5	3751934.9	0.001652881	0.001311622
2043	726	485649.5	3751934.9	0.001514799	0.00118527
2043	727	485749.5	3751934.9	0.001473871	0.00115035
2043	728	485849.5	3751934.9	0.001418527	0.001111805
2043	729	485549.5	3752034.9	0.001913952	0.001532891
2043	730	485649.5	3752034.9	0.001679936	0.001308415
2043	731	485749.5	3752034.9	0.001644047	0.001277913
2043	732	485849.5	3752034.9	0.001610713	0.0012578

2043	733	485549.5	3752134.9	0.001969271	0.001556215
2043	734	485649.5	3752134.9	0.00191735	0.001499243
2043	735	485749.5	3752134.9	0.001923089	0.001505909
2043	736	485849.5	3752134.9	0.001935394	0.001527596
2043	737	485549.5	3752234.9	0.002209253	0.001773399
2043	738	485649.5	3752234.9	0.002276635	0.00182918
2043	739	485749.5	3752234.9	0.002368736	0.00191246
2043	740	485849.5	3752234.9	0.002439675	0.001983816
2043	741	485549.5	3752334.9	0.001850101	0.001396992
2043	742	485649.5	3752334.9	0.001895656	0.001424482
2043	743	485749.5	3752334.9	0.001957252	0.00147074
2043	744	485849.5	3752334.9	0.002028742	0.001530912
2043	745	485549.5	3752434.9	0.001794472	0.001324626
2043	746	485649.5	3752434.9	0.00182665	0.001337114
2043	747	485749.5	3752434.9	0.001882293	0.001371805
2043	748	485849.5	3752434.9	0.001954887	0.00142284
2043	749	485549.5	3752534.9	0.001822519	0.00133457
2043	750	485649.5	3752534.9	0.00185133	0.001342231
2043	751	485749.5	3752534.9	0.001907756	0.001375517
2043	752	485849.5	3752534.9	0.001978763	0.001421248
2043	753	485549.5	3752634.9	0.001880855	0.001371813
2043	754	485649.5	3752634.9	0.001910884	0.001379303
2043	755	485749.5	3752634.9	0.001967672	0.001412109
2043	756	485849.5	3752634.9	0.002038557	0.00145584
2043	757	485549.5	3752734.9	0.001953399	0.001422491
2043	758	485649.5	3752734.9	0.001986089	0.001431634
2043	759	485749.5	3752734.9	0.002050619	0.001469412
2043	760	485849.5	3752734.9	0.002129544	0.001517696
2043	761	485549.5	3752834.9	0.002033894	0.001481518
2043	762	485649.5	3752834.9	0.002069403	0.001493384
2043	763	485749.5	3752834.9	0.002143987	0.001539441
2043	764	485849.5	3752834.9	0.00223422	0.001596148
2043	765	485549.5	3752934.9	0.002125289	0.001549419
2043	766	485649.5	3752934.9	0.002162579	0.001563807
2043	767	485749.5	3752934.9	0.002246546	0.00162032
2043	768	485849.5	3752934.9	0.002356775	0.001695749
2043	769	485549.5	3753034.9	0.002242012	0.001638611
2043	770	485649.5	3753034.9	0.00226017	0.001635901
2043	771	485749.5	3753034.9	0.002355235	0.001704743
2043	772	485849.5	3753034.9	0.002493296	0.001811424
2043	773	485549.5	3753134.9	0.002284072	0.001644917
2043	774	485649.5	3753134.9	0.002355896	0.00169816
2043	775	485749.5	3753134.9	0.002457885	0.001778786
2043	776	485849.5	3753134.9	0.002614922	0.001910057
2043	777	485549.5	3753234.9	0.002390153	0.001705256
2043	778	485649.5	3753234.9	0.002465506	0.001764755
2043	779	485749.5	3753234.9	0.002565761	0.001850794

2043	780	485849.5	3753234.9	0.002726467	0.001993194
2043	781	485549.5	3753334.9	0.002552748	0.001807315
2043	782	485649.5	3753334.9	0.002613069	0.001847051
2043	783	485749.5	3753334.9	0.002705472	0.001931871
2043	784	485849.5	3753334.9	0.00285173	0.002074119
2043	785	485549.5	3753434.9	0.002734212	0.001918728
2043	786	485649.5	3753434.9	0.002833638	0.001976921
2043	787	485749.5	3753434.9	0.002943824	0.002069103
2043	788	485849.5	3753434.9	0.003067125	0.00220911
2043	789	485508.5	3746711.3	0.000243354	0.00020122
2043	790	491508.5	3746711.3	0.000169864	0.000140836
2043	791	479508.5	3752711.3	0.000851823	0.000773514
2043	792	485508.5	3752711.3	0.001895189	0.001378055
2043	793	491508.5	3752711.3	0.001567461	0.001036188
2043	794	485508.5	3758711.3	0.00043243	0.000401466
2043	795	491508.5	3758711.3	0.000183346	0.000159375
2043	796	485921.9	3750934.2	0.000365028	0.000272701
2043	797	486021.9	3750934.2	0.000360418	0.000268932
2043	798	486121.9	3750934.2	0.000357923	0.00026707
2043	799	485921.9	3751034.2	0.000384631	0.000287232
2043	800	486021.9	3751034.2	0.000377898	0.000281551
2043	801	486121.9	3751034.2	0.00037402	0.000278405
2043	802	485921.9	3751134.2	0.000406955	0.000304179
2043	803	486021.9	3751134.2	0.000399493	0.000297785
2043	804	486121.9	3751134.2	0.000393681	0.000292847
2043	805	485921.9	3751234.2	0.000432798	0.00032423
2043	806	486021.9	3751234.2	0.000424621	0.00031711
2043	807	486121.9	3751234.2	0.000417409	0.00031087
2043	808	485921.9	3751334.2	0.000464403	0.000349418
2043	809	486021.9	3751334.2	0.000454997	0.000341098
2043	810	486121.9	3751334.2	0.000444613	0.000331926
2043	811	485921.9	3751434.2	0.000507596	0.000385075
2043	812	486021.9	3751434.2	0.0004912	0.000370314
2043	813	486121.9	3751434.2	0.000477666	0.000358177
2043	814	485921.9	3751534.2	0.000553763	0.000423265
2043	815	486021.9	3751534.2	0.000542648	0.000413375
2043	816	486121.9	3751534.2	0.000519194	0.000392079
2043	817	485921.9	3751634.2	0.000593219	0.000455051
2043	818	486021.9	3751634.2	0.000633392	0.000491781
2043	819	486121.9	3751634.2	0.000584532	0.000447697
2043	820	485921.9	3751734.2	0.000679013	0.000528765
2043	821	486021.9	3751734.2	0.000778367	0.000616779
2043	822	486121.9	3751734.2	0.000659997	0.000512079
2043	823	485921.9	3751834.2	0.000866478	0.000691228
2043	824	486021.9	3751834.2	0.000872214	0.000695631
2043	825	486121.9	3751834.2	0.000693402	0.000537748
2043	826	485921.9	3751934.2	0.001294056	0.001034312

2043	827	486021.9	3751934.2	0.001078493	0.000866571
2043	828	486121.9	3751934.2	0.000879039	0.000698955
2043	829	485921.9	3752034.2	0.001535784	0.001210919
2043	830	486021.9	3752034.2	0.001324917	0.001068299
2043	831	486121.9	3752034.2	0.001206381	0.000975352
2043	832	485921.9	3752134.2	0.001953025	0.001557591
2043	833	486021.9	3752134.2	0.001902123	0.001537501
2043	834	486121.9	3752134.2	0.00163049	0.001323345
2043	835	485921.9	3752234.2	0.002480435	0.002033643
2043	836	486021.9	3752234.2	0.002589538	0.00215299
2043	837	486121.9	3752234.2	0.002390124	0.001971573
2043	838	485921.9	3752334.2	0.0020821	0.00157883
2043	839	486021.9	3752334.2	0.002195372	0.001692959
2043	840	486121.9	3752334.2	0.002539709	0.002039301
2043	841	485921.9	3752434.2	0.002021294	0.001478324
2043	842	486021.9	3752434.2	0.002132857	0.001577631
2043	843	486121.9	3752434.2	0.002320376	0.001752716
2043	844	485921.9	3752534.2	0.002044178	0.001466591
2043	845	486021.9	3752534.2	0.00213993	0.001538946
2043	846	486121.9	3752534.2	0.002267798	0.001644881
2043	847	485921.9	3752634.2	0.002097036	0.001494003
2043	848	486021.9	3752634.2	0.002186288	0.001556481
2043	849	486121.9	3752634.2	0.002296269	0.00164047
2043	850	485921.9	3752734.2	0.002191812	0.001557032
2043	851	486021.9	3752734.2	0.002291617	0.001623302
2043	852	486121.9	3752734.2	0.002407619	0.001706739
2043	853	485921.9	3752834.2	0.002309887	0.001643694
2043	854	486021.9	3752834.2	0.002431122	0.001722218
2043	855	486121.9	3752834.2	0.002573458	0.001820611
2043	856	485921.9	3752934.2	0.002446021	0.001755807
2043	857	486021.9	3752934.2	0.002597274	0.001856282
2043	858	486121.9	3752934.2	0.002807017	0.002005958
2043	859	487026.2	3754364	0.009710497	0.00841767
2044	1	489607.4	3753966.1	0.003005338	0.002024868
2044	2	489738.7	3754023.9	0.002663909	0.001858582
2044	3	489668.9	3754093.7	0.002533356	0.001848683
2044	4	489690.1	3754161.6	0.002401322	0.001785056
2044	5	490282.2	3753425.2	0.00354684	0.002476163
2044	6	489797.3	3754554.1	0.001961821	0.001506036
2044	7	490252.9	3754378.2	0.001795272	0.0013542
2044	8	489006	3754140.3	0.004557281	0.003554049
2044	9	485642.8	3754267.3	0.004100126	0.003165087
2044	10	485736.4	3754259.5	0.004521802	0.003497506
2044	11	487189.2	3754820.5	0.010091874	0.00899555
2044	12	487233.1	3754689.5	0.008297948	0.00709333
2044	13	487216.8	3754364.7	0.012644115	0.011429272
2044	14	487388.8	3754380.1	0.009543453	0.008421717

2044	15	484625	3751748	0.001234098	0.000953633
2044	16	483279	3751798	0.00092791	0.000727788
2044	17	483231	3751205	0.000825023	0.000648303
2044	18	480165	3750195	0.000624023	0.000534263
2044	19	481211	3749473	0.000563464	0.000463935
2044	20	481867	3752785	0.000944174	0.00080302
2044	21	480678	3751306	0.000678202	0.000572995
2044	22	479989	3752645	0.0008108	0.000723565
2044	23	479889	3756222	0.001134397	0.001082257
2044	24	479234	3757080	0.000547074	0.000509408
2044	25	480276	3756365	0.000922189	0.000872234
2044	26	479887	3754007	0.001055189	0.0009793
2044	27	480772	3755009	0.002233887	0.002151236
2044	28	481560	3754548	0.001674262	0.001568972
2044	29	481845	3754457	0.001689894	0.001574936
2044	30	481754	3753876	0.001207659	0.001084719
2044	31	489635.2	3750663.8	0.000459906	0.000350302
2044	32	485424.1	3747672.3	0.000299065	0.000242834
2044	33	482657.6	3753975.1	0.00143028	0.00126862
2044	34	481495	3754633.7	0.001756784	0.001654574
2044	35	481148.7	3756136.2	0.001267021	0.001204873
2044	36	482346.5	3748872.9	0.000232626	0.0001823
2044	37	480299	3751198	0.000660146	0.000563128
2044	38	479598.7	3756506.3	0.000867936	0.000821002
2044	39	478997.8	3753535.2	0.001183188	0.001116459
2044	40	478978.3	3755233.1	0.003560174	0.003496442
2044	41	479197.3	3754462.3	0.001567936	0.001503431
2044	42	479493.3	3752408.8	0.000823625	0.000743943
2044	43	480295.4	3752408.4	0.000785911	0.00069107
2044	44	480287.9	3754227.5	0.001156285	0.001075163
2044	45	494397.4	3753977.6	0.000725748	0.000586299
2044	46	481108.5	3750699	0.000665979	0.000556029
2044	47	486794.1	3756878	0.000672299	0.000603662
2044	48	482345	3752065.8	0.000894428	0.00073282
2044	49	487553	3745938.3	0.000182569	0.000153648
2044	50	484553	3746938.3	0.000241564	0.000198588
2044	51	485553	3746938.3	0.000253608	0.000208967
2044	52	486553	3746938.3	0.000202023	0.000171399
2044	53	487553	3746938.3	0.000222575	0.000184427
2044	54	488553	3746938.3	0.000202874	0.000169034
2044	55	489553	3746938.3	0.000200449	0.000165706
2044	56	490553	3746938.3	0.000184072	0.000152596
2044	57	491553	3746938.3	0.000175157	0.000144868
2044	58	492553	3746938.3	0.000168435	0.000139086
2044	59	482553	3747938.3	0.000212152	0.000168924
2044	60	483553	3747938.3	0.000354356	0.000283347
2044	61	484553	3747938.3	0.000337484	0.000271086

2044	62	485553	3747938.3	0.00031492	0.000254433
2044	63	486553	3747938.3	0.000293122	0.000240154
2044	64	487553	3747938.3	0.000187394	0.00015797
2044	65	488553	3747938.3	0.000244456	0.00020091
2044	66	489553	3747938.3	0.000229533	0.000188645
2044	67	490553	3747938.3	0.000216089	0.00017724
2044	68	491553	3747938.3	0.000204979	0.000167532
2044	69	492553	3747938.3	0.000196066	0.0001598
2044	70	493553	3747938.3	0.000189683	0.000154526
2044	71	481553	3748938.3	0.000477258	0.000381585
2044	72	482553	3748938.3	0.000243557	0.000191236
2044	73	483553	3748938.3	0.000407565	0.000324862
2044	74	484553	3748938.3	0.000427488	0.000337876
2044	75	485553	3748938.3	0.000407619	0.000323715
2044	76	486553	3748938.3	0.000377647	0.000302446
2044	77	487553	3748938.3	0.000296439	0.000248158
2044	78	488553	3748938.3	0.000304282	0.000245516
2044	79	489553	3748938.3	0.000279574	0.000226405
2044	80	490553	3748938.3	0.000262247	0.000211584
2044	81	491553	3748938.3	0.00024669	0.000198356
2044	82	492553	3748938.3	0.000236251	0.00018921
2044	83	493553	3748938.3	0.000233243	0.000187063
2044	84	494553	3748938.3	0.00030144	0.000256321
2044	85	480553	3749938.3	0.000738525	0.00064574
2044	86	481553	3749938.3	0.000643016	0.000527037
2044	87	482553	3749938.3	0.000627525	0.000501042
2044	88	483553	3749938.3	0.000616276	0.000485716
2044	89	484553	3749938.3	0.000451724	0.000357484
2044	90	485553	3749938.3	0.000369763	0.000294132
2044	91	486553	3749938.3	0.00043767	0.000354462
2044	92	487553	3749938.3	0.000458427	0.000362341
2044	93	488553	3749938.3	0.000397964	0.000312339
2044	94	489553	3749938.3	0.00036174	0.000285053
2044	95	490553	3749938.3	0.000334027	0.000262435
2044	96	491553	3749938.3	0.000313074	0.00024466
2044	97	492553	3749938.3	0.000304898	0.000237148
2044	98	493553	3749938.3	0.000341455	0.00027118
2044	99	494553	3749938.3	0.000287451	0.000218146
2044	100	495553	3749938.3	0.000228161	0.000188337
2044	101	480553	3750938.3	0.000646363	0.000545317
2044	102	481553	3750938.3	0.000695371	0.000573577
2044	103	482553	3750938.3	0.000755391	0.000607747
2044	104	483553	3750938.3	0.000868914	0.000689323
2044	105	484553	3750938.3	0.000863038	0.000673992
2044	106	485553	3750938.3	0.000381804	0.000286657
2044	107	486553	3750938.3	0.000352273	0.000265001
2044	108	487553	3750938.3	0.000551668	0.000438674

2044	109	488553	3750938.3	0.000597203	0.000442398
2044	110	489553	3750938.3	0.000524571	0.000391487
2044	111	490553	3750938.3	0.000468271	0.000349838
2044	112	491553	3750938.3	0.00043614	0.000323869
2044	113	492553	3750938.3	0.000490154	0.000375303
2044	114	493553	3750938.3	0.000424692	0.000311663
2044	115	494553	3750938.3	0.000411569	0.000305844
2044	116	495553	3750938.3	0.000383874	0.000298329
2044	117	479553	3751938.3	0.000760661	0.00067789
2044	118	480553	3751938.3	0.000747192	0.000644871
2044	119	481553	3751938.3	0.000789246	0.000659741
2044	120	482553	3751938.3	0.000876139	0.000706882
2044	121	483553	3751938.3	0.00100534	0.000784025
2044	122	484553	3751938.3	0.00119653	0.000910504
2044	123	485553	3751938.3	0.001652386	0.001310076
2044	124	486553	3751938.3	0.000677518	0.000518984
2044	125	487553	3751938.3	0.0010938	0.00085464
2044	126	488553	3751938.3	0.00117449	0.000795388
2044	127	489553	3751938.3	0.001068619	0.000702555
2044	128	490553	3751938.3	0.000896855	0.000589903
2044	129	491553	3751938.3	0.000929406	0.000648649
2044	130	492553	3751938.3	0.000742622	0.000479676
2044	131	493553	3751938.3	0.000665304	0.000493868
2044	132	494553	3751938.3	0.000613824	0.000458547
2044	133	495553	3751938.3	0.000540945	0.000414249
2044	134	479553	3752938.3	0.000919753	0.000842083
2044	135	480553	3752938.3	0.000917948	0.00082014
2044	136	481553	3752938.3	0.000989982	0.000862685
2044	137	482553	3752938.3	0.001120124	0.000945069
2044	138	483553	3752938.3	0.001288046	0.001036158
2044	139	484553	3752938.3	0.00160562	0.001206286
2044	140	485553	3752938.3	0.002127435	0.001549907
2044	141	486553	3752938.3	0.004197908	0.00330725
2044	142	487553	3752938.3	0.004624128	0.003486353
2044	143	488553	3752938.3	0.004121289	0.003017912
2044	144	489553	3752938.3	0.003759956	0.002743019
2044	145	490553	3752938.3	0.003118444	0.002239126
2044	146	491553	3752938.3	0.001615505	0.001121584
2044	147	492553	3752938.3	0.001228605	0.000804777
2044	148	493553	3752938.3	0.000998658	0.000713483
2044	149	494553	3752938.3	0.000851242	0.000635835
2044	150	495553	3752938.3	0.000685581	0.000530474
2044	151	479553	3753938.3	0.001056648	0.000985336
2044	152	480553	3753938.3	0.001065631	0.000976785
2044	153	481553	3753938.3	0.001210442	0.00109536
2044	154	482553	3753938.3	0.001382839	0.001225984
2044	155	483553	3753938.3	0.001739126	0.001518375

2044	156	484553	3753938.3	0.002062736	0.001657532
2044	157	485553	3753938.3	0.003328033	0.002399635
2044	158	486553	3753938.3	0.00587771	0.004415519
2044	159	487553	3753938.3	0.006449908	0.005269006
2044	160	488553	3753938.3	0.005707975	0.004366261
2044	161	489553	3753938.3	0.003208337	0.002146419
2044	162	490553	3753938.3	0.001856303	0.001363774
2044	163	491553	3753938.3	0.001295453	0.001010088
2044	164	492553	3753938.3	0.001062803	0.000839688
2044	165	493553	3753938.3	0.000869399	0.000695423
2044	166	494553	3753938.3	0.000790045	0.0006368
2044	167	495553	3753938.3	0.000616134	0.000500931
2044	168	479553	3754938.3	0.001879019	0.001812246
2044	169	480553	3754938.3	0.002003114	0.001923237
2044	170	481553	3754938.3	0.002294445	0.002195577
2044	171	482553	3754938.3	0.00335287	0.003226354
2044	172	483553	3754938.3	0.00368581	0.003520762
2044	173	484553	3754938.3	0.003653175	0.003405562
2044	174	485553	3754938.3	0.005300037	0.004852217
2044	175	486553	3754938.3	0.007308372	0.006652972
2044	176	487553	3754938.3	0.0062339	0.005368797
2044	177	488553	3754938.3	0.003502589	0.002902681
2044	178	489553	3754938.3	0.002195006	0.001888802
2044	179	490553	3754938.3	0.001462739	0.001284618
2044	180	491553	3754938.3	0.000961313	0.000837579
2044	181	492553	3754938.3	0.00069004	0.000593919
2044	182	493553	3754938.3	0.000697621	0.000605986
2044	183	494553	3754938.3	0.000530786	0.000457223
2044	184	495553	3754938.3	0.0004455	0.000382642
2044	185	479553	3755938.3	0.001890688	0.001833685
2044	186	480553	3755938.3	0.001584961	0.001523412
2044	187	481553	3755938.3	0.001605812	0.001537024
2044	188	482553	3755938.3	0.002296043	0.002205008
2044	189	483553	3755938.3	0.002411683	0.002302912
2044	190	484553	3755938.3	0.002292656	0.002159919
2044	191	485553	3755938.3	0.003236686	0.003072111
2044	192	486553	3755938.3	0.002616244	0.002439538
2044	193	487553	3755938.3	0.001445759	0.001334041
2044	194	488553	3755938.3	0.00100995	0.000921686
2044	195	489553	3755938.3	0.000692157	0.000624987
2044	196	490553	3755938.3	0.000572999	0.000515125
2044	197	491553	3755938.3	0.000472248	0.000422692
2044	198	492553	3755938.3	0.000572246	0.000526197
2044	199	493553	3755938.3	0.000419577	0.000378874
2044	200	494553	3755938.3	0.000403112	0.000365151
2044	201	479553	3756938.3	0.000573374	0.000534622
2044	202	480553	3756938.3	0.000548895	0.000508986

2044	203	481553	3756938.3	0.000495782	0.000457683
2044	204	482553	3756938.3	0.00051746	0.000475038
2044	205	483553	3756938.3	0.000872637	0.000803056
2044	206	484553	3756938.3	0.00084184	0.000766684
2044	207	485553	3756938.3	0.001827111	0.001750147
2044	208	486553	3756938.3	0.000695643	0.000626292
2044	209	487553	3756938.3	0.00045769	0.000405552
2044	210	488553	3756938.3	0.000371244	0.000326038
2044	211	489553	3756938.3	0.000325199	0.000284817
2044	212	490553	3756938.3	0.000297106	0.000260157
2044	213	491553	3756938.3	0.000259743	0.000227122
2044	214	492553	3756938.3	0.00023137	0.000202437
2044	215	493553	3756938.3	0.000245885	0.000217978
2044	216	494553	3756938.3	0.000238675	0.000212418
2044	217	479553	3757938.3	0.000288328	0.000263889
2044	218	480553	3757938.3	0.000276024	0.000251565
2044	219	481553	3757938.3	0.00029157	0.000263898
2044	220	482553	3757938.3	0.000360656	0.000323934
2044	221	483553	3757938.3	0.000353692	0.000315771
2044	222	484553	3757938.3	0.000465686	0.000418696
2044	223	485553	3757938.3	0.000539591	0.000498787
2044	224	486553	3757938.3	0.000322692	0.00028524
2044	225	487553	3757938.3	0.000263808	0.000230199
2044	226	488553	3757938.3	0.00023161	0.000200905
2044	227	489553	3757938.3	0.000213728	0.000184893
2044	228	490553	3757938.3	0.000195439	0.000168934
2044	229	491553	3757938.3	0.000179074	0.000154599
2044	230	492553	3757938.3	0.000171933	0.000148988
2044	231	493553	3757938.3	0.000190686	0.000166992
2044	232	480553	3758938.3	0.000207166	0.000186495
2044	233	481553	3758938.3	0.000231101	0.000206373
2044	234	482553	3758938.3	0.000225123	0.000199414
2044	235	483553	3758938.3	0.000236025	0.000208208
2044	236	484553	3758938.3	0.00029534	0.000264183
2044	237	485553	3758938.3	0.000685858	0.00065257
2044	238	486553	3758938.3	0.000223329	0.000196708
2044	239	487553	3758938.3	0.000245191	0.000215841
2044	240	488553	3758938.3	0.000182051	0.000158491
2044	241	489553	3758938.3	0.000184564	0.000160754
2044	242	490553	3758938.3	0.000201511	0.000175347
2044	243	491553	3758938.3	0.00016388	0.000142275
2044	244	492553	3758938.3	0.000170507	0.000148228
2044	245	481553	3759938.3	0.000170999	0.000151817
2044	246	482553	3759938.3	0.000176464	0.000155607
2044	247	483553	3759938.3	0.000186986	0.000164671
2044	248	484553	3759938.3	0.000260077	0.000232294
2044	249	485553	3759938.3	0.000678447	0.000644739

2044	250	486553	3759938.3	0.00032149	0.00028742
2044	251	487553	3759938.3	0.000262256	0.000232114
2044	252	488553	3759938.3	0.000261735	0.000229806
2044	253	489553	3759938.3	0.000226817	0.000197994
2044	254	490553	3759938.3	0.000175373	0.000153105
2044	255	491553	3759938.3	0.000152834	0.000133041
2044	256	482553	3760938.3	0.000166449	0.000146921
2044	257	483553	3760938.3	0.000192501	0.000170624
2044	258	484553	3760938.3	0.000245855	0.00022007
2044	259	485553	3760938.3	0.000558289	0.000524197
2044	260	486553	3760938.3	0.00036625	0.000329826
2044	261	487553	3760938.3	0.000292034	0.000262292
2044	262	488553	3760938.3	0.000166389	0.000147291
2044	263	489553	3760938.3	0.000126207	0.000110586
2044	264	490553	3760938.3	0.000120723	0.000105368
2044	265	484551.7	3750934.4	0.00085781	0.000670964
2044	266	484651.7	3750934.4	0.00084689	0.000662861
2044	267	484751.7	3750934.4	0.000647301	0.000513036
2044	268	484851.7	3750934.4	0.000593984	0.000470956
2044	269	484951.7	3750934.4	0.000627812	0.00049677
2044	270	485051.7	3750934.4	0.00056273	0.000444998
2044	271	485151.7	3750934.4	0.000468565	0.000364323
2044	272	485251.7	3750934.4	0.000412708	0.000314147
2044	273	485351.7	3750934.4	0.000396894	0.000299953
2044	274	485451.7	3750934.4	0.0003885	0.00029256
2044	275	484551.7	3751034.4	0.00091639	0.000709662
2044	276	484651.7	3751034.4	0.00090406	0.000701219
2044	277	484751.7	3751034.4	0.000849246	0.000669214
2044	278	484851.7	3751034.4	0.000672371	0.0005324
2044	279	484951.7	3751034.4	0.000747061	0.000589409
2044	280	485051.7	3751034.4	0.00062661	0.000495875
2044	281	485151.7	3751034.4	0.000543262	0.000427368
2044	282	485251.7	3751034.4	0.000462049	0.000355854
2044	283	485351.7	3751034.4	0.000426744	0.000324007
2044	284	485451.7	3751034.4	0.000411431	0.000310272
2044	285	484551.7	3751134.4	0.000962674	0.000742171
2044	286	484651.7	3751134.4	0.000960568	0.000738894
2044	287	484751.7	3751134.4	0.000948044	0.000731807
2044	288	484851.7	3751134.4	0.000856235	0.000678417
2044	289	484951.7	3751134.4	0.000877054	0.000690184
2044	290	485051.7	3751134.4	0.00072305	0.000571168
2044	291	485151.7	3751134.4	0.000641733	0.000507903
2044	292	485251.7	3751134.4	0.000555085	0.000435731
2044	293	485351.7	3751134.4	0.000472087	0.000362072
2044	294	485451.7	3751134.4	0.000438092	0.000331327
2044	295	484551.7	3751234.4	0.001010266	0.000778358
2044	296	484651.7	3751234.4	0.001010341	0.000775898

2044	297	484751.7	3751234.4	0.001002462	0.00077203
2044	298	484851.7	3751234.4	0.000974393	0.000757209
2044	299	484951.7	3751234.4	0.000948845	0.000742007
2044	300	485051.7	3751234.4	0.00085298	0.000675077
2044	301	485151.7	3751234.4	0.000719612	0.000570026
2044	302	485251.7	3751234.4	0.000543351	0.000423307
2044	303	485351.7	3751234.4	0.00048047	0.000366617
2044	304	485451.7	3751234.4	0.000461442	0.000349354
2044	305	484551.7	3751334.4	0.001081053	0.000835602
2044	306	484651.7	3751334.4	0.001073192	0.000827108
2044	307	484751.7	3751334.4	0.001061106	0.000819641
2044	308	484851.7	3751334.4	0.001046072	0.000810269
2044	309	484951.7	3751334.4	0.00103785	0.000803428
2044	310	485051.7	3751334.4	0.000995324	0.000779379
2044	311	485151.7	3751334.4	0.000842305	0.000666826
2044	312	485251.7	3751334.4	0.00066315	0.000525565
2044	313	485351.7	3751334.4	0.000522765	0.000401953
2044	314	485451.7	3751334.4	0.00048902	0.000371194
2044	315	484551.7	3751434.4	0.001195871	0.000941044
2044	316	484651.7	3751434.4	0.001163768	0.000905728
2044	317	484751.7	3751434.4	0.001144393	0.000885781
2044	318	484851.7	3751434.4	0.00113107	0.000873877
2044	319	484951.7	3751434.4	0.001120277	0.000865319
2044	320	485051.7	3751434.4	0.00110667	0.000855016
2044	321	485151.7	3751434.4	0.00099371	0.000789774
2044	322	485251.7	3751434.4	0.000773905	0.00061681
2044	323	485351.7	3751434.4	0.000608583	0.00047649
2044	324	485451.7	3751434.4	0.00054169	0.000415823
2044	325	484551.7	3751534.4	0.001456143	0.001194651
2044	326	484651.7	3751534.4	0.001349409	0.001081237
2044	327	484751.7	3751534.4	0.001270368	0.000997498
2044	328	484851.7	3751534.4	0.001233975	0.000958587
2044	329	484951.7	3751534.4	0.001216508	0.000938945
2044	330	485051.7	3751534.4	0.00120715	0.000926978
2044	331	485151.7	3751534.4	0.001192785	0.000916086
2044	332	485251.7	3751534.4	0.001082089	0.00085507
2044	333	485351.7	3751534.4	0.000865048	0.000689985
2044	334	485451.7	3751534.4	0.000715318	0.00056769
2044	335	484551.7	3751634.4	0.001348616	0.00108066
2044	336	484651.7	3751634.4	0.001389714	0.001114828
2044	337	484751.7	3751634.4	0.001432773	0.001150223
2044	338	484851.7	3751634.4	0.001460119	0.001172175
2044	339	484951.7	3751634.4	0.001360079	0.001067802
2044	340	485051.7	3751634.4	0.001317314	0.001020951
2044	341	485151.7	3751634.4	0.001301717	0.00100178
2044	342	485251.7	3751634.4	0.00126963	0.000980559
2044	343	485351.7	3751634.4	0.001209076	0.000942354

2044	344	485451.7	3751634.4	0.001103471	0.000878023
2044	345	484551.7	3751734.4	0.00119826	0.000925036
2044	346	484651.7	3751734.4	0.001264518	0.00098234
2044	347	484751.7	3751734.4	0.001369029	0.001078914
2044	348	484851.7	3751734.4	0.001502342	0.001205645
2044	349	484951.7	3751734.4	0.001504911	0.00120346
2044	350	485051.7	3751734.4	0.001637929	0.001331229
2044	351	485151.7	3751734.4	0.001489861	0.001175256
2044	352	485251.7	3751734.4	0.001448465	0.001130981
2044	353	485351.7	3751734.4	0.001395598	0.00108578
2044	354	485451.7	3751734.4	0.001321168	0.001028942
2044	355	484551.7	3751834.4	0.001178528	0.000900498
2044	356	484651.7	3751834.4	0.001216232	0.000929544
2044	357	484751.7	3751834.4	0.001259795	0.000964382
2044	358	484851.7	3751834.4	0.001311587	0.001008227
2044	359	484951.7	3751834.4	0.001376602	0.001067296
2044	360	485051.7	3751834.4	0.001520517	0.001203986
2044	361	485151.7	3751834.4	0.001542038	0.001214307
2044	362	485251.7	3751834.4	0.001632191	0.001296729
2044	363	485351.7	3751834.4	0.001647723	0.001312326
2044	364	485451.7	3751834.4	0.00164466	0.001317141
2044	365	484551.7	3751934.4	0.001194952	0.000909391
2044	366	484651.7	3751934.4	0.001221364	0.000928327
2044	367	484751.7	3751934.4	0.001248195	0.00094805
2044	368	484851.7	3751934.4	0.001281837	0.000973346
2044	369	484951.7	3751934.4	0.001318899	0.001002103
2044	370	485051.7	3751934.4	0.001366238	0.001039846
2044	371	485151.7	3751934.4	0.001426081	0.001088516
2044	372	485251.7	3751934.4	0.00150841	0.001158113
2044	373	485351.7	3751934.4	0.001627079	0.001268813
2044	374	485451.7	3751934.4	0.001700973	0.001347094
2044	375	484551.7	3752034.4	0.00123658	0.000940967
2044	376	484651.7	3752034.4	0.001259397	0.000956388
2044	377	484751.7	3752034.4	0.001283978	0.000973366
2044	378	484851.7	3752034.4	0.001310027	0.000991611
2044	379	484951.7	3752034.4	0.001342007	0.001014467
2044	380	485051.7	3752034.4	0.001380379	0.001042355
2044	381	485151.7	3752034.4	0.001427179	0.001077177
2044	382	485251.7	3752034.4	0.001494628	0.001130077
2044	383	485351.7	3752034.4	0.001585696	0.001209182
2044	384	485451.7	3752034.4	0.001797931	0.001414264
2044	385	484551.7	3752134.4	0.001309768	0.001003584
2044	386	484651.7	3752134.4	0.00133143	0.001017358
2044	387	484751.7	3752134.4	0.001355632	0.00103318
2044	388	484851.7	3752134.4	0.001380202	0.001049316
2044	389	484951.7	3752134.4	0.001407388	0.001067564
2044	390	485051.7	3752134.4	0.001440843	0.001090734

2044	391	485151.7	3752134.4	0.001481643	0.001119932
2044	392	485251.7	3752134.4	0.001541168	0.001164836
2044	393	485351.7	3752134.4	0.00163458	0.001242518
2044	394	485451.7	3752134.4	0.00184928	0.001444735
2044	395	484551.7	3752234.4	0.00144234	0.001126349
2044	396	484651.7	3752234.4	0.001473627	0.001148329
2044	397	484751.7	3752234.4	0.001496568	0.00116218
2044	398	484851.7	3752234.4	0.001516013	0.001172452
2044	399	484951.7	3752234.4	0.00161539	0.001262436
2044	400	485051.7	3752234.4	0.001568001	0.00120522
2044	401	485151.7	3752234.4	0.001609817	0.001236612
2044	402	485251.7	3752234.4	0.001656023	0.001268681
2044	403	485351.7	3752234.4	0.001744825	0.001340437
2044	404	485451.7	3752234.4	0.002006212	0.001585117
2044	405	484551.7	3752334.4	0.00137642	0.001048293
2044	406	484651.7	3752334.4	0.001402623	0.001064916
2044	407	484751.7	3752334.4	0.001428874	0.001081665
2044	408	484851.7	3752334.4	0.001456068	0.001099205
2044	409	484951.7	3752334.4	0.001486183	0.001118959
2044	410	485051.7	3752334.4	0.001516782	0.001139289
2044	411	485151.7	3752334.4	0.001552645	0.001163754
2044	412	485251.7	3752334.4	0.001594992	0.001193738
2044	413	485351.7	3752334.4	0.001653852	0.001237788
2044	414	485451.7	3752334.4	0.001757089	0.001322574
2044	415	484551.7	3752434.4	0.001374057	0.001033906
2044	416	484651.7	3752434.4	0.001400675	0.00105041
2044	417	484751.7	3752434.4	0.001426966	0.001066937
2044	418	484851.7	3752434.4	0.001458117	0.001086799
2044	419	484951.7	3752434.4	0.001488964	0.001106788
2044	420	485051.7	3752434.4	0.001522938	0.001129194
2044	421	485151.7	3752434.4	0.001560259	0.001154198
2044	422	485251.7	3752434.4	0.001601804	0.001182746
2044	423	485351.7	3752434.4	0.001653242	0.001219379
2044	424	485451.7	3752434.4	0.001729627	0.001279192
2044	425	484551.7	3752534.4	0.001401819	0.001049316
2044	426	484651.7	3752534.4	0.001429809	0.001066429
2044	427	484751.7	3752534.4	0.001459488	0.001084859
2044	428	484851.7	3752534.4	0.001491713	0.001105178
2044	429	484951.7	3752534.4	0.00152427	0.00112611
2044	430	485051.7	3752534.4	0.001560829	0.001149939
2044	431	485151.7	3752534.4	0.001599872	0.001175854
2044	432	485251.7	3752534.4	0.001641838	0.001204362
2044	433	485351.7	3752534.4	0.001690709	0.001238524
2044	434	485451.7	3752534.4	0.00176205	0.001293077
2044	435	484551.7	3752634.4	0.001438541	0.001074066
2044	436	484651.7	3752634.4	0.001468059	0.001091822
2044	437	484751.7	3752634.4	0.001499137	0.001110847

2044	438	484851.7	3752634.4	0.001535217	0.00113325
2044	439	484951.7	3752634.4	0.001570908	0.001155938
2044	440	485051.7	3752634.4	0.001610282	0.001181404
2044	441	485151.7	3752634.4	0.001651377	0.001208572
2044	442	485251.7	3752634.4	0.001695229	0.001238247
2044	443	485351.7	3752634.4	0.001745409	0.001273186
2044	444	485451.7	3752634.4	0.001817814	0.001327956
2044	445	484551.7	3752734.4	0.001483352	0.001106832
2044	446	484651.7	3752734.4	0.001516186	0.001126096
2044	447	484751.7	3752734.4	0.001550521	0.001146678
2044	448	484851.7	3752734.4	0.001587292	0.00116924
2044	449	484951.7	3752734.4	0.001626016	0.001193528
2044	450	485051.7	3752734.4	0.001668241	0.001220643
2044	451	485151.7	3752734.4	0.001711712	0.001249267
2044	452	485251.7	3752734.4	0.00175782	0.001280463
2044	453	485351.7	3752734.4	0.001810408	0.001317086
2044	454	485451.7	3752734.4	0.001882636	0.001372065
2044	455	484551.7	3752834.4	0.001534456	0.001146596
2044	456	484651.7	3752834.4	0.001570243	0.001166992
2044	457	484751.7	3752834.4	0.001606119	0.001187866
2044	458	484851.7	3752834.4	0.001647252	0.001212626
2044	459	484951.7	3752834.4	0.001689701	0.001238761
2044	460	485051.7	3752834.4	0.001734221	0.001266916
2044	461	485151.7	3752834.4	0.001780125	0.001296864
2044	462	485251.7	3752834.4	0.001829099	0.001329854
2044	463	485351.7	3752834.4	0.001882997	0.001367863
2044	464	485451.7	3752834.4	0.001957854	0.001425333
2044	465	484551.7	3752934.4	0.001601751	0.001203046
2044	466	484651.7	3752934.4	0.00164048	0.00122451
2044	467	484751.7	3752934.4	0.001679838	0.001246691
2044	468	484851.7	3752934.4	0.001724112	0.001272555
2044	469	484951.7	3752934.4	0.001770055	0.001300051
2044	470	485051.7	3752934.4	0.001818983	0.001330259
2044	471	485151.7	3752934.4	0.00186735	0.001361117
2044	472	485251.7	3752934.4	0.001920264	0.00139627
2044	473	485351.7	3752934.4	0.001973824	0.001433845
2044	474	485451.7	3752934.4	0.002047133	0.001490124
2044	475	484551.7	3753034.4	0.001715618	0.001307625
2044	476	484651.7	3753034.4	0.00176227	0.001335261
2044	477	484751.7	3753034.4	0.001814456	0.001367484
2044	478	484851.7	3753034.4	0.001855514	0.001387618
2044	479	484951.7	3753034.4	0.001903049	0.001414056
2044	480	485051.7	3753034.4	0.00195553	0.001445755
2044	481	485151.7	3753034.4	0.002014561	0.001483999
2044	482	485251.7	3753034.4	0.002115233	0.001564722
2044	483	485351.7	3753034.4	0.002120727	0.001552771
2044	484	485451.7	3753034.4	0.002181446	0.001596507

2044	485	484551.7	3753134.4	0.001687332	0.001270859
2044	486	484651.7	3753134.4	0.00173429	0.001296449
2044	487	484751.7	3753134.4	0.001785371	0.001324848
2044	488	484851.7	3753134.4	0.001837625	0.00135412
2044	489	484951.7	3753134.4	0.001893722	0.001386283
2044	490	485051.7	3753134.4	0.001952738	0.00142104
2044	491	485151.7	3753134.4	0.002013623	0.001457896
2044	492	485251.7	3753134.4	0.002078831	0.001499391
2044	493	485351.7	3753134.4	0.002146062	0.001544987
2044	494	485451.7	3753134.4	0.002226377	0.001605705
2044	495	484551.7	3753234.4	0.001710402	0.001286521
2044	496	484651.7	3753234.4	0.001761812	0.001314088
2044	497	484751.7	3753234.4	0.001815975	0.001343414
2044	498	484851.7	3753234.4	0.001873055	0.001374714
2044	499	484951.7	3753234.4	0.001934588	0.001409086
2044	500	485051.7	3753234.4	0.002000977	0.001447239
2044	501	485151.7	3753234.4	0.002070191	0.001487989
2044	502	485251.7	3753234.4	0.00214474	0.001533638
2044	503	485351.7	3753234.4	0.002223326	0.001584671
2044	504	485451.7	3753234.4	0.00231898	0.00165487
2044	505	484551.7	3753334.4	0.001749836	0.001319961
2044	506	484651.7	3753334.4	0.001804365	0.001348842
2044	507	484751.7	3753334.4	0.001861251	0.001378912
2044	508	484851.7	3753334.4	0.001925027	0.001413483
2044	509	484951.7	3753334.4	0.001990743	0.00144911
2044	510	485051.7	3753334.4	0.002063278	0.001489422
2044	511	485151.7	3753334.4	0.002141295	0.001533966
2044	512	485251.7	3753334.4	0.002229989	0.001586604
2044	513	485351.7	3753334.4	0.002326635	0.001646844
2044	514	485451.7	3753334.4	0.002441918	0.0017269
2044	515	484551.7	3753434.4	0.001791726	0.001359032
2044	516	484651.7	3753434.4	0.001848842	0.001389154
2044	517	484751.7	3753434.4	0.001909309	0.001420715
2044	518	484851.7	3753434.4	0.001977124	0.00145699
2044	519	484951.7	3753434.4	0.002048261	0.001494284
2044	520	485051.7	3753434.4	0.002126433	0.001536252
2044	521	485151.7	3753434.4	0.002215529	0.001586236
2044	522	485251.7	3753434.4	0.002317732	0.001645499
2044	523	485351.7	3753434.4	0.002433163	0.001715569
2044	524	485451.7	3753434.4	0.00258071	0.00181406
2044	525	484551.7	3753534.4	0.001834271	0.001401772
2044	526	484651.7	3753534.4	0.001889351	0.001429249
2044	527	484751.7	3753534.4	0.001951536	0.001461171
2044	528	484851.7	3753534.4	0.002026173	0.001502069
2044	529	484951.7	3753534.4	0.00210231	0.001542131
2044	530	485051.7	3753534.4	0.002186094	0.001586561
2044	531	485151.7	3753534.4	0.00228372	0.001640541

2044	532	485251.7	3753534.4	0.002397312	0.001705771
2044	533	485351.7	3753534.4	0.00253218	0.001786736
2044	534	485451.7	3753534.4	0.002708557	0.001902665
2044	535	484551.7	3753634.4	0.001877063	0.001447138
2044	536	484651.7	3753634.4	0.001934776	0.001476223
2044	537	484751.7	3753634.4	0.002000177	0.001510122
2044	538	484851.7	3753634.4	0.002073708	0.001548936
2044	539	484951.7	3753634.4	0.002154732	0.001591924
2044	540	485051.7	3753634.4	0.002243852	0.001639563
2044	541	485151.7	3753634.4	0.002346954	0.001696693
2044	542	485251.7	3753634.4	0.002467347	0.001766469
2044	543	485351.7	3753634.4	0.002608998	0.001852946
2044	544	485451.7	3753634.4	0.002796159	0.001980042
2044	545	484551.7	3753734.4	0.001934299	0.001509715
2044	546	484651.7	3753734.4	0.001991163	0.001537158
2044	547	484751.7	3753734.4	0.00205413	0.001567525
2044	548	484851.7	3753734.4	0.002123749	0.001601175
2044	549	484951.7	3753734.4	0.0022069	0.001644798
2044	550	485051.7	3753734.4	0.002301359	0.001695531
2044	551	485151.7	3753734.4	0.002408853	0.001754781
2044	552	485251.7	3753734.4	0.002533232	0.001826116
2044	553	485351.7	3753734.4	0.002681382	0.001916507
2044	554	485451.7	3753734.4	0.002875536	0.002049607
2044	555	484551.7	3753834.4	0.001993158	0.001576913
2044	556	484651.7	3753834.4	0.002047351	0.001601491
2044	557	484751.7	3753834.4	0.002110471	0.001631739
2044	558	484851.7	3753834.4	0.002181027	0.001665539
2044	559	484951.7	3753834.4	0.002265921	0.001709602
2044	560	485051.7	3753834.4	0.002359809	0.001757485
2044	561	485151.7	3753834.4	0.002468271	0.001814695
2044	562	485251.7	3753834.4	0.002599845	0.001889462
2044	563	485351.7	3753834.4	0.00275538	0.001982722
2044	564	485451.7	3753834.4	0.002959871	0.002119668
2044	565	484551.7	3753934.4	0.002057964	0.001652498
2044	566	484651.7	3753934.4	0.002115125	0.00168019
2044	567	484751.7	3753934.4	0.00216924	0.001700941
2044	568	484851.7	3753934.4	0.002241081	0.001736206
2044	569	484951.7	3753934.4	0.002325125	0.001779229
2044	570	485051.7	3753934.4	0.002421929	0.001829895
2044	571	485151.7	3753934.4	0.002533649	0.001889484
2044	572	485251.7	3753934.4	0.002665218	0.001962212
2044	573	485351.7	3753934.4	0.002824593	0.002054876
2044	574	485451.7	3753934.4	0.003036929	0.002191879
2044	575	484551.7	3754034.4	0.002134061	0.001744042
2044	576	484651.7	3754034.4	0.002164441	0.00174111
2044	577	484751.7	3754034.4	0.002233019	0.001777893
2044	578	484851.7	3754034.4	0.002308684	0.001817367

2044	579	484951.7	3754034.4	0.002391473	0.0018593
2044	580	485051.7	3754034.4	0.002485474	0.001907343
2044	581	485151.7	3754034.4	0.002595727	0.001965697
2044	582	485251.7	3754034.4	0.00272772	0.002039071
2044	583	485351.7	3754034.4	0.002888299	0.002133606
2044	584	485451.7	3754034.4	0.003102403	0.00227432
2044	585	484551.7	3754134.4	0.002186274	0.001807139
2044	586	484651.7	3754134.4	0.002225021	0.001815615
2044	587	484751.7	3754134.4	0.002293936	0.001854061
2044	588	484851.7	3754134.4	0.002375554	0.001901776
2044	589	484951.7	3754134.4	0.002457415	0.001943255
2044	590	485051.7	3754134.4	0.002553067	0.001992794
2044	591	485151.7	3754134.4	0.002664673	0.002052706
2044	592	485251.7	3754134.4	0.002796993	0.002127144
2044	593	485351.7	3754134.4	0.00295868	0.002223219
2044	594	485451.7	3754134.4	0.003172011	0.002363175
2044	595	484551.7	3754234.4	0.002240663	0.001872713
2044	596	484651.7	3754234.4	0.00229019	0.001895488
2044	597	484751.7	3754234.4	0.002363842	0.001940994
2044	598	484851.7	3754234.4	0.002446119	0.001991594
2044	599	484951.7	3754234.4	0.002530731	0.002038242
2044	600	485051.7	3754234.4	0.002624803	0.002088277
2044	601	485151.7	3754234.4	0.002735868	0.00214918
2044	602	485251.7	3754234.4	0.00286773	0.00222367
2044	603	485351.7	3754234.4	0.003029111	0.002319229
2044	604	485451.7	3754234.4	0.00324325	0.002459568
2044	605	484551.7	3754334.4	0.002319381	0.001965274
2044	606	484651.7	3754334.4	0.002383308	0.002006268
2044	607	484751.7	3754334.4	0.002455562	0.002052936
2044	608	484851.7	3754334.4	0.002529848	0.002096785
2044	609	484951.7	3754334.4	0.002613682	0.002145331
2044	610	485051.7	3754334.4	0.002708685	0.002199202
2044	611	485151.7	3754334.4	0.002818094	0.002261127
2044	612	485251.7	3754334.4	0.002948876	0.002337852
2044	613	485351.7	3754334.4	0.003105414	0.002433595
2044	614	485451.7	3754334.4	0.003295493	0.002555144
2044	615	484551.7	3754434.4	0.002466948	0.002134251
2044	616	484651.7	3754434.4	0.002513144	0.002157251
2044	617	484751.7	3754434.4	0.00257021	0.002189104
2044	618	484851.7	3754434.4	0.002635733	0.002225749
2044	619	484951.7	3754434.4	0.002715329	0.002272607
2044	620	485051.7	3754434.4	0.002807268	0.002326432
2044	621	485151.7	3754434.4	0.0029154	0.002390492
2044	622	485251.7	3754434.4	0.003043715	0.002468005
2044	623	485351.7	3754434.4	0.00319795	0.002564289
2044	624	485451.7	3754434.4	0.003387155	0.002688871
2044	625	484551.7	3754534.4	0.002641132	0.002327165

2044	626	484651.7	3754534.4	0.002686088	0.002351475
2044	627	484751.7	3754534.4	0.002725027	0.002366095
2044	628	484851.7	3754534.4	0.002773038	0.00238861
2044	629	484951.7	3754534.4	0.002842577	0.002428131
2044	630	485051.7	3754534.4	0.002929537	0.002479577
2044	631	485151.7	3754534.4	0.003035137	0.002543871
2044	632	485251.7	3754534.4	0.003160924	0.002621983
2044	633	485351.7	3754534.4	0.003312481	0.002718463
2044	634	485451.7	3754534.4	0.003505868	0.002848357
2044	635	484551.7	3754634.4	0.002802756	0.00250701
2044	636	484651.7	3754634.4	0.002841798	0.002526934
2044	637	484751.7	3754634.4	0.002899832	0.002564488
2044	638	484851.7	3754634.4	0.002935938	0.002578445
2044	639	484951.7	3754634.4	0.002995686	0.002611829
2044	640	485051.7	3754634.4	0.003077688	0.0026629
2044	641	485151.7	3754634.4	0.00317944	0.002728647
2044	642	485251.7	3754634.4	0.003303422	0.002809311
2044	643	485351.7	3754634.4	0.003456635	0.002910261
2044	644	485451.7	3754634.4	0.0036547	0.003047312
2044	645	484551.7	3754734.4	0.002978054	0.002698924
2044	646	484651.7	3754734.4	0.003018031	0.002722379
2044	647	484751.7	3754734.4	0.003064686	0.002751352
2044	648	484851.7	3754734.4	0.003120789	0.002788199
2044	649	484951.7	3754734.4	0.003188652	0.002833756
2044	650	485051.7	3754734.4	0.003270037	0.002888999
2044	651	485151.7	3754734.4	0.003368486	0.00295669
2044	652	485251.7	3754734.4	0.003490168	0.003042657
2044	653	485351.7	3754734.4	0.003643485	0.0031557
2044	654	485451.7	3754734.4	0.003840616	0.003306472
2044	655	484551.7	3754834.4	0.003242658	0.002979317
2044	656	484651.7	3754834.4	0.003285329	0.003008528
2044	657	484751.7	3754834.4	0.003333217	0.003041133
2044	658	484851.7	3754834.4	0.003388116	0.003078581
2044	659	484951.7	3754834.4	0.003454875	0.003126139
2044	660	485051.7	3754834.4	0.003533567	0.00318294
2044	661	485151.7	3754834.4	0.003631038	0.003255403
2044	662	485251.7	3754834.4	0.003755515	0.003351331
2044	663	485351.7	3754834.4	0.003922464	0.003487445
2044	664	485451.7	3754834.4	0.004140971	0.003671542
2044	665	484551.7	3754934.4	0.003634536	0.00338655
2044	666	484651.7	3754934.4	0.003674978	0.003415274
2044	667	484751.7	3754934.4	0.003720486	0.003447449
2044	668	484851.7	3754934.4	0.003772977	0.003484859
2044	669	484951.7	3754934.4	0.003836569	0.003531869
2044	670	485051.7	3754934.4	0.003910227	0.003586716
2044	671	485151.7	3754934.4	0.004006419	0.003662433
2044	672	485251.7	3754934.4	0.004134273	0.003767131

2044	673	485351.7	3754934.4	0.004333918	0.003942243
2044	674	485451.7	3754934.4	0.004702267	0.004283123
2044	675	484551.7	3755034.4	0.004219462	0.003985179
2044	676	484651.7	3755034.4	0.004255692	0.004011236
2044	677	484751.7	3755034.4	0.004294449	0.004038013
2044	678	484851.7	3755034.4	0.004346369	0.004077414
2044	679	484951.7	3755034.4	0.004407037	0.004123743
2044	680	485051.7	3755034.4	0.004481581	0.004182307
2044	681	485151.7	3755034.4	0.004574177	0.004257259
2044	682	485251.7	3755034.4	0.004703021	0.004367231
2044	683	485351.7	3755034.4	0.004910749	0.004554369
2044	684	485451.7	3755034.4	0.005501719	0.005122284
2044	685	485549.5	3750934.9	0.000381408	0.000286398
2044	686	485649.5	3750934.9	0.000376802	0.00028247
2044	687	485749.5	3750934.9	0.000373905	0.000280085
2044	688	485849.5	3750934.9	0.000369327	0.000276267
2044	689	485549.5	3751034.9	0.000402374	0.000302286
2044	690	485649.5	3751034.9	0.000396166	0.000296938
2044	691	485749.5	3751034.9	0.000393503	0.000294719
2044	692	485849.5	3751034.9	0.000389964	0.000291775
2044	693	485549.5	3751134.9	0.000425468	0.000320068
2044	694	485649.5	3751134.9	0.000418729	0.000314191
2044	695	485749.5	3751134.9	0.000415753	0.000311674
2044	696	485849.5	3751134.9	0.000411351	0.000307938
2044	697	485549.5	3751234.9	0.000452898	0.000341689
2044	698	485649.5	3751234.9	0.000444221	0.000334028
2044	699	485749.5	3751234.9	0.000440756	0.000331036
2044	700	485849.5	3751234.9	0.000439925	0.000330468
2044	701	485549.5	3751334.9	0.000482122	0.000364898
2044	702	485649.5	3751334.9	0.000475505	0.000358979
2044	703	485749.5	3751334.9	0.000470137	0.000354265
2044	704	485849.5	3751334.9	0.000473821	0.00035779
2044	705	485549.5	3751434.9	0.000522869	0.000398477
2044	706	485649.5	3751434.9	0.000518805	0.000394748
2044	707	485749.5	3751434.9	0.000507386	0.00038446
2044	708	485849.5	3751434.9	0.000522982	0.000398924
2044	709	485549.5	3751534.9	0.000654594	0.000514071
2044	710	485649.5	3751534.9	0.000638801	0.000499731
2044	711	485749.5	3751534.9	0.000580121	0.000446876
2044	712	485849.5	3751534.9	0.000569107	0.000437031
2044	713	485549.5	3751634.9	0.001009894	0.000803943
2044	714	485649.5	3751634.9	0.000853953	0.000681468
2044	715	485749.5	3751634.9	0.000795791	0.000633331
2044	716	485849.5	3751634.9	0.00061185	0.000471853
2044	717	485549.5	3751734.9	0.001247554	0.000980651
2044	718	485649.5	3751734.9	0.001192698	0.000943849
2044	719	485749.5	3751734.9	0.001061267	0.000846565

2044	720	485849.5	3751734.9	0.000748065	0.000590538
2044	721	485549.5	3751834.9	0.001423585	0.00112109
2044	722	485649.5	3751834.9	0.001350044	0.001063201
2044	723	485749.5	3751834.9	0.001292025	0.001021026
2044	724	485849.5	3751834.9	0.001103141	0.000882625
2044	725	485549.5	3751934.9	0.001652881	0.001311622
2044	726	485649.5	3751934.9	0.001514799	0.00118527
2044	727	485749.5	3751934.9	0.001473871	0.00115035
2044	728	485849.5	3751934.9	0.001418527	0.001111805
2044	729	485549.5	3752034.9	0.001913952	0.001532891
2044	730	485649.5	3752034.9	0.001679936	0.001308415
2044	731	485749.5	3752034.9	0.001644047	0.001277913
2044	732	485849.5	3752034.9	0.001610713	0.0012578
2044	733	485549.5	3752134.9	0.001969271	0.001556215
2044	734	485649.5	3752134.9	0.00191735	0.001499243
2044	735	485749.5	3752134.9	0.001923089	0.001505909
2044	736	485849.5	3752134.9	0.001935394	0.001527596
2044	737	485549.5	3752234.9	0.002209253	0.001773399
2044	738	485649.5	3752234.9	0.002276635	0.00182918
2044	739	485749.5	3752234.9	0.002368736	0.00191246
2044	740	485849.5	3752234.9	0.002439675	0.001983816
2044	741	485549.5	3752334.9	0.001850101	0.001396992
2044	742	485649.5	3752334.9	0.001895656	0.001424482
2044	743	485749.5	3752334.9	0.001957252	0.00147074
2044	744	485849.5	3752334.9	0.002028742	0.001530912
2044	745	485549.5	3752434.9	0.001794472	0.001324626
2044	746	485649.5	3752434.9	0.00182665	0.001337114
2044	747	485749.5	3752434.9	0.001882293	0.001371805
2044	748	485849.5	3752434.9	0.001954887	0.00142284
2044	749	485549.5	3752534.9	0.001822519	0.00133457
2044	750	485649.5	3752534.9	0.00185133	0.001342231
2044	751	485749.5	3752534.9	0.001907756	0.001375517
2044	752	485849.5	3752534.9	0.001978763	0.001421248
2044	753	485549.5	3752634.9	0.001880855	0.001371813
2044	754	485649.5	3752634.9	0.001910884	0.001379303
2044	755	485749.5	3752634.9	0.001967672	0.001412109
2044	756	485849.5	3752634.9	0.002038557	0.00145584
2044	757	485549.5	3752734.9	0.001953399	0.001422491
2044	758	485649.5	3752734.9	0.001986089	0.001431634
2044	759	485749.5	3752734.9	0.002050619	0.001469412
2044	760	485849.5	3752734.9	0.002129544	0.001517696
2044	761	485549.5	3752834.9	0.002033894	0.001481518
2044	762	485649.5	3752834.9	0.002069403	0.001493384
2044	763	485749.5	3752834.9	0.002143987	0.001539441
2044	764	485849.5	3752834.9	0.00223422	0.001596148
2044	765	485549.5	3752934.9	0.002125289	0.001549419
2044	766	485649.5	3752934.9	0.002162579	0.001563807

2044	767	485749.5	3752934.9	0.002246546	0.00162032
2044	768	485849.5	3752934.9	0.002356775	0.001695749
2044	769	485549.5	3753034.9	0.002242012	0.001638611
2044	770	485649.5	3753034.9	0.00226017	0.001635901
2044	771	485749.5	3753034.9	0.002355235	0.001704743
2044	772	485849.5	3753034.9	0.002493296	0.001811424
2044	773	485549.5	3753134.9	0.002284072	0.001644917
2044	774	485649.5	3753134.9	0.002355896	0.00169816
2044	775	485749.5	3753134.9	0.002457885	0.001778786
2044	776	485849.5	3753134.9	0.002614922	0.001910057
2044	777	485549.5	3753234.9	0.002390153	0.001705256
2044	778	485649.5	3753234.9	0.002465506	0.001764755
2044	779	485749.5	3753234.9	0.002565761	0.001850794
2044	780	485849.5	3753234.9	0.002726467	0.001993194
2044	781	485549.5	3753334.9	0.002552748	0.001807315
2044	782	485649.5	3753334.9	0.002613069	0.001847051
2044	783	485749.5	3753334.9	0.002705472	0.001931871
2044	784	485849.5	3753334.9	0.00285173	0.002074119
2044	785	485549.5	3753434.9	0.002734212	0.001918728
2044	786	485649.5	3753434.9	0.002833638	0.001976921
2044	787	485749.5	3753434.9	0.002943824	0.002069103
2044	788	485849.5	3753434.9	0.003067125	0.00220911
2044	789	485508.5	3746711.3	0.000243354	0.00020122
2044	790	491508.5	3746711.3	0.000169864	0.000140836
2044	791	479508.5	3752711.3	0.000851823	0.000773514
2044	792	485508.5	3752711.3	0.001895189	0.001378055
2044	793	491508.5	3752711.3	0.001567461	0.001036188
2044	794	485508.5	3758711.3	0.00043243	0.000401466
2044	795	491508.5	3758711.3	0.000183346	0.000159375
2044	796	485921.9	3750934.2	0.000365028	0.000272701
2044	797	486021.9	3750934.2	0.000360418	0.000268932
2044	798	486121.9	3750934.2	0.000357923	0.00026707
2044	799	485921.9	3751034.2	0.000384631	0.000287232
2044	800	486021.9	3751034.2	0.000377898	0.000281551
2044	801	486121.9	3751034.2	0.00037402	0.000278405
2044	802	485921.9	3751134.2	0.000406955	0.000304179
2044	803	486021.9	3751134.2	0.000399493	0.000297785
2044	804	486121.9	3751134.2	0.000393681	0.000292847
2044	805	485921.9	3751234.2	0.000432798	0.00032423
2044	806	486021.9	3751234.2	0.000424621	0.00031711
2044	807	486121.9	3751234.2	0.000417409	0.00031087
2044	808	485921.9	3751334.2	0.000464403	0.000349418
2044	809	486021.9	3751334.2	0.000454997	0.000341098
2044	810	486121.9	3751334.2	0.000444613	0.000331926
2044	811	485921.9	3751434.2	0.000507596	0.000385075
2044	812	486021.9	3751434.2	0.0004912	0.000370314
2044	813	486121.9	3751434.2	0.000477666	0.000358177

2044	814	485921.9	3751534.2	0.000553763	0.000423265
2044	815	486021.9	3751534.2	0.000542648	0.000413375
2044	816	486121.9	3751534.2	0.000519194	0.000392079
2044	817	485921.9	3751634.2	0.000593219	0.000455051
2044	818	486021.9	3751634.2	0.000633392	0.000491781
2044	819	486121.9	3751634.2	0.000584532	0.000447697
2044	820	485921.9	3751734.2	0.000679013	0.000528765
2044	821	486021.9	3751734.2	0.000778367	0.000616779
2044	822	486121.9	3751734.2	0.000659997	0.000512079
2044	823	485921.9	3751834.2	0.000866478	0.000691228
2044	824	486021.9	3751834.2	0.000872214	0.000695631
2044	825	486121.9	3751834.2	0.000693402	0.000537748
2044	826	485921.9	3751934.2	0.001294056	0.001034312
2044	827	486021.9	3751934.2	0.001078493	0.000866571
2044	828	486121.9	3751934.2	0.000879039	0.000698955
2044	829	485921.9	3752034.2	0.001535784	0.001210919
2044	830	486021.9	3752034.2	0.001324917	0.001068299
2044	831	486121.9	3752034.2	0.001206381	0.000975352
2044	832	485921.9	3752134.2	0.001953025	0.001557591
2044	833	486021.9	3752134.2	0.001902123	0.001537501
2044	834	486121.9	3752134.2	0.00163049	0.001323345
2044	835	485921.9	3752234.2	0.002480435	0.002033643
2044	836	486021.9	3752234.2	0.002589538	0.00215299
2044	837	486121.9	3752234.2	0.002390124	0.001971573
2044	838	485921.9	3752334.2	0.0020821	0.00157883
2044	839	486021.9	3752334.2	0.002195372	0.001692959
2044	840	486121.9	3752334.2	0.002539709	0.002039301
2044	841	485921.9	3752434.2	0.002021294	0.001478324
2044	842	486021.9	3752434.2	0.002132857	0.001577631
2044	843	486121.9	3752434.2	0.002320376	0.001752716
2044	844	485921.9	3752534.2	0.002044178	0.001466591
2044	845	486021.9	3752534.2	0.00213993	0.001538946
2044	846	486121.9	3752534.2	0.002267798	0.001644881
2044	847	485921.9	3752634.2	0.002097036	0.001494003
2044	848	486021.9	3752634.2	0.002186288	0.001556481
2044	849	486121.9	3752634.2	0.002296269	0.00164047
2044	850	485921.9	3752734.2	0.002191812	0.001557032
2044	851	486021.9	3752734.2	0.002291617	0.001623302
2044	852	486121.9	3752734.2	0.002407619	0.001706739
2044	853	485921.9	3752834.2	0.002309887	0.001643694
2044	854	486021.9	3752834.2	0.002431122	0.001722218
2044	855	486121.9	3752834.2	0.002573458	0.001820611
2044	856	485921.9	3752934.2	0.002446021	0.001755807
2044	857	486021.9	3752934.2	0.002597274	0.001856282
2044	858	486121.9	3752934.2	0.002807017	0.002005958
2044	859	487026.2	3754364	0.009710497	0.00841767
2045	1	489607.4	3753966.1	0.003005338	0.002024868

2045	2	489738.7	3754023.9	0.002663909	0.001858582
2045	3	489668.9	3754093.7	0.002533356	0.001848683
2045	4	489690.1	3754161.6	0.002401322	0.001785056
2045	5	490282.2	3753425.2	0.00354684	0.002476163
2045	6	489797.3	3754554.1	0.001961821	0.001506036
2045	7	490252.9	3754378.2	0.001795272	0.0013542
2045	8	489006	3754140.3	0.004557281	0.003554049
2045	9	485642.8	3754267.3	0.004100126	0.003165087
2045	10	485736.4	3754259.5	0.004521802	0.003497506
2045	11	487189.2	3754820.5	0.010091874	0.00899555
2045	12	487233.1	3754689.5	0.008297948	0.00709333
2045	13	487216.8	3754364.7	0.012644115	0.011429272
2045	14	487388.8	3754380.1	0.009543453	0.008421717
2045	15	484625	3751748	0.001234098	0.000953633
2045	16	483279	3751798	0.00092791	0.000727788
2045	17	483231	3751205	0.000825023	0.000648303
2045	18	480165	3750195	0.000624023	0.000534263
2045	19	481211	3749473	0.000563464	0.000463935
2045	20	481867	3752785	0.000944174	0.00080302
2045	21	480678	3751306	0.000678202	0.000572995
2045	22	479989	3752645	0.0008108	0.000723565
2045	23	479889	3756222	0.001134397	0.001082257
2045	24	479234	3757080	0.000547074	0.000509408
2045	25	480276	3756365	0.000922189	0.000872234
2045	26	479887	3754007	0.001055189	0.0009793
2045	27	480772	3755009	0.002233887	0.002151236
2045	28	481560	3754548	0.001674262	0.001568972
2045	29	481845	3754457	0.001689894	0.001574936
2045	30	481754	3753876	0.001207659	0.001084719
2045	31	489635.2	3750663.8	0.000459906	0.000350302
2045	32	485424.1	3747672.3	0.000299065	0.000242834
2045	33	482657.6	3753975.1	0.00143028	0.00126862
2045	34	481495	3754633.7	0.001756784	0.001654574
2045	35	481148.7	3756136.2	0.001267021	0.001204873
2045	36	482346.5	3748872.9	0.000232626	0.0001823
2045	37	480299	3751198	0.000660146	0.000563128
2045	38	479598.7	3756506.3	0.000867936	0.000821002
2045	39	478997.8	3753535.2	0.001183188	0.001116459
2045	40	478978.3	3755233.1	0.003560174	0.003496442
2045	41	479197.3	3754462.3	0.001567936	0.001503431
2045	42	479493.3	3752408.8	0.000823625	0.000743943
2045	43	480295.4	3752408.4	0.000785911	0.00069107
2045	44	480287.9	3754227.5	0.001156285	0.001075163
2045	45	494397.4	3753977.6	0.000725748	0.000586299
2045	46	481108.5	3750699	0.000665979	0.000556029
2045	47	486794.1	3756878	0.000672299	0.000603662
2045	48	482345	3752065.8	0.000894428	0.00073282

2045	49	487553	3745938.3	0.000182569	0.000153648
2045	50	484553	3746938.3	0.000241564	0.000198588
2045	51	485553	3746938.3	0.000253608	0.000208967
2045	52	486553	3746938.3	0.000202023	0.000171399
2045	53	487553	3746938.3	0.000222575	0.000184427
2045	54	488553	3746938.3	0.000202874	0.000169034
2045	55	489553	3746938.3	0.000200449	0.000165706
2045	56	490553	3746938.3	0.000184072	0.000152596
2045	57	491553	3746938.3	0.000175157	0.000144868
2045	58	492553	3746938.3	0.000168435	0.000139086
2045	59	482553	3747938.3	0.000212152	0.000168924
2045	60	483553	3747938.3	0.000354356	0.000283347
2045	61	484553	3747938.3	0.000337484	0.000271086
2045	62	485553	3747938.3	0.00031492	0.000254433
2045	63	486553	3747938.3	0.000293122	0.000240154
2045	64	487553	3747938.3	0.000187394	0.00015797
2045	65	488553	3747938.3	0.000244456	0.00020091
2045	66	489553	3747938.3	0.000229533	0.000188645
2045	67	490553	3747938.3	0.000216089	0.00017724
2045	68	491553	3747938.3	0.000204979	0.000167532
2045	69	492553	3747938.3	0.000196066	0.0001598
2045	70	493553	3747938.3	0.000189683	0.000154526
2045	71	481553	3748938.3	0.000477258	0.000381585
2045	72	482553	3748938.3	0.000243557	0.000191236
2045	73	483553	3748938.3	0.000407565	0.000324862
2045	74	484553	3748938.3	0.000427488	0.000337876
2045	75	485553	3748938.3	0.000407619	0.000323715
2045	76	486553	3748938.3	0.000377647	0.000302446
2045	77	487553	3748938.3	0.000296439	0.000248158
2045	78	488553	3748938.3	0.000304282	0.000245516
2045	79	489553	3748938.3	0.000279574	0.000226405
2045	80	490553	3748938.3	0.000262247	0.000211584
2045	81	491553	3748938.3	0.00024669	0.000198356
2045	82	492553	3748938.3	0.000236251	0.00018921
2045	83	493553	3748938.3	0.000233243	0.000187063
2045	84	494553	3748938.3	0.00030144	0.000256321
2045	85	480553	3749938.3	0.000738525	0.00064574
2045	86	481553	3749938.3	0.000643016	0.000527037
2045	87	482553	3749938.3	0.000627525	0.000501042
2045	88	483553	3749938.3	0.000616276	0.000485716
2045	89	484553	3749938.3	0.000451724	0.000357484
2045	90	485553	3749938.3	0.000369763	0.000294132
2045	91	486553	3749938.3	0.00043767	0.000354462
2045	92	487553	3749938.3	0.000458427	0.000362341
2045	93	488553	3749938.3	0.000397964	0.000312339
2045	94	489553	3749938.3	0.00036174	0.000285053
2045	95	490553	3749938.3	0.000334027	0.000262435

2045	96	491553	3749938.3	0.000313074	0.00024466
2045	97	492553	3749938.3	0.000304898	0.000237148
2045	98	493553	3749938.3	0.000341455	0.00027118
2045	99	494553	3749938.3	0.000287451	0.000218146
2045	100	495553	3749938.3	0.000228161	0.000188337
2045	101	480553	3750938.3	0.000646363	0.000545317
2045	102	481553	3750938.3	0.000695371	0.000573577
2045	103	482553	3750938.3	0.000755391	0.000607747
2045	104	483553	3750938.3	0.000868914	0.000689323
2045	105	484553	3750938.3	0.000863038	0.000673992
2045	106	485553	3750938.3	0.000381804	0.000286657
2045	107	486553	3750938.3	0.000352273	0.000265001
2045	108	487553	3750938.3	0.000551668	0.000438674
2045	109	488553	3750938.3	0.000597203	0.000442398
2045	110	489553	3750938.3	0.000524571	0.000391487
2045	111	490553	3750938.3	0.000468271	0.000349838
2045	112	491553	3750938.3	0.00043614	0.000323869
2045	113	492553	3750938.3	0.000490154	0.000375303
2045	114	493553	3750938.3	0.000424692	0.000311663
2045	115	494553	3750938.3	0.000411569	0.000305844
2045	116	495553	3750938.3	0.000383874	0.000298329
2045	117	479553	3751938.3	0.000760661	0.00067789
2045	118	480553	3751938.3	0.000747192	0.000644871
2045	119	481553	3751938.3	0.000789246	0.000659741
2045	120	482553	3751938.3	0.000876139	0.000706882
2045	121	483553	3751938.3	0.00100534	0.000784025
2045	122	484553	3751938.3	0.00119653	0.000910504
2045	123	485553	3751938.3	0.001652386	0.001310076
2045	124	486553	3751938.3	0.000677518	0.000518984
2045	125	487553	3751938.3	0.0010938	0.00085464
2045	126	488553	3751938.3	0.00117449	0.000795388
2045	127	489553	3751938.3	0.001068619	0.000702555
2045	128	490553	3751938.3	0.000896855	0.000589903
2045	129	491553	3751938.3	0.000929406	0.000648649
2045	130	492553	3751938.3	0.000742622	0.000479676
2045	131	493553	3751938.3	0.000665304	0.000493868
2045	132	494553	3751938.3	0.000613824	0.000458547
2045	133	495553	3751938.3	0.000540945	0.000414249
2045	134	479553	3752938.3	0.000919753	0.000842083
2045	135	480553	3752938.3	0.000917948	0.00082014
2045	136	481553	3752938.3	0.000989982	0.000862685
2045	137	482553	3752938.3	0.001120124	0.000945069
2045	138	483553	3752938.3	0.001288046	0.001036158
2045	139	484553	3752938.3	0.00160562	0.001206286
2045	140	485553	3752938.3	0.002127435	0.001549907
2045	141	486553	3752938.3	0.004197908	0.00330725
2045	142	487553	3752938.3	0.004624128	0.003486353

2045	143	488553	3752938.3	0.004121289	0.003017912
2045	144	489553	3752938.3	0.003759956	0.002743019
2045	145	490553	3752938.3	0.003118444	0.002239126
2045	146	491553	3752938.3	0.001615505	0.001121584
2045	147	492553	3752938.3	0.001228605	0.000804777
2045	148	493553	3752938.3	0.000998658	0.000713483
2045	149	494553	3752938.3	0.000851242	0.000635835
2045	150	495553	3752938.3	0.000685581	0.000530474
2045	151	479553	3753938.3	0.001056648	0.000985336
2045	152	480553	3753938.3	0.001065631	0.000976785
2045	153	481553	3753938.3	0.001210442	0.00109536
2045	154	482553	3753938.3	0.001382839	0.001225984
2045	155	483553	3753938.3	0.001739126	0.001518375
2045	156	484553	3753938.3	0.002062736	0.001657532
2045	157	485553	3753938.3	0.003328033	0.002399635
2045	158	486553	3753938.3	0.00587771	0.004415519
2045	159	487553	3753938.3	0.006449908	0.005269006
2045	160	488553	3753938.3	0.005707975	0.004366261
2045	161	489553	3753938.3	0.003208337	0.002146419
2045	162	490553	3753938.3	0.001856303	0.001363774
2045	163	491553	3753938.3	0.001295453	0.001010088
2045	164	492553	3753938.3	0.001062803	0.000839688
2045	165	493553	3753938.3	0.000869399	0.000695423
2045	166	494553	3753938.3	0.000790045	0.0006368
2045	167	495553	3753938.3	0.000616134	0.000500931
2045	168	479553	3754938.3	0.001879019	0.001812246
2045	169	480553	3754938.3	0.002003114	0.001923237
2045	170	481553	3754938.3	0.002294445	0.002195577
2045	171	482553	3754938.3	0.00335287	0.003226354
2045	172	483553	3754938.3	0.00368581	0.003520762
2045	173	484553	3754938.3	0.003653175	0.003405562
2045	174	485553	3754938.3	0.005300037	0.004852217
2045	175	486553	3754938.3	0.007308372	0.006652972
2045	176	487553	3754938.3	0.0062339	0.005368797
2045	177	488553	3754938.3	0.003502589	0.002902681
2045	178	489553	3754938.3	0.002195006	0.001888802
2045	179	490553	3754938.3	0.001462739	0.001284618
2045	180	491553	3754938.3	0.000961313	0.000837579
2045	181	492553	3754938.3	0.00069004	0.000593919
2045	182	493553	3754938.3	0.000697621	0.000605986
2045	183	494553	3754938.3	0.000530786	0.000457223
2045	184	495553	3754938.3	0.0004455	0.000382642
2045	185	479553	3755938.3	0.001890688	0.001833685
2045	186	480553	3755938.3	0.001584961	0.001523412
2045	187	481553	3755938.3	0.001605812	0.001537024
2045	188	482553	3755938.3	0.002296043	0.002205008
2045	189	483553	3755938.3	0.002411683	0.002302912

2045	190	484553	3755938.3	0.002292656	0.002159919
2045	191	485553	3755938.3	0.003236686	0.003072111
2045	192	486553	3755938.3	0.002616244	0.002439538
2045	193	487553	3755938.3	0.001445759	0.001334041
2045	194	488553	3755938.3	0.00100995	0.000921686
2045	195	489553	3755938.3	0.000692157	0.000624987
2045	196	490553	3755938.3	0.000572999	0.000515125
2045	197	491553	3755938.3	0.000472248	0.000422692
2045	198	492553	3755938.3	0.000572246	0.000526197
2045	199	493553	3755938.3	0.000419577	0.000378874
2045	200	494553	3755938.3	0.000403112	0.000365151
2045	201	479553	3756938.3	0.000573374	0.000534622
2045	202	480553	3756938.3	0.000548895	0.000508986
2045	203	481553	3756938.3	0.000495782	0.000457683
2045	204	482553	3756938.3	0.00051746	0.000475038
2045	205	483553	3756938.3	0.000872637	0.000803056
2045	206	484553	3756938.3	0.00084184	0.000766684
2045	207	485553	3756938.3	0.001827111	0.001750147
2045	208	486553	3756938.3	0.000695643	0.000626292
2045	209	487553	3756938.3	0.00045769	0.000405552
2045	210	488553	3756938.3	0.000371244	0.000326038
2045	211	489553	3756938.3	0.000325199	0.000284817
2045	212	490553	3756938.3	0.000297106	0.000260157
2045	213	491553	3756938.3	0.000259743	0.000227122
2045	214	492553	3756938.3	0.00023137	0.000202437
2045	215	493553	3756938.3	0.000245885	0.000217978
2045	216	494553	3756938.3	0.000238675	0.000212418
2045	217	479553	3757938.3	0.000288328	0.000263889
2045	218	480553	3757938.3	0.000276024	0.000251565
2045	219	481553	3757938.3	0.00029157	0.000263898
2045	220	482553	3757938.3	0.000360656	0.000323934
2045	221	483553	3757938.3	0.000353692	0.000315771
2045	222	484553	3757938.3	0.000465686	0.000418696
2045	223	485553	3757938.3	0.000539591	0.000498787
2045	224	486553	3757938.3	0.000322692	0.00028524
2045	225	487553	3757938.3	0.000263808	0.000230199
2045	226	488553	3757938.3	0.00023161	0.000200905
2045	227	489553	3757938.3	0.000213728	0.000184893
2045	228	490553	3757938.3	0.000195439	0.000168934
2045	229	491553	3757938.3	0.000179074	0.000154599
2045	230	492553	3757938.3	0.000171933	0.000148988
2045	231	493553	3757938.3	0.000190686	0.000166992
2045	232	480553	3758938.3	0.000207166	0.000186495
2045	233	481553	3758938.3	0.000231101	0.000206373
2045	234	482553	3758938.3	0.000225123	0.000199414
2045	235	483553	3758938.3	0.000236025	0.000208208
2045	236	484553	3758938.3	0.00029534	0.000264183

2045	237	485553	3758938.3	0.000685858	0.00065257
2045	238	486553	3758938.3	0.000223329	0.000196708
2045	239	487553	3758938.3	0.000245191	0.000215841
2045	240	488553	3758938.3	0.000182051	0.000158491
2045	241	489553	3758938.3	0.000184564	0.000160754
2045	242	490553	3758938.3	0.000201511	0.000175347
2045	243	491553	3758938.3	0.00016388	0.000142275
2045	244	492553	3758938.3	0.000170507	0.000148228
2045	245	481553	3759938.3	0.000170999	0.000151817
2045	246	482553	3759938.3	0.000176464	0.000155607
2045	247	483553	3759938.3	0.000186986	0.000164671
2045	248	484553	3759938.3	0.000260077	0.000232294
2045	249	485553	3759938.3	0.000678447	0.000644739
2045	250	486553	3759938.3	0.00032149	0.00028742
2045	251	487553	3759938.3	0.000262256	0.000232114
2045	252	488553	3759938.3	0.000261735	0.000229806
2045	253	489553	3759938.3	0.000226817	0.000197994
2045	254	490553	3759938.3	0.000175373	0.000153105
2045	255	491553	3759938.3	0.000152834	0.000133041
2045	256	482553	3760938.3	0.000166449	0.000146921
2045	257	483553	3760938.3	0.000192501	0.000170624
2045	258	484553	3760938.3	0.000245855	0.00022007
2045	259	485553	3760938.3	0.000558289	0.000524197
2045	260	486553	3760938.3	0.00036625	0.000329826
2045	261	487553	3760938.3	0.000292034	0.000262292
2045	262	488553	3760938.3	0.000166389	0.000147291
2045	263	489553	3760938.3	0.000126207	0.000110586
2045	264	490553	3760938.3	0.000120723	0.000105368
2045	265	484551.7	3750934.4	0.00085781	0.000670964
2045	266	484651.7	3750934.4	0.00084689	0.000662861
2045	267	484751.7	3750934.4	0.000647301	0.000513036
2045	268	484851.7	3750934.4	0.000593984	0.000470956
2045	269	484951.7	3750934.4	0.000627812	0.00049677
2045	270	485051.7	3750934.4	0.00056273	0.000444998
2045	271	485151.7	3750934.4	0.000468565	0.000364323
2045	272	485251.7	3750934.4	0.000412708	0.000314147
2045	273	485351.7	3750934.4	0.000396894	0.000299953
2045	274	485451.7	3750934.4	0.0003885	0.00029256
2045	275	484551.7	3751034.4	0.00091639	0.000709662
2045	276	484651.7	3751034.4	0.00090406	0.000701219
2045	277	484751.7	3751034.4	0.000849246	0.000669214
2045	278	484851.7	3751034.4	0.000672371	0.0005324
2045	279	484951.7	3751034.4	0.000747061	0.000589409
2045	280	485051.7	3751034.4	0.00062661	0.000495875
2045	281	485151.7	3751034.4	0.000543262	0.000427368
2045	282	485251.7	3751034.4	0.000462049	0.000355854
2045	283	485351.7	3751034.4	0.000426744	0.000324007

2045	284	485451.7	3751034.4	0.000411431	0.000310272
2045	285	484551.7	3751134.4	0.000962674	0.000742171
2045	286	484651.7	3751134.4	0.000960568	0.000738894
2045	287	484751.7	3751134.4	0.000948044	0.000731807
2045	288	484851.7	3751134.4	0.000856235	0.000678417
2045	289	484951.7	3751134.4	0.000877054	0.000690184
2045	290	485051.7	3751134.4	0.00072305	0.000571168
2045	291	485151.7	3751134.4	0.000641733	0.000507903
2045	292	485251.7	3751134.4	0.000555085	0.000435731
2045	293	485351.7	3751134.4	0.000472087	0.000362072
2045	294	485451.7	3751134.4	0.000438092	0.000331327
2045	295	484551.7	3751234.4	0.001010266	0.000778358
2045	296	484651.7	3751234.4	0.001010341	0.000775898
2045	297	484751.7	3751234.4	0.001002462	0.00077203
2045	298	484851.7	3751234.4	0.000974393	0.000757209
2045	299	484951.7	3751234.4	0.000948845	0.000742007
2045	300	485051.7	3751234.4	0.00085298	0.000675077
2045	301	485151.7	3751234.4	0.000719612	0.000570026
2045	302	485251.7	3751234.4	0.000543351	0.000423307
2045	303	485351.7	3751234.4	0.00048047	0.000366617
2045	304	485451.7	3751234.4	0.000461442	0.000349354
2045	305	484551.7	3751334.4	0.001081053	0.000835602
2045	306	484651.7	3751334.4	0.001073192	0.000827108
2045	307	484751.7	3751334.4	0.001061106	0.000819641
2045	308	484851.7	3751334.4	0.001046072	0.000810269
2045	309	484951.7	3751334.4	0.00103785	0.000803428
2045	310	485051.7	3751334.4	0.000995324	0.000779379
2045	311	485151.7	3751334.4	0.000842305	0.000666826
2045	312	485251.7	3751334.4	0.00066315	0.000525565
2045	313	485351.7	3751334.4	0.000522765	0.000401953
2045	314	485451.7	3751334.4	0.00048902	0.000371194
2045	315	484551.7	3751434.4	0.001195871	0.000941044
2045	316	484651.7	3751434.4	0.001163768	0.000905728
2045	317	484751.7	3751434.4	0.001144393	0.000885781
2045	318	484851.7	3751434.4	0.00113107	0.000873877
2045	319	484951.7	3751434.4	0.001120277	0.000865319
2045	320	485051.7	3751434.4	0.00110667	0.000855016
2045	321	485151.7	3751434.4	0.00099371	0.000789774
2045	322	485251.7	3751434.4	0.000773905	0.00061681
2045	323	485351.7	3751434.4	0.000608583	0.00047649
2045	324	485451.7	3751434.4	0.00054169	0.000415823
2045	325	484551.7	3751534.4	0.001456143	0.001194651
2045	326	484651.7	3751534.4	0.001349409	0.001081237
2045	327	484751.7	3751534.4	0.001270368	0.000997498
2045	328	484851.7	3751534.4	0.001233975	0.000958587
2045	329	484951.7	3751534.4	0.001216508	0.000938945
2045	330	485051.7	3751534.4	0.00120715	0.000926978

2045	331	485151.7	3751534.4	0.001192785	0.000916086
2045	332	485251.7	3751534.4	0.001082089	0.00085507
2045	333	485351.7	3751534.4	0.000865048	0.000689985
2045	334	485451.7	3751534.4	0.000715318	0.00056769
2045	335	484551.7	3751634.4	0.001348616	0.00108066
2045	336	484651.7	3751634.4	0.001389714	0.001114828
2045	337	484751.7	3751634.4	0.001432773	0.001150223
2045	338	484851.7	3751634.4	0.001460119	0.001172175
2045	339	484951.7	3751634.4	0.001360079	0.001067802
2045	340	485051.7	3751634.4	0.001317314	0.001020951
2045	341	485151.7	3751634.4	0.001301717	0.00100178
2045	342	485251.7	3751634.4	0.00126963	0.000980559
2045	343	485351.7	3751634.4	0.001209076	0.000942354
2045	344	485451.7	3751634.4	0.001103471	0.000878023
2045	345	484551.7	3751734.4	0.00119826	0.000925036
2045	346	484651.7	3751734.4	0.001264518	0.00098234
2045	347	484751.7	3751734.4	0.001369029	0.001078914
2045	348	484851.7	3751734.4	0.001502342	0.001205645
2045	349	484951.7	3751734.4	0.001504911	0.00120346
2045	350	485051.7	3751734.4	0.001637929	0.001331229
2045	351	485151.7	3751734.4	0.001489861	0.001175256
2045	352	485251.7	3751734.4	0.001448465	0.001130981
2045	353	485351.7	3751734.4	0.001395598	0.00108578
2045	354	485451.7	3751734.4	0.001321168	0.001028942
2045	355	484551.7	3751834.4	0.001178528	0.000900498
2045	356	484651.7	3751834.4	0.001216232	0.000929544
2045	357	484751.7	3751834.4	0.001259795	0.000964382
2045	358	484851.7	3751834.4	0.001311587	0.001008227
2045	359	484951.7	3751834.4	0.001376602	0.001067296
2045	360	485051.7	3751834.4	0.001520517	0.001203986
2045	361	485151.7	3751834.4	0.001542038	0.001214307
2045	362	485251.7	3751834.4	0.001632191	0.001296729
2045	363	485351.7	3751834.4	0.001647723	0.001312326
2045	364	485451.7	3751834.4	0.00164466	0.001317141
2045	365	484551.7	3751934.4	0.001194952	0.000909391
2045	366	484651.7	3751934.4	0.001221364	0.000928327
2045	367	484751.7	3751934.4	0.001248195	0.00094805
2045	368	484851.7	3751934.4	0.001281837	0.000973346
2045	369	484951.7	3751934.4	0.001318899	0.001002103
2045	370	485051.7	3751934.4	0.001366238	0.001039846
2045	371	485151.7	3751934.4	0.001426081	0.001088516
2045	372	485251.7	3751934.4	0.00150841	0.001158113
2045	373	485351.7	3751934.4	0.001627079	0.001268813
2045	374	485451.7	3751934.4	0.001700973	0.001347094
2045	375	484551.7	3752034.4	0.00123658	0.000940967
2045	376	484651.7	3752034.4	0.001259397	0.000956388
2045	377	484751.7	3752034.4	0.001283978	0.000973366

2045	378	484851.7	3752034.4	0.001310027	0.000991611
2045	379	484951.7	3752034.4	0.001342007	0.001014467
2045	380	485051.7	3752034.4	0.001380379	0.001042355
2045	381	485151.7	3752034.4	0.001427179	0.001077177
2045	382	485251.7	3752034.4	0.001494628	0.001130077
2045	383	485351.7	3752034.4	0.001585696	0.001209182
2045	384	485451.7	3752034.4	0.001797931	0.001414264
2045	385	484551.7	3752134.4	0.001309768	0.001003584
2045	386	484651.7	3752134.4	0.00133143	0.001017358
2045	387	484751.7	3752134.4	0.001355632	0.00103318
2045	388	484851.7	3752134.4	0.001380202	0.001049316
2045	389	484951.7	3752134.4	0.001407388	0.001067564
2045	390	485051.7	3752134.4	0.001440843	0.001090734
2045	391	485151.7	3752134.4	0.001481643	0.001119932
2045	392	485251.7	3752134.4	0.001541168	0.001164836
2045	393	485351.7	3752134.4	0.00163458	0.001242518
2045	394	485451.7	3752134.4	0.00184928	0.001444735
2045	395	484551.7	3752234.4	0.00144234	0.001126349
2045	396	484651.7	3752234.4	0.001473627	0.001148329
2045	397	484751.7	3752234.4	0.001496568	0.00116218
2045	398	484851.7	3752234.4	0.001516013	0.001172452
2045	399	484951.7	3752234.4	0.00161539	0.001262436
2045	400	485051.7	3752234.4	0.001568001	0.00120522
2045	401	485151.7	3752234.4	0.001609817	0.001236612
2045	402	485251.7	3752234.4	0.001656023	0.001268681
2045	403	485351.7	3752234.4	0.001744825	0.001340437
2045	404	485451.7	3752234.4	0.002006212	0.001585117
2045	405	484551.7	3752334.4	0.00137642	0.001048293
2045	406	484651.7	3752334.4	0.001402623	0.001064916
2045	407	484751.7	3752334.4	0.001428874	0.001081665
2045	408	484851.7	3752334.4	0.001456068	0.001099205
2045	409	484951.7	3752334.4	0.001486183	0.001118959
2045	410	485051.7	3752334.4	0.001516782	0.001139289
2045	411	485151.7	3752334.4	0.001552645	0.001163754
2045	412	485251.7	3752334.4	0.001594992	0.001193738
2045	413	485351.7	3752334.4	0.001653852	0.001237788
2045	414	485451.7	3752334.4	0.001757089	0.001322574
2045	415	484551.7	3752434.4	0.001374057	0.001033906
2045	416	484651.7	3752434.4	0.001400675	0.00105041
2045	417	484751.7	3752434.4	0.001426966	0.001066937
2045	418	484851.7	3752434.4	0.001458117	0.001086799
2045	419	484951.7	3752434.4	0.001488964	0.001106788
2045	420	485051.7	3752434.4	0.001522938	0.001129194
2045	421	485151.7	3752434.4	0.001560259	0.001154198
2045	422	485251.7	3752434.4	0.001601804	0.001182746
2045	423	485351.7	3752434.4	0.001653242	0.001219379
2045	424	485451.7	3752434.4	0.001729627	0.001279192

2045	425	484551.7	3752534.4	0.001401819	0.001049316
2045	426	484651.7	3752534.4	0.001429809	0.001066429
2045	427	484751.7	3752534.4	0.001459488	0.001084859
2045	428	484851.7	3752534.4	0.001491713	0.001105178
2045	429	484951.7	3752534.4	0.00152427	0.00112611
2045	430	485051.7	3752534.4	0.001560829	0.001149939
2045	431	485151.7	3752534.4	0.001599872	0.001175854
2045	432	485251.7	3752534.4	0.001641838	0.001204362
2045	433	485351.7	3752534.4	0.001690709	0.001238524
2045	434	485451.7	3752534.4	0.00176205	0.001293077
2045	435	484551.7	3752634.4	0.001438541	0.001074066
2045	436	484651.7	3752634.4	0.001468059	0.001091822
2045	437	484751.7	3752634.4	0.001499137	0.001110847
2045	438	484851.7	3752634.4	0.001535217	0.00113325
2045	439	484951.7	3752634.4	0.001570908	0.001155938
2045	440	485051.7	3752634.4	0.001610282	0.001181404
2045	441	485151.7	3752634.4	0.001651377	0.001208572
2045	442	485251.7	3752634.4	0.001695229	0.001238247
2045	443	485351.7	3752634.4	0.001745409	0.001273186
2045	444	485451.7	3752634.4	0.001817814	0.001327956
2045	445	484551.7	3752734.4	0.001483352	0.001106832
2045	446	484651.7	3752734.4	0.001516186	0.001126096
2045	447	484751.7	3752734.4	0.001550521	0.001146678
2045	448	484851.7	3752734.4	0.001587292	0.00116924
2045	449	484951.7	3752734.4	0.001626016	0.001193528
2045	450	485051.7	3752734.4	0.001668241	0.001220643
2045	451	485151.7	3752734.4	0.001711712	0.001249267
2045	452	485251.7	3752734.4	0.00175782	0.001280463
2045	453	485351.7	3752734.4	0.001810408	0.001317086
2045	454	485451.7	3752734.4	0.001882636	0.001372065
2045	455	484551.7	3752834.4	0.001534456	0.001146596
2045	456	484651.7	3752834.4	0.001570243	0.001166992
2045	457	484751.7	3752834.4	0.001606119	0.001187866
2045	458	484851.7	3752834.4	0.001647252	0.001212626
2045	459	484951.7	3752834.4	0.001689701	0.001238761
2045	460	485051.7	3752834.4	0.001734221	0.001266916
2045	461	485151.7	3752834.4	0.001780125	0.001296864
2045	462	485251.7	3752834.4	0.001829099	0.001329854
2045	463	485351.7	3752834.4	0.001882997	0.001367863
2045	464	485451.7	3752834.4	0.001957854	0.001425333
2045	465	484551.7	3752934.4	0.001601751	0.001203046
2045	466	484651.7	3752934.4	0.00164048	0.00122451
2045	467	484751.7	3752934.4	0.001679838	0.001246691
2045	468	484851.7	3752934.4	0.001724112	0.001272555
2045	469	484951.7	3752934.4	0.001770055	0.001300051
2045	470	485051.7	3752934.4	0.001818983	0.001330259
2045	471	485151.7	3752934.4	0.00186735	0.001361117

2045	472	485251.7	3752934.4	0.001920264	0.00139627
2045	473	485351.7	3752934.4	0.001973824	0.001433845
2045	474	485451.7	3752934.4	0.002047133	0.001490124
2045	475	484551.7	3753034.4	0.001715618	0.001307625
2045	476	484651.7	3753034.4	0.00176227	0.001335261
2045	477	484751.7	3753034.4	0.001814456	0.001367484
2045	478	484851.7	3753034.4	0.001855514	0.001387618
2045	479	484951.7	3753034.4	0.001903049	0.001414056
2045	480	485051.7	3753034.4	0.00195553	0.001445755
2045	481	485151.7	3753034.4	0.002014561	0.001483999
2045	482	485251.7	3753034.4	0.002115233	0.001564722
2045	483	485351.7	3753034.4	0.002120727	0.001552771
2045	484	485451.7	3753034.4	0.002181446	0.001596507
2045	485	484551.7	3753134.4	0.001687332	0.001270859
2045	486	484651.7	3753134.4	0.00173429	0.001296449
2045	487	484751.7	3753134.4	0.001785371	0.001324848
2045	488	484851.7	3753134.4	0.001837625	0.00135412
2045	489	484951.7	3753134.4	0.001893722	0.001386283
2045	490	485051.7	3753134.4	0.001952738	0.00142104
2045	491	485151.7	3753134.4	0.002013623	0.001457896
2045	492	485251.7	3753134.4	0.002078831	0.001499391
2045	493	485351.7	3753134.4	0.002146062	0.001544987
2045	494	485451.7	3753134.4	0.002226377	0.001605705
2045	495	484551.7	3753234.4	0.001710402	0.001286521
2045	496	484651.7	3753234.4	0.001761812	0.001314088
2045	497	484751.7	3753234.4	0.001815975	0.001343414
2045	498	484851.7	3753234.4	0.001873055	0.001374714
2045	499	484951.7	3753234.4	0.001934588	0.001409086
2045	500	485051.7	3753234.4	0.002000977	0.001447239
2045	501	485151.7	3753234.4	0.002070191	0.001487989
2045	502	485251.7	3753234.4	0.00214474	0.001533638
2045	503	485351.7	3753234.4	0.002223326	0.001584671
2045	504	485451.7	3753234.4	0.00231898	0.00165487
2045	505	484551.7	3753334.4	0.001749836	0.001319961
2045	506	484651.7	3753334.4	0.001804365	0.001348842
2045	507	484751.7	3753334.4	0.001861251	0.001378912
2045	508	484851.7	3753334.4	0.001925027	0.001413483
2045	509	484951.7	3753334.4	0.001990743	0.00144911
2045	510	485051.7	3753334.4	0.002063278	0.001489422
2045	511	485151.7	3753334.4	0.002141295	0.001533966
2045	512	485251.7	3753334.4	0.002229989	0.001586604
2045	513	485351.7	3753334.4	0.002326635	0.001646844
2045	514	485451.7	3753334.4	0.002441918	0.0017269
2045	515	484551.7	3753434.4	0.001791726	0.001359032
2045	516	484651.7	3753434.4	0.001848842	0.001389154
2045	517	484751.7	3753434.4	0.001909309	0.001420715
2045	518	484851.7	3753434.4	0.001977124	0.00145699

2045	519	484951.7	3753434.4	0.002048261	0.001494284
2045	520	485051.7	3753434.4	0.002126433	0.001536252
2045	521	485151.7	3753434.4	0.002215529	0.001586236
2045	522	485251.7	3753434.4	0.002317732	0.001645499
2045	523	485351.7	3753434.4	0.002433163	0.001715569
2045	524	485451.7	3753434.4	0.00258071	0.00181406
2045	525	484551.7	3753534.4	0.001834271	0.001401772
2045	526	484651.7	3753534.4	0.001889351	0.001429249
2045	527	484751.7	3753534.4	0.001951536	0.001461171
2045	528	484851.7	3753534.4	0.002026173	0.001502069
2045	529	484951.7	3753534.4	0.00210231	0.001542131
2045	530	485051.7	3753534.4	0.002186094	0.001586561
2045	531	485151.7	3753534.4	0.00228372	0.001640541
2045	532	485251.7	3753534.4	0.002397312	0.001705771
2045	533	485351.7	3753534.4	0.00253218	0.001786736
2045	534	485451.7	3753534.4	0.002708557	0.001902665
2045	535	484551.7	3753634.4	0.001877063	0.001447138
2045	536	484651.7	3753634.4	0.001934776	0.001476223
2045	537	484751.7	3753634.4	0.002000177	0.001510122
2045	538	484851.7	3753634.4	0.002073708	0.001548936
2045	539	484951.7	3753634.4	0.002154732	0.001591924
2045	540	485051.7	3753634.4	0.002243852	0.001639563
2045	541	485151.7	3753634.4	0.002346954	0.001696693
2045	542	485251.7	3753634.4	0.002467347	0.001766469
2045	543	485351.7	3753634.4	0.002608998	0.001852946
2045	544	485451.7	3753634.4	0.002796159	0.001980042
2045	545	484551.7	3753734.4	0.001934299	0.001509715
2045	546	484651.7	3753734.4	0.001991163	0.001537158
2045	547	484751.7	3753734.4	0.00205413	0.001567525
2045	548	484851.7	3753734.4	0.002123749	0.001601175
2045	549	484951.7	3753734.4	0.0022069	0.001644798
2045	550	485051.7	3753734.4	0.002301359	0.001695531
2045	551	485151.7	3753734.4	0.002408853	0.001754781
2045	552	485251.7	3753734.4	0.002533232	0.001826116
2045	553	485351.7	3753734.4	0.002681382	0.001916507
2045	554	485451.7	3753734.4	0.002875536	0.002049607
2045	555	484551.7	3753834.4	0.001993158	0.001576913
2045	556	484651.7	3753834.4	0.002047351	0.001601491
2045	557	484751.7	3753834.4	0.002110471	0.001631739
2045	558	484851.7	3753834.4	0.002181027	0.001665539
2045	559	484951.7	3753834.4	0.002265921	0.001709602
2045	560	485051.7	3753834.4	0.002359809	0.001757485
2045	561	485151.7	3753834.4	0.002468271	0.001814695
2045	562	485251.7	3753834.4	0.002599845	0.001889462
2045	563	485351.7	3753834.4	0.00275538	0.001982722
2045	564	485451.7	3753834.4	0.002959871	0.002119668
2045	565	484551.7	3753934.4	0.002057964	0.001652498

2045	566	484651.7	3753934.4	0.002115125	0.00168019
2045	567	484751.7	3753934.4	0.00216924	0.001700941
2045	568	484851.7	3753934.4	0.002241081	0.001736206
2045	569	484951.7	3753934.4	0.002325125	0.001779229
2045	570	485051.7	3753934.4	0.002421929	0.001829895
2045	571	485151.7	3753934.4	0.002533649	0.001889484
2045	572	485251.7	3753934.4	0.002665218	0.001962212
2045	573	485351.7	3753934.4	0.002824593	0.002054876
2045	574	485451.7	3753934.4	0.003036929	0.002191879
2045	575	484551.7	3754034.4	0.002134061	0.001744042
2045	576	484651.7	3754034.4	0.002164441	0.00174111
2045	577	484751.7	3754034.4	0.002233019	0.001777893
2045	578	484851.7	3754034.4	0.002308684	0.001817367
2045	579	484951.7	3754034.4	0.002391473	0.0018593
2045	580	485051.7	3754034.4	0.002485474	0.001907343
2045	581	485151.7	3754034.4	0.002595727	0.001965697
2045	582	485251.7	3754034.4	0.00272772	0.002039071
2045	583	485351.7	3754034.4	0.002888299	0.002133606
2045	584	485451.7	3754034.4	0.003102403	0.00227432
2045	585	484551.7	3754134.4	0.002186274	0.001807139
2045	586	484651.7	3754134.4	0.002225021	0.001815615
2045	587	484751.7	3754134.4	0.002293936	0.001854061
2045	588	484851.7	3754134.4	0.002375554	0.001901776
2045	589	484951.7	3754134.4	0.002457415	0.001943255
2045	590	485051.7	3754134.4	0.002553067	0.001992794
2045	591	485151.7	3754134.4	0.002664673	0.002052706
2045	592	485251.7	3754134.4	0.002796993	0.002127144
2045	593	485351.7	3754134.4	0.00295868	0.002223219
2045	594	485451.7	3754134.4	0.003172011	0.002363175
2045	595	484551.7	3754234.4	0.002240663	0.001872713
2045	596	484651.7	3754234.4	0.00229019	0.001895488
2045	597	484751.7	3754234.4	0.002363842	0.001940994
2045	598	484851.7	3754234.4	0.002446119	0.001991594
2045	599	484951.7	3754234.4	0.002530731	0.002038242
2045	600	485051.7	3754234.4	0.002624803	0.002088277
2045	601	485151.7	3754234.4	0.002735868	0.00214918
2045	602	485251.7	3754234.4	0.00286773	0.00222367
2045	603	485351.7	3754234.4	0.003029111	0.002319229
2045	604	485451.7	3754234.4	0.00324325	0.002459568
2045	605	484551.7	3754334.4	0.002319381	0.001965274
2045	606	484651.7	3754334.4	0.002383308	0.002006268
2045	607	484751.7	3754334.4	0.002455562	0.002052936
2045	608	484851.7	3754334.4	0.002529848	0.002096785
2045	609	484951.7	3754334.4	0.002613682	0.002145331
2045	610	485051.7	3754334.4	0.002708685	0.002199202
2045	611	485151.7	3754334.4	0.002818094	0.002261127
2045	612	485251.7	3754334.4	0.002948876	0.002337852

2045	613	485351.7	3754334.4	0.003105414	0.002433595
2045	614	485451.7	3754334.4	0.003295493	0.002555144
2045	615	484551.7	3754434.4	0.002466948	0.002134251
2045	616	484651.7	3754434.4	0.002513144	0.002157251
2045	617	484751.7	3754434.4	0.00257021	0.002189104
2045	618	484851.7	3754434.4	0.002635733	0.002225749
2045	619	484951.7	3754434.4	0.002715329	0.002272607
2045	620	485051.7	3754434.4	0.002807268	0.002326432
2045	621	485151.7	3754434.4	0.0029154	0.002390492
2045	622	485251.7	3754434.4	0.003043715	0.002468005
2045	623	485351.7	3754434.4	0.00319795	0.002564289
2045	624	485451.7	3754434.4	0.003387155	0.002688871
2045	625	484551.7	3754534.4	0.002641132	0.002327165
2045	626	484651.7	3754534.4	0.002686088	0.002351475
2045	627	484751.7	3754534.4	0.002725027	0.002366095
2045	628	484851.7	3754534.4	0.002773038	0.00238861
2045	629	484951.7	3754534.4	0.002842577	0.002428131
2045	630	485051.7	3754534.4	0.002929537	0.002479577
2045	631	485151.7	3754534.4	0.003035137	0.002543871
2045	632	485251.7	3754534.4	0.003160924	0.002621983
2045	633	485351.7	3754534.4	0.003312481	0.002718463
2045	634	485451.7	3754534.4	0.003505868	0.002848357
2045	635	484551.7	3754634.4	0.002802756	0.00250701
2045	636	484651.7	3754634.4	0.002841798	0.002526934
2045	637	484751.7	3754634.4	0.002899832	0.002564488
2045	638	484851.7	3754634.4	0.002935938	0.002578445
2045	639	484951.7	3754634.4	0.002995686	0.002611829
2045	640	485051.7	3754634.4	0.003077688	0.0026629
2045	641	485151.7	3754634.4	0.00317944	0.002728647
2045	642	485251.7	3754634.4	0.003303422	0.002809311
2045	643	485351.7	3754634.4	0.003456635	0.002910261
2045	644	485451.7	3754634.4	0.0036547	0.003047312
2045	645	484551.7	3754734.4	0.002978054	0.002698924
2045	646	484651.7	3754734.4	0.003018031	0.002722379
2045	647	484751.7	3754734.4	0.003064686	0.002751352
2045	648	484851.7	3754734.4	0.003120789	0.002788199
2045	649	484951.7	3754734.4	0.003188652	0.002833756
2045	650	485051.7	3754734.4	0.003270037	0.002888999
2045	651	485151.7	3754734.4	0.003368486	0.00295669
2045	652	485251.7	3754734.4	0.003490168	0.003042657
2045	653	485351.7	3754734.4	0.003643485	0.0031557
2045	654	485451.7	3754734.4	0.003840616	0.003306472
2045	655	484551.7	3754834.4	0.003242658	0.002979317
2045	656	484651.7	3754834.4	0.003285329	0.003008528
2045	657	484751.7	3754834.4	0.003333217	0.003041133
2045	658	484851.7	3754834.4	0.003388116	0.003078581
2045	659	484951.7	3754834.4	0.003454875	0.003126139

2045	660	485051.7	3754834.4	0.003533567	0.00318294
2045	661	485151.7	3754834.4	0.003631038	0.003255403
2045	662	485251.7	3754834.4	0.003755515	0.003351331
2045	663	485351.7	3754834.4	0.003922464	0.003487445
2045	664	485451.7	3754834.4	0.004140971	0.003671542
2045	665	484551.7	3754934.4	0.003634536	0.00338655
2045	666	484651.7	3754934.4	0.003674978	0.003415274
2045	667	484751.7	3754934.4	0.003720486	0.003447449
2045	668	484851.7	3754934.4	0.003772977	0.003484859
2045	669	484951.7	3754934.4	0.003836569	0.003531869
2045	670	485051.7	3754934.4	0.003910227	0.003586716
2045	671	485151.7	3754934.4	0.004006419	0.003662433
2045	672	485251.7	3754934.4	0.004134273	0.003767131
2045	673	485351.7	3754934.4	0.004333918	0.003942243
2045	674	485451.7	3754934.4	0.004702267	0.004283123
2045	675	484551.7	3755034.4	0.004219462	0.003985179
2045	676	484651.7	3755034.4	0.004255692	0.004011236
2045	677	484751.7	3755034.4	0.004294449	0.004038013
2045	678	484851.7	3755034.4	0.004346369	0.004077414
2045	679	484951.7	3755034.4	0.004407037	0.004123743
2045	680	485051.7	3755034.4	0.004481581	0.004182307
2045	681	485151.7	3755034.4	0.004574177	0.004257259
2045	682	485251.7	3755034.4	0.004703021	0.004367231
2045	683	485351.7	3755034.4	0.004910749	0.004554369
2045	684	485451.7	3755034.4	0.005501719	0.005122284
2045	685	485549.5	3750934.9	0.000381408	0.000286398
2045	686	485649.5	3750934.9	0.000376802	0.00028247
2045	687	485749.5	3750934.9	0.000373905	0.000280085
2045	688	485849.5	3750934.9	0.000369327	0.000276267
2045	689	485549.5	3751034.9	0.000402374	0.000302286
2045	690	485649.5	3751034.9	0.000396166	0.000296938
2045	691	485749.5	3751034.9	0.000393503	0.000294719
2045	692	485849.5	3751034.9	0.000389964	0.000291775
2045	693	485549.5	3751134.9	0.000425468	0.000320068
2045	694	485649.5	3751134.9	0.000418729	0.000314191
2045	695	485749.5	3751134.9	0.000415753	0.000311674
2045	696	485849.5	3751134.9	0.000411351	0.000307938
2045	697	485549.5	3751234.9	0.000452898	0.000341689
2045	698	485649.5	3751234.9	0.000444221	0.000334028
2045	699	485749.5	3751234.9	0.000440756	0.000331036
2045	700	485849.5	3751234.9	0.000439925	0.000330468
2045	701	485549.5	3751334.9	0.000482122	0.000364898
2045	702	485649.5	3751334.9	0.000475505	0.000358979
2045	703	485749.5	3751334.9	0.000470137	0.000354265
2045	704	485849.5	3751334.9	0.000473821	0.00035779
2045	705	485549.5	3751434.9	0.000522869	0.000398477
2045	706	485649.5	3751434.9	0.000518805	0.000394748

2045	707	485749.5	3751434.9	0.000507386	0.00038446
2045	708	485849.5	3751434.9	0.000522982	0.000398924
2045	709	485549.5	3751534.9	0.000654594	0.000514071
2045	710	485649.5	3751534.9	0.000638801	0.000499731
2045	711	485749.5	3751534.9	0.000580121	0.000446876
2045	712	485849.5	3751534.9	0.000569107	0.000437031
2045	713	485549.5	3751634.9	0.001009894	0.000803943
2045	714	485649.5	3751634.9	0.000853953	0.000681468
2045	715	485749.5	3751634.9	0.000795791	0.000633331
2045	716	485849.5	3751634.9	0.00061185	0.000471853
2045	717	485549.5	3751734.9	0.001247554	0.000980651
2045	718	485649.5	3751734.9	0.001192698	0.000943849
2045	719	485749.5	3751734.9	0.001061267	0.000846565
2045	720	485849.5	3751734.9	0.000748065	0.000590538
2045	721	485549.5	3751834.9	0.001423585	0.00112109
2045	722	485649.5	3751834.9	0.001350044	0.001063201
2045	723	485749.5	3751834.9	0.001292025	0.001021026
2045	724	485849.5	3751834.9	0.001103141	0.000882625
2045	725	485549.5	3751934.9	0.001652881	0.001311622
2045	726	485649.5	3751934.9	0.001514799	0.00118527
2045	727	485749.5	3751934.9	0.001473871	0.00115035
2045	728	485849.5	3751934.9	0.001418527	0.001111805
2045	729	485549.5	3752034.9	0.001913952	0.001532891
2045	730	485649.5	3752034.9	0.001679936	0.001308415
2045	731	485749.5	3752034.9	0.001644047	0.001277913
2045	732	485849.5	3752034.9	0.001610713	0.0012578
2045	733	485549.5	3752134.9	0.001969271	0.001556215
2045	734	485649.5	3752134.9	0.00191735	0.001499243
2045	735	485749.5	3752134.9	0.001923089	0.001505909
2045	736	485849.5	3752134.9	0.001935394	0.001527596
2045	737	485549.5	3752234.9	0.002209253	0.001773399
2045	738	485649.5	3752234.9	0.002276635	0.00182918
2045	739	485749.5	3752234.9	0.002368736	0.00191246
2045	740	485849.5	3752234.9	0.002439675	0.001983816
2045	741	485549.5	3752334.9	0.001850101	0.001396992
2045	742	485649.5	3752334.9	0.001895656	0.001424482
2045	743	485749.5	3752334.9	0.001957252	0.00147074
2045	744	485849.5	3752334.9	0.002028742	0.001530912
2045	745	485549.5	3752434.9	0.001794472	0.001324626
2045	746	485649.5	3752434.9	0.00182665	0.001337114
2045	747	485749.5	3752434.9	0.001882293	0.001371805
2045	748	485849.5	3752434.9	0.001954887	0.00142284
2045	749	485549.5	3752534.9	0.001822519	0.00133457
2045	750	485649.5	3752534.9	0.00185133	0.001342231
2045	751	485749.5	3752534.9	0.001907756	0.001375517
2045	752	485849.5	3752534.9	0.001978763	0.001421248
2045	753	485549.5	3752634.9	0.001880855	0.001371813

2045	754	485649.5	3752634.9	0.001910884	0.001379303
2045	755	485749.5	3752634.9	0.001967672	0.001412109
2045	756	485849.5	3752634.9	0.002038557	0.00145584
2045	757	485549.5	3752734.9	0.001953399	0.001422491
2045	758	485649.5	3752734.9	0.001986089	0.001431634
2045	759	485749.5	3752734.9	0.002050619	0.001469412
2045	760	485849.5	3752734.9	0.002129544	0.001517696
2045	761	485549.5	3752834.9	0.002033894	0.001481518
2045	762	485649.5	3752834.9	0.002069403	0.001493384
2045	763	485749.5	3752834.9	0.002143987	0.001539441
2045	764	485849.5	3752834.9	0.00223422	0.001596148
2045	765	485549.5	3752934.9	0.002125289	0.001549419
2045	766	485649.5	3752934.9	0.002162579	0.001563807
2045	767	485749.5	3752934.9	0.002246546	0.00162032
2045	768	485849.5	3752934.9	0.002356775	0.001695749
2045	769	485549.5	3753034.9	0.002242012	0.001638611
2045	770	485649.5	3753034.9	0.00226017	0.001635901
2045	771	485749.5	3753034.9	0.002355235	0.001704743
2045	772	485849.5	3753034.9	0.002493296	0.001811424
2045	773	485549.5	3753134.9	0.002284072	0.001644917
2045	774	485649.5	3753134.9	0.002355896	0.00169816
2045	775	485749.5	3753134.9	0.002457885	0.001778786
2045	776	485849.5	3753134.9	0.002614922	0.001910057
2045	777	485549.5	3753234.9	0.002390153	0.001705256
2045	778	485649.5	3753234.9	0.002465506	0.001764755
2045	779	485749.5	3753234.9	0.002565761	0.001850794
2045	780	485849.5	3753234.9	0.002726467	0.001993194
2045	781	485549.5	3753334.9	0.002552748	0.001807315
2045	782	485649.5	3753334.9	0.002613069	0.001847051
2045	783	485749.5	3753334.9	0.002705472	0.001931871
2045	784	485849.5	3753334.9	0.00285173	0.002074119
2045	785	485549.5	3753434.9	0.002734212	0.001918728
2045	786	485649.5	3753434.9	0.002833638	0.001976921
2045	787	485749.5	3753434.9	0.002943824	0.002069103
2045	788	485849.5	3753434.9	0.003067125	0.00220911
2045	789	485508.5	3746711.3	0.000243354	0.00020122
2045	790	491508.5	3746711.3	0.000169864	0.000140836
2045	791	479508.5	3752711.3	0.000851823	0.000773514
2045	792	485508.5	3752711.3	0.001895189	0.001378055
2045	793	491508.5	3752711.3	0.001567461	0.001036188
2045	794	485508.5	3758711.3	0.00043243	0.000401466
2045	795	491508.5	3758711.3	0.000183346	0.000159375
2045	796	485921.9	3750934.2	0.000365028	0.000272701
2045	797	486021.9	3750934.2	0.000360418	0.000268932
2045	798	486121.9	3750934.2	0.000357923	0.00026707
2045	799	485921.9	3751034.2	0.000384631	0.000287232
2045	800	486021.9	3751034.2	0.000377898	0.000281551

2045	801	486121.9	3751034.2	0.00037402	0.000278405
2045	802	485921.9	3751134.2	0.000406955	0.000304179
2045	803	486021.9	3751134.2	0.000399493	0.000297785
2045	804	486121.9	3751134.2	0.000393681	0.000292847
2045	805	485921.9	3751234.2	0.000432798	0.00032423
2045	806	486021.9	3751234.2	0.000424621	0.00031711
2045	807	486121.9	3751234.2	0.000417409	0.00031087
2045	808	485921.9	3751334.2	0.000464403	0.000349418
2045	809	486021.9	3751334.2	0.000454997	0.000341098
2045	810	486121.9	3751334.2	0.000444613	0.000331926
2045	811	485921.9	3751434.2	0.000507596	0.000385075
2045	812	486021.9	3751434.2	0.0004912	0.000370314
2045	813	486121.9	3751434.2	0.000477666	0.000358177
2045	814	485921.9	3751534.2	0.000553763	0.000423265
2045	815	486021.9	3751534.2	0.000542648	0.000413375
2045	816	486121.9	3751534.2	0.000519194	0.000392079
2045	817	485921.9	3751634.2	0.000593219	0.000455051
2045	818	486021.9	3751634.2	0.000633392	0.000491781
2045	819	486121.9	3751634.2	0.000584532	0.000447697
2045	820	485921.9	3751734.2	0.000679013	0.000528765
2045	821	486021.9	3751734.2	0.000778367	0.000616779
2045	822	486121.9	3751734.2	0.000659997	0.000512079
2045	823	485921.9	3751834.2	0.000866478	0.000691228
2045	824	486021.9	3751834.2	0.000872214	0.000695631
2045	825	486121.9	3751834.2	0.000693402	0.000537748
2045	826	485921.9	3751934.2	0.001294056	0.001034312
2045	827	486021.9	3751934.2	0.001078493	0.000866571
2045	828	486121.9	3751934.2	0.000879039	0.000698955
2045	829	485921.9	3752034.2	0.001535784	0.001210919
2045	830	486021.9	3752034.2	0.001324917	0.001068299
2045	831	486121.9	3752034.2	0.001206381	0.000975352
2045	832	485921.9	3752134.2	0.001953025	0.001557591
2045	833	486021.9	3752134.2	0.001902123	0.001537501
2045	834	486121.9	3752134.2	0.00163049	0.001323345
2045	835	485921.9	3752234.2	0.002480435	0.002033643
2045	836	486021.9	3752234.2	0.002589538	0.00215299
2045	837	486121.9	3752234.2	0.002390124	0.001971573
2045	838	485921.9	3752334.2	0.0020821	0.00157883
2045	839	486021.9	3752334.2	0.002195372	0.001692959
2045	840	486121.9	3752334.2	0.002539709	0.002039301
2045	841	485921.9	3752434.2	0.002021294	0.001478324
2045	842	486021.9	3752434.2	0.002132857	0.001577631
2045	843	486121.9	3752434.2	0.002320376	0.001752716
2045	844	485921.9	3752534.2	0.002044178	0.001466591
2045	845	486021.9	3752534.2	0.00213993	0.001538946
2045	846	486121.9	3752534.2	0.002267798	0.001644881
2045	847	485921.9	3752634.2	0.002097036	0.001494003

2045	848	486021.9	3752634.2	0.002186288	0.001556481
2045	849	486121.9	3752634.2	0.002296269	0.00164047
2045	850	485921.9	3752734.2	0.002191812	0.001557032
2045	851	486021.9	3752734.2	0.002291617	0.001623302
2045	852	486121.9	3752734.2	0.002407619	0.001706739
2045	853	485921.9	3752834.2	0.002309887	0.001643694
2045	854	486021.9	3752834.2	0.002431122	0.001722218
2045	855	486121.9	3752834.2	0.002573458	0.001820611
2045	856	485921.9	3752934.2	0.002446021	0.001755807
2045	857	486021.9	3752934.2	0.002597274	0.001856282
2045	858	486121.9	3752934.2	0.002807017	0.002005958
2045	859	487026.2	3754364	0.009710497	0.00841767
2046	1	489607.4	3753966.1	0.003005338	0.002024868
2046	2	489738.7	3754023.9	0.002663909	0.001858582
2046	3	489668.9	3754093.7	0.002533356	0.001848683
2046	4	489690.1	3754161.6	0.002401322	0.001785056
2046	5	490282.2	3753425.2	0.00354684	0.002476163
2046	6	489797.3	3754554.1	0.001961821	0.001506036
2046	7	490252.9	3754378.2	0.001795272	0.0013542
2046	8	489006	3754140.3	0.004557281	0.003554049
2046	9	485642.8	3754267.3	0.004100126	0.003165087
2046	10	485736.4	3754259.5	0.004521802	0.003497506
2046	11	487189.2	3754820.5	0.010091874	0.00899555
2046	12	487233.1	3754689.5	0.008297948	0.00709333
2046	13	487216.8	3754364.7	0.012644115	0.011429272
2046	14	487388.8	3754380.1	0.009543453	0.008421717
2046	15	484625	3751748	0.001234098	0.000953633
2046	16	483279	3751798	0.00092791	0.000727788
2046	17	483231	3751205	0.000825023	0.000648303
2046	18	480165	3750195	0.000624023	0.000534263
2046	19	481211	3749473	0.000563464	0.000463935
2046	20	481867	3752785	0.000944174	0.00080302
2046	21	480678	3751306	0.000678202	0.000572995
2046	22	479989	3752645	0.0008108	0.000723565
2046	23	479889	3756222	0.001134397	0.001082257
2046	24	479234	3757080	0.000547074	0.000509408
2046	25	480276	3756365	0.000922189	0.000872234
2046	26	479887	3754007	0.001055189	0.0009793
2046	27	480772	3755009	0.002233887	0.002151236
2046	28	481560	3754548	0.001674262	0.001568972
2046	29	481845	3754457	0.001689894	0.001574936
2046	30	481754	3753876	0.001207659	0.001084719
2046	31	489635.2	3750663.8	0.000459906	0.000350302
2046	32	485424.1	3747672.3	0.000299065	0.000242834
2046	33	482657.6	3753975.1	0.00143028	0.00126862
2046	34	481495	3754633.7	0.001756784	0.001654574
2046	35	481148.7	3756136.2	0.001267021	0.001204873

2046	36	482346.5	3748872.9	0.000232626	0.0001823
2046	37	480299	3751198	0.000660146	0.000563128
2046	38	479598.7	3756506.3	0.000867936	0.000821002
2046	39	478997.8	3753535.2	0.001183188	0.001116459
2046	40	478978.3	3755233.1	0.003560174	0.003496442
2046	41	479197.3	3754462.3	0.001567936	0.001503431
2046	42	479493.3	3752408.8	0.000823625	0.000743943
2046	43	480295.4	3752408.4	0.000785911	0.00069107
2046	44	480287.9	3754227.5	0.001156285	0.001075163
2046	45	494397.4	3753977.6	0.000725748	0.000586299
2046	46	481108.5	3750699	0.000665979	0.000556029
2046	47	486794.1	3756878	0.000672299	0.000603662
2046	48	482345	3752065.8	0.000894428	0.00073282
2046	49	487553	3745938.3	0.000182569	0.000153648
2046	50	484553	3746938.3	0.000241564	0.000198588
2046	51	485553	3746938.3	0.000253608	0.000208967
2046	52	486553	3746938.3	0.000202023	0.000171399
2046	53	487553	3746938.3	0.000222575	0.000184427
2046	54	488553	3746938.3	0.000202874	0.000169034
2046	55	489553	3746938.3	0.000200449	0.000165706
2046	56	490553	3746938.3	0.000184072	0.000152596
2046	57	491553	3746938.3	0.000175157	0.000144868
2046	58	492553	3746938.3	0.000168435	0.000139086
2046	59	482553	3747938.3	0.000212152	0.000168924
2046	60	483553	3747938.3	0.000354356	0.000283347
2046	61	484553	3747938.3	0.000337484	0.000271086
2046	62	485553	3747938.3	0.00031492	0.000254433
2046	63	486553	3747938.3	0.000293122	0.000240154
2046	64	487553	3747938.3	0.000187394	0.00015797
2046	65	488553	3747938.3	0.000244456	0.00020091
2046	66	489553	3747938.3	0.000229533	0.000188645
2046	67	490553	3747938.3	0.000216089	0.00017724
2046	68	491553	3747938.3	0.000204979	0.000167532
2046	69	492553	3747938.3	0.000196066	0.0001598
2046	70	493553	3747938.3	0.000189683	0.000154526
2046	71	481553	3748938.3	0.000477258	0.000381585
2046	72	482553	3748938.3	0.000243557	0.000191236
2046	73	483553	3748938.3	0.000407565	0.000324862
2046	74	484553	3748938.3	0.000427488	0.000337876
2046	75	485553	3748938.3	0.000407619	0.000323715
2046	76	486553	3748938.3	0.000377647	0.000302446
2046	77	487553	3748938.3	0.000296439	0.000248158
2046	78	488553	3748938.3	0.000304282	0.000245516
2046	79	489553	3748938.3	0.000279574	0.000226405
2046	80	490553	3748938.3	0.000262247	0.000211584
2046	81	491553	3748938.3	0.00024669	0.000198356
2046	82	492553	3748938.3	0.000236251	0.00018921

2046	83	493553	3748938.3	0.000233243	0.000187063
2046	84	494553	3748938.3	0.00030144	0.000256321
2046	85	480553	3749938.3	0.000738525	0.00064574
2046	86	481553	3749938.3	0.000643016	0.000527037
2046	87	482553	3749938.3	0.000627525	0.000501042
2046	88	483553	3749938.3	0.000616276	0.000485716
2046	89	484553	3749938.3	0.000451724	0.000357484
2046	90	485553	3749938.3	0.000369763	0.000294132
2046	91	486553	3749938.3	0.00043767	0.000354462
2046	92	487553	3749938.3	0.000458427	0.000362341
2046	93	488553	3749938.3	0.000397964	0.000312339
2046	94	489553	3749938.3	0.00036174	0.000285053
2046	95	490553	3749938.3	0.000334027	0.000262435
2046	96	491553	3749938.3	0.000313074	0.00024466
2046	97	492553	3749938.3	0.000304898	0.000237148
2046	98	493553	3749938.3	0.000341455	0.00027118
2046	99	494553	3749938.3	0.000287451	0.000218146
2046	100	495553	3749938.3	0.000228161	0.000188337
2046	101	480553	3750938.3	0.000646363	0.000545317
2046	102	481553	3750938.3	0.000695371	0.000573577
2046	103	482553	3750938.3	0.000755391	0.000607747
2046	104	483553	3750938.3	0.000868914	0.000689323
2046	105	484553	3750938.3	0.000863038	0.000673992
2046	106	485553	3750938.3	0.000381804	0.000286657
2046	107	486553	3750938.3	0.000352273	0.000265001
2046	108	487553	3750938.3	0.000551668	0.000438674
2046	109	488553	3750938.3	0.000597203	0.000442398
2046	110	489553	3750938.3	0.000524571	0.000391487
2046	111	490553	3750938.3	0.000468271	0.000349838
2046	112	491553	3750938.3	0.00043614	0.000323869
2046	113	492553	3750938.3	0.000490154	0.000375303
2046	114	493553	3750938.3	0.000424692	0.000311663
2046	115	494553	3750938.3	0.000411569	0.000305844
2046	116	495553	3750938.3	0.000383874	0.000298329
2046	117	479553	3751938.3	0.000760661	0.00067789
2046	118	480553	3751938.3	0.000747192	0.000644871
2046	119	481553	3751938.3	0.000789246	0.000659741
2046	120	482553	3751938.3	0.000876139	0.000706882
2046	121	483553	3751938.3	0.00100534	0.000784025
2046	122	484553	3751938.3	0.00119653	0.000910504
2046	123	485553	3751938.3	0.001652386	0.001310076
2046	124	486553	3751938.3	0.000677518	0.000518984
2046	125	487553	3751938.3	0.0010938	0.00085464
2046	126	488553	3751938.3	0.00117449	0.000795388
2046	127	489553	3751938.3	0.001068619	0.000702555
2046	128	490553	3751938.3	0.000896855	0.000589903
2046	129	491553	3751938.3	0.000929406	0.000648649

2046	130	492553	3751938.3	0.000742622	0.000479676
2046	131	493553	3751938.3	0.000665304	0.000493868
2046	132	494553	3751938.3	0.000613824	0.000458547
2046	133	495553	3751938.3	0.000540945	0.000414249
2046	134	479553	3752938.3	0.000919753	0.000842083
2046	135	480553	3752938.3	0.000917948	0.00082014
2046	136	481553	3752938.3	0.000989982	0.000862685
2046	137	482553	3752938.3	0.001120124	0.000945069
2046	138	483553	3752938.3	0.001288046	0.001036158
2046	139	484553	3752938.3	0.00160562	0.001206286
2046	140	485553	3752938.3	0.002127435	0.001549907
2046	141	486553	3752938.3	0.004197908	0.00330725
2046	142	487553	3752938.3	0.004624128	0.003486353
2046	143	488553	3752938.3	0.004121289	0.003017912
2046	144	489553	3752938.3	0.003759956	0.002743019
2046	145	490553	3752938.3	0.003118444	0.002239126
2046	146	491553	3752938.3	0.001615505	0.001121584
2046	147	492553	3752938.3	0.001228605	0.000804777
2046	148	493553	3752938.3	0.000998658	0.000713483
2046	149	494553	3752938.3	0.000851242	0.000635835
2046	150	495553	3752938.3	0.000685581	0.000530474
2046	151	479553	3753938.3	0.001056648	0.000985336
2046	152	480553	3753938.3	0.001065631	0.000976785
2046	153	481553	3753938.3	0.001210442	0.00109536
2046	154	482553	3753938.3	0.001382839	0.001225984
2046	155	483553	3753938.3	0.001739126	0.001518375
2046	156	484553	3753938.3	0.002062736	0.001657532
2046	157	485553	3753938.3	0.003328033	0.002399635
2046	158	486553	3753938.3	0.00587771	0.004415519
2046	159	487553	3753938.3	0.006449908	0.005269006
2046	160	488553	3753938.3	0.005707975	0.004366261
2046	161	489553	3753938.3	0.003208337	0.002146419
2046	162	490553	3753938.3	0.001856303	0.001363774
2046	163	491553	3753938.3	0.001295453	0.001010088
2046	164	492553	3753938.3	0.001062803	0.000839688
2046	165	493553	3753938.3	0.000869399	0.000695423
2046	166	494553	3753938.3	0.000790045	0.0006368
2046	167	495553	3753938.3	0.000616134	0.000500931
2046	168	479553	3754938.3	0.001879019	0.001812246
2046	169	480553	3754938.3	0.002003114	0.001923237
2046	170	481553	3754938.3	0.002294445	0.002195577
2046	171	482553	3754938.3	0.00335287	0.003226354
2046	172	483553	3754938.3	0.00368581	0.003520762
2046	173	484553	3754938.3	0.003653175	0.003405562
2046	174	485553	3754938.3	0.005300037	0.004852217
2046	175	486553	3754938.3	0.007308372	0.006652972
2046	176	487553	3754938.3	0.0062339	0.005368797

2046	177	488553	3754938.3	0.003502589	0.002902681
2046	178	489553	3754938.3	0.002195006	0.001888802
2046	179	490553	3754938.3	0.001462739	0.001284618
2046	180	491553	3754938.3	0.000961313	0.000837579
2046	181	492553	3754938.3	0.00069004	0.000593919
2046	182	493553	3754938.3	0.000697621	0.000605986
2046	183	494553	3754938.3	0.000530786	0.000457223
2046	184	495553	3754938.3	0.0004455	0.000382642
2046	185	479553	3755938.3	0.001890688	0.001833685
2046	186	480553	3755938.3	0.001584961	0.001523412
2046	187	481553	3755938.3	0.001605812	0.001537024
2046	188	482553	3755938.3	0.002296043	0.002205008
2046	189	483553	3755938.3	0.002411683	0.002302912
2046	190	484553	3755938.3	0.002292656	0.002159919
2046	191	485553	3755938.3	0.003236686	0.003072111
2046	192	486553	3755938.3	0.002616244	0.002439538
2046	193	487553	3755938.3	0.001445759	0.001334041
2046	194	488553	3755938.3	0.00100995	0.000921686
2046	195	489553	3755938.3	0.000692157	0.000624987
2046	196	490553	3755938.3	0.000572999	0.000515125
2046	197	491553	3755938.3	0.000472248	0.000422692
2046	198	492553	3755938.3	0.000572246	0.000526197
2046	199	493553	3755938.3	0.000419577	0.000378874
2046	200	494553	3755938.3	0.000403112	0.000365151
2046	201	479553	3756938.3	0.000573374	0.000534622
2046	202	480553	3756938.3	0.000548895	0.000508986
2046	203	481553	3756938.3	0.000495782	0.000457683
2046	204	482553	3756938.3	0.00051746	0.000475038
2046	205	483553	3756938.3	0.000872637	0.000803056
2046	206	484553	3756938.3	0.00084184	0.000766684
2046	207	485553	3756938.3	0.001827111	0.001750147
2046	208	486553	3756938.3	0.000695643	0.000626292
2046	209	487553	3756938.3	0.00045769	0.000405552
2046	210	488553	3756938.3	0.000371244	0.000326038
2046	211	489553	3756938.3	0.000325199	0.000284817
2046	212	490553	3756938.3	0.000297106	0.000260157
2046	213	491553	3756938.3	0.000259743	0.000227122
2046	214	492553	3756938.3	0.00023137	0.000202437
2046	215	493553	3756938.3	0.000245885	0.000217978
2046	216	494553	3756938.3	0.000238675	0.000212418
2046	217	479553	3757938.3	0.000288328	0.000263889
2046	218	480553	3757938.3	0.000276024	0.000251565
2046	219	481553	3757938.3	0.00029157	0.000263898
2046	220	482553	3757938.3	0.000360656	0.000323934
2046	221	483553	3757938.3	0.000353692	0.000315771
2046	222	484553	3757938.3	0.000465686	0.000418696
2046	223	485553	3757938.3	0.000539591	0.000498787

2046	224	486553	3757938.3	0.000322692	0.00028524
2046	225	487553	3757938.3	0.000263808	0.000230199
2046	226	488553	3757938.3	0.00023161	0.000200905
2046	227	489553	3757938.3	0.000213728	0.000184893
2046	228	490553	3757938.3	0.000195439	0.000168934
2046	229	491553	3757938.3	0.000179074	0.000154599
2046	230	492553	3757938.3	0.000171933	0.000148988
2046	231	493553	3757938.3	0.000190686	0.000166992
2046	232	480553	3758938.3	0.000207166	0.000186495
2046	233	481553	3758938.3	0.000231101	0.000206373
2046	234	482553	3758938.3	0.000225123	0.000199414
2046	235	483553	3758938.3	0.000236025	0.000208208
2046	236	484553	3758938.3	0.00029534	0.000264183
2046	237	485553	3758938.3	0.000685858	0.00065257
2046	238	486553	3758938.3	0.000223329	0.000196708
2046	239	487553	3758938.3	0.000245191	0.000215841
2046	240	488553	3758938.3	0.000182051	0.000158491
2046	241	489553	3758938.3	0.000184564	0.000160754
2046	242	490553	3758938.3	0.000201511	0.000175347
2046	243	491553	3758938.3	0.00016388	0.000142275
2046	244	492553	3758938.3	0.000170507	0.000148228
2046	245	481553	3759938.3	0.000170999	0.000151817
2046	246	482553	3759938.3	0.000176464	0.000155607
2046	247	483553	3759938.3	0.000186986	0.000164671
2046	248	484553	3759938.3	0.000260077	0.000232294
2046	249	485553	3759938.3	0.000678447	0.000644739
2046	250	486553	3759938.3	0.00032149	0.00028742
2046	251	487553	3759938.3	0.000262256	0.000232114
2046	252	488553	3759938.3	0.000261735	0.000229806
2046	253	489553	3759938.3	0.000226817	0.000197994
2046	254	490553	3759938.3	0.000175373	0.000153105
2046	255	491553	3759938.3	0.000152834	0.000133041
2046	256	482553	3760938.3	0.000166449	0.000146921
2046	257	483553	3760938.3	0.000192501	0.000170624
2046	258	484553	3760938.3	0.000245855	0.00022007
2046	259	485553	3760938.3	0.000558289	0.000524197
2046	260	486553	3760938.3	0.00036625	0.000329826
2046	261	487553	3760938.3	0.000292034	0.000262292
2046	262	488553	3760938.3	0.000166389	0.000147291
2046	263	489553	3760938.3	0.000126207	0.000110586
2046	264	490553	3760938.3	0.000120723	0.000105368
2046	265	484551.7	3750934.4	0.00085781	0.000670964
2046	266	484651.7	3750934.4	0.00084689	0.000662861
2046	267	484751.7	3750934.4	0.000647301	0.000513036
2046	268	484851.7	3750934.4	0.000593984	0.000470956
2046	269	484951.7	3750934.4	0.000627812	0.00049677
2046	270	485051.7	3750934.4	0.00056273	0.000444998

2046	271	485151.7	3750934.4	0.000468565	0.000364323
2046	272	485251.7	3750934.4	0.000412708	0.000314147
2046	273	485351.7	3750934.4	0.000396894	0.000299953
2046	274	485451.7	3750934.4	0.0003885	0.00029256
2046	275	484551.7	3751034.4	0.00091639	0.000709662
2046	276	484651.7	3751034.4	0.00090406	0.000701219
2046	277	484751.7	3751034.4	0.000849246	0.000669214
2046	278	484851.7	3751034.4	0.000672371	0.0005324
2046	279	484951.7	3751034.4	0.000747061	0.000589409
2046	280	485051.7	3751034.4	0.00062661	0.000495875
2046	281	485151.7	3751034.4	0.000543262	0.000427368
2046	282	485251.7	3751034.4	0.000462049	0.000355854
2046	283	485351.7	3751034.4	0.000426744	0.000324007
2046	284	485451.7	3751034.4	0.000411431	0.000310272
2046	285	484551.7	3751134.4	0.000962674	0.000742171
2046	286	484651.7	3751134.4	0.000960568	0.000738894
2046	287	484751.7	3751134.4	0.000948044	0.000731807
2046	288	484851.7	3751134.4	0.000856235	0.000678417
2046	289	484951.7	3751134.4	0.000877054	0.000690184
2046	290	485051.7	3751134.4	0.00072305	0.000571168
2046	291	485151.7	3751134.4	0.000641733	0.000507903
2046	292	485251.7	3751134.4	0.000555085	0.000435731
2046	293	485351.7	3751134.4	0.000472087	0.000362072
2046	294	485451.7	3751134.4	0.000438092	0.000331327
2046	295	484551.7	3751234.4	0.001010266	0.000778358
2046	296	484651.7	3751234.4	0.001010341	0.000775898
2046	297	484751.7	3751234.4	0.001002462	0.00077203
2046	298	484851.7	3751234.4	0.000974393	0.000757209
2046	299	484951.7	3751234.4	0.000948845	0.000742007
2046	300	485051.7	3751234.4	0.00085298	0.000675077
2046	301	485151.7	3751234.4	0.000719612	0.000570026
2046	302	485251.7	3751234.4	0.000543351	0.000423307
2046	303	485351.7	3751234.4	0.00048047	0.000366617
2046	304	485451.7	3751234.4	0.000461442	0.000349354
2046	305	484551.7	3751334.4	0.001081053	0.000835602
2046	306	484651.7	3751334.4	0.001073192	0.000827108
2046	307	484751.7	3751334.4	0.001061106	0.000819641
2046	308	484851.7	3751334.4	0.001046072	0.000810269
2046	309	484951.7	3751334.4	0.00103785	0.000803428
2046	310	485051.7	3751334.4	0.000995324	0.000779379
2046	311	485151.7	3751334.4	0.000842305	0.000666826
2046	312	485251.7	3751334.4	0.00066315	0.000525565
2046	313	485351.7	3751334.4	0.000522765	0.000401953
2046	314	485451.7	3751334.4	0.00048902	0.000371194
2046	315	484551.7	3751434.4	0.001195871	0.000941044
2046	316	484651.7	3751434.4	0.001163768	0.000905728
2046	317	484751.7	3751434.4	0.001144393	0.000885781

2046	318	484851.7	3751434.4	0.00113107	0.000873877
2046	319	484951.7	3751434.4	0.001120277	0.000865319
2046	320	485051.7	3751434.4	0.00110667	0.000855016
2046	321	485151.7	3751434.4	0.00099371	0.000789774
2046	322	485251.7	3751434.4	0.000773905	0.00061681
2046	323	485351.7	3751434.4	0.000608583	0.00047649
2046	324	485451.7	3751434.4	0.00054169	0.000415823
2046	325	484551.7	3751534.4	0.001456143	0.001194651
2046	326	484651.7	3751534.4	0.001349409	0.001081237
2046	327	484751.7	3751534.4	0.001270368	0.000997498
2046	328	484851.7	3751534.4	0.001233975	0.000958587
2046	329	484951.7	3751534.4	0.001216508	0.000938945
2046	330	485051.7	3751534.4	0.00120715	0.000926978
2046	331	485151.7	3751534.4	0.001192785	0.000916086
2046	332	485251.7	3751534.4	0.001082089	0.00085507
2046	333	485351.7	3751534.4	0.000865048	0.000689985
2046	334	485451.7	3751534.4	0.000715318	0.00056769
2046	335	484551.7	3751634.4	0.001348616	0.00108066
2046	336	484651.7	3751634.4	0.001389714	0.001114828
2046	337	484751.7	3751634.4	0.001432773	0.001150223
2046	338	484851.7	3751634.4	0.001460119	0.001172175
2046	339	484951.7	3751634.4	0.001360079	0.001067802
2046	340	485051.7	3751634.4	0.001317314	0.001020951
2046	341	485151.7	3751634.4	0.001301717	0.00100178
2046	342	485251.7	3751634.4	0.00126963	0.000980559
2046	343	485351.7	3751634.4	0.001209076	0.000942354
2046	344	485451.7	3751634.4	0.001103471	0.000878023
2046	345	484551.7	3751734.4	0.00119826	0.000925036
2046	346	484651.7	3751734.4	0.001264518	0.00098234
2046	347	484751.7	3751734.4	0.001369029	0.001078914
2046	348	484851.7	3751734.4	0.001502342	0.001205645
2046	349	484951.7	3751734.4	0.001504911	0.00120346
2046	350	485051.7	3751734.4	0.001637929	0.001331229
2046	351	485151.7	3751734.4	0.001489861	0.001175256
2046	352	485251.7	3751734.4	0.001448465	0.001130981
2046	353	485351.7	3751734.4	0.001395598	0.00108578
2046	354	485451.7	3751734.4	0.001321168	0.001028942
2046	355	484551.7	3751834.4	0.001178528	0.000900498
2046	356	484651.7	3751834.4	0.001216232	0.000929544
2046	357	484751.7	3751834.4	0.001259795	0.000964382
2046	358	484851.7	3751834.4	0.001311587	0.001008227
2046	359	484951.7	3751834.4	0.001376602	0.001067296
2046	360	485051.7	3751834.4	0.001520517	0.001203986
2046	361	485151.7	3751834.4	0.001542038	0.001214307
2046	362	485251.7	3751834.4	0.001632191	0.001296729
2046	363	485351.7	3751834.4	0.001647723	0.001312326
2046	364	485451.7	3751834.4	0.00164466	0.001317141

2046	365	484551.7	3751934.4	0.001194952	0.000909391
2046	366	484651.7	3751934.4	0.001221364	0.000928327
2046	367	484751.7	3751934.4	0.001248195	0.00094805
2046	368	484851.7	3751934.4	0.001281837	0.000973346
2046	369	484951.7	3751934.4	0.001318899	0.001002103
2046	370	485051.7	3751934.4	0.001366238	0.001039846
2046	371	485151.7	3751934.4	0.001426081	0.001088516
2046	372	485251.7	3751934.4	0.00150841	0.001158113
2046	373	485351.7	3751934.4	0.001627079	0.001268813
2046	374	485451.7	3751934.4	0.001700973	0.001347094
2046	375	484551.7	3752034.4	0.00123658	0.000940967
2046	376	484651.7	3752034.4	0.001259397	0.000956388
2046	377	484751.7	3752034.4	0.001283978	0.000973366
2046	378	484851.7	3752034.4	0.001310027	0.000991611
2046	379	484951.7	3752034.4	0.001342007	0.001014467
2046	380	485051.7	3752034.4	0.001380379	0.001042355
2046	381	485151.7	3752034.4	0.001427179	0.001077177
2046	382	485251.7	3752034.4	0.001494628	0.001130077
2046	383	485351.7	3752034.4	0.001585696	0.001209182
2046	384	485451.7	3752034.4	0.001797931	0.001414264
2046	385	484551.7	3752134.4	0.001309768	0.001003584
2046	386	484651.7	3752134.4	0.00133143	0.001017358
2046	387	484751.7	3752134.4	0.001355632	0.00103318
2046	388	484851.7	3752134.4	0.001380202	0.001049316
2046	389	484951.7	3752134.4	0.001407388	0.001067564
2046	390	485051.7	3752134.4	0.001440843	0.001090734
2046	391	485151.7	3752134.4	0.001481643	0.001119932
2046	392	485251.7	3752134.4	0.001541168	0.001164836
2046	393	485351.7	3752134.4	0.00163458	0.001242518
2046	394	485451.7	3752134.4	0.00184928	0.001444735
2046	395	484551.7	3752234.4	0.00144234	0.001126349
2046	396	484651.7	3752234.4	0.001473627	0.001148329
2046	397	484751.7	3752234.4	0.001496568	0.00116218
2046	398	484851.7	3752234.4	0.001516013	0.001172452
2046	399	484951.7	3752234.4	0.00161539	0.001262436
2046	400	485051.7	3752234.4	0.001568001	0.00120522
2046	401	485151.7	3752234.4	0.001609817	0.001236612
2046	402	485251.7	3752234.4	0.001656023	0.001268681
2046	403	485351.7	3752234.4	0.001744825	0.001340437
2046	404	485451.7	3752234.4	0.002006212	0.001585117
2046	405	484551.7	3752334.4	0.00137642	0.001048293
2046	406	484651.7	3752334.4	0.001402623	0.001064916
2046	407	484751.7	3752334.4	0.001428874	0.001081665
2046	408	484851.7	3752334.4	0.001456068	0.001099205
2046	409	484951.7	3752334.4	0.001486183	0.001118959
2046	410	485051.7	3752334.4	0.001516782	0.001139289
2046	411	485151.7	3752334.4	0.001552645	0.001163754

2046	412	485251.7	3752334.4	0.001594992	0.001193738
2046	413	485351.7	3752334.4	0.001653852	0.001237788
2046	414	485451.7	3752334.4	0.001757089	0.001322574
2046	415	484551.7	3752434.4	0.001374057	0.001033906
2046	416	484651.7	3752434.4	0.001400675	0.00105041
2046	417	484751.7	3752434.4	0.001426966	0.001066937
2046	418	484851.7	3752434.4	0.001458117	0.001086799
2046	419	484951.7	3752434.4	0.001488964	0.001106788
2046	420	485051.7	3752434.4	0.001522938	0.001129194
2046	421	485151.7	3752434.4	0.001560259	0.001154198
2046	422	485251.7	3752434.4	0.001601804	0.001182746
2046	423	485351.7	3752434.4	0.001653242	0.001219379
2046	424	485451.7	3752434.4	0.001729627	0.001279192
2046	425	484551.7	3752534.4	0.001401819	0.001049316
2046	426	484651.7	3752534.4	0.001429809	0.001066429
2046	427	484751.7	3752534.4	0.001459488	0.001084859
2046	428	484851.7	3752534.4	0.001491713	0.001105178
2046	429	484951.7	3752534.4	0.00152427	0.00112611
2046	430	485051.7	3752534.4	0.001560829	0.001149939
2046	431	485151.7	3752534.4	0.001599872	0.001175854
2046	432	485251.7	3752534.4	0.001641838	0.001204362
2046	433	485351.7	3752534.4	0.001690709	0.001238524
2046	434	485451.7	3752534.4	0.00176205	0.001293077
2046	435	484551.7	3752634.4	0.001438541	0.001074066
2046	436	484651.7	3752634.4	0.001468059	0.001091822
2046	437	484751.7	3752634.4	0.001499137	0.001110847
2046	438	484851.7	3752634.4	0.001535217	0.00113325
2046	439	484951.7	3752634.4	0.001570908	0.001155938
2046	440	485051.7	3752634.4	0.001610282	0.001181404
2046	441	485151.7	3752634.4	0.001651377	0.001208572
2046	442	485251.7	3752634.4	0.001695229	0.001238247
2046	443	485351.7	3752634.4	0.001745409	0.001273186
2046	444	485451.7	3752634.4	0.001817814	0.001327956
2046	445	484551.7	3752734.4	0.001483352	0.001106832
2046	446	484651.7	3752734.4	0.001516186	0.001126096
2046	447	484751.7	3752734.4	0.001550521	0.001146678
2046	448	484851.7	3752734.4	0.001587292	0.00116924
2046	449	484951.7	3752734.4	0.001626016	0.001193528
2046	450	485051.7	3752734.4	0.001668241	0.001220643
2046	451	485151.7	3752734.4	0.001711712	0.001249267
2046	452	485251.7	3752734.4	0.00175782	0.001280463
2046	453	485351.7	3752734.4	0.001810408	0.001317086
2046	454	485451.7	3752734.4	0.001882636	0.001372065
2046	455	484551.7	3752834.4	0.001534456	0.001146596
2046	456	484651.7	3752834.4	0.001570243	0.001166992
2046	457	484751.7	3752834.4	0.001606119	0.001187866
2046	458	484851.7	3752834.4	0.001647252	0.001212626

2046	459	484951.7	3752834.4	0.001689701	0.001238761
2046	460	485051.7	3752834.4	0.001734221	0.001266916
2046	461	485151.7	3752834.4	0.001780125	0.001296864
2046	462	485251.7	3752834.4	0.001829099	0.001329854
2046	463	485351.7	3752834.4	0.001882997	0.001367863
2046	464	485451.7	3752834.4	0.001957854	0.001425333
2046	465	484551.7	3752934.4	0.001601751	0.001203046
2046	466	484651.7	3752934.4	0.00164048	0.00122451
2046	467	484751.7	3752934.4	0.001679838	0.001246691
2046	468	484851.7	3752934.4	0.001724112	0.001272555
2046	469	484951.7	3752934.4	0.001770055	0.001300051
2046	470	485051.7	3752934.4	0.001818983	0.001330259
2046	471	485151.7	3752934.4	0.00186735	0.001361117
2046	472	485251.7	3752934.4	0.001920264	0.00139627
2046	473	485351.7	3752934.4	0.001973824	0.001433845
2046	474	485451.7	3752934.4	0.002047133	0.001490124
2046	475	484551.7	3753034.4	0.001715618	0.001307625
2046	476	484651.7	3753034.4	0.00176227	0.001335261
2046	477	484751.7	3753034.4	0.001814456	0.001367484
2046	478	484851.7	3753034.4	0.001855514	0.001387618
2046	479	484951.7	3753034.4	0.001903049	0.001414056
2046	480	485051.7	3753034.4	0.00195553	0.001445755
2046	481	485151.7	3753034.4	0.002014561	0.001483999
2046	482	485251.7	3753034.4	0.002115233	0.001564722
2046	483	485351.7	3753034.4	0.002120727	0.001552771
2046	484	485451.7	3753034.4	0.002181446	0.001596507
2046	485	484551.7	3753134.4	0.001687332	0.001270859
2046	486	484651.7	3753134.4	0.00173429	0.001296449
2046	487	484751.7	3753134.4	0.001785371	0.001324848
2046	488	484851.7	3753134.4	0.001837625	0.00135412
2046	489	484951.7	3753134.4	0.001893722	0.001386283
2046	490	485051.7	3753134.4	0.001952738	0.00142104
2046	491	485151.7	3753134.4	0.002013623	0.001457896
2046	492	485251.7	3753134.4	0.002078831	0.001499391
2046	493	485351.7	3753134.4	0.002146062	0.001544987
2046	494	485451.7	3753134.4	0.002226377	0.001605705
2046	495	484551.7	3753234.4	0.001710402	0.001286521
2046	496	484651.7	3753234.4	0.001761812	0.001314088
2046	497	484751.7	3753234.4	0.001815975	0.001343414
2046	498	484851.7	3753234.4	0.001873055	0.001374714
2046	499	484951.7	3753234.4	0.001934588	0.001409086
2046	500	485051.7	3753234.4	0.002000977	0.001447239
2046	501	485151.7	3753234.4	0.002070191	0.001487989
2046	502	485251.7	3753234.4	0.00214474	0.001533638
2046	503	485351.7	3753234.4	0.002223326	0.001584671
2046	504	485451.7	3753234.4	0.00231898	0.00165487
2046	505	484551.7	3753334.4	0.001749836	0.001319961

2046	506	484651.7	3753334.4	0.001804365	0.001348842
2046	507	484751.7	3753334.4	0.001861251	0.001378912
2046	508	484851.7	3753334.4	0.001925027	0.001413483
2046	509	484951.7	3753334.4	0.001990743	0.00144911
2046	510	485051.7	3753334.4	0.002063278	0.001489422
2046	511	485151.7	3753334.4	0.002141295	0.001533966
2046	512	485251.7	3753334.4	0.002229989	0.001586604
2046	513	485351.7	3753334.4	0.002326635	0.001646844
2046	514	485451.7	3753334.4	0.002441918	0.0017269
2046	515	484551.7	3753434.4	0.001791726	0.001359032
2046	516	484651.7	3753434.4	0.001848842	0.001389154
2046	517	484751.7	3753434.4	0.001909309	0.001420715
2046	518	484851.7	3753434.4	0.001977124	0.00145699
2046	519	484951.7	3753434.4	0.002048261	0.001494284
2046	520	485051.7	3753434.4	0.002126433	0.001536252
2046	521	485151.7	3753434.4	0.002215529	0.001586236
2046	522	485251.7	3753434.4	0.002317732	0.001645499
2046	523	485351.7	3753434.4	0.002433163	0.001715569
2046	524	485451.7	3753434.4	0.00258071	0.00181406
2046	525	484551.7	3753534.4	0.001834271	0.001401772
2046	526	484651.7	3753534.4	0.001889351	0.001429249
2046	527	484751.7	3753534.4	0.001951536	0.001461171
2046	528	484851.7	3753534.4	0.002026173	0.001502069
2046	529	484951.7	3753534.4	0.00210231	0.001542131
2046	530	485051.7	3753534.4	0.002186094	0.001586561
2046	531	485151.7	3753534.4	0.00228372	0.001640541
2046	532	485251.7	3753534.4	0.002397312	0.001705771
2046	533	485351.7	3753534.4	0.00253218	0.001786736
2046	534	485451.7	3753534.4	0.002708557	0.001902665
2046	535	484551.7	3753634.4	0.001877063	0.001447138
2046	536	484651.7	3753634.4	0.001934776	0.001476223
2046	537	484751.7	3753634.4	0.002000177	0.001510122
2046	538	484851.7	3753634.4	0.002073708	0.001548936
2046	539	484951.7	3753634.4	0.002154732	0.001591924
2046	540	485051.7	3753634.4	0.002243852	0.001639563
2046	541	485151.7	3753634.4	0.002346954	0.001696693
2046	542	485251.7	3753634.4	0.002467347	0.001766469
2046	543	485351.7	3753634.4	0.002608998	0.001852946
2046	544	485451.7	3753634.4	0.002796159	0.001980042
2046	545	484551.7	3753734.4	0.001934299	0.001509715
2046	546	484651.7	3753734.4	0.001991163	0.001537158
2046	547	484751.7	3753734.4	0.00205413	0.001567525
2046	548	484851.7	3753734.4	0.002123749	0.001601175
2046	549	484951.7	3753734.4	0.0022069	0.001644798
2046	550	485051.7	3753734.4	0.002301359	0.001695531
2046	551	485151.7	3753734.4	0.002408853	0.001754781
2046	552	485251.7	3753734.4	0.002533232	0.001826116

2046	553	485351.7	3753734.4	0.002681382	0.001916507
2046	554	485451.7	3753734.4	0.002875536	0.002049607
2046	555	484551.7	3753834.4	0.001993158	0.001576913
2046	556	484651.7	3753834.4	0.002047351	0.001601491
2046	557	484751.7	3753834.4	0.002110471	0.001631739
2046	558	484851.7	3753834.4	0.002181027	0.001665539
2046	559	484951.7	3753834.4	0.002265921	0.001709602
2046	560	485051.7	3753834.4	0.002359809	0.001757485
2046	561	485151.7	3753834.4	0.002468271	0.001814695
2046	562	485251.7	3753834.4	0.002599845	0.001889462
2046	563	485351.7	3753834.4	0.00275538	0.001982722
2046	564	485451.7	3753834.4	0.002959871	0.002119668
2046	565	484551.7	3753934.4	0.002057964	0.001652498
2046	566	484651.7	3753934.4	0.002115125	0.00168019
2046	567	484751.7	3753934.4	0.00216924	0.001700941
2046	568	484851.7	3753934.4	0.002241081	0.001736206
2046	569	484951.7	3753934.4	0.002325125	0.001779229
2046	570	485051.7	3753934.4	0.002421929	0.001829895
2046	571	485151.7	3753934.4	0.002533649	0.001889484
2046	572	485251.7	3753934.4	0.002665218	0.001962212
2046	573	485351.7	3753934.4	0.002824593	0.002054876
2046	574	485451.7	3753934.4	0.003036929	0.002191879
2046	575	484551.7	3754034.4	0.002134061	0.001744042
2046	576	484651.7	3754034.4	0.002164441	0.00174111
2046	577	484751.7	3754034.4	0.002233019	0.001777893
2046	578	484851.7	3754034.4	0.002308684	0.001817367
2046	579	484951.7	3754034.4	0.002391473	0.0018593
2046	580	485051.7	3754034.4	0.002485474	0.001907343
2046	581	485151.7	3754034.4	0.002595727	0.001965697
2046	582	485251.7	3754034.4	0.00272772	0.002039071
2046	583	485351.7	3754034.4	0.002888299	0.002133606
2046	584	485451.7	3754034.4	0.003102403	0.00227432
2046	585	484551.7	3754134.4	0.002186274	0.001807139
2046	586	484651.7	3754134.4	0.002225021	0.001815615
2046	587	484751.7	3754134.4	0.002293936	0.001854061
2046	588	484851.7	3754134.4	0.002375554	0.001901776
2046	589	484951.7	3754134.4	0.002457415	0.001943255
2046	590	485051.7	3754134.4	0.002553067	0.001992794
2046	591	485151.7	3754134.4	0.002664673	0.002052706
2046	592	485251.7	3754134.4	0.002796993	0.002127144
2046	593	485351.7	3754134.4	0.00295868	0.002223219
2046	594	485451.7	3754134.4	0.003172011	0.002363175
2046	595	484551.7	3754234.4	0.002240663	0.001872713
2046	596	484651.7	3754234.4	0.00229019	0.001895488
2046	597	484751.7	3754234.4	0.002363842	0.001940994
2046	598	484851.7	3754234.4	0.002446119	0.001991594
2046	599	484951.7	3754234.4	0.002530731	0.002038242

2046	600	485051.7	3754234.4	0.002624803	0.002088277
2046	601	485151.7	3754234.4	0.002735868	0.00214918
2046	602	485251.7	3754234.4	0.00286773	0.00222367
2046	603	485351.7	3754234.4	0.003029111	0.002319229
2046	604	485451.7	3754234.4	0.00324325	0.002459568
2046	605	484551.7	3754334.4	0.002319381	0.001965274
2046	606	484651.7	3754334.4	0.002383308	0.002006268
2046	607	484751.7	3754334.4	0.002455562	0.002052936
2046	608	484851.7	3754334.4	0.002529848	0.002096785
2046	609	484951.7	3754334.4	0.002613682	0.002145331
2046	610	485051.7	3754334.4	0.002708685	0.002199202
2046	611	485151.7	3754334.4	0.002818094	0.002261127
2046	612	485251.7	3754334.4	0.002948876	0.002337852
2046	613	485351.7	3754334.4	0.003105414	0.002433595
2046	614	485451.7	3754334.4	0.003295493	0.002555144
2046	615	484551.7	3754434.4	0.002466948	0.002134251
2046	616	484651.7	3754434.4	0.002513144	0.002157251
2046	617	484751.7	3754434.4	0.00257021	0.002189104
2046	618	484851.7	3754434.4	0.002635733	0.002225749
2046	619	484951.7	3754434.4	0.002715329	0.002272607
2046	620	485051.7	3754434.4	0.002807268	0.002326432
2046	621	485151.7	3754434.4	0.0029154	0.002390492
2046	622	485251.7	3754434.4	0.003043715	0.002468005
2046	623	485351.7	3754434.4	0.00319795	0.002564289
2046	624	485451.7	3754434.4	0.003387155	0.002688871
2046	625	484551.7	3754534.4	0.002641132	0.002327165
2046	626	484651.7	3754534.4	0.002686088	0.002351475
2046	627	484751.7	3754534.4	0.002725027	0.002366095
2046	628	484851.7	3754534.4	0.002773038	0.00238861
2046	629	484951.7	3754534.4	0.002842577	0.002428131
2046	630	485051.7	3754534.4	0.002929537	0.002479577
2046	631	485151.7	3754534.4	0.003035137	0.002543871
2046	632	485251.7	3754534.4	0.003160924	0.002621983
2046	633	485351.7	3754534.4	0.003312481	0.002718463
2046	634	485451.7	3754534.4	0.003505868	0.002848357
2046	635	484551.7	3754634.4	0.002802756	0.00250701
2046	636	484651.7	3754634.4	0.002841798	0.002526934
2046	637	484751.7	3754634.4	0.002899832	0.002564488
2046	638	484851.7	3754634.4	0.002935938	0.002578445
2046	639	484951.7	3754634.4	0.002995686	0.002611829
2046	640	485051.7	3754634.4	0.003077688	0.0026629
2046	641	485151.7	3754634.4	0.00317944	0.002728647
2046	642	485251.7	3754634.4	0.003303422	0.002809311
2046	643	485351.7	3754634.4	0.003456635	0.002910261
2046	644	485451.7	3754634.4	0.0036547	0.003047312
2046	645	484551.7	3754734.4	0.002978054	0.002698924
2046	646	484651.7	3754734.4	0.003018031	0.002722379

2046	647	484751.7	3754734.4	0.003064686	0.002751352
2046	648	484851.7	3754734.4	0.003120789	0.002788199
2046	649	484951.7	3754734.4	0.003188652	0.002833756
2046	650	485051.7	3754734.4	0.003270037	0.002888999
2046	651	485151.7	3754734.4	0.003368486	0.00295669
2046	652	485251.7	3754734.4	0.003490168	0.003042657
2046	653	485351.7	3754734.4	0.003643485	0.0031557
2046	654	485451.7	3754734.4	0.003840616	0.003306472
2046	655	484551.7	3754834.4	0.003242658	0.002979317
2046	656	484651.7	3754834.4	0.003285329	0.003008528
2046	657	484751.7	3754834.4	0.003333217	0.003041133
2046	658	484851.7	3754834.4	0.003388116	0.003078581
2046	659	484951.7	3754834.4	0.003454875	0.003126139
2046	660	485051.7	3754834.4	0.003533567	0.00318294
2046	661	485151.7	3754834.4	0.003631038	0.003255403
2046	662	485251.7	3754834.4	0.003755515	0.003351331
2046	663	485351.7	3754834.4	0.003922464	0.003487445
2046	664	485451.7	3754834.4	0.004140971	0.003671542
2046	665	484551.7	3754934.4	0.003634536	0.00338655
2046	666	484651.7	3754934.4	0.003674978	0.003415274
2046	667	484751.7	3754934.4	0.003720486	0.003447449
2046	668	484851.7	3754934.4	0.003772977	0.003484859
2046	669	484951.7	3754934.4	0.003836569	0.003531869
2046	670	485051.7	3754934.4	0.003910227	0.003586716
2046	671	485151.7	3754934.4	0.004006419	0.003662433
2046	672	485251.7	3754934.4	0.004134273	0.003767131
2046	673	485351.7	3754934.4	0.004333918	0.003942243
2046	674	485451.7	3754934.4	0.004702267	0.004283123
2046	675	484551.7	3755034.4	0.004219462	0.003985179
2046	676	484651.7	3755034.4	0.004255692	0.004011236
2046	677	484751.7	3755034.4	0.004294449	0.004038013
2046	678	484851.7	3755034.4	0.004346369	0.004077414
2046	679	484951.7	3755034.4	0.004407037	0.004123743
2046	680	485051.7	3755034.4	0.004481581	0.004182307
2046	681	485151.7	3755034.4	0.004574177	0.004257259
2046	682	485251.7	3755034.4	0.004703021	0.004367231
2046	683	485351.7	3755034.4	0.004910749	0.004554369
2046	684	485451.7	3755034.4	0.005501719	0.005122284
2046	685	485549.5	3750934.9	0.000381408	0.000286398
2046	686	485649.5	3750934.9	0.000376802	0.00028247
2046	687	485749.5	3750934.9	0.000373905	0.000280085
2046	688	485849.5	3750934.9	0.000369327	0.000276267
2046	689	485549.5	3751034.9	0.000402374	0.000302286
2046	690	485649.5	3751034.9	0.000396166	0.000296938
2046	691	485749.5	3751034.9	0.000393503	0.000294719
2046	692	485849.5	3751034.9	0.000389964	0.000291775
2046	693	485549.5	3751134.9	0.000425468	0.000320068

2046	694	485649.5	3751134.9	0.000418729	0.000314191
2046	695	485749.5	3751134.9	0.000415753	0.000311674
2046	696	485849.5	3751134.9	0.000411351	0.000307938
2046	697	485549.5	3751234.9	0.000452898	0.000341689
2046	698	485649.5	3751234.9	0.000444221	0.000334028
2046	699	485749.5	3751234.9	0.000440756	0.000331036
2046	700	485849.5	3751234.9	0.000439925	0.000330468
2046	701	485549.5	3751334.9	0.000482122	0.000364898
2046	702	485649.5	3751334.9	0.000475505	0.000358979
2046	703	485749.5	3751334.9	0.000470137	0.000354265
2046	704	485849.5	3751334.9	0.000473821	0.00035779
2046	705	485549.5	3751434.9	0.000522869	0.000398477
2046	706	485649.5	3751434.9	0.000518805	0.000394748
2046	707	485749.5	3751434.9	0.000507386	0.00038446
2046	708	485849.5	3751434.9	0.000522982	0.000398924
2046	709	485549.5	3751534.9	0.000654594	0.000514071
2046	710	485649.5	3751534.9	0.000638801	0.000499731
2046	711	485749.5	3751534.9	0.000580121	0.000446876
2046	712	485849.5	3751534.9	0.000569107	0.000437031
2046	713	485549.5	3751634.9	0.001009894	0.000803943
2046	714	485649.5	3751634.9	0.000853953	0.000681468
2046	715	485749.5	3751634.9	0.000795791	0.000633331
2046	716	485849.5	3751634.9	0.00061185	0.000471853
2046	717	485549.5	3751734.9	0.001247554	0.000980651
2046	718	485649.5	3751734.9	0.001192698	0.000943849
2046	719	485749.5	3751734.9	0.001061267	0.000846565
2046	720	485849.5	3751734.9	0.000748065	0.000590538
2046	721	485549.5	3751834.9	0.001423585	0.00112109
2046	722	485649.5	3751834.9	0.001350044	0.001063201
2046	723	485749.5	3751834.9	0.001292025	0.001021026
2046	724	485849.5	3751834.9	0.001103141	0.000882625
2046	725	485549.5	3751934.9	0.001652881	0.001311622
2046	726	485649.5	3751934.9	0.001514799	0.00118527
2046	727	485749.5	3751934.9	0.001473871	0.00115035
2046	728	485849.5	3751934.9	0.001418527	0.001111805
2046	729	485549.5	3752034.9	0.001913952	0.001532891
2046	730	485649.5	3752034.9	0.001679936	0.001308415
2046	731	485749.5	3752034.9	0.001644047	0.001277913
2046	732	485849.5	3752034.9	0.001610713	0.0012578
2046	733	485549.5	3752134.9	0.001969271	0.001556215
2046	734	485649.5	3752134.9	0.00191735	0.001499243
2046	735	485749.5	3752134.9	0.001923089	0.001505909
2046	736	485849.5	3752134.9	0.001935394	0.001527596
2046	737	485549.5	3752234.9	0.002209253	0.001773399
2046	738	485649.5	3752234.9	0.002276635	0.00182918
2046	739	485749.5	3752234.9	0.002368736	0.00191246
2046	740	485849.5	3752234.9	0.002439675	0.001983816

2046	741	485549.5	3752334.9	0.001850101	0.001396992
2046	742	485649.5	3752334.9	0.001895656	0.001424482
2046	743	485749.5	3752334.9	0.001957252	0.00147074
2046	744	485849.5	3752334.9	0.002028742	0.001530912
2046	745	485549.5	3752434.9	0.001794472	0.001324626
2046	746	485649.5	3752434.9	0.00182665	0.001337114
2046	747	485749.5	3752434.9	0.001882293	0.001371805
2046	748	485849.5	3752434.9	0.001954887	0.00142284
2046	749	485549.5	3752534.9	0.001822519	0.00133457
2046	750	485649.5	3752534.9	0.00185133	0.001342231
2046	751	485749.5	3752534.9	0.001907756	0.001375517
2046	752	485849.5	3752534.9	0.001978763	0.001421248
2046	753	485549.5	3752634.9	0.001880855	0.001371813
2046	754	485649.5	3752634.9	0.001910884	0.001379303
2046	755	485749.5	3752634.9	0.001967672	0.001412109
2046	756	485849.5	3752634.9	0.002038557	0.00145584
2046	757	485549.5	3752734.9	0.001953399	0.001422491
2046	758	485649.5	3752734.9	0.001986089	0.001431634
2046	759	485749.5	3752734.9	0.002050619	0.001469412
2046	760	485849.5	3752734.9	0.002129544	0.001517696
2046	761	485549.5	3752834.9	0.002033894	0.001481518
2046	762	485649.5	3752834.9	0.002069403	0.001493384
2046	763	485749.5	3752834.9	0.002143987	0.001539441
2046	764	485849.5	3752834.9	0.00223422	0.001596148
2046	765	485549.5	3752934.9	0.002125289	0.001549419
2046	766	485649.5	3752934.9	0.002162579	0.001563807
2046	767	485749.5	3752934.9	0.002246546	0.00162032
2046	768	485849.5	3752934.9	0.002356775	0.001695749
2046	769	485549.5	3753034.9	0.002242012	0.001638611
2046	770	485649.5	3753034.9	0.00226017	0.001635901
2046	771	485749.5	3753034.9	0.002355235	0.001704743
2046	772	485849.5	3753034.9	0.002493296	0.001811424
2046	773	485549.5	3753134.9	0.002284072	0.001644917
2046	774	485649.5	3753134.9	0.002355896	0.00169816
2046	775	485749.5	3753134.9	0.002457885	0.001778786
2046	776	485849.5	3753134.9	0.002614922	0.001910057
2046	777	485549.5	3753234.9	0.002390153	0.001705256
2046	778	485649.5	3753234.9	0.002465506	0.001764755
2046	779	485749.5	3753234.9	0.002565761	0.001850794
2046	780	485849.5	3753234.9	0.002726467	0.001993194
2046	781	485549.5	3753334.9	0.002552748	0.001807315
2046	782	485649.5	3753334.9	0.002613069	0.001847051
2046	783	485749.5	3753334.9	0.002705472	0.001931871
2046	784	485849.5	3753334.9	0.00285173	0.002074119
2046	785	485549.5	3753434.9	0.002734212	0.001918728
2046	786	485649.5	3753434.9	0.002833638	0.001976921
2046	787	485749.5	3753434.9	0.002943824	0.002069103

2046	788	485849.5	3753434.9	0.003067125	0.00220911
2046	789	485508.5	3746711.3	0.000243354	0.00020122
2046	790	491508.5	3746711.3	0.000169864	0.000140836
2046	791	479508.5	3752711.3	0.000851823	0.000773514
2046	792	485508.5	3752711.3	0.001895189	0.001378055
2046	793	491508.5	3752711.3	0.001567461	0.001036188
2046	794	485508.5	3758711.3	0.00043243	0.000401466
2046	795	491508.5	3758711.3	0.000183346	0.000159375
2046	796	485921.9	3750934.2	0.000365028	0.000272701
2046	797	486021.9	3750934.2	0.000360418	0.000268932
2046	798	486121.9	3750934.2	0.000357923	0.00026707
2046	799	485921.9	3751034.2	0.000384631	0.000287232
2046	800	486021.9	3751034.2	0.000377898	0.000281551
2046	801	486121.9	3751034.2	0.00037402	0.000278405
2046	802	485921.9	3751134.2	0.000406955	0.000304179
2046	803	486021.9	3751134.2	0.000399493	0.000297785
2046	804	486121.9	3751134.2	0.000393681	0.000292847
2046	805	485921.9	3751234.2	0.000432798	0.00032423
2046	806	486021.9	3751234.2	0.000424621	0.00031711
2046	807	486121.9	3751234.2	0.000417409	0.00031087
2046	808	485921.9	3751334.2	0.000464403	0.000349418
2046	809	486021.9	3751334.2	0.000454997	0.000341098
2046	810	486121.9	3751334.2	0.000444613	0.000331926
2046	811	485921.9	3751434.2	0.000507596	0.000385075
2046	812	486021.9	3751434.2	0.0004912	0.000370314
2046	813	486121.9	3751434.2	0.000477666	0.000358177
2046	814	485921.9	3751534.2	0.000553763	0.000423265
2046	815	486021.9	3751534.2	0.000542648	0.000413375
2046	816	486121.9	3751534.2	0.000519194	0.000392079
2046	817	485921.9	3751634.2	0.000593219	0.000455051
2046	818	486021.9	3751634.2	0.000633392	0.000491781
2046	819	486121.9	3751634.2	0.000584532	0.000447697
2046	820	485921.9	3751734.2	0.000679013	0.000528765
2046	821	486021.9	3751734.2	0.000778367	0.000616779
2046	822	486121.9	3751734.2	0.000659997	0.000512079
2046	823	485921.9	3751834.2	0.000866478	0.000691228
2046	824	486021.9	3751834.2	0.000872214	0.000695631
2046	825	486121.9	3751834.2	0.000693402	0.000537748
2046	826	485921.9	3751934.2	0.001294056	0.001034312
2046	827	486021.9	3751934.2	0.001078493	0.000866571
2046	828	486121.9	3751934.2	0.000879039	0.000698955
2046	829	485921.9	3752034.2	0.001535784	0.001210919
2046	830	486021.9	3752034.2	0.001324917	0.001068299
2046	831	486121.9	3752034.2	0.001206381	0.000975352
2046	832	485921.9	3752134.2	0.001953025	0.001557591
2046	833	486021.9	3752134.2	0.001902123	0.001537501
2046	834	486121.9	3752134.2	0.00163049	0.001323345

2046	835	485921.9	3752234.2	0.002480435	0.002033643
2046	836	486021.9	3752234.2	0.002589538	0.00215299
2046	837	486121.9	3752234.2	0.002390124	0.001971573
2046	838	485921.9	3752334.2	0.0020821	0.00157883
2046	839	486021.9	3752334.2	0.002195372	0.001692959
2046	840	486121.9	3752334.2	0.002539709	0.002039301
2046	841	485921.9	3752434.2	0.002021294	0.001478324
2046	842	486021.9	3752434.2	0.002132857	0.001577631
2046	843	486121.9	3752434.2	0.002320376	0.001752716
2046	844	485921.9	3752534.2	0.002044178	0.001466591
2046	845	486021.9	3752534.2	0.00213993	0.001538946
2046	846	486121.9	3752534.2	0.002267798	0.001644881
2046	847	485921.9	3752634.2	0.002097036	0.001494003
2046	848	486021.9	3752634.2	0.002186288	0.001556481
2046	849	486121.9	3752634.2	0.002296269	0.00164047
2046	850	485921.9	3752734.2	0.002191812	0.001557032
2046	851	486021.9	3752734.2	0.002291617	0.001623302
2046	852	486121.9	3752734.2	0.002407619	0.001706739
2046	853	485921.9	3752834.2	0.002309887	0.001643694
2046	854	486021.9	3752834.2	0.002431122	0.001722218
2046	855	486121.9	3752834.2	0.002573458	0.001820611
2046	856	485921.9	3752934.2	0.002446021	0.001755807
2046	857	486021.9	3752934.2	0.002597274	0.001856282
2046	858	486121.9	3752934.2	0.002807017	0.002005958
2046	859	487026.2	3754364	0.009710497	0.00841767
2047	1	489607.4	3753966.1	0.003005338	0.002024868
2047	2	489738.7	3754023.9	0.002663909	0.001858582
2047	3	489668.9	3754093.7	0.002533356	0.001848683
2047	4	489690.1	3754161.6	0.002401322	0.001785056
2047	5	490282.2	3753425.2	0.00354684	0.002476163
2047	6	489797.3	3754554.1	0.001961821	0.001506036
2047	7	490252.9	3754378.2	0.001795272	0.0013542
2047	8	489006	3754140.3	0.004557281	0.003554049
2047	9	485642.8	3754267.3	0.004100126	0.003165087
2047	10	485736.4	3754259.5	0.004521802	0.003497506
2047	11	487189.2	3754820.5	0.010091874	0.00899555
2047	12	487233.1	3754689.5	0.008297948	0.00709333
2047	13	487216.8	3754364.7	0.012644115	0.011429272
2047	14	487388.8	3754380.1	0.009543453	0.008421717
2047	15	484625	3751748	0.001234098	0.000953633
2047	16	483279	3751798	0.00092791	0.000727788
2047	17	483231	3751205	0.000825023	0.000648303
2047	18	480165	3750195	0.000624023	0.000534263
2047	19	481211	3749473	0.000563464	0.000463935
2047	20	481867	3752785	0.000944174	0.00080302
2047	21	480678	3751306	0.000678202	0.000572995
2047	22	479989	3752645	0.0008108	0.000723565

2047	23	479889	3756222	0.001134397	0.001082257
2047	24	479234	3757080	0.000547074	0.000509408
2047	25	480276	3756365	0.000922189	0.000872234
2047	26	479887	3754007	0.001055189	0.0009793
2047	27	480772	3755009	0.002233887	0.002151236
2047	28	481560	3754548	0.001674262	0.001568972
2047	29	481845	3754457	0.001689894	0.001574936
2047	30	481754	3753876	0.001207659	0.001084719
2047	31	489635.2	3750663.8	0.000459906	0.000350302
2047	32	485424.1	3747672.3	0.000299065	0.000242834
2047	33	482657.6	3753975.1	0.00143028	0.00126862
2047	34	481495	3754633.7	0.001756784	0.001654574
2047	35	481148.7	3756136.2	0.001267021	0.001204873
2047	36	482346.5	3748872.9	0.000232626	0.0001823
2047	37	480299	3751198	0.000660146	0.000563128
2047	38	479598.7	3756506.3	0.000867936	0.000821002
2047	39	478997.8	3753535.2	0.001183188	0.001116459
2047	40	478978.3	3755233.1	0.003560174	0.003496442
2047	41	479197.3	3754462.3	0.001567936	0.001503431
2047	42	479493.3	3752408.8	0.000823625	0.000743943
2047	43	480295.4	3752408.4	0.000785911	0.00069107
2047	44	480287.9	3754227.5	0.001156285	0.001075163
2047	45	494397.4	3753977.6	0.000725748	0.000586299
2047	46	481108.5	3750699	0.000665979	0.000556029
2047	47	486794.1	3756878	0.000672299	0.000603662
2047	48	482345	3752065.8	0.000894428	0.00073282
2047	49	487553	3745938.3	0.000182569	0.000153648
2047	50	484553	3746938.3	0.000241564	0.000198588
2047	51	485553	3746938.3	0.000253608	0.000208967
2047	52	486553	3746938.3	0.000202023	0.000171399
2047	53	487553	3746938.3	0.000222575	0.000184427
2047	54	488553	3746938.3	0.000202874	0.000169034
2047	55	489553	3746938.3	0.000200449	0.000165706
2047	56	490553	3746938.3	0.000184072	0.000152596
2047	57	491553	3746938.3	0.000175157	0.000144868
2047	58	492553	3746938.3	0.000168435	0.000139086
2047	59	482553	3747938.3	0.000212152	0.000168924
2047	60	483553	3747938.3	0.000354356	0.000283347
2047	61	484553	3747938.3	0.000337484	0.000271086
2047	62	485553	3747938.3	0.00031492	0.000254433
2047	63	486553	3747938.3	0.000293122	0.000240154
2047	64	487553	3747938.3	0.000187394	0.00015797
2047	65	488553	3747938.3	0.000244456	0.00020091
2047	66	489553	3747938.3	0.000229533	0.000188645
2047	67	490553	3747938.3	0.000216089	0.00017724
2047	68	491553	3747938.3	0.000204979	0.000167532
2047	69	492553	3747938.3	0.000196066	0.0001598

2047	70	493553	3747938.3	0.000189683	0.000154526
2047	71	481553	3748938.3	0.000477258	0.000381585
2047	72	482553	3748938.3	0.000243557	0.000191236
2047	73	483553	3748938.3	0.000407565	0.000324862
2047	74	484553	3748938.3	0.000427488	0.000337876
2047	75	485553	3748938.3	0.000407619	0.000323715
2047	76	486553	3748938.3	0.000377647	0.000302446
2047	77	487553	3748938.3	0.000296439	0.000248158
2047	78	488553	3748938.3	0.000304282	0.000245516
2047	79	489553	3748938.3	0.000279574	0.000226405
2047	80	490553	3748938.3	0.000262247	0.000211584
2047	81	491553	3748938.3	0.00024669	0.000198356
2047	82	492553	3748938.3	0.000236251	0.00018921
2047	83	493553	3748938.3	0.000233243	0.000187063
2047	84	494553	3748938.3	0.00030144	0.000256321
2047	85	480553	3749938.3	0.000738525	0.00064574
2047	86	481553	3749938.3	0.000643016	0.000527037
2047	87	482553	3749938.3	0.000627525	0.000501042
2047	88	483553	3749938.3	0.000616276	0.000485716
2047	89	484553	3749938.3	0.000451724	0.000357484
2047	90	485553	3749938.3	0.000369763	0.000294132
2047	91	486553	3749938.3	0.00043767	0.000354462
2047	92	487553	3749938.3	0.000458427	0.000362341
2047	93	488553	3749938.3	0.000397964	0.000312339
2047	94	489553	3749938.3	0.00036174	0.000285053
2047	95	490553	3749938.3	0.000334027	0.000262435
2047	96	491553	3749938.3	0.000313074	0.00024466
2047	97	492553	3749938.3	0.000304898	0.000237148
2047	98	493553	3749938.3	0.000341455	0.00027118
2047	99	494553	3749938.3	0.000287451	0.000218146
2047	100	495553	3749938.3	0.000228161	0.000188337
2047	101	480553	3750938.3	0.000646363	0.000545317
2047	102	481553	3750938.3	0.000695371	0.000573577
2047	103	482553	3750938.3	0.000755391	0.000607747
2047	104	483553	3750938.3	0.000868914	0.000689323
2047	105	484553	3750938.3	0.000863038	0.000673992
2047	106	485553	3750938.3	0.000381804	0.000286657
2047	107	486553	3750938.3	0.000352273	0.000265001
2047	108	487553	3750938.3	0.000551668	0.000438674
2047	109	488553	3750938.3	0.000597203	0.000442398
2047	110	489553	3750938.3	0.000524571	0.000391487
2047	111	490553	3750938.3	0.000468271	0.000349838
2047	112	491553	3750938.3	0.00043614	0.000323869
2047	113	492553	3750938.3	0.000490154	0.000375303
2047	114	493553	3750938.3	0.000424692	0.000311663
2047	115	494553	3750938.3	0.000411569	0.000305844
2047	116	495553	3750938.3	0.000383874	0.000298329

2047	117	479553	3751938.3	0.000760661	0.00067789
2047	118	480553	3751938.3	0.000747192	0.000644871
2047	119	481553	3751938.3	0.000789246	0.000659741
2047	120	482553	3751938.3	0.000876139	0.000706882
2047	121	483553	3751938.3	0.00100534	0.000784025
2047	122	484553	3751938.3	0.00119653	0.000910504
2047	123	485553	3751938.3	0.001652386	0.001310076
2047	124	486553	3751938.3	0.000677518	0.000518984
2047	125	487553	3751938.3	0.0010938	0.00085464
2047	126	488553	3751938.3	0.00117449	0.000795388
2047	127	489553	3751938.3	0.001068619	0.000702555
2047	128	490553	3751938.3	0.000896855	0.000589903
2047	129	491553	3751938.3	0.000929406	0.000648649
2047	130	492553	3751938.3	0.000742622	0.000479676
2047	131	493553	3751938.3	0.000665304	0.000493868
2047	132	494553	3751938.3	0.000613824	0.000458547
2047	133	495553	3751938.3	0.000540945	0.000414249
2047	134	479553	3752938.3	0.000919753	0.000842083
2047	135	480553	3752938.3	0.000917948	0.00082014
2047	136	481553	3752938.3	0.000989982	0.000862685
2047	137	482553	3752938.3	0.001120124	0.000945069
2047	138	483553	3752938.3	0.001288046	0.001036158
2047	139	484553	3752938.3	0.00160562	0.001206286
2047	140	485553	3752938.3	0.002127435	0.001549907
2047	141	486553	3752938.3	0.004197908	0.00330725
2047	142	487553	3752938.3	0.004624128	0.003486353
2047	143	488553	3752938.3	0.004121289	0.003017912
2047	144	489553	3752938.3	0.003759956	0.002743019
2047	145	490553	3752938.3	0.003118444	0.002239126
2047	146	491553	3752938.3	0.001615505	0.001121584
2047	147	492553	3752938.3	0.001228605	0.000804777
2047	148	493553	3752938.3	0.000998658	0.000713483
2047	149	494553	3752938.3	0.000851242	0.000635835
2047	150	495553	3752938.3	0.000685581	0.000530474
2047	151	479553	3753938.3	0.001056648	0.000985336
2047	152	480553	3753938.3	0.001065631	0.000976785
2047	153	481553	3753938.3	0.001210442	0.00109536
2047	154	482553	3753938.3	0.001382839	0.001225984
2047	155	483553	3753938.3	0.001739126	0.001518375
2047	156	484553	3753938.3	0.002062736	0.001657532
2047	157	485553	3753938.3	0.003328033	0.002399635
2047	158	486553	3753938.3	0.00587771	0.004415519
2047	159	487553	3753938.3	0.006449908	0.005269006
2047	160	488553	3753938.3	0.005707975	0.004366261
2047	161	489553	3753938.3	0.003208337	0.002146419
2047	162	490553	3753938.3	0.001856303	0.001363774
2047	163	491553	3753938.3	0.001295453	0.001010088

2047	164	492553	3753938.3	0.001062803	0.000839688
2047	165	493553	3753938.3	0.000869399	0.000695423
2047	166	494553	3753938.3	0.000790045	0.0006368
2047	167	495553	3753938.3	0.000616134	0.000500931
2047	168	479553	3754938.3	0.001879019	0.001812246
2047	169	480553	3754938.3	0.002003114	0.001923237
2047	170	481553	3754938.3	0.002294445	0.002195577
2047	171	482553	3754938.3	0.00335287	0.003226354
2047	172	483553	3754938.3	0.00368581	0.003520762
2047	173	484553	3754938.3	0.003653175	0.003405562
2047	174	485553	3754938.3	0.005300037	0.004852217
2047	175	486553	3754938.3	0.007308372	0.006652972
2047	176	487553	3754938.3	0.0062339	0.005368797
2047	177	488553	3754938.3	0.003502589	0.002902681
2047	178	489553	3754938.3	0.002195006	0.001888802
2047	179	490553	3754938.3	0.001462739	0.001284618
2047	180	491553	3754938.3	0.000961313	0.000837579
2047	181	492553	3754938.3	0.00069004	0.000593919
2047	182	493553	3754938.3	0.000697621	0.000605986
2047	183	494553	3754938.3	0.000530786	0.000457223
2047	184	495553	3754938.3	0.0004455	0.000382642
2047	185	479553	3755938.3	0.001890688	0.001833685
2047	186	480553	3755938.3	0.001584961	0.001523412
2047	187	481553	3755938.3	0.001605812	0.001537024
2047	188	482553	3755938.3	0.002296043	0.002205008
2047	189	483553	3755938.3	0.002411683	0.002302912
2047	190	484553	3755938.3	0.002292656	0.002159919
2047	191	485553	3755938.3	0.003236686	0.003072111
2047	192	486553	3755938.3	0.002616244	0.002439538
2047	193	487553	3755938.3	0.001445759	0.001334041
2047	194	488553	3755938.3	0.00100995	0.000921686
2047	195	489553	3755938.3	0.000692157	0.000624987
2047	196	490553	3755938.3	0.000572999	0.000515125
2047	197	491553	3755938.3	0.000472248	0.000422692
2047	198	492553	3755938.3	0.000572246	0.000526197
2047	199	493553	3755938.3	0.000419577	0.000378874
2047	200	494553	3755938.3	0.000403112	0.000365151
2047	201	479553	3756938.3	0.000573374	0.000534622
2047	202	480553	3756938.3	0.000548895	0.000508986
2047	203	481553	3756938.3	0.000495782	0.000457683
2047	204	482553	3756938.3	0.00051746	0.000475038
2047	205	483553	3756938.3	0.000872637	0.000803056
2047	206	484553	3756938.3	0.00084184	0.000766684
2047	207	485553	3756938.3	0.001827111	0.001750147
2047	208	486553	3756938.3	0.000695643	0.000626292
2047	209	487553	3756938.3	0.00045769	0.000405552
2047	210	488553	3756938.3	0.000371244	0.000326038

2047	211	489553	3756938.3	0.000325199	0.000284817
2047	212	490553	3756938.3	0.000297106	0.000260157
2047	213	491553	3756938.3	0.000259743	0.000227122
2047	214	492553	3756938.3	0.00023137	0.000202437
2047	215	493553	3756938.3	0.000245885	0.000217978
2047	216	494553	3756938.3	0.000238675	0.000212418
2047	217	479553	3757938.3	0.000288328	0.000263889
2047	218	480553	3757938.3	0.000276024	0.000251565
2047	219	481553	3757938.3	0.00029157	0.000263898
2047	220	482553	3757938.3	0.000360656	0.000323934
2047	221	483553	3757938.3	0.000353692	0.000315771
2047	222	484553	3757938.3	0.000465686	0.000418696
2047	223	485553	3757938.3	0.000539591	0.000498787
2047	224	486553	3757938.3	0.000322692	0.00028524
2047	225	487553	3757938.3	0.000263808	0.000230199
2047	226	488553	3757938.3	0.00023161	0.000200905
2047	227	489553	3757938.3	0.000213728	0.000184893
2047	228	490553	3757938.3	0.000195439	0.000168934
2047	229	491553	3757938.3	0.000179074	0.000154599
2047	230	492553	3757938.3	0.000171933	0.000148988
2047	231	493553	3757938.3	0.000190686	0.000166992
2047	232	480553	3758938.3	0.000207166	0.000186495
2047	233	481553	3758938.3	0.000231101	0.000206373
2047	234	482553	3758938.3	0.000225123	0.000199414
2047	235	483553	3758938.3	0.000236025	0.000208208
2047	236	484553	3758938.3	0.00029534	0.000264183
2047	237	485553	3758938.3	0.000685858	0.00065257
2047	238	486553	3758938.3	0.000223329	0.000196708
2047	239	487553	3758938.3	0.000245191	0.000215841
2047	240	488553	3758938.3	0.000182051	0.000158491
2047	241	489553	3758938.3	0.000184564	0.000160754
2047	242	490553	3758938.3	0.000201511	0.000175347
2047	243	491553	3758938.3	0.00016388	0.000142275
2047	244	492553	3758938.3	0.000170507	0.000148228
2047	245	481553	3759938.3	0.000170999	0.000151817
2047	246	482553	3759938.3	0.000176464	0.000155607
2047	247	483553	3759938.3	0.000186986	0.000164671
2047	248	484553	3759938.3	0.000260077	0.000232294
2047	249	485553	3759938.3	0.000678447	0.000644739
2047	250	486553	3759938.3	0.00032149	0.00028742
2047	251	487553	3759938.3	0.000262256	0.000232114
2047	252	488553	3759938.3	0.000261735	0.000229806
2047	253	489553	3759938.3	0.000226817	0.000197994
2047	254	490553	3759938.3	0.000175373	0.000153105
2047	255	491553	3759938.3	0.000152834	0.000133041
2047	256	482553	3760938.3	0.000166449	0.000146921
2047	257	483553	3760938.3	0.000192501	0.000170624

2047	258	484553	3760938.3	0.000245855	0.00022007
2047	259	485553	3760938.3	0.000558289	0.000524197
2047	260	486553	3760938.3	0.00036625	0.000329826
2047	261	487553	3760938.3	0.000292034	0.000262292
2047	262	488553	3760938.3	0.000166389	0.000147291
2047	263	489553	3760938.3	0.000126207	0.000110586
2047	264	490553	3760938.3	0.000120723	0.000105368
2047	265	484551.7	3750934.4	0.00085781	0.000670964
2047	266	484651.7	3750934.4	0.00084689	0.000662861
2047	267	484751.7	3750934.4	0.000647301	0.000513036
2047	268	484851.7	3750934.4	0.000593984	0.000470956
2047	269	484951.7	3750934.4	0.000627812	0.00049677
2047	270	485051.7	3750934.4	0.00056273	0.000444998
2047	271	485151.7	3750934.4	0.000468565	0.000364323
2047	272	485251.7	3750934.4	0.000412708	0.000314147
2047	273	485351.7	3750934.4	0.000396894	0.000299953
2047	274	485451.7	3750934.4	0.0003885	0.00029256
2047	275	484551.7	3751034.4	0.00091639	0.000709662
2047	276	484651.7	3751034.4	0.00090406	0.000701219
2047	277	484751.7	3751034.4	0.000849246	0.000669214
2047	278	484851.7	3751034.4	0.000672371	0.0005324
2047	279	484951.7	3751034.4	0.000747061	0.000589409
2047	280	485051.7	3751034.4	0.00062661	0.000495875
2047	281	485151.7	3751034.4	0.000543262	0.000427368
2047	282	485251.7	3751034.4	0.000462049	0.000355854
2047	283	485351.7	3751034.4	0.000426744	0.000324007
2047	284	485451.7	3751034.4	0.000411431	0.000310272
2047	285	484551.7	3751134.4	0.000962674	0.000742171
2047	286	484651.7	3751134.4	0.000960568	0.000738894
2047	287	484751.7	3751134.4	0.000948044	0.000731807
2047	288	484851.7	3751134.4	0.000856235	0.000678417
2047	289	484951.7	3751134.4	0.000877054	0.000690184
2047	290	485051.7	3751134.4	0.00072305	0.000571168
2047	291	485151.7	3751134.4	0.000641733	0.000507903
2047	292	485251.7	3751134.4	0.000555085	0.000435731
2047	293	485351.7	3751134.4	0.000472087	0.000362072
2047	294	485451.7	3751134.4	0.000438092	0.000331327
2047	295	484551.7	3751234.4	0.001010266	0.000778358
2047	296	484651.7	3751234.4	0.001010341	0.000775898
2047	297	484751.7	3751234.4	0.001002462	0.00077203
2047	298	484851.7	3751234.4	0.000974393	0.000757209
2047	299	484951.7	3751234.4	0.000948845	0.000742007
2047	300	485051.7	3751234.4	0.00085298	0.000675077
2047	301	485151.7	3751234.4	0.000719612	0.000570026
2047	302	485251.7	3751234.4	0.000543351	0.000423307
2047	303	485351.7	3751234.4	0.00048047	0.000366617
2047	304	485451.7	3751234.4	0.000461442	0.000349354

2047	305	484551.7	3751334.4	0.001081053	0.000835602
2047	306	484651.7	3751334.4	0.001073192	0.000827108
2047	307	484751.7	3751334.4	0.001061106	0.000819641
2047	308	484851.7	3751334.4	0.001046072	0.000810269
2047	309	484951.7	3751334.4	0.00103785	0.000803428
2047	310	485051.7	3751334.4	0.000995324	0.000779379
2047	311	485151.7	3751334.4	0.000842305	0.000666826
2047	312	485251.7	3751334.4	0.00066315	0.000525565
2047	313	485351.7	3751334.4	0.000522765	0.000401953
2047	314	485451.7	3751334.4	0.00048902	0.000371194
2047	315	484551.7	3751434.4	0.001195871	0.000941044
2047	316	484651.7	3751434.4	0.001163768	0.000905728
2047	317	484751.7	3751434.4	0.001144393	0.000885781
2047	318	484851.7	3751434.4	0.00113107	0.000873877
2047	319	484951.7	3751434.4	0.001120277	0.000865319
2047	320	485051.7	3751434.4	0.00110667	0.000855016
2047	321	485151.7	3751434.4	0.00099371	0.000789774
2047	322	485251.7	3751434.4	0.000773905	0.00061681
2047	323	485351.7	3751434.4	0.000608583	0.00047649
2047	324	485451.7	3751434.4	0.00054169	0.000415823
2047	325	484551.7	3751534.4	0.001456143	0.001194651
2047	326	484651.7	3751534.4	0.001349409	0.001081237
2047	327	484751.7	3751534.4	0.001270368	0.000997498
2047	328	484851.7	3751534.4	0.001233975	0.000958587
2047	329	484951.7	3751534.4	0.001216508	0.000938945
2047	330	485051.7	3751534.4	0.00120715	0.000926978
2047	331	485151.7	3751534.4	0.001192785	0.000916086
2047	332	485251.7	3751534.4	0.001082089	0.00085507
2047	333	485351.7	3751534.4	0.000865048	0.000689985
2047	334	485451.7	3751534.4	0.000715318	0.00056769
2047	335	484551.7	3751634.4	0.001348616	0.00108066
2047	336	484651.7	3751634.4	0.001389714	0.001114828
2047	337	484751.7	3751634.4	0.001432773	0.001150223
2047	338	484851.7	3751634.4	0.001460119	0.001172175
2047	339	484951.7	3751634.4	0.001360079	0.001067802
2047	340	485051.7	3751634.4	0.001317314	0.001020951
2047	341	485151.7	3751634.4	0.001301717	0.00100178
2047	342	485251.7	3751634.4	0.00126963	0.000980559
2047	343	485351.7	3751634.4	0.001209076	0.000942354
2047	344	485451.7	3751634.4	0.001103471	0.000878023
2047	345	484551.7	3751734.4	0.00119826	0.000925036
2047	346	484651.7	3751734.4	0.001264518	0.00098234
2047	347	484751.7	3751734.4	0.001369029	0.001078914
2047	348	484851.7	3751734.4	0.001502342	0.001205645
2047	349	484951.7	3751734.4	0.001504911	0.00120346
2047	350	485051.7	3751734.4	0.001637929	0.001331229
2047	351	485151.7	3751734.4	0.001489861	0.001175256

2047	352	485251.7	3751734.4	0.001448465	0.001130981
2047	353	485351.7	3751734.4	0.001395598	0.00108578
2047	354	485451.7	3751734.4	0.001321168	0.001028942
2047	355	484551.7	3751834.4	0.001178528	0.000900498
2047	356	484651.7	3751834.4	0.001216232	0.000929544
2047	357	484751.7	3751834.4	0.001259795	0.000964382
2047	358	484851.7	3751834.4	0.001311587	0.001008227
2047	359	484951.7	3751834.4	0.001376602	0.001067296
2047	360	485051.7	3751834.4	0.001520517	0.001203986
2047	361	485151.7	3751834.4	0.001542038	0.001214307
2047	362	485251.7	3751834.4	0.001632191	0.001296729
2047	363	485351.7	3751834.4	0.001647723	0.001312326
2047	364	485451.7	3751834.4	0.00164466	0.001317141
2047	365	484551.7	3751934.4	0.001194952	0.000909391
2047	366	484651.7	3751934.4	0.001221364	0.000928327
2047	367	484751.7	3751934.4	0.001248195	0.00094805
2047	368	484851.7	3751934.4	0.001281837	0.000973346
2047	369	484951.7	3751934.4	0.001318899	0.001002103
2047	370	485051.7	3751934.4	0.001366238	0.001039846
2047	371	485151.7	3751934.4	0.001426081	0.001088516
2047	372	485251.7	3751934.4	0.00150841	0.001158113
2047	373	485351.7	3751934.4	0.001627079	0.001268813
2047	374	485451.7	3751934.4	0.001700973	0.001347094
2047	375	484551.7	3752034.4	0.00123658	0.000940967
2047	376	484651.7	3752034.4	0.001259397	0.000956388
2047	377	484751.7	3752034.4	0.001283978	0.000973366
2047	378	484851.7	3752034.4	0.001310027	0.000991611
2047	379	484951.7	3752034.4	0.001342007	0.001014467
2047	380	485051.7	3752034.4	0.001380379	0.001042355
2047	381	485151.7	3752034.4	0.001427179	0.001077177
2047	382	485251.7	3752034.4	0.001494628	0.001130077
2047	383	485351.7	3752034.4	0.001585696	0.001209182
2047	384	485451.7	3752034.4	0.001797931	0.001414264
2047	385	484551.7	3752134.4	0.001309768	0.001003584
2047	386	484651.7	3752134.4	0.00133143	0.001017358
2047	387	484751.7	3752134.4	0.001355632	0.00103318
2047	388	484851.7	3752134.4	0.001380202	0.001049316
2047	389	484951.7	3752134.4	0.001407388	0.001067564
2047	390	485051.7	3752134.4	0.001440843	0.001090734
2047	391	485151.7	3752134.4	0.001481643	0.001119932
2047	392	485251.7	3752134.4	0.001541168	0.001164836
2047	393	485351.7	3752134.4	0.00163458	0.001242518
2047	394	485451.7	3752134.4	0.00184928	0.001444735
2047	395	484551.7	3752234.4	0.00144234	0.001126349
2047	396	484651.7	3752234.4	0.001473627	0.001148329
2047	397	484751.7	3752234.4	0.001496568	0.00116218
2047	398	484851.7	3752234.4	0.001516013	0.001172452

2047	399	484951.7	3752234.4	0.00161539	0.001262436
2047	400	485051.7	3752234.4	0.001568001	0.00120522
2047	401	485151.7	3752234.4	0.001609817	0.001236612
2047	402	485251.7	3752234.4	0.001656023	0.001268681
2047	403	485351.7	3752234.4	0.001744825	0.001340437
2047	404	485451.7	3752234.4	0.002006212	0.001585117
2047	405	484551.7	3752334.4	0.00137642	0.001048293
2047	406	484651.7	3752334.4	0.001402623	0.001064916
2047	407	484751.7	3752334.4	0.001428874	0.001081665
2047	408	484851.7	3752334.4	0.001456068	0.001099205
2047	409	484951.7	3752334.4	0.001486183	0.001118959
2047	410	485051.7	3752334.4	0.001516782	0.001139289
2047	411	485151.7	3752334.4	0.001552645	0.001163754
2047	412	485251.7	3752334.4	0.001594992	0.001193738
2047	413	485351.7	3752334.4	0.001653852	0.001237788
2047	414	485451.7	3752334.4	0.001757089	0.001322574
2047	415	484551.7	3752434.4	0.001374057	0.001033906
2047	416	484651.7	3752434.4	0.001400675	0.00105041
2047	417	484751.7	3752434.4	0.001426966	0.001066937
2047	418	484851.7	3752434.4	0.001458117	0.001086799
2047	419	484951.7	3752434.4	0.001488964	0.001106788
2047	420	485051.7	3752434.4	0.001522938	0.001129194
2047	421	485151.7	3752434.4	0.001560259	0.001154198
2047	422	485251.7	3752434.4	0.001601804	0.001182746
2047	423	485351.7	3752434.4	0.001653242	0.001219379
2047	424	485451.7	3752434.4	0.001729627	0.001279192
2047	425	484551.7	3752534.4	0.001401819	0.001049316
2047	426	484651.7	3752534.4	0.001429809	0.001066429
2047	427	484751.7	3752534.4	0.001459488	0.001084859
2047	428	484851.7	3752534.4	0.001491713	0.001105178
2047	429	484951.7	3752534.4	0.00152427	0.00112611
2047	430	485051.7	3752534.4	0.001560829	0.001149939
2047	431	485151.7	3752534.4	0.001599872	0.001175854
2047	432	485251.7	3752534.4	0.001641838	0.001204362
2047	433	485351.7	3752534.4	0.001690709	0.001238524
2047	434	485451.7	3752534.4	0.00176205	0.001293077
2047	435	484551.7	3752634.4	0.001438541	0.001074066
2047	436	484651.7	3752634.4	0.001468059	0.001091822
2047	437	484751.7	3752634.4	0.001499137	0.001110847
2047	438	484851.7	3752634.4	0.001535217	0.00113325
2047	439	484951.7	3752634.4	0.001570908	0.001155938
2047	440	485051.7	3752634.4	0.001610282	0.001181404
2047	441	485151.7	3752634.4	0.001651377	0.001208572
2047	442	485251.7	3752634.4	0.001695229	0.001238247
2047	443	485351.7	3752634.4	0.001745409	0.001273186
2047	444	485451.7	3752634.4	0.001817814	0.001327956
2047	445	484551.7	3752734.4	0.001483352	0.001106832

2047	446	484651.7	3752734.4	0.001516186	0.001126096
2047	447	484751.7	3752734.4	0.001550521	0.001146678
2047	448	484851.7	3752734.4	0.001587292	0.00116924
2047	449	484951.7	3752734.4	0.001626016	0.001193528
2047	450	485051.7	3752734.4	0.001668241	0.001220643
2047	451	485151.7	3752734.4	0.001711712	0.001249267
2047	452	485251.7	3752734.4	0.00175782	0.001280463
2047	453	485351.7	3752734.4	0.001810408	0.001317086
2047	454	485451.7	3752734.4	0.001882636	0.001372065
2047	455	484551.7	3752834.4	0.001534456	0.001146596
2047	456	484651.7	3752834.4	0.001570243	0.001166992
2047	457	484751.7	3752834.4	0.001606119	0.001187866
2047	458	484851.7	3752834.4	0.001647252	0.001212626
2047	459	484951.7	3752834.4	0.001689701	0.001238761
2047	460	485051.7	3752834.4	0.001734221	0.001266916
2047	461	485151.7	3752834.4	0.001780125	0.001296864
2047	462	485251.7	3752834.4	0.001829099	0.001329854
2047	463	485351.7	3752834.4	0.001882997	0.001367863
2047	464	485451.7	3752834.4	0.001957854	0.001425333
2047	465	484551.7	3752934.4	0.001601751	0.001203046
2047	466	484651.7	3752934.4	0.00164048	0.00122451
2047	467	484751.7	3752934.4	0.001679838	0.001246691
2047	468	484851.7	3752934.4	0.001724112	0.001272555
2047	469	484951.7	3752934.4	0.001770055	0.001300051
2047	470	485051.7	3752934.4	0.001818983	0.001330259
2047	471	485151.7	3752934.4	0.00186735	0.001361117
2047	472	485251.7	3752934.4	0.001920264	0.00139627
2047	473	485351.7	3752934.4	0.001973824	0.001433845
2047	474	485451.7	3752934.4	0.002047133	0.001490124
2047	475	484551.7	3753034.4	0.001715618	0.001307625
2047	476	484651.7	3753034.4	0.00176227	0.001335261
2047	477	484751.7	3753034.4	0.001814456	0.001367484
2047	478	484851.7	3753034.4	0.001855514	0.001387618
2047	479	484951.7	3753034.4	0.001903049	0.001414056
2047	480	485051.7	3753034.4	0.00195553	0.001445755
2047	481	485151.7	3753034.4	0.002014561	0.001483999
2047	482	485251.7	3753034.4	0.002115233	0.001564722
2047	483	485351.7	3753034.4	0.002120727	0.001552771
2047	484	485451.7	3753034.4	0.002181446	0.001596507
2047	485	484551.7	3753134.4	0.001687332	0.001270859
2047	486	484651.7	3753134.4	0.00173429	0.001296449
2047	487	484751.7	3753134.4	0.001785371	0.001324848
2047	488	484851.7	3753134.4	0.001837625	0.00135412
2047	489	484951.7	3753134.4	0.001893722	0.001386283
2047	490	485051.7	3753134.4	0.001952738	0.00142104
2047	491	485151.7	3753134.4	0.002013623	0.001457896
2047	492	485251.7	3753134.4	0.002078831	0.001499391

2047	493	485351.7	3753134.4	0.002146062	0.001544987
2047	494	485451.7	3753134.4	0.002226377	0.001605705
2047	495	484551.7	3753234.4	0.001710402	0.001286521
2047	496	484651.7	3753234.4	0.001761812	0.001314088
2047	497	484751.7	3753234.4	0.001815975	0.001343414
2047	498	484851.7	3753234.4	0.001873055	0.001374714
2047	499	484951.7	3753234.4	0.001934588	0.001409086
2047	500	485051.7	3753234.4	0.002000977	0.001447239
2047	501	485151.7	3753234.4	0.002070191	0.001487989
2047	502	485251.7	3753234.4	0.00214474	0.001533638
2047	503	485351.7	3753234.4	0.002223326	0.001584671
2047	504	485451.7	3753234.4	0.00231898	0.00165487
2047	505	484551.7	3753334.4	0.001749836	0.001319961
2047	506	484651.7	3753334.4	0.001804365	0.001348842
2047	507	484751.7	3753334.4	0.001861251	0.001378912
2047	508	484851.7	3753334.4	0.001925027	0.001413483
2047	509	484951.7	3753334.4	0.001990743	0.00144911
2047	510	485051.7	3753334.4	0.002063278	0.001489422
2047	511	485151.7	3753334.4	0.002141295	0.001533966
2047	512	485251.7	3753334.4	0.002229989	0.001586604
2047	513	485351.7	3753334.4	0.002326635	0.001646844
2047	514	485451.7	3753334.4	0.002441918	0.0017269
2047	515	484551.7	3753434.4	0.001791726	0.001359032
2047	516	484651.7	3753434.4	0.001848842	0.001389154
2047	517	484751.7	3753434.4	0.001909309	0.001420715
2047	518	484851.7	3753434.4	0.001977124	0.00145699
2047	519	484951.7	3753434.4	0.002048261	0.001494284
2047	520	485051.7	3753434.4	0.002126433	0.001536252
2047	521	485151.7	3753434.4	0.002215529	0.001586236
2047	522	485251.7	3753434.4	0.002317732	0.001645499
2047	523	485351.7	3753434.4	0.002433163	0.001715569
2047	524	485451.7	3753434.4	0.00258071	0.00181406
2047	525	484551.7	3753534.4	0.001834271	0.001401772
2047	526	484651.7	3753534.4	0.001889351	0.001429249
2047	527	484751.7	3753534.4	0.001951536	0.001461171
2047	528	484851.7	3753534.4	0.002026173	0.001502069
2047	529	484951.7	3753534.4	0.00210231	0.001542131
2047	530	485051.7	3753534.4	0.002186094	0.001586561
2047	531	485151.7	3753534.4	0.00228372	0.001640541
2047	532	485251.7	3753534.4	0.002397312	0.001705771
2047	533	485351.7	3753534.4	0.00253218	0.001786736
2047	534	485451.7	3753534.4	0.002708557	0.001902665
2047	535	484551.7	3753634.4	0.001877063	0.001447138
2047	536	484651.7	3753634.4	0.001934776	0.001476223
2047	537	484751.7	3753634.4	0.002000177	0.001510122
2047	538	484851.7	3753634.4	0.002073708	0.001548936
2047	539	484951.7	3753634.4	0.002154732	0.001591924

2047	540	485051.7	3753634.4	0.002243852	0.001639563
2047	541	485151.7	3753634.4	0.002346954	0.001696693
2047	542	485251.7	3753634.4	0.002467347	0.001766469
2047	543	485351.7	3753634.4	0.002608998	0.001852946
2047	544	485451.7	3753634.4	0.002796159	0.001980042
2047	545	484551.7	3753734.4	0.001934299	0.001509715
2047	546	484651.7	3753734.4	0.001991163	0.001537158
2047	547	484751.7	3753734.4	0.00205413	0.001567525
2047	548	484851.7	3753734.4	0.002123749	0.001601175
2047	549	484951.7	3753734.4	0.0022069	0.001644798
2047	550	485051.7	3753734.4	0.002301359	0.001695531
2047	551	485151.7	3753734.4	0.002408853	0.001754781
2047	552	485251.7	3753734.4	0.002533232	0.001826116
2047	553	485351.7	3753734.4	0.002681382	0.001916507
2047	554	485451.7	3753734.4	0.002875536	0.002049607
2047	555	484551.7	3753834.4	0.001993158	0.001576913
2047	556	484651.7	3753834.4	0.002047351	0.001601491
2047	557	484751.7	3753834.4	0.002110471	0.001631739
2047	558	484851.7	3753834.4	0.002181027	0.001665539
2047	559	484951.7	3753834.4	0.002265921	0.001709602
2047	560	485051.7	3753834.4	0.002359809	0.001757485
2047	561	485151.7	3753834.4	0.002468271	0.001814695
2047	562	485251.7	3753834.4	0.002599845	0.001889462
2047	563	485351.7	3753834.4	0.00275538	0.001982722
2047	564	485451.7	3753834.4	0.002959871	0.002119668
2047	565	484551.7	3753934.4	0.002057964	0.001652498
2047	566	484651.7	3753934.4	0.002115125	0.00168019
2047	567	484751.7	3753934.4	0.00216924	0.001700941
2047	568	484851.7	3753934.4	0.002241081	0.001736206
2047	569	484951.7	3753934.4	0.002325125	0.001779229
2047	570	485051.7	3753934.4	0.002421929	0.001829895
2047	571	485151.7	3753934.4	0.002533649	0.001889484
2047	572	485251.7	3753934.4	0.002665218	0.001962212
2047	573	485351.7	3753934.4	0.002824593	0.002054876
2047	574	485451.7	3753934.4	0.003036929	0.002191879
2047	575	484551.7	3754034.4	0.002134061	0.001744042
2047	576	484651.7	3754034.4	0.002164441	0.00174111
2047	577	484751.7	3754034.4	0.002233019	0.001777893
2047	578	484851.7	3754034.4	0.002308684	0.001817367
2047	579	484951.7	3754034.4	0.002391473	0.0018593
2047	580	485051.7	3754034.4	0.002485474	0.001907343
2047	581	485151.7	3754034.4	0.002595727	0.001965697
2047	582	485251.7	3754034.4	0.00272772	0.002039071
2047	583	485351.7	3754034.4	0.002888299	0.002133606
2047	584	485451.7	3754034.4	0.003102403	0.00227432
2047	585	484551.7	3754134.4	0.002186274	0.001807139
2047	586	484651.7	3754134.4	0.002225021	0.001815615

2047	587	484751.7	3754134.4	0.002293936	0.001854061
2047	588	484851.7	3754134.4	0.002375554	0.001901776
2047	589	484951.7	3754134.4	0.002457415	0.001943255
2047	590	485051.7	3754134.4	0.002553067	0.001992794
2047	591	485151.7	3754134.4	0.002664673	0.002052706
2047	592	485251.7	3754134.4	0.002796993	0.002127144
2047	593	485351.7	3754134.4	0.00295868	0.002223219
2047	594	485451.7	3754134.4	0.003172011	0.002363175
2047	595	484551.7	3754234.4	0.002240663	0.001872713
2047	596	484651.7	3754234.4	0.00229019	0.001895488
2047	597	484751.7	3754234.4	0.002363842	0.001940994
2047	598	484851.7	3754234.4	0.002446119	0.001991594
2047	599	484951.7	3754234.4	0.002530731	0.002038242
2047	600	485051.7	3754234.4	0.002624803	0.002088277
2047	601	485151.7	3754234.4	0.002735868	0.00214918
2047	602	485251.7	3754234.4	0.00286773	0.00222367
2047	603	485351.7	3754234.4	0.003029111	0.002319229
2047	604	485451.7	3754234.4	0.00324325	0.002459568
2047	605	484551.7	3754334.4	0.002319381	0.001965274
2047	606	484651.7	3754334.4	0.002383308	0.002006268
2047	607	484751.7	3754334.4	0.002455562	0.002052936
2047	608	484851.7	3754334.4	0.002529848	0.002096785
2047	609	484951.7	3754334.4	0.002613682	0.002145331
2047	610	485051.7	3754334.4	0.002708685	0.002199202
2047	611	485151.7	3754334.4	0.002818094	0.002261127
2047	612	485251.7	3754334.4	0.002948876	0.002337852
2047	613	485351.7	3754334.4	0.003105414	0.002433595
2047	614	485451.7	3754334.4	0.003295493	0.002555144
2047	615	484551.7	3754434.4	0.002466948	0.002134251
2047	616	484651.7	3754434.4	0.002513144	0.002157251
2047	617	484751.7	3754434.4	0.00257021	0.002189104
2047	618	484851.7	3754434.4	0.002635733	0.002225749
2047	619	484951.7	3754434.4	0.002715329	0.002272607
2047	620	485051.7	3754434.4	0.002807268	0.002326432
2047	621	485151.7	3754434.4	0.0029154	0.002390492
2047	622	485251.7	3754434.4	0.003043715	0.002468005
2047	623	485351.7	3754434.4	0.00319795	0.002564289
2047	624	485451.7	3754434.4	0.003387155	0.002688871
2047	625	484551.7	3754534.4	0.002641132	0.002327165
2047	626	484651.7	3754534.4	0.002686088	0.002351475
2047	627	484751.7	3754534.4	0.002725027	0.002366095
2047	628	484851.7	3754534.4	0.002773038	0.00238861
2047	629	484951.7	3754534.4	0.002842577	0.002428131
2047	630	485051.7	3754534.4	0.002929537	0.002479577
2047	631	485151.7	3754534.4	0.003035137	0.002543871
2047	632	485251.7	3754534.4	0.003160924	0.002621983
2047	633	485351.7	3754534.4	0.003312481	0.002718463

2047	634	485451.7	3754534.4	0.003505868	0.002848357
2047	635	484551.7	3754634.4	0.002802756	0.00250701
2047	636	484651.7	3754634.4	0.002841798	0.002526934
2047	637	484751.7	3754634.4	0.002899832	0.002564488
2047	638	484851.7	3754634.4	0.002935938	0.002578445
2047	639	484951.7	3754634.4	0.002995686	0.002611829
2047	640	485051.7	3754634.4	0.003077688	0.0026629
2047	641	485151.7	3754634.4	0.00317944	0.002728647
2047	642	485251.7	3754634.4	0.003303422	0.002809311
2047	643	485351.7	3754634.4	0.003456635	0.002910261
2047	644	485451.7	3754634.4	0.0036547	0.003047312
2047	645	484551.7	3754734.4	0.002978054	0.002698924
2047	646	484651.7	3754734.4	0.003018031	0.002722379
2047	647	484751.7	3754734.4	0.003064686	0.002751352
2047	648	484851.7	3754734.4	0.003120789	0.002788199
2047	649	484951.7	3754734.4	0.003188652	0.002833756
2047	650	485051.7	3754734.4	0.003270037	0.002888999
2047	651	485151.7	3754734.4	0.003368486	0.00295669
2047	652	485251.7	3754734.4	0.003490168	0.003042657
2047	653	485351.7	3754734.4	0.003643485	0.0031557
2047	654	485451.7	3754734.4	0.003840616	0.003306472
2047	655	484551.7	3754834.4	0.003242658	0.002979317
2047	656	484651.7	3754834.4	0.003285329	0.003008528
2047	657	484751.7	3754834.4	0.003333217	0.003041133
2047	658	484851.7	3754834.4	0.003388116	0.003078581
2047	659	484951.7	3754834.4	0.003454875	0.003126139
2047	660	485051.7	3754834.4	0.003533567	0.00318294
2047	661	485151.7	3754834.4	0.003631038	0.003255403
2047	662	485251.7	3754834.4	0.003755515	0.003351331
2047	663	485351.7	3754834.4	0.003922464	0.003487445
2047	664	485451.7	3754834.4	0.004140971	0.003671542
2047	665	484551.7	3754934.4	0.003634536	0.00338655
2047	666	484651.7	3754934.4	0.003674978	0.003415274
2047	667	484751.7	3754934.4	0.003720486	0.003447449
2047	668	484851.7	3754934.4	0.003772977	0.003484859
2047	669	484951.7	3754934.4	0.003836569	0.003531869
2047	670	485051.7	3754934.4	0.003910227	0.003586716
2047	671	485151.7	3754934.4	0.004006419	0.003662433
2047	672	485251.7	3754934.4	0.004134273	0.003767131
2047	673	485351.7	3754934.4	0.004333918	0.003942243
2047	674	485451.7	3754934.4	0.004702267	0.004283123
2047	675	484551.7	3755034.4	0.004219462	0.003985179
2047	676	484651.7	3755034.4	0.004255692	0.004011236
2047	677	484751.7	3755034.4	0.004294449	0.004038013
2047	678	484851.7	3755034.4	0.004346369	0.004077414
2047	679	484951.7	3755034.4	0.004407037	0.004123743
2047	680	485051.7	3755034.4	0.004481581	0.004182307

2047	681	485151.7	3755034.4	0.004574177	0.004257259
2047	682	485251.7	3755034.4	0.004703021	0.004367231
2047	683	485351.7	3755034.4	0.004910749	0.004554369
2047	684	485451.7	3755034.4	0.005501719	0.005122284
2047	685	485549.5	3750934.9	0.000381408	0.000286398
2047	686	485649.5	3750934.9	0.000376802	0.00028247
2047	687	485749.5	3750934.9	0.000373905	0.000280085
2047	688	485849.5	3750934.9	0.000369327	0.000276267
2047	689	485549.5	3751034.9	0.000402374	0.000302286
2047	690	485649.5	3751034.9	0.000396166	0.000296938
2047	691	485749.5	3751034.9	0.000393503	0.000294719
2047	692	485849.5	3751034.9	0.000389964	0.000291775
2047	693	485549.5	3751134.9	0.000425468	0.000320068
2047	694	485649.5	3751134.9	0.000418729	0.000314191
2047	695	485749.5	3751134.9	0.000415753	0.000311674
2047	696	485849.5	3751134.9	0.000411351	0.000307938
2047	697	485549.5	3751234.9	0.000452898	0.000341689
2047	698	485649.5	3751234.9	0.000444221	0.000334028
2047	699	485749.5	3751234.9	0.000440756	0.000331036
2047	700	485849.5	3751234.9	0.000439925	0.000330468
2047	701	485549.5	3751334.9	0.000482122	0.000364898
2047	702	485649.5	3751334.9	0.000475505	0.000358979
2047	703	485749.5	3751334.9	0.000470137	0.000354265
2047	704	485849.5	3751334.9	0.000473821	0.00035779
2047	705	485549.5	3751434.9	0.000522869	0.000398477
2047	706	485649.5	3751434.9	0.000518805	0.000394748
2047	707	485749.5	3751434.9	0.000507386	0.00038446
2047	708	485849.5	3751434.9	0.000522982	0.000398924
2047	709	485549.5	3751534.9	0.000654594	0.000514071
2047	710	485649.5	3751534.9	0.000638801	0.000499731
2047	711	485749.5	3751534.9	0.000580121	0.000446876
2047	712	485849.5	3751534.9	0.000569107	0.000437031
2047	713	485549.5	3751634.9	0.001009894	0.000803943
2047	714	485649.5	3751634.9	0.000853953	0.000681468
2047	715	485749.5	3751634.9	0.000795791	0.000633331
2047	716	485849.5	3751634.9	0.00061185	0.000471853
2047	717	485549.5	3751734.9	0.001247554	0.000980651
2047	718	485649.5	3751734.9	0.001192698	0.000943849
2047	719	485749.5	3751734.9	0.001061267	0.000846565
2047	720	485849.5	3751734.9	0.000748065	0.000590538
2047	721	485549.5	3751834.9	0.001423585	0.00112109
2047	722	485649.5	3751834.9	0.001350044	0.001063201
2047	723	485749.5	3751834.9	0.001292025	0.001021026
2047	724	485849.5	3751834.9	0.001103141	0.000882625
2047	725	485549.5	3751934.9	0.001652881	0.001311622
2047	726	485649.5	3751934.9	0.001514799	0.00118527
2047	727	485749.5	3751934.9	0.001473871	0.00115035

2047	728	485849.5	3751934.9	0.001418527	0.001111805
2047	729	485549.5	3752034.9	0.001913952	0.001532891
2047	730	485649.5	3752034.9	0.001679936	0.001308415
2047	731	485749.5	3752034.9	0.001644047	0.001277913
2047	732	485849.5	3752034.9	0.001610713	0.0012578
2047	733	485549.5	3752134.9	0.001969271	0.001556215
2047	734	485649.5	3752134.9	0.00191735	0.001499243
2047	735	485749.5	3752134.9	0.001923089	0.001505909
2047	736	485849.5	3752134.9	0.001935394	0.001527596
2047	737	485549.5	3752234.9	0.002209253	0.001773399
2047	738	485649.5	3752234.9	0.002276635	0.00182918
2047	739	485749.5	3752234.9	0.002368736	0.00191246
2047	740	485849.5	3752234.9	0.002439675	0.001983816
2047	741	485549.5	3752334.9	0.001850101	0.001396992
2047	742	485649.5	3752334.9	0.001895656	0.001424482
2047	743	485749.5	3752334.9	0.001957252	0.00147074
2047	744	485849.5	3752334.9	0.002028742	0.001530912
2047	745	485549.5	3752434.9	0.001794472	0.001324626
2047	746	485649.5	3752434.9	0.00182665	0.001337114
2047	747	485749.5	3752434.9	0.001882293	0.001371805
2047	748	485849.5	3752434.9	0.001954887	0.00142284
2047	749	485549.5	3752534.9	0.001822519	0.00133457
2047	750	485649.5	3752534.9	0.00185133	0.001342231
2047	751	485749.5	3752534.9	0.001907756	0.001375517
2047	752	485849.5	3752534.9	0.001978763	0.001421248
2047	753	485549.5	3752634.9	0.001880855	0.001371813
2047	754	485649.5	3752634.9	0.001910884	0.001379303
2047	755	485749.5	3752634.9	0.001967672	0.001412109
2047	756	485849.5	3752634.9	0.002038557	0.00145584
2047	757	485549.5	3752734.9	0.001953399	0.001422491
2047	758	485649.5	3752734.9	0.001986089	0.001431634
2047	759	485749.5	3752734.9	0.002050619	0.001469412
2047	760	485849.5	3752734.9	0.002129544	0.001517696
2047	761	485549.5	3752834.9	0.002033894	0.001481518
2047	762	485649.5	3752834.9	0.002069403	0.001493384
2047	763	485749.5	3752834.9	0.002143987	0.001539441
2047	764	485849.5	3752834.9	0.00223422	0.001596148
2047	765	485549.5	3752934.9	0.002125289	0.001549419
2047	766	485649.5	3752934.9	0.002162579	0.001563807
2047	767	485749.5	3752934.9	0.002246546	0.00162032
2047	768	485849.5	3752934.9	0.002356775	0.001695749
2047	769	485549.5	3753034.9	0.002242012	0.001638611
2047	770	485649.5	3753034.9	0.00226017	0.001635901
2047	771	485749.5	3753034.9	0.002355235	0.001704743
2047	772	485849.5	3753034.9	0.002493296	0.001811424
2047	773	485549.5	3753134.9	0.002284072	0.001644917
2047	774	485649.5	3753134.9	0.002355896	0.00169816

2047	775	485749.5	3753134.9	0.002457885	0.001778786
2047	776	485849.5	3753134.9	0.002614922	0.001910057
2047	777	485549.5	3753234.9	0.002390153	0.001705256
2047	778	485649.5	3753234.9	0.002465506	0.001764755
2047	779	485749.5	3753234.9	0.002565761	0.001850794
2047	780	485849.5	3753234.9	0.002726467	0.001993194
2047	781	485549.5	3753334.9	0.002552748	0.001807315
2047	782	485649.5	3753334.9	0.002613069	0.001847051
2047	783	485749.5	3753334.9	0.002705472	0.001931871
2047	784	485849.5	3753334.9	0.00285173	0.002074119
2047	785	485549.5	3753434.9	0.002734212	0.001918728
2047	786	485649.5	3753434.9	0.002833638	0.001976921
2047	787	485749.5	3753434.9	0.002943824	0.002069103
2047	788	485849.5	3753434.9	0.003067125	0.00220911
2047	789	485508.5	3746711.3	0.000243354	0.00020122
2047	790	491508.5	3746711.3	0.000169864	0.000140836
2047	791	479508.5	3752711.3	0.000851823	0.000773514
2047	792	485508.5	3752711.3	0.001895189	0.001378055
2047	793	491508.5	3752711.3	0.001567461	0.001036188
2047	794	485508.5	3758711.3	0.00043243	0.000401466
2047	795	491508.5	3758711.3	0.000183346	0.000159375
2047	796	485921.9	3750934.2	0.000365028	0.000272701
2047	797	486021.9	3750934.2	0.000360418	0.000268932
2047	798	486121.9	3750934.2	0.000357923	0.00026707
2047	799	485921.9	3751034.2	0.000384631	0.000287232
2047	800	486021.9	3751034.2	0.000377898	0.000281551
2047	801	486121.9	3751034.2	0.00037402	0.000278405
2047	802	485921.9	3751134.2	0.000406955	0.000304179
2047	803	486021.9	3751134.2	0.000399493	0.000297785
2047	804	486121.9	3751134.2	0.000393681	0.000292847
2047	805	485921.9	3751234.2	0.000432798	0.00032423
2047	806	486021.9	3751234.2	0.000424621	0.00031711
2047	807	486121.9	3751234.2	0.000417409	0.00031087
2047	808	485921.9	3751334.2	0.000464403	0.000349418
2047	809	486021.9	3751334.2	0.000454997	0.000341098
2047	810	486121.9	3751334.2	0.000444613	0.000331926
2047	811	485921.9	3751434.2	0.000507596	0.000385075
2047	812	486021.9	3751434.2	0.0004912	0.000370314
2047	813	486121.9	3751434.2	0.000477666	0.000358177
2047	814	485921.9	3751534.2	0.000553763	0.000423265
2047	815	486021.9	3751534.2	0.000542648	0.000413375
2047	816	486121.9	3751534.2	0.000519194	0.000392079
2047	817	485921.9	3751634.2	0.000593219	0.000455051
2047	818	486021.9	3751634.2	0.000633392	0.000491781
2047	819	486121.9	3751634.2	0.000584532	0.000447697
2047	820	485921.9	3751734.2	0.000679013	0.000528765
2047	821	486021.9	3751734.2	0.000778367	0.000616779

2047	822	486121.9	3751734.2	0.000659997	0.000512079
2047	823	485921.9	3751834.2	0.000866478	0.000691228
2047	824	486021.9	3751834.2	0.000872214	0.000695631
2047	825	486121.9	3751834.2	0.000693402	0.000537748
2047	826	485921.9	3751934.2	0.001294056	0.001034312
2047	827	486021.9	3751934.2	0.001078493	0.000866571
2047	828	486121.9	3751934.2	0.000879039	0.000698955
2047	829	485921.9	3752034.2	0.001535784	0.001210919
2047	830	486021.9	3752034.2	0.001324917	0.001068299
2047	831	486121.9	3752034.2	0.001206381	0.000975352
2047	832	485921.9	3752134.2	0.001953025	0.001557591
2047	833	486021.9	3752134.2	0.001902123	0.001537501
2047	834	486121.9	3752134.2	0.00163049	0.001323345
2047	835	485921.9	3752234.2	0.002480435	0.002033643
2047	836	486021.9	3752234.2	0.002589538	0.00215299
2047	837	486121.9	3752234.2	0.002390124	0.001971573
2047	838	485921.9	3752334.2	0.0020821	0.00157883
2047	839	486021.9	3752334.2	0.002195372	0.001692959
2047	840	486121.9	3752334.2	0.002539709	0.002039301
2047	841	485921.9	3752434.2	0.002021294	0.001478324
2047	842	486021.9	3752434.2	0.002132857	0.001577631
2047	843	486121.9	3752434.2	0.002320376	0.001752716
2047	844	485921.9	3752534.2	0.002044178	0.001466591
2047	845	486021.9	3752534.2	0.00213993	0.001538946
2047	846	486121.9	3752534.2	0.002267798	0.001644881
2047	847	485921.9	3752634.2	0.002097036	0.001494003
2047	848	486021.9	3752634.2	0.002186288	0.001556481
2047	849	486121.9	3752634.2	0.002296269	0.00164047
2047	850	485921.9	3752734.2	0.002191812	0.001557032
2047	851	486021.9	3752734.2	0.002291617	0.001623302
2047	852	486121.9	3752734.2	0.002407619	0.001706739
2047	853	485921.9	3752834.2	0.002309887	0.001643694
2047	854	486021.9	3752834.2	0.002431122	0.001722218
2047	855	486121.9	3752834.2	0.002573458	0.001820611
2047	856	485921.9	3752934.2	0.002446021	0.001755807
2047	857	486021.9	3752934.2	0.002597274	0.001856282
2047	858	486121.9	3752934.2	0.002807017	0.002005958
2047	859	487026.2	3754364	0.009710497	0.00841767
2048	1	489607.4	3753966.1	0.003005338	0.002024868
2048	2	489738.7	3754023.9	0.002663909	0.001858582
2048	3	489668.9	3754093.7	0.002533356	0.001848683
2048	4	489690.1	3754161.6	0.002401322	0.001785056
2048	5	490282.2	3753425.2	0.00354684	0.002476163
2048	6	489797.3	3754554.1	0.001961821	0.001506036
2048	7	490252.9	3754378.2	0.001795272	0.0013542
2048	8	489006	3754140.3	0.004557281	0.003554049
2048	9	485642.8	3754267.3	0.004100126	0.003165087

2048	10	485736.4	3754259.5	0.004521802	0.003497506
2048	11	487189.2	3754820.5	0.010091874	0.00899555
2048	12	487233.1	3754689.5	0.008297948	0.00709333
2048	13	487216.8	3754364.7	0.012644115	0.011429272
2048	14	487388.8	3754380.1	0.009543453	0.008421717
2048	15	484625	3751748	0.001234098	0.000953633
2048	16	483279	3751798	0.00092791	0.000727788
2048	17	483231	3751205	0.000825023	0.000648303
2048	18	480165	3750195	0.000624023	0.000534263
2048	19	481211	3749473	0.000563464	0.000463935
2048	20	481867	3752785	0.000944174	0.00080302
2048	21	480678	3751306	0.000678202	0.000572995
2048	22	479989	3752645	0.0008108	0.000723565
2048	23	479889	3756222	0.001134397	0.001082257
2048	24	479234	3757080	0.000547074	0.000509408
2048	25	480276	3756365	0.000922189	0.000872234
2048	26	479887	3754007	0.001055189	0.0009793
2048	27	480772	3755009	0.002233887	0.002151236
2048	28	481560	3754548	0.001674262	0.001568972
2048	29	481845	3754457	0.001689894	0.001574936
2048	30	481754	3753876	0.001207659	0.001084719
2048	31	489635.2	3750663.8	0.000459906	0.000350302
2048	32	485424.1	3747672.3	0.000299065	0.000242834
2048	33	482657.6	3753975.1	0.00143028	0.00126862
2048	34	481495	3754633.7	0.001756784	0.001654574
2048	35	481148.7	3756136.2	0.001267021	0.001204873
2048	36	482346.5	3748872.9	0.000232626	0.0001823
2048	37	480299	3751198	0.000660146	0.000563128
2048	38	479598.7	3756506.3	0.000867936	0.000821002
2048	39	478997.8	3753535.2	0.001183188	0.001116459
2048	40	478978.3	3755233.1	0.003560174	0.003496442
2048	41	479197.3	3754462.3	0.001567936	0.001503431
2048	42	479493.3	3752408.8	0.000823625	0.000743943
2048	43	480295.4	3752408.4	0.000785911	0.00069107
2048	44	480287.9	3754227.5	0.001156285	0.001075163
2048	45	494397.4	3753977.6	0.000725748	0.000586299
2048	46	481108.5	3750699	0.000665979	0.000556029
2048	47	486794.1	3756878	0.000672299	0.000603662
2048	48	482345	3752065.8	0.000894428	0.00073282
2048	49	487553	3745938.3	0.000182569	0.000153648
2048	50	484553	3746938.3	0.000241564	0.000198588
2048	51	485553	3746938.3	0.000253608	0.000208967
2048	52	486553	3746938.3	0.000202023	0.000171399
2048	53	487553	3746938.3	0.000222575	0.000184427
2048	54	488553	3746938.3	0.000202874	0.000169034
2048	55	489553	3746938.3	0.000200449	0.000165706
2048	56	490553	3746938.3	0.000184072	0.000152596

2048	57	491553	3746938.3	0.000175157	0.000144868
2048	58	492553	3746938.3	0.000168435	0.000139086
2048	59	482553	3747938.3	0.000212152	0.000168924
2048	60	483553	3747938.3	0.000354356	0.000283347
2048	61	484553	3747938.3	0.000337484	0.000271086
2048	62	485553	3747938.3	0.00031492	0.000254433
2048	63	486553	3747938.3	0.000293122	0.000240154
2048	64	487553	3747938.3	0.000187394	0.00015797
2048	65	488553	3747938.3	0.000244456	0.00020091
2048	66	489553	3747938.3	0.000229533	0.000188645
2048	67	490553	3747938.3	0.000216089	0.00017724
2048	68	491553	3747938.3	0.000204979	0.000167532
2048	69	492553	3747938.3	0.000196066	0.0001598
2048	70	493553	3747938.3	0.000189683	0.000154526
2048	71	481553	3748938.3	0.000477258	0.000381585
2048	72	482553	3748938.3	0.000243557	0.000191236
2048	73	483553	3748938.3	0.000407565	0.000324862
2048	74	484553	3748938.3	0.000427488	0.000337876
2048	75	485553	3748938.3	0.000407619	0.000323715
2048	76	486553	3748938.3	0.000377647	0.000302446
2048	77	487553	3748938.3	0.000296439	0.000248158
2048	78	488553	3748938.3	0.000304282	0.000245516
2048	79	489553	3748938.3	0.000279574	0.000226405
2048	80	490553	3748938.3	0.000262247	0.000211584
2048	81	491553	3748938.3	0.00024669	0.000198356
2048	82	492553	3748938.3	0.000236251	0.00018921
2048	83	493553	3748938.3	0.000233243	0.000187063
2048	84	494553	3748938.3	0.00030144	0.000256321
2048	85	480553	3749938.3	0.000738525	0.00064574
2048	86	481553	3749938.3	0.000643016	0.000527037
2048	87	482553	3749938.3	0.000627525	0.000501042
2048	88	483553	3749938.3	0.000616276	0.000485716
2048	89	484553	3749938.3	0.000451724	0.000357484
2048	90	485553	3749938.3	0.000369763	0.000294132
2048	91	486553	3749938.3	0.00043767	0.000354462
2048	92	487553	3749938.3	0.000458427	0.000362341
2048	93	488553	3749938.3	0.000397964	0.000312339
2048	94	489553	3749938.3	0.00036174	0.000285053
2048	95	490553	3749938.3	0.000334027	0.000262435
2048	96	491553	3749938.3	0.000313074	0.00024466
2048	97	492553	3749938.3	0.000304898	0.000237148
2048	98	493553	3749938.3	0.000341455	0.00027118
2048	99	494553	3749938.3	0.000287451	0.000218146
2048	100	495553	3749938.3	0.000228161	0.000188337
2048	101	480553	3750938.3	0.000646363	0.000545317
2048	102	481553	3750938.3	0.000695371	0.000573577
2048	103	482553	3750938.3	0.000755391	0.000607747

2048	104	483553	3750938.3	0.000868914	0.000689323
2048	105	484553	3750938.3	0.000863038	0.000673992
2048	106	485553	3750938.3	0.000381804	0.000286657
2048	107	486553	3750938.3	0.000352273	0.000265001
2048	108	487553	3750938.3	0.000551668	0.000438674
2048	109	488553	3750938.3	0.000597203	0.000442398
2048	110	489553	3750938.3	0.000524571	0.000391487
2048	111	490553	3750938.3	0.000468271	0.000349838
2048	112	491553	3750938.3	0.00043614	0.000323869
2048	113	492553	3750938.3	0.000490154	0.000375303
2048	114	493553	3750938.3	0.000424692	0.000311663
2048	115	494553	3750938.3	0.000411569	0.000305844
2048	116	495553	3750938.3	0.000383874	0.000298329
2048	117	479553	3751938.3	0.000760661	0.00067789
2048	118	480553	3751938.3	0.000747192	0.000644871
2048	119	481553	3751938.3	0.000789246	0.000659741
2048	120	482553	3751938.3	0.000876139	0.000706882
2048	121	483553	3751938.3	0.00100534	0.000784025
2048	122	484553	3751938.3	0.00119653	0.000910504
2048	123	485553	3751938.3	0.001652386	0.001310076
2048	124	486553	3751938.3	0.000677518	0.000518984
2048	125	487553	3751938.3	0.0010938	0.00085464
2048	126	488553	3751938.3	0.00117449	0.000795388
2048	127	489553	3751938.3	0.001068619	0.000702555
2048	128	490553	3751938.3	0.000896855	0.000589903
2048	129	491553	3751938.3	0.000929406	0.000648649
2048	130	492553	3751938.3	0.000742622	0.000479676
2048	131	493553	3751938.3	0.000665304	0.000493868
2048	132	494553	3751938.3	0.000613824	0.000458547
2048	133	495553	3751938.3	0.000540945	0.000414249
2048	134	479553	3752938.3	0.000919753	0.000842083
2048	135	480553	3752938.3	0.000917948	0.00082014
2048	136	481553	3752938.3	0.000989982	0.000862685
2048	137	482553	3752938.3	0.001120124	0.000945069
2048	138	483553	3752938.3	0.001288046	0.001036158
2048	139	484553	3752938.3	0.00160562	0.001206286
2048	140	485553	3752938.3	0.002127435	0.001549907
2048	141	486553	3752938.3	0.004197908	0.00330725
2048	142	487553	3752938.3	0.004624128	0.003486353
2048	143	488553	3752938.3	0.004121289	0.003017912
2048	144	489553	3752938.3	0.003759956	0.002743019
2048	145	490553	3752938.3	0.003118444	0.002239126
2048	146	491553	3752938.3	0.001615505	0.001121584
2048	147	492553	3752938.3	0.001228605	0.000804777
2048	148	493553	3752938.3	0.000998658	0.000713483
2048	149	494553	3752938.3	0.000851242	0.000635835
2048	150	495553	3752938.3	0.000685581	0.000530474

2048	151	479553	3753938.3	0.001056648	0.000985336
2048	152	480553	3753938.3	0.001065631	0.000976785
2048	153	481553	3753938.3	0.001210442	0.00109536
2048	154	482553	3753938.3	0.001382839	0.001225984
2048	155	483553	3753938.3	0.001739126	0.001518375
2048	156	484553	3753938.3	0.002062736	0.001657532
2048	157	485553	3753938.3	0.003328033	0.002399635
2048	158	486553	3753938.3	0.00587771	0.004415519
2048	159	487553	3753938.3	0.006449908	0.005269006
2048	160	488553	3753938.3	0.005707975	0.004366261
2048	161	489553	3753938.3	0.003208337	0.002146419
2048	162	490553	3753938.3	0.001856303	0.001363774
2048	163	491553	3753938.3	0.001295453	0.001010088
2048	164	492553	3753938.3	0.001062803	0.000839688
2048	165	493553	3753938.3	0.000869399	0.000695423
2048	166	494553	3753938.3	0.000790045	0.0006368
2048	167	495553	3753938.3	0.000616134	0.000500931
2048	168	479553	3754938.3	0.001879019	0.001812246
2048	169	480553	3754938.3	0.002003114	0.001923237
2048	170	481553	3754938.3	0.002294445	0.002195577
2048	171	482553	3754938.3	0.00335287	0.003226354
2048	172	483553	3754938.3	0.00368581	0.003520762
2048	173	484553	3754938.3	0.003653175	0.003405562
2048	174	485553	3754938.3	0.005300037	0.004852217
2048	175	486553	3754938.3	0.007308372	0.006652972
2048	176	487553	3754938.3	0.0062339	0.005368797
2048	177	488553	3754938.3	0.003502589	0.002902681
2048	178	489553	3754938.3	0.002195006	0.001888802
2048	179	490553	3754938.3	0.001462739	0.001284618
2048	180	491553	3754938.3	0.000961313	0.000837579
2048	181	492553	3754938.3	0.00069004	0.000593919
2048	182	493553	3754938.3	0.000697621	0.000605986
2048	183	494553	3754938.3	0.000530786	0.000457223
2048	184	495553	3754938.3	0.0004455	0.000382642
2048	185	479553	3755938.3	0.001890688	0.001833685
2048	186	480553	3755938.3	0.001584961	0.001523412
2048	187	481553	3755938.3	0.001605812	0.001537024
2048	188	482553	3755938.3	0.002296043	0.002205008
2048	189	483553	3755938.3	0.002411683	0.002302912
2048	190	484553	3755938.3	0.002292656	0.002159919
2048	191	485553	3755938.3	0.003236686	0.003072111
2048	192	486553	3755938.3	0.002616244	0.002439538
2048	193	487553	3755938.3	0.001445759	0.001334041
2048	194	488553	3755938.3	0.00100995	0.000921686
2048	195	489553	3755938.3	0.000692157	0.000624987
2048	196	490553	3755938.3	0.000572999	0.000515125
2048	197	491553	3755938.3	0.000472248	0.000422692

2048	198	492553	3755938.3	0.000572246	0.000526197
2048	199	493553	3755938.3	0.000419577	0.000378874
2048	200	494553	3755938.3	0.000403112	0.000365151
2048	201	479553	3756938.3	0.000573374	0.000534622
2048	202	480553	3756938.3	0.000548895	0.000508986
2048	203	481553	3756938.3	0.000495782	0.000457683
2048	204	482553	3756938.3	0.00051746	0.000475038
2048	205	483553	3756938.3	0.000872637	0.000803056
2048	206	484553	3756938.3	0.00084184	0.000766684
2048	207	485553	3756938.3	0.001827111	0.001750147
2048	208	486553	3756938.3	0.000695643	0.000626292
2048	209	487553	3756938.3	0.00045769	0.000405552
2048	210	488553	3756938.3	0.000371244	0.000326038
2048	211	489553	3756938.3	0.000325199	0.000284817
2048	212	490553	3756938.3	0.000297106	0.000260157
2048	213	491553	3756938.3	0.000259743	0.000227122
2048	214	492553	3756938.3	0.00023137	0.000202437
2048	215	493553	3756938.3	0.000245885	0.000217978
2048	216	494553	3756938.3	0.000238675	0.000212418
2048	217	479553	3757938.3	0.000288328	0.000263889
2048	218	480553	3757938.3	0.000276024	0.000251565
2048	219	481553	3757938.3	0.00029157	0.000263898
2048	220	482553	3757938.3	0.000360656	0.000323934
2048	221	483553	3757938.3	0.000353692	0.000315771
2048	222	484553	3757938.3	0.000465686	0.000418696
2048	223	485553	3757938.3	0.000539591	0.000498787
2048	224	486553	3757938.3	0.000322692	0.00028524
2048	225	487553	3757938.3	0.000263808	0.000230199
2048	226	488553	3757938.3	0.00023161	0.000200905
2048	227	489553	3757938.3	0.000213728	0.000184893
2048	228	490553	3757938.3	0.000195439	0.000168934
2048	229	491553	3757938.3	0.000179074	0.000154599
2048	230	492553	3757938.3	0.000171933	0.000148988
2048	231	493553	3757938.3	0.000190686	0.000166992
2048	232	480553	3758938.3	0.000207166	0.000186495
2048	233	481553	3758938.3	0.000231101	0.000206373
2048	234	482553	3758938.3	0.000225123	0.000199414
2048	235	483553	3758938.3	0.000236025	0.000208208
2048	236	484553	3758938.3	0.00029534	0.000264183
2048	237	485553	3758938.3	0.000685858	0.00065257
2048	238	486553	3758938.3	0.000223329	0.000196708
2048	239	487553	3758938.3	0.000245191	0.000215841
2048	240	488553	3758938.3	0.000182051	0.000158491
2048	241	489553	3758938.3	0.000184564	0.000160754
2048	242	490553	3758938.3	0.000201511	0.000175347
2048	243	491553	3758938.3	0.00016388	0.000142275
2048	244	492553	3758938.3	0.000170507	0.000148228

2048	245	481553	3759938.3	0.000170999	0.000151817
2048	246	482553	3759938.3	0.000176464	0.000155607
2048	247	483553	3759938.3	0.000186986	0.000164671
2048	248	484553	3759938.3	0.000260077	0.000232294
2048	249	485553	3759938.3	0.000678447	0.000644739
2048	250	486553	3759938.3	0.00032149	0.00028742
2048	251	487553	3759938.3	0.000262256	0.000232114
2048	252	488553	3759938.3	0.000261735	0.000229806
2048	253	489553	3759938.3	0.000226817	0.000197994
2048	254	490553	3759938.3	0.000175373	0.000153105
2048	255	491553	3759938.3	0.000152834	0.000133041
2048	256	482553	3760938.3	0.000166449	0.000146921
2048	257	483553	3760938.3	0.000192501	0.000170624
2048	258	484553	3760938.3	0.000245855	0.00022007
2048	259	485553	3760938.3	0.000558289	0.000524197
2048	260	486553	3760938.3	0.00036625	0.000329826
2048	261	487553	3760938.3	0.000292034	0.000262292
2048	262	488553	3760938.3	0.000166389	0.000147291
2048	263	489553	3760938.3	0.000126207	0.000110586
2048	264	490553	3760938.3	0.000120723	0.000105368
2048	265	484551.7	3750934.4	0.00085781	0.000670964
2048	266	484651.7	3750934.4	0.00084689	0.000662861
2048	267	484751.7	3750934.4	0.000647301	0.000513036
2048	268	484851.7	3750934.4	0.000593984	0.000470956
2048	269	484951.7	3750934.4	0.000627812	0.00049677
2048	270	485051.7	3750934.4	0.00056273	0.000444998
2048	271	485151.7	3750934.4	0.000468565	0.000364323
2048	272	485251.7	3750934.4	0.000412708	0.000314147
2048	273	485351.7	3750934.4	0.000396894	0.000299953
2048	274	485451.7	3750934.4	0.0003885	0.00029256
2048	275	484551.7	3751034.4	0.00091639	0.000709662
2048	276	484651.7	3751034.4	0.00090406	0.000701219
2048	277	484751.7	3751034.4	0.000849246	0.000669214
2048	278	484851.7	3751034.4	0.000672371	0.0005324
2048	279	484951.7	3751034.4	0.000747061	0.000589409
2048	280	485051.7	3751034.4	0.00062661	0.000495875
2048	281	485151.7	3751034.4	0.000543262	0.000427368
2048	282	485251.7	3751034.4	0.000462049	0.000355854
2048	283	485351.7	3751034.4	0.000426744	0.000324007
2048	284	485451.7	3751034.4	0.000411431	0.000310272
2048	285	484551.7	3751134.4	0.000962674	0.000742171
2048	286	484651.7	3751134.4	0.000960568	0.000738894
2048	287	484751.7	3751134.4	0.000948044	0.000731807
2048	288	484851.7	3751134.4	0.000856235	0.000678417
2048	289	484951.7	3751134.4	0.000877054	0.000690184
2048	290	485051.7	3751134.4	0.00072305	0.000571168
2048	291	485151.7	3751134.4	0.000641733	0.000507903

2048	292	485251.7	3751134.4	0.000555085	0.000435731
2048	293	485351.7	3751134.4	0.000472087	0.000362072
2048	294	485451.7	3751134.4	0.000438092	0.000331327
2048	295	484551.7	3751234.4	0.001010266	0.000778358
2048	296	484651.7	3751234.4	0.001010341	0.000775898
2048	297	484751.7	3751234.4	0.001002462	0.00077203
2048	298	484851.7	3751234.4	0.000974393	0.000757209
2048	299	484951.7	3751234.4	0.000948845	0.000742007
2048	300	485051.7	3751234.4	0.00085298	0.000675077
2048	301	485151.7	3751234.4	0.000719612	0.000570026
2048	302	485251.7	3751234.4	0.000543351	0.000423307
2048	303	485351.7	3751234.4	0.00048047	0.000366617
2048	304	485451.7	3751234.4	0.000461442	0.000349354
2048	305	484551.7	3751334.4	0.001081053	0.000835602
2048	306	484651.7	3751334.4	0.001073192	0.000827108
2048	307	484751.7	3751334.4	0.001061106	0.000819641
2048	308	484851.7	3751334.4	0.001046072	0.000810269
2048	309	484951.7	3751334.4	0.00103785	0.000803428
2048	310	485051.7	3751334.4	0.000995324	0.000779379
2048	311	485151.7	3751334.4	0.000842305	0.000666826
2048	312	485251.7	3751334.4	0.00066315	0.000525565
2048	313	485351.7	3751334.4	0.000522765	0.000401953
2048	314	485451.7	3751334.4	0.00048902	0.000371194
2048	315	484551.7	3751434.4	0.001195871	0.000941044
2048	316	484651.7	3751434.4	0.001163768	0.000905728
2048	317	484751.7	3751434.4	0.001144393	0.000885781
2048	318	484851.7	3751434.4	0.00113107	0.000873877
2048	319	484951.7	3751434.4	0.001120277	0.000865319
2048	320	485051.7	3751434.4	0.00110667	0.000855016
2048	321	485151.7	3751434.4	0.00099371	0.000789774
2048	322	485251.7	3751434.4	0.000773905	0.00061681
2048	323	485351.7	3751434.4	0.000608583	0.00047649
2048	324	485451.7	3751434.4	0.00054169	0.000415823
2048	325	484551.7	3751534.4	0.001456143	0.001194651
2048	326	484651.7	3751534.4	0.001349409	0.001081237
2048	327	484751.7	3751534.4	0.001270368	0.000997498
2048	328	484851.7	3751534.4	0.001233975	0.000958587
2048	329	484951.7	3751534.4	0.001216508	0.000938945
2048	330	485051.7	3751534.4	0.00120715	0.000926978
2048	331	485151.7	3751534.4	0.001192785	0.000916086
2048	332	485251.7	3751534.4	0.001082089	0.00085507
2048	333	485351.7	3751534.4	0.000865048	0.000689985
2048	334	485451.7	3751534.4	0.000715318	0.00056769
2048	335	484551.7	3751634.4	0.001348616	0.00108066
2048	336	484651.7	3751634.4	0.001389714	0.001114828
2048	337	484751.7	3751634.4	0.001432773	0.001150223
2048	338	484851.7	3751634.4	0.001460119	0.001172175

2048	339	484951.7	3751634.4	0.001360079	0.001067802
2048	340	485051.7	3751634.4	0.001317314	0.001020951
2048	341	485151.7	3751634.4	0.001301717	0.00100178
2048	342	485251.7	3751634.4	0.00126963	0.000980559
2048	343	485351.7	3751634.4	0.001209076	0.000942354
2048	344	485451.7	3751634.4	0.001103471	0.000878023
2048	345	484551.7	3751734.4	0.00119826	0.000925036
2048	346	484651.7	3751734.4	0.001264518	0.00098234
2048	347	484751.7	3751734.4	0.001369029	0.001078914
2048	348	484851.7	3751734.4	0.001502342	0.001205645
2048	349	484951.7	3751734.4	0.001504911	0.00120346
2048	350	485051.7	3751734.4	0.001637929	0.001331229
2048	351	485151.7	3751734.4	0.001489861	0.001175256
2048	352	485251.7	3751734.4	0.001448465	0.001130981
2048	353	485351.7	3751734.4	0.001395598	0.00108578
2048	354	485451.7	3751734.4	0.001321168	0.001028942
2048	355	484551.7	3751834.4	0.001178528	0.000900498
2048	356	484651.7	3751834.4	0.001216232	0.000929544
2048	357	484751.7	3751834.4	0.001259795	0.000964382
2048	358	484851.7	3751834.4	0.001311587	0.001008227
2048	359	484951.7	3751834.4	0.001376602	0.001067296
2048	360	485051.7	3751834.4	0.001520517	0.001203986
2048	361	485151.7	3751834.4	0.001542038	0.001214307
2048	362	485251.7	3751834.4	0.001632191	0.001296729
2048	363	485351.7	3751834.4	0.001647723	0.001312326
2048	364	485451.7	3751834.4	0.00164466	0.001317141
2048	365	484551.7	3751934.4	0.001194952	0.000909391
2048	366	484651.7	3751934.4	0.001221364	0.000928327
2048	367	484751.7	3751934.4	0.001248195	0.00094805
2048	368	484851.7	3751934.4	0.001281837	0.000973346
2048	369	484951.7	3751934.4	0.001318899	0.001002103
2048	370	485051.7	3751934.4	0.001366238	0.001039846
2048	371	485151.7	3751934.4	0.001426081	0.001088516
2048	372	485251.7	3751934.4	0.00150841	0.001158113
2048	373	485351.7	3751934.4	0.001627079	0.001268813
2048	374	485451.7	3751934.4	0.001700973	0.001347094
2048	375	484551.7	3752034.4	0.00123658	0.000940967
2048	376	484651.7	3752034.4	0.001259397	0.000956388
2048	377	484751.7	3752034.4	0.001283978	0.000973366
2048	378	484851.7	3752034.4	0.001310027	0.000991611
2048	379	484951.7	3752034.4	0.001342007	0.001014467
2048	380	485051.7	3752034.4	0.001380379	0.001042355
2048	381	485151.7	3752034.4	0.001427179	0.001077177
2048	382	485251.7	3752034.4	0.001494628	0.001130077
2048	383	485351.7	3752034.4	0.001585696	0.001209182
2048	384	485451.7	3752034.4	0.001797931	0.001414264
2048	385	484551.7	3752134.4	0.001309768	0.001003584

2048	386	484651.7	3752134.4	0.00133143	0.001017358
2048	387	484751.7	3752134.4	0.001355632	0.00103318
2048	388	484851.7	3752134.4	0.001380202	0.001049316
2048	389	484951.7	3752134.4	0.001407388	0.001067564
2048	390	485051.7	3752134.4	0.001440843	0.001090734
2048	391	485151.7	3752134.4	0.001481643	0.001119932
2048	392	485251.7	3752134.4	0.001541168	0.001164836
2048	393	485351.7	3752134.4	0.00163458	0.001242518
2048	394	485451.7	3752134.4	0.00184928	0.001444735
2048	395	484551.7	3752234.4	0.00144234	0.001126349
2048	396	484651.7	3752234.4	0.001473627	0.001148329
2048	397	484751.7	3752234.4	0.001496568	0.00116218
2048	398	484851.7	3752234.4	0.001516013	0.001172452
2048	399	484951.7	3752234.4	0.00161539	0.001262436
2048	400	485051.7	3752234.4	0.001568001	0.00120522
2048	401	485151.7	3752234.4	0.001609817	0.001236612
2048	402	485251.7	3752234.4	0.001656023	0.001268681
2048	403	485351.7	3752234.4	0.001744825	0.001340437
2048	404	485451.7	3752234.4	0.002006212	0.001585117
2048	405	484551.7	3752334.4	0.00137642	0.001048293
2048	406	484651.7	3752334.4	0.001402623	0.001064916
2048	407	484751.7	3752334.4	0.001428874	0.001081665
2048	408	484851.7	3752334.4	0.001456068	0.001099205
2048	409	484951.7	3752334.4	0.001486183	0.001118959
2048	410	485051.7	3752334.4	0.001516782	0.001139289
2048	411	485151.7	3752334.4	0.001552645	0.001163754
2048	412	485251.7	3752334.4	0.001594992	0.001193738
2048	413	485351.7	3752334.4	0.001653852	0.001237788
2048	414	485451.7	3752334.4	0.001757089	0.001322574
2048	415	484551.7	3752434.4	0.001374057	0.001033906
2048	416	484651.7	3752434.4	0.001400675	0.00105041
2048	417	484751.7	3752434.4	0.001426966	0.001066937
2048	418	484851.7	3752434.4	0.001458117	0.001086799
2048	419	484951.7	3752434.4	0.001488964	0.001106788
2048	420	485051.7	3752434.4	0.001522938	0.001129194
2048	421	485151.7	3752434.4	0.001560259	0.001154198
2048	422	485251.7	3752434.4	0.001601804	0.001182746
2048	423	485351.7	3752434.4	0.001653242	0.001219379
2048	424	485451.7	3752434.4	0.001729627	0.001279192
2048	425	484551.7	3752534.4	0.001401819	0.001049316
2048	426	484651.7	3752534.4	0.001429809	0.001066429
2048	427	484751.7	3752534.4	0.001459488	0.001084859
2048	428	484851.7	3752534.4	0.001491713	0.001105178
2048	429	484951.7	3752534.4	0.00152427	0.00112611
2048	430	485051.7	3752534.4	0.001560829	0.001149939
2048	431	485151.7	3752534.4	0.001599872	0.001175854
2048	432	485251.7	3752534.4	0.001641838	0.001204362

2048	433	485351.7	3752534.4	0.001690709	0.001238524
2048	434	485451.7	3752534.4	0.00176205	0.001293077
2048	435	484551.7	3752634.4	0.001438541	0.001074066
2048	436	484651.7	3752634.4	0.001468059	0.001091822
2048	437	484751.7	3752634.4	0.001499137	0.001110847
2048	438	484851.7	3752634.4	0.001535217	0.00113325
2048	439	484951.7	3752634.4	0.001570908	0.001155938
2048	440	485051.7	3752634.4	0.001610282	0.001181404
2048	441	485151.7	3752634.4	0.001651377	0.001208572
2048	442	485251.7	3752634.4	0.001695229	0.001238247
2048	443	485351.7	3752634.4	0.001745409	0.001273186
2048	444	485451.7	3752634.4	0.001817814	0.001327956
2048	445	484551.7	3752734.4	0.001483352	0.001106832
2048	446	484651.7	3752734.4	0.001516186	0.001126096
2048	447	484751.7	3752734.4	0.001550521	0.001146678
2048	448	484851.7	3752734.4	0.001587292	0.00116924
2048	449	484951.7	3752734.4	0.001626016	0.001193528
2048	450	485051.7	3752734.4	0.001668241	0.001220643
2048	451	485151.7	3752734.4	0.001711712	0.001249267
2048	452	485251.7	3752734.4	0.00175782	0.001280463
2048	453	485351.7	3752734.4	0.001810408	0.001317086
2048	454	485451.7	3752734.4	0.001882636	0.001372065
2048	455	484551.7	3752834.4	0.001534456	0.001146596
2048	456	484651.7	3752834.4	0.001570243	0.001166992
2048	457	484751.7	3752834.4	0.001606119	0.001187866
2048	458	484851.7	3752834.4	0.001647252	0.001212626
2048	459	484951.7	3752834.4	0.001689701	0.001238761
2048	460	485051.7	3752834.4	0.001734221	0.001266916
2048	461	485151.7	3752834.4	0.001780125	0.001296864
2048	462	485251.7	3752834.4	0.001829099	0.001329854
2048	463	485351.7	3752834.4	0.001882997	0.001367863
2048	464	485451.7	3752834.4	0.001957854	0.001425333
2048	465	484551.7	3752934.4	0.001601751	0.001203046
2048	466	484651.7	3752934.4	0.00164048	0.00122451
2048	467	484751.7	3752934.4	0.001679838	0.001246691
2048	468	484851.7	3752934.4	0.001724112	0.001272555
2048	469	484951.7	3752934.4	0.001770055	0.001300051
2048	470	485051.7	3752934.4	0.001818983	0.001330259
2048	471	485151.7	3752934.4	0.00186735	0.001361117
2048	472	485251.7	3752934.4	0.001920264	0.00139627
2048	473	485351.7	3752934.4	0.001973824	0.001433845
2048	474	485451.7	3752934.4	0.002047133	0.001490124
2048	475	484551.7	3753034.4	0.001715618	0.001307625
2048	476	484651.7	3753034.4	0.00176227	0.001335261
2048	477	484751.7	3753034.4	0.001814456	0.001367484
2048	478	484851.7	3753034.4	0.001855514	0.001387618
2048	479	484951.7	3753034.4	0.001903049	0.001414056

2048	480	485051.7	3753034.4	0.00195553	0.001445755
2048	481	485151.7	3753034.4	0.002014561	0.001483999
2048	482	485251.7	3753034.4	0.002115233	0.001564722
2048	483	485351.7	3753034.4	0.002120727	0.001552771
2048	484	485451.7	3753034.4	0.002181446	0.001596507
2048	485	484551.7	3753134.4	0.001687332	0.001270859
2048	486	484651.7	3753134.4	0.00173429	0.001296449
2048	487	484751.7	3753134.4	0.001785371	0.001324848
2048	488	484851.7	3753134.4	0.001837625	0.00135412
2048	489	484951.7	3753134.4	0.001893722	0.001386283
2048	490	485051.7	3753134.4	0.001952738	0.00142104
2048	491	485151.7	3753134.4	0.002013623	0.001457896
2048	492	485251.7	3753134.4	0.002078831	0.001499391
2048	493	485351.7	3753134.4	0.002146062	0.001544987
2048	494	485451.7	3753134.4	0.002226377	0.001605705
2048	495	484551.7	3753234.4	0.001710402	0.001286521
2048	496	484651.7	3753234.4	0.001761812	0.001314088
2048	497	484751.7	3753234.4	0.001815975	0.001343414
2048	498	484851.7	3753234.4	0.001873055	0.001374714
2048	499	484951.7	3753234.4	0.001934588	0.001409086
2048	500	485051.7	3753234.4	0.002000977	0.001447239
2048	501	485151.7	3753234.4	0.002070191	0.001487989
2048	502	485251.7	3753234.4	0.00214474	0.001533638
2048	503	485351.7	3753234.4	0.002223326	0.001584671
2048	504	485451.7	3753234.4	0.00231898	0.00165487
2048	505	484551.7	3753334.4	0.001749836	0.001319961
2048	506	484651.7	3753334.4	0.001804365	0.001348842
2048	507	484751.7	3753334.4	0.001861251	0.001378912
2048	508	484851.7	3753334.4	0.001925027	0.001413483
2048	509	484951.7	3753334.4	0.001990743	0.00144911
2048	510	485051.7	3753334.4	0.002063278	0.001489422
2048	511	485151.7	3753334.4	0.002141295	0.001533966
2048	512	485251.7	3753334.4	0.002229989	0.001586604
2048	513	485351.7	3753334.4	0.002326635	0.001646844
2048	514	485451.7	3753334.4	0.002441918	0.0017269
2048	515	484551.7	3753434.4	0.001791726	0.001359032
2048	516	484651.7	3753434.4	0.001848842	0.001389154
2048	517	484751.7	3753434.4	0.001909309	0.001420715
2048	518	484851.7	3753434.4	0.001977124	0.00145699
2048	519	484951.7	3753434.4	0.002048261	0.001494284
2048	520	485051.7	3753434.4	0.002126433	0.001536252
2048	521	485151.7	3753434.4	0.002215529	0.001586236
2048	522	485251.7	3753434.4	0.002317732	0.001645499
2048	523	485351.7	3753434.4	0.002433163	0.001715569
2048	524	485451.7	3753434.4	0.00258071	0.00181406
2048	525	484551.7	3753534.4	0.001834271	0.001401772
2048	526	484651.7	3753534.4	0.001889351	0.001429249

2048	527	484751.7	3753534.4	0.001951536	0.001461171
2048	528	484851.7	3753534.4	0.002026173	0.001502069
2048	529	484951.7	3753534.4	0.00210231	0.001542131
2048	530	485051.7	3753534.4	0.002186094	0.001586561
2048	531	485151.7	3753534.4	0.00228372	0.001640541
2048	532	485251.7	3753534.4	0.002397312	0.001705771
2048	533	485351.7	3753534.4	0.00253218	0.001786736
2048	534	485451.7	3753534.4	0.002708557	0.001902665
2048	535	484551.7	3753634.4	0.001877063	0.001447138
2048	536	484651.7	3753634.4	0.001934776	0.001476223
2048	537	484751.7	3753634.4	0.002000177	0.001510122
2048	538	484851.7	3753634.4	0.002073708	0.001548936
2048	539	484951.7	3753634.4	0.002154732	0.001591924
2048	540	485051.7	3753634.4	0.002243852	0.001639563
2048	541	485151.7	3753634.4	0.002346954	0.001696693
2048	542	485251.7	3753634.4	0.002467347	0.001766469
2048	543	485351.7	3753634.4	0.002608998	0.001852946
2048	544	485451.7	3753634.4	0.002796159	0.001980042
2048	545	484551.7	3753734.4	0.001934299	0.001509715
2048	546	484651.7	3753734.4	0.001991163	0.001537158
2048	547	484751.7	3753734.4	0.00205413	0.001567525
2048	548	484851.7	3753734.4	0.002123749	0.001601175
2048	549	484951.7	3753734.4	0.0022069	0.001644798
2048	550	485051.7	3753734.4	0.002301359	0.001695531
2048	551	485151.7	3753734.4	0.002408853	0.001754781
2048	552	485251.7	3753734.4	0.002533232	0.001826116
2048	553	485351.7	3753734.4	0.002681382	0.001916507
2048	554	485451.7	3753734.4	0.002875536	0.002049607
2048	555	484551.7	3753834.4	0.001993158	0.001576913
2048	556	484651.7	3753834.4	0.002047351	0.001601491
2048	557	484751.7	3753834.4	0.002110471	0.001631739
2048	558	484851.7	3753834.4	0.002181027	0.001665539
2048	559	484951.7	3753834.4	0.002265921	0.001709602
2048	560	485051.7	3753834.4	0.002359809	0.001757485
2048	561	485151.7	3753834.4	0.002468271	0.001814695
2048	562	485251.7	3753834.4	0.002599845	0.001889462
2048	563	485351.7	3753834.4	0.00275538	0.001982722
2048	564	485451.7	3753834.4	0.002959871	0.002119668
2048	565	484551.7	3753934.4	0.002057964	0.001652498
2048	566	484651.7	3753934.4	0.002115125	0.00168019
2048	567	484751.7	3753934.4	0.00216924	0.001700941
2048	568	484851.7	3753934.4	0.002241081	0.001736206
2048	569	484951.7	3753934.4	0.002325125	0.001779229
2048	570	485051.7	3753934.4	0.002421929	0.001829895
2048	571	485151.7	3753934.4	0.002533649	0.001889484
2048	572	485251.7	3753934.4	0.002665218	0.001962212
2048	573	485351.7	3753934.4	0.002824593	0.002054876

2048	574	485451.7	3753934.4	0.003036929	0.002191879
2048	575	484551.7	3754034.4	0.002134061	0.001744042
2048	576	484651.7	3754034.4	0.002164441	0.00174111
2048	577	484751.7	3754034.4	0.002233019	0.001777893
2048	578	484851.7	3754034.4	0.002308684	0.001817367
2048	579	484951.7	3754034.4	0.002391473	0.0018593
2048	580	485051.7	3754034.4	0.002485474	0.001907343
2048	581	485151.7	3754034.4	0.002595727	0.001965697
2048	582	485251.7	3754034.4	0.00272772	0.002039071
2048	583	485351.7	3754034.4	0.002888299	0.002133606
2048	584	485451.7	3754034.4	0.003102403	0.00227432
2048	585	484551.7	3754134.4	0.002186274	0.001807139
2048	586	484651.7	3754134.4	0.002225021	0.001815615
2048	587	484751.7	3754134.4	0.002293936	0.001854061
2048	588	484851.7	3754134.4	0.002375554	0.001901776
2048	589	484951.7	3754134.4	0.002457415	0.001943255
2048	590	485051.7	3754134.4	0.002553067	0.001992794
2048	591	485151.7	3754134.4	0.002664673	0.002052706
2048	592	485251.7	3754134.4	0.002796993	0.002127144
2048	593	485351.7	3754134.4	0.00295868	0.002223219
2048	594	485451.7	3754134.4	0.003172011	0.002363175
2048	595	484551.7	3754234.4	0.002240663	0.001872713
2048	596	484651.7	3754234.4	0.00229019	0.001895488
2048	597	484751.7	3754234.4	0.002363842	0.001940994
2048	598	484851.7	3754234.4	0.002446119	0.001991594
2048	599	484951.7	3754234.4	0.002530731	0.002038242
2048	600	485051.7	3754234.4	0.002624803	0.002088277
2048	601	485151.7	3754234.4	0.002735868	0.00214918
2048	602	485251.7	3754234.4	0.00286773	0.00222367
2048	603	485351.7	3754234.4	0.003029111	0.002319229
2048	604	485451.7	3754234.4	0.00324325	0.002459568
2048	605	484551.7	3754334.4	0.002319381	0.001965274
2048	606	484651.7	3754334.4	0.002383308	0.002006268
2048	607	484751.7	3754334.4	0.002455562	0.002052936
2048	608	484851.7	3754334.4	0.002529848	0.002096785
2048	609	484951.7	3754334.4	0.002613682	0.002145331
2048	610	485051.7	3754334.4	0.002708685	0.002199202
2048	611	485151.7	3754334.4	0.002818094	0.002261127
2048	612	485251.7	3754334.4	0.002948876	0.002337852
2048	613	485351.7	3754334.4	0.003105414	0.002433595
2048	614	485451.7	3754334.4	0.003295493	0.002555144
2048	615	484551.7	3754434.4	0.002466948	0.002134251
2048	616	484651.7	3754434.4	0.002513144	0.002157251
2048	617	484751.7	3754434.4	0.00257021	0.002189104
2048	618	484851.7	3754434.4	0.002635733	0.002225749
2048	619	484951.7	3754434.4	0.002715329	0.002272607
2048	620	485051.7	3754434.4	0.002807268	0.002326432

2048	621	485151.7	3754434.4	0.0029154	0.002390492
2048	622	485251.7	3754434.4	0.003043715	0.002468005
2048	623	485351.7	3754434.4	0.00319795	0.002564289
2048	624	485451.7	3754434.4	0.003387155	0.002688871
2048	625	484551.7	3754534.4	0.002641132	0.002327165
2048	626	484651.7	3754534.4	0.002686088	0.002351475
2048	627	484751.7	3754534.4	0.002725027	0.002366095
2048	628	484851.7	3754534.4	0.002773038	0.00238861
2048	629	484951.7	3754534.4	0.002842577	0.002428131
2048	630	485051.7	3754534.4	0.002929537	0.002479577
2048	631	485151.7	3754534.4	0.003035137	0.002543871
2048	632	485251.7	3754534.4	0.003160924	0.002621983
2048	633	485351.7	3754534.4	0.003312481	0.002718463
2048	634	485451.7	3754534.4	0.003505868	0.002848357
2048	635	484551.7	3754634.4	0.002802756	0.00250701
2048	636	484651.7	3754634.4	0.002841798	0.002526934
2048	637	484751.7	3754634.4	0.002899832	0.002564488
2048	638	484851.7	3754634.4	0.002935938	0.002578445
2048	639	484951.7	3754634.4	0.002995686	0.002611829
2048	640	485051.7	3754634.4	0.003077688	0.0026629
2048	641	485151.7	3754634.4	0.00317944	0.002728647
2048	642	485251.7	3754634.4	0.003303422	0.002809311
2048	643	485351.7	3754634.4	0.003456635	0.002910261
2048	644	485451.7	3754634.4	0.0036547	0.003047312
2048	645	484551.7	3754734.4	0.002978054	0.002698924
2048	646	484651.7	3754734.4	0.003018031	0.002722379
2048	647	484751.7	3754734.4	0.003064686	0.002751352
2048	648	484851.7	3754734.4	0.003120789	0.002788199
2048	649	484951.7	3754734.4	0.003188652	0.002833756
2048	650	485051.7	3754734.4	0.003270037	0.002888999
2048	651	485151.7	3754734.4	0.003368486	0.00295669
2048	652	485251.7	3754734.4	0.003490168	0.003042657
2048	653	485351.7	3754734.4	0.003643485	0.0031557
2048	654	485451.7	3754734.4	0.003840616	0.003306472
2048	655	484551.7	3754834.4	0.003242658	0.002979317
2048	656	484651.7	3754834.4	0.003285329	0.003008528
2048	657	484751.7	3754834.4	0.003333217	0.003041133
2048	658	484851.7	3754834.4	0.003388116	0.003078581
2048	659	484951.7	3754834.4	0.003454875	0.003126139
2048	660	485051.7	3754834.4	0.003533567	0.00318294
2048	661	485151.7	3754834.4	0.003631038	0.003255403
2048	662	485251.7	3754834.4	0.003755515	0.003351331
2048	663	485351.7	3754834.4	0.003922464	0.003487445
2048	664	485451.7	3754834.4	0.004140971	0.003671542
2048	665	484551.7	3754934.4	0.003634536	0.00338655
2048	666	484651.7	3754934.4	0.003674978	0.003415274
2048	667	484751.7	3754934.4	0.003720486	0.003447449

2048	668	484851.7	3754934.4	0.003772977	0.003484859
2048	669	484951.7	3754934.4	0.003836569	0.003531869
2048	670	485051.7	3754934.4	0.003910227	0.003586716
2048	671	485151.7	3754934.4	0.004006419	0.003662433
2048	672	485251.7	3754934.4	0.004134273	0.003767131
2048	673	485351.7	3754934.4	0.004333918	0.003942243
2048	674	485451.7	3754934.4	0.004702267	0.004283123
2048	675	484551.7	3755034.4	0.004219462	0.003985179
2048	676	484651.7	3755034.4	0.004255692	0.004011236
2048	677	484751.7	3755034.4	0.004294449	0.004038013
2048	678	484851.7	3755034.4	0.004346369	0.004077414
2048	679	484951.7	3755034.4	0.004407037	0.004123743
2048	680	485051.7	3755034.4	0.004481581	0.004182307
2048	681	485151.7	3755034.4	0.004574177	0.004257259
2048	682	485251.7	3755034.4	0.004703021	0.004367231
2048	683	485351.7	3755034.4	0.004910749	0.004554369
2048	684	485451.7	3755034.4	0.005501719	0.005122284
2048	685	485549.5	3750934.9	0.000381408	0.000286398
2048	686	485649.5	3750934.9	0.000376802	0.00028247
2048	687	485749.5	3750934.9	0.000373905	0.000280085
2048	688	485849.5	3750934.9	0.000369327	0.000276267
2048	689	485549.5	3751034.9	0.000402374	0.000302286
2048	690	485649.5	3751034.9	0.000396166	0.000296938
2048	691	485749.5	3751034.9	0.000393503	0.000294719
2048	692	485849.5	3751034.9	0.000389964	0.000291775
2048	693	485549.5	3751134.9	0.000425468	0.000320068
2048	694	485649.5	3751134.9	0.000418729	0.000314191
2048	695	485749.5	3751134.9	0.000415753	0.000311674
2048	696	485849.5	3751134.9	0.000411351	0.000307938
2048	697	485549.5	3751234.9	0.000452898	0.000341689
2048	698	485649.5	3751234.9	0.000444221	0.000334028
2048	699	485749.5	3751234.9	0.000440756	0.000331036
2048	700	485849.5	3751234.9	0.000439925	0.000330468
2048	701	485549.5	3751334.9	0.000482122	0.000364898
2048	702	485649.5	3751334.9	0.000475505	0.000358979
2048	703	485749.5	3751334.9	0.000470137	0.000354265
2048	704	485849.5	3751334.9	0.000473821	0.00035779
2048	705	485549.5	3751434.9	0.000522869	0.000398477
2048	706	485649.5	3751434.9	0.000518805	0.000394748
2048	707	485749.5	3751434.9	0.000507386	0.00038446
2048	708	485849.5	3751434.9	0.000522982	0.000398924
2048	709	485549.5	3751534.9	0.000654594	0.000514071
2048	710	485649.5	3751534.9	0.000638801	0.000499731
2048	711	485749.5	3751534.9	0.000580121	0.000446876
2048	712	485849.5	3751534.9	0.000569107	0.000437031
2048	713	485549.5	3751634.9	0.001009894	0.000803943
2048	714	485649.5	3751634.9	0.000853953	0.000681468

2048	715	485749.5	3751634.9	0.000795791	0.000633331
2048	716	485849.5	3751634.9	0.00061185	0.000471853
2048	717	485549.5	3751734.9	0.001247554	0.000980651
2048	718	485649.5	3751734.9	0.001192698	0.000943849
2048	719	485749.5	3751734.9	0.001061267	0.000846565
2048	720	485849.5	3751734.9	0.000748065	0.000590538
2048	721	485549.5	3751834.9	0.001423585	0.00112109
2048	722	485649.5	3751834.9	0.001350044	0.001063201
2048	723	485749.5	3751834.9	0.001292025	0.001021026
2048	724	485849.5	3751834.9	0.001103141	0.000882625
2048	725	485549.5	3751934.9	0.001652881	0.001311622
2048	726	485649.5	3751934.9	0.001514799	0.00118527
2048	727	485749.5	3751934.9	0.001473871	0.00115035
2048	728	485849.5	3751934.9	0.001418527	0.001111805
2048	729	485549.5	3752034.9	0.001913952	0.001532891
2048	730	485649.5	3752034.9	0.001679936	0.001308415
2048	731	485749.5	3752034.9	0.001644047	0.001277913
2048	732	485849.5	3752034.9	0.001610713	0.0012578
2048	733	485549.5	3752134.9	0.001969271	0.001556215
2048	734	485649.5	3752134.9	0.00191735	0.001499243
2048	735	485749.5	3752134.9	0.001923089	0.001505909
2048	736	485849.5	3752134.9	0.001935394	0.001527596
2048	737	485549.5	3752234.9	0.002209253	0.001773399
2048	738	485649.5	3752234.9	0.002276635	0.00182918
2048	739	485749.5	3752234.9	0.002368736	0.00191246
2048	740	485849.5	3752234.9	0.002439675	0.001983816
2048	741	485549.5	3752334.9	0.001850101	0.001396992
2048	742	485649.5	3752334.9	0.001895656	0.001424482
2048	743	485749.5	3752334.9	0.001957252	0.00147074
2048	744	485849.5	3752334.9	0.002028742	0.001530912
2048	745	485549.5	3752434.9	0.001794472	0.001324626
2048	746	485649.5	3752434.9	0.00182665	0.001337114
2048	747	485749.5	3752434.9	0.001882293	0.001371805
2048	748	485849.5	3752434.9	0.001954887	0.00142284
2048	749	485549.5	3752534.9	0.001822519	0.00133457
2048	750	485649.5	3752534.9	0.00185133	0.001342231
2048	751	485749.5	3752534.9	0.001907756	0.001375517
2048	752	485849.5	3752534.9	0.001978763	0.001421248
2048	753	485549.5	3752634.9	0.001880855	0.001371813
2048	754	485649.5	3752634.9	0.001910884	0.001379303
2048	755	485749.5	3752634.9	0.001967672	0.001412109
2048	756	485849.5	3752634.9	0.002038557	0.00145584
2048	757	485549.5	3752734.9	0.001953399	0.001422491
2048	758	485649.5	3752734.9	0.001986089	0.001431634
2048	759	485749.5	3752734.9	0.002050619	0.001469412
2048	760	485849.5	3752734.9	0.002129544	0.001517696
2048	761	485549.5	3752834.9	0.002033894	0.001481518

2048	762	485649.5	3752834.9	0.002069403	0.001493384
2048	763	485749.5	3752834.9	0.002143987	0.001539441
2048	764	485849.5	3752834.9	0.00223422	0.001596148
2048	765	485549.5	3752934.9	0.002125289	0.001549419
2048	766	485649.5	3752934.9	0.002162579	0.001563807
2048	767	485749.5	3752934.9	0.002246546	0.00162032
2048	768	485849.5	3752934.9	0.002356775	0.001695749
2048	769	485549.5	3753034.9	0.002242012	0.001638611
2048	770	485649.5	3753034.9	0.00226017	0.001635901
2048	771	485749.5	3753034.9	0.002355235	0.001704743
2048	772	485849.5	3753034.9	0.002493296	0.001811424
2048	773	485549.5	3753134.9	0.002284072	0.001644917
2048	774	485649.5	3753134.9	0.002355896	0.00169816
2048	775	485749.5	3753134.9	0.002457885	0.001778786
2048	776	485849.5	3753134.9	0.002614922	0.001910057
2048	777	485549.5	3753234.9	0.002390153	0.001705256
2048	778	485649.5	3753234.9	0.002465506	0.001764755
2048	779	485749.5	3753234.9	0.002565761	0.001850794
2048	780	485849.5	3753234.9	0.002726467	0.001993194
2048	781	485549.5	3753334.9	0.002552748	0.001807315
2048	782	485649.5	3753334.9	0.002613069	0.001847051
2048	783	485749.5	3753334.9	0.002705472	0.001931871
2048	784	485849.5	3753334.9	0.00285173	0.002074119
2048	785	485549.5	3753434.9	0.002734212	0.001918728
2048	786	485649.5	3753434.9	0.002833638	0.001976921
2048	787	485749.5	3753434.9	0.002943824	0.002069103
2048	788	485849.5	3753434.9	0.003067125	0.00220911
2048	789	485508.5	3746711.3	0.000243354	0.00020122
2048	790	491508.5	3746711.3	0.000169864	0.000140836
2048	791	479508.5	3752711.3	0.000851823	0.000773514
2048	792	485508.5	3752711.3	0.001895189	0.001378055
2048	793	491508.5	3752711.3	0.001567461	0.001036188
2048	794	485508.5	3758711.3	0.00043243	0.000401466
2048	795	491508.5	3758711.3	0.000183346	0.000159375
2048	796	485921.9	3750934.2	0.000365028	0.000272701
2048	797	486021.9	3750934.2	0.000360418	0.000268932
2048	798	486121.9	3750934.2	0.000357923	0.00026707
2048	799	485921.9	3751034.2	0.000384631	0.000287232
2048	800	486021.9	3751034.2	0.000377898	0.000281551
2048	801	486121.9	3751034.2	0.00037402	0.000278405
2048	802	485921.9	3751134.2	0.000406955	0.000304179
2048	803	486021.9	3751134.2	0.000399493	0.000297785
2048	804	486121.9	3751134.2	0.000393681	0.000292847
2048	805	485921.9	3751234.2	0.000432798	0.00032423
2048	806	486021.9	3751234.2	0.000424621	0.00031711
2048	807	486121.9	3751234.2	0.000417409	0.00031087
2048	808	485921.9	3751334.2	0.000464403	0.000349418

2048	809	486021.9	3751334.2	0.000454997	0.000341098
2048	810	486121.9	3751334.2	0.000444613	0.000331926
2048	811	485921.9	3751434.2	0.000507596	0.000385075
2048	812	486021.9	3751434.2	0.0004912	0.000370314
2048	813	486121.9	3751434.2	0.000477666	0.000358177
2048	814	485921.9	3751534.2	0.000553763	0.000423265
2048	815	486021.9	3751534.2	0.000542648	0.000413375
2048	816	486121.9	3751534.2	0.000519194	0.000392079
2048	817	485921.9	3751634.2	0.000593219	0.000455051
2048	818	486021.9	3751634.2	0.000633392	0.000491781
2048	819	486121.9	3751634.2	0.000584532	0.000447697
2048	820	485921.9	3751734.2	0.000679013	0.000528765
2048	821	486021.9	3751734.2	0.000778367	0.000616779
2048	822	486121.9	3751734.2	0.000659997	0.000512079
2048	823	485921.9	3751834.2	0.000866478	0.000691228
2048	824	486021.9	3751834.2	0.000872214	0.000695631
2048	825	486121.9	3751834.2	0.000693402	0.000537748
2048	826	485921.9	3751934.2	0.001294056	0.001034312
2048	827	486021.9	3751934.2	0.001078493	0.000866571
2048	828	486121.9	3751934.2	0.000879039	0.000698955
2048	829	485921.9	3752034.2	0.001535784	0.001210919
2048	830	486021.9	3752034.2	0.001324917	0.001068299
2048	831	486121.9	3752034.2	0.001206381	0.000975352
2048	832	485921.9	3752134.2	0.001953025	0.001557591
2048	833	486021.9	3752134.2	0.001902123	0.001537501
2048	834	486121.9	3752134.2	0.00163049	0.001323345
2048	835	485921.9	3752234.2	0.002480435	0.002033643
2048	836	486021.9	3752234.2	0.002589538	0.00215299
2048	837	486121.9	3752234.2	0.002390124	0.001971573
2048	838	485921.9	3752334.2	0.0020821	0.00157883
2048	839	486021.9	3752334.2	0.002195372	0.001692959
2048	840	486121.9	3752334.2	0.002539709	0.002039301
2048	841	485921.9	3752434.2	0.002021294	0.001478324
2048	842	486021.9	3752434.2	0.002132857	0.001577631
2048	843	486121.9	3752434.2	0.002320376	0.001752716
2048	844	485921.9	3752534.2	0.002044178	0.001466591
2048	845	486021.9	3752534.2	0.00213993	0.001538946
2048	846	486121.9	3752534.2	0.002267798	0.001644881
2048	847	485921.9	3752634.2	0.002097036	0.001494003
2048	848	486021.9	3752634.2	0.002186288	0.001556481
2048	849	486121.9	3752634.2	0.002296269	0.00164047
2048	850	485921.9	3752734.2	0.002191812	0.001557032
2048	851	486021.9	3752734.2	0.002291617	0.001623302
2048	852	486121.9	3752734.2	0.002407619	0.001706739
2048	853	485921.9	3752834.2	0.002309887	0.001643694
2048	854	486021.9	3752834.2	0.002431122	0.001722218
2048	855	486121.9	3752834.2	0.002573458	0.001820611

2048	856	485921.9	3752934.2	0.002446021	0.001755807
2048	857	486021.9	3752934.2	0.002597274	0.001856282
2048	858	486121.9	3752934.2	0.002807017	0.002005958
2048	859	487026.2	3754364	0.009710497	0.00841767
2049	1	489607.4	3753966.1	0.003005338	0.002024868
2049	2	489738.7	3754023.9	0.002663909	0.001858582
2049	3	489668.9	3754093.7	0.002533356	0.001848683
2049	4	489690.1	3754161.6	0.002401322	0.001785056
2049	5	490282.2	3753425.2	0.00354684	0.002476163
2049	6	489797.3	3754554.1	0.001961821	0.001506036
2049	7	490252.9	3754378.2	0.001795272	0.0013542
2049	8	489006	3754140.3	0.004557281	0.003554049
2049	9	485642.8	3754267.3	0.004100126	0.003165087
2049	10	485736.4	3754259.5	0.004521802	0.003497506
2049	11	487189.2	3754820.5	0.010091874	0.00899555
2049	12	487233.1	3754689.5	0.008297948	0.00709333
2049	13	487216.8	3754364.7	0.012644115	0.011429272
2049	14	487388.8	3754380.1	0.009543453	0.008421717
2049	15	484625	3751748	0.001234098	0.000953633
2049	16	483279	3751798	0.00092791	0.000727788
2049	17	483231	3751205	0.000825023	0.000648303
2049	18	480165	3750195	0.000624023	0.000534263
2049	19	481211	3749473	0.000563464	0.000463935
2049	20	481867	3752785	0.000944174	0.00080302
2049	21	480678	3751306	0.000678202	0.000572995
2049	22	479989	3752645	0.0008108	0.000723565
2049	23	479889	3756222	0.001134397	0.001082257
2049	24	479234	3757080	0.000547074	0.000509408
2049	25	480276	3756365	0.000922189	0.000872234
2049	26	479887	3754007	0.001055189	0.0009793
2049	27	480772	3755009	0.002233887	0.002151236
2049	28	481560	3754548	0.001674262	0.001568972
2049	29	481845	3754457	0.001689894	0.001574936
2049	30	481754	3753876	0.001207659	0.001084719
2049	31	489635.2	3750663.8	0.000459906	0.000350302
2049	32	485424.1	3747672.3	0.000299065	0.000242834
2049	33	482657.6	3753975.1	0.00143028	0.00126862
2049	34	481495	3754633.7	0.001756784	0.001654574
2049	35	481148.7	3756136.2	0.001267021	0.001204873
2049	36	482346.5	3748872.9	0.000232626	0.0001823
2049	37	480299	3751198	0.000660146	0.000563128
2049	38	479598.7	3756506.3	0.000867936	0.000821002
2049	39	478997.8	3753535.2	0.001183188	0.001116459
2049	40	478978.3	3755233.1	0.003560174	0.003496442
2049	41	479197.3	3754462.3	0.001567936	0.001503431
2049	42	479493.3	3752408.8	0.000823625	0.000743943
2049	43	480295.4	3752408.4	0.000785911	0.00069107

2049	44	480287.9	3754227.5	0.001156285	0.001075163
2049	45	494397.4	3753977.6	0.000725748	0.000586299
2049	46	481108.5	3750699	0.000665979	0.000556029
2049	47	486794.1	3756878	0.000672299	0.000603662
2049	48	482345	3752065.8	0.000894428	0.00073282
2049	49	487553	3745938.3	0.000182569	0.000153648
2049	50	484553	3746938.3	0.000241564	0.000198588
2049	51	485553	3746938.3	0.000253608	0.000208967
2049	52	486553	3746938.3	0.000202023	0.000171399
2049	53	487553	3746938.3	0.000222575	0.000184427
2049	54	488553	3746938.3	0.000202874	0.000169034
2049	55	489553	3746938.3	0.000200449	0.000165706
2049	56	490553	3746938.3	0.000184072	0.000152596
2049	57	491553	3746938.3	0.000175157	0.000144868
2049	58	492553	3746938.3	0.000168435	0.000139086
2049	59	482553	3747938.3	0.000212152	0.000168924
2049	60	483553	3747938.3	0.000354356	0.000283347
2049	61	484553	3747938.3	0.000337484	0.000271086
2049	62	485553	3747938.3	0.00031492	0.000254433
2049	63	486553	3747938.3	0.000293122	0.000240154
2049	64	487553	3747938.3	0.000187394	0.00015797
2049	65	488553	3747938.3	0.000244456	0.00020091
2049	66	489553	3747938.3	0.000229533	0.000188645
2049	67	490553	3747938.3	0.000216089	0.00017724
2049	68	491553	3747938.3	0.000204979	0.000167532
2049	69	492553	3747938.3	0.000196066	0.0001598
2049	70	493553	3747938.3	0.000189683	0.000154526
2049	71	481553	3748938.3	0.000477258	0.000381585
2049	72	482553	3748938.3	0.000243557	0.000191236
2049	73	483553	3748938.3	0.000407565	0.000324862
2049	74	484553	3748938.3	0.000427488	0.000337876
2049	75	485553	3748938.3	0.000407619	0.000323715
2049	76	486553	3748938.3	0.000377647	0.000302446
2049	77	487553	3748938.3	0.000296439	0.000248158
2049	78	488553	3748938.3	0.000304282	0.000245516
2049	79	489553	3748938.3	0.000279574	0.000226405
2049	80	490553	3748938.3	0.000262247	0.000211584
2049	81	491553	3748938.3	0.00024669	0.000198356
2049	82	492553	3748938.3	0.000236251	0.00018921
2049	83	493553	3748938.3	0.000233243	0.000187063
2049	84	494553	3748938.3	0.00030144	0.000256321
2049	85	480553	3749938.3	0.000738525	0.00064574
2049	86	481553	3749938.3	0.000643016	0.000527037
2049	87	482553	3749938.3	0.000627525	0.000501042
2049	88	483553	3749938.3	0.000616276	0.000485716
2049	89	484553	3749938.3	0.000451724	0.000357484
2049	90	485553	3749938.3	0.000369763	0.000294132

2049	91	486553	3749938.3	0.00043767	0.000354462
2049	92	487553	3749938.3	0.000458427	0.000362341
2049	93	488553	3749938.3	0.000397964	0.000312339
2049	94	489553	3749938.3	0.00036174	0.000285053
2049	95	490553	3749938.3	0.000334027	0.000262435
2049	96	491553	3749938.3	0.000313074	0.00024466
2049	97	492553	3749938.3	0.000304898	0.000237148
2049	98	493553	3749938.3	0.000341455	0.00027118
2049	99	494553	3749938.3	0.000287451	0.000218146
2049	100	495553	3749938.3	0.000228161	0.000188337
2049	101	480553	3750938.3	0.000646363	0.000545317
2049	102	481553	3750938.3	0.000695371	0.000573577
2049	103	482553	3750938.3	0.000755391	0.000607747
2049	104	483553	3750938.3	0.000868914	0.000689323
2049	105	484553	3750938.3	0.000863038	0.000673992
2049	106	485553	3750938.3	0.000381804	0.000286657
2049	107	486553	3750938.3	0.000352273	0.000265001
2049	108	487553	3750938.3	0.000551668	0.000438674
2049	109	488553	3750938.3	0.000597203	0.000442398
2049	110	489553	3750938.3	0.000524571	0.000391487
2049	111	490553	3750938.3	0.000468271	0.000349838
2049	112	491553	3750938.3	0.00043614	0.000323869
2049	113	492553	3750938.3	0.000490154	0.000375303
2049	114	493553	3750938.3	0.000424692	0.000311663
2049	115	494553	3750938.3	0.000411569	0.000305844
2049	116	495553	3750938.3	0.000383874	0.000298329
2049	117	479553	3751938.3	0.000760661	0.00067789
2049	118	480553	3751938.3	0.000747192	0.000644871
2049	119	481553	3751938.3	0.000789246	0.000659741
2049	120	482553	3751938.3	0.000876139	0.000706882
2049	121	483553	3751938.3	0.00100534	0.000784025
2049	122	484553	3751938.3	0.00119653	0.000910504
2049	123	485553	3751938.3	0.001652386	0.001310076
2049	124	486553	3751938.3	0.000677518	0.000518984
2049	125	487553	3751938.3	0.0010938	0.00085464
2049	126	488553	3751938.3	0.00117449	0.000795388
2049	127	489553	3751938.3	0.001068619	0.000702555
2049	128	490553	3751938.3	0.000896855	0.000589903
2049	129	491553	3751938.3	0.000929406	0.000648649
2049	130	492553	3751938.3	0.000742622	0.000479676
2049	131	493553	3751938.3	0.000665304	0.000493868
2049	132	494553	3751938.3	0.000613824	0.000458547
2049	133	495553	3751938.3	0.000540945	0.000414249
2049	134	479553	3752938.3	0.000919753	0.000842083
2049	135	480553	3752938.3	0.000917948	0.00082014
2049	136	481553	3752938.3	0.000989982	0.000862685
2049	137	482553	3752938.3	0.001120124	0.000945069

2049	138	483553	3752938.3	0.001288046	0.001036158
2049	139	484553	3752938.3	0.00160562	0.001206286
2049	140	485553	3752938.3	0.002127435	0.001549907
2049	141	486553	3752938.3	0.004197908	0.00330725
2049	142	487553	3752938.3	0.004624128	0.003486353
2049	143	488553	3752938.3	0.004121289	0.003017912
2049	144	489553	3752938.3	0.003759956	0.002743019
2049	145	490553	3752938.3	0.003118444	0.002239126
2049	146	491553	3752938.3	0.001615505	0.001121584
2049	147	492553	3752938.3	0.001228605	0.000804777
2049	148	493553	3752938.3	0.000998658	0.000713483
2049	149	494553	3752938.3	0.000851242	0.000635835
2049	150	495553	3752938.3	0.000685581	0.000530474
2049	151	479553	3753938.3	0.001056648	0.000985336
2049	152	480553	3753938.3	0.001065631	0.000976785
2049	153	481553	3753938.3	0.001210442	0.00109536
2049	154	482553	3753938.3	0.001382839	0.001225984
2049	155	483553	3753938.3	0.001739126	0.001518375
2049	156	484553	3753938.3	0.002062736	0.001657532
2049	157	485553	3753938.3	0.003328033	0.002399635
2049	158	486553	3753938.3	0.00587771	0.004415519
2049	159	487553	3753938.3	0.006449908	0.005269006
2049	160	488553	3753938.3	0.005707975	0.004366261
2049	161	489553	3753938.3	0.003208337	0.002146419
2049	162	490553	3753938.3	0.001856303	0.001363774
2049	163	491553	3753938.3	0.001295453	0.001010088
2049	164	492553	3753938.3	0.001062803	0.000839688
2049	165	493553	3753938.3	0.000869399	0.000695423
2049	166	494553	3753938.3	0.000790045	0.0006368
2049	167	495553	3753938.3	0.000616134	0.000500931
2049	168	479553	3754938.3	0.001879019	0.001812246
2049	169	480553	3754938.3	0.002003114	0.001923237
2049	170	481553	3754938.3	0.002294445	0.002195577
2049	171	482553	3754938.3	0.00335287	0.003226354
2049	172	483553	3754938.3	0.00368581	0.003520762
2049	173	484553	3754938.3	0.003653175	0.003405562
2049	174	485553	3754938.3	0.005300037	0.004852217
2049	175	486553	3754938.3	0.007308372	0.006652972
2049	176	487553	3754938.3	0.0062339	0.005368797
2049	177	488553	3754938.3	0.003502589	0.002902681
2049	178	489553	3754938.3	0.002195006	0.001888802
2049	179	490553	3754938.3	0.001462739	0.001284618
2049	180	491553	3754938.3	0.000961313	0.000837579
2049	181	492553	3754938.3	0.00069004	0.000593919
2049	182	493553	3754938.3	0.000697621	0.000605986
2049	183	494553	3754938.3	0.000530786	0.000457223
2049	184	495553	3754938.3	0.0004455	0.000382642

2049	185	479553	3755938.3	0.001890688	0.001833685
2049	186	480553	3755938.3	0.001584961	0.001523412
2049	187	481553	3755938.3	0.001605812	0.001537024
2049	188	482553	3755938.3	0.002296043	0.002205008
2049	189	483553	3755938.3	0.002411683	0.002302912
2049	190	484553	3755938.3	0.002292656	0.002159919
2049	191	485553	3755938.3	0.003236686	0.003072111
2049	192	486553	3755938.3	0.002616244	0.002439538
2049	193	487553	3755938.3	0.001445759	0.001334041
2049	194	488553	3755938.3	0.00100995	0.000921686
2049	195	489553	3755938.3	0.000692157	0.000624987
2049	196	490553	3755938.3	0.000572999	0.000515125
2049	197	491553	3755938.3	0.000472248	0.000422692
2049	198	492553	3755938.3	0.000572246	0.000526197
2049	199	493553	3755938.3	0.000419577	0.000378874
2049	200	494553	3755938.3	0.000403112	0.000365151
2049	201	479553	3756938.3	0.000573374	0.000534622
2049	202	480553	3756938.3	0.000548895	0.000508986
2049	203	481553	3756938.3	0.000495782	0.000457683
2049	204	482553	3756938.3	0.00051746	0.000475038
2049	205	483553	3756938.3	0.000872637	0.000803056
2049	206	484553	3756938.3	0.00084184	0.000766684
2049	207	485553	3756938.3	0.001827111	0.001750147
2049	208	486553	3756938.3	0.000695643	0.000626292
2049	209	487553	3756938.3	0.00045769	0.000405552
2049	210	488553	3756938.3	0.000371244	0.000326038
2049	211	489553	3756938.3	0.000325199	0.000284817
2049	212	490553	3756938.3	0.000297106	0.000260157
2049	213	491553	3756938.3	0.000259743	0.000227122
2049	214	492553	3756938.3	0.00023137	0.000202437
2049	215	493553	3756938.3	0.000245885	0.000217978
2049	216	494553	3756938.3	0.000238675	0.000212418
2049	217	479553	3757938.3	0.000288328	0.000263889
2049	218	480553	3757938.3	0.000276024	0.000251565
2049	219	481553	3757938.3	0.00029157	0.000263898
2049	220	482553	3757938.3	0.000360656	0.000323934
2049	221	483553	3757938.3	0.000353692	0.000315771
2049	222	484553	3757938.3	0.000465686	0.000418696
2049	223	485553	3757938.3	0.000539591	0.000498787
2049	224	486553	3757938.3	0.000322692	0.00028524
2049	225	487553	3757938.3	0.000263808	0.000230199
2049	226	488553	3757938.3	0.00023161	0.000200905
2049	227	489553	3757938.3	0.000213728	0.000184893
2049	228	490553	3757938.3	0.000195439	0.000168934
2049	229	491553	3757938.3	0.000179074	0.000154599
2049	230	492553	3757938.3	0.000171933	0.000148988
2049	231	493553	3757938.3	0.000190686	0.000166992

2049	232	480553	3758938.3	0.000207166	0.000186495
2049	233	481553	3758938.3	0.000231101	0.000206373
2049	234	482553	3758938.3	0.000225123	0.000199414
2049	235	483553	3758938.3	0.000236025	0.000208208
2049	236	484553	3758938.3	0.00029534	0.000264183
2049	237	485553	3758938.3	0.000685858	0.00065257
2049	238	486553	3758938.3	0.000223329	0.000196708
2049	239	487553	3758938.3	0.000245191	0.000215841
2049	240	488553	3758938.3	0.000182051	0.000158491
2049	241	489553	3758938.3	0.000184564	0.000160754
2049	242	490553	3758938.3	0.000201511	0.000175347
2049	243	491553	3758938.3	0.00016388	0.000142275
2049	244	492553	3758938.3	0.000170507	0.000148228
2049	245	481553	3759938.3	0.000170999	0.000151817
2049	246	482553	3759938.3	0.000176464	0.000155607
2049	247	483553	3759938.3	0.000186986	0.000164671
2049	248	484553	3759938.3	0.000260077	0.000232294
2049	249	485553	3759938.3	0.000678447	0.000644739
2049	250	486553	3759938.3	0.00032149	0.00028742
2049	251	487553	3759938.3	0.000262256	0.000232114
2049	252	488553	3759938.3	0.000261735	0.000229806
2049	253	489553	3759938.3	0.000226817	0.000197994
2049	254	490553	3759938.3	0.000175373	0.000153105
2049	255	491553	3759938.3	0.000152834	0.000133041
2049	256	482553	3760938.3	0.000166449	0.000146921
2049	257	483553	3760938.3	0.000192501	0.000170624
2049	258	484553	3760938.3	0.000245855	0.00022007
2049	259	485553	3760938.3	0.000558289	0.000524197
2049	260	486553	3760938.3	0.00036625	0.000329826
2049	261	487553	3760938.3	0.000292034	0.000262292
2049	262	488553	3760938.3	0.000166389	0.000147291
2049	263	489553	3760938.3	0.000126207	0.000110586
2049	264	490553	3760938.3	0.000120723	0.000105368
2049	265	484551.7	3750934.4	0.00085781	0.000670964
2049	266	484651.7	3750934.4	0.00084689	0.000662861
2049	267	484751.7	3750934.4	0.000647301	0.000513036
2049	268	484851.7	3750934.4	0.000593984	0.000470956
2049	269	484951.7	3750934.4	0.000627812	0.00049677
2049	270	485051.7	3750934.4	0.00056273	0.000444998
2049	271	485151.7	3750934.4	0.000468565	0.000364323
2049	272	485251.7	3750934.4	0.000412708	0.000314147
2049	273	485351.7	3750934.4	0.000396894	0.000299953
2049	274	485451.7	3750934.4	0.0003885	0.00029256
2049	275	484551.7	3751034.4	0.00091639	0.000709662
2049	276	484651.7	3751034.4	0.00090406	0.000701219
2049	277	484751.7	3751034.4	0.000849246	0.000669214
2049	278	484851.7	3751034.4	0.000672371	0.0005324

2049	279	484951.7	3751034.4	0.000747061	0.000589409
2049	280	485051.7	3751034.4	0.00062661	0.000495875
2049	281	485151.7	3751034.4	0.000543262	0.000427368
2049	282	485251.7	3751034.4	0.000462049	0.000355854
2049	283	485351.7	3751034.4	0.000426744	0.000324007
2049	284	485451.7	3751034.4	0.000411431	0.000310272
2049	285	484551.7	3751134.4	0.000962674	0.000742171
2049	286	484651.7	3751134.4	0.000960568	0.000738894
2049	287	484751.7	3751134.4	0.000948044	0.000731807
2049	288	484851.7	3751134.4	0.000856235	0.000678417
2049	289	484951.7	3751134.4	0.000877054	0.000690184
2049	290	485051.7	3751134.4	0.00072305	0.000571168
2049	291	485151.7	3751134.4	0.000641733	0.000507903
2049	292	485251.7	3751134.4	0.000555085	0.000435731
2049	293	485351.7	3751134.4	0.000472087	0.000362072
2049	294	485451.7	3751134.4	0.000438092	0.000331327
2049	295	484551.7	3751234.4	0.001010266	0.000778358
2049	296	484651.7	3751234.4	0.001010341	0.000775898
2049	297	484751.7	3751234.4	0.001002462	0.00077203
2049	298	484851.7	3751234.4	0.000974393	0.000757209
2049	299	484951.7	3751234.4	0.000948845	0.000742007
2049	300	485051.7	3751234.4	0.00085298	0.000675077
2049	301	485151.7	3751234.4	0.000719612	0.000570026
2049	302	485251.7	3751234.4	0.000543351	0.000423307
2049	303	485351.7	3751234.4	0.00048047	0.000366617
2049	304	485451.7	3751234.4	0.000461442	0.000349354
2049	305	484551.7	3751334.4	0.001081053	0.000835602
2049	306	484651.7	3751334.4	0.001073192	0.000827108
2049	307	484751.7	3751334.4	0.001061106	0.000819641
2049	308	484851.7	3751334.4	0.001046072	0.000810269
2049	309	484951.7	3751334.4	0.00103785	0.000803428
2049	310	485051.7	3751334.4	0.000995324	0.000779379
2049	311	485151.7	3751334.4	0.000842305	0.000666826
2049	312	485251.7	3751334.4	0.00066315	0.000525565
2049	313	485351.7	3751334.4	0.000522765	0.000401953
2049	314	485451.7	3751334.4	0.00048902	0.000371194
2049	315	484551.7	3751434.4	0.001195871	0.000941044
2049	316	484651.7	3751434.4	0.001163768	0.000905728
2049	317	484751.7	3751434.4	0.001144393	0.000885781
2049	318	484851.7	3751434.4	0.00113107	0.000873877
2049	319	484951.7	3751434.4	0.001120277	0.000865319
2049	320	485051.7	3751434.4	0.00110667	0.000855016
2049	321	485151.7	3751434.4	0.00099371	0.000789774
2049	322	485251.7	3751434.4	0.000773905	0.00061681
2049	323	485351.7	3751434.4	0.000608583	0.00047649
2049	324	485451.7	3751434.4	0.00054169	0.000415823
2049	325	484551.7	3751534.4	0.001456143	0.001194651

2049	326	484651.7	3751534.4	0.001349409	0.001081237
2049	327	484751.7	3751534.4	0.001270368	0.000997498
2049	328	484851.7	3751534.4	0.001233975	0.000958587
2049	329	484951.7	3751534.4	0.001216508	0.000938945
2049	330	485051.7	3751534.4	0.00120715	0.000926978
2049	331	485151.7	3751534.4	0.001192785	0.000916086
2049	332	485251.7	3751534.4	0.001082089	0.00085507
2049	333	485351.7	3751534.4	0.000865048	0.000689985
2049	334	485451.7	3751534.4	0.000715318	0.00056769
2049	335	484551.7	3751634.4	0.001348616	0.00108066
2049	336	484651.7	3751634.4	0.001389714	0.001114828
2049	337	484751.7	3751634.4	0.001432773	0.001150223
2049	338	484851.7	3751634.4	0.001460119	0.001172175
2049	339	484951.7	3751634.4	0.001360079	0.001067802
2049	340	485051.7	3751634.4	0.001317314	0.001020951
2049	341	485151.7	3751634.4	0.001301717	0.00100178
2049	342	485251.7	3751634.4	0.00126963	0.000980559
2049	343	485351.7	3751634.4	0.001209076	0.000942354
2049	344	485451.7	3751634.4	0.001103471	0.000878023
2049	345	484551.7	3751734.4	0.00119826	0.000925036
2049	346	484651.7	3751734.4	0.001264518	0.00098234
2049	347	484751.7	3751734.4	0.001369029	0.001078914
2049	348	484851.7	3751734.4	0.001502342	0.001205645
2049	349	484951.7	3751734.4	0.001504911	0.00120346
2049	350	485051.7	3751734.4	0.001637929	0.001331229
2049	351	485151.7	3751734.4	0.001489861	0.001175256
2049	352	485251.7	3751734.4	0.001448465	0.001130981
2049	353	485351.7	3751734.4	0.001395598	0.00108578
2049	354	485451.7	3751734.4	0.001321168	0.001028942
2049	355	484551.7	3751834.4	0.001178528	0.000900498
2049	356	484651.7	3751834.4	0.001216232	0.000929544
2049	357	484751.7	3751834.4	0.001259795	0.000964382
2049	358	484851.7	3751834.4	0.001311587	0.001008227
2049	359	484951.7	3751834.4	0.001376602	0.001067296
2049	360	485051.7	3751834.4	0.001520517	0.001203986
2049	361	485151.7	3751834.4	0.001542038	0.001214307
2049	362	485251.7	3751834.4	0.001632191	0.001296729
2049	363	485351.7	3751834.4	0.001647723	0.001312326
2049	364	485451.7	3751834.4	0.00164466	0.001317141
2049	365	484551.7	3751934.4	0.001194952	0.000909391
2049	366	484651.7	3751934.4	0.001221364	0.000928327
2049	367	484751.7	3751934.4	0.001248195	0.00094805
2049	368	484851.7	3751934.4	0.001281837	0.000973346
2049	369	484951.7	3751934.4	0.001318899	0.001002103
2049	370	485051.7	3751934.4	0.001366238	0.001039846
2049	371	485151.7	3751934.4	0.001426081	0.001088516
2049	372	485251.7	3751934.4	0.00150841	0.001158113

2049	373	485351.7	3751934.4	0.001627079	0.001268813
2049	374	485451.7	3751934.4	0.001700973	0.001347094
2049	375	484551.7	3752034.4	0.00123658	0.000940967
2049	376	484651.7	3752034.4	0.001259397	0.000956388
2049	377	484751.7	3752034.4	0.001283978	0.000973366
2049	378	484851.7	3752034.4	0.001310027	0.000991611
2049	379	484951.7	3752034.4	0.001342007	0.001014467
2049	380	485051.7	3752034.4	0.001380379	0.001042355
2049	381	485151.7	3752034.4	0.001427179	0.001077177
2049	382	485251.7	3752034.4	0.001494628	0.001130077
2049	383	485351.7	3752034.4	0.001585696	0.001209182
2049	384	485451.7	3752034.4	0.001797931	0.001414264
2049	385	484551.7	3752134.4	0.001309768	0.001003584
2049	386	484651.7	3752134.4	0.00133143	0.001017358
2049	387	484751.7	3752134.4	0.001355632	0.00103318
2049	388	484851.7	3752134.4	0.001380202	0.001049316
2049	389	484951.7	3752134.4	0.001407388	0.001067564
2049	390	485051.7	3752134.4	0.001440843	0.001090734
2049	391	485151.7	3752134.4	0.001481643	0.001119932
2049	392	485251.7	3752134.4	0.001541168	0.001164836
2049	393	485351.7	3752134.4	0.00163458	0.001242518
2049	394	485451.7	3752134.4	0.00184928	0.001444735
2049	395	484551.7	3752234.4	0.00144234	0.001126349
2049	396	484651.7	3752234.4	0.001473627	0.001148329
2049	397	484751.7	3752234.4	0.001496568	0.00116218
2049	398	484851.7	3752234.4	0.001516013	0.001172452
2049	399	484951.7	3752234.4	0.00161539	0.001262436
2049	400	485051.7	3752234.4	0.001568001	0.00120522
2049	401	485151.7	3752234.4	0.001609817	0.001236612
2049	402	485251.7	3752234.4	0.001656023	0.001268681
2049	403	485351.7	3752234.4	0.001744825	0.001340437
2049	404	485451.7	3752234.4	0.002006212	0.001585117
2049	405	484551.7	3752334.4	0.00137642	0.001048293
2049	406	484651.7	3752334.4	0.001402623	0.001064916
2049	407	484751.7	3752334.4	0.001428874	0.001081665
2049	408	484851.7	3752334.4	0.001456068	0.001099205
2049	409	484951.7	3752334.4	0.001486183	0.001118959
2049	410	485051.7	3752334.4	0.001516782	0.001139289
2049	411	485151.7	3752334.4	0.001552645	0.001163754
2049	412	485251.7	3752334.4	0.001594992	0.001193738
2049	413	485351.7	3752334.4	0.001653852	0.001237788
2049	414	485451.7	3752334.4	0.001757089	0.001322574
2049	415	484551.7	3752434.4	0.001374057	0.001033906
2049	416	484651.7	3752434.4	0.001400675	0.00105041
2049	417	484751.7	3752434.4	0.001426966	0.001066937
2049	418	484851.7	3752434.4	0.001458117	0.001086799
2049	419	484951.7	3752434.4	0.001488964	0.001106788

2049	420	485051.7	3752434.4	0.001522938	0.001129194
2049	421	485151.7	3752434.4	0.001560259	0.001154198
2049	422	485251.7	3752434.4	0.001601804	0.001182746
2049	423	485351.7	3752434.4	0.001653242	0.001219379
2049	424	485451.7	3752434.4	0.001729627	0.001279192
2049	425	484551.7	3752534.4	0.001401819	0.001049316
2049	426	484651.7	3752534.4	0.001429809	0.001066429
2049	427	484751.7	3752534.4	0.001459488	0.001084859
2049	428	484851.7	3752534.4	0.001491713	0.001105178
2049	429	484951.7	3752534.4	0.00152427	0.00112611
2049	430	485051.7	3752534.4	0.001560829	0.001149939
2049	431	485151.7	3752534.4	0.001599872	0.001175854
2049	432	485251.7	3752534.4	0.001641838	0.001204362
2049	433	485351.7	3752534.4	0.001690709	0.001238524
2049	434	485451.7	3752534.4	0.00176205	0.001293077
2049	435	484551.7	3752634.4	0.001438541	0.001074066
2049	436	484651.7	3752634.4	0.001468059	0.001091822
2049	437	484751.7	3752634.4	0.001499137	0.001110847
2049	438	484851.7	3752634.4	0.001535217	0.00113325
2049	439	484951.7	3752634.4	0.001570908	0.001155938
2049	440	485051.7	3752634.4	0.001610282	0.001181404
2049	441	485151.7	3752634.4	0.001651377	0.001208572
2049	442	485251.7	3752634.4	0.001695229	0.001238247
2049	443	485351.7	3752634.4	0.001745409	0.001273186
2049	444	485451.7	3752634.4	0.001817814	0.001327956
2049	445	484551.7	3752734.4	0.001483352	0.001106832
2049	446	484651.7	3752734.4	0.001516186	0.001126096
2049	447	484751.7	3752734.4	0.001550521	0.001146678
2049	448	484851.7	3752734.4	0.001587292	0.00116924
2049	449	484951.7	3752734.4	0.001626016	0.001193528
2049	450	485051.7	3752734.4	0.001668241	0.001220643
2049	451	485151.7	3752734.4	0.001711712	0.001249267
2049	452	485251.7	3752734.4	0.00175782	0.001280463
2049	453	485351.7	3752734.4	0.001810408	0.001317086
2049	454	485451.7	3752734.4	0.001882636	0.001372065
2049	455	484551.7	3752834.4	0.001534456	0.001146596
2049	456	484651.7	3752834.4	0.001570243	0.001166992
2049	457	484751.7	3752834.4	0.001606119	0.001187866
2049	458	484851.7	3752834.4	0.001647252	0.001212626
2049	459	484951.7	3752834.4	0.001689701	0.001238761
2049	460	485051.7	3752834.4	0.001734221	0.001266916
2049	461	485151.7	3752834.4	0.001780125	0.001296864
2049	462	485251.7	3752834.4	0.001829099	0.001329854
2049	463	485351.7	3752834.4	0.001882997	0.001367863
2049	464	485451.7	3752834.4	0.001957854	0.001425333
2049	465	484551.7	3752934.4	0.001601751	0.001203046
2049	466	484651.7	3752934.4	0.00164048	0.00122451

2049	467	484751.7	3752934.4	0.001679838	0.001246691
2049	468	484851.7	3752934.4	0.001724112	0.001272555
2049	469	484951.7	3752934.4	0.001770055	0.001300051
2049	470	485051.7	3752934.4	0.001818983	0.001330259
2049	471	485151.7	3752934.4	0.00186735	0.001361117
2049	472	485251.7	3752934.4	0.001920264	0.00139627
2049	473	485351.7	3752934.4	0.001973824	0.001433845
2049	474	485451.7	3752934.4	0.002047133	0.001490124
2049	475	484551.7	3753034.4	0.001715618	0.001307625
2049	476	484651.7	3753034.4	0.00176227	0.001335261
2049	477	484751.7	3753034.4	0.001814456	0.001367484
2049	478	484851.7	3753034.4	0.001855514	0.001387618
2049	479	484951.7	3753034.4	0.001903049	0.001414056
2049	480	485051.7	3753034.4	0.00195553	0.001445755
2049	481	485151.7	3753034.4	0.002014561	0.001483999
2049	482	485251.7	3753034.4	0.002115233	0.001564722
2049	483	485351.7	3753034.4	0.002120727	0.001552771
2049	484	485451.7	3753034.4	0.002181446	0.001596507
2049	485	484551.7	3753134.4	0.001687332	0.001270859
2049	486	484651.7	3753134.4	0.00173429	0.001296449
2049	487	484751.7	3753134.4	0.001785371	0.001324848
2049	488	484851.7	3753134.4	0.001837625	0.00135412
2049	489	484951.7	3753134.4	0.001893722	0.001386283
2049	490	485051.7	3753134.4	0.001952738	0.00142104
2049	491	485151.7	3753134.4	0.002013623	0.001457896
2049	492	485251.7	3753134.4	0.002078831	0.001499391
2049	493	485351.7	3753134.4	0.002146062	0.001544987
2049	494	485451.7	3753134.4	0.002226377	0.001605705
2049	495	484551.7	3753234.4	0.001710402	0.001286521
2049	496	484651.7	3753234.4	0.001761812	0.001314088
2049	497	484751.7	3753234.4	0.001815975	0.001343414
2049	498	484851.7	3753234.4	0.001873055	0.001374714
2049	499	484951.7	3753234.4	0.001934588	0.001409086
2049	500	485051.7	3753234.4	0.002000977	0.001447239
2049	501	485151.7	3753234.4	0.002070191	0.001487989
2049	502	485251.7	3753234.4	0.00214474	0.001533638
2049	503	485351.7	3753234.4	0.002223326	0.001584671
2049	504	485451.7	3753234.4	0.00231898	0.00165487
2049	505	484551.7	3753334.4	0.001749836	0.001319961
2049	506	484651.7	3753334.4	0.001804365	0.001348842
2049	507	484751.7	3753334.4	0.001861251	0.001378912
2049	508	484851.7	3753334.4	0.001925027	0.001413483
2049	509	484951.7	3753334.4	0.001990743	0.00144911
2049	510	485051.7	3753334.4	0.002063278	0.001489422
2049	511	485151.7	3753334.4	0.002141295	0.001533966
2049	512	485251.7	3753334.4	0.002229989	0.001586604
2049	513	485351.7	3753334.4	0.002326635	0.001646844

2049	514	485451.7	3753334.4	0.002441918	0.0017269
2049	515	484551.7	3753434.4	0.001791726	0.001359032
2049	516	484651.7	3753434.4	0.001848842	0.001389154
2049	517	484751.7	3753434.4	0.001909309	0.001420715
2049	518	484851.7	3753434.4	0.001977124	0.00145699
2049	519	484951.7	3753434.4	0.002048261	0.001494284
2049	520	485051.7	3753434.4	0.002126433	0.001536252
2049	521	485151.7	3753434.4	0.002215529	0.001586236
2049	522	485251.7	3753434.4	0.002317732	0.001645499
2049	523	485351.7	3753434.4	0.002433163	0.001715569
2049	524	485451.7	3753434.4	0.00258071	0.00181406
2049	525	484551.7	3753534.4	0.001834271	0.001401772
2049	526	484651.7	3753534.4	0.001889351	0.001429249
2049	527	484751.7	3753534.4	0.001951536	0.001461171
2049	528	484851.7	3753534.4	0.002026173	0.001502069
2049	529	484951.7	3753534.4	0.00210231	0.001542131
2049	530	485051.7	3753534.4	0.002186094	0.001586561
2049	531	485151.7	3753534.4	0.00228372	0.001640541
2049	532	485251.7	3753534.4	0.002397312	0.001705771
2049	533	485351.7	3753534.4	0.00253218	0.001786736
2049	534	485451.7	3753534.4	0.002708557	0.001902665
2049	535	484551.7	3753634.4	0.001877063	0.001447138
2049	536	484651.7	3753634.4	0.001934776	0.001476223
2049	537	484751.7	3753634.4	0.002000177	0.001510122
2049	538	484851.7	3753634.4	0.002073708	0.001548936
2049	539	484951.7	3753634.4	0.002154732	0.001591924
2049	540	485051.7	3753634.4	0.002243852	0.001639563
2049	541	485151.7	3753634.4	0.002346954	0.001696693
2049	542	485251.7	3753634.4	0.002467347	0.001766469
2049	543	485351.7	3753634.4	0.002608998	0.001852946
2049	544	485451.7	3753634.4	0.002796159	0.001980042
2049	545	484551.7	3753734.4	0.001934299	0.001509715
2049	546	484651.7	3753734.4	0.001991163	0.001537158
2049	547	484751.7	3753734.4	0.00205413	0.001567525
2049	548	484851.7	3753734.4	0.002123749	0.001601175
2049	549	484951.7	3753734.4	0.0022069	0.001644798
2049	550	485051.7	3753734.4	0.002301359	0.001695531
2049	551	485151.7	3753734.4	0.002408853	0.001754781
2049	552	485251.7	3753734.4	0.002533232	0.001826116
2049	553	485351.7	3753734.4	0.002681382	0.001916507
2049	554	485451.7	3753734.4	0.002875536	0.002049607
2049	555	484551.7	3753834.4	0.001993158	0.001576913
2049	556	484651.7	3753834.4	0.002047351	0.001601491
2049	557	484751.7	3753834.4	0.002110471	0.001631739
2049	558	484851.7	3753834.4	0.002181027	0.001665539
2049	559	484951.7	3753834.4	0.002265921	0.001709602
2049	560	485051.7	3753834.4	0.002359809	0.001757485

2049	561	485151.7	3753834.4	0.002468271	0.001814695
2049	562	485251.7	3753834.4	0.002599845	0.001889462
2049	563	485351.7	3753834.4	0.00275538	0.001982722
2049	564	485451.7	3753834.4	0.002959871	0.002119668
2049	565	484551.7	3753934.4	0.002057964	0.001652498
2049	566	484651.7	3753934.4	0.002115125	0.00168019
2049	567	484751.7	3753934.4	0.00216924	0.001700941
2049	568	484851.7	3753934.4	0.002241081	0.001736206
2049	569	484951.7	3753934.4	0.002325125	0.001779229
2049	570	485051.7	3753934.4	0.002421929	0.001829895
2049	571	485151.7	3753934.4	0.002533649	0.001889484
2049	572	485251.7	3753934.4	0.002665218	0.001962212
2049	573	485351.7	3753934.4	0.002824593	0.002054876
2049	574	485451.7	3753934.4	0.003036929	0.002191879
2049	575	484551.7	3754034.4	0.002134061	0.001744042
2049	576	484651.7	3754034.4	0.002164441	0.00174111
2049	577	484751.7	3754034.4	0.002233019	0.001777893
2049	578	484851.7	3754034.4	0.002308684	0.001817367
2049	579	484951.7	3754034.4	0.002391473	0.0018593
2049	580	485051.7	3754034.4	0.002485474	0.001907343
2049	581	485151.7	3754034.4	0.002595727	0.001965697
2049	582	485251.7	3754034.4	0.00272772	0.002039071
2049	583	485351.7	3754034.4	0.002888299	0.002133606
2049	584	485451.7	3754034.4	0.003102403	0.00227432
2049	585	484551.7	3754134.4	0.002186274	0.001807139
2049	586	484651.7	3754134.4	0.002225021	0.001815615
2049	587	484751.7	3754134.4	0.002293936	0.001854061
2049	588	484851.7	3754134.4	0.002375554	0.001901776
2049	589	484951.7	3754134.4	0.002457415	0.001943255
2049	590	485051.7	3754134.4	0.002553067	0.001992794
2049	591	485151.7	3754134.4	0.002664673	0.002052706
2049	592	485251.7	3754134.4	0.002796993	0.002127144
2049	593	485351.7	3754134.4	0.00295868	0.002223219
2049	594	485451.7	3754134.4	0.003172011	0.002363175
2049	595	484551.7	3754234.4	0.002240663	0.001872713
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2049	597	484751.7	3754234.4	0.002363842	0.001940994
2049	598	484851.7	3754234.4	0.002446119	0.001991594
2049	599	484951.7	3754234.4	0.002530731	0.002038242
2049	600	485051.7	3754234.4	0.002624803	0.002088277
2049	601	485151.7	3754234.4	0.002735868	0.00214918
2049	602	485251.7	3754234.4	0.00286773	0.00222367
2049	603	485351.7	3754234.4	0.003029111	0.002319229
2049	604	485451.7	3754234.4	0.00324325	0.002459568
2049	605	484551.7	3754334.4	0.002319381	0.001965274
2049	606	484651.7	3754334.4	0.002383308	0.002006268
2049	607	484751.7	3754334.4	0.002455562	0.002052936

2049	608	484851.7	3754334.4	0.002529848	0.002096785
2049	609	484951.7	3754334.4	0.002613682	0.002145331
2049	610	485051.7	3754334.4	0.002708685	0.002199202
2049	611	485151.7	3754334.4	0.002818094	0.002261127
2049	612	485251.7	3754334.4	0.002948876	0.002337852
2049	613	485351.7	3754334.4	0.003105414	0.002433595
2049	614	485451.7	3754334.4	0.003295493	0.002555144
2049	615	484551.7	3754434.4	0.002466948	0.002134251
2049	616	484651.7	3754434.4	0.002513144	0.002157251
2049	617	484751.7	3754434.4	0.00257021	0.002189104
2049	618	484851.7	3754434.4	0.002635733	0.002225749
2049	619	484951.7	3754434.4	0.002715329	0.002272607
2049	620	485051.7	3754434.4	0.002807268	0.002326432
2049	621	485151.7	3754434.4	0.0029154	0.002390492
2049	622	485251.7	3754434.4	0.003043715	0.002468005
2049	623	485351.7	3754434.4	0.00319795	0.002564289
2049	624	485451.7	3754434.4	0.003387155	0.002688871
2049	625	484551.7	3754534.4	0.002641132	0.002327165
2049	626	484651.7	3754534.4	0.002686088	0.002351475
2049	627	484751.7	3754534.4	0.002725027	0.002366095
2049	628	484851.7	3754534.4	0.002773038	0.00238861
2049	629	484951.7	3754534.4	0.002842577	0.002428131
2049	630	485051.7	3754534.4	0.002929537	0.002479577
2049	631	485151.7	3754534.4	0.003035137	0.002543871
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2049	635	484551.7	3754634.4	0.002802756	0.00250701
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2049	637	484751.7	3754634.4	0.002899832	0.002564488
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2049	639	484951.7	3754634.4	0.002995686	0.002611829
2049	640	485051.7	3754634.4	0.003077688	0.0026629
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2049	642	485251.7	3754634.4	0.003303422	0.002809311
2049	643	485351.7	3754634.4	0.003456635	0.002910261
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2049	645	484551.7	3754734.4	0.002978054	0.002698924
2049	646	484651.7	3754734.4	0.003018031	0.002722379
2049	647	484751.7	3754734.4	0.003064686	0.002751352
2049	648	484851.7	3754734.4	0.003120789	0.002788199
2049	649	484951.7	3754734.4	0.003188652	0.002833756
2049	650	485051.7	3754734.4	0.003270037	0.002888999
2049	651	485151.7	3754734.4	0.003368486	0.00295669
2049	652	485251.7	3754734.4	0.003490168	0.003042657
2049	653	485351.7	3754734.4	0.003643485	0.0031557
2049	654	485451.7	3754734.4	0.003840616	0.003306472

2049	655	484551.7	3754834.4	0.003242658	0.002979317
2049	656	484651.7	3754834.4	0.003285329	0.003008528
2049	657	484751.7	3754834.4	0.003333217	0.003041133
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2049	659	484951.7	3754834.4	0.003454875	0.003126139
2049	660	485051.7	3754834.4	0.003533567	0.00318294
2049	661	485151.7	3754834.4	0.003631038	0.003255403
2049	662	485251.7	3754834.4	0.003755515	0.003351331
2049	663	485351.7	3754834.4	0.003922464	0.003487445
2049	664	485451.7	3754834.4	0.004140971	0.003671542
2049	665	484551.7	3754934.4	0.003634536	0.00338655
2049	666	484651.7	3754934.4	0.003674978	0.003415274
2049	667	484751.7	3754934.4	0.003720486	0.003447449
2049	668	484851.7	3754934.4	0.003772977	0.003484859
2049	669	484951.7	3754934.4	0.003836569	0.003531869
2049	670	485051.7	3754934.4	0.003910227	0.003586716
2049	671	485151.7	3754934.4	0.004006419	0.003662433
2049	672	485251.7	3754934.4	0.004134273	0.003767131
2049	673	485351.7	3754934.4	0.004333918	0.003942243
2049	674	485451.7	3754934.4	0.004702267	0.004283123
2049	675	484551.7	3755034.4	0.004219462	0.003985179
2049	676	484651.7	3755034.4	0.004255692	0.004011236
2049	677	484751.7	3755034.4	0.004294449	0.004038013
2049	678	484851.7	3755034.4	0.004346369	0.004077414
2049	679	484951.7	3755034.4	0.004407037	0.004123743
2049	680	485051.7	3755034.4	0.004481581	0.004182307
2049	681	485151.7	3755034.4	0.004574177	0.004257259
2049	682	485251.7	3755034.4	0.004703021	0.004367231
2049	683	485351.7	3755034.4	0.004910749	0.004554369
2049	684	485451.7	3755034.4	0.005501719	0.005122284
2049	685	485549.5	3750934.9	0.000381408	0.000286398
2049	686	485649.5	3750934.9	0.000376802	0.00028247
2049	687	485749.5	3750934.9	0.000373905	0.000280085
2049	688	485849.5	3750934.9	0.000369327	0.000276267
2049	689	485549.5	3751034.9	0.000402374	0.000302286
2049	690	485649.5	3751034.9	0.000396166	0.000296938
2049	691	485749.5	3751034.9	0.000393503	0.000294719
2049	692	485849.5	3751034.9	0.000389964	0.000291775
2049	693	485549.5	3751134.9	0.000425468	0.000320068
2049	694	485649.5	3751134.9	0.000418729	0.000314191
2049	695	485749.5	3751134.9	0.000415753	0.000311674
2049	696	485849.5	3751134.9	0.000411351	0.000307938
2049	697	485549.5	3751234.9	0.000452898	0.000341689
2049	698	485649.5	3751234.9	0.000444221	0.000334028
2049	699	485749.5	3751234.9	0.000440756	0.000331036
2049	700	485849.5	3751234.9	0.000439925	0.000330468
2049	701	485549.5	3751334.9	0.000482122	0.000364898

2049	702	485649.5	3751334.9	0.000475505	0.000358979
2049	703	485749.5	3751334.9	0.000470137	0.000354265
2049	704	485849.5	3751334.9	0.000473821	0.00035779
2049	705	485549.5	3751434.9	0.000522869	0.000398477
2049	706	485649.5	3751434.9	0.000518805	0.000394748
2049	707	485749.5	3751434.9	0.000507386	0.00038446
2049	708	485849.5	3751434.9	0.000522982	0.000398924
2049	709	485549.5	3751534.9	0.000654594	0.000514071
2049	710	485649.5	3751534.9	0.000638801	0.000499731
2049	711	485749.5	3751534.9	0.000580121	0.000446876
2049	712	485849.5	3751534.9	0.000569107	0.000437031
2049	713	485549.5	3751634.9	0.001009894	0.000803943
2049	714	485649.5	3751634.9	0.000853953	0.000681468
2049	715	485749.5	3751634.9	0.000795791	0.000633331
2049	716	485849.5	3751634.9	0.00061185	0.000471853
2049	717	485549.5	3751734.9	0.001247554	0.000980651
2049	718	485649.5	3751734.9	0.001192698	0.000943849
2049	719	485749.5	3751734.9	0.001061267	0.000846565
2049	720	485849.5	3751734.9	0.000748065	0.000590538
2049	721	485549.5	3751834.9	0.001423585	0.00112109
2049	722	485649.5	3751834.9	0.001350044	0.001063201
2049	723	485749.5	3751834.9	0.001292025	0.001021026
2049	724	485849.5	3751834.9	0.001103141	0.000882625
2049	725	485549.5	3751934.9	0.001652881	0.001311622
2049	726	485649.5	3751934.9	0.001514799	0.00118527
2049	727	485749.5	3751934.9	0.001473871	0.00115035
2049	728	485849.5	3751934.9	0.001418527	0.001111805
2049	729	485549.5	3752034.9	0.001913952	0.001532891
2049	730	485649.5	3752034.9	0.001679936	0.001308415
2049	731	485749.5	3752034.9	0.001644047	0.001277913
2049	732	485849.5	3752034.9	0.001610713	0.0012578
2049	733	485549.5	3752134.9	0.001969271	0.001556215
2049	734	485649.5	3752134.9	0.00191735	0.001499243
2049	735	485749.5	3752134.9	0.001923089	0.001505909
2049	736	485849.5	3752134.9	0.001935394	0.001527596
2049	737	485549.5	3752234.9	0.002209253	0.001773399
2049	738	485649.5	3752234.9	0.002276635	0.00182918
2049	739	485749.5	3752234.9	0.002368736	0.00191246
2049	740	485849.5	3752234.9	0.002439675	0.001983816
2049	741	485549.5	3752334.9	0.001850101	0.001396992
2049	742	485649.5	3752334.9	0.001895656	0.001424482
2049	743	485749.5	3752334.9	0.001957252	0.00147074
2049	744	485849.5	3752334.9	0.002028742	0.001530912
2049	745	485549.5	3752434.9	0.001794472	0.001324626
2049	746	485649.5	3752434.9	0.00182665	0.001337114
2049	747	485749.5	3752434.9	0.001882293	0.001371805
2049	748	485849.5	3752434.9	0.001954887	0.00142284

2049	749	485549.5	3752534.9	0.001822519	0.00133457
2049	750	485649.5	3752534.9	0.00185133	0.001342231
2049	751	485749.5	3752534.9	0.001907756	0.001375517
2049	752	485849.5	3752534.9	0.001978763	0.001421248
2049	753	485549.5	3752634.9	0.001880855	0.001371813
2049	754	485649.5	3752634.9	0.001910884	0.001379303
2049	755	485749.5	3752634.9	0.001967672	0.001412109
2049	756	485849.5	3752634.9	0.002038557	0.00145584
2049	757	485549.5	3752734.9	0.001953399	0.001422491
2049	758	485649.5	3752734.9	0.001986089	0.001431634
2049	759	485749.5	3752734.9	0.002050619	0.001469412
2049	760	485849.5	3752734.9	0.002129544	0.001517696
2049	761	485549.5	3752834.9	0.002033894	0.001481518
2049	762	485649.5	3752834.9	0.002069403	0.001493384
2049	763	485749.5	3752834.9	0.002143987	0.001539441
2049	764	485849.5	3752834.9	0.00223422	0.001596148
2049	765	485549.5	3752934.9	0.002125289	0.001549419
2049	766	485649.5	3752934.9	0.002162579	0.001563807
2049	767	485749.5	3752934.9	0.002246546	0.00162032
2049	768	485849.5	3752934.9	0.002356775	0.001695749
2049	769	485549.5	3753034.9	0.002242012	0.001638611
2049	770	485649.5	3753034.9	0.00226017	0.001635901
2049	771	485749.5	3753034.9	0.002355235	0.001704743
2049	772	485849.5	3753034.9	0.002493296	0.001811424
2049	773	485549.5	3753134.9	0.002284072	0.001644917
2049	774	485649.5	3753134.9	0.002355896	0.00169816
2049	775	485749.5	3753134.9	0.002457885	0.001778786
2049	776	485849.5	3753134.9	0.002614922	0.001910057
2049	777	485549.5	3753234.9	0.002390153	0.001705256
2049	778	485649.5	3753234.9	0.002465506	0.001764755
2049	779	485749.5	3753234.9	0.002565761	0.001850794
2049	780	485849.5	3753234.9	0.002726467	0.001993194
2049	781	485549.5	3753334.9	0.002552748	0.001807315
2049	782	485649.5	3753334.9	0.002613069	0.001847051
2049	783	485749.5	3753334.9	0.002705472	0.001931871
2049	784	485849.5	3753334.9	0.00285173	0.002074119
2049	785	485549.5	3753434.9	0.002734212	0.001918728
2049	786	485649.5	3753434.9	0.002833638	0.001976921
2049	787	485749.5	3753434.9	0.002943824	0.002069103
2049	788	485849.5	3753434.9	0.003067125	0.00220911
2049	789	485508.5	3746711.3	0.000243354	0.00020122
2049	790	491508.5	3746711.3	0.000169864	0.000140836
2049	791	479508.5	3752711.3	0.000851823	0.000773514
2049	792	485508.5	3752711.3	0.001895189	0.001378055
2049	793	491508.5	3752711.3	0.001567461	0.001036188
2049	794	485508.5	3758711.3	0.00043243	0.000401466
2049	795	491508.5	3758711.3	0.000183346	0.000159375

2049	796	485921.9	3750934.2	0.000365028	0.000272701
2049	797	486021.9	3750934.2	0.000360418	0.000268932
2049	798	486121.9	3750934.2	0.000357923	0.00026707
2049	799	485921.9	3751034.2	0.000384631	0.000287232
2049	800	486021.9	3751034.2	0.000377898	0.000281551
2049	801	486121.9	3751034.2	0.00037402	0.000278405
2049	802	485921.9	3751134.2	0.000406955	0.000304179
2049	803	486021.9	3751134.2	0.000399493	0.000297785
2049	804	486121.9	3751134.2	0.000393681	0.000292847
2049	805	485921.9	3751234.2	0.000432798	0.00032423
2049	806	486021.9	3751234.2	0.000424621	0.00031711
2049	807	486121.9	3751234.2	0.000417409	0.00031087
2049	808	485921.9	3751334.2	0.000464403	0.000349418
2049	809	486021.9	3751334.2	0.000454997	0.000341098
2049	810	486121.9	3751334.2	0.000444613	0.000331926
2049	811	485921.9	3751434.2	0.000507596	0.000385075
2049	812	486021.9	3751434.2	0.0004912	0.000370314
2049	813	486121.9	3751434.2	0.000477666	0.000358177
2049	814	485921.9	3751534.2	0.000553763	0.000423265
2049	815	486021.9	3751534.2	0.000542648	0.000413375
2049	816	486121.9	3751534.2	0.000519194	0.000392079
2049	817	485921.9	3751634.2	0.000593219	0.000455051
2049	818	486021.9	3751634.2	0.000633392	0.000491781
2049	819	486121.9	3751634.2	0.000584532	0.000447697
2049	820	485921.9	3751734.2	0.000679013	0.000528765
2049	821	486021.9	3751734.2	0.000778367	0.000616779
2049	822	486121.9	3751734.2	0.000659997	0.000512079
2049	823	485921.9	3751834.2	0.000866478	0.000691228
2049	824	486021.9	3751834.2	0.000872214	0.000695631
2049	825	486121.9	3751834.2	0.000693402	0.000537748
2049	826	485921.9	3751934.2	0.001294056	0.001034312
2049	827	486021.9	3751934.2	0.001078493	0.000866571
2049	828	486121.9	3751934.2	0.000879039	0.000698955
2049	829	485921.9	3752034.2	0.001535784	0.001210919
2049	830	486021.9	3752034.2	0.001324917	0.001068299
2049	831	486121.9	3752034.2	0.001206381	0.000975352
2049	832	485921.9	3752134.2	0.001953025	0.001557591
2049	833	486021.9	3752134.2	0.001902123	0.001537501
2049	834	486121.9	3752134.2	0.00163049	0.001323345
2049	835	485921.9	3752234.2	0.002480435	0.002033643
2049	836	486021.9	3752234.2	0.002589538	0.00215299
2049	837	486121.9	3752234.2	0.002390124	0.001971573
2049	838	485921.9	3752334.2	0.0020821	0.00157883
2049	839	486021.9	3752334.2	0.002195372	0.001692959
2049	840	486121.9	3752334.2	0.002539709	0.002039301
2049	841	485921.9	3752434.2	0.002021294	0.001478324
2049	842	486021.9	3752434.2	0.002132857	0.001577631

2049	843	486121.9	3752434.2	0.002320376	0.001752716
2049	844	485921.9	3752534.2	0.002044178	0.001466591
2049	845	486021.9	3752534.2	0.00213993	0.001538946
2049	846	486121.9	3752534.2	0.002267798	0.001644881
2049	847	485921.9	3752634.2	0.002097036	0.001494003
2049	848	486021.9	3752634.2	0.002186288	0.001556481
2049	849	486121.9	3752634.2	0.002296269	0.00164047
2049	850	485921.9	3752734.2	0.002191812	0.001557032
2049	851	486021.9	3752734.2	0.002291617	0.001623302
2049	852	486121.9	3752734.2	0.002407619	0.001706739
2049	853	485921.9	3752834.2	0.002309887	0.001643694
2049	854	486021.9	3752834.2	0.002431122	0.001722218
2049	855	486121.9	3752834.2	0.002573458	0.001820611
2049	856	485921.9	3752934.2	0.002446021	0.001755807
2049	857	486021.9	3752934.2	0.002597274	0.001856282
2049	858	486121.9	3752934.2	0.002807017	0.002005958
2049	859	487026.2	3754364	0.009710497	0.00841767

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
1	489607.44	3753966.11	**4.97**	**1.09**	4.07	0.63	0.90	0.46
2	489738.71	3754023.94	**4.40**	**0.97**	3.59	0.54	0.81	0.43
3	489668.94	3754093.71	**4.20**	**0.94**	3.43	0.51	0.77	0.43
4	489690.06	3754161.63	**4.08**	**0.91**	3.34	0.50	0.74	0.42
5	490282.16	3753425.19	**4.56**	**1.15**	3.55	0.63	1.00	0.52
6	489797.34	3754554.12	**3.55**	**0.79**	2.94	0.43	0.60	0.35
7	490252.94	3754378.21	**3.21**	**0.71**	2.66	0.39	0.55	0.32
8	489005.95	3754140.34	**7.15**	**1.68**	5.87	0.93	1.29	0.75
9	485642.82	3754267.27	**19.17**	**3.31**	17.75	2.46	1.41	0.85
10	485736.41	3754259.47	**22.13**	**3.81**	20.55	2.86	1.57	0.95
11	487189.19	3754820.49	**31.75**	**6.62**	28.51	4.42	3.24	2.20
12	487233.13	3754689.54	**30.65**	**5.99**	28.02	4.28	2.63	1.71
13	487216.79	3754364.72	**36.76**	**7.60**	32.85	4.92	3.91	2.68
31	489635.18	3750663.82	**1.18**	**0.24**	1.04	0.16	0.14	0.08
32	485424.11	3747672.3	**0.69**	**0.15**	0.59	0.09	0.09	0.06
33	482657.64	3753975.1	**2.30**	**0.57**	1.84	0.26	0.47	0.31
34	481494.96	3754633.66	**1.61**	**0.55**	1.03	0.14	0.57	0.41
35	481148.72	3756136.18	**1.01**	**0.38**	0.60	0.08	0.41	0.30
36	482346.53	3748872.86	**0.75**	**0.15**	0.68	0.10	0.07	0.04
37	480298.98	3751198.04	**1.13**	**0.27**	0.91	0.13	0.21	0.14
38	479598.7	3756506.31	**0.74**	**0.27**	0.46	0.06	0.28	0.20
39	478997.81	3753535.19	**0.97**	**0.36**	0.59	0.09	0.38	0.27
40	478978.31	3755233.1	**1.69**	**0.93**	0.53	0.08	1.16	0.86
41	479197.34	3754462.34	**1.06**	**0.45**	0.55	0.08	0.51	0.37
42	479493.25	3752408.79	**0.99**	**0.29**	0.73	0.11	0.27	0.18
43	480295.38	3752408.38	**1.12**	**0.30**	0.87	0.13	0.26	0.17
44	480287.9	3754227.46	**1.12**	**0.37**	0.74	0.11	0.38	0.27
45	494397.38	3753977.58	**1.20**	**0.29**	0.97	0.15	0.23	0.14
46	481108.51	3750699.02	**1.28**	**0.29**	1.06	0.15	0.22	0.14
47	486794.14	3756878.03	**1.05**	**0.27**	0.84	0.12	0.21	0.15
48	482344.95	3752065.79	**1.84**	**0.40**	1.55	0.22	0.29	0.18
49	487553.03	3745938.31	**0.44**	**0.09**	0.38	0.06	0.06	0.04
50	484553.03	3746938.31	**0.47**	**0.11**	0.40	0.06	0.08	0.05
51	485553.03	3746938.31	**0.58**	**0.12**	0.50	0.07	0.08	0.05
52	486553.03	3746938.31	**0.37**	**0.09**	0.31	0.05	0.06	0.04
53	487553.03	3746938.31	**0.54**	**0.11**	0.47	0.07	0.07	0.04
54	488553.03	3746938.31	**0.50**	**0.10**	0.43	0.06	0.06	0.04
55	489553.03	3746938.31	**0.48**	**0.10**	0.42	0.06	0.06	0.04
56	490553.03	3746938.31	**0.44**	**0.09**	0.39	0.06	0.06	0.04
57	491553.03	3746938.31	**0.41**	**0.09**	0.36	0.05	0.06	0.04
58	492553.03	3746938.31	**0.38**	**0.08**	0.33	0.05	0.05	0.03
59	482553.03	3747938.31	**0.57**	**0.12**	0.50	0.08	0.07	0.04
60	483553.03	3747938.31	**0.75**	**0.17**	0.64	0.10	0.11	0.07

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
61	484553.03	3747938.31	**0.75**	**0.16**	0.64	0.10	0.11	0.07
62	485553.03	3747938.31	**0.73**	**0.15**	0.63	0.09	0.10	0.06
63	486553.03	3747938.31	**0.61**	**0.14**	0.51	0.08	0.09	0.06
64	487553.03	3747938.31	**0.37**	**0.09**	0.31	0.05	0.06	0.04
65	488553.03	3747938.31	**0.61**	**0.13**	0.53	0.08	0.08	0.05
66	489553.03	3747938.31	**0.57**	**0.12**	0.50	0.07	0.07	0.05
67	490553.03	3747938.31	**0.53**	**0.11**	0.46	0.07	0.07	0.04
68	491553.03	3747938.31	**0.48**	**0.10**	0.42	0.06	0.07	0.04
69	492553.03	3747938.31	**0.44**	**0.10**	0.38	0.06	0.06	0.04
70	493553.03	3747938.31	**0.41**	**0.09**	0.35	0.05	0.06	0.04
71	481553.03	3748938.31	**1.27**	**0.26**	1.12	0.16	0.15	0.09
72	482553.03	3748938.31	**0.76**	**0.15**	0.68	0.10	0.08	0.05
73	483553.03	3748938.31	**0.93**	**0.20**	0.80	0.12	0.13	0.08
74	484553.03	3748938.31	**0.90**	**0.20**	0.76	0.12	0.13	0.08
75	485553.03	3748938.31	**0.82**	**0.19**	0.69	0.11	0.13	0.08
76	486553.03	3748938.31	**0.77**	**0.17**	0.65	0.10	0.12	0.07
77	487553.03	3748938.31	**0.53**	**0.13**	0.44	0.07	0.09	0.06
78	488553.03	3748938.31	**0.78**	**0.16**	0.69	0.10	0.10	0.06
79	489553.03	3748938.31	**0.71**	**0.15**	0.62	0.09	0.09	0.05
80	490553.03	3748938.31	**0.64**	**0.13**	0.56	0.08	0.08	0.05
81	491553.03	3748938.31	**0.57**	**0.12**	0.50	0.07	0.08	0.05
82	492553.03	3748938.31	**0.52**	**0.11**	0.44	0.07	0.08	0.05
83	493553.03	3748938.31	**0.48**	**0.11**	0.41	0.06	0.08	0.05
84	494553.03	3748938.31	**0.48**	**0.13**	0.38	0.06	0.10	0.07
85	480553.03	3749938.31	**1.16**	**0.30**	0.91	0.13	0.25	0.17
86	481553.03	3749938.31	**1.36**	**0.30**	1.15	0.17	0.21	0.13
87	482553.03	3749938.31	**1.67**	**0.34**	1.46	0.21	0.20	0.12
88	483553.03	3749938.31	**1.51**	**0.31**	1.31	0.19	0.20	0.12
89	484553.03	3749938.31	**1.05**	**0.23**	0.91	0.14	0.14	0.09
90	485553.03	3749938.31	**0.83**	**0.19**	0.72	0.12	0.11	0.07
91	486553.03	3749938.31	**0.84**	**0.20**	0.70	0.12	0.14	0.08
92	487553.03	3749938.31	**0.89**	**0.21**	0.75	0.12	0.14	0.09
93	488553.03	3749938.31	**1.06**	**0.21**	0.93	0.14	0.12	0.07
94	489553.03	3749938.31	**0.93**	**0.19**	0.82	0.12	0.11	0.07
95	490553.03	3749938.31	**0.81**	**0.17**	0.71	0.11	0.11	0.06
96	491553.03	3749938.31	**0.71**	**0.15**	0.61	0.09	0.10	0.06
97	492553.03	3749938.31	**0.65**	**0.14**	0.55	0.08	0.10	0.06
98	493553.03	3749938.31	**0.63**	**0.15**	0.51	0.08	0.11	0.07
99	494553.03	3749938.31	**0.58**	**0.13**	0.49	0.08	0.09	0.05
100	495553.03	3749938.31	**0.43**	**0.10**	0.36	0.06	0.07	0.05
101	480553.03	3750938.31	**1.17**	**0.27**	0.96	0.14	0.21	0.14
102	481553.03	3750938.31	**1.41**	**0.31**	1.18	0.17	0.23	0.14
103	482553.03	3750938.31	**1.69**	**0.36**	1.44	0.21	0.25	0.15

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
104	483553.03	3750938.31	**1.94**	**0.41**	1.66	0.23	0.28	0.17
105	484553.03	3750938.31	**2.13**	**0.43**	1.86	0.27	0.27	0.16
106	485553.03	3750938.31	**1.20**	**0.24**	1.08	0.17	0.12	0.07
107	486553.03	3750938.31	**1.01**	**0.21**	0.91	0.15	0.11	0.06
108	487553.03	3750938.31	**1.05**	**0.25**	0.88	0.15	0.17	0.10
109	488553.03	3750938.31	**1.62**	**0.32**	1.44	0.22	0.18	0.10
110	489553.03	3750938.31	**1.35**	**0.28**	1.19	0.19	0.16	0.09
111	490553.03	3750938.31	**1.12**	**0.24**	0.98	0.16	0.15	0.08
112	491553.03	3750938.31	**0.96**	**0.21**	0.83	0.13	0.14	0.08
113	492553.03	3750938.31	**0.91**	**0.21**	0.75	0.12	0.16	0.10
114	493553.03	3750938.31	**0.78**	**0.18**	0.65	0.10	0.13	0.08
115	494553.03	3750938.31	**0.76**	**0.17**	0.63	0.10	0.13	0.07
116	495553.03	3750938.31	**0.71**	**0.16**	0.58	0.09	0.12	0.07
117	479553.03	3751938.31	**1.01**	**0.28**	0.76	0.11	0.25	0.17
118	480553.03	3751938.31	**1.19**	**0.30**	0.95	0.14	0.24	0.16
119	481553.03	3751938.31	**1.48**	**0.34**	1.23	0.18	0.26	0.16
120	482553.03	3751938.31	**1.93**	**0.41**	1.64	0.23	0.29	0.18
121	483553.03	3751938.31	**2.51**	**0.50**	2.19	0.31	0.33	0.20
122	484553.03	3751938.31	**3.12**	**0.60**	2.73	0.38	0.39	0.23
123	485553.03	3751938.31	**3.85**	**0.79**	3.31	0.46	0.54	0.33
124	486553.03	3751938.31	**2.20**	**0.42**	2.00	0.30	0.21	0.12
125	487553.03	3751938.31	**2.49**	**0.54**	2.16	0.34	0.33	0.20
126	488553.03	3751938.31	**3.20**	**0.62**	2.84	0.44	0.35	0.18
127	489553.03	3751938.31	**2.73**	**0.60**	2.41	0.44	0.32	0.16
128	490553.03	3751938.31	**2.20**	**0.50**	1.93	0.36	0.27	0.14
129	491553.03	3751938.31	**1.68**	**0.40**	1.39	0.24	0.30	0.16
130	492553.03	3751938.31	**1.37**	**0.30**	1.14	0.19	0.23	0.11
131	493553.03	3751938.31	**1.15**	**0.27**	0.95	0.15	0.21	0.12
132	494553.03	3751938.31	**1.06**	**0.25**	0.87	0.14	0.19	0.11
133	495553.03	3751938.31	**0.95**	**0.22**	0.78	0.12	0.17	0.10
134	479553.03	3752938.31	**1.00**	**0.31**	0.70	0.10	0.30	0.21
135	480553.03	3752938.31	**1.18**	**0.33**	0.88	0.13	0.30	0.20
136	481553.03	3752938.31	**1.49**	**0.38**	1.16	0.17	0.32	0.22
137	482553.03	3752938.31	**1.99**	**0.46**	1.63	0.23	0.36	0.23
138	483553.03	3752938.31	**2.89**	**0.60**	2.47	0.35	0.42	0.26
139	484553.03	3752938.31	**4.53**	**0.85**	4.01	0.55	0.52	0.30
140	485553.03	3752938.31	**7.25**	**1.26**	6.55	0.86	0.71	0.40
146	491553.03	3752938.31	**2.42**	**0.57**	1.94	0.32	0.48	0.25
147	492553.03	3752938.31	**1.96**	**0.44**	1.59	0.25	0.37	0.19
148	493553.03	3752938.31	**1.59**	**0.37**	1.28	0.20	0.31	0.17
149	494553.03	3752938.31	**1.34**	**0.32**	1.08	0.17	0.26	0.15
150	495553.03	3752938.31	**1.11**	**0.27**	0.90	0.14	0.21	0.13
151	479553.03	3753938.31	**0.97**	**0.33**	0.63	0.09	0.34	0.24

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
152	480553.03	3753938.31	**1.14**	**0.36**	0.79	0.11	0.35	0.24
153	481553.03	3753938.31	**1.64**	**0.45**	1.24	0.18	0.40	0.27
154	482553.03	3753938.31	**2.22**	**0.55**	1.77	0.25	0.45	0.30
155	483553.03	3753938.31	**3.25**	**0.75**	2.69	0.37	0.56	0.38
156	484553.03	3753938.31	**6.19**	**1.17**	5.51	0.76	0.67	0.42
161	489553.03	3753938.31	**5.31**	**1.18**	4.36	0.70	0.95	0.48
162	490553.03	3753938.31	**3.03**	**0.69**	2.45	0.37	0.58	0.32
163	491553.03	3753938.31	**2.10**	**0.50**	1.70	0.26	0.41	0.24
164	492553.03	3753938.31	**1.70**	**0.41**	1.37	0.21	0.33	0.20
165	493553.03	3753938.31	**1.40**	**0.34**	1.13	0.17	0.27	0.17
166	494553.03	3753938.31	**1.24**	**0.31**	0.99	0.15	0.25	0.15
167	495553.03	3753938.31	**1.03**	**0.25**	0.83	0.13	0.20	0.12
168	479553.03	3754938.31	**1.23**	**0.53**	0.62	0.09	0.61	0.45
169	480553.03	3754938.31	**1.42**	**0.58**	0.77	0.11	0.65	0.47
170	481553.03	3754938.31	**1.71**	**0.67**	0.96	0.13	0.75	0.54
171	482553.03	3754938.31	**2.33**	**0.97**	1.23	0.17	1.09	0.80
172	483553.03	3754938.31	**2.84**	**1.09**	1.65	0.22	1.20	0.87
173	484553.03	3754938.31	**3.81**	**1.20**	2.62	0.35	1.19	0.84
177	488553.03	3754938.31	**5.44**	**1.39**	4.40	0.74	1.04	0.65
178	489553.03	3754938.31	**3.00**	**0.80**	2.31	0.36	0.68	0.45
179	490553.03	3754938.31	**2.04**	**0.55**	1.58	0.24	0.46	0.31
180	491553.03	3754938.31	**1.52**	**0.39**	1.22	0.19	0.30	0.20
181	492553.03	3754938.31	**1.22**	**0.30**	1.00	0.15	0.22	0.14
182	493553.03	3754938.31	**1.09**	**0.28**	0.87	0.13	0.22	0.15
183	494553.03	3754938.31	**0.92**	**0.23**	0.75	0.12	0.17	0.11
184	495553.03	3754938.31	**0.80**	**0.20**	0.66	0.10	0.14	0.09
185	479553.03	3755938.31	**1.14**	**0.53**	0.52	0.07	0.62	0.45
186	480553.03	3755938.31	**1.10**	**0.46**	0.58	0.08	0.52	0.38
187	481553.03	3755938.31	**1.18**	**0.47**	0.66	0.09	0.52	0.38
188	482553.03	3755938.31	**1.61**	**0.66**	0.86	0.12	0.75	0.54
189	483553.03	3755938.31	**1.83**	**0.72**	1.04	0.14	0.79	0.57
190	484553.03	3755938.31	**2.06**	**0.71**	1.31	0.18	0.75	0.53
191	485553.03	3755938.31	**2.86**	**1.00**	1.81	0.25	1.05	0.75
192	486553.03	3755938.31	**2.78**	**0.87**	1.94	0.28	0.85	0.60
193	487553.03	3755938.31	**2.03**	**0.56**	1.57	0.24	0.46	0.32
194	488553.03	3755938.31	**1.54**	**0.41**	1.22	0.19	0.32	0.22
195	489553.03	3755938.31	**1.19**	**0.30**	0.97	0.15	0.22	0.15
196	490553.03	3755938.31	**1.01**	**0.26**	0.82	0.13	0.18	0.13
197	491553.03	3755938.31	**0.87**	**0.22**	0.72	0.11	0.15	0.10
198	492553.03	3755938.31	**0.83**	**0.23**	0.65	0.10	0.19	0.13
199	493553.03	3755938.31	**0.72**	**0.19**	0.58	0.09	0.14	0.09
200	494553.03	3755938.31	**0.66**	**0.17**	0.53	0.08	0.13	0.09
201	479553.03	3756938.31	**0.58**	**0.19**	0.40	0.06	0.19	0.13

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
202	480553.03	3756938.31	**0.61**	**0.19**	0.43	0.06	0.18	0.13
203	481553.03	3756938.31	**0.62**	**0.18**	0.45	0.07	0.16	0.11
204	482553.03	3756938.31	**0.69**	**0.19**	0.52	0.07	0.17	0.12
205	483553.03	3756938.31	**0.97**	**0.29**	0.69	0.10	0.28	0.20
206	484553.03	3756938.31	**1.07**	**0.30**	0.80	0.11	0.27	0.19
207	485553.03	3756938.31	**1.51**	**0.56**	0.92	0.13	0.59	0.43
208	486553.03	3756938.31	**1.06**	**0.28**	0.84	0.12	0.22	0.15
209	487553.03	3756938.31	**0.92**	**0.22**	0.77	0.12	0.15	0.10
210	488553.03	3756938.31	**0.85**	**0.19**	0.73	0.11	0.12	0.08
211	489553.03	3756938.31	**0.73**	**0.17**	0.63	0.10	0.10	0.07
212	490553.03	3756938.31	**0.66**	**0.15**	0.56	0.09	0.09	0.06
213	491553.03	3756938.31	**0.59**	**0.14**	0.51	0.08	0.08	0.06
214	492553.03	3756938.31	**0.53**	**0.12**	0.45	0.07	0.07	0.05
215	493553.03	3756938.31	**0.51**	**0.12**	0.43	0.07	0.08	0.05
216	494553.03	3756938.31	**0.48**	**0.12**	0.40	0.06	0.08	0.05
217	479553.03	3757938.31	**0.39**	**0.11**	0.30	0.04	0.09	0.06
218	480553.03	3757938.31	**0.41**	**0.11**	0.32	0.05	0.09	0.06
219	481553.03	3757938.31	**0.45**	**0.12**	0.36	0.05	0.09	0.06
220	482553.03	3757938.31	**0.54**	**0.14**	0.42	0.06	0.12	0.08
221	483553.03	3757938.31	**0.58**	**0.14**	0.47	0.07	0.11	0.08
222	484553.03	3757938.31	**0.72**	**0.18**	0.57	0.08	0.15	0.10
223	485553.03	3757938.31	**0.74**	**0.21**	0.57	0.08	0.17	0.12
224	486553.03	3757938.31	**0.62**	**0.15**	0.52	0.08	0.10	0.07
225	487553.03	3757938.31	**0.59**	**0.13**	0.50	0.08	0.08	0.06
226	488553.03	3757938.31	**0.57**	**0.13**	0.50	0.08	0.07	0.05
227	489553.03	3757938.31	**0.55**	**0.12**	0.48	0.07	0.07	0.05
228	490553.03	3757938.31	**0.49**	**0.11**	0.43	0.07	0.06	0.04
229	491553.03	3757938.31	**0.44**	**0.10**	0.39	0.06	0.06	0.04
230	492553.03	3757938.31	**0.42**	**0.09**	0.37	0.06	0.06	0.04
231	493553.03	3757938.31	**0.42**	**0.10**	0.35	0.06	0.06	0.04
232	480553.03	3758938.31	**0.34**	**0.09**	0.27	0.04	0.07	0.05
233	481553.03	3758938.31	**0.38**	**0.10**	0.31	0.04	0.07	0.05
234	482553.03	3758938.31	**0.40**	**0.10**	0.33	0.05	0.07	0.05
235	483553.03	3758938.31	**0.45**	**0.11**	0.38	0.05	0.08	0.05
236	484553.03	3758938.31	**0.51**	**0.13**	0.42	0.06	0.10	0.06
237	485553.03	3758938.31	**0.65**	**0.22**	0.43	0.06	0.22	0.16
238	486553.03	3758938.31	**0.45**	**0.11**	0.38	0.06	0.07	0.05
239	487553.03	3758938.31	**0.47**	**0.11**	0.39	0.06	0.08	0.05
240	488553.03	3758938.31	**0.43**	**0.10**	0.37	0.06	0.06	0.04
241	489553.03	3758938.31	**0.43**	**0.10**	0.38	0.06	0.06	0.04
242	490553.03	3758938.31	**0.44**	**0.10**	0.38	0.06	0.06	0.04
243	491553.03	3758938.31	**0.39**	**0.09**	0.34	0.05	0.05	0.03
244	492553.03	3758938.31	**0.37**	**0.09**	0.32	0.05	0.05	0.04

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
245	481553.03	3759938.31	**0.31**	**0.07**	0.25	0.04	0.06	0.04
246	482553.03	3759938.31	**0.34**	**0.08**	0.28	0.04	0.06	0.04
247	483553.03	3759938.31	**0.37**	**0.09**	0.31	0.05	0.06	0.04
248	484553.03	3759938.31	**0.43**	**0.11**	0.35	0.05	0.08	0.06
249	485553.03	3759938.31	**0.60**	**0.22**	0.38	0.06	0.22	0.16
250	486553.03	3759938.31	**0.47**	**0.12**	0.36	0.05	0.10	0.07
251	487553.03	3759938.31	**0.43**	**0.11**	0.35	0.05	0.08	0.06
252	488553.03	3759938.31	**0.45**	**0.11**	0.37	0.05	0.08	0.06
253	489553.03	3759938.31	**0.43**	**0.10**	0.36	0.05	0.07	0.05
254	490553.03	3759938.31	**0.37**	**0.09**	0.32	0.05	0.06	0.04
255	491553.03	3759938.31	**0.35**	**0.08**	0.30	0.05	0.05	0.03
256	482553.03	3760938.31	**0.31**	**0.07**	0.26	0.04	0.05	0.04
257	483553.03	3760938.31	**0.34**	**0.08**	0.28	0.04	0.06	0.04
258	484553.03	3760938.31	**0.38**	**0.10**	0.30	0.05	0.08	0.05
259	485553.03	3760938.31	**0.54**	**0.18**	0.36	0.05	0.18	0.13
260	486553.03	3760938.31	**0.48**	**0.13**	0.36	0.05	0.12	0.08
261	487553.03	3760938.31	**0.42**	**0.11**	0.32	0.05	0.09	0.06
262	488553.03	3760938.31	**0.31**	**0.08**	0.26	0.04	0.05	0.04
263	489553.03	3760938.31	**0.29**	**0.07**	0.25	0.04	0.04	0.03
264	490553.03	3760938.31	**0.29**	**0.06**	0.25	0.04	0.04	0.03
265	484551.71	3750934.43	**2.11**	**0.43**	1.84	0.27	0.27	0.16
266	484651.71	3750934.43	**2.06**	**0.42**	1.79	0.26	0.27	0.16
267	484751.71	3750934.43	**1.58**	**0.33**	1.38	0.21	0.20	0.12
268	484851.71	3750934.43	**1.48**	**0.31**	1.30	0.19	0.19	0.11
269	484951.71	3750934.43	**1.52**	**0.32**	1.33	0.20	0.20	0.12
270	485051.71	3750934.43	**1.42**	**0.29**	1.25	0.19	0.18	0.11
271	485151.71	3750934.43	**1.33**	**0.27**	1.18	0.18	0.15	0.09
272	485251.71	3750934.43	**1.28**	**0.25**	1.15	0.18	0.13	0.08
273	485351.71	3750934.43	**1.25**	**0.24**	1.13	0.17	0.12	0.07
274	485451.71	3750934.43	**1.23**	**0.24**	1.10	0.17	0.12	0.07
275	484551.71	3751034.43	**2.32**	**0.46**	2.03	0.29	0.29	0.17
276	484651.71	3751034.43	**2.26**	**0.46**	1.97	0.28	0.29	0.17
277	484751.71	3751034.43	**2.03**	**0.42**	1.76	0.26	0.27	0.16
278	484851.71	3751034.43	**1.65**	**0.34**	1.43	0.21	0.21	0.13
279	484951.71	3751034.43	**1.78**	**0.37**	1.54	0.23	0.24	0.14
280	485051.71	3751034.43	**1.55**	**0.32**	1.35	0.20	0.20	0.12
281	485151.71	3751034.43	**1.44**	**0.29**	1.27	0.19	0.17	0.10
282	485251.71	3751034.43	**1.37**	**0.27**	1.23	0.19	0.14	0.09
283	485351.71	3751034.43	**1.33**	**0.26**	1.20	0.18	0.13	0.08
284	485451.71	3751034.43	**1.30**	**0.25**	1.17	0.18	0.13	0.07
285	484551.71	3751134.43	**2.49**	**0.49**	2.18	0.31	0.31	0.18
286	484651.71	3751134.43	**2.46**	**0.49**	2.16	0.31	0.31	0.18
287	484751.71	3751134.43	**2.39**	**0.48**	2.09	0.30	0.30	0.18

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
288	484851.71	3751134.43	**2.02**	**0.42**	1.75	0.26	0.27	0.16
289	484951.71	3751134.43	**2.08**	**0.43**	1.80	0.26	0.28	0.17
290	485051.71	3751134.43	**1.74**	**0.36**	1.52	0.23	0.23	0.14
291	485151.71	3751134.43	**1.60**	**0.33**	1.40	0.21	0.20	0.12
292	485251.71	3751134.43	**1.50**	**0.30**	1.33	0.20	0.17	0.10
293	485351.71	3751134.43	**1.43**	**0.28**	1.28	0.19	0.15	0.09
294	485451.71	3751134.43	**1.39**	**0.27**	1.25	0.19	0.14	0.08
295	484551.71	3751234.43	**2.64**	**0.52**	2.32	0.33	0.32	0.19
296	484651.71	3751234.43	**2.63**	**0.52**	2.30	0.33	0.32	0.19
297	484751.71	3751234.43	**2.57**	**0.51**	2.25	0.32	0.32	0.19
298	484851.71	3751234.43	**2.43**	**0.49**	2.12	0.30	0.31	0.18
299	484951.71	3751234.43	**2.30**	**0.47**	2.00	0.29	0.30	0.18
300	485051.71	3751234.43	**2.01**	**0.42**	1.74	0.26	0.27	0.16
301	485151.71	3751234.43	**1.75**	**0.36**	1.53	0.23	0.23	0.14
302	485251.71	3751234.43	**1.56**	**0.31**	1.39	0.21	0.17	0.10
303	485351.71	3751234.43	**1.50**	**0.29**	1.35	0.20	0.15	0.09
304	485451.71	3751234.43	**1.47**	**0.28**	1.33	0.20	0.14	0.08
305	484551.71	3751334.43	**2.80**	**0.55**	2.45	0.34	0.35	0.21
306	484651.71	3751334.43	**2.79**	**0.55**	2.44	0.34	0.35	0.21
307	484751.71	3751334.43	**2.73**	**0.54**	2.39	0.34	0.34	0.20
308	484851.71	3751334.43	**2.65**	**0.53**	2.31	0.33	0.33	0.20
309	484951.71	3751334.43	**2.60**	**0.52**	2.27	0.32	0.33	0.20
310	485051.71	3751334.43	**2.41**	**0.49**	2.09	0.30	0.32	0.19
311	485151.71	3751334.43	**2.01**	**0.42**	1.74	0.26	0.27	0.16
312	485251.71	3751334.43	**1.72**	**0.35**	1.52	0.22	0.21	0.13
313	485351.71	3751334.43	**1.61**	**0.31**	1.45	0.22	0.16	0.10
314	485451.71	3751334.43	**1.57**	**0.30**	1.41	0.21	0.15	0.09
315	484551.71	3751434.43	**2.90**	**0.59**	2.51	0.35	0.39	0.24
316	484651.71	3751434.43	**2.97**	**0.59**	2.59	0.36	0.38	0.23
317	484751.71	3751434.43	**2.94**	**0.58**	2.57	0.36	0.37	0.22
318	484851.71	3751434.43	**2.90**	**0.57**	2.53	0.36	0.36	0.22
319	484951.71	3751434.43	**2.84**	**0.56**	2.48	0.35	0.36	0.21
320	485051.71	3751434.43	**2.78**	**0.55**	2.42	0.34	0.35	0.21
321	485151.71	3751434.43	**2.32**	**0.48**	2.00	0.29	0.32	0.19
322	485251.71	3751434.43	**1.91**	**0.39**	1.66	0.25	0.24	0.15
323	485351.71	3751434.43	**1.75**	**0.34**	1.56	0.23	0.19	0.11
324	485451.71	3751434.43	**1.69**	**0.33**	1.52	0.23	0.17	0.10
325	484551.71	3751534.43	**2.81**	**0.63**	2.31	0.32	0.49	0.32
326	484651.71	3751534.43	**2.97**	**0.63**	2.52	0.35	0.45	0.28
327	484751.71	3751534.43	**3.13**	**0.63**	2.71	0.38	0.42	0.25
328	484851.71	3751534.43	**3.12**	**0.62**	2.72	0.38	0.40	0.24
329	484951.71	3751534.43	**3.10**	**0.61**	2.70	0.38	0.39	0.24
330	485051.71	3751534.43	**3.07**	**0.61**	2.68	0.38	0.39	0.23

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
331	485151.71	3751534.43	**3.02**	**0.60**	2.64	0.37	0.38	0.23
332	485251.71	3751534.43	**2.55**	**0.53**	2.21	0.32	0.34	0.21
333	485351.71	3751534.43	**2.08**	**0.43**	1.80	0.26	0.27	0.17
334	485451.71	3751534.43	**1.89**	**0.38**	1.67	0.25	0.22	0.14
335	484551.71	3751634.43	**2.87**	**0.61**	2.42	0.33	0.45	0.28
336	484651.71	3751634.43	**2.91**	**0.63**	2.45	0.34	0.47	0.29
337	484751.71	3751634.43	**3.06**	**0.66**	2.58	0.36	0.48	0.30
338	484851.71	3751634.43	**3.23**	**0.68**	2.74	0.38	0.49	0.31
339	484951.71	3751634.43	**3.23**	**0.66**	2.78	0.38	0.45	0.27
340	485051.71	3751634.43	**3.23**	**0.65**	2.80	0.39	0.43	0.26
341	485151.71	3751634.43	**3.27**	**0.65**	2.85	0.39	0.42	0.25
342	485251.71	3751634.43	**3.17**	**0.63**	2.76	0.39	0.41	0.24
343	485351.71	3751634.43	**2.94**	**0.59**	2.56	0.36	0.39	0.23
344	485451.71	3751634.43	**2.54**	**0.53**	2.19	0.32	0.35	0.21
345	484551.71	3751734.43	**2.91**	**0.58**	2.52	0.35	0.39	0.23
346	484651.71	3751734.43	**2.97**	**0.60**	2.56	0.35	0.42	0.25
347	484751.71	3751734.43	**3.05**	**0.64**	2.60	0.36	0.45	0.28
348	484851.71	3751734.43	**3.14**	**0.68**	2.63	0.36	0.50	0.31
349	484951.71	3751734.43	**3.17**	**0.68**	2.67	0.37	0.50	0.31
350	485051.71	3751734.43	**3.26**	**0.72**	2.70	0.37	0.55	0.35
351	485151.71	3751734.43	**3.36**	**0.70**	2.87	0.39	0.49	0.30
352	485251.71	3751734.43	**3.51**	**0.71**	3.03	0.42	0.48	0.29
353	485351.71	3751734.43	**3.41**	**0.69**	2.96	0.41	0.45	0.27
354	485451.71	3751734.43	**3.21**	**0.65**	2.79	0.39	0.42	0.25
355	484551.71	3751834.43	**3.00**	**0.59**	2.62	0.36	0.38	0.23
356	484651.71	3751834.43	**3.06**	**0.60**	2.67	0.37	0.40	0.23
357	484751.71	3751834.43	**3.13**	**0.62**	2.71	0.37	0.41	0.24
358	484851.71	3751834.43	**3.19**	**0.63**	2.76	0.38	0.43	0.26
359	484951.71	3751834.43	**3.25**	**0.66**	2.80	0.38	0.45	0.27
360	485051.71	3751834.43	**3.35**	**0.70**	2.84	0.39	0.51	0.31
361	485151.71	3751834.43	**3.40**	**0.71**	2.89	0.39	0.51	0.31
362	485251.71	3751834.43	**3.75**	**0.78**	3.21	0.44	0.54	0.34
363	485351.71	3751834.43	**3.77**	**0.78**	3.23	0.45	0.55	0.34
364	485451.71	3751834.43	**3.68**	**0.77**	3.14	0.44	0.54	0.34
365	484551.71	3751934.43	**3.12**	**0.60**	2.73	0.37	0.39	0.23
366	484651.71	3751934.43	**3.18**	**0.61**	2.78	0.38	0.40	0.23
367	484751.71	3751934.43	**3.23**	**0.63**	2.83	0.39	0.41	0.24
368	484851.71	3751934.43	**3.30**	**0.64**	2.88	0.39	0.42	0.25
369	484951.71	3751934.43	**3.36**	**0.65**	2.94	0.40	0.43	0.25
370	485051.71	3751934.43	**3.44**	**0.67**	2.99	0.41	0.45	0.26
371	485151.71	3751934.43	**3.52**	**0.69**	3.05	0.41	0.47	0.28
372	485251.71	3751934.43	**3.60**	**0.72**	3.11	0.42	0.49	0.29
373	485351.71	3751934.43	**3.98**	**0.80**	3.45	0.47	0.54	0.32

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
374	485451.71	3751934.43	**3.99**	**0.82**	3.43	0.47	0.56	0.35
375	484551.71	3752034.43	**3.25**	**0.63**	2.85	0.39	0.40	0.24
376	484651.71	3752034.43	**3.32**	**0.64**	2.91	0.40	0.41	0.24
377	484751.71	3752034.43	**3.38**	**0.65**	2.96	0.41	0.42	0.25
378	484851.71	3752034.43	**3.45**	**0.66**	3.02	0.41	0.43	0.25
379	484951.71	3752034.43	**3.52**	**0.68**	3.08	0.42	0.44	0.26
380	485051.71	3752034.43	**3.60**	**0.69**	3.15	0.43	0.45	0.26
381	485151.71	3752034.43	**3.68**	**0.71**	3.22	0.44	0.46	0.27
382	485251.71	3752034.43	**3.78**	**0.73**	3.29	0.44	0.49	0.29
383	485351.71	3752034.43	**4.01**	**0.78**	3.49	0.47	0.52	0.31
384	485451.71	3752034.43	**4.33**	**0.87**	3.73	0.51	0.60	0.36
385	484551.71	3752134.43	**3.40**	**0.66**	2.98	0.41	0.43	0.25
386	484651.71	3752134.43	**3.48**	**0.67**	3.04	0.42	0.43	0.26
387	484751.71	3752134.43	**3.55**	**0.69**	3.11	0.42	0.44	0.26
388	484851.71	3752134.43	**3.63**	**0.70**	3.18	0.43	0.45	0.26
389	484951.71	3752134.43	**3.70**	**0.71**	3.25	0.44	0.46	0.27
390	485051.71	3752134.43	**3.79**	**0.72**	3.32	0.45	0.47	0.27
391	485151.71	3752134.43	**3.88**	**0.74**	3.40	0.46	0.48	0.28
392	485251.71	3752134.43	**3.98**	**0.76**	3.48	0.47	0.50	0.29
393	485351.71	3752134.43	**4.10**	**0.79**	3.56	0.48	0.53	0.31
394	485451.71	3752134.43	**4.36**	**0.88**	3.75	0.50	0.61	0.37
395	484551.71	3752234.43	**3.58**	**0.71**	3.10	0.43	0.47	0.29
396	484651.71	3752234.43	**3.66**	**0.73**	3.18	0.44	0.48	0.29
397	484751.71	3752234.43	**3.75**	**0.74**	3.26	0.45	0.49	0.29
398	484851.71	3752234.43	**3.83**	**0.75**	3.34	0.45	0.50	0.30
399	484951.71	3752234.43	**3.95**	**0.78**	3.42	0.46	0.53	0.32
400	485051.71	3752234.43	**4.01**	**0.78**	3.50	0.47	0.51	0.30
401	485151.71	3752234.43	**4.11**	**0.80**	3.58	0.48	0.53	0.31
402	485251.71	3752234.43	**4.22**	**0.82**	3.68	0.49	0.54	0.32
403	485351.71	3752234.43	**4.35**	**0.85**	3.78	0.51	0.57	0.34
404	485451.71	3752234.43	**4.55**	**0.93**	3.88	0.52	0.66	0.41
405	484551.71	3752334.43	**3.69**	**0.71**	3.24	0.44	0.45	0.26
406	484651.71	3752334.43	**3.79**	**0.72**	3.33	0.46	0.46	0.27
407	484751.71	3752334.43	**3.88**	**0.74**	3.42	0.47	0.47	0.27
408	484851.71	3752334.43	**3.98**	**0.75**	3.51	0.48	0.47	0.28
409	484951.71	3752334.43	**4.09**	**0.77**	3.60	0.49	0.48	0.28
410	485051.71	3752334.43	**4.19**	**0.79**	3.70	0.50	0.49	0.29
411	485151.71	3752334.43	**4.30**	**0.80**	3.79	0.51	0.51	0.29
412	485251.71	3752334.43	**4.42**	**0.82**	3.90	0.52	0.52	0.30
413	485351.71	3752334.43	**4.55**	**0.85**	4.01	0.54	0.54	0.31
414	485451.71	3752334.43	**4.71**	**0.89**	4.13	0.55	0.57	0.34
415	484551.71	3752434.43	**3.82**	**0.72**	3.38	0.46	0.45	0.26
416	484651.71	3752434.43	**3.93**	**0.74**	3.48	0.48	0.46	0.27

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
417	484751.71	3752434.43	**4.04**	**0.76**	3.58	0.49	0.47	0.27
418	484851.71	3752434.43	**4.16**	**0.78**	3.68	0.50	0.48	0.27
419	484951.71	3752434.43	**4.28**	**0.79**	3.79	0.51	0.49	0.28
420	485051.71	3752434.43	**4.40**	**0.81**	3.90	0.53	0.50	0.29
421	485151.71	3752434.43	**4.53**	**0.83**	4.02	0.54	0.51	0.29
422	485251.71	3752434.43	**4.66**	**0.85**	4.14	0.55	0.52	0.30
423	485351.71	3752434.43	**4.81**	**0.88**	4.27	0.57	0.54	0.31
424	485451.71	3752434.43	**4.97**	**0.91**	4.41	0.59	0.56	0.32
425	484551.71	3752534.43	**3.97**	**0.75**	3.51	0.48	0.46	0.27
426	484651.71	3752534.43	**4.09**	**0.77**	3.63	0.50	0.47	0.27
427	484751.71	3752534.43	**4.22**	**0.79**	3.74	0.51	0.48	0.27
428	484851.71	3752534.43	**4.35**	**0.81**	3.87	0.53	0.49	0.28
429	484951.71	3752534.43	**4.49**	**0.83**	3.99	0.54	0.50	0.29
430	485051.71	3752534.43	**4.63**	**0.85**	4.12	0.56	0.51	0.29
431	485151.71	3752534.43	**4.78**	**0.87**	4.26	0.57	0.52	0.30
432	485251.71	3752534.43	**4.93**	**0.89**	4.40	0.59	0.54	0.31
433	485351.71	3752534.43	**5.10**	**0.92**	4.55	0.61	0.55	0.31
434	485451.71	3752534.43	**5.29**	**0.95**	4.71	0.63	0.58	0.33
435	484551.71	3752634.43	**4.11**	**0.77**	3.64	0.50	0.47	0.27
436	484651.71	3752634.43	**4.25**	**0.79**	3.77	0.52	0.48	0.28
437	484751.71	3752634.43	**4.40**	**0.81**	3.91	0.53	0.49	0.28
438	484851.71	3752634.43	**4.55**	**0.84**	4.05	0.55	0.50	0.29
439	484951.71	3752634.43	**4.71**	**0.86**	4.19	0.57	0.51	0.29
440	485051.71	3752634.43	**4.87**	**0.89**	4.35	0.59	0.53	0.30
441	485151.71	3752634.43	**5.04**	**0.91**	4.50	0.61	0.54	0.31
442	485251.71	3752634.43	**5.23**	**0.94**	4.67	0.62	0.55	0.31
443	485351.71	3752634.43	**5.42**	**0.97**	4.85	0.65	0.57	0.32
444	485451.71	3752634.43	**5.64**	**1.01**	5.04	0.67	0.60	0.34
445	484551.71	3752734.43	**4.25**	**0.80**	3.77	0.52	0.48	0.28
446	484651.71	3752734.43	**4.42**	**0.82**	3.92	0.54	0.49	0.29
447	484751.71	3752734.43	**4.58**	**0.85**	4.08	0.56	0.51	0.29
448	484851.71	3752734.43	**4.76**	**0.87**	4.24	0.58	0.52	0.30
449	484951.71	3752734.43	**4.94**	**0.90**	4.40	0.60	0.53	0.30
450	485051.71	3752734.43	**5.12**	**0.93**	4.58	0.62	0.55	0.31
451	485151.71	3752734.43	**5.32**	**0.96**	4.76	0.64	0.56	0.32
452	485251.71	3752734.43	**5.53**	**0.99**	4.96	0.66	0.58	0.33
453	485351.71	3752734.43	**5.76**	**1.02**	5.17	0.69	0.59	0.34
454	485451.71	3752734.43	**6.01**	**1.07**	5.40	0.71	0.62	0.35
455	484551.71	3752834.43	**4.39**	**0.82**	3.89	0.53	0.50	0.29
456	484651.71	3752834.43	**4.58**	**0.85**	4.06	0.56	0.51	0.30
457	484751.71	3752834.43	**4.76**	**0.88**	4.24	0.58	0.52	0.30
458	484851.71	3752834.43	**4.96**	**0.91**	4.42	0.60	0.54	0.31
459	484951.71	3752834.43	**5.17**	**0.94**	4.62	0.63	0.55	0.31

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
460	485051.71	3752834.43	**5.38**	**0.97**	4.82	0.65	0.57	0.32
461	485151.71	3752834.43	**5.61**	**1.01**	5.03	0.68	0.58	0.33
462	485251.71	3752834.43	**5.85**	**1.04**	5.25	0.70	0.60	0.34
463	485351.71	3752834.43	**6.12**	**1.08**	5.50	0.73	0.62	0.35
464	485451.71	3752834.43	**6.41**	**1.13**	5.77	0.76	0.65	0.37
465	484551.71	3752934.43	**4.52**	**0.85**	4.00	0.55	0.52	0.30
466	484651.71	3752934.43	**4.73**	**0.88**	4.19	0.57	0.53	0.31
467	484751.71	3752934.43	**4.94**	**0.92**	4.39	0.60	0.55	0.32
468	484851.71	3752934.43	**5.17**	**0.95**	4.60	0.63	0.56	0.32
469	484951.71	3752934.43	**5.40**	**0.99**	4.82	0.65	0.58	0.33
470	485051.71	3752934.43	**5.65**	**1.02**	5.05	0.68	0.60	0.34
471	485151.71	3752934.43	**5.91**	**1.06**	5.30	0.71	0.61	0.35
472	485251.71	3752934.43	**6.19**	**1.10**	5.56	0.74	0.63	0.36
473	485351.71	3752934.43	**6.49**	**1.15**	5.84	0.78	0.65	0.37
474	485451.71	3752934.43	**6.84**	**1.20**	6.16	0.82	0.68	0.38
475	484551.71	3753034.43	**4.65**	**0.89**	4.09	0.56	0.56	0.33
476	484651.71	3753034.43	**4.88**	**0.93**	4.31	0.59	0.57	0.33
477	484751.71	3753034.43	**5.13**	**0.96**	4.54	0.62	0.59	0.34
478	484851.71	3753034.43	**5.38**	**1.00**	4.77	0.65	0.60	0.35
479	484951.71	3753034.43	**5.64**	**1.04**	5.02	0.68	0.62	0.36
480	485051.71	3753034.43	**5.93**	**1.08**	5.29	0.72	0.64	0.37
481	485151.71	3753034.43	**6.23**	**1.13**	5.57	0.75	0.66	0.38
482	485251.71	3753034.43	**6.56**	**1.18**	5.87	0.79	0.69	0.40
483	485351.71	3753034.43	**6.90**	**1.23**	6.21	0.83	0.70	0.40
484	485451.71	3753034.43	**7.29**	**1.28**	6.57	0.87	0.72	0.41
485	484551.71	3753134.43	**5.12**	**0.95**	4.57	0.63	0.55	0.32
486	484651.71	3753134.43	**5.40**	**0.99**	4.83	0.66	0.57	0.33
487	484751.71	3753134.43	**5.69**	**1.03**	5.11	0.70	0.58	0.34
488	484851.71	3753134.43	**5.98**	**1.08**	5.38	0.73	0.60	0.34
489	484951.71	3753134.43	**6.29**	**1.12**	5.67	0.77	0.62	0.35
490	485051.71	3753134.43	**6.61**	**1.17**	5.96	0.81	0.64	0.36
491	485151.71	3753134.43	**6.93**	**1.22**	6.27	0.85	0.66	0.37
492	485251.71	3753134.43	**7.02**	**1.24**	6.34	0.85	0.69	0.39
493	485351.71	3753134.43	**7.30**	**1.28**	6.59	0.88	0.71	0.40
494	485451.71	3753134.43	**7.76**	**1.35**	7.02	0.93	0.74	0.42
495	484551.71	3753234.43	**5.81**	**1.05**	5.25	0.72	0.56	0.33
496	484651.71	3753234.43	**6.25**	**1.11**	5.67	0.78	0.58	0.33
497	484751.71	3753234.43	**6.60**	**1.16**	6.00	0.82	0.59	0.34
498	484851.71	3753234.43	**6.94**	**1.22**	6.33	0.86	0.61	0.35
499	484951.71	3753234.43	**7.15**	**1.25**	6.52	0.89	0.64	0.36
500	485051.71	3753234.43	**7.52**	**1.30**	6.86	0.93	0.66	0.37
501	485151.71	3753234.43	**7.63**	**1.32**	6.94	0.94	0.68	0.38
502	485251.71	3753234.43	**7.95**	**1.37**	7.24	0.98	0.71	0.40

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
503	485351.71	3753234.43	**8.21**	**1.41**	7.47	1.00	0.74	0.41
504	485451.71	3753234.43	**8.72**	**1.49**	7.94	1.06	0.77	0.43
505	484551.71	3753334.43	**6.24**	**1.11**	5.67	0.78	0.57	0.33
506	484651.71	3753334.43	**6.64**	**1.17**	6.05	0.83	0.59	0.34
507	484751.71	3753334.43	**7.03**	**1.23**	6.42	0.88	0.61	0.35
508	484851.71	3753334.43	**7.45**	**1.29**	6.82	0.93	0.63	0.36
509	484951.71	3753334.43	**7.85**	**1.35**	7.20	0.98	0.65	0.37
510	485051.71	3753334.43	**8.28**	**1.42**	7.60	1.04	0.68	0.38
511	485151.71	3753334.43	**8.65**	**1.47**	7.95	1.08	0.71	0.40
512	485251.71	3753334.43	**9.09**	**1.54**	8.35	1.13	0.74	0.41
513	485351.71	3753334.43	**9.46**	**1.60**	8.69	1.17	0.77	0.43
514	485451.71	3753334.43	**9.99**	**1.68**	9.18	1.23	0.82	0.45
515	484551.71	3753434.43	**6.47**	**1.15**	5.88	0.81	0.59	0.34
516	484651.71	3753434.43	**6.91**	**1.22**	6.30	0.86	0.61	0.35
517	484751.71	3753434.43	**7.35**	**1.28**	6.72	0.92	0.63	0.36
518	484851.71	3753434.43	**7.83**	**1.35**	7.18	0.98	0.65	0.37
519	484951.71	3753434.43	**8.30**	**1.43**	7.63	1.04	0.67	0.38
520	485051.71	3753434.43	**8.80**	**1.50**	8.10	1.10	0.70	0.40
521	485151.71	3753434.43	**9.27**	**1.57**	8.54	1.16	0.73	0.41
522	485251.71	3753434.43	**9.88**	**1.66**	9.11	1.24	0.77	0.43
523	485351.71	3753434.43	**10.56**	**1.77**	9.75	1.32	0.81	0.45
524	485451.71	3753434.43	**11.43**	**1.90**	10.56	1.42	0.87	0.48
525	484551.71	3753534.43	**6.56**	**1.17**	5.96	0.82	0.60	0.35
526	484651.71	3753534.43	**7.00**	**1.24**	6.38	0.87	0.62	0.36
527	484751.71	3753534.43	**7.48**	**1.31**	6.84	0.94	0.64	0.37
528	484851.71	3753534.43	**8.03**	**1.39**	7.37	1.01	0.67	0.38
529	484951.71	3753534.43	**8.59**	**1.48**	7.89	1.08	0.69	0.40
530	485051.71	3753534.43	**9.17**	**1.56**	8.45	1.15	0.72	0.41
531	485151.71	3753534.43	**9.82**	**1.66**	9.07	1.24	0.76	0.42
532	485251.71	3753534.43	**10.56**	**1.77**	9.76	1.33	0.80	0.44
533	485351.71	3753534.43	**11.39**	**1.90**	10.54	1.43	0.84	0.47
534	485451.71	3753534.43	**12.45**	**2.06**	11.54	1.56	0.91	0.50
535	484551.71	3753634.43	**6.57**	**1.18**	5.96	0.82	0.61	0.37
536	484651.71	3753634.43	**7.05**	**1.25**	6.41	0.88	0.63	0.37
537	484751.71	3753634.43	**7.57**	**1.33**	6.91	0.95	0.66	0.38
538	484851.71	3753634.43	**8.15**	**1.42**	7.47	1.02	0.68	0.40
539	484951.71	3753634.43	**8.77**	**1.51**	8.06	1.10	0.71	0.41
540	485051.71	3753634.43	**9.45**	**1.61**	8.71	1.19	0.74	0.42
541	485151.71	3753634.43	**10.20**	**1.73**	9.42	1.29	0.78	0.44
542	485251.71	3753634.43	**11.04**	**1.85**	10.22	1.39	0.82	0.46
543	485351.71	3753634.43	**12.00**	**2.00**	11.13	1.52	0.87	0.49
544	485451.71	3753634.43	**13.22**	**2.19**	12.28	1.67	0.94	0.52
545	484551.71	3753734.43	**6.52**	**1.19**	5.89	0.81	0.63	0.38

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
546	484651.71	3753734.43	**7.02**	**1.26**	6.36	0.87	0.65	0.39
547	484751.71	3753734.43	**7.57**	**1.34**	6.89	0.94	0.67	0.40
548	484851.71	3753734.43	**8.18**	**1.43**	7.48	1.02	0.70	0.41
549	484951.71	3753734.43	**8.86**	**1.53**	8.13	1.11	0.73	0.42
550	485051.71	3753734.43	**9.61**	**1.65**	8.85	1.21	0.76	0.44
551	485151.71	3753734.43	**10.45**	**1.77**	9.66	1.32	0.80	0.45
552	485251.71	3753734.43	**11.40**	**1.92**	10.56	1.44	0.84	0.47
553	485351.71	3753734.43	**12.50**	**2.09**	11.60	1.58	0.90	0.50
554	485451.71	3753734.43	**13.86**	**2.30**	12.89	1.76	0.97	0.54
555	484551.71	3753834.43	**6.39**	**1.18**	5.74	0.79	0.65	0.40
556	484651.71	3753834.43	**6.90**	**1.26**	6.23	0.85	0.67	0.40
557	484751.71	3753834.43	**7.47**	**1.34**	6.77	0.93	0.69	0.41
558	484851.71	3753834.43	**8.11**	**1.44**	7.39	1.01	0.72	0.42
559	484951.71	3753834.43	**8.83**	**1.54**	8.08	1.11	0.75	0.44
560	485051.71	3753834.43	**9.65**	**1.66**	8.87	1.21	0.78	0.45
561	485151.71	3753834.43	**10.57**	**1.80**	9.75	1.33	0.82	0.47
562	485251.71	3753834.43	**11.61**	**1.96**	10.75	1.47	0.86	0.49
563	485351.71	3753834.43	**12.84**	**2.15**	11.92	1.63	0.92	0.52
564	485451.71	3753834.43	**14.36**	**2.39**	13.36	1.83	1.00	0.56
565	484551.71	3753934.43	**6.19**	**1.17**	5.52	0.76	0.67	0.42
566	484651.71	3753934.43	**6.70**	**1.25**	6.00	0.82	0.69	0.42
567	484751.71	3753934.43	**7.29**	**1.33**	6.58	0.90	0.71	0.43
568	484851.71	3753934.43	**7.94**	**1.43**	7.21	0.99	0.74	0.44
569	484951.71	3753934.43	**8.69**	**1.54**	7.92	1.08	0.77	0.45
570	485051.71	3753934.43	**9.54**	**1.66**	8.74	1.20	0.80	0.47
571	485151.71	3753934.43	**10.52**	**1.81**	9.68	1.33	0.84	0.49
572	485251.71	3753934.43	**11.66**	**1.98**	10.77	1.47	0.89	0.51
573	485351.71	3753934.43	**13.00**	**2.19**	12.06	1.65	0.94	0.54
574	485451.71	3753934.43	**14.68**	**2.45**	13.66	1.87	1.02	0.58
575	484551.71	3754034.43	**5.89**	**1.15**	5.20	0.71	0.70	0.44
576	484651.71	3754034.43	**6.49**	**1.23**	5.78	0.79	0.71	0.44
577	484751.71	3754034.43	**7.04**	**1.31**	6.31	0.86	0.73	0.45
578	484851.71	3754034.43	**7.68**	**1.41**	6.92	0.95	0.76	0.46
579	484951.71	3754034.43	**8.43**	**1.52**	7.64	1.05	0.79	0.47
580	485051.71	3754034.43	**9.30**	**1.65**	8.48	1.16	0.82	0.49
581	485151.71	3754034.43	**10.32**	**1.80**	9.46	1.29	0.86	0.50
582	485251.71	3754034.43	**11.51**	**1.98**	10.60	1.45	0.91	0.53
583	485351.71	3754034.43	**12.93**	**2.20**	11.97	1.64	0.96	0.55
584	485451.71	3754034.43	**14.72**	**2.48**	13.68	1.88	1.04	0.60
585	484551.71	3754134.43	**5.71**	**1.14**	4.99	0.68	0.71	0.45
586	484651.71	3754134.43	**6.23**	**1.21**	5.51	0.75	0.73	0.46
587	484751.71	3754134.43	**6.76**	**1.29**	6.00	0.82	0.75	0.47
588	484851.71	3754134.43	**7.34**	**1.38**	6.56	0.90	0.78	0.48

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
589	484951.71	3754134.43	**8.08**	**1.49**	7.27	0.99	0.81	0.49
590	485051.71	3754134.43	**8.94**	**1.61**	8.10	1.11	0.84	0.51
591	485151.71	3754134.43	**9.96**	**1.77**	9.08	1.24	0.88	0.53
592	485251.71	3754134.43	**11.17**	**1.95**	10.24	1.40	0.93	0.55
593	485351.71	3754134.43	**12.62**	**2.17**	11.63	1.59	0.99	0.58
594	485451.71	3754134.43	**14.47**	**2.46**	13.41	1.84	1.06	0.62
595	484551.71	3754234.43	**5.51**	**1.12**	4.78	0.65	0.73	0.47
596	484651.71	3754234.43	**5.96**	**1.19**	5.21	0.71	0.75	0.48
597	484751.71	3754234.43	**6.43**	**1.26**	5.66	0.77	0.77	0.49
598	484851.71	3754234.43	**6.97**	**1.34**	6.16	0.84	0.80	0.50
599	484951.71	3754234.43	**7.64**	**1.45**	6.81	0.93	0.83	0.52
600	485051.71	3754234.43	**8.47**	**1.57**	7.61	1.04	0.86	0.53
601	485151.71	3754234.43	**9.46**	**1.72**	8.56	1.17	0.90	0.55
602	485251.71	3754234.43	**10.64**	**1.89**	9.69	1.32	0.95	0.57
603	485351.71	3754234.43	**12.10**	**2.12**	11.09	1.52	1.01	0.60
604	485451.71	3754234.43	**13.96**	**2.41**	12.87	1.77	1.09	0.64
605	484551.71	3754334.43	**5.26**	**1.10**	4.50	0.61	0.76	0.49
606	484651.71	3754334.43	**5.63**	**1.16**	4.85	0.66	0.78	0.50
607	484751.71	3754334.43	**6.04**	**1.23**	5.23	0.71	0.80	0.51
608	484851.71	3754334.43	**6.55**	**1.31**	5.72	0.78	0.83	0.53
609	484951.71	3754334.43	**7.16**	**1.40**	6.30	0.86	0.86	0.54
610	485051.71	3754334.43	**7.91**	**1.51**	7.02	0.96	0.89	0.56
611	485151.71	3754334.43	**8.83**	**1.65**	7.90	1.08	0.93	0.57
612	485251.71	3754334.43	**9.95**	**1.82**	8.97	1.22	0.98	0.60
613	485351.71	3754334.43	**11.34**	**2.03**	10.30	1.41	1.03	0.63
614	485451.71	3754334.43	**13.19**	**2.32**	12.09	1.65	1.10	0.66
615	484551.71	3754434.43	**4.86**	**1.08**	4.05	0.55	0.81	0.53
616	484651.71	3754434.43	**5.22**	**1.14**	4.40	0.60	0.82	0.54
617	484751.71	3754434.43	**5.62**	**1.20**	4.78	0.65	0.84	0.55
618	484851.71	3754434.43	**6.09**	**1.27**	5.23	0.71	0.86	0.56
619	484951.71	3754434.43	**6.64**	**1.35**	5.75	0.78	0.89	0.57
620	485051.71	3754434.43	**7.32**	**1.46**	6.40	0.87	0.92	0.59
621	485151.71	3754434.43	**8.15**	**1.58**	7.19	0.98	0.96	0.61
622	485251.71	3754434.43	**9.18**	**1.74**	8.17	1.11	1.01	0.63
623	485351.71	3754434.43	**10.47**	**1.94**	9.41	1.28	1.06	0.66
624	485451.71	3754434.43	**12.19**	**2.20**	11.06	1.51	1.13	0.69
625	484551.71	3754534.43	**4.57**	**1.08**	3.71	0.50	0.86	0.58
626	484651.71	3754534.43	**4.88**	**1.13**	4.00	0.54	0.88	0.59
627	484751.71	3754534.43	**5.24**	**1.18**	4.35	0.59	0.89	0.59
628	484851.71	3754534.43	**5.64**	**1.24**	4.73	0.64	0.91	0.60
629	484951.71	3754534.43	**6.12**	**1.31**	5.19	0.70	0.93	0.61
630	485051.71	3754534.43	**6.72**	**1.40**	5.76	0.78	0.96	0.62
631	485151.71	3754534.43	**7.45**	**1.52**	6.45	0.87	1.00	0.64

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
632	485251.71	3754534.43	**8.38**	**1.66**	7.33	0.99	1.04	0.66
633	485351.71	3754534.43	**9.57**	**1.84**	8.47	1.15	1.10	0.69
634	485451.71	3754534.43	**11.14**	**2.09**	9.97	1.36	1.17	0.73
635	484551.71	3754634.43	**4.31**	**1.08**	3.39	0.46	0.91	0.62
636	484651.71	3754634.43	**4.58**	**1.12**	3.65	0.49	0.93	0.63
637	484751.71	3754634.43	**4.89**	**1.17**	3.94	0.53	0.95	0.64
638	484851.71	3754634.43	**5.22**	**1.22**	4.26	0.58	0.96	0.64
639	484951.71	3754634.43	**5.64**	**1.28**	4.66	0.63	0.98	0.65
640	485051.71	3754634.43	**6.15**	**1.36**	5.14	0.69	1.01	0.67
641	485151.71	3754634.43	**6.78**	**1.46**	5.74	0.78	1.04	0.69
642	485251.71	3754634.43	**7.59**	**1.59**	6.50	0.88	1.09	0.71
643	485351.71	3754634.43	**8.64**	**1.75**	7.49	1.01	1.14	0.74
644	485451.71	3754634.43	**10.04**	**1.97**	8.82	1.20	1.21	0.78
645	484551.71	3754734.43	**4.09**	**1.09**	3.11	0.42	0.97	0.67
646	484651.71	3754734.43	**4.32**	**1.13**	3.33	0.45	0.99	0.68
647	484751.71	3754734.43	**4.58**	**1.17**	3.58	0.48	1.00	0.68
648	484851.71	3754734.43	**4.87**	**1.21**	3.85	0.52	1.02	0.69
649	484951.71	3754734.43	**5.22**	**1.27**	4.18	0.56	1.04	0.71
650	485051.71	3754734.43	**5.65**	**1.34**	4.58	0.62	1.07	0.72
651	485151.71	3754734.43	**6.19**	**1.42**	5.09	0.68	1.11	0.74
652	485251.71	3754734.43	**6.88**	**1.53**	5.73	0.77	1.15	0.76
653	485351.71	3754734.43	**7.75**	**1.68**	6.55	0.88	1.20	0.79
654	485451.71	3754734.43	**8.96**	**1.88**	7.69	1.04	1.27	0.84
655	484551.71	3754834.43	**3.92**	**1.12**	2.86	0.39	1.06	0.74
656	484651.71	3754834.43	**4.11**	**1.15**	3.03	0.41	1.07	0.75
657	484751.71	3754834.43	**4.33**	**1.19**	3.24	0.44	1.09	0.76
658	484851.71	3754834.43	**4.59**	**1.23**	3.48	0.47	1.11	0.77
659	484951.71	3754834.43	**4.89**	**1.28**	3.76	0.50	1.13	0.78
660	485051.71	3754834.43	**5.25**	**1.34**	4.09	0.55	1.16	0.79
661	485151.71	3754834.43	**5.69**	**1.41**	4.50	0.60	1.19	0.81
662	485251.71	3754834.43	**6.24**	**1.51**	5.01	0.67	1.23	0.84
663	485351.71	3754834.43	**6.96**	**1.63**	5.67	0.76	1.29	0.87
664	485451.71	3754834.43	**7.98**	**1.81**	6.62	0.89	1.36	0.92
665	484551.71	3754934.43	**3.81**	**1.19**	2.62	0.35	1.19	0.84
666	484651.71	3754934.43	**3.97**	**1.22**	2.77	0.37	1.20	0.85
667	484751.71	3754934.43	**4.16**	**1.25**	2.95	0.40	1.22	0.85
668	484851.71	3754934.43	**4.38**	**1.29**	3.15	0.42	1.23	0.86
669	484951.71	3754934.43	**4.64**	**1.33**	3.38	0.45	1.25	0.88
670	485051.71	3754934.43	**4.94**	**1.38**	3.66	0.49	1.28	0.89
671	485151.71	3754934.43	**5.30**	**1.44**	3.99	0.53	1.31	0.91
672	485251.71	3754934.43	**5.74**	**1.52**	4.39	0.59	1.35	0.94
673	485351.71	3754934.43	**6.30**	**1.63**	4.89	0.65	1.42	0.98
674	485451.71	3754934.43	**7.13**	**1.81**	5.59	0.75	1.54	1.07

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
675	484551.71	3755034.43	**3.79**	**1.31**	2.42	0.33	1.38	0.99
676	484651.71	3755034.43	**3.93**	**1.33**	2.54	0.34	1.39	0.99
677	484751.71	3755034.43	**4.10**	**1.36**	2.70	0.36	1.40	1.00
678	484851.71	3755034.43	**4.28**	**1.39**	2.86	0.38	1.42	1.01
679	484951.71	3755034.43	**4.50**	**1.43**	3.06	0.41	1.44	1.02
680	485051.71	3755034.43	**4.75**	**1.48**	3.29	0.44	1.47	1.04
681	485151.71	3755034.43	**5.06**	**1.53**	3.56	0.48	1.50	1.06
682	485251.71	3755034.43	**5.41**	**1.60**	3.88	0.52	1.54	1.08
683	485351.71	3755034.43	**5.86**	**1.70**	4.26	0.57	1.60	1.13
684	485451.71	3755034.43	**6.51**	**1.89**	4.72	0.63	1.79	1.26
685	485549.47	3750934.9	**1.20**	**0.24**	1.08	0.17	0.12	0.07
686	485649.47	3750934.9	**1.18**	**0.23**	1.07	0.17	0.12	0.07
687	485749.47	3750934.9	**1.17**	**0.23**	1.05	0.17	0.12	0.07
688	485849.47	3750934.9	**1.15**	**0.23**	1.04	0.16	0.11	0.07
689	485549.47	3751034.9	**1.28**	**0.25**	1.15	0.18	0.13	0.07
690	485649.47	3751034.9	**1.25**	**0.25**	1.13	0.17	0.12	0.07
691	485749.47	3751034.9	**1.24**	**0.24**	1.12	0.17	0.12	0.07
692	485849.47	3751034.9	**1.23**	**0.24**	1.11	0.17	0.12	0.07
693	485549.47	3751134.9	**1.36**	**0.26**	1.23	0.19	0.13	0.08
694	485649.47	3751134.9	**1.33**	**0.26**	1.20	0.18	0.13	0.07
695	485749.47	3751134.9	**1.32**	**0.26**	1.19	0.18	0.13	0.07
696	485849.47	3751134.9	**1.30**	**0.26**	1.18	0.18	0.13	0.07
697	485549.47	3751234.9	**1.45**	**0.28**	1.31	0.20	0.14	0.08
698	485649.47	3751234.9	**1.42**	**0.27**	1.28	0.19	0.14	0.08
699	485749.47	3751234.9	**1.41**	**0.27**	1.27	0.19	0.14	0.08
700	485849.47	3751234.9	**1.40**	**0.27**	1.26	0.19	0.14	0.08
701	485549.47	3751334.9	**1.54**	**0.30**	1.39	0.21	0.15	0.09
702	485649.47	3751334.9	**1.52**	**0.29**	1.37	0.21	0.15	0.09
703	485749.47	3751334.9	**1.50**	**0.29**	1.36	0.21	0.15	0.08
704	485849.47	3751334.9	**1.49**	**0.29**	1.35	0.21	0.15	0.09
705	485549.47	3751434.9	**1.66**	**0.32**	1.49	0.22	0.16	0.10
706	485649.47	3751434.9	**1.64**	**0.32**	1.48	0.22	0.16	0.09
707	485749.47	3751434.9	**1.61**	**0.31**	1.45	0.22	0.16	0.09
708	485849.47	3751434.9	**1.61**	**0.31**	1.45	0.22	0.16	0.10
709	485549.47	3751534.9	**1.84**	**0.36**	1.63	0.24	0.21	0.12
710	485649.47	3751534.9	**1.81**	**0.36**	1.61	0.24	0.20	0.12
711	485749.47	3751534.9	**1.76**	**0.34**	1.58	0.23	0.18	0.11
712	485849.47	3751534.9	**1.73**	**0.34**	1.56	0.23	0.18	0.10
713	485549.47	3751634.9	**2.34**	**0.49**	2.02	0.30	0.32	0.19
714	485649.47	3751634.9	**2.08**	**0.43**	1.81	0.27	0.27	0.16
715	485749.47	3751634.9	**2.01**	**0.41**	1.76	0.26	0.25	0.15
716	485849.47	3751634.9	**1.86**	**0.36**	1.67	0.25	0.19	0.11
717	485549.47	3751734.9	**2.94**	**0.60**	2.55	0.36	0.40	0.24

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
718	485649.47	3751734.9	**2.75**	**0.57**	2.37	0.34	0.38	0.23
719	485749.47	3751734.9	**2.44**	**0.51**	2.10	0.31	0.33	0.20
720	485849.47	3751734.9	**2.06**	**0.41**	1.83	0.27	0.23	0.14
721	485549.47	3751834.9	**3.36**	**0.69**	2.90	0.41	0.46	0.28
722	485649.47	3751834.9	**3.17**	**0.65**	2.74	0.39	0.43	0.26
723	485749.47	3751834.9	**2.99**	**0.62**	2.58	0.37	0.41	0.25
724	485849.47	3751834.9	**2.54**	**0.53**	2.20	0.32	0.35	0.21
725	485549.47	3751934.9	**3.84**	**0.79**	3.30	0.46	0.54	0.33
726	485649.47	3751934.9	**3.65**	**0.74**	3.16	0.44	0.49	0.29
727	485749.47	3751934.9	**3.54**	**0.71**	3.07	0.43	0.47	0.28
728	485849.47	3751934.9	**3.35**	**0.68**	2.90	0.41	0.45	0.27
729	485549.47	3752034.9	**4.34**	**0.90**	3.70	0.51	0.64	0.40
730	485649.47	3752034.9	**4.14**	**0.82**	3.59	0.50	0.54	0.33
731	485749.47	3752034.9	**4.04**	**0.80**	3.51	0.49	0.53	0.32
732	485849.47	3752034.9	**3.87**	**0.78**	3.36	0.47	0.51	0.31
733	485549.47	3752134.9	**4.67**	**0.94**	4.02	0.54	0.65	0.40
734	485649.47	3752134.9	**4.69**	**0.93**	4.06	0.55	0.63	0.38
735	485749.47	3752134.9	**4.65**	**0.93**	4.03	0.55	0.63	0.38
736	485849.47	3752134.9	**4.55**	**0.92**	3.92	0.54	0.63	0.38
737	485549.47	3752234.9	**4.71**	**0.99**	3.97	0.53	0.74	0.46
738	485649.47	3752234.9	**5.03**	**1.05**	4.27	0.57	0.76	0.48
739	485749.47	3752234.9	**5.21**	**1.09**	4.42	0.59	0.79	0.50
740	485849.47	3752234.9	**5.25**	**1.11**	4.44	0.60	0.81	0.51
741	485549.47	3752334.9	**4.86**	**0.92**	4.26	0.57	0.61	0.36
742	485649.47	3752334.9	**5.00**	**0.94**	4.38	0.58	0.62	0.36
743	485749.47	3752334.9	**5.24**	**0.98**	4.60	0.61	0.64	0.37
744	485849.47	3752334.9	**5.52**	**1.03**	4.87	0.65	0.66	0.39
745	485549.47	3752434.9	**5.14**	**0.94**	4.55	0.60	0.59	0.34
746	485649.47	3752434.9	**5.30**	**0.96**	4.71	0.62	0.59	0.34
747	485749.47	3752434.9	**5.48**	**0.99**	4.87	0.64	0.61	0.35
748	485849.47	3752434.9	**5.67**	**1.02**	5.03	0.66	0.63	0.36
749	485549.47	3752534.9	**5.48**	**0.98**	4.88	0.65	0.60	0.34
750	485649.47	3752534.9	**5.67**	**1.01**	5.07	0.67	0.60	0.34
751	485749.47	3752534.9	**5.88**	**1.04**	5.27	0.69	0.62	0.35
752	485849.47	3752534.9	**6.12**	**1.07**	5.48	0.72	0.64	0.36
753	485549.47	3752634.9	**5.86**	**1.04**	5.25	0.69	0.62	0.35
754	485649.47	3752634.9	**6.10**	**1.07**	5.48	0.72	0.62	0.35
755	485749.47	3752634.9	**6.36**	**1.11**	5.72	0.75	0.64	0.36
756	485849.47	3752634.9	**6.65**	**1.15**	5.98	0.78	0.66	0.37
757	485549.47	3752734.9	**6.29**	**1.11**	5.65	0.74	0.64	0.36
758	485649.47	3752734.9	**6.58**	**1.14**	5.93	0.78	0.65	0.37
759	485749.47	3752734.9	**6.92**	**1.19**	6.24	0.81	0.67	0.38
760	485849.47	3752734.9	**7.29**	**1.24**	6.59	0.86	0.70	0.39

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
761	485549.47	3752834.9	**6.74**	**1.18**	6.07	0.80	0.67	0.38
762	485649.47	3752834.9	**7.11**	**1.23**	6.42	0.84	0.68	0.39
763	485749.47	3752834.9	**7.54**	**1.29**	6.83	0.89	0.71	0.40
764	485849.47	3752834.9	**8.05**	**1.36**	7.31	0.94	0.74	0.41
765	485549.47	3752934.9	**7.22**	**1.26**	6.52	0.86	0.70	0.40
766	485649.47	3752934.9	**7.67**	**1.31**	6.95	0.91	0.72	0.41
767	485749.47	3752934.9	**8.22**	**1.39**	7.47	0.97	0.75	0.42
768	485849.47	3752934.9	**8.93**	**1.50**	8.14	1.05	0.79	0.45
769	485549.47	3753034.9	**7.73**	**1.35**	6.99	0.92	0.75	0.43
770	485649.47	3753034.9	**8.25**	**1.41**	7.49	0.98	0.75	0.43
771	485749.47	3753034.9	**8.93**	**1.51**	8.14	1.06	0.79	0.45
772	485849.47	3753034.9	**9.89**	**1.65**	9.04	1.17	0.85	0.48
773	485549.47	3753134.9	**8.26**	**1.42**	7.50	0.99	0.76	0.43
774	485649.47	3753134.9	**8.86**	**1.51**	8.07	1.06	0.79	0.45
775	485749.47	3753134.9	**9.64**	**1.62**	8.81	1.15	0.83	0.47
776	485849.47	3753134.9	**10.79**	**1.79**	9.90	1.28	0.90	0.51
777	485549.47	3753234.9	**9.05**	**1.54**	8.25	1.09	0.80	0.45
778	485649.47	3753234.9	**9.55**	**1.61**	8.72	1.15	0.83	0.47
779	485749.47	3753234.9	**10.41**	**1.74**	9.54	1.24	0.87	0.49
780	485849.47	3753234.9	**11.67**	**1.93**	10.73	1.39	0.94	0.54
781	485549.47	3753334.9	**10.37**	**1.74**	9.51	1.27	0.86	0.48
782	485649.47	3753334.9	**11.07**	**1.84**	10.19	1.35	0.88	0.49
783	485749.47	3753334.9	**11.81**	**1.95**	10.90	1.43	0.92	0.52
784	485849.47	3753334.9	**13.09**	**2.14**	12.11	1.57	0.99	0.57
785	485549.47	3753434.9	**12.64**	**2.08**	11.71	1.57	0.92	0.51
786	485649.47	3753434.9	**13.73**	**2.23**	12.77	1.71	0.96	0.53
787	485749.47	3753434.9	**14.71**	**2.38**	13.70	1.82	1.00	0.56
788	485849.47	3753434.9	**15.97**	**2.57**	14.90	1.96	1.06	0.61
789	485508.49	3746711.29	**0.55**	**0.12**	0.48	0.07	0.08	0.05
790	491508.49	3746711.29	**0.40**	**0.09**	0.35	0.05	0.05	0.03
791	479508.49	3752711.29	**0.98**	**0.29**	0.71	0.10	0.28	0.19
792	485508.49	3752711.29	**6.07**	**1.07**	5.45	0.72	0.62	0.35
793	491508.49	3752711.29	**2.53**	**0.59**	2.06	0.36	0.47	0.23
794	485508.49	3758711.29	**0.58**	**0.16**	0.44	0.07	0.14	0.10
795	491508.49	3758711.29	**0.41**	**0.09**	0.35	0.06	0.06	0.04
796	485921.9	3750934.24	**1.13**	**0.23**	1.02	0.16	0.11	0.06
797	486021.9	3750934.24	**1.11**	**0.22**	1.00	0.16	0.11	0.06
798	486121.9	3750934.24	**1.10**	**0.22**	0.99	0.16	0.11	0.06
799	485921.9	3751034.24	**1.21**	**0.24**	1.09	0.17	0.12	0.07
800	486021.9	3751034.24	**1.18**	**0.23**	1.06	0.17	0.12	0.07
801	486121.9	3751034.24	**1.16**	**0.23**	1.05	0.17	0.12	0.07
802	485921.9	3751134.24	**1.29**	**0.25**	1.16	0.18	0.13	0.07
803	486021.9	3751134.24	**1.26**	**0.25**	1.14	0.18	0.12	0.07

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
804	486121.9	3751134.24	**1.23**	**0.24**	1.11	0.18	0.12	0.07
805	485921.9	3751234.24	**1.38**	**0.27**	1.24	0.19	0.13	0.08
806	486021.9	3751234.24	**1.35**	**0.26**	1.22	0.19	0.13	0.07
807	486121.9	3751234.24	**1.32**	**0.26**	1.19	0.19	0.13	0.07
808	485921.9	3751334.24	**1.48**	**0.29**	1.33	0.20	0.14	0.08
809	486021.9	3751334.24	**1.45**	**0.28**	1.31	0.20	0.14	0.08
810	486121.9	3751334.24	**1.42**	**0.28**	1.28	0.20	0.14	0.08
811	485921.9	3751434.24	**1.59**	**0.31**	1.43	0.22	0.16	0.09
812	486021.9	3751434.24	**1.56**	**0.30**	1.41	0.21	0.15	0.09
813	486121.9	3751434.24	**1.53**	**0.30**	1.38	0.21	0.15	0.08
814	485921.9	3751534.24	**1.71**	**0.33**	1.54	0.23	0.17	0.10
815	486021.9	3751534.24	**1.69**	**0.33**	1.52	0.23	0.17	0.10
816	486121.9	3751534.24	**1.66**	**0.32**	1.49	0.23	0.16	0.09
817	485921.9	3751634.24	**1.84**	**0.35**	1.65	0.25	0.19	0.11
818	486021.9	3751634.24	**1.85**	**0.36**	1.65	0.25	0.20	0.12
819	486121.9	3751634.24	**1.80**	**0.35**	1.62	0.24	0.18	0.11
820	485921.9	3751734.24	**2.00**	**0.39**	1.79	0.26	0.21	0.13
821	486021.9	3751734.24	**2.05**	**0.41**	1.81	0.27	0.24	0.15
822	486121.9	3751734.24	**1.96**	**0.38**	1.76	0.26	0.20	0.12
823	485921.9	3751834.24	**2.25**	**0.45**	1.98	0.29	0.27	0.16
824	486021.9	3751834.24	**2.24**	**0.45**	1.97	0.29	0.27	0.16
825	486121.9	3751834.24	**2.11**	**0.41**	1.89	0.28	0.22	0.13
826	485921.9	3751934.24	**2.93**	**0.61**	2.52	0.36	0.41	0.25
827	486021.9	3751934.24	**2.56**	**0.53**	2.23	0.32	0.33	0.20
828	486121.9	3751934.24	**2.37**	**0.47**	2.10	0.31	0.27	0.16
829	485921.9	3752034.24	**3.59**	**0.73**	3.10	0.44	0.49	0.29
830	486021.9	3752034.24	**2.99**	**0.63**	2.58	0.37	0.41	0.25
831	486121.9	3752034.24	**2.80**	**0.58**	2.43	0.35	0.37	0.23
832	485921.9	3752134.24	**4.42**	**0.91**	3.79	0.52	0.63	0.39
833	486021.9	3752134.24	**4.09**	**0.87**	3.48	0.49	0.61	0.38
834	486121.9	3752134.24	**3.52**	**0.75**	3.01	0.43	0.51	0.32
835	485921.9	3752234.24	**5.17**	**1.11**	4.34	0.59	0.82	0.52
836	486021.9	3752234.24	**5.07**	**1.13**	4.21	0.58	0.85	0.55
837	486121.9	3752234.24	**4.79**	**1.05**	4.02	0.56	0.78	0.49
838	485921.9	3752334.24	**5.60**	**1.05**	4.93	0.66	0.67	0.40
839	486021.9	3752334.24	**5.65**	**1.09**	4.94	0.67	0.71	0.42
840	486121.9	3752334.24	**5.72**	**1.17**	4.90	0.66	0.82	0.51
841	485921.9	3752434.24	**5.90**	**1.06**	5.25	0.69	0.65	0.37
842	486021.9	3752434.24	**6.20**	**1.12**	5.52	0.73	0.68	0.39
843	486121.9	3752434.24	**6.43**	**1.19**	5.68	0.76	0.74	0.43
844	485921.9	3752534.24	**6.30**	**1.10**	5.64	0.74	0.66	0.37
845	486021.9	3752534.24	**6.57**	**1.15**	5.88	0.77	0.69	0.38
846	486121.9	3752534.24	**6.87**	**1.21**	6.14	0.80	0.73	0.41

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	**Total Cancer Risk**		Construction Cancer Risk		Operation Cancer Risk	
			Unmitigated	**Mitigated**	Unmitigated	Mitigated	Unmitigated	Mitigated
847	485921.9	3752634.24	**6.87**	**1.18**	6.18	0.80	0.68	0.38
848	486021.9	3752634.24	**7.19**	**1.23**	6.48	0.84	0.71	0.39
849	486121.9	3752634.24	**7.55**	**1.29**	6.81	0.88	0.74	0.41
850	485921.9	3752734.24	**7.57**	**1.28**	6.85	0.89	0.72	0.40
851	486021.9	3752734.24	**7.99**	**1.35**	7.25	0.93	0.75	0.41
852	486121.9	3752734.24	**8.45**	**1.42**	7.67	0.98	0.78	0.43
853	485921.9	3752834.24	**8.45**	**1.42**	7.69	0.99	0.76	0.43
854	486021.9	3752834.24	**9.07**	**1.50**	8.27	1.06	0.80	0.45
855	486121.9	3752834.24	**9.73**	**1.60**	8.88	1.13	0.85	0.47
856	485921.9	3752934.24	**9.55**	**1.59**	8.73	1.12	0.82	0.46
857	486021.9	3752934.24	**10.58**	**1.73**	9.70	1.24	0.88	0.49
858	486121.9	3752934.24	**11.79**	**1.91**	10.84	1.37	0.95	0.54
859	487026.2	3754364.03	**57.45**	**10.53**	54.15	8.33	3.31	2.20

Receptor ID	UTM_X	UTM_Y	Census Tract Population	70 year Cancer Risk, Construction + Operation		Cancer Burden	
				Unmitigated	Mitigated	Unmitigated	Mitigated
31	489635.18	3750663.82	3784	1.234119457	0.283841661	0.004669908	0.001074057
32	485424.11	3747672.3	3682	0.720303563	0.174085081	0.002652158	0.000640981
33	482657.64	3753975.1	4107	2.464542833	0.715789346	0.010121877	0.002939747
34	481494.96	3754633.66	6556	1.808977501	0.742682063	0.011859656	0.004869024
35	481148.72	3756136.18	4780	1.159801746	0.519679542	0.005543852	0.002484068
36	482346.53	3748872.86	8249	0.778377043	0.168872459	0.006420832	0.001393029
37	480298.98	3751198.04	3805	1.203195128	0.336932167	0.004578157	0.001282027
38	479598.7	3756506.31	4071	0.840277736	0.361250899	0.003420771	0.001470652
39	478997.81	3753535.19	4922	1.106436169	0.486104092	0.005445879	0.002392604
40	478978.31	3755233.1	1706	2.097173733	1.336068115	0.003577778	0.002279332
41	479197.34	3754462.34	4669	1.235967538	0.620090438	0.005770732	0.002895202
42	479493.25	3752408.79	3670	1.08770279	0.374574529	0.003991869	0.001374689
43	480295.38	3752408.38	3278	1.214696442	0.376353744	0.003981775	0.001233688
44	480287.9	3754227.46	6365	1.251962643	0.495031194	0.007968742	0.003150874
45	494397.38	3753977.58	2689	1.286838197	0.359540472	0.003460308	0.000966804
46	481108.51	3750699.02	6188	1.358434406	0.35734106	0.008405992	0.002211226
47	486794.14	3756878.03	2082	1.131445828	0.339809773	0.00235567	0.000707484
48	482344.95	3752065.79	4489	1.946597747	0.488926303	0.008738277	0.00219479
					Total Cancer Burden*	**0.09**	**0.002**

**70 cancer risk were in units of one in a million. Consistent with the SCAQMD guidance, only cancer risks greater than 1 in a million were included in the cancer burden calculation*

E-5 Project Full Operational Diesel PM and Residential Cancer Risk (2040 – 2069)

ESA

			DPM Concentrations (μg/m^3)	
ID	UTM_X	UTM_Y	Unmitigated	Mitigated
1	489607.4	3753966	0.003005338	0.002024868
2	489738.7	3754024	0.002663909	0.001858582
3	489668.9	3754094	0.002533356	0.001848683
4	489690.1	3754162	0.002401322	0.001785056
5	490282.2	3753425	0.00354684	0.002476163
6	489797.3	3754554	0.001961821	0.001506036
7	490252.9	3754378	0.001795272	0.0013542
8	489006	3754140	0.004557281	0.003554049
9	485642.8	3754267	0.004100126	0.003165087
10	485736.4	3754259	0.004521802	0.003497506
11	487189.2	3754820	0.010091874	0.00899555
12	487233.1	3754690	0.008297948	0.00709333
13	487216.8	3754365	0.012644115	0.011429272
14	487388.8	3754380	0.009543453	0.008421717
15	484625	3751748	0.001234098	0.000953633
16	483279	3751798	0.00092791	0.000727788
17	483231	3751205	0.000825023	0.000648303
18	480165	3750195	0.000624023	0.000534263
19	481211	3749473	0.000563464	0.000463935
20	481867	3752785	0.000944174	0.00080302
21	480678	3751306	0.000678202	0.000572995
22	479989	3752645	0.0008108	0.000723565
23	479889	3756222	0.001134397	0.001082257
24	479234	3757080	0.000547074	0.000509408
25	480276	3756365	0.000922189	0.000872234
26	479887	3754007	0.001055189	0.0009793
27	480772	3755009	0.002233887	0.002151236
28	481560	3754548	0.001674262	0.001568972
29	481845	3754457	0.001689894	0.001574936
30	481754	3753876	0.001207659	0.001084719
31	489635.2	3750664	0.000459906	0.000350302
32	485424.1	3747672	0.000299065	0.000242834
33	482657.6	3753975	0.00143028	0.00126862
34	481495	3754634	0.001756784	0.001654574
35	481148.7	3756136	0.001267021	0.001204873
36	482346.5	3748873	0.000232626	0.0001823
37	480299	3751198	0.000660146	0.000563128
38	479598.7	3756506	0.000867936	0.000821002
39	478997.8	3753535	0.001183188	0.001116459
40	478978.3	3755233	0.003560174	0.003496442
41	479197.3	3754462	0.001567936	0.001503431
42	479493.3	3752409	0.000823625	0.000743943
43	480295.4	3752408	0.000785911	0.00069107

44	480287.9	3754227	0.001156285	0.001075163
45	494397.4	3753978	0.000725748	0.000586299
46	481108.5	3750699	0.000665979	0.000556029
47	486794.1	3756878	0.000672299	0.000603662
48	482345	3752066	0.000894428	0.00073282
49	487553	3745938	0.000182569	0.000153648
50	484553	3746938	0.000241564	0.000198588
51	485553	3746938	0.000253608	0.000208967
52	486553	3746938	0.000202023	0.000171399
53	487553	3746938	0.000222575	0.000184427
54	488553	3746938	0.000202874	0.000169034
55	489553	3746938	0.000200449	0.000165706
56	490553	3746938	0.000184072	0.000152596
57	491553	3746938	0.000175157	0.000144868
58	492553	3746938	0.000168435	0.000139086
59	482553	3747938	0.000212152	0.000168924
60	483553	3747938	0.000354356	0.000283347
61	484553	3747938	0.000337484	0.000271086
62	485553	3747938	0.00031492	0.000254433
63	486553	3747938	0.000293122	0.000240154
64	487553	3747938	0.000187394	0.00015797
65	488553	3747938	0.000244456	0.00020091
66	489553	3747938	0.000229533	0.000188645
67	490553	3747938	0.000216089	0.00017724
68	491553	3747938	0.000204979	0.000167532
69	492553	3747938	0.000196066	0.0001598
70	493553	3747938	0.000189683	0.000154526
71	481553	3748938	0.000477258	0.000381585
72	482553	3748938	0.000243557	0.000191236
73	483553	3748938	0.000407565	0.000324862
74	484553	3748938	0.000427488	0.000337876
75	485553	3748938	0.000407619	0.000323715
76	486553	3748938	0.000377647	0.000302446
77	487553	3748938	0.000296439	0.000248158
78	488553	3748938	0.000304282	0.000245516
79	489553	3748938	0.000279574	0.000226405
80	490553	3748938	0.000262247	0.000211584
81	491553	3748938	0.00024669	0.000198356
82	492553	3748938	0.000236251	0.00018921
83	493553	3748938	0.000233243	0.000187063
84	494553	3748938	0.00030144	0.000256321
85	480553	3749938	0.000738525	0.00064574
86	481553	3749938	0.000643016	0.000527037
87	482553	3749938	0.000627525	0.000501042
88	483553	3749938	0.000616276	0.000485716
89	484553	3749938	0.000451724	0.000357484
90	485553	3749938	0.000369763	0.000294132

91	486553	3749938	0.00043767	0.000354462
92	487553	3749938	0.000458427	0.000362341
93	488553	3749938	0.000397964	0.000312339
94	489553	3749938	0.00036174	0.000285053
95	490553	3749938	0.000334027	0.000262435
96	491553	3749938	0.000313074	0.00024466
97	492553	3749938	0.000304898	0.000237148
98	493553	3749938	0.000341455	0.00027118
99	494553	3749938	0.000287451	0.000218146
100	495553	3749938	0.000228161	0.000188337
101	480553	3750938	0.000646363	0.000545317
102	481553	3750938	0.000695371	0.000573577
103	482553	3750938	0.000755391	0.000607747
104	483553	3750938	0.000868914	0.000689323
105	484553	3750938	0.000863038	0.000673992
106	485553	3750938	0.000381804	0.000286657
107	486553	3750938	0.000352273	0.000265001
108	487553	3750938	0.000551668	0.000438674
109	488553	3750938	0.000597203	0.000442398
110	489553	3750938	0.000524571	0.000391487
111	490553	3750938	0.000468271	0.000349838
112	491553	3750938	0.00043614	0.000323869
113	492553	3750938	0.000490154	0.000375303
114	493553	3750938	0.000424692	0.000311663
115	494553	3750938	0.000411569	0.000305844
116	495553	3750938	0.000383874	0.000298329
117	479553	3751938	0.000760661	0.00067789
118	480553	3751938	0.000747192	0.000644871
119	481553	3751938	0.000789246	0.000659741
120	482553	3751938	0.000876139	0.000706882
121	483553	3751938	0.00100534	0.000784025
122	484553	3751938	0.00119653	0.000910504
123	485553	3751938	0.001652386	0.001310076
124	486553	3751938	0.000677518	0.000518984
125	487553	3751938	0.0010938	0.00085464
126	488553	3751938	0.00117449	0.000795388
127	489553	3751938	0.001068619	0.000702555
128	490553	3751938	0.000896855	0.000589903
129	491553	3751938	0.000929406	0.000648649
130	492553	3751938	0.000742622	0.000479676
131	493553	3751938	0.000665304	0.000493868
132	494553	3751938	0.000613824	0.000458547
133	495553	3751938	0.000540945	0.000414249
134	479553	3752938	0.000919753	0.000842083
135	480553	3752938	0.000917948	0.00082014
136	481553	3752938	0.000989982	0.000862685
137	482553	3752938	0.001120124	0.000945069

138	483553	3752938	0.001288046	0.001036158
139	484553	3752938	0.00160562	0.001206286
140	485553	3752938	0.002127435	0.001549907
141	486553	3752938	0.004197908	0.00330725
142	487553	3752938	0.004624128	0.003486353
143	488553	3752938	0.004121289	0.003017912
144	489553	3752938	0.003759956	0.002743019
145	490553	3752938	0.003118444	0.002239126
146	491553	3752938	0.001615505	0.001121584
147	492553	3752938	0.001228605	0.000804777
148	493553	3752938	0.000998658	0.000713483
149	494553	3752938	0.000851242	0.000635835
150	495553	3752938	0.000685581	0.000530474
151	479553	3753938	0.001056648	0.000985336
152	480553	3753938	0.001065631	0.000976785
153	481553	3753938	0.001210442	0.00109536
154	482553	3753938	0.001382839	0.001225984
155	483553	3753938	0.001739126	0.001518375
156	484553	3753938	0.002062736	0.001657532
157	485553	3753938	0.003328033	0.002399635
158	486553	3753938	0.00587771	0.004415519
159	487553	3753938	0.006449908	0.005269006
160	488553	3753938	0.005707975	0.004366261
161	489553	3753938	0.003208337	0.002146419
162	490553	3753938	0.001856303	0.001363774
163	491553	3753938	0.001295453	0.001010088
164	492553	3753938	0.001062803	0.000839688
165	493553	3753938	0.000869399	0.000695423
166	494553	3753938	0.000790045	0.0006368
167	495553	3753938	0.000616134	0.000500931
168	479553	3754938	0.001879019	0.001812246
169	480553	3754938	0.002003114	0.001923237
170	481553	3754938	0.002294445	0.002195577
171	482553	3754938	0.00335287	0.003226354
172	483553	3754938	0.00368581	0.003520762
173	484553	3754938	0.003653175	0.003405562
174	485553	3754938	0.005300037	0.004852217
175	486553	3754938	0.007308372	0.006652972
176	487553	3754938	0.0062339	0.005368797
177	488553	3754938	0.003502589	0.002902681
178	489553	3754938	0.002195006	0.001888802
179	490553	3754938	0.001462739	0.001284618
180	491553	3754938	0.000961313	0.000837579
181	492553	3754938	0.00069004	0.000593919
182	493553	3754938	0.000697621	0.000605986
183	494553	3754938	0.000530786	0.000457223
184	495553	3754938	0.0004455	0.000382642

185	479553	3755938	0.001890688	0.001833685
186	480553	3755938	0.001584961	0.001523412
187	481553	3755938	0.001605812	0.001537024
188	482553	3755938	0.002296043	0.002205008
189	483553	3755938	0.002411683	0.002302912
190	484553	3755938	0.002292656	0.002159919
191	485553	3755938	0.003236686	0.003072111
192	486553	3755938	0.002616244	0.002439538
193	487553	3755938	0.001445759	0.001334041
194	488553	3755938	0.00100995	0.000921686
195	489553	3755938	0.000692157	0.000624987
196	490553	3755938	0.000572999	0.000515125
197	491553	3755938	0.000472248	0.000422692
198	492553	3755938	0.000572246	0.000526197
199	493553	3755938	0.000419577	0.000378874
200	494553	3755938	0.000403112	0.000365151
201	479553	3756938	0.000573374	0.000534622
202	480553	3756938	0.000548895	0.000508986
203	481553	3756938	0.000495782	0.000457683
204	482553	3756938	0.00051746	0.000475038
205	483553	3756938	0.000872637	0.000803056
206	484553	3756938	0.00084184	0.000766684
207	485553	3756938	0.001827111	0.001750147
208	486553	3756938	0.000695643	0.000626292
209	487553	3756938	0.00045769	0.000405552
210	488553	3756938	0.000371244	0.000326038
211	489553	3756938	0.000325199	0.000284817
212	490553	3756938	0.000297106	0.000260157
213	491553	3756938	0.000259743	0.000227122
214	492553	3756938	0.00023137	0.000202437
215	493553	3756938	0.000245885	0.000217978
216	494553	3756938	0.000238675	0.000212418
217	479553	3757938	0.000288328	0.000263889
218	480553	3757938	0.000276024	0.000251565
219	481553	3757938	0.00029157	0.000263898
220	482553	3757938	0.000360656	0.000323934
221	483553	3757938	0.000353692	0.000315771
222	484553	3757938	0.000465686	0.000418696
223	485553	3757938	0.000539591	0.000498787
224	486553	3757938	0.000322692	0.00028524
225	487553	3757938	0.000263808	0.000230199
226	488553	3757938	0.00023161	0.000200905
227	489553	3757938	0.000213728	0.000184893
228	490553	3757938	0.000195439	0.000168934
229	491553	3757938	0.000179074	0.000154599
230	492553	3757938	0.000171933	0.000148988
231	493553	3757938	0.000190686	0.000166992

232	480553	3758938	0.000207166	0.000186495
233	481553	3758938	0.000231101	0.000206373
234	482553	3758938	0.000225123	0.000199414
235	483553	3758938	0.000236025	0.000208208
236	484553	3758938	0.00029534	0.000264183
237	485553	3758938	0.000685858	0.00065257
238	486553	3758938	0.000223329	0.000196708
239	487553	3758938	0.000245191	0.000215841
240	488553	3758938	0.000182051	0.000158491
241	489553	3758938	0.000184564	0.000160754
242	490553	3758938	0.000201511	0.000175347
243	491553	3758938	0.00016388	0.000142275
244	492553	3758938	0.000170507	0.000148228
245	481553	3759938	0.000170999	0.000151817
246	482553	3759938	0.000176464	0.000155607
247	483553	3759938	0.000186986	0.000164671
248	484553	3759938	0.000260077	0.000232294
249	485553	3759938	0.000678447	0.000644739
250	486553	3759938	0.00032149	0.00028742
251	487553	3759938	0.000262256	0.000232114
252	488553	3759938	0.000261735	0.000229806
253	489553	3759938	0.000226817	0.000197994
254	490553	3759938	0.000175373	0.000153105
255	491553	3759938	0.000152834	0.000133041
256	482553	3760938	0.000166449	0.000146921
257	483553	3760938	0.000192501	0.000170624
258	484553	3760938	0.000245855	0.00022007
259	485553	3760938	0.000558289	0.000524197
260	486553	3760938	0.00036625	0.000329826
261	487553	3760938	0.000292034	0.000262292
262	488553	3760938	0.000166389	0.000147291
263	489553	3760938	0.000126207	0.000110586
264	490553	3760938	0.000120723	0.000105368
265	484551.7	3750934	0.00085781	0.000670964
266	484651.7	3750934	0.00084689	0.000662861
267	484751.7	3750934	0.000647301	0.000513036
268	484851.7	3750934	0.000593984	0.000470956
269	484951.7	3750934	0.000627812	0.00049677
270	485051.7	3750934	0.00056273	0.000444998
271	485151.7	3750934	0.000468565	0.000364323
272	485251.7	3750934	0.000412708	0.000314147
273	485351.7	3750934	0.000396894	0.000299953
274	485451.7	3750934	0.0003885	0.00029256
275	484551.7	3751034	0.00091639	0.000709662
276	484651.7	3751034	0.00090406	0.000701219
277	484751.7	3751034	0.000849246	0.000669214
278	484851.7	3751034	0.000672371	0.0005324

279	484951.7	3751034	0.000747061	0.000589409
280	485051.7	3751034	0.00062661	0.000495875
281	485151.7	3751034	0.000543262	0.000427368
282	485251.7	3751034	0.000462049	0.000355854
283	485351.7	3751034	0.000426744	0.000324007
284	485451.7	3751034	0.000411431	0.000310272
285	484551.7	3751134	0.000962674	0.000742171
286	484651.7	3751134	0.000960568	0.000738894
287	484751.7	3751134	0.000948044	0.000731807
288	484851.7	3751134	0.000856235	0.000678417
289	484951.7	3751134	0.000877054	0.000690184
290	485051.7	3751134	0.00072305	0.000571168
291	485151.7	3751134	0.000641733	0.000507903
292	485251.7	3751134	0.000555085	0.000435731
293	485351.7	3751134	0.000472087	0.000362072
294	485451.7	3751134	0.000438092	0.000331327
295	484551.7	3751234	0.001010266	0.000778358
296	484651.7	3751234	0.001010341	0.000775898
297	484751.7	3751234	0.001002462	0.00077203
298	484851.7	3751234	0.000974393	0.000757209
299	484951.7	3751234	0.000948845	0.000742007
300	485051.7	3751234	0.00085298	0.000675077
301	485151.7	3751234	0.000719612	0.000570026
302	485251.7	3751234	0.000543351	0.000423307
303	485351.7	3751234	0.00048047	0.000366617
304	485451.7	3751234	0.000461442	0.000349354
305	484551.7	3751334	0.001081053	0.000835602
306	484651.7	3751334	0.001073192	0.000827108
307	484751.7	3751334	0.001061106	0.000819641
308	484851.7	3751334	0.001046072	0.000810269
309	484951.7	3751334	0.00103785	0.000803428
310	485051.7	3751334	0.000995324	0.000779379
311	485151.7	3751334	0.000842305	0.000666826
312	485251.7	3751334	0.00066315	0.000525565
313	485351.7	3751334	0.000522765	0.000401953
314	485451.7	3751334	0.00048902	0.000371194
315	484551.7	3751434	0.001195871	0.000941044
316	484651.7	3751434	0.001163768	0.000905728
317	484751.7	3751434	0.001144393	0.000885781
318	484851.7	3751434	0.00113107	0.000873877
319	484951.7	3751434	0.001120277	0.000865319
320	485051.7	3751434	0.00110667	0.000855016
321	485151.7	3751434	0.00099371	0.000789774
322	485251.7	3751434	0.000773905	0.00061681
323	485351.7	3751434	0.000608583	0.00047649
324	485451.7	3751434	0.00054169	0.000415823
325	484551.7	3751534	0.001456143	0.001194651

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327	484751.7	3751534	0.001270368	0.000997498
328	484851.7	3751534	0.001233975	0.000958587
329	484951.7	3751534	0.001216508	0.000938945
330	485051.7	3751534	0.00120715	0.000926978
331	485151.7	3751534	0.001192785	0.000916086
332	485251.7	3751534	0.001082089	0.00085507
333	485351.7	3751534	0.000865048	0.000689985
334	485451.7	3751534	0.000715318	0.00056769
335	484551.7	3751634	0.001348616	0.00108066
336	484651.7	3751634	0.001389714	0.001114828
337	484751.7	3751634	0.001432773	0.001150223
338	484851.7	3751634	0.001460119	0.001172175
339	484951.7	3751634	0.001360079	0.001067802
340	485051.7	3751634	0.001317314	0.001020951
341	485151.7	3751634	0.001301717	0.00100178
342	485251.7	3751634	0.00126963	0.000980559
343	485351.7	3751634	0.001209076	0.000942354
344	485451.7	3751634	0.001103471	0.000878023
345	484551.7	3751734	0.00119826	0.000925036
346	484651.7	3751734	0.001264518	0.00098234
347	484751.7	3751734	0.001369029	0.001078914
348	484851.7	3751734	0.001502342	0.001205645
349	484951.7	3751734	0.001504911	0.00120346
350	485051.7	3751734	0.001637929	0.001331229
351	485151.7	3751734	0.001489861	0.001175256
352	485251.7	3751734	0.001448465	0.001130981
353	485351.7	3751734	0.001395598	0.00108578
354	485451.7	3751734	0.001321168	0.001028942
355	484551.7	3751834	0.001178528	0.000900498
356	484651.7	3751834	0.001216232	0.000929544
357	484751.7	3751834	0.001259795	0.000964382
358	484851.7	3751834	0.001311587	0.001008227
359	484951.7	3751834	0.001376602	0.001067296
360	485051.7	3751834	0.001520517	0.001203986
361	485151.7	3751834	0.001542038	0.001214307
362	485251.7	3751834	0.001632191	0.001296729
363	485351.7	3751834	0.001647723	0.001312326
364	485451.7	3751834	0.00164466	0.001317141
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367	484751.7	3751934	0.001248195	0.00094805
368	484851.7	3751934	0.001281837	0.000973346
369	484951.7	3751934	0.001318899	0.001002103
370	485051.7	3751934	0.001366238	0.001039846
371	485151.7	3751934	0.001426081	0.001088516
372	485251.7	3751934	0.00150841	0.001158113

373	485351.7	3751934	0.001627079	0.001268813
374	485451.7	3751934	0.001700973	0.001347094
375	484551.7	3752034	0.00123658	0.000940967
376	484651.7	3752034	0.001259397	0.000956388
377	484751.7	3752034	0.001283978	0.000973366
378	484851.7	3752034	0.001310027	0.000991611
379	484951.7	3752034	0.001342007	0.001014467
380	485051.7	3752034	0.001380379	0.001042355
381	485151.7	3752034	0.001427179	0.001077177
382	485251.7	3752034	0.001494628	0.001130077
383	485351.7	3752034	0.001585696	0.001209182
384	485451.7	3752034	0.001797931	0.001414264
385	484551.7	3752134	0.001309768	0.001003584
386	484651.7	3752134	0.00133143	0.001017358
387	484751.7	3752134	0.001355632	0.00103318
388	484851.7	3752134	0.001380202	0.001049316
389	484951.7	3752134	0.001407388	0.001067564
390	485051.7	3752134	0.001440843	0.001090734
391	485151.7	3752134	0.001481643	0.001119932
392	485251.7	3752134	0.001541168	0.001164836
393	485351.7	3752134	0.00163458	0.001242518
394	485451.7	3752134	0.00184928	0.001444735
395	484551.7	3752234	0.00144234	0.001126349
396	484651.7	3752234	0.001473627	0.001148329
397	484751.7	3752234	0.001496568	0.00116218
398	484851.7	3752234	0.001516013	0.001172452
399	484951.7	3752234	0.00161539	0.001262436
400	485051.7	3752234	0.001568001	0.00120522
401	485151.7	3752234	0.001609817	0.001236612
402	485251.7	3752234	0.001656023	0.001268681
403	485351.7	3752234	0.001744825	0.001340437
404	485451.7	3752234	0.002006212	0.001585117
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407	484751.7	3752334	0.001428874	0.001081665
408	484851.7	3752334	0.001456068	0.001099205
409	484951.7	3752334	0.001486183	0.001118959
410	485051.7	3752334	0.001516782	0.001139289
411	485151.7	3752334	0.001552645	0.001163754
412	485251.7	3752334	0.001594992	0.001193738
413	485351.7	3752334	0.001653852	0.001237788
414	485451.7	3752334	0.001757089	0.001322574
415	484551.7	3752434	0.001374057	0.001033906
416	484651.7	3752434	0.001400675	0.00105041
417	484751.7	3752434	0.001426966	0.001066937
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421	485151.7	3752434	0.001560259	0.001154198
422	485251.7	3752434	0.001601804	0.001182746
423	485351.7	3752434	0.001653242	0.001219379
424	485451.7	3752434	0.001729627	0.001279192
425	484551.7	3752534	0.001401819	0.001049316
426	484651.7	3752534	0.001429809	0.001066429
427	484751.7	3752534	0.001459488	0.001084859
428	484851.7	3752534	0.001491713	0.001105178
429	484951.7	3752534	0.00152427	0.00112611
430	485051.7	3752534	0.001560829	0.001149939
431	485151.7	3752534	0.001599872	0.001175854
432	485251.7	3752534	0.001641838	0.001204362
433	485351.7	3752534	0.001690709	0.001238524
434	485451.7	3752534	0.00176205	0.001293077
435	484551.7	3752634	0.001438541	0.001074066
436	484651.7	3752634	0.001468059	0.001091822
437	484751.7	3752634	0.001499137	0.001110847
438	484851.7	3752634	0.001535217	0.00113325
439	484951.7	3752634	0.001570908	0.001155938
440	485051.7	3752634	0.001610282	0.001181404
441	485151.7	3752634	0.001651377	0.001208572
442	485251.7	3752634	0.001695229	0.001238247
443	485351.7	3752634	0.001745409	0.001273186
444	485451.7	3752634	0.001817814	0.001327956
445	484551.7	3752734	0.001483352	0.001106832
446	484651.7	3752734	0.001516186	0.001126096
447	484751.7	3752734	0.001550521	0.001146678
448	484851.7	3752734	0.001587292	0.00116924
449	484951.7	3752734	0.001626016	0.001193528
450	485051.7	3752734	0.001668241	0.001220643
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452	485251.7	3752734	0.00175782	0.001280463
453	485351.7	3752734	0.001810408	0.001317086
454	485451.7	3752734	0.001882636	0.001372065
455	484551.7	3752834	0.001534456	0.001146596
456	484651.7	3752834	0.001570243	0.001166992
457	484751.7	3752834	0.001606119	0.001187866
458	484851.7	3752834	0.001647252	0.001212626
459	484951.7	3752834	0.001689701	0.001238761
460	485051.7	3752834	0.001734221	0.001266916
461	485151.7	3752834	0.001780125	0.001296864
462	485251.7	3752834	0.001829099	0.001329854
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464	485451.7	3752834	0.001957854	0.001425333
465	484551.7	3752934	0.001601751	0.001203046
466	484651.7	3752934	0.00164048	0.00122451

467	484751.7	3752934	0.001679838	0.001246691
468	484851.7	3752934	0.001724112	0.001272555
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470	485051.7	3752934	0.001818983	0.001330259
471	485151.7	3752934	0.00186735	0.001361117
472	485251.7	3752934	0.001920264	0.00139627
473	485351.7	3752934	0.001973824	0.001433845
474	485451.7	3752934	0.002047133	0.001490124
475	484551.7	3753034	0.001715618	0.001307625
476	484651.7	3753034	0.00176227	0.001335261
477	484751.7	3753034	0.001814456	0.001367484
478	484851.7	3753034	0.001855514	0.001387618
479	484951.7	3753034	0.001903049	0.001414056
480	485051.7	3753034	0.00195553	0.001445755
481	485151.7	3753034	0.002014561	0.001483999
482	485251.7	3753034	0.002115233	0.001564722
483	485351.7	3753034	0.002120727	0.001552771
484	485451.7	3753034	0.002181446	0.001596507
485	484551.7	3753134	0.001687332	0.001270859
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487	484751.7	3753134	0.001785371	0.001324848
488	484851.7	3753134	0.001837625	0.00135412
489	484951.7	3753134	0.001893722	0.001386283
490	485051.7	3753134	0.001952738	0.00142104
491	485151.7	3753134	0.002013623	0.001457896
492	485251.7	3753134	0.002078831	0.001499391
493	485351.7	3753134	0.002146062	0.001544987
494	485451.7	3753134	0.002226377	0.001605705
495	484551.7	3753234	0.001710402	0.001286521
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497	484751.7	3753234	0.001815975	0.001343414
498	484851.7	3753234	0.001873055	0.001374714
499	484951.7	3753234	0.001934588	0.001409086
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503	485351.7	3753234	0.002223326	0.001584671
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508	484851.7	3753334	0.001925027	0.001413483
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512	485251.7	3753334	0.002229989	0.001586604
513	485351.7	3753334	0.002326635	0.001646844

514	485451.7	3753334	0.002441918	0.0017269
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516	484651.7	3753434	0.001848842	0.001389154
517	484751.7	3753434	0.001909309	0.001420715
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519	484951.7	3753434	0.002048261	0.001494284
520	485051.7	3753434	0.002126433	0.001536252
521	485151.7	3753434	0.002215529	0.001586236
522	485251.7	3753434	0.002317732	0.001645499
523	485351.7	3753434	0.002433163	0.001715569
524	485451.7	3753434	0.00258071	0.00181406
525	484551.7	3753534	0.001834271	0.001401772
526	484651.7	3753534	0.001889351	0.001429249
527	484751.7	3753534	0.001951536	0.001461171
528	484851.7	3753534	0.002026173	0.001502069
529	484951.7	3753534	0.00210231	0.001542131
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532	485251.7	3753534	0.002397312	0.001705771
533	485351.7	3753534	0.00253218	0.001786736
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535	484551.7	3753634	0.001877063	0.001447138
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537	484751.7	3753634	0.002000177	0.001510122
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543	485351.7	3753634	0.002608998	0.001852946
544	485451.7	3753634	0.002796159	0.001980042
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546	484651.7	3753734	0.001991163	0.001537158
547	484751.7	3753734	0.00205413	0.001567525
548	484851.7	3753734	0.002123749	0.001601175
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550	485051.7	3753734	0.002301359	0.001695531
551	485151.7	3753734	0.002408853	0.001754781
552	485251.7	3753734	0.002533232	0.001826116
553	485351.7	3753734	0.002681382	0.001916507
554	485451.7	3753734	0.002875536	0.002049607
555	484551.7	3753834	0.001993158	0.001576913
556	484651.7	3753834	0.002047351	0.001601491
557	484751.7	3753834	0.002110471	0.001631739
558	484851.7	3753834	0.002181027	0.001665539
559	484951.7	3753834	0.002265921	0.001709602
560	485051.7	3753834	0.002359809	0.001757485

561	485151.7	3753834	0.002468271	0.001814695
562	485251.7	3753834	0.002599845	0.001889462
563	485351.7	3753834	0.00275538	0.001982722
564	485451.7	3753834	0.002959871	0.002119668
565	484551.7	3753934	0.002057964	0.001652498
566	484651.7	3753934	0.002115125	0.00168019
567	484751.7	3753934	0.00216924	0.001700941
568	484851.7	3753934	0.002241081	0.001736206
569	484951.7	3753934	0.002325125	0.001779229
570	485051.7	3753934	0.002421929	0.001829895
571	485151.7	3753934	0.002533649	0.001889484
572	485251.7	3753934	0.002665218	0.001962212
573	485351.7	3753934	0.002824593	0.002054876
574	485451.7	3753934	0.003036929	0.002191879
575	484551.7	3754034	0.002134061	0.001744042
576	484651.7	3754034	0.002164441	0.00174111
577	484751.7	3754034	0.002233019	0.001777893
578	484851.7	3754034	0.002308684	0.001817367
579	484951.7	3754034	0.002391473	0.0018593
580	485051.7	3754034	0.002485474	0.001907343
581	485151.7	3754034	0.002595727	0.001965697
582	485251.7	3754034	0.00272772	0.002039071
583	485351.7	3754034	0.002888299	0.002133606
584	485451.7	3754034	0.003102403	0.00227432
585	484551.7	3754134	0.002186274	0.001807139
586	484651.7	3754134	0.002225021	0.001815615
587	484751.7	3754134	0.002293936	0.001854061
588	484851.7	3754134	0.002375554	0.001901776
589	484951.7	3754134	0.002457415	0.001943255
590	485051.7	3754134	0.002553067	0.001992794
591	485151.7	3754134	0.002664673	0.002052706
592	485251.7	3754134	0.002796993	0.002127144
593	485351.7	3754134	0.00295868	0.002223219
594	485451.7	3754134	0.003172011	0.002363175
595	484551.7	3754234	0.002240663	0.001872713
596	484651.7	3754234	0.00229019	0.001895488
597	484751.7	3754234	0.002363842	0.001940994
598	484851.7	3754234	0.002446119	0.001991594
599	484951.7	3754234	0.002530731	0.002038242
600	485051.7	3754234	0.002624803	0.002088277
601	485151.7	3754234	0.002735868	0.00214918
602	485251.7	3754234	0.00286773	0.00222367
603	485351.7	3754234	0.003029111	0.002319229
604	485451.7	3754234	0.00324325	0.002459568
605	484551.7	3754334	0.002319381	0.001965274
606	484651.7	3754334	0.002383308	0.002006268
607	484751.7	3754334	0.002455562	0.002052936

608	484851.7	3754334	0.002529848	0.002096785
609	484951.7	3754334	0.002613682	0.002145331
610	485051.7	3754334	0.002708685	0.002199202
611	485151.7	3754334	0.002818094	0.002261127
612	485251.7	3754334	0.002948876	0.002337852
613	485351.7	3754334	0.003105414	0.002433595
614	485451.7	3754334	0.003295493	0.002555144
615	484551.7	3754434	0.002466948	0.002134251
616	484651.7	3754434	0.002513144	0.002157251
617	484751.7	3754434	0.00257021	0.002189104
618	484851.7	3754434	0.002635733	0.002225749
619	484951.7	3754434	0.002715329	0.002272607
620	485051.7	3754434	0.002807268	0.002326432
621	485151.7	3754434	0.0029154	0.002390492
622	485251.7	3754434	0.003043715	0.002468005
623	485351.7	3754434	0.00319795	0.002564289
624	485451.7	3754434	0.003387155	0.002688871
625	484551.7	3754534	0.002641132	0.002327165
626	484651.7	3754534	0.002686088	0.002351475
627	484751.7	3754534	0.002725027	0.002366095
628	484851.7	3754534	0.002773038	0.00238861
629	484951.7	3754534	0.002842577	0.002428131
630	485051.7	3754534	0.002929537	0.002479577
631	485151.7	3754534	0.003035137	0.002543871
632	485251.7	3754534	0.003160924	0.002621983
633	485351.7	3754534	0.003312481	0.002718463
634	485451.7	3754534	0.003505868	0.002848357
635	484551.7	3754634	0.002802756	0.00250701
636	484651.7	3754634	0.002841798	0.002526934
637	484751.7	3754634	0.002899832	0.002564488
638	484851.7	3754634	0.002935938	0.002578445
639	484951.7	3754634	0.002995686	0.002611829
640	485051.7	3754634	0.003077688	0.0026629
641	485151.7	3754634	0.00317944	0.002728647
642	485251.7	3754634	0.003303422	0.002809311
643	485351.7	3754634	0.003456635	0.002910261
644	485451.7	3754634	0.0036547	0.003047312
645	484551.7	3754734	0.002978054	0.002698924
646	484651.7	3754734	0.003018031	0.002722379
647	484751.7	3754734	0.003064686	0.002751352
648	484851.7	3754734	0.003120789	0.002788199
649	484951.7	3754734	0.003188652	0.002833756
650	485051.7	3754734	0.003270037	0.002888999
651	485151.7	3754734	0.003368486	0.00295669
652	485251.7	3754734	0.003490168	0.003042657
653	485351.7	3754734	0.003643485	0.0031557
654	485451.7	3754734	0.003840616	0.003306472

655	484551.7	3754834	0.003242658	0.002979317
656	484651.7	3754834	0.003285329	0.003008528
657	484751.7	3754834	0.003333217	0.003041133
658	484851.7	3754834	0.003388116	0.003078581
659	484951.7	3754834	0.003454875	0.003126139
660	485051.7	3754834	0.003533567	0.00318294
661	485151.7	3754834	0.003631038	0.003255403
662	485251.7	3754834	0.003755515	0.003351331
663	485351.7	3754834	0.003922464	0.003487445
664	485451.7	3754834	0.004140971	0.003671542
665	484551.7	3754934	0.003634536	0.00338655
666	484651.7	3754934	0.003674978	0.003415274
667	484751.7	3754934	0.003720486	0.003447449
668	484851.7	3754934	0.003772977	0.003484859
669	484951.7	3754934	0.003836569	0.003531869
670	485051.7	3754934	0.003910227	0.003586716
671	485151.7	3754934	0.004006419	0.003662433
672	485251.7	3754934	0.004134273	0.003767131
673	485351.7	3754934	0.004333918	0.003942243
674	485451.7	3754934	0.004702267	0.004283123
675	484551.7	3755034	0.004219462	0.003985179
676	484651.7	3755034	0.004255692	0.004011236
677	484751.7	3755034	0.004294449	0.004038013
678	484851.7	3755034	0.004346369	0.004077414
679	484951.7	3755034	0.004407037	0.004123743
680	485051.7	3755034	0.004481581	0.004182307
681	485151.7	3755034	0.004574177	0.004257259
682	485251.7	3755034	0.004703021	0.004367231
683	485351.7	3755034	0.004910749	0.004554369
684	485451.7	3755034	0.005501719	0.005122284
685	485549.5	3750935	0.000381408	0.000286398
686	485649.5	3750935	0.000376802	0.00028247
687	485749.5	3750935	0.000373905	0.000280085
688	485849.5	3750935	0.000369327	0.000276267
689	485549.5	3751035	0.000402374	0.000302286
690	485649.5	3751035	0.000396166	0.000296938
691	485749.5	3751035	0.000393503	0.000294719
692	485849.5	3751035	0.000389964	0.000291775
693	485549.5	3751135	0.000425468	0.000320068
694	485649.5	3751135	0.000418729	0.000314191
695	485749.5	3751135	0.000415753	0.000311674
696	485849.5	3751135	0.000411351	0.000307938
697	485549.5	3751235	0.000452898	0.000341689
698	485649.5	3751235	0.000444221	0.000334028
699	485749.5	3751235	0.000440756	0.000331036
700	485849.5	3751235	0.000439925	0.000330468
701	485549.5	3751335	0.000482122	0.000364898

702	485649.5	3751335	0.000475505	0.000358979
703	485749.5	3751335	0.000470137	0.000354265
704	485849.5	3751335	0.000473821	0.00035779
705	485549.5	3751435	0.000522869	0.000398477
706	485649.5	3751435	0.000518805	0.000394748
707	485749.5	3751435	0.000507386	0.00038446
708	485849.5	3751435	0.000522982	0.000398924
709	485549.5	3751535	0.000654594	0.000514071
710	485649.5	3751535	0.000638801	0.000499731
711	485749.5	3751535	0.000580121	0.000446876
712	485849.5	3751535	0.000569107	0.000437031
713	485549.5	3751635	0.001009894	0.000803943
714	485649.5	3751635	0.000853953	0.000681468
715	485749.5	3751635	0.000795791	0.000633331
716	485849.5	3751635	0.00061185	0.000471853
717	485549.5	3751735	0.001247554	0.000980651
718	485649.5	3751735	0.001192698	0.000943849
719	485749.5	3751735	0.001061267	0.000846565
720	485849.5	3751735	0.000748065	0.000590538
721	485549.5	3751835	0.001423585	0.00112109
722	485649.5	3751835	0.001350044	0.001063201
723	485749.5	3751835	0.001292025	0.001021026
724	485849.5	3751835	0.001103141	0.000882625
725	485549.5	3751935	0.001652881	0.001311622
726	485649.5	3751935	0.001514799	0.00118527
727	485749.5	3751935	0.001473871	0.00115035
728	485849.5	3751935	0.001418527	0.001111805
729	485549.5	3752035	0.001913952	0.001532891
730	485649.5	3752035	0.001679936	0.001308415
731	485749.5	3752035	0.001644047	0.001277913
732	485849.5	3752035	0.001610713	0.0012578
733	485549.5	3752135	0.001969271	0.001556215
734	485649.5	3752135	0.00191735	0.001499243
735	485749.5	3752135	0.001923089	0.001505909
736	485849.5	3752135	0.001935394	0.001527596
737	485549.5	3752235	0.002209253	0.001773399
738	485649.5	3752235	0.002276635	0.00182918
739	485749.5	3752235	0.002368736	0.00191246
740	485849.5	3752235	0.002439675	0.001983816
741	485549.5	3752335	0.001850101	0.001396992
742	485649.5	3752335	0.001895656	0.001424482
743	485749.5	3752335	0.001957252	0.00147074
744	485849.5	3752335	0.002028742	0.001530912
745	485549.5	3752435	0.001794472	0.001324626
746	485649.5	3752435	0.00182665	0.001337114
747	485749.5	3752435	0.001882293	0.001371805
748	485849.5	3752435	0.001954887	0.00142284

749	485549.5	3752535	0.001822519	0.00133457
750	485649.5	3752535	0.00185133	0.001342231
751	485749.5	3752535	0.001907756	0.001375517
752	485849.5	3752535	0.001978763	0.001421248
753	485549.5	3752635	0.001880855	0.001371813
754	485649.5	3752635	0.001910884	0.001379303
755	485749.5	3752635	0.001967672	0.001412109
756	485849.5	3752635	0.002038557	0.00145584
757	485549.5	3752735	0.001953399	0.001422491
758	485649.5	3752735	0.001986089	0.001431634
759	485749.5	3752735	0.002050619	0.001469412
760	485849.5	3752735	0.002129544	0.001517696
761	485549.5	3752835	0.002033894	0.001481518
762	485649.5	3752835	0.002069403	0.001493384
763	485749.5	3752835	0.002143987	0.001539441
764	485849.5	3752835	0.00223422	0.001596148
765	485549.5	3752935	0.002125289	0.001549419
766	485649.5	3752935	0.002162579	0.001563807
767	485749.5	3752935	0.002246546	0.00162032
768	485849.5	3752935	0.002356775	0.001695749
769	485549.5	3753035	0.002242012	0.001638611
770	485649.5	3753035	0.00226017	0.001635901
771	485749.5	3753035	0.002355235	0.001704743
772	485849.5	3753035	0.002493296	0.001811424
773	485549.5	3753135	0.002284072	0.001644917
774	485649.5	3753135	0.002355896	0.00169816
775	485749.5	3753135	0.002457885	0.001778786
776	485849.5	3753135	0.002614922	0.001910057
777	485549.5	3753235	0.002390153	0.001705256
778	485649.5	3753235	0.002465506	0.001764755
779	485749.5	3753235	0.002565761	0.001850794
780	485849.5	3753235	0.002726467	0.001993194
781	485549.5	3753335	0.002552748	0.001807315
782	485649.5	3753335	0.002613069	0.001847051
783	485749.5	3753335	0.002705472	0.001931871
784	485849.5	3753335	0.00285173	0.002074119
785	485549.5	3753435	0.002734212	0.001918728
786	485649.5	3753435	0.002833638	0.001976921
787	485749.5	3753435	0.002943824	0.002069103
788	485849.5	3753435	0.003067125	0.00220911
789	485508.5	3746711	0.000243354	0.00020122
790	491508.5	3746711	0.000169864	0.000140836
791	479508.5	3752711	0.000851823	0.000773514
792	485508.5	3752711	0.001895189	0.001378055
793	491508.5	3752711	0.001567461	0.001036188
794	485508.5	3758711	0.00043243	0.000401466
795	491508.5	3758711	0.000183346	0.000159375

796	485921.9	3750934	0.000365028	0.000272701
797	486021.9	3750934	0.000360418	0.000268932
798	486121.9	3750934	0.000357923	0.00026707
799	485921.9	3751034	0.000384631	0.000287232
800	486021.9	3751034	0.000377898	0.000281551
801	486121.9	3751034	0.00037402	0.000278405
802	485921.9	3751134	0.000406955	0.000304179
803	486021.9	3751134	0.000399493	0.000297785
804	486121.9	3751134	0.000393681	0.000292847
805	485921.9	3751234	0.000432798	0.00032423
806	486021.9	3751234	0.000424621	0.00031711
807	486121.9	3751234	0.000417409	0.00031087
808	485921.9	3751334	0.000464403	0.000349418
809	486021.9	3751334	0.000454997	0.000341098
810	486121.9	3751334	0.000444613	0.000331926
811	485921.9	3751434	0.000507596	0.000385075
812	486021.9	3751434	0.0004912	0.000370314
813	486121.9	3751434	0.000477666	0.000358177
814	485921.9	3751534	0.000553763	0.000423265
815	486021.9	3751534	0.000542648	0.000413375
816	486121.9	3751534	0.000519194	0.000392079
817	485921.9	3751634	0.000593219	0.000455051
818	486021.9	3751634	0.000633392	0.000491781
819	486121.9	3751634	0.000584532	0.000447697
820	485921.9	3751734	0.000679013	0.000528765
821	486021.9	3751734	0.000778367	0.000616779
822	486121.9	3751734	0.000659997	0.000512079
823	485921.9	3751834	0.000866478	0.000691228
824	486021.9	3751834	0.000872214	0.000695631
825	486121.9	3751834	0.000693402	0.000537748
826	485921.9	3751934	0.001294056	0.001034312
827	486021.9	3751934	0.001078493	0.000866571
828	486121.9	3751934	0.000879039	0.000698955
829	485921.9	3752034	0.001535784	0.001210919
830	486021.9	3752034	0.001324917	0.001068299
831	486121.9	3752034	0.001206381	0.000975352
832	485921.9	3752134	0.001953025	0.001557591
833	486021.9	3752134	0.001902123	0.001537501
834	486121.9	3752134	0.00163049	0.001323345
835	485921.9	3752234	0.002480435	0.002033643
836	486021.9	3752234	0.002589538	0.00215299
837	486121.9	3752234	0.002390124	0.001971573
838	485921.9	3752334	0.0020821	0.00157883
839	486021.9	3752334	0.002195372	0.001692959
840	486121.9	3752334	0.002539709	0.002039301
841	485921.9	3752434	0.002021294	0.001478324
842	486021.9	3752434	0.002132857	0.001577631

843	486121.9	3752434	0.002320376	0.001752716
844	485921.9	3752534	0.002044178	0.001466591
845	486021.9	3752534	0.00213993	0.001538946
846	486121.9	3752534	0.002267798	0.001644881
847	485921.9	3752634	0.002097036	0.001494003
848	486021.9	3752634	0.002186288	0.001556481
849	486121.9	3752634	0.002296269	0.00164047
850	485921.9	3752734	0.002191812	0.001557032
851	486021.9	3752734	0.002291617	0.001623302
852	486121.9	3752734	0.002407619	0.001706739
853	485921.9	3752834	0.002309887	0.001643694
854	486021.9	3752834	0.002431122	0.001722218
855	486121.9	3752834	0.002573458	0.001820611
856	485921.9	3752934	0.002446021	0.001755807
857	486021.9	3752934	0.002597274	0.001856282
858	486121.9	3752934	0.002807017	0.002005958
859	487026.2	3754364	0.009710497	0.00841767

Unit of cancer risk value in this table is one in a million

Receptor ID	UTM_X	UTM_Y	TotalCancerRisk_Full Operation	
			Unmitigated	Mitigated
13	487216.79	3754364.72	7.88	7.13
11	487189.19	3754820.49	6.29	5.61
859	487026.2	3754364.03	6.05	5.25
12	487233.13	3754689.54	5.17	4.42
684	485451.71	3755034.43	3.43	3.19
683	485351.71	3755034.43	3.06	2.84
682	485251.71	3755034.43	2.93	2.72
674	485451.71	3754934.43	2.93	2.67
681	485151.71	3755034.43	2.85	2.65
8	489005.95	3754140.34	2.84	2.22
10	485736.41	3754259.47	2.82	2.18
680	485051.71	3755034.43	2.79	2.61
679	484951.71	3755034.43	2.75	2.57
678	484851.71	3755034.43	2.71	2.54
673	485351.71	3754934.43	2.70	2.46
677	484751.71	3755034.43	2.68	2.52
676	484651.71	3755034.43	2.65	2.50
675	484551.71	3755034.43	2.63	2.48
664	485451.71	3754834.43	2.58	2.29
672	485251.71	3754934.43	2.58	2.35
9	485642.82	3754267.27	2.56	1.97
671	485151.71	3754934.43	2.50	2.28
663	485351.71	3754834.43	2.45	2.17
670	485051.71	3754934.43	2.44	2.24
654	485451.71	3754734.43	2.39	2.06
669	484951.71	3754934.43	2.39	2.20
668	484851.71	3754934.43	2.35	2.17
662	485251.71	3754834.43	2.34	2.09
667	484751.71	3754934.43	2.32	2.15
172	483553.03	3754938.31	2.30	2.19
666	484651.71	3754934.43	2.29	2.13
644	485451.71	3754634.43	2.28	1.90
173	484553.03	3754938.31	2.28	2.12
653	485351.71	3754734.43	2.27	1.97
665	484551.71	3754934.43	2.27	2.11
661	485151.71	3754834.43	2.26	2.03
40	478978.31	3755233.1	2.22	2.18
5	490282.16	3753425.19	2.21	1.54
660	485051.71	3754834.43	2.20	1.98
634	485451.71	3754534.43	2.19	1.78
177	488553.03	3754938.31	2.18	1.81
652	485251.71	3754734.43	2.18	1.90
643	485351.71	3754634.43	2.15	1.81
659	484951.71	3754834.43	2.15	1.95

			TotalCancerRisk_Full Operation	
658	484851.71	3754834.43	2.11	1.92
624	485451.71	3754434.43	2.11	1.68
651	485151.71	3754734.43	2.10	1.84
171	482553.03	3754938.31	2.09	2.01
657	484751.71	3754834.43	2.08	1.90
633	485351.71	3754534.43	2.07	1.69
642	485251.71	3754634.43	2.06	1.75
614	485451.71	3754334.43	2.05	1.59
656	484651.71	3754834.43	2.05	1.88
650	485051.71	3754734.43	2.04	1.80
604	485451.71	3754234.43	2.02	1.53
655	484551.71	3754834.43	2.02	1.86
191	485553.03	3755938.31	2.02	1.92
161	489553.03	3753938.31	2.00	1.34
623	485351.71	3754434.43	1.99	1.60
649	484951.71	3754734.43	1.99	1.77
641	485151.71	3754634.43	1.98	1.70
594	485451.71	3754134.43	1.98	1.47
632	485251.71	3754534.43	1.97	1.63
648	484851.71	3754734.43	1.95	1.74
613	485351.71	3754334.43	1.94	1.52
584	485451.71	3754034.43	1.93	1.42
640	485051.71	3754634.43	1.92	1.66
788	485849.47	3753434.9	1.91	1.38
647	484751.71	3754734.43	1.91	1.72
622	485251.71	3754434.43	1.90	1.54
574	485451.71	3753934.43	1.89	1.37
631	485151.71	3754534.43	1.89	1.59
603	485351.71	3754234.43	1.89	1.45
646	484651.71	3754734.43	1.88	1.70
1	489607.44	3753966.11	1.87	1.26
639	484951.71	3754634.43	1.87	1.63
645	484551.71	3754734.43	1.86	1.68
564	485451.71	3753834.43	1.85	1.32
593	485351.71	3754134.43	1.84	1.39
612	485251.71	3754334.43	1.84	1.46
787	485749.47	3753434.9	1.84	1.29
638	484851.71	3754634.43	1.83	1.61
630	485051.71	3754534.43	1.83	1.55
621	485151.71	3754434.43	1.82	1.49
637	484751.71	3754634.43	1.81	1.60
583	485351.71	3754034.43	1.80	1.33
554	485451.71	3753734.43	1.79	1.28
602	485251.71	3754234.43	1.79	1.39
784	485849.47	3753334.9	1.78	1.29
629	484951.71	3754534.43	1.77	1.51

			TotalCancerRisk_Full Operation	
636	484651.71	3754634.43	1.77	1.58
786	485649.47	3753434.9	1.77	1.23
573	485351.71	3753934.43	1.76	1.28
611	485151.71	3754334.43	1.76	1.41
620	485051.71	3754434.43	1.75	1.45
858	486121.9	3752934.24	1.75	1.25
635	484551.71	3754634.43	1.75	1.56
592	485251.71	3754134.43	1.74	1.33
544	485451.71	3753634.43	1.74	1.23
628	484851.71	3754534.43	1.73	1.49
563	485351.71	3753834.43	1.72	1.24
601	485151.71	3754234.43	1.71	1.34
785	485549.47	3753434.9	1.70	1.20
582	485251.71	3754034.43	1.70	1.27
780	485849.47	3753234.9	1.70	1.24
627	484751.71	3754534.43	1.70	1.48
619	484951.71	3754434.43	1.69	1.42
610	485051.71	3754334.43	1.69	1.37
534	485451.71	3753534.43	1.69	1.19
783	485749.47	3753334.9	1.69	1.20
626	484651.71	3754534.43	1.67	1.47
553	485351.71	3753734.43	1.67	1.19
572	485251.71	3753934.43	1.66	1.22
591	485151.71	3754134.43	1.66	1.28
2	489738.71	3754023.94	1.66	1.16
625	484551.71	3754534.43	1.65	1.45
618	484851.71	3754434.43	1.64	1.39
600	485051.71	3754234.43	1.64	1.30
192	486553.03	3755938.31	1.63	1.52
776	485849.47	3753134.9	1.63	1.19
609	484951.71	3754334.43	1.63	1.34
782	485649.47	3753334.9	1.63	1.15
543	485351.71	3753634.43	1.63	1.16
562	485251.71	3753834.43	1.62	1.18
857	486021.9	3752934.24	1.62	1.16
581	485151.71	3754034.43	1.62	1.23
836	486021.9	3752234.24	1.61	1.34
524	485451.71	3753434.43	1.61	1.13
855	486121.9	3752834.24	1.60	1.14
617	484751.71	3754434.43	1.60	1.36
779	485749.47	3753234.9	1.60	1.15
590	485051.71	3754134.43	1.59	1.24
781	485549.47	3753334.9	1.59	1.13
840	486121.9	3752334.24	1.58	1.27
571	485151.71	3753934.43	1.58	1.18
3	489668.94	3754093.71	1.58	1.15

			TotalCancerRisk_Full Operation	
552	485251.71	3753734.43	1.58	1.14
533	485351.71	3753534.43	1.58	1.11
599	484951.71	3754234.43	1.58	1.27
608	484851.71	3754334.43	1.58	1.31
616	484651.71	3754434.43	1.57	1.34
772	485849.47	3753034.9	1.55	1.13
580	485051.71	3754034.43	1.55	1.19
835	485921.9	3752234.24	1.55	1.27
561	485151.71	3753834.43	1.54	1.13
542	485251.71	3753634.43	1.54	1.10
615	484551.71	3754434.43	1.54	1.33
778	485649.47	3753234.9	1.54	1.10
775	485749.47	3753134.9	1.53	1.11
589	484951.71	3754134.43	1.53	1.21
607	484751.71	3754334.43	1.53	1.28
598	484851.71	3754234.43	1.52	1.24
856	485921.9	3752934.24	1.52	1.09
514	485451.71	3753334.43	1.52	1.08
740	485849.47	3752234.9	1.52	1.24
523	485351.71	3753434.43	1.52	1.07
854	486021.9	3752834.24	1.52	1.07
570	485051.71	3753934.43	1.51	1.14
189	483553.03	3755938.31	1.50	1.44
551	485151.71	3753734.43	1.50	1.09
852	486121.9	3752734.24	1.50	1.06
4	489690.06	3754161.63	1.50	1.11
532	485251.71	3753534.43	1.49	1.06
579	484951.71	3754034.43	1.49	1.16
777	485549.47	3753234.9	1.49	1.06
837	486121.9	3752234.24	1.49	1.23
606	484651.71	3754334.43	1.49	1.25
588	484851.71	3754134.43	1.48	1.19
739	485749.47	3752234.9	1.48	1.19
597	484751.71	3754234.43	1.47	1.21
560	485051.71	3753834.43	1.47	1.10
768	485849.47	3752934.9	1.47	1.06
774	485649.47	3753134.9	1.47	1.06
771	485749.47	3753034.9	1.47	1.06
541	485151.71	3753634.43	1.46	1.06
513	485351.71	3753334.43	1.45	1.03
569	484951.71	3753934.43	1.45	1.11
843	486121.9	3752434.24	1.45	1.09
605	484551.71	3754334.43	1.45	1.23
504	485451.71	3753234.43	1.45	1.03
522	485251.71	3753434.43	1.44	1.03
853	485921.9	3752834.24	1.44	1.02

			TotalCancerRisk_Full Operation	
578	484851.71	3754034.43	1.44	1.13
550	485051.71	3753734.43	1.43	1.06
849	486121.9	3752634.24	1.43	1.02
188	482553.03	3755938.31	1.43	1.37
170	481553.03	3754938.31	1.43	1.37
587	484751.71	3754134.43	1.43	1.16
190	484553.03	3755938.31	1.43	1.35
851	486021.9	3752734.24	1.43	1.01
596	484651.71	3754234.43	1.43	1.18
773	485549.47	3753134.9	1.42	1.03
531	485151.71	3753534.43	1.42	1.02
738	485649.47	3752234.9	1.42	1.14
846	486121.9	3752534.24	1.41	1.03
559	484951.71	3753834.43	1.41	1.07
770	485649.47	3753034.9	1.41	1.02
767	485749.47	3752934.9	1.40	1.01
540	485051.71	3753634.43	1.40	1.02
769	485549.47	3753034.9	1.40	1.02
568	484851.71	3753934.43	1.40	1.08
595	484551.71	3754234.43	1.40	1.17
764	485849.47	3752834.9	1.39	1.00
577	484751.71	3754034.43	1.39	1.11
512	485251.71	3753334.43	1.39	0.99
494	485451.71	3753134.43	1.39	1.00
586	484651.71	3754134.43	1.39	1.13
503	485351.71	3753234.43	1.39	0.99
521	485151.71	3753434.43	1.38	0.99
737	485549.47	3752234.9	1.38	1.11
549	484951.71	3753734.43	1.38	1.03
839	486021.9	3752334.24	1.37	1.06
178	489553.03	3754938.31	1.37	1.18
850	485921.9	3752734.24	1.37	0.97
848	486021.9	3752634.24	1.36	0.97
585	484551.71	3754134.43	1.36	1.13
530	485051.71	3753534.43	1.36	0.99
484	485451.71	3753034.43	1.36	1.00
558	484851.71	3753834.43	1.36	1.04
567	484751.71	3753934.43	1.35	1.06
576	484651.71	3754034.43	1.35	1.09
766	485649.47	3752934.9	1.35	0.97
539	484951.71	3753634.43	1.34	0.99
493	485351.71	3753134.43	1.34	0.96
502	485251.71	3753234.43	1.34	0.96
763	485749.47	3752834.9	1.34	0.96
511	485151.71	3753334.43	1.33	0.96
845	486021.9	3752534.24	1.33	0.96

			TotalCancerRisk_Full Operation	
575	484551.71	3754034.43	1.33	1.09
842	486021.9	3752434.24	1.33	0.98
760	485849.47	3752734.9	1.33	0.95
140	485553.03	3752938.31	1.33	0.97
520	485051.71	3753434.43	1.33	0.96
765	485549.47	3752934.9	1.32	0.97
548	484851.71	3753734.43	1.32	1.00
483	485351.71	3753034.43	1.32	0.97
482	485251.71	3753034.43	1.32	0.98
566	484651.71	3753934.43	1.32	1.05
557	484751.71	3753834.43	1.32	1.02
529	484951.71	3753534.43	1.31	0.96
847	485921.9	3752634.24	1.31	0.93
838	485921.9	3752334.24	1.30	0.98
492	485251.71	3753134.43	1.30	0.93
538	484851.71	3753634.43	1.29	0.97
501	485151.71	3753234.43	1.29	0.93
762	485649.47	3752834.9	1.29	0.93
510	485051.71	3753334.43	1.29	0.93
156	484553.03	3753938.31	1.29	1.03
565	484551.71	3753934.43	1.28	1.03
547	484751.71	3753734.43	1.28	0.98
759	485749.47	3752734.9	1.28	0.92
519	484951.71	3753434.43	1.28	0.93
556	484651.71	3753834.43	1.28	1.00
474	485451.71	3752934.43	1.28	0.93
844	485921.9	3752534.24	1.27	0.91
756	485849.47	3752634.9	1.27	0.91
761	485549.47	3752834.9	1.27	0.92
744	485849.47	3752334.9	1.26	0.95
528	484851.71	3753534.43	1.26	0.94
841	485921.9	3752434.24	1.26	0.92
481	485151.71	3753034.43	1.26	0.93
491	485151.71	3753134.43	1.26	0.91
404	485451.71	3752234.43	1.25	0.99
169	480553.03	3754938.31	1.25	1.20
500	485051.71	3753234.43	1.25	0.90
537	484751.71	3753634.43	1.25	0.94
555	484551.71	3753834.43	1.24	0.98
546	484651.71	3753734.43	1.24	0.96
509	484951.71	3753334.43	1.24	0.90
758	485649.47	3752734.9	1.24	0.89
752	485849.47	3752534.9	1.23	0.89
518	484851.71	3753434.43	1.23	0.91
473	485351.71	3752934.43	1.23	0.89
733	485549.47	3752134.9	1.23	0.97

			TotalCancerRisk_Full Operation	
755	485749.47	3752634.9	1.23	0.88
6	489797.34	3754554.12	1.22	0.94
464	485451.71	3752834.43	1.22	0.89
743	485749.47	3752334.9	1.22	0.92
480	485051.71	3753034.43	1.22	0.90
748	485849.47	3752434.9	1.22	0.89
757	485549.47	3752734.9	1.22	0.89
832	485921.9	3752134.24	1.22	0.97
490	485051.71	3753134.43	1.22	0.89
527	484751.71	3753534.43	1.22	0.91
736	485849.47	3752134.9	1.21	0.95
536	484651.71	3753634.43	1.21	0.92
499	484951.71	3753234.43	1.21	0.88
545	484551.71	3753734.43	1.21	0.94
508	484851.71	3753334.43	1.20	0.88
735	485749.47	3752134.9	1.20	0.94
472	485251.71	3752934.43	1.20	0.87
734	485649.47	3752134.9	1.20	0.93
729	485549.47	3752034.9	1.19	0.96
754	485649.47	3752634.9	1.19	0.86
517	484751.71	3753434.43	1.19	0.89
751	485749.47	3752534.9	1.19	0.86
479	484951.71	3753034.43	1.19	0.88
833	486021.9	3752134.24	1.19	0.96
742	485649.47	3752334.9	1.18	0.89
792	485508.49	3752711.29	1.18	0.86
489	484951.71	3753134.43	1.18	0.86
185	479553.03	3755938.31	1.18	1.14
526	484651.71	3753534.43	1.18	0.89
463	485351.71	3752834.43	1.17	0.85
454	485451.71	3752734.43	1.17	0.86
747	485749.47	3752434.9	1.17	0.86
753	485549.47	3752634.9	1.17	0.86
168	479553.03	3754938.31	1.17	1.13
535	484551.71	3753634.43	1.17	0.90
498	484851.71	3753234.43	1.17	0.86
471	485151.71	3752934.43	1.16	0.85
507	484751.71	3753334.43	1.16	0.86
162	490553.03	3753938.31	1.16	0.85
478	484851.71	3753034.43	1.16	0.87
750	485649.47	3752534.9	1.15	0.84
741	485549.47	3752334.9	1.15	0.87
394	485451.71	3752134.43	1.15	0.90
516	484651.71	3753434.43	1.15	0.87
488	484851.71	3753134.43	1.15	0.84
525	484551.71	3753534.43	1.14	0.87

			TotalCancerRisk_Full Operation	
462	485251.71	3752834.43	1.14	0.83
207	485553.03	3756938.31	1.14	1.09
746	485649.47	3752434.9	1.14	0.83
749	485549.47	3752534.9	1.14	0.83
470	485051.71	3752934.43	1.13	0.83
444	485451.71	3752634.43	1.13	0.83
497	484751.71	3753234.43	1.13	0.84
477	484751.71	3753034.43	1.13	0.85
453	485351.71	3752734.43	1.13	0.82
506	484651.71	3753334.43	1.12	0.84
384	485451.71	3752034.43	1.12	0.88
7	490252.94	3754378.21	1.12	0.84
745	485549.47	3752434.9	1.12	0.83
515	484551.71	3753434.43	1.12	0.85
487	484751.71	3753134.43	1.11	0.83
461	485151.71	3752834.43	1.11	0.81
469	484951.71	3752934.43	1.10	0.81
476	484651.71	3753034.43	1.10	0.83
434	485451.71	3752534.43	1.10	0.81
496	484651.71	3753234.43	1.10	0.82
452	485251.71	3752734.43	1.10	0.80
414	485451.71	3752334.43	1.10	0.82
34	481494.96	3754633.66	1.10	1.03
505	484551.71	3753334.43	1.09	0.82
443	485351.71	3752634.43	1.09	0.79
403	485351.71	3752234.43	1.09	0.84
155	483553.03	3753938.31	1.08	0.95
486	484651.71	3753134.43	1.08	0.81
460	485051.71	3752834.43	1.08	0.79
424	485451.71	3752434.43	1.08	0.80
468	484851.71	3752934.43	1.07	0.79
475	484551.71	3753034.43	1.07	0.82
451	485151.71	3752734.43	1.07	0.78
495	484551.71	3753234.43	1.07	0.80
374	485451.71	3751934.43	1.06	0.84
442	485251.71	3752634.43	1.06	0.77
433	485351.71	3752534.43	1.05	0.77
459	484951.71	3752834.43	1.05	0.77
485	484551.71	3753134.43	1.05	0.79
730	485649.47	3752034.9	1.05	0.82
467	484751.71	3752934.43	1.05	0.78
450	485051.71	3752734.43	1.04	0.76
402	485251.71	3752234.43	1.03	0.79
413	485351.71	3752334.43	1.03	0.77
423	485351.71	3752434.43	1.03	0.76
725	485549.47	3751934.9	1.03	0.82

			TotalCancerRisk_Full Operation	
123	485553.03	3751938.31	1.03	0.82
441	485151.71	3752634.43	1.03	0.75
363	485351.71	3751834.43	1.03	0.82
458	484851.71	3752834.43	1.03	0.76
364	485451.71	3751834.43	1.03	0.82
731	485749.47	3752034.9	1.02	0.80
432	485251.71	3752534.43	1.02	0.75
466	484651.71	3752934.43	1.02	0.76
350	485051.71	3751734.43	1.02	0.83
393	485351.71	3752134.43	1.02	0.77
362	485251.71	3751834.43	1.02	0.81
834	486121.9	3752134.24	1.02	0.83
373	485351.71	3751934.43	1.01	0.79
449	484951.71	3752734.43	1.01	0.74
146	491553.03	3752938.31	1.01	0.70
399	484951.71	3752234.43	1.01	0.79
732	485849.47	3752034.9	1.00	0.78
440	485051.71	3752634.43	1.00	0.74
401	485151.71	3752234.43	1.00	0.77
457	484751.71	3752834.43	1.00	0.74
187	481553.03	3755938.31	1.00	0.96
139	484553.03	3752938.31	1.00	0.75
422	485251.71	3752434.43	1.00	0.74
465	484551.71	3752934.43	1.00	0.75
431	485151.71	3752534.43	1.00	0.73
412	485251.71	3752334.43	0.99	0.74
448	484851.71	3752734.43	0.99	0.73
383	485351.71	3752034.43	0.99	0.75
186	480553.03	3755938.31	0.99	0.95
439	484951.71	3752634.43	0.98	0.72
456	484651.71	3752834.43	0.98	0.73
400	485051.71	3752234.43	0.98	0.75
41	479197.34	3754462.34	0.98	0.94
793	491508.49	3752711.29	0.98	0.65
430	485051.71	3752534.43	0.97	0.72
421	485151.71	3752434.43	0.97	0.72
411	485151.71	3752334.43	0.97	0.73
447	484751.71	3752734.43	0.97	0.71
361	485151.71	3751834.43	0.96	0.76
392	485251.71	3752134.43	0.96	0.73
829	485921.9	3752034.24	0.96	0.75
438	484851.71	3752634.43	0.96	0.71
455	484551.71	3752834.43	0.96	0.71
429	484951.71	3752534.43	0.95	0.70
420	485051.71	3752434.43	0.95	0.70
360	485051.71	3751834.43	0.95	0.75

			TotalCancerRisk_Full Operation	
410	485051.71	3752334.43	0.95	0.71
446	484651.71	3752734.43	0.95	0.70
398	484851.71	3752234.43	0.95	0.73
726	485649.47	3751934.9	0.94	0.74
372	485251.71	3751934.43	0.94	0.72
349	484951.71	3751734.43	0.94	0.75
348	484851.71	3751734.43	0.94	0.75
437	484751.71	3752634.43	0.93	0.69
397	484751.71	3752234.43	0.93	0.72
382	485251.71	3752034.43	0.93	0.70
428	484851.71	3752534.43	0.93	0.69
351	485151.71	3751734.43	0.93	0.73
419	484951.71	3752434.43	0.93	0.69
409	484951.71	3752334.43	0.93	0.70
445	484551.71	3752734.43	0.92	0.69
391	485151.71	3752134.43	0.92	0.70
727	485749.47	3751934.9	0.92	0.72
396	484651.71	3752234.43	0.92	0.72
436	484651.71	3752634.43	0.92	0.68
179	490553.03	3754938.31	0.91	0.80
338	484851.71	3751634.43	0.91	0.73
427	484751.71	3752534.43	0.91	0.68
418	484851.71	3752434.43	0.91	0.68
325	484551.71	3751534.43	0.91	0.74
408	484851.71	3752334.43	0.91	0.69
352	485251.71	3751734.43	0.90	0.71
193	487553.03	3755938.31	0.90	0.83
395	484551.71	3752234.43	0.90	0.70
390	485051.71	3752134.43	0.90	0.68
435	484551.71	3752634.43	0.90	0.67
337	484751.71	3751634.43	0.89	0.72
33	482657.64	3753975.1	0.89	0.79
426	484651.71	3752534.43	0.89	0.66
407	484751.71	3752334.43	0.89	0.67
381	485151.71	3752034.43	0.89	0.67
417	484751.71	3752434.43	0.89	0.67
371	485151.71	3751934.43	0.89	0.68
721	485549.47	3751834.9	0.89	0.70
728	485849.47	3751934.9	0.88	0.69
389	484951.71	3752134.43	0.88	0.67
406	484651.71	3752334.43	0.87	0.66
425	484551.71	3752534.43	0.87	0.65
416	484651.71	3752434.43	0.87	0.65
353	485351.71	3751734.43	0.87	0.68
336	484651.71	3751634.43	0.87	0.70
154	482553.03	3753938.31	0.86	0.76

			TotalCancerRisk_Full Operation	
380	485051.71	3752034.43	0.86	0.65
388	484851.71	3752134.43	0.86	0.65
359	484951.71	3751834.43	0.86	0.67
405	484551.71	3752334.43	0.86	0.65
415	484551.71	3752434.43	0.86	0.64
347	484751.71	3751734.43	0.85	0.67
370	485051.71	3751934.43	0.85	0.65
339	484951.71	3751634.43	0.85	0.67
387	484751.71	3752134.43	0.85	0.64
722	485649.47	3751834.9	0.84	0.66
326	484651.71	3751534.43	0.84	0.67
335	484551.71	3751634.43	0.84	0.67
379	484951.71	3752034.43	0.84	0.63
386	484651.71	3752134.43	0.83	0.63
830	486021.9	3752034.24	0.83	0.67
354	485451.71	3751734.43	0.82	0.64
369	484951.71	3751934.43	0.82	0.62
340	485051.71	3751634.43	0.82	0.64
358	484851.71	3751834.43	0.82	0.63
378	484851.71	3752034.43	0.82	0.62
385	484551.71	3752134.43	0.82	0.63
341	485151.71	3751634.43	0.81	0.62
163	491553.03	3753938.31	0.81	0.63
826	485921.9	3751934.24	0.81	0.64
723	485749.47	3751834.9	0.81	0.64
138	483553.03	3752938.31	0.80	0.65
377	484751.71	3752034.43	0.80	0.61
368	484851.71	3751934.43	0.80	0.61
327	484751.71	3751534.43	0.79	0.62
342	485251.71	3751634.43	0.79	0.61
35	481148.72	3756136.18	0.79	0.75
346	484651.71	3751734.43	0.79	0.61
357	484751.71	3751834.43	0.79	0.60
376	484651.71	3752034.43	0.79	0.60
367	484751.71	3751934.43	0.78	0.59
717	485549.47	3751734.9	0.78	0.61
375	484551.71	3752034.43	0.77	0.59
328	484851.71	3751534.43	0.77	0.60
147	492553.03	3752938.31	0.77	0.50
366	484651.71	3751934.43	0.76	0.58
329	484951.71	3751534.43	0.76	0.59
356	484651.71	3751834.43	0.76	0.58
153	481553.03	3753938.31	0.75	0.68
343	485351.71	3751634.43	0.75	0.59
330	485051.71	3751534.43	0.75	0.58
831	486121.9	3752034.24	0.75	0.61

			TotalCancerRisk_Full Operation	
345	484551.71	3751734.43	0.75	0.58
122	484553.03	3751938.31	0.75	0.57
315	484551.71	3751434.43	0.75	0.59
365	484551.71	3751934.43	0.74	0.57
331	485151.71	3751534.43	0.74	0.57
718	485649.47	3751734.9	0.74	0.59
39	478997.81	3753535.19	0.74	0.70
355	484551.71	3751834.43	0.73	0.56
126	488553.03	3751938.31	0.73	0.50
316	484651.71	3751434.43	0.73	0.56
44	480287.9	3754227.46	0.72	0.67
317	484751.71	3751434.43	0.71	0.55
318	484851.71	3751434.43	0.71	0.54
319	484951.71	3751434.43	0.70	0.54
137	482553.03	3752938.31	0.70	0.59
320	485051.71	3751434.43	0.69	0.53
344	485451.71	3751634.43	0.69	0.55
724	485849.47	3751834.9	0.69	0.55
125	487553.03	3751938.31	0.68	0.53
332	485251.71	3751534.43	0.67	0.53
305	484551.71	3751334.43	0.67	0.52
827	486021.9	3751934.24	0.67	0.54
306	484651.71	3751334.43	0.67	0.52
127	489553.03	3751938.31	0.67	0.44
152	480553.03	3753938.31	0.66	0.61
164	492553.03	3753938.31	0.66	0.52
719	485749.47	3751734.9	0.66	0.53
307	484751.71	3751334.43	0.66	0.51
151	479553.03	3753938.31	0.66	0.61
308	484851.71	3751334.43	0.65	0.51
309	484951.71	3751334.43	0.65	0.50
296	484651.71	3751234.43	0.63	0.48
295	484551.71	3751234.43	0.63	0.49
194	488553.03	3755938.31	0.63	0.57
713	485549.47	3751634.9	0.63	0.50
121	483553.03	3751938.31	0.63	0.49
297	484751.71	3751234.43	0.62	0.48
148	493553.03	3752938.31	0.62	0.44
310	485051.71	3751334.43	0.62	0.49
321	485151.71	3751434.43	0.62	0.49
136	481553.03	3752938.31	0.62	0.54
298	484851.71	3751234.43	0.61	0.47
285	484551.71	3751134.43	0.60	0.46
180	491553.03	3754938.31	0.60	0.52
286	484651.71	3751134.43	0.60	0.46
299	484951.71	3751234.43	0.59	0.46

			TotalCancerRisk_Full Operation	
287	484751.71	3751134.43	0.59	0.46
129	491553.03	3751938.31	0.58	0.40
134	479553.03	3752938.31	0.57	0.52
135	480553.03	3752938.31	0.57	0.51
275	484551.71	3751034.43	0.57	0.44
276	484651.71	3751034.43	0.56	0.44
128	490553.03	3751938.31	0.56	0.37
48	482344.95	3752065.79	0.56	0.46
828	486121.9	3751934.24	0.55	0.44
289	484951.71	3751134.43	0.55	0.43
120	482553.03	3751938.31	0.55	0.44
205	483553.03	3756938.31	0.54	0.50
824	486021.9	3751834.24	0.54	0.43
165	493553.03	3753938.31	0.54	0.43
104	483553.03	3750938.31	0.54	0.43
38	479598.7	3756506.31	0.54	0.51
823	485921.9	3751834.24	0.54	0.43
333	485351.71	3751534.43	0.54	0.43
105	484553.03	3750938.31	0.54	0.42
265	484551.71	3750934.43	0.53	0.42
288	484851.71	3751134.43	0.53	0.42
714	485649.47	3751634.9	0.53	0.42
300	485051.71	3751234.43	0.53	0.42
791	479508.49	3752711.29	0.53	0.48
149	494553.03	3752938.31	0.53	0.40
277	484751.71	3751034.43	0.53	0.42
266	484651.71	3750934.43	0.53	0.41
311	485151.71	3751334.43	0.53	0.42
206	484553.03	3756938.31	0.52	0.48
42	479493.25	3752408.79	0.51	0.46
715	485749.47	3751634.9	0.50	0.39
166	494553.03	3753938.31	0.49	0.40
119	481553.03	3751938.31	0.49	0.41
43	480295.38	3752408.38	0.49	0.43
821	486021.9	3751734.24	0.49	0.38
322	485251.71	3751434.43	0.48	0.38
117	479553.03	3751938.31	0.47	0.42
103	482553.03	3750938.31	0.47	0.38
720	485849.47	3751734.9	0.47	0.37
118	480553.03	3751938.31	0.47	0.40
279	484951.71	3751034.43	0.47	0.37
130	492553.03	3751938.31	0.46	0.30
85	480553.03	3749938.31	0.46	0.40
45	494397.38	3753977.58	0.45	0.37
290	485051.71	3751134.43	0.45	0.36
301	485151.71	3751234.43	0.45	0.36

			TotalCancerRisk_Full Operation	
334	485451.71	3751534.43	0.45	0.35
182	493553.03	3754938.31	0.43	0.38
208	486553.03	3756938.31	0.43	0.39
102	481553.03	3750938.31	0.43	0.36
825	486121.9	3751834.24	0.43	0.34
195	489553.03	3755938.31	0.43	0.39
181	492553.03	3754938.31	0.43	0.37
237	485553.03	3758938.31	0.43	0.41
150	495553.03	3752938.31	0.43	0.33
820	485921.9	3751734.24	0.42	0.33
249	485553.03	3759938.31	0.42	0.40
124	486553.03	3751938.31	0.42	0.32
278	484851.71	3751034.43	0.42	0.33
47	486794.14	3756878.03	0.42	0.38
46	481108.51	3750699.02	0.42	0.35
131	493553.03	3751938.31	0.41	0.31
312	485251.71	3751334.43	0.41	0.33
37	480298.98	3751198.04	0.41	0.35
822	486121.9	3751734.24	0.41	0.32
709	485549.47	3751534.9	0.41	0.32
267	484751.71	3750934.43	0.40	0.32
101	480553.03	3750938.31	0.40	0.34
86	481553.03	3749938.31	0.40	0.33
291	485151.71	3751134.43	0.40	0.32
710	485649.47	3751534.9	0.40	0.31
818	486021.9	3751634.24	0.39	0.31
269	484951.71	3750934.43	0.39	0.31
87	482553.03	3749938.31	0.39	0.31
280	485051.71	3751034.43	0.39	0.31
88	483553.03	3749938.31	0.38	0.30
167	495553.03	3753938.31	0.38	0.31
132	494553.03	3751938.31	0.38	0.29
716	485849.47	3751634.9	0.38	0.29
323	485351.71	3751434.43	0.38	0.30
109	488553.03	3750938.31	0.37	0.28
268	484851.71	3750934.43	0.37	0.29
817	485921.9	3751634.24	0.37	0.28
819	486121.9	3751634.24	0.36	0.28
711	485749.47	3751534.9	0.36	0.28
201	479553.03	3756938.31	0.36	0.33
196	490553.03	3755938.31	0.36	0.32
198	492553.03	3755938.31	0.36	0.33
712	485849.47	3751534.9	0.35	0.27
270	485051.71	3750934.43	0.35	0.28
259	485553.03	3760938.31	0.35	0.33
292	485251.71	3751134.43	0.35	0.27

			TotalCancerRisk_Full Operation	
814	485921.9	3751534.24	0.35	0.26
108	487553.03	3750938.31	0.34	0.27
202	480553.03	3756938.31	0.34	0.32
302	485251.71	3751234.43	0.34	0.26
281	485151.71	3751034.43	0.34	0.27
815	486021.9	3751534.24	0.34	0.26
324	485451.71	3751434.43	0.34	0.26
133	495553.03	3751938.31	0.34	0.26
223	485553.03	3757938.31	0.34	0.31
183	494553.03	3754938.31	0.33	0.29
110	489553.03	3750938.31	0.33	0.24
708	485849.47	3751434.9	0.33	0.25
705	485549.47	3751434.9	0.33	0.25
313	485351.71	3751334.43	0.33	0.25
816	486121.9	3751534.24	0.32	0.24
706	485649.47	3751434.9	0.32	0.25
204	482553.03	3756938.31	0.32	0.30
811	485921.9	3751434.24	0.32	0.24
707	485749.47	3751434.9	0.32	0.24
203	481553.03	3756938.31	0.31	0.29
812	486021.9	3751434.24	0.31	0.23
113	492553.03	3750938.31	0.31	0.23
314	485451.71	3751334.43	0.30	0.23
701	485549.47	3751334.9	0.30	0.23
303	485351.71	3751234.43	0.30	0.23
813	486121.9	3751434.24	0.30	0.22
71	481553.03	3748938.31	0.30	0.24
702	485649.47	3751334.9	0.30	0.22
704	485849.47	3751334.9	0.30	0.22
197	491553.03	3755938.31	0.29	0.26
293	485351.71	3751134.43	0.29	0.23
703	485749.47	3751334.9	0.29	0.22
271	485151.71	3750934.43	0.29	0.23
111	490553.03	3750938.31	0.29	0.22
222	484553.03	3757938.31	0.29	0.26
808	485921.9	3751334.24	0.29	0.22
282	485251.71	3751034.43	0.29	0.22
304	485451.71	3751234.43	0.29	0.22
31	489635.18	3750663.82	0.29	0.22
92	487553.03	3749938.31	0.29	0.23
209	487553.03	3756938.31	0.29	0.25
809	486021.9	3751334.24	0.28	0.21
697	485549.47	3751234.9	0.28	0.21
89	484553.03	3749938.31	0.28	0.22
184	495553.03	3754938.31	0.28	0.24
810	486121.9	3751334.24	0.28	0.21

			TotalCancerRisk_Full Operation	
698	485649.47	3751234.9	0.28	0.21
699	485749.47	3751234.9	0.27	0.21
700	485849.47	3751234.9	0.27	0.21
294	485451.71	3751134.43	0.27	0.21
91	486553.03	3749938.31	0.27	0.22
112	491553.03	3750938.31	0.27	0.20
805	485921.9	3751234.24	0.27	0.20
794	485508.49	3758711.29	0.27	0.25
74	484553.03	3748938.31	0.27	0.21
283	485351.71	3751034.43	0.27	0.20
693	485549.47	3751134.9	0.27	0.20
114	493553.03	3750938.31	0.26	0.19
806	486021.9	3751234.24	0.26	0.20
199	493553.03	3755938.31	0.26	0.24
694	485649.47	3751134.9	0.26	0.20
807	486121.9	3751234.24	0.26	0.19
695	485749.47	3751134.9	0.26	0.19
272	485251.71	3750934.43	0.26	0.20
115	494553.03	3750938.31	0.26	0.19
284	485451.71	3751034.43	0.26	0.19
696	485849.47	3751134.9	0.26	0.19
75	485553.03	3748938.31	0.25	0.20
73	483553.03	3748938.31	0.25	0.20
802	485921.9	3751134.24	0.25	0.19
200	494553.03	3755938.31	0.25	0.23
689	485549.47	3751034.9	0.25	0.19
803	486021.9	3751134.24	0.25	0.19
93	488553.03	3749938.31	0.25	0.19
273	485351.71	3750934.43	0.25	0.19
690	485649.47	3751034.9	0.25	0.19
804	486121.9	3751134.24	0.25	0.18
691	485749.47	3751034.9	0.25	0.18
692	485849.47	3751034.9	0.24	0.18
274	485451.71	3750934.43	0.24	0.18
799	485921.9	3751034.24	0.24	0.18
116	495553.03	3750938.31	0.24	0.19
106	485553.03	3750938.31	0.24	0.18
685	485549.47	3750934.9	0.24	0.18
800	486021.9	3751034.24	0.24	0.18
76	486553.03	3748938.31	0.24	0.19
686	485649.47	3750934.9	0.23	0.18
801	486121.9	3751034.24	0.23	0.17
687	485749.47	3750934.9	0.23	0.17
210	488553.03	3756938.31	0.23	0.20
90	485553.03	3749938.31	0.23	0.18
688	485849.47	3750934.9	0.23	0.17

			TotalCancerRisk_Full Operation	
260	486553.03	3760938.31	0.23	0.21
796	485921.9	3750934.24	0.23	0.17
94	489553.03	3749938.31	0.23	0.18
220	482553.03	3757938.31	0.22	0.20
797	486021.9	3750934.24	0.22	0.17
798	486121.9	3750934.24	0.22	0.17
60	483553.03	3747938.31	0.22	0.18
221	483553.03	3757938.31	0.22	0.20
107	486553.03	3750938.31	0.22	0.17
98	493553.03	3749938.31	0.21	0.17
61	484553.03	3747938.31	0.21	0.17
95	490553.03	3749938.31	0.21	0.16
211	489553.03	3756938.31	0.20	0.18
224	486553.03	3757938.31	0.20	0.18
250	486553.03	3759938.31	0.20	0.18
62	485553.03	3747938.31	0.20	0.16
96	491553.03	3749938.31	0.20	0.15
97	492553.03	3749938.31	0.19	0.15
78	488553.03	3748938.31	0.19	0.15
84	494553.03	3748938.31	0.19	0.16
32	485424.11	3747672.3	0.19	0.15
212	490553.03	3756938.31	0.19	0.16
77	487553.03	3748938.31	0.18	0.15
236	484553.03	3758938.31	0.18	0.16
63	486553.03	3747938.31	0.18	0.15
261	487553.03	3760938.31	0.18	0.16
219	481553.03	3757938.31	0.18	0.16
217	479553.03	3757938.31	0.18	0.16
99	494553.03	3749938.31	0.18	0.14
79	489553.03	3748938.31	0.17	0.14
218	480553.03	3757938.31	0.17	0.16
225	487553.03	3757938.31	0.16	0.14
251	487553.03	3759938.31	0.16	0.14
80	490553.03	3748938.31	0.16	0.13
252	488553.03	3759938.31	0.16	0.14
248	484553.03	3759938.31	0.16	0.14
213	491553.03	3756938.31	0.16	0.14
51	485553.03	3746938.31	0.16	0.13
81	491553.03	3748938.31	0.15	0.12
215	493553.03	3756938.31	0.15	0.14
258	484553.03	3760938.31	0.15	0.14
239	487553.03	3758938.31	0.15	0.13
65	488553.03	3747938.31	0.15	0.13
72	482553.03	3748938.31	0.15	0.12
789	485508.49	3746711.29	0.15	0.13
50	484553.03	3746938.31	0.15	0.12

			TotalCancerRisk_Full Operation	
216	494553.03	3756938.31	0.15	0.13
82	492553.03	3748938.31	0.15	0.12
235	483553.03	3758938.31	0.15	0.13
83	493553.03	3748938.31	0.15	0.12
36	482346.53	3748872.86	0.15	0.11
226	488553.03	3757938.31	0.14	0.13
214	492553.03	3756938.31	0.14	0.13
233	481553.03	3758938.31	0.14	0.13
66	489553.03	3747938.31	0.14	0.12
100	495553.03	3749938.31	0.14	0.12
253	489553.03	3759938.31	0.14	0.12
234	482553.03	3758938.31	0.14	0.12
238	486553.03	3758938.31	0.14	0.12
53	487553.03	3746938.31	0.14	0.11
67	490553.03	3747938.31	0.13	0.11
227	489553.03	3757938.31	0.13	0.12
59	482553.03	3747938.31	0.13	0.11
232	480553.03	3758938.31	0.13	0.12
68	491553.03	3747938.31	0.13	0.10
54	488553.03	3746938.31	0.13	0.11
52	486553.03	3746938.31	0.13	0.11
242	490553.03	3758938.31	0.13	0.11
55	489553.03	3746938.31	0.12	0.10
69	492553.03	3747938.31	0.12	0.10
228	490553.03	3757938.31	0.12	0.11
257	483553.03	3760938.31	0.12	0.11
231	493553.03	3757938.31	0.12	0.10
70	493553.03	3747938.31	0.12	0.10
64	487553.03	3747938.31	0.12	0.10
247	483553.03	3759938.31	0.12	0.10
241	489553.03	3758938.31	0.12	0.10
56	490553.03	3746938.31	0.11	0.10
795	491508.49	3758711.29	0.11	0.10
49	487553.03	3745938.31	0.11	0.10
240	488553.03	3758938.31	0.11	0.10
229	491553.03	3757938.31	0.11	0.10
246	482553.03	3759938.31	0.11	0.10
254	490553.03	3759938.31	0.11	0.10
57	491553.03	3746938.31	0.11	0.09
230	492553.03	3757938.31	0.11	0.09
245	481553.03	3759938.31	0.11	0.09
244	492553.03	3758938.31	0.11	0.09
790	491508.49	3746711.29	0.11	0.09
58	492553.03	3746938.31	0.11	0.09
256	482553.03	3760938.31	0.10	0.09
262	488553.03	3760938.31	0.10	0.09

			TotalCancerRisk_Full Operation	
243	491553.03	3758938.31	0.10	0.09
255	491553.03	3759938.31	0.10	0.08
263	489553.03	3760938.31	0.08	0.07
264	490553.03	3760938.31	0.08	0.07

E-6 Worker Receptor and Student Receptor Cancer Risk Summary

Summary of Maximum Worker Cancer Risk

Unmitigated	Mitigated	Receptor ID	Scenario
4.67	0.82	158	Construction -16 years from 2020 to 2035
0.59	0.52	14	Operational - 25 Years at 2040 Emission Level
< 5.03	< 1.1	158	Construction + Operation

Cancer Risk in this table is in unit of one in a million

			Construction -16 years from 2020 to 2035		**Operational - 25 Years at 2040 Emission Level**		**16years Construction + 25 years Full Operation**	
Receptor ID	**UTM_X**	**UTM_Y**	**Unmitigated**	**Mitigated**	**Unmitigated**	**Mitigated**	**Unmitigated**	**Mitigated**
1	489607.44	3753966.11	0.73	0.17	0.19	0.13	0.92	0.30
2	489738.71	3754023.94	0.61	0.14	0.16	0.12	0.77	0.25
3	489668.94	3754093.71	0.56	0.12	0.16	0.11	0.71	0.24
4	489690.06	3754161.63	0.53	0.11	0.15	0.11	0.68	0.22
5	490282.16	3753425.19	0.78	0.21	0.22	0.15	0.99	0.36
6	489797.34	3754554.12	0.43	0.09	0.12	0.09	0.55	0.18
7	490252.94	3754378.21	0.39	0.08	0.11	0.08	0.51	0.17
8	489005.95	3754140.34	1.09	0.26	0.28	0.22	1.37	0.48
14	487388.77	3754380.1	2.81	0.53	0.59	0.52	3.40	1.06
31	489635.18	3750663.82	0.21	0.05	0.03	0.02	0.23	0.07
32	485424.11	3747672.3	0.10	0.02	0.02	0.02	0.12	0.04
33	482657.64	3753975.1	0.23	0.04	0.09	0.08	0.32	0.12
34	481494.96	3754633.66	0.14	0.03	0.11	0.10	0.25	0.13
35	481148.72	3756136.18	0.08	0.02	0.08	0.07	0.16	0.09
36	482346.53	3748872.86	0.12	0.03	0.01	0.01	0.14	0.04
37	480298.98	3751198.04	0.13	0.03	0.04	0.03	0.17	0.06
38	479598.7	3756506.31	0.07	0.01	0.05	0.05	0.12	0.06
39	478997.81	3753535.19	0.08	0.02	0.07	0.07	0.16	0.09
40	478978.31	3755233.1	0.07	0.01	0.22	0.22	0.29	0.23
41	479197.34	3754462.34	0.08	0.02	0.10	0.09	0.17	0.11
42	479493.25	3752408.79	0.10	0.02	0.05	0.05	0.15	0.07
43	480295.38	3752408.38	0.12	0.02	0.05	0.04	0.17	0.07
44	480287.9	3754227.46	0.10	0.02	0.07	0.07	0.17	0.09
45	494397.38	3753977.58	0.15	0.03	0.04	0.04	0.19	0.07

Receptor ID	UTM_X	UTM_Y	Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
			Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
46	481108.51	3750699.02	0.15	0.03	0.04	0.03	0.20	0.07
47	486794.14	3756878.03	0.12	0.02	0.04	0.04	0.16	0.06
48	482344.95	3752065.79	0.22	0.04	0.06	0.05	0.27	0.09
49	487553.03	3745938.31	0.06	0.01	0.01	0.01	0.08	0.02
50	484553.03	3746938.31	0.07	0.02	0.01	0.01	0.09	0.03
51	485553.03	3746938.31	0.09	0.02	0.02	0.01	0.10	0.03
52	486553.03	3746938.31	0.05	0.01	0.01	0.01	0.07	0.02
53	487553.03	3746938.31	0.08	0.02	0.01	0.01	0.09	0.03
54	488553.03	3746938.31	0.07	0.02	0.01	0.01	0.09	0.03
55	489553.03	3746938.31	0.07	0.02	0.01	0.01	0.09	0.03
56	490553.03	3746938.31	0.07	0.01	0.01	0.01	0.08	0.02
57	491553.03	3746938.31	0.06	0.01	0.01	0.01	0.07	0.02
58	492553.03	3746938.31	0.06	0.01	0.01	0.01	0.07	0.02
59	482553.03	3747938.31	0.10	0.02	0.01	0.01	0.11	0.03
60	483553.03	3747938.31	0.12	0.03	0.02	0.02	0.14	0.04
61	484553.03	3747938.31	0.11	0.02	0.02	0.02	0.13	0.04
62	485553.03	3747938.31	0.11	0.02	0.02	0.02	0.13	0.04
63	486553.03	3747938.31	0.09	0.02	0.02	0.01	0.11	0.04
64	487553.03	3747938.31	0.05	0.01	0.01	0.01	0.07	0.02
65	488553.03	3747938.31	0.09	0.02	0.02	0.01	0.11	0.03
66	489553.03	3747938.31	0.09	0.02	0.01	0.01	0.10	0.03
67	490553.03	3747938.31	0.08	0.02	0.01	0.01	0.09	0.03
68	491553.03	3747938.31	0.07	0.02	0.01	0.01	0.09	0.03
69	492553.03	3747938.31	0.07	0.01	0.01	0.01	0.08	0.02
70	493553.03	3747938.31	0.06	0.01	0.01	0.01	0.07	0.02
71	481553.03	3748938.31	0.19	0.04	0.03	0.02	0.22	0.06
72	482553.03	3748938.31	0.13	0.03	0.02	0.01	0.14	0.04
73	483553.03	3748938.31	0.16	0.03	0.03	0.02	0.18	0.05
74	484553.03	3748938.31	0.15	0.03	0.03	0.02	0.18	0.06
75	485553.03	3748938.31	0.13	0.03	0.03	0.02	0.16	0.05
76	486553.03	3748938.31	0.12	0.03	0.02	0.02	0.15	0.05

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
77	487553.03	3748938.31	0.08	0.02	0.02	0.02	0.10	0.03
78	488553.03	3748938.31	0.12	0.03	0.02	0.02	0.14	0.04
79	489553.03	3748938.31	0.11	0.02	0.02	0.01	0.13	0.04
80	490553.03	3748938.31	0.10	0.02	0.02	0.01	0.12	0.03
81	491553.03	3748938.31	0.09	0.02	0.02	0.01	0.10	0.03
82	492553.03	3748938.31	0.08	0.02	0.01	0.01	0.09	0.03
83	493553.03	3748938.31	0.07	0.02	0.01	0.01	0.09	0.03
84	494553.03	3748938.31	0.07	0.01	0.02	0.02	0.08	0.03
85	480553.03	3749938.31	0.13	0.03	0.05	0.04	0.18	0.07
86	481553.03	3749938.31	0.18	0.04	0.04	0.03	0.22	0.07
87	482553.03	3749938.31	0.25	0.05	0.04	0.03	0.29	0.08
88	483553.03	3749938.31	0.25	0.05	0.04	0.03	0.29	0.08
89	484553.03	3749938.31	0.19	0.04	0.03	0.02	0.21	0.06
90	485553.03	3749938.31	0.15	0.03	0.02	0.02	0.17	0.05
91	486553.03	3749938.31	0.14	0.04	0.03	0.02	0.17	0.06
92	487553.03	3749938.31	0.15	0.04	0.03	0.02	0.18	0.06
93	488553.03	3749938.31	0.18	0.04	0.02	0.02	0.20	0.06
94	489553.03	3749938.31	0.15	0.03	0.02	0.02	0.18	0.05
95	490553.03	3749938.31	0.13	0.03	0.02	0.02	0.15	0.05
96	491553.03	3749938.31	0.11	0.03	0.02	0.02	0.13	0.04
97	492553.03	3749938.31	0.10	0.02	0.02	0.01	0.12	0.04
98	493553.03	3749938.31	0.09	0.02	0.02	0.02	0.11	0.04
99	494553.03	3749938.31	0.09	0.02	0.02	0.01	0.10	0.03
100	495553.03	3749938.31	0.06	0.01	0.01	0.01	0.08	0.03
101	480553.03	3750938.31	0.14	0.03	0.04	0.03	0.18	0.06
102	481553.03	3750938.31	0.17	0.03	0.04	0.04	0.21	0.07
103	482553.03	3750938.31	0.22	0.04	0.05	0.04	0.26	0.08
104	483553.03	3750938.31	0.27	0.05	0.05	0.04	0.32	0.09
105	484553.03	3750938.31	0.37	0.07	0.05	0.04	0.42	0.12
106	485553.03	3750938.31	0.24	0.05	0.02	0.02	0.26	0.07
107	486553.03	3750938.31	0.20	0.05	0.02	0.02	0.22	0.06

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	**UTM_X**	**UTM_Y**	**Unmitigated**	**Mitigated**	**Unmitigated**	**Mitigated**	**Unmitigated**	**Mitigated**
108	487553.03	3750938.31	0.19	0.05	0.03	0.03	0.22	0.08
109	488553.03	3750938.31	0.29	0.07	0.04	0.03	0.33	0.09
110	489553.03	3750938.31	0.24	0.06	0.03	0.02	0.27	0.08
111	490553.03	3750938.31	0.20	0.05	0.03	0.02	0.22	0.07
112	491553.03	3750938.31	0.16	0.04	0.03	0.02	0.19	0.06
113	492553.03	3750938.31	0.14	0.03	0.03	0.02	0.17	0.06
114	493553.03	3750938.31	0.12	0.03	0.03	0.02	0.15	0.05
115	494553.03	3750938.31	0.12	0.03	0.03	0.02	0.14	0.04
116	495553.03	3750938.31	0.11	0.02	0.02	0.02	0.13	0.04
117	479553.03	3751938.31	0.11	0.02	0.05	0.04	0.15	0.06
118	480553.03	3751938.31	0.13	0.03	0.05	0.04	0.18	0.07
119	481553.03	3751938.31	0.17	0.03	0.05	0.04	0.22	0.07
120	482553.03	3751938.31	0.23	0.04	0.05	0.04	0.28	0.09
121	483553.03	3751938.31	0.32	0.06	0.06	0.05	0.38	0.11
122	484553.03	3751938.31	0.43	0.08	0.07	0.06	0.51	0.14
123	485553.03	3751938.31	0.68	0.13	0.10	0.08	0.79	0.21
124	486553.03	3751938.31	0.49	0.10	0.04	0.03	0.53	0.13
125	487553.03	3751938.31	0.55	0.12	0.07	0.05	0.61	0.18
126	488553.03	3751938.31	0.66	0.15	0.07	0.05	0.74	0.20
127	489553.03	3751938.31	0.58	0.16	0.07	0.04	0.64	0.20
128	490553.03	3751938.31	0.45	0.13	0.06	0.04	0.51	0.16
129	491553.03	3751938.31	0.29	0.08	0.06	0.04	0.35	0.12
130	492553.03	3751938.31	0.23	0.06	0.05	0.03	0.27	0.08
131	493553.03	3751938.31	0.18	0.04	0.04	0.03	0.22	0.07
132	494553.03	3751938.31	0.16	0.04	0.04	0.03	0.20	0.06
133	495553.03	3751938.31	0.14	0.03	0.03	0.03	0.17	0.06
134	479553.03	3752938.31	0.10	0.02	0.06	0.05	0.15	0.07
135	480553.03	3752938.31	0.12	0.02	0.06	0.05	0.18	0.07
136	481553.03	3752938.31	0.16	0.03	0.06	0.05	0.22	0.08
137	482553.03	3752938.31	0.22	0.04	0.07	0.06	0.29	0.10
138	483553.03	3752938.31	0.33	0.06	0.08	0.06	0.41	0.13

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
139	484553.03	3752938.31	0.54	0.10	0.10	0.07	0.64	0.17
140	485553.03	3752938.31	1.02	0.18	0.13	0.10	1.16	0.28
141	486553.03	3752938.31	3.29	0.59	0.26	0.20	3.55	0.80
142	487553.03	3752938.31	3.62	0.62	0.29	0.22	3.91	0.84
143	488553.03	3752938.31	2.36	0.58	0.26	0.19	2.62	0.77
144	489553.03	3752938.31	1.82	0.58	0.23	0.17	2.05	0.75
145	490553.03	3752938.31	1.47	0.49	0.19	0.14	1.66	0.62
146	491553.03	3752938.31	0.39	0.10	0.10	0.07	0.49	0.17
147	492553.03	3752938.31	0.30	0.07	0.08	0.05	0.38	0.12
148	493553.03	3752938.31	0.23	0.05	0.06	0.04	0.29	0.10
149	494553.03	3752938.31	0.18	0.04	0.05	0.04	0.24	0.08
150	495553.03	3752938.31	0.15	0.03	0.04	0.03	0.19	0.07
151	479553.03	3753938.31	0.09	0.02	0.07	0.06	0.15	0.08
152	480553.03	3753938.31	0.11	0.02	0.07	0.06	0.17	0.08
153	481553.03	3753938.31	0.16	0.03	0.07	0.07	0.24	0.10
154	482553.03	3753938.31	0.22	0.04	0.09	0.08	0.31	0.12
155	483553.03	3753938.31	0.33	0.06	0.11	0.09	0.44	0.15
156	484553.03	3753938.31	0.64	0.11	0.13	0.10	0.76	0.22
157	485553.03	3753938.31	2.10	0.38	0.21	0.15	2.30	0.53
158	486553.03	3753938.31	4.67	0.82	0.36	0.27	5.03	1.10
159	487553.03	3753938.31	3.96	0.66	0.40	0.33	4.36	0.99
160	488553.03	3753938.31	1.91	0.45	0.35	0.27	2.26	0.72
161	489553.03	3753938.31	0.82	0.20	0.20	0.13	1.02	0.33
162	490553.03	3753938.31	0.40	0.09	0.11	0.08	0.51	0.17
163	491553.03	3753938.31	0.27	0.06	0.08	0.06	0.35	0.12
164	492553.03	3753938.31	0.21	0.05	0.07	0.05	0.28	0.10
165	493553.03	3753938.31	0.17	0.04	0.05	0.04	0.23	0.08
166	494553.03	3753938.31	0.15	0.03	0.05	0.04	0.20	0.07
167	495553.03	3753938.31	0.13	0.03	0.04	0.03	0.17	0.06
168	479553.03	3754938.31	0.09	0.02	0.12	0.11	0.20	0.13
169	480553.03	3754938.31	0.11	0.02	0.12	0.12	0.23	0.14

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
170	481553.03	3754938.31	0.13	0.02	0.14	0.14	0.27	0.16
171	482553.03	3754938.31	0.16	0.03	0.21	0.20	0.37	0.23
172	483553.03	3754938.31	0.21	0.04	0.23	0.22	0.44	0.26
173	484553.03	3754938.31	0.32	0.06	0.23	0.21	0.54	0.27
174	485553.03	3754938.31	0.75	0.14	0.33	0.30	1.08	0.44
175	486553.03	3754938.31	2.29	0.42	0.45	0.41	2.75	0.83
176	487553.03	3754938.31	1.66	0.39	0.39	0.33	2.05	0.72
177	488553.03	3754938.31	0.69	0.18	0.22	0.18	0.91	0.36
178	489553.03	3754938.31	0.32	0.07	0.14	0.12	0.46	0.19
179	490553.03	3754938.31	0.22	0.05	0.09	0.08	0.31	0.13
180	491553.03	3754938.31	0.17	0.04	0.06	0.05	0.23	0.09
181	492553.03	3754938.31	0.14	0.03	0.04	0.04	0.18	0.07
182	493553.03	3754938.31	0.12	0.03	0.04	0.04	0.17	0.06
183	494553.03	3754938.31	0.11	0.02	0.03	0.03	0.14	0.05
184	495553.03	3754938.31	0.10	0.02	0.03	0.02	0.12	0.04
185	479553.03	3755938.31	0.07	0.01	0.12	0.11	0.19	0.13
186	480553.03	3755938.31	0.08	0.02	0.10	0.09	0.18	0.11
187	481553.03	3755938.31	0.09	0.02	0.10	0.10	0.19	0.11
188	482553.03	3755938.31	0.12	0.02	0.14	0.14	0.26	0.16
189	483553.03	3755938.31	0.14	0.03	0.15	0.14	0.29	0.17
190	484553.03	3755938.31	0.17	0.03	0.14	0.13	0.31	0.17
191	485553.03	3755938.31	0.22	0.04	0.20	0.19	0.42	0.23
192	486553.03	3755938.31	0.24	0.05	0.16	0.15	0.40	0.20
193	487553.03	3755938.31	0.20	0.04	0.09	0.08	0.29	0.13
194	488553.03	3755938.31	0.17	0.04	0.06	0.06	0.23	0.09
195	489553.03	3755938.31	0.14	0.03	0.04	0.04	0.18	0.07
196	490553.03	3755938.31	0.12	0.03	0.04	0.03	0.15	0.06
197	491553.03	3755938.31	0.10	0.02	0.03	0.03	0.13	0.05
198	492553.03	3755938.31	0.09	0.02	0.04	0.03	0.13	0.05
199	493553.03	3755938.31	0.08	0.02	0.03	0.02	0.11	0.04
200	494553.03	3755938.31	0.08	0.02	0.02	0.02	0.10	0.04

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
201	479553.03	3756938.31	0.06	0.01	0.04	0.03	0.09	0.04
202	480553.03	3756938.31	0.06	0.01	0.03	0.03	0.09	0.04
203	481553.03	3756938.31	0.06	0.01	0.03	0.03	0.09	0.04
204	482553.03	3756938.31	0.07	0.01	0.03	0.03	0.10	0.04
205	483553.03	3756938.31	0.09	0.02	0.05	0.05	0.15	0.07
206	484553.03	3756938.31	0.11	0.02	0.05	0.05	0.16	0.07
207	485553.03	3756938.31	0.12	0.02	0.11	0.11	0.23	0.13
208	486553.03	3756938.31	0.12	0.02	0.04	0.04	0.16	0.06
209	487553.03	3756938.31	0.11	0.02	0.03	0.03	0.13	0.05
210	488553.03	3756938.31	0.10	0.02	0.02	0.02	0.12	0.04
211	489553.03	3756938.31	0.09	0.02	0.02	0.02	0.11	0.04
212	490553.03	3756938.31	0.08	0.02	0.02	0.02	0.10	0.03
213	491553.03	3756938.31	0.07	0.02	0.02	0.01	0.09	0.03
214	492553.03	3756938.31	0.07	0.01	0.01	0.01	0.08	0.03
215	493553.03	3756938.31	0.06	0.01	0.02	0.01	0.08	0.03
216	494553.03	3756938.31	0.06	0.01	0.01	0.01	0.07	0.03
217	479553.03	3757938.31	0.04	0.01	0.02	0.02	0.06	0.03
218	480553.03	3757938.31	0.05	0.01	0.02	0.02	0.06	0.02
219	481553.03	3757938.31	0.05	0.01	0.02	0.02	0.07	0.03
220	482553.03	3757938.31	0.06	0.01	0.02	0.02	0.08	0.03
221	483553.03	3757938.31	0.07	0.01	0.02	0.02	0.09	0.03
222	484553.03	3757938.31	0.08	0.02	0.03	0.03	0.11	0.04
223	485553.03	3757938.31	0.08	0.02	0.03	0.03	0.11	0.05
224	486553.03	3757938.31	0.07	0.02	0.02	0.02	0.09	0.03
225	487553.03	3757938.31	0.07	0.02	0.02	0.01	0.09	0.03
226	488553.03	3757938.31	0.07	0.01	0.01	0.01	0.08	0.03
227	489553.03	3757938.31	0.07	0.01	0.01	0.01	0.08	0.03
228	490553.03	3757938.31	0.06	0.01	0.01	0.01	0.08	0.02
229	491553.03	3757938.31	0.06	0.01	0.01	0.01	0.07	0.02
230	492553.03	3757938.31	0.05	0.01	0.01	0.01	0.07	0.02
231	493553.03	3757938.31	0.05	0.01	0.01	0.01	0.06	0.02

Receptor ID	UTM_X	UTM_Y	Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
			Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
232	480553.03	3758938.31	0.04	0.01	0.01	0.01	0.05	0.02
233	481553.03	3758938.31	0.04	0.01	0.01	0.01	0.06	0.02
234	482553.03	3758938.31	0.05	0.01	0.01	0.01	0.06	0.02
235	483553.03	3758938.31	0.05	0.01	0.01	0.01	0.07	0.02
236	484553.03	3758938.31	0.06	0.01	0.02	0.02	0.08	0.03
237	485553.03	3758938.31	0.06	0.01	0.04	0.04	0.10	0.05
238	486553.03	3758938.31	0.06	0.01	0.01	0.01	0.07	0.02
239	487553.03	3758938.31	0.06	0.01	0.02	0.01	0.07	0.03
240	488553.03	3758938.31	0.05	0.01	0.01	0.01	0.06	0.02
241	489553.03	3758938.31	0.05	0.01	0.01	0.01	0.07	0.02
242	490553.03	3758938.31	0.06	0.01	0.01	0.01	0.07	0.02
243	491553.03	3758938.31	0.05	0.01	0.01	0.01	0.06	0.02
244	492553.03	3758938.31	0.05	0.01	0.01	0.01	0.06	0.02
245	481553.03	3759938.31	0.04	0.01	0.01	0.01	0.05	0.02
246	482553.03	3759938.31	0.04	0.01	0.01	0.01	0.05	0.02
247	483553.03	3759938.31	0.04	0.01	0.01	0.01	0.06	0.02
248	484553.03	3759938.31	0.05	0.01	0.02	0.01	0.07	0.02
249	485553.03	3759938.31	0.06	0.01	0.04	0.04	0.10	0.05
250	486553.03	3759938.31	0.05	0.01	0.02	0.02	0.07	0.03
251	487553.03	3759938.31	0.05	0.01	0.02	0.01	0.07	0.03
252	488553.03	3759938.31	0.05	0.01	0.02	0.01	0.07	0.03
253	489553.03	3759938.31	0.05	0.01	0.01	0.01	0.07	0.02
254	490553.03	3759938.31	0.05	0.01	0.01	0.01	0.06	0.02
255	491553.03	3759938.31	0.04	0.01	0.01	0.01	0.05	0.02
256	482553.03	3760938.31	0.04	0.01	0.01	0.01	0.05	0.02
257	483553.03	3760938.31	0.04	0.01	0.01	0.01	0.05	0.02
258	484553.03	3760938.31	0.04	0.01	0.02	0.01	0.06	0.02
259	485553.03	3760938.31	0.05	0.01	0.03	0.03	0.09	0.04
260	486553.03	3760938.31	0.05	0.01	0.02	0.02	0.08	0.03
261	487553.03	3760938.31	0.05	0.01	0.02	0.02	0.07	0.03
262	488553.03	3760938.31	0.04	0.01	0.01	0.01	0.05	0.02

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
263	489553.03	3760938.31	0.04	0.01	0.01	0.01	0.04	0.01
264	490553.03	3760938.31	0.04	0.01	0.01	0.01	0.04	0.01
265	484551.71	3750934.43	0.36	0.07	0.05	0.04	0.42	0.12
266	484651.71	3750934.43	0.36	0.07	0.05	0.04	0.41	0.11
267	484751.71	3750934.43	0.28	0.06	0.04	0.03	0.32	0.09
268	484851.71	3750934.43	0.26	0.06	0.04	0.03	0.30	0.08
269	484951.71	3750934.43	0.27	0.06	0.04	0.03	0.31	0.09
270	485051.71	3750934.43	0.26	0.05	0.03	0.03	0.29	0.08
271	485151.71	3750934.43	0.25	0.05	0.03	0.02	0.28	0.07
272	485251.71	3750934.43	0.24	0.05	0.03	0.02	0.27	0.07
273	485351.71	3750934.43	0.24	0.05	0.02	0.02	0.27	0.07
274	485451.71	3750934.43	0.24	0.05	0.02	0.02	0.26	0.07
275	484551.71	3751034.43	0.40	0.08	0.06	0.04	0.45	0.12
276	484651.71	3751034.43	0.39	0.08	0.06	0.04	0.45	0.12
277	484751.71	3751034.43	0.36	0.07	0.05	0.04	0.41	0.11
278	484851.71	3751034.43	0.29	0.06	0.04	0.03	0.33	0.09
279	484951.71	3751034.43	0.32	0.07	0.05	0.04	0.36	0.10
280	485051.71	3751034.43	0.28	0.06	0.04	0.03	0.32	0.09
281	485151.71	3751034.43	0.27	0.06	0.03	0.03	0.30	0.08
282	485251.71	3751034.43	0.26	0.05	0.03	0.02	0.29	0.08
283	485351.71	3751034.43	0.26	0.05	0.03	0.02	0.28	0.07
284	485451.71	3751034.43	0.25	0.05	0.03	0.02	0.28	0.07
285	484551.71	3751134.43	0.42	0.08	0.06	0.05	0.48	0.13
286	484651.71	3751134.43	0.42	0.08	0.06	0.05	0.48	0.13
287	484751.71	3751134.43	0.42	0.08	0.06	0.05	0.48	0.13
288	484851.71	3751134.43	0.35	0.07	0.05	0.04	0.41	0.11
289	484951.71	3751134.43	0.37	0.08	0.05	0.04	0.42	0.12
290	485051.71	3751134.43	0.31	0.06	0.04	0.04	0.36	0.10
291	485151.71	3751134.43	0.29	0.06	0.04	0.03	0.33	0.09
292	485251.71	3751134.43	0.28	0.06	0.03	0.03	0.31	0.09
293	485351.71	3751134.43	0.27	0.06	0.03	0.02	0.30	0.08

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
294	485451.71	3751134.43	0.27	0.06	0.03	0.02	0.30	0.08
295	484551.71	3751234.43	0.44	0.09	0.06	0.05	0.50	0.13
296	484651.71	3751234.43	0.44	0.09	0.06	0.05	0.51	0.14
297	484751.71	3751234.43	0.44	0.09	0.06	0.05	0.50	0.14
298	484851.71	3751234.43	0.43	0.09	0.06	0.05	0.49	0.13
299	484951.71	3751234.43	0.41	0.08	0.06	0.05	0.47	0.13
300	485051.71	3751234.43	0.36	0.07	0.05	0.04	0.41	0.12
301	485151.71	3751234.43	0.32	0.07	0.04	0.04	0.36	0.10
302	485251.71	3751234.43	0.29	0.06	0.03	0.03	0.33	0.09
303	485351.71	3751234.43	0.29	0.06	0.03	0.02	0.32	0.08
304	485451.71	3751234.43	0.29	0.06	0.03	0.02	0.31	0.08
305	484551.71	3751334.43	0.45	0.09	0.07	0.05	0.52	0.14
306	484651.71	3751334.43	0.46	0.09	0.07	0.05	0.53	0.14
307	484751.71	3751334.43	0.46	0.09	0.07	0.05	0.53	0.14
308	484851.71	3751334.43	0.46	0.09	0.06	0.05	0.52	0.14
309	484951.71	3751334.43	0.46	0.09	0.06	0.05	0.52	0.14
310	485051.71	3751334.43	0.43	0.09	0.06	0.05	0.49	0.13
311	485151.71	3751334.43	0.36	0.07	0.05	0.04	0.41	0.11
312	485251.71	3751334.43	0.32	0.06	0.04	0.03	0.36	0.10
313	485351.71	3751334.43	0.31	0.06	0.03	0.02	0.34	0.09
314	485451.71	3751334.43	0.30	0.06	0.03	0.02	0.33	0.09
315	484551.71	3751434.43	0.45	0.09	0.07	0.06	0.52	0.14
316	484651.71	3751434.43	0.48	0.09	0.07	0.06	0.55	0.15
317	484751.71	3751434.43	0.49	0.10	0.07	0.05	0.56	0.15
318	484851.71	3751434.43	0.49	0.10	0.07	0.05	0.56	0.15
319	484951.71	3751434.43	0.49	0.10	0.07	0.05	0.56	0.15
320	485051.71	3751434.43	0.49	0.10	0.07	0.05	0.56	0.15
321	485151.71	3751434.43	0.41	0.08	0.06	0.05	0.47	0.13
322	485251.71	3751434.43	0.34	0.07	0.05	0.04	0.39	0.11
323	485351.71	3751434.43	0.33	0.07	0.04	0.03	0.37	0.10
324	485451.71	3751434.43	0.32	0.07	0.03	0.03	0.36	0.09

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
325	484551.71	3751534.43	0.39	0.07	0.09	0.07	0.48	0.15
326	484651.71	3751534.43	0.44	0.08	0.08	0.07	0.53	0.15
327	484751.71	3751534.43	0.50	0.10	0.08	0.06	0.58	0.16
328	484851.71	3751534.43	0.51	0.10	0.08	0.06	0.59	0.16
329	484951.71	3751534.43	0.52	0.10	0.08	0.06	0.60	0.16
330	485051.71	3751534.43	0.53	0.10	0.07	0.06	0.60	0.16
331	485151.71	3751534.43	0.53	0.10	0.07	0.06	0.61	0.16
332	485251.71	3751534.43	0.46	0.09	0.07	0.05	0.52	0.14
333	485351.71	3751534.43	0.37	0.08	0.05	0.04	0.43	0.12
334	485451.71	3751534.43	0.35	0.07	0.04	0.04	0.40	0.11
335	484551.71	3751634.43	0.40	0.08	0.08	0.07	0.48	0.14
336	484651.71	3751634.43	0.41	0.08	0.09	0.07	0.50	0.15
337	484751.71	3751634.43	0.45	0.09	0.09	0.07	0.54	0.16
338	484851.71	3751634.43	0.49	0.09	0.09	0.07	0.58	0.17
339	484951.71	3751634.43	0.51	0.10	0.08	0.07	0.60	0.16
340	485051.71	3751634.43	0.53	0.10	0.08	0.06	0.61	0.16
341	485151.71	3751634.43	0.55	0.11	0.08	0.06	0.63	0.17
342	485251.71	3751634.43	0.56	0.11	0.08	0.06	0.64	0.17
343	485351.71	3751634.43	0.53	0.11	0.07	0.06	0.61	0.16
344	485451.71	3751634.43	0.46	0.09	0.07	0.05	0.53	0.15
345	484551.71	3751734.43	0.41	0.08	0.07	0.06	0.48	0.13
346	484651.71	3751734.43	0.42	0.08	0.08	0.06	0.50	0.14
347	484751.71	3751734.43	0.43	0.08	0.08	0.07	0.52	0.15
348	484851.71	3751734.43	0.45	0.08	0.09	0.07	0.54	0.16
349	484951.71	3751734.43	0.46	0.09	0.09	0.07	0.55	0.16
350	485051.71	3751734.43	0.47	0.09	0.10	0.08	0.57	0.17
351	485151.71	3751734.43	0.53	0.10	0.09	0.07	0.62	0.17
352	485251.71	3751734.43	0.60	0.11	0.09	0.07	0.69	0.18
353	485351.71	3751734.43	0.60	0.12	0.09	0.07	0.69	0.18
354	485451.71	3751734.43	0.58	0.11	0.08	0.06	0.66	0.18
355	484551.71	3751834.43	0.42	0.08	0.07	0.06	0.49	0.14

Receptor ID	UTM_X	UTM_Y	Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
			Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
356	484651.71	3751834.43	0.43	0.08	0.08	0.06	0.51	0.14
357	484751.71	3751834.43	0.45	0.08	0.08	0.06	0.53	0.14
358	484851.71	3751834.43	0.46	0.09	0.08	0.06	0.54	0.15
359	484951.71	3751834.43	0.47	0.09	0.09	0.07	0.56	0.16
360	485051.71	3751834.43	0.49	0.09	0.09	0.07	0.58	0.17
361	485151.71	3751834.43	0.50	0.09	0.10	0.08	0.60	0.17
362	485251.71	3751834.43	0.61	0.12	0.10	0.08	0.71	0.20
363	485351.71	3751834.43	0.64	0.12	0.10	0.08	0.74	0.20
364	485451.71	3751834.43	0.64	0.12	0.10	0.08	0.75	0.21
365	484551.71	3751934.43	0.43	0.08	0.07	0.06	0.51	0.14
366	484651.71	3751934.43	0.45	0.08	0.08	0.06	0.52	0.14
367	484751.71	3751934.43	0.46	0.09	0.08	0.06	0.54	0.15
368	484851.71	3751934.43	0.47	0.09	0.08	0.06	0.55	0.15
369	484951.71	3751934.43	0.49	0.09	0.08	0.06	0.57	0.15
370	485051.71	3751934.43	0.51	0.09	0.08	0.06	0.59	0.16
371	485151.71	3751934.43	0.52	0.10	0.09	0.07	0.61	0.17
372	485251.71	3751934.43	0.54	0.10	0.09	0.07	0.63	0.17
373	485351.71	3751934.43	0.66	0.13	0.10	0.08	0.76	0.20
374	485451.71	3751934.43	0.69	0.13	0.11	0.08	0.79	0.22
375	484551.71	3752034.43	0.44	0.08	0.08	0.06	0.52	0.14
376	484651.71	3752034.43	0.46	0.09	0.08	0.06	0.54	0.15
377	484751.71	3752034.43	0.48	0.09	0.08	0.06	0.55	0.15
378	484851.71	3752034.43	0.49	0.09	0.08	0.06	0.57	0.15
379	484951.71	3752034.43	0.51	0.09	0.08	0.06	0.59	0.16
380	485051.71	3752034.43	0.53	0.10	0.09	0.06	0.61	0.16
381	485151.71	3752034.43	0.55	0.10	0.09	0.07	0.63	0.17
382	485251.71	3752034.43	0.57	0.11	0.09	0.07	0.66	0.18
383	485351.71	3752034.43	0.63	0.12	0.10	0.07	0.73	0.19
384	485451.71	3752034.43	0.72	0.14	0.11	0.09	0.83	0.22
385	484551.71	3752134.43	0.46	0.09	0.08	0.06	0.54	0.15
386	484651.71	3752134.43	0.47	0.09	0.08	0.06	0.56	0.15

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
387	484751.71	3752134.43	0.49	0.09	0.08	0.06	0.57	0.16
388	484851.71	3752134.43	0.51	0.09	0.09	0.06	0.59	0.16
389	484951.71	3752134.43	0.53	0.10	0.09	0.07	0.61	0.16
390	485051.71	3752134.43	0.55	0.10	0.09	0.07	0.64	0.17
391	485151.71	3752134.43	0.57	0.11	0.09	0.07	0.66	0.17
392	485251.71	3752134.43	0.59	0.11	0.10	0.07	0.69	0.18
393	485351.71	3752134.43	0.61	0.11	0.10	0.08	0.71	0.19
394	485451.71	3752134.43	0.67	0.13	0.11	0.09	0.79	0.21
395	484551.71	3752234.43	0.47	0.09	0.09	0.07	0.56	0.16
396	484651.71	3752234.43	0.49	0.09	0.09	0.07	0.58	0.16
397	484751.71	3752234.43	0.51	0.09	0.09	0.07	0.60	0.17
398	484851.71	3752234.43	0.53	0.10	0.09	0.07	0.62	0.17
399	484951.71	3752234.43	0.55	0.10	0.10	0.08	0.65	0.18
400	485051.71	3752234.43	0.57	0.10	0.10	0.07	0.66	0.18
401	485151.71	3752234.43	0.59	0.11	0.10	0.08	0.69	0.19
402	485251.71	3752234.43	0.61	0.11	0.10	0.08	0.72	0.19
403	485351.71	3752234.43	0.64	0.12	0.11	0.08	0.75	0.20
404	485451.71	3752234.43	0.67	0.12	0.12	0.10	0.79	0.22
405	484551.71	3752334.43	0.48	0.09	0.09	0.06	0.57	0.15
406	484651.71	3752334.43	0.50	0.09	0.09	0.07	0.59	0.16
407	484751.71	3752334.43	0.52	0.10	0.09	0.07	0.61	0.16
408	484851.71	3752334.43	0.54	0.10	0.09	0.07	0.63	0.17
409	484951.71	3752334.43	0.57	0.10	0.09	0.07	0.66	0.17
410	485051.71	3752334.43	0.59	0.11	0.09	0.07	0.68	0.18
411	485151.71	3752334.43	0.61	0.11	0.10	0.07	0.71	0.18
412	485251.71	3752334.43	0.64	0.12	0.10	0.07	0.74	0.19
413	485351.71	3752334.43	0.67	0.12	0.10	0.08	0.77	0.20
414	485451.71	3752334.43	0.70	0.13	0.11	0.08	0.81	0.21
415	484551.71	3752434.43	0.49	0.09	0.09	0.06	0.58	0.16
416	484651.71	3752434.43	0.52	0.10	0.09	0.07	0.60	0.16
417	484751.71	3752434.43	0.54	0.10	0.09	0.07	0.63	0.17

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
418	484851.71	3752434.43	0.56	0.10	0.09	0.07	0.65	0.17
419	484951.71	3752434.43	0.59	0.11	0.09	0.07	0.68	0.18
420	485051.71	3752434.43	0.61	0.11	0.09	0.07	0.71	0.18
421	485151.71	3752434.43	0.64	0.12	0.10	0.07	0.74	0.19
422	485251.71	3752434.43	0.67	0.12	0.10	0.07	0.77	0.20
423	485351.71	3752434.43	0.70	0.13	0.10	0.08	0.80	0.20
424	485451.71	3752434.43	0.73	0.13	0.11	0.08	0.84	0.21
425	484551.71	3752534.43	0.51	0.09	0.09	0.06	0.59	0.16
426	484651.71	3752534.43	0.53	0.10	0.09	0.07	0.62	0.16
427	484751.71	3752534.43	0.55	0.10	0.09	0.07	0.64	0.17
428	484851.71	3752534.43	0.58	0.11	0.09	0.07	0.67	0.17
429	484951.71	3752534.43	0.61	0.11	0.09	0.07	0.70	0.18
430	485051.71	3752534.43	0.63	0.12	0.10	0.07	0.73	0.19
431	485151.71	3752534.43	0.67	0.12	0.10	0.07	0.76	0.19
432	485251.71	3752534.43	0.70	0.13	0.10	0.07	0.80	0.20
433	485351.71	3752534.43	0.73	0.13	0.10	0.08	0.84	0.21
434	485451.71	3752534.43	0.77	0.14	0.11	0.08	0.88	0.22
435	484551.71	3752634.43	0.52	0.10	0.09	0.07	0.61	0.16
436	484651.71	3752634.43	0.54	0.10	0.09	0.07	0.63	0.17
437	484751.71	3752634.43	0.57	0.10	0.09	0.07	0.66	0.17
438	484851.71	3752634.43	0.60	0.11	0.10	0.07	0.69	0.18
439	484951.71	3752634.43	0.63	0.11	0.10	0.07	0.72	0.19
440	485051.71	3752634.43	0.66	0.12	0.10	0.07	0.76	0.19
441	485151.71	3752634.43	0.69	0.13	0.10	0.07	0.79	0.20
442	485251.71	3752634.43	0.73	0.13	0.10	0.08	0.83	0.21
443	485351.71	3752634.43	0.77	0.14	0.11	0.08	0.88	0.22
444	485451.71	3752634.43	0.81	0.15	0.11	0.08	0.93	0.23
445	484551.71	3752734.43	0.53	0.10	0.09	0.07	0.62	0.17
446	484651.71	3752734.43	0.55	0.10	0.09	0.07	0.65	0.17
447	484751.71	3752734.43	0.58	0.11	0.10	0.07	0.68	0.18
448	484851.71	3752734.43	0.61	0.11	0.10	0.07	0.71	0.18

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
449	484951.71	3752734.43	0.64	0.12	0.10	0.07	0.75	0.19
450	485051.71	3752734.43	0.68	0.12	0.10	0.08	0.78	0.20
451	485151.71	3752734.43	0.72	0.13	0.11	0.08	0.82	0.21
452	485251.71	3752734.43	0.76	0.14	0.11	0.08	0.87	0.22
453	485351.71	3752734.43	0.81	0.14	0.11	0.08	0.92	0.23
454	485451.71	3752734.43	0.86	0.15	0.12	0.08	0.97	0.24
455	484551.71	3752834.43	0.53	0.10	0.09	0.07	0.63	0.17
456	484651.71	3752834.43	0.56	0.10	0.10	0.07	0.66	0.18
457	484751.71	3752834.43	0.59	0.11	0.10	0.07	0.69	0.18
458	484851.71	3752834.43	0.63	0.11	0.10	0.08	0.73	0.19
459	484951.71	3752834.43	0.66	0.12	0.10	0.08	0.77	0.20
460	485051.71	3752834.43	0.70	0.13	0.11	0.08	0.81	0.21
461	485151.71	3752834.43	0.74	0.13	0.11	0.08	0.85	0.21
462	485251.71	3752834.43	0.79	0.14	0.11	0.08	0.90	0.22
463	485351.71	3752834.43	0.84	0.15	0.12	0.08	0.96	0.24
464	485451.71	3752834.43	0.90	0.16	0.12	0.09	1.02	0.25
465	484551.71	3752934.43	0.54	0.10	0.10	0.07	0.64	0.17
466	484651.71	3752934.43	0.57	0.10	0.10	0.08	0.67	0.18
467	484751.71	3752934.43	0.61	0.11	0.10	0.08	0.71	0.19
468	484851.71	3752934.43	0.64	0.12	0.11	0.08	0.75	0.20
469	484951.71	3752934.43	0.68	0.12	0.11	0.08	0.79	0.20
470	485051.71	3752934.43	0.72	0.13	0.11	0.08	0.84	0.21
471	485151.71	3752934.43	0.77	0.14	0.12	0.08	0.89	0.22
472	485251.71	3752934.43	0.82	0.15	0.12	0.09	0.94	0.23
473	485351.71	3752934.43	0.88	0.16	0.12	0.09	1.00	0.25
474	485451.71	3752934.43	0.95	0.17	0.13	0.09	1.07	0.26
475	484551.71	3753034.43	0.55	0.10	0.11	0.08	0.65	0.18
476	484651.71	3753034.43	0.58	0.11	0.11	0.08	0.69	0.19
477	484751.71	3753034.43	0.62	0.11	0.11	0.08	0.73	0.20
478	484851.71	3753034.43	0.65	0.12	0.11	0.09	0.77	0.20
479	484951.71	3753034.43	0.70	0.13	0.12	0.09	0.82	0.21

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
480	485051.71	3753034.43	0.74	0.13	0.12	0.09	0.87	0.22
481	485151.71	3753034.43	0.80	0.14	0.12	0.09	0.92	0.23
482	485251.71	3753034.43	0.85	0.15	0.13	0.10	0.99	0.25
483	485351.71	3753034.43	0.92	0.16	0.13	0.10	1.05	0.26
484	485451.71	3753034.43	0.99	0.18	0.14	0.10	1.13	0.28
485	484551.71	3753134.43	0.60	0.11	0.10	0.08	0.70	0.19
486	484651.71	3753134.43	0.63	0.11	0.11	0.08	0.74	0.19
487	484751.71	3753134.43	0.68	0.12	0.11	0.08	0.79	0.20
488	484851.71	3753134.43	0.72	0.13	0.11	0.08	0.83	0.21
489	484951.71	3753134.43	0.77	0.14	0.12	0.09	0.89	0.22
490	485051.71	3753134.43	0.82	0.15	0.12	0.09	0.94	0.24
491	485151.71	3753134.43	0.88	0.16	0.12	0.09	1.00	0.25
492	485251.71	3753134.43	0.91	0.16	0.13	0.09	1.04	0.25
493	485351.71	3753134.43	0.96	0.17	0.13	0.10	1.10	0.27
494	485451.71	3753134.43	1.05	0.19	0.14	0.10	1.18	0.28
495	484551.71	3753234.43	0.66	0.12	0.11	0.08	0.77	0.20
496	484651.71	3753234.43	0.72	0.13	0.11	0.08	0.83	0.21
497	484751.71	3753234.43	0.77	0.14	0.11	0.08	0.88	0.22
498	484851.71	3753234.43	0.82	0.15	0.12	0.09	0.94	0.23
499	484951.71	3753234.43	0.86	0.15	0.12	0.09	0.98	0.24
500	485051.71	3753234.43	0.92	0.16	0.12	0.09	1.04	0.25
501	485151.71	3753234.43	0.95	0.17	0.13	0.09	1.08	0.26
502	485251.71	3753234.43	1.02	0.18	0.13	0.09	1.15	0.28
503	485351.71	3753234.43	1.08	0.19	0.14	0.10	1.21	0.29
504	485451.71	3753234.43	1.17	0.21	0.14	0.10	1.32	0.31
505	484551.71	3753334.43	0.70	0.13	0.11	0.08	0.81	0.21
506	484651.71	3753334.43	0.75	0.14	0.11	0.08	0.87	0.22
507	484751.71	3753334.43	0.81	0.14	0.12	0.09	0.92	0.23
508	484851.71	3753334.43	0.87	0.16	0.12	0.09	0.98	0.24
509	484951.71	3753334.43	0.93	0.17	0.12	0.09	1.05	0.26
510	485051.71	3753334.43	1.00	0.18	0.13	0.09	1.12	0.27

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
511	485151.71	3753334.43	1.06	0.19	0.13	0.09	1.19	0.28
512	485251.71	3753334.43	1.14	0.20	0.14	0.10	1.28	0.30
513	485351.71	3753334.43	1.23	0.22	0.14	0.10	1.37	0.32
514	485451.71	3753334.43	1.35	0.24	0.15	0.11	1.50	0.35
515	484551.71	3753434.43	0.72	0.13	0.11	0.08	0.83	0.21
516	484651.71	3753434.43	0.77	0.14	0.11	0.09	0.89	0.22
517	484751.71	3753434.43	0.83	0.15	0.12	0.09	0.94	0.24
518	484851.71	3753434.43	0.89	0.16	0.12	0.09	1.01	0.25
519	484951.71	3753434.43	0.96	0.17	0.13	0.09	1.08	0.26
520	485051.71	3753434.43	1.03	0.18	0.13	0.10	1.16	0.28
521	485151.71	3753434.43	1.11	0.20	0.14	0.10	1.25	0.30
522	485251.71	3753434.43	1.22	0.22	0.14	0.10	1.36	0.32
523	485351.71	3753434.43	1.36	0.24	0.15	0.11	1.51	0.35
524	485451.71	3753434.43	1.55	0.27	0.16	0.11	1.71	0.39
525	484551.71	3753534.43	0.72	0.13	0.11	0.09	0.83	0.22
526	484651.71	3753534.43	0.77	0.14	0.12	0.09	0.88	0.23
527	484751.71	3753534.43	0.82	0.15	0.12	0.09	0.95	0.24
528	484851.71	3753534.43	0.89	0.16	0.13	0.09	1.02	0.25
529	484951.71	3753534.43	0.97	0.17	0.13	0.10	1.10	0.27
530	485051.71	3753534.43	1.05	0.19	0.14	0.10	1.18	0.28
531	485151.71	3753534.43	1.14	0.20	0.14	0.10	1.29	0.30
532	485251.71	3753534.43	1.26	0.22	0.15	0.11	1.41	0.33
533	485351.71	3753534.43	1.42	0.25	0.16	0.11	1.57	0.36
534	485451.71	3753534.43	1.65	0.29	0.17	0.12	1.81	0.41
535	484551.71	3753634.43	0.71	0.13	0.12	0.09	0.82	0.22
536	484651.71	3753634.43	0.76	0.14	0.12	0.09	0.88	0.23
537	484751.71	3753634.43	0.82	0.15	0.12	0.09	0.94	0.24
538	484851.71	3753634.43	0.89	0.16	0.13	0.10	1.02	0.25
539	484951.71	3753634.43	0.96	0.17	0.13	0.10	1.10	0.27
540	485051.71	3753634.43	1.05	0.19	0.14	0.10	1.19	0.29
541	485151.71	3753634.43	1.15	0.20	0.15	0.11	1.30	0.31

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
542	485251.71	3753634.43	1.28	0.23	0.15	0.11	1.43	0.34
543	485351.71	3753634.43	1.44	0.26	0.16	0.11	1.60	0.37
544	485451.71	3753634.43	1.68	0.30	0.17	0.12	1.86	0.42
545	484551.71	3753734.43	0.69	0.12	0.12	0.09	0.81	0.22
546	484651.71	3753734.43	0.74	0.13	0.12	0.10	0.87	0.23
547	484751.71	3753734.43	0.80	0.14	0.13	0.10	0.93	0.24
548	484851.71	3753734.43	0.87	0.16	0.13	0.10	1.00	0.25
549	484951.71	3753734.43	0.95	0.17	0.14	0.10	1.09	0.27
550	485051.71	3753734.43	1.04	0.19	0.14	0.10	1.18	0.29
551	485151.71	3753734.43	1.15	0.20	0.15	0.11	1.30	0.31
552	485251.71	3753734.43	1.28	0.23	0.16	0.11	1.44	0.34
553	485351.71	3753734.43	1.45	0.26	0.17	0.12	1.61	0.37
554	485451.71	3753734.43	1.69	0.30	0.18	0.13	1.87	0.43
555	484551.71	3753834.43	0.67	0.12	0.12	0.10	0.79	0.22
556	484651.71	3753834.43	0.72	0.13	0.13	0.10	0.85	0.23
557	484751.71	3753834.43	0.78	0.14	0.13	0.10	0.91	0.24
558	484851.71	3753834.43	0.85	0.15	0.13	0.10	0.99	0.25
559	484951.71	3753834.43	0.93	0.17	0.14	0.11	1.07	0.27
560	485051.71	3753834.43	1.02	0.18	0.15	0.11	1.17	0.29
561	485151.71	3753834.43	1.13	0.20	0.15	0.11	1.28	0.31
562	485251.71	3753834.43	1.26	0.22	0.16	0.12	1.42	0.34
563	485351.71	3753834.43	1.43	0.25	0.17	0.12	1.60	0.38
564	485451.71	3753834.43	1.68	0.30	0.18	0.13	1.86	0.43
565	484551.71	3753934.43	0.64	0.11	0.13	0.10	0.77	0.22
566	484651.71	3753934.43	0.69	0.12	0.13	0.10	0.82	0.23
567	484751.71	3753934.43	0.75	0.13	0.13	0.11	0.89	0.24
568	484851.71	3753934.43	0.82	0.15	0.14	0.11	0.96	0.25
569	484951.71	3753934.43	0.90	0.16	0.14	0.11	1.04	0.27
570	485051.71	3753934.43	0.99	0.18	0.15	0.11	1.14	0.29
571	485151.71	3753934.43	1.10	0.20	0.16	0.12	1.26	0.31
572	485251.71	3753934.43	1.24	0.22	0.16	0.12	1.40	0.34

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
573	485351.71	3753934.43	1.41	0.25	0.17	0.13	1.58	0.38
574	485451.71	3753934.43	1.65	0.29	0.19	0.14	1.84	0.43
575	484551.71	3754034.43	0.60	0.11	0.13	0.11	0.73	0.22
576	484651.71	3754034.43	0.66	0.12	0.13	0.11	0.80	0.23
577	484751.71	3754034.43	0.72	0.13	0.14	0.11	0.86	0.24
578	484851.71	3754034.43	0.78	0.14	0.14	0.11	0.93	0.25
579	484951.71	3754034.43	0.86	0.15	0.15	0.12	1.01	0.27
580	485051.71	3754034.43	0.95	0.17	0.15	0.12	1.11	0.29
581	485151.71	3754034.43	1.06	0.19	0.16	0.12	1.22	0.31
582	485251.71	3754034.43	1.19	0.21	0.17	0.13	1.36	0.34
583	485351.71	3754034.43	1.36	0.24	0.18	0.13	1.54	0.37
584	485451.71	3754034.43	1.60	0.28	0.19	0.14	1.80	0.43
585	484551.71	3754134.43	0.58	0.10	0.14	0.11	0.71	0.22
586	484651.71	3754134.43	0.63	0.11	0.14	0.11	0.77	0.23
587	484751.71	3754134.43	0.68	0.12	0.14	0.11	0.83	0.24
588	484851.71	3754134.43	0.74	0.13	0.15	0.12	0.89	0.25
589	484951.71	3754134.43	0.82	0.15	0.15	0.12	0.97	0.27
590	485051.71	3754134.43	0.91	0.16	0.16	0.12	1.06	0.28
591	485151.71	3754134.43	1.01	0.18	0.16	0.13	1.18	0.31
592	485251.71	3754134.43	1.14	0.20	0.17	0.13	1.31	0.33
593	485351.71	3754134.43	1.30	0.23	0.18	0.14	1.49	0.37
594	485451.71	3754134.43	1.54	0.27	0.20	0.15	1.73	0.42
595	484551.71	3754234.43	0.55	0.10	0.14	0.12	0.69	0.22
596	484651.71	3754234.43	0.60	0.11	0.14	0.12	0.74	0.22
597	484751.71	3754234.43	0.64	0.12	0.15	0.12	0.79	0.24
598	484851.71	3754234.43	0.70	0.12	0.15	0.12	0.85	0.25
599	484951.71	3754234.43	0.77	0.14	0.16	0.13	0.92	0.26
600	485051.71	3754234.43	0.85	0.15	0.16	0.13	1.01	0.28
601	485151.71	3754234.43	0.95	0.17	0.17	0.13	1.12	0.30
602	485251.71	3754234.43	1.07	0.19	0.18	0.14	1.25	0.33
603	485351.71	3754234.43	1.23	0.22	0.19	0.14	1.42	0.36

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
604	485451.71	3754234.43	1.46	0.26	0.20	0.15	1.66	0.41
605	484551.71	3754334.43	0.52	0.09	0.14	0.12	0.66	0.22
606	484651.71	3754334.43	0.56	0.10	0.15	0.12	0.71	0.22
607	484751.71	3754334.43	0.60	0.11	0.15	0.13	0.75	0.23
608	484851.71	3754334.43	0.65	0.12	0.16	0.13	0.81	0.25
609	484951.71	3754334.43	0.71	0.13	0.16	0.13	0.87	0.26
610	485051.71	3754334.43	0.79	0.14	0.17	0.14	0.96	0.28
611	485151.71	3754334.43	0.88	0.16	0.17	0.14	1.06	0.30
612	485251.71	3754334.43	1.00	0.18	0.18	0.14	1.18	0.32
613	485351.71	3754334.43	1.15	0.20	0.19	0.15	1.34	0.35
614	485451.71	3754334.43	1.37	0.24	0.20	0.16	1.57	0.40
615	484551.71	3754434.43	0.47	0.09	0.15	0.13	0.63	0.22
616	484651.71	3754434.43	0.51	0.09	0.16	0.13	0.66	0.23
617	484751.71	3754434.43	0.55	0.10	0.16	0.14	0.71	0.23
618	484851.71	3754434.43	0.60	0.11	0.16	0.14	0.76	0.24
619	484951.71	3754434.43	0.65	0.12	0.17	0.14	0.82	0.26
620	485051.71	3754434.43	0.72	0.13	0.17	0.14	0.90	0.27
621	485151.71	3754434.43	0.81	0.14	0.18	0.15	0.99	0.29
622	485251.71	3754434.43	0.92	0.16	0.19	0.15	1.11	0.32
623	485351.71	3754434.43	1.06	0.19	0.20	0.16	1.26	0.35
624	485451.71	3754434.43	1.26	0.23	0.21	0.17	1.47	0.39
625	484551.71	3754534.43	0.44	0.08	0.16	0.14	0.60	0.22
626	484651.71	3754534.43	0.47	0.08	0.17	0.15	0.63	0.23
627	484751.71	3754534.43	0.50	0.09	0.17	0.15	0.67	0.24
628	484851.71	3754534.43	0.54	0.10	0.17	0.15	0.72	0.25
629	484951.71	3754534.43	0.59	0.11	0.18	0.15	0.77	0.26
630	485051.71	3754534.43	0.66	0.12	0.18	0.15	0.84	0.27
631	485151.71	3754534.43	0.73	0.13	0.19	0.16	0.92	0.29
632	485251.71	3754534.43	0.83	0.15	0.20	0.16	1.03	0.31
633	485351.71	3754534.43	0.97	0.17	0.21	0.17	1.17	0.34
634	485451.71	3754534.43	1.16	0.21	0.22	0.18	1.38	0.38

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
635	484551.71	3754634.43	0.40	0.07	0.17	0.16	0.58	0.23
636	484651.71	3754634.43	0.43	0.08	0.18	0.16	0.61	0.23
637	484751.71	3754634.43	0.46	0.08	0.18	0.16	0.64	0.24
638	484851.71	3754634.43	0.49	0.09	0.18	0.16	0.68	0.25
639	484951.71	3754634.43	0.54	0.10	0.19	0.16	0.72	0.26
640	485051.71	3754634.43	0.59	0.11	0.19	0.16	0.78	0.27
641	485151.71	3754634.43	0.66	0.12	0.20	0.17	0.86	0.29
642	485251.71	3754634.43	0.75	0.13	0.20	0.17	0.95	0.31
643	485351.71	3754634.43	0.87	0.16	0.21	0.18	1.09	0.34
644	485451.71	3754634.43	1.05	0.19	0.23	0.19	1.28	0.38
645	484551.71	3754734.43	0.37	0.07	0.18	0.17	0.56	0.23
646	484651.71	3754734.43	0.40	0.07	0.19	0.17	0.58	0.24
647	484751.71	3754734.43	0.42	0.08	0.19	0.17	0.61	0.25
648	484851.71	3754734.43	0.45	0.08	0.19	0.17	0.64	0.25
649	484951.71	3754734.43	0.49	0.09	0.20	0.18	0.68	0.26
650	485051.71	3754734.43	0.53	0.10	0.20	0.18	0.73	0.27
651	485151.71	3754734.43	0.59	0.11	0.21	0.18	0.80	0.29
652	485251.71	3754734.43	0.67	0.12	0.22	0.19	0.88	0.31
653	485351.71	3754734.43	0.77	0.14	0.23	0.20	1.00	0.33
654	485451.71	3754734.43	0.94	0.17	0.24	0.20	1.18	0.37
655	484551.71	3754834.43	0.34	0.06	0.20	0.18	0.54	0.25
656	484651.71	3754834.43	0.36	0.07	0.20	0.19	0.57	0.25
657	484751.71	3754834.43	0.38	0.07	0.21	0.19	0.59	0.26
658	484851.71	3754834.43	0.41	0.07	0.21	0.19	0.62	0.26
659	484951.71	3754834.43	0.44	0.08	0.21	0.19	0.65	0.27
660	485051.71	3754834.43	0.48	0.09	0.22	0.20	0.69	0.28
661	485151.71	3754834.43	0.52	0.09	0.22	0.20	0.75	0.30
662	485251.71	3754834.43	0.58	0.10	0.23	0.21	0.82	0.31
663	485351.71	3754834.43	0.67	0.12	0.24	0.22	0.91	0.34
664	485451.71	3754834.43	0.82	0.15	0.26	0.23	1.08	0.37
665	484551.71	3754934.43	0.32	0.06	0.22	0.21	0.54	0.27

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
666	484651.71	3754934.43	0.33	0.06	0.23	0.21	0.56	0.27
667	484751.71	3754934.43	0.35	0.06	0.23	0.21	0.58	0.28
668	484851.71	3754934.43	0.37	0.07	0.23	0.22	0.61	0.28
669	484951.71	3754934.43	0.40	0.07	0.24	0.22	0.64	0.29
670	485051.71	3754934.43	0.43	0.08	0.24	0.22	0.67	0.30
671	485151.71	3754934.43	0.46	0.08	0.25	0.23	0.71	0.31
672	485251.71	3754934.43	0.51	0.09	0.26	0.23	0.77	0.32
673	485351.71	3754934.43	0.57	0.10	0.27	0.24	0.84	0.35
674	485451.71	3754934.43	0.68	0.12	0.29	0.27	0.97	0.39
675	484551.71	3755034.43	0.29	0.05	0.26	0.25	0.56	0.30
676	484651.71	3755034.43	0.31	0.06	0.26	0.25	0.57	0.30
677	484751.71	3755034.43	0.32	0.06	0.27	0.25	0.59	0.31
678	484851.71	3755034.43	0.34	0.06	0.27	0.25	0.61	0.31
679	484951.71	3755034.43	0.36	0.07	0.27	0.26	0.64	0.32
680	485051.71	3755034.43	0.39	0.07	0.28	0.26	0.66	0.33
681	485151.71	3755034.43	0.42	0.07	0.28	0.26	0.70	0.34
682	485251.71	3755034.43	0.45	0.08	0.29	0.27	0.74	0.35
683	485351.71	3755034.43	0.49	0.09	0.30	0.28	0.80	0.37
684	485451.71	3755034.43	0.55	0.10	0.34	0.32	0.89	0.42
685	485549.47	3750934.9	0.24	0.05	0.02	0.02	0.26	0.07
686	485649.47	3750934.9	0.23	0.05	0.02	0.02	0.26	0.07
687	485749.47	3750934.9	0.23	0.05	0.02	0.02	0.26	0.07
688	485849.47	3750934.9	0.23	0.05	0.02	0.02	0.25	0.07
689	485549.47	3751034.9	0.25	0.05	0.02	0.02	0.28	0.07
690	485649.47	3751034.9	0.25	0.05	0.02	0.02	0.27	0.07
691	485749.47	3751034.9	0.25	0.05	0.02	0.02	0.27	0.07
692	485849.47	3751034.9	0.25	0.05	0.02	0.02	0.27	0.07
693	485549.47	3751134.9	0.27	0.06	0.03	0.02	0.29	0.08
694	485649.47	3751134.9	0.26	0.06	0.03	0.02	0.29	0.08
695	485749.47	3751134.9	0.26	0.06	0.03	0.02	0.29	0.08
696	485849.47	3751134.9	0.26	0.06	0.03	0.02	0.29	0.08

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
697	485549.47	3751234.9	0.28	0.06	0.03	0.02	0.31	0.08
698	485649.47	3751234.9	0.28	0.06	0.03	0.02	0.31	0.08
699	485749.47	3751234.9	0.28	0.06	0.03	0.02	0.31	0.08
700	485849.47	3751234.9	0.28	0.06	0.03	0.02	0.31	0.08
701	485549.47	3751334.9	0.30	0.06	0.03	0.02	0.33	0.09
702	485649.47	3751334.9	0.30	0.06	0.03	0.02	0.33	0.09
703	485749.47	3751334.9	0.30	0.06	0.03	0.02	0.33	0.09
704	485849.47	3751334.9	0.30	0.06	0.03	0.02	0.33	0.09
705	485549.47	3751434.9	0.32	0.07	0.03	0.02	0.36	0.09
706	485649.47	3751434.9	0.32	0.07	0.03	0.02	0.36	0.09
707	485749.47	3751434.9	0.32	0.07	0.03	0.02	0.35	0.09
708	485849.47	3751434.9	0.32	0.07	0.03	0.02	0.36	0.09
709	485549.47	3751534.9	0.35	0.07	0.04	0.03	0.39	0.10
710	485649.47	3751534.9	0.35	0.07	0.04	0.03	0.39	0.10
711	485749.47	3751534.9	0.35	0.07	0.04	0.03	0.38	0.10
712	485849.47	3751534.9	0.35	0.07	0.04	0.03	0.38	0.10
713	485549.47	3751634.9	0.43	0.09	0.06	0.05	0.49	0.14
714	485649.47	3751634.9	0.39	0.08	0.05	0.04	0.44	0.12
715	485749.47	3751634.9	0.38	0.08	0.05	0.04	0.43	0.12
716	485849.47	3751634.9	0.37	0.08	0.04	0.03	0.41	0.11
717	485549.47	3751734.9	0.54	0.11	0.08	0.06	0.62	0.17
718	485649.47	3751734.9	0.51	0.10	0.07	0.06	0.58	0.16
719	485749.47	3751734.9	0.46	0.09	0.07	0.05	0.52	0.15
720	485849.47	3751734.9	0.40	0.08	0.05	0.04	0.45	0.12
721	485549.47	3751834.9	0.61	0.12	0.09	0.07	0.70	0.19
722	485649.47	3751834.9	0.59	0.12	0.08	0.07	0.67	0.18
723	485749.47	3751834.9	0.56	0.11	0.08	0.06	0.64	0.17
724	485849.47	3751834.9	0.48	0.10	0.07	0.05	0.55	0.15
725	485549.47	3751934.9	0.68	0.13	0.10	0.08	0.78	0.21
726	485649.47	3751934.9	0.67	0.13	0.09	0.07	0.76	0.20
727	485749.47	3751934.9	0.66	0.13	0.09	0.07	0.75	0.20

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
728	485849.47	3751934.9	0.64	0.13	0.09	0.07	0.72	0.19
729	485549.47	3752034.9	0.75	0.14	0.12	0.09	0.86	0.24
730	485649.47	3752034.9	0.75	0.14	0.10	0.08	0.85	0.22
731	485749.47	3752034.9	0.75	0.14	0.10	0.08	0.85	0.22
732	485849.47	3752034.9	0.73	0.14	0.10	0.08	0.83	0.22
733	485549.47	3752134.9	0.78	0.15	0.12	0.10	0.90	0.24
734	485649.47	3752134.9	0.81	0.15	0.12	0.09	0.93	0.25
735	485749.47	3752134.9	0.83	0.16	0.12	0.09	0.95	0.25
736	485849.47	3752134.9	0.84	0.16	0.12	0.09	0.96	0.25
737	485549.47	3752234.9	0.70	0.13	0.14	0.11	0.83	0.24
738	485649.47	3752234.9	0.80	0.15	0.14	0.11	0.94	0.26
739	485749.47	3752234.9	0.88	0.16	0.15	0.12	1.02	0.28
740	485849.47	3752234.9	0.92	0.17	0.15	0.12	1.07	0.30
741	485549.47	3752334.9	0.73	0.13	0.11	0.09	0.85	0.22
742	485649.47	3752334.9	0.77	0.14	0.12	0.09	0.89	0.23
743	485749.47	3752334.9	0.84	0.15	0.12	0.09	0.97	0.25
744	485849.47	3752334.9	0.96	0.18	0.13	0.09	1.08	0.27
745	485549.47	3752434.9	0.77	0.14	0.11	0.08	0.88	0.22
746	485649.47	3752434.9	0.81	0.15	0.11	0.08	0.92	0.23
747	485749.47	3752434.9	0.86	0.16	0.12	0.08	0.97	0.24
748	485849.47	3752434.9	0.90	0.16	0.12	0.09	1.02	0.25
749	485549.47	3752534.9	0.81	0.15	0.11	0.08	0.93	0.23
750	485649.47	3752534.9	0.86	0.16	0.11	0.08	0.97	0.24
751	485749.47	3752534.9	0.91	0.16	0.12	0.09	1.03	0.25
752	485849.47	3752534.9	0.97	0.17	0.12	0.09	1.09	0.26
753	485549.47	3752634.9	0.86	0.15	0.12	0.08	0.98	0.24
754	485649.47	3752634.9	0.91	0.16	0.12	0.09	1.03	0.25
755	485749.47	3752634.9	0.97	0.17	0.12	0.09	1.09	0.26
756	485849.47	3752634.9	1.03	0.19	0.13	0.09	1.16	0.28
757	485549.47	3752734.9	0.91	0.16	0.12	0.09	1.03	0.25
758	485649.47	3752734.9	0.97	0.17	0.12	0.09	1.10	0.26

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
759	485749.47	3752734.9	1.04	0.19	0.13	0.09	1.17	0.28
760	485849.47	3752734.9	1.12	0.20	0.13	0.09	1.25	0.29
761	485549.47	3752834.9	0.96	0.17	0.13	0.09	1.09	0.26
762	485649.47	3752834.9	1.04	0.18	0.13	0.09	1.17	0.28
763	485749.47	3752834.9	1.13	0.20	0.13	0.10	1.26	0.29
764	485849.47	3752834.9	1.23	0.22	0.14	0.10	1.37	0.32
765	485549.47	3752934.9	1.02	0.18	0.13	0.10	1.15	0.28
766	485649.47	3752934.9	1.11	0.20	0.13	0.10	1.24	0.29
767	485749.47	3752934.9	1.22	0.21	0.14	0.10	1.36	0.32
768	485849.47	3752934.9	1.36	0.24	0.15	0.10	1.51	0.34
769	485549.47	3753034.9	1.08	0.19	0.14	0.10	1.21	0.29
770	485649.47	3753034.9	1.18	0.21	0.14	0.10	1.32	0.31
771	485749.47	3753034.9	1.31	0.23	0.15	0.11	1.46	0.34
772	485849.47	3753034.9	1.51	0.27	0.15	0.11	1.66	0.38
773	485549.47	3753134.9	1.14	0.20	0.14	0.10	1.28	0.30
774	485649.47	3753134.9	1.26	0.22	0.15	0.11	1.40	0.33
775	485749.47	3753134.9	1.41	0.25	0.15	0.11	1.56	0.36
776	485849.47	3753134.9	1.64	0.29	0.16	0.12	1.80	0.41
777	485549.47	3753234.9	1.25	0.22	0.15	0.11	1.40	0.33
778	485649.47	3753234.9	1.35	0.24	0.15	0.11	1.50	0.35
779	485749.47	3753234.9	1.51	0.26	0.16	0.11	1.67	0.38
780	485849.47	3753234.9	1.76	0.31	0.17	0.12	1.93	0.43
781	485549.47	3753334.9	1.44	0.26	0.16	0.11	1.60	0.37
782	485649.47	3753334.9	1.58	0.28	0.16	0.11	1.75	0.39
783	485749.47	3753334.9	1.74	0.31	0.17	0.12	1.91	0.43
784	485849.47	3753334.9	1.99	0.35	0.18	0.13	2.17	0.48
785	485549.47	3753434.9	1.86	0.33	0.17	0.12	2.03	0.45
786	485649.47	3753434.9	2.13	0.38	0.18	0.12	2.31	0.51
787	485749.47	3753434.9	2.35	0.42	0.18	0.13	2.53	0.55
788	485849.47	3753434.9	2.62	0.47	0.19	0.14	2.81	0.60
789	485508.49	3746711.29	0.08	0.02	0.02	0.01	0.10	0.03

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
790	491508.49	3746711.29	0.06	0.01	0.01	0.01	0.07	0.02
791	479508.49	3752711.29	0.10	0.02	0.05	0.05	0.15	0.07
792	485508.49	3752711.29	0.88	0.16	0.12	0.09	0.99	0.24
793	491508.49	3752711.29	0.45	0.12	0.10	0.06	0.55	0.18
794	485508.49	3758711.29	0.06	0.01	0.03	0.02	0.09	0.04
795	491508.49	3758711.29	0.05	0.01	0.01	0.01	0.06	0.02
796	485921.9	3750934.24	0.23	0.05	0.02	0.02	0.25	0.07
797	486021.9	3750934.24	0.22	0.05	0.02	0.02	0.25	0.07
798	486121.9	3750934.24	0.22	0.05	0.02	0.02	0.24	0.07
799	485921.9	3751034.24	0.24	0.05	0.02	0.02	0.27	0.07
800	486021.9	3751034.24	0.24	0.05	0.02	0.02	0.26	0.07
801	486121.9	3751034.24	0.23	0.05	0.02	0.02	0.26	0.07
802	485921.9	3751134.24	0.26	0.06	0.03	0.02	0.28	0.08
803	486021.9	3751134.24	0.26	0.06	0.02	0.02	0.28	0.07
804	486121.9	3751134.24	0.25	0.06	0.02	0.02	0.28	0.07
805	485921.9	3751234.24	0.28	0.06	0.03	0.02	0.31	0.08
806	486021.9	3751234.24	0.28	0.06	0.03	0.02	0.30	0.08
807	486121.9	3751234.24	0.27	0.06	0.03	0.02	0.30	0.08
808	485921.9	3751334.24	0.30	0.06	0.03	0.02	0.33	0.09
809	486021.9	3751334.24	0.30	0.06	0.03	0.02	0.32	0.08
810	486121.9	3751334.24	0.29	0.06	0.03	0.02	0.32	0.08
811	485921.9	3751434.24	0.32	0.07	0.03	0.02	0.35	0.09
812	486021.9	3751434.24	0.32	0.07	0.03	0.02	0.35	0.09
813	486121.9	3751434.24	0.32	0.07	0.03	0.02	0.35	0.09
814	485921.9	3751534.24	0.35	0.07	0.03	0.03	0.38	0.10
815	486021.9	3751534.24	0.35	0.07	0.03	0.03	0.38	0.10
816	486121.9	3751534.24	0.34	0.07	0.03	0.02	0.38	0.10
817	485921.9	3751634.24	0.37	0.08	0.04	0.03	0.41	0.10
818	486021.9	3751634.24	0.37	0.08	0.04	0.03	0.41	0.11
819	486121.9	3751634.24	0.37	0.08	0.04	0.03	0.41	0.11
820	485921.9	3751734.24	0.40	0.08	0.04	0.03	0.44	0.11

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
821	486021.9	3751734.24	0.41	0.08	0.05	0.04	0.46	0.12
822	486121.9	3751734.24	0.40	0.08	0.04	0.03	0.44	0.11
823	485921.9	3751834.24	0.44	0.09	0.05	0.04	0.49	0.13
824	486021.9	3751834.24	0.44	0.09	0.05	0.04	0.50	0.13
825	486121.9	3751834.24	0.43	0.09	0.04	0.03	0.48	0.12
826	485921.9	3751934.24	0.55	0.11	0.08	0.06	0.63	0.18
827	486021.9	3751934.24	0.50	0.10	0.07	0.05	0.56	0.15
828	486121.9	3751934.24	0.48	0.10	0.05	0.04	0.53	0.14
829	485921.9	3752034.24	0.68	0.13	0.10	0.07	0.78	0.21
830	486021.9	3752034.24	0.57	0.11	0.08	0.07	0.65	0.18
831	486121.9	3752034.24	0.55	0.11	0.07	0.06	0.62	0.17
832	485921.9	3752134.24	0.82	0.16	0.12	0.10	0.94	0.25
833	486021.9	3752134.24	0.77	0.15	0.12	0.10	0.89	0.25
834	486121.9	3752134.24	0.68	0.13	0.10	0.08	0.78	0.22
835	485921.9	3752234.24	0.92	0.17	0.15	0.13	1.08	0.30
836	486021.9	3752234.24	0.92	0.18	0.16	0.13	1.08	0.31
837	486121.9	3752234.24	0.90	0.17	0.15	0.12	1.05	0.30
838	485921.9	3752334.24	1.00	0.19	0.13	0.10	1.13	0.28
839	486021.9	3752334.24	1.05	0.20	0.14	0.10	1.19	0.30
840	486121.9	3752334.24	1.08	0.20	0.16	0.13	1.23	0.33
841	485921.9	3752434.24	0.98	0.18	0.13	0.09	1.11	0.27
842	486021.9	3752434.24	1.11	0.20	0.13	0.10	1.24	0.30
843	486121.9	3752434.24	1.19	0.22	0.14	0.11	1.34	0.33
844	485921.9	3752534.24	1.01	0.18	0.13	0.09	1.14	0.27
845	486021.9	3752534.24	1.08	0.19	0.13	0.10	1.21	0.29
846	486121.9	3752534.24	1.16	0.21	0.14	0.10	1.30	0.31
847	485921.9	3752634.24	1.08	0.19	0.13	0.09	1.21	0.29
848	486021.9	3752634.24	1.16	0.21	0.14	0.10	1.30	0.30
849	486121.9	3752634.24	1.26	0.22	0.14	0.10	1.40	0.33
850	485921.9	3752734.24	1.18	0.21	0.14	0.10	1.32	0.31
851	486021.9	3752734.24	1.27	0.23	0.14	0.10	1.41	0.33

			Construction -16 years from 2020 to 2035		Operational - 25 Years at 2040 Emission Level		16years Construction + 25 years Full Operation	
Receptor ID	UTM_X	UTM_Y	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
852	486121.9	3752734.24	1.38	0.24	0.15	0.11	1.53	0.35
853	485921.9	3752834.24	1.31	0.23	0.14	0.10	1.45	0.33
854	486021.9	3752834.24	1.43	0.25	0.15	0.11	1.58	0.36
855	486121.9	3752834.24	1.56	0.27	0.16	0.11	1.72	0.39
856	485921.9	3752934.24	1.48	0.26	0.15	0.11	1.64	0.37
857	486021.9	3752934.24	1.68	0.29	0.16	0.11	1.84	0.41
858	486121.9	3752934.24	1.88	0.33	0.17	0.12	2.05	0.45
							0	0

School Name	School Address	Receptor ID	UTM_X	UTM_Y	Construction Cancer Risk - Max 9 Year Total		Operation Cancer Risk -9 Year Exposure at 2040 Emission Level	
					Unmitigated	Mitigated	Unmitigated	Mitigated
Ridgecrest ES	28500 John F. Kennedy Dr	15	484625	3751748	1.51	0.29	0.17	0.13
La Jolla ES	14745 Willowgrove Place	16	483279	3751798	1.03	0.20	0.12	0.10
Landmark MS	15261 Legendary Dr	17	483231	3751205	0.95	0.18	0.11	0.09
Victoriano ES	25650 Los Cabos Dr	18	480165	3750195	0.47	0.09	0.08	0.07
Lasselle ES	26446 Krameria Avenue	19	481211	3749473	0.54	0.10	0.08	0.06
Valley Christian School	26755 Alessandro Bovd	20	481867	3752785	0.63	0.12	0.13	0.11
Vista del Lago HS	15150 Lasselle Street	21	480678	3751306	0.52	0.10	0.09	0.08
Hendrick Ranch ES	25570 Brodiaea Ave.,	22	479989	3752645	0.40	0.08	0.11	0.10
Cloverdale ES	12050 Kitching St.	23	479889	3756222	0.24	0.05	0.15	0.14
North Ridge ES	25101 Kalmia Ave.	24	479234	3757080	0.19	0.04	0.07	0.07
Palm MS	11900 Slawson Avenue	25	480276	3756365	0.23	0.05	0.12	0.12
Butterfield ES	13400 Kitching Street,	26	479887	3754007	0.33	0.06	0.14	0.13
Bear Valley ES	26125 Fir Ave	27	480772	3755009	0.35	0.07	0.30	0.29
Mt View MS	13130 Morrison St	28	481560	3754548	0.47	0.09	0.22	0.21
Valley View HS	13135 Nason Street	29	481845	3754457	0.51	0.10	0.23	0.21
Moreno ES	26700 Cottonwood Ave,	30	481754	3753876	0.59	0.11	0.16	0.15
				Max	**1.51**	**0.29**	**0.30**	**0.29**

Construction + Operation

Cancer_UM	Cancer_M
<2	**<1**

E-7 Project Chronic Non-cancer Hazard Index

Based on Annaul Average Construction&Operation Emissions from Beginning of Construction to Project Buildout

ID	UTM_X	UTM_Y	CHI-UM	CHI_M	
859	487026.2	3754364.03	0.039684228	0.005599993	Max
175	486553.03	3754938.31	0.025421553	0.003626311	
13	487216.79	3754364.72	0.020667187	0.003118386	
11	487189.19	3754820.49	0.020054457	0.00292403	
12	487233.13	3754689.54	0.018009205	0.002630181	
158	486553.03	3753938.31	0.014753992	0.002425623	
14	487388.77	3754380.1	0.011514262	0.002335273	
10	485736.41	3754259.47	0.009968068	0.001632709	
9	485642.82	3754267.27	0.008347079	0.001381605	
159	487553.03	3753938.31	0.007412235	0.002089416	
157	485553.03	3753938.31	0.006969492	0.00117491	
142	487553.03	3752938.31	0.006855104	0.001727666	
584	485451.71	3754034.43	0.006443389	0.001074498	
594	485451.71	3754134.43	0.006419725	0.001067673	
574	485451.71	3753934.43	0.006257034	0.001052787	
604	485451.71	3754234.43	0.006189423	0.001032786	
564	485451.71	3753834.43	0.005897003	0.001007205	
141	486553.03	3752938.31	0.005836783	0.001586979	
614	485451.71	3754334.43	0.005787134	0.000973559	
583	485351.71	3754034.43	0.005703042	0.000954928	
573	485351.71	3753934.43	0.005632472	0.000948301	
593	485351.71	3754134.43	0.005599934	0.000937839	
554	485451.71	3753734.43	0.005465625	0.000944447	
563	485351.71	3753834.43	0.005410621	0.000920742	
603	485351.71	3754234.43	0.005344277	0.000900098	
176	487553.03	3754938.31	0.005251311	0.001620784	
624	485451.71	3754434.43	0.005230183	0.000893046	
553	485351.71	3753734.43	0.005082268	0.000876844	
572	485251.71	3753934.43	0.005066647	0.000855942	
582	485251.71	3754034.43	0.005059463	0.000852462	
544	485451.71	3753634.43	0.005048597	0.000871818	
562	485251.71	3753834.43	0.004947482	0.000841909	
613	485351.71	3754334.43	0.004933537	0.000840574	
592	485251.71	3754134.43	0.004917901	0.000830671	
788	485849.47	3753434.9	0.004903337	0.001129634	
543	485351.71	3753634.43	0.004761115	0.000821242	
143	488553.03	3752938.31	0.004721585	0.001574667	
552	485251.71	3753734.43	0.004719292	0.000812632	
602	485251.71	3754234.43	0.004647032	0.000791069	
787	485749.47	3753434.9	0.004620842	0.001027372	
634	485451.71	3754534.43	0.004617452	0.000812316	
534	485451.71	3753534.43	0.004612121	0.000795093	
571	485151.71	3753934.43	0.004560405	0.000774157	

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
561	485151.71	3753834.43	0.00451519	0.000769886
581	485151.71	3754034.43	0.004501245	0.000763899
542	485251.71	3753634.43	0.004470544	0.000771293
623	485351.71	3754434.43	0.004445465	0.000770457
786	485649.47	3753434.9	0.004430673	0.000945669
533	485351.71	3753534.43	0.004400345	0.000758386
551	485151.71	3753734.43	0.00437067	0.000751749
591	485151.71	3754134.43	0.004336019	0.00073917
784	485849.47	3753334.9	0.004286217	0.000916363
785	485549.47	3753434.9	0.004275083	0.000850991
612	485251.71	3754334.43	0.004267985	0.000736407
541	485151.71	3753634.43	0.004179919	0.000721623
532	485251.71	3753534.43	0.004178239	0.00072068
524	485451.71	3753434.43	0.004137526	0.000732874
560	485051.71	3753834.43	0.004115436	0.000704211
570	485051.71	3753934.43	0.004109097	0.000701599
160	488553.03	3753938.31	0.004102129	0.001593645
601	485151.71	3754234.43	0.004071488	0.000700711
550	485051.71	3753734.43	0.004034724	0.000694555
580	485051.71	3754034.43	0.004016976	0.000687099
644	485451.71	3754634.43	0.00401284	0.000834856
523	485351.71	3753434.43	0.00397681	0.000684624
783	485749.47	3753334.9	0.003971181	0.000818693
531	485151.71	3753534.43	0.003948463	0.000681739
633	485351.71	3754534.43	0.003941492	0.000741768
540	485051.71	3753634.43	0.003898384	0.000673731
590	485051.71	3754134.43	0.003842031	0.000661249
622	485251.71	3754434.43	0.003834425	0.000677884
522	485251.71	3753434.43	0.003817843	0.000658418
780	485849.47	3753234.9	0.003817803	0.0008416
782	485649.47	3753334.9	0.003805172	0.000758686
144	489553.03	3752938.31	0.003765662	0.001524187
559	484951.71	3753834.43	0.003750756	0.000644738
611	485151.71	3754334.43	0.003728359	0.000651379
530	485051.71	3753534.43	0.003723491	0.000643653
549	484951.71	3753734.43	0.003716527	0.000641283
569	484951.71	3753934.43	0.003711879	0.000637864
858	486121.9	3752934.24	0.003657649	0.000886724
521	485151.71	3753434.43	0.00364537	0.000629719
539	484951.71	3753634.43	0.003631235	0.000628451
781	485549.47	3753334.9	0.003628734	0.000712766
579	484951.71	3754034.43	0.003599897	0.00062086
514	485451.71	3753334.43	0.003595218	0.000668366
600	485051.71	3754234.43	0.003593559	0.000625277
779	485749.47	3753234.9	0.003514009	0.000743603
520	485051.71	3753434.43	0.003507942	0.000606619

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
529	484951.71	3753534.43	0.003507378	0.000607116
513	485351.71	3753334.43	0.003500804	0.000618195
776	485849.47	3753134.9	0.003489848	0.00079747
643	485351.71	3754634.43	0.003470568	0.000763931
654	485451.71	3754734.43	0.003469276	0.000867105
512	485251.71	3753334.43	0.003444313	0.000593811
632	485251.71	3754534.43	0.003430418	0.000694448
589	484951.71	3754134.43	0.003424107	0.000595052
558	484851.71	3753834.43	0.003422417	0.000591414
548	484851.71	3753734.43	0.003421149	0.000592319
621	485151.71	3754434.43	0.003375556	0.000641509
538	484851.71	3753634.43	0.003374147	0.000584931
568	484851.71	3753934.43	0.003361989	0.000581735
519	484951.71	3753434.43	0.003339408	0.000578313
511	485151.71	3753334.43	0.003336606	0.000576492
610	485051.71	3754334.43	0.003295366	0.000598532
528	484851.71	3753534.43	0.003291058	0.000570535
778	485649.47	3753234.9	0.003284721	0.000682926
857	486021.9	3752934.24	0.003283753	0.000804372
578	484851.71	3754034.43	0.00324071	0.000563636
510	485051.71	3753334.43	0.003237864	0.000560388
775	485749.47	3753134.9	0.003225767	0.0007055
599	484951.71	3754234.43	0.003194227	0.000562366
772	485849.47	3753034.9	0.003169917	0.000746532
518	484851.71	3753434.43	0.003164684	0.000548885
777	485549.47	3753234.9	0.003164361	0.000644359
547	484751.71	3753734.43	0.00315028	0.000547778
537	484751.71	3753634.43	0.003131541	0.000543924
557	484751.71	3753834.43	0.003126616	0.000543493
504	485451.71	3753234.43	0.003104911	0.000613473
509	484951.71	3753334.43	0.003101779	0.000537833
588	484851.71	3754134.43	0.003070836	0.000538829
527	484751.71	3753534.43	0.003065575	0.000532349
567	484751.71	3753934.43	0.003054778	0.000532429
145	490553.03	3752938.31	0.003054237	0.001267071
642	485251.71	3754634.43	0.003035275	0.000716941
653	485351.71	3754734.43	0.003028322	0.000795149
774	485649.47	3753134.9	0.003026924	0.00064845
631	485151.71	3754534.43	0.003025919	0.000658933
856	485921.9	3752934.24	0.003004617	0.000732987
620	485051.71	3754434.43	0.003002479	0.000612436
664	485451.71	3754834.43	0.002986983	0.000915754
503	485351.71	3753234.43	0.002979515	0.000573193
517	484751.71	3753434.43	0.002978862	0.000517501
508	484851.71	3753334.43	0.002964604	0.000514924
609	484951.71	3754334.43	0.002953289	0.000573704

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
855	486121.9	3752834.24	0.002950915	0.000770865
771	485749.47	3753034.9	0.00294996	0.000670266
502	485251.71	3753234.43	0.00294238	0.000545339
577	484751.71	3754034.43	0.002936881	0.000514979
174	485553.03	3754938.31	0.002930423	0.001133695
546	484651.71	3753734.43	0.002907535	0.000507224
536	484651.71	3753634.43	0.002907192	0.000506115
500	485051.71	3753234.43	0.002881032	0.000500111
598	484851.71	3754234.43	0.002880602	0.000540564
501	485151.71	3753234.43	0.002872152	0.0005183
526	484651.71	3753534.43	0.002866034	0.000498685
773	485549.47	3753134.9	0.002866029	0.000607314
556	484651.71	3753834.43	0.002863775	0.000500922
768	485849.47	3752934.9	0.002853036	0.000686344
507	484751.71	3753334.43	0.002808274	0.000488665
516	484651.71	3753434.43	0.002802858	0.000487783
854	486021.9	3752834.24	0.002798113	0.000714825
587	484751.71	3754134.43	0.002795835	0.000510921
770	485649.47	3753034.9	0.002781811	0.000619972
566	484651.71	3753934.43	0.002776725	0.000487859
499	484951.71	3753234.43	0.00277055	0.000481779
494	485451.71	3753134.43	0.002730171	0.000574712
498	484851.71	3753234.43	0.002715495	0.000472701
630	485051.71	3754534.43	0.002702063	0.000631087
535	484551.71	3753634.43	0.00270111	0.000471479
619	484951.71	3754434.43	0.002696612	0.000588646
641	485151.71	3754634.43	0.00269068	0.000682386
545	484551.71	3753734.43	0.002688329	0.000470519
767	485749.47	3752934.9	0.002682915	0.000632086
525	484551.71	3753534.43	0.002681284	0.000467581
576	484651.71	3754034.43	0.002680128	0.000485244
652	485251.71	3754734.43	0.002679849	0.000748191
608	484851.71	3754334.43	0.002674522	0.000552633
506	484651.71	3753334.43	0.002660693	0.000463816
769	485549.47	3753034.9	0.00264751	0.000592887
853	485921.9	3752834.24	0.002646356	0.000666233
597	484751.71	3754234.43	0.002638961	0.000520788
663	485351.71	3754834.43	0.002636076	0.000841087
555	484551.71	3753834.43	0.002634718	0.000463003
515	484551.71	3753434.43	0.00262348	0.000457532
493	485351.71	3753134.43	0.002604245	0.000540434
497	484751.71	3753234.43	0.002597554	0.000453116
674	485451.71	3754934.43	0.00258637	0.001005387
586	484651.71	3754134.43	0.002558278	0.000493556
491	485151.71	3753134.43	0.002553711	0.000499273
764	485849.47	3752834.9	0.00254861	0.000634538

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766	485649.47	3752934.9	0.002548604	0.000590704
565	484551.71	3753934.43	0.002546273	0.000463772
492	485251.71	3753134.43	0.002543751	0.000516324
156	484553.03	3753938.31	0.002543464	0.000464554
484	485451.71	3753034.43	0.002531962	0.000562268
505	484551.71	3753334.43	0.002502	0.000437111
8	489005.95	3754140.34	0.002500451	0.001112524
852	486121.9	3752734.24	0.002483234	0.000707653
496	484651.71	3753234.43	0.002467863	0.000431449
490	485051.71	3753134.43	0.002461915	0.000476648
140	485553.03	3752938.31	0.00244864	0.000564914
618	484851.71	3754434.43	0.002447814	0.000568868
607	484751.71	3754334.43	0.002443688	0.000534479
765	485549.47	3752934.9	0.002437942	0.000563644
629	484951.71	3754534.43	0.002435386	0.000609008
763	485749.47	3752834.9	0.002428823	0.000595319
483	485351.71	3753034.43	0.002427815	0.000534111
596	484651.71	3754234.43	0.002425943	0.000503114
640	485051.71	3754634.43	0.002416098	0.000655844
851	486021.9	3752734.24	0.002406261	0.000659348
575	484551.71	3754034.43	0.002406091	0.000474098
651	485151.71	3754734.43	0.002392713	0.000714752
489	484951.71	3753134.43	0.002366837	0.000455976
662	485251.71	3754834.43	0.002360053	0.00079374
474	485451.71	3752934.43	0.002342537	0.000531989
482	485251.71	3753034.43	0.002332509	0.000519342
762	485649.47	3752834.9	0.002326507	0.000562072
850	485921.9	3752734.24	0.002326481	0.000619627
585	484551.71	3754134.43	0.002315357	0.000481688
673	485351.71	3754934.43	0.002311611	0.000910621
843	486121.9	3752434.24	0.002298922	0.000697672
849	486121.9	3752634.24	0.002298503	0.000667421
495	484551.71	3753234.43	0.002293103	0.000406099
684	485451.71	3755034.43	0.002274535	0.001141814
760	485849.47	3752734.9	0.002269837	0.000594699
488	484851.71	3753134.43	0.002268815	0.000437234
606	484651.71	3754334.43	0.002258192	0.000517662
473	485351.71	3752934.43	0.002256068	0.000503277
481	485151.71	3753034.43	0.002241126	0.000487969
761	485549.47	3752834.9	0.002239717	0.000539148
617	484751.71	3754434.43	0.002233014	0.000552667
595	484551.71	3754234.43	0.002219141	0.00049003
628	484851.71	3754534.43	0.00221783	0.000591777
759	485749.47	3752734.9	0.002190815	0.00056314
639	484951.71	3754634.43	0.002188683	0.000635299
840	486121.9	3752334.24	0.00218722	0.000730856

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472	485251.71	3752934.43	0.0021771	0.000480362
487	484751.71	3753134.43	0.002171123	0.000420483
846	486121.9	3752534.24	0.002166254	0.000647261
464	485451.71	3752834.43	0.002162571	0.000510468
650	485051.71	3754734.43	0.002158946	0.000689631
480	485051.71	3753034.43	0.002153527	0.000466742
661	485151.71	3754834.43	0.002128331	0.000761642
848	486021.9	3752634.24	0.002121043	0.000621966
758	485649.47	3752734.9	0.002118611	0.00053608
842	486021.9	3752434.24	0.002102676	0.000631546
471	485151.71	3752934.43	0.002102088	0.000459569
605	484551.71	3754334.43	0.002092818	0.000502767
463	485351.71	3752834.43	0.002092399	0.000483363
672	485251.71	3754934.43	0.002092196	0.000861905
479	484951.71	3753034.43	0.002067792	0.000448226
486	484651.71	3753134.43	0.002067199	0.000404738
839	486021.9	3752334.24	0.002058154	0.000648446
683	485351.71	3755034.43	0.002056871	0.001015989
847	485921.9	3752634.24	0.002056829	0.00058611
757	485549.47	3752734.9	0.002053496	0.000516843
616	484651.71	3754434.43	0.002052021	0.000538871
627	484751.71	3754534.43	0.002038388	0.000579738
470	485051.71	3752934.43	0.0020299	0.000441023
462	485251.71	3752834.43	0.002028245	0.000461871
756	485849.47	3752634.9	0.002023488	0.000563582
845	486021.9	3752534.24	0.002001932	0.000600232
638	484851.71	3754634.43	0.002001797	0.000620479
454	485451.71	3752734.43	0.00199281	0.000491484
792	485508.49	3752711.29	0.001986717	0.000499165
478	484851.71	3753034.43	0.001983459	0.000432044
755	485749.47	3752634.9	0.001974019	0.000536254
649	484951.71	3754734.43	0.001969379	0.000669909
461	485151.71	3752834.43	0.001967256	0.000442741
485	484551.71	3753134.43	0.001966752	0.000390701
469	484951.71	3752934.43	0.001959005	0.000423783
836	486021.9	3752234.24	0.00195317	0.000709831
660	485051.71	3754834.43	0.001938699	0.000737959
453	485351.71	3752734.43	0.001937401	0.000466621
838	485921.9	3752334.24	0.001936695	0.000605149
754	485649.47	3752634.9	0.001925775	0.000513188
835	485921.9	3752234.24	0.001919931	0.000682079
5	490282.16	3753425.19	0.001912405	0.000834482
460	485051.71	3752834.43	0.001908139	0.0004254
671	485151.71	3754934.43	0.001905316	0.000831554
477	484751.71	3753034.43	0.001900064	0.000418235
837	486121.9	3752234.24	0.001888999	0.000670973

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740	485849.47	3752234.9	0.001888978	0.000666319
468	484851.71	3752934.43	0.001888458	0.000408123
615	484551.71	3754434.43	0.001886959	0.000527516
452	485251.71	3752734.43	0.001885628	0.000446718
753	485549.47	3752634.9	0.001879043	0.000496675
682	485251.71	3755034.43	0.001876849	0.00096978
626	484651.71	3754534.43	0.001870189	0.000569852
844	485921.9	3752534.24	0.001868154	0.000564668
161	489553.03	3753938.31	0.001853044	0.000738741
841	485921.9	3752434.24	0.001852341	0.000567278
637	484751.71	3754634.43	0.001850215	0.000611239
459	484951.71	3752834.43	0.001849656	0.000409412
744	485849.47	3752334.9	0.001839325	0.000578314
451	485151.71	3752734.43	0.001836813	0.000429077
444	485451.71	3752634.43	0.001834147	0.000474585
467	484751.71	3752934.43	0.001817702	0.000393717
476	484651.71	3753034.43	0.00181723	0.000402962
752	485849.47	3752534.9	0.001815783	0.000542095
648	484851.71	3754734.43	0.001813534	0.00065402
458	484851.71	3752834.43	0.001791205	0.000394726
443	485351.71	3752634.43	0.00179049	0.000451201
739	485749.47	3752234.9	0.001789785	0.000634387
450	485051.71	3752734.43	0.001788801	0.000412893
751	485749.47	3752534.9	0.001784298	0.000516195
659	484951.71	3754834.43	0.001781349	0.000719551
177	488553.03	3754938.31	0.001762551	0.000852415
750	485649.47	3752534.9	0.001751719	0.000494757
670	485051.71	3754934.43	0.001751666	0.000809421
442	485251.71	3752634.43	0.001750243	0.000432916
466	484651.71	3752934.43	0.001747315	0.000380872
449	484951.71	3752734.43	0.00174084	0.000397851
475	484551.71	3753034.43	0.001735495	0.00038943
457	484751.71	3752834.43	0.001732167	0.000381079
625	484551.71	3754534.43	0.001731063	0.000559246
681	485151.71	3755034.43	0.001726335	0.00094106
749	485549.47	3752534.9	0.001719561	0.000479955
636	484651.71	3754634.43	0.00171302	0.000598017
441	485151.71	3752634.43	0.00171168	0.000416591
748	485849.47	3752434.9	0.001696784	0.000529154
448	484851.71	3752734.43	0.001693159	0.000384188
434	485451.71	3752534.43	0.001686406	0.000459764
647	484751.71	3754734.43	0.001684093	0.000641168
139	484553.03	3752938.31	0.001680323	0.000369653
465	484551.71	3752934.43	0.001676844	0.000368913
736	485849.47	3752134.9	0.001675879	0.000556917
440	485051.71	3752634.43	0.001673349	0.000401556

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456	484651.71	3752834.43	0.001673319	0.000368971
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1	489607.44	3753966.11	0.001658653	0.000665614
433	485351.71	3752534.43	0.00165378	0.00043775
735	485749.47	3752134.9	0.001653718	0.000547297
658	484851.71	3754834.43	0.001649514	0.000704406
447	484751.71	3752734.43	0.001645116	0.000371563
738	485649.47	3752234.9	0.001637256	0.000591296
439	484951.71	3752634.43	0.001634791	0.000387559
743	485749.47	3752334.9	0.001623353	0.000526984
432	485251.71	3752534.43	0.001622998	0.00042074
669	484951.71	3754934.43	0.001619303	0.000792754
747	485749.47	3752434.9	0.001619239	0.000504385
455	484551.71	3752834.43	0.001613516	0.000357587
734	485649.47	3752134.9	0.001604371	0.000535625
746	485649.47	3752434.9	0.001599109	0.000484192
438	484851.71	3752634.43	0.001596625	0.000374843
680	485051.71	3755034.43	0.001596409	0.000920538
446	484651.71	3752734.43	0.001596034	0.000359957
431	485151.71	3752534.43	0.001593179	0.000405594
635	484551.71	3754634.43	0.00158779	0.000588832
833	486021.9	3752134.24	0.001586254	0.000546717
745	485549.47	3752434.9	0.001577726	0.000469682
646	484651.71	3754734.43	0.001568459	0.000630568
430	485051.71	3752534.43	0.001563292	0.000391599
437	484751.71	3752634.43	0.001556708	0.00036268
424	485451.71	3752434.43	0.001552593	0.000449705
733	485549.47	3752134.9	0.001549163	0.000533733
445	484551.71	3752734.43	0.001546214	0.000349177
657	484751.71	3754834.43	0.001534089	0.000692101
429	484951.71	3752534.43	0.001532892	0.000378623
423	485351.71	3752434.43	0.00152802	0.000427653
436	484651.71	3752634.43	0.001517077	0.000351863
729	485549.47	3752034.9	0.001509646	0.000526248
668	484851.71	3754934.43	0.001507389	0.000778674
422	485251.71	3752434.43	0.001504515	0.000411023
428	484851.71	3752534.43	0.001502921	0.000366849
679	484951.71	3755034.43	0.001485583	0.000904205
421	485151.71	3752434.43	0.00148178	0.000396698
742	485649.47	3752334.9	0.001478598	0.000492648
731	485749.47	3752034.9	0.001476997	0.000481747
435	484551.71	3752634.43	0.001476162	0.000341797
730	485649.47	3752034.9	0.001475115	0.000485043
427	484751.71	3752534.43	0.00147135	0.000355676
645	484551.71	3754734.43	0.001463287	0.000621503
420	485051.71	3752434.43	0.001458932	0.000383626

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732	485849.47	3752034.9	0.001453232	0.000475884
426	484651.71	3752534.43	0.001439252	0.000345351
656	484651.71	3754834.43	0.00143637	0.000681543
737	485549.47	3752234.9	0.001436165	0.000543877
419	484951.71	3752434.43	0.001435715	0.000371594
384	485451.71	3752034.43	0.001435599	0.000491543
414	485451.71	3752334.43	0.001434522	0.000451683
413	485351.71	3752334.43	0.001413754	0.000425223
418	484851.71	3752434.43	0.001412292	0.000360546
667	484751.71	3754934.43	0.001409769	0.00076717
425	484551.71	3752534.43	0.00140574	0.000335762
412	485251.71	3752334.43	0.00139551	0.000407845
678	484851.71	3755034.43	0.001390665	0.000891024
417	484751.71	3752434.43	0.001387014	0.00034989
834	486121.9	3752134.24	0.00138619	0.000478543
2	489738.71	3754023.94	0.001383197	0.000573286
374	485451.71	3751934.43	0.001381522	0.00047378
411	485151.71	3752334.43	0.001378662	0.000393972
123	485553.03	3751938.31	0.001374086	0.000468148
725	485549.47	3751934.9	0.001370859	0.000467856
829	485921.9	3752034.24	0.001366983	0.000454511
416	484651.71	3752434.43	0.001362178	0.000340438
410	485051.71	3752334.43	0.001361852	0.0003817
655	484551.71	3754834.43	0.00135266	0.000672249
404	485451.71	3752234.43	0.001350294	0.000497909
409	484951.71	3752334.43	0.001344919	0.000370749
394	485451.71	3752134.43	0.001343647	0.000475751
415	484551.71	3752434.43	0.001335023	0.000331295
726	485649.47	3751934.9	0.001329862	0.00044126
408	484851.71	3752334.43	0.001326846	0.000360241
666	484651.71	3754934.43	0.001326087	0.000757297
727	485749.47	3751934.9	0.001318988	0.000434766
403	485351.71	3752234.43	0.001316446	0.000440482
677	484751.71	3755034.43	0.001310615	0.000879857
364	485451.71	3751834.43	0.001309796	0.00045786
373	485351.71	3751934.43	0.001308926	0.000445514
407	484751.71	3752334.43	0.00130825	0.00035059
402	485251.71	3752234.43	0.001300189	0.000417935
363	485351.71	3751834.43	0.00129606	0.000452899
406	484651.71	3752334.43	0.001288234	0.000341428
126	488553.03	3751938.31	0.001287848	0.000405053
401	485151.71	3752234.43	0.001285703	0.000403994
400	485051.71	3752234.43	0.001273624	0.00039098
728	485849.47	3751934.9	0.001273213	0.000421746
3	489668.94	3754093.71	0.001271161	0.000548675

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405	484551.71	3752334.43	0.001266458	0.000332571
399	484951.71	3752234.43	0.001263514	0.000396051
665	484551.71	3754934.43	0.001254523	0.000748615
173	484553.03	3754938.31	0.001252233	0.00075227
4	489690.06	3754161.63	0.001250596	0.000522791
398	484851.71	3752234.43	0.001248137	0.000372019
676	484651.71	3755034.43	0.001236824	0.000871473
397	484751.71	3752234.43	0.001234111	0.000364212
383	485351.71	3752034.43	0.001232037	0.000418534
362	485251.71	3751834.43	0.00123023	0.000436432
155	483553.03	3753938.31	0.00122036	0.000377887
721	485549.47	3751834.9	0.00122022	0.000411674
393	485351.71	3752134.43	0.001219716	0.000415418
396	484651.71	3752234.43	0.00121866	0.00035598
392	485251.71	3752134.43	0.001209169	0.0003926
395	484551.71	3752234.43	0.001200946	0.000346332
391	485151.71	3752134.43	0.001197579	0.000376586
353	485351.71	3751734.43	0.001195815	0.000399719
390	485051.71	3752134.43	0.001187804	0.000364326
6	489797.34	3754554.12	0.001183843	0.00042847
352	485251.71	3751734.43	0.00118315	0.000402905
675	484551.71	3755034.43	0.00118131	0.000863744
389	484951.71	3752134.43	0.001177743	0.000353673
722	485649.47	3751834.9	0.001173266	0.000395088
388	484851.71	3752134.43	0.00116805	0.00034442
387	484751.71	3752134.43	0.001157916	0.000335864
830	486021.9	3752034.24	0.001157742	0.000395695
354	485451.71	3751734.43	0.001157092	0.000385205
386	484651.71	3752134.43	0.001146456	0.000327604
127	489553.03	3751938.31	0.001134366	0.000400607
385	484551.71	3752134.43	0.001133843	0.000320016
382	485251.71	3752034.43	0.001126404	0.000380874
723	485749.47	3751834.9	0.001125351	0.000380785
826	485921.9	3751934.24	0.001122297	0.000383491
381	485151.71	3752034.43	0.001118122	0.000363853
380	485051.71	3752034.43	0.001110168	0.000350873
342	485251.71	3751634.43	0.001107064	0.000367093
125	487553.03	3751938.31	0.0011067	0.000374663
379	484951.71	3752034.43	0.001102326	0.000339639
831	486121.9	3752034.24	0.001102059	0.000371211
378	484851.71	3752034.43	0.001094793	0.00032977
377	484751.71	3752034.43	0.001087495	0.000321195
341	485151.71	3751634.43	0.001086288	0.00036437
717	485549.47	3751734.9	0.001082694	0.000365483
376	484651.71	3752034.43	0.001079284	0.000313069
372	485251.71	3751934.43	0.001073111	0.000381271

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375	484551.71	3752034.43	0.001070093	0.000305466
351	485151.71	3751734.43	0.001066793	0.000386187
138	483553.03	3752938.31	0.001060827	0.000285209
343	485351.71	3751634.43	0.001055008	0.000353208
7	490252.94	3754378.21	0.001048742	0.000389331
371	485151.71	3751934.43	0.001046062	0.000361818
331	485151.71	3751534.43	0.001043282	0.000345048
370	485051.71	3751934.43	0.001040305	0.00034657
340	485051.71	3751634.43	0.00103946	0.000357801
369	484951.71	3751934.43	0.001034777	0.000333849
330	485051.71	3751534.43	0.001031976	0.000343604
368	484851.71	3751934.43	0.00102957	0.000323246
718	485649.47	3751734.9	0.0010275	0.000350628
361	485151.71	3751834.43	0.00102486	0.000382654
367	484751.71	3751934.43	0.001023623	0.000313468
178	489553.03	3754938.31	0.001023471	0.000478383
339	484951.71	3751634.43	0.001020483	0.000361595
329	484951.71	3751534.43	0.001019638	0.00034289
366	484651.71	3751934.43	0.001017976	0.000305114
793	491508.49	3752711.29	0.001017285	0.000401455
122	484553.03	3751938.31	0.001012902	0.000297382
365	484551.71	3751934.43	0.00101054	0.000297022
328	484851.71	3751534.43	0.001004494	0.000342783
338	484851.71	3751634.43	0.001004153	0.000375232
350	485051.71	3751734.43	0.000995817	0.000397359
360	485051.71	3751834.43	0.000994929	0.00037573
827	486021.9	3751934.24	0.00099306	0.000333337
172	483553.03	3754938.31	0.000989155	0.000754674
327	484751.71	3751534.43	0.000981666	0.000344231
359	484951.71	3751834.43	0.000977638	0.000343855
358	484851.71	3751834.43	0.000974695	0.000327787
357	484751.71	3751834.43	0.000970418	0.000314669
724	485849.47	3751834.9	0.000966102	0.000330549
319	484951.71	3751434.43	0.000964794	0.000322739
356	484651.71	3751834.43	0.00096456	0.000303371
320	485051.71	3751434.43	0.000963357	0.000321557
318	484851.71	3751434.43	0.000961206	0.000322753
355	484551.71	3751834.43	0.000957431	0.000293328
317	484751.71	3751434.43	0.000952209	0.000322302
349	484951.71	3751734.43	0.000948232	0.000367793
316	484651.71	3751434.43	0.000934158	0.000321475
828	486121.9	3751934.24	0.000929205	0.00029472
348	484851.71	3751734.43	0.000928015	0.000364364
344	485451.71	3751634.43	0.000925231	0.000320803
347	484751.71	3751734.43	0.0009229	0.000335201
15	484625	3751748	0.000921607	0.000305439

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
337	484751.71	3751634.43	0.000921019	0.000355405
719	485749.47	3751734.9	0.00091843	0.000315909
146	491553.03	3752938.31	0.000918198	0.000377618
162	490553.03	3753938.31	0.000917192	0.000399905
346	484651.71	3751734.43	0.000917079	0.000311976
124	486553.03	3751938.31	0.000916649	0.00026721
332	485251.71	3751534.43	0.000911348	0.00031376
345	484551.71	3751734.43	0.000910807	0.000296531
192	486553.03	3755938.31	0.000908986	0.000547501
307	484751.71	3751334.43	0.000904603	0.000304108
326	484651.71	3751534.43	0.000901427	0.00034166
309	484951.71	3751334.43	0.000899043	0.000301858
306	484651.71	3751334.43	0.000898576	0.000303232
308	484851.71	3751334.43	0.000898453	0.000302284
128	490553.03	3751938.31	0.000897563	0.000328155
191	485553.03	3755938.31	0.000894807	0.000665582
315	484551.71	3751434.43	0.000884086	0.000316884
121	483553.03	3751938.31	0.000877947	0.000237742
305	484551.71	3751334.43	0.000874906	0.000299407
336	484651.71	3751634.43	0.000873483	0.000336007
335	484551.71	3751634.43	0.000871596	0.000325713
824	486021.9	3751834.24	0.00086941	0.000283117
171	482553.03	3754938.31	0.000868991	0.000685449
297	484751.71	3751234.43	0.000863681	0.000289564
713	485549.47	3751634.9	0.000861968	0.000297918
296	484651.71	3751234.43	0.000861203	0.000288891
823	485921.9	3751834.24	0.000859703	0.000279855
295	484551.71	3751234.43	0.000852517	0.000287449
310	485051.71	3751334.43	0.000850061	0.000290155
298	484851.71	3751234.43	0.000837165	0.000283419
325	484551.71	3751534.43	0.000831144	0.00034618
825	486121.9	3751834.24	0.000824349	0.000249815
286	484651.71	3751134.43	0.000823757	0.000276907
33	482657.64	3753975.1	0.000822928	0.000308462
321	485151.71	3751434.43	0.00082219	0.000287112
287	484751.71	3751134.43	0.000818145	0.000275532
285	484551.71	3751134.43	0.000817496	0.000275922
299	484951.71	3751234.43	0.000809835	0.000276755
40	478978.31	3755233.1	0.000805985	0.000719018
821	486021.9	3751734.24	0.000796733	0.000257447
16	483279	3751798	0.000793698	0.000219084
154	482553.03	3753938.31	0.000790553	0.000298379
720	485849.47	3751734.9	0.000778968	0.00024864
275	484551.71	3751034.43	0.000777794	0.00026421
714	485649.47	3751634.9	0.000773195	0.000261983
276	484651.71	3751034.43	0.000771362	0.000262271

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
822	486121.9	3751734.24	0.000767824	0.000235821
820	485921.9	3751734.24	0.000763596	0.000236244
715	485749.47	3751634.9	0.000754228	0.000251099
193	487553.03	3755938.31	0.000752179	0.000324829
333	485351.71	3751534.43	0.000744902	0.000257211
289	484951.71	3751134.43	0.000738825	0.000256045
105	484553.03	3750938.31	0.000725666	0.000249728
265	484551.71	3750934.43	0.000719457	0.00024817
300	485051.71	3751234.43	0.000714402	0.000249257
818	486021.9	3751634.24	0.000714168	0.000222379
311	485151.71	3751334.43	0.000713614	0.000247779
179	490553.03	3754938.31	0.00071288	0.00032364
266	484651.71	3750934.43	0.000712635	0.000246089
277	484751.71	3751034.43	0.000707821	0.000246467
288	484851.71	3751134.43	0.000707068	0.000247944
819	486121.9	3751634.24	0.00070346	0.000214019
716	485849.47	3751634.9	0.000703222	0.000215898
137	482553.03	3752938.31	0.00070164	0.000242864
817	485921.9	3751634.24	0.000699978	0.000213062
147	492553.03	3752938.31	0.000685628	0.000269177
334	485451.71	3751534.43	0.00068439	0.000226306
120	482553.03	3751938.31	0.000678111	0.000200123
322	485251.71	3751434.43	0.000677945	0.000232845
709	485549.47	3751534.9	0.000670918	0.000215535
710	485649.47	3751534.9	0.00066994	0.000213558
163	491553.03	3753938.31	0.000660904	0.000285679
190	484553.03	3755938.31	0.000659639	0.000472958
17	483231	3751205	0.000657608	0.000199802
711	485749.47	3751534.9	0.000656623	0.000203094
712	485849.47	3751534.9	0.000655554	0.000201936
814	485921.9	3751534.24	0.000652202	0.000199575
815	486021.9	3751534.24	0.000650604	0.000198404
189	483553.03	3755938.31	0.000649864	0.000494952
48	482344.95	3752065.79	0.0006465	0.000201463
816	486121.9	3751534.24	0.000644331	0.000194525
129	491553.03	3751938.31	0.000637905	0.000251963
279	484951.71	3751034.43	0.000630478	0.000220243
301	485151.71	3751234.43	0.000624813	0.000215914
323	485351.71	3751434.43	0.000623572	0.000200162
290	485051.71	3751134.43	0.000618918	0.000215085
170	481553.03	3754938.31	0.000618628	0.000471793
312	485251.71	3751334.43	0.000614272	0.000206481
104	483553.03	3750938.31	0.000610238	0.000212037
708	485849.47	3751434.9	0.00060954	0.000187706
324	485451.71	3751434.43	0.000608816	0.000188048
706	485649.47	3751434.9	0.000606033	0.000185131

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
705	485549.47	3751434.9	0.00060547	0.000185086
811	485921.9	3751434.24	0.000605185	0.000185146
188	482553.03	3755938.31	0.000604165	0.000470852
707	485749.47	3751434.9	0.00060338	0.000183548
812	486021.9	3751434.24	0.000600169	0.000182524
813	486121.9	3751434.24	0.000594564	0.000180218
30	481754	3753876	0.000590725	0.000259447
27	480772	3755009	0.000581184	0.000457972
313	485351.71	3751334.43	0.00057567	0.000179597
278	484851.71	3751034.43	0.000572718	0.000199713
291	485151.71	3751134.43	0.000570725	0.000196019
314	485451.71	3751334.43	0.000566735	0.000173394
701	485549.47	3751334.9	0.000565423	0.000172613
704	485849.47	3751334.9	0.000564622	0.000173136
109	488553.03	3750938.31	0.000563833	0.000192616
103	482553.03	3750938.31	0.000563792	0.000179636
702	485649.47	3751334.9	0.00056378	0.000171897
703	485749.47	3751334.9	0.000562342	0.000171462
808	485921.9	3751334.24	0.000560923	0.000171567
194	488553.03	3755938.31	0.000558219	0.000235961
809	486021.9	3751334.24	0.0005566	0.000170091
20	481867	3752785	0.000555951	0.000205287
302	485251.71	3751234.43	0.000555795	0.000179308
153	481553.03	3753938.31	0.000553236	0.000259259
180	491553.03	3754938.31	0.000551457	0.000219386
810	486121.9	3751334.24	0.000549646	0.000167955
280	485051.71	3751034.43	0.000549308	0.000190073
267	484751.71	3750934.43	0.000547565	0.000191871
29	481845	3754457	0.00054738	0.000353796
164	492553.03	3753938.31	0.000547232	0.000233261
303	485351.71	3751234.43	0.000539899	0.000167614
269	484951.71	3750934.43	0.000539333	0.00018841
292	485251.71	3751134.43	0.000537764	0.000178373
304	485451.71	3751234.43	0.000534286	0.000164237
169	480553.03	3754938.31	0.000531312	0.000411659
697	485549.47	3751234.9	0.000531296	0.000162925
698	485649.47	3751234.9	0.000527228	0.000161448
699	485749.47	3751234.9	0.000526295	0.000161403
700	485849.47	3751234.9	0.000526163	0.00016194
148	493553.03	3752938.31	0.000524372	0.000219544
805	485921.9	3751234.24	0.000522206	0.000160644
34	481494.96	3754633.66	0.000519778	0.000365355
268	484851.71	3750934.43	0.000517869	0.000179686
806	486021.9	3751234.24	0.00051642	0.000159028
293	485351.71	3751134.43	0.000514618	0.000162542
281	485151.71	3751034.43	0.000514376	0.000172601

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
119	481553.03	3751938.31	0.000511412	0.000176336
807	486121.9	3751234.24	0.000509744	0.000157389
28	481560	3754548	0.000508918	0.000349354
207	485553.03	3756938.31	0.000507496	0.0003804
270	485051.71	3750934.43	0.000505285	0.000173793
294	485451.71	3751134.43	0.000504375	0.000156136
87	482553.03	3749938.31	0.000503539	0.00017358
136	481553.03	3752938.31	0.00050002	0.000212766
693	485549.47	3751134.9	0.000498776	0.000153737
88	483553.03	3749938.31	0.000495266	0.000176545
694	485649.47	3751134.9	0.000494977	0.000152598
695	485749.47	3751134.9	0.00049363	0.000152537
696	485849.47	3751134.9	0.00049076	0.000151997
282	485251.71	3751034.43	0.000490662	0.000156959
802	485921.9	3751134.24	0.000487255	0.000151165
130	492553.03	3751938.31	0.00048517	0.000182294
168	479553.03	3754938.31	0.000483248	0.000384897
283	485351.71	3751034.43	0.000480335	0.000150339
803	486021.9	3751134.24	0.000480177	0.000149367
102	481553.03	3750938.31	0.000477143	0.000160622
284	485451.71	3751034.43	0.000474273	0.000147448
804	486121.9	3751134.24	0.000473506	0.000147895
271	485151.71	3750934.43	0.000473208	0.000154958
185	479553.03	3755938.31	0.000472854	0.000386533
110	489553.03	3750938.31	0.000470352	0.000168227
689	485549.47	3751034.9	0.000469349	0.000145696
690	485649.47	3751034.9	0.000465028	0.000144527
165	493553.03	3753938.31	0.000464407	0.000192411
691	485749.47	3751034.9	0.000463281	0.000144416
195	489553.03	3755938.31	0.000460604	0.000167135
692	485849.47	3751034.9	0.000460144	0.000143922
272	485251.71	3750934.43	0.00045715	0.000144277
799	485921.9	3751034.24	0.000455198	0.000142642
181	492553.03	3754938.31	0.000452153	0.000161484
273	485351.71	3750934.43	0.000450974	0.000141264
800	486021.9	3751034.24	0.000447366	0.000140758
274	485451.71	3750934.43	0.000446396	0.000139657
86	481553.03	3749938.31	0.000442736	0.00015447
801	486121.9	3751034.24	0.000442213	0.000139856
106	485553.03	3750938.31	0.00044209	0.000138342
685	485549.47	3750934.9	0.000441437	0.000138168
187	481553.03	3755938.31	0.000438151	0.000331772
686	485649.47	3750934.9	0.000437736	0.000137334
687	485749.47	3750934.9	0.000435134	0.000136999
688	485849.47	3750934.9	0.000430402	0.000136004
149	494553.03	3752938.31	0.000429319	0.000187897

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
46	481108.51	3750699.02	0.000428673	0.000152934
796	485921.9	3750934.24	0.000425478	0.000134857
186	480553.03	3755938.31	0.000422045	0.0003266
797	486021.9	3750934.24	0.000419333	0.00013359
798	486121.9	3750934.24	0.000414453	0.000132902
41	479197.34	3754462.34	0.000411013	0.000321287
45	494397.38	3753977.58	0.000410741	0.000162723
21	480678	3751306	0.000408131	0.000152134
166	494553.03	3753938.31	0.000406515	0.000173476
108	487553.03	3750938.31	0.000405261	0.000165633
131	493553.03	3751938.31	0.00040038	0.000163311
31	489635.18	3750663.82	0.000399332	0.000144202
118	480553.03	3751938.31	0.0003982	0.000164066
196	490553.03	3755938.31	0.000397641	0.000139106
101	480553.03	3750938.31	0.000391595	0.000146128
182	493553.03	3754938.31	0.000390035	0.000158416
111	490553.03	3750938.31	0.00038736	0.000143062
71	481553.03	3748938.31	0.000386043	0.000132639
107	486553.03	3750938.31	0.000383806	0.000128777
135	480553.03	3752938.31	0.00037917	0.000195845
37	480298.98	3751198.04	0.000375444	0.000147458
89	484553.03	3749938.31	0.000371333	0.000135234
43	480295.38	3752408.38	0.000368036	0.000170068
85	480553.03	3749938.31	0.000366347	0.000166247
19	481211	3749473	0.000363238	0.000134133
208	486553.03	3756938.31	0.000362567	0.000157112
47	486794.14	3756878.03	0.0003613	0.000153516
35	481148.72	3756136.18	0.000361249	0.000263498
44	480287.9	3754227.46	0.00035781	0.000241447
132	494553.03	3751938.31	0.000356651	0.000147497
167	495553.03	3753938.31	0.000355806	0.000139242
209	487553.03	3756938.31	0.000351158	0.000111409
197	491553.03	3755938.31	0.000350735	0.000115995
206	484553.03	3756938.31	0.000350264	0.00018107
18	480165	3750195	0.000349527	0.000141567
152	480553.03	3753938.31	0.000349006	0.000223639
210	488553.03	3756938.31	0.000347355	9.38671E-05
150	495553.03	3752938.31	0.00034486	0.000154918
39	478997.81	3753535.19	0.0003415	0.000245544
93	488553.03	3749938.31	0.000340593	0.000121933
183	494553.03	3754938.31	0.000338481	0.000123775
22	479989	3752645	0.00033782	0.000173931
26	479887	3754007	0.000327087	0.000220259
112	491553.03	3750938.31	0.000325945	0.000123123
151	479553.03	3753938.31	0.000321404	0.000220288
117	479553.03	3751938.31	0.000321074	0.000164256

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
73	483553.03	3748938.31	0.00031887	0.000118862
23	479889	3756222	0.000318792	0.000235741
92	487553.03	3749938.31	0.000318547	0.000129908
198	492553.03	3755938.31	0.000314817	0.000133606
74	484553.03	3748938.31	0.000313582	0.000121386
42	479493.25	3752408.79	0.000309919	0.000175989
133	495553.03	3751938.31	0.000307594	0.000130251
134	479553.03	3752938.31	0.000307283	0.000194475
113	492553.03	3750938.31	0.000305152	0.000124834
91	486553.03	3749938.31	0.000304085	0.000126585
791	479508.49	3752711.29	0.000304075	0.000181189
205	483553.03	3756938.31	0.000301026	0.000185291
184	495553.03	3754938.31	0.000299604	0.000105194
94	489553.03	3749938.31	0.000298849	0.00010956
90	485553.03	3749938.31	0.0002962	0.000112654
211	489553.03	3756938.31	0.000283969	8.41917E-05
75	485553.03	3748938.31	0.000281441	0.000113293
199	493553.03	3755938.31	0.000279743	0.000101185
25	480276	3756365	0.000274723	0.000193477
114	493553.03	3750938.31	0.000264107	0.000103863
95	490553.03	3749938.31	0.000259949	9.79905E-05
38	479598.7	3756506.31	0.00025841	0.000182079
212	490553.03	3756938.31	0.000258192	7.69002E-05
76	486553.03	3748938.31	0.000255862	0.000104139
200	494553.03	3755938.31	0.000252698	9.62562E-05
115	494553.03	3750938.31	0.000252144	0.000100562
223	485553.03	3757938.31	0.000250163	0.000120807
60	483553.03	3747938.31	0.00024865	9.79988E-05
222	484553.03	3757938.31	0.000242683	0.000104213
78	488553.03	3748938.31	0.000241502	8.95723E-05
213	491553.03	3756938.31	0.000239599	6.80582E-05
72	482553.03	3748938.31	0.000232203	7.87945E-05
226	488553.03	3757938.31	0.000231992	6.01894E-05
116	495553.03	3750938.31	0.000230499	9.55029E-05
61	484553.03	3747938.31	0.000228863	9.05656E-05
96	491553.03	3749938.31	0.000227422	8.7916E-05
36	482346.53	3748872.86	0.000226074	7.60268E-05
224	486553.03	3757938.31	0.000225231	7.85643E-05
204	482553.03	3756938.31	0.000223617	0.000114005
227	489553.03	3757938.31	0.000223541	5.66565E-05
225	487553.03	3757938.31	0.000221851	6.67037E-05
62	485553.03	3747938.31	0.000220523	8.63239E-05
79	489553.03	3748938.31	0.000218239	8.20711E-05
214	492553.03	3756938.31	0.000216357	6.11797E-05
237	485553.03	3758938.31	0.000214027	0.000147711
249	485553.03	3759938.31	0.000206739	0.000144895

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
32	485424.11	3747672.3	0.000206635	8.16076E-05
97	492553.03	3749938.31	0.000205912	8.15537E-05
215	493553.03	3756938.31	0.00020537	6.30405E-05
98	493553.03	3749938.31	0.000201404	8.53922E-05
80	490553.03	3748938.31	0.000197334	7.55417E-05
216	494553.03	3756938.31	0.000196074	6.0635E-05
221	483553.03	3757938.31	0.000195453	8.07415E-05
794	485508.49	3758711.29	0.000195229	9.76069E-05
203	481553.03	3756938.31	0.000194995	0.000108574
228	490553.03	3757938.31	0.000193961	5.2777E-05
63	486553.03	3747938.31	0.000190891	7.88765E-05
201	479553.03	3756938.31	0.000188676	0.000122702
202	480553.03	3756938.31	0.000187142	0.000118314
65	488553.03	3747938.31	0.000183906	7.02303E-05
99	494553.03	3749938.31	0.000182486	7.28259E-05
59	482553.03	3747938.31	0.000181773	6.59597E-05
24	479234	3757080	0.000181273	0.000117204
259	485553.03	3760938.31	0.000179826	0.000120058
77	487553.03	3748938.31	0.00017913	7.95783E-05
236	484553.03	3758938.31	0.000178748	6.87657E-05
81	491553.03	3748938.31	0.000176551	6.90766E-05
220	482553.03	3757938.31	0.000175801	8.08411E-05
241	489553.03	3758938.31	0.000175368	4.78276E-05
229	491553.03	3757938.31	0.0001741	4.87323E-05
51	485553.03	3746938.31	0.000172112	6.89833E-05
230	492553.03	3757938.31	0.000171987	4.64854E-05
242	490553.03	3758938.31	0.000171565	5.12975E-05
66	489553.03	3747938.31	0.000171423	6.58912E-05
240	488553.03	3758938.31	0.000169029	4.72657E-05
239	487553.03	3758938.31	0.000167761	5.98271E-05
231	493553.03	3757938.31	0.000166071	4.95931E-05
789	485508.49	3746711.29	0.000163896	6.60342E-05
238	486553.03	3758938.31	0.000163536	5.57188E-05
82	492553.03	3748938.31	0.000159992	6.3997E-05
53	487553.03	3746938.31	0.000158299	6.2077E-05
67	490553.03	3747938.31	0.000158072	6.14317E-05
795	491508.49	3758711.29	0.000156774	4.8015E-05
235	483553.03	3758938.31	0.000155782	5.60267E-05
50	484553.03	3746938.31	0.000154385	6.58011E-05
84	494553.03	3748938.31	0.000153807	7.28816E-05
253	489553.03	3759938.31	0.000152549	5.4654E-05
252	488553.03	3759938.31	0.000152126	6.15844E-05
243	491553.03	3758938.31	0.000150436	4.36401E-05
219	481553.03	3757938.31	0.000150013	6.6643E-05
83	493553.03	3748938.31	0.000148314	6.09761E-05
54	488553.03	3746938.31	0.00014676	5.73889E-05

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
248	484553.03	3759938.31	0.00014621	6.04733E-05
254	490553.03	3759938.31	0.000145365	4.42056E-05
260	486553.03	3760938.31	0.000145191	8.16571E-05
68	491553.03	3747938.31	0.000145063	5.7227E-05
250	486553.03	3759938.31	0.000144097	7.37722E-05
55	489553.03	3746938.31	0.000143255	5.61952E-05
251	487553.03	3759938.31	0.000140717	6.1508E-05
244	492553.03	3758938.31	0.000137759	4.4506E-05
100	495553.03	3749938.31	0.000137226	5.88137E-05
234	482553.03	3758938.31	0.000134942	5.2898E-05
255	491553.03	3759938.31	0.000134801	3.97407E-05
247	483553.03	3759938.31	0.000133533	4.51703E-05
218	480553.03	3757938.31	0.000133127	6.2945E-05
69	492553.03	3747938.31	0.00013295	5.34393E-05
56	490553.03	3746938.31	0.000131195	5.17194E-05
261	487553.03	3760938.31	0.000130924	6.64302E-05
49	487553.03	3745938.31	0.000130239	5.0752E-05
258	484553.03	3760938.31	0.000126349	5.68558E-05
217	479553.03	3757938.31	0.000125927	6.47919E-05
233	481553.03	3758938.31	0.000125927	5.3415E-05
70	493553.03	3747938.31	0.000122581	5.03627E-05
57	491553.03	3746938.31	0.000122184	4.86698E-05
790	491508.49	3746711.29	0.000118422	4.71736E-05
52	486553.03	3746938.31	0.000117481	5.28696E-05
257	483553.03	3760938.31	0.000117053	4.54811E-05
232	480553.03	3758938.31	0.000115785	4.8223E-05
64	487553.03	3747938.31	0.000115542	5.06716E-05
246	482553.03	3759938.31	0.00011494	4.23983E-05
264	490553.03	3760938.31	0.00011494	3.18558E-05
262	488553.03	3760938.31	0.000114095	4.09085E-05
58	492553.03	3746938.31	0.000113733	4.60106E-05
263	489553.03	3760938.31	0.000113249	3.28778E-05
256	482553.03	3760938.31	0.000106911	3.97081E-05
245	481553.03	3759938.31	0.00010353	4.06432E-05

Chronic Hazard Index - Based on 2040 full operational emissions

ID	UTM_X	UTM_Y	CHI-UM	CHI_M	
13	487216.8	3754364.7	0.00257804	0.00233701	Maximum CHI
859	487026.2	3754364	0.00214369	0.00187067	
11	487189.2	3754820.5	0.00199957	0.00178582	
14	487388.8	3754380.1	0.00190002	0.00168233	
12	487233.1	3754689.5	0.00163517	0.00140126	
175	486553	3754938.3	0.00156537	0.00141914	
159	487553	3753938.3	0.00142308	0.00116858	
158	486553	3753938.3	0.00134275	0.00103153	
176	487553	3754938.3	0.00116359	0.00100581	
160	488553	3753938.3	0.00111466	0.0008543	
684	485451.7	3755034.4	0.00110144	0.00102332	
174	485553	3754938.3	0.00108204	0.00098817	
10	485736.4	3754259.5	0.00101907	0.00079908	
142	487553	3752938.3	0.00100362	0.00076454	
8	489006	3754140.3	0.00098525	0.00078555	
683	485351.7	3755034.4	0.00098472	0.00091157	
674	485451.7	3754934.4	0.00095339	0.00086659	
682	485251.7	3755034.4	0.00094306	0.0008743	
681	485151.7	3755034.4	0.00091678	0.00085201	
9	485642.8	3754267.3	0.00090707	0.00070819	
680	485051.7	3755034.4	0.00089762	0.00083654	
679	484951.7	3755034.4	0.00088197	0.00082422	
673	485351.7	3754934.4	0.00087577	0.00079511	
678	484851.7	3755034.4	0.0008691	0.00081434	
677	484751.7	3755034.4	0.00085796	0.00080581	
676	484651.7	3755034.4	0.00084944	0.00079976	
664	485451.7	3754834.4	0.00084897	0.00075136	
675	484551.7	3755034.4	0.0008414	0.00079383	
672	485251.7	3754934.4	0.00083344	0.00075808	
141	486553	3752938.3	0.00081662	0.00063921	
671	485151.7	3754934.4	0.0008061	0.00073566	
663	485351.7	3754834.4	0.00079912	0.00070927	
654	485451.7	3754734.4	0.00079446	0.00068333	
670	485051.7	3754934.4	0.00078541	0.00071929	
669	484951.7	3754934.4	0.00076941	0.00070722	
662	485251.7	3754834.4	0.00076171	0.00067858	
644	485451.7	3754634.4	0.00076129	0.00063511	
143	488553	3752938.3	0.00076085	0.00055258	
668	484851.7	3754934.4	0.00075552	0.0006968	
653	485351.7	3754734.4	0.00074791	0.00064704	
667	484751.7	3754934.4	0.00074392	0.00068833	
634	485451.7	3754534.4	0.00073453	0.00059806	
661	485151.7	3754834.4	0.00073394	0.0006569	
666	484651.7	3754934.4	0.00073375	0.00068093	
5	490282.2	3753425.2	0.00073199	0.00052118	

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
173	484553	3754938.3	0.00072835	0.00067803
665	484551.7	3754934.4	0.0007246	0.00067421
172	483553	3754938.3	0.00071909	0.00068575
643	485351.7	3754634.4	0.00071417	0.00060121
624	485451.7	3754434.4	0.00071301	0.0005682
652	485251.7	3754734.4	0.00071224	0.00062008
660	485051.7	3754834.4	0.0007122	0.00064044
157	485553	3753938.3	0.00071181	0.00051933
614	485451.7	3754334.4	0.00069558	0.00054226
659	484951.7	3754834.4	0.00069459	0.00062742
788	485849.5	3753434.9	0.00069447	0.00051641
633	485351.7	3754534.4	0.00068823	0.00056545
651	485151.7	3754734.4	0.00068417	0.00059961
604	485451.7	3754234.4	0.00068339	0.00052134
658	484851.7	3754834.4	0.00067955	0.0006164
642	485251.7	3754634.4	0.00067796	0.00057615
594	485451.7	3754134.4	0.00066944	0.00050233
623	485351.7	3754434.4	0.00066761	0.00053671
657	484751.7	3754834.4	0.000667	0.00060748
161	489553	3753938.3	0.00066511	0.00045371
171	482553	3754938.3	0.00066494	0.00063946
650	485051.7	3754734.4	0.0006615	0.00058343
584	485451.7	3754034.4	0.00065648	0.00048555
656	484651.7	3754834.4	0.00065595	0.00059961
632	485251.7	3754534.4	0.0006521	0.00054107
613	485351.7	3754334.4	0.00065065	0.00051199
144	489553	3752938.3	0.00065016	0.00046594
40	478978.3	3755233.1	0.0006493	0.00063659
641	485151.7	3754634.4	0.00064882	0.00055618
787	485749.5	3753434.9	0.00064875	0.00046831
655	484551.7	3754834.4	0.00064601	0.00059246
574	485451.7	3753934.4	0.0006441	0.00046984
649	484951.7	3754734.4	0.00064267	0.0005701
784	485849.5	3753334.9	0.00064182	0.00048089
603	485351.7	3754234.4	0.00063627	0.00048993
622	485251.7	3754434.4	0.0006309	0.0005123
564	485451.7	3753834.4	0.0006288	0.00045562
648	484851.7	3754734.4	0.00062672	0.00055881
640	485051.7	3754634.4	0.00062484	0.0005398
593	485351.7	3754134.4	0.00062294	0.00047144
631	485151.7	3754534.4	0.00062229	0.00052133
1	489607.4	3753966.1	0.0006171	0.00042187
177	488553	3754938.3	0.00061592	0.00050094
612	485251.7	3754334.4	0.00061365	0.00048785
647	484751.7	3754734.4	0.000613	0.00054912
786	485649.5	3753434.9	0.00061299	0.00043674

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
554	485451.7	3753734.4	0.00061119	0.00044103
858	486121.9	3752934.2	0.0006103	0.00044757
583	485351.7	3754034.4	0.00060954	0.0004542
780	485849.5	3753234.9	0.00060934	0.00045782
639	484951.7	3754634.4	0.00060508	0.00052653
646	484651.7	3754734.4	0.00060143	0.00054122
621	485151.7	3754434.4	0.00060051	0.00049264
602	485251.7	3754234.4	0.00059855	0.00046606
573	485351.7	3753934.4	0.00059727	0.00043897
630	485051.7	3754534.4	0.00059725	0.00050497
544	485451.7	3753634.4	0.00059364	0.0004257
783	485749.5	3753334.9	0.00059182	0.00043268
645	484551.7	3754734.4	0.00059163	0.00053484
191	485553	3755938.3	0.00059107	0.00055794
638	484851.7	3754634.4	0.000589	0.00051596
592	485251.7	3754134.4	0.00058531	0.00044761
563	485351.7	3753834.4	0.00058345	0.00042464
611	485151.7	3754334.4	0.00058281	0.00046837
785	485549.5	3753434.9	0.00057824	0.00041074
776	485849.5	3753134.9	0.00057782	0.00043258
629	484951.7	3754534.4	0.00057632	0.00049148
637	484751.7	3754634.4	0.00057605	0.00050763
620	485051.7	3754434.4	0.00057496	0.00047634
534	485451.7	3753534.4	0.00057318	0.00040765
582	485251.7	3754034.4	0.00057212	0.00043065
553	485351.7	3753734.4	0.00056804	0.00041093
601	485151.7	3754234.4	0.00056755	0.00044707
636	484651.7	3754634.4	0.00056314	0.00049898
857	486021.9	3752934.2	0.00056164	0.00041089
782	485649.5	3753334.9	0.00056033	0.00040321
572	485251.7	3753934.4	0.00056003	0.00041571
628	484851.7	3754534.4	0.00055874	0.00048017
779	485749.5	3753234.9	0.00055751	0.00041062
610	485051.7	3754334.4	0.00055701	0.00045251
591	485151.7	3754134.4	0.00055424	0.00042865
619	484951.7	3754434.4	0.00055321	0.00046256
635	484551.7	3754634.4	0.00055302	0.00049282
543	485351.7	3753634.4	0.00055228	0.00039712
562	485251.7	3753834.4	0.00054698	0.00040125
627	484751.7	3754534.4	0.00054431	0.00047105
524	485451.7	3753434.4	0.00054317	0.000386
2	489738.7	3754023.9	0.0005428	0.00038249
772	485849.5	3753034.9	0.00054145	0.00040161
600	485051.7	3754234.4	0.00054141	0.00043141
581	485151.7	3754034.4	0.00054112	0.00041189
145	490553	3752938.3	0.00053896	0.00037987

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
533	485351.7	3753534.4	0.00053477	0.00038199
609	484951.7	3754334.4	0.00053463	0.00043873
781	485549.5	3753334.9	0.00053439	0.00038172
618	484851.7	3754434.4	0.00053426	0.00045044
855	486121.9	3752834.2	0.00053353	0.00038185
552	485251.7	3753734.4	0.00053316	0.00038819
626	484651.7	3754534.4	0.00053258	0.00046436
775	485749.5	3753134.9	0.0005292	0.00038996
571	485151.7	3753934.4	0.00052909	0.00039704
590	485051.7	3754134.4	0.00052801	0.00041319
778	485649.5	3753234.9	0.00052487	0.00038135
856	485921.9	3752934.2	0.00052364	0.00038307
625	484551.7	3754534.4	0.00052131	0.00045737
599	484951.7	3754234.4	0.00051933	0.00041849
542	485251.7	3753634.4	0.00051901	0.00037543
617	484751.7	3754434.4	0.00051832	0.00044052
561	485151.7	3753834.4	0.00051604	0.00038215
580	485051.7	3754034.4	0.00051516	0.00039672
608	484851.7	3754334.4	0.00051488	0.00042633
192	486553	3755938.3	0.00051484	0.00047973
3	489668.9	3754093.7	0.00051381	0.00037776
523	485351.7	3753434.4	0.0005118	0.00036492
514	485451.7	3753334.4	0.00051012	0.00036384
854	486021.9	3752834.2	0.00050661	0.00036347
589	484951.7	3754134.4	0.0005055	0.00040026
616	484651.7	3754434.4	0.00050431	0.00043174
551	485151.7	3753734.4	0.00050382	0.0003699
532	485251.7	3753534.4	0.00050334	0.00036181
570	485051.7	3753934.4	0.00050284	0.00038162
771	485749.5	3753034.9	0.00050111	0.00036813
777	485549.5	3753234.9	0.0005007	0.00036067
768	485849.5	3752934.9	0.00050064	0.00036598
598	484851.7	3754234.4	0.00049943	0.00040649
607	484751.7	3754334.4	0.00049734	0.00041513
774	485649.5	3753134.9	0.00049705	0.00036255
836	486021.9	3752234.2	0.00049704	0.00041155
579	484951.7	3754034.4	0.00049297	0.00038408
615	484551.7	3754434.4	0.00049277	0.000425
541	485151.7	3753634.4	0.00049062	0.00035757
560	485051.7	3753834.4	0.00049046	0.00036721
840	486121.9	3752334.2	0.00048817	0.0003905
852	486121.9	3752734.2	0.00048747	0.00034715
513	485351.7	3753334.4	0.00048646	0.00034752
588	484851.7	3754134.4	0.00048618	0.00038932
4	489690.1	3754161.6	0.0004856	0.00036321
522	485251.7	3753434.4	0.00048505	0.00034762

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
853	485921.9	3752834.2	0.00048145	0.00034668
606	484651.7	3754334.4	0.0004804	0.00040352
504	485451.7	3753234.4	0.00048029	0.00034465
597	484751.7	3754234.4	0.00048017	0.00039383
569	484951.7	3753934.4	0.00048009	0.00036844
550	485051.7	3753734.4	0.00047852	0.00035462
531	485151.7	3753534.4	0.00047665	0.00034517
835	485921.9	3752234.2	0.0004745	0.00038645
578	484851.7	3754034.4	0.00047344	0.00037302
773	485549.5	3753134.9	0.00047327	0.00034279
770	485649.5	3753034.9	0.00047185	0.00034446
767	485749.5	3752934.9	0.00047171	0.00034421
189	483553	3755938.3	0.00047129	0.00044938
559	484951.7	3753834.4	0.00046836	0.00035463
587	484751.7	3754134.4	0.00046711	0.00037728
851	486021.9	3752734.2	0.00046672	0.00033254
540	485051.7	3753634.4	0.00046635	0.00034284
740	485849.5	3752234.9	0.00046627	0.00037611
605	484551.7	3754334.4	0.00046531	0.00039318
764	485849.5	3752834.9	0.00046483	0.00033561
512	485251.7	3753334.4	0.00046431	0.00033292
596	484651.7	3754234.4	0.00046294	0.00038244
521	485151.7	3753434.4	0.00046113	0.0003326
503	485351.7	3753234.4	0.00046096	0.00033062
568	484851.7	3753934.4	0.00046031	0.00035715
849	486121.9	3752634.2	0.00045708	0.00032659
549	484951.7	3753734.4	0.00045635	0.0003415
837	486121.9	3752234.2	0.00045586	0.0003747
577	484751.7	3754034.4	0.00045563	0.0003627
188	482553	3755938.3	0.0004551	0.00043679
494	485451.7	3753134.4	0.00045439	0.00032781
530	485051.7	3753534.4	0.00045374	0.00033129
190	484553	3755938.3	0.00045303	0.00042625
170	481553	3754938.3	0.00045242	0.00043255
739	485749.5	3752234.9	0.00045179	0.00036122
586	484651.7	3754134.4	0.00045087	0.00036736
595	484551.7	3754234.4	0.00045085	0.00037588
769	485549.5	3753034.9	0.00044975	0.00032677
843	486121.9	3752434.2	0.00044878	0.0003373
558	484851.7	3753834.4	0.00044844	0.00034315
766	485649.5	3752934.9	0.0004481	0.00032627
850	485921.9	3752734.2	0.00044775	0.00032001
539	484951.7	3753634.4	0.00044542	0.00033049
846	486121.9	3752534.2	0.00044465	0.0003215
763	485749.5	3752834.9	0.00044379	0.00032124
511	485151.7	3753334.4	0.00044364	0.00031971

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
567	484751.7	3753934.4	0.00044329	0.00034769
502	485251.7	3753234.4	0.0004429	0.00031826
585	484551.7	3754134.4	0.00044113	0.00036385
520	485051.7	3753434.4	0.00044025	0.0003198
576	484651.7	3754034.4	0.00043945	0.0003531
27	480772	3755009	0.00043854	0.00042196
848	486021.9	3752634.2	0.00043797	0.00031217
493	485351.7	3753134.4	0.00043794	0.00031544
548	484851.7	3753734.4	0.00043686	0.00033017
760	485849.5	3752734.9	0.00043529	0.00031198
529	484951.7	3753534.4	0.00043406	0.00031973
484	485451.7	3753034.4	0.00043192	0.00031281
557	484751.7	3753834.4	0.00043174	0.00033404
575	484551.7	3754034.4	0.00043155	0.00035203
738	485649.5	3752234.9	0.00043102	0.00034198
566	484651.7	3753934.4	0.00043015	0.00034143
140	485553	3752938.3	0.00042982	0.00031237
765	485549.5	3752934.9	0.00042845	0.00031134
538	484851.7	3753634.4	0.00042643	0.00031934
501	485151.7	3753234.4	0.00042555	0.00030687
510	485051.7	3753334.4	0.0004254	0.00030838
762	485649.5	3752834.9	0.00042474	0.00030793
178	489553	3754938.3	0.00042396	0.00036436
839	486021.9	3752334.2	0.00042296	0.00032408
845	486021.9	3752534.2	0.00042265	0.00030319
492	485251.7	3753134.4	0.00042255	0.00030452
519	484951.7	3753434.4	0.00042192	0.00030894
847	485921.9	3752634.2	0.0004217	0.0003009
547	484751.7	3753734.4	0.0004204	0.00032113
759	485749.5	3752734.9	0.00041843	0.00030112
156	484553	3753938.3	0.00041742	0.00033483
483	485351.7	3753034.4	0.00041695	0.00030136
556	484651.7	3753834.4	0.00041673	0.00032581
565	484551.7	3753934.4	0.00041643	0.00033379
528	484851.7	3753534.4	0.00041622	0.00030932
842	486021.9	3752434.2	0.00041543	0.00030562
474	485451.7	3752934.4	0.00041238	0.00029916
756	485849.5	3752634.9	0.00041054	0.0002936
500	485051.7	3753234.4	0.00040956	0.00029674
537	484751.7	3753634.4	0.0004092	0.00030927
737	485549.5	3752234.9	0.00040885	0.00032193
509	484951.7	3753334.4	0.00040844	0.00029805
761	485549.5	3752834.9	0.00040812	0.00029608
491	485151.7	3753134.4	0.00040748	0.00029432
844	485921.9	3752534.2	0.00040548	0.00029026
546	484651.7	3753734.4	0.00040545	0.0003129

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
518	484851.7	3753434.4	0.00040526	0.00029924
482	485251.7	3753034.4	0.00040382	0.00029183
555	484551.7	3753834.4	0.00040366	0.00031884
758	485649.5	3752734.9	0.00040308	0.00029104
838	485921.9	3752334.2	0.00040235	0.00030275
527	484751.7	3753534.4	0.00039878	0.00029884
473	485351.7	3752934.4	0.00039846	0.00028874
755	485749.5	3752634.9	0.00039616	0.00028446
841	485921.9	3752434.2	0.00039569	0.00028781
499	484951.7	3753234.4	0.00039419	0.00028718
536	484651.7	3753634.4	0.00039381	0.00030037
464	485451.7	3752834.4	0.00039367	0.00028566
490	485051.7	3753134.4	0.00039336	0.00028513
752	485849.5	3752534.9	0.00039325	0.00028181
508	484851.7	3753334.4	0.00039308	0.00028888
744	485849.5	3752334.9	0.00039251	0.00029371
545	484551.7	3753734.4	0.00039186	0.00030537
169	480553	3754938.3	0.00039148	0.00037546
481	485151.7	3753034.4	0.00039055	0.00028264
517	484751.7	3753434.4	0.0003894	0.00028987
757	485549.5	3752734.9	0.00038883	0.00028147
6	489797.3	3754554.1	0.00038723	0.0002973
472	485251.7	3752934.4	0.00038623	0.00027979
526	484651.7	3753534.4	0.00038414	0.00029043
748	485849.5	3752434.9	0.0003836	0.00027763
754	485649.5	3752634.9	0.00038328	0.00027623
463	485351.7	3752834.4	0.00038085	0.00027636
535	484551.7	3753634.4	0.00038009	0.00029254
498	484851.7	3753234.4	0.0003799	0.00027845
489	484951.7	3753134.4	0.0003797	0.00027645
751	485749.5	3752534.9	0.00037931	0.00027268
792	485508.5	3752711.3	0.0003791	0.00027456
743	485749.5	3752334.9	0.00037861	0.00028176
507	484751.7	3753334.4	0.0003782	0.00028
480	485051.7	3753034.4	0.00037773	0.00027408
454	485451.7	3752734.4	0.00037589	0.00027259
516	484651.7	3753434.4	0.0003752	0.00028161
162	490553	3753938.3	0.00037434	0.00027642
471	485151.7	3752934.4	0.00037408	0.00027126
832	485921.9	3752134.2	0.00037197	0.00029434
185	479553	3755938.3	0.00037164	0.00036021
525	484551.7	3753534.4	0.00037105	0.000283
753	485549.5	3752634.9	0.00037077	0.00026813
747	485749.5	3752434.9	0.00036948	0.00026755
462	485251.7	3752834.4	0.00036935	0.00026809
736	485849.5	3752134.9	0.00036799	0.00028761

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
750	485649.5	3752534.9	0.00036695	0.00026476
488	484851.7	3753134.4	0.0003667	0.00026836
497	484751.7	3753234.4	0.00036661	0.00027045
479	484951.7	3753034.4	0.00036564	0.00026624
742	485649.5	3752334.9	0.00036515	0.00027113
506	484651.7	3753334.4	0.00036485	0.00027215
453	485351.7	3752734.4	0.00036443	0.00026457
735	485749.5	3752134.9	0.00036437	0.00028181
470	485051.7	3752934.4	0.00036289	0.00026364
515	484551.7	3753434.4	0.0003617	0.00027365
833	486021.9	3752134.2	0.00036121	0.00029023
733	485549.5	3752134.9	0.0003602	0.00027802
734	485649.5	3752134.9	0.00035977	0.00027679
444	485451.7	3752634.4	0.00035946	0.0002606
7	490252.9	3754378.2	0.00035879	0.00027126
461	485151.7	3752834.4	0.00035846	0.00026045
746	485649.5	3752434.9	0.00035742	0.00025946
404	485451.7	3752234.4	0.00035549	0.00027136
168	479553	3754938.3	0.00035542	0.00034205
749	485549.5	3752534.9	0.00035539	0.0002573
487	484751.7	3753134.4	0.00035459	0.00026096
496	484651.7	3753234.4	0.00035393	0.00026287
478	484851.7	3753034.4	0.00035382	0.00025874
452	485251.7	3752734.4	0.00035378	0.00025714
505	484551.7	3753334.4	0.00035198	0.00026454
469	484951.7	3752934.4	0.00035167	0.00025623
741	485549.5	3752334.9	0.00034998	0.00025939
443	485351.7	3752634.4	0.00034863	0.00025327
460	485051.7	3752834.4	0.00034815	0.00025338
745	485549.5	3752434.9	0.00034554	0.00025136
34	481495	3754633.7	0.00034444	0.00032389
434	485451.7	3752534.4	0.00034441	0.00025002
451	485151.7	3752734.4	0.0003439	0.00025026
486	484651.7	3753134.4	0.00034274	0.00025374
477	484751.7	3753034.4	0.00034245	0.00025164
495	484551.7	3753234.4	0.00034181	0.00025563
729	485549.5	3752034.9	0.00034114	0.00026552
468	484851.7	3752934.4	0.00034109	0.00024941
155	483553	3753938.3	0.00034096	0.00029623
442	485251.7	3752634.4	0.00033892	0.00024659
459	484951.7	3752834.4	0.00033814	0.00024669
394	485451.7	3752134.4	0.00033687	0.00025623
450	485051.7	3752734.4	0.00033442	0.00024376
433	485351.7	3752534.4	0.00033424	0.00024313
424	485451.7	3752434.4	0.00033316	0.00024274
476	484651.7	3753034.4	0.00033189	0.00024516

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
485	484551.7	3753134.4	0.00033181	0.00024719
29	481845	3754457	0.00033139	0.00030827
467	484751.7	3752934.4	0.00033088	0.00024296
414	485451.7	3752334.4	0.00033011	0.0002431
441	485151.7	3752634.4	0.00032988	0.00024037
458	484851.7	3752834.4	0.00032858	0.00024044
28	481560	3754548	0.00032794	0.00030677
449	484951.7	3752734.4	0.00032515	0.00023755
432	485251.7	3752534.4	0.00032507	0.00023686
384	485451.7	3752034.4	0.00032443	0.00024812
423	485351.7	3752434.4	0.00032217	0.00023496
475	484551.7	3753034.4	0.00032207	0.00023923
466	484651.7	3752934.4	0.00032166	0.00023724
440	485051.7	3752634.4	0.00032117	0.00023444
457	484751.7	3752834.4	0.00031931	0.00023449
187	481553	3755938.3	0.00031763	0.00030382
431	485151.7	3752534.4	0.00031666	0.00023111
448	484851.7	3752734.4	0.00031658	0.00023189
730	485649.5	3752034.9	0.00031477	0.00024126
413	485351.7	3752334.4	0.00031328	0.00022985
139	484553	3752938.3	0.00031307	0.00023204
186	480553	3755938.3	0.00031297	0.00030062
439	484951.7	3752634.4	0.00031271	0.00022877
422	485251.7	3752434.4	0.00031263	0.00022831
465	484551.7	3752934.4	0.00031258	0.00023167
403	485351.7	3752234.4	0.00031242	0.00023152
456	484651.7	3752834.4	0.00031107	0.0002293
731	485749.5	3752034.9	0.00031064	0.00023845
430	485051.7	3752534.4	0.0003086	0.00022566
447	484751.7	3752734.4	0.0003084	0.00022659
146	491553	3752938.3	0.00030734	0.00021163
374	485451.7	3751934.4	0.00030661	0.00023639
438	484851.7	3752634.4	0.00030496	0.00022364
732	485849.5	3752034.9	0.00030474	0.00023547
421	485151.7	3752434.4	0.00030449	0.00022272
834	486121.9	3752134.2	0.00030435	0.00024565
393	485351.7	3752134.4	0.00030298	0.00022471
455	484551.7	3752834.4	0.00030287	0.00022422
412	485251.7	3752334.4	0.00030239	0.00022184
123	485553	3751938.3	0.00030147	0.00023374
725	485549.5	3751934.9	0.00030122	0.0002337
429	484951.7	3752534.4	0.00030094	0.00022053
446	484651.7	3752734.4	0.00030072	0.00022169
402	485251.7	3752234.4	0.00029733	0.00021973
437	484751.7	3752634.4	0.0002971	0.00021853
420	485051.7	3752434.4	0.00029698	0.00021764

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
373	485351.7	3751934.4	0.00029531	0.00022406
207	485553	3756938.3	0.00029517	0.00027985
383	485351.7	3752034.4	0.0002948	0.00021978
411	485151.7	3752334.4	0.00029428	0.00021613
428	484851.7	3752534.4	0.00029402	0.00021592
445	484551.7	3752734.4	0.00029332	0.00021704
364	485451.7	3751834.4	0.00029306	0.0002282
363	485351.7	3751834.4	0.00029274	0.00022616
793	491508.5	3752711.3	0.00029136	0.00018879
436	484651.7	3752634.4	0.00029026	0.00021413
419	484951.7	3752434.4	0.00029003	0.00021297
829	485921.9	3752034.2	0.0002899	0.00022652
362	485251.7	3751834.4	0.00028853	0.00022183
401	485151.7	3752234.4	0.00028792	0.00021307
410	485051.7	3752334.4	0.00028726	0.00021133
427	484751.7	3752534.4	0.00028712	0.00021141
392	485251.7	3752134.4	0.00028661	0.00021137
179	490553	3754938.3	0.00028516	0.00025032
435	484551.7	3752634.4	0.00028375	0.00020999
418	484851.7	3752434.4	0.00028361	0.00020871
726	485649.5	3751934.9	0.0002834	0.00021842
409	484951.7	3752334.4	0.0002811	0.00020718
400	485051.7	3752234.4	0.00028096	0.00020812
426	484651.7	3752534.4	0.00028072	0.00020727
193	487553	3755938.3	0.00028017	0.00025837
350	485051.7	3751734.4	0.00028005	0.00021899
33	482657.6	3753975.1	0.00027974	0.00024713
382	485251.7	3752034.4	0.00027929	0.00020655
399	484951.7	3752234.4	0.00027834	0.00020742
727	485749.5	3751934.9	0.00027725	0.00021367
372	485251.7	3751934.4	0.00027714	0.00020736
417	484751.7	3752434.4	0.00027711	0.00020445
391	485151.7	3752134.4	0.00027592	0.00020352
408	484851.7	3752334.4	0.00027503	0.00020315
361	485151.7	3751834.4	0.00027472	0.00020946
425	484551.7	3752534.4	0.00027465	0.00020338
416	484651.7	3752434.4	0.00027151	0.0002008
154	482553	3753938.3	0.00027005	0.00023841
398	484851.7	3752234.4	0.00026973	0.00020065
360	485051.7	3751834.4	0.00026953	0.00020642
407	484751.7	3752334.4	0.00026943	0.00019946
390	485051.7	3752134.4	0.00026835	0.0001982
381	485151.7	3752034.4	0.00026778	0.00019785
728	485849.5	3751934.9	0.00026695	0.00020697
415	484551.7	3752434.4	0.00026584	0.00019715
351	485151.7	3751734.4	0.00026534	0.00020278

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
397	484751.7	3752234.4	0.00026472	0.00019743
721	485549.5	3751834.9	0.00026454	0.00020488
371	485151.7	3751934.4	0.00026417	0.00019684
406	484651.7	3752334.4	0.000264	0.00019591
349	484951.7	3751734.4	0.00026357	0.00020349
352	485251.7	3751734.4	0.00026284	0.00019981
348	484851.7	3751734.4	0.0002625	0.00020329
389	484951.7	3752134.4	0.00026201	0.00019385
396	484651.7	3752234.4	0.00025962	0.00019413
380	485051.7	3752034.4	0.00025958	0.00019196
163	491553	3753938.3	0.00025909	0.00020239
405	484551.7	3752334.4	0.00025858	0.0001924
353	485351.7	3751734.4	0.00025766	0.00019628
388	484851.7	3752134.4	0.00025669	0.00019026
338	484851.7	3751634.4	0.00025559	0.00019821
370	485051.7	3751934.4	0.00025475	0.00018957
395	484551.7	3752234.4	0.00025412	0.00019047
722	485649.5	3751834.9	0.00025291	0.00019656
379	484951.7	3752034.4	0.00025274	0.00018715
387	484751.7	3752134.4	0.00025176	0.00018697
359	484951.7	3751834.4	0.00025125	0.00018951
337	484751.7	3751634.4	0.00025085	0.00019449
35	481148.7	3756136.2	0.00025014	0.00023767
325	484551.7	3751534.4	0.00024786	0.00019567
354	485451.7	3751734.4	0.00024735	0.00018964
369	484951.7	3751934.4	0.00024715	0.00018382
378	484851.7	3752034.4	0.00024698	0.00018316
386	484651.7	3752134.4	0.00024692	0.00018378
830	486021.9	3752034.2	0.00024616	0.00019705
347	484751.7	3751734.4	0.00024547	0.00018753
339	484951.7	3751634.4	0.00024476	0.00018658
41	479197.3	3754462.3	0.00024413	0.00023126
336	484651.7	3751634.4	0.00024377	0.00018888
358	484851.7	3751834.4	0.00024245	0.00018183
385	484551.7	3752134.4	0.00024242	0.00018083
723	485749.5	3751834.9	0.00024237	0.00018939
377	484751.7	3752034.4	0.00024218	0.00017987
826	485921.9	3751934.2	0.00024209	0.00019184
368	484851.7	3751934.4	0.00024103	0.00017929
340	485051.7	3751634.4	0.0002405	0.00018158
341	485151.7	3751634.4	0.00023996	0.00018041
147	492553	3752938.3	0.00023789	0.00015457
376	484651.7	3752034.4	0.00023755	0.00017672
342	485251.7	3751634.4	0.00023748	0.00018021
326	484651.7	3751534.4	0.00023745	0.00018397
335	484551.7	3751634.4	0.00023744	0.00018389

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
138	483553	3752938.3	0.00023737	0.0001864
367	484751.7	3751934.4	0.00023532	0.0001752
357	484751.7	3751834.4	0.00023476	0.00017567
717	485549.5	3751734.9	0.00023466	0.0001822
153	481553	3753938.3	0.00023405	0.00021089
30	481754	3753876	0.00023369	0.00020894
375	484551.7	3752034.4	0.00023315	0.00017376
346	484651.7	3751734.4	0.0002316	0.00017519
366	484651.7	3751934.4	0.00023061	0.00017187
327	484751.7	3751534.4	0.00023001	0.00017565
343	485351.7	3751634.4	0.0002279	0.00017525
356	484651.7	3751834.4	0.00022784	0.00017045
15	484625	3751748	0.0002278	0.00017171
328	484851.7	3751534.4	0.00022703	0.00017224
122	484553	3751938.3	0.00022617	0.00016879
365	484551.7	3751934.4	0.00022586	0.00016857
329	484951.7	3751534.4	0.00022568	0.00017051
330	485051.7	3751534.4	0.00022488	0.00016926
718	485649.5	3751734.9	0.00022412	0.00017543
331	485151.7	3751534.4	0.00022363	0.0001688
23	479889	3756222	0.00022301	0.00021256
345	484551.7	3751734.4	0.00022195	0.00016728
355	484551.7	3751834.4	0.00022156	0.00016586
831	486121.9	3752034.2	0.00022087	0.00017727
44	480287.9	3754227.5	0.00022028	0.000204
126	488553	3751938.3	0.00022004	0.0001465
315	484551.7	3751434.4	0.000216	0.0001652
316	484651.7	3751434.4	0.00021419	0.0001628
317	484751.7	3751434.4	0.00021308	0.00016164
318	484851.7	3751434.4	0.00021204	0.00016095
164	492553	3753938.3	0.00021201	0.00016764
319	484951.7	3751434.4	0.00021088	0.00016031
320	485051.7	3751434.4	0.00020883	0.00015899
344	485451.7	3751634.4	0.00020795	0.00016374
724	485849.5	3751834.9	0.00020463	0.00016207
332	485251.7	3751534.4	0.00020457	0.00015984
152	480553	3753938.3	0.00020278	0.00018494
127	489553	3751938.3	0.00020141	0.00013007
306	484651.7	3751334.4	0.00020078	0.00015184
305	484551.7	3751334.4	0.00020035	0.00015148
307	484751.7	3751334.4	0.0002	0.00015204
137	482553	3752938.3	0.00019855	0.00016323
125	487553	3751938.3	0.00019802	0.00015321
827	486021.9	3751934.2	0.0001979	0.00015758
719	485749.5	3751734.9	0.00019781	0.00015617
308	484851.7	3751334.4	0.00019781	0.00015106

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
309	484951.7	3751334.4	0.00019643	0.00015002
194	488553	3755938.3	0.00019642	0.0001791
26	479887	3754007	0.0001955	0.00018027
148	493553	3752938.3	0.00019481	0.00013873
296	484651.7	3751234.4	0.00019007	0.0001435
295	484551.7	3751234.4	0.00018995	0.00014384
297	484751.7	3751234.4	0.0001894	0.00014369
713	485549.5	3751634.9	0.00018923	0.00014907
121	483553	3751938.3	0.00018886	0.00014428
310	485051.7	3751334.4	0.00018875	0.00014612
180	491553	3754938.3	0.00018835	0.00016395
321	485151.7	3751434.4	0.00018802	0.00014788
151	479553	3753938.3	0.00018801	0.00017371
298	484851.7	3751234.4	0.00018476	0.00014178
25	480276	3756365	0.00018134	0.00017133
285	484551.7	3751134.4	0.00018118	0.00013739
286	484651.7	3751134.4	0.00018099	0.00013701
299	484951.7	3751234.4	0.00018004	0.00013919
287	484751.7	3751134.4	0.00017917	0.00013634
16	483279	3751798	0.00017478	0.0001345
20	481867	3752785	0.00017371	0.00014527
165	493553	3753938.3	0.00017297	0.00013837
275	484551.7	3751034.4	0.00017241	0.00013141
136	481553	3752938.3	0.00017192	0.0001463
276	484651.7	3751034.4	0.0001705	0.00013033
38	479598.7	3756506.3	0.00017027	0.00016086
128	490553	3751938.3	0.00016954	0.00010938
149	494553	3752938.3	0.00016624	0.00012388
289	484951.7	3751134.4	0.00016617	0.00012935
205	483553	3756938.3	0.00016564	0.00015169
39	478997.8	3753535.2	0.00016355	0.00015023
120	482553	3751938.3	0.00016246	0.00012835
105	484553	3750938.3	0.00016227	0.00012484
288	484851.7	3751134.4	0.00016226	0.00012722
48	482345	3752065.8	0.0001619	0.00012933
206	484553	3756938.3	0.00016185	0.00014681
300	485051.7	3751234.4	0.00016132	0.00012637
265	484551.7	3750934.4	0.00016132	0.00012434
333	485351.7	3751534.4	0.00016114	0.00012706
277	484751.7	3751034.4	0.00016061	0.00012508
828	486121.9	3751934.2	0.00016034	0.00012604
266	484651.7	3750934.4	0.00015943	0.00012305
824	486021.9	3751834.2	0.0001591	0.00012542
311	485151.7	3751334.4	0.00015863	0.00012424
823	485921.9	3751834.2	0.00015812	0.00012457
714	485649.5	3751634.9	0.00015756	0.0001243

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
166	494553	3753938.3	0.00015698	0.00012651
135	480553	3752938.3	0.0001564	0.00013675
104	483553	3750938.3	0.00015387	0.000118
17	483231	3751205	0.00015264	0.00011722
129	491553	3751938.3	0.00015079	9.5795E-05
134	479553	3752938.3	0.00014797	0.00013239
715	485749.5	3751634.9	0.00014611	0.00011489
45	494397.4	3753977.6	0.00014415	0.0001164
322	485251.7	3751434.4	0.00014381	0.00011327
791	479508.5	3752711.3	0.00014335	0.00012763
119	481553	3751938.3	0.00014332	0.00011726
22	479989	3752645	0.00014303	0.00012551
821	486021.9	3751734.2	0.0001421	0.00011118
279	484951.7	3751034.4	0.00014051	0.00010958
43	480295.4	3752408.4	0.00013944	0.00012038
130	492553	3751938.3	0.00013906	8.7469E-05
42	479493.3	3752408.8	0.00013794	0.00012195
182	493553	3754938.3	0.00013712	0.00011898
720	485849.5	3751734.9	0.00013677	0.00010641
181	492553	3754938.3	0.00013565	0.00011659
290	485051.7	3751134.4	0.00013554	0.00010586
195	489553	3755938.3	0.00013519	0.00012191
301	485151.7	3751234.4	0.0001344	0.00010527
103	482553	3750938.3	0.00013418	0.00010458
150	495553	3752938.3	0.00013369	0.00010322
208	486553	3756938.3	0.00013237	0.0001187
118	480553	3751938.3	0.00013196	0.00011139
334	485451.7	3751534.4	0.00013169	0.0001031
117	479553	3751938.3	0.00013071	0.00011409
47	486794.1	3756878	0.00012828	0.00011476
825	486121.9	3751834.2	0.0001271	9.7032E-05
131	493553	3751938.3	0.00012568	9.2341E-05
278	484851.7	3751034.4	0.00012553	9.8161E-05
820	485921.9	3751734.2	0.00012446	9.5357E-05
124	486553	3751938.3	0.00012437	9.3877E-05
102	481553	3750938.3	0.00012299	9.8545E-05
312	485251.7	3751334.4	0.00012267	9.598E-05
167	495553	3753938.3	0.00012218	9.926E-05
21	480678	3751306	0.00012166	0.00010052
822	486121.9	3751734.2	0.00012096	9.2388E-05
709	485549.5	3751534.9	0.00012044	9.3175E-05
267	484751.7	3750934.4	0.00012037	9.41E-05
291	485151.7	3751134.4	0.00011914	9.315E-05
710	485649.5	3751534.9	0.00011748	9.0521E-05
132	494553	3751938.3	0.000117	8.6678E-05
37	480299	3751198	0.00011693	9.7453E-05

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
269	484951.7	3750934.4	0.0001165	9.0955E-05
280	485051.7	3751034.4	0.00011629	9.0864E-05
818	486021.9	3751634.2	0.00011619	8.8818E-05
87	482553	3749938.3	0.0001153	9.0098E-05
46	481108.5	3750699	0.0001149	9.2844E-05
88	483553	3749938.3	0.00011457	8.8707E-05
101	480553	3750938.3	0.00011431	9.403E-05
109	488553	3750938.3	0.00011334	8.2903E-05
198	492553	3755938.3	0.00011264	0.0001035
716	485849.5	3751634.9	0.0001126	8.5363E-05
323	485351.7	3751434.4	0.00011229	8.6541E-05
201	479553	3756938.3	0.0001121	0.00010435
196	490553	3755938.3	0.0001121	0.00010064
86	481553	3749938.3	0.00011076	8.7571E-05
268	484851.7	3750934.4	0.00010974	8.5771E-05
817	485921.9	3751634.2	0.00010922	8.2329E-05
237	485553	3758938.3	0.00010779	0.0001012
819	486121.9	3751634.2	0.00010749	8.0937E-05
202	480553	3756938.3	0.00010726	9.9284E-05
249	485553	3759938.3	0.00010701	0.00010032
711	485749.5	3751534.9	0.00010696	8.1002E-05
24	479234	3757080	0.00010688	9.9343E-05
712	485849.5	3751534.9	0.0001049	7.9192E-05
183	494553	3754938.3	0.00010453	8.9912E-05
270	485051.7	3750934.4	0.00010358	8.0732E-05
133	495553	3751938.3	0.00010352	7.8763E-05
292	485251.7	3751134.4	0.00010235	7.9197E-05
814	485921.9	3751534.2	0.0001021	7.6687E-05
108	487553	3750938.3	0.00010106	7.9358E-05
204	482553	3756938.3	0.0001005	9.202E-05
302	485251.7	3751234.4	0.00010041	7.7012E-05
324	485451.7	3751434.4	0.00010028	7.561E-05
18	480165	3750195	0.00010021	8.2228E-05
110	489553	3750938.3	0.00010017	7.3856E-05
281	485151.7	3751034.4	0.00010002	7.7528E-05
815	486021.9	3751534.2	0.0001	7.4848E-05
85	480553	3749938.3	9.8267E-05	7.9694E-05
313	485351.7	3751334.4	9.685E-05	7.3181E-05
705	485549.5	3751434.9	9.6785E-05	7.2418E-05
203	481553	3756938.3	9.6573E-05	8.8963E-05
708	485849.5	3751434.9	9.6539E-05	7.2358E-05
19	481211	3749473	9.6098E-05	7.6224E-05
706	485649.5	3751434.9	9.5965E-05	7.1697E-05
816	486121.9	3751534.2	9.5643E-05	7.09E-05
707	485749.5	3751434.9	9.3789E-05	6.9763E-05
811	485921.9	3751434.2	9.3701E-05	6.9811E-05

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
197	491553	3755938.3	9.2585E-05	8.2754E-05
223	485553	3757938.3	9.2343E-05	8.4239E-05
259	485553	3760938.3	9.1595E-05	8.4814E-05
314	485451.7	3751334.4	9.0643E-05	6.7536E-05
812	486021.9	3751434.2	9.0603E-05	6.7039E-05
701	485549.5	3751334.9	8.9296E-05	6.6332E-05
111	490553	3750938.3	8.9132E-05	6.5659E-05
303	485351.7	3751234.4	8.9073E-05	6.675E-05
813	486121.9	3751434.2	8.7995E-05	6.472E-05
702	485649.5	3751334.9	8.7994E-05	6.5191E-05
184	495553	3754938.3	8.7906E-05	7.5391E-05
209	487553	3756938.3	8.7807E-05	7.7491E-05
31	489635.2	3750663.8	8.7731E-05	6.601E-05
71	481553	3748938.3	8.7639E-05	6.8597E-05
704	485849.5	3751334.9	8.7538E-05	6.4883E-05
293	485351.7	3751134.4	8.7264E-05	6.5751E-05
703	485749.5	3751334.9	8.6926E-05	6.4273E-05
222	484553	3757938.3	8.6655E-05	7.7292E-05
271	485151.7	3750934.4	8.5879E-05	6.5568E-05
808	485921.9	3751334.2	8.5733E-05	6.3292E-05
304	485451.7	3751234.4	8.5507E-05	6.3533E-05
282	485251.7	3751034.4	8.5144E-05	6.4393E-05
92	487553	3749938.3	8.4946E-05	6.6064E-05
809	486021.9	3751334.2	8.3896E-05	6.1685E-05
697	485549.5	3751234.9	8.3849E-05	6.2067E-05
89	484553	3749938.3	8.2942E-05	6.4545E-05
199	493553	3755938.3	8.2435E-05	7.4351E-05
698	485649.5	3751234.9	8.2162E-05	6.0599E-05
810	486121.9	3751334.2	8.1862E-05	5.9907E-05
699	485749.5	3751234.9	8.1441E-05	5.9991E-05
112	491553	3750938.3	8.1347E-05	5.9136E-05
700	485849.5	3751234.9	8.1209E-05	5.9831E-05
294	485451.7	3751134.4	8.1049E-05	6.0126E-05
91	486553	3749938.3	8.0266E-05	6.41E-05
805	485921.9	3751234.2	7.9821E-05	5.8629E-05
200	494553	3755938.3	7.9211E-05	7.1666E-05
114	493553	3750938.3	7.9001E-05	5.6706E-05
74	484553	3748938.3	7.892E-05	6.1288E-05
283	485351.7	3751034.4	7.8762E-05	5.8626E-05
693	485549.5	3751134.9	7.864E-05	5.7999E-05
806	486021.9	3751234.2	7.8206E-05	5.7238E-05
113	492553	3750938.3	7.793E-05	5.5244E-05
115	494553	3750938.3	7.7463E-05	5.6624E-05
694	485649.5	3751134.9	7.7317E-05	5.6863E-05
807	486121.9	3751234.2	7.676E-05	5.6002E-05
695	485749.5	3751134.9	7.669E-05	5.6345E-05

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
284	485451.7	3751034.4	7.5882E-05	5.606E-05
272	485251.7	3750934.4	7.5854E-05	5.6528E-05
696	485849.5	3751134.9	7.5792E-05	5.5595E-05
73	483553	3748938.3	7.5784E-05	5.9512E-05
93	488553	3749938.3	7.5332E-05	5.8384E-05
75	485553	3748938.3	7.5206E-05	5.8698E-05
802	485921.9	3751134.2	7.4914E-05	5.4853E-05
689	485549.5	3751034.9	7.4147E-05	5.455E-05
803	486021.9	3751134.2	7.3433E-05	5.3598E-05
690	485649.5	3751034.9	7.2933E-05	5.3521E-05
273	485351.7	3750934.4	7.2912E-05	5.3906E-05
116	495553	3750938.3	7.2723E-05	5.5914E-05
691	485749.5	3751034.9	7.2373E-05	5.3065E-05
804	486121.9	3751134.2	7.2255E-05	5.2608E-05
794	485508.5	3758711.3	7.2123E-05	6.5973E-05
210	488553	3756938.3	7.1786E-05	6.2809E-05
692	485849.5	3751034.9	7.1645E-05	5.247E-05
274	485451.7	3750934.4	7.132E-05	5.2525E-05
799	485921.9	3751034.2	7.0597E-05	5.1587E-05
106	485553	3750938.3	7.0049E-05	5.1424E-05
685	485549.5	3750934.9	6.9966E-05	5.1368E-05
76	486553	3748938.3	6.9867E-05	5.5046E-05
220	482553	3757938.3	6.9288E-05	6.1965E-05
800	486021.9	3751034.2	6.9263E-05	5.0475E-05
686	485649.5	3750934.9	6.9066E-05	5.0616E-05
94	489553	3749938.3	6.8649E-05	5.3416E-05
687	485749.5	3750934.9	6.8478E-05	5.0144E-05
801	486121.9	3751034.2	6.8461E-05	4.9831E-05
688	485849.5	3750934.9	6.7571E-05	4.9401E-05
221	483553	3757938.3	6.7237E-05	5.9664E-05
90	485553	3749938.3	6.6897E-05	5.2284E-05
796	485921.9	3750934.2	6.6728E-05	4.871E-05
797	486021.9	3750934.2	6.5809E-05	4.797E-05
260	486553	3760938.3	6.5508E-05	5.8255E-05
798	486121.9	3750934.2	6.5286E-05	4.7582E-05
60	483553	3747938.3	6.4985E-05	5.0977E-05
107	486553	3750938.3	6.4101E-05	4.7144E-05
95	490553	3749938.3	6.3182E-05	4.8943E-05
211	489553	3756938.3	6.2905E-05	5.4885E-05
61	484553	3747938.3	6.1622E-05	4.8525E-05
224	486553	3757938.3	6.0235E-05	5.2812E-05
96	491553	3749938.3	5.8555E-05	4.4955E-05
250	486553	3759938.3	5.8329E-05	5.1564E-05
62	485553	3747938.3	5.7787E-05	4.5841E-05
212	490553	3756938.3	5.7464E-05	5.0125E-05
78	488553	3748938.3	5.7355E-05	4.5686E-05

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
219	481553	3757938.3	5.6482E-05	5.0943E-05
217	479553	3757938.3	5.5716E-05	5.0839E-05
97	492553	3749938.3	5.5239E-05	4.1796E-05
32	485424.1	3747672.3	5.4787E-05	4.3677E-05
77	487553	3748938.3	5.4632E-05	4.5141E-05
63	486553	3747938.3	5.4188E-05	4.3711E-05
236	484553	3758938.3	5.3837E-05	4.7633E-05
98	493553	3749938.3	5.3616E-05	3.9693E-05
218	480553	3757938.3	5.3523E-05	4.8627E-05
261	487553	3760938.3	5.3251E-05	4.733E-05
79	489553	3748938.3	5.2715E-05	4.2136E-05
99	494553	3749938.3	5.2284E-05	3.8554E-05
213	491553	3756938.3	5.0362E-05	4.3883E-05
225	487553	3757938.3	5.0217E-05	4.3542E-05
80	490553	3748938.3	4.9286E-05	3.9199E-05
252	488553	3759938.3	4.9223E-05	4.2866E-05
251	487553	3759938.3	4.8555E-05	4.2566E-05
215	493553	3756938.3	4.768E-05	4.2138E-05
248	484553	3759938.3	4.7077E-05	4.1564E-05
51	485553	3746938.3	4.6306E-05	3.7469E-05
216	494553	3756938.3	4.6294E-05	4.108E-05
81	491553	3748938.3	4.6005E-05	3.638E-05
65	488553	3747938.3	4.5848E-05	3.7189E-05
239	487553	3758938.3	4.579E-05	3.9979E-05
214	492553	3756938.3	4.4948E-05	3.9198E-05
235	483553	3758938.3	4.4738E-05	3.9175E-05
226	488553	3757938.3	4.4403E-05	3.8293E-05
789	485508.5	3746711.3	4.4353E-05	3.6008E-05
50	484553	3746938.3	4.4274E-05	3.5803E-05
233	481553	3758938.3	4.4136E-05	3.92E-05
258	484553	3760938.3	4.3859E-05	3.8743E-05
72	482553	3748938.3	4.3828E-05	3.3488E-05
82	492553	3748938.3	4.3345E-05	3.3984E-05
66	489553	3747938.3	4.3058E-05	3.4916E-05
234	482553	3758938.3	4.2966E-05	3.7826E-05
253	489553	3759938.3	4.2707E-05	3.6969E-05
100	495553	3749938.3	4.2331E-05	3.4496E-05
36	482346.5	3748872.9	4.1731E-05	3.1763E-05
238	486553	3758938.3	4.1155E-05	3.5871E-05
53	487553	3746938.3	4.1106E-05	3.3525E-05
83	493553	3748938.3	4.1024E-05	3.1849E-05
227	489553	3757938.3	4.0995E-05	3.5255E-05
67	490553	3747938.3	4.0401E-05	3.2662E-05
232	480553	3758938.3	3.9829E-05	3.5695E-05
84	494553	3748938.3	3.887E-05	2.9926E-05
242	490553	3758938.3	3.8438E-05	3.3244E-05

ID	UTM_X	UTM_Y	CHI-UM	CHI_M
59	482553	3747938.3	3.8232E-05	2.9769E-05
68	491553	3747938.3	3.8056E-05	3.0596E-05
54	488553	3746938.3	3.7836E-05	3.1102E-05
228	490553	3757938.3	3.7504E-05	3.2233E-05
52	486553	3746938.3	3.7119E-05	3.1069E-05
55	489553	3746938.3	3.7114E-05	3.0192E-05
231	493553	3757938.3	3.6656E-05	3.196E-05
69	492553	3747938.3	3.5967E-05	2.8742E-05
795	491508.5	3758711.3	3.4978E-05	3.0224E-05
257	483553	3760938.3	3.4918E-05	3.0568E-05
241	489553	3758938.3	3.4819E-05	3.0085E-05
247	483553	3759938.3	3.4798E-05	3.034E-05
229	491553	3757938.3	3.4413E-05	2.9544E-05
240	488553	3758938.3	3.4312E-05	2.9624E-05
64	487553	3747938.3	3.4268E-05	2.8473E-05
56	490553	3746938.3	3.4247E-05	2.7973E-05
70	493553	3747938.3	3.4012E-05	2.7013E-05
49	487553	3745938.3	3.3766E-05	2.8014E-05
246	482553	3759938.3	3.3159E-05	2.8989E-05
230	492553	3757938.3	3.299E-05	2.8431E-05
254	490553	3759938.3	3.2969E-05	2.8546E-05
244	492553	3758938.3	3.2538E-05	2.8119E-05
57	491553	3746938.3	3.2343E-05	2.6308E-05
245	481553	3759938.3	3.228E-05	2.8446E-05
790	491508.5	3746711.3	3.1337E-05	2.5552E-05
243	491553	3758938.3	3.1104E-05	2.6815E-05
58	492553	3746938.3	3.0651E-05	2.4803E-05
256	482553	3760938.3	3.0603E-05	2.6708E-05
262	488553	3760938.3	3.0241E-05	2.6448E-05
255	491553	3759938.3	2.8789E-05	2.4857E-05
263	489553	3760938.3	2.3089E-05	1.9982E-05
264	490553	3760938.3	2.2254E-05	1.9202E-05

E-8 Project-Related PM and TOG Emissions and Acute Non-cancer Hazard Index

SpecProfile	Fuel	EMType	PolType	SAROAD	TAC	WT%
Gas TOG Exh	Gas	Exh	TOG	43218	1,3-Butadiene	0.0047
Gas TOG Exh	Gas	Exh	TOG	43301	Methanol	0.0011
Gas TOG Exh	Gas	Exh	TOG	43502	Formaldehyde	0.0137
Gas TOG Exh	Gas	Exh	TOG	43503	Acetaldehyde	0.0024
Gas TOG Exh	Gas	Exh	TOG	43505	Acrolein	0.0011
Gas TOG Exh	Gas	Exh	TOG	43552	Methyl ethyl ketone {2-Butanone}	0.0002
Gas TOG Exh	Gas	Exh	TOG	45201	Benzene	0.0214
Gas TOG Exh	Gas	Exh	TOG	45202	Toluene	0.0499
Gas TOG Exh	Gas	Exh	TOG	45204	o-Xylene	0.0107
Gas TOG Exh	Gas	Exh	TOG	45205	m-Xylene	0.0309
Gas TOG Exh	Gas	Exh	TOG	45220	Styrene	0.0011
Gas PM Exh	Gas	Exh	PM	12114	Copper	0.0005
Gas PM Exh	Gas	Exh	PM	12115	Chlorine	0.07
Gas PM Exh	Gas	Exh	PM	12136	Nickel	0.0005
Gas PM Exh	Gas	Exh	PM	12403	SULFATES	0.45
Gas PM Brake	Gas	Brake	PM	12114	Copper	0.00049
Gas PM Brake	Gas	Brake	PM	12115	Chlorine	0.0078
Gas PM Brake	Gas	Brake	PM	12136	Nickel	0.00005
Gas PM Brake	Gas	Brake	PM	12403	SULFATES	0.0025
Gas PM Tire	Gas	Tire	PM	12103	Arsenic	0.00001
Gas PM Tire	Gas	Tire	PM	12114	Copper	0.011485
Gas PM Tire	Gas	Tire	PM	12115	Chlorine	0.0015
Gas PM Tire	Gas	Tire	PM	12136	Nickel	0.00066
Gas PM Tire	Gas	Tire	PM	12164	Vanadium (fume or dust)	0.00066
Gas PM Tire	Gas	Tire	PM	12403	SULFATES	0.0334
Diesel TOG Exh	Diesel	Exh	TOG	43218	1,3-Butadiene	0.0019
Diesel TOG Exh	Diesel	Exh	TOG	43301	Methanol	0.0003
Diesel TOG Exh	Diesel	Exh	TOG	43502	Formaldehyde	0.1471
Diesel TOG Exh	Diesel	Exh	TOG	43503	Acetaldehyde	0.0735
Diesel TOG Exh	Diesel	Exh	TOG	43552	Methyl ethyl ketone {2-Butanone}	0.0148
Diesel TOG Exh	Diesel	Exh	TOG	45201	Benzene	0.02
Diesel TOG Exh	Diesel	Exh	TOG	45202	Toluene	0.0147
Diesel TOG Exh	Diesel	Exh	TOG	45204	o-Xylene	0.0034
Diesel TOG Exh	Diesel	Exh	TOG	45205	m-Xylene	0.0061
Diesel TOG Exh	Diesel	Exh	TOG	45206	p-Xylene	0.001
Diesel TOG Exh	Diesel	Exh	TOG	45220	Styrene	0.0006
Diesel PM Exh	Diesel	Exh	PM	12114	Copper	0.0005
Diesel PM Exh	Diesel	Exh	PM	12115	Chlorine	0.07
Diesel PM Exh	Diesel	Exh	PM	12136	Nickel	0.0005
Diesel PM Exh	Diesel	Exh	PM	12403	SULFATES	0.45
Diesel PM Tire	Diesel	Tire	PM	12103	Arsenic	0.00001
Diesel PM Tire	Diesel	Tire	PM	12114	Copper	0.011485
Diesel PM Tire	Diesel	Tire	PM	12115	Chlorine	0.0015
Diesel PM Tire	Diesel	Tire	PM	12136	Nickel	0.00066
Diesel PM Tire	Diesel	Tire	PM	12164	Vanadium (fume or dust)	0.00066
Diesel PM Tire	Diesel	Tire	PM	12403	SULFATES	0.0334

SpecProfile	Fuel	EMType	PolType	SAROAD	TAC	WT%
Diesel PM Brake	Diesel	Brake	PM	12114	Copper	0.00049
Diesel PM Brake	Diesel	Brake	PM	12115	Chlorine	0.0078
Diesel PM Brake	Diesel	Brake	PM	12136	Nickel	0.00005
Diesel PM Brake	Diesel	Brake	PM	12403	SULFATES	0.0025
Gas TOG Eva	Gas	Eva	TOG	43301	Methanol	0.0001
Gas TOG Eva	Gas	Eva	TOG	45201	Benzene	0.01
Gas TOG Eva	Gas	Eva	TOG	45202	Toluene	0.051
Gas TOG Eva	Gas	Eva	TOG	45204	o-Xylene	0.016
Gas TOG Eva	Gas	Eva	TOG	45205	m-Xylene	0.0269
Gas TOG Eva	Gas	Eva	TOG	45206	p-Xylene	0.0139

Chemical	SAROAD	AcuteREL
1,3-Butadiene	43218	660
Methanol	43301	28000
Formaldehyde	43502	55
Acetaldehyde	43503	470
Acrolein	43505	2.5
Methyl ethyl ketone {2-Butanone}	43552	13000
Benzene	45201	27
Toluene	45202	37000
o-Xylene	45204	22000
m-Xylene	45205	22000
Styrene	45220	21000
p-Xylene	45206	22000
Copper	12114	100
Chlorine	12115	210
Nickel	12136	0.2
SULFATES	12403	120
Arsenic	12103	0.2
Vanadium (fume or dust)	12164	30

Peak Hourly Average Emission Rate (g/sec)*

SrcGroup	**DPM**	**TOG**
PLOT_1	0.24	0.69
PLOT_2	0.30	0.68
PLOT_4	0.37	0.88
PLOT_5	0.31	0.86
PLOT_6	0.07	0.70
PLOT_7	0.24	0.68
PLOT_9	0.57	1.42
PLOT_11	0.14	1.02
PLOT_12	0.12	0.89
PLOT_30		

**Note, construction of each plot will not overlap with other plots, therefore, acute HI was calculated by receptor by source group, and at each receptor, the maximum acute HI of all plots will be used as the acute HI of that receptor.*

Construction Assumptions				***TOG Exhuast Emissions***		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plot 2 (2020) Mass Excavation	1/1/2020	6/30/2020	10	35.53	0.43	
Plot 2 (2020) Utilities	1/1/2020	12/29/2020	10	15.28	0.18	
Plot 2 (2020) Landscaping	1/1/2020	12/29/2020	10	3.93	0.05	
Plot 2 (2020) Finish Grading	5/7/2020	7/1/2020	10	1.32	0.02	0.68
Plot 2 (2020) Building-Wet Utilities	7/2/2020	12/30/2020	10	7.47	0.09	
Plot 2 (2020) Building-Electrical	7/2/2020	12/30/2020	10	5.07	0.06	
Plot 2 (2020) Temporary Utilities	7/2/2020	12/30/2020	10	1.82	0.02	
Plot 2 (2020) Curbing/Drive Approaches	11/5/2020	12/30/2020	10	1.15	0.01	
Plot 2 (2020) Paving	12/3/2020	12/30/2020	10	5.88	0.07	0.49
Plot 2 (2021) Utilities	1/1/2021	12/30/2021	10	14.23	0.17	
Plot 2 (2021) Building-Concrete	1/1/2021	12/30/2021	10	4.18	0.05	
Plot 2 (2021) Building-Wet Utilities	1/1/2021	12/30/2021	10	6.79	0.08	
Plot 2 (2021) Building-Electrical	1/1/2021	12/30/2021	10	4.50	0.05	
Plot 2 (2021) Building-Landscaping	1/1/2021	12/30/2021	10	3.42	0.04	
Plot 2 (2021) Landscaping	1/1/2021	12/30/2021	10	3.60	0.04	
Plot 2 (2021) Curbing/Drive Approaches	5/1/2021	8/20/2021	10	1.00	0.01	
Plot 2 (2021) Paving	6/1/2021	7/26/2021	10	5.35	0.06	
Plot 2 (2021) Temporary Utilities	7/2/2021	12/30/2021	10	1.68	0.02	0.54
				Max hourly average		**0.68**

Construction Assumptions				**_TOG Exhuast Emissions_**		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plot 4 (2022) Mass Excavation	1/1/2022	7/1/2022	10	33.26	0.40	0.88
Plot 4 (2022) Utilities	1/1/2022	12/30/2022	10	12.71	0.15	
Plot 4 (2022) Building-Concrete	1/1/2022	12/30/2022	10	3.77	0.05	
Plot 4 (2022) Building-Wet Utilities	1/1/2022	12/30/2022	10	5.97	0.07	
Plot 4 (2022) Building-Electrical	1/1/2022	12/30/2022	10	3.95	0.05	
Plot 4 (2022) Building-Landscaping	1/1/2022	12/30/2022	10	3.01	0.04	
Plot 4 (2022) Landscaping	1/1/2022	12/30/2022	10	3.17	0.04	
Plot 4 (2022) Curbing/Drive Approaches	5/1/2022	8/20/2022	10	0.90	0.01	
Plot 4 (2022) Finish Grading	5/7/2022	7/1/2022	10	1.10	0.01	
Plot 4 (2022) Paving	6/1/2022	7/26/2022	10	4.75	0.06	
Plot 4 (2022) Temporary Utilities	7/2/2022	12/30/2022	10	1.48	0.02	0.88
Plot 4 (2023) Utilities	1/1/2023	12/30/2023	10	11.94	0.14	0.45
Plot 4 (2023) Building-Concrete	1/1/2023	12/30/2023	10	3.44	0.04	
Plot 4 (2023) Building-Wet Utilities	1/1/2023	12/30/2023	10	5.50	0.07	
Plot 4 (2023) Building-Electrical	1/1/2023	12/30/2023	10	3.62	0.04	
Plot 4 (2023) Building-Landscaping	1/1/2023	12/30/2023	10	2.75	0.03	
Plot 4 (2023) Landscaping	1/1/2023	12/30/2023	10	2.91	0.04	
Plot 4 (2023) Curbing/Drive Approaches	5/1/2023	8/20/2023	10	0.83	0.01	
Plot 4 (2023) Paving	6/1/2023	7/26/2023	10	4.45	0.05	
Plot 4 (2023) Temporary Utilities	7/2/2023	12/30/2023	10	1.34	0.02	
				Max hourly average		**0.88**

	Construction Assumptions					TOG Exhuast Emissions	
	Construction Phase	From	To	hrs/day	lbs/day	gr/sec	Overlap Phases
Plot 9 (2024)	Mass Excavation	1/1/2024	6/30/2024	10	80.36	0.97	
Plot 9 (2024)	Utilities	1/1/2024	12/29/2024	10	11.22	0.14	
Plot 9 (2024)	Building-Concrete	1/1/2024	12/29/2024	10	3.39	0.04	
Plot 9 (2024)	Building-Wet Utilities	1/1/2024	12/29/2024	10	5.21	0.06	
Plot 9 (2024)	Building-Electrical	1/1/2024	12/29/2024	10	3.31	0.04	
Plot 9 (2024)	Building-Landscaping	1/1/2024	12/29/2024	10	2.79	0.03	
Plot 9 (2024)	Landscaping	1/1/2024	12/29/2024	10	3.10	0.04	
Plot 9 (2024)	Curbing/Drive Approaches	5/1/2024	8/20/2024	10	1.13	0.01	
Plot 9 (2024)	Finish Grading	5/7/2024	7/1/2024	10	2.71	0.03	
Plot 9 (2024)	Paving	6/1/2024	7/26/2024	10	4.13	0.05	1.42
Plot 9 (2024)	Temporary Utilities	7/2/2024	12/30/2024	10	1.31	0.02	1.40
Plot 9 (2025)	Utilities	1/1/2025	12/30/2025	10	10.62	0.13	
Plot 9 (2025)	Building-Concrete	1/1/2025	12/30/2025	10	2.92	0.04	
Plot 9 (2025)	Building-Wet Utilities	1/1/2025	12/30/2025	10	4.78	0.06	
Plot 9 (2025)	Building-Electrical	1/1/2025	12/30/2025	10	3.29	0.04	
Plot 9 (2025)	Building-Landscaping	1/1/2025	12/30/2025	10	2.53	0.03	
Plot 9 (2025)	Interchange	1/1/2025	12/30/2025	10	5.47	0.07	
Plot 9 (2025)	Landscaping	1/1/2025	12/30/2025	10	2.63	0.03	
Plot 9 (2025)	Curbing/Drive Approaches	5/1/2025	8/20/2025	10	0.70	0.01	
Plot 9 (2025)	Paving	6/1/2025	7/26/2025	10	3.75	0.05	
Plot 9 (2025)	Temporary Utilities	7/2/2025	12/30/2025	10	1.24	0.02	0.46
					Max hourly average		**1.42**

Construction Assumptions				*TOG Exhuast Emissions*		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plots 1 3 20 (2026) Mass Excavation	1/1/2026	7/1/2026	10	19.01	0.23	
Plots 1 3 20 (2026) Utilities	1/1/2026	12/30/2026	10	10.97	0.13	
Plots 1 3 20 (2026) Building-Concrete	1/1/2026	12/30/2026	10	3.04	0.04	
Plots 1 3 20 (2026) Building-Wet Utilities	1/1/2026	12/30/2026	10	4.80	0.06	
Plots 1 3 20 (2026) Building-Electrical	1/1/2026	12/30/2026	10	3.20	0.04	
Plots 1 3 20 (2026) Building-Landscaping	1/1/2026	12/30/2026	10	2.37	0.03	
Plots 1 3 20 (2026) Interchange	1/1/2026	7/1/2026	10	5.28	0.06	
Plots 1 3 20 (2026) Landscaping	1/1/2026	12/30/2026	10	2.50	0.03	
Plots 1 3 20 (2026) Curbing/Drive Approaches	5/1/2026	8/20/2026	10	0.73	0.01	
Plots 1 3 20 (2026) Finish Grading	5/7/2026	7/1/2026	10	0.87	0.01	
Plots 1 3 20 (2026) Paving	6/1/2026	7/26/2026	10	3.89	0.05	0.64
Plots 1 3 20 (2026) Temporary Utilities	7/2/2026	12/30/2026	10	1.24	0.02	0.69
				Max hourly average		**0.69**

Construction Assumptions				*TOG Exhuast Emissions*		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plots 5 and 10 (2027) Utilities	1/1/2027	12/30/2027	10	10.96	0.13	
Plots 5 and 10 (2027) Building-Concrete	1/1/2027	12/30/2027	10	3.03	0.04	
Plots 5 and 10 (2027) Building-Wet Utilities	1/1/2027	12/30/2027	10	4.80	0.06	
Plots 5 and 10 (2027) Building-Electrical	1/1/2027	12/30/2027	10	3.20	0.04	
Plots 5 and 10 (2027) Building-Landscaping	1/1/2027	12/30/2027	10	2.36	0.03	
Plots 5 and 10 (2027) Landscaping	1/1/2027	12/30/2027	10	2.50	0.03	
Plots 5 and 10 (2027) Curbing/Drive Approaches	5/1/2027	8/20/2027	10	0.73	0.01	
Plots 5 and 10 (2027) Paving	6/1/2027	7/26/2027	10	3.88	0.05	
Plots 5 and 10 (2027) Temporary Utilities	7/2/2027	12/30/2027	10	1.24	0.02	0.40
Plots 5 and 10 (2027) Mass Excavation	9/16/2027	12/31/2027	10	15.32	0.19	
Plots 5 and 10 (2027) Finish Grading	11/6/2027	12/31/2027	10	0.94	0.01	0.55
Plots 5 and 10 (2028) Mass Excavation	1/1/2028	4/18/2028	10	42.38	0.51	
Plots 5 and 10 (2028) Finish Grading	1/1/2028	2/25/2028	10	1.66	0.02	
Plots 5 and 10 (2028) Utilities	1/1/2028	12/30/2028	10	10.95	0.13	
Plots 5 and 10 (2028) Building-Concrete	1/1/2028	12/30/2028	10	3.03	0.04	
Plots 5 and 10 (2028) Building-Wet Utilities	1/1/2028	12/30/2028	10	4.79	0.06	
Plots 5 and 10 (2028) Building-Electrical	1/1/2028	12/30/2028	10	3.19	0.04	
Plots 5 and 10 (2028) Building-Landscaping	1/1/2028	12/30/2028	10	2.36	0.03	
Plots 5 and 10 (2028) Landscaping	1/1/2028	12/30/2028	10	2.50	0.03	0.86
Plots 5 and 10 (2028) Curbing/Drive Approaches	5/1/2028	8/20/2028	10	0.72	0.01	
Plots 5 and 10 (2028) Paving	6/1/2028	7/26/2028	10	3.88	0.05	
Plots 5 and 10 (2028) Temporary Utilities	7/2/2028	12/30/2028	10	1.24	0.02	0.40
				Max hourly average		**0.86**

Construction Assumptions			TOG Exhuast Emissions			
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plots 7 8 21 22 (2029) Utilities	1/1/2029	12/30/2029	10	10.94	0.13	
Plots 7 8 21 22 (2029) Building-Concrete	1/1/2029	12/30/2029	10	3.02	0.04	
Plots 7 8 21 22 (2029) Building-Wet Utilities	1/1/2029	12/30/2029	10	4.78	0.06	
Plots 7 8 21 22 (2029) Building-Electrical	1/1/2029	12/30/2029	10	3.19	0.04	
Plots 7 8 21 22 (2029) Building-Landscaping	1/1/2029	12/30/2029	10	2.36	0.03	
Plots 7 8 21 22 (2029) Landscaping	1/1/2029	12/30/2029	10	2.49	0.03	
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	5/1/2029	8/20/2029	10	4.09	0.05	
Plots 7 8 21 22 (2029) Paving	6/1/2029	7/26/2029	10	8.20	0.10	
Plots 7 8 21 22 (2029) Temporary Utilities	7/2/2029	12/30/2029	10	1.24	0.02	0.49
Plots 7 8 21 22 (2029) Mass Excavation	9/14/2029	12/31/2029	10	27.52	0.33	
Plots 7 8 21 22 (2029) Finish Grading	11/6/2029	12/31/2029	10	0.88	0.01	0.68
				Max hourly average		**0.68**

Construction Assumptions				TOG Exhuast Emissions		
Construction Phase	From	To	hrs/day	lbs/day	gr/sec	Overlap Phases
Plot 11 (2030) Mass Excavation	1/1/2030	4/17/2030	10	46.48	0.56	
Plot 11 (2030) Finish Grading	1/1/2030	2/25/2030	10	1.61	0.02	
Plot 11 (2030) Utilities	1/1/2030	12/30/2030	10	16.51	0.20	
Plot 11 (2030) Building-Concrete	1/1/2030	12/30/2030	10	3.38	0.04	
Plot 11 (2030) Building-Wet Utilities	1/1/2030	12/30/2030	10	6.05	0.07	
Plot 11 (2030) Building-Electrical	1/1/2030	12/30/2030	10	4.12	0.05	
Plot 11 (2030) Building-Landscaping	1/1/2030	12/30/2030	10	3.00	0.04	
Plot 11 (2030) Landscaping	1/1/2030	12/30/2030	10	3.16	0.04	1.02
Plot 11 (2030) Curbing/Drive Approaches	5/1/2030	8/20/2030	10	1.00	0.01	
Plot 11 (2030) Paving	6/1/2030	7/26/2030	10	4.98	0.06	
Plot 11 (2030) Temporary Utilities	7/2/2030	12/30/2030	10	1.26	0.02	0.53
Plot 11 (2031) Utilities	1/1/2031	12/30/2031	10	16.50	0.20	
Plot 11 (2031) Building-Concrete	1/1/2031	12/30/2031	10	3.38	0.04	
Plot 11 (2031) Building-Wet Utilities	1/1/2031	12/30/2031	10	6.04	0.07	
Plot 11 (2031) Building-Electrical	1/1/2031	12/30/2031	10	4.12	0.05	
Plot 11 (2031) Building-Landscaping	1/1/2031	12/30/2031	10	3.00	0.04	
Plot 11 (2031) Landscaping	1/1/2031	12/30/2031	10	3.15	0.04	
Plot 11 (2031) Curbing/Drive Approaches	5/1/2031	8/20/2031	10	1.00	0.01	
Plot 11 (2031) Paving	6/1/2031	7/26/2031	10	4.97	0.06	
Plot 11 (2031) Temporary Utilities	7/2/2031	12/30/2031	10	1.26	0.02	0.53
Plot 11 (2032) Mass Excavation	1/1/2032	6/30/2032	10	40.47	0.49	
Plot 11 (2032) Finish Grading	1/1/2032	2/25/2032	10	1.61	0.02	
Plot 11 (2032) Utilities	1/1/2032	12/29/2032	10	16.49	0.20	
Plot 11 (2032) Building-Concrete	1/1/2032	12/29/2032	10	3.37	0.04	
Plot 11 (2032) Building-Wet Utilities	1/1/2032	12/29/2032	10	6.04	0.07	
Plot 11 (2032) Building-Electrical	1/1/2032	12/29/2032	10	4.12	0.05	
Plot 11 (2032) Building-Landscaping	1/1/2032	12/29/2032	10	2.99	0.04	
Plot 11 (2032) Landscaping	1/1/2032	12/29/2032	10	3.15	0.04	0.95
Plot 11 (2032) Curbing/Drive Approaches	5/1/2032	8/20/2032	10	1.00	0.01	
Plot 11 (2032) Paving	6/1/2032	7/26/2032	10	4.97	0.06	
Plot 11 (2032) Temporary Utilities	7/2/2032	12/30/2032	10	1.26	0.02	1.01
				Max hourly average		**1.02**

Construction Assumptions				*TOG Exhuast Emissions*		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plot 12 (2033) Mass Excavation	1/1/2033	7/1/2033	10	30.22	0.37	
Plot 12 (2033) Finish Grading	1/1/2033	2/25/2033	10	0.87	0.01	
Plot 12 (2033) Utilities	1/1/2033	12/30/2033	10	16.50	0.20	
Plot 12 (2033) Building-Concrete	1/1/2033	12/30/2033	10	3.38	0.04	
Plot 12 (2033) Building-Wet Utilities	1/1/2033	12/30/2033	10	6.04	0.07	
Plot 12 (2033) Building-Electrical	1/1/2033	12/30/2033	10	4.12	0.05	
Plot 12 (2033) Building-Landscaping	1/1/2033	12/30/2033	10	3.00	0.04	
Plot 12 (2033) Landscaping	1/1/2033	12/30/2033	10	3.15	0.04	0.81
Plot 12 (2033) Curbing/Drive Approaches	5/1/2033	8/20/2033	10	1.00	0.01	
Plot 12 (2033) Paving	6/1/2033	7/26/2033	10	4.97	0.06	
Plot 12 (2033) Temporary Utilities	7/2/2033	12/30/2033	10	1.26	0.02	0.89
Plot 12 (2034) Utilities	1/1/2034	12/31/2034	10	16.50	0.20	
Plot 12 (2034) Building-Concrete	1/1/2034	12/31/2034	10	3.37	0.04	
Plot 12 (2034) Building-Wet Utilities	1/1/2034	12/31/2034	10	6.04	0.07	
Plot 12 (2034) Building-Electrical	1/1/2034	12/31/2034	10	4.12	0.05	
Plot 12 (2034) Building-Landscaping	1/1/2034	12/31/2034	10	2.99	0.04	
Plot 12 (2034) Landscaping	1/1/2034	12/31/2034	10	3.15	0.04	
Plot 12 (2034) Curbing/Drive Approaches	5/1/2034	8/20/2034	10	1.00	0.01	
Plot 12 (2034) Paving	6/1/2034	7/26/2034	10	4.97	0.06	
Plot 12 (2034) Temporary Utilities	7/2/2034	12/31/2034	10	1.26	0.02	0.53
				Max hourly average		**0.89**

Construction Assumptions				TOG Exhuast Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plot 6 (2035) Mass Excavation	1/1/2035	6/30/2035	10	17.79	0.22	
Plot 6 (2035) Finish Grading	1/1/2035	2/25/2035	10	0.76	0.01	
Plot 6 (2035) Utilities	1/1/2035	12/29/2035	10	15.81	0.19	
Plot 6 (2035) Building-Concrete	1/1/2035	12/29/2035	10	3.05	0.04	
Plot 6 (2035) Building-Wet Utilities	1/1/2035	12/29/2035	10	5.57	0.07	
Plot 6 (2035) Building-Electrical	1/1/2035	12/29/2035	10	3.92	0.05	
Plot 6 (2035) Building-Landscaping	1/1/2035	12/29/2035	10	2.68	0.03	
Plot 6 (2035) Landscaping	1/1/2035	12/29/2035	10	2.82	0.03	0.63
Plot 6 (2035) Curbing/Drive Approaches	5/1/2035	8/20/2035	10	0.87	0.01	
Plot 6 (2035) Paving	6/1/2035	7/26/2035	10	4.35	0.05	
Plot 6 (2035) Temporary Utilities	7/2/2035	12/29/2035	10	1.15	0.01	0.70
				Max hourly average		**0.70**

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	From	To	hrs/day	lbs/day	gr/sec	Overlap Phases
Plot 2 (2020) Mass Excavation	1/1/2020	6/30/2020	10	16.03	0.19	0.30
Plot 2 (2020) Utilities	1/1/2020	12/29/2020	10	6.18	0.07	0.22
Plot 2 (2020) Landscaping	1/1/2020	12/29/2020	10	1.93	0.02	
Plot 2 (2020) Finish Grading	5/7/2020	7/1/2020	10	0.69	0.01	
Plot 2 (2020) Building-Wet Utilities	7/2/2020	12/30/2020	10	3.59	0.04	
Plot 2 (2020) Building-Electrical	7/2/2020	12/30/2020	10	2.49	0.03	
Plot 2 (2020) Temporary Utilities	7/2/2020	12/30/2020	10	0.88	0.01	
Plot 2 (2020) Curbing/Drive Approaches	11/5/2020	12/30/2020	10	0.53	0.01	
Plot 2 (2020) Paving	12/3/2020	12/30/2020	10	2.85	0.03	
Plot 2 (2021) Utilities	1/1/2021	12/30/2021	10	5.37	0.06	0.24
Plot 2 (2021) Building-Concrete	1/1/2021	12/30/2021	10	2.08	0.03	
Plot 2 (2021) Building-Wet Utilities	1/1/2021	12/30/2021	10	3.11	0.04	
Plot 2 (2021) Building-Electrical	1/1/2021	12/30/2021	10	2.14	0.03	
Plot 2 (2021) Building-Landscaping	1/1/2021	12/30/2021	10	1.61	0.02	
Plot 2 (2021) Landscaping	1/1/2021	12/30/2021	10	1.69	0.02	
Plot 2 (2021) Curbing/Drive Approaches	5/1/2021	8/20/2021	10	0.46	0.01	
Plot 2 (2021) Paving	6/1/2021	7/26/2021	10	2.53	0.03	
Plot 2 (2021) Temporary Utilities	7/2/2021	12/30/2021	10	0.79	0.01	
				Max hourly average		**0.30**

WLC Construction Hourly-Average DPM Emissions No Mitigation Non-concrete pour construction (6am to 4pm)

Construction Assumptions					DPM Exhaust Emissions		
Construction Phase		From	To	hrs/day	lbs/day	gr/sec	Overlap Phases
Plot 4 (2022)	Mass Excavation	1/1/2022	7/1/2022	10	14.31	0.17	0.37
Plot 4 (2022)	Utilities	1/1/2022	12/30/2022	10	4.37	0.05	
Plot 4 (2022)	Building-Concrete	1/1/2022	12/30/2022	10	1.72	0.02	
Plot 4 (2022)	Building-Wet Utilities	1/1/2022	12/30/2022	10	2.52	0.03	
Plot 4 (2022)	Building-Electrical	1/1/2022	12/30/2022	10	1.75	0.02	
Plot 4 (2022)	Building-Landscaping	1/1/2022	12/30/2022	10	1.33	0.02	
Plot 4 (2022)	Landscaping	1/1/2022	12/30/2022	10	1.41	0.02	
Plot 4 (2022)	Curbing/Drive Approaches	5/1/2022	8/20/2022	10	0.38	0.00	
Plot 4 (2022)	Finish Grading	5/7/2022	7/1/2022	10	0.54	0.01	
Plot 4 (2022)	Paving	6/1/2022	7/26/2022	10	2.12	0.03	
Plot 4 (2022)	Temporary Utilities	7/2/2022	12/30/2022	10	0.67	0.01	0.37
Plot 4 (2023)	Utilities	1/1/2023	12/30/2023	10	3.80	0.05	0.17
Plot 4 (2023)	Building-Concrete	1/1/2023	12/30/2023	10	1.46	0.02	
Plot 4 (2023)	Building-Wet Utilities	1/1/2023	12/30/2023	10	2.18	0.03	
Plot 4 (2023)	Building-Electrical	1/1/2023	12/30/2023	10	1.49	0.02	
Plot 4 (2023)	Building-Landscaping	1/1/2023	12/30/2023	10	1.13	0.01	
Plot 4 (2023)	Landscaping	1/1/2023	12/30/2023	10	1.20	0.01	
Plot 4 (2023)	Curbing/Drive Approaches	5/1/2023	8/20/2023	10	0.34	0.00	
Plot 4 (2023)	Paving	6/1/2023	7/26/2023	10	1.90	0.02	
Plot 4 (2023)	Temporary Utilities	7/2/2023	12/30/2023	10	0.58	0.01	
					Max hourly average		**0.37**

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plot 9 (2024) Mass Excavation	1/1/2024	6/30/2024	10	33.51	0.41	
Plot 9 (2024) Utilities	1/1/2024	12/29/2024	10	3.44	0.04	
Plot 9 (2024) Building-Concrete	1/1/2024	12/29/2024	10	1.29	0.02	
Plot 9 (2024) Building-Wet Utilities	1/1/2024	12/29/2024	10	1.93	0.02	
Plot 9 (2024) Building-Electrical	1/1/2024	12/29/2024	10	1.30	0.02	
Plot 9 (2024) Building-Landscaping	1/1/2024	12/29/2024	10	1.00	0.01	
Plot 9 (2024) Landscaping	1/1/2024	12/29/2024	10	1.07	0.01	
Plot 9 (2024) Curbing/Drive Approaches	5/1/2024	8/20/2024	10	0.33	0.00	
Plot 9 (2024) Finish Grading	5/7/2024	7/1/2024	10	1.33	0.02	
Plot 9 (2024) Paving	6/1/2024	7/26/2024	10	1.74	0.02	0.57
Plot 9 (2024) Temporary Utilities	7/2/2024	12/30/2024	10	0.55	0.01	0.56
Plot 9 (2025) Utilities	1/1/2025	12/30/2025	10	3.00	0.04	
Plot 9 (2025) Building-Concrete	1/1/2025	12/30/2025	10	1.06	0.01	
Plot 9 (2025) Building-Wet Utilities	1/1/2025	12/30/2025	10	1.62	0.02	
Plot 9 (2025) Building-Electrical	1/1/2025	12/30/2025	10	1.11	0.01	
Plot 9 (2025) Building-Landscaping	1/1/2025	12/30/2025	10	0.84	0.01	
Plot 9 (2025) Interchange	1/1/2025	12/30/2025	10	1.95	0.02	
Plot 9 (2025) Landscaping	1/1/2025	12/30/2025	10	0.89	0.01	
Plot 9 (2025) Curbing/Drive Approaches	5/1/2025	8/20/2025	10	0.26	0.00	
Plot 9 (2025) Paving	6/1/2025	7/26/2025	10	1.48	0.02	
Plot 9 (2025) Temporary Utilities	7/2/2025	12/30/2025	10	0.50	0.01	0.15
				Max hourly average		**0.57**

WLC Construction Hourly-Average DPM Emissions No Mitigation Non-concrete pour construction (6am to 4pm)

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plots 1 3 20 (2026) Mass Excavation	1/1/2026	7/1/2026	10	7.26	0.09	
Plots 1 3 20 (2026) Utilities	1/1/2026	12/30/2026	10	3.02	0.04	
Plots 1 3 20 (2026) Building-Concrete	1/1/2026	12/30/2026	10	1.07	0.01	
Plots 1 3 20 (2026) Building-Wet Utilities	1/1/2026	12/30/2026	10	1.62	0.02	
Plots 1 3 20 (2026) Building-Electrical	1/1/2026	12/30/2026	10	1.10	0.01	
Plots 1 3 20 (2026) Building-Landscaping	1/1/2026	12/30/2026	10	0.84	0.01	
Plots 1 3 20 (2026) Interchange	1/1/2026	7/1/2026	10	1.94	0.02	
Plots 1 3 20 (2026) Landscaping	1/1/2026	12/30/2026	10	0.89	0.01	
Plots 1 3 20 (2026) Curbing/Drive Approaches	5/1/2026	8/20/2026	10	0.27	0.00	
Plots 1 3 20 (2026) Finish Grading	5/7/2026	7/1/2026	10	0.37	0.00	
Plots 1 3 20 (2026) Paving	6/1/2026	7/26/2026	10	1.49	0.02	0.22
Plots 1 3 20 (2026) Temporary Utilities	7/2/2026	12/30/2026	10	0.50	0.01	0.24
				Max hourly average		**0.24**

WLC Construction Hourly-Average DPM Emissions	No Mitigation	Non-concrete pour construction (6am to 4pm)

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plots 5 and 10 (2027) Utilities	1/1/2027	12/30/2027	10	3.02	0.04	
Plots 5 and 10 (2027) Building-Concrete	1/1/2027	12/30/2027	10	1.07	0.01	
Plots 5 and 10 (2027) Building-Wet Utilities	1/1/2027	12/30/2027	10	1.62	0.02	
Plots 5 and 10 (2027) Building-Electrical	1/1/2027	12/30/2027	10	1.10	0.01	
Plots 5 and 10 (2027) Building-Landscaping	1/1/2027	12/30/2027	10	0.84	0.01	
Plots 5 and 10 (2027) Landscaping	1/1/2027	12/30/2027	10	0.89	0.01	
Plots 5 and 10 (2027) Curbing/Drive Approaches	5/1/2027	8/20/2027	10	0.27	0.00	
Plots 5 and 10 (2027) Paving	6/1/2027	7/26/2027	10	1.48	0.02	
Plots 5 and 10 (2027) Temporary Utilities	7/2/2027	12/30/2027	10	0.50	0.01	0.13
Plots 5 and 10 (2027) Mass Excavation	9/16/2027	12/31/2027	10	5.89	0.07	
Plots 5 and 10 (2027) Finish Grading	11/6/2027	12/31/2027	10	0.39	0.00	0.19
Plots 5 and 10 (2028) Mass Excavation	1/1/2028	4/18/2028	10	16.51	0.20	
Plots 5 and 10 (2028) Finish Grading	1/1/2028	2/25/2028	10	0.73	0.01	
Plots 5 and 10 (2028) Utilities	1/1/2028	12/30/2028	10	3.02	0.04	
Plots 5 and 10 (2028) Building-Concrete	1/1/2028	12/30/2028	10	1.07	0.01	
Plots 5 and 10 (2028) Building-Wet Utilities	1/1/2028	12/30/2028	10	1.62	0.02	
Plots 5 and 10 (2028) Building-Electrical	1/1/2028	12/30/2028	10	1.10	0.01	
Plots 5 and 10 (2028) Building-Landscaping	1/1/2028	12/30/2028	10	0.84	0.01	
Plots 5 and 10 (2028) Landscaping	1/1/2028	12/30/2028	10	0.89	0.01	0.31
Plots 5 and 10 (2028) Curbing/Drive Approaches	5/1/2028	8/20/2028	10	0.27	0.00	
Plots 5 and 10 (2028) Paving	6/1/2028	7/26/2028	10	1.48	0.02	
Plots 5 and 10 (2028) Temporary Utilities	7/2/2028	12/30/2028	10	0.50	0.01	0.13
				Max hourly average		**0.31**

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plots 7 8 21 22 (2029) Utilities	1/1/2029	12/30/2029	10	3.02	0.04	
Plots 7 8 21 22 (2029) Building-Concrete	1/1/2029	12/30/2029	10	1.07	0.01	
Plots 7 8 21 22 (2029) Building-Wet Utilities	1/1/2029	12/30/2029	10	1.62	0.02	
Plots 7 8 21 22 (2029) Building-Electrical	1/1/2029	12/30/2029	10	1.10	0.01	
Plots 7 8 21 22 (2029) Building-Landscaping	1/1/2029	12/30/2029	10	0.84	0.01	
Plots 7 8 21 22 (2029) Landscaping	1/1/2029	12/30/2029	10	0.89	0.01	
Plots 7 8 21 22 (2029) Curbing/Drive Approaches	5/1/2029	8/20/2029	10	0.00	0.00	
Plots 7 8 21 22 (2029) Paving	6/1/2029	7/26/2029	10	0.00	0.00	
Plots 7 8 21 22 (2029) Temporary Utilities	7/2/2029	12/30/2029	10	0.50	0.01	0.11
Plots 7 8 21 22 (2029) Mass Excavation	9/14/2029	12/31/2029	10	10.70	0.13	
Plots 7 8 21 22 (2029) Finish Grading	11/6/2029	12/31/2029	10	0.37	0.00	0.24
				Max hourly average		**0.24**

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plot 11 (2030) Mass Excavation	1/1/2030	4/17/2030	10	7.76	0.09	
Plot 11 (2030) Finish Grading	1/1/2030	2/25/2030	10	0.34	0.00	
Plot 11 (2030) Utilities	1/1/2030	12/30/2030	10	1.38	0.02	
Plot 11 (2030) Building-Concrete	1/1/2030	12/30/2030	10	0.42	0.01	
Plot 11 (2030) Building-Wet Utilities	1/1/2030	12/30/2030	10	0.68	0.01	
Plot 11 (2030) Building-Electrical	1/1/2030	12/30/2030	10	0.37	0.00	
Plot 11 (2030) Building-Landscaping	1/1/2030	12/30/2030	10	0.37	0.00	
Plot 11 (2030) Landscaping	1/1/2030	12/30/2030	10	0.39	0.00	0.14
Plot 11 (2030) Curbing/Drive Approaches	5/1/2030	8/20/2030	10	0.21	0.00	
Plot 11 (2030) Paving	6/1/2030	7/26/2030	10	0.86	0.01	
Plot 11 (2030) Temporary Utilities	7/2/2030	12/30/2030	10	0.13	0.00	0.06
Plot 11 (2031) Utilities	1/1/2031	12/30/2031	10	1.38	0.02	
Plot 11 (2031) Building-Concrete	1/1/2031	12/30/2031	10	0.42	0.01	
Plot 11 (2031) Building-Wet Utilities	1/1/2031	12/30/2031	10	0.68	0.01	
Plot 11 (2031) Building-Electrical	1/1/2031	12/30/2031	10	0.37	0.00	
Plot 11 (2031) Building-Landscaping	1/1/2031	12/30/2031	10	0.37	0.00	
Plot 11 (2031) Landscaping	1/1/2031	12/30/2031	10	0.39	0.00	
Plot 11 (2031) Curbing/Drive Approaches	5/1/2031	8/20/2031	10	0.21	0.00	
Plot 11 (2031) Paving	6/1/2031	7/26/2031	10	0.86	0.01	
Plot 11 (2031) Temporary Utilities	7/2/2031	12/30/2031	10	0.13	0.00	0.06
Plot 11 (2032) Mass Excavation	1/1/2032	6/30/2032	10	6.95	0.08	
Plot 11 (2032) Finish Grading	1/1/2032	2/25/2032	10	0.34	0.00	
Plot 11 (2032) Utilities	1/1/2032	12/29/2032	10	1.37	0.02	
Plot 11 (2032) Building-Concrete	1/1/2032	12/29/2032	10	0.42	0.01	
Plot 11 (2032) Building-Wet Utilities	1/1/2032	12/29/2032	10	0.68	0.01	
Plot 11 (2032) Building-Electrical	1/1/2032	12/29/2032	10	0.37	0.00	
Plot 11 (2032) Building-Landscaping	1/1/2032	12/29/2032	10	0.37	0.00	
Plot 11 (2032) Landscaping	1/1/2032	12/29/2032	10	0.39	0.00	0.13
Plot 11 (2032) Curbing/Drive Approaches	5/1/2032	8/20/2032	10	0.21	0.00	
Plot 11 (2032) Paving	6/1/2032	7/26/2032	10	0.86	0.01	
Plot 11 (2032) Temporary Utilities	7/2/2032	12/30/2032	10	0.13	0.00	0.14
				Max hourly average		**0.14**

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	**From**	**To**	**hrs/day**	**lbs/day**	**gr/sec**	**Overlap Phases**
Plot 12 (2033) Mass Excavation	1/1/2033	7/1/2033	10	5.04	0.06	
Plot 12 (2033) Finish Grading	1/1/2033	2/25/2033	10	0.17	0.00	
Plot 12 (2033) Utilities	1/1/2033	12/30/2033	10	1.37	0.02	
Plot 12 (2033) Building-Concrete	1/1/2033	12/30/2033	10	0.42	0.01	
Plot 12 (2033) Building-Wet Utilities	1/1/2033	12/30/2033	10	0.68	0.01	
Plot 12 (2033) Building-Electrical	1/1/2033	12/30/2033	10	0.37	0.00	
Plot 12 (2033) Building-Landscaping	1/1/2033	12/30/2033	10	0.37	0.00	
Plot 12 (2033) Landscaping	1/1/2033	12/30/2033	10	0.39	0.00	0.11
Plot 12 (2033) Curbing/Drive Approaches	5/1/2033	8/20/2033	10	0.21	0.00	
Plot 12 (2033) Paving	6/1/2033	7/26/2033	10	0.86	0.01	
Plot 12 (2033) Temporary Utilities	7/2/2033	12/30/2033	10	0.13	0.00	0.12
Plot 12 (2034) Utilities	1/1/2034	12/31/2034	10	1.37	0.02	
Plot 12 (2034) Building-Concrete	1/1/2034	12/31/2034	10	0.42	0.01	
Plot 12 (2034) Building-Wet Utilities	1/1/2034	12/31/2034	10	0.68	0.01	
Plot 12 (2034) Building-Electrical	1/1/2034	12/31/2034	10	0.37	0.00	
Plot 12 (2034) Building-Landscaping	1/1/2034	12/31/2034	10	0.37	0.00	
Plot 12 (2034) Landscaping	1/1/2034	12/31/2034	10	0.39	0.00	
Plot 12 (2034) Curbing/Drive Approaches	5/1/2034	8/20/2034	10	0.21	0.00	
Plot 12 (2034) Paving	6/1/2034	7/26/2034	10	0.86	0.01	
Plot 12 (2034) Temporary Utilities	7/2/2034	12/31/2034	10	0.13	0.00	0.06
				Max hourly average		**0.12**

Construction Assumptions				DPM Exhaust Emissions		
Construction Phase	From	To	hrs/day	lbs/day	gr/sec	Overlap Phases
Plot 6 (2035) Mass Excavation	1/1/2035	6/30/2035	10	2.34	0.03	
Plot 6 (2035) Finish Grading	1/1/2035	2/25/2035	10	0.11	0.00	
Plot 6 (2035) Utilities	1/1/2035	12/29/2035	10	1.05	0.01	
Plot 6 (2035) Building-Concrete	1/1/2035	12/29/2035	10	0.27	0.00	
Plot 6 (2035) Building-Wet Utilities	1/1/2035	12/29/2035	10	0.46	0.01	
Plot 6 (2035) Building-Electrical	1/1/2035	12/29/2035	10	0.25	0.00	
Plot 6 (2035) Building-Landscaping	1/1/2035	12/29/2035	10	0.23	0.00	
Plot 6 (2035) Landscaping	1/1/2035	12/29/2035	10	0.24	0.00	0.06
Plot 6 (2035) Curbing/Drive Approaches	5/1/2035	8/20/2035	10	0.12	0.00	
Plot 6 (2035) Paving	6/1/2035	7/26/2035	10	0.53	0.01	
Plot 6 (2035) Temporary Utilities	7/2/2035	12/29/2035	10	0.09	0.00	0.07
				Max hourly average		**0.07**

SrcGrP	TAC	SAROAD	EM (g/sec)
PLOT_11	1,3-Butadiene	43218	0.001938388
PLOT_11	Acetaldehyde	43503	0.074985012
PLOT_11	Benzene	45201	0.020404085
PLOT_11	Chlorine	12115	0.009948065
PLOT_11	Copper	12114	7.10576E-05
PLOT_11	Formaldehyde	43502	0.150072044
PLOT_11	Methanol	43301	0.000306061
PLOT_11	Methyl ethyl ketone {2-Butanone}	43552	0.015099023
PLOT_11	m-Xylene	45205	0.006223246
PLOT_11	Nickel	12136	7.10576E-05
PLOT_11	o-Xylene	45204	0.003468694
PLOT_11	p-Xylene	45206	0.001020204
PLOT_11	Styrene	45220	0.000612123
PLOT_11	SULFATES	12403	0.063951849
PLOT_11	Toluene	45202	0.014997002
PLOT_12	1,3-Butadiene	43218	0.001693331
PLOT_12	Acetaldehyde	43503	0.065505163
PLOT_12	Benzene	45201	0.017824534
PLOT_12	Chlorine	12115	0.008330661
PLOT_12	Copper	12114	5.95047E-05
PLOT_12	Formaldehyde	43502	0.131099449
PLOT_12	Methanol	43301	0.000267368
PLOT_12	Methyl ethyl ketone {2-Butanone}	43552	0.013190155
PLOT_12	m-Xylene	45205	0.005436483
PLOT_12	Nickel	12136	5.95047E-05
PLOT_12	o-Xylene	45204	0.003030171
PLOT_12	p-Xylene	45206	0.000891227
PLOT_12	Styrene	45220	0.000534736
PLOT_12	SULFATES	12403	0.053554248
PLOT_12	Toluene	45202	0.013101033
PLOT_2	1,3-Butadiene	43218	0.001288799
PLOT_2	Acetaldehyde	43503	0.049856161
PLOT_2	Benzene	45201	0.013566302
PLOT_2	Chlorine	12115	0.021035601
PLOT_2	Copper	12114	0.000150254
PLOT_2	Formaldehyde	43502	0.099780153
PLOT_2	Methanol	43301	0.000203495
PLOT_2	Methyl ethyl ketone {2-Butanone}	43552	0.010039064
PLOT_2	m-Xylene	45205	0.004137722
PLOT_2	Nickel	12136	0.000150254
PLOT_2	o-Xylene	45204	0.002306271
PLOT_2	p-Xylene	45206	0.000678315
PLOT_2	Styrene	45220	0.000406989
PLOT_2	SULFATES	12403	0.135228861
PLOT_2	Toluene	45202	0.009971232
PLOT_30_	1,3-Butadiene	43218	

SrcGrP	TAC	SAROAD	EM (g/sec)
PLOT_30_	Acetaldehyde	43503	
PLOT_30_	Benzene	45201	
PLOT_30_	Chlorine	12115	
PLOT_30_	Copper	12114	
PLOT_30_	Formaldehyde	43502	
PLOT_30_	Methanol	43301	
PLOT_30_	Methyl ethyl ketone {2-Butanone}	43552	
PLOT_30_	m-Xylene	45205	
PLOT_30_	Nickel	12136	
PLOT_30_	o-Xylene	45204	
PLOT_30_	p-Xylene	45206	
PLOT_30_	Styrene	45220	
PLOT_30_	SULFATES	12403	
PLOT_30_	Toluene	45202	
PLOT_6	1,3-Butadiene	43218	0.001333376
PLOT_6	Acetaldehyde	43503	0.05158061
PLOT_6	Benzene	45201	0.01403554
PLOT_6	Chlorine	12115	0.00472532
PLOT_6	Copper	12114	3.37523E-05
PLOT_6	Formaldehyde	43502	0.103231398
PLOT_6	Methanol	43301	0.000210533
PLOT_6	Methyl ethyl ketone {2-Butanone}	43552	0.0103863
PLOT_6	m-Xylene	45205	0.00428084
PLOT_6	Nickel	12136	3.37523E-05
PLOT_6	o-Xylene	45204	0.002386042
PLOT_6	p-Xylene	45206	0.000701777
PLOT_6	Styrene	45220	0.000421066
PLOT_6	SULFATES	12403	0.030377057
PLOT_6	Toluene	45202	0.010316122
PLOT_9	1,3-Butadiene	43218	0.002698148
PLOT_9	Acetaldehyde	43503	0.104375717
PLOT_9	Benzene	45201	0.028401556
PLOT_9	Chlorine	12115	0.039765939
PLOT_9	Copper	12114	0.000284042
PLOT_9	Formaldehyde	43502	0.208893441
PLOT_9	Methanol	43301	0.000426023
PLOT_9	Methyl ethyl ketone {2-Butanone}	43552	0.021017151
PLOT_9	m-Xylene	45205	0.008662474
PLOT_9	Nickel	12136	0.000284042
PLOT_9	o-Xylene	45204	0.004828264
PLOT_9	p-Xylene	45206	0.001420078
PLOT_9	Styrene	45220	0.000852047
PLOT_9	SULFATES	12403	0.255638178
PLOT_9	Toluene	45202	0.020875143
PLOT4	1,3-Butadiene	43218	0.00167784
PLOT4	Acetaldehyde	43503	0.064905919

SrcGrP	TAC	SAROAD	EM (g/sec)
PLOT4	Benzene	45201	0.017661475
PLOT4	Chlorine	12115	0.025908324
PLOT4	Copper	12114	0.000185059
PLOT4	Formaldehyde	43502	0.129900146
PLOT4	Methanol	43301	0.000264922
PLOT4	Methyl ethyl ketone {2-Butanone}	43552	0.013069491
PLOT4	m-Xylene	45205	0.00538675
PLOT4	Nickel	12136	0.000185059
PLOT4	o-Xylene	45204	0.003002451
PLOT4	p-Xylene	45206	0.000883074
PLOT4	Styrene	45220	0.000529844
PLOT4	SULFATES	12403	0.166553514
PLOT4	Toluene	45202	0.012981184
PLOTS_1_	1,3-Butadiene	43218	0.001311412
PLOTS_1_	Acetaldehyde	43503	0.050730925
PLOTS_1_	Benzene	45201	0.013804333
PLOTS_1_	Chlorine	12115	0.01692987
PLOTS_1_	Copper	12114	0.000120928
PLOTS_1_	Formaldehyde	43502	0.101530872
PLOTS_1_	Methanol	43301	0.000207065
PLOTS_1_	Methyl ethyl ketone {2-Butanone}	43552	0.010215207
PLOTS_1_	m-Xylene	45205	0.004210322
PLOTS_1_	Nickel	12136	0.000120928
PLOTS_1_	o-Xylene	45204	0.002346737
PLOTS_1_	p-Xylene	45206	0.000690217
PLOTS_1_	Styrene	45220	0.00041413
PLOTS_1_	SULFATES	12403	0.108834876
PLOTS_1_	Toluene	45202	0.010146185
PLOTS_5_	1,3-Butadiene	43218	0.00162892
PLOTS_5_	Acetaldehyde	43503	0.063013471
PLOTS_5_	Benzene	45201	0.017146523
PLOTS_5_	Chlorine	12115	0.021834178
PLOTS_5_	Copper	12114	0.000155958
PLOTS_5_	Formaldehyde	43502	0.126112675
PLOTS_5_	Methanol	43301	0.000257198
PLOTS_5_	Methyl ethyl ketone {2-Butanone}	43552	0.012688427
PLOTS_5_	m-Xylene	45205	0.005229689
PLOTS_5_	Nickel	12136	0.000155958
PLOTS_5_	o-Xylene	45204	0.002914909
PLOTS_5_	p-Xylene	45206	0.000857326
PLOTS_5_	Styrene	45220	0.000514396
PLOTS_5_	SULFATES	12403	0.140362574
PLOTS_5_	Toluene	45202	0.012602694
PLOTS_7_	1,3-Butadiene	43218	0.001297077
PLOTS_7_	Acetaldehyde	43503	0.050176416
PLOTS_7_	Benzene	45201	0.013653446

SrcGrP	TAC	SAROAD	EM (g/sec)
PLOTS_7_	Chlorine	12115	0.017023108
PLOTS_7_	Copper	12114	0.000121594
PLOTS_7_	Formaldehyde	43502	0.100421098
PLOTS_7_	Methanol	43301	0.000204802
PLOTS_7_	Methyl ethyl ketone {2-Butanone}	43552	0.01010355
PLOTS_7_	m-Xylene	45205	0.004164301
PLOTS_7_	Nickel	12136	0.000121594
PLOTS_7_	o-Xylene	45204	0.002321086
PLOTS_7_	p-Xylene	45206	0.000682672
PLOTS_7_	Styrene	45220	0.000409603
PLOTS_7_	SULFATES	12403	0.109434263
PLOTS_7_	Toluene	45202	0.010035283

ID	UTM_X	UTM_Y	SrcGrP	AHI
1	489607.44	3753966.11	PLOT_11	0.036360635
1	489607.44	3753966.11	PLOT_12	0.020609492
1	489607.44	3753966.11	PLOT_2	0.025683211
1	489607.44	3753966.11	PLOT_30_	
1	489607.44	3753966.11	PLOT_6	0.030978687
1	489607.44	3753966.11	PLOT_9	0.044296201
1	489607.44	3753966.11	PLOT4	0.02660964
1	489607.44	3753966.11	PLOTS_1_	0.011804568
1	489607.44	3753966.11	PLOTS_5_	0.026541881
1	489607.44	3753966.11	PLOTS_7_	0.043075842
2	489738.71	3754023.94	PLOT_11	0.032086803
2	489738.71	3754023.94	PLOT_12	0.02058741
2	489738.71	3754023.94	PLOT_2	0.026924973
2	489738.71	3754023.94	PLOT_30_	
2	489738.71	3754023.94	PLOT_6	0.034136217
2	489738.71	3754023.94	PLOT_9	0.044456845
2	489738.71	3754023.94	PLOT4	0.027502005
2	489738.71	3754023.94	PLOTS_1_	0.012647241
2	489738.71	3754023.94	PLOTS_5_	0.02803864
2	489738.71	3754023.94	PLOTS_7_	0.046382615
3	489668.94	3754093.71	PLOT_11	0.029288522
3	489668.94	3754093.71	PLOT_12	0.019078585
3	489668.94	3754093.71	PLOT_2	0.026053395
3	489668.94	3754093.71	PLOT_30_	
3	489668.94	3754093.71	PLOT_6	0.033679565
3	489668.94	3754093.71	PLOT_9	0.044773636
3	489668.94	3754093.71	PLOT4	0.028959765
3	489668.94	3754093.71	PLOTS_1_	0.012721779
3	489668.94	3754093.71	PLOTS_5_	0.026635243
3	489668.94	3754093.71	PLOTS_7_	0.047694358
4	489690.06	3754161.63	PLOT_11	0.02784878
4	489690.06	3754161.63	PLOT_12	0.018517751
4	489690.06	3754161.63	PLOT_2	0.026107809
4	489690.06	3754161.63	PLOT_30_	
4	489690.06	3754161.63	PLOT_6	0.035538999
4	489690.06	3754161.63	PLOT_9	0.044205954
4	489690.06	3754161.63	PLOT4	0.028945101
4	489690.06	3754161.63	PLOTS_1_	0.012655852
4	489690.06	3754161.63	PLOTS_5_	0.026271987
4	489690.06	3754161.63	PLOTS_7_	0.04865105
5	490282.16	3753425.19	PLOT_11	0.044567393
5	490282.16	3753425.19	PLOT_12	0.025878383
5	490282.16	3753425.19	PLOT_2	0.014688872
5	490282.16	3753425.19	PLOT_30_	
5	490282.16	3753425.19	PLOT_6	0.014543154
5	490282.16	3753425.19	PLOT_9	0.031858281

5	490282.16	3753425.19	PLOT4	0.019315689
5	490282.16	3753425.19	PLOTS_1_	0.008671547
5	490282.16	3753425.19	PLOTS_5_	0.023624774
5	490282.16	3753425.19	PLOTS_7_	0.021659641
6	489797.34	3754554.12	PLOT_11	0.02306118
6	489797.34	3754554.12	PLOT_12	0.015767473
6	489797.34	3754554.12	PLOT_2	0.02815506
6	489797.34	3754554.12	PLOT_30_	
6	489797.34	3754554.12	PLOT_6	0.040005115
6	489797.34	3754554.12	PLOT_9	0.042932794
6	489797.34	3754554.12	PLOT4	0.029724689
6	489797.34	3754554.12	PLOTS_1_	0.012335519
6	489797.34	3754554.12	PLOTS_5_	0.023155507
6	489797.34	3754554.12	PLOTS_7_	0.046614489
7	490252.94	3754378.21	PLOT_11	0.02306251
7	490252.94	3754378.21	PLOT_12	0.016658231
7	490252.94	3754378.21	PLOT_2	0.025101851
7	490252.94	3754378.21	PLOT_30_	
7	490252.94	3754378.21	PLOT_6	0.033547282
7	490252.94	3754378.21	PLOT_9	0.039050151
7	490252.94	3754378.21	PLOT4	0.025433626
7	490252.94	3754378.21	PLOTS_1_	0.011536147
7	490252.94	3754378.21	PLOTS_5_	0.02357817
7	490252.94	3754378.21	PLOTS_7_	0.035668368
8	489005.95	3754140.34	PLOT_11	0.04515301
8	489005.95	3754140.34	PLOT_12	0.018613149
8	489005.95	3754140.34	PLOT_2	0.029962277
8	489005.95	3754140.34	PLOT_30_	
8	489005.95	3754140.34	PLOT_6	0.040930828
8	489005.95	3754140.34	PLOT_9	0.059395829
8	489005.95	3754140.34	PLOT4	0.031071967
8	489005.95	3754140.34	PLOTS_1_	0.012712721
8	489005.95	3754140.34	PLOTS_5_	0.024702762
8	489005.95	3754140.34	PLOTS_7_	0.060323406
9	485642.82	3754267.27	PLOT_11	0.017102941
9	485642.82	3754267.27	PLOT_12	0.014541032
9	485642.82	3754267.27	PLOT_2	0.064685275
9	485642.82	3754267.27	PLOT_30_	
9	485642.82	3754267.27	PLOT_6	0.023731915
9	485642.82	3754267.27	PLOT_9	0.04090299
9	485642.82	3754267.27	PLOT4	0.062158654
9	485642.82	3754267.27	PLOTS_1_	0.103312777
9	485642.82	3754267.27	PLOTS_5_	0.034736104
9	485642.82	3754267.27	PLOTS_7_	0.03717191
10	485736.41	3754259.47	PLOT_11	0.017363929
10	485736.41	3754259.47	PLOT_12	0.014607914
10	485736.41	3754259.47	PLOT_2	0.069896809

10	485736.41	3754259.47	PLOT_30_	
10	485736.41	3754259.47	PLOT_6	0.024131806
10	485736.41	3754259.47	PLOT_9	0.042183648
10	485736.41	3754259.47	PLOT4	0.066654339
10	485736.41	3754259.47	PLOTS_1_	0.100306493
10	485736.41	3754259.47	PLOTS_5_	0.034370031
10	485736.41	3754259.47	PLOTS_7_	0.038197146
11	487189.19	3754820.49	PLOT_11	0.028932759
11	487189.19	3754820.49	PLOT_12	0.016445828
11	487189.19	3754820.49	PLOT_2	0.088160022
11	487189.19	3754820.49	PLOT_30_	
11	487189.19	3754820.49	PLOT_6	0.052251537
11	487189.19	3754820.49	PLOT_9	0.076888101
11	487189.19	3754820.49	PLOT4	0.058394257
11	487189.19	3754820.49	PLOTS_1_	0.024992671
11	487189.19	3754820.49	PLOTS_5_	0.021679798
11	487189.19	3754820.49	PLOTS_7_	0.098763102
12	487233.13	3754689.54	PLOT_11	0.028983563
12	487233.13	3754689.54	PLOT_12	0.017009999
12	487233.13	3754689.54	PLOT_2	0.087905933
12	487233.13	3754689.54	PLOT_30_	
12	487233.13	3754689.54	PLOT_6	0.041802914
12	487233.13	3754689.54	PLOT_9	0.083509908
12	487233.13	3754689.54	PLOT4	0.064182818
12	487233.13	3754689.54	PLOTS_1_	0.024534309
12	487233.13	3754689.54	PLOTS_5_	0.022404107
12	487233.13	3754689.54	PLOTS_7_	0.10838729
13	487216.79	3754364.72	PLOT_11	0.027343037
13	487216.79	3754364.72	PLOT_12	0.017241585
13	487216.79	3754364.72	PLOT_2	0.093274097
13	487216.79	3754364.72	PLOT_30_	
13	487216.79	3754364.72	PLOT_6	0.03017911
13	487216.79	3754364.72	PLOT_9	0.107137818
13	487216.79	3754364.72	PLOT4	0.083340955
13	487216.79	3754364.72	PLOTS_1_	0.024748298
13	487216.79	3754364.72	PLOTS_5_	0.024150786
13	487216.79	3754364.72	PLOTS_7_	0.10409576
14	487388.77	3754380.1	PLOT_11	0.029021757
14	487388.77	3754380.1	PLOT_12	0.017350447
14	487388.77	3754380.1	PLOT_2	0.075082216
14	487388.77	3754380.1	PLOT_30_	
14	487388.77	3754380.1	PLOT_6	0.031343299
14	487388.77	3754380.1	PLOT_9	0.10829012
14	487388.77	3754380.1	PLOT4	0.075133651
14	487388.77	3754380.1	PLOTS_1_	0.022685141
14	487388.77	3754380.1	PLOTS_5_	0.023330196
14	487388.77	3754380.1	PLOTS_7_	0.102878482

15	484625	3751748	PLOT_11	0.004980636
15	484625	3751748	PLOT_12	0.004737764
15	484625	3751748	PLOT_2	0.008833767
15	484625	3751748	PLOT_30_	
15	484625	3751748	PLOT_6	0.004095772
15	484625	3751748	PLOT_9	0.015216076
15	484625	3751748	PLOT4	0.014985839
15	484625	3751748	PLOTS_1_	0.010796976
15	484625	3751748	PLOTS_5_	0.012100769
15	484625	3751748	PLOTS_7_	0.006301402
16	483279	3751798	PLOT_11	0.003839617
16	483279	3751798	PLOT_12	0.003408815
16	483279	3751798	PLOT_2	0.00659944
16	483279	3751798	PLOT_30_	
16	483279	3751798	PLOT_6	0.003096397
16	483279	3751798	PLOT_9	0.010129524
16	483279	3751798	PLOT4	0.009596111
16	483279	3751798	PLOTS_1_	0.007082026
16	483279	3751798	PLOTS_5_	0.00785135
16	483279	3751798	PLOTS_7_	0.004669953
17	483231	3751205	PLOT_11	0.003539564
17	483231	3751205	PLOT_12	0.003229099
17	483231	3751205	PLOT_2	0.005949128
17	483231	3751205	PLOT_30_	
17	483231	3751205	PLOT_6	0.002817679
17	483231	3751205	PLOT_9	0.009853226
17	483231	3751205	PLOT4	0.008504386
17	483231	3751205	PLOTS_1_	0.006425679
17	483231	3751205	PLOTS_5_	0.006946514
17	483231	3751205	PLOTS_7_	0.00433023
18	480165	3750195	PLOT_11	0.002102757
18	480165	3750195	PLOT_12	0.001877035
18	480165	3750195	PLOT_2	0.003003379
18	480165	3750195	PLOT_30_	
18	480165	3750195	PLOT_6	0.001615167
18	480165	3750195	PLOT_9	0.005104989
18	480165	3750195	PLOT4	0.004151141
18	480165	3750195	PLOTS_1_	0.003017171
18	480165	3750195	PLOTS_5_	0.003395029
18	480165	3750195	PLOTS_7_	0.002345875
19	481211	3749473	PLOT_11	0.002412255
19	481211	3749473	PLOT_12	0.002088485
19	481211	3749473	PLOT_2	0.003291129
19	481211	3749473	PLOT_30_	
19	481211	3749473	PLOT_6	0.001751823
19	481211	3749473	PLOT_9	0.005854223
19	481211	3749473	PLOT4	0.004688385

19	481211	3749473	PLOTS_1_	0.003441777
19	481211	3749473	PLOTS_5_	0.004067151
19	481211	3749473	PLOTS_7_	0.002624455
20	481867	3752785	PLOT_11	0.003101085
20	481867	3752785	PLOT_12	0.002502369
20	481867	3752785	PLOT_2	0.005503778
20	481867	3752785	PLOT_30_	
20	481867	3752785	PLOT_6	0.002690419
20	481867	3752785	PLOT_9	0.00826354
20	481867	3752785	PLOT4	0.007134776
20	481867	3752785	PLOTS_1_	0.005366093
20	481867	3752785	PLOTS_5_	0.0055213
20	481867	3752785	PLOTS_7_	0.00388941
21	480678	3751306	PLOT_11	0.002454576
21	480678	3751306	PLOT_12	0.002177608
21	480678	3751306	PLOT_2	0.003760226
21	480678	3751306	PLOT_30_	
21	480678	3751306	PLOT_6	0.001961047
21	480678	3751306	PLOT_9	0.005939177
21	480678	3751306	PLOT4	0.004845041
21	480678	3751306	PLOTS_1_	0.003744075
21	480678	3751306	PLOTS_5_	0.004137826
21	480678	3751306	PLOTS_7_	0.00278354
22	479989	3752645	PLOT_11	0.002275938
22	479989	3752645	PLOT_12	0.001738861
22	479989	3752645	PLOT_2	0.003607605
22	479989	3752645	PLOT_30_	
22	479989	3752645	PLOT_6	0.001897697
22	479989	3752645	PLOT_9	0.005813202
22	479989	3752645	PLOT4	0.004727339
22	479989	3752645	PLOTS_1_	0.003554093
22	479989	3752645	PLOTS_5_	0.003388832
22	479989	3752645	PLOTS_7_	0.002734165
23	479889	3756222	PLOT_11	0.008678892
23	479889	3756222	PLOT_12	0.007590113
23	479889	3756222	PLOT_2	0.014065964
23	479889	3756222	PLOT_30_	
23	479889	3756222	PLOT_6	0.009199398
23	479889	3756222	PLOT_9	0.01757405
23	479889	3756222	PLOT4	0.015664684
23	479889	3756222	PLOTS_1_	0.010008653
23	479889	3756222	PLOTS_5_	0.013449572
23	479889	3756222	PLOTS_7_	0.010919675
24	479234	3757080	PLOT_11	0.008108314
24	479234	3757080	PLOT_12	0.00665245
24	479234	3757080	PLOT_2	0.012550154
24	479234	3757080	PLOT_30_	

24	479234	3757080	PLOT_6	0.007981374
24	479234	3757080	PLOT_9	0.01491146
24	479234	3757080	PLOT4	0.012401206
24	479234	3757080	PLOTS_1_	0.008525801
24	479234	3757080	PLOTS_5_	0.011805525
24	479234	3757080	PLOTS_7_	0.009808345
25	480276	3756365	PLOT_11	0.009231863
25	480276	3756365	PLOT_12	0.008210602
25	480276	3756365	PLOT_2	0.013690933
25	480276	3756365	PLOT_30_	
25	480276	3756365	PLOT_6	0.009927174
25	480276	3756365	PLOT_9	0.017954445
25	480276	3756365	PLOT4	0.015068337
25	480276	3756365	PLOTS_1_	0.009845196
25	480276	3756365	PLOTS_5_	0.014856964
25	480276	3756365	PLOTS_7_	0.012168252
26	479887	3754007	PLOT_11	0.002331281
26	479887	3754007	PLOT_12	0.00165081
26	479887	3754007	PLOT_2	0.003773885
26	479887	3754007	PLOT_30_	
26	479887	3754007	PLOT_6	0.002064964
26	479887	3754007	PLOT_9	0.005547137
26	479887	3754007	PLOT4	0.004552493
26	479887	3754007	PLOTS_1_	0.003405015
26	479887	3754007	PLOTS_5_	0.002861335
26	479887	3754007	PLOTS_7_	0.002763523
27	480772	3755009	PLOT_11	0.007818761
27	480772	3755009	PLOT_12	0.007074794
27	480772	3755009	PLOT_2	0.01400481
27	480772	3755009	PLOT_30_	
27	480772	3755009	PLOT_6	0.008217279
27	480772	3755009	PLOT_9	0.017032834
27	480772	3755009	PLOT4	0.015812441
27	480772	3755009	PLOTS_1_	0.010235681
27	480772	3755009	PLOTS_5_	0.013784097
27	480772	3755009	PLOTS_7_	0.010609229
28	481560	3754548	PLOT_11	0.00762435
28	481560	3754548	PLOT_12	0.006803809
28	481560	3754548	PLOT_2	0.014485319
28	481560	3754548	PLOT_30_	
28	481560	3754548	PLOT_6	0.007820785
28	481560	3754548	PLOT_9	0.016873777
28	481560	3754548	PLOT4	0.015944359
28	481560	3754548	PLOTS_1_	0.010630269
28	481560	3754548	PLOTS_5_	0.013840125
28	481560	3754548	PLOTS_7_	0.010856146
29	481845	3754457	PLOT_11	0.008280946

29	481845	3754457	PLOT_12	0.007414924
29	481845	3754457	PLOT_2	0.016028402
29	481845	3754457	PLOT_30_	
29	481845	3754457	PLOT_6	0.008537895
29	481845	3754457	PLOT_9	0.018252886
29	481845	3754457	PLOT4	0.017512658
29	481845	3754457	PLOTS_1_	0.011417779
29	481845	3754457	PLOTS_5_	0.015264672
29	481845	3754457	PLOTS_7_	0.011813445
30	481754	3753876	PLOT_11	0.005879374
30	481754	3753876	PLOT_12	0.005000766
30	481754	3753876	PLOT_2	0.011066067
30	481754	3753876	PLOT_30_	
30	481754	3753876	PLOT_6	0.005658552
30	481754	3753876	PLOT_9	0.013814736
30	481754	3753876	PLOT4	0.012921994
30	481754	3753876	PLOTS_1_	0.008957882
30	481754	3753876	PLOTS_5_	0.01078254
30	481754	3753876	PLOTS_7_	0.00801765
31	489635.18	3750663.82	PLOT_11	0.007257033
31	489635.18	3750663.82	PLOT_12	0.007821064
31	489635.18	3750663.82	PLOT_2	0.002730785
31	489635.18	3750663.82	PLOT_30_	
31	489635.18	3750663.82	PLOT_6	0.003571457
31	489635.18	3750663.82	PLOT_9	0.008844543
31	489635.18	3750663.82	PLOT4	0.005044682
31	489635.18	3750663.82	PLOTS_1_	0.002604385
31	489635.18	3750663.82	PLOTS_5_	0.007271821
31	489635.18	3750663.82	PLOTS_7_	0.004856738
32	485424.11	3747672.3	PLOT_11	0.003110393
32	485424.11	3747672.3	PLOT_12	0.003292804
32	485424.11	3747672.3	PLOT_2	0.002203397
32	485424.11	3747672.3	PLOT_30_	
32	485424.11	3747672.3	PLOT_6	0.001303119
32	485424.11	3747672.3	PLOT_9	0.006055007
32	485424.11	3747672.3	PLOT4	0.003499442
32	485424.11	3747672.3	PLOTS_1_	0.003447626
32	485424.11	3747672.3	PLOTS_5_	0.004281376
32	485424.11	3747672.3	PLOTS_7_	0.001869631
33	482657.64	3753975.1	PLOT_11	0.007826923
33	482657.64	3753975.1	PLOT_12	0.006906555
33	482657.64	3753975.1	PLOT_2	0.016539884
33	482657.64	3753975.1	PLOT_30_	
33	482657.64	3753975.1	PLOT_6	0.008269932
33	482657.64	3753975.1	PLOT_9	0.01830714
33	482657.64	3753975.1	PLOT4	0.018366012
33	482657.64	3753975.1	PLOTS_1_	0.012174011

33	482657.64	3753975.1	PLOTS_5_	0.016193322
33	482657.64	3753975.1	PLOTS_7_	0.011468788
34	481494.96	3754633.66	PLOT_11	0.007812663
34	481494.96	3754633.66	PLOT_12	0.006811633
34	481494.96	3754633.66	PLOT_2	0.014249074
34	481494.96	3754633.66	PLOT_30_	
34	481494.96	3754633.66	PLOT_6	0.008209774
34	481494.96	3754633.66	PLOT_9	0.017141077
34	481494.96	3754633.66	PLOT4	0.016130343
34	481494.96	3754633.66	PLOTS_1_	0.010791086
34	481494.96	3754633.66	PLOTS_5_	0.014058191
34	481494.96	3754633.66	PLOTS_7_	0.010905076
35	481148.72	3756136.18	PLOT_11	0.010312495
35	481148.72	3756136.18	PLOT_12	0.008862824
35	481148.72	3756136.18	PLOT_2	0.016238212
35	481148.72	3756136.18	PLOT_30_	
35	481148.72	3756136.18	PLOT_6	0.011764507
35	481148.72	3756136.18	PLOT_9	0.019889415
35	481148.72	3756136.18	PLOT4	0.017235333
35	481148.72	3756136.18	PLOTS_1_	0.011234581
35	481148.72	3756136.18	PLOTS_5_	0.015890959
35	481148.72	3756136.18	PLOTS_7_	0.014005411
36	482346.53	3748872.86	PLOT_11	0.004851242
36	482346.53	3748872.86	PLOT_12	0.006447831
36	482346.53	3748872.86	PLOT_2	0.008252671
36	482346.53	3748872.86	PLOT_30_	
36	482346.53	3748872.86	PLOT_6	0.004377888
36	482346.53	3748872.86	PLOT_9	0.013446426
36	482346.53	3748872.86	PLOT4	0.011744637
36	482346.53	3748872.86	PLOTS_1_	0.007430794
36	482346.53	3748872.86	PLOTS_5_	0.008314317
36	482346.53	3748872.86	PLOTS_7_	0.006798188
37	480298.98	3751198.04	PLOT_11	0.002321056
37	480298.98	3751198.04	PLOT_12	0.002050675
37	480298.98	3751198.04	PLOT_2	0.003474591
37	480298.98	3751198.04	PLOT_30_	
37	480298.98	3751198.04	PLOT_6	0.00185122
37	480298.98	3751198.04	PLOT_9	0.005558341
37	480298.98	3751198.04	PLOT4	0.004474473
37	480298.98	3751198.04	PLOTS_1_	0.003472486
37	480298.98	3751198.04	PLOTS_5_	0.003846371
37	480298.98	3751198.04	PLOTS_7_	0.002565819
38	479598.7	3756506.31	PLOT_11	0.00830566
38	479598.7	3756506.31	PLOT_12	0.007661364
38	479598.7	3756506.31	PLOT_2	0.012487899
38	479598.7	3756506.31	PLOT_30_	
38	479598.7	3756506.31	PLOT_6	0.008826217

38	479598.7	3756506.31	PLOT_9	0.016713662
38	479598.7	3756506.31	PLOT4	0.01418767
38	479598.7	3756506.31	PLOTS_1_	0.009632345
38	479598.7	3756506.31	PLOTS_5_	0.013880327
38	479598.7	3756506.31	PLOTS_7_	0.011203431
39	478997.81	3753535.19	PLOT_11	0.001901422
39	478997.81	3753535.19	PLOT_12	0.001669159
39	478997.81	3753535.19	PLOT_2	0.00323557
39	478997.81	3753535.19	PLOT_30_	
39	478997.81	3753535.19	PLOT_6	0.001716632
39	478997.81	3753535.19	PLOT_9	0.00433423
39	478997.81	3753535.19	PLOT4	0.003559888
39	478997.81	3753535.19	PLOTS_1_	0.003033866
39	478997.81	3753535.19	PLOTS_5_	0.003131895
39	478997.81	3753535.19	PLOTS_7_	0.002478958
40	478978.31	3755233.1	PLOT_11	0.004201524
40	478978.31	3755233.1	PLOT_12	0.003490075
40	478978.31	3755233.1	PLOT_2	0.00661116
40	478978.31	3755233.1	PLOT_30_	
40	478978.31	3755233.1	PLOT_6	0.003664442
40	478978.31	3755233.1	PLOT_9	0.009278663
40	478978.31	3755233.1	PLOT4	0.007592656
40	478978.31	3755233.1	PLOTS_1_	0.005574029
40	478978.31	3755233.1	PLOTS_5_	0.006376562
40	478978.31	3755233.1	PLOTS_7_	0.005157075
41	479197.34	3754462.34	PLOT_11	0.002073091
41	479197.34	3754462.34	PLOT_12	0.001450918
41	479197.34	3754462.34	PLOT_2	0.00307167
41	479197.34	3754462.34	PLOT_30_	
41	479197.34	3754462.34	PLOT_6	0.001733267
41	479197.34	3754462.34	PLOT_9	0.004876329
41	479197.34	3754462.34	PLOT4	0.003881149
41	479197.34	3754462.34	PLOTS_1_	0.003119819
41	479197.34	3754462.34	PLOTS_5_	0.002552161
41	479197.34	3754462.34	PLOTS_7_	0.002334269
42	479493.25	3752408.79	PLOT_11	0.002203309
42	479493.25	3752408.79	PLOT_12	0.001704467
42	479493.25	3752408.79	PLOT_2	0.003242664
42	479493.25	3752408.79	PLOT_30_	
42	479493.25	3752408.79	PLOT_6	0.001721685
42	479493.25	3752408.79	PLOT_9	0.00534997
42	479493.25	3752408.79	PLOT4	0.004176271
42	479493.25	3752408.79	PLOTS_1_	0.00318469
42	479493.25	3752408.79	PLOTS_5_	0.003287942
42	479493.25	3752408.79	PLOTS_7_	0.002466705
43	480295.38	3752408.38	PLOT_11	0.002493229
43	480295.38	3752408.38	PLOT_12	0.0018287

43	480295.38	3752408.38	PLOT_2	0.00369123
43	480295.38	3752408.38	PLOT_30_	
43	480295.38	3752408.38	PLOT_6	0.001936818
43	480295.38	3752408.38	PLOT_9	0.006019632
43	480295.38	3752408.38	PLOT4	0.004869555
43	480295.38	3752408.38	PLOTS_1_	0.003671608
43	480295.38	3752408.38	PLOTS_5_	0.003835309
43	480295.38	3752408.38	PLOTS_7_	0.002807116
44	480287.9	3754227.46	PLOT_11	0.003082744
44	480287.9	3754227.46	PLOT_12	0.001773454
44	480287.9	3754227.46	PLOT_2	0.005190518
44	480287.9	3754227.46	PLOT_30_	
44	480287.9	3754227.46	PLOT_6	0.002853726
44	480287.9	3754227.46	PLOT_9	0.007332842
44	480287.9	3754227.46	PLOT4	0.006254053
44	480287.9	3754227.46	PLOTS_1_	0.004426622
44	480287.9	3754227.46	PLOTS_5_	0.004161691
44	480287.9	3754227.46	PLOTS_7_	0.00375293
45	494397.38	3753977.58	PLOT_11	0.010351744
45	494397.38	3753977.58	PLOT_12	0.013852985
45	494397.38	3753977.58	PLOT_2	0.008592191
45	494397.38	3753977.58	PLOT_30_	
45	494397.38	3753977.58	PLOT_6	0.007600038
45	494397.38	3753977.58	PLOT_9	0.0155386
45	494397.38	3753977.58	PLOT4	0.010236057
45	494397.38	3753977.58	PLOTS_1_	0.005811335
45	494397.38	3753977.58	PLOTS_5_	0.013006987
45	494397.38	3753977.58	PLOTS_7_	0.010134724
46	481108.51	3750699.02	PLOT_11	0.002469387
46	481108.51	3750699.02	PLOT_12	0.00219981
46	481108.51	3750699.02	PLOT_2	0.003677395
46	481108.51	3750699.02	PLOT_30_	
46	481108.51	3750699.02	PLOT_6	0.001919681
46	481108.51	3750699.02	PLOT_9	0.006098146
46	481108.51	3750699.02	PLOT4	0.005118336
46	481108.51	3750699.02	PLOTS_1_	0.003720962
46	481108.51	3750699.02	PLOTS_5_	0.004229395
46	481108.51	3750699.02	PLOTS_7_	0.002783378
47	486794.14	3756878.03	PLOT_11	0.010999949
47	486794.14	3756878.03	PLOT_12	0.007710216
47	486794.14	3756878.03	PLOT_2	0.01767846
47	486794.14	3756878.03	PLOT_30_	
47	486794.14	3756878.03	PLOT_6	0.015132443
47	486794.14	3756878.03	PLOT_9	0.030558656
47	486794.14	3756878.03	PLOT4	0.019182987
47	486794.14	3756878.03	PLOTS_1_	0.02000577
47	486794.14	3756878.03	PLOTS_5_	0.010962042

47	486794.14	3756878.03	PLOTS_7_	0.017263779
48	482344.95	3752065.79	PLOT_11	0.003326354
48	482344.95	3752065.79	PLOT_12	0.002705002
48	482344.95	3752065.79	PLOT_2	0.005650451
48	482344.95	3752065.79	PLOT_30_	
48	482344.95	3752065.79	PLOT_6	0.002793214
48	482344.95	3752065.79	PLOT_9	0.008516285
48	482344.95	3752065.79	PLOT4	0.007415851
48	482344.95	3752065.79	PLOTS_1_	0.005813447
48	482344.95	3752065.79	PLOTS_5_	0.00645794
48	482344.95	3752065.79	PLOTS_7_	0.0040692
49	487553.03	3745938.31	PLOT_11	0.001708937
49	487553.03	3745938.31	PLOT_12	0.001946062
49	487553.03	3745938.31	PLOT_2	0.00224728
49	487553.03	3745938.31	PLOT_30_	
49	487553.03	3745938.31	PLOT_6	0.001457888
49	487553.03	3745938.31	PLOT_9	0.005638178
49	487553.03	3745938.31	PLOT4	0.003423213
49	487553.03	3745938.31	PLOTS_1_	0.002239288
49	487553.03	3745938.31	PLOTS_5_	0.003468212
49	487553.03	3745938.31	PLOTS_7_	0.002145017
50	484553.03	3746938.31	PLOT_11	0.006383146
50	484553.03	3746938.31	PLOT_12	0.007661126
50	484553.03	3746938.31	PLOT_2	0.008815482
50	484553.03	3746938.31	PLOT_30_	
50	484553.03	3746938.31	PLOT_6	0.005130425
50	484553.03	3746938.31	PLOT_9	0.018802219
50	484553.03	3746938.31	PLOT4	0.012874309
50	484553.03	3746938.31	PLOTS_1_	0.009644328
50	484553.03	3746938.31	PLOTS_5_	0.009975931
50	484553.03	3746938.31	PLOTS_7_	0.007603682
51	485553.03	3746938.31	PLOT_11	0.002727256
51	485553.03	3746938.31	PLOT_12	0.002913036
51	485553.03	3746938.31	PLOT_2	0.002077035
51	485553.03	3746938.31	PLOT_30_	
51	485553.03	3746938.31	PLOT_6	0.001184753
51	485553.03	3746938.31	PLOT_9	0.004247777
51	485553.03	3746938.31	PLOT4	0.002969531
51	485553.03	3746938.31	PLOTS_1_	0.003100524
51	485553.03	3746938.31	PLOTS_5_	0.002775348
51	485553.03	3746938.31	PLOTS_7_	0.001699951
52	486553.03	3746938.31	PLOT_11	0.008007074
52	486553.03	3746938.31	PLOT_12	0.008822591
52	486553.03	3746938.31	PLOT_2	0.007452293
52	486553.03	3746938.31	PLOT_30_	
52	486553.03	3746938.31	PLOT_6	0.005230443
52	486553.03	3746938.31	PLOT_9	0.023062169

52	486553.03	3746938.31	PLOT4	0.012880074
52	486553.03	3746938.31	PLOTS_1_	0.011481107
52	486553.03	3746938.31	PLOTS_5_	0.011620594
52	486553.03	3746938.31	PLOTS_7_	0.007173659
53	487553.03	3746938.31	PLOT_11	0.001996656
53	487553.03	3746938.31	PLOT_12	0.003037586
53	487553.03	3746938.31	PLOT_2	0.002863887
53	487553.03	3746938.31	PLOT_30_	
53	487553.03	3746938.31	PLOT_6	0.001766449
53	487553.03	3746938.31	PLOT_9	0.007140175
53	487553.03	3746938.31	PLOT4	0.004473073
53	487553.03	3746938.31	PLOTS_1_	0.002547597
53	487553.03	3746938.31	PLOTS_5_	0.004460008
53	487553.03	3746938.31	PLOTS_7_	0.002633109
54	488553.03	3746938.31	PLOT_11	0.002696582
54	488553.03	3746938.31	PLOT_12	0.002026726
54	488553.03	3746938.31	PLOT_2	0.002146649
54	488553.03	3746938.31	PLOT_30_	
54	488553.03	3746938.31	PLOT_6	0.001593746
54	488553.03	3746938.31	PLOT_9	0.006481187
54	488553.03	3746938.31	PLOT4	0.003491271
54	488553.03	3746938.31	PLOTS_1_	0.002794733
54	488553.03	3746938.31	PLOTS_5_	0.004161179
54	488553.03	3746938.31	PLOTS_7_	0.002327435
55	489553.03	3746938.31	PLOT_11	0.003112548
55	489553.03	3746938.31	PLOT_12	0.003166903
55	489553.03	3746938.31	PLOT_2	0.002827054
55	489553.03	3746938.31	PLOT_30_	
55	489553.03	3746938.31	PLOT_6	0.001661113
55	489553.03	3746938.31	PLOT_9	0.005619829
55	489553.03	3746938.31	PLOT4	0.004055043
55	489553.03	3746938.31	PLOTS_1_	0.002033707
55	489553.03	3746938.31	PLOTS_5_	0.004542001
55	489553.03	3746938.31	PLOTS_7_	0.002242716
56	490553.03	3746938.31	PLOT_11	0.003065779
56	490553.03	3746938.31	PLOT_12	0.003102245
56	490553.03	3746938.31	PLOT_2	0.001982484
56	490553.03	3746938.31	PLOT_30_	
56	490553.03	3746938.31	PLOT_6	0.001586979
56	490553.03	3746938.31	PLOT_9	0.006200831
56	490553.03	3746938.31	PLOT4	0.003165365
56	490553.03	3746938.31	PLOTS_1_	0.002159956
56	490553.03	3746938.31	PLOTS_5_	0.002918541
56	490553.03	3746938.31	PLOTS_7_	0.002432575
57	491553.03	3746938.31	PLOT_11	0.003136941
57	491553.03	3746938.31	PLOT_12	0.002839044
57	491553.03	3746938.31	PLOT_2	0.002239261

57	491553.03	3746938.31	PLOT_30_	
57	491553.03	3746938.31	PLOT_6	0.001459276
57	491553.03	3746938.31	PLOT_9	0.004821457
57	491553.03	3746938.31	PLOT4	0.002531352
57	491553.03	3746938.31	PLOTS_1_	0.001581966
57	491553.03	3746938.31	PLOTS_5_	0.002738731
57	491553.03	3746938.31	PLOTS_7_	0.001820418
58	492553.03	3746938.31	PLOT_11	0.002473834
58	492553.03	3746938.31	PLOT_12	0.003102245
58	492553.03	3746938.31	PLOT_2	0.001623314
58	492553.03	3746938.31	PLOT_30_	
58	492553.03	3746938.31	PLOT_6	0.00140816
58	492553.03	3746938.31	PLOT_9	0.004054491
58	492553.03	3746938.31	PLOT4	0.002336693
58	492553.03	3746938.31	PLOTS_1_	0.001624455
58	492553.03	3746938.31	PLOTS_5_	0.002385974
58	492553.03	3746938.31	PLOTS_7_	0.002067375
59	482553.03	3747938.31	PLOT_11	0.005422325
59	482553.03	3747938.31	PLOT_12	0.007482323
59	482553.03	3747938.31	PLOT_2	0.010407823
59	482553.03	3747938.31	PLOT_30_	
59	482553.03	3747938.31	PLOT_6	0.004340747
59	482553.03	3747938.31	PLOT_9	0.016449449
59	482553.03	3747938.31	PLOT4	0.010582335
59	482553.03	3747938.31	PLOTS_1_	0.009082708
59	482553.03	3747938.31	PLOTS_5_	0.008443221
59	482553.03	3747938.31	PLOTS_7_	0.00663789
60	483553.03	3747938.31	PLOT_11	0.004902
60	483553.03	3747938.31	PLOT_12	0.005225084
60	483553.03	3747938.31	PLOT_2	0.006436906
60	483553.03	3747938.31	PLOT_30_	
60	483553.03	3747938.31	PLOT_6	0.003538778
60	483553.03	3747938.31	PLOT_9	0.013018834
60	483553.03	3747938.31	PLOT4	0.00965555
60	483553.03	3747938.31	PLOTS_1_	0.005761046
60	483553.03	3747938.31	PLOTS_5_	0.007804541
60	483553.03	3747938.31	PLOTS_7_	0.005335408
61	484553.03	3747938.31	PLOT_11	0.003071098
61	484553.03	3747938.31	PLOT_12	0.0030356
61	484553.03	3747938.31	PLOT_2	0.00216132
61	484553.03	3747938.31	PLOT_30_	
61	484553.03	3747938.31	PLOT_6	0.001744052
61	484553.03	3747938.31	PLOT_9	0.007194781
61	484553.03	3747938.31	PLOT4	0.00361748
61	484553.03	3747938.31	PLOTS_1_	0.002464122
61	484553.03	3747938.31	PLOTS_5_	0.00465257
61	484553.03	3747938.31	PLOTS_7_	0.002682363

62	485553.03	3747938.31	PLOT_11	0.003293387
62	485553.03	3747938.31	PLOT_12	0.003470097
62	485553.03	3747938.31	PLOT_2	0.002304292
62	485553.03	3747938.31	PLOT_30_	
62	485553.03	3747938.31	PLOT_6	0.001337424
62	485553.03	3747938.31	PLOT_9	0.006410878
62	485553.03	3747938.31	PLOT4	0.003755163
62	485553.03	3747938.31	PLOTS_1_	0.003796475
62	485553.03	3747938.31	PLOTS_5_	0.004566788
62	485553.03	3747938.31	PLOTS_7_	0.001923293
63	486553.03	3747938.31	PLOT_11	0.005244879
63	486553.03	3747938.31	PLOT_12	0.006025765
63	486553.03	3747938.31	PLOT_2	0.006041784
63	486553.03	3747938.31	PLOT_30_	
63	486553.03	3747938.31	PLOT_6	0.003432585
63	486553.03	3747938.31	PLOT_9	0.014129409
63	486553.03	3747938.31	PLOT4	0.009903043
63	486553.03	3747938.31	PLOTS_1_	0.006424948
63	486553.03	3747938.31	PLOTS_5_	0.008216398
63	486553.03	3747938.31	PLOTS_7_	0.00509573
64	487553.03	3747938.31	PLOT_11	0.009239108
64	487553.03	3747938.31	PLOT_12	0.010179699
64	487553.03	3747938.31	PLOT_2	0.011678444
64	487553.03	3747938.31	PLOT_30_	
64	487553.03	3747938.31	PLOT_6	0.007187028
64	487553.03	3747938.31	PLOT_9	0.026874591
64	487553.03	3747938.31	PLOT4	0.016954986
64	487553.03	3747938.31	PLOTS_1_	0.010532049
64	487553.03	3747938.31	PLOTS_5_	0.0127859
64	487553.03	3747938.31	PLOTS_7_	0.009295707
65	488553.03	3747938.31	PLOT_11	0.003203517
65	488553.03	3747938.31	PLOT_12	0.002804809
65	488553.03	3747938.31	PLOT_2	0.002882745
65	488553.03	3747938.31	PLOT_30_	
65	488553.03	3747938.31	PLOT_6	0.001901893
65	488553.03	3747938.31	PLOT_9	0.008254542
65	488553.03	3747938.31	PLOT4	0.005003936
65	488553.03	3747938.31	PLOTS_1_	0.003132817
65	488553.03	3747938.31	PLOTS_5_	0.004991602
65	488553.03	3747938.31	PLOTS_7_	0.002909061
66	489553.03	3747938.31	PLOT_11	0.003508018
66	489553.03	3747938.31	PLOT_12	0.003536543
66	489553.03	3747938.31	PLOT_2	0.00293773
66	489553.03	3747938.31	PLOT_30_	
66	489553.03	3747938.31	PLOT_6	0.001733681
66	489553.03	3747938.31	PLOT_9	0.007601554
66	489553.03	3747938.31	PLOT4	0.003672777

66	489553.03	3747938.31	PLOTS_1_	0.002508886
66	489553.03	3747938.31	PLOTS_5_	0.005053365
66	489553.03	3747938.31	PLOTS_7_	0.002324523
67	490553.03	3747938.31	PLOT_11	0.003429337
67	490553.03	3747938.31	PLOT_12	0.003791522
67	490553.03	3747938.31	PLOT_2	0.00250648
67	490553.03	3747938.31	PLOT_30_	
67	490553.03	3747938.31	PLOT_6	0.001957383
67	490553.03	3747938.31	PLOT_9	0.006089765
67	490553.03	3747938.31	PLOT4	0.003315081
67	490553.03	3747938.31	PLOTS_1_	0.001715405
67	490553.03	3747938.31	PLOTS_5_	0.00345715
67	490553.03	3747938.31	PLOTS_7_	0.002780224
68	491553.03	3747938.31	PLOT_11	0.003699449
68	491553.03	3747938.31	PLOT_12	0.003779091
68	491553.03	3747938.31	PLOT_2	0.001903486
68	491553.03	3747938.31	PLOT_30_	
68	491553.03	3747938.31	PLOT_6	0.001378081
68	491553.03	3747938.31	PLOT_9	0.005190384
68	491553.03	3747938.31	PLOT4	0.002580884
68	491553.03	3747938.31	PLOTS_1_	0.001795833
68	491553.03	3747938.31	PLOTS_5_	0.002673229
68	491553.03	3747938.31	PLOTS_7_	0.002180724
69	492553.03	3747938.31	PLOT_11	0.002713134
69	492553.03	3747938.31	PLOT_12	0.003145178
69	492553.03	3747938.31	PLOT_2	0.001860309
69	492553.03	3747938.31	PLOT_30_	
69	492553.03	3747938.31	PLOT_6	0.001569606
69	492553.03	3747938.31	PLOT_9	0.003933104
69	492553.03	3747938.31	PLOT4	0.002383203
69	492553.03	3747938.31	PLOTS_1_	0.001504909
69	492553.03	3747938.31	PLOTS_5_	0.002368357
69	492553.03	3747938.31	PLOTS_7_	0.001935708
70	493553.03	3747938.31	PLOT_11	0.002007798
70	493553.03	3747938.31	PLOT_12	0.002232377
70	493553.03	3747938.31	PLOT_2	0.001670414
70	493553.03	3747938.31	PLOT_30_	
70	493553.03	3747938.31	PLOT_6	0.001164395
70	493553.03	3747938.31	PLOT_9	0.003628576
70	493553.03	3747938.31	PLOT4	0.00184372
70	493553.03	3747938.31	PLOTS_1_	0.001247984
70	493553.03	3747938.31	PLOTS_5_	0.001962133
70	493553.03	3747938.31	PLOTS_7_	0.001647381
71	481553.03	3748938.31	PLOT_11	0.006388786
71	481553.03	3748938.31	PLOT_12	0.007308643
71	481553.03	3748938.31	PLOT_2	0.009858802
71	481553.03	3748938.31	PLOT_30_	

71	481553.03	3748938.31	PLOT_6	0.005334005
71	481553.03	3748938.31	PLOT_9	0.016762181
71	481553.03	3748938.31	PLOT4	0.013521027
71	481553.03	3748938.31	PLOTS_1_	0.009496713
71	481553.03	3748938.31	PLOTS_5_	0.010889678
71	481553.03	3748938.31	PLOTS_7_	0.007429068
72	482553.03	3748938.31	PLOT_11	0.005520401
72	482553.03	3748938.31	PLOT_12	0.007162964
72	482553.03	3748938.31	PLOT_2	0.007783265
72	482553.03	3748938.31	PLOT_30_	
72	482553.03	3748938.31	PLOT_6	0.004595503
72	482553.03	3748938.31	PLOT_9	0.014133202
72	482553.03	3748938.31	PLOT4	0.012023137
72	482553.03	3748938.31	PLOTS_1_	0.008791825
72	482553.03	3748938.31	PLOTS_5_	0.008412084
72	482553.03	3748938.31	PLOTS_7_	0.006871907
73	483553.03	3748938.31	PLOT_11	0.008344542
73	483553.03	3748938.31	PLOT_12	0.010958855
73	483553.03	3748938.31	PLOT_2	0.014011772
73	483553.03	3748938.31	PLOT_30_	
73	483553.03	3748938.31	PLOT_6	0.006059448
73	483553.03	3748938.31	PLOT_9	0.02453576
73	483553.03	3748938.31	PLOT4	0.018963646
73	483553.03	3748938.31	PLOTS_1_	0.01357286
73	483553.03	3748938.31	PLOTS_5_	0.013893847
73	483553.03	3748938.31	PLOTS_7_	0.009863948
74	484553.03	3748938.31	PLOT_11	0.007523018
74	484553.03	3748938.31	PLOT_12	0.009203074
74	484553.03	3748938.31	PLOT_2	0.010313272
74	484553.03	3748938.31	PLOT_30_	
74	484553.03	3748938.31	PLOT_6	0.005986703
74	484553.03	3748938.31	PLOT_9	0.021433139
74	484553.03	3748938.31	PLOT4	0.017006533
74	484553.03	3748938.31	PLOTS_1_	0.012258421
74	484553.03	3748938.31	PLOTS_5_	0.012653104
74	484553.03	3748938.31	PLOTS_7_	0.008973413
75	485553.03	3748938.31	PLOT_11	0.007035019
75	485553.03	3748938.31	PLOT_12	0.008268151
75	485553.03	3748938.31	PLOT_2	0.009183993
75	485553.03	3748938.31	PLOT_30_	
75	485553.03	3748938.31	PLOT_6	0.004371742
75	485553.03	3748938.31	PLOT_9	0.020860341
75	485553.03	3748938.31	PLOT4	0.014346341
75	485553.03	3748938.31	PLOTS_1_	0.010439921
75	485553.03	3748938.31	PLOTS_5_	0.011520728
75	485553.03	3748938.31	PLOTS_7_	0.006759448
76	486553.03	3748938.31	PLOT_11	0.007017779

76	486553.03	3748938.31	PLOT_12	0.008246426
76	486553.03	3748938.31	PLOT_2	0.008380134
76	486553.03	3748938.31	PLOT_30_	
76	486553.03	3748938.31	PLOT_6	0.004688636
76	486553.03	3748938.31	PLOT_9	0.019818576
76	486553.03	3748938.31	PLOT4	0.014148884
76	486553.03	3748938.31	PLOTS_1_	0.009114514
76	486553.03	3748938.31	PLOTS_5_	0.011023806
76	486553.03	3748938.31	PLOTS_7_	0.007148668
77	487553.03	3748938.31	PLOT_11	0.010678666
77	487553.03	3748938.31	PLOT_12	0.011874158
77	487553.03	3748938.31	PLOT_2	0.012518388
77	487553.03	3748938.31	PLOT_30_	
77	487553.03	3748938.31	PLOT_6	0.0080678
77	487553.03	3748938.31	PLOT_9	0.032478099
77	487553.03	3748938.31	PLOT4	0.020194173
77	487553.03	3748938.31	PLOTS_1_	0.011727308
77	487553.03	3748938.31	PLOTS_5_	0.016166743
77	487553.03	3748938.31	PLOTS_7_	0.010944868
78	488553.03	3748938.31	PLOT_11	0.00386832
78	488553.03	3748938.31	PLOT_12	0.004641928
78	488553.03	3748938.31	PLOT_2	0.00399233
78	488553.03	3748938.31	PLOT_30_	
78	488553.03	3748938.31	PLOT_6	0.002349622
78	488553.03	3748938.31	PLOT_9	0.010499421
78	488553.03	3748938.31	PLOT4	0.006446193
78	488553.03	3748938.31	PLOTS_1_	0.002872237
78	488553.03	3748938.31	PLOTS_5_	0.006419786
78	488553.03	3748938.31	PLOTS_7_	0.003644434
79	489553.03	3748938.31	PLOT_11	0.004293182
79	489553.03	3748938.31	PLOT_12	0.004284164
79	489553.03	3748938.31	PLOT_2	0.002698577
79	489553.03	3748938.31	PLOT_30_	
79	489553.03	3748938.31	PLOT_6	0.001934041
79	489553.03	3748938.31	PLOT_9	0.009850138
79	489553.03	3748938.31	PLOT4	0.004095621
79	489553.03	3748938.31	PLOTS_1_	0.002366064
79	489553.03	3748938.31	PLOTS_5_	0.005011268
79	489553.03	3748938.31	PLOTS_7_	0.00329909
80	490553.03	3748938.31	PLOT_11	0.004346141
80	490553.03	3748938.31	PLOT_12	0.004890473
80	490553.03	3748938.31	PLOT_2	0.002532298
80	490553.03	3748938.31	PLOT_30_	
80	490553.03	3748938.31	PLOT_6	0.00220877
80	490553.03	3748938.31	PLOT_9	0.006222003
80	490553.03	3748938.31	PLOT4	0.002865429
80	490553.03	3748938.31	PLOTS_1_	0.002036632

80	490553.03	3748938.31	PLOTS_5_	0.003264998
80	490553.03	3748938.31	PLOTS_7_	0.002806954
81	491553.03	3748938.31	PLOT_11	0.003894823
81	491553.03	3748938.31	PLOT_12	0.004938927
81	491553.03	3748938.31	PLOT_2	0.002065051
81	491553.03	3748938.31	PLOT_30_	
81	491553.03	3748938.31	PLOT_6	0.001780513
81	491553.03	3748938.31	PLOT_9	0.004318527
81	491553.03	3748938.31	PLOT4	0.002667356
81	491553.03	3748938.31	PLOTS_1_	0.001640094
81	491553.03	3748938.31	PLOTS_5_	0.003069159
81	491553.03	3748938.31	PLOTS_7_	0.002452187
82	492553.03	3748938.31	PLOT_11	0.002689887
82	492553.03	3748938.31	PLOT_12	0.002852667
82	492553.03	3748938.31	PLOT_2	0.001859119
82	492553.03	3748938.31	PLOT_30_	
82	492553.03	3748938.31	PLOT_6	0.001290503
82	492553.03	3748938.31	PLOT_9	0.004088367
82	492553.03	3748938.31	PLOT4	0.002118135
82	492553.03	3748938.31	PLOTS_1_	0.001366068
82	492553.03	3748938.31	PLOTS_5_	0.002664984
82	492553.03	3748938.31	PLOTS_7_	0.001796357
83	493553.03	3748938.31	PLOT_11	0.002381718
83	493553.03	3748938.31	PLOT_12	0.002680814
83	493553.03	3748938.31	PLOT_2	0.001491754
83	493553.03	3748938.31	PLOT_30_	
83	493553.03	3748938.31	PLOT_6	0.001347854
83	493553.03	3748938.31	PLOT_9	0.00315661
83	493553.03	3748938.31	PLOT4	0.002638476
83	493553.03	3748938.31	PLOTS_1_	0.001741564
83	493553.03	3748938.31	PLOTS_5_	0.00294215
83	493553.03	3748938.31	PLOTS_7_	0.001830648
84	494553.03	3748938.31	PLOT_11	0.001837459
84	494553.03	3748938.31	PLOT_12	0.001961591
84	494553.03	3748938.31	PLOT_2	0.001676582
84	494553.03	3748938.31	PLOT_30_	
84	494553.03	3748938.31	PLOT_6	0.001161027
84	494553.03	3748938.31	PLOT_9	0.004011529
84	494553.03	3748938.31	PLOT4	0.002529057
84	494553.03	3748938.31	PLOTS_1_	0.001646634
84	494553.03	3748938.31	PLOTS_5_	0.002190544
84	494553.03	3748938.31	PLOTS_7_	0.001320639
85	480553.03	3749938.31	PLOT_11	0.002207161
85	480553.03	3749938.31	PLOT_12	0.001947372
85	480553.03	3749938.31	PLOT_2	0.00315503
85	480553.03	3749938.31	PLOT_30_	
85	480553.03	3749938.31	PLOT_6	0.001656681

85	480553.03	3749938.31	PLOT_9	0.005493765
85	480553.03	3749938.31	PLOT4	0.004178734
85	480553.03	3749938.31	PLOTS_1_	0.003195292
85	480553.03	3749938.31	PLOTS_5_	0.003581803
85	480553.03	3749938.31	PLOTS_7_	0.002398566
86	481553.03	3749938.31	PLOT_11	0.002995259
86	481553.03	3749938.31	PLOT_12	0.002729785
86	481553.03	3749938.31	PLOT_2	0.004369828
86	481553.03	3749938.31	PLOT_30_	
86	481553.03	3749938.31	PLOT_6	0.002307842
86	481553.03	3749938.31	PLOT_9	0.007698946
86	481553.03	3749938.31	PLOT4	0.00604182
86	481553.03	3749938.31	PLOTS_1_	0.004353911
86	481553.03	3749938.31	PLOTS_5_	0.005211665
86	481553.03	3749938.31	PLOTS_7_	0.003353884
87	482553.03	3749938.31	PLOT_11	0.007950585
87	482553.03	3749938.31	PLOT_12	0.009477156
87	482553.03	3749938.31	PLOT_2	0.013435787
87	482553.03	3749938.31	PLOT_30_	
87	482553.03	3749938.31	PLOT_6	0.006864343
87	482553.03	3749938.31	PLOT_9	0.021211271
87	482553.03	3749938.31	PLOT4	0.018955866
87	482553.03	3749938.31	PLOTS_1_	0.012252328
87	482553.03	3749938.31	PLOTS_5_	0.014477934
87	482553.03	3749938.31	PLOTS_7_	0.010272862
88	483553.03	3749938.31	PLOT_11	0.008673069
88	483553.03	3749938.31	PLOT_12	0.01085869
88	483553.03	3749938.31	PLOT_2	0.014204971
88	483553.03	3749938.31	PLOT_30_	
88	483553.03	3749938.31	PLOT_6	0.007516065
88	483553.03	3749938.31	PLOT_9	0.024830849
88	483553.03	3749938.31	PLOT4	0.021638501
88	483553.03	3749938.31	PLOTS_1_	0.01542146
88	483553.03	3749938.31	PLOTS_5_	0.015688769
88	483553.03	3749938.31	PLOTS_7_	0.011303314
89	484553.03	3749938.31	PLOT_11	0.009292754
89	484553.03	3749938.31	PLOT_12	0.013280315
89	484553.03	3749938.31	PLOT_2	0.014974067
89	484553.03	3749938.31	PLOT_30_	
89	484553.03	3749938.31	PLOT_6	0.008325865
89	484553.03	3749938.31	PLOT_9	0.027246959
89	484553.03	3749938.31	PLOT4	0.025398869
89	484553.03	3749938.31	PLOTS_1_	0.018650548
89	484553.03	3749938.31	PLOTS_5_	0.015976946
89	484553.03	3749938.31	PLOTS_7_	0.012522695
90	485553.03	3749938.31	PLOT_11	0.009245206
90	485553.03	3749938.31	PLOT_12	0.014021264

90	485553.03	3749938.31	PLOT_2	0.015224015
90	485553.03	3749938.31	PLOT_30_	
90	485553.03	3749938.31	PLOT_6	0.007260718
90	485553.03	3749938.31	PLOT_9	0.032862729
90	485553.03	3749938.31	PLOT4	0.024506505
90	485553.03	3749938.31	PLOTS_1_	0.021340601
90	485553.03	3749938.31	PLOTS_5_	0.015394088
90	485553.03	3749938.31	PLOTS_7_	0.011324504
91	486553.03	3749938.31	PLOT_11	0.010892243
91	486553.03	3749938.31	PLOT_12	0.015350451
91	486553.03	3749938.31	PLOT_2	0.015236615
91	486553.03	3749938.31	PLOT_30_	
91	486553.03	3749938.31	PLOT_6	0.008800156
91	486553.03	3749938.31	PLOT_9	0.036506478
91	486553.03	3749938.31	PLOT4	0.027376915
91	486553.03	3749938.31	PLOTS_1_	0.019823547
91	486553.03	3749938.31	PLOTS_5_	0.018983881
91	486553.03	3749938.31	PLOTS_7_	0.014250549
92	487553.03	3749938.31	PLOT_11	0.010968816
92	487553.03	3749938.31	PLOT_12	0.013761995
92	487553.03	3749938.31	PLOT_2	0.01334899
92	487553.03	3749938.31	PLOT_30_	
92	487553.03	3749938.31	PLOT_6	0.006772894
92	487553.03	3749938.31	PLOT_9	0.030940022
92	487553.03	3749938.31	PLOT4	0.023012141
92	487553.03	3749938.31	PLOTS_1_	0.013157556
92	487553.03	3749938.31	PLOTS_5_	0.017486098
92	487553.03	3749938.31	PLOTS_7_	0.010286045
93	488553.03	3749938.31	PLOT_11	0.004752111
93	488553.03	3749938.31	PLOT_12	0.006346157
93	488553.03	3749938.31	PLOT_2	0.004891312
93	488553.03	3749938.31	PLOT_30_	
93	488553.03	3749938.31	PLOT_6	0.002972624
93	488553.03	3749938.31	PLOT_9	0.013057209
93	488553.03	3749938.31	PLOT4	0.006659154
93	488553.03	3749938.31	PLOTS_1_	0.003213449
93	488553.03	3749938.31	PLOTS_5_	0.009240816
93	488553.03	3749938.31	PLOTS_7_	0.004513335
94	489553.03	3749938.31	PLOT_11	0.005735537
94	489553.03	3749938.31	PLOT_12	0.005651002
94	489553.03	3749938.31	PLOT_2	0.003213937
94	489553.03	3749938.31	PLOT_30_	
94	489553.03	3749938.31	PLOT_6	0.00283585
94	489553.03	3749938.31	PLOT_9	0.011037462
94	489553.03	3749938.31	PLOT4	0.003519535
94	489553.03	3749938.31	PLOTS_1_	0.002376179
94	489553.03	3749938.31	PLOTS_5_	0.004698047

94	489553.03	3749938.31	PLOTS_7_	0.004428859
95	490553.03	3749938.31	PLOT_11	0.00595182
95	490553.03	3749938.31	PLOT_12	0.006475394
95	490553.03	3749938.31	PLOT_2	0.002323017
95	490553.03	3749938.31	PLOT_30_	
95	490553.03	3749938.31	PLOT_6	0.002135493
95	490553.03	3749938.31	PLOT_9	0.005589129
95	490553.03	3749938.31	PLOT4	0.003558769
95	490553.03	3749938.31	PLOTS_1_	0.001899741
95	490553.03	3749938.31	PLOTS_5_	0.004520645
95	490553.03	3749938.31	PLOTS_7_	0.002879784
96	491553.03	3749938.31	PLOT_11	0.003623473
96	491553.03	3749938.31	PLOT_12	0.006002095
96	491553.03	3749938.31	PLOT_2	0.002100651
96	491553.03	3749938.31	PLOT_30_	
96	491553.03	3749938.31	PLOT_6	0.001778534
96	491553.03	3749938.31	PLOT_9	0.005551989
96	491553.03	3749938.31	PLOT4	0.002686777
96	491553.03	3749938.31	PLOTS_1_	0.001831783
96	491553.03	3749938.31	PLOTS_5_	0.003743279
96	491553.03	3749938.31	PLOTS_7_	0.002042465
97	492553.03	3749938.31	PLOT_11	0.003322136
97	492553.03	3749938.31	PLOT_12	0.003994671
97	492553.03	3749938.31	PLOT_2	0.001708525
97	492553.03	3749938.31	PLOT_30_	
97	492553.03	3749938.31	PLOT_6	0.001538758
97	492553.03	3749938.31	PLOT_9	0.004183554
97	492553.03	3749938.31	PLOT4	0.003155067
97	492553.03	3749938.31	PLOTS_1_	0.001994833
97	492553.03	3749938.31	PLOTS_5_	0.002851451
97	492553.03	3749938.31	PLOTS_7_	0.002084117
98	493553.03	3749938.31	PLOT_11	0.002527297
98	493553.03	3749938.31	PLOT_12	0.002860054
98	493553.03	3749938.31	PLOT_2	0.002196964
98	493553.03	3749938.31	PLOT_30_	
98	493553.03	3749938.31	PLOT_6	0.001326846
98	493553.03	3749938.31	PLOT_9	0.004772496
98	493553.03	3749938.31	PLOT4	0.002416952
98	493553.03	3749938.31	PLOTS_1_	0.001589969
98	493553.03	3749938.31	PLOTS_5_	0.002593285
98	493553.03	3749938.31	PLOTS_7_	0.001607226
99	494553.03	3749938.31	PLOT_11	0.002795896
99	494553.03	3749938.31	PLOT_12	0.002795555
99	494553.03	3749938.31	PLOT_2	0.002083556
99	494553.03	3749938.31	PLOT_30_	
99	494553.03	3749938.31	PLOT_6	0.00114584
99	494553.03	3749938.31	PLOT_9	0.003731879

99	494553.03	3749938.31	PLOT4	0.002182611
99	494553.03	3749938.31	PLOTS_1_	0.001447715
99	494553.03	3749938.31	PLOTS_5_	0.002480565
99	494553.03	3749938.31	PLOTS_7_	0.001970849
100	495553.03	3749938.31	PLOT_11	0.009054096
100	495553.03	3749938.31	PLOT_12	0.011795122
100	495553.03	3749938.31	PLOT_2	0.007721891
100	495553.03	3749938.31	PLOT_30_	
100	495553.03	3749938.31	PLOT_6	0.005898623
100	495553.03	3749938.31	PLOT_9	0.014847413
100	495553.03	3749938.31	PLOT4	0.008880719
100	495553.03	3749938.31	PLOTS_1_	0.005173105
100	495553.03	3749938.31	PLOTS_5_	0.011862525
100	495553.03	3749938.31	PLOTS_7_	0.007246853
101	480553.03	3750938.31	PLOT_11	0.002344624
101	480553.03	3750938.31	PLOT_12	0.002042096
101	480553.03	3750938.31	PLOT_2	0.00342172
101	480553.03	3750938.31	PLOT_30_	
101	480553.03	3750938.31	PLOT_6	0.001858311
101	480553.03	3750938.31	PLOT_9	0.005634826
101	480553.03	3750938.31	PLOT4	0.004556691
101	480553.03	3750938.31	PLOTS_1_	0.003477807
101	480553.03	3750938.31	PLOTS_5_	0.003952331
101	480553.03	3750938.31	PLOTS_7_	0.002709295
102	481553.03	3750938.31	PLOT_11	0.002677599
102	481553.03	3750938.31	PLOT_12	0.002370074
102	481553.03	3750938.31	PLOT_2	0.004050311
102	481553.03	3750938.31	PLOT_30_	
102	481553.03	3750938.31	PLOT_6	0.002088365
102	481553.03	3750938.31	PLOT_9	0.006646508
102	481553.03	3750938.31	PLOT4	0.005697948
102	481553.03	3750938.31	PLOTS_1_	0.004171687
102	481553.03	3750938.31	PLOTS_5_	0.004672748
102	481553.03	3750938.31	PLOTS_7_	0.003033126
103	482553.03	3750938.31	PLOT_11	0.003093657
103	482553.03	3750938.31	PLOT_12	0.0028201
103	482553.03	3750938.31	PLOT_2	0.004888404
103	482553.03	3750938.31	PLOT_30_	
103	482553.03	3750938.31	PLOT_6	0.002492985
103	482553.03	3750938.31	PLOT_9	0.008302356
103	482553.03	3750938.31	PLOT4	0.006907487
103	482553.03	3750938.31	PLOTS_1_	0.005127122
103	482553.03	3750938.31	PLOTS_5_	0.005663981
103	482553.03	3750938.31	PLOTS_7_	0.003611355
104	483553.03	3750938.31	PLOT_11	0.003741449
104	483553.03	3750938.31	PLOT_12	0.003449207
104	483553.03	3750938.31	PLOT_2	0.005943664

104	483553.03	3750938.31	PLOT_30_	
104	483553.03	3750938.31	PLOT_6	0.002893379
104	483553.03	3750938.31	PLOT_9	0.010246765
104	483553.03	3750938.31	PLOT4	0.008972284
104	483553.03	3750938.31	PLOTS_1_	0.00658024
104	483553.03	3750938.31	PLOTS_5_	0.007417676
104	483553.03	3750938.31	PLOTS_7_	0.004396711
105	484553.03	3750938.31	PLOT_11	0.010853407
105	484553.03	3750938.31	PLOT_12	0.014725633
105	484553.03	3750938.31	PLOT_2	0.019530882
105	484553.03	3750938.31	PLOT_30_	
105	484553.03	3750938.31	PLOT_6	0.009119
105	484553.03	3750938.31	PLOT_9	0.031685815
105	484553.03	3750938.31	PLOT4	0.029549843
105	484553.03	3750938.31	PLOTS_1_	0.022603006
105	484553.03	3750938.31	PLOTS_5_	0.021977961
105	484553.03	3750938.31	PLOTS_7_	0.015005292
106	485553.03	3750938.31	PLOT_11	0.008043389
106	485553.03	3750938.31	PLOT_12	0.013394937
106	485553.03	3750938.31	PLOT_2	0.012921088
106	485553.03	3750938.31	PLOT_30_	
106	485553.03	3750938.31	PLOT_6	0.006519025
106	485553.03	3750938.31	PLOT_9	0.026556742
106	485553.03	3750938.31	PLOT4	0.023187938
106	485553.03	3750938.31	PLOTS_1_	0.020335487
106	485553.03	3750938.31	PLOTS_5_	0.018521937
106	485553.03	3750938.31	PLOTS_7_	0.011225753
107	486553.03	3750938.31	PLOT_11	0.008965053
107	486553.03	3750938.31	PLOT_12	0.014487494
107	486553.03	3750938.31	PLOT_2	0.01274234
107	486553.03	3750938.31	PLOT_30_	
107	486553.03	3750938.31	PLOT_6	0.006680353
107	486553.03	3750938.31	PLOT_9	0.031112576
107	486553.03	3750938.31	PLOT4	0.023160794
107	486553.03	3750938.31	PLOTS_1_	0.023545158
107	486553.03	3750938.31	PLOTS_5_	0.019682122
107	486553.03	3750938.31	PLOTS_7_	0.010958253
108	487553.03	3750938.31	PLOT_11	0.015670673
108	487553.03	3750938.31	PLOT_12	0.021518917
108	487553.03	3750938.31	PLOT_2	0.017246461
108	487553.03	3750938.31	PLOT_30_	
108	487553.03	3750938.31	PLOT_6	0.010724889
108	487553.03	3750938.31	PLOT_9	0.045703804
108	487553.03	3750938.31	PLOT4	0.029713943
108	487553.03	3750938.31	PLOTS_1_	0.023755573
108	487553.03	3750938.31	PLOTS_5_	0.02348317
108	487553.03	3750938.31	PLOTS_7_	0.015849607

109	488553.03	3750938.31	PLOT_11	0.006592
109	488553.03	3750938.31	PLOT_12	0.010232959
109	488553.03	3750938.31	PLOT_2	0.005077594
109	488553.03	3750938.31	PLOT_30_	
109	488553.03	3750938.31	PLOT_6	0.003978085
109	488553.03	3750938.31	PLOT_9	0.019194523
109	488553.03	3750938.31	PLOT4	0.00537708
109	488553.03	3750938.31	PLOTS_1_	0.003536138
109	488553.03	3750938.31	PLOTS_5_	0.01281376
109	488553.03	3750938.31	PLOTS_7_	0.005820103
110	489553.03	3750938.31	PLOT_11	0.008106526
110	489553.03	3750938.31	PLOT_12	0.009436725
110	489553.03	3750938.31	PLOT_2	0.002904818
110	489553.03	3750938.31	PLOT_30_	
110	489553.03	3750938.31	PLOT_6	0.003892457
110	489553.03	3750938.31	PLOT_9	0.009102051
110	489553.03	3750938.31	PLOT4	0.005368684
110	489553.03	3750938.31	PLOTS_1_	0.002595895
110	489553.03	3750938.31	PLOTS_5_	0.007884946
110	489553.03	3750938.31	PLOTS_7_	0.005228651
111	490553.03	3750938.31	PLOT_11	0.00740174
111	490553.03	3750938.31	PLOT_12	0.009598291
111	490553.03	3750938.31	PLOT_2	0.002790793
111	490553.03	3750938.31	PLOT_30_	
111	490553.03	3750938.31	PLOT_6	0.002341585
111	490553.03	3750938.31	PLOT_9	0.008237252
111	490553.03	3750938.31	PLOT4	0.003826971
111	490553.03	3750938.31	PLOTS_1_	0.002371792
111	490553.03	3750938.31	PLOTS_5_	0.004434504
111	490553.03	3750938.31	PLOTS_7_	0.002786411
112	491553.03	3750938.31	PLOT_11	0.004922863
112	491553.03	3750938.31	PLOT_12	0.006561539
112	491553.03	3750938.31	PLOT_2	0.002223973
112	491553.03	3750938.31	PLOT_30_	
112	491553.03	3750938.31	PLOT_6	0.001768813
112	491553.03	3750938.31	PLOT_9	0.0055242
112	491553.03	3750938.31	PLOT4	0.003187976
112	491553.03	3750938.31	PLOTS_1_	0.001987318
112	491553.03	3750938.31	PLOTS_5_	0.004039957
112	491553.03	3750938.31	PLOTS_7_	0.002668816
113	492553.03	3750938.31	PLOT_11	0.003552403
113	492553.03	3750938.31	PLOT_12	0.004371857
113	492553.03	3750938.31	PLOT_2	0.002547278
113	492553.03	3750938.31	PLOT_30_	
113	492553.03	3750938.31	PLOT_6	0.00150735
113	492553.03	3750938.31	PLOT_9	0.004709862
113	492553.03	3750938.31	PLOT4	0.002545792

113	492553.03	3750938.31	PLOTS_1_	0.001646634
113	492553.03	3750938.31	PLOTS_5_	0.004539491
113	492553.03	3750938.31	PLOTS_7_	0.001842861
114	493553.03	3750938.31	PLOT_11	0.013411333
114	493553.03	3750938.31	PLOT_12	0.01636572
114	493553.03	3750938.31	PLOT_2	0.00730117
114	493553.03	3750938.31	PLOT_30_	
114	493553.03	3750938.31	PLOT_6	0.005411833
114	493553.03	3750938.31	PLOT_9	0.015874269
114	493553.03	3750938.31	PLOT4	0.00912894
114	493553.03	3750938.31	PLOTS_1_	0.005271285
114	493553.03	3750938.31	PLOTS_5_	0.012626985
114	493553.03	3750938.31	PLOTS_7_	0.00795582
115	494553.03	3750938.31	PLOT_11	0.01307657
115	494553.03	3750938.31	PLOT_12	0.017585489
115	494553.03	3750938.31	PLOT_2	0.007884381
115	494553.03	3750938.31	PLOT_30_	
115	494553.03	3750938.31	PLOT_6	0.006668563
115	494553.03	3750938.31	PLOT_9	0.016978315
115	494553.03	3750938.31	PLOT4	0.010315309
115	494553.03	3750938.31	PLOTS_1_	0.005987018
115	494553.03	3750938.31	PLOTS_5_	0.013687356
115	494553.03	3750938.31	PLOTS_7_	0.008809637
116	495553.03	3750938.31	PLOT_11	0.013069601
116	495553.03	3750938.31	PLOT_12	0.017275225
116	495553.03	3750938.31	PLOT_2	0.009014057
116	495553.03	3750938.31	PLOT_30_	
116	495553.03	3750938.31	PLOT_6	0.007150448
116	495553.03	3750938.31	PLOT_9	0.017341861
116	495553.03	3750938.31	PLOT4	0.012167592
116	495553.03	3750938.31	PLOTS_1_	0.006577681
116	495553.03	3750938.31	PLOTS_5_	0.0150611
116	495553.03	3750938.31	PLOTS_7_	0.009880124
117	479553.03	3751938.31	PLOT_11	0.002216744
117	479553.03	3751938.31	PLOT_12	0.001955872
117	479553.03	3751938.31	PLOT_2	0.003178998
117	479553.03	3751938.31	PLOT_30_	
117	479553.03	3751938.31	PLOT_6	0.001704016
117	479553.03	3751938.31	PLOT_9	0.005175211
117	479553.03	3751938.31	PLOT4	0.00413228
117	479553.03	3751938.31	PLOTS_1_	0.00306689
117	479553.03	3751938.31	PLOTS_5_	0.003476407
117	479553.03	3751938.31	PLOTS_7_	0.002388416
118	480553.03	3751938.31	PLOT_11	0.002481629
118	480553.03	3751938.31	PLOT_12	0.002099089
118	480553.03	3751938.31	PLOT_2	0.003760006
118	480553.03	3751938.31	PLOT_30_	

118	480553.03	3751938.31	PLOT_6	0.001960988
118	480553.03	3751938.31	PLOT_9	0.00610485
118	480553.03	3751938.31	PLOT4	0.004958378
118	480553.03	3751938.31	PLOTS_1_	0.003728883
118	480553.03	3751938.31	PLOTS_5_	0.004259918
118	480553.03	3751938.31	PLOTS_7_	0.002837323
119	481553.03	3751938.31	PLOT_11	0.00289246
119	481553.03	3751938.31	PLOT_12	0.002346641
119	481553.03	3751938.31	PLOT_2	0.0047479
119	481553.03	3751938.31	PLOT_30_	
119	481553.03	3751938.31	PLOT_6	0.002398729
119	481553.03	3751938.31	PLOT_9	0.007230069
119	481553.03	3751938.31	PLOT4	0.006067621
119	481553.03	3751938.31	PLOTS_1_	0.004743299
119	481553.03	3751938.31	PLOTS_5_	0.005287256
119	481553.03	3751938.31	PLOTS_7_	0.003340256
120	482553.03	3751938.31	PLOT_11	0.003426861
120	482553.03	3751938.31	PLOT_12	0.002816247
120	482553.03	3751938.31	PLOT_2	0.005774169
120	482553.03	3751938.31	PLOT_30_	
120	482553.03	3751938.31	PLOT_6	0.002774924
120	482553.03	3751938.31	PLOT_9	0.008720862
120	482553.03	3751938.31	PLOT4	0.007759387
120	482553.03	3751938.31	PLOTS_1_	0.005912926
120	482553.03	3751938.31	PLOTS_5_	0.006688758
120	482553.03	3751938.31	PLOTS_7_	0.004222461
121	483553.03	3751938.31	PLOT_11	0.004098954
121	483553.03	3751938.31	PLOT_12	0.003545439
121	483553.03	3751938.31	PLOT_2	0.007289847
121	483553.03	3751938.31	PLOT_30_	
121	483553.03	3751938.31	PLOT_6	0.003384837
121	483553.03	3751938.31	PLOT_9	0.010965829
121	483553.03	3751938.31	PLOT4	0.010693713
121	483553.03	3751938.31	PLOTS_1_	0.007914503
121	483553.03	3751938.31	PLOTS_5_	0.00870067
121	483553.03	3751938.31	PLOTS_7_	0.005079028
122	484553.03	3751938.31	PLOT_11	0.005029835
122	484553.03	3751938.31	PLOT_12	0.004618377
122	484553.03	3751938.31	PLOT_2	0.009076797
122	484553.03	3751938.31	PLOT_30_	
122	484553.03	3751938.31	PLOT_6	0.004086937
122	484553.03	3751938.31	PLOT_9	0.014896992
122	484553.03	3751938.31	PLOT4	0.015261653
122	484553.03	3751938.31	PLOTS_1_	0.010722762
122	484553.03	3751938.31	PLOTS_5_	0.012380291
122	484553.03	3751938.31	PLOTS_7_	0.00637504
123	485553.03	3751938.31	PLOT_11	0.013689699

123	485553.03	3751938.31	PLOT_12	0.017700428
123	485553.03	3751938.31	PLOT_2	0.023964729
123	485553.03	3751938.31	PLOT_30_	
123	485553.03	3751938.31	PLOT_6	0.01076466
123	485553.03	3751938.31	PLOT_9	0.040389386
123	485553.03	3751938.31	PLOT4	0.044167632
123	485553.03	3751938.31	PLOTS_1_	0.033729455
123	485553.03	3751938.31	PLOTS_5_	0.035403054
123	485553.03	3751938.31	PLOTS_7_	0.018095113
124	486553.03	3751938.31	PLOT_11	0.011543612
124	486553.03	3751938.31	PLOT_12	0.02111524
124	486553.03	3751938.31	PLOT_2	0.016616239
124	486553.03	3751938.31	PLOT_30_	
124	486553.03	3751938.31	PLOT_6	0.008059851
124	486553.03	3751938.31	PLOT_9	0.041341786
124	486553.03	3751938.31	PLOT4	0.032562134
124	486553.03	3751938.31	PLOTS_1_	0.026133011
124	486553.03	3751938.31	PLOTS_5_	0.03842146
124	486553.03	3751938.31	PLOTS_7_	0.013895742
125	487553.03	3751938.31	PLOT_11	0.018373536
125	487553.03	3751938.31	PLOT_12	0.038430856
125	487553.03	3751938.31	PLOT_2	0.022559507
125	487553.03	3751938.31	PLOT_30_	
125	487553.03	3751938.31	PLOT_6	0.012993847
125	487553.03	3751938.31	PLOT_9	0.059878822
125	487553.03	3751938.31	PLOT4	0.044396656
125	487553.03	3751938.31	PLOTS_1_	0.023095977
125	487553.03	3751938.31	PLOTS_5_	0.044502317
125	487553.03	3751938.31	PLOTS_7_	0.019793123
126	488553.03	3751938.31	PLOT_11	0.011722525
126	488553.03	3751938.31	PLOT_12	0.019717622
126	488553.03	3751938.31	PLOT_2	0.004369035
126	488553.03	3751938.31	PLOT_30_	
126	488553.03	3751938.31	PLOT_6	0.005519946
126	488553.03	3751938.31	PLOT_9	0.032574963
126	488553.03	3751938.31	PLOT4	0.009608928
126	488553.03	3751938.31	PLOTS_1_	0.003851394
126	488553.03	3751938.31	PLOTS_5_	0.022630418
126	488553.03	3751938.31	PLOTS_7_	0.008541934
127	489553.03	3751938.31	PLOT_11	0.01426399
127	489553.03	3751938.31	PLOT_12	0.024025377
127	489553.03	3751938.31	PLOT_2	0.004298893
127	489553.03	3751938.31	PLOT_30_	
127	489553.03	3751938.31	PLOT_6	0.004572072
127	489553.03	3751938.31	PLOT_9	0.015008499
127	489553.03	3751938.31	PLOT4	0.004716313
127	489553.03	3751938.31	PLOTS_1_	0.00268652

127	489553.03	3751938.31	PLOTS_5_	0.017658738
127	489553.03	3751938.31	PLOTS_7_	0.004781361
128	490553.03	3751938.31	PLOT_11	0.009741046
128	490553.03	3751938.31	PLOT_12	0.022550272
128	490553.03	3751938.31	PLOT_2	0.003204905
128	490553.03	3751938.31	PLOT_30_	
128	490553.03	3751938.31	PLOT_6	0.002569719
128	490553.03	3751938.31	PLOT_9	0.007703445
128	490553.03	3751938.31	PLOT4	0.004714354
128	490553.03	3751938.31	PLOTS_1_	0.002177138
128	490553.03	3751938.31	PLOTS_5_	0.011436328
128	490553.03	3751938.31	PLOTS_7_	0.004187199
129	491553.03	3751938.31	PLOT_11	0.006357836
129	491553.03	3751938.31	PLOT_12	0.015873634
129	491553.03	3751938.31	PLOT_2	0.002541683
129	491553.03	3751938.31	PLOT_30_	
129	491553.03	3751938.31	PLOT_6	0.002130057
129	491553.03	3751938.31	PLOT_9	0.008355905
129	491553.03	3751938.31	PLOT4	0.004923677
129	491553.03	3751938.31	PLOTS_1_	0.002367039
129	491553.03	3751938.31	PLOTS_5_	0.007331023
129	491553.03	3751938.31	PLOTS_7_	0.002791102
130	492553.03	3751938.31	PLOT_11	0.005766304
130	492553.03	3751938.31	PLOT_12	0.013259226
130	492553.03	3751938.31	PLOT_2	0.002170705
130	492553.03	3751938.31	PLOT_30_	
130	492553.03	3751938.31	PLOT_6	0.002045227
130	492553.03	3751938.31	PLOT_9	0.008144623
130	492553.03	3751938.31	PLOT4	0.004618312
130	492553.03	3751938.31	PLOTS_1_	0.002377113
130	492553.03	3751938.31	PLOTS_5_	0.005769326
130	492553.03	3751938.31	PLOTS_7_	0.002703391
131	493553.03	3751938.31	PLOT_11	0.019429225
131	493553.03	3751938.31	PLOT_12	0.02430633
131	493553.03	3751938.31	PLOT_2	0.012659994
131	493553.03	3751938.31	PLOT_30_	
131	493553.03	3751938.31	PLOT_6	0.010171116
131	493553.03	3751938.31	PLOT_9	0.021847675
131	493553.03	3751938.31	PLOT4	0.015850444
131	493553.03	3751938.31	PLOTS_1_	0.007796581
131	493553.03	3751938.31	PLOTS_5_	0.018825991
131	493553.03	3751938.31	PLOTS_7_	0.014145571
132	494553.03	3751938.31	PLOT_11	0.016262297
132	494553.03	3751938.31	PLOT_12	0.020789129
132	494553.03	3751938.31	PLOT_2	0.01083903
132	494553.03	3751938.31	PLOT_30_	
132	494553.03	3751938.31	PLOT_6	0.009276959

132	494553.03	3751938.31	PLOT_9	0.019939611
132	494553.03	3751938.31	PLOT4	0.013471383
132	494553.03	3751938.31	PLOTS_1_	0.007331801
132	494553.03	3751938.31	PLOTS_5_	0.015953388
132	494553.03	3751938.31	PLOTS_7_	0.011422203
133	495553.03	3751938.31	PLOT_11	0.013118616
133	495553.03	3751938.31	PLOT_12	0.014695012
133	495553.03	3751938.31	PLOT_2	0.01007901
133	495553.03	3751938.31	PLOT_30_	
133	495553.03	3751938.31	PLOT_6	0.007634017
133	495553.03	3751938.31	PLOT_9	0.016574277
133	495553.03	3751938.31	PLOT4	0.010582671
133	495553.03	3751938.31	PLOTS_1_	0.006529546
133	495553.03	3751938.31	PLOTS_5_	0.012889197
133	495553.03	3751938.31	PLOTS_7_	0.010585451
134	479553.03	3752938.31	PLOT_11	0.002124811
134	479553.03	3752938.31	PLOT_12	0.001764479
134	479553.03	3752938.31	PLOT_2	0.003396738
134	479553.03	3752938.31	PLOT_30_	
134	479553.03	3752938.31	PLOT_6	0.001818393
134	479553.03	3752938.31	PLOT_9	0.00509802
134	479553.03	3752938.31	PLOT4	0.004323301
134	479553.03	3752938.31	PLOTS_1_	0.00330972
134	479553.03	3752938.31	PLOTS_5_	0.003427447
134	479553.03	3752938.31	PLOTS_7_	0.002589193
135	480553.03	3752938.31	PLOT_11	0.002466773
135	480553.03	3752938.31	PLOT_12	0.002058181
135	480553.03	3752938.31	PLOT_2	0.004129089
135	480553.03	3752938.31	PLOT_30_	
135	480553.03	3752938.31	PLOT_6	0.0021318
135	480553.03	3752938.31	PLOT_9	0.006203389
135	480553.03	3752938.31	PLOT4	0.005388777
135	480553.03	3752938.31	PLOTS_1_	0.004077366
135	480553.03	3752938.31	PLOTS_5_	0.004204198
135	480553.03	3752938.31	PLOTS_7_	0.003063859
136	481553.03	3752938.31	PLOT_11	0.00289842
136	481553.03	3752938.31	PLOT_12	0.002431594
136	481553.03	3752938.31	PLOT_2	0.005129364
136	481553.03	3752938.31	PLOT_30_	
136	481553.03	3752938.31	PLOT_6	0.002515381
136	481553.03	3752938.31	PLOT_9	0.007646192
136	481553.03	3752938.31	PLOT4	0.006816818
136	481553.03	3752938.31	PLOTS_1_	0.005089467
136	481553.03	3752938.31	PLOTS_5_	0.005291609
136	481553.03	3752938.31	PLOTS_7_	0.003685317
137	482553.03	3752938.31	PLOT_11	0.003465514
137	482553.03	3752938.31	PLOT_12	0.00292503

137	482553.03	3752938.31	PLOT_2	0.006672579
137	482553.03	3752938.31	PLOT_30_	
137	482553.03	3752938.31	PLOT_6	0.003122221
137	482553.03	3752938.31	PLOT_9	0.009600746
137	482553.03	3752938.31	PLOT4	0.008792625
137	482553.03	3752938.31	PLOTS_1_	0.006616474
137	482553.03	3752938.31	PLOTS_5_	0.006925824
137	482553.03	3752938.31	PLOTS_7_	0.004564692
138	483553.03	3752938.31	PLOT_11	0.004305333
138	483553.03	3752938.31	PLOT_12	0.003584163
138	483553.03	3752938.31	PLOT_2	0.009334102
138	483553.03	3752938.31	PLOT_30_	
138	483553.03	3752938.31	PLOT_6	0.004080673
138	483553.03	3752938.31	PLOT_9	0.012226815
138	483553.03	3752938.31	PLOT4	0.012147835
138	483553.03	3752938.31	PLOTS_1_	0.009503171
138	483553.03	3752938.31	PLOTS_5_	0.009518751
138	483553.03	3752938.31	PLOTS_7_	0.005865718
139	484553.03	3752938.31	PLOT_11	0.005601926
139	484553.03	3752938.31	PLOT_12	0.00453807
139	484553.03	3752938.31	PLOT_2	0.013289378
139	484553.03	3752938.31	PLOT_30_	
139	484553.03	3752938.31	PLOT_6	0.005097923
139	484553.03	3752938.31	PLOT_9	0.016187354
139	484553.03	3752938.31	PLOT4	0.018469554
139	484553.03	3752938.31	PLOTS_1_	0.015573096
139	484553.03	3752938.31	PLOTS_5_	0.014497242
139	484553.03	3752938.31	PLOTS_7_	0.008191454
140	485553.03	3752938.31	PLOT_11	0.007485603
140	485553.03	3752938.31	PLOT_12	0.005953561
140	485553.03	3752938.31	PLOT_2	0.017059121
140	485553.03	3752938.31	PLOT_30_	
140	485553.03	3752938.31	PLOT_6	0.006557348
140	485553.03	3752938.31	PLOT_9	0.023109984
140	485553.03	3752938.31	PLOT4	0.035077814
140	485553.03	3752938.31	PLOTS_1_	0.025237856
140	485553.03	3752938.31	PLOTS_5_	0.02616362
140	485553.03	3752938.31	PLOTS_7_	0.011261096
141	486553.03	3752938.31	PLOT_11	0.0105639
141	486553.03	3752938.31	PLOT_12	0.008218466
141	486553.03	3752938.31	PLOT_2	0.01947127
141	486553.03	3752938.31	PLOT_30_	
141	486553.03	3752938.31	PLOT_6	0.007501705
141	486553.03	3752938.31	PLOT_9	0.039569754
141	486553.03	3752938.31	PLOT4	0.071709207
141	486553.03	3752938.31	PLOTS_1_	0.020413966
141	486553.03	3752938.31	PLOTS_5_	0.093356428

141	486553.03	3752938.31	PLOTS_7_	0.014102302
142	487553.03	3752938.31	PLOT_11	0.016412553
142	487553.03	3752938.31	PLOT_12	0.011682765
142	487553.03	3752938.31	PLOT_2	0.015470746
142	487553.03	3752938.31	PLOT_30_	
142	487553.03	3752938.31	PLOT_6	0.007638775
142	487553.03	3752938.31	PLOT_9	0.12899802
142	487553.03	3752938.31	PLOT4	0.028622946
142	487553.03	3752938.31	PLOTS_1_	0.007568538
142	487553.03	3752938.31	PLOTS_5_	0.046706125
142	487553.03	3752938.31	PLOTS_7_	0.014852839
143	488553.03	3752938.31	PLOT_11	0.054165336
143	488553.03	3752938.31	PLOT_12	0.023283833
143	488553.03	3752938.31	PLOT_2	0.007693693
143	488553.03	3752938.31	PLOT_30_	
143	488553.03	3752938.31	PLOT_6	0.008748803
143	488553.03	3752938.31	PLOT_9	0.057179268
143	488553.03	3752938.31	PLOT4	0.01793746
143	488553.03	3752938.31	PLOTS_1_	0.006422755
143	488553.03	3752938.31	PLOTS_5_	0.036871542
143	488553.03	3752938.31	PLOTS_7_	0.014705401
144	489553.03	3752938.31	PLOT_11	0.068698109
144	489553.03	3752938.31	PLOT_12	0.035267409
144	489553.03	3752938.31	PLOT_2	0.003919368
144	489553.03	3752938.31	PLOT_30_	
144	489553.03	3752938.31	PLOT_6	0.004292881
144	489553.03	3752938.31	PLOT_9	0.026402449
144	489553.03	3752938.31	PLOT4	0.012216621
144	489553.03	3752938.31	PLOTS_1_	0.005356182
144	489553.03	3752938.31	PLOTS_5_	0.018720491
144	489553.03	3752938.31	PLOTS_7_	0.00793006
145	490553.03	3752938.31	PLOT_11	0.05316279
145	490553.03	3752938.31	PLOT_12	0.033226743
145	490553.03	3752938.31	PLOT_2	0.003927387
145	490553.03	3752938.31	PLOT_30_	
145	490553.03	3752938.31	PLOT_6	0.003381793
145	490553.03	3752938.31	PLOT_9	0.01707112
145	490553.03	3752938.31	PLOT4	0.008113892
145	490553.03	3752938.31	PLOTS_1_	0.004288065
145	490553.03	3752938.31	PLOTS_5_	0.011729217
145	490553.03	3752938.31	PLOTS_7_	0.004018045
146	491553.03	3752938.31	PLOT_11	0.031662308
146	491553.03	3752938.31	PLOT_12	0.055116849
146	491553.03	3752938.31	PLOT_2	0.01740666
146	491553.03	3752938.31	PLOT_30_	
146	491553.03	3752938.31	PLOT_6	0.016501571
146	491553.03	3752938.31	PLOT_9	0.028668148

146	491553.03	3752938.31	PLOT4	0.019676575
146	491553.03	3752938.31	PLOTS_1_	0.00979178
146	491553.03	3752938.31	PLOTS_5_	0.027779859
146	491553.03	3752938.31	PLOTS_7_	0.021195812
147	492553.03	3752938.31	PLOT_11	0.02035419
147	492553.03	3752938.31	PLOT_12	0.033748973
147	492553.03	3752938.31	PLOT_2	0.010648739
147	492553.03	3752938.31	PLOT_30_	
147	492553.03	3752938.31	PLOT_6	0.009372574
147	492553.03	3752938.31	PLOT_9	0.02091336
147	492553.03	3752938.31	PLOT4	0.013124881
147	492553.03	3752938.31	PLOTS_1_	0.006726637
147	492553.03	3752938.31	PLOTS_5_	0.01659002
147	492553.03	3752938.31	PLOTS_7_	0.012751334
148	493553.03	3752938.31	PLOT_11	0.018570011
148	493553.03	3752938.31	PLOT_12	0.029618631
148	493553.03	3752938.31	PLOT_2	0.013738693
148	493553.03	3752938.31	PLOT_30_	
148	493553.03	3752938.31	PLOT_6	0.012193916
148	493553.03	3752938.31	PLOT_9	0.020455774
148	493553.03	3752938.31	PLOT4	0.014442607
148	493553.03	3752938.31	PLOTS_1_	0.007336391
148	493553.03	3752938.31	PLOTS_5_	0.019378223
148	493553.03	3752938.31	PLOTS_7_	0.016298837
149	494553.03	3752938.31	PLOT_11	0.014856715
149	494553.03	3752938.31	PLOT_12	0.021951627
149	494553.03	3752938.31	PLOT_2	0.011714264
149	494553.03	3752938.31	PLOT_30_	
149	494553.03	3752938.31	PLOT_6	0.010638818
149	494553.03	3752938.31	PLOT_9	0.017977382
149	494553.03	3752938.31	PLOT4	0.012369975
149	494553.03	3752938.31	PLOTS_1_	0.006575488
149	494553.03	3752938.31	PLOTS_5_	0.015729177
149	494553.03	3752938.31	PLOTS_7_	0.013643164
150	495553.03	3752938.31	PLOT_11	0.011287393
150	495553.03	3752938.31	PLOT_12	0.015416499
150	495553.03	3752938.31	PLOT_2	0.008315191
150	495553.03	3752938.31	PLOT_30_	
150	495553.03	3752938.31	PLOT_6	0.007812217
150	495553.03	3752938.31	PLOT_9	0.014814949
150	495553.03	3752938.31	PLOT4	0.009639375
150	495553.03	3752938.31	PLOTS_1_	0.005268888
150	495553.03	3752938.31	PLOTS_5_	0.011535221
150	495553.03	3752938.31	PLOTS_7_	0.011394907
151	479553.03	3753938.31	PLOT_11	0.002218165
151	479553.03	3753938.31	PLOT_12	0.001642668
151	479553.03	3753938.31	PLOT_2	0.00355469

151	479553.03	3753938.31	PLOT_30_	
151	479553.03	3753938.31	PLOT_6	0.001940866
151	479553.03	3753938.31	PLOT_9	0.005221172
151	479553.03	3753938.31	PLOT4	0.004226363
151	479553.03	3753938.31	PLOTS_1_	0.003212312
151	479553.03	3753938.31	PLOTS_5_	0.002902306
151	479553.03	3753938.31	PLOTS_7_	0.002629995
152	480553.03	3753938.31	PLOT_11	0.002854082
152	480553.03	3753938.31	PLOT_12	0.001930731
152	480553.03	3753938.31	PLOT_2	0.004835621
152	480553.03	3753938.31	PLOT_30_	
152	480553.03	3753938.31	PLOT_6	0.002462965
152	480553.03	3753938.31	PLOT_9	0.006740548
152	480553.03	3753938.31	PLOT4	0.005701922
152	480553.03	3753938.31	PLOTS_1_	0.004307319
152	480553.03	3753938.31	PLOTS_5_	0.003420482
152	480553.03	3753938.31	PLOTS_7_	0.003506337
153	481553.03	3753938.31	PLOT_11	0.006092447
153	481553.03	3753938.31	PLOT_12	0.005295263
153	481553.03	3753938.31	PLOT_2	0.01136633
153	481553.03	3753938.31	PLOT_30_	
153	481553.03	3753938.31	PLOT_6	0.005834683
153	481553.03	3753938.31	PLOT_9	0.014216391
153	481553.03	3753938.31	PLOT4	0.013184152
153	481553.03	3753938.31	PLOTS_1_	0.008995334
153	481553.03	3753938.31	PLOTS_5_	0.011111585
153	481553.03	3753938.31	PLOTS_7_	0.008216486
154	482553.03	3753938.31	PLOT_11	0.007311138
154	482553.03	3753938.31	PLOT_12	0.006367763
154	482553.03	3753938.31	PLOT_2	0.015182202
154	482553.03	3753938.31	PLOT_30_	
154	482553.03	3753938.31	PLOT_6	0.007512342
154	482553.03	3753938.31	PLOT_9	0.017194802
154	482553.03	3753938.31	PLOT4	0.017013473
154	482553.03	3753938.31	PLOTS_1_	0.011431956
154	482553.03	3753938.31	PLOTS_5_	0.014902287
154	482553.03	3753938.31	PLOTS_7_	0.010535833
155	483553.03	3753938.31	PLOT_11	0.012696322
155	483553.03	3753938.31	PLOT_12	0.013094006
155	483553.03	3753938.31	PLOT_2	0.028438624
155	483553.03	3753938.31	PLOT_30_	
155	483553.03	3753938.31	PLOT_6	0.015495223
155	483553.03	3753938.31	PLOT_9	0.027140391
155	483553.03	3753938.31	PLOT4	0.029279178
155	483553.03	3753938.31	PLOTS_1_	0.018096281
155	483553.03	3753938.31	PLOTS_5_	0.032594775
155	483553.03	3753938.31	PLOTS_7_	0.020685357

156	484553.03	3753938.31	PLOT_11	0.013622067
156	484553.03	3753938.31	PLOT_12	0.01264259
156	484553.03	3753938.31	PLOT_2	0.036321904
156	484553.03	3753938.31	PLOT_30_	
156	484553.03	3753938.31	PLOT_6	0.016007128
156	484553.03	3753938.31	PLOT_9	0.030561214
156	484553.03	3753938.31	PLOT4	0.036648519
156	484553.03	3753938.31	PLOTS_1_	0.027575811
156	484553.03	3753938.31	PLOTS_5_	0.03513316
156	484553.03	3753938.31	PLOTS_7_	0.023816911
157	485553.03	3753938.31	PLOT_11	0.01500156
157	485553.03	3753938.31	PLOT_12	0.012691917
157	485553.03	3753938.31	PLOT_2	0.056434146
157	485553.03	3753938.31	PLOT_30_	
157	485553.03	3753938.31	PLOT_6	0.018350427
157	485553.03	3753938.31	PLOT_9	0.036908399
157	485553.03	3753938.31	PLOT4	0.05545993
157	485553.03	3753938.31	PLOTS_1_	0.094786488
157	485553.03	3753938.31	PLOTS_5_	0.038553027
157	485553.03	3753938.31	PLOTS_7_	0.030466649
158	486553.03	3753938.31	PLOT_11	0.018938612
158	486553.03	3753938.31	PLOT_12	0.0151504
158	486553.03	3753938.31	PLOT_2	0.064164452
158	486553.03	3753938.31	PLOT_30_	
158	486553.03	3753938.31	PLOT_6	0.019900295
158	486553.03	3753938.31	PLOT_9	0.057503821
158	486553.03	3753938.31	PLOT4	0.137971541
158	486553.03	3753938.31	PLOTS_1_	0.039254983
158	486553.03	3753938.31	PLOTS_5_	0.031804657
158	486553.03	3753938.31	PLOTS_7_	0.045518244
159	487553.03	3753938.31	PLOT_11	0.025145825
159	487553.03	3753938.31	PLOT_12	0.015785583
159	487553.03	3753938.31	PLOT_2	0.045992662
159	487553.03	3753938.31	PLOT_30_	
159	487553.03	3753938.31	PLOT_6	0.020176797
159	487553.03	3753938.31	PLOT_9	0.162664149
159	487553.03	3753938.31	PLOT4	0.057467471
159	487553.03	3753938.31	PLOTS_1_	0.017544248
159	487553.03	3753938.31	PLOTS_5_	0.024364857
159	487553.03	3753938.31	PLOTS_7_	0.04449511
160	488553.03	3753938.31	PLOT_11	0.060081942
160	488553.03	3753938.31	PLOT_12	0.018574386
160	488553.03	3753938.31	PLOT_2	0.027166329
160	488553.03	3753938.31	PLOT_30_	
160	488553.03	3753938.31	PLOT_6	0.026938966
160	488553.03	3753938.31	PLOT_9	0.08225051
160	488553.03	3753938.31	PLOT4	0.032744032

160	488553.03	3753938.31	PLOTS_1_	0.012627093
160	488553.03	3753938.31	PLOTS_5_	0.024764167
160	488553.03	3753938.31	PLOTS_7_	0.050095674
161	489553.03	3753938.31	PLOT_11	0.038684626
161	489553.03	3753938.31	PLOT_12	0.018950024
161	489553.03	3753938.31	PLOT_2	0.021133797
161	489553.03	3753938.31	PLOT_30_	
161	489553.03	3753938.31	PLOT_6	0.023966785
161	489553.03	3753938.31	PLOT_9	0.041367104
161	489553.03	3753938.31	PLOT4	0.023513676
161	489553.03	3753938.31	PLOTS_1_	0.010283004
161	489553.03	3753938.31	PLOTS_5_	0.022547401
161	489553.03	3753938.31	PLOTS_7_	0.035600755
162	490553.03	3753938.31	PLOT_11	0.023348853
162	490553.03	3753938.31	PLOT_12	0.019116673
162	490553.03	3753938.31	PLOT_2	0.020259797
162	490553.03	3753938.31	PLOT_30_	
162	490553.03	3753938.31	PLOT_6	0.025018074
162	490553.03	3753938.31	PLOT_9	0.034378841
162	490553.03	3753938.31	PLOT4	0.023436551
162	490553.03	3753938.31	PLOTS_1_	0.011195016
162	490553.03	3753938.31	PLOTS_5_	0.024915656
162	490553.03	3753938.31	PLOTS_7_	0.034928264
163	491553.03	3753938.31	PLOT_11	0.016076185
163	491553.03	3753938.31	PLOT_12	0.018154148
163	491553.03	3753938.31	PLOT_2	0.014456725
163	491553.03	3753938.31	PLOT_30_	
163	491553.03	3753938.31	PLOT_6	0.018659047
163	491553.03	3753938.31	PLOT_9	0.025329015
163	491553.03	3753938.31	PLOT4	0.017154962
163	491553.03	3753938.31	PLOTS_1_	0.008608951
163	491553.03	3753938.31	PLOTS_5_	0.018773138
163	491553.03	3753938.31	PLOTS_7_	0.020579287
164	492553.03	3753938.31	PLOT_11	0.014584539
164	492553.03	3753938.31	PLOT_12	0.019378643
164	492553.03	3753938.31	PLOT_2	0.012146176
164	492553.03	3753938.31	PLOT_30_	
164	492553.03	3753938.31	PLOT_6	0.015165211
164	492553.03	3753938.31	PLOT_9	0.02188402
164	492553.03	3753938.31	PLOT4	0.014342367
164	492553.03	3753938.31	PLOTS_1_	0.007681219
164	492553.03	3753938.31	PLOTS_5_	0.018882479
164	492553.03	3753938.31	PLOTS_7_	0.014641548
165	493553.03	3753938.31	PLOT_11	0.01199039
165	493553.03	3753938.31	PLOT_12	0.015592323
165	493553.03	3753938.31	PLOT_2	0.010137256
165	493553.03	3753938.31	PLOT_30_	

165	493553.03	3753938.31	PLOT_6	0.010829782
165	493553.03	3753938.31	PLOT_9	0.018305552
165	493553.03	3753938.31	PLOT4	0.011968624
165	493553.03	3753938.31	PLOTS_1_	0.006700558
165	493553.03	3753938.31	PLOTS_5_	0.013843197
165	493553.03	3753938.31	PLOTS_7_	0.012490951
166	494553.03	3753938.31	PLOT_11	0.011402114
166	494553.03	3753938.31	PLOT_12	0.016001044
166	494553.03	3753938.31	PLOT_2	0.009367808
166	494553.03	3753938.31	PLOT_30_	
166	494553.03	3753938.31	PLOT_6	0.007817417
166	494553.03	3753938.31	PLOT_9	0.015707802
166	494553.03	3753938.31	PLOT4	0.010906786
166	494553.03	3753938.31	PLOTS_1_	0.006361093
166	494553.03	3753938.31	PLOTS_5_	0.014057474
166	494553.03	3753938.31	PLOTS_7_	0.010517716
167	495553.03	3753938.31	PLOT_11	0.009542829
167	495553.03	3753938.31	PLOT_12	0.013698012
167	495553.03	3753938.31	PLOT_2	0.007154497
167	495553.03	3753938.31	PLOT_30_	
167	495553.03	3753938.31	PLOT_6	0.005881338
167	495553.03	3753938.31	PLOT_9	0.011948664
167	495553.03	3753938.31	PLOT4	0.008238423
167	495553.03	3753938.31	PLOTS_1_	0.005181635
167	495553.03	3753938.31	PLOTS_5_	0.010924554
167	495553.03	3753938.31	PLOTS_7_	0.008619698
168	479553.03	3754938.31	PLOT_11	0.004618683
168	479553.03	3754938.31	PLOT_12	0.003782625
168	479553.03	3754938.31	PLOT_2	0.007564335
168	479553.03	3754938.31	PLOT_30_	
168	479553.03	3754938.31	PLOT_6	0.004262122
168	479553.03	3754938.31	PLOT_9	0.010394442
168	479553.03	3754938.31	PLOT4	0.008765816
168	479553.03	3754938.31	PLOTS_1_	0.006223024
168	479553.03	3754938.31	PLOTS_5_	0.007445433
168	479553.03	3754938.31	PLOTS_7_	0.0057036
169	480553.03	3754938.31	PLOT_11	0.007203111
169	480553.03	3754938.31	PLOT_12	0.00630096
169	480553.03	3754938.31	PLOT_2	0.012369247
169	480553.03	3754938.31	PLOT_30_	
169	480553.03	3754938.31	PLOT_6	0.007246004
169	480553.03	3754938.31	PLOT_9	0.015429034
169	480553.03	3754938.31	PLOT4	0.01423793
169	480553.03	3754938.31	PLOTS_1_	0.009353363
169	480553.03	3754938.31	PLOTS_5_	0.011900884
169	480553.03	3754938.31	PLOTS_7_	0.009144144
170	481553.03	3754938.31	PLOT_11	0.008835888

170	481553.03	3754938.31	PLOT_12	0.007632729
170	481553.03	3754938.31	PLOT_2	0.01660192
170	481553.03	3754938.31	PLOT_30_	
170	481553.03	3754938.31	PLOT_6	0.009580113
170	481553.03	3754938.31	PLOT_9	0.019238632
170	481553.03	3754938.31	PLOT4	0.01794871
170	481553.03	3754938.31	PLOTS_1_	0.011778246
170	481553.03	3754938.31	PLOTS_5_	0.016502343
170	481553.03	3754938.31	PLOTS_7_	0.012251111
171	482553.03	3754938.31	PLOT_11	0.011322103
171	482553.03	3754938.31	PLOT_12	0.009915784
171	482553.03	3754938.31	PLOT_2	0.022027184
171	482553.03	3754938.31	PLOT_30_	
171	482553.03	3754938.31	PLOT_6	0.013032465
171	482553.03	3754938.31	PLOT_9	0.023088988
171	482553.03	3754938.31	PLOT4	0.023467166
171	482553.03	3754938.31	PLOTS_1_	0.014989826
171	482553.03	3754938.31	PLOTS_5_	0.021439608
171	482553.03	3754938.31	PLOTS_7_	0.017150511
172	483553.03	3754938.31	PLOT_11	0.013114581
172	483553.03	3754938.31	PLOT_12	0.012553109
172	483553.03	3754938.31	PLOT_2	0.029806132
172	483553.03	3754938.31	PLOT_30_	
172	483553.03	3754938.31	PLOT_6	0.016843609
172	483553.03	3754938.31	PLOT_9	0.028286165
172	483553.03	3754938.31	PLOT4	0.028952265
172	483553.03	3754938.31	PLOTS_1_	0.018822373
172	483553.03	3754938.31	PLOTS_5_	0.027602559
172	483553.03	3754938.31	PLOTS_7_	0.022558709
173	484553.03	3754938.31	PLOT_11	0.016299254
173	484553.03	3754938.31	PLOT_12	0.013791703
173	484553.03	3754938.31	PLOT_2	0.040129494
173	484553.03	3754938.31	PLOT_30_	
173	484553.03	3754938.31	PLOT_6	0.021922681
173	484553.03	3754938.31	PLOT_9	0.033205103
173	484553.03	3754938.31	PLOT4	0.038831354
173	484553.03	3754938.31	PLOTS_1_	0.02796134
173	484553.03	3754938.31	PLOTS_5_	0.026020838
173	484553.03	3754938.31	PLOTS_7_	0.028515211
174	485553.03	3754938.31	PLOT_11	0.018773134
174	485553.03	3754938.31	PLOT_12	0.014883823
174	485553.03	3754938.31	PLOT_2	0.060832172
174	485553.03	3754938.31	PLOT_30_	
174	485553.03	3754938.31	PLOT_6	0.03329424
174	485553.03	3754938.31	PLOT_9	0.043666061
174	485553.03	3754938.31	PLOT4	0.047797929
174	485553.03	3754938.31	PLOTS_1_	0.09096235

174	485553.03	3754938.31	PLOTS_5_	0.024101263
174	485553.03	3754938.31	PLOTS_7_	0.042966699
175	486553.03	3754938.31	PLOT_11	0.024146168
175	486553.03	3754938.31	PLOT_12	0.015541685
175	486553.03	3754938.31	PLOT_2	0.081951034
175	486553.03	3754938.31	PLOT_30_	
175	486553.03	3754938.31	PLOT_6	0.054497123
175	486553.03	3754938.31	PLOT_9	0.060313118
175	486553.03	3754938.31	PLOT4	0.05344002
175	486553.03	3754938.31	PLOTS_1_	0.035054171
175	486553.03	3754938.31	PLOTS_5_	0.021764043
175	486553.03	3754938.31	PLOTS_7_	0.064993925
176	487553.03	3754938.31	PLOT_11	0.031192696
176	487553.03	3754938.31	PLOT_12	0.016066378
176	487553.03	3754938.31	PLOT_2	0.064595306
176	487553.03	3754938.31	PLOT_30_	
176	487553.03	3754938.31	PLOT_6	0.06485285
176	487553.03	3754938.31	PLOT_9	0.072445187
176	487553.03	3754938.31	PLOT4	0.053692775
176	487553.03	3754938.31	PLOTS_1_	0.020713705
176	487553.03	3754938.31	PLOTS_5_	0.020195996
176	487553.03	3754938.31	PLOTS_7_	0.082681297
177	488553.03	3754938.31	PLOT_11	0.028277814
177	488553.03	3754938.31	PLOT_12	0.015134116
177	488553.03	3754938.31	PLOT_2	0.038688584
177	488553.03	3754938.31	PLOT_30_	
177	488553.03	3754938.31	PLOT_6	0.091874193
177	488553.03	3754938.31	PLOT_9	0.065148778
177	488553.03	3754938.31	PLOT4	0.036078702
177	488553.03	3754938.31	PLOTS_1_	0.015948877
177	488553.03	3754938.31	PLOTS_5_	0.018763664
177	488553.03	3754938.31	PLOTS_7_	0.059671053
178	489553.03	3754938.31	PLOT_11	0.018301733
178	489553.03	3754938.31	PLOT_12	0.013226182
178	489553.03	3754938.31	PLOT_2	0.028213174
178	489553.03	3754938.31	PLOT_30_	
178	489553.03	3754938.31	PLOT_6	0.033430867
178	489553.03	3754938.31	PLOT_9	0.042837078
178	489553.03	3754938.31	PLOT4	0.025713078
178	489553.03	3754938.31	PLOTS_1_	0.013065916
178	489553.03	3754938.31	PLOTS_5_	0.019307907
178	489553.03	3754938.31	PLOTS_7_	0.038417859
179	490553.03	3754938.31	PLOT_11	0.014095669
179	490553.03	3754938.31	PLOT_12	0.010770758
179	490553.03	3754938.31	PLOT_2	0.019525683
179	490553.03	3754938.31	PLOT_30_	
179	490553.03	3754938.31	PLOT_6	0.022155838

179	490553.03	3754938.31	PLOT_9	0.0286715
179	490553.03	3754938.31	PLOT4	0.020016753
179	490553.03	3754938.31	PLOTS_1_	0.009451746
179	490553.03	3754938.31	PLOTS_5_	0.016866367
179	490553.03	3754938.31	PLOTS_7_	0.027336916
180	491553.03	3754938.31	PLOT_11	0.010087547
180	491553.03	3754938.31	PLOT_12	0.010333918
180	491553.03	3754938.31	PLOT_2	0.013451912
180	491553.03	3754938.31	PLOT_30_	
180	491553.03	3754938.31	PLOT_6	0.015891805
180	491553.03	3754938.31	PLOT_9	0.020418458
180	491553.03	3754938.31	PLOT4	0.016315767
180	491553.03	3754938.31	PLOTS_1_	0.007717168
180	491553.03	3754938.31	PLOTS_5_	0.013036947
180	491553.03	3754938.31	PLOTS_7_	0.017796071
181	492553.03	3754938.31	PLOT_11	0.008866151
181	492553.03	3754938.31	PLOT_12	0.010360448
181	492553.03	3754938.31	PLOT_2	0.010963585
181	492553.03	3754938.31	PLOT_30_	
181	492553.03	3754938.31	PLOT_6	0.011914695
181	492553.03	3754938.31	PLOT_9	0.016610359
181	492553.03	3754938.31	PLOT4	0.011281776
181	492553.03	3754938.31	PLOTS_1_	0.006295369
181	492553.03	3754938.31	PLOTS_5_	0.010596585
181	492553.03	3754938.31	PLOTS_7_	0.014511781
182	493553.03	3754938.31	PLOT_11	0.00837751
182	493553.03	3754938.31	PLOT_12	0.010278513
182	493553.03	3754938.31	PLOT_2	0.00990903
182	493553.03	3754938.31	PLOT_30_	
182	493553.03	3754938.31	PLOT_6	0.010402914
182	493553.03	3754938.31	PLOT_9	0.017173894
182	493553.03	3754938.31	PLOT4	0.012561724
182	493553.03	3754938.31	PLOTS_1_	0.006618992
182	493553.03	3754938.31	PLOTS_5_	0.011005318
182	493553.03	3754938.31	PLOTS_7_	0.011998532
183	494553.03	3754938.31	PLOT_11	0.007500276
183	494553.03	3754938.31	PLOT_12	0.010633578
183	494553.03	3754938.31	PLOT_2	0.00783292
183	494553.03	3754938.31	PLOT_30_	
183	494553.03	3754938.31	PLOT_6	0.007938058
183	494553.03	3754938.31	PLOT_9	0.013242555
183	494553.03	3754938.31	PLOT4	0.009547418
183	494553.03	3754938.31	PLOTS_1_	0.005335953
183	494553.03	3754938.31	PLOTS_5_	0.008843145
183	494553.03	3754938.31	PLOTS_7_	0.009371367
184	495553.03	3754938.31	PLOT_11	0.006695167
184	495553.03	3754938.31	PLOT_12	0.009573508

184	495553.03	3754938.31	PLOT_2	0.007076733
184	495553.03	3754938.31	PLOT_30_	
184	495553.03	3754938.31	PLOT_6	0.006802973
184	495553.03	3754938.31	PLOT_9	0.010672328
184	495553.03	3754938.31	PLOT4	0.007262441
184	495553.03	3754938.31	PLOTS_1_	0.003941409
184	495553.03	3754938.31	PLOTS_5_	0.008245589
184	495553.03	3754938.31	PLOTS_7_	0.00835802
185	479553.03	3755938.31	PLOT_11	0.007661674
185	479553.03	3755938.31	PLOT_12	0.006619565
185	479553.03	3755938.31	PLOT_2	0.012608489
185	479553.03	3755938.31	PLOT_30_	
185	479553.03	3755938.31	PLOT_6	0.006979075
185	479553.03	3755938.31	PLOT_9	0.01557424
185	479553.03	3755938.31	PLOT4	0.01394499
185	479553.03	3755938.31	PLOTS_1_	0.009062398
185	479553.03	3755938.31	PLOTS_5_	0.012320218
185	479553.03	3755938.31	PLOTS_7_	0.010712468
186	480553.03	3755938.31	PLOT_11	0.009303025
186	480553.03	3755938.31	PLOT_12	0.008196582
186	480553.03	3755938.31	PLOT_2	0.015433428
186	480553.03	3755938.31	PLOT_30_	
186	480553.03	3755938.31	PLOT_6	0.009422686
186	480553.03	3755938.31	PLOT_9	0.018907198
186	480553.03	3755938.31	PLOT4	0.017281451
186	480553.03	3755938.31	PLOTS_1_	0.010994595
186	480553.03	3755938.31	PLOTS_5_	0.015493032
186	480553.03	3755938.31	PLOTS_7_	0.013303481
187	481553.03	3755938.31	PLOT_11	0.010787151
187	481553.03	3755938.31	PLOT_12	0.009376118
187	481553.03	3755938.31	PLOT_2	0.017297173
187	481553.03	3755938.31	PLOT_30_	
187	481553.03	3755938.31	PLOT_6	0.012336747
187	481553.03	3755938.31	PLOT_9	0.020768418
187	481553.03	3755938.31	PLOT4	0.018399034
187	481553.03	3755938.31	PLOTS_1_	0.011790676
187	481553.03	3755938.31	PLOTS_5_	0.01721221
187	481553.03	3755938.31	PLOTS_7_	0.014179822
188	482553.03	3755938.31	PLOT_11	0.012264858
188	482553.03	3755938.31	PLOT_12	0.010032987
188	482553.03	3755938.31	PLOT_2	0.023113022
188	482553.03	3755938.31	PLOT_30_	
188	482553.03	3755938.31	PLOT_6	0.015477761
188	482553.03	3755938.31	PLOT_9	0.022822834
188	482553.03	3755938.31	PLOT4	0.022861753
188	482553.03	3755938.31	PLOTS_1_	0.015575046
188	482553.03	3755938.31	PLOTS_5_	0.01732493

188	482553.03	3755938.31	PLOTS_7_	0.018294232
189	483553.03	3755938.31	PLOT_11	0.01315759
189	483553.03	3755938.31	PLOT_12	0.011387712
189	483553.03	3755938.31	PLOT_2	0.025615536
189	483553.03	3755938.31	PLOT_30_	
189	483553.03	3755938.31	PLOT_6	0.017516398
189	483553.03	3755938.31	PLOT_9	0.027565072
189	483553.03	3755938.31	PLOT4	0.025140574
189	483553.03	3755938.31	PLOTS_1_	0.018261566
189	483553.03	3755938.31	PLOTS_5_	0.019371617
189	483553.03	3755938.31	PLOTS_7_	0.021731904
190	484553.03	3755938.31	PLOT_11	0.015375389
190	484553.03	3755938.31	PLOT_12	0.012316836
190	484553.03	3755938.31	PLOT_2	0.030559763
190	484553.03	3755938.31	PLOT_30_	
190	484553.03	3755938.31	PLOT_6	0.022579013
190	484553.03	3755938.31	PLOT_9	0.02955853
190	484553.03	3755938.31	PLOT4	0.027275611
190	484553.03	3755938.31	PLOTS_1_	0.024160722
190	484553.03	3755938.31	PLOTS_5_	0.016023499
190	484553.03	3755938.31	PLOTS_7_	0.026768311
191	485553.03	3755938.31	PLOT_11	0.017268099
191	485553.03	3755938.31	PLOT_12	0.012477687
191	485553.03	3755938.31	PLOT_2	0.029742202
191	485553.03	3755938.31	PLOT_30_	
191	485553.03	3755938.31	PLOT_6	0.032154192
191	485553.03	3755938.31	PLOT_9	0.035986699
191	485553.03	3755938.31	PLOT4	0.036547999
191	485553.03	3755938.31	PLOTS_1_	0.047508139
191	485553.03	3755938.31	PLOTS_5_	0.018557992
191	485553.03	3755938.31	PLOTS_7_	0.033209306
192	486553.03	3755938.31	PLOT_11	0.020168354
192	486553.03	3755938.31	PLOT_12	0.012691957
192	486553.03	3755938.31	PLOT_2	0.031582067
192	486553.03	3755938.31	PLOT_30_	
192	486553.03	3755938.31	PLOT_6	0.037166813
192	486553.03	3755938.31	PLOT_9	0.047130287
192	486553.03	3755938.31	PLOT4	0.035578846
192	486553.03	3755938.31	PLOTS_1_	0.033759636
192	486553.03	3755938.31	PLOTS_5_	0.016121163
192	486553.03	3755938.31	PLOTS_7_	0.031914467
193	487553.03	3755938.31	PLOT_11	0.015565856
193	487553.03	3755938.31	PLOT_12	0.00913087
193	487553.03	3755938.31	PLOT_2	0.02873501
193	487553.03	3755938.31	PLOT_30_	
193	487553.03	3755938.31	PLOT_6	0.029197671
193	487553.03	3755938.31	PLOT_9	0.037070014

193	487553.03	3755938.31	PLOT4	0.028923889
193	487553.03	3755938.31	PLOTS_1_	0.016929903
193	487553.03	3755938.31	PLOTS_5_	0.012908812
193	487553.03	3755938.31	PLOTS_7_	0.022697979
194	488553.03	3755938.31	PLOT_11	0.014303423
194	488553.03	3755938.31	PLOT_12	0.009368612
194	488553.03	3755938.31	PLOT_2	0.022566072
194	488553.03	3755938.31	PLOT_30_	
194	488553.03	3755938.31	PLOT_6	0.021511532
194	488553.03	3755938.31	PLOT_9	0.035597041
194	488553.03	3755938.31	PLOT4	0.026523224
194	488553.03	3755938.31	PLOTS_1_	0.011565679
194	488553.03	3755938.31	PLOTS_5_	0.011130329
194	488553.03	3755938.31	PLOTS_7_	0.024720629
195	489553.03	3755938.31	PLOT_11	0.010378246
195	489553.03	3755938.31	PLOT_12	0.007622601
195	489553.03	3755938.31	PLOT_2	0.018218713
195	489553.03	3755938.31	PLOT_30_	
195	489553.03	3755938.31	PLOT_6	0.020021941
195	489553.03	3755938.31	PLOT_9	0.029220391
195	489553.03	3755938.31	PLOT4	0.018606174
195	489553.03	3755938.31	PLOTS_1_	0.008978232
195	489553.03	3755938.31	PLOTS_5_	0.0104896
195	489553.03	3755938.31	PLOTS_7_	0.019462944
196	490553.03	3755938.31	PLOT_11	0.00917973
196	490553.03	3755938.31	PLOT_12	0.006992382
196	490553.03	3755938.31	PLOT_2	0.014819772
196	490553.03	3755938.31	PLOT_30_	
196	490553.03	3755938.31	PLOT_6	0.016565334
196	490553.03	3755938.31	PLOT_9	0.023508463
196	490553.03	3755938.31	PLOT4	0.016023947
196	490553.03	3755938.31	PLOTS_1_	0.00687872
196	490553.03	3755938.31	PLOTS_5_	0.010823767
196	490553.03	3755938.31	PLOTS_7_	0.017239436
197	491553.03	3755938.31	PLOT_11	0.008372558
197	491553.03	3755938.31	PLOT_12	0.007471401
197	491553.03	3755938.31	PLOT_2	0.01272551
197	491553.03	3755938.31	PLOT_30_	
197	491553.03	3755938.31	PLOT_6	0.013205848
197	491553.03	3755938.31	PLOT_9	0.016883834
197	491553.03	3755938.31	PLOT4	0.012403556
197	491553.03	3755938.31	PLOTS_1_	0.005786637
197	491553.03	3755938.31	PLOTS_5_	0.009327879
197	491553.03	3755938.31	PLOTS_7_	0.014739207
198	492553.03	3755938.31	PLOT_11	0.007482531
198	492553.03	3755938.31	PLOT_12	0.007742187
198	492553.03	3755938.31	PLOT_2	0.010201054

198	492553.03	3755938.31	PLOT_30_	
198	492553.03	3755938.31	PLOT_6	0.010603982
198	492553.03	3755938.31	PLOT_9	0.015230102
198	492553.03	3755938.31	PLOT4	0.011131276
198	492553.03	3755938.31	PLOTS_1_	0.005920726
198	492553.03	3755938.31	PLOTS_5_	0.007857598
198	492553.03	3755938.31	PLOTS_7_	0.012898247
199	493553.03	3755938.31	PLOT_11	0.006304877
199	493553.03	3755938.31	PLOT_12	0.008021433
199	493553.03	3755938.31	PLOT_2	0.008736881
199	493553.03	3755938.31	PLOT_30_	
199	493553.03	3755938.31	PLOT_6	0.007766034
199	493553.03	3755938.31	PLOT_9	0.013091085
199	493553.03	3755938.31	PLOT4	0.009560347
199	493553.03	3755938.31	PLOTS_1_	0.004695976
199	493553.03	3755938.31	PLOTS_5_	0.007891603
199	493553.03	3755938.31	PLOTS_7_	0.010499034
200	494553.03	3755938.31	PLOT_11	0.006244078
200	494553.03	3755938.31	PLOT_12	0.008094034
200	494553.03	3755938.31	PLOT_2	0.007875216
200	494553.03	3755938.31	PLOT_30_	
200	494553.03	3755938.31	PLOT_6	0.006860915
200	494553.03	3755938.31	PLOT_9	0.011663279
200	494553.03	3755938.31	PLOT4	0.009175562
200	494553.03	3755938.31	PLOTS_1_	0.004476666
200	494553.03	3755938.31	PLOTS_5_	0.007586219
200	494553.03	3755938.31	PLOTS_7_	0.008886591
201	479553.03	3756938.31	PLOT_11	0.008251509
201	479553.03	3756938.31	PLOT_12	0.006847815
201	479553.03	3756938.31	PLOT_2	0.012925097
201	479553.03	3756938.31	PLOT_30_	
201	479553.03	3756938.31	PLOT_6	0.008108723
201	479553.03	3756938.31	PLOT_9	0.015287179
201	479553.03	3756938.31	PLOT4	0.012751234
201	479553.03	3756938.31	PLOTS_1_	0.008666957
201	479553.03	3756938.31	PLOTS_5_	0.012140562
201	479553.03	3756938.31	PLOTS_7_	0.009717197
202	480553.03	3756938.31	PLOT_11	0.008317765
202	480553.03	3756938.31	PLOT_12	0.00694933
202	480553.03	3756938.31	PLOT_2	0.013401377
202	480553.03	3756938.31	PLOT_30_	
202	480553.03	3756938.31	PLOT_6	0.008872842
202	480553.03	3756938.31	PLOT_9	0.015599647
202	480553.03	3756938.31	PLOT4	0.012817501
202	480553.03	3756938.31	PLOTS_1_	0.009000492
202	480553.03	3756938.31	PLOTS_5_	0.012812889
202	480553.03	3756938.31	PLOTS_7_	0.011201328

203	481553.03	3756938.31	PLOT_11	0.008019729
203	481553.03	3756938.31	PLOT_12	0.007011684
203	481553.03	3756938.31	PLOT_2	0.012025366
203	481553.03	3756938.31	PLOT_30_	
203	481553.03	3756938.31	PLOT_6	0.008653691
203	481553.03	3756938.31	PLOT_9	0.014822007
203	481553.03	3756938.31	PLOT4	0.012654408
203	481553.03	3756938.31	PLOTS_1_	0.008490136
203	481553.03	3756938.31	PLOTS_5_	0.011396587
203	481553.03	3756938.31	PLOTS_7_	0.011173992
204	482553.03	3756938.31	PLOT_11	0.008351741
204	482553.03	3756938.31	PLOT_12	0.007621807
204	482553.03	3756938.31	PLOT_2	0.01436799
204	482553.03	3756938.31	PLOT_30_	
204	482553.03	3756938.31	PLOT_6	0.010722023
204	482553.03	3756938.31	PLOT_9	0.015911409
204	482553.03	3756938.31	PLOT4	0.012945949
204	482553.03	3756938.31	PLOTS_1_	0.010199976
204	482553.03	3756938.31	PLOTS_5_	0.011587049
204	482553.03	3756938.31	PLOTS_7_	0.011865085
205	483553.03	3756938.31	PLOT_11	0.012798434
205	483553.03	3756938.31	PLOT_12	0.007900894
205	483553.03	3756938.31	PLOT_2	0.018830298
205	483553.03	3756938.31	PLOT_30_	
205	483553.03	3756938.31	PLOT_6	0.014828964
205	483553.03	3756938.31	PLOT_9	0.021682002
205	483553.03	3756938.31	PLOT4	0.01981034
205	483553.03	3756938.31	PLOTS_1_	0.014720593
205	483553.03	3756938.31	PLOTS_5_	0.012934111
205	483553.03	3756938.31	PLOTS_7_	0.016625823
206	484553.03	3756938.31	PLOT_11	0.012154218
206	484553.03	3756938.31	PLOT_12	0.00862393
206	484553.03	3756938.31	PLOT_2	0.01737432
206	484553.03	3756938.31	PLOT_30_	
206	484553.03	3756938.31	PLOT_6	0.016910061
206	484553.03	3756938.31	PLOT_9	0.024156423
206	484553.03	3756938.31	PLOT4	0.02092977
206	484553.03	3756938.31	PLOTS_1_	0.025242487
206	484553.03	3756938.31	PLOTS_5_	0.012976055
206	484553.03	3756938.31	PLOTS_7_	0.016813497
207	485553.03	3756938.31	PLOT_11	0.013882551
207	485553.03	3756938.31	PLOT_12	0.009433707
207	485553.03	3756938.31	PLOT_2	0.021423354
207	485553.03	3756938.31	PLOT_30_	
207	485553.03	3756938.31	PLOT_6	0.016337022
207	485553.03	3756938.31	PLOT_9	0.026459438
207	485553.03	3756938.31	PLOT4	0.02437828

207	485553.03	3756938.31	PLOTS_1_	0.026166116
207	485553.03	3756938.31	PLOTS_5_	0.013255833
207	485553.03	3756938.31	PLOTS_7_	0.017770958
208	486553.03	3756938.31	PLOT_11	0.011372264
208	486553.03	3756938.31	PLOT_12	0.007651793
208	486553.03	3756938.31	PLOT_2	0.019160301
208	486553.03	3756938.31	PLOT_30_	
208	486553.03	3756938.31	PLOT_6	0.014071019
208	486553.03	3756938.31	PLOT_9	0.030329113
208	486553.03	3756938.31	PLOT4	0.022753118
208	486553.03	3756938.31	PLOTS_1_	0.021406122
208	486553.03	3756938.31	PLOTS_5_	0.010877694
208	486553.03	3756938.31	PLOTS_7_	0.017278095
209	487553.03	3756938.31	PLOT_11	0.010783667
209	487553.03	3756938.31	PLOT_12	0.007077653
209	487553.03	3756938.31	PLOT_2	0.018309343
209	487553.03	3756938.31	PLOT_30_	
209	487553.03	3756938.31	PLOT_6	0.016024886
209	487553.03	3756938.31	PLOT_9	0.026698244
209	487553.03	3756938.31	PLOT4	0.018864022
209	487553.03	3756938.31	PLOTS_1_	0.013689766
209	487553.03	3756938.31	PLOTS_5_	0.009131732
209	487553.03	3756938.31	PLOTS_7_	0.015182979
210	488553.03	3756938.31	PLOT_11	0.010096625
210	488553.03	3756938.31	PLOT_12	0.006438339
210	488553.03	3756938.31	PLOT_2	0.018000885
210	488553.03	3756938.31	PLOT_30_	
210	488553.03	3756938.31	PLOT_6	0.01275289
210	488553.03	3756938.31	PLOT_9	0.025142699
210	488553.03	3756938.31	PLOT4	0.017184289
210	488553.03	3756938.31	PLOTS_1_	0.010055936
210	488553.03	3756938.31	PLOTS_5_	0.007430838
210	488553.03	3756938.31	PLOTS_7_	0.016354076
211	489553.03	3756938.31	PLOT_11	0.008312721
211	489553.03	3756938.31	PLOT_12	0.0061805
211	489553.03	3756938.31	PLOT_2	0.016298793
211	489553.03	3756938.31	PLOT_30_	
211	489553.03	3756938.31	PLOT_6	0.01180871
211	489553.03	3756938.31	PLOT_9	0.022021905
211	489553.03	3756938.31	PLOT4	0.015743991
211	489553.03	3756938.31	PLOTS_1_	0.007963288
211	489553.03	3756938.31	PLOTS_5_	0.008557017
211	489553.03	3756938.31	PLOTS_7_	0.015124424
212	490553.03	3756938.31	PLOT_11	0.00780794
212	490553.03	3756938.31	PLOT_12	0.005448131
212	490553.03	3756938.31	PLOT_2	0.013405606
212	490553.03	3756938.31	PLOT_30_	

212	490553.03	3756938.31	PLOT_6	0.009841369
212	490553.03	3756938.31	PLOT_9	0.021448577
212	490553.03	3756938.31	PLOT4	0.013450451
212	490553.03	3756938.31	PLOTS_1_	0.007305845
212	490553.03	3756938.31	PLOTS_5_	0.008298646
212	490553.03	3756938.31	PLOTS_7_	0.014195512
213	491553.03	3756938.31	PLOT_11	0.007104301
213	491553.03	3756938.31	PLOT_12	0.005984858
213	491553.03	3756938.31	PLOT_2	0.011383116
213	491553.03	3756938.31	PLOT_30_	
213	491553.03	3756938.31	PLOT_6	0.010145469
213	491553.03	3756938.31	PLOT_9	0.017452045
213	491553.03	3756938.31	PLOT4	0.008674754
213	491553.03	3756938.31	PLOTS_1_	0.00575341
213	491553.03	3756938.31	PLOTS_5_	0.007940153
213	491553.03	3756938.31	PLOTS_7_	0.011365872
214	492553.03	3756938.31	PLOT_11	0.006556007
214	492553.03	3756938.31	PLOT_12	0.006060954
214	492553.03	3756938.31	PLOT_2	0.010018385
214	492553.03	3756938.31	PLOT_30_	
214	492553.03	3756938.31	PLOT_6	0.009095864
214	492553.03	3756938.31	PLOT_9	0.014056276
214	492553.03	3756938.31	PLOT4	0.010111639
214	492553.03	3756938.31	PLOTS_1_	0.005022687
214	492553.03	3756938.31	PLOTS_5_	0.007288516
214	492553.03	3756938.31	PLOTS_7_	0.010870502
215	493553.03	3756938.31	PLOT_11	0.006200656
215	493553.03	3756938.31	PLOT_12	0.006921171
215	493553.03	3756938.31	PLOT_2	0.008598667
215	493553.03	3756938.31	PLOT_30_	
215	493553.03	3756938.31	PLOT_6	0.007807075
215	493553.03	3756938.31	PLOT_9	0.014757431
215	493553.03	3756938.31	PLOT4	0.009109295
215	493553.03	3756938.31	PLOTS_1_	0.004945021
215	493553.03	3756938.31	PLOTS_5_	0.00736257
215	493553.03	3756938.31	PLOTS_7_	0.009622773
216	494553.03	3756938.31	PLOT_11	0.005179173
216	494553.03	3756938.31	PLOT_12	0.007582567
216	494553.03	3756938.31	PLOT_2	0.008953652
216	494553.03	3756938.31	PLOT_30_	
216	494553.03	3756938.31	PLOT_6	0.007341441
216	494553.03	3756938.31	PLOT_9	0.012839487
216	494553.03	3756938.31	PLOT4	0.007891641
216	494553.03	3756938.31	PLOTS_1_	0.004986535
216	494553.03	3756938.31	PLOTS_5_	0.007333225
216	494553.03	3756938.31	PLOTS_7_	0.008289032
217	479553.03	3757938.31	PLOT_11	0.005919265

217	479553.03	3757938.31	PLOT_12	0.005468545
217	479553.03	3757938.31	PLOT_2	0.008009685
217	479553.03	3757938.31	PLOT_30_	
217	479553.03	3757938.31	PLOT_6	0.006655178
217	479553.03	3757938.31	PLOT_9	0.010993088
217	479553.03	3757938.31	PLOT4	0.010418907
217	479553.03	3757938.31	PLOTS_1_	0.006866209
217	479553.03	3757938.31	PLOTS_5_	0.007487019
217	479553.03	3757938.31	PLOTS_7_	0.007717192
218	480553.03	3757938.31	PLOT_11	0.005871808
218	480553.03	3757938.31	PLOT_12	0.004710558
218	480553.03	3757938.31	PLOT_2	0.009435042
218	480553.03	3757938.31	PLOT_30_	
218	480553.03	3757938.31	PLOT_6	0.006527771
218	480553.03	3757938.31	PLOT_9	0.01131032
218	480553.03	3757938.31	PLOT4	0.009719578
218	480553.03	3757938.31	PLOTS_1_	0.006867428
218	480553.03	3757938.31	PLOTS_5_	0.008274217
218	480553.03	3757938.31	PLOTS_7_	0.007986957
219	481553.03	3757938.31	PLOT_11	0.00644069
219	481553.03	3757938.31	PLOT_12	0.004756312
219	481553.03	3757938.31	PLOT_2	0.009774958
219	481553.03	3757938.31	PLOT_30_	
219	481553.03	3757938.31	PLOT_6	0.007631831
219	481553.03	3757938.31	PLOT_9	0.011955809
219	481553.03	3757938.31	PLOT4	0.01042344
219	481553.03	3757938.31	PLOTS_1_	0.007945131
219	481553.03	3757938.31	PLOTS_5_	0.008574686
219	481553.03	3757938.31	PLOTS_7_	0.009260728
220	482553.03	3757938.31	PLOT_11	0.006778938
220	482553.03	3757938.31	PLOT_12	0.006125334
220	482553.03	3757938.31	PLOT_2	0.011229394
220	482553.03	3757938.31	PLOT_30_	
220	482553.03	3757938.31	PLOT_6	0.00880645
220	482553.03	3757938.31	PLOT_9	0.0145293
220	482553.03	3757938.31	PLOT4	0.013293738
220	482553.03	3757938.31	PLOTS_1_	0.00863966
220	482553.03	3757938.31	PLOTS_5_	0.009102745
220	482553.03	3757938.31	PLOTS_7_	0.011348646
221	483553.03	3757938.31	PLOT_11	0.007888318
221	483553.03	3757938.31	PLOT_12	0.005535586
221	483553.03	3757938.31	PLOT_2	0.012428639
221	483553.03	3757938.31	PLOT_30_	
221	483553.03	3757938.31	PLOT_6	0.008801368
221	483553.03	3757938.31	PLOT_9	0.016435246
221	483553.03	3757938.31	PLOT4	0.013258086
221	483553.03	3757938.31	PLOTS_1_	0.013272025

221	483553.03	3757938.31	PLOTS_5_	0.008291323
221	483553.03	3757938.31	PLOTS_7_	0.011141601
222	484553.03	3757938.31	PLOT_11	0.010492967
222	484553.03	3757938.31	PLOT_12	0.007377949
222	484553.03	3757938.31	PLOT_2	0.01464869
222	484553.03	3757938.31	PLOT_30_	
222	484553.03	3757938.31	PLOT_6	0.010581792
222	484553.03	3757938.31	PLOT_9	0.018799131
222	484553.03	3757938.31	PLOT4	0.01875936
222	484553.03	3757938.31	PLOTS_1_	0.018352759
222	484553.03	3757938.31	PLOTS_5_	0.011195728
222	484553.03	3757938.31	PLOTS_7_	0.012759179
223	485553.03	3757938.31	PLOT_11	0.007446217
223	485553.03	3757938.31	PLOT_12	0.005066417
223	485553.03	3757938.31	PLOT_2	0.014348031
223	485553.03	3757938.31	PLOT_30_	
223	485553.03	3757938.31	PLOT_6	0.009534108
223	485553.03	3757938.31	PLOT_9	0.021250175
223	485553.03	3757938.31	PLOT4	0.015368889
223	485553.03	3757938.31	PLOTS_1_	0.018693199
223	485553.03	3757938.31	PLOTS_5_	0.008943421
223	485553.03	3757938.31	PLOTS_7_	0.011628197
224	486553.03	3757938.31	PLOT_11	0.008950242
224	486553.03	3757938.31	PLOT_12	0.005485266
224	486553.03	3757938.31	PLOT_2	0.013898716
224	486553.03	3757938.31	PLOT_30_	
224	486553.03	3757938.31	PLOT_6	0.011497814
224	486553.03	3757938.31	PLOT_9	0.020435219
224	486553.03	3757938.31	PLOT4	0.0158144
224	486553.03	3757938.31	PLOTS_1_	0.014020255
224	486553.03	3757938.31	PLOTS_5_	0.007745236
224	486553.03	3757938.31	PLOTS_7_	0.011972854
225	487553.03	3757938.31	PLOT_11	0.008408872
225	487553.03	3757938.31	PLOT_12	0.005713118
225	487553.03	3757938.31	PLOT_2	0.01357096
225	487553.03	3757938.31	PLOT_30_	
225	487553.03	3757938.31	PLOT_6	0.011083238
225	487553.03	3757938.31	PLOT_9	0.021610104
225	487553.03	3757938.31	PLOT4	0.014572623
225	487553.03	3757938.31	PLOTS_1_	0.012655243
225	487553.03	3757938.31	PLOTS_5_	0.007313406
225	487553.03	3757938.31	PLOTS_7_	0.01165529
226	488553.03	3757938.31	PLOT_11	0.008064939
226	488553.03	3757938.31	PLOT_12	0.005412585
226	488553.03	3757938.31	PLOT_2	0.01304908
226	488553.03	3757938.31	PLOT_30_	
226	488553.03	3757938.31	PLOT_6	0.008781807

226	488553.03	3757938.31	PLOT_9	0.018703415
226	488553.03	3757938.31	PLOT4	0.01545357
226	488553.03	3757938.31	PLOTS_1_	0.009663338
226	488553.03	3757938.31	PLOTS_5_	0.006591606
226	488553.03	3757938.31	PLOTS_7_	0.011166026
227	489553.03	3757938.31	PLOT_11	0.006404146
227	489553.03	3757938.31	PLOT_12	0.005330888
227	489553.03	3757938.31	PLOT_2	0.012446087
227	489553.03	3757938.31	PLOT_30_	
227	489553.03	3757938.31	PLOT_6	0.008188589
227	489553.03	3757938.31	PLOT_9	0.020130073
227	489553.03	3757938.31	PLOT4	0.01430929
227	489553.03	3757938.31	PLOTS_1_	0.007915924
227	489553.03	3757938.31	PLOTS_5_	0.006752365
227	489553.03	3757938.31	PLOTS_7_	0.011037189
228	490553.03	3757938.31	PLOT_11	0.006087174
228	490553.03	3757938.31	PLOT_12	0.004659642
228	490553.03	3757938.31	PLOT_2	0.010684382
228	490553.03	3757938.31	PLOT_30_	
228	490553.03	3757938.31	PLOT_6	0.00862571
228	490553.03	3757938.31	PLOT_9	0.018187164
228	490553.03	3757938.31	PLOT4	0.0114958
228	490553.03	3757938.31	PLOTS_1_	0.006569557
228	490553.03	3757938.31	PLOTS_5_	0.006465417
228	490553.03	3757938.31	PLOTS_7_	0.010406875
229	491553.03	3757938.31	PLOT_11	0.005689273
229	491553.03	3757938.31	PLOT_12	0.005160902
229	491553.03	3757938.31	PLOT_2	0.006473872
229	491553.03	3757938.31	PLOT_30_	
229	491553.03	3757938.31	PLOT_6	0.008163621
229	491553.03	3757938.31	PLOT_9	0.015881679
229	491553.03	3757938.31	PLOT4	0.010682183
229	491553.03	3757938.31	PLOTS_1_	0.004919105
229	491553.03	3757938.31	PLOTS_5_	0.006998188
229	491553.03	3757938.31	PLOTS_7_	0.009489124
230	492553.03	3757938.31	PLOT_11	0.005672262
230	492553.03	3757938.31	PLOT_12	0.00568063
230	492553.03	3757938.31	PLOT_2	0.009130946
230	492553.03	3757938.31	PLOT_30_	
230	492553.03	3757938.31	PLOT_6	0.006978838
230	492553.03	3757938.31	PLOT_9	0.015414654
230	492553.03	3757938.31	PLOT4	0.009236288
230	492553.03	3757938.31	PLOTS_1_	0.005631386
230	492553.03	3757938.31	PLOTS_5_	0.006868363
230	492553.03	3757938.31	PLOTS_7_	0.006752695
231	493553.03	3757938.31	PLOT_11	0.006975504
231	493553.03	3757938.31	PLOT_12	0.006845154

231	493553.03	3757938.31	PLOT_2	0.00826796
231	493553.03	3757938.31	PLOT_30_	
231	493553.03	3757938.31	PLOT_6	0.007088015
231	493553.03	3757938.31	PLOT_9	0.01398332
231	493553.03	3757938.31	PLOT4	0.009587436
231	493553.03	3757938.31	PLOTS_1_	0.005687645
231	493553.03	3757938.31	PLOTS_5_	0.00834776
231	493553.03	3757938.31	PLOTS_7_	0.0101915
232	480553.03	3758938.31	PLOT_11	0.005101913
232	480553.03	3758938.31	PLOT_12	0.004122677
232	480553.03	3758938.31	PLOT_2	0.008340217
232	480553.03	3758938.31	PLOT_30_	
232	480553.03	3758938.31	PLOT_6	0.006238268
232	480553.03	3758938.31	PLOT_9	0.010922602
232	480553.03	3758938.31	PLOT4	0.008284821
232	480553.03	3758938.31	PLOTS_1_	0.006627441
232	480553.03	3758938.31	PLOTS_5_	0.007079105
232	480553.03	3758938.31	PLOTS_7_	0.00745782
233	481553.03	3758938.31	PLOT_11	0.005761123
233	481553.03	3758938.31	PLOT_12	0.004996119
233	481553.03	3758938.31	PLOT_2	0.008400137
233	481553.03	3758938.31	PLOT_30_	
233	481553.03	3758938.31	PLOT_6	0.00700419
233	481553.03	3758938.31	PLOT_9	0.011670248
233	481553.03	3758938.31	PLOT4	0.010484502
233	481553.03	3758938.31	PLOTS_1_	0.007022273
233	481553.03	3758938.31	PLOTS_5_	0.007414398
233	481553.03	3758938.31	PLOTS_7_	0.007826942
234	482553.03	3758938.31	PLOT_11	0.005814265
234	482553.03	3758938.31	PLOT_12	0.004383613
234	482553.03	3758938.31	PLOT_2	0.010027989
234	482553.03	3758938.31	PLOT_30_	
234	482553.03	3758938.31	PLOT_6	0.007240006
234	482553.03	3758938.31	PLOT_9	0.013479596
234	482553.03	3758938.31	PLOT4	0.010406426
234	482553.03	3758938.31	PLOTS_1_	0.009036239
234	482553.03	3758938.31	PLOTS_5_	0.007078695
234	482553.03	3758938.31	PLOTS_7_	0.008136377
235	483553.03	3758938.31	PLOT_11	0.006675771
235	483553.03	3758938.31	PLOT_12	0.004824703
235	483553.03	3758938.31	PLOT_2	0.010311774
235	483553.03	3758938.31	PLOT_30_	
235	483553.03	3758938.31	PLOT_6	0.007417082
235	483553.03	3758938.31	PLOT_9	0.013244319
235	483553.03	3758938.31	PLOT4	0.012417716
235	483553.03	3758938.31	PLOTS_1_	0.01219814
235	483553.03	3758938.31	PLOTS_5_	0.007506326

235	483553.03	3758938.31	PLOTS_7_	0.009571376
236	484553.03	3758938.31	PLOT_11	0.006068237
236	484553.03	3758938.31	PLOT_12	0.004189361
236	484553.03	3758938.31	PLOT_2	0.012342636
236	484553.03	3758938.31	PLOT_30_	
236	484553.03	3758938.31	PLOT_6	0.007035805
236	484553.03	3758938.31	PLOT_9	0.016646263
236	484553.03	3758938.31	PLOT4	0.013548228
236	484553.03	3758938.31	PLOTS_1_	0.013064576
236	484553.03	3758938.31	PLOTS_5_	0.008608691
236	484553.03	3758938.31	PLOTS_7_	0.009115837
237	485553.03	3758938.31	PLOT_11	0.007613896
237	485553.03	3758938.31	PLOT_12	0.005253997
237	485553.03	3758938.31	PLOT_2	0.011904996
237	485553.03	3758938.31	PLOT_30_	
237	485553.03	3758938.31	PLOT_6	0.008490118
237	485553.03	3758938.31	PLOT_9	0.01999166
237	485553.03	3758938.31	PLOT4	0.014833549
237	485553.03	3758938.31	PLOTS_1_	0.016026584
237	485553.03	3758938.31	PLOTS_5_	0.008650225
237	485553.03	3758938.31	PLOTS_7_	0.011041314
238	486553.03	3758938.31	PLOT_11	0.007404767
238	486553.03	3758938.31	PLOT_12	0.005022927
238	486553.03	3758938.31	PLOT_2	0.011020686
238	486553.03	3758938.31	PLOT_30_	
238	486553.03	3758938.31	PLOT_6	0.008602633
238	486553.03	3758938.31	PLOT_9	0.018306964
238	486553.03	3758938.31	PLOT4	0.012633867
238	486553.03	3758938.31	PLOTS_1_	0.012586025
238	486553.03	3758938.31	PLOTS_5_	0.006586587
238	486553.03	3758938.31	PLOTS_7_	0.00955791
239	487553.03	3758938.31	PLOT_11	0.00783403
239	487553.03	3758938.31	PLOT_12	0.006139434
239	487553.03	3758938.31	PLOT_2	0.011085497
239	487553.03	3758938.31	PLOT_30_	
239	487553.03	3758938.31	PLOT_6	0.008397635
239	487553.03	3758938.31	PLOT_9	0.022055075
239	487553.03	3758938.31	PLOT4	0.011433115
239	487553.03	3758938.31	PLOTS_1_	0.011031031
239	487553.03	3758938.31	PLOTS_5_	0.007920846
239	487553.03	3758938.31	PLOTS_7_	0.010676599
240	488553.03	3758938.31	PLOT_11	0.006898289
240	488553.03	3758938.31	PLOT_12	0.004794836
240	488553.03	3758938.31	PLOT_2	0.011590106
240	488553.03	3758938.31	PLOT_30_	
240	488553.03	3758938.31	PLOT_6	0.006759923
240	488553.03	3758938.31	PLOT_9	0.016448038

240	488553.03	3758938.31	PLOT4	0.010837832
240	488553.03	3758938.31	PLOTS_1_	0.00867894
240	488553.03	3758938.31	PLOTS_5_	0.005640627
240	488553.03	3758938.31	PLOTS_7_	0.009519493
241	489553.03	3758938.31	PLOT_11	0.005635718
241	489553.03	3758938.31	PLOT_12	0.005403609
241	489553.03	3758938.31	PLOT_2	0.011890853
241	489553.03	3758938.31	PLOT_30_	
241	489553.03	3758938.31	PLOT_6	0.007541535
241	489553.03	3758938.31	PLOT_9	0.018631694
241	489553.03	3758938.31	PLOT4	0.012343894
241	489553.03	3758938.31	PLOTS_1_	0.00825539
241	489553.03	3758938.31	PLOTS_5_	0.007125914
241	489553.03	3758938.31	PLOTS_7_	0.010190084
242	490553.03	3758938.31	PLOT_11	0.007517424
242	490553.03	3758938.31	PLOT_12	0.004630609
242	490553.03	3758938.31	PLOT_2	0.012367749
242	490553.03	3758938.31	PLOT_30_	
242	490553.03	3758938.31	PLOT_6	0.008614984
242	490553.03	3758938.31	PLOT_9	0.018645015
242	490553.03	3758938.31	PLOT4	0.013433548
242	490553.03	3758938.31	PLOTS_1_	0.008909949
242	490553.03	3758938.31	PLOTS_5_	0.00861202
242	490553.03	3758938.31	PLOTS_7_	0.011755133
243	491553.03	3758938.31	PLOT_11	0.006421386
243	491553.03	3758938.31	PLOT_12	0.005027098
243	491553.03	3758938.31	PLOT_2	0.010224273
243	491553.03	3758938.31	PLOT_30_	
243	491553.03	3758938.31	PLOT_6	0.007783556
243	491553.03	3758938.31	PLOT_9	0.017597869
243	491553.03	3758938.31	PLOT4	0.011640143
243	491553.03	3758938.31	PLOTS_1_	0.006105143
243	491553.03	3758938.31	PLOTS_5_	0.006790928
243	491553.03	3758938.31	PLOTS_7_	0.009407681
244	492553.03	3758938.31	PLOT_11	0.006678201
244	492553.03	3758938.31	PLOT_12	0.006513721
244	492553.03	3758938.31	PLOT_2	0.00870463
244	492553.03	3758938.31	PLOT_30_	
244	492553.03	3758938.31	PLOT_6	0.006796177
244	492553.03	3758938.31	PLOT_9	0.016706163
244	492553.03	3758938.31	PLOT4	0.011931628
244	492553.03	3758938.31	PLOTS_1_	0.005473291
244	492553.03	3758938.31	PLOTS_5_	0.007202427
244	492553.03	3758938.31	PLOTS_7_	0.010189478
245	481553.03	3759938.31	PLOT_11	0.005212416
245	481553.03	3759938.31	PLOT_12	0.003701564
245	481553.03	3759938.31	PLOT_2	0.008361145

245	481553.03	3759938.31	PLOT_30_	
245	481553.03	3759938.31	PLOT_6	0.005920222
245	481553.03	3759938.31	PLOT_9	0.011530511
245	481553.03	3759938.31	PLOT4	0.008141485
245	481553.03	3759938.31	PLOTS_1_	0.007595347
245	481553.03	3759938.31	PLOTS_5_	0.005942478
245	481553.03	3759938.31	PLOTS_7_	0.006757386
246	482553.03	3759938.31	PLOT_11	0.005627832
246	482553.03	3759938.31	PLOT_12	0.004243494
246	482553.03	3759938.31	PLOT_2	0.008503059
246	482553.03	3759938.31	PLOT_30_	
246	482553.03	3759938.31	PLOT_6	0.005990396
246	482553.03	3759938.31	PLOT_9	0.010918632
246	482553.03	3759938.31	PLOT4	0.009414716
246	482553.03	3759938.31	PLOTS_1_	0.009237798
246	482553.03	3759938.31	PLOTS_5_	0.006063444
246	482553.03	3759938.31	PLOTS_7_	0.007777365
247	483553.03	3759938.31	PLOT_11	0.005118466
247	483553.03	3759938.31	PLOT_12	0.003682342
247	483553.03	3759938.31	PLOT_2	0.009565589
247	483553.03	3759938.31	PLOT_30_	
247	483553.03	3759938.31	PLOT_6	0.005832762
247	483553.03	3759938.31	PLOT_9	0.012322972
247	483553.03	3759938.31	PLOT4	0.010419242
247	483553.03	3759938.31	PLOTS_1_	0.010768216
247	483553.03	3759938.31	PLOTS_5_	0.006724761
247	483553.03	3759938.31	PLOTS_7_	0.007000583
248	484553.03	3759938.31	PLOT_11	0.006477463
248	484553.03	3759938.31	PLOT_12	0.005106133
248	484553.03	3759938.31	PLOT_2	0.010957152
248	484553.03	3759938.31	PLOT_30_	
248	484553.03	3759938.31	PLOT_6	0.006242611
248	484553.03	3759938.31	PLOT_9	0.017882724
248	484553.03	3759938.31	PLOT4	0.013547276
248	484553.03	3759938.31	PLOTS_1_	0.012961359
248	484553.03	3759938.31	PLOTS_5_	0.008182648
248	484553.03	3759938.31	PLOTS_7_	0.009013649
249	485553.03	3759938.31	PLOT_11	0.009528203
249	485553.03	3759938.31	PLOT_12	0.00656976
249	485553.03	3759938.31	PLOT_2	0.013921098
249	485553.03	3759938.31	PLOT_30_	
249	485553.03	3759938.31	PLOT_6	0.009936895
249	485553.03	3759938.31	PLOT_9	0.021444696
249	485553.03	3759938.31	PLOT4	0.016556265
249	485553.03	3759938.31	PLOTS_1_	0.016414388
249	485553.03	3759938.31	PLOTS_5_	0.008573047
249	485553.03	3759938.31	PLOTS_7_	0.011868644

250	486553.03	3759938.31	PLOT_11	0.0095111
250	486553.03	3759938.31	PLOT_12	0.007272065
250	486553.03	3759938.31	PLOT_2	0.013630132
250	486553.03	3759938.31	PLOT_30_	
250	486553.03	3759938.31	PLOT_6	0.009154752
250	486553.03	3759938.31	PLOT_9	0.024554109
250	486553.03	3759938.31	PLOT4	0.015984713
250	486553.03	3759938.31	PLOTS_1_	0.011570919
250	486553.03	3759938.31	PLOTS_5_	0.009236924
250	486553.03	3759938.31	PLOTS_7_	0.01241153
251	487553.03	3759938.31	PLOT_11	0.009041487
251	487553.03	3759938.31	PLOT_12	0.006772512
251	487553.03	3759938.31	PLOT_2	0.009489631
251	487553.03	3759938.31	PLOT_30_	
251	487553.03	3759938.31	PLOT_6	0.009118113
251	487553.03	3759938.31	PLOT_9	0.023942142
251	487553.03	3759938.31	PLOT4	0.012173133
251	487553.03	3759938.31	PLOTS_1_	0.012718611
251	487553.03	3759938.31	PLOTS_5_	0.008363943
251	487553.03	3759938.31	PLOTS_7_	0.01188672
252	488553.03	3759938.31	PLOT_11	0.009331682
252	488553.03	3759938.31	PLOT_12	0.007128371
252	488553.03	3759938.31	PLOT_2	0.012604788
252	488553.03	3759938.31	PLOT_30_	
252	488553.03	3759938.31	PLOT_6	0.007197074
252	488553.03	3759938.31	PLOT_9	0.019139475
252	488553.03	3759938.31	PLOT4	0.014771815
252	488553.03	3759938.31	PLOTS_1_	0.012323251
252	488553.03	3759938.31	PLOTS_5_	0.00727223
252	488553.03	3759938.31	PLOTS_7_	0.009431257
253	489553.03	3759938.31	PLOT_11	0.005922383
253	489553.03	3759938.31	PLOT_12	0.006966686
253	489553.03	3759938.31	PLOT_2	0.011155066
253	489553.03	3759938.31	PLOT_30_	
253	489553.03	3759938.31	PLOT_6	0.008433446
253	489553.03	3759938.31	PLOT_9	0.020702254
253	489553.03	3759938.31	PLOT4	0.016190789
253	489553.03	3759938.31	PLOTS_1_	0.010787511
253	489553.03	3759938.31	PLOTS_5_	0.008140653
253	489553.03	3759938.31	PLOTS_7_	0.010453258
254	490553.03	3759938.31	PLOT_11	0.006039992
254	490553.03	3759938.31	PLOT_12	0.004076288
254	490553.03	3759938.31	PLOT_2	0.010699142
254	490553.03	3759938.31	PLOT_30_	
254	490553.03	3759938.31	PLOT_6	0.00713792
254	490553.03	3759938.31	PLOT_9	0.020661939
254	490553.03	3759938.31	PLOT4	0.012538049

254	490553.03	3759938.31	PLOTS_1_	0.008123089
254	490553.03	3759938.31	PLOTS_5_	0.007769869
254	490553.03	3759938.31	PLOTS_7_	0.009306504
255	491553.03	3759938.31	PLOT_11	0.006519234
255	491553.03	3759938.31	PLOT_12	0.004312878
255	491553.03	3759938.31	PLOT_2	0.01021176
255	491553.03	3759938.31	PLOT_30_	
255	491553.03	3759938.31	PLOT_6	0.006259571
255	491553.03	3759938.31	PLOT_9	0.015194551
255	491553.03	3759938.31	PLOT4	0.010936337
255	491553.03	3759938.31	PLOTS_1_	0.007430347
255	491553.03	3759938.31	PLOTS_5_	0.006610453
255	491553.03	3759938.31	PLOTS_7_	0.008847609
256	482553.03	3760938.31	PLOT_11	0.0044223
256	482553.03	3760938.31	PLOT_12	0.003476611
256	482553.03	3760938.31	PLOT_2	0.007704091
256	482553.03	3760938.31	PLOT_30_	
256	482553.03	3760938.31	PLOT_6	0.004846359
256	482553.03	3760938.31	PLOT_9	0.010662095
256	482553.03	3760938.31	PLOT4	0.009779464
256	482553.03	3760938.31	PLOTS_1_	0.008767249
256	482553.03	3760938.31	PLOTS_5_	0.00636719
256	482553.03	3760938.31	PLOTS_7_	0.005768787
257	483553.03	3760938.31	PLOT_11	0.005731273
257	483553.03	3760938.31	PLOT_12	0.004315182
257	483553.03	3760938.31	PLOT_2	0.009956482
257	483553.03	3760938.31	PLOT_30_	
257	483553.03	3760938.31	PLOT_6	0.005353625
257	483553.03	3760938.31	PLOT_9	0.014740582
257	483553.03	3760938.31	PLOT4	0.010832012
257	483553.03	3760938.31	PLOTS_1_	0.009913886
257	483553.03	3760938.31	PLOTS_5_	0.007816525
257	483553.03	3760938.31	PLOTS_7_	0.006814566
258	484553.03	3760938.31	PLOT_11	0.007436129
258	484553.03	3760938.31	PLOT_12	0.00532358
258	484553.03	3760938.31	PLOT_2	0.011288653
258	484553.03	3760938.31	PLOT_30_	
258	484553.03	3760938.31	PLOT_6	0.007704281
258	484553.03	3760938.31	PLOT_9	0.018178342
258	484553.03	3760938.31	PLOT4	0.01171419
258	484553.03	3760938.31	PLOTS_1_	0.012915823
258	484553.03	3760938.31	PLOTS_5_	0.008183621
258	484553.03	3760938.31	PLOTS_7_	0.009568181
259	485553.03	3760938.31	PLOT_11	0.008379527
259	485553.03	3760938.31	PLOT_12	0.006315576
259	485553.03	3760938.31	PLOT_2	0.01250517
259	485553.03	3760938.31	PLOT_30_	

259	485553.03	3760938.31	PLOT_6	0.00852324
259	485553.03	3760938.31	PLOT_9	0.018618108
259	485553.03	3760938.31	PLOT4	0.014557511
259	485553.03	3760938.31	PLOTS_1_	0.01247371
259	485553.03	3760938.31	PLOTS_5_	0.008759668
259	485553.03	3760938.31	PLOTS_7_	0.011008114
260	486553.03	3760938.31	PLOT_11	0.006867706
260	486553.03	3760938.31	PLOT_12	0.004826173
260	486553.03	3760938.31	PLOT_2	0.007524065
260	486553.03	3760938.31	PLOT_30_	
260	486553.03	3760938.31	PLOT_6	0.00710728
260	486553.03	3760938.31	PLOT_9	0.015637051
260	486553.03	3760938.31	PLOT4	0.008407056
260	486553.03	3760938.31	PLOTS_1_	0.008619472
260	486553.03	3760938.31	PLOTS_5_	0.006941393
260	486553.03	3760938.31	PLOTS_7_	0.00870013
261	487553.03	3760938.31	PLOT_11	0.008478933
261	487553.03	3760938.31	PLOT_12	0.006056943
261	487553.03	3760938.31	PLOT_2	0.010899964
261	487553.03	3760938.31	PLOT_30_	
261	487553.03	3760938.31	PLOT_6	0.0085428
261	487553.03	3760938.31	PLOT_9	0.020369056
261	487553.03	3760938.31	PLOT4	0.012255351
261	487553.03	3760938.31	PLOTS_1_	0.011987604
261	487553.03	3760938.31	PLOTS_5_	0.00710589
261	487553.03	3760938.31	PLOTS_7_	0.01051343
262	488553.03	3760938.31	PLOT_11	0.007067849
262	488553.03	3760938.31	PLOT_12	0.005596273
262	488553.03	3760938.31	PLOT_2	0.010417384
262	488553.03	3760938.31	PLOT_30_	
262	488553.03	3760938.31	PLOT_6	0.004495722
262	488553.03	3760938.31	PLOT_9	0.011674306
262	488553.03	3760938.31	PLOT4	0.010682799
262	488553.03	3760938.31	PLOTS_1_	0.009783778
262	488553.03	3760938.31	PLOTS_5_	0.004960054
262	488553.03	3760938.31	PLOTS_7_	0.006369258
263	489553.03	3760938.31	PLOT_11	0.00353961
263	489553.03	3760938.31	PLOT_12	0.004620164
263	489553.03	3760938.31	PLOT_2	0.008374054
263	489553.03	3760938.31	PLOT_30_	
263	489553.03	3760938.31	PLOT_6	0.005422854
263	489553.03	3760938.31	PLOT_9	0.013631419
263	489553.03	3760938.31	PLOT4	0.010048674
263	489553.03	3760938.31	PLOTS_1_	0.006861863
263	489553.03	3760938.31	PLOTS_5_	0.005214482
263	489553.03	3760938.31	PLOTS_7_	0.007437358
264	490553.03	3760938.31	PLOT_11	0.004413909

264	490553.03	3760938.31	PLOT_12	0.002849132
264	490553.03	3760938.31	PLOT_2	0.008266109
264	490553.03	3760938.31	PLOT_30_	
264	490553.03	3760938.31	PLOT_6	0.005695545
264	490553.03	3760938.31	PLOT_9	0.013469451
264	490553.03	3760938.31	PLOT4	0.008920401
264	490553.03	3760938.31	PLOTS_1_	0.006917797
264	490553.03	3760938.31	PLOTS_5_	0.005482788
264	490553.03	3760938.31	PLOTS_7_	0.007558674
265	484551.71	3750934.43	PLOT_11	0.010888025
265	484551.71	3750934.43	PLOT_12	0.014997412
265	484551.71	3750934.43	PLOT_2	0.019677908
265	484551.71	3750934.43	PLOT_30_	
265	484551.71	3750934.43	PLOT_6	0.00918294
265	484551.71	3750934.43	PLOT_9	0.031803674
265	484551.71	3750934.43	PLOT4	0.029592659
265	484551.71	3750934.43	PLOTS_1_	0.022732707
265	484551.71	3750934.43	PLOTS_5_	0.022119566
265	484551.71	3750934.43	PLOTS_7_	0.015116255
266	484651.71	3750934.43	PLOT_11	0.011244109
266	484651.71	3750934.43	PLOT_12	0.015449305
266	484651.71	3750934.43	PLOT_2	0.020218777
266	484651.71	3750934.43	PLOT_30_	
266	484651.71	3750934.43	PLOT_6	0.009132976
266	484651.71	3750934.43	PLOT_9	0.032430815
266	484651.71	3750934.43	PLOT4	0.029192707
266	484651.71	3750934.43	PLOTS_1_	0.022607677
266	484651.71	3750934.43	PLOTS_5_	0.023066806
266	484651.71	3750934.43	PLOTS_7_	0.0152015
267	484751.71	3750934.43	PLOT_11	0.010981425
267	484751.71	3750934.43	PLOT_12	0.016548852
267	484751.71	3750934.43	PLOT_2	0.017596466
267	484751.71	3750934.43	PLOT_30_	
267	484751.71	3750934.43	PLOT_6	0.008233028
267	484751.71	3750934.43	PLOT_9	0.027816228
267	484751.71	3750934.43	PLOT4	0.0247287
267	484751.71	3750934.43	PLOTS_1_	0.021016856
267	484751.71	3750934.43	PLOTS_5_	0.020657632
267	484751.71	3750934.43	PLOTS_7_	0.013643811
268	484851.71	3750934.43	PLOT_11	0.010378063
268	484851.71	3750934.43	PLOT_12	0.015725731
268	484851.71	3750934.43	PLOT_2	0.015474094
268	484851.71	3750934.43	PLOT_30_	
268	484851.71	3750934.43	PLOT_6	0.007449584
268	484851.71	3750934.43	PLOT_9	0.026083542
268	484851.71	3750934.43	PLOT4	0.026271645
268	484851.71	3750934.43	PLOTS_1_	0.021850551

268	484851.71	3750934.43	PLOTS_5_	0.019555677
268	484851.71	3750934.43	PLOTS_7_	0.012068571
269	484951.71	3750934.43	PLOT_11	0.010858863
269	484951.71	3750934.43	PLOT_12	0.015906003
269	484951.71	3750934.43	PLOT_2	0.016551164
269	484951.71	3750934.43	PLOT_30_	
269	484951.71	3750934.43	PLOT_6	0.00845862
269	484951.71	3750934.43	PLOT_9	0.028459424
269	484951.71	3750934.43	PLOT4	0.029954161
269	484951.71	3750934.43	PLOTS_1_	0.023270157
269	484951.71	3750934.43	PLOTS_5_	0.021269989
269	484951.71	3750934.43	PLOTS_7_	0.01222062
270	485051.71	3750934.43	PLOT_11	0.01021772
270	485051.71	3750934.43	PLOT_12	0.01472186
270	485051.71	3750934.43	PLOT_2	0.015434
270	485051.71	3750934.43	PLOT_30_	
270	485051.71	3750934.43	PLOT_6	0.008608099
270	485051.71	3750934.43	PLOT_9	0.028373677
270	485051.71	3750934.43	PLOT4	0.02834702
270	485051.71	3750934.43	PLOTS_1_	0.020628036
270	485051.71	3750934.43	PLOTS_5_	0.019998518
270	485051.71	3750934.43	PLOTS_7_	0.012026071
271	485151.71	3750934.43	PLOT_11	0.008938184
271	485151.71	3750934.43	PLOT_12	0.01271261
271	485151.71	3750934.43	PLOT_2	0.013701199
271	485151.71	3750934.43	PLOT_30_	
271	485151.71	3750934.43	PLOT_6	0.007913859
271	485151.71	3750934.43	PLOT_9	0.025824975
271	485151.71	3750934.43	PLOT4	0.024217314
271	485151.71	3750934.43	PLOTS_1_	0.019534897
271	485151.71	3750934.43	PLOTS_5_	0.017815348
271	485151.71	3750934.43	PLOTS_7_	0.011824444
272	485251.71	3750934.43	PLOT_11	0.007976491
272	485251.71	3750934.43	PLOT_12	0.01211047
272	485251.71	3750934.43	PLOT_2	0.013041854
272	485251.71	3750934.43	PLOT_30_	
272	485251.71	3750934.43	PLOT_6	0.006955703
272	485251.71	3750934.43	PLOT_9	0.024261755
272	485251.71	3750934.43	PLOT4	0.023040405
272	485251.71	3750934.43	PLOTS_1_	0.018297149
272	485251.71	3750934.43	PLOTS_5_	0.017788922
272	485251.71	3750934.43	PLOTS_7_	0.011080215
273	485351.71	3750934.43	PLOT_11	0.007806932
273	485351.71	3750934.43	PLOT_12	0.012698193
273	485351.71	3750934.43	PLOT_2	0.013287528
273	485351.71	3750934.43	PLOT_30_	
273	485351.71	3750934.43	PLOT_6	0.006568901

273	485351.71	3750934.43	PLOT_9	0.025439905
273	485351.71	3750934.43	PLOT4	0.022725693
273	485351.71	3750934.43	PLOTS_1_	0.017379532
273	485351.71	3750934.43	PLOTS_5_	0.018301977
273	485351.71	3750934.43	PLOTS_7_	0.011086685
274	485451.71	3750934.43	PLOT_11	0.007879606
274	485451.71	3750934.43	PLOT_12	0.013106715
274	485451.71	3750934.43	PLOT_2	0.013090231
274	485451.71	3750934.43	PLOT_30_	
274	485451.71	3750934.43	PLOT_6	0.006518966
274	485451.71	3750934.43	PLOT_9	0.026018966
274	485451.71	3750934.43	PLOT4	0.022571163
274	485451.71	3750934.43	PLOTS_1_	0.019417869
274	485451.71	3750934.43	PLOTS_5_	0.018195504
274	485451.71	3750934.43	PLOTS_7_	0.010916804
275	484551.71	3751034.43	PLOT_11	0.010435698
275	484551.71	3751034.43	PLOT_12	0.01306819
275	484551.71	3751034.43	PLOT_2	0.018375211
275	484551.71	3751034.43	PLOT_30_	
275	484551.71	3751034.43	PLOT_6	0.008842202
275	484551.71	3751034.43	PLOT_9	0.03019908
275	484551.71	3751034.43	PLOT4	0.029275596
275	484551.71	3751034.43	PLOTS_1_	0.021425214
275	484551.71	3751034.43	PLOTS_5_	0.021261846
275	484551.71	3751034.43	PLOTS_7_	0.014048397
276	484651.71	3751034.43	PLOT_11	0.010890547
276	484651.71	3751034.43	PLOT_12	0.014372952
276	484651.71	3751034.43	PLOT_2	0.019642176
276	484651.71	3751034.43	PLOT_30_	
276	484651.71	3751034.43	PLOT_6	0.008999659
276	484651.71	3751034.43	PLOT_9	0.031918093
276	484651.71	3751034.43	PLOT4	0.029914871
276	484651.71	3751034.43	PLOTS_1_	0.022661499
276	484651.71	3751034.43	PLOTS_5_	0.022172264
276	484651.71	3751034.43	PLOTS_7_	0.014948517
277	484751.71	3751034.43	PLOT_11	0.011758244
277	484751.71	3751034.43	PLOT_12	0.017559832
277	484751.71	3751034.43	PLOT_2	0.020860146
277	484751.71	3751034.43	PLOT_30_	
277	484751.71	3751034.43	PLOT_6	0.009468395
277	484751.71	3751034.43	PLOT_9	0.032992674
277	484751.71	3751034.43	PLOT4	0.029628367
277	484751.71	3751034.43	PLOTS_1_	0.022218817
277	484751.71	3751034.43	PLOTS_5_	0.024042111
277	484751.71	3751034.43	PLOTS_7_	0.015679563
278	484851.71	3751034.43	PLOT_11	0.011247731
278	484851.71	3751034.43	PLOT_12	0.017936343

278	484851.71	3751034.43	PLOT_2	0.017584614
278	484851.71	3751034.43	PLOT_30_	
278	484851.71	3751034.43	PLOT_6	0.008307989
278	484851.71	3751034.43	PLOT_9	0.028322599
278	484851.71	3751034.43	PLOT4	0.026772845
278	484851.71	3751034.43	PLOTS_1_	0.023245176
278	484851.71	3751034.43	PLOTS_5_	0.021828675
278	484851.71	3751034.43	PLOTS_7_	0.013827563
279	484951.71	3751034.43	PLOT_11	0.011960633
279	484951.71	3751034.43	PLOT_12	0.018344707
279	484951.71	3751034.43	PLOT_2	0.018766853
279	484951.71	3751034.43	PLOT_30_	
279	484951.71	3751034.43	PLOT_6	0.008860905
279	484951.71	3751034.43	PLOT_9	0.032487362
279	484951.71	3751034.43	PLOT4	0.031998361
279	484951.71	3751034.43	PLOTS_1_	0.025478005
279	484951.71	3751034.43	PLOTS_5_	0.023930876
279	484951.71	3751034.43	PLOTS_7_	0.014389738
280	485051.71	3751034.43	PLOT_11	0.010897929
280	485051.71	3751034.43	PLOT_12	0.017396161
280	485051.71	3751034.43	PLOT_2	0.01652345
280	485051.71	3751034.43	PLOT_30_	
280	485051.71	3751034.43	PLOT_6	0.008714292
280	485051.71	3751034.43	PLOT_9	0.028477156
280	485051.71	3751034.43	PLOT4	0.030210441
280	485051.71	3751034.43	PLOTS_1_	0.022362857
280	485051.71	3751034.43	PLOTS_5_	0.020966192
280	485051.71	3751034.43	PLOTS_7_	0.011946043
281	485151.71	3751034.43	PLOT_11	0.009685795
281	485151.71	3751034.43	PLOT_12	0.015944727
281	485151.71	3751034.43	PLOT_2	0.014825544
281	485151.71	3751034.43	PLOT_30_	
281	485151.71	3751034.43	PLOT_6	0.008510003
281	485151.71	3751034.43	PLOT_9	0.027454094
281	485151.71	3751034.43	PLOT4	0.027250929
281	485151.71	3751034.43	PLOTS_1_	0.021301849
281	485151.71	3751034.43	PLOTS_5_	0.019285629
281	485151.71	3751034.43	PLOTS_7_	0.012209095
282	485251.71	3751034.43	PLOT_11	0.008578844
282	485251.71	3751034.43	PLOT_12	0.013826256
282	485251.71	3751034.43	PLOT_2	0.01356347
282	485251.71	3751034.43	PLOT_30_	
282	485251.71	3751034.43	PLOT_6	0.007702981
282	485251.71	3751034.43	PLOT_9	0.025184867
282	485251.71	3751034.43	PLOT4	0.023597461
282	485251.71	3751034.43	PLOTS_1_	0.019599118
282	485251.71	3751034.43	PLOTS_5_	0.018231968

282	485251.71	3751034.43	PLOTS_7_	0.011882878
283	485351.71	3751034.43	PLOT_11	0.008122666
283	485351.71	3751034.43	PLOT_12	0.012908888
283	485351.71	3751034.43	PLOT_2	0.01347218
283	485351.71	3751034.43	PLOT_30_	
283	485351.71	3751034.43	PLOT_6	0.00704987
283	485351.71	3751034.43	PLOT_9	0.025101236
283	485351.71	3751034.43	PLOT4	0.023624774
283	485351.71	3751034.43	PLOTS_1_	0.017952809
283	485351.71	3751034.43	PLOTS_5_	0.018331936
283	485351.71	3751034.43	PLOTS_7_	0.011454109
284	485451.71	3751034.43	PLOT_11	0.008066452
284	485451.71	3751034.43	PLOT_12	0.013146471
284	485451.71	3751034.43	PLOT_2	0.013455966
284	485451.71	3751034.43	PLOT_30_	
284	485451.71	3751034.43	PLOT_6	0.006667027
284	485451.71	3751034.43	PLOT_9	0.026336992
284	485451.71	3751034.43	PLOT4	0.023319185
284	485451.71	3751034.43	PLOTS_1_	0.019778377
284	485451.71	3751034.43	PLOTS_5_	0.019232368
284	485451.71	3751034.43	PLOTS_7_	0.01132418
285	484551.71	3751134.43	PLOT_11	0.010120698
285	484551.71	3751134.43	PLOT_12	0.011717119
285	484551.71	3751134.43	PLOT_2	0.017626074
285	484551.71	3751134.43	PLOT_30_	
285	484551.71	3751134.43	PLOT_6	0.008470557
285	484551.71	3751134.43	PLOT_9	0.028622892
285	484551.71	3751134.43	PLOT4	0.028094713
285	484551.71	3751134.43	PLOTS_1_	0.019966287
285	484551.71	3751134.43	PLOTS_5_	0.020774347
285	484551.71	3751134.43	PLOTS_7_	0.013169629
286	484651.71	3751134.43	PLOT_11	0.010203414
286	484651.71	3751134.43	PLOT_12	0.012064677
286	484651.71	3751134.43	PLOT_2	0.017736707
286	484651.71	3751134.43	PLOT_30_	
286	484651.71	3751134.43	PLOT_6	0.008422159
286	484651.71	3751134.43	PLOT_9	0.029171783
286	484651.71	3751134.43	PLOT4	0.028692291
286	484651.71	3751134.43	PLOTS_1_	0.020779307
286	484651.71	3751134.43	PLOTS_5_	0.021044088
286	484651.71	3751134.43	PLOTS_7_	0.013483674
287	484751.71	3751134.43	PLOT_11	0.010942634
287	484751.71	3751134.43	PLOT_12	0.014077661
287	484751.71	3751134.43	PLOT_2	0.019616401
287	484751.71	3751134.43	PLOT_30_	
287	484751.71	3751134.43	PLOT_6	0.008920561
287	484751.71	3751134.43	PLOT_9	0.032086236

287	484751.71	3751134.43	PLOT4	0.030256951
287	484751.71	3751134.43	PLOTS_1_	0.022382558
287	484751.71	3751134.43	PLOTS_5_	0.022622173
287	484751.71	3751134.43	PLOTS_7_	0.014900718
288	484851.71	3751134.43	PLOT_11	0.012046467
288	484851.71	3751134.43	PLOT_12	0.018612951
288	484851.71	3751134.43	PLOT_2	0.020819964
288	484851.71	3751134.43	PLOT_30_	
288	484851.71	3751134.43	PLOT_6	0.009581354
288	484851.71	3751134.43	PLOT_9	0.032988704
288	484851.71	3751134.43	PLOT4	0.029325353
288	484851.71	3751134.43	PLOTS_1_	0.024641912
288	484851.71	3751134.43	PLOTS_5_	0.024813075
288	484851.71	3751134.43	PLOTS_7_	0.015971852
289	484951.71	3751134.43	PLOT_11	0.012198098
289	484951.71	3751134.43	PLOT_12	0.018593966
289	484951.71	3751134.43	PLOT_2	0.020490005
289	484951.71	3751134.43	PLOT_30_	
289	484951.71	3751134.43	PLOT_6	0.009548143
289	484951.71	3751134.43	PLOT_9	0.034880006
289	484951.71	3751134.43	PLOT4	0.032172927
289	484951.71	3751134.43	PLOTS_1_	0.026036821
289	484951.71	3751134.43	PLOTS_5_	0.0255486
289	484951.71	3751134.43	PLOTS_7_	0.015768042
290	485051.71	3751134.43	PLOT_11	0.011884381
290	485051.71	3751134.43	PLOT_12	0.019292339
290	485051.71	3751134.43	PLOT_2	0.018280969
290	485051.71	3751134.43	PLOT_30_	
290	485051.71	3751134.43	PLOT_6	0.008945972
290	485051.71	3751134.43	PLOT_9	0.030888326
290	485051.71	3751134.43	PLOT4	0.032429096
290	485051.71	3751134.43	PLOTS_1_	0.024915614
290	485051.71	3751134.43	PLOTS_5_	0.023770374
290	485051.71	3751134.43	PLOTS_7_	0.013754248
291	485151.71	3751134.43	PLOT_11	0.011039152
291	485151.71	3751134.43	PLOT_12	0.018576531
291	485151.71	3751134.43	PLOT_2	0.016665894
291	485151.71	3751134.43	PLOT_30_	
291	485151.71	3751134.43	PLOT_6	0.009029472
291	485151.71	3751134.43	PLOT_9	0.028834703
291	485151.71	3751134.43	PLOT4	0.030773486
291	485151.71	3751134.43	PLOTS_1_	0.023580498
291	485151.71	3751134.43	PLOTS_5_	0.021319256
291	485151.71	3751134.43	PLOTS_7_	0.012616391
292	485251.71	3751134.43	PLOT_11	0.009827476
292	485251.71	3751134.43	PLOT_12	0.01720028
292	485251.71	3751134.43	PLOT_2	0.014799549

292	485251.71	3751134.43	PLOT_30_	
292	485251.71	3751134.43	PLOT_6	0.008670355
292	485251.71	3751134.43	PLOT_9	0.027653113
292	485251.71	3751134.43	PLOT4	0.027241247
292	485251.71	3751134.43	PLOTS_1_	0.022107557
292	485251.71	3751134.43	PLOTS_5_	0.019868641
292	485251.71	3751134.43	PLOTS_7_	0.012907629
293	485351.71	3751134.43	PLOT_11	0.008524235
293	485351.71	3751134.43	PLOT_12	0.014950467
293	485351.71	3751134.43	PLOT_2	0.013659827
293	485351.71	3751134.43	PLOT_30_	
293	485351.71	3751134.43	PLOT_6	0.00769385
293	485351.71	3751134.43	PLOT_9	0.025328133
293	485351.71	3751134.43	PLOT4	0.024459323
293	485351.71	3751134.43	PLOTS_1_	0.019165413
293	485351.71	3751134.43	PLOTS_5_	0.019338123
293	485351.71	3751134.43	PLOTS_7_	0.012205334
294	485451.71	3751134.43	PLOT_11	0.008348944
294	485451.71	3751134.43	PLOT_12	0.013728912
294	485451.71	3751134.43	PLOT_2	0.013797732
294	485451.71	3751134.43	PLOT_30_	
294	485451.71	3751134.43	PLOT_6	0.006927662
294	485451.71	3751134.43	PLOT_9	0.026040933
294	485451.71	3751134.43	PLOT4	0.024102523
294	485451.71	3751134.43	PLOTS_1_	0.020131247
294	485451.71	3751134.43	PLOTS_5_	0.019472763
294	485451.71	3751134.43	PLOTS_7_	0.011602276
295	484551.71	3751234.43	PLOT_11	0.009808677
295	484551.71	3751234.43	PLOT_12	0.011502174
295	484551.71	3751234.43	PLOT_2	0.016990962
295	484551.71	3751234.43	PLOT_30_	
295	484551.71	3751234.43	PLOT_6	0.008154018
295	484551.71	3751234.43	PLOT_9	0.028023893
295	484551.71	3751234.43	PLOT4	0.026974332
295	484551.71	3751234.43	PLOTS_1_	0.019597778
295	484551.71	3751234.43	PLOTS_5_	0.020709307
295	484551.71	3751234.43	PLOTS_7_	0.012715789
296	484651.71	3751234.43	PLOT_11	0.009752188
296	484651.71	3751234.43	PLOT_12	0.011386083
296	484651.71	3751234.43	PLOT_2	0.016772825
296	484651.71	3751234.43	PLOT_30_	
296	484651.71	3751234.43	PLOT_6	0.008033407
296	484651.71	3751234.43	PLOT_9	0.028115551
296	484651.71	3751234.43	PLOT4	0.027431036
296	484651.71	3751234.43	PLOTS_1_	0.019505528
296	484651.71	3751234.43	PLOTS_5_	0.020623371
296	484651.71	3751234.43	PLOTS_7_	0.012556461

297	484751.71	3751234.43	PLOT_11	0.010859322
297	484751.71	3751234.43	PLOT_12	0.012975175
297	484751.71	3751234.43	PLOT_2	0.019015655
297	484751.71	3751234.43	PLOT_30_	
297	484751.71	3751234.43	PLOT_6	0.008879165
297	484751.71	3751234.43	PLOT_9	0.030902441
297	484751.71	3751234.43	PLOT4	0.030666978
297	484751.71	3751234.43	PLOTS_1_	0.022287344
297	484751.71	3751234.43	PLOTS_5_	0.022912245
297	484751.71	3751234.43	PLOTS_7_	0.014415659
298	484851.71	3751234.43	PLOT_11	0.011839768
298	484851.71	3751234.43	PLOT_12	0.016208523
298	484851.71	3751234.43	PLOT_2	0.021261393
298	484851.71	3751234.43	PLOT_30_	
298	484851.71	3751234.43	PLOT_6	0.009609188
298	484851.71	3751234.43	PLOT_9	0.034198965
298	484851.71	3751234.43	PLOT4	0.032372847
298	484851.71	3751234.43	PLOTS_1_	0.023241357
298	484851.71	3751234.43	PLOTS_5_	0.024822345
298	484851.71	3751234.43	PLOTS_7_	0.016171618
299	484951.71	3751234.43	PLOT_11	0.012071548
299	484951.71	3751234.43	PLOT_12	0.017832405
299	484951.71	3751234.43	PLOT_2	0.021142521
299	484951.71	3751234.43	PLOT_30_	
299	484951.71	3751234.43	PLOT_6	0.009806917
299	484951.71	3751234.43	PLOT_9	0.035228908
299	484951.71	3751234.43	PLOT4	0.03184372
299	484951.71	3751234.43	PLOTS_1_	0.025563836
299	484951.71	3751234.43	PLOTS_5_	0.025311483
299	484951.71	3751234.43	PLOTS_7_	0.016272107
300	485051.71	3751234.43	PLOT_11	0.012399708
300	485051.71	3751234.43	PLOT_12	0.019658683
300	485051.71	3751234.43	PLOT_2	0.019889391
300	485051.71	3751234.43	PLOT_30_	
300	485051.71	3751234.43	PLOT_6	0.009350768
300	485051.71	3751234.43	PLOT_9	0.033750642
300	485051.71	3751234.43	PLOT4	0.033678485
300	485051.71	3751234.43	PLOTS_1_	0.026994653
300	485051.71	3751234.43	PLOTS_5_	0.025820799
300	485051.71	3751234.43	PLOTS_7_	0.015661568
301	485151.71	3751234.43	PLOT_11	0.011695197
301	485151.71	3751234.43	PLOT_12	0.019411766
301	485151.71	3751234.43	PLOT_2	0.017963126
301	485151.71	3751234.43	PLOT_30_	
301	485151.71	3751234.43	PLOT_6	0.009093737
301	485151.71	3751234.43	PLOT_9	0.029712559
301	485151.71	3751234.43	PLOT4	0.032661422

301	485151.71	3751234.43	PLOTS_1_	0.024946079
301	485151.71	3751234.43	PLOTS_5_	0.023656117
301	485151.71	3751234.43	PLOTS_7_	0.013127371
302	485251.71	3751234.43	PLOT_11	0.009403807
302	485251.71	3751234.43	PLOT_12	0.016835843
302	485251.71	3751234.43	PLOT_2	0.01455881
302	485251.71	3751234.43	PLOT_30_	
302	485251.71	3751234.43	PLOT_6	0.008023213
302	485251.71	3751234.43	PLOT_9	0.025185749
302	485251.71	3751234.43	PLOT4	0.026640591
302	485251.71	3751234.43	PLOTS_1_	0.021438172
302	485251.71	3751234.43	PLOTS_5_	0.019797608
302	485251.71	3751234.43	PLOTS_7_	0.011353539
303	485351.71	3751234.43	PLOT_11	0.008480034
303	485351.71	3751234.43	PLOT_12	0.014832192
303	485351.71	3751234.43	PLOT_2	0.013970488
303	485351.71	3751234.43	PLOT_30_	
303	485351.71	3751234.43	PLOT_6	0.007198581
303	485351.71	3751234.43	PLOT_9	0.025294874
303	485351.71	3751234.43	PLOT4	0.025178689
303	485351.71	3751234.43	PLOTS_1_	0.019578442
303	485351.71	3751234.43	PLOTS_5_	0.020140071
303	485351.71	3751234.43	PLOTS_7_	0.011436397
304	485451.71	3751234.43	PLOT_11	0.008418776
304	485451.71	3751234.43	PLOT_12	0.014115074
304	485451.71	3751234.43	PLOT_2	0.014207747
304	485451.71	3751234.43	PLOT_30_	
304	485451.71	3751234.43	PLOT_6	0.006878082
304	485451.71	3751234.43	PLOT_9	0.025505274
304	485451.71	3751234.43	PLOT4	0.025280608
304	485451.71	3751234.43	PLOTS_1_	0.02067475
304	485451.71	3751234.43	PLOTS_5_	0.020888297
304	485451.71	3751234.43	PLOTS_7_	0.011747652
305	484551.71	3751334.43	PLOT_11	0.008213865
305	484551.71	3751334.43	PLOT_12	0.008801105
305	484551.71	3751334.43	PLOT_2	0.014350498
305	484551.71	3751334.43	PLOT_30_	
305	484551.71	3751334.43	PLOT_6	0.006500233
305	484551.71	3751334.43	PLOT_9	0.023443182
305	484551.71	3751334.43	PLOT4	0.022903058
305	484551.71	3751334.43	PLOTS_1_	0.016420034
305	484551.71	3751334.43	PLOTS_5_	0.01790405
305	484551.71	3751334.43	PLOTS_7_	0.010474245
306	484651.71	3751334.43	PLOT_11	0.009541775
306	484651.71	3751334.43	PLOT_12	0.011082809
306	484651.71	3751334.43	PLOT_2	0.01634554
306	484651.71	3751334.43	PLOT_30_	

306	484651.71	3751334.43	PLOT_6	0.007742751
306	484651.71	3751334.43	PLOT_9	0.027222787
306	484651.71	3751334.43	PLOT4	0.026254351
306	484651.71	3751334.43	PLOTS_1_	0.019479978
306	484651.71	3751334.43	PLOTS_5_	0.020405971
306	484651.71	3751334.43	PLOTS_7_	0.012137438
307	484751.71	3751334.43	PLOT_11	0.01091361
307	484751.71	3751334.43	PLOT_12	0.013326347
307	484751.71	3751334.43	PLOT_2	0.019032662
307	484751.71	3751334.43	PLOT_30_	
307	484751.71	3751334.43	PLOT_6	0.009093944
307	484751.71	3751334.43	PLOT_9	0.031034856
307	484751.71	3751334.43	PLOT4	0.031304069
307	484751.71	3751334.43	PLOTS_1_	0.022851725
307	484751.71	3751334.43	PLOTS_5_	0.023412752
307	484751.71	3751334.43	PLOTS_7_	0.014413961
308	484851.71	3751334.43	PLOT_11	0.011699462
308	484851.71	3751334.43	PLOT_12	0.014593338
308	484851.71	3751334.43	PLOT_2	0.020939761
308	484851.71	3751334.43	PLOT_30_	
308	484851.71	3751334.43	PLOT_6	0.009587441
308	484851.71	3751334.43	PLOT_9	0.033296761
308	484851.71	3751334.43	PLOT4	0.03329717
308	484851.71	3751334.43	PLOTS_1_	0.023863623
308	484851.71	3751334.43	PLOTS_5_	0.025112468
308	484851.71	3751334.43	PLOTS_7_	0.015823807
309	484951.71	3751334.43	PLOT_11	0.011987914
309	484951.71	3751334.43	PLOT_12	0.015288255
309	484951.71	3751334.43	PLOT_2	0.021015058
309	484951.71	3751334.43	PLOT_30_	
309	484951.71	3751334.43	PLOT_6	0.009622957
309	484951.71	3751334.43	PLOT_9	0.034531899
309	484951.71	3751334.43	PLOT4	0.033124675
309	484951.71	3751334.43	PLOTS_1_	0.025139961
309	484951.71	3751334.43	PLOTS_5_	0.025910627
309	484951.71	3751334.43	PLOTS_7_	0.016156211
310	485051.71	3751334.43	PLOT_11	0.0125142
310	485051.71	3751334.43	PLOT_12	0.018070664
310	485051.71	3751334.43	PLOT_2	0.021536718
310	485051.71	3751334.43	PLOT_30_	
310	485051.71	3751334.43	PLOT_6	0.010016761
310	485051.71	3751334.43	PLOT_9	0.036193746
310	485051.71	3751334.43	PLOT4	0.033649885
310	485051.71	3751334.43	PLOTS_1_	0.027051116
310	485051.71	3751334.43	PLOTS_5_	0.026867239
310	485051.71	3751334.43	PLOTS_7_	0.016685065
311	485151.71	3751334.43	PLOT_11	0.012761432

311	485151.71	3751334.43	PLOT_12	0.019987891
311	485151.71	3751334.43	PLOT_2	0.019980418
311	485151.71	3751334.43	PLOT_30_	
311	485151.71	3751334.43	PLOT_6	0.009360134
311	485151.71	3751334.43	PLOT_9	0.032773188
311	485151.71	3751334.43	PLOT4	0.034868267
311	485151.71	3751334.43	PLOTS_1_	0.027624637
311	485151.71	3751334.43	PLOTS_5_	0.026765017
311	485151.71	3751334.43	PLOTS_7_	0.015363334
312	485251.71	3751334.43	PLOT_11	0.011127737
312	485251.71	3751334.43	PLOT_12	0.018135878
312	485251.71	3751334.43	PLOT_2	0.016125508
312	485251.71	3751334.43	PLOT_30_	
312	485251.71	3751334.43	PLOT_6	0.008806184
312	485251.71	3751334.43	PLOT_9	0.026770671
312	485251.71	3751334.43	PLOT4	0.03023837
312	485251.71	3751334.43	PLOTS_1_	0.024278034
312	485251.71	3751334.43	PLOTS_5_	0.021997064
312	485251.71	3751334.43	PLOTS_7_	0.011875842
313	485351.71	3751334.43	PLOT_11	0.008896871
313	485351.71	3751334.43	PLOT_12	0.015137651
313	485351.71	3751334.43	PLOT_2	0.014437074
313	485351.71	3751334.43	PLOT_30_	
313	485351.71	3751334.43	PLOT_6	0.007447693
313	485351.71	3751334.43	PLOT_9	0.025752372
313	485351.71	3751334.43	PLOT4	0.025850313
313	485351.71	3751334.43	PLOTS_1_	0.020573767
313	485351.71	3751334.43	PLOTS_5_	0.020392399
313	485351.71	3751334.43	PLOTS_7_	0.011323453
314	485451.71	3751334.43	PLOT_11	0.008510754
314	485451.71	3751334.43	PLOT_12	0.014575267
314	485451.71	3751334.43	PLOT_2	0.014585377
314	485451.71	3751334.43	PLOT_30_	
314	485451.71	3751334.43	PLOT_6	0.006839405
314	485451.71	3751334.43	PLOT_9	0.026361163
314	485451.71	3751334.43	PLOT4	0.026303995
314	485451.71	3751334.43	PLOTS_1_	0.021209763
314	485451.71	3751334.43	PLOTS_5_	0.021104263
314	485451.71	3751334.43	PLOTS_7_	0.011906292
315	484551.71	3751434.43	PLOT_11	0.007068537
315	484551.71	3751434.43	PLOT_12	0.00725316
315	484551.71	3751434.43	PLOT_2	0.01225205
315	484551.71	3751434.43	PLOT_30_	
315	484551.71	3751434.43	PLOT_6	0.005644015
315	484551.71	3751434.43	PLOT_9	0.021004489
315	484551.71	3751434.43	PLOT4	0.020331185
315	484551.71	3751434.43	PLOTS_1_	0.013907695

315	484551.71	3751434.43	PLOTS_5_	0.015932493
315	484551.71	3751434.43	PLOTS_7_	0.009098651
316	484651.71	3751434.43	PLOT_11	0.00881764
316	484651.71	3751434.43	PLOT_12	0.009584708
316	484651.71	3751434.43	PLOT_2	0.015584286
316	484651.71	3751434.43	PLOT_30_	
316	484651.71	3751434.43	PLOT_6	0.007053858
316	484651.71	3751434.43	PLOT_9	0.025050776
316	484651.71	3751434.43	PLOT4	0.025009439
316	484651.71	3751434.43	PLOTS_1_	0.018146285
316	484651.71	3751434.43	PLOTS_5_	0.019528278
316	484651.71	3751434.43	PLOTS_7_	0.01136102
317	484751.71	3751434.43	PLOT_11	0.009916291
317	484751.71	3751434.43	PLOT_12	0.011538952
317	484751.71	3751434.43	PLOT_2	0.017211257
317	484751.71	3751434.43	PLOT_30_	
317	484751.71	3751434.43	PLOT_6	0.008100124
317	484751.71	3751434.43	PLOT_9	0.02851606
317	484751.71	3751434.43	PLOT4	0.028045069
317	484751.71	3751434.43	PLOTS_1_	0.020436388
317	484751.71	3751434.43	PLOTS_5_	0.021660234
317	484751.71	3751434.43	PLOTS_7_	0.012681416
318	484851.71	3751434.43	PLOT_11	0.010750241
318	484851.71	3751434.43	PLOT_12	0.01303181
318	484851.71	3751434.43	PLOT_2	0.01922031
318	484851.71	3751434.43	PLOT_30_	
318	484851.71	3751434.43	PLOT_6	0.008895298
318	484851.71	3751434.43	PLOT_9	0.031119368
318	484851.71	3751434.43	PLOT4	0.031531582
318	484851.71	3751434.43	PLOTS_1_	0.022348884
318	484851.71	3751434.43	PLOTS_5_	0.023598604
318	484851.71	3751434.43	PLOTS_7_	0.014194987
319	484951.71	3751434.43	PLOT_11	0.011445581
319	484951.71	3751434.43	PLOT_12	0.014211306
319	484951.71	3751434.43	PLOT_2	0.020217544
319	484951.71	3751434.43	PLOT_30_	
319	484951.71	3751434.43	PLOT_6	0.00925409
319	484951.71	3751434.43	PLOT_9	0.032848967
319	484951.71	3751434.43	PLOT4	0.033226594
319	484951.71	3751434.43	PLOTS_1_	0.024379179
319	484951.71	3751434.43	PLOTS_5_	0.025146781
319	484951.71	3751434.43	PLOTS_7_	0.015398556
320	485051.71	3751434.43	PLOT_11	0.012029456
320	485051.71	3751434.43	PLOT_12	0.015214303
320	485051.71	3751434.43	PLOT_2	0.020778108
320	485051.71	3751434.43	PLOT_30_	
320	485051.71	3751434.43	PLOT_6	0.009657556

320	485051.71	3751434.43	PLOT_9	0.03471054
320	485051.71	3751434.43	PLOT4	0.034181699
320	485051.71	3751434.43	PLOTS_1_	0.026599415
320	485051.71	3751434.43	PLOTS_5_	0.026526927
320	485051.71	3751434.43	PLOTS_7_	0.016093208
321	485151.71	3751434.43	PLOT_11	0.013165614
321	485151.71	3751434.43	PLOT_12	0.018589479
321	485151.71	3751434.43	PLOT_2	0.021379868
321	485151.71	3751434.43	PLOT_30_	
321	485151.71	3751434.43	PLOT_6	0.009970018
321	485151.71	3751434.43	PLOT_9	0.035461803
321	485151.71	3751434.43	PLOT4	0.035585618
321	485151.71	3751434.43	PLOTS_1_	0.029565039
321	485151.71	3751434.43	PLOTS_5_	0.028748609
321	485151.71	3751434.43	PLOTS_7_	0.016987302
322	485251.71	3751434.43	PLOT_11	0.012253487
322	485251.71	3751434.43	PLOT_12	0.018256298
322	485251.71	3751434.43	PLOT_2	0.01783139
322	485251.71	3751434.43	PLOT_30_	
322	485251.71	3751434.43	PLOT_6	0.009087384
322	485251.71	3751434.43	PLOT_9	0.028539085
322	485251.71	3751434.43	PLOT4	0.032848861
322	485251.71	3751434.43	PLOTS_1_	0.026669973
322	485251.71	3751434.43	PLOTS_5_	0.025372017
322	485251.71	3751434.43	PLOTS_7_	0.013535031
323	485351.71	3751434.43	PLOT_11	0.0102627
323	485351.71	3751434.43	PLOT_12	0.015856437
323	485351.71	3751434.43	PLOT_2	0.015127966
323	485351.71	3751434.43	PLOT_30_	
323	485351.71	3751434.43	PLOT_6	0.008184541
323	485351.71	3751434.43	PLOT_9	0.025864497
323	485351.71	3751434.43	PLOT4	0.028185382
323	485351.71	3751434.43	PLOTS_1_	0.022402909
323	485351.71	3751434.43	PLOTS_5_	0.021709348
323	485351.71	3751434.43	PLOTS_7_	0.011417836
324	485451.71	3751434.43	PLOT_11	0.009041075
324	485451.71	3751434.43	PLOT_12	0.014840374
324	485451.71	3751434.43	PLOT_2	0.014726455
324	485451.71	3751434.43	PLOT_30_	
324	485451.71	3751434.43	PLOT_6	0.007432328
324	485451.71	3751434.43	PLOT_9	0.026635697
324	485451.71	3751434.43	PLOT4	0.026951273
324	485451.71	3751434.43	PLOTS_1_	0.021348075
324	485451.71	3751434.43	PLOTS_5_	0.021798868
324	485451.71	3751434.43	PLOTS_7_	0.011890561
325	484551.71	3751534.43	PLOT_11	0.004891087
325	484551.71	3751534.43	PLOT_12	0.004505304

325	484551.71	3751534.43	PLOT_2	0.00808366
325	484551.71	3751534.43	PLOT_30_	
325	484551.71	3751534.43	PLOT_6	0.003891364
325	484551.71	3751534.43	PLOT_9	0.014367067
325	484551.71	3751534.43	PLOT4	0.01394555
325	484551.71	3751534.43	PLOTS_1_	0.009896053
325	484551.71	3751534.43	PLOTS_5_	0.01130384
325	484551.71	3751534.43	PLOTS_7_	0.00600337
326	484651.71	3751534.43	PLOT_11	0.006283877
326	484651.71	3751534.43	PLOT_12	0.006151865
326	484651.71	3751534.43	PLOT_2	0.01072712
326	484651.71	3751534.43	PLOT_30_	
326	484651.71	3751534.43	PLOT_6	0.005030142
326	484651.71	3751534.43	PLOT_9	0.018653748
326	484651.71	3751534.43	PLOT4	0.01839478
326	484651.71	3751534.43	PLOTS_1_	0.012112918
326	484651.71	3751534.43	PLOTS_5_	0.014734769
326	484651.71	3751534.43	PLOTS_7_	0.008107059
327	484751.71	3751534.43	PLOT_11	0.008336747
327	484751.71	3751534.43	PLOT_12	0.008777037
327	484751.71	3751534.43	PLOT_2	0.014525457
327	484751.71	3751534.43	PLOT_30_	
327	484751.71	3751534.43	PLOT_6	0.006639046
327	484751.71	3751534.43	PLOT_9	0.024412343
327	484751.71	3751534.43	PLOT4	0.024122168
327	484751.71	3751534.43	PLOTS_1_	0.016890623
327	484751.71	3751534.43	PLOTS_5_	0.0189678
327	484751.71	3751534.43	PLOTS_7_	0.010686628
328	484851.71	3751534.43	PLOT_11	0.009251396
328	484851.71	3751534.43	PLOT_12	0.010149991
328	484851.71	3751534.43	PLOT_2	0.016016859
328	484851.71	3751534.43	PLOT_30_	
328	484851.71	3751534.43	PLOT_6	0.007454814
328	484851.71	3751534.43	PLOT_9	0.02661479
328	484851.71	3751534.43	PLOT4	0.026771725
328	484851.71	3751534.43	PLOTS_1_	0.019018285
328	484851.71	3751534.43	PLOTS_5_	0.020956411
328	484851.71	3751534.43	PLOTS_7_	0.011998451
329	484951.71	3751534.43	PLOT_11	0.009822112
329	484951.71	3751534.43	PLOT_12	0.011050004
329	484951.71	3751534.43	PLOT_2	0.01734251
329	484951.71	3751534.43	PLOT_30_	
329	484951.71	3751534.43	PLOT_6	0.007875536
329	484951.71	3751534.43	PLOT_9	0.028331244
329	484951.71	3751534.43	PLOT4	0.028591155
329	484951.71	3751534.43	PLOTS_1_	0.02054972
329	484951.71	3751534.43	PLOTS_5_	0.022140819

329	484951.71	3751534.43	PLOTS_7_	0.01238484
330	485051.71	3751534.43	PLOT_11	0.010053938
330	485051.71	3751534.43	PLOT_12	0.011347876
330	485051.71	3751534.43	PLOT_2	0.017388992
330	485051.71	3751534.43	PLOT_30_	
330	485051.71	3751534.43	PLOT_6	0.008003003
330	485051.71	3751534.43	PLOT_9	0.029348219
330	485051.71	3751534.43	PLOT4	0.029536354
330	485051.71	3751534.43	PLOTS_1_	0.022463556
330	485051.71	3751534.43	PLOTS_5_	0.022726648
330	485051.71	3751534.43	PLOTS_7_	0.012810374
331	485151.71	3751534.43	PLOT_11	0.011214947
331	485151.71	3751534.43	PLOT_12	0.013794523
331	485151.71	3751534.43	PLOT_2	0.019257584
331	485151.71	3751534.43	PLOT_30_	
331	485151.71	3751534.43	PLOT_6	0.009044659
331	485151.71	3751534.43	PLOT_9	0.033088743
331	485151.71	3751534.43	PLOT4	0.033434909
331	485151.71	3751534.43	PLOTS_1_	0.025859472
331	485151.71	3751534.43	PLOTS_5_	0.025540662
331	485151.71	3751534.43	PLOTS_7_	0.014754169
332	485251.71	3751534.43	PLOT_11	0.01337511
332	485251.71	3751534.43	PLOT_12	0.018703941
332	485251.71	3751534.43	PLOT_2	0.02292251
332	485251.71	3751534.43	PLOT_30_	
332	485251.71	3751534.43	PLOT_6	0.010357736
332	485251.71	3751534.43	PLOT_9	0.037533334
332	485251.71	3751534.43	PLOT4	0.038740069
332	485251.71	3751534.43	PLOTS_1_	0.032687741
332	485251.71	3751534.43	PLOTS_5_	0.02972796
332	485251.71	3751534.43	PLOTS_7_	0.0174944
333	485351.71	3751534.43	PLOT_11	0.012984225
333	485351.71	3751534.43	PLOT_12	0.018247958
333	485351.71	3751534.43	PLOT_2	0.019371653
333	485351.71	3751534.43	PLOT_30_	
333	485351.71	3751534.43	PLOT_6	0.009862909
333	485351.71	3751534.43	PLOT_9	0.030944785
333	485351.71	3751534.43	PLOT4	0.036166797
333	485351.71	3751534.43	PLOTS_1_	0.028954512
333	485351.71	3751534.43	PLOTS_5_	0.027299274
333	485351.71	3751534.43	PLOTS_7_	0.014471383
334	485451.71	3751534.43	PLOT_11	0.011485976
334	485451.71	3751534.43	PLOT_12	0.016356387
334	485451.71	3751534.43	PLOT_2	0.016963777
334	485451.71	3751534.43	PLOT_30_	
334	485451.71	3751534.43	PLOT_6	0.009306506
334	485451.71	3751534.43	PLOT_9	0.027517787

334	485451.71	3751534.43	PLOT4	0.031199184
334	485451.71	3751534.43	PLOTS_1_	0.023305741
334	485451.71	3751534.43	PLOTS_5_	0.024272725
334	485451.71	3751534.43	PLOTS_7_	0.013643608
335	484551.71	3751634.43	PLOT_11	0.00489902
335	484551.71	3751634.43	PLOT_12	0.004540692
335	484551.71	3751634.43	PLOT_2	0.008433534
335	484551.71	3751634.43	PLOT_30_	
335	484551.71	3751634.43	PLOT_6	0.003964819
335	484551.71	3751634.43	PLOT_9	0.014709705
335	484551.71	3751634.43	PLOT4	0.014208434
335	484551.71	3751634.43	PLOTS_1_	0.010200138
335	484551.71	3751634.43	PLOTS_5_	0.011506951
335	484551.71	3751634.43	PLOTS_7_	0.006075472
336	484651.71	3751634.43	PLOT_11	0.005030752
336	484651.71	3751634.43	PLOT_12	0.004641015
336	484651.71	3751634.43	PLOT_2	0.008403926
336	484651.71	3751634.43	PLOT_30_	
336	484651.71	3751634.43	PLOT_6	0.004036736
336	484651.71	3751634.43	PLOT_9	0.015077662
336	484651.71	3751634.43	PLOT4	0.014800471
336	484651.71	3751634.43	PLOTS_1_	0.010475099
336	484651.71	3751634.43	PLOTS_5_	0.011962391
336	484651.71	3751634.43	PLOTS_7_	0.00625971
337	484751.71	3751634.43	PLOT_11	0.005909269
337	484751.71	3751634.43	PLOT_12	0.005563904
337	484751.71	3751634.43	PLOT_2	0.009874223
337	484751.71	3751634.43	PLOT_30_	
337	484751.71	3751634.43	PLOT_6	0.004710589
337	484751.71	3751634.43	PLOT_9	0.017582607
337	484751.71	3751634.43	PLOT4	0.017626218
337	484751.71	3751634.43	PLOTS_1_	0.011771665
337	484751.71	3751634.43	PLOTS_5_	0.014253364
337	484751.71	3751634.43	PLOTS_7_	0.007534896
338	484851.71	3751634.43	PLOT_11	0.007117965
338	484851.71	3751634.43	PLOT_12	0.007188938
338	484851.71	3751634.43	PLOT_2	0.012362242
338	484851.71	3751634.43	PLOT_30_	
338	484851.71	3751634.43	PLOT_6	0.005683431
338	484851.71	3751634.43	PLOT_9	0.021356125
338	484851.71	3751634.43	PLOT4	0.021571899
338	484851.71	3751634.43	PLOTS_1_	0.013141186
338	484851.71	3751634.43	PLOTS_5_	0.016788164
338	484851.71	3751634.43	PLOTS_7_	0.009191497
339	484951.71	3751634.43	PLOT_11	0.007602846
339	484951.71	3751634.43	PLOT_12	0.007835918
339	484951.71	3751634.43	PLOT_2	0.013365821

339	484951.71	3751634.43	PLOT_30_	
339	484951.71	3751634.43	PLOT_6	0.006048634
339	484951.71	3751634.43	PLOT_9	0.023133008
339	484951.71	3751634.43	PLOT4	0.022699444
339	484951.71	3751634.43	PLOTS_1_	0.013066729
339	484951.71	3751634.43	PLOTS_5_	0.017981843
339	484951.71	3751634.43	PLOTS_7_	0.009710525
340	485051.71	3751634.43	PLOT_11	0.00795462
340	485051.71	3751634.43	PLOT_12	0.008358386
340	485051.71	3751634.43	PLOT_2	0.013846418
340	485051.71	3751634.43	PLOT_30_	
340	485051.71	3751634.43	PLOT_6	0.006274315
340	485051.71	3751634.43	PLOT_9	0.024301806
340	485051.71	3751634.43	PLOT4	0.023958571
340	485051.71	3751634.43	PLOTS_1_	0.014043612
340	485051.71	3751634.43	PLOTS_5_	0.018877101
340	485051.71	3751634.43	PLOTS_7_	0.009955824
341	485151.71	3751634.43	PLOT_11	0.009120031
341	485151.71	3751634.43	PLOT_12	0.009881548
341	485151.71	3751634.43	PLOT_2	0.015790527
341	485151.71	3751634.43	PLOT_30_	
341	485151.71	3751634.43	PLOT_6	0.007244172
341	485151.71	3751634.43	PLOT_9	0.02765179
341	485151.71	3751634.43	PLOT4	0.027846324
341	485151.71	3751634.43	PLOTS_1_	0.019760707
341	485151.71	3751634.43	PLOTS_5_	0.021453742
341	485151.71	3751634.43	PLOTS_7_	0.011577891
342	485251.71	3751634.43	PLOT_11	0.012004192
342	485251.71	3751634.43	PLOT_12	0.014936884
342	485251.71	3751634.43	PLOT_2	0.020647252
342	485251.71	3751634.43	PLOT_30_	
342	485251.71	3751634.43	PLOT_6	0.009673926
342	485251.71	3751634.43	PLOT_9	0.035277957
342	485251.71	3751634.43	PLOT4	0.036125716
342	485251.71	3751634.43	PLOTS_1_	0.02838091
342	485251.71	3751634.43	PLOTS_5_	0.028110185
342	485251.71	3751634.43	PLOTS_7_	0.015943262
343	485351.71	3751634.43	PLOT_11	0.013582818
343	485351.71	3751634.43	PLOT_12	0.018058669
343	485351.71	3751634.43	PLOT_2	0.023663188
343	485351.71	3751634.43	PLOT_30_	
343	485351.71	3751634.43	PLOT_6	0.010521664
343	485351.71	3751634.43	PLOT_9	0.0393081
343	485351.71	3751634.43	PLOT4	0.040233985
343	485351.71	3751634.43	PLOTS_1_	0.033389298
343	485351.71	3751634.43	PLOTS_5_	0.03152785
343	485351.71	3751634.43	PLOTS_7_	0.017527155

344	485451.71	3751634.43	PLOT_11	0.013949723
344	485451.71	3751634.43	PLOT_12	0.019815086
344	485451.71	3751634.43	PLOT_2	0.023090331
344	485451.71	3751634.43	PLOT_30_	
344	485451.71	3751634.43	PLOT_6	0.010908348
344	485451.71	3751634.43	PLOT_9	0.038168414
344	485451.71	3751634.43	PLOT4	0.042686141
344	485451.71	3751634.43	PLOTS_1_	0.031588184
344	485451.71	3751634.43	PLOTS_5_	0.031678468
344	485451.71	3751634.43	PLOTS_7_	0.016986574
345	484551.71	3751734.43	PLOT_11	0.004893242
345	484551.71	3751734.43	PLOT_12	0.004637838
345	484551.71	3751734.43	PLOT_2	0.008704806
345	484551.71	3751734.43	PLOT_30_	
345	484551.71	3751734.43	PLOT_6	0.004025863
345	484551.71	3751734.43	PLOT_9	0.014814067
345	484551.71	3751734.43	PLOT4	0.014473278
345	484551.71	3751734.43	PLOTS_1_	0.010399179
345	484551.71	3751734.43	PLOTS_5_	0.011740689
345	484551.71	3751734.43	PLOTS_7_	0.006194038
346	484651.71	3751734.43	PLOT_11	0.005006083
346	484651.71	3751734.43	PLOT_12	0.00476207
346	484651.71	3751734.43	PLOT_2	0.008803014
346	484651.71	3751734.43	PLOT_30_	
346	484651.71	3751734.43	PLOT_6	0.004116514
346	484651.71	3751734.43	PLOT_9	0.015344609
346	484651.71	3751734.43	PLOT4	0.015094363
346	484651.71	3751734.43	PLOTS_1_	0.01086404
346	484651.71	3751734.43	PLOTS_5_	0.012153877
346	484651.71	3751734.43	PLOTS_7_	0.00633444
347	484751.71	3751734.43	PLOT_11	0.005157348
347	484751.71	3751734.43	PLOT_12	0.004881974
347	484751.71	3751734.43	PLOT_2	0.00874371
347	484751.71	3751734.43	PLOT_30_	
347	484751.71	3751734.43	PLOT_6	0.004191475
347	484751.71	3751734.43	PLOT_9	0.015802813
347	484751.71	3751734.43	PLOT4	0.015751547
347	484751.71	3751734.43	PLOTS_1_	0.011066412
347	484751.71	3751734.43	PLOTS_5_	0.012612031
347	484751.71	3751734.43	PLOTS_7_	0.006535783
348	484851.71	3751734.43	PLOT_11	0.005301276
348	484851.71	3751734.43	PLOT_12	0.004999892
348	484851.71	3751734.43	PLOT_2	0.008705379
348	484851.71	3751734.43	PLOT_30_	
348	484851.71	3751734.43	PLOT_6	0.004224361
348	484851.71	3751734.43	PLOT_9	0.016191941
348	484851.71	3751734.43	PLOT4	0.016495707

348	484851.71	3751734.43	PLOTS_1_	0.010988502
348	484851.71	3751734.43	PLOTS_5_	0.013132306
348	484851.71	3751734.43	PLOTS_7_	0.006739916
349	484951.71	3751734.43	PLOT_11	0.005440344
349	484951.71	3751734.43	PLOT_12	0.005118008
349	484951.71	3751734.43	PLOT_2	0.009057896
349	484951.71	3751734.43	PLOT_30_	
349	484951.71	3751734.43	PLOT_6	0.004234052
349	484951.71	3751734.43	PLOT_9	0.016517377
349	484951.71	3751734.43	PLOT4	0.017102463
349	484951.71	3751734.43	PLOTS_1_	0.010634169
349	484951.71	3751734.43	PLOTS_5_	0.013611509
349	484951.71	3751734.43	PLOTS_7_	0.006888406
350	485051.71	3751734.43	PLOT_11	0.005578174
350	485051.71	3751734.43	PLOT_12	0.005240097
350	485051.71	3751734.43	PLOT_2	0.009318549
350	485051.71	3751734.43	PLOT_30_	
350	485051.71	3751734.43	PLOT_6	0.004307329
350	485051.71	3751734.43	PLOT_9	0.017027982
350	485051.71	3751734.43	PLOT4	0.017489934
350	485051.71	3751734.43	PLOTS_1_	0.010036356
350	485051.71	3751734.43	PLOTS_5_	0.014063875
350	485051.71	3751734.43	PLOTS_7_	0.007021449
351	485151.71	3751734.43	PLOT_11	0.007023739
351	485151.71	3751734.43	PLOT_12	0.006844955
351	485151.71	3751734.43	PLOT_2	0.01225161
351	485151.71	3751734.43	PLOT_30_	
351	485151.71	3751734.43	PLOT_6	0.005370733
351	485151.71	3751734.43	PLOT_9	0.021807094
351	485151.71	3751734.43	PLOT4	0.02133767
351	485151.71	3751734.43	PLOTS_1_	0.011628437
351	485151.71	3751734.43	PLOTS_5_	0.017518414
351	485151.71	3751734.43	PLOTS_7_	0.008699361
352	485251.71	3751734.43	PLOT_11	0.010036285
352	485251.71	3751734.43	PLOT_12	0.011014259
352	485251.71	3751734.43	PLOT_2	0.017463011
352	485251.71	3751734.43	PLOT_30_	
352	485251.71	3751734.43	PLOT_6	0.007880352
352	485251.71	3751734.43	PLOT_9	0.029910431
352	485251.71	3751734.43	PLOT4	0.030894994
352	485251.71	3751734.43	PLOTS_1_	0.022857087
352	485251.71	3751734.43	PLOTS_5_	0.024075707
352	485251.71	3751734.43	PLOTS_7_	0.012770017
353	485351.71	3751734.43	PLOT_11	0.0121174
353	485351.71	3751734.43	PLOT_12	0.014796964
353	485351.71	3751734.43	PLOT_2	0.020870456
353	485351.71	3751734.43	PLOT_30_	

353	485351.71	3751734.43	PLOT_6	0.009656552
353	485351.71	3751734.43	PLOT_9	0.035912331
353	485351.71	3751734.43	PLOT4	0.03705446
353	485351.71	3751734.43	PLOTS_1_	0.028981728
353	485351.71	3751734.43	PLOTS_5_	0.029436505
353	485351.71	3751734.43	PLOTS_7_	0.015850213
354	485451.71	3751734.43	PLOT_11	0.013651183
354	485451.71	3751734.43	PLOT_12	0.017916485
354	485451.71	3751734.43	PLOT_2	0.023781707
354	485451.71	3751734.43	PLOT_30_	
354	485451.71	3751734.43	PLOT_6	0.010540249
354	485451.71	3751734.43	PLOT_9	0.039968322
354	485451.71	3751734.43	PLOT4	0.042187852
354	485451.71	3751734.43	PLOTS_1_	0.032512464
354	485451.71	3751734.43	PLOTS_5_	0.032198333
354	485451.71	3751734.43	PLOTS_7_	0.017775892
355	484551.71	3751834.43	PLOT_11	0.00496312
355	484551.71	3751834.43	PLOT_12	0.004657974
355	484551.71	3751834.43	PLOT_2	0.008894877
355	484551.71	3751834.43	PLOT_30_	
355	484551.71	3751834.43	PLOT_6	0.004063477
355	484551.71	3751834.43	PLOT_9	0.014873702
355	484551.71	3751834.43	PLOT4	0.014802598
355	484551.71	3751834.43	PLOTS_1_	0.01049809
355	484551.71	3751834.43	PLOTS_5_	0.011951073
355	484551.71	3751834.43	PLOTS_7_	0.006294285
356	484651.71	3751834.43	PLOT_11	0.00508128
356	484651.71	3751834.43	PLOT_12	0.004793685
356	484651.71	3751834.43	PLOT_2	0.009102528
356	484651.71	3751834.43	PLOT_30_	
356	484651.71	3751834.43	PLOT_6	0.00417611
356	484651.71	3751834.43	PLOT_9	0.015368252
356	484651.71	3751834.43	PLOT4	0.015306596
356	484651.71	3751834.43	PLOTS_1_	0.011111704
356	484651.71	3751834.43	PLOTS_5_	0.012451016
356	484651.71	3751834.43	PLOTS_7_	0.006453329
357	484751.71	3751834.43	PLOT_11	0.005195588
357	484751.71	3751834.43	PLOT_12	0.00493154
357	484751.71	3751834.43	PLOT_2	0.009155266
357	484751.71	3751834.43	PLOT_30_	
357	484751.71	3751834.43	PLOT_6	0.004268032
357	484751.71	3751834.43	PLOT_9	0.0159272
357	484751.71	3751834.43	PLOT4	0.015998369
357	484751.71	3751834.43	PLOTS_1_	0.011496664
357	484751.71	3751834.43	PLOTS_5_	0.012964224
357	484751.71	3751834.43	PLOTS_7_	0.006594945
358	484851.71	3751834.43	PLOT_11	0.005302835

358	484851.71	3751834.43	PLOT_12	0.00506876
358	484851.71	3751834.43	PLOT_2	0.009114203
358	484851.71	3751834.43	PLOT_30_	
358	484851.71	3751834.43	PLOT_6	0.004344441
358	484851.71	3751834.43	PLOT_9	0.016473797
358	484851.71	3751834.43	PLOT4	0.016730663
358	484851.71	3751834.43	PLOTS_1_	0.011594803
358	484851.71	3751834.43	PLOTS_5_	0.013440098
358	484851.71	3751834.43	PLOTS_7_	0.006815496
359	484951.71	3751834.43	PLOT_11	0.005413705
359	484951.71	3751834.43	PLOT_12	0.005202406
359	484951.71	3751834.43	PLOT_2	0.009202718
359	484951.71	3751834.43	PLOT_30_	
359	484951.71	3751834.43	PLOT_6	0.004373013
359	484951.71	3751834.43	PLOT_9	0.01693897
359	484951.71	3751834.43	PLOT4	0.01753303
359	484951.71	3751834.43	PLOTS_1_	0.011366394
359	484951.71	3751834.43	PLOTS_5_	0.013854874
359	484951.71	3751834.43	PLOTS_7_	0.007026908
360	485051.71	3751834.43	PLOT_11	0.005578908
360	485051.71	3751834.43	PLOT_12	0.005345424
360	485051.71	3751834.43	PLOT_2	0.009585548
360	485051.71	3751834.43	PLOT_30_	
360	485051.71	3751834.43	PLOT_6	0.004399251
360	485051.71	3751834.43	PLOT_9	0.017387205
360	485051.71	3751834.43	PLOT4	0.018227714
360	485051.71	3751834.43	PLOTS_1_	0.010887681
360	485051.71	3751834.43	PLOTS_5_	0.014425543
360	485051.71	3751834.43	PLOTS_7_	0.007191048
361	485151.71	3751834.43	PLOT_11	0.005752502
361	485151.71	3751834.43	PLOT_12	0.005500954
361	485151.71	3751834.43	PLOT_2	0.009807782
361	485151.71	3751834.43	PLOT_30_	
361	485151.71	3751834.43	PLOT_6	0.004480771
361	485151.71	3751834.43	PLOT_9	0.017847437
361	485151.71	3751834.43	PLOT4	0.018752756
361	485151.71	3751834.43	PLOTS_1_	0.010193152
361	485151.71	3751834.43	PLOTS_5_	0.015087475
361	485151.71	3751834.43	PLOTS_7_	0.007348596
362	485251.71	3751834.43	PLOT_11	0.008855467
362	485251.71	3751834.43	PLOT_12	0.009325361
362	485251.71	3751834.43	PLOT_2	0.015205113
362	485251.71	3751834.43	PLOT_30_	
362	485251.71	3751834.43	PLOT_6	0.007026291
362	485251.71	3751834.43	PLOT_9	0.02754884
362	485251.71	3751834.43	PLOT4	0.028367616
362	485251.71	3751834.43	PLOTS_1_	0.019668579

362	485251.71	3751834.43	PLOTS_5_	0.022431301
362	485251.71	3751834.43	PLOTS_7_	0.011317589
363	485351.71	3751834.43	PLOT_11	0.011065608
363	485351.71	3751834.43	PLOT_12	0.012628093
363	485351.71	3751834.43	PLOT_2	0.019616798
363	485351.71	3751834.43	PLOT_30_	
363	485351.71	3751834.43	PLOT_6	0.008769161
363	485351.71	3751834.43	PLOT_9	0.032570375
363	485351.71	3751834.43	PLOT4	0.034951829
363	485351.71	3751834.43	PLOTS_1_	0.026286678
363	485351.71	3751834.43	PLOTS_5_	0.027325598
363	485351.71	3751834.43	PLOTS_7_	0.014370651
364	485451.71	3751834.43	PLOT_11	0.012826633
364	485451.71	3751834.43	PLOT_12	0.016173096
364	485451.71	3751834.43	PLOT_2	0.022040314
364	485451.71	3751834.43	PLOT_30_	
364	485451.71	3751834.43	PLOT_6	0.010082474
364	485451.71	3751834.43	PLOT_9	0.037859916
364	485451.71	3751834.43	PLOT4	0.039266958
364	485451.71	3751834.43	PLOTS_1_	0.03060464
364	485451.71	3751834.43	PLOTS_5_	0.031703869
364	485451.71	3751834.43	PLOTS_7_	0.016644343
365	484551.71	3751934.43	PLOT_11	0.005025937
365	484551.71	3751934.43	PLOT_12	0.004619171
365	484551.71	3751934.43	PLOT_2	0.009065298
365	484551.71	3751934.43	PLOT_30_	
365	484551.71	3751934.43	PLOT_6	0.004082505
365	484551.71	3751934.43	PLOT_9	0.014890817
365	484551.71	3751934.43	PLOT4	0.015238818
365	484551.71	3751934.43	PLOTS_1_	0.010700989
365	484551.71	3751934.43	PLOTS_5_	0.012361393
365	484551.71	3751934.43	PLOTS_7_	0.006366548
366	484651.71	3751934.43	PLOT_11	0.005141116
366	484651.71	3751934.43	PLOT_12	0.004753571
366	484651.71	3751934.43	PLOT_2	0.009358026
366	484651.71	3751934.43	PLOT_30_	
366	484651.71	3751934.43	PLOT_6	0.004222854
366	484651.71	3751934.43	PLOT_9	0.015441031
366	484651.71	3751934.43	PLOT4	0.015767106
366	484651.71	3751934.43	PLOTS_1_	0.011317365
366	484651.71	3751934.43	PLOTS_5_	0.012839162
366	484651.71	3751934.43	PLOTS_7_	0.006565505
367	484751.71	3751934.43	PLOT_11	0.005252123
367	484751.71	3751934.43	PLOT_12	0.004890315
367	484751.71	3751934.43	PLOT_2	0.009492627
367	484751.71	3751934.43	PLOT_30_	
367	484751.71	3751934.43	PLOT_6	0.00432946

367	484751.71	3751934.43	PLOT_9	0.015957723
367	484751.71	3751934.43	PLOT4	0.01616135
367	484751.71	3751934.43	PLOTS_1_	0.011812123
367	484751.71	3751934.43	PLOTS_5_	0.013298135
367	484751.71	3751934.43	PLOTS_7_	0.006717918
368	484851.71	3751934.43	PLOT_11	0.005374685
368	484851.71	3751934.43	PLOT_12	0.005038258
368	484851.71	3751934.43	PLOT_2	0.00948593
368	484851.71	3751934.43	PLOT_30_	
368	484851.71	3751934.43	PLOT_6	0.00441952
368	484851.71	3751934.43	PLOT_9	0.016481296
368	484851.71	3751934.43	PLOT4	0.01691883
368	484851.71	3751934.43	PLOTS_1_	0.012080137
368	484851.71	3751934.43	PLOTS_5_	0.013785429
368	484851.71	3751934.43	PLOTS_7_	0.006857673
369	484951.71	3751934.43	PLOT_11	0.005502244
369	484951.71	3751934.43	PLOT_12	0.005190372
369	484951.71	3751934.43	PLOT_2	0.00946227
369	484951.71	3751934.43	PLOT_30_	
369	484951.71	3751934.43	PLOT_6	0.00449655
369	484951.71	3751934.43	PLOT_9	0.017083559
369	484951.71	3751934.43	PLOT4	0.017743696
369	484951.71	3751934.43	PLOTS_1_	0.012045448
369	484951.71	3751934.43	PLOTS_5_	0.014291109
369	484951.71	3751934.43	PLOTS_7_	0.00710091
370	485051.71	3751934.43	PLOT_11	0.005632921
370	485051.71	3751934.43	PLOT_12	0.005352931
370	485051.71	3751934.43	PLOT_2	0.009796062
370	485051.71	3751934.43	PLOT_30_	
370	485051.71	3751934.43	PLOT_6	0.00453567
370	485051.71	3751934.43	PLOT_9	0.017717316
370	485051.71	3751934.43	PLOT4	0.018731936
370	485051.71	3751934.43	PLOTS_1_	0.011733563
370	485051.71	3751934.43	PLOTS_5_	0.014907767
370	485051.71	3751934.43	PLOTS_7_	0.007344269
371	485151.71	3751934.43	PLOT_11	0.005765616
371	485151.71	3751934.43	PLOT_12	0.005525737
371	485151.71	3751934.43	PLOT_2	0.010151135
371	485151.71	3751934.43	PLOT_30_	
371	485151.71	3751934.43	PLOT_6	0.004585753
371	485151.71	3751934.43	PLOT_9	0.018340134
371	485151.71	3751934.43	PLOT4	0.019603032
371	485151.71	3751934.43	PLOTS_1_	0.011152365
371	485151.71	3751934.43	PLOTS_5_	0.015534259
371	485151.71	3751934.43	PLOTS_7_	0.007538899
372	485251.71	3751934.43	PLOT_11	0.005908627
372	485251.71	3751934.43	PLOT_12	0.005701561

372	485251.71	3751934.43	PLOT_2	0.01028763
372	485251.71	3751934.43	PLOT_30_	
372	485251.71	3751934.43	PLOT_6	0.004663166
372	485251.71	3751934.43	PLOT_9	0.018896259
372	485251.71	3751934.43	PLOT4	0.020168988
372	485251.71	3751934.43	PLOTS_1_	0.010289747
372	485251.71	3751934.43	PLOTS_5_	0.016149125
372	485251.71	3751934.43	PLOTS_7_	0.007698793
373	485351.71	3751934.43	PLOT_11	0.009533934
373	485351.71	3751934.43	PLOT_12	0.01022438
373	485351.71	3751934.43	PLOT_2	0.016666378
373	485351.71	3751934.43	PLOT_30_	
373	485351.71	3751934.43	PLOT_6	0.007605091
373	485351.71	3751934.43	PLOT_9	0.029530918
373	485351.71	3751934.43	PLOT4	0.031591133
373	485351.71	3751934.43	PLOTS_1_	0.023434427
373	485351.71	3751934.43	PLOTS_5_	0.024823779
373	485351.71	3751934.43	PLOTS_7_	0.012332351
374	485451.71	3751934.43	PLOT_11	0.012184985
374	485451.71	3751934.43	PLOT_12	0.014169485
374	485451.71	3751934.43	PLOT_2	0.021410136
374	485451.71	3751934.43	PLOT_30_	
374	485451.71	3751934.43	PLOT_6	0.009649726
374	485451.71	3751934.43	PLOT_9	0.035947707
374	485451.71	3751934.43	PLOT4	0.039484956
374	485451.71	3751934.43	PLOTS_1_	0.029312257
374	485451.71	3751934.43	PLOTS_5_	0.031148871
374	485451.71	3751934.43	PLOTS_7_	0.016005012
375	484551.71	3752034.43	PLOT_11	0.005113055
375	484551.71	3752034.43	PLOT_12	0.004522581
375	484551.71	3752034.43	PLOT_2	0.009440681
375	484551.71	3752034.43	PLOT_30_	
375	484551.71	3752034.43	PLOT_6	0.004168517
375	484551.71	3752034.43	PLOT_9	0.014784602
375	484551.71	3752034.43	PLOT4	0.015510322
375	484551.71	3752034.43	PLOTS_1_	0.011276907
375	484551.71	3752034.43	PLOTS_5_	0.012722037
375	484551.71	3752034.43	PLOTS_7_	0.006602749
376	484651.71	3752034.43	PLOT_11	0.005216542
376	484651.71	3752034.43	PLOT_12	0.004656703
376	484651.71	3752034.43	PLOT_2	0.009616477
376	484651.71	3752034.43	PLOT_30_	
376	484651.71	3752034.43	PLOT_6	0.004255208
376	484651.71	3752034.43	PLOT_9	0.015406273
376	484651.71	3752034.43	PLOT4	0.016265675
376	484651.71	3752034.43	PLOTS_1_	0.011559626
376	484651.71	3752034.43	PLOTS_5_	0.013212967

376	484651.71	3752034.43	PLOTS_7_	0.00667291
377	484751.71	3752034.43	PLOT_11	0.005321405
377	484751.71	3752034.43	PLOT_12	0.004796902
377	484751.71	3752034.43	PLOT_2	0.009874311
377	484751.71	3752034.43	PLOT_30_	
377	484751.71	3752034.43	PLOT_6	0.004398955
377	484751.71	3752034.43	PLOT_9	0.016020622
377	484751.71	3752034.43	PLOT4	0.016882674
377	484751.71	3752034.43	PLOTS_1_	0.012232058
377	484751.71	3752034.43	PLOTS_5_	0.013711067
377	484751.71	3752034.43	PLOTS_7_	0.0068694
378	484851.71	3752034.43	PLOT_11	0.005450615
378	484851.71	3752034.43	PLOT_12	0.004943336
378	484851.71	3752034.43	PLOT_2	0.009965558
378	484851.71	3752034.43	PLOT_30_	
378	484851.71	3752034.43	PLOT_6	0.004509491
378	484851.71	3752034.43	PLOT_9	0.016622003
378	484851.71	3752034.43	PLOT4	0.017321413
378	484851.71	3752034.43	PLOTS_1_	0.012644357
378	484851.71	3752034.43	PLOTS_5_	0.014294745
378	484851.71	3752034.43	PLOTS_7_	0.007037341
379	484951.71	3752034.43	PLOT_11	0.005586795
379	484951.71	3752034.43	PLOT_12	0.005101645
379	484951.71	3752034.43	PLOT_2	0.009916123
379	484951.71	3752034.43	PLOT_30_	
379	484951.71	3752034.43	PLOT_6	0.004603835
379	484951.71	3752034.43	PLOT_9	0.017236264
379	484951.71	3752034.43	PLOT4	0.018131615
379	484951.71	3752034.43	PLOTS_1_	0.012785675
379	484951.71	3752034.43	PLOTS_5_	0.014922978
379	484951.71	3752034.43	PLOTS_7_	0.007182475
380	485051.71	3752034.43	PLOT_11	0.005728476
380	485051.71	3752034.43	PLOT_12	0.005271433
380	485051.71	3752034.43	PLOT_2	0.009973665
380	485051.71	3752034.43	PLOT_30_	
380	485051.71	3752034.43	PLOT_6	0.004686774
380	485051.71	3752034.43	PLOT_9	0.0178552
380	485051.71	3752034.43	PLOT4	0.019096012
380	485051.71	3752034.43	PLOTS_1_	0.012627824
380	485051.71	3752034.43	PLOTS_5_	0.015583372
380	485051.71	3752034.43	PLOTS_7_	0.007453331
381	485151.71	3752034.43	PLOT_11	0.005873413
381	485151.71	3752034.43	PLOT_12	0.005451705
381	485151.71	3752034.43	PLOT_2	0.010460386
381	485151.71	3752034.43	PLOT_30_	
381	485151.71	3752034.43	PLOT_6	0.004726811
381	485151.71	3752034.43	PLOT_9	0.018602935

381	485151.71	3752034.43	PLOT4	0.020241747
381	485151.71	3752034.43	PLOTS_1_	0.012164831
381	485151.71	3752034.43	PLOTS_5_	0.016263587
381	485151.71	3752034.43	PLOTS_7_	0.007716707
382	485251.71	3752034.43	PLOT_11	0.006025366
382	485251.71	3752034.43	PLOT_12	0.005643218
382	485251.71	3752034.43	PLOT_2	0.010746814
382	485251.71	3752034.43	PLOT_30_	
382	485251.71	3752034.43	PLOT_6	0.004793144
382	485251.71	3752034.43	PLOT_9	0.019367871
382	485251.71	3752034.43	PLOT4	0.021272298
382	485251.71	3752034.43	PLOTS_1_	0.011424807
382	485251.71	3752034.43	PLOTS_5_	0.016971559
382	485251.71	3752034.43	PLOTS_7_	0.007933295
383	485351.71	3752034.43	PLOT_11	0.007568136
383	485351.71	3752034.43	PLOT_12	0.007251611
383	485351.71	3752034.43	PLOT_2	0.013317929
383	485351.71	3752034.43	PLOT_30_	
383	485351.71	3752034.43	PLOT_6	0.005762056
383	485351.71	3752034.43	PLOT_9	0.023535193
383	485351.71	3752034.43	PLOT4	0.025064233
383	485351.71	3752034.43	PLOTS_1_	0.015124524
383	485351.71	3752034.43	PLOTS_5_	0.021254113
383	485351.71	3752034.43	PLOTS_7_	0.009687596
384	485451.71	3752034.43	PLOT_11	0.010286405
384	485451.71	3752034.43	PLOT_12	0.011008063
384	485451.71	3752034.43	PLOT_2	0.018078429
384	485451.71	3752034.43	PLOT_30_	
384	485451.71	3752034.43	PLOT_6	0.00821066
384	485451.71	3752034.43	PLOT_9	0.031457948
384	485451.71	3752034.43	PLOT4	0.035020222
384	485451.71	3752034.43	PLOTS_1_	0.026807514
384	485451.71	3752034.43	PLOTS_5_	0.028138659
384	485451.71	3752034.43	PLOTS_7_	0.01341501
385	484551.71	3752134.43	PLOT_11	0.005195955
385	484551.71	3752134.43	PLOT_12	0.004377775
385	484551.71	3752134.43	PLOT_2	0.009847876
385	484551.71	3752134.43	PLOT_30_	
385	484551.71	3752134.43	PLOT_6	0.004283337
385	484551.71	3752134.43	PLOT_9	0.01481195
385	484551.71	3752134.43	PLOT4	0.015719701
385	484551.71	3752134.43	PLOTS_1_	0.011872892
385	484551.71	3752134.43	PLOTS_5_	0.013011955
385	484551.71	3752134.43	PLOTS_7_	0.00683434
386	484651.71	3752134.43	PLOT_11	0.005316132
386	484651.71	3752134.43	PLOT_12	0.004494025
386	484651.71	3752134.43	PLOT_2	0.009959874

386	484651.71	3752134.43	PLOT_30_	
386	484651.71	3752134.43	PLOT_6	0.00434772
386	484651.71	3752134.43	PLOT_9	0.015277916
386	484651.71	3752134.43	PLOT4	0.016497386
386	484651.71	3752134.43	PLOTS_1_	0.012022741
386	484651.71	3752134.43	PLOTS_5_	0.013533408
386	484651.71	3752134.43	PLOTS_7_	0.006942513
387	484751.71	3752134.43	PLOT_11	0.005439106
387	484751.71	3752134.43	PLOT_12	0.004632953
387	484751.71	3752134.43	PLOT_2	0.010216695
387	484751.71	3752134.43	PLOT_30_	
387	484751.71	3752134.43	PLOT_6	0.004441562
387	484751.71	3752134.43	PLOT_9	0.01590241
387	484751.71	3752134.43	PLOT4	0.017406765
387	484751.71	3752134.43	PLOTS_1_	0.012627458
387	484751.71	3752134.43	PLOTS_5_	0.01415524
387	484751.71	3752134.43	PLOTS_7_	0.007005395
388	484851.71	3752134.43	PLOT_11	0.005561943
388	484851.71	3752134.43	PLOT_12	0.004779149
388	484851.71	3752134.43	PLOT_2	0.010443291
388	484851.71	3752134.43	PLOT_30_	
388	484851.71	3752134.43	PLOT_6	0.004591928
388	484851.71	3752134.43	PLOT_9	0.01660189
388	484851.71	3752134.43	PLOT4	0.018164189
388	484851.71	3752134.43	PLOTS_1_	0.013244728
388	484851.71	3752134.43	PLOTS_5_	0.014795661
388	484851.71	3752134.43	PLOTS_7_	0.007206778
389	484951.71	3752134.43	PLOT_11	0.005686614
389	484951.71	3752134.43	PLOT_12	0.004933288
389	484951.71	3752134.43	PLOT_2	0.010486248
389	484951.71	3752134.43	PLOT_30_	
389	484951.71	3752134.43	PLOT_6	0.004707901
389	484951.71	3752134.43	PLOT_9	0.017301281
389	484951.71	3752134.43	PLOT4	0.01874257
389	484951.71	3752134.43	PLOTS_1_	0.013553119
389	484951.71	3752134.43	PLOTS_5_	0.015459129
389	484951.71	3752134.43	PLOTS_7_	0.007395181
390	485051.71	3752134.43	PLOT_11	0.005817016
390	485051.71	3752134.43	PLOT_12	0.005099143
390	485051.71	3752134.43	PLOT_2	0.010436726
390	485051.71	3752134.43	PLOT_30_	
390	485051.71	3752134.43	PLOT_6	0.004808597
390	485051.71	3752134.43	PLOT_9	0.018016727
390	485051.71	3752134.43	PLOT4	0.019568835
390	485051.71	3752134.43	PLOTS_1_	0.013538577
390	485051.71	3752134.43	PLOTS_5_	0.016169815
390	485051.71	3752134.43	PLOTS_7_	0.007548645

391	485151.71	3752134.43	PLOT_11	0.005953333
391	485151.71	3752134.43	PLOT_12	0.005276159
391	485151.71	3752134.43	PLOT_2	0.010710598
391	485151.71	3752134.43	PLOT_30_	
391	485151.71	3752134.43	PLOT_6	0.004889793
391	485151.71	3752134.43	PLOT_9	0.018739143
391	485151.71	3752134.43	PLOT4	0.020635878
391	485151.71	3752134.43	PLOTS_1_	0.01318729
391	485151.71	3752134.43	PLOTS_5_	0.016918092
391	485151.71	3752134.43	PLOTS_7_	0.007835758
392	485251.71	3752134.43	PLOT_11	0.006126377
392	485251.71	3752134.43	PLOT_12	0.00546926
392	485251.71	3752134.43	PLOT_2	0.011140527
392	485251.71	3752134.43	PLOT_30_	
392	485251.71	3752134.43	PLOT_6	0.004929505
392	485251.71	3752134.43	PLOT_9	0.019493582
392	485251.71	3752134.43	PLOT4	0.021967709
392	485251.71	3752134.43	PLOTS_1_	0.012556779
392	485251.71	3752134.43	PLOTS_5_	0.017828817
392	485251.71	3752134.43	PLOTS_7_	0.008119555
393	485351.71	3752134.43	PLOT_11	0.006295478
393	485351.71	3752134.43	PLOT_12	0.005668517
393	485351.71	3752134.43	PLOT_2	0.01131575
393	485351.71	3752134.43	PLOT_30_	
393	485351.71	3752134.43	PLOT_6	0.005005441
393	485351.71	3752134.43	PLOT_9	0.020362969
393	485351.71	3752134.43	PLOT4	0.023101523
393	485351.71	3752134.43	PLOTS_1_	0.011610239
393	485351.71	3752134.43	PLOTS_5_	0.018727456
393	485351.71	3752134.43	PLOTS_7_	0.008344999
394	485451.71	3752134.43	PLOT_11	0.007520175
394	485451.71	3752134.43	PLOT_12	0.006900002
394	485451.71	3752134.43	PLOT_2	0.013054984
394	485451.71	3752134.43	PLOT_30_	
394	485451.71	3752134.43	PLOT_6	0.005813763
394	485451.71	3752134.43	PLOT_9	0.023888065
394	485451.71	3752134.43	PLOT4	0.026104746
394	485451.71	3752134.43	PLOTS_1_	0.015722295
394	485451.71	3752134.43	PLOTS_5_	0.022389869
394	485451.71	3752134.43	PLOTS_7_	0.009692853
395	484551.71	3752234.43	PLOT_11	0.005257626
395	484551.71	3752234.43	PLOT_12	0.004382501
395	484551.71	3752234.43	PLOT_2	0.010220968
395	484551.71	3752234.43	PLOT_30_	
395	484551.71	3752234.43	PLOT_6	0.004364296
395	484551.71	3752234.43	PLOT_9	0.01502729
395	484551.71	3752234.43	PLOT4	0.01606805

395	484551.71	3752234.43	PLOTS_1_	0.012354326
395	484551.71	3752234.43	PLOTS_5_	0.013578066
395	484551.71	3752234.43	PLOTS_7_	0.006978827
396	484651.71	3752234.43	PLOT_11	0.005375694
396	484651.71	3752234.43	PLOT_12	0.004501491
396	484651.71	3752234.43	PLOT_2	0.010425932
396	484651.71	3752234.43	PLOT_30_	
396	484651.71	3752234.43	PLOT_6	0.004470312
396	484651.71	3752234.43	PLOT_9	0.01549952
396	484651.71	3752234.43	PLOT4	0.016753666
396	484651.71	3752234.43	PLOTS_1_	0.012729375
396	484651.71	3752234.43	PLOTS_5_	0.014138852
396	484651.71	3752234.43	PLOTS_7_	0.007173376
397	484751.71	3752234.43	PLOT_11	0.005494266
397	484751.71	3752234.43	PLOT_12	0.004624175
397	484751.71	3752234.43	PLOT_2	0.010521143
397	484751.71	3752234.43	PLOT_30_	
397	484751.71	3752234.43	PLOT_6	0.004539659
397	484751.71	3752234.43	PLOT_9	0.015955959
397	484751.71	3752234.43	PLOT4	0.017571817
397	484751.71	3752234.43	PLOTS_1_	0.012940846
397	484751.71	3752234.43	PLOTS_5_	0.014710494
397	484751.71	3752234.43	PLOTS_7_	0.0073084
398	484851.71	3752234.43	PLOT_11	0.00563526
398	484851.71	3752234.43	PLOT_12	0.004751705
398	484851.71	3752234.43	PLOT_2	0.010857755
398	484851.71	3752234.43	PLOT_30_	
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398	484851.71	3752234.43	PLOT_9	0.016486942
398	484851.71	3752234.43	PLOT4	0.018648878
398	484851.71	3752234.43	PLOTS_1_	0.013788596
398	484851.71	3752234.43	PLOTS_5_	0.015298934
398	484851.71	3752234.43	PLOTS_7_	0.007379046
399	484951.71	3752234.43	PLOT_11	0.005777858
399	484951.71	3752234.43	PLOT_12	0.004884794
399	484951.71	3752234.43	PLOT_2	0.011043376
399	484951.71	3752234.43	PLOT_30_	
399	484951.71	3752234.43	PLOT_6	0.00479731
399	484951.71	3752234.43	PLOT_9	0.017146988
399	484951.71	3752234.43	PLOT4	0.019577119
399	484951.71	3752234.43	PLOTS_1_	0.014317232
399	484951.71	3752234.43	PLOTS_5_	0.015909447
399	484951.71	3752234.43	PLOTS_7_	0.007568541
400	485051.71	3752234.43	PLOT_11	0.005922566
400	485051.71	3752234.43	PLOT_12	0.005024198
400	485051.71	3752234.43	PLOT_2	0.011018351
400	485051.71	3752234.43	PLOT_30_	

400	485051.71	3752234.43	PLOT_6	0.004917095
400	485051.71	3752234.43	PLOT_9	0.017937508
400	485051.71	3752234.43	PLOT4	0.020308406
400	485051.71	3752234.43	PLOTS_1_	0.014467324
400	485051.71	3752234.43	PLOTS_5_	0.016657161
400	485051.71	3752234.43	PLOTS_7_	0.007776071
401	485151.71	3752234.43	PLOT_11	0.006069842
401	485151.71	3752234.43	PLOT_12	0.005170752
401	485151.71	3752234.43	PLOT_2	0.010946799
401	485151.71	3752234.43	PLOT_30_	
401	485151.71	3752234.43	PLOT_6	0.005018323
401	485151.71	3752234.43	PLOT_9	0.018730233
401	485151.71	3752234.43	PLOT4	0.021109149
401	485151.71	3752234.43	PLOTS_1_	0.014221245
401	485151.71	3752234.43	PLOTS_5_	0.017468737
401	485151.71	3752234.43	PLOTS_7_	0.007929009
402	485251.71	3752234.43	PLOT_11	0.006233395
402	485251.71	3752234.43	PLOT_12	0.005334026
402	485251.71	3752234.43	PLOT_2	0.011468855
402	485251.71	3752234.43	PLOT_30_	
402	485251.71	3752234.43	PLOT_6	0.00510339
402	485251.71	3752234.43	PLOT_9	0.019593092
402	485251.71	3752234.43	PLOT4	0.02237281
402	485251.71	3752234.43	PLOTS_1_	0.013693788
402	485251.71	3752234.43	PLOTS_5_	0.018486139
402	485251.71	3752234.43	PLOTS_7_	0.008246612
403	485351.71	3752234.43	PLOT_11	0.006405017
403	485351.71	3752234.43	PLOT_12	0.005509294
403	485351.71	3752234.43	PLOT_2	0.011813486
403	485351.71	3752234.43	PLOT_30_	
403	485351.71	3752234.43	PLOT_6	0.005140235
403	485351.71	3752234.43	PLOT_9	0.020488591
403	485351.71	3752234.43	PLOT4	0.023912285
403	485351.71	3752234.43	PLOTS_1_	0.012882515
403	485351.71	3752234.43	PLOTS_5_	0.019595521
403	485351.71	3752234.43	PLOTS_7_	0.008548971
404	485451.71	3752234.43	PLOT_11	0.006570221
404	485451.71	3752234.43	PLOT_12	0.005687938
404	485451.71	3752234.43	PLOT_2	0.011860453
404	485451.71	3752234.43	PLOT_30_	
404	485451.71	3752234.43	PLOT_6	0.005228315
404	485451.71	3752234.43	PLOT_9	0.021344921
404	485451.71	3752234.43	PLOT4	0.02518395
404	485451.71	3752234.43	PLOTS_1_	0.012825565
404	485451.71	3752234.43	PLOTS_5_	0.020670487
404	485451.71	3752234.43	PLOTS_7_	0.008786264
405	484551.71	3752334.43	PLOT_11	0.005331859

405	484551.71	3752334.43	PLOT_12	0.004344691
405	484551.71	3752334.43	PLOT_2	0.010769769
405	484551.71	3752334.43	PLOT_30_	
405	484551.71	3752334.43	PLOT_6	0.004454149
405	484551.71	3752334.43	PLOT_9	0.015138091
405	484551.71	3752334.43	PLOT4	0.016759711
405	484551.71	3752334.43	PLOTS_1_	0.012815816
405	484551.71	3752334.43	PLOTS_5_	0.014006465
405	484551.71	3752334.43	PLOTS_7_	0.007054608
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406	484651.71	3752334.43	PLOT_12	0.004463006
406	484651.71	3752334.43	PLOT_2	0.010850133
406	484651.71	3752334.43	PLOT_30_	
406	484651.71	3752334.43	PLOT_6	0.004562499
406	484651.71	3752334.43	PLOT_9	0.015677631
406	484651.71	3752334.43	PLOT4	0.017265108
406	484651.71	3752334.43	PLOTS_1_	0.013394414
406	484651.71	3752334.43	PLOTS_5_	0.014658308
406	484651.71	3752334.43	PLOTS_7_	0.007326112
407	484751.71	3752334.43	PLOT_11	0.005594268
407	484751.71	3752334.43	PLOT_12	0.004585889
407	484751.71	3752334.43	PLOT_2	0.011072675
407	484751.71	3752334.43	PLOT_30_	
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407	484751.71	3752334.43	PLOT_9	0.016212761
407	484751.71	3752334.43	PLOT4	0.018023036
407	484751.71	3752334.43	PLOTS_1_	0.013719379
407	484751.71	3752334.43	PLOTS_5_	0.015341287
407	484751.71	3752334.43	PLOTS_7_	0.007544844
408	484851.71	3752334.43	PLOT_11	0.005728155
408	484851.71	3752334.43	PLOT_12	0.004714212
408	484851.71	3752334.43	PLOT_2	0.011198332
408	484851.71	3752334.43	PLOT_30_	
408	484851.71	3752334.43	PLOT_6	0.004749474
408	484851.71	3752334.43	PLOT_9	0.016746479
408	484851.71	3752334.43	PLOT4	0.018870738
408	484851.71	3752334.43	PLOTS_1_	0.014269259
408	484851.71	3752334.43	PLOTS_5_	0.016061858
408	484851.71	3752334.43	PLOTS_7_	0.00770316
409	484951.71	3752334.43	PLOT_11	0.005866352
409	484951.71	3752334.43	PLOT_12	0.004849804
409	484951.71	3752334.43	PLOT_2	0.011555035
409	484951.71	3752334.43	PLOT_30_	
409	484951.71	3752334.43	PLOT_6	0.004853509
409	484951.71	3752334.43	PLOT_9	0.017288401
409	484951.71	3752334.43	PLOT4	0.020034439
409	484951.71	3752334.43	PLOTS_1_	0.015070783

409	484951.71	3752334.43	PLOTS_5_	0.016835741
409	484951.71	3752334.43	PLOTS_7_	0.007796613
410	485051.71	3752334.43	PLOT_11	0.006004457
410	485051.71	3752334.43	PLOT_12	0.00499036
410	485051.71	3752334.43	PLOT_2	0.011683291
410	485051.71	3752334.43	PLOT_30_	
410	485051.71	3752334.43	PLOT_6	0.005018294
410	485051.71	3752334.43	PLOT_9	0.017835528
410	485051.71	3752334.43	PLOT4	0.021161984
410	485051.71	3752334.43	PLOTS_1_	0.015458749
410	485051.71	3752334.43	PLOTS_5_	0.017635487
410	485051.71	3752334.43	PLOTS_7_	0.007961683
411	485151.71	3752334.43	PLOT_11	0.00614779
411	485151.71	3752334.43	PLOT_12	0.005139614
411	485151.71	3752334.43	PLOT_2	0.011587066
411	485151.71	3752334.43	PLOT_30_	
411	485151.71	3752334.43	PLOT_6	0.005144047
411	485151.71	3752334.43	PLOT_9	0.018558826
411	485151.71	3752334.43	PLOT4	0.02211306
411	485151.71	3752334.43	PLOTS_1_	0.015419388
411	485151.71	3752334.43	PLOTS_5_	0.018497714
411	485151.71	3752334.43	PLOTS_7_	0.00819566
412	485251.71	3752334.43	PLOT_11	0.006303593
412	485251.71	3752334.43	PLOT_12	0.005297288
412	485251.71	3752334.43	PLOT_2	0.011774449
412	485251.71	3752334.43	PLOT_30_	
412	485251.71	3752334.43	PLOT_6	0.005253814
412	485251.71	3752334.43	PLOT_9	0.019471351
412	485251.71	3752334.43	PLOT4	0.022984436
412	485251.71	3752334.43	PLOTS_1_	0.014954405
412	485251.71	3752334.43	PLOTS_5_	0.019414892
412	485251.71	3752334.43	PLOTS_7_	0.008363156
413	485351.71	3752334.43	PLOT_11	0.006486129
413	485351.71	3752334.43	PLOT_12	0.005467433
413	485351.71	3752334.43	PLOT_2	0.012250332
413	485351.71	3752334.43	PLOT_30_	
413	485351.71	3752334.43	PLOT_6	0.005332026
413	485351.71	3752334.43	PLOT_9	0.020426838
413	485351.71	3752334.43	PLOT4	0.024385444
413	485351.71	3752334.43	PLOTS_1_	0.014170145
413	485351.71	3752334.43	PLOTS_5_	0.020434855
413	485351.71	3752334.43	PLOTS_7_	0.008695196
414	485451.71	3752334.43	PLOT_11	0.006681228
414	485451.71	3752334.43	PLOT_12	0.005652233
414	485451.71	3752334.43	PLOT_2	0.012467235
414	485451.71	3752334.43	PLOT_30_	
414	485451.71	3752334.43	PLOT_6	0.005360155

414	485451.71	3752334.43	PLOT_9	0.021440814
414	485451.71	3752334.43	PLOT4	0.026127582
414	485451.71	3752334.43	PLOTS_1_	0.013512823
414	485451.71	3752334.43	PLOTS_5_	0.021588894
414	485451.71	3752334.43	PLOTS_7_	0.009009039
415	484551.71	3752434.43	PLOT_11	0.005368266
415	484551.71	3752434.43	PLOT_12	0.004237616
415	484551.71	3752434.43	PLOT_2	0.011205734
415	484551.71	3752434.43	PLOT_30_	
415	484551.71	3752434.43	PLOT_6	0.004639115
415	484551.71	3752434.43	PLOT_9	0.015211488
415	484551.71	3752434.43	PLOT4	0.017303223
415	484551.71	3752434.43	PLOTS_1_	0.013295504
415	484551.71	3752434.43	PLOTS_5_	0.013969233
415	484551.71	3752434.43	PLOTS_7_	0.007179078
416	484651.71	3752434.43	PLOT_11	0.005491515
416	484651.71	3752434.43	PLOT_12	0.004352515
416	484651.71	3752434.43	PLOT_2	0.011453523
416	484651.71	3752434.43	PLOT_30_	
416	484651.71	3752434.43	PLOT_6	0.004671528
416	484651.71	3752434.43	PLOT_9	0.015644814
416	484651.71	3752434.43	PLOT4	0.018067979
416	484651.71	3752434.43	PLOTS_1_	0.013944782
416	484651.71	3752434.43	PLOTS_5_	0.014686936
416	484651.71	3752434.43	PLOTS_7_	0.007377024
417	484751.71	3752434.43	PLOT_11	0.005626548
417	484751.71	3752434.43	PLOT_12	0.004471466
417	484751.71	3752434.43	PLOT_2	0.011526352
417	484751.71	3752434.43	PLOT_30_	
417	484751.71	3752434.43	PLOT_6	0.004766138
417	484751.71	3752434.43	PLOT_9	0.016234639
417	484751.71	3752434.43	PLOT4	0.018735238
417	484751.71	3752434.43	PLOTS_1_	0.014508351
417	484751.71	3752434.43	PLOTS_5_	0.015445711
417	484751.71	3752434.43	PLOTS_7_	0.007681
418	484851.71	3752434.43	PLOT_11	0.005779647
418	484851.71	3752434.43	PLOT_12	0.004599392
418	484851.71	3752434.43	PLOT_2	0.011775242
418	484851.71	3752434.43	PLOT_30_	
418	484851.71	3752434.43	PLOT_6	0.004892984
418	484851.71	3752434.43	PLOT_9	0.016870689
418	484851.71	3752434.43	PLOT4	0.019382572
418	484851.71	3752434.43	PLOTS_1_	0.01482775
418	484851.71	3752434.43	PLOTS_5_	0.016298309
418	484851.71	3752434.43	PLOTS_7_	0.007941868
419	484951.71	3752434.43	PLOT_11	0.005933204
419	484951.71	3752434.43	PLOT_12	0.004731529

419	484951.71	3752434.43	PLOT_2	0.011990207
419	484951.71	3752434.43	PLOT_30_	
419	484951.71	3752434.43	PLOT_6	0.004976573
419	484951.71	3752434.43	PLOT_9	0.017498712
419	484951.71	3752434.43	PLOT4	0.020330457
419	484951.71	3752434.43	PLOTS_1_	0.015772584
419	484951.71	3752434.43	PLOTS_5_	0.017195463
419	484951.71	3752434.43	PLOTS_7_	0.008133021
420	485051.71	3752434.43	PLOT_11	0.006091759
420	485051.71	3752434.43	PLOT_12	0.004870814
420	485051.71	3752434.43	PLOT_2	0.012311354
420	485051.71	3752434.43	PLOT_30_	
420	485051.71	3752434.43	PLOT_6	0.005084805
420	485051.71	3752434.43	PLOT_9	0.018138909
420	485051.71	3752434.43	PLOT4	0.021581021
420	485051.71	3752434.43	PLOTS_1_	0.016481615
420	485051.71	3752434.43	PLOTS_5_	0.018169846
420	485051.71	3752434.43	PLOTS_7_	0.008252112
421	485151.71	3752434.43	PLOT_11	0.006254761
421	485151.71	3752434.43	PLOT_12	0.005017327
421	485151.71	3752434.43	PLOT_2	0.012383919
421	485151.71	3752434.43	PLOT_30_	
421	485151.71	3752434.43	PLOT_6	0.005260581
421	485151.71	3752434.43	PLOT_9	0.018788721
421	485151.71	3752434.43	PLOT4	0.023003298
421	485151.71	3752434.43	PLOTS_1_	0.016704622
421	485151.71	3752434.43	PLOTS_5_	0.019224327
421	485151.71	3752434.43	PLOTS_7_	0.008399389
422	485251.71	3752434.43	PLOT_11	0.006421249
422	485251.71	3752434.43	PLOT_12	0.005171069
422	485251.71	3752434.43	PLOT_2	0.012270907
422	485251.71	3752434.43	PLOT_30_	
422	485251.71	3752434.43	PLOT_6	0.005391386
422	485251.71	3752434.43	PLOT_9	0.01944268
422	485251.71	3752434.43	PLOT4	0.024222799
422	485251.71	3752434.43	PLOTS_1_	0.016412438
422	485251.71	3752434.43	PLOTS_5_	0.020356499
422	485251.71	3752434.43	PLOTS_7_	0.008661066
423	485351.71	3752434.43	PLOT_11	0.006595256
423	485351.71	3752434.43	PLOT_12	0.00533482
423	485351.71	3752434.43	PLOT_2	0.012710485
423	485351.71	3752434.43	PLOT_30_	
423	485351.71	3752434.43	PLOT_6	0.005510579
423	485351.71	3752434.43	PLOT_9	0.020206205
423	485351.71	3752434.43	PLOT4	0.025209415
423	485351.71	3752434.43	PLOTS_1_	0.015705966
423	485351.71	3752434.43	PLOTS_5_	0.021605026

423	485351.71	3752434.43	PLOTS_7_	0.00884587
424	485451.71	3752434.43	PLOT_11	0.006776003
424	485451.71	3752434.43	PLOT_12	0.005508738
424	485451.71	3752434.43	PLOT_2	0.01306829
424	485451.71	3752434.43	PLOT_30_	
424	485451.71	3752434.43	PLOT_6	0.005584004
424	485451.71	3752434.43	PLOT_9	0.021274964
424	485451.71	3752434.43	PLOT4	0.026829597
424	485451.71	3752434.43	PLOTS_1_	0.014701827
424	485451.71	3752434.43	PLOTS_5_	0.02297324
424	485451.71	3752434.43	PLOTS_7_	0.00919825
425	484551.71	3752534.43	PLOT_11	0.005438923
425	484551.71	3752534.43	PLOT_12	0.004170178
425	484551.71	3752534.43	PLOT_2	0.01160372
425	484551.71	3752534.43	PLOT_30_	
425	484551.71	3752534.43	PLOT_6	0.004785403
425	484551.71	3752534.43	PLOT_9	0.015477642
425	484551.71	3752534.43	PLOT4	0.017736868
425	484551.71	3752534.43	PLOTS_1_	0.013939258
425	484551.71	3752534.43	PLOTS_5_	0.013649406
425	484551.71	3752534.43	PLOTS_7_	0.007319359
426	484651.71	3752534.43	PLOT_11	0.005553827
426	484651.71	3752534.43	PLOT_12	0.004285355
426	484651.71	3752534.43	PLOT_2	0.01194628
426	484651.71	3752534.43	PLOT_30_	
426	484651.71	3752534.43	PLOT_6	0.004864619
426	484651.71	3752534.43	PLOT_9	0.015944226
426	484651.71	3752534.43	PLOT4	0.018556865
426	484651.71	3752534.43	PLOTS_1_	0.014425445
426	484651.71	3752534.43	PLOTS_5_	0.014316408
426	484651.71	3752534.43	PLOTS_7_	0.007543509
427	484751.71	3752534.43	PLOT_11	0.005694317
427	484751.71	3752534.43	PLOT_12	0.004406411
427	484751.71	3752534.43	PLOT_2	0.012203189
427	484751.71	3752534.43	PLOT_30_	
427	484751.71	3752534.43	PLOT_6	0.004908171
427	484751.71	3752534.43	PLOT_9	0.016423249
427	484751.71	3752534.43	PLOT4	0.019425164
427	484751.71	3752534.43	PLOTS_1_	0.015233915
427	484751.71	3752534.43	PLOTS_5_	0.01504297
427	484751.71	3752534.43	PLOTS_7_	0.007745459
428	484851.71	3752534.43	PLOT_11	0.005840538
428	484851.71	3752534.43	PLOT_12	0.004534178
428	484851.71	3752534.43	PLOT_2	0.012328757
428	484851.71	3752534.43	PLOT_30_	
428	484851.71	3752534.43	PLOT_6	0.004991022
428	484851.71	3752534.43	PLOT_9	0.016928472

428	484851.71	3752534.43	PLOT4	0.020359953
428	484851.71	3752534.43	PLOTS_1_	0.015848219
428	484851.71	3752534.43	PLOTS_5_	0.015900178
428	484851.71	3752534.43	PLOTS_7_	0.008072121
429	484951.71	3752534.43	PLOT_11	0.005988868
429	484951.71	3752534.43	PLOT_12	0.00466699
429	484951.71	3752534.43	PLOT_2	0.012544206
429	484951.71	3752534.43	PLOT_30_	
429	484951.71	3752534.43	PLOT_6	0.005127382
429	484951.71	3752534.43	PLOT_9	0.017467483
429	484951.71	3752534.43	PLOT4	0.021189409
429	484951.71	3752534.43	PLOTS_1_	0.01639489
429	484951.71	3752534.43	PLOTS_5_	0.016869286
429	484951.71	3752534.43	PLOTS_7_	0.008368817
430	485051.71	3752534.43	PLOT_11	0.00614403
430	485051.71	3752534.43	PLOT_12	0.004807824
430	485051.71	3752534.43	PLOT_2	0.012862093
430	485051.71	3752534.43	PLOT_30_	
430	485051.71	3752534.43	PLOT_6	0.005222642
430	485051.71	3752534.43	PLOT_9	0.01820172
430	485051.71	3752534.43	PLOT4	0.022081046
430	485051.71	3752534.43	PLOTS_1_	0.017480514
430	485051.71	3752534.43	PLOTS_5_	0.017949476
430	485051.71	3752534.43	PLOTS_7_	0.008601581
431	485151.71	3752534.43	PLOT_11	0.006302906
431	485151.71	3752534.43	PLOT_12	0.004955251
431	485151.71	3752534.43	PLOT_2	0.013136449
431	485151.71	3752534.43	PLOT_30_	
431	485151.71	3752534.43	PLOT_6	0.005336399
431	485151.71	3752534.43	PLOT_9	0.018947072
431	485151.71	3752534.43	PLOT4	0.023328812
431	485151.71	3752534.43	PLOTS_1_	0.018041484
431	485151.71	3752534.43	PLOTS_5_	0.019130607
431	485151.71	3752534.43	PLOTS_7_	0.008752457
432	485251.71	3752534.43	PLOT_11	0.006464487
432	485251.71	3752534.43	PLOT_12	0.005109231
432	485251.71	3752534.43	PLOT_2	0.013117504
432	485251.71	3752534.43	PLOT_30_	
432	485251.71	3752534.43	PLOT_6	0.005519739
432	485251.71	3752534.43	PLOT_9	0.019697894
432	485251.71	3752534.43	PLOT4	0.02506205
432	485251.71	3752534.43	PLOTS_1_	0.017985996
432	485251.71	3752534.43	PLOTS_5_	0.020415343
432	485251.71	3752534.43	PLOTS_7_	0.008872478
433	485351.71	3752534.43	PLOT_11	0.006651562
433	485351.71	3752534.43	PLOT_12	0.005271592
433	485351.71	3752534.43	PLOT_2	0.013118429

433	485351.71	3752534.43	PLOT_30_	
433	485351.71	3752534.43	PLOT_6	0.005655272
433	485351.71	3752534.43	PLOT_9	0.020467418
433	485351.71	3752534.43	PLOT4	0.026619211
433	485351.71	3752534.43	PLOTS_1_	0.017382659
433	485351.71	3752534.43	PLOTS_5_	0.021836305
433	485351.71	3752534.43	PLOTS_7_	0.00916505
434	485451.71	3752534.43	PLOT_11	0.006848861
434	485451.71	3752534.43	PLOT_12	0.005444199
434	485451.71	3752534.43	PLOT_2	0.01366463
434	485451.71	3752534.43	PLOT_30_	
434	485451.71	3752534.43	PLOT_6	0.005780611
434	485451.71	3752534.43	PLOT_9	0.021270024
434	485451.71	3752534.43	PLOT4	0.027927647
434	485451.71	3752534.43	PLOTS_1_	0.016420643
434	485451.71	3752534.43	PLOTS_5_	0.023432264
434	485451.71	3752534.43	PLOTS_7_	0.009363684
435	484551.71	3752634.43	PLOT_11	0.005588308
435	484551.71	3752634.43	PLOT_12	0.004365503
435	484551.71	3752634.43	PLOT_2	0.011846794
435	484551.71	3752634.43	PLOT_30_	
435	484551.71	3752634.43	PLOT_6	0.004878004
435	484551.71	3752634.43	PLOT_9	0.015749794
435	484551.71	3752634.43	PLOT4	0.017774703
435	484551.71	3752634.43	PLOTS_1_	0.014547794
435	484551.71	3752634.43	PLOTS_5_	0.013485934
435	484551.71	3752634.43	PLOTS_7_	0.007497086
436	484651.71	3752634.43	PLOT_11	0.005714858
436	484651.71	3752634.43	PLOT_12	0.004485724
436	484651.71	3752634.43	PLOT_2	0.012372111
436	484651.71	3752634.43	PLOT_30_	
436	484651.71	3752634.43	PLOT_6	0.005007509
436	484651.71	3752634.43	PLOT_9	0.016216907
436	484651.71	3752634.43	PLOT4	0.018832679
436	484651.71	3752634.43	PLOTS_1_	0.015127245
436	484651.71	3752634.43	PLOTS_5_	0.014177415
436	484651.71	3752634.43	PLOTS_7_	0.007713068
437	484751.71	3752634.43	PLOT_11	0.005845811
437	484751.71	3752634.43	PLOT_12	0.004611823
437	484751.71	3752634.43	PLOT_2	0.012753267
437	484751.71	3752634.43	PLOT_30_	
437	484751.71	3752634.43	PLOT_6	0.005102208
437	484751.71	3752634.43	PLOT_9	0.016698312
437	484751.71	3752634.43	PLOT4	0.019876215
437	484751.71	3752634.43	PLOTS_1_	0.01575272
437	484751.71	3752634.43	PLOTS_5_	0.01493404
437	484751.71	3752634.43	PLOTS_7_	0.007922862

438	484851.71	3752634.43	PLOT_11	0.005985566
438	484851.71	3752634.43	PLOT_12	0.004746462
438	484851.71	3752634.43	PLOT_2	0.013033615
438	484851.71	3752634.43	PLOT_30_	
438	484851.71	3752634.43	PLOT_6	0.005162041
438	484851.71	3752634.43	PLOT_9	0.01721421
438	484851.71	3752634.43	PLOT4	0.020927587
438	484851.71	3752634.43	PLOTS_1_	0.016737321
438	484851.71	3752634.43	PLOTS_5_	0.015786074
438	484851.71	3752634.43	PLOTS_7_	0.008175683
439	484951.71	3752634.43	PLOT_11	0.006127019
439	484951.71	3752634.43	PLOT_12	0.004885985
439	484951.71	3752634.43	PLOT_2	0.013194519
439	484951.71	3752634.43	PLOT_30_	
439	484951.71	3752634.43	PLOT_6	0.005227724
439	484951.71	3752634.43	PLOT_9	0.017796624
439	484951.71	3752634.43	PLOT4	0.022030226
439	484951.71	3752634.43	PLOTS_1_	0.017358774
439	484951.71	3752634.43	PLOTS_5_	0.01670822
439	484951.71	3752634.43	PLOTS_7_	0.008480953
440	485051.71	3752634.43	PLOT_11	0.006274936
440	485051.71	3752634.43	PLOT_12	0.005033413
440	485051.71	3752634.43	PLOT_2	0.013396838
440	485051.71	3752634.43	PLOT_30_	
440	485051.71	3752634.43	PLOT_6	0.005381665
440	485051.71	3752634.43	PLOT_9	0.018405238
440	485051.71	3752634.43	PLOT4	0.023195718
440	485051.71	3752634.43	PLOTS_1_	0.018403656
440	485051.71	3752634.43	PLOTS_5_	0.017736787
440	485051.71	3752634.43	PLOTS_7_	0.008832646
441	485151.71	3752634.43	PLOT_11	0.006426109
441	485151.71	3752634.43	PLOT_12	0.005187234
441	485151.71	3752634.43	PLOT_2	0.013810157
441	485151.71	3752634.43	PLOT_30_	
441	485151.71	3752634.43	PLOT_6	0.005486853
441	485151.71	3752634.43	PLOT_9	0.019024439
441	485151.71	3752634.43	PLOT4	0.024257948
441	485151.71	3752634.43	PLOTS_1_	0.019400321
441	485151.71	3752634.43	PLOTS_5_	0.01886691
441	485151.71	3752634.43	PLOTS_7_	0.009108032
442	485251.71	3752634.43	PLOT_11	0.006580629
442	485251.71	3752634.43	PLOT_12	0.005347847
442	485251.71	3752634.43	PLOT_2	0.014010846
442	485251.71	3752634.43	PLOT_30_	
442	485251.71	3752634.43	PLOT_6	0.005604717
442	485251.71	3752634.43	PLOT_9	0.019673899
442	485251.71	3752634.43	PLOT4	0.025454614

442	485251.71	3752634.43	PLOTS_1_	0.019698029
442	485251.71	3752634.43	PLOTS_5_	0.020112416
442	485251.71	3752634.43	PLOTS_7_	0.009292432
443	485351.71	3752634.43	PLOT_11	0.006740147
443	485351.71	3752634.43	PLOT_12	0.005516642
443	485351.71	3752634.43	PLOT_2	0.013886335
443	485351.71	3752634.43	PLOT_30_	
443	485351.71	3752634.43	PLOT_6	0.005798428
443	485351.71	3752634.43	PLOT_9	0.020536846
443	485351.71	3752634.43	PLOT4	0.027385142
443	485351.71	3752634.43	PLOTS_1_	0.019285081
443	485351.71	3752634.43	PLOTS_5_	0.021502241
443	485351.71	3752634.43	PLOTS_7_	0.009387624
444	485451.71	3752634.43	PLOT_11	0.006920986
444	485451.71	3752634.43	PLOT_12	0.005695842
444	485451.71	3752634.43	PLOT_2	0.014239513
444	485451.71	3752634.43	PLOT_30_	
444	485451.71	3752634.43	PLOT_6	0.005940993
444	485451.71	3752634.43	PLOT_9	0.021439402
444	485451.71	3752634.43	PLOT4	0.029423634
444	485451.71	3752634.43	PLOTS_1_	0.018372744
444	485451.71	3752634.43	PLOTS_5_	0.023084116
444	485451.71	3752634.43	PLOTS_7_	0.009721281
445	484551.71	3752734.43	PLOT_11	0.005668135
445	484551.71	3752734.43	PLOT_12	0.00449613
445	484551.71	3752734.43	PLOT_2	0.012249759
445	484551.71	3752734.43	PLOT_30_	
445	484551.71	3752734.43	PLOT_6	0.004912308
445	484551.71	3752734.43	PLOT_9	0.015929493
445	484551.71	3752734.43	PLOT4	0.017948542
445	484551.71	3752734.43	PLOTS_1_	0.014953227
445	484551.71	3752734.43	PLOTS_5_	0.014203944
445	484551.71	3752734.43	PLOTS_7_	0.00769026
446	484651.71	3752734.43	PLOT_11	0.005808212
446	484651.71	3752734.43	PLOT_12	0.004618972
446	484651.71	3752734.43	PLOT_2	0.012656998
446	484651.71	3752734.43	PLOT_30_	
446	484651.71	3752734.43	PLOT_6	0.005096062
446	484651.71	3752734.43	PLOT_9	0.016407458
446	484651.71	3752734.43	PLOT4	0.018762662
446	484651.71	3752734.43	PLOTS_1_	0.015845051
446	484651.71	3752734.43	PLOTS_5_	0.014946843
446	484651.71	3752734.43	PLOTS_7_	0.007874943
447	484751.71	3752734.43	PLOT_11	0.005953241
447	484751.71	3752734.43	PLOT_12	0.004747336
447	484751.71	3752734.43	PLOT_2	0.013240561
447	484751.71	3752734.43	PLOT_30_	

447	484751.71	3752734.43	PLOT_6	0.00524755
447	484751.71	3752734.43	PLOT_9	0.016949556
447	484751.71	3752734.43	PLOT4	0.019927595
447	484751.71	3752734.43	PLOTS_1_	0.016560256
447	484751.71	3752734.43	PLOTS_5_	0.015758675
447	484751.71	3752734.43	PLOTS_7_	0.008132212
448	484851.71	3752734.43	PLOT_11	0.00610423
448	484851.71	3752734.43	PLOT_12	0.004882093
448	484851.71	3752734.43	PLOT_2	0.013677936
448	484851.71	3752734.43	PLOT_30_	
448	484851.71	3752734.43	PLOT_6	0.005362194
448	484851.71	3752734.43	PLOT_9	0.017521737
448	484851.71	3752734.43	PLOT4	0.02124465
448	484851.71	3752734.43	PLOTS_1_	0.017452608
448	484851.71	3752734.43	PLOTS_5_	0.016653422
448	484851.71	3752734.43	PLOTS_7_	0.008350822
449	484951.71	3752734.43	PLOT_11	0.00626086
449	484951.71	3752734.43	PLOT_12	0.005023245
449	484951.71	3752734.43	PLOT_2	0.013956125
449	484951.71	3752734.43	PLOT_30_	
449	484951.71	3752734.43	PLOT_6	0.005434643
449	484951.71	3752734.43	PLOT_9	0.018115002
449	484951.71	3752734.43	PLOT4	0.022565567
449	484951.71	3752734.43	PLOTS_1_	0.018518328
449	484951.71	3752734.43	PLOTS_5_	0.017640353
449	484951.71	3752734.43	PLOTS_7_	0.008633972
450	485051.71	3752734.43	PLOT_11	0.006424504
450	485051.71	3752734.43	PLOT_12	0.005171784
450	485051.71	3752734.43	PLOT_2	0.014165494
450	485051.71	3752734.43	PLOT_30_	
450	485051.71	3752734.43	PLOT_6	0.005484873
450	485051.71	3752734.43	PLOT_9	0.018736585
450	485051.71	3752734.43	PLOT4	0.023887939
450	485051.71	3752734.43	PLOTS_1_	0.019188201
450	485051.71	3752734.43	PLOTS_5_	0.018740208
450	485051.71	3752734.43	PLOTS_7_	0.008922743
451	485151.71	3752734.43	PLOT_11	0.006592734
451	485151.71	3752734.43	PLOT_12	0.005326638
451	485151.71	3752734.43	PLOT_2	0.014372704
451	485151.71	3752734.43	PLOT_30_	
451	485151.71	3752734.43	PLOT_6	0.005653795
451	485151.71	3752734.43	PLOT_9	0.019375987
451	485151.71	3752734.43	PLOT4	0.025314469
451	485151.71	3752734.43	PLOTS_1_	0.020731009
451	485151.71	3752734.43	PLOTS_5_	0.019954167
451	485151.71	3752734.43	PLOTS_7_	0.009328947
452	485251.71	3752734.43	PLOT_11	0.006765961

452	485251.71	3752734.43	PLOT_12	0.005488324
452	485251.71	3752734.43	PLOT_2	0.014834884
452	485251.71	3752734.43	PLOT_30_	
452	485251.71	3752734.43	PLOT_6	0.005770004
452	485251.71	3752734.43	PLOT_9	0.020036298
452	485251.71	3752734.43	PLOT4	0.026773628
452	485251.71	3752734.43	PLOTS_1_	0.021540007
452	485251.71	3752734.43	PLOTS_5_	0.021301793
452	485251.71	3752734.43	PLOTS_7_	0.009654194
453	485351.71	3752734.43	PLOT_11	0.006945608
453	485351.71	3752734.43	PLOT_12	0.005657952
453	485351.71	3752734.43	PLOT_2	0.014949702
453	485351.71	3752734.43	PLOT_30_	
453	485351.71	3752734.43	PLOT_6	0.005894988
453	485351.71	3752734.43	PLOT_9	0.020762154
453	485351.71	3752734.43	PLOT4	0.028157118
453	485351.71	3752734.43	PLOTS_1_	0.021461447
453	485351.71	3752734.43	PLOTS_5_	0.022815144
453	485351.71	3752734.43	PLOTS_7_	0.009883561
454	485451.71	3752734.43	PLOT_11	0.007130986
454	485451.71	3752734.43	PLOT_12	0.005835484
454	485451.71	3752734.43	PLOT_2	0.014754388
454	485451.71	3752734.43	PLOT_30_	
454	485451.71	3752734.43	PLOT_6	0.006099721
454	485451.71	3752734.43	PLOT_9	0.02153309
454	485451.71	3752734.43	PLOT4	0.030035651
454	485451.71	3752734.43	PLOTS_1_	0.02059095
454	485451.71	3752734.43	PLOTS_5_	0.024516756
454	485451.71	3752734.43	PLOTS_7_	0.009999902
455	484551.71	3752834.43	PLOT_11	0.00567295
455	484551.71	3752834.43	PLOT_12	0.004554513
455	484551.71	3752834.43	PLOT_2	0.012625539
455	484551.71	3752834.43	PLOT_30_	
455	484551.71	3752834.43	PLOT_6	0.00499894
455	484551.71	3752834.43	PLOT_9	0.016070554
455	484551.71	3752834.43	PLOT4	0.018193685
455	484551.71	3752834.43	PLOTS_1_	0.015180743
455	484551.71	3752834.43	PLOTS_5_	0.014616927
455	484551.71	3752834.43	PLOTS_7_	0.008006651
456	484651.71	3752834.43	PLOT_11	0.005822701
456	484651.71	3752834.43	PLOT_12	0.004675449
456	484651.71	3752834.43	PLOT_2	0.013107326
456	484651.71	3752834.43	PLOT_30_	
456	484651.71	3752834.43	PLOT_6	0.005116834
456	484651.71	3752834.43	PLOT_9	0.016604889
456	484651.71	3752834.43	PLOT4	0.019188472
456	484651.71	3752834.43	PLOTS_1_	0.016284687

456	484651.71	3752834.43	PLOTS_5_	0.015377239
456	484651.71	3752834.43	PLOTS_7_	0.008175886
457	484751.71	3752834.43	PLOT_11	0.005977176
457	484751.71	3752834.43	PLOT_12	0.004800992
457	484751.71	3752834.43	PLOT_2	0.013555099
457	484751.71	3752834.43	PLOT_30_	
457	484751.71	3752834.43	PLOT_6	0.0053252
457	484751.71	3752834.43	PLOT_9	0.017155192
457	484751.71	3752834.43	PLOT4	0.020193446
457	484751.71	3752834.43	PLOTS_1_	0.017350366
457	484751.71	3752834.43	PLOTS_5_	0.016203565
457	484751.71	3752834.43	PLOTS_7_	0.0082953
458	484851.71	3752834.43	PLOT_11	0.006139399
458	484851.71	3752834.43	PLOT_12	0.004933089
458	484851.71	3752834.43	PLOT_2	0.014204927
458	484851.71	3752834.43	PLOT_30_	
458	484851.71	3752834.43	PLOT_6	0.00550142
458	484851.71	3752834.43	PLOT_9	0.017735577
458	484851.71	3752834.43	PLOT4	0.021232281
458	484851.71	3752834.43	PLOTS_1_	0.018254741
458	484851.71	3752834.43	PLOTS_5_	0.017118848
458	484851.71	3752834.43	PLOTS_7_	0.008568422
459	484951.71	3752834.43	PLOT_11	0.006307628
459	484951.71	3752834.43	PLOT_12	0.005070825
459	484951.71	3752834.43	PLOT_2	0.014696583
459	484951.71	3752834.43	PLOT_30_	
459	484951.71	3752834.43	PLOT_6	0.005637219
459	484951.71	3752834.43	PLOT_9	0.01833881
459	484951.71	3752834.43	PLOT4	0.022561369
459	484951.71	3752834.43	PLOTS_1_	0.019456987
459	484951.71	3752834.43	PLOTS_5_	0.018125957
459	484951.71	3752834.43	PLOTS_7_	0.008845546
460	485051.71	3752834.43	PLOT_11	0.006482598
460	485051.71	3752834.43	PLOT_12	0.005214757
460	485051.71	3752834.43	PLOT_2	0.014982659
460	485051.71	3752834.43	PLOT_30_	
460	485051.71	3752834.43	PLOT_6	0.005727338
460	485051.71	3752834.43	PLOT_9	0.018968686
460	485051.71	3752834.43	PLOT4	0.02421043
460	485051.71	3752834.43	PLOTS_1_	0.020668738
460	485051.71	3752834.43	PLOTS_5_	0.019241125
460	485051.71	3752834.43	PLOTS_7_	0.009121256
461	485151.71	3752834.43	PLOT_11	0.006663987
461	485151.71	3752834.43	PLOT_12	0.005364885
461	485151.71	3752834.43	PLOT_2	0.015225336
461	485151.71	3752834.43	PLOT_30_	
461	485151.71	3752834.43	PLOT_6	0.00576826

461	485151.71	3752834.43	PLOT_9	0.019624674
461	485151.71	3752834.43	PLOT4	0.02589033
461	485151.71	3752834.43	PLOTS_1_	0.02192444
461	485151.71	3752834.43	PLOTS_5_	0.020478079
461	485151.71	3752834.43	PLOTS_7_	0.009416658
462	485251.71	3752834.43	PLOT_11	0.006852438
462	485251.71	3752834.43	PLOT_12	0.005521685
462	485251.71	3752834.43	PLOT_2	0.015543531
462	485251.71	3752834.43	PLOT_30_	
462	485251.71	3752834.43	PLOT_6	0.005945278
462	485251.71	3752834.43	PLOT_9	0.020355646
462	485251.71	3752834.43	PLOT4	0.02759564
462	485251.71	3752834.43	PLOTS_1_	0.023439829
462	485251.71	3752834.43	PLOTS_5_	0.021859146
462	485251.71	3752834.43	PLOTS_7_	0.009859945
463	485351.71	3752834.43	PLOT_11	0.007047032
463	485351.71	3752834.43	PLOT_12	0.00568488
463	485351.71	3752834.43	PLOT_2	0.015942575
463	485351.71	3752834.43	PLOT_30_	
463	485351.71	3752834.43	PLOT_6	0.006074606
463	485351.71	3752834.43	PLOT_9	0.021120407
463	485351.71	3752834.43	PLOT4	0.029455927
463	485351.71	3752834.43	PLOTS_1_	0.023906031
463	485351.71	3752834.43	PLOTS_5_	0.023400665
463	485351.71	3752834.43	PLOTS_7_	0.010245485
464	485451.71	3752834.43	PLOT_11	0.007249788
464	485451.71	3752834.43	PLOT_12	0.005855819
464	485451.71	3752834.43	PLOT_2	0.015941429
464	485451.71	3752834.43	PLOT_30_	
464	485451.71	3752834.43	PLOT_6	0.006206888
464	485451.71	3752834.43	PLOT_9	0.021924071
464	485451.71	3752834.43	PLOT4	0.031416231
464	485451.71	3752834.43	PLOTS_1_	0.023256346
464	485451.71	3752834.43	PLOTS_5_	0.025146423
464	485451.71	3752834.43	PLOTS_7_	0.010526977
465	484551.71	3752934.43	PLOT_11	0.005604035
465	484551.71	3752934.43	PLOT_12	0.004538706
465	484551.71	3752934.43	PLOT_2	0.013261489
465	484551.71	3752934.43	PLOT_30_	
465	484551.71	3752934.43	PLOT_6	0.005090862
465	484551.71	3752934.43	PLOT_9	0.016164241
465	484551.71	3752934.43	PLOT4	0.018441458
465	484551.71	3752934.43	PLOTS_1_	0.015541778
465	484551.71	3752934.43	PLOTS_5_	0.01449591
465	484551.71	3752934.43	PLOTS_7_	0.008183852
466	484651.71	3752934.43	PLOT_11	0.005759518
466	484651.71	3752934.43	PLOT_12	0.004653486

466	484651.71	3752934.43	PLOT_2	0.013497249
466	484651.71	3752934.43	PLOT_30_	
466	484651.71	3752934.43	PLOT_6	0.005232363
466	484651.71	3752934.43	PLOT_9	0.016645557
466	484651.71	3752934.43	PLOT4	0.019340315
466	484651.71	3752934.43	PLOTS_1_	0.016507246
466	484651.71	3752934.43	PLOTS_5_	0.015230564
466	484651.71	3752934.43	PLOTS_7_	0.00845301
467	484751.71	3752934.43	PLOT_11	0.005920916
467	484751.71	3752934.43	PLOT_12	0.004772635
467	484751.71	3752934.43	PLOT_2	0.014059488
467	484751.71	3752934.43	PLOT_30_	
467	484751.71	3752934.43	PLOT_6	0.005367985
467	484751.71	3752934.43	PLOT_9	0.017187215
467	484751.71	3752934.43	PLOT4	0.02031389
467	484751.71	3752934.43	PLOTS_1_	0.017828713
467	484751.71	3752934.43	PLOTS_5_	0.01602816
467	484751.71	3752934.43	PLOTS_7_	0.008680396
468	484851.71	3752934.43	PLOT_11	0.006089512
468	484851.71	3752934.43	PLOT_12	0.004896907
468	484851.71	3752934.43	PLOT_2	0.014564758
468	484851.71	3752934.43	PLOT_30_	
468	484851.71	3752934.43	PLOT_6	0.005568581
468	484851.71	3752934.43	PLOT_9	0.017784891
468	484851.71	3752934.43	PLOT4	0.021584212
468	484851.71	3752934.43	PLOTS_1_	0.01915936
468	484851.71	3752934.43	PLOTS_5_	0.016902216
468	484851.71	3752934.43	PLOTS_7_	0.008859659
469	484951.71	3752934.43	PLOT_11	0.006265032
469	484951.71	3752934.43	PLOT_12	0.005026184
469	484951.71	3752934.43	PLOT_2	0.015282481
469	484951.71	3752934.43	PLOT_30_	
469	484951.71	3752934.43	PLOT_6	0.005770683
469	484951.71	3752934.43	PLOT_9	0.018440967
469	484951.71	3752934.43	PLOT4	0.022905744
469	484951.71	3752934.43	PLOTS_1_	0.020307337
469	484951.71	3752934.43	PLOTS_5_	0.017859648
469	484951.71	3752934.43	PLOTS_7_	0.009046647
470	485051.71	3752934.43	PLOT_11	0.006448164
470	485051.71	3752934.43	PLOT_12	0.005160902
470	485051.71	3752934.43	PLOT_2	0.015830356
470	485051.71	3752934.43	PLOT_30_	
470	485051.71	3752934.43	PLOT_6	0.005930209
470	485051.71	3752934.43	PLOT_9	0.019127654
470	485051.71	3752934.43	PLOT4	0.024285764
470	485051.71	3752934.43	PLOTS_1_	0.021896087
470	485051.71	3752934.43	PLOTS_5_	0.018914538

470	485051.71	3752934.43	PLOTS_7_	0.009366272
471	485151.71	3752934.43	PLOT_11	0.006638448
471	485151.71	3752934.43	PLOT_12	0.005305271
471	485151.71	3752934.43	PLOT_2	0.016116785
471	485151.71	3752934.43	PLOT_30_	
471	485151.71	3752934.43	PLOT_6	0.006039622
471	485151.71	3752934.43	PLOT_9	0.019843189
471	485151.71	3752934.43	PLOT4	0.02580912
471	485151.71	3752934.43	PLOTS_1_	0.023292296
471	485151.71	3752934.43	PLOTS_5_	0.020075799
471	485151.71	3752934.43	PLOTS_7_	0.00964279
472	485251.71	3752934.43	PLOT_11	0.006837398
472	485251.71	3752934.43	PLOT_12	0.00545802
472	485251.71	3752934.43	PLOT_2	0.016399248
472	485251.71	3752934.43	PLOT_30_	
472	485251.71	3752934.43	PLOT_6	0.006094668
472	485251.71	3752934.43	PLOT_9	0.020596305
472	485251.71	3752934.43	PLOT4	0.027908673
472	485251.71	3752934.43	PLOTS_1_	0.025277461
472	485251.71	3752934.43	PLOTS_5_	0.021368114
472	485251.71	3752934.43	PLOTS_7_	0.010000549
473	485351.71	3752934.43	PLOT_11	0.007043318
473	485351.71	3752934.43	PLOT_12	0.00561629
473	485351.71	3752934.43	PLOT_2	0.016830102
473	485351.71	3752934.43	PLOT_30_	
473	485351.71	3752934.43	PLOT_6	0.006259335
473	485351.71	3752934.43	PLOT_9	0.02137915
473	485351.71	3752934.43	PLOT4	0.0300905
473	485351.71	3752934.43	PLOTS_1_	0.02662265
473	485351.71	3752934.43	PLOTS_5_	0.02279599
473	485351.71	3752934.43	PLOTS_7_	0.010431057
474	485451.71	3752934.43	PLOT_11	0.007258637
474	485451.71	3752934.43	PLOT_12	0.005781589
474	485451.71	3752934.43	PLOT_2	0.017146931
474	485451.71	3752934.43	PLOT_30_	
474	485451.71	3752934.43	PLOT_6	0.006405061
474	485451.71	3752934.43	PLOT_9	0.022206456
474	485451.71	3752934.43	PLOT4	0.03239725
474	485451.71	3752934.43	PLOTS_1_	0.026501276
474	485451.71	3752934.43	PLOTS_5_	0.024398555
474	485451.71	3752934.43	PLOTS_7_	0.010891327
475	484551.71	3753034.43	PLOT_11	0.005464096
475	484551.71	3753034.43	PLOT_12	0.004489457
475	484551.71	3753034.43	PLOT_2	0.013741645
475	484551.71	3753034.43	PLOT_30_	
475	484551.71	3753034.43	PLOT_6	0.005202639
475	484551.71	3753034.43	PLOT_9	0.016483148

475	484551.71	3753034.43	PLOT4	0.018893853
475	484551.71	3753034.43	PLOTS_1_	0.015929623
475	484551.71	3753034.43	PLOTS_5_	0.014022239
475	484551.71	3753034.43	PLOTS_7_	0.008387419
476	484651.71	3753034.43	PLOT_11	0.005621779
476	484651.71	3753034.43	PLOT_12	0.00460114
476	484651.71	3753034.43	PLOT_2	0.014242025
476	484651.71	3753034.43	PLOT_30_	
476	484651.71	3753034.43	PLOT_6	0.005345883
476	484651.71	3753034.43	PLOT_9	0.017004604
476	484651.71	3753034.43	PLOT4	0.019828866
476	484651.71	3753034.43	PLOTS_1_	0.016936443
476	484651.71	3753034.43	PLOTS_5_	0.014666092
476	484651.71	3753034.43	PLOTS_7_	0.008636763
477	484751.71	3753034.43	PLOT_11	0.005786066
477	484751.71	3753034.43	PLOT_12	0.004716873
477	484751.71	3753034.43	PLOT_2	0.014558281
477	484751.71	3753034.43	PLOT_30_	
477	484751.71	3753034.43	PLOT_6	0.005476305
477	484751.71	3753034.43	PLOT_9	0.017551466
477	484751.71	3753034.43	PLOT4	0.020814698
477	484751.71	3753034.43	PLOTS_1_	0.018034009
477	484751.71	3753034.43	PLOTS_5_	0.015358546
477	484751.71	3753034.43	PLOTS_7_	0.008904829
478	484851.71	3753034.43	PLOT_11	0.005957322
478	484851.71	3753034.43	PLOT_12	0.004836936
478	484851.71	3753034.43	PLOT_2	0.015123251
478	484851.71	3753034.43	PLOT_30_	
478	484851.71	3753034.43	PLOT_6	0.005640055
478	484851.71	3753034.43	PLOT_9	0.018125941
478	484851.71	3753034.43	PLOT4	0.021869652
478	484851.71	3753034.43	PLOTS_1_	0.019646157
478	484851.71	3753034.43	PLOTS_5_	0.016104775
478	484851.71	3753034.43	PLOTS_7_	0.009201405
479	484951.71	3753034.43	PLOT_11	0.006136097
479	484951.71	3753034.43	PLOT_12	0.004961526
479	484951.71	3753034.43	PLOT_2	0.015693332
479	484951.71	3753034.43	PLOT_30_	
479	484951.71	3753034.43	PLOT_6	0.005824105
479	484951.71	3753034.43	PLOT_9	0.018731733
479	484951.71	3753034.43	PLOT4	0.023080758
479	484951.71	3753034.43	PLOTS_1_	0.021319235
479	484951.71	3753034.43	PLOTS_5_	0.016912203
479	484951.71	3753034.43	PLOTS_7_	0.009448524
480	485051.71	3753034.43	PLOT_11	0.006322989
480	485051.71	3753034.43	PLOT_12	0.005090882
480	485051.71	3753034.43	PLOT_2	0.016491948

480	485051.71	3753034.43	PLOT_30_	
480	485051.71	3753034.43	PLOT_6	0.006056227
480	485051.71	3753034.43	PLOT_9	0.019372459
480	485051.71	3753034.43	PLOT4	0.024440294
480	485051.71	3753034.43	PLOTS_1_	0.022842626
480	485051.71	3753034.43	PLOTS_5_	0.017788564
480	485051.71	3753034.43	PLOTS_7_	0.009635997
481	485151.71	3753034.43	PLOT_11	0.006518225
481	485151.71	3753034.43	PLOT_12	0.005225163
481	485151.71	3753034.43	PLOT_2	0.017098907
481	485151.71	3753034.43	PLOT_30_	
481	485151.71	3753034.43	PLOT_6	0.0062427
481	485151.71	3753034.43	PLOT_9	0.020050942
481	485151.71	3753034.43	PLOT4	0.026169334
481	485151.71	3753034.43	PLOTS_1_	0.024941854
481	485151.71	3753034.43	PLOTS_5_	0.018740618
481	485151.71	3753034.43	PLOTS_7_	0.009912191
482	485251.71	3753034.43	PLOT_11	0.006722448
482	485251.71	3753034.43	PLOT_12	0.005364568
482	485251.71	3753034.43	PLOT_2	0.01738789
482	485251.71	3753034.43	PLOT_30_	
482	485251.71	3753034.43	PLOT_6	0.006375928
482	485251.71	3753034.43	PLOT_9	0.02077177
482	485251.71	3753034.43	PLOT4	0.02802145
482	485251.71	3753034.43	PLOTS_1_	0.026842611
482	485251.71	3753034.43	PLOTS_5_	0.01977825
482	485251.71	3753034.43	PLOTS_7_	0.010267483
483	485351.71	3753034.43	PLOT_11	0.006935062
483	485351.71	3753034.43	PLOT_12	0.005508579
483	485351.71	3753034.43	PLOT_2	0.017699433
483	485351.71	3753034.43	PLOT_30_	
483	485351.71	3753034.43	PLOT_6	0.006448407
483	485351.71	3753034.43	PLOT_9	0.021533884
483	485351.71	3753034.43	PLOT4	0.030003301
483	485351.71	3753034.43	PLOTS_1_	0.029455444
483	485351.71	3753034.43	PLOTS_5_	0.020903507
483	485351.71	3753034.43	PLOTS_7_	0.010625889
484	485451.71	3753034.43	PLOT_11	0.007157076
484	485451.71	3753034.43	PLOT_12	0.005657674
484	485451.71	3753034.43	PLOT_2	0.018250832
484	485451.71	3753034.43	PLOT_30_	
484	485451.71	3753034.43	PLOT_6	0.006600014
484	485451.71	3753034.43	PLOT_9	0.022345223
484	485451.71	3753034.43	PLOT4	0.03264743
484	485451.71	3753034.43	PLOTS_1_	0.030363476
484	485451.71	3753034.43	PLOTS_5_	0.022129245
484	485451.71	3753034.43	PLOTS_7_	0.011048956

485	484551.71	3753134.43	PLOT_11	0.006385943
485	484551.71	3753134.43	PLOT_12	0.005147478
485	484551.71	3753134.43	PLOT_2	0.016257862
485	484551.71	3753134.43	PLOT_30_	
485	484551.71	3753134.43	PLOT_6	0.00626489
485	484551.71	3753134.43	PLOT_9	0.018677302
485	484551.71	3753134.43	PLOT4	0.021421287
485	484551.71	3753134.43	PLOTS_1_	0.016935062
485	484551.71	3753134.43	PLOTS_5_	0.015374422
485	484551.71	3753134.43	PLOTS_7_	0.009840736
486	484651.71	3753134.43	PLOT_11	0.006554402
486	484651.71	3753134.43	PLOT_12	0.005265992
486	484651.71	3753134.43	PLOT_2	0.017008938
486	484651.71	3753134.43	PLOT_30_	
486	484651.71	3753134.43	PLOT_6	0.006483096
486	484651.71	3753134.43	PLOT_9	0.019271361
486	484651.71	3753134.43	PLOT4	0.022449767
486	484651.71	3753134.43	PLOTS_1_	0.018101683
486	484651.71	3753134.43	PLOTS_5_	0.015927935
486	484651.71	3753134.43	PLOTS_7_	0.01025891
487	484751.71	3753134.43	PLOT_11	0.006742577
487	484751.71	3753134.43	PLOT_12	0.005398485
487	484751.71	3753134.43	PLOT_2	0.017756445
487	484751.71	3753134.43	PLOT_30_	
487	484751.71	3753134.43	PLOT_6	0.006702424
487	484751.71	3753134.43	PLOT_9	0.01991394
487	484751.71	3753134.43	PLOT4	0.023663616
487	484751.71	3753134.43	PLOTS_1_	0.019559879
487	484751.71	3753134.43	PLOTS_5_	0.016531893
487	484751.71	3753134.43	PLOTS_7_	0.010650355
488	484851.71	3753134.43	PLOT_11	0.006900857
488	484851.71	3753134.43	PLOT_12	0.00550286
488	484851.71	3753134.43	PLOT_2	0.018188092
488	484851.71	3753134.43	PLOT_30_	
488	484851.71	3753134.43	PLOT_6	0.006834441
488	484851.71	3753134.43	PLOT_9	0.020519908
488	484851.71	3753134.43	PLOT4	0.024882278
488	484851.71	3753134.43	PLOTS_1_	0.021113248
488	484851.71	3753134.43	PLOTS_5_	0.017093344
488	484851.71	3753134.43	PLOTS_7_	0.010930512
489	484951.71	3753134.43	PLOT_11	0.007072251
489	484951.71	3753134.43	PLOT_12	0.005615178
489	484951.71	3753134.43	PLOT_2	0.018833162
489	484951.71	3753134.43	PLOT_30_	
489	484951.71	3753134.43	PLOT_6	0.007008297
489	484951.71	3753134.43	PLOT_9	0.021166986
489	484951.71	3753134.43	PLOT4	0.026197766

489	484951.71	3753134.43	PLOTS_1_	0.023127051
489	484951.71	3753134.43	PLOTS_5_	0.018609768
489	484951.71	3753134.43	PLOTS_7_	0.011296116
490	485051.71	3753134.43	PLOT_11	0.007238371
490	485051.71	3753134.43	PLOT_12	0.00571995
490	485051.71	3753134.43	PLOT_2	0.019727871
490	485051.71	3753134.43	PLOT_30_	
490	485051.71	3753134.43	PLOT_6	0.007149503
490	485051.71	3753134.43	PLOT_9	0.021826149
490	485051.71	3753134.43	PLOT4	0.027591723
490	485051.71	3753134.43	PLOTS_1_	0.025483935
490	485051.71	3753134.43	PLOTS_5_	0.020231692
490	485051.71	3753134.43	PLOTS_7_	0.011614892
491	485151.71	3753134.43	PLOT_11	0.00739335
491	485151.71	3753134.43	PLOT_12	0.005812648
491	485151.71	3753134.43	PLOT_2	0.020636061
491	485151.71	3753134.43	PLOT_30_	
491	485151.71	3753134.43	PLOT_6	0.00730303
491	485151.71	3753134.43	PLOT_9	0.022490871
491	485151.71	3753134.43	PLOT4	0.029145021
491	485151.71	3753134.43	PLOTS_1_	0.027810354
491	485151.71	3753134.43	PLOTS_5_	0.021933457
491	485151.71	3753134.43	PLOTS_7_	0.011819026
492	485251.71	3753134.43	PLOT_11	0.006927726
492	485251.71	3753134.43	PLOT_12	0.005441458
492	485251.71	3753134.43	PLOT_2	0.019335612
492	485251.71	3753134.43	PLOT_30_	
492	485251.71	3753134.43	PLOT_6	0.006903552
492	485251.71	3753134.43	PLOT_9	0.021902193
492	485251.71	3753134.43	PLOT4	0.029039632
492	485251.71	3753134.43	PLOTS_1_	0.029660213
492	485251.71	3753134.43	PLOTS_5_	0.021395154
492	485251.71	3753134.43	PLOTS_7_	0.011064849
493	485351.71	3753134.43	PLOT_11	0.00674111
493	485351.71	3753134.43	PLOT_12	0.005300148
493	485351.71	3753134.43	PLOT_2	0.018826201
493	485351.71	3753134.43	PLOT_30_	
493	485351.71	3753134.43	PLOT_6	0.006739831
493	485351.71	3753134.43	PLOT_9	0.021908104
493	485351.71	3753134.43	PLOT4	0.030242176
493	485351.71	3753134.43	PLOTS_1_	0.03215411
493	485351.71	3753134.43	PLOTS_5_	0.021553301
493	485351.71	3753134.43	PLOTS_7_	0.010935203
494	485451.71	3753134.43	PLOT_11	0.006954779
494	485451.71	3753134.43	PLOT_12	0.005429027
494	485451.71	3753134.43	PLOT_2	0.019212511
494	485451.71	3753134.43	PLOT_30_	

494	485451.71	3753134.43	PLOT_6	0.006834943
494	485451.71	3753134.43	PLOT_9	0.022769816
494	485451.71	3753134.43	PLOT4	0.032741793
494	485451.71	3753134.43	PLOTS_1_	0.034908709
494	485451.71	3753134.43	PLOTS_5_	0.023520095
494	485451.71	3753134.43	PLOTS_7_	0.01130388
495	484551.71	3753234.43	PLOT_11	0.007942377
495	484551.71	3753234.43	PLOT_12	0.006367763
495	484551.71	3753234.43	PLOT_2	0.020511991
495	484551.71	3753234.43	PLOT_30_	
495	484551.71	3753234.43	PLOT_6	0.007954013
495	484551.71	3753234.43	PLOT_9	0.021630482
495	484551.71	3753234.43	PLOT4	0.025655766
495	484551.71	3753234.43	PLOTS_1_	0.019164804
495	484551.71	3753234.43	PLOTS_5_	0.019622869
495	484551.71	3753234.43	PLOTS_7_	0.012181314
496	484651.71	3753234.43	PLOT_11	0.008387551
496	484651.71	3753234.43	PLOT_12	0.006795071
496	484651.71	3753234.43	PLOT_2	0.022199191
496	484651.71	3753234.43	PLOT_30_	
496	484651.71	3753234.43	PLOT_6	0.008574977
496	484651.71	3753234.43	PLOT_9	0.022873648
496	484651.71	3753234.43	PLOT4	0.02739309
496	484651.71	3753234.43	PLOTS_1_	0.020897391
496	484651.71	3753234.43	PLOTS_5_	0.022238944
496	484651.71	3753234.43	PLOTS_7_	0.012994127
497	484751.71	3753234.43	PLOT_11	0.008596956
497	484751.71	3753234.43	PLOT_12	0.006955446
497	484751.71	3753234.43	PLOT_2	0.022875234
497	484751.71	3753234.43	PLOT_30_	
497	484751.71	3753234.43	PLOT_6	0.008863919
497	484751.71	3753234.43	PLOT_9	0.023560953
497	484751.71	3753234.43	PLOT4	0.028635874
497	484751.71	3753234.43	PLOTS_1_	0.022523227
497	484751.71	3753234.43	PLOTS_5_	0.023643416
497	484751.71	3753234.43	PLOTS_7_	0.013417274
498	484851.71	3753234.43	PLOT_11	0.008737262
498	484851.71	3753234.43	PLOT_12	0.007002867
498	484851.71	3753234.43	PLOT_2	0.02350973
498	484851.71	3753234.43	PLOT_30_	
498	484851.71	3753234.43	PLOT_6	0.008992006
498	484851.71	3753234.43	PLOT_9	0.024152983
498	484851.71	3753234.43	PLOT4	0.029827168
498	484851.71	3753234.43	PLOTS_1_	0.024489667
498	484851.71	3753234.43	PLOTS_5_	0.02469508
498	484851.71	3753234.43	PLOTS_7_	0.013894691
499	484951.71	3753234.43	PLOT_11	0.008516394

499	484951.71	3753234.43	PLOT_12	0.006561539
499	484951.71	3753234.43	PLOT_2	0.023291946
499	484951.71	3753234.43	PLOT_30_	
499	484951.71	3753234.43	PLOT_6	0.008677535
499	484951.71	3753234.43	PLOT_9	0.023893799
499	484951.71	3753234.43	PLOT4	0.030137122
499	484951.71	3753234.43	PLOTS_1_	0.024972157
499	484951.71	3753234.43	PLOTS_5_	0.024579236
499	484951.71	3753234.43	PLOTS_7_	0.013728367
500	485051.71	3753234.43	PLOT_11	0.008654545
500	485051.71	3753234.43	PLOT_12	0.006588546
500	485051.71	3753234.43	PLOT_2	0.024090517
500	485051.71	3753234.43	PLOT_30_	
500	485051.71	3753234.43	PLOT_6	0.008760445
500	485051.71	3753234.43	PLOT_9	0.024518999
500	485051.71	3753234.43	PLOT4	0.031550108
500	485051.71	3753234.43	PLOTS_1_	0.02776949
500	485051.71	3753234.43	PLOTS_5_	0.026300513
500	485051.71	3753234.43	PLOTS_7_	0.014009374
501	485151.71	3753234.43	PLOT_11	0.007970026
501	485151.71	3753234.43	PLOT_12	0.005997765
501	485151.71	3753234.43	PLOT_2	0.023299876
501	485151.71	3753234.43	PLOT_30_	
501	485151.71	3753234.43	PLOT_6	0.008188382
501	485151.71	3753234.43	PLOT_9	0.023984399
501	485151.71	3753234.43	PLOT4	0.031330431
501	485151.71	3753234.43	PLOTS_1_	0.029820257
501	485151.71	3753234.43	PLOTS_5_	0.026264869
501	485151.71	3753234.43	PLOTS_7_	0.013363451
502	485251.71	3753234.43	PLOT_11	0.007969246
502	485251.71	3753234.43	PLOT_12	0.005938389
502	485251.71	3753234.43	PLOT_2	0.02384828
502	485251.71	3753234.43	PLOT_30_	
502	485251.71	3753234.43	PLOT_6	0.008057901
502	485251.71	3753234.43	PLOT_9	0.024316715
502	485251.71	3753234.43	PLOT4	0.03285166
502	485251.71	3753234.43	PLOTS_1_	0.033594066
502	485251.71	3753234.43	PLOTS_5_	0.026997167
502	485251.71	3753234.43	PLOTS_7_	0.013409874
503	485351.71	3753234.43	PLOT_11	0.007799779
503	485351.71	3753234.43	PLOT_12	0.005733016
503	485351.71	3753234.43	PLOT_2	0.023089141
503	485351.71	3753234.43	PLOT_30_	
503	485351.71	3753234.43	PLOT_6	0.008011069
503	485351.71	3753234.43	PLOT_9	0.024372116
503	485351.71	3753234.43	PLOT4	0.033814657
503	485351.71	3753234.43	PLOTS_1_	0.036497215

503	485351.71	3753234.43	PLOTS_5_	0.027282271
503	485351.71	3753234.43	PLOTS_7_	0.01305531
504	485451.71	3753234.43	PLOT_11	0.00797915
504	485451.71	3753234.43	PLOT_12	0.005803632
504	485451.71	3753234.43	PLOT_2	0.023001155
504	485451.71	3753234.43	PLOT_30_	
504	485451.71	3753234.43	PLOT_6	0.008165512
504	485451.71	3753234.43	PLOT_9	0.025202422
504	485451.71	3753234.43	PLOT4	0.036135342
504	485451.71	3753234.43	PLOTS_1_	0.042331825
504	485451.71	3753234.43	PLOTS_5_	0.028894515
504	485451.71	3753234.43	PLOTS_7_	0.013444934
505	484551.71	3753334.43	PLOT_11	0.00910811
505	484551.71	3753334.43	PLOT_12	0.007680905
505	484551.71	3753334.43	PLOT_2	0.024062099
505	484551.71	3753334.43	PLOT_30_	
505	484551.71	3753334.43	PLOT_6	0.009319448
505	484551.71	3753334.43	PLOT_9	0.023491349
505	484551.71	3753334.43	PLOT4	0.028588749
505	484551.71	3753334.43	PLOTS_1_	0.021713335
505	484551.71	3753334.43	PLOTS_5_	0.025242294
505	484551.71	3753334.43	PLOTS_7_	0.01448954
506	484651.71	3753334.43	PLOT_11	0.009387025
506	484651.71	3753334.43	PLOT_12	0.007963646
506	484651.71	3753334.43	PLOT_2	0.025077354
506	484651.71	3753334.43	PLOT_30_	
506	484651.71	3753334.43	PLOT_6	0.009618318
506	484651.71	3753334.43	PLOT_9	0.024283986
506	484651.71	3753334.43	PLOT4	0.029907763
506	484651.71	3753334.43	PLOTS_1_	0.023298389
506	484651.71	3753334.43	PLOTS_5_	0.026804144
506	484651.71	3753334.43	PLOTS_7_	0.015127052
507	484751.71	3753334.43	PLOT_11	0.009550303
507	484751.71	3753334.43	PLOT_12	0.008089348
507	484751.71	3753334.43	PLOT_2	0.02582909
507	484751.71	3753334.43	PLOT_30_	
507	484751.71	3753334.43	PLOT_6	0.009774622
507	484751.71	3753334.43	PLOT_9	0.024927006
507	484751.71	3753334.43	PLOT4	0.031098441
507	484751.71	3753334.43	PLOTS_1_	0.024789731
507	484751.71	3753334.43	PLOTS_5_	0.027890941
507	484751.71	3753334.43	PLOTS_7_	0.015424679
508	484851.71	3753334.43	PLOT_11	0.009781212
508	484851.71	3753334.43	PLOT_12	0.008334954
508	484851.71	3753334.43	PLOT_2	0.026807203
508	484851.71	3753334.43	PLOT_30_	
508	484851.71	3753334.43	PLOT_6	0.010179773

508	484851.71	3753334.43	PLOT_9	0.025689473
508	484851.71	3753334.43	PLOT4	0.032497826
508	484851.71	3753334.43	PLOTS_1_	0.026984864
508	484851.71	3753334.43	PLOTS_5_	0.029254391
508	484851.71	3753334.43	PLOTS_7_	0.015870918
509	484951.71	3753334.43	PLOT_11	0.009875254
509	484951.71	3753334.43	PLOT_12	0.008288287
509	484951.71	3753334.43	PLOT_2	0.027455489
509	484951.71	3753334.43	PLOT_30_	
509	484951.71	3753334.43	PLOT_6	0.010331971
509	484951.71	3753334.43	PLOT_9	0.026267476
509	484951.71	3753334.43	PLOT4	0.033770162
509	484951.71	3753334.43	PLOTS_1_	0.029556143
509	484951.71	3753334.43	PLOTS_5_	0.029939368
509	484951.71	3753334.43	PLOTS_7_	0.016137003
510	485051.71	3753334.43	PLOT_11	0.009996623
510	485051.71	3753334.43	PLOT_12	0.008277683
510	485051.71	3753334.43	PLOT_2	0.028070643
510	485051.71	3753334.43	PLOT_30_	
510	485051.71	3753334.43	PLOT_6	0.010392631
510	485051.71	3753334.43	PLOT_9	0.026907937
510	485051.71	3753334.43	PLOT4	0.035221206
510	485051.71	3753334.43	PLOTS_1_	0.03246904
510	485051.71	3753334.43	PLOTS_5_	0.031111947
510	485051.71	3753334.43	PLOTS_7_	0.016532895
511	485151.71	3753334.43	PLOT_11	0.009853016
511	485151.71	3753334.43	PLOT_12	0.007744888
511	485151.71	3753334.43	PLOT_2	0.028323057
511	485151.71	3753334.43	PLOT_30_	
511	485151.71	3753334.43	PLOT_6	0.010159208
511	485151.71	3753334.43	PLOT_9	0.027034089
511	485151.71	3753334.43	PLOT4	0.035918967
511	485151.71	3753334.43	PLOTS_1_	0.034621684
511	485151.71	3753334.43	PLOTS_5_	0.031568564
511	485151.71	3753334.43	PLOTS_7_	0.016462411
512	485251.71	3753334.43	PLOT_11	0.009780249
512	485251.71	3753334.43	PLOT_12	0.007380729
512	485251.71	3753334.43	PLOT_2	0.028547362
512	485251.71	3753334.43	PLOT_30_	
512	485251.71	3753334.43	PLOT_6	0.010147833
512	485251.71	3753334.43	PLOT_9	0.027421012
512	485251.71	3753334.43	PLOT4	0.037175576
512	485251.71	3753334.43	PLOTS_1_	0.037650188
512	485251.71	3753334.43	PLOTS_5_	0.032320631
512	485251.71	3753334.43	PLOTS_7_	0.016410124
513	485351.71	3753334.43	PLOT_11	0.009483085
513	485351.71	3753334.43	PLOT_12	0.006672308

513	485351.71	3753334.43	PLOT_2	0.028774091
513	485351.71	3753334.43	PLOT_30_	
513	485351.71	3753334.43	PLOT_6	0.009756569
513	485351.71	3753334.43	PLOT_9	0.027233902
513	485351.71	3753334.43	PLOT4	0.037967869
513	485351.71	3753334.43	PLOTS_1_	0.042336294
513	485351.71	3753334.43	PLOTS_5_	0.031923165
513	485351.71	3753334.43	PLOTS_7_	0.016114195
514	485451.71	3753334.43	PLOT_11	0.00932884
514	485451.71	3753334.43	PLOT_12	0.006277766
514	485451.71	3753334.43	PLOT_2	0.028563312
514	485451.71	3753334.43	PLOT_30_	
514	485451.71	3753334.43	PLOT_6	0.009643581
514	485451.71	3753334.43	PLOT_9	0.027559338
514	485451.71	3753334.43	PLOT4	0.039732114
514	485451.71	3753334.43	PLOTS_1_	0.050929525
514	485451.71	3753334.43	PLOTS_5_	0.033402203
514	485451.71	3753334.43	PLOTS_7_	0.016125639
515	484551.71	3753434.43	PLOT_11	0.009908084
515	484551.71	3753434.43	PLOT_12	0.008976969
515	484551.71	3753434.43	PLOT_2	0.026206193
515	484551.71	3753434.43	PLOT_30_	
515	484551.71	3753434.43	PLOT_6	0.010494244
515	484551.71	3753434.43	PLOT_9	0.025283406
515	484551.71	3753434.43	PLOT4	0.03049118
515	484551.71	3753434.43	PLOTS_1_	0.023285634
515	484551.71	3753434.43	PLOTS_5_	0.028049446
515	484551.71	3753434.43	PLOTS_7_	0.016432163
516	484651.71	3753434.43	PLOT_11	0.010246194
516	484651.71	3753434.43	PLOT_12	0.009319324
516	484651.71	3753434.43	PLOT_2	0.027470954
516	484651.71	3753434.43	PLOT_30_	
516	484651.71	3753434.43	PLOT_6	0.010843728
516	484651.71	3753434.43	PLOT_9	0.026113183
516	484651.71	3753434.43	PLOT4	0.03193618
516	484651.71	3753434.43	PLOTS_1_	0.024886895
516	484651.71	3753434.43	PLOTS_5_	0.029510867
516	484651.71	3753434.43	PLOTS_7_	0.017071778
517	484751.71	3753434.43	PLOT_11	0.010401035
517	484751.71	3753434.43	PLOT_12	0.009430172
517	484751.71	3753434.43	PLOT_2	0.028325172
517	484751.71	3753434.43	PLOT_30_	
517	484751.71	3753434.43	PLOT_6	0.010999708
517	484751.71	3753434.43	PLOT_9	0.026667456
517	484751.71	3753434.43	PLOT4	0.033108556
517	484751.71	3753434.43	PLOTS_1_	0.026505582
517	484751.71	3753434.43	PLOTS_5_	0.030314454

517	484751.71	3753434.43	PLOTS_7_	0.017480894
518	484851.71	3753434.43	PLOT_11	0.010633778
518	484851.71	3753434.43	PLOT_12	0.009622677
518	484851.71	3753434.43	PLOT_2	0.029359592
518	484851.71	3753434.43	PLOT_30_	
518	484851.71	3753434.43	PLOT_6	0.011217766
518	484851.71	3753434.43	PLOT_9	0.027370375
518	484851.71	3753434.43	PLOT4	0.03453072
518	484851.71	3753434.43	PLOTS_1_	0.028558787
518	484851.71	3753434.43	PLOTS_5_	0.031207459
518	484851.71	3753434.43	PLOTS_7_	0.018066968
519	484951.71	3753434.43	PLOT_11	0.010674356
519	484951.71	3753434.43	PLOT_12	0.009547852
519	484951.71	3753434.43	PLOT_2	0.030314133
519	484951.71	3753434.43	PLOT_30_	
519	484951.71	3753434.43	PLOT_6	0.011225064
519	484951.71	3753434.43	PLOT_9	0.027735862
519	484951.71	3753434.43	PLOT4	0.03564668
519	484951.71	3753434.43	PLOTS_1_	0.030789138
519	484951.71	3753434.43	PLOTS_5_	0.031618804
519	484951.71	3753434.43	PLOTS_7_	0.018207047
520	485051.71	3753434.43	PLOT_11	0.010740062
520	485051.71	3753434.43	PLOT_12	0.009370359
520	485051.71	3753434.43	PLOT_2	0.031163285
520	485051.71	3753434.43	PLOT_30_	
520	485051.71	3753434.43	PLOT_6	0.011415082
520	485051.71	3753434.43	PLOT_9	0.028047094
520	485051.71	3753434.43	PLOT4	0.036797508
520	485051.71	3753434.43	PLOTS_1_	0.03327154
520	485051.71	3753434.43	PLOTS_5_	0.032882338
520	485051.71	3753434.43	PLOTS_7_	0.018142264
521	485151.71	3753434.43	PLOT_11	0.010655099
521	485151.71	3753434.43	PLOT_12	0.009005962
521	485151.71	3753434.43	PLOT_2	0.031282377
521	485151.71	3753434.43	PLOT_30_	
521	485151.71	3753434.43	PLOT_6	0.011334241
521	485151.71	3753434.43	PLOT_9	0.028040302
521	485151.71	3753434.43	PLOT4	0.03800867
521	485151.71	3753434.43	PLOTS_1_	0.036726356
521	485151.71	3753434.43	PLOTS_5_	0.033400257
521	485151.71	3753434.43	PLOTS_7_	0.018089371
522	485251.71	3753434.43	PLOT_11	0.010860606
522	485251.71	3753434.43	PLOT_12	0.009033962
522	485251.71	3753434.43	PLOT_2	0.032246126
522	485251.71	3753434.43	PLOT_30_	
522	485251.71	3753434.43	PLOT_6	0.011393247
522	485251.71	3753434.43	PLOT_9	0.028775421

522	485251.71	3753434.43	PLOT4	0.040004122
522	485251.71	3753434.43	PLOTS_1_	0.04158388
522	485251.71	3753434.43	PLOTS_5_	0.035063407
522	485251.71	3753434.43	PLOTS_7_	0.018612159
523	485351.71	3753434.43	PLOT_11	0.011006047
523	485351.71	3753434.43	PLOT_12	0.008921366
523	485351.71	3753434.43	PLOT_2	0.032992179
523	485351.71	3753434.43	PLOT_30_	
523	485351.71	3753434.43	PLOT_6	0.011559538
523	485351.71	3753434.43	PLOT_9	0.029542739
523	485351.71	3753434.43	PLOT4	0.042170334
523	485351.71	3753434.43	PLOTS_1_	0.048726633
523	485351.71	3753434.43	PLOTS_5_	0.036375952
523	485351.71	3753434.43	PLOTS_7_	0.01905403
524	485451.71	3753434.43	PLOT_11	0.011191334
524	485451.71	3753434.43	PLOT_12	0.008860798
524	485451.71	3753434.43	PLOT_2	0.03383503
524	485451.71	3753434.43	PLOT_30_	
524	485451.71	3753434.43	PLOT_6	0.011680711
524	485451.71	3753434.43	PLOT_9	0.030444943
524	485451.71	3753434.43	PLOT4	0.044717581
524	485451.71	3753434.43	PLOTS_1_	0.060011624
524	485451.71	3753434.43	PLOTS_5_	0.038171898
524	485451.71	3753434.43	PLOTS_7_	0.019549684
525	484551.71	3753534.43	PLOT_11	0.010712276
525	484551.71	3753534.43	PLOT_12	0.009690433
525	484551.71	3753534.43	PLOT_2	0.028851547
525	484551.71	3753534.43	PLOT_30_	
525	484551.71	3753534.43	PLOT_6	0.011559686
525	484551.71	3753534.43	PLOT_9	0.02625539
525	484551.71	3753534.43	PLOT4	0.031864204
525	484551.71	3753534.43	PLOTS_1_	0.024114333
525	484551.71	3753534.43	PLOTS_5_	0.028885041
525	484551.71	3753534.43	PLOTS_7_	0.017936352
526	484651.71	3753534.43	PLOT_11	0.010787197
526	484651.71	3753534.43	PLOT_12	0.009705843
526	484651.71	3753534.43	PLOT_2	0.029332893
526	484651.71	3753534.43	PLOT_30_	
526	484651.71	3753534.43	PLOT_6	0.011682218
526	484651.71	3753534.43	PLOT_9	0.026620965
526	484651.71	3753534.43	PLOT4	0.032878189
526	484651.71	3753534.43	PLOTS_1_	0.025497015
526	484651.71	3753534.43	PLOTS_5_	0.029930406
526	484651.71	3753534.43	PLOTS_7_	0.018238184
527	484751.71	3753534.43	PLOT_11	0.010914757
527	484751.71	3753534.43	PLOT_12	0.009779319
527	484751.71	3753534.43	PLOT_2	0.030156842

527	484751.71	3753534.43	PLOT_30_	
527	484751.71	3753534.43	PLOT_6	0.011811044
527	484751.71	3753534.43	PLOT_9	0.027168886
527	484751.71	3753534.43	PLOT4	0.034067691
527	484751.71	3753534.43	PLOTS_1_	0.027231024
527	484751.71	3753534.43	PLOTS_5_	0.03129401
527	484751.71	3753534.43	PLOTS_7_	0.018591333
528	484851.71	3753534.43	PLOT_11	0.011332786
528	484851.71	3753534.43	PLOT_12	0.010224698
528	484851.71	3753534.43	PLOT_2	0.031814523
528	484851.71	3753534.43	PLOT_30_	
528	484851.71	3753534.43	PLOT_6	0.012180886
528	484851.71	3753534.43	PLOT_9	0.028141752
528	484851.71	3753534.43	PLOT4	0.035860368
528	484851.71	3753534.43	PLOTS_1_	0.029580231
528	484851.71	3753534.43	PLOTS_5_	0.033651612
528	484851.71	3753534.43	PLOTS_7_	0.019467109
529	484951.71	3753534.43	PLOT_11	0.011420913
529	484951.71	3753534.43	PLOT_12	0.010188397
529	484951.71	3753534.43	PLOT_2	0.032519116
529	484951.71	3753534.43	PLOT_30_	
529	484951.71	3753534.43	PLOT_6	0.012216638
529	484951.71	3753534.43	PLOT_9	0.028649622
529	484951.71	3753534.43	PLOT4	0.03717927
529	484951.71	3753534.43	PLOTS_1_	0.031842631
529	484951.71	3753534.43	PLOTS_5_	0.03459455
529	484951.71	3753534.43	PLOTS_7_	0.019871291
530	485051.71	3753534.43	PLOT_11	0.011409496
530	485051.71	3753534.43	PLOT_12	0.010005503
530	485051.71	3753534.43	PLOT_2	0.033407437
530	485051.71	3753534.43	PLOT_30_	
530	485051.71	3753534.43	PLOT_6	0.012258418
530	485051.71	3753534.43	PLOT_9	0.029079155
530	485051.71	3753534.43	PLOT4	0.038458267
530	485051.71	3753534.43	PLOTS_1_	0.034507013
530	485051.71	3753534.43	PLOTS_5_	0.035177306
530	485051.71	3753534.43	PLOTS_7_	0.019966443
531	485151.71	3753534.43	PLOT_11	0.011523942
531	485151.71	3753534.43	PLOT_12	0.009970831
531	485151.71	3753534.43	PLOT_2	0.034609149
531	485151.71	3753534.43	PLOT_30_	
531	485151.71	3753534.43	PLOT_6	0.012351432
531	485151.71	3753534.43	PLOT_9	0.029704266
531	485151.71	3753534.43	PLOT4	0.040128092
531	485151.71	3753534.43	PLOTS_1_	0.038058993
531	485151.71	3753534.43	PLOTS_5_	0.035780547
531	485151.71	3753534.43	PLOTS_7_	0.020374628

532	485251.71	3753534.43	PLOT_11	0.011747193
532	485251.71	3753534.43	PLOT_12	0.010112698
532	485251.71	3753534.43	PLOT_2	0.035866685
532	485251.71	3753534.43	PLOT_30_	
532	485251.71	3753534.43	PLOT_6	0.012642974
532	485251.71	3753534.43	PLOT_9	0.030512783
532	485251.71	3753534.43	PLOT4	0.042214773
532	485251.71	3753534.43	PLOTS_1_	0.042996418
532	485251.71	3753534.43	PLOTS_5_	0.037346955
532	485251.71	3753534.43	PLOTS_7_	0.020818885
533	485351.71	3753534.43	PLOT_11	0.011929637
533	485351.71	3753534.43	PLOT_12	0.010364579
533	485351.71	3753534.43	PLOT_2	0.037093864
533	485351.71	3753534.43	PLOT_30_	
533	485351.71	3753534.43	PLOT_6	0.012799043
533	485351.71	3753534.43	PLOT_9	0.031310625
533	485351.71	3753534.43	PLOT4	0.044503221
533	485351.71	3753534.43	PLOTS_1_	0.049893417
533	485351.71	3753534.43	PLOTS_5_	0.038676502
533	485351.71	3753534.43	PLOTS_7_	0.021279924
534	485451.71	3753534.43	PLOT_11	0.012038718
534	485451.71	3753534.43	PLOT_12	0.010492505
534	485451.71	3753534.43	PLOT_2	0.03811022
534	485451.71	3753534.43	PLOT_30_	
534	485451.71	3753534.43	PLOT_6	0.012922018
534	485451.71	3753534.43	PLOT_9	0.032015573
534	485451.71	3753534.43	PLOT4	0.04695213
534	485451.71	3753534.43	PLOTS_1_	0.062874599
534	485451.71	3753534.43	PLOTS_5_	0.039104543
534	485451.71	3753534.43	PLOTS_7_	0.021792481
535	484551.71	3753634.43	PLOT_11	0.011286338
535	484551.71	3753634.43	PLOT_12	0.010215285
535	484551.71	3753634.43	PLOT_2	0.0304082
535	484551.71	3753634.43	PLOT_30_	
535	484551.71	3753634.43	PLOT_6	0.012429141
535	484551.71	3753634.43	PLOT_9	0.027103164
535	484551.71	3753634.43	PLOT4	0.032889662
535	484551.71	3753634.43	PLOTS_1_	0.024909561
535	484551.71	3753634.43	PLOTS_5_	0.031488467
535	484551.71	3753634.43	PLOTS_7_	0.019195928
536	484651.71	3753634.43	PLOT_11	0.011456081
536	484651.71	3753634.43	PLOT_12	0.010276766
536	484651.71	3753634.43	PLOT_2	0.0318006
536	484651.71	3753634.43	PLOT_30_	
536	484651.71	3753634.43	PLOT_6	0.012656477
536	484651.71	3753634.43	PLOT_9	0.027654172
536	484651.71	3753634.43	PLOT4	0.034023084

536	484651.71	3753634.43	PLOTS_1_	0.026448104
536	484651.71	3753634.43	PLOTS_5_	0.032427359
536	484651.71	3753634.43	PLOTS_7_	0.01978823
537	484751.71	3753634.43	PLOT_11	0.011648658
537	484751.71	3753634.43	PLOT_12	0.010380267
537	484751.71	3753634.43	PLOT_2	0.033158502
537	484751.71	3753634.43	PLOT_30_	
537	484751.71	3753634.43	PLOT_6	0.012959691
537	484751.71	3753634.43	PLOT_9	0.028258464
537	484751.71	3753634.43	PLOT4	0.035286633
537	484751.71	3753634.43	PLOTS_1_	0.028235245
537	484751.71	3753634.43	PLOTS_5_	0.033138199
537	484751.71	3753634.43	PLOTS_7_	0.020412277
538	484851.71	3753634.43	PLOT_11	0.011869388
538	484851.71	3753634.43	PLOT_12	0.010599858
538	484851.71	3753634.43	PLOT_2	0.034219138
538	484851.71	3753634.43	PLOT_30_	
538	484851.71	3753634.43	PLOT_6	0.013322944
538	484851.71	3753634.43	PLOT_9	0.028925656
538	484851.71	3753634.43	PLOT4	0.036705495
538	484851.71	3753634.43	PLOTS_1_	0.030325495
538	484851.71	3753634.43	PLOTS_5_	0.034339662
538	484851.71	3753634.43	PLOTS_7_	0.02098808
539	484951.71	3753634.43	PLOT_11	0.012039268
539	484951.71	3753634.43	PLOT_12	0.010720517
539	484951.71	3753634.43	PLOT_2	0.035235318
539	484951.71	3753634.43	PLOT_30_	
539	484951.71	3753634.43	PLOT_6	0.013475584
539	484951.71	3753634.43	PLOT_9	0.029554561
539	484951.71	3753634.43	PLOT4	0.038157043
539	484951.71	3753634.43	PLOTS_1_	0.032718857
539	484951.71	3753634.43	PLOTS_5_	0.035490782
539	484951.71	3753634.43	PLOTS_7_	0.02146768
540	485051.71	3753634.43	PLOT_11	0.012076133
540	485051.71	3753634.43	PLOT_12	0.010647002
540	485051.71	3753634.43	PLOT_2	0.036300183
540	485051.71	3753634.43	PLOT_30_	
540	485051.71	3753634.43	PLOT_6	0.013319014
540	485051.71	3753634.43	PLOT_9	0.030035877
540	485051.71	3753634.43	PLOT4	0.039510366
540	485051.71	3753634.43	PLOTS_1_	0.035475447
540	485051.71	3753634.43	PLOTS_5_	0.036589562
540	485051.71	3753634.43	PLOTS_7_	0.021674522
541	485151.71	3753634.43	PLOT_11	0.012225013
541	485151.71	3753634.43	PLOT_12	0.010855354
541	485151.71	3753634.43	PLOT_2	0.037434925
541	485151.71	3753634.43	PLOT_30_	

541	485151.71	3753634.43	PLOT_6	0.013490358
541	485151.71	3753634.43	PLOT_9	0.030702274
541	485151.71	3753634.43	PLOT4	0.041249425
541	485151.71	3753634.43	PLOTS_1_	0.039096604
541	485151.71	3753634.43	PLOTS_5_	0.037507252
541	485151.71	3753634.43	PLOTS_7_	0.022179437
542	485251.71	3753634.43	PLOT_11	0.012437398
542	485251.71	3753634.43	PLOT_12	0.011102469
542	485251.71	3753634.43	PLOT_2	0.0388405
542	485251.71	3753634.43	PLOT_30_	
542	485251.71	3753634.43	PLOT_6	0.013753033
542	485251.71	3753634.43	PLOT_9	0.031496852
542	485251.71	3753634.43	PLOT4	0.043334874
542	485251.71	3753634.43	PLOTS_1_	0.044182131
542	485251.71	3753634.43	PLOTS_5_	0.038127957
542	485251.71	3753634.43	PLOTS_7_	0.022880356
543	485351.71	3753634.43	PLOT_11	0.012579905
543	485351.71	3753634.43	PLOT_12	0.011264472
543	485351.71	3753634.43	PLOT_2	0.040420063
543	485351.71	3753634.43	PLOT_30_	
543	485351.71	3753634.43	PLOT_6	0.013855148
543	485351.71	3753634.43	PLOT_9	0.032240441
543	485351.71	3753634.43	PLOT4	0.045569984
543	485351.71	3753634.43	PLOTS_1_	0.051059957
543	485351.71	3753634.43	PLOTS_5_	0.039551993
543	485351.71	3753634.43	PLOTS_7_	0.023372452
544	485451.71	3753634.43	PLOT_11	0.012759048
544	485451.71	3753634.43	PLOT_12	0.011346923
544	485451.71	3753634.43	PLOT_2	0.041897851
544	485451.71	3753634.43	PLOT_30_	
544	485451.71	3753634.43	PLOT_6	0.013947719
544	485451.71	3753634.43	PLOT_9	0.032947506
544	485451.71	3753634.43	PLOT4	0.048139674
544	485451.71	3753634.43	PLOTS_1_	0.064858059
544	485451.71	3753634.43	PLOTS_5_	0.040587012
544	485451.71	3753634.43	PLOTS_7_	0.02376798
545	484551.71	3753734.43	PLOT_11	0.012087137
545	484551.71	3753734.43	PLOT_12	0.011370912
545	484551.71	3753734.43	PLOT_2	0.033019716
545	484551.71	3753734.43	PLOT_30_	
545	484551.71	3753734.43	PLOT_6	0.013856743
545	484551.71	3753734.43	PLOT_9	0.028368825
545	484551.71	3753734.43	PLOT4	0.03405174
545	484551.71	3753734.43	PLOTS_1_	0.025903383
545	484551.71	3753734.43	PLOTS_5_	0.033646695
545	484551.71	3753734.43	PLOTS_7_	0.021275395
546	484651.71	3753734.43	PLOT_11	0.012213688

546	484651.71	3753734.43	PLOT_12	0.011449074
546	484651.71	3753734.43	PLOT_2	0.034105157
546	484651.71	3753734.43	PLOT_30_	
546	484651.71	3753734.43	PLOT_6	0.013925499
546	484651.71	3753734.43	PLOT_9	0.028895044
546	484651.71	3753734.43	PLOT4	0.035197363
546	484651.71	3753734.43	PLOTS_1_	0.027368971
546	484651.71	3753734.43	PLOTS_5_	0.034490331
546	484651.71	3753734.43	PLOTS_7_	0.021661218
547	484751.71	3753734.43	PLOT_11	0.012322723
547	484751.71	3753734.43	PLOT_12	0.011468614
547	484751.71	3753734.43	PLOT_2	0.035102567
547	484751.71	3753734.43	PLOT_30_	
547	484751.71	3753734.43	PLOT_6	0.01404032
547	484751.71	3753734.43	PLOT_9	0.029413588
547	484751.71	3753734.43	PLOT4	0.036400186
547	484751.71	3753734.43	PLOTS_1_	0.029045299
547	484751.71	3753734.43	PLOTS_5_	0.034800786
547	484751.71	3753734.43	PLOTS_7_	0.021987839
548	484851.71	3753734.43	PLOT_11	0.012378295
548	484851.71	3753734.43	PLOT_12	0.01137262
548	484851.71	3753734.43	PLOT_2	0.036576389
548	484851.71	3753734.43	PLOT_30_	
548	484851.71	3753734.43	PLOT_6	0.014142583
548	484851.71	3753734.43	PLOT_9	0.029870027
548	484851.71	3753734.43	PLOT4	0.037618513
548	484851.71	3753734.43	PLOTS_1_	0.030976317
548	484851.71	3753734.43	PLOTS_5_	0.03576211
548	484851.71	3753734.43	PLOTS_7_	0.022279158
549	484951.71	3753734.43	PLOT_11	0.012494529
549	484951.71	3753734.43	PLOT_12	0.011346844
549	484951.71	3753734.43	PLOT_2	0.038136303
549	484951.71	3753734.43	PLOT_30_	
549	484951.71	3753734.43	PLOT_6	0.014509293
549	484951.71	3753734.43	PLOT_9	0.030445737
549	484951.71	3753734.43	PLOT4	0.039049576
549	484951.71	3753734.43	PLOTS_1_	0.033315857
549	484951.71	3753734.43	PLOTS_5_	0.036384402
549	484951.71	3753734.43	PLOTS_7_	0.022903002
550	485051.71	3753734.43	PLOT_11	0.012635707
550	485051.71	3753734.43	PLOT_12	0.011353953
550	485051.71	3753734.43	PLOT_2	0.039353877
550	485051.71	3753734.43	PLOT_30_	
550	485051.71	3753734.43	PLOT_6	0.014793743
550	485051.71	3753734.43	PLOT_9	0.031091668
550	485051.71	3753734.43	PLOT4	0.040666903
550	485051.71	3753734.43	PLOTS_1_	0.036329696

550	485051.71	3753734.43	PLOTS_5_	0.036947645
550	485051.71	3753734.43	PLOTS_7_	0.023592841
551	485151.71	3753734.43	PLOT_11	0.01276808
551	485151.71	3753734.43	PLOT_12	0.011490458
551	485151.71	3753734.43	PLOT_2	0.04075271
551	485151.71	3753734.43	PLOT_30_	
551	485151.71	3753734.43	PLOT_6	0.014900291
551	485151.71	3753734.43	PLOT_9	0.03175833
551	485151.71	3753734.43	PLOT4	0.042449394
551	485151.71	3753734.43	PLOTS_1_	0.040154768
551	485151.71	3753734.43	PLOTS_5_	0.03785791
551	485151.71	3753734.43	PLOTS_7_	0.024124769
552	485251.71	3753734.43	PLOT_11	0.012910266
552	485251.71	3753734.43	PLOT_12	0.011615247
552	485251.71	3753734.43	PLOT_2	0.042455507
552	485251.71	3753734.43	PLOT_30_	
552	485251.71	3753734.43	PLOT_6	0.014812299
552	485251.71	3753734.43	PLOT_9	0.032426404
552	485251.71	3753734.43	PLOT4	0.044416133
552	485251.71	3753734.43	PLOTS_1_	0.045128873
552	485251.71	3753734.43	PLOTS_5_	0.039042882
552	485251.71	3753734.43	PLOTS_7_	0.024603964
553	485351.71	3753734.43	PLOT_11	0.013133793
553	485351.71	3753734.43	PLOT_12	0.011770379
553	485351.71	3753734.43	PLOT_2	0.043707535
553	485351.71	3753734.43	PLOT_30_	
553	485351.71	3753734.43	PLOT_6	0.014996969
553	485351.71	3753734.43	PLOT_9	0.033164787
553	485351.71	3753734.43	PLOT4	0.046688574
553	485351.71	3753734.43	PLOTS_1_	0.051953853
553	485351.71	3753734.43	PLOTS_5_	0.039370288
553	485351.71	3753734.43	PLOTS_7_	0.025087325
554	485451.71	3753734.43	PLOT_11	0.013317383
554	485451.71	3753734.43	PLOT_12	0.011838135
554	485451.71	3753734.43	PLOT_2	0.04545611
554	485451.71	3753734.43	PLOT_30_	
554	485451.71	3753734.43	PLOT_6	0.015129134
554	485451.71	3753734.43	PLOT_9	0.033889232
554	485451.71	3753734.43	PLOT4	0.049221101
554	485451.71	3753734.43	PLOTS_1_	0.065123432
554	485451.71	3753734.43	PLOTS_5_	0.038847401
554	485451.71	3753734.43	PLOTS_7_	0.025688159
555	484551.71	3753834.43	PLOT_11	0.012776196
555	484551.71	3753834.43	PLOT_12	0.011944773
555	484551.71	3753834.43	PLOT_2	0.034948845
555	484551.71	3753834.43	PLOT_30_	
555	484551.71	3753834.43	PLOT_6	0.014849617

555	484551.71	3753834.43	PLOT_9	0.029420205
555	484551.71	3753834.43	PLOT4	0.035556514
555	484551.71	3753834.43	PLOTS_1_	0.026310441
555	484551.71	3753834.43	PLOTS_5_	0.034450897
555	484551.71	3753834.43	PLOTS_7_	0.021981612
556	484651.71	3753834.43	PLOT_11	0.01288812
556	484651.71	3753834.43	PLOT_12	0.011850844
556	484651.71	3753834.43	PLOT_2	0.035739222
556	484651.71	3753834.43	PLOT_30_	
556	484651.71	3753834.43	PLOT_6	0.015082006
556	484651.71	3753834.43	PLOT_9	0.029855913
556	484651.71	3753834.43	PLOT4	0.036623333
556	484651.71	3753834.43	PLOTS_1_	0.027712377
556	484651.71	3753834.43	PLOTS_5_	0.035147141
556	484651.71	3753834.43	PLOTS_7_	0.022703559
557	484751.71	3753834.43	PLOT_11	0.013012882
557	484751.71	3753834.43	PLOT_12	0.011930992
557	484751.71	3753834.43	PLOT_2	0.037033326
557	484751.71	3753834.43	PLOT_30_	
557	484751.71	3753834.43	PLOT_6	0.015303137
557	484751.71	3753834.43	PLOT_9	0.030331495
557	484751.71	3753834.43	PLOT4	0.037791232
557	484751.71	3753834.43	PLOTS_1_	0.029368273
557	484751.71	3753834.43	PLOTS_5_	0.035383234
557	484751.71	3753834.43	PLOTS_7_	0.02337969
558	484851.71	3753834.43	PLOT_11	0.013055708
558	484851.71	3753834.43	PLOT_12	0.011954822
558	484851.71	3753834.43	PLOT_2	0.038272049
558	484851.71	3753834.43	PLOT_30_	
558	484851.71	3753834.43	PLOT_6	0.015274949
558	484851.71	3753834.43	PLOT_9	0.030701216
558	484851.71	3753834.43	PLOT4	0.038923534
558	484851.71	3753834.43	PLOTS_1_	0.03152242
558	484851.71	3753834.43	PLOTS_5_	0.035625831
558	484851.71	3753834.43	PLOTS_7_	0.023830013
559	484951.71	3753834.43	PLOT_11	0.013268826
559	484951.71	3753834.43	PLOT_12	0.012139423
559	484951.71	3753834.43	PLOT_2	0.039761644
559	484951.71	3753834.43	PLOT_30_	
559	484951.71	3753834.43	PLOT_6	0.015483257
559	484951.71	3753834.43	PLOT_9	0.031368231
559	484951.71	3753834.43	PLOT4	0.040458028
559	484951.71	3753834.43	PLOTS_1_	0.034132695
559	484951.71	3753834.43	PLOTS_5_	0.037031072
559	484951.71	3753834.43	PLOTS_7_	0.024503313
560	485051.71	3753834.43	PLOT_11	0.013352185
560	485051.71	3753834.43	PLOT_12	0.012148995

560	485051.71	3753834.43	PLOT_2	0.041586837
560	485051.71	3753834.43	PLOT_30_	
560	485051.71	3753834.43	PLOT_6	0.015632322
560	485051.71	3753834.43	PLOT_9	0.031883776
560	485051.71	3753834.43	PLOT4	0.041925023
560	485051.71	3753834.43	PLOTS_1_	0.037255519
560	485051.71	3753834.43	PLOTS_5_	0.038008784
560	485051.71	3753834.43	PLOTS_7_	0.024841378
561	485151.71	3753834.43	PLOT_11	0.013473829
561	485151.71	3753834.43	PLOT_12	0.012169568
561	485151.71	3753834.43	PLOT_2	0.043719123
561	485151.71	3753834.43	PLOT_30_	
561	485151.71	3753834.43	PLOT_6	0.016079401
561	485151.71	3753834.43	PLOT_9	0.032558642
561	485151.71	3753834.43	PLOT4	0.043641023
561	485151.71	3753834.43	PLOTS_1_	0.041353886
561	485151.71	3753834.43	PLOTS_5_	0.038240575
561	485151.71	3753834.43	PLOTS_7_	0.025435379
562	485251.71	3753834.43	PLOT_11	0.013684334
562	485251.71	3753834.43	PLOT_12	0.012252615
562	485251.71	3753834.43	PLOT_2	0.045616044
562	485251.71	3753834.43	PLOT_30_	
562	485251.71	3753834.43	PLOT_6	0.016449479
562	485251.71	3753834.43	PLOT_9	0.033378715
562	485251.71	3753834.43	PLOT4	0.045749084
562	485251.71	3753834.43	PLOTS_1_	0.046853743
562	485251.71	3753834.43	PLOTS_5_	0.038081711
562	485251.71	3753834.43	PLOTS_7_	0.026339461
563	485351.71	3753834.43	PLOT_11	0.013809922
563	485351.71	3753834.43	PLOT_12	0.012293602
563	485351.71	3753834.43	PLOT_2	0.047553192
563	485351.71	3753834.43	PLOT_30_	
563	485351.71	3753834.43	PLOT_6	0.016514542
563	485351.71	3753834.43	PLOT_9	0.034167824
563	485351.71	3753834.43	PLOT4	0.048003614
563	485351.71	3753834.43	PLOTS_1_	0.054345386
563	485351.71	3753834.43	PLOTS_5_	0.03771103
563	485351.71	3753834.43	PLOTS_7_	0.027194977
564	485451.71	3753834.43	PLOT_11	0.013924367
564	485451.71	3753834.43	PLOT_12	0.012376808
564	485451.71	3753834.43	PLOT_2	0.049882554
564	485451.71	3753834.43	PLOT_30_	
564	485451.71	3753834.43	PLOT_6	0.016462421
564	485451.71	3753834.43	PLOT_9	0.035002011
564	485451.71	3753834.43	PLOT4	0.050607893
564	485451.71	3753834.43	PLOTS_1_	0.06608622
564	485451.71	3753834.43	PLOTS_5_	0.039163079

564	485451.71	3753834.43	PLOTS_7_	0.027866578
565	484551.71	3753934.43	PLOT_11	0.013564065
565	484551.71	3753934.43	PLOT_12	0.012572689
565	484551.71	3753934.43	PLOT_2	0.036180474
565	484551.71	3753934.43	PLOT_30_	
565	484551.71	3753934.43	PLOT_6	0.015911307
565	484551.71	3753934.43	PLOT_9	0.030477407
565	484551.71	3753934.43	PLOT4	0.036575144
565	484551.71	3753934.43	PLOTS_1_	0.027476047
565	484551.71	3753934.43	PLOTS_5_	0.035072523
565	484551.71	3753934.43	PLOTS_7_	0.023708172
566	484651.71	3753934.43	PLOT_11	0.013712762
566	484651.71	3753934.43	PLOT_12	0.012693586
566	484651.71	3753934.43	PLOT_2	0.037365312
566	484651.71	3753934.43	PLOT_30_	
566	484651.71	3753934.43	PLOT_6	0.016165294
566	484651.71	3753934.43	PLOT_9	0.031023917
566	484651.71	3753934.43	PLOT4	0.037708958
566	484651.71	3753934.43	PLOTS_1_	0.029111835
566	484651.71	3753934.43	PLOTS_5_	0.035433679
566	484651.71	3753934.43	PLOTS_7_	0.024176408
567	484751.71	3753934.43	PLOT_11	0.013599371
567	484751.71	3753934.43	PLOT_12	0.012467282
567	484751.71	3753934.43	PLOT_2	0.03860844
567	484751.71	3753934.43	PLOT_30_	
567	484751.71	3753934.43	PLOT_6	0.016070359
567	484751.71	3753934.43	PLOT_9	0.031231317
567	484751.71	3753934.43	PLOT4	0.03860317
567	484751.71	3753934.43	PLOTS_1_	0.030686977
567	484751.71	3753934.43	PLOTS_5_	0.035846151
567	484751.71	3753934.43	PLOTS_7_	0.024214501
568	484851.71	3753934.43	PLOT_11	0.013717347
568	484851.71	3753934.43	PLOT_12	0.01248718
568	484851.71	3753934.43	PLOT_2	0.040018861
568	484851.71	3753934.43	PLOT_30_	
568	484851.71	3753934.43	PLOT_6	0.016397801
568	484851.71	3753934.43	PLOT_9	0.031785148
568	484851.71	3753934.43	PLOT4	0.03989571
568	484851.71	3753934.43	PLOTS_1_	0.032788196
568	484851.71	3753934.43	PLOTS_5_	0.037042543
568	484851.71	3753934.43	PLOTS_7_	0.024534572
569	484951.71	3753934.43	PLOT_11	0.013842751
569	484951.71	3753934.43	PLOT_12	0.012481619
569	484951.71	3753934.43	PLOT_2	0.041403683
569	484951.71	3753934.43	PLOT_30_	
569	484951.71	3753934.43	PLOT_6	0.016773021
569	484951.71	3753934.43	PLOT_9	0.032383971

569	484951.71	3753934.43	PLOT4	0.04133377
569	484951.71	3753934.43	PLOTS_1_	0.035273319
569	484951.71	3753934.43	PLOTS_5_	0.037459983
569	484951.71	3753934.43	PLOTS_7_	0.025176613
570	485051.71	3753934.43	PLOT_11	0.013974987
570	485051.71	3753934.43	PLOT_12	0.012448416
570	485051.71	3753934.43	PLOT_2	0.0433596
570	485051.71	3753934.43	PLOT_30_	
570	485051.71	3753934.43	PLOT_6	0.01698121
570	485051.71	3753934.43	PLOT_9	0.033032284
570	485051.71	3753934.43	PLOT4	0.04294606
570	485051.71	3753934.43	PLOTS_1_	0.038274607
570	485051.71	3753934.43	PLOTS_5_	0.037284065
570	485051.71	3753934.43	PLOTS_7_	0.026206014
571	485151.71	3753934.43	PLOT_11	0.014058988
571	485151.71	3753934.43	PLOT_12	0.012464938
571	485151.71	3753934.43	PLOT_2	0.045365965
571	485151.71	3753934.43	PLOT_30_	
571	485151.71	3753934.43	PLOT_6	0.017071418
571	485151.71	3753934.43	PLOT_9	0.033648926
571	485151.71	3753934.43	PLOT4	0.044686014
571	485151.71	3753934.43	PLOTS_1_	0.041956817
571	485151.71	3753934.43	PLOTS_5_	0.036592379
571	485151.71	3753934.43	PLOTS_7_	0.0270754
572	485251.71	3753934.43	PLOT_11	0.01420365
572	485251.71	3753934.43	PLOT_12	0.012589568
572	485251.71	3753934.43	PLOT_2	0.047551165
572	485251.71	3753934.43	PLOT_30_	
572	485251.71	3753934.43	PLOT_6	0.01733551
572	485251.71	3753934.43	PLOT_9	0.034356433
572	485251.71	3753934.43	PLOT4	0.046773031
572	485251.71	3753934.43	PLOTS_1_	0.047178666
572	485251.71	3753934.43	PLOTS_5_	0.036474179
572	485251.71	3753934.43	PLOTS_7_	0.027909079
573	485351.71	3753934.43	PLOT_11	0.014449231
573	485351.71	3753934.43	PLOT_12	0.012647991
573	485351.71	3753934.43	PLOT_2	0.050581332
573	485351.71	3753934.43	PLOT_30_	
573	485351.71	3753934.43	PLOT_6	0.017860741
573	485351.71	3753934.43	PLOT_9	0.035090229
573	485351.71	3753934.43	PLOT4	0.049193844
573	485351.71	3753934.43	PLOTS_1_	0.055515663
573	485351.71	3753934.43	PLOTS_5_	0.038449269
573	485351.71	3753934.43	PLOTS_7_	0.028606642
574	485451.71	3753934.43	PLOT_11	0.014713566
574	485451.71	3753934.43	PLOT_12	0.012690845
574	485451.71	3753934.43	PLOT_2	0.053337098

574	485451.71	3753934.43	PLOT_30_	
574	485451.71	3753934.43	PLOT_6	0.018196604
574	485451.71	3753934.43	PLOT_9	0.03593218
574	485451.71	3753934.43	PLOT4	0.05203571
574	485451.71	3753934.43	PLOTS_1_	0.067402284
574	485451.71	3753934.43	PLOTS_5_	0.039224125
574	485451.71	3753934.43	PLOTS_7_	0.029396729
575	484551.71	3754034.43	PLOT_11	0.014335106
575	484551.71	3754034.43	PLOT_12	0.013256843
575	484551.71	3754034.43	PLOT_2	0.037879658
575	484551.71	3754034.43	PLOT_30_	
575	484551.71	3754034.43	PLOT_6	0.017260727
575	484551.71	3754034.43	PLOT_9	0.031647793
575	484551.71	3754034.43	PLOT4	0.037872722
575	484551.71	3754034.43	PLOTS_1_	0.028133206
575	484551.71	3754034.43	PLOTS_5_	0.037018012
575	484551.71	3754034.43	PLOTS_7_	0.0254355
576	484651.71	3754034.43	PLOT_11	0.013573419
576	484651.71	3754034.43	PLOT_12	0.012367514
576	484651.71	3754034.43	PLOT_2	0.038084842
576	484651.71	3754034.43	PLOT_30_	
576	484651.71	3754034.43	PLOT_6	0.016876022
576	484651.71	3754034.43	PLOT_9	0.031123691
576	484651.71	3754034.43	PLOT4	0.037837182
576	484651.71	3754034.43	PLOTS_1_	0.029132674
576	484651.71	3754034.43	PLOTS_5_	0.035417752
576	484651.71	3754034.43	PLOTS_7_	0.0249153
577	484751.71	3754034.43	PLOT_11	0.013866182
577	484751.71	3754034.43	PLOT_12	0.012526022
577	484751.71	3754034.43	PLOT_2	0.039734548
577	484751.71	3754034.43	PLOT_30_	
577	484751.71	3754034.43	PLOT_6	0.017238743
577	484751.71	3754034.43	PLOT_9	0.031853694
577	484751.71	3754034.43	PLOT4	0.0393283
577	484751.71	3754034.43	PLOTS_1_	0.030894914
577	484751.71	3754034.43	PLOTS_5_	0.036271169
577	484751.71	3754034.43	PLOTS_7_	0.025728679
578	484851.71	3754034.43	PLOT_11	0.014088562
578	484851.71	3754034.43	PLOT_12	0.012775084
578	484851.71	3754034.43	PLOT_2	0.041276705
578	484851.71	3754034.43	PLOT_30_	
578	484851.71	3754034.43	PLOT_6	0.017392152
578	484851.71	3754034.43	PLOT_9	0.032520797
578	484851.71	3754034.43	PLOT4	0.040803019
578	484851.71	3754034.43	PLOTS_1_	0.032854082
578	484851.71	3754034.43	PLOTS_5_	0.036321
578	484851.71	3754034.43	PLOTS_7_	0.026383054

579	484951.71	3754034.43	PLOT_11	0.014193975
579	484951.71	3754034.43	PLOT_12	0.012871118
579	484951.71	3754034.43	PLOT_2	0.042707085
579	484951.71	3754034.43	PLOT_30_	
579	484951.71	3754034.43	PLOT_6	0.017697257
579	484951.71	3754034.43	PLOT_9	0.033106828
579	484951.71	3754034.43	PLOT4	0.042269286
579	484951.71	3754034.43	PLOTS_1_	0.035115468
579	484951.71	3754034.43	PLOTS_5_	0.036183697
579	484951.71	3754034.43	PLOTS_7_	0.026969896
580	485051.71	3754034.43	PLOT_11	0.014283707
580	485051.71	3754034.43	PLOT_12	0.012910953
580	485051.71	3754034.43	PLOT_2	0.044703095
580	485051.71	3754034.43	PLOT_30_	
580	485051.71	3754034.43	PLOT_6	0.018010309
580	485051.71	3754034.43	PLOT_9	0.033719854
580	485051.71	3754034.43	PLOT4	0.043866801
580	485051.71	3754034.43	PLOTS_1_	0.038367059
580	485051.71	3754034.43	PLOTS_5_	0.036220929
580	485051.71	3754034.43	PLOTS_7_	0.027610037
581	485151.71	3754034.43	PLOT_11	0.014477751
581	485151.71	3754034.43	PLOT_12	0.012896536
581	485151.71	3754034.43	PLOT_2	0.046769556
581	485151.71	3754034.43	PLOT_30_	
581	485151.71	3754034.43	PLOT_6	0.018423261
581	485151.71	3754034.43	PLOT_9	0.034367549
581	485151.71	3754034.43	PLOT4	0.045637538
581	485151.71	3754034.43	PLOTS_1_	0.04322767
581	485151.71	3754034.43	PLOTS_5_	0.035976181
581	485151.71	3754034.43	PLOTS_7_	0.028192876
582	485251.71	3754034.43	PLOT_11	0.014714529
582	485251.71	3754034.43	PLOT_12	0.012870919
582	485251.71	3754034.43	PLOT_2	0.049113854
582	485251.71	3754034.43	PLOT_30_	
582	485251.71	3754034.43	PLOT_6	0.018712882
582	485251.71	3754034.43	PLOT_9	0.035118106
582	485251.71	3754034.43	PLOT4	0.047689462
582	485251.71	3754034.43	PLOTS_1_	0.048732889
582	485251.71	3754034.43	PLOTS_5_	0.037427411
582	485251.71	3754034.43	PLOTS_7_	0.028768073
583	485351.71	3754034.43	PLOT_11	0.014959101
583	485351.71	3754034.43	PLOT_12	0.012811305
583	485351.71	3754034.43	PLOT_2	0.052016426
583	485351.71	3754034.43	PLOT_30_	
583	485351.71	3754034.43	PLOT_6	0.018873176
583	485351.71	3754034.43	PLOT_9	0.036003284
583	485351.71	3754034.43	PLOT4	0.050104175

583	485351.71	3754034.43	PLOTS_1_	0.056071474
583	485351.71	3754034.43	PLOTS_5_	0.037708162
583	485351.71	3754034.43	PLOTS_7_	0.029547443
584	485451.71	3754034.43	PLOT_11	0.015216559
584	485451.71	3754034.43	PLOT_12	0.013028355
584	485451.71	3754034.43	PLOT_2	0.055233755
584	485451.71	3754034.43	PLOT_30_	
584	485451.71	3754034.43	PLOT_6	0.01923696
584	485451.71	3754034.43	PLOT_9	0.036975003
584	485451.71	3754034.43	PLOT4	0.052918616
584	485451.71	3754034.43	PLOTS_1_	0.067531823
584	485451.71	3754034.43	PLOTS_5_	0.037547967
584	485451.71	3754034.43	PLOTS_7_	0.030925909
585	484551.71	3754134.43	PLOT_11	0.014204337
585	484551.71	3754134.43	PLOT_12	0.012867464
585	484551.71	3754134.43	PLOT_2	0.037322839
585	484551.71	3754134.43	PLOT_30_	
585	484551.71	3754134.43	PLOT_6	0.017566865
585	484551.71	3754134.43	PLOT_9	0.03137917
585	484551.71	3754134.43	PLOT4	0.03750568
585	484551.71	3754134.43	PLOTS_1_	0.027658717
585	484551.71	3754134.43	PLOTS_5_	0.035150675
585	484551.71	3754134.43	PLOTS_7_	0.026026508
586	484651.71	3754134.43	PLOT_11	0.013835002
586	484651.71	3754134.43	PLOT_12	0.012497148
586	484651.71	3754134.43	PLOT_2	0.037978879
586	484651.71	3754134.43	PLOT_30_	
586	484651.71	3754134.43	PLOT_6	0.01716003
586	484651.71	3754134.43	PLOT_9	0.03132271
586	484651.71	3754134.43	PLOT4	0.03820512
586	484651.71	3754134.43	PLOTS_1_	0.028913445
586	484651.71	3754134.43	PLOTS_5_	0.034117243
586	484651.71	3754134.43	PLOTS_7_	0.025720065
587	484751.71	3754134.43	PLOT_11	0.014143859
587	484751.71	3754134.43	PLOT_12	0.012774527
587	484751.71	3754134.43	PLOT_2	0.039581001
587	484751.71	3754134.43	PLOT_30_	
587	484751.71	3754134.43	PLOT_6	0.017821178
587	484751.71	3754134.43	PLOT_9	0.032196773
587	484751.71	3754134.43	PLOT4	0.039623199
587	484751.71	3754134.43	PLOTS_1_	0.03073361
587	484751.71	3754134.43	PLOTS_5_	0.034598391
587	484751.71	3754134.43	PLOTS_7_	0.026480632
588	484851.71	3754134.43	PLOT_11	0.014534194
588	484851.71	3754134.43	PLOT_12	0.013092497
588	484851.71	3754134.43	PLOT_2	0.041750032
588	484851.71	3754134.43	PLOT_30_	

588	484851.71	3754134.43	PLOT_6	0.018620724
588	484851.71	3754134.43	PLOT_9	0.033194516
588	484851.71	3754134.43	PLOT4	0.041203811
588	484851.71	3754134.43	PLOTS_1_	0.033215605
588	484851.71	3754134.43	PLOTS_5_	0.035881539
588	484851.71	3754134.43	PLOTS_7_	0.02736498
589	484951.71	3754134.43	PLOT_11	0.01458243
589	484951.71	3754134.43	PLOT_12	0.01301787
589	484951.71	3754134.43	PLOT_2	0.043616201
589	484951.71	3754134.43	PLOT_30_	
589	484951.71	3754134.43	PLOT_6	0.018978807
589	484951.71	3754134.43	PLOT_9	0.033826156
589	484951.71	3754134.43	PLOT4	0.04259967
589	484951.71	3754134.43	PLOTS_1_	0.036106649
589	484951.71	3754134.43	PLOTS_5_	0.035335913
589	484951.71	3754134.43	PLOTS_7_	0.028036986
590	485051.71	3754134.43	PLOT_11	0.014741444
590	485051.71	3754134.43	PLOT_12	0.01288764
590	485051.71	3754134.43	PLOT_2	0.04568015
590	485051.71	3754134.43	PLOT_30_	
590	485051.71	3754134.43	PLOT_6	0.019169002
590	485051.71	3754134.43	PLOT_9	0.034477027
590	485051.71	3754134.43	PLOT4	0.044125264
590	485051.71	3754134.43	PLOTS_1_	0.03966127
590	485051.71	3754134.43	PLOTS_5_	0.035301908
590	485051.71	3754134.43	PLOTS_7_	0.028904997
591	485151.71	3754134.43	PLOT_11	0.014957267
591	485151.71	3754134.43	PLOT_12	0.012827311
591	485151.71	3754134.43	PLOT_2	0.047849622
591	485151.71	3754134.43	PLOT_30_	
591	485151.71	3754134.43	PLOT_6	0.019397874
591	485151.71	3754134.43	PLOT_9	0.035170331
591	485151.71	3754134.43	PLOT4	0.045828391
591	485151.71	3754134.43	PLOTS_1_	0.043698015
591	485151.71	3754134.43	PLOTS_5_	0.036199112
591	485151.71	3754134.43	PLOTS_7_	0.029762899
592	485251.71	3754134.43	PLOT_11	0.015267958
592	485251.71	3754134.43	PLOT_12	0.013169745
592	485251.71	3754134.43	PLOT_2	0.050203701
592	485251.71	3754134.43	PLOT_30_	
592	485251.71	3754134.43	PLOT_6	0.019793482
592	485251.71	3754134.43	PLOT_9	0.035961292
592	485251.71	3754134.43	PLOT4	0.048154058
592	485251.71	3754134.43	PLOTS_1_	0.049015811
592	485251.71	3754134.43	PLOTS_5_	0.036495227
592	485251.71	3754134.43	PLOTS_7_	0.030660228
593	485351.71	3754134.43	PLOT_11	0.015624547

593	485351.71	3754134.43	PLOT_12	0.013508486
593	485351.71	3754134.43	PLOT_2	0.052814072
593	485351.71	3754134.43	PLOT_30_	
593	485351.71	3754134.43	PLOT_6	0.020423014
593	485351.71	3754134.43	PLOT_9	0.036898783
593	485351.71	3754134.43	PLOT4	0.050862215
593	485351.71	3754134.43	PLOTS_1_	0.056116441
593	485351.71	3754134.43	PLOTS_5_	0.03668615
593	485351.71	3754134.43	PLOTS_7_	0.031635684
594	485451.71	3754134.43	PLOT_11	0.015928589
594	485451.71	3754134.43	PLOT_12	0.013739873
594	485451.71	3754134.43	PLOT_2	0.056347041
594	485451.71	3754134.43	PLOT_30_	
594	485451.71	3754134.43	PLOT_6	0.020871422
594	485451.71	3754134.43	PLOT_9	0.037878089
594	485451.71	3754134.43	PLOT4	0.053881669
594	485451.71	3754134.43	PLOTS_1_	0.068775461
594	485451.71	3754134.43	PLOTS_5_	0.035574516
594	485451.71	3754134.43	PLOTS_7_	0.032622261
595	484551.71	3754234.43	PLOT_11	0.013622618
595	484551.71	3754234.43	PLOT_12	0.012286652
595	484551.71	3754234.43	PLOT_2	0.037765413
595	484551.71	3754234.43	PLOT_30_	
595	484551.71	3754234.43	PLOT_6	0.017655832
595	484551.71	3754234.43	PLOT_9	0.031107018
595	484551.71	3754234.43	PLOT4	0.036712435
595	484551.71	3754234.43	PLOTS_1_	0.027427871
595	484551.71	3754234.43	PLOTS_5_	0.032421623
595	484551.71	3754234.43	PLOTS_7_	0.025688887
596	484651.71	3754234.43	PLOT_11	0.013799788
596	484651.71	3754234.43	PLOT_12	0.012207735
596	484651.71	3754234.43	PLOT_2	0.038913638
596	484651.71	3754234.43	PLOT_30_	
596	484651.71	3754234.43	PLOT_6	0.018079656
596	484651.71	3754234.43	PLOT_9	0.031619122
596	484651.71	3754234.43	PLOT4	0.037796605
596	484651.71	3754234.43	PLOTS_1_	0.029035875
596	484651.71	3754234.43	PLOTS_5_	0.03290441
596	484651.71	3754234.43	PLOTS_7_	0.02635786
597	484751.71	3754234.43	PLOT_11	0.014412687
597	484751.71	3754234.43	PLOT_12	0.012489801
597	484751.71	3754234.43	PLOT_2	0.040563608
597	484751.71	3754234.43	PLOT_30_	
597	484751.71	3754234.43	PLOT_6	0.018868064
597	484751.71	3754234.43	PLOT_9	0.032662563
597	484751.71	3754234.43	PLOT4	0.039187035
597	484751.71	3754234.43	PLOTS_1_	0.031304044

597	484751.71	3754234.43	PLOTS_5_	0.03383936
597	484751.71	3754234.43	PLOTS_7_	0.027732889
598	484851.71	3754234.43	PLOT_11	0.015008025
598	484851.71	3754234.43	PLOT_12	0.012691957
598	484851.71	3754234.43	PLOT_2	0.042202916
598	484851.71	3754234.43	PLOT_30_	
598	484851.71	3754234.43	PLOT_6	0.019509858
598	484851.71	3754234.43	PLOT_9	0.0336933
598	484851.71	3754234.43	PLOT4	0.040653974
598	484851.71	3754234.43	PLOTS_1_	0.033929795
598	484851.71	3754234.43	PLOTS_5_	0.033808324
598	484851.71	3754234.43	PLOTS_7_	0.029098131
599	484951.71	3754234.43	PLOT_11	0.015329308
599	484951.71	3754234.43	PLOT_12	0.013043447
599	484951.71	3754234.43	PLOT_2	0.043981142
599	484951.71	3754234.43	PLOT_30_	
599	484951.71	3754234.43	PLOT_6	0.01971205
599	484951.71	3754234.43	PLOT_9	0.034446768
599	484951.71	3754234.43	PLOT4	0.042440942
599	484951.71	3754234.43	PLOTS_1_	0.03649165
599	484951.71	3754234.43	PLOTS_5_	0.034460218
599	484951.71	3754234.43	PLOTS_7_	0.030017419
600	485051.71	3754234.43	PLOT_11	0.015534723
600	485051.71	3754234.43	PLOT_12	0.013308077
600	485051.71	3754234.43	PLOT_2	0.045980413
600	485051.71	3754234.43	PLOT_30_	
600	485051.71	3754234.43	PLOT_6	0.020196269
600	485051.71	3754234.43	PLOT_9	0.035119077
600	485051.71	3754234.43	PLOT4	0.044433931
600	485051.71	3754234.43	PLOTS_1_	0.039896706
600	485051.71	3754234.43	PLOTS_5_	0.034971941
600	485051.71	3754234.43	PLOTS_7_	0.0307665
601	485151.71	3754234.43	PLOT_11	0.015743348
601	485151.71	3754234.43	PLOT_12	0.013522545
601	485151.71	3754234.43	PLOT_2	0.048139134
601	485151.71	3754234.43	PLOT_30_	
601	485151.71	3754234.43	PLOT_6	0.020811589
601	485151.71	3754234.43	PLOT_9	0.03584855
601	485151.71	3754234.43	PLOT4	0.046638146
601	485151.71	3754234.43	PLOTS_1_	0.04377422
601	485151.71	3754234.43	PLOTS_5_	0.035846356
601	485151.71	3754234.43	PLOTS_7_	0.031550117
602	485251.71	3754234.43	PLOT_11	0.015956833
602	485251.71	3754234.43	PLOT_12	0.013684866
602	485251.71	3754234.43	PLOT_2	0.050532382
602	485251.71	3754234.43	PLOT_30_	
602	485251.71	3754234.43	PLOT_6	0.021254767

602	485251.71	3754234.43	PLOT_9	0.036645774
602	485251.71	3754234.43	PLOT4	0.049074127
602	485251.71	3754234.43	PLOTS_1_	0.048885866
602	485251.71	3754234.43	PLOTS_5_	0.035577844
602	485251.71	3754234.43	PLOTS_7_	0.032373322
603	485351.71	3754234.43	PLOT_11	0.016171373
603	485351.71	3754234.43	PLOT_12	0.01378793
603	485351.71	3754234.43	PLOT_2	0.053294317
603	485351.71	3754234.43	PLOT_30_	
603	485351.71	3754234.43	PLOT_6	0.021528108
603	485351.71	3754234.43	PLOT_9	0.037514367
603	485351.71	3754234.43	PLOT4	0.05177484
603	485351.71	3754234.43	PLOTS_1_	0.057538037
603	485351.71	3754234.43	PLOTS_5_	0.034263866
603	485351.71	3754234.43	PLOTS_7_	0.033231143
604	485451.71	3754234.43	PLOT_11	0.016402878
604	485451.71	3754234.43	PLOT_12	0.013884997
604	485451.71	3754234.43	PLOT_2	0.05654989
604	485451.71	3754234.43	PLOT_30_	
604	485451.71	3754234.43	PLOT_6	0.02211784
604	485451.71	3754234.43	PLOT_9	0.038495173
604	485451.71	3754234.43	PLOT4	0.05503121
604	485451.71	3754234.43	PLOTS_1_	0.067836843
604	485451.71	3754234.43	PLOTS_5_	0.033164369
604	485451.71	3754234.43	PLOTS_7_	0.034154514
605	484551.71	3754334.43	PLOT_11	0.013985488
605	484551.71	3754334.43	PLOT_12	0.011626963
605	484551.71	3754334.43	PLOT_2	0.038049638
605	484551.71	3754334.43	PLOT_30_	
605	484551.71	3754334.43	PLOT_6	0.017704584
605	484551.71	3754334.43	PLOT_9	0.031149804
605	484551.71	3754334.43	PLOT4	0.036267037
605	484551.71	3754334.43	PLOTS_1_	0.027697307
605	484551.71	3754334.43	PLOTS_5_	0.031533381
605	484551.71	3754334.43	PLOTS_7_	0.02553789
606	484651.71	3754334.43	PLOT_11	0.014570967
606	484651.71	3754334.43	PLOT_12	0.012232439
606	484651.71	3754334.43	PLOT_2	0.039863376
606	484651.71	3754334.43	PLOT_30_	
606	484651.71	3754334.43	PLOT_6	0.018793841
606	484651.71	3754334.43	PLOT_9	0.032162191
606	484651.71	3754334.43	PLOT4	0.037809758
606	484651.71	3754334.43	PLOTS_1_	0.029930908
606	484651.71	3754334.43	PLOTS_5_	0.032042082
606	484651.71	3754334.43	PLOTS_7_	0.027033587
607	484751.71	3754334.43	PLOT_11	0.015126185
607	484751.71	3754334.43	PLOT_12	0.012841211

607	484751.71	3754334.43	PLOT_2	0.041591155
607	484751.71	3754334.43	PLOT_30_	
607	484751.71	3754334.43	PLOT_6	0.01977206
607	484751.71	3754334.43	PLOT_9	0.033144497
607	484751.71	3754334.43	PLOT4	0.039793008
607	484751.71	3754334.43	PLOTS_1_	0.031936221
607	484751.71	3754334.43	PLOTS_5_	0.031972432
607	484751.71	3754334.43	PLOTS_7_	0.028528071
608	484851.71	3754334.43	PLOT_11	0.015485524
608	484851.71	3754334.43	PLOT_12	0.013240877
608	484851.71	3754334.43	PLOT_2	0.043249452
608	484851.71	3754334.43	PLOT_30_	
608	484851.71	3754334.43	PLOT_6	0.020323204
608	484851.71	3754334.43	PLOT_9	0.033945603
608	484851.71	3754334.43	PLOT4	0.041544212
608	484851.71	3754334.43	PLOTS_1_	0.034286281
608	484851.71	3754334.43	PLOTS_5_	0.033240165
608	484851.71	3754334.43	PLOTS_7_	0.029665038
609	484951.71	3754334.43	PLOT_11	0.015767833
609	484951.71	3754334.43	PLOT_12	0.013520123
609	484951.71	3754334.43	PLOT_2	0.044981505
609	484951.71	3754334.43	PLOT_30_	
609	484951.71	3754334.43	PLOT_6	0.021121332
609	484951.71	3754334.43	PLOT_9	0.034715304
609	484951.71	3754334.43	PLOT4	0.043241015
609	484951.71	3754334.43	PLOTS_1_	0.036943391
609	484951.71	3754334.43	PLOTS_5_	0.034501649
609	484951.71	3754334.43	PLOTS_7_	0.030698726
610	485051.71	3754334.43	PLOT_11	0.015963711
610	485051.71	3754334.43	PLOT_12	0.01366052
610	485051.71	3754334.43	PLOT_2	0.046854062
610	485051.71	3754334.43	PLOT_30_	
610	485051.71	3754334.43	PLOT_6	0.021705214
610	485051.71	3754334.43	PLOT_9	0.035449452
610	485051.71	3754334.43	PLOT4	0.04528348
610	485051.71	3754334.43	PLOTS_1_	0.039733046
610	485051.71	3754334.43	PLOTS_5_	0.035142942
610	485051.71	3754334.43	PLOTS_7_	0.03160673
611	485151.71	3754334.43	PLOT_11	0.016105622
611	485151.71	3754334.43	PLOT_12	0.013689473
611	485151.71	3754334.43	PLOT_2	0.048913782
611	485151.71	3754334.43	PLOT_30_	
611	485151.71	3754334.43	PLOT_6	0.022091218
611	485151.71	3754334.43	PLOT_9	0.036178926
611	485151.71	3754334.43	PLOT4	0.047737483
611	485151.71	3754334.43	PLOTS_1_	0.043492435
611	485151.71	3754334.43	PLOTS_5_	0.034586561

611	485151.71	3754334.43	PLOTS_7_	0.032458283
612	485251.71	3754334.43	PLOT_11	0.016249734
612	485251.71	3754334.43	PLOT_12	0.014028373
612	485251.71	3754334.43	PLOT_2	0.051191859
612	485251.71	3754334.43	PLOT_30_	
612	485251.71	3754334.43	PLOT_6	0.022323016
612	485251.71	3754334.43	PLOT_9	0.036960271
612	485251.71	3754334.43	PLOT4	0.050262118
612	485251.71	3754334.43	PLOTS_1_	0.049616507
612	485251.71	3754334.43	PLOTS_5_	0.033077153
612	485251.71	3754334.43	PLOTS_7_	0.033465605
613	485351.71	3754334.43	PLOT_11	0.016580737
613	485351.71	3754334.43	PLOT_12	0.014329463
613	485351.71	3754334.43	PLOT_2	0.054086103
613	485351.71	3754334.43	PLOT_30_	
613	485351.71	3754334.43	PLOT_6	0.022971311
613	485351.71	3754334.43	PLOT_9	0.037806103
613	485351.71	3754334.43	PLOT4	0.052907534
613	485351.71	3754334.43	PLOTS_1_	0.05669309
613	485351.71	3754334.43	PLOTS_5_	0.031706481
613	485351.71	3754334.43	PLOTS_7_	0.034787457
614	485451.71	3754334.43	PLOT_11	0.016829803
614	485451.71	3754334.43	PLOT_12	0.014459454
614	485451.71	3754334.43	PLOT_2	0.057346787
614	485451.71	3754334.43	PLOT_30_	
614	485451.71	3754334.43	PLOT_6	0.023659731
614	485451.71	3754334.43	PLOT_9	0.03896608
614	485451.71	3754334.43	PLOT4	0.055605841
614	485451.71	3754334.43	PLOTS_1_	0.070036282
614	485451.71	3754334.43	PLOTS_5_	0.032882901
614	485451.71	3754334.43	PLOTS_7_	0.036029645
615	484551.71	3754434.43	PLOT_11	0.015045669
615	484551.71	3754434.43	PLOT_12	0.01297446
615	484551.71	3754434.43	PLOT_2	0.038866142
615	484551.71	3754434.43	PLOT_30_	
615	484551.71	3754434.43	PLOT_6	0.019289052
615	484551.71	3754434.43	PLOT_9	0.032062152
615	484551.71	3754434.43	PLOT4	0.038071579
615	484551.71	3754434.43	PLOTS_1_	0.028446106
615	484551.71	3754434.43	PLOTS_5_	0.031485445
615	484551.71	3754434.43	PLOTS_7_	0.027421149
616	484651.71	3754434.43	PLOT_11	0.015200465
616	484651.71	3754434.43	PLOT_12	0.013047697
616	484651.71	3754434.43	PLOT_2	0.040355164
616	484651.71	3754434.43	PLOT_30_	
616	484651.71	3754434.43	PLOT_6	0.019832602
616	484651.71	3754434.43	PLOT_9	0.032625952

616	484651.71	3754434.43	PLOT4	0.039245466
616	484651.71	3754434.43	PLOTS_1_	0.030209443
616	484651.71	3754434.43	PLOTS_5_	0.031241567
616	484651.71	3754434.43	PLOTS_7_	0.028231495
617	484751.71	3754434.43	PLOT_11	0.015410419
617	484751.71	3754434.43	PLOT_12	0.013259861
617	484751.71	3754434.43	PLOT_2	0.041965085
617	484751.71	3754434.43	PLOT_30_	
617	484751.71	3754434.43	PLOT_6	0.020815164
617	484751.71	3754434.43	PLOT_9	0.033298437
617	484751.71	3754434.43	PLOT4	0.040530563
617	484751.71	3754434.43	PLOTS_1_	0.032377726
617	484751.71	3754434.43	PLOTS_5_	0.0322349
617	484751.71	3754434.43	PLOTS_7_	0.029173873
618	484851.71	3754434.43	PLOT_11	0.015613634
618	484851.71	3754434.43	PLOT_12	0.013534579
618	484851.71	3754434.43	PLOT_2	0.043652417
618	484851.71	3754434.43	PLOT_30_	
618	484851.71	3754434.43	PLOT_6	0.02167478
618	484851.71	3754434.43	PLOT_9	0.033965364
618	484851.71	3754434.43	PLOT4	0.042099869
618	484851.71	3754434.43	PLOTS_1_	0.03445315
618	484851.71	3754434.43	PLOTS_5_	0.033675016
618	484851.71	3754434.43	PLOTS_7_	0.030126158
619	484951.71	3754434.43	PLOT_11	0.015872696
619	484951.71	3754434.43	PLOT_12	0.013793689
619	484951.71	3754434.43	PLOT_2	0.045448047
619	484951.71	3754434.43	PLOT_30_	
619	484951.71	3754434.43	PLOT_6	0.022485201
619	484951.71	3754434.43	PLOT_9	0.034683192
619	484951.71	3754434.43	PLOT4	0.044261716
619	484951.71	3754434.43	PLOTS_1_	0.036696012
619	484951.71	3754434.43	PLOTS_5_	0.034095733
619	484951.71	3754434.43	PLOTS_7_	0.031148199
620	485051.71	3754434.43	PLOT_11	0.016141707
620	485051.71	3754434.43	PLOT_12	0.014083698
620	485051.71	3754434.43	PLOT_2	0.047373078
620	485051.71	3754434.43	PLOT_30_	
620	485051.71	3754434.43	PLOT_6	0.023072569
620	485051.71	3754434.43	PLOT_9	0.035395463
620	485051.71	3754434.43	PLOT4	0.046350747
620	485051.71	3754434.43	PLOTS_1_	0.039535712
620	485051.71	3754434.43	PLOTS_5_	0.033380438
620	485051.71	3754434.43	PLOTS_7_	0.032158756
621	485151.71	3754434.43	PLOT_11	0.016408014
621	485151.71	3754434.43	PLOT_12	0.014342211
621	485151.71	3754434.43	PLOT_2	0.049473289

621	485151.71	3754434.43	PLOT_30_	
621	485151.71	3754434.43	PLOT_6	0.023482832
621	485151.71	3754434.43	PLOT_9	0.036312134
621	485151.71	3754434.43	PLOT4	0.048408827
621	485151.71	3754434.43	PLOTS_1_	0.044238715
621	485151.71	3754434.43	PLOTS_5_	0.031745711
621	485151.71	3754434.43	PLOTS_7_	0.033199196
622	485251.71	3754434.43	PLOT_11	0.016648001
622	485251.71	3754434.43	PLOT_12	0.014499925
622	485251.71	3754434.43	PLOT_2	0.051793971
622	485251.71	3754434.43	PLOT_30_	
622	485251.71	3754434.43	PLOT_6	0.023921844
622	485251.71	3754434.43	PLOT_9	0.037368631
622	485251.71	3754434.43	PLOT4	0.050422413
622	485251.71	3754434.43	PLOTS_1_	0.049242798
622	485251.71	3754434.43	PLOTS_5_	0.030899719
622	485251.71	3754434.43	PLOTS_7_	0.034289336
623	485351.71	3754434.43	PLOT_11	0.016866393
623	485351.71	3754434.43	PLOT_12	0.014559857
623	485351.71	3754434.43	PLOT_2	0.054390948
623	485351.71	3754434.43	PLOT_30_	
623	485351.71	3754434.43	PLOT_6	0.024701328
623	485351.71	3754434.43	PLOT_9	0.038508758
623	485351.71	3754434.43	PLOT4	0.052958018
623	485351.71	3754434.43	PLOTS_1_	0.055504086
623	485351.71	3754434.43	PLOTS_5_	0.032004235
623	485351.71	3754434.43	PLOTS_7_	0.035442924
624	485451.71	3754434.43	PLOT_11	0.017055577
624	485451.71	3754434.43	PLOT_12	0.014510212
624	485451.71	3754434.43	PLOT_2	0.057346258
624	485451.71	3754434.43	PLOT_30_	
624	485451.71	3754434.43	PLOT_6	0.025273657
624	485451.71	3754434.43	PLOT_9	0.039754041
624	485451.71	3754434.43	PLOT4	0.055588267
624	485451.71	3754434.43	PLOTS_1_	0.072554957
624	485451.71	3754434.43	PLOTS_5_	0.033288715
624	485451.71	3754434.43	PLOTS_7_	0.036741968
625	484551.71	3754534.43	PLOT_11	0.015180978
625	484551.71	3754534.43	PLOT_12	0.013425479
625	484551.71	3754534.43	PLOT_2	0.038597998
625	484551.71	3754534.43	PLOT_30_	
625	484551.71	3754534.43	PLOT_6	0.020006546
625	484551.71	3754534.43	PLOT_9	0.032271493
625	484551.71	3754534.43	PLOT4	0.038103593
625	484551.71	3754534.43	PLOTS_1_	0.028948419
625	484551.71	3754534.43	PLOTS_5_	0.030321419
625	484551.71	3754534.43	PLOTS_7_	0.028450631

626	484651.71	3754534.43	PLOT_11	0.015369015
626	484651.71	3754534.43	PLOT_12	0.013677955
626	484651.71	3754534.43	PLOT_2	0.039901796
626	484651.71	3754534.43	PLOT_30_	
626	484651.71	3754534.43	PLOT_6	0.020734766
626	484651.71	3754534.43	PLOT_9	0.033004054
626	484651.71	3754534.43	PLOT4	0.039340837
626	484651.71	3754534.43	PLOTS_1_	0.030655456
626	484651.71	3754534.43	PLOTS_5_	0.031777309
626	484651.71	3754534.43	PLOTS_7_	0.029286291
627	484751.71	3754534.43	PLOT_11	0.015523306
627	484751.71	3754534.43	PLOT_12	0.013758302
627	484751.71	3754534.43	PLOT_2	0.041354646
627	484751.71	3754534.43	PLOT_30_	
627	484751.71	3754534.43	PLOT_6	0.021371538
627	484751.71	3754534.43	PLOT_9	0.033618138
627	484751.71	3754534.43	PLOT4	0.041189427
627	484751.71	3754534.43	PLOTS_1_	0.032347788
627	484751.71	3754534.43	PLOTS_5_	0.03276803
627	484751.71	3754534.43	PLOTS_7_	0.030093766
628	484851.71	3754534.43	PLOT_11	0.015811117
628	484851.71	3754534.43	PLOT_12	0.013966336
628	484851.71	3754534.43	PLOT_2	0.042871998
628	484851.71	3754534.43	PLOT_30_	
628	484851.71	3754534.43	PLOT_6	0.022042022
628	484851.71	3754534.43	PLOT_9	0.034565951
628	484851.71	3754534.43	PLOT4	0.042956414
628	484851.71	3754534.43	PLOTS_1_	0.034170797
628	484851.71	3754534.43	PLOTS_5_	0.032914807
628	484851.71	3754534.43	PLOTS_7_	0.031090898
629	484951.71	3754534.43	PLOT_11	0.016050371
629	484951.71	3754534.43	PLOT_12	0.0142374
629	484951.71	3754534.43	PLOT_2	0.044570874
629	484951.71	3754534.43	PLOT_30_	
629	484951.71	3754534.43	PLOT_6	0.022609565
629	484951.71	3754534.43	PLOT_9	0.035491797
629	484951.71	3754534.43	PLOT4	0.044610121
629	484951.71	3754534.43	PLOTS_1_	0.036343629
629	484951.71	3754534.43	PLOTS_5_	0.032037524
629	484951.71	3754534.43	PLOTS_7_	0.032089929
630	485051.71	3754534.43	PLOT_11	0.016242214
630	485051.71	3754534.43	PLOT_12	0.014376685
630	485051.71	3754534.43	PLOT_2	0.046472994
630	485051.71	3754534.43	PLOT_30_	
630	485051.71	3754534.43	PLOT_6	0.023495183
630	485051.71	3754534.43	PLOT_9	0.036364889
630	485051.71	3754534.43	PLOT4	0.046130734

630	485051.71	3754534.43	PLOTS_1_	0.040235644
630	485051.71	3754534.43	PLOTS_5_	0.030312303
630	485051.71	3754534.43	PLOTS_7_	0.033100284
631	485151.71	3754534.43	PLOT_11	0.016474269
631	485151.71	3754534.43	PLOT_12	0.01440961
631	485151.71	3754534.43	PLOT_2	0.048766757
631	485151.71	3754534.43	PLOT_30_	
631	485151.71	3754534.43	PLOT_6	0.024648586
631	485151.71	3754534.43	PLOT_9	0.037239921
631	485151.71	3754534.43	PLOT4	0.048233422
631	485151.71	3754534.43	PLOTS_1_	0.04410219
631	485151.71	3754534.43	PLOTS_5_	0.030672998
631	485151.71	3754534.43	PLOTS_7_	0.03416519
632	485251.71	3754534.43	PLOT_11	0.016804722
632	485251.71	3754534.43	PLOT_12	0.014502507
632	485251.71	3754534.43	PLOT_2	0.051282092
632	485251.71	3754534.43	PLOT_30_	
632	485251.71	3754534.43	PLOT_6	0.025638328
632	485251.71	3754534.43	PLOT_9	0.038088753
632	485251.71	3754534.43	PLOT4	0.050281316
632	485251.71	3754534.43	PLOTS_1_	0.04857195
632	485251.71	3754534.43	PLOTS_5_	0.030964299
632	485251.71	3754534.43	PLOTS_7_	0.035264914
633	485351.71	3754534.43	PLOT_11	0.017093129
633	485351.71	3754534.43	PLOT_12	0.014764436
633	485351.71	3754534.43	PLOT_2	0.054070594
633	485351.71	3754534.43	PLOT_30_	
633	485351.71	3754534.43	PLOT_6	0.026452649
633	485351.71	3754534.43	PLOT_9	0.03920365
633	485351.71	3754534.43	PLOT4	0.05212123
633	485351.71	3754534.43	PLOTS_1_	0.057172655
633	485351.71	3754534.43	PLOTS_5_	0.032303986
633	485351.71	3754534.43	PLOTS_7_	0.036419108
634	485451.71	3754534.43	PLOT_11	0.017383232
634	485451.71	3754534.43	PLOT_12	0.014957934
634	485451.71	3754534.43	PLOT_2	0.057120323
634	485451.71	3754534.43	PLOT_30_	
634	485451.71	3754534.43	PLOT_6	0.027186749
634	485451.71	3754534.43	PLOT_9	0.040463842
634	485451.71	3754534.43	PLOT4	0.055481086
634	485451.71	3754534.43	PLOTS_1_	0.074028182
634	485451.71	3754534.43	PLOTS_5_	0.032429715
634	485451.71	3754534.43	PLOTS_7_	0.037717222
635	484551.71	3754634.43	PLOT_11	0.015146681
635	484551.71	3754634.43	PLOT_12	0.013769104
635	484551.71	3754634.43	PLOT_2	0.038346288
635	484551.71	3754634.43	PLOT_30_	

635	484551.71	3754634.43	PLOT_6	0.021630341
635	484551.71	3754634.43	PLOT_9	0.0330112
635	484551.71	3754634.43	PLOT4	0.038495262
635	484551.71	3754634.43	PLOTS_1_	0.029076333
635	484551.71	3754634.43	PLOTS_5_	0.031102472
635	484551.71	3754634.43	PLOTS_7_	0.028668109
636	484651.71	3754634.43	PLOT_11	0.015314131
636	484651.71	3754634.43	PLOT_12	0.013785944
636	484651.71	3754634.43	PLOT_2	0.039723356
636	484651.71	3754634.43	PLOT_30_	
636	484651.71	3754634.43	PLOT_6	0.022125523
636	484651.71	3754634.43	PLOT_9	0.033609405
636	484651.71	3754634.43	PLOT4	0.040006696
636	484651.71	3754634.43	PLOTS_1_	0.030484972
636	484651.71	3754634.43	PLOTS_5_	0.031804811
636	484651.71	3754634.43	PLOTS_7_	0.029512262
637	484751.71	3754634.43	PLOT_11	0.015524361
637	484751.71	3754634.43	PLOT_12	0.014001088
637	484751.71	3754634.43	PLOT_2	0.041231897
637	484751.71	3754634.43	PLOT_30_	
637	484751.71	3754634.43	PLOT_6	0.022625757
637	484751.71	3754634.43	PLOT_9	0.034393661
637	484751.71	3754634.43	PLOT4	0.041357277
637	484751.71	3754634.43	PLOTS_1_	0.031983057
637	484751.71	3754634.43	PLOTS_5_	0.03161778
637	484751.71	3754634.43	PLOTS_7_	0.030449382
638	484851.71	3754634.43	PLOT_11	0.015927122
638	484851.71	3754634.43	PLOT_12	0.014167857
638	484851.71	3754634.43	PLOT_2	0.042858692
638	484851.71	3754634.43	PLOT_30_	
638	484851.71	3754634.43	PLOT_6	0.023112103
638	484851.71	3754634.43	PLOT_9	0.035269223
638	484851.71	3754634.43	PLOT4	0.042736289
638	484851.71	3754634.43	PLOTS_1_	0.033696186
638	484851.71	3754634.43	PLOTS_5_	0.030594539
638	484851.71	3754634.43	PLOTS_7_	0.03147292
639	484951.71	3754634.43	PLOT_11	0.016247762
639	484951.71	3754634.43	PLOT_12	0.014177071
639	484951.71	3754634.43	PLOT_2	0.044593212
639	484951.71	3754634.43	PLOT_30_	
639	484951.71	3754634.43	PLOT_6	0.023508361
639	484951.71	3754634.43	PLOT_9	0.036088502
639	484951.71	3754634.43	PLOT4	0.04477674
639	484951.71	3754634.43	PLOTS_1_	0.036990308
639	484951.71	3754634.43	PLOTS_5_	0.028853084
639	484951.71	3754634.43	PLOTS_7_	0.032508144
640	485051.71	3754634.43	PLOT_11	0.016510584

640	485051.71	3754634.43	PLOT_12	0.014425457
640	485051.71	3754634.43	PLOT_2	0.046480044
640	485051.71	3754634.43	PLOT_30_	
640	485051.71	3754634.43	PLOT_6	0.024016838
640	485051.71	3754634.43	PLOT_9	0.036886785
640	485051.71	3754634.43	PLOT4	0.046533317
640	485051.71	3754634.43	PLOTS_1_	0.040103546
640	485051.71	3754634.43	PLOTS_5_	0.030211106
640	485051.71	3754634.43	PLOTS_7_	0.033584575
641	485151.71	3754634.43	PLOT_11	0.0167381
641	485151.71	3754634.43	PLOT_12	0.01471491
641	485151.71	3754634.43	PLOT_2	0.048550911
641	485151.71	3754634.43	PLOT_30_	
641	485151.71	3754634.43	PLOT_6	0.0249955
641	485151.71	3754634.43	PLOT_9	0.037692479
641	485151.71	3754634.43	PLOT4	0.047909027
641	485151.71	3754634.43	PLOTS_1_	0.043383003
641	485151.71	3754634.43	PLOTS_5_	0.030501997
641	485151.71	3754634.43	PLOTS_7_	0.03472595
642	485251.71	3754634.43	PLOT_11	0.016940581
642	485251.71	3754634.43	PLOT_12	0.014857134
642	485251.71	3754634.43	PLOT_2	0.050857186
642	485251.71	3754634.43	PLOT_30_	
642	485251.71	3754634.43	PLOT_6	0.025891814
642	485251.71	3754634.43	PLOT_9	0.038740066
642	485251.71	3754634.43	PLOT4	0.049461878
642	485251.71	3754634.43	PLOTS_1_	0.047064523
642	485251.71	3754634.43	PLOTS_5_	0.031299541
642	485251.71	3754634.43	PLOTS_7_	0.035916377
643	485351.71	3754634.43	PLOT_11	0.01721592
643	485351.71	3754634.43	PLOT_12	0.014865157
643	485351.71	3754634.43	PLOT_2	0.053641723
643	485351.71	3754634.43	PLOT_30_	
643	485351.71	3754634.43	PLOT_6	0.026695202
643	485351.71	3754634.43	PLOT_9	0.040084505
643	485351.71	3754634.43	PLOT4	0.052057762
643	485351.71	3754634.43	PLOTS_1_	0.059368317
643	485351.71	3754634.43	PLOTS_5_	0.031503523
643	485351.71	3754634.43	PLOTS_7_	0.037174781
644	485451.71	3754634.43	PLOT_11	0.017564576
644	485451.71	3754634.43	PLOT_12	0.014803159
644	485451.71	3754634.43	PLOT_2	0.056999249
644	485451.71	3754634.43	PLOT_30_	
644	485451.71	3754634.43	PLOT_6	0.027845237
644	485451.71	3754634.43	PLOT_9	0.041448265
644	485451.71	3754634.43	PLOT4	0.053625557
644	485451.71	3754634.43	PLOTS_1_	0.074773406

644	485451.71	3754634.43	PLOTS_5_	0.030717912
644	485451.71	3754634.43	PLOTS_7_	0.038564408
645	484551.71	3754734.43	PLOT_11	0.015360395
645	484551.71	3754734.43	PLOT_12	0.013733836
645	484551.71	3754734.43	PLOT_2	0.038225831
645	484551.71	3754734.43	PLOT_30_	
645	484551.71	3754734.43	PLOT_6	0.022399159
645	484551.71	3754734.43	PLOT_9	0.033304436
645	484551.71	3754734.43	PLOT4	0.038534496
645	484551.71	3754734.43	PLOTS_1_	0.028798529
645	484551.71	3754734.43	PLOTS_5_	0.030724262
645	484551.71	3754734.43	PLOTS_7_	0.027949032
646	484651.71	3754734.43	PLOT_11	0.015639311
646	484651.71	3754734.43	PLOT_12	0.013786818
646	484651.71	3754734.43	PLOT_2	0.039906731
646	484651.71	3754734.43	PLOT_30_	
646	484651.71	3754734.43	PLOT_6	0.022939016
646	484651.71	3754734.43	PLOT_9	0.034014854
646	484651.71	3754734.43	PLOT4	0.039765024
646	484651.71	3754734.43	PLOTS_1_	0.030016658
646	484651.71	3754734.43	PLOTS_5_	0.030282497
646	484651.71	3754734.43	PLOTS_7_	0.028812879
647	484751.71	3754734.43	PLOT_11	0.015918822
647	484751.71	3754734.43	PLOT_12	0.013776531
647	484751.71	3754734.43	PLOT_2	0.041656539
647	484751.71	3754734.43	PLOT_30_	
647	484751.71	3754734.43	PLOT_6	0.023623949
647	484751.71	3754734.43	PLOT_9	0.034751826
647	484751.71	3754734.43	PLOT4	0.041643445
647	484751.71	3754734.43	PLOTS_1_	0.031509949
647	484751.71	3754734.43	PLOTS_5_	0.02907832
647	484751.71	3754734.43	PLOTS_7_	0.029754892
648	484851.71	3754734.43	PLOT_11	0.016185404
648	484851.71	3754734.43	PLOT_12	0.014192401
648	484851.71	3754734.43	PLOT_2	0.04346781
648	484851.71	3754734.43	PLOT_30_	
648	484851.71	3754734.43	PLOT_6	0.02437427
648	484851.71	3754734.43	PLOT_9	0.035504588
648	484851.71	3754734.43	PLOT4	0.043250753
648	484851.71	3754734.43	PLOTS_1_	0.034336813
648	484851.71	3754734.43	PLOTS_5_	0.02824298
648	484851.71	3754734.43	PLOTS_7_	0.030763265
649	484951.71	3754734.43	PLOT_11	0.016638235
649	484951.71	3754734.43	PLOT_12	0.014491307
649	484951.71	3754734.43	PLOT_2	0.045370062
649	484951.71	3754734.43	PLOT_30_	
649	484951.71	3754734.43	PLOT_6	0.025222511

649	484951.71	3754734.43	PLOT_9	0.036231239
649	484951.71	3754734.43	PLOT4	0.044464658
649	484951.71	3754734.43	PLOTS_1_	0.036865806
649	484951.71	3754734.43	PLOTS_5_	0.029598851
649	484951.71	3754734.43	PLOTS_7_	0.031799258
650	485051.71	3754734.43	PLOT_11	0.017025544
650	485051.71	3754734.43	PLOT_12	0.014646121
650	485051.71	3754734.43	PLOT_2	0.047409868
650	485051.71	3754734.43	PLOT_30_	
650	485051.71	3754734.43	PLOT_6	0.026095157
650	485051.71	3754734.43	PLOT_9	0.037004997
650	485051.71	3754734.43	PLOT4	0.04513673
650	485051.71	3754734.43	PLOTS_1_	0.039394474
650	485051.71	3754734.43	PLOTS_5_	0.02988416
650	485051.71	3754734.43	PLOTS_7_	0.032868976
651	485151.71	3754734.43	PLOT_11	0.017326973
651	485151.71	3754734.43	PLOT_12	0.014653349
651	485151.71	3754734.43	PLOT_2	0.049674419
651	485151.71	3754734.43	PLOT_30_	
651	485151.71	3754734.43	PLOT_6	0.026925286
651	485151.71	3754734.43	PLOT_9	0.038262454
651	485151.71	3754734.43	PLOT4	0.046872991
651	485151.71	3754734.43	PLOTS_1_	0.042071204
651	485151.71	3754734.43	PLOTS_5_	0.030203987
651	485151.71	3754734.43	PLOTS_7_	0.034054429
652	485251.71	3754734.43	PLOT_11	0.017566547
652	485251.71	3754734.43	PLOT_12	0.01453138
652	485251.71	3754734.43	PLOT_2	0.05221804
652	485251.71	3754734.43	PLOT_30_	
652	485251.71	3754734.43	PLOT_6	0.027712304
652	485251.71	3754734.43	PLOT_9	0.039478096
652	485251.71	3754734.43	PLOT4	0.04876087
652	485251.71	3754734.43	PLOTS_1_	0.048841833
652	485251.71	3754734.43	PLOTS_5_	0.030522021
652	485251.71	3754734.43	PLOTS_7_	0.035389585
653	485351.71	3754734.43	PLOT_11	0.017808507
653	485351.71	3754734.43	PLOT_12	0.014565338
653	485351.71	3754734.43	PLOT_2	0.054920363
653	485351.71	3754734.43	PLOT_30_	
653	485351.71	3754734.43	PLOT_6	0.028469037
653	485351.71	3754734.43	PLOT_9	0.040680505
653	485351.71	3754734.43	PLOT4	0.050016304
653	485351.71	3754734.43	PLOTS_1_	0.060361163
653	485351.71	3754734.43	PLOTS_5_	0.029861319
653	485351.71	3754734.43	PLOTS_7_	0.036824705
654	485451.71	3754734.43	PLOT_11	0.018026623
654	485451.71	3754734.43	PLOT_12	0.015039432

654	485451.71	3754734.43	PLOT_2	0.057853864
654	485451.71	3754734.43	PLOT_30_	
654	485451.71	3754734.43	PLOT_6	0.029171463
654	485451.71	3754734.43	PLOT_9	0.04187171
654	485451.71	3754734.43	PLOT4	0.053113667
654	485451.71	3754734.43	PLOTS_1_	0.075883403
654	485451.71	3754734.43	PLOTS_5_	0.028481583
654	485451.71	3754734.43	PLOTS_7_	0.038356878
655	484551.71	3754834.43	PLOT_11	0.015609828
655	484551.71	3754834.43	PLOT_12	0.013494942
655	484551.71	3754834.43	PLOT_2	0.039951891
655	484551.71	3754834.43	PLOT_30_	
655	484551.71	3754834.43	PLOT_6	0.022661361
655	484551.71	3754834.43	PLOT_9	0.03346411
655	484551.71	3754834.43	PLOT4	0.038906072
655	484551.71	3754834.43	PLOTS_1_	0.028198402
655	484551.71	3754834.43	PLOTS_5_	0.028945268
655	484551.71	3754834.43	PLOTS_7_	0.029187096
656	484651.71	3754834.43	PLOT_11	0.016100853
656	484651.71	3754834.43	PLOT_12	0.013889485
656	484651.71	3754834.43	PLOT_2	0.041363061
656	484651.71	3754834.43	PLOT_30_	
656	484651.71	3754834.43	PLOT_6	0.023582554
656	484651.71	3754834.43	PLOT_9	0.034101396
656	484651.71	3754834.43	PLOT4	0.040374914
656	484651.71	3754834.43	PLOTS_1_	0.029566867
656	484651.71	3754834.43	PLOTS_5_	0.027620996
656	484651.71	3754834.43	PLOTS_7_	0.030121871
657	484751.71	3754834.43	PLOT_11	0.016528925
657	484751.71	3754834.43	PLOT_12	0.014162217
657	484751.71	3754834.43	PLOT_2	0.042843756
657	484751.71	3754834.43	PLOT_30_	
657	484751.71	3754834.43	PLOT_6	0.024506967
657	484751.71	3754834.43	PLOT_9	0.034711863
657	484751.71	3754834.43	PLOT4	0.041473748
657	484751.71	3754834.43	PLOTS_1_	0.032064866
657	484751.71	3754834.43	PLOTS_5_	0.027606297
657	484751.71	3754834.43	PLOTS_7_	0.031080707
658	484851.71	3754834.43	PLOT_11	0.01688698
658	484851.71	3754834.43	PLOT_12	0.014303131
658	484851.71	3754834.43	PLOT_2	0.044427594
658	484851.71	3754834.43	PLOT_30_	
658	484851.71	3754834.43	PLOT_6	0.025432503
658	484851.71	3754834.43	PLOT_9	0.035307686
658	484851.71	3754834.43	PLOT4	0.04209819
658	484851.71	3754834.43	PLOTS_1_	0.034234855
658	484851.71	3754834.43	PLOTS_5_	0.028856208

658	484851.71	3754834.43	PLOTS_7_	0.032070802
659	484951.71	3754834.43	PLOT_11	0.017210372
659	484951.71	3754834.43	PLOT_12	0.014333434
659	484951.71	3754834.43	PLOT_2	0.046122284
659	484951.71	3754834.43	PLOT_30_	
659	484951.71	3754834.43	PLOT_6	0.026382622
659	484951.71	3754834.43	PLOT_9	0.036472956
659	484951.71	3754834.43	PLOT4	0.042335889
659	484951.71	3754834.43	PLOTS_1_	0.036219168
659	484951.71	3754834.43	PLOTS_5_	0.029151043
659	484951.71	3754834.43	PLOTS_7_	0.03310546
660	485051.71	3754834.43	PLOT_11	0.017462693
660	485051.71	3754834.43	PLOT_12	0.014230569
660	485051.71	3754834.43	PLOT_2	0.047979068
660	485051.71	3754834.43	PLOT_30_	
660	485051.71	3754834.43	PLOT_6	0.027332534
660	485051.71	3754834.43	PLOT_9	0.037591469
660	485051.71	3754834.43	PLOT4	0.044326304
660	485051.71	3754834.43	PLOTS_1_	0.038173584
660	485051.71	3754834.43	PLOTS_5_	0.029092864
660	485051.71	3754834.43	PLOTS_7_	0.034182012
661	485151.71	3754834.43	PLOT_11	0.017642294
661	485151.71	3754834.43	PLOT_12	0.014372674
661	485151.71	3754834.43	PLOT_2	0.050021032
661	485151.71	3754834.43	PLOT_30_	
661	485151.71	3754834.43	PLOT_6	0.028279433
661	485151.71	3754834.43	PLOT_9	0.038673549
661	485151.71	3754834.43	PLOT4	0.045547372
661	485151.71	3754834.43	PLOTS_1_	0.041001178
661	485151.71	3754834.43	PLOTS_5_	0.029509587
661	485151.71	3754834.43	PLOTS_7_	0.03530604
662	485251.71	3754834.43	PLOT_11	0.017786452
662	485251.71	3754834.43	PLOT_12	0.01481563
662	485251.71	3754834.43	PLOT_2	0.052286244
662	485251.71	3754834.43	PLOT_30_	
662	485251.71	3754834.43	PLOT_6	0.029219506
662	485251.71	3754834.43	PLOT_9	0.039723518
662	485251.71	3754834.43	PLOT4	0.047571032
662	485251.71	3754834.43	PLOTS_1_	0.050639982
662	485251.71	3754834.43	PLOTS_5_	0.028965599
662	485251.71	3754834.43	PLOTS_7_	0.036482717
663	485351.71	3754834.43	PLOT_11	0.01821411
663	485351.71	3754834.43	PLOT_12	0.01515314
663	485351.71	3754834.43	PLOT_2	0.054652087
663	485351.71	3754834.43	PLOT_30_	
663	485351.71	3754834.43	PLOT_6	0.030189865
663	485351.71	3754834.43	PLOT_9	0.040737053

663	485351.71	3754834.43	PLOT4	0.050142793
663	485351.71	3754834.43	PLOTS_1_	0.060616748
663	485351.71	3754834.43	PLOTS_5_	0.027711592
663	485351.71	3754834.43	PLOTS_7_	0.037727372
664	485451.71	3754834.43	PLOT_11	0.018578218
664	485451.71	3754834.43	PLOT_12	0.015336034
664	485451.71	3754834.43	PLOT_2	0.057299203
664	485451.71	3754834.43	PLOT_30_	
664	485451.71	3754834.43	PLOT_6	0.031148081
664	485451.71	3754834.43	PLOT_9	0.041937785
664	485451.71	3754834.43	PLOT4	0.051812619
664	485451.71	3754834.43	PLOTS_1_	0.076088293
664	485451.71	3754834.43	PLOTS_5_	0.026022323
664	485451.71	3754834.43	PLOTS_7_	0.039037619
665	484551.71	3754934.43	PLOT_11	0.016280317
665	484551.71	3754934.43	PLOT_12	0.01379079
665	484551.71	3754934.43	PLOT_2	0.040133106
665	484551.71	3754934.43	PLOT_30_	
665	484551.71	3754934.43	PLOT_6	0.021958374
665	484551.71	3754934.43	PLOT_9	0.033219041
665	484551.71	3754934.43	PLOT4	0.03885279
665	484551.71	3754934.43	PLOTS_1_	0.027893545
665	484551.71	3754934.43	PLOTS_5_	0.026166078
665	484551.71	3754934.43	PLOTS_7_	0.028585129
666	484651.71	3754934.43	PLOT_11	0.016630944
666	484651.71	3754934.43	PLOT_12	0.013935794
666	484651.71	3754934.43	PLOT_2	0.04129358
666	484651.71	3754934.43	PLOT_30_	
666	484651.71	3754934.43	PLOT_6	0.022752573
666	484651.71	3754934.43	PLOT_9	0.033702739
666	484651.71	3754934.43	PLOT4	0.039444547
666	484651.71	3754934.43	PLOTS_1_	0.030079335
666	484651.71	3754934.43	PLOTS_5_	0.026944622
666	484651.71	3754934.43	PLOTS_7_	0.029273675
667	484751.71	3754934.43	PLOT_11	0.016912244
667	484751.71	3754934.43	PLOT_12	0.013949893
667	484751.71	3754934.43	PLOT_2	0.042552657
667	484751.71	3754934.43	PLOT_30_	
667	484751.71	3754934.43	PLOT_6	0.023586306
667	484751.71	3754934.43	PLOT_9	0.034767881
667	484751.71	3754934.43	PLOT4	0.03949587
667	484751.71	3754934.43	PLOTS_1_	0.031903075
667	484751.71	3754934.43	PLOTS_5_	0.028142142
667	484751.71	3754934.43	PLOTS_7_	0.030627635
668	484851.71	3754934.43	PLOT_11	0.017125088
668	484851.71	3754934.43	PLOT_12	0.013836066
668	484851.71	3754934.43	PLOT_2	0.043928976

668	484851.71	3754934.43	PLOT_30_	
668	484851.71	3754934.43	PLOT_6	0.024463385
668	484851.71	3754934.43	PLOT_9	0.035785033
668	484851.71	3754934.43	PLOT4	0.040375138
668	484851.71	3754934.43	PLOTS_1_	0.033535857
668	484851.71	3754934.43	PLOTS_5_	0.028396518
668	484851.71	3754934.43	PLOTS_7_	0.032023206
669	484951.71	3754934.43	PLOT_11	0.017285202
669	484951.71	3754934.43	PLOT_12	0.014102086
669	484951.71	3754934.43	PLOT_2	0.045393546
669	484951.71	3754934.43	PLOT_30_	
669	484951.71	3754934.43	PLOT_6	0.025380322
669	484951.71	3754934.43	PLOT_9	0.036753753
669	484951.71	3754934.43	PLOT4	0.041841574
669	484951.71	3754934.43	PLOTS_1_	0.03502988
669	484951.71	3754934.43	PLOTS_5_	0.027978157
669	484951.71	3754934.43	PLOTS_7_	0.033458043
670	485051.71	3754934.43	PLOT_11	0.017550729
670	485051.71	3754934.43	PLOT_12	0.014571693
670	485051.71	3754934.43	PLOT_2	0.047035145
670	485051.71	3754934.43	PLOT_30_	
670	485051.71	3754934.43	PLOT_6	0.026347047
670	485051.71	3754934.43	PLOT_9	0.037691067
670	485051.71	3754934.43	PLOT4	0.042511519
670	485051.71	3754934.43	PLOTS_1_	0.036520897
670	485051.71	3754934.43	PLOTS_5_	0.028468882
670	485051.71	3754934.43	PLOTS_7_	0.034906346
671	485151.71	3754934.43	PLOT_11	0.017919789
671	485151.71	3754934.43	PLOT_12	0.014911863
671	485151.71	3754934.43	PLOT_2	0.048790681
671	485151.71	3754934.43	PLOT_30_	
671	485151.71	3754934.43	PLOT_6	0.027354429
671	485151.71	3754934.43	PLOT_9	0.03857845
671	485151.71	3754934.43	PLOT4	0.045263219
671	485151.71	3754934.43	PLOTS_1_	0.042707037
671	485151.71	3754934.43	PLOTS_5_	0.02803695
671	485151.71	3754934.43	PLOTS_7_	0.036400344
672	485251.71	3754934.43	PLOT_11	0.018206453
672	485251.71	3754934.43	PLOT_12	0.015084947
672	485251.71	3754934.43	PLOT_2	0.050807267
672	485251.71	3754934.43	PLOT_30_	
672	485251.71	3754934.43	PLOT_6	0.02865746
672	485251.71	3754934.43	PLOT_9	0.039969469
672	485251.71	3754934.43	PLOT4	0.047423107
672	485251.71	3754934.43	PLOTS_1_	0.051411203
672	485251.71	3754934.43	PLOTS_5_	0.026909848
672	485251.71	3754934.43	PLOTS_7_	0.037898953

673	485351.71	3754934.43	PLOT_11	0.018457949
673	485351.71	3754934.43	PLOT_12	0.015137095
673	485351.71	3754934.43	PLOT_2	0.053709794
673	485351.71	3754934.43	PLOT_30_	
673	485351.71	3754934.43	PLOT_6	0.030146076
673	485351.71	3754934.43	PLOT_9	0.041299618
673	485351.71	3754934.43	PLOT4	0.048315248
673	485351.71	3754934.43	PLOTS_1_	0.061789462
673	485351.71	3754934.43	PLOTS_5_	0.025335092
673	485351.71	3754934.43	PLOTS_7_	0.039475769
674	485451.71	3754934.43	PLOT_11	0.01863943
674	485451.71	3754934.43	PLOT_12	0.015037923
674	485451.71	3754934.43	PLOT_2	0.057108471
674	485451.71	3754934.43	PLOT_30_	
674	485451.71	3754934.43	PLOT_6	0.031708
674	485451.71	3754934.43	PLOT_9	0.042533873
674	485451.71	3754934.43	PLOT4	0.049257872
674	485451.71	3754934.43	PLOTS_1_	0.07535103
674	485451.71	3754934.43	PLOTS_5_	0.023654683
674	485451.71	3754934.43	PLOTS_7_	0.041089344
675	484551.71	3755034.43	PLOT_11	0.016451802
675	484551.71	3755034.43	PLOT_12	0.013513212
675	484551.71	3755034.43	PLOT_2	0.038508734
675	484551.71	3755034.43	PLOT_30_	
675	484551.71	3755034.43	PLOT_6	0.023736435
675	484551.71	3755034.43	PLOT_9	0.033191164
675	484551.71	3755034.43	PLOT4	0.037214027
675	484551.71	3755034.43	PLOTS_1_	0.02835739
675	484551.71	3755034.43	PLOTS_5_	0.026246688
675	484551.71	3755034.43	PLOTS_7_	0.030874188
676	484651.71	3755034.43	PLOT_11	0.016640711
676	484651.71	3755034.43	PLOT_12	0.013404071
676	484651.71	3755034.43	PLOT_2	0.039307571
676	484651.71	3755034.43	PLOT_30_	
676	484651.71	3755034.43	PLOT_6	0.024545733
676	484651.71	3755034.43	PLOT_9	0.03408534
676	484651.71	3755034.43	PLOT4	0.036754132
676	484651.71	3755034.43	PLOTS_1_	0.029890206
676	484651.71	3755034.43	PLOTS_5_	0.027382393
676	484651.71	3755034.43	PLOTS_7_	0.031997245
677	484751.71	3755034.43	PLOT_11	0.016816965
677	484751.71	3755034.43	PLOT_12	0.013762353
677	484751.71	3755034.43	PLOT_2	0.040240214
677	484751.71	3755034.43	PLOT_30_	
677	484751.71	3755034.43	PLOT_6	0.02535571
677	484751.71	3755034.43	PLOT_9	0.034958255
677	484751.71	3755034.43	PLOT4	0.038436719

677	484751.71	3755034.43	PLOTS_1_	0.031246363
677	484751.71	3755034.43	PLOTS_5_	0.027607834
677	484751.71	3755034.43	PLOTS_7_	0.033090579
678	484851.71	3755034.43	PLOT_11	0.017214957
678	484851.71	3755034.43	PLOT_12	0.014265559
678	484851.71	3755034.43	PLOT_2	0.041266527
678	484851.71	3755034.43	PLOT_30_	
678	484851.71	3755034.43	PLOT_6	0.026233527
678	484851.71	3755034.43	PLOT_9	0.035756274
678	484851.71	3755034.43	PLOT4	0.039383261
678	484851.71	3755034.43	PLOTS_1_	0.032362371
678	484851.71	3755034.43	PLOTS_5_	0.027046383
678	484851.71	3755034.43	PLOTS_7_	0.034203768
679	484951.71	3755034.43	PLOT_11	0.017536515
679	484951.71	3755034.43	PLOT_12	0.014618478
679	484951.71	3755034.43	PLOT_2	0.043865267
679	484951.71	3755034.43	PLOT_30_	
679	484951.71	3755034.43	PLOT_6	0.027133682
679	484951.71	3755034.43	PLOT_9	0.036706203
679	484951.71	3755034.43	PLOT4	0.040144771
679	484951.71	3755034.43	PLOTS_1_	0.033444502
679	484951.71	3755034.43	PLOTS_5_	0.027411226
679	484951.71	3755034.43	PLOTS_7_	0.035293342
680	485051.71	3755034.43	PLOT_11	0.017786131
680	485051.71	3755034.43	PLOT_12	0.01481988
680	485051.71	3755034.43	PLOT_2	0.046461054
680	485051.71	3755034.43	PLOT_30_	
680	485051.71	3755034.43	PLOT_6	0.028075469
680	485051.71	3755034.43	PLOT_9	0.038071639
680	485051.71	3755034.43	PLOT4	0.043071486
680	485051.71	3755034.43	PLOTS_1_	0.036740857
680	485051.71	3755034.43	PLOTS_5_	0.027082437
680	485051.71	3755034.43	PLOTS_7_	0.036601121
681	485151.71	3755034.43	PLOT_11	0.017960276
681	485151.71	3755034.43	PLOT_12	0.01486607
681	485151.71	3755034.43	PLOT_2	0.049085833
681	485151.71	3755034.43	PLOT_30_	
681	485151.71	3755034.43	PLOT_6	0.029065565
681	485151.71	3755034.43	PLOT_9	0.039326626
681	485151.71	3755034.43	PLOT4	0.044891587
681	485151.71	3755034.43	PLOTS_1_	0.044258741
681	485151.71	3755034.43	PLOTS_5_	0.026076045
681	485151.71	3755034.43	PLOTS_7_	0.037953221
682	485251.71	3755034.43	PLOT_11	0.01806899
682	485251.71	3755034.43	PLOT_12	0.014771664
682	485251.71	3755034.43	PLOT_2	0.051731672
682	485251.71	3755034.43	PLOT_30_	

682	485251.71	3755034.43	PLOT_6	0.030128969
682	485251.71	3755034.43	PLOT_9	0.040477957
682	485251.71	3755034.43	PLOT4	0.045224377
682	485251.71	3755034.43	PLOTS_1_	0.051817124
682	485251.71	3755034.43	PLOTS_5_	0.024621026
682	485251.71	3755034.43	PLOTS_7_	0.039304876
683	485351.71	3755034.43	PLOT_11	0.018100123
683	485351.71	3755034.43	PLOT_12	0.014532095
683	485351.71	3755034.43	PLOT_2	0.054478318
683	485351.71	3755034.43	PLOT_30_	
683	485351.71	3755034.43	PLOT_6	0.031260449
683	485351.71	3755034.43	PLOT_9	0.041512664
683	485351.71	3755034.43	PLOT4	0.046123682
683	485351.71	3755034.43	PLOTS_1_	0.062245103
683	485351.71	3755034.43	PLOTS_5_	0.022931552
683	485351.71	3755034.43	PLOTS_7_	0.040650425
684	485451.71	3755034.43	PLOT_11	0.018427366
684	485451.71	3755034.43	PLOT_12	0.014543931
684	485451.71	3755034.43	PLOT_2	0.057252765
684	485451.71	3755034.43	PLOT_30_	
684	485451.71	3755034.43	PLOT_6	0.032510117
684	485451.71	3755034.43	PLOT_9	0.042430129
684	485451.71	3755034.43	PLOT4	0.044992611
684	485451.71	3755034.43	PLOTS_1_	0.074239165
684	485451.71	3755034.43	PLOTS_5_	0.023039663
684	485451.71	3755034.43	PLOTS_7_	0.041995448
685	485549.47	3750934.9	PLOT_11	0.008036282
685	485549.47	3750934.9	PLOT_12	0.013371464
685	485549.47	3750934.9	PLOT_2	0.012911659
685	485549.47	3750934.9	PLOT_30_	
685	485549.47	3750934.9	PLOT_6	0.006515361
685	485549.47	3750934.9	PLOT_9	0.026526131
685	485549.47	3750934.9	PLOT4	0.02316376
685	485549.47	3750934.9	PLOTS_1_	0.020262898
685	485549.47	3750934.9	PLOTS_5_	0.01848998
685	485549.47	3750934.9	PLOTS_7_	0.011210508
686	485649.47	3750934.9	PLOT_11	0.008120373
686	485649.47	3750934.9	PLOT_12	0.013415589
686	485649.47	3750934.9	PLOT_2	0.013259066
686	485649.47	3750934.9	PLOT_30_	
686	485649.47	3750934.9	PLOT_6	0.00653368
686	485649.47	3750934.9	PLOT_9	0.027134922
686	485649.47	3750934.9	PLOT4	0.02304908
686	485649.47	3750934.9	PLOTS_1_	0.020882199
686	485649.47	3750934.9	PLOTS_5_	0.018895026
686	485649.47	3750934.9	PLOTS_7_	0.011216129
687	485749.47	3750934.9	PLOT_11	0.00812693

687	485749.47	3750934.9	PLOT_12	0.013536843
687	485749.47	3750934.9	PLOT_2	0.013517825
687	485749.47	3750934.9	PLOT_30_	
687	485749.47	3750934.9	PLOT_6	0.006619751
687	485749.47	3750934.9	PLOT_9	0.02736817
687	485749.47	3750934.9	PLOT4	0.023332282
687	485749.47	3750934.9	PLOTS_1_	0.019842232
687	485749.47	3750934.9	PLOTS_5_	0.019093477
687	485749.47	3750934.9	PLOTS_7_	0.011067396
688	485849.47	3750934.9	PLOT_11	0.008142841
688	485849.47	3750934.9	PLOT_12	0.013962444
688	485849.47	3750934.9	PLOT_2	0.013528487
688	485849.47	3750934.9	PLOT_30_	
688	485849.47	3750934.9	PLOT_6	0.006629354
688	485849.47	3750934.9	PLOT_9	0.027218464
688	485849.47	3750934.9	PLOT4	0.022862984
688	485849.47	3750934.9	PLOTS_1_	0.017196252
688	485849.47	3750934.9	PLOTS_5_	0.019381757
688	485849.47	3750934.9	PLOTS_7_	0.010844257
689	485549.47	3751034.9	PLOT_11	0.008080758
689	485549.47	3751034.9	PLOT_12	0.013255969
689	485549.47	3751034.9	PLOT_2	0.013187029
689	485549.47	3751034.9	PLOT_30_	
689	485549.47	3751034.9	PLOT_6	0.006650864
689	485549.47	3751034.9	PLOT_9	0.026920464
689	485549.47	3751034.9	PLOT4	0.023715219
689	485549.47	3751034.9	PLOTS_1_	0.020721382
689	485549.47	3751034.9	PLOTS_5_	0.019503132
689	485549.47	3751034.9	PLOTS_7_	0.011224095
690	485649.47	3751034.9	PLOT_11	0.008230051
690	485649.47	3751034.9	PLOT_12	0.01376414
690	485649.47	3751034.9	PLOT_2	0.013440589
690	485649.47	3751034.9	PLOT_30_	
690	485649.47	3751034.9	PLOT_6	0.0066048
690	485649.47	3751034.9	PLOT_9	0.027474208
690	485649.47	3751034.9	PLOT4	0.023803314
690	485649.47	3751034.9	PLOTS_1_	0.021500524
690	485649.47	3751034.9	PLOTS_5_	0.019440959
690	485649.47	3751034.9	PLOTS_7_	0.011545662
691	485749.47	3751034.9	PLOT_11	0.008360178
691	485749.47	3751034.9	PLOT_12	0.014030954
691	485749.47	3751034.9	PLOT_2	0.013762705
691	485749.47	3751034.9	PLOT_30_	
691	485749.47	3751034.9	PLOT_6	0.006692821
691	485749.47	3751034.9	PLOT_9	0.028084058
691	485749.47	3751034.9	PLOT4	0.02401051
691	485749.47	3751034.9	PLOTS_1_	0.020554391

691	485749.47	3751034.9	PLOTS_5_	0.019749724
691	485749.47	3751034.9	PLOTS_7_	0.011279617
692	485849.47	3751034.9	PLOT_11	0.008418272
692	485849.47	3751034.9	PLOT_12	0.014174013
692	485849.47	3751034.9	PLOT_2	0.013808791
692	485849.47	3751034.9	PLOT_30_	
692	485849.47	3751034.9	PLOT_6	0.00675558
692	485849.47	3751034.9	PLOT_9	0.02824629
692	485849.47	3751034.9	PLOT4	0.023753838
692	485849.47	3751034.9	PLOTS_1_	0.017977994
692	485849.47	3751034.9	PLOTS_5_	0.020175357
692	485849.47	3751034.9	PLOTS_7_	0.011236429
693	485549.47	3751134.9	PLOT_11	0.008408826
693	485549.47	3751134.9	PLOT_12	0.013982778
693	485549.47	3751134.9	PLOT_2	0.013548754
693	485549.47	3751134.9	PLOT_30_	
693	485549.47	3751134.9	PLOT_6	0.006753482
693	485549.47	3751134.9	PLOT_9	0.027320003
693	485549.47	3751134.9	PLOT4	0.024156924
693	485549.47	3751134.9	PLOTS_1_	0.021223045
693	485549.47	3751134.9	PLOTS_5_	0.019994523
693	485549.47	3751134.9	PLOTS_7_	0.011516101
694	485649.47	3751134.9	PLOT_11	0.008411165
694	485649.47	3751134.9	PLOT_12	0.014251896
694	485649.47	3751134.9	PLOT_2	0.01361123
694	485649.47	3751134.9	PLOT_30_	
694	485649.47	3751134.9	PLOT_6	0.006776913
694	485649.47	3751134.9	PLOT_9	0.027873129
694	485649.47	3751134.9	PLOT4	0.024569469
694	485649.47	3751134.9	PLOTS_1_	0.022128274
694	485649.47	3751134.9	PLOTS_5_	0.020654252
694	485649.47	3751134.9	PLOTS_7_	0.011742274
695	485749.47	3751134.9	PLOT_11	0.00841763
695	485749.47	3751134.9	PLOT_12	0.014252135
695	485749.47	3751134.9	PLOT_2	0.014010274
695	485749.47	3751134.9	PLOT_30_	
695	485749.47	3751134.9	PLOT_6	0.00674772
695	485749.47	3751134.9	PLOT_9	0.028572343
695	485749.47	3751134.9	PLOT4	0.024642621
695	485749.47	3751134.9	PLOTS_1_	0.021287307
695	485749.47	3751134.9	PLOTS_5_	0.020648414
695	485749.47	3751134.9	PLOTS_7_	0.011727311
696	485849.47	3751134.9	PLOT_11	0.008587602
696	485849.47	3751134.9	PLOT_12	0.014190336
696	485849.47	3751134.9	PLOT_2	0.014100639
696	485849.47	3751134.9	PLOT_30_	
696	485849.47	3751134.9	PLOT_6	0.006854533

696	485849.47	3751134.9	PLOT_9	0.029094505
696	485849.47	3751134.9	PLOT4	0.024641613
696	485849.47	3751134.9	PLOTS_1_	0.0188281
696	485849.47	3751134.9	PLOTS_5_	0.020774296
696	485849.47	3751134.9	PLOTS_7_	0.011573767
697	485549.47	3751234.9	PLOT_11	0.008585034
697	485549.47	3751234.9	PLOT_12	0.014488487
697	485549.47	3751234.9	PLOT_2	0.014002607
697	485549.47	3751234.9	PLOT_30_	
697	485549.47	3751234.9	PLOT_6	0.006836657
697	485549.47	3751234.9	PLOT_9	0.027029855
697	485549.47	3751234.9	PLOT4	0.024816627
697	485549.47	3751234.9	PLOTS_1_	0.021727512
697	485549.47	3751234.9	PLOTS_5_	0.021029697
697	485549.47	3751234.9	PLOTS_7_	0.011938279
698	485649.47	3751234.9	PLOT_11	0.008716124
698	485649.47	3751234.9	PLOT_12	0.014885928
698	485649.47	3751234.9	PLOT_2	0.013791961
698	485649.47	3751234.9	PLOT_30_	
698	485649.47	3751234.9	PLOT_6	0.006904675
698	485649.47	3751234.9	PLOT_9	0.02835224
698	485649.47	3751234.9	PLOT4	0.025273108
698	485649.47	3751234.9	PLOTS_1_	0.022788764
698	485649.47	3751234.9	PLOTS_5_	0.020964502
698	485649.47	3751234.9	PLOTS_7_	0.011775635
699	485749.47	3751234.9	PLOT_11	0.00876358
699	485749.47	3751234.9	PLOT_12	0.015001662
699	485749.47	3751234.9	PLOT_2	0.014262336
699	485749.47	3751234.9	PLOT_30_	
699	485749.47	3751234.9	PLOT_6	0.006878171
699	485749.47	3751234.9	PLOT_9	0.028903866
699	485749.47	3751234.9	PLOT4	0.025228389
699	485749.47	3751234.9	PLOTS_1_	0.022047236
699	485749.47	3751234.9	PLOTS_5_	0.021671296
699	485749.47	3751234.9	PLOTS_7_	0.012083008
700	485849.47	3751234.9	PLOT_11	0.0087385
700	485849.47	3751234.9	PLOT_12	0.014939585
700	485849.47	3751234.9	PLOT_2	0.014378079
700	485849.47	3751234.9	PLOT_30_	
700	485849.47	3751234.9	PLOT_6	0.006918414
700	485849.47	3751234.9	PLOT_9	0.029693504
700	485849.47	3751234.9	PLOT4	0.025419466
700	485849.47	3751234.9	PLOTS_1_	0.019666426
700	485849.47	3751234.9	PLOTS_5_	0.022114445
700	485849.47	3751234.9	PLOTS_7_	0.011789061
701	485549.47	3751334.9	PLOT_11	0.008628456
701	485549.47	3751334.9	PLOT_12	0.014743942

701	485549.47	3751334.9	PLOT_2	0.014465096
701	485549.47	3751334.9	PLOT_30_	
701	485549.47	3751334.9	PLOT_6	0.006924087
701	485549.47	3751334.9	PLOT_9	0.026384012
701	485549.47	3751334.9	PLOT4	0.025842589
701	485549.47	3751334.9	PLOTS_1_	0.022301967
701	485549.47	3751334.9	PLOTS_5_	0.021925314
701	485549.47	3751334.9	PLOTS_7_	0.012225432
702	485649.47	3751334.9	PLOT_11	0.008789074
702	485649.47	3751334.9	PLOT_12	0.014993798
702	485649.47	3751334.9	PLOT_2	0.014136415
702	485649.47	3751334.9	PLOT_30_	
702	485649.47	3751334.9	PLOT_6	0.006991573
702	485649.47	3751334.9	PLOT_9	0.028079117
702	485649.47	3751334.9	PLOT4	0.025908912
702	485649.47	3751334.9	PLOTS_1_	0.023436661
702	485649.47	3751334.9	PLOTS_5_	0.022636666
702	485649.47	3751334.9	PLOTS_7_	0.012141522
703	485749.47	3751334.9	PLOT_11	0.008968675
703	485749.47	3751334.9	PLOT_12	0.015286627
703	485749.47	3751334.9	PLOT_2	0.0145129
703	485749.47	3751334.9	PLOT_30_	
703	485749.47	3751334.9	PLOT_6	0.007035716
703	485749.47	3751334.9	PLOT_9	0.029445876
703	485749.47	3751334.9	PLOT4	0.026127694
703	485749.47	3751334.9	PLOTS_1_	0.022819188
703	485749.47	3751334.9	PLOTS_5_	0.022684704
703	485749.47	3751334.9	PLOTS_7_	0.012293652
704	485849.47	3751334.9	PLOT_11	0.009090044
704	485849.47	3751334.9	PLOT_12	0.015697492
704	485849.47	3751334.9	PLOT_2	0.014667856
704	485849.47	3751334.9	PLOT_30_	
704	485849.47	3751334.9	PLOT_6	0.007179907
704	485849.47	3751334.9	PLOT_9	0.029928163
704	485849.47	3751334.9	PLOT4	0.026160827
704	485849.47	3751334.9	PLOTS_1_	0.020568243
704	485849.47	3751334.9	PLOTS_5_	0.02252077
704	485849.47	3751334.9	PLOTS_7_	0.012256448
705	485549.47	3751434.9	PLOT_11	0.008745607
705	485549.47	3751434.9	PLOT_12	0.015016119
705	485549.47	3751434.9	PLOT_2	0.014807303
705	485549.47	3751434.9	PLOT_30_	
705	485549.47	3751434.9	PLOT_6	0.007246181
705	485549.47	3751434.9	PLOT_9	0.027322914
705	485549.47	3751434.9	PLOT4	0.027080728
705	485549.47	3751434.9	PLOTS_1_	0.022824835
705	485549.47	3751434.9	PLOTS_5_	0.022255998

705	485549.47	3751434.9	PLOTS_7_	0.01231561
706	485649.47	3751434.9	PLOT_11	0.008947721
706	485649.47	3751434.9	PLOT_12	0.015544346
706	485649.47	3751434.9	PLOT_2	0.014699711
706	485649.47	3751434.9	PLOT_30_	
706	485649.47	3751434.9	PLOT_6	0.007449082
706	485649.47	3751434.9	PLOT_9	0.027421277
706	485649.47	3751434.9	PLOT4	0.026426454
706	485649.47	3751434.9	PLOTS_1_	0.024088742
706	485649.47	3751434.9	PLOTS_5_	0.022834452
706	485649.47	3751434.9	PLOTS_7_	0.012586183
707	485749.47	3751434.9	PLOT_11	0.009044468
707	485749.47	3751434.9	PLOT_12	0.015830304
707	485749.47	3751434.9	PLOT_2	0.014748881
707	485749.47	3751434.9	PLOT_30_	
707	485749.47	3751434.9	PLOT_6	0.007329209
707	485749.47	3751434.9	PLOT_9	0.029157669
707	485749.47	3751434.9	PLOT4	0.026980041
707	485749.47	3751434.9	PLOTS_1_	0.023588947
707	485749.47	3751434.9	PLOTS_5_	0.023764791
707	485749.47	3751434.9	PLOTS_7_	0.012294622
708	485849.47	3751434.9	PLOT_11	0.009362357
708	485849.47	3751434.9	PLOT_12	0.016828813
708	485849.47	3751434.9	PLOT_2	0.015006274
708	485849.47	3751434.9	PLOT_30_	
708	485849.47	3751434.9	PLOT_6	0.007923521
708	485849.47	3751434.9	PLOT_9	0.030485347
708	485849.47	3751434.9	PLOT4	0.026777154
708	485849.47	3751434.9	PLOTS_1_	0.021576566
708	485849.47	3751434.9	PLOTS_5_	0.024336843
708	485849.47	3751434.9	PLOTS_7_	0.012657113
709	485549.47	3751534.9	PLOT_11	0.010902056
709	485549.47	3751534.9	PLOT_12	0.015920023
709	485549.47	3751534.9	PLOT_2	0.016940911
709	485549.47	3751534.9	PLOT_30_	
709	485549.47	3751534.9	PLOT_6	0.009033018
709	485549.47	3751534.9	PLOT_9	0.027778206
709	485549.47	3751534.9	PLOT4	0.028611808
709	485549.47	3751534.9	PLOTS_1_	0.024548526
709	485549.47	3751534.9	PLOTS_5_	0.023754959
709	485549.47	3751534.9	PLOTS_7_	0.014335227
710	485649.47	3751534.9	PLOT_11	0.010831673
710	485649.47	3751534.9	PLOT_12	0.016567519
710	485649.47	3751534.9	PLOT_2	0.017214121
710	485649.47	3751534.9	PLOT_30_	
710	485649.47	3751534.9	PLOT_6	0.009125205
710	485649.47	3751534.9	PLOT_9	0.029039368

710	485649.47	3751534.9	PLOT4	0.027630117
710	485649.47	3751534.9	PLOTS_1_	0.025868652
710	485649.47	3751534.9	PLOTS_5_	0.02382128
710	485649.47	3751534.9	PLOTS_7_	0.015058105
711	485749.47	3751534.9	PLOT_11	0.009892173
711	485749.47	3751534.9	PLOT_12	0.016085442
711	485749.47	3751534.9	PLOT_2	0.015902657
711	485749.47	3751534.9	PLOT_30_	
711	485749.47	3751534.9	PLOT_6	0.008393853
711	485749.47	3751534.9	PLOT_9	0.028651916
711	485749.47	3751534.9	PLOT4	0.027698119
711	485749.47	3751534.9	PLOTS_1_	0.02459528
711	485749.47	3751534.9	PLOTS_5_	0.023957353
711	485749.47	3751534.9	PLOTS_7_	0.013916608
712	485849.47	3751534.9	PLOT_11	0.009751546
712	485849.47	3751534.9	PLOT_12	0.016679241
712	485849.47	3751534.9	PLOT_2	0.015485814
712	485849.47	3751534.9	PLOT_30_	
712	485849.47	3751534.9	PLOT_6	0.008333015
712	485849.47	3751534.9	PLOT_9	0.030271066
712	485849.47	3751534.9	PLOT4	0.027761587
712	485849.47	3751534.9	PLOTS_1_	0.022645089
712	485849.47	3751534.9	PLOTS_5_	0.024848105
712	485849.47	3751534.9	PLOTS_7_	0.0133846
713	485549.47	3751634.9	PLOT_11	0.014080171
713	485549.47	3751634.9	PLOT_12	0.019932487
713	485549.47	3751634.9	PLOT_2	0.022170421
713	485549.47	3751634.9	PLOT_30_	
713	485549.47	3751634.9	PLOT_6	0.011263889
713	485549.47	3751634.9	PLOT_9	0.03669897
713	485549.47	3751634.9	PLOT4	0.04054047
713	485549.47	3751634.9	PLOTS_1_	0.032872687
713	485549.47	3751634.9	PLOTS_5_	0.031168793
713	485549.47	3751634.9	PLOTS_7_	0.017677586
714	485649.47	3751634.9	PLOT_11	0.013147136
714	485649.47	3751634.9	PLOT_12	0.018732894
714	485649.47	3751634.9	PLOT_2	0.021006158
714	485649.47	3751634.9	PLOT_30_	
714	485649.47	3751634.9	PLOT_6	0.010837139
714	485649.47	3751634.9	PLOT_9	0.033408004
714	485649.47	3751634.9	PLOT4	0.033704454
714	485649.47	3751634.9	PLOTS_1_	0.030923064
714	485649.47	3751634.9	PLOTS_5_	0.028483836
714	485649.47	3751634.9	PLOTS_7_	0.01779692
715	485749.47	3751634.9	PLOT_11	0.012702788
715	485749.47	3751634.9	PLOT_12	0.018188224
715	485749.47	3751634.9	PLOT_2	0.02018494

715	485749.47	3751634.9	PLOT_30_	
715	485749.47	3751634.9	PLOT_6	0.01060933
715	485749.47	3751634.9	PLOT_9	0.034100866
715	485749.47	3751634.9	PLOT4	0.029282257
715	485749.47	3751634.9	PLOTS_1_	0.028821846
715	485749.47	3751634.9	PLOTS_5_	0.027983995
715	485749.47	3751634.9	PLOTS_7_	0.017751912
716	485849.47	3751634.9	PLOT_11	0.010211667
716	485849.47	3751634.9	PLOT_12	0.016384148
716	485849.47	3751634.9	PLOT_2	0.015960463
716	485849.47	3751634.9	PLOT_30_	
716	485849.47	3751634.9	PLOT_6	0.008490324
716	485849.47	3751634.9	PLOT_9	0.029894023
716	485849.47	3751634.9	PLOT4	0.028839097
716	485849.47	3751634.9	PLOTS_1_	0.023706422
716	485849.47	3751634.9	PLOTS_5_	0.025974029
716	485849.47	3751634.9	PLOTS_7_	0.014016936
717	485549.47	3751734.9	PLOT_11	0.014449644
717	485549.47	3751734.9	PLOT_12	0.019739148
717	485549.47	3751734.9	PLOT_2	0.024087345
717	485549.47	3751734.9	PLOT_30_	
717	485549.47	3751734.9	PLOT_6	0.011183018
717	485549.47	3751734.9	PLOT_9	0.041617114
717	485549.47	3751734.9	PLOT4	0.045107123
717	485549.47	3751734.9	PLOTS_1_	0.034490886
717	485549.47	3751734.9	PLOTS_5_	0.034561978
717	485549.47	3751734.9	PLOTS_7_	0.018021272
718	485649.47	3751734.9	PLOT_11	0.014597836
718	485649.47	3751734.9	PLOT_12	0.020889731
718	485649.47	3751734.9	PLOT_2	0.023726677
718	485649.47	3751734.9	PLOT_30_	
718	485649.47	3751734.9	PLOT_6	0.011725327
718	485649.47	3751734.9	PLOT_9	0.04176876
718	485649.47	3751734.9	PLOT4	0.044086646
718	485649.47	3751734.9	PLOTS_1_	0.037917918
718	485649.47	3751734.9	PLOTS_5_	0.035054548
718	485649.47	3751734.9	PLOTS_7_	0.019197223
719	485749.47	3751734.9	PLOT_11	0.014595269
719	485749.47	3751734.9	PLOT_12	0.022158708
719	485749.47	3751734.9	PLOT_2	0.023735225
719	485749.47	3751734.9	PLOT_30_	
719	485749.47	3751734.9	PLOT_6	0.011934817
719	485749.47	3751734.9	PLOT_9	0.038601652
719	485749.47	3751734.9	PLOT4	0.038473154
719	485749.47	3751734.9	PLOTS_1_	0.035613191
719	485749.47	3751734.9	PLOTS_5_	0.032750771
719	485749.47	3751734.9	PLOTS_7_	0.020172679

720	485849.47	3751734.9	PLOT_11	0.011823215
720	485849.47	3751734.9	PLOT_12	0.018976514
720	485849.47	3751734.9	PLOT_2	0.018382657
720	485849.47	3751734.9	PLOT_30_	
720	485849.47	3751734.9	PLOT_6	0.009850086
720	485849.47	3751734.9	PLOT_9	0.031751978
720	485849.47	3751734.9	PLOT4	0.029897856
720	485849.47	3751734.9	PLOTS_1_	0.025666443
720	485849.47	3751734.9	PLOTS_5_	0.027312589
720	485849.47	3751734.9	PLOTS_7_	0.016464473
721	485549.47	3751834.9	PLOT_11	0.014193792
721	485549.47	3751834.9	PLOT_12	0.020005605
721	485549.47	3751834.9	PLOT_2	0.024666194
721	485549.47	3751834.9	PLOT_30_	
721	485549.47	3751834.9	PLOT_6	0.01090693
721	485549.47	3751834.9	PLOT_9	0.041601499
721	485549.47	3751834.9	PLOT4	0.045182289
721	485549.47	3751834.9	PLOTS_1_	0.03367681
721	485549.47	3751834.9	PLOTS_5_	0.035601505
721	485549.47	3751834.9	PLOTS_7_	0.018610865
722	485649.47	3751834.9	PLOT_11	0.014769184
722	485649.47	3751834.9	PLOT_12	0.021444926
722	485649.47	3751834.9	PLOT_2	0.024086067
722	485649.47	3751834.9	PLOT_30_	
722	485649.47	3751834.9	PLOT_6	0.011521304
722	485649.47	3751834.9	PLOT_9	0.043036009
722	485649.47	3751834.9	PLOT4	0.046672343
722	485649.47	3751834.9	PLOTS_1_	0.038478238
722	485649.47	3751834.9	PLOTS_5_	0.037067894
722	485649.47	3751834.9	PLOTS_7_	0.018400787
723	485749.47	3751834.9	PLOT_11	0.01515365
723	485749.47	3751834.9	PLOT_12	0.022427866
723	485749.47	3751834.9	PLOT_2	0.024505246
723	485749.47	3751834.9	PLOT_30_	
723	485749.47	3751834.9	PLOT_6	0.012034332
723	485749.47	3751834.9	PLOT_9	0.043586841
723	485749.47	3751834.9	PLOT4	0.045132309
723	485749.47	3751834.9	PLOTS_1_	0.03925803
723	485749.47	3751834.9	PLOTS_5_	0.037036193
723	485749.47	3751834.9	PLOTS_7_	0.020120918
724	485849.47	3751834.9	PLOT_11	0.014639149
724	485849.47	3751834.9	PLOT_12	0.023624202
724	485849.47	3751834.9	PLOT_2	0.023912607
724	485849.47	3751834.9	PLOT_30_	
724	485849.47	3751834.9	PLOT_6	0.012159494
724	485849.47	3751834.9	PLOT_9	0.038634116
724	485849.47	3751834.9	PLOT4	0.03751609

724	485849.47	3751834.9	PLOTS_1_	0.033551699
724	485849.47	3751834.9	PLOTS_5_	0.033598657
724	485849.47	3751834.9	PLOTS_7_	0.020854269
725	485549.47	3751934.9	PLOT_11	0.013690295
725	485549.47	3751934.9	PLOT_12	0.017741733
725	485549.47	3751934.9	PLOT_2	0.023981647
725	485549.47	3751934.9	PLOT_30_	
725	485549.47	3751934.9	PLOT_6	0.010767585
725	485549.47	3751934.9	PLOT_9	0.04036592
725	485549.47	3751934.9	PLOT4	0.044097783
725	485549.47	3751934.9	PLOTS_1_	0.033632656
725	485549.47	3751934.9	PLOTS_5_	0.035365361
725	485549.47	3751934.9	PLOTS_7_	0.018090463
726	485649.47	3751934.9	PLOT_11	0.014390358
726	485649.47	3751934.9	PLOT_12	0.019873588
726	485649.47	3751934.9	PLOT_2	0.024525866
726	485649.47	3751934.9	PLOT_30_	
726	485649.47	3751934.9	PLOT_6	0.010992528
726	485649.47	3751934.9	PLOT_9	0.042725747
726	485649.47	3751934.9	PLOT4	0.047443927
726	485649.47	3751934.9	PLOTS_1_	0.036981453
726	485649.47	3751934.9	PLOTS_5_	0.038680907
726	485649.47	3751934.9	PLOTS_7_	0.018966683
727	485749.47	3751934.9	PLOT_11	0.014778079
727	485749.47	3751934.9	PLOT_12	0.021132199
727	485749.47	3751934.9	PLOT_2	0.024242565
727	485749.47	3751934.9	PLOT_30_	
727	485749.47	3751934.9	PLOT_6	0.011521068
727	485749.47	3751934.9	PLOT_9	0.044598347
727	485749.47	3751934.9	PLOT4	0.048466419
727	485749.47	3751934.9	PLOTS_1_	0.038879893
727	485749.47	3751934.9	PLOTS_5_	0.040790534
727	485749.47	3751934.9	PLOTS_7_	0.018824218
728	485849.47	3751934.9	PLOT_11	0.015434629
728	485849.47	3751934.9	PLOT_12	0.022793574
728	485849.47	3751934.9	PLOT_2	0.025514024
728	485849.47	3751934.9	PLOT_30_	
728	485849.47	3751934.9	PLOT_6	0.01214144
728	485849.47	3751934.9	PLOT_9	0.046053941
728	485849.47	3751934.9	PLOT4	0.047526537
728	485849.47	3751934.9	PLOTS_1_	0.038414626
728	485849.47	3751934.9	PLOTS_5_	0.042968429
728	485849.47	3751934.9	PLOTS_7_	0.020639541
729	485549.47	3752034.9	PLOT_11	0.01225633
729	485549.47	3752034.9	PLOT_12	0.014108997
729	485549.47	3752034.9	PLOT_2	0.021513147
729	485549.47	3752034.9	PLOT_30_	

729	485549.47	3752034.9	PLOT_6	0.009703739
729	485549.47	3752034.9	PLOT_9	0.036636864
729	485549.47	3752034.9	PLOT4	0.041103515
729	485549.47	3752034.9	PLOTS_1_	0.030860305
729	485549.47	3752034.9	PLOTS_5_	0.03256374
729	485549.47	3752034.9	PLOTS_7_	0.016236805
730	485649.47	3752034.9	PLOT_11	0.013783832
730	485649.47	3752034.9	PLOT_12	0.017103928
730	485649.47	3752034.9	PLOT_2	0.023565112
730	485649.47	3752034.9	PLOT_30_	
730	485649.47	3752034.9	PLOT_6	0.010746607
730	485649.47	3752034.9	PLOT_9	0.041098305
730	485649.47	3752034.9	PLOT4	0.046218605
730	485649.47	3752034.9	PLOTS_1_	0.035697113
730	485649.47	3752034.9	PLOTS_5_	0.036304868
730	485649.47	3752034.9	PLOTS_7_	0.018316433
731	485749.47	3752034.9	PLOT_11	0.014464683
731	485749.47	3752034.9	PLOT_12	0.01894359
731	485749.47	3752034.9	PLOT_2	0.024520182
731	485749.47	3752034.9	PLOT_30_	
731	485749.47	3752034.9	PLOT_6	0.010870646
731	485749.47	3752034.9	PLOT_9	0.043367973
731	485749.47	3752034.9	PLOT4	0.048809171
731	485749.47	3752034.9	PLOTS_1_	0.036568423
731	485749.47	3752034.9	PLOTS_5_	0.039786191
731	485749.47	3752034.9	PLOTS_7_	0.018965227
732	485849.47	3752034.9	PLOT_11	0.015150257
732	485849.47	3752034.9	PLOT_12	0.021244994
732	485849.47	3752034.9	PLOT_2	0.025241738
732	485849.47	3752034.9	PLOT_30_	
732	485849.47	3752034.9	PLOT_6	0.011794911
732	485849.47	3752034.9	PLOT_9	0.045932465
732	485849.47	3752034.9	PLOT4	0.050632183
732	485849.47	3752034.9	PLOTS_1_	0.038480878
732	485849.47	3752034.9	PLOTS_5_	0.043581349
732	485849.47	3752034.9	PLOTS_7_	0.019524653
733	485549.47	3752134.9	PLOT_11	0.010276685
733	485549.47	3752134.9	PLOT_12	0.010787359
733	485549.47	3752134.9	PLOT_2	0.017614266
733	485549.47	3752134.9	PLOT_30_	
733	485549.47	3752134.9	PLOT_6	0.008224607
733	485549.47	3752134.9	PLOT_9	0.031959202
733	485549.47	3752134.9	PLOT4	0.036840828
733	485549.47	3752134.9	PLOTS_1_	0.027472594
733	485549.47	3752134.9	PLOTS_5_	0.029510252
733	485549.47	3752134.9	PLOTS_7_	0.013511779
734	485649.47	3752134.9	PLOT_11	0.011403627

734	485649.47	3752134.9	PLOT_12	0.01231767
734	485649.47	3752134.9	PLOT_2	0.019427784
734	485649.47	3752134.9	PLOT_30_	
734	485649.47	3752134.9	PLOT_6	0.008979774
734	485649.47	3752134.9	PLOT_9	0.03475209
734	485649.47	3752134.9	PLOT4	0.04067166
734	485649.47	3752134.9	PLOTS_1_	0.029587299
734	485649.47	3752134.9	PLOTS_5_	0.032521643
734	485649.47	3752134.9	PLOTS_7_	0.01490921
735	485749.47	3752134.9	PLOT_11	0.012874823
735	485749.47	3752134.9	PLOT_12	0.014748589
735	485749.47	3752134.9	PLOT_2	0.022412834
735	485749.47	3752134.9	PLOT_30_	
735	485749.47	3752134.9	PLOT_6	0.01000379
735	485749.47	3752134.9	PLOT_9	0.038955405
735	485749.47	3752134.9	PLOT4	0.044940112
735	485749.47	3752134.9	PLOTS_1_	0.034304682
735	485749.47	3752134.9	PLOTS_5_	0.036618805
735	485749.47	3752134.9	PLOTS_7_	0.016787738
736	485849.47	3752134.9	PLOT_11	0.014377886
736	485849.47	3752134.9	PLOT_12	0.017845432
736	485849.47	3752134.9	PLOT_2	0.024841329
736	485849.47	3752134.9	PLOT_30_	
736	485849.47	3752134.9	PLOT_6	0.010812763
736	485849.47	3752134.9	PLOT_9	0.043739193
736	485849.47	3752134.9	PLOT4	0.04968469
736	485849.47	3752134.9	PLOTS_1_	0.036802032
736	485849.47	3752134.9	PLOTS_5_	0.040928502
736	485849.47	3752134.9	PLOTS_7_	0.018608075
737	485549.47	3752234.9	PLOT_11	0.006722173
737	485549.47	3752234.9	PLOT_12	0.005863802
737	485549.47	3752234.9	PLOT_2	0.011605042
737	485549.47	3752234.9	PLOT_30_	
737	485549.47	3752234.9	PLOT_6	0.005277984
737	485549.47	3752234.9	PLOT_9	0.0222548
737	485549.47	3752234.9	PLOT4	0.025834138
737	485549.47	3752234.9	PLOTS_1_	0.015488037
737	485549.47	3752234.9	PLOTS_5_	0.02163135
737	485549.47	3752234.9	PLOTS_7_	0.008929416
738	485649.47	3752234.9	PLOT_11	0.009033005
738	485649.47	3752234.9	PLOT_12	0.008699153
738	485649.47	3752234.9	PLOT_2	0.014368298
738	485649.47	3752234.9	PLOT_30_	
738	485649.47	3752234.9	PLOT_6	0.007115435
738	485649.47	3752234.9	PLOT_9	0.028804268
738	485649.47	3752234.9	PLOT4	0.033333382
738	485649.47	3752234.9	PLOTS_1_	0.023003118

738	485649.47	3752234.9	PLOTS_5_	0.0282417
738	485649.47	3752234.9	PLOTS_7_	0.011661599
739	485749.47	3752234.9	PLOT_11	0.010925257
739	485749.47	3752234.9	PLOT_12	0.011520801
739	485749.47	3752234.9	PLOT_2	0.017663568
739	485749.47	3752234.9	PLOT_30_	
739	485749.47	3752234.9	PLOT_6	0.008657768
739	485749.47	3752234.9	PLOT_9	0.034552983
739	485749.47	3752234.9	PLOT4	0.040852999
739	485749.47	3752234.9	PLOTS_1_	0.032110402
739	485749.47	3752234.9	PLOTS_5_	0.033470573
739	485749.47	3752234.9	PLOTS_7_	0.014285447
740	485849.47	3752234.9	PLOT_11	0.012826908
740	485849.47	3752234.9	PLOT_12	0.01456359
740	485849.47	3752234.9	PLOT_2	0.022665733
740	485849.47	3752234.9	PLOT_30_	
740	485849.47	3752234.9	PLOT_6	0.009972707
740	485849.47	3752234.9	PLOT_9	0.03905615
740	485849.47	3752234.9	PLOT4	0.046949612
740	485849.47	3752234.9	PLOTS_1_	0.036877992
740	485849.47	3752234.9	PLOTS_5_	0.038826147
740	485849.47	3752234.9	PLOTS_7_	0.016743782
741	485549.47	3752334.9	PLOT_11	0.006873805
741	485549.47	3752334.9	PLOT_12	0.005840489
741	485549.47	3752334.9	PLOT_2	0.012380394
741	485549.47	3752334.9	PLOT_30_	
741	485549.47	3752334.9	PLOT_6	0.005462861
741	485549.47	3752334.9	PLOT_9	0.022433176
741	485549.47	3752334.9	PLOT4	0.027582823
741	485549.47	3752334.9	PLOTS_1_	0.016265189
741	485549.47	3752334.9	PLOTS_5_	0.022836654
741	485549.47	3752334.9	PLOTS_7_	0.00926004
742	485649.47	3752334.9	PLOT_11	0.007064502
742	485649.47	3752334.9	PLOT_12	0.006037879
742	485649.47	3752334.9	PLOT_2	0.011963948
742	485649.47	3752334.9	PLOT_30_	
742	485649.47	3752334.9	PLOT_6	0.005508482
742	485649.47	3752334.9	PLOT_9	0.023410806
742	485649.47	3752334.9	PLOT4	0.028462595
742	485649.47	3752334.9	PLOTS_1_	0.019065608
742	485649.47	3752334.9	PLOTS_5_	0.024279177
742	485649.47	3752334.9	PLOTS_7_	0.009412129
743	485749.47	3752334.9	PLOT_11	0.00829626
743	485749.47	3752334.9	PLOT_12	0.007379775
743	485749.47	3752334.9	PLOT_2	0.012619283
743	485749.47	3752334.9	PLOT_30_	
743	485749.47	3752334.9	PLOT_6	0.006416969

743	485749.47	3752334.9	PLOT_9	0.02729142
743	485749.47	3752334.9	PLOT4	0.032426857
743	485749.47	3752334.9	PLOTS_1_	0.023708615
743	485749.47	3752334.9	PLOTS_5_	0.028843814
743	485749.47	3752334.9	PLOTS_7_	0.010657674
744	485849.47	3752334.9	PLOT_11	0.01071466
744	485849.47	3752334.9	PLOT_12	0.010731161
744	485849.47	3752334.9	PLOT_2	0.016853585
744	485849.47	3752334.9	PLOT_30_	
744	485849.47	3752334.9	PLOT_6	0.008494284
744	485849.47	3752334.9	PLOT_9	0.034302885
744	485849.47	3752334.9	PLOT4	0.041983846
744	485849.47	3752334.9	PLOTS_1_	0.033061206
744	485849.47	3752334.9	PLOTS_5_	0.036051311
744	485849.47	3752334.9	PLOTS_7_	0.013987457
745	485549.47	3752434.9	PLOT_11	0.006964224
745	485549.47	3752434.9	PLOT_12	0.005690758
745	485549.47	3752434.9	PLOT_2	0.013125743
745	485549.47	3752434.9	PLOT_30_	
745	485549.47	3752434.9	PLOT_6	0.005604658
745	485549.47	3752434.9	PLOT_9	0.022374776
745	485549.47	3752434.9	PLOT4	0.028783632
745	485549.47	3752434.9	PLOTS_1_	0.017057126
745	485549.47	3752434.9	PLOTS_5_	0.024488281
745	485549.47	3752434.9	PLOTS_7_	0.009516461
746	485649.47	3752434.9	PLOT_11	0.007157764
746	485649.47	3752434.9	PLOT_12	0.005886321
746	485649.47	3752434.9	PLOT_2	0.012843059
746	485649.47	3752434.9	PLOT_30_	
746	485649.47	3752434.9	PLOT_6	0.005710998
746	485649.47	3752434.9	PLOT_9	0.023511022
746	485649.47	3752434.9	PLOT4	0.030407507
746	485649.47	3752434.9	PLOTS_1_	0.02016155
746	485649.47	3752434.9	PLOTS_5_	0.026122445
746	485649.47	3752434.9	PLOTS_7_	0.009775711
747	485749.47	3752434.9	PLOT_11	0.007365609
747	485749.47	3752434.9	PLOT_12	0.006093283
747	485749.47	3752434.9	PLOT_2	0.012247865
747	485749.47	3752434.9	PLOT_30_	
747	485749.47	3752434.9	PLOT_6	0.005747991
747	485749.47	3752434.9	PLOT_9	0.024677526
747	485749.47	3752434.9	PLOT4	0.031497945
747	485749.47	3752434.9	PLOTS_1_	0.022769469
747	485749.47	3752434.9	PLOTS_5_	0.027882951
747	485749.47	3752434.9	PLOTS_7_	0.00992776
748	485849.47	3752434.9	PLOT_11	0.007594501
748	485849.47	3752434.9	PLOT_12	0.006311008

748	485849.47	3752434.9	PLOT_2	0.011375582
748	485849.47	3752434.9	PLOT_30_	
748	485849.47	3752434.9	PLOT_6	0.005882165
748	485849.47	3752434.9	PLOT_9	0.025869084
748	485849.47	3752434.9	PLOT4	0.033188815
748	485849.47	3752434.9	PLOTS_1_	0.024549501
748	485849.47	3752434.9	PLOTS_5_	0.02972627
748	485849.47	3752434.9	PLOTS_7_	0.010033911
749	485549.47	3752534.9	PLOT_11	0.00705125
749	485549.47	3752534.9	PLOT_12	0.005625425
749	485549.47	3752534.9	PLOT_2	0.013879462
749	485549.47	3752534.9	PLOT_30_	
749	485549.47	3752534.9	PLOT_6	0.005850904
749	485549.47	3752534.9	PLOT_9	0.02209786
749	485549.47	3752534.9	PLOT4	0.029648852
749	485549.47	3752534.9	PLOTS_1_	0.018007687
749	485549.47	3752534.9	PLOTS_5_	0.025197124
749	485549.47	3752534.9	PLOTS_7_	0.00973685
750	485649.47	3752534.9	PLOT_11	0.007265286
750	485649.47	3752534.9	PLOT_12	0.005819916
750	485649.47	3752534.9	PLOT_2	0.013738429
750	485649.47	3752534.9	PLOT_30_	
750	485649.47	3752534.9	PLOT_6	0.005878767
750	485649.47	3752534.9	PLOT_9	0.023285096
750	485649.47	3752534.9	PLOT4	0.031964948
750	485649.47	3752534.9	PLOTS_1_	0.021397064
750	485649.47	3752534.9	PLOTS_5_	0.027214618
750	485649.47	3752534.9	PLOTS_7_	0.010071357
751	485749.47	3752534.9	PLOT_11	0.007489501
751	485749.47	3752534.9	PLOT_12	0.006027513
751	485749.47	3752534.9	PLOT_2	0.013253382
751	485749.47	3752534.9	PLOT_30_	
751	485749.47	3752534.9	PLOT_6	0.005976775
751	485749.47	3752534.9	PLOT_9	0.024577487
751	485749.47	3752534.9	PLOT4	0.033856409
751	485749.47	3752534.9	PLOTS_1_	0.024277221
751	485749.47	3752534.9	PLOTS_5_	0.029513888
751	485749.47	3752534.9	PLOTS_7_	0.010343629
752	485849.47	3752534.9	PLOT_11	0.007725178
752	485849.47	3752534.9	PLOT_12	0.006249607
752	485849.47	3752534.9	PLOT_2	0.01246208
752	485849.47	3752534.9	PLOT_30_	
752	485849.47	3752534.9	PLOT_6	0.006009661
752	485849.47	3752534.9	PLOT_9	0.025944687
752	485849.47	3752534.9	PLOT4	0.035306726
752	485849.47	3752534.9	PLOTS_1_	0.02649303
752	485849.47	3752534.9	PLOTS_5_	0.032164379

752	485849.47	3752534.9	PLOTS_7_	0.010492281
753	485549.47	3752634.9	PLOT_11	0.007117185
753	485549.47	3752634.9	PLOT_12	0.005881317
753	485549.47	3752634.9	PLOT_2	0.014649792
753	485549.47	3752634.9	PLOT_30_	
753	485549.47	3752634.9	PLOT_6	0.006072508
753	485549.47	3752634.9	PLOT_9	0.022351487
753	485549.47	3752634.9	PLOT4	0.031182673
753	485549.47	3752634.9	PLOTS_1_	0.019209527
753	485549.47	3752634.9	PLOTS_5_	0.024831666
753	485549.47	3752634.9	PLOTS_7_	0.009937101
754	485649.47	3752634.9	PLOT_11	0.007327369
754	485649.47	3752634.9	PLOT_12	0.006081924
754	485649.47	3752634.9	PLOT_2	0.014685304
754	485649.47	3752634.9	PLOT_30_	
754	485649.47	3752634.9	PLOT_6	0.006139284
754	485649.47	3752634.9	PLOT_9	0.023335821
754	485649.47	3752634.9	PLOT4	0.033163573
754	485649.47	3752634.9	PLOTS_1_	0.022968672
754	485649.47	3752634.9	PLOTS_5_	0.026892385
754	485649.47	3752634.9	PLOTS_7_	0.010342699
755	485749.47	3752634.9	PLOT_11	0.00754356
755	485749.47	3752634.9	PLOT_12	0.006292818
755	485749.47	3752634.9	PLOT_2	0.014319216
755	485749.47	3752634.9	PLOT_30_	
755	485749.47	3752634.9	PLOT_6	0.006176868
755	485749.47	3752634.9	PLOT_9	0.024353414
755	485749.47	3752634.9	PLOT4	0.035979134
755	485749.47	3752634.9	PLOTS_1_	0.026044092
755	485749.47	3752634.9	PLOTS_5_	0.029376022
755	485749.47	3752634.9	PLOTS_7_	0.01069047
756	485849.47	3752634.9	PLOT_11	0.007772359
756	485849.47	3752634.9	PLOT_12	0.006518487
756	485849.47	3752634.9	PLOT_2	0.013602198
756	485849.47	3752634.9	PLOT_30_	
756	485849.47	3752634.9	PLOT_6	0.006262289
756	485849.47	3752634.9	PLOT_9	0.025645276
756	485849.47	3752634.9	PLOT4	0.038202826
756	485849.47	3752634.9	PLOTS_1_	0.028569876
756	485849.47	3752634.9	PLOTS_5_	0.032442416
756	485849.47	3752634.9	PLOTS_7_	0.010972406
757	485549.47	3752734.9	PLOT_11	0.00732393
757	485549.47	3752734.9	PLOT_12	0.006020364
757	485549.47	3752734.9	PLOT_2	0.015402454
757	485549.47	3752734.9	PLOT_30_	
757	485549.47	3752734.9	PLOT_6	0.006251357
757	485549.47	3752734.9	PLOT_9	0.022346635

757	485549.47	3752734.9	PLOT4	0.032636796
757	485549.47	3752734.9	PLOTS_1_	0.020664554
757	485549.47	3752734.9	PLOTS_5_	0.026452412
757	485549.47	3752734.9	PLOTS_7_	0.010326362
758	485649.47	3752734.9	PLOT_11	0.007528612
758	485649.47	3752734.9	PLOT_12	0.006219065
758	485649.47	3752734.9	PLOT_2	0.015652622
758	485649.47	3752734.9	PLOT_30_	
758	485649.47	3752734.9	PLOT_6	0.006389254
758	485649.47	3752734.9	PLOT_9	0.023388046
758	485649.47	3752734.9	PLOT4	0.035144193
758	485649.47	3752734.9	PLOTS_1_	0.024906149
758	485649.47	3752734.9	PLOTS_5_	0.028725307
758	485649.47	3752734.9	PLOTS_7_	0.010579709
759	485749.47	3752734.9	PLOT_11	0.007742235
759	485749.47	3752734.9	PLOT_12	0.006428648
759	485749.47	3752734.9	PLOT_2	0.015463828
759	485749.47	3752734.9	PLOT_30_	
759	485749.47	3752734.9	PLOT_6	0.006450032
759	485749.47	3752734.9	PLOT_9	0.024512647
759	485749.47	3752734.9	PLOT4	0.037574073
759	485749.47	3752734.9	PLOTS_1_	0.028254377
759	485749.47	3752734.9	PLOTS_5_	0.031378358
759	485749.47	3752734.9	PLOTS_7_	0.01101519
760	485849.47	3752734.9	PLOT_11	0.007967687
760	485849.47	3752734.9	PLOT_12	0.006651258
760	485849.47	3752734.9	PLOT_2	0.014865858
760	485849.47	3752734.9	PLOT_30_	
760	485849.47	3752734.9	PLOT_6	0.006503867
760	485849.47	3752734.9	PLOT_9	0.025713909
760	485849.47	3752734.9	PLOT4	0.041319274
760	485849.47	3752734.9	PLOTS_1_	0.031165162
760	485849.47	3752734.9	PLOTS_5_	0.034550507
760	485849.47	3752734.9	PLOTS_7_	0.01138868
761	485549.47	3752834.9	PLOT_11	0.007458046
761	485549.47	3752834.9	PLOT_12	0.006031286
761	485549.47	3752834.9	PLOT_2	0.016101849
761	485549.47	3752834.9	PLOT_30_	
761	485549.47	3752834.9	PLOT_6	0.006422908
761	485549.47	3752834.9	PLOT_9	0.022762052
761	485549.47	3752834.9	PLOT4	0.033361478
761	485549.47	3752834.9	PLOTS_1_	0.022379552
761	485549.47	3752834.9	PLOTS_5_	0.027102461
761	485549.47	3752834.9	PLOTS_7_	0.010689297
762	485649.47	3752834.9	PLOT_11	0.007680656
762	485649.47	3752834.9	PLOT_12	0.006219939
762	485649.47	3752834.9	PLOT_2	0.016610379

762	485649.47	3752834.9	PLOT_30_	
762	485649.47	3752834.9	PLOT_6	0.006589849
762	485649.47	3752834.9	PLOT_9	0.023674313
762	485649.47	3752834.9	PLOT4	0.036452013
762	485649.47	3752834.9	PLOTS_1_	0.027275382
762	485649.47	3752834.9	PLOTS_5_	0.029414791
762	485649.47	3752834.9	PLOTS_7_	0.010999096
763	485749.47	3752834.9	PLOT_11	0.0079156
763	485749.47	3752834.9	PLOT_12	0.006419235
763	485749.47	3752834.9	PLOT_2	0.016643732
763	485749.47	3752834.9	PLOT_30_	
763	485749.47	3752834.9	PLOT_6	0.006730376
763	485749.47	3752834.9	PLOT_9	0.024664382
763	485749.47	3752834.9	PLOT4	0.039995726
763	485749.47	3752834.9	PLOTS_1_	0.030919164
763	485749.47	3752834.9	PLOTS_5_	0.032141026
763	485749.47	3752834.9	PLOTS_7_	0.011291183
764	485849.47	3752834.9	PLOT_11	0.008162098
764	485849.47	3752834.9	PLOT_12	0.006628898
764	485849.47	3752834.9	PLOT_2	0.016204154
764	485849.47	3752834.9	PLOT_30_	
764	485849.47	3752834.9	PLOT_6	0.006786575
764	485849.47	3752834.9	PLOT_9	0.025736669
764	485849.47	3752834.9	PLOT4	0.04342045
764	485849.47	3752834.9	PLOTS_1_	0.03404792
764	485849.47	3752834.9	PLOTS_5_	0.035376218
764	485849.47	3752834.9	PLOTS_7_	0.011767628
765	485549.47	3752934.9	PLOT_11	0.007478588
765	485549.47	3752934.9	PLOT_12	0.005950066
765	485549.47	3752934.9	PLOT_2	0.017021318
765	485549.47	3752934.9	PLOT_30_	
765	485549.47	3752934.9	PLOT_6	0.006544849
765	485549.47	3752934.9	PLOT_9	0.023065875
765	485549.47	3752934.9	PLOT4	0.034943993
765	485549.47	3752934.9	PLOTS_1_	0.025172254
765	485549.47	3752934.9	PLOTS_5_	0.026157782
765	485549.47	3752934.9	PLOTS_7_	0.011234852
766	485649.47	3752934.9	PLOT_11	0.007715228
766	485649.47	3752934.9	PLOT_12	0.006131014
766	485649.47	3752934.9	PLOT_2	0.017553112
766	485649.47	3752934.9	PLOT_30_	
766	485649.47	3752934.9	PLOT_6	0.006778538
766	485649.47	3752934.9	PLOT_9	0.0240076
766	485649.47	3752934.9	PLOT4	0.03786623
766	485649.47	3752934.9	PLOTS_1_	0.03028
766	485649.47	3752934.9	PLOTS_5_	0.028222342
766	485649.47	3752934.9	PLOTS_7_	0.011453503

767	485749.47	3752934.9	PLOT_11	0.007963286
767	485749.47	3752934.9	PLOT_12	0.006320223
767	485749.47	3752934.9	PLOT_2	0.017848176
767	485749.47	3752934.9	PLOT_30_	
767	485749.47	3752934.9	PLOT_6	0.006959692
767	485749.47	3752934.9	PLOT_9	0.025026604
767	485749.47	3752934.9	PLOT4	0.041069766
767	485749.47	3752934.9	PLOTS_1_	0.034285184
767	485749.47	3752934.9	PLOTS_5_	0.030594181
767	485749.47	3752934.9	PLOTS_7_	0.01175299
768	485849.47	3752934.9	PLOT_11	0.008226658
768	485849.47	3752934.9	PLOT_12	0.006519956
768	485849.47	3752934.9	PLOT_2	0.017620963
768	485849.47	3752934.9	PLOT_30_	
768	485849.47	3752934.9	PLOT_6	0.00710273
768	485849.47	3752934.9	PLOT_9	0.026174053
768	485849.47	3752934.9	PLOT4	0.046188326
768	485849.47	3752934.9	PLOTS_1_	0.037364626
768	485849.47	3752934.9	PLOTS_5_	0.033395904
768	485849.47	3752934.9	PLOTS_7_	0.012092066
769	485549.47	3753034.9	PLOT_11	0.007384821
769	485549.47	3753034.9	PLOT_12	0.005808716
769	485549.47	3753034.9	PLOT_2	0.018463814
769	485549.47	3753034.9	PLOT_30_	
769	485549.47	3753034.9	PLOT_6	0.006763173
769	485549.47	3753034.9	PLOT_9	0.0232334
769	485549.47	3753034.9	PLOT4	0.035588976
769	485549.47	3753034.9	PLOTS_1_	0.02934715
769	485549.47	3753034.9	PLOTS_5_	0.024431486
769	485549.47	3753034.9	PLOTS_7_	0.011590063
770	485649.47	3753034.9	PLOT_11	0.007629944
770	485649.47	3753034.9	PLOT_12	0.005970004
770	485649.47	3753034.9	PLOT_2	0.018444164
770	485649.47	3753034.9	PLOT_30_	
770	485649.47	3753034.9	PLOT_6	0.006916819
770	485649.47	3753034.9	PLOT_9	0.024237672
770	485649.47	3753034.9	PLOT4	0.038958571
770	485649.47	3753034.9	PLOTS_1_	0.03407542
770	485649.47	3753034.9	PLOTS_5_	0.027173904
770	485649.47	3753034.9	PLOTS_7_	0.012023523
771	485749.47	3753034.9	PLOT_11	0.007888777
771	485749.47	3753034.9	PLOT_12	0.006138282
771	485749.47	3753034.9	PLOT_2	0.019075487
771	485749.47	3753034.9	PLOT_30_	
771	485749.47	3753034.9	PLOT_6	0.007168236
771	485749.47	3753034.9	PLOT_9	0.025320281
771	485749.47	3753034.9	PLOT4	0.042979025

771	485749.47	3753034.9	PLOTS_1_	0.038707215
771	485749.47	3753034.9	PLOTS_5_	0.030327718
771	485749.47	3753034.9	PLOTS_7_	0.012310757
772	485849.47	3753034.9	PLOT_11	0.008159989
772	485849.47	3753034.9	PLOT_12	0.006312319
772	485849.47	3753034.9	PLOT_2	0.019103288
772	485849.47	3753034.9	PLOT_30_	
772	485849.47	3753034.9	PLOT_6	0.007365818
772	485849.47	3753034.9	PLOT_9	0.026478758
772	485849.47	3753034.9	PLOT4	0.047881267
772	485849.47	3753034.9	PLOTS_1_	0.041624825
772	485849.47	3753034.9	PLOTS_5_	0.033934719
772	485849.47	3753034.9	PLOTS_7_	0.012605554
773	485549.47	3753134.9	PLOT_11	0.007184174
773	485549.47	3753134.9	PLOT_12	0.005557112
773	485549.47	3753134.9	PLOT_2	0.019839913
773	485549.47	3753134.9	PLOT_30_	
773	485549.47	3753134.9	PLOT_6	0.006970654
773	485549.47	3753134.9	PLOT_9	0.023670255
773	485549.47	3753134.9	PLOT4	0.035511851
773	485549.47	3753134.9	PLOTS_1_	0.034834252
773	485549.47	3753134.9	PLOTS_5_	0.025626752
773	485549.47	3753134.9	PLOTS_7_	0.0117466
774	485649.47	3753134.9	PLOT_11	0.007431911
774	485649.47	3753134.9	PLOT_12	0.00569326
774	485649.47	3753134.9	PLOT_2	0.019903314
774	485649.47	3753134.9	PLOT_30_	
774	485649.47	3753134.9	PLOT_6	0.007158485
774	485649.47	3753134.9	PLOT_9	0.024658559
774	485649.47	3753134.9	PLOT4	0.039148752
774	485649.47	3753134.9	PLOTS_1_	0.039018491
774	485649.47	3753134.9	PLOTS_5_	0.027973496
774	485649.47	3753134.9	PLOTS_7_	0.01237376
775	485749.47	3753134.9	PLOT_11	0.007692715
775	485749.47	3753134.9	PLOT_12	0.005833379
775	485749.47	3753134.9	PLOT_2	0.020277729
775	485749.47	3753134.9	PLOT_30_	
775	485749.47	3753134.9	PLOT_6	0.007325574
775	485749.47	3753134.9	PLOT_9	0.025727671
775	485749.47	3753134.9	PLOT4	0.043594457
775	485749.47	3753134.9	PLOTS_1_	0.044332549
775	485749.47	3753134.9	PLOTS_5_	0.030514288
775	485749.47	3753134.9	PLOTS_7_	0.012905283
776	485849.47	3753134.9	PLOT_11	0.007966816
776	485849.47	3753134.9	PLOT_12	0.005976914
776	485849.47	3753134.9	PLOT_2	0.020630774
776	485849.47	3753134.9	PLOT_30_	

776	485849.47	3753134.9	PLOT_6	0.007593065
776	485849.47	3753134.9	PLOT_9	0.026884824
776	485849.47	3753134.9	PLOT4	0.048970249
776	485849.47	3753134.9	PLOTS_1_	0.04701261
776	485849.47	3753134.9	PLOTS_5_	0.033220806
776	485849.47	3753134.9	PLOTS_7_	0.013269068
777	485549.47	3753234.9	PLOT_11	0.007738934
777	485549.47	3753234.9	PLOT_12	0.005561799
777	485549.47	3753234.9	PLOT_2	0.022489144
777	485549.47	3753234.9	PLOT_30_	
777	485549.47	3753234.9	PLOT_6	0.007734685
777	485549.47	3753234.9	PLOT_9	0.025069566
777	485549.47	3753234.9	PLOT4	0.03721593
777	485549.47	3753234.9	PLOTS_1_	0.043405223
777	485549.47	3753234.9	PLOTS_5_	0.02810747
777	485549.47	3753234.9	PLOTS_7_	0.013075246
778	485649.47	3753234.9	PLOT_11	0.007350432
778	485649.47	3753234.9	PLOT_12	0.005318139
778	485649.47	3753234.9	PLOT_2	0.021591484
778	485649.47	3753234.9	PLOT_30_	
778	485649.47	3753234.9	PLOT_6	0.007378168
778	485649.47	3753234.9	PLOT_9	0.024833583
778	485649.47	3753234.9	PLOT4	0.039378504
778	485649.47	3753234.9	PLOTS_1_	0.045595603
778	485649.47	3753234.9	PLOTS_5_	0.026664742
778	485649.47	3753234.9	PLOTS_7_	0.012590268
779	485749.47	3753234.9	PLOT_11	0.007593263
779	485749.47	3753234.9	PLOT_12	0.005427359
779	485749.47	3753234.9	PLOT_2	0.021449393
779	485749.47	3753234.9	PLOT_30_	
779	485749.47	3753234.9	PLOT_6	0.007589431
779	485749.47	3753234.9	PLOT_9	0.025935953
779	485749.47	3753234.9	PLOT4	0.04340254
779	485749.47	3753234.9	PLOTS_1_	0.051640709
779	485749.47	3753234.9	PLOTS_5_	0.029093991
779	485749.47	3753234.9	PLOTS_7_	0.013235585
780	485849.47	3753234.9	PLOT_11	0.007849711
780	485849.47	3753234.9	PLOT_12	0.00553789
780	485849.47	3753234.9	PLOT_2	0.02218963
780	485849.47	3753234.9	PLOT_30_	
780	485849.47	3753234.9	PLOT_6	0.0077715
780	485849.47	3753234.9	PLOT_9	0.027129629
780	485849.47	3753234.9	PLOT4	0.049211362
780	485849.47	3753234.9	PLOTS_1_	0.053994749
780	485849.47	3753234.9	PLOTS_5_	0.03168405
780	485849.47	3753234.9	PLOTS_7_	0.013886118
781	485549.47	3753334.9	PLOT_11	0.008786781

781	485549.47	3753334.9	PLOT_12	0.0056541
781	485549.47	3753334.9	PLOT_2	0.026598627
781	485549.47	3753334.9	PLOT_30_	
781	485549.47	3753334.9	PLOT_6	0.009065076
781	485549.47	3753334.9	PLOT_9	0.027138098
781	485549.47	3753334.9	PLOT4	0.041036912
781	485549.47	3753334.9	PLOTS_1_	0.056709622
781	485549.47	3753334.9	PLOTS_5_	0.032404467
781	485549.47	3753334.9	PLOTS_7_	0.015142379
782	485649.47	3753334.9	PLOT_11	0.009015398
782	485649.47	3753334.9	PLOT_12	0.005691354
782	485649.47	3753334.9	PLOT_2	0.027463993
782	485649.47	3753334.9	PLOT_30_	
782	485649.47	3753334.9	PLOT_6	0.009169614
782	485649.47	3753334.9	PLOT_9	0.028152956
782	485649.47	3753334.9	PLOT4	0.044601054
782	485649.47	3753334.9	PLOTS_1_	0.061306484
782	485649.47	3753334.9	PLOTS_5_	0.033994945
782	485649.47	3753334.9	PLOTS_7_	0.015768891
783	485749.47	3753334.9	PLOT_11	0.008907142
783	485749.47	3753334.9	PLOT_12	0.005596193
783	485749.47	3753334.9	PLOT_2	0.026401022
783	485749.47	3753334.9	PLOT_30_	
783	485749.47	3753334.9	PLOT_6	0.008967393
783	485749.47	3753334.9	PLOT_9	0.028497005
783	485749.47	3753334.9	PLOT4	0.047297849
783	485749.47	3753334.9	PLOTS_1_	0.065945795
783	485749.47	3753334.9	PLOTS_5_	0.03366672
783	485749.47	3753334.9	PLOTS_7_	0.01562489
784	485849.47	3753334.9	PLOT_11	0.00918271
784	485849.47	3753334.9	PLOT_12	0.00589907
784	485849.47	3753334.9	PLOT_2	0.027078519
784	485849.47	3753334.9	PLOT_30_	
784	485849.47	3753334.9	PLOT_6	0.009196
784	485849.47	3753334.9	PLOT_9	0.029700561
784	485849.47	3753334.9	PLOT4	0.052713939
784	485849.47	3753334.9	PLOTS_1_	0.067552255
784	485849.47	3753334.9	PLOTS_5_	0.035405307
784	485849.47	3753334.9	PLOTS_7_	0.016184882
785	485549.47	3753434.9	PLOT_11	0.011139934
785	485549.47	3753434.9	PLOT_12	0.008610426
785	485549.47	3753434.9	PLOT_2	0.033711753
785	485549.47	3753434.9	PLOT_30_	
785	485549.47	3753434.9	PLOT_6	0.011527805
785	485549.47	3753434.9	PLOT_9	0.03091338
785	485549.47	3753434.9	PLOT4	0.046631598
785	485549.47	3753434.9	PLOTS_1_	0.081952393

785	485549.47	3753434.9	PLOTS_5_	0.039013946
785	485549.47	3753434.9	PLOTS_7_	0.019600232
786	485649.47	3753434.9	PLOT_11	0.011033696
786	485649.47	3753434.9	PLOT_12	0.008306239
786	485649.47	3753434.9	PLOT_2	0.034266545
786	485649.47	3753434.9	PLOT_30_	
786	485649.47	3753434.9	PLOT_6	0.01134733
786	485649.47	3753434.9	PLOT_9	0.031455919
786	485649.47	3753434.9	PLOT4	0.04948337
786	485649.47	3753434.9	PLOTS_1_	0.07928984
786	485649.47	3753434.9	PLOTS_5_	0.039427852
786	485649.47	3753434.9	PLOTS_7_	0.019589152
787	485749.47	3753434.9	PLOT_11	0.01108913
787	485749.47	3753434.9	PLOT_12	0.008245036
787	485749.47	3753434.9	PLOT_2	0.0339376
787	485749.47	3753434.9	PLOT_30_	
787	485749.47	3753434.9	PLOT_6	0.011216614
787	485749.47	3753434.9	PLOT_9	0.032063211
787	485749.47	3753434.9	PLOT4	0.053567685
787	485749.47	3753434.9	PLOTS_1_	0.08530054
787	485749.47	3753434.9	PLOTS_5_	0.040644781
787	485749.47	3753434.9	PLOTS_7_	0.019889974
788	485849.47	3753434.9	PLOT_11	0.011165336
788	485849.47	3753434.9	PLOT_12	0.007961064
788	485849.47	3753434.9	PLOT_2	0.033183792
788	485849.47	3753434.9	PLOT_30_	
788	485849.47	3753434.9	PLOT_6	0.011202963
788	485849.47	3753434.9	PLOT_9	0.032921659
788	485849.47	3753434.9	PLOT4	0.05839504
788	485849.47	3753434.9	PLOTS_1_	0.090821397
788	485849.47	3753434.9	PLOTS_5_	0.040515109
788	485849.47	3753434.9	PLOTS_7_	0.019765342
789	485508.49	3746711.29	PLOT_11	0.002658295
789	485508.49	3746711.29	PLOT_12	0.002763424
789	485508.49	3746711.29	PLOT_2	0.001958604
789	485508.49	3746711.29	PLOT_30_	
789	485508.49	3746711.29	PLOT_6	0.001155827
789	485508.49	3746711.29	PLOT_9	0.004156471
789	485508.49	3746711.29	PLOT4	0.002834534
789	485508.49	3746711.29	PLOTS_1_	0.002944907
789	485508.49	3746711.29	PLOTS_5_	0.002531676
789	485508.49	3746711.29	PLOTS_7_	0.001656925
790	491508.49	3746711.29	PLOT_11	0.002959953
790	491508.49	3746711.29	PLOT_12	0.002835192
790	491508.49	3746711.29	PLOT_2	0.002233754
790	491508.49	3746711.29	PLOT_30_	
790	491508.49	3746711.29	PLOT_6	0.001482264

790	491508.49	3746711.29	PLOT_9	0.004486318
790	491508.49	3746711.29	PLOT4	0.002736981
790	491508.49	3746711.29	PLOTS_1_	0.001519004
790	491508.49	3746711.29	PLOTS_5_	0.002882026
790	491508.49	3746711.29	PLOTS_7_	0.0019055
791	479508.49	3752711.29	PLOT_11	0.002117108
791	479508.49	3752711.29	PLOT_12	0.001654782
791	479508.49	3752711.29	PLOT_2	0.0033325
791	479508.49	3752711.29	PLOT_30_	
791	479508.49	3752711.29	PLOT_6	0.001773156
791	479508.49	3752711.29	PLOT_9	0.00531733
791	479508.49	3752711.29	PLOT4	0.004360744
791	479508.49	3752711.29	PLOTS_1_	0.003266784
791	479508.49	3752711.29	PLOTS_5_	0.0031532
791	479508.49	3752711.29	PLOTS_7_	0.002521903
792	485508.49	3752711.29	PLOT_11	0.007196233
792	485508.49	3752711.29	PLOT_12	0.005920041
792	485508.49	3752711.29	PLOT_2	0.015026453
792	485508.49	3752711.29	PLOT_30_	
792	485508.49	3752711.29	PLOT_6	0.006151103
792	485508.49	3752711.29	PLOT_9	0.021931129
792	485508.49	3752711.29	PLOT4	0.031392052
792	485508.49	3752711.29	PLOTS_1_	0.019397965
792	485508.49	3752711.29	PLOTS_5_	0.025207827
792	485508.49	3752711.29	PLOTS_7_	0.010120409
793	491508.49	3752711.29	PLOT_11	0.036884674
793	491508.49	3752711.29	PLOT_12	0.069940661
793	491508.49	3752711.29	PLOT_2	0.014915204
793	491508.49	3752711.29	PLOT_30_	
793	491508.49	3752711.29	PLOT_6	0.013303177
793	491508.49	3752711.29	PLOT_9	0.0283443
793	491508.49	3752711.29	PLOT4	0.018137996
793	491508.49	3752711.29	PLOTS_1_	0.008927457
793	491508.49	3752711.29	PLOTS_5_	0.025830939
793	491508.49	3752711.29	PLOTS_7_	0.019219706
794	485508.49	3758711.29	PLOT_11	0.006934466
794	485508.49	3758711.29	PLOT_12	0.004746184
794	485508.49	3758711.29	PLOT_2	0.011704704
794	485508.49	3758711.29	PLOT_30_	
794	485508.49	3758711.29	PLOT_6	0.00833597
794	485508.49	3758711.29	PLOT_9	0.018323725
794	485508.49	3758711.29	PLOT4	0.014107803
794	485508.49	3758711.29	PLOTS_1_	0.01536057
794	485508.49	3758711.29	PLOTS_5_	0.007566655
794	485508.49	3758711.29	PLOTS_7_	0.010557104
795	491508.49	3758711.29	PLOT_11	0.006916126
795	491508.49	3758711.29	PLOT_12	0.00556581

795	491508.49	3758711.29	PLOT_2	0.009468086
795	491508.49	3758711.29	PLOT_30_	
795	491508.49	3758711.29	PLOT_6	0.008395507
795	491508.49	3758711.29	PLOT_9	0.018354337
795	491508.49	3758711.29	PLOT4	0.013315174
795	491508.49	3758711.29	PLOTS_1_	0.006421089
795	491508.49	3758711.29	PLOTS_5_	0.007601531
795	491508.49	3758711.29	PLOTS_7_	0.011172415
796	485921.9	3750934.24	PLOT_11	0.008287824
796	485921.9	3750934.24	PLOT_12	0.014202052
796	485921.9	3750934.24	PLOT_2	0.013408206
796	485921.9	3750934.24	PLOT_30_	
796	485921.9	3750934.24	PLOT_6	0.006552797
796	485921.9	3750934.24	PLOT_9	0.02700286
796	485921.9	3750934.24	PLOT4	0.022954997
796	485921.9	3750934.24	PLOTS_1_	0.019687671
796	485921.9	3750934.24	PLOTS_5_	0.019206147
796	485921.9	3750934.24	PLOTS_7_	0.010707615
797	486021.9	3750934.24	PLOT_11	0.008424186
797	486021.9	3750934.24	PLOT_12	0.014359528
797	486021.9	3750934.24	PLOT_2	0.012981449
797	486021.9	3750934.24	PLOT_30_	
797	486021.9	3750934.24	PLOT_6	0.006567275
797	486021.9	3750934.24	PLOT_9	0.029170813
797	486021.9	3750934.24	PLOT4	0.023472875
797	486021.9	3750934.24	PLOTS_1_	0.02268835
797	486021.9	3750934.24	PLOTS_5_	0.019757816
797	486021.9	3750934.24	PLOTS_7_	0.011197285
798	486121.9	3750934.24	PLOT_11	0.008508141
798	486121.9	3750934.24	PLOT_12	0.014299834
798	486121.9	3750934.24	PLOT_2	0.012701013
798	486121.9	3750934.24	PLOT_30_	
798	486121.9	3750934.24	PLOT_6	0.006461999
798	486121.9	3750934.24	PLOT_9	0.030296737
798	486121.9	3750934.24	PLOT4	0.023527109
798	486121.9	3750934.24	PLOTS_1_	0.023567459
798	486121.9	3750934.24	PLOTS_5_	0.019661944
798	486121.9	3750934.24	PLOTS_7_	0.011066992
799	485921.9	3751034.24	PLOT_11	0.008418363
799	485921.9	3751034.24	PLOT_12	0.014253803
799	485921.9	3751034.24	PLOT_2	0.013730322
799	485921.9	3751034.24	PLOT_30_	
799	485921.9	3751034.24	PLOT_6	0.006747366
799	485921.9	3751034.24	PLOT_9	0.02808194
799	485921.9	3751034.24	PLOT4	0.023423511
799	485921.9	3751034.24	PLOTS_1_	0.020492242
799	485921.9	3751034.24	PLOTS_5_	0.020262829

799	485921.9	3751034.24	PLOTS_7_	0.010958091
800	486021.9	3751034.24	PLOT_11	0.008485261
800	486021.9	3751034.24	PLOT_12	0.014520935
800	486021.9	3751034.24	PLOT_2	0.013397147
800	486021.9	3751034.24	PLOT_30_	
800	486021.9	3751034.24	PLOT_6	0.006678314
800	486021.9	3751034.24	PLOT_9	0.028789006
800	486021.9	3751034.24	PLOT4	0.024039166
800	486021.9	3751034.24	PLOTS_1_	0.023462414
800	486021.9	3751034.24	PLOTS_5_	0.020364897
800	486021.9	3751034.24	PLOTS_7_	0.011363567
801	486121.9	3751034.24	PLOT_11	0.008671098
801	486121.9	3751034.24	PLOT_12	0.014951063
801	486121.9	3751034.24	PLOT_2	0.012971139
801	486121.9	3751034.24	PLOT_30_	
801	486121.9	3751034.24	PLOT_6	0.006678757
801	486121.9	3751034.24	PLOT_9	0.030667605
801	486121.9	3751034.24	PLOT4	0.024158491
801	486121.9	3751034.24	PLOTS_1_	0.024296719
801	486121.9	3751034.24	PLOTS_5_	0.020745822
801	486121.9	3751034.24	PLOTS_7_	0.011440077
802	485921.9	3751134.24	PLOT_11	0.008684578
802	485921.9	3751134.24	PLOT_12	0.014584521
802	485921.9	3751134.24	PLOT_2	0.014048605
802	485921.9	3751134.24	PLOT_30_	
802	485921.9	3751134.24	PLOT_6	0.006892117
802	485921.9	3751134.24	PLOT_9	0.029244387
802	485921.9	3751134.24	PLOT4	0.024208527
802	485921.9	3751134.24	PLOTS_1_	0.021320982
802	485921.9	3751134.24	PLOTS_5_	0.021162902
802	485921.9	3751134.24	PLOTS_7_	0.011417189
803	486021.9	3751134.24	PLOT_11	0.008745102
803	486021.9	3751134.24	PLOT_12	0.015001066
803	486021.9	3751134.24	PLOT_2	0.013793415
803	486021.9	3751134.24	PLOT_30_	
803	486021.9	3751134.24	PLOT_6	0.006841148
803	486021.9	3751134.24	PLOT_9	0.028991201
803	486021.9	3751134.24	PLOT4	0.024685549
803	486021.9	3751134.24	PLOTS_1_	0.024296841
803	486021.9	3751134.24	PLOTS_5_	0.021352289
803	486021.9	3751134.24	PLOTS_7_	0.011414843
804	486121.9	3751134.24	PLOT_11	0.008769083
804	486121.9	3751134.24	PLOT_12	0.015190076
804	486121.9	3751134.24	PLOT_2	0.013234437
804	486121.9	3751134.24	PLOT_30_	
804	486121.9	3751134.24	PLOT_6	0.006831605
804	486121.9	3751134.24	PLOT_9	0.030616174

804	486121.9	3751134.24	PLOT4	0.024817803
804	486121.9	3751134.24	PLOTS_1_	0.025022324
804	486121.9	3751134.24	PLOTS_5_	0.021604873
804	486121.9	3751134.24	PLOTS_7_	0.011751413
805	485921.9	3751234.24	PLOT_11	0.00876624
805	485921.9	3751234.24	PLOT_12	0.015154689
805	485921.9	3751234.24	PLOT_2	0.014364024
805	485921.9	3751234.24	PLOT_30_	
805	485921.9	3751234.24	PLOT_6	0.006995089
805	485921.9	3751234.24	PLOT_9	0.030120654
805	485921.9	3751234.24	PLOT4	0.02519783
805	485921.9	3751234.24	PLOTS_1_	0.022161095
805	485921.9	3751234.24	PLOTS_5_	0.021982263
805	485921.9	3751234.24	PLOTS_7_	0.011810048
806	486021.9	3751234.24	PLOT_11	0.008947125
806	486021.9	3751234.24	PLOT_12	0.015403591
806	486021.9	3751234.24	PLOT_2	0.014173425
806	486021.9	3751234.24	PLOT_30_	
806	486021.9	3751234.24	PLOT_6	0.007027384
806	486021.9	3751234.24	PLOT_9	0.030243542
806	486021.9	3751234.24	PLOT4	0.025376594
806	486021.9	3751234.24	PLOTS_1_	0.025152594
806	486021.9	3751234.24	PLOTS_5_	0.022161305
806	486021.9	3751234.24	PLOTS_7_	0.011419777
807	486121.9	3751234.24	PLOT_11	0.009062533
807	486121.9	3751234.24	PLOT_12	0.015430757
807	486121.9	3751234.24	PLOT_2	0.013635198
807	486121.9	3751234.24	PLOT_30_	
807	486121.9	3751234.24	PLOT_6	0.006933276
807	486121.9	3751234.24	PLOT_9	0.030030584
807	486121.9	3751234.24	PLOT4	0.02556213
807	486121.9	3751234.24	PLOTS_1_	0.025832175
807	486121.9	3751234.24	PLOTS_5_	0.022682092
807	486121.9	3751234.24	PLOTS_7_	0.01199469
808	485921.9	3751334.24	PLOT_11	0.009129798
808	485921.9	3751334.24	PLOT_12	0.015757782
808	485921.9	3751334.24	PLOT_2	0.014675214
808	485921.9	3751334.24	PLOT_30_	
808	485921.9	3751334.24	PLOT_6	0.007069578
808	485921.9	3751334.24	PLOT_9	0.03067281
808	485921.9	3751334.24	PLOT4	0.026121985
808	485921.9	3751334.24	PLOTS_1_	0.023004215
808	485921.9	3751334.24	PLOTS_5_	0.023264899
808	485921.9	3751334.24	PLOTS_7_	0.012090368
809	486021.9	3751334.24	PLOT_11	0.009138922
809	486021.9	3751334.24	PLOT_12	0.016136596
809	486021.9	3751334.24	PLOT_2	0.01453634

809	486021.9	3751334.24	PLOT_30_	
809	486021.9	3751334.24	PLOT_6	0.007157096
809	486021.9	3751334.24	PLOT_9	0.031329415
809	486021.9	3751334.24	PLOT4	0.026081575
809	486021.9	3751334.24	PLOTS_1_	0.025983365
809	486021.9	3751334.24	PLOTS_5_	0.023748403
809	486021.9	3751334.24	PLOTS_7_	0.01191349
810	486121.9	3751334.24	PLOT_11	0.009187112
810	486121.9	3751334.24	PLOT_12	0.016421164
810	486121.9	3751334.24	PLOT_2	0.014115399
810	486121.9	3751334.24	PLOT_30_	
810	486121.9	3751334.24	PLOT_6	0.007139279
810	486121.9	3751334.24	PLOT_9	0.031275779
810	486121.9	3751334.24	PLOT4	0.026360579
810	486121.9	3751334.24	PLOTS_1_	0.02668614
810	486121.9	3751334.24	PLOTS_5_	0.023516766
810	486121.9	3751334.24	PLOTS_7_	0.012128299
811	485921.9	3751434.24	PLOT_11	0.009362036
811	485921.9	3751434.24	PLOT_12	0.016580586
811	485921.9	3751434.24	PLOT_2	0.015002177
811	485921.9	3751434.24	PLOT_30_	
811	485921.9	3751434.24	PLOT_6	0.00751577
811	485921.9	3751434.24	PLOT_9	0.031049588
811	485921.9	3751434.24	PLOT4	0.026959052
811	485921.9	3751434.24	PLOTS_1_	0.023845263
811	485921.9	3751434.24	PLOTS_5_	0.024475068
811	485921.9	3751434.24	PLOTS_7_	0.01248998
812	486021.9	3751434.24	PLOT_11	0.009482718
812	486021.9	3751434.24	PLOT_12	0.016536421
812	486021.9	3751434.24	PLOT_2	0.014896787
812	486021.9	3751434.24	PLOT_30_	
812	486021.9	3751434.24	PLOT_6	0.007257734
812	486021.9	3751434.24	PLOT_9	0.032042039
812	486021.9	3751434.24	PLOT4	0.026782807
812	486021.9	3751434.24	PLOTS_1_	0.026843464
812	486021.9	3751434.24	PLOTS_5_	0.024479933
812	486021.9	3751434.24	PLOTS_7_	0.012339832
813	486121.9	3751434.24	PLOT_11	0.009574513
813	486121.9	3751434.24	PLOT_12	0.016853914
813	486121.9	3751434.24	PLOT_2	0.014565375
813	486121.9	3751434.24	PLOT_30_	
813	486121.9	3751434.24	PLOT_6	0.007314081
813	486121.9	3751434.24	PLOT_9	0.032673943
813	486121.9	3751434.24	PLOT4	0.027204811
813	486121.9	3751434.24	PLOTS_1_	0.027545589
813	486121.9	3751434.24	PLOTS_5_	0.025368125
813	486121.9	3751434.24	PLOTS_7_	0.012111436

814	485921.9	3751534.24	PLOT_11	0.009650306
814	485921.9	3751534.24	PLOT_12	0.016888149
814	485921.9	3751534.24	PLOT_2	0.015368793
814	485921.9	3751534.24	PLOT_30_	
814	485921.9	3751534.24	PLOT_6	0.008052435
814	485921.9	3751534.24	PLOT_9	0.031474004
814	485921.9	3751534.24	PLOT4	0.027845485
814	485921.9	3751534.24	PLOTS_1_	0.0247864
814	485921.9	3751534.24	PLOTS_5_	0.025499333
814	485921.9	3751534.24	PLOTS_7_	0.012976374
815	486021.9	3751534.24	PLOT_11	0.009713076
815	486021.9	3751534.24	PLOT_12	0.017343537
815	486021.9	3751534.24	PLOT_2	0.015285477
815	486021.9	3751534.24	PLOT_30_	
815	486021.9	3751534.24	PLOT_6	0.00772978
815	486021.9	3751534.24	PLOT_9	0.03237462
815	486021.9	3751534.24	PLOT4	0.027589092
815	486021.9	3751534.24	PLOTS_1_	0.027708112
815	486021.9	3751534.24	PLOTS_5_	0.026510795
815	486021.9	3751534.24	PLOTS_7_	0.012653635
816	486121.9	3751534.24	PLOT_11	0.009796526
816	486121.9	3751534.24	PLOT_12	0.017482941
816	486121.9	3751534.24	PLOT_2	0.014995612
816	486121.9	3751534.24	PLOT_30_	
816	486121.9	3751534.24	PLOT_6	0.007444177
816	486121.9	3751534.24	PLOT_9	0.033548093
816	486121.9	3751534.24	PLOT4	0.028063035
816	486121.9	3751534.24	PLOTS_1_	0.028378026
816	486121.9	3751534.24	PLOTS_5_	0.026838457
816	486121.9	3751534.24	PLOTS_7_	0.012440524
817	485921.9	3751634.24	PLOT_11	0.01001102
817	485921.9	3751634.24	PLOT_12	0.016712047
817	485921.9	3751634.24	PLOT_2	0.015716552
817	485921.9	3751634.24	PLOT_30_	
817	485921.9	3751634.24	PLOT_6	0.008225552
817	485921.9	3751634.24	PLOT_9	0.031075171
817	485921.9	3751634.24	PLOT4	0.028841167
817	485921.9	3751634.24	PLOTS_1_	0.025847855
817	485921.9	3751634.24	PLOTS_5_	0.026317004
817	485921.9	3751634.24	PLOTS_7_	0.01330712
818	486021.9	3751634.24	PLOT_11	0.010926816
818	486021.9	3751634.24	PLOT_12	0.017275304
818	486021.9	3751634.24	PLOT_2	0.016669594
818	486021.9	3751634.24	PLOT_30_	
818	486021.9	3751634.24	PLOT_6	0.008972209
818	486021.9	3751634.24	PLOT_9	0.032978294
818	486021.9	3751634.24	PLOT4	0.029147484

818	486021.9	3751634.24	PLOTS_1_	0.028632798
818	486021.9	3751634.24	PLOTS_5_	0.027108248
818	486021.9	3751634.24	PLOTS_7_	0.013612066
819	486121.9	3751634.24	PLOT_11	0.010149813
819	486121.9	3751634.24	PLOT_12	0.017388774
819	486121.9	3751634.24	PLOT_2	0.015628213
819	486121.9	3751634.24	PLOT_30_	
819	486121.9	3751634.24	PLOT_6	0.007952625
819	486121.9	3751634.24	PLOT_9	0.033837536
819	486121.9	3751634.24	PLOT4	0.028946501
819	486121.9	3751634.24	PLOTS_1_	0.029178331
819	486121.9	3751634.24	PLOTS_5_	0.028101786
819	486121.9	3751634.24	PLOTS_7_	0.012914867
820	485921.9	3751734.24	PLOT_11	0.011008752
820	485921.9	3751734.24	PLOT_12	0.01754049
820	485921.9	3751734.24	PLOT_2	0.016697704
820	485921.9	3751734.24	PLOT_30_	
820	485921.9	3751734.24	PLOT_6	0.009075595
820	485921.9	3751734.24	PLOT_9	0.031197088
820	485921.9	3751734.24	PLOT4	0.029854872
820	485921.9	3751734.24	PLOTS_1_	0.026835339
820	485921.9	3751734.24	PLOTS_5_	0.027897701
820	485921.9	3751734.24	PLOTS_7_	0.014898413
821	486021.9	3751734.24	PLOT_11	0.012634606
821	486021.9	3751734.24	PLOT_12	0.01988165
821	486021.9	3751734.24	PLOT_2	0.018997547
821	486021.9	3751734.24	PLOT_30_	
821	486021.9	3751734.24	PLOT_6	0.010383767
821	486021.9	3751734.24	PLOT_9	0.036590021
821	486021.9	3751734.24	PLOT4	0.032143432
821	486021.9	3751734.24	PLOTS_1_	0.030157002
821	486021.9	3751734.24	PLOTS_5_	0.029673725
821	486021.9	3751734.24	PLOTS_7_	0.0162751
822	486121.9	3751734.24	PLOT_11	0.011186657
822	486121.9	3751734.24	PLOT_12	0.01787101
822	486121.9	3751734.24	PLOT_2	0.016634656
822	486121.9	3751734.24	PLOT_30_	
822	486121.9	3751734.24	PLOT_6	0.00885603
822	486121.9	3751734.24	PLOT_9	0.034471911
822	486121.9	3751734.24	PLOT4	0.030013879
822	486121.9	3751734.24	PLOTS_1_	0.030514543
822	486121.9	3751734.24	PLOTS_5_	0.028950492
822	486121.9	3751734.24	PLOTS_7_	0.01342884
823	485921.9	3751834.24	PLOT_11	0.012665464
823	485921.9	3751834.24	PLOT_12	0.021701374
823	485921.9	3751834.24	PLOT_2	0.019876174
823	485921.9	3751834.24	PLOT_30_	

823	485921.9	3751834.24	PLOT_6	0.010701252
823	485921.9	3751834.24	PLOT_9	0.03428039
823	485921.9	3751834.24	PLOT4	0.031654321
823	485921.9	3751834.24	PLOTS_1_	0.028456586
823	485921.9	3751834.24	PLOTS_5_	0.029197032
823	485921.9	3751834.24	PLOTS_7_	0.01798229
824	486021.9	3751834.24	PLOT_11	0.013098808
824	486021.9	3751834.24	PLOT_12	0.022394266
824	486021.9	3751834.24	PLOT_2	0.019967905
824	486021.9	3751834.24	PLOT_30_	
824	486021.9	3751834.24	PLOT_6	0.010916326
824	486021.9	3751834.24	PLOT_9	0.037105742
824	486021.9	3751834.24	PLOT4	0.033779117
824	486021.9	3751834.24	PLOTS_1_	0.031655655
824	486021.9	3751834.24	PLOTS_5_	0.03030836
824	486021.9	3751834.24	PLOTS_7_	0.017693317
825	486121.9	3751834.24	PLOT_11	0.011062445
825	486121.9	3751834.24	PLOT_12	0.019037519
825	486121.9	3751834.24	PLOT_2	0.016678054
825	486121.9	3751834.24	PLOT_30_	
825	486121.9	3751834.24	PLOT_6	0.008869533
825	486121.9	3751834.24	PLOT_9	0.034086928
825	486121.9	3751834.24	PLOT4	0.031108011
825	486121.9	3751834.24	PLOTS_1_	0.032211466
825	486121.9	3751834.24	PLOTS_5_	0.031419329
825	486121.9	3751834.24	PLOTS_7_	0.013984747
826	485921.9	3751934.24	PLOT_11	0.015549625
826	485921.9	3751934.24	PLOT_12	0.024310659
826	485921.9	3751934.24	PLOT_2	0.025042503
826	485921.9	3751934.24	PLOT_30_	
826	485921.9	3751934.24	PLOT_6	0.012687532
826	485921.9	3751934.24	PLOT_9	0.043189243
826	485921.9	3751934.24	PLOT4	0.041611263
826	485921.9	3751934.24	PLOTS_1_	0.03802735
826	485921.9	3751934.24	PLOTS_5_	0.042522208
826	485921.9	3751934.24	PLOTS_7_	0.022030785
827	486021.9	3751934.24	PLOT_11	0.014296637
827	486021.9	3751934.24	PLOT_12	0.023723493
827	486021.9	3751934.24	PLOT_2	0.022736977
827	486021.9	3751934.24	PLOT_30_	
827	486021.9	3751934.24	PLOT_6	0.012080603
827	486021.9	3751934.24	PLOT_9	0.039938417
827	486021.9	3751934.24	PLOT4	0.038402858
827	486021.9	3751934.24	PLOTS_1_	0.03523607
827	486021.9	3751934.24	PLOTS_5_	0.037462851
827	486021.9	3751934.24	PLOTS_7_	0.020392381
828	486121.9	3751934.24	PLOT_11	0.012796462

828	486121.9	3751934.24	PLOT_12	0.02197073
828	486121.9	3751934.24	PLOT_2	0.019376896
828	486121.9	3751934.24	PLOT_30_	
828	486121.9	3751934.24	PLOT_6	0.010655128
828	486121.9	3751934.24	PLOT_9	0.036768397
828	486121.9	3751934.24	PLOT4	0.034026554
828	486121.9	3751934.24	PLOTS_1_	0.033813824
828	486121.9	3751934.24	PLOTS_5_	0.032021545
828	486121.9	3751934.24	PLOTS_7_	0.01688014
829	485921.9	3752034.24	PLOT_11	0.015950873
829	485921.9	3752034.24	PLOT_12	0.02375189
829	485921.9	3752034.24	PLOT_2	0.026681899
829	485921.9	3752034.24	PLOT_30_	
829	485921.9	3752034.24	PLOT_6	0.012462264
829	485921.9	3752034.24	PLOT_9	0.047053714
829	485921.9	3752034.24	PLOT4	0.048913049
829	485921.9	3752034.24	PLOTS_1_	0.043049874
829	485921.9	3752034.24	PLOTS_5_	0.046844094
829	485921.9	3752034.24	PLOTS_7_	0.021425988
830	486021.9	3752034.24	PLOT_11	0.016277245
830	486021.9	3752034.24	PLOT_12	0.025782071
830	486021.9	3752034.24	PLOT_2	0.02501664
830	486021.9	3752034.24	PLOT_30_	
830	486021.9	3752034.24	PLOT_6	0.012862333
830	486021.9	3752034.24	PLOT_9	0.041954635
830	486021.9	3752034.24	PLOT4	0.04329189
830	486021.9	3752034.24	PLOTS_1_	0.040354703
830	486021.9	3752034.24	PLOTS_5_	0.045317632
830	486021.9	3752034.24	PLOTS_7_	0.022409167
831	486121.9	3752034.24	PLOT_11	0.015660127
831	486121.9	3752034.24	PLOT_12	0.025390428
831	486121.9	3752034.24	PLOT_2	0.023672
831	486121.9	3752034.24	PLOT_30_	
831	486121.9	3752034.24	PLOT_6	0.012509126
831	486121.9	3752034.24	PLOT_9	0.042077875
831	486121.9	3752034.24	PLOT4	0.040999581
831	486121.9	3752034.24	PLOTS_1_	0.038582592
831	486121.9	3752034.24	PLOTS_5_	0.043334347
831	486121.9	3752034.24	PLOTS_7_	0.020904251
832	485921.9	3752134.24	PLOT_11	0.015387493
832	485921.9	3752134.24	PLOT_12	0.019912669
832	485921.9	3752134.24	PLOT_2	0.025530193
832	485921.9	3752134.24	PLOT_30_	
832	485921.9	3752134.24	PLOT_6	0.011588642
832	485921.9	3752134.24	PLOT_9	0.046282602
832	485921.9	3752134.24	PLOT4	0.052067221
832	485921.9	3752134.24	PLOTS_1_	0.043493044

832	485921.9	3752134.24	PLOTS_5_	0.043692277
832	485921.9	3752134.24	PLOTS_7_	0.019239076
833	486021.9	3752134.24	PLOT_11	0.016598023
833	486021.9	3752134.24	PLOT_12	0.023333359
833	486021.9	3752134.24	PLOT_2	0.027576035
833	486021.9	3752134.24	PLOT_30_	
833	486021.9	3752134.24	PLOT_6	0.012691107
833	486021.9	3752134.24	PLOT_9	0.049227577
833	486021.9	3752134.24	PLOT4	0.05220009
833	486021.9	3752134.24	PLOTS_1_	0.048988961
833	486021.9	3752134.24	PLOTS_5_	0.048790351
833	486021.9	3752134.24	PLOTS_7_	0.022062003
834	486121.9	3752134.24	PLOT_11	0.017909059
834	486121.9	3752134.24	PLOT_12	0.026459314
834	486121.9	3752134.24	PLOT_2	0.026694984
834	486121.9	3752134.24	PLOT_30_	
834	486121.9	3752134.24	PLOT_6	0.013370456
834	486121.9	3752134.24	PLOT_9	0.047226091
834	486121.9	3752134.24	PLOT4	0.049058792
834	486121.9	3752134.24	PLOTS_1_	0.04705847
834	486121.9	3752134.24	PLOTS_5_	0.049782044
834	486121.9	3752134.24	PLOTS_7_	0.023393884
835	485921.9	3752234.24	PLOT_11	0.01428632
835	485921.9	3752234.24	PLOT_12	0.017611543
835	485921.9	3752234.24	PLOT_2	0.025056161
835	485921.9	3752234.24	PLOT_30_	
835	485921.9	3752234.24	PLOT_6	0.01084488
835	485921.9	3752234.24	PLOT_9	0.043887752
835	485921.9	3752234.24	PLOT4	0.051904296
835	485921.9	3752234.24	PLOTS_1_	0.041099805
835	485921.9	3752234.24	PLOTS_5_	0.043467655
835	485921.9	3752234.24	PLOTS_7_	0.018659108
836	486021.9	3752234.24	PLOT_11	0.015649261
836	486021.9	3752234.24	PLOT_12	0.020159267
836	486021.9	3752234.24	PLOT_2	0.026001097
836	486021.9	3752234.24	PLOT_30_	
836	486021.9	3752234.24	PLOT_6	0.011672143
836	486021.9	3752234.24	PLOT_9	0.047801801
836	486021.9	3752234.24	PLOT4	0.053654548
836	486021.9	3752234.24	PLOTS_1_	0.048387046
836	486021.9	3752234.24	PLOTS_5_	0.047747803
836	486021.9	3752234.24	PLOTS_7_	0.019854226
837	486121.9	3752234.24	PLOT_11	0.016706921
837	486121.9	3752234.24	PLOT_12	0.022675894
837	486121.9	3752234.24	PLOT_2	0.027565284
837	486121.9	3752234.24	PLOT_30_	
837	486121.9	3752234.24	PLOT_6	0.012630565

837	486121.9	3752234.24	PLOT_9	0.051017341
837	486121.9	3752234.24	PLOT4	0.055245346
837	486121.9	3752234.24	PLOTS_1_	0.052184455
837	486121.9	3752234.24	PLOTS_5_	0.050792738
837	486121.9	3752234.24	PLOTS_7_	0.022178102
838	485921.9	3752334.24	PLOT_11	0.011759665
838	485921.9	3752334.24	PLOT_12	0.012478641
838	485921.9	3752334.24	PLOT_2	0.019796735
838	485921.9	3752334.24	PLOT_30_	
838	485921.9	3752334.24	PLOT_6	0.009146095
838	485921.9	3752334.24	PLOT_9	0.037697331
838	485921.9	3752334.24	PLOT4	0.045704309
838	485921.9	3752334.24	PLOTS_1_	0.036030404
838	485921.9	3752334.24	PLOTS_5_	0.038919868
838	485921.9	3752334.24	PLOTS_7_	0.015681908
839	486021.9	3752334.24	PLOT_11	0.013585111
839	486021.9	3752334.24	PLOT_12	0.015495614
839	486021.9	3752334.24	PLOT_2	0.023484176
839	486021.9	3752334.24	PLOT_30_	
839	486021.9	3752334.24	PLOT_6	0.010381137
839	486021.9	3752334.24	PLOT_9	0.04239793
839	486021.9	3752334.24	PLOT4	0.051616337
839	486021.9	3752334.24	PLOTS_1_	0.040913357
839	486021.9	3752334.24	PLOTS_5_	0.044985616
839	486021.9	3752334.24	PLOTS_7_	0.017975698
840	486121.9	3752334.24	PLOT_11	0.014854285
840	486121.9	3752334.24	PLOT_12	0.018188224
840	486121.9	3752334.24	PLOT_2	0.02427768
840	486121.9	3752334.24	PLOT_30_	
840	486121.9	3752334.24	PLOT_6	0.01118355
840	486121.9	3752334.24	PLOT_9	0.04724841
840	486121.9	3752334.24	PLOT4	0.054055116
840	486121.9	3752334.24	PLOTS_1_	0.048184187
840	486121.9	3752334.24	PLOTS_5_	0.050570523
840	486121.9	3752334.24	PLOTS_7_	0.019336088
841	485921.9	3752434.24	PLOT_11	0.008885225
841	485921.9	3752434.24	PLOT_12	0.007664979
841	485921.9	3752434.24	PLOT_2	0.012519974
841	485921.9	3752434.24	PLOT_30_	
841	485921.9	3752434.24	PLOT_6	0.00685406
841	485921.9	3752434.24	PLOT_9	0.029823537
841	485921.9	3752434.24	PLOT4	0.036934239
841	485921.9	3752434.24	PLOTS_1_	0.027791587
841	485921.9	3752434.24	PLOTS_5_	0.034812206
841	485921.9	3752434.24	PLOTS_7_	0.011385809
842	486021.9	3752434.24	PLOT_11	0.011098209
842	486021.9	3752434.24	PLOT_12	0.011113113

842	486021.9	3752434.24	PLOT_2	0.019338344
842	486021.9	3752434.24	PLOT_30_	
842	486021.9	3752434.24	PLOT_6	0.00860999
842	486021.9	3752434.24	PLOT_9	0.036748107
842	486021.9	3752434.24	PLOT4	0.04587602
842	486021.9	3752434.24	PLOTS_1_	0.036598482
842	486021.9	3752434.24	PLOTS_5_	0.042557698
842	486021.9	3752434.24	PLOTS_7_	0.01474685
843	486121.9	3752434.24	PLOT_11	0.012280035
843	486121.9	3752434.24	PLOT_12	0.01294495
843	486121.9	3752434.24	PLOT_2	0.021577561
843	486121.9	3752434.24	PLOT_30_	
843	486121.9	3752434.24	PLOT_6	0.009281864
843	486121.9	3752434.24	PLOT_9	0.041000824
843	486121.9	3752434.24	PLOT4	0.049076254
843	486121.9	3752434.24	PLOTS_1_	0.040422986
843	486121.9	3752434.24	PLOTS_5_	0.047099238
843	486121.9	3752434.24	PLOTS_7_	0.016364954
844	485921.9	3752534.24	PLOT_11	0.007901294
844	485921.9	3752534.24	PLOT_12	0.006417488
844	485921.9	3752534.24	PLOT_2	0.011718098
844	485921.9	3752534.24	PLOT_30_	
844	485921.9	3752534.24	PLOT_6	0.006142328
844	485921.9	3752534.24	PLOT_9	0.026984246
844	485921.9	3752534.24	PLOT4	0.036893214
844	485921.9	3752534.24	PLOTS_1_	0.027356216
844	485921.9	3752534.24	PLOTS_5_	0.034312826
844	485921.9	3752534.24	PLOTS_7_	0.010571581
845	486021.9	3752534.24	PLOT_11	0.008141694
845	486021.9	3752534.24	PLOT_12	0.006658487
845	486021.9	3752534.24	PLOT_2	0.01050233
845	486021.9	3752534.24	PLOT_30_	
845	486021.9	3752534.24	PLOT_6	0.006247634
845	486021.9	3752534.24	PLOT_9	0.028413904
845	486021.9	3752534.24	PLOT4	0.037685563
845	486021.9	3752534.24	PLOTS_1_	0.028003464
845	486021.9	3752534.24	PLOTS_5_	0.03742823
845	486021.9	3752534.24	PLOTS_7_	0.010715299
846	486121.9	3752534.24	PLOT_11	0.008387459
846	486121.9	3752534.24	PLOT_12	0.006913029
846	486121.9	3752534.24	PLOT_2	0.011517849
846	486121.9	3752534.24	PLOT_30_	
846	486121.9	3752534.24	PLOT_6	0.00626489
846	486121.9	3752534.24	PLOT_9	0.030011529
846	486121.9	3752534.24	PLOT4	0.039045378
846	486121.9	3752534.24	PLOTS_1_	0.029263269
846	486121.9	3752534.24	PLOTS_5_	0.040882513

846	486121.9	3752534.24	PLOTS_7_	0.010952389
847	485921.9	3752634.24	PLOT_11	0.007961085
847	485921.9	3752634.24	PLOT_12	0.006689744
847	485921.9	3752634.24	PLOT_2	0.012881743
847	485921.9	3752634.24	PLOT_30_	
847	485921.9	3752634.24	PLOT_6	0.00627272
847	485921.9	3752634.24	PLOT_9	0.026740235
847	485921.9	3752634.24	PLOT4	0.039328916
847	485921.9	3752634.24	PLOTS_1_	0.029815952
847	485921.9	3752634.24	PLOTS_5_	0.035029351
847	485921.9	3752634.24	PLOTS_7_	0.0110788
848	486021.9	3752634.24	PLOT_11	0.008226566
848	486021.9	3752634.24	PLOT_12	0.006937176
848	486021.9	3752634.24	PLOT_2	0.011667386
848	486021.9	3752634.24	PLOT_30_	
848	486021.9	3752634.24	PLOT_6	0.006443473
848	486021.9	3752634.24	PLOT_9	0.028282636
848	486021.9	3752634.24	PLOT4	0.041285133
848	486021.9	3752634.24	PLOTS_1_	0.031045779
848	486021.9	3752634.24	PLOTS_5_	0.039047132
848	486021.9	3752634.24	PLOTS_7_	0.011187175
849	486121.9	3752634.24	PLOT_11	0.008502639
849	486121.9	3752634.24	PLOT_12	0.007199781
849	486121.9	3752634.24	PLOT_2	0.011976504
849	486121.9	3752634.24	PLOT_30_	
849	486121.9	3752634.24	PLOT_6	0.006525584
849	486121.9	3752634.24	PLOT_9	0.029920929
849	486121.9	3752634.24	PLOT4	0.042603643
849	486121.9	3752634.24	PLOTS_1_	0.032403966
849	486121.9	3752634.24	PLOTS_5_	0.043880946
849	486121.9	3752634.24	PLOTS_7_	0.011289565
850	485921.9	3752734.24	PLOT_11	0.008133074
850	485921.9	3752734.24	PLOT_12	0.006818583
850	485921.9	3752734.24	PLOT_2	0.01418488
850	485921.9	3752734.24	PLOT_30_	
850	485921.9	3752734.24	PLOT_6	0.006560716
850	485921.9	3752734.24	PLOT_9	0.02661329
850	485921.9	3752734.24	PLOT4	0.043375004
850	485921.9	3752734.24	PLOTS_1_	0.033040531
850	485921.9	3752734.24	PLOTS_5_	0.037182919
850	485921.9	3752734.24	PLOTS_7_	0.01161283
851	486021.9	3752734.24	PLOT_11	0.008375217
851	486021.9	3752734.24	PLOT_12	0.007062839
851	486021.9	3752734.24	PLOT_2	0.012999645
851	486021.9	3752734.24	PLOT_30_	
851	486021.9	3752734.24	PLOT_6	0.006625247
851	486021.9	3752734.24	PLOT_9	0.027978814

851	486021.9	3752734.24	PLOT4	0.045703917
851	486021.9	3752734.24	PLOTS_1_	0.035342983
851	486021.9	3752734.24	PLOTS_5_	0.041572253
851	486021.9	3752734.24	PLOTS_7_	0.011768073
852	486121.9	3752734.24	PLOT_11	0.008631436
852	486121.9	3752734.24	PLOT_12	0.007322902
852	486121.9	3752734.24	PLOT_2	0.012550771
852	486121.9	3752734.24	PLOT_30_	
852	486121.9	3752734.24	PLOT_6	0.006782054
852	486121.9	3752734.24	PLOT_9	0.029754197
852	486121.9	3752734.24	PLOT4	0.047373519
852	486121.9	3752734.24	PLOTS_1_	0.037003753
852	486121.9	3752734.24	PLOTS_5_	0.047133705
852	486121.9	3752734.24	PLOTS_7_	0.011907465
853	485921.9	3752834.24	PLOT_11	0.00834899
853	485921.9	3752834.24	PLOT_12	0.006789233
853	485921.9	3752834.24	PLOT_2	0.015612792
853	485921.9	3752834.24	PLOT_30_	
853	485921.9	3752834.24	PLOT_6	0.006821056
853	485921.9	3752834.24	PLOT_9	0.026639843
853	485921.9	3752834.24	PLOT4	0.047260406
853	485921.9	3752834.24	PLOTS_1_	0.037078251
853	485921.9	3752834.24	PLOTS_5_	0.038158685
853	485921.9	3752834.24	PLOTS_7_	0.012073909
854	486021.9	3752834.24	PLOT_11	0.008618277
854	486021.9	3752834.24	PLOT_12	0.007018992
854	486021.9	3752834.24	PLOT_2	0.014487654
854	486021.9	3752834.24	PLOT_30_	
854	486021.9	3752834.24	PLOT_6	0.006904202
854	486021.9	3752834.24	PLOT_9	0.028078853
854	486021.9	3752834.24	PLOT4	0.051713834
854	486021.9	3752834.24	PLOTS_1_	0.041551586
854	486021.9	3752834.24	PLOTS_5_	0.042700891
854	486021.9	3752834.24	PLOTS_7_	0.012413956
855	486121.9	3752834.24	PLOT_11	0.00890086
855	486121.9	3752834.24	PLOT_12	0.007260706
855	486121.9	3752834.24	PLOT_2	0.013207737
855	486121.9	3752834.24	PLOT_30_	
855	486121.9	3752834.24	PLOT_6	0.007011517
855	486121.9	3752834.24	PLOT_9	0.029626811
855	486121.9	3752834.24	PLOT4	0.054800731
855	486121.9	3752834.24	PLOTS_1_	0.043641025
855	486121.9	3752834.24	PLOTS_5_	0.048336755
855	486121.9	3752834.24	PLOTS_7_	0.012552822
856	485921.9	3752934.24	PLOT_11	0.008424691
856	485921.9	3752934.24	PLOT_12	0.006670799
856	485921.9	3752934.24	PLOT_2	0.017130365

856	485921.9	3752934.24	PLOT_30_	
856	485921.9	3752934.24	PLOT_6	0.007145189
856	485921.9	3752934.24	PLOT_9	0.027055879
856	485921.9	3752934.24	PLOT4	0.050210236
856	485921.9	3752934.24	PLOTS_1_	0.041614467
856	485921.9	3752934.24	PLOTS_5_	0.035741676
856	485921.9	3752934.24	PLOTS_7_	0.012456861
857	486021.9	3752934.24	PLOT_11	0.008714886
857	486021.9	3752934.24	PLOT_12	0.006888802
857	486021.9	3752934.24	PLOT_2	0.016108325
857	486021.9	3752934.24	PLOT_30_	
857	486021.9	3752934.24	PLOT_6	0.00720452
857	486021.9	3752934.24	PLOT_9	0.028402965
857	486021.9	3752934.24	PLOT4	0.057699461
857	486021.9	3752934.24	PLOTS_1_	0.051461897
857	486021.9	3752934.24	PLOTS_5_	0.040077082
857	486021.9	3752934.24	PLOTS_7_	0.012944347
858	486121.9	3752934.24	PLOT_11	0.009019524
858	486121.9	3752934.24	PLOT_12	0.007116416
858	486121.9	3752934.24	PLOT_2	0.014722269
858	486121.9	3752934.24	PLOT_30_	
858	486121.9	3752934.24	PLOT_6	0.007273867
858	486121.9	3752934.24	PLOT_9	0.029881849
858	486121.9	3752934.24	PLOT4	0.06554795
858	486121.9	3752934.24	PLOTS_1_	0.054344736
858	486121.9	3752934.24	PLOTS_5_	0.046744177
858	486121.9	3752934.24	PLOTS_7_	0.013312094
859	487026.2	3754364.03	PLOT_11	0.02580343
859	487026.2	3754364.03	PLOT_12	0.017001976
859	487026.2	3754364.03	PLOT_2	0.10599335
859	487026.2	3754364.03	PLOT_30_	
859	487026.2	3754364.03	PLOT_6	0.030423761
859	487026.2	3754364.03	PLOT_9	0.097794492
859	487026.2	3754364.03	PLOT4	0.083019079
859	487026.2	3754364.03	PLOTS_1_	0.027587103
859	487026.2	3754364.03	PLOTS_5_	0.024471586
859	487026.2	3754364.03	PLOTS_7_	0.092663568

Acute Hazard Index - Based on Unmitigated Maximum Hourly Construction Emissions

(note for construction, construciton of each plot is not overlapping, therefore the calculation was based on the max hourly emission for each plot, calculated each plot's AHI and find the max to represent the result at one receptor location)

ID	UTM_X	UTM_Y	MaxOfAHI
159	487553.03	3753938.31	0.162664149
158	486553.03	3753938.31	0.137971541
142	487553.03	3752938.31	0.12899802
12	487233.13	3754689.54	0.10838729
14	487388.77	3754380.1	0.10829012
13	487216.79	3754364.72	0.107137818
859	487026.2	3754364.03	0.10599335
9	485642.82	3754267.27	0.103312777
10	485736.41	3754259.47	0.100306493
11	487189.19	3754820.49	0.098763102
157	485553.03	3753938.31	0.094786488
141	486553.03	3752938.31	0.093356428
177	488553.03	3754938.31	0.091874193
174	485553.03	3754938.31	0.09096235
788	485849.47	3753434.9	0.090821397
787	485749.47	3753434.9	0.08530054
176	487553.03	3754938.31	0.082681297
160	488553.03	3753938.31	0.08225051
785	485549.47	3753434.9	0.081952393
175	486553.03	3754938.31	0.081951034
786	485649.47	3753434.9	0.07928984
664	485451.71	3754834.43	0.076088293
654	485451.71	3754734.43	0.075883403
674	485451.71	3754934.43	0.07535103
644	485451.71	3754634.43	0.074773406
684	485451.71	3755034.43	0.074239165
634	485451.71	3754534.43	0.074028182
624	485451.71	3754434.43	0.072554957
614	485451.71	3754334.43	0.070036282
793	491508.49	3752711.29	0.069940661
594	485451.71	3754134.43	0.068775461
144	489553.03	3752938.31	0.068698109
604	485451.71	3754234.43	0.067836843
784	485849.47	3753334.9	0.067552255
584	485451.71	3754034.43	0.067531823
574	485451.71	3753934.43	0.067402284
564	485451.71	3753834.43	0.06608622
783	485749.47	3753334.9	0.065945795
858	486121.9	3752934.24	0.06554795
554	485451.71	3753734.43	0.065123432
544	485451.71	3753634.43	0.064858059

ID	UTM_X	UTM_Y	MaxOfAHI
534	485451.71	3753534.43	0.062874599
683	485351.71	3755034.43	0.062245103
673	485351.71	3754934.43	0.061789462
782	485649.47	3753334.9	0.061306484
663	485351.71	3754834.43	0.060616748
653	485351.71	3754734.43	0.060361163
8	489005.95	3754140.34	0.060323406
524	485451.71	3753434.43	0.060011624
125	487553.03	3751938.31	0.059878822
643	485351.71	3754634.43	0.059368317
857	486021.9	3752934.24	0.057699461
603	485351.71	3754234.43	0.057538037
143	488553.03	3752938.31	0.057179268
633	485351.71	3754534.43	0.057172655
781	485549.47	3753334.9	0.056709622
613	485351.71	3754334.43	0.05669309
593	485351.71	3754134.43	0.056116441
583	485351.71	3754034.43	0.056071474
573	485351.71	3753934.43	0.055515663
623	485351.71	3754434.43	0.055504086
837	486121.9	3752234.24	0.055245346
146	491553.03	3752938.31	0.055116849
855	486121.9	3752834.24	0.054800731
563	485351.71	3753834.43	0.054345386
840	486121.9	3752334.24	0.054055116
780	485849.47	3753234.9	0.053994749
836	486021.9	3752234.24	0.053654548
145	490553.03	3752938.31	0.05316279
662	485251.71	3754834.43	0.052286244
652	485251.71	3754734.43	0.05221804
833	486021.9	3752134.24	0.05220009
832	485921.9	3752134.24	0.052067221
553	485351.71	3753734.43	0.051953853
835	485921.9	3752234.24	0.051904296
682	485251.71	3755034.43	0.051817124
622	485251.71	3754434.43	0.051793971
854	486021.9	3752834.24	0.051713834
779	485749.47	3753234.9	0.051640709
839	486021.9	3752334.24	0.051616337
672	485251.71	3754934.43	0.051411203
632	485251.71	3754534.43	0.051282092
612	485251.71	3754334.43	0.051191859
543	485351.71	3753634.43	0.051059957
514	485451.71	3753334.43	0.050929525
642	485251.71	3754634.43	0.050857186
732	485849.47	3752034.9	0.050632183

ID	UTM_X	UTM_Y	MaxOfAHI
602	485251.71	3754234.43	0.050532382
856	485921.9	3752934.24	0.050210236
592	485251.71	3754134.43	0.050203701
661	485151.71	3754834.43	0.050021032
533	485351.71	3753534.43	0.049893417
834	486121.9	3752134.24	0.049782044
736	485849.47	3752134.9	0.04968469
651	485151.71	3754734.43	0.049674419
621	485151.71	3754434.43	0.049473289
582	485251.71	3754034.43	0.049113854
681	485151.71	3755034.43	0.049085833
843	486121.9	3752434.24	0.049076254
776	485849.47	3753134.9	0.048970249
611	485151.71	3754334.43	0.048913782
829	485921.9	3752034.24	0.048913049
731	485749.47	3752034.9	0.048809171
671	485151.71	3754934.43	0.048790681
631	485151.71	3754534.43	0.048766757
523	485351.71	3753434.43	0.048726633
4	489690.06	3754161.63	0.04865105
641	485151.71	3754634.43	0.048550911
727	485749.47	3751934.9	0.048466419
601	485151.71	3754234.43	0.048139134
660	485051.71	3754834.43	0.047979068
772	485849.47	3753034.9	0.047881267
591	485151.71	3754134.43	0.047849622
3	489668.94	3754093.71	0.047694358
572	485251.71	3753934.43	0.047551165
728	485849.47	3751934.9	0.047526537
191	485553.03	3755938.31	0.047508139
726	485649.47	3751934.9	0.047443927
650	485051.71	3754734.43	0.047409868
852	486121.9	3752734.24	0.047373519
620	485051.71	3754434.43	0.047373078
853	485921.9	3752834.24	0.047260406
192	486553.03	3755938.31	0.047130287
670	485051.71	3754934.43	0.047035145
740	485849.47	3752234.9	0.046949612
610	485051.71	3754334.43	0.046854062
562	485251.71	3753834.43	0.046853743
581	485151.71	3754034.43	0.046769556
722	485649.47	3751834.9	0.046672343
6	489797.34	3754554.12	0.046614489
640	485051.71	3754634.43	0.046533317
630	485051.71	3754534.43	0.046472994
680	485051.71	3755034.43	0.046461054

ID	UTM_X	UTM_Y	MaxOfAHI
2	489738.71	3754023.94	0.046382615
730	485649.47	3752034.9	0.046218605
768	485849.47	3752934.9	0.046188326
659	484951.71	3754834.43	0.046122284
600	485051.71	3754234.43	0.045980413
842	486021.9	3752434.24	0.04587602
838	485921.9	3752334.24	0.045704309
851	486021.9	3752734.24	0.045703917
108	487553.03	3750938.31	0.045703804
590	485051.71	3754134.43	0.04568015
778	485649.47	3753234.9	0.045595603
619	484951.71	3754434.43	0.045448047
669	484951.71	3754934.43	0.045393546
649	484951.71	3754734.43	0.045370062
571	485151.71	3753934.43	0.045365965
830	486021.9	3752034.24	0.045317632
721	485549.47	3751834.9	0.045182289
723	485749.47	3751834.9	0.045132309
552	485251.71	3753734.43	0.045128873
717	485549.47	3751734.9	0.045107123
609	484951.71	3754334.43	0.044981505
735	485749.47	3752134.9	0.044940112
639	484951.71	3754634.43	0.04477674
580	485051.71	3754034.43	0.044703095
629	484951.71	3754534.43	0.044610121
5	490282.16	3753425.19	0.044567393
658	484851.71	3754834.43	0.044427594
775	485749.47	3753134.9	0.044332549
1	489607.44	3753966.11	0.044296201
542	485251.71	3753634.43	0.044182131
123	485553.03	3751938.31	0.044167632
725	485549.47	3751934.9	0.044097783
718	485649.47	3751734.9	0.044086646
599	484951.71	3754234.43	0.043981142
668	484851.71	3754934.43	0.043928976
849	486121.9	3752634.24	0.043880946
679	484951.71	3755034.43	0.043865267
561	485151.71	3753834.43	0.043719123
618	484851.71	3754434.43	0.043652417
589	484951.71	3754134.43	0.043616201
648	484851.71	3754734.43	0.04346781
764	485849.47	3752834.9	0.04342045
777	485549.47	3753234.9	0.043405223
850	485921.9	3752734.24	0.043375004
570	485051.71	3753934.43	0.0433596
831	486121.9	3752034.24	0.043334347

ID	UTM_X	UTM_Y	MaxOfAHI
608	484851.71	3754334.43	0.043249452
826	485921.9	3751934.24	0.043189243
532	485251.71	3753534.43	0.042996418
771	485749.47	3753034.9	0.042979025
628	484851.71	3754534.43	0.042956414
638	484851.71	3754634.43	0.042858692
657	484751.71	3754834.43	0.042843756
178	489553.03	3754938.31	0.042837078
579	484951.71	3754034.43	0.042707085
344	485451.71	3751634.43	0.042686141
667	484751.71	3754934.43	0.042552657
551	485151.71	3753734.43	0.042449394
513	485351.71	3753334.43	0.042336294
504	485451.71	3753234.43	0.042331825
598	484851.71	3754234.43	0.042202916
354	485451.71	3751734.43	0.042187852
744	485849.47	3752334.9	0.041983846
617	484751.71	3754434.43	0.041965085
560	485051.71	3753834.43	0.041925023
588	484851.71	3754134.43	0.041750032
647	484751.71	3754734.43	0.041656539
607	484751.71	3754334.43	0.041591155
522	485251.71	3753434.43	0.04158388
569	484951.71	3753934.43	0.041403683
161	489553.03	3753938.31	0.041367104
656	484651.71	3754834.43	0.041363061
637	484751.71	3754634.43	0.041357277
627	484751.71	3754534.43	0.041354646
124	486553.03	3751938.31	0.041341786
760	485849.47	3752734.9	0.041319274
666	484651.71	3754934.43	0.04129358
848	486021.9	3752634.24	0.041285133
578	484851.71	3754034.43	0.041276705
678	484851.71	3755034.43	0.041266527
541	485151.71	3753634.43	0.041249425
729	485549.47	3752034.9	0.041103515
767	485749.47	3752934.9	0.041069766
846	486121.9	3752534.24	0.040882513
739	485749.47	3752234.9	0.040852999
734	485649.47	3752134.9	0.04067166
550	485051.71	3753734.43	0.040666903
597	484751.71	3754234.43	0.040563608
713	485549.47	3751634.9	0.04054047
559	484951.71	3753834.43	0.040458028
616	484651.71	3754434.43	0.040355164
677	484751.71	3755034.43	0.040240214

ID	UTM_X	UTM_Y	MaxOfAHI
343	485351.71	3751634.43	0.040233985
665	484551.71	3754934.43	0.040133106
173	484553.03	3754938.31	0.040129494
531	485151.71	3753534.43	0.040128092
568	484851.71	3753934.43	0.040018861
636	484651.71	3754634.43	0.040006696
763	485749.47	3752834.9	0.039995726
655	484551.71	3754834.43	0.039951891
827	486021.9	3751934.24	0.039938417
646	484651.71	3754734.43	0.039906731
626	484651.71	3754534.43	0.039901796
606	484651.71	3754334.43	0.039863376
577	484751.71	3754034.43	0.039734548
587	484751.71	3754134.43	0.039623199
540	485051.71	3753634.43	0.039510366
374	485451.71	3751934.43	0.039484956
847	485921.9	3752634.24	0.039328916
676	484651.71	3755034.43	0.039307571
364	485451.71	3751834.43	0.039266958
774	485649.47	3753134.9	0.039148752
7	490252.94	3754378.21	0.039050151
549	484951.71	3753734.43	0.039049576
770	485649.47	3753034.9	0.038958571
558	484851.71	3753834.43	0.038923534
596	484651.71	3754234.43	0.038913638
615	484551.71	3754434.43	0.038866142
332	485251.71	3751534.43	0.038740069
724	485849.47	3751834.9	0.038634116
567	484751.71	3753934.43	0.03860844
719	485749.47	3751734.9	0.038601652
625	484551.71	3754534.43	0.038597998
645	484551.71	3754734.43	0.038534496
675	484551.71	3755034.43	0.038508734
635	484551.71	3754634.43	0.038495262
530	485051.71	3753534.43	0.038458267
586	484651.71	3754134.43	0.03820512
756	485849.47	3752634.9	0.038202826
539	484951.71	3753634.43	0.038157043
576	484651.71	3754034.43	0.038084842
605	484551.71	3754334.43	0.038049638
521	485151.71	3753434.43	0.03800867
575	484551.71	3754034.43	0.037879658
766	485649.47	3752934.9	0.03786623
557	484751.71	3753834.43	0.037791232
595	484551.71	3754234.43	0.037765413
566	484651.71	3753934.43	0.037708958

ID	UTM_X	UTM_Y	MaxOfAHI
845	486021.9	3752534.24	0.037685563
512	485251.71	3753334.43	0.037650188
548	484851.71	3753734.43	0.037618513
759	485749.47	3752734.9	0.037574073
585	484551.71	3754134.43	0.03750568
529	484951.71	3753534.43	0.03717927
824	486021.9	3751834.24	0.037105742
193	487553.03	3755938.31	0.037070014
353	485351.71	3751734.43	0.03705446
841	485921.9	3752434.24	0.036934239
844	485921.9	3752534.24	0.036893214
733	485549.47	3752134.9	0.036840828
520	485051.71	3753434.43	0.036797508
828	486121.9	3751934.24	0.036768397
538	484851.71	3753634.43	0.036705495
156	484553.03	3753938.31	0.036648519
556	484651.71	3753834.43	0.036623333
821	486021.9	3751734.24	0.036590021
565	484551.71	3753934.43	0.036575144
91	486553.03	3749938.31	0.036506478
503	485351.71	3753234.43	0.036497215
762	485649.47	3752834.9	0.036452013
547	484751.71	3753734.43	0.036400186
310	485051.71	3751334.43	0.036193746
333	485351.71	3751534.43	0.036166797
342	485251.71	3751634.43	0.036125716
755	485749.47	3752634.9	0.035979134
511	485151.71	3753334.43	0.035918967
528	484851.71	3753534.43	0.035860368
519	484951.71	3753434.43	0.03564668
194	488553.03	3755938.31	0.035597041
769	485549.47	3753034.9	0.035588976
321	485151.71	3751434.43	0.035585618
555	484551.71	3753834.43	0.035556514
773	485549.47	3753134.9	0.035511851
752	485849.47	3752534.9	0.035306726
537	484751.71	3753634.43	0.035286633
299	484951.71	3751234.43	0.035228908
510	485051.71	3753334.43	0.035221206
546	484651.71	3753734.43	0.035197363
758	485649.47	3752734.9	0.035144193
140	485553.03	3752938.31	0.035077814
384	485451.71	3752034.43	0.035020222
363	485351.71	3751834.43	0.034951829
765	485549.47	3752934.9	0.034943993
162	490553.03	3753938.31	0.034928264

ID	UTM_X	UTM_Y	MaxOfAHI
494	485451.71	3753134.43	0.034908709
289	484951.71	3751134.43	0.034880006
311	485151.71	3751334.43	0.034868267
320	485051.71	3751434.43	0.03471054
309	484951.71	3751334.43	0.034531899
518	484851.71	3753434.43	0.03453072
822	486121.9	3751734.24	0.034471911
823	485921.9	3751834.24	0.03428039
298	484851.71	3751234.43	0.034198965
715	485749.47	3751634.9	0.034100866
825	486121.9	3751834.24	0.034086928
527	484751.71	3753534.43	0.034067691
545	484551.71	3753734.43	0.03405174
536	484651.71	3753634.43	0.034023084
751	485749.47	3752534.9	0.033856409
819	486121.9	3751634.24	0.033837536
509	484951.71	3753334.43	0.033770162
300	485051.71	3751234.43	0.033750642
147	492553.03	3752938.31	0.033748973
714	485649.47	3751634.9	0.033704454
502	485251.71	3753234.43	0.033594066
816	486121.9	3751534.24	0.033548093
331	485151.71	3751534.43	0.033434909
761	485549.47	3752834.9	0.033361478
738	485649.47	3752234.9	0.033333382
308	484851.71	3751334.43	0.03329717
319	484951.71	3751434.43	0.033226594
748	485849.47	3752434.9	0.033188815
754	485649.47	3752634.9	0.033163573
517	484751.71	3753434.43	0.033108556
277	484751.71	3751034.43	0.032992674
288	484851.71	3751134.43	0.032988704
818	486021.9	3751634.24	0.032978294
535	484551.71	3753634.43	0.032889662
526	484651.71	3753534.43	0.032878189
90	485553.03	3749938.31	0.032862729
322	485251.71	3751434.43	0.032848861
813	486121.9	3751434.24	0.032673943
301	485151.71	3751234.43	0.032661422
484	485451.71	3753034.43	0.03264743
757	485549.47	3752734.9	0.032636796
155	483553.03	3753938.31	0.032594775
126	488553.03	3751938.31	0.032574963
508	484851.71	3753334.43	0.032497826
279	484951.71	3751034.43	0.032487362
77	487553.03	3748938.31	0.032478099

ID	UTM_X	UTM_Y	MaxOfAHI
266	484651.71	3750934.43	0.032430815
290	485051.71	3751134.43	0.032429096
743	485749.47	3752334.9	0.032426857
474	485451.71	3752934.43	0.03239725
815	486021.9	3751534.24	0.03237462
493	485351.71	3753134.43	0.03215411
287	484751.71	3751134.43	0.032086236
812	486021.9	3751434.24	0.032042039
750	485649.47	3752534.9	0.031964948
516	484651.71	3753434.43	0.03193618
276	484651.71	3751034.43	0.031918093
525	484551.71	3753534.43	0.031864204
265	484551.71	3750934.43	0.031803674
720	485849.47	3751734.9	0.031751978
105	484553.03	3750938.31	0.031685815
373	485351.71	3751934.43	0.031591133
500	485051.71	3753234.43	0.031550108
318	484851.71	3751434.43	0.031531582
747	485749.47	3752434.9	0.031497945
814	485921.9	3751534.24	0.031474004
464	485451.71	3752834.43	0.031416231
792	485508.49	3752711.29	0.031392052
501	485151.71	3753234.43	0.031330431
809	486021.9	3751334.24	0.031329415
307	484751.71	3751334.43	0.031304069
810	486121.9	3751334.24	0.031275779
334	485451.71	3751534.43	0.031199184
820	485921.9	3751734.24	0.031197088
753	485549.47	3752634.9	0.031182673
107	486553.03	3750938.31	0.031112576
507	484751.71	3753334.43	0.031098441
817	485921.9	3751634.24	0.031075171
811	485921.9	3751434.24	0.031049588
92	487553.03	3749938.31	0.030940022
297	484751.71	3751234.43	0.030902441
352	485251.71	3751734.43	0.030894994
291	485151.71	3751134.43	0.030773486
808	485921.9	3751334.24	0.03067281
801	486121.9	3751034.24	0.030667605
804	486121.9	3751134.24	0.030616174
190	484553.03	3755938.31	0.030559763
47	486794.14	3756878.03	0.030558656
515	484551.71	3753434.43	0.03049118
708	485849.47	3751434.9	0.030485347
746	485649.47	3752434.9	0.030407507
208	486553.03	3756938.31	0.030329113

ID	UTM_X	UTM_Y	MaxOfAHI
798	486121.9	3750934.24	0.030296737
712	485849.47	3751534.9	0.030271066
806	486021.9	3751234.24	0.030243542
312	485251.71	3751334.43	0.03023837
280	485051.71	3751034.43	0.030210441
275	484551.71	3751034.43	0.03019908
499	484951.71	3753234.43	0.030137122
805	485921.9	3751234.24	0.030120654
473	485351.71	3752934.43	0.0300905
454	485451.71	3752734.43	0.030035651
807	486121.9	3751234.24	0.030030584
483	485351.71	3753034.43	0.030003301
269	484951.71	3750934.43	0.029954161
704	485849.47	3751334.9	0.029928163
506	484651.71	3753334.43	0.029907763
716	485849.47	3751634.9	0.029894023
498	484851.71	3753234.43	0.029827168
172	483553.03	3754938.31	0.029806132
700	485849.47	3751234.9	0.029693504
492	485251.71	3753134.43	0.029660213
749	485549.47	3752534.9	0.029648852
148	493553.03	3752938.31	0.029618631
330	485051.71	3751534.43	0.029536354
463	485351.71	3752834.43	0.029455927
703	485749.47	3751334.9	0.029445876
444	485451.71	3752634.43	0.029423634
802	485921.9	3751134.24	0.029244387
195	489553.03	3755938.31	0.029220391
286	484651.71	3751134.43	0.029171783
797	486021.9	3750934.24	0.029170813
707	485749.47	3751434.9	0.029157669
491	485151.71	3753134.43	0.029145021
696	485849.47	3751134.9	0.029094505
710	485649.47	3751534.9	0.029039368
803	486021.9	3751134.24	0.028991201
699	485749.47	3751234.9	0.028903866
800	486021.9	3751034.24	0.028789006
745	485549.47	3752434.9	0.028783632
179	490553.03	3754938.31	0.0286715
711	485749.47	3751534.9	0.028651916
497	484751.71	3753234.43	0.028635874
285	484551.71	3751134.43	0.028622892
709	485549.47	3751534.9	0.028611808
329	484951.71	3751534.43	0.028591155
505	484551.71	3753334.43	0.028588749
695	485749.47	3751134.9	0.028572343

ID	UTM_X	UTM_Y	MaxOfAHI
317	484751.71	3751434.43	0.02851606
742	485649.47	3752334.9	0.028462595
270	485051.71	3750934.43	0.028373677
362	485251.71	3751834.43	0.028367616
698	485649.47	3751234.9	0.02835224
278	484851.71	3751034.43	0.028322599
692	485849.47	3751034.9	0.02824629
323	485351.71	3751434.43	0.028185382
453	485351.71	3752734.43	0.028157118
296	484651.71	3751234.43	0.028115551
691	485749.47	3751034.9	0.028084058
799	485921.9	3751034.24	0.02808194
702	485649.47	3751334.9	0.028079117
295	484551.71	3751234.43	0.028023893
482	485251.71	3753034.43	0.02802145
434	485451.71	3752534.43	0.027927647
472	485251.71	3752934.43	0.027908673
694	485649.47	3751134.9	0.027873129
341	485151.71	3751634.43	0.027846324
267	484751.71	3750934.43	0.027816228
292	485251.71	3751134.43	0.027653113
462	485251.71	3752834.43	0.02759564
490	485051.71	3753134.43	0.027591723
741	485549.47	3752334.9	0.027582823
189	483553.03	3755938.31	0.027565072
690	485649.47	3751034.9	0.027474208
281	485151.71	3751034.43	0.027454094
706	485649.47	3751434.9	0.027421277
496	484651.71	3753234.43	0.02739309
443	485351.71	3752634.43	0.027385142
687	485749.47	3750934.9	0.02736817
705	485549.47	3751434.9	0.027322914
693	485549.47	3751134.9	0.027320003
89	484553.03	3749938.31	0.027246959
306	484651.71	3751334.43	0.027222787
688	485849.47	3750934.9	0.027218464
686	485649.47	3750934.9	0.027134922
697	485549.47	3751234.9	0.027029855
796	485921.9	3750934.24	0.02700286
324	485451.71	3751434.43	0.026951273
689	485549.47	3751034.9	0.026920464
64	487553.03	3747938.31	0.026874591
424	485451.71	3752434.43	0.026829597
452	485251.71	3752734.43	0.026773628
328	484851.71	3751534.43	0.026771725
209	487553.03	3756938.31	0.026698244

ID	UTM_X	UTM_Y	MaxOfAHI
302	485251.71	3751234.43	0.026640591
433	485351.71	3752534.43	0.026619211
106	485553.03	3750938.31	0.026556742
685	485549.47	3750934.9	0.026526131
207	485553.03	3756938.31	0.026459438
701	485549.47	3751334.9	0.026384012
314	485451.71	3751334.43	0.026361163
284	485451.71	3751034.43	0.026336992
268	484851.71	3750934.43	0.026271645
489	484951.71	3753134.43	0.026197766
481	485151.71	3753034.43	0.026169334
414	485451.71	3752334.43	0.026127582
394	485451.71	3752134.43	0.026104746
294	485451.71	3751134.43	0.026040933
274	485451.71	3750934.43	0.026018966
461	485151.71	3752834.43	0.02589033
313	485351.71	3751334.43	0.025850313
737	485549.47	3752234.9	0.025834138
271	485151.71	3750934.43	0.025824975
471	485151.71	3752934.43	0.02580912
495	484551.71	3753234.43	0.025655766
304	485451.71	3751234.43	0.025505274
442	485251.71	3752634.43	0.025454614
273	485351.71	3750934.43	0.025439905
163	491553.03	3753938.31	0.025329015
293	485351.71	3751134.43	0.025328133
451	485151.71	3752734.43	0.025314469
303	485351.71	3751234.43	0.025294874
206	484553.03	3756938.31	0.025242487
423	485351.71	3752434.43	0.025209415
282	485251.71	3751034.43	0.025184867
404	485451.71	3752234.43	0.02518395
210	488553.03	3756938.31	0.025142699
283	485351.71	3751034.43	0.025101236
383	485351.71	3752034.43	0.025064233
432	485251.71	3752534.43	0.02506205
316	484651.71	3751434.43	0.025050776
488	484851.71	3753134.43	0.024882278
88	483553.03	3749938.31	0.024830849
250	486553.03	3759938.31	0.024554109
73	483553.03	3748938.31	0.02453576
480	485051.71	3753034.43	0.024440294
327	484751.71	3751534.43	0.024412343
413	485351.71	3752334.43	0.024385444
131	493553.03	3751938.31	0.02430633
340	485051.71	3751634.43	0.024301806

ID	UTM_X	UTM_Y	MaxOfAHI
470	485051.71	3752934.43	0.024285764
272	485251.71	3750934.43	0.024261755
441	485151.71	3752634.43	0.024257948
422	485251.71	3752434.43	0.024222799
460	485051.71	3752834.43	0.02421043
127	489553.03	3751938.31	0.024025377
251	487553.03	3759938.31	0.023942142
403	485351.71	3752234.43	0.023912285
450	485051.71	3752734.43	0.023887939
487	484751.71	3753134.43	0.023663616
196	490553.03	3755938.31	0.023508463
171	482553.03	3754938.31	0.023467166
305	484551.71	3751334.43	0.023443182
431	485151.71	3752534.43	0.023328812
440	485051.71	3752634.43	0.023195718
339	484951.71	3751634.43	0.023133008
188	482553.03	3755938.31	0.023113022
393	485351.71	3752134.43	0.023101523
479	484951.71	3753034.43	0.023080758
52	486553.03	3746938.31	0.023062169
421	485151.71	3752434.43	0.023003298
412	485251.71	3752334.43	0.022984436
469	484951.71	3752934.43	0.022905744
449	484951.71	3752734.43	0.022565567
459	484951.71	3752834.43	0.022561369
128	490553.03	3751938.31	0.022550272
486	484651.71	3753134.43	0.022449767
402	485251.71	3752234.43	0.02237281
411	485151.71	3752334.43	0.02211306
430	485051.71	3752534.43	0.022081046
239	487553.03	3758938.31	0.022055075
439	484951.71	3752634.43	0.022030226
211	489553.03	3756938.31	0.022021905
392	485251.71	3752134.43	0.021967709
149	494553.03	3752938.31	0.021951627
164	492553.03	3753938.31	0.02188402
478	484851.71	3753034.43	0.021869652
351	485151.71	3751734.43	0.021807094
205	483553.03	3756938.31	0.021682002
225	487553.03	3757938.31	0.021610104
468	484851.71	3752934.43	0.021584212
420	485051.71	3752434.43	0.021581021
338	484851.71	3751634.43	0.021571899
212	490553.03	3756938.31	0.021448577
249	485553.03	3759938.31	0.021444696
74	484553.03	3748938.31	0.021433139

ID	UTM_X	UTM_Y	MaxOfAHI
485	484551.71	3753134.43	0.021421287
382	485251.71	3752034.43	0.021272298
223	485553.03	3757938.31	0.021250175
448	484851.71	3752734.43	0.02124465
458	484851.71	3752834.43	0.021232281
87	482553.03	3749938.31	0.021211271
429	484951.71	3752534.43	0.021189409
410	485051.71	3752334.43	0.021161984
401	485151.71	3752234.43	0.021109149
315	484551.71	3751434.43	0.021004489
438	484851.71	3752634.43	0.020927587
75	485553.03	3748938.31	0.020860341
477	484751.71	3753034.43	0.020814698
132	494553.03	3751938.31	0.020789129
187	481553.03	3755938.31	0.020768418
253	489553.03	3759938.31	0.020702254
254	490553.03	3759938.31	0.020661939
391	485151.71	3752134.43	0.020635878
224	486553.03	3757938.31	0.020435219
180	491553.03	3754938.31	0.020418458
261	487553.03	3760938.31	0.020369056
428	484851.71	3752534.43	0.020359953
419	484951.71	3752434.43	0.020330457
467	484751.71	3752934.43	0.02031389
400	485051.71	3752234.43	0.020308406
381	485151.71	3752034.43	0.020241747
457	484751.71	3752834.43	0.020193446
372	485251.71	3751934.43	0.020168988
227	489553.03	3757938.31	0.020130073
409	484951.71	3752334.43	0.020034439
237	485553.03	3758938.31	0.01999166
447	484751.71	3752734.43	0.019927595
35	481148.72	3756136.18	0.019889415
437	484751.71	3752634.43	0.019876215
476	484651.71	3753034.43	0.019828866
76	486553.03	3748938.31	0.019818576
371	485151.71	3751934.43	0.019603032
399	484951.71	3752234.43	0.019577119
390	485051.71	3752134.43	0.019568835
427	484751.71	3752534.43	0.019425164
418	484851.71	3752434.43	0.019382572
466	484651.71	3752934.43	0.019340315
170	481553.03	3754938.31	0.019238632
109	488553.03	3750938.31	0.019194523
456	484651.71	3752834.43	0.019188472
252	488553.03	3759938.31	0.019139475

ID	UTM_X	UTM_Y	MaxOfAHI
380	485051.71	3752034.43	0.019096012
186	480553.03	3755938.31	0.018907198
475	484551.71	3753034.43	0.018893853
408	484851.71	3752334.43	0.018870738
436	484651.71	3752634.43	0.018832679
50	484553.03	3746938.31	0.018802219
222	484553.03	3757938.31	0.018799131
446	484651.71	3752734.43	0.018762662
361	485151.71	3751834.43	0.018752756
389	484951.71	3752134.43	0.01874257
417	484751.71	3752434.43	0.018735238
370	485051.71	3751934.43	0.018731936
226	488553.03	3757938.31	0.018703415
326	484651.71	3751534.43	0.018653748
398	484851.71	3752234.43	0.018648878
242	490553.03	3758938.31	0.018645015
241	489553.03	3758938.31	0.018631694
259	485553.03	3760938.31	0.018618108
426	484651.71	3752534.43	0.018556865
139	484553.03	3752938.31	0.018469554
465	484551.71	3752934.43	0.018441458
33	482657.64	3753975.1	0.018366012
795	491508.49	3758711.29	0.018354337
794	485508.49	3758711.29	0.018323725
238	486553.03	3758938.31	0.018306964
165	493553.03	3753938.31	0.018305552
29	481845	3754457	0.018252886
360	485051.71	3751834.43	0.018227714
455	484551.71	3752834.43	0.018193685
228	490553.03	3757938.31	0.018187164
258	484553.03	3760938.31	0.018178342
388	484851.71	3752134.43	0.018164189
379	484951.71	3752034.43	0.018131615
416	484651.71	3752434.43	0.018067979
407	484751.71	3752334.43	0.018023036
25	480276	3756365	0.017954445
445	484551.71	3752734.43	0.017948542
248	484553.03	3759938.31	0.017882724
435	484551.71	3752634.43	0.017774703
369	484951.71	3751934.43	0.017743696
425	484551.71	3752534.43	0.017736868
337	484751.71	3751634.43	0.017626218
243	491553.03	3758938.31	0.017597869
115	494553.03	3750938.31	0.017585489
23	479889	3756222	0.01757405
397	484751.71	3752234.43	0.017571817

ID	UTM_X	UTM_Y	MaxOfAHI
359	484951.71	3751834.43	0.01753303
350	485051.71	3751734.43	0.017489934
213	491553.03	3756938.31	0.017452045
387	484751.71	3752134.43	0.017406765
116	495553.03	3750938.31	0.017341861
378	484851.71	3752034.43	0.017321413
415	484551.71	3752434.43	0.017303223
406	484651.71	3752334.43	0.017265108
154	482553.03	3753938.31	0.017194802
182	493553.03	3754938.31	0.017173894
34	481494.96	3754633.66	0.017141077
349	484951.71	3751734.43	0.017102463
27	480772	3755009	0.017032834
368	484851.71	3751934.43	0.01691883
197	491553.03	3755938.31	0.016883834
377	484751.71	3752034.43	0.016882674
28	481560	3754548	0.016873777
71	481553.03	3748938.31	0.016762181
405	484551.71	3752334.43	0.016759711
396	484651.71	3752234.43	0.016753666
358	484851.71	3751834.43	0.016730663
38	479598.7	3756506.31	0.016713662
244	492553.03	3758938.31	0.016706163
236	484553.03	3758938.31	0.016646263
181	492553.03	3754938.31	0.016610359
133	495553.03	3751938.31	0.016574277
386	484651.71	3752134.43	0.016497386
348	484851.71	3751734.43	0.016495707
59	482553.03	3747938.31	0.016449449
240	488553.03	3758938.31	0.016448038
221	483553.03	3757938.31	0.016435246
114	493553.03	3750938.31	0.01636572
376	484651.71	3752034.43	0.016265675
367	484751.71	3751934.43	0.01616135
395	484551.71	3752234.43	0.01606805
166	494553.03	3753938.31	0.016001044
357	484751.71	3751834.43	0.015998369
204	482553.03	3756938.31	0.015911409
229	491553.03	3757938.31	0.015881679
129	491553.03	3751938.31	0.015873634
347	484751.71	3751734.43	0.015802813
366	484651.71	3751934.43	0.015767106
385	484551.71	3752134.43	0.015719701
260	486553.03	3760938.31	0.015637051
202	480553.03	3756938.31	0.015599647
185	479553.03	3755938.31	0.01557424

ID	UTM_X	UTM_Y	MaxOfAHI
45	494397.38	3753977.58	0.0155386
375	484551.71	3752034.43	0.015510322
169	480553.03	3754938.31	0.015429034
150	495553.03	3752938.31	0.015416499
230	492553.03	3757938.31	0.015414654
356	484651.71	3751834.43	0.015368252
346	484651.71	3751734.43	0.015344609
201	479553.03	3756938.31	0.015287179
122	484553.03	3751938.31	0.015261653
365	484551.71	3751934.43	0.015238818
198	492553.03	3755938.31	0.015230102
15	484625	3751748	0.015216076
255	491553.03	3759938.31	0.015194551
336	484651.71	3751634.43	0.015077662
24	479234	3757080	0.01491146
355	484551.71	3751834.43	0.014873702
100	495553.03	3749938.31	0.014847413
203	481553.03	3756938.31	0.014822007
345	484551.71	3751734.43	0.014814067
215	493553.03	3756938.31	0.014757431
257	483553.03	3760938.31	0.014740582
335	484551.71	3751634.43	0.014709705
220	482553.03	3757938.31	0.0145293
325	484551.71	3751534.43	0.014367067
153	481553.03	3753938.31	0.014216391
72	482553.03	3748938.31	0.014133202
63	486553.03	3747938.31	0.014129409
214	492553.03	3756938.31	0.014056276
231	493553.03	3757938.31	0.01398332
30	481754	3753876	0.013814736
167	495553.03	3753938.31	0.013698012
263	489553.03	3760938.31	0.013631419
234	482553.03	3758938.31	0.013479596
264	490553.03	3760938.31	0.013469451
36	482346.53	3748872.86	0.013446426
130	492553.03	3751938.31	0.013259226
235	483553.03	3758938.31	0.013244319
183	494553.03	3754938.31	0.013242555
199	493553.03	3755938.31	0.013091085
93	488553.03	3749938.31	0.013057209
60	483553.03	3747938.31	0.013018834
216	494553.03	3756938.31	0.012839487
247	483553.03	3759938.31	0.012322972
138	483553.03	3752938.31	0.012226815
219	481553.03	3757938.31	0.011955809
262	488553.03	3760938.31	0.011674306

ID	UTM_X	UTM_Y	MaxOfAHI
233	481553.03	3758938.31	0.011670248
200	494553.03	3755938.31	0.011663279
245	481553.03	3759938.31	0.011530511
218	480553.03	3757938.31	0.01131032
94	489553.03	3749938.31	0.011037462
217	479553.03	3757938.31	0.010993088
121	483553.03	3751938.31	0.010965829
232	480553.03	3758938.31	0.010922602
246	482553.03	3759938.31	0.010918632
184	495553.03	3754938.31	0.010672328
256	482553.03	3760938.31	0.010662095
78	488553.03	3748938.31	0.010499421
168	479553.03	3754938.31	0.010394442
104	483553.03	3750938.31	0.010246765
16	483279	3751798	0.010129524
17	483231	3751205	0.009853226
79	489553.03	3748938.31	0.009850138
137	482553.03	3752938.31	0.009600746
111	490553.03	3750938.31	0.009598291
110	489553.03	3750938.31	0.009436725
40	478978.31	3755233.1	0.009278663
31	489635.18	3750663.82	0.008844543
120	482553.03	3751938.31	0.008720862
48	482344.95	3752065.79	0.008516285
103	482553.03	3750938.31	0.008302356
20	481867	3752785	0.00826354
65	488553.03	3747938.31	0.008254542
86	481553.03	3749938.31	0.007698946
136	481553.03	3752938.31	0.007646192
66	489553.03	3747938.31	0.007601554
44	480287.9	3754227.46	0.007332842
119	481553.03	3751938.31	0.007230069
61	484553.03	3747938.31	0.007194781
53	487553.03	3746938.31	0.007140175
152	480553.03	3753938.31	0.006740548
102	481553.03	3750938.31	0.006646508
112	491553.03	3750938.31	0.006561539
54	488553.03	3746938.31	0.006481187
95	490553.03	3749938.31	0.006475394
62	485553.03	3747938.31	0.006410878
80	490553.03	3748938.31	0.006222003
135	480553.03	3752938.31	0.006203389
56	490553.03	3746938.31	0.006200831
118	480553.03	3751938.31	0.00610485
46	481108.51	3750699.02	0.006098146
67	490553.03	3747938.31	0.006089765

ID	UTM_X	UTM_Y	MaxOfAHI
32	485424.11	3747672.3	0.006055007
43	480295.38	3752408.38	0.006019632
96	491553.03	3749938.31	0.006002095
21	480678	3751306	0.005939177
19	481211	3749473	0.005854223
22	479989	3752645	0.005813202
49	487553.03	3745938.31	0.005638178
101	480553.03	3750938.31	0.005634826
55	489553.03	3746938.31	0.005619829
37	480298.98	3751198.04	0.005558341
26	479887	3754007	0.005547137
85	480553.03	3749938.31	0.005493765
42	479493.25	3752408.79	0.00534997
791	479508.49	3752711.29	0.00531733
151	479553.03	3753938.31	0.005221172
68	491553.03	3747938.31	0.005190384
117	479553.03	3751938.31	0.005175211
18	480165	3750195	0.005104989
134	479553.03	3752938.31	0.00509802
81	491553.03	3748938.31	0.004938927
41	479197.34	3754462.34	0.004876329
57	491553.03	3746938.31	0.004821457
98	493553.03	3749938.31	0.004772496
113	492553.03	3750938.31	0.004709862
790	491508.49	3746711.29	0.004486318
39	478997.81	3753535.19	0.00433423
51	485553.03	3746938.31	0.004247777
97	492553.03	3749938.31	0.004183554
789	485508.49	3746711.29	0.004156471
82	492553.03	3748938.31	0.004088367
58	492553.03	3746938.31	0.004054491
84	494553.03	3748938.31	0.004011529
69	492553.03	3747938.31	0.003933104
99	494553.03	3749938.31	0.003731879
70	493553.03	3747938.31	0.003628576
83	493553.03	3748938.31	0.00315661

	Speed	Emfac Emission Factors Diesel -2025 unmitigated								
Scenario	**(mph)**	**LDA**	**LDT1**	**LDT2**	**MDT**	**LHDT1**	**LHDT2**	**MHDT**	**HHDT**	**Unit**
Idle		0	0	0	0	0.656874549	0.655521632	0.004109246	0.009735638	g/hour
Within Truck Yard	15	0.014152718	0.160619105	0.008532792	0.007390899	0.027515327	0.021361166	0.004831248	0.009907276	g/mile
Onsite Street	35/25	0.006190976	0.067122702	0.004705518	0.003917549	0.018633218	0.014927204	0.003856058	0.007808927	g/mile
SurfaceStreet	composite	0.007800382	0.086698808	0.005380941	0.004554997	0.017241713	0.013610573	0.003588326	0.007261637	g/mile
Freeway	composite	0.005280091	0.067633397	0.003851273	0.003488264	0.017969765	0.012662158	0.002743943	0.005520507	g/mile

	Speed	Emfac Emission Factors Diesel -2040 unmitigated								
Scenario	**(mph)**	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	**Unit**
Idle		0	0	0	0	0.397274029	0.46684213	0.001509492	0.002256636	g/hour
Within Truck Yard	15	0.001460661	0.011253057	0.007475014	0.001884617	0.012410633	0.012968648	0.004484655	0.008660846	g/mile
Onsite Street	35/25	0.00084251	0.005652533	0.004355645	0.001091883	0.008911102	0.009465393	0.003636682	0.006878273	g/mile
SurfaceStreet	composite	0.000929602	0.006590335	0.00478475	0.001202381	0.007920328	0.008312804	0.003298377	0.006234529	g/mile
Freeway	composite	0.000721837	0.004606498	0.003662582	0.000920755	0.006800898	0.006403662	0.002590694	0.004895859	g/mile

	Speed	Emfac Emission Factors Diesel -2025 mitigated								
Scenario	**(mph)**	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	**Unit**
Idle		0	0	0	0	0.656874549	0.655521632	0.001355598	0.001497141	g/hour
Within Truck Yard	15	0.014152718	0.160619105	0.012432912	0.007390899	0.027515327	0.021361166	0.004554597	0.009265715	g/mile
Onsite Street	35/25	0.006190976	0.067122702	0.004705518	0.003917549	0.018633218	0.014927204	0.003696645	0.007153239	g/mile
SurfaceStreet	composite	0.007800382	0.086698808	0.005380941	0.004554997	0.01724	0.013610573	0.003427017	0.006701623	g/mile
Freeway	composite	0.0053	0.067633397	0.003851273	0.003488264	0.017969765	0.012662158	0.002599408	0.005061283	g/mile

	Speed	Emfac Emission Factors Diesel -2040 mitigated								
Scenario	**(mph)**	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT	**Unit**
Idle		0	0	0	0	0.397274029	0.46684213	0.001355598	0.001497141	g/hour
Within Truck Yard	15	0.001460661	0.011253057	0.009929122	0.001884617	0.012410633	0.012968648	0.004475357	0.008604211	g/mile
Onsite Street	35/25	0.00084251	0.005652533	0.004355645	0.001091883	0.008911102	0.009465393	0.003632664	0.006794393	g/mile
SurfaceStreet	composite	0.000929602	0.006590335	0.00478475	0.001202381	0.007920328	0.008312804	0.003293741	0.006228387	g/mile
Freeway	composite	0.000721837	0.004606498	0.003662582	0.000920755	0.006800898	0.006403662	0.00258462	0.00487482	g/mile

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Onsite Street Speed	35	35	35	35	25	25	25	25

Fleet Mix Conversion from Traffci Study to Emfac Vehicle Categories

Auto			Light	Med		Heavy	
69%	5%	26%	100%	68%	32%	37%	63%
LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT

Conversion from Total VMT to VMT by Fuel by Vehicle Type

	2025 VMT			2040 VMT		
	Gas	Diesel	Elec	Gas	Diesel	Elec
LDA	92.29%	1.07%	6.64%	84.19%	1.15%	14.66%
LDT1	99.84%	0.10%	0.06%	99.89%	0.06%	0.05%
LDT2	99.79%	0.21%		99.78%	0.22%	
MDV	97.89%	2.11%		97.34%	2.66%	
LHDT1	47.97%	52.03%		33.48%	66.52%	
LHDT2	33.67%	66.33%		29.04%	70.96%	
MHDT	11.26%	88.74%		10.37%	89.63%	
HHDT	0.95%	99.05%		1.11%	98.89%	

						Peak Hour Trips																				
AERMOD	AERMOD	Traffic Study				Traffic Study Vehicles				Emfac Vehicle Categories								Segment	Total Miles							
SRCGRP ID	Category	Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
IN01	Onsite	SEGMENT01	Street A	State Route 60	Eucalyptus Ave	1014	62	71	490	703	52	259	62	48	23	184	306	0.203165814	143	11	53	13	10	5	37	62
IN02	Onsite	SEGMENT02	Street A	Eucalyptus Ave	Street F	591	51	37	269	409	30	151	51	25	12	101	168	0.454245633	186	14	69	23	11	6	46	76
IN03	Onsite	SEGMENT03	Street E	west of Street A	0	333	22	17	58	231	17	85	22	12	6	22	36	1.461130123	337	25	124	33	17	8	32	53
IN05	Onsite	SEGMENT05	Street E	Street D	Street A	705	46	32	18	4883	360	1803	463	214	103	68	113	0.592368856	289	21	107	27	13	6	4	7
IN06	Onsite	SEGMENT06	Street A	Street F	Street C	1200	108	82	591	832	61	307	108	55	27	221	369	0.682667957	568	42	210	74	38	18	151	252
IN08	Onsite	SEGMENT08	Street D	Street E	Cactus Ave	928	49	32	0	643	47	238	49	21	10	0	0	0.678048351	436	32	161	33	15	7	0	0
IN11	Onsite	SEGMENT11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	64	-6	3	-2	45	3	16	-6	2	1	-1	-1	0.746504229	33	2	12	0	1	1	0	0
IN12	Onsite	SEGMENT12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	-178	2	0	0	-123	-9	-46	2	0	0	0	0	0.511705351	0	0	0	1	0	0	0	0
IN14	Onsite	SEGMENT14	Eucalyptus Ave	east of Redlands blvd	0	344	39	10	97	2387	176	881	385	65	31	363	605	1.005509519	240	18	89	39	7	3	36	61
IN18	Onsite	SEGMENT18	Street B	east of Street A	0	93	6	3	17	644	48	238	60	20	10	64	106	0.877859209	57	4	21	5	2	1	6	9
IN19	Onsite	SEGMENT19	Street F	east of Street A	0	583	28	23	158	4043	298	1493	283	155	74	591	985	1.420723361	574	42	212	40	22	11	84	140
IN21	Onsite	SEGMENT21	Street C	east of Street A	0	181	22	17	43	125	9	46	22	11	5	16	27	0.781511386	98	7	36	17	9	4	13	21
IN24	Onsite	SEGMENT24	Street C	Street F	Street H	208	21	17	91	144	11	53	21	11	5	34	57	1.208923018	174	13	64	26	14	6	41	69
IN29	Onsite	SEGMENT29	Gilman Springs Rd	Eucalyptus Ave	Street C	212	10	6	43	147	11	54	10	4	2	16	27	0.419193437	62	5	23	4	2	1	7	11
IN30	Onsite	SEGMENT30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	-373	9	5	58	-259	-19	-95	9	3	2	22	36	1.756583849	0	0	0	15	6	3	38	64
IN31	Onsite	SEGMENT31	Gilman Springs Rd	south of Street C	0	130	5	3	5	90	7	33	5	2	1	2	3	0.509374921	46	3	17	3	1	0	1	2
SF09	SurSt	SEGMENT09	John F Kennedy Dr	south of Cactus Ave	0	320	21	20	0	221	16	82	21	13	6	0	0	1.130729006	250	18	92	23	15	7	0	0
SF10	SurSt	SEGMENT10	Redlands Blvd	Alessandro Blvd	Cactus Ave	13	-4	3	-1	9	1	3	-4	2	1	0	0	0.513129024	5	0	2	0	1	1	0	0
SF104	SurSt	SEGMENT104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	221	1	1	6	153	11	57	1	1	0	2	4	0.250863701	38	3	14	0	0	0	1	1
SF106	SurSt	SEGMENT106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd	63	0	0	0	44	3	16	0	0	0	0	0	1.120483752	49	4	18	0	0	0	0	0
SF107	SurSt	SEGMENT107	Alessandro Blvd	Old 215 Frontage Rd	Day St	220	1	1	6	152	11	56	1	1	0	2	4	0.241096627	37	3	14	0	0	0	1	1
SF108	SurSt	SEGMENT108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave	110	0	0	0	76	6	28	0	0	0	0	0	0.619357143	47	3	17	0	0	0	0	0
SF109	SurSt	SEGMENT109	Day St	Cottonwood Ave	Alessandro Blvd	58	0	0	0	40	3	15	0	0	0	0	0	0.488916878	20	1	7	0	0	0	0	0
SF110	SurSt	SEGMENT110	Alessandro Blvd	Day St	Elsworth St	176	1	2	6	122	9	45	1	1	0	2	4	0.469424982	57	4	21	0	0	0	1	2
SF111	SurSt	SEGMENT111	Elsworth St	Cottonwood Ave	Alessandro Blvd	35	0	0	0	24	2	9	0	0	0	0	0	0.496840368	12	1	4	0	0	0	0	0
SF112	SurSt	SEGMENT112	Alessandro Blvd	Elsworth St	Frederick St	170	1	2	17	118	9	44	1	1	0	6	10	0.507553224	60	4	22	1	1	0	3	5
SF113	SurSt	SEGMENT113	Elsworth St	Alessandro Blvd	Cactus Ave	29	0	0	1	20	1	7	0	0	0	0	1	0.491497999	10	1	4	0	0	0	0	0
SF114	SurSt	SEGMENT114	Frederick St	Cottonwood Ave	Alessandro Blvd	53	0	0	2	37	3	14	0	0	0	1	1	0.491497999	18	1	7	0	0	0	0	1
SF115	SurSt	SEGMENT115	Alessandro Blvd	Frederick St	Graham St	148	1	1	7	103	8	38	1	1	0	3	5	0.528921566	54	4	20	0	0	0	1	2
SF116	SurSt	SEGMENT116	Frederick St	Alessandro Blvd	Cactus Ave	62	1	0	1	43	3	16	1	0	0	0	0	0.508975635	22	2	8	0	0	0	0	0
SF117	SurSt	SEGMENT117	Graham St	Cottonwood Ave	Alessandro Blvd	61	0	0	0	42	3	16	0	0	0	0	0	0.47012852	20	1	7	0	0	0	0	0
SF118	SurSt	SEGMENT118	Alessandro Blvd	Graham St	Heacock St	130	1	1	7	90	7	33	1	1	0	3	4	0.475500902	43	3	16	0	0	0	1	2
SF119	SurSt	SEGMENT119	Graham St	Alessandro Blvd	Cactus Ave	33	0	0	0	23	2	9	0	0	0	0	0	0.486184982	11	1	4	0	0	0	0	0
SF120	SurSt	SEGMENT120	Heacock St	Cottonwood Ave	Alessandro Blvd	7	0	0	11	5	0	2	0	0	0	4	7	0.505798955	3	0	1	0	0	0	2	3
SF121	SurSt	SEGMENT121	Alessandro Blvd	Heacock St	Indian St	91	6	0	3	63	5	23	6	0	0	1	2	0.512895301	32	2	12	3	0	0	1	1
SF122	SurSt	SEGMENT122	Heacock St	Alessandro Blvd	Cactus Ave	24	0	0	8	17	1	6	0	0	0	3	5	0.486180029	8	1	3	0	0	0	1	2
SF123	SurSt	SEGMENT123	Indian St	Cottonwood Ave	Alessandro Blvd	31	0	0	0	21	2	8	0	0	0	0	0	0.491614123	10	1	4	0	0	0	0	0
SF124	SurSt	SEGMENT124	Alessandro Blvd	Indian St	Perris Blvd	91	1	1	7	63	5	23	1	1	0	2	4	0.49686909	31	2	12	0	0	0	1	2
SF125	SurSt	SEGMENT125	Indian St	Alessandro Blvd	Cactus Ave	32	0	0	0	22	2	8	0	0	0	0	0	0.507559157	11	1	4	0	0	0	0	0
SF126	SurSt	SEGMENT126	Alessandro Blvd	Perris Blvd	Kitching St	40	1	1	6	28	2	10	1	1	0	2	4	0.480842938	13	1	5	0	0	0	1	2
SF127	SurSt	SEGMENT127	Perris Blvd	Alessandro Blvd	Cactus Ave	-55	0	-1	33	-38	-3	-14	0	-1	0	12	21	0.512895301	0	0	0	0	0	0	6	11
SF128	SurSt	SEGMENT128	Kitching St	Cottonwood Ave	Alessandro Blvd	38	0	0	0	26	2	10	0	0	0	0	0	0.480842938	12	1	5	0	0	0	0	0
SF129	SurSt	SEGMENT129	Alessandro Blvd	Kitching St	Lasselle St	13	1	1	6	9	1	3	1	1	0	2	4	0.511426356	5	0	2	1	0	0	1	2
SF13	SurSt	SEGMENT13	Redlands Blvd	State Route 60	Eucalyptus Ave	35	6	7	87	24	2	9	6	5	2	33	54	0.214415088	5	0	2	1	1	0	7	12
SF130	SurSt	SEGMENT130	Kitching St	Alessandro Blvd	Cactus Ave	27	0	0	0	18	1	7	0	0	0	0	0	0.496959859	9	1	3	0	0	0	0	0
SF131	SurSt	SEGMENT131	Lasselle St	Cottonwood Ave	Alessandro Blvd	41	0	0	0	28	2	10	0	0	0	0	0	0.481444058	14	1	5	0	0	0	0	0
SF133	SurSt	SEGMENT133	Lasselle St	Alessandro Blvd	Cactus Ave	36	0	0	0	25	2	9	0	0	0	0	0	0.499672097	13	1	5	0	0	0	0	0
SF134	SurSt	SEGMENT134	Morrison St	Cottonwood Ave	Alessandro Blvd	24	0	0	0	17	1	6	0	0	0	0	0	0.47237817	8	1	3	0	0	0	0	0
SF135	SurSt	SEGMENT135	Alessandro Blvd	Morrison St	Nason St	22	1	1	6	15	1	6	1	1	0	2	4	0.506974737	8	1	3	1	0	0	1	2
SF136	SurSt	SEGMENT136	Nason St	Cottonwood Ave	Alessandro Blvd	71	1	0	0	49	4	18	1	0	0	0	0	0.488434706	24	2	9	0	0	0	0	0
SF137	SurSt	SEGMENT137	Nason St	Alessandro Blvd	Cactus Ave	27	0	0	1	19	1	7	0	0	0	0	1	0.490822873	9	1	3	0	0	0	0	0
SF139	SurSt	SEGMENT139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps	70	1	1	0	49	4	18	1	1	0	0	0	0.313207313	15	1	6	0	0	0	0	0
SF140	SurSt	SEGMENT140	I-215 SB Ramps	South of Cactus Ave	0	33	0	0	0	23	2	9	0	0	0	0	0	0.327350721	8	1	3	0	0	0	0	0
SF141	SurSt	SEGMENT141	Cactus Ave	Meridian Pkwy	Elsworth St	152	1	-1	0	105	8	39	1	-1	0	0	0	0.622099336	65	5	24	1	0	0	0	0
SF142	SurSt	SEGMENT142	I-215 NB Ramps	South of Cactus Ave	0	45	0	0	0	31	2	12	0	0	0	0	0	0.180833626	6	0	2	0	0	0	0	0
SF143	SurSt	SEGMENT143	Cactus Ave	Elsworth St	Frederick St	108	2	1	0	75	6	28	2	1	0	0	0	0.525086071	39	3	15	1	0	0	0	0
SF144	SurSt	SEGMENT144	Cactus Ave	Frederick St	Graham St	116	2	1	-1	80	6	30	2	1	0	-1	-1	0.486523028	39	3	14	1	0	0	0	0
SF145	SurSt	SEGMENT145	Cactus Ave	Graham St	Heacock St	77	3	2	-1	54	4	20	3	2	1	-1	-1	0.489275962	26	2	10	1	1	0	0	0
SF146	SurSt	SEGMENT146	Riverside Dr	Cactus Ave	Meyer Dr	60	0	0	0	42	3	15	0	0	0	0	0	0.505608008	21	2	8	0	0	0	0	0
SF147	SurSt	SEGMENT147	Cactus Ave	Heacock St	Indian St	40	3	2	0	28	2	10	3	1	1	0	0	0.495690953	14	1	5	1	1	0	0	0
SF148	SurSt	SEGMENT148	Heacock St	Cactus Ave	John F Kennedy Dr	49	0	0	7	34	2	12	0	0	0	3	4	0.454437389	15	1	6	0	0	0	1	2
SF149	SurSt	SEGMENT149	Cactus Ave	Indian St	Perris Blvd	19	3	3	-1	13	1	5	3	2	1	0	0	0.502253823	6	0	2	2	1	0	0	0
SF150	SurSt	SEGMENT150	Indian St	Cactus Ave	John F Kennedy Dr	29	0	0	0	20	1	7	0	0	0	0	0	0.492409531	10	1	4	0	0	0	0	0
SF151	SurSt	SEGMENT151	Cactus Ave	Perris Blvd	Kitching St	38	4	3	1	26	2	10	4	2	1	0	0	0.489040019	13	1	5	2	1	0	0	0
SF152	SurSt	SEGMENT152	Perris Blvd	Cactus Ave	John F Kennedy Dr	-79	0	2	33	-55	-4	-20	0	2	1	12	21	0.485746931	0	0	0	0	1	0	6	10
SF153	SurSt	SEGMENT153	Cactus Ave	Kitching St	Lasselle St	59	4	3	0	41	3	15	4	2	1	0	0	0.495636622	20	2	8	2	1	1	0	0

						Peak Hour Trips																				
AERMOD	AERMOD	Traffic Study				Traffic Study Vehicles				Emfac Vehicle Categories								Segment	Total Miles							
SRCGRP ID	Category	Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF154	SurSt	SEGMENT154	Kitching St	Cactus Ave	John F Kennedy Dr	26	0	0	0	18	1	7	0	0	0	0	0	0.559716498	10	1	4	0	0	0	0	0
SF155	SurSt	SEGMENT155	Cactus Ave	Lasselle St	Morrison St	81	7	6	0	56	4	21	7	4	2	0	0	0.481288044	27	2	10	3	2	1	0	0
SF156	SurSt	SEGMENT156	Lasselle St	Cactus Ave	John F Kennedy Dr	38	3	2	0	27	2	10	3	1	1	0	0	0.479227741	13	1	5	1	1	0	0	0
SF157	SurSt	SEGMENT157	Cactus Ave	Morrison St	Nason St	39	8	5	0	27	2	10	8	4	2	0	0	0.499520289	14	1	5	4	2	1	0	0
SF160	SurSt	SEGMENT160	Kitching St	Gentian Ave	Iris Ave	58	0	0	0	40	3	15	0	0	0	0	0	0.445242916	18	1	7	0	0	0	0	0
SF161	SurSt	SEGMENT161	Iris Ave	Perris Blvd	Kitching St	29	12	12	0	20	1	7	12	8	4	0	0	0.487301852	10	1	4	6	4	2	0	0
SF162	SurSt	SEGMENT162	Iris Ave	Kitching St	Lasselle St	217	17	17	0	150	11	56	17	11	6	0	0	0.653622267	98	7	36	11	7	4	0	0
SF163	SurSt	SEGMENT163	Kitching St	Iris Ave	Ivory Ave	134	3	4	0	93	7	34	3	3	1	0	0	0.217614851	20	1	7	1	1	0	0	0
SF164	SurSt	SEGMENT164	Lasselle St	Gentian Ave	Iris Ave	60	0	0	0	42	3	15	0	0	0	0	0	0.293601177	12	1	5	0	0	0	0	0
SF165	SurSt	SEGMENT165	Iris Ave	Lasselle St	Nason St	284	21	20	0	197	15	73	21	13	6	0	0	0.957237495	188	14	70	20	13	6	0	0
SF168	SurSt	SEGMENT168	Krameria Ave	Perris Blvd	Kitching St	210	4	5	0	145	11	54	4	3	1	0	0	0.471253959	69	5	25	2	1	1	0	0
SF169	SurSt	SEGMENT169	Krameria Ave	Kitching St	Lasselle St	56	0	0	0	39	3	14	0	0	0	0	0	0.578393344	23	2	8	0	0	0	0	0
SF170	SurSt	SEGMENT170	Kitching St	Krameria Ave	Lurin Ave	495	19	7	1	343	25	127	19	5	2	0	0	0.153769089	53	4	19	3	1	0	0	0
SF171	SurSt	SEGMENT171	Lasselle St	Cahuilla Dr	Krameria Ave	57	4	2	0	39	3	14	4	1	1	0	0	0.324286469	13	1	5	1	0	0	0	0
SF172	SurSt	SEGMENT172	Lasselle St	Krameria Ave	Arroyo Park Dr	67	4	2	0	47	3	17	4	1	1	0	0	0.617022786	29	2	11	2	1	0	0	0
SF173	SurSt	SEGMENT173	Oleander Ave	Perris Blvd	Lasselle St	0	0	0	0	0	0	0	0	0	0	0	0	1.003753863	0	0	0	0	0	0	0	0
SF174	SurSt	SEGMENT174	Oleander Ave	Lasselle St	Lake Perris Dr	0	0	0	0	0	0	0	0	0	0	0	0	0.204920149	0	0	0	0	0	0	0	0
SF177	SurSt	SEGMENT177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	-34	9	9	40	-23	-2	-9	9	6	3	15	25	0.68990263	0	0	0	6	4	2	10	17
SF178	SurSt	SEGMENT178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	13	1	1	4	9	1	3	1	0	0	1	2	4.431297539	41	3	15	4	1	1	6	10
SF179	SurSt	SEGMENT179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	-57	11	10	44	-39	-3	-15	11	7	3	16	27	1.359947171	0	0	0	15	9	5	22	37
SF180	SurSt	SEGMENT180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	10	0	0	0	7	1	3	0	0	0	0	0	4.314023941	30	2	11	0	0	0	0	0
SF181	SurSt	SEGMENT181	Potrero Blvd	North of SR 60 WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0	0.388554542	0	0	0	0	0	0	0	0
SF182	SurSt	SEGMENT182	SR 60 WB On Ramp	West of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.216952965	0	0	0	0	0	0	0	0
SF183	SurSt	SEGMENT183	SR 60 WB Off Ramp	East of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.251371425	0	0	0	0	0	0	0	0
SF184	SurSt	SEGMENT184	SR 60 EB Off Ramp	West of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.181561175	0	0	0	0	0	0	0	0
SF185	SurSt	SEGMENT185	SR 60 EB On Ramp	East of Potrero Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.178323852	0	0	0	0	0	0	0	0
SF186	SurSt	SEGMENT186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	0	0	0	0	0	0	0	0	0	0	0	0	0.296202935	0	0	0	0	0	0	0	0
SF190	SurSt	SEGMENT190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	-2	4	2	5	-1	0	-1	4	2	1	2	3	3.956921646	0	0	0	18	6	3	8	13
SF191	SurSt	SEGMENT191	Gilman Springs Rd	Bridge St	Beaumont Ave	10	3	3	2	7	1	3	3	2	1	1	1	3.048371476	21	2	8	11	6	3	3	5
SF192	SurSt	SEGMENT192	Bridge St	Gilman Springs Rd	Marvin Rd	18	2	1	4	13	1	5	2	1	0	2	3	2.708693859	34	3	13	6	2	1	4	7
SF194	SurSt	SEGMENT194	Crescent Ave	West of Alessandro Rd	0	24	2	2	0	17	1	6	2	1	1	0	0	0.213801484	4	0	1	0	0	0	0	0
SF195	SurSt	SEGMENT195	Crescent Ave	Alessandro Rd	Center St	15	3	2	0	10	1	4	3	1	1	0	0	0.246610762	2	0	1	1	0	0	0	0
SF196	SurSt	SEGMENT196	Alessandro Rd	Crescent Ave	Sunset St	5	5	5	0	3	0	1	5	3	2	0	0	0.445161919	1	0	1	2	1	1	0	0
SF198	SurSt	SEGMENT198	Sunset Dr	Crown St	Alessandro Rd	24	0	0	0	17	1	6	0	0	0	0	0	0.62708051	10	1	4	0	0	0	0	0
SF199	SurSt	SEGMENT199	Sunset Dr	Alessandro Rd	Cameo Dr	26	0	0	0	18	1	7	0	0	0	0	0	0.234604226	4	0	2	0	0	0	0	0
SF200	SurSt	SEGMENT200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	10	6	5	0	7	1	3	6	3	1	0	0	0.871974622	6	0	2	5	3	1	0	0
SF205	SurSt	SEGMENT205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	102	2	3	0	71	5	26	2	2	1	0	0	0.9325292	66	5	24	1	2	1	0	0
SF206	SurSt	SEGMENT206	Reche Canyon Rd	Reche Vista Dr	High Contry Dr	19	0	0	0	13	1	5	0	0	0	0	0	1.651496283	22	2	8	0	0	0	0	0
SF207	SurSt	SEGMENT207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	95	2	3	0	66	5	24	2	2	1	0	0	1.622364173	106	8	39	2	3	2	0	0
SF283	SurSt	SEGMENT283	SR-60 EB Off-Ramp	SR-60	Heacock St	2	0	1	6	1	0	0	0	0	0	2	3	0.251869003	0	0	0	0	0	0	1	1
SF284	SurSt	SEGMENT284	SR-60 EB On-Ramp	Heacock St	SR-60	-4	1	1	12	-3	0	-1	1	1	0	4	7	0.226814738	0	0	0	0	0	0	1	2
SF285	SurSt	SEGMENT285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	-17	-3	-1	8	-12	-1	-4	-3	-1	0	3	5	0.142869402	0	0	0	0	0	0	0	1
SF286	SurSt	SEGMENT286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	65	3	3	0	45	3	17	3	2	1	0	0	0.129593457	6	0	2	0	0	0	0	0
SF287	SurSt	SEGMENT287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	22	3	1	22	15	1	6	3	1	0	8	13	0.181317237	3	0	1	0	0	0	1	2
SF288	SurSt	SEGMENT288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	73	-1	-1	1	50	4	19	-1	0	0	0	0	0.094363838	5	0	2	0	0	0	0	0
SF289	SurSt	SEGMENT289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	5	2	1	14	4	0	1	2	0	0	5	9	0.176862171	1	0	0	0	0	0	1	2
SF290	SurSt	SEGMENT290	Perris Blvd	Sunnymead Blvd	Fir Ave	-51	-1	0	36	-36	-3	-13	-1	0	0	13	22	0.203880884	0	0	0	0	0	0	3	5
SF294	SurSt	SEGMENT294	Via Del Lago	South of Iris Ave	0	26	0	0	0	18	1	7	0	0	0	0	0	0.511826793	9	1	3	0	0	0	0	0
SF301	SurSt	SEGMENT301	John F. Kennedy Dr	Indian St	Perris Blvd	57	2	1	0	39	3	14	2	1	0	0	0	0.480725087	19	1	7	1	0	0	0	0
SF302	SurSt	SEGMENT302	John F. Kennedy Dr	Perris Blvd	Kitching St	85	2	2	0	59	4	22	2	1	1	0	0	0.494656262	29	2	11	1	1	0	0	0
SF303	SurSt	SEGMENT303	Perris Blvd	John F. Kennedy Dr	Iris Ave	-128	0	-1	32	-89	-7	-33	0	-1	0	12	20	0.940553521	0	0	0	0	0	0	11	19
SF304	SurSt	SEGMENT304	Iris Ave	Indian St	Perris Blvd	-81	6	1	0	-56	-4	-21	6	1	0	0	0	0.452809414	0	0	0	3	0	0	0	0
SF306	SurSt	SEGMENT306	Perris Blvd	Iris Ave	Krameria Ave	18	10	10	32	12	1	5	10	7	3	12	20	0.508539804	6	0	2	5	3	2	6	10
SF32	SurSt	SEGMENT32	Cactus Ave	west of Redlands Blvd	0	177	9	8	0	122	9	45	9	6	3	0	0	0.963744898	118	9	44	9	6	3	0	0
SF33	SurSt	SEGMENT33	Alessandro Blvd	west of Redlands Blvd	0	-70	1	4	-1	-48	-4	-18	1	3	1	0	0	0.954784363	0	0	0	1	3	1	0	0
SF340	SurSt	SEGMENT340	Alessandro blvd	North of San Timoteo Canyon Rd	0	6	6	5	0	4	0	1	6	3	1	0	0	0.181638149	1	0	0	1	1	0	0	0
SF35	SurSt	SEGMENT35	Redlands Blvd	Ironwood Ave	State Route 60	-44	3	4	43	-30	-2	-11	3	3	1	16	27	0.497420642	0	0	0	1	1	1	8	13
SF36	SurSt	SEGMENT36	Ironwood Ave	Redlands Blvd	Highland Blvd	141	9	9	0	98	7	36	9	6	3	0	0	1.011016271	99	7	37	9	6	3	0	0
SF37	SurSt	SEGMENT37	San Timoteo Canyon Rd	west Live Oak Canyon	0	-161	7	9	40	-111	-8	-41	7	6	3	15	25	0.135767572	0	0	0	1	1	0	2	3
SF375	SurSt	SEGMENT375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.241120496	0	0	0	0	0	0	0	0
SF376	SurSt	SEGMENT376	3rd St	Marvin Rd	Mid County Pkwy WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0.29622411	0	0	0	0	0	0	0	0
SF377	SurSt	SEGMENT377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.210620673	0	0	0	0	0	0	0	0
SF378	SurSt	SEGMENT378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ramps	0	0	0	0	0	0	0	0	0	0	0	0	0.131991944	0	0	0	0	0	0	0	0
SF379	SurSt	SEGMENT379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	0	0	0	0	0	0	0	0	0	0	0	0	0.205922223	0	0	0	0	0	0	0	0
SF38	SurSt	SEGMENT38	Theodore St	State Route 60	Highland Blvd	144	9	9	0	100	7	37	9	6	3	0	0	0.409361148	41	3	15	4	3	1	0	0
SF380	SurSt	SEGMENT380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	0	0	0	0	0	0	0	0	0	0	0	0	0.17577309	0	0	0	0	0	0	0	0

						Peak Hour Trips																				
AERMOD	AERMOD	Traffic Study				Traffic Study Vehicles				Emfac Vehicle Categories								Segment	Total Miles							
SRCGRP ID	Category	Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF381	SurSt	SEGMENT381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.291357802	0	0	0	0	0	0	0	0
SF386	SurSt	SEGMENT386	Harley Know Blvd	Indian St	Perris Blvd	60	0	0	1	41	3	15	0	0	0	0	0	0.503420269	21	2	8	0	0	0	0	0
SF387	SurSt	SEGMENT387	Perris Blvd	Kramerian Ave	Harley Know Blvd	14	8	9	24	10	1	4	8	6	3	9	15	1.715293831	16	1	6	13	11	5	15	25
SF388	SurSt	SEGMENT388	Kramerian Ave	Lasselle St	Spirit Rd	30	0	0	0	21	2	8	0	0	0	0	0	0.109006596	2	0	1	0	0	0	0	0
SF390	SurSt	SEGMENT390	Ramona Expy	Webster Ave	Indian St	124	2	3	2	86	6	32	2	2	1	1	1	0.738713783	64	5	23	2	2	1	0	1
SF392	SurSt	SEGMENT392	Ramona Expy	Indian St	Perris Blvd	92	3	3	8	64	5	24	3	2	1	3	5	0.270652483	17	1	6	1	1	0	1	1
SF393	SurSt	SEGMENT393	Indian St	Ramona Expy	Morgan St	53	0	1	1	36	3	13	0	0	0	0	1	0.58014511	21	2	8	0	0	0	0	0
SF394	SurSt	SEGMENT394	Perris Blvd	Harley Know blvd	Ramona Expy	82	8	9	21	57	4	21	8	6	3	8	13	0.80283802	46	3	17	7	5	2	6	11
SF396	SurSt	SEGMENT396	Perris Blvd	Ramona Expy	Rider St	42	5	5	9	29	2	11	5	4	2	3	6	1.470187351	43	3	16	8	5	2	5	8
SF397	SurSt	SEGMENT397	Ramona Expy	Perris Blvd	Evans Rd	13	2	1	4	9	1	3	2	1	0	1	3	0.986630966	9	1	3	2	1	0	1	2
SF398	SurSt	SEGMENT398	Evans Rd	Marbella Gate	Ramona Expy	82	4	2	0	57	4	21	4	1	1	0	0	0.347836483	20	1	7	1	0	0	0	0
SF399	SurSt	SEGMENT399	Ramona Expy	Evans Rd	Rider St	65	2	2	3	45	3	17	2	1	1	1	2	2.105990148	95	7	35	3	3	1	2	3
SF400	SurSt	SEGMENT400	Evans Rd	Ramona Expy	Rider St	28	0	0	0	20	1	7	0	0	0	0	0	1.058765142	21	2	8	0	0	0	0	0
SF401	SurSt	SEGMENT401	Morgan St	Indian St	Perris Blvd	44	0	0	0	31	2	11	0	0	0	0	0	0.490874763	15	1	6	0	0	0	0	0
SF402	SurSt	SEGMENT402	Morgan St	Perris Blvd	Silver Creed Industires	71	0	0	0	49	4	18	0	0	0	0	0	0.745035501	37	3	14	0	0	0	0	0
SF404	SurSt	SEGMENT404	Morgan St	Morgan Park	Evans Rd	28	0	0	0	19	1	7	0	0	0	0	0	0.477225311	9	1	3	0	0	0	0	0
SF405	SurSt	SEGMENT405	Morgan St	Evans Rd	Bradley Rd	27	0	0	0	18	1	7	0	0	0	0	0	0.627837619	12	1	4	0	0	0	0	0
SF406	SurSt	SEGMENT406	Ironwood Ave	East of Thedore St	0	30	0	0	0	21	2	8	0	0	0	0	0	0.245503002	5	0	2	0	0	0	0	0
SF408	SurSt	SEGMENT408	Rider St	Perris Blvd	Redlands Ave	95	1	1	1	66	5	24	1	0	0	0	0	0.666071438	44	3	16	0	0	0	0	0
SF409	SurSt	SEGMENT409	Ironwood Ave	Nason St	Moreno Beach Dr	94	1	1	0	65	5	24	1	0	0	0	0	0.706361059	46	3	17	1	0	0	0	0
SF410	SurSt	SEGMENT410	Rider St	Wilson St	Evans Rd	29	0	0	0	20	1	7	0	0	0	0	0	0.549239068	11	1	4	0	0	0	0	0
SF411	SurSt	SEGMENT411	Rider St	Evans Rd	Ramona Expy	19	0	0	0	13	1	5	0	0	0	0	0	1.449029623	19	1	7	0	0	0	0	0
SF42	SurSt	SEGMENT42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	-87	11	9	44	-60	-4	-22	11	6	3	16	27	3.316937394	0	0	0	37	19	9	54	90
SF424	SurSt	SEGMENT424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	-48	-1	-1	35	-33	-2	-12	-1	-1	0	13	22	0.514207542	0	0	0	0	0	0	7	11
SF425	SurSt	SEGMENT425	Mid County Pkwy WB On-Ramp	West of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.125962301	0	0	0	0	0	0	0	0
SF426	SurSt	SEGMENT426	Mid County Pkwy WB Off-Ramp	East of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.171358678	0	0	0	0	0	0	0	0
SF427	SurSt	SEGMENT427	Day St	South of Alessandro Blvd	0	52	0	0	0	36	3	13	0	0	0	0	0	0.406592346	15	1	5	0	0	0	0	0
SF429	SurSt	SEGMENT429	Mid County Pkwy EB On-Ramp	East of Evan	0	0	0	0	0	0	0	0	0	0	0	0	0	0.135834789	0	0	0	0	0	0	0	0
SF43	SurSt	SEGMENT43	Moreno Beach Dr	Alessandro Blvd	SR 60	177	3	2	9	122	9	45	3	2	1	3	5	1.61413653	198	15	73	5	3	1	5	9
SF432	SurSt	SEGMENT432	Placentia Ave	Evans Rd	El Nido Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.390502928	0	0	0	0	0	0	0	0
SF433	SurSt	SEGMENT433	Evans Rd	Rider St	Orange Ave	29	0	0	0	20	2	8	0	0	0	0	0	1.119814504	23	2	8	0	0	0	0	0
SF436	SurSt	SEGMENT436	Elsworth St	North of Cactus Ave	0	30	0	0	0	21	2	8	0	0	0	0	0	0.110385914	2	0	1	0	0	0	0	0
SF458	SurSt	SEGMENT458	Nason St	South of Cactus Ave	0	38	0	0	0	26	2	10	0	0	0	0	0	0.147088371	4	0	1	0	0	0	0	0
SF46	SurSt	SEGMENT46	Moreno Beach Dr	State Route 60	Ironwood Ave	190	2	2	-1	132	10	49	2	1	0	0	0	0.500755897	66	5	24	1	1	0	0	0
SF464	SurSt	SEGMENT464	Quincy	South of Eucalyptus	0	0	0	0	0	0	0	0	0	0	0	0	0	0.436415902	0	0	0	0	0	0	0	0
SF47	SurSt	SEGMENT47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	181	3	1	0	125	9	46	3	1	0	0	0	1.239676544	155	11	57	3	1	0	0	0
SF479	SurSt	SEGMENT479	Oliver St	North of Irris Ave	0	34	0	0	0	24	2	9	0	0	0	0	0	0.286402125	7	1	3	0	0	0	0	0
SF48	SurSt	SEGMENT48	Alessandro Blvd	Lesselle St	Morrison St	18	2	1	6	13	1	5	2	1	0	2	4	0.493727137	6	0	2	1	0	0	1	2
SF488	SurSt	SEGMENT488	Nason St	North of Iris Ave	0	0	0	0	0	0	0	0	0	0	0	0	0	0.89553676	0	0	0	0	0	0	0	0
SF494	SurSt	SEGMENT494	Evans Rd	North of Harley Knox Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0	0.645332557	0	0	0	0	0	0	0	0
SF498	SurSt	SEGMENT498	Morrison St	Alessandro Blvd	Cactus Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.492153693	0	0	0	0	0	0	0	0
SF499	SurSt	SEGMENT499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave	-80	-1	-1	35	-55	-4	-20	-1	-1	0	13	22	0.409911701	0	0	0	0	0	0	5	9
SF50	SurSt	SEGMENT50	Cactus Ave	Redlands Blvd	Street D	590	46	32	0	409	30	151	46	21	10	0	0	0.297503443	122	9	45	14	6	3	0	0
SF500	SurSt	SEGMENT500	Perris Blvd	North of Eucalyptus Ave	0	-70	-1	-1	35	-48	-4	-18	-1	-1	0	13	22	0.245304101	0	0	0	0	0	0	3	5
SF502	SurSt	SEGMENT502	Quincy	Cottonwood Ave	Alessandro Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.531348818	0	0	0	0	0	0	0	0
SF503	SurSt	SEGMENT503	Quincy	Alessandro Blvd	Cactus Ave	0	0	0	0	0	0	0	0	0	0	0	0	0.509629552	0	0	0	0	0	0	0	0
SF504	SurSt	SEGMENT504	Krameria Ave	West of Perris Blvd	0	30	1	1	0	21	2	8	1	1	0	0	0	0.223585508	5	0	2	0	0	0	0	0
SF51	SurSt	SEGMENT51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	143	3	2	0	99	7	37	3	2	1	0	0	0.605726665	60	4	22	2	1	0	0	0
SF52	SurSt	SEGMENT52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	232	23	20	0	161	12	59	23	14	7	0	0	0.788562683	127	9	47	18	11	5	0	0
SF53	SurSt	SEGMENT53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	42	2	0	0	29	2	11	2	0	0	0	0	0.493787875	14	1	5	1	0	0	0	0
SF54	SurSt	SEGMENT54	Locust Ave	Moreno Beach Dr	Smiley Blvd	24	0	0	0	17	1	6	0	0	0	0	0	0.20192973	3	0	1	0	0	0	0	0
SF55	SurSt	SEGMENT55	Locust Ave	Moreno Beach Dr	Redlands Blvd	236	2	2	0	163	12	60	2	1	1	0	0	1.26872719	207	15	76	3	2	1	0	0
SF56	SurSt	SEGMENT56	Moreno Beach Dr	Locust Ave	Ironwood Ave	231	2	2	0	160	12	59	2	1	1	0	0	0.716065399	115	8	42	1	1	1	0	0
SF57	SurSt	SEGMENT57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	13	1	1	4	9	1	3	1	0	0	1	2	0.152653196	1	0	1	0	0	0	0	0
SF58	SurSt	SEGMENT58	SR 60 EB Ramps	West of Moreno Beach Dr	0	51	0	0	-1	35	3	13	0	0	0	0	-1	0.106579533	4	0	1	0	0	0	0	0
SF59	SurSt	SEGMENT59	Eualyptus Ave	Moreno Beach Dr	Quincy Dr	10	1	1	5	7	1	3	1	1	0	2	3	0.488213727	4	0	1	0	0	0	1	2
SF60	SurSt	SEGMENT60	SR 60 WB Ramps	East of Redlands Blvd	0	90	5	6	56	62	5	23	5	4	2	21	35	0.098638204	6	0	2	1	0	0	2	3
SF61	SurSt	SEGMENT61	SR 60 EB Ramps	West fo Redlands Blvd	0	367	6	2	32	254	19	94	6	1	1	12	20	0.060073815	15	1	6	0	0	0	1	1
SF62	SurSt	SEGMENT62	Fir Ave	Quincy Dr	Redlands Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0.485537151	0	0	0	0	0	0	0	0
SF65	SurSt	SEGMENT65	Alessandro Blvd	Nason St	Oliver St	90	2	1	7	62	5	23	2	1	0	3	4	0.494265687	31	2	11	1	0	0	1	2
SF66	SurSt	SEGMENT66	Alessandro Blvd	Oliver St	Moreno Beach Dr	71	2	1	6	49	4	18	2	1	0	2	4	0.504352003	25	2	9	1	0	0	1	2
SF67	SurSt	SEGMENT67	Oliver St	Alessandro Blvd	Cactus Ave	60	0	0	0	42	3	15	0	0	0	0	0	0.483632193	20	1	7	0	0	0	0	0
SF68	SurSt	SEGMENT68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	96	0	0	0	67	5	25	0	0	0	0	0	0.505890101	34	2	12	0	0	0	0	0
SF69	SurSt	SEGMENT69	Cactus Ave	Nason St	Oliver St	189	7	5	0	131	10	48	7	4	2	0	0	0.509145955	67	5	25	4	2	1	0	0
SF70	SurSt	SEGMENT70	Cactus Ave	Oliver St	Moreno Beach Dr	92	8	5	0	64	5	24	8	4	2	0	0	0.494148133	32	2	12	4	2	1	0	0
SF71	SurSt	SEGMENT71	Oliver St	Cactus Ave	John F Kennedy Dr	66	0	0	0	46	3	17	0	0	0	0	0	0.498675792	23	2	8	0	0	0	0	0

						Peak Hour Trips																				
AERMOD	AERMOD	Traffic Study				Traffic Study Vehicles				Emfac Vehicle Categories								Segment	Total Miles							
SRCGRP ID	Category	Segment No.	Arterial	From	To	Auto	Light	Med	Heavy	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Length, mi	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF72	SurSt	SEGMENT72	Oliver St	John F Kennedy Dr	Iris Ave	34	0	0	0	24	2	9	0	0	0	0	0	0.50625515	12	1	4	0	0	0	0	0
SF73	SurSt	SEGMENT73	Iris Ave	Nason St	Oliver St	262	22	19	0	181	13	67	22	13	6	0	0	0.460896591	84	6	31	10	6	3	0	0
SF74	SurSt	SEGMENT74	Heacock St	Manzanita Ave	Ironwood Ave	37	0	0	0	26	2	9	0	0	0	0	0	0.977763694	25	2	9	0	0	0	0	0
SF75	SurSt	SEGMENT75	Ironwood Ave	Graham St	Heacock St	60	0	0	0	42	3	15	0	0	0	0	0	0.500096556	21	2	8	0	0	0	0	0
SF76	SurSt	SEGMENT76	Ironwood Ave	Heacock St	Indian Ave	58	0	1	0	40	3	15	0	1	0	0	0	0.992313249	40	3	15	0	1	0	0	0
SF77	SurSt	SEGMENT77	Heacock St	Ironwood Ave	Hemlock Ave	31	0	0	0	21	2	8	0	0	0	0	0	0.272348654	6	0	2	0	0	0	0	0
SF80	SurSt	SEGMENT80	Heacock St	Hemlock Ave	SR 60 WB Ramps	34	1	0	0	24	2	9	1	0	0	0	0	0.08565919	2	0	1	0	0	0	0	0
SF81	SurSt	SEGMENT81	SR 60 WB Ramps	West of Heacock St	0	17	0	0	-1	12	1	4	0	0	0	0	0	0.252621193	3	0	1	0	0	0	0	0
SF82	SurSt	SEGMENT82	SR 60 WB Ramps	East of Heacock St	0	-4	1	1	12	-3	0	-1	1	1	0	4	7	0.200113685	0	0	0	0	0	0	1	1
SF83	SurSt	SEGMENT83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	-2	1	-1	8	-1	0	-1	1	0	0	3	5	0.058807864	0	0	0	0	0	0	0	0
SF85	SurSt	SEGMENT85	SR 60 WB Onramp	West of Perris Blvd	0	19	-1	0	-1	13	1	5	-1	0	0	0	0	0.182340793	2	0	1	0	0	0	0	0
SF86	SurSt	SEGMENT86	SR 60 WB Offramp	East of Perris Blvd	0	5	2	1	14	4	0	1	2	0	0	5	9	0.176358151	1	0	0	0	0	0	1	2
SF87	SurSt	SEGMENT87	Eualyptus Ave	Indian St	Perris Blvd	38	0	0	0	26	2	10	0	0	0	0	0	0.496859122	13	1	5	0	0	0	0	0
SF88	SurSt	SEGMENT88	Eualyptus Ave	Perris Blvd	Kitching St	38	0	0	0	26	2	10	0	0	0	0	0	0.502673831	13	1	5	0	0	0	0	0
FRWY27	Freeway	FRWY27	SR-60	I-215 to Day St		-430	40	50	485	-298	-22	-110	40	34	16	182	303	1.864366517	0	0	0	75	63	30	339	565
FRWY28	Freeway	FRWY28	SR-60	Day St to Pigeon Pass Rd/Frederick St		-375	40	50	485	-260	-19	-96	40	34	16	182	303	1.553879015	0	0	0	62	52	25	283	471
FRWY29	Freeway	FRWY29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St		-400	40	50	485	-277	-20	-102	40	34	16	182	303	0.705152395	0	0	0	28	24	11	128	214
FRWY30	Freeway	FRWY30	SR-60	Heacock St to Perris Blvd		-410	50	60	500	-284	-21	-105	50	41	19	187	313	1.058474253	0	0	0	53	43	21	198	331
FRWY31	Freeway	FRWY31	SR-60	Perris Blvd to Nason St		-400	50	60	540	-277	-20	-102	50	41	19	202	338	0.736854569	0	0	0	37	30	14	149	249
FRWY32	Freeway	FRWY32	SR-60	Nason St to Moreno Beach Dr		-410	55	60	540	-284	-21	-105	55	41	19	202	338	1.020389528	0	0	0	56	41	20	207	344
FRWY33	Freeway	FRWY33	SR-60	Moreno Beach Dr to Redlands Blvd		-410	60	60	550	-284	-21	-105	60	41	19	206	344	1.01638354	0	0	0	61	41	20	210	349
FRWY34	Freeway	FRWY34	SR-60	Redlands Blvd to Theodore St		-190	60	60	520	-132	-10	-49	60	41	19	195	325	0.966277306	0	0	0	58	39	19	188	314
FRWY35	Freeway	FRWY35	SR-60	Theodore St to Gilman Springs Rd		-590	20	20	110	-409	-30	-151	20	14	6	41	69	2.102877608	0	0	0	42	28	14	87	145
FRWY36	Freeway	FRWY36	SR-60	Gilman Springs Rd to Jack Rabbit Trail		-155	10	10	50	-107	-8	-40	10	7	3	19	31	0.691070432	0	0	0	7	5	2	13	22
FRWY37	Freeway	FRWY37	SR-60	Jack Rabbit Trail to I-10		-150	10	10	50	-104	-8	-38	10	7	3	19	31	1.20220631	0	0	0	12	8	4	23	38
FRWY101	Freeway	FRWY101	I-10	SR-60 to Beaumont Ave		-140	10	10	50	-97	-7	-36	10	7	3	19	31	1.04106943	0	0	0	10	7	3	20	33
172	Freeway	172	SR-215	Harley Knox Blvd to Van Buren Blvd		-25	0	0	25	-17	-1	-6	0	0	0	9	16	0.709924786	0	0	0	0	0	0	7	11
173	Freeway	173	SR-215	Van Buren Blvd to Cactus Ave		-35	0	0	25	-24	-2	-9	0	0	0	9	16	5.666735459	0	0	0	0	0	0	53	89
174	Freeway	174	SR-215	Cactus Ave to Alessandro Blvd		5	0	0	25	3	0	1	0	0	0	9	16	2.362452141	8	1	3	0	0	0	22	37

AERMOD SRCGRP ID	AERMOD Category	Segment No.	Total Miles/hour								Total Diesel Miles								Total Gas Miles							
											1%	0%	0%	3%	67%	71%	90%	99%	84%	100%	100%	97%	33%	29%	10%	1%
			LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
IN01	Onsite	SEGMENT01	142.76	10.53	52.71	12.64	9.68	4.65	37.32	62.23	1.64	0.01	0.12	0.34	6.44	3.30	33.45	61.54	120.19	10.52	52.60	12.31	3.24	1.35	3.87	0.69
IN02	Onsite	SEGMENT02	185.98	13.72	68.67	23.17	11.49	5.53	45.72	76.24	2.14	0.01	0.15	0.62	7.64	3.92	40.98	75.39	156.58	13.71	68.52	22.55	3.85	1.60	4.74	0.85
IN03	Onsite	SEGMENT03	337.18	24.88	124.50	32.79	17.19	8.27	31.64	52.76	3.88	0.01	0.27	0.87	11.44	5.87	28.36	52.18	283.87	24.85	124.23	31.92	5.76	2.40	3.28	0.59
IN05	Onsite	SEGMENT05	289.28	21.34	106.81	27.40	12.70	6.11	4.01	6.69	3.33	0.01	0.23	0.73	8.45	4.33	3.60	6.62	243.54	21.32	106.58	26.67	4.25	1.77	0.42	0.07
IN06	Onsite	SEGMENT06	567.85	41.89	209.67	73.73	37.79	18.17	151.13	251.99	6.53	0.03	0.46	1.96	25.14	12.89	135.45	249.19	478.07	41.85	209.21	71.77	12.65	5.28	15.67	2.80
IN08	Onsite	SEGMENT08	436.19	32.18	161.05	33.22	14.52	6.98	0.00	0.00	5.02	0.02	0.35	0.88	9.66	4.95	0.00	0.00	367.22	32.15	160.70	32.34	4.86	2.03	0.00	0.00
IN11	Onsite	SEGMENT11	33.28	2.46	12.29	0.00	1.30	0.63	0.00	0.00	0.38	0.00	0.03	0.00	0.87	0.44	0.00	0.00	28.02	2.45	12.26	0.00	0.44	0.18	0.00	0.00
IN12	Onsite	SEGMENT12	0.00	0.00	0.00	1.20	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	1.17	0.02	0.01	0.00	0.00
IN14	Onsite	SEGMENT14	239.97	17.70	88.60	38.71	6.58	3.16	36.50	60.86	2.76	0.01	0.19	1.03	4.38	2.25	32.71	60.18	202.03	17.68	88.41	37.68	2.20	0.92	3.78	0.68
IN18	Onsite	SEGMENT18	56.53	4.17	20.87	5.27	1.79	0.86	5.59	9.33	0.65	0.00	0.05	0.14	1.19	0.61	5.01	9.23	47.59	4.17	20.83	5.13	0.60	0.25	0.58	0.10
IN19	Onsite	SEGMENT19	574.44	42.38	212.10	40.16	22.00	10.58	83.93	139.94	6.61	0.03	0.47	1.07	14.64	7.51	75.22	138.39	483.61	42.33	211.64	39.10	7.37	3.07	8.70	1.55
IN21	Onsite	SEGMENT21	97.93	7.22	36.16	17.18	8.91	4.28	12.65	21.09	1.13	0.00	0.08	0.46	5.93	3.04	11.33	20.85	82.44	7.22	36.08	16.72	2.98	1.24	1.31	0.23
IN24	Onsite	SEGMENT24	173.86	12.83	64.20	25.88	13.50	6.49	41.14	68.60	2.00	0.01	0.14	0.69	8.98	4.61	36.87	67.84	146.37	12.81	64.06	25.19	4.52	1.89	4.27	0.76
IN29	Onsite	SEGMENT29	61.67	4.55	22.77	4.34	1.62	0.78	6.80	11.34	0.71	0.00	0.05	0.12	1.08	0.55	6.09	11.21	51.92	4.55	22.72	4.22	0.54	0.23	0.71	0.13
IN30	Onsite	SEGMENT30	0.00	0.00	0.00	14.93	5.52	2.65	38.34	63.93	0.00	0.00	0.00	0.40	3.67	1.88	34.36	63.22	0.00	0.00	0.00	14.53	1.85	0.77	3.98	0.71
IN31	Onsite	SEGMENT31	45.95	3.39	16.97	2.67	0.94	0.45	1.04	1.74	0.53	0.00	0.04	0.07	0.62	0.32	0.94	1.72	38.69	3.39	16.93	2.60	0.31	0.13	0.11	0.02
SF09	SurSt	SEGMENT09	250.39	18.47	92.45	23.36	15.03	7.23	0.00	0.00	2.88	0.01	0.20	0.62	10.00	5.13	0.00	0.00	210.80	18.45	92.25	22.74	5.03	2.10	0.00	0.00
SF10	SurSt	SEGMENT10	4.57	0.34	1.69	0.00	1.06	0.51	0.00	0.00	0.05	0.00	0.00	0.00	0.71	0.36	0.00	0.00	3.84	0.34	1.68	0.00	0.36	0.15	0.00	0.00
SF104	SurSt	SEGMENT104	38.40	2.83	14.18	0.33	0.15	0.07	0.58	0.96	0.44	0.00	0.03	0.01	0.10	0.05	0.52	0.95	32.33	2.83	14.15	0.32	0.05	0.02	0.06	0.01
SF106	SurSt	SEGMENT106	49.01	3.62	18.10	0.11	0.00	0.00	0.00	0.00	0.56	0.00	0.04	0.00	0.00	0.00	0.00	0.00	41.26	3.61	18.06	0.11	0.00	0.00	0.00	0.00
SF107	SurSt	SEGMENT107	36.71	2.71	13.56	0.33	0.20	0.10	0.54	0.90	0.42	0.00	0.03	0.01	0.13	0.07	0.49	0.89	30.91	2.71	13.53	0.32	0.07	0.03	0.06	0.01
SF108	SurSt	SEGMENT108	47.03	3.47	17.36	0.01	0.00	0.00	0.02	0.03	0.54	0.00	0.04	0.00	0.00	0.00	0.01	0.03	39.59	3.47	17.33	0.01	0.00	0.00	0.00	0.00
SF109	SurSt	SEGMENT109	19.50	1.44	7.20	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.02	0.00	0.00	0.00	0.00	0.00	16.42	1.44	7.18	0.00	0.00	0.00	0.00	0.00
SF110	SurSt	SEGMENT110	57.20	4.22	21.12	0.25	0.48	0.23	1.06	1.76	0.66	0.00	0.05	0.01	0.32	0.16	0.95	1.74	48.16	4.22	21.08	0.24	0.16	0.07	0.11	0.02
SF111	SurSt	SEGMENT111	11.90	0.88	4.40	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01	0.00	0.00	0.00	0.00	0.00	10.02	0.88	4.39	0.00	0.00	0.00	0.00	0.00
SF112	SurSt	SEGMENT112	59.86	4.42	22.10	0.69	0.51	0.25	3.19	5.32	0.69	0.00	0.05	0.02	0.34	0.18	2.86	5.26	50.39	4.41	22.05	0.67	0.17	0.07	0.33	0.06
SF113	SurSt	SEGMENT113	9.78	0.72	3.61	0.00	0.00	0.00	0.18	0.31	0.11	0.00	0.01	0.00	0.00	0.00	0.17	0.30	8.24	0.72	3.61	0.00	0.00	0.00	0.02	0.00
SF114	SurSt	SEGMENT114	18.14	1.34	6.70	0.00	0.00	0.00	0.38	0.63	0.21	0.00	0.01	0.00	0.00	0.00	0.34	0.63	15.27	1.34	6.68	0.00	0.00	0.00	0.04	0.01
SF115	SurSt	SEGMENT115	54.39	4.01	20.08	0.26	0.42	0.20	1.46	2.44	0.63	0.00	0.04	0.01	0.28	0.14	1.31	2.41	45.79	4.01	20.04	0.26	0.14	0.06	0.15	0.03
SF116	SurSt	SEGMENT116	21.94	1.62	8.10	0.25	0.03	0.02	0.10	0.16	0.25	0.00	0.02	0.01	0.02	0.01	0.09	0.16	18.47	1.62	8.08	0.25	0.01	0.00	0.01	0.00
SF117	SurSt	SEGMENT117	19.87	1.47	7.34	0.00	0.00	0.00	0.01	0.02	0.23	0.00	0.02	0.00	0.00	0.00	0.01	0.02	16.73	1.46	7.32	0.00	0.00	0.00	0.00	0.00
SF118	SurSt	SEGMENT118	42.82	3.16	15.81	0.37	0.36	0.17	1.26	2.10	0.49	0.00	0.03	0.01	0.24	0.12	1.13	2.08	36.05	3.16	15.78	0.36	0.12	0.05	0.13	0.02
SF119	SurSt	SEGMENT119	11.28	0.83	4.17	0.02	0.00	0.00	0.00	0.00	0.13	0.00	0.01	0.00	0.00	0.00	0.00	0.00	9.50	0.83	4.16	0.02	0.00	0.00	0.00	0.00
SF120	SurSt	SEGMENT120	2.57	0.19	0.95	0.00	0.03	0.02	2.05	3.41	0.03	0.00	0.00	0.00	0.02	0.01	1.83	3.37	2.16	0.19	0.95	0.00	0.01	0.00	0.21	0.04
SF121	SurSt	SEGMENT121	32.43	2.39	11.97	3.25	0.00	0.00	0.66	1.10	0.37	0.00	0.03	0.09	0.00	0.00	0.59	1.09	27.30	2.39	11.95	3.16	0.00	0.00	0.07	0.01
SF122	SurSt	SEGMENT122	8.15	0.60	3.01	0.00	0.01	0.00	1.46	2.44	0.09	0.00	0.01	0.00	0.01	0.00	1.31	2.41	6.86	0.60	3.00	0.00	0.00	0.00	0.15	0.03
SF123	SurSt	SEGMENT123	10.39	0.77	3.84	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.01	0.00	0.00	0.00	0.00	0.00	8.75	0.77	3.83	0.00	0.00	0.00	0.00	0.00
SF124	SurSt	SEGMENT124	31.38	2.32	11.59	0.50	0.30	0.15	1.22	2.04	0.36	0.00	0.03	0.01	0.20	0.10	1.10	2.02	26.42	2.31	11.56	0.48	0.10	0.04	0.13	0.02
SF125	SurSt	SEGMENT125	11.26	0.83	4.16	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.01	0.00	0.00	0.00	0.00	0.00	9.48	0.83	4.15	0.00	0.00	0.00	0.00	0.00
SF126	SurSt	SEGMENT126	13.44	0.99	4.96	0.48	0.29	0.14	1.10	1.83	0.15	0.00	0.01	0.01	0.19	0.10	0.98	1.81	11.32	0.99	4.95	0.47	0.10	0.04	0.11	0.02
SF127	SurSt	SEGMENT127	0.00	0.00	0.00	0.07	0.00	0.00	6.37	10.62	0.00	0.00	0.00	0.00	0.00	0.00	5.71	10.50	0.00	0.00	0.00	0.07	0.00	0.00	0.66	0.12
SF128	SurSt	SEGMENT128	12.50	0.92	4.61	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01	0.00	0.00	0.00	0.00	0.00	10.52	0.92	4.60	0.00	0.00	0.00	0.00	0.00
SF129	SurSt	SEGMENT129	4.72	0.35	1.74	0.51	0.35	0.17	1.15	1.92	0.05	0.00	0.00	0.01	0.23	0.12	1.03	1.90	3.97	0.35	1.74	0.50	0.12	0.05	0.12	0.02
SF13	SurSt	SEGMENT13	5.20	0.38	1.92	1.29	0.99	0.48	6.99	11.65	0.06	0.00	0.00	0.03	0.66	0.34	6.26	11.52	4.37	0.38	1.91	1.26	0.33	0.14	0.72	0.13
SF130	SurSt	SEGMENT130	9.13	0.67	3.37	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.01	0.00	0.00	0.00	0.00	0.00	7.68	0.67	3.36	0.00	0.00	0.00	0.00	0.00
SF131	SurSt	SEGMENT131	13.65	1.01	5.04	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.01	0.00	0.00	0.00	0.00	0.00	11.49	1.01	5.03	0.00	0.00	0.00	0.00	0.00
SF133	SurSt	SEGMENT133	12.56	0.93	4.64	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01	0.00	0.00	0.00	0.00	0.00	10.58	0.93	4.63	0.00	0.00	0.00	0.00	0.00
SF134	SurSt	SEGMENT134	7.99	0.59	2.95	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	0.00	0.00	0.00	0.00	0.00	6.73	0.59	2.94	0.00	0.00	0.00	0.00	0.00
SF135	SurSt	SEGMENT135	7.68	0.57	2.83	0.51	0.34	0.16	1.14	1.90	0.09	0.00	0.01	0.01	0.23	0.12	1.02	1.88	6.46	0.57	2.83	0.49	0.11	0.05	0.12	0.02
SF136	SurSt	SEGMENT136	23.86	1.76	8.81	0.24	0.00	0.00	0.00	0.00	0.27	0.00	0.02	0.01	0.00	0.00	0.00	0.00	20.09	1.76	8.79	0.24	0.00	0.00	0.00	0.00
SF137	SurSt	SEGMENT137	9.10	0.67	3.36	0.00	0.00	0.00	0.18	0.31	0.10	0.00	0.01	0.00	0.00	0.00	0.16	0.30	7.66	0.67	3.35	0.00	0.00	0.00	0.02	0.00
SF139	SurSt	SEGMENT139	15.27	1.13	5.64	0.31	0.21	0.10	0.00	0.00	0.18	0.00	0.01	0.01	0.14	0.07	0.00	0.00	12.85	1.13	5.62	0.30	0.07	0.03	0.00	0.00
SF140	SurSt	SEGMENT140	7.56	0.56	2.79	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	0.00	0.00	0.00	0.00	0.00	6.36	0.56	2.78	0.00	0.00	0.00	0.00	0.00
SF141	SurSt	SEGMENT141	65.45	4.83	24.16	0.74	0.00	0.00	0.00	0.00	0.75	0.00	0.05	0.02	0.00	0.00	0.00	0.00	55.10	4.82	24.11	0.72	0.00	0.00	0.00	0.00
SF142	SurSt	SEGMENT142	5.64	0.42	2.08	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.75	0.42	2.08	0.00	0.00	0.00	0.00	0.00
SF143	SurSt	SEGMENT143	39.39	2.91	14.55	0.93	0.48	0.23	0.00	0.00	0.45	0.00	0.03	0.02	0.32	0.16	0.00	0.00	33.17	2.90	14.51	0.90	0.16	0.07	0.00	0.00
SF144	SurSt	SEGMENT144	38.99	2.88	14.40	0.83	0.28	0.14	0.00	0.00	0.45	0.00	0.03	0.02	0.19	0.10	0.00	0.00	32.83	2.87	14.37	0.81	0.09	0.04	0.00	0.00
SF145	SurSt	SEGMENT145	26.19	1.93	9.67	1.47	0.75	0.36	0.00	0.00	0.30	0.00	0.02	0.04	0.50	0.26	0.00	0.00	22.05	1.93	9.65	1.43	0.25	0.11	0.00	0.00
SF146	SurSt	SEGMENT146	21.18	1.56	7.82	0.01	0.00	0.00	0.00	0.00	0.24	0.00	0.02	0.00	0.00	0.00	0.00	0.00	17.83	1.56	7.80	0.00	0.00	0.00	0.00	0.00
SF147	SurSt	SEGMENT147	13.67	1.01	5.05	1.26	0.68	0.33	0.00	0.00	0.16	0.00	0.01	0.03	0.45	0.23	0.00	0.00	11.51	1.01	5.04	1.22	0.23	0.09	0.00	0.00
SF148	SurSt	SEGMENT148	15.37	1.13	5.67	0.07	0.00	0.00	1.15	1.92	0.18	0.00	0.01	0.00	0.00	0.00	1.03	1.90	12.94	1.13	5.66	0.07	0.00	0.00	0.12	0.02
SF149	SurSt	SEGMENT149	6.45	0.48	2.38	1.58	0.85	0.41	0.00	0.00	0.07	0.00	0.01	0.04	0.56	0.29	0.00	0.00	5.43	0.48	2.37	1.54	0.28	0.12	0.00	0.00
SF150	SurSt	SEGMENT150	9.73	0.72	3.59	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.00	0.00	0.00	8.19	0.72	3.58	0.00	0.00	0.00	0.00	0.00
SF151	SurSt	SEGMENT151	12.82	0.95	4.73	1.78	0.99	0.48	0.09	0.15	0.15	0.00	0.01	0.05	0.66	0.34	0.08	0.15	10.80	0.95	4.72	1.73	0.33	0.14	0.01	0.00
SF152	SurSt	SEGMENT152	0.00	0.00	0.00	0.00	0.75	0.36	5.98	9.97	0.00	0.00	0.00	0.00	0.50	0.26	5.36	9.86	0.00	0.00	0.00	0.00	0.25	0.11	0.62	0.11
SF153	SurSt	SEGMENT153	20.40	1.51	7.53	1.73	1.07	0.51	0.00	0.00	0.23	0.00	0.02	0.05	0.71	0.37	0.00	0.00	17.18	1.50	7.52	1.69	0.36	0.15	0.00	0.00
SF154	SurSt	SEGMENT154	9.89	0.73	3.65	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.00	0.00	0.00	8.33	0.73	3.64	0.00	0.00	0.00	0.00	0.00
SF155	SurSt	SEGMENT155	27.15	2.00	10.02	3.37	1.85	0.89	0.00	0.00	0.31	0.00	0.02	0.09	1.23	0.63	0.00	0.00	22.85	2.00	10.00	3.28	0.62	0.26	0.00	0.00
SF156	SurSt	SEGMENT156	12.72	0.94	4.70	1.20	0.68	0.33	0.00	0.00	0.15	0.00	0.01	0.03	0.45	0.23	0.00	0.00	10.71	0.94	4.69	1.17	0.23	0.09	0.00	0.00
SF157	SurSt	SEGMENT157	13.59	1.00	5.02	3.75	1.79	0.86	0.00	0.00	0.16	0.00	0.01	0.10	1.19	0.61	0.00	0.00	11.44	1.00	5.01	3.65	0.60	0.25	0.00	0.00
SF160	SurSt	SEGMENT160	17.91	1.32	6.61	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.01	0.00	0.00	0.00	0.00	0.00	15.08	1.32	6.60	0.00	0.00	0.00	0.00	0.00

			Total Miles/hour								Total Diesel Miles								Total Gas Miles							
AERMOD	AERMOD										1%	0%	0%	3%	67%	71%	90%	99%	84%	100%	100%	97%	33%	29%	10%	1%
SRCGRP ID	Category	Segment No.	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
SF161	SurSt	SEGMENT161	9.86	0.73	3.64	5.83	3.86	1.86	0.00	0.00	0.11	0.00	0.01	0.16	2.57	1.32	0.00	0.00	8.30	0.73	3.63	5.67	1.29	0.54	0.00	0.00
SF162	SurSt	SEGMENT162	98.29	7.25	36.29	10.86	7.49	3.60	0.00	0.00	1.13	0.00	0.08	0.29	4.98	2.56	0.00	0.00	82.75	7.24	36.21	10.57	2.51	1.05	0.00	0.00
SF163	SurSt	SEGMENT163	20.22	1.49	7.46	0.76	0.61	0.29	0.00	0.00	0.23	0.00	0.02	0.02	0.41	0.21	0.00	0.00	17.02	1.49	7.45	0.74	0.20	0.09	0.00	0.00
SF164	SurSt	SEGMENT164	12.19	0.90	4.50	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01	0.00	0.00	0.00	0.00	0.00	10.26	0.90	4.49	0.00	0.00	0.00	0.00	0.00
SF165	SurSt	SEGMENT165	188.30	13.89	69.52	20.10	12.61	6.06	0.00	0.00	2.17	0.01	0.15	0.53	8.39	4.30	0.00	0.00	158.53	13.88	69.37	19.57	4.22	1.76	0.00	0.00
SF168	SurSt	SEGMENT168	68.56	5.06	25.32	1.93	1.46	0.70	0.00	0.00	0.79	0.00	0.06	0.05	0.97	0.50	0.00	0.00	57.72	5.05	25.26	1.88	0.49	0.20	0.00	0.00
SF169	SurSt	SEGMENT169	22.59	1.67	8.34	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.02	0.00	0.00	0.00	0.00	0.00	19.01	1.66	8.32	0.00	0.00	0.00	0.00	0.00
SF170	SurSt	SEGMENT170	52.70	3.89	19.46	2.93	0.73	0.35	0.03	0.05	0.61	0.00	0.04	0.08	0.48	0.25	0.03	0.05	44.36	3.88	19.41	2.85	0.24	0.10	0.00	0.00
SF171	SurSt	SEGMENT171	12.72	0.94	4.70	1.14	0.44	0.21	0.00	0.00	0.15	0.00	0.01	0.03	0.29	0.15	0.00	0.00	10.71	0.94	4.69	1.10	0.15	0.06	0.00	0.00
SF172	SurSt	SEGMENT172	28.71	2.12	10.60	2.16	0.83	0.40	0.00	0.00	0.33	0.00	0.02	0.06	0.55	0.28	0.00	0.00	24.17	2.12	10.58	2.10	0.28	0.12	0.00	0.00
SF173	SurSt	SEGMENT173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF174	SurSt	SEGMENT174	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF177	SurSt	SEGMENT177	0.00	0.00	0.00	6.41	4.34	2.08	10.35	17.25	0.00	0.00	0.00	0.17	2.88	1.48	9.27	17.06	0.00	0.00	0.00	6.24	1.45	0.61	1.07	0.19
SF178	SurSt	SEGMENT178	40.69	3.00	15.02	4.05	1.50	0.72	5.81	9.70	0.47	0.00	0.03	0.11	1.00	0.51	5.21	9.59	34.25	3.00	14.99	3.95	0.50	0.21	0.60	0.11
SF179	SurSt	SEGMENT179	0.00	0.00	0.00	14.68	9.36	4.50	22.18	36.98	0.00	0.00	0.00	0.39	6.23	3.19	19.88	36.57	0.00	0.00	0.00	14.29	3.13	1.31	2.30	0.41
SF180	SurSt	SEGMENT180	30.04	2.22	11.09	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.02	0.00	0.00	0.00	0.00	0.00	25.29	2.21	11.07	0.00	0.00	0.00	0.00	0.00
SF181	SurSt	SEGMENT181	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF182	SurSt	SEGMENT182	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF183	SurSt	SEGMENT183	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF184	SurSt	SEGMENT184	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF185	SurSt	SEGMENT185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF186	SurSt	SEGMENT186	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF190	SurSt	SEGMENT190	0.00	0.00	0.00	17.62	6.25	3.01	8.03	13.39	0.00	0.00	0.00	0.47	4.16	2.13	7.20	13.24	0.00	0.00	0.00	17.15	2.09	0.87	0.83	0.15
SF191	SurSt	SEGMENT191	21.24	1.57	7.84	10.64	5.62	2.70	2.72	4.54	0.24	0.00	0.02	0.28	3.74	1.92	2.44	4.49	17.88	1.57	7.82	10.35	1.88	0.79	0.28	0.05
SF192	SurSt	SEGMENT192	33.98	2.51	12.55	5.58	1.70	0.82	4.27	7.12	0.39	0.00	0.03	0.15	1.13	0.58	3.83	7.04	28.61	2.50	12.52	5.43	0.57	0.24	0.44	0.08
SF194	SurSt	SEGMENT194	3.58	0.26	1.32	0.43	0.30	0.14	0.00	0.00	0.04	0.00	0.00	0.01	0.20	0.10	0.00	0.00	3.02	0.26	1.32	0.42	0.10	0.04	0.00	0.00
SF195	SurSt	SEGMENT195	2.50	0.18	0.92	0.62	0.36	0.17	0.00	0.00	0.03	0.00	0.00	0.02	0.24	0.12	0.00	0.00	2.10	0.18	0.92	0.60	0.12	0.05	0.00	0.00
SF196	SurSt	SEGMENT196	1.44	0.11	0.53	2.00	1.44	0.69	0.00	0.00	0.02	0.00	0.00	0.05	0.96	0.49	0.00	0.00	1.22	0.11	0.53	1.95	0.48	0.20	0.00	0.00
SF198	SurSt	SEGMENT198	10.43	0.77	3.85	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.01	0.00	0.00	0.00	0.00	0.00	8.78	0.77	3.84	0.00	0.00	0.00	0.00	0.00
SF199	SurSt	SEGMENT199	4.15	0.31	1.53	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0.31	1.53	0.00	0.00	0.00	0.00	0.00
SF200	SurSt	SEGMENT200	6.22	0.46	2.30	4.80	2.65	1.27	0.00	0.00	0.07	0.00	0.01	0.13	1.76	0.90	0.00	0.00	5.24	0.46	2.29	4.67	0.89	0.37	0.00	0.00
SF205	SurSt	SEGMENT205	66.12	4.88	24.41	1.40	1.89	0.91	0.00	0.00	0.76	0.00	0.05	0.04	1.26	0.64	0.00	0.00	55.66	4.87	24.36	1.36	0.63	0.26	0.00	0.00
SF206	SurSt	SEGMENT206	21.74	1.60	8.03	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.02	0.00	0.00	0.00	0.00	0.00	18.30	1.60	8.01	0.00	0.00	0.00	0.00	0.00
SF207	SurSt	SEGMENT207	106.47	7.85	39.31	2.43	3.29	1.58	0.00	0.00	1.22	0.00	0.09	0.06	2.19	1.12	0.00	0.00	89.63	7.85	39.22	2.37	1.10	0.46	0.00	0.00
SF283	SurSt	SEGMENT283	0.26	0.02	0.10	0.00	0.09	0.04	0.52	0.87	0.00	0.00	0.00	0.00	0.06	0.03	0.47	0.86	0.22	0.02	0.10	0.00	0.03	0.01	0.05	0.01
SF284	SurSt	SEGMENT284	0.00	0.00	0.00	0.24	0.21	0.10	0.98	1.63	0.00	0.00	0.00	0.01	0.14	0.07	0.88	1.61	0.00	0.00	0.00	0.24	0.07	0.03	0.10	0.02
SF285	SurSt	SEGMENT285	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01
SF286	SurSt	SEGMENT286	5.85	0.43	2.16	0.39	0.27	0.13	0.00	0.00	0.07	0.00	0.00	0.01	0.18	0.09	0.00	0.00	4.93	0.43	2.16	0.38	0.09	0.04	0.00	0.00
SF287	SurSt	SEGMENT287	2.74	0.20	1.01	0.45	0.12	0.06	1.46	2.44	0.03	0.00	0.00	0.01	0.08	0.04	1.31	2.42	2.31	0.20	1.01	0.44	0.04	0.02	0.15	0.03
SF288	SurSt	SEGMENT288	4.75	0.35	1.76	0.00	0.00	0.00	0.02	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.02	0.03	4.00	0.35	1.75	0.00	0.00	0.00	0.00	0.00
SF289	SurSt	SEGMENT289	0.67	0.05	0.25	0.27	0.08	0.04	0.94	1.57	0.01	0.00	0.00	0.01	0.05	0.03	0.85	1.55	0.57	0.05	0.25	0.26	0.03	0.01	0.10	0.02
SF290	SurSt	SEGMENT290	0.00	0.00	0.00	0.00	0.00	0.00	2.73	4.55	0.00	0.00	0.00	0.00	0.00	0.00	2.45	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.05
SF294	SurSt	SEGMENT294	9.21	0.68	3.40	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.00	0.00	0.00	7.76	0.68	3.39	0.00	0.00	0.00	0.00	0.00
SF301	SurSt	SEGMENT301	18.83	1.39	6.95	0.75	0.47	0.23	0.00	0.00	0.22	0.00	0.02	0.02	0.31	0.16	0.00	0.00	15.85	1.39	6.94	0.73	0.16	0.07	0.00	0.00
SF302	SurSt	SEGMENT302	29.13	2.15	10.75	1.04	0.63	0.31	0.00	0.00	0.33	0.00	0.02	0.03	0.42	0.22	0.00	0.00	24.52	2.15	10.73	1.01	0.21	0.09	0.00	0.00
SF303	SurSt	SEGMENT303	0.00	0.00	0.00	0.00	0.00	0.00	11.28	18.81	0.00	0.00	0.00	0.00	0.00	0.00	10.11	18.61	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.21
SF304	SurSt	SEGMENT304	0.00	0.00	0.00	2.69	0.31	0.15	0.00	0.00	0.00	0.00	0.00	0.07	0.20	0.10	0.00	0.00	0.00	0.00	0.00	2.62	0.10	0.04	0.00	0.00
SF306	SurSt	SEGMENT306	6.34	0.47	2.34	4.84	3.46	1.66	6.10	10.17	0.07	0.00	0.01	0.13	2.30	1.18	5.47	10.06	5.34	0.47	2.34	4.71	1.16	0.48	0.63	0.11
SF32	SurSt	SEGMENT32	117.88	8.70	43.52	8.74	5.50	2.65	0.00	0.00	1.36	0.01	0.10	0.23	3.66	1.88	0.00	0.00	99.24	8.69	43.43	8.50	1.84	0.77	0.00	0.00
SF33	SurSt	SEGMENT33	0.00	0.00	0.00	0.81	2.79	1.34	0.00	0.00	0.00	0.00	0.00	0.02	1.86	0.95	0.00	0.00	0.00	0.00	0.00	0.79	0.94	0.39	0.00	0.00
SF340	SurSt	SEGMENT340	0.73	0.05	0.27	1.00	0.55	0.27	0.00	0.00	0.01	0.00	0.00	0.03	0.37	0.19	0.00	0.00	0.61	0.05	0.27	0.97	0.18	0.08	0.00	0.00
SF35	SurSt	SEGMENT35	0.00	0.00	0.00	1.40	1.26	0.61	8.08	13.47	0.00	0.00	0.00	0.04	0.84	0.43	7.24	13.32	0.00	0.00	0.00	1.36	0.42	0.18	0.84	0.15
SF36	SurSt	SEGMENT36	99.10	7.31	36.59	9.18	6.14	2.95	0.00	0.00	1.14	0.00	0.08	0.24	4.09	2.10	0.00	0.00	83.43	7.30	36.51	8.93	2.06	0.86	0.00	0.00
SF37	SurSt	SEGMENT37	0.00	0.00	0.00	0.99	0.85	0.41	2.04	3.39	0.00	0.00	0.00	0.03	0.57	0.29	1.82	3.36	0.00	0.00	0.00	0.96	0.29	0.12	0.21	0.04
SF375	SurSt	SEGMENT375	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF376	SurSt	SEGMENT376	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF377	SurSt	SEGMENT377	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF378	SurSt	SEGMENT378	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF379	SurSt	SEGMENT379	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF38	SurSt	SEGMENT38	40.86	3.01	15.09	3.72	2.52	1.21	0.00	0.00	0.47	0.00	0.03	0.10	1.67	0.86	0.00	0.00	34.40	3.01	15.05	3.62	0.84	0.35	0.00	0.00
SF380	SurSt	SEGMENT380	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF381	SurSt	SEGMENT381	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF386	SurSt	SEGMENT386	20.82	1.54	7.69	0.01	0.15	0.07	0.09	0.16	0.24	0.00	0.02	0.00	0.10	0.05	0.08	0.16	17.53	1.53	7.67	0.01	0.05	0.02	0.01	0.00
SF387	SurSt	SEGMENT387	16.38	1.21	6.05	13.23	10.78	5.19	15.11	25.20	0.19	0.00	0.01	0.35	7.17	3.68	13.54	24.92	13.79	1.21	6.04	12.88	3.61	1.51	1.57	0.28
SF388	SurSt	SEGMENT388	2.29	0.17	0.85	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93	0.17	0.85	0.00	0.00	0.00	0.00	0.00
SF390	SurSt	SEGMENT390	63.50	4.68	23.45	1.71	1.57	0.76	0.42	0.69	0.73	0.00	0.05	0.05	1.05	0.54	0.37	0.68	53.46	4.68	23.40	1.66	0.53	0.22	0.04	0.01
SF392	SurSt	SEGMENT392	17.35	1.28	6.41	0.94	0.63	0.30	0.76	1.27	0.20	0.00	0.01	0.03	0.42	0.21	0.68	1.25	14.61	1.28	6.39	0.92	0.21	0.09	0.08	0.01
SF393	SurSt	SEGMENT393	21.12	1.56	7.80	0.00	0.26	0.13	0.22	0.36	0.24	0.00	0.02	0.00	0.17	0.09	0.19	0.36	17.78	1.56	7.78	0.00	0.09	0.04	0.02	0.00
SF394	SurSt	SEGMENT394	45.68	3.37	16.87	6.72	4.67	2.25	6.32	10.54	0.53	0.00	0.04	0.18	3.11	1.59	5.67	10.42	38.46	3.37	16.83	6.54	1.56	0.65	0.66	0.12
SF396	SurSt	SEGMENT396	42.62	3.14	15.74	7.81	5.19	2.50	4.96	8.27	0.49	0.00	0.03	0.21	3.45	1.77	4.45	8.18	35.88	3.14	15.70	7.60	1.74	0.72	0.51	0.09
SF397	SurSt	SEGMENT397	9.21	0.68	3.40	1.75	0.55	0.26	1.48	2.47	0.11	0.00	0.01	0.05	0.36	0.19	1.33	2.44	7.75	0.68	3.39	1.71	0.18	0.08	0.15	0.03

			Total Miles/hour								Total Diesel Miles								Total Gas Miles							
AERMOD SRCGRP ID	AERMOD Category	Segment No.	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	1% LDA	0% LDT1	0% LDT2	3% MDV	67% LHDT1	71% LHDT2	90% MHDT	99% HHDT	84% LDA	100% LDT1	100% LDT2	97% MDV	33% LHDT1	29% LHDT2	10% MHDT	1% HHDT
SF398	SurSt	SEGMENT398	19.83	1.46	7.32	1.24	0.39	0.19	0.00	0.00	0.23	0.00	0.02	0.03	0.26	0.13	0.00	0.00	16.69	1.46	7.30	1.20	0.13	0.05	0.00	0.00
SF399	SurSt	SEGMENT399	95.24	7.03	35.16	3.47	2.61	1.26	1.97	3.29	1.10	0.00	0.08	0.09	1.74	0.89	1.77	3.25	80.18	7.02	35.09	3.38	0.87	0.36	0.20	0.04
SF400	SurSt	SEGMENT400	20.76	1.53	7.67	0.14	0.05	0.02	0.00	0.00	0.24	0.00	0.02	0.00	0.03	0.02	0.00	0.00	17.48	1.53	7.65	0.13	0.02	0.01	0.00	0.00
SF401	SurSt	SEGMENT401	15.01	1.11	5.54	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.01	0.00	0.00	0.00	0.00	0.00	12.63	1.11	5.53	0.00	0.00	0.00	0.00	0.00
SF402	SurSt	SEGMENT402	36.72	2.71	13.56	0.35	0.23	0.11	0.00	0.00	0.42	0.00	0.03	0.01	0.15	0.08	0.00	0.00	30.91	2.71	13.53	0.34	0.08	0.03	0.00	0.00
SF404	SurSt	SEGMENT404	9.31	0.69	3.44	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.00	0.00	0.00	7.83	0.69	3.43	0.00	0.00	0.00	0.00	0.00
SF405	SurSt	SEGMENT405	11.53	0.85	4.26	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.01	0.00	0.00	0.00	0.00	0.00	9.71	0.85	4.25	0.00	0.00	0.00	0.00	0.00
SF406	SurSt	SEGMENT406	5.18	0.38	1.91	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.36	0.38	1.91	0.00	0.00	0.00	0.00	0.00
SF408	SurSt	SEGMENT408	43.97	3.24	16.24	0.35	0.22	0.11	0.12	0.21	0.51	0.00	0.04	0.01	0.15	0.08	0.11	0.21	37.02	3.24	16.20	0.34	0.08	0.03	0.01	0.00
SF409	SurSt	SEGMENT409	46.13	3.40	17.03	0.71	0.32	0.15	0.00	0.00	0.53	0.00	0.04	0.02	0.21	0.11	0.00	0.00	38.83	3.40	16.99	0.69	0.11	0.04	0.00	0.00
SF410	SurSt	SEGMENT410	10.97	0.81	4.05	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.01	0.00	0.00	0.00	0.00	0.00	9.24	0.81	4.04	0.00	0.00	0.00	0.00	0.00
SF411	SurSt	SEGMENT411	18.98	1.40	7.01	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.02	0.00	0.00	0.00	0.00	0.00	15.98	1.40	6.99	0.00	0.00	0.00	0.00	0.00
SF42	SurSt	SEGMENT42	0.00	0.00	0.00	37.23	19.04	9.15	54.09	90.19	0.00	0.00	0.00	0.99	12.67	6.50	48.48	89.19	0.00	0.00	0.00	36.24	6.37	2.66	5.61	1.00
SF424	SurSt	SEGMENT424	0.00	0.00	0.00	0.00	0.00	0.00	6.82	11.37	0.00	0.00	0.00	0.00	0.00	0.00	6.11	11.24	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.13
SF425	SurSt	SEGMENT425	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF426	SurSt	SEGMENT426	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF427	SurSt	SEGMENT427	14.66	1.08	5.41	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.01	0.00	0.00	0.00	0.00	0.00	12.34	1.08	5.40	0.00	0.00	0.00	0.00	0.00
SF429	SurSt	SEGMENT429	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF43	SurSt	SEGMENT43	197.61	14.58	72.96	4.84	2.54	1.22	5.22	8.71	2.27	0.01	0.16	0.13	1.69	0.87	4.68	8.61	166.37	14.56	72.80	4.71	0.85	0.36	0.54	0.10
SF432	SurSt	SEGMENT432	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF433	SurSt	SEGMENT433	22.83	1.68	8.43	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.02	0.00	0.00	0.00	0.00	0.00	19.22	1.68	8.41	0.00	0.00	0.00	0.00	0.00
SF436	SurSt	SEGMENT436	2.27	0.17	0.84	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	0.17	0.83	0.00	0.00	0.00	0.00	0.00
SF458	SurSt	SEGMENT458	3.90	0.29	1.44	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.28	0.29	1.44	0.00	0.00	0.00	0.00	0.00
SF46	SurSt	SEGMENT46	65.96	4.87	24.35	0.75	0.51	0.24	0.00	0.00	0.76	0.00	0.05	0.02	0.34	0.17	0.00	0.00	55.53	4.86	24.30	0.73	0.17	0.07	0.00	0.00
SF464	SurSt	SEGMENT464	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF47	SurSt	SEGMENT47	155.21	11.45	57.31	3.20	0.84	0.40	0.00	0.00	1.78	0.01	0.13	0.09	0.56	0.29	0.00	0.00	130.67	11.44	57.18	3.11	0.28	0.12	0.00	0.00
SF479	SurSt	SEGMENT479	6.82	0.50	2.52	0.01	0.00	0.00	0.00	0.00	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00	5.74	0.50	2.51	0.01	0.00	0.00	0.00	0.00
SF48	SurSt	SEGMENT48	6.20	0.46	2.29	0.74	0.33	0.16	1.11	1.85	0.07	0.00	0.01	0.02	0.22	0.11	1.00	1.83	5.22	0.46	2.29	0.72	0.11	0.05	0.12	0.02
SF488	SurSt	SEGMENT488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF494	SurSt	SEGMENT494	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF498	SurSt	SEGMENT498	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF499	SurSt	SEGMENT499	0.00	0.00	0.00	0.00	0.00	0.00	5.38	8.97	0.00	0.00	0.00	0.00	0.00	0.00	4.82	8.87	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.10
SF50	SurSt	SEGMENT50	121.64	8.97	44.91	13.76	6.38	3.07	0.00	0.00	1.40	0.01	0.10	0.37	4.24	2.18	0.00	0.00	102.41	8.96	44.82	13.40	2.14	0.89	0.00	0.00
SF500	SurSt	SEGMENT500	0.00	0.00	0.00	0.00	0.00	0.00	3.22	5.37	0.00	0.00	0.00	0.00	0.00	0.00	2.88	5.31	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.06
SF502	SurSt	SEGMENT502	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF503	SurSt	SEGMENT503	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF504	SurSt	SEGMENT504	4.64	0.34	1.71	0.12	0.15	0.07	0.00	0.00	0.05	0.00	0.00	0.00	0.10	0.05	0.00	0.00	3.90	0.34	1.71	0.12	0.05	0.02	0.00	0.00
SF51	SurSt	SEGMENT51	60.03	4.43	22.16	1.82	0.97	0.47	0.00	0.00	0.69	0.00	0.05	0.05	0.65	0.33	0.00	0.00	50.54	4.42	22.11	1.77	0.33	0.14	0.00	0.00
SF52	SurSt	SEGMENT52	126.96	9.37	46.88	17.74	10.69	5.14	0.00	0.00	1.46	0.01	0.10	0.47	7.11	3.65	0.00	0.00	106.89	9.36	46.77	17.27	3.58	1.49	0.00	0.00
SF53	SurSt	SEGMENT53	14.29	1.05	5.28	0.99	0.00	0.00	0.00	0.00	0.16	0.00	0.01	0.03	0.00	0.00	0.00	0.00	12.03	1.05	5.27	0.96	0.00	0.00	0.00	0.00
SF54	SurSt	SEGMENT54	3.36	0.25	1.24	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.83	0.25	1.24	0.00	0.00	0.00	0.00	0.00
SF55	SurSt	SEGMENT55	207.06	15.28	76.45	2.54	1.71	0.82	0.00	0.00	2.38	0.01	0.17	0.07	1.14	0.58	0.00	0.00	174.32	15.26	76.29	2.47	0.57	0.24	0.00	0.00
SF56	SurSt	SEGMENT56	114.53	8.45	42.29	1.07	1.05	0.50	0.00	0.00	1.32	0.01	0.09	0.03	0.70	0.36	0.00	0.00	96.42	8.44	42.19	1.05	0.35	0.15	0.00	0.00
SF57	SurSt	SEGMENT57	1.40	0.10	0.52	0.14	0.05	0.02	0.20	0.33	0.02	0.00	0.00	0.00	0.03	0.02	0.18	0.33	1.18	0.10	0.52	0.14	0.02	0.01	0.02	0.00
SF58	SurSt	SEGMENT58	3.73	0.28	1.38	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	0.27	1.37	0.00	0.00	0.00	0.00	0.00
SF59	SurSt	SEGMENT59	3.54	0.26	1.31	0.49	0.27	0.13	0.94	1.57	0.04	0.00	0.00	0.01	0.18	0.09	0.84	1.55	2.98	0.26	1.30	0.48	0.09	0.04	0.10	0.02
SF60	SurSt	SEGMENT60	6.13	0.45	2.26	0.53	0.38	0.18	2.08	3.47	0.07	0.00	0.00	0.01	0.25	0.13	1.87	3.43	5.16	0.45	2.26	0.52	0.13	0.05	0.22	0.04
SF61	SurSt	SEGMENT61	15.29	1.13	5.64	0.34	0.07	0.03	0.71	1.18	0.18	0.00	0.01	0.01	0.05	0.02	0.64	1.17	12.87	1.13	5.63	0.33	0.02	0.01	0.07	0.01
SF62	SurSt	SEGMENT62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF65	SurSt	SEGMENT65	30.80	2.27	11.37	0.78	0.45	0.21	1.30	2.16	0.35	0.00	0.03	0.02	0.30	0.15	1.16	2.14	25.93	2.27	11.35	0.75	0.15	0.06	0.13	0.02
SF66	SurSt	SEGMENT66	24.79	1.83	9.15	1.18	0.47	0.23	1.13	1.89	0.29	0.00	0.02	0.03	0.31	0.16	1.02	1.87	20.87	1.83	9.13	1.15	0.16	0.07	0.12	0.02
SF67	SurSt	SEGMENT67	20.16	1.49	7.44	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.02	0.00	0.00	0.00	0.00	0.00	16.97	1.49	7.43	0.00	0.00	0.00	0.00	0.00
SF68	SurSt	SEGMENT68	33.81	2.49	12.48	0.20	0.15	0.07	0.00	0.00	0.39	0.00	0.03	0.01	0.10	0.05	0.00	0.00	28.46	2.49	12.46	0.20	0.05	0.02	0.00	0.00
SF69	SurSt	SEGMENT69	66.79	4.93	24.66	3.56	1.79	0.86	0.00	0.00	0.77	0.00	0.05	0.09	1.19	0.61	0.00	0.00	56.23	4.92	24.61	3.47	0.60	0.25	0.00	0.00
SF70	SurSt	SEGMENT70	31.62	2.33	11.67	3.71	1.83	0.88	0.00	0.00	0.36	0.00	0.03	0.10	1.22	0.62	0.00	0.00	26.62	2.33	11.65	3.61	0.61	0.26	0.00	0.00
SF71	SurSt	SEGMENT71	22.84	1.69	8.43	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.02	0.00	0.00	0.00	0.00	0.00	19.23	1.68	8.42	0.00	0.00	0.00	0.00	0.00
SF72	SurSt	SEGMENT72	12.05	0.89	4.45	0.01	0.00	0.00	0.00	0.00	0.14	0.00	0.01	0.00	0.00	0.00	0.00	0.00	10.14	0.89	4.44	0.01	0.00	0.00	0.00	0.00
SF73	SurSt	SEGMENT73	83.56	6.16	30.85	10.24	6.07	2.92	0.00	0.00	0.96	0.00	0.07	0.27	4.04	2.07	0.00	0.00	70.35	6.16	30.79	9.97	2.03	0.85	0.00	0.00
SF74	SurSt	SEGMENT74	25.10	1.85	9.27	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.02	0.00	0.00	0.00	0.00	0.00	21.13	1.85	9.25	0.00	0.00	0.00	0.00	0.00
SF75	SurSt	SEGMENT75	20.81	1.54	7.68	0.17	0.11	0.05	0.00	0.00	0.24	0.00	0.02	0.00	0.07	0.04	0.00	0.00	17.52	1.53	7.67	0.17	0.04	0.02	0.00	0.00
SF76	SurSt	SEGMENT76	39.82	2.94	14.70	0.34	0.56	0.27	0.00	0.00	0.46	0.00	0.03	0.01	0.37	0.19	0.00	0.00	33.52	2.93	14.67	0.33	0.19	0.08	0.00	0.00
SF77	SurSt	SEGMENT77	5.85	0.43	2.16	0.09	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.93	0.43	2.16	0.09	0.00	0.00	0.00	0.00
SF80	SurSt	SEGMENT80	2.02	0.15	0.74	0.07	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70	0.15	0.74	0.07	0.00	0.00	0.00	0.00
SF81	SurSt	SEGMENT81	3.03	0.22	1.12	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	0.22	1.12	0.00	0.00	0.00	0.00	0.00
SF82	SurSt	SEGMENT82	0.00	0.00	0.00	0.22	0.19	0.09	0.86	1.44	0.00	0.00	0.00	0.01	0.13	0.06	0.77	1.42	0.00	0.00	0.00	0.21	0.06	0.03	0.09	0.02
SF83	SurSt	SEGMENT83	0.00	0.00	0.00	0.03	0.00	0.00	0.17	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.28	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.00
SF85	SurSt	SEGMENT85	2.42	0.18	0.89	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.18	0.89	0.00	0.00	0.00	0.00	0.00
SF86	SurSt	SEGMENT86	0.67	0.05	0.25	0.26	0.08	0.04	0.94	1.57	0.01	0.00	0.00	0.01	0.05	0.03	0.84	1.55	0.57	0.05	0.25	0.26	0.03	0.01	0.10	0.02
SF87	SurSt	SEGMENT87	13.08	0.96	4.83	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.01	0.00	0.00	0.00	0.00	0.00	11.01	0.96	4.82	0.00	0.00	0.00	0.00	0.00
SF88	SurSt	SEGMENT88	13.07	0.96	4.83	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.01	0.00	0.00	0.00	0.00	0.00	11.00	0.96	4.81	0.00	0.00	0.00	0.00	0.00
FRWY27	Freeway	FRWY27	0.00	0.00	0.00	74.57	62.95	30.27	338.99	565.23	0.00	0.00	0.00	1.98	41.88	21.48	303.83	558.96	0.00	0.00	0.00	72.59	21.08	8.79	35.15	6.27

										Total Diesel Miles								Total Gas Miles							
AERMOD	AERMOD		Total Miles/hour								1%	0%	0%	3%	67%	71%	90%	99%	84%	100%	100%	97%	33%	29%	10%	1%
SRCGRP ID	Category	Segment No.	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
FRWY28	Freeway	FRWY28	0.00	0.00	0.00	62.16	52.47	25.23	282.53	471.10	0.00	0.00	0.00	1.65	34.90	17.90	253.23	465.87	0.00	0.00	0.00	60.50	17.57	7.33	29.30	5.23
FRWY29	Freeway	FRWY29	0.00	0.00	0.00	28.21	23.81	11.45	128.21	213.79	0.00	0.00	0.00	0.75	15.84	8.12	114.92	211.41	0.00	0.00	0.00	27.46	7.97	3.32	13.30	2.37
FRWY30	Freeway	FRWY30	0.00	0.00	0.00	52.92	42.89	20.62	198.41	330.83	0.00	0.00	0.00	1.41	28.53	14.63	177.83	327.16	0.00	0.00	0.00	51.52	14.36	5.99	20.57	3.67
FRWY31	Freeway	FRWY31	0.00	0.00	0.00	36.84	29.86	14.35	149.17	248.73	0.00	0.00	0.00	0.98	19.86	10.19	133.70	245.97	0.00	0.00	0.00	35.86	10.00	4.17	15.47	2.76
FRWY32	Freeway	FRWY32	0.00	0.00	0.00	56.12	41.35	19.88	206.57	344.44	0.00	0.00	0.00	1.49	27.50	14.11	185.15	340.62	0.00	0.00	0.00	54.63	13.84	5.77	21.42	3.82
FRWY33	Freeway	FRWY33	0.00	0.00	0.00	60.98	41.18	19.80	209.57	349.44	0.00	0.00	0.00	1.62	27.40	14.05	187.84	345.56	0.00	0.00	0.00	59.36	13.79	5.75	21.73	3.88
FRWY34	Freeway	FRWY34	0.00	0.00	0.00	57.98	39.15	18.82	188.37	314.09	0.00	0.00	0.00	1.54	26.04	13.36	168.84	310.61	0.00	0.00	0.00	56.43	13.11	5.47	19.53	3.49
FRWY35	Freeway	FRWY35	0.00	0.00	0.00	42.06	28.40	13.66	86.72	144.60	0.00	0.00	0.00	1.12	18.89	9.69	77.73	142.99	0.00	0.00	0.00	40.94	9.51	3.97	8.99	1.61
FRWY36	Freeway	FRWY36	0.00	0.00	0.00	6.91	4.67	2.24	12.95	21.60	0.00	0.00	0.00	0.18	3.10	1.59	11.61	21.36	0.00	0.00	0.00	6.73	1.56	0.65	1.34	0.24
FRWY37	Freeway	FRWY37	0.00	0.00	0.00	12.02	8.12	3.90	22.54	37.58	0.00	0.00	0.00	0.32	5.40	2.77	20.20	37.16	0.00	0.00	0.00	11.70	2.72	1.13	2.34	0.42
FRWY101	Freeway	FRWY101	0.00	0.00	0.00	10.41	7.03	3.38	19.51	32.54	0.00	0.00	0.00	0.28	4.68	2.40	17.49	32.18	0.00	0.00	0.00	10.13	2.35	0.98	2.02	0.36
172	Freeway	172	0.00	0.00	0.00	0.00	0.00	0.00	6.65	11.09	0.00	0.00	0.00	0.00	0.00	0.00	5.96	10.97	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.12
173	Freeway	173	0.00	0.00	0.00	0.00	0.00	0.00	53.11	88.56	0.00	0.00	0.00	0.00	0.00	0.00	47.60	87.57	0.00	0.00	0.00	0.00	0.00	0.00	5.51	0.98
174	Freeway	174	8.19	0.60	3.02	0.00	0.00	0.00	22.14	36.92	0.09	0.00	0.01	0.00	0.00	0.00	19.85	36.51	6.89	0.60	3.02	0.00	0.00	0.00	2.30	0.41

Onsite Truck Yard Activities

Total Vehicle Miles Traveled (mi/day)

	LDA	LDT1	LDT2	MDT	LHDT1	LHDT2	MHDT	HHDT
Gas	4814.32	421.47	2106.84	617.70	185.78	77.48	88.52	15.80
Diesel	65.87	0.24	4.60	16.88	369.13	189.31	765.09	1407.54
Electric	838.25	0.20	0	0	0	0	0	0

Total Idling Hours (hours/day)

	LHDT1	LHDT2	MHDT	HHDT
Gas	37.00	15.43	18.16	3.29
Diesel	73.52	37.71	156.95	288.74
Electric	0	0	0	0

	TruckYard (g/mi)							
	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
2040 Diesel TOG Exh	0.03302	0.11403	0.10930	0.03940	0.31807	0.31090	0.15406	0.36477
2040 Diesel PM Exh	0.00146	0.01125	0.00748	0.00188	0.01241	0.01297	0.00448	0.00866
2040 Gas TOG Exh	0.01554	0.02061	0.02013	0.02938	0.01589	0.01320	0.03981	1.31315
2040 Gas PM Exh	0.00222	0.00250	0.00223	0.00246	0.00315	0.00323	0.00323	0.00325
2040 Diesel PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Diesel PM Tire	0.00800	0.00800	0.00800	0.00800	0.01200	0.01200	0.01200	0.03600
2040 Gas PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Gas PM Tire	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.01200	0.02000
2040 Gas TOG Eva	0.03222	0.04710	0.03353	0.05276	0.21150	0.10053	0.11760	0.04821

	Onsite (g/mi)							
	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
2040 Diesel TOG Exh	0.00464	0.01744	0.01530	0.00550	0.07760	0.07292	0.08167	0.19307
2040 Diesel PM Exh	0.00084	0.00565	0.00436	0.00109	0.00891	0.00947	0.00364	0.00688
2040 Gas TOG Exh	0.00512	0.00670	0.00661	0.00984	0.00823	0.00683	0.02059	0.67917
2040 Gas PM Exh	0.00073	0.00082	0.00073	0.00081	0.00163	0.00167	0.00167	0.00168
2040 Diesel PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Diesel PM Tire	0.00800	0.00800	0.00800	0.00800	0.01200	0.01200	0.01200	0.03600
2040 Gas PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Gas PM Tire	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.01200	0.02000
2040 Gas TOG Eva	0.03222	0.04710	0.03353	0.05276	0.21150	0.10053	0.11760	0.04821

	Surface street (g/mi)							
	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
2040 Diesel TOG Exh	0.00906	0.03270	0.02993	0.01078	0.08993	0.08544	0.06290	0.14867
2040 Diesel PM Exh	0.00093	0.00659	0.00478	0.00120	0.00792	0.00831	0.00330	0.00623
2040 Gas TOG Exh	0.00703	0.00926	0.00910	0.01343	0.00726	0.00600	0.01836	0.60565
2040 Gas PM Exh	0.00101	0.00112	0.00101	0.00112	0.00143	0.00146	0.00149	0.00150
2040 Diesel PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Diesel PM Tire	0.00800	0.00800	0.00800	0.00800	0.01200	0.01200	0.01200	0.03600
2040 Gas PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Gas PM Tire	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.01200	0.02000
2040 Gas TOG Eva	0.03222	0.04710	0.03353	0.05276	0.21150	0.10053	0.11760	0.04821

	Freeway (g/mi)							
	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
2040 Diesel TOG Exh	0.00414	0.01511	0.01357	0.00488	0.04674	0.03933	0.02248	0.05309
2040 Diesel PM Exh	0.00072	0.00461	0.00366	0.00092	0.00680	0.00640	0.00259	0.00490
2040 Gas TOG Exh	0.00530	0.00671	0.00678	0.01027	0.00562	0.00453	0.01211	0.39944
2040 Gas PM Exh	0.00076	0.00083	0.00075	0.00084	0.00108	0.00111	0.00098	0.00099
2040 Diesel PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Diesel PM Tire	0.00800	0.00800	0.00800	0.00800	0.01200	0.01200	0.01200	0.03600
2040 Gas PM Brake	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06174
2040 Gas PM Tire	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.01200	0.02000
2040 Gas TOG Eva	0.03222	0.04710	0.03353	0.05276	0.21150	0.10053	0.11760	0.04821

	Idle (g/vehicle/hour)							
	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT
2040 Diesel TOG Exh	0.00000	0.00000	0.00000	0.00000	3.61232	3.61232	0.18476	0.58471
2040 Diesel PM Exh	0.00000	0.00000	0.00000	0.00000	0.39727	0.46684	0.00151	0.00226
2040 Gas TOG Exh	0.00000	0.00000	0.00000	0.00000	14.35481	12.80012	30.86358	15.70935
2040 Gas PM Exh	0.00000	0.00000	0.00000	0.00000	0.03775	0.03862	0.03863	0.03887
2040 Diesel PM Brake								
2040 Diesel PM Tire								
2040 Gas PM Brake								
2040 Gas PM Tire								
2040 Gas TOG Eva								

AERMOD SRCGRP ID	Source Description	2040 Unmitigated Hourly Emissions (g/hour)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
EG	27 Emergency Generators	0.08	0.07							
PH1	Phase I Truck Yards	33.21	1.66	5.53	1.58	261.09	0.96	7.68	1.58	7.92
PH2	Phase II Truck Yards	25.56	1.28	4.26	1.22	201.00	0.74	5.91	1.22	6.10
IN01	SEGMENT01	15.36	0.64	9.02	2.75	1.74	0.16	8.10	1.66	8.09
IN02	SEGMENT02	18.80	0.78	11.04	3.37	2.28	0.21	10.71	2.21	10.75
IN03	SEGMENT03	13.73	0.62	8.50	2.47	3.28	0.37	18.20	3.84	18.04
IN05	SEGMENT05	2.57	0.18	2.07	0.47	2.46	0.31	15.17	3.24	14.96
IN06	SEGMENT06	62.11	2.56	36.44	11.12	7.18	0.66	33.09	6.79	33.36
IN08	SEGMENT08	1.14	0.14	1.41	0.23	3.53	0.45	22.32	4.79	21.67
IN11	SEGMENT11	0.10	0.01	0.12	0.02	0.25	0.03	1.62	0.35	1.54
IN12	SEGMENT12	0.00	0.00	0.01	0.00	0.01	0.00	0.04	0.01	0.07
IN14	SEGMENT14	14.82	0.60	8.66	2.67	2.67	0.27	13.49	2.85	13.33
IN18	SEGMENT18	2.33	0.10	1.40	0.42	0.55	0.06	3.01	0.64	2.92
IN19	SEGMENT19	34.59	1.44	20.44	6.22	5.86	0.61	30.61	6.43	29.70
IN21	SEGMENT21	5.64	0.27	3.55	1.01	1.09	0.12	5.76	1.19	6.01
IN24	SEGMENT24	17.16	0.73	10.20	3.07	2.16	0.20	10.25	2.11	10.48
IN29	SEGMENT29	2.79	0.12	1.65	0.50	0.59	0.06	3.23	0.68	3.10
IN30	SEGMENT30	15.44	0.61	8.84	2.76	0.73	0.02	1.31	0.20	1.74
IN31	SEGMENT31	0.48	0.02	0.33	0.09	0.38	0.05	2.31	0.50	2.20
SF09	SEGMENT09	1.38	0.13	1.36	0.21	2.85	0.36	13.22	2.81	13.23
SF10	SEGMENT10	0.10	0.01	0.09	0.01	0.05	0.01	0.26	0.05	0.29
SF104	SEGMENT104	0.19	0.01	0.16	0.05	0.39	0.05	1.84	0.40	1.69
SF106	SEGMENT106	0.01	0.00	0.02	0.00	0.49	0.06	2.32	0.50	2.11
SF107	SEGMENT107	0.19	0.01	0.15	0.04	0.38	0.05	1.76	0.38	1.62
SF108	SEGMENT108	0.01	0.00	0.02	0.01	0.47	0.06	2.22	0.48	2.02
SF109	SEGMENT109	0.00	0.00	0.01	0.00	0.19	0.03	0.92	0.20	0.84
SF110	SEGMENT110	0.37	0.02	0.30	0.09	0.59	0.08	2.74	0.59	2.52
SF111	SEGMENT111	0.00	0.00	0.01	0.00	0.12	0.02	0.56	0.12	0.51
SF112	SEGMENT112	1.02	0.05	0.77	0.24	0.65	0.08	2.92	0.63	2.69
SF113	SEGMENT113	0.06	0.00	0.04	0.01	0.10	0.01	0.46	0.10	0.42
SF114	SEGMENT114	0.12	0.01	0.09	0.03	0.19	0.02	0.86	0.19	0.78
SF115	SEGMENT115	0.48	0.02	0.38	0.11	0.57	0.07	2.61	0.56	2.40
SF116	SEGMENT116	0.04	0.00	0.03	0.01	0.22	0.03	1.05	0.23	0.96
SF117	SEGMENT117	0.01	0.00	0.01	0.00	0.20	0.03	0.94	0.20	0.85
SF118	SEGMENT118	0.42	0.02	0.33	0.10	0.45	0.06	2.07	0.45	1.91
SF119	SEGMENT119	0.00	0.00	0.01	0.00	0.11	0.01	0.53	0.12	0.49

AERMOD SRCGRP ID	Source Description	2040 Unmitigated Hourly Emissions (g/hour)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF120	SEGMENT120	0.62	0.03	0.45	0.14	0.05	0.00	0.15	0.03	0.14
SF121	SEGMENT121	0.20	0.01	0.16	0.05	0.37	0.05	1.66	0.36	1.57
SF122	SEGMENT122	0.44	0.02	0.32	0.10	0.10	0.01	0.41	0.09	0.37
SF123	SEGMENT123	0.00	0.00	0.00	0.00	0.10	0.01	0.49	0.11	0.45
SF124	SEGMENT124	0.40	0.02	0.31	0.09	0.34	0.04	1.53	0.33	1.42
SF125	SEGMENT125	0.00	0.00	0.01	0.00	0.11	0.01	0.53	0.12	0.48
SF126	SEGMENT126	0.36	0.02	0.27	0.08	0.16	0.02	0.68	0.14	0.64
SF127	SEGMENT127	1.92	0.08	1.39	0.45	0.08	0.00	0.10	0.01	0.09
SF128	SEGMENT128	0.00	0.00	0.01	0.00	0.12	0.02	0.59	0.13	0.54
SF129	SEGMENT129	0.38	0.02	0.28	0.09	0.07	0.01	0.27	0.06	0.27
SF13	SEGMENT13	2.20	0.10	1.61	0.50	0.16	0.01	0.43	0.08	0.46
SF130	SEGMENT130	0.00	0.00	0.00	0.00	0.09	0.01	0.43	0.09	0.39
SF131	SEGMENT131	0.00	0.00	0.01	0.00	0.14	0.02	0.64	0.14	0.59
SF133	SEGMENT133	0.00	0.00	0.01	0.00	0.13	0.02	0.59	0.13	0.54
SF134	SEGMENT134	0.00	0.00	0.00	0.00	0.08	0.01	0.38	0.08	0.34
SF135	SEGMENT135	0.38	0.02	0.28	0.08	0.10	0.01	0.41	0.09	0.40
SF136	SEGMENT136	0.00	0.00	0.01	0.00	0.24	0.03	1.13	0.25	1.04
SF137	SEGMENT137	0.06	0.00	0.04	0.01	0.09	0.01	0.43	0.09	0.39
SF139	SEGMENT139	0.02	0.00	0.02	0.00	0.16	0.02	0.74	0.16	0.69
SF140	SEGMENT140	0.00	0.00	0.00	0.00	0.08	0.01	0.36	0.08	0.32
SF141	SEGMENT141	0.01	0.00	0.03	0.01	0.66	0.09	3.11	0.68	2.85
SF142	SEGMENT142	0.00	0.00	0.00	0.00	0.06	0.01	0.27	0.06	0.24
SF143	SEGMENT143	0.05	0.00	0.06	0.01	0.41	0.05	1.91	0.41	1.78
SF144	SEGMENT144	0.03	0.00	0.04	0.01	0.40	0.05	1.88	0.41	1.74
SF145	SEGMENT145	0.07	0.01	0.07	0.01	0.28	0.04	1.32	0.28	1.26
SF146	SEGMENT146	0.00	0.00	0.01	0.00	0.21	0.03	1.00	0.22	0.91
SF147	SEGMENT147	0.06	0.01	0.06	0.01	0.15	0.02	0.72	0.15	0.71
SF148	SEGMENT148	0.35	0.02	0.26	0.08	0.17	0.02	0.74	0.16	0.68
SF149	SEGMENT149	0.08	0.01	0.07	0.01	0.09	0.01	0.39	0.08	0.43
SF150	SEGMENT150	0.00	0.00	0.00	0.00	0.10	0.01	0.46	0.10	0.42
SF151	SEGMENT151	0.12	0.01	0.11	0.02	0.16	0.02	0.71	0.15	0.73
SF152	SEGMENT152	1.87	0.09	1.37	0.43	0.08	0.00	0.12	0.01	0.14
SF153	SEGMENT153	0.10	0.01	0.10	0.02	0.23	0.03	1.07	0.23	1.06
SF154	SEGMENT154	0.00	0.00	0.00	0.00	0.10	0.01	0.47	0.10	0.42
SF155	SEGMENT155	0.17	0.02	0.17	0.03	0.32	0.04	1.47	0.31	1.50
SF156	SEGMENT156	0.06	0.01	0.06	0.01	0.14	0.02	0.67	0.14	0.67

AERMOD SRCGRP ID	Source Description	2040 Unmitigated Hourly Emissions (g/hour)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF157	SEGMENT157	0.16	0.01	0.16	0.02	0.19	0.02	0.84	0.18	0.93
SF160	SEGMENT160	0.00	0.00	0.01	0.00	0.18	0.02	0.85	0.18	0.77
SF161	SEGMENT161	0.35	0.03	0.32	0.05	0.19	0.02	0.82	0.16	1.05
SF162	SEGMENT162	0.68	0.06	0.66	0.10	1.14	0.14	5.31	1.12	5.42
SF163	SEGMENT163	0.06	0.01	0.06	0.01	0.21	0.03	1.00	0.22	0.96
SF164	SEGMENT164	0.00	0.00	0.01	0.00	0.12	0.02	0.58	0.13	0.52
SF165	SEGMENT165	1.15	0.11	1.13	0.18	2.18	0.28	10.08	2.14	10.19
SF168	SEGMENT168	0.14	0.01	0.15	0.02	0.71	0.09	3.36	0.72	3.17
SF169	SEGMENT169	0.00	0.00	0.01	0.00	0.22	0.03	1.07	0.23	0.97
SF170	SEGMENT170	0.08	0.01	0.09	0.02	0.57	0.07	2.62	0.57	2.48
SF171	SEGMENT171	0.04	0.00	0.04	0.01	0.14	0.02	0.66	0.14	0.64
SF172	SEGMENT172	0.08	0.01	0.08	0.01	0.32	0.04	1.46	0.31	1.41
SF173	SEGMENT173	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF174	SEGMENT174	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF177	SEGMENT177	3.51	0.17	2.62	0.78	0.23	0.01	0.55	0.08	0.83
SF178	SEGMENT178	1.89	0.09	1.42	0.43	0.54	0.06	2.21	0.46	2.16
SF179	SEGMENT179	7.52	0.37	5.62	1.67	0.51	0.03	1.21	0.19	1.84
SF180	SEGMENT180	0.00	0.00	0.01	0.00	0.30	0.04	1.42	0.31	1.29
SF181	SEGMENT181	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF182	SEGMENT182	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF183	SEGMENT183	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF184	SEGMENT184	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF185	SEGMENT185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF186	SEGMENT186	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF190	SEGMENT190	2.98	0.16	2.28	0.64	0.36	0.02	0.99	0.17	1.54
SF191	SEGMENT191	1.33	0.08	1.07	0.26	0.40	0.04	1.64	0.33	1.97
SF192	SEGMENT192	1.44	0.07	1.09	0.32	0.47	0.05	1.93	0.41	1.95
SF194	SEGMENT194	0.03	0.00	0.03	0.00	0.04	0.01	0.20	0.04	0.20
SF195	SEGMENT195	0.03	0.00	0.03	0.00	0.03	0.00	0.15	0.03	0.17
SF196	SEGMENT196	0.13	0.01	0.12	0.02	0.05	0.01	0.19	0.04	0.29
SF198	SEGMENT198	0.00	0.00	0.00	0.00	0.10	0.01	0.49	0.11	0.45
SF199	SEGMENT199	0.00	0.00	0.00	0.00	0.04	0.01	0.20	0.04	0.18
SF200	SEGMENT200	0.24	0.02	0.22	0.03	0.13	0.02	0.57	0.11	0.74
SF205	SEGMENT205	0.18	0.02	0.18	0.03	0.68	0.09	3.24	0.70	3.07
SF206	SEGMENT206	0.00	0.00	0.01	0.00	0.22	0.03	1.03	0.22	0.93
SF207	SEGMENT207	0.31	0.03	0.32	0.05	1.10	0.14	5.24	1.13	4.98

AERMOD SRCGRP ID	Source Description	2040 Unmitigated Hourly Emissions (g/hour)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF283	SEGMENT283	0.16	0.01	0.12	0.04	0.01	0.00	0.02	0.00	0.03
SF284	SEGMENT284	0.31	0.01	0.23	0.07	0.02	0.00	0.03	0.00	0.04
SF285	SEGMENT285	0.13	0.01	0.09	0.03	0.01	0.00	0.01	0.00	0.01
SF286	SEGMENT286	0.03	0.00	0.03	0.00	0.06	0.01	0.30	0.06	0.29
SF287	SEGMENT287	0.45	0.02	0.33	0.10	0.05	0.00	0.17	0.03	0.17
SF288	SEGMENT288	0.01	0.00	0.01	0.00	0.05	0.01	0.22	0.05	0.20
SF289	SEGMENT289	0.29	0.01	0.21	0.07	0.02	0.00	0.06	0.01	0.06
SF290	SEGMENT290	0.82	0.04	0.60	0.19	0.04	0.00	0.04	0.00	0.04
SF294	SEGMENT294	0.00	0.00	0.00	0.00	0.09	0.01	0.43	0.09	0.40
SF301	SEGMENT301	0.04	0.00	0.05	0.01	0.20	0.03	0.93	0.20	0.89
SF302	SEGMENT302	0.06	0.01	0.07	0.01	0.31	0.04	1.44	0.31	1.36
SF303	SEGMENT303	3.40	0.15	2.47	0.79	0.15	0.00	0.17	0.02	0.15
SF304	SEGMENT304	0.03	0.00	0.03	0.00	0.04	0.00	0.11	0.02	0.16
SF306	SEGMENT306	2.15	0.11	1.62	0.47	0.22	0.02	0.69	0.13	0.89
SF32	SEGMENT32	0.51	0.05	0.51	0.08	1.31	0.17	6.08	1.30	5.98
SF33	SEGMENT33	0.25	0.02	0.23	0.03	0.02	0.00	0.14	0.02	0.28
SF340	SEGMENT340	0.05	0.00	0.05	0.01	0.02	0.00	0.09	0.02	0.13
SF35	SEGMENT35	2.55	0.12	1.87	0.58	0.13	0.00	0.22	0.03	0.28
SF36	SEGMENT36	0.56	0.05	0.55	0.09	1.13	0.14	5.24	1.11	5.25
SF37	SEGMENT37	0.69	0.03	0.52	0.15	0.04	0.00	0.10	0.01	0.15
SF375	SEGMENT375	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF376	SEGMENT376	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF377	SEGMENT377	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF378	SEGMENT378	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF379	SEGMENT379	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF38	SEGMENT38	0.23	0.02	0.23	0.04	0.46	0.06	2.16	0.46	2.16
SF380	SEGMENT380	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF381	SEGMENT381	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF386	SEGMENT386	0.04	0.00	0.04	0.01	0.21	0.03	0.99	0.21	0.91
SF387	SEGMENT387	5.52	0.29	4.20	1.19	0.57	0.05	1.88	0.34	2.50
SF388	SEGMENT388	0.00	0.00	0.00	0.00	0.02	0.00	0.11	0.02	0.10
SF390	SEGMENT390	0.27	0.02	0.25	0.05	0.66	0.09	3.12	0.67	2.95
SF392	SEGMENT392	0.29	0.02	0.23	0.06	0.20	0.02	0.89	0.19	0.86
SF393	SEGMENT393	0.09	0.01	0.08	0.02	0.21	0.03	1.01	0.22	0.93
SF394	SEGMENT394	2.33	0.12	1.79	0.51	0.64	0.07	2.67	0.55	2.79
SF396	SEGMENT396	1.97	0.11	1.53	0.42	0.61	0.07	2.56	0.53	2.74

AERMOD SRCGRP ID	Source Description	2040 Unmitigated Hourly Emissions (g/hour) Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF397	SEGMENT397	0.50	0.02	0.37	0.11	0.14	0.01	0.54	0.11	0.55
SF398	SEGMENT398	0.04	0.00	0.04	0.01	0.21	0.03	0.99	0.21	0.95
SF399	SEGMENT399	0.84	0.05	0.69	0.18	1.03	0.13	4.75	1.02	4.52
SF400	SEGMENT400	0.01	0.00	0.01	0.00	0.21	0.03	0.99	0.21	0.90
SF401	SEGMENT401	0.00	0.00	0.01	0.00	0.15	0.02	0.71	0.15	0.64
SF402	SEGMENT402	0.03	0.00	0.04	0.01	0.37	0.05	1.75	0.38	1.61
SF404	SEGMENT404	0.00	0.00	0.00	0.00	0.09	0.01	0.44	0.10	0.40
SF405	SEGMENT405	0.00	0.00	0.01	0.00	0.11	0.02	0.54	0.12	0.50
SF406	SEGMENT406	0.00	0.00	0.00	0.00	0.05	0.01	0.24	0.05	0.22
SF408	SEGMENT408	0.06	0.00	0.07	0.02	0.44	0.06	2.10	0.46	1.93
SF409	SEGMENT409	0.03	0.00	0.05	0.01	0.47	0.06	2.21	0.48	2.04
SF410	SEGMENT410	0.00	0.00	0.00	0.00	0.11	0.01	0.52	0.11	0.47
SF411	SEGMENT411	0.00	0.00	0.01	0.00	0.19	0.02	0.90	0.20	0.82
SF42	SEGMENT42	18.01	0.87	13.41	4.03	1.26	0.06	2.85	0.45	4.24
SF424	SEGMENT424	2.06	0.09	1.49	0.48	0.09	0.00	0.10	0.01	0.09
SF425	SEGMENT425	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF426	SEGMENT426	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF427	SEGMENT427	0.00	0.00	0.01	0.00	0.15	0.02	0.69	0.15	0.63
SF429	SEGMENT429	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF43	SEGMENT43	1.83	0.09	1.44	0.42	2.11	0.27	9.67	2.09	9.02
SF432	SEGMENT432	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF433	SEGMENT433	0.00	0.00	0.01	0.00	0.23	0.03	1.08	0.23	0.98
SF436	SEGMENT436	0.00	0.00	0.00	0.00	0.02	0.00	0.11	0.02	0.10
SF458	SEGMENT458	0.00	0.00	0.00	0.00	0.04	0.01	0.18	0.04	0.17
SF46	SEGMENT46	0.05	0.01	0.07	0.01	0.67	0.09	3.16	0.69	2.91
SF464	SEGMENT464	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF47	SEGMENT47	0.10	0.01	0.14	0.03	1.59	0.21	7.47	1.62	6.90
SF479	SEGMENT479	0.00	0.00	0.00	0.00	0.07	0.01	0.32	0.07	0.29
SF48	SEGMENT48	0.37	0.02	0.27	0.08	0.09	0.01	0.35	0.07	0.35
SF488	SEGMENT488	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF494	SEGMENT494	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF498	SEGMENT498	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF499	SEGMENT499	1.62	0.07	1.18	0.38	0.07	0.00	0.08	0.01	0.07
SF50	SEGMENT50	0.59	0.05	0.59	0.09	1.41	0.18	6.47	1.38	6.47
SF500	SEGMENT500	0.97	0.04	0.70	0.23	0.04	0.00	0.05	0.01	0.04
SF502	SEGMENT502	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AERMOD SRCGRP ID	Source Description	2040 Unmitigated Hourly Emissions (g/hour)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF503	SEGMENT503	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF504	SEGMENT504	0.01	0.00	0.01	0.00	0.05	0.01	0.23	0.05	0.22
SF51	SEGMENT51	0.09	0.01	0.11	0.02	0.62	0.08	2.93	0.63	2.75
SF52	SEGMENT52	0.97	0.09	0.94	0.15	1.53	0.19	7.03	1.48	7.27
SF53	SEGMENT53	0.00	0.00	0.01	0.00	0.16	0.02	0.71	0.15	0.66
SF54	SEGMENT54	0.00	0.00	0.00	0.00	0.03	0.00	0.16	0.03	0.14
SF55	SEGMENT55	0.18	0.02	0.24	0.04	2.10	0.27	9.93	2.15	9.17
SF56	SEGMENT56	0.11	0.01	0.14	0.02	1.16	0.15	5.48	1.19	5.06
SF57	SEGMENT57	0.07	0.00	0.05	0.01	0.02	0.00	0.08	0.02	0.07
SF58	SEGMENT58	0.00	0.00	0.00	0.00	0.04	0.00	0.18	0.04	0.16
SF59	SEGMENT59	0.31	0.01	0.23	0.07	0.05	0.01	0.21	0.04	0.21
SF60	SEGMENT60	0.66	0.03	0.49	0.15	0.10	0.01	0.35	0.07	0.35
SF61	SEGMENT61	0.22	0.01	0.17	0.05	0.17	0.02	0.75	0.16	0.69
SF62	SEGMENT62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SF65	SEGMENT65	0.43	0.02	0.33	0.10	0.34	0.04	1.52	0.33	1.42
SF66	SEGMENT66	0.39	0.02	0.30	0.09	0.28	0.03	1.25	0.27	1.18
SF67	SEGMENT67	0.00	0.00	0.01	0.00	0.20	0.03	0.95	0.21	0.87
SF68	SEGMENT68	0.02	0.00	0.03	0.01	0.34	0.04	1.61	0.35	1.48
SF69	SEGMENT69	0.17	0.02	0.18	0.03	0.72	0.09	3.35	0.72	3.20
SF70	SEGMENT70	0.17	0.02	0.17	0.03	0.37	0.05	1.69	0.36	1.70
SF71	SEGMENT71	0.00	0.00	0.01	0.00	0.23	0.03	1.08	0.23	0.98
SF72	SEGMENT72	0.00	0.00	0.01	0.00	0.12	0.02	0.57	0.12	0.52
SF73	SEGMENT73	0.55	0.05	0.54	0.08	0.99	0.12	4.54	0.96	4.63
SF74	SEGMENT74	0.00	0.00	0.01	0.00	0.25	0.03	1.18	0.26	1.08
SF75	SEGMENT75	0.01	0.00	0.02	0.00	0.21	0.03	0.99	0.22	0.91
SF76	SEGMENT76	0.05	0.01	0.06	0.01	0.40	0.05	1.91	0.41	1.78
SF77	SEGMENT77	0.00	0.00	0.00	0.00	0.06	0.01	0.28	0.06	0.26
SF80	SEGMENT80	0.00	0.00	0.00	0.00	0.02	0.00	0.10	0.02	0.09
SF81	SEGMENT81	0.00	0.00	0.00	0.00	0.03	0.00	0.14	0.03	0.13
SF82	SEGMENT82	0.28	0.01	0.20	0.06	0.01	0.00	0.03	0.00	0.04
SF83	SEGMENT83	0.05	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00
SF85	SEGMENT85	0.00	0.00	0.00	0.00	0.02	0.00	0.11	0.02	0.10
SF86	SEGMENT86	0.29	0.01	0.21	0.07	0.02	0.00	0.06	0.01	0.06
SF87	SEGMENT87	0.00	0.00	0.01	0.00	0.13	0.02	0.62	0.13	0.56
SF88	SEGMENT88	0.00	0.00	0.01	0.00	0.13	0.02	0.62	0.13	0.56
FRWY27	FRWY27	39.32	3.95	79.30	24.54	3.84	0.13	10.03	1.37	13.61

AERMOD SRCGRP ID	Source Description	2040 Unmitigated Hourly Emissions (g/hour)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
FRWY28	FRWY28	32.77	3.29	66.09	20.46	3.20	0.11	8.36	1.14	11.34
FRWY29	FRWY29	14.87	1.49	29.99	9.28	1.45	0.05	3.79	0.52	5.15
FRWY30	FRWY30	23.28	2.35	46.91	14.44	2.35	0.09	6.43	0.90	8.95
FRWY31	FRWY31	17.40	1.75	35.08	10.83	1.73	0.06	4.64	0.64	6.38
FRWY32	FRWY32	24.09	2.43	48.58	15.00	2.45	0.09	6.61	0.93	9.09
FRWY33	FRWY33	24.41	2.46	49.22	15.20	2.53	0.10	6.82	0.97	9.37
FRWY34	FRWY34	22.03	2.22	44.42	13.69	2.31	0.09	6.32	0.90	8.76
FRWY35	FRWY35	10.61	1.09	21.31	6.43	1.24	0.06	3.86	0.58	5.70
FRWY36	FRWY36	1.60	0.17	3.22	0.97	0.19	0.01	0.61	0.09	0.92
FRWY37	FRWY37	2.79	0.29	5.60	1.68	0.34	0.02	1.07	0.16	1.60
FRWY101	FRWY101	2.42	0.25	4.85	1.46	0.29	0.01	0.93	0.14	1.39
172	172	0.72	0.07	1.45	0.47	0.06	0.00	0.10	0.01	0.09
173	173	5.72	0.55	11.61	3.72	0.46	0.01	0.78	0.09	0.70
174	174	2.38	0.23	4.84	1.55	0.25	0.01	0.71	0.12	0.64

AERMOD SRCGRP ID	Source Description	2040 Unmitigiated Hourly Emissions (g/sec)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
EG	27 Emergency Generators	2.25E-05	2.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PH1	Phase I Truck Yards	9.22E-03	4.61E-04	1.54E-03	4.40E-04	7.25E-02	2.66E-04	2.13E-03	4.39E-04	2.20E-03
PH2	Phase II Truck Yards	7.10E-03	3.55E-04	1.18E-03	3.39E-04	5.58E-02	2.05E-04	1.64E-03	3.38E-04	1.69E-03
IN01	SEGMENT01	4.27E-03	1.77E-04	2.51E-03	7.64E-04	4.83E-04	4.46E-05	2.25E-03	4.62E-04	2.25E-03
IN02	SEGMENT02	5.22E-03	2.16E-04	3.07E-03	9.36E-04	6.34E-04	5.91E-05	2.98E-03	6.13E-04	2.99E-03
IN03	SEGMENT03	3.81E-03	1.74E-04	2.36E-03	6.85E-04	9.12E-04	1.01E-04	5.06E-03	1.07E-03	5.01E-03
IN05	SEGMENT05	7.13E-04	4.99E-05	5.74E-04	1.30E-04	6.84E-04	8.51E-05	4.21E-03	9.00E-04	4.16E-03
IN06	SEGMENT06	1.73E-02	7.12E-04	1.01E-02	3.09E-03	1.99E-03	1.82E-04	9.19E-03	1.89E-03	9.27E-03
IN08	SEGMENT08	3.18E-04	3.88E-05	3.92E-04	6.26E-05	9.80E-04	1.25E-04	6.20E-03	1.33E-03	6.02E-03
IN11	SEGMENT11	2.83E-05	3.44E-06	3.36E-05	5.28E-06	6.82E-05	9.04E-06	4.50E-04	9.63E-05	4.28E-04
IN12	SEGMENT12	1.05E-06	1.30E-07	1.39E-06	2.29E-07	3.25E-06	2.75E-07	1.25E-05	2.66E-06	1.83E-05
IN14	SEGMENT14	4.12E-03	1.66E-04	2.41E-03	7.42E-04	7.41E-04	7.51E-05	3.75E-03	7.92E-04	3.70E-03
IN18	SEGMENT18	6.48E-04	2.75E-05	3.89E-04	1.17E-04	1.52E-04	1.67E-05	8.35E-04	1.77E-04	8.12E-04
IN19	SEGMENT19	9.61E-03	3.99E-04	5.68E-03	1.73E-03	1.63E-03	1.69E-04	8.50E-03	1.79E-03	8.25E-03
IN21	SEGMENT21	1.57E-03	7.45E-05	9.86E-04	2.80E-04	3.03E-04	3.22E-05	1.60E-03	3.32E-04	1.67E-03
IN24	SEGMENT24	4.77E-03	2.02E-04	2.83E-03	8.53E-04	6.00E-04	5.67E-05	2.85E-03	5.85E-04	2.91E-03
IN29	SEGMENT29	7.75E-04	3.20E-05	4.58E-04	1.40E-04	1.65E-04	1.79E-05	8.96E-04	1.90E-04	8.61E-04
IN30	SEGMENT30	4.29E-03	1.70E-04	2.46E-03	7.66E-04	2.02E-04	6.65E-06	3.63E-04	5.53E-05	4.82E-04
IN31	SEGMENT31	1.34E-04	6.82E-06	9.11E-05	2.49E-05	1.05E-04	1.29E-05	6.43E-04	1.38E-04	6.12E-04
SF09	SEGMENT09	3.82E-04	3.51E-05	3.77E-04	5.87E-05	7.91E-04	1.00E-04	3.67E-03	7.81E-04	3.68E-03
SF10	SEGMENT10	2.64E-05	2.41E-06	2.46E-05	3.69E-06	1.36E-05	1.85E-06	7.11E-05	1.41E-05	7.95E-05
SF104	SEGMENT104	5.37E-05	2.63E-06	4.35E-05	1.29E-05	1.10E-04	1.40E-05	5.11E-04	1.11E-04	4.69E-04
SF106	SEGMENT106	1.78E-06	2.03E-07	6.21E-06	1.35E-06	1.36E-04	1.78E-05	6.44E-04	1.40E-04	5.86E-04
SF107	SEGMENT107	5.17E-05	2.60E-06	4.22E-05	1.23E-05	1.05E-04	1.34E-05	4.89E-04	1.06E-04	4.49E-04
SF108	SEGMENT108	3.07E-06	2.54E-07	6.93E-06	1.61E-06	1.30E-04	1.70E-05	6.17E-04	1.34E-04	5.61E-04
SF109	SEGMENT109	7.04E-07	8.05E-08	2.46E-06	5.35E-07	5.39E-05	7.05E-06	2.56E-04	5.56E-05	2.33E-04
SF110	SEGMENT110	1.02E-04	5.19E-06	8.21E-05	2.37E-05	1.63E-04	2.09E-05	7.62E-04	1.65E-04	7.01E-04
SF111	SEGMENT111	4.30E-07	4.92E-08	1.50E-06	3.27E-07	3.29E-05	4.30E-06	1.56E-04	3.40E-05	1.42E-04
SF112	SEGMENT112	2.82E-04	1.31E-05	2.13E-04	6.55E-05	1.80E-04	2.21E-05	8.10E-04	1.74E-04	7.48E-04
SF113	SEGMENT113	1.58E-05	7.18E-07	1.24E-05	3.86E-06	2.77E-05	3.55E-06	1.29E-04	2.80E-05	1.17E-04
SF114	SEGMENT114	3.25E-05	1.48E-06	2.54E-05	7.91E-06	5.15E-05	6.58E-06	2.39E-04	5.19E-05	2.18E-04
SF115	SEGMENT115	1.35E-04	6.54E-06	1.05E-04	3.14E-05	1.57E-04	1.99E-05	7.26E-04	1.57E-04	6.68E-04
SF116	SEGMENT116	9.87E-06	5.28E-07	9.55E-06	2.65E-06	6.20E-05	8.02E-06	2.91E-04	6.32E-05	2.67E-04
SF117	SEGMENT117	1.77E-06	1.28E-07	3.27E-06	7.91E-07	5.50E-05	7.19E-06	2.61E-04	5.67E-05	2.37E-04
SF118	SEGMENT118	1.16E-04	5.64E-06	9.03E-05	2.70E-05	1.25E-04	1.57E-05	5.74E-04	1.24E-04	5.29E-04
SF119	SEGMENT119	4.09E-07	4.68E-08	1.43E-06	3.11E-07	3.13E-05	4.09E-06	1.48E-04	3.22E-05	1.35E-04

AERMOD SRCGRP ID	Source Description	2040 Unmitigiated Hourly Emissions (g/sec)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF120	SEGMENT120	1.72E-04	7.61E-06	1.25E-04	4.00E-05	1.46E-05	1.04E-06	4.24E-05	8.28E-06	3.89E-05
SF121	SEGMENT121	5.66E-05	2.58E-06	4.50E-05	1.39E-05	1.04E-04	1.27E-05	4.60E-04	9.99E-05	4.36E-04
SF122	SEGMENT122	1.23E-04	5.43E-06	9.00E-05	2.87E-05	2.79E-05	3.02E-06	1.13E-04	2.39E-05	1.03E-04
SF123	SEGMENT123	3.75E-07	4.29E-08	1.31E-06	2.85E-07	2.87E-05	3.76E-06	1.36E-04	2.96E-05	1.24E-04
SF124	SEGMENT124	1.11E-04	5.31E-06	8.52E-05	2.57E-05	9.33E-05	1.16E-05	4.24E-04	9.15E-05	3.93E-04
SF125	SEGMENT125	4.06E-07	4.65E-08	1.42E-06	3.09E-07	3.11E-05	4.07E-06	1.48E-04	3.21E-05	1.34E-04
SF126	SEGMENT126	9.98E-05	4.76E-06	7.52E-05	2.28E-05	4.32E-05	5.12E-06	1.89E-04	4.02E-05	1.78E-04
SF127	SEGMENT127	5.33E-04	2.34E-05	3.87E-04	1.24E-04	2.35E-05	3.45E-07	2.67E-05	3.02E-06	2.42E-05
SF128	SEGMENT128	4.51E-07	5.16E-08	1.58E-06	3.43E-07	3.45E-05	4.52E-06	1.64E-04	3.57E-05	1.49E-04
SF129	SEGMENT129	1.05E-04	5.03E-06	7.84E-05	2.37E-05	1.94E-05	1.99E-06	7.53E-05	1.55E-05	7.59E-05
SF13	SEGMENT13	6.10E-04	2.80E-05	4.48E-04	1.40E-04	4.54E-05	2.81E-06	1.20E-04	2.18E-05	1.29E-04
SF130	SEGMENT130	3.29E-07	3.77E-08	1.15E-06	2.51E-07	2.52E-05	3.30E-06	1.20E-04	2.60E-05	1.09E-04
SF131	SEGMENT131	4.93E-07	5.64E-08	1.72E-06	3.75E-07	3.77E-05	4.94E-06	1.79E-04	3.89E-05	1.63E-04
SF133	SEGMENT133	4.53E-07	5.19E-08	1.58E-06	3.45E-07	3.47E-05	4.54E-06	1.65E-04	3.58E-05	1.50E-04
SF134	SEGMENT134	2.88E-07	3.30E-08	1.01E-06	2.19E-07	2.21E-05	2.89E-06	1.05E-04	2.28E-05	9.54E-05
SF135	SEGMENT135	1.04E-04	5.00E-06	7.81E-05	2.36E-05	2.75E-05	3.05E-06	1.14E-04	2.39E-05	1.11E-04
SF136	SEGMENT136	8.81E-07	1.01E-07	3.08E-06	6.70E-07	6.69E-05	8.70E-06	3.15E-04	6.86E-05	2.88E-04
SF137	SEGMENT137	1.57E-05	7.14E-07	1.23E-05	3.83E-06	2.58E-05	3.30E-06	1.20E-04	2.61E-05	1.09E-04
SF139	SEGMENT139	5.80E-06	5.42E-07	6.79E-06	1.15E-06	4.35E-05	5.66E-06	2.05E-04	4.45E-05	1.92E-04
SF140	SEGMENT140	2.73E-07	3.12E-08	9.53E-07	2.08E-07	2.09E-05	2.73E-06	9.91E-05	2.16E-05	9.02E-05
SF141	SEGMENT141	2.42E-06	2.77E-07	8.46E-06	1.84E-06	1.84E-04	2.39E-05	8.65E-04	1.88E-04	7.91E-04
SF142	SEGMENT142	3.49E-07	2.97E-08	8.17E-07	1.89E-07	1.56E-05	2.04E-06	7.40E-05	1.61E-05	6.73E-05
SF143	SEGMENT143	1.34E-05	1.25E-06	1.61E-05	2.75E-06	1.13E-04	1.46E-05	5.31E-04	1.15E-04	4.95E-04
SF144	SEGMENT144	8.45E-06	8.04E-07	1.15E-05	2.07E-06	1.11E-04	1.44E-05	5.22E-04	1.13E-04	4.84E-04
SF145	SEGMENT145	1.97E-05	1.82E-06	2.07E-05	3.33E-06	7.84E-05	1.01E-05	3.66E-04	7.87E-05	3.51E-04
SF146	SEGMENT146	7.65E-07	8.75E-08	2.67E-06	5.82E-07	5.86E-05	7.66E-06	2.78E-04	6.05E-05	2.53E-04
SF147	SEGMENT147	1.74E-05	1.60E-06	1.74E-05	2.73E-06	4.30E-05	5.45E-06	1.99E-04	4.24E-05	1.97E-04
SF148	SEGMENT148	9.72E-05	4.31E-06	7.20E-05	2.29E-05	4.69E-05	5.64E-06	2.07E-04	4.45E-05	1.89E-04
SF149	SEGMENT149	2.13E-05	1.95E-06	2.04E-05	3.11E-06	2.43E-05	2.97E-06	1.09E-04	2.27E-05	1.19E-04
SF150	SEGMENT150	3.51E-07	4.02E-08	1.23E-06	2.67E-07	2.69E-05	3.52E-06	1.27E-04	2.77E-05	1.16E-04
SF151	SEGMENT151	3.28E-05	2.64E-06	3.00E-05	5.57E-06	4.32E-05	5.37E-06	1.97E-04	4.15E-05	2.02E-04
SF152	SEGMENT152	5.20E-04	2.37E-05	3.80E-04	1.19E-04	2.25E-05	4.46E-07	3.23E-05	3.48E-06	3.95E-05
SF153	SEGMENT153	2.73E-05	2.51E-06	2.72E-05	4.26E-06	6.37E-05	8.11E-06	2.96E-04	6.31E-05	2.93E-04
SF154	SEGMENT154	3.57E-07	4.09E-08	1.25E-06	2.72E-07	2.73E-05	3.58E-06	1.30E-04	2.82E-05	1.18E-04
SF155	SEGMENT155	4.70E-05	4.31E-06	4.62E-05	7.16E-06	8.90E-05	1.12E-05	4.09E-04	8.67E-05	4.16E-04
SF156	SEGMENT156	1.74E-05	1.59E-06	1.73E-05	2.70E-06	4.01E-05	5.09E-06	1.86E-04	3.96E-05	1.85E-04

AERMOD SRCGRP ID	Source Description	2040 Unmitigiated Hourly Emissions (g/sec)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF157	SEGMENT157	4.51E-05	4.13E-06	4.32E-05	6.61E-06	5.28E-05	6.39E-06	2.34E-04	4.88E-05	2.58E-04
SF160	SEGMENT160	6.47E-07	7.40E-08	2.26E-06	4.92E-07	4.95E-05	6.48E-06	2.35E-04	5.11E-05	2.14E-04
SF161	SEGMENT161	9.63E-05	8.79E-06	9.00E-05	1.36E-05	5.19E-05	6.06E-06	2.28E-04	4.48E-05	2.92E-04
SF162	SEGMENT162	1.90E-04	1.74E-05	1.84E-04	2.85E-05	3.18E-04	4.02E-05	1.48E-03	3.12E-04	1.50E-03
SF163	SEGMENT163	1.59E-05	1.46E-06	1.65E-05	2.65E-06	5.92E-05	7.66E-06	2.79E-04	6.00E-05	2.66E-04
SF164	SEGMENT164	4.40E-07	5.03E-08	1.54E-06	3.35E-07	3.37E-05	4.41E-06	1.60E-04	3.48E-05	1.45E-04
SF165	SEGMENT165	3.20E-04	2.93E-05	3.14E-04	4.86E-05	6.05E-04	7.66E-05	2.80E-03	5.94E-04	2.83E-03
SF168	SEGMENT168	3.86E-05	3.58E-06	4.20E-05	6.88E-06	1.98E-04	2.57E-05	9.33E-04	2.01E-04	8.80E-04
SF169	SEGMENT169	8.15E-07	9.33E-08	2.85E-06	6.20E-07	6.24E-05	8.17E-06	2.96E-04	6.44E-05	2.69E-04
SF170	SEGMENT170	2.25E-05	1.99E-06	2.56E-05	4.62E-06	1.57E-04	2.01E-05	7.28E-04	1.57E-04	6.88E-04
SF171	SEGMENT171	1.14E-05	1.05E-06	1.18E-05	1.89E-06	3.97E-05	5.03E-06	1.83E-04	3.92E-05	1.78E-04
SF172	SEGMENT172	2.18E-05	2.01E-06	2.30E-05	3.71E-06	8.80E-05	1.12E-05	4.07E-04	8.75E-05	3.93E-04
SF173	SEGMENT173	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF174	SEGMENT174	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF177	SEGMENT177	9.74E-04	4.79E-05	7.28E-04	2.16E-04	6.49E-05	3.28E-06	1.52E-04	2.31E-05	2.31E-04
SF178	SEGMENT178	5.26E-04	2.50E-05	3.93E-04	1.20E-04	1.50E-04	1.65E-05	6.13E-04	1.29E-04	6.00E-04
SF179	SEGMENT179	2.09E-03	1.03E-04	1.56E-03	4.64E-04	1.43E-04	7.33E-06	3.35E-04	5.16E-05	5.11E-04
SF180	SEGMENT180	1.08E-06	1.24E-07	3.79E-06	8.25E-07	8.30E-05	1.09E-05	3.94E-04	8.57E-05	3.58E-04
SF181	SEGMENT181	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF182	SEGMENT182	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF183	SEGMENT183	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF184	SEGMENT184	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF185	SEGMENT185	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF186	SEGMENT186	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF190	SEGMENT190	8.28E-04	4.37E-05	6.33E-04	1.78E-04	9.89E-05	6.91E-06	2.74E-04	4.83E-05	4.28E-04
SF191	SEGMENT191	3.69E-04	2.29E-05	2.98E-04	7.31E-05	1.12E-04	1.21E-05	4.55E-04	9.08E-05	5.48E-04
SF192	SEGMENT192	4.01E-04	1.97E-05	3.04E-04	9.01E-05	1.31E-04	1.45E-05	5.36E-04	1.13E-04	5.41E-04
SF194	SEGMENT194	7.55E-06	6.92E-07	7.32E-06	1.13E-06	1.17E-05	1.48E-06	5.44E-05	1.15E-05	5.59E-05
SF195	SEGMENT195	8.96E-06	8.19E-07	8.54E-06	1.30E-06	9.47E-06	1.16E-06	4.27E-05	8.84E-06	4.70E-05
SF196	SEGMENT196	3.58E-05	3.26E-06	3.32E-05	4.98E-06	1.26E-05	1.40E-06	5.40E-05	9.97E-06	7.97E-05
SF198	SEGMENT198	3.76E-07	4.31E-08	1.32E-06	2.86E-07	2.88E-05	3.77E-06	1.37E-04	2.98E-05	1.24E-04
SF199	SEGMENT199	1.50E-07	1.71E-08	5.23E-07	1.14E-07	1.15E-05	1.50E-06	5.43E-05	1.18E-05	4.95E-05
SF200	SEGMENT200	6.61E-05	6.03E-06	6.19E-05	9.34E-06	3.70E-05	4.20E-06	1.57E-04	3.09E-05	2.05E-04
SF205	SEGMENT205	4.92E-05	4.54E-06	5.14E-05	8.24E-06	1.90E-04	2.47E-05	9.01E-04	1.94E-04	8.53E-04
SF206	SEGMENT206	7.85E-07	8.98E-08	2.74E-06	5.97E-07	6.01E-05	7.86E-06	2.85E-04	6.20E-05	2.59E-04
SF207	SEGMENT207	8.53E-05	7.86E-06	8.83E-05	1.41E-05	3.06E-04	3.99E-05	1.45E-03	3.13E-04	1.38E-03

AERMOD SRCGRP ID	Source Description	2040 Unmitigiated Hourly Emissions (g/sec)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF283	SEGMENT283	4.56E-05	2.10E-06	3.35E-05	1.04E-05	2.69E-06	1.37E-07	6.45E-06	1.07E-06	7.02E-06
SF284	SEGMENT284	8.72E-05	4.08E-06	6.43E-05	1.98E-05	4.64E-06	1.64E-07	8.67E-06	1.19E-06	1.21E-05
SF285	SEGMENT285	3.48E-05	1.53E-06	2.52E-05	8.10E-06	1.51E-06	2.10E-08	1.69E-06	1.86E-07	1.51E-06
SF286	SEGMENT286	7.00E-06	6.43E-07	7.02E-06	1.10E-06	1.78E-05	2.29E-06	8.35E-05	1.78E-05	8.18E-05
SF287	SEGMENT287	1.26E-04	5.66E-06	9.20E-05	2.90E-05	1.47E-05	1.23E-06	4.77E-05	9.59E-06	4.73E-05
SF288	SEGMENT288	1.65E-06	8.47E-08	1.67E-06	4.75E-07	1.32E-05	1.72E-06	6.24E-05	1.36E-05	5.68E-05
SF289	SEGMENT289	8.10E-05	3.66E-06	5.93E-05	1.87E-05	6.34E-06	3.87E-07	1.62E-05	3.01E-06	1.72E-05
SF290	SEGMENT290	2.29E-04	1.00E-05	1.66E-04	5.32E-05	9.95E-06	1.38E-07	1.11E-05	1.22E-06	9.93E-06
SF294	SEGMENT294	3.32E-07	3.80E-08	1.16E-06	2.53E-07	2.55E-05	3.33E-06	1.21E-04	2.63E-05	1.10E-04
SF301	SEGMENT301	1.24E-05	1.14E-06	1.32E-05	2.14E-06	5.52E-05	7.13E-06	2.59E-04	5.59E-05	2.46E-04
SF302	SEGMENT302	1.68E-05	1.56E-06	1.83E-05	2.99E-06	8.49E-05	1.10E-05	3.99E-04	8.60E-05	3.77E-04
SF303	SEGMENT303	9.45E-04	4.15E-05	6.85E-04	2.20E-04	4.11E-05	5.71E-07	4.59E-05	5.06E-06	4.10E-05
SF304	SEGMENT304	7.77E-06	7.12E-07	7.63E-06	1.18E-06	1.01E-05	8.71E-07	3.00E-05	6.15E-06	4.56E-05
SF306	SEGMENT306	5.97E-04	3.03E-05	4.51E-04	1.31E-04	6.05E-05	4.72E-06	1.93E-04	3.49E-05	2.48E-04
SF32	SEGMENT32	1.41E-04	1.30E-05	1.41E-04	2.22E-05	3.63E-04	4.63E-05	1.69E-03	3.61E-04	1.66E-03
SF33	SEGMENT33	6.91E-05	6.30E-06	6.33E-05	9.42E-06	5.48E-06	7.75E-07	3.76E-05	4.70E-06	7.74E-05
SF340	SEGMENT340	1.37E-05	1.25E-06	1.28E-05	1.93E-06	6.14E-06	6.70E-07	2.53E-05	4.82E-06	3.60E-05
SF35	SEGMENT35	7.08E-04	3.25E-05	5.19E-04	1.62E-04	3.56E-05	1.07E-06	6.01E-05	7.97E-06	7.90E-05
SF36	SEGMENT36	1.56E-04	1.43E-05	1.54E-04	2.39E-05	3.13E-04	3.98E-05	1.46E-03	3.09E-04	1.46E-03
SF37	SEGMENT37	1.92E-04	9.42E-06	1.43E-04	4.26E-05	1.18E-05	5.64E-07	2.71E-05	3.95E-06	4.16E-05
SF375	SEGMENT375	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF376	SEGMENT376	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF377	SEGMENT377	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF378	SEGMENT378	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF379	SEGMENT379	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF38	SEGMENT38	6.40E-05	5.87E-06	6.30E-05	9.79E-06	1.29E-04	1.64E-05	5.99E-04	1.27E-04	6.00E-04
SF380	SEGMENT380	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF381	SEGMENT381	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF386	SEGMENT386	1.24E-05	7.76E-07	1.18E-05	2.92E-06	5.81E-05	7.57E-06	2.75E-04	5.96E-05	2.52E-04
SF387	SEGMENT387	1.53E-03	8.00E-05	1.17E-03	3.32E-04	1.58E-04	1.27E-05	5.22E-04	9.35E-05	6.93E-04
SF388	SEGMENT388	8.28E-08	9.48E-09	2.89E-07	6.30E-08	6.34E-06	8.30E-07	3.01E-05	6.55E-06	2.74E-05
SF390	SEGMENT390	7.61E-05	5.35E-06	6.92E-05	1.52E-05	1.85E-04	2.38E-05	8.68E-04	1.87E-04	8.21E-04
SF392	SEGMENT392	7.99E-05	4.29E-06	6.28E-05	1.75E-05	5.47E-05	6.72E-06	2.46E-04	5.25E-05	2.38E-04
SF393	SEGMENT393	2.54E-05	1.47E-06	2.18E-05	5.69E-06	5.94E-05	7.70E-06	2.80E-04	6.06E-05	2.59E-04
SF394	SEGMENT394	6.47E-04	3.40E-05	4.97E-04	1.40E-04	1.78E-04	1.98E-05	7.41E-04	1.53E-04	7.74E-04
SF396	SEGMENT396	5.46E-04	3.02E-05	4.26E-04	1.16E-04	1.69E-04	1.90E-05	7.11E-04	1.46E-04	7.60E-04

AERMOD SRCGRP ID	Source Description	2040 Unmitigiated Hourly Emissions (g/sec)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF397	SEGMENT397	1.38E-04	6.73E-06	1.04E-04	3.10E-05	3.77E-05	4.04E-06	1.50E-04	3.13E-05	1.53E-04
SF398	SEGMENT398	1.04E-05	9.65E-07	1.16E-05	1.92E-06	5.97E-05	7.62E-06	2.76E-04	5.97E-05	2.63E-04
SF399	SEGMENT399	2.34E-04	1.36E-05	1.92E-04	5.00E-05	2.85E-04	3.61E-05	1.32E-03	2.83E-04	1.25E-03
SF400	SEGMENT400	2.02E-06	2.02E-07	3.81E-06	7.50E-07	5.79E-05	7.56E-06	2.74E-04	5.96E-05	2.51E-04
SF401	SEGMENT401	5.42E-07	6.20E-08	1.89E-06	4.12E-07	4.15E-05	5.43E-06	1.97E-04	4.28E-05	1.79E-04
SF402	SEGMENT402	7.09E-06	6.78E-07	9.97E-06	1.81E-06	1.03E-04	1.34E-05	4.87E-04	1.06E-04	4.49E-04
SF404	SEGMENT404	3.36E-07	3.84E-08	1.17E-06	2.56E-07	2.57E-05	3.37E-06	1.22E-04	2.66E-05	1.11E-04
SF405	SEGMENT405	4.16E-07	4.76E-08	1.45E-06	3.17E-07	3.19E-05	4.17E-06	1.51E-04	3.29E-05	1.38E-04
SF406	SEGMENT406	1.87E-07	2.14E-08	6.54E-07	1.42E-07	1.43E-05	1.87E-06	6.79E-05	1.48E-05	6.18E-05
SF408	SEGMENT408	1.76E-05	1.15E-06	1.83E-05	4.41E-06	1.23E-04	1.61E-05	5.83E-04	1.27E-04	5.35E-04
SF409	SEGMENT409	9.58E-06	9.13E-07	1.32E-05	2.38E-06	1.30E-04	1.70E-05	6.15E-04	1.33E-04	5.68E-04
SF410	SEGMENT410	3.96E-07	4.53E-08	1.38E-06	3.01E-07	3.03E-05	3.97E-06	1.44E-04	3.13E-05	1.31E-04
SF411	SEGMENT411	6.85E-07	7.84E-08	2.39E-06	5.21E-07	5.25E-05	6.87E-06	2.49E-04	5.42E-05	2.27E-04
SF42	SEGMENT42	5.00E-03	2.42E-04	3.72E-03	1.12E-03	3.49E-04	1.76E-05	7.91E-04	1.25E-04	1.18E-03
SF424	SEGMENT424	5.71E-04	2.51E-05	4.14E-04	1.33E-04	2.48E-05	3.45E-07	2.78E-05	3.06E-06	2.48E-05
SF425	SEGMENT425	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF426	SEGMENT426	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF427	SEGMENT427	5.29E-07	6.05E-08	1.85E-06	4.02E-07	4.05E-05	5.30E-06	1.92E-04	4.18E-05	1.75E-04
SF429	SEGMENT429	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF43	SEGMENT43	5.08E-04	2.58E-05	4.01E-04	1.16E-04	5.85E-04	7.37E-05	2.69E-03	5.79E-04	2.51E-03
SF432	SEGMENT432	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF433	SEGMENT433	8.24E-07	9.43E-08	2.88E-06	6.27E-07	6.31E-05	8.25E-06	2.99E-04	6.51E-05	2.72E-04
SF436	SEGMENT436	8.20E-08	9.38E-09	2.86E-07	6.24E-08	6.27E-06	8.20E-07	2.97E-05	6.47E-06	2.71E-05
SF458	SEGMENT458	1.41E-07	1.61E-08	4.92E-07	1.07E-07	1.08E-05	1.41E-06	5.11E-05	1.11E-05	4.65E-05
SF46	SEGMENT46	1.50E-05	1.42E-06	2.00E-05	3.56E-06	1.86E-04	2.42E-05	8.77E-04	1.90E-04	8.10E-04
SF464	SEGMENT464	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF47	SEGMENT47	2.65E-05	2.55E-06	3.93E-05	7.26E-06	4.41E-04	5.73E-05	2.08E-03	4.51E-04	1.92E-03
SF479	SEGMENT479	2.47E-07	2.82E-08	8.62E-07	1.88E-07	1.89E-05	2.47E-06	8.94E-05	1.95E-05	8.14E-05
SF48	SEGMENT48	1.02E-04	4.87E-06	7.60E-05	2.30E-05	2.42E-05	2.59E-06	9.67E-05	2.02E-05	9.65E-05
SF488	SEGMENT488	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF494	SEGMENT494	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF498	SEGMENT498	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF499	SEGMENT499	4.50E-04	1.98E-05	3.27E-04	1.05E-04	1.96E-05	2.72E-07	2.19E-05	2.41E-06	1.96E-05
SF50	SEGMENT50	1.63E-04	1.50E-05	1.63E-04	2.56E-05	3.92E-04	4.94E-05	1.80E-03	3.84E-04	1.80E-03
SF500	SEGMENT500	2.70E-04	1.18E-05	1.95E-04	6.27E-05	1.17E-05	1.63E-07	1.31E-05	1.44E-06	1.17E-05
SF502	SEGMENT502	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

AERMOD SRCGRP ID	Source Description	2040 Unmitigiated Hourly Emissions (g/sec)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
SF503	SEGMENT503	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF504	SEGMENT504	3.97E-06	3.66E-07	4.08E-06	6.49E-07	1.34E-05	1.74E-06	6.36E-05	1.37E-05	6.07E-05
SF51	SEGMENT51	2.64E-05	2.45E-06	3.00E-05	5.02E-06	1.73E-04	2.24E-05	8.15E-04	1.76E-04	7.65E-04
SF52	SEGMENT52	2.70E-04	2.47E-05	2.62E-04	4.04E-05	4.25E-04	5.33E-05	1.95E-03	4.12E-04	2.02E-03
SF53	SEGMENT53	5.95E-07	6.78E-08	2.07E-06	4.51E-07	4.31E-05	5.47E-06	1.97E-04	4.29E-05	1.85E-04
SF54	SEGMENT54	1.21E-07	1.39E-08	4.24E-07	9.22E-08	9.29E-06	1.21E-06	4.40E-05	9.58E-06	4.01E-05
SF55	SEGMENT55	5.00E-05	4.74E-06	6.55E-05	1.16E-05	5.83E-04	7.60E-05	2.76E-03	5.98E-04	2.55E-03
SF56	SEGMENT56	3.01E-05	2.84E-06	3.84E-05	6.72E-06	3.21E-04	4.19E-05	1.52E-03	3.30E-04	1.41E-03
SF57	SEGMENT57	1.81E-05	8.60E-07	1.35E-05	4.12E-06	5.16E-06	5.69E-07	2.11E-05	4.45E-06	2.07E-05
SF58	SEGMENT58	1.35E-07	1.54E-08	4.70E-07	1.02E-07	1.03E-05	1.35E-06	4.89E-05	1.06E-05	4.45E-05
SF59	SEGMENT59	8.59E-05	4.10E-06	6.40E-05	1.94E-05	1.52E-05	1.53E-06	5.79E-05	1.19E-05	5.91E-05
SF60	SEGMENT60	1.84E-04	8.54E-06	1.36E-04	4.20E-05	2.68E-05	2.56E-06	9.81E-05	2.00E-05	9.73E-05
SF61	SEGMENT61	6.18E-05	2.83E-06	4.67E-05	1.45E-05	4.61E-05	5.68E-06	2.07E-04	4.47E-05	1.91E-04
SF62	SEGMENT62	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SF65	SEGMENT65	1.21E-04	5.91E-06	9.29E-05	2.76E-05	9.31E-05	1.15E-05	4.21E-04	9.06E-05	3.94E-04
SF66	SEGMENT66	1.08E-04	5.34E-06	8.30E-05	2.44E-05	7.74E-05	9.47E-06	3.46E-04	7.43E-05	3.28E-04
SF67	SEGMENT67	7.28E-07	8.33E-08	2.54E-06	5.54E-07	5.57E-05	7.29E-06	2.64E-04	5.75E-05	2.41E-04
SF68	SEGMENT68	4.85E-06	4.71E-07	7.63E-06	1.43E-06	9.43E-05	1.23E-05	4.47E-04	9.71E-05	4.10E-04
SF69	SEGMENT69	4.70E-05	4.34E-06	4.98E-05	8.05E-06	1.99E-04	2.56E-05	9.30E-04	2.00E-04	8.90E-04
SF70	SEGMENT70	4.66E-05	4.28E-06	4.63E-05	7.22E-06	1.03E-04	1.29E-05	4.71E-04	1.00E-04	4.73E-04
SF71	SEGMENT71	8.24E-07	9.43E-08	2.88E-06	6.27E-07	6.32E-05	8.26E-06	2.99E-04	6.52E-05	2.73E-04
SF72	SEGMENT72	4.36E-07	4.99E-08	1.52E-06	3.32E-07	3.34E-05	4.36E-06	1.58E-04	3.44E-05	1.44E-04
SF73	SEGMENT73	1.54E-04	1.41E-05	1.50E-04	2.33E-05	2.74E-04	3.45E-05	1.26E-03	2.67E-04	1.29E-03
SF74	SEGMENT74	9.06E-07	1.04E-07	3.17E-06	6.89E-07	6.94E-05	9.08E-06	3.29E-04	7.16E-05	3.00E-04
SF75	SEGMENT75	3.55E-06	3.41E-07	5.21E-06	9.59E-07	5.83E-05	7.60E-06	2.76E-04	5.99E-05	2.53E-04
SF76	SEGMENT76	1.53E-05	1.42E-06	1.77E-05	2.99E-06	1.12E-04	1.46E-05	5.31E-04	1.15E-04	4.93E-04
SF77	SEGMENT77	2.19E-07	2.50E-08	7.64E-07	1.66E-07	1.65E-05	2.15E-06	7.77E-05	1.69E-05	7.12E-05
SF80	SEGMENT80	7.81E-08	8.92E-09	2.72E-07	5.93E-08	5.82E-06	7.49E-07	2.71E-05	5.90E-06	2.50E-05
SF81	SEGMENT81	1.09E-07	1.25E-08	3.82E-07	8.31E-08	8.37E-06	1.09E-06	3.97E-05	8.64E-06	3.61E-05
SF82	SEGMENT82	7.70E-05	3.60E-06	5.67E-05	1.75E-05	4.10E-06	1.45E-07	7.65E-06	1.05E-06	1.07E-05
SF83	SEGMENT83	1.43E-05	6.29E-07	1.04E-05	3.33E-06	7.50E-07	1.92E-08	1.04E-06	1.52E-07	1.12E-06
SF85	SEGMENT85	8.74E-08	1.00E-08	3.05E-07	6.65E-08	6.69E-06	8.75E-07	3.17E-05	6.91E-06	2.89E-05
SF86	SEGMENT86	8.08E-05	3.65E-06	5.91E-05	1.86E-05	6.32E-06	3.86E-07	1.61E-05	3.00E-06	1.71E-05
SF87	SEGMENT87	4.72E-07	5.40E-08	1.65E-06	3.59E-07	3.62E-05	4.73E-06	1.71E-04	3.73E-05	1.56E-04
SF88	SEGMENT88	4.72E-07	5.40E-08	1.65E-06	3.59E-07	3.61E-05	4.73E-06	1.71E-04	3.73E-05	1.56E-04
FRWY27	FRWY27	1.09E-02	1.10E-03	2.20E-02	6.82E-03	1.07E-03	3.73E-05	2.79E-03	3.80E-04	3.78E-03

AERMOD SRCGRP ID	Source Description	2040 Unmitigiated Hourly Emissions (g/sec)								
		Diesel TOG Exh	Diesel PM Exh	Diesel PM Brake	Diesel PM Tire	Gas TOG Exh	Gas PM Exh	Gas PM Brake	Gas PM Tire	Gas TOG Eva
FRWY28	FRWY28	9.10E-03	9.14E-04	1.84E-02	5.68E-03	8.88E-04	3.11E-05	2.32E-03	3.16E-04	3.15E-03
FRWY29	FRWY29	4.13E-03	4.15E-04	8.33E-03	2.58E-03	4.03E-04	1.41E-05	1.05E-03	1.44E-04	1.43E-03
FRWY30	FRWY30	6.47E-03	6.53E-04	1.30E-02	4.01E-03	6.54E-04	2.48E-05	1.79E-03	2.49E-04	2.49E-03
FRWY31	FRWY31	4.83E-03	4.87E-04	9.74E-03	3.01E-03	4.82E-04	1.76E-05	1.29E-03	1.78E-04	1.77E-03
FRWY32	FRWY32	6.69E-03	6.74E-04	1.35E-02	4.17E-03	6.81E-04	2.56E-05	1.84E-03	2.58E-04	2.53E-03
FRWY33	FRWY33	6.78E-03	6.82E-04	1.37E-02	4.22E-03	7.02E-04	2.67E-05	1.89E-03	2.69E-04	2.60E-03
FRWY34	FRWY34	6.12E-03	6.17E-04	1.23E-02	3.80E-03	6.41E-04	2.51E-05	1.76E-03	2.51E-04	2.43E-03
FRWY35	FRWY35	2.95E-03	3.04E-04	5.92E-03	1.79E-03	3.45E-04	1.65E-05	1.07E-03	1.60E-04	1.58E-03
FRWY36	FRWY36	4.45E-04	4.61E-05	8.94E-04	2.68E-04	5.36E-05	2.67E-06	1.71E-04	2.57E-05	2.56E-04
FRWY37	FRWY37	7.75E-04	8.03E-05	1.56E-03	4.67E-04	9.32E-05	4.64E-06	2.97E-04	4.47E-05	4.45E-04
FRWY101	FRWY101	6.71E-04	6.95E-05	1.35E-03	4.04E-04	8.07E-05	4.02E-06	2.57E-04	3.87E-05	3.85E-04
172	172	1.99E-04	1.92E-05	4.04E-04	1.30E-04	1.60E-05	2.22E-07	2.71E-05	2.98E-06	2.42E-05
173	173	1.59E-03	1.53E-04	3.23E-03	1.03E-03	1.28E-04	1.77E-06	2.16E-04	2.38E-05	1.93E-04
174	174	6.62E-04	6.40E-05	1.35E-03	4.31E-04	7.01E-05	2.96E-06	1.97E-04	3.33E-05	1.78E-04

SrcGrP	TAC	SAROAD	EM (g/sec)
172	1,3-Butadiene	43218	4.5328E-07
172	Acetaldehyde	43503	1.4667E-05
172	Acrolein	43505	1.7584E-08
172	Arsenic	12103	1.3258E-09
172	Benzene	45201	4.5645E-06
172	Chlorine	12115	4.9224E-06
172	Copper	12114	1.7436E-06
172	Formaldehyde	43502	2.9496E-05
172	Methanol	43301	7.9711E-08
172	Methyl ethyl ketone {2-Butanone}	43552	2.9488E-06
172	m-Xylene	45205	2.3587E-06
172	Nickel	12136	1.1878E-07
172	o-Xylene	45204	1.2348E-06
172	p-Xylene	45206	5.3525E-07
172	Styrene	45220	1.37E-07
172	SULFATES	12403	1.4252E-05
172	Toluene	45202	4.957E-06
172	Vanadium (fume or dust)	12164	8.75E-08
173	1,3-Butadiene	43218	3.6182E-06
173	Acetaldehyde	43503	0.00011707
173	Acrolein	43505	1.4036E-07
173	Arsenic	12103	1.0582E-08
173	Benzene	45201	3.6435E-05
173	Chlorine	12115	3.9291E-05
173	Copper	12114	1.3918E-05
173	Formaldehyde	43502	0.00023544
173	Methanol	43301	6.3627E-07
173	Methyl ethyl ketone {2-Butanone}	43552	2.3538E-05
173	m-Xylene	45205	1.8827E-05
173	Nickel	12136	9.4809E-07
173	o-Xylene	45204	9.856E-06
173	p-Xylene	45206	4.2724E-06
173	Styrene	45220	1.0936E-06
173	SULFATES	12403	0.00011376
173	Toluene	45202	3.9567E-05
173	Vanadium (fume or dust)	12164	6.9844E-07
174	1,3-Butadiene	43218	1.5883E-06
174	Acetaldehyde	43503	4.8858E-05
174	Acrolein	43505	7.7155E-08
174	Arsenic	12103	4.6476E-09
174	Benzene	45201	1.6532E-05
174	Chlorine	12115	1.7418E-05
174	Copper	12114	6.1274E-06
174	Formaldehyde	43502	9.8407E-05
174	Methanol	43301	2.9371E-07
174	Methyl ethyl ketone {2-Butanone}	43552	9.8183E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
174	m-Xylene	45205	1.1001E-05
174	Nickel	12136	4.1736E-07
174	o-Xylene	45204	5.8535E-06
174	p-Xylene	45206	3.1389E-06
174	Styrene	45220	4.7463E-07
174	SULFATES	12403	4.9495E-05
174	Toluene	45202	2.2324E-05
174	Vanadium (fume or dust)	12164	3.0674E-07
EG	1,3-Butadiene	43218	4.2688E-08
EG	Acetaldehyde	43503	1.6513E-06
EG	Acrolein	43505	0
EG	Arsenic	12103	0
EG	Benzene	45201	4.4934E-07
EG	Chlorine	12115	1.4154E-06
EG	Copper	12114	1.011E-08
EG	Formaldehyde	43502	3.3049E-06
EG	Methanol	43301	6.7402E-09
EG	Methyl ethyl ketone {2-Butanone}	43552	3.3251E-07
EG	m-Xylene	45205	1.3705E-07
EG	Nickel	12136	1.011E-08
EG	o-Xylene	45204	7.6388E-08
EG	p-Xylene	45206	2.2467E-08
EG	Styrene	45220	1.348E-08
EG	SULFATES	12403	9.0992E-06
EG	Toluene	45202	3.3027E-07
EG	Vanadium (fume or dust)	12164	0
FRWY101	1,3-Butadiene	43218	1.6543E-06
FRWY101	Acetaldehyde	43503	4.9514E-05
FRWY101	Acrolein	43505	8.8777E-08
FRWY101	Arsenic	12103	4.4296E-09
FRWY101	Benzene	45201	1.8999E-05
FRWY101	Chlorine	12115	1.8322E-05
FRWY101	Copper	12114	5.9101E-06
FRWY101	Formaldehyde	43502	9.9814E-05
FRWY101	Methanol	43301	3.286E-07
FRWY101	Methyl ethyl ketone {2-Butanone}	43552	9.9473E-06
FRWY101	m-Xylene	45205	1.6948E-05
FRWY101	Nickel	12136	4.0932E-07
FRWY101	o-Xylene	45204	9.3075E-06
FRWY101	p-Xylene	45206	6.0246E-06
FRWY101	Styrene	45220	4.9139E-07
FRWY101	SULFATES	12403	5.1898E-05
FRWY101	Toluene	45202	3.3534E-05
FRWY101	Vanadium (fume or dust)	12164	2.9236E-07
FRWY27	1,3-Butadiene	43218	2.5758E-05
FRWY27	Acetaldehyde	43503	0.00080525

SrcGrP	TAC	SAROAD	EM (g/sec)
FRWY27	Acrolein	43505	1.172E-06
FRWY27	Arsenic	12103	7.1976E-08
FRWY27	Benzene	45201	0.00027902
FRWY27	Chlorine	12115	0.00028372
FRWY27	Copper	12114	9.5391E-05
FRWY27	Formaldehyde	43502	0.00162107
FRWY27	Methanol	43301	4.8263E-06
FRWY27	Methyl ethyl ketone {2-Butanone}	43552	0.00016184
FRWY27	m-Xylene	45205	0.00020122
FRWY27	Nickel	12136	6.5581E-06
FRWY27	o-Xylene	45204	0.00010901
FRWY27	p-Xylene	45206	6.3461E-05
FRWY27	Styrene	45220	7.7246E-06
FRWY27	SULFATES	12403	0.00081269
FRWY27	Toluene	45202	0.00040648
FRWY27	Vanadium (fume or dust)	12164	4.7504E-06
FRWY28	1,3-Butadiene	43218	2.1468E-05
FRWY28	Acetaldehyde	43503	0.00067114
FRWY28	Acrolein	43505	9.7684E-07
FRWY28	Arsenic	12103	5.999E-08
FRWY28	Benzene	45201	0.00023255
FRWY28	Chlorine	12115	0.00023647
FRWY28	Copper	12114	7.9505E-05
FRWY28	Formaldehyde	43502	0.0013511
FRWY28	Methanol	43301	4.0225E-06
FRWY28	Methyl ethyl ketone {2-Butanone}	43552	0.00013489
FRWY28	m-Xylene	45205	0.00016771
FRWY28	Nickel	12136	5.4659E-06
FRWY28	o-Xylene	45204	9.0855E-05
FRWY28	p-Xylene	45206	5.2892E-05
FRWY28	Styrene	45220	6.4381E-06
FRWY28	SULFATES	12403	0.00067734
FRWY28	Toluene	45202	0.00033878
FRWY28	Vanadium (fume or dust)	12164	3.9593E-06
FRWY29	1,3-Butadiene	43218	9.7422E-06
FRWY29	Acetaldehyde	43503	0.00030456
FRWY29	Acrolein	43505	4.4329E-07
FRWY29	Arsenic	12103	2.7223E-08
FRWY29	Benzene	45201	0.00010553
FRWY29	Chlorine	12115	0.00010731
FRWY29	Copper	12114	3.6079E-05
FRWY29	Formaldehyde	43502	0.00061313
FRWY29	Methanol	43301	1.8254E-06
FRWY29	Methyl ethyl ketone {2-Butanone}	43552	6.1213E-05
FRWY29	m-Xylene	45205	7.6106E-05
FRWY29	Nickel	12136	2.4805E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
FRWY29	o-Xylene	45204	4.123E-05
FRWY29	p-Xylene	45206	2.4002E-05
FRWY29	Styrene	45220	2.9216E-06
FRWY29	SULFATES	12403	0.00030738
FRWY29	Toluene	45202	0.00015374
FRWY29	Vanadium (fume or dust)	12164	1.7967E-06
FRWY30	1,3-Butadiene	43218	1.5359E-05
FRWY30	Acetaldehyde	43503	0.0004769
FRWY30	Acrolein	43505	7.1896E-07
FRWY30	Arsenic	12103	4.26E-08
FRWY30	Benzene	45201	0.0001682
FRWY30	Chlorine	12115	0.00016943
FRWY30	Copper	12114	5.6527E-05
FRWY30	Formaldehyde	43502	0.00096026
FRWY30	Methanol	43301	2.9078E-06
FRWY30	Methyl ethyl ketone {2-Butanone}	43552	9.5843E-05
FRWY30	m-Xylene	45205	0.00012655
FRWY30	Nickel	12136	3.8915E-06
FRWY30	o-Xylene	45204	6.8774E-05
FRWY30	p-Xylene	45206	4.1037E-05
FRWY30	Styrene	45220	4.5992E-06
FRWY30	SULFATES	12403	0.00048441
FRWY30	Toluene	45202	0.00025452
FRWY30	Vanadium (fume or dust)	12164	2.8116E-06
FRWY31	1,3-Butadiene	43218	1.1445E-05
FRWY31	Acetaldehyde	43503	0.00035635
FRWY31	Acrolein	43505	5.2971E-07
FRWY31	Arsenic	12103	3.1858E-08
FRWY31	Benzene	45201	0.00012467
FRWY31	Chlorine	12115	0.00012613
FRWY31	Copper	12114	4.2247E-05
FRWY31	Formaldehyde	43502	0.00071746
FRWY31	Methanol	43301	2.1566E-06
FRWY31	Methyl ethyl ketone {2-Butanone}	43552	7.1618E-05
FRWY31	m-Xylene	45205	9.2013E-05
FRWY31	Nickel	12136	2.9063E-06
FRWY31	o-Xylene	45204	4.9928E-05
FRWY31	p-Xylene	45206	2.9457E-05
FRWY31	Styrene	45220	3.4292E-06
FRWY31	SULFATES	12403	0.00036089
FRWY31	Toluene	45202	0.00018542
FRWY31	Vanadium (fume or dust)	12164	2.1026E-06
FRWY32	1,3-Butadiene	43218	1.5916E-05
FRWY32	Acetaldehyde	43503	0.00049351
FRWY32	Acrolein	43505	7.4912E-07
FRWY32	Arsenic	12103	4.423E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
FRWY32	Benzene	45201	0.00017368
FRWY32	Chlorine	12115	0.00017516
FRWY32	Copper	12114	5.8659E-05
FRWY32	Formaldehyde	43502	0.00099376
FRWY32	Methanol	43301	3.0094E-06
FRWY32	Methyl ethyl ketone {2-Butanone}	43552	9.9181E-05
FRWY32	m-Xylene	45205	0.00012981
FRWY32	Nickel	12136	4.0354E-06
FRWY32	o-Xylene	45204	7.0456E-05
FRWY32	p-Xylene	45206	4.1803E-05
FRWY32	Styrene	45220	4.7645E-06
FRWY32	SULFATES	12403	0.0005008
FRWY32	Toluene	45202	0.00026118
FRWY32	Vanadium (fume or dust)	12164	2.9192E-06
FRWY33	1,3-Butadiene	43218	1.618E-05
FRWY33	Acetaldehyde	43503	0.00050002
FRWY33	Acrolein	43505	7.7177E-07
FRWY33	Arsenic	12103	4.4928E-08
FRWY33	Benzene	45201	0.00017664
FRWY33	Chlorine	12115	0.0001778
FRWY33	Copper	12114	5.9583E-05
FRWY33	Formaldehyde	43502	0.00100697
FRWY33	Methanol	43301	3.0661E-06
FRWY33	Methyl ethyl ketone {2-Butanone}	43552	0.00010049
FRWY33	m-Xylene	45205	0.00013304
FRWY33	Nickel	12136	4.0982E-06
FRWY33	o-Xylene	45204	7.2198E-05
FRWY33	p-Xylene	45206	4.2954E-05
FRWY33	Styrene	45220	4.8399E-06
FRWY33	SULFATES	12403	0.00050804
FRWY33	Toluene	45202	0.0002674
FRWY33	Vanadium (fume or dust)	12164	2.9653E-06
FRWY34	1,3-Butadiene	43218	1.4642E-05
FRWY34	Acetaldehyde	43503	0.00045142
FRWY34	Acrolein	43505	7.0501E-07
FRWY34	Arsenic	12103	4.0548E-08
FRWY34	Benzene	45201	0.00016048
FRWY34	Chlorine	12115	0.000161
FRWY34	Copper	12114	5.3798E-05
FRWY34	Formaldehyde	43502	0.00090915
FRWY34	Methanol	43301	2.7847E-06
FRWY34	Methyl ethyl ketone {2-Butanone}	43552	9.0716E-05
FRWY34	m-Xylene	45205	0.00012263
FRWY34	Nickel	12136	3.7021E-06
FRWY34	o-Xylene	45204	6.6622E-05
FRWY34	p-Xylene	45206	3.9962E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
FRWY34	Styrene	45220	4.3775E-06
FRWY34	SULFATES	12403	0.00045972
FRWY34	Toluene	45202	0.00024612
FRWY34	Vanadium (fume or dust)	12164	2.6762E-06
FRWY35	1,3-Butadiene	43218	7.2201E-06
FRWY35	Acetaldehyde	43503	0.00021741
FRWY35	Acrolein	43505	3.7948E-07
FRWY35	Arsenic	12103	1.9466E-08
FRWY35	Benzene	45201	8.2162E-05
FRWY35	Chlorine	12115	7.9852E-05
FRWY35	Copper	12114	2.5942E-05
FRWY35	Formaldehyde	43502	0.00043818
FRWY35	Methanol	43301	1.4219E-06
FRWY35	Methyl ethyl ketone {2-Butanone}	43552	4.368E-05
FRWY35	m-Xylene	45205	7.126E-05
FRWY35	Nickel	12136	1.7943E-06
FRWY35	o-Xylene	45204	3.9064E-05
FRWY35	p-Xylene	45206	2.4973E-05
FRWY35	Styrene	45220	2.1475E-06
FRWY35	SULFATES	12403	0.00022654
FRWY35	Toluene	45202	0.00014135
FRWY35	Vanadium (fume or dust)	12164	1.2847E-06
FRWY36	1,3-Butadiene	43218	1.0981E-06
FRWY36	Acetaldehyde	43503	3.2868E-05
FRWY36	Acrolein	43505	5.8931E-08
FRWY36	Arsenic	12103	2.9404E-09
FRWY36	Benzene	45201	1.2612E-05
FRWY36	Chlorine	12115	1.2163E-05
FRWY36	Copper	12114	3.9232E-06
FRWY36	Formaldehyde	43502	6.6257E-05
FRWY36	Methanol	43301	2.1813E-07
FRWY36	Methyl ethyl ketone {2-Butanone}	43552	6.6031E-06
FRWY36	m-Xylene	45205	1.125E-05
FRWY36	Nickel	12136	2.7171E-07
FRWY36	o-Xylene	45204	6.1784E-06
FRWY36	p-Xylene	45206	3.9992E-06
FRWY36	Styrene	45220	3.2619E-07
FRWY36	SULFATES	12403	3.445E-05
FRWY36	Toluene	45202	2.226E-05
FRWY36	Vanadium (fume or dust)	12164	1.9407E-07
FRWY37	1,3-Butadiene	43218	1.9103E-06
FRWY37	Acetaldehyde	43503	5.7178E-05
FRWY37	Acrolein	43505	1.0252E-07
FRWY37	Arsenic	12103	5.1153E-09
FRWY37	Benzene	45201	2.194E-05
FRWY37	Chlorine	12115	2.1158E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
FRWY37	Copper	12114	6.8249E-06
FRWY37	Formaldehyde	43502	0.00011526
FRWY37	Methanol	43301	3.7946E-07
FRWY37	Methyl ethyl ketone {2-Butanone}	43552	1.1487E-05
FRWY37	m-Xylene	45205	1.9571E-05
FRWY37	Nickel	12136	4.7267E-07
FRWY37	o-Xylene	45204	1.0748E-05
FRWY37	p-Xylene	45206	6.9571E-06
FRWY37	Styrene	45220	5.6745E-07
FRWY37	SULFATES	12403	5.993E-05
FRWY37	Toluene	45202	3.8724E-05
FRWY37	Vanadium (fume or dust)	12164	3.3761E-07
IN01	1,3-Butadiene	43218	1.038E-05
IN01	Acetaldehyde	43503	0.00031486
IN01	Acrolein	43505	5.3136E-07
IN01	Arsenic	12103	1.2257E-08
IN01	Benzene	45201	0.00011817
IN01	Chlorine	12115	5.4429E-05
IN01	Copper	12114	1.6518E-05
IN01	Formaldehyde	43502	0.00063445
IN01	Methanol	43301	2.0365E-06
IN01	Methyl ethyl ketone {2-Butanone}	43552	6.3264E-05
IN01	m-Xylene	45205	0.00010142
IN01	Nickel	12136	1.1574E-06
IN01	o-Xylene	45204	5.564E-05
IN01	p-Xylene	45206	3.5508E-05
IN01	Styrene	45220	3.0922E-06
IN01	SULFATES	12403	0.00015236
IN01	Toluene	45202	0.00020147
IN01	Vanadium (fume or dust)	12164	8.0894E-07
IN02	1,3-Butadiene	43218	1.2902E-05
IN02	Acetaldehyde	43503	0.00038533
IN02	Acrolein	43505	6.9755E-07
IN02	Arsenic	12103	1.549E-08
IN02	Benzene	45201	0.00014787
IN02	Chlorine	12115	6.8676E-05
IN02	Copper	12114	2.0888E-05
IN02	Formaldehyde	43502	0.00077682
IN02	Methanol	43301	2.5628E-06
IN02	Methyl ethyl ketone {2-Butanone}	43552	7.741E-05
IN02	m-Xylene	45205	0.00013179
IN02	Nickel	12136	1.4618E-06
IN02	o-Xylene	45204	7.2326E-05
IN02	p-Xylene	45206	4.6736E-05
IN02	Styrene	45220	3.8306E-06
IN02	SULFATES	12403	0.00019044

SrcGrP	TAC	SAROAD	EM (g/sec)
IN02	Toluene	45202	0.00026072
IN02	Vanadium (fume or dust)	12164	1.0223E-06
IN03	1,3-Butadiene	43218	1.1534E-05
IN03	Acetaldehyde	43503	0.00028256
IN03	Acrolein	43505	1.0032E-06
IN03	Arsenic	12103	1.7505E-08
IN03	Benzene	45201	0.00014592
IN03	Chlorine	12115	7.9734E-05
IN03	Copper	12114	2.3877E-05
IN03	Formaldehyde	43502	0.00057362
IN03	Methanol	43301	2.6487E-06
IN03	Methyl ethyl ketone {2-Butanone}	43552	5.6639E-05
IN03	m-Xylene	45205	0.00018625
IN03	Nickel	12136	1.6637E-06
IN03	o-Xylene	45204	0.00010291
IN03	p-Xylene	45206	7.347E-05
IN03	Styrene	45220	3.292E-06
IN03	SULFATES	12403	0.00020078
IN03	Toluene	45202	0.00035715
IN03	Vanadium (fume or dust)	12164	1.1553E-06
IN05	1,3-Butadiene	43218	4.5688E-06
IN05	Acetaldehyde	43503	5.4036E-05
IN05	Acrolein	43505	7.5231E-07
IN05	Arsenic	12103	1.0302E-08
IN05	Benzene	45201	7.0458E-05
IN05	Chlorine	12115	4.8351E-05
IN05	Copper	12114	1.4246E-05
IN05	Formaldehyde	43502	0.00011423
IN05	Methanol	43301	1.3818E-06
IN05	Methyl ethyl ketone {2-Butanone}	43552	1.0687E-05
IN05	m-Xylene	45205	0.00013729
IN05	Nickel	12136	9.8691E-07
IN05	o-Xylene	45204	7.6246E-05
IN05	p-Xylene	45206	5.8488E-05
IN05	Styrene	45220	1.18E-06
IN05	SULFATES	12403	0.00010714
IN05	Toluene	45202	0.00025659
IN05	Vanadium (fume or dust)	12164	6.7995E-07
IN06	1,3-Butadiene	43218	4.2154E-05
IN06	Acetaldehyde	43503	0.00127294
IN06	Acrolein	43505	2.1934E-06
IN06	Arsenic	12103	4.9775E-08
IN06	Benzene	45201	0.00048042
IN06	Chlorine	12115	0.0002207
IN06	Copper	12114	6.7078E-05
IN06	Formaldehyde	43502	0.00256536

SrcGrP	TAC	SAROAD	EM (g/sec)
IN06	Methanol	43301	8.2963E-06
IN06	Methyl ethyl ketone {2-Butanone}	43552	0.00025576
IN06	m-Xylene	45205	0.00041615
IN06	Nickel	12136	4.6979E-06
IN06	o-Xylene	45204	0.00022827
IN06	p-Xylene	45206	0.00014607
IN06	Styrene	45220	1.2546E-05
IN06	SULFATES	12403	0.0006169
IN06	Toluene	45202	0.00082576
IN06	Vanadium (fume or dust)	12164	3.2852E-06
IN08	1,3-Butadiene	43218	5.2109E-06
IN08	Acetaldehyde	43503	2.5715E-05
IN08	Acrolein	43505	1.0782E-06
IN08	Arsenic	12103	1.3944E-08
IN08	Benzene	45201	8.754E-05
IN08	Chlorine	12115	6.4998E-05
IN08	Copper	12114	1.9327E-05
IN08	Formaldehyde	43502	6.0187E-05
IN08	Methanol	43301	1.7756E-06
IN08	Methyl ethyl ketone {2-Butanone}	43552	4.9004E-06
IN08	m-Xylene	45205	0.00019418
IN08	Nickel	12136	1.332E-06
IN08	o-Xylene	45204	0.0001079
IN08	p-Xylene	45206	8.4004E-05
IN08	Styrene	45220	1.2689E-06
IN08	SULFATES	12403	0.00013687
IN08	Toluene	45202	0.00036064
IN08	Vanadium (fume or dust)	12164	9.2032E-07
IN11	1,3-Butadiene	43218	3.7446E-07
IN11	Acetaldehyde	43503	2.2429E-06
IN11	Acrolein	43505	7.5061E-08
IN11	Arsenic	12103	1.0161E-09
IN11	Benzene	45201	6.3036E-06
IN11	Chlorine	12115	4.7974E-06
IN11	Copper	12114	1.4102E-06
IN11	Formaldehyde	43502	5.0959E-06
IN11	Methanol	43301	1.2632E-07
IN11	Methyl ethyl ketone {2-Butanone}	43552	4.3229E-07
IN11	m-Xylene	45205	1.3788E-05
IN11	Nickel	12136	9.7477E-08
IN11	o-Xylene	45204	7.6704E-06
IN11	p-Xylene	45206	5.9741E-06
IN11	Styrene	45220	9.2033E-08
IN11	SULFATES	12403	1.0216E-05
IN11	Toluene	45202	2.5636E-05
IN11	Vanadium (fume or dust)	12164	6.7062E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
IN12	1,3-Butadiene	43218	1.7292E-08
IN12	Acetaldehyde	43503	8.5001E-08
IN12	Acrolein	43505	3.5801E-09
IN12	Arsenic	12103	2.8852E-11
IN12	Benzene	45201	2.7363E-07
IN12	Chlorine	12115	1.4078E-07
IN12	Copper	12114	4.0131E-08
IN12	Formaldehyde	43502	1.9907E-07
IN12	Methanol	43301	5.7249E-09
IN12	Methyl ethyl ketone {2-Butanone}	43552	1.6194E-08
IN12	m-Xylene	45205	5.9918E-07
IN12	Nickel	12136	2.7997E-09
IN12	o-Xylene	45204	3.3116E-07
IN12	p-Xylene	45206	2.5539E-07
IN12	Styrene	45220	4.2102E-09
IN12	SULFATES	12403	3.1315E-07
IN12	Toluene	45202	1.111E-06
IN12	Vanadium (fume or dust)	12164	1.9042E-09
IN14	1,3-Butadiene	43218	1.1304E-05
IN14	Acetaldehyde	43503	0.00030427
IN14	Acrolein	43505	8.154E-07
IN14	Arsenic	12103	1.5336E-08
IN14	Benzene	45201	0.00013521
IN14	Chlorine	12115	6.7181E-05
IN14	Copper	12114	2.0749E-05
IN14	Formaldehyde	43502	0.00061555
IN14	Methanol	43301	2.4204E-06
IN14	Methyl ethyl ketone {2-Butanone}	43552	6.1058E-05
IN14	m-Xylene	45205	0.00014763
IN14	Nickel	12136	1.4404E-06
IN14	o-Xylene	45204	8.1177E-05
IN14	p-Xylene	45206	5.5591E-05
IN14	Styrene	45220	3.2847E-06
IN14	SULFATES	12403	0.00017511
IN14	Toluene	45202	0.00028636
IN14	Vanadium (fume or dust)	12164	1.0122E-06
IN18	1,3-Butadiene	43218	1.9469E-06
IN18	Acetaldehyde	43503	4.798E-05
IN18	Acrolein	43505	1.6758E-07
IN18	Arsenic	12103	2.9392E-09
IN18	Benzene	45201	2.4338E-05
IN18	Chlorine	12115	1.3082E-05
IN18	Copper	12114	3.9974E-06
IN18	Formaldehyde	43502	9.738E-05
IN18	Methanol	43301	4.4313E-07
IN18	Methyl ethyl ketone {2-Butanone}	43552	9.6181E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
IN18	m-Xylene	45205	3.0505E-05
IN18	Nickel	12136	2.7729E-07
IN18	o-Xylene	45204	1.6827E-05
IN18	p-Xylene	45206	1.1936E-05
IN18	Styrene	45220	5.5627E-07
IN18	SULFATES	12403	3.2781E-05
IN18	Toluene	45202	5.8543E-05
IN18	Vanadium (fume or dust)	12164	1.9398E-07
IN19	1,3-Butadiene	43218	2.5903E-05
IN19	Acetaldehyde	43503	0.00071011
IN19	Acrolein	43505	1.7898E-06
IN19	Arsenic	12103	3.5134E-08
IN19	Benzene	45201	0.00030949
IN19	Chlorine	12115	0.00015566
IN19	Copper	12114	4.7583E-05
IN19	Formaldehyde	43502	0.00143566
IN19	Methanol	43301	5.4974E-06
IN19	Methyl ethyl ketone {2-Butanone}	43552	0.00014253
IN19	m-Xylene	45205	0.00033083
IN19	Nickel	12136	3.312E-06
IN19	o-Xylene	45204	0.00018209
IN19	p-Xylene	45206	0.00012429
IN19	Styrene	45220	7.5547E-06
IN19	SULFATES	12403	0.00040854
IN19	Toluene	45202	0.00064322
IN19	Vanadium (fume or dust)	12164	2.3188E-06
IN21	1,3-Butadiene	43218	4.404E-06
IN21	Acetaldehyde	43503	0.00011593
IN21	Acrolein	43505	3.3374E-07
IN21	Arsenic	12103	6.1155E-09
IN21	Benzene	45201	5.4535E-05
IN21	Chlorine	12115	2.8555E-05
IN21	Copper	12114	8.3442E-06
IN21	Formaldehyde	43502	0.00023472
IN21	Methanol	43301	9.709E-07
IN21	Methyl ethyl ketone {2-Butanone}	43552	2.3258E-05
IN21	m-Xylene	45205	6.3844E-05
IN21	Nickel	12136	5.8626E-07
IN21	o-Xylene	45204	3.5287E-05
IN21	p-Xylene	45206	2.4773E-05
IN21	Styrene	45220	1.2742E-06
IN21	SULFATES	12403	7.4885E-05
IN21	Toluene	45202	0.00012332
IN21	Vanadium (fume or dust)	12164	4.0362E-07
IN24	1,3-Butadiene	43218	1.1877E-05
IN24	Acetaldehyde	43503	0.00035174

SrcGrP	TAC	SAROAD	EM (g/sec)
IN24	Acrolein	43505	6.6038E-07
IN24	Arsenic	12103	1.4377E-08
IN24	Benzene	45201	0.00013728
IN24	Chlorine	12115	6.4563E-05
IN24	Copper	12114	1.9423E-05
IN24	Formaldehyde	43502	0.00070929
IN24	Methanol	43301	2.3813E-06
IN24	Methyl ethyl ketone {2-Butanone}	43552	7.0656E-05
IN24	m-Xylene	45205	0.00012594
IN24	Nickel	12136	1.3622E-06
IN24	o-Xylene	45204	6.9212E-05
IN24	p-Xylene	45206	4.5236E-05
IN24	Styrene	45220	3.5199E-06
IN24	SULFATES	12403	0.00017866
IN24	Toluene	45202	0.0002485
IN24	Vanadium (fume or dust)	12164	9.4885E-07
IN29	1,3-Butadiene	43218	2.2483E-06
IN29	Acetaldehyde	43503	5.7377E-05
IN29	Acrolein	43505	1.8146E-07
IN29	Arsenic	12103	3.2993E-09
IN29	Benzene	45201	2.7642E-05
IN29	Chlorine	12115	1.4554E-05
IN29	Copper	12114	4.478E-06
IN29	Formaldehyde	43502	0.0001163
IN29	Methanol	43301	5.0011E-07
IN29	Methyl ethyl ketone {2-Butanone}	43552	1.1507E-05
IN29	m-Xylene	45205	3.2979E-05
IN29	Nickel	12136	3.1043E-07
IN29	o-Xylene	45204	1.8172E-05
IN29	p-Xylene	45206	1.2739E-05
IN29	Styrene	45220	6.4661E-07
IN29	SULFATES	12403	3.6854E-05
IN29	Toluene	45202	6.3524E-05
IN29	Vanadium (fume or dust)	12164	2.1775E-07
IN30	1,3-Butadiene	43218	9.0964E-06
IN30	Acetaldehyde	43503	0.00031564
IN30	Acrolein	43505	2.2223E-07
IN30	Arsenic	12103	8.2141E-09
IN30	Benzene	45201	9.4904E-05
IN30	Chlorine	12115	3.5567E-05
IN30	Copper	12114	1.0904E-05
IN30	Formaldehyde	43502	0.00063351
IN30	Methanol	43301	1.5568E-06
IN30	Methyl ethyl ketone {2-Butanone}	43552	6.35E-05
IN30	m-Xylene	45205	4.5374E-05
IN30	Nickel	12136	7.7127E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
IN30	o-Xylene	45204	2.4458E-05
IN30	p-Xylene	45206	1.0993E-05
IN30	Styrene	45220	2.7949E-06
IN30	SULFATES	12403	0.00011382
IN30	Toluene	45202	9.7713E-05
IN30	Vanadium (fume or dust)	12164	5.4213E-07
IN31	1,3-Butadiene	43218	7.4749E-07
IN31	Acetaldehyde	43503	1.0131E-05
IN31	Acrolein	43505	1.1517E-07
IN31	Arsenic	12103	1.6324E-09
IN31	Benzene	45201	1.1052E-05
IN31	Chlorine	12115	7.3537E-06
IN31	Copper	12114	2.2444E-06
IN31	Formaldehyde	43502	2.1207E-05
IN31	Methanol	43301	2.1673E-07
IN31	Methyl ethyl ketone {2-Butanone}	43552	2.0103E-06
IN31	m-Xylene	45205	2.0526E-05
IN31	Nickel	12136	1.5432E-07
IN31	o-Xylene	45204	1.1374E-05
IN31	p-Xylene	45206	8.6451E-06
IN31	Styrene	45220	1.9582E-07
IN31	SULFATES	12403	1.6177E-05
IN31	Toluene	45202	3.8427E-05
IN31	Vanadium (fume or dust)	12164	1.0774E-07
PH1	1,3-Butadiene	43218	0.0003584
PH1	Acetaldehyde	43503	0.00085205
PH1	Acrolein	43505	7.9779E-05
PH1	Arsenic	12103	8.7906E-09
PH1	Benzene	45201	0.00175855
PH1	Chlorine	12115	8.0843E-05
PH1	Copper	12114	1.2258E-05
PH1	Formaldehyde	43502	0.00235051
PH1	Methanol	43301	8.2766E-05
PH1	Methyl ethyl ketone {2-Butanone}	43552	0.00015103
PH1	m-Xylene	45205	0.00235651
PH1	Nickel	12136	1.1272E-06
PH1	o-Xylene	45204	0.0008426
PH1	p-Xylene	45206	3.981E-05
PH1	Styrene	45220	8.5313E-05
PH1	SULFATES	12403	0.00036577
PH1	Toluene	45202	0.00386687
PH1	Vanadium (fume or dust)	12164	5.8018E-07
PH2	1,3-Butadiene	43218	0.00027591
PH2	Acetaldehyde	43503	0.00065595
PH2	Acrolein	43505	6.1417E-05
PH2	Arsenic	12103	6.7674E-09

SrcGrP	TAC	SAROAD	EM (g/sec)
PH2	Benzene	45201	0.00135381
PH2	Chlorine	12115	6.2236E-05
PH2	Copper	12114	9.4365E-06
PH2	Formaldehyde	43502	0.00180953
PH2	Methanol	43301	6.3717E-05
PH2	Methyl ethyl ketone {2-Butanone}	43552	0.00011627
PH2	m-Xylene	45205	0.00181415
PH2	Nickel	12136	8.678E-07
PH2	o-Xylene	45204	0.00064867
PH2	p-Xylene	45206	3.0648E-05
PH2	Styrene	45220	6.5678E-05
PH2	SULFATES	12403	0.00028158
PH2	Toluene	45202	0.00297689
PH2	Vanadium (fume or dust)	12164	4.4665E-07
SF09	1,3-Butadiene	43218	4.4427E-06
SF09	Acetaldehyde	43503	3.0001E-05
SF09	Acrolein	43505	8.6976E-07
SF09	Arsenic	12103	8.395E-09
SF09	Benzene	45201	6.1319E-05
SF09	Chlorine	12115	4.2338E-05
SF09	Copper	12114	1.1694E-05
SF09	Formaldehyde	43502	6.7078E-05
SF09	Methanol	43301	1.352E-06
SF09	Methyl ethyl ketone {2-Butanone}	43552	5.8171E-06
SF09	m-Xylene	45205	0.00012562
SF09	Nickel	12136	8.2435E-07
SF09	o-Xylene	45204	6.8561E-05
SF09	p-Xylene	45206	5.1466E-05
SF09	Styrene	45220	1.0992E-06
SF09	SULFATES	12403	9.9155E-05
SF09	Toluene	45202	0.0002325
SF09	Vanadium (fume or dust)	12164	5.5407E-07
SF10	1,3-Butadiene	43218	1.1411E-07
SF10	Acetaldehyde	43503	1.976E-06
SF10	Acrolein	43505	1.4948E-08
SF10	Arsenic	12103	1.7842E-10
SF10	Benzene	45201	1.615E-06
SF10	Chlorine	12115	1.0715E-06
SF10	Copper	12114	2.5392E-07
SF10	Formaldehyde	43502	4.0755E-06
SF10	Methanol	43301	3.0834E-08
SF10	Methyl ethyl ketone {2-Butanone}	43552	3.9403E-07
SF10	m-Xylene	45205	2.7208E-06
SF10	Nickel	12136	1.8691E-08
SF10	o-Xylene	45204	1.5079E-06
SF10	p-Xylene	45206	1.132E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF10	Styrene	45220	3.0812E-08
SF10	SULFATES	12403	2.7546E-06
SF10	Toluene	45202	5.1233E-06
SF10	Vanadium (fume or dust)	12164	1.1775E-08
SF104	1,3-Butadiene	43218	6.1709E-07
SF104	Acetaldehyde	43503	4.2073E-06
SF104	Acrolein	43505	1.2056E-07
SF104	Arsenic	12103	1.2356E-09
SF104	Benzene	45201	8.1048E-06
SF104	Chlorine	12115	5.6751E-06
SF104	Copper	12114	1.6989E-06
SF104	Formaldehyde	43502	9.3954E-06
SF104	Methanol	43301	1.8352E-07
SF104	Methyl ethyl ketone {2-Butanone}	43552	8.1613E-07
SF104	m-Xylene	45205	1.632E-05
SF104	Nickel	12136	1.1759E-07
SF104	o-Xylene	45204	8.8529E-06
SF104	p-Xylene	45206	6.5673E-06
SF104	Styrene	45220	1.5276E-07
SF104	SULFATES	12403	1.3018E-05
SF104	Toluene	45202	3.0157E-05
SF104	Vanadium (fume or dust)	12164	8.1549E-08
SF106	1,3-Butadiene	43218	6.4208E-07
SF106	Acetaldehyde	43503	4.568E-07
SF106	Acrolein	43505	1.4948E-07
SF106	Arsenic	12103	1.4144E-09
SF106	Benzene	45201	8.8071E-06
SF106	Chlorine	12115	6.5372E-06
SF106	Copper	12114	1.9517E-06
SF106	Formaldehyde	43502	2.1232E-06
SF106	Methanol	43301	2.0865E-07
SF106	Methyl ethyl ketone {2-Butanone}	43552	5.3488E-08
SF106	m-Xylene	45205	1.9983E-05
SF106	Nickel	12136	1.3481E-07
SF106	o-Xylene	45204	1.0842E-05
SF106	p-Xylene	45206	8.152E-06
SF106	Styrene	45220	1.5055E-07
SF106	SULFATES	12403	1.443E-05
SF106	Toluene	45202	3.6711E-05
SF106	Vanadium (fume or dust)	12164	9.3348E-08
SF107	1,3-Butadiene	43218	5.9111E-07
SF107	Acetaldehyde	43503	4.0526E-06
SF107	Acrolein	43505	1.1535E-07
SF107	Arsenic	12103	1.1819E-09
SF107	Benzene	45201	7.7731E-06
SF107	Chlorine	12115	5.4421E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF107	Copper	12114	1.6256E-06
SF107	Formaldehyde	43502	9.0436E-06
SF107	Methanol	43301	1.7581E-07
SF107	Methyl ethyl ketone {2-Butanone}	43552	7.8632E-07
SF107	m-Xylene	45205	1.5647E-05
SF107	Nickel	12136	1.1258E-07
SF107	o-Xylene	45204	8.4896E-06
SF107	p-Xylene	45206	6.2995E-06
SF107	Styrene	45220	1.4638E-07
SF107	SULFATES	12403	1.2493E-05
SF107	Toluene	45202	2.8916E-05
SF107	Vanadium (fume or dust)	12164	7.8005E-08
SF108	1,3-Butadiene	43218	6.173E-07
SF108	Acetaldehyde	43503	5.3783E-07
SF108	Acrolein	43505	1.4311E-07
SF108	Arsenic	12103	1.3582E-09
SF108	Benzene	45201	8.4584E-06
SF108	Chlorine	12115	6.2755E-06
SF108	Copper	12114	1.8741E-06
SF108	Formaldehyde	43502	2.2339E-06
SF108	Methanol	43301	2.0016E-07
SF108	Methyl ethyl ketone {2-Butanone}	43552	7.1445E-08
SF108	m-Xylene	45205	1.9137E-05
SF108	Nickel	12136	1.2945E-07
SF108	o-Xylene	45204	1.0383E-05
SF108	p-Xylene	45206	7.8049E-06
SF108	Styrene	45220	1.4495E-07
SF108	SULFATES	12403	1.3864E-05
SF108	Toluene	45202	3.5163E-05
SF108	Vanadium (fume or dust)	12164	8.9643E-08
SF109	1,3-Butadiene	43218	2.5472E-07
SF109	Acetaldehyde	43503	1.8112E-07
SF109	Acrolein	43505	5.9303E-08
SF109	Arsenic	12103	5.6178E-10
SF109	Benzene	45201	3.4946E-06
SF109	Chlorine	12115	2.5965E-06
SF109	Copper	12114	7.7522E-07
SF109	Formaldehyde	43502	8.4213E-07
SF109	Methanol	43301	8.2782E-08
SF109	Methyl ethyl ketone {2-Butanone}	43552	2.1199E-08
SF109	m-Xylene	45205	7.9292E-06
SF109	Nickel	12136	5.3547E-08
SF109	o-Xylene	45204	4.3021E-06
SF109	p-Xylene	45206	3.2349E-06
SF109	Styrene	45220	5.9726E-08
SF109	SULFATES	12403	5.7312E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF109	Toluene	45202	1.4567E-05
SF109	Vanadium (fume or dust)	12164	3.7077E-08
SF110	1,3-Butadiene	43218	9.6204E-07
SF110	Acetaldehyde	43503	7.9093E-06
SF110	Acrolein	43505	1.7968E-07
SF110	Arsenic	12103	1.8849E-09
SF110	Benzene	45201	1.2553E-05
SF110	Chlorine	12115	8.6912E-06
SF110	Copper	12114	2.5913E-06
SF110	Formaldehyde	43502	1.7283E-05
SF110	Methanol	43301	2.8048E-07
SF110	Methyl ethyl ketone {2-Butanone}	43552	1.5464E-06
SF110	m-Xylene	45205	2.4533E-05
SF110	Nickel	12136	1.7964E-07
SF110	o-Xylene	45204	1.3315E-05
SF110	p-Xylene	45206	9.8488E-06
SF110	Styrene	45220	2.4104E-07
SF110	SULFATES	12403	2.0149E-05
SF110	Toluene	45202	4.5415E-05
SF110	Vanadium (fume or dust)	12164	1.244E-07
SF111	1,3-Butadiene	43218	1.5549E-07
SF111	Acetaldehyde	43503	1.1056E-07
SF111	Acrolein	43505	3.6201E-08
SF111	Arsenic	12103	3.4293E-10
SF111	Benzene	45201	2.1332E-06
SF111	Chlorine	12115	1.585E-06
SF111	Copper	12114	4.7322E-07
SF111	Formaldehyde	43502	5.1407E-07
SF111	Methanol	43301	5.0533E-08
SF111	Methyl ethyl ketone {2-Butanone}	43552	1.2941E-08
SF111	m-Xylene	45205	4.8403E-06
SF111	Nickel	12136	3.2687E-08
SF111	o-Xylene	45204	2.6262E-06
SF111	p-Xylene	45206	1.9747E-06
SF111	Styrene	45220	3.6459E-08
SF111	SULFATES	12403	3.4985E-06
SF111	Toluene	45202	8.8923E-06
SF111	Vanadium (fume or dust)	12164	2.2633E-08
SF112	1,3-Butadiene	43218	1.3824E-06
SF112	Acetaldehyde	43503	2.1169E-05
SF112	Acrolein	43505	1.9807E-07
SF112	Arsenic	12103	2.398E-09
SF112	Benzene	45201	1.6973E-05
SF112	Chlorine	12115	1.0806E-05
SF112	Copper	12114	3.2729E-06
SF112	Formaldehyde	43502	4.3969E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF112	Methanol	43301	3.5748E-07
SF112	Methyl ethyl ketone {2-Butanone}	43552	4.2116E-06
SF112	m-Xylene	45205	2.7398E-05
SF112	Nickel	12136	2.2704E-07
SF112	o-Xylene	45204	1.4849E-05
SF112	p-Xylene	45206	1.0675E-05
SF112	Styrene	45220	3.6735E-07
SF112	SULFATES	12403	2.6431E-05
SF112	Toluene	45202	5.1266E-05
SF112	Vanadium (fume or dust)	12164	1.5827E-07
SF113	1,3-Butadiene	43218	1.6029E-07
SF113	Acetaldehyde	43503	1.2268E-06
SF113	Acrolein	43505	3.0495E-08
SF113	Arsenic	12103	3.186E-10
SF113	Benzene	45201	2.0832E-06
SF113	Chlorine	12115	1.4496E-06
SF113	Copper	12114	4.3735E-07
SF113	Formaldehyde	43502	2.702E-06
SF113	Methanol	43301	4.6973E-08
SF113	Methyl ethyl ketone {2-Butanone}	43552	2.3918E-07
SF113	m-Xylene	45205	4.1116E-06
SF113	Nickel	12136	3.0232E-08
SF113	o-Xylene	45204	2.2291E-06
SF113	p-Xylene	45206	1.6479E-06
SF113	Styrene	45220	3.9967E-08
SF113	SULFATES	12403	3.3373E-06
SF113	Toluene	45202	7.6039E-06
SF113	Vanadium (fume or dust)	12164	2.1028E-08
SF114	1,3-Butadiene	43218	3.0402E-07
SF114	Acetaldehyde	43503	2.5161E-06
SF114	Acrolein	43505	5.668E-08
SF114	Arsenic	12103	5.9835E-10
SF114	Benzene	45201	3.9315E-06
SF114	Chlorine	12115	2.718E-06
SF114	Copper	12114	8.2093E-07
SF114	Formaldehyde	43502	5.494E-06
SF114	Methanol	43301	8.8223E-08
SF114	Methyl ethyl ketone {2-Butanone}	43552	4.9204E-07
SF114	m-Xylene	45205	7.6491E-06
SF114	Nickel	12136	5.6752E-08
SF114	o-Xylene	45204	4.1465E-06
SF114	p-Xylene	45206	3.0597E-06
SF114	Styrene	45220	7.621E-08
SF114	SULFATES	12403	6.284E-06
SF114	Toluene	45202	1.4157E-05
SF114	Vanadium (fume or dust)	12164	3.9491E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF115	1,3-Butadiene	43218	9.9382E-07
SF115	Acetaldehyde	43503	1.0271E-05
SF115	Acrolein	43505	1.7274E-07
SF115	Arsenic	12103	1.8822E-09
SF115	Benzene	45201	1.2732E-05
SF115	Chlorine	12115	8.6146E-06
SF115	Copper	12114	2.5821E-06
SF115	Formaldehyde	43502	2.1953E-05
SF115	Methanol	43301	2.7991E-07
SF115	Methyl ethyl ketone {2-Butanone}	43552	2.0236E-06
SF115	m-Xylene	45205	2.364E-05
SF115	Nickel	12136	1.7899E-07
SF115	o-Xylene	45204	1.2824E-05
SF115	p-Xylene	45206	9.4185E-06
SF115	Styrene	45220	2.535E-07
SF115	SULFATES	12403	2.0261E-05
SF115	Toluene	45202	4.3878E-05
SF115	Vanadium (fume or dust)	12164	1.2423E-07
SF116	1,3-Butadiene	43218	3.1003E-07
SF116	Acetaldehyde	43503	8.7392E-07
SF116	Acrolein	43505	6.8173E-08
SF116	Arsenic	12103	6.5884E-10
SF116	Benzene	45201	4.1892E-06
SF116	Chlorine	12115	3.0408E-06
SF116	Copper	12114	9.0817E-07
SF116	Formaldehyde	43502	2.3004E-06
SF116	Methanol	43301	9.7788E-08
SF116	Methyl ethyl ketone {2-Butanone}	43552	1.5842E-07
SF116	m-Xylene	45205	9.1457E-06
SF116	Nickel	12136	6.2781E-08
SF116	o-Xylene	45204	4.9616E-06
SF116	p-Xylene	45206	3.715E-06
SF116	Styrene	45220	7.4092E-08
SF116	SULFATES	12403	6.7995E-06
SF116	Toluene	45202	1.6832E-05
SF116	Vanadium (fume or dust)	12164	4.3484E-08
SF117	1,3-Butadiene	43218	2.6183E-07
SF117	Acetaldehyde	43503	2.6221E-07
SF117	Acrolein	43505	6.0492E-08
SF117	Arsenic	12103	5.7506E-10
SF117	Benzene	45201	3.5841E-06
SF117	Chlorine	12115	2.6563E-06
SF117	Copper	12114	7.934E-07
SF117	Formaldehyde	43502	1.014E-06
SF117	Methanol	43301	8.4742E-08
SF117	Methyl ethyl ketone {2-Butanone}	43552	3.7221E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF117	m-Xylene	45205	8.0904E-06
SF117	Nickel	12136	5.4804E-08
SF117	o-Xylene	45204	4.3894E-06
SF117	p-Xylene	45206	3.2987E-06
SF117	Styrene	45220	6.1555E-08
SF117	SULFATES	12403	5.8727E-06
SF117	Toluene	45202	1.4867E-05
SF117	Vanadium (fume or dust)	12164	3.7954E-08
SF118	1,3-Butadiene	43218	8.0664E-07
SF118	Acetaldehyde	43503	8.8422E-06
SF118	Acrolein	43505	1.371E-07
SF118	Arsenic	12103	1.5091E-09
SF118	Benzene	45201	1.0285E-05
SF118	Chlorine	12115	6.9028E-06
SF118	Copper	12114	2.0693E-06
SF118	Formaldehyde	43502	1.8805E-05
SF118	Methanol	43301	2.249E-07
SF118	Methyl ethyl ketone {2-Butanone}	43552	1.7452E-06
SF118	m-Xylene	45205	1.8799E-05
SF118	Nickel	12136	1.4349E-07
SF118	o-Xylene	45204	1.0198E-05
SF118	p-Xylene	45206	7.4736E-06
SF118	Styrene	45220	2.0684E-07
SF118	SULFATES	12403	1.6316E-05
SF118	Toluene	45202	3.4923E-05
SF118	Vanadium (fume or dust)	12164	9.96E-08
SF119	1,3-Butadiene	43218	1.4778E-07
SF119	Acetaldehyde	43503	1.0514E-07
SF119	Acrolein	43505	3.4406E-08
SF119	Arsenic	12103	3.2554E-10
SF119	Benzene	45201	2.0271E-06
SF119	Chlorine	12115	1.5047E-06
SF119	Copper	12114	4.4923E-07
SF119	Formaldehyde	43502	4.8869E-07
SF119	Methanol	43301	4.8024E-08
SF119	Methyl ethyl ketone {2-Butanone}	43552	1.2311E-08
SF119	m-Xylene	45205	4.5993E-06
SF119	Nickel	12136	3.103E-08
SF119	o-Xylene	45204	2.4954E-06
SF119	p-Xylene	45206	1.8763E-06
SF119	Styrene	45220	3.4651E-08
SF119	SULFATES	12403	3.3214E-06
SF119	Toluene	45202	8.4495E-06
SF119	Vanadium (fume or dust)	12164	2.1486E-08
SF120	1,3-Butadiene	43218	3.9604E-07
SF120	Acetaldehyde	43503	1.2704E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF120	Acrolein	43505	1.6045E-08
SF120	Arsenic	12103	4.833E-10
SF120	Benzene	45201	4.1482E-06
SF120	Chlorine	12115	1.9865E-06
SF120	Copper	12114	6.4159E-07
SF120	Formaldehyde	43502	2.5554E-05
SF120	Methanol	43301	7.1642E-08
SF120	Methyl ethyl ketone {2-Butanone}	43552	2.5539E-06
SF120	m-Xylene	45205	2.5482E-06
SF120	Nickel	12136	4.4611E-08
SF120	o-Xylene	45204	1.3643E-06
SF120	p-Xylene	45206	7.1291E-07
SF120	Styrene	45220	1.1946E-07
SF120	SULFATES	12403	5.9268E-06
SF120	Toluene	45202	5.2449E-06
SF120	Vanadium (fume or dust)	12164	3.1897E-08
SF121	1,3-Butadiene	43218	5.9559E-07
SF121	Acetaldehyde	43503	4.4072E-06
SF121	Acrolein	43505	1.1424E-07
SF121	Arsenic	12103	1.1376E-09
SF121	Benzene	45201	7.7107E-06
SF121	Chlorine	12115	5.1823E-06
SF121	Copper	12114	1.5617E-06
SF121	Formaldehyde	43502	9.7444E-06
SF121	Methanol	43301	1.7478E-07
SF121	Methyl ethyl ketone {2-Butanone}	43552	8.5803E-07
SF121	m-Xylene	45205	1.5274E-05
SF121	Nickel	12136	1.0799E-07
SF121	o-Xylene	45204	8.2746E-06
SF121	p-Xylene	45206	6.1127E-06
SF121	Styrene	45220	1.4818E-07
SF121	SULFATES	12403	1.1958E-05
SF121	Toluene	45202	2.8234E-05
SF121	Vanadium (fume or dust)	12164	7.5082E-08
SF122	1,3-Butadiene	43218	3.6451E-07
SF122	Acetaldehyde	43503	9.1026E-06
SF122	Acrolein	43505	3.0644E-08
SF122	Arsenic	12103	5.2633E-10
SF122	Benzene	45201	4.0826E-06
SF122	Chlorine	12115	2.2528E-06
SF122	Copper	12114	7.0811E-07
SF122	Formaldehyde	43502	1.8465E-05
SF122	Methanol	43301	7.7801E-08
SF122	Methyl ethyl ketone {2-Butanone}	43552	1.825E-06
SF122	m-Xylene	45205	4.3752E-06
SF122	Nickel	12136	4.9106E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF122	o-Xylene	45204	2.3604E-06
SF122	p-Xylene	45206	1.5514E-06
SF122	Styrene	45220	1.044E-07
SF122	SULFATES	12403	6.0684E-06
SF122	Toluene	45202	8.4386E-06
SF122	Vanadium (fume or dust)	12164	3.4737E-08
SF123	1,3-Butadiene	43218	1.3573E-07
SF123	Acetaldehyde	43503	9.6512E-08
SF123	Acrolein	43505	3.16E-08
SF123	Arsenic	12103	2.9935E-10
SF123	Benzene	45201	1.8621E-06
SF123	Chlorine	12115	1.3835E-06
SF123	Copper	12114	4.1308E-07
SF123	Formaldehyde	43502	4.4874E-07
SF123	Methanol	43301	4.4111E-08
SF123	Methyl ethyl ketone {2-Butanone}	43552	1.1296E-08
SF123	m-Xylene	45205	4.2251E-06
SF123	Nickel	12136	2.8533E-08
SF123	o-Xylene	45204	2.2924E-06
SF123	p-Xylene	45206	1.7237E-06
SF123	Styrene	45220	3.1825E-08
SF123	SULFATES	12403	3.0539E-06
SF123	Toluene	45202	7.7621E-06
SF123	Vanadium (fume or dust)	12164	1.9757E-08
SF124	1,3-Butadiene	43218	6.4943E-07
SF124	Acetaldehyde	43503	8.3858E-06
SF124	Acrolein	43505	1.0261E-07
SF124	Arsenic	12103	1.172E-09
SF124	Benzene	45201	8.1479E-06
SF124	Chlorine	12115	5.3354E-06
SF124	Copper	12114	1.6042E-06
SF124	Formaldehyde	43502	1.7613E-05
SF124	Methanol	43301	1.7523E-07
SF124	Methyl ethyl ketone {2-Butanone}	43552	1.6621E-06
SF124	m-Xylene	45205	1.4133E-05
SF124	Nickel	12136	1.1129E-07
SF124	o-Xylene	45204	7.6648E-06
SF124	p-Xylene	45206	5.5747E-06
SF124	Styrene	45220	1.6924E-07
SF124	SULFATES	12403	1.2805E-05
SF124	Toluene	45202	2.6334E-05
SF124	Vanadium (fume or dust)	12164	7.735E-08
SF125	1,3-Butadiene	43218	1.4703E-07
SF125	Acetaldehyde	43503	1.0454E-07
SF125	Acrolein	43505	3.423E-08
SF125	Arsenic	12103	3.2425E-10

SrcGrP	TAC	SAROAD	EM (g/sec)
SF125	Benzene	45201	2.017E-06
SF125	Chlorine	12115	1.4987E-06
SF125	Copper	12114	4.4745E-07
SF125	Formaldehyde	43502	4.8608E-07
SF125	Methanol	43301	4.7781E-08
SF125	Methyl ethyl ketone {2-Butanone}	43552	1.2236E-08
SF125	m-Xylene	45205	4.5767E-06
SF125	Nickel	12136	3.0907E-08
SF125	o-Xylene	45204	2.4831E-06
SF125	p-Xylene	45206	1.8672E-06
SF125	Styrene	45220	3.4473E-08
SF125	SULFATES	12403	3.308E-06
SF125	Toluene	45202	8.408E-06
SF125	Vanadium (fume or dust)	12164	2.1401E-08
SF126	1,3-Butadiene	43218	3.925E-07
SF126	Acetaldehyde	43503	7.4377E-06
SF126	Acrolein	43505	4.7489E-08
SF126	Arsenic	12103	6.2971E-10
SF126	Benzene	45201	4.7006E-06
SF126	Chlorine	12115	2.8423E-06
SF126	Copper	12114	8.5736E-07
SF126	Formaldehyde	43502	1.527E-05
SF126	Methanol	43301	9.5235E-08
SF126	Methyl ethyl ketone {2-Butanone}	43552	1.4854E-06
SF126	m-Xylene	45205	6.7338E-06
SF126	Nickel	12136	5.9682E-08
SF126	o-Xylene	45204	3.6509E-06
SF126	p-Xylene	45206	2.5755E-06
SF126	Styrene	45220	1.0736E-07
SF126	SULFATES	12403	7.2061E-06
SF126	Toluene	45202	1.2705E-05
SF126	Vanadium (fume or dust)	12164	4.1561E-08
SF127	1,3-Butadiene	43218	1.1239E-06
SF127	Acetaldehyde	43503	3.9268E-05
SF127	Acrolein	43505	2.5815E-08
SF127	Arsenic	12103	1.2708E-09
SF127	Benzene	45201	1.1414E-05
SF127	Chlorine	12115	5.0794E-06
SF127	Copper	12114	1.674E-06
SF127	Formaldehyde	43502	7.8799E-05
SF127	Methanol	43301	1.8828E-07
SF127	Methyl ethyl ketone {2-Butanone}	43552	7.9004E-06
SF127	m-Xylene	45205	4.6305E-06
SF127	Nickel	12136	1.1643E-07
SF127	o-Xylene	45204	2.4522E-06
SF127	p-Xylene	45206	8.6988E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF127	Styrene	45220	3.4591E-07
SF127	SULFATES	12403	1.5972E-05
SF127	Toluene	45202	1.0248E-05
SF127	Vanadium (fume or dust)	12164	8.387E-08
SF128	1,3-Butadiene	43218	1.6323E-07
SF128	Acetaldehyde	43503	1.1606E-07
SF128	Acrolein	43505	3.8001E-08
SF128	Arsenic	12103	3.5999E-10
SF128	Benzene	45201	2.2393E-06
SF128	Chlorine	12115	1.6638E-06
SF128	Copper	12114	4.9676E-07
SF128	Formaldehyde	43502	5.3964E-07
SF128	Methanol	43301	5.3047E-08
SF128	Methyl ethyl ketone {2-Butanone}	43552	1.3585E-08
SF128	m-Xylene	45205	5.081E-06
SF128	Nickel	12136	3.4313E-08
SF128	o-Xylene	45204	2.7568E-06
SF128	p-Xylene	45206	2.0729E-06
SF128	Styrene	45220	3.8272E-08
SF128	SULFATES	12403	3.6725E-06
SF128	Toluene	45202	9.3345E-06
SF128	Vanadium (fume or dust)	12164	2.3759E-08
SF129	1,3-Butadiene	43218	2.9093E-07
SF129	Acetaldehyde	43503	7.7714E-06
SF129	Acrolein	43505	2.1354E-08
SF129	Arsenic	12103	3.9182E-10
SF129	Benzene	45201	3.2769E-06
SF129	Chlorine	12115	1.7488E-06
SF129	Copper	12114	5.2882E-07
SF129	Formaldehyde	43502	1.5726E-05
SF129	Methanol	43301	6.0479E-08
SF129	Methyl ethyl ketone {2-Butanone}	43552	1.5594E-06
SF129	m-Xylene	45205	3.284E-06
SF129	Nickel	12136	3.7053E-08
SF129	o-Xylene	45204	1.7802E-06
SF129	p-Xylene	45206	1.1608E-06
SF129	Styrene	45220	8.4414E-08
SF129	SULFATES	12403	4.8505E-06
SF129	Toluene	45202	6.387E-06
SF129	Vanadium (fume or dust)	12164	2.586E-08
SF13	1,3-Butadiene	43218	1.3727E-06
SF13	Acetaldehyde	43503	4.4953E-05
SF13	Acrolein	43505	4.9953E-08
SF13	Arsenic	12103	1.6146E-09
SF13	Benzene	45201	1.4466E-05
SF13	Chlorine	12115	6.8235E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF13	Copper	12114	2.1479E-06
SF13	Formaldehyde	43502	9.0371E-05
SF13	Methanol	43301	2.459E-07
SF13	Methyl ethyl ketone {2-Butanone}	43552	9.0389E-06
SF13	m-Xylene	45205	8.5988E-06
SF13	Nickel	12136	1.5033E-07
SF13	o-Xylene	45204	4.6266E-06
SF13	p-Xylene	45206	2.4052E-06
SF13	Styrene	45220	4.1602E-07
SF13	SULFATES	12403	2.0657E-05
SF13	Toluene	45202	1.7821E-05
SF13	Vanadium (fume or dust)	12164	1.0656E-07
SF130	1,3-Butadiene	43218	1.1921E-07
SF130	Acetaldehyde	43503	8.4767E-08
SF130	Acrolein	43505	2.7754E-08
SF130	Arsenic	12103	2.6292E-10
SF130	Benzene	45201	1.6355E-06
SF130	Chlorine	12115	1.2152E-06
SF130	Copper	12114	3.6281E-07
SF130	Formaldehyde	43502	3.9412E-07
SF130	Methanol	43301	3.8743E-08
SF130	Methyl ethyl ketone {2-Butanone}	43552	9.9215E-09
SF130	m-Xylene	45205	3.7109E-06
SF130	Nickel	12136	2.506E-08
SF130	o-Xylene	45204	2.0134E-06
SF130	p-Xylene	45206	1.514E-06
SF130	Styrene	45220	2.7952E-08
SF130	SULFATES	12403	2.6822E-06
SF130	Toluene	45202	6.8175E-06
SF130	Vanadium (fume or dust)	12164	1.7352E-08
SF131	1,3-Butadiene	43218	1.7826E-07
SF131	Acetaldehyde	43503	1.2675E-07
SF131	Acrolein	43505	4.15E-08
SF131	Arsenic	12103	3.9313E-10
SF131	Benzene	45201	2.4455E-06
SF131	Chlorine	12115	1.817E-06
SF131	Copper	12114	5.425E-07
SF131	Formaldehyde	43502	5.8932E-07
SF131	Methanol	43301	5.7931E-08
SF131	Methyl ethyl ketone {2-Butanone}	43552	1.4835E-08
SF131	m-Xylene	45205	5.5488E-06
SF131	Nickel	12136	3.7472E-08
SF131	o-Xylene	45204	3.0106E-06
SF131	p-Xylene	45206	2.2638E-06
SF131	Styrene	45220	4.1796E-08
SF131	SULFATES	12403	4.0107E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF131	Toluene	45202	1.0194E-05
SF131	Vanadium (fume or dust)	12164	2.5947E-08
SF133	1,3-Butadiene	43218	1.6408E-07
SF133	Acetaldehyde	43503	1.1667E-07
SF133	Acrolein	43505	3.8201E-08
SF133	Arsenic	12103	3.6187E-10
SF133	Benzene	45201	2.251E-06
SF133	Chlorine	12115	1.6725E-06
SF133	Copper	12114	4.9936E-07
SF133	Formaldehyde	43502	5.4247E-07
SF133	Methanol	43301	5.3325E-08
SF133	Methyl ethyl ketone {2-Butanone}	43552	1.3656E-08
SF133	m-Xylene	45205	5.1076E-06
SF133	Nickel	12136	3.4493E-08
SF133	o-Xylene	45204	2.7712E-06
SF133	p-Xylene	45206	2.0838E-06
SF133	Styrene	45220	3.8473E-08
SF133	SULFATES	12403	3.6918E-06
SF133	Toluene	45202	9.3835E-06
SF133	Vanadium (fume or dust)	12164	2.3884E-08
SF134	1,3-Butadiene	43218	1.0441E-07
SF134	Acetaldehyde	43503	7.4239E-08
SF134	Acrolein	43505	2.4307E-08
SF134	Arsenic	12103	2.3026E-10
SF134	Benzene	45201	1.4324E-06
SF134	Chlorine	12115	1.0642E-06
SF134	Copper	12114	3.1775E-07
SF134	Formaldehyde	43502	3.4517E-07
SF134	Methanol	43301	3.3931E-08
SF134	Methyl ethyl ketone {2-Butanone}	43552	8.6893E-09
SF134	m-Xylene	45205	3.25E-06
SF134	Nickel	12136	2.1948E-08
SF134	o-Xylene	45204	1.7633E-06
SF134	p-Xylene	45206	1.3259E-06
SF134	Styrene	45220	2.448E-08
SF134	SULFATES	12403	2.3491E-06
SF134	Toluene	45202	5.9707E-06
SF134	Vanadium (fume or dust)	12164	1.5197E-08
SF135	1,3-Butadiene	43218	3.2753E-07
SF135	Acetaldehyde	43503	7.7316E-06
SF135	Acrolein	43505	3.0278E-08
SF135	Arsenic	12103	4.747E-10
SF135	Benzene	45201	3.7852E-06
SF135	Chlorine	12115	2.1324E-06
SF135	Copper	12114	6.433E-07
SF135	Formaldehyde	43502	1.5719E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF135	Methanol	43301	7.2669E-08
SF135	Methyl ethyl ketone {2-Butanone}	43552	1.549E-06
SF135	m-Xylene	45205	4.4735E-06
SF135	Nickel	12136	4.4956E-08
SF135	o-Xylene	45204	2.4256E-06
SF135	p-Xylene	45206	1.6476E-06
SF135	Styrene	45220	9.2854E-08
SF135	SULFATES	12403	5.6886E-06
SF135	Toluene	45202	8.5692E-06
SF135	Vanadium (fume or dust)	12164	3.133E-08
SF136	1,3-Butadiene	43218	3.1591E-07
SF136	Acetaldehyde	43503	2.252E-07
SF136	Acrolein	43505	7.3546E-08
SF136	Arsenic	12103	6.9288E-10
SF136	Benzene	45201	4.3306E-06
SF136	Chlorine	12115	3.2029E-06
SF136	Copper	12114	9.5614E-07
SF136	Formaldehyde	43502	1.0455E-06
SF136	Methanol	43301	1.0263E-07
SF136	Methyl ethyl ketone {2-Butanone}	43552	2.6407E-08
SF136	m-Xylene	45205	9.8243E-06
SF136	Nickel	12136	6.6047E-08
SF136	o-Xylene	45204	5.3298E-06
SF136	p-Xylene	45206	4.0071E-06
SF136	Styrene	45220	7.4074E-08
SF136	SULFATES	12403	7.0718E-06
SF136	Toluene	45202	1.8048E-05
SF136	Vanadium (fume or dust)	12164	4.573E-08
SF137	1,3-Butadiene	43218	1.5131E-07
SF137	Acetaldehyde	43503	1.2189E-06
SF137	Acrolein	43505	2.8414E-08
SF137	Arsenic	12103	2.9884E-10
SF137	Benzene	45201	1.9602E-06
SF137	Chlorine	12115	1.3583E-06
SF137	Copper	12114	4.1008E-07
SF137	Formaldehyde	43502	2.6693E-06
SF137	Methanol	43301	4.4062E-08
SF137	Methyl ethyl ketone {2-Butanone}	43552	2.3812E-07
SF137	m-Xylene	45205	3.8332E-06
SF137	Nickel	12136	2.8349E-08
SF137	o-Xylene	45204	2.078E-06
SF137	p-Xylene	45206	1.5344E-06
SF137	Styrene	45220	3.7858E-08
SF137	SULFATES	12403	3.1356E-06
SF137	Toluene	45202	7.0925E-06
SF137	Vanadium (fume or dust)	12164	1.9724E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF139	1,3-Butadiene	43218	2.1565E-07
SF139	Acetaldehyde	43503	5.3103E-07
SF139	Acrolein	43505	4.7891E-08
SF139	Arsenic	12103	4.5611E-10
SF139	Benzene	45201	2.964E-06
SF139	Chlorine	12115	2.1578E-06
SF139	Copper	12114	6.3094E-07
SF139	Formaldehyde	43502	1.4501E-06
SF139	Methanol	43301	6.8794E-08
SF139	Methyl ethyl ketone {2-Butanone}	43552	9.4596E-08
SF139	m-Xylene	45205	6.5353E-06
SF139	Nickel	12136	4.3815E-08
SF139	o-Xylene	45204	3.5515E-06
SF139	p-Xylene	45206	2.6693E-06
SF139	Styrene	45220	5.1373E-08
SF139	SULFATES	12403	4.8431E-06
SF139	Toluene	45202	1.203E-05
SF139	Vanadium (fume or dust)	12164	3.0103E-08
SF140	1,3-Butadiene	43218	9.8725E-08
SF140	Acetaldehyde	43503	7.0199E-08
SF140	Acrolein	43505	2.2985E-08
SF140	Arsenic	12103	2.1773E-10
SF140	Benzene	45201	1.3544E-06
SF140	Chlorine	12115	1.0063E-06
SF140	Copper	12114	3.0046E-07
SF140	Formaldehyde	43502	3.2639E-07
SF140	Methanol	43301	3.2084E-08
SF140	Methyl ethyl ketone {2-Butanone}	43552	8.2165E-09
SF140	m-Xylene	45205	3.0732E-06
SF140	Nickel	12136	2.0754E-08
SF140	o-Xylene	45204	1.6674E-06
SF140	p-Xylene	45206	1.2538E-06
SF140	Styrene	45220	2.3148E-08
SF140	SULFATES	12403	2.2213E-06
SF140	Toluene	45202	5.6459E-06
SF140	Vanadium (fume or dust)	12164	1.437E-08
SF141	1,3-Butadiene	43218	8.6763E-07
SF141	Acetaldehyde	43503	6.1866E-07
SF141	Acrolein	43505	2.0199E-07
SF141	Arsenic	12103	1.9018E-09
SF141	Benzene	45201	1.1893E-05
SF141	Chlorine	12115	8.7916E-06
SF141	Copper	12114	2.6245E-06
SF141	Formaldehyde	43502	2.8718E-06
SF141	Methanol	43301	2.8186E-07
SF141	Methyl ethyl ketone {2-Butanone}	43552	7.2559E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF141	m-Xylene	45205	2.6979E-05
SF141	Nickel	12136	1.8129E-07
SF141	o-Xylene	45204	1.4636E-05
SF141	p-Xylene	45206	1.1004E-05
SF141	Styrene	45220	2.0344E-07
SF141	SULFATES	12403	1.9412E-05
SF141	Toluene	45202	4.9563E-05
SF141	Vanadium (fume or dust)	12164	1.2552E-07
SF142	1,3-Butadiene	43218	7.401E-08
SF142	Acetaldehyde	43503	6.3124E-08
SF142	Acrolein	43505	1.7166E-08
SF142	Arsenic	12103	1.629E-10
SF142	Benzene	45201	1.0143E-06
SF142	Chlorine	12115	7.5267E-07
SF142	Copper	12114	2.2476E-07
SF142	Formaldehyde	43502	2.6517E-07
SF142	Methanol	43301	2.4004E-08
SF142	Methyl ethyl ketone {2-Butanone}	43552	8.2901E-09
SF142	m-Xylene	45205	2.2955E-06
SF142	Nickel	12136	1.5525E-08
SF142	o-Xylene	45204	1.2455E-06
SF142	p-Xylene	45206	9.3625E-07
SF142	Styrene	45220	1.7376E-08
SF142	SULFATES	12403	1.6627E-06
SF142	Toluene	45202	4.2177E-06
SF142	Vanadium (fume or dust)	12164	1.0751E-08
SF143	1,3-Butadiene	43218	5.5511E-07
SF143	Acetaldehyde	43503	1.2532E-06
SF143	Acrolein	43505	1.2397E-07
SF143	Arsenic	12103	1.1766E-09
SF143	Benzene	45201	7.6249E-06
SF143	Chlorine	12115	5.5516E-06
SF143	Copper	12114	1.6271E-06
SF143	Formaldehyde	43502	3.5108E-06
SF143	Methanol	43301	1.7744E-07
SF143	Methyl ethyl ketone {2-Butanone}	43552	2.2042E-07
SF143	m-Xylene	45205	1.6868E-05
SF143	Nickel	12136	1.1293E-07
SF143	o-Xylene	45204	9.1643E-06
SF143	p-Xylene	45206	6.8877E-06
SF143	Styrene	45220	1.32E-07
SF143	SULFATES	12403	1.2438E-05
SF143	Toluene	45202	3.1043E-05
SF143	Vanadium (fume or dust)	12164	7.7656E-08
SF144	1,3-Butadiene	43218	5.3804E-07
SF144	Acetaldehyde	43503	8.8731E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF144	Acrolein	43505	1.2217E-07
SF144	Arsenic	12103	1.1542E-09
SF144	Benzene	45201	7.3828E-06
SF144	Chlorine	12115	5.4016E-06
SF144	Copper	12114	1.5947E-06
SF144	Formaldehyde	43502	2.7639E-06
SF144	Methanol	43301	1.7307E-07
SF144	Methyl ethyl ketone {2-Butanone}	43552	1.4721E-07
SF144	m-Xylene	45205	1.6495E-05
SF144	Nickel	12136	1.1047E-07
SF144	o-Xylene	45204	8.9565E-06
SF144	p-Xylene	45206	6.7321E-06
SF144	Styrene	45220	1.2724E-07
SF144	SULFATES	12403	1.2033E-05
SF144	Toluene	45202	3.0336E-05
SF144	Vanadium (fume or dust)	12164	7.6175E-08
SF145	1,3-Butadiene	43218	4.061E-07
SF145	Acetaldehyde	43503	1.6355E-06
SF145	Acrolein	43505	8.6288E-08
SF145	Arsenic	12103	8.2052E-10
SF145	Benzene	45201	5.5855E-06
SF145	Chlorine	12115	3.9704E-06
SF145	Copper	12114	1.1378E-06
SF145	Formaldehyde	43502	3.9712E-06
SF145	Methanol	43301	1.2733E-07
SF145	Methyl ethyl ketone {2-Butanone}	43552	3.0711E-07
SF145	m-Xylene	45205	1.1994E-05
SF145	Nickel	12136	7.9426E-08
SF145	o-Xylene	45204	6.527E-06
SF145	p-Xylene	45206	4.9027E-06
SF145	Styrene	45220	9.8103E-08
SF145	SULFATES	12403	9.0522E-06
SF145	Toluene	45202	2.212E-05
SF145	Vanadium (fume or dust)	12164	5.4155E-08
SF146	1,3-Butadiene	43218	2.768E-07
SF146	Acetaldehyde	43503	1.9683E-07
SF146	Acrolein	43505	6.4443E-08
SF146	Arsenic	12103	6.1038E-10
SF146	Benzene	45201	3.7973E-06
SF146	Chlorine	12115	2.8211E-06
SF146	Copper	12114	8.4229E-07
SF146	Formaldehyde	43502	9.1514E-07
SF146	Methanol	43301	8.9955E-08
SF146	Methyl ethyl ketone {2-Butanone}	43552	2.3039E-08
SF146	m-Xylene	45205	8.6161E-06
SF146	Nickel	12136	5.818E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF146	o-Xylene	45204	4.6748E-06
SF146	p-Xylene	45206	3.5151E-06
SF146	Styrene	45220	6.4902E-08
SF146	SULFATES	12403	6.2271E-06
SF146	Toluene	45202	1.5829E-05
SF146	Vanadium (fume or dust)	12164	4.0285E-08
SF147	1,3-Butadiene	43218	2.3502E-07
SF147	Acetaldehyde	43503	1.3819E-06
SF147	Acrolein	43505	4.7267E-08
SF147	Arsenic	12103	4.5167E-10
SF147	Benzene	45201	3.238E-06
SF147	Chlorine	12115	2.248E-06
SF147	Copper	12114	6.2823E-07
SF147	Formaldehyde	43502	3.1479E-06
SF147	Methanol	43301	7.2191E-08
SF147	Methyl ethyl ketone {2-Butanone}	43552	2.6608E-07
SF147	m-Xylene	45205	6.7345E-06
SF147	Nickel	12136	4.4147E-08
SF147	o-Xylene	45204	3.6717E-06
SF147	p-Xylene	45206	2.7564E-06
SF147	Styrene	45220	5.7706E-08
SF147	SULFATES	12403	5.2216E-06
SF147	Toluene	45202	1.2449E-05
SF147	Vanadium (fume or dust)	12164	2.981E-08
SF148	1,3-Butadiene	43218	4.0523E-07
SF148	Acetaldehyde	43503	7.2547E-06
SF148	Acrolein	43505	5.1631E-08
SF148	Arsenic	12103	6.7405E-10
SF148	Benzene	45201	4.8332E-06
SF148	Chlorine	12115	2.9717E-06
SF148	Copper	12114	9.1573E-07
SF148	Formaldehyde	43502	1.4937E-05
SF148	Methanol	43301	9.9635E-08
SF148	Methyl ethyl ketone {2-Butanone}	43552	1.4475E-06
SF148	m-Xylene	45205	7.1146E-06
SF148	Nickel	12136	6.3398E-08
SF148	o-Xylene	45204	3.8491E-06
SF148	p-Xylene	45206	2.7178E-06
SF148	Styrene	45220	1.0993E-07
SF148	SULFATES	12403	7.422E-06
SF148	Toluene	45202	1.3386E-05
SF148	Vanadium (fume or dust)	12164	4.4487E-08
SF149	1,3-Butadiene	43218	1.548E-07
SF149	Acetaldehyde	43503	1.625E-06
SF149	Acrolein	43505	2.6753E-08
SF149	Arsenic	12103	2.5815E-10

SrcGrP	TAC	SAROAD	EM (g/sec)
SF149	Benzene	45201	2.1409E-06
SF149	Chlorine	12115	1.3932E-06
SF149	Copper	12114	3.6241E-07
SF149	Formaldehyde	43502	3.4685E-06
SF149	Methanol	43301	4.5088E-08
SF149	Methyl ethyl ketone {2-Butanone}	43552	3.2031E-07
SF149	m-Xylene	45205	4.0937E-06
SF149	Nickel	12136	2.5973E-08
SF149	o-Xylene	45204	2.2433E-06
SF149	p-Xylene	45206	1.6811E-06
SF149	Styrene	45220	3.9541E-08
SF149	SULFATES	12403	3.3992E-06
SF149	Toluene	45202	7.6169E-06
SF149	Vanadium (fume or dust)	12164	1.7038E-08
SF150	1,3-Butadiene	43218	1.2704E-07
SF150	Acetaldehyde	43503	9.033E-08
SF150	Acrolein	43505	2.9576E-08
SF150	Arsenic	12103	2.8017E-10
SF150	Benzene	45201	1.7428E-06
SF150	Chlorine	12115	1.2949E-06
SF150	Copper	12114	3.8662E-07
SF150	Formaldehyde	43502	4.1999E-07
SF150	Methanol	43301	4.1285E-08
SF150	Methyl ethyl ketone {2-Butanone}	43552	1.0573E-08
SF150	m-Xylene	45205	3.9544E-06
SF150	Nickel	12136	2.6705E-08
SF150	o-Xylene	45204	2.1455E-06
SF150	p-Xylene	45206	1.6133E-06
SF150	Styrene	45220	2.9786E-08
SF150	SULFATES	12403	2.8582E-06
SF150	Toluene	45202	7.2649E-06
SF150	Vanadium (fume or dust)	12164	1.8491E-08
SF151	1,3-Butadiene	43218	2.6508E-07
SF151	Acetaldehyde	43503	2.512E-06
SF151	Acrolein	43505	4.7468E-08
SF151	Arsenic	12103	4.7096E-10
SF151	Benzene	45201	3.5999E-06
SF151	Chlorine	12115	2.3989E-06
SF151	Copper	12114	6.5596E-07
SF151	Formaldehyde	43502	5.4114E-06
SF151	Methanol	43301	7.7509E-08
SF151	Methyl ethyl ketone {2-Butanone}	43552	4.936E-07
SF151	m-Xylene	45205	6.9699E-06
SF151	Nickel	12136	4.6418E-08
SF151	o-Xylene	45204	3.8068E-06
SF151	p-Xylene	45206	2.842E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF151	Styrene	45220	6.7129E-08
SF151	SULFATES	12403	5.7415E-06
SF151	Toluene	45202	1.2942E-05
SF151	Vanadium (fume or dust)	12164	3.1083E-08
SF152	1,3-Butadiene	43218	1.0927E-06
SF152	Acetaldehyde	43503	3.8238E-05
SF152	Acrolein	43505	2.4716E-08
SF152	Arsenic	12103	1.2248E-09
SF152	Benzene	45201	1.1266E-05
SF152	Chlorine	12115	5.0906E-06
SF152	Copper	12114	1.6209E-06
SF152	Formaldehyde	43502	7.6728E-05
SF152	Methanol	43301	1.8452E-07
SF152	Methyl ethyl ketone {2-Butanone}	43552	7.6933E-06
SF152	m-Xylene	45205	4.9264E-06
SF152	Nickel	12136	1.1353E-07
SF152	o-Xylene	45204	2.6391E-06
SF152	p-Xylene	45206	1.0689E-06
SF152	Styrene	45220	3.3642E-07
SF152	SULFATES	12403	1.5981E-05
SF152	Toluene	45202	1.0774E-05
SF152	Vanadium (fume or dust)	12164	8.0836E-08
SF153	1,3-Butadiene	43218	3.5124E-07
SF153	Acetaldehyde	43503	2.1627E-06
SF153	Acrolein	43505	7.0045E-08
SF153	Arsenic	12103	6.7354E-10
SF153	Benzene	45201	4.8439E-06
SF153	Chlorine	12115	3.3653E-06
SF153	Copper	12114	9.3725E-07
SF153	Formaldehyde	43502	4.8948E-06
SF153	Methanol	43301	1.0759E-07
SF153	Methyl ethyl ketone {2-Butanone}	43552	4.1744E-07
SF153	m-Xylene	45205	1.0028E-05
SF153	Nickel	12136	6.5923E-08
SF153	o-Xylene	45204	5.4692E-06
SF153	p-Xylene	45206	4.1061E-06
SF153	Styrene	45220	8.6452E-08
SF153	SULFATES	12403	7.835E-06
SF153	Toluene	45202	1.8545E-05
SF153	Vanadium (fume or dust)	12164	4.4454E-08
SF154	1,3-Butadiene	43218	1.292E-07
SF154	Acetaldehyde	43503	9.1869E-08
SF154	Acrolein	43505	3.008E-08
SF154	Arsenic	12103	2.8494E-10
SF154	Benzene	45201	1.7725E-06
SF154	Chlorine	12115	1.317E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF154	Copper	12114	3.9321E-07
SF154	Formaldehyde	43502	4.2714E-07
SF154	Methanol	43301	4.1989E-08
SF154	Methyl ethyl ketone {2-Butanone}	43552	1.0753E-08
SF154	m-Xylene	45205	4.0218E-06
SF154	Nickel	12136	2.716E-08
SF154	o-Xylene	45204	2.1821E-06
SF154	p-Xylene	45206	1.6408E-06
SF154	Styrene	45220	3.0294E-08
SF154	SULFATES	12403	2.9069E-06
SF154	Toluene	45202	7.3887E-06
SF154	Vanadium (fume or dust)	12164	1.8806E-08
SF155	1,3-Butadiene	43218	5.0748E-07
SF155	Acetaldehyde	43503	3.6704E-06
SF155	Acrolein	43505	9.7858E-08
SF155	Arsenic	12103	9.3858E-10
SF155	Benzene	45201	7.0007E-06
SF155	Chlorine	12115	4.775E-06
SF155	Copper	12114	1.3087E-06
SF155	Formaldehyde	43502	8.1373E-06
SF155	Methanol	43301	1.5353E-07
SF155	Methyl ethyl ketone {2-Butanone}	43552	7.1388E-07
SF155	m-Xylene	45205	1.4216E-05
SF155	Nickel	12136	9.2447E-08
SF155	o-Xylene	45204	7.7618E-06
SF155	p-Xylene	45206	5.8242E-06
SF155	Styrene	45220	1.2608E-07
SF155	SULFATES	12403	1.1247E-05
SF155	Toluene	45202	2.6327E-05
SF155	Vanadium (fume or dust)	12164	6.1946E-08
SF156	1,3-Butadiene	43218	2.2165E-07
SF156	Acetaldehyde	43503	1.3716E-06
SF156	Acrolein	43505	4.416E-08
SF156	Arsenic	12103	4.2316E-10
SF156	Benzene	45201	3.0555E-06
SF156	Chlorine	12115	2.116E-06
SF156	Copper	12114	5.8888E-07
SF156	Formaldehyde	43502	3.1023E-06
SF156	Methanol	43301	6.7858E-08
SF156	Methyl ethyl ketone {2-Butanone}	43552	2.6482E-07
SF156	m-Xylene	45205	6.3211E-06
SF156	Nickel	12136	4.1429E-08
SF156	o-Xylene	45204	3.4475E-06
SF156	p-Xylene	45206	2.5879E-06
SF156	Styrene	45220	5.457E-08
SF156	SULFATES	12403	4.9297E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF156	Toluene	45202	1.169E-05
SF156	Vanadium (fume or dust)	12164	2.7928E-08
SF157	1,3-Butadiene	43218	3.3393E-07
SF157	Acetaldehyde	43503	3.4434E-06
SF157	Acrolein	43505	5.8087E-08
SF157	Arsenic	12103	5.5391E-10
SF157	Benzene	45201	4.6116E-06
SF157	Chlorine	12115	2.9842E-06
SF157	Copper	12114	7.7744E-07
SF157	Formaldehyde	43502	7.3613E-06
SF157	Methanol	43301	9.7415E-08
SF157	Methyl ethyl ketone {2-Butanone}	43552	6.7841E-07
SF157	m-Xylene	45205	8.8445E-06
SF157	Nickel	12136	5.5695E-08
SF157	o-Xylene	45204	4.8449E-06
SF157	p-Xylene	45206	3.63E-06
SF157	Styrene	45220	8.5162E-08
SF157	SULFATES	12403	7.2758E-06
SF157	Toluene	45202	1.6451E-05
SF157	Vanadium (fume or dust)	12164	3.6558E-08
SF160	1,3-Butadiene	43218	2.3401E-07
SF160	Acetaldehyde	43503	1.6639E-07
SF160	Acrolein	43505	5.4481E-08
SF160	Arsenic	12103	5.1609E-10
SF160	Benzene	45201	3.2104E-06
SF160	Chlorine	12115	2.3853E-06
SF160	Copper	12114	7.1218E-07
SF160	Formaldehyde	43502	7.7365E-07
SF160	Methanol	43301	7.605E-08
SF160	Methyl ethyl ketone {2-Butanone}	43552	1.9475E-08
SF160	m-Xylene	45205	7.2843E-06
SF160	Nickel	12136	4.9192E-08
SF160	o-Xylene	45204	3.9522E-06
SF160	p-Xylene	45206	2.9718E-06
SF160	Styrene	45220	5.4868E-08
SF160	SULFATES	12403	5.2651E-06
SF160	Toluene	45202	1.3382E-05
SF160	Vanadium (fume or dust)	12164	3.4062E-08
SF161	1,3-Butadiene	43218	4.2701E-07
SF161	Acetaldehyde	43503	7.2016E-06
SF161	Acrolein	43505	5.7122E-08
SF161	Arsenic	12103	5.8389E-10
SF161	Benzene	45201	5.9554E-06
SF161	Chlorine	12115	3.6074E-06
SF161	Copper	12114	8.3385E-07
SF161	Formaldehyde	43502	1.4875E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF161	Methanol	43301	1.1519E-07
SF161	Methyl ethyl ketone {2-Butanone}	43552	1.4354E-06
SF161	m-Xylene	45205	1.0043E-05
SF161	Nickel	12136	6.1861E-08
SF161	o-Xylene	45204	5.5525E-06
SF161	p-Xylene	45206	4.1529E-06
SF161	Styrene	45220	1.1489E-07
SF161	SULFATES	12403	9.4266E-06
SF161	Toluene	45202	1.8891E-05
SF161	Vanadium (fume or dust)	12164	3.8537E-08
SF162	1,3-Butadiene	43218	1.8545E-06
SF162	Acetaldehyde	43503	1.4694E-05
SF162	Acrolein	43505	3.4976E-07
SF162	Arsenic	12103	3.4031E-09
SF162	Benzene	45201	2.5638E-05
SF162	Chlorine	12115	1.749E-05
SF162	Copper	12114	4.7506E-06
SF162	Formaldehyde	43502	3.2237E-05
SF162	Methanol	43301	5.5704E-07
SF162	Methyl ethyl ketone {2-Butanone}	43552	2.8688E-06
SF162	m-Xylene	45205	5.1445E-05
SF162	Nickel	12136	3.3641E-07
SF162	o-Xylene	45204	2.8114E-05
SF162	p-Xylene	45206	2.1098E-05
SF162	Styrene	45220	4.6348E-07
SF162	SULFATES	12403	4.1441E-05
SF162	Toluene	45202	9.5369E-05
SF162	Vanadium (fume or dust)	12164	2.2461E-07
SF163	1,3-Butadiene	43218	3.0841E-07
SF163	Acetaldehyde	43503	1.3086E-06
SF163	Acrolein	43505	6.5125E-08
SF163	Arsenic	12103	6.2621E-10
SF163	Benzene	45201	4.2488E-06
SF163	Chlorine	12115	3.0375E-06
SF163	Copper	12114	8.6857E-07
SF163	Formaldehyde	43502	3.1456E-06
SF163	Methanol	43301	9.653E-08
SF163	Methyl ethyl ketone {2-Butanone}	43552	2.4672E-07
SF163	m-Xylene	45205	9.0935E-06
SF163	Nickel	12136	6.0666E-08
SF163	o-Xylene	45204	4.9505E-06
SF163	p-Xylene	45206	3.7194E-06
SF163	Styrene	45220	7.4647E-08
SF163	SULFATES	12403	6.9345E-06
SF163	Toluene	45202	1.6776E-05
SF163	Vanadium (fume or dust)	12164	4.133E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF164	1,3-Butadiene	43218	1.5923E-07
SF164	Acetaldehyde	43503	1.1322E-07
SF164	Acrolein	43505	3.7071E-08
SF164	Arsenic	12103	3.5117E-10
SF164	Benzene	45201	2.1845E-06
SF164	Chlorine	12115	1.6231E-06
SF164	Copper	12114	4.846E-07
SF164	Formaldehyde	43502	5.2643E-07
SF164	Methanol	43301	5.1748E-08
SF164	Methyl ethyl ketone {2-Butanone}	43552	1.3252E-08
SF164	m-Xylene	45205	4.9566E-06
SF164	Nickel	12136	3.3473E-08
SF164	o-Xylene	45204	2.6893E-06
SF164	p-Xylene	45206	2.0222E-06
SF164	Styrene	45220	3.7335E-08
SF164	SULFATES	12403	3.5826E-06
SF164	Toluene	45202	9.1061E-06
SF164	Vanadium (fume or dust)	12164	2.3178E-08
SF165	1,3-Butadiene	43218	3.4513E-06
SF165	Acetaldehyde	43503	2.4966E-05
SF165	Acrolein	43505	6.6549E-07
SF165	Arsenic	12103	6.427E-09
SF165	Benzene	45201	4.7651E-05
SF165	Chlorine	12115	3.2672E-05
SF165	Copper	12114	8.9606E-06
SF165	Formaldehyde	43502	5.5349E-05
SF165	Methanol	43301	1.0445E-06
SF165	Methyl ethyl ketone {2-Butanone}	43552	4.8559E-06
SF165	m-Xylene	45205	9.6788E-05
SF165	Nickel	12136	6.3287E-07
SF165	o-Xylene	45204	5.285E-05
SF165	p-Xylene	45206	3.9665E-05
SF165	Styrene	45220	8.5745E-07
SF165	SULFATES	12403	7.6904E-05
SF165	Toluene	45202	0.00017925
SF165	Vanadium (fume or dust)	12164	4.2418E-07
SF168	1,3-Butadiene	43218	1.0035E-06
SF168	Acetaldehyde	43503	3.3131E-06
SF168	Acrolein	43505	2.1768E-07
SF168	Arsenic	12103	2.0824E-09
SF168	Benzene	45201	1.3807E-05
SF168	Chlorine	12115	9.9665E-06
SF168	Copper	12114	2.8841E-06
SF168	Formaldehyde	43502	8.3913E-06
SF168	Methanol	43301	3.1727E-07
SF168	Methyl ethyl ketone {2-Butanone}	43552	6.1107E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF168	m-Xylene	45205	3.0022E-05
SF168	Nickel	12136	2.0082E-07
SF168	o-Xylene	45204	1.6328E-05
SF168	p-Xylene	45206	1.227E-05
SF168	Styrene	45220	2.4085E-07
SF168	SULFATES	12403	2.2549E-05
SF168	Toluene	45202	5.5322E-05
SF168	Vanadium (fume or dust)	12164	1.3744E-07
SF169	1,3-Butadiene	43218	2.9502E-07
SF169	Acetaldehyde	43503	2.0978E-07
SF169	Acrolein	43505	6.8685E-08
SF169	Arsenic	12103	6.5065E-10
SF169	Benzene	45201	4.0474E-06
SF169	Chlorine	12115	3.0072E-06
SF169	Copper	12114	8.9786E-07
SF169	Formaldehyde	43502	9.7536E-07
SF169	Methanol	43301	9.5878E-08
SF169	Methyl ethyl ketone {2-Butanone}	43552	2.4553E-08
SF169	m-Xylene	45205	9.1835E-06
SF169	Nickel	12136	6.2018E-08
SF169	o-Xylene	45204	4.9826E-06
SF169	p-Xylene	45206	3.7467E-06
SF169	Styrene	45220	6.9174E-08
SF169	SULFATES	12403	6.6378E-06
SF169	Toluene	45202	1.6872E-05
SF169	Vanadium (fume or dust)	12164	4.2943E-08
SF170	1,3-Butadiene	43218	7.8114E-07
SF170	Acetaldehyde	43503	2.0318E-06
SF170	Acrolein	43505	1.7281E-07
SF170	Arsenic	12103	1.6211E-09
SF170	Benzene	45201	1.0691E-05
SF170	Chlorine	12115	7.6634E-06
SF170	Copper	12114	2.2419E-06
SF170	Formaldehyde	43502	5.4641E-06
SF170	Methanol	43301	2.4835E-07
SF170	Methyl ethyl ketone {2-Butanone}	43552	3.6463E-07
SF170	m-Xylene	45205	2.3494E-05
SF170	Nickel	12136	1.5569E-07
SF170	o-Xylene	45204	1.2763E-05
SF170	p-Xylene	45206	9.5834E-06
SF170	Styrene	45220	1.8632E-07
SF170	SULFATES	12403	1.7228E-05
SF170	Toluene	45202	4.325E-05
SF170	Vanadium (fume or dust)	12164	1.0699E-07
SF171	1,3-Butadiene	43218	2.0812E-07
SF171	Acetaldehyde	43503	9.3121E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF171	Acrolein	43505	4.3652E-08
SF171	Arsenic	12103	4.1097E-10
SF171	Benzene	45201	2.8595E-06
SF171	Chlorine	12115	2.0034E-06
SF171	Copper	12114	5.7031E-07
SF171	Formaldehyde	43502	2.2168E-06
SF171	Methanol	43301	6.4893E-08
SF171	Methyl ethyl ketone {2-Butanone}	43552	1.7627E-07
SF171	m-Xylene	45205	6.0914E-06
SF171	Nickel	12136	3.9883E-08
SF171	o-Xylene	45204	3.3158E-06
SF171	p-Xylene	45206	2.4895E-06
SF171	Styrene	45220	5.0476E-08
SF171	SULFATES	12403	4.5922E-06
SF171	Toluene	45202	1.124E-05
SF171	Vanadium (fume or dust)	12164	2.7124E-08
SF172	1,3-Butadiene	43218	4.5482E-07
SF172	Acetaldehyde	43503	1.8137E-06
SF172	Acrolein	43505	9.6752E-08
SF172	Arsenic	12103	9.1168E-10
SF172	Benzene	45201	6.2479E-06
SF172	Chlorine	12115	4.4115E-06
SF172	Copper	12114	1.2641E-06
SF172	Formaldehyde	43502	4.4123E-06
SF172	Methanol	43301	1.4259E-07
SF172	Methyl ethyl ketone {2-Butanone}	43552	3.4028E-07
SF172	m-Xylene	45205	1.3421E-05
SF172	Nickel	12136	8.8251E-08
SF172	o-Xylene	45204	7.3025E-06
SF172	p-Xylene	45206	5.4838E-06
SF172	Styrene	45220	1.0983E-07
SF172	SULFATES	12403	1.0061E-05
SF172	Toluene	45202	2.475E-05
SF172	Vanadium (fume or dust)	12164	6.0171E-08
SF173	1,3-Butadiene	43218	0
SF173	Acetaldehyde	43503	0
SF173	Acrolein	43505	0
SF173	Arsenic	12103	0
SF173	Benzene	45201	0
SF173	Chlorine	12115	0
SF173	Copper	12114	0
SF173	Formaldehyde	43502	0
SF173	Methanol	43301	0
SF173	Methyl ethyl ketone {2-Butanone}	43552	0
SF173	m-Xylene	45205	0
SF173	Nickel	12136	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF173	o-Xylene	45204	0
SF173	p-Xylene	45206	0
SF173	Styrene	45220	0
SF173	SULFATES	12403	0
SF173	Toluene	45202	0
SF173	Vanadium (fume or dust)	12164	0
SF174	1,3-Butadiene	43218	0
SF174	Acetaldehyde	43503	0
SF174	Acrolein	43505	0
SF174	Arsenic	12103	0
SF174	Benzene	45201	0
SF174	Chlorine	12115	0
SF174	Copper	12114	0
SF174	Formaldehyde	43502	0
SF174	Methanol	43301	0
SF174	Methyl ethyl ketone {2-Butanone}	43552	0
SF174	m-Xylene	45205	0
SF174	Nickel	12136	0
SF174	o-Xylene	45204	0
SF174	p-Xylene	45206	0
SF174	Styrene	45220	0
SF174	SULFATES	12403	0
SF174	Toluene	45202	0
SF174	Vanadium (fume or dust)	12164	0
SF177	1,3-Butadiene	43218	2.156E-06
SF177	Acetaldehyde	43503	7.176E-05
SF177	Acrolein	43505	7.1388E-08
SF177	Arsenic	12103	2.395E-09
SF177	Benzene	45201	2.3186E-05
SF177	Chlorine	12115	1.08E-05
SF177	Copper	12114	3.2073E-06
SF177	Formaldehyde	43502	0.00014419
SF177	Methanol	43301	3.8678E-07
SF177	Methyl ethyl ketone {2-Butanone}	43552	1.4431E-05
SF177	m-Xylene	45205	1.4169E-05
SF177	Nickel	12136	2.2762E-07
SF177	o-Xylene	45204	7.707E-06
SF177	p-Xylene	45206	4.1888E-06
SF177	Styrene	45220	6.5591E-07
SF177	SULFATES	12403	3.3212E-05
SF177	Toluene	45202	2.9354E-05
SF177	Vanadium (fume or dust)	12164	1.5807E-07
SF178	1,3-Butadiene	43218	1.7027E-06
SF178	Acetaldehyde	43503	3.9004E-05
SF178	Acrolein	43505	1.6471E-07
SF178	Arsenic	12103	2.4867E-09

SrcGrP	TAC	SAROAD	EM (g/sec)
SF178	Benzene	45201	1.9716E-05
SF178	Chlorine	12115	1.1124E-05
SF178	Copper	12114	3.3697E-06
SF178	Formaldehyde	43502	7.9392E-05
SF178	Methanol	43301	3.8241E-07
SF178	Methyl ethyl ketone {2-Butanone}	43552	7.8114E-06
SF178	m-Xylene	45205	2.3965E-05
SF178	Nickel	12136	2.3516E-07
SF178	o-Xylene	45204	1.2985E-05
SF178	p-Xylene	45206	8.8612E-06
SF178	Styrene	45220	4.8017E-07
SF178	SULFATES	12403	2.9481E-05
SF178	Toluene	45202	4.5784E-05
SF178	Vanadium (fume or dust)	12164	1.6412E-07
SF179	1,3-Butadiene	43218	4.6412E-06
SF179	Acetaldehyde	43503	0.00015396
SF179	Acrolein	43505	1.5683E-07
SF179	Arsenic	12103	5.1579E-09
SF179	Benzene	45201	4.9958E-05
SF179	Chlorine	12115	2.3278E-05
SF179	Copper	12114	6.9085E-06
SF179	Formaldehyde	43502	0.0003094
SF179	Methanol	43301	8.3491E-07
SF179	Methyl ethyl ketone {2-Butanone}	43552	3.0961E-05
SF179	m-Xylene	45205	3.089E-05
SF179	Nickel	12136	4.9032E-07
SF179	o-Xylene	45204	1.6802E-05
SF179	p-Xylene	45206	9.1876E-06
SF179	Styrene	45220	1.4109E-06
SF179	SULFATES	12403	7.1505E-05
SF179	Toluene	45202	6.388E-05
SF179	Vanadium (fume or dust)	12164	3.4042E-07
SF180	1,3-Butadiene	43218	3.9237E-07
SF180	Acetaldehyde	43503	2.7899E-07
SF180	Acrolein	43505	9.1349E-08
SF180	Arsenic	12103	8.6534E-10
SF180	Benzene	45201	5.3829E-06
SF180	Chlorine	12115	3.9995E-06
SF180	Copper	12114	1.1941E-06
SF180	Formaldehyde	43502	1.2972E-06
SF180	Methanol	43301	1.2751E-07
SF180	Methyl ethyl ketone {2-Butanone}	43552	3.2655E-08
SF180	m-Xylene	45205	1.2214E-05
SF180	Nickel	12136	8.2482E-08
SF180	o-Xylene	45204	6.6268E-06
SF180	p-Xylene	45206	4.9829E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF180	Styrene	45220	9.1999E-08
SF180	SULFATES	12403	8.8281E-06
SF180	Toluene	45202	2.2439E-05
SF180	Vanadium (fume or dust)	12164	5.7112E-08
SF181	1,3-Butadiene	43218	0
SF181	Acetaldehyde	43503	0
SF181	Acrolein	43505	0
SF181	Arsenic	12103	0
SF181	Benzene	45201	0
SF181	Chlorine	12115	0
SF181	Copper	12114	0
SF181	Formaldehyde	43502	0
SF181	Methanol	43301	0
SF181	Methyl ethyl ketone {2-Butanone}	43552	0
SF181	m-Xylene	45205	0
SF181	Nickel	12136	0
SF181	o-Xylene	45204	0
SF181	p-Xylene	45206	0
SF181	Styrene	45220	0
SF181	SULFATES	12403	0
SF181	Toluene	45202	0
SF181	Vanadium (fume or dust)	12164	0
SF182	1,3-Butadiene	43218	0
SF182	Acetaldehyde	43503	0
SF182	Acrolein	43505	0
SF182	Arsenic	12103	0
SF182	Benzene	45201	0
SF182	Chlorine	12115	0
SF182	Copper	12114	0
SF182	Formaldehyde	43502	0
SF182	Methanol	43301	0
SF182	Methyl ethyl ketone {2-Butanone}	43552	0
SF182	m-Xylene	45205	0
SF182	Nickel	12136	0
SF182	o-Xylene	45204	0
SF182	p-Xylene	45206	0
SF182	Styrene	45220	0
SF182	SULFATES	12403	0
SF182	Toluene	45202	0
SF182	Vanadium (fume or dust)	12164	0
SF183	1,3-Butadiene	43218	0
SF183	Acetaldehyde	43503	0
SF183	Acrolein	43505	0
SF183	Arsenic	12103	0
SF183	Benzene	45201	0
SF183	Chlorine	12115	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF183	Copper	12114	0
SF183	Formaldehyde	43502	0
SF183	Methanol	43301	0
SF183	Methyl ethyl ketone {2-Butanone}	43552	0
SF183	m-Xylene	45205	0
SF183	Nickel	12136	0
SF183	o-Xylene	45204	0
SF183	p-Xylene	45206	0
SF183	Styrene	45220	0
SF183	SULFATES	12403	0
SF183	Toluene	45202	0
SF183	Vanadium (fume or dust)	12164	0
SF184	1,3-Butadiene	43218	0
SF184	Acetaldehyde	43503	0
SF184	Acrolein	43505	0
SF184	Arsenic	12103	0
SF184	Benzene	45201	0
SF184	Chlorine	12115	0
SF184	Copper	12114	0
SF184	Formaldehyde	43502	0
SF184	Methanol	43301	0
SF184	Methyl ethyl ketone {2-Butanone}	43552	0
SF184	m-Xylene	45205	0
SF184	Nickel	12136	0
SF184	o-Xylene	45204	0
SF184	p-Xylene	45206	0
SF184	Styrene	45220	0
SF184	SULFATES	12403	0
SF184	Toluene	45202	0
SF184	Vanadium (fume or dust)	12164	0
SF185	1,3-Butadiene	43218	0
SF185	Acetaldehyde	43503	0
SF185	Acrolein	43505	0
SF185	Arsenic	12103	0
SF185	Benzene	45201	0
SF185	Chlorine	12115	0
SF185	Copper	12114	0
SF185	Formaldehyde	43502	0
SF185	Methanol	43301	0
SF185	Methyl ethyl ketone {2-Butanone}	43552	0
SF185	m-Xylene	45205	0
SF185	Nickel	12136	0
SF185	o-Xylene	45204	0
SF185	p-Xylene	45206	0
SF185	Styrene	45220	0
SF185	SULFATES	12403	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF185	Toluene	45202	0
SF185	Vanadium (fume or dust)	12164	0
SF186	1,3-Butadiene	43218	0
SF186	Acetaldehyde	43503	0
SF186	Acrolein	43505	0
SF186	Arsenic	12103	0
SF186	Benzene	45201	0
SF186	Chlorine	12115	0
SF186	Copper	12114	0
SF186	Formaldehyde	43502	0
SF186	Methanol	43301	0
SF186	Methyl ethyl ketone {2-Butanone}	43552	0
SF186	m-Xylene	45205	0
SF186	Nickel	12136	0
SF186	o-Xylene	45204	0
SF186	p-Xylene	45206	0
SF186	Styrene	45220	0
SF186	SULFATES	12403	0
SF186	Toluene	45202	0
SF186	Vanadium (fume or dust)	12164	0
SF190	1,3-Butadiene	43218	2.0385E-06
SF190	Acetaldehyde	43503	6.1116E-05
SF190	Acrolein	43505	1.0876E-07
SF190	Arsenic	12103	2.2667E-09
SF190	Benzene	45201	2.296E-05
SF190	Chlorine	12115	1.0963E-05
SF190	Copper	12114	3.0732E-06
SF190	Formaldehyde	43502	0.0001232
SF190	Methanol	43301	4.0003E-07
SF190	Methyl ethyl ketone {2-Butanone}	43552	1.2278E-05
SF190	m-Xylene	45205	1.9616E-05
SF190	Nickel	12136	2.2029E-07
SF190	o-Xylene	45204	1.0719E-05
SF190	p-Xylene	45206	6.775E-06
SF190	Styrene	45220	6.0573E-07
SF190	SULFATES	12403	3.2635E-05
SF190	Toluene	45202	3.8928E-05
SF190	Vanadium (fume or dust)	12164	1.496E-07
SF191	1,3-Butadiene	43218	1.2285E-06
SF191	Acetaldehyde	43503	2.7365E-05
SF191	Acrolein	43505	1.2359E-07
SF191	Arsenic	12103	1.6387E-09
SF191	Benzene	45201	1.5253E-05
SF191	Chlorine	12115	8.5618E-06
SF191	Copper	12114	2.2682E-06
SF191	Formaldehyde	43502	5.5768E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF191	Methanol	43301	2.8894E-07
SF191	Methyl ethyl ketone {2-Butanone}	43552	5.4785E-06
SF191	m-Xylene	45205	2.0451E-05
SF191	Nickel	12136	1.6325E-07
SF191	o-Xylene	45204	1.1217E-05
SF191	p-Xylene	45206	7.9802E-06
SF191	Styrene	45220	3.4478E-07
SF191	SULFATES	12403	2.3083E-05
SF191	Toluene	45202	3.8953E-05
SF191	Vanadium (fume or dust)	12164	1.0815E-07
SF192	1,3-Butadiene	43218	1.3797E-06
SF192	Acetaldehyde	43503	2.9816E-05
SF192	Acrolein	43505	1.4442E-07
SF192	Arsenic	12103	2.0288E-09
SF192	Benzene	45201	1.6243E-05
SF192	Chlorine	12115	9.2499E-06
SF192	Copper	12114	2.7586E-06
SF192	Formaldehyde	43502	6.0841E-05
SF192	Methanol	43301	3.1889E-07
SF192	Methyl ethyl ketone {2-Butanone}	43552	5.9666E-06
SF192	m-Xylene	45205	2.1047E-05
SF192	Nickel	12136	1.93E-07
SF192	o-Xylene	45204	1.1419E-05
SF192	p-Xylene	45206	7.9153E-06
SF192	Styrene	45220	3.8524E-07
SF192	SULFATES	12403	2.4278E-05
SF192	Toluene	45202	4.0021E-05
SF192	Vanadium (fume or dust)	12164	1.339E-07
SF194	1,3-Butadiene	43218	6.9503E-08
SF194	Acetaldehyde	43503	5.8344E-07
SF194	Acrolein	43505	1.2907E-08
SF194	Arsenic	12103	1.2595E-10
SF194	Benzene	45201	9.6139E-07
SF194	Chlorine	12115	6.5245E-07
SF194	Copper	12114	1.7598E-07
SF194	Formaldehyde	43502	1.2721E-06
SF194	Methanol	43301	2.0766E-08
SF194	Methyl ethyl ketone {2-Butanone}	43552	1.1416E-07
SF194	m-Xylene	45205	1.9129E-06
SF194	Nickel	12136	1.2486E-08
SF194	o-Xylene	45204	1.0459E-06
SF194	p-Xylene	45206	7.8483E-07
SF194	Styrene	45220	1.744E-08
SF194	SULFATES	12403	1.5533E-06
SF194	Toluene	45202	3.5484E-06
SF194	Vanadium (fume or dust)	12164	8.3129E-09

SrcGrP	TAC	SAROAD	EM (g/sec)
SF195	1,3-Butadiene	43218	6.1549E-08
SF195	Acetaldehyde	43503	6.8121E-07
SF195	Acrolein	43505	1.0421E-08
SF195	Arsenic	12103	1.0145E-10
SF195	Benzene	45201	8.5227E-07
SF195	Chlorine	12115	5.5303E-07
SF195	Copper	12114	1.426E-07
SF195	Formaldehyde	43502	1.4476E-06
SF195	Methanol	43301	1.7812E-08
SF195	Methyl ethyl ketone {2-Butanone}	43552	1.3449E-07
SF195	m-Xylene	45205	1.6126E-06
SF195	Nickel	12136	1.0245E-08
SF195	o-Xylene	45204	8.8439E-07
SF195	p-Xylene	45206	6.6275E-07
SF195	Styrene	45220	1.5797E-08
SF195	SULFATES	12403	1.3566E-06
SF195	Toluene	45202	3.0032E-06
SF195	Vanadium (fume or dust)	12164	6.696E-09
SF196	1,3-Butadiene	43218	1.2703E-07
SF196	Acetaldehyde	43503	2.659E-06
SF196	Acrolein	43505	1.3826E-08
SF196	Arsenic	12103	1.4953E-10
SF196	Benzene	45201	1.7814E-06
SF196	Chlorine	12115	1.0292E-06
SF196	Copper	12114	2.1681E-07
SF196	Formaldehyde	43502	5.4335E-06
SF196	Methanol	43301	3.2527E-08
SF196	Methyl ethyl ketone {2-Butanone}	43552	5.3187E-07
SF196	m-Xylene	45205	2.7507E-06
SF196	Nickel	12136	1.6562E-08
SF196	o-Xylene	45204	1.5314E-06
SF196	p-Xylene	45206	1.1437E-06
SF196	Styrene	45220	3.5286E-08
SF196	SULFATES	12403	2.8156E-06
SF196	Toluene	45202	5.218E-06
SF196	Vanadium (fume or dust)	12164	9.8688E-09
SF198	1,3-Butadiene	43218	1.3624E-07
SF198	Acetaldehyde	43503	9.6871E-08
SF198	Acrolein	43505	3.1718E-08
SF198	Arsenic	12103	3.0046E-10
SF198	Benzene	45201	1.869E-06
SF198	Chlorine	12115	1.3887E-06
SF198	Copper	12114	4.1462E-07
SF198	Formaldehyde	43502	4.504E-07
SF198	Methanol	43301	4.4275E-08
SF198	Methyl ethyl ketone {2-Butanone}	43552	1.1338E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF198	m-Xylene	45205	4.2408E-06
SF198	Nickel	12136	2.8639E-08
SF198	o-Xylene	45204	2.3009E-06
SF198	p-Xylene	45206	1.7301E-06
SF198	Styrene	45220	3.1943E-08
SF198	SULFATES	12403	3.0652E-06
SF198	Toluene	45202	7.791E-06
SF198	Vanadium (fume or dust)	12164	1.983E-08
SF199	1,3-Butadiene	43218	5.4154E-08
SF199	Acetaldehyde	43503	3.8507E-08
SF199	Acrolein	43505	1.2608E-08
SF199	Arsenic	12103	1.1943E-10
SF199	Benzene	45201	7.4294E-07
SF199	Chlorine	12115	5.5201E-07
SF199	Copper	12114	1.6481E-07
SF199	Formaldehyde	43502	1.7904E-07
SF199	Methanol	43301	1.7599E-08
SF199	Methyl ethyl ketone {2-Butanone}	43552	4.507E-09
SF199	m-Xylene	45205	1.6857E-06
SF199	Nickel	12136	1.1384E-08
SF199	o-Xylene	45204	9.1462E-07
SF199	p-Xylene	45206	6.8774E-07
SF199	Styrene	45220	1.2698E-08
SF199	SULFATES	12403	1.2184E-06
SF199	Toluene	45202	3.0969E-06
SF199	Vanadium (fume or dust)	12164	7.8826E-09
SF200	1,3-Butadiene	43218	2.9953E-07
SF200	Acetaldehyde	43503	4.9467E-06
SF200	Acrolein	43505	4.0711E-08
SF200	Arsenic	12103	4.0257E-10
SF200	Benzene	45201	4.1646E-06
SF200	Chlorine	12115	2.4856E-06
SF200	Copper	12114	5.7482E-07
SF200	Formaldehyde	43502	1.0229E-05
SF200	Methanol	43301	8.1047E-08
SF200	Methyl ethyl ketone {2-Butanone}	43552	9.8559E-07
SF200	m-Xylene	45205	7.0632E-06
SF200	Nickel	12136	4.2641E-08
SF200	o-Xylene	45204	3.9019E-06
SF200	p-Xylene	45206	2.9166E-06
SF200	Styrene	45220	8.0368E-08
SF200	SULFATES	12403	6.4974E-06
SF200	Toluene	45202	1.3277E-05
SF200	Vanadium (fume or dust)	12164	2.6569E-08
SF205	1,3-Butadiene	43218	9.8452E-07
SF205	Acetaldehyde	43503	4.0703E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF205	Acrolein	43505	2.0855E-07
SF205	Arsenic	12103	2.0191E-09
SF205	Benzene	45201	1.3575E-05
SF205	Chlorine	12115	9.7737E-06
SF205	Copper	12114	2.8E-06
SF205	Formaldehyde	43502	9.8329E-06
SF205	Methanol	43301	3.0864E-07
SF205	Methyl ethyl ketone {2-Butanone}	43552	7.659E-07
SF205	m-Xylene	45205	2.9114E-05
SF205	Nickel	12136	1.9547E-07
SF205	o-Xylene	45204	1.585E-05
SF205	p-Xylene	45206	1.1911E-05
SF205	Styrene	45220	2.3806E-07
SF205	SULFATES	12403	2.2277E-05
SF205	Toluene	45202	5.3706E-05
SF205	Vanadium (fume or dust)	12164	1.3326E-07
SF206	1,3-Butadiene	43218	2.8393E-07
SF206	Acetaldehyde	43503	2.0189E-07
SF206	Acrolein	43505	6.6103E-08
SF206	Arsenic	12103	6.2619E-10
SF206	Benzene	45201	3.8952E-06
SF206	Chlorine	12115	2.8942E-06
SF206	Copper	12114	8.641E-07
SF206	Formaldehyde	43502	9.3869E-07
SF206	Methanol	43301	9.2273E-08
SF206	Methyl ethyl ketone {2-Butanone}	43552	2.363E-08
SF206	m-Xylene	45205	8.8383E-06
SF206	Nickel	12136	5.9686E-08
SF206	o-Xylene	45204	4.7953E-06
SF206	p-Xylene	45206	3.6058E-06
SF206	Styrene	45220	6.6573E-08
SF206	SULFATES	12403	6.3882E-06
SF206	Toluene	45202	1.6237E-05
SF206	Vanadium (fume or dust)	12164	4.1328E-08
SF207	1,3-Butadiene	43218	1.601E-06
SF207	Acetaldehyde	43503	7.0018E-06
SF207	Acrolein	43505	3.3678E-07
SF207	Arsenic	12103	3.2661E-09
SF207	Benzene	45201	2.2082E-05
SF207	Chlorine	12115	1.5864E-05
SF207	Copper	12114	4.5309E-06
SF207	Formaldehyde	43502	1.6737E-05
SF207	Methanol	43301	5.0061E-07
SF207	Methyl ethyl ketone {2-Butanone}	43552	1.3232E-06
SF207	m-Xylene	45205	4.717E-05
SF207	Nickel	12136	3.1656E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF207	o-Xylene	45204	2.5686E-05
SF207	p-Xylene	45206	1.9302E-05
SF207	Styrene	45220	3.8794E-07
SF207	SULFATES	12403	3.624E-05
SF207	Toluene	45202	8.7039E-05
SF207	Vanadium (fume or dust)	12164	2.1556E-07
SF283	1,3-Butadiene	43218	9.9314E-08
SF283	Acetaldehyde	43503	3.3587E-06
SF283	Acrolein	43505	2.9622E-09
SF283	Arsenic	12103	1.1477E-10
SF283	Benzene	45201	1.04E-06
SF283	Chlorine	12115	4.8547E-07
SF283	Copper	12114	1.525E-07
SF283	Formaldehyde	43502	6.746E-06
SF283	Methanol	43301	1.7347E-08
SF283	Methyl ethyl ketone {2-Butanone}	43552	6.7555E-07
SF283	m-Xylene	45205	5.5017E-07
SF283	Nickel	12136	1.0691E-08
SF283	o-Xylene	45204	2.9615E-07
SF283	p-Xylene	45206	1.4314E-07
SF283	Styrene	45220	3.0328E-08
SF283	SULFATES	12403	1.4908E-06
SF283	Toluene	45202	1.1627E-06
SF283	Vanadium (fume or dust)	12164	7.5749E-09
SF284	1,3-Butadiene	43218	1.8754E-07
SF284	Acetaldehyde	43503	6.422E-06
SF284	Acrolein	43505	5.1074E-09
SF284	Arsenic	12103	2.0972E-10
SF284	Benzene	45201	1.9647E-06
SF284	Chlorine	12115	8.9769E-07
SF284	Copper	12114	2.7874E-07
SF284	Formaldehyde	43502	1.2894E-05
SF284	Methanol	43301	3.2483E-08
SF284	Methyl ethyl ketone {2-Butanone}	43552	1.2918E-06
SF284	m-Xylene	45205	1.0008E-06
SF284	Nickel	12136	1.9612E-08
SF284	o-Xylene	45204	5.397E-07
SF284	p-Xylene	45206	2.5529E-07
SF284	Styrene	45220	5.7441E-08
SF284	SULFATES	12403	2.7928E-06
SF284	Toluene	45202	2.1305E-06
SF284	Vanadium (fume or dust)	12164	1.3842E-08
SF285	1,3-Butadiene	43218	7.3268E-08
SF285	Acetaldehyde	43503	2.5626E-06
SF285	Acrolein	43505	1.6656E-09
SF285	Arsenic	12103	8.2825E-11

SrcGrP	TAC	SAROAD	EM (g/sec)
SF285	Benzene	45201	7.4384E-07
SF285	Chlorine	12115	3.3099E-07
SF285	Copper	12114	1.091E-07
SF285	Formaldehyde	43502	5.1422E-06
SF285	Methanol	43301	1.2262E-08
SF285	Methyl ethyl ketone {2-Butanone}	43552	5.1558E-07
SF285	m-Xylene	45205	2.9982E-07
SF285	Nickel	12136	7.588E-09
SF285	o-Xylene	45204	1.5876E-07
SF285	p-Xylene	45206	5.5821E-08
SF285	Styrene	45220	2.2555E-08
SF285	SULFATES	12403	1.0412E-06
SF285	Toluene	45202	6.6443E-07
SF285	Vanadium (fume or dust)	12164	5.4665E-09
SF286	1,3-Butadiene	43218	9.7162E-08
SF286	Acetaldehyde	43503	5.574E-07
SF286	Acrolein	43505	1.9627E-08
SF286	Arsenic	12103	1.8933E-10
SF286	Benzene	45201	1.3402E-06
SF286	Chlorine	12115	9.3934E-07
SF286	Copper	12114	2.6325E-07
SF286	Formaldehyde	43502	1.2743E-06
SF286	Methanol	43301	2.9911E-08
SF286	Methyl ethyl ketone {2-Butanone}	43552	1.0718E-07
SF286	m-Xylene	45205	2.7954E-06
SF286	Nickel	12136	1.8485E-08
SF286	o-Xylene	45204	1.5241E-06
SF286	p-Xylene	45206	1.1445E-06
SF286	Styrene	45220	2.3828E-08
SF286	SULFATES	12403	2.1768E-06
SF286	Toluene	45202	5.1668E-06
SF286	Vanadium (fume or dust)	12164	1.2496E-08
SF287	1,3-Butadiene	43218	3.0779E-07
SF287	Acetaldehyde	43503	9.2739E-06
SF287	Acrolein	43505	1.614E-08
SF287	Arsenic	12103	3.8612E-10
SF287	Benzene	45201	3.3006E-06
SF287	Chlorine	12115	1.6298E-06
SF287	Copper	12114	5.1536E-07
SF287	Formaldehyde	43502	1.8691E-05
SF287	Methanol	43301	5.8576E-08
SF287	Methyl ethyl ketone {2-Butanone}	43552	1.8632E-06
SF287	m-Xylene	45205	2.4915E-06
SF287	Nickel	12136	3.5913E-08
SF287	o-Xylene	45204	1.3406E-06
SF287	p-Xylene	45206	7.8265E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF287	Styrene	45220	9.1558E-08
SF287	SULFATES	12403	4.7384E-06
SF287	Toluene	45202	4.9903E-06
SF287	Vanadium (fume or dust)	12164	2.5484E-08
SF288	1,3-Butadiene	43218	6.5229E-08
SF288	Acetaldehyde	43503	1.5321E-07
SF288	Acrolein	43505	1.4531E-08
SF288	Arsenic	12103	1.4051E-10
SF288	Benzene	45201	8.8376E-07
SF288	Chlorine	12115	6.472E-07
SF288	Copper	12114	1.9367E-07
SF288	Formaldehyde	43502	4.2416E-07
SF288	Methanol	43301	2.0707E-08
SF288	Methyl ethyl ketone {2-Butanone}	43552	2.7109E-08
SF288	m-Xylene	45205	1.9462E-06
SF288	Nickel	12136	1.338E-08
SF288	o-Xylene	45204	1.0558E-06
SF288	p-Xylene	45206	7.9117E-07
SF288	Styrene	45220	1.5523E-08
SF288	SULFATES	12403	1.4418E-06
SF288	Toluene	45202	3.5803E-06
SF288	Vanadium (fume or dust)	12164	9.2735E-09
SF289	1,3-Butadiene	43218	1.8377E-07
SF289	Acetaldehyde	43503	5.9724E-06
SF289	Acrolein	43505	6.9686E-09
SF289	Arsenic	12103	2.168E-10
SF289	Benzene	45201	1.9285E-06
SF289	Chlorine	12115	9.0411E-07
SF289	Copper	12114	2.8799E-07
SF289	Formaldehyde	43502	1.2009E-05
SF289	Methanol	43301	3.3002E-08
SF289	Methyl ethyl ketone {2-Butanone}	43552	1.2008E-06
SF289	m-Xylene	45205	1.1525E-06
SF289	Nickel	12136	2.0103E-08
SF289	o-Xylene	45204	6.1838E-07
SF289	p-Xylene	45206	3.1997E-07
SF289	Styrene	45220	5.5598E-08
SF289	SULFATES	12403	2.7326E-06
SF289	Toluene	45202	2.3842E-06
SF289	Vanadium (fume or dust)	12164	1.4309E-08
SF290	1,3-Butadiene	43218	4.8135E-07
SF290	Acetaldehyde	43503	1.6836E-05
SF290	Acrolein	43505	1.0943E-08
SF290	Arsenic	12103	5.4414E-10
SF290	Benzene	45201	4.8868E-06
SF290	Chlorine	12115	2.1745E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF290	Copper	12114	7.1674E-07
SF290	Formaldehyde	43502	3.3783E-05
SF290	Methanol	43301	8.0555E-08
SF290	Methyl ethyl ketone {2-Butanone}	43552	3.3872E-06
SF290	m-Xylene	45205	1.9697E-06
SF290	Nickel	12136	4.9851E-08
SF290	o-Xylene	45204	1.043E-06
SF290	p-Xylene	45206	3.6673E-07
SF290	Styrene	45220	1.4818E-07
SF290	SULFATES	12403	6.8405E-06
SF290	Toluene	45202	4.3651E-06
SF290	Vanadium (fume or dust)	12164	3.5913E-08
SF294	1,3-Butadiene	43218	1.2033E-07
SF294	Acetaldehyde	43503	8.5561E-08
SF294	Acrolein	43505	2.8014E-08
SF294	Arsenic	12103	2.6538E-10
SF294	Benzene	45201	1.6508E-06
SF294	Chlorine	12115	1.2265E-06
SF294	Copper	12114	3.6621E-07
SF294	Formaldehyde	43502	3.9782E-07
SF294	Methanol	43301	3.9106E-08
SF294	Methyl ethyl ketone {2-Butanone}	43552	1.0014E-08
SF294	m-Xylene	45205	3.7457E-06
SF294	Nickel	12136	2.5295E-08
SF294	o-Xylene	45204	2.0323E-06
SF294	p-Xylene	45206	1.5281E-06
SF294	Styrene	45220	2.8214E-08
SF294	SULFATES	12403	2.7073E-06
SF294	Toluene	45202	6.8813E-06
SF294	Vanadium (fume or dust)	12164	1.7515E-08
SF301	1,3-Butadiene	43218	2.8302E-07
SF301	Acetaldehyde	43503	1.0419E-06
SF301	Acrolein	43505	6.0738E-08
SF301	Arsenic	12103	5.7992E-10
SF301	Benzene	45201	3.8941E-06
SF301	Chlorine	12115	2.7912E-06
SF301	Copper	12114	8.0369E-07
SF301	Formaldehyde	43502	2.5765E-06
SF301	Methanol	43301	8.9099E-08
SF301	Methyl ethyl ketone {2-Butanone}	43552	1.9416E-07
SF301	m-Xylene	45205	8.4124E-06
SF301	Nickel	12136	5.6033E-08
SF301	o-Xylene	45204	4.5768E-06
SF301	p-Xylene	45206	3.4387E-06
SF301	Styrene	45220	6.8161E-08
SF301	SULFATES	12403	6.3397E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF301	Toluene	45202	1.5509E-05
SF301	Vanadium (fume or dust)	12164	3.8275E-08
SF302	1,3-Butadiene	43218	4.3087E-07
SF302	Acetaldehyde	43503	1.4399E-06
SF302	Acrolein	43505	9.3363E-08
SF302	Arsenic	12103	8.9016E-10
SF302	Benzene	45201	5.926E-06
SF302	Chlorine	12115	4.2637E-06
SF302	Copper	12114	1.233E-06
SF302	Formaldehyde	43502	3.637E-06
SF302	Methanol	43301	1.3614E-07
SF302	Methyl ethyl ketone {2-Butanone}	43552	2.6591E-07
SF302	m-Xylene	45205	1.2875E-05
SF302	Nickel	12136	8.5869E-08
SF302	o-Xylene	45204	7.0025E-06
SF302	p-Xylene	45206	5.2616E-06
SF302	Styrene	45220	1.0346E-07
SF302	SULFATES	12403	9.6525E-06
SF302	Toluene	45202	2.3726E-05
SF302	Vanadium (fume or dust)	12164	5.8751E-08
SF303	1,3-Butadiene	43218	1.9888E-06
SF303	Acetaldehyde	43503	6.9561E-05
SF303	Acrolein	43505	4.5213E-08
SF303	Arsenic	12103	2.2483E-09
SF303	Benzene	45201	2.0191E-05
SF303	Chlorine	12115	8.9846E-06
SF303	Copper	12114	2.9614E-06
SF303	Formaldehyde	43502	0.00013958
SF303	Methanol	43301	3.3284E-07
SF303	Methyl ethyl ketone {2-Butanone}	43552	1.3995E-05
SF303	m-Xylene	45205	8.1384E-06
SF303	Nickel	12136	2.0597E-07
SF303	o-Xylene	45204	4.3094E-06
SF303	p-Xylene	45206	1.5152E-06
SF303	Styrene	45220	6.1226E-07
SF303	SULFATES	12403	2.8263E-05
SF303	Toluene	45202	1.8036E-05
SF303	Vanadium (fume or dust)	12164	1.4839E-07
SF304	1,3-Butadiene	43218	6.2014E-08
SF304	Acetaldehyde	43503	5.9534E-07
SF304	Acrolein	43505	1.1058E-08
SF304	Arsenic	12103	7.3319E-11
SF304	Benzene	45201	8.2674E-07
SF304	Chlorine	12115	4.1528E-07
SF304	Copper	12114	1.0343E-07
SF304	Formaldehyde	43502	1.2809E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF304	Methanol	43301	1.7951E-08
SF304	Methyl ethyl ketone {2-Butanone}	43552	1.1703E-07
SF304	m-Xylene	45205	1.5852E-06
SF304	Nickel	12136	7.5118E-09
SF304	o-Xylene	45204	8.6387E-07
SF304	p-Xylene	45206	6.4186E-07
SF304	Styrene	45220	1.5721E-08
SF304	SULFATES	12403	1.0514E-06
SF304	Toluene	45202	2.9424E-06
SF304	Vanadium (fume or dust)	12164	4.8391E-09
SF306	1,3-Butadiene	43218	1.4187E-06
SF306	Acetaldehyde	43503	4.4033E-05
SF306	Acrolein	43505	6.6504E-08
SF306	Arsenic	12103	1.6583E-09
SF306	Benzene	45201	1.572E-05
SF306	Chlorine	12115	7.7173E-06
SF306	Copper	12114	2.2373E-06
SF306	Formaldehyde	43502	8.8665E-05
SF306	Methanol	43301	2.7048E-07
SF306	Methyl ethyl ketone {2-Butanone}	43552	8.8495E-06
SF306	m-Xylene	45205	1.2193E-05
SF306	Nickel	12136	1.5912E-07
SF306	o-Xylene	45204	6.6515E-06
SF306	p-Xylene	45206	4.0499E-06
SF306	Styrene	45220	4.2478E-07
SF306	SULFATES	12403	2.2901E-05
SF306	Toluene	45202	2.4463E-05
SF306	Vanadium (fume or dust)	12164	1.0945E-07
SF32	1,3-Butadiene	43218	1.972E-06
SF32	Acetaldehyde	43503	1.1229E-05
SF32	Acrolein	43505	3.9886E-07
SF32	Arsenic	12103	3.8326E-09
SF32	Benzene	45201	2.7187E-05
SF32	Chlorine	12115	1.9009E-05
SF32	Copper	12114	5.3289E-06
SF32	Formaldehyde	43502	2.5699E-05
SF32	Methanol	43301	6.0723E-07
SF32	Methyl ethyl ketone {2-Butanone}	43552	2.1584E-06
SF32	m-Xylene	45205	5.674E-05
SF32	Nickel	12136	3.7416E-07
SF32	o-Xylene	45204	3.0932E-05
SF32	p-Xylene	45206	2.3226E-05
SF32	Styrene	45220	4.8343E-07
SF32	SULFATES	12403	4.4048E-05
SF32	Toluene	45202	0.00010487
SF32	Vanadium (fume or dust)	12164	2.5295E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF33	1,3-Butadiene	43218	1.5708E-07
SF33	Acetaldehyde	43503	5.0931E-06
SF33	Acrolein	43505	6.029E-09
SF33	Arsenic	12103	1.412E-10
SF33	Benzene	45201	2.2738E-06
SF33	Chlorine	12115	1.3031E-06
SF33	Copper	12114	2.1514E-07
SF33	Formaldehyde	43502	1.0242E-05
SF33	Methanol	43301	3.4505E-08
SF33	Methyl ethyl ketone {2-Butanone}	43552	1.024E-06
SF33	m-Xylene	45205	2.6735E-06
SF33	Nickel	12136	1.79E-08
SF33	o-Xylene	45204	1.5323E-06
SF33	p-Xylene	45206	1.1452E-06
SF33	Styrene	45220	4.7498E-08
SF33	SULFATES	12403	3.9065E-06
SF33	Toluene	45202	5.2379E-06
SF33	Vanadium (fume or dust)	12164	9.3194E-09
SF340	1,3-Butadiene	43218	5.4994E-08
SF340	Acetaldehyde	43503	1.0252E-06
SF340	Acrolein	43505	6.7579E-09
SF340	Arsenic	12103	6.7539E-11
SF340	Benzene	45201	7.6601E-07
SF340	Chlorine	12115	4.4235E-07
SF340	Copper	12114	9.722E-08
SF340	Formaldehyde	43502	2.1064E-06
SF340	Methanol	43301	1.4478E-08
SF340	Methyl ethyl ketone {2-Butanone}	43552	2.0469E-07
SF340	m-Xylene	45205	1.241E-06
SF340	Nickel	12136	7.3269E-09
SF340	o-Xylene	45204	6.8783E-07
SF340	p-Xylene	45206	5.1358E-07
SF340	Styrene	45220	1.5006E-08
SF340	SULFATES	12403	1.187E-06
SF340	Toluene	45202	2.3426E-06
SF340	Vanadium (fume or dust)	12164	4.4576E-09
SF35	1,3-Butadiene	43218	1.5121E-06
SF35	Acetaldehyde	43503	5.2099E-05
SF35	Acrolein	43505	3.9202E-08
SF35	Arsenic	12103	1.6958E-09
SF35	Benzene	45201	1.5706E-05
SF35	Chlorine	12115	7.1263E-06
SF35	Copper	12114	2.2483E-06
SF35	Formaldehyde	43502	0.00010459
SF35	Methanol	43301	2.594E-07
SF35	Methyl ethyl ketone {2-Butanone}	43552	1.0481E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF35	m-Xylene	45205	7.5429E-06
SF35	Nickel	12136	1.577E-07
SF35	o-Xylene	45204	4.0513E-06
SF35	p-Xylene	45206	1.8057E-06
SF35	Styrene	45220	4.638E-07
SF35	SULFATES	12403	2.2238E-05
SF35	Toluene	45202	1.621E-05
SF35	Vanadium (fume or dust)	12164	1.1192E-07
SF36	1,3-Butadiene	43218	1.7673E-06
SF36	Acetaldehyde	43503	1.2229E-05
SF36	Acrolein	43505	3.4417E-07
SF36	Arsenic	12103	3.3299E-09
SF36	Benzene	45201	2.4401E-05
SF36	Chlorine	12115	1.6836E-05
SF36	Copper	12114	4.6397E-06
SF36	Formaldehyde	43502	2.7259E-05
SF36	Methanol	43301	5.3685E-07
SF36	Methyl ethyl ketone {2-Butanone}	43552	2.3739E-06
SF36	m-Xylene	45205	4.9847E-05
SF36	Nickel	12136	3.2726E-07
SF36	o-Xylene	45204	2.7211E-05
SF36	p-Xylene	45206	2.0426E-05
SF36	Styrene	45220	4.3788E-07
SF36	SULFATES	12403	3.9489E-05
SF36	Toluene	45202	9.2279E-05
SF36	Vanadium (fume or dust)	12164	2.1977E-07
SF37	1,3-Butadiene	43218	4.1961E-07
SF37	Acetaldehyde	43503	1.4118E-05
SF37	Acrolein	43505	1.2964E-08
SF37	Arsenic	12103	4.6529E-10
SF37	Benzene	45201	4.5025E-06
SF37	Chlorine	12115	2.0969E-06
SF37	Copper	12114	6.2284E-07
SF37	Formaldehyde	43502	2.836E-05
SF37	Methanol	43301	7.4636E-08
SF37	Methyl ethyl ketone {2-Butanone}	43552	2.8394E-06
SF37	m-Xylene	45205	2.6536E-06
SF37	Nickel	12136	4.4215E-08
SF37	o-Xylene	45204	1.4441E-06
SF37	p-Xylene	45206	7.7047E-07
SF37	Styrene	45220	1.2798E-07
SF37	SULFATES	12403	6.4708E-06
SF37	Toluene	45202	5.5296E-06
SF37	Vanadium (fume or dust)	12164	3.0709E-08
SF375	1,3-Butadiene	43218	0
SF375	Acetaldehyde	43503	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF375	Acrolein	43505	0
SF375	Arsenic	12103	0
SF375	Benzene	45201	0
SF375	Chlorine	12115	0
SF375	Copper	12114	0
SF375	Formaldehyde	43502	0
SF375	Methanol	43301	0
SF375	Methyl ethyl ketone {2-Butanone}	43552	0
SF375	m-Xylene	45205	0
SF375	Nickel	12136	0
SF375	o-Xylene	45204	0
SF375	p-Xylene	45206	0
SF375	Styrene	45220	0
SF375	SULFATES	12403	0
SF375	Toluene	45202	0
SF375	Vanadium (fume or dust)	12164	0
SF376	1,3-Butadiene	43218	0
SF376	Acetaldehyde	43503	0
SF376	Acrolein	43505	0
SF376	Arsenic	12103	0
SF376	Benzene	45201	0
SF376	Chlorine	12115	0
SF376	Copper	12114	0
SF376	Formaldehyde	43502	0
SF376	Methanol	43301	0
SF376	Methyl ethyl ketone {2-Butanone}	43552	0
SF376	m-Xylene	45205	0
SF376	Nickel	12136	0
SF376	o-Xylene	45204	0
SF376	p-Xylene	45206	0
SF376	Styrene	45220	0
SF376	SULFATES	12403	0
SF376	Toluene	45202	0
SF376	Vanadium (fume or dust)	12164	0
SF377	1,3-Butadiene	43218	0
SF377	Acetaldehyde	43503	0
SF377	Acrolein	43505	0
SF377	Arsenic	12103	0
SF377	Benzene	45201	0
SF377	Chlorine	12115	0
SF377	Copper	12114	0
SF377	Formaldehyde	43502	0
SF377	Methanol	43301	0
SF377	Methyl ethyl ketone {2-Butanone}	43552	0
SF377	m-Xylene	45205	0
SF377	Nickel	12136	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF377	o-Xylene	45204	0
SF377	p-Xylene	45206	0
SF377	Styrene	45220	0
SF377	SULFATES	12403	0
SF377	Toluene	45202	0
SF377	Vanadium (fume or dust)	12164	0
SF378	1,3-Butadiene	43218	0
SF378	Acetaldehyde	43503	0
SF378	Acrolein	43505	0
SF378	Arsenic	12103	0
SF378	Benzene	45201	0
SF378	Chlorine	12115	0
SF378	Copper	12114	0
SF378	Formaldehyde	43502	0
SF378	Methanol	43301	0
SF378	Methyl ethyl ketone {2-Butanone}	43552	0
SF378	m-Xylene	45205	0
SF378	Nickel	12136	0
SF378	o-Xylene	45204	0
SF378	p-Xylene	45206	0
SF378	Styrene	45220	0
SF378	SULFATES	12403	0
SF378	Toluene	45202	0
SF378	Vanadium (fume or dust)	12164	0
SF379	1,3-Butadiene	43218	0
SF379	Acetaldehyde	43503	0
SF379	Acrolein	43505	0
SF379	Arsenic	12103	0
SF379	Benzene	45201	0
SF379	Chlorine	12115	0
SF379	Copper	12114	0
SF379	Formaldehyde	43502	0
SF379	Methanol	43301	0
SF379	Methyl ethyl ketone {2-Butanone}	43552	0
SF379	m-Xylene	45205	0
SF379	Nickel	12136	0
SF379	o-Xylene	45204	0
SF379	p-Xylene	45206	0
SF379	Styrene	45220	0
SF379	SULFATES	12403	0
SF379	Toluene	45202	0
SF379	Vanadium (fume or dust)	12164	0
SF38	1,3-Butadiene	43218	7.2665E-07
SF38	Acetaldehyde	43503	5.0114E-06
SF38	Acrolein	43505	1.4162E-07
SF38	Arsenic	12103	1.3707E-09

SrcGrP	TAC	SAROAD	EM (g/sec)
SF38	Benzene	45201	1.0033E-05
SF38	Chlorine	12115	6.9272E-06
SF38	Copper	12114	1.9098E-06
SF38	Formaldehyde	43502	1.1175E-05
SF38	Methanol	43301	2.208E-07
SF38	Methyl ethyl ketone {2-Butanone}	43552	9.7262E-07
SF38	m-Xylene	45205	2.0505E-05
SF38	Nickel	12136	1.3469E-07
SF38	o-Xylene	45204	1.1193E-05
SF38	p-Xylene	45206	8.4023E-06
SF38	Styrene	45220	1.8E-07
SF38	SULFATES	12403	1.6244E-05
SF38	Toluene	45202	3.7959E-05
SF38	Vanadium (fume or dust)	12164	9.0466E-08
SF380	1,3-Butadiene	43218	0
SF380	Acetaldehyde	43503	0
SF380	Acrolein	43505	0
SF380	Arsenic	12103	0
SF380	Benzene	45201	0
SF380	Chlorine	12115	0
SF380	Copper	12114	0
SF380	Formaldehyde	43502	0
SF380	Methanol	43301	0
SF380	Methyl ethyl ketone {2-Butanone}	43552	0
SF380	m-Xylene	45205	0
SF380	Nickel	12136	0
SF380	o-Xylene	45204	0
SF380	p-Xylene	45206	0
SF380	Styrene	45220	0
SF380	SULFATES	12403	0
SF380	Toluene	45202	0
SF380	Vanadium (fume or dust)	12164	0
SF381	1,3-Butadiene	43218	0
SF381	Acetaldehyde	43503	0
SF381	Acrolein	43505	0
SF381	Arsenic	12103	0
SF381	Benzene	45201	0
SF381	Chlorine	12115	0
SF381	Copper	12114	0
SF381	Formaldehyde	43502	0
SF381	Methanol	43301	0
SF381	Methyl ethyl ketone {2-Butanone}	43552	0
SF381	m-Xylene	45205	0
SF381	Nickel	12136	0
SF381	o-Xylene	45204	0
SF381	p-Xylene	45206	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF381	Styrene	45220	0
SF381	SULFATES	12403	0
SF381	Toluene	45202	0
SF381	Vanadium (fume or dust)	12164	0
SF386	1,3-Butadiene	43218	2.9655E-07
SF386	Acetaldehyde	43503	1.0524E-06
SF386	Acrolein	43505	6.3882E-08
SF386	Arsenic	12103	6.2553E-10
SF386	Benzene	45201	4.0161E-06
SF386	Chlorine	12115	2.9148E-06
SF386	Copper	12114	8.6312E-07
SF386	Formaldehyde	43502	2.6229E-06
SF386	Methanol	43301	9.2857E-08
SF386	Methyl ethyl ketone {2-Butanone}	43552	1.9546E-07
SF386	m-Xylene	45205	8.6621E-06
SF386	Nickel	12136	5.9796E-08
SF386	o-Xylene	45204	4.7034E-06
SF386	p-Xylene	45206	3.522E-06
SF386	Styrene	45220	7.1335E-08
SF386	SULFATES	12403	6.5601E-06
SF386	Toluene	45202	1.5957E-05
SF386	Vanadium (fume or dust)	12164	4.1285E-08
SF387	1,3-Butadiene	43218	3.6578E-06
SF387	Acetaldehyde	43503	0.00011312
SF387	Acrolein	43505	1.7398E-07
SF387	Arsenic	12103	4.2525E-09
SF387	Benzene	45201	4.0996E-05
SF387	Chlorine	12115	2.0302E-05
SF387	Copper	12114	5.7578E-06
SF387	Formaldehyde	43502	0.0002278
SF387	Methanol	43301	7.0348E-07
SF387	Methyl ethyl ketone {2-Butanone}	43552	2.2733E-05
SF387	m-Xylene	45205	3.2895E-05
SF387	Nickel	12136	4.1148E-07
SF387	o-Xylene	45204	1.8001E-05
SF387	p-Xylene	45206	1.1171E-05
SF387	Styrene	45220	1.0943E-06
SF387	SULFATES	12403	6.0166E-05
SF387	Toluene	45202	6.58E-05
SF387	Vanadium (fume or dust)	12164	2.8067E-07
SF388	1,3-Butadiene	43218	2.9969E-08
SF388	Acetaldehyde	43503	2.1309E-08
SF388	Acrolein	43505	6.9771E-09
SF388	Arsenic	12103	6.6094E-11
SF388	Benzene	45201	4.1114E-07
SF388	Chlorine	12115	3.0548E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF388	Copper	12114	9.1205E-08
SF388	Formaldehyde	43502	9.9078E-08
SF388	Methanol	43301	9.7394E-09
SF388	Methyl ethyl ketone {2-Butanone}	43552	2.4941E-09
SF388	m-Xylene	45205	9.3287E-07
SF388	Nickel	12136	6.2998E-09
SF388	o-Xylene	45204	5.0614E-07
SF388	p-Xylene	45206	3.8059E-07
SF388	Styrene	45220	7.0268E-09
SF388	SULFATES	12403	6.7428E-07
SF388	Toluene	45202	1.7138E-06
SF388	Vanadium (fume or dust)	12164	4.3622E-09
SF390	1,3-Butadiene	43218	1.0127E-06
SF390	Acetaldehyde	43503	6.036E-06
SF390	Acrolein	43505	2.0317E-07
SF390	Arsenic	12103	2.0194E-09
SF390	Benzene	45201	1.3681E-05
SF390	Chlorine	12115	9.6505E-06
SF390	Copper	12114	2.793E-06
SF390	Formaldehyde	43502	1.3723E-05
SF390	Methanol	43301	3.0806E-07
SF390	Methyl ethyl ketone {2-Butanone}	43552	1.1631E-06
SF390	m-Xylene	45205	2.8246E-05
SF390	Nickel	12136	1.947E-07
SF390	o-Xylene	45204	1.5365E-05
SF390	p-Xylene	45206	1.1483E-05
SF390	Styrene	45220	2.4882E-07
SF390	SULFATES	12403	2.2202E-05
SF390	Toluene	45202	5.2187E-05
SF390	Vanadium (fume or dust)	12164	1.3328E-07
SF392	1,3-Butadiene	43218	4.0907E-07
SF392	Acetaldehyde	43503	6.0068E-06
SF392	Acrolein	43505	6.0193E-08
SF392	Arsenic	12103	6.9999E-10
SF392	Benzene	45201	5.1495E-06
SF392	Chlorine	12115	3.2879E-06
SF392	Copper	12114	9.6099E-07
SF392	Formaldehyde	43502	1.2509E-05
SF392	Methanol	43301	1.0797E-07
SF392	Methyl ethyl ketone {2-Butanone}	43552	1.194E-06
SF392	m-Xylene	45205	8.5799E-06
SF392	Nickel	12136	6.7167E-08
SF392	o-Xylene	45204	4.6649E-06
SF392	p-Xylene	45206	3.3877E-06
SF392	Styrene	45220	1.0816E-07
SF392	SULFATES	12403	8.0637E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF392	Toluene	45202	1.6042E-05
SF392	Vanadium (fume or dust)	12164	4.6199E-08
SF393	1,3-Butadiene	43218	3.2755E-07
SF393	Acetaldehyde	43503	2.012E-06
SF393	Acrolein	43505	6.535E-08
SF393	Arsenic	12103	6.6318E-10
SF393	Benzene	45201	4.3691E-06
SF393	Chlorine	12115	3.0987E-06
SF393	Copper	12114	9.1433E-07
SF393	Formaldehyde	43502	4.5552E-06
SF393	Methanol	43301	9.8871E-08
SF393	Methyl ethyl ketone {2-Butanone}	43552	3.883E-07
SF393	m-Xylene	45205	8.9555E-06
SF393	Nickel	12136	6.3466E-08
SF393	o-Xylene	45204	4.8646E-06
SF393	p-Xylene	45206	3.6242E-06
SF393	Styrene	45220	8.0611E-08
SF393	SULFATES	12403	7.0979E-06
SF393	Toluene	45202	1.6543E-05
SF393	Vanadium (fume or dust)	12164	4.377E-08
SF394	1,3-Butadiene	43218	2.0658E-06
SF394	Acetaldehyde	43503	4.7989E-05
SF394	Acrolein	43505	1.9574E-07
SF394	Arsenic	12103	2.9307E-09
SF394	Benzene	45201	2.449E-05
SF394	Chlorine	12115	1.3856E-05
SF394	Copper	12114	3.9992E-06
SF394	Formaldehyde	43502	9.7625E-05
SF394	Methanol	43301	4.6727E-07
SF394	Methyl ethyl ketone {2-Butanone}	43552	9.6126E-06
SF394	m-Xylene	45205	3.0267E-05
SF394	Nickel	12136	2.8219E-07
SF394	o-Xylene	45204	1.6488E-05
SF394	p-Xylene	45206	1.1406E-05
SF394	Styrene	45220	5.84E-07
SF394	SULFATES	12403	3.7077E-05
SF394	Toluene	45202	5.7866E-05
SF394	Vanadium (fume or dust)	12164	1.9343E-07
SF396	1,3-Butadiene	43218	1.8314E-06
SF396	Acetaldehyde	43503	4.053E-05
SF396	Acrolein	43505	1.8587E-07
SF396	Arsenic	12103	2.6186E-09
SF396	Benzene	45201	2.2137E-05
SF396	Chlorine	12115	1.2706E-05
SF396	Copper	12114	3.5894E-06
SF396	Formaldehyde	43502	8.2618E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF396	Methanol	43301	4.2567E-07
SF396	Methyl ethyl ketone {2-Butanone}	43552	8.1132E-06
SF396	m-Xylene	45205	2.9004E-05
SF396	Nickel	12136	2.5428E-07
SF396	o-Xylene	45204	1.5829E-05
SF396	p-Xylene	45206	1.1114E-05
SF396	Styrene	45220	5.1341E-07
SF396	SULFATES	12403	3.3719E-05
SF396	Toluene	45202	5.5233E-05
SF396	Vanadium (fume or dust)	12164	1.7283E-07
SF397	1,3-Butadiene	43218	4.3929E-07
SF397	Acetaldehyde	43503	1.0229E-05
SF397	Acrolein	43505	4.1472E-08
SF397	Arsenic	12103	6.2312E-10
SF397	Benzene	45201	5.0971E-06
SF397	Chlorine	12115	2.8264E-06
SF397	Copper	12114	8.4538E-07
SF397	Formaldehyde	43502	2.0808E-05
SF397	Methanol	43301	9.817E-08
SF397	Methyl ethyl ketone {2-Butanone}	43552	2.0491E-06
SF397	m-Xylene	45205	6.1261E-06
SF397	Nickel	12136	5.9197E-08
SF397	o-Xylene	45204	3.3228E-06
SF397	p-Xylene	45206	2.2667E-06
SF397	Styrene	45220	1.2424E-07
SF397	SULFATES	12403	7.5599E-06
SF397	Toluene	45202	1.172E-05
SF397	Vanadium (fume or dust)	12164	4.1126E-08
SF398	1,3-Butadiene	43218	3.0013E-07
SF398	Acetaldehyde	43503	9.0703E-07
SF398	Acrolein	43505	6.5621E-08
SF398	Arsenic	12103	6.1574E-10
SF398	Benzene	45201	4.1179E-06
SF398	Chlorine	12115	2.9384E-06
SF398	Copper	12114	8.5252E-07
SF398	Formaldehyde	43502	2.346E-06
SF398	Methanol	43301	9.5073E-08
SF398	Methyl ethyl ketone {2-Butanone}	43552	1.6574E-07
SF398	m-Xylene	45205	8.9907E-06
SF398	Nickel	12136	5.9323E-08
SF398	o-Xylene	45204	4.8871E-06
SF398	p-Xylene	45206	3.6709E-06
SF398	Styrene	45220	7.1856E-08
SF398	SULFATES	12403	6.6382E-06
SF398	Toluene	45202	1.656E-05
SF398	Vanadium (fume or dust)	12164	4.0639E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF399	1,3-Butadiene	43218	1.7854E-06
SF399	Acetaldehyde	43503	1.7851E-05
SF399	Acrolein	43505	3.14E-07
SF399	Arsenic	12103	3.3291E-09
SF399	Benzene	45201	2.3326E-05
SF399	Chlorine	12115	1.5754E-05
SF399	Copper	12114	4.5883E-06
SF399	Formaldehyde	43502	3.8267E-05
SF399	Methanol	43301	5.0953E-07
SF399	Methyl ethyl ketone {2-Butanone}	43552	3.5137E-06
SF399	m-Xylene	45205	4.3993E-05
SF399	Nickel	12136	3.2005E-07
SF399	o-Xylene	45204	2.3921E-05
SF399	p-Xylene	45206	1.7672E-05
SF399	Styrene	45220	4.5414E-07
SF399	SULFATES	12403	3.7234E-05
SF399	Toluene	45202	8.166E-05
SF399	Vanadium (fume or dust)	12164	2.1972E-07
SF400	1,3-Butadiene	43218	2.762E-07
SF400	Acetaldehyde	43503	2.8773E-07
SF400	Acrolein	43505	6.3743E-08
SF400	Arsenic	12103	6.0346E-10
SF400	Benzene	45201	3.7896E-06
SF400	Chlorine	12115	2.8013E-06
SF400	Copper	12114	8.3312E-07
SF400	Formaldehyde	43502	1.0914E-06
SF400	Methanol	43301	8.9441E-08
SF400	Methyl ethyl ketone {2-Butanone}	43552	4.1523E-08
SF400	m-Xylene	45205	8.5524E-06
SF400	Nickel	12136	5.7603E-08
SF400	o-Xylene	45204	4.6414E-06
SF400	p-Xylene	45206	3.4896E-06
SF400	Styrene	45220	6.4957E-08
SF400	SULFATES	12403	6.2031E-06
SF400	Toluene	45202	1.5718E-05
SF400	Vanadium (fume or dust)	12164	3.9829E-08
SF401	1,3-Butadiene	43218	1.9603E-07
SF401	Acetaldehyde	43503	1.3939E-07
SF401	Acrolein	43505	4.564E-08
SF401	Arsenic	12103	4.3234E-10
SF401	Benzene	45201	2.6894E-06
SF401	Chlorine	12115	1.9982E-06
SF401	Copper	12114	5.9661E-07
SF401	Formaldehyde	43502	6.481E-07
SF401	Methanol	43301	6.3709E-08
SF401	Methyl ethyl ketone {2-Butanone}	43552	1.6315E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF401	m-Xylene	45205	6.1023E-06
SF401	Nickel	12136	4.1209E-08
SF401	o-Xylene	45204	3.3109E-06
SF401	p-Xylene	45206	2.4896E-06
SF401	Styrene	45220	4.5965E-08
SF401	SULFATES	12403	4.4107E-06
SF401	Toluene	45202	1.1211E-05
SF401	Vanadium (fume or dust)	12164	2.8535E-08
SF402	1,3-Butadiene	43218	4.9751E-07
SF402	Acetaldehyde	43503	7.6843E-07
SF402	Acrolein	43505	1.1329E-07
SF402	Arsenic	12103	1.0757E-09
SF402	Benzene	45201	6.8312E-06
SF402	Chlorine	12115	5.0266E-06
SF402	Copper	12114	1.4861E-06
SF402	Formaldehyde	43502	2.4541E-06
SF402	Methanol	43301	1.6027E-07
SF402	Methyl ethyl ketone {2-Butanone}	43552	1.2556E-07
SF402	m-Xylene	45205	1.5292E-05
SF402	Nickel	12136	1.0291E-07
SF402	o-Xylene	45204	8.3028E-06
SF402	p-Xylene	45206	6.2419E-06
SF402	Styrene	45220	1.1754E-07
SF402	SULFATES	12403	1.1183E-05
SF402	Toluene	45202	2.8119E-05
SF402	Vanadium (fume or dust)	12164	7.0999E-08
SF404	1,3-Butadiene	43218	1.2155E-07
SF404	Acetaldehyde	43503	8.6428E-08
SF404	Acrolein	43505	2.8298E-08
SF404	Arsenic	12103	2.6807E-10
SF404	Benzene	45201	1.6675E-06
SF404	Chlorine	12115	1.239E-06
SF404	Copper	12114	3.6992E-07
SF404	Formaldehyde	43502	4.0185E-07
SF404	Methanol	43301	3.9502E-08
SF404	Methyl ethyl ketone {2-Butanone}	43552	1.0116E-08
SF404	m-Xylene	45205	3.7836E-06
SF404	Nickel	12136	2.5552E-08
SF404	o-Xylene	45204	2.0529E-06
SF404	p-Xylene	45206	1.5436E-06
SF404	Styrene	45220	2.85E-08
SF404	SULFATES	12403	2.7348E-06
SF404	Toluene	45202	6.9511E-06
SF404	Vanadium (fume or dust)	12164	1.7693E-08
SF405	1,3-Butadiene	43218	1.5066E-07
SF405	Acetaldehyde	43503	1.0713E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF405	Acrolein	43505	3.5076E-08
SF405	Arsenic	12103	3.3228E-10
SF405	Benzene	45201	2.0669E-06
SF405	Chlorine	12115	1.5357E-06
SF405	Copper	12114	4.5852E-07
SF405	Formaldehyde	43502	4.981E-07
SF405	Methanol	43301	4.8963E-08
SF405	Methyl ethyl ketone {2-Butanone}	43552	1.2539E-08
SF405	m-Xylene	45205	4.6899E-06
SF405	Nickel	12136	3.1672E-08
SF405	o-Xylene	45204	2.5446E-06
SF405	p-Xylene	45206	1.9134E-06
SF405	Styrene	45220	3.5326E-08
SF405	SULFATES	12403	3.3898E-06
SF405	Toluene	45202	8.616E-06
SF405	Vanadium (fume or dust)	12164	2.193E-08
SF406	1,3-Butadiene	43218	6.7706E-08
SF406	Acetaldehyde	43503	4.8142E-08
SF406	Acrolein	43505	1.5763E-08
SF406	Arsenic	12103	1.4932E-10
SF406	Benzene	45201	9.2885E-07
SF406	Chlorine	12115	6.9014E-07
SF406	Copper	12114	2.0605E-07
SF406	Formaldehyde	43502	2.2384E-07
SF406	Methanol	43301	2.2003E-08
SF406	Methyl ethyl ketone {2-Butanone}	43552	5.6348E-09
SF406	m-Xylene	45205	2.1076E-06
SF406	Nickel	12136	1.4233E-08
SF406	o-Xylene	45204	1.1435E-06
SF406	p-Xylene	45206	8.5984E-07
SF406	Styrene	45220	1.5875E-08
SF406	SULFATES	12403	1.5233E-06
SF406	Toluene	45202	3.8719E-06
SF406	Vanadium (fume or dust)	12164	9.8551E-09
SF408	1,3-Butadiene	43218	6.1392E-07
SF408	Acetaldehyde	43503	1.5922E-06
SF408	Acrolein	43505	1.3584E-07
SF408	Arsenic	12103	1.3093E-09
SF408	Benzene	45201	8.3494E-06
SF408	Chlorine	12115	6.0888E-06
SF408	Copper	12114	1.8068E-06
SF408	Formaldehyde	43502	4.2853E-06
SF408	Methanol	43301	1.9467E-07
SF408	Methyl ethyl ketone {2-Butanone}	43552	2.8563E-07
SF408	m-Xylene	45205	1.8326E-05
SF408	Nickel	12136	1.2507E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF408	o-Xylene	45204	9.9477E-06
SF408	p-Xylene	45206	7.4597E-06
SF408	Styrene	45220	1.4642E-07
SF408	SULFATES	12403	1.3618E-05
SF408	Toluene	45202	3.3727E-05
SF408	Vanadium (fume or dust)	12164	8.6413E-08
SF409	1,3-Butadiene	43218	6.3098E-07
SF409	Acetaldehyde	43503	1.0171E-06
SF409	Acrolein	43505	1.4342E-07
SF409	Arsenic	12103	1.3586E-09
SF409	Benzene	45201	8.6612E-06
SF409	Chlorine	12115	6.3544E-06
SF409	Copper	12114	1.8771E-06
SF409	Formaldehyde	43502	3.1955E-06
SF409	Methanol	43301	2.0309E-07
SF409	Methyl ethyl ketone {2-Butanone}	43552	1.6786E-07
SF409	m-Xylene	45205	1.9365E-05
SF409	Nickel	12136	1.3001E-07
SF409	o-Xylene	45204	1.0515E-05
SF409	p-Xylene	45206	7.9041E-06
SF409	Styrene	45220	1.4916E-07
SF409	SULFATES	12403	1.4148E-05
SF409	Toluene	45202	3.5612E-05
SF409	Vanadium (fume or dust)	12164	8.9665E-08
SF410	1,3-Butadiene	43218	1.4335E-07
SF410	Acetaldehyde	43503	1.0193E-07
SF410	Acrolein	43505	3.3375E-08
SF410	Arsenic	12103	3.1616E-10
SF410	Benzene	45201	1.9667E-06
SF410	Chlorine	12115	1.4612E-06
SF410	Copper	12114	4.3628E-07
SF410	Formaldehyde	43502	4.7393E-07
SF410	Methanol	43301	4.6588E-08
SF410	Methyl ethyl ketone {2-Butanone}	43552	1.1931E-08
SF410	m-Xylene	45205	4.4624E-06
SF410	Nickel	12136	3.0135E-08
SF410	o-Xylene	45204	2.4211E-06
SF410	p-Xylene	45206	1.8205E-06
SF410	Styrene	45220	3.3612E-08
SF410	SULFATES	12403	3.2254E-06
SF410	Toluene	45202	8.198E-06
SF410	Vanadium (fume or dust)	12164	2.0866E-08
SF411	1,3-Butadiene	43218	2.4798E-07
SF411	Acetaldehyde	43503	1.7632E-07
SF411	Acrolein	43505	5.7732E-08
SF411	Arsenic	12103	5.4689E-10

SrcGrP	TAC	SAROAD	EM (g/sec)
SF411	Benzene	45201	3.402E-06
SF411	Chlorine	12115	2.5277E-06
SF411	Copper	12114	7.5468E-07
SF411	Formaldehyde	43502	8.1982E-07
SF411	Methanol	43301	8.0589E-08
SF411	Methyl ethyl ketone {2-Butanone}	43552	2.0638E-08
SF411	m-Xylene	45205	7.7191E-06
SF411	Nickel	12136	5.2128E-08
SF411	o-Xylene	45204	4.1881E-06
SF411	p-Xylene	45206	3.1492E-06
SF411	Styrene	45220	5.8143E-08
SF411	SULFATES	12403	5.5793E-06
SF411	Toluene	45202	1.4181E-05
SF411	Vanadium (fume or dust)	12164	3.6095E-08
SF42	1,3-Butadiene	43218	1.115E-05
SF42	Acetaldehyde	43503	0.00036864
SF42	Acrolein	43505	3.8443E-07
SF42	Arsenic	12103	1.2445E-08
SF42	Benzene	45201	0.00011933
SF42	Chlorine	12115	5.5271E-05
SF42	Copper	12114	1.6636E-05
SF42	Formaldehyde	43502	0.0007409
SF42	Methanol	43301	2.0033E-06
SF42	Methyl ethyl ketone {2-Butanone}	43552	7.4131E-05
SF42	m-Xylene	45205	7.2971E-05
SF42	Nickel	12136	1.177E-06
SF42	o-Xylene	45204	3.9577E-05
SF42	p-Xylene	45206	2.1357E-05
SF42	Styrene	45220	3.3869E-06
SF42	SULFATES	12403	0.00016971
SF42	Toluene	45202	0.000151
SF42	Vanadium (fume or dust)	12164	8.2135E-07
SF424	1,3-Butadiene	43218	1.202E-06
SF424	Acetaldehyde	43503	4.2042E-05
SF424	Acrolein	43505	2.7326E-08
SF424	Arsenic	12103	1.3588E-09
SF424	Benzene	45201	1.2203E-05
SF424	Chlorine	12115	5.4302E-06
SF424	Copper	12114	1.7898E-06
SF424	Formaldehyde	43502	8.4362E-05
SF424	Methanol	43301	2.0116E-07
SF424	Methyl ethyl ketone {2-Butanone}	43552	8.4586E-06
SF424	m-Xylene	45205	4.9188E-06
SF424	Nickel	12136	1.2449E-07
SF424	o-Xylene	45204	2.6045E-06
SF424	p-Xylene	45206	9.1579E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF424	Styrene	45220	3.7004E-07
SF424	SULFATES	12403	1.7082E-05
SF424	Toluene	45202	1.09E-05
SF424	Vanadium (fume or dust)	12164	8.9682E-08
SF425	1,3-Butadiene	43218	0
SF425	Acetaldehyde	43503	0
SF425	Acrolein	43505	0
SF425	Arsenic	12103	0
SF425	Benzene	45201	0
SF425	Chlorine	12115	0
SF425	Copper	12114	0
SF425	Formaldehyde	43502	0
SF425	Methanol	43301	0
SF425	Methyl ethyl ketone {2-Butanone}	43552	0
SF425	m-Xylene	45205	0
SF425	Nickel	12136	0
SF425	o-Xylene	45204	0
SF425	p-Xylene	45206	0
SF425	Styrene	45220	0
SF425	SULFATES	12403	0
SF425	Toluene	45202	0
SF425	Vanadium (fume or dust)	12164	0
SF426	1,3-Butadiene	43218	0
SF426	Acetaldehyde	43503	0
SF426	Acrolein	43505	0
SF426	Arsenic	12103	0
SF426	Benzene	45201	0
SF426	Chlorine	12115	0
SF426	Copper	12114	0
SF426	Formaldehyde	43502	0
SF426	Methanol	43301	0
SF426	Methyl ethyl ketone {2-Butanone}	43552	0
SF426	m-Xylene	45205	0
SF426	Nickel	12136	0
SF426	o-Xylene	45204	0
SF426	p-Xylene	45206	0
SF426	Styrene	45220	0
SF426	SULFATES	12403	0
SF426	Toluene	45202	0
SF426	Vanadium (fume or dust)	12164	0
SF427	1,3-Butadiene	43218	1.9145E-07
SF427	Acetaldehyde	43503	1.3613E-07
SF427	Acrolein	43505	4.4571E-08
SF427	Arsenic	12103	4.2222E-10
SF427	Benzene	45201	2.6264E-06
SF427	Chlorine	12115	1.9515E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF427	Copper	12114	5.8264E-07
SF427	Formaldehyde	43502	6.3293E-07
SF427	Methanol	43301	6.2217E-08
SF427	Methyl ethyl ketone {2-Butanone}	43552	1.5933E-08
SF427	m-Xylene	45205	5.9594E-06
SF427	Nickel	12136	4.0245E-08
SF427	o-Xylene	45204	3.2334E-06
SF427	p-Xylene	45206	2.4313E-06
SF427	Styrene	45220	4.4889E-08
SF427	SULFATES	12403	4.3074E-06
SF427	Toluene	45202	1.0948E-05
SF427	Vanadium (fume or dust)	12164	2.7867E-08
SF429	1,3-Butadiene	43218	0
SF429	Acetaldehyde	43503	0
SF429	Acrolein	43505	0
SF429	Arsenic	12103	0
SF429	Benzene	45201	0
SF429	Chlorine	12115	0
SF429	Copper	12114	0
SF429	Formaldehyde	43502	0
SF429	Methanol	43301	0
SF429	Methyl ethyl ketone {2-Butanone}	43552	0
SF429	m-Xylene	45205	0
SF429	Nickel	12136	0
SF429	o-Xylene	45204	0
SF429	p-Xylene	45206	0
SF429	Styrene	45220	0
SF429	SULFATES	12403	0
SF429	Toluene	45202	0
SF429	Vanadium (fume or dust)	12164	0
SF43	1,3-Butadiene	43218	3.7157E-06
SF43	Acetaldehyde	43503	3.8737E-05
SF43	Acrolein	43505	6.4376E-07
SF43	Arsenic	12103	6.9534E-09
SF43	Benzene	45201	4.7741E-05
SF43	Chlorine	12115	3.2087E-05
SF43	Copper	12114	9.5485E-06
SF43	Formaldehyde	43502	8.2732E-05
SF43	Methanol	43301	1.0467E-06
SF43	Methyl ethyl ketone {2-Butanone}	43552	7.6342E-06
SF43	m-Xylene	45205	8.8589E-05
SF43	Nickel	12136	6.6302E-07
SF43	o-Xylene	45204	4.8082E-05
SF43	p-Xylene	45206	3.5339E-05
SF43	Styrene	45220	9.4851E-07
SF43	SULFATES	12403	7.5701E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF43	Toluene	45202	0.00016447
SF43	Vanadium (fume or dust)	12164	4.5892E-07
SF432	1,3-Butadiene	43218	0
SF432	Acetaldehyde	43503	0
SF432	Acrolein	43505	0
SF432	Arsenic	12103	0
SF432	Benzene	45201	0
SF432	Chlorine	12115	0
SF432	Copper	12114	0
SF432	Formaldehyde	43502	0
SF432	Methanol	43301	0
SF432	Methyl ethyl ketone {2-Butanone}	43552	0
SF432	m-Xylene	45205	0
SF432	Nickel	12136	0
SF432	o-Xylene	45204	0
SF432	p-Xylene	45206	0
SF432	Styrene	45220	0
SF432	SULFATES	12403	0
SF432	Toluene	45202	0
SF432	Vanadium (fume or dust)	12164	0
SF433	1,3-Butadiene	43218	2.9817E-07
SF433	Acetaldehyde	43503	2.1201E-07
SF433	Acrolein	43505	6.9417E-08
SF433	Arsenic	12103	6.5759E-10
SF433	Benzene	45201	4.0905E-06
SF433	Chlorine	12115	3.0393E-06
SF433	Copper	12114	9.0743E-07
SF433	Formaldehyde	43502	9.8575E-07
SF433	Methanol	43301	9.69E-08
SF433	Methyl ethyl ketone {2-Butanone}	43552	2.4815E-08
SF433	m-Xylene	45205	9.2814E-06
SF433	Nickel	12136	6.2679E-08
SF433	o-Xylene	45204	5.0358E-06
SF433	p-Xylene	45206	3.7866E-06
SF433	Styrene	45220	6.9912E-08
SF433	SULFATES	12403	6.7086E-06
SF433	Toluene	45202	1.7051E-05
SF433	Vanadium (fume or dust)	12164	4.3401E-08
SF436	1,3-Butadiene	43218	2.9637E-08
SF436	Acetaldehyde	43503	2.108E-08
SF436	Acrolein	43505	6.8999E-09
SF436	Arsenic	12103	6.5321E-11
SF436	Benzene	45201	4.0655E-07
SF436	Chlorine	12115	3.0191E-07
SF436	Copper	12114	9.0139E-08
SF436	Formaldehyde	43502	9.7993E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF436	Methanol	43301	9.6312E-09
SF436	Methyl ethyl ketone {2-Butanone}	43552	2.4678E-09
SF436	m-Xylene	45205	9.2245E-07
SF436	Nickel	12136	6.2262E-09
SF436	o-Xylene	45204	5.0048E-07
SF436	p-Xylene	45206	3.7633E-07
SF436	Styrene	45220	6.949E-09
SF436	SULFATES	12403	6.6643E-07
SF436	Toluene	45202	1.6947E-06
SF436	Vanadium (fume or dust)	12164	4.3112E-09
SF458	1,3-Butadiene	43218	5.0914E-08
SF458	Acetaldehyde	43503	3.6202E-08
SF458	Acrolein	43505	1.1853E-08
SF458	Arsenic	12103	1.1229E-10
SF458	Benzene	45201	6.9848E-07
SF458	Chlorine	12115	5.1898E-07
SF458	Copper	12114	1.5495E-07
SF458	Formaldehyde	43502	1.6832E-07
SF458	Methanol	43301	1.6546E-08
SF458	Methyl ethyl ketone {2-Butanone}	43552	4.2373E-09
SF458	m-Xylene	45205	1.5849E-06
SF458	Nickel	12136	1.0703E-08
SF458	o-Xylene	45204	8.5989E-07
SF458	p-Xylene	45206	6.4658E-07
SF458	Styrene	45220	1.1938E-08
SF458	SULFATES	12403	1.1455E-06
SF458	Toluene	45202	2.9116E-06
SF458	Vanadium (fume or dust)	12164	7.4109E-09
SF46	1,3-Butadiene	43218	9.0045E-07
SF46	Acetaldehyde	43503	1.546E-06
SF46	Acrolein	43505	2.0408E-07
SF46	Arsenic	12103	1.9391E-09
SF46	Benzene	45201	1.2366E-05
SF46	Chlorine	12115	9.0817E-06
SF46	Copper	12114	2.6796E-06
SF46	Formaldehyde	43502	4.7448E-06
SF46	Methanol	43301	2.8954E-07
SF46	Methyl ethyl ketone {2-Butanone}	43552	2.5876E-07
SF46	m-Xylene	45205	2.7603E-05
SF46	Nickel	12136	1.8565E-07
SF46	o-Xylene	45204	1.499E-05
SF46	p-Xylene	45206	1.1269E-05
SF46	Styrene	45220	2.1307E-07
SF46	SULFATES	12403	2.0238E-05
SF46	Toluene	45202	5.077E-05
SF46	Vanadium (fume or dust)	12164	1.2798E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF464	1,3-Butadiene	43218	0
SF464	Acetaldehyde	43503	0
SF464	Acrolein	43505	0
SF464	Arsenic	12103	0
SF464	Benzene	45201	0
SF464	Chlorine	12115	0
SF464	Copper	12114	0
SF464	Formaldehyde	43502	0
SF464	Methanol	43301	0
SF464	Methyl ethyl ketone {2-Butanone}	43552	0
SF464	m-Xylene	45205	0
SF464	Nickel	12136	0
SF464	o-Xylene	45204	0
SF464	p-Xylene	45206	0
SF464	Styrene	45220	0
SF464	SULFATES	12403	0
SF464	Toluene	45202	0
SF464	Vanadium (fume or dust)	12164	0
SF47	1,3-Butadiene	43218	2.1253E-06
SF47	Acetaldehyde	43503	3.0106E-06
SF47	Acrolein	43505	4.8561E-07
SF47	Arsenic	12103	4.5792E-09
SF47	Benzene	45201	2.9151E-05
SF47	Chlorine	12115	2.1365E-05
SF47	Copper	12114	6.3252E-06
SF47	Formaldehyde	43502	9.9529E-06
SF47	Methanol	43301	6.8529E-07
SF47	Methyl ethyl ketone {2-Butanone}	43552	4.8118E-07
SF47	m-Xylene	45205	6.5377E-05
SF47	Nickel	12136	4.3785E-07
SF47	o-Xylene	45204	3.549E-05
SF47	p-Xylene	45206	2.6676E-05
SF47	Styrene	45220	5.0153E-07
SF47	SULFATES	12403	4.7493E-05
SF47	Toluene	45202	0.0001202
SF47	Vanadium (fume or dust)	12164	3.0223E-07
SF479	1,3-Butadiene	43218	8.9153E-08
SF479	Acetaldehyde	43503	6.341E-08
SF479	Acrolein	43505	2.0756E-08
SF479	Arsenic	12103	1.965E-10
SF479	Benzene	45201	1.223E-06
SF479	Chlorine	12115	9.0823E-07
SF479	Copper	12114	2.7116E-07
SF479	Formaldehyde	43502	2.9478E-07
SF479	Methanol	43301	2.8972E-08
SF479	Methyl ethyl ketone {2-Butanone}	43552	7.4234E-09

SrcGrP	TAC	SAROAD	EM (g/sec)
SF479	m-Xylene	45205	2.7749E-06
SF479	Nickel	12136	1.873E-08
SF479	o-Xylene	45204	1.5055E-06
SF479	p-Xylene	45206	1.1321E-06
SF479	Styrene	45220	2.0904E-08
SF479	SULFATES	12403	2.0048E-06
SF479	Toluene	45202	5.0979E-06
SF479	Vanadium (fume or dust)	12164	1.2969E-08
SF48	1,3-Butadiene	43218	3.0662E-07
SF48	Acetaldehyde	43503	7.5214E-06
SF48	Acrolein	43505	2.6607E-08
SF48	Arsenic	12103	4.3117E-10
SF48	Benzene	45201	3.5133E-06
SF48	Chlorine	12115	1.9333E-06
SF48	Copper	12114	5.8354E-07
SF48	Formaldehyde	43502	1.5268E-05
SF48	Methanol	43301	6.6718E-08
SF48	Methyl ethyl ketone {2-Butanone}	43552	1.5077E-06
SF48	m-Xylene	45205	3.9623E-06
SF48	Nickel	12136	4.0817E-08
SF48	o-Xylene	45204	2.1478E-06
SF48	p-Xylene	45206	1.4427E-06
SF48	Styrene	45220	8.7532E-08
SF48	SULFATES	12403	5.2256E-06
SF48	Toluene	45202	7.6204E-06
SF48	Vanadium (fume or dust)	12164	2.8457E-08
SF488	1,3-Butadiene	43218	0
SF488	Acetaldehyde	43503	0
SF488	Acrolein	43505	0
SF488	Arsenic	12103	0
SF488	Benzene	45201	0
SF488	Chlorine	12115	0
SF488	Copper	12114	0
SF488	Formaldehyde	43502	0
SF488	Methanol	43301	0
SF488	Methyl ethyl ketone {2-Butanone}	43552	0
SF488	m-Xylene	45205	0
SF488	Nickel	12136	0
SF488	o-Xylene	45204	0
SF488	p-Xylene	45206	0
SF488	Styrene	45220	0
SF488	SULFATES	12403	0
SF488	Toluene	45202	0
SF488	Vanadium (fume or dust)	12164	0
SF494	1,3-Butadiene	43218	0
SF494	Acetaldehyde	43503	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF494	Acrolein	43505	0
SF494	Arsenic	12103	0
SF494	Benzene	45201	0
SF494	Chlorine	12115	0
SF494	Copper	12114	0
SF494	Formaldehyde	43502	0
SF494	Methanol	43301	0
SF494	Methyl ethyl ketone {2-Butanone}	43552	0
SF494	m-Xylene	45205	0
SF494	Nickel	12136	0
SF494	o-Xylene	45204	0
SF494	p-Xylene	45206	0
SF494	Styrene	45220	0
SF494	SULFATES	12403	0
SF494	Toluene	45202	0
SF494	Vanadium (fume or dust)	12164	0
SF498	1,3-Butadiene	43218	0
SF498	Acetaldehyde	43503	0
SF498	Acrolein	43505	0
SF498	Arsenic	12103	0
SF498	Benzene	45201	0
SF498	Chlorine	12115	0
SF498	Copper	12114	0
SF498	Formaldehyde	43502	0
SF498	Methanol	43301	0
SF498	Methyl ethyl ketone {2-Butanone}	43552	0
SF498	m-Xylene	45205	0
SF498	Nickel	12136	0
SF498	o-Xylene	45204	0
SF498	p-Xylene	45206	0
SF498	Styrene	45220	0
SF498	SULFATES	12403	0
SF498	Toluene	45202	0
SF498	Vanadium (fume or dust)	12164	0
SF499	1,3-Butadiene	43218	9.4803E-07
SF499	Acetaldehyde	43503	3.3158E-05
SF499	Acrolein	43505	2.1552E-08
SF499	Arsenic	12103	1.0717E-09
SF499	Benzene	45201	9.6247E-06
SF499	Chlorine	12115	4.2828E-06
SF499	Copper	12114	1.4117E-06
SF499	Formaldehyde	43502	6.6536E-05
SF499	Methanol	43301	1.5866E-07
SF499	Methyl ethyl ketone {2-Butanone}	43552	6.6712E-06
SF499	m-Xylene	45205	3.8794E-06
SF499	Nickel	12136	9.8183E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF499	o-Xylene	45204	2.0542E-06
SF499	p-Xylene	45206	7.2228E-07
SF499	Styrene	45220	2.9185E-07
SF499	SULFATES	12403	1.3473E-05
SF499	Toluene	45202	8.5972E-06
SF499	Vanadium (fume or dust)	12164	7.0732E-08
SF50	1,3-Butadiene	43218	2.1526E-06
SF50	Acetaldehyde	43503	1.2934E-05
SF50	Acrolein	43505	4.3125E-07
SF50	Arsenic	12103	4.0913E-09
SF50	Benzene	45201	2.9634E-05
SF50	Chlorine	12115	2.0419E-05
SF50	Copper	12114	5.6923E-06
SF50	Formaldehyde	43502	2.9373E-05
SF50	Methanol	43301	6.6E-07
SF50	Methyl ethyl ketone {2-Butanone}	43552	2.4933E-06
SF50	m-Xylene	45205	6.1477E-05
SF50	Nickel	12136	4.0029E-07
SF50	o-Xylene	45204	3.3519E-05
SF50	p-Xylene	45206	2.5156E-05
SF50	Styrene	45220	5.2915E-07
SF50	SULFATES	12403	4.7524E-05
SF50	Toluene	45202	0.00011366
SF50	Vanadium (fume or dust)	12164	2.7003E-07
SF500	1,3-Butadiene	43218	5.6733E-07
SF500	Acetaldehyde	43503	1.9843E-05
SF500	Acrolein	43505	1.2897E-08
SF500	Arsenic	12103	6.4134E-10
SF500	Benzene	45201	5.7597E-06
SF500	Chlorine	12115	2.5629E-06
SF500	Copper	12114	8.4478E-07
SF500	Formaldehyde	43502	3.9817E-05
SF500	Methanol	43301	9.4945E-08
SF500	Methyl ethyl ketone {2-Butanone}	43552	3.9923E-06
SF500	m-Xylene	45205	2.3216E-06
SF500	Nickel	12136	5.8756E-08
SF500	o-Xylene	45204	1.2293E-06
SF500	p-Xylene	45206	4.3224E-07
SF500	Styrene	45220	1.7465E-07
SF500	SULFATES	12403	8.0624E-06
SF500	Toluene	45202	5.1448E-06
SF500	Vanadium (fume or dust)	12164	4.2328E-08
SF502	1,3-Butadiene	43218	0
SF502	Acetaldehyde	43503	0
SF502	Acrolein	43505	0
SF502	Arsenic	12103	0

SrcGrP	TAC	SAROAD	EM (g/sec)
SF502	Benzene	45201	0
SF502	Chlorine	12115	0
SF502	Copper	12114	0
SF502	Formaldehyde	43502	0
SF502	Methanol	43301	0
SF502	Methyl ethyl ketone {2-Butanone}	43552	0
SF502	m-Xylene	45205	0
SF502	Nickel	12136	0
SF502	o-Xylene	45204	0
SF502	p-Xylene	45206	0
SF502	Styrene	45220	0
SF502	SULFATES	12403	0
SF502	Toluene	45202	0
SF502	Vanadium (fume or dust)	12164	0
SF503	1,3-Butadiene	43218	0
SF503	Acetaldehyde	43503	0
SF503	Acrolein	43505	0
SF503	Arsenic	12103	0
SF503	Benzene	45201	0
SF503	Chlorine	12115	0
SF503	Copper	12114	0
SF503	Formaldehyde	43502	0
SF503	Methanol	43301	0
SF503	Methyl ethyl ketone {2-Butanone}	43552	0
SF503	m-Xylene	45205	0
SF503	Nickel	12136	0
SF503	o-Xylene	45204	0
SF503	p-Xylene	45206	0
SF503	Styrene	45220	0
SF503	SULFATES	12403	0
SF503	Toluene	45202	0
SF503	Vanadium (fume or dust)	12164	0
SF504	1,3-Butadiene	43218	7.0547E-08
SF504	Acetaldehyde	43503	3.2401E-07
SF504	Acrolein	43505	1.4745E-08
SF504	Arsenic	12103	1.4309E-10
SF504	Benzene	45201	9.7325E-07
SF504	Chlorine	12115	6.9722E-07
SF504	Copper	12114	1.9857E-07
SF504	Formaldehyde	43502	7.6772E-07
SF504	Methanol	43301	2.2006E-08
SF504	Methyl ethyl ketone {2-Butanone}	43552	6.1445E-08
SF504	m-Xylene	45205	2.0712E-06
SF504	Nickel	12136	1.3884E-08
SF504	o-Xylene	45204	1.1281E-06
SF504	p-Xylene	45206	8.4767E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF504	Styrene	45220	1.7128E-08
SF504	SULFATES	12403	1.5962E-06
SF504	Toluene	45202	3.8229E-06
SF504	Vanadium (fume or dust)	12164	9.4437E-09
SF51	1,3-Butadiene	43218	8.652E-07
SF51	Acetaldehyde	43503	2.3536E-06
SF51	Acrolein	43505	1.9077E-07
SF51	Arsenic	12103	1.8125E-09
SF51	Benzene	45201	1.1889E-05
SF51	Chlorine	12115	8.6069E-06
SF51	Copper	12114	2.5083E-06
SF51	Formaldehyde	43502	6.2534E-06
SF51	Methanol	43301	2.7519E-07
SF51	Methyl ethyl ketone {2-Butanone}	43552	4.248E-07
SF51	m-Xylene	45205	2.61E-05
SF51	Nickel	12136	1.7433E-07
SF51	o-Xylene	45204	1.4186E-05
SF51	p-Xylene	45206	1.0661E-05
SF51	Styrene	45220	2.0659E-07
SF51	SULFATES	12403	1.937E-05
SF51	Toluene	45202	4.806E-05
SF51	Vanadium (fume or dust)	12164	1.1963E-07
SF52	1,3-Butadiene	43218	2.5114E-06
SF52	Acetaldehyde	43503	2.0878E-05
SF52	Acrolein	43505	4.6762E-07
SF52	Arsenic	12103	4.523E-09
SF52	Benzene	45201	3.47E-05
SF52	Chlorine	12115	2.3423E-05
SF52	Copper	12114	6.3193E-06
SF52	Formaldehyde	43502	4.5566E-05
SF52	Methanol	43301	7.5066E-07
SF52	Methyl ethyl ketone {2-Butanone}	43552	4.0836E-06
SF52	m-Xylene	45205	6.9119E-05
SF52	Nickel	12136	4.4832E-07
SF52	o-Xylene	45204	3.7785E-05
SF52	p-Xylene	45206	2.8346E-05
SF52	Styrene	45220	6.2973E-07
SF52	SULFATES	12403	5.5766E-05
SF52	Toluene	45202	0.0001282
SF52	Vanadium (fume or dust)	12164	2.9852E-07
SF53	1,3-Butadiene	43218	2.0372E-07
SF53	Acetaldehyde	43503	1.4715E-07
SF53	Acrolein	43505	4.7414E-08
SF53	Arsenic	12103	4.3374E-10
SF53	Benzene	45201	2.7808E-06
SF53	Chlorine	12115	2.0067E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF53	Copper	12114	5.9855E-07
SF53	Formaldehyde	43502	6.7799E-07
SF53	Methanol	43301	6.6057E-08
SF53	Methyl ethyl ketone {2-Butanone}	43552	1.7421E-08
SF53	m-Xylene	45205	6.3025E-06
SF53	Nickel	12136	4.1357E-08
SF53	o-Xylene	45204	3.4175E-06
SF53	p-Xylene	45206	2.5671E-06
SF53	Styrene	45220	4.7771E-08
SF53	SULFATES	12403	4.4376E-06
SF53	Toluene	45202	1.1576E-05
SF53	Vanadium (fume or dust)	12164	2.8627E-08
SF54	1,3-Butadiene	43218	4.387E-08
SF54	Acetaldehyde	43503	3.1194E-08
SF54	Acrolein	43505	1.0214E-08
SF54	Arsenic	12103	9.6752E-11
SF54	Benzene	45201	6.0185E-07
SF54	Chlorine	12115	4.4718E-07
SF54	Copper	12114	1.3351E-07
SF54	Formaldehyde	43502	1.4504E-07
SF54	Methanol	43301	1.4257E-08
SF54	Methyl ethyl ketone {2-Butanone}	43552	3.6511E-09
SF54	m-Xylene	45205	1.3656E-06
SF54	Nickel	12136	9.2221E-09
SF54	o-Xylene	45204	7.4093E-07
SF54	p-Xylene	45206	5.5713E-07
SF54	Styrene	45220	1.0286E-08
SF54	SULFATES	12403	9.8705E-07
SF54	Toluene	45202	2.5088E-06
SF54	Vanadium (fume or dust)	12164	6.3857E-09
SF55	1,3-Butadiene	43218	2.8361E-06
SF55	Acetaldehyde	43503	5.0765E-06
SF55	Acrolein	43505	6.4153E-07
SF55	Arsenic	12103	6.0969E-09
SF55	Benzene	45201	3.8953E-05
SF55	Chlorine	12115	2.8582E-05
SF55	Copper	12114	8.4259E-06
SF55	Formaldehyde	43502	1.5349E-05
SF55	Methanol	43301	9.1125E-07
SF55	Methyl ethyl ketone {2-Butanone}	43552	8.57E-07
SF55	m-Xylene	45205	8.6845E-05
SF55	Nickel	12136	5.8389E-07
SF55	o-Xylene	45204	4.7165E-05
SF55	p-Xylene	45206	3.5455E-05
SF55	Styrene	45220	6.7155E-07
SF55	SULFATES	12403	6.3738E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF55	Toluene	45202	0.00015974
SF55	Vanadium (fume or dust)	12164	4.024E-07
SF56	1,3-Butadiene	43218	1.5681E-06
SF56	Acetaldehyde	43503	2.9848E-06
SF56	Acrolein	43505	3.5362E-07
SF56	Arsenic	12103	3.3694E-09
SF56	Benzene	45201	2.1547E-05
SF56	Chlorine	12115	1.5818E-05
SF56	Copper	12114	4.6571E-06
SF56	Formaldehyde	43502	8.8337E-06
SF56	Methanol	43301	5.0331E-07
SF56	Methyl ethyl ketone {2-Butanone}	43552	5.0996E-07
SF56	m-Xylene	45205	4.7952E-05
SF56	Nickel	12136	3.2283E-07
SF56	o-Xylene	45204	2.6046E-05
SF56	p-Xylene	45206	1.9581E-05
SF56	Styrene	45220	3.7169E-07
SF56	SULFATES	12403	3.5308E-05
SF56	Toluene	45202	8.8216E-05
SF56	Vanadium (fume or dust)	12164	2.2238E-07
SF57	1,3-Butadiene	43218	5.8657E-08
SF57	Acetaldehyde	43503	1.3436E-06
SF57	Acrolein	43505	5.674E-09
SF57	Arsenic	12103	8.5663E-11
SF57	Benzene	45201	6.7921E-07
SF57	Chlorine	12115	3.832E-07
SF57	Copper	12114	1.1608E-07
SF57	Formaldehyde	43502	2.735E-06
SF57	Methanol	43301	1.3173E-08
SF57	Methyl ethyl ketone {2-Butanone}	43552	2.6909E-07
SF57	m-Xylene	45205	8.2557E-07
SF57	Nickel	12136	8.1011E-09
SF57	o-Xylene	45204	4.473E-07
SF57	p-Xylene	45206	3.0526E-07
SF57	Styrene	45220	1.6541E-08
SF57	SULFATES	12403	1.0156E-06
SF57	Toluene	45202	1.5772E-06
SF57	Vanadium (fume or dust)	12164	5.6537E-09
SF58	1,3-Butadiene	43218	4.8722E-08
SF58	Acetaldehyde	43503	3.4644E-08
SF58	Acrolein	43505	1.1343E-08
SF58	Arsenic	12103	1.0745E-10
SF58	Benzene	45201	6.6841E-07
SF58	Chlorine	12115	4.9663E-07
SF58	Copper	12114	1.4828E-07
SF58	Formaldehyde	43502	1.6108E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF58	Methanol	43301	1.5834E-08
SF58	Methyl ethyl ketone {2-Butanone}	43552	4.0549E-09
SF58	m-Xylene	45205	1.5166E-06
SF58	Nickel	12136	1.0242E-08
SF58	o-Xylene	45204	8.2287E-07
SF58	p-Xylene	45206	6.1875E-07
SF58	Styrene	45220	1.1424E-08
SF58	SULFATES	12403	1.0962E-06
SF58	Toluene	45202	2.7863E-06
SF58	Vanadium (fume or dust)	12164	7.0918E-09
SF59	1,3-Butadiene	43218	2.347E-07
SF59	Acetaldehyde	43503	6.3466E-06
SF59	Acrolein	43505	1.6753E-08
SF59	Arsenic	12103	3.1253E-10
SF59	Benzene	45201	2.6336E-06
SF59	Chlorine	12115	1.3918E-06
SF59	Copper	12114	4.215E-07
SF59	Formaldehyde	43502	1.2837E-05
SF59	Methanol	43301	4.8415E-08
SF59	Methyl ethyl ketone {2-Butanone}	43552	1.2736E-06
SF59	m-Xylene	45205	2.5831E-06
SF59	Nickel	12136	2.9537E-08
SF59	o-Xylene	45204	1.3998E-06
SF59	p-Xylene	45206	9.068E-07
SF59	Styrene	45220	6.8264E-08
SF59	SULFATES	12403	3.8808E-06
SF59	Toluene	45202	5.0341E-06
SF59	Vanadium (fume or dust)	12164	2.0627E-08
SF60	1,3-Butadiene	43218	4.7562E-07
SF60	Acetaldehyde	43503	1.3589E-05
SF60	Acrolein	43505	2.9493E-08
SF60	Arsenic	12103	6.1993E-10
SF60	Benzene	45201	5.2268E-06
SF60	Chlorine	12115	2.6954E-06
SF60	Copper	12114	8.3222E-07
SF60	Formaldehyde	43502	2.7434E-05
SF60	Methanol	43301	9.4424E-08
SF60	Methyl ethyl ketone {2-Butanone}	43552	2.7286E-06
SF60	m-Xylene	45205	4.5683E-06
SF60	Nickel	12136	5.8166E-08
SF60	o-Xylene	45204	2.4693E-06
SF60	p-Xylene	45206	1.5365E-06
SF60	Styrene	45220	1.3989E-07
SF60	SULFATES	12403	7.6488E-06
SF60	Toluene	45202	9.0051E-06
SF60	Vanadium (fume or dust)	12164	4.0915E-08

SrcGrP	TAC	SAROAD	EM (g/sec)
SF61	1,3-Butadiene	43218	3.3415E-07
SF61	Acetaldehyde	43503	4.6495E-06
SF61	Acrolein	43505	5.0746E-08
SF61	Arsenic	12103	5.9235E-10
SF61	Benzene	45201	4.1368E-06
SF61	Chlorine	12115	2.6665E-06
SF61	Copper	12114	8.0906E-07
SF61	Formaldehyde	43502	9.7158E-06
SF61	Methanol	43301	8.8417E-08
SF61	Methyl ethyl ketone {2-Butanone}	43552	9.2316E-07
SF61	m-Xylene	45205	6.9522E-06
SF61	Nickel	12136	5.6055E-08
SF61	o-Xylene	45204	3.7668E-06
SF61	p-Xylene	45206	2.7229E-06
SF61	Styrene	45220	8.7797E-08
SF61	SULFATES	12403	6.4447E-06
SF61	Toluene	45202	1.2974E-05
SF61	Vanadium (fume or dust)	12164	3.9095E-08
SF62	1,3-Butadiene	43218	0
SF62	Acetaldehyde	43503	0
SF62	Acrolein	43505	0
SF62	Arsenic	12103	0
SF62	Benzene	45201	0
SF62	Chlorine	12115	0
SF62	Copper	12114	0
SF62	Formaldehyde	43502	0
SF62	Methanol	43301	0
SF62	Methyl ethyl ketone {2-Butanone}	43552	0
SF62	m-Xylene	45205	0
SF62	Nickel	12136	0
SF62	o-Xylene	45204	0
SF62	p-Xylene	45206	0
SF62	Styrene	45220	0
SF62	SULFATES	12403	0
SF62	Toluene	45202	0
SF62	Vanadium (fume or dust)	12164	0
SF65	1,3-Butadiene	43218	6.6714E-07
SF65	Acetaldehyde	43503	9.1032E-06
SF65	Acrolein	43505	1.0242E-07
SF65	Arsenic	12103	1.1827E-09
SF65	Benzene	45201	8.3469E-06
SF65	Chlorine	12115	5.4096E-06
SF65	Copper	12114	1.6191E-06
SF65	Formaldehyde	43502	1.9047E-05
SF65	Methanol	43301	1.7804E-07
SF65	Methyl ethyl ketone {2-Butanone}	43552	1.8066E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF65	m-Xylene	45205	1.4208E-05
SF65	Nickel	12136	1.1249E-07
SF65	o-Xylene	45204	7.708E-06
SF65	p-Xylene	45206	5.5948E-06
SF65	Styrene	45220	1.749E-07
SF65	SULFATES	12403	1.3079E-05
SF65	Toluene	45202	2.6506E-05
SF65	Vanadium (fume or dust)	12164	7.8059E-08
SF66	1,3-Butadiene	43218	5.6826E-07
SF66	Acetaldehyde	43503	8.0968E-06
SF66	Acrolein	43505	8.5134E-08
SF66	Arsenic	12103	9.8728E-10
SF66	Benzene	45201	7.0879E-06
SF66	Chlorine	12115	4.5332E-06
SF66	Copper	12114	1.3516E-06
SF66	Formaldehyde	43502	1.6893E-05
SF66	Methanol	43301	1.5021E-07
SF66	Methyl ethyl ketone {2-Butanone}	43552	1.6085E-06
SF66	m-Xylene	45205	1.1868E-05
SF66	Nickel	12136	9.403E-08
SF66	o-Xylene	45204	6.4404E-06
SF66	p-Xylene	45206	4.6654E-06
SF66	Styrene	45220	1.4971E-07
SF66	SULFATES	12403	1.1036E-05
SF66	Toluene	45202	2.2167E-05
SF66	Vanadium (fume or dust)	12164	6.516E-08
SF67	1,3-Butadiene	43218	2.6336E-07
SF67	Acetaldehyde	43503	1.8726E-07
SF67	Acrolein	43505	6.1313E-08
SF67	Arsenic	12103	5.8082E-10
SF67	Benzene	45201	3.613E-06
SF67	Chlorine	12115	2.6845E-06
SF67	Copper	12114	8.0149E-07
SF67	Formaldehyde	43502	8.7068E-07
SF67	Methanol	43301	8.5588E-08
SF67	Methyl ethyl ketone {2-Butanone}	43552	2.1918E-08
SF67	m-Xylene	45205	8.1979E-06
SF67	Nickel	12136	5.5362E-08
SF67	o-Xylene	45204	4.4479E-06
SF67	p-Xylene	45206	3.3445E-06
SF67	Styrene	45220	6.175E-08
SF67	SULFATES	12403	5.9254E-06
SF67	Toluene	45202	1.5061E-05
SF67	Vanadium (fume or dust)	12164	3.8334E-08
SF68	1,3-Butadiene	43218	4.5261E-07
SF68	Acetaldehyde	43503	5.8324E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF68	Acrolein	43505	1.0377E-07
SF68	Arsenic	12103	9.8493E-10
SF68	Benzene	45201	6.2133E-06
SF68	Chlorine	12115	4.5866E-06
SF68	Copper	12114	1.3602E-06
SF68	Formaldehyde	43502	2.0066E-06
SF68	Methanol	43301	1.462E-07
SF68	Methyl ethyl ketone {2-Butanone}	43552	9.0719E-08
SF68	m-Xylene	45205	1.3967E-05
SF68	Nickel	12136	9.4115E-08
SF68	o-Xylene	45204	7.5817E-06
SF68	p-Xylene	45206	5.7002E-06
SF68	Styrene	45220	1.0668E-07
SF68	SULFATES	12403	1.0179E-05
SF68	Toluene	45202	2.5675E-05
SF68	Vanadium (fume or dust)	12164	6.5005E-08
SF69	1,3-Butadiene	43218	1.0256E-06
SF69	Acetaldehyde	43503	3.9296E-06
SF69	Acrolein	43505	2.1915E-07
SF69	Arsenic	12103	2.0824E-09
SF69	Benzene	45201	1.4103E-05
SF69	Chlorine	12115	1.0048E-05
SF69	Copper	12114	2.8867E-06
SF69	Formaldehyde	43502	9.637E-06
SF69	Methanol	43301	3.2224E-07
SF69	Methyl ethyl ketone {2-Butanone}	43552	7.3483E-07
SF69	m-Xylene	45205	3.0385E-05
SF69	Nickel	12136	2.0138E-07
SF69	o-Xylene	45204	1.6532E-05
SF69	p-Xylene	45206	1.2418E-05
SF69	Styrene	45220	2.4733E-07
SF69	SULFATES	12403	2.2864E-05
SF69	Toluene	45202	5.6024E-05
SF69	Vanadium (fume or dust)	12164	1.3744E-07
SF70	1,3-Butadiene	43218	5.7041E-07
SF70	Acetaldehyde	43503	3.672E-06
SF70	Acrolein	43505	1.1277E-07
SF70	Arsenic	12103	1.0737E-09
SF70	Benzene	45201	7.858E-06
SF70	Chlorine	12115	5.3947E-06
SF70	Copper	12114	1.495E-06
SF70	Formaldehyde	43502	8.2611E-06
SF70	Methanol	43301	1.7407E-07
SF70	Methyl ethyl ketone {2-Butanone}	43552	7.1036E-07
SF70	m-Xylene	45205	1.6181E-05
SF70	Nickel	12136	1.053E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF70	o-Xylene	45204	8.8263E-06
SF70	p-Xylene	45206	6.6238E-06
SF70	Styrene	45220	1.4074E-07
SF70	SULFATES	12403	1.2608E-05
SF70	Toluene	45202	2.9933E-05
SF70	Vanadium (fume or dust)	12164	7.0867E-08
SF71	1,3-Butadiene	43218	2.9838E-07
SF71	Acetaldehyde	43503	2.1216E-07
SF71	Acrolein	43505	6.9466E-08
SF71	Arsenic	12103	6.5805E-10
SF71	Benzene	45201	4.0934E-06
SF71	Chlorine	12115	3.0414E-06
SF71	Copper	12114	9.0807E-07
SF71	Formaldehyde	43502	9.8645E-07
SF71	Methanol	43301	9.6968E-08
SF71	Methyl ethyl ketone {2-Butanone}	43552	2.4832E-08
SF71	m-Xylene	45205	9.288E-06
SF71	Nickel	12136	6.2723E-08
SF71	o-Xylene	45204	5.0393E-06
SF71	p-Xylene	45206	3.7893E-06
SF71	Styrene	45220	6.9961E-08
SF71	SULFATES	12403	6.7133E-06
SF71	Toluene	45202	1.7063E-05
SF71	Vanadium (fume or dust)	12164	4.3431E-08
SF72	1,3-Butadiene	43218	1.5759E-07
SF72	Acetaldehyde	43503	1.1209E-07
SF72	Acrolein	43505	3.6689E-08
SF72	Arsenic	12103	3.4735E-10
SF72	Benzene	45201	2.1618E-06
SF72	Chlorine	12115	1.6054E-06
SF72	Copper	12114	4.7932E-07
SF72	Formaldehyde	43502	5.2106E-07
SF72	Methanol	43301	5.1213E-08
SF72	Methyl ethyl ketone {2-Butanone}	43552	1.3122E-08
SF72	m-Xylene	45205	4.905E-06
SF72	Nickel	12136	3.3108E-08
SF72	o-Xylene	45204	2.6613E-06
SF72	p-Xylene	45206	2.0011E-06
SF72	Styrene	45220	3.6951E-08
SF72	SULFATES	12403	3.5437E-06
SF72	Toluene	45202	9.0112E-06
SF72	Vanadium (fume or dust)	12164	2.2925E-08
SF73	1,3-Butadiene	43218	1.5786E-06
SF73	Acetaldehyde	43503	1.196E-05
SF73	Acrolein	43505	3.0107E-07
SF73	Arsenic	12103	2.9023E-09

SrcGrP	TAC	SAROAD	EM (g/sec)
SF73	Benzene	45201	2.1794E-05
SF73	Chlorine	12115	1.4844E-05
SF73	Copper	12114	4.0492E-06
SF73	Formaldehyde	43502	2.6372E-05
SF73	Methanol	43301	4.7582E-07
SF73	Methyl ethyl ketone {2-Butanone}	43552	2.3308E-06
SF73	m-Xylene	45205	4.3992E-05
SF73	Nickel	12136	2.864E-07
SF73	o-Xylene	45204	2.4029E-05
SF73	p-Xylene	45206	1.8031E-05
SF73	Styrene	45220	3.9334E-07
SF73	SULFATES	12403	3.5073E-05
SF73	Toluene	45202	8.151E-05
SF73	Vanadium (fume or dust)	12164	1.9155E-07
SF74	1,3-Butadiene	43218	3.2789E-07
SF74	Acetaldehyde	43503	2.3315E-07
SF74	Acrolein	43505	7.6338E-08
SF74	Arsenic	12103	7.2314E-10
SF74	Benzene	45201	4.4983E-06
SF74	Chlorine	12115	3.3423E-06
SF74	Copper	12114	9.979E-07
SF74	Formaldehyde	43502	1.084E-06
SF74	Methanol	43301	1.0656E-07
SF74	Methyl ethyl ketone {2-Butanone}	43552	2.7289E-08
SF74	m-Xylene	45205	1.0207E-05
SF74	Nickel	12136	6.8928E-08
SF74	o-Xylene	45204	5.5378E-06
SF74	p-Xylene	45206	4.1641E-06
SF74	Styrene	45220	7.6881E-08
SF74	SULFATES	12403	7.3774E-06
SF74	Toluene	45202	1.8751E-05
SF74	Vanadium (fume or dust)	12164	4.7727E-08
SF75	1,3-Butadiene	43218	2.8054E-07
SF75	Acetaldehyde	43503	4.0051E-07
SF75	Acrolein	43505	6.4082E-08
SF75	Arsenic	12103	6.0824E-10
SF75	Benzene	45201	3.8516E-06
SF75	Chlorine	12115	2.8377E-06
SF75	Copper	12114	8.4016E-07
SF75	Formaldehyde	43502	1.3199E-06
SF75	Methanol	43301	9.0485E-08
SF75	Methyl ethyl ketone {2-Butanone}	43552	6.4146E-08
SF75	m-Xylene	45205	8.6381E-06
SF75	Nickel	12136	5.8157E-08
SF75	o-Xylene	45204	4.6897E-06
SF75	p-Xylene	45206	3.5257E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF75	Styrene	45220	6.621E-08
SF75	SULFATES	12403	6.3063E-06
SF75	Toluene	45202	1.5882E-05
SF75	Vanadium (fume or dust)	12164	4.0144E-08
SF76	1,3-Butadiene	43218	5.5464E-07
SF76	Acetaldehyde	43503	1.3904E-06
SF76	Acrolein	43505	1.2302E-07
SF76	Arsenic	12103	1.1794E-09
SF76	Benzene	45201	7.6303E-06
SF76	Chlorine	12115	5.5812E-06
SF76	Copper	12114	1.6315E-06
SF76	Formaldehyde	43502	3.7777E-06
SF76	Methanol	43301	1.7692E-07
SF76	Methyl ethyl ketone {2-Butanone}	43552	2.483E-07
SF76	m-Xylene	45205	1.6815E-05
SF76	Nickel	12136	1.133E-07
SF76	o-Xylene	45204	9.1392E-06
SF76	p-Xylene	45206	6.8703E-06
SF76	Styrene	45220	1.3218E-07
SF76	SULFATES	12403	1.2527E-05
SF76	Toluene	45202	3.0957E-05
SF76	Vanadium (fume or dust)	12164	7.7837E-08
SF77	1,3-Butadiene	43218	7.8078E-08
SF77	Acetaldehyde	43503	5.5737E-08
SF77	Acrolein	43505	1.8176E-08
SF77	Arsenic	12103	1.7071E-10
SF77	Benzene	45201	1.0698E-06
SF77	Chlorine	12115	7.892E-07
SF77	Copper	12114	2.3557E-07
SF77	Formaldehyde	43502	2.5856E-07
SF77	Methanol	43301	2.536E-08
SF77	Methyl ethyl ketone {2-Butanone}	43552	6.5426E-09
SF77	m-Xylene	45205	2.4267E-06
SF77	Nickel	12136	1.6273E-08
SF77	o-Xylene	45204	1.3165E-06
SF77	p-Xylene	45206	9.8965E-07
SF77	Styrene	45220	1.8308E-08
SF77	SULFATES	12403	1.7428E-06
SF77	Toluene	45202	4.458E-06
SF77	Vanadium (fume or dust)	12164	1.1267E-08
SF80	1,3-Butadiene	43218	2.7483E-08
SF80	Acetaldehyde	43503	1.9698E-08
SF80	Acrolein	43505	6.3976E-09
SF80	Arsenic	12103	5.9559E-11
SF80	Benzene	45201	3.7609E-07
SF80	Chlorine	12115	2.7541E-07

SrcGrP	TAC	SAROAD	EM (g/sec)
SF80	Copper	12114	8.2188E-08
SF80	Formaldehyde	43502	9.1166E-08
SF80	Methanol	43301	8.9217E-09
SF80	Methyl ethyl ketone {2-Butanone}	43552	2.3189E-09
SF80	m-Xylene	45205	8.5288E-07
SF80	Nickel	12136	5.6779E-09
SF80	o-Xylene	45204	4.6261E-07
SF80	p-Xylene	45206	3.4767E-07
SF80	Styrene	45220	6.4444E-09
SF80	SULFATES	12403	6.0847E-07
SF80	Toluene	45202	1.5667E-06
SF80	Vanadium (fume or dust)	12164	3.9309E-09
SF81	1,3-Butadiene	43218	3.9543E-08
SF81	Acetaldehyde	43503	2.8117E-08
SF81	Acrolein	43505	9.2062E-09
SF81	Arsenic	12103	8.7209E-11
SF81	Benzene	45201	5.4249E-07
SF81	Chlorine	12115	4.0307E-07
SF81	Copper	12114	1.2034E-07
SF81	Formaldehyde	43502	1.3073E-07
SF81	Methanol	43301	1.2851E-08
SF81	Methyl ethyl ketone {2-Butanone}	43552	3.291E-09
SF81	m-Xylene	45205	1.2309E-06
SF81	Nickel	12136	8.3125E-09
SF81	o-Xylene	45204	6.6785E-07
SF81	p-Xylene	45206	5.0218E-07
SF81	Styrene	45220	9.2717E-09
SF81	SULFATES	12403	8.897E-07
SF81	Toluene	45202	2.2614E-06
SF81	Vanadium (fume or dust)	12164	5.7558E-09
SF82	1,3-Butadiene	43218	1.6547E-07
SF82	Acetaldehyde	43503	5.666E-06
SF82	Acrolein	43505	4.5061E-09
SF82	Arsenic	12103	1.8503E-10
SF82	Benzene	45201	1.7334E-06
SF82	Chlorine	12115	7.9202E-07
SF82	Copper	12114	2.4593E-07
SF82	Formaldehyde	43502	1.1376E-05
SF82	Methanol	43301	2.8659E-08
SF82	Methyl ethyl ketone {2-Butanone}	43552	1.1397E-06
SF82	m-Xylene	45205	8.8297E-07
SF82	Nickel	12136	1.7303E-08
SF82	o-Xylene	45204	4.7616E-07
SF82	p-Xylene	45206	2.2524E-07
SF82	Styrene	45220	5.0679E-08
SF82	SULFATES	12403	2.464E-06

SrcGrP	TAC	SAROAD	EM (g/sec)
SF82	Toluene	45202	1.8797E-06
SF82	Vanadium (fume or dust)	12164	1.2212E-08
SF83	1,3-Butadiene	43218	3.0759E-08
SF83	Acetaldehyde	43503	1.0553E-06
SF83	Acrolein	43505	8.2505E-10
SF83	Arsenic	12103	3.4868E-11
SF83	Benzene	45201	3.1393E-07
SF83	Chlorine	12115	1.399E-07
SF83	Copper	12114	4.5978E-08
SF83	Formaldehyde	43502	2.1188E-06
SF83	Methanol	43301	5.2372E-09
SF83	Methyl ethyl ketone {2-Butanone}	43552	2.1229E-07
SF83	m-Xylene	45205	1.4074E-07
SF83	Nickel	12136	3.1978E-09
SF83	o-Xylene	45204	7.4683E-08
SF83	p-Xylene	45206	2.9904E-08
SF83	Styrene	45220	9.4253E-09
SF83	SULFATES	12403	4.3695E-07
SF83	Toluene	45202	3.0526E-07
SF83	Vanadium (fume or dust)	12164	2.3013E-09
SF85	1,3-Butadiene	43218	3.1616E-08
SF85	Acetaldehyde	43503	2.2481E-08
SF85	Acrolein	43505	7.3606E-09
SF85	Arsenic	12103	6.9727E-11
SF85	Benzene	45201	4.3374E-07
SF85	Chlorine	12115	3.2227E-07
SF85	Copper	12114	9.6219E-08
SF85	Formaldehyde	43502	1.0452E-07
SF85	Methanol	43301	1.0275E-08
SF85	Methyl ethyl ketone {2-Butanone}	43552	2.6312E-09
SF85	m-Xylene	45205	9.8415E-07
SF85	Nickel	12136	6.6461E-09
SF85	o-Xylene	45204	5.3397E-07
SF85	p-Xylene	45206	4.0151E-07
SF85	Styrene	45220	7.413E-09
SF85	SULFATES	12403	7.1134E-07
SF85	Toluene	45202	1.808E-06
SF85	Vanadium (fume or dust)	12164	4.602E-09
SF86	1,3-Butadiene	43218	1.8325E-07
SF86	Acetaldehyde	43503	5.9553E-06
SF86	Acrolein	43505	6.9488E-09
SF86	Arsenic	12103	2.1618E-10
SF86	Benzene	45201	1.923E-06
SF86	Chlorine	12115	9.0153E-07
SF86	Copper	12114	2.8717E-07
SF86	Formaldehyde	43502	1.1975E-05

SrcGrP	TAC	SAROAD	EM (g/sec)
SF86	Methanol	43301	3.2908E-08
SF86	Methyl ethyl ketone {2-Butanone}	43552	1.1974E-06
SF86	m-Xylene	45205	1.1493E-06
SF86	Nickel	12136	2.0046E-08
SF86	o-Xylene	45204	6.1661E-07
SF86	p-Xylene	45206	3.1906E-07
SF86	Styrene	45220	5.544E-08
SF86	SULFATES	12403	2.7248E-06
SF86	Toluene	45202	2.3774E-06
SF86	Vanadium (fume or dust)	12164	1.4268E-08
SF87	1,3-Butadiene	43218	1.7085E-07
SF87	Acetaldehyde	43503	1.2148E-07
SF87	Acrolein	43505	3.9777E-08
SF87	Arsenic	12103	3.768E-10
SF87	Benzene	45201	2.3439E-06
SF87	Chlorine	12115	1.7415E-06
SF87	Copper	12114	5.1997E-07
SF87	Formaldehyde	43502	5.6485E-07
SF87	Methanol	43301	5.5525E-08
SF87	Methyl ethyl ketone {2-Butanone}	43552	1.4219E-08
SF87	m-Xylene	45205	5.3184E-06
SF87	Nickel	12136	3.5916E-08
SF87	o-Xylene	45204	2.8855E-06
SF87	p-Xylene	45206	2.1698E-06
SF87	Styrene	45220	4.006E-08
SF87	SULFATES	12403	3.8441E-06
SF87	Toluene	45202	9.7706E-06
SF87	Vanadium (fume or dust)	12164	2.4869E-08
SF88	1,3-Butadiene	43218	1.707E-07
SF88	Acetaldehyde	43503	1.2138E-07
SF88	Acrolein	43505	3.9741E-08
SF88	Arsenic	12103	3.7647E-10
SF88	Benzene	45201	2.3418E-06
SF88	Chlorine	12115	1.74E-06
SF88	Copper	12114	5.195E-07
SF88	Formaldehyde	43502	5.6434E-07
SF88	Methanol	43301	5.5475E-08
SF88	Methyl ethyl ketone {2-Butanone}	43552	1.4207E-08
SF88	m-Xylene	45205	5.3136E-06
SF88	Nickel	12136	3.5884E-08
SF88	o-Xylene	45204	2.883E-06
SF88	p-Xylene	45206	2.1678E-06
SF88	Styrene	45220	4.0024E-08
SF88	SULFATES	12403	3.8407E-06
SF88	Toluene	45202	9.7619E-06
SF88	Vanadium (fume or dust)	12164	2.4847E-08

Acute Hazard Index - Based on 2040 Unmitigated Full Operational Emissions

ID	UTM_X	UTM_Y	AHI
13	487216.79	3754364.72	0.018041276
11	487189.19	3754820.49	0.017147287
859	487026.2	3754364.03	0.016789004
12	487233.13	3754689.54	0.014512838
14	487388.77	3754380.1	0.013195969
175	486553.03	3754938.31	0.011982981
176	487553.03	3754938.31	0.011527914
193	487553.03	3755938.31	0.010601035
684	485451.71	3755034.43	0.010505601
174	485553.03	3754938.31	0.009935657
192	486553.03	3755938.31	0.009788387
191	485553.03	3755938.31	0.009475645
674	485451.71	3754934.43	0.009287723
683	485351.71	3755034.43	0.009264983
837	486121.9	3752234.24	0.009057795
682	485251.71	3755034.43	0.008751108
673	485351.71	3754934.43	0.008691836
833	486021.9	3752134.24	0.008457381
664	485451.71	3754834.43	0.008411931
681	485151.71	3755034.43	0.008403605
836	486021.9	3752234.24	0.008388819
141	486553.03	3752938.31	0.008374021
190	484553.03	3755938.31	0.008345976
672	485251.71	3754934.43	0.008283433
177	488553.03	3754938.31	0.008230836
834	486121.9	3752134.24	0.008229699
680	485051.71	3755034.43	0.008143145
207	485553.03	3756938.31	0.008120512
663	485351.71	3754834.43	0.008109609
160	488553.03	3753938.31	0.008079582
158	486553.03	3753938.31	0.008041347
159	487553.03	3753938.31	0.008032884
671	485151.71	3754934.43	0.007949809
654	485451.71	3754734.43	0.007943102
679	484951.71	3755034.43	0.007935288
831	486121.9	3752034.24	0.007922054
830	486021.9	3752034.24	0.007914908
189	483553.03	3755938.31	0.007896349
840	486121.9	3752334.24	0.007872493
662	485251.71	3754834.43	0.007792909
678	484851.71	3755034.43	0.007739499
10	485736.41	3754259.47	0.00768061
670	485051.71	3754934.43	0.007671595
653	485351.71	3754734.43	0.007639825
194	488553.03	3755938.31	0.007623277

ID	UTM_X	UTM_Y	AHI
47	486794.14	3756878.03	0.007621422
9	485642.82	3754267.27	0.007599006
644	485451.71	3754634.43	0.007568452
829	485921.9	3752034.24	0.007567152
661	485151.71	3754834.43	0.007556275
827	486021.9	3751934.24	0.00755139
677	484751.71	3755034.43	0.0075439
835	485921.9	3752234.24	0.007524953
832	485921.9	3752134.24	0.007524372
208	486553.03	3756938.31	0.007518434
669	484951.71	3754934.43	0.007491
676	484651.71	3755034.43	0.007409438
652	485251.71	3754734.43	0.007404574
828	486121.9	3751934.24	0.007350561
660	485051.71	3754834.43	0.007338845
826	485921.9	3751934.24	0.007334966
668	484851.71	3754934.43	0.007305926
675	484551.71	3755034.43	0.007293041
643	485351.71	3754634.43	0.007285691
634	485451.71	3754534.43	0.007263941
651	485151.71	3754734.43	0.007211463
823	485921.9	3751834.24	0.00720654
667	484751.71	3754934.43	0.007185961
659	484951.71	3754834.43	0.007173901
724	485849.47	3751834.9	0.007126045
824	486021.9	3751834.24	0.007109866
642	485251.71	3754634.43	0.007090176
666	484651.71	3754934.43	0.007071554
650	485051.71	3754734.43	0.007068957
658	484851.71	3754834.43	0.007029934
624	485451.71	3754434.43	0.007023257
187	481553.03	3755938.31	0.007019236
125	487553.03	3751938.31	0.007017891
633	485351.71	3754534.43	0.007005827
173	484553.03	3754938.31	0.006974666
665	484551.71	3754934.43	0.006961921
641	485151.71	3754634.43	0.006945601
649	484951.71	3754734.43	0.006937255
728	485849.47	3751934.9	0.00692052
657	484751.71	3754834.43	0.006909439
732	485849.47	3752034.9	0.006886129
206	484553.03	3756938.31	0.006860263
632	485251.71	3754534.43	0.006832064
640	485051.71	3754634.43	0.006813256
648	484851.71	3754734.43	0.00681113
656	484651.71	3754834.43	0.006796507

ID	UTM_X	UTM_Y	AHI
614	485451.71	3754334.43	0.006775357
623	485351.71	3754434.43	0.006772392
8	489005.95	3754140.34	0.006767332
736	485849.47	3752134.9	0.006755596
720	485849.47	3751734.9	0.006738755
205	483553.03	3756938.31	0.006731338
719	485749.47	3751734.9	0.006729144
821	486021.9	3751734.24	0.006726657
740	485849.47	3752234.9	0.0067133
839	486021.9	3752334.24	0.00669752
639	484951.71	3754634.43	0.006693006
655	484551.71	3754834.43	0.006690354
631	485151.71	3754534.43	0.00668479
714	485649.47	3751634.9	0.006671204
647	484751.71	3754734.43	0.006670914
172	483553.03	3754938.31	0.006663315
715	485749.47	3751634.9	0.006660492
188	482553.03	3755938.31	0.006608142
124	486553.03	3751938.31	0.006602599
723	485749.47	3751834.9	0.006595462
638	484851.71	3754634.43	0.006587656
622	485251.71	3754434.43	0.006574551
604	485451.71	3754234.43	0.00655504
630	485051.71	3754534.43	0.006554341
142	487553.03	3752938.31	0.006550888
646	484651.71	3754734.43	0.006543728
613	485351.71	3754334.43	0.006532002
727	485749.47	3751934.9	0.006521065
178	489553.03	3754938.31	0.006511779
637	484751.71	3754634.43	0.006495594
645	484551.71	3754734.43	0.00645524
825	486121.9	3751834.24	0.006454327
629	484951.71	3754534.43	0.006440538
621	485151.71	3754434.43	0.006419519
157	485553.03	3753938.31	0.006415484
731	485749.47	3752034.9	0.006390408
739	485749.47	3752234.9	0.006380382
820	485921.9	3751734.24	0.00636673
713	485549.47	3751634.9	0.00636115
858	486121.9	3752934.24	0.006354987
636	484651.71	3754634.43	0.006349929
594	485451.71	3754134.43	0.006345897
35	481148.72	3756136.18	0.006343365
612	485251.71	3754334.43	0.006336196
628	484851.71	3754534.43	0.006327246
334	485451.71	3751534.43	0.006323037

ID	UTM_X	UTM_Y	AHI
718	485649.47	3751734.9	0.006312217
209	487553.03	3756938.31	0.00631001
722	485649.47	3751834.9	0.006305872
822	486121.9	3751734.24	0.006303363
635	484551.71	3754634.43	0.006298595
620	485051.71	3754434.43	0.006291126
333	485351.71	3751534.43	0.006280893
726	485649.47	3751934.9	0.006278011
603	485351.71	3754234.43	0.006277008
843	486121.9	3752434.24	0.006276141
3	489668.94	3754093.71	0.006217883
627	484751.71	3754534.43	0.00621422
709	485549.47	3751534.9	0.00619881
584	485451.71	3754034.43	0.006185023
619	484951.71	3754434.43	0.006182256
611	485151.71	3754334.43	0.006180696
626	484651.71	3754534.43	0.006169729
143	488553.03	3752938.31	0.006168926
818	486021.9	3751634.24	0.006161928
710	485649.47	3751534.9	0.006147096
737	485549.47	3752234.9	0.006128851
4	489690.06	3754161.63	0.006126775
322	485251.71	3751434.43	0.006105992
625	484551.71	3754534.43	0.006091929
593	485351.71	3754134.43	0.006090237
602	485251.71	3754234.43	0.006088238
735	485749.47	3752134.9	0.006077886
574	485451.71	3753934.43	0.006075522
610	485051.71	3754334.43	0.006073812
618	484851.71	3754434.43	0.006066102
725	485549.47	3751934.9	0.006057079
123	485553.03	3751938.31	0.00605332
344	485451.71	3751634.43	0.006052944
730	485649.47	3752034.9	0.006042498
186	480553.03	3755938.31	0.006025434
721	485549.47	3751834.9	0.005987625
25	480276	3756365	0.005982939
838	485921.9	3752334.24	0.005977986
717	485549.47	3751734.9	0.005976945
617	484751.71	3754434.43	0.005975503
609	484951.71	3754334.43	0.005973452
601	485151.71	3754234.43	0.00596408
564	485451.71	3753834.43	0.005960595
716	485849.47	3751634.9	0.005944653
583	485351.71	3754034.43	0.005943625
857	486021.9	3752934.24	0.005923677

ID	UTM_X	UTM_Y	AHI
312	485251.71	3751334.43	0.005910259
592	485251.71	3754134.43	0.005897483
819	486121.9	3751634.24	0.005884604
616	484651.71	3754434.43	0.005877938
738	485649.47	3752234.9	0.00586701
729	485549.47	3752034.9	0.005864572
600	485051.71	3754234.43	0.005861859
608	484851.71	3754334.43	0.005861603
842	486021.9	3752434.24	0.005847567
323	485351.71	3751434.43	0.005844381
573	485351.71	3753934.43	0.005838872
179	490553.03	3754938.31	0.005837404
615	484551.71	3754434.43	0.005826748
554	485451.71	3753734.43	0.005826203
788	485849.47	3753434.9	0.005825496
711	485749.47	3751534.9	0.005803747
855	486121.9	3752834.24	0.00580185
817	485921.9	3751634.24	0.005782567
301	485151.71	3751234.43	0.005778033
582	485251.71	3754034.43	0.005773345
599	484951.71	3754234.43	0.005771576
591	485151.71	3754134.43	0.005769087
607	484751.71	3754334.43	0.005728844
784	485849.47	3753334.9	0.005721434
563	485351.71	3753834.43	0.005720723
712	485849.47	3751534.9	0.005711704
311	485151.71	3751334.43	0.005709167
544	485451.71	3753634.43	0.005704481
291	485151.71	3751134.43	0.005695874
734	485649.47	3752134.9	0.005680382
598	484851.71	3754234.43	0.005678827
572	485251.71	3753934.43	0.005674419
590	485051.71	3754134.43	0.005667431
744	485849.47	3752334.9	0.005667334
846	486121.9	3752534.24	0.005663797
733	485549.47	3752134.9	0.005648446
581	485151.71	3754034.43	0.005634779
780	485849.47	3753234.9	0.005618104
23	479889	3756222	0.005615491
404	485451.71	3752234.43	0.005611841
332	485251.71	3751534.43	0.00560856
814	485921.9	3751534.24	0.005601189
553	485351.71	3753734.43	0.005593773
589	484951.71	3754134.43	0.00559171
2	489738.71	3754023.94	0.005584992
280	485051.71	3751034.43	0.005581775

ID	UTM_X	UTM_Y	AHI
854	486021.9	3752834.24	0.005578321
292	485251.71	3751134.43	0.005569869
815	486021.9	3751534.24	0.005569394
290	485051.71	3751134.43	0.005564719
321	485151.71	3751434.43	0.005558076
562	485251.71	3753834.43	0.005552928
787	485749.47	3753434.9	0.005550907
580	485051.71	3754034.43	0.005540244
222	484553.03	3757938.31	0.005537305
606	484651.71	3754334.43	0.005535674
588	484851.71	3754134.43	0.005534627
571	485151.71	3753934.43	0.00553298
534	485451.71	3753534.43	0.00552326
776	485849.47	3753134.9	0.005518271
202	480553.03	3756938.31	0.005510933
302	485251.71	3751234.43	0.005509251
597	484751.71	3754234.43	0.005506257
852	486121.9	3752734.24	0.005503182
374	485451.71	3751934.43	0.005495722
185	479553.03	3755938.31	0.00549342
278	484851.71	3751034.43	0.005491447
856	485921.9	3752934.24	0.005486494
364	485451.71	3751834.43	0.005484326
108	487553.03	3750938.31	0.00547693
171	482553.03	3754938.31	0.005476256
841	485921.9	3752434.24	0.005473127
281	485151.71	3751034.43	0.005464722
543	485351.71	3753634.43	0.005464523
579	484951.71	3754034.43	0.005458448
845	486021.9	3752534.24	0.005450702
575	484551.71	3754034.43	0.005450563
354	485451.71	3751734.43	0.005445149
270	485051.71	3750934.43	0.005436619
783	485749.47	3753334.9	0.005430243
300	485051.71	3751234.43	0.005429906
570	485051.71	3753934.43	0.005426831
708	485849.47	3751434.9	0.00542529
269	484951.71	3750934.43	0.0054252
195	489553.03	3755938.31	0.005421263
552	485251.71	3753734.43	0.005418593
849	486121.9	3752634.24	0.005418361
343	485351.71	3751634.43	0.005415025
324	485451.71	3751434.43	0.005405265
561	485151.71	3753834.43	0.005401592
585	484551.71	3754134.43	0.005395556
267	484751.71	3750934.43	0.005394577

ID	UTM_X	UTM_Y	AHI
587	484751.71	3754134.43	0.005394101
578	484851.71	3754034.43	0.005389101
268	484851.71	3750934.43	0.005386116
772	485849.47	3753034.9	0.005383811
786	485649.47	3753434.9	0.005382022
155	483553.03	3753938.31	0.005381575
605	484551.71	3754334.43	0.005372987
6	489797.34	3754554.12	0.005371605
596	484651.71	3754234.43	0.005356528
223	485553.03	3757938.31	0.005350723
816	486121.9	3751534.24	0.005348072
38	479598.7	3756506.31	0.005338417
313	485351.71	3751334.43	0.005335996
569	484951.71	3753934.43	0.005335321
851	486021.9	3752734.24	0.005331655
785	485549.47	3753434.9	0.005328544
201	479553.03	3756938.31	0.005326687
595	484551.71	3754234.43	0.005319841
779	485749.47	3753234.9	0.005313693
577	484751.71	3754034.43	0.005303705
162	490553.03	3753938.31	0.005303135
743	485749.47	3752334.9	0.005298832
533	485351.71	3753534.43	0.005294776
560	485051.71	3753834.43	0.005292008
811	485921.9	3751434.24	0.005290518
586	484651.71	3754134.43	0.005285994
279	484951.71	3751034.43	0.005285196
768	485849.47	3752934.9	0.00528447
542	485251.71	3753634.43	0.005282652
853	485921.9	3752834.24	0.005268625
551	485151.71	3753734.43	0.00526626
568	484851.71	3753934.43	0.005255574
706	485649.47	3751434.9	0.005252524
848	486021.9	3752634.24	0.005243588
1	489607.44	3753966.11	0.005238175
782	485649.47	3753334.9	0.005231088
576	484651.71	3754034.43	0.005213505
5	490282.16	3753425.19	0.005211806
705	485549.47	3751434.9	0.005211071
566	484651.71	3753934.43	0.005209778
775	485749.47	3753134.9	0.005208063
844	485921.9	3752534.24	0.005205135
559	484951.71	3753834.43	0.005203235
567	484751.71	3753934.43	0.005194292
163	491553.03	3753938.31	0.005193284
748	485849.47	3752434.9	0.005188631

ID	UTM_X	UTM_Y	AHI
156	484553.03	3753938.31	0.005187193
524	485451.71	3753434.43	0.005186764
565	484551.71	3753934.43	0.005166187
812	486021.9	3751434.24	0.005159856
707	485749.47	3751434.9	0.00515026
550	485051.71	3753734.43	0.0051491
288	484851.71	3751134.43	0.005135957
850	485921.9	3752734.24	0.005134676
204	482553.03	3756938.31	0.005130564
781	485549.47	3753334.9	0.005130079
293	485351.71	3751134.43	0.00512901
271	485151.71	3750934.43	0.005127514
541	485151.71	3753634.43	0.005127296
532	485251.71	3753534.43	0.005125048
764	485849.47	3752834.9	0.005116396
558	484851.71	3753834.43	0.005111924
310	485051.71	3751334.43	0.00510307
778	485649.47	3753234.9	0.005100995
203	481553.03	3756938.31	0.005090697
282	485251.71	3751034.43	0.005077471
557	484751.71	3753834.43	0.005075048
771	485749.47	3753034.9	0.0050657
847	485921.9	3752634.24	0.005062659
549	484951.71	3753734.43	0.005048545
813	486121.9	3751434.24	0.00504602
24	479234	3757080	0.005041667
303	485351.71	3751234.43	0.005040012
704	485849.47	3751334.9	0.00503902
742	485649.47	3752334.9	0.005036441
237	485553.03	3758938.31	0.005033842
556	484651.71	3753834.43	0.005030994
289	484951.71	3751134.43	0.005026965
523	485351.71	3753434.43	0.00501962
540	485051.71	3753634.43	0.005006944
767	485749.47	3752934.9	0.005003699
555	484551.71	3753834.43	0.004997377
363	485351.71	3751834.43	0.004992236
384	485451.71	3752034.43	0.004991656
774	485649.47	3753134.9	0.004986227
531	485151.71	3753534.43	0.004982797
752	485849.47	3752534.9	0.004976457
777	485549.47	3753234.9	0.004975215
514	485451.71	3753334.43	0.004971501
548	484851.71	3753734.43	0.004965073
760	485849.47	3752734.9	0.004963786
210	488553.03	3756938.31	0.004960156

ID	UTM_X	UTM_Y	AHI
808	485921.9	3751334.24	0.004946053
299	484951.71	3751234.43	0.004942996
763	485749.47	3752834.9	0.004933931
539	484951.71	3753634.43	0.004921207
547	484751.71	3753734.43	0.004920334
161	489553.03	3753938.31	0.004919311
224	486553.03	3757938.31	0.004911124
522	485251.71	3753434.43	0.004907922
353	485351.71	3751734.43	0.004894803
756	485849.47	3752634.9	0.004890473
747	485749.47	3752434.9	0.004888631
314	485451.71	3751334.43	0.004885129
277	484751.71	3751034.43	0.004882366
394	485451.71	3752134.43	0.004880505
530	485051.71	3753534.43	0.004878872
809	486021.9	3751334.24	0.004878139
773	485549.47	3753134.9	0.004867955
546	484651.71	3753734.43	0.004865326
770	485649.47	3753034.9	0.004864518
701	485549.47	3751334.9	0.004855614
107	486553.03	3750938.31	0.004851745
703	485749.47	3751334.9	0.004843096
702	485649.47	3751334.9	0.004838295
810	486121.9	3751334.24	0.004837184
144	489553.03	3752938.31	0.004837069
538	484851.71	3753634.43	0.004830584
504	485451.71	3753234.43	0.004830075
545	484551.71	3753734.43	0.00481976
513	485351.71	3753334.43	0.004818316
7	490252.94	3754378.21	0.004816099
529	484951.71	3753534.43	0.004807233
759	485749.47	3752734.9	0.004806348
700	485849.47	3751234.9	0.00480236
521	485151.71	3753434.43	0.004802169
249	485553.03	3759938.31	0.004801204
769	485549.47	3753034.9	0.004796515
766	485649.47	3752934.9	0.004793401
304	485451.71	3751234.43	0.004790492
220	482553.03	3757938.31	0.004787581
762	485649.47	3752834.9	0.004753145
283	485351.71	3751034.43	0.00474838
741	485549.47	3752334.9	0.004743345
537	484751.71	3753634.43	0.004732314
294	485451.71	3751134.43	0.004731932
528	484851.71	3753534.43	0.004731851
342	485251.71	3751634.43	0.004728351

ID	UTM_X	UTM_Y	AHI
512	485251.71	3753334.43	0.004719867
520	485051.71	3753434.43	0.004717693
805	485921.9	3751234.24	0.00471746
755	485749.47	3752634.9	0.004715589
221	483553.03	3757938.31	0.004715044
751	485749.47	3752534.9	0.004711657
494	485451.71	3753134.43	0.004711618
90	485553.03	3749938.31	0.004709363
807	486121.9	3751234.24	0.004709026
373	485351.71	3751934.43	0.004704941
697	485549.47	3751234.9	0.004703377
180	491553.03	3754938.31	0.004700062
503	485351.71	3753234.43	0.004696361
298	484851.71	3751234.43	0.004690932
806	486021.9	3751234.24	0.00468879
758	485649.47	3752734.9	0.004675557
140	485553.03	3752938.31	0.004674523
765	485549.47	3752934.9	0.004668986
699	485749.47	3751234.9	0.00466832
272	485251.71	3750934.43	0.004659502
746	485649.47	3752434.9	0.004654169
519	484951.71	3753434.43	0.00465376
536	484651.71	3753634.43	0.004651755
309	484951.71	3751334.43	0.004639633
484	485451.71	3753034.43	0.004638074
698	485649.47	3751234.9	0.004632868
511	485151.71	3753334.43	0.004631276
320	485051.71	3751434.43	0.004624122
804	486121.9	3751134.24	0.0046161
362	485251.71	3751834.43	0.004611256
527	484751.71	3753534.43	0.004602154
761	485549.47	3752834.9	0.004601465
403	485351.71	3752234.43	0.004600992
502	485251.71	3753234.43	0.004600188
518	484851.71	3753434.43	0.004597727
754	485649.47	3752634.9	0.004596371
803	486021.9	3751134.24	0.004592145
535	484551.71	3753634.43	0.0045913
414	485451.71	3752334.43	0.004587446
750	485649.47	3752534.9	0.004577651
170	481553.03	3754938.31	0.00457732
696	485849.47	3751134.9	0.004576574
510	485051.71	3753334.43	0.004566291
757	485549.47	3752734.9	0.004551186
802	485921.9	3751134.24	0.004549492
493	485351.71	3753134.43	0.004547034

ID	UTM_X	UTM_Y	AHI
164	492553.03	3753938.31	0.004544863
745	485549.47	3752434.9	0.004535064
695	485749.47	3751134.9	0.004534473
266	484651.71	3750934.43	0.004532427
526	484651.71	3753534.43	0.004531122
308	484851.71	3751334.43	0.004527819
693	485549.47	3751134.9	0.004524055
89	484553.03	3749938.31	0.00451978
284	485451.71	3751034.43	0.004517393
517	484751.71	3753434.43	0.004513217
474	485451.71	3752934.43	0.004511865
146	491553.03	3752938.31	0.004509952
801	486121.9	3751034.24	0.004509403
501	485151.71	3753234.43	0.004505362
694	485649.47	3751134.9	0.004505149
509	484951.71	3753334.43	0.004494719
483	485351.71	3753034.43	0.004492527
225	487553.03	3757938.31	0.004490912
753	485549.47	3752634.9	0.004486505
800	486021.9	3751034.24	0.004483695
525	484551.71	3753534.43	0.004480344
265	484551.71	3750934.43	0.004470843
749	485549.47	3752534.9	0.004470611
792	485508.49	3752711.29	0.004469932
27	480772	3755009	0.004469652
692	485849.47	3751034.9	0.004463657
492	485251.71	3753134.43	0.00445774
196	490553.03	3755938.31	0.004455085
799	485921.9	3751034.24	0.00444986
361	485151.71	3751834.43	0.004447896
508	484851.71	3753334.43	0.004445853
516	484651.71	3753434.43	0.004442287
464	485451.71	3752834.43	0.004437275
239	487553.03	3758938.31	0.004436577
500	485051.71	3753234.43	0.004435525
273	485351.71	3750934.43	0.004426031
798	486121.9	3750934.24	0.004424356
319	484951.71	3751434.43	0.004423599
105	484553.03	3750938.31	0.004422853
691	485749.47	3751034.9	0.004418477
482	485251.71	3753034.43	0.004416479
383	485351.71	3752034.43	0.004411537
689	485549.47	3751034.9	0.004405554
454	485451.71	3752734.43	0.004400267
424	485451.71	3752434.43	0.004399359
145	490553.03	3752938.31	0.00439841

ID	UTM_X	UTM_Y	AHI
690	485649.47	3751034.9	0.004397131
473	485351.71	3752934.43	0.004377807
797	486021.9	3750934.24	0.004370409
352	485251.71	3751734.43	0.004370169
331	485151.71	3751534.43	0.004369355
444	485451.71	3752634.43	0.004367244
491	485151.71	3753134.43	0.0043668
507	484751.71	3753334.43	0.004363995
499	484951.71	3753234.43	0.004362419
796	485921.9	3750934.24	0.004352684
515	484551.71	3753434.43	0.00434971
434	485451.71	3752534.43	0.004346968
794	485508.49	3758711.29	0.0043403
393	485351.71	3752134.43	0.004340255
688	485849.47	3750934.9	0.004334902
276	484651.71	3751034.43	0.004334243
274	485451.71	3750934.43	0.004327017
413	485351.71	3752334.43	0.004323305
687	485749.47	3750934.9	0.004313133
463	485351.71	3752834.43	0.004310126
481	485151.71	3753034.43	0.004306903
490	485051.71	3753134.43	0.004301712
506	484651.71	3753334.43	0.004299924
91	486553.03	3749938.31	0.004299383
106	485553.03	3750938.31	0.004297971
685	485549.47	3750934.9	0.004294674
686	485649.47	3750934.9	0.0042932
472	485251.71	3752934.43	0.00429217
498	484851.71	3753234.43	0.004288164
287	484751.71	3751134.43	0.00428218
453	485351.71	3752734.43	0.004248623
307	484751.71	3751334.43	0.004245533
402	485251.71	3752234.43	0.004244503
236	484553.03	3758938.31	0.004231286
423	485351.71	3752434.43	0.004226145
443	485351.71	3752634.43	0.004225497
318	484851.71	3751434.43	0.00422482
505	484551.71	3753334.43	0.004224513
489	484951.71	3753134.43	0.004223605
497	484751.71	3753234.43	0.004220099
480	485051.71	3753034.43	0.004217692
433	485351.71	3752534.43	0.004205593
462	485251.71	3752834.43	0.00420109
471	485151.71	3752934.43	0.004191422
401	485151.71	3752234.43	0.004170994
349	484951.71	3751734.43	0.00416955

ID	UTM_X	UTM_Y	AHI
297	484751.71	3751234.43	0.004169435
211	489553.03	3756938.31	0.004152773
496	484651.71	3753234.43	0.004150201
275	484551.71	3751034.43	0.004148492
250	486553.03	3759938.31	0.004144422
488	484851.71	3753134.43	0.00414045
412	485251.71	3752334.43	0.00413891
479	484951.71	3753034.43	0.004138665
452	485251.71	3752734.43	0.004134117
372	485251.71	3751934.43	0.00412202
470	485051.71	3752934.43	0.004108648
251	487553.03	3759938.31	0.004104309
169	480553.03	3754938.31	0.004102358
422	485251.71	3752434.43	0.004095527
461	485151.71	3752834.43	0.004095144
442	485251.71	3752634.43	0.004092532
495	484551.71	3753234.43	0.004080931
432	485251.71	3752534.43	0.004080528
487	484751.71	3753134.43	0.004078949
478	484851.71	3753034.43	0.004065687
350	485051.71	3751734.43	0.004050915
337	484751.71	3751634.43	0.004046079
399	484951.71	3752234.43	0.004045792
382	485251.71	3752034.43	0.004041842
392	485251.71	3752134.43	0.004041335
330	485051.71	3751534.43	0.004035185
248	484553.03	3759938.31	0.004033326
451	485151.71	3752734.43	0.004030552
348	484851.71	3751734.43	0.004029352
469	484951.71	3752934.43	0.00402162
329	484951.71	3751534.43	0.004020919
40	478978.31	3755233.1	0.004019205
351	485151.71	3751734.43	0.00401845
411	485151.71	3752334.43	0.004009932
317	484751.71	3751434.43	0.004006696
486	484651.71	3753134.43	0.00400519
460	485051.71	3752834.43	0.004002175
477	484751.71	3753034.43	0.004001102
400	485051.71	3752234.43	0.003992741
421	485151.71	3752434.43	0.003985597
441	485151.71	3752634.43	0.00398366
286	484651.71	3751134.43	0.00397965
285	484551.71	3751134.43	0.003978853
165	493553.03	3753938.31	0.003977121
431	485151.71	3752534.43	0.003972183
341	485151.71	3751634.43	0.003969803

ID	UTM_X	UTM_Y	AHI
29	481845	3754457	0.003969514
336	484651.71	3751634.43	0.003957298
485	484551.71	3753134.43	0.003951948
468	484851.71	3752934.43	0.003951546
793	491508.49	3752711.29	0.003949217
34	481494.96	3754633.66	0.003948697
360	485051.71	3751834.43	0.003941957
476	484651.71	3753034.43	0.003940245
328	484851.71	3751534.43	0.003939279
450	485051.71	3752734.43	0.003936645
459	484951.71	3752834.43	0.003925159
295	484551.71	3751234.43	0.003919415
226	488553.03	3757938.31	0.003918202
338	484851.71	3751634.43	0.003915047
410	485051.71	3752334.43	0.003905434
475	484551.71	3753034.43	0.003887008
217	479553.03	3757938.31	0.003886643
440	485051.71	3752634.43	0.00388145
467	484751.71	3752934.43	0.003878178
420	485051.71	3752434.43	0.003876317
296	484651.71	3751234.43	0.003869215
391	485151.71	3752134.43	0.003861639
430	485051.71	3752534.43	0.003857219
398	484851.71	3752234.43	0.003856756
458	484851.71	3752834.43	0.003850058
28	481560	3754548	0.00384953
449	484951.71	3752734.43	0.003846394
306	484651.71	3751334.43	0.003843181
466	484651.71	3752934.43	0.003834878
339	484951.71	3751634.43	0.003827148
371	485151.71	3751934.43	0.003821335
409	484951.71	3752334.43	0.003818298
258	484553.03	3760938.31	0.003811436
340	485051.71	3751634.43	0.00380882
397	484751.71	3752234.43	0.003806556
381	485151.71	3752034.43	0.003804521
439	484951.71	3752634.43	0.003794918
327	484751.71	3751534.43	0.003794697
139	484553.03	3752938.31	0.003791652
465	484551.71	3752934.43	0.003788356
316	484651.71	3751434.43	0.003785723
457	484751.71	3752834.43	0.003785395
238	486553.03	3758938.31	0.003781941
448	484851.71	3752734.43	0.003777123
419	484951.71	3752434.43	0.003774167
429	484951.71	3752534.43	0.003754892

ID	UTM_X	UTM_Y	AHI
456	484651.71	3752834.43	0.003743621
390	485051.71	3752134.43	0.003739711
396	484651.71	3752234.43	0.003737425
325	484551.71	3751534.43	0.003732727
408	484851.71	3752334.43	0.003732003
182	493553.03	3754938.31	0.003731844
438	484851.71	3752634.43	0.003723662
212	490553.03	3756938.31	0.003716481
447	484751.71	3752734.43	0.003715564
242	490553.03	3758938.31	0.003707115
326	484651.71	3751534.43	0.003700933
455	484551.71	3752834.43	0.003699658
347	484751.71	3751734.43	0.003698403
418	484851.71	3752434.43	0.003680799
428	484851.71	3752534.43	0.003671378
359	484951.71	3751834.43	0.003671007
380	485051.71	3752034.43	0.003664609
446	484651.71	3752734.43	0.003660606
370	485051.71	3751934.43	0.00365542
395	484551.71	3752234.43	0.003649265
407	484751.71	3752334.43	0.003648381
437	484751.71	3752634.43	0.003645351
33	482657.64	3753975.1	0.003643218
181	492553.03	3754938.31	0.003636356
389	484951.71	3752134.43	0.00363528
88	483553.03	3749938.31	0.003618098
445	484551.71	3752734.43	0.003614191
219	481553.03	3757938.31	0.003611595
335	484551.71	3751634.43	0.003609617
427	484751.71	3752534.43	0.003600306
436	484651.71	3752634.43	0.003598025
417	484751.71	3752434.43	0.003590687
305	484551.71	3751334.43	0.003576897
406	484651.71	3752334.43	0.003571709
388	484851.71	3752134.43	0.003566641
241	489553.03	3758938.31	0.003564216
358	484851.71	3751834.43	0.003560424
315	484551.71	3751434.43	0.003559895
379	484951.71	3752034.43	0.003559597
45	494397.38	3753977.58	0.00355603
435	484551.71	3752634.43	0.003553434
218	480553.03	3757938.31	0.003549271
227	489553.03	3757938.31	0.003545142
426	484651.71	3752534.43	0.003538562
369	484951.71	3751934.43	0.003537564
154	482553.03	3753938.31	0.003532881

ID	UTM_X	UTM_Y	AHI
166	494553.03	3753938.31	0.00353274
233	481553.03	3758938.31	0.003528096
416	484651.71	3752434.43	0.003526666
87	482553.03	3749938.31	0.00351587
405	484551.71	3752334.43	0.003505759
387	484751.71	3752134.43	0.003502233
131	493553.03	3751938.31	0.003501258
252	488553.03	3759938.31	0.003495826
73	483553.03	3748938.31	0.003491175
425	484551.71	3752534.43	0.003487623
257	483553.03	3760938.31	0.00348684
346	484651.71	3751734.43	0.003482661
240	488553.03	3758938.31	0.003469679
378	484851.71	3752034.43	0.003466193
415	484551.71	3752434.43	0.003463657
168	479553.03	3754938.31	0.003452626
235	483553.03	3758938.31	0.00344821
368	484851.71	3751934.43	0.003444701
357	484751.71	3751834.43	0.003443752
386	484651.71	3752134.43	0.003438526
197	491553.03	3755938.31	0.003433309
253	489553.03	3759938.31	0.003405691
15	484625	3751748	0.003405096
64	487553.03	3747938.31	0.003396711
377	484751.71	3752034.43	0.003390755
385	484551.71	3752134.43	0.003386198
234	482553.03	3758938.31	0.003369093
367	484751.71	3751934.43	0.003355761
254	490553.03	3759938.31	0.003355128
262	488553.03	3760938.31	0.003349815
77	487553.03	3748938.31	0.003344354
356	484651.71	3751834.43	0.003335181
376	484651.71	3752034.43	0.003327844
198	492553.03	3755938.31	0.003314773
345	484551.71	3751734.43	0.003314228
795	491508.49	3758711.29	0.003306934
366	484651.71	3751934.43	0.003288388
153	481553.03	3753938.31	0.003274235
375	484551.71	3752034.43	0.003262954
59	482553.03	3747938.31	0.003251392
72	482553.03	3748938.31	0.003246426
148	493553.03	3752938.31	0.003232362
259	485553.03	3760938.31	0.003230724
355	484551.71	3751834.43	0.00322558
122	484553.03	3751938.31	0.003222876
138	483553.03	3752938.31	0.003220477

ID	UTM_X	UTM_Y	AHI
365	484551.71	3751934.43	0.003220465
30	481754	3753876	0.003219977
149	494553.03	3752938.31	0.00321889
126	488553.03	3751938.31	0.003197584
150	495553.03	3752938.31	0.003163602
213	491553.03	3756938.31	0.003142874
127	489553.03	3751938.31	0.00313532
132	494553.03	3751938.31	0.003111365
167	495553.03	3753938.31	0.003093548
247	483553.03	3759938.31	0.003090794
228	490553.03	3757938.31	0.00308745
244	492553.03	3758938.31	0.003080921
256	482553.03	3760938.31	0.003067292
243	491553.03	3758938.31	0.003065926
133	495553.03	3751938.31	0.003041674
255	491553.03	3759938.31	0.003036177
232	480553.03	3758938.31	0.003032875
183	494553.03	3754938.31	0.003031604
41	479197.34	3754462.34	0.003026348
231	493553.03	3757938.31	0.002984615
137	482553.03	3752938.31	0.002967915
36	482346.53	3748872.86	0.002932052
215	493553.03	3756938.31	0.002887732
100	495553.03	3749938.31	0.00287705
44	480287.9	3754227.46	0.002871701
261	487553.03	3760938.31	0.002838623
246	482553.03	3759938.31	0.002836897
71	481553.03	3748938.31	0.002824306
152	480553.03	3753938.31	0.002811894
92	487553.03	3749938.31	0.002802589
229	491553.03	3757938.31	0.002800786
263	489553.03	3760938.31	0.002764967
245	481553.03	3759938.31	0.002760347
216	494553.03	3756938.31	0.002743605
121	483553.03	3751938.31	0.002741404
214	492553.03	3756938.31	0.002710933
128	490553.03	3751938.31	0.002709063
147	492553.03	3752938.31	0.002708457
230	492553.03	3757938.31	0.002706094
264	490553.03	3760938.31	0.002700897
199	493553.03	3755938.31	0.002688732
136	481553.03	3752938.31	0.002679231
116	495553.03	3750938.31	0.00267207
39	478997.81	3753535.19	0.002668882
26	479887	3754007	0.00265191
20	481867	3752785	0.002634072

ID	UTM_X	UTM_Y	AHI
104	483553.03	3750938.31	0.002620573
74	484553.03	3748938.31	0.002613762
200	494553.03	3755938.31	0.002589166
151	479553.03	3753938.31	0.002578548
16	483279	3751798	0.00256625
135	480553.03	3752938.31	0.002542197
48	482344.95	3752065.79	0.00254123
129	491553.03	3751938.31	0.002538718
52	486553.03	3746938.31	0.002524772
120	482553.03	3751938.31	0.002456746
17	483231	3751205	0.002440138
134	479553.03	3752938.31	0.00242171
86	481553.03	3749938.31	0.002409237
184	495553.03	3754938.31	0.00239577
791	479508.49	3752711.29	0.002328611
22	479989	3752645	0.002301087
109	488553.03	3750938.31	0.002288478
75	485553.03	3748938.31	0.002253943
260	486553.03	3760938.31	0.002250899
50	484553.03	3746938.31	0.002250198
110	489553.03	3750938.31	0.002240544
43	480295.38	3752408.38	0.002236821
119	481553.03	3751938.31	0.002233173
103	482553.03	3750938.31	0.00222644
42	479493.25	3752408.79	0.002219024
118	480553.03	3751938.31	0.00217718
117	479553.03	3751938.31	0.002152011
76	486553.03	3748938.31	0.002119757
111	490553.03	3750938.31	0.002093623
31	489635.18	3750663.82	0.00207045
130	492553.03	3751938.31	0.002051322
102	481553.03	3750938.31	0.002007783
85	480553.03	3749938.31	0.001996141
19	481211	3749473	0.001994478
21	480678	3751306	0.001984312
115	494553.03	3750938.31	0.001978396
46	481108.51	3750699.02	0.001953659
37	480298.98	3751198.04	0.001922289
114	493553.03	3750938.31	0.001909955
60	483553.03	3747938.31	0.001906258
101	480553.03	3750938.31	0.001901604
112	491553.03	3750938.31	0.001868337
93	488553.03	3749938.31	0.001864031
18	480165	3750195	0.001813313
94	489553.03	3749938.31	0.001797587
113	492553.03	3750938.31	0.001755951

ID	UTM_X	UTM_Y	AHI
63	486553.03	3747938.31	0.001754621
95	490553.03	3749938.31	0.001696299
61	484553.03	3747938.31	0.001608535
96	491553.03	3749938.31	0.001608434
78	488553.03	3748938.31	0.001544877
62	485553.03	3747938.31	0.001528641
80	490553.03	3748938.31	0.001491621
32	485424.11	3747672.3	0.001487417
79	489553.03	3748938.31	0.001474185
97	492553.03	3749938.31	0.001461604
98	493553.03	3749938.31	0.001406623
51	485553.03	3746938.31	0.001335325
81	491553.03	3748938.31	0.001332957
66	489553.03	3747938.31	0.00130266
789	485508.49	3746711.29	0.0012974
99	494553.03	3749938.31	0.001292777
65	488553.03	3747938.31	0.001281826
82	492553.03	3748938.31	0.001273504
67	490553.03	3747938.31	0.001265012
53	487553.03	3746938.31	0.001229303
55	489553.03	3746938.31	0.001213518
68	491553.03	3747938.31	0.001199768
83	493553.03	3748938.31	0.001175644
84	494553.03	3748938.31	0.001153172
69	492553.03	3747938.31	0.001141475
54	488553.03	3746938.31	0.001120269
57	491553.03	3746938.31	0.001117056
56	490553.03	3746938.31	0.001104532
790	491508.49	3746711.29	0.001085402
70	493553.03	3747938.31	0.001057141
49	487553.03	3745938.31	0.001026395
58	492553.03	3746938.31	0.001008109

E-9 Assessment of Mortality and Morbidity

			UM_DPM	M_DPM		Annual Avearge		Daily Max	
Receptor ID	UTM_X	UTM_Y	µg/m^3	µg/m^3	Scenario	Unmitigated	Mitigated	Unmitigated	Mitigated
31	489635.2	3750664	0.001217	0.000167	3rd	0.001997	0.000721	0.011980	0.004326
31	489635.2	3750664	0.00046	0.00035	Age>16				
31	489635.2	3750664	0.00147	0.000262	Age0-2				
31	489635.2	3750664	0.001997	0.000721	Age2-16				
32	485424.1	3747672	0.000883	0.000121	3rd	0.001033	0.000408	0.006199	0.002448
32	485424.1	3747672	0.000299	0.000243	Age>16				
32	485424.1	3747672	0.000991	0.000184	Age0-2				
32	485424.1	3747672	0.001033	0.000408	Age2-16				
33	482657.6	3753975	0.003972	0.000544	3rd	0.004115	0.001542	0.024688	0.009254
33	482657.6	3753975	0.00143	0.001269	Age>16				
33	482657.6	3753975	0.004115	0.000809	Age0-2				
33	482657.6	3753975	0.002794	0.001542	Age2-16				
34	481495	3754634	0.0021	0.000288	3rd	0.002599	0.001827	0.015593	0.010961
34	481495	3754634	0.001757	0.001655	Age>16				
34	481495	3754634	0.002377	0.000564	Age0-2				
34	481495	3754634	0.002599	0.001827	Age2-16				
35	481148.7	3756136	0.001137	0.000156	3rd	0.001806	0.001317	0.010837	0.007905
35	481148.7	3756136	0.001267	0.001205	Age>16				
35	481148.7	3756136	0.001365	0.00035	Age0-2				
35	481148.7	3756136	0.001806	0.001317	Age2-16				
36	482346.5	3748873	0.001082	0.000148	3rd	0.001130	0.000380	0.006782	0.002281
36	482346.5	3748873	0.000233	0.000182	Age>16				
36	482346.5	3748873	0.001058	0.000203	Age0-2				
36	482346.5	3748873	0.00113	0.00038	Age2-16				
37	480299	3751198	0.001864	0.000255	3rd	0.001877	0.000737	0.011263	0.004424
37	480299	3751198	0.00066	0.000563	Age>16				
37	480299	3751198	0.001877	0.000377	Age0-2				
37	480299	3751198	0.00149	0.000737	Age2-16				
38	479598.7	3756506	0.000856	0.000117	3rd	0.001292	0.000910	0.007752	0.005462
38	479598.7	3756506	0.000868	0.000821	Age>16				
38	479598.7	3756506	0.001011	0.000252	Age0-2				
38	479598.7	3756506	0.001292	0.00091	Age2-16				
39	478997.8	3753535	0.001232	0.000169	3rd	0.001708	0.001228	0.010245	0.007366
39	478997.8	3753535	0.001183	0.001116	Age>16				
39	478997.8	3753535	0.001322	0.000338	Age0-2				
39	478997.8	3753535	0.001708	0.001228	Age2-16				
40	478978.3	3755233	0.001044	0.000143	3rd	0.004030	0.003595	0.024180	0.021571
40	478978.3	3755233	0.00356	0.003496	Age>16				
40	478978.3	3755233	0.001538	0.000628	Age0-2				
40	478978.3	3755233	0.00403	0.003595	Age2-16				
41	479197.3	3754462	0.00113	0.000155	3rd	0.002055	0.001606	0.012330	0.009639
41	479197.3	3754462	0.001568	0.001503	Age>16				
41	479197.3	3754462	0.001295	0.000375	Age0-2				
41	479197.3	3754462	0.002055	0.001606	Age2-16				
42	479493.3	3752409	0.001521	0.000208	3rd	0.001550	0.000880	0.009298	0.005280
42	479493.3	3752409	0.000824	0.000744	Age>16				
42	479493.3	3752409	0.00155	0.000341	Age0-2				
42	479493.3	3752409	0.001467	0.00088	Age2-16				

Receptor ID	UTM_X	UTM_Y	UM_DPM µg/m^3	M_DPM µg/m^3	Scenario	Annual Avearge		Daily Max	
						Unmitigated	Mitigated	Unmitigated	Mitigated
43	480295.4	3752408	0.001817	0.000249	3rd	0.001840	0.000850	0.011041	0.005102
43	480295.4	3752408	0.000786	0.000691	Age>16				
43	480295.4	3752408	0.00184	0.000384	Age0-2				
43	480295.4	3752408	0.001545	0.00085	Age2-16				
44	480287.9	3754227	0.001547	0.000212	3rd	0.001789	0.001207	0.010734	0.007243
44	480287.9	3754227	0.001156	0.001075	Age>16				
44	480287.9	3754227	0.001659	0.000391	Age0-2				
44	480287.9	3754227	0.001789	0.001207	Age2-16				
45	494397.4	3753978	0.002054	0.000281	3rd	0.002054	0.000814	0.012322	0.004882
45	494397.4	3753978	0.000726	0.000586	Age>16				
45	494397.4	3753978	0.00189	0.000387	Age0-2				
45	494397.4	3753978	0.001705	0.000814	Age2-16				
46	481108.5	3750699	0.002113	0.000289	3rd	0.002143	0.000765	0.012860	0.004588
46	481108.5	3750699	0.000666	0.000556	Age>16				
46	481108.5	3750699	0.002143	0.000422	Age0-2				
46	481108.5	3750699	0.001665	0.000765	Age2-16				
47	486794.1	3756878	0.001806	0.000247	3rd	0.001806	0.000768	0.010839	0.004605
47	486794.1	3756878	0.000672	0.000604	Age>16				
47	486794.1	3756878	0.001763	0.000357	Age0-2				
47	486794.1	3756878	0.001403	0.000768	Age2-16				
48	482345	3752066	0.003159	0.000433	3rd	0.003233	0.001007	0.019395	0.006044
48	482345	3752066	0.000894	0.000733	Age>16				
48	482345	3752066	0.003233	0.000619	Age0-2				
48	482345	3752066	0.002241	0.001007	Age2-16				

ID	UTM_X	UTM_Y	Population	Percent of Population (30 +)	Baseline Occurrence	Relative Incidence	Period of Change (Annual/Daily)	Max Annual DPM Change Unmit (from CSTN + Oper)	Max Annual DPM Change Mit (from CSTN + Oper)	Risk (Unmitigated DPM)	Risk (Mitigated DPM)
31	489635.18	3750663.82	3784	0.629	0.001768	0.005827	Annual	0.001997	0.000721	0.000049	0.000018
32	485424.11	3747672.3	3682	0.629	0.001768	0.005827	Annual	0.001033	0.000408	0.000025	0.000010
33	482657.64	3753975.1	4107	0.629	0.001768	0.005827	Annual	0.004115	0.001542	0.000110	0.000041
34	481494.96	3754633.66	6556	0.629	0.001768	0.005827	Annual	0.002599	0.001827	0.000110	0.000078
35	481148.72	3756136.18	4780	0.629	0.001768	0.005827	Annual	0.001806	0.001317	0.000056	0.000041
36	482346.53	3748872.86	8249	0.629	0.001768	0.005827	Annual	0.001130	0.000380	0.000060	0.000020
37	480298.98	3751198.04	3805	0.629	0.001768	0.005827	Annual	0.001877	0.000737	0.000046	0.000018
38	479598.7	3756506.31	4071	0.629	0.001768	0.005827	Annual	0.001292	0.000910	0.000034	0.000024
39	478997.81	3753535.19	4922	0.629	0.001768	0.005827	Annual	0.001708	0.001228	0.000054	0.000039
40	478978.31	3755233.1	1706	0.629	0.001768	0.005827	Annual	0.004030	0.003595	0.000045	0.000040
41	479197.34	3754462.34	4669	0.629	0.001768	0.005827	Annual	0.002055	0.001606	0.000062	0.000049
42	479493.25	3752408.79	3670	0.629	0.001768	0.005827	Annual	0.001550	0.000880	0.000037	0.000021
43	480295.38	3752408.38	3278	0.629	0.001768	0.005827	Annual	0.001840	0.000850	0.000039	0.000018
44	480287.9	3754227.46	6365	0.629	0.001768	0.005827	Annual	0.001789	0.001207	0.000074	0.000050
45	494397.38	3753977.58	2689	0.629	0.001768	0.005827	Annual	0.002054	0.000814	0.000036	0.000014
46	481108.51	3750699.02	6188	0.629	0.001768	0.005827	Annual	0.002143	0.000765	0.000086	0.000031
47	486794.14	3756878.03	2082	0.629	0.001768	0.005827	Annual	0.001806	0.000768	0.000024	0.000010
48	482344.95	3752065.79	4489	0.629	0.001768	0.005827	Annual	0.003233	0.001007	0.000094	0.000029

Max	0.000110	0.000078
Cumulative	0.001041	0.000550

ID	UTM_X	UTM_Y	Population	Percent of Population (27+)	Baseline Occurrence	Relative Incidence	Period of Change (Annual/Daily)	Max Annual DPM Change Unmit (from CSTN + Oper)	Max Annual DPM Change Unmit (from CSTN + Oper)	Risk (Unmitigated DPM)	Risk (Mitigated DPM)
31	489635.18	3750663.82	3784	0.629	0.00378	0.0132	Annual	0.001997	0.000721	0.000237	0.000086
32	485424.11	3747672.3	3682	0.629	0.00378	0.0132	Annual	0.001033	0.000408	0.000119	0.000047
33	482657.64	3753975.1	4107	0.629	0.00378	0.0132	Annual	0.004115	0.001542	0.000530	0.000199
34	481494.96	3754633.66	6556	0.629	0.00378	0.0132	Annual	0.002599	0.001827	0.000535	0.000376
35	481148.72	3756136.18	4780	0.629	0.00378	0.0132	Annual	0.001806	0.001317	0.000271	0.000198
36	482346.53	3748872.86	8249	0.629	0.00378	0.0132	Annual	0.001130	0.000380	0.000293	0.000098
37	480298.98	3751198.04	3805	0.629	0.00378	0.0132	Annual	0.001877	0.000737	0.000224	0.000088
38	479598.7	3756506.31	4071	0.629	0.00378	0.0132	Annual	0.001292	0.000910	0.000165	0.000116
39	478997.81	3753535.19	4922	0.629	0.00378	0.0132	Annual	0.001708	0.001228	0.000264	0.000190
40	478978.31	3755233.1	1706	0.629	0.00378	0.0132	Annual	0.004030	0.003595	0.000216	0.000192
41	479197.34	3754462.34	4669	0.629	0.00378	0.0132	Annual	0.002055	0.001606	0.000301	0.000235
42	479493.25	3752408.79	3670	0.629	0.00378	0.0132	Annual	0.001550	0.000880	0.000178	0.000101
43	480295.38	3752408.38	3278	0.629	0.00378	0.0132	Annual	0.001840	0.000850	0.000189	0.000087
44	480287.9	3754227.46	6365	0.629	0.00378	0.0132	Annual	0.001789	0.001207	0.000357	0.000241
45	494397.38	3753977.58	2689	0.629	0.00378	0.0132	Annual	0.002054	0.000814	0.000173	0.000069
46	481108.51	3750699.02	6188	0.629	0.00378	0.0132	Annual	0.002143	0.000765	0.000416	0.000149
47	486794.14	3756878.03	2082	0.629	0.00378	0.0132	Annual	0.001806	0.000768	0.000118	0.000050
48	482344.95	3752065.79	4489	0.629	0.00378	0.0132	Annual	0.003233	0.001007	0.000455	0.000142

Max	0.000535	0.000376
Cumulative	0.005043	0.002665

ID	UTM_X	UTM_Y	Population	Percent of Population (65+)	Baseline Occurrence	Relative Incidence	Period of Change (Annual/Daily)	Max Daily DPM Change Unmit (from CSTN + Oper)	Max Daily Change Unmit (from CSTN + Oper)	Risk (Unmitigated DPM)	Risk (Mitigated DPM)
31	489635.18	3750663.82	3784	0.11	0.0000259	0.00288	Daily	0.01198	0.00433	0.0000004	0.0000001
32	485424.11	3747672.3	3682	0.11	0.0000259	0.00288	Daily	0.00620	0.00245	0.0000002	0.0000001
33	482657.64	3753975.1	4107	0.11	0.0000259	0.00288	Daily	0.02469	0.00925	0.0000008	0.0000003
34	481494.96	3754633.66	6556	0.11	0.0000259	0.00288	Daily	0.01559	0.01096	0.0000008	0.0000006
35	481148.72	3756136.18	4780	0.11	0.0000259	0.00288	Daily	0.01084	0.00790	0.0000004	0.0000003
36	482346.53	3748872.86	8249	0.11	0.0000259	0.00288	Daily	0.00678	0.00228	0.0000005	0.0000002
37	480298.98	3751198.04	3805	0.11	0.0000259	0.00288	Daily	0.01126	0.00442	0.0000004	0.0000001
38	479598.7	3756506.31	4071	0.11	0.0000259	0.00288	Daily	0.00775	0.00546	0.0000003	0.0000002
39	478997.81	3753535.19	4922	0.11	0.0000259	0.00288	Daily	0.01025	0.00737	0.0000004	0.0000003
40	478978.31	3755233.1	1706	0.11	0.0000259	0.00288	Daily	0.02418	0.02157	0.0000003	0.0000003
41	479197.34	3754462.34	4669	0.11	0.0000259	0.00288	Daily	0.01233	0.00964	0.0000005	0.0000004
42	479493.25	3752408.79	3670	0.11	0.0000259	0.00288	Daily	0.00930	0.00528	0.0000003	0.0000002
43	480295.38	3752408.38	3278	0.11	0.0000259	0.00288	Daily	0.01104	0.00510	0.0000003	0.0000001
44	480287.9	3754227.46	6365	0.11	0.0000259	0.00288	Daily	0.01073	0.00724	0.0000006	0.0000004
45	494397.38	3753977.58	2689	0.11	0.0000259	0.00288	Daily	0.01232	0.00488	0.0000003	0.0000001
46	481108.51	3750699.02	6188	0.11	0.0000259	0.00288	Daily	0.01286	0.00459	0.0000007	0.0000002
47	486794.14	3756878.03	2082	0.11	0.0000259	0.00288	Daily	0.01084	0.00461	0.0000002	0.0000001
48	482344.95	3752065.79	4489	0.11	0.0000259	0.00288	Daily	0.01940	0.00604	0.0000007	0.0000002

Max	0.000001	0.000001
Cumulative	0.000008	0.000004

ID	UTM_X	UTM_Y	Population	Percent of Population (65+)	Baseline Occurrence	Relative Incidence	Period of Change (Annual/Daily)	Max Daily DPM Change Unmit (from CSTN + Oper)	Max Daily DPM Change Unmit (from CSTN + Oper)	Risk (Unmitigated DPM)	Risk (Mitigated DPM)
31	489635.18	3750663.82	3784	0.11	0.0000516	0.00207	Daily	0.01198	0.00433	0.0000005	0.0000002
32	485424.11	3747672.3	3682	0.11	0.0000516	0.00207	Daily	0.00620	0.00245	0.0000003	0.0000001
33	482657.64	3753975.1	4107	0.11	0.0000516	0.00207	Daily	0.02469	0.00925	0.0000012	0.0000004
34	481494.96	3754633.66	6556	0.11	0.0000516	0.00207	Daily	0.01559	0.01096	0.0000012	0.0000008
35	481148.72	3756136.18	4780	0.11	0.0000516	0.00207	Daily	0.01084	0.00790	0.0000006	0.0000004
36	482346.53	3748872.86	8249	0.11	0.0000516	0.00207	Daily	0.00678	0.00228	0.0000007	0.0000002
37	480298.98	3751198.04	3805	0.11	0.0000516	0.00207	Daily	0.01126	0.00442	0.0000005	0.0000002
38	479598.7	3756506.31	4071	0.11	0.0000516	0.00207	Daily	0.00775	0.00546	0.0000004	0.0000003
39	478997.81	3753535.19	4922	0.11	0.0000516	0.00207	Daily	0.01025	0.00737	0.0000006	0.0000004
40	478978.31	3755233.1	1706	0.11	0.0000516	0.00207	Daily	0.02418	0.02157	0.0000005	0.0000004
41	479197.34	3754462.34	4669	0.11	0.0000516	0.00207	Daily	0.01233	0.00964	0.0000007	0.0000005
42	479493.25	3752408.79	3670	0.11	0.0000516	0.00207	Daily	0.00930	0.00528	0.0000004	0.0000002
43	480295.38	3752408.38	3278	0.11	0.0000516	0.00207	Daily	0.01104	0.00510	0.0000004	0.0000002
44	480287.9	3754227.46	6365	0.11	0.0000516	0.00207	Daily	0.01073	0.00724	0.0000008	0.0000005
45	494397.38	3753977.58	2689	0.11	0.0000516	0.00207	Daily	0.01232	0.00488	0.0000004	0.0000002
46	481108.51	3750699.02	6188	0.11	0.0000516	0.00207	Daily	0.01286	0.00459	0.0000009	0.0000003
47	486794.14	3756878.03	2082	0.11	0.0000516	0.00207	Daily	0.01084	0.00461	0.0000003	0.0000001
48	482344.95	3752065.79	4489	0.11	0.0000516	0.00207	Daily	0.01940	0.00604	0.0000010	0.0000003

Max	0.000001	0.000001
Cumulative	0.000011	0.000006

ID	UTM_X	UTM_Y	Population	Percent of Population (65+)	Baseline Occurrence	Relative Incidence	Period of Change (Annual/Daily)	Max Daily DPM Change Unmit (from CSTN + Oper)	Max Dailyl DPM Change Unmit (from CSTN + Oper)	Risk (Unmitigated DPM)	Risk (Mitigated DPM)
31	489635.18	3750663.8	3784	0.11	0.000158	0.00119	Daily	0.01198	0.00433	0.0000009	0.0000003
32	485424.11	3747672.3	3682	0.11	0.000158	0.00119	Daily	0.00620	0.00245	0.0000005	0.0000002
33	482657.64	3753975.1	4107	0.11	0.000158	0.00119	Daily	0.02469	0.00925	0.0000021	0.0000008
34	481494.96	3754633.7	6556	0.11	0.000158	0.00119	Daily	0.01559	0.01096	0.0000021	0.0000015
35	481148.72	3756136.2	4780	0.11	0.000158	0.00119	Daily	0.01084	0.00790	0.0000011	0.0000008
36	482346.53	3748872.9	8249	0.11	0.000158	0.00119	Daily	0.00678	0.00228	0.0000012	0.0000004
37	480298.98	3751198	3805	0.11	0.000158	0.00119	Daily	0.01126	0.00442	0.0000009	0.0000003
38	479598.7	3756506.3	4071	0.11	0.000158	0.00119	Daily	0.00775	0.00546	0.0000007	0.0000005
39	478997.81	3753535.2	4922	0.11	0.000158	0.00119	Daily	0.01025	0.00737	0.0000010	0.0000007
40	478978.31	3755233.1	1706	0.11	0.000158	0.00119	Daily	0.02418	0.02157	0.0000009	0.0000008
41	479197.34	3754462.3	4669	0.11	0.000158	0.00119	Daily	0.01233	0.00964	0.0000012	0.0000009
42	479493.25	3752408.8	3670	0.11	0.000158	0.00119	Daily	0.00930	0.00528	0.0000007	0.0000004
43	480295.38	3752408.4	3278	0.11	0.000158	0.00119	Daily	0.01104	0.00510	0.0000007	0.0000003
44	480287.9	3754227.5	6365	0.11	0.000158	0.00119	Daily	0.01073	0.00724	0.0000014	0.0000010
45	494397.38	3753977.6	2689	0.11	0.000158	0.00119	Daily	0.01232	0.00488	0.0000007	0.0000003
46	481108.51	3750699	6188	0.11	0.000158	0.00119	Daily	0.01286	0.00459	0.0000016	0.0000006
47	486794.14	3756878	2082	0.11	0.000158	0.00119	Daily	0.01084	0.00461	0.0000005	0.0000002
48	482344.95	3752065.8	4489	0.11	0.000158	0.00119	Daily	0.01940	0.00604	0.0000018	0.0000006

Max	0.000002	0.000001
Cumulative	0.000020	0.000011

ID	UTM_X	UTM_Y	Population	Percent of Population (<64)	Baseline Occurrence	Relative Incidence	Period of Change (Annual/Daily)	Max Daily DPM Change Unmit (from CSTN + Oper)	Max Daily DPM Change Unmit (from CSTN + Oper)	Risk (Unmitigated DPM)	Risk (Mitigated DPM)
31	489635.18	3750663.8	3784	0.89	0.00000263	0.00205	Daily	0.01198	0.00433	0.0000002	0.0000001
32	485424.11	3747672.3	3682	0.89	0.00000263	0.00205	Daily	0.00620	0.00245	0.0000001	0.0000000
33	482657.64	3753975.1	4107	0.89	0.00000263	0.00205	Daily	0.02469	0.00925	0.0000005	0.0000002
34	481494.96	3754633.7	6556	0.89	0.00000263	0.00205	Daily	0.01559	0.01096	0.0000005	0.0000003
35	481148.72	3756136.2	4780	0.89	0.00000263	0.00205	Daily	0.01084	0.00790	0.0000002	0.0000002
36	482346.53	3748872.9	8249	0.89	0.00000263	0.00205	Daily	0.00678	0.00228	0.0000003	0.0000001
37	480298.98	3751198	3805	0.89	0.00000263	0.00205	Daily	0.01126	0.00442	0.0000002	0.0000001
38	479598.7	3756506.3	4071	0.89	0.00000263	0.00205	Daily	0.00775	0.00546	0.0000002	0.0000001
39	478997.81	3753535.2	4922	0.89	0.00000263	0.00205	Daily	0.01025	0.00737	0.0000002	0.0000002
40	478978.31	3755233.1	1706	0.89	0.00000263	0.00205	Daily	0.02418	0.02157	0.0000002	0.0000002
41	479197.34	3754462.3	4669	0.89	0.00000263	0.00205	Daily	0.01233	0.00964	0.0000003	0.0000002
42	479493.25	3752408.8	3670	0.89	0.00000263	0.00205	Daily	0.00930	0.00528	0.0000002	0.0000001
43	480295.38	3752408.4	3278	0.89	0.00000263	0.00205	Daily	0.01104	0.00510	0.0000002	0.0000001
44	480287.9	3754227.5	6365	0.89	0.00000263	0.00205	Daily	0.01073	0.00724	0.0000003	0.0000002
45	494397.38	3753977.6	2689	0.89	0.00000263	0.00205	Daily	0.01232	0.00488	0.0000002	0.0000001
46	481108.51	3750699	6188	0.89	0.00000263	0.00205	Daily	0.01286	0.00459	0.0000004	0.0000001
47	486794.14	3756878	2082	0.89	0.00000263	0.00205	Daily	0.01084	0.00461	0.0000001	0.0000000
48	482344.95	3752065.8	4489	0.89	0.00000263	0.00205	Daily	0.01940	0.00604	0.0000004	0.0000001

Max	0.00000049	0.00000034
Cumulative	0.00000463	0.00000244

ID	UTM_X	UTM_Y	Population	Percent of Population (<64)	Baseline Occurrence	Relative Incidence	Period of Change (Annual/Daily)	Max Daily DPM Change Unmit (from CSTN + Oper)	Max Daily DPM Change Unmit (from CSTN + Oper)	Risk (Unmitigated DPM)	Risk (Mitigated DPM)
31	489635.18	3750663.8	3784	0.89	0.00000448	0.00367	Annual	0.01198	0.00433	0.0000007	0.0000002
32	485424.11	3747672.3	3682	0.89	0.00000448	0.00367	Annual	0.00620	0.00245	0.0000003	0.0000001
33	482657.64	3753975.1	4107	0.89	0.00000448	0.00367	Annual	0.02469	0.00925	0.0000015	0.0000006
34	481494.96	3754633.7	6556	0.89	0.00000448	0.00367	Annual	0.01559	0.01096	0.0000015	0.0000011
35	481148.72	3756136.2	4780	0.89	0.00000448	0.00367	Annual	0.01084	0.00790	0.0000008	0.0000006
36	482346.53	3748872.9	8249	0.89	0.00000448	0.00367	Annual	0.00678	0.00228	0.0000008	0.0000003
37	480298.98	3751198	3805	0.89	0.00000448	0.00367	Annual	0.01126	0.00442	0.0000006	0.0000002
38	479598.7	3756506.3	4071	0.89	0.00000448	0.00367	Annual	0.00775	0.00546	0.0000005	0.0000003
39	478997.81	3753535.2	4922	0.89	0.00000448	0.00367	Annual	0.01025	0.00737	0.0000007	0.0000005
40	478978.31	3755233.1	1706	0.89	0.00000448	0.00367	Annual	0.02418	0.02157	0.0000006	0.0000005
41	479197.34	3754462.3	4669	0.89	0.00000448	0.00367	Annual	0.01233	0.00964	0.0000008	0.0000007
42	479493.25	3752408.8	3670	0.89	0.00000448	0.00367	Annual	0.00930	0.00528	0.0000005	0.0000003
43	480295.38	3752408.4	3278	0.89	0.00000448	0.00367	Annual	0.01104	0.00510	0.0000005	0.0000002
44	480287.9	3754227.5	6365	0.89	0.00000448	0.00367	Annual	0.01073	0.00724	0.0000010	0.0000007
45	494397.38	3753977.6	2689	0.89	0.00000448	0.00367	Annual	0.01232	0.00488	0.0000005	0.0000002
46	481108.51	3750699	6188	0.89	0.00000448	0.00367	Annual	0.01286	0.00459	0.0000012	0.0000004
47	486794.14	3756878	2082	0.89	0.00000448	0.00367	Annual	0.01084	0.00461	0.0000003	0.0000001
48	482344.95	3752065.8	4489	0.89	0.00000448	0.00367	Annual	0.01940	0.00604	0.0000013	0.0000004

Max	0.00000150	0.00000105
Cumulative	0.00001411	0.00000745

F-1 Greenhouse Gas Emissions Summary

World Logistics Center
Greenhouse Gas Emissions - 2018 Net

Unmitigated Greenhouse Gas Emissions by Year, metric tons of CO2e

	Capped										Uncapped						
Year	**Construction**	**Net Mobile**	**Yard trucks**	**Generator**	**Forklifts**	**Electricity**	**Water**	**Natural gas**	**Solar**	**Subtotal**	**Construction Refrigerants and Waste**	**Waste**	**Refrigerants**	**Land use change**	**Sequestration**	**Subtotal**	**Total**
2020	11,669	0	0	0	0	0	0	0	0	11,669	114	0	0	0	0	114	11,783
2021	11,334	17,969	264	14	9	4,696	133	381	0	34,801	114	992	133	60	-6	1,293	36,094
2022	14,916	35,938	528	28	19	9,393	267	763	0	61,851	140	1,985	266	119	-11	2,499	64,350
2023	10,896	59,897	881	46	32	15,654	445	1,271	0	89,121	140	3,308	443	199	-19	4,072	93,193
2024	20,473	83,856	1,233	64	44	21,916	623	1,779	0	129,989	231	4,632	621	279	-27	5,735	135,724
2025	12,153	128,351	1,887	99	68	33,545	953	2,723	0	179,779	231	7,089	950	426	-41	8,656	188,435
2026	14,103	155,889	2,541	133	91	37,895	1,283	3,087	0	215,022	198	9,547	1,279	574	-55	11,543	226,565
2027	11,885	170,429	2,887	151	104	40,192	1,458	3,278	0	230,383	132	10,844	1,453	652	-63	13,019	243,403
2028	13,960	179,167	3,094	162	111	41,572	1,562	3,394	0	243,022	132	11,624	1,558	699	-67	13,946	256,968
2029	12,806	187,905	3,302	173	118	42,952	1,667	3,509	0	252,433	174	12,404	1,662	746	-72	14,915	267,347
2030	15,470	200,374	3,598	188	129	44,922	1,817	3,673	0	270,171	193	13,517	1,811	813	-78	16,256	286,427
2031	11,759	214,514	3,934	206	141	47,155	1,986	3,860	0	283,555	193	14,779	1,980	889	-85	17,756	301,310
2032	17,052	228,653	4,270	223	153	49,389	2,156	4,047	0	305,943	193	16,040	2,149	965	-93	19,255	325,199
2033	15,772	242,793	4,606	241	165	51,622	2,326	4,233	0	321,758	138	17,302	2,319	1,041	-100	20,700	342,458
2034	11,739	252,061	4,826	252	173	53,086	2,437	4,355	0	328,929	138	18,129	2,429	1,090	-105	21,683	350,611
2035	14,029	261,328	5,046	264	181	54,550	2,548	4,478	0	342,424	64	18,956	2,540	1,140	-109	22,591	365,015
Buildout	7,334	263,840	5,109	267	183	54,947	2,580	4,511	0	338,771	166	19,193	2,572	1,154	-111	22,974	361,745

Mitigated Greenhouse Gas Emissions by Year, metric tons of CO2e

	Capped										Uncapped						
Year	**Construction**	**Net Mobile**	**Yard trucks**	**Generator**	**Forklifts**	**Electricity**	**Water**	**Natural gas**	**Solar**	**Subtotal**	**Construction Refrigerants and Waste**	**Waste**	**Refrigerants**	**Land use change**	**Sequestration**	**Subtotal**	**Total**
2020	11,669	0	0	0	0	0	0	0	0	11,669	97	0	0	0	0	97	11,766
2021	11,334	17,197	264	15	9	4,235	119	0	-179	32,995	97	248	133	60	-6	532	33,527
2022	14,916	34,395	528	30	19	8,469	239	0	-357	58,238	123	496	266	119	-11	993	59,232
2023	10,896	57,324	881	49	32	14,116	398	0	-595	83,100	123	827	443	199	-19	1,574	84,674
2024	20,473	80,254	1,233	69	44	19,762	557	0	-834	121,558	214	1,158	621	279	-27	2,245	123,803
2025	12,153	122,838	1,887	106	68	30,248	853	0	-1,276	166,876	214	1,772	950	426	-41	3,322	170,198
2026	14,103	149,394	2,541	142	91	34,337	1,148	0	-1,705	200,052	181	2,387	1,279	574	-55	4,366	204,418
2027	11,885	163,415	2,887	161	104	36,496	1,304	0	-1,931	214,322	115	2,711	1,453	652	-63	4,869	219,191
2028	13,960	171,842	3,094	173	111	37,794	1,398	0	-2,068	226,305	115	2,906	1,558	699	-67	5,211	231,516
2029	12,806	180,268	3,302	185	118	39,091	1,492	0	-2,204	235,059	157	3,101	1,662	746	-72	5,595	240,654
2030	15,470	192,292	3,598	201	129	40,943	1,626	0	-2,398	251,862	176	3,379	1,811	813	-78	6,102	257,964
2031	11,759	205,928	3,934	220	141	43,043	1,778	1	-2,618	264,184	176	3,695	1,980	889	-85	6,655	270,839
2032	17,052	219,563	4,270	239	153	45,143	1,929	1	-2,838	285,512	176	4,010	2,149	965	-93	7,208	292,720
2033	15,772	233,199	4,606	258	165	47,242	2,081	1	-3,059	300,265	121	4,326	2,319	1,041	-100	7,706	307,971
2034	11,739	242,136	4,826	270	173	48,619	2,181	1	-3,203	306,740	121	4,532	2,429	1,090	-105	8,069	314,809
2035	14,029	251,073	5,046	282	181	49,995	2,280	1	-3,347	319,540	47	4,739	2,540	1,140	-109	8,357	327,896
Buildout	7,334	253,495	5,109	286	183	50,368	2,308	1	-3,386	315,697	149	4,798	2,572	1,154	-111	8,563	324,260

Reductions from Mitigation, metric tons of CO2e

	Capped										Uncapped						
Year	**Construction**	**Net Mobile**	**Yard trucks**	**Generator**	**Forklifts**	**Electricity**	**Water**	**Natural gas**		**Subtotal**	**Construction Refrigerants and Waste**	**Waste**	**Refrigerants**	**Land use change**	**Sequestration**	**Subtotal**	**Total**
2020	0	0	0	0	0	0	0	0	0	0	-17	0	0	0	0	-17	-17
2021	0	-772	0	1	0	-462	-14	-381	-179	-1,806	-17	-744	0	0	0	-761	-2,568
2022	0	-1,544	0	2	0	-923	-28	-762	-357	-3,613	-17	-1,489	0	0	0	-1,506	-5,118
2023	0	-2,573	0	3	0	-1,539	-47	-1,271	-595	-6,021	-17	-2,481	0	0	0	-2,498	-8,520
2024	0	-3,602	0	5	0	-2,155	-65	-1,779	-834	-8,430	-17	-3,474	0	0	0	-3,491	-11,921
2025	0	-5,513	0	7	0	-3,298	-100	-2,723	-1,276	-12,903	-17	-5,317	0	0	0	-5,334	-18,237
2026	0	-6,495	0	9	0	-3,558	-135	-3,086	-1,705	-14,970	-17	-7,160	0	0	0	-7,177	-22,147
2027	0	-7,014	0	11	0	-3,696	-153	-3,278	-1,931	-16,061	-17	-8,133	0	0	0	-8,150	-24,212
2028	0	-7,325	0	11	0	-3,778	-164	-3,393	-2,068	-16,717	-17	-8,718	0	0	0	-8,735	-25,452
2029	0	-7,637	0	12	0	-3,861	-175	-3,508	-2,204	-17,373	-17	-9,303	0	0	0	-9,320	-26,693
2030	0	-8,082	0	13	0	-3,979	-191	-3,673	-2,398	-18,309	-17	-10,138	0	0	0	-10,154	-28,464
2031	0	-8,586	0	14	0	-4,113	-209	-3,859	-2,618	-19,371	-17	-11,084	0	0	0	-11,101	-30,471
2032	0	-9,090	0	16	0	-4,246	-227	-4,046	-2,838	-20,432	-17	-12,030	0	0	0	-12,047	-32,479
2033	0	-9,595	0	17	0	-4,380	-244	-4,232	-3,059	-21,493	-17	-12,977	0	0	0	-12,994	-34,487
2034	0	-9,925	0	18	0	-4,468	-256	-4,355	-3,203	-22,189	-17	-13,597	0	0	0	-13,614	-35,803
2035	0	-10,256	0	18	0	-4,555	-268	-4,477	-3,347	-22,884	-17	-14,217	0	0	0	-14,234	-37,119
Buildout	0	-10,345	0	19	0	-4,579	-271	-4,510	-3,386	-23,073	-17	-14,395	0	0	0	-14,411	-37,485

Unmitigated Greenhouse Gas Emissions for Buildout

	Greenhouse Gas, tons per year					Total, metric tons CO2e
Source	**CO2**	**CH4**	**N2O**	**HFCs**	**BC**	
Construction	7,550	1.36	0.00	0.00	0.66	7,334
Net Mobile	285,523	3.17	1.56	0.00	6.27	263,840
Yard trucks	5,631	0.00	0.00	0.00	0.00	5,109
Generator	267	0.01	0.00	0.00	0.04	267
Forklifts	197	0.00	0.00	0.00	0.01	183
Electricity	60,348	62.33	158.06	-	-	54,947
Water	2,664	5.43	0.15	-	-	2,580
Natural gas	4,942	2.37	26.99	-	0.00	4,511
Construction Refrigerants and Waste	115	0.00	0.00	0.06	0.00	166
Waste	8,540	504.67	0.00	-	-	19,193
Refrigerants	0	0.00	0.00	1.89	0.00	2,572
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total	376,926	579.34	186.77	1.95	6.97	361,745
Non-mobile emissions	91,403	576.17	185.20	1.95	0.70	97,904
Subtotal, capped	367,122	74.67	186.77	0.00	6.97	338,770
Subtotal, uncapped	9,804	504.67	0.00	1.95	0.00	22,974

Worst-Case 2018 Analysis at Buildout (Net)

	Individual Emissions, tons/year					CO2e, metric tons
Source	**CO2**	**CH4**	**N2O**	**HFC**	**BC**	
Mobile	285,523	3.17	1.56	0.00	6.27	263,840
Other	81,599	71.50	185.20	0.00	0.70	126,199
Total	367,122	74.67	186.77	0.00	6.97	390,039
Uncapped Emissions	**9,804**	**504.67**	**0.00**	**1.95**	**0.00**	**22,974**
Threshold						**10,000**
Significant?						**Yes**

World Logistics Center
Greenhouse Gas Emissions - Net

Unmitigated Greenhouse Gas Emissions by Year, metric tons of CO2e

	Capped										Uncapped						
Year	Construction	Net Mobile	Yard trucks	Generator	Forklifts	Electricity	Water	Natural gas	Solar	Subtotal	Construction Refrigerants and Waste	Waste	Refrigerants	Land use change	Sequestration	Subtotal	Total
2020	11,669	0	0	0	0	0	0	0	0	11,669	114	0	0	0	0	114	11,783
2021	11,334	14,688	264	14	9	4,696	133	381	0	31,520	114	992	133	60	-6	1,293	32,813
2022	14,916	29,376	528	28	19	9,393	267	763	0	55,289	140	1,985	266	119	-11	2,499	57,788
2023	10,896	48,960	881	46	32	15,654	445	1,271	0	78,184	140	3,308	443	199	-19	4,072	82,256
2024	20,473	68,544	1,233	64	44	21,916	623	1,779	0	114,676	231	4,632	621	279	-27	5,735	120,412
2025	12,153	104,914	1,887	99	68	33,545	953	2,723	0	156,342	231	7,089	950	426	-41	8,656	164,998
2026	14,103	126,417	2,541	133	91	37,895	1,283	3,087	0	185,550	198	9,547	1,279	574	-55	11,543	197,093
2027	11,885	137,770	2,887	151	104	40,192	1,458	3,278	0	197,724	132	10,844	1,453	652	-63	13,019	210,743
2028	13,960	144,593	3,094	162	111	41,572	1,562	3,394	0	208,448	132	11,624	1,558	699	-67	13,946	222,394
2029	12,806	151,416	3,302	173	118	42,952	1,667	3,509	0	215,943	174	12,404	1,662	746	-72	14,915	230,858
2030	15,470	161,152	3,598	188	129	44,922	1,817	3,673	0	230,949	193	13,517	1,811	813	-78	16,256	247,205
2031	11,759	172,192	3,934	206	141	47,155	1,986	3,860	0	241,233	193	14,779	1,980	889	-85	17,756	258,989
2032	17,052	183,233	4,270	223	153	49,389	2,156	4,047	0	260,523	193	16,040	2,149	965	-93	19,255	279,778
2033	15,772	194,274	4,606	241	165	51,622	2,326	4,233	0	273,238	138	17,302	2,319	1,041	-100	20,700	293,938
2034	11,739	201,510	4,826	252	173	53,086	2,437	4,355	0	278,378	138	18,129	2,429	1,090	-105	21,683	300,061
2035	14,029	208,747	5,046	264	181	54,550	2,548	4,478	0	289,842	64	18,956	2,540	1,140	-109	22,591	312,433
Buildout	7,334	210,708	5,109	267	183	54,947	2,580	4,511	0	285,638	166	19,193	2,572	1,154	-111	22,974	308,612

Mitigated Greenhouse Gas Emissions by Year, metric tons of CO2e

	Capped										Uncapped						
Year	Construction	Net Mobile	Yard trucks	Generator	Forklifts	Electricity	Water	Natural gas	Solar	Subtotal	Construction Refrigerants and Waste	Waste	Refrigerants	Land use change	Sequestration	Subtotal	Total
2020	11,669	0	0	0	0	0	0	0	0	11,669	97	0	0	0	0	97	11,766
2021	11,334	14,601	264	15	9	4,235	119	0	-179	30,399	97	248	133	60	-6	532	30,930
2022	14,916	29,202	528	30	19	8,469	239	0	-357	53,046	123	496	266	119	-11	993	54,039
2023	10,896	48,670	881	49	32	14,116	398	0	-595	74,446	123	827	443	199	-19	1,574	76,019
2024	20,473	68,138	1,233	69	44	19,762	557	0	-834	109,443	214	1,158	621	279	-27	2,245	111,687
2025	12,153	104,293	1,887	106	68	30,248	853	0	-1,276	148,331	214	1,772	950	426	-41	3,322	151,653
2026	14,103	125,899	2,541	142	91	34,337	1,148	0	-1,705	176,557	181	2,387	1,279	574	-55	4,366	180,923
2027	11,885	137,307	2,887	161	104	36,496	1,304	0	-1,931	188,213	115	2,711	1,453	652	-63	4,869	193,083
2028	13,960	144,163	3,094	173	111	37,794	1,398	0	-2,068	198,626	115	2,906	1,558	699	-67	5,211	203,837
2029	12,806	151,018	3,302	185	118	39,091	1,492	0	-2,204	205,810	157	3,101	1,662	746	-72	5,595	211,405
2030	15,470	160,801	3,598	201	129	40,943	1,626	0	-2,398	220,371	176	3,379	1,811	813	-78	6,102	226,473
2031	11,759	171,895	3,934	220	141	43,043	1,778	1	-2,618	230,152	176	3,695	1,980	889	-85	6,655	236,806
2032	17,052	182,989	4,270	239	153	45,143	1,929	1	-2,838	248,938	176	4,010	2,149	965	-93	7,208	256,145
2033	15,772	194,083	4,606	258	165	47,242	2,081	1	-3,059	261,149	121	4,326	2,319	1,041	-100	7,706	268,855
2034	11,739	201,354	4,826	270	173	48,619	2,181	1	-3,203	265,958	121	4,532	2,429	1,090	-105	8,069	274,027
2035	14,029	208,625	5,046	282	181	49,995	2,280	1	-3,347	277,092	47	4,739	2,540	1,140	-109	8,357	285,449
Buildout	7,334	210,596	5,109	286	183	50,368	2,308	1	-3,386	272,799	149	4,798	2,572	1,154	-111	8,563	281,361

-12,840 0.1790

Reductions from Mitigation, metric tons of CO2e

	Capped										Uncapped						
Year	Construction	Net Mobile	Yard trucks	Generator	Forklifts	Electricity	Water	Natural gas	Solar	Subtotal	Construction Refrigerants and Waste	Waste	Refrigerants	Land use change	Sequestration	Subtotal	Total
2020	0	0	0	0	0	0	0	0	0	0	-17	0	0	0	0	-17	-17
2021	0	-87	0	1	0	-462	-14	-381	-179	-1,122	-17	-744	0	0	0	-761	-1,883
2022	0	-174	0	2	0	-923	-28	-762	-357	-2,243	-17	-1,489	0	0	0	-1,506	-3,749
2023	0	-290	0	3	0	-1,539	-47	-1,271	-595	-3,738	-17	-2,481	0	0	0	-2,498	-6,237
2024	0	-406	0	5	0	-2,155	-65	-1,779	-834	-5,234	-17	-3,474	0	0	0	-3,491	-8,724
2025	0	-621	0	7	0	-3,298	-100	-2,723	-1,276	-8,011	-17	-5,317	0	0	0	-5,334	-13,345
2026	0	-518	0	9	0	-3,558	-135	-3,086	-1,705	-8,992	-17	-7,160	0	0	0	-7,177	-16,169
2027	0	-463	0	11	0	-3,696	-153	-3,278	-1,931	-9,511	-17	-8,133	0	0	0	-8,150	-17,661
2028	0	-430	0	11	0	-3,778	-164	-3,393	-2,068	-9,822	-17	-8,718	0	0	0	-8,735	-18,557
2029	0	-397	0	12	0	-3,861	-175	-3,508	-2,204	-10,133	-17	-9,303	0	0	0	-9,320	-19,453
2030	0	-350	0	13	0	-3,979	-191	-3,673	-2,398	-10,578	-17	-10,138	0	0	0	-10,154	-20,732
2031	0	-297	0	14	0	-4,113	-209	-3,859	-2,618	-11,082	-17	-11,084	0	0	0	-11,101	-22,182
2032	0	-244	0	16	0	-4,246	-227	-4,046	-2,838	-11,586	-17	-12,030	0	0	0	-12,047	-23,633
2033	0	-191	0	17	0	-4,380	-244	-4,232	-3,059	-12,090	-17	-12,977	0	0	0	-12,994	-25,083
2034	0	-156	0	18	0	-4,468	-256	-4,355	-3,203	-12,420	-17	-13,597	0	0	0	-13,614	-26,034
2035	0	-121	0	18	0	-4,555	-268	-4,477	-3,347	-12,750	-17	-14,217	0	0	0	-14,234	-26,984
Buildout	0	-112	0	19	0	-4,579	-271	-4,510	-3,386	-12,840	-17	-14,395	0	0	0	-14,411	-27,251

Unmitigated Greenhouse Gas Emissions for Buildout

	Greenhouse Gas, tons per year					Total, metric tons CO2e
Source	**CO2**	**CH4**	**N2O**	**HFCs**	**BC**	
Construction	7,550	1.36	0.00	0.00	0.66	7,334
Net Mobile	231,254	1.05	1.70	0.00	0.63	210,708
Yard trucks	5,631	0.00	0.00	0.00	0.00	5,109
Generator	267	0.01	0.00	0.00	0.04	267
Forklifts	197	0.00	0.00	0.00	0.01	183
Electricity	60,348	62.33	158.06	-	-	54,947
Water	2,664	5.43	0.15	-	-	2,580
Natural gas	4,942	2.37	26.99	-	0.00	4,511
Construction Refrigerants and Waste	115	0.00	0.00	0.06	0.00	166
Waste	8,540	504.67	0.00	-	-	19,193
Refrigerants	0	0.00	0.00	1.89	0.00	2,572
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total	322,657	577.22	186.90	1.95	1.33	308,612
Non-mobile emissions	91,403	576.17	185.20	1.95	0.70	97,904
Subtotal, capped	312,853	72.55	186.90	0.00	1.33	285,638
Subtotal, uncapped	9,804	504.67	0.00	1.95	0.00	22,974

World Logistics Center
Greenhouse Gas Emissions
Project

Unmitigated Greenhouse Gas Emissions by Year, metric tons of CO2e

	Capped										Uncapped						
Year	Construction	Mobile	Yard trucks	Generator	Forklifts	Electricity	Water	Natural gas	Solar	Subtotal	Construction Refrigerants and Waste	Waste	Refrigerants	Land use change	Sequestration	Subtotal	Total
2020	11,669	0	0	0	0	0	0	0	0	11,669	114	0	0	0	0	114	11,783
2021	11,334	29,629	264	14	9	4,696	133	381	0	46,462	114	992	133	60	-6	1,293	47,755
2022	14,916	59,259	528	28	19	9,393	267	763	0	85,172	140	1,985	266	119	-11	2,499	87,671
2023	10,896	98,765	881	46	32	15,654	445	1,271	0	127,989	140	3,308	443	199	-19	4,072	132,060
2024	20,473	138,271	1,233	64	44	21,916	623	1,779	0	184,403	231	4,632	621	279	-27	5,735	190,138
2025	12,153	211,639	1,887	99	68	33,545	953	2,723	0	263,066	231	7,089	950	426	-41	8,656	271,722
2026	14,103	232,084	2,541	133	91	37,895	1,283	3,087	0	291,217	138	9,547	1,279	574	-55	11,483	302,700
2027	11,885	242,878	2,887	151	104	40,192	1,458	3,278	0	302,832	96	10,844	1,453	652	-63	12,983	315,816
2028	13,960	249,365	3,094	162	111	41,572	1,562	3,394	0	313,221	96	11,624	1,558	699	-67	13,910	327,131
2029	12,806	255,853	3,302	173	118	42,952	1,667	3,509	0	320,380	123	12,404	1,662	746	-72	14,864	335,244
2030	15,470	265,110	3,598	188	129	44,922	1,817	3,673	0	334,907	135	13,517	1,811	813	-78	16,198	351,106
2031	11,759	275,608	3,934	206	141	47,155	1,986	3,860	0	344,649	135	14,779	1,980	889	-85	17,698	362,346
2032	17,052	286,105	4,270	223	153	49,389	2,156	4,047	0	363,395	135	16,040	2,149	965	-93	19,197	382,592
2033	15,772	296,603	4,606	241	165	51,622	2,326	4,233	0	375,568	100	17,302	2,319	1,041	-100	20,662	396,229
2034	11,739	303,484	4,826	252	173	53,086	2,437	4,355	0	380,352	100	18,129	2,429	1,090	-105	21,645	401,996
2035	14,029	310,364	5,046	264	181	54,550	2,548	4,478	0	391,460	53	18,956	2,540	1,140	-109	22,580	414,040
Buildout	7,334	312,229	5,109	267	183	54,947	2,580	4,511	0	387,159	166	19,193	2,572	1,154	-111	22,974	410,133

Mitigated Greenhouse Gas Emissions by Year, metric tons of CO2e

	Capped										Uncapped						
Year	Construction	Mobile	Yard trucks	Generator	Forklifts	Electricity	Water	Natural gas	Solar	Subtotal	Construction Refrigerants and Waste	Waste	Refrigerants	Land use change	Sequestration	Subtotal	Total
2020	11,669	0	0	0	0	0	0	0	0	11,669	97	0	0	0	0	97	11,766
2021	11,334	29,494	264	15	9	4,235	119	0	-179	45,292	123	248	133	60	-6	558	45,850
2022	14,916	58,988	528	30	19	8,469	239	0	-357	82,832	123	496	266	119	-11	993	83,825
2023	10,896	98,314	881	49	32	14,116	398	0	-595	124,089	214	827	443	199	-19	1,665	125,754
2024	20,473	137,639	1,233	69	44	19,762	557	0	-834	178,943	214	1,158	621	279	-27	2,245	181,188
2025	12,153	210,672	1,887	106	68	30,248	853	0	-1,276	254,709	121	1,772	950	426	-41	3,229	257,938
2026	14,103	231,297	2,541	142	91	34,337	1,148	0	-1,705	281,955	80	2,387	1,279	574	-55	4,265	286,220
2027	11,885	242,187	2,887	161	104	36,496	1,304	0	-1,931	293,093	80	2,711	1,453	652	-63	4,833	297,927
2028	13,960	248,731	3,094	173	111	37,794	1,398	0	-2,068	303,195	106	2,906	1,558	699	-67	5,202	308,397
2029	12,806	255,276	3,302	185	118	39,091	1,492	0	-2,204	310,067	118	3,101	1,662	746	-72	5,556	315,623
2030	15,470	264,615	3,598	201	129	40,943	1,626	0	-2,398	324,185	118	3,379	1,811	813	-78	6,044	330,228
2031	11,759	275,205	3,934	220	141	43,043	1,778	1	-2,618	333,461	118	3,695	1,980	889	-85	6,597	340,058
2032	17,052	285,795	4,270	239	153	45,143	1,929	1	-2,838	351,744	83	4,010	2,149	965	-93	7,115	358,859
2033	15,772	296,385	4,606	258	165	47,242	2,081	1	-3,059	363,451	83	4,326	2,319	1,041	-100	7,668	371,120
2034	11,739	303,326	4,826	270	173	48,619	2,181	1	-3,203	367,931	36	4,532	2,429	1,090	-105	7,983	375,914
2035	14,029	310,268	5,046	282	181	49,995	2,280	1	-3,347	378,734	17	4,739	2,540	1,140	-109	8,327	387,061
Buildout	7,334	312,149	5,109	286	183	50,368	2,308	1	-3,386	374,351	149	4,798	2,572	1,154	-111	8,563	382,914

0.1315

Reductions from Mitigation, metric tons of CO2e

	Capped										Uncapped						
Year	Construction	Mobile	Yard trucks	Generator	Forklifts	Electricity	Water	Natural gas		Subtotal	Construction Refrigerants and Waste	Waste	Refrigerants	Land use change	Sequestration	Subtotal	Total
2020	0	0	0	0	0	0	0	0	0	0	-17	0	0	0	0	-17	-17
2021	0	-135	0	1	0	-462	-14	-381	-179	-1,170	10	-744	0	0	0	-735	-1,905
2022	0	-271	0	2	0	-923	-28	-762	-357	-2,340	-17	-1,489	0	0	0	-1,506	-3,845
2023	0	-451	0	3	0	-1,539	-47	-1,271	-595	-3,900	74	-2,481	0	0	0	-2,407	-6,307
2024	0	-632	0	5	0	-2,155	-65	-1,779	-834	-5,460	-17	-3,474	0	0	0	-3,491	-8,950
2025	0	-967	0	7	0	-3,298	-100	-2,723	-1,276	-8,357	-110	-5,317	0	0	0	-5,427	-13,784
2026	0	-786	0	9	0	-3,558	-135	-3,086	-1,705	-9,261	-58	-7,160	0	0	0	-7,219	-16,480
2027	0	-691	0	11	0	-3,696	-153	-3,278	-1,931	-9,739	-17	-8,133	0	0	0	-8,150	-17,889
2028	0	-634	0	11	0	-3,778	-164	-3,393	-2,068	-10,026	10	-8,718	0	0	0	-8,708	-18,734
2029	0	-577	0	12	0	-3,861	-175	-3,508	-2,204	-10,313	-5	-9,303	0	0	0	-9,308	-19,621
2030	0	-495	0	13	0	-3,979	-191	-3,673	-2,398	-10,723	-17	-10,138	0	0	0	-10,154	-20,877
2031	0	-403	0	14	0	-4,113	-209	-3,859	-2,618	-11,187	-17	-11,084	0	0	0	-11,101	-22,288
2032	0	-310	0	16	0	-4,246	-227	-4,046	-2,838	-11,652	-52	-12,030	0	0	0	-12,082	-23,734
2033	0	-218	0	17	0	-4,380	-244	-4,232	-3,059	-12,116	-17	-12,977	0	0	0	-12,994	-25,110
2034	0	-157	0	18	0	-4,468	-256	-4,355	-3,203	-12,421	-64	-13,597	0	0	0	-13,661	-26,082
2035	0	-96	0	18	0	-4,555	-268	-4,477	-3,347	-12,725	-36	-14,217	0	0	0	-14,253	-26,978
Buildout	0	-80	0	19	0	-4,579	-271	-4,510	-3,386	-12,808	-17	-14,395	0	0	0	-14,411	-27,219

Unmitigated Greenhouse Gas Emissions for Buildout

	Greenhouse Gas, tons per year					Total, metric tons CO2e
Source	CO2	CH4	N2O	HFCs	BC	
Construction	7,550	1.36	0.00	0.00	0.66	7,334
Mobile	342,627	2.40	2.67	0.00	0.91	312,229
Yard trucks	5,631	0.00	0.00	0.00	0.00	5,109
Generator	267	0.01	0.00	0.00	0.04	267
Forklifts	197	0.00	0.00	0.00	0.01	183
Electricity	60,348	62.33	158.06	-	-	54,947
Water	2,664	5.43	0.15	-	-	2,580
Natural gas	4,942	2.37	26.99	-	0.00	4,511
Construction Refrigerants and	115	0.00	0.00	0.06	0.00	166
Waste	8,540	504.67	0.00	-	-	19,193
Refrigerants	0	0.00	0.00	1.89	0.00	2,572
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total	434,031	578.57	187.87	1.95	1.61	410,133
Non-mobile emissions	91,403	576.17	185.20	1.95	0.70	97,904
Subtotal, capped	424,226	73.89	187.87	0.00	1.61	387,159
Subtotal, uncapped	9,804	504.67	0.00	1.95	0.00	22,974

World Logistics Center
Greenhouse Gas Emissions
Net Mobile EV

Mitigated Greenhouse Gas Emissions by Year, metric tons of CO2e

	Capped										Uncapped						
Year	Construction	Mobile	Yard trucks	Generator	Forklifts	Electricity	Water	Natural gas	Solar	Subtotal	Construction Refrigerants and Waste	Waste	Refrigerants	Land use change	Sequestration	Subtotal	Total
2020	11,669	0	0	0	0	0	0	0	0	11,669	97	0	0	0	0	97	11,766
2021	11,334	14,622	264	15	9	4,302	119	0	-179	30,488	97	248	133	60	-6	532	31,019
2022	14,916	29,245	528	30	19	8,605	239	0	-357	53,224	123	496	266	119	-11	993	54,217
2023	10,896	48,741	881	49	32	14,341	398	0	-595	74,742	123	827	443	199	-19	1,574	76,316
2024	20,473	68,238	1,233	69	44	20,078	557	0	-834	109,858	214	1,158	621	279	-27	2,245	112,103
2025	12,153	104,445	1,887	106	68	30,731	853	0	-1,276	148,966	214	1,772	950	426	-41	3,322	152,288
2026	14,103	124,584	2,541	142	91	37,985	1,148	0	-1,705	178,890	181	2,387	1,279	574	-55	4,366	183,255
2027	11,885	135,216	2,887	161	104	41,815	1,304	0	-1,931	191,441	115	2,711	1,453	652	-63	4,869	196,311
2028	13,960	141,606	3,094	173	111	44,117	1,398	0	-2,068	202,392	115	2,906	1,558	699	-67	5,211	207,603
2029	12,806	147,996	3,302	185	118	46,418	1,492	0	-2,204	210,115	157	3,101	1,662	746	-72	5,595	215,710
2030	15,470	157,114	3,598	201	129	49,703	1,626	0	-2,398	225,444	176	3,379	1,811	813	-78	6,102	231,546
2031	11,759	167,455	3,934	220	141	53,427	1,778	1	-2,618	236,096	176	3,695	1,980	889	-85	6,655	242,750
2032	17,052	177,795	4,270	239	153	57,152	1,929	1	-2,838	255,753	176	4,010	2,149	965	-93	7,208	262,961
2033	15,772	188,135	4,606	258	165	60,877	2,081	1	-3,059	268,835	121	4,326	2,319	1,041	-100	7,706	276,541
2034	11,739	194,912	4,826	270	173	63,318	2,181	1	-3,203	274,216	121	4,532	2,429	1,090	-105	8,069	282,284
2035	14,029	201,689	5,046	282	181	65,759	2,280	1	-3,347	285,920	47	4,739	2,540	1,140	-109	8,357	294,277
Buildout	7,334	203,526	5,109	286	183	66,421	2,308	1	-3,386	281,781	149	4,798	2,572	1,154	-111	8,563	290,344

F-2 Construction Emissions

World Logistics Center
Greenhouse Gas Emissions
Construction GHG Emissions

Unmitigated Construction GHG Emissions (Table 4.7.E), metric tons CO2e

Year	Construction CO2e (less Black Carbon)	Black Carbon	Construction Refrigerants and Waste	Total
2020	10,268	1,402	69	11,738
2021	10,145	1,188	69	11,402
2022	13,434	1,482	95	15,011
2023	10,057	839	95	10,991
2024	18,536	1,937	186	20,659
2025	11,378	774	186	12,339
2026	13,138	965	93	14,196
2027	11,121	765	52	11,937
2028	12,972	989	52	14,012
2029	11,942	864	78	12,885
2030	14,998	473	90	15,561
2031	11,465	294	90	11,849
2032	16,491	562	90	17,143
2033	15,285	487	55	15,827
2034	11,445	294	55	11,794
2035	13,737	293	8	14,037
Total	206,410	13,605	1,366	221,381
Average over 30 years	6,880	454	46	7,379

Note: Black carbon emissions assumed to be 77% of PM2.5 emissions, with GWP of 760.

Unmitigated Construction GHG Emissions, metric tons CO2e

Year	Construction CO2e (less Black Carbon)	Black Carbon	Total
2020	10,268	1,402	11,669
2021	10,145	1,188	11,334
2022	13,434	1,482	14,916
2023	10,057	839	10,896
2024	18,536	1,937	20,473
2025	11,378	774	12,153
2026	13,138	965	14,103
2027	11,121	765	11,885
2028	12,972	989	13,960
2029	11,942	864	12,806
2030	14,998	473	15,470
2031	11,465	294	11,759
2032	16,491	562	17,052
2033	15,285	487	15,772
2034	11,445	294	11,739
2035	13,737	293	14,029
Total	206,410	13,605	220,016
Average over 30 years	6,880	454	7,334

Note: Black carbon emissions assumed to be 77% of PM2.5 emissions, with GWP of 760.

World Logistics Center
Construction Emissions
Refrigeration Fugitive Emissions

Proposed Land Uses Square Footage

Land Use	Phase 1	Phase 2
Total conditioned space	3,780,000	5,940,000

Phase 1 Air Conditioning and Refrigeration Fugitive Emissions

Unit Type	Unit Quantity	Average charge, lbs	Average charge, kg	Annual Leak Rate, percent of capacity	Emissions, kg/year	Emissions, tons/year	Average Global Warming Potential	MTCO2e per year	MTCO2e, averaged over 30 years
Unitary A/C - small	756	100	45	3%	1029	1.13	1500	1543	51

Phase 2 Air Conditioning and Refrigeration Fugitive Emissions

Unit Type	Unit Quantity	Average charge, lbs	Average charge, kg	Annual Leak Rate, percent of capacity	Emissions, kg/year	Emissions, tons/year	Average Global Warming Potential	MTCO2e per year	MTCO2e, averaged over 30 years
Unitary A/C - small	1188	100	45	3%	1617	1.78	1500	2425	81

Methodology: U.S. Environmental Protection Agency, Climate Leaders. May 2008. Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment. EPA430-K-03-004

One unitary A/C for every 5,000 sq. ft. of conditioned space.

Annual leak rate, average charge, and Global Warming Potential from South Coast Air Quality Management District. Draft Environmental Assessment for Proposed Amended Rule 1415 – Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems and Proposed Rule 1415.1 – Reduction of Refrigerant Emissions from Stationary Refrigeration Systems. November 2010.

World Logistics Center
Construction Emissions
Construction Waste Emissions

Construction Waste Information and Assumptions

Parameter	Value
Building size, sq. ft.	1,800,000
Total mixed construction and demolition waste, tons	550.13
Mixed C&D waste diverted (recycled/reused), tons	412.7
Green waste, tons	5.0
Percent of total recycled, %	75.0%

Construction Waste Estimates

		Construction Waste Factors, tons/sq.ft.			Construction Waste, tons				
Source	Project Square Feet	Mixed C&D Waste	Recycled Waste	Green Waste	Mixed C&D Waste	Green Waste	Total Waste	Percent Recycled	Recycled Waste, tons
Construction waste	40,610,000	3.06E-04	2.29E-04	2.78E-06	12,412	113	12,524	51%	6,425

Construction Waste Percentage Results for 51% recycled

	For Project			References	
Waste Type	C&D Waste, %	Waste landfilled, tons	Recycled, tons	Study 1	Study 2
Glass	1%	124	93		0.2%
Corrugated containers	8%	993	745	5.7%	2.0%
Dimensional lumber	17%	2,110	1,583	31.9%	23.3%
Medium-density fiberboard	7%	869	652	7.8%	3.8%
Food waste (non-meat)		0	0		0.9%
Yard trimmings (green waste)		113			2.3%
Grass		0	0		2.7%
Branches		0	0		1.8%
Mixed paper (general)	3%	372	279		3.6%
Mixed paper (primarily residential)		0	0		
Mixed paper (primarily from offices)		0	0		
Mixed metals	13%	1,614	1,211	13.2%	4.9%
Mixed plastics	6%	745	559	4.5%	5.5%
Mixed recyclables		0	0		
Mixed organics		0	0		
Mixed MSW	25%	3,103		26.6%	32.4%
Carpet	2%	248			3.9%
Clay bricks		0	0		
Concrete	10%	1,241	931	10.3%	2.0%
Fly ash		0	0		
Tires		0	0		
Asphalt concrete	2%	248	186		1.5%
Asphalt shingles		0	0		9.2%
Drywall	2%	248	186		
Fiberglass insulation	4%	496			
Vinyl flooring		0	0		
Wood flooring		0	0		
Total	100%	12,524	6,425	100.0%	100.0%

Waste Reduction Model (WARM) Results
inclusive of lifecycle GHG benefits of recycling

Condition	Total CO2e, metric tons	Average CO2e over 30 years, metric tons
Unmitigated	-333	-11
Mitigated	-13,548	-452
Net Reduction	-13,215	-441

Note: The mitigated condition is estimated by WARM by using the recycled tons as shown above.
WARM model run provided in previous EIR appendices (Volume 2), Appendix D.

WARM Results - Unmitigated = 50% C&D waste diversion
(with no lifecycle GHG credit for recycling)

Commodity	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total MTCO$_2$E
Glass	-	124.0	-	NA	5
Corrugated Container	-	993.0	-	NA	(47)
Dimensional Lumber	-	2,110.0	-	NA	(1,534)
Medium-density Fiber	-	869.0	-	NA	(632)
Yard Trimmings	NA	113.0	-	-	(18)
Mixed Paper (general)	-	372.0	-	NA	(25)
Mixed Metals	-	1,614.0	-	NA	63
Mixed Plastics	-	745.0	-	NA	29
Mixed MSW	NA	3,103.0	-	NA	3,052
Carpet	-	248.0	-	NA	10
Concrete	-	1,241.0	NA	NA	48
Asphalt Concrete	-	248.0	NA	NA	10
Drywall	-	248.0	NA	NA	31
Fiberglass Insulation	NA	496.0	NA	NA	19
		12,524.0		51% diversion	1,011
			over 30 years	Unmitigated	34
				75% diversion	506
			over 30 years	Mitigated	17

References for Construction Waste Percentages

Study 1	Tons	Percentage
Wood palettes	1,423	31.9%
Cardboard	256	5.7%
Metals	590	13.2%
Gypsum board	349	7.8%
Plastics	202	4.5%
Concrete	459	10.3%
Mixed	1,183	26.5%
Total	4,462	100.0%

Note: Waste percentages for the proposed project were estimated based on the following studies:

Study 1: California Integrated Waste Management Board. 2003. The Capitol Area East End Office Complex: A Case for Construction and Demolition Waste Diversion. Data from Table 2b. Website: http://www.calrecycle.ca.gov/Publications/Documents/GreenBuilding/43303023.pdf

Study 2: California Environmental Protection Agency. 2009. California 2008 Statewide Waste Characterization Study. Prepared by Cascadia Consulting Group. Data from Table 25: Composition of Commercial Self-Hauled Disposed Waste (includes all sources of self-hauled waste, not just from construction and demolition). Website: http://www.calrecycle.ca.gov/publications/Documents/General/2009023.pdf

F-3 Operational Emissions

World Logistics Center
Operational Emissions
Air Conditioning and Refrigeration Fugitive Emissions

Proposed Land Uses Square Footage

Land Use	Phase 1	Phase 2
Total conditioned space	3,780,000	5,940,000

Phase 1: Air Conditioning and Refrigeration Fugitive Emissions

Unit Type	Unit Quantity	Average charge, lbs	Average charge, kg	Annual Leak Rate, percent of capacity	Emissions, kg/year	Emissions, tons/year	Average Global Warming Potential	MTCO2e per year
Unitary A/C - small	756	100	45	5%	1715	1.89	1500	2572

Phase 2: Air Conditioning and Refrigeration Fugitive Emissions

Unit Type	Unit Quantity	Average charge, lbs	Average charge, kg	Annual Leak Rate, percent of capacity	Emissions, kg/year	Emissions, tons/year	Average Global Warming Potential	MTCO2e per year
Unitary A/C - small	1188	100	45	5%	2694	2.97	1500	4042

Methodology: U.S. Environmental Protection Agency, Climate Leaders. May 2008. Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment. EPA430-K-03-004

One unitary A/C for every 5,000 sq. ft. of conditioned space.

Annual leak rate, average charge, and Global Warming Potential from South Coast Air Quality Management District. Draft Environmental Assessment for Proposed Amended Rule 1415 – Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems and Proposed Rule 1415.1 – Reduction of Refrigerant Emissions from Stationary Refrigeration Systems. November 2010.

World Logistics Center
Greenhouse Gas Emissions
Operational Building Energy Use and EV Energy Use

Building Electricity and Natural Gas Use, and EV Use

Condition	Item	Phase 1	Phase 2	Units
Title 24 Baseline	Building annual electricity	194,287	330,649	MWh/yr
	Building annual natural gas	51,274	84,771	MMBTU/yr
	EV annual electricity	7,775	60,116	MWh/yr
	Building annual electricity GHG emissions	32,255	46,494	mtCO2e/yr
	Building annual natural gas GHG Emissions	2,723	4,510	mtCO2e/yr
	EV annual electricity GHG emissions	1,291	8,453	mtCO2e/yr
Proposed Project	Building annual electricity	174,423	298,084	MWh/yr
	Building annual natural gas	0	0	MMBTU/yr
	EV annual electricity	7,775	60,116	MWh/yr
	Building annual electricity GHG emissions	28,957	41,915	mtCO2e/yr
	Building annual natural gas GHG Emissions	0	0	mtCO2e/yr
	EV annual electricity GHG emissions	1,291	8,453	mtCO2e/yr
	Solar PV grid energy offset	7,686	24,083	MWh/yr
	Solar PV GHG offset	-1,276	-3,386	MWh/yr

Unmitigated Building Electricity and Natural Gas Use GHG Emissions

Year	Electricity	Natural Gas	Electricity & Natural Gas
2020	0	0	0
2021	4,696	381	5,078
2022	9,393	762	10,155
2023	15,654	1,271	16,925
2024	21,916	1,779	23,695
2025	33,545	2,723	36,268
2026	37,895	3,086	40,981
2027	40,192	3,278	43,470
2028	41,572	3,393	44,965
2029	42,952	3,508	46,461
2030	44,922	3,673	48,595
2031	47,155	3,859	51,015
2032	49,389	4,046	53,435
2033	51,622	4,232	55,855
2034	53,086	4,355	57,441
2035	54,550	4,477	59,027
Buildout	54,947	4,510	59,457

Mitigated Building Electricity and Natural Gas Use GHG Emissions

Year	Electricity	Natural Gas	Electricity & Natural Gas
2020	0	0	0
2021	4,235	0	4,235
2022	8,469	0	8,469
2023	14,116	0	14,116
2024	19,762	0	19,762
2025	30,248	0	30,248
2026	34,337	0	34,337
2027	36,496	0	36,496
2028	37,794	0	37,794
2029	39,091	0	39,091
2030	40,943	0	40,943
2031	43,043	0	43,043
2032	45,143	0	45,143
2033	47,242	0	47,242
2034	48,619	0	48,619
2035	49,995	0	49,995
Buildout	50,368	0	50,368

World Logistics Center
Greenhouse Gas Emissions
Operational Building Energy Use and EV Energy Use - Medium EV Scenario

Building Electricity and Natural Gas Use, and EV Use

Condition	Item	Phase 1	Phase 2	Units
Title 24 Baseline	Building annual electricity	194,287	330,649	MWh/yr
	Building annual natural gas	15,027	24,884	MMBtu/yr
	EV annual electricity	7,775	60,116	MWh/yr
	Building annual electricity GHG emissions	32,234	46,494	mtCO2e/yr
	Building annual natural gas GHG Emissions	2,723	4,510	mtCO2e/yr
	EV annual electricity GHG emissions	1,291	8,453	mtCO2e/yr
Proposed Project	Building annual electricity	174,423	298,084	MWh/yr
	Building annual natural gas	0	0	MMBtu/yr
	EV annual electricity	10,687	174,279	MWh/yr
	Building annual electricity GHG emissions	28,957	41,915	mtCO2e/yr
	Building annual natural gas GHG Emissions	0	0	mtCO2e/yr
	EV annual electricity GHG emissions	1,774	24,506	mtCO2e/yr
	Solar PV grid energy offset	7,686	24,083	MWh/yr
	Solar PV GHG offset	-1,276	-3,386	MWh/yr

Unmitigated Building Electricity and Natural Gas Use GHG Emissions

Year	Electricity	Natural Gas	Electricity & Natural Gas
2020	0	0	0
2021	4,693	381	5,075
2022	9,387	762	10,149
2023	15,645	1,271	16,916
2024	21,903	1,779	23,682
2025	33,525	2,723	36,248
2026	37,879	3,086	40,965
2027	40,178	3,278	43,456
2028	41,559	3,393	44,953
2029	42,941	3,508	46,449
2030	44,912	3,673	48,585
2031	47,148	3,859	51,007
2032	49,384	4,046	53,430
2033	51,619	4,232	55,852
2034	53,085	4,355	57,439
2035	54,550	4,477	59,027
Buildout	54,947	4,510	59,457

Mitigated Building Electricity and Natural Gas Use GHG Emissions

Year	Electricity	Natural Gas	Electricity & Natural Gas
2020	0	0	0
2021	4,302	0	4,302
2022	8,605	0	8,605
2023	14,341	0	14,341
2024	20,078	0	20,078
2025	30,731	0	30,731
2026	37,985	0	37,985
2027	41,815	0	41,815
2028	44,117	0	44,117
2029	46,418	0	46,418
2030	49,703	0	49,703
2031	53,427	0	53,427
2032	57,152	0	57,152
2033	60,877	0	60,877
2034	63,318	0	63,318
2035	65,759	0	65,759
Buildout	66,421	0	66,421

World Logistics Center
Operational Emissions
Land Use GHG Emissions

Land Use GHG Emissions

Parameter	**Value**
Initial acres	2,610
Final acres	45
Change in acres	2,565
Carbon sequestration, MTCO2e/acre/year	0.45
GHG emissions, MTCO2e/year	1,154

Note: CalEEMod has a default accumulation for "cropland" of 6.2 tons CO2e/acre/year. However, since the project site is dry farmed and therefore would have less carbon accumulation, Brown and Huggins (2010) was used and values in Table 1 of that article was used and converted (0.90 Mg C ha-1yr-1)

World Logistics Center
Greenhouse Gas Emissions
Carbon Sequestration

Estimated Tree Inventory

Project Location	Tree Inventory Calculation Details	Tree Species	Trees
Automobile parking	1 tree/6 stalls x 10,981 stalls	Average	1,830
Building perimeters	Assuming an average of 1,500,000 sq. ft. per building; taking the square root and multiplying by 4 yields the building perimeter (4,900 feet x 27.8 buildings = 136,220 feet); 1 tree per 60 feet	Average	2,270
Redlands Boulevard, Bay Street	Length = 6,642 feet / 40 feet (1 side of road)	Pine	55
		Blue Palo Verde	55
		Sweet Acacia	55
Gilman Springs Road	Length = 12,257 feet / 40 feet (1 side of road)	Afghan Pine	306
60 Freeway	Length = 4,684 feet / 40 feet (1 side only)	Afghan Pine	59
		Date Palm (25' trunk height)	59
Street A	Length = 8,656 / 40 feet x 2 side of street	Chilean Mesquite/Algarrobo	216
		Mexican Fan Palm (30' trunk height	216
Eucalyptus Street	Length = 5,350 feet / 40 feet (1 side of road)	Brisbane Box	45
		Afghan Pine	45
		Date Palm (30' trunk height)	45
Street B	Length = 4,418 feet / 40 feet x 3 (two sides of street and median)	Brisbane Box	331
Streets C, D, E, F, G, H	Length = 38,363 feet / 40 feet x 2 sides of street	Chilean Mesquite/Algarrobo	1,918
Total			**7,506**

Note: For automobile parking, Table 9.11.040C-12 in Moreno Valley Code states that warehouse and distribution uses are required to have 1/1,000 sq. ft. of gross floor area for the first 20,000 sq. ft.; 1/2,000 sq. ft. of gross floor area for the second 20,000 sq. ft.; 1/4,000 sq. ft. of gross floor area for areas in excess of the initial 40,000 sq. ft. Assuming 27.8 buildings each 1,500,000 sq. ft. in size yields 10,981 stalls

Tree Carbon Sequestration Rates (Age of Tree)

		CO2 Sequestration (lb/tree/year)	
Tree Species	Code	5 years	10 years
Afghan pine	PIBR	47.3	161.0
Blue palo verde	CEFL	14.6	53.3
Brisbane box	TRCO	40.1	36.8
Chilean mesquite/algarrobo	PRCH	36.1	100.3
Crape myrtle sp.	LAIN	2.0	3.6
Desert willow	CHLI	4.9	15.1
Sweet acacia	ACFA	17.0	38.0
Sycamore	PLRA	41.7	109.5
Average	--	24.0	55.4

Note: The rate at five years is used in the analysis; 10 years is shown for informational purposes to demonstrate that the trees will increase sequestration rates over time. The codes are from the CUFR Tree Carbon Calculator (2012).

Tree Carbon Sequestration Rates (Height of Tree)

		CO2 Sequestration (lb/tree/year)	
Tree Species	Code	25 feet	30 feet
Date Palm	PHDA4	14.8	15.0
Mexican Fan Palm	WARO	26.9	26.4

Tree Carbon Sequestration Estimates

		CO2 Sequestration	
Tree Species	Trees	lb/tree/year	tons/year
Average	4100	24.0	49
Afghan pine	465	47.3	11
Blue palo verde	55	14.6	0
Sweet acacia	55	17.0	0
Date Palm (25' trunk height)	59	14.8	0
Date Palm (30' trunk height)	45	15.0	0
Chilean mesquite/algarrobo	2135	36.1	39
Mexican fan palm (30' trunk height)	216	26.4	3
Brisbane box	376	40.1	8
Total	7506		111

APPENDIX B

Biological Resources Technical Memorandum (Revised) and DBESP

ESA

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memorandum

date	May 23, 2018
to	Highland Fairview Properties
cc	
from	Tommy Molioo, Sr. Associate Biologist
subject	World Logistics Center Specific Plan – Updated Biological Resources and Sensitive Surveys

On behalf of Highland Fairview Properties, Environmental Science Associates (ESA) conducted updated focused surveys for sensitive biological resources previously surveyed and have a potential to occur on the approximately 2,610-acre World Logistics Center (WLC) Specific Plan Area (Plan Area). The sensitive biological resources that have a potential to occur and were previously surveyed for preparation of the project's Final Environmental Impact Report (FEIR) include: burrowing owl (*Athene cunicularia*, BUOW), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*, LAPM), and various Narrow Endemic Plant species (NEPs). ESA also ground-truthed the vegetation communities previously mapped on the Plan Area by First Carbon Solutions in 2012, and an updated vegetation map is not recommended as the vegetation communities remain nearly the same as previously mapped. Additionally, as a result of incidental detection of coastal California gnatcatcher (*Polioptila californica californica*, CAGN) during burrowing owl surveys, focused protocol surveys for this Federally Threatened species were conducted by a USFWS-permitted biologist and the details of the survey are discussed in a separate technical letter report. This memorandum includes a discussion of the methodology and results of the focused surveys conducted by ESA on the WLC Plan Area during Spring 2018.

Project Location

The WLC Specific Plan Area is located in the eastern portion of the City of Moreno Valley, in western Riverside County, California. The WLC Plan Area generally occurs north of State Route (SR) 74, south of SR-60, east of Interstate 215, and west of SR-79 (**Figure 1**). The Plan Area is specifically located south of SR-60, north of the San Jacinto Wildlife Area (SJWA), east of Redlands Boulevard, and west of Gilman Springs Road, and encompasses approximately 2,610 acres of primarily agricultural land. The Plan Area also occurs within the mapped boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

Project Background

The focused surveys described in this memorandum were conducted in order to support the revisions required by the California Supreme Court ruling for the Revised Final Programmatic EIR Sections. The Revised Final Programmatic EIR Sections is being revised and recirculated as required by a Ruling on Peremptory Writ of

Mandate issued by the Superior Court of California in February 2018. The previous focused surveys were conducted on the Plan Area as recently as 2013, and need to be updated in order to adequately address the current potential for special-status species to occur in the WLC Plan Area.

Vegetation Mapping

Methodology

ESA biologists ground-truthed the previous vegetation mapping prepared for the Plan Area by FirstCarbon Solutions in 2012. The vegetation mapping effort conducted by ESA in 2018, was carried out concurrently with the initial burrowing owl focused surveys on March 8 and March 28, 2018. ESA's biologists traversed the entire Plan Area to determine if current vegetation communities match what was previously mapped. The vegetation mapping effort focused on areas primarily outside of active agricultural land since these areas were previously and are still currently used for row crops of cultivated wheat.

Results

The majority of the Plan Area is still dominated by agricultural land surrounded by residential and commercial development, and paved roads. Scattered native habitat occurs within the drainage features in the eastern portion of the Plan Area, and foothills in the southwest corner of the Plan Area. The drainages contain scattered mulefat scrub and Riversidean alluvial fan sage scrub (RAFSS) habitat, while the foothills in the southwest corner contain Riversidean sage scrub (RSS) habitat intermixed with scattered oak trees and non-native grasses. Much of the existing vegetation communities within the Plan Area are similar in size, location, and composition to what was previously mapped in 2012. Therefore, no vegetation mapping revisions are proposed. The one change to the previous vegetation map is the off-site fallow agricultural fields within the adjacent SJWA have converted to non-native grassland through the abandonment of farming activities.

Narrow Endemic Plant Surveys

Methodology

ESA conducted a focused vegetation/rare plant survey of the entire Plan Area, concentrating on approximately 200 acres that contains native vegetation to identify presence for any threatened, endangered, or otherwise special-status plants species (criteria area and narrow endemic plant species), in accordance with CDFW protocol. These surveys were conducted concurrently with other species focused surveys in March and April 2018. Areas with the potential to support special-status plant species were surveyed on foot walking transects through suitable habitat that primarily included drainages, native scrub habitat in the northern and southern portions of the Plan Area, and along margins of agricultural fields. While 15 special-status plant species have a potential to occur on the Plan Area, the rare plant survey focused on three plant species that have a moderate to high potential to occur on the existing habitats within the Plan Area. These three species include: thread-leaf brodiaea (*Brodiaea filifolia*) a federally threatened species, smooth tarplant (*Centromadia pungens* ssp. *laevis*) a California Rare Plant Rank (CRPR) 1B.1, and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) a CRPR 1B.1. These three species are known to occur within the vicinity of the Plan Area and could all occur within disturbed areas with scattered native scrub habitat.

Results

No special-status plant species were observed during the 2018 focused survey effort. Each drainage previously surveyed for special-status plants was walked in March and April 2018 during other focused survey efforts.

Additionally, native scrub habitat in the northern and southern portions of the Plan Area were surveyed for the presence of the three species listed above with negative results.

Burrowing Owl Surveys

Methodology

Based on previous surveys of the Plan Area conducted between 2005 and 2013, burrowing owl (*Athene cunicularia*, BUOW) suitable habitat is present and surveys were conducted consistent with the Riverside County MSHCP protocol. The updated focused BUOW surveys in 2018 were conducted in two parts. The initial part (Phase 1) focused on surveying for suitable burrows and owl signs (white wash, feathers, track marks, pellets, prey remains), while the second part (Phase 2) focused on determining the presence/absence of BUOW. To survey for burrows and signs, the entire Plan Area plus a 150-meter buffer were walked in transects by qualified biologists, keeping a distance of no more than 30 meters apart between transects or at a distance such that the surveyor had 100% visibility. Suitable burrows, owl signs, and owls, were marked with a hand-held GPS unit and mapped on aerial field maps.

Four surveys were conducted focusing on surveying for BUOW. The first focused BUOW survey was conducted concurrently with the burrow survey; however, two survey days were needed to complete the first burrow and focused BUOW survey due to the size of the Plan Area and MSHCP protocol time restrictions. The four focused BUOW surveys were conducted one hour prior to sunrise until two hours after. First, surveyors searched for owls by scanning the area where mapped suitable habitat and signs of owls have been determined with the use of binoculars/spotting scopes. Then surveyors walked transects surveying for owl sign and owls. If any sign or owls were observed, they were marked with a hand-held GPS unit and mapped. Subsequent focused BUOW surveys were concentrated in areas that contain suitable burrows located in the vicinity of previous survey areas. The focused surveys were conducted during the breeding season (March 1st – August 31st) to accurately assess habitat use. In addition, weather conditions consisted of temperatures of 90ºF or below, wind speeds less than 20 miles per hour (mph), no rain, and no heavy fog. Table 1 below includes the weather conditions during each survey date, and the ESA biologists that conducted the surveys. Each survey was spaced a minimum of one week apart to be able to observe burrowing owl use on the Plan Area across an extended period. Due to rain events in the region, surveys were delayed to allow 5 days to pass after the rain event before conducting a subsequent focused BUOW survey.

Results

The Phase 1 portion of the focused BUOW survey consisted of locating any small mammal burrows that would be suitable to support a nesting BUOW. The focused burrow survey was conducted on March 8 and March 28, 2018, and covered the entire Plan Area, including a 500-foot buffer surrounding the WLC Plan Area for the total survey area. The focused burrow survey identified clusters of potentially suitable burrows along the perimeter of the agricultural fields, particularly within drainages, along berms and roadways, and adjacent to naturally vegetated areas. The majority of small mammal burrows observed belong to the California ground squirrel (*Otospermophilus beecheyi*). The four focused BUOW surveys were concentrated in areas that contain the majority of suitable burrows and located in the vicinity of the previous BUOW observation in 2012. These areas include the large drainage on the eastern portion of the WLC Plan Area, and a spoil pile and berm located parallel to Alessandro Boulevard within the middle of the survey area.

As indicated in Table 1 below, a single BUOW was observed on two separate survey dates within the large drainage channel on the eastern portion of the WLC Plan Area. The owl and its active burrow were observed and mapped during the March 8 survey, near the southern border of the WLC Plan Area, just north of the SWJA. The same owl was observed again on April 6, foraging within the same drainage channel, but further north closer to Alessandro Boulevard. Subsequent surveys on April 20 and April 27 did not observe the BUOW, and an inspection of the previously observed active burrow showed evidence of discontinued use due to the lack of fresh whitewash and the entrance of the burrow was overgrown with vegetation. This owl is most likely foraging within the WLC Plan Area and may be a solitary male that breeds at an offsite location. The 2018 observation of the BUOW is within the proximate vicinity of the 2012 observation that occurred along the berm paralleling Alessandro Boulevard. The locations of the observed burrowing owl and active burrow are depicted on **Figure 2**.

TABLE 1: BURROWING OWL FOCUSED SURVEY RESULTS

Survey Date	Personnel*	Survey Time	Survey Type	Weather Conditions			Results
				Temp. (°F)	Wind (mph)	Cloud Cover	
3/8/18	TM, DH, KF	0615 – 0830	Focused Burrow Survey and BUOW Survey #1	45	1-2	80%	1 BUOW observed
3/8/18	TM, DH, KF	0830 - 1130	Focused Burrow Survey	45	1-2	80%	Multiple burrows mapped
3/28/18	TM, DH	0600 – 0800	Focused BUOW Survey #1	50	1-2	0%	No BUOW observed
4/6/18	DH, KF, KaF, AS	0600 – 0800	Focused BUOW Survey #2	59	1-2	0%	1 BUOW observed
4/20/18	TM, DH, KF	0600 – 0830	Focused BUOW Survey #3	48	1-2	50%	No BUOW observed
4/27/18	MT, KaF	0600 - 0830	Focused BUOW Survey #4	52	1-3	100%	No BUOW observed

*ESA biologists: TM=Tommy Molioo, DH=Dale Hameister, KF=Karl Fairchild, KaF=Karla Flores, AS=Alanna Sullivan, MT=Maile Tanaka

Los Angeles Pocket Mouse Trapping

Methodology

ESA conducted within the WLC Plan Area a single 5-day trapping effort for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*, LAPM), from the evening of May 6, 2018 to the morning of May 11, 2018, in accordance with the Riverside County MSHCP. A LAPM-experienced biologist (Kelly Rios) performed a US Fish and Wildlife Service (USFWS) small mammal protocol survey to determine the presence/absence of LAPM within the approximately 20-acres of suitable habitat within the WLC Plan Area. ESA set three trap lines within sandy soils along drainages and washes in the eastern and northeastern portions of the WLC Plan Area, respectively. In accordance with USFWS survey protocol, the trapping effort was conducted for five consecutive evenings, during when the species is active aboveground at night, and during a new moon phase. Each trap was baited with a birdseed mixture that is placed at the back of the trap. The traps are left in place and opened at dusk each night and inspected once each during the night and at dawn the following morning. Any animals, if trapped, were identified and released at the point of capture. All species captured were recorded, including number of individuals, and mapped locations, where applicable.

Results

Three trap line transects were placed within suitable habitat areas on the WLC Plan Area that contain RAFSS and mulefat scrub vegetation (Figure 2). Transect 1 consisted of 38 traps and Transect 2 consisted of 9 traps placed within the large drainage feature in the eastern portion of the Plan Area. Transect 3 consisted of 20 traps placed in the northern portion of the WLC Plan Area within a small drainage characterized by planted pomegranate trees. The 5-night trapping effort resulted in captures of four small mammal species: San Diego pocket mouse (*Chaetodipus fallax*), deer mouse (*Peromyscus maniculatus*), harvest mouse (*Micromys minutus*), and woodrat (*Neotoma* sp.). These species are all common in the region and are not considered sensitive. No LAPM individuals were trapped within the WLC Plan Area in 2018. These results are consistent with previous trapping efforts conducted by Kelly Rios within the WLC Plan Area in 2010 and 2012.

Coastal California Gnatcatcher Surveys

Methodology

CAGN is a federally threatened species and a California Species of Special Concern. The purpose of focused CAGN surveys was to determine the current presence or absence of CAGN in potentially suitable habitat within the survey area. Suitable habitat for the species is isolated to an approximately 7.6-acre stand of RSS vegetation in the northern portion of the WLC Plan Area. Focused CAGN surveys were not previously conducted on the WLC Plan Area, and since an incidental observation of this species occurred during BUOW surveys, focused CAGN surveys were conducted in order to determine the extent of the presence of this species and map its observed territory. The focused surveys were conducted by ESA biologists Tommy Molioo (TE-06873C-0.1) and Kelly Rios (TE-018909-5) who currently hold a USFWS-issued 10(a)(1)(A) recovery permit to survey for CAGN. These permitted biologists were assisted by ESA biologists Karl Fairchild, Karla Flores, Maile Tanaka, and Alanna Sullivan.

The focused surveys were conducted in accordance with the most current U.S. Fish and Wildlife Service protocol (USFWS 1997). The WLC Plan Area occurs within the MSHCP, and therefore, pursuant to the USFWS survey protocol, a total of three survey dates were conducted in suitable gnatcatcher habitat at least one week apart, between February 15 - August 31, and the hours of 6:00 AM and 12:00 PM. Surveys were performed on April 20, April 27, and May 7, 2018. The results of the surveys are included in **Table 2** below. Surveys were also conducted concurrently with other focused species surveys on the WLC Plan Area, particularly burrowing owl. ESA's biologists slowly walked throughout the approximately 7.6 acres of RSS habitat, watching for CAGN individuals and listening for CAGN vocalizations. If CAGN was not seen or heard, a recorded call was played. All observations by sight and sound were documented, including location, number of individuals, sex, age, and behavior.

Results

Prior to the start of the focused CAGN surveys, incidental observations of a pair of CAGN were made in the northern portion of the WLC Plan Area during focused burrow surveys for BUOW. Therefore, focused protocol surveys were conducted in this area as a result of the presence of suitable habitat and incidental observations of this species on two separate occasions. The focused CAGN surveys commenced on April 20, 2018 and resulted in the observation and detection of one pair (male and female) of CAGN within an isolated stand of RSS habitat characterized by a dominance of California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and scattered blue elderberry (*Sambucus nigra* ssp. *caerulea*). The same CAGN pair was observed during subsequent focused surveys on April 27 and May 7, 2018. The observed territory for this pair was mapped on the subsequent surveys and is limited to the stand of RSS. A large patch of California buckwheat scrub occurs to the north of the mapped CAGN territory, which was also surveyed but determined to be currently absent of CAGN. Therefore, the northern portion of the WLC Plan Area is currently considered occupied by a single pair of CAGN. The results of the focused surveys are summarized in Table 2 below and the recorded locations of the CAGN pair and their observed territory is depicted on **Figure 3**.

TABLE 2: CAGN SURVEY RESULTS

Date	Personnel*	Start Time	End Time	Environmental Conditions	Observations
4/20/18	TM, DH, KF	8:00 AM	10:00 AM	Overcast to clear skies, 48-65° F, wind 0-2 mph	8:10 AM; adult pair foraging
4/27/18	TM, KaF, MT	8:30 AM	10:30 AM	Overcast to clear skies, 55-65° F, wind 0-2 mph	8:30 AM; adult pair foraging 9:00; male displaying territorial behavior
5/7/18	KR, AS	8:00 AM	10:00 AM	Overcast to clear skies, 68-76° F, wind 0-2 mph	8:00 AM; adult pair

*ESA biologists: TM=Tommy Molioo, DH=Dale Hameister, KF=Karl Fairchild, KaF=Karla Flores, AS=Alanna Sullivan, MT=Maile Tanaka

Conclusion

Overall, the vegetation communities within the WLC Plan Area remain in a similar condition as previously mapped by MBA, consisting of mainly agricultural fields with scattered native habitats within drainages and along the periphery of the WLC Plan Area. No Narrow Endemic Plant species were observed within the WLC Plan Area during the 2018 surveys, which is consistent with previous surveys conducted for the WLC Project. A single BUOW was observed in the large drainage on the eastern portion of the WLC Plan Area. This BUOW was flushed from its burrow in the southern portion of the large drainage during the March 8, 2018 survey, and was observed again in the northern portion of the same large drainage on April 6, 2018. This BUOW was not observed again during subsequent surveys and the bird may only be foraging within the WLC Plan Area, and may mate and breed in offsite areas. The LAPM trapping effort resulted in negative findings of LAPM, or any other special-status small mammal species, which is consistent with previous trapping efforts on the WLC Plan Area. Lastly, the northern portion of the WLC Plan Area is currently considered occupied by a pair of the federally-threatened CAGN, which is a covered species under the provisions of the MSHCP.

While the overall conditions of the WLC Plan Area have remained the consistent with previously documented results since 2012, BUOW and CAGN were observed in new locations of the WLC Plan Area. However, both species are covered by the MSHCP and potential impacts will be considered less than significant with avoidance measures incorporated at the project-level.

Attachments:

Figure 1: Project Location
Figure 2: 2018 Biological Survey Results Map
Figure 3: 2018 California Gnatcatcher Survey Results Map

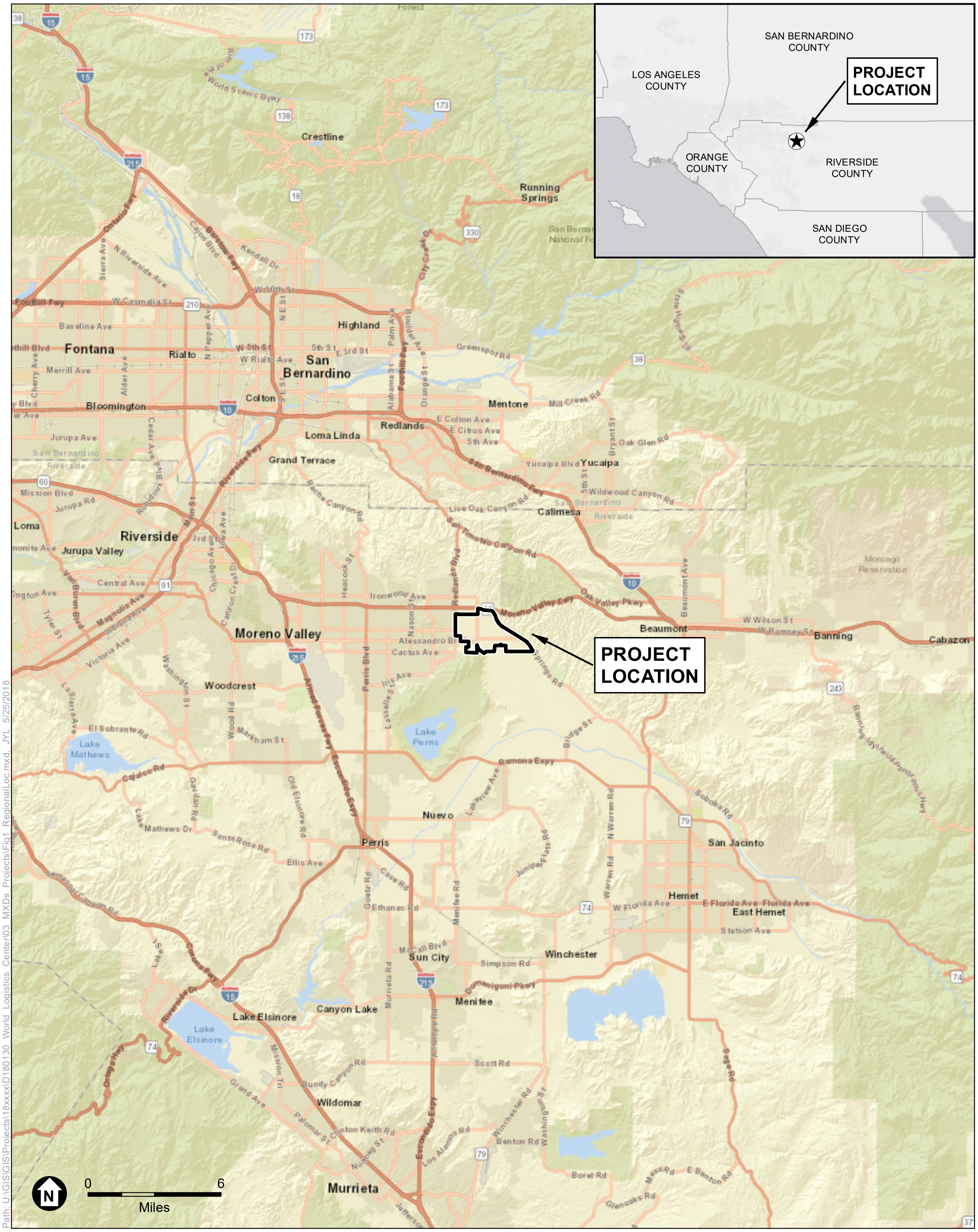

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\Fig1_RegionalLoc.mxd, JYL 5/25/2018

SOURCE: ESRI

World Logistics Center

Figure 1
Regional Location

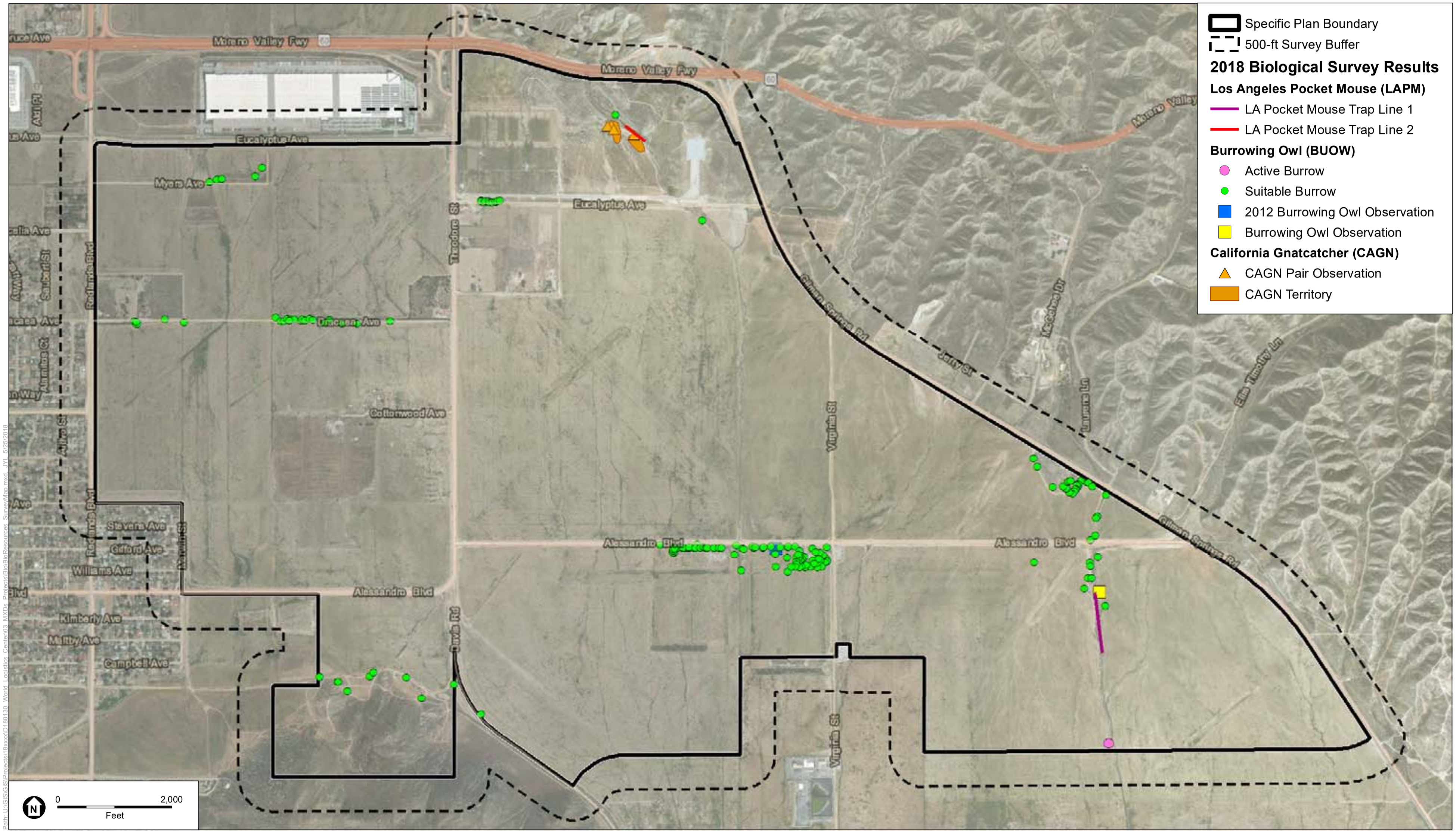

Path: U:\GIS\GIS\Projects\18xxxx\D180130_World_Logistics_Center\03_MXDs_Projects\Bio\BioResources_SurveyMap.mxd, JYL 5/25/2018

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 2
2018 Biological Survey Results

ESA

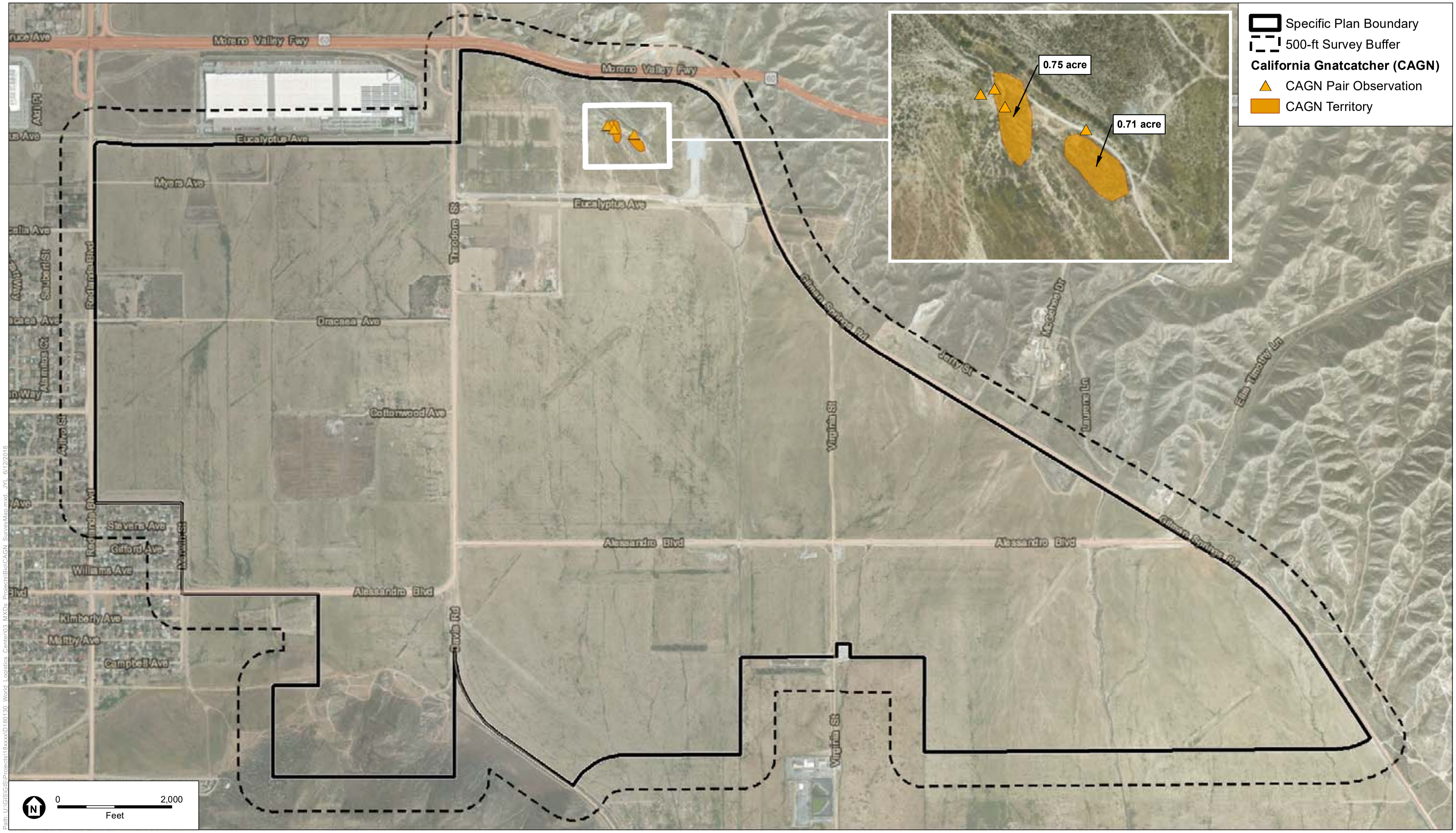

SOURCE: ESRI 2016; ESA 2018

World Logistics Center

Figure 3
2018 California Gnatcatcher Survey Results

ESA

Determination of Biological Equivalent or Superior Preservation (DBESP) Analysis
World Logistics Center Project
City of Moreno Valley, Riverside County, California

Sunnymead and El Casco USGS 7.5-minute Topographic Quadrangles
Sections 1, 10, 11, 12, 13, and 14 of Township 3 South and Range 2 West

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June 10, 2014

Revised by ESA: May 2018

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SECTION 1: SUMMARY

FirstCarbon Solutions | Michael Brandman Associates (FCS) conducted a Habitat Assessment and MSHCP Consistency Analysis (FCS 2013a) to comply with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and City of Moreno Valley CEQA requirements for an Environmental Impact Report (EIR) for the World Logistics Center project . This report includes an assessment of the riparian/riverine areas associated with the World Logistics Center project.

Within the World Logistics Center Specific Plan (WLCSP), Highland Fairview Operating Company is proposing to develop 40.6 million square feet of warehouse facilities and associated infrastructure. As part of the project design, a development setback area will occur along the southern boundary adjacent to the San Jacinto Wildlife Area (SJWA)A total survey area of 5,970 acres was examined during the MSHCP consistency analysis, which includes the WLCSP, offsite facilities, ,northern portion of the SJWA and additional survey areas. The examination was made through direct pedestrian surveys, literature reviews, and/or aerial photography reviews. All graphical and textual references to the "CDFW Conservation/Buffer Area" in this document are hereby replaced with the "San Jacinto Wildlife Area (SJWA)".

Fifteen drainage features were documented within the project site based on the Delineation of Jurisdictional Waters and Wetlands for the World Logistics Center Specific Plan (FCS 2013b). ESA conducted an update to the jurisdictional delineation and verified a total of 11 drainage features with the potential for regulatory jurisdiction (ESA 2016).

Portions of five of these features are considered riparian/riverine areas, as described in the Delineation of Jurisdictional Waters and Wetlands for the World Logistics Center Specific Plan. Based on current design plans, a program-level Determination of Biologically Equivalent or Superior Preservation (DBESP) will be required if these drainage features are likely to be impacted by future project development. If impacts to any of these areas are proposed on a project-level basis, then a subsequent project-level DBESP will be required to assess the extent of impact and the measures taken to reduce the impact or determine mitigation measures for implementation either onsite or through offsite credits.

SECTION 2: INTRODUCTION

2.1 - Project Location

The survey area is generally located north of State Route 74 (SR-74), south of SR-60, east of Interstate (I) 215, and west of SR-79 (Exhibit 1). Specifically, the survey area is located within Sections 1, 2, 10, 11, 12, 13, and 14 of Township 3 South, Range 2 West; and Sections 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, and 21 of Township 3 South, Range 3 West as depicted on the Sunnymead and El Casco, California, United States Geological Survey (USGS) 7.5-minute topographic maps (Exhibit 2). The survey area is specifically located south of SR-60, east of Redlands Boulevard, and west of Gilman Springs Road (Exhibit 3). The survey area encompasses several contiguous parcels totaling approximately 5,970 acres, including potential offsite improvements on the eastern, northern, and western margins of the WLCSP to assess indirect impacts to "wildlands areas." Highland Fairview Operating Company is proposing to develop the WLCSP within 2,610 acres of the northern portions of the survey area.

Land use within the survey area includes extensive agricultural lands, seven remaining private residences, natural gas compressor station, water district facility, and general open space. Off-site facilities are located in residential development and general open space areas.

Land use in the general vicinity of the site includes residential development to the west, active agricultural to the north and south, and open space areas to the east.

2.2 - Project Description

The WLCSP encompasses approximately 2,610 acres of land in eastern Moreno Valley. Associated offsite improvements areas include infrastructure extensions , north, west, and east of the WLC and encompass an additional 302 acres inclusive of roadway and utility improvements as well as potential debris basins on the east side of Gilman Springs Road. The proposed General Plan Amendment and Zone Change deletes the current residential mixed-use land uses (the Moreno Highlands Specific Plan) and replaces them with job-producing land uses (the WLCSP) in the development areas. The General Plan Amendment and Zone change encompasses an additional 1,104 acres of "Open space" and "public" uses which will be provided in the undeveloped areas. The northerly 70 percent of the survey area is within the proposed WLCSP, which will function as the development regulations for the World Logistics Center, a master-planned logistics complex.

The most southerly 30 percent of the survey area (1,104 acres) will not be developed as part of the WLCSP, but will be designated as "open space" and/or "public" uses by the General Plan Amendment and Zone Change. A 502-acre area is associated with an expanded survey area to cover potential indirect impacts associated with the SJWA and Core H of the MSHCP and the lands associated with the eastern side of Gilman Springs Road and proposed Core 3. The remaining 1,452 acres is additional survey areas considered for potential offsite improvements (Exhibit 4**)**.

Offsite environmental impacts are associated with roadway and utility improvements, which are also included as part of the WLCSP. These include a potential drainage improvements near Sinclair Street, north of SR-60, and one or more potential drainage improvements in various canyons along the north side of Gilman Springs Road. Potential water reservoirs and an access road are proposed for a hilly area west of Moreno Beach Drive/north of Cottonwood and on a hillside west of Theodore Street/south of Ironwood Avenue. Sewer improvements are planned for Redlands Boulevard, Gilman Springs Road, Bay Avenue, Merwin Street, Brodiaea Avenue, and Quincy Street. Water supply improvements are planned for Cottonwood Avenue, Eucalyptus Avenue, Merwin Street, Redlands Boulevard, and Gilman Springs Road.

The area immediately south of the WLCSP consists of the SJWA, , and a 194-acre San Diego Gas and Electric (SDG&E) compressor station. SDG&E controls approximately 194 acres, of which 19 acres are used for the compressor site and other natural gas facilities. This area has been included in the survey area because it included in the proposed General Plan Amendment and Zone Change. These lands are not a part of the Specific Plan development and no direct impacts to this area will occur.

A 74.3-acre area (Planning Area 30 in the WLCSP) is designated as open space in the WLCSP and therefore was not given any designation in the MSHCP document. The Applicant will offer the land for dedication to the State or the RCA. There are existing utilities that will require occasional routine maintenance and therefore, the designation of this area as a “conservation area” may not be feasible. For this reason, the area was not labeled as a conservation area in the document. During the project-specific development process, all or part of this property may be considered for conservation or otherwise left as proposed open-space designation in the Specific Plan. This can be further discussed with RCA at a project-specific level in the future.

This biological resources assessment examines potential indirect impacts associated with both construction and operations of the proposed facilities on the WLCSP lands, as well as those in the rest of the survey area. Studies on indirect impacts are based on a combination of literature reviews, aerial photograph interpretation, and projects completed within the vicinity of the WLCSP. This 1,000-foot area is hereafter referred to as the Indirect Impact Zone. It is defined as an area extending 1,000 feet beyond the boundaries of the Specific Plan in areas with substantially undeveloped land adjacent to or proposed for conservation by the MSHCP, but does not include areas contained within the SJWA. Current plans call for a phased development over 15 years; thus, a programmatic analysis of the project is the preferred methodology. In previous documents, including the Draft EIR, the phased development has varied from 10 to 20 years. For consistency throughout all environmental documents, a 15-year build-out is now the current plan for development. As individual developments occur and project-specific applications are processed additional site-specific studies may be required.

Exhibit 1: Regional Location Map

Exhibit 2: Local Vicinity Map, Topographic Base

Exhibit 3: Local Vicinity Map, Aerial Base

SECTION 3: METHODOLOGY

3.1 - Literature Review

Prior to conducting the DBESP analysis for the riparian/riverine areas, a literature review was conducted of the environmental and regulatory setting for the biological survey area. The literature review provides a baseline from which to evaluate the riparian/riverine areas potentially occurring within the survey area, and within the local and regional vicinity.

The literature review began with a thorough examination of existing technical reports associated with the WLCSP and surrounding area. Recent and historical aerial imagery was reviewed, as well as the topographic electronic and hard copies of the Lakeview, Sunnymead, and El Casco, California USGS 7.5-minute topographic quadrangle maps. The Delineation of Jurisdictional Waters and Wetlands for the World Logistics Center Specific Plan was used to confirm the current locations of drainage features likely to be considered riparian/riverine under the MSHCP.

The MSHCP requires that an assessment be completed of the potentially significant effects of the project on riparian/riverine areas, and vernal pools. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in Section 6.1.2, protection of species associated with riparian/riverine areas and vernal pools.

3.2 - Field Investigation

The habitat assessment component of the subject DBESP report was based on the findings of the field reconnaissance surveys most recently conducted on June 13, 20, 21, and 27, and July 3, 7, and 9, 2013. FCS's biologists conducted various surveys of the project site on foot, including habitat assessment surveys for sensitive plant and wildlife species, and thorough analyses of all potential drainage features onsite, particularly those that qualify as riparian/riverine habitat. ESA biologists conducted their site visit on November 2, 2016.

Environmental conditions and biological resources that were observed or otherwise detected during the surveys of the project site were recorded in field notebooks. Data used in determining jurisdictional limitations for FCS's delineation of jurisdictional waters and wetlands were collected using a Trimble GeoXt GPS unit with an accuracy of ±1 foot , as well as mapping on standard 7.5-minute USGS topographic quadrangles and aerial photographs. Other materials used to delineate the limits of the drainage features included a 30-meter tape measure, shovel, and Munsell color chart.

All 15 drainage features observed onsite were systematically inspected to record existing conditions and measure widths and length. Width measurements were taken from bank to bank at the ordinary high water mark (OHWM), at approximately 300-foot intervals. Any associated riparian vegetation coverage was recorded on aerial photographs and verified during the site visit. Width and length measurements were entered into Geographical Information System (GIS) Arcview software to identify drainage area locations and dimensions. The Arcview application was then used to compute the surface area of each riparian/riverine feature in acres. Acreage computations were verified using the aerial photographic and field data to estimate the approximate drainage length. Surface area was calculated by multiplying total length of each feature by its average width as determined at the measurement intervals. Features 2, 3, 13, and 14 were determined to be non-jurisdictional by ESA (ESA 2016).

SECTION 4: DETERMINATION OF BIOLOGICAL EQUIVALENT OR SUPERIOR PRESERVATION (DBESP) ANALYSIS

4.1 - Purpose and Need for the DBESP Analysis

Section 6.1.2 of the Western Riverside County MSHCP requires an assessment of the potentially significant effects of a project on Riparian/Riverine Areas and Vernal Pools and associated riparian/ riverine species. This assessment is independent from considerations given to waters of the United States (U.S.) and waters of the State under the CWA and California Fish and Game Code (CFG Code).

Projects within the boundaries of the Western Riverside County MSHCP area that have the potential to impact existing riparian/riverine habitat require an analysis of the functions and values of the habitat on and adjacent to the project impact area. In addition, a biologically equivalent or superior alternative to existing riparian/riverine conditions must be incorporated into the project. Functions and values include those that contribute to the biological sustainability of an area determined to be riparian/riverine, such as vegetation and faunal composition of the habitat, and the degree to which a riparian/riverine area provides habitat suitable for plant and wildlife species. Functions and values that pertain to the hydrology of the riparian/riverine area and the watershed, to which it is directly connected, include its contribution to flows that may affect water quality, flow rates, energy dissipation, flooding, erosion, scouring, and sediment transport into adjacent areas.

The DBESP analysis includes the following:

- Identification and delineation of all riparian/riverine habitat within the project area
- Description of pre-project functions and values of riparian/riverine habitat onsite
- Description of project design features, impacts, and avoidance and/or mitigation measures to conserve and/or protect existing riparian/riverine habitat onsite
- Demonstration of an increase in post-project functions and values of riparian/riverine habitat onsite and offsite through the implementation of the project and associated avoidance and mitigation measures

4.2 - Description of the Pre-Project Riparian/Riverine Functions and Values

Riparian/riverine areas are defined as containing habitat dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to, or depend upon soil moisture from, a nearby fresh water source, or areas with fresh water flow, during all or a portion of the year. Vernal pools are seasonal wetlands that occur in shallow depression areas that have all three wetland indicators (hydrology, hydric soils, and hydrophytic vegetation), during the wet portion of the growing season, but may lack wetland indicators during the dry portion of the growing season.

Fifteen drainage features were assessed as part of the riparian/riverine study as required under the MSHCP (Exhibit 4). Five of these drainage features meet the criteria as riparian/riverine under the MSHCP (Drainages 7, 8, 9, 12, and 15). This determination was based on two primary drainage requirements. Two of the drainage features (Drainages 12 and 15) have direct hydrologic connections to downstream drainage features and are tributary to larger drainage features. These two drainage features lack vegetation, but have a clearly defined bed and bank feature and evidence of flows. The other three drainage features (Drainages 7, 8 and 9) have a defined bed and bank feature for a portion of the drainage and some portion of the drainage has a stand of riparian vegetation, which is dominated by mule fat scrub or other riparian vegetation. The remaining ten drainage features are considered upland swales with minor erosional features. They contain no riparian vegetation and are not hydrologically connected to any downstream drainage features. Therefore, they have an extremely low function and value and are not considered riparian/riverine areas under MSHCP guidelines. If it is determined at a project-level basis that additional drainage features should be considered riparian/riverine, then those drainage features will also be included in a project-level DBESP for future development. Feature 2 is an agricultural ditch/swale; Feature 3 is a detention basin; Features 13 and 14 are agricultural basins.

None of the riparian/riverine plant species listed in the MSHCP's Section 6.1.2 were observed on the project site. This is consistent with survey results conducted by ESA in 2018. That list includes:

Brand's phacelia
California Orcutt grass
California black walnut
Coulter's matilija poppy
Engelmann oak
Fish's milkwort
Graceful tarplant
Lemon lily
Mojave tarplant
Mud nama
Ocellated Humboldt lily
Orcutt's brodiaea
Parish's meadowfoam
Prostrate navarretia
San Diego button-celery
San Jacinto Valley crownscale
San Miguel savory
Santa Ana River woolly-star
Slender-horned spineflower
Smooth tarplant
Spreading navarretia
Thread-leaved brodiaea
Vernal barley

None of the riparian vegetation observed on site is listed as threatened or endangered or otherwise sensitive. No onsite portions of WLCSP provide suitable habitat for any of the wildlife species listed in the MSHCP's Section 6.1.2. That list includes:

Arroyo toad
Mountain yellow-legged frog
California red-legged frog
Bald eagle
Least Bell's vireo
Peregrine falcon
Southwestern willow flycatcher
Western yellow-billed cuckoo
Sana Ana sucker
Riverside fairy shrimp
Vernal pool fairy shrimp

None of these species were observed during any of FCS's surveys. None of the species were observed during ESA's 2018 surveys. No vernal pools or suitable habitat for vernal pool plant or wildlife species occur on the project site.

The following is a complete description of the drainage features determined to be riparian/riverine within the project site. These drainage features are numbered based on the Delineation of Jurisdictional Waters and Wetlands for the World Logistics Center Specific Plan (FCS 2013b). Drainages 1, 2, 3, 4, 5, 6, 10, 11, 13, and 14 are not considered riverine riparian habitat. These features lack riparian habitat and are generally described as upland swales with sporadic bed and bank features and likely only contain flowing water during extremely large storm events. All of these features sheet flow and disappear prior to connecting to any significant downstream drainage feature and do not provide any downstream value to offsite drainage features. These features are not considered riparian/riverine and will not be further discussed in the document. Drainage features 7, 8, 9, 12, and 15 contain a clearly defined bed and bank feature that continues offsite to a significant downstream drainage feature or have riparian vegetation within the active channel and have some function and value as drainage features (Exhibit 4). None of these drainage features have both connectivity to a significant downstream drainage feature and riparian vegetation. The natural run-off from the agricultural field may be considered a significant source of pollution to downstream drainage features depending on the amount of fertilizer and pesticides that are used

4.2.1 - Drainage Feature 7

Drainage 7 is an agricultural ditch/swale that runs from north to south and originates in the Badlands approximately 0.75 mile north of the survey area. It passes beneath highway SR-60 through a corrugated steel pipe and continues as a soft-bottom channel with a dense stand of mule fat scrub with scattered arroyo willows (*Salix lasiolepis*). This habitat continues downstream for approximately 1,300 feet before the channel reverts to an unvegetated soft-bottom channel. The drainage continues to the south and eventually reverts to a mule fat scrub habitat immediately south of Alessandro Road. This portion of the channel is approximately 30 feet wide and 1,500 feet in length. The drainage continues in an unvegetated soft bottom channel until it reaches the southerly survey area boundary, where it again reverts to a mule fat scrub community. This portion of the channel extends for approximately 600 feet and then reverts to an unvegetated channel. The drainage eventually sheet-flows within an existing agricultural field south of the survey area and north of Mystic Lake with no direct hydrologic connection to any TNW or RPW.

Vegetation observed within Drainage 7 is primarily non-native herbaceous annual forbs and grasses, including short pod mustard, Russian thistle, ripgut brome, and red brome. Other sub-dominant species observed include tree tobacco, mule fat (*Baccharis salicifolia*), tarragon (*Artemisia dracunculus*), and Jimson weed (*Datura wrightii*). Additionally, there is a predominance of bare ground in the herbaceous layer. There is an intermittent dominance of hydrophytic vegetation observed within three separate reaches of the feature associated with patches of mule fat. There are no clearly defined bed and bank features throughout the drainage feature.

Soils observed within Drainage 7 are dominated by both San Emigdio loam and San Emigdio fine sandy loam, and do not exhibit any hydric soil indicators. Small inclusions of Badlands and Metz loamy sand also occur within the drainage. These soils can be considered hydric if adequate hydrology is present. There is no evidence of hydrophytic vegetation within areas designated as Badland or Metz loamy sand. The soils within Drainage 7 are permeable and promote very high percolation rates, thereby reducing the potential for any anaerobic or hydric conditions. No wetland hydrology, hydric soils, or obligate hydrophytes exist within Drainage 7.

The majority of Drainage 7 is a low quality drainage feature with little or no vegetative cover. There are three isolated patches of moderate quality riparian habitat within portions of the drainage feature. It conveys storm flows with little or no significant pollution sources. There is minimal erosion and overall the value of this drainage is moderate.

4.2.2 - Drainage Feature 8

Drainage 8 is an agricultural ditch/swale within the survey area. The majority of this feature is similar in form and function to Drainage 7. This feature originates in the Badlands approximately 1.6 miles north of the survey area, just south of the existing County landfill. This is an undisturbed ephemeral feature with an unvegetated channel. Drainage 8 passes beneath SR-60 within a corrugated steel culvert. The drainage flows southwest within an unvegetated channel until it reaches Gilman Springs Road. It flows parallel to the road until it reaches an underground culvert and goes beneath Gilman Springs Road where it enters the project area. The drainage then continues to the south as an agricultural ditch/swale for approximately 8,800 linear feet before the drainage feature terminates, allowing runoff to sheet-flow within the southern portion of the survey area. This drainage is physically interrupted by agricultural activities at several locations and does not flow continuously throughout its length. Drainage 8 appears to have been created as a result of artificial water channeling from historical agricultural activities .

Dominant vegetation associated with Drainage 8 is limited to sparse non-native herbaceous annual forbs and grasses including tree tobacco, annual sunflower, and red brome. Other plant species observed within portions of Drainage 8 include mule fat, horehound, and white horse nettle (*Solanum elaeagnifolium*). Scattered ruderal vegetation within the feature is dominated by tumbleweed (*Amaranthus albus*), annual sunflower (*Helianthus annuus*), and tree tobacco. No dominance of hydrophytic vegetation was observed within any portions of the feature.

Soils observed within Drainage 8 are dominated by Metz gravelly sandy loam, San Emigdio loam, and San Emigdio fine sandy loam. The soils within Drainage 8 are permeable and promote very high percolation rates, thereby reducing the potential for any anaerobic or hydric conditions.

The majority of Drainage 8 is a low quality drainage feature with little or no vegetative cover. It conveys storm flows that cross Gilman Springs Road, which can be considered a source of pollution from street run-off. There is minimal erosion and overall the value of this drainage is low.

4.2.3 - Drainage Feature 9

The segment of Drainage 9 that occurs within the survey area is approximately 1.3 miles long with an average OHWM ranging from 3 to 5 feet. This feature originates in the Badlands approximately 2.75 miles north of the survey area and is the most eroded drainage feature within the WLCSP. Water in Drainage 9 comes from three sources. A portion enters the survey area from a box culvert beneath Gilman Springs Road. Additional water flows over Gilman Springs Road in heavy rain events, and other flows travel along Gilman Springs Road and are diverted beneath Gilman Springs Road just north of Alessandro Boulevard. The drainage then flows in a southerly direction, and enters a small culvert beneath Alessandro Boulevard. The drainage then continues to the south as a highly eroded ephemeral drainage before transitioning to an upland swale and eventually sheet-flows south of the survey area. This drainage is physically interrupted by agricultural activities at several locations off site and does not flow continuously throughout its length. Drainage 9 appears to have been created as a result of runoff from the Badlands that flows under and across Gilman Springs Road and from onsite agricultural activities. Drainage 9 has become incised over the years due to occasional high runoff volumes and highly erosive soils.

The drainage feature contains signs of scouring and excessive erosion. It also contains a significant change in soil texture with a defined main channel and a single upland shelf. Drainage 9 is dominated by Metz loamy sand and San Emigdio fine sandy loam with a small inclusion of Metz loamy fine sand.

The majority of the drainage contains little or no vegetation along the channel bed. Vegetation is limited to the upland areas above the OHWM and is dominated by coastal sage scrub species. Dominant plant species include California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), desert brittlebush (*Encelia farinosa*), California sagebrush (*Artemisia californica*), and short-pod mustard. Other plant species observed within the channel include scale-broom (*Lepidospartum squamatum*), California aster (*Corethrogyne filaginifolia*), mayweed (*Anthemis cotula*), and four-winged saltbush (*Atriplex canescens*).

Soil within the drainage contains a noticeable change in texture from surrounding upland habitats. The sandy deposits contain no evidence of organic streaking or other hydric conditions. The drainage feature contains an intermittent OHWM between Gilman Springs Road and Alessandro Boulevard. Storm flows have cut a greatly incised channel, approximately 60 feet wide at the top of the channel and 10 to 20 feet in depth, just south of Alessandro Boulevard. The area immediately south of Alessandro Boulevard contains trash dumping, which includes yard waste, kitchen appliances, and old tires. This portion of the drainage feature does not meet the requirements for hydric soils.

The majority of Drainage 9 is a moderate quality drainage feature with scattered riparian and Riversidean sage scrub vegetation. It conveys storm flows that cross Gilman Springs Road, which can be considered a significant source of pollution from street run-off. There is some severe erosion located just south of Alessandro Boulevard. The overall value of this drainage is moderate.

4.2.4 - Drainage Feature 12

This feature flows along the east side of Merwin Street as a road-side ditch and enters a detention area designed as an energy reducer to minimize flood hazards to the adjacent residential development. The water continues to flow through an underground culvert beneath Alessandro Road and continues in an unvegetated channel until it flows offsite.

Drainage 12 has been artificially altered to receive additional flows due to the installation of several earthen berms designed to reduce flooding in the adjacent residential development. The additional earthen berms allow additional water to flow into the upstream portion of drainage 12, which originates just downstream of the intersection of Bay Avenue and Merwin Street within the WLCSP. The drainage is contained within an unvegetated channel for approximately 1,200 linear feet and is collected in a small detention area just north of Alessandro Boulevard. The Alessandro Boulevard Crossing was created as part of a flood control project along the western portion of the survey area and slows water flows to reduce erosion and flooding hazard. The drainage spills into a four-foot corrugated pipe and continues along the east side of Merwin Street, just south of Alessandro Boulevard.

This ephemeral drainage feature conveys flows only during and immediately following large storm events. The channel contains evidence of an intermittent OHWM and bed and bank features within the survey area. The majority of the drainage contains little or no vegetation and does not meet the minimum criteria for hydrophytic vegetation. Unlike Drainages 7, 8, and 9, this feature continues offsite within an improved flood control channel. South of Cactus Avenue, it flows south through an existing golf course, it continues southwest in the Perris Valley Storm Drain, which then connects to Canyon Lakes. As such, Drainage 12 directly connects to a downstream water of the U.S.

The drainage channel is dominated by San Emigdio loam and Hanford coarse sandy loam, which are typical soils within the survey area. Soil within Drainage 12 contains a noticeable change in texture from surrounding upland habitats. The sandy deposits contain no evidence of organic streaking or other hydric soils.

Drainage 12 contains no wetland hydrology indicators and does not meet the criteria for jurisdictional wetlands under the 3-criteria wetland determination guidelines (USACE 2001).

The majority of Drainage 12 is a low quality drainage feature with a nearly unvegetated channel with scattered weedy vegetation. It conveys storm flows that originate within the active agricultural area and areas directed around residential development. There is some erosion located just south of Alessandro Boulevard and overall the value of this drainage is low.

4.2.5 - Drainage Feature 15

Drainage 15 is located west of the project site and flows in a north-south direction. The drainage originates near the intersection of Quincy Street and Walther Avenue, approximately 2.0 miles northwest of the project site. The drainage is contained within a soft-bottom earthen channel and is an unvegetated channel with sparse riparian vegetation. This drainage flows into the downstream portion of Drainage 12 listed above, in an existing golf course area. Drainage 15 has a downstream connection to waters of the U.S.

Drainage 15 crosses a potential route of offsite infrastructure improvements and only a portion of the drainage feature is peripherally associated with the project site. It includes a clearly defined OHWM.

This ephemeral drainage feature conveys flows during and immediately following large storm events. It contains signs of scouring and excessive erosion. The channel contains a clearly defined OHWM at the location where the proposed offsite project feature is located.

The majority of the drainage contains little to no vegetation and does not meet the minimum criteria for hydrophytic vegetation.

The drainage channel is dominated by San Emigdio fine sandy loam, which is a typical soil scattered throughout Moreno Valley. Soil within the drainage contains a noticeable change in texture from surrounding upland habitats. The sandy deposits contain no evidence of organic streaking or other hydric soils.

The drainage feature contains no wetland hydrology indicators. The drainage feature does not meet the criteria for jurisdictional wetlands under the three-criteria wetland determination guidelines.

The majority of Drainage 15 is a low quality drainage feature with an unvegetated channel and scattered weedy species. It conveys storm flows from natural runoff and nuisance flows from adjacent residential development, which can be considered a significant source of pollution from street run-off. There is some severe erosion located along the length of the drainage and overall the value of this drainage is low.

4.3 - Potential Project Related Impacts

Although the WLCSP EIR analysis is a program level effort, project related impacts were estimated based on current specific plan design. The following is a brief discussion of the potential impacts associated with the riparian/riverine areas. This is necessary to establish estimated mitigation requirements necessary to offsite potential project related impacts at a specific-plan level. A total of 3.0 acres of riparian/riverine area occur within the WLCSP. The following is a general evaluation and estimate of the project related impacts to riparian/riverine areas.

4.3.1 - Drainage 7

Drainage 7 will be removed as part of the proposed development. All drainage associated with this feature will be contained within an underground storm drain system and flows will be conveyed to the southern boundary of the WLCSP where it will be returned to present flow patterns and rates. A total of 1.0 acre of riparian/riverine area will be permanently impacted within the WLCSP. This includes the three patches of riparian habitat as well as the unvegetated channel that connects them.

4.3.2 - Drainage 8

Drainage 8 will be removed as part of the proposed development. All drainages associated with this feature will be contained within underground storm drainage and flows will be conveyed to the southern boundary of the WLCSP where it will be returned to present flow patterns and rates. A total of 0.5 acre of riparian/riverine area will be permanently impacted.

4.3.3 - Drainage 9

Drainage 9 will remain in place and will be enhanced to provide higher quality riparian habitat as well as provide for wildlife movement between the Badlands and the SJWA. Proposed impacts associated with Drainage 9 include trash removal, construction of a single road crossing, removal of the existing Alessandro Boulevard, installation of energy dissipation devices, and the re-contouring of the upstream portion of the drainage between Gilman Springs Road and Alessandro Boulevard. Drainage 9 enhancement will begin with the removal of Alessandro Road. Currently, storm flows spill over the road and causes severe erosion south of Alessandro Boulevard. The upstream portion of drainage will be re-contoured to provide a more natural slope between Gilman Springs Road and Alessandro Boulevard. Energy dissipating devices will be installed periodically along Drainage 9 to reduce the flow velocity within the active channel, which will decrease downstream sediment deposition and erosion. Total area of riparian/riverine habitat within Drainage 9 is 0.9 acre. The estimated amount of permanent impacts will be approximately 0.2 acre with temporary impacts of approximately 0.7 acre. Most, if not all, portions of this drainage will be affected by future drainage improvements. However, once completed, the drainage will have a much higher function and value than what currently exists within the WLCSP.

4.3.4 - Drainage 12

The entirety of Drainage 12 will be impacted by project related activities within the WLCSP. This drainage has a total of 0.5 acre of riparian/riverine area. Half the impacts will be permanent (0.25 acre) and half will be temporary (0.25 acre). North of Alessandro Boulevard. Drainage 12 will be placed in an underground storm drain system and will outlet into a detention basin within the WLCSP. Downstream of Alessandro Blvd. Drainage 12 is proposed to be improved with a soft-bottom channel to Redlands Blvd. where it will connect to the existing improved channel.

4.3.5 - Drainage 15

Drainage 15 will be minimally disturbed throughout the proposed project development. There are two utility line upgrades that may be required at two road crossings of Drainage 15 (Cottonwood and Cactus). It is estimated that the area needed to complete the utility line upgrades is approximately 0.1 acre of riparian/riverine area.

4.4 - Project Design Features and Mitigation Measures

This program-level DBESP for impacts to riparian/riverine areas is required by the RCA and will be approved prior to final project approval. This DBESP includes a general discussion of mitigation options for impacts to riparian/riverine areas as well as general location and size of the mitigation area and will also include a monitoring program.

If impacts to riparian habitat within the WLCSP cannot be avoided at the time of project specific development, then a separate project-level DBESP and specific mitigation will be required under MSHCP guidelines.

Feasible mitigation measures are required to minimize the potentially significant impacts identified above. Many of the mitigation measures set forth below are standard mitigation measures approved by the United States Fish and Wildlife Service, California Department of Fish and Wildlife, County of Riverside, and City of Moreno Valley.

Exhibit 4: Riparian/Riverine Areas

4.4.1 - Mitigation Measures

Drainages 7 and 8, and portions of Drainage 12 will be filled as part of the proposed WLCSP. The affected areas of these drainages do not constitute functioning riparian habitat. Since these features are of low habitat quality, mitigating for impacts to these features will provide a beneficial use in the creation or preservation of riparian habitat rather than preserving the unvegetated drainage features onsite. These impacts will be mitigated through creation of riparian habitat on-site, creation of riparian habitat off-site, or purchase of credits at an approved mitigation bank. There will be a series of drainage improvements, which will be used for infiltration, to improve water quality and reduce erosion onsite, prior to entering the off-site drainage features. The WLCSP was designed to avoid the largest drainage feature within the WLCSP because it is a moderate-quality drainage feature, even though it does not connect to any downstream drainage features.

The post-project stream flows and sediment transport functions will be improved from the pre project conditions. Temporary impacts will be mitigated by restoring the affected portions of the drainage back to pre-project conditions, which includes removing the Alessandro Boulevard road crossing and re-contouring the upstream portion of the drainage between Gillman Springs Road and Alessandro Boulevard. No portion of Drainage 9 will be permanently impacted beyond disturbances associated with the new road crossing and energy dissipating devices. Installation of detention basins will provide a water quality component as well as reduced erosion and prevent downstream soil transport. The detention basins will provide improved function and value of riparian/riverine habitat within the WLCSP by reducing erosion and scour potential and increasing riparian habitat for local wildlife species.

Mitigation Measures/Riparian Habitat Creation

Post-construction stormwater discharges will be less than or equal to existing conditions onsite in accordance with Riverside County Flood Control requirements and all applicable water quality standards. This will be achieved through the installation of several detention/infiltration basins within the WLCSP, as well as several basins along the southern project boundary to capture, treat, and detain flows from the WLCSP before flows enter the adjacent CDFW Conservation Area.

The drainage improvements potentially occurring along the southern border of the WLCSP contain spreading structures that allow flows in an east-west direction to create a linear barrier between the proposed development and the adjacent open-space area. The proposed drainage improvements along the southern portion of the WLCSP can support as much as 52 acres, which includes approximately 45 acres of drainage bottom and 7 acres of drainage side slopes (Exhibit 5). In addition, portions of Drainage 9 will be enhanced with energy dissipating devices to reduce erosion and sediment loss. This will also include an additional riparian enhancement within the bottom of Drainage 9. Drainage 12 will be recontoured to support storm flows within and immediately downstream of the WLCSP. This area will also be enhanced and restored to a better than current existing condition by revegetation with native riparian plants that are associated with drier conditions.

Drainage improvements, such as detention basins, will be installed throughout the WLCSP to provide upstream detention and water quality treatment during a storm event's first flush. Drainage improvements along the southern boundary of the WLCSP, which will have spreading features, will be the final water quality treatment before entering an off-site drainage features. These areas may be used to create riparian habitat as part of the on-site mitigation option.

The term "functioning riparian habitat" describes a patch or area of riparian habitat that functions as a riparian habitat. It provides suitable habitat for plant and wildlife species that are commonly found in riparian habitats. Even low- quality riparian habitat may provide functional riparian habitat if it supports a population of riparian species. The riparian habitat onsite is extremely small and completely isolated from riparian habitat in the eastern portion of the City of Moreno Valley. The riparian vegetation onsite does not support wildlife species commonly found within riparian habitat such as common yellowthroat (*Geothlypis trichas sinuosa*), yellow warbler (*Setophaga petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and summer tanager (*Piranga rubra*), as described in the Birds as Indicators of Riparian Vegetation (no date) condition in the western U.S. Bureau of Land Management, Partners in Flight, Boise, Idaho. Therefore, even though the WLCSP contains small patches of riparian vegetation, it does not function as a riparian habitat. A few plants in an isolated area do not create a functional habitat.

The post-project best management practices shall meet the treatment flow-based/volume-based capacity requirements of the Regional Water Quality Control Board. These detention basins will be designed to provide functioning riparian habitat, which will be maintained by the increase in available water due to the impermeable surface of the proposed development.

A full Habitat Mitigation and Monitoring Plan(HMMP) will be prepared and submitted to the RCA and Wildlife Agencies for review, if necessary. A full HMMP will only be required if mitigation monitoring is required. If project-related impacts are mitigated through the offsite purchase of mitigation credits within an approved mitigation bank, then a full HMMP will not be required. This information will be required at a project-level environmental analysis.

Mitigation Measures

The mitigation plan for the major impacts to Drainages 7, 8, 9, 12, and 15 consists of mitigating for impacts to 3.0 acres of riparian/riverine habitat at a minimum replacement ratio of no less than 1:1. Restoration of no more than 6.0 acres of riparian scrub habitat will be required, with components of Riversidean sage scrub/mule fat scrub habitat, using the following approach. If on-site mitigation is used, all existing invasive weedy plant species will be removed and transported offsite to reduce the seed back of noxious species. The designated habitat creation areas for each project site shall be cleared of weeds prior to any grading activities. Once grading activities have been completed, soil decompacting may be required by ripping, if necessary. The site will then be seeded with appropriate native plant species and mulched to protect the prepared soils and deter weed germination. Cuttings will be installed during the appropriate season to promote rapid establishment of healthy riparian vegetation.

Exhibit 5: DBESP Mitigation Areas

Supplemental irrigation may be supplied to this restoration area by an irrigation system for the first 2 years to help establish the vegetation. Weed control in the treated area will be performed primarily during the late winter and spring months (January through May) during times when weed germination is prevalent. If needed, supplemental planting and seeding in subsequent years shall be conducted during the late fall and winter (October 15 through January 31). Monitoring of the revegetation process will be conducted periodically throughout the year and annual performance evaluations will be performed during late spring (May–June). Annual monitoring reports will be submitted to the appropriate agency describing the site's performance through the year and any supplemental planting conducted.

Based on the Habitat Assessment and MSHCP consistency document (FCS 2013), approximately 3.0 acres of riparian riverine habitat may be impacted by proposed projects in the future. At a minimum, habitat replacement will be required at a 1:1 ratio but may be as high as 3:1 depending on the quality of the habitat. Because the riparian habitat in a few of the drainage features is of low to moderate quality, a 2:1 mitigation ratio may be most appropriate. Again, the mitigation ratio will be established at the project level, in consultation with the CDFW, USFWS, RCA, and the City of Moreno Valley. At a 2:1 mitigation ratio, the estimated amount of replacement habitat is approximately 6 acres.

Since these documents were prepared as a program-level document, several mitigation alternatives were provided. The project biologist has indicated a general shift in mitigation recommendations from resource agencies. The trend is use of large offsite mitigation banks rather than create small isolated mitigation areas within the project site. The onsite detention basins may constitute adequate mitigation for impacts to riparian/riverine resources if designed appropriately, which may be agreed to by the Wildlife Agencies, especially if the resulting habitat is superior to the current site conditions and is not disturbed by routine maintenance on an annual basis. The final mitigation requirements will be determined at a project-level analysis. Since the requirement for mitigation measures cannot be determined at this point, FCS respectfully requests to keep all three mitigation scenarios (onsite creation, offsite creation, and offsite purchase of mitigation credits) as options until a project-specific analysis can be completed.

The primary and initial purposes for having the basins are for drainage and water quality. As long as those functions are not compromised and FCS is not restricted in maintaining the basins for those purposes, FCS would like to generate as much riparian habitat as possible. Although the preferred method of mitigation is offsite purchase of mitigation credits through an approved mitigation bank, FCS would like to have other options in case that option is no longer feasible.

Project-specific mitigation measures have not been created nor approved because a program level document cannot provide that level of specificity. Long-term conservation mechanisms available today may not be available or necessary when the proposed project is developed. The preferred means of mitigation is to purchase offsite mitigation credits at an approved mitigation bank. That way, all long-term conservation mechanisms are built into the mitigation purchase. In the event that onsite or offsite habitat creation is required as mitigation, then a non-wasting endowment will be established to provide monitoring and maintenance activities in perpetuity. These conservation areas will require a conservation easement and will be deeded to a third-party management agency or similar conservation district to manage the land. The detailed project-specific information requested will only be available along with a project-level document.

The proposed mitigation measures address program-level issues. Many things can change over time, including the most effective ways of controlling erosion. More description of each mitigation measure will be provided at a project-level. For example, if the program-level DBESP's MM-DBESP 4 describes the erosion control measures to be installed as straw wattles, but the final project-level HMMP requires silt-fence and hay bales, will that constitute a significant change? As described above, MM-DBESP 5 will include project-specific details regarding the species to be planted, but only within a project-level document.

To ensure the preservation or improvement of the biological and hydrological functions and values of riparian/riverine habitat onsite, the following mitigation measures will occur:

- MM-DBESP 1 - Onsite creation of riparian habitat at a minimum of 1:1 ratio (due to poor quality habitat onsite), will be established within artificially created detention/infiltration basins to reduce storm flows, improve water quality and reduce sediment transportation. These detention basins will be large enough to provide long-term conservation to riparian habitat without the routine maintenance associated with smaller basins. Vegetation removal will only occur at the area surrounding the in-take and out-fall structures of the basins, leaving the majority of the basin undisturbed.
- MM-DBESP 2 - Habitat creation activities will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher-quality riparian habitat but still maintain the basins for detention without impacts to the detention function of the basins.
- MM-DBESP 3 - Onsite soils and substrate that will be temporarily removed as a result of removing the drainage features will be retained for post-project re-establishment, so that native seed banks and soil compositions are conserved for optimal regrowth within the basins.
- MM-DBESP 4 - Erosion control measures will be installed within Drainage 9 to reduce the amount of sediment transport.
- MM-DBESP 5 - Additional riparian habitat will be enhanced within Drainage 9 following the installation of the erosion control measures.

4.4.2 - Measures to Reduce/Minimize Indirect Impacts

According to the MSHCP, the Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area (MSHCP, page 6-42). Portions of the WLCSP are located within three Criteria Cells (1204, 1297, and 1364). There is a small portion of Core Area H within the southwestern portion of the WLCSP. The southeastern portion of the WLCSP contains a small portion of and is immediately adjacent to Proposed Core 3. There is also an off-site improvement located north of the WLCSP that is also within Proposed Core 3 (Exhibit 4).

The Urban/Wildlife Interface Guidelines, as discussed below, will be included in the project to ensure that indirect, project-related impacts to the riparian/riverine habitat (including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development) are avoided or minimized.

Drainage

Detention/infiltration basins are part of the project design. During construction, the runoff leaving construction areas will be directed to these basins and away from downstream drainage features offsite. These basins will be active during the operational phase of the proposed project. The basins will be designed in accordance with all federal, state, regional, and local standards and regulations concerning water quality. The entire length of Drainage 9 will maintain existing flows through the WLCSP. These measures will assure that the project stormwater discharges are no greater in rate and velocity than current undeveloped conditions and that the water leaving the site complies with all applicable water quality standards.

Toxics

As part of the project specific water quality management plan (WQMP) source control Best Management Practices (BMPs) will be determined to minimize the potential for accidental release of hazardous materials. A project WQMP is a plan for managing the quality of stormwater or urban runoff that flows from a developed site after construction is completed and the facilities or structures are occupied and/or operational. A project WQMP describes the BMPs that will be implemented and maintained throughout the life of a project and is used by property owners, facility operators, tenants, facility employees, maintenance contractors, etc. to prevent and minimize water pollution that can be caused by stormwater or urban runoff.

All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP). The purpose of the SWPPP is to identify potential pollutant sources that may affect the quality of discharges associated with construction activity, to identify non-storm water discharges, and to design the use and placement of BMPs to effectively prohibit the entry of pollutants from the construction site into the storm drain system during construction. The WLCSP is required to stage construction operations as far away from the riparian/riverine habitat to the maximum extent feasible. Erosion and sediment source control BMPs shall be considered for both active and inactive (previously disturbed) construction areas. BMPs for wind erosion and dust control are also included as part of the SWPPP.

Invasive Plant Species

Invasive species identified in Table 6.2 of the MSHCP shall not be included in any landscape palette for land within 250 feet of CDFW-owned lands (see Table 1). All landscape plans shall be reviewed by the City for compliance with this requirement. Additionally, final landscaping and restoration plans will be consistent with the approved Conceptual Fuel Modification Plan for the project, if applicable.

Based on the discussion on page 111, as described in Section 6.1.6 of the MSHCP consistency analysis document, under invasive species, the project shall incorporate special edge treatments designed to separate development areas from open space areas. Landscape buffers shall be incorporated into the project design to prevent the intrusion of invasive plant species into natural areas. None of the plant species listed in Section 6.1.4 of the MSHCP shall be used for landscaping for any proposed project element. All landscape plans shall be reviewed by a qualified biologist to ensure invasive weedy species and other harmful non-native plant species are avoided in the landscape plan.

Table 1: Invasive Plant Species

Botanical Name	Common Name
Acacia spp. (all species)	acacia
Achillea millefolium var. *millefolium*	common yarrow
Ailanthus altissima	tree of heaven
Aptenia cordifolia	red apple
Arctotheca calendula	cape weed
Arctotis spp. (all species & hybrids)	African daisy
Arundo donax	giant reed or arundo grass
Asphodelus fistulosus	asphodel
Atriplex glauca	white saltbush
Atriplex semibaccata	Australian saltbush
Carex spp. (all species*)	sedge
Carpobrotus chilensis	ice plant
Carpobrotus edulis	sea fig
Centranthus ruber	red valerian
Chrysanthemum coronarium	annual chrysanthemum
Cistus ladanifer (incl. hybrids/varieties)	gum rockrose
Cortaderia jubata (syn. C. Atacamensis)	jubata grass, pampas grass
Cortaderia dioica (syn. C. sellowana)	pampas grass
Cotoneaster spp. (all species)	cotoneaster
Cynodon dactylon (incl. hybrids varieties)	Bermuda grass
Cyperus spp. (all species*)	nutsedge, umbrella plant
Cytisus spp. (all species)	broom
Delosperma 'Alba'	white trailing ice plant

Dimorphotheca spp. (all species)	African daisy, Cape marigold
Drosanthemum floribundum rosea	rosea ice plant

Table 1 (cont.): Invasive Plant Species

Botanical Name	Common Name
Drosanthemum hispidum	purple ice plant
Eichhornia crassipes	water hyacinth
Elaegnus angustifolia	Russian olive
Eucalyptus spp. (all species)	eucalyptus or gum tree
Eupatorium coelestinum (syn. *Ageratina* sp.)	mist flower
Festuca arundinacea	tall fescue
Festuca rubra creeping	creeping red fescue
Foeniculum vulgare	sweet fennel
Fraxinus uhdei (and cultivars)	evergreen ash, shamel ash
Gaura(spp. (all species)	gaura
Gazania spp. (all species & hybrids)	gazania
Genista spp. (all species)	broom
Hedera canariensis	Algerian ivy
Hedera helix	English ivy
Hypericum spp. (all species)	St. John's wort
Ipomoea acuminata	Mexican morning glory
Lampranthus spectabilis	trailing ice plant
Lantana camara	common garden lantana
Lantana montevidensis (syn. *L. sellowiana*	lantana
Limonium perezii	sea lavender
Linaria bipartita	toadflax
Lolium multiflorum	Italian ryegrass
Lolium perenne	perennial ryegrass
Lonicera japonica (incl. ‘Halliana’)	Japanese honeysuckle
Lotus corniculatus	birdsfoot trefoil
Lupinus arboreus	yellow bush lupine
Lupinus texanus	Texas blue bonnets

Table 1 (cont.): Invasive Plant Species

Botanical Name	Common Name
Malephora crocea	ice plant
Malephora luteola	ice plant
Mesembryanthemum nodiflorum	little ice plant
Myoporum laetum	myoporum
Myoporum pacificum	shiny myoporum
Myoporum parvifolium (incl. *'Prostratum'*)	ground cover myoporum
Oenothera berlandieri	Mexican evening primrose
Olea europaea	European olive tree
Opuntia ficus-indica	Indian fig
Osteospermum spp. (all species)	trailing African daisy, African daisy
Oxalis pes-caprae	Bermuda buttercup
Parkinsonia aculeata	Mexican palo verde
Pennisetum clandestinum	Kikuyu grass
Pennisetum setaceum	fountain grass
Phoenix canariensis	Canary Island date palm
Phoenix dactylifera	date palm
Plumbago auriculata	cape plumbago
Polygonum spp. (all species)	knotweed
Populus nigra 'italica'	Lombardy poplar
Prosopis spp. (all species*)	mesquite
Ricinus communis	castorbean
Robinia pseudoacacia	black locust
Rubus procerus	Himalayan blackberry
Sapium sebiferum	Chinese tallow tree
Saponaria officinalis	bouncing bet, soapwort
Schinus molle Peruvian	Peruvian pepper tree, California pepper
Schinus terebinthifolius	Brazilian pepper tree
Spartium junceum	Spanish broom
Tamarix spp. (all species)	tamarisk, salt cedar
Trifolium tragiferum	strawberry clover

Table 1 (cont.): Invasive Plant Species

Botanical Name	Common Name
Tropaelolum majus	garden nasturtium
Ulex europaeus	prickly broom
Vinca major	periwinkle
Yucca gloriosa	Spanish dagger
Note: An asterisk (*) indicates some native species of the genera exist that may be appropriate.	

Barriers

Pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Plot plans for development adjacent to such areas shall include details of the means to achieve this restriction. All required barriers shall be in place and functional prior to occupancy of affected buildings. Barrier treatments shall be compatible throughout the WLC project.

Each individual project shall incorporate special edge treatments designed to separate development areas from open space areas. These areas will serve to minimize unauthorized access, domestic animal predation, and illegal trespass and dumping. Specific details regarding barriers to prevent pedestrian and vehicle access to riparian areas are not necessary for a program-level document. Specific project features to achieve these purposes will be designed on a project-by-project basis during the project-level analysis. Barriers, such as retaining walls, planters, sound walls, and assorted fencing materials may be used to prevent pedestrian and vehicle access.

Grading/Land Development

As described on the grading plan, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to establish or enhance said habitat areas. All such riparian/riverine areas shall be clearly delineated on all grading plans to ensure this restriction is enforced.

The WLCSP, on a project-by-project basis, shall incorporate special edge treatments designed to separate development areas from open space areas. Landscape buffers shall be incorporated into the project design to prevent the intrusion of non-native plant species into natural areas. None of the plant species listed in Section 6.1.4 of the MSHCP shall be used for landscaping for any proposed project element. All landscape plans shall be reviewed by a qualified biologist to ensure invasive weedy species and other harmful non-native plant species are avoided in the landscape plan. Therefore, there should no justification for a discussion on invasive plant species above what is already included in Section 6.1.6 MSHCP consistency analysis document. A habitat mitigation and monitoring plan and/or a habitat restoration plan may be required on a project-by-project basis in consultation with RCA and CDFW.

To reduce potentially significant indirect impacts to the biological and hydrological functions and values of riparian/riverine habitat onsite, the following mitigation measures will occur:

- MM-DBESP 6 - During construction, the runoff leaving construction areas will be directed to on-site detention basins and away from downstream drainage features located offsite.
- MM-DBESP 7 - All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP).
- MM-DBESP 8 - Invasive species identified in Table 6.2 of the MSHCP shall not be included in any landscape palette for land within 250 feet of CDFW-owned lands.
- MM-DBESP 9 - Pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access.
- MM-DBESP 10 - No grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to establish or enhance said habitat areas.

4.4.3 - Fuels Management Guidelines

Fuels management focuses on hazard reduction for humans and their property (MSHCP, page 6-72).

According to the Fuels Management Guidelines, for new development that is planned adjacent to sensitive habitat, including riparian/riverine habitat or other undeveloped areas, brush management shall be incorporated in the development boundaries and shall not encroach into the habitat (MSHCP, page 6-72). The project shall be consistent with the Conceptual Fuel Modification Plan prepared for each individual project, pursuant to the City of Moreno Valley's Municipal Code and Fire Department, and National Fire Protection Association's Standard.

4.5 - Demonstration of Increase in Post-Project Riparian/Riverine Functions and Values

The post-project conditions of the onsite riparian/riverine habitats will be functionally superior to the pre-project conditions with the implementation of the conservation and avoidance strategies in the current WLCSP design, and the proposed mitigation options. Specifically, superior preservation will include the following:

- The enhancement of Drainage 9 with energy dissipation devices and restoration of mule fat scrub will improve riparian habitat quality while reducing soil erosion and thereby increasing the biological function for covered species.
- The detention basins with spreading structures will facilitate the creation and maintenance of riparian scrub vegetation within the WLCSP and stabilize the hydrologic regime by reducing erosion and scour potential, as well as assisting with energy dissipation during seasonal flooding. Slowing of surface flow rates will provide decreased sedimentation, reduction of erosion, and increased water quality.

- Increased habitat quality resulting from the proposed projects' improvements will collectively contribute to habitat function of the entire watershed. .

Typically, mitigation areas are required to meet a percentage of the visually estimated percent cover of the vegetation within the previous active channel prior to drainage relocation or removal. Prior to construction activities associated with the channel removal or enhancement, the percent of vegetation cover along the slopes and bottom of the channel should be visually estimated at the portion of the channel with the greatest percentage of vegetative cover occurs. The vegetative cover of the previously existing side slopes, on average, was estimated to be 30 percent with a 5-percent cover of the drainage bottoms. Therefore, the success criteria are a percentage of the estimated 30 percent side slopes and 5 percent drainage bottom.

4.5.1 - Performance Criteria for Mitigation Sites

Success Criteria

The success criteria for the total percent cover of all native plant species are detailed in Table 2.

Table 2: Target Total Native Coverage Guidelines

Year	Acceptable Range as a Percentage of Existing Conditions
1	25 to 30%
2	35 to 50%
3	40 to 60%
4	60 to 70%
5	Minimum 70% (plus 15% Bare Ground)

4.5.2 - Minimum Success Standards

In addition, the following minimum success standards must be achieved or exceeded for the revegetation effort to be considered successful:

1. **Total Coverage:** Vegetative cover is present over at least 70 percent of the total ground surface area within the treated area.
2. **Native Vegetation Coverage:** Native species must provide at least 75 percent total coverage within the treated area. This standard implies that no more than 10 percent of all vegetative cover may consist of ruderal non-native species. However, of the ruderal species "permitted" on the site, only species of very common, "naturalized," non-native grasses and herbs (e.g., Bromus, Avena, Conyza, Brassica spp.) may be allowed, particularly if their removal would be likely to promote erosion or incur significant collateral damage to healthy native species.
3. **Exotic Vegetation Coverage:** Particularly noxious invasive exotic species (tree tobacco, artichoke thistle, castor bean, tamarisk, etc.) must not contribute more than 1 percent of all vegetative cover.

4. **Species Diversity:** The composition of vegetation in the treated area must exhibit species diversity that is indicative of a transitional community with elements common to mule fat scrub and Riversidean sage scrub communities. Diversity may be measured in terms of the numbers of dominant (comprising >5 to 10 percent relative cover), and sub-dominant (at least 1 to 5 percent relative cover) native shrubs, succulents, and herbs identified by both visual estimates and linear transect data collections. Both mule fat scrub and Riversidean sage scrub must exhibit a minimum of 10 percent relative cover within at least 0.5 acre of the restoration area.
5. **Irrigation Limitation:** Supplemental irrigation shall be discontinued or reduced in the restoration area after a minimum of 2 years.

4.6 - Determination of Biologically Superior Preservation

Implementation of the proposed project and execution of the proposed design features will result in an increase in habitat quality and long-term sustainability of the existing riparian/riverine habitat on the project site. Onsite restoration of riparian habitat will improve the existing moderate quality riparian habitat, providing more dense stands riparian vegetation throughout Drainage 9, and increase the overall function and long-term value of riparian habitat within the proposed detention basins at a key juncture with Criteria Cells and the San Jacinto Wildlife Area.

Project-specific mitigation measures cannot be determined at this point; therefore, the three mitigation scenarios (onsite creation, offsite creation, and offsite purchase of mitigation credits) should be retained as options until each project-specific analysis is completed. Because of the low-to-moderate quality riparian/riverine habitat within the WLCSP, any combination of onsite creation, offsite creation or offsite purchase of mitigation credits would result in an overall increase in function and value of riverine/riparian habitat on a local and regional scale.

SECTION 5: CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this DBESP Analysis, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: December 5, 2013 Signed: ______________________

Scott A. Crawford
Section Manager of Natural Resources
FCS, Irvine, California

Date: May 25,2018 ~~Signed~~ ______________________

~~ESA~~

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APPENDIX C

Hydrology/Water Quality Technical Memorandum

TECHNICAL MEMORANDUM

TO:	Highland Fairview
PREPARED BY:	Woodard & Curran
DATE:	May 4, 2018
RE:	World Logistics Center Environmental Impact Report: Updated Cumulative Impacts Analysis for Hydrology and Water Quality

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The purpose of this memo is to present the updated cumulative impacts analysis for hydrology and water quality for the *World Logistics Center Project Final Programmatic Environmental Impact Report* (WLC EIR, LSA, 2015). The proposed Project as evaluated by the WLC EIR is the World Logistics Center Specific Plan, a master plan covering 2,610 acres and proposing a maximum of 40.4 million square feet of "high-cube logistics" warehouse distribution uses (approximately 99.5 percent of the total building area) classified as "Logistics Development" and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as "Light Logistics".

1. INTRODUCTION

As part of the hydrology and water quality technical studies for the WLC EIR the *Master Plan of Drainage Report* (CH2M HILL, 2014) and the *Project Specific Water Quality Management Plan* (CH2M HILL, 2014) were prepared. These reports discuss the hydrology and water quality aspects of the WLC Project and the mitigation measures to be implemented as part of the WLC Project.

The WLC EIR discussed the cumulative impacts of the WLC Project and concluded that the proposed WLC Project, including implementation of its *Master Plan of Drainage* and *Project Specific Water Quality Management Plan*, will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality on a local or regional basis. The cumulative impacts analysis was based on the "summary-of-projections" method. This technical memorandum presents an updated analysis of the cumulative impacts based on a hybrid approach of the "summary-of-projections" and the "list" method. Both the General Plan build-out and the past, present, and probable future projects were included in this analysis.

2. CUMULATIVE PROJECTS AREA AND PROJECTS LIST

2.1 Cumulative Projects Area

To evaluate the hydrology and water quality cumulative impacts of the WLC Project, the cumulative projects area was determined based upon a review of the tributary drainage area, flow direction of stormwater runoff from the WLC Project and a review of the downstream drainage areas and facilities.

As outlined in the WLC EIR, stormwater runoff from the WLC Project flows in a southerly direction to the San Jacinto River. As shown in Figure 1, a topographic divide located west of Theodore Street separates stormwater flows from the WLC Project to the San Jacinto River by two routes. Runoff west of the divide flows to the Perris Valley Storm Drain (PVSD) at a gradient also ranging from 1 to 2 percent. Runoff east of the divide flows through the San Jacinto Valley at a gradient also ranging from 1 to 2 percent to the San Jacinto Wildlife Area (SJWA).

The area tributary to the PVSD consists of two subareas, Sunnymead and Moreno, as delineated by the Riverside County Flood Control & Water Conservation District (RCFC&WCD). The PVSD watershed begins in the Badlands to the north and extends to Mariposa Avenue to the south, Ellsworth Street to the west, and the topographic divide within the WLC Project to the east. The area tributary to the SJWA incudes the Middle and Upper San Jacinto River watershed area and extends from the Badlands to the north, the Bernasconi Hills and Lakeview Mountains to the south, the headwaters of the San Jacinto River to the east, and the topographic divide just west of Theodore Street. Both the PVSD and the SJWA watershed areas flow to the lower San Jacinto River south of the project site. Flows are then conveyed through the lower San Jacinto River to Canyon Lake, again to the lower San Jacinto River, and ultimately to Lake Elsinore.

2.2 Cumulative Projects List

For the PVSD area, SJWA, and other portions of the San Jacinto River watershed areas, the past, present, and probable future projects were identified and included in the cumulative impacts analysis. These projects are listed in Table 1 and shown on Figure 1. For the area tributary to the PVSD there are a total of 106 projects. These projects consist of a variety of project types and sizes including various commercial areas such as a gas station, a commercial auto mall, a Walmart, and several apartments and single-family developments. For the area tributary to the SJWA, there are 14 planned projects, including four projects adjacent to, within, or near the SJWA. These four projects are the Badlands Landfill Improvement Project, the Quail ranch Specific Plan, the SJWA Land Management Plan and the Villages of Lakeview Project. For the other portions of the San Jacinto Watershed south of the PVSD area and SJWA there are 120 projects consisting of a variety of commercial, business and residential projects.

Each of the projects are required to mitigate their impacts for hydrology and water quality and implement BMPs pursuant to the local agency's regulations such as the Moreno Valley Municipal Code Chapter 8.10 et seq. and § 8.21.170. Per the local regulations, each project is required to prepare a Water Quality Management Plan and comply with the Santa Ana Regional Quality Control Board Order No. R8-2010-0033, NPDES Permit No. CAS618033 (NPDES Permit). The environmental documents, where available, were reviewed for each project to determine the type of drainage and water quality facilities to be constructed incompliance with the NPDES Permit. Every project constructed drainage and water quality facilities to mitigate their impacts. Each project analyzed cumulative impacts and concluded that the impacts are less than significant since all projects in the watershed are required to comply with the local agency's drainage requirements and NPDES Permit and mitigate their individual impacts.

The drainage facilities consisted of construction of storm drains and detention basins to mitigate increased peak flows, velocities and volumes. The types of water quality facilities constructed include extended detention/sedimentation basins, infiltration basins, water quality basins sand filters, vegetated swales, and bioretention areas. For example, the ProLogis project includes on-site extended detention/sedimentation basins, sand filters, and vegetated swales which will treat all of the site's runoff. The Moreno Valley Logistics Center includes on-site, structural source control best management practices (BMPs) consisting of six water quality/detention basins as well as operational source controls prior to water being discharged from the site. The First Nandia Logistics Center includes three detention and water quality basins. The Modular Logistics Center constructed two water quality detention basins. The Villages of Lakeview Project includes construction of two regional water quality basins prior to flows being discharged to the San Jacinto River. The SJWA Land Management Plan includes construction of source control and low impact development (LID) BMPs including bioretention facilities, infiltration trenches, filter strips, or vegetated buffers to detain and treat runoff before letting it seep away slowly. The Quail Ranch Project does not have an environmental document completed yet. However, the Quail Ranch Project will be required to comply with the local regulations and NPDES permit, as well.

Table 1: Cumulative Projects

Label	NAME
Perris Valley Storm Drain Area	
MV-1	Auto Mall SP
MV-2	TR35823 / Stowe Passco Devel.
MV-3	ProLogis
MV-4	Westridge Commerce Center
MV-5	P06-158 / Gascon
MV-6	Highland Fairview Corporate Park
MV-7	TR33962 / Pacific Scene Homes
MV-8	TR32460 / Sussex Capital
MV-9	TR32459 / Sussex Capital
MV-10	TR30998 / Pacific Communities
MV-11	TR30411 / Pacific Communities
MV-12	Moreno Medical Campus
MV-13	Cresta Bella
MV-14	TR32548 / Gabel, Cook & Assoc
MV-15	TR32218 / Whitney
MV-16	TR32284 / 26th Corporation & Granite Capitol
MV-17	TR31590 / Winchester Associates
MV-18	Convenience Store / Fueling Station
MV-19	Senior Assisted Living
MV-20	Moreno Marketplace
MV-21	PEN16-0053 Medical Center
MV-22	TR36882 (PA15-0010) SFR
MV-23	PEN16-0129/0130 MV Ranch Apartments
MV-24	TM 36436 (PA12-0005)
MV-25	TR32142
MV-26	TR 30268 (PA01-0072) Pacific Communities
MV-27	TR32917 / Empire land
MV-28	TR34329 / Granite Capitol
MV-29	TR36340
MV-30	PA03-0168 TR 31517
MV-31	PA15-0034 TR 36983
MV-32	TTM 31592 (P13-078) SFR
MV-33	TR32645 / Winchester Assoc
MV-34	TR34397/Winchester Assoc
MV-35	TR31771 / Sanchez
MV-36	TM 31618 (PA03-0106)
MV-45	Iris Plaza
MV-47	PA07-0129 TR 35606 SFR
MV-48	PA11-001 thru 007 March Business Center
MV-49	Indian Business Park
MV-54	Moreno Valley Logistics Center (Prologis)
MV-56	Tract Map 33810
MV-57	Tract Map 34151
MV-58	Tract Map 33024

Table 1: Cumulative Projects

Label	NAME
MV-59	Tract Map 31442
MV-60	Tract Map 36401
MV-61	Walmart & Gas Station
MV-62	Tract Map 22180
MV-63	PA14-0053 (TTM 36760) Legacy Park
MV-64	TR22180 / Young Homes
MV-65	TR33607 / TL Group
MV-66	TR34988 / Stratus Properties
MV-67	TR32515
MV-68	PA07-0035
MV-69	PA07-0039 (Industrial Area SP)
MV-70	TR32756 / CTK, Inc.
MV-71	TR34681 / Perris Pacific Co.
MV-72	35861 Frederick Homes
MV-73	TR36038 / Alessandro Village Plaza LLC
MV-74	TR34216 / Creative Design Assoc
MV-75	Aqua Bella Specific Plan
MV-76	Commercial Medical Plaza PA09-0033 thru 0039, and*
MV-77	Minka Lighting
MV-78	Overton Moore Properties PA08-0072
MV-79	Shaw Development
MV-80	PA15-0032 MV Cactus Center
MV-81	Ridge Property Trust PA07-0147 & PA 07-0157
MV-82	Centerpointe Bus. Ctr
MV-83	Centerpointe Business Park
MV-84	PA16-0075 Brodiaea Business Center
MV-85	Retail Center / Winco Foods
MV-86	TR32505 / DR Horton
MV-87	TR31814 / Moreno Valley Investors
MV-88	TR33771 / Creative Design Assoc
MV-89	TR35663 / Kha
MV-91	TR31305 / Richmond American
MV-92	TR 33256
MV-95	Moreno Beach Market PLace/Lowes
MV-96	31394 Pigeon Pass, Ltd.
MV-97	32005 Red Hill Village, LLC
MV-98	33388 SCH Development, LLC
MV-99	36038 Alessandro Village Plaza, LLC
MV-101	Restaurant
MV-102	Moreno Valley Professional Center
MV-104	373K Industrial Facility
MV-105	35369 Tason Myers Property
MV-106	35304 Jimmy Lee
MV-107	32711 Isaac Genah
MV-108	O'Reilly Automotive

Table 1: Cumulative Projects

Label	NAME
MV-109	Quail Ranch
MV-110	TM 33417
MV-111	35769 Michael Chen
MV-112	PA09-0006 Jim Nydam
MV-113	Ironwood Residential
MV-114	Stoneridge Town Centre - Vacant Restaurant
MV-115	Olivewood Plaza - Office Building
MV-116	31621 Peter Sanchez
MV-117	MV-101
MV-118	28860 Professor's Fun IV
MV-119	32126 Salvador Torres
MV-120	Moreno Valley Shopping Center
MV-122	Centerpointe Business Park
MV-123	Rancho Belago Plaza - Retail
MV-124	Alessandro & Lasselle
MV-125	32756 Jimmy Lee
MV-126	TTM 33222
San Jacinto Wildlife Area	
RC-1	TR35530 / Quail Ranch Specific Plan
RC-4	Badlands Sanitary Landfill
RC-5	Villages of Lakeview - Commercial Development and Residential Development
RC-?	San Jacinto Wildlife Area Land Management Plan
B-9	Sundance (#17)
B-11	San Gorgonio Village, Phase 2 (#45)
B-12	Beaumont Commercial Center
B-13	Four Seasons (#23) Tract Nos. 32260 and 33096
B-14	Potrero Creek Estates (#26)
H-10	Downtown Hemet Specific Plan
SJ-1	Gateway Area Specific Plan
SJ-2	TR 31886
SJ-3	TR 30598
SJ-4	TR 32955
Other San Jacinto Watershed Areas	
H-1	TTM 36841
H-2	Rancho Diamante
H-3	Tres Cerritos Specific Plan
H-4	Sanderson Square
H-5	Mc Sweeny Farms SP
H-6	Ramona Creek
H-7	Peppertree Specific Plan
H-8	Florida Promenade Residential SP
H-9	TTM 31807 / 31808
M-2	Meridian Business Park
M-3	Meridian Business Park - Phase 3
M-4	March Business Center - South Campus

Table 1: Cumulative Projects

Label	NAME
M-7	Meridian Business Park - Phase K4
M-8	March LifeCare Campus Specific Plan
M-9	TM 34748
M-10	Airport Master Plan
M-11	PA 06-0014 (Pierce Hardy Limited Partnership)
MV-37	Vogel /PA09-004
MV-38	Vogel Properties
MV-39	VIP Moreno Valley (SaresRegis/Vogel)
MV-40	PEN17-0036 Warehouse
MV-41	First Nandina Logistics Center
MV-42	Indian Street Commerce Center
MV-43	Ivan Devries / PA06-0017
MV-44	Modular Logistics Center (Kearny RE Co)
MV-46	Harley Knox/Redlands Development
MV-50	San Michele Industrial Center
MV-51	PA07-0165 thru 01667 First Industrial I & II
MV-52	First Industrial III & IV
MV-53	I-215 Logistics Center
MV-55	MV Commerce Park II (Alere)
P-1	TR32707
P-2	TR34716
P-3	P05-0477
P-4	Bookend
P-5	Markham East
P-6	Perris Circle Industrial Park
P-7	Duke Warehouse
P-8	First Perry Logistics Project
P-9	Aiere
P-10	IDS
P-11	Ridge II
P-12	Starcrest P011-0005; 08-11-0006
P-13	Ridge
P-14	Rados Distribution Center
P-15	Duke Perris Logistics Center
P-16	Perris Ridge Commerce Center I
P-17	SRG Perris LC
P-18	P07-07-0029
P-19	P05-0192
P-20	P05-0113
P-21	P07-09-0018
P-22	NICOL
P-23	Westcoast Textiles
P-24	Optimus Logistics Center 1
P-25	Optimus Logistics Center 2
P-26	Duke Warehouse

Table 1: Cumulative Projects

Label	NAME
P-27	Perris DC (Industrial Property Trust)
P-28	Duke Warehouse
P-29	P06-0411
P-30	Avelina
P-31	Perris Family Apartments
P-32	Lewis Retail Center
P-33	Harvest Landing Specific Plan
P-34	South Perris Industrial Phase 3
P-35	Verano Apartments
P-36	South Perris Industrial Phase 2
P-37	Cabrillo
P-38	Sequoia
P-39	South Perris Industrial Phase 1
P-40	TR 32041
P-41	P 06-0228
P-42	TR 31650
P-43	TR 31225
P-44	TR 33193
P-45	P 12-05-0013
P-46	P 06-0378
P-47	Park West Specific Plan
P-48	TR 33338
P-49	TR 31240
P-50	P 11-09-0011
P-51	TR 30973
P-52	TR 31226
P-53	TR 31659
P-54	TTM 32708
P-55	Perris Marketplace
P-56	PM 34199 / TPM 34697
P-57	P 04-0343
P-58	Jordan Distribution
P-59	TR 31407
P-60	Retail on Redlands
P-61	Investment Development Services (IDS) II
R-50	Orangecrest Specific Plan
RC-6	Rider Business Center (Core 5 Industrial Partners)
RC-7	Nuevo Distribution Center
RC-8	Trucking DC (Central Freight, LLC)
RC-9	Oleander Business Park PP20699
RC-10	Majestic Freeway Business Center
RC-12	Cores Industrial Partners
RC-16	Rider Street Quarry
RC-18	TR 32406
RC-19	CUP 03599

Table 1: Cumulative Projects

Label	NAME
RC-20	PP 25699
RC-21	CUP 03527
RC-22	TR 30592
RC-23	PP 25768
RC-24	PP 21144
RC-25	PP 16976
RC-26	PM 32699
RC-27	Yocum Baldwin
RC-28	CUP 03315
RC-30	Knox Logistics
RC-31	PP 23342
RC-32	TTM 31537
RC-33	TTM 34130
RC-34	Emerald Acres SP #381
RC-35	TR 34677,31100,32391,33448,31101,31009,32282
RC-36	TR36478, TR36480, PP25219
RC-37	TR 36504
RC-39	Tract 33869

3. CUMULATIVE IMPACTS ANALYSIS

3.1 Hydrology

To analyze the cumulative impacts for hydrology, an appropriate study area was determined based on the watershed area and potential impacts to downstream drainage facilities. As discussed in section 2.1, the WLC Project is located in the San Jacinto River watershed and is tributary to two separate sub-watershed areas, the PVSD Watershed and the SJWA watershed, prior to flows reaching the San Jacinto River. For the area to the west, the PVSD is the most downstream drainage facility that the WLC Project is tributary to before flows reach the San Jacinto River. It is necessary to consider the downstream drainage areas and their facilities when evaluating cumulative impacts for hydrology. The PVSD is a major drainage facility draining a large area including the City of Moreno Valley and any flow impacts to the facility would be important to analyze the effects. For this reason, on the west side, the area tributary to the PVSD was selected as the appropriate geographic area for the cumulative impacts analysis. On the east side, flows drain to the SJWA before reaching the San Jacinto River. The SJWA is an important habitat and water feature within the watershed and it is necessary to analyze any potential flow impacts to the area. For this reason, for flows draining to the east, the area tributary to the SJWA was chosen as the cumulative study area. This includes the upstream portion of the San Jacinto Watershed as the SJWA extends to the south side of the San Jacinto River.

3.1.1 PVSD Watershed Area

The PVSD watershed area is divided into two sub-watersheds, Sunnymead and Moreno, tributary to the PVSD as shown in Figure 1. The RCFC&WCD has adopted Master Drainage Plans (MDPs) for each of the sub-watershed areas, *Sunnymead MDP* (RCFC&WCD, 1991) and *Moreno MDP* (RCFC&WCD, 2015) that serve as guides for development in these areas. The *Moreno MDP* was recently updated to include the hydrology of the WLC development. Each project is required to conform to the MDPs by mitigating any increase in project flows such that any flows leaving the project boundary are equal to or less than existing conditions. In addition, all projects are required to contribute through the MDP Fee Program for the construction of facilities identified in the MDPs.

Portions of the WLC Project are tributary to Line "F" of the *Moreno MDP*. As identified in the WLC EIR, Line "F" from Redlands Blvd to south of Eucalyptus Avenue will be constructed as part of the WLC Project. Because it is not known when the proposed *Moreno MDP* Sinclair Basin north of SR-60 will be constructed, Line "F" was sized without the Sinclair Basin and all flows pass under SR-60. In addition, a detention/infiltration basin will be constructed to detain and infiltrate onsite flows as required by Mitigation Measures 4.9.6.1A and 4.9.6.1B such that flows leaving the project boundary will be less than existing in terms of peak flow, velocities, and volume for each of the 2, 5, 10, 25, and 100-year storms. As such, there is no impact on downstream drainage facilities as a result of the development of the WLC Project and the WLC Project does not contribute to any cumulative impacts. In addition, construction of Line "F" by the WLC Project will exceed its obligation of MDP fees.

An analysis of the volume of runoff and infiltration for the pre and post project conditions was performed which included hydrologic modeling. Pre-project conditions consist of agricultural uses, Post-project conditions consist of the development of the WLC Project. Post-project detention basins will be constructed not only for storm peak attenuation but also for infiltration. The analysis showed that the WLC Project's impacts will be fully mitigated with the implementation of the detention/infiltration basins. The volume of runoff after the WLC Project is constructed will be less than the existing volume of runoff and the amount of infiltration and groundwater recharge will increase by a small amount which provides a net benefit to groundwater recharge.

The WLC Project's proposed drainage improvements will be designed to have sufficient capacity to accommodate and convey storm water runoff flows generated by the WLC Project as well as expected future storm water runoff flows associated with buildout of the *Moreno MDP* area. All development projects in the *Moreno MDP* and *Sunnymead MDP* areas are required to mitigate flows to equal to or less than existing and/or demonstrate that storm drain capacity is available to service their anticipated flows and that their project is consistent with the MDPs.

Section 15130 (a) (3) of the CEQA Guidelines states *"A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact."* The WLC Project's compliance with the Moreno MDP meets this requirement. In addition, there is zero hydrologic impact on downstream drainage facilities due to the WLC Project and the project does not contribute to any cumulative impacts. As such, cumulative impacts would be less than significant and the proposed WLC Project's contribution of flows would thus be less than cumulatively considerable.

3.1.2 SJWA Watershed Area

As stated in Section 2.1, the WLC Project east of the topographic divide drains to the north side of the SJWA. In addition to the WLC Project, one current project is tributary to the north side of the SJWA, the Badlands Landfill Improvements Project located north of the WLC Project. Runoff from the Badlands Landfill flows through the WLC Project site. The hydrologic study for the WLC Project includes these flows from the Badlands Landfill. The pervious cover at the Badlands Landfill, which affects the amount of runoff from an area, is not changing. As such, flows from the Landfill Improvements Project would not increase above existing and would be consistent with the existing flows north of the WLC Project.

As required by Mitigation Measures 4.9.6.1A and 4.9.6.1B flows leaving the WLC Project boundary will be equal to or less than existing in terms of peak flow, velocities, and volume for each of the 2, 5, 10, 25, and 100-year storms. In addition, water leaving the site which flows into the SJWA will flow through detention/infiltration basins to further mitigate the peak flow, velocities, and volumes. An analysis of the volume of runoff and infiltration for the pre- and post-project conditions was performed as discussed in Section 3.1.1. The post-project detention basins will be constructed not only for storm peak attenuation but also for infiltration. The analysis showed that the project's impacts will be mitigated with the implementation of the detention/infiltration basins. The volume of runoff after the WLC Project is constructed will be less than the existing volume of runoff and the amount of infiltration and groundwater recharge will increase by a small amount which provides a net benefit to groundwater recharge.

The outlets from these detention/infiltration basins will be designed to mimic the existing sheet flow condition. Because flows leaving the WLC Project site will mimic existing conditions in terms of peak flows, velocities and volumes, there is no impact to the downstream hydrology of the SJWA with mitigation from the WLC Project. As such, there is zero impact on the downstream drainage area and facilities in the SJWA due to the WLC Project and, thus, the project does not contribute to any cumulative impacts. Thus, the proposed WLC Project's contribution of flows would be less than cumulatively considerable.

There are three potential future projects located within, near, or adjacent to the SJWA. South of the WLC Project, the proposed Quail Ranch Project and the Villages of Lakeview Project are adjacent to or near portions of the SJWA. The Quail Ranch project is located north of Gilman Springs Road and the Villages of Lakeview project is on the south side of the San Jacinto River. Flows from Quail Ranch drain south of Gilman Springs Road into the east side of the SJWA and flows from the Villages of Lakeview drain to the San Jacinto River adjacent to the south side of the SJWA. The third project is a project within the SJWA itself, the San Jacinto Wildlife Area Land Management Plan. Each of these projects will be required to mitigate its flows to less than significant and show that, like the WLC Project, their impacts are less than cumulatively considerable. The Villages of Lakeview Project includes construction of drainage facilities and water quality basins prior to flows being discharged to the San Jacinto River. The SJWA Land Management Plan includes construction of low impact development to detain and treat runoff before letting it seep away slowly. The Quail Ranch Project does not have an environmental document completed yet. However, they will be required to comply with the local regulations to mitigate their flow. Other projects within the Upper San Jacinto River watershed drain to other tributaries or directly to the San Jacinto River and do not affect the SJWA.

3.2 Water Quality

As outlined in Section 2.1 the WLC project is tributary to two sub-watersheds, the Perris Valley Storm Drain and the San Jacinto Wildlife Area. Both sub-watersheds are tributary to the downstream receiving waters of the San Jacinto River, Canyon Lake and Lake Elsinore. Both Canyon Lake and Lake Elsinore are impaired water bodies with 303(d) listings as outlined in Section 3.2.1 below. For this reason, the cumulative water quality analysis encompasses the entire San Jacinto watershed tributary to Lake Elsinore. In addition, the water quality of runoff from the WLC Project into the SJWA will be analyzed from a cumulative perspective following the analysis of the entire San Jacinto Watershed.

3.2.1 San Jacinto Watershed

During the operational phase of the WLC Project, the major source of pollution in stormwater runoff will be contaminants that accumulate on the land surface over which runoff passes. Storm runoff from roadways, parking lots, and commercial and industrial buildings carry a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron, which can lead to the degradation of storm water quality in downstream channels. Runoff from landscaped areas may contain elevated levels of phosphorus, nitrogen, and suspended solids. Oil and other hydrocarbons from vehicles are also expected in stormwater runoff. These pollutants are commonly categorized into eight categories, sediments, nutrients, metals, toxic organic compounds, trash and debris, pathogens, oil and grease and pesticides.

The *Project Specific Water Quality Management Plan* prepared for the WLC Project identifies the proposed LID BMPs to be implemented to mitigate the water quality impacts of these pollutants. As outlined in the WLC EIR, the project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of LID BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by Mitigation Measure 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area.

Table 2 identifies the downstream receiving waters and states if the receiving water is listed as impaired on the 303(d) List or has a total maximum daily load (TMDL) adopted for a certain type of pollutant.

Table 2: Pollutant Stressors in Receiving Waters

Receiving Waters	303(d) Listing	Adopted TMDL Pollutants
San Jacinto River	None	None
Canyon Lake	Nutrients (Phosphorus & Nitrogen), Pathogens	Phosphorus, Nitrogen
Lake Elsinore	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, Sediment Toxicity, Unknown Toxicity	Phosphorus, Nitrogen, Dissolved Oxygen

The project will comply with the Nutrient TMDL for Lake Elsinore and Canyon Lake by implementing LID-based BMPs in accordance with the *Comprehensive Nutrient Reduction Plan (CNRP) for Lake Elsinore and Canyon Lake* (prepared for Riverside County Flood Control and Water Conservation District by CDM Smith, January 28, 2013 in compliance with Order No. R8-2010-0033, NPDES Permit No. CAS618033).

The *CNRP for Lake Elsinore and Canyon Lake* modeled the water quality of the entire San Jacinto River watershed tributary to Lake Elsinore and Canyon Lake for nitrogen and phosphorus. The modeling accounted for the implementation of past, present, and future LID BMPs across the entire San Jacinto River Watershed, including those projects identified in Table 1, and accounted for the incremental effects of constructing these LID BMPs. LID BMPS are required by all new and redevelopment projects, including those listed in Table 1. The *CNRP* states that:

> "Post construction LID based BMPs required for new development and significant redevelopment projects are the only structural watershed based BMPs currently included in the CNRP. The newly developed WQMP requirements ensure that a portion of the wet weather runoff will be contained onsite for all future development projects subject to WQMP requirements. Implementation of WQMP requirements over time coupled with the in-lake remediation projects are expected to provide sufficient mitigation of nutrients."

The cumulative water quality effects of the WLC Project and those projects listed in Table 1 are mitigated with the construction of LID BMPs required of all projects in compliance with the *Water Quality Management Plan for the Santa Ana Region of Riverside County*. The Water Quality Management Plan states that:

> "LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted TMDLs in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives."

The WLC Project's proposed LID BMPs and the additional detention/infiltration basins will mitigate the water quality impacts of the WLC Project to less than significant. And, as stated above, all new and redevelopment projects in the San Jacinto Watershed are required to implement LID BMPs consistent with the *Water Quality Management Plan for the Santa Ana Region of Riverside County*. As stated above, LID BMPs treat discharges such that they do not cause or contribute to an exceedance of Receiving Water Quality Objectives. As such, with implementation of the LID BMPs, cumulative impacts from the WLC Project and the past, present, and probable future projects identified in Table 1, and the entire San Jacinto Watershed as modeled in the CNRP would be less than significant and the WLC Project's water quality impacts would be less than cumulatively considerable.

3.2.2 San Jacinto Wildlife Area

Although there are no 303(d) listed pollutants of concern identified as affecting the SJWA, the SJWA is a sensitive habitat area and is part of the Western Riverside County Regional Conservation Authority's Multiple Species Habitat Conservation Plan (MSHCP), (County of Riverside, 2003) and any pollutants; including sediment, nutrients, metals, toxic organic compounds, trash, pathogens, oil and grease, and pesticides could affect the wildlife and water features in the area. *Section 6.1.4*, *Guidelines pertaining to the Urban/Wildlands Interface* of the MSHCP, states:

> "Proposed Developments in proximity to the MSHCP Conservation Area shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems."

Construction of the BMPs s outlined in Section 3.2.1 above comply with the MSHCP and these *Guidelines* as runoff from the WLC Project site is first treated with LID BMPs and then further treated by routing the runoff through detention/infiltration basins. By routing flows through the detention and infiltration basins, the runoff is receiving additional treatment for each of those potential pollutants beyond that required by the *Water Quality Management Plan for the Santa Ana Region of Riverside County* and the MSHCP and will reduce the impact on water quality to the SJWA to zero impact as the flows from typical storms will be infiltrated or detained on-site. In addition, MM4.9.6.3C states:

> "Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice-yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site.
>
> The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager."

The WLC Project's proposed LID BMPs and additional detention/infiltration basins will mitigate the water quality impacts of the WLC Project to less than significant. And, as stated previously, all new projects tributary to the San Jacinto Wildlife Area, including the Badlands Sanitary Landfill Improvement Project, the Quail Ranch Specific Plan, the Villages of Lakeview Project and the San Jacinto Wildlife Area Land Management Plan are required to implement LID BMPs consistent with the *Water Quality Management Plan for the Santa Ana Region of Riverside County and the* MSHCP. LID BMPs treat discharges to ensure they do not cause or contribute to an exceedance of Receiving Water Quality Objectives. As such, with implementation of the LID BMPs and the additional detention/infiltration basins, cumulative impacts from the WLC Project and the past, present, and probable future projects identified in Table 1 tributary to the SJWA, including the Villages of Lakeview Project and the Quail Ranch Project would be less than significant and the WLC Project's water quality impacts would be less than cumulatively considerable.

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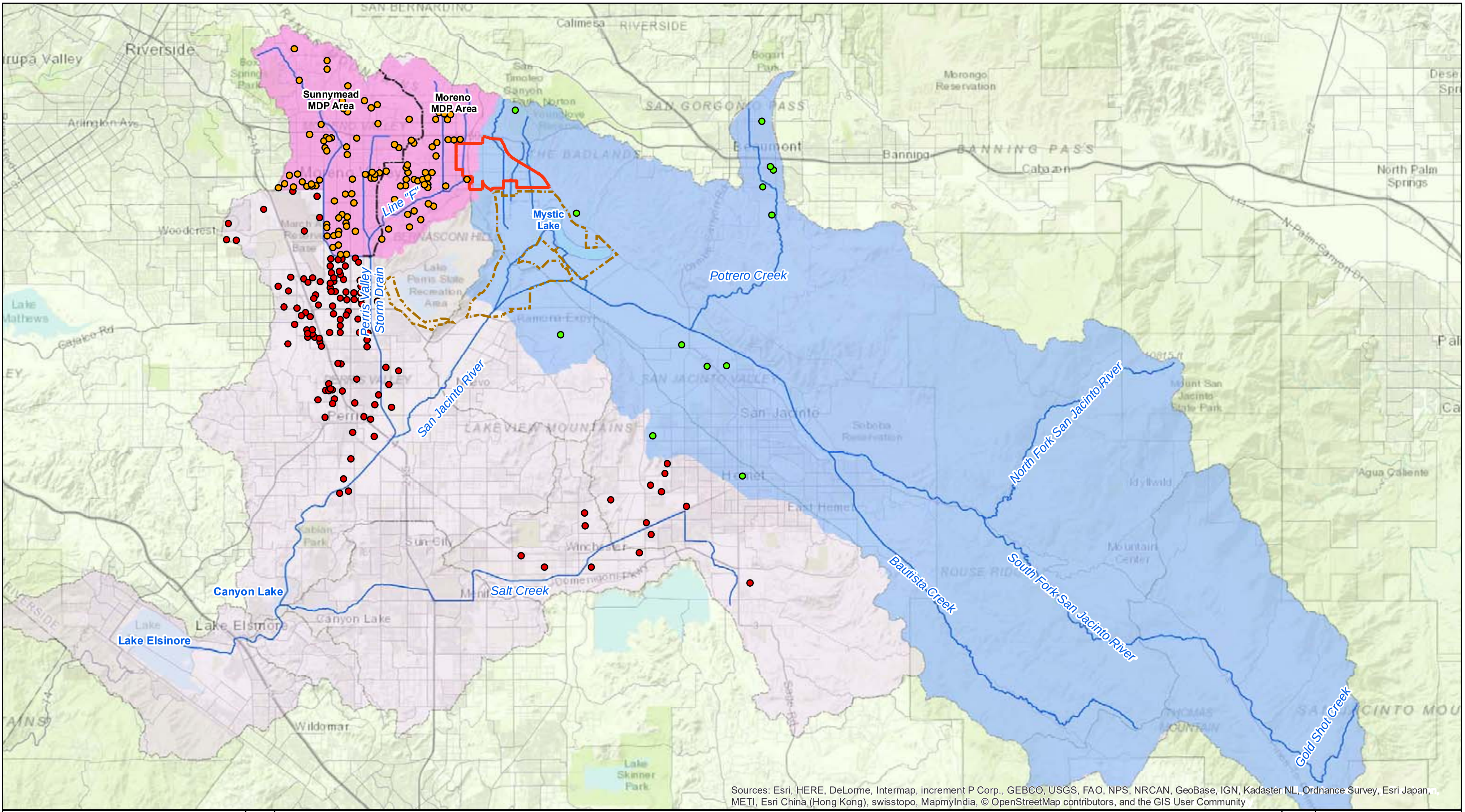

Figure 1
Highland Fairview World Logistics Center Hyrdrology and Water Quality Cummulative Impacts Analysis

Legend

- ● Perris Valley Storm Drain Area Projects
- ● San Jacinto Wildlife Area Watershed Area Projects
- ● Other San Jacinto River Watershed Projects
- 🟪 Perris Valley Storm Drain Area
- 🟦 SJWA Watershed Area
- ▨ San Jacinto Watershed
- WLC Boundary
- San Jacinto Wildlife Area
- MDP Boundary

N

0 1.5 3 6 Miles

WOODARD & CURRAN

Project #: 0011142.00
Map Created: April 2018

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions.
Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

Figure Exported: 4/26/2018 By: mdemaria Using: \\woodardcurran.net\shared\Projects\RMC\IRV\0011142.00 WLC EIR Updated Hydrology and WQ Impacts Analysis\8. Project Work\GIS Files\MXDs\Boundaries.mxd

APPENDIX D

Noise Analysis Technical Report (Revised)

WORLD LOGISTICS CENTER

NOISE AND VIBRATION TECHNICAL REPORT

Prepared for
City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92552

July 2018

ESA

WORLD LOGISTICS CENTER

NOISE AND VIBRATION TECHNICAL REPORT

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
City	City of Moreno Valley
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted dB scale
dBC	C-weighted dB scale
L_{eq}	Equivalent Sound Level
L_{max}	Maximum Noise Level
TeNS	California Department of Transportation Technical Noise Supplement
TOD	transit-oriented development

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EXECUTIVE SUMMARY

The purpose of this Noise and Vibration Technical Report is to assess and discuss the impacts of potential noise and vibration impacts that may occur with the implementation of the proposed World Logistics Center Specific Plan (Project). The Specific Plan proposes 40.6 million square feet of logistics warehouse uses. These uses comprise a maximum of 40.4 million square feet of "high-cube logistics" warehouse distribution uses classified as "Logistics Development" (LD) and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as "Light Logistics" (LL). In addition, the LD designation includes land for two special use areas; a fire station and a "logistics support" facility for vehicle fueling and sale of convenience goods (3,000 square feet is assumed for planning purposes for the "logistics support").

The analysis describes the existing noise environment in the Project area, estimates future noise levels at surrounding land uses resulting from construction and operation of the Project, and identifies the potential for the Project to create significant impacts. An evaluation of the Project's potential to contribute to potential cumulative noise impacts is also provided. Noise worksheets and technical data used in this analysis are provided in the Appendices. The report summarizes the potential for the Project to conflict with applicable noise regulations, standards, and thresholds. The findings of the analyses are as follows:

- Construction activities would result in sporadic, temporary noise impacts to sensitive receptors within and adjacent to the Project Site, which would exceed established thresholds with mitigation incorporated.
- Project contributions to traffic noise would exceed established thresholds with mitigation incorporated.

SECTION 1
Introduction

1.1 Project Description

The Project proposes a maximum of 40.4 million square feet of “high-cube logistics” warehouse distribution uses classified as “Logistics Development” (LD) and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as “Light Logistics” (LL). In addition, the LD designation includes land for two special use areas; a fire station and a “logistics support” facility for vehicle fueling and sale of convenience goods (3,000 square feet is assumed for planning purposes for the “logistics support”). The Project is located in “Rancho Belago,” the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The Project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. **Figure 1,** *Regional Location,* depicts the location of the Project within the region and the City of Moreno Valley. The major roads that currently provide access to the Project site are Redlands Boulevard, World Logistics Center Parkway, Alessandro Boulevard, and Gilman Springs Road.

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SOURCE: ESRI

World Logistics Center

Figure 1
Regional Location

1.2 Background

Characteristics of Noise

To the human ear, sound is technically described in terms of its loudness (amplitude) and pitch (frequency). Pitch is generally an annoyance, while loudness can affect our ability to hear. Noise is usually defined as unwanted sound; it consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

Measurement of Noise

The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on a logarithmic scale. The logarithmic scale compresses the wide range in sound levels resulting in a more usable range of sound level values, similar to the Richter scale used to measure earthquakes. To humans, a sound 10 dB higher than another is considered to be twice as loud; a sound 20 dB higher than another is considered four times as loud; etc. Typical daily sounds in the environment range from 30 dB (very quiet) to 100 dB (very loud).

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the dBA. **Figure 2,** *Typical A-Weighted Noise Levels,* shows examples of various noises sources and their typical dBA noise level.

There are two categories of noise that are measured to characterize noise conditions: single event noise and community or cumulative noise. Single event measurements describe the noise levels from an individual event such as a passing airplane or a heavy-duty truck. Cumulative measurements average the total noise in a community over a specific time period, which is typically 1 or 24 hours.

The noise impact analysis is based on assessment of both single event noise and community or cumulative noise. Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on humans; (2) the variety of noises found in the environment; (3) the variations in noise levels that occur as a person moves through the environment; and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to affect people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominant noise scales are the Equivalent Noise Level (Leq) and the Community Noise Equivalent Level (CNEL). Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is the “energy” average noise level during the time period of the sample. Leq can be measured for any time period, but is typically measured for 1 hour. This 1-hour noise level can also be referred to

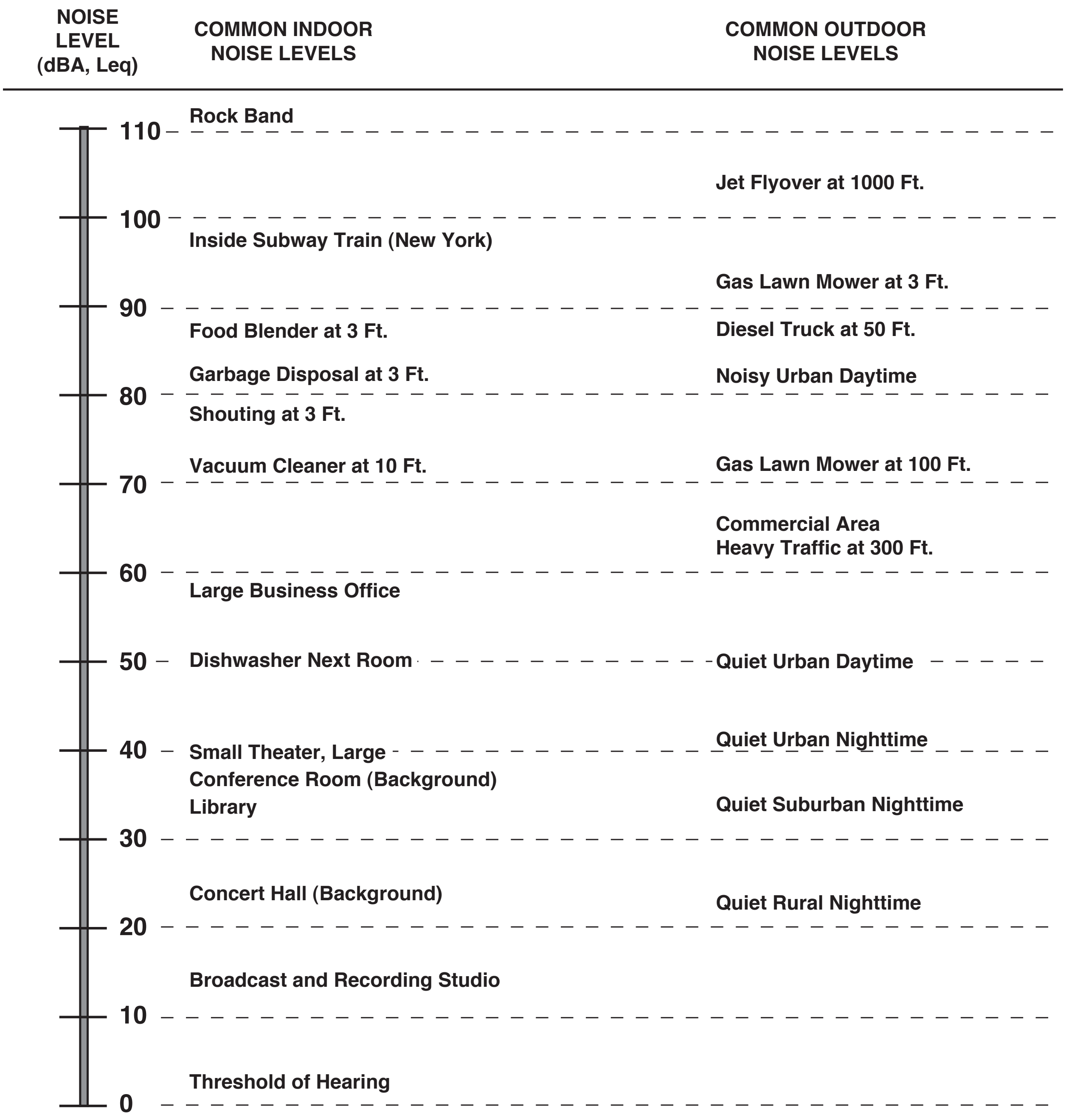

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SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf

World Logistics Center

Figure 2

Typical A-weighted Noise Levels

as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL is the predominant rating scale now in use in California for land use noise compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the dBA. Time weighted refers to the inclusion of penalties for noise that occurs during certain noise-sensitive time periods. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA, reflecting people's increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a CNEL of 60 dBA, 60 dBA CNEL, or simply 60 CNEL.

$L_{(\%)}$ is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. $L_{(\%)}$ is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example, since 5 minutes is 25 percent of 20 minutes, $L_{(25)}$ is the noise level that is equal to or exceeded for five minutes in a twenty-minute measurement period. It is $L_{(\%)}$ that is used for most Noise Ordinance standards. For example most daytime County, State, and City noise ordinances use a standard of 55 dBA for 30 minutes per hour, or an $L_{(50)}$ level of 55 dBA. In other words, the noise ordinance may state that no noise level should exceed 55 dBA for more than fifty percent of a given period.

The maximum noise level (L_{max}) is the highest exponential time averaged sound level that occurs during a stated time period. The noise levels discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak noise conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

1.3 Existing Conditions

Noise-Sensitive Receptors Locations

Certain land uses are considered more sensitive to noise than others. Examples include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project vicinity and World Logistics Center site are characterized by a mix of developed and undeveloped properties. Developed properties in the vicinity include an industrial/warehouse building in Moreno Valley to the northwest (Skechers), several residential neighborhoods along Redlands Boulevard along the western boundary of the project site, and scattered residential uses along Gilman Springs Road to the east of the project site. An area of the City known as "Old Moreno" is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Merwin Street, east of Redlands Boulevard, constitute the closest sensitive receptors to the project site (i.e., they are adjacent to the property). Additionally, there are currently six occupied residential uses located within the northwestern portion of the World Logistics Center site.

Ambient Noise Levels

Existing noise levels in the vicinity of the project are used to establish baseline noise levels in key areas. Noise measurements within the Project site and in the surrounding area were conducted. The noise measurement locations were selected to provide coverage of the Project's potential noise impact area. The noise measurement locations are shown **Figure 3**, *Noise Measurement Locations*.

Noise measurements were conducted at 14 sites in the project vicinity Long-term (24-hour) measurements were conducted at locations R1 and R3 through R5, a 13-hour measurement was conducted at location R2, and short-term (15-minute) noise measurements were conducted at locations R6 through R14. Short-term ambient noise measurements were conducted between 8:00 A.M. to 12:00 P.M. on Thursday, March 15, 2018, and long-term ambient noise measurements were conducted from Thursday, March 15 through Friday, March 16, 2018 to characterize the existing noise environment in the Project vicinity. Nighttime noise measurements (between 10:00 P.M. and 8:00 A.M.) were conducted from Tuesday, July 18 through Wednesday, July 19 to characterize the existing nighttime noise environment at locations R6 and R11 through R14. Long-term measurements (typically 24 hours a day for several days) are used to characterize the diurnal traffic noise pattern at selected locations in the project area. This data can be used to identify the worst noise hour and to develop relationships between non-worst-hour and worst-hour noise levels. Long-term noise measurement locations were selected to represent the existing 24-hour noise environment at residential uses adjacent to the western boundary of the project site and short-term measurement locations were selected to represent each major developed area within the project site and serve as representative modeling locations. This information can be used to estimate worst-hour noise levels from levels measured during non-worst hour times. A summary of the noise measurements collected is provided in **Table 1**, *Existing Ambient Noise Measurements*.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter (SLM). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of five feet above the local grade.

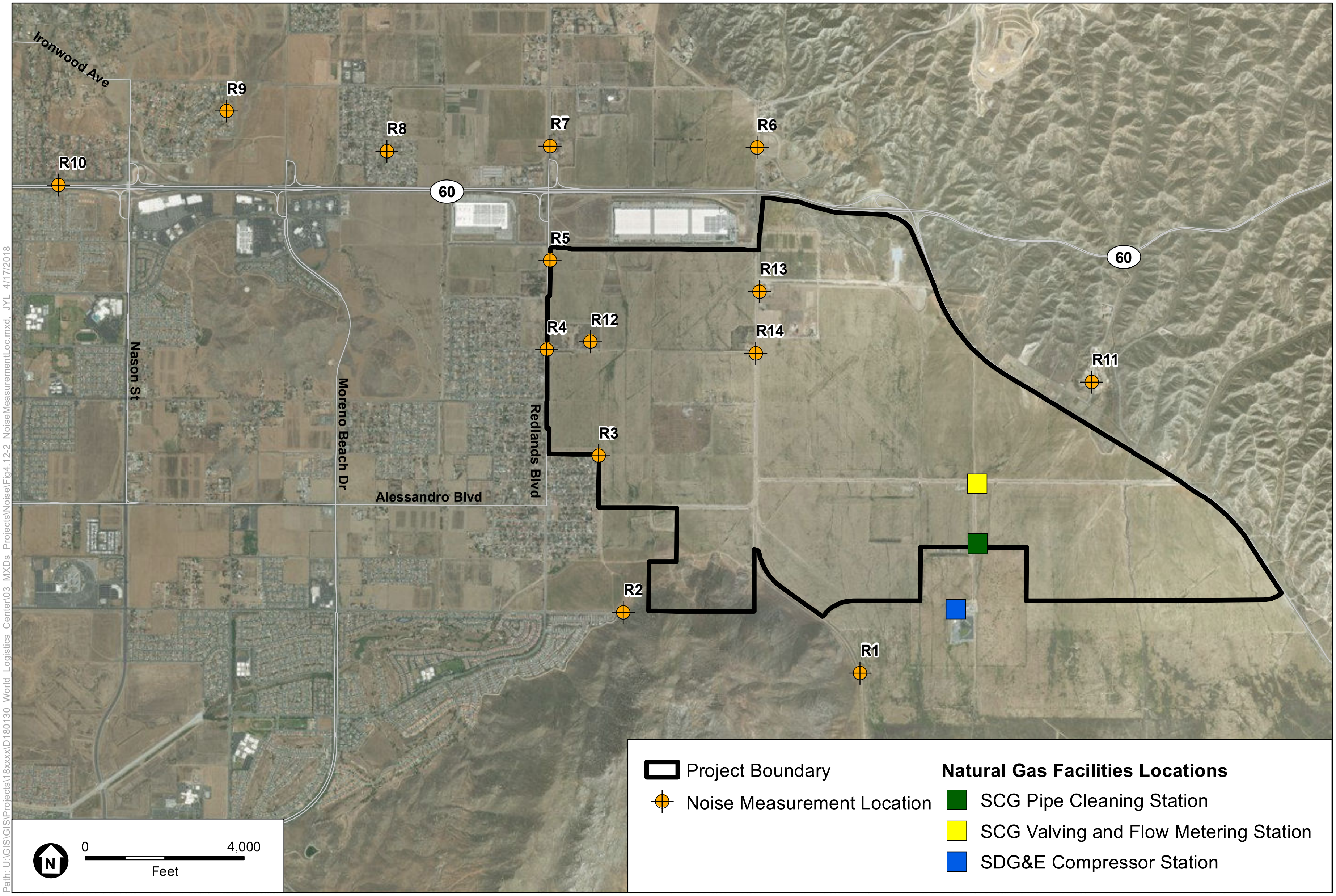

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SOURCE: ESRI

World Logistics Center

Figure 3

Noise Measurement Locations

ESA

Table 1
Existing Ambient Noise Measurements (dBA L_{eq})

Site	Date	Start Time/ Measurement Period	Daytime (8 a.m. to 10 p.m.) Hourly L_{eq}	Daytime Average Hourly Leq	Nighttime (10 P.M. to 8 A.M.) Hourly Leq	Nighttime Average Hourly Leq	dBA CNEL
Off-Site Measurement Locations							
R1	3-15 to 3-16-18	8 a.m. / 24 hours	32.0 – 47.2	41.2	29.8 – 39.2	34.0	43
R2	3-15-18	9 a.m. / 13 hours	52.8 – 82.7	75.6	52.8	52.8	N/A
R3	3-15 to 3-16-18	9 a.m. / 24 hours	38.8 – 58.0	51.6	39.1 – 63.3	54.4	61
R4	3-15 to 3-16-18	11 a.m. / 24 hours	62.2 – 68.3	66.4	56.2 – 69.7	64.7	72
R5	3-15 to 3-16-18	11 a.m. / 24 hours	66.4 – 71.5	69.6	60.3 – 71.2	66.9	74
R6	3-15-18	9:16 a.m. / 15 minutes	65.4	N/A	N/A	N/A	N/A
R7	3-15-18	9:39 a.m. / 15 minutes	72.0	N/A	N/A	N/A	N/A
R8	3-15-18	10:02 a.m. / 15 minutes	53.4	N/A	N/A	N/A	N/A
R9	3-15-18	10:23 a.m. / 15 minutes	51.0	N/A	N/A	N/A	N/A
R10	3-15-18	10:44 a.m. / 15 minutes	71.7	N/A	N/A	N/A	N/A
R11	3-15-18	8:53 a.m. / 15 minutes	74.2	N/A	N/A	N/A	N/A
On-Site Measurement Locations							
R12	3-15-18	10:07 a.m. / 15 minutes	54.4	N/A	36.3 – 47.1	41.4	N/A
R13	3-15-18	10:32 a.m. / 15 minutes	47.0	N/A	45.9 – 64.6	60.3	N/A
R14	3-15-18	10:54 a.m. / 15 minutes	50.7	N/A	46.2 – 5505	61.9	N/A

Existing Roadway Noise Levels

The primary existing noise sources in the Project area are transportation facilities. Traffic on SR-60, Redlands Boulevard, Theodore Street, World Logistics Center Parkway, Gilman Springs Road, and other local streets is the dominant source contributing to the ambient noise levels in the Project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. **Table 2**, *Existing Traffic Noise Levels*, identifies the existing (2018) traffic noise levels adjacent to roadway segments in the Project vicinity without consideration of existing noise barriers.

Table 2
Existing Traffic Noise Levels (CNEL dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Alessandro Boulevard (Lasselle Street and Morrison Street)	65.3
Alessandro Boulevard (Morrison Street to Nason Street)	66.1
Alessandro Boulevard (Nason Street to Oliver Street)	64.5
Cactus Avenue (Nason Street to Oliver Street)	64.0
Cactus Avenue (Oliver Street to Moreno Beach Drive)	63.2
Cactus Avenue (Redlands Boulevard to Street D/Cactus Avenue Extension)	51.9
Cactus Avenue (west of Redlands Boulevard)	60.2
Canyon Crest Drive (Alessandro Boulevard to Sandtrack Road)	49.0
Canyon Crest Drive (Central Avenue to Country Club Drive)	67.8
Country Club Drive (Chicago Avenue to Canyon Crest Drive)	55.4
Crescent Avenue (west of Alessandro Road)	56.2
Day Street (Cottonwood Avenue to Alessandro Boulevard)	59.5
Elsworth Street (Cottonwood Avenue to Alessandro Boulevard)	58.6
Evans Road (Marbella Gate to Ramona Expressway)	68.2
Gilman Springs Road (Bridge Street to Beaumont Avenue)	67.4
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	67.2
Gilman Springs Road (Eucalyptus Avenue to Street C/Alessandro Boulevard)	67.2
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	67.8
Gilman Springs Road (south of Street C/Alessandro Boulevard)	68.0
Gilman Springs Road (SR-79 Northbound Ramps to Record Road)	66.5
Heacock Street (Alessandro Boulevard to Cactus Avenue)	66.3
Heacock Street (Cactus Avenue to John F Kennedy Drive)	69.2
Indian Street (Alessandro Boulevard to Cactus Avenue)	65.0
Indian Street (Cactus Avenue to John F Kennedy Drive)	65.4
Iris Avenue (Kitching Street to Lasselle Street)	67.7
Iris Avenue (Lasselle Street to Nason Street)	68.6
Iris Avenue (Nason Street to Oliver Street)	67.0
Iris Avenue (Perris Boulevard to Kitching Street)	67.5
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7
John F Kennedy Drive (south of Cactus Avenue)	63.8
Kitching Street (Alessandro Boulevard to Cactus Avenue)	63.5
Kitching Street (Cactus Avenue to John F Kennedy Drive)	64.1
Kitching Street (Iris Avenue to Ivory Avenue)	64.0
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9
Krameria Avenue (Perris Boulevard to Lasselle Street)	63.8
Lasselle Street (Cahuilla Drive to Krameria Avenue)	68.2
Lasselle Street (Cottonwood Avenue to Alessandro Boulevard)	64.1
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	68.2
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	62.8
Lochmoor Drive (Central Avenue to Fair Isle Drive)	60.5
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1
Mission Grove Parkway (Alessandro Boulevard to Northrop Drive)	65.2
Mission Grove Parkway (Cannon Road to Alessandro Boulevard)	59.3
Moreno Beach Drive (John F Kennedy Drive to Cactus Avenue)	65.8
Moreno Beach Drive (John F Kennedy Drive to Oliver Street)	62.7
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1
Old 215 Frontage Road (Eucalyptus Avenue to Alessandro Boulevard)	65.5
Orange Avenue (Evans Road to Foothill Drive)	72.9

Table 2
Existing Traffic Noise Levels (CNEL dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Perris Boulevard (Alessandro Boulevard to Cactus Avenue)	68.3
Perris Boulevard (Alessandro Boulevard to Cottonwood Avenue)	68.7
Perris Boulevard (Cactus Avenue to John F Kennedy Drive)	68.4
Perris Boulevard (Iris Avenue to Krameria Avenue)	68.6
Perris Boulevard (John F Kennedy Drive to Iris Avenue)	68.2
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	70.0
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	69.6
Perris Boulevard (Sunnymead Boulevard to Fir Avenue)	69.4
Ramona Expressway (Evans Road to Rider Street)	71.2
Reche Canyon Road (Keissel Road to Reche Vista Drove)	67.1
Reche Vista Drive (Heacock Street to Reche Canyon Road)	63.8
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	69.8
Redlands Boulevard (Ironwood Avenue to SR-60)	69.3
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	66.1
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	67.1
World Logistics Center Parkway (Eucalyptus Avenue to Street F)	52.6
Sunset Drive (Alessandro Road to Cameo Drive)	50.3
Sunset Drive (Crown Street to Alessandro Road)	47.4
Sycamore Canyon Boulevard (Central Avenue to College Boulevard)	64.4
Theodore Street (SR-60 to Ironwood Avenue)	59.6
Freeways	
SR-60 (Heacock Street to Perris Boulevard)	79.9
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9
SR-60 (Perris Boulevard to Nason Street)	80.1
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	81.2
SR-60 (Redlands Boulevard to World Logistics Center Parkway, South of SR 60)	77.0

SECTION 2

Regulatory Framework

The applicable noise standards governing the Project site are the criteria in the City of Moreno Valley General Plan Safety Element (Environmental Safety, Noise) and Municipal Code (Noise Ordinance). The City's Safety Element of the General Plan does not contain specific noise standards or significance thresholds. However, the General Plan does cite applicable State standards including the California Administrative Code, Section 1092 of Title 25, Chapter 1, Subchapter 1, Article 4 and Section 5014 of Title 21, Subchapter 6, Article 2. In addition, other applicable standards identified in the *California Noise Insulation Standards*[1] and the *State of California Vehicular Code*[2]. The following sections list the City of Moreno Valley General Plan policies, City of Moreno Valley Municipal Code, and State standards relevant to noise for the project. Construction- and traffic-related noise could potentially impact uses in neighboring jurisdictions. Therefore, General Plan goals and policies and Noise Ordinance standards for the City of Perris, City of Riverside, and County of Riverside have also been included herein.

City of Moreno Valley General Plan Policies

Chapter 9 of the *City of Moreno Valley General Plan*[3] defines goals, objectives, policies, and action items related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Objective 6.3 Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.

Policy 6.3.5 Enforce the California Administrative Code, Title 24 noise insulation standards for new multi-family housing developments, motels and hotels.

Policy 6.3.6 Building shall be limited in areas of sensitive receptors.

Objective 6.4 Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.

Policy 6.4.1 Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.

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[1] California Code of Regulations, Title 24, Part 2, §3501, *California Noise Insulation Standards*.

[2] Governor's Office of Planning and Research, *State of California General Plan Guidelines*, October 2003, pages 249 and 250.

[3] *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006.

Objective 6.5	Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.
Policy 6.5.1	New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.
Policy 6.5.2	Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

City of Moreno Valley Municipal Code

The *Moreno Valley Municipal Code*[4] establishes a Noise Ordinance that describes the noise standards within the City. Chapter 11.80.030 (Title 11) lists specific prohibited acts.

The City's Municipal Code, Section 6.04.030.J states that "to create, allow or maintain any loud or unusual noise or operate or maintain any device, instrument, vehicle, or machinery in such a manner as to create loud or unusual noise, cause vibrations, or unreasonable light spillage or glare which causes discomfort or annoyance to reasonable persons of normal sensitivity, or which endangers the comfort, repose, health or peace of the public or of any person using or occupying other property in the vicinity" is prohibited.

The City's Municipal Code, Section 9.10.140, specifies that all commercial and industrial uses shall be operated so that noise created by any loudspeaker, bells, gongs, buzzers, or other noise attenuation or attracting devices shall not exceed 55 dBA at any one time beyond the boundaries of the property.

Chapter 11.80.030 of the City's Municipal Code also states:

> *Based on statistics from the Center for Disease Control and Prevention and the National Institute for Occupational Safety and Health, Table 1 and Table 1-A specify sound level limits which, if exceeded, will have a high probability of producing permanent hearing loss in anyone in the area where the sound levels are being exceeded. No sound shall be permitted within the City which exceeds the parameters set forth in Table 11.80.030-1 [Table 3] and 11.80.030-1A [Table 4] of this chapter.*
>
> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 [Table 5] when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.*

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[4] *Moreno Valley Municipal Code,* City of Moreno Valley, current through Ordinance 836 and the November 2012 code supplement.

The following uses and activities shall be exempt from the sound level regulations except the maximum sound levels provided in Tables 11.80.030-1 [Table 3] and 11.80.030-1A [Table 4]:

1. *Sounds resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of an emergency.*
2. *Sounds resulting from emergency work as defined in Section 11.80.020.*
3. *Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations and air traffic control instruction used pursuant to and within the duly adopted federal air regulations; and any aircraft operating under technical difficulties in any kind of distress, under emergency orders or air traffic control, or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations.*
4. *All sounds coming from the normal operations of interstate motor and rail carriers, to the extent that local regulation of sound levels of such vehicles has been preempted by the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) or other applicable federal laws or regulations.*
5. *Sounds from the operation of motor vehicles, to the extent they are regulated by the California Vehicle Code.*
6. *Any constitutionally protected noncommercial speech or expression conducted within or upon any public right-of-way, public space or other publicly owned property constituting an open or a designated public forum in compliance with any applicable reasonable time, place and manner restriction on such speech or expression or otherwise pursuant to legal authority.*
7. *Sounds produced at otherwise lawful and permitted city-sponsored events, organized sporting events, school assemblies, school playground activities, by permitted fireworks, and by permitted parades on public right-of-way, public space, or other publicly owned property.*
8. *An event for which a temporary use permit or special event permit has been issued under other provisions of this code, where the provision of Section 11.80.010 are met, the permit granted expressly grants an exemption from specific standards contained in this chapter, and the permittee and all persons under the permittee's reasonable control actually comply with all conditions of such permit. Violation of any condition of such permit related to sound or sound equipment shall be in violation of this chapter and punishable as such.*

Table 3 and Table 4 show the maximum sound levels that are permitted in the City for continuous and impulsive sounds, respectively.

Table 3
Maximum Continuous Sound Levels*

Duration Per Day Continuous Hours	Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102

Table 3
Maximum Continuous Sound Levels*

Duration Per Day Continuous Hours	Sound Level (dBA)
1	105
0.5	110
0.25	115

* When the daily sound exposure is composed of two or more periods of sound exposure at different levels, the combined effect of all such periods shall constitute a violation of this section if the sum of the percentage of allowed period of sound exposure at each level exceeds 100 percent.

Source: Chapter 11.80.030 Table 11.80.030-1, City of Moreno Valley Municipal Code, City of Moreno Valley.

Table 4
Maximum Impulsive Sound Levels

Number of Repetitions Per 24-Hour Period	Sound Level (dBA)
1	145
10	135
100	125

Source: Chapter 11.80.030 Table 11.80.030-1A, City of Moreno Valley Municipal Code, City of Moreno Valley.

The City also restricts the sound levels for non-impulsive sound on lands designated for residential and commercial land uses during the daytime and nighttime time periods. These levels are shown in Table 5. Section 11.80.050 (3) clearly identifies the measurement as an "average" noise level, and therefore, the noise limits shown in Table 5 are interpreted as the L_{eq} noise level.

Table 5
Maximum Non-Impulsive Sound Levels (in dBA)

Residential		Commercial	
Daytime (8:00 a.m. – 10:00 p.m.)	**Nighttime (10:01 p.m. – 7:59 a.m.)**	**Daytime (8:00 a.m. – 10:00 p.m.)**	**Nighttime (10:01 p.m. – 7:59 a.m.)**
60	55	65	60

Source: Chapter 11.80.030 Table 11.80.030-2, City of Moreno Valley Municipal Code, City of Moreno Valley.

Should a noise disturbance occur during construction, the City prohibits all construction and demolition activities between the hours of 8:00 p.m. and 7:00 a.m. the day following the noise disturbance; with the exception of emergency work by public service utilities or for other work approved by the city manager or designee. A noise disturbance is defined as any sound which that disturbs a reasonable person of normal sensitivities, exceeds the sound level limits set forth in the Noise Ordinance, or is plainly audible. A noise disturbance is defined as plainly audible measured at a distance of 200 feet from the real property line of the source of the sound if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property.

City of Perris General Plan Policies

The Noise Element of the *City of Perris General Plan*[5] defines goals, policies, and implementation measures related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Goal II	Roadway improvements compatible with existing noise-sensitive land uses.
Policy II.A	Appropriate measures shall be taken in the design phase of future roadway widening projects to minimize impacts on existing sensitive noise receptors.
Goal V	Future non-residential land uses compatible with noise sensitive land uses.
Policy V.A	New large scale commercial or industrial facilities located within 160 feet of sensitive land uses shall mitigate noise impacts to attain an acceptable level as required by the State of California Noise/Land use Compatibility Criteria.

City of Riverside General Plan Policies

The Noise Element of the *City of Riverside General Plan*[6] defines objectives and policies related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

Objective N-1	Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.
Policy N-1.5	Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.
Policy N-1.7	Evaluate noise impacts from roadway improvement projects by using the City's Acoustical Assessment Procedure.
Policy N-1.8	Continue to consider noise concerns in evaluating all proposed development decisions and roadway projects.
Objective N-4	Minimize ground transportation-related noise impacts.
Policy N-4.1	Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (e.g., earthen berms, landscaped walls, lowered streets, improved technology).
Policy N-4.2	Investigate and pursue innovative approaches to reducing noise from railroad sources.

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[5] *City of Perris General Plan Noise Element*, City of Perris, August 2016.

[6] *City of Riverside General Plan*, City of Riverside, February 2018.

Policy N-4.3 Identify and aggressively pursue funding sources to provide grade separations and sound walls along train routes as noise reduction measures.

Policy N-4.5 Use speed limit controls on local streets as appropriate to minimize vehicle traffic noise.

County of Riverside General Plan Policies

The Noise Element of the *County of Riverside General Plan*[7] defines policies related to noise conditions in the City. The specific policies related to noise that are relevant to the project are as follows:

N.1.1 Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

N.1.2 Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of any adjacent airports.

N.1.4 Determine if existing land uses will present noise compatibility issues with proposed projects by undertaking site surveys.

N.1.5 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

N.1.6 Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or noise-sensitive uses.

N.1.8 Limit the maximum permitted noise levels that cross property lines and impact adjacent land uses, except when dealing with noise emissions from wind turbines.

N.2.3 Mitigate exterior and interior noises to the levels listed in [Table 6] below to the extent feasible.

Table 6
Stationary Source Land Use Standards

Land Use	Interior Standards	Exterior Standards
Residential		
10:00 p.m. to 7:00 a.m.	40 L_{eq} (10 minute)	45 L_{eq} (10 minute)
7:00 a.m. to 10:00 p.m.	55 L_{eq} (10 minute)	65 L_{eq} (10 minute)

Source: *County of Riverside General Plan Noise Element*, County of Riverside, December 2015.

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[7] *County of Riverside General Plan Noise Element*, County of Riverside, December 2015

N.3.3 Ensure compatibility between industrial development and adjacent land uses. To achieve compatibility, industrial development projects may be required to include noise mitigation measures to avoid or minimize project impacts on adjacent uses.

N.3.5 Require that a noise analysis be conducted by an acoustical specialist for all proposed projects that are noise producers. Include recommendations for design mitigation if the project is to be located either within proximity of a noise-sensitive land use, or land designated for noise-sensitive land uses.

N.3.6 Discourage projects that are incapable of successfully mitigating excessive noise.

N.3.7 Encourage noise-tolerant land uses such as commercial or industrial, to locate in areas already committed to land uses that are noise-producing.

N.4.1 Prohibit facility-related noise received by any sensitive use from exceeding the following worst-case noise levels:

a. 45 dBA-10-minute L_{eq} between 10:00 p.m. and 7:00 a.m.

b. 65 dBA-10-minute L_{eq} between 7:00 a.m. and 10:00 p.m.

N.4.3 Ensure any use determined to be a potential generator of significant stationary noise impacts be properly analyzed and ensure that the recommended mitigation measures are implemented.

N.4.4 Require that detailed and independent acoustical studies be conducted for any new or renovated land uses or structures determined to be potential major stationary noise sources.

N.4.5 Encourage major stationary noise-generating sources throughout the County of Riverside to install additional noise buffering or reduction mechanisms within their facilities to reduce noise generation levels to the lowest extent practicable prior to the renewal of conditional use permits or business licenses or prior to the approval and/or issuance of new conditional use permits for said facilities.

N.4.8 Require that the parking structures, terminals, and loading docks of commercial or industrial land uses be designed to minimize the potential noise impacts of vehicles on the site as well as on adjacent land uses.

N.6.3 Require commercial or industrial truck delivery hours be limited when adjacent to noise-sensitive land uses unless there is no feasible alternative or there are overriding transportation benefits.

N.9.2 Ensure the inclusion of noise mitigation measures in the design of new roadway projects in the county.

N.9.3 Require development that generates increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses to provide for appropriate mitigation measures.

N.9.4 Require that the loading and shipping facilities of commercial and industrial land uses, which abut residential parcels be located and designed to minimize the potential noise impacts upon residential parcels.

N.9.5 Employ noise mitigation practices when designing all future streets and highways, and when improvements occur along existing highway segments. These mitigation measures will emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.

N.12.1 Utilize natural barriers such as hills, berms, boulders, and dense vegetation to assist in noise reduction.

N.12.2 Utilize dense landscaping to effectively reduce noise. However, when there is a long initial period where the immaturity of new landscaping makes this approach only marginally effective, utilize a large number of highly dense species planted in a fairly mature state, at close intervals, in conjunction with earthen berms, setbacks, or block walls.

N.13.1 Minimize the impacts of construction noise on adjacent uses within acceptable practices.

N.13.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

N.13.4 Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

Section 3

Significance Thresholds

3.1 State CEQA Guidelines Appendix G

A project would have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or if it would conflict with adopted environmental plans and goals of the community in which it is located.

The applicable noise standards and guidelines governing the project are those specified previously in Section 2. In summary, these criteria are contained within the Safety Element of the General Plan, the Municipal Code, the California Vehicle Code, and the State Noise Compatibility Guidelines.

For the purpose of this analysis, a noise impact is considered significant if the project would result in:

a) Construction noise would expose persons to noise levels in excess of standards established by the *City of Moreno Valley General Plan, City of Moreno Valley Municipal Code,* or applicable standards of other agencies;

b) A substantial permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project;

c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

The standards within the *City of Moreno Valley General Plan* and *City of Moreno Valley Municipal Code* determine the acceptable noise environment for project and its vicinity. The standards are as follows:

- Consider the following uses noise-sensitive and discourage them in areas where exterior noise levels exceed 65 dBA CNEL unless measures are implemented that reduce the noise exposure below this level: single-family and multiple-family residential uses, group homes, hospitals, schools and other learning institutions, and parks and open space areas where quiet is a basis for use.

- Noise from construction and demolition activities exceeding those identified in Chapter 11.80.030, Table 11.80.030-2 of the City of Moreno Valley Municipal Code (60 dBA L_{eq} between 8:00 a.m. and 10:00 p.m. and 55 dBA L_{eq} between 10:01 p.m. and 7:59 a.m.) at sensitive uses during project construction would result in violation of the City's noise ordinance (see Table 5).

- Construction activity that would increase ambient noise levels at sensitive land uses by 10 dB or more would result in substantial temporary or periodic increases in ambient noise and be considered significant.

Long-term impacts from the project's traffic noise that affect existing sensitive land uses are considered to be substantial and, therefore, constitute a significant noise impact if the project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

SECTION 4
Methodology

4.1 Methodology

Evaluation of noise impacts associated with the project includes the following:

- Determination of the short-term construction noise impacts on on-site and off-site noise-sensitive uses;
- Determination of the long-term noise impacts, of vehicular traffic, on on-site and off-site noise-sensitive uses; and
- Determination of the required mitigation measures to reduce construction and traffic noise impacts.

Construction Noise

Analysis of the Project's temporary construction noise effects is based on estimates of construction equipment units and duration of use consistent with the air quality analysis. The analyses accounted for attenuation of noise levels due to distances that would be between the construction activity and the nearest sensitive land uses. Construction noise levels at nearby sensitive land uses were estimated using the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM) assuming two of the loudest pieces of construction equipment would operate at the closest location point to the nearest sensitive receptor. Modeled construction noise levels at nearby sensitive receptors were compared to the City of Moreno Valley noise ordinance and to ambient noise levels.

The City of Moreno Valley prohibits construction from occurring outside of the hours of 8:00 p.m. to 7:00 a.m. that creates a noise disturbance. The project is anticipated to require limited nighttime construction activity, subject to the City's approval. Therefore, for this analysis, residences that are exposed to noise levels exceeding those identified in Chapter 11.80.030, table 11.80.030-2 of the City of Moreno Valley Municipal Code (see Table 5) during project construction (60 dBA L_{eq} between 8:00 a.m. and 10:00 p.m. and 55 dBA L_{eq} between 10:01 p.m. and 7:59 a.m.) would result in violation of the City's noise ordinance.

Construction noise impacts are also assessed relative to the increase in noise levels that could result from the operation of specified construction equipment compared to existing noise level conditions. The City of Moreno Valley General Plan and noise ordinance does not specify an incremental increase threshold for construction. For this analysis, substantial temporary or periodic increases in ambient noise would occur and it would be considered a significant impact in cases where sensitive land uses are exposed to construction noise levels that increase ambient noise levels by 10 dB. A 10 dB increase in noise is considered a doubling of loudness to the average person.[8]

Operational Traffic Noise

Roadway noise impacts were evaluated using the FHWA Traffic Noise Model (TNM) method based on the roadway traffic volume data provided in the Traffic Study prepared for the Project by WSP USA.[9] This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels that would occur under the "Without Project" condition.

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[8] California Department of Transportation, Technical Noise Supplement (TeNS) to the Traffic Noise Analysis Protocol, 2013.

[9] WSP USA, Inc. Traffic Impact Analysis Report for The World Logistics Center. June 2018

SECTION 5
Environmental Impacts

5.1 Analysis of Project Impacts

Threshold a: Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-Term Construction

Construction noise levels in and around the Project area would fluctuate depending on the type, number, and duration of use of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as pile driving or blasting), which can be particularly disruptive. Pile driving and blasting, however, is not proposed during Project construction. **Table 7**, *Reference Construction Equipment Noise Levels,* shows typical noise levels produced by the types of construction equipment that would likely be used during Project construction.

Table 7
Reference Construction Equipment Noise Levels

Type of Equipment	L_{max}, dBA (50 Feet from Source)	Hourly L_{eq}, dBA/percent Use[1] (50 Feet from Source)
Bore/Drill Rigs	85	78/20
Cement and Mortar Mixers	85	81/40
Cranes	85	77/16
Excavators	85	81/40
Forklifts	85	78/20
Graders	85	81/40
Pavers	85	82/50
Pumps	77	74/50
Rollers	85	78/20
Dozers	85	81/40
Scrapers	85	81/40
Skid Steer Loaders	85	81/40
Tractors	84	80/40

Loaders	80	76/40
Backhoes	80	76/40
Trenchers	85	78/20

NOTES:
1. Percent used during the given time period (usually an hour – hourly L_{eq}) were obtained from the FHWA Roadway Construction Noise Model User's Guide.

SOURCE: Federal Highway Administration, 2006. *FHWA Roadway Construction Noise Model*. January 2006.

As previously discussed in the *Methodology* discussion in Section 4, the City of Moreno Valley Noise Ordinance prohibits construction from occurring outside of the hours of 8:00 p.m. to 7:00 a.m. that creates a noise disturbance. Construction occurring within the allowable hours of 7:00 a.m. and 8:00 p.m. would not result in the violation of the City's Noise Ordinance. For this analysis, residences that are exposed to noise levels exceeding those identified in Table 5 during daytime or nighttime project construction would result in violation of the City's Noise Ordinance.

Construction operations would occur in two general areas; on-site and off-site. The on-site construction activities will be more intense. Some phases of the on-site construction are expected to occur for 24-hours a day, 7-days per week. For the purpose of this analysis, construction is anticipated to begin in 2020, periodically, for a total of 16-years. Off-site construction would be much less intense and consist of minor grading, drainage, interchange, utility and roadway improvements. Off-site construction activities would be of shorter duration and would only occur on weekdays during daytime hours. Both on-site and off-site construction are discussed in more detail below.

On-site construction activities are expected to occur outside of the allowed construction hours specified in the City of Moreno Valley Noise Ordinance. The operation of each piece of off-road equipment within the on-site construction areas (i.e., Plots 1 through 22) would not be constant throughout the day, as equipment would be turned off when not in use. Most of the time over a typical work day, the equipment would be operating at different locations within the various plots of the Project site and would not likely be operating concurrently. However, for a more conservative approximation of construction noise levels to which the nearest sensitive receptor would be exposed, it is assumed that two of the loudest pieces of construction equipment would be operating at the same time and located within the Project plots nearest to a sensitive receptor. The nearest sensitive receptors are the existing on-site residences, which would be located approximately 25 feet from construction activity of various Plots. As a worst case scenario, it has been assumed that all existing on-site residences will remain onsite throughout construction.

Based on the list of the construction equipment that would be used at each of the plots, it was assumed that the two loudest pieces of off-road equipment (a paver and scraper) would have a combined noise level of 85 dBA L_{eq} from a distance of 50 feet.[10] Using this reference noise level and a 7.5 dB per doubling of distance attenuation rate, the noise exposure level at representative locations around the project site were calculated and presented in **Table 8**, *Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Unmitigated*. The location of the modeled receptor locations is presented in **Figure 4**, *Onsite Plot Locations*. As

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[10] Federal Highway Administration. FHWA Roadway Construction Noise Model User's Guide, January 2006.

shown in Figure 4 and Table 8, noise generated during construction of the plots, in some cases construction of various plots occurring concurrently, would expose sensitive receptors to noise levels that would exceed the City's 60 dBA L_{eq} daytime and 55 dBA L_{eq} nighttime exterior noise standard. Specifically, impacts would occur at existing residences located within and to the west of the project area. Affected receptors are all located within City of Moreno Valley boundaries.

Based on these projections, anticipated worst-case construction noise levels would regularly be exceeded at residences within and near the project area. Based on an L_{eq} noise level of 85 dBA L_{eq} at 50 feet and an attenuation rate of 7.5 dB per doubling of distance, an observer would need to be at a distance of 500 feet from an active Project construction area to experience a noise level of 60 dBA L_{eq}, or 800 feet for a noise level of 55 dBA L_{eq}. Therefore, the on-site construction of the project would result in the exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley Noise Ordinance would result in a significant impact.

Off-site construction activities would occur within the allowed construction hours identified in the City's Noise Ordinance and would be consistent with the City's code. The nearest sensitive receptors are located at approximately 25 feet from off-site construction areas. Based on the operation of the two loudest pieces of equipment simultaneously at 25 feet, off-site construction could expose sensitive receptors to a noise level of 93 dBA L_{eq}, which would exceed the City's allowable daytime exterior noise level of 60 dBA L_{eq}. Therefore, the off-site construction activities would result in the exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley Noise Ordinance would result in a significant impact.

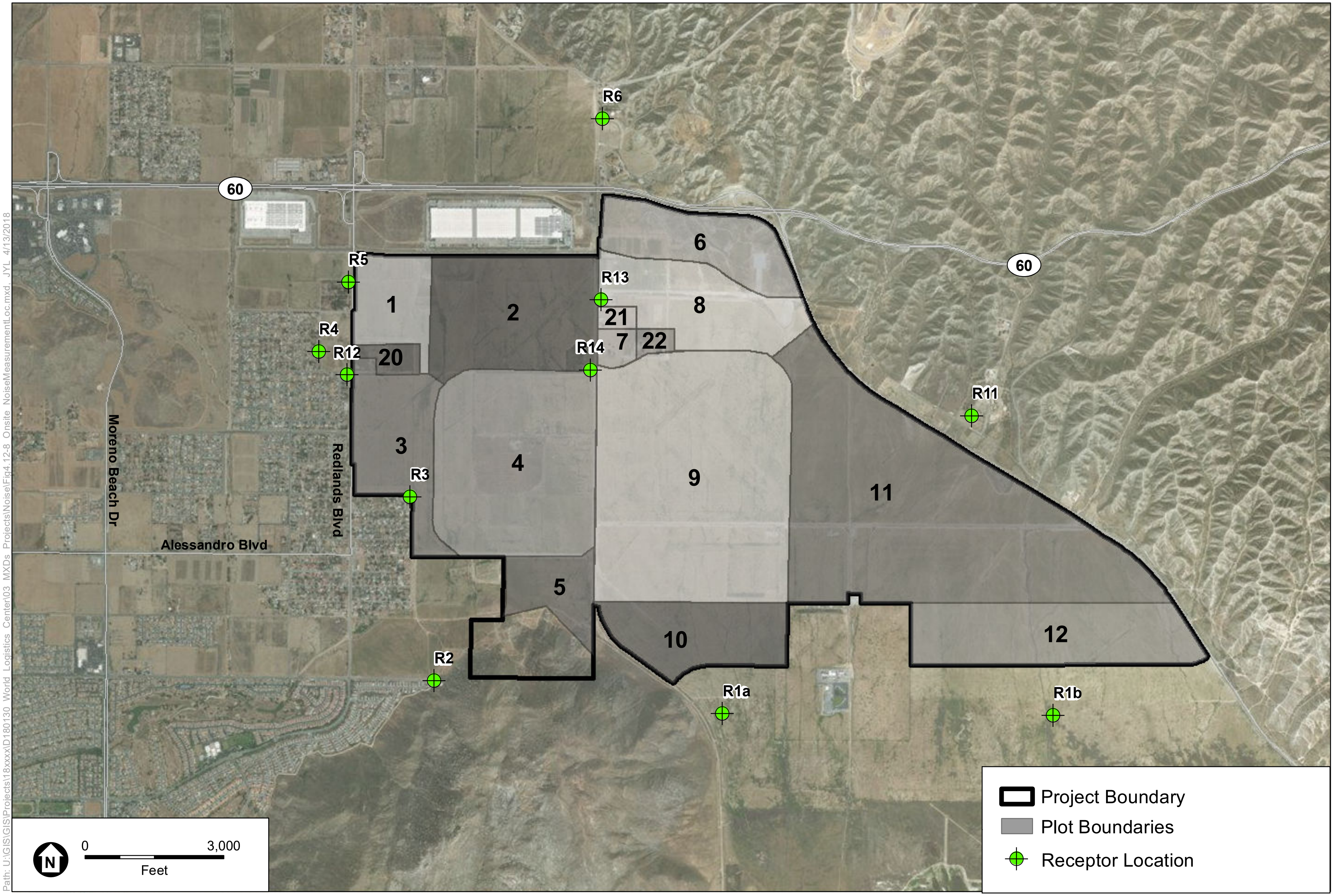

Path: U:\GIS\GIS\Projects\18xxxx\D180130 World Logistics Center\03 MXDs Projects\Noise\Fig4.12-8 Onsite NoiseMeasurementLoc.mxd, JYL 4/13/2018

SOURCE: ESRI

World Logistics Center

Figure 4

Onsite Plot Locations

ESA

Table 8
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Unmitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Attenuated Construction Noise Level (dBA Leq)	Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Increase Over Daytime Ambient Day/Night (dB)
Plot 2					
1a	8,185	41 / 34	30	41 / 35	0 / 1
1b	12,584	41 / 34	25	41 / 35	0 / 1
2	6,885	76 / 53	32	76 / 53	0 / 0
3	2,670	52 / 54	42	52 / 54	0 / 0
4	2,260	66 / 65	44	66 / 65	0 / 0
5	1,575	70 / 67	48	70 / 67	0 / 0
6	3,000	65	41	65	0
11	8,325	74	29	74	0
12	1,700	54 / 41	47	55 / 48	1 / 7
13	120	47 / 60	75	75 / 75	**29 / 16**
14	25	51 / 62	93	93 / 93	**42 / 31**
Plot 4					
1a	4,580	41 / 34	36	42 / 38	1 / 4
1b	10,410	41 / 34	27	41 / 35	0 / 1
2	2,750	76 / 53	41	76 / 53	0 / 0
3	500	52 / 54	60	61 / 61	9 / 7
4	2,655	66 / 65	42	66 / 65	0 / 0
5	2,940	70 / 67	41	70 / 67	0 / 0
6	5,740	65	34	65	0
11	8,140	74	30	74	0
12	1,880	54 / 41	46	55 / 47	1 / 6
13	1,500	47 / 60	48	51 / 60	4 / 0
14	25	51 / 62	93	93 / 93	**42 / 31**
Plot 9					
1a	3,990	41 / 34	37	43 / 39	2 / 5
1b	6,915	41 / 34	31	41 / 36	0 / 2
2	4,815	76 / 53	35	76 / 53	0 / 0
3	3,930	52 / 54	38	52 / 54	0 / 0
4	6,060	66 / 65	33	66 / 65	0 / 0
5	5,700	70 / 67	34	70 / 67	0 / 0
6	5,175	65	35	65	0
11	3,600	74	39	74	0
12	5,350	54 / 41	34	54 / 42	0 / 1
13	950	47 / 60	53	54 / 61	7 / 1
14	400	51 / 62	62	62 / 65	**12** / 3
Plot 1, 3, and 20					
1a	7035 – 9915	41 / 34	34	42 / 37	1 / 3
1b	13530 – 15620	41 / 34	28	41 / 35	0 / 1
2	2745 – 7365	76 / 53	42	76 / 53	0 / 0
3	25 – 2670	52 / 54	93	93 / 93	**41 / 38**
4	835 – 1000	66 / 65	59	67 / 66	1 / 1
5	120 – 1875	70 / 67	79	80 / 79	9 / **12**
6	5010 – 6840	65	38	65	0
11	11290 – 12100	74	31	74	0
12	150 – 730	54 / 41	74	74 / 74	**20 / 33**
13	3650 – 4230	47 / 60	42	48 / 60	1 / 0
14	3400 – 3775	51 / 62	43	52 / 62	1 / 0
Plot 5 and 10					
1a	1030 – 3375	41 / 34	52	52 / 52	**11 / 18**
1b	5750 – 10100	41 / 34	34	42 / 37	1 / 3
2	1735 – 3790	76 / 53	47	76 / 54	0 / 1

Table 8
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Unmitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Attenuated Construction Noise Level (dBA Leq)	Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Increase Over Daytime Ambient Day/Night (dB)
3	1930 – 4740	52 / 54	46	53 / 55	1 / 1
4	5575 – 8270	66 / 65	35	66 / 65	0 / 0
5	6465 – 8810	70 / 67	34	70 / 67	0 / 0
6	9440 – 10480	65	31	65	0
11	5750 – 8765	74	35	74	0
12	7380 – 45800	54 / 41	31	54 / 41	0 / 0
13	4550 – 5570	47 / 60	38	48 / 60	1 / 0
14	3980 – 5130	51 / 62	39	51 / 62	0 / 0
Plot 7, 8, 21, and 22					
1a	7718 – 8610	41 / 34	36	42 / 38	0 / 1
1b	9290 – 12360	41 / 34	32	42 / 36	0 / 0
2	7540 – 8750	76 / 53	36	76 / 53	0 / 0
3	4840 – 6075	52 / 54	40	52 / 54	0 / 0
4	6030 – 6850	66 / 65	38	66 / 65	0 / 0
5	5265 – 5955	70 / 67	40	70 / 67	0 / 0
6	2960 – 4745	65	44	65	0
11	3640 – 7650	74	40	74	0
12	5230 – 6900	54 / 41	39	54 / 43	0 / 0
13	25 – 1550	47 / 60	97	97 / 97	**40** / 0
14	200 – 1370	51 / 62	70	70 / 71	**10** / 0
Plot 11					
1a	4,475	41 / 34	36	42 / 38	1 / 4
1b	4,100	41 / 34	37	42 / 39	1 / 5
2	8,560	76 / 53	29	76 / 53	0 / 0
3	8,435	52 / 54	29	52 / 54	0 / 0
4	10,190	66 / 65	27	66 / 65	0 / 0
5	9,655	70 / 67	28	70 / 67	0 / 0
6	6,725	65	32	65	0
11	675	74	57	74	0
12	9,770	54 / 41	28	54 / 41	0 / 0
13	4,240	47 / 60	37	47 / 60	0 / 0
14	4,460	51 / 62	36	51 / 62	0 / 0
Plot 12					
1a	4,160	41 / 34	37	43 / 39	1 / 5
1b	1,050	41 / 34	52	52 / 52	**11 / 18**
2	10,250	76 / 53	27	76 / 53	0 / 0
3	11,110	52 / 54	26	52 / 54	0 / 0
4	13,920	66 / 65	24	66 / 65	0 / 0
5	13,960	70 / 67	24	70 / 67	0 / 0
6	12,400	65	25	65	0
11	4,000	74	37	74	0
12	13,130	54 / 41	25	54 / 41	0 / 0
13	9,330	47 / 60	28	47 / 60	0 / 0
14	8,540	51 / 62	29	51 / 62	0 / 0
Plot 6					
1a	8,870	41 / 34	29	41 / 35	0 / 1
1b	10,300	41 / 34	27	41 / 35	0 / 1
2	9,975	76 / 53	28	76 / 53	0 / 0
3	6,730	52 / 54	32	52 / 54	0 / 0
4	6,515	66 / 65	32	66 / 65	0 / 0
5	5,435	70 / 67	34	70 / 67	0 / 0
6	1,610	65	47	65	0

Table 8
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Unmitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Attenuated Construction Noise Level (dBA Leq)	Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Increase Over Daytime Ambient Day/Night (dB)
11	4,340	74	37	74	0
12	6,100	54 / 41	33	54 / 42	0 / 1
13	960	47 / 60	53	54 / 61	7 / 1
14	2,440	51 / 62	43	52 / 62	1 / 0

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.

* Increases in nighttime ambient noise were not modeled for receptor locations 6 and 11 due to their distance from the project site and on-site activity.

Source: ESA, 2018; FHWA, 2006

Long-Term Traffic Noise

The noise analysis for the project is based on the traffic volume data contained in the revised Traffic Impact Analysis (TIA) prepared for the Project.[11] The TIA addressed the intersections of surface streets in Moreno Valley of a collector or higher classification street with another collector or higher classification street, at which the project will add 50 or more peak hour trips. The study area also included the main travel routes between the Project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area extended west to the nearest ramps on SR-91 and as far south as the I-215 ramps at Redlands Avenue in Perris. The study area for freeways was selected to encompass the freeway routes radiating from the Project site to the north, south, east, and west. The traffic analysis covered SR-60 from I-10 in the east to SR-71 in the west, SR-91/I-215 from I-210 in the east to I-15 in the west, I-215 from Redlands Avenue in the north to the Scott Road interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west.

Three hundred and thirty-nine (339) roadway links and eighty-nine (89) freeway segments were analyzed in the noise analysis. The change in noise level was calculated for all 428 roadway and freeway links with and without the Project for the existing (2018), 2025, and 2040 buildout scenarios. Segments with noise increases less than 1.5 dB would not have a substantial noise increase and were not presented in the main body of the noise report (i.e., the tables). Similarly, any segments that do not have sensitive receptors (e.g., residential uses or schools) were also not presented in the main body of the noise report. Based on this filtering process, of the 428 segments analyzed, 21 segments have sensitive receptors and an increase of 1.5 dB for at least one buildout scenario and were therefore addressed in the analysis.

The projected future daily traffic volumes for roadway segments in the Project vicinity were used in the traffic noise impact analysis. Modeled noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. As previously identified, long-term impacts from the Project's traffic noise that affect existing sensitive land uses are considered to be substantial and, therefore, constitute a significant noise impact if the Project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

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[11] WSP USA, Inc. Traffic Impact Analysis Report for The World Logistics Center. June 2018

Existing 2018 Buildout Scenario

Operation of development that could occur within the project area would generate traffic along roadways in the Project vicinity. **Table 9**, *Existing Year (2018) Plus Project Buildout Traffic Noise Levels*, identifies existing with roadway traffic noise levels with the Project.

As identified in Table 9, build out of the project under 2018 conditions would result in substantial increases in traffic noise levels in the Existing plus Project Build Out scenario. The largest Project-related increase in traffic noise would be along Cactus Avenue Extension and Street F where increases of greater than 65 dBA are predicted. However, the increases associated with these roadway segments is attributable in part to Cactus Avenue Extension and Street F being new roads that will be constructed by the project. A total of 13 road or freeway segments would result in a substantial noise increase attributable to the Project, resulting in a significant impact requiring mitigation.

Table 9
Existing Year (2018) Plus Project Buildout Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.6	71.1	18.5	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	51.9	64.4	12.5	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	65.7	65.7	Yes
John F Kennedy Drive (south of Cactus Avenue)	63.8	65.7	1.9	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	65.6	68.4	2.8	Yes
Street F (east of World Logistics Center Parkway)	0.0	69.2	69.2	Yes
Cactus Avenue (west of Redlands Boulevard)	60.2	62.3	2.1	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	50.7	56.2	5.5	Yes
Theodore Street (SR-60 to Ironwood Avenue)	59.6	61.5	1.9	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	60.4	62.1	1.7	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	51.9	64.4	12.5	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	42.1	47.2	5.1	Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	54.6	60.3	5.7	Yes
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	54.1	57.9	3.8	No
Kitching Street (Krameria Avenue to Lurin Avenue)	61.9	65.1	3.2	Yes
Sunset Drive (Crown Street to Alessandro Road)	47.4	49.0	1.6	No
SR-60 EB Ramps (SR-60 to Central Avenue)	57.4	65.0	7.6	Yes
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.1	81.6	1.5	Yes
SR-60 (Moreno Beach Drive to Redlands Boulevard)	77.9	80.3	2.4	Yes
SR-215 (Mill Street to 2nd Street)	82.9	83.0	0.1	No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	80.4	0.0	No

Phase 1 (2025) Buildout Scenario

Year 2025 (Phase 1) with and without Project scenarios projected daily traffic volumes on roadway segments in the Project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the project. **Table 10**, *Phase 1 (2025) Plus Project Traffic Noise Levels,* identifies year 2025 without Project and with Project traffic noise levels.

As identified in Table 10, implementation of the project would result in changes in traffic noise levels in Year 2025 (Phase 1). The largest Project-related increase in traffic noise would be along Cactus Avenue Extension and Street F (east of World Logistics Center Parkway), where increases of 63.9 dBA and 58.1 dBA, respectively, are predicted for the 2025 With Project Phase 1 scenario over the Year 2025 without Project scenario. However, the increases associated with these roadway segments is attributable in part to Cactus Avenue Extension Street F being new roads that will be constructed by the project. A total of five road segments would result in a substantial noise increase attributable to the Project, resulting in a significant impact requiring mitigation.

Table 10
Phase 1 (2025) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	52.9	69.5	16.6	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	54.3	63.5	9.2	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	63.9	63.9	Yes
John F Kennedy Drive (south of Cactus Avenue)	65.0	65.5	0.5	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	67.5	67.6	0.1	No
Street F (east of World Logistics Center Parkway)	0.0	58.1	58.1	Yes
Cactus Avenue (west of Redlands Boulevard)	60.4	61.4	1.0	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	51.5	54.3	2.8	No
Theodore Street (SR-60 to Ironwood Avenue)	59.3	60.5	1.2	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	62.1	62.1	0.0	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	54.3	63.5	9.2	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	47.2	47.2	0.0	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	56.4	56.2	-0.2	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	55.1	55.0	-0.1	No
Kitching Street (Krameria Avenue to Lurin Avenue)	64.9	64.9	0.0	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	49.0	0.0	No
SR-60 EB Ramps (SR-60 to Central Avenue)	65.2	65.5	0.3	No
Freeways				
SR-60 (Perris Boulevard to Nason Street)	80.8	81.6	0.8	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	79.2	80.4	1.2	No
SR-215 (Mill Street to 2nd Street)	83.1	83.1	0.0	No
SR-215 (Baseline Road to Highland Avenue/SR-210	80.5	80.6	0.1	No

Project Buildout (2040) Scenario

Operation of the project would generate traffic along roadways in the surrounding area during the buildout year (2040) scenario. Buildout Year (2040) with and without Project scenarios projected daily traffic volumes on roadway segments in the Project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the project. **Table 11**, *Buildout Year (2040) Plus Project Traffic Noise Levels,* identifies the Buildout Year (2040) without Project and with Project traffic noise levels.

Table 11
Buildout Year (2040) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
World Logistics Center Pkwy (Eucalyptus Avenue to Street F)	54.2	71.0	16.8	Yes
Alessandro Boulevard (Cactus Avenue Extension to World Logistics Center Pkwy)	55.3	66.7	11.4	Yes
Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue)	0.0	66.8	66.8	Yes
John F Kennedy Drive (south of Cactus Avenue)	66.5	67.0	0.5	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	69.2	69.2	0.0	No
Street F (east of World Logistics Center Parkway)	0.0	68.3	68.3	Yes
Cactus Avenue (west of Redlands Boulevard)	61.0	64.9	3.9	Yes
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	55.9	58.2	2.3	No
Theodore Street (SR-60 to Ironwood Avenue)	65.3	66.0	0.7	No
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	64.4	64.6	0.2	No
Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension)	55.3	66.7	11.4	Yes
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	61.4	61.3	-0.1	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	60.7	60.9	0.2	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	62.8	63.0	0.2	No
Kitching Street (Krameria Avenue to Lurin Avenue)	68.5	68.4	-0.1	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	49.0	0.0	No
SR-60 EB Ramps (SR-60 to Central Avenue)	65.5	66.5	1.0	No
Freeways				
SR-60 (Perris Boulevard to Nason Street)	81.6	82.4	0.8	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	80.5	81.6	1.1	No
SR-215 (Mill Street to 2nd Street)	82.9	84.8	1.9	Yes
SR-215 (Baseline Road to Highland Avenue/SR-210	80.4	82.1	1.7	Yes

Increases in noise levels associated with Buildout Year (2040) traffic conditions on area roadways range up to 68.3 dBA. As identified in the Table 11, the greatest increase in noise levels would be along Cactus Avenue Extension and Street F (east of World Logistics Center Parkway), where increases of 66.8 dBA and 68.3 dBA, respectively, are predicted for the Buildout Year 2040 With Project scenario over the Buildout Year 2040 without Project scenario. However, the increases associated with these roadway segments is attributable in part to Cactus Avenue Extension and Street F being new roads that will be constructed by the project. A total of eight road and freeway segments would result in a substantial noise increase attributable to the project, resulting in a significant impact requiring mitigation.

Tables 9 through 11 identify the noise increases directly caused by the project. These numbers represent the distance from the centerline of the road to the contour value shown. Note that the values given in Tables 9 through 11 do not take into account the effect of any existing noise attenuation in the form of barriers, soundwalls, or topography that may affect ambient noise levels.

It should be noted that the same noise increase occurs at all locations along a roadway link. In addition, the noise contours for the With Project scenarios cover a wider area around the local roadways than what was evaluated for existing conditions. State Route 60, however, continues to be the dominant noise source in the area.

Summary of Impacts

Within the Specific Plan Area. Six occupied noise-sensitive uses within the World Logistics Center site include residences that may remain with the implementation of the project. The Specific Plan would rezone the properties as Light Logistics, but it is anticipated that the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered sensitive land uses.

- *Street A/ World Logistics Center Parkway, South of SR 60 (Street B/Eucalyptus Avenue to Street F).* Three residences are located along Street A (World Logistics Center Parkway, South of SR 60) between the future Street B and Street F. These residences are anticipated to experience noise increases up to 18.5 dB due to the implementation of the project. As a result, existing noise levels at these residences will be changed significantly. Therefore, this would be a significant impact requiring mitigation.

- *Street F/Dracaea Avenue (east of Street A/ World Logistics Center Parkway, South of SR 60).* A single residence is located east of World Logistics Center Parkway, South of SR 60 along what is currently Dracaea Avenue (future Street F). Existing conditions identify low levels of traffic noise on Dracaea Avenue. With build out of the project in year 2040, this residence would experience noise increases up to 69.2 dB during the 2018 buildout year. Therefore, this would be a significant impact requiring mitigation.

- *Street E/Dracaea Avenue (east of Redlands Boulevard).* Two residences are located along Dracaea Avenue east of Redlands Boulevard. These residences would be most affected by traffic along Redlands Boulevard between Eucalyptus Avenue and Cottonwood Avenue, where no significant noise increase has been identified. Additionally, although the alignment of future Street E is not yet known, it is not anticipated that the future Street E centerline would be located less than 100 feet from these residences. Therefore, impacts would be less than significant and no mitigation is required.

Off-Site Areas Adjacent to the Specific Plan Area. For areas adjacent to the World Logistics Center site, 13 segments would experience a noise increase that would be greater than significance criteria specified previously. These areas are described below.

- *Street D/Cactus Avenue Extension (Alessandro Boulevard to Cactus Avenue).* Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the Project parallel to Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. These homes would experience noise level increases of up to 66.8 dB during the 2040 buildout year. Therefore, this would be a significant impact requiring mitigation.

- *Redlands Boulevard (from Eucalyptus Avenue to State Route 60).* There are homes located at the northwestern corner of Redlands Boulevard and Eucalyptus Avenue. The 2018 buildout scenario results in a significant noise increase of 2.8 dB. Therefore, this would be a significant impact requiring mitigation.

- *Cactus Avenue (west of Redlands Boulevard).* Existing residences are located along Cactus Avenue with rear yards facing Cactus Avenue with soundwalls located long the rear yards of the residences. The 2018 and 2040 buildout scenarios result in significant noise increases of 2.1 dB and 3.9 dB, respectively. Therefore, this would be a significant impact requiring mitigation.

- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase of 5.5 dB is projected for 2018 with full project build out. Therefore, this would be a significant impact requiring mitigation.

- *Cactus Avenue (Redlands Boulevard to Cactus Avenue Extension).* This area is occupied by a small group of single-family homes along Cactus Avenue between the future Street D/Cactus Avenue Extension and Redlands Boulevard. A significant noise increase is projected for all buildout scenarios. Currently, there is no soundwall along these homes. Therefore, this would be a significant impact requiring mitigation.

- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2018 buildout scenario results in a significant noise increase for this area. In 2018, the project will increase noise levels by 5.1 dB. Therefore, this would be a significant impact requiring mitigation.

- *Locust Avenue (between Moreno Beach Drive and Redlands Boulevard).* There are single-family homes along this roadway with front, rear, and side yards facing Locust Avenue. With project buildout in 2018, the project will increase noise levels by 5.7 dB. Therefore, this would be a significant impact requiring mitigation.

- *Kitching Street (between Krameria Avenue and Lurin Avenue).* There are single-family homes along this roadway with rear yards facing Kitching Street. Existing 6-foot high soundwalls are located along the residences and rear yard areas. Under the 2018 buildout scenario, the noise level is projected to increase by 3.2 dB. Therefore, this would be a significant impact requiring mitigation.

- *State Route 60 eastbound ramps (between SR-60 and Central Avenue).* Single-family homes are located south of SR-60 eastbound ramps. Under the project buildout scenario in year 2018, a noise level increase of 7.6 dB is anticiated. Therefore, this would be a significant impact requiring mitigation.

- *State Route 60 (from Perris Boulevard to Nason Street).* All residential areas along this stretch of freeway have soundwalls in place. The 2018 buildout scenario results in a significant noise increase of 1.5 dB. Therefore, this would be a significant impact requiring mitigation.

- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* There are soundwalls in place for all residences in this area. The existing 2018 buildout scenario results in a significant noise increase of 2.4 dB. Therefore, this would be a significant impact requiring mitigation.

- *State Route 215 (from Mill Street to 2nd Street).* There are four residential uses located to the west of SR-215 south of 2nd Street with no soundwalls. The residential uses are set back from the freeway and are located at a lower grade than the freeway. The 2040 buildout scenario results in a significant noise increase of 1.9 dB. Therefore, this would be a significant impact requiring mitigation.

- *State Route 215 (from Baseline Road to Highland Avenue/SR-210).* There are residential uses on the west and east sides of SR-215. There are soundwalls in place along this segment of the SR-215 alignment. The 2040 buildout scenario results in a significant noise increase of 1.7 dB. Therefore, this would be a significant impact requiring mitigation.

Threshold b: Would the Project result in a substantial permanent increase in ambient noise levels in the vicinity of the Project above levels existing without the Project?

Permanent Increases in Ambient Noise

The analysis provided for “Threshold a” addresses the potential for Project operations to result in permanent increases in ambient noise levels in the Project vicinity. As stated therein, and as shown in Table 9 through Table 11, Project-related traffic would not result in a substantial permanent increase in ambient noise levels at the noise-sensitive receptors in the Project vicinity. Increases in ambient noise resulting from on-site operational activity such as truck movements, loading/unloading, and mechanical equipment would occur and potentially impact nearby sensitive receptors.

Threshold c: Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Temporary or Periodic Increases in Ambient Noise

The project has the potential of exposing sensitive receptors within the vicinity of on- and off-site construction areas to noise levels that could temporarily elevate the existing ambient noise level above the applied 10 dB substantial temporary increase threshold. As previously discussed in the *Methodology* discussion in Section 4, the City of Moreno Valley noise ordinance and general plan does not contain an incremental increase threshold for construction. Therefore, for purposes of this analysis, it would be considered a significant impact in cases where sensitive receptors are exposed to construction noise levels that increase ambient noise levels by 10 dB.

Construction crew commutes and the transport of construction equipment and materials to the site for the project would incrementally increase noise levels on access roads in the planning area. Using algorithms from the FHWA's TNM Technical Manual and the estimated work, vendor and haul truck volumes, project peak hour construction traffic noise levels were estimated for anticipated construction years and compared to measured daytime ambient noise levels along Redlands Boulevard and World Logistics Center Parkway. The results of the modeling are shown in **Table 12**, *Increase Over Ambient Along Local Roadways During Project Construction*. As shown in Table 12, Project construction traffic would not elevate existing ambient noise levels above the applied substantial temporary increase threshold of 10 dB.

Table 12
Increase Over Ambient Along Local Roadways During Project Construction

Project Construction Year	Construction Areas	Construction On-Road Traffic Noise from 100 feet L_{eq}	Range of Existing Daytime Ambient Noise Levels along Local Roadways (dBA L_{eq})	Project Construction Noise Plus Measured Existing Noise Levels (dBA L_{eq})
2020	Plot 2	52	47 - 68	0 - 6
2021	Plot 2	54	47 - 68	0 - 8
2022	Plot 4	52	47 - 68	0 - 6
2023	Plot 4	54	47 - 68	0 - 8
2024	Plot 9	55	47 - 68	0 - 9
2025	Plot 9	54	47 - 68	0 - 8
2026	Plots 1, 3, 20	51	47 - 68	0 - 5
2027	Plots 5, 10	52	47 - 68	0 - 6
2028	Plots 5, 10	55	47 - 68	0 - 8
2029	Plots 7, 8, 21, 22	54	47 - 68	0 - 8
2030	Plot 11	55	47 - 68	0 - 8
2031	Plot 11	54	47 - 68	0 - 8
2032	Plot 11	52	47 - 68	0 - 7
2033	Plot 12	52	47 - 68	0 - 6
2034	Plot 12	54	47 - 68	0 - 8
2035	Plot 6	52	47 - 68	0 - 6

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction traffic noise levels were modeled using estimated work, vendor and haul trips from a distance of 100 feet from center of roadway. Construction traffic noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.
Source: ESA, 2018

As previously discussed, two of the loudest pieces of construction equipment running at the same time and place was used to model project-related construction noise levels at sensitive receptors nearest to on- and off-site construction areas. The modeled receptor locations for on- and off-site construction areas are shown in Figure 4 and **Figure 5**, *Offsite Construction Locations*, respectively. These modeled construction noise levels were compared to ambient noise measurements conducted by ESA in March 2018 to evaluate whether Project-related construction activities could elevate the existing ambient noise level above the applied 10 dB substantial temporary increase threshold. Table 8, and **Table 13**, *Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction - Unmitigated,* compares the highest on-site and off-site, respectively, Project construction-related L_{eq} noise levels to which sensitive receptors could be exposed against the applicable temporary substantial increase in ambient noise threshold.

As shown in Table 8, construction activities within the Project area (i.e., plots 1 through 22) would elevate existing ambient noise levels by as much as 50 dB. The existing sensitive receptors that would be most affected by on-site construction activities are located within, to the west, and to the southwest of the Project area. The Project-related construction activities could also have the potential to expose wildlife located within the undeveloped land located south of the Project area to construction noise levels that would elevate the existing ambient level to above the applied 10 dB substantial temporary increase threshold. Transient construction noise consisting of worker trips and construction equipment and materials delivery would not occur along the southern boundary of the site, adjacent to the wildlife corridor. Therefore, noise generated during on-site construction activities would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

As shown in Table 13, off-site construction (e.g., roadway improvements, drainage improvements, etc.) in some areas, would elevate ambient noise levels by as much as 45 dB over existing ambient noise levels. The existing sensitive receptors located adjacent to Redlands Boulevard, Cactus Avenue, and near the intersections of World Logistics Center Parkway/Highway 60 and Redlands Boulevard/Highway 60 would be most affected by offsite construction activities. Therefore, noise generated during off-site construction activities would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

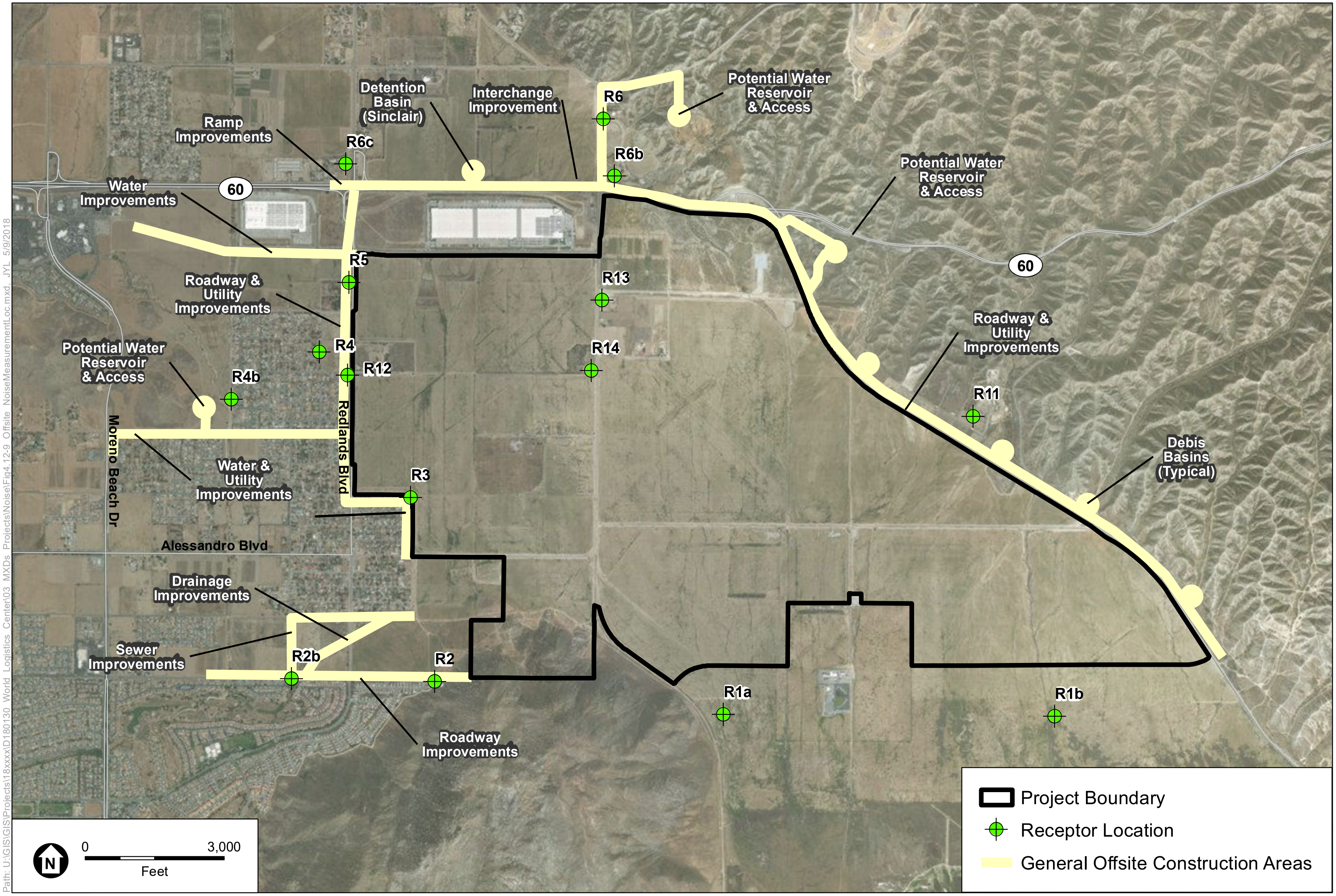

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SOURCE: ESRI

World Logistics Center

Figure 5

Offsite Construction Locations

ESA

Table 13
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Unmitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Lmvel (dBA Leq)	Project Only Attenuated Construction Noise Level (dBA Leq)	Project plus Ambient Attenuated Construction Noise Level plus Ambient (dBA Leq)	Increase Over Daytime Ambient (dB)
Roadway Improvements					
1a	6,140	39	33	40	1
1b	13,320	39	24	39	0
2	25	67	93	93	**26**
2b	25	67	93	93	**26**
3	1,260	48	50	52	4
4a	675	65	57	66	1
4b	2,600	65	42	65	0
5	25	68	93	93	**25**
6a	4,845	65	35	65	0
6b	5,125	65	35	65	0
6c	1,860	65	46	65	0
11	640	74	57	74	0
12	25	54	93	93	**39**
13	4,220	47	37	47	0
14	5,000	51	35	51	0
Drainage Improvements					
1a	7,530	39	31	40	1
1b	14,560	39	23	39	0
2	1,680	67	47	67	0
2b	25	67	93	93	**26**
3	2,700	48	42	49	1
4	6,000	65	33	65	0
4b	5,765	65	33	65	0
5	7,400	68	31	68	0
6	11,700	65	26	65	0
6b	11,030	65	26	65	0
6c	9,810	65	28	65	0
11	13,400	74	24	74	0
12	5,313	54	34	54	0
13	8,230	47	30	47	0
14	6,890	51	32	51	0
Sewer Improvements					
1a	7,000	39	31	40	1
1b	14,010	39	24	39	0
2	1,370	67	49	67	0
2b	25	67	93	93	**26**
3	2,610	48	42	49	1
4	6,130	65	33	65	0
4b	5,150	65	35	65	0
5	7,360	68	31	68	0
6	11,630	65	26	65	0
6b	10,525	65	27	65	0
6c	9,810	65	28	65	0
11	12,710	74	25	74	0
12	5,300	54	34	54	0
13	7,900	47	30	47	0
14	6,530	51	32	51	0
Water Utility Improvements					
1a	7,500	39	31	40	1
1b	14,255	39	24	39	0
2	2,660	67	42	67	0
2b	3,745	67	38	67	0
3	25	48	93	93	**45**
4	1,770	65	46	65	0
4b	2,525	65	42	65	0
5	3,240	68	40	68	0
6	8,670	65	29	65	0
6b	8,072	65	30	65	0

Table 13
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Unmitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Lmvel (dBA Leq)	Project Only Attenuated Construction Noise Level (dBA Leq)	Project plus Ambient Attenuated Construction Noise Level plus Ambient (dBA Leq)	Increase Over Daytime Ambient (dB)
6c	5,800	65	33	65	0
11	13,500	74	24	74	0
12	1,275	54	50	55	1
13	6,170	47	33	47	0
14	5,380	51	34	51	0
Potential Water Reservoir & Access					
1a	13,550	39	24	39	0
1b	20,000	39	20	39	0
2	8,316	67	29	67	0
2b	6,780	67	32	67	0
3	5,370	48	34	48	0
4	2,885	65	41	65	0
4b	925	65	53	65	0
5	4,082	68	37	68	0
6	10,590	65	27	65	0
6b	10,180	65	27	65	0
6c	6,120	65	33	65	0
11	16,900	74	22	74	0
12	3,420	54	39	54	0
13	9,100	47	28	47	0
14	8,690	51	29	51	0
Roadway & Utility Improvements					
1a	6,140	39	33	40	1
1b	13,320	39	24	39	0
2	25	67	93	93	**26**
2b	25	67	93	93	**26**
3	1,260	48	50	52	4
4	675	65	57	66	1
4b	2,600	65	42	65	0
5	25	68	93	93	**25**
6	4,845	65	35	65	0
6b	5,125	65	35	65	0
6c	1,860	65	46	65	0
11	640	74	57	74	0
12	25	54	93	93	**39**
13	4,220	47	37	47	0
14	5,000	51	35	51	0
Water Improvements					
1a	12,830	39	25	39	0
1b	18,245	39	21	39	0
2	9,400	67	28	67	0
2b	9,230	67	28	67	0
3	3,690	48	38	48	0
4	2,045	65	45	65	0
4b	3,792	65	38	65	0
5	560	68	59	69	1
6	6,190	65	33	65	0
6b	5,840	65	33	65	0
6c	1,860	65	46	65	0
11	13,900	74	24	74	0
12	2,685	54	42	54	0
13	5,465	47	34	47	0
14	5,765	51	33	51	0
Ramp Improvements					
1a	13,760	39	24	39	0
1b	19,000	39	21	39	0
2	10,750	67	27	67	0
2b	10,686	67	27	67	0
3	6,780	48	32	48	0

Table 13
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Unmitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Lmvel (dBA Leq)	Project Only Attenuated Construction Noise Level (dBA Leq)	Project plus Ambient Attenuated Construction Noise Level plus Ambient (dBA Leq)	Increase Over Daytime Ambient (dB)
4	3,660	65	38	65	0
4b	4,930	65	35	65	0
5	1,933	68	45	68	0
6	5,600	65	34	65	0
6b	5,570	65	34	65	0
6c	350	65	64	68	3
11	14,260	74	24	74	0
12	3,990	54	37	54	0
13	5,935	47	33	47	0
14	6,610	51	32	51	0
Detention Basin (Sinclair)					
1a	12,900	39	25	39	0
1b	17,125	39	22	39	0
2	11,145	67	26	67	0
2b	11,740	67	26	67	0
3	7,315	48	31	48	0
4	5,225	65	35	65	0
4b	7,010	65	31	65	0
5	3,790	68	38	68	0
6	2,755	65	41	65	0
6b	2,880	65	41	65	0
6c	2,760	65	41	65	0
11	11,915	74	26	74	0
12	5,320	54	34	54	0
13	3,870	47	38	48	1
14	4,940	51	35	51	0
Interchange Improvement					
1a	11,750	39	26	39	0
1b	15,150	39	23	39	0
2	11,300	67	26	67	0
2b	12,560	67	25	67	0
3	7,865	48	30	48	0
4	6,980	65	31	65	0
4b	9,060	65	29	65	0
5	5,805	68	33	68	0
6	1,455	65	48	65	0
6b	85	65	79	79	**14**
6c	5,230	65	35	65	0
11	9,570	74	28	74	0
12	6,770	54	32	54	0
13	2,450	47	43	48	1
14	3,995	51	37	51	0
Potential Water Reservoir & Access					
1a	12,600	39	25	39	0
1b	15,800	39	23	39	0
2	12,070	67	25	67	0
2b	13,300	67	24	67	0
3	8,635	48	29	48	0
4	7,310	65	31	65	0
4b	9,400	65	28	65	0
5	5,975	68	33	68	0
6	25	65	93	93	**28**
6b	333	65	64	68	3
6c	5,440	65	34	65	0
11	9,885	74	28	74	0
12	7,200	54	31	54	0
13	3,085	47	40	48	1
14	4,545	51	36	51	0
Potential Water Reservoir & Access					

Table 13
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Unmitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Lmvel (dBA Leq)	Project Only Attenuated Construction Noise Level (dBA Leq)	Project plus Ambient Attenuated Construction Noise Level plus Ambient (dBA Leq)	Increase Over Daytime Ambient (dB)
1a	9,945	39	28	39	0
1b	10,880	39	27	39	0
2	12,365	67	25	67	0
2b	14,665	67	23	67	0
3	10,400	48	27	48	0
4	11,245	65	26	65	0
4b	13,235	65	24	65	0
5	10,445	68	27	68	0
6	5,915	65	33	65	0
6b	5,065	65	35	65	0
6c	11,300	65	26	65	0
11	4,300	74	37	74	0
12	10,775	54	27	54	0
13	5,100	47	35	47	0
14	5,635	51	34	51	0
Debris Basins (Typical)					
1a	4,280	39	37	41	2
1b	10,250	39	27	39	0
2	16,090	67	22	67	0
2b	19,250	67	20	67	0
3	10,375	48	27	48	0
4	12,000	65	25	65	0
4b	13,935	65	24	65	0
5	11,385	68	26	68	0
6	7,755	65	30	65	0
6b	6,890	65	32	65	0
6c	12,200	65	25	65	0
11	1,680	74	47	74	0
12	11,255	54	26	54	0
13	6,000	47	33	47	0
14	6,065	51	33	51	0

Notes:

Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.

1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.
2. Mitigation assumed a 10 dB reduction from a temporary noise barrier and equipment exhaust mufflers.

Source: ESA, 2018; FHWA, 2006

SECTION 6

Mitigation Measures

6.1 Construction Noise

The following mitigation measure would reduce construction-related noise:

MM-NOISE-1 Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The NRCP shall be prepared by a qualified acoustical consultant describing how noise reduction measures shall be implemented to reduce the noise exposure on sensitive receptors adjacent to onsite and offsite construction areas. The noise reduction measures shall be implemented so that construction activities do not exceed the City's daytime and nighttime average hourly noise standard of 60 dBA L_{eq} and 55 dBA L_{eq}, respectively. The construction noise reduction measures shall include, but not be limited to, the following measures:

- All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.

- Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the project.

- No construction activity shall occur within 800 feet of residences between 8 p.m. and 7 a.m. on weekdays and weekends.

- A 12-foot tall temporary construction sound barrier blocking the line-of-sight of construction activity to any residential receptor located within 800 feet of active construction areas shall be installed prior to commencement of any construction activity. The temporary sound barrier shall be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater.

- Distribute to the potentially affected residences and other sensitive receptors within 500 feet of project construction boundary a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The distribution shall identify a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute feasible actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant's name, nature of complaint, and any corrective action taken. The distribution shall also notify residents adjacent to the project site of the construction schedule. Records of any complaints and corrective action shall be stored at the site and available to the City upon request.

Level of Significance After Mitigation

Implementation of Mitigation Measure NOISE-1 would reduce construction noise levels at nearby sensitive receptors through implementation of a NRCP, which is expected to attenuate construction noise levels by a minimum of 10 dB. **Table 14,** *Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction – Mitigated* shows mitigated construction noise levels at sensitive receptors in the vicinity of on-site construction areas. In addition, Mitigation Measure NOISE-1 prohibits construction activity within 800 feet of any sensitive receptor outside of the allowable hours of 7:00 a.m. to 8:00 p.m. As shown in Table 14, at distances greater than 800 feet, construction noise would not exceed the City's nighttime exterior noise standard of 55 dBA L_{eq}. Therefore, impacts would be less than significant with mitigation incorporated for nighttime construction.

With regard to daytime construction, sensitive receptors located within and to the west of the project would continue to be exposed to construction noise levels that would exceed the City's daytime exterior noise standard of 60 dBA L_{eq} even with implementation of mitigation. Additionally, with a 10 dB reduction, off-site construction activity would continue to expose the sensitive receptors at 25 feet to noise levels up to 83 dBA L_{eq}. Therefore, this would result in a significant and unavoidable impact with mitigation with regard to City exterior noise standards.

As shown in Table 14 and **Table 15**, *Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction - Mitigated*, even with implementation of Mitigation Measure NOISE-1, sensitive receptors located near on-site and off-site construction areas would be exposed to construction noise levels that would elevate the existing daytime ambient noise levels above the applied 10 dB substantial temporary increase threshold. Therefore, this would result in a significant and unavoidable daytime construction impact with mitigation. By prohibiting nighttime construction within 800 feet of sensitive uses, onsite construction would not result in temporary nighttime increases greater than 10 dB over ambient conditions.

Table 14
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level Day/Night ^{3} (where applicable) (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night(dB)
Plot 2								
1a	8,185	41 / 34	30	20	41 / 35	41 / 34	0 / 1	0 / 0
1b	12,584	41 / 34	25	15	41 / 35	41 / 34	0 / 1	0 / 0
2	6,885	76 / 53	32	22	76 / 53	76 / 53	0 / 0	0 / 0
3	2,670	52 / 54	42	32	52 / 54	52 / 54	0 / 0	0 / 0
4	2,260	66 / 65	44	34	66 / 65	66 / 65	0 / 0	0 / 0
5	1,575	70 / 67	48	38	70 / 67	70 / 67	0 / 0	0 / 0
6	3,000	65	41	31	65	65	0	0
11	8,325	74	29	19	74	74	0	0
12	1,700	54 / 41	47	37	55 / 48	54 / 42	1 / 7	0 / 1
13	120	47 / 60	75	65 / 45	75 / 75	65 / 60	**29 / 16**	**19** / 0
14	25	51 / 62	93	83 / 45	93 / 93	83 / 62	**42 / 31**	**32** / 0
Plot 4								
1a	4,580	41 / 34	36	26	42 / 38	41 / 35	1 / 4	0 / 1
1b	10,410	41 / 34	27	17	41 / 35	41 / 34	0 / 1	0 / 0
2	2,750	76 / 53	41	31	76 / 53	76 / 53	0 / 0	0 / 0
3	500	52 / 54	60	50 / 45	61 / 61	54 / 55	9 / 7	2 / 1
4	2,655	66 / 65	42	32	66 / 65	66 / 65	0 / 0	0 / 0
5	2,940	70 / 67	41	31	70 / 67	70 / 67	0 / 0	0 / 0
6	5,740	65	34	24	65	65	0	0
11	8,140	74	30	20	74	74	0	0
12	1,880	54 / 41	46	36	55 / 47	54 / 42	1 / 6	0 / 1
13	1,500	47 / 60	48	38	51 / 60	48 / 60	4 / 0	1 / 0
14	25	51 / 62	93	83 / 45	93 / 93	83 / 62	**42 / 31**	**32** / 0
Plot 9								
1a	3,990	41 / 34	37	27	43 / 39	41 / 35	2 / 5	0 / 1
1b	6,915	41 / 34	31	21	41 / 36	41 / 34	0 / 2	0 / 0
2	4,815	76 / 53	35	25	76 / 53	76 / 53	0 / 0	0 / 0
3	3,930	52 / 54	38	28	52 / 54	52 / 54	0 / 0	0 / 0

Table 14
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level Day/Night ^{3} (where applicable) (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night(dB)
4	6,060	66 / 65	33	23	66 / 65	66 / 65	0 / 0	0 / 0
5	5,700	70 / 67	34	24	70 / 67	70 / 67	0 / 0	0 / 0
6	5,175	65	35	25	65	65	0	0
11	3,600	74	39	29	74	74	0	0
12	5,350	54 / 41	34	24	54 / 42	54 / 41	0 / 1	0 / 0
13	950	47 / 60	53	43	54 / 61	48 / 60	7 / 1	1 / 0
14	400	51 / 62	62	52 / 45	62 / 65	55 / 62	**12** / 3	4 / 0
Plot 1, 3, and 20								
1a	7035 – 9915	41 / 34	34	24	42 / 37	41 / 34	1 / 3	0 / 0
1b	13530 – 15620	41 / 34	28	18	41 / 35	41 / 34	0 / 1	0 / 0
2	2745 – 7365	76 / 53	42	32	76 / 53	76 / 53	0 / 0	0 / 0
3	25 – 2670	52 / 54	93	83 / 45	93 / 93	83 / 55	**41 / 38**	**31** / 1
4	835 – 1000	66 / 65	59	49	67 / 66	66 / 65	1 / 1	0 / 0
5	120 – 1875	70 / 67	79	69 / 48	80 / 79	73 / 67	9 / **12**	2 / 0
6	5010 – 6840	65	38	28	65	65	0	0
11	11290 – 12100	74	31	21	74	74	0	0
12	150 – 730	54 / 41	74	64 / 50	74 / 74	64 / 41	**20 / 33**	**10** / 0
13	3650 – 4230	47 / 60	42	32	48 / 60	47 / 60	1 / 0	0 / 0
14	3400 – 3775	51 / 62	43	33	52 / 62	51 / 62	1 / 0	0 / 0
Plot 5 and 10								
1a	1030 – 3375	41 / 34	52	42	52 / 52	45 / 43	**11 / 18**	4 / 9
1b	5750 – 10100	41 / 34	34	24	42 / 37	41 / 34	1 / 3	0 / 0
2	1735 – 3790	76 / 53	47	37	76 / 54	76 / 53	0 / 1	0 / 0
3	1930 – 4740	52 / 54	46	36	53 / 55	52 / 54	1 / 1	0 / 0
4	5575 – 8270	66 / 65	35	25	66 / 65	66 / 65	0 / 0	0 / 0
5	6465 – 8810	70 / 67	34	24	70 / 67	70 / 67	0 / 0	0 / 0
6	9440 – 10480	65	31	21	65	65	0	0
11	5750 – 8765	74	35	25	74	74	0	0
12	7380 – 45800	54 / 41	31	21	54 / 41	54 / 41	0 / 0	0 / 0

Table 14
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level Day/Night ^{3} (where applicable) (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night(dB)
13	4550 – 5570	47 / 60	38	28	48 / 60	47 / 60	1 / 0	0 / 0
14	3980 – 5130	51 / 62	39	29	51 / 62	51 / 62	0 / 0	0 / 0
Plot 7, 8, 21, and 22								
1a	7718 – 8610	41 / 34	36	26	42 / 38	41 / 35	1 / 4	0 / 1
1b	9290 – 12360	41 / 34	32	22	42 / 36	41 / 34	1 / 2	0 / 0
2	7540 – 8750	76 / 53	36	26	76 / 53	76 / 53	0 / 0	0 / 0
3	4840 – 6075	52 / 54	40	30	52 / 54	52 / 54	0 / 0	0 / 0
4	6030 – 6850	66 / 65	38	28	66 / 65	66 / 65	0 / 0	0 / 0
5	5265 – 5955	70 / 67	40	30	70 / 67	70 / 67	0 / 0	0 / 0
6	2960 – 4745	65	44	34	65	65	0	0
11	3640 – 7650	74	40	30	74	30	0	0
12	5230 – 6900	54 / 41	39	29	54 / 43	29 / 29	0 / 2	0 / 0
13	25 – 1550	47 / 60	97	87 / 50	97 / 97	87 / 60	**50 / 37**	**40** / 0
14	200 – 1370	51 / 62	70	60 / 49	70 / 71	60 / 62	**19** / 9	**10** / 0
Plot 11								
1a	4,475	41 / 34	36	26	42 / 38	41 / 35	1 / 4	0 / 1
1b	4,100	41 / 34	37	27	42 / 39	41 / 35	1 / 5	0 / 1
2	8,560	76 / 53	29	19	76 / 53	76 / 53	0 / 0	0 / 0
3	8,435	52 / 54	29	19	52 / 54	52 / 54	0 / 0	0 / 0
4	10,190	66 / 65	27	17	66 / 65	66 / 65	0 / 0	0 / 0
5	9,655	70 / 67	28	18	70 / 67	70 / 67	0 / 0	0 / 0
6	6,725	65	32	22	65	65	0	0
11	675	74	57	47 / 45	74	74	0	0
12	9,770	54 / 41	28	18	54 / 41	54 / 41	0 / 0	0 / 0
13	4,240	47 / 60	37	27	47 / 60	47 / 60	0 / 0	0 / 0
14	4,460	51 / 62	36	26	51 / 62	51 / 62	0 / 0	0 / 0
Plot 12								
1a	4,160	41 / 34	37	27	43 / 39	41 / 35	1 / 5	0 / 1
1b	1,050	41 / 34	52	42	52 / 52	45 / 43	**11 / 18**	3 / 9

Table 14
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level Day/Night[3] (where applicable) (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night(dB)
2	10,250	76 / 53	27	17	76 / 53	76 / 53	0 / 0	0 / 0
3	11,110	52 / 54	26	16	52 / 54	52 / 54	0 / 0	0 / 0
4	13,920	66 / 65	24	14	66 / 65	66 / 65	0 / 0	0 / 0
5	13,960	70 / 67	24	14	70 / 67	70 / 67	0 / 0	0 / 0
6	12,400	65	25	15	65	65	0	0
11	4,000	74	37	27	74	74	0	0
12	13,130	54 / 41	25	15	54 / 41	54 / 41	0 / 0	0 / 0
13	9,330	47 / 60	28	18	47 / 60	47 / 60	0 / 0	0 / 0
14	8,540	51 / 62	29	19	51 / 62	51 / 62	0 / 0	0 / 0
Plot 6								
1a	8,870	41 / 34	29	19	41 / 35	41 / 34	0 / 1	0 / 0
1b	10,300	41 / 34	27	17	41 / 35	41 / 34	0 / 1	0 / 0
2	9,975	76 / 53	28	18	76 / 53	76 / 53	0 / 0	0 / 0
3	6,730	52 / 54	32	22	52 / 54	52 / 54	0 / 0	0 / 0
4	6,515	66 / 65	32	22	66 / 65	66 / 65	0 / 0	0 / 0
5	5,435	70 / 67	34	24	70 / 67	70 / 67	0 / 0	0 / 0
6	1,610	65	47	37	65	65	0	0
11	4,340	74	37	27	74	74	0	0
12	6,100	54 / 41	33	23	54 / 42	54 / 41	0 / 1	0 / 0
13	960	47 / 60	53	43	54 / 61	49 / 60	7 / 1	1 / 0
14	2,440	51 / 62	43	33	52 / 62	51 / 62	1 / 0	0 / 0

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.

2. Mitigation assumed a 10 dB reduction from a temporary noise barrier and equipment exhaust mufflers.

3. Mitigation prohibits nighttime construction within 800 feet of sensitive uses. Where a mitigated construction noise level is listed, construction noise is calculated at 800 feet.
* Increases in nighttime ambient noise were not modeled for receptor locations 6 and 11 due to their distance from the project site and on-site activity. Nighttime impacts would be mitigated to less than significant levels for all other receptor locations, which are nearer to on-site construction activity than locations 6 and 11.

Table 14
Increase Over Ambient at Nearest Sensitive Receptor During On-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Noise Level Day/Night (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level Day/Night [3] (where applicable) (dBA Leq)	Unmitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Mitigated Attenuated Construction Noise Level plus Ambient Day/Night (dBA Leq)	Unmitigated Increase Over Ambient Day/Night (dB)	Mitigated Increase Over Ambient Day/Night(dB)

Source: ESA, 2018; FHWA, 2006

Table 15
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level (dBA Leq)	Project + Ambient Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Project + Ambient Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
Roadway Improvements								
1a	6,140	39	33	23	40	39	1	0
1b	13,320	39	24	14	39	39	0	0
2	25	67	93	83	93	83	**26**	**16**
2b	25	67	93	83	93	83	**26**	**16**
3	1,260	48	50	40	52	49	4	1
4a	675	65	57	47	66	65	1	0
4b	2,600	65	42	32	65	65	0	0
5	25	68	93	83	93	83	**25**	**15**
6a	4,845	65	35	25	65	65	0	0
6b	5,125	65	35	25	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	640	74	57	47	74	74	0	0
12	25	54	93	83	93	83	**39**	**29**
13	4,220	47	37	27	47	47	0	0
14	5,000	51	35	25	51	51	0	0
Drainage Improvements								
1a	7,530	39	31	21	40	39	1	0
1b	14,560	39	23	13	39	39	0	0
2	1,680	67	47	37	67	67	0	0
2b	25	67	93	83	93	83	**26**	**16**
3	2,700	48	42	32	49	48	1	0
4	6,000	65	33	23	65	65	0	0
4b	5,765	65	33	23	65	65	0	0
5	7,400	68	31	21	68	68	0	0
6	11,700	65	26	16	65	65	0	0
6b	11,030	65	26	16	65	65	0	0
6c	9,810	65	28	18	65	65	0	0
11	13,400	74	24	14	74	74	0	0
12	5,313	54	34	24	54	54	0	0
13	8,230	47	30	20	47	47	0	0
14	6,890	51	32	22	51	51	0	0
Sewer Improvements								
1a	7,000	39	31	21	40	39	1	0

Table 15
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level (dBA Leq)	Project + Ambient Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Project + Ambient Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
1b	14,010	39	24	14	39	39	0	0
2	1,370	67	49	39	67	67	0	0
2b	25	67	93	83	93	83	**26**	**16**
3	2,610	48	42	32	49	48	1	0
4	6,130	65	33	23	65	65	0	0
4b	5,150	65	35	25	65	65	0	0
5	7,360	68	31	21	68	68	0	0
6	11,630	65	26	16	65	65	0	0
6b	10,525	65	27	17	65	65	0	0
6c	9,810	65	28	18	65	65	0	0
11	12,710	74	25	15	74	74	0	0
12	5,300	54	34	24	54	54	0	0
13	7,900	47	30	20	47	47	0	0
14	6,530	51	32	22	51	51	0	0
Water Utility Improvements								
1a	7,500	39	31	21	40	39	1	0
1b	14,255	39	24	14	39	39	0	0
2	2,660	67	42	32	67	67	0	0
2b	3,745	67	38	28	67	67	0	0
3	25	48	93	83	93	83	**45**	**35**
4	1,770	65	46	36	65	65	0	0
4b	2,525	65	42	32	65	65	0	0
5	3,240	68	40	30	68	68	0	0
6	8,670	65	29	19	65	65	0	0
6b	8,072	65	30	20	65	65	0	0
6c	5,800	65	33	23	65	65	0	0
11	13,500	74	24	14	74	74	0	0
12	1,275	54	50	40	55	54	1	0
13	6,170	47	33	23	47	47	0	0
14	5,380	51	34	24	51	51	0	0
Potential Water Reservoir & Access								
1a	13,550	39	24	14	39	39	0	0
1b	20,000	39	20	10	39	39	0	0
2	8,316	67	29	19	67	67	0	0

Table 15
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level (dBA Leq)	Project + Ambient Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Project + Ambient Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
2b	6,780	67	32	22	67	67	0	0
3	5,370	48	34	24	48	48	0	0
4	2,885	65	41	31	65	65	0	0
4b	925	65	53	43	65	65	0	0
5	4,082	68	37	27	68	68	0	0
6	10,590	65	27	17	65	65	0	0
6b	10,180	65	27	17	65	65	0	0
6c	6,120	65	33	23	65	65	0	0
11	16,900	74	22	12	74	74	0	0
12	3,420	54	39	29	54	54	0	0
13	9,100	47	28	18	47	47	0	0
14	8,690	51	29	19	51	51	0	0
Roadway & Utility Improvements								
1a	6,140	39	33	23	40	39	1	0
1b	13,320	39	24	14	39	39	0	0
2	25	67	93	83	93	83	**26**	**16**
2b	25	67	93	83	93	83	**26**	**16**
3	1,260	48	50	40	52	49	4	1
4	675	65	57	47	66	65	1	0
4b	2,600	65	42	32	65	65	0	0
5	25	68	93	83	93	83	**25**	**15**
6	4,845	65	35	25	65	65	0	0
6b	5,125	65	35	25	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	640	74	57	47	74	74	0	0
12	25	54	93	83	93	83	**39**	**29**
13	4,220	47	37	27	47	47	0	0
14	5,000	51	35	25	51	51	0	0
Water Improvements								
1a	12,830	39	25	15	39	39	0	0
1b	18,245	39	21	11	39	39	0	0
2	9,400	67	28	18	67	67	0	0
2b	9,230	67	28	18	67	67	0	0
3	3,690	48	38	28	48	48	0	0

Table 15
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level (dBA Leq)	Project + Ambient Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Project + Ambient Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
4	2,045	65	45	35	65	65	0	0
4b	3,792	65	38	28	65	65	0	0
5	560	68	59	49	69	68	1	0
6	6,190	65	33	23	65	65	0	0
6b	5,840	65	33	23	65	65	0	0
6c	1,860	65	46	36	65	65	0	0
11	13,900	74	24	14	74	74	0	0
12	2,685	54	42	32	54	54	0	0
13	5,465	47	34	24	47	47	0	0
14	5,765	51	33	23	51	51	0	0
Ramp Improvements								
1a	13,760	39	24	14	39	39	0	0
1b	19,000	39	21	11	39	39	0	0
2	10,750	67	27	17	67	67	0	0
2b	10,686	67	27	17	67	67	0	0
3	6,780	48	32	22	48	48	0	0
4	3,660	65	38	28	65	65	0	0
4b	4,930	65	35	25	65	65	0	0
5	1,933	68	45	35	68	68	0	0
6	5,600	65	34	24	65	65	0	0
6b	5,570	65	34	24	65	65	0	0
6c	350	65	64	54	68	65	3	0
11	14,260	74	24	14	74	74	0	0
12	3,990	54	37	27	54	54	0	0
13	5,935	47	33	23	47	47	0	0
14	6,610	51	32	22	51	51	0	0
Detention Basin (Sinclair)								
1a	12,900	39	25	15	39	39	0	0
1b	17,125	39	22	12	39	39	0	0
2	11,145	67	26	16	67	67	0	0
2b	11,740	67	26	16	67	67	0	0
3	7,315	48	31	21	48	48	0	0
4	5,225	65	35	25	65	65	0	0
4b	7,010	65	31	21	65	65	0	0

Table 15
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level (dBA Leq)	Project + Ambient Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Project + Ambient Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
5	3,790	68	38	28	68	68	0	0
6	2,755	65	41	31	65	65	0	0
6b	2,880	65	41	31	65	65	0	0
6c	2,760	65	41	31	65	65	0	0
11	11,915	74	26	16	74	74	0	0
12	5,320	54	34	24	54	54	0	0
13	3,870	47	38	28	48	47	1	0
14	4,940	51	35	25	51	51	0	0
Interchange Improvement								
1a	11,750	39	26	16	39	39	0	0
1b	15,150	39	23	13	39	39	0	0
2	11,300	67	26	16	67	67	0	0
2b	12,560	67	25	15	67	67	0	0
3	7,865	48	30	20	48	48	0	0
4	6,980	65	31	21	65	65	0	0
4b	9,060	65	29	19	65	65	0	0
5	5,805	68	33	23	68	68	0	0
6	1,455	65	48	38	65	65	0	0
6b	85	65	79	69	79	70	**14**	4
6c	5,230	65	35	25	65	65	0	0
11	9,570	74	28	18	74	74	0	0
12	6,770	54	32	22	54	54	0	0
13	2,450	47	43	33	48	47	1	0
14	3,995	51	37	27	51	51	0	0
Potential Water Reservoir & Access								
1a	12,600	39	25	15	39	39	0	0
1b	15,800	39	23	13	39	39	0	0
2	12,070	67	25	15	67	67	0	0
2b	13,300	67	24	14	67	67	0	0
3	8,635	48	29	19	48	48	0	0
4	7,310	65	31	21	65	65	0	0
4b	9,400	65	28	18	65	65	0	0
5	5,975	68	33	23	68	68	0	0
6	25	65	93	83	93	83	**28**	**18**

Table 15
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level (dBA Leq)	Project + Ambient Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Project + Ambient Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
6b	333	65	64	54	68	65	3	0
6c	5,440	65	34	24	65	65	0	0
11	9,885	74	28	18	74	74	0	0
12	7,200	54	31	21	54	54	0	0
13	3,085	47	40	30	48	47	1	0
14	4,545	51	36	26	51	51	0	0
Potential Water Reservoir & Access								
1a	9,945	39	28	18	39	39	0	0
1b	10,880	39	27	17	39	39	0	0
2	12,365	67	25	15	67	67	0	0
2b	14,665	67	23	13	67	67	0	0
3	10,400	48	27	17	48	48	0	0
4	11,245	65	26	16	65	65	0	0
4b	13,235	65	24	14	65	65	0	0
5	10,445	68	27	17	68	68	0	0
6	5,915	65	33	23	65	65	0	0
6b	5,065	65	35	25	65	65	0	0
6c	11,300	65	26	16	65	65	0	0
11	4,300	74	37	27	74	74	0	0
12	10,775	54	27	17	54	54	0	0
13	5,100	47	35	25	47	47	0	0
14	5,635	51	34	24	51	51	0	0
Debris Basins (Typical)								
1a	4,280	39	37	27	41	39	2	0
1b	10,250	39	27	17	39	39	0	0
2	16,090	67	22	12	67	67	0	0
2b	19,250	67	20	10	67	67	0	0
3	10,375	48	27	17	48	48	0	0
4	12,000	65	25	15	65	65	0	0
4b	13,935	65	24	14	65	65	0	0
5	11,385	68	26	16	68	68	0	0
6	7,755	65	30	20	65	65	0	0
6b	6,890	65	32	22	65	65	0	0
6c	12,200	65	25	15	65	65	0	0

Table 15
Increase Over Ambient at Nearest Sensitive Receptor During Off-Site Construction (dB) - Mitigated

Sensitive Receptor	Range of Distances to Nearest Plot	Existing Daytime Noise Level (dBA Leq)	Project Only Unmitigated Attenuated Construction Noise Level (dBA Leq)	Project Only Mitigated Attenuated Construction Noise Level (dBA Leq)	Project + Ambient Unmitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Project + Ambient Mitigated Attenuated Construction Noise Level plus Ambient (dBA Leq)	Unmitigated Increase Over Daytime Ambient (dB)	Mitigated Increase Over Daytime Ambient (dB)
11	1,680	74	47	37	74	74	0	0
12	11,255	54	26	16	54	54	0	0
13	6,000	47	33	23	47	47	0	0
14	6,065	51	33	23	51	51	0	0

Notes:
Bold Text = Exceed the applied 10 dB increase over ambient threshold. A 10 dB increase is considered a doubling of loudness to the average person.
1. Construction noise levels were modeled assuming two of the loudest construction equipment running at the same time and place nearest to a sensitive receptor. A distance of 25 feet was assumed between construction equipment and nearby receptors where plot boundaries abutted residential property boundaries. Construction noise levels were compared to daytime hourly Leqs obtained during a noise survey conducted in March 2018 by ESA.
2. Mitigation assumed a 10 dB reduction from a temporary noise barrier and equipment exhaust mufflers.

Source: ESA, 2018; FHWA, 2006

6.2 Operational Traffic Noise

The following mitigation measures would reduce potential project-related operational traffic noise:

MM-NOISE-2 When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development:

Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the Revised Sections of the FEIR remain valid. These procedures used to conduct these noise analyses shall be consistent with the noise analysis conducted in the Revised Sections of the FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings.

Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the World Logistics Center site, the Applicant shall implement the appropriate level of mitigation, identified in the Revised Sections of the FEIR to reduce the identified impacts to comply with the Moreno Valley Municipal Code, which sets maximum sound levels reaching residential uses at 60 dBA Leq during the daytime hours (8:00 a.m. – 10:00 p.m.) and 55 dBA Leq during nighttime hours (10:01 p.m. – 7:59 a.m.). Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.

If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a no vote.

At the completion of the vote at the end of the 45-day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public.

Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement.

MM-NOISE-3 Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 49 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road.

MM-NOISE-4 Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures NOISE-2 through NOISE-5.

MM-NOISE-5 Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a setback with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby and on-site residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary, and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12-foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (L_{eq}) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, “All manufacturing and industrial uses adjacent to residential land uses shall include a setback zone and/or noise attenuation wall to reduce outside noise levels”.

Level of Significance After Mitigation

Within the WLC Specific Plan Area. For areas within the World Logistics Center site, noise levels at on-site residences may exceed the noise standard with the implementation of the project. The level of significance after mitigation is provided for each of the two areas for which a significant impact has been identified.

- *Street A/* World Logistics Center Parkway *(Street B/Eucalyptus Avenue to Street F).* Three residences are located along Street A (World Logistics Center Parkway) between the future Street B and Street F. These residences are anticipated to experience noise increases up to 18.5 dB due to the implementation of the project. As a result, existing noise levels at these residences will be changed significantly. The exact alignment of the roadway is to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. Two residences front onto Street A (World Logistics Center Parkway), and the driveway access would make a soundwall ineffective. The other residence is on Street A (World Logistics Center Parkway) and it is difficult to determine where an outdoor living area is for this residence. However, since it is a single residence, a soundwall would have a limited effectiveness. Since mitigation is not feasible, impacts remain significant and unavoidable.

- *Street F/Dracaea Avenue (east of Street A/ World Logistics Center Parkway).* There is one residence in this area fronting onto the future alignment of Street F (currently Dracaea Avenue). Existing conditions identify low levels of traffic noise on Dracaea Avenue. The 65 CNEL contour is projected to lie 114 feet from the centerline of Street F and it is likely that the one residence would lie within this zone. With build out of the project, noise levels would reach as high as 68.3 CNEL, which exceeds the City's 65 CNEL threshold. Installation of a soundwall would not be effective in reducing noise levels due to the opening for the driveway. Since mitigation is not feasible, impacts remain significant and unavoidable.

Off-Site Areas Adjacent to the Specific Plan Area. For areas adjacent to the WLCSP area, three areas would experience noise increases that would be mitigated to a less than significant level with implementation of **Mitigation Measures NOISE-2** through **NOISE-5**. These areas are as follows:

- Cactus Avenue from Redlands Boulevard to Cactus Avenue Extension; and

- Cactus Avenue Extension from Alessandro Boulevard to Cactus Avenue.

  Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the World Logistics Center site parallel to Merwin Street and roughly 1,250 feet from Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. The noise forecast for buildout year 2040 shows that the 65 CNEL contour will lie 49 feet from the centerline of Cactus Avenue Extension. If the centerline of Cactus Avenue Extension is located closer than 49 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. Due to the distance currently envisioned between Merwin Street and Cactus Avenue Extension, it is most likely that no soundwall will be needed. If a soundwall was needed, a preliminary estimate indicates that the soundwall along Cactus Avenue Extension would need to be roughly 2,000 feet long. A soundwall shall reduce traffic noise to 65 dBA CNEL measured at the boundary of residences along Merwin Street.

For the remaining noise impact locations adjacent to the World Logistics Center site for which significant noise impacts have been identified, mitigation measures are not feasible or will not fully reduce the impact to less than significant levels. Each location that will remain significant and unavoidable is discussed below.

- *Redlands Boulevard (Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2018 buildout scenario results in a significant noise increase for this area. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Cactus Avenue (west of Redlands Boulevard).* Existing residential uses are located along Redlands Boulevard with rear yards facing Cactus Avenue. Existing 6-foot high soundwalls are located along the rear yard areas. Soundwalls are already present on the west side of the roadway. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. Land uses that are widely separated from one another cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Locust Avenue (between Moreno Beach Drive and Redlands Boulevard).* There are single-family homes along this roadway with front, rear, and side yards facing Locust Avenue. The homes located on the north side of Locust Avenue mostly front onto the roadway, making erecting a soundwall infeasible. A majority of the homes on the south side of the street either already have soundwalls in place or front onto Locust Avenue. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *Kitching Street (between Krameria Avenue and Lurin Avenue).* There are single-family homes along this roadway with rear yards facing Kitching Street. Existing soundwalls are located along the rear years. Soundwalls are already present on the west side of the roadway. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 eastbound ramps (between SR-60 and Central Avenue).* Single-family homes are located south of SR-60 eastbound ramps. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 (from Perris Boulevard to Nason Street).* Residential uses along this stretch of the freeway have soundwalls in place. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* Residential uses along this stretch of the freeway do not have soundwalls in place. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 215 (from Mill Street to 2nd Street).* Residential uses along this stretch of the freeway do not have soundwalls in place. Although Mitigation Measure 4.12.6.2A could mitigate impacts related to increases in ambient noise, the construction of mitigation on private property not controlled by the project would be controlled by the property owner and not be guaranteed. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

- *State Route 215 (from Baseline Road to Highland Avenue/SR-210).* The freeway has soundwalls in place. Therefore, mitigation is not feasible and impacts will remain significant and unavoidable.

Appendix A

Ambient Noise Measurements

ESA

Measured Ambient Noise Levels

Project: World Logistics Center
Location: R1
Sources: Ambient

Date: 3/15/2018

TIME	*HNL, dB(A)*
8:00 AM	47.2
9:00 AM	37.6
10:00 AM	43.9
11:00 AM	42.4
12:00 PM	41.7
1:00 PM	40.7
2:00 PM	42.4
3:00 PM	38.2
4:00 PM	39.0
5:00 PM	39.2
6:00 PM	38.1
7:00 PM	35.6
8:00 PM	32.4
9:00 PM	32.0
10:00 PM	31.2
11:00 PM	30.8
12:00 AM	29.8
1:00 AM	30.4
2:00 AM	31.5
3:00 AM	32.6
4:00 AM	33.5
5:00 AM	36.3
6:00 AM	39.2
7:00 AM	42.4
CNEL, dB(A):	**42.6**

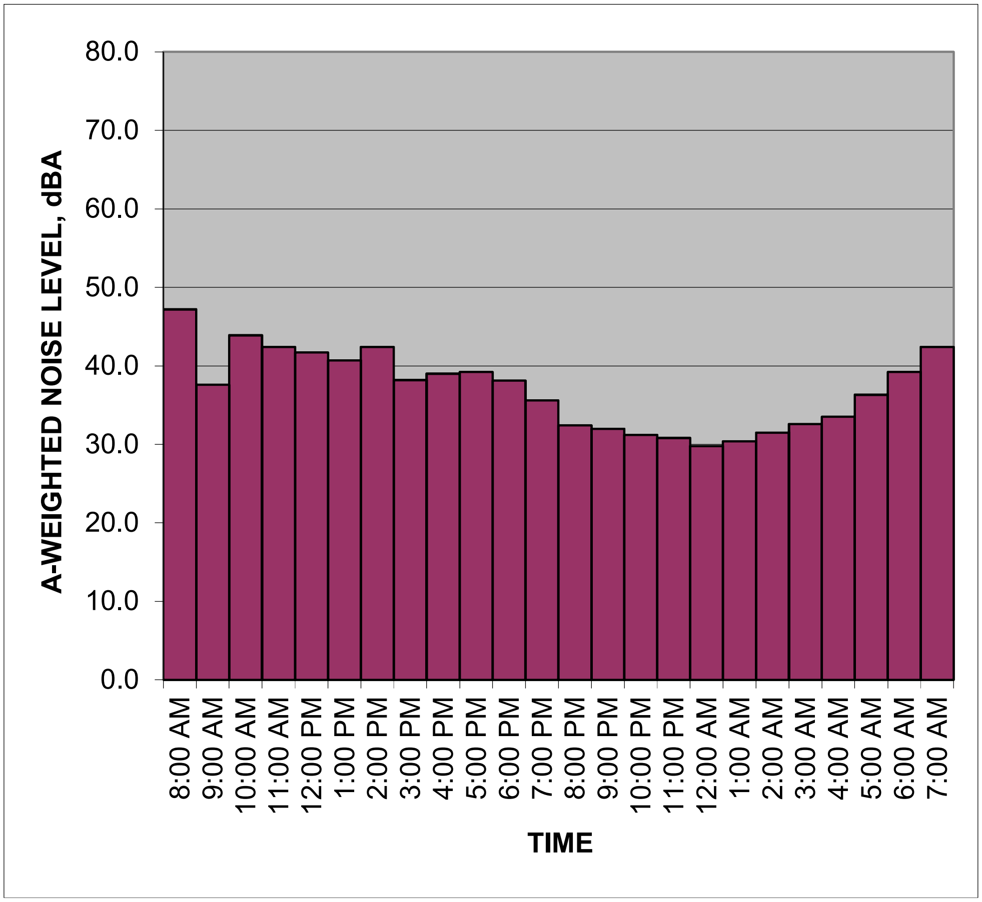

NOTES:

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Measured Ambient Noise Levels

Project: World Logistics Center
Location: R2
Sources: Ambient

Date: 3/15/2018

TIME	*HNL, dB(A)*
9:00 AM	82.7
10:00 AM	77.2
11:00 AM	73.6
12:00 PM	65.6
1:00 PM	70.2
2:00 PM	74.8
3:00 PM	75.0
4:00 PM	81.4
5:00 PM	70.7
6:00 PM	66.1
7:00 PM	60.0
8:00 PM	57.2
9:00 PM	70.9
10:00 PM	52.8
11:00 PM	0.0
12:00 AM	0.0
1:00 AM	0.0
2:00 AM	0.0
3:00 AM	0.0
4:00 AM	0.0
5:00 AM	0.0
6:00 AM	0.0
7:00 AM	0.0
8:00 AM	0.0
CNEL, dB(A):	**75.8**

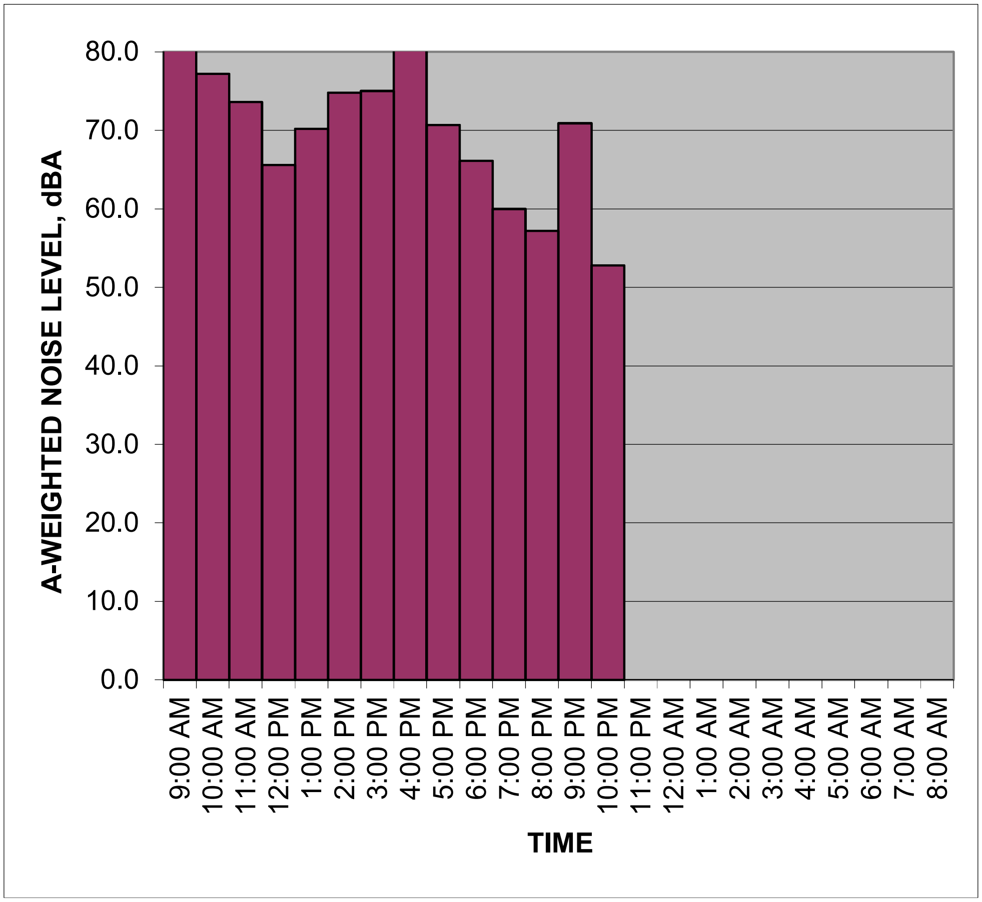

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Measured Ambient Noise Levels

Project: World Logistics Center
Location: R3
Sources: Ambient

Date: 3/15/2018

TIME	*HNL, dB(A)*
9:00 AM	56.7
10:00 AM	53.3
11:00 AM	48.5
12:00 PM	51.9
1:00 PM	46.7
2:00 PM	45.5
3:00 PM	53.4
4:00 PM	49.0
5:00 PM	58.0
6:00 PM	50.4
7:00 PM	48.3
8:00 PM	44.4
9:00 PM	38.8
10:00 PM	39.7
11:00 PM	51.8
12:00 AM	41.5
1:00 AM	63.3
2:00 AM	39.8
3:00 AM	39.1
4:00 AM	45.7
5:00 AM	45.6
6:00 AM	49.1
7:00 AM	44.8
8:00 AM	44.5
CNEL, dB(A):	**60.6**

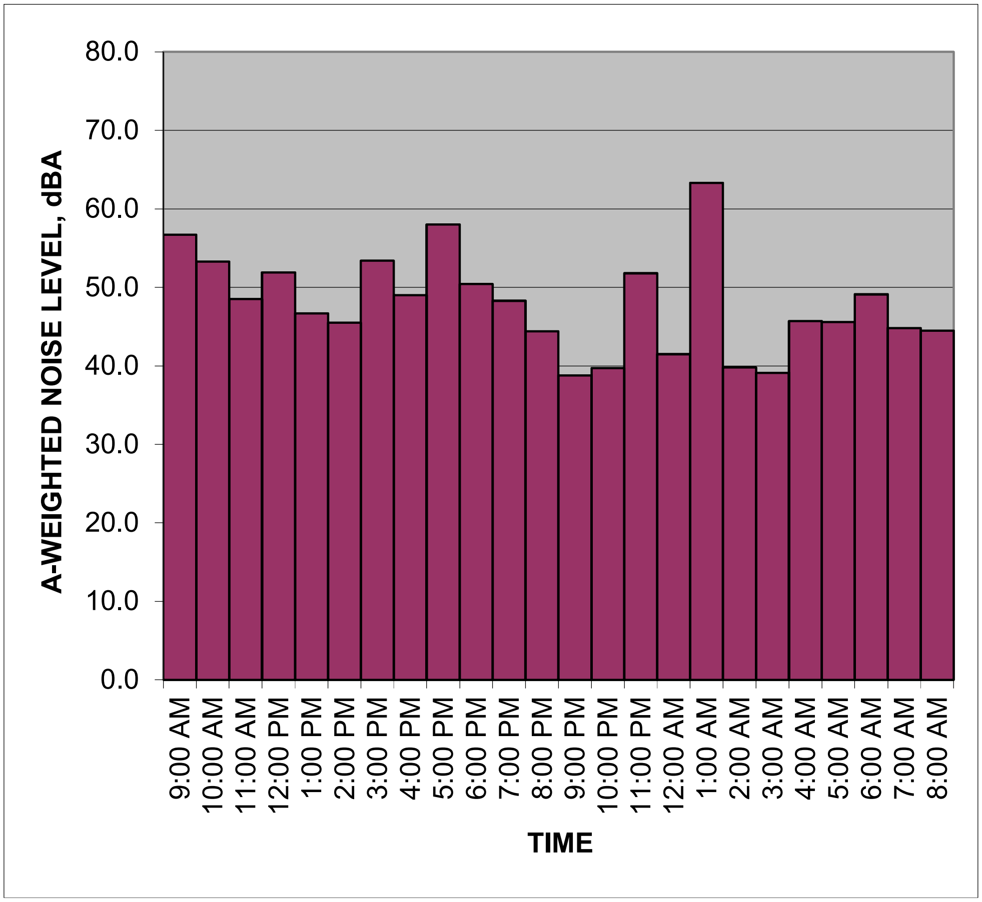

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Measured Ambient Noise Levels

Project: World Logistics Center
Location: R4
Sources: Ambient

Date: 3/15/2018

TIME	*HNL, dB(A)*
11:00 AM	65.9
12:00 PM	66.1
1:00 PM	65.3
2:00 PM	67.3
3:00 PM	68.0
4:00 PM	68.1
5:00 PM	67.2
6:00 PM	66.7
7:00 PM	65.0
8:00 PM	63.6
9:00 PM	62.2
10:00 PM	61.5
11:00 PM	60.1
12:00 AM	62.7
1:00 AM	56.2
2:00 AM	57.7
3:00 AM	62.0
4:00 AM	65.9
5:00 AM	67.9
6:00 AM	69.7
7:00 AM	68.3
8:00 AM	66.9
9:00 AM	65.9
10:00 AM	65.6
CNEL, dB(A):	**71.6**

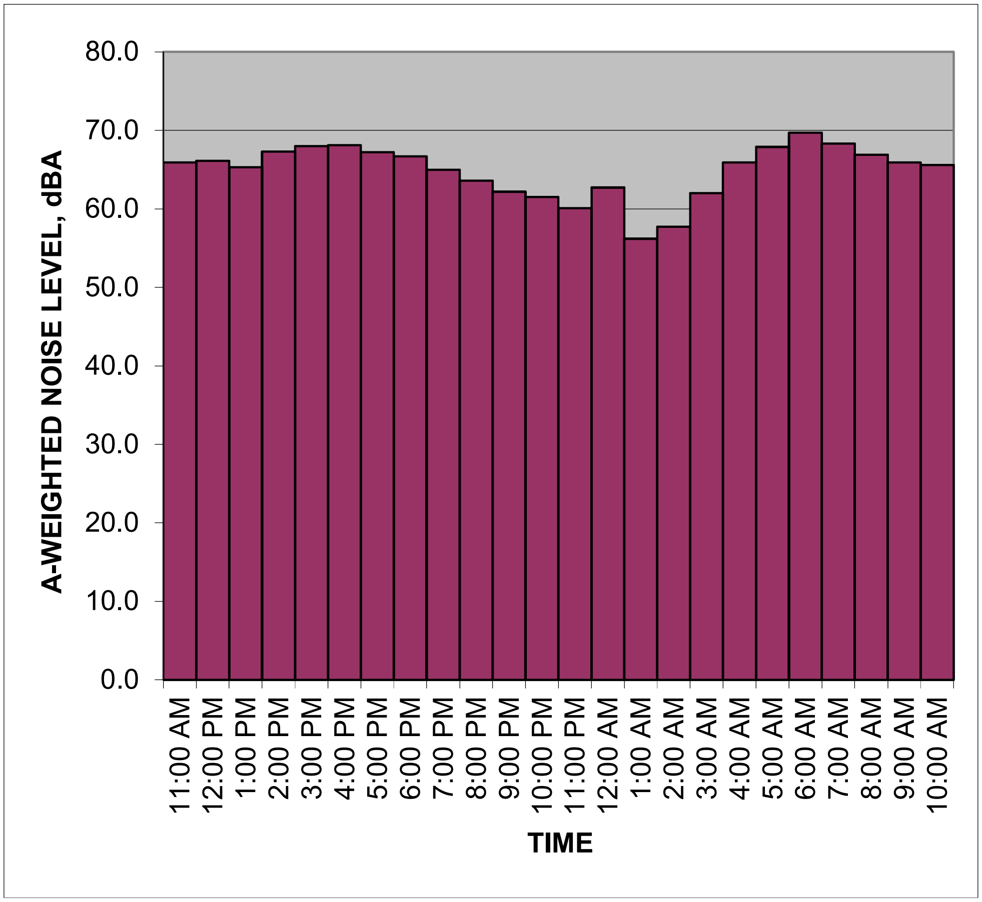

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Measured Ambient Noise Levels

Project: World Logistics Center
Location: R5
Sources: Ambient

Date: 3/15/2018

TIME	*HNL, dB(A)*
11:00 AM	69.9
12:00 PM	69.5
1:00 PM	69.1
2:00 PM	70.3
3:00 PM	71.0
4:00 PM	71.4
5:00 PM	71.5
6:00 PM	69.4
7:00 PM	67.9
8:00 PM	67.2
9:00 PM	66.4
10:00 PM	65.0
11:00 PM	62.9
12:00 AM	63.0
1:00 AM	60.3
2:00 AM	61.9
3:00 AM	65.3
4:00 AM	68.5
5:00 AM	70.3
6:00 AM	71.2
7:00 AM	70.6
8:00 AM	68.9
9:00 AM	68.7
10:00 AM	68.8
CNEL, dB(A):	**74.1**

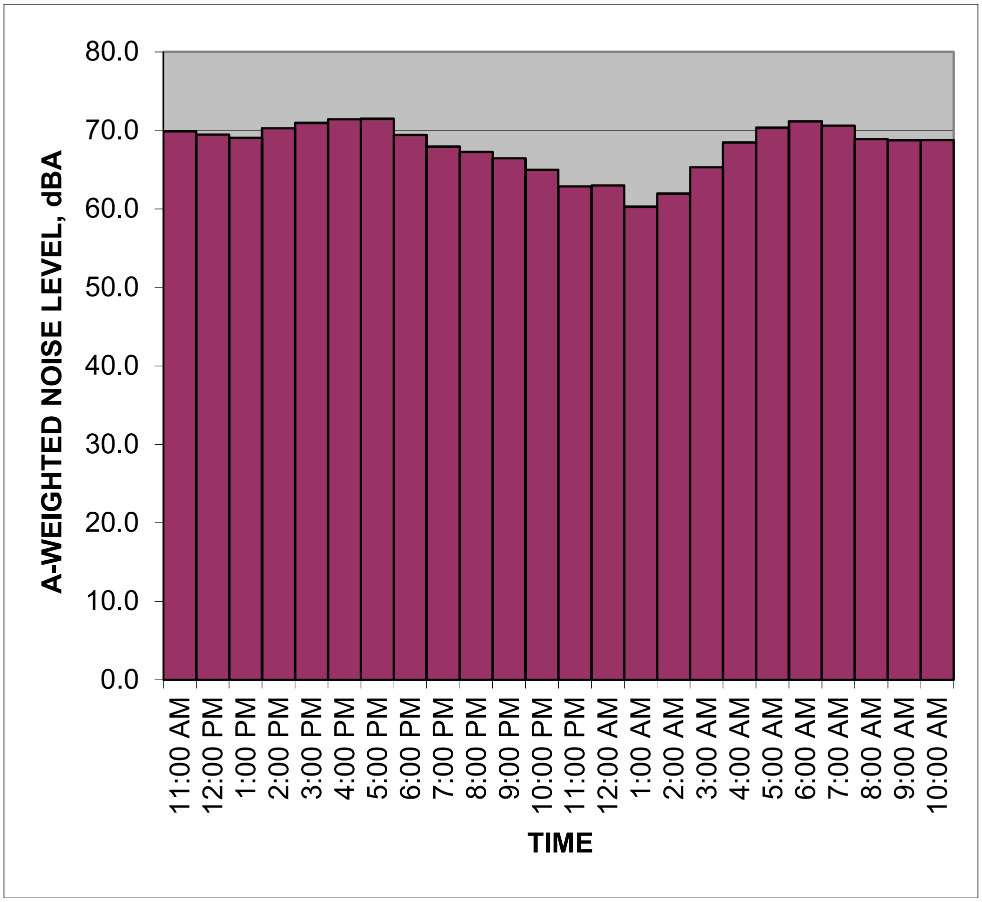

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Summary

File Name on Meter	LxT_Data.094
File Name on PC	SLM_0005055_LxT_Data_094.00.ldbin
Serial Number	0005055
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	R6
Job Description	
Note	

Measurement

Description	
Start	2018-03-15 09:16:39
Stop	2018-03-15 09:31:39
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-03-15 08:27:45
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting			
Peak Weight	A Weighting			
Detector	Slow			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Exponential			
Overload	147.1 dB			
	A	**C**	**Z**	
Under Range Peak	**103.3**	100.3	105.3	dB
Under Range Limit	**38.7**	36.7	44.7	dB
Noise Floor	25.8	26.3	33.8	dB

Results

LASeq	65.4 dB		
LASE	94.9 dB		
EAS	343.033 µPa²h		
EAS8	10.977 mPa²h		
EAS40	54.885 mPa²h		
LASpeak (max)	2018-03-15 09:25:55	100.0	dB
LASmax	2018-03-15 09:26:51	83.3	dB
LASmin	2018-03-15 09:31:27	52.1	dB
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

LCSeq	74.9 dB
LASeq	65.4 dB
LCSeq - LASeq	9.5 dB
LAIeq	67.8 dB
LAeq	65.4 dB
LAIeq - LAeq	2.4 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	65.4					
Ls(max)	83.3	2018/03/15 9:26:51				
Ls(min)	52.1	2018/03/15 9:31:27				
LPeak(max)	100.0	2018/03/15 9:25:55				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	0.00	%
Projected Dose	-99.9	0.16	%
TWA (Projected)	-99.9	43.4	dB
TWA (t)	-99.9	18.4	dB
Lep (t)	50.3	50.3	dB

Statistics

LAS5.00	70.4	dB
LAS10.00	64.8	dB
LAS33.30	60.5	dB
LAS50.00	59.8	dB
LAS66.60	58.9	dB
LAS90.00	56.0	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-03-15 08:27:45	-53.4			
PRMLxT1	2018-03-15 08:27:30	-53.3			
PRMLxT1	2018-03-08 09:46:32	-54.9			
PRMLxT1	2018-03-08 09:46:13	-54.9			
PRMLxT1	2018-02-28 08:35:45	-53.5			
PRMLxT1	2018-02-28 08:35:29	-53.5			
PRMLxT1	2018-02-22 12:07:49	-53.4			
PRMLxT1	2018-01-31 08:32:22	-53.4			
PRMLxT1	2017-12-14 13:05:34	-53.4			
PRMLxT1	2017-12-12 13:29:37	-53.4			
PRMLxT1	2017-12-01 09:17:47	-53.4			
Unknown	2018-02-07 08:28:21	-53.5			
Unknown	2018-02-07 08:28:06	-53.5			

Summary

File Name on Meter	LxT_Data.095
File Name on PC	SLM_0005055_LxT_Data_095.00.ldbin
Serial Number	0005055
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	R7
Job Description	
Note	

Measurement

Description	
Start	2018-03-15 09:39:22
Stop	2018-03-15 09:54:22
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-03-15 08:27:45
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting			
Peak Weight	A Weighting			
Detector	Slow			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Exponential			
Overload	147.1 dB			
	A	**C**	**Z**	
Under Range Peak	**103.3**	100.3	105.3	dB
Under Range Limit	**38.7**	36.7	44.7	dB
Noise Floor	25.8	26.3	33.8	dB

Results

LASeq	72.0 dB	
LASE	101.6 dB	
EAS	1.596 mPa²h	
EAS8	51.071 mPa²h	
EAS40	255.356 mPa²h	
LASpeak (max)	2018-03-15 09:41:36	116.2 dB
LASmax	2018-03-15 09:41:36	96.7 dB
LASmin	2018-03-15 09:50:24	53.7 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	1	5.1 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCSeq	77.0 dB	
LASeq	72.0 dB	
LCSeq - LASeq	5.0 dB	
LAIeq	75.0 dB	
LAeq	72.0 dB	
LAIeq - LAeq	3.0 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	72.0					
Ls(max)	96.7	2018/03/15 9:41:36				
Ls(min)	53.7	2018/03/15 9:50:24				
LPeak(max)	116.2	2018/03/15 9:41:36				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	0.02	0.03	%
Projected Dose	0.55	0.81	%
TWA (Projected)	52.5	55.3	dB
TWA (t)	27.5	30.3	dB
Lep (t)	57.0	57.0	dB

Statistics

LAS5.00	73.2	dB
LAS10.00	71.8	dB
LAS33.30	68.1	dB
LAS50.00	63.8	dB
LAS66.60	59.6	dB
LAS90.00	55.8	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-03-15 08:27:45	-53.4			
PRMLxT1	2018-03-15 08:27:30	-53.3			
PRMLxT1	2018-03-08 09:46:32	-54.9			
PRMLxT1	2018-03-08 09:46:13	-54.9			
PRMLxT1	2018-02-28 08:35:45	-53.5			
PRMLxT1	2018-02-28 08:35:29	-53.5			
PRMLxT1	2018-02-22 12:07:49	-53.4			
PRMLxT1	2018-01-31 08:32:22	-53.4			
PRMLxT1	2017-12-14 13:05:34	-53.4			
PRMLxT1	2017-12-12 13:29:37	-53.4			
PRMLxT1	2017-12-01 09:17:47	-53.4			
Unknown	2018-02-07 08:28:21	-53.5			
Unknown	2018-02-07 08:28:06	-53.5			

Summary

File Name on Meter	LxT_Data.096
File Name on PC	SLM_0005055_LxT_Data_096.00.ldbin
Serial Number	0005055
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	R8
Job Description	
Note	

Measurement

Description	
Start	2018-03-15 10:02:02
Stop	2018-03-15 10:17:02
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-03-15 08:27:45
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting	
Peak Weight	A Weighting	
Detector	Slow	
Preamp	PRMLxT1	
Microphone Correction	Off	
Integration Method	Exponential	
Overload	147.1	dB

	A	**C**	**Z**	
Under Range Peak	**103.3**	100.3	105.3	dB
Under Range Limit	**38.7**	36.7	44.7	dB
Noise Floor	25.8	26.3	33.8	dB

Results

LASeq	53.4	dB		
LASE	83.0	dB		
EAS	22.026	µPa²h		
EAS8	704.823	µPa²h		
EAS40	3.524	mPa²h		
LASpeak (max)	2018-03-15 10:03:31		96.6	dB
LASmax	2018-03-15 10:06:01		62.1	dB
LASmin	2018-03-15 10:07:34		48.8	dB
SEA	-99.9	dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

LCSeq	62.1	dB
LASeq	53.4	dB
LCSeq - LASeq	8.6	dB
LAIeq	55.3	dB
LAeq	53.4	dB
LAIeq - LAeq	1.8	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	53.4					
Ls(max)	62.1	2018/03/15 10:06:01				
Ls(min)	48.8	2018/03/15 10:07:34				
LPeak(max)	96.6	2018/03/15 10:03:31				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	38.4	38.4	dB

Statistics

LAS5.00	56.5	dB
LAS10.00	55.1	dB
LAS33.30	53.3	dB
LAS50.00	52.6	dB
LAS66.60	51.9	dB
LAS90.00	50.7	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-03-15 08:27:45	-53.4			
PRMLxT1	2018-03-15 08:27:30	-53.3			
PRMLxT1	2018-03-08 09:46:32	-54.9			
PRMLxT1	2018-03-08 09:46:13	-54.9			
PRMLxT1	2018-02-28 08:35:45	-53.5			
PRMLxT1	2018-02-28 08:35:29	-53.5			
PRMLxT1	2018-02-22 12:07:49	-53.4			
PRMLxT1	2018-01-31 08:32:22	-53.4			
PRMLxT1	2017-12-14 13:05:34	-53.4			
PRMLxT1	2017-12-12 13:29:37	-53.4			
PRMLxT1	2017-12-01 09:17:47	-53.4			
Unknown	2018-02-07 08:28:21	-53.5			
Unknown	2018-02-07 08:28:06	-53.5			

Summary

File Name on Meter	LxT_Data.097
File Name on PC	SLM_0005055_LxT_Data_097.00.ldbin
Serial Number	0005055
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	R9
Job Description	
Note	

Measurement

Description	
Start	2018-03-15 10:23:01
Stop	2018-03-15 10:38:01
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-03-15 08:27:45
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting			
Peak Weight	A Weighting			
Detector	Slow			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Exponential			
Overload	147.1 dB			
	A	**C**	**Z**	
Under Range Peak	**103.3**	100.3	105.3	dB
Under Range Limit	**38.7**	36.7	44.7	dB
Noise Floor	25.8	26.3	33.8	dB

Results

LASeq	51.0 dB	
LASE	80.6 dB	
EAS	12.653 µPa²h	
EAS8	404.909 µPa²h	
EAS40	2.025 mPa²h	
LASpeak (max)	2018-03-15 10:23:41	71.3 dB
LASmax	2018-03-15 10:26:46	55.9 dB
LASmin	2018-03-15 10:24:33	44.7 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCSeq	62.9 dB	
LASeq	51.0 dB	
LCSeq - LASeq	11.9 dB	
LAIeq	51.9 dB	
LAeq	51.0 dB	
LAIeq - LAeq	0.9 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	51.0					
Ls(max)	55.9	2018/03/15 10:26:46				
Ls(min)	44.7	2018/03/15 10:24:33				
LPeak(max)	71.3	2018/03/15 10:23:41				

# Overloads	0

Overload Duration 0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	36.0	36.0	dB

Statistics

LAS5.00	53.5	dB
LAS10.00	52.9	dB
LAS33.30	51.6	dB
LAS50.00	51.0	dB
LAS66.60	50.1	dB
LAS90.00	47.0	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-03-15 08:27:45	-53.4			
PRMLxT1	2018-03-15 08:27:30	-53.3			
PRMLxT1	2018-03-08 09:46:32	-54.9			
PRMLxT1	2018-03-08 09:46:13	-54.9			
PRMLxT1	2018-02-28 08:35:45	-53.5			
PRMLxT1	2018-02-28 08:35:29	-53.5			
PRMLxT1	2018-02-22 12:07:49	-53.4			
PRMLxT1	2018-01-31 08:32:22	-53.4			
PRMLxT1	2017-12-14 13:05:34	-53.4			
PRMLxT1	2017-12-12 13:29:37	-53.4			
PRMLxT1	2017-12-01 09:17:47	-53.4			
Unknown	2018-02-07 08:28:21	-53.5			
Unknown	2018-02-07 08:28:06	-53.5			

Summary

File Name on Meter	LxT_Data.098
File Name on PC	SLM_0005055_LxT_Data_098.00.ldbin
Serial Number	0005055
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	R10
Job Description	
Note	

Measurement

Description	
Start	2018-03-15 10:44:57
Stop	2018-03-15 10:59:57
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-03-15 08:27:45
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	147.1 dB

	A	C	Z	
Under Range Peak	**103.3**	100.3	105.3	dB
Under Range Limit	**38.7**	36.7	44.7	dB
Noise Floor	25.8	26.3	33.8	dB

Results

LASeq	71.7 dB	
LASE	101.3 dB	
EAS	1.489 mPa²h	
EAS8	47.663 mPa²h	
EAS40	238.313 mPa²h	
LASpeak (max)	2018-03-15 10:51:01	104.7 dB
LASmax	2018-03-15 10:51:02	88.3 dB
LASmin	2018-03-15 10:47:08	63.4 dB
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	1	2.4 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

LCSeq	78.7 dB
LASeq	71.7 dB
LCSeq - LASeq	7.0 dB
LAIeq	73.0 dB
LAeq	71.7 dB
LAIeq - LAeq	1.3 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	71.7					
Ls(max)	88.3	2018/03/15 10:51:02				
Ls(min)	63.4	2018/03/15 10:47:08				
LPeak(max)	104.7	2018/03/15 10:51:01				

# Overloads	0

Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.9	0.01 %
Projected Dose	-99.9	0.20 %
TWA (Projected)	-99.9	45.1 dB
TWA (t)	-99.9	20.1 dB
Lep (t)	56.7	56.7 dB

Statistics

LAS5.00	74.3 dB
LAS10.00	73.5 dB
LAS33.30	71.7 dB
LAS50.00	70.8 dB
LAS66.60	69.9 dB
LAS90.00	67.9 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-03-15 08:27:45	-53.4			
PRMLxT1	2018-03-15 08:27:30	-53.3			
PRMLxT1	2018-03-08 09:46:32	-54.9			
PRMLxT1	2018-03-08 09:46:13	-54.9			
PRMLxT1	2018-02-28 08:35:45	-53.5			
PRMLxT1	2018-02-28 08:35:29	-53.5			
PRMLxT1	2018-02-22 12:07:49	-53.4			
PRMLxT1	2018-01-31 08:32:22	-53.4			
PRMLxT1	2017-12-14 13:05:34	-53.4			
PRMLxT1	2017-12-12 13:29:37	-53.4			
PRMLxT1	2017-12-01 09:17:47	-53.4			
Unknown	2018-02-07 08:28:21	-53.5			
Unknown	2018-02-07 08:28:06	-53.5			

Summary

File Name on Meter	LxT_Data.093
File Name on PC	SLM_0005055_LxT_Data_093.00.ldbin
Serial Number	0005055
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	R11
Job Description	
Note	

Measurement

Description	
Start	2018-03-15 08:53:25
Stop	2018-03-15 09:08:25
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-03-15 08:27:45
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting			
Peak Weight	A Weighting			
Detector	Slow			
Preamp	PRMLxT1			
Microphone Correction	Off			
Integration Method	Exponential			
Overload	147.1 dB			
	A	**C**	**Z**	
Under Range Peak	**103.3**	100.3	105.3	dB
Under Range Limit	**38.7**	36.7	44.7	dB
Noise Floor	25.8	26.3	33.8	dB

Results

LASeq	74.2 dB	
LASE	103.7 dB	
EAS	2.606 mPa²h	
EAS8	83.387 mPa²h	
EAS40	416.933 mPa²h	
LASpeak (max)	2018-03-15 09:04:44	107.3 dB
LASmax	2018-03-15 09:04:44	91.6 dB
LASmin	2018-03-15 08:53:51	43.0 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	1	4.6 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCSeq	78.9 dB	
LASeq	74.2 dB	
LCSeq - LASeq	4.8 dB	
LAIeq	76.2 dB	
LAeq	74.2 dB	
LAIeq - LAeq	2.1 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	74.2					
Ls(max)	91.6	2018/03/15 9:04:44				
Ls(min)	43.0	2018/03/15 8:53:51				
LPeak(max)	107.3	2018/03/15 9:04:44				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	0.01	0.02	%
Projected Dose	0.25	0.75	%
TWA (Projected)	46.8	54.7	dB
TWA (t)	21.8	29.7	dB
Lep (t)	59.1	59.1	dB

Statistics

LAS5.00	78.1	dB
LAS10.00	76.9	dB
LAS33.30	74.5	dB
LAS50.00	72.6	dB
LAS66.60	68.6	dB
LAS90.00	55.9	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-03-15 08:27:45	-53.4			
PRMLxT1	2018-03-15 08:27:30	-53.3			
PRMLxT1	2018-03-08 09:46:32	-54.9			
PRMLxT1	2018-03-08 09:46:13	-54.9			
PRMLxT1	2018-02-28 08:35:45	-53.5			
PRMLxT1	2018-02-28 08:35:29	-53.5			
PRMLxT1	2018-02-22 12:07:49	-53.4			
PRMLxT1	2018-01-31 08:32:22	-53.4			
PRMLxT1	2017-12-14 13:05:34	-53.4			
PRMLxT1	2017-12-12 13:29:37	-53.4			
PRMLxT1	2017-12-01 09:17:47	-53.4			
Unknown	2018-02-07 08:28:21	-53.5			
Unknown	2018-02-07 08:28:06	-53.5			

R12

ID	RESULTID	SAMPLETIME	LASMAX	LAFMAX	LAIMAX	LCPEAK	LAEQ	LAIEQ	LAF10	LAF50	LAF90	LAF95	LAFVAR
79712076-2dae-426a-af9a-dd117037d81f	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:21	53.3	57.9	61.5	74.3	48	52.1	51	46	43.5	43	42
fee8eecb-eaf6-4ca3-b463-268faa2f75ca	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:20	59.2	61.9	62.9	78.3	52.2	53.9	57	48.5	46.5	46.5	45.5
c7d0bb2c-bc38-41e1-9a3d-4c34b7ee77b2	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:19	63.1	66	67	79.9	54.2	55.6	58	47.5	41.5	40.5	40
c8c2c627-c489-4a72-85cb-973240f0b316	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:18	60.1	61.6	62.5	79.8	54.1	55.8	58	52	47.5	46.5	46.5
9950993e-0080-4359-a3ec-ef8cb810a07c	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:17	58.7	61.1	62.4	77.1	52.3	54.3	55.5	50.5	48	47.5	46.5
532189c8-a562-41d6-a5bd-fedcaa2fc1e8	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:16	66.8	68.5	69.1	85	56.4	57.5	60.5	50	44	43	42.5
f08df376-361e-47c0-9d30-5846564cb92f	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:15	61.4	63.9	64.3	79.1	54.4	56	57.5	53	47	45.5	45
f5f49d9f-5c13-4da3-a3cf-2a7b532fdd37	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:14	57.5	60	60.9	74.9	48.8	51.5	52.5	46.5	41	41	40
12d76fcd-acb7-4f86-8314-5a7eed923440	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:13	64.8	67.7	68.7	84.5	57.4	59.3	61	56	49.5	44.5	43.5
ac13c1b9-c556-4e99-a9c2-39edf619464d	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:12	57.6	60.7	62.1	75.6	50.5	52.5	54.5	49	43	42.5	42
5e83f745-ec56-4cd4-b107-66877050d2a7	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:11	62.8	64.9	65.7	83	55	56.3	59	51.5	47	46.5	45.5
68b34f61-3104-4a1c-ba4b-8da1cd7922bb	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:10	65.8	67.6	68.2	88.9	56.3	58	60	53.5	47	46	45.5
a7e8a0e3-b874-4ae2-a1ca-385bfe6245c0	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:09	61.7	63.3	64	77.6	54.3	56	58	52	48.5	48	46.5
20889c84-997f-4735-8d84-8b67099f3cbd	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:08	60.6	62.9	63.6	79.9	55.1	57	58.5	54	49.5	49	48.5
da388d89-3164-4f5a-bbba-391ec62c6120	de6247a0-40d1-4e9f-b9ec-49ce0fff2558	3/15/2018 10:07	61.1	63.1	64.4	86.6	56.2	57.5	60	52.5	47.5	47.5	46.5

Noise Measurement Data

Project: **World Logistics Center** **Location:** **R12**

	07/17/18	07/18/18	07/19/18	07/20/18
12:00:00 AM		36.7		
1:00:00 AM		36.5		
2:00:00 AM		36.6		
3:00:00 AM		36.3		
4:00:00 AM		38.0		
5:00:00 AM		45.5		
6:00:00 AM		47.1		
7:00:00 AM		42.5		
8:00:00 AM				
9:00:00 AM				
10:00:00 AM				
11:00:00 AM				
12:00:00 PM				
1:00:00 PM				
2:00:00 PM				
3:00:00 PM				
4:00:00 PM				
5:00:00 PM				
6:00:00 PM				
7:00:00 PM				
8:00:00 PM				
9:00:00 PM				
10:00:00 PM	37.46			
11:00:00 PM	36.77			

Start Date and Time

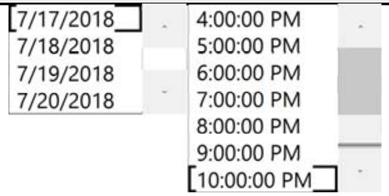

Start
7/17/18 10:00 PM
End
7/17/18 7:59 AM

CNEL	
L_{dn}	
24-hr Max.	
24-hr Min.	
24-hr Nighttime Average[a]	41.4
24-hr Nighttime Max	47.1
24-hr Nighttime Min	36.5
24-hr Daytime Average[a]	
24-hr Daytime Max	
24-hr Daytime Min	
Total Period Average	41.4
Total Period Max	47.1
Total Period Min	36.3
Total Period Daytime Average	
Total Period Daytime Max	
Total Period Daytime Min	
Total Period Nighttime Average	41.4
Total Period Nighttime Max	47.1
Total Period Nighttime Min	36.3

[a] Daytime hours are from 8:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 8:00 a.m.

R13

ID	RESULTID	SAMPLETIME	LASMAX	LAFMAX	LAIMAX	LCPEAK	LAEQ	LAIEQ	LAF10	LAF50	LAF90	LAF95	LAFVAR
fb6c0a89-a344-4a82-8116-01beb187b47d	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:46	51	55.1	58.4	90.1	43.7	47.2	47	42	37	37	36.5
27d09aa3-f39a-4007-83e9-fb122de35e25	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:45	56.4	59.1	59.9	86.6	46.3	48.6	48.5	44.5	39.5	39	38.5
72d9a580-a71c-4894-8ced-8d3148e1be1b	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:44	45.9	49.2	51	84.5	42	44.4	44.5	41	39.5	39	38.5
b45d50e4-5f3d-4b9b-ba69-14013e2566d0	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:43	51.1	53.3	54.6	89.3	45.1	48.5	47.5	44	40.5	40	38.5
f5c80267-8ace-4f53-bd1c-ddb4c17c8257	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:42	55.2	60	61.4	82.1	47.7	51.3	51	46	42	42	41
304592b2-bc02-490d-a532-48151262f883	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:41	64.2	68.3	69.2	86.8	51.5	55.6	54	45	42	41.5	41.5
d3f6d8f2-7007-43e0-afb0-47ff9235072f	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:40	58.9	61.5	62.2	78.2	47.7	51.6	50.5	43.5	39.5	39	38.5
a17fff83-73a3-4d4b-8785-7b5363c82024	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:39	53.7	57.9	59.4	79.8	43.8	48.5	48	40	38	38	37.5
b819fff3-a30c-4777-a16b-3da28fb5203f	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:38	55.6	58.5	60.6	80.4	44.5	48.9	47.5	41	38.5	38.5	38
aa3d42d6-4205-4e11-b4bf-3b9e522fbc76	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:37	56	59.3	61.5	84.2	47	50.4	50.5	44.5	42	41	41
9379cd88-feb2-4eb5-88ca-a97aff5b6c83	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:36	55.8	58.2	59.8	83.6	48.2	51.9	52.5	46	41.5	40	39.5
264d0e7c-1928-470e-9e1a-bc69220b8b1b	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:35	56.3	59.6	62.3	80.6	49.6	53	52.5	48	45	44	42
626bfc69-7a2e-4c1a-b0ce-9613749fa4c4	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:34	57	60.3	62.8	84.3	48	50.9	51	45.5	40.5	40	39.5
50f285eb-9e2f-4b71-a8fb-67e2ee05230d	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:33	51.8	55.5	57.5	81.4	43.7	47.6	47.5	41.5	39	38.5	38
4d15d1f7-4e3d-41e1-a317-3fa4d189b4bb	09d87bd2-0da5-4d75-aa13-36c28ffaf627	3/15/2018 10:32	55.1	62.7	66.3	95.9	44	51.8	47	41	39.5	39	39

Noise Measurement Data

Project: **World Logistics Center** **Location:** **R13**

	07/17/18	07/18/18	07/19/18	07/20/18
12:00:00 AM		45.9		
1:00:00 AM		57.4		
2:00:00 AM		48.8		
3:00:00 AM		56.7		
4:00:00 AM		57.6		
5:00:00 AM		61.9		
6:00:00 AM		63.4		
7:00:00 AM		63.6		
8:00:00 AM				
9:00:00 AM				
10:00:00 AM				
11:00:00 AM				
12:00:00 PM				
1:00:00 PM				
2:00:00 PM				
3:00:00 PM				
4:00:00 PM				
5:00:00 PM				
6:00:00 PM				
7:00:00 PM				
8:00:00 PM				
9:00:00 PM				
10:00:00 PM	64.6			
11:00:00 PM	51.4			

Start Date and Time

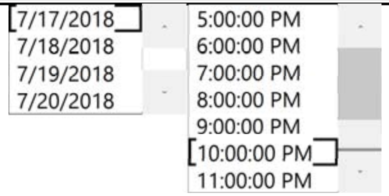

Start
7/17/18 10:00 PM
End
7/17/18 7:59 AM

CNEL	
L_{dn}	
24-hr Max.	
24-hr Min.	
24-hr Nighttime Average[a]	60.3
24-hr Nighttime Max	64.6
24-hr Nighttime Min	48.8
24-hr Daytime Average[a]	
24-hr Daytime Max	
24-hr Daytime Min	
Total Period Average	60.3
Total Period Max	64.6
Total Period Min	45.9
Total Period Daytime Average	
Total Period Daytime Max	
Total Period Daytime Min	
Total Period Nighttime Average	60.3
Total Period Nighttime Max	64.6
Total Period Nighttime Min	45.9

[a] Daytime hours are from 8:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 8:00 a.m.

2:29 PM 7/18/2018

R14

ID	RESULTID	SAMPLETIME	LASMAX	LAFMAX	LAIMAX	LCPEAK	LAEQ	LAIEQ	LAF10	LAF50	LAF90	LAF95	LAFVAR
7c3ac239-beb9-41a4-8a84-803265435e08	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:08	60.7	67.3	71.4	100.8	50.9	56.8	55.5	45	36	35.5	35
61b7340e-40f8-4830-8a55-7cfa36106068	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:07	58.2	59.5	60.4	93.3	52.2	53.2	56	50	41.5	39.5	38
24fca6d5-315f-4519-89e6-22d9e5164711	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:06	55.9	57.3	58.7	96.3	50.7	52	54.5	49.5	44.5	44	43
48107a77-eabe-4c7b-b3be-44e782704ed5	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:05	59.9	67.3	70.9	101.1	51.9	58.1	56	50	47	46	43
457ad0f6-1714-4a7e-a2a2-5a9ae2203684	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:04	58	59.5	60	91.8	49.8	51.2	55.5	45.5	37	36.5	36.5
b8fb5a32-9c04-48a7-8acc-5e430607daed	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:03	53	60.1	62.5	97.6	46.3	50	51	43.5	40.5	40	39.5
721ede0d-1594-4173-8626-6d98e94e05e1	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:02	59	60.4	60.9	80.4	50.6	51.7	56.5	40.5	37	36.5	36.5
1fc7d82a-19a3-43ae-a554-07b79a00119c	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:01	59.4	60.8	62.4	94	52.6	55.1	57	48	40.5	39.5	39
428398c2-81d3-4abe-bf6c-d060adbfde2f	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 11:00	48.9	51.5	52.9	89.2	43.3	46.3	46	42.5	38.5	38	36
e2951b2e-696d-4d92-ad99-8dd2cf35e9df	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 10:59	59.6	61	62.5	83.3	53.7	54.5	58.5	49.5	45.5	44.5	44
474accb3-2a68-431d-ae39-8c299f47c626	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 10:58	57.6	58.9	59.9	81.6	48	49.1	52.5	40.5	35	35	34.5
65ae1790-9a50-493c-ad1b-ffc755d4313a	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 10:57	57	58.1	59.2	92.9	50.5	51.8	54	47	37.5	35.5	35
c3ee2833-3dc1-425e-99b6-8b3b7c4b3ff8	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 10:56	49.4	48.9	50.9	87	40.5	42.6	45.5	38	34.5	34	33.5
5e736170-4216-41f2-b2cd-bcac238d1629	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 10:55	57	59.1	59.8	92.6	53.3	54.4	55.5	53.5	50	48	47.5
d5ed0389-0287-4a09-9e5d-55c6ef948087	c9c766d8-c1a5-4d4e-9739-c6b8f9bc7572	3/15/2018 10:54	62.3	69.4	73.2	98.2	50.4	59.3	55	44	36.5	36	35

Noise Measurement Data

Project: **World Logistics Center** **Location:** **R14**

	07/17/18	07/18/18	07/19/18	07/20/18
12:00:00 AM		46.2		
1:00:00 AM		56.5		
2:00:00 AM		53.9		
3:00:00 AM		60.9		
4:00:00 AM		60.6		
5:00:00 AM		64.8		
6:00:00 AM		66.6		
7:00:00 AM		66.0		
8:00:00 AM				
9:00:00 AM				
10:00:00 AM				
11:00:00 AM				
12:00:00 PM				
1:00:00 PM				
2:00:00 PM				
3:00:00 PM				
4:00:00 PM				
5:00:00 PM				
6:00:00 PM				
7:00:00 PM				
8:00:00 PM				
9:00:00 PM				
10:00:00 PM	57.88			
11:00:00 PM	54.05			

Start Date and Time

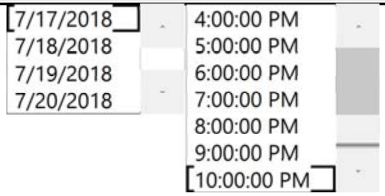

7/17/2018
7/18/2018
7/19/2018
7/20/2018

4:00:00 PM
5:00:00 PM
6:00:00 PM
7:00:00 PM
8:00:00 PM
9:00:00 PM
10:00:00 PM

Start
7/17/18 10:00 PM
End
7/18/18 7:59 AM

CNEL	
L_{dn}	
24-hr Max.	
24-hr Min.	
24-hr Nighttime Average[a]	61.9
24-hr Nighttime Max	66.6
24-hr Nighttime Min	53.9
24-hr Daytime Average[a]	
24-hr Daytime Max	
24-hr Daytime Min	
Total Period Average	61.9
Total Period Max	66.6
Total Period Min	46.2
Total Period Daytime Average	
Total Period Daytime Max	
Total Period Daytime Min	
Total Period Nighttime Average	61.9
Total Period Nighttime Max	66.6
Total Period Nighttime Min	46.2

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[a] Daytime hours are from 8:00 a.m. to 10:00 p.m., and nighttime hours are from 10:00 p.m. to 8:00 a.m.

2:33 PM 7/18/2018

Appendix B

Construction Noise Calculations


R1b
R11
Alessandro Blvd
Gilman Springs Rd
Street F
Alessandro Blvd.
R1a
R6
R6b
R13
R14
Theodore St
World Logistics Center
Eucalyptus Ave
Street E
Cactus Ave. Extension
R2
R3
6c
R5
R12
R4
Redlands Blvd
R2b
R4b
Cottonwood Ave
Moreno Valley Fwy
Cactus Ave
60

Onsite Construction Noise

	Plot 1		Plot 2		Plot 3		Plot 4		Plot 5		Plot 6		Plot 7		Plot 8		Plot 9		Plot 10		Plot 11		Plot 12		Plot 20		Plot 21		Plot 22	
	85		85		85		85		85		85		85		85		85		85		85		85		85		85		85	
Receptor	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq
1a	9,650	28	8,185	30	7,035	31	4,580	36	3,375	39	8,870	29	7,800	30	7,718	30	3,990	37	1,030	52	4,475	36	4,160	37	9,915	28	8,610	29	7,805	30
1b	15,270	23	12,584	25	13,530	24	10,410	27	10,100	27	10,300	27	12,170	25	9,290	28	6,915	31	5,750	33	4,100	37	1,050	52	15,620	23	12,360	25	11,465	26
2	7,365	31	6,885	32	2,745	42	2,750	41	1,735	46	9,975	28	7,540	31	8,750	29	4,815	35	3,790	38	8,560	29	10,250	27	6,675	32	8,505	29	8,260	30
3	2,670	42	2,670	42	25	93	500	60	1,930	45	6,730	32	4,840	35	6,075	33	3,930	38	4,740	36	8,435	29	11,110	26	2,670	42	5,470	34	5,645	34
4	835	54	2,260	44	1,000	52	2,655	42	5,575	34	6,515	32	6,030	33	6,850	32	6,060	33	8,270	30	10,190	27	13,920	24	835	54	6,100	33	6,760	32
5	120	75	1,575	48	1,875	46	2,940	41	6,465	32	5,435	34	5,385	34	5,265	34	5,700	34	8,810	29	9,655	28	13,960	24	120	75	5,340	34	5,955	33
6	5,010	35	3,000	41	6,840	32	5,740	34	9,440	28	1,610	47	4,510	36	2,960	41	5,175	35	10,480	27	6,725	32	12,400	25	6,360	32	3,917	38	4,745	36
11	11,290	26	8,325	29	11,600	26	8,140	30	8,765	29	4,340	37	7,650	30	3,640	38	3,600	39	5,750	33	675	57	4,000	37	12,100	25	7,625	30	7,090	31
12	730	56	1,700	47	150	73	1,880	46	45,800	11	6,100	33	5,230	35	6,900	32	5,350	34	7,380	31	9,770	28	13,130	25	270	67	5,550	34	6,020	33
13	3,650	38	120	75	4,000	37	1,500	48	5,570	34	960	53	1,550	48	25	93	950	53	4,550	36	4,240	37	9,330	28	4,230	37	25	93	25	93
14	3,600	39	25	93	3,400	39	25	93	3,980	37	2,440	43	200	70	1,370	49	400	62	5,130	35	4,460	36	8,540	29	3,775	38	1,000	52	950	53

Offsite Construction Noise

	Roadway Improvements		Drainage Improvements		Sewer Improvements		Water Utility Improvements		Potential Water Reservoir & Access		Roadway & Utility Improvements		Water Improvements		Ramp Improvements		Detention Basin (Sinclair)		Interchange Improvement		Potential Water Resevoir & Access		Potential Water Rservoir & Access		Debris Basins (Typical)	
	85		85		85		85		85		85		85		85		85		85		85		85		85	
Receptor	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq
1a	6,140	33	7,530	31	7,000	31	7,500	31	13,550	24	6,140	33	12,830	25	13,760	24	12,900	25	11,750	26	12,600	25	9,945	28	4,280	37
1b	13,320	24	14,560	23	14,010	24	14,255	24	20,000	20	13,320	24	18,245	21	19,000	21	17,125	22	15,150	23	15,800	23	10,880	27	10,250	27
2	25	93	1,680	47	1,370	49	2,660	42	8,316	29	25	93	9,400	28	10,750	27	11,145	26	11,300	26	12,070	25	12,365	25	16,090	22
2b	25	93	25	93	25	93	3,745	38	6,780	32	25	93	9,230	28	10,686	27	11,740	26	12,560	25	13,300	24	14,665	23	19,250	20
3	1,260	50	2,700	42	2,610	42	25	93	5,370	34	1,260	50	3,690	38	6,780	32	7,315	31	7,865	30	8,635	29	10,400	27	10,375	27
4	675	57	6,000	33	6,130	33	1,770	46	2,885	41	675	57	2,045	45	3,660	38	5,225	35	6,980	31	7,310	31	11,245	26	12,000	25
4b	2,600	42	5,765	33	5,150	35	2,525	42	925	53	2,600	42	3,792	38	4,930	35	7,010	31	9,060	29	9,400	28	13,235	24	13,935	24
5	25	93	7,400	31	7,360	31	3,240	40	4,082	37	25	93	560	59	1,933	45	3,790	38	5,805	33	5,975	33	10,445	27	11,385	26
6	4,845	35	11,700	26	11,630	26	8,670	29	10,590	27	4,845	35	6,190	33	5,600	34	2,755	41	1,455	48	25	93	5,915	33	7,755	30
6b	5,125	35	11,030	26	10,525	27	8,072	30	10,180	27	5,125	35	5,840	33	5,570	34	2,880	41	85	79	333	64	5,065	35	6,890	32
6c	1,860	46	9,810	28	9,810	28	5,800	33	6,120	33	1,860	46	1,860	46	350	64	2,760	41	5,230	35	5,440	34	11,300	26	12,200	25
11	640	57	13,400	24	12,710	25	13,500	24	16,900	22	640	57	13,900	24	14,260	24	11,915	26	9,570	28	9,885	28	4,300	37	1,680	47
12	25	93	5,313	34	5,300	34	1,275	50	3,420	39	25	93	2,685	42	3,990	37	5,320	34	6,770	32	7,200	31	10,775	27	11,255	26
13	4,220	37	8,230	30	7,900	30	6,170	33	9,100	28	4,220	37	5,465	34	5,935	33	3,870	38	2,450	43	3,085	40	5,100	35	6,000	33
14	5,000	35	6,890	32	6,530	32	5,380	34	8,690	29	5,000	35	5,765	33	6,610	32	4,940	35	3,995	37	4,545	36	5,635	34	6,065	33

Onsite Construction Noise

	Plot 1		Plot 2		Plot 3		Plot 4		Plot 5		Plot 6		Plot 7		Plot 8		Plot 9		Plot 10		Plot 11		Plot 12		Plot 20		Plot 21		Plot 22	
	85		85		85		85		85		85		85		85		85		85		85		85		85		85		85	
Receptor	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq	Distance	Leq
1a	9,650	28	8,185	30	7,035	31	4,580	36	3,375	39	8,870	29	7,800	30	7,718	30	3,990	37	1,030	52	4,475	36	4,160	37	9,915	28	8,610	29	7,805	30
1b	15,270	23	12,584	25	13,530	24	10,410	27	10,100	27	10,300	27	12,170	25	9,290	28	6,915	31	5,750	33	4,100	37	1,050	52	15,620	23	12,360	25	11,465	26
2	7,365	31	6,885	32	2,745	42	2,750	41	1,735	46	9,975	28	7,540	31	8,750	29	4,815	35	3,790	38	8,560	29	10,250	27	6,675	32	8,505	29	8,260	30
3	2,670	42	2,670	42	800	55	800	55	1,930	45	6,730	32	4,840	35	6,075	33	3,930	38	4,740	36	8,435	29	11,110	26	2,670	42	5,470	34	5,645	34
4	835	54	2,260	44	1,000	52	2,655	42	5,575	34	6,515	32	6,030	33	6,850	32	6,060	33	8,270	30	10,190	27	13,920	24	835	54	6,100	33	6,760	32
5	800	55	1,575	48	1,875	46	2,940	41	6,465	32	5,435	34	5,385	34	5,265	34	5,700	34	8,810	29	9,655	28	13,960	24	800	55	5,340	34	5,955	33
6	5,010	35	3,000	41	6,840	32	5,740	34	9,440	28	1,610	47	4,510	36	2,960	41	5,175	35	10,480	27	6,725	32	12,400	25	6,360	32	3,917	38	4,745	36
11	11,290	26	8,325	29	11,600	26	8,140	30	8,765	29	4,340	37	7,650	30	3,640	38	3,600	39	5,750	33	800	55	4,000	37	12,100	25	7,625	30	7,090	31
12	800	55	1,700	47	800	55	1,880	46	45,800	11	6,100	33	5,230	35	6,900	32	5,350	34	7,380	31	9,770	28	13,130	25	800	55	5,550	34	6,020	33
13	3,650	38	800	55	4,000	37	1,500	48	5,570	34	960	53	1,550	48	800	55	950	53	4,550	36	4,240	37	9,330	28	4,230	37	800	55	800	55
14	3,600	39	800	55	3,400	39	800	55	3,980	37	2,440	43	800	55	1,370	49	800	55	5,130	35	4,460	36	8,540	29	3,775	38	1,000	52	950	53

* Mitigated Distance of 800 feet

Onroad Construction Noise

Plot 2

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2019	Mass Excavation	1/1/2019	7/1/2019	130	50	9	1705	100	18	26	144	29	20	4	5	52.1
	Finish Grading	5/7/2019	7/1/2019	40	15	2	0	30	4	0	34	7	6	1	0	41.6
	Building-Wet Utilities	7/2/2019	12/30/2019	130	25	15	2191	50	30	34	114	23	10	6	7	53.1
	Building-Electrical	7/2/2019	12/30/2019	130	15	6	5008	30	12	77	119	24	6	2	15	55.4
	Utilities	1/1/2019	12/30/2019	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2019	12/30/2019	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2019	12/30/2019	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	11/5/2019	12/30/2019	40	10	4	624	20	8	31	59	12	4	2	6	51.7
	Paving	12/3/2019	12/30/2019	20	25	6	528	50	12	53	115	23	10	2	11	54.0
2020	Building-Concrete	1/1/2020	12/29/2020	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2020	12/29/2020	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2020	12/29/2020	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2020	12/29/2020	260	10	7	0	20	14	0	34	7	4	3	0	1.8
	Utilities	1/1/2020	12/29/2020	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2020	12/29/2020	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2020	12/30/2020	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2020	8/20/2020	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2020	7/26/2020	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plot 4

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2021	Mass Excavation	1/1/2021	7/1/2021	130	50	9	1705	100	18	26	144	29	20	4	5	52.1
	Finish Grading	5/7/2021	7/1/2021	40	15	2	52	30	4	3	37	7	6	1	1	44.0
	Building-Concrete	1/1/2021	12/30/2021	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2021	12/30/2021	260	25	15	2191	50	30	17	97	19	10	6	3	1.8
	Building-Electrical	1/1/2021	12/30/2021	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2021	12/30/2021	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2021	12/30/2021	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2021	12/30/2021	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2021	12/30/2021	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2021	8/20/2021	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2021	7/26/2021	40	25	6	528	50	12	26	88	18	10	2	5	51.5
2022	Building-Concrete	1/1/2022	12/30/2022	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2022	12/30/2022	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2022	12/30/2022	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2022	12/30/2022	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2022	12/30/2022	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2022	12/30/2022	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2022	12/30/2022	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2022	8/20/2022	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2022	7/26/2022	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plot 9

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2023	Mass Excavation	1/1/2023	6/30/2023	130	50	15	4185	100	30	64	194	39	20	6	13	55.3
	Finish Grading	5/7/2023	7/1/2023	40	15	6	104	30	12	5	47	9	6	2	1	47.0
	Building-Concrete	1/1/2023	12/30/2023	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2023	12/30/2023	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2023	12/30/2023	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2023	12/30/2023	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2023	12/30/2023	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2023	12/30/2023	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2023	12/30/2023	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2023	8/20/2023	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2023	7/26/2023	40	25	6	528	50	12	26	88	18	10	2	5	51.5
2024	Building-Concrete	1/1/2024	12/29/2024	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2024	12/29/2024	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2024	12/29/2024	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2024	12/29/2024	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2024	12/29/2024	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Interchange	1/1/2024	12/29/2024	260	25	4	2817	50	8	22	80	16	10	2	4	50.6
	Landscaping	1/1/2024	12/29/2024	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2024	12/30/2024	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2024	8/20/2024	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2024	7/26/2024	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plots 1, 3, & 20

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2025	Mass Excavation	1/1/2025	7/1/2025	130	50	8	1085	100	16	17	133	27	20	3	3	50.8
	Finish Grading	5/7/2025	7/1/2025	40	15	2	156	30	4	8	42	8	6	1	2	46.6
	Building-Concrete	1/1/2025	12/30/2025	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2025	12/30/2025	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2025	12/30/2025	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2025	12/30/2025	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2025	12/30/2025	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Interchange	1/1/2025	7/1/2025	130	25	4	2817	50	8	43	101	20	10	2	9	53.1
	Landscaping	1/1/2025	12/30/2025	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2025	12/30/2025	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2025	8/20/2025	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2025	7/26/2025	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plots 5 and 10

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2026	Mass Excavation	9/16/2026	12/31/2026	77	50	7	1085	100	14	28	142	28	20	3	6	52.1
	Finish Grading	11/6/2026	12/31/2026	40	15	4	208	30	8	10	48	10	6	2	2	48.1
	Building-Concrete	1/1/2026	12/30/2026	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2026	12/30/2026	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2026	12/30/2026	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2026	12/30/2026	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2026	12/30/2026	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2026	12/30/2026	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2026	12/30/2026	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2026	8/20/2026	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2026	7/26/2026	40	25	6	528	50	12	26	88	18	10	2	5	51.5
2027	Mass Excavation	1/1/2027	4/19/2027	77	50	10	2170	100	20	56	176	35	20	4	11	54.6
	Finish Grading	1/1/2027	2/25/2027	40	15	4	260	30	8	13	51	10	6	2	3	48.7
	Building-Concrete	1/1/2027	12/30/2027	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2027	12/30/2027	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2027	12/30/2027	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2027	12/30/2027	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2027	12/30/2027	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2027	12/30/2027	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2027	12/30/2027	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2027	8/20/2027	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2027	7/26/2027	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plots 7, 8, 21, & 22

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2028	Mass Excavation	9/14/2028	12/31/2028	77	50	9	1705	100	18	44	162	32	20	4	9	53.7
	Finish Grading	11/6/2028	12/31/2028	40	15	2	312	30	4	16	50	10	6	1	3	48.9
	Building-Concrete	1/1/2028	12/31/2028	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2028	12/31/2028	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2028	12/31/2028	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2028	12/31/2028	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2028	12/31/2028	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2028	12/31/2028	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2028	12/31/2028	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2028	8/20/2028	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2028	7/26/2028	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plot 11

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2029	Mass Excavation	1/1/2029	4/17/2029	77	50	10	2170	100	20	56	176	35	20	4	11	54.6
	Finish Grading	1/1/2029	2/25/2029	40	15	4	364	30	8	18	56	11	6	2	4	49.8
	Building-Concrete	1/1/2029	12/30/2029	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2029	12/30/2029	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2029	12/30/2029	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2029	12/30/2029	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2029	12/30/2029	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2029	12/30/2029	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2029	12/30/2029	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2029	8/20/2029	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2029	7/26/2029	40	25	6	528	50	12	26	88	18	10	2	5	51.5
2030	Building-Concrete	1/1/2030	12/30/2030	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2030	12/30/2030	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2030	12/30/2030	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2030	12/30/2030	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2030	12/30/2030	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2030	12/30/2030	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2030	12/30/2030	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2030	8/20/2030	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2030	7/26/2030	40	25	6	528	50	12	26	88	18	10	2	5	51.5
2031	Mass Excavation	1/1/2031	7/1/2031	130	50	12	1705	100	24	26	150	30	20	5	5	52.4
	Finish Grading	1/1/2031	2/25/2031	40	15	4	416	30	8	21	59	12	6	2	4	50.3
	Building-Concrete	1/1/2031	12/30/2031	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2031	12/30/2031	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2031	12/30/2031	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2031	12/30/2031	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2031	12/30/2031	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2031	12/30/2031	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2031	12/30/2031	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2031	8/20/2031	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2031	7/26/2031	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plot 12

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2032	Mass Excavation	1/1/2032	6/30/2032	130	50	9	1705	100	18	26	144	29	20	4	5	52.1
	Finish Grading	1/1/2032	2/25/2032	40	15	2	468	30	4	23	57	11	6	1	5	50.4
	Building-Concrete	1/1/2032	12/29/2032	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2032	12/29/2032	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2032	12/29/2032	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2032	12/29/2032	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2032	12/29/2032	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2032	12/29/2032	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/1/2032	12/29/2032	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2032	8/20/2032	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2032	7/26/2032	40	25	6	528	50	12	26	88	18	10	2	5	51.5
2033	Building-Concrete	1/1/2033	12/31/2033	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2033	12/31/2033	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2033	12/31/2033	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2033	12/31/2033	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2033	12/31/2033	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2033	12/31/2033	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/2/2033	12/31/2033	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2033	8/20/2033	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2033	7/26/2033	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Plot 6

Year	Subphase	Start Date	End Date	# of Work Days	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	worker Daily Trips	Vendor Daily Trips	Hauling Daily Trips	ADT	Peak hour	Auto	MT	HT	Leq from 100 ft.
2034	Mass Excavation	1/1/2034	6/30/2034	130	50	9	1705	100	18	26	144	29	20	4	5	52.1
	Finish Grading	1/1/2034	2/25/2034	40	15	2	520	30	4	26	60	12	6	1	5	50.8
	Building-Concrete	1/1/2034	12/29/2034	260	25	2	7512	50	4	58	112	22	10	1	12	54.1
	Building-Wet Utilities	1/1/2034	12/29/2034	260	25	15	2191	50	30	17	97	19	10	6	3	51.3
	Building-Electrical	1/1/2034	12/29/2034	260	15	6	5008	30	12	39	81	16	6	2	8	52.7
	Building-Landscaping	1/1/2034	12/29/2034	260	10	7	0	20	14	0	34	7	4	3	0	44.8
	Utilities	1/1/2034	12/29/2034	260	40	25	6260	80	50	48	178	36	16	10	10	54.9
	Landscaping	1/1/2034	12/29/2034	260	10	6	0	20	12	0	32	6	4	2	0	44.2
	Temporary Utilities	7/1/2034	12/29/2034	130	0	0	0	0	0	0	0	0	0	0	0	1.8
	Curbing/Drive Approaches	5/1/2034	8/20/2034	80	10	4	624	20	8	16	44	9	4	2	3	49.2
	Paving	6/1/2034	7/26/2034	40	25	6	528	50	12	26	88	18	10	2	5	51.5

Appendix C

Traffic Noise Calculations

Existing Roadway

ESA

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
1	WLC Pkwy	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	138	3	10	58.4	59.4	-	-	-
2	WLC Pkwy	Eucalyptus Ave	Street F	Hard	100	45	45	45	51	0	1	51.6	52.6	-	-	-
3	Street E	west of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
4	Street E	north of Alessandro Blvd	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
5	Alessandro Blvd	Cactus Ave Extension	WLC Pkwy	Hard	100	45	45	45	40	2	0	50.9	51.9	-	-	-
6	WLC Pkwy	Street F	Alessandro Blvd	Hard	100	45	45	45	97	1	1	54.7	55.7	-	-	-
7	WLC Pkwy	south of Alessandro Blvd	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
8	Cactus Ave Extension	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
9	John F Kennedy Dr	south of Cactus Ave	0	Hard	100	45	45	45	686	9	1	62.8	63.8	140	-	-
10	Redlands Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	778	12	1	63.4	64.4	177	-	-
11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	Hard	100	45	45	45	812	11	2	63.6	64.6	189	-	-
12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	Hard	100	45	45	45	853	11	2	63.8	64.8	201	-	-
13	Redlands Blvd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	901	14	13	64.6	65.6	266	16	-
14	Eucalyptus Ave	east of Redlands blvd	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
15	Eucalyptus Ave	west of Street A	0	Hard	100	45	45	45	146	1	10	58.4	59.4	-	-	-
18	Street B	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
18a	Street B	west of Gilman Springs Rd	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
19	Street F	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
20	Street F	north of Alessandro Blvd	0	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
21	Alessandro Blvd	east of WLC Pkwy	0	Hard	100	45	45	45	238	3	1	58.3	59.3	-	-	-
22	Alessandro Blvd	west of Street F	0	Hard	100	45	45	45	238	3	1	58.3	59.3	-	-	-
23	Street F	Alessandro Blvd	Street G	Hard	100	45	45	45	0	0	0	0.0	0.0	-	-	-
24	Alessandro Blvd	Street F	Gilman Springs Rd	Hard	100	45	45	45	238	3	1	58.3	59.3	-	-	-
25	Alessandro Blvd	Street H	Gilman Springs Rd	Hard	100	45	45	45	230	3	1	58.1	59.1	-	-	-
29	Gilman Springs Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	1203	43	16	66.2	67.2	426	66	-
30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1203	43	16	66.2	67.2	426	66	-
31	Gilman Springs Rd	south of Street C	0	Hard	100	45	45	45	1488	46	17	67.0	68.0	526	98	-
32	Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	288	7	0	59.2	60.2	6	-	-
33	Alessandro Blvd	west of Redlands Blvd	0	Hard	100	45	45	45	383	5	1	60.3	61.3	34	-	-
35	Redlands Blvd	Ironwood Ave	State Route 60	Hard	100	55	55	55	1236	15	8	68.3	69.3	751	169	-
36	Ironwood Ave	Redlands Blvd	Highland Blvd	Hard	100	35	35	35	34	3	2	49.7	50.7	-	-	-
37	San Timoteo Canyon Rd	west Live Oak Canyon	0	Hard	100	45	45	45	1223	15	5	65.5	66.5	342	40	-
38	Theodore St	State Route 60	Highland Blvd	Hard	100	45	45	45	54	5	18	58.6	59.6	-	-	-
42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	Hard	100	55	55	55	1428	15	6	68.8	69.8	856	202	-
43	Moreno Beach Dr	Alessandro Blvd	SR 60	Hard	100	45	45	45	1386	21	13	66.3	67.3	433	69	-
46	Moreno Beach Dr	State Route 60	Ironwood Ave	Hard	100	45	45	45	870	8	7	64.1	65.1	223	2	-
47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	303	6	0	59.4	60.4	9	-	-
48	Alessandro Blvd	Lasselle St	Morrison St	Hard	100	45	45	45	932	14	4	64.3	65.3	240	7	-
50	Cactus Ave	Redlands Blvd	Cactus Ave Extension	Hard	100	45	45	45	40	2	0	50.9	51.9	-	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
149 Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1733	16	2	66.8	6	62.7	63.7
150 Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	955	15	2	64.4	6	60.5	61.5
151 Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1509	16	1	66.2	6	62.0	63.0
152 Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1872	9	19	67.4	6	64.7	65.7
153 Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1163	16	1	61.9	6	57.8	58.8
154 Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	741	8	1	63.1	6	58.9	59.9
156 Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1502	20	1	66.2	6	62.1	63.1
160 Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	577	8	2	62.2	6	58.4	59.4
161 Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1526	26	6	66.5	6	62.8	63.8
162 Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1546	29	8	66.7	6	63.2	64.2
163 Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	724	8	2	63.0	6	59.2	60.2
164 Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1435	12	1	65.9	6	61.8	62.8
165 Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2057	18	7	67.6	6	63.9	64.9
168 Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	700	19	3	63.3	6	59.6	60.6
169 Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	647	18	0	62.8	6	58.6	59.6
170 Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	436	7	0	60.9	6	56.6	57.6
171 Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	1878	27	2	67.2	6	63.1	64.1
172 Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	1899	22	2	67.2	6	63.1	64.1
178 Live oak Canyon	San Timoteo Can	I-10	Hard	100	45	45	45	482	11	4	61.8	6	58.8	59.8

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave		Hard	100	45	45	45	1081	10	3	64.8	65.8	277	19	-
52	Moreno Beach Dr	John F Kennedy Dr	Oliver St		Hard	100	35	35	35	1086	14	3	61.7	62.7	84	-	-
53	John F Kennedy Dr	Oliver St	Moreno Beach Dr		Hard	100	45	45	45	290	4	2	59.3	60.3	6	-	-
54	Locust Ave	Moreno Beach Dr	Smiley Blvd		Hard	100	35	35	35	11	0	0	41.1	42.1	-	-	-
55	Locust Ave	Moreno Beach Dr	Redlands Blvd		Hard	100	45	45	45	76	3	0	53.6	54.6	-	-	-
56	Moreno Beach Dr	Locust Ave	Ironwood Ave		Hard	100	35	35	35	160	2	0	53.1	54.1	-	-	-
57	Live Oak Canyon Rd	North of San Timoteo Canyon		0	Hard	100	35	35	35	482	11	4	58.8	59.8	-	-	-
58	SR 60 EB Ramps	West of Moreno Beach Dr		0	Hard	100	45	45	45	471	8	4	61.5	62.5	79	-	-
59	Eucalyptus Ave	Moreno Beach Dr	Quincy Dr		Hard	100	45	45	45	159	4	2	57.1	58.1	-	-	-
60	SR 60 WB Ramps	East of Redlands Blvd		0	Hard	100	45	45	45	475	6	12	62.2	63.2	108	-	-
61	SR 60 EB Ramps	West fo Redlands Blvd		0	Hard	100	45	45	45	220	11	12	60.3	61.3	35	-	-
62	Fir Ave	Quincy Dr	Redlands Blvd		Hard	100	45	45	45	0	0	0	-	-	-	-	-
65	Alessandro Blvd	Nason St	Oliver St		Hard	100	45	45	45	793	10	3	63.5	64.5	185	-	-
66	Alessandro Blvd	Oliver St	Moreno Beach Dr		Hard	100	45	45	45	618	8	4	62.6	63.6	130	-	-
67	Oliver St	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	204	4	0	54.3	55.3	-	-	-
68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1144	12	4	65.1	66.1	307	29	-
69	Cactus Ave	Nason St	Oliver St		Hard	100	45	45	45	726	8	1	63.0	64.0	151	-	-
70	Cactus Ave	Oliver St	Moreno Beach Dr		Hard	100	45	45	45	600	6	1	62.2	63.2	107	-	-
71	Oliver St	Cactus Ave	John F Kennedy Dr		Hard	100	45	45	45	483	7	0	61.3	62.3	69	-	-
72	Oliver St	John F Kennedy Dr	Iris Ave		Hard	100	45	45	45	328	5	0	59.6	60.6	15	-	-
73	Iris Ave	Nason St	Oliver St		Hard	100	45	45	45	1388	23	4	66.0	67.0	404	59	-
74	Heacock St	Manzanita Ave	Ironwood Ave		Hard	100	45	45	45	1533	20	2	66.3	67.3	441	71	-
75	Ironwood Ave	Graham St	Heacock St		Hard	100	45	45	45	1442	18	2	66.0	67.0	406	60	-
76	Ironwood Ave	Heacock St	Indian Ave		Hard	100	45	45	45	1097	14	1	64.8	65.8	283	21	-
77	Heacock St	Ironwood Ave	Hemlock Ave		Hard	100	45	45	45	1588	22	3	66.5	67.5	466	79	-
80	Heacock St	Hemlock Ave	SR 60 WB Ramps		Hard	100	45	45	45	1955	36	3	67.5	68.5	608	124	-
81	SR 60 WB Ramps	West of Heacock St		0	Hard	100	45	45	45	408	10	7	61.4	62.4	75	-	-
82	SR 60 WB Ramps	East of Heacock St		0	Hard	100	45	45	45	356	8	7	60.9	61.9	54	-	-
83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps		Hard	100	45	45	45	1970	42	11	67.8	68.8	654	138	-
85	SR 60 WB Onramp	West of Perris Blvd		0	Hard	100	45	45	45	735	12	4	63.4	64.4	173	-	-
86	SR 60 WB Offramp	East of Perris Blvd		0	Hard	100	45	45	45	1275	14	10	65.8	66.8	375	50	-
87	Eualyptus Ave	Indian St	Perris Blvd		Hard	100	45	45	45	459	9	0	61.2	62.2	64	-	-
88	Eualyptus Ave	Perris Blvd	Kitching St		Hard	100	55	55	55	555	9	2	64.8	65.8	278	20	-
95	W 6th St	I-10	N California Ave		Hard	100	35	35	35	1062	21	10	62.1	63.1	106	-	-
96	N California Ave	W 6th St	E 8th St		Hard	100	45	45	45	200	5	0	57.6	58.6	-	-	-
97	E 6th St	N California Ave	Beaumont Ave		Hard	100	45	45	45	714	17	3	63.4	64.4	173	-	-
98	N California Ave	W 6th St	I-10		Hard	100	55	55	55	693	14	8	66.1	67.1	409	61	-
99	Beaumont Ave	E 6th St	E 8th St		Hard	100	45	45	45	830	20	4	64.0	65.0	219	1	-
100	I-215 SB Ramps	North of Alessandro Blvd		0	Hard	100	45	45	45	465	9	32	63.5	64.5	185	-	-
101	Alessandro Blvd	Sycamore Canyon Blvd	I-215 SB Ramps		Hard	100	45	45	45	3276	57	32	70.1	71.1	1183	306	28
102	I-215 SB Ramps	South of Alessandro Blvd		0	Hard	100	45	45	45	365	11	1	60.5	61.5	40	-	-
103	I-215 NB Ramps	Nouth of Alessandro Blvd		0	Hard	100	45	45	45	294	12	19	61.7	62.7	86	-	-
104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd		Hard	100	45	45	45	2516	38	40	69.1	70.1	933	227	3

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Name:	**World Logistics Center**
umber:	**D180130**
Analysis Scenario:	**Existing**
Source of Traffic Volumes:	**0**

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
69 Cactus Ave	Nason St	Oliver St		Hard	100	45	45	45	726	7.5	0.5	63.0	6	58.8	59.8
70 Cactus Ave	Oliver St	Moreno Beach Dr		Hard	100	45	45	45	600	5.5	0.5	62.2	6	58.0	59.0
71 Oliver St	Cactus Ave	John F Kennedy Dr		Hard	100	45	45	45	483	6.5	0	61.3	6	57.1	58.1
72 Oliver St	John F Kennedy Dr	Iris Ave		Hard	100	45	45	45	328	4.5	0	59.6	6	55.5	56.5
74 Heacock St	Manzanita Ave	Ironwood Ave		Hard	100	45	45	45	1533	20	2	66.3	6	62.3	63.3
75 Ironwood Ave	Graham St	Heacock St		Hard	100	45	45	45	1442	18	1.5	66.0	6	62.0	63.0
76 Ironwood Ave	Heacock St	Indian Ave		Hard	100	45	45	45	1097	14	0.5	64.8	6	60.6	61.6
81 SR 60 WB Ramps	West of Heacock St		0	Hard	100	45	45	45	407.5	9.5	7	61.4	6	59.3	60.3
85 SR 60 WB Onramp	West of Perris Blvd		0	Hard	100	45	45	45	734.5	12	3.5	63.4	6	59.9	60.9
86 SR 60 WB Offramp	East of Perris Blvd		0	Hard	100	45	45	45	1274.5	13.5	10	65.8	6	62.8	63.8
88 Eualyptus Ave	Perris Blvd	Kitching St		Hard	100	55	55	55	554.5	8.5	2	64.8	6	61.0	62.0
96 N California Ave	W 6th St	E 8th St		Hard	100	45	45	45	199.5	4.5	0	57.6	6	53.3	54.3

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
105	I-215 SB Ramps	South of Alessandro Blvd		0	Hard	100	45	45	45	365	11	1	60.5	61.5	40	-	-
106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd		Hard	100	45	45	45	890	14	12	64.5	65.5	256	13	-
107	Alessandro Blvd	Old 215 Frontage Rd	Day St		Hard	100	45	45	45	2115	43	25	68.3	69.3	754	170	-
108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	386	4	30	62.9	63.9	144	-	-
109	Day St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	548	6	1	58.5	59.5	-	-	-
110	Alessandro Blvd	Day St	Elsworth St		Hard	100	45	45	45	2150	32	17	68.1	69.1	716	158	-
111	Elsworth St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	454	4	1	57.6	58.6	-	-	-
112	Alessandro Blvd	Elsworth St	Frederick St		Hard	100	45	45	45	2213	32	9	68.1	69.1	709	156	-
113	Elsworth St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	559	5	3	62.0	63.0	100	-	-
114	Frederick St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1151	19	4	65.2	66.2	321	33	-
115	Alessandro Blvd	Frederick St	Graham St		Hard	100	45	45	45	2179	32	15	68.1	69.1	720	159	-
116	Frederick St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	661	10	14	63.5	64.5	183	-	-
117	Graham St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	729	10	4	63.3	64.3	169	-	-
118	Alessandro Blvd	Graham St	Heacock St		Hard	100	45	45	45	2250	29	15	68.2	69.2	737	165	-
119	Graham St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	622	7	4	62.6	63.6	127	-	-
120	Heacock St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1285	16	17	66.0	67.0	406	60	-
121	Alessandro Blvd	Heacock St	Indian St		Hard	100	45	45	45	2030	29	13	67.8	68.8	657	139	-
122	Heacock St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1079	13	14	65.3	66.3	323	34	-
123	Indian St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	858	15	2	63.9	64.9	212	-	-
124	Alessandro Blvd	Indian St	Perris Blvd		Hard	100	45	45	45	1927	25	7	67.4	68.4	595	120	-
125	Indian St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	881	16	2	64.0	65.0	219	1	-
126	Alessandro Blvd	Perris Blvd	Kitching St		Hard	100	45	45	45	1572	15	4	66.4	67.4	449	74	-
127	Perris Blvd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1827	21	13	67.3	68.3	577	114	-
128	Kitching St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	725	7	1	63.0	64.0	150	-	-
129	Alessandro Blvd	Kitching St	Lasselle St		Hard	100	45	45	45	1187	14	3	65.3	66.3	322	33	-
130	Kitching St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	655	5	1	62.5	63.5	123	-	-
131	Lasselle St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	732	8	2	63.1	64.1	159	-	-
133	Lasselle St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1101	11	3	64.9	65.9	287	22	-
134	Morrison St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	276	2	1	58.8	59.8	-	-	-
135	Alessandro Blvd	Morrison St	Nason St		Hard	100	50	50	50	812	12	3	65.1	66.1	310	30	-
136	Nason St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1506	19	2	66.2	67.2	429	67	-
137	Nason St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1272	19	2	65.6	66.6	353	43	-
138	I-215 SB Ramps	North of Cactus Ave		0	Hard	100	45	45	45	58	2	19	58.7	59.7	-	-	-
139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps		Hard	100	45	45	45	1510	14	37	67.1	68.1	551	106	-
140	I-215 SB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	607	8	18	63.4	64.4	177	-	-
141	Cactus Ave	I-215 NB Ramps	Elsworth St		Hard	100	45	45	45	2661	19	79	69.8	70.8	1091	277	19
142	I-215 NB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	412	5	16	62.0	63.0	99	-	-
143	Cactus Ave	Elsworth St	Frederick St		Hard	100	45	45	45	3118	21	65	70.1	71.1	1190	308	29
144	Cactus Ave	Frederick St	Graham St		Hard	100	45	45	45	3257	26	66	70.3	71.3	1248	326	35
145	Cactus Ave	Graham St	Heacock St		Hard	100	45	45	45	2832	27	57	69.7	70.7	1080	273	18
146	Riverside Dr	Cactus Ave	Meyer Dr		Hard	100	45	45	45	578	4	0	61.9	62.9	95	-	-
147	Cactus Ave	Heacock St	Indian St		Hard	100	45	45	45	1791	23	7	67.1	68.1	547	105	-
148	Heacock St	Cactus Ave	John F Kennedy Dr		Hard	100	45	45	45	1801	12	61	68.2	69.2	732	163	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
114 Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1223.2	0	5.5667	65.2	6	60.7	61.7
115 Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2359.4	7.1667	16.365	68.2	6	65.1	66.1
117 Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	799.5	2	2.0714	63.3	6	59.5	60.5
120 Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1307.8	3.6	23.793	66.2	6	64.3	65.3
121 Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2156.1	5.6	9.9239	67.7	6	64.3	65.3
122 Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1115.2	2.0313	19.517	65.4	6	63.5	64.5
123 Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	903	1.5	0.5	63.7	6	59.6	60.6
124 Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2044.1	5.4	8.5641	67.5	6	64.0	65.0
125 Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	928.5	1	0.5	63.8	6	59.7	60.7
126 Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1627.3	2.4	8.0958	66.5	6	63.1	64.1
127 Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1792.3	2.2	42.626	67.7	6	66.3	67.3
128 Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	769.5	0.5	0	63.0	6	58.7	59.7
129 Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1215.3	3.5	6.5	65.3	6	62.0	63.0
130 Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	686	0.5	0	62.5	6	58.2	59.2
131 Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	780.4	1	1	63.1	6	59.1	60.1
133 Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1148.3	2	0.5	64.8	6	60.6	61.6
134 Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	302.42	0.5	0	59.0	6	54.7	55.7
135 Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	846.35	2	7.5	65.3	6	62.3	63.3
147 Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1855.8	4.0313	4.0246	67.0	6	63.1	64.1
148 Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1861.4	14.156	53.27	68.2	6	67.0	68.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1733	16	2	66.8	67.8	499	89	-
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	955	15	2	64.4	65.4	243	9	-
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1509	16	1	66.2	67.2	422	65	-
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1872	9	19	67.4	68.4	592	119	-
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1163	16	1	61.9	62.9	93	-	-
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	741	8	1	63.1	64.1	157	-	-
155	Cactus Ave	Lasselle St	Morrison St	Hard	100	45	45	45	1213	24	2	65.4	66.4	341	40	-
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1502	20	1	66.2	67.2	427	67	-
157	Cactus Ave	Morrison St	Nason St	Hard	100	45	45	45	1082	13	3	64.8	65.8	284	21	-
158	E 6th St	Beaumont Ave	Pennsylvania Ave	Hard	100	45	45	45	972	17	3	64.5	65.5	255	12	-
159	Beaumont Ave	E 6th St	I-10	Hard	100	45	45	45	730	17	5	63.6	64.6	186	-	-
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	577	8	2	62.2	63.2	107	-	-
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1526	26	6	66.5	67.5	462	78	-
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1546	29	8	66.7	67.7	483	84	-
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	724	8	2	63.0	64.0	154	-	-
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1435	12	1	65.9	66.9	391	55	-
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2057	18	7	67.6	68.6	624	129	-
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	700	19	3	63.3	64.3	171	-	-
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	647	18	0	62.8	63.8	142	-	-
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	436	7	0	60.9	61.9	53	-	-
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	1878	27	2	67.2	68.2	565	110	-
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	1899	22	2	67.2	68.2	564	110	-
173	Oleander Ave	Perris Blvd	Lasselle St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
174	Oleander Ave	Lasselle St	Lake Perris Dr	Hard	100	45	45	45	0	0	0	-	-	-	-	-
177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	Hard	100	45	45	45	1113	12	6	65.1	66.1	304	28	-
178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	Hard	100	45	45	45	482	11	4	61.8	62.8	91	-	-
179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	Hard	100	45	45	45	1397	20	7	66.1	67.1	414	62	-
180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	Hard	100	45	45	45	202	5	3	58.2	59.2	-	-	-
181	Potrero Blvd	North of SR 60 WB Ramps	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
182	SR 60 WB On Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
183	SR 60 WB Off Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
184	SR 60 EB Off Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
185	SR 60 EB On Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	Hard	100	45	45	45	1470	26	20	66.8	67.8	497	89	-
191	Gilman Springs Rd	Bridge St	Beaumont Ave	Hard	100	45	45	45	1383	23	17	66.4	67.4	450	74	-
192	Bridge St	Gilman Springs Rd	Marvin Rd	Hard	100	45	45	45	123	7	14	59.1	60.1	3	-	-
194	Crescent Ave	West of Alessandro Rd	0	Hard	100	35	35	35	259	3	0	55.2	56.2	-	-	-
195	Crescent Ave	Alessandro Rd	Center St	Hard	100	45	45	45	554	7	2	61.9	62.9	97	-	-
196	Alessandro Rd	Crescent Ave	Sunset St	Hard	100	45	45	45	524	5	2	61.6	62.6	84	-	-
198	Sunset Dr	Crown St	Alessandro Rd	Hard	100	35	35	35	29	1	0	46.4	47.4	-	-	-
199	Sunset Dr	Alessandro Rd	Cameo Dr	Hard	100	35	35	35	56	2	0	49.3	50.3	-	-	-
200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	Hard	100	45	45	45	479	8	2	61.4	62.4	75	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1733	16	2	66.8	6	62.7	63.7
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	955	15	2	64.4	6	60.5	61.5
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1509	16	1	66.2	6	62.0	63.0
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1872	9	19	67.4	6	64.7	65.7
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1163	16	1	61.9	6	57.8	58.8
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	741	8	1	63.1	6	58.9	59.9
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1502	20	1	66.2	6	62.1	63.1
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	577	8	2	62.2	6	58.4	59.4
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1526	26	6	66.5	6	62.8	63.8
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1546	29	8	66.7	6	63.2	64.2
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	724	8	2	63.0	6	59.2	60.2
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1435	12	1	65.9	6	61.8	62.8
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2057	18	7	67.6	6	63.9	64.9
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	700	19	3	63.3	6	59.6	60.6
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	647	18	0	62.8	6	58.6	59.6
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	436	7	0	60.9	6	56.6	57.6
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	1878	27	2	67.2	6	63.1	64.1
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	1899	22	2	67.2	6	63.1	64.1
178	Live oak Canyon I	San Timoteo Can	I-10	Hard	100	45	45	45	482	11	482	71.9	6	74.6	75.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	Hard	100	45	45	45	1508	12	2	66.1	67.1	417	63	-
206	Reche Canyon Rd	Reche Vista Dr	High Country Dr	Hard	100	45	45	45	26	3	0	50.4	51.4	-	-	-
207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	Hard	100	35	35	35	1510	9	2	62.8	63.8	138	-	-
215	Mission Grove Pkwy	Cannon Rd	Alessandro Blvd	Hard	100	35	35	35	562	2	0	58.3	59.3	-	-	-
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	3485	26	18	70.0	71.0	1145	294	25
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	955	12	0	64.2	65.2	232	5	-
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	5495	45	17	71.9	72.9	1828	510	93
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1362	19	0	65.8	66.8	376	50	-
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1479	15	1	66.1	67.1	410	61	-
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	43	2	0	48.0	49.0	-	-	-
225	Via Vista Dr	Alessandro Blvd	Canyon Crest Dr	Hard	100	45	45	45	258	1	0	58.3	59.3	-	-	-
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	4482	44	16	71.0	72.0	1492	403	59
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	286	3	0	58.9	59.9	-	-	-
229	Century Ave	Alessandro Blvd	Claridge Dr	Hard	100	45	45	45	168	4	0	56.8	57.8	-	-	-
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	107	1	0	54.5	55.5	-	-	-
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago A	Hard	100	45	45	45	3015	43	16	69.5	70.5	1014	252	11
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	2514	30	3	68.4	69.4	780	178	-
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	4647	45	15	71.2	72.2	1543	420	64
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	991	16	2	64.5	65.5	255	12	-
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	3034	27	3	69.2	70.2	942	230	4
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1328	27	1	65.8	66.8	383	53	-
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	2616	29	4	68.6	69.6	815	189	-
240	Durango Rd	Laramie Rd	Arlington Ave	Hard	100	45	45	45	208	5	0	57.8	58.8	-	-	-
241	Horace St	Arlington Ave	Victoria Ave	Hard	100	45	45	45	353	20	1	60.8	61.8	51	-	-
242	Arlington Ave	Maude St	SR-91 WB Ramps	Hard	100	45	45	45	3409	50	6	69.9	70.9	1117	285	22
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1319	24	4	65.8	66.8	383	53	-
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	749	8	4	63.3	64.3	172	-	-
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	335	13	1	60.3	61.3	34	-58	-
246	Indiana Ave	Arlington Ave	SR-91 EB Ramps	Hard	100	45	45	45	1347	20	5	65.9	66.9	390	55	-
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	2900	49	9	69.3	70.3	960	235	6
250	Country Club Dr	Chicago Ave	Canyon Crest Dr	Hard	100	35	35	35	209	3	0	54.4	55.4	-	-	-
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	1902	14	2	67.1	68.1	548	105	-
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1986	21	7	67.5	68.5	607	124	-
256	Canyon Crest Dr	Central Ave	Country Club Dr	Hard	100	45	45	45	1784	12	2	66.8	67.8	506	92	-
258	El Cerrito Dr	Canyon Crest Dr	Central Ave	Hard	100	45	45	45	525	3	1	61.5	62.5	80	-	-
260	Central Ave	Canyon Crest Dr	I-215	Hard	100	45	45	45	2286	21	6	68.0	69.0	703	154	-
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	721	5	0	59.5	60.5	13	-	-
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1541	16	10	63.4	64.4	173	-	-
263	Central Ave	Sycamore Canyon Blvd	SR-60 EB Ramps	Hard	100	45	45	45	1646	8	12	66.7	67.7	494	88	-
264	SR-60 EB Ramps	SR-60	Central Ave	Hard	100	45	45	45	119	10	0	56.4	57.4	-45	-	-
265	Central Ave	SR-60 EB Ramps	SR-60 WB Ramps	Hard	100	45	45	45	1671	8	11	66.8	67.8	497	89	-
266	SR-60 WB Ramps	Central Ave	SR-60	Hard	100	45	45	45	547	3	3	61.8	62.8	92	-	-
267																

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
216 Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	3485	26	18	70.0	6	66.6	67.6
217 Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	955	12	0	64.2	6	59.9	60.9
218 Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	5495	45	17	71.9	6	68.1	69.1
219 Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1362	19	0	65.8	6	61.5	62.5
221 Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1479	15	1	66.1	6	61.9	62.9
223 Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	43	2	0	48.0	6	43.8	44.8
226 Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	4482	44	16	71.0	6	67.4	68.4
227 Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	286	3	0	58.9	6	54.6	55.6
230 Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	107	1	0	54.5	6	50.2	51.2
231 Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago Ave	Hard	100	45	45	45	3015	43	16	69.5	6	66.1	67.1
232 Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	2514	30	3	68.4	6	64.3	65.3
233 Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	4647	45	15	71.2	6	67.4	68.4
236 Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	991	16	2	64.5	6	60.5	61.5
237 Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	3034	27	3	69.2	6	65.1	66.1
238 Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1328	27	1	65.8	6	61.7	62.7
239 Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	2616	29	4	68.6	6	64.6	65.6
243 Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1319	24	4	65.8	6	62.0	63.0
244 SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	749	8	4	63.3	6	60.0	61.0
245 SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	335	13	1	60.3	6	56.2	57.2
247 Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	2900	49	9	69.3	6	65.5	66.5
252 Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	1902	14	2	67.1	6	63.0	64.0
254 Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1986	21	7	67.5	6	63.8	64.8
261 Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	721	5	0	59.5	6	55.2	56.2
262 Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1541	16	10	63.4	6	60.6	61.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
268	I-215 NB Off-Ramp	Watkins Dr	I-215	Hard	100	45	45	45	0	0	0	-	-	-	-	-
269	Martin Luther King Blvd	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	69.3	748	168	-
270	Chicago Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1696	44	3	67.0	68.0	538	102	-
271	Martin Luther King Blvd	Chicago Ave	Iowa Ave	Hard	100	45	45	45	1821	13	1	66.9	67.9	517	95	-
272	Chicago Ave	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	69.0	700	153	-
273	Iowa Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1153	10	3	65.0	66.0	301	27	-
274	Martin Luther King Blvd	Iowa Ave	Canyon Crest Dr	Hard	100	45	45	45	2483	20	2	68.3	69.3	750	169	-
275	Canyon Crest Dr	Campus Dr	Martin Luther King Blvd	Hard	100	45	45	45	1009	11	1	64.4	65.4	248	10	-
276	Martin Luther King Blvd	Canyon Crest Dr	I-215 SB Ramps	Hard	100	45	45	45	2175	21	7	67.9	68.9	670	144	-
277	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1986	21	7	67.5	68.5	607	124	-
278	I-215 SB Off-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	414	6	2	60.8	61.8	51	-52	-
279	Martin Luther King Blvd	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1174	175	4	67.5	68.5	604	123	-
280	I-215 SB On-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	635	3	4	62.5	63.5	124	-29	-
281	I-215 NB On-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	538	244	4	66.9	67.9	521	96	-
282	I-215 NB Off-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	902	366	4	68.8	69.8	855	202	-
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	577	8	5	62.4	63.4	118	-31	-
284	SR-60 EB On-Ramp	Heacock St	SR-60	Hard	100	45	45	45	356	8	7	60.9	61.9	54	-51	-
285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	Hard	100	45	45	45	1970	43	12	67.8	68.8	660	140	-
286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	Hard	100	45	45	45	2590	39	9	68.7	69.7	843	198	-
287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2778	38	17	69.1	70.1	933	227	3
288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	Hard	100	45	45	45	1379	34	7	66.3	67.3	433	68	-
289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	Hard	100	45	45	45	1275	14	10	65.8	66.8	375	50	-
290	Perris Blvd	Sunnymead Blvd	Fir Ave	Hard	100	45	45	45	2169	42	25	68.4	69.4	770	175	-
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	124	17	0	57.4	58.4	-	-	-
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	804	9	3	63.6	64.6	186	-	-
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	920	15	1	64.1	65.1	227	3	-
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1622	39	18	67.2	68.2	563	110	-
304	Iris Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1103	17	4	65.0	66.0	303	27	-
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	1837	32	21	67.6	68.6	629	131	-
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2064	41	45	68.6	69.6	809	187	-
324	Ramona Expy	Warren Rd	Sanderson Ave	Hard	100	45	45	45	1562	38	40	67.6	68.6	622	128	-
325	Sanderson Ave	Gilman Springs Rd	Ramona Expy	Hard	100	45	45	45	1883	41	24	67.9	68.9	671	144	-
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1957	30	33	68.1	69.1	709	156	-
327	Sanderson Ave	Ramona Expy	Ramona Blvd	Hard	100	45	45	45	1844	36	20	67.7	68.7	635	132	-
340	Alessandro blvd	North of San Timoteo Canyon	0	Hard	100	45	45	45	464	5	1	61.1	62.1	61	-	-
351	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	45	45	45	482	11	4	61.8	62.8	91	-	-
358	Gilman Springs Rd	Bridge St	SR-79 NB Ramps	Hard	100	45	45	45	1384	18	13	66.2	67.2	428	67	-
359	SR-79 SB Off-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	202	7	3	58.4	59.4	-	-	-
360	Gilman Springs Rd	SR-79 NB Ramps	SR-79 SB Ramps	Hard	100	45	45	45	1116	18	13	65.4	66.4	341	39	-
361	SR-79 SB On-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	431	8	4	61.3	62.3	68	-	-
362	SR-79 NB On-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	241	4	2	58.6	59.6	-	-	-
363	Gilman Springs Rd	SR-79 SB Ramps	Record Rd	Hard	100	45	45	45	1123	21	11	65.5	66.5	343	40	-
364	SR-79 NB Off-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	295	3	2	59.3	60.3	7	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
269	Martin Luther King Blv	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	6	64.1	65.1
272	Chicago Ave	Martin Luther King Blv	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	6	63.9	64.9
279	Martin Luther King Blv	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1174	175	4	67.5	6	63.1	64.1
280	I-215 SB On-Ramp	Martin Luther King Blv	I-215	Hard	100	45	45	45	635	3	4	62.5	6	57.9	58.9
281	I-215 NB On-Ramp	I-215	Martin Luther King Blv	Hard	100	45	45	45	538	244	4	66.9	6	62.5	63.5
282	I-215 NB Off-Ramp	Martin Luther King Blv	I-215	Hard	100	45	45	45	902	366	4	68.8	6	64.5	65.5
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	577	8	5	62.4	6	57.8	58.8
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	124	17	0	57.4	6	53.1	54.1
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	804	9	3	63.6	6	59.8	60.8
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	920	15	1	64.1	6	60.0	61.0
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1622	39	18	67.2	6	64.5	65.5
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	1837	32	21	67.6	6	65.0	66.0
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2064	41	45	68.6	6	66.8	67.8
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1957	30	33	68.1	6	66.0	67.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
365	Alessandro Blvd	Sycamore Canyon Blvd	Vista Grande Dr	Hard	100	45	45	45	3609	54	25	70.3	71.3	1261	330	36
366	Sycamore Canyon Blvd	Eastridge Ave	Alessandro Blvd	Hard	100	45	45	45	1203	28	27	66.3	67.3	439	70	-
367	Meridian Pkwy	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1472	25	18	66.7	67.7	487	86	-
375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
376	3rd St	Marvin Rd	Mid County Pkwy WB Ra	Hard	100	45	45	45	0	0	0	-	-	-	-	-
377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ra	Hard	100	45	45	45	0	0	0	-	-	-	-	-
379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
386	Harley Know Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	864	9	46	65.7	66.7	365	47	-
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2334	31	51	69.0	70.0	900	216	0
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	571	6	0	61.9	62.9	95	-	-
389	El Cerrito Dr	North of Central Ave	0	Hard	100	45	45	45	525	3	1	61.5	62.5	80	-	-
390	Ramona Expy	Webster Ave	Indian St	Hard	100	45	45	45	2386	55	115	70.1	71.1	1200	311	30
392	Ramona Expy	Indian St	Perris Blvd	Hard	100	45	45	45	2532	68	64	69.7	70.7	1078	273	18
393	Indian St	Ramona Expy	Morgan St	Hard	100	45	45	45	365	9	44	63.7	64.7	196	-	-
394	Perris Blvd	Harley Know blvd	Ramona Expy	Hard	100	45	45	45	1654	33	29	67.5	68.5	602	122	-
396	Perris Blvd	Ramona Expy	Rider St	Hard	100	45	45	45	1430	32	17	66.7	67.7	485	85	-
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2391	41	30	68.8	69.8	860	204	-
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	1902	21	2	67.2	68.2	563	110	-
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	1865	21	21	70.2	71.2	1230	321	33
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1342	15	1	65.7	66.7	365	47	-
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	161	2	5	57.5	58.5	-	-	-
402	Morgan St	Perris Blvd	Silver Creek Industires	Hard	100	45	45	45	95	1	2	55.0	56.0	-	-	-
404	Morgan St	Morgan Park	Evans Rd	Hard	100	45	45	45	390	2	0	60.1	61.1	29	-	-
405	Morgan St	Evans Rd	Bradley Rd	Hard	100	45	45	45	340	3	0	59.6	60.6	15	-	-
406	Ironwood Ave	East of Thedore St	0	Hard	100	45	45	45	24	5	18	58.1	59.1	-	-	-
407	Rider St	Indian St	Perris Blvd	Hard	100	45	45	45	558	13	5	62.5	63.5	123	-	-
408	Rider St	Perris Blvd	Redlands Ave	Hard	100	45	45	45	946	13	2	64.3	65.3	238	7	-
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	523	7	0	61.6	62.6	82	-	-
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1275	14	2	65.5	66.5	346	41	-
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	867	9	2	63.8	64.8	204	-	-
412	Maude St	South of Arlington Ave	0	Hard	100	45	45	45	762	24	1	63.7	64.7	193	-	-
413	Placentia Ave	Indian St	Perris Blvd	Hard	100	45	45	45	206	1	1	57.5	58.5	-	-	-
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	389	3	1	60.3	61.3	35	-	-
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	1362	14	11	66.0	67.0	406	60	-
416	Mid County Pkwy WB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
417	Mid County Pkwy WB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
419	Mid County Pkwy EB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
420	Mid County Pkwy EB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	124	17	0	57.4	58.4	-	-	-
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1866	30	22	67.7	68.7	641	134	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
iin ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
387 Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2334	31	51	69.0	6	67.3	68.3
388 Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	571	6	0	61.9	6	57.6	58.6
397 Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2391	41	30	68.8	6	66.3	67.3
398 Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	1902	21	2	67.2	6	63.1	64.1
399 Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	1865	21	21	70.2	6	67.4	68.4
400 Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1342	15	1	65.7	6	61.5	62.5
401 Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	161	2	5	57.5	6	56.3	57.3
409 Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	523	7	0	61.6	6	57.3	58.3
410 Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1275	14	2	65.5	6	61.5	62.5
411 Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	867	9	2	63.8	6	60.0	61.0
414 Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	389	3	1	60.3	6	56.5	57.5
415 Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	1362	14	11	66.0	6	63.0	64.0
421 Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	124	17	0	57.4	6	53.1	54.1
424 Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1866	30	22	67.7	6	65.1	66.1

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
425	Mid County Pkwy WB Or	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
426	Mid County Pkwy WB Of	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
427	Day St	South of Alessandro Blvd		0	Hard	100	45	45	45	126	4	13	58.7	59.7	-	-	-
428	Mid County Pkwy EB Off-	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
429	Mid County Pkwy EB On-	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
430	Alessandro blvd	SR-215 NB Ramp	SR-215 SB Ramp		Hard	100	45	45	45	2956	47	41	69.8	70.8	1095	278	20
431	Placentia Ave	Water Ave	Evans Rd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
432	Placentia Ave	Evans Rd	El Nido Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
433	Evans Rd	Rider St	Orange Ave		Hard	100	45	45	45	918	7	1	64.0	65.0	213	-	-
434	Orange Ave	Wilson Ave	Evans Rd		Hard	100	45	45	45	827	8	2	63.6	64.6	188	-	-
435	Orange Ave	Evans Rd	Foothill Dr		Hard	100	35	35	35	714	7	714	71.9	72.9	1845	515	95
436	Elsworth St	North of Cactus Ave		0	Hard	100	45	45	45	576	5	5	62.3	63.3	112	-	-
441	Nuevo Rd	Wilson Ave	Evans Rd		Hard	100	45	45	45	1334	18	9	66.0	67.0	396	57	-
442	Evans Rd	Orange Ave	Nuevo Rd		Hard	100	45	45	45	784	6	4	63.5	64.5	179	-	-
443	Nuevo Rd	Evans Rd	Foothill Dr		Hard	100	45	45	45	751	12	5	63.5	64.5	181	-	-
444	Evans Rd	Nuevo Rd	San Jacinto Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
452	San Jacinto Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
453	Evans Rd	North of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
454	San Jacinto Ave	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
455	Evans Rd	South of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
458	Nason St	South of Cactus Ave		0	Hard	100	45	45	45	892	9	3	64.0	65.0	217	0	-
464	Quincy	South of Eucalyptus		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
477	Ellis Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
478	Evans Rd	North of Ellis Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
479	Oliver St	North of Irris Ave		0	Hard	100	45	45	45	328	5	0	59.6	60.6	15	-	-
480	Ellis Ave	Evans Rd	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
481	SR-215 SB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
482	Ellis Ave	East of SR-215		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
483	SR-215 SB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
484	SR-215 NB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
485	SR-215 NB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
488	Nason St	North of Iris Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
494	Evans Rd	North of Harley Knox Blvd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
498	Morrison St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave		Hard	100	45	45	45	2134	46	23	68.3	69.3	760	172	-
500	Perris Blvd	North of Eucalyptus Ave		0	Hard	100	45	45	45	2205	45	23	68.4	69.4	781	179	-
502	Quincy	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
503	Quincy	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
504	Krameria Ave	West of Perris Blvd		0	Hard	100	45	45	45	358	9	1	60.2	61.2	33	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

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TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
433 Evans Rd	Rider St	Orange Ave	Hard	100	45	45	45	918	7	0.5	64.0	6	60	60.8
434 Orange Ave	Wilson Ave	Evans Rd	Hard	100	45	45	45	827	7.5	1.5	63.6	6	60	60.7
441 Nuevo Rd	Wilson Ave	Evans Rd	Hard	100	45	45	45	1333.5	17.5	8.5	66.0	6	63	63.7
442 Evans Rd	Orange Ave	Nuevo Rd	Hard	100	45	45	45	784	5.5	4	63.5	6	60	61.1
443 Nuevo Rd	Evans Rd	Foothill Dr	Hard	100	45	45	45	751	11.5	4.5	63.5	6	60	61.2
444 Evans Rd	Nuevo Rd	San Jacinto Ave	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
458 Nason St	South of Cactus A	0	Hard	100	45	45	45	891.5	9	3	64.0	6	60	61.3
488 Nason St	North of Iris Ave	0	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
494 Evans Rd	North of Harley K	0	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
502 Quincy	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	0	0	0	1.8	6	1	2.4
503 Quincy	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	0	0	0	1.8	6	1	2.4
504 Krameria Ave	West of Perris Blv	0	Hard	100	45	45	45	357.5	8.5	0.5	60.2	6	56	57.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

2018 + Phase 1

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
1	WLC Pkwy	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	854	50	355	71.3	72.3	1583	432	68
2	WLC Pkwy	Eucalyptus Ave	Street F	Hard	100	45	45	45	476	26	182	68.4	69.4	774	176	-
3	Street E	west of WLC Pkwy	0	Hard	100	45	45	45	162	10	50	63.1	64.1	156	-	-
4	Street E	north of Alessandro Blvd	0	Hard	100	45	45	45	272	10	2	59.5	60.5	13	-	-
5	Alessandro Blvd	Cactus Ave Extension	WLC Pkwy	Hard	100	45	45	45	514	19	0	62.0	63.0	101	-	-
6	WLC Pkwy	Street F	Alessandro Blvd	Hard	100	45	45	45	941	56	398	71.7	72.7	1781	495	88
7	WLC Pkwy	south of Alessandro Blvd	0	Hard	100	45	45	45	490	9	0	61.4	62.4	76	-	-
8	Cactus Ave Extension	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	660	18	0	62.9	63.9	146	-	-
9	John F Kennedy Dr	south of Cactus Ave	0	Hard	100	45	45	45	805	14	1	63.6	64.6	189	-	-
10	Redlands Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	512	3	0	61.3	62.3	72	-	-
11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	Hard	100	45	45	45	572	3	0	61.8	62.8	91	-	-
12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	Hard	100	45	45	45	755	1	1	63.0	64.0	149	-	-
13	Redlands Blvd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	958	5	48	66.0	67.0	397	57	-
14	Eucalyptus Ave	east of Redlands blvd	0	Hard	100	45	45	45	301	7	46	63.5	64.5	183	-	-
15	Eucalyptus Ave	west of Street A	0	Hard	100	45	45	45	111	2	35	61.2	62.2	67	-	-
18	Street B	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
18a	Street B	west of Gilman Springs Rd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
19	Street F	east of WLC Pkwy	0	Hard	100	45	45	45	214	0	1	57.5	58.5	-	-	-
20	Street F	north of Alessandro Blvd	0	Hard	100	45	45	45	155	2	6	57.9	58.9	-	-	-
21	Alessandro Blvd	east of WLC Pkwy	0	Hard	100	45	45	45	272	2	4	59.3	60.3	7	-	-
22	Alessandro Blvd	west of Street F	0	Hard	100	45	45	45	272	2	4	59.3	60.3	7	-	-
23	Street F	Alessandro Blvd	Street G	Hard	100	45	45	45	0	0	0	-	-	-	-	-
24	Alessandro Blvd	Street F	Gilman Springs Rd	Hard	100	45	45	45	287	4	11	60.5	61.5	40	-	-
25	Alessandro Blvd	Street H	Gilman Springs Rd	Hard	100	45	45	45	287	4	11	60.5	61.5	40	-	-
29	Gilman Springs Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	1291	4	5	65.5	66.5	343	40	-
30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1291	4	5	65.5	66.5	343	40	-
31	Gilman Springs Rd	south of Street C	0	Hard	100	45	45	45	1545	8	17	66.6	67.6	478	83	-
32	Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	276	5	0	58.9	59.9	-	-	-
33	Alessandro Blvd	west of Redlands Blvd	0	Hard	100	45	45	45	176	1	0	56.7	57.7	-	-	-
35	Redlands Blvd	Ironwood Ave	State Route 60	Hard	100	55	55	55	1232	2	34	68.8	69.8	856	202	-
36	Ironwood Ave	Redlands Blvd	Highland Blvd	Hard	100	35	35	35	119	6	2	53.5	54.5	-	-	-
37	San Timoteo Canyon Rd	west Live Oak Canyon	0	Hard	100	45	45	45	1101	8	26	65.7	66.7	368	48	-
38	Theodore St	State Route 60	Highland Blvd	Hard	100	45	45	45	145	10	14	59.6	60.6	14	-	-
42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	Hard	100	55	55	55	1408	6	31	69.3	70.3	963	236	6
43	Moreno Beach Dr	Alessandro Blvd	SR 60	Hard	100	45	45	45	1467	0	4	65.9	66.9	390	55	-
46	Moreno Beach Dr	State Route 60	Ironwood Ave	Hard	100	45	45	45	1136	1	6	64.9	65.9	293	24	-
47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	471	1	0	60.9	61.9	54	-	-
48	Alessandro Blvd	Lasselle St	Morrison St	Hard	100	45	45	45	977	3	3	64.2	65.2	234	-	-
50	Cactus Ave	Redlands Blvd	Cactus Ave Extension	Hard	100	45	45	45	514	19	0	62.0	63.0	101	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT				
32 Cactus Ave	west of Redlands Blvd		Hard	100	45	45	45	276	5	0	58.9	6	54.6	55.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	Hard	100	45	45	45	1156	1	3	64.9	65.9	286	22	-
52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	Hard	100	35	35	35	1246	12	2	62.1	63.1	104	-	-
53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	328	1	1	59.5	60.5	11	-	-
54	Locust Ave	Moreno Beach Dr	Smiley Blvd	Hard	100	35	35	35	35	0	0	46.2	47.2	-	-	-
55	Locust Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	180	1	0	56.7	57.7	-	-	-
56	Moreno Beach Dr	Locust Ave	Ironwood Ave	Hard	100	35	35	35	268	1	0	55.1	56.1	-	-	-
57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	35	35	35	510	2	5	58.6	59.6	-	-	-
58	SR 60 EB Ramps	West of Moreno Beach Dr	0	Hard	100	45	45	45	701	0	4	62.8	63.8	141	-	-
59	Eucalyptus Ave	Moreno Beach Dr	Quincy Dr	Hard	100	45	45	45	228	1	4	58.6	59.6	-	-	-
60	SR 60 WB Ramps	East of Redlands Blvd	0	Hard	100	45	45	45	551	4	32	63.8	64.8	204	-	-
61	SR 60 EB Ramps	West fo Redlands Blvd	0	Hard	100	45	45	45	587	3	22	63.4	64.4	178	-	-
62	Fir Ave	Quincy Dr	Redlands Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
65	Alessandro Blvd	Nason St	Oliver St	Hard	100	45	45	45	866	2	5	63.8	64.8	203	-	-
66	Alessandro Blvd	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	662	2	5	62.7	63.7	136	-	-
67	Oliver St	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	247	0	0	54.7	55.7	-	-	-
68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1207	1	4	65.1	66.1	307	29	-
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	912	3	1	63.8	64.8	203	-	-
70	Cactus Ave	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	657	3	1	62.4	63.4	120	-	-
71	Oliver St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	536	0	0	61.4	62.4	74	-	-
72	Oliver St	John F Kennedy Dr	Iris Ave	Hard	100	45	45	45	362	0	0	59.7	60.7	18	-	-
73	Iris Ave	Nason St	Oliver St	Hard	100	45	45	45	1571	13	2	66.3	67.3	441	71	-
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1580	1	1	66.2	67.2	419	64	-
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1505	1	1	65.9	66.9	395	56	-
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1155	1	1	64.8	65.8	278	20	-
77	Heacock St	Ironwood Ave	Hemlock Ave	Hard	100	45	45	45	1641	2	2	66.3	67.3	442	71	-
80	Heacock St	Hemlock Ave	SR 60 WB Ramps	Hard	100	45	45	45	2014	0	3	67.2	68.2	564	110	-
81	SR 60 WB Ramps	West of Heacock St	0	Hard	100	45	45	45	432	1	6	61.1	62.1	63	-	-
82	SR 60 WB Ramps	East of Heacock St	0	Hard	100	45	45	45	364	1	11	61.1	62.1	62	-	-
83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	Hard	100	45	45	45	2024	2	12	67.5	68.5	605	123	-
85	SR 60 WB Onramp	West of Perris Blvd	0	Hard	100	45	45	45	764	0	4	63.2	64.2	161	-	-
86	SR 60 WB Offramp	East of Perris Blvd	0	Hard	100	45	45	45	1309	2	17	65.9	66.9	391	55	-
87	Eualyptus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	500	0	0	61.1	62.1	63	-	-
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	591	2	1	64.7	65.7	273	18	-
95	W 6th St	I-10	N California Ave	Hard	100	35	35	35	1017	3	9	61.5	62.5	76	-	-
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	251	0	1	58.2	59.2	-	-	-
97	E 6th St	N California Ave	Beaumont Ave	Hard	100	45	45	45	778	1	3	63.2	64.2	163	-	-
98	N California Ave	W 6th St	I-10	Hard	100	55	55	55	770	2	7	66.1	67.1	417	64	-
99	Beaumont Ave	E 6th St	E 8th St	Hard	100	45	45	45	890	2	3	63.8	64.8	201	-	-
100	I-215 SB Ramps	North of Alessandro Blvd	0	Hard	100	45	45	45	484	3	31	63.4	64.4	175	-	-
101	Alessandro Blvd	Sycamore Canyon Blvd	I-215 SB Ramps	Hard	100	45	45	45	3443	6	31	69.9	70.9	1143	293	24
102	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	378	1	20	62.0	63.0	98	-	-
103	I-215 NB Ramps	Nouth of Alessandro Blvd	0	Hard	100	45	45	45	346	3	17	61.6	62.6	81	-	-
104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	Hard	100	45	45	45	2692	6	38	69.1	70.1	924	224	2

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	912	3	1	64.8	6	59.6	60.6
70	Cactus Ave	Oliver St	Moreno Beach	Hard	100	45	45	45	657	3	1	63.4	6	58.3	59.3
71	Oliver St	Cactus Ave	John F Kennedy	Hard	100	45	45	45	536	0	0	62.4	6	57.2	58.2
72	Oliver St	John F Kennedy	Iris Ave	Hard	100	45	45	45	362	0	0	60.7	6	55.6	56.6
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1580	1	1	67.2	6	62.0	63.0
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1505	1	1	66.3	6	62.2	63.2
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1155	1	1	67.2	6	63.2	64.2
81	SR 60 WB Ramps	West of Heacock St		Hard	100	45	45	45	432	1	6	61.1	6	58.7	59.7
85	SR 60 WB Onramp	West of Perris	0	Hard	100	45	45	45	764	0	4	63.2	6	59.7	60.7
86	SR 60 WB Offramp	East of Perris B	0	Hard	100	45	45	45	1309	2	17	65.9	6	63.5	64.5
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	591	2	1	64.7	6	60.6	61.6
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	251	0	1	58.2	59	54.3	55.3

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
105	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	378	1	0	59.9	60.9	24	-	-
106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	956	3	9	64.4	65.4	249	10	-
107	Alessandro Blvd	Old 215 Frontage Rd	Day St	Hard	100	45	45	45	2291	7	21	68.2	69.2	734	164	-
108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	494	11	19	63.0	64.0	150	-	-
109	Day St	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	595	0	1	58.5	59.5	-	-	-
110	Alessandro Blvd	Day St	Elsworth St	Hard	100	45	45	45	2295	6	14	68.1	69.1	708	155	-
111	Elsworth St	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	487	0	1	57.7	58.7	-	-	-
112	Alessandro Blvd	Elsworth St	Frederick St	Hard	100	45	45	45	2347	4	18	68.2	69.2	735	164	-
113	Elsworth St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	587	1	3	62.1	63.1	102	-	-
114	Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1208	0	6	65.2	66.2	313	31	-
115	Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2298	7	13	68.1	69.1	705	155	-
116	Frederick St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	714	2	12	63.5	64.5	180	-	-
117	Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	789	2	2	63.3	64.3	168	-	-
118	Alessandro Blvd	Graham St	Heacock St	Hard	100	45	45	45	2359	7	11	68.1	69.1	720	159	-
119	Graham St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	662	2	2	62.5	63.5	125	-	-
120	Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1309	4	20	66.0	67.0	407	60	-
121	Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2127	5	7	67.6	68.6	624	129	-
122	Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1109	2	17	65.3	66.3	326	35	-
123	Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	903	1	1	63.7	64.7	198	-	-
124	Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2018	4	5	67.3	68.3	584	116	-
125	Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	924	1	1	63.8	64.8	204	-	-
126	Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1614	2	5	66.4	67.4	447	73	-
127	Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1827	2	29	67.5	68.5	606	123	-
128	Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	765	1	0	63.0	64.0	149	-	-
129	Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1226	3	4	65.2	66.2	318	32	-
130	Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	686	1	0	62.5	63.5	124	-	-
131	Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	775	1	1	63.1	64.1	158	-	-
133	Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1148	2	1	64.8	65.8	279	20	-
134	Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	322	5	11	60.9	61.9	55	-	-
135	Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	859	1	5	65.2	66.2	317	32	-
136	Nason St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1571	1	1	66.1	67.1	415	63	-
137	Nason St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1318	2	2	65.4	66.4	337	38	-
138	I-215 SB Ramps	North of Cactus Ave	0	Hard	100	45	45	45	149	2	17	59.6	60.6	15	-	-
139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps	Hard	100	45	45	45	1589	5	31	67.1	68.1	541	103	-
140	I-215 SB Ramps	South of Cactus Ave	0	Hard	100	45	45	45	637	11	8	63.0	64.0	154	-	-
141	Cactus Ave	I-215 NB Ramps	Elsworth St	Hard	100	45	45	45	2790	22	57	69.6	70.6	1057	266	16
142	I-215 NB Ramps	South of Cactus Ave	0	Hard	100	45	45	45	451	5	11	61.9	62.9	94	-	-
143	Cactus Ave	Elsworth St	Frederick St	Hard	100	45	45	45	3215	14	50	70.0	71.0	1156	297	26
144	Cactus Ave	Frederick St	Graham St	Hard	100	45	45	45	3364	19	47	70.1	71.1	1200	311	30
145	Cactus Ave	Graham St	Heacock St	Hard	100	45	45	45	2914	17	41	69.5	70.5	1029	257	13
146	Riverside Dr	Cactus Ave	Meyer Dr	Hard	100	45	45	45	633	0	0	62.1	63.1	106	-	-
147	Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1844	3	4	66.9	67.9	520	96	-
148	Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1843	15	51	68.1	69.1	713	157	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
114 Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1208	0	6	65.2	6	60.7	61.7
115 Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2298	7	13	68.1	6	64.7	65.7
117 Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	789	2	2	63.3	6	59.5	60.5
120 Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1309	4	20	66.0	6	63.9	64.9
121 Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2127	5	7	67.6	6	63.9	64.9
122 Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1109	2	17	65.3	6	63.1	64.1
123 Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	903	1	1	63.7	6	59.6	60.6
124 Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2018	4	5	67.3	6	63.6	64.6
125 Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	924	1	1	63.8	6	59.6	60.6
126 Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1614	2	5	66.4	6	62.7	63.7
127 Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1827	2	29	67.5	6	65.4	66.4
128 Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	765	1	0	63.0	6	58.7	59.7
129 Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1226	3	4	65.2	6	61.5	62.5
130 Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	686	1	0	62.5	6	58.2	59.2
131 Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	775	1	1	63.1	6	59.1	60.1
133 Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1148	2	1	64.8	6	60.6	61.6
134 Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	322	5	11	60.9	6	60.0	61.0
135 Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	859	1	5	65.2	6	61.8	62.8
147 Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1844	3	4	66.9	6	63.1	64.1
148 Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1843	15	51	68.1	6	66.8	67.8

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1764	2	1	66.6	67.6	480	84	-
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	998	2	1	64.2	65.2	229	4	-
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1551	2	1	66.1	67.1	411	62	-
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1858	9	26	67.6	68.6	617	127	-
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1215	1	1	61.7	62.7	85	-	-
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	774	1	0	63.0	64.0	153	-	-
155	Cactus Ave	Lasselle St	Morrison St	Hard	100	45	45	45	1287	3	1	65.3	66.3	327	35	-
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1559	2	0	66.1	67.1	411	62	-
157	Cactus Ave	Morrison St	Nason St	Hard	100	45	45	45	1124	3	2	64.8	65.8	278	20	-
158	E 6th St	Beaumont Ave	Pennsylvania Ave	Hard	100	45	45	45	1053	1	4	64.6	65.6	259	14	-
159	Beaumont Ave	E 6th St	I-10	Hard	100	45	45	45	805	3	4	63.5	64.5	179	-	-
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	628	2	0	62.2	63.2	107	-	-
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1569	10	3	66.3	67.3	439	70	-
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1716	14	5	66.8	67.8	499	90	-
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	818	3	0	63.3	64.3	172	-	-
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1491	1	1	65.9	66.9	387	54	-
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2240	15	4	67.9	68.9	668	143	-
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	864	5	1	63.6	64.6	191	-	-
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	716	0	0	62.7	63.7	133	-	-
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	892	5	1	63.8	64.8	201	-	-
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	1948	2	2	67.1	68.1	541	103	-
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	1975	2	2	67.1	68.1	550	106	-
173	Oleander Ave	Perris Blvd	Lasselle St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
174	Oleander Ave	Lasselle St	Lake Perris Dr	Hard	100	45	45	45	0	0	0	-	-	-	-	-
177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	Hard	100	45	45	45	1111	8	26	65.7	66.7	373	50	-
178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	Hard	100	45	45	45	510	2	5	61.8	62.8	88	-	-
179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	Hard	100	45	45	45	1396	8	30	66.6	67.6	479	83	-
180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	Hard	100	45	45	45	216	1	2	57.9	58.9	-	-	-
181	Potrero Blvd	North of SR 60 WB Ramps	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
182	SR 60 WB On Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
183	SR 60 WB Off Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
184	SR 60 EB Off Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
185	SR 60 EB On Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	Hard	100	45	45	45	1511	7	21	66.6	67.6	480	84	-
191	Gilman Springs Rd	Bridge St	Beaumont Ave	Hard	100	45	45	45	1427	5	17	66.3	67.3	434	69	-
192	Bridge St	Gilman Springs Rd	Marvin Rd	Hard	100	45	45	45	140	1	15	59.1	60.1	2	-	-
194	Crescent Ave	West of Alessandro Rd	0	Hard	100	35	35	35	284	2	0	55.5	56.5	-	-	-
195	Crescent Ave	Alessandro Rd	Center St	Hard	100	45	45	45	580	3	0	61.9	62.9	94	-	-
196	Alessandro Rd	Crescent Ave	Sunset St	Hard	100	45	45	45	538	4	0	61.6	62.6	82	-	-
198	Sunset Dr	Crown St	Alessandro Rd	Hard	100	35	35	35	54	0	0	48.0	49.0	-	-	-
199	Sunset Dr	Alessandro Rd	Cameo Dr	Hard	100	35	35	35	83	0	0	49.9	50.9	-	-	-
200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	Hard	100	45	45	45	503	3	0	61.3	62.3	69	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
iin ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1764	2	1	66.6	6	62.5	63.5
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	998	2	1	64.2	6	60.0	61.0
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1551	2	1	66.1	6	61.9	62.9
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1858	9	26	67.6	6	65.3	66.3
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1215	1	1	61.7	6	57.6	58.6
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	774	1	0	63.0	6	58.7	59.7
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1559	2	0	66.1	6	61.8	62.8
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	628	2	0	62.2	6	57.9	58.9
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1569	10	3	66.3	6	62.4	63.4
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1716	14	5	66.8	6	63.0	64.0
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	818	3	0	63.3	6	59.1	60.1
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1491	1	1	65.9	6	61.7	62.7
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2240	15	4	67.9	6	63.9	64.9
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	864	5	1	63.6	6	59.5	60.5
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	716	0	0	62.7	6	58.4	59.4
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	892	5	1	63.8	6	59.6	60.6
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	1948	2	2	67.1	6	62.9	63.9
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	1975	2	2	67.1	6	63.0	64.0
178	Live oak Canyon	San Timoteo Can	I-10	Hard	100	45	45	45	510	2	5	61.8	6	59.0	60.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	Hard	100	45	45	45	1588	3	0	66.2	67.2	421	65	-
206	Reche Canyon Rd	Reche Vista Dr	High Country Dr	Hard	100	45	45	45	48	0	0	50.9	51.9	-	-	-
207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	Hard	100	35	35	35	1579	3	0	62.8	63.8	137	-	-
215	Mission Grove Pkwy	Cannon Rd	Alessandro Blvd	Hard	100	35	35	35	563	0	0	58.2	59.2	-	-	-
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	3570	5	14	69.9	70.9	1120	286	22
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	982	0	2	64.1	65.1	227	3	-
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	5561	5	12	71.7	72.7	1761	488	86
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1406	2	1	65.6	66.6	361	46	-
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1505	1	0	65.9	66.9	391	55	-
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	48	0	0	47.6	48.6	-	-	-
225	Via Vista Dr	Alessandro Blvd	Canyon Crest Dr	Hard	100	45	45	45	295	0	0	58.8	59.8	-	-	-
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	4589	4	12	70.9	71.9	1443	388	54
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	324	0	0	59.2	60.2	5	-67	-
229	Century Ave	Alessandro Blvd	Claridge Dr	Hard	100	45	45	45	203	0	0	57.2	58.2	-	-	-
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	134	0	0	55.4	56.4	-	-	-
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago A	Hard	100	45	45	45	3110	2	13	69.3	70.3	962	236	6
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	2535	3	8	68.3	69.3	759	172	-
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	4805	2	13	71.1	72.1	1511	410	61
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1033	1	1	64.3	65.3	239	7	-
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	3104	1	7	69.1	70.1	935	227	4
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1391	1	1	65.6	66.6	358	45	-
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	2682	2	5	68.5	69.5	793	182	-
240	Durango Rd	Laramie Rd	Arlington Ave	Hard	100	45	45	45	242	0	0	58.0	59.0	-	-	-
241	Horace St	Arlington Ave	Victoria Ave	Hard	100	45	45	45	394	1	0	60.1	61.1	29	-	-
242	Arlington Ave	Maude St	SR-91 WB Ramps	Hard	100	45	45	45	3486	3	6	69.6	70.6	1060	267	16
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1369	1	3	65.6	66.6	356	44	-
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	787	0	3	63.3	64.3	167	-	-
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	352	1	0	59.6	60.6	15	-	-
246	Indiana Ave	Arlington Ave	SR-91 EB Ramps	Hard	100	45	45	45	1372	3	4	65.7	66.7	366	47	-
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	2986	1	9	69.0	70.0	907	218	1
250	Country Club Dr	Chicago Ave	Canyon Crest Dr	Hard	100	35	35	35	233	0	0	54.4	55.4	-	-	-
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	1920	1	9	67.2	68.2	557	108	-
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1975	1	6	67.2	68.2	564	110	-
256	Canyon Crest Dr	Central Ave	Country Club Dr	Hard	100	45	45	45	1793	1	2	66.7	67.7	489	86	-
258	El Cerrito Dr	Canyon Crest Dr	Central Ave	Hard	100	45	45	45	561	0	1	61.7	62.7	86	-	-
260	Central Ave	Canyon Crest Dr	I-215	Hard	100	45	45	45	2310	1	14	68.0	69.0	703	154	-
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	778	1	1	59.7	60.7	19	-	-
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1527	3	9	63.0	64.0	154	-	-
263	Central Ave	Sycamore Canyon Blvd	SR-60 EB Ramps	Hard	100	45	45	45	1622	4	19	66.8	67.8	504	91	-
264	SR-60 EB Ramps	SR-60	Central Ave	Hard	100	45	45	45	856	0	4	63.7	64.7	193	-	-
265	Central Ave	SR-60 EB Ramps	SR-60 WB Ramps	Hard	100	45	45	45	860	1	5	63.8	64.8	201	-	-
266	SR-60 WB Ramps	Central Ave	SR-60	Hard	100	45	45	45	831	1	9	63.8	64.8	203	-	-
267																

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	3570	5	14	69.9	6	66.3	67.3
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	982	0	2	64.1	6	60.3	61.3
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	5561	5	12	71.7	6	67.8	68.8
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1406	2	1	65.6	6	61.4	62.4
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1505	1	0	65.9	6	61.6	62.6
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	48	0	0	47.6	6	43.3	44.3
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	4589	4	12	70.9	6	67.1	68.1
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	324	0	0	59.2	6	54.9	55.9
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	134	0	0	55.4	6	51.1	52.1
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago Ave	Hard	100	45	45	45	3110	2	13	69.3	6	65.8	66.8
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	2535	3	8	68.3	6	64.7	65.7
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	4805	2	13	71.1	6	67.3	68.3
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1033	1	1	64.3	6	60.1	61.1
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	3104	1	7	69.1	6	65.3	66.3
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1391	1	1	65.6	6	61.5	62.5
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	2682	2	5	68.5	6	64.6	65.6
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1369	1	3	65.6	6	61.7	62.7
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	787	0	3	63.3	6	59.7	60.7
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	352	1	0	59.6	6	55.3	56.3
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	2986	1	9	69.0	6	65.3	66.3
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	1920	1	9	67.2	6	63.7	64.7
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1975	1	6	67.2	6	63.5	64.5
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	778	1	1	59.7	6	55.8	56.8
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1527	3	9	63.0	6	60.3	61.3

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
268	I-215 NB Off-Ramp	Watkins Dr	I-215	Hard	100	45	45	45	0	0	0	-	-	-	-	-
269	Martin Luther King Blvd	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	69.3	748	168	-
270	Chicago Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1696	44	3	67.0	68.0	538	102	-
271	Martin Luther King Blvd	Chicago Ave	Iowa Ave	Hard	100	45	45	45	1821	13	1	66.9	67.9	517	95	-
272	Chicago Ave	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	69.0	700	153	-
273	Iowa Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1153	10	3	65.0	66.0	301	27	-
274	Martin Luther King Blvd	Iowa Ave	Canyon Crest Dr	Hard	100	45	45	45	2518	4	20	68.5	69.5	797	184	-
275	Canyon Crest Dr	Campus Dr	Martin Luther King Blvd	Hard	100	45	45	45	1015	0	2	64.3	65.3	235	6	-
276	Martin Luther King Blvd	Canyon Crest Dr	I-215 SB Ramps	Hard	100	45	45	45	2192	5	24	68.1	69.1	709	156	-
277	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1975	1	6	67.2	68.2	564	110	-
278	I-215 SB Off-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	448	1	1	60.7	61.7	49	-	-
279	Martin Luther King Blvd	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1346	3	10	65.8	66.8	380	52	-
280	I-215 SB On-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	690	2	18	63.7	64.7	195	-	-
281	I-215 NB On-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	778	2	9	63.6	64.6	189	-	-
282	I-215 NB Off-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	1249	1	6	65.3	66.3	328	35	-
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	598	1	6	62.4	63.4	116	-	-
284	SR-60 EB On-Ramp	Heacock St	SR-60	Hard	100	45	45	45	364	1	11	61.1	62.1	62	-	-
285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2009	2	14	67.5	68.5	606	123	-
286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	Hard	100	45	45	45	2679	6	4	68.5	69.5	797	184	-
287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2845	10	22	69.1	70.1	922	223	2
288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	Hard	100	45	45	45	1457	2	4	65.9	66.9	392	56	-
289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	Hard	100	45	45	45	1309	2	17	65.9	66.9	391	55	-
290	Perris Blvd	Sunnymead Blvd	Fir Ave	Hard	100	45	45	45	2191	8	37	68.4	69.4	765	173	-
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-	-	-
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	851	2	2	63.6	64.6	186	-	-
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	983	2	0	64.1	65.1	222	2	-
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1586	5	31	67.1	68.1	540	102	-
304	Iris Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1071	1	4	64.6	65.6	265	15	-
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	1884	15	31	67.8	68.8	654	138	-
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2165	24	43	68.6	69.6	806	187	-
324	Ramona Expy	Warren Rd	Sanderson Ave	Hard	100	45	45	45	1611	17	24	67.1	68.1	541	103	-
325	Sanderson Ave	Gilman Springs Rd	Ramona Expy	Hard	100	45	45	45	1891	9	20	67.5	68.5	604	123	-
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1980	18	15	67.6	68.6	633	132	-
327	Sanderson Ave	Ramona Expy	Ramona Blvd	Hard	100	45	45	45	1833	8	17	67.3	68.3	575	113	-
340	Alessandro blvd	North of San Timoteo Canyon	0	Hard	100	45	45	45	485	3	0	61.1	62.1	63	-	-
351	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	45	45	45	510	2	5	61.8	62.8	88	-	-
358	Gilman Springs Rd	Bridge St	SR-79 NB Ramps	Hard	100	45	45	45	662	3	12	63.2	64.2	166	-	-
359	SR-79 SB Off-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	228	1	2	58.2	59.2	-	-	-
360	Gilman Springs Rd	SR-79 NB Ramps	SR-79 SB Ramps	Hard	100	45	45	45	1162	3	12	65.3	66.3	328	35	-
361	SR-79 SB On-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	450	2	4	61.1	62.1	63	-	-
362	SR-79 NB On-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	267	1	1	58.7	59.7	-	-	-
363	Gilman Springs Rd	SR-79 SB Ramps	Record Rd	Hard	100	45	45	45	1161	4	10	65.2	66.2	322	33	-
364	SR-79 NB Off-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	317	1	2	59.5	60.5	11	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
269	Martin Luther King I	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	6	64.1	65.1
272	Chicago Ave	Martin Luther King I	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	6	63.9	64.9
279	Martin Luther King I	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1346	3	10	65.8	6	61.2	62.2
280	I-215 SB On-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	690	2	18	63.7	6	58.3	59.3
281	I-215 NB On-Ramp	I-215	Martin Luther King I	Hard	100	45	45	45	778	2	9	63.6	6	58.8	59.8
282	I-215 NB Off-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	1249	1	6	65.3	6	60.8	61.8
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	598	1	6	62.4	6	57.6	58.6
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	851	2	2	63.6	6	59.6	60.6
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	983	2	0	64.1	6	59.8	60.8
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1586	5	31	67.1	6	65.3	66.3
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	1884	15	31	67.8	6	65.7	66.7
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2165	24	43	68.6	6	66.8	67.8
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1980	18	15	67.6	6	64.6	65.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
365	Alessandro Blvd	Sycamore Canyon Blvd	Vista Grande Dr	Hard	100	45	45	45	3775	6	22	70.2	71.2	1219	317	32
366	Sycamore Canyon Blvd	Eastridge Ave	Alessandro Blvd	Hard	100	45	45	45	1258	2	27	66.1	67.1	410	61	-
367	Meridian Pkwy	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1529	3	15	66.4	67.4	455	76	-
375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
376	3rd St	Marvin Rd	Mid County Pkwy WB Ramps	Hard	100	45	45	45	0	0	0	-	-	-	-	-
377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ramps	Hard	100	45	45	45	0	0	0	-	-	-	-	-
379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
386	Harley Know Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	909	10	36	65.5	66.5	346	41	-
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2375	18	52	69.0	70.0	897	215	0
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	607	0	0	61.9	62.9	97	-	-
389	El Cerrito Dr	North of Central Ave	0	Hard	100	45	45	45	561	0	1	61.7	62.7	86	-	-
390	Ramona Expy	Webster Ave	Indian St	Hard	100	45	45	45	2498	19	98	69.8	70.8	1110	283	21
392	Ramona Expy	Indian St	Perris Blvd	Hard	100	45	45	45	2653	17	51	69.3	70.3	983	242	8
393	Indian St	Ramona Expy	Morgan St	Hard	100	45	45	45	401	16	27	63.1	64.1	160	-	-
394	Perris Blvd	Harley Know blvd	Ramona Expy	Hard	100	45	45	45	1740	15	32	67.5	68.5	610	125	-
396	Perris Blvd	Ramona Expy	Rider St	Hard	100	45	45	45	1493	9	16	66.5	67.5	459	77	-
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2455	12	20	68.5	69.5	794	183	-
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	1977	2	1	67.1	68.1	548	105	-
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	1935	8	14	70.1	71.1	1200	311	-
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1385	1	0	65.5	66.5	352	43	-
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	196	1	4	57.9	58.9	-	-	-
402	Morgan St	Perris Blvd	Silver Creek Industires	Hard	100	45	45	45	133	0	2	56.0	57.0	-	-	-
404	Morgan St	Morgan Park	Evans Rd	Hard	100	45	45	45	419	0	0	60.3	61.3	36	-	-
405	Morgan St	Evans Rd	Bradley Rd	Hard	100	45	45	45	369	0	0	59.8	60.8	20	-	-
406	Ironwood Ave	East of Thedore St	0	Hard	100	45	45	45	54	4	14	57.7	58.7	-25	-	-
407	Rider St	Indian St	Perris Blvd	Hard	100	45	45	45	619	0	5	62.4	63.4	120	-	-
408	Rider St	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1017	1	2	64.3	65.3	237	7	-
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	585	1	0	61.8	62.8	91	-	-
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1317	1	2	65.4	66.4	334	37	-
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	894	1	2	63.7	64.7	197	-	-
412	Maude St	South of Arlington Ave	0	Hard	100	45	45	45	806	1	0	63.2	64.2	164	-	-
413	Placentia Ave	Indian St	Perris Blvd	Hard	100	45	45	45	252	1	1	58.3	59.3	-15	-	-
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	442	1	0	60.6	61.6	45	-	-
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	1409	8	9	66.0	67.0	405	60	-
416	Mid County Pkwy WB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
417	Mid County Pkwy WB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
419	Mid County Pkwy EB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
420	Mid County Pkwy EB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-	-	-
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1893	3	40	67.8	68.8	666	142	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.

a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2375	18	52	69.0	6	67.4	68.4
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	607	0	0	61.9	6	57.7	58.7
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2455	12	20	68.5	6	65.6	66.6
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	1977	2	1	67.1	6	62.9	63.9
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	1935	8	14	70.1	6	66.9	67.9
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1385	1	0	65.5	6	61.3	62.3
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	196	1	4	57.9	6	56.0	57.0
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	585	1	0	61.8	6	57.5	58.5
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1317	1	2	65.4	6	61.3	62.3
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	894	1	2	63.7	6	59.8	60.8
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	442	1	0	60.6	6	56.3	57.3
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	1409	8	9	66.0	6	62.8	63.8
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1893	3	40	67.8	6	66.2	67.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
425	Mid County Pkwy WB Or	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
426	Mid County Pkwy WB Of	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
427	Day St	South of Alessandro Blvd		0	Hard	100	45	45	45	166	2	11	58.9	59.9	-	-	-
428	Mid County Pkwy EB Off	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
429	Mid County Pkwy EB On	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
430	Alessandro blvd	SR-215 NB Ramp	SR-215 SB Ramp		Hard	100	45	45	45	3138	3	41	69.7	70.7	1077	272	18
431	Placentia Ave	Water Ave	Evans Rd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
432	Placentia Ave	Evans Rd	El Nido Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
433	Evans Rd	Rider St	Orange Ave		Hard	100	45	45	45	954	0	1	63.9	64.9	212	-	-
434	Orange Ave	Wilson Ave	Evans Rd		Hard	100	45	45	45	837	1	1	63.4	64.4	177	-	-
435	Orange Ave	Evans Rd	Foothill Dr		Hard	100	35	35	35	737	0	737	72.0	73.0	1900	532	100
436	Elsworth St	North of Cactus Ave		0	Hard	100	45	45	45	610	1	4	62.3	63.3	113	-	-
441	Nuevo Rd	Wilson Ave	Evans Rd		Hard	100	45	45	45	1339	4	5	65.6	66.6	360	46	-
442	Evans Rd	Orange Ave	Nuevo Rd		Hard	100	45	45	45	803	3	1	63.3	64.3	170	-	-
443	Nuevo Rd	Evans Rd	Foothill Dr		Hard	100	45	45	45	771	1	4	63.2	64.2	165	-	-
444	Evans Rd	Nuevo Rd	San Jacinto Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
452	San Jacinto Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
453	Evans Rd	North of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
454	San Jacinto Ave	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
455	Evans Rd	South of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
458	Nason St	South of Cactus Ave		0	Hard	100	45	45	45	934	3	1	63.9	64.9	210	-	-
464	Quincy	South of Eucalyptus		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
477	Ellis Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
478	Evans Rd	North of Ellis Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
479	Oliver St	North of Irris Ave		0	Hard	100	45	45	45	362	0	0	59.7	60.7	18	-	-
480	Ellis Ave	Evans Rd	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
481	SR-215 SB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
482	Ellis Ave	East of SR-215		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
483	SR-215 SB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
484	SR-215 NB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
485	SR-215 NB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
488	Nason St	North of Iris Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
494	Evans Rd	North of Harley Knox Blvd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
498	Morrison St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave		Hard	100	45	45	45	2155	9	35	68.3	69.3	744	167	-
500	Perris Blvd	North of Eucalyptus Ave		0	Hard	100	45	45	45	2230	9	35	68.4	69.4	770	175	-
502	Quincy	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
503	Quincy	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
504	Krameria Ave	West of Perris Blvd		0	Hard	100	45	45	45	398	1	1	60.2	61.2	32	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
433 Evans Rd	Rider St	Orange Ave	Hard	100	45	45	45	954	0	1	63.9	6	60	60.8
434 Orange Ave	Wilson Ave	Evans Rd	Hard	100	45	45	45	837	1	1	63.4	6	59	60.4
441 Nuevo Rd	Wilson Ave	Evans Rd	Hard	100	45	45	45	1339	4	5	65.6	6	62	63.0
442 Evans Rd	Orange Ave	Nuevo Rd	Hard	100	45	45	45	803	3	1	63.3	6	59	60.3
443 Nuevo Rd	Evans Rd	Foothill Dr	Hard	100	45	45	45	771	1	4	63.2	6	60	60.8
444 Evans Rd	Nuevo Rd	San Jacinto Ave	Hard	100	45	45	45	-	-	-	-	-	-	-
458 Nason St	South of Cactus A	0	Hard	100	45	45	45	934	3	1	63.9	6	60	60.7
488 Nason St	North of Iris Ave	0	Hard	100	45	45	45	-	-	-	-	-	-	-
494 Evans Rd	North of Harley K	0	Hard	100	45	45	45	-	-	-	-	-	-	-
502 Quincy	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	-	-	-	-	-	-	-
503 Quincy	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	-	-	-	-	-	-	-
504 Krameria Ave	West of Perris Blv	0	Hard	100	45	45	45	398	1	1	60.2	6	56	57.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

2018 Buildout

ESA

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
1	WLC Pkwy	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1217	72	499	72.8	73.8	2273	650	137
2	WLC Pkwy	Eucalyptus Ave	Street F	Hard	100	45	45	45	692	38	269	70.1	71.1	1188	307	29
3	Street E	west of WLC Pkwy	0	Hard	100	45	45	45	138	10	50	62.9	63.9	147	-	-
4	Street E	north of Alessandro Blvd	0	Hard	100	45	45	45	355	17	58	64.6	65.6	261	14	-
5	Alessandro Blvd	Cactus Ave Extension	WLC Pkwy	Hard	100	45	45	45	677	32	0	63.4	64.4	177	-	-
6	WLC Pkwy	Street F	Alessandro Blvd	Hard	100	45	45	45	1406	82	591	73.5	74.5	2695	784	180
7	WLC Pkwy	south of Alessandro Blvd	0	Hard	100	45	45	45	737	23	18	64.4	65.4	248	10	-
8	Cactus Ave Extension	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	977	32	0	64.7	65.7	274	18	-
9	John F Kennedy Dr	south of Cactus Ave	0	Hard	100	45	45	45	1034	20	1	64.7	65.7	273	18	-
10	Redlands Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	798	4	0	63.3	64.3	167	-	-
11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	Hard	100	45	45	45	881	3	0	63.6	64.6	191	-	-
12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	Hard	100	45	45	45	688	1	1	62.6	63.6	127	-	-
13	Redlands Blvd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	955	9	97	67.4	68.4	589	118	-
14	Eucalyptus Ave	east of Redlands blvd	0	Hard	100	45	45	45	360	10	97	65.9	66.9	393	56	-
15	Eucalyptus Ave	west of Street A	0	Hard	100	45	45	45	194	7	75	64.5	65.5	253	12	-
18	Street B	east of WLC Pkwy	0	Hard	100	45	45	45	99	3	17	59.0	60.0	1	-	-
18a	Street B	west of Gilman Springs Rd	0	Hard	100	45	45	45	63	2	1	53.4	54.4	-	-	-
19	Street F	east of WLC Pkwy	0	Hard	100	45	45	45	612	23	158	68.2	69.2	724	161	-
20	Street F	north of Alessandro Blvd	0	Hard	100	45	45	45	462	12	19	62.8	63.8	141	-	-
21	Alessandro Blvd	east of WLC Pkwy	0	Hard	100	45	45	45	443	17	43	64.3	65.3	235	6	-
22	Alessandro Blvd	west of Street F	0	Hard	100	45	45	45	443	17	43	64.3	65.3	235	6	-
23	Street F	Alessandro Blvd	Street G	Hard	100	45	45	45	0	0	0	-	-	-	-	-
24	Alessandro Blvd	Street F	Gilman Springs Rd	Hard	100	45	45	45	469	17	91	66.2	67.2	420	64	-
25	Alessandro Blvd	Street H	Gilman Springs Rd	Hard	100	45	45	45	469	17	91	66.2	67.2	420	64	-
29	Gilman Springs Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	1468	10	55	67.4	68.4	598	121	-
30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	881	9	70	66.5	67.5	461	77	-
31	Gilman Springs Rd	south of Street C	0	Hard	100	45	45	45	1613	8	17	66.8	67.8	501	90	-
32	Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	480	8	0	61.3	62.3	71	-	-
33	Alessandro Blvd	west of Redlands Blvd	0	Hard	100	45	45	45	318	4	0	59.5	60.5	11	-	-
35	Redlands Blvd	Ironwood Ave	State Route 60	Hard	100	55	55	55	1210	4	51	69.2	70.2	947	231	5
36	Ironwood Ave	Redlands Blvd	Highland Blvd	Hard	100	35	35	35	187	9	2	55.2	56.2	-	-	-
37	San Timoteo Canyon Rd	west Live Oak Canyon	0	Hard	100	45	45	45	1086	11	43	66.3	67.3	433	68	-
38	Theodore St	State Route 60	Highland Blvd	Hard	100	45	45	45	211	13	14	60.5	61.5	42	-	-
42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	Hard	100	55	55	55	1367	9	49	69.6	70.6	1045	262	15
43	Moreno Beach Dr	Alessandro Blvd	SR 60	Hard	100	45	45	45	1586	3	21	66.8	67.8	497	89	-
46	Moreno Beach Dr	State Route 60	Ironwood Ave	Hard	100	45	45	45	1069	2	6	64.7	65.7	272	18	-
47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	490	1	0	61.1	62.1	61	-	-
48	Alessandro Blvd	Lasselle St	Morrison St	Hard	100	45	45	45	964	4	7	64.4	65.4	245	9	-
50	Cactus Ave	Redlands Blvd	Cactus Ave Extension	Hard	100	45	45	45	677	32	0	63.4	64.4	177	-13	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
32	Cactus Ave	west of Redlands Blvd	Hard	100	45	45	45	480	8	0	61.3	6	58.6	59.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	Hard	100	45	45	45	1236	2	3	65.2	66.2	315	31	-
52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	Hard	100	35	35	35	1354	21	2	62.6	63.6	130	-	-
53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	337	1	1	59.6	60.6	14	-	-
54	Locust Ave	Moreno Beach Dr	Smiley Blvd	Hard	100	35	35	35	35	0	0	46.2	47.2	-	-	-
55	Locust Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	316	2	0	59.3	60.3	6	-	-
56	Moreno Beach Dr	Locust Ave	Ironwood Ave	Hard	100	35	35	35	394	2	0	56.9	57.9	-	-	-
57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	35	35	35	507	3	6	58.7	59.7	-	-	-
58	SR 60 EB Ramps	West of Moreno Beach Dr	0	Hard	100	45	45	45	529	0	3	61.6	62.6	81	-	-
59	Eucalyptus Ave	Moreno Beach Dr	Quincy Dr	Hard	100	45	45	45	173	1	7	58.3	59.3	-	-	-
60	SR 60 WB Ramps	East of Redlands Blvd	0	Hard	100	45	45	45	576	8	66	65.5	66.5	345	41	-
61	SR 60 EB Ramps	West fo Redlands Blvd	0	Hard	100	45	45	45	600	4	42	64.5	65.5	256	13	-
62	Fir Ave	Quincy Dr	Redlands Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
65	Alessandro Blvd	Nason St	Oliver St	Hard	100	45	45	45	894	3	8	64.1	65.1	225	3	-
66	Alessandro Blvd	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	699	4	8	63.2	64.2	162	-	-
67	Oliver St	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	267	0	0	55.0	56.0	-	-	-
68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1252	1	4	65.2	66.2	322	33	-
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	930	5	1	64.0	65.0	213	-	-
70	Cactus Ave	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	705	5	1	62.8	63.8	141	-	-
71	Oliver St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	556	0	0	61.6	62.6	81	-	-
72	Oliver St	John F Kennedy Dr	Iris Ave	Hard	100	45	45	45	367	0	0	59.8	60.8	19	-	-
73	Iris Ave	Nason St	Oliver St	Hard	100	45	45	45	1694	21	2	66.7	67.7	495	88	-
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1590	1	1	66.2	67.2	422	65	-
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1520	1	1	66.0	67.0	399	58	-
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1169	1	1	64.8	65.8	283	21	-
77	Heacock St	Ironwood Ave	Hemlock Ave	Hard	100	45	45	45	1641	1	2	66.3	67.3	441	71	-
80	Heacock St	Hemlock Ave	SR 60 WB Ramps	Hard	100	45	45	45	2025	0	2	67.2	68.2	567	111	-
81	SR 60 WB Ramps	West of Heacock St	0	Hard	100	45	45	45	433	1	5	61.1	62.1	62	-	-
82	SR 60 WB Ramps	East of Heacock St	0	Hard	100	45	45	45	361	2	17	61.7	62.7	85	-	-
83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	Hard	100	45	45	45	2011	1	16	67.6	68.6	616	127	-
85	SR 60 WB Onramp	West of Perris Blvd	0	Hard	100	45	45	45	765	0	3	63.1	64.1	160	-	-
86	SR 60 WB Offramp	East of Perris Blvd	0	Hard	100	45	45	45	1295	2	23	66.1	67.1	409	61	-
87	Eualyptus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	505	0	0	61.2	62.2	64	-	-
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	601	2	1	64.8	65.8	279	20	-
95	W 6th St	I-10	N California Ave	Hard	100	35	35	35	1014	3	10	61.5	62.5	79	-	-
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	254	1	1	58.3	59.3	-	-	-
97	E 6th St	N California Ave	Beaumont Ave	Hard	100	45	45	45	797	1	3	63.3	64.3	169	-	-
98	N California Ave	W 6th St	I-10	Hard	100	55	55	55	789	2	8	66.3	67.3	440	71	-
99	Beaumont Ave	E 6th St	E 8th St	Hard	100	45	45	45	910	2	2	63.9	64.9	207	-	-
100	I-215 SB Ramps	North of Alessandro Blvd	0	Hard	100	45	45	45	481	3	33	63.5	64.5	184	-	-
101	Alessandro Blvd	Sycamore Canyon Blvd	I-215 SB Ramps	Hard	100	45	45	45	3504	6	33	70.0	71.0	1172	302	27
102	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	378	1	21	62.0	63.0	100	-	-
103	I-215 NB Ramps	Nouth of Alessandro Blvd	0	Hard	100	45	45	45	352	4	18	61.7	62.7	88	-	-
104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	Hard	100	45	45	45	2776	6	41	69.3	70.3	965	237	7

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	930	5	1	65.0	6	59.8	60.8
70	Cactus Ave	Oliver St	Moreno Beach	Hard	100	45	45	45	705	5	1	63.8	6	58.7	59.7
71	Oliver St	Cactus Ave	John F Kennedy	Hard	100	45	45	45	556	0	0	62.6	6	57.4	58.4
72	Oliver St	John F Kennedy	Iris Ave	Hard	100	45	45	45	367	0	0	60.8	6	55.7	56.7
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1590	1	1	67.2	6	62.0	63.0
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1520	1	1	66.3	6	62.2	63.2
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1169	1	1	67.2	6	63.2	64.2
81	SR 60 WB Ramps	West of Heacock St		Hard	100	45	45	45	433	1	5	61.1	6	58.6	59.6
85	SR 60 WB Onramp	West of Perris	0	Hard	100	45	45	45	765	0	3	63.1	6	59.6	60.6
86	SR 60 WB Offramp	East of Perris B	0	Hard	100	45	45	45	1295	2	23	66.1	6	64.1	65.1
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	601	2	1	64.8	6	60.6	61.6
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	254	1	1	58.3	59	54.4	55.4

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
105	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	378	1	0	59.9	60.9	24	-	-
106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	966	2	9	64.5	65.5	252	11	-
107	Alessandro Blvd	Old 215 Frontage Rd	Day St	Hard	100	45	45	45	2379	7	25	68.4	69.4	777	177	-
108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	499	11	19	63.0	64.0	152	-	-
109	Day St	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	611	0	1	58.6	59.6	-	-	-
110	Alessandro Blvd	Day St	Elsworth St	Hard	100	45	45	45	2358	7	18	68.3	69.3	743	167	-
111	Elsworth St	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	492	0	1	57.7	58.7	-	-	-
112	Alessandro Blvd	Elsworth St	Frederick St	Hard	100	45	45	45	2416	5	22	68.4	69.4	777	177	-
113	Elsworth St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	593	1	3	62.1	63.1	104	-	-
114	Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1223	0	6	65.2	66.2	318	32	-
115	Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2359	7	16	68.2	69.2	740	166	-
116	Frederick St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	734	2	12	63.6	64.6	187	-	-
117	Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	800	2	2	63.3	64.3	171	-	-
118	Alessandro Blvd	Graham St	Heacock St	Hard	100	45	45	45	2409	7	16	68.3	69.3	755	170	-
119	Graham St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	662	2	2	62.5	63.5	125	-	-
120	Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1308	4	24	66.2	67.2	420	64	-
121	Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2156	6	10	67.7	68.7	647	136	-
122	Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1115	2	20	65.4	66.4	338	39	-
123	Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	903	2	1	63.7	64.7	198	-	-
124	Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2044	5	9	67.5	68.5	606	123	-
125	Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	929	1	1	63.8	64.8	205	-	-
126	Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1627	2	8	66.5	67.5	463	78	-
127	Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1792	2	43	67.7	68.7	645	135	-
128	Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	770	1	0	63.0	64.0	151	-	-
129	Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1215	4	7	65.3	66.3	325	35	-
130	Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	686	1	0	62.5	63.5	124	-	-
131	Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	780	1	1	63.1	64.1	159	-	-
133	Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1148	2	1	64.8	65.8	279	20	-
134	Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	302	1	0	59.0	60.0	-	-	-
135	Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	846	2	8	65.3	66.3	327	35	-
136	Nason St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1596	1	1	66.2	67.2	423	66	-
137	Nason St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1318	1	2	65.4	66.4	336	38	-
138	I-215 SB Ramps	North of Cactus Ave	0	Hard	100	45	45	45	155	2	17	59.6	60.6	16	-	-
139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps	Hard	100	45	45	45	1595	6	32	67.1	68.1	546	104	-
140	I-215 SB Ramps	South of Cactus Ave	0	Hard	100	45	45	45	647	11	8	63.1	64.1	157	-	-
141	Cactus Ave	I-215 NB Ramps	Elsworth St	Hard	100	45	45	45	2832	20	57	69.7	70.7	1069	270	17
142	I-215 NB Ramps	South of Cactus Ave	0	Hard	100	45	45	45	461	5	11	62.0	63.0	98	-	-
143	Cactus Ave	Elsworth St	Frederick St	Hard	100	45	45	45	3249	15	50	70.0	71.0	1169	301	27
144	Cactus Ave	Frederick St	Graham St	Hard	100	45	45	45	3400	19	46	70.2	71.2	1208	314	31
145	Cactus Ave	Graham St	Heacock St	Hard	100	45	45	45	2939	18	40	69.6	70.6	1035	259	14
146	Riverside Dr	Cactus Ave	Meyer Dr	Hard	100	45	45	45	642	0	0	62.2	63.2	109	-	-
147	Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1856	4	4	67.0	68.0	525	98	-
148	Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1861	14	53	68.2	69.2	728	162	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
114 Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1223	0	6	65.2	6	60.7	61.7
115 Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2359	7	16	68.2	6	65.1	66.1
117 Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	800	2	2	63.3	6	59.5	60.5
120 Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1308	4	24	66.2	6	64.3	65.3
121 Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2156	6	10	67.7	6	64.3	65.3
122 Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1115	2	20	65.4	6	63.5	64.5
123 Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	903	2	1	63.7	6	59.6	60.6
124 Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2044	5	9	67.5	6	64.0	65.0
125 Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	929	1	1	63.8	6	59.7	60.7
126 Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1627	2	8	66.5	6	63.1	64.1
127 Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1792	2	43	67.7	6	66.3	67.3
128 Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	770	1	0	63.0	6	58.7	59.7
129 Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1215	4	7	65.3	6	62.0	63.0
130 Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	686	1	0	62.5	6	58.2	59.2
131 Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	780	1	1	63.1	6	59.1	60.1
133 Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1148	2	1	64.8	6	60.6	61.6
134 Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	302	1	0	59.0	6	54.7	55.7
135 Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	846	2	8	65.3	6	62.3	63.3
147 Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1856	4	4	67.0	6	63.1	64.1
148 Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1861	14	53	68.2	6	67.0	68.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	MT	HT	Peak Hour Volume Auto	MT	HT	Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1771	3	1	66.7	67.7	485	85	-
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	998	2	1	64.2	65.2	229	4	-
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1566	4	1	66.2	67.2	419	64	-
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1811	9	40	67.8	68.8	654	138	-
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1241	3	1	61.8	62.8	91	-	-
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	775	1	0	63.0	64.0	153	-	-
155	Cactus Ave	Lasselle St	Morrison St	Hard	100	45	45	45	1324	6	1	65.5	66.5	345	41	-
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1562	3	0	66.1	67.1	413	62	-
157	Cactus Ave	Morrison St	Nason St	Hard	100	45	45	45	1141	6	2	64.9	65.9	289	23	-
158	E 6th St	Beaumont Ave	Pennsylvania Ave	Hard	100	45	45	45	1044	1	4	64.5	65.5	256	13	-
159	Beaumont Ave	E 6th St	I-10	Hard	100	45	45	45	821	2	4	63.5	64.5	184	-	-
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	643	2	0	62.3	63.3	112	-	-
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1593	14	3	66.4	67.4	454	75	-
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1808	20	5	67.1	68.1	541	103	-
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	869	6	0	63.7	64.7	192	-	-
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1506	1	1	65.9	66.9	392	56	-
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2379	23	4	68.2	69.2	726	161	-
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	933	7	1	64.0	65.0	217	0	-
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	721	0	0	62.7	63.7	134	-	-
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	956	7	1	64.1	65.1	225	3	-
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	1965	3	2	67.1	68.1	549	105	-
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	1992	3	2	67.2	68.2	557	108	-
173	Oleander Ave	Perris Blvd	Lasselle St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
174	Oleander Ave	Lasselle St	Lake Perris Dr	Hard	100	45	45	45	0	0	0	-	-	-	-	-
177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	Hard	100	45	45	45	1100	12	44	66.3	67.3	440	71	-
178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	Hard	100	45	45	45	507	3	6	61.8	62.8	90	-	-
179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	Hard	100	45	45	45	1371	12	48	67.1	68.1	545	104	-
180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	Hard	100	45	45	45	216	1	2	57.9	58.9	-	-	-
181	Potrero Blvd	North of SR 60 WB Ramps	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
182	SR 60 WB On Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
183	SR 60 WB Off Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
184	SR 60 EB Off Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
185	SR 60 EB On Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	Hard	100	45	45	45	1497	7	21	66.6	67.6	476	82	-
191	Gilman Springs Rd	Bridge St	Beaumont Ave	Hard	100	45	45	45	1419	6	15	66.2	67.2	429	67	-
192	Bridge St	Gilman Springs Rd	Marvin Rd	Hard	100	45	45	45	150	2	17	59.6	60.6	14	-	-
194	Crescent Ave	West of Alessandro Rd	0	Hard	100	35	35	35	288	2	0	55.5	56.5	-	-	-
195	Crescent Ave	Alessandro Rd	Center St	Hard	100	45	45	45	578	4	0	61.9	62.9	94	-	-
196	Alessandro Rd	Crescent Ave	Sunset St	Hard	100	45	45	45	538	6	0	61.7	62.7	86	-	-
198	Sunset Dr	Crown St	Alessandro Rd	Hard	100	35	35	35	54	0	0	48.0	49.0	-	-	-
199	Sunset Dr	Alessandro Rd	Cameo Dr	Hard	100	35	35	35	84	0	0	49.9	50.9	-	-	-
200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	Hard	100	45	45	45	502	6	0	61.4	62.4	73	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1771	3	1	66.7	6	62.5	63.5
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	998	2	1	64.2	6	60.0	61.0
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1566	4	1	66.2	6	62.0	63.0
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1811	9	40	67.8	6	66.2	67.2
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1241	3	1	61.8	6	57.8	58.8
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	775	1	0	63.0	6	58.7	59.7
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1562	3	0	66.1	6	61.8	62.8
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	643	2	0	62.3	6	58.0	59.0
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1593	14	3	66.4	6	62.5	63.5
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1808	20	5	67.1	6	63.2	64.2
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	869	6	0	63.7	6	59.4	60.4
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1506	1	1	65.9	6	61.7	62.7
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2379	23	4	68.2	6	64.2	65.2
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	933	7	1	64.0	6	59.8	60.8
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	721	0	0	62.7	6	58.4	59.4
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	956	7	1	64.1	6	59.9	60.9
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	1965	3	2	67.1	6	63.0	64.0
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	1992	3	2	67.2	6	63.0	64.0
178	Live oak Canyon	San Timoteo Can	I-10	Hard	100	45	45	45	507	3	6	61.8	6	59.2	60.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	Hard	100	45	45	45	1623	5	0	66.3	67.3	436	69	-
206	Reche Canyon Rd	Reche Vista Dr	High Country Dr	Hard	100	45	45	45	48	0	0	50.9	51.9	-	-	-
207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	Hard	100	35	35	35	1615	5	0	62.9	63.9	145	-	-
215	Mission Grove Pkwy	Cannon Rd	Alessandro Blvd	Hard	100	35	35	35	557	0	0	58.2	59.2	-	-	-
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	3628	4	13	69.9	70.9	1136	291	24
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	977	0	2	64.1	65.1	225	3	-
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	5578	4	12	71.7	72.7	1765	490	86
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1406	2	1	65.6	66.6	361	46	-
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1510	1	0	65.9	66.9	393	56	-
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	43	0	0	47.1	48.1	-	-	-
225	Via Vista Dr	Alessandro Blvd	Canyon Crest Dr	Hard	100	45	45	45	295	0	0	58.8	59.8	-	-	-
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	4632	3	12	70.9	71.9	1454	392	55
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	324	0	0	59.2	60.2	5	-	-
229	Century Ave	Alessandro Blvd	Claridge Dr	Hard	100	45	45	45	203	0	0	57.2	58.2	-	-	-
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	135	0	0	55.4	56.4	-	-	-
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago A\	Hard	100	45	45	45	3155	1	12	69.3	70.3	970	238	7
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	2529	4	9	68.3	69.3	761	172	-
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	4884	1	12	71.1	72.1	1533	416	63
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1033	1	1	64.3	65.3	239	7	-
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	3143	1	9	69.2	70.2	955	234	6
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1402	1	2	65.7	66.7	366	47	-
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	2706	1	7	68.6	69.6	808	187	-
240	Durango Rd	Laramie Rd	Arlington Ave	Hard	100	45	45	45	242	0	0	58.0	59.0	-	-	-
241	Horace St	Arlington Ave	Victoria Ave	Hard	100	45	45	45	394	1	0	60.1	61.1	29	-	-
242	Arlington Ave	Maude St	SR-91 WB Ramps	Hard	100	45	45	45	3504	3	8	69.7	70.7	1074	271	17
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1379	1	3	65.6	66.6	359	45	-
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	788	0	3	63.3	64.3	167	-	-
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	352	1	0	59.6	60.6	16	-	-
246	Indiana Ave	Arlington Ave	SR-91 EB Ramps	Hard	100	45	45	45	1375	3	5	65.7	66.7	369	48	-
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	2999	2	11	69.1	70.1	918	222	2
250	Country Club Dr	Chicago Ave	Canyon Crest Dr	Hard	100	35	35	35	233	0	0	54.4	55.4	-	-	-
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	1906	2	11	67.2	68.2	562	109	-
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1971	1	6	67.2	68.2	564	110	-
256	Canyon Crest Dr	Central Ave	Country Club Dr	Hard	100	45	45	45	1798	1	2	66.7	67.7	491	87	-
258	El Cerrito Dr	Canyon Crest Dr	Central Ave	Hard	100	45	45	45	560	0	1	61.7	62.7	86	-	-
260	Central Ave	Canyon Crest Dr	I-215	Hard	100	45	45	45	2307	2	16	68.1	69.1	711	157	-
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	817	1	2	60.0	61.0	26	-	-
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1515	3	12	63.1	64.1	158	-	-
263	Central Ave	Sycamore Canyon Blvd	SR-60 EB Ramps	Hard	100	45	45	45	1575	6	30	67.0	68.0	532	100	-
264	SR-60 EB Ramps	SR-60	Central Ave	Hard	100	45	45	45	860	0	10	64.0	65.0	217	0	-
265	Central Ave	SR-60 EB Ramps	SR-60 WB Ramps	Hard	100	45	45	45	862	2	12	64.2	65.2	229	4	-
266	SR-60 WB Ramps	Central Ave	SR-60	Hard	100	45	45	45	871	2	11	64.1	65.1	227	4	-
267																

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

ESA

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	3628	4	13	69.9	6	66.3	67.3
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	977	0	2	64.1	6	60.2	61.2
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	5578	4	12	71.7	6	67.8	68.8
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1406	2	1	65.6	6	61.4	62.4
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1510	1	0	65.9	6	61.6	62.6
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	43	0	0	47.1	6	42.8	43.8
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	4632	3	12	70.9	6	67.1	68.1
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	324	0	0	59.2	6	54.9	55.9
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	135	0	0	55.4	6	51.1	52.1
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago Ave	Hard	100	45	45	45	3155	1	12	69.3	6	65.7	66.7
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	2529	4	9	68.3	6	64.7	65.7
233	Alessandro Blvd	Arlington Ave/Chicago	Century Ave	Hard	100	45	45	45	4884	1	12	71.1	6	67.3	68.3
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1033	1	1	64.3	6	60.1	61.1
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	3143	1	9	69.2	6	65.5	66.5
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1402	1	2	65.7	6	61.7	62.7
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	2706	1	7	68.6	6	64.8	65.8
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1379	1	3	65.6	6	61.7	62.7
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	788	0	3	63.3	6	59.7	60.7
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	352	1	0	59.6	6	55.3	56.3
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	2999	2	11	69.1	6	65.5	66.5
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	1906	2	11	67.2	6	63.9	64.9
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1971	1	6	67.2	6	63.5	64.5
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	817	1	2	60.0	6	56.3	57.3
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1515	3	12	63.1	6	60.6	61.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
268	I-215 NB Off-Ramp	Watkins Dr	I-215	Hard	100	45	45	45	0	0	0	-	-	-	-	-
269	Martin Luther King Blvd	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	69.3	748	168	-
270	Chicago Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1696	44	3	67.0	68.0	538	102	-
271	Martin Luther King Blvd	Chicago Ave	Iowa Ave	Hard	100	45	45	45	1821	13	1	66.9	67.9	517	95	-
272	Chicago Ave	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	69.0	700	153	-
273	Iowa Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1153	10	3	65.0	66.0	301	27	-
274	Martin Luther King Blvd	Iowa Ave	Canyon Crest Dr	Hard	100	45	45	45	2480	6	32	68.7	69.7	834	195	-
275	Canyon Crest Dr	Campus Dr	Martin Luther King Blvd	Hard	100	45	45	45	1001	0	3	64.3	65.3	237	6	-
276	Martin Luther King Blvd	Canyon Crest Dr	I-215 SB Ramps	Hard	100	45	45	45	2130	6	34	68.2	69.2	726	161	-
277	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	1971	1	6	67.2	68.2	564	110	-
278	I-215 SB Off-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	443	1	1	60.7	61.7	48	-	-
279	Martin Luther King Blvd	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1337	4	13	65.9	66.9	387	54	-
280	I-215 SB On-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	698	3	22	63.9	64.9	212	-	-
281	I-215 NB On-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	767	3	12	63.7	64.7	198	-	-
282	I-215 NB Off-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	1243	1	5	65.2	66.2	322	33	-
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	586	2	9	62.6	63.6	127	-	-
284	SR-60 EB On-Ramp	Heacock St	SR-60	Hard	100	45	45	45	361	2	17	61.7	62.7	85	-	-
285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	Hard	100	45	45	45	1992	1	18	67.5	68.5	616	126	-
286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	Hard	100	45	45	45	2696	8	4	68.6	69.6	806	186	-
287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2840	10	30	69.2	70.2	950	232	5
288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	Hard	100	45	45	45	1485	2	5	66.0	67.0	403	59	-
289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	Hard	100	45	45	45	1295	2	23	66.1	67.1	409	61	-
290	Perris Blvd	Sunnymead Blvd	Fir Ave	Hard	100	45	45	45	2159	8	52	68.6	69.6	808	187	-
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-	-	-
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	871	2	2	63.7	64.7	193	-	-
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1022	2	0	64.3	65.3	236	6	-
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1532	4	45	67.3	68.3	571	112	-
304	Iris Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1045	1	4	64.5	65.5	256	13	-
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	1896	18	45	68.1	69.1	713	157	-
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2203	28	55	68.9	69.9	869	207	-
324	Ramona Expy	Warren Rd	Sanderson Ave	Hard	100	45	45	45	1647	17	25	67.2	68.2	557	108	-
325	Sanderson Ave	Gilman Springs Rd	Ramona Expy	Hard	100	45	45	45	1836	9	21	67.4	68.4	592	119	-
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1936	19	17	67.6	68.6	625	129	-
327	Sanderson Ave	Ramona Expy	Ramona Blvd	Hard	100	45	45	45	1779	8	20	67.2	68.2	568	111	-
340	Alessandro blvd	North of San Timoteo Canyon	0	Hard	100	45	45	45	479	5	0	61.2	62.2	65	-	-
351	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	45	45	45	507	3	6	61.8	62.8	90	-	-
358	Gilman Springs Rd	Bridge St	SR-79 NB Ramps	Hard	100	45	45	45	662	4	11	63.2	64.2	164	-	-
359	SR-79 SB Off-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	244	2	3	58.7	59.7	-	-	-
360	Gilman Springs Rd	SR-79 NB Ramps	SR-79 SB Ramps	Hard	100	45	45	45	1168	4	11	65.3	66.3	328	35	-
361	SR-79 SB On-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	446	3	5	61.3	62.3	68	-	-
362	SR-79 NB On-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	278	1	2	59.0	60.0	0	-	-
363	Gilman Springs Rd	SR-79 SB Ramps	Record Rd	Hard	100	45	45	45	1176	5	9	65.3	66.3	325	34	-
364	SR-79 NB Off-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	307	2	3	59.5	60.5	12	-	-
																-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
269	Martin Luther King I	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	6	64.1	65.1
272	Chicago Ave	Martin Luther King I	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	6	63.9	64.9
279	Martin Luther King I	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1337	4	13	65.9	6	61.2	62.2
280	I-215 SB On-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	698	3	22	63.9	6	58.4	59.4
281	I-215 NB On-Ramp	I-215	Martin Luther King I	Hard	100	45	45	45	767	3	12	63.7	6	58.8	59.8
282	I-215 NB Off-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	1243	1	5	65.2	6	60.8	61.8
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	586	2	9	62.6	6	57.6	58.6
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	871	2	2	63.7	6	59.7	60.7
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1022	2	0	64.3	6	60.0	61.0
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1532	4	45	67.3	6	66.1	67.1
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	1896	18	45	68.1	6	66.6	67.6
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2203	28	55	68.9	6	67.4	68.4
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1936	19	17	67.6	6	64.7	65.7

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
365	Alessandro Blvd	Sycamore Canyon Blvd	Vista Grande Dr	Hard	100	45	45	45	3840	7	23	70.3	71.3	1244	325	34
366	Sycamore Canyon Blvd	Eastridge Ave	Alessandro Blvd	Hard	100	45	45	45	1254	2	28	66.1	67.1	414	62	-
367	Meridian Pkwy	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1538	3	15	66.5	67.5	460	77	-
375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
376	3rd St	Marvin Rd	Mid County Pkwy WB Ramps	Hard	100	45	45	45	0	0	0	-	-	-	-	-
377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ramps	Hard	100	45	45	45	0	0	0	-	-	-	-	-
379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
386	Harley Know Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	932	10	36	65.6	66.6	355	44	-
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2390	21	62	69.2	70.2	945	230	5
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	607	0	0	61.9	62.9	97	-	-
389	El Cerrito Dr	North of Central Ave	0	Hard	100	45	45	45	560	0	1	61.7	62.7	86	-	-
390	Ramona Expy	Webster Ave	Indian St	Hard	100	45	45	45	2567	21	99	69.9	70.9	1138	292	24
392	Ramona Expy	Indian St	Perris Blvd	Hard	100	45	45	45	2695	19	55	69.5	70.5	1014	252	11
393	Indian St	Ramona Expy	Morgan St	Hard	100	45	45	45	426	17	29	63.4	64.4	174	-	-
394	Perris Blvd	Harley Know blvd	Ramona Expy	Hard	100	45	45	45	1777	18	40	67.8	68.8	658	140	-
396	Perris Blvd	Ramona Expy	Rider St	Hard	100	45	45	45	1509	12	20	66.7	67.7	484	85	-
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2446	13	22	68.5	69.5	799	184	-
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	2009	3	1	67.2	68.2	560	109	-
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	1952	10	16	70.2	71.2	1223	318	32
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1384	1	0	65.5	66.5	352	43	-
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	206	1	4	58.1	59.1	-	-	-
402	Morgan St	Perris Blvd	Silver Creek Industires	Hard	100	45	45	45	167	0	2	57.0	58.0	-	-	-
404	Morgan St	Morgan Park	Evans Rd	Hard	100	45	45	45	419	0	0	60.3	61.3	36	-	-
405	Morgan St	Evans Rd	Bradley Rd	Hard	100	45	45	45	369	0	0	59.8	60.8	20	-	-
406	Ironwood Ave	East of Thedore St	0	Hard	100	45	45	45	59	4	14	57.8	58.8	-	-	-
407	Rider St	Indian St	Perris Blvd	Hard	100	45	45	45	641	1	6	62.6	63.6	130	-	-
408	Rider St	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1054	1	2	64.5	65.5	252	-	-
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	625	1	0	62.1	63.1	104	-	-
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1317	1	2	65.4	66.4	334	37	-
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	894	1	2	63.7	64.7	197	-	-
412	Maude St	South of Arlington Ave	0	Hard	100	45	45	45	806	1	0	63.2	64.2	164	-	-
413	Placentia Ave	Indian St	Perris Blvd	Hard	100	45	45	45	262	1	1	58.4	59.4	-	-	-
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	466	1	0	60.9	61.9	53	-	-
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	1411	10	12	66.2	67.2	420	64	-
416	Mid County Pkwy WB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
417	Mid County Pkwy WB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
419	Mid County Pkwy EB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
420	Mid County Pkwy EB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-	-	-
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1851	2	54	68.1	69.1	706	155	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2390	21	62	69.2	6	67.8	68.8
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	607	0	0	61.9	6	57.7	58.7
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2446	13	22	68.5	6	65.7	66.7
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	2009	3	1	67.2	6	63.0	64.0
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	1952	10	16	70.2	6	67.0	68.0
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1384	1	0	65.5	6	61.3	62.3
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	206	1	4	58.1	6	56.1	57.1
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	625	1	0	62.1	6	57.8	58.8
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1317	1	2	65.4	6	61.3	62.3
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	894	1	2	63.7	6	59.8	60.8
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	466	1	0	60.9	6	56.6	57.6
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	1411	10	12	66.2	6	63.2	64.2
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1851	2	54	68.1	6	67.0	68.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
425	Mid County Pkwy WB Or	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
426	Mid County Pkwy WB Of	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
427	Day St	South of Alessandro Blvd		0	Hard	100	45	45	45	182	2	11	59.1	60.1	2	-	-
428	Mid County Pkwy EB Off-	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
429	Mid County Pkwy EB On-	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
430	Alessandro blvd	SR-215 NB Ramp	SR-215 SB Ramp		Hard	100	45	45	45	3201	4	44	69.8	70.8	1110	283	21
431	Placentia Ave	Water Ave	Evans Rd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
432	Placentia Ave	Evans Rd	El Nido Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
433	Evans Rd	Rider St	Orange Ave		Hard	100	45	45	45	954	0	1	63.9	64.9	212	-	-
434	Orange Ave	Wilson Ave	Evans Rd		Hard	100	45	45	45	832	1	1	63.4	64.4	175	-	-
435	Orange Ave	Evans Rd	Foothill Dr		Hard	100	35	35	35	717	0	717	71.9	72.9	1845	515	95
436	Elsworth St	North of Cactus Ave		0	Hard	100	45	45	45	610	1	4	62.3	63.3	113	-	-
441	Nuevo Rd	Wilson Ave	Evans Rd		Hard	100	45	45	45	1334	4	5	65.6	66.6	358	45	-
442	Evans Rd	Orange Ave	Nuevo Rd		Hard	100	45	45	45	803	3	1	63.3	64.3	170	-	-
443	Nuevo Rd	Evans Rd	Foothill Dr		Hard	100	45	45	45	781	1	4	63.3	64.3	169	-	-
444	Evans Rd	Nuevo Rd	San Jacinto Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
452	San Jacinto Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
453	Evans Rd	North of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
454	San Jacinto Ave	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
455	Evans Rd	South of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
458	Nason St	South of Cactus Ave		0	Hard	100	45	45	45	939	2	1	63.9	64.9	211	-	-
464	Quincy	South of Eucalyptus		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
477	Ellis Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
478	Evans Rd	North of Ellis Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
479	Oliver St	North of Irris Ave		0	Hard	100	45	45	45	367	0	0	59.8	60.8	19	-	-
480	Ellis Ave	Evans Rd	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
481	SR-215 SB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
482	Ellis Ave	East of SR-215		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
483	SR-215 SB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
484	SR-215 NB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
485	SR-215 NB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
488	Nason St	North of Iris Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
494	Evans Rd	North of Harley Knox Blvd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
498	Morrison St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave		Hard	100	45	45	45	2099	9	49	68.4	69.4	777	177	-
500	Perris Blvd	North of Eucalyptus Ave		0	Hard	100	45	45	45	2179	8	49	68.6	69.6	804	186	-
502	Quincy	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
503	Quincy	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
504	Krameria Ave	West of Perris Blvd		0	Hard	100	45	45	45	396	1	1	60.2	61.2	33	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Existing with Project Build Out
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
433	Evans Rd	Rider St	Orange Ave	Hard	100	45	45	45	954.41	0	0.5	63.9	6	60	60.8
434	Orange Ave	Wilson Ave	Evans Rd	Hard	100	45	45	45	832	0.5	1	63.4	6	59	60.4
441	Nuevo Rd	Wilson Ave	Evans Rd	Hard	100	45	45	45	1334.2	3.5	5	65.6	6	62	63.0
442	Evans Rd	Orange Ave	Nuevo Rd	Hard	100	45	45	45	802.64	3	1	63.3	6	59	60.3
443	Nuevo Rd	Evans Rd	Foothill Dr	Hard	100	45	45	45	781.16	1	3.5	63.3	6	60	60.8
444	Evans Rd	Nuevo Rd	San Jacinto Ave	Hard	100	45	45	45	0	0	0	-	6	1	2.4
458	Nason St	South of Cactus A	0	Hard	100	45	45	45	938.74	2.3636	0.5	63.9	6	60	60.8
488	Nason St	North of Iris Ave	0	Hard	100	45	45	45	0	0	0	-	6	1	2.4
494	Evans Rd	North of Harley Kı	0	Hard	100	45	45	45	0	0	0	-	6	1	2.4
502	Quincy	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	0	0	0	-	6	1	2.4
503	Quincy	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	0	0	0	-	6	1	2.4
504	Krameria Ave	West of Perris Blv	0	Hard	100	45	45	45	396.48	1.0166	0.5	60.2	6	56	57.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

2025 No Project

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
1	WLC Pkwy	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	206	0	3	57.9	58.9	-	-	-
2	WLC Pkwy	Eucalyptus Ave	Street F	Hard	100	45	45	45	60	0	0	51.9	52.9	-	-	-
3	Street E	west of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
4	Street E	north of Alessandro Blvd	0	Hard	100	45	45	45	103	1	0	54.4	55.4	-	-	-
5	Alessandro Blvd	Cactus Ave Extension	WLC Pkwy	Hard	100	45	45	45	84	0	0	53.3	54.3	-	-	-
6	WLC Pkwy	Street F	Alessandro Blvd	Hard	100	45	45	45	118	0	1	55.0	56.0	-	-	-
7	WLC Pkwy	south of Alessandro Blvd	0	Hard	100	45	45	45	356	1	0	59.7	60.7	17	-	-
8	Cactus Ave Extension	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	0	0	0	-	-	-	-	-
9	John F Kennedy Dr	south of Cactus Ave	0	Hard	100	45	45	45	934	4	1	64.0	65.0	213	-	-
10	Redlands Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1029	6	1	64.4	65.4	246	10	-
11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	Hard	100	45	45	45	1101	5	2	64.7	65.7	273	18	-
12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	Hard	100	45	45	45	1161	7	1	64.9	65.9	291	24	-
13	Redlands Blvd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1343	13	29	66.5	67.5	468	80	-
14	Eucalyptus Ave	east of Redlands blvd	0	Hard	100	45	45	45	169	4	11	59.0	60.0	1	-	-
15	Eucalyptus Ave	west of Street A	0	Hard	100	45	45	45	209	0	2	57.7	58.7	-	-	-
18	Street B	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
18a	Street B	west of Gilman Springs Rd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
19	Street F	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
20	Street F	north of Alessandro Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
21	Alessandro Blvd	east of WLC Pkwy	0	Hard	100	45	45	45	302	1	0	59.0	60.0	-	-	-
22	Alessandro Blvd	west of Street F	0	Hard	100	45	45	45	302	1	0	59.0	60.0	-	-	-
23	Street F	Alessandro Blvd	Street G	Hard	100	45	45	45	0	0	0	-	-	-	-	-
24	Alessandro Blvd	Street F	Gilman Springs Rd	Hard	100	45	45	45	252	1	0	58.2	59.2	-	-	-
25	Alessandro Blvd	Street H	Gilman Springs Rd	Hard	100	45	45	45	252	1	0	58.2	59.2	-	-	-
29	Gilman Springs Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	1560	7	10	66.4	67.4	455	76	-
30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1560	7	10	66.4	67.4	455	76	-
31	Gilman Springs Rd	south of Street C	0	Hard	100	45	45	45	1803	8	10	67.0	68.0	536	101	-
32	Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	336	0	0	59.4	60.4	9	-	-
33	Alessandro Blvd	west of Redlands Blvd	0	Hard	100	45	45	45	445	0	0	60.6	61.6	45	-	-
35	Redlands Blvd	Ironwood Ave	State Route 60	Hard	100	55	55	55	1971	8	15	70.2	71.2	1223	319	32
36	Ironwood Ave	Redlands Blvd	Highland Blvd	Hard	100	35	35	35	69	0	2	50.5	51.5	-	-	-
37	San Timoteo Canyon Rd	west Live Oak Canyon	0	Hard	100	45	45	45	1757	10	13	67.0	68.0	536	101	-
38	Theodore St	State Route 60	Highland Blvd	Hard	100	45	45	45	84	4	14	58.3	59.3	-	-	-
42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	Hard	100	55	55	55	2105	8	12	70.4	71.4	1291	340	39
43	Moreno Beach Dr	Alessandro Blvd	SR 60	Hard	100	45	45	45	1539	1	13	66.4	67.4	449	74	-
46	Moreno Beach Dr	State Route 60	Ironwood Ave	Hard	100	45	45	45	970	1	7	64.3	65.3	240	8	-
47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	495	1	0	61.1	62.1	62	-	-
48	Alessandro Blvd	Lasselle St	Morrison St	Hard	100	45	45	45	1254	4	2	65.2	66.2	321	33	-
50	Cactus Ave	Redlands Blvd	Cactus Ave Extension	Hard	100	45	45	45	84	0	0	53.3	54.3	-	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes: 0

Roadway Segment		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
				Auto	MT	HT	Auto	MT	HT				
32 Cactus Ave	west of Redlands Blvd	Hard	100	45	45	45	395.47	4.7152	0	60.4	6	55.1	56.1

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	Hard	100	45	45	45	1211	1	3	65.1	66.1	304	28	-
52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	Hard	100	35	35	35	1364	6	2	62.3	63.3	114	-	-
53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	359	1	1	59.8	60.8	21	-	-
54	Locust Ave	Moreno Beach Dr	Smiley Blvd	Hard	100	35	35	35	35	0	0	46.2	47.2	-	-	-
55	Locust Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	134	0	0	55.4	56.4	-	-	-
56	Moreno Beach Dr	Locust Ave	Ironwood Ave	Hard	100	35	35	35	219	0	0	54.1	55.1	-	-	-
57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	35	35	35	523	2	1	58.2	59.2	-	-	-
58	SR 60 EB Ramps	West of Moreno Beach Dr	0	Hard	100	45	45	45	501	0	4	61.4	62.4	76	-	-
59	Eucalyptus Ave	Moreno Beach Dr	Quincy Dr	Hard	100	45	45	45	195	0	3	57.6	58.6	-	-	-
60	SR 60 WB Ramps	East of Redlands Blvd	0	Hard	100	45	45	45	809	6	18	64.3	65.3	240	8	-
61	SR 60 EB Ramps	West fo Redlands Blvd	0	Hard	100	45	45	45	902	8	24	65.0	66.0	298	26	-
62	Fir Ave	Quincy Dr	Redlands Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
65	Alessandro Blvd	Nason St	Oliver St	Hard	100	45	45	45	943	2	3	64.1	65.1	220	1	-
66	Alessandro Blvd	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	703	3	3	62.8	63.8	142	-	-
67	Oliver St	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	258	0	0	54.8	55.8	-	-	-
68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1336	1	4	65.5	66.5	349	42	-
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	1184	0	1	64.9	65.9	287	22	-
70	Cactus Ave	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	665	0	1	62.4	63.4	118	-	-
71	Oliver St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	626	0	0	62.1	63.1	103	-	-
72	Oliver St	John F Kennedy Dr	Iris Ave	Hard	100	45	45	45	437	0	0	60.5	61.5	42	-	-
73	Iris Ave	Nason St	Oliver St	Hard	100	45	45	45	1783	7	2	66.8	67.8	498	89	-
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1590	1	1	66.2	67.2	422	65	-
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1536	1	1	66.0	67.0	404	59	-
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1171	0	1	64.8	65.8	282	21	-
77	Heacock St	Ironwood Ave	Hemlock Ave	Hard	100	45	45	45	1646	2	2	66.3	67.3	443	72	-
80	Heacock St	Hemlock Ave	SR 60 WB Ramps	Hard	100	45	45	45	2028	0	3	67.3	68.3	569	111	-
81	SR 60 WB Ramps	West of Heacock St	0	Hard	100	45	45	45	434	1	5	61.1	62.1	61	-	-
82	SR 60 WB Ramps	East of Heacock St	0	Hard	100	45	45	45	424	2	8	61.3	62.3	70	-	-
83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	Hard	100	45	45	45	2080	4	10	67.6	68.6	620	128	-
85	SR 60 WB Onramp	West of Perris Blvd	0	Hard	100	45	45	45	764	0	4	63.2	64.2	161	-	-
86	SR 60 WB Offramp	East of Perris Blvd	0	Hard	100	45	45	45	1334	2	11	65.8	66.8	375	50	-
87	Eualyptus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	495	0	0	61.1	62.1	61	-	-
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	610	2	1	64.9	65.9	285	22	-
95	W 6th St	I-10	N California Ave	Hard	100	35	35	35	1140	2	7	61.8	62.8	90	-	-
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	342	0	0	59.5	60.5	11	-	-
97	E 6th St	N California Ave	Beaumont Ave	Hard	100	45	45	45	886	1	6	63.9	64.9	212	-	-
98	N California Ave	W 6th St	I-10	Hard	100	55	55	55	927	2	4	66.8	67.8	501	90	-
99	Beaumont Ave	E 6th St	E 8th St	Hard	100	45	45	45	1055	1	2	64.5	65.5	254	12	-
100	I-215 SB Ramps	North of Alessandro Blvd	0	Hard	100	45	45	45	525	3	30	63.6	64.6	187	-	-
101	Alessandro Blvd	Sycamore Canyon Blvd	I-215 SB Ramps	Hard	100	45	45	45	4073	13	40	70.7	71.7	1395	373	50
102	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	626	3	28	64.0	65.0	215	-	-
103	I-215 NB Ramps	Nouth of Alessandro Blvd	0	Hard	100	45	45	45	395	4	17	62.0	63.0	99	-	-
104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	Hard	100	45	45	45	2991	7	36	69.5	70.5	1018	254	12

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.

a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

ESA

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	1184	0	1	65.9	6	60.7	61.7
70	Cactus Ave	Oliver St	Moreno Beach	Hard	100	45	45	45	665	0	1	63.4	6	58.3	59.3
71	Oliver St	Cactus Ave	John F Kennedy	Hard	100	45	45	45	626	0	0	63.1	6	57.9	58.9
72	Oliver St	John F Kennedy	Iris Ave	Hard	100	45	45	45	437	0	0	61.5	6	56.4	57.4
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1590	1	1	67.2	6	62.0	63.0
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1536	1	1	66.3	6	62.3	63.3
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1171	0	1	67.3	6	63.2	64.2
81	SR 60 WB Ramps	West of Heacock St		Hard	100	45	45	45	434	1	5	61.1	6	58.5	59.5
85	SR 60 WB Onramp	West of Perris	0	Hard	100	45	45	45	764	0	4	63.2	6	59.7	60.7
86	SR 60 WB Offramp	East of Perris B	0	Hard	100	45	45	45	1334	2	11	65.8	6	62.8	63.8
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	610	2	1	64.9	6	60.7	61.7
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	342	0	0	59.5	60	55.2	56.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
105	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	626	3	8	62.8	63.8	140	-	-
106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	1064	3	9	64.8	65.8	285	22	-
107	Alessandro Blvd	Old 215 Frontage Rd	Day St	Hard	100	45	45	45	2436	7	20	68.4	69.4	776	177	-
108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	727	14	19	64.2	65.2	232	5	-
109	Day St	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	621	0	1	58.7	59.7	-	-	-
110	Alessandro Blvd	Day St	Elsworth St	Hard	100	45	45	45	2416	5	13	68.2	69.2	741	166	-
111	Elsworth St	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	521	0	1	58.0	59.0	-	-	-
112	Alessandro Blvd	Elsworth St	Frederick St	Hard	100	45	45	45	2490	3	14	68.4	69.4	765	174	-
113	Elsworth St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	629	2	2	62.3	63.3	113	-	-
114	Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1302	1	4	65.4	66.4	339	39	-
115	Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2550	7	11	68.5	69.5	783	179	-
116	Frederick St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	725	2	10	63.4	64.4	177	-	-
117	Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	825	2	2	63.4	64.4	178	-	-
118	Alessandro Blvd	Graham St	Heacock St	Hard	100	45	45	45	2720	9	10	68.7	69.7	836	196	-
119	Graham St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	712	2	2	62.8	63.8	141	-	-
120	Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1449	4	14	66.2	67.2	428	67	-
121	Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2312	5	3	67.9	68.9	672	144	-
122	Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1252	3	15	65.7	66.7	369	48	-
123	Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	908	2	1	63.8	64.8	200	-	-
124	Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2195	6	2	67.6	68.6	631	131	-
125	Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	933	1	1	63.9	64.9	207	-	-
126	Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1951	3	3	67.1	68.1	550	106	-
127	Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1924	3	10	67.3	68.3	569	111	-
128	Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	769	1	0	63.0	64.0	151	-	-
129	Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1545	4	2	66.1	67.1	414	63	-
130	Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	711	1	0	62.7	63.7	132	-	-
131	Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	876	1	1	63.6	64.6	190	-	-
133	Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1239	2	1	65.1	66.1	308	29	-
134	Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	307	1	0	59.0	60.0	1	-	-
135	Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	1156	2	3	66.4	67.4	447	73	-
136	Nason St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1636	1	1	66.3	67.3	437	70	-
137	Nason St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1542	2	2	66.1	67.1	410	61	-
138	I-215 SB Ramps	North of Cactus Ave	0	Hard	100	45	45	45	149	1	18	59.6	60.6	15	-	-
139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps	Hard	100	45	45	45	2291	11	36	68.5	69.5	798	184	-
140	I-215 SB Ramps	South of Cactus Ave	0	Hard	100	45	45	45	726	10	6	63.4	64.4	178	-	-
141	Cactus Ave	I-215 NB Ramps	Elsworth St	Hard	100	45	45	45	3158	27	60	70.1	71.1	1198	310	30
142	I-215 NB Ramps	South of Cactus Ave	0	Hard	100	45	45	45	523	6	11	62.4	63.4	121	-	-
143	Cactus Ave	Elsworth St	Frederick St	Hard	100	45	45	45	3490	17	53	70.3	71.3	1260	330	36
144	Cactus Ave	Frederick St	Graham St	Hard	100	45	45	45	3532	20	47	70.3	71.3	1259	330	36
145	Cactus Ave	Graham St	Heacock St	Hard	100	45	45	45	3061	16	42	69.7	70.7	1079	273	18
146	Riverside Dr	Cactus Ave	Meyer Dr	Hard	100	45	45	45	644	1	0	62.2	63.2	111	-	-
147	Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1947	3	1	67.1	68.1	539	102	-
148	Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2045	17	48	68.4	69.4	772	176	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
114 Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1302	1	4	65.4	6	61.0	62.0
115 Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2550	7	11	68.5	6	65.0	66.0
117 Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	825	2	2	63.4	6	59.6	60.6
120 Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1449	4	14	66.2	6	63.5	64.5
121 Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2312	5	3	67.9	6	63.9	64.9
122 Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1252	3	15	65.7	6	63.3	64.3
123 Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	908	2	1	63.8	6	59.6	60.6
124 Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2195	6	2	67.6	6	63.5	64.5
125 Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	933	1	1	63.9	6	59.7	60.7
126 Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1951	3	3	67.1	6	63.1	64.1
127 Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1924	3	10	67.3	6	63.9	64.9
128 Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	769	1	0	63.0	6	58.7	59.7
129 Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1545	4	2	66.1	6	62.0	63.0
130 Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	711	1	0	62.7	6	58.4	59.4
131 Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	876	1	1	63.6	6	59.6	60.6
133 Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1239	2	1	65.1	6	60.9	61.9
134 Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	307	1	0	59.0	6	54.7	55.7
135 Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	1156	2	3	66.4	6	62.5	63.5
147 Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1947	3	1	67.1	6	62.8	63.8
148 Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2045	17	48	68.4	6	66.9	67.9

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1827	1	0	66.7	67.7	495	88	-
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1051	2	1	64.4	65.4	247	10	-
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1575	1	2	66.1	67.1	418	64	-
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1992	10	8	67.4	68.4	594	119	-
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1239	0	1	61.7	62.7	87	-	-
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	795	1	0	63.1	64.1	159	-	-
155	Cactus Ave	Lasselle St	Morrison St	Hard	100	45	45	45	1269	1	1	65.2	66.2	317	32	-
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1722	1	0	66.5	67.5	461	78	-
157	Cactus Ave	Morrison St	Nason St	Hard	100	45	45	45	1391	1	2	65.6	66.6	360	46	-
158	E 6th St	Beaumont Ave	Pennsylvania Ave	Hard	100	45	45	45	1305	2	7	65.6	66.6	354	44	-
159	Beaumont Ave	E 6th St	I-10	Hard	100	45	45	45	1095	4	5	64.8	65.8	280	20	-
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	657	2	0	62.4	63.4	116	-	-
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1779	6	3	66.8	67.8	500	90	-
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1839	8	5	67.0	68.0	528	99	-
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	880	2	0	63.6	64.6	190	-	-
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1582	1	1	66.1	67.1	417	63	-
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2516	9	4	68.3	69.3	746	167	-
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	969	4	1	64.1	65.1	223	2	-
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	716	0	0	62.7	63.7	133	-	-
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	926	3	1	63.9	64.9	207	-	-
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	2182	2	2	67.6	68.6	618	127	-
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	2189	2	2	67.6	68.6	621	128	-
173	Oleander Ave	Perris Blvd	Lasselle St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
174	Oleander Ave	Lasselle St	Lake Perris Dr	Hard	100	45	45	45	0	0	0	-	-	-	-	-
177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	Hard	100	45	45	45	1761	11	13	67.1	68.1	540	102	-
178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	Hard	100	45	45	45	523	2	1	61.5	62.5	78	-	-
179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	Hard	100	45	45	45	2160	8	13	67.8	68.8	663	141	-
180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	Hard	100	45	45	45	2017	22	20	67.8	68.8	666	142	-
181	Potrero Blvd	North of SR 60 WB Ramps	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
182	SR 60 WB On Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
183	SR 60 WB Off Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
184	SR 60 EB Off Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
185	SR 60 EB On Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	Hard	100	45	45	45	1691	7	14	66.9	67.9	513	94	-
191	Gilman Springs Rd	Bridge St	Beaumont Ave	Hard	100	45	45	45	1474	5	12	66.3	67.3	431	68	-
192	Bridge St	Gilman Springs Rd	Marvin Rd	Hard	100	45	45	45	285	1	13	60.6	61.6	43	-	-
194	Crescent Ave	West of Alessandro Rd	0	Hard	100	35	35	35	383	1	0	56.6	57.6	-	-	-
195	Crescent Ave	Alessandro Rd	Center St	Hard	100	45	45	45	608	2	0	62.0	63.0	100	-	-
196	Alessandro Rd	Crescent Ave	Sunset St	Hard	100	45	45	45	662	3	0	62.4	63.4	120	-	-
198	Sunset Dr	Crown St	Alessandro Rd	Hard	100	35	35	35	54	0	0	48.0	49.0	-	-	-
199	Sunset Dr	Alessandro Rd	Cameo Dr	Hard	100	35	35	35	89	0	0	50.2	51.2	-	-	-
200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	Hard	100	45	45	45	616	3	0	62.1	63.1	105	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: **World Logistics Center**
Project Number: **D180130**
Analysis Scenario: **Future 2025 Without Project**
Source of Traffic Volumes: **0**

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
149 Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1827	1	0	66.7	6	62.5	63.5
150 Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1051	2	1	64.4	6	60.2	61.2
151 Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1575	1	2	66.1	6	62.1	63.1
152 Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1992	10	8	67.4	6	63.8	64.8
153 Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1239	0	1	61.7	6	57.7	58.7
154 Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	795	1	0	63.1	6	58.8	59.8
156 Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1722	1	0	66.5	6	62.2	63.2
160 Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	657	2	0	62.4	6	58.1	59.1
161 Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1779	6	3	66.8	6	62.8	63.8
162 Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1839	8	5	67.0	6	63.2	64.2
163 Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	880	2	0	63.6	6	59.3	60.3
164 Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1582	1	1	66.1	6	61.9	62.9
165 Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2516	9	4	68.3	6	64.3	65.3
168 Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	969	4	1	64.1	6	59.9	60.9
169 Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	716	0	0	62.7	6	58.4	59.4
170 Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	926	3	1	63.9	6	59.7	60.7
171 Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	2182	2	2	67.6	6	63.4	64.4
172 Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	2189	2	2	67.6	6	63.4	64.4
178 Live oak Canyon I	San Timoteo Can	I-10	Hard	100	45	45	45	523	2	1	61.5	6	57.8	58.8

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	Hard	100	45	45	45	1724	5	0	66.5	67.5	468	80	-
206	Reche Canyon Rd	Reche Vista Dr	High Country Dr	Hard	100	45	45	45	48	0	0	50.9	51.9	-	-	-
207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	Hard	100	35	35	35	1715	5	0	63.1	64.1	160	-	-
215	Mission Grove Pkwy	Cannon Rd	Alessandro Blvd	Hard	100	35	35	35	763	1	1	59.7	60.7	17	-	-
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	4260	12	29	70.8	71.8	1412	378	51
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	1115	2	0	64.6	65.6	266	16	-
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	6502	21	47	72.7	73.7	2226	635	133
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1434	2	1	65.7	66.7	373	49	-
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1721	6	12	66.9	67.9	516	95	-
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	68	0	0	49.1	50.1	-	-	-
225	Via Vista Dr	Alessandro Blvd	Canyon Crest Dr	Hard	100	45	45	45	320	0	0	59.2	60.2	4	-	-
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5336	16	35	71.8	72.8	1793	499	89
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	329	0	0	59.3	60.3	7	-	-
229	Century Ave	Alessandro Blvd	Claridge Dr	Hard	100	45	45	45	238	0	0	57.9	58.9	-	-	-
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	144	0	0	55.7	56.7	-	-	-
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago A	Hard	100	45	45	45	3185	2	12	69.4	70.4	985	243	9
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3175	9	17	69.4	70.4	1008	251	11
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	5540	14	37	71.9	72.9	1863	521	96
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1143	1	1	64.7	65.7	275	19	-
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4457	13	25	70.9	71.9	1465	395	57
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1605	4	3	66.3	67.3	437	70	-
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	3827	13	24	70.3	71.3	1254	328	35
240	Durango Rd	Laramie Rd	Arlington Ave	Hard	100	45	45	45	297	0	0	58.9	59.9	-	-	-
241	Horace St	Arlington Ave	Victoria Ave	Hard	100	45	45	45	404	1	0	60.2	61.2	32	-	-
242	Arlington Ave	Maude St	SR-91 WB Ramps	Hard	100	45	45	45	4673	13	24	71.1	72.1	1532	416	63
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1463	1	3	65.9	66.9	387	54	-
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	892	3	11	64.3	65.3	236	6	-
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	391	1	0	60.1	61.1	30	-	-
246	Indiana Ave	Arlington Ave	SR-91 EB Ramps	Hard	100	45	45	45	1658	5	10	66.7	67.7	485	85	-
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	3974	8	18	70.4	71.4	1273	334	37
250	Country Club Dr	Chicago Ave	Canyon Crest Dr	Hard	100	35	35	35	296	1	0	55.6	56.6	-	-	-
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	2452	5	10	68.3	69.3	743	167	-
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2365	6	19	68.3	69.3	748	168	-
256	Canyon Crest Dr	Central Ave	Country Club Dr	Hard	100	45	45	45	2097	6	14	67.7	68.7	646	136	-
258	El Cerrito Dr	Canyon Crest Dr	Central Ave	Hard	100	45	45	45	571	0	1	61.8	62.8	89	-	-
260	Central Ave	Canyon Crest Dr	I-215	Hard	100	45	45	45	2887	5	15	69.0	70.0	904	218	0
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1233	4	10	62.3	63.3	113	-	-
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1933	4	12	64.1	65.1	222	2	-
263	Central Ave	Sycamore Canyon Blvd	SR-60 EB Ramps	Hard	100	45	45	45	2008	3	14	67.5	68.5	609	124	-
264	SR-60 EB Ramps	SR-60	Central Ave	Hard	100	45	45	45	978	0	3	64.2	65.2	229	4	-
265	Central Ave	SR-60 EB Ramps	SR-60 WB Ramps	Hard	100	45	45	45	969	1	1	64.0	65.0	218	1	-
266	SR-60 WB Ramps	Central Ave	SR-60	Hard	100	45	45	45	932	2	11	64.4	65.4	245	9	-
267																

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT		6		
216 Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	4260	12	29	70.8	6	67.7	68.7
217 Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	1115	2	0	64.6	6	60.3	61.3
218 Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	6502	21	47	72.7	6	69.6	70.6
219 Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1434	2	1	65.7	6	61.6	62.6
221 Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1721	6	12	66.9	6	63.8	64.8
223 Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	68	0	0	49.1	6	44.8	45.8
226 Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5336	16	35	71.8	6	68.6	69.6
227 Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	329	0	0	59.3	6	55.0	56.0
230 Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	144	0	0	55.7	6	51.4	52.4
231 Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago Ave	Hard	100	45	45	45	3185	2	12	69.4	6	65.8	66.8
232 Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3175	9	17	69.4	6	66.1	67.1
233 Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	5540	14	37	71.9	6	68.8	69.8
236 Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1143	1	1	64.7	6	60.5	61.5
237 Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4457	13	25	70.9	6	67.7	68.7
238 Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1605	4	3	66.3	6	62.3	63.3
239 Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	3827	13	24	70.3	6	67.1	68.1
243 Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1463	1	3	65.9	6	61.9	62.9
244 SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	892	3	11	64.3	6	61.9	62.9
245 SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	391	1	0	60.1	6	56.1	57.1
247 Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	3974	8	18	70.4	6	66.9	67.9
252 Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	2452	5	10	68.3	6	64.8	65.8
254 Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2365	6	19	68.3	6	65.3	66.3
261 Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1233	4	10	62.3	6	59.8	60.8
262 Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1933	4	12	64.1	6	61.3	62.3

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
 For hard ground, the propagation rate is 3 dB per doubling the distance.
 For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
268	I-215 NB Off-Ramp	Watkins Dr	I-215	Hard	100	45	45	45	0	0	0	-	-	-	-	-
269	Martin Luther King Blvd	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	69.3	748	168	-
270	Chicago Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1696	44	3	67.0	68.0	538	102	-
271	Martin Luther King Blvd	Chicago Ave	Iowa Ave	Hard	100	45	45	45	1821	13	1	66.9	67.9	517	95	-
272	Chicago Ave	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	69.0	700	153	-
273	Iowa Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1153	10	3	65.0	66.0	301	27	-
274	Martin Luther King Blvd	Iowa Ave	Canyon Crest Dr	Hard	100	45	45	45	2970	5	10	69.0	70.0	909	219	1
275	Canyon Crest Dr	Campus Dr	Martin Luther King Blvd	Hard	100	45	45	45	1246	2	4	65.3	66.3	324	34	-
276	Martin Luther King Blvd	Canyon Crest Dr	I-215 SB Ramps	Hard	100	45	45	45	2497	5	19	68.5	69.5	790	181	-
277	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2365	6	19	68.3	69.3	748	168	-
278	I-215 SB Off-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	471	2	4	61.3	62.3	72	-46	-
279	Martin Luther King Blvd	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1385	3	7	65.8	66.8	380	52	-
280	I-215 SB On-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	732	1	9	63.4	64.4	173	-	-
281	I-215 NB On-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	826	2	5	63.6	64.6	188	-	-
282	I-215 NB Off-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	1269	2	7	65.4	66.4	339	39	-
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	596	1	6	62.4	63.4	118	-	-
284	SR-60 EB On-Ramp	Heacock St	SR-60	Hard	100	45	45	45	424	2	8	61.3	62.3	70	-	-
285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2077	3	12	67.6	68.6	623	129	-
286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	Hard	100	45	45	45	2877	8	4	68.8	69.8	863	205	-
287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2991	9	10	69.1	70.1	926	224	3
288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	Hard	100	45	45	45	1463	3	4	65.9	66.9	393	56	-
289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	Hard	100	45	45	45	1334	2	11	65.8	66.8	375	50	-
290	Perris Blvd	Sunnymead Blvd	Fir Ave	Hard	100	45	45	45	2363	8	20	68.3	69.3	755	170	-
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-	-	-
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	843	1	2	63.5	64.5	181	-	-
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1031	1	0	64.3	65.3	236	6	-
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1775	5	10	66.9	67.9	522	97	-
304	Iris Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1196	1	4	65.1	66.1	305	28	-
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	2258	11	10	68.0	69.0	691	150	-
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2506	21	28	68.8	69.8	855	202	-
324	Ramona Expy	Warren Rd	Sanderson Ave	Hard	100	45	45	45	2081	18	17	67.9	68.9	671	144	-
325	Sanderson Ave	Gilman Springs Rd	Ramona Expy	Hard	100	45	45	45	2258	10	20	68.2	69.2	726	161	-
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	2244	16	16	68.1	69.1	718	159	-
327	Sanderson Ave	Ramona Expy	Ramona Blvd	Hard	100	45	45	45	3126	19	24	69.6	70.6	1038	260	14
340	Alessandro blvd	North of San Timoteo Canyon	0	Hard	100	45	45	45	598	2	0	62.0	63.0	98	-	-
351	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	45	45	45	523	2	1	61.5	62.5	78	-	-
358	Gilman Springs Rd	Bridge St	SR-79 NB Ramps	Hard	100	45	45	45	831	4	7	63.8	64.8	204	-	-
359	SR-79 SB Off-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	345	3	4	60.1	61.1	30	-	-
360	Gilman Springs Rd	SR-79 NB Ramps	SR-79 SB Ramps	Hard	100	45	45	45	1274	4	7	65.5	66.5	348	42	-
361	SR-79 SB On-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	535	5	6	62.1	63.1	103	-	-
362	SR-79 NB On-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	408	3	0	60.4	61.4	38	-	-
363	Gilman Springs Rd	SR-79 SB Ramps	Record Rd	Hard	100	45	45	45	1332	4	6	65.6	66.6	362	46	-
364	SR-79 NB Off-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	425	3	1	60.7	61.7	47	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Exisiting 2018 Ph1
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
269 Martin Luther King I	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	6	64.1	65.1
272 Chicago Ave	Martin Luther King I	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	6	63.9	64.9
279 Martin Luther King I	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1385	3	7	65.8	6	61.3	62.3
280 I-215 SB On-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	732	1	9	63.4	6	58.5	59.5
281 I-215 NB On-Ramp	I-215	Martin Luther King I	Hard	100	45	45	45	826	2	5	63.6	6	59.0	60.0
282 I-215 NB Off-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	1269	2	7	65.4	6	60.9	61.9
283 SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	596	1	6	62.4	6	57.6	58.6
294 Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
301 John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	843	1	2	63.5	6	59.6	60.6
302 John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1031	1	0	64.3	6	60.0	61.0
303 Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1775	5	10	66.9	6	63.6	64.6
306 Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	2258	11	10	68.0	6	64.5	65.5
307 Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2506	21	28	68.8	6	66.2	67.2
326 Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	2244	16	16	68.1	6	65.1	66.1

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
365	Alessandro Blvd	Sycamore Canyon Blvd	Vista Grande Dr	Hard	100	45	45	45	4573	15	35	71.2	72.2	1544	420	64
366	Sycamore Canyon Blvd	Eastridge Ave	Alessandro Blvd	Hard	100	45	45	45	1332	2	27	66.3	67.3	436	69	-
367	Meridian Pkwy	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1742	4	19	67.1	68.1	543	103	-
375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
376	3rd St	Marvin Rd	Mid County Pkwy WB Ra	Hard	100	45	45	45	0	0	0	-	-	-	-	-
377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ra	Hard	100	45	45	45	0	0	0	-	-	-	-	-
379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
386	Harley Know Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	1089	11	36	66.1	67.1	409	61	-
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2871	18	44	69.5	70.5	1027	256	13
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	617	0	0	62.0	63.0	101	-	-
389	El Cerrito Dr	North of Central Ave	0	Hard	100	45	45	45	571	0	1	61.8	62.8	89	-	-
390	Ramona Expy	Webster Ave	Indian St	Hard	100	45	45	45	2701	18	102	70.1	71.1	1188	307	29
392	Ramona Expy	Indian St	Perris Blvd	Hard	100	45	45	45	3104	17	48	69.8	70.8	1116	284	22
393	Indian St	Ramona Expy	Morgan St	Hard	100	45	45	45	963	21	35	65.8	66.8	381	52	-
394	Perris Blvd	Harley Know blvd	Ramona Expy	Hard	100	45	45	45	2164	14	23	68.1	69.1	713	157	-
396	Perris Blvd	Ramona Expy	Rider St	Hard	100	45	45	45	2285	12	15	68.1	69.1	721	160	-
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2872	14	16	69.1	70.1	917	222	2
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	2452	3	1	68.1	69.1	704	154	-
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2207	8	10	70.6	71.6	1345	357	45
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1402	0	0	65.6	66.6	357	44	-
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	248	3	3	58.9	59.9	-	-	-
402	Morgan St	Perris Blvd	Silver Creek Industires	Hard	100	45	45	45	123	0	2	55.7	56.7	-	-	-
404	Morgan St	Morgan Park	Evans Rd	Hard	100	45	45	45	429	0	0	60.4	61.4	40	-	-
405	Morgan St	Evans Rd	Bradley Rd	Hard	100	45	45	45	384	0	0	60.0	61.0	25	-	-
406	Ironwood Ave	East of Thedore St	0	Hard	100	45	45	45	54	4	14	57.7	58.7	-	-	-
407	Rider St	Indian St	Perris Blvd	Hard	100	45	45	45	795	1	6	63.5	64.5	180	-	-
408	Rider St	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1033	0	2	64.3	65.3	241	8	-
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	615	1	0	62.0	63.0	101	-	-
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1320	0	2	65.4	66.4	335	37	-
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	930	0	2	63.9	64.9	208	-	-
412	Maude St	South of Arlington Ave	0	Hard	100	45	45	45	841	1	0	63.4	64.4	175	-	-
413	Placentia Ave	Indian St	Perris Blvd	Hard	100	45	45	45	513	3	5	61.8	62.8	89	-	-
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	665	2	1	62.5	63.5	124	-	-
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	2964	17	17	69.2	70.2	956	234	6
416	Mid County Pkwy WB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
417	Mid County Pkwy WB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
419	Mid County Pkwy EB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
420	Mid County Pkwy EB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-	-	-
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	2013	3	22	67.7	68.7	643	135	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2871	18	44	69.5	6	67.4	68.4
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	617	0	0	62.0	6	57.7	58.7
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2872	14	16	69.1	6	65.8	66.8
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	2452	3	1	68.1	6	63.8	64.8
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2207	8	10	70.6	6	67.0	68.0
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1402	0	0	65.6	6	61.3	62.3
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	248	3	3	58.9	6	56.6	57.6
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	615	1	0	62.0	6	57.7	58.7
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1320	0	2	65.4	6	61.3	62.3
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	930	0	2	63.9	6	59.9	60.9
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	665	2	1	62.5	6	58.5	59.5
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	2964	17	17	69.2	6	65.9	66.9
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	2013	3	22	67.7	6	65.1	66.1

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
425	Mid County Pkwy WB Or	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
426	Mid County Pkwy WB Of	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
427	Day St	South of Alessandro Blvd		0	Hard	100	45	45	45	172	1	11	59.0	60.0	-	-	-
428	Mid County Pkwy EB Off-	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
429	Mid County Pkwy EB On-	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
430	Alessandro blvd	SR-215 NB Ramp	SR-215 SB Ramp		Hard	100	45	45	45	3456	8	43	70.1	71.1	1197	310	30
431	Placentia Ave	Water Ave	Evans Rd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
432	Placentia Ave	Evans Rd	El Nido Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
433	Evans Rd	Rider St	Orange Ave		Hard	100	45	45	45	980	0	1	64.1	65.1	220	1	-
434	Orange Ave	Wilson Ave	Evans Rd		Hard	100	45	45	45	902	1	1	63.7	64.7	198	-	-
435	Orange Ave	Evans Rd	Foothill Dr		Hard	100	35	35	35	806	0	806	72.4	73.4	2089	592	119
436	Elsworth St	North of Cactus Ave		0	Hard	100	45	45	45	670	3	4	62.7	63.7	137	-	-
441	Nuevo Rd	Wilson Ave	Evans Rd		Hard	100	45	45	45	1716	3	4	66.6	67.6	480	83	-
442	Evans Rd	Orange Ave	Nuevo Rd		Hard	100	45	45	45	1287	6	3	65.5	66.5	342	40	-
443	Nuevo Rd	Evans Rd	Foothill Dr		Hard	100	45	45	45	1200	1	2	65.0	66.0	301	27	-
444	Evans Rd	Nuevo Rd	San Jacinto Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
452	San Jacinto Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
453	Evans Rd	North of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
454	San Jacinto Ave	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
455	Evans Rd	South of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
458	Nason St	South of Cactus Ave		0	Hard	100	45	45	45	1278	3	1	65.3	66.3	322	34	-
464	Quincy	South of Eucalyptus		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
477	Ellis Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
478	Evans Rd	North of Ellis Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
479	Oliver St	North of Irris Ave		0	Hard	100	45	45	45	437	0	0	60.5	61.5	42	-	-
480	Ellis Ave	Evans Rd	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
481	SR-215 SB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
482	Ellis Ave	East of SR-215		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
483	SR-215 SB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
484	SR-215 NB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
485	SR-215 NB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
488	Nason St	North of Iris Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
494	Evans Rd	North of Harley Knox Blvd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
498	Morrison St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave		Hard	100	45	45	45	2351	10	17	68.3	69.3	744	167	-
500	Perris Blvd	North of Eucalyptus Ave		0	Hard	100	45	45	45	2431	9	18	68.4	69.4	771	175	-
502	Quincy	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
503	Quincy	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
504	Krameria Ave	West of Perris Blvd		0	Hard	100	45	45	45	443	2	1	60.7	61.7	50	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Without Project
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
433 Evans Rd	Rider St	Orange Ave	Hard	100	45	45	45	979.57	0	0.5	64.1	6	60	60.9
434 Orange Ave	Wilson Ave	Evans Rd	Hard	100	45	45	45	901.88	0.5	1.0833	63.7	6	60	60.7
441 Nuevo Rd	Wilson Ave	Evans Rd	Hard	100	45	45	45	1716.3	3.4444	4.3	66.6	6	63	63.8
442 Evans Rd	Orange Ave	Nuevo Rd	Hard	100	45	45	45	1287.3	5.9444	3.4333	65.5	6	62	62.7
443 Nuevo Rd	Evans Rd	Foothill Dr	Hard	100	45	45	45	1199.6	1	2.4	65.0	6	61	62.1
444 Evans Rd	Nuevo Rd	San Jacinto Ave	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
458 Nason St	South of Cactus A	0	Hard	100	45	45	45	1277.6	3	0.5	65.3	6	61	62.1
488 Nason St	North of Iris Ave	0	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
494 Evans Rd	North of Harley K	0	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
502 Quincy	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	0	0	0	1.8	6	1	2.4
503 Quincy	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	0	0	0	1.8	6	1	2.4
504 Krameria Ave	West of Perris Blv	0	Hard	100	45	45	45	443.4	2.0313	0.5	60.7	6	57	57.7

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

2025 Phase 1

ESA

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
1	WLC Pkwy	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	948	51	364	71.4	72.4	1649	453	75
2	WLC Pkwy	Eucalyptus Ave	Street F	Hard	100	45	45	45	517	26	181	68.5	69.5	786	180	-
3	Street E	west of WLC Pkwy	0	Hard	100	45	45	45	151	12	50	63.1	64.1	155	-	-
4	Street E	north of Alessandro Blvd	0	Hard	100	45	45	45	301	11	3	60.1	61.1	29	-	-
5	Alessandro Blvd	Cactus Ave Extension	WLC Pkwy	Hard	100	45	45	45	571	21	0	62.5	63.5	122	-	-
6	WLC Pkwy	Street F	Alessandro Blvd	Hard	100	45	45	45	964	55	396	71.7	72.7	1779	494	88
7	WLC Pkwy	south of Alessandro Blvd	0	Hard	100	45	45	45	507	10	0	61.6	62.6	83	-	-
8	Cactus Ave Extension	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	656	20	0	62.9	63.9	148	-	-
9	John F Kennedy Dr	south of Cactus Ave	0	Hard	100	45	45	45	1002	18	1	64.5	65.5	259	13	-
10	Redlands Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	732	5	0	62.9	63.9	147	-	-
11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	Hard	100	45	45	45	848	7	0	63.6	64.6	188	-	-
12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	Hard	100	45	45	45	1092	5	1	64.6	65.6	265	15	-
13	Redlands Blvd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1285	11	38	66.6	67.6	476	82	-
14	Eucalyptus Ave	east of Redlands blvd	0	Hard	100	45	45	45	197	4	27	61.3	62.3	70	-	-
15	Eucalyptus Ave	west of Street A	0	Hard	100	45	45	45	197	2	28	61.4	62.4	72	-	-
18	Street B	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
18a	Street B	west of Gilman Springs Rd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
19	Street F	east of WLC Pkwy	0	Hard	100	45	45	45	200	0	0	57.1	58.1	-	-	-
20	Street F	north of Alessandro Blvd	0	Hard	100	45	45	45	160	4	10	58.8	59.8	-	-	-
21	Alessandro Blvd	east of WLC Pkwy	0	Hard	100	45	45	45	282	3	5	59.6	60.6	15	-	-
22	Alessandro Blvd	west of Street F	0	Hard	100	45	45	45	282	3	5	59.6	60.6	15	-	-
23	Street F	Alessandro Blvd	Street G	Hard	100	45	45	45	0	0	0	-	-	-	-	-
24	Alessandro Blvd	Street F	Gilman Springs Rd	Hard	100	45	45	45	318	6	16	61.3	62.3	72	-	-
25	Alessandro Blvd	Street H	Gilman Springs Rd	Hard	100	45	45	45	318	6	16	61.3	62.3	72	-	-
29	Gilman Springs Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	1363	4	7	65.8	66.8	375	50	-
30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1363	4	7	65.8	66.8	375	50	-
31	Gilman Springs Rd	south of Street C	0	Hard	100	45	45	45	1663	10	19	67.0	68.0	529	99	-
32	Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	395	5	0	60.4	61.4	37	-	-
33	Alessandro Blvd	west of Redlands Blvd	0	Hard	100	45	45	45	274	4	0	58.9	59.9	-	-	-
35	Redlands Blvd	Ironwood Ave	State Route 60	Hard	100	55	55	55	1855	9	36	70.4	71.4	1275	335	38
36	Ironwood Ave	Redlands Blvd	Highland Blvd	Hard	100	35	35	35	115	5	2	53.3	54.3	-	-	-
37	San Timoteo Canyon Rd	west Live Oak Canyon	0	Hard	100	45	45	45	1718	15	33	67.5	68.5	609	124	-
38	Theodore St	State Route 60	Highland Blvd	Hard	100	45	45	45	141	10	14	59.5	60.5	13	-	-
42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	Hard	100	55	55	55	2042	13	34	70.7	71.7	1387	370	49
43	Moreno Beach Dr	Alessandro Blvd	SR 60	Hard	100	45	45	45	1559	1	19	66.6	67.6	479	83	-
46	Moreno Beach Dr	State Route 60	Ironwood Ave	Hard	100	45	45	45	936	1	7	64.2	65.2	229	4	-
47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	496	1	0	61.1	62.1	62	-	-
48	Alessandro Blvd	Lasselle St	Morrison St	Hard	100	45	45	45	1244	5	6	65.4	66.4	335	38	-
50	Cactus Ave	Redlands Blvd	Cactus Ave Extension	Hard	100	45	45	45	571	21	0	62.5	63.5	122	-	-

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odel Notes:
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with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
32 Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	395.47	4.7152	0	60	6	56	57.1

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	Hard	100	45	45	45	1400	3	3	65.7	66.7	370	49	-
52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	Hard	100	35	35	35	1523	18	2	63.0	64.0	152	-	-
53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	387	1	1	60.2	61.2	31	-	-
54	Locust Ave	Moreno Beach Dr	Smiley Blvd	Hard	100	35	35	35	35	0	0	46.2	47.2	-	-	-
55	Locust Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	129	0	0	55.2	56.2	-	-	-
56	Moreno Beach Dr	Locust Ave	Ironwood Ave	Hard	100	35	35	35	214	0	0	54.0	55.0	-	-	-
57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	35	35	35	521	2	2	58.3	59.3	-	-	-
58	SR 60 EB Ramps	West of Moreno Beach Dr	0	Hard	100	45	45	45	496	0	4	61.4	62.4	74	-	-
59	Eucalyptus Ave	Moreno Beach Dr	Quincy Dr	Hard	100	45	45	45	219	0	5	58.4	59.4	-	-	-
60	SR 60 WB Ramps	East of Redlands Blvd	0	Hard	100	45	45	45	822	8	26	64.8	65.8	277	19	-
61	SR 60 EB Ramps	West fo Redlands Blvd	0	Hard	100	45	45	45	889	8	29	65.1	66.1	310	30	-
62	Fir Ave	Quincy Dr	Redlands Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
65	Alessandro Blvd	Nason St	Oliver St	Hard	100	45	45	45	953	2	8	64.3	65.3	241	8	-
66	Alessandro Blvd	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	734	3	7	63.3	64.3	169	-	-
67	Oliver St	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	258	0	0	54.8	55.8	-	-	-
68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1506	3	4	66.1	67.1	408	61	-
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	1201	3	1	65.0	66.0	297	26	-
70	Cactus Ave	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	681	3	1	62.6	63.6	129	-	-
71	Oliver St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	611	0	0	62.0	63.0	99	-	-
72	Oliver St	John F Kennedy Dr	Iris Ave	Hard	100	45	45	45	447	0	0	60.6	61.6	45	-	-
73	Iris Ave	Nason St	Oliver St	Hard	100	45	45	45	1904	18	2	67.2	68.2	559	108	-
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1595	1	1	66.2	67.2	424	66	-
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1530	1	1	66.0	67.0	403	59	-
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1180	1	1	64.9	65.9	286	22	-
77	Heacock St	Ironwood Ave	Hemlock Ave	Hard	100	45	45	45	1646	2	2	66.3	67.3	443	72	-
80	Heacock St	Hemlock Ave	SR 60 WB Ramps	Hard	100	45	45	45	2039	0	3	67.3	68.3	572	112	-
81	SR 60 WB Ramps	West of Heacock St	0	Hard	100	45	45	45	434	1	5	61.1	62.1	61	-	-
82	SR 60 WB Ramps	East of Heacock St	0	Hard	100	45	45	45	424	2	14	61.9	62.9	95	-	-
83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	Hard	100	45	45	45	2078	4	14	67.7	68.7	634	132	-
85	SR 60 WB Onramp	West of Perris Blvd	0	Hard	100	45	45	45	763	0	4	63.2	64.2	161	-	-
86	SR 60 WB Offramp	East of Perris Blvd	0	Hard	100	45	45	45	1331	2	22	66.2	67.2	419	64	-
87	Eualyptus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	495	0	0	61.1	62.1	61	-	-
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	605	2	1	64.8	65.8	282	21	-
95	W 6th St	I-10	N California Ave	Hard	100	35	35	35	1158	2	8	61.9	62.9	94	-	-
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	332	0	0	59.3	60.3	8	-	-
97	E 6th St	N California Ave	Beaumont Ave	Hard	100	45	45	45	870	1	6	63.9	64.9	209	-	-
98	N California Ave	W 6th St	I-10	Hard	100	55	55	55	947	2	4	66.9	67.9	514	94	-
99	Beaumont Ave	E 6th St	E 8th St	Hard	100	45	45	45	1075	1	2	64.6	65.6	261	14	-
100	I-215 SB Ramps	North of Alessandro Blvd	0	Hard	100	45	45	45	524	3	32	63.7	64.7	194	-	-
101	Alessandro Blvd	Sycamore Canyon Blvd	I-215 SB Ramps	Hard	100	45	45	45	4080	13	43	70.8	71.8	1407	377	51
102	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	634	3	28	64.0	65.0	217	0	-
103	I-215 NB Ramps	Nouth of Alessandro Blvd	0	Hard	100	45	45	45	405	4	20	62.3	63.3	114	-	-
104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	Hard	100	45	45	45	3009	7	38	69.5	70.5	1033	258	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
iin ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

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TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	1201	3	1	66.0	6	60.8	61.8
70	Cactus Ave	Oliver St	Moreno Beach	Hard	100	45	45	45	681	3	1	63.6	6	58.5	59.5
71	Oliver St	Cactus Ave	John F Kennedy	Hard	100	45	45	45	611	0	0	63.0	6	57.8	58.8
72	Oliver St	John F Kennedy	Iris Ave	Hard	100	45	45	45	447	0	0	61.6	6	56.5	57.5
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1595	1	1	67.2	6	62.0	63.0
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	1530	1	1	66.3	6	62.3	63.3
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1180	1	1	67.3	6	63.2	64.2
81	SR 60 WB Ramps	West of Heacock St		Hard	100	45	45	45	434	1	5	61.1	6	58.5	59.5
85	SR 60 WB Onramp	West of Perris	0	Hard	100	45	45	45	763	0	4	63.2	6	59.7	60.7
86	SR 60 WB Offramp	East of Perris B	0	Hard	100	45	45	45	1331	2	22	66.2	6	64.2	65.2
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	605	2	1	64.8	6	60.7	61.7
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	332	0	0	59.3	60	55.0	56.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
105	I-215 SB Ramps	South of Alessandro Blvd		0	Hard	100	45	45	45	634	3	7	62.8	63.8	139	-	-
106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd		Hard	100	45	45	45	1044	3	9	64.8	65.8	278	20	-
107	Alessandro Blvd	Old 215 Frontage Rd	Day St		Hard	100	45	45	45	2406	7	22	68.4	69.4	777	177	-
108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	728	14	19	64.2	65.2	231	5	-
109	Day St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	630	0	1	58.8	59.8	-	-	-
110	Alessandro Blvd	Day St	Elsworth St		Hard	100	45	45	45	2361	5	16	68.2	69.2	735	164	-
111	Elsworth St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	516	0	1	57.9	58.9	-22	-	-
112	Alessandro Blvd	Elsworth St	Frederick St		Hard	100	45	45	45	2432	5	19	68.4	69.4	768	174	-
113	Elsworth St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	631	2	3	62.4	63.4	117	-	-
114	Frederick St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1299	1	5	65.4	66.4	341	40	-
115	Alessandro Blvd	Frederick St	Graham St		Hard	100	45	45	45	2557	8	15	68.5	69.5	800	185	-
116	Frederick St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	715	2	10	63.4	64.4	174	-	-
117	Graham St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	820	2	2	63.4	64.4	177	-	-
118	Alessandro Blvd	Graham St	Heacock St		Hard	100	45	45	45	2713	9	15	68.8	69.8	855	202	-
119	Graham St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	707	2	2	62.8	63.8	140	-	-
120	Heacock St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1432	4	21	66.4	67.4	450	74	-
121	Alessandro Blvd	Heacock St	Indian St		Hard	100	45	45	45	2290	6	7	67.9	68.9	679	146	-
122	Heacock St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1226	3	20	65.8	66.8	380	52	-
123	Indian St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	903	2	1	63.7	64.7	198	-	-
124	Alessandro Blvd	Indian St	Perris Blvd		Hard	100	45	45	45	2153	7	5	67.6	68.6	632	131	-
125	Indian St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	928	1	1	63.8	64.8	205	-	-
126	Alessandro Blvd	Perris Blvd	Kitching St		Hard	100	45	45	45	1930	4	8	67.2	68.2	563	110	-
127	Perris Blvd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1839	3	35	67.6	68.6	632	131	-
128	Kitching St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	764	1	0	63.0	64.0	149	-	-
129	Alessandro Blvd	Kitching St	Lasselle St		Hard	100	45	45	45	1521	4	6	66.2	67.2	424	66	-
130	Kitching St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	721	1	0	62.7	63.7	135	-	-
131	Lasselle St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	871	1	1	63.6	64.6	188	-	-
133	Lasselle St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1228	2	1	65.1	66.1	305	28	-
134	Morrison St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	307	1	0	59.0	60.0	1	-	-
135	Alessandro Blvd	Morrison St	Nason St		Hard	100	50	50	50	1146	3	7	66.5	67.5	465	79	-
136	Nason St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1616	1	1	66.2	67.2	430	68	-
137	Nason St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1537	2	2	66.1	67.1	409	61	-
138	I-215 SB Ramps	North of Cactus Ave		0	Hard	100	45	45	45	150	1	18	59.6	60.6	15	-64	-
139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps		Hard	100	45	45	45	2302	12	38	68.6	69.6	812	188	-
140	I-215 SB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	751	10	7	63.6	64.6	185	-	-
141	Cactus Ave	I-215 NB Ramps	Elsworth St		Hard	100	45	45	45	3134	27	60	70.1	71.1	1189	308	29
142	I-215 NB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	528	6	12	62.6	63.6	128	-	-
143	Cactus Ave	Elsworth St	Frederick St		Hard	100	45	45	45	3451	18	52	70.3	71.3	1245	325	35
144	Cactus Ave	Frederick St	Graham St		Hard	100	45	45	45	3489	21	46	70.3	71.3	1242	324	34
145	Cactus Ave	Graham St	Heacock St		Hard	100	45	45	45	3026	17	41	69.7	70.7	1066	269	17
146	Riverside Dr	Cactus Ave	Meyer Dr		Hard	100	45	45	45	639	1	0	62.2	63.2	110	-	-
147	Cactus Ave	Heacock St	Indian St		Hard	100	45	45	45	1903	4	1	67.0	68.0	527	98	-
148	Heacock St	Cactus Ave	John F Kennedy Dr		Hard	100	45	45	45	2010	16	52	68.4	69.4	774	176	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
114 Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1299	1	5	65.4	6	61.0	62.0
115 Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	2557	8	15	68.5	6	65.3	66.3
117 Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	820	2	2	63.4	6	59.6	60.6
120 Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1432	4	21	66.4	6	64.2	65.2
121 Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	2290	6	7	67.9	6	64.2	65.2
122 Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1226	3	20	65.8	6	63.8	64.8
123 Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	903	2	1	63.7	6	59.6	60.6
124 Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	2153	7	5	67.6	6	63.9	64.9
125 Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	928	1	1	63.8	6	59.7	60.7
126 Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	1930	4	8	67.2	6	63.7	64.7
127 Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1839	3	35	67.6	6	65.8	66.8
128 Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	764	1	0	63.0	6	58.7	59.7
129 Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	1521	4	6	66.2	6	62.6	63.6
130 Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	721	1	0	62.7	6	58.4	59.4
131 Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	871	1	1	63.6	6	59.5	60.5
133 Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1228	2	1	65.1	6	60.9	61.9
134 Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	307	1	0	59.0	6	54.7	55.7
135 Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	1146	3	7	66.5	6	63.2	64.2
147 Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	1903	4	1	67.0	6	62.7	63.7
148 Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2010	16	52	68.4	6	67.0	68.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1802	2	0	66.7	67.7	489	86	-
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1031	2	1	64.3	65.3	241	8	-
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1570	2	3	66.2	67.2	424	66	-
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1937	11	30	67.8	68.8	660	140	-
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1243	2	1	61.8	62.8	90	-	-
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	799	1	0	63.2	64.2	161	-	-
155	Cactus Ave	Lasselle St	Morrison St	Hard	100	45	45	45	1274	4	1	65.3	66.3	325	34	-
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1713	3	0	66.5	67.5	462	78	-
157	Cactus Ave	Morrison St	Nason St	Hard	100	45	45	45	1387	4	2	65.7	66.7	365	47	-
158	E 6th St	Beaumont Ave	Pennsylvania Ave	Hard	100	45	45	45	1304	2	8	65.6	66.6	356	44	-
159	Beaumont Ave	E 6th St	I-10	Hard	100	45	45	45	1113	4	5	64.9	65.9	288	23	-
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	657	2	0	62.4	63.4	116	-	-
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1727	13	3	66.8	67.8	496	89	-
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1911	17	5	67.3	68.3	569	112	-
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	846	4	0	63.5	64.5	182	-	-
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1546	1	1	66.0	67.0	405	60	-
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2602	20	4	68.5	69.5	794	183	-
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	974	5	1	64.2	65.2	228	4	-
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	706	0	0	62.6	63.6	130	-	-
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	917	5	1	63.9	64.9	208	-	-
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	2142	4	2	67.5	68.5	609	124	-
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	2149	4	2	67.5	68.5	611	125	-
173	Oleander Ave	Perris Blvd	Lasselle St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
174	Oleander Ave	Lasselle St	Lake Perris Dr	Hard	100	45	45	45	0	0	0	-	-	-	-	-
177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	Hard	100	45	45	45	1732	16	34	67.5	68.5	616	126	-
178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	Hard	100	45	45	45	521	2	2	61.5	62.5	79	-	-
179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	Hard	100	45	45	45	2099	13	34	68.2	69.2	731	163	-
180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	Hard	100	45	45	45	1996	22	21	67.8	68.8	667	143	-
181	Potrero Blvd	North of SR 60 WB Ramps	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
182	SR 60 WB On Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
183	SR 60 WB Off Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
184	SR 60 EB Off Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
185	SR 60 EB On Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	Hard	100	45	45	45	1683	10	23	67.1	68.1	548	105	-
191	Gilman Springs Rd	Bridge St	Beaumont Ave	Hard	100	45	45	45	1451	7	15	66.3	67.3	438	70	-
192	Bridge St	Gilman Springs Rd	Marvin Rd	Hard	100	45	45	45	310	2	19	61.4	62.4	74	-	-
194	Crescent Ave	West of Alessandro Rd	0	Hard	100	35	35	35	379	2	0	56.7	57.7	-	-	-
195	Crescent Ave	Alessandro Rd	Center St	Hard	100	45	45	45	604	4	0	62.1	63.1	103	-	-
196	Alessandro Rd	Crescent Ave	Sunset St	Hard	100	45	45	45	655	6	0	62.5	63.5	123	-	-
198	Sunset Dr	Crown St	Alessandro Rd	Hard	100	35	35	35	54	0	0	48.0	49.0	-	-	-
199	Sunset Dr	Alessandro Rd	Cameo Dr	Hard	100	35	35	35	84	0	0	49.9	50.9	-	-	-
200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	Hard	100	45	45	45	605	5	0	62.1	63.1	105	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1802	2	0	66.7	6	62.4	63.4
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1031	2	1	64.3	6	60.1	61.1
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1570	2	3	66.2	6	62.2	63.2
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1937	11	30	67.8	6	65.7	66.7
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1243	2	1	61.8	6	57.7	58.7
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	799	1	0	63.2	6	58.9	59.9
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1713	3	0	66.5	6	62.2	63.2
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	657	2	0	62.4	6	58.1	59.1
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1727	13	3	66.8	6	62.8	63.8
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	1911	17	5	67.3	6	63.4	64.4
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	846	4	0	63.5	6	59.2	60.2
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1546	1	1	66.0	6	61.8	62.8
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	2602	20	4	68.5	6	64.5	65.5
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	974	5	1	64.2	6	60.0	61.0
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	706	0	0	62.6	6	58.3	59.3
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	917	5	1	63.9	6	59.7	60.7
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	2142	4	2	67.5	6	63.4	64.4
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	2149	4	2	67.5	6	63.4	64.4
178	Live oak Canyon I	San Timoteo Can	I-10	Hard	100	45	45	45	521	2	2	61.5	6	58.0	59.0

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	Hard	100	45	45	45	1739	7	0	66.6	67.6	477	82	-
206	Reche Canyon Rd	Reche Vista Dr	High Country Dr	Hard	100	45	45	45	48	0	0	50.9	51.9	-	-	-
207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	Hard	100	35	35	35	1731	7	0	63.2	64.2	164	-	-
215	Mission Grove Pkwy	Cannon Rd	Alessandro Blvd	Hard	100	35	35	35	762	1	1	59.7	60.7	17	-	-
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	4285	12	29	70.8	71.8	1421	381	52
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	1089	2	2	64.6	65.6	265	15	-
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	6512	21	46	72.7	73.7	2225	635	132
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1454	2	1	65.8	66.8	379	52	-
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1711	6	13	66.9	67.9	514	94	-
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	58	0	0	48.4	49.4	-	-	-
225	Via Vista Dr	Alessandro Blvd	Canyon Crest Dr	Hard	100	45	45	45	325	0	0	59.2	60.2	6	-67	-
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5345	15	34	71.8	72.8	1790	498	89
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	329	0	0	59.3	60.3	7	-66	-
229	Century Ave	Alessandro Blvd	Claridge Dr	Hard	100	45	45	45	243	0	0	58.0	59.0	-	-	-
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	144	0	0	55.7	56.7	-	-	-
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago A'	Hard	100	45	45	45	3233	3	16	69.5	70.5	1014	252	11
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3161	10	22	69.5	70.5	1026	256	13
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	5584	14	36	72.0	73.0	1873	524	97
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1133	1	1	64.7	65.7	272	18	-
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4464	14	27	71.0	72.0	1476	398	58
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1600	3	5	66.3	67.3	443	72	-
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	3826	12	24	70.3	71.3	1254	328	35
240	Durango Rd	Laramie Rd	Arlington Ave	Hard	100	45	45	45	292	0	0	58.8	59.8	-	-	-
241	Horace St	Arlington Ave	Victoria Ave	Hard	100	45	45	45	404	1	0	60.2	61.2	32	-	-
242	Arlington Ave	Maude St	SR-91 WB Ramps	Hard	100	45	45	45	4665	14	25	71.1	72.1	1532	416	63
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1458	1	3	65.9	66.9	385	53	-
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	897	2	10	64.2	65.2	231	5	-
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	390	1	0	60.1	61.1	30	-	-
246	Indiana Ave	Arlington Ave	SR-91 EB Ramps	Hard	100	45	45	45	1645	5	8	66.6	67.6	473	81	-
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	3977	10	21	70.4	71.4	1288	339	39
250	Country Club Dr	Chicago Ave	Canyon Crest Dr	Hard	100	35	35	35	286	1	0	55.5	56.5	-	-	-
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	2466	6	16	68.4	69.4	771	176	-
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2324	6	19	68.2	69.2	735	164	-
256	Canyon Crest Dr	Central Ave	Country Club Dr	Hard	100	45	45	45	2085	6	15	67.7	68.7	644	135	-
258	El Cerrito Dr	Canyon Crest Dr	Central Ave	Hard	100	45	45	45	574	0	2	61.8	62.8	92	-	-
260	Central Ave	Canyon Crest Dr	I-215	Hard	100	45	45	45	2917	7	21	69.2	70.2	937	228	4
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1279	5	9	62.4	63.4	118	-	-
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1895	4	16	64.2	65.2	228	4	-
263	Central Ave	Sycamore Canyon Blvd	SR-60 EB Ramps	Hard	100	45	45	45	2048	5	26	67.9	68.9	673	145	-
264	SR-60 EB Ramps	SR-60	Central Ave	Hard	100	45	45	45	977	0	11	64.5	65.5	256	13	-
265	Central Ave	SR-60 EB Ramps	SR-60 WB Ramps	Hard	100	45	45	45	989	3	9	64.6	65.6	260	14	-
266	SR-60 WB Ramps	Central Ave	SR-60	Hard	100	45	45	45	958	3	12	64.5	65.5	258	13	-
267																

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	4285	12	29	70.8	6	67.7	68.7
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	1089	2	2	64.6	6	60.7	61.7
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	6512	21	46	72.7	6	69.6	70.6
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1454	2	1	65.8	6	61.7	62.7
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	1711	6	13	66.9	6	63.8	64.8
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	58	0	0	48.4	6	44.1	45.1
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5345	15	34	71.8	6	68.6	69.6
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	329	0	0	59.3	6	55.0	56.0
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	144	0	0	55.7	6	51.4	52.4
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago Av	Hard	100	45	45	45	3233	3	16	69.5	6	66.1	67.1
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3161	10	22	69.5	6	66.4	67.4
233	Alessandro Blvd	Arlington Ave/Chicago Av	Century Ave	Hard	100	45	45	45	5584	14	36	72.0	6	68.8	69.8
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1133	1	1	64.7	6	60.5	61.5
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4464	14	27	71.0	6	67.8	68.8
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1600	3	5	66.3	6	62.6	63.6
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	3826	12	24	70.3	6	67.1	68.1
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1458	1	3	65.9	6	61.9	62.9
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	897	2	10	64.2	6	61.6	62.6
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	390	1	0	60.1	6	56.1	57.1
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	3977	10	21	70.4	6	67.1	68.1
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	2466	6	16	68.4	6	65.2	66.2
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2324	6	19	68.2	6	65.3	66.3
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1279	5	9	62.4	6	59.7	60.7
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	1895	4	16	64.2	6	61.8	62.8

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
268	I-215 NB Off-Ramp	Watkins Dr	I-215	Hard	100	45	45	45	0	0	0	-	-	-	-	-
269	Martin Luther King Blvd	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	69.3	748	168	-
270	Chicago Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1696	44	3	67.0	68.0	538	102	-
271	Martin Luther King Blvd	Chicago Ave	Iowa Ave	Hard	100	45	45	45	1821	13	1	66.9	67.9	517	95	-
272	Chicago Ave	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	69.0	700	153	-
273	Iowa Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1153	10	3	65.0	66.0	301	27	-
274	Martin Luther King Blvd	Iowa Ave	Canyon Crest Dr	Hard	100	45	45	45	2939	7	29	69.3	70.3	973	239	7
275	Canyon Crest Dr	Campus Dr	Martin Luther King Blvd	Hard	100	45	45	45	1264	2	5	65.4	66.4	333	37	-
276	Martin Luther King Blvd	Canyon Crest Dr	I-215 SB Ramps	Hard	100	45	45	45	2424	6	33	68.6	69.6	821	191	-
277	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2324	6	19	68.2	69.2	735	164	-
278	I-215 SB Off-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	447	2	4	61.1	62.1	63	-	-
279	Martin Luther King Blvd	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1359	4	14	66.0	67.0	399	58	-
280	I-215 SB On-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	784	2	16	64.0	65.0	217	0	-
281	I-215 NB On-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	818	3	16	64.2	65.2	231	5	-
282	I-215 NB Off-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	1258	3	11	65.6	66.6	354	44	-
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	588	2	9	62.5	63.5	125	-	-
284	SR-60 EB On-Ramp	Heacock St	SR-60	Hard	100	45	45	45	424	2	14	61.9	62.9	95	-	-
285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2051	3	16	67.6	68.6	630	131	-
286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	Hard	100	45	45	45	2887	10	4	68.9	69.9	870	207	-
287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2990	10	22	69.3	70.3	970	238	7
288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	Hard	100	45	45	45	1469	2	4	65.9	66.9	394	56	-
289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	Hard	100	45	45	45	1331	2	22	66.2	67.2	419	64	-
290	Perris Blvd	Sunnymead Blvd	Fir Ave	Hard	100	45	45	45	2318	8	43	68.7	69.7	826	193	-
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-46	-83	-
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	841	2	2	63.5	64.5	183	-	-
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1047	2	0	64.4	65.4	243	9	-
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1616	5	33	67.2	68.2	555	107	-
304	Iris Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1141	2	4	64.9	65.9	289	23	-
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	2162	17	33	68.3	69.3	755	170	-
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2477	26	47	69.1	70.1	926	224	3
324	Ramona Expy	Warren Rd	Sanderson Ave	Hard	100	45	45	45	1806	18	17	67.3	68.3	582	116	-
325	Sanderson Ave	Gilman Springs Rd	Ramona Expy	Hard	100	45	45	45	1872	10	23	67.5	68.5	613	126	-
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1543	16	18	66.8	67.8	496	88	-
327	Sanderson Ave	Ramona Expy	Ramona Blvd	Hard	100	45	45	45	3066	20	25	69.5	70.5	1024	255	12
340	Alessandro blvd	North of San Timoteo Canyon	0	Hard	100	45	45	45	583	4	0	61.9	62.9	97	-	-
351	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	45	45	45	521	2	2	61.5	62.5	79	-	-
358	Gilman Springs Rd	Bridge St	SR-79 NB Ramps	Hard	100	45	45	45	749	5	10	63.6	64.6	188	-	-
359	SR-79 SB Off-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	335	3	4	60.0	61.0	26	-	-
360	Gilman Springs Rd	SR-79 NB Ramps	SR-79 SB Ramps	Hard	100	45	45	45	1259	5	10	65.6	66.6	354	44	-
361	SR-79 SB On-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	512	5	6	62.0	63.0	98	-	-
362	SR-79 NB On-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	413	3	1	60.6	61.6	43	-	-
363	Gilman Springs Rd	SR-79 SB Ramps	Record Rd	Hard	100	45	45	45	1323	5	9	65.7	66.7	370	49	-
364	SR-79 NB Off-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	406	3	2	60.6	61.6	45	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
269	Martin Luther King I	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	6	64.1	65.1
272	Chicago Ave	Martin Luther King I	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	6	63.9	64.9
279	Martin Luther King I	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1359	4	14	66.0	6	61.2	62.2
280	I-215 SB On-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	784	2	16	64.0	6	58.8	59.8
281	I-215 NB On-Ramp	I-215	Martin Luther King I	Hard	100	45	45	45	818	3	16	64.2	6	59.0	60.0
282	I-215 NB Off-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	1258	3	11	65.6	6	60.9	61.9
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	588	2	9	62.5	6	57.6	58.6
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	841	2	2	63.5	6	59.6	60.6
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1047	2	0	64.4	6	60.1	61.1
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	1616	5	33	67.2	6	65.4	66.4
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	2162	17	33	68.3	6	66.1	67.1
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	2477	26	47	69.1	6	67.2	68.2
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1543	16	18	66.8	6	64.2	65.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
365	Alessandro Blvd	Sycamore Canyon Blvd	Vista Grande Dr	Hard	100	45	45	45	4588	16	38	71.2	72.2	1560	425	66
366	Sycamore Canyon Blvd	Eastridge Ave	Alessandro Blvd	Hard	100	45	45	45	1299	2	28	66.2	67.2	429	67	-
367	Meridian Pkwy	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1732	5	20	67.1	68.1	546	104	-
375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
376	3rd St	Marvin Rd	Mid County Pkwy WB Ramps	Hard	100	45	45	45	0	0	0	-	-	-	-	-
377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ramps	Hard	100	45	45	45	0	0	0	-	-	-	-	-
379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
386	Harley Know Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	1096	11	36	66.1	67.1	409	61	-
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2814	22	60	69.7	70.7	1075	272	18
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	622	0	0	62.1	63.1	102	-	-
389	El Cerrito Dr	North of Central Ave	0	Hard	100	45	45	45	574	0	2	61.8	62.8	92	-	-
390	Ramona Expy	Webster Ave	Indian St	Hard	100	45	45	45	2693	19	104	70.1	71.1	1194	309	29
392	Ramona Expy	Indian St	Perris Blvd	Hard	100	45	45	45	3111	18	53	69.9	70.9	1139	292	24
393	Indian St	Ramona Expy	Morgan St	Hard	100	45	45	45	1001	20	36	65.9	66.9	395	56	-
394	Perris Blvd	Harley Know blvd	Ramona Expy	Hard	100	45	45	45	2125	18	37	68.4	69.4	762	173	-
396	Perris Blvd	Ramona Expy	Rider St	Hard	100	45	45	45	2203	16	20	68.1	69.1	719	159	-
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2812	15	18	69.0	70.0	905	218	1
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	2388	4	1	68.0	69.0	686	148	-
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2211	8	11	70.6	71.6	1349	358	45
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1405	1	0	65.6	66.6	360	46	-
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	228	3	3	58.6	59.6	-	-	-
402	Morgan St	Perris Blvd	Silver Creek Industires	Hard	100	45	45	45	123	0	2	55.7	56.7	-	-	-
404	Morgan St	Morgan Park	Evans Rd	Hard	100	45	45	45	429	0	0	60.4	61.4	40	-	-
405	Morgan St	Evans Rd	Bradley Rd	Hard	100	45	45	45	379	0	0	59.9	60.9	23	-	-
406	Ironwood Ave	East of Thedore St	0	Hard	100	45	45	45	59	4	14	57.8	58.8	-	-	-
407	Rider St	Indian St	Perris Blvd	Hard	100	45	45	45	780	1	6	63.4	64.4	175	-	-
408	Rider St	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1021	0	2	64.3	65.3	239	7	-
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	624	1	0	62.1	63.1	105	-	-
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1320	0	2	65.4	66.4	334	37	-
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	930	0	2	63.9	64.9	208	-	-
412	Maude St	South of Arlington Ave	0	Hard	100	45	45	45	836	1	0	63.4	64.4	174	-	-
413	Placentia Ave	Indian St	Perris Blvd	Hard	100	45	45	45	553	3	5	62.0	63.0	102	-	-
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	665	2	1	62.5	63.5	124	-	-
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	2890	19	20	69.2	70.2	946	231	5
416	Mid County Pkwy WB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
417	Mid County Pkwy WB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
419	Mid County Pkwy EB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
420	Mid County Pkwy EB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	57.3	-	-	-
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1947	3	46	68.1	69.1	709	156	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	2814	22	60	69.7	6	68.0	69.0
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	622	0	0	62.1	6	57.8	58.8
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2812	15	18	69.0	6	65.8	66.8
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	2388	4	1	68.0	6	63.7	64.7
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2211	8	11	70.6	6	67.0	68.0
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	1405	1	0	65.6	6	61.4	62.4
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	228	3	3	58.6	6	56.4	57.4
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	624	1	0	62.1	6	57.8	58.8
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1320	0	2	65.4	6	61.3	62.3
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	930	0	2	63.9	6	59.9	60.9
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	665	2	1	62.5	6	58.5	59.5
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	2890	19	20	69.2	6	66.1	67.1
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	166	0	0	56.3	6	52.0	53.0
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	1947	3	46	68.1	6	66.6	67.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
425	Mid County Pkwy WB Or	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
426	Mid County Pkwy WB Of	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
427	Day St	South of Alessandro Blvd		0	Hard	100	45	45	45	171	1	11	59.0	60.0	0	-	-
428	Mid County Pkwy EB Off-	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
429	Mid County Pkwy EB On-	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
430	Alessandro blvd	SR-215 NB Ramp	SR-215 SB Ramp		Hard	100	45	45	45	3475	8	44	70.2	71.2	1208	314	31
431	Placentia Ave	Water Ave	Evans Rd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
432	Placentia Ave	Evans Rd	El Nido Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
433	Evans Rd	Rider St	Orange Ave		Hard	100	45	45	45	972	0	0	64.0	65.0	216	0	-
434	Orange Ave	Wilson Ave	Evans Rd		Hard	100	45	45	45	767	1	1	63.1	64.1	154	-	-
435	Orange Ave	Evans Rd	Foothill Dr		Hard	100	35	35	35	696	0	696	71.8	72.8	1791	498	89
436	Elsworth St	North of Cactus Ave		0	Hard	100	45	45	45	670	3	4	62.7	63.7	137	-	-
441	Nuevo Rd	Wilson Ave	Evans Rd		Hard	100	45	45	45	1376	3	4	65.7	66.7	369	48	-
442	Evans Rd	Orange Ave	Nuevo Rd		Hard	100	45	45	45	1266	6	4	65.4	66.4	337	38	-
443	Nuevo Rd	Evans Rd	Foothill Dr		Hard	100	45	45	45	914	1	2	63.9	64.9	208	-	-
444	Evans Rd	Nuevo Rd	San Jacinto Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
452	San Jacinto Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
453	Evans Rd	North of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
454	San Jacinto Ave	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
455	Evans Rd	South of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
458	Nason St	South of Cactus Ave		0	Hard	100	45	45	45	1272	3	1	65.2	66.2	321	33	-
464	Quincy	South of Eucalyptus		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
477	Ellis Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
478	Evans Rd	North of Ellis Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
479	Oliver St	North of Irris Ave		0	Hard	100	45	45	45	447	0	0	60.6	61.6	45	-	-
480	Ellis Ave	Evans Rd	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
481	SR-215 SB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
482	Ellis Ave	East of SR-215		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
483	SR-215 SB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
484	SR-215 NB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
485	SR-215 NB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
488	Nason St	North of Iris Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
494	Evans Rd	North of Harley Knox Blvd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
498	Morrison St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave		Hard	100	45	45	45	2280	10	41	68.6	69.6	808	187	-
500	Perris Blvd	North of Eucalyptus Ave		0	Hard	100	45	45	45	2365	9	41	68.7	69.7	837	196	-
502	Quincy	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
503	Quincy	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
504	Krameria Ave	West of Perris Blvd		0	Hard	100	45	45	45	427	3	1	60.6	61.6	46	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
iin ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2025 Ph1
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
433 Evans Rd	Rider St	Orange Ave	Hard	100	45	45	45	971.96	0	0	64.0	6	60	60.7
434 Orange Ave	Wilson Ave	Evans Rd	Hard	100	45	45	45	766.8	0.5	1.0833	63.1	6	59	60.1
441 Nuevo Rd	Wilson Ave	Evans Rd	Hard	100	45	45	45	1376.3	3.4444	4.3	65.7	6	62	63.0
442 Evans Rd	Orange Ave	Nuevo Rd	Hard	100	45	45	45	1266	5.9444	3.9333	65.4	6	62	62.7
443 Nuevo Rd	Evans Rd	Foothill Dr	Hard	100	45	45	45	914.49	1	2.4	63.9	6	60	61.1
444 Evans Rd	Nuevo Rd	San Jacinto Ave	Hard	100	45	45	45	0	0	0	-	6	-	-
458 Nason St	South of Cactus A	0	Hard	100	45	45	45	1272.2	3.1667	0.5	65.2	6	61	62.0
488 Nason St	North of Iris Ave	0	Hard	100	45	45	45	0	0	0	-	6	-	-
494 Evans Rd	North of Harley K	0	Hard	100	45	45	45	0	0	0	-	6	-	-
502 Quincy	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	0	0	0	-	6	-	-
503 Quincy	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	0	0	0	-	6	-	-
504 Krameria Ave	West of Perris Blv	0	Hard	100	45	45	45	426.56	2.9923	0.5	60.6	6	57	57.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

2040 No Project

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
1	WLC Pkwy	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	365	1	4	60.3	61.3	36	-	-
2	WLC Pkwy	Eucalyptus Ave	Street F	Hard	100	45	45	45	79	1	0	53.2	54.2	-	-	-
3	Street E	west of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
4	Street E	north of Alessandro Blvd	0	Hard	100	45	45	45	137	1	0	55.6	56.6	-	-	-
5	Alessandro Blvd	Cactus Ave Extension	WLC Pkwy	Hard	100	45	45	45	104	0	0	54.3	55.3	-	-	-
6	WLC Pkwy	Street F	Alessandro Blvd	Hard	100	45	45	45	162	1	1	56.4	57.4	-	-	-
7	WLC Pkwy	south of Alessandro Blvd	0	Hard	100	45	45	45	931	6	0	64.0	65.0	213	-	-
8	Cactus Ave Extension	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	0	0	0	-	-	-	-	-
9	John F Kennedy Dr	south of Cactus Ave	0	Hard	100	45	45	45	1337	7	1	65.5	66.5	349	42	-
10	Redlands Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1359	8	1	65.6	66.6	358	45	-
11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	Hard	100	45	45	45	1252	6	2	65.3	66.3	323	34	-
12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	Hard	100	45	45	45	1421	8	1	65.8	66.8	377	51	-
13	Redlands Blvd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	2189	19	22	68.2	69.2	727	162	-
14	Eucalyptus Ave	east of Redlands blvd	0	Hard	100	45	45	45	339	6	15	61.5	62.5	77	-	-
15	Eucalyptus Ave	west of Street A	0	Hard	100	45	45	45	291	1	3	59.2	60.2	6	-	-
18	Street B	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
18a	Street B	west of Gilman Springs Rd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
19	Street F	east of WLC Pkwy	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
20	Street F	north of Alessandro Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
21	Alessandro Blvd	east of WLC Pkwy	0	Hard	100	45	45	45	853	5	0	63.6	64.6	185	-	-
22	Alessandro Blvd	west of Street F	0	Hard	100	45	45	45	853	5	0	63.6	64.6	185	-	-
23	Street F	Alessandro Blvd	Street G	Hard	100	45	45	45	0	0	0	-	-	-	-	-
24	Alessandro Blvd	Street F	Gilman Springs Rd	Hard	100	45	45	45	768	4	0	63.1	64.1	157	-	-
25	Alessandro Blvd	Street H	Gilman Springs Rd	Hard	100	45	45	45	768	4	0	63.1	64.1	157	-	-
29	Gilman Springs Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	3818	31	7	70.2	71.2	1220	318	32
30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	3818	31	7	70.2	71.2	1220	318	32
31	Gilman Springs Rd	south of Street C	0	Hard	100	45	45	45	4587	36	8	71.0	72.0	1484	401	58
32	Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	386	0	0	60.0	61.0	26	-	-
33	Alessandro Blvd	west of Redlands Blvd	0	Hard	100	45	45	45	950	3	1	64.0	65.0	216	0	-
35	Redlands Blvd	Ironwood Ave	State Route 60	Hard	100	55	55	55	1658	5	11	69.4	70.4	1002	249	10
36	Ironwood Ave	Redlands Blvd	Highland Blvd	Hard	100	35	35	35	233	1	2	54.9	55.9	-	-	-
37	San Timoteo Canyon Rd	west Live Oak Canyon	0	Hard	100	45	45	45	1800	12	16	67.2	68.2	565	110	-
38	Theodore St	State Route 60	Highland Blvd	Hard	100	45	45	45	846	6	14	64.3	65.3	238	7	-
42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	Hard	100	55	55	55	1742	5	9	69.6	70.6	1039	260	14
43	Moreno Beach Dr	Alessandro Blvd	SR 60	Hard	100	45	45	45	3020	16	20	69.4	70.4	985	243	8
46	Moreno Beach Dr	State Route 60	Ironwood Ave	Hard	100	45	45	45	2110	11	8	67.7	68.7	636	133	-
47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	842	1	0	63.4	64.4	176	-13	-
48	Alessandro Blvd	Lasselle St	Morrison St	Hard	100	45	45	45	3253	16	6	69.4	70.4	1008	250	11
50	Cactus Ave	Redlands Blvd	Cactus Ave Extension	Hard	100	45	45	45	104	0	0	54.3	55.3	-	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project With Barriers
Source of Traffic Volumes: 0

Roadway Segment		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
				Auto	MT	HT	Auto	MT	HT				
32 Cactus Ave	west of Redlands Blvd	Hard	100	45	45	45	386	0	0	60.0	6	55.7	56.7

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
    For hard ground, the propagation rate is 3 dB per doubling the distance.
    For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	Hard	100	45	45	45	1717	7	3	66.6	67.6	480	83	-
52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	Hard	100	35	35	35	2362	15	2	64.7	65.7	273	18	-
53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	325	1	1	59.4	60.4	10	-	-
54	Locust Ave	Moreno Beach Dr	Smiley Blvd	Hard	100	35	35	35	851	10	0	60.4	61.4	38	-	-
55	Locust Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	355	1	0	59.7	60.7	17	-	-
56	Moreno Beach Dr	Locust Ave	Ironwood Ave	Hard	100	35	35	35	1188	11	0	61.8	62.8	89	-	-
57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	35	35	35	545	1	1	58.3	59.3	-	-	-
58	SR 60 EB Ramps	West of Moreno Beach Dr	0	Hard	100	45	45	45	782	4	5	63.5	64.5	180	-	-
59	Eucalyptus Ave	Moreno Beach Dr	Quincy Dr	Hard	100	45	45	45	478	3	4	61.5	62.5	77	-	-
60	SR 60 WB Ramps	East of Redlands Blvd	0	Hard	100	45	45	45	849	8	6	63.9	64.9	211	-	-
61	SR 60 EB Ramps	West fo Redlands Blvd	0	Hard	100	45	45	45	663	4	18	63.6	64.6	189	-	-
62	Fir Ave	Quincy Dr	Redlands Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
65	Alessandro Blvd	Nason St	Oliver St	Hard	100	45	45	45	1417	4	8	66.0	67.0	396	57	-
66	Alessandro Blvd	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	1272	6	7	65.5	66.5	349	42	-
67	Oliver St	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	239	0	0	54.5	55.5	-	-	-
68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	2220	10	4	67.8	68.8	653	138	-
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	1612	3	1	66.2	67.2	430	68	-
70	Cactus Ave	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	1184	2	1	64.9	65.9	290	23	-
71	Oliver St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	910	0	0	63.7	64.7	196	-	-
72	Oliver St	John F Kennedy Dr	Iris Ave	Hard	100	45	45	45	603	2	0	62.0	63.0	100	-37	-
73	Iris Ave	Nason St	Oliver St	Hard	100	45	45	45	2630	15	2	68.5	69.5	788	181	-
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1940	6	1	67.1	68.1	544	104	-
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	2158	2	1	67.5	68.5	608	124	-
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1736	2	1	66.6	67.6	469	80	-
77	Heacock St	Ironwood Ave	Hemlock Ave	Hard	100	45	45	45	2015	6	1	67.2	68.2	568	111	-
80	Heacock St	Hemlock Ave	SR 60 WB Ramps	Hard	100	45	45	45	2417	6	4	68.1	69.1	711	157	-
81	SR 60 WB Ramps	West of Heacock St	0	Hard	100	45	45	45	448	1	7	61.4	62.4	73	-	-
82	SR 60 WB Ramps	East of Heacock St	0	Hard	100	45	45	45	625	3	7	62.7	63.7	132	-	-
83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	Hard	100	45	45	45	2538	6	10	68.4	69.4	771	176	-
85	SR 60 WB Onramp	West of Perris Blvd	0	Hard	100	45	45	45	787	1	8	63.6	64.6	188	-	-
86	SR 60 WB Offramp	East of Perris Blvd	0	Hard	100	45	45	45	2395	7	14	68.3	69.3	742	166	-
87	Eualyptus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	946	2	0	63.9	64.9	210	-	-
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	938	3	1	66.7	67.7	490	87	-
95	W 6th St	I-10	N California Ave	Hard	100	35	35	35	1955	9	30	64.8	65.8	278	20	-
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	238	0	0	57.9	58.9	-	-	-
97	E 6th St	N California Ave	Beaumont Ave	Hard	100	45	45	45	1891	9	28	67.7	68.7	635	132	-
98	N California Ave	W 6th St	I-10	Hard	100	55	55	55	1135	2	6	67.7	68.7	643	135	-
99	Beaumont Ave	E 6th St	E 8th St	Hard	100	45	45	45	2103	9	8	67.6	68.6	631	131	-
100	I-215 SB Ramps	North of Alessandro Blvd	0	Hard	100	45	45	45	634	3	29	64.0	65.0	218	1	-
101	Alessandro Blvd	Sycamore Canyon Blvd	I-215 SB Ramps	Hard	100	45	45	45	5688	23	30	72.0	73.0	1900	532	100
102	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	736	5	22	64.2	65.2	230	4	-
103	I-215 NB Ramps	Nouth of Alessandro Blvd	0	Hard	100	45	45	45	325	2	13	61.0	62.0	58	-	-
104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	Hard	100	45	45	45	4057	10	29	70.6	71.6	1343	356	44

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: **World Logistics Center**
Project Number: **D180130**
Analysis Scenario: **Future 2040 No Project**
Source of Traffic Volumes: **0**

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	1612	3	1	67.2	6	62.0	63.0
70	Cactus Ave	Oliver St	Moreno Beach	Hard	100	45	45	45	1184	2	1	65.9	6	60.7	61.7
71	Oliver St	Cactus Ave	John F Kennedy	Hard	100	45	45	45	910	0	0	64.7	6	59.5	60.5
72	Oliver St	John F Kennedy	Iris Ave	Hard	100	45	45	45	603	2	0	63.0	6	57.9	58.9
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1940	6	1	68.1	6	62.9	63.9
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	2158	2	1	67.2	6	63.0	64.0
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1736	2	1	68.1	6	64.1	65.1
81	SR 60 WB Ramps	West of Heacock St		Hard	100	45	45	45	448	1	7	61.4	6	59.2	60.2
85	SR 60 WB Onramp	West of Perris	0	Hard	100	45	45	45	787	1	8	63.6	6	61.0	62.0
86	SR 60 WB Offramp	East of Perris B	0	Hard	100	45	45	45	2395	7	14	68.3	6	65.0	66.0
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	938	3	1	66.7	6	62.5	63.5
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	238	0	0	57.9	59	53.6	54.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
105	I-215 SB Ramps	South of Alessandro Blvd		0	Hard	100	45	45	45	736	5	3	63.1	64.1	157	-	-
106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd		Hard	100	45	45	45	1595	9	9	66.5	67.5	467	79	-
107	Alessandro Blvd	Old 215 Frontage Rd	Day St		Hard	100	45	45	45	3568	13	13	69.9	70.9	1131	289	23
108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1636	20	20	67.1	68.1	539	102	-
109	Day St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	2387	11	0	64.7	65.7	269	17	-
110	Alessandro Blvd	Day St	Elsworth St		Hard	100	45	45	45	3904	19	17	70.3	71.3	1263	331	36
111	Elsworth St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	1073	4	1	61.2	62.2	65	-	-
112	Alessandro Blvd	Elsworth St	Frederick St		Hard	100	45	45	45	3439	12	14	69.8	70.8	1091	277	19
113	Elsworth St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1442	7	6	66.0	67.0	404	59	-
114	Frederick St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1612	3	8	66.5	67.5	457	76	-
115	Alessandro Blvd	Frederick St	Graham St		Hard	100	45	45	45	3631	15	10	69.9	70.9	1143	293	24
116	Frederick St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1012	4	16	65.0	66.0	296	25	-
117	Graham St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1717	7	2	66.6	67.6	478	83	-
118	Alessandro Blvd	Graham St	Heacock St		Hard	100	45	45	45	3844	15	8	70.2	71.2	1206	313	31
119	Graham St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1867	7	4	67.0	68.0	535	101	-
120	Heacock St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1769	4	12	67.0	68.0	529	99	-
121	Alessandro Blvd	Heacock St	Indian St		Hard	100	45	45	45	3967	16	8	70.3	71.3	1247	326	35
122	Heacock St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1527	2	2	66.1	67.1	409	61	-
123	Indian St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1562	6	1	66.2	67.2	420	65	-
124	Alessandro Blvd	Indian St	Perris Blvd		Hard	100	45	45	45	3735	15	8	70.0	71.0	1169	301	27
125	Indian St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1745	7	1	66.6	67.6	481	84	-
126	Alessandro Blvd	Perris Blvd	Kitching St		Hard	100	45	45	45	3425	13	9	69.7	70.7	1070	270	17
127	Perris Blvd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	2916	7	28	69.3	70.3	963	236	6
128	Kitching St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1394	3	0	65.6	66.6	358	45	-
129	Alessandro Blvd	Kitching St	Lasselle St		Hard	100	45	45	45	3427	15	7	69.7	70.7	1065	268	17
130	Kitching St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1274	4	0	65.2	66.2	320	33	-
131	Lasselle St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1052	2	1	64.4	65.4	250	11	-
133	Lasselle St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1178	2	1	64.9	65.9	289	23	-
134	Morrison St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1093	4	0	64.6	65.6	263	15	-
135	Alessandro Blvd	Morrison St	Nason St		Hard	100	50	50	50	2320	9	7	69.5	70.5	1018	254	12
136	Nason St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	2882	13	1	68.8	69.8	863	205	-
137	Nason St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	3176	17	2	69.3	70.3	968	238	7
138	I-215 SB Ramps	North of Cactus Ave		0	Hard	100	45	45	45	497	8	32	63.6	64.6	192	-	-
139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps		Hard	100	45	45	45	3941	46	88	71.3	72.3	1587	434	69
140	I-215 SB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	1466	18	12	66.4	67.4	453	75	-
141	Cactus Ave	I-215 NB Ramps	Elsworth St		Hard	100	45	45	45	5261	38	50	71.9	72.9	1862	520	96
142	I-215 NB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	1430	14	16	66.4	67.4	448	73	-
143	Cactus Ave	Elsworth St	Frederick St		Hard	100	45	45	45	4124	20	36	70.8	71.8	1408	377	51
144	Cactus Ave	Frederick St	Graham St		Hard	100	45	45	45	4528	22	30	71.1	72.1	1523	413	62
145	Cactus Ave	Graham St	Heacock St		Hard	100	45	45	45	4369	24	23	70.9	71.9	1449	390	55
146	Riverside Dr	Cactus Ave	Meyer Dr		Hard	100	45	45	45	2396	2	0	67.9	68.9	682	147	-
147	Cactus Ave	Heacock St	Indian St		Hard	100	45	45	45	2509	5	2	68.2	69.2	731	163	-
148	Heacock St	Cactus Ave	John F Kennedy Dr		Hard	100	45	45	45	2212	19	13	68.0	69.0	701	153	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
114 Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1612	3	8	66.5	6	61.9	62.9
115 Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	3631	15	10	69.9	6	66.2	67.2
117 Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1717	7	2	66.6	6	62.6	63.6
120 Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1769	4	12	67.0	6	63.9	64.9
121 Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	3967	16	8	70.3	6	66.4	67.4
122 Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1527	2	2	66.1	6	62.1	63.1
123 Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1562	6	1	66.2	6	61.9	62.9
124 Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	3735	15	8	70.0	6	66.1	67.1
125 Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1745	7	1	66.6	6	62.4	63.4
126 Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	3425	13	9	69.7	6	65.9	66.9
127 Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	2916	7	28	69.3	6	66.5	67.5
128 Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1394	3	0	65.6	6	61.3	62.3
129 Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	3427	15	7	69.7	6	65.7	66.7
130 Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1274	4	0	65.2	6	60.9	61.9
131 Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1052	2	1	64.4	6	60.3	61.3
133 Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1178	2	1	64.9	6	60.7	61.7
134 Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1093	4	0	64.6	6	60.3	61.3
135 Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	2320	9	7	69.5	6	65.7	66.7
147 Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	2509	5	2	68.2	6	64.1	65.1
148 Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2212	19	13	68.0	6	64.8	65.8

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	2115	2	1	67.4	68.4	593	119	-31
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1910	9	1	67.1	68.1	539	102	-36
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	2038	2	3	67.3	68.3	576	114	-32
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2870	12	23	69.2	70.2	939	229	4
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1668	2	1	63.0	64.0	153	-20	-75
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1392	4	0	65.6	66.6	358	45	-54
155	Cactus Ave	Lasselle St	Morrison St	Hard	100	45	45	45	1757	3	1	66.6	67.6	480	83	-42
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1884	2	0	66.9	67.9	516	95	-38
157	Cactus Ave	Morrison St	Nason St	Hard	100	45	45	45	2546	7	2	68.3	69.3	748	168	-15
158	E 6th St	Beaumont Ave	Pennsylvania Ave	Hard	100	45	45	45	2642	15	33	69.0	70.0	907	219	1
159	Beaumont Ave	E 6th St	I-10	Hard	100	45	45	45	1941	13	17	67.6	68.6	617	127	-28
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	915	2	0	63.8	64.8	202	-5	-70
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1798	5	3	66.8	67.8	504	91	-40
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	2984	19	5	69.1	70.1	920	223	2
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	2032	15	0	67.4	68.4	586	117	-31
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1901	3	1	67.0	68.0	524	97	-38
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	4411	29	4	70.8	71.8	1397	373	50
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1660	10	1	66.5	67.5	460	77	-44
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	757	0	0	62.9	63.9	146	-22	-75
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	2100	14	1	67.5	68.5	609	124	-29
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	3840	13	2	70.1	71.1	1177	304	28
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	3705	12	2	69.9	70.9	1131	289	23
173	Oleander Ave	Perris Blvd	Lasselle St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
174	Oleander Ave	Lasselle St	Lake Perris Dr	Hard	100	45	45	45	0	0	0	-	-	-	-	-
177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	Hard	100	45	45	45	1887	13	16	67.4	68.4	597	120	-30
178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	Hard	100	45	45	45	545	1	1	61.6	62.6	82	-42	-82
179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	Hard	100	45	45	45	2262	10	16	68.1	69.1	710	156	-19
180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	Hard	100	45	45	45	1940	21	17	67.6	68.6	631	131	-27
181	Potrero Blvd	North of SR 60 WB Ramps	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
182	SR 60 WB On Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
183	SR 60 WB Off Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
184	SR 60 EB Off Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
185	SR 60 EB On Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	Hard	100	45	45	45	3180	18	6	69.4	70.4	989	244	9
191	Gilman Springs Rd	Bridge St	Beaumont Ave	Hard	100	45	45	45	2575	11	3	68.4	69.4	768	175	-13
192	Bridge St	Gilman Springs Rd	Marvin Rd	Hard	100	45	45	45	729	6	20	64.1	65.1	222	2	-68
194	Crescent Ave	West of Alessandro Rd	0	Hard	100	35	35	35	352	1	0	56.3	57.3	-47	-83	-95
195	Crescent Ave	Alessandro Rd	Center St	Hard	100	45	45	45	599	1	0	61.9	62.9	97	-38	-80
196	Alessandro Rd	Crescent Ave	Sunset St	Hard	100	45	45	45	602	3	0	62.0	63.0	100	-37	-80
198	Sunset Dr	Crown St	Alessandro Rd	Hard	100	35	35	35	54	0	0	48.0	49.0	-92	-98	-99
199	Sunset Dr	Alessandro Rd	Cameo Dr	Hard	100	35	35	35	89	0	0	50.2	51.2	-87	-96	-99
200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	Hard	100	45	45	45	565	3	0	61.7	62.7	88	-41	-81

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	2115	2	1	67.4	6	63.2	64.2
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1910	9	1	67.1	6	62.8	63.8
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	2038	2	3	67.3	6	63.3	64.3
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2870	12	23	69.2	6	66.2	67.2
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1668	2	1	63.0	6	58.9	59.9
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1392	4	0	65.6	6	61.3	62.3
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1884	2	0	66.9	6	62.6	63.6
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	915	2	0	63.8	6	59.5	60.5
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1798	5	3	66.8	6	62.9	63.9
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	2984	19	5	69.1	6	65.1	66.1
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	2032	15	0	67.4	6	63.1	64.1
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1901	3	1	67.0	6	62.7	63.7
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	4411	29	4	70.8	6	66.6	67.6
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1660	10	1	66.5	6	62.3	63.3
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	757	0	0	62.9	6	58.6	59.6
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	2100	14	1	67.5	6	63.3	64.3
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	3840	13	2	70.1	6	65.9	66.9
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	3705	12	2	69.9	6	65.7	66.7
178	Live oak Canyon	San Timoteo Can	I-10	Hard	100	45	45	45	545	1	1	61.6	6	57.7	58.7

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	Hard	100	45	45	45	3335	24	0	69.5	70.5	1026	256	13
206	Reche Canyon Rd	Reche Vista Dr	High Country Dr	Hard	100	45	45	45	915	10	0	64.0	65.0	215	0	-
207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	Hard	100	35	35	35	2479	14	0	64.8	65.8	284	22	-
215	Mission Grove Pkwy	Cannon Rd	Alessandro Blvd	Hard	100	35	35	35	2164	14	8	64.5	65.5	257	13	-
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	5407	20	19	71.7	72.7	1761	489	86
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	2084	9	6	67.5	68.5	615	126	-
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	8379	30	21	73.6	74.6	2753	802	185
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1426	2	1	65.7	66.7	368	48	-
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	3272	18	18	69.7	70.7	1062	268	16
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	1709	16	15	63.9	64.9	210	-	-
225	Via Vista Dr	Alessandro Blvd	Canyon Crest Dr	Hard	100	45	45	45	389	0	0	60.0	61.0	27	-	-
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5621	9	6	71.7	72.7	1766	490	87
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	447	0	0	60.6	61.6	45	-	-
229	Century Ave	Alessandro Blvd	Claridge Dr	Hard	100	45	45	45	445	3	3	61.1	62.1	63	-	-
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	190	0	0	56.9	57.9	-	-	-
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago A\	Hard	100	45	45	45	3838	5	13	70.1	71.1	1203	312	30
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3986	19	42	70.7	71.7	1385	370	49
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	5942	10	10	72.0	73.0	1885	528	99
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1413	3	3	65.8	66.8	374	50	-
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4876	20	36	71.4	72.4	1653	454	75
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1386	1	0	65.5	66.5	351	43	-
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	4796	24	39	71.4	72.4	1647	452	75
240	Durango Rd	Laramie Rd	Arlington Ave	Hard	100	45	45	45	457	2	2	61.0	62.0	59	-	-
241	Horace St	Arlington Ave	Victoria Ave	Hard	100	45	45	45	569	1	0	61.7	62.7	86	-	-
242	Arlington Ave	Maude St	SR-91 WB Ramps	Hard	100	45	45	45	5582	24	39	72.0	73.0	1900	532	100
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1787	3	5	66.8	67.8	503	91	-
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	874	1	5	63.8	64.8	204	-	-
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	353	1	0	59.6	60.6	16	-	-
246	Indiana Ave	Arlington Ave	SR-91 EB Ramps	Hard	100	45	45	45	1931	9	28	67.7	68.7	647	136	-
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	5012	18	18	71.4	72.4	1629	447	73
250	Country Club Dr	Chicago Ave	Canyon Crest Dr	Hard	100	35	35	35	772	4	6	60.3	61.3	34	-	-
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	3059	15	39	69.7	70.7	1064	268	16
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	3582	19	27	70.1	71.1	1199	311	30
256	Canyon Crest Dr	Central Ave	Country Club Dr	Hard	100	45	45	45	3793	22	26	70.4	71.4	1266	332	37
258	El Cerrito Dr	Canyon Crest Dr	Central Ave	Hard	100	45	45	45	606	0	1	62.0	63.0	101	-	-
260	Central Ave	Canyon Crest Dr	I-215	Hard	100	45	45	45	3849	18	48	70.7	71.7	1363	363	46
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1564	8	18	63.6	64.6	188	-	-
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	2487	10	22	65.4	66.4	338	39	-
263	Central Ave	Sycamore Canyon Blvd	SR-60 EB Ramps	Hard	100	45	45	45	2272	11	22	68.2	69.2	740	166	-
264	SR-60 EB Ramps	SR-60	Central Ave	Hard	100	45	45	45	1070	0	3	64.5	65.5	257	13	-
265	Central Ave	SR-60 EB Ramps	SR-60 WB Ramps	Hard	100	45	45	45	1137	6	13	65.3	66.3	330	36	-
266	SR-60 WB Ramps	Central Ave	SR-60	Hard	100	45	45	45	1031	4	13	64.9	65.9	289	23	-
267																

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkv	Hard	100	45	45	45	5407	20	19	71.7	6	68.1	69.1
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	2084	9	6	67.5	6	63.8	64.8
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	8379	30	21	73.6	6	69.7	70.7
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pl	Hard	100	45	45	45	1426	2	1	65.7	6	61.5	62.5
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	3272	18	18	69.7	6	66.3	67.3
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	1709	16	15	63.9	6	61.5	62.5
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5621	9	6	71.7	6	67.7	68.7
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	447	0	0	60.6	6	56.3	57.3
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	190	0	0	56.9	6	52.6	53.6
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chic	Hard	100	45	45	45	3838	5	13	70.1	6	66.5	67.5
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3986	19	42	70.7	6	68.1	69.1
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	5942	10	10	72.0	6	68.0	69.0
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1413	3	3	65.8	6	61.8	62.8
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4876	20	36	71.4	6	68.4	69.4
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1386	1	0	65.5	6	61.3	62.3
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	4796	24	39	71.4	6	68.5	69.5
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1787	3	5	66.8	6	63.0	64.0
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	874	1	5	63.8	6	60.6	61.6
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	353	1	0	59.6	6	55.3	56.3
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	5012	18	18	71.4	6	67.8	68.8
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	3059	15	39	69.7	6	67.2	68.2
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	3582	19	27	70.1	6	67.1	68.1
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1564	8	18	63.6	6	61.6	62.6
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	2487	10	22	65.4	6	63.1	64.1

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
268	I-215 NB Off-Ramp	Watkins Dr	I-215	Hard	100	45	45	45	0	0	0	-	-	-	-	-
269	Martin Luther King Blvd	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	69.3	748	168	-
270	Chicago Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1696	44	3	67.0	68.0	538	102	-
271	Martin Luther King Blvd	Chicago Ave	Iowa Ave	Hard	100	45	45	45	1821	13	1	66.9	67.9	517	95	-
272	Chicago Ave	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	69.0	700	153	-
273	Iowa Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	1153	10	3	65.0	66.0	301	27	-
274	Martin Luther King Blvd	Iowa Ave	Canyon Crest Dr	Hard	100	45	45	45	3453	10	6	69.7	70.7	1062	267	16
275	Canyon Crest Dr	Campus Dr	Martin Luther King Blvd	Hard	100	45	45	45	1837	7	5	67.0	68.0	529	99	-
276	Martin Luther King Blvd	Canyon Crest Dr	I-215 SB Ramps	Hard	100	45	45	45	3317	13	16	69.7	70.7	1062	268	16
277	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	3582	19	27	70.1	71.1	1199	311	30
278	I-215 SB Off-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	775	5	7	63.6	64.6	187	-	-
279	Martin Luther King Blvd	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1830	7	6	67.0	68.0	530	99	-
280	I-215 SB On-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	959	3	9	64.4	65.4	250	11	-
281	I-215 NB On-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	1087	3	2	64.6	65.6	264	15	-
282	I-215 NB Off-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	1450	3	7	66.0	67.0	401	58	-
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	618	1	3	62.2	63.2	111	-	-
284	SR-60 EB On-Ramp	Heacock St	SR-60	Hard	100	45	45	45	625	3	7	62.7	63.7	132	-	-
285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2414	6	11	68.2	69.2	736	165	-
286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	Hard	100	45	45	45	4726	18	6	71.0	72.0	1488	402	59
287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	Hard	100	45	45	45	4790	20	19	71.2	72.2	1561	425	66
288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	Hard	100	45	45	45	2009	5	9	67.4	68.4	595	120	-
289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	Hard	100	45	45	45	2395	7	14	68.3	69.3	742	166	-
290	Perris Blvd	Sunnymead Blvd	Fir Ave	Hard	100	45	45	45	2946	10	32	69.4	70.4	995	246	10
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	286	0	0	58.7	59.7	-	-	-
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	1068	1	2	64.5	65.5	254	12	-
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1032	0	0	64.3	65.3	236	6	-
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	2711	9	26	69.0	70.0	893	214	-
304	Iris Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1314	1	4	65.5	66.5	343	40	-
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	3139	17	25	69.6	70.6	1041	261	14
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	3782	32	37	70.5	71.5	1323	350	42
324	Ramona Expy	Warren Rd	Sanderson Ave	Hard	100	45	45	45	1866	16	16	67.4	68.4	595	120	-
325	Sanderson Ave	Gilman Springs Rd	Ramona Expy	Hard	100	45	45	45	3972	37	72	71.1	72.1	1522	413	62
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	2451	17	7	68.3	69.3	755	170	-
327	Sanderson Ave	Ramona Expy	Ramona Blvd	Hard	100	45	45	45	5478	59	139	72.8	73.8	2300	659	140
340	Alessandro blvd	North of San Timoteo Canyon	0	Hard	100	45	45	45	553	2	0	61.6	62.6	83	-	-
351	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	45	45	45	545	1	1	61.6	62.6	82	-	-
358	Gilman Springs Rd	Bridge St	SR-79 NB Ramps	Hard	100	45	45	45	1318	8	3	65.6	66.6	353	43	-
359	SR-79 SB Off-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	346	3	5	60.3	61.3	35	-	-
360	Gilman Springs Rd	SR-79 NB Ramps	SR-79 SB Ramps	Hard	100	45	45	45	2263	8	3	67.8	68.8	660	140	-
361	SR-79 SB On-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	978	9	4	64.4	65.4	249	10	-
362	SR-79 NB On-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	552	4	1	61.7	62.7	88	-	-
363	Gilman Springs Rd	SR-79 SB Ramps	Record Rd	Hard	100	45	45	45	2304	9	3	67.9	68.9	673	145	-
364	SR-79 NB Off-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	619	4	1	62.2	63.2	109	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
269	Martin Luther King I	SR-91	Chicago Ave	Hard	100	45	45	45	2481	21	2	68.3	6	64.1	65.1
272	Chicago Ave	Martin Luther King I	Central Ave	Hard	100	45	45	45	2246	37	2	68.0	6	63.9	64.9
279	Martin Luther King I	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1830	7	6	67.0	6	62.5	63.5
280	I-215 SB On-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	959	3	9	64.4	6	59.7	60.7
281	I-215 NB On-Ramp	I-215	Martin Luther King I	Hard	100	45	45	45	1087	3	2	64.6	6	60.3	61.3
282	I-215 NB Off-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	1450	3	7	66.0	6	61.5	62.5
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	618	1	3	62.2	6	57.8	58.8
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	286	0	0	58.7	6	54.4	55.4
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	1068	1	2	64.5	6	60.5	61.5
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1032	0	0	64.3	6	60.0	61.0
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	2711	9	26	69.0	6	66.2	67.2
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	3139	17	25	69.6	6	66.6	67.6
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	3782	32	37	70.5	6	67.8	68.8
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	2451	17	7	68.3	6	64.6	65.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
365	Alessandro Blvd	Sycamore Canyon Blvd	Vista Grande Dr	Hard	100	45	45	45	6452	29	24	72.5	73.5	2137	607	124
366	Sycamore Canyon Blvd	Eastridge Ave	Alessandro Blvd	Hard	100	45	45	45	1607	7	35	67.2	68.2	564	110	-34
367	Meridian Pkwy	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	2082	12	23	67.9	68.9	685	148	-22
375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
376	3rd St	Marvin Rd	Mid County Pkwy WB Ram|	Hard	100	45	45	45	0	0	0	-	-	-	-	-
377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ram|	Hard	100	45	45	45	0	0	0	-	-	-	-	-
379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
386	Harley Know Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	1627	19	47	67.7	68.7	637	133	-
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	3868	25	48	70.7	71.7	1380	368	48
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	677	0	0	62.4	63.4	120	-	-
389	El Cerrito Dr	North of Central Ave	0	Hard	100	45	45	45	606	0	1	62.0	63.0	101	-	-
390	Ramona Expy	Webster Ave	Indian St	Hard	100	45	45	45	3815	36	122	71.4	72.4	1656	455	76
392	Ramona Expy	Indian St	Perris Blvd	Hard	100	45	45	45	3112	15	44	69.8	70.8	1101	280	20
393	Indian St	Ramona Expy	Morgan St	Hard	100	45	45	45	1728	34	41	67.9	68.9	676	145	-
394	Perris Blvd	Harley Know blvd	Ramona Expy	Hard	100	45	45	45	2923	17	22	69.3	70.3	960	235	6
396	Perris Blvd	Ramona Expy	Rider St	Hard	100	45	45	45	2131	14	19	68.0	69.0	687	149	-
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2608	11	9	68.5	69.5	801	185	-
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	3613	12	3	69.8	70.8	1105	281	21
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2698	10	10	71.4	72.4	1655	455	76
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	2602	10	2	68.4	69.4	769	175	-
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	186	1	4	57.7	58.7	-	-	-
402	Morgan St	Perris Blvd	Silver Creek Industires	Hard	100	45	45	45	158	0	2	56.7	57.7	-	-	-
404	Morgan St	Morgan Park	Evans Rd	Hard	100	45	45	45	459	0	0	60.7	61.7	49	-	-
405	Morgan St	Evans Rd	Bradley Rd	Hard	100	45	45	45	408	0	0	60.2	61.2	33	-	-
406	Ironwood Ave	East of Thedore St	0	Hard	100	45	45	45	930	6	15	64.6	65.6	267	16	-
407	Rider St	Indian St	Perris Blvd	Hard	100	45	45	45	1183	2	7	65.2	66.2	313	31	-
408	Rider St	Perris Blvd	Redlands Ave	Hard	100	45	45	45	999	0	1	64.1	65.1	227	3	-
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	848	1	0	63.4	64.4	178	-	-
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1681	1	2	66.4	67.4	453	75	-
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	962	0	2	64.0	65.0	218	1	-
412	Maude St	South of Arlington Ave	0	Hard	100	45	45	45	955	1	0	63.9	64.9	212	-	-
413	Placentia Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1320	8	10	65.8	66.8	379	52	-
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1270	6	4	65.4	66.4	339	39	-
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	3036	22	24	69.5	70.5	1015	253	12
416	Mid County Pkwy WB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
417	Mid County Pkwy WB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
419	Mid County Pkwy EB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
420	Mid County Pkwy EB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	286	0	0	58.7	59.7	-	-	-
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	2761	5	35	69.2	70.2	936	228	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	3868	25	48	70.7	6	68.3	69.3
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	677	0	0	62.4	6	58.1	59.1
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2608	11	9	68.5	6	64.9	65.9
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	3613	12	3	69.8	6	65.7	66.7
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2698	10	10	71.4	6	67.7	68.7
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	2602	10	2	68.4	6	64.2	65.2
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	186	1	4	57.7	6	55.9	56.9
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	848	1	0	63.4	6	59.1	60.1
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1681	1	2	66.4	6	62.3	63.3
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	962	0	2	64.0	6	60.1	61.1
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1270	6	4	65.4	6	61.7	62.7
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	3036	22	24	69.5	6	66.5	67.5
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	286	0	0	58.7	6	54.4	55.4
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	2761	5	35	69.2	6	66.8	67.8

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
425	Mid County Pkwy WB Or	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
426	Mid County Pkwy WB Of	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
427	Day St	South of Alessandro Blvd		0	Hard	100	45	45	45	1144	8	4	65.0	66.0	302	27	-60
428	Mid County Pkwy EB Off-	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
429	Mid County Pkwy EB On-	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
430	Alessandro blvd	SR-215 NB Ramp	SR-215 SB Ramp		Hard	100	45	45	45	4853	12	36	71.4	72.4	1630	447	73
431	Placentia Ave	Water Ave	Evans Rd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
432	Placentia Ave	Evans Rd	El Nido Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
433	Evans Rd	Rider St	Orange Ave		Hard	100	45	45	45	2670	11	2	68.5	69.5	794	183	-
434	Orange Ave	Wilson Ave	Evans Rd		Hard	100	45	45	45	935	1	0	63.8	64.8	205	-	-
435	Orange Ave	Evans Rd	Foothill Dr		Hard	100	35	35	35	1166	1	1166	74.0	75.0	3066	901	217
436	Elsworth St	North of Cactus Ave		0	Hard	100	45	45	45	1181	4	4	65.1	66.1	305	28	-
441	Nuevo Rd	Wilson Ave	Evans Rd		Hard	100	45	45	45	1865	4	4	67.0	68.0	529	99	-
442	Evans Rd	Orange Ave	Nuevo Rd		Hard	100	45	45	45	2542	14	6	68.4	69.4	774	176	-
443	Nuevo Rd	Evans Rd	Foothill Dr		Hard	100	45	45	45	1685	3	4	66.5	67.5	466	79	-
444	Evans Rd	Nuevo Rd	San Jacinto Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
452	San Jacinto Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
453	Evans Rd	North of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
454	San Jacinto Ave	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
455	Evans Rd	South of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
458	Nason St	South of Cactus Ave		0	Hard	100	45	45	45	1942	12	1	67.2	68.2	554	107	-
464	Quincy	South of Eucalyptus		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
477	Ellis Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
478	Evans Rd	North of Ellis Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
479	Oliver St	North of Irris Ave		0	Hard	100	45	45	45	603	2	0	62.0	63.0	100	-	-
480	Ellis Ave	Evans Rd	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
481	SR-215 SB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
482	Ellis Ave	East of SR-215		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
483	SR-215 SB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
484	SR-215 NB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
485	SR-215 NB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
488	Nason St	North of Iris Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
494	Evans Rd	North of Harley Knox Blvd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
498	Morrison St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave		Hard	100	45	45	45	3277	12	30	69.8	70.8	1096	278	20
500	Perris Blvd	North of Eucalyptus Ave		0	Hard	100	45	45	45	3004	11	30	69.4	70.4	1006	250	11
502	Quincy	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
503	Quincy	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
504	Krameria Ave	West of Perris Blvd		0	Hard	100	45	45	45	802	5	1	63.3	64.3	170	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 No Project
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
433 Evans Rd	Rider St	Orange Ave	Hard	100	45	45	45	2670.3	10.5	2	68.5	6	64	65.4
434 Orange Ave	Wilson Ave	Evans Rd	Hard	100	45	45	45	935.36	0.5	0	63.8	6	60	60.6
441 Nuevo Rd	Wilson Ave	Evans Rd	Hard	100	45	45	45	1865.3	4.1103	4.1667	67.0	6	63	64.1
442 Evans Rd	Orange Ave	Nuevo Rd	Hard	100	45	45	45	2541.9	13.745	6.2708	68.4	6	65	65.6
443 Nuevo Rd	Evans Rd	Foothill Dr	Hard	100	45	45	45	1685.3	3.0385	3.5833	66.5	6	63	63.7
444 Evans Rd	Nuevo Rd	San Jacinto Ave	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
458 Nason St	South of Cactus A	0	Hard	100	45	45	45	1941.8	11.583	0.5	67.2	6	63	63.9
488 Nason St	North of Iris Ave	0	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
494 Evans Rd	North of Harley K	0	Hard	100	45	45	45	0	0	0	1.8	6	1	2.4
502 Quincy	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	0	0	0	1.8	6	1	2.4
503 Quincy	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	0	0	0	1.8	6	1	2.4
504 Krameria Ave	West of Perris Blv	0	Hard	100	45	45	45	801.52	4.518	0.5	63.3	6	59	60.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

2040 Buildout

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
1	WLC Pkwy	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1273	67	532	73.0	74.0	2407	693	151
2	WLC Pkwy	Eucalyptus Ave	Street F	Hard	100	45	45	45	680	35	261	70.0	71.0	1149	295	25
3	Street E	west of WLC Pkwy	0	Hard	100	45	45	45	154	22	76	64.7	65.7	272	18	-
4	Street E	north of Alessandro Blvd	0	Hard	100	45	45	45	428	23	50	64.6	65.6	265	16	-
5	Alessandro Blvd	Cactus Ave Extension	WLC Pkwy	Hard	100	45	45	45	1308	26	0	65.7	66.7	371	49	-
6	WLC Pkwy	Street F	Alessandro Blvd	Hard	100	45	45	45	1358	66	544	73.1	74.1	2476	715	158
7	WLC Pkwy	south of Alessandro Blvd	0	Hard	100	45	45	45	1116	26	29	66.1	67.1	416	63	-
8	Cactus Ave Extension	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1363	23	0	65.8	66.8	383	53	-
9	John F Kennedy Dr	south of Cactus Ave	0	Hard	100	45	45	45	1380	27	1	66.0	67.0	398	58	-
10	Redlands Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	890	10	0	63.9	64.9	207	-	-
11	Redlands Blvd	Dracaea Ave	Alessandro Blvd	Hard	100	45	45	45	977	9	0	64.2	65.2	233	5	-
12	Redlands Blvd	Eucalyptus Ave	Dracaea Ave	Hard	100	45	45	45	1273	14	6	65.6	66.6	361	46	-
13	Redlands Blvd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	1970	17	42	68.2	69.2	727	162	-17
14	Eucalyptus Ave	east of Redlands blvd	0	Hard	100	45	45	45	523	17	20	63.4	64.4	174	-	-
15	Eucalyptus Ave	west of Street A	0	Hard	100	45	45	45	424	9	38	63.7	64.7	193	-	-
18	Street B	east of WLC Pkwy	0	Hard	100	45	45	45	321	7	19	61.7	62.7	87	-	-
18a	Street B	west of Gilman Springs Rd	0	Hard	100	45	45	45	239	3	5	59.1	60.1	2	-	-
19	Street F	east of WLC Pkwy	0	Hard	100	45	45	45	604	13	123	67.3	68.3	577	114	-
20	Street F	north of Alessandro Blvd	0	Hard	100	45	45	45	565	8	26	63.7	64.7	196	-	-
21	Alessandro Blvd	east of WLC Pkwy	0	Hard	100	45	45	45	859	10	33	65.2	66.2	319	32	-
22	Alessandro Blvd	west of Street F	0	Hard	100	45	45	45	859	10	33	65.2	66.2	319	32	-
23	Street F	Alessandro Blvd	Street G	Hard	100	45	45	45	0	9	9	55.9	56.9	-	-	-
24	Alessandro Blvd	Street F	Gilman Springs Rd	Hard	100	45	45	45	1073	13	88	67.4	68.4	597	121	-30
25	Alessandro Blvd	Street H	Gilman Springs Rd	Hard	100	45	45	45	1073	13	88	67.4	68.4	597	121	-30
29	Gilman Springs Rd	Eucalyptus Ave	Alessandro Blvd	Hard	100	45	45	45	3550	36	58	70.6	71.6	1332	353	43
30	Gilman Springs Rd	State Route 60	Eucalyptus Ave	Hard	100	45	45	45	3550	36	58	70.6	71.6	1332	353	43
31	Gilman Springs Rd	south of Street C	0	Hard	100	45	45	45	4304	44	66	71.4	72.4	1623	445	72
32	Cactus Ave	west of Redlands Blvd	0	Hard	100	45	45	45	793	30	0	63.9	64.9	211	-	-
33	Alessandro Blvd	west of Redlands Blvd	0	Hard	100	45	45	45	412	4	1	60.6	61.6	45	-	-
35	Redlands Blvd	Ironwood Ave	State Route 60	Hard	100	55	55	55	1508	3	50	69.9	70.9	1118	285	22
36	Ironwood Ave	Redlands Blvd	Highland Blvd	Hard	100	35	35	35	359	8	1	57.2	58.2	-	-	-
37	San Timoteo Canyon Rd	west Live Oak Canyon	0	Hard	100	45	45	45	1769	17	54	68.1	69.1	704	154	-20
38	Theodore St	State Route 60	Highland Blvd	Hard	100	45	45	45	957	17	14	65.0	66.0	295	25	-
42	Redlands blvd	Ironwood Ave	San Timoteo Canyon Rd	Hard	100	55	55	55	1539	10	47	69.9	70.9	1144	293	24
43	Moreno Beach Dr	Alessandro Blvd	SR 60	Hard	100	45	45	45	2982	18	34	69.5	70.5	1030	257	13
46	Moreno Beach Dr	State Route 60	Ironwood Ave	Hard	100	45	45	45	2096	13	8	67.7	68.7	633	132	-27
47	Ironwood Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	881	3	0	63.6	64.6	191	-	-
48	Alessandro Blvd	Lasselle St	Morrison St	Hard	100	45	45	45	3154	18	19	69.5	70.5	1026	256	13
50	Cactus Ave	Redlands Blvd	Cactus Ave Extension	Hard	100	45	45	45	1308	26	0	65.7	66.7	371	49	-

odel Notes:

ibed in FHWA Traffic Noise Model Technical Manual (1998).

with the results from FHWA Traffic Noise Model Version 2.5.

in ±0.1 dB when comparing to TNM results.

feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

a long straight roadway with cruise speed.

ade is less than 1.5%.

Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes: 0

Roadway Segment		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
				Auto	MT	HT	Auto	MT	HT				
32 Cactus Ave	west of Redlands Blvd	Hard	100	45	45	45	793	30	0	63.9	6	59.6	60.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
51	Moreno Beach Dr	John F Kennedy Dr	Cactus Ave	Hard	100	45	45	45	1819	11	3	66.9	67.9	519	96	-
52	Moreno Beach Dr	John F Kennedy Dr	Oliver St	Hard	100	35	35	35	2477	26	2	65.0	66.0	301	27	-
53	John F Kennedy Dr	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	135	13	1	57.4	58.4	-	-	-
54	Locust Ave	Moreno Beach Dr	Smiley Blvd	Hard	100	35	35	35	831	9	0	60.3	61.3	34	-	-
55	Locust Ave	Moreno Beach Dr	Redlands Blvd	Hard	100	45	45	45	368	2	0	59.9	60.9	23	-	-
56	Moreno Beach Dr	Locust Ave	Ironwood Ave	Hard	100	35	35	35	1216	18	0	62.0	63.0	101	-	-
57	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	35	35	35	528	0	2	58.2	59.2	-	-	-
58	SR 60 EB Ramps	West of Moreno Beach Dr	0	Hard	100	45	45	45	734	0	3	62.9	63.9	148	-	-
59	Eucalyptus Ave	Moreno Beach Dr	Quincy Dr	Hard	100	45	45	45	387	7	14	61.8	62.8	92	-	-
60	SR 60 WB Ramps	East of Redlands Blvd	0	Hard	100	45	45	45	858	0	15	64.2	65.2	233	5	-
61	SR 60 EB Ramps	West fo Redlands Blvd	0	Hard	100	45	45	45	667	2	16	63.5	64.5	180	-	-
62	Fir Ave	Quincy Dr	Redlands Blvd	Hard	100	45	45	45	980	22	3	64.6	65.6	266	16	-
65	Alessandro Blvd	Nason St	Oliver St	Hard	100	45	45	45	1122	7	20	65.5	66.5	352	43	-
66	Alessandro Blvd	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	1065	9	18	65.3	66.3	330	36	-
67	Oliver St	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	309	0	0	55.6	56.6	-	-	-
68	Moreno Beach Dr	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	2172	14	4	67.7	68.7	644	135	-
69	Cactus Ave	Nason St	Oliver St	Hard	100	45	45	45	1858	11	1	67.0	68.0	526	98	-
70	Cactus Ave	Oliver St	Moreno Beach Dr	Hard	100	45	45	45	1418	12	1	65.8	66.8	383	53	-
71	Oliver St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	893	0	0	63.6	64.6	191	-	-
72	Oliver St	John F Kennedy Dr	Iris Ave	Hard	100	45	45	45	588	1	0	61.9	62.9	93	-	-
73	Iris Ave	Nason St	Oliver St	Hard	100	45	45	45	2735	34	2	68.8	69.8	857	203	-
74	Heacock St	Manzanita Ave	Ironwood Ave	Hard	100	45	45	45	1885	6	1	67.0	68.0	527	98	-
75	Ironwood Ave	Graham St	Heacock St	Hard	100	45	45	45	2181	3	1	67.6	68.6	617	127	-
76	Ironwood Ave	Heacock St	Indian Ave	Hard	100	45	45	45	1731	1	1	66.5	67.5	467	79	-
77	Heacock St	Ironwood Ave	Hemlock Ave	Hard	100	45	45	45	1919	4	1	67.0	68.0	535	101	-
80	Heacock St	Hemlock Ave	SR 60 WB Ramps	Hard	100	45	45	45	2310	6	11	68.1	69.1	705	155	-
81	SR 60 WB Ramps	West of Heacock St	0	Hard	100	45	45	45	459	5	11	62.0	63.0	100	-	-
82	SR 60 WB Ramps	East of Heacock St	0	Hard	100	45	45	45	574	3	12	62.7	63.7	137	-	-
83	Heacock St	SR 60 WB Ramps	SR 60 EB Ramps	Hard	100	45	45	45	2419	6	19	68.4	69.4	767	174	-
85	SR 60 WB Onramp	West of Perris Blvd	0	Hard	100	45	45	45	749	2	26	64.4	65.4	243	9	-
86	SR 60 WB Offramp	East of Perris Blvd	0	Hard	100	45	45	45	2379	7	45	68.8	69.8	853	201	-
87	Eualyptus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	921	2	0	63.8	64.8	203	-	-
88	Eualyptus Ave	Perris Blvd	Kitching St	Hard	100	55	55	55	918	2	1	66.6	67.6	477	82	-
95	W 6th St	I-10	N California Ave	Hard	100	35	35	35	1932	10	29	64.7	65.7	273	18	-
96	N California Ave	W 6th St	E 8th St	Hard	100	45	45	45	249	1	3	58.7	59.7	-	-	-
97	E 6th St	N California Ave	Beaumont Ave	Hard	100	45	45	45	1821	10	30	67.6	68.6	620	128	-
98	N California Ave	W 6th St	I-10	Hard	100	55	55	55	1149	2	4	67.7	68.7	641	134	-
99	Beaumont Ave	E 6th St	E 8th St	Hard	100	45	45	45	2163	13	13	67.9	68.9	673	145	-
100	I-215 SB Ramps	North of Alessandro Blvd	0	Hard	100	45	45	45	640	0	11	63.0	64.0	149	-	-
101	Alessandro Blvd	Sycamore Canyon Blvd	I-215 SB Ramps	Hard	100	45	45	45	5683	24	39	72.1	73.1	1933	543	103
102	I-215 SB Ramps	South of Alessandro Blvd	0	Hard	100	45	45	45	738	7	2	63.1	64.1	160	-	-
103	I-215 NB Ramps	Nouth of Alessandro Blvd	0	Hard	100	45	45	45	311	7	22	61.9	62.9	96	-	-
104	Alessandro Blvd	I-215 NB Ramps	Old 215 Frontage Rd	Hard	100	45	45	45	4095	12	35	70.7	71.7	1381	368	48

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project with Barriers
Source of Traffic Volumes: 0

Roadway Segment					Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
							Auto	MT	HT	Auto	MT	HT				
69	Cactus Ave	Nason St	Oliver St		Hard	100	45	45	45	1858	11	1	68.0	6	62.7	63.7
70	Cactus Ave	Oliver St	Moreno Beach Dr		Hard	100	45	45	45	1418	12	1	66.8	6	61.6	62.6
71	Oliver St	Cactus Ave	John F Kennedy Dr		Hard	100	45	45	45	893	0	0	64.6	6	59.5	60.5
72	Oliver St	John F Kennedy	Iris Ave		Hard	100	45	45	45	588	1	0	62.9	6	57.8	58.8
74	Heacock St	Manzanita Ave	Ironwood Ave		Hard	100	45	45	45	1885	6	1	68.0	6	62.8	63.8
75	Ironwood Ave	Graham St	Heacock St		Hard	100	45	45	45	2181	3	1	67.0	6	62.8	63.8
76	Ironwood Ave	Heacock St	Indian Ave		Hard	100	45	45	45	1731	1	1	68.1	6	64.7	65.7
81	SR 60 WB Ramps	West of Heacock St			Hard	100	45	45	45	459	5	11	62.0	6	60.5	61.5
85	SR 60 WB Onramp	West of Perris I		0	Hard	100	45	45	45	749	2	26	64.4	6	63.6	64.6
86	SR 60 WB Offramp	East of Perris B		0	Hard	100	45	45	45	2379	7	45	68.8	6	67.0	68.0
88	Eualyptus Ave	Perris Blvd	Kitching St		Hard	100	55	55	55	918	2	1	66.6	6	62.4	63.4
96	N California Ave	W 6th St	E 8th St		Hard	100	45	45	45	249	1	3	58.7	60	56.2	57.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
 For hard ground, the propagation rate is 3 dB per doubling the distance.
 For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
105	I-215 SB Ramps	South of Alessandro Blvd		0	Hard	100	45	45	45	738	7	23	64.3	65.3	238	7	-
106	Old 215 Frontage Rd	Eucalyptus Ave	Alessandro Blvd		Hard	100	45	45	45	1570	7	10	66.5	67.5	461	77	-
107	Alessandro Blvd	Old 215 Frontage Rd	Day St		Hard	100	45	45	45	3599	15	19	70.0	71.0	1169	301	27
108	Old 215 Frontage Rd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1582	19	19	66.9	67.9	520	96	-
109	Day St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	2358	14	0	64.7	65.7	268	16	-
110	Alessandro Blvd	Day St	Elsworth St		Hard	100	45	45	45	3952	21	22	70.5	71.5	1303	344	40
111	Elsworth St	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	1068	7	3	61.4	62.4	74	-	-
112	Alessandro Blvd	Elsworth St	Frederick St		Hard	100	45	45	45	3420	14	23	69.9	70.9	1120	286	22
113	Elsworth St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1429	7	7	66.0	67.0	403	59	-
114	Frederick St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1683	4	14	66.8	67.8	504	91	-
115	Alessandro Blvd	Frederick St	Graham St		Hard	100	45	45	45	3673	17	19	70.1	71.1	1194	309	29
116	Frederick St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1005	4	19	65.0	66.0	303	27	-
117	Graham St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1697	6	6	66.7	67.7	485	85	-
118	Alessandro Blvd	Graham St	Heacock St		Hard	100	45	45	45	3811	17	20	70.3	71.3	1245	325	34
119	Graham St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1772	7	6	66.9	67.9	511	93	-
120	Heacock St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1719	2	19	67.0	68.0	532	100	-
121	Alessandro Blvd	Heacock St	Indian St		Hard	100	45	45	45	3957	19	17	70.4	71.4	1284	338	38
122	Heacock St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1323	2	4	65.5	66.5	349	42	-
123	Indian St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1526	5	0	66.0	67.0	405	60	-
124	Alessandro Blvd	Indian St	Perris Blvd		Hard	100	45	45	45	3676	18	15	70.1	71.1	1182	305	28
125	Indian St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1749	7	1	66.7	67.7	482	84	-
126	Alessandro Blvd	Perris Blvd	Kitching St		Hard	100	45	45	45	3325	16	20	69.7	70.7	1083	274	18
127	Perris Blvd	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	2870	6	75	69.9	70.9	1122	287	22
128	Kitching St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1328	3	0	65.4	66.4	337	38	-
129	Alessandro Blvd	Kitching St	Lasselle St		Hard	100	45	45	45	3380	18	19	69.8	70.8	1099	279	20
130	Kitching St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1263	4	0	65.2	66.2	317	32	-
131	Lasselle St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	1112	1	1	64.7	65.7	268	16	-
133	Lasselle St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	1148	2	1	64.8	65.8	279	20	-
134	Morrison St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	999	4	0	64.2	65.2	232	5	-
135	Alessandro Blvd	Morrison St	Nason St		Hard	100	50	50	50	2210	13	20	69.5	70.5	1032	258	13
136	Nason St	Cottonwood Ave	Alessandro Blvd		Hard	100	45	45	45	2841	14	1	68.8	69.8	852	201	-
137	Nason St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	3093	16	2	69.2	70.2	940	229	4
138	I-215 SB Ramps	North of Cactus Ave		0	Hard	100	45	45	45	517	0	17	62.6	63.6	131	-	-
139	Cactus Ave	Meridian Pkwy	I-215 SB Ramps		Hard	100	45	45	45	3906	56	87	71.3	72.3	1591	435	69
140	I-215 SB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	1490	26	33	67.1	68.1	553	106	-
141	Cactus Ave	I-215 NB Ramps	Elsworth St		Hard	100	45	45	45	5244	40	54	72.0	73.0	1874	524	97
142	I-215 NB Ramps	South of Cactus Ave		0	Hard	100	45	45	45	1442	18	12	66.4	67.4	444	72	-
143	Cactus Ave	Elsworth St	Frederick St		Hard	100	45	45	45	4130	24	39	70.8	71.8	1429	383	53
144	Cactus Ave	Frederick St	Graham St		Hard	100	45	45	45	4525	26	30	71.1	72.1	1527	415	63
145	Cactus Ave	Graham St	Heacock St		Hard	100	45	45	45	4393	29	22	70.9	71.9	1462	394	56
146	Riverside Dr	Cactus Ave	Meyer Dr		Hard	100	45	45	45	2392	3	1	68.0	69.0	685	148	-
147	Cactus Ave	Heacock St	Indian St		Hard	100	45	45	45	2490	9	2	68.2	69.2	732	163	-
148	Heacock St	Cactus Ave	John F Kennedy Dr		Hard	100	45	45	45	1957	7	13	67.4	68.4	598	121	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project with Barriers
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
114 Frederick St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1683	4	14	66.8	6	62.1	63.1
115 Alessandro Blvd	Frederick St	Graham St	Hard	100	45	45	45	3673	17	19	70.1	6	66.7	67.7
117 Graham St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1697	6	6	66.7	6	63.0	64.0
120 Heacock St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1719	2	19	67.0	6	64.4	65.4
121 Alessandro Blvd	Heacock St	Indian St	Hard	100	45	45	45	3957	19	17	70.4	6	66.9	67.9
122 Heacock St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1323	2	4	65.5	6	61.8	62.8
123 Indian St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1526	5	0	66.0	6	61.7	62.7
124 Alessandro Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	3676	18	15	70.1	6	66.5	67.5
125 Indian St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1749	7	1	66.7	6	62.4	63.4
126 Alessandro Blvd	Perris Blvd	Kitching St	Hard	100	45	45	45	3325	16	20	69.7	6	66.5	67.5
127 Perris Blvd	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	2870	6	75	69.9	6	68.6	69.6
128 Kitching St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1328	3	0	65.4	6	61.1	62.1
129 Alessandro Blvd	Kitching St	Lasselle St	Hard	100	45	45	45	3380	18	19	69.8	6	66.5	67.5
130 Kitching St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1263	4	0	65.2	6	60.9	61.9
131 Lasselle St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	1112	1	1	64.7	6	60.6	61.6
133 Lasselle St	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	1148	2	1	64.8	6	60.6	61.6
134 Morrison St	Cottonwood Ave	Alessandro Blvd	Hard	100	45	45	45	999	4	0	64.2	6	59.9	60.9
135 Alessandro Blvd	Morrison St	Nason St	Hard	100	50	50	50	2210	13	20	69.5	6	66.5	67.5
147 Cactus Ave	Heacock St	Indian St	Hard	100	45	45	45	2490	9	2	68.2	6	64.0	65.0
148 Heacock St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1957	7	13	67.4	6	64.3	65.3

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	2116	8	1	67.5	68.5	603	122	-
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1891	10	1	67.0	68.0	534	100	-
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	2093	8	6	67.5	68.5	615	126	-
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2792	12	69	69.7	70.7	1085	275	19
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1788	8	1	63.4	64.4	177	-	-
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1416	4	0	65.7	66.7	368	48	-
155	Cactus Ave	Lasselle St	Morrison St	Hard	100	45	45	45	2032	8	1	67.3	68.3	578	114	-
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1989	3	0	67.1	68.1	552	106	-
157	Cactus Ave	Morrison St	Nason St	Hard	100	45	45	45	2591	16	2	68.4	69.4	778	178	-
158	E 6th St	Beaumont Ave	Pennsylvania Ave	Hard	100	45	45	45	2592	11	31	68.9	69.9	876	209	-
159	Beaumont Ave	E 6th St	I-10	Hard	100	45	45	45	1991	11	14	67.6	68.6	619	127	-
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	900	9	0	63.9	64.9	209	-	-
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1715	13	3	66.7	67.7	491	87	-
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	2990	33	5	69.2	70.2	947	231	5
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	1926	13	0	67.1	68.1	550	106	-
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1931	9	0	67.1	68.1	544	104	-
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	4404	37	3	70.8	71.8	1405	376	51
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1616	16	1	66.5	67.5	456	76	-
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	787	0	0	63.1	64.1	156	-	-
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	2041	12	1	67.4	68.4	588	118	-
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	3822	18	2	70.1	71.1	1179	305	28
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	3683	17	2	69.9	70.9	1133	290	23
173	Oleander Ave	Perris Blvd	Lasselle St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
174	Oleander Ave	Lasselle St	Lake Perris Dr	Hard	100	45	45	45	0	0	0	-	-	-	-	-
177	San Timoteo Canyon Rd	Alessandro Rd	Live Oak Canyon Rd	Hard	100	45	45	45	1861	20	53	68.2	69.2	735	164	-
178	Live oak Canyon Rd	San Timoteo Canyon Rd	I-10	Hard	100	45	45	45	528	0	2	61.5	62.5	77	-	-
179	San Timoteo Canyon Rd	Live Oak Canyon Rd	Redlands Blvd	Hard	100	45	45	45	2176	16	53	68.7	69.7	831	194	-
180	San Timoteo Canyon Rd	Redlands Blvd	Woodhouse Rd	Hard	100	45	45	45	1885	20	27	67.7	68.7	648	137	-
181	Potrero Blvd	North of SR 60 WB Ramps	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
182	SR 60 WB On Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
183	SR 60 WB Off Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
184	SR 60 EB Off Ramp	West of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
185	SR 60 EB On Ramp	East of Potrero Blvd	0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
186	Potrero Blvd	South of SR 60 EB Ramps	W 4th St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
190	Gilman Springs Rd	Jack Rabbit Trail	Bridge St	Hard	100	45	45	45	2908	17	47	69.6	70.6	1048	263	15
191	Gilman Springs Rd	Bridge St	Beaumont Ave	Hard	100	45	45	45	2275	24	42	68.7	69.7	837	196	-
192	Bridge St	Gilman Springs Rd	Marvin Rd	Hard	100	45	45	45	767	3	33	64.8	65.8	276	19	-
194	Crescent Ave	West of Alessandro Rd	0	Hard	100	35	35	35	354	4	0	56.5	57.5	-	-	-
195	Crescent Ave	Alessandro Rd	Center St	Hard	100	45	45	45	588	2	0	61.9	62.9	95	-	-
196	Alessandro Rd	Crescent Ave	Sunset St	Hard	100	45	45	45	576	5	0	61.9	62.9	96	-	-
198	Sunset Dr	Crown St	Alessandro Rd	Hard	100	35	35	35	54	0	0	48.0	49.0	-	-	-
199	Sunset Dr	Alessandro Rd	Cameo Dr	Hard	100	35	35	35	89	0	0	50.2	51.2	-	-	-
200	Alessandro Rd	Sunset Dr	San Timoteo Canyon Rd	Hard	100	45	45	45	519	5	0	61.5	62.5	78	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project with Barriers
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
149	Cactus Ave	Indian St	Perris Blvd	Hard	100	45	45	45	2116	8	1	67.5	6	63.2	64.2
150	Indian St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1891	10	1	67.0	6	62.8	63.8
151	Cactus Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	2093	8	6	67.5	6	63.8	64.8
152	Perris Blvd	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	2792	12	69	69.7	6	68.3	69.3
153	Cactus Ave	Kitching St	Lasselle St	Hard	100	35	35	35	1788	8	1	63.4	6	59.3	60.3
154	Kitching St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1416	4	0	65.7	6	61.4	62.4
156	Lasselle St	Cactus Ave	John F Kennedy Dr	Hard	100	45	45	45	1989	3	0	67.1	6	62.9	63.9
160	Kitching St	Gentian Ave	Iris Ave	Hard	100	45	45	45	900	9	0	63.9	6	59.6	60.6
161	Iris Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1715	13	3	66.7	6	62.8	63.8
162	Iris Ave	Kitching St	Lasselle St	Hard	100	45	45	45	2990	33	5	69.2	6	65.2	66.2
163	Kitching St	Iris Ave	Ivory Ave	Hard	100	45	45	45	1926	13	0	67.1	6	62.8	63.8
164	Lasselle St	Gentian Ave	Iris Ave	Hard	100	45	45	45	1931	9	0	67.1	6	62.8	63.8
165	Iris Ave	Lasselle St	Nason St	Hard	100	45	45	45	4404	37	3	70.8	6	66.6	67.6
168	Krameria Ave	Perris Blvd	Kitching St	Hard	100	45	45	45	1616	16	1	66.5	6	62.2	63.2
169	Krameria Ave	Kitching St	Lasselle St	Hard	100	45	45	45	787	0	0	63.1	6	58.8	59.8
170	Kitching St	Krameria Ave	Lurin Ave	Hard	100	45	45	45	2041	12	1	67.4	6	63.2	64.2
171	Lasselle St	Cahuilla Dr	Krameria Ave	Hard	100	45	45	45	3822	18	2	70.1	6	65.9	66.9
172	Lasselle St	Krameria Ave	Arroyo Park Dr	Hard	100	45	45	45	3683	17	2	69.9	6	65.7	66.7
178	Live oak Canyon I	San Timoteo Can	I-10	Hard	100	45	45	45	528	0	2	61.5	6	57.8	58.8

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
    For hard ground, the propagation rate is 3 dB per doubling the distance.
    For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
205	Reche Canyon Rd	Keissel Rd	Reche Vista Dr	Hard	100	45	45	45	3291	24	0	69.5	70.5	1011	251	11
206	Reche Canyon Rd	Reche Vista Dr	High Country Dr	Hard	100	45	45	45	894	23	0	64.2	65.2	231	5	-
207	Reche Vista Dr	Heacock Dr	Reche Canyon Rd	Hard	100	35	35	35	2457	7	0	64.7	65.7	272	18	-
215	Mission Grove Pkwy	Cannon Rd	Alessandro Blvd	Hard	100	35	35	35	2152	11	9	64.5	65.5	255	12	-
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkwy	Hard	100	45	45	45	5500	20	19	71.8	72.8	1794	499	89
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	2093	12	9	67.7	68.7	634	132	-
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	8212	21	16	73.4	74.4	2667	775	177
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pkwy	Hard	100	45	45	45	1436	0	1	65.7	66.7	368	48	-
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	3213	18	18	69.6	70.6	1042	261	14
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	1709	15	15	63.9	64.9	209	-	-
225	Via Vista Dr	Alessandro Blvd	Canyon Crest Dr	Hard	100	45	45	45	394	0	0	60.1	61.1	28	-	-
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5501	8	7	71.6	72.6	1727	478	83
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	442	0	0	60.6	61.6	44	-	-
229	Century Ave	Alessandro Blvd	Claridge Dr	Hard	100	45	45	45	465	2	3	61.2	62.2	65	-	-
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	195	2	1	57.3	58.3	-	-	-
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chicago A	Hard	100	45	45	45	3920	5	11	70.2	71.2	1226	319	33
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3965	22	62	70.9	71.9	1456	392	56
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	6033	10	10	72.0	73.0	1913	537	101
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1403	2	3	65.7	66.7	369	48	-
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4887	22	58	71.7	72.7	1744	483	84
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1387	1	2	65.6	66.6	358	45	-
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	4797	26	61	71.6	72.6	1731	479	83
240	Durango Rd	Laramie Rd	Arlington Ave	Hard	100	45	45	45	457	2	1	60.9	61.9	57	-	-
241	Horace St	Arlington Ave	Victoria Ave	Hard	100	45	45	45	569	1	1	61.8	62.8	89	-	-
242	Arlington Ave	Maude St	SR-91 WB Ramps	Hard	100	45	45	45	5587	27	60	72.2	73.2	1984	559	108
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1788	2	3	66.7	67.7	495	88	-
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	894	1	5	63.9	64.9	211	-	-
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	273	1	0	58.5	59.5	-	-	-
246	Indiana Ave	Arlington Ave	SR-91 EB Ramps	Hard	100	45	45	45	1888	3	14	67.3	68.3	569	112	-
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	5010	20	24	71.4	72.4	1653	454	75
250	Country Club Dr	Chicago Ave	Canyon Crest Dr	Hard	100	35	35	35	783	3	6	60.3	61.3	34	-	-
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	3044	18	58	69.9	70.9	1135	291	24
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	3589	18	27	70.1	71.1	1198	311	30
256	Canyon Crest Dr	Central Ave	Country Club Dr	Hard	100	45	45	45	3795	19	22	70.3	71.3	1248	326	35
258	El Cerrito Dr	Canyon Crest Dr	Central Ave	Hard	100	45	45	45	606	1	1	62.0	63.0	101	-	-
260	Central Ave	Canyon Crest Dr	I-215	Hard	100	45	45	45	3818	24	89	71.1	72.1	1512	410	61
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1600	5	16	63.5	64.5	183	-	-
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	2276	5	20	65.0	66.0	295	25	-
263	Central Ave	Sycamore Canyon Blvd	SR-60 EB Ramps	Hard	100	45	45	45	2081	19	55	68.6	69.6	814	189	-
264	SR-60 EB Ramps	SR-60	Central Ave	Hard	100	45	45	45	1068	5	26	65.5	66.5	350	42	-
265	Central Ave	SR-60 EB Ramps	SR-60 WB Ramps	Hard	100	45	45	45	1089	9	31	65.9	66.9	385	53	-
266	SR-60 WB Ramps	Central Ave	SR-60	Hard	100	45	45	45	1035	5	7	64.7	65.7	268	17	-
267																

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project with Barriers
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
216	Alessandro Blvd	Trautwein Rd	Mission Grove Pkv	Hard	100	45	45	45	5500	20	19	71.8	6	68.1	69.1
217	Mission Grove Pkwy	Alessandro Blvd	Northrop Dr	Hard	100	45	45	45	2093	12	9	67.7	6	64.2	65.2
218	Alessandro Blvd	Canyon Crest Dr	Trautwein Rd	Hard	100	45	45	45	8212	21	16	73.4	6	69.5	70.5
219	Trautwein Rd	Alessandro Blvd	Orange Terrace Pl	Hard	100	45	45	45	1436	0	1	65.7	6	61.5	62.5
221	Canyon Crest Dr	Central Ave	Alessandro Blvd	Hard	100	45	45	45	3213	18	18	69.6	6	66.3	67.3
223	Canyon Crest Dr	Alessandro Blvd	Sandtrack Rd	Hard	100	35	35	35	1709	15	15	63.9	6	61.5	62.5
226	Alessandro Blvd	Century Ave	Canyon Crest Dr	Hard	100	45	45	45	5501	8	7	71.6	6	67.6	68.6
227	Via Vista Dr	Alessandro Blvd	Canyon Hill Dr	Hard	100	45	45	45	442	0	0	60.6	6	56.3	57.3
230	Century Ave	Trafalgar Ave	Alessandro Blvd	Hard	100	45	45	45	195	2	1	57.3	6	53.5	54.5
231	Alessandro Blvd	Victoria Ave	Arlington Ave/Chic	Hard	100	45	45	45	3920	5	11	70.2	6	66.5	67.5
232	Chicago Ave	Alessandro Blvd	Central Ave	Hard	100	45	45	45	3965	22	62	70.9	6	68.8	69.8
233	Alessandro Blvd	Arlington Ave/Chicago Ave	Century Ave	Hard	100	45	45	45	6033	10	10	72.0	6	68.1	69.1
236	Victoria Ave	Central Ave	Arlington Ave	Hard	100	45	45	45	1403	2	3	65.7	6	61.8	62.8
237	Arlington Ave	Victoria Ave	Alessandro Blvd	Hard	100	45	45	45	4887	22	58	71.7	6	69.2	70.2
238	Victoria Ave	Arlington Ave	Maude St	Hard	100	45	45	45	1387	1	2	65.6	6	61.5	62.5
239	Arlington Ave	Maude St	Victoria Ave	Hard	100	45	45	45	4797	26	61	71.6	6	69.2	70.2
243	Riverside Ave	SR-91 WB Ramps	Arlington Ave	Hard	100	45	45	45	1788	2	3	66.7	6	62.8	63.8
244	SR-91 WB On-Ramps	Arlington Ave	SR-91	Hard	100	45	45	45	894	1	5	63.9	6	60.6	61.6
245	SR-91 EB On-Ramps	SR-91	Arlington Ave	Hard	100	45	45	45	273	1	0	58.5	6	54.2	55.2
247	Arlington Ave	SR-91 WB Ramps	SR-91 EB Ramps	Hard	100	45	45	45	5010	20	24	71.4	6	68.0	69.0
252	Central Ave	Chicago Ave	Canyon Crest Dr	Hard	100	45	45	45	3044	18	58	69.9	6	68.1	69.1
254	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	3589	18	27	70.1	6	67.1	68.1
261	Lochmoor Dr	Central Ave	Fair Isle Dr	Hard	100	35	35	35	1600	5	16	63.5	6	61.3	62.3
262	Sycamore Canyon Blvd	Central Ave	College Blvd	Hard	100	35	35	35	2276	5	20	65.0	6	62.6	63.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
268	I-215 NB Off-Ramp	Watkins Dr	I-215	Hard	100	45	45	45	0	0	0	-	-	-	-	-
269	Martin Luther King Blvd	SR-91	Chicago Ave	Hard	100	45	45	45	0	21	2	55.2	56.2	-	-	-
270	Chicago Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	0	44	3	58.4	59.4	-	-	-
271	Martin Luther King Blvd	Chicago Ave	Iowa Ave	Hard	100	45	45	45	0	13	1	53.0	54.0	-	-	-
272	Chicago Ave	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	0	37	2	57.5	58.5	-	-	-
273	Iowa Ave	University Ave	Martin Luther King Blvd	Hard	100	45	45	45	0	10	3	53.2	54.2	-	-	-
274	Martin Luther King Blvd	Iowa Ave	Canyon Crest Dr	Hard	100	45	45	45	3425	11	17	69.8	70.8	1098	279	20
275	Canyon Crest Dr	Campus Dr	Martin Luther King Blvd	Hard	100	45	45	45	1858	13	11	67.3	68.3	570	112	-
276	Martin Luther King Blvd	Canyon Crest Dr	I-215 SB Ramps	Hard	100	45	45	45	3231	14	28	69.7	70.7	1080	273	18
277	Canyon Crest Dr	Martin Luther King Blvd	Central Ave	Hard	100	45	45	45	3589	18	27	70.1	71.1	1198	311	30
278	I-215 SB Off-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	770	0	3	63.1	64.1	160	-	-
279	Martin Luther King Blvd	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1762	6	7	66.9	67.9	511	93	-
280	I-215 SB On-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	950	5	19	64.9	65.9	288	23	-
281	I-215 NB On-Ramp	I-215	Martin Luther King Blvd	Hard	100	45	45	45	1064	0	2	64.5	65.5	251	11	-
282	I-215 NB Off-Ramp	Martin Luther King Blvd	I-215	Hard	100	45	45	45	1407	2	5	65.8	66.8	380	52	-
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	609	0	2	62.1	63.1	105	-35	-
284	SR-60 EB On-Ramp	Heacock St	SR-60	Hard	100	45	45	45	574	3	12	62.7	63.7	135	-26	-
285	Heacock St	SR-60 EB Ramps	Sunnymead Blvd	Hard	100	45	45	45	2429	6	21	68.4	69.4	777	177	-
286	Perris Blvd	Hemlock Ave	SR-60 WB Ramps	Hard	100	45	45	45	4676	16	9	71.0	72.0	1479	399	58
287	Perris Blvd	SR-60 WB Ramps	Sunnymead Blvd	Hard	100	45	45	45	4706	20	45	71.4	72.4	1633	448	73
288	Sunnymead Blvd	SR-60 WB Off-Ramps	Perris Blvd	Hard	100	45	45	45	1904	5	10	67.2	68.2	564	110	-
289	Sunnymead Blvd	Perris Blvd	SR-60 WB On-Ramps	Hard	100	45	45	45	2379	7	45	68.8	69.8	853	201	-
290	Perris Blvd	Sunnymead Blvd	Fir Ave	Hard	100	45	45	45	2782	16	76	69.8	70.8	1116	285	22
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	276	0	0	58.5	59.5	-	-	-
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	1026	1	2	64.3	65.3	241	8	-
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1019	3	0	64.3	65.3	236	6	-
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	2616	8	72	69.5	70.5	1030	257	13
304	Iris Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1183	7	3	65.1	66.1	307	29	-
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	3033	22	70	70.1	71.1	1185	306	29
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	3684	40	78	70.9	71.9	1459	393	56
324	Ramona Expy	Warren Rd	Sanderson Ave	Hard	100	45	45	45	1351	15	16	66.2	67.2	427	67	-
325	Sanderson Ave	Gilman Springs Rd	Ramona Expy	Hard	100	45	45	45	3750	40	89	71.1	72.1	1518	412	62
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1847	18	8	67.2	68.2	564	110	-
327	Sanderson Ave	Ramona Expy	Ramona Blvd	Hard	100	45	45	45	5416	67	167	73.0	74.0	2397	690	150
340	Alessandro blvd	North of San Timoteo Canyon	0	Hard	100	45	45	45	500	3	0	61.2	62.2	67	-	-
351	Live Oak Canyon Rd	North of San Timoteo Canyon	0	Hard	100	45	45	45	528	0	2	61.5	62.5	77	-	-
358	Gilman Springs Rd	Bridge St	SR-79 NB Ramps	Hard	100	45	45	45	1172	11	19	65.7	66.7	372	49	-
359	SR-79 SB Off-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	371	0	5	60.4	61.4	39	-	-
360	Gilman Springs Rd	SR-79 NB Ramps	SR-79 SB Ramps	Hard	100	45	45	45	2023	11	19	67.7	68.7	649	137	-
361	SR-79 SB On-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	904	10	15	64.6	65.6	267	16	-
362	SR-79 NB On-Ramp	SR-79	Gilman Springs Rd	Hard	100	45	45	45	504	3	2	61.5	62.5	77	-	-
363	Gilman Springs Rd	SR-79 SB Ramps	Record Rd	Hard	100	45	45	45	2071	17	19	67.9	68.9	674	145	-
364	SR-79 NB Off-Ramp	Gilman Springs Rd	SR-79	Hard	100	45	45	45	540	0	5	61.8	62.8	92	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

ESA

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project with Barrier
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
269	Martin Luther King I	SR-91	Chicago Ave	Hard	100	45	45	45	0	21	2	55.2	6	52.9	53.9
272	Chicago Ave	Martin Luther King I	Central Ave	Hard	100	45	45	45	0	37	2	57.5	6	54.5	55.5
279	Martin Luther King I	I-215 SB Ramps	I-215 NB Ramps	Hard	100	45	45	45	1762	6	7	66.9	6	62.4	63.4
280	I-215 SB On-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	950	5	19	64.9	6	59.7	60.7
281	I-215 NB On-Ramp	I-215	Martin Luther King I	Hard	100	45	45	45	1064	0	2	64.5	6	60.1	61.1
282	I-215 NB Off-Ramp	Martin Luther King I	I-215	Hard	100	45	45	45	1407	2	5	65.8	6	61.3	62.3
283	SR-60 EB Off-Ramp	SR-60	Heacock St	Hard	100	45	45	45	609	0	2	62.1	6	57.7	58.7
294	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	276	0	0	58.5	6	54.2	55.2
301	John F. Kennedy Dr	Indian St	Perris Blvd	Hard	100	45	45	45	1026	1	2	64.3	6	60.3	61.3
302	John F. Kennedy Dr	Perris Blvd	Kitching St	Hard	100	45	45	45	1019	3	0	64.3	6	60.0	61.0
303	Perris Blvd	John F. Kennedy Dr	Iris Ave	Hard	100	45	45	45	2616	8	72	69.5	6	68.3	69.3
306	Perris Blvd	Iris Ave	Krameria Ave	Hard	100	45	45	45	3033	22	70	70.1	6	68.5	69.5
307	Perris Blvd	Krameria Ave	Harley Know Blvd	Hard	100	45	45	45	3684	40	78	70.9	6	69.2	70.2
326	Ramona Expy	Sanderson Ave	State St	Hard	100	45	45	45	1847	18	8	67.2	6	63.7	64.7

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

- For hard ground, the propagation rate is 3 dB per doubling the distance.
- For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
						Auto	MT	HT	Auto	MT	HT					
365	Alessandro Blvd	Sycamore Canyon Blvd	Vista Grande Dr	Hard	100	45	45	45	6494	27	34	72.6	73.6	2184	622	128
366	Sycamore Canyon Blvd	Eastridge Ave	Alessandro Blvd	Hard	100	45	45	45	1607	10	36	67.3	68.3	575	114	-
367	Meridian Pkwy	Alessandro Blvd	Cactus Ave	Hard	100	45	45	45	2107	8	23	68.0	69.0	687	149	-
375	Mid County Pkwy WB On-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
376	3rd St	Marvin Rd	Mid County Pkwy WB Ran	Hard	100	45	45	45	0	0	0	-	-	-	-	-
377	Mid County Pkwy WB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
378	3rd St	Mid County Pkwy EB Ramps	Mid County Pkwy WB Ran	Hard	100	45	45	45	0	0	0	-	-	-	-	-
379	Mid County Pkwy EB Off-Ramp	Mid County Pkwy	3rd St	Hard	100	45	45	45	0	0	0	-	-	-	-	-
380	Mid County Pkwy EB On-Ramp	3rd St	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
381	3rd St	Mid County Pkwy EB Ramps	MM Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
386	Harley Know Blvd	Indian St	Perris Blvd	Hard	100	45	45	45	1504	18	52	67.5	68.5	615	126	-
387	Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	3803	25	81	71.0	72.0	1480	400	58
388	Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	672	0	0	62.4	63.4	118	-	-
389	El Cerrito Dr	North of Central Ave	0	Hard	100	45	45	45	606	1	1	62.0	63.0	101	-	-
390	Ramona Expy	Webster Ave	Indian St	Hard	100	45	45	45	3855	25	104	71.3	72.3	1583	432	68
392	Ramona Expy	Indian St	Perris Blvd	Hard	100	45	45	45	3112	17	51	69.9	70.9	1130	289	23
393	Indian St	Ramona Expy	Morgan St	Hard	100	45	45	45	1773	43	56	68.4	69.4	761	172	-
394	Perris Blvd	Harley Know blvd	Ramona Expy	Hard	100	45	45	45	2850	22	46	69.6	70.6	1037	260	14
396	Perris Blvd	Ramona Expy	Rider St	Hard	100	45	45	45	2082	17	31	68.1	69.1	721	160	-
397	Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2568	11	9	68.5	69.5	789	181	-
398	Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	3489	14	2	69.7	70.7	1065	268	17
399	Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2718	11	8	71.5	72.5	1658	456	76
400	Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	2521	12	2	68.3	69.3	747	168	-
401	Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	186	0	2	57.2	58.2	-	-	-
402	Morgan St	Perris Blvd	Silver Creek Industires	Hard	100	45	45	45	158	1	4	57.3	58.3	-	-	-
404	Morgan St	Morgan Park	Evans Rd	Hard	100	45	45	45	464	0	0	60.8	61.8	51	-	-
405	Morgan St	Evans Rd	Bradley Rd	Hard	100	45	45	45	408	0	0	60.2	61.2	33	-	-
406	Ironwood Ave	East of Thedore St	0	Hard	100	45	45	45	923	9	13	64.6	65.6	263	15	-
407	Rider St	Indian St	Perris Blvd	Hard	100	45	45	45	1199	1	5	65.1	66.1	310	30	-
408	Rider St	Perris Blvd	Redlands Ave	Hard	100	45	45	45	999	1	2	64.2	65.2	234	6	-
409	Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	883	3	0	63.6	64.6	192	-	-
410	Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1686	0	2	66.4	67.4	454	75	-
411	Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	962	1	2	64.0	65.0	219	1	-
412	Maude St	South of Arlington Ave	0	Hard	100	45	45	45	955	1	0	63.9	64.9	211	-	-
413	Placentia Ave	Indian St	Perris Blvd	Hard	100	45	45	45	1301	6	9	65.7	66.7	366	47	-
414	Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1270	8	7	65.5	66.5	351	43	-
415	Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	2963	23	34	69.5	70.5	1030	257	13
416	Mid County Pkwy WB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
417	Mid County Pkwy WB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
419	Mid County Pkwy EB On-Ramp	Mid County Pkwy	Perris Blvd	Hard	100	45	45	45	0	0	0	-	-	-	-	-
420	Mid County Pkwy EB Off-Ramp	Perris Blvd	Mid County Pkwy	Hard	100	45	45	45	0	0	0	-	-	-	-	-
421	Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	276	0	0	58.5	59.5	-	-	-
424	Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	2739	4	79	69.8	70.8	1090	276	19

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project with Barriers
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
387 Perris Blvd	Krameria Ave	Harley Knox Blvd	Hard	100	45	45	45	3803	25	81	71.0	6	69.3	70.3
388 Krameria Ave	Lasselle St	Spirit Rd	Hard	100	45	45	45	672	0	0	62.4	6	58.1	59.1
397 Ramona Expy	Perris Blvd	Evans Rd	Hard	100	45	45	45	2568	11	9	68.5	6	64.9	65.9
398 Evans Rd	Marbella Gate	Ramona Expy	Hard	100	45	45	45	3489	14	2	69.7	6	65.5	66.5
399 Ramona Expy	Evans Rd	Rider St	Hard	100	55	55	55	2718	11	8	71.5	6	67.6	68.6
400 Evans Rd	Ramona Expy	Rider St	Hard	100	45	45	45	2521	12	2	68.3	6	64.1	65.1
401 Morgan St	Indian St	Perris Blvd	Hard	100	45	45	45	186	0	2	57.2	6	54.3	55.3
409 Ironwood Ave	Nason St	Moreno Beach Dr	Hard	100	45	45	45	883	3	0	63.6	6	59.4	60.4
410 Rider St	Wilson St	Evans Rd	Hard	100	45	45	45	1686	0	2	66.4	6	62.3	63.3
411 Rider St	Evans Rd	Ramona Expy	Hard	100	45	45	45	962	1	2	64.0	6	60.1	61.1
414 Placentia Ave	Perris Blvd	Redlands Ave	Hard	100	45	45	45	1270	8	7	65.5	6	62.2	63.2
415 Perris Blvd	Placentia Ave	Orange Ave	Hard	100	45	45	45	2963	23	34	69.5	6	67.0	68.0
421 Via Del Lago	South of Iris Ave	0	Hard	100	45	45	45	276	0	0	58.5	6	54.2	55.2
424 Perris Blvd	Alessandro Blvd	Cottonwood Ave	Hard	100	45	45	45	2739	4	79	69.8	6	68.6	69.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project
Source of Traffic Volumes:

ID	Arterial	From	To		Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Noise Level (Leq(h) dBA) at 100 feet	CNEL Noise Level (dBA) at 100 feet	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
							Auto	MT	HT	Auto	MT	HT					
425	Mid County Pkwy WB Or	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
426	Mid County Pkwy WB Of	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
427	Day St	South of Alessandro Blvd		0	Hard	100	45	45	45	1120	11	4	65.0	66.0	300	26	-
428	Mid County Pkwy EB Off-	West of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
429	Mid County Pkwy EB On-	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
430	Alessandro blvd	SR-215 NB Ramp	SR-215 SB Ramp		Hard	100	45	45	45	4859	13	41	71.4	72.4	1653	454	75
431	Placentia Ave	Water Ave	Evans Rd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
432	Placentia Ave	Evans Rd	El Nido Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
433	Evans Rd	Rider St	Orange Ave		Hard	100	45	45	45	2604	14	2	68.4	69.4	778	178	-12
434	Orange Ave	Wilson Ave	Evans Rd		Hard	100	45	45	45	655	1	1	62.3	63.3	116	-	-
435	Orange Ave	Evans Rd	Foothill Dr		Hard	100	35	35	35	981	1	981	73.3	74.3	2564	742	166
436	Elsworth St	North of Cactus Ave		0	Hard	100	45	45	45	1180	10	4	65.2	66.2	316	32	-
441	Nuevo Rd	Wilson Ave	Evans Rd		Hard	100	45	45	45	1410	4	5	65.9	66.9	385	53	-
442	Evans Rd	Orange Ave	Nuevo Rd		Hard	100	45	45	45	2428	16	9	68.3	69.3	750	169	-
443	Nuevo Rd	Evans Rd	Foothill Dr		Hard	100	45	45	45	1261	3	3	65.3	66.3	325	34	-
444	Evans Rd	Nuevo Rd	San Jacinto Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
452	San Jacinto Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
453	Evans Rd	North of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
454	San Jacinto Ave	East of Evan		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
455	Evans Rd	South of San Jancito Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
458	Nason St	South of Cactus Ave		0	Hard	100	45	45	45	1872	14	1	67.0	68.0	536	101	-
464	Quincy	South of Eucalyptus		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
477	Ellis Ave	West of Evan Rd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
478	Evans Rd	North of Ellis Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
479	Oliver St	North of Irris Ave		0	Hard	100	45	45	45	588	1	0	61.9	62.9	93	-	-
480	Ellis Ave	Evans Rd	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
481	SR-215 SB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
482	Ellis Ave	East of SR-215		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
483	SR-215 SB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
484	SR-215 NB On-Ramp	Ellis Ave	SR-215		Hard	100	45	45	45	0	0	0	-	-	-	-	-
485	SR-215 NB Off-Ramp	SR-215	Ellis Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
488	Nason St	North of Iris Ave		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
494	Evans Rd	North of Harley Knox Blvd		0	Hard	100	45	45	45	0	0	0	-	-	-	-	-
498	Morrison St	Alessandro Blvd	Cactus Ave		Hard	100	45	45	45	0	0	0	-	-	-	-	-
499	Perris Blvd	Eucalyptus Ave	Cottonwood Ave		Hard	100	45	45	45	3170	17	75	70.3	71.3	1239	323	34
500	Perris Blvd	North of Eucalyptus Ave		0	Hard	100	45	45	45	2902	4	78	69.9	70.9	1137	291	24
502	Quincy	Cottonwood Ave	Alessandro Blvd		Hard	100	35	35	35	0	0	0	-	-	-	-	-
503	Quincy	Alessandro Blvd	Cactus Ave		Hard	100	35	35	35	0	0	0	-	-	-	-	-
504	Krameria Ave	West of Perris Blvd		0	Hard	100	45	45	45	746	11	1	63.2	64.2	166	-	-

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
iin ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Future 2040 With Project with Barriers
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
433 Evans Rd	Rider St	Orange Ave	Hard	100	45	45	45	2604	14	2	68.4	6	64.3	65.3
434 Orange Ave	Wilson Ave	Evans Rd	Hard	100	45	45	45	655	1	1	62.3	6	58.2	59.2
441 Nuevo Rd	Wilson Ave	Evans Rd	Hard	100	45	45	45	1410	4	5	65.9	6	62.3	63.3
442 Evans Rd	Orange Ave	Nuevo Rd	Hard	100	45	45	45	2428	16	9	68.3	6	64.7	65.7
443 Nuevo Rd	Evans Rd	Foothill Dr	Hard	100	45	45	45	1261	3	3	65.3	6	61.4	62.4
444 Evans Rd	Nuevo Rd	San Jacinto Ave	Hard	100	45	45	45	0	0	0	-	6	-	-
458 Nason St	South of Cactus A	0	Hard	100	45	45	45	1872	14	1	67.0	6	62.8	63.8
488 Nason St	North of Iris Ave	0	Hard	100	45	45	45	0	0	0	-	6	-	-
494 Evans Rd	North of Harley K	0	Hard	100	45	45	45	0	0	0	-	6	-	-
502 Quincy	Cottonwood Ave	Alessandro Blvd	Hard	100	35	35	35	0	0	0	-	6	-	-
503 Quincy	Alessandro Blvd	Cactus Ave	Hard	100	35	35	35	0	0	0	-	6	-	-
504 Krameria Ave	West of Perris Blv	0	Hard	100	45	45	45	746	11	1	63.2	6	59.2	60.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

Freeway Noise

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway Existing
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
1	SR-60	SR-71/S Garey Ave to S Reservoir Rd	Hard	100	65	65	65	14330	180	535	82.1	83.1	20484	6409	1958
2	SR-60	S Reservoir Rd to Ramona Ave	Hard	100	65	65	65	14590	315	925	82.9	83.9	24548	7694	2365
3	SR-60	Ramona Ave to Central Ave	Hard	100	65	65	65	16975	160	475	82.6	83.6	22750	7126	2185
4	SR-60	Central Ave to Mountain Ave	Hard	100	65	65	65	22045	215	655	83.8	84.8	29920	9393	2902
5	SR-60	Mountain Ave to Euclid Ave	Hard	100	65	65	65	16570	205	620	82.8	83.8	23700	7426	2280
6	SR-60	Euclid Ave to Grove Ave	Hard	100	65	65	65	17330	155	460	82.6	83.6	22987	7201	2209
7	SR-60	Grove Ave to Vineyard Ave	Hard	100	65	65	65	18295	135	405	82.7	83.7	23487	7359	2259
8	SR-60	Vineyard Ave to Archibald Ave	Hard	100	65	65	65	23220	210	630	83.9	84.9	30956	9721	3006
9	SR-60	Archibald Ave to Haven Ave	Hard	100	65	65	65	15435	270	780	82.8	83.8	24071	7544	2317
10	SR-60	Haven Ave to Miliken Ave	Hard	100	65	65	65	15715	150	430	82.2	83.2	20980	6566	2008
11	SR-60	Miliken Ave to SR-15	Hard	100	65	65	65	11235	100	290	80.7	81.7	14797	4611	1390
12	SR-60	I-15 to Etiwanda Ave	Hard	100	65	65	65	11660	90	240	80.7	81.7	14798	4611	1390
13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	Hard	100	65	65	65	11665	95	260	80.8	81.8	14990	4672	1409
14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	Hard	100	65	65	65	10120	125	335	80.5	81.5	14073	4382	1317
15	SR-60	Pedley Rd to Pyrite St	Hard	100	65	65	65	10380	120	335	80.6	81.6	14332	4464	1343
16	SR-60	Pyrite St to Valley Way	Hard	100	65	65	65	10970	120	335	80.8	81.8	14967	4664	1407
17	SR-60	Valley Way to Rubidoux Blvd	Hard	100	65	65	65	12685	95	265	81.1	82.1	16129	5032	1523
18	SR-60	Rubidoux Blvd to Market St	Hard	100	65	65	65	13140	80	215	81.1	82.1	16142	5036	1524
19	SR-60	Market St to Main St	Hard	100	65	65	65	14360	110	295	81.6	82.6	18240	5700	1734
20	SR-60	Main St to SR-91	Hard	100	65	65	65	14610	120	290	81.7	82.7	18508	5784	1761
21	SR-60	SR-91 to W Blaine St/3rd St	Hard	100	65	65	65	15335	250	680	82.6	83.6	23052	7221	2215
22	SR-60	W Blaine St/3rd St to University Ave	Hard	100	65	65	65	14850	210	565	82.3	83.3	21414	6703	2051
23	SR-60	University Ave to Martin Luther King Blvd	Hard	100	65	65	65	15575	230	645	82.6	83.6	22939	7186	2204
24	SR-60	Martin Luther King Blvd to Central Ave	Hard	100	65	65	65	18315	160	445	82.8	83.8	23942	7503	2304
25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	Hard	100	65	65	65	15930	205	570	82.6	83.6	22597	7077	2170
26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	Hard	100	65	65	65	15570	110	315	82.0	83.0	19708	6164	1881
27	SR-60	I-215 to Day St	Hard	100	65	65	65	12095	130	395	81.3	82.3	16715	5217	1582
28	SR-60	Day St to Pigeon Pass Rd/Frederick St	Hard	100	65	65	65	10500	85	300	80.5	81.5	14028	4368	1313
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	9765	80	295	80.2	81.2	13176	4098	1228
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	7265	60	215	78.9	79.9	9742	3012	884
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	8275	35	145	79.1	80.1	10146	3140	925
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	5435	50	185	77.8	78.8	7484	2298	658
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	4120	45	190	76.9	77.9	6091	1858	519
34	SR-60	Redlands Blvd to Theodore St	Hard	100	65	65	65	2940	45	200	76.0	77.0	4905	1483	401
35	SR-60	Theodore St to Gilman Springs Rd	Hard	100	65	65	65	2900	45	200	76.0	77.0	4862	1469	396
36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	Hard	100	65	65	65	2195	45	200	75.2	76.2	4103	1229	320
37	SR-60	Jack Rabbit Trail to I-10	Hard	100	65	65	65	2195	45	200	75.2	76.2	4103	1229	320
75	SR-91	I-15 to McKinley St	Hard	100	65	65	65	14845	140	325	81.8	82.8	19133	5982	1823
76	SR-91	McKinley St to Pierce St	Hard	100	65	65	65	17780	145	340	82.5	83.5	22434	7026	2153
77	SR-91	Pierce St to Magnolia Ave	Hard	100	65	65	65	16105	155	370	82.2	83.2	20922	6548	2002

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway Existing
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
29	SR-60	Pigeon Pass Rd/Frederic	Hard	100	65	65	65	9765	80	295	80.2	10	69.2	70.2
30	SR-60	Heacock St to Perris Blv	Hard	100	65	65	65	7265	60	215	78.9	10	67.9	68.9
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	8275	35	145	79.1	10	67.6	68.6
32	SR-60	Nason St to Moreno Bea	Hard	100	65	65	65	5435	50	185	77.8	10	66.9	67.9
33	SR-60	Moreno Beach Dr to Re	Hard	100	65	65	65	4120	45	190	76.9	10	66.3	67.3

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
    For hard ground, the propagation rate is 3 dB per doubling the distance.
    For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway Existing
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
78	SR-91	Magnolia Ave to La Sierra Ave	Hard	100	65	65	65	16360	150	360	82.3	83.3	21093	6602	2019
79	SR-91	La Sierra Ave to Tyler St	Hard	100	65	65	65	15870	135	325	82.1	83.1	20215	6324	1932
80	SR-91	Tyler St to Van Buren Blvd	Hard	100	65	65	65	17105	120	290	82.3	83.3	21192	6633	2029
81	SR-91	Van Buren Blvd to Adam St	Hard	100	65	65	65	14830	95	240	81.6	82.6	18228	5696	1733
82	SR-91	Adam St to Madison St	Hard	100	65	65	65	16905	165	420	82.5	83.5	22238	6964	2134
83	SR-91	Madison St to Indiana Ave (off-ramp)	Hard	100	65	65	65	16335	140	355	82.2	83.2	20984	6567	2008
84	SR-91	Arlington Ave to Central Ave	Hard	100	65	65	65	15575	130	340	82.0	83.0	20002	6257	1910
85	SR-91	Central Ave to 14th St	Hard	100	65	65	65	14435	175	435	82.0	83.0	19747	6176	1885
86	SR-91	14th St to University Ave	Hard	100	65	65	65	12690	75	185	80.9	81.9	15389	4798	1449
87	SR-91	University Ave to Spruce St (off-ramp)	Hard	100	65	65	65	19285	140	330	82.8	83.8	23950	7505	2305
101	I-10	SR-60 to Beaumont Ave	Hard	100	65	65	65	8415	45	230	79.5	80.5	11042	3424	1014
102	I-10	Beaumont Ave to Pennsylvania Ave	Hard	100	65	65	65	8355	85	400	80.0	81.0	12551	3901	1165
103	I-10	Pennsylvania Ave to Highland Springs Ave	Hard	100	65	65	65	8780	85	395	80.2	81.2	12967	4032	1207
104	I-10	Highland Springs Ave to Sunset Ave	Hard	100	65	65	65	8425	85	400	80.0	81.0	12626	3924	1173
105	I-10	Sunset Ave to 22nd St	Hard	100	65	65	65	8210	85	400	80.0	81.0	12395	3851	1150
106	I-10	22nd St to S 8th St	Hard	100	65	65	65	8070	85	400	79.9	80.9	12244	3804	1134
107	I-10	S 8th St to S Hargrave St	Hard	100	65	65	65	8070	85	400	79.9	80.9	12244	3804	1134
108	I-10	S Hargrave St to Field Rd	Hard	100	65	65	65	7215	85	400	79.6	80.6	11325	3513	1043
109	I-10	Field Rd to Main St (Cabazon)	Hard	100	65	65	65	6855	80	405	79.4	80.4	10959	3397	1006
110	I-10	Main St (Cabazon) to Main St	Hard	100	65	65	65	6250	40	195	78.3	79.3	8403	2589	750
111	I-10	Main St to Haugen-Lehmann Way	Hard	100	65	65	65	6305	30	150	78.1	79.1	8048	2477	715
112	I-10	Haugen-Lehmann Way to SR-111	Hard	100	65	65	65	6280	30	175	78.2	79.2	8229	2534	733
113	I-10	SR-111 to Tipton Rd	Hard	100	65	65	65	5475	25	135	77.5	78.5	7011	2149	611
114	I-10	Tipton Rd to SR-62	Hard	100	65	65	65	5430	35	170	77.7	78.7	7293	2238	639
129	SR-60	Scott Rd to Newport Rd	Hard	100	65	65	65	5175	45	95	77.2	78.2	6437	1967	554
130	SR-60	Newport Rd to MacCall Blvd	Hard	100	65	65	65	4670	45	85	76.7	77.7	5811	1769	491
131	SR-60	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	5535	45	95	77.4	78.4	6825	2090	592
132	SR-215	Scott Rd to Newport Rd	Hard	100	65	65	65	6665	55	115	78.2	79.2	8247	2539	735
133	SR-215	Newport Rd to MacCall Blvd	Hard	100	65	65	65	8045	110	220	79.4	80.4	10826	3355	993
167	SR-215	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	6190	70	135	78.1	79.1	7963	2450	706
168	SR-215	Ethanac Rd to SR-74/Case	Hard	100	65	65	65	7250	80	145	78.7	79.7	9226	2849	833
169	SR-215	SR-74/Case Rd to Redlands Blvd	Hard	100	65	65	65	9435	115	225	80.0	81.0	12382	3847	1148
171	SR-215	Redlands Blvd to D St	Hard	100	65	65	65	9130	90	195	79.7	80.7	11704	3633	1080
172	SR-215	D St to Nuevo St/Harvil Ave	Hard	100	65	65	65	9770	130	285	80.3	81.3	13302	4138	1240
173	SR-215	Nuevo St/Harvil Ave to Ramona Expy/Cajalco Expy	Hard	100	65	65	65	9140	80	180	79.7	80.7	11550	3584	1065
174	SR-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	Hard	100	65	65	65	10135	110	235	80.2	81.2	13198	4105	1230
175	SR-215	Harley Knox Blvd to Van Buren Blvd	Hard	100	65	65	65	10125	105	240	80.2	81.2	13208	4109	1231
176	SR-215	Van Buren Blvd to Cactus Ave	Hard	100	65	65	65	11510	125	275	80.8	81.8	15070	4697	1417
134	SR-215	Cactus Ave to Alessandro Blvd	Hard	100	65	65	65	11670	275	525	81.6	82.6	17926	5600	1703
135	SR-215	Alessandro Blvd to Eucalyptus Ave	Hard	100	65	65	65	16520	235	435	82.5	83.5	22233	6962	2133

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway Existing
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
136	SR-215	Center St to Iowa Ave/La Cadena Dr	Hard	100	65	65	65	14950	165	305	81.9	82.9	19181	5997	1828
137	SR-215	Iowa Ave/La Cadena Dr to Barton Rd	Hard	100	65	65	65	15050	135	255	81.8	82.8	18752	5862	1785
138	SR-215	Barton Rd to Mt Vernon Ave/Washington St	Hard	100	65	65	65	14330	160	300	81.7	82.7	18453	5767	1755
139	SR-215	Mt Vernon Ave/Washington St to I-10	Hard	100	65	65	65	13225	210	390	81.6	82.6	18214	5691	1731
140	SR-215	I-10 to Auto Plaza Dr/Orange Show Rd	Hard	100	65	65	65	15590	180	370	82.1	83.1	20470	6405	1957
141	SR-215	Auto Plaza Dr/Orange Show Rd to Mill St	Hard	100	65	65	65	15055	120	235	81.7	82.7	18530	5792	1763
142	SR-215	Mill St to 2rd St	Hard	100	65	65	65	14595	190	370	81.9	82.9	19440	6079	1854
143	SR-215	2rd St to Baseline Rd	Hard	100	65	65	65	13385	100	195	81.2	82.2	16321	5093	1542
144	SR-215	Baseline Rd to Highland Ave/SR-210	Hard	100	65	65	65	8685	60	160	79.4	80.4	10813	3351	991

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Ph1
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
1	SR-60	SR-71/S Garey Ave to S Reservoir Rd	Hard	100	65	65	65	14265	190	650	82.3	83.3	21409	6702	2051
2	SR-60	S Reservoir Rd to Ramona Ave	Hard	100	65	65	65	14510	325	1040	83.1	84.1	25457	7982	2456
3	SR-60	Ramona Ave to Central Ave	Hard	100	65	65	65	16890	170	590	82.8	83.8	23653	7411	2275
4	SR-60	Central Ave to Mountain Ave	Hard	100	65	65	65	21960	225	775	83.9	84.9	30865	9692	2997
5	SR-60	Mountain Ave to Euclid Ave	Hard	100	65	65	65	16475	215	740	82.9	83.9	24634	7722	2373
6	SR-60	Euclid Ave to Grove Ave	Hard	100	65	65	65	17235	165	580	82.8	83.8	23921	7496	2302
7	SR-60	Grove Ave to Vineyard Ave	Hard	100	65	65	65	18200	145	525	82.9	83.9	24421	7654	2352
8	SR-60	Vineyard Ave to Archibald Ave	Hard	100	65	65	65	23100	220	750	84.0	85.0	31863	10008	3096
9	SR-60	Archibald Ave to Haven Ave	Hard	100	65	65	65	15315	280	905	83.0	84.0	25020	7844	2412
10	SR-60	Haven Ave to Miliken Ave	Hard	100	65	65	65	15605	160	555	82.4	83.4	21940	6870	2104
11	SR-60	Miliken Ave to SR-15	Hard	100	65	65	65	11125	110	415	81.0	82.0	15756	4914	1486
12	SR-60	I-15 to Etiwanda Ave	Hard	100	65	65	65	11550	100	380	81.0	82.0	15882	4954	1498
13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	Hard	100	65	65	65	11555	105	400	81.1	82.1	16074	5015	1517
14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	Hard	100	65	65	65	9995	135	475	80.8	81.8	15140	4719	1424
15	SR-60	Pedley Rd to Pyrite St	Hard	100	65	65	65	10265	130	475	80.9	81.9	15411	4805	1451
16	SR-60	Pyrite St to Valley Way	Hard	100	65	65	65	10870	130	480	81.1	82.1	16103	5024	1520
17	SR-60	Valley Way to Rubidoux Blvd	Hard	100	65	65	65	12575	105	410	81.4	82.4	17254	5388	1635
18	SR-60	Rubidoux Blvd to Market St	Hard	100	65	65	65	13020	90	365	81.4	82.4	17298	5402	1640
19	SR-60	Market St to Main St	Hard	100	65	65	65	14225	120	445	81.9	82.9	19380	6060	1848
20	SR-60	Main St to SR-91	Hard	100	65	65	65	14455	130	450	82.0	83.0	19710	6164	1881
21	SR-60	SR-91 to W Blaine St/3rd St	Hard	100	65	65	65	15080	270	910	83.0	84.0	24768	7764	2387
22	SR-60	W Blaine St/3rd St to University Ave	Hard	100	65	65	65	14595	230	800	82.7	83.7	23171	7259	2227
23	SR-60	University Ave to Martin Luther King Blvd	Hard	100	65	65	65	15375	255	880	83.0	84.0	24775	7766	2388
24	SR-60	Martin Luther King Blvd to Central Ave	Hard	100	65	65	65	18175	190	695	83.2	84.2	25988	8150	2509
25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	Hard	100	65	65	65	15845	235	830	83.0	84.0	24785	7769	2389
26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	Hard	100	65	65	65	15510	140	575	82.4	83.4	21922	6864	2102
27	SR-60	I-215 to Day St	Hard	100	65	65	65	11905	160	680	81.8	82.8	18997	5939	1810
28	SR-60	Day St to Pigeon Pass Rd/Frederick St	Hard	100	65	65	65	10345	115	585	81.2	82.2	16348	5101	1545
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	9590	110	580	80.9	81.9	15475	4825	1458
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	7125	90	510	79.9	80.9	12161	3777	1126
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	8155	70	465	80.1	81.1	12814	3984	1191
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	5360	90	505	79.1	80.1	10221	3164	932
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	4110	85	520	78.6	79.6	8981	2772	808
34	SR-60	Redlands Blvd to Theodore St	Hard	100	65	65	65	2965	80	525	78.0	79.0	7771	2389	687
35	SR-60	Theodore St to Gilman Springs Rd	Hard	100	65	65	65	2640	55	230	76.0	77.0	4872	1472	397
36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	Hard	100	65	65	65	2130	55	230	75.5	76.5	4323	1299	342
37	SR-60	Jack Rabbit Trail to I-10	Hard	100	65	65	65	2125	55	230	75.5	76.5	4318	1297	342
75	SR-91	I-15 to McKinley St	Hard	100	65	65	65	14810	150	395	82.0	83.0	19716	6167	1882
76	SR-91	McKinley St to Pierce St	Hard	100	65	65	65	17740	155	410	82.6	83.6	23013	7209	2211
77	SR-91	Pierce St to Magnolia Ave	Hard	100	65	65	65	16075	165	440	82.3	83.3	21511	6734	2061

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Ph1
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	9590	110	580	80.9	10	70.6	71.6
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	7125	90	510	79.9	10	69.8	70.8
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	8155	70	465	80.1	10	69.7	70.7
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	5360	90	505	79.1	10	69.3	70.3
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	4110	85	520	78.6	10	69.1	70.1

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Ph1
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
78	SR-91	Magnolia Ave to La Sierra Ave	Hard	100	65	65	65	16330	160	430	82.4	83.4	21682	6788	2078
79	SR-91	La Sierra Ave to Tyler St	Hard	100	65	65	65	15845	145	400	82.2	83.2	20851	6525	1995
80	SR-91	Tyler St to Van Buren Blvd	Hard	100	65	65	65	17065	130	365	82.4	83.4	21812	6829	2091
81	SR-91	Van Buren Blvd to Adam St	Hard	100	65	65	65	14765	105	315	81.8	82.8	18821	5884	1792
82	SR-91	Adam St to Madison St	Hard	100	65	65	65	16825	175	495	82.6	83.6	22815	7146	2192
83	SR-91	Madison St to Indiana Ave (off-ramp)	Hard	100	65	65	65	16240	150	430	82.4	83.4	21545	6745	2065
84	SR-91	Arlington Ave to Central Ave	Hard	100	65	65	65	15445	140	415	82.1	83.1	20525	6422	1963
85	SR-91	Central Ave to 14th St	Hard	100	65	65	65	14305	185	510	82.1	83.1	20270	6342	1937
86	SR-91	14th St to University Ave	Hard	100	65	65	65	12590	85	245	81.0	82.0	15820	4934	1492
87	SR-91	University Ave to Spruce St (off-ramp)	Hard	100	65	65	65	19195	150	395	82.9	83.9	24433	7658	2353
101	I-10	SR-60 to Beaumont Ave	Hard	100	65	65	65	8345	55	260	79.6	80.6	11257	3491	1036
102	I-10	Beaumont Ave to Pennsylvania Ave	Hard	100	65	65	65	8275	85	430	80.1	81.1	12714	3952	1181
103	I-10	Pennsylvania Ave to Highland Springs Ave	Hard	100	65	65	65	8705	85	425	80.2	81.2	13135	4085	1224
104	I-10	Highland Springs Ave to Sunset Ave	Hard	100	65	65	65	8380	85	420	80.1	81.1	12744	3962	1184
105	I-10	Sunset Ave to 22nd St	Hard	100	65	65	65	8165	85	420	80.0	81.0	12513	3888	1161
106	I-10	22nd St to S 8th St	Hard	100	65	65	65	8025	85	420	80.0	81.0	12362	3841	1146
107	I-10	S 8th St to S Hargrave St	Hard	100	65	65	65	8020	85	420	80.0	81.0	12357	3839	1146
108	I-10	S Hargrave St to Field Rd	Hard	100	65	65	65	7160	85	420	79.6	80.6	11432	3547	1053
109	I-10	Field Rd to Main St (Cabazon)	Hard	100	65	65	65	6810	80	425	79.5	80.5	11076	3434	1018
110	I-10	Main St (Cabazon) to Main St	Hard	100	65	65	65	6210	40	215	78.4	79.4	8526	2628	763
111	I-10	Main St to Haugen-Lehmann Way	Hard	100	65	65	65	6280	30	170	78.2	79.2	8187	2521	729
112	I-10	Haugen-Lehmann Way to SR-111	Hard	100	65	65	65	6250	30	195	78.3	79.3	8362	2576	746
113	I-10	SR-111 to Tipton Rd	Hard	100	65	65	65	5450	25	155	77.6	78.6	7150	2193	625
114	I-10	Tipton Rd to SR-62	Hard	100	65	65	65	5405	35	190	77.8	78.8	7432	2282	653
129	SR-60	Scott Rd to Newport Rd	Hard	100	65	65	65	5130	45	105	77.2	78.2	6472	1978	557
130	SR-60	Newport Rd to MacCall Blvd	Hard	100	65	65	65	4575	45	95	76.7	77.7	5792	1763	489
131	SR-60	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	5415	45	105	77.4	78.4	6778	2075	588
132	SR-215	Scott Rd to Newport Rd	Hard	100	65	65	65	6545	55	125	78.2	79.2	8200	2525	730
133	SR-215	Newport Rd to MacCall Blvd	Hard	100	65	65	65	7920	110	230	79.4	80.4	10774	3339	987
167	SR-215	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	6075	70	145	78.0	79.0	7922	2437	702
168	SR-215	Ethanac Rd to SR-74/Case	Hard	100	65	65	65	7115	80	160	78.7	79.7	9205	2843	831
169	SR-215	SR-74/Case Rd to Redlands Blvd	Hard	100	65	65	65	9415	115	240	80.0	81.0	12485	3880	1159
171	SR-215	Redlands Blvd to D St	Hard	100	65	65	65	9095	90	210	79.8	80.8	11791	3660	1089
172	SR-215	D St to Nuevo St/Harvil Ave	Hard	100	65	65	65	9750	130	300	80.3	81.3	13405	4171	1250
173	SR-215	Nuevo St/Harvil Ave to Ramona Expy/Cajalco Expy	Hard	100	65	65	65	9105	80	195	79.7	80.7	11636	3611	1074
174	SR-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	Hard	100	65	65	65	10125	110	250	80.3	81.3	13312	4141	1241
175	SR-215	Harley Knox Blvd to Van Buren Blvd	Hard	100	65	65	65	10125	105	260	80.3	81.3	13374	4161	1247
176	SR-215	Van Buren Blvd to Cactus Ave	Hard	100	65	65	65	11515	125	300	80.9	81.9	15283	4764	1438
134	SR-215	Cactus Ave to Alessandro Blvd	Hard	100	65	65	65	11620	275	545	81.6	82.6	18038	5636	1714
135	SR-215	Alessandro Blvd to Eucalyptus Ave	Hard	100	65	65	65	16490	235	455	82.5	83.5	22367	7005	2147

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Ph1
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
136	SR-215	Center St to Iowa Ave/La Cadena Dr	Hard	100	65	65	65	14920	165	330	81.9	82.9	19356	6053	1846
137	SR-215	Iowa Ave/La Cadena Dr to Barton Rd	Hard	100	65	65	65	15045	135	280	81.8	82.8	18954	5925	1805
138	SR-215	Barton Rd to Mt Vernon Ave/Washington St	Hard	100	65	65	65	14350	160	325	81.7	82.7	18682	5839	1778
139	SR-215	Mt Vernon Ave/Washington St to I-10	Hard	100	65	65	65	13255	210	410	81.7	82.7	18412	5754	1751
140	SR-215	I-10 to Auto Plaza Dr/Orange Show Rd	Hard	100	65	65	65	15540	180	390	82.2	83.2	20582	6440	1968
141	SR-215	Auto Plaza Dr/Orange Show Rd to Mill St	Hard	100	65	65	65	15035	120	255	81.7	82.7	18675	5837	1778
142	SR-215	Mill St to 2rd St	Hard	100	65	65	65	14555	190	390	81.9	82.9	19563	6118	1866
143	SR-215	2rd St to Baseline Rd	Hard	100	65	65	65	13365	100	205	81.2	82.2	16383	5112	1548
144	SR-215	Baseline Rd to Highland Ave/SR-210	Hard	100	65	65	65	8665	60	170	79.4	80.4	10874	3370	997

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Building Out
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
1	SR-60	SR-71/S Garey Ave to S Reservoir Rd	Hard	100	65	65	65	14205	190	730	82.4	83.4	22008	6891	2111
2	SR-60	S Reservoir Rd to Ramona Ave	Hard	100	65	65	65	14450	325	1120	83.2	84.2	26056	8171	2516
3	SR-60	Ramona Ave to Central Ave	Hard	100	65	65	65	16830	170	670	82.9	83.9	24252	7601	2335
4	SR-60	Central Ave to Mountain Ave	Hard	100	65	65	65	21910	225	855	84.0	85.0	31475	9885	3058
5	SR-60	Mountain Ave to Euclid Ave	Hard	100	65	65	65	16430	215	825	83.0	84.0	25291	7929	2439
6	SR-60	Euclid Ave to Grove Ave	Hard	100	65	65	65	17185	165	665	82.9	83.9	24572	7702	2367
7	SR-60	Grove Ave to Vineyard Ave	Hard	100	65	65	65	18135	145	610	83.0	84.0	25057	7855	2416
8	SR-60	Vineyard Ave to Archibald Ave	Hard	100	65	65	65	23030	220	835	84.1	85.1	32493	10207	3159
9	SR-60	Archibald Ave to Haven Ave	Hard	100	65	65	65	15235	280	990	83.1	84.1	25639	8039	2474
10	SR-60	Haven Ave to Miliken Ave	Hard	100	65	65	65	15525	160	645	82.6	83.6	22601	7079	2170
11	SR-60	Miliken Ave to SR-15	Hard	100	65	65	65	11025	110	505	81.2	82.2	16396	5116	1550
12	SR-60	I-15 to Etiwanda Ave	Hard	100	65	65	65	11460	110	475	81.2	82.2	16615	5186	1572
13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	Hard	100	65	65	65	11470	115	505	81.3	82.3	16895	5274	1600
14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	Hard	100	65	65	65	9895	145	580	81.1	82.1	15945	4974	1505
15	SR-60	Pedley Rd to Pyrite St	Hard	100	65	65	65	10180	140	580	81.1	82.1	16231	5064	1533
16	SR-60	Pyrite St to Valley Way	Hard	100	65	65	65	10805	140	580	81.3	82.3	16903	5277	1600
17	SR-60	Valley Way to Rubidoux Blvd	Hard	100	65	65	65	12510	115	510	81.6	82.6	18055	5641	1716
18	SR-60	Rubidoux Blvd to Market St	Hard	100	65	65	65	12940	100	465	81.6	82.6	18083	5650	1718
19	SR-60	Market St to Main St	Hard	100	65	65	65	14140	130	550	82.1	83.1	20201	6320	1930
20	SR-60	Main St to SR-91	Hard	100	65	65	65	14335	140	560	82.1	83.1	20534	6425	1963
21	SR-60	SR-91 to W Blaine St/3rd St	Hard	100	65	65	65	14955	290	1075	83.2	84.2	26084	8180	2518
22	SR-60	W Blaine St/3rd St to University Ave	Hard	100	65	65	65	14445	250	965	82.9	83.9	24460	7667	2356
23	SR-60	University Ave to Martin Luther King Blvd	Hard	100	65	65	65	15285	270	1050	83.2	84.2	26150	8201	2525
24	SR-60	Martin Luther King Blvd to Central Ave	Hard	100	65	65	65	18105	205	870	83.4	84.4	27425	8604	2653
25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	Hard	100	65	65	65	15760	255	1010	83.2	84.2	26268	8238	2537
26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	Hard	100	65	65	65	15395	160	750	82.7	83.7	23332	7310	2243
27	SR-60	I-215 to Day St	Hard	100	65	65	65	11705	180	880	82.1	83.1	20523	6422	1962
28	SR-60	Day St to Pigeon Pass Rd/Frederick St	Hard	100	65	65	65	10165	135	785	81.6	82.6	17896	5591	1700
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	9405	130	780	81.3	82.3	17016	5313	1612
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	6905	120	715	80.4	81.4	13747	4279	1285
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	7925	95	685	80.6	81.6	14494	4515	1359
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	5080	110	725	79.8	80.8	11827	3672	1093
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	3770	105	740	79.3	80.3	10522	3259	962
34	SR-60	Redlands Blvd to Theodore St	Hard	100	65	65	65	2810	105	720	78.7	79.7	9324	2880	842
35	SR-60	Theodore St to Gilman Springs Rd	Hard	100	65	65	65	2330	65	310	76.3	77.3	5243	1590	434
36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	Hard	100	65	65	65	2050	55	250	75.5	76.5	4403	1324	350
37	SR-60	Jack Rabbit Trail to I-10	Hard	100	65	65	65	2055	55	250	75.5	76.5	4408	1326	351
75	SR-91	I-15 to McKinley St	Hard	100	65	65	65	14860	150	445	82.1	83.1	20185	6315	1929
76	SR-91	McKinley St to Pierce St	Hard	100	65	65	65	17745	155	465	82.7	83.7	23474	7355	2257
77	SR-91	Pierce St to Magnolia Ave	Hard	100	65	65	65	16090	165	495	82.4	83.4	21984	6884	2108

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Building Out **With Barriers**
Source of Traffic Volumes: 0

Roadway Segment				Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
						Auto	MT	HT	Auto	MT	HT				
29	SR-60	Pigeon Pass Rd/Frederick	Hard	100	65	65	65	9405	130	780	81	82.3	10	71.4	72.4
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	6905	120	715	80	81.4	10	70.7	71.7
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	7925	95	685	81	81.6	10	70.7	71.7
32	SR-60	Nason St to Moreno Bea	Hard	100	65	65	65	5080	110	725	80	80.8	10	70.4	71.4
33	SR-60	Moreno Beach Dr to Red	Hard	100	65	65	65	3770	105	740	79	80.3	10	70.2	71.2

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Building Out
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
78	SR-91	Magnolia Ave to La Sierra Ave	Hard	100	65	65	65	16325	160	485	82.5	83.5	22133	6931	2123
79	SR-91	La Sierra Ave to Tyler St	Hard	100	65	65	65	15820	145	450	82.3	83.3	21239	6648	2034
80	SR-91	Tyler St to Van Buren Blvd	Hard	100	65	65	65	17035	130	420	82.5	83.5	22236	6963	2134
81	SR-91	Van Buren Blvd to Adam St	Hard	100	65	65	65	14725	105	375	81.9	82.9	19276	6027	1838
82	SR-91	Adam St to Madison St	Hard	100	65	65	65	16770	175	555	82.7	83.7	23254	7285	2235
83	SR-91	Madison St to Indiana Ave (off-ramp)	Hard	100	65	65	65	16170	150	490	82.4	83.4	21968	6878	2107
84	SR-91	Arlington Ave to Central Ave	Hard	100	65	65	65	15355	140	470	82.2	83.2	20884	6536	1998
85	SR-91	Central Ave to 14th St	Hard	100	65	65	65	14215	185	565	82.2	83.2	20629	6455	1973
86	SR-91	14th St to University Ave	Hard	100	65	65	65	12540	85	290	81.1	82.1	16140	5035	1524
87	SR-91	University Ave to Spruce St (off-ramp)	Hard	100	65	65	65	19150	150	440	83.0	84.0	24758	7761	2386
101	I-10	SR-60 to Beaumont Ave	Hard	100	65	65	65	8285	55	280	79.6	80.6	11358	3523	1046
102	I-10	Beaumont Ave to Pennsylvania Ave	Hard	100	65	65	65	8225	95	440	80.1	81.1	12784	3974	1188
103	I-10	Pennsylvania Ave to Highland Springs Ave	Hard	100	65	65	65	8630	95	435	80.2	81.2	13178	4099	1228
104	I-10	Highland Springs Ave to Sunset Ave	Hard	100	65	65	65	8345	95	440	80.1	81.1	12913	4015	1201
105	I-10	Sunset Ave to 22nd St	Hard	100	65	65	65	8115	95	440	80.1	81.1	12665	3937	1177
106	I-10	22nd St to S 8th St	Hard	100	65	65	65	7965	95	440	80.0	81.0	12504	3886	1160
107	I-10	S 8th St to S Hargrave St	Hard	100	65	65	65	7960	95	440	80.0	81.0	12499	3884	1160
108	I-10	S Hargrave St to Field Rd	Hard	100	65	65	65	7105	95	440	79.7	80.7	11579	3593	1068
109	I-10	Field Rd to Main St (Cabazon)	Hard	100	65	65	65	6755	80	445	79.5	80.5	11183	3468	1028
110	I-10	Main St (Cabazon) to Main St	Hard	100	65	65	65	6155	40	235	78.4	79.4	8633	2662	773
111	I-10	Main St to Haugen-Lehmann Way	Hard	100	65	65	65	6230	30	180	78.2	79.2	8216	2530	732
112	I-10	Haugen-Lehmann Way to SR-111	Hard	100	65	65	65	6200	30	205	78.3	79.3	8392	2585	749
113	I-10	SR-111 to Tipton Rd	Hard	100	65	65	65	5415	25	165	77.6	78.6	7195	2207	630
114	I-10	Tipton Rd to SR-62	Hard	100	65	65	65	5370	35	200	77.8	78.8	7478	2296	658
129	SR-60	Scott Rd to Newport Rd	Hard	100	65	65	65	5050	45	115	77.2	78.2	6469	1977	557
130	SR-60	Newport Rd to MacCall Blvd	Hard	100	65	65	65	4500	45	105	76.7	77.7	5794	1764	489
131	SR-60	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	5325	55	115	77.4	78.4	6805	2084	591
132	SR-215	Scott Rd to Newport Rd	Hard	100	65	65	65	6455	65	135	78.2	79.2	8227	2533	733
133	SR-215	Newport Rd to MacCall Blvd	Hard	100	65	65	65	7835	120	240	79.4	80.4	10806	3349	991
167	SR-215	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	6015	80	155	78.1	79.1	7981	2455	708
168	SR-215	Ethanac Rd to SR-74/Case	Hard	100	65	65	65	7070	90	170	78.7	79.7	9281	2866	838
169	SR-215	SR-74/Case Rd to Redlands Blvd	Hard	100	65	65	65	9390	115	250	80.0	81.0	12541	3898	1164
171	SR-215	Redlands Blvd to D St	Hard	100	65	65	65	9070	90	220	79.8	80.8	11847	3678	1095
172	SR-215	D St to Nuevo St/Harvil Ave	Hard	100	65	65	65	9745	130	310	80.3	81.3	13482	4195	1258
173	SR-215	Nuevo St/Harvil Ave to Ramona Expy/Cajalco Expy	Hard	100	65	65	65	9105	80	205	79.7	80.7	11719	3638	1082
174	SR-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	Hard	100	65	65	65	10140	110	260	80.3	81.3	13411	4173	1251
175	SR-215	Harley Knox Blvd to Van Buren Blvd	Hard	100	65	65	65	10135	105	275	80.3	81.3	13510	4204	1261
176	SR-215	Van Buren Blvd to Cactus Ave	Hard	100	65	65	65	11550	125	315	80.9	81.9	15445	4816	1455
134	SR-215	Cactus Ave to Alessandro Blvd	Hard	100	65	65	65	11595	275	555	81.6	82.6	18094	5653	1719
135	SR-215	Alessandro Blvd to Eucalyptus Ave	Hard	100	65	65	65	16485	235	465	82.5	83.5	22444	7029	2154

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2018 Project Building Out
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
136	SR-215	Center St to Iowa Ave/La Cadena Dr	Hard	100	65	65	65	14890	165	335	81.9	82.9	19366	6056	1847
137	SR-215	Iowa Ave/La Cadena Dr to Barton Rd	Hard	100	65	65	65	15065	135	285	81.8	82.8	19017	5945	1812
138	SR-215	Barton Rd to Mt Vernon Ave/Washington St	Hard	100	65	65	65	14365	160	330	81.8	82.8	18739	5857	1784
139	SR-215	Mt Vernon Ave/Washington St to I-10	Hard	100	65	65	65	13275	210	420	81.7	82.7	18517	5787	1762
140	SR-215	I-10 to Auto Plaza Dr/Orange Show Rd	Hard	100	65	65	65	15530	180	400	82.2	83.2	20654	6463	1975
141	SR-215	Auto Plaza Dr/Orange Show Rd to Mill St	Hard	100	65	65	65	15020	120	265	81.8	82.8	18742	5858	1784
142	SR-215	Mill St to 2rd St	Hard	100	65	65	65	14540	190	400	82.0	83.0	19630	6139	1873
143	SR-215	2rd St to Baseline Rd	Hard	100	65	65	65	13365	100	220	81.2	82.2	16507	5152	1561
144	SR-215	Baseline Rd to Highland Ave/SR-210	Hard	100	65	65	65	8660	60	180	79.4	80.4	10952	3395	1005

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2025 No Project
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph) Auto	Speed (mph) MT	Speed (mph) HT	Peak Hour Volume Auto	Peak Hour Volume MT	Peak Hour Volume HT	Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
1	SR-60	SR-71/S Garey Ave to S Reservoir Rd	Hard	100	65	65	65	15020	170	595	82.4	83.4	21683	6788	2078
2	SR-60	S Reservoir Rd to Ramona Ave	Hard	100	65	65	65	15240	305	985	83.1	84.1	25705	8060	2480
3	SR-60	Ramona Ave to Central Ave	Hard	100	65	65	65	17640	150	545	82.8	83.8	24005	7523	2311
4	SR-60	Central Ave to Mountain Ave	Hard	100	65	65	65	22770	205	720	84.0	85.0	31198	9797	3030
5	SR-60	Mountain Ave to Euclid Ave	Hard	100	65	65	65	17325	200	690	83.0	84.0	25073	7860	2417
6	SR-60	Euclid Ave to Grove Ave	Hard	100	65	65	65	18145	150	530	82.9	83.9	24424	7655	2352
7	SR-60	Grove Ave to Vineyard Ave	Hard	100	65	65	65	19165	135	465	83.0	84.0	24921	7812	2402
8	SR-60	Vineyard Ave to Archibald Ave	Hard	100	65	65	65	24105	210	690	84.1	85.1	32406	10179	3151
9	SR-60	Archibald Ave to Haven Ave	Hard	100	65	65	65	16310	270	850	83.1	84.1	25593	8025	2469
10	SR-60	Haven Ave to Miliken Ave	Hard	100	65	65	65	16660	155	500	82.6	83.6	22598	7078	2170
11	SR-60	Miliken Ave to SR-15	Hard	100	65	65	65	12125	100	355	81.1	82.1	16294	5084	1539
12	SR-60	I-15 to Etiwanda Ave	Hard	100	65	65	65	12795	95	310	81.2	82.2	16620	5187	1572
13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	Hard	100	65	65	65	12890	110	340	81.3	82.3	17032	5318	1613
14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	Hard	100	65	65	65	11340	135	420	81.1	82.1	16131	5033	1523
15	SR-60	Pedley Rd to Pyrite St	Hard	100	65	65	65	11605	135	420	81.2	82.2	16416	5123	1552
16	SR-60	Pyrite St to Valley Way	Hard	100	65	65	65	12255	135	415	81.3	82.3	17073	5331	1617
17	SR-60	Valley Way to Rubidoux Blvd	Hard	100	65	65	65	14005	105	335	81.6	82.6	18170	5677	1727
18	SR-60	Rubidoux Blvd to Market St	Hard	100	65	65	65	14495	90	280	81.6	82.6	18180	5681	1728
19	SR-60	Market St to Main St	Hard	100	65	65	65	15700	130	370	82.1	83.1	20385	6378	1949
20	SR-60	Main St to SR-91	Hard	100	65	65	65	15900	135	365	82.2	83.2	20579	6439	1968
21	SR-60	SR-91 to W Blaine St/3rd St	Hard	100	65	65	65	16685	265	740	83.0	84.0	25063	7857	2416
22	SR-60	W Blaine St/3rd St to University Ave	Hard	100	65	65	65	16315	220	625	82.7	83.7	23528	7372	2263
23	SR-60	University Ave to Martin Luther King Blvd	Hard	100	65	65	65	17210	245	715	83.1	84.1	25339	7945	2444
24	SR-60	Martin Luther King Blvd to Central Ave	Hard	100	65	65	65	20145	175	510	83.3	84.3	26511	8315	2561
25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	Hard	100	65	65	65	17970	225	640	83.1	84.1	25453	7981	2455
26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	Hard	100	65	65	65	17995	125	375	82.6	83.6	22875	7165	2198
27	SR-60	I-215 to Day St	Hard	100	65	65	65	12475	125	405	81.4	82.4	17186	5366	1629
28	SR-60	Day St to Pigeon Pass Rd/Frederick St	Hard	100	65	65	65	11120	90	320	80.8	81.8	14881	4638	1398
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	10590	90	315	80.6	81.6	14270	4444	1337
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	8345	60	235	79.5	80.5	11070	3432	1017
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	9575	45	175	79.8	80.8	11834	3674	1093
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	6700	55	215	78.6	79.6	9114	2814	821
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	5765	55	220	78.2	79.2	8150	2509	725
34	SR-60	Redlands Blvd to Theodore St	Hard	100	65	65	65	4325	50	205	77.2	78.2	6456	1973	556
35	SR-60	Theodore St to Gilman Springs Rd	Hard	100	65	65	65	4510	55	215	77.4	78.4	6758	2069	586
36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	Hard	100	65	65	65	3455	45	220	76.6	77.6	5625	1710	472
37	SR-60	Jack Rabbit Trail to I-10	Hard	100	65	65	65	3050	45	220	76.2	77.2	5189	1573	429
75	SR-91	I-15 to McKinley St	Hard	100	65	65	65	15930	140	345	82.1	83.1	20466	6403	1957
76	SR-91	McKinley St to Pierce St	Hard	100	65	65	65	18895	145	350	82.8	83.8	23717	7431	2282
77	SR-91	Pierce St to Magnolia Ave	Hard	100	65	65	65	17180	155	380	82.5	83.5	22161	6940	2126

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2025 No Project
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
29	SR-60	Pigeon Pass Rd/Frederic	Hard	100	65	65	65	10590	90	315	80.6	10	69.5	70.5
30	SR-60	Heacock St to Perris Blv	Hard	100	65	65	65	8345	60	235	79.5	10	68.4	69.4
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	9575	45	175	79.8	10	68.3	69.3
32	SR-60	Nason St to Moreno Bea	Hard	100	65	65	65	6700	55	215	78.6	10	67.7	68.7
33	SR-60	Moreno Beach Dr to Re	Hard	100	65	65	65	5765	55	220	78.2	10	67.3	68.3

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2025 No Project
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
78	SR-91	Magnolia Ave to La Sierra Ave	Hard	100	65	65	65	17520	150	375	82.5	83.5	22465	7036	2157
79	SR-91	La Sierra Ave to Tyler St	Hard	100	65	65	65	16950	135	340	82.3	83.3	21501	6731	2060
80	SR-91	Tyler St to Van Buren Blvd	Hard	100	65	65	65	18110	120	305	82.5	83.5	22397	7014	2150
81	SR-91	Van Buren Blvd to Adam St	Hard	100	65	65	65	15760	100	250	81.9	82.9	19332	6045	1843
82	SR-91	Adam St to Madison St	Hard	100	65	65	65	17760	165	425	82.7	83.7	23199	7268	2230
83	SR-91	Madison St to Indiana Ave (off-ramp)	Hard	100	65	65	65	17150	140	365	82.4	83.4	21944	6871	2104
84	SR-91	Arlington Ave to Central Ave	Hard	100	65	65	65	16260	130	335	82.2	83.2	20697	6477	1980
85	SR-91	Central Ave to 14th St	Hard	100	65	65	65	15120	165	435	82.1	83.1	20443	6396	1954
86	SR-91	14th St to University Ave	Hard	100	65	65	65	13380	70	170	81.1	82.1	15986	4987	1509
87	SR-91	University Ave to Spruce St (off-ramp)	Hard	100	65	65	65	20065	135	325	82.9	83.9	24727	7751	2383
101	I-10	SR-60 to Beaumont Ave	Hard	100	65	65	65	9875	55	290	80.2	81.2	13151	4090	1225
102	I-10	Beaumont Ave to Pennsylvania Ave	Hard	100	65	65	65	10070	90	470	80.8	81.8	14997	4674	1410
103	I-10	Pennsylvania Ave to Highland Springs Ave	Hard	100	65	65	65	10575	95	475	81.0	82.0	15602	4865	1470
104	I-10	Highland Springs Ave to Sunset Ave	Hard	100	65	65	65	10025	95	485	80.8	81.8	15093	4705	1419
105	I-10	Sunset Ave to 22nd St	Hard	100	65	65	65	9705	95	485	80.7	81.7	14749	4596	1385
106	I-10	22nd St to S 8th St	Hard	100	65	65	65	9485	95	480	80.6	81.6	14471	4508	1357
107	I-10	S 8th St to S Hargrave St	Hard	100	65	65	65	9415	95	485	80.6	81.6	14437	4497	1354
108	I-10	S Hargrave St to Field Rd	Hard	100	65	65	65	8550	95	485	80.3	81.3	13507	4203	1261
109	I-10	Field Rd to Main St (Cabazon)	Hard	100	65	65	65	8195	95	485	80.2	81.2	13125	4082	1223
110	I-10	Main St (Cabazon) to Main St	Hard	100	65	65	65	7550	50	285	79.3	80.3	10589	3280	969
111	I-10	Main St to Haugen-Lehmann Way	Hard	100	65	65	65	7645	40	235	79.1	80.1	10235	3168	934
112	I-10	Haugen-Lehmann Way to SR-111	Hard	100	65	65	65	7620	45	260	79.2	80.2	10436	3232	954
113	I-10	SR-111 to Tipton Rd	Hard	100	65	65	65	6620	35	210	78.5	79.5	8905	2748	801
114	I-10	Tipton Rd to SR-62	Hard	100	65	65	65	6545	40	245	78.7	79.7	9135	2820	824
129	SR-60	Scott Rd to Newport Rd	Hard	100	65	65	65	6445	50	105	78.0	79.0	7907	2432	701
130	SR-60	Newport Rd to MacCall Blvd	Hard	100	65	65	65	6025	55	120	77.9	78.9	7600	2335	670
131	SR-60	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7100	65	135	78.6	79.6	8921	2753	802
132	SR-215	Scott Rd to Newport Rd	Hard	100	65	65	65	7950	75	155	79.1	80.1	10042	3107	914
133	SR-215	Newport Rd to MacCall Blvd	Hard	100	65	65	65	8970	130	255	79.9	80.9	12192	3787	1129
167	SR-215	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7055	80	175	78.7	79.7	9265	2862	837
168	SR-215	Ethanac Rd to SR-74/Case	Hard	100	65	65	65	8215	90	180	79.3	80.3	10595	3282	970
169	SR-215	SR-74/Case Rd to Redlands Blvd	Hard	100	65	65	65	11025	130	260	80.6	81.6	14444	4499	1354
171	SR-215	Redlands Blvd to D St	Hard	100	65	65	65	12435	115	250	81.0	82.0	15817	4933	1492
172	SR-215	D St to Nuevo St/Harvil Ave	Hard	100	65	65	65	13105	165	345	81.5	82.5	17529	5475	1663
173	SR-215	Nuevo St/Harvil Ave to Ramona Expy/Cajalco Expy	Hard	100	65	65	65	11935	105	245	80.8	81.8	15197	4737	1430
174	SR-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	Hard	100	65	65	65	12960	135	310	81.3	82.3	16960	5295	1606
175	SR-215	Harley Knox Blvd to Van Buren Blvd	Hard	100	65	65	65	12750	130	300	81.2	82.2	16631	5191	1573
176	SR-215	Van Buren Blvd to Cactus Ave	Hard	100	65	65	65	13910	140	340	81.6	82.6	18251	5703	1735
134	SR-215	Cactus Ave to Alessandro Blvd	Hard	100	65	65	65	12335	270	525	81.7	82.7	18621	5820	1772
135	SR-215	Alessandro Blvd to Eucalyptus Ave	Hard	100	65	65	65	17190	240	445	82.6	83.6	23057	7223	2216

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway Existing
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
136	SR-215	Center St to Iowa Ave/La Cadena Dr	Hard	100	65	65	65	15680	170	315	82.0	83.0	20070	6278	1917
137	SR-215	Iowa Ave/La Cadena Dr to Barton Rd	Hard	100	65	65	65	15910	145	270	82.0	83.0	19842	6206	1894
138	SR-215	Barton Rd to Mt Vernon Ave/Washington St	Hard	100	65	65	65	15180	165	310	81.9	82.9	19470	6089	1857
139	SR-215	Mt Vernon Ave/Washington St to I-10	Hard	100	65	65	65	14160	215	400	81.9	82.9	19323	6042	1842
140	SR-215	I-10 to Auto Plaza Dr/Orange Show Rd	Hard	100	65	65	65	16325	185	385	82.3	83.3	21405	6701	2051
141	SR-215	Auto Plaza Dr/Orange Show Rd to Mill St	Hard	100	65	65	65	15675	125	250	81.9	82.9	19342	6048	1844
142	SR-215	Mill St to 2rd St	Hard	100	65	65	65	15155	190	385	82.1	83.1	20167	6309	1927
143	SR-215	2rd St to Baseline Rd	Hard	100	65	65	65	13965	105	205	81.3	82.3	17048	5323	1615
144	SR-215	Baseline Rd to Highland Ave/SR-210	Hard	100	65	65	65	9005	60	160	79.5	80.5	11157	3460	1026

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
igure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2025 Project Ph1
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
1	SR-60	SR-71/S Garey Ave to S Reservoir Rd	Hard	100	65	65	65	14945	175	675	82.5	83.5	22287	6979	2139
2	SR-60	S Reservoir Rd to Ramona Ave	Hard	100	65	65	65	15145	310	1065	83.2	84.2	26286	8244	2539
3	SR-60	Ramona Ave to Central Ave	Hard	100	65	65	65	17540	160	630	82.9	83.9	24643	7725	2374
4	SR-60	Central Ave to Mountain Ave	Hard	100	65	65	65	22690	220	805	84.0	85.0	31879	10013	3098
5	SR-60	Mountain Ave to Euclid Ave	Hard	100	65	65	65	17230	215	780	83.1	84.1	25778	8083	2488
6	SR-60	Euclid Ave to Grove Ave	Hard	100	65	65	65	18050	165	620	83.0	84.0	25129	7878	2423
7	SR-60	Grove Ave to Vineyard Ave	Hard	100	65	65	65	19065	145	550	83.1	84.1	25559	8014	2466
8	SR-60	Vineyard Ave to Archibald Ave	Hard	100	65	65	65	23990	220	780	84.2	85.2	33069	10389	3217
9	SR-60	Archibald Ave to Haven Ave	Hard	100	65	65	65	16195	280	945	83.2	84.2	26298	8248	2540
10	SR-60	Haven Ave to Miliken Ave	Hard	100	65	65	65	16540	160	595	82.7	83.7	23277	7293	2238
11	SR-60	Miliken Ave to SR-15	Hard	100	65	65	65	12000	110	450	81.3	82.3	16988	5304	1609
12	SR-60	I-15 to Etiwanda Ave	Hard	100	65	65	65	12705	100	420	81.4	82.4	17457	5452	1656
13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	Hard	100	65	65	65	12805	110	445	81.5	82.5	17812	5564	1691
14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	Hard	100	65	65	65	11250	140	525	81.3	82.3	16926	5284	1603
15	SR-60	Pedley Rd to Pyrite St	Hard	100	65	65	65	11525	140	530	81.4	82.4	17263	5391	1636
16	SR-60	Pyrite St to Valley Way	Hard	100	65	65	65	12190	140	525	81.6	82.6	17937	5604	1704
17	SR-60	Valley Way to Rubidoux Blvd	Hard	100	65	65	65	13930	115	455	81.8	82.8	19126	5980	1823
18	SR-60	Rubidoux Blvd to Market St	Hard	100	65	65	65	14430	100	400	81.8	82.8	19146	5986	1825
19	SR-60	Market St to Main St	Hard	100	65	65	65	15610	130	490	82.3	83.3	21284	6662	2038
20	SR-60	Main St to SR-91	Hard	100	65	65	65	15780	140	500	82.4	83.4	21590	6759	2069
21	SR-60	SR-91 to W Blaine St/3rd St	Hard	100	65	65	65	16505	275	925	83.2	84.2	26445	8294	2555
22	SR-60	W Blaine St/3rd St to University Ave	Hard	100	65	65	65	16135	235	810	83.0	84.0	24931	7815	2403
23	SR-60	University Ave to Martin Luther King Blvd	Hard	100	65	65	65	17065	260	900	83.3	84.3	26779	8400	2588
24	SR-60	Martin Luther King Blvd to Central Ave	Hard	100	65	65	65	20055	185	710	83.5	84.5	28114	8822	2721
25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	Hard	100	65	65	65	17890	235	845	83.3	84.3	27109	8504	2621
26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	Hard	100	65	65	65	17875	135	590	82.9	83.9	24570	7701	2367
27	SR-60	I-215 to Day St	Hard	100	65	65	65	12355	160	680	81.9	82.9	19481	6092	1858
28	SR-60	Day St to Pigeon Pass Rd/Frederick St	Hard	100	65	65	65	10995	115	585	81.3	82.3	17048	5323	1615
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	10420	110	585	81.2	82.2	16409	5121	1551
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	8225	90	515	80.3	81.3	13386	4165	1249
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	9500	65	470	80.6	81.6	14282	4448	1338
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	6670	80	510	79.7	80.7	11631	3610	1073
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	5825	75	525	79.4	80.4	10826	3355	993
34	SR-60	Redlands Blvd to Theodore St	Hard	100	65	65	65	4565	80	545	78.9	79.9	9657	2986	876
35	SR-60	Theodore St to Gilman Springs Rd	Hard	100	65	65	65	4120	55	240	77.2	78.2	6546	2002	565
36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	Hard	100	65	65	65	3335	55	245	76.7	77.7	5744	1748	484
37	SR-60	Jack Rabbit Trail to I-10	Hard	100	65	65	65	2965	55	245	76.4	77.4	5346	1622	445
75	SR-91	I-15 to McKinley St	Hard	100	65	65	65	15925	145	385	82.2	83.2	20812	6513	1991
76	SR-91	McKinley St to Pierce St	Hard	100	65	65	65	18875	155	405	82.9	83.9	24192	7582	2329
77	SR-91	Pierce St to Magnolia Ave	Hard	100	65	65	65	17165	165	435	82.6	83.6	22642	7092	2174

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2025 Project Ph1 With Barriers
Source of Traffic Volumes: 0

Roadway Segment		From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	10420	110	585	81.2	10	70.8	71.8
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	8225	90	515	80.3	10	70.0	71.0
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	9500	65	470	80.6	10	70.1	71.1
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	6670	80	510	79.7	10	69.7	70.7
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	5825	75	525	79.4	10	69.5	70.5

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
  For hard ground, the propagation rate is 3 dB per doubling the distance.
  For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2025 Project Ph1
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
78	SR-91	Magnolia Ave to La Sierra Ave	Hard	100	65	65	65	17500	160	425	82.6	83.6	22899	7173	2200
79	SR-91	La Sierra Ave to Tyler St	Hard	100	65	65	65	16915	145	390	82.4	83.4	21919	6863	2102
80	SR-91	Tyler St to Van Buren Blvd	Hard	100	65	65	65	18095	130	355	82.6	83.6	22837	7153	2194
81	SR-91	Van Buren Blvd to Adam St	Hard	100	65	65	65	15730	110	305	82.0	83.0	19797	6192	1890
82	SR-91	Adam St to Madison St	Hard	100	65	65	65	17730	175	480	82.8	83.8	23664	7415	2276
83	SR-91	Madison St to Indiana Ave (off-ramp)	Hard	100	65	65	65	17105	150	425	82.5	83.5	22434	7026	2153
84	SR-91	Arlington Ave to Central Ave	Hard	100	65	65	65	16220	140	400	82.3	83.3	21234	6646	2033
85	SR-91	Central Ave to 14th St	Hard	100	65	65	65	15055	185	490	82.2	83.2	20911	6544	2001
86	SR-91	14th St to University Ave	Hard	100	65	65	65	13280	80	225	81.2	82.2	16376	5110	1548
87	SR-91	University Ave to Spruce St (off-ramp)	Hard	100	65	65	65	19965	145	375	83.0	84.0	25075	7861	2418
101	I-10	SR-60 to Beaumont Ave	Hard	100	65	65	65	9755	45	310	80.2	81.2	13148	4089	1225
102	I-10	Beaumont Ave to Pennsylvania Ave	Hard	100	65	65	65	9965	90	495	80.8	81.8	15091	4704	1419
103	I-10	Pennsylvania Ave to Highland Springs Ave	Hard	100	65	65	65	10470	90	500	81.0	82.0	15676	4889	1478
104	I-10	Highland Springs Ave to Sunset Ave	Hard	100	65	65	65	9935	95	505	80.8	81.8	15162	4726	1426
105	I-10	Sunset Ave to 22nd St	Hard	100	65	65	65	9630	95	505	80.7	81.7	14834	4623	1393
106	I-10	22nd St to S 8th St	Hard	100	65	65	65	9415	90	500	80.7	81.7	14541	4530	1364
107	I-10	S 8th St to S Hargrave St	Hard	100	65	65	65	9340	90	505	80.6	81.6	14502	4518	1360
108	I-10	S Hargrave St to Field Rd	Hard	100	65	65	65	8480	90	505	80.4	81.4	13577	4225	1268
109	I-10	Field Rd to Main St (Cabazon)	Hard	100	65	65	65	8130	90	505	80.2	81.2	13201	4106	1230
110	I-10	Main St (Cabazon) to Main St	Hard	100	65	65	65	7490	50	295	79.3	80.3	10607	3286	971
111	I-10	Main St to Haugen-Lehmann Way	Hard	100	65	65	65	7590	35	255	79.2	80.2	10322	3196	942
112	I-10	Haugen-Lehmann Way to SR-111	Hard	100	65	65	65	7565	40	270	79.2	80.2	10440	3233	954
113	I-10	SR-111 to Tipton Rd	Hard	100	65	65	65	6550	35	220	78.5	79.5	8913	2750	801
114	I-10	Tipton Rd to SR-62	Hard	100	65	65	65	6515	40	255	78.7	79.7	9186	2837	829
129	SR-60	Scott Rd to Newport Rd	Hard	100	65	65	65	6380	50	115	78.0	79.0	7920	2436	702
130	SR-60	Newport Rd to MacCall Blvd	Hard	100	65	65	65	5965	55	120	77.8	78.8	7535	2314	664
131	SR-60	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7020	65	135	78.5	79.5	8835	2726	794
132	SR-215	Scott Rd to Newport Rd	Hard	100	65	65	65	7830	75	155	79.0	80.0	9913	3066	901
133	SR-215	Newport Rd to MacCall Blvd	Hard	100	65	65	65	8855	120	260	79.9	80.9	12069	3748	1117
167	SR-215	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7030	80	175	78.7	79.7	9239	2853	834
168	SR-215	Ethanac Rd to SR-74/Case	Hard	100	65	65	65	8170	90	190	79.3	80.3	10630	3293	973
169	SR-215	SR-74/Case Rd to Redlands Blvd	Hard	100	65	65	65	10975	130	270	80.6	81.6	14473	4508	1357
171	SR-215	Redlands Blvd to D St	Hard	100	65	65	65	12385	120	255	81.0	82.0	15825	4936	1493
172	SR-215	D St to Nuevo St/Harvil Ave	Hard	100	65	65	65	13075	165	355	81.5	82.5	17579	5491	1668
173	SR-215	Nuevo St/Harvil Ave to Ramona Expy/Cajalco Expy	Hard	100	65	65	65	11925	105	260	80.9	81.9	15310	4773	1441
174	SR-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	Hard	100	65	65	65	12960	135	325	81.4	82.4	17085	5334	1619
175	SR-215	Harley Knox Blvd to Van Buren Blvd	Hard	100	65	65	65	12755	135	315	81.3	82.3	16781	5238	1588
176	SR-215	Van Buren Blvd to Cactus Ave	Hard	100	65	65	65	13940	140	365	81.7	82.7	18491	5779	1759
134	SR-215	Cactus Ave to Alessandro Blvd	Hard	100	65	65	65	12350	275	550	81.8	82.8	18865	5897	1797
135	SR-215	Alessandro Blvd to Eucalyptus Ave	Hard	100	65	65	65	17185	235	460	82.7	83.7	23156	7254	2226

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2025 Project Ph1
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
136	SR-215	Center St to Iowa Ave/La Cadena Dr	Hard	100	65	65	65	15720	170	330	82.1	83.1	20237	6331	1934
137	SR-215	Iowa Ave/La Cadena Dr to Barton Rd	Hard	100	65	65	65	15930	140	285	82.0	83.0	19968	6246	1907
138	SR-215	Barton Rd to Mt Vernon Ave/Washington St	Hard	100	65	65	65	15200	165	325	81.9	82.9	19616	6135	1872
139	SR-215	Mt Vernon Ave/Washington St to I-10	Hard	100	65	65	65	14180	210	415	81.9	82.9	19449	6082	1855
140	SR-215	I-10 to Auto Plaza Dr/Orange Show Rd	Hard	100	65	65	65	16320	185	395	82.3	83.3	21483	6725	2058
141	SR-215	Auto Plaza Dr/Orange Show Rd to Mill St	Hard	100	65	65	65	15695	125	260	81.9	82.9	19447	6081	1855
142	SR-215	Mill St to 2rd St	Hard	100	65	65	65	15170	190	395	82.1	83.1	20266	6340	1937
143	SR-215	2rd St to Baseline Rd	Hard	100	65	65	65	13990	100	220	81.4	82.4	17179	5364	1628
144	SR-215	Baseline Rd to Highland Ave/SR-210	Hard	100	65	65	65	9035	60	170	79.6	80.6	11272	3496	1037

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Year 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
1	SR-60	SR-71/S Garey Ave to S Reservoir Rd	Hard	100	65	65	65	17365	190	625	82.9	83.9	24536	7691	2364
2	SR-60	S Reservoir Rd to Ramona Ave	Hard	100	65	65	65	17345	325	985	83.5	84.5	28050	8802	2715
3	SR-60	Ramona Ave to Central Ave	Hard	100	65	65	65	19595	170	535	83.2	84.2	26106	8187	2521
4	SR-60	Central Ave to Mountain Ave	Hard	100	65	65	65	24540	220	710	84.2	85.2	33080	10393	3218
5	SR-60	Mountain Ave to Euclid Ave	Hard	100	65	65	65	19235	215	680	83.3	84.3	27105	8503	2621
6	SR-60	Euclid Ave to Grove Ave	Hard	100	65	65	65	19600	165	515	83.2	84.2	25925	8130	2503
7	SR-60	Grove Ave to Vineyard Ave	Hard	100	65	65	65	20525	150	455	83.2	84.2	26361	8268	2546
8	SR-60	Vineyard Ave to Archibald Ave	Hard	100	65	65	65	25465	225	680	84.3	85.3	33846	10635	3295
9	SR-60	Archibald Ave to Haven Ave	Hard	100	65	65	65	17885	295	845	83.4	84.4	27347	8580	2645
10	SR-60	Haven Ave to Miliken Ave	Hard	100	65	65	65	18755	185	510	83.0	84.0	25056	7855	2416
11	SR-60	Miliken Ave to SR-15	Hard	100	65	65	65	13220	100	265	81.3	82.3	16724	5220	1582
12	SR-60	I-15 to Etiwanda Ave	Hard	100	65	65	65	13555	90	225	81.3	82.3	16712	5217	1581
13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	Hard	100	65	65	65	13595	95	255	81.3	82.3	17025	5315	1612
14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	Hard	100	65	65	65	12010	130	330	81.1	82.1	16084	5018	1518
15	SR-60	Pedley Rd to Pyrite St	Hard	100	65	65	65	12415	125	330	81.2	82.2	16500	5149	1560
16	SR-60	Pyrite St to Valley Way	Hard	100	65	65	65	12900	125	330	81.3	82.3	17021	5314	1612
17	SR-60	Valley Way to Rubidoux Blvd	Hard	100	65	65	65	15240	105	250	81.8	82.8	18793	5875	1789
18	SR-60	Rubidoux Blvd to Market St	Hard	100	65	65	65	15790	95	205	81.8	82.8	18971	5931	1807
19	SR-60	Market St to Main St	Hard	100	65	65	65	16990	145	295	82.3	83.3	21211	6639	2031
20	SR-60	Main St to SR-91	Hard	100	65	65	65	17165	140	290	82.3	83.3	21338	6679	2044
21	SR-60	SR-91 to W Blaine St/3rd St	Hard	100	65	65	65	20985	340	880	83.9	84.9	31155	9784	3026
22	SR-60	W Blaine St/3rd St to University Ave	Hard	100	65	65	65	20405	300	770	83.7	84.7	29456	9246	2856
23	SR-60	University Ave to Martin Luther King Blvd	Hard	100	65	65	65	21315	325	860	84.0	85.0	31283	9824	3038
24	SR-60	Martin Luther King Blvd to Central Ave	Hard	100	65	65	65	24100	250	650	84.1	85.1	32231	10124	3133
25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	Hard	100	65	65	65	22035	305	780	84.0	85.0	31312	9833	3041
26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	Hard	100	65	65	65	20080	175	435	83.1	84.1	25818	8096	2492
27	SR-60	I-215 to Day St	Hard	100	65	65	65	14560	145	490	82.1	83.1	20216	6324	1932
28	SR-60	Day St to Pigeon Pass Rd/Frederick St	Hard	100	65	65	65	13180	105	390	81.5	82.5	17739	5541	1684
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	12175	105	370	81.2	82.2	16492	5147	1559
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	10270	80	295	80.4	81.4	13719	4270	1282
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	11380	55	230	80.6	81.6	14272	4445	1337
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	8945	70	270	79.8	80.8	12046	3741	1115
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	8120	70	270	79.5	80.5	11159	3460	1026
34	SR-60	Redlands Blvd to Theodore St	Hard	100	65	65	65	8365	80	265	79.6	80.6	11421	3543	1052
35	SR-60	Theodore St to Gilman Springs Rd	Hard	100	65	65	65	8520	90	280	79.7	80.7	11753	3648	1085
36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	Hard	100	65	65	65	6445	75	290	78.8	79.8	9543	2950	864
37	SR-60	Jack Rabbit Trail to I-10	Hard	100	65	65	65	6930	80	290	79.1	80.1	10085	3121	919
75	SR-91	I-15 to McKinley St	Hard	100	65	65	65	19410	195	550	83.2	84.2	26133	8196	2523
76	SR-91	McKinley St to Pierce St	Hard	100	65	65	65	21830	195	555	83.6	84.6	28778	9032	2788
77	SR-91	Pierce St to Magnolia Ave	Hard	100	65	65	65	19805	195	575	83.3	84.3	26765	8396	2587

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Year 2040 No Project
Source of Traffic Volumes: 0

Roadway Segment			Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Barrier Height (feet)	Peak Hour Noise Level (Leq(h) dBA) w/ Barrier	CNEL Noise Level (dBA) at 100 feet
					Auto	MT	HT	Auto	MT	HT				
29	SR-60	Pigeon Pass Rd/Frederic	Hard	100	65	65	65	12175	105	370	81.2	10	70.2	71.2
30	SR-60	Heacock St to Perris Blv	Hard	100	65	65	65	10270	80	295	80.4	10	69.3	70.3
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	11380	55	230	80.6	10	69.2	70.2
32	SR-60	Nason St to Moreno Bea	Hard	100	65	65	65	8945	70	270	79.8	10	68.8	69.8
33	SR-60	Moreno Beach Dr to Re	Hard	100	65	65	65	8120	70	270	79.5	10	68.6	69.6

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
Barrier attenuation methodology is based on ISO 9613.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Year 2040 No Project
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
78	SR-91	Magnolia Ave to La Sierra Ave	Hard	100	65	65	65	19795	180	555	83.3	84.3	26528	8320	2563
79	SR-91	La Sierra Ave to Tyler St	Hard	100	65	65	65	19250	165	520	83.1	84.1	25590	8024	2469
80	SR-91	Tyler St to Van Buren Blvd	Hard	100	65	65	65	20660	150	485	83.3	84.3	26755	8392	2586
81	SR-91	Van Buren Blvd to Adam St	Hard	100	65	65	65	18645	135	435	82.8	83.8	24112	7557	2321
82	SR-91	Adam St to Madison St	Hard	100	65	65	65	21145	210	605	83.6	84.6	28517	8949	2762
83	SR-91	Madison St to Indiana Ave (off-ramp)	Hard	100	65	65	65	20185	180	540	83.3	84.3	26823	8414	2592
84	SR-91	Arlington Ave to Central Ave	Hard	100	65	65	65	19725	170	500	83.2	84.2	25956	8140	2506
85	SR-91	Central Ave to 14th St	Hard	100	65	65	65	18830	210	605	83.2	84.2	26027	8162	2513
86	SR-91	14th St to University Ave	Hard	100	65	65	65	17175	120	360	82.4	83.4	21848	6841	2095
87	SR-91	University Ave to Spruce St (off-ramp)	Hard	100	65	65	65	24440	190	520	84.0	85.0	31274	9821	3037
101	I-10	SR-60 to Beaumont Ave	Hard	100	65	65	65	12715	130	740	82.1	83.1	20245	6334	1935
102	I-10	Beaumont Ave to Pennsylvania Ave	Hard	100	65	65	65	12480	170	930	82.4	83.4	21731	6804	2083
103	I-10	Pennsylvania Ave to Highland Springs Ave	Hard	100	65	65	65	12905	175	950	82.5	83.5	22374	7007	2147
104	I-10	Highland Springs Ave to Sunset Ave	Hard	100	65	65	65	12470	180	985	82.5	83.5	22217	6957	2132
105	I-10	Sunset Ave to 22nd St	Hard	100	65	65	65	11710	180	985	82.3	83.3	21400	6699	2050
106	I-10	22nd St to S 8th St	Hard	100	65	65	65	11420	175	980	82.2	83.2	21026	6581	2013
107	I-10	S 8th St to S Hargrave St	Hard	100	65	65	65	11770	180	1000	82.4	83.4	21589	6759	2069
108	I-10	S Hargrave St to Field Rd	Hard	100	65	65	65	11470	190	1015	82.3	83.3	21431	6709	2053
109	I-10	Field Rd to Main St (Cabazon)	Hard	100	65	65	65	10505	180	1005	82.1	83.1	20270	6342	1937
110	I-10	Main St (Cabazon) to Main St	Hard	100	65	65	65	11240	150	810	81.9	82.9	19320	6041	1842
111	I-10	Main St to Haugen-Lehmann Way	Hard	100	65	65	65	10775	130	750	81.6	82.6	18241	5700	1734
112	I-10	Haugen-Lehmann Way to SR-111	Hard	100	65	65	65	11705	145	815	82.0	83.0	19842	6206	1894
113	I-10	SR-111 to Tipton Rd	Hard	100	65	65	65	9965	125	725	81.4	82.4	17142	5352	1624
114	I-10	Tipton Rd to SR-62	Hard	100	65	65	65	9975	130	765	81.5	82.5	17505	5467	1661
129	SR-60	Scott Rd to Newport Rd	Hard	100	65	65	65	6440	85	105	78.1	79.1	8043	2475	714
130	SR-60	Newport Rd to MacCall Blvd	Hard	100	65	65	65	6565	90	115	78.2	79.2	8281	2550	738
131	SR-60	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7215	100	125	78.6	79.6	9104	2811	820
132	SR-215	Scott Rd to Newport Rd	Hard	100	65	65	65	8500	110	150	79.3	80.3	10734	3326	983
133	SR-215	Newport Rd to MacCall Blvd	Hard	100	65	65	65	9670	165	265	80.2	81.2	13170	4096	1227
167	SR-215	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7795	125	195	79.2	80.2	10410	3224	951
168	SR-215	Ethanac Rd to SR-74/Case	Hard	100	65	65	65	9290	135	205	79.9	80.9	12142	3771	1124
169	SR-215	SR-74/Case Rd to Redlands Blvd	Hard	100	65	65	65	12170	175	290	81.1	82.1	16107	5025	1521
171	SR-215	Redlands Blvd to D St	Hard	100	65	65	65	14610	175	305	81.8	82.8	18856	5894	1796
172	SR-215	D St to Nuevo St/Harvil Ave	Hard	100	65	65	65	15215	225	415	82.2	83.2	20623	6453	1972
173	SR-215	Nuevo St/Harvil Ave to Ramona Expy/Cajalco Expy	Hard	100	65	65	65	14390	170	310	81.7	82.7	18641	5826	1774
174	SR-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	Hard	100	65	65	65	15265	200	385	82.1	83.1	20326	6359	1943
175	SR-215	Harley Knox Blvd to Van Buren Blvd	Hard	100	65	65	65	14580	190	385	81.9	82.9	19549	6113	1865
176	SR-215	Van Buren Blvd to Cactus Ave	Hard	100	65	65	65	15680	200	420	82.3	83.3	21063	6592	2016
134	SR-215	Cactus Ave to Alessandro Blvd	Hard	100	65	65	65	15080	320	615	82.5	83.5	22523	7054	2162
135	SR-215	Alessandro Blvd to Eucalyptus Ave	Hard	100	65	65	65	17990	265	500	82.9	83.9	24475	7671	2358

odel Notes:
ibed in FHWA Traffic Noise Model Technical Manual (1998).
with the results from FHWA Traffic Noise Model Version 2.5.
in ±0.1 dB when comparing to TNM results.
feet is based on the following assumptions:
nd, the propagation rate is 3 dB per doubling the distance.
d, the propagation rate is 4.5 dB per doubling the distance.
a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2040 Project Buildout
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
1	SR-60	SR-71/S Garey Ave to S Reservoir Rd	Hard	100	65	65	65	17325	200	745	83.1	84.1	25529	8005	2463
2	SR-60	S Reservoir Rd to Ramona Ave	Hard	100	65	65	65	17280	330	1110	83.6	84.6	29037	9114	2814
3	SR-60	Ramona Ave to Central Ave	Hard	100	65	65	65	19535	180	660	83.3	84.3	27119	8508	2622
4	SR-60	Central Ave to Mountain Ave	Hard	100	65	65	65	24465	235	840	84.3	85.3	34139	10727	3324
5	SR-60	Mountain Ave to Euclid Ave	Hard	100	65	65	65	19145	225	805	83.5	84.5	28086	8813	2719
6	SR-60	Euclid Ave to Grove Ave	Hard	100	65	65	65	19530	170	645	83.3	84.3	26949	8454	2605
7	SR-60	Grove Ave to Vineyard Ave	Hard	100	65	65	65	20480	155	590	83.4	84.4	27453	8613	2655
8	SR-60	Vineyard Ave to Archibald Ave	Hard	100	65	65	65	25400	235	820	84.5	85.5	34979	10993	3408
9	SR-60	Archibald Ave to Haven Ave	Hard	100	65	65	65	17815	305	990	83.6	84.6	28516	8949	2762
10	SR-60	Haven Ave to Miliken Ave	Hard	100	65	65	65	18670	190	650	83.2	84.2	26147	8200	2525
11	SR-60	Miliken Ave to SR-15	Hard	100	65	65	65	13195	110	440	81.6	82.6	18190	5684	1729
12	SR-60	I-15 to Etiwanda Ave	Hard	100	65	65	65	13485	100	405	81.6	82.6	18171	5678	1727
13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	Hard	100	65	65	65	13560	105	430	81.7	82.7	18480	5775	1758
14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	Hard	100	65	65	65	11945	135	515	81.5	82.5	17570	5488	1667
15	SR-60	Pedley Rd to Pyrite St	Hard	100	65	65	65	12335	135	515	81.6	82.6	17989	5620	1709
16	SR-60	Pyrite St to Valley Way	Hard	100	65	65	65	12815	135	515	81.7	82.7	18506	5784	1761
17	SR-60	Valley Way to Rubidoux Blvd	Hard	100	65	65	65	15055	110	450	82.1	83.1	20274	6343	1937
18	SR-60	Rubidoux Blvd to Market St	Hard	100	65	65	65	15585	95	405	82.1	83.1	20410	6386	1951
19	SR-60	Market St to Main St	Hard	100	65	65	65	16780	150	495	82.6	83.6	22665	7099	2177
20	SR-60	Main St to SR-91	Hard	100	65	65	65	16940	150	495	82.6	83.6	22837	7153	2194
21	SR-60	SR-91 to W Blaine St/3rd St	Hard	100	65	65	65	20635	350	1135	84.2	85.2	32935	10347	3204
22	SR-60	W Blaine St/3rd St to University Ave	Hard	100	65	65	65	20005	310	1025	84.0	85.0	31182	9792	3028
23	SR-60	University Ave to Martin Luther King Blvd	Hard	100	65	65	65	20960	335	1125	84.2	85.2	33140	10412	3224
24	SR-60	Martin Luther King Blvd to Central Ave	Hard	100	65	65	65	23785	265	925	84.4	85.4	34235	10758	3334
25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	Hard	100	65	65	65	21605	315	1080	84.2	85.2	33379	10487	3248
26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	Hard	100	65	65	65	19820	185	735	83.5	84.5	28069	8808	2717
27	SR-60	I-215 to Day St	Hard	100	65	65	65	14125	165	855	82.6	83.6	22858	7160	2196
28	SR-60	Day St to Pigeon Pass Rd/Frederick St	Hard	100	65	65	65	12655	130	750	82.1	83.1	20263	6339	1936
29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	Hard	100	65	65	65	11545	125	735	81.8	82.8	18924	5916	1802
30	SR-60	Heacock St to Perris Blvd	Hard	100	65	65	65	9625	100	665	81.1	82.1	16177	5047	1528
31	SR-60	Perris Blvd to Nason St	Hard	100	65	65	65	10715	75	660	81.4	82.4	17206	5373	1631
32	SR-60	Nason St to Moreno Beach Dr	Hard	100	65	65	65	8330	90	700	80.8	81.8	15034	4686	1413
33	SR-60	Moreno Beach Dr to Redlands Blvd	Hard	100	65	65	65	7485	100	720	80.6	81.6	14332	4464	1343
34	SR-60	Redlands Blvd to Theodore St	Hard	100	65	65	65	8020	115	740	80.8	81.8	15134	4717	1423
35	SR-60	Theodore St to Gilman Springs Rd	Hard	100	65	65	65	7625	90	345	79.6	80.6	11330	3514	1043
36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	Hard	100	65	65	65	6035	80	315	78.7	79.7	9330	2882	843
37	SR-60	Jack Rabbit Trail to I-10	Hard	100	65	65	65	6485	75	310	78.9	79.9	9752	3016	885
75	SR-91	I-15 to McKinley St	Hard	100	65	65	65	19355	195	625	83.3	84.3	26696	8374	2580
76	SR-91	McKinley St to Pierce St	Hard	100	65	65	65	21730	200	640	83.7	84.7	29396	9227	2850
77	SR-91	Pierce St to Magnolia Ave	Hard	100	65	65	65	19705	205	655	83.4	84.4	27362	8584	2646

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a long straight roadway with cruise speed.
ade is less than 1.5%.
Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: World Logistics Center
Project Number: D180130
Analysis Scenario: Freeway 2040 Project Buildout
Source of Traffic Volumes:

ID	Arterial	From	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	CNEL Noise Level (dBA)	Distance, Feet 60 CNEL	Distance, Feet 65 CNEL	Distance, Feet 70 CNEL
					Auto	MT	HT	Auto	MT	HT					
78	SR-91	Magnolia Ave to La Sierra Ave	Hard	100	65	65	65	19675	180	640	83.3	84.3	27104	8503	2620
79	SR-91	La Sierra Ave to Tyler St	Hard	100	65	65	65	19130	170	605	83.2	84.2	26187	8213	2529
80	SR-91	Tyler St to Van Buren Blvd	Hard	100	65	65	65	20540	160	565	83.4	84.4	27331	8574	2643
81	SR-91	Van Buren Blvd to Adam St	Hard	100	65	65	65	18475	135	520	82.9	83.9	24635	7722	2374
82	SR-91	Adam St to Madison St	Hard	100	65	65	65	20970	210	690	83.6	84.6	29034	9113	2813
83	SR-91	Madison St to Indiana Ave (off-ramp)	Hard	100	65	65	65	20030	180	620	83.4	84.4	27320	8571	2642
84	SR-91	Arlington Ave to Central Ave	Hard	100	65	65	65	19595	170	575	83.2	84.2	26438	8292	2554
85	SR-91	Central Ave to 14th St	Hard	100	65	65	65	18660	215	680	83.2	84.2	26486	8307	2559
86	SR-91	14th St to University Ave	Hard	100	65	65	65	17010	120	425	82.5	83.5	22210	6955	2131
87	SR-91	University Ave to Spruce St (off-ramp)	Hard	100	65	65	65	24270	190	585	84.0	85.0	31631	9934	3073
101	I-10	SR-60 to Beaumont Ave	Hard	100	65	65	65	12545	140	775	82.1	83.1	20393	6380	1949
102	I-10	Beaumont Ave to Pennsylvania Ave	Hard	100	65	65	65	12345	175	965	82.4	83.4	21897	6856	2100
103	I-10	Pennsylvania Ave to Highland Springs Ave	Hard	100	65	65	65	12730	175	980	82.5	83.5	22435	7026	2154
104	I-10	Highland Springs Ave to Sunset Ave	Hard	100	65	65	65	12370	190	1025	82.5	83.5	22482	7041	2158
105	I-10	Sunset Ave to 22nd St	Hard	100	65	65	65	11630	185	1025	82.4	83.4	21666	6783	2077
106	I-10	22nd St to S 8th St	Hard	100	65	65	65	11325	180	1020	82.3	83.3	21276	6660	2038
107	I-10	S 8th St to S Hargrave St	Hard	100	65	65	65	11690	180	1040	82.4	83.4	21835	6836	2094
108	I-10	S Hargrave St to Field Rd	Hard	100	65	65	65	11305	185	1035	82.3	83.3	21399	6699	2050
109	I-10	Field Rd to Main St (Cabazon)	Hard	100	65	65	65	10520	180	1045	82.2	83.2	20618	6452	1972
110	I-10	Main St (Cabazon) to Main St	Hard	100	65	65	65	11260	145	855	82.0	83.0	19695	6160	1880
111	I-10	Main St to Haugen-Lehmann Way	Hard	100	65	65	65	10680	130	775	81.7	82.7	18346	5733	1745
112	I-10	Haugen-Lehmann Way to SR-111	Hard	100	65	65	65	11680	145	855	82.1	83.1	20147	6303	1925
113	I-10	SR-111 to Tipton Rd	Hard	100	65	65	65	9945	125	755	81.4	82.4	17369	5424	1647
114	I-10	Tipton Rd to SR-62	Hard	100	65	65	65	9955	125	795	81.5	82.5	17712	5533	1681
129	SR-60	Scott Rd to Newport Rd	Hard	100	65	65	65	6375	75	110	78.1	79.1	7974	2453	707
130	SR-60	Newport Rd to MacCall Blvd	Hard	100	65	65	65	6460	85	110	78.1	79.1	8106	2495	721
131	SR-60	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7080	90	125	78.6	79.6	8918	2752	802
132	SR-215	Scott Rd to Newport Rd	Hard	100	65	65	65	8390	100	145	79.3	80.3	10534	3263	963
133	SR-215	Newport Rd to MacCall Blvd	Hard	100	65	65	65	9590	165	260	80.2	81.2	13043	4056	1214
167	SR-215	MacCall Blvd to Ethanac Rd	Hard	100	65	65	65	7735	115	185	79.1	80.1	10222	3164	932
168	SR-215	Ethanac Rd to SR-74/Case	Hard	100	65	65	65	9215	130	200	79.8	80.8	11999	3726	1110
169	SR-215	SR-74/Case Rd to Redlands Blvd	Hard	100	65	65	65	12070	175	285	81.1	82.1	15958	4978	1506
171	SR-215	Redlands Blvd to D St	Hard	100	65	65	65	14590	175	300	81.8	82.8	18793	5875	1789
172	SR-215	D St to Nuevo St/Harvil Ave	Hard	100	65	65	65	15215	220	405	82.1	83.1	20519	6420	1962
173	SR-215	Nuevo St/Harvil Ave to Ramona Expy/Cajalco Expy	Hard	100	65	65	65	14420	165	305	81.7	82.7	18611	5817	1771
174	SR-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	Hard	100	65	65	65	15295	200	390	82.1	83.1	20400	6383	1950
175	SR-215	Harley Knox Blvd to Van Buren Blvd	Hard	100	65	65	65	14640	190	400	82.0	83.0	19738	6173	1884
176	SR-215	Van Buren Blvd to Cactus Ave	Hard	100	65	65	65	15715	200	445	82.3	83.3	21308	6670	2041
134	SR-215	Cactus Ave to Alessandro Blvd	Hard	100	65	65	65	15085	315	640	82.6	83.6	22716	7115	2182
135	SR-215	Alessandro Blvd to Eucalyptus Ave	Hard	100	65	65	65	18000	255	525	82.9	83.9	24653	7728	2375

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					Auto	MT	HT	Auto	MT	HT					
136	SR-215	Center St to Iowa Ave/La Cadena Dr	Hard	100	65	65	65	17940	200	410	82.7	83.7	23411	7335	2251
137	SR-215	Iowa Ave/La Cadena Dr to Barton Rd	Hard	100	65	65	65	17295	165	340	82.4	83.4	21994	6887	2109
138	SR-215	Barton Rd to Mt Vernon Ave/Washington St	Hard	100	65	65	65	16880	185	380	82.4	83.4	21961	6876	2106
139	SR-215	Mt Vernon Ave/Washington St to I-10	Hard	100	65	65	65	17365	245	470	82.7	83.7	23473	7354	2257
140	SR-215	I-10 to Auto Plaza Dr/Orange Show Rd	Hard	100	65	65	65	20465	215	435	83.2	84.2	26395	8278	2550
141	SR-215	Auto Plaza Dr/Orange Show Rd to Mill St	Hard	100	65	65	65	19340	150	305	82.8	83.8	23842	7471	2294
142	SR-215	Mill St to 2rd St	Hard	100	65	65	65	23605	215	435	83.8	84.8	29772	9346	2887
143	SR-215	2rd St to Baseline Rd	Hard	100	65	65	65	17935	130	270	82.4	83.4	21959	6876	2106
144	SR-215	Baseline Rd to Highland Ave/SR-210	Hard	100	65	65	65	13045	90	225	81.1	82.1	16164	5043	1526

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igure 2-19, on page 2-58 Caltran's TeNS 2013.

APPENDIX E

Renewable Energy Technical Report (New)

HIGHLAND FAIRVIEW

WORLD LOGISTICS CENTER

COMPARISON OF RENEWABLE ENERGY TECHNOLOGIES

MAY 24, 2018

WORLD LOGISTICS CENTER

COMPARISON OF RENEWABLE ENERGY TECHNOLOGIES

TECHNICAL REPORT (5TH DRAFT)

PROJECT NO.: 12877B
DATE: MAY 2018

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4840 PEARL EAST CIRCLE
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PRODUCTION TEAM

CLIENT

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WSP

Project Manager	Basem Muallem
Deputy Project Manager	Chris Turnage
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Deputy Technical Director	Alan Davis
Lead Energy Analyst	Derek Fehrer
Supporting Energy Analyst	John Bynum
Supporting Energy Analyst	Taylor Burdge

OTHER CONSULTANTS

Lead Air Quality Analyst	Heidi Rous, Environmental Science Associates
Supporting Air Quality Analyst	Jeff Caton, Environmental Science Associates

EXECUTIVE SUMMARY

OVERVIEW

At the request of Highland Fairview, WSP has conducted a comparison of renewable energy technologies and energy efficiency strategies which could be incorporated into the World Logistics Center (WLC) project (“Project”) to reduce its energy use and energy-related environmental impacts.

The Project is a 40.6 million square foot logistics campus on the eastern side of the City of Moreno Valley. For the purposes of this analysis the project is assumed to be developed in two phases. Phase 1 consists of 15 buildings totaling 22,560,000 sf and is assumed to be completed in the year 2025. Phase 2 consists of 12 buildings totaling 18,040,000 sf and is assumed to be completed in 2040.

WSP’s approach involved first estimating the Project’s overall energy needs. This is known as the “Demand-Side Energy Analysis.” WSP then identified specific ways that these energy needs could be reduced through the incorporation of a variety of energy efficiency technologies into the project design. Once the Demand-Side Energy Analysis was complete, WSP evaluated various means for supplying renewable clean energy to meet the reduced energy needs. This is known as the “Supply-Side Energy Analysis”.

DEMAND-SIDE ENERGY ANALYSIS

The demand-side energy analysis was conducted using the IES hourly energy simulation software. To utilize the software, an accurate model of a typical Project building was developed, which included the details of a typical building such as the type of building construction material (concrete, wood, or metal), the amount of heating, ventilation and air-conditioning (HVAC) equipment, the type and extent of interior lighting, and the type and extent of material-handling equipment that would go into a typical WLC building. This established a prototype building that would be minimally compliant with the State of California’s Title 24 building code requirements.
The Title 24-compliant prototype was then modified to incorporate the energy conservation measures (ECMs) to which the Project has committed in the WLC Specific Plan. The adjusted model represented the baseline model against which the energy performance of several additional ECMs were compared, creating a Project Building Model that took the Project well beyond Title 24 compliance.

The Demand-Side Analysis showed the package of ECMs in the Project Building Model provided a 17% improvement in energy performance and an equally impressive 18% reduction in GHG emissions over the baseline model. Key ECMs assumed in the Project Building Model were variable refrigerant flow (VRF) heat pumps providing heating and cooling to the office spaces, direct evaporative cooling as the first cooling stage and VRF as the supplemental cooling stage for any potential air-conditioned warehouse spaces, LED lighting throughout the offices and warehouses, and LED exterior and parking lot lighting.

The estimated overall energy demand for the Project assumes that all WLC buildings will incorporate the features of the Project Building Model, and will also accommodate electric vehicle (EV) energy usage at WLC, as discussed herein. While EV usage is expected to increase substantially over time, EV energy usage was not included in the

Demand-Side Analysis to highlight the effectiveness of the ECM's, which do not have any effect or offer any benefits regarding EV energy usage. A Summary of the Overall Energy Analysis Results with EV usage included is below.

SUPPLY-SIDE ENERGY ANALYSIS

The Project Building Model incorporating the recommended ECMs provided the analytical baseline against which potential renewable clean energy options were measured. WSP evaluated the Project site, its land uses, the circulation plan and existing utilities, along with other constraints and opportunities, to compile a comprehensive list of potential energy supply options. A screening process was applied to narrow the comprehensive list down to those several options that held the greatest potential for being successfully implemented at the Project. Screening criteria that caused some of the energy supply options to be discarded involved safety considerations, regulatory barriers, air emissions concerns, and technical impracticalities. The following table summarizes the Energy Resources considered.

Energy Resources Screening Results

Supply Option	Screening Criteria				
	Carbon	Resiliency	Financial	Technical	Regulatory
Recommended for further investigation:					
Combined Cooling, Heat and Power (CCHP)	—	✓	✓	✓	—
Ground Source Heat Pump (GSHP)	✓	—	—	—	✓
Solar photovoltaic (PV)	✓	—	—	✓	✓
Solar PV + battery	✓	✓	—	✓	✓
Off-site procurement	—	—	✓	✓	—
Not recommended for further investigation:					
Biomass	✓	✓	—	✗	✗
Biogas/landfill gas	✓	✓	—	✗	—
District energy	✓	✓	✗	✗	—
In-line hydro	✓	✓	—	✗	—
Microgrid	✓	✓	✗	✓	✗
Natural gas pressure recovery	✓	✓	—	✗	—
Wind	✓	—	—	✗	✗

The energy supply options emerging from the screening process were then subjected to engineering analysis to develop a technical basis for identifying the single best supply-side option for use at the WLC project. Ground-source heat pumps (GSHPs); combined cooling, heat, and power (CCHP); and solar photovoltaics (PV) with and without battery storage were modeled with the HOMER Energy simulation tool and other specialized software. Purchasing of green power (offsite procurement) from renewable energy projects located away from the WLC site was also considered among the sustainable energy options.

SUPPLY-SIDE CONCLUSIONS

WSP concluded in its analysis that GSHPs are not recommended for the Project due to the cooling requirements within the building being much greater than the building heating needs as a result of year-round weather conditions at the WLC site. Such an imbalance would cause the geoexchange field (where excess heat removed from the building by the cooling process is transferred via piping into the ground) to grow increasingly warmer over time. This, in turn, would degrade GSHP performance in providing building space cooling.

CCHP produces air emissions, resulting from the combustion of fossil fuels, that exacerbate the poor air quality of Moreno Valley and the entire South Coast Air Quality Basin. Furthermore, CCHP increases the Project's GHG emissions since it produces more GHG emissions than California's increasingly green grid.

Moreno Valley Utilities (MVU) is the utility provider for the Project and while solar PV is a viable option, MVU has limitations in its Electric Service Rules on the amount of PV allowed for commercial and industrial projects. A system that combines PV with battery storage of excess solar generation was considered, but the MVU solar sizing limitations and the estimated WLC Project demands do not result in excess solar generation to charge a battery. In addition, MVU's Time-of-Use rate structure is not compatible with the Project's peak electrical usage (load curve) making the use of batteries to deliver any meaningful reduction an unviable option.

Considering the air emissions constraints, MVU rate structures, Project electric load curves, and MVU PV sizing rules, rooftop PV systems without energy storage were determined to be the Project's best sustainable clean energy supply option. To determine the specific allowable PV size, WSP analyzed the hourly electric loads simulated using the IES modeling software. Phase 1 building simulation produced a minimum daytime electric load of about 600 kW. The minimum daytime electric load for Phase 2 buildings was simulated to be about 1,600 kW. Thus, since MVU limits on-site PV size to one-half the minimum electric demand a building experiences during daytime hours, Phase 1 buildings can provide up to 300 kW of PV (one-half the 600 kW minimum daytime electric load) and Phase 2 buildings can provide up to 800 kW (one-half the 1,600 kW minimum daytime electric load). The combination of the recommended ECM package and allowed rooftop solar enables the Project to meet more than 50% of its annual energy requirements from renewable energy.

Utilizing the maximum permitted amount of rooftop PV would enable the Project office spaces to achieve effectively net-zero energy (NZE) operations. In Phase 1 this would amount to the equivalent of fifteen 60,000 square-foot NZE office buildings. At full build-out this would amount to the equivalent of twenty-seven 60,000 square-foot NZE office buildings. To put this in context, the entire state of California has about 30 NZE office buildings in operation, under construction, or publicly committed as of 2016.

WSP's IES computer model of the Project buildings established the following annual energy usage of the office spaces for each building and the PV generation for each building as follows. Note that advances over time in energy efficiency technologies are assumed to result in less energy usage by Phase 2 offices:

Office Demand and PV Generation per Building

Description	Phase 1		Phase 2	
	Annual Energy Use (kWh/yr)	Peak Demand (kW)	Annual Energy (kWh/yr)	Peak Demand (kW)
Office-only energy usage per building	474,120	280	417,230	270
PV generation per building	512,400	300	1,366,400	800
Total project office energy usage	7,111,800	4,200	5,006,707	3,240
Total project PV generation	7,686,000	4,500	16,396,800	9,600

As shown in the table above, the use of PV in each phase would cover both the peak electric load generated by the offices and the annual energy usage of the offices, thereby achieving effective NZE status for the offices. Due to the highly speculative nature of the EV penetration in Phase 2, project mitigation measures require the project to upgrade the structural integrity of the roof on each building to accommodate the possibility of future solar installation over the entire roof. At a minimum, the project will install enough solar power in both phases to meet energy needs of the Project's office spaces.

ELECTRIC VEHICLE CHARGING LOADS

The use of electric vehicles (EVs) by the motoring public and in industry is projected to increase substantially over the period of Project build-out. Title 24 currently requires 6% of on-site parking spaces be designed to accommodate EV charging of passenger and light-duty truck vehicle classes. These minimum Title 24 requirements were applied to estimate the additional Phase 1 electricity usage at the Project attributable to EV charging. Because Phase 2 build-out concludes in 2040, EV charging energy usage is highly speculative, but the Project analysis assumed EV projections consistent with California policy trends.

The projected EV electric needs are significant for Phase 1 of the Project, amounting to about 6% of the total energy usage. At full build-out of the Project, projected EV impact is substantial, accounting for more than one-third of total energy usage by the WLC project. The incremental EV charging needs determine the overall minimum daytime electric load on each building. This, in turn, defines MVU's allowable amount of PV on each building's roof, establishing 300 kW as the expected maximum amount of allowed PV on each Phase 1 building, and accounting for the increase to a maximum of 800 kW of PV expected to be allowed on each Phase 2 building.

OVERALL PROJECT ELECTRICITY NEEDS

The combination of the electricity consumed by the buildings and that used by on-site EV chargers will result in a significant new load to be met by MVU's system. The table below summarizes the megawatts of peak electric demand projected to be associated with each phase of WLC development.

Peak Electric Demand for WLC Development

Stage	Number of Buildings	Total Peak Demand (MW)
Phase 1	15	36.5
Full Build	27	83.3

SUMMARY OF ENERGY ANALYSIS RESULTS

A summary of the projected energy performance of the Project is presented in the following tables. Phase 1 results are multiplied by the 15 buildings that are planned for the initial phase of construction. Build-out results are multiplied by 27 buildings in the total Project (15 buildings in Phase 1 plus 12 buildings in Phase 2). The first table summarizes the impact of the recommended ECM package, relative to buildings that are minimally compliant with Title 24. Note that these figures *do not include EV electricity usage or PV generation* in order to paint a clear picture of the efficacy of the recommended ECM package. The results demonstrate that the recommended ECMs are expected to deliver energy savings of 16 – 17%.

Energy Efficiency Performance for WLC Development

Stage	Energy Savings (MWh/yr)	Energy Savings (%)	GHG Savings (tonnes CO_2e/yr)	GHG Savings (%)	Renewable Energy Supply (%)*
Phase 1	34,892	16.7%	6,019	10%	49%
Full Build	57,449	16.2%	9,085	18%	55%

The second table summarizes the impact of the allowed PV capacities, relative to buildings incorporating the recommended ECM package. Note that these figures *include EV electricity usage* in order to paint a clear picture of the efficacy of on-site electricity generation via PV. This explains the much smaller values for energy savings and GHG savings.

Solar PV Performance for WLC Development

Stage	Energy Savings (MWh/yr)	Energy Savings (%)	GHG Savings (tonnesCO2e/yr)	GHG Savings (%)	Renewable Energy Supply (%)*
Phase 1	7,686	4%	1,276	4%	51%
Full Build	24,083	5%	3,386	5%	57%

*Renewable energy fraction takes account of renewables on the California grid

The bar chart below graphically presents the projected energy usage and GHG emissions for the entire Project at the end of Phase 1 and the end of Phase 2. The business-as-usual (BAU) bar reflects minimal compliance with Title 24;

the middle bar represents the recommended ECM package; and the third bar shows the combination of the ECM package and allowable PV.

Phase 1 and Full Build-Out Energy and GHG Results

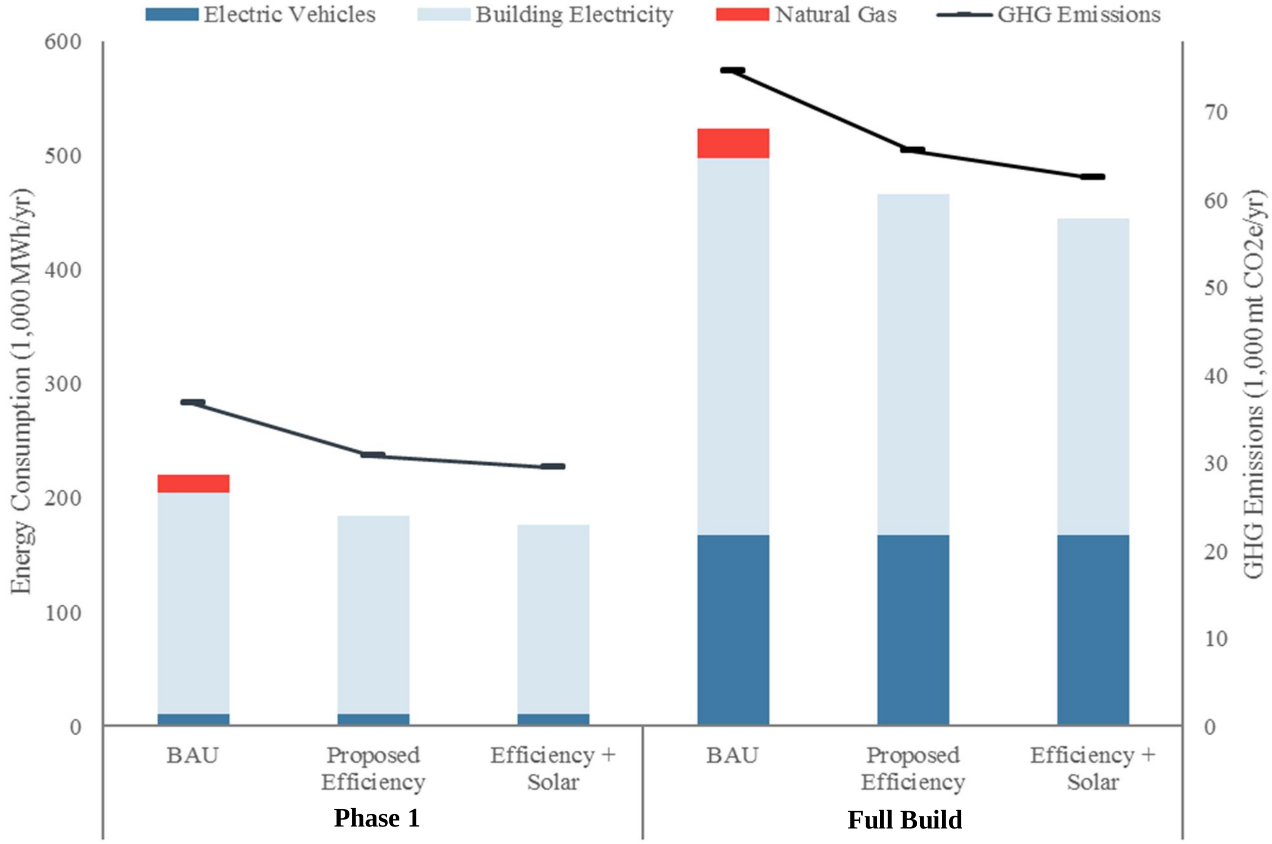

OFF-SITE RENEWABLE ENERGY PROCUREMENT

Under current regulations, WLC tenants will be able to purchase electricity only from MVU. In the interest of completeness of the discussion on the topic of renewable energy, we herein describe multiple off-site renewable electricity procurement methods that are available in many other electric utility service territories. These include:

- Unbundled renewable energy certificates (RECs);
- Power purchase agreements (PPAs);
- Community choice aggregation (CCA);
- Green tariffs.

There is no one-size-fits-all recommendation for procurement of off-site renewable energy. Each customer's circumstances are likely to be unique, so the best off-site procurement option for one may very well not be the best option for another.

To meet the Project Objectives and the City's Economic Development Objectives (see Section 3.6 of the Project Final EIR and Section 1.3.1 of the WLC Specific Plan), WLC must establish and maintain a competitive position in meeting these objectives. The price premium associated with off-site renewable energy procurement would increase

WLC tenant utility costs and thus run counter to the Project Objectives and the City's Economic Development Objectives. Even if regulations allowed it, it would be counterproductive to require WLC tenants to procure renewable energy from off-site sources. For these reasons, the concept of requiring a tenant to procure off-site renewable energy was not considered a viable sustainable supply option to impose on the Project. Should electricity regulations change in the future to allow procurement of off-site renewable energy, and should WLC tenants elect for corporate, marketing, or other reasons to pursue procurement of off-site renewable energy, the means of doing so via one of the means presented in this report may become available to them.

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1 INTRODUCTION

1.1 AUTHORIZATION

WSP has been engaged to undertake an analysis of feasible renewable energy technologies that make sense for the World Logistics Center (WLC).

1.2 PURPOSE

The objective of this analysis is to identify potential renewable energy options for the WLC that will improve energy performance and reduce greenhouse gas (GHG) emissions of the WLC. The analysis considers Phase 1 and Phase 2 of the WLC. This document reports on analytical outcomes including:

- High level screening of all potential demand-side options to maximize the energy efficiency of the buildings and therefore minimize WLC energy consumption,
- High level screening of all potential supply-side options to deliver sustainable energy to the buildings,
- More detailed analysis of the options that show the best potential.

Evaluations considered the financial, energy, carbon, and technical feasibility of each option. Obviously infeasible options were screened out, including any supply-side options involving combustion of fossil fuels, due to Moreno Valley and the entire South Coast Air Quality Basin being out of compliance for NO_x and other air pollutants. This analysis includes electricity consumption of mobile energy end uses, including electric forklifts used in future WLC warehouses and electric passenger vehicles and electric light-duty trucks expected to be charged in future WLC parking lots.

2 BACKGROUND

2.1 WORLD LOGISTICS CENTER

The World Logistics Center (WLC) is a master-planned development encompassing 2,610 acres in Moreno Valley California, as shown in Figure 1. At full build-out the development will include up to 40.6 million square feet of building area. The vision for the World Logistics Center is to establish a world class corporate park specifically designed to support large-scale logistics operations.

Figure 1: WLC Map

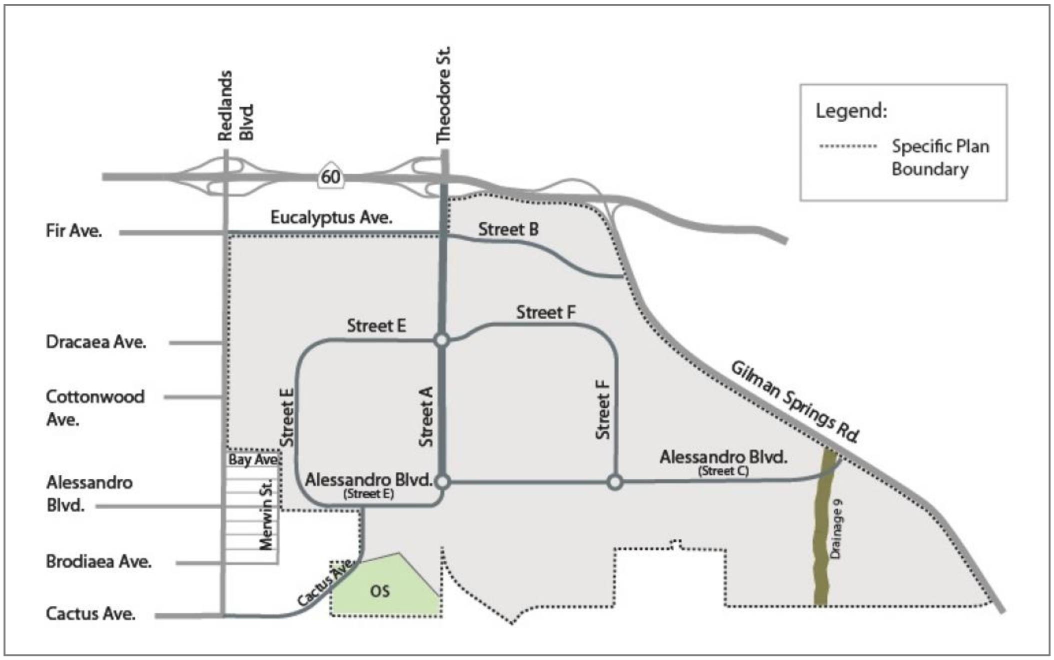

WSP has undertaken an energy analysis the results of which are presented in this report. This report is intended to guide development of an updated EIR and help determine the best path forward to incorporate renewable energy into the development.

2.2 ENERGY CONTEXT

2.2.1 ELECTRIC UTILITIES

Moreno Valley Electric Utility (MVU) is expected to provide electric services to the WLC. A report developed by Utility Specialists determined that MVU will need to construct additional substation capacity beyond already planned expansions to meet the electric needs of the WLC. Therefore, reducing peak electricity demand from the WLC can also reduce the additional substation capacity required to serve the WLC.

Tenants of the WLC will contract for utility services directly with MVU. The rate structure for each account is determined by the monthly maximum demand. WSP expects that all proposed buildings in the WLC will exceed the 20 kW demand threshold specified by MVU and will therefore be subject to *Schedule C – Large General Service*. Tenants will also be eligible for *Schedule TOU-LGS – Time of Use – Large General Service* rates. However, analysis using energy models and

15-minute interval consumption data from five existing logistics buildings in the MVU service territory determined that a time-of-use rate is not advantageous to the customer. Therefore, the WSP analysis was conducted with the assumption that tenants at the WLC will be subject to the rates specified in *Schedule C – Large General Service* for primary voltage customers. The rate structure is such that customers can decrease their energy costs by reducing monthly peak electricity demand, reducing electricity consumption, or improving the power factor of their facility. Analysis of the renewable energy options within this report considers the impact of reducing monthly peak electricity demand and reducing electricity consumption.

MVU offers a solar net energy metering program to its customers. A successor rate to net energy metering, NEM 2.0, was adopted by the City Council on April 17, 2018. Under this new rate, customers will be paid for any excess generation at the end of each billing period, and will receive a dollar-denominated credit on their bill. However, based on conversation with MVU, WSP expects that this program will not be available to the WLC because of the expected size of each of the warehouses at the development. Furthermore, MVU imposes limits on the capacity of on-site solar PV generation that can be installed by their customers. Per *Resolution No. 2017-20* the “maximum solar generating capacity that will be approved to be connected to each meter is up to 50% of the meter minimum daytime load.” This dramatically limits the amount of on-site solar generation that can be installed at WLC buildings.

2.2.2 NATURAL GAS UTILITIES

Southern California Gas Company (SCG) provides natural gas services in the WLC area for space heating and service water in the business-as-usual scenario. It is assumed that the tenants of the WLC will contract for natural gas services directly with SCG and be subject to the *GN-10* rates. A new natural gas distribution network at the site is required to provide natural gas services to individual buildings. In an all-electric scenario where WLC buildings do not consume natural gas, there is no need for a natural gas distribution network and capital cost savings can be realized.

2.2.3 GHG EMISSIONS

Electricity emissions factors for both Phase 1 and Phase 2 were calculated using 2016 eGRID factors for California-Mexico Power Area (CAMX) and changes in the energy resource mix projected by U.S. Energy Information Administration (EIA). As discussed in Appendix A: Current and Future Energy Context, the EIA projects that the California grid’s emission factor will decline 31% from current levels by 2025 and 41% by 2040.

For natural gas, an emissions factor of 117 lb CO_2e/MMBTU (pounds of CO_2-equivalent per million BTU) was used to calculated GHG emissions per guidance from EPA’s mandatory reporting rule. This emissions factor was held constant for both Phase 1 and Phase 2.

Table 1: GHG emissions factors

Phasing	Grid Electricity (lb CO_2e /MWh)	Natural Gas (lb CO_2e /MMBTU)
Phase 1 (2025)	366	117
Phase 2 (2040)	310	117

2.2.4 CRITERIA POLLUTANTS

The Moreno Valley air shed within the South Coast Air Quality Management District (SCAQMD) currently exceeds allowable NO_x limits by a factor of three. Consequently, distributed energy resources that emit NO_x were excluded from further analysis.

3 BASELINE PERFORMANCE

3.1 PROJECT PHASING

The WLC project will be built out over a 20-year period. For purposes of this analysis, it was assumed that there will be a total of 27 distribution centers, each of approximately 1.5 M ft^2, planned for construction completion by 2040. Fifteen of the 27 buildings will be built during Phase 1 (2020-2025) with the remaining 12 buildings being constructed during Phase 2 (2025 – 2040). When complete, WLC will total approximately 40.6 M ft^2 of floor area.

Based on the distribution centers that currently exist within the MVU service territory, this analysis assumes that about 11% of the WLC buildings will feature air-conditioned warehouses. No refrigerated warehouses were included.

The complete phasing schedule is detailed in Table 2.

Table 2: WLC phasing schedule

		Unconditioned	Air-Conditioned	Total
Phase 1 **2020 - 2025**	**Number of Buildings**	13	2	15
	Floor Area (ft^2)	19.55 M	3.01 M	22.56 M
Phase 2 **2025 - 2040**	**Number of Buildings**	11	1	12
	Floor Area (ft^2)	16.54 M	1.5 M	18.04 M
Full Buildout	**Number of Buildings**	24	3	27
	Floor Area (ft^2)	36.09 M	4.51 M	40.6 M

3.2 PROTOTYPE BUILDINGS

WSP developed Title 24-compliant energy models for air-conditioned and unconditioned prototype buildings. Each model contains details about building construction; lighting systems and controls; heating, ventilating, and air-conditioning (HVAC) systems and controls; and office equipment. The prototype buildings were created based on the building space usages, floor areas, and operating schedules specified in Table 3.

Table 3: Prototype building characteristics

Primary Usage	Area Breakdown		Operating Schedule		
	Area (ft^2)	Percent	Weekdays	Saturday	Sunday/Holiday
Office	60,144	4%	8:00 AM – 6:00 PM	Not Operational	Not Operational
Warehouse	1,443,556	96%	8:00 AM – 12:00 AM	8:00 AM – 4:00 PM	Not Operational
Whole Building	**1,503,700**	**100%**			

As-built construction drawings and actual metered electricity usage data for the existing Skechers building and a sample of other distribution center buildings in the MVU territory were used to estimate the process loads (such as electric forklifts and conveyance systems) within the warehouses. The process loads were extracted from hourly metered data by subtracting the lighting and HVAC loads produced by the baseline building energy models. The resulting estimate of process equipment electricity usage was spot-checked against actual metered data collected by MVU on select Skechers forklift battery chargers and conveyance motors. This estimated process load data was adjusted to account for WLC's projected operating schedule and then used as inputs to the prototype models.

The air-conditioned and unconditioned prototype models were then driven with Moreno Valley long-term average weather data to produce the baseline annual hourly building energy loads against which the energy demand-side options and the energy supply-side options were evaluated (see Sections 4 and 5).

Figure 2 details monthly energy consumption for both the air-conditioned and unconditioned warehouses. Lighting and equipment is responsible for most of the energy consumption, even in the air-conditioned warehouses. Energy usage in the air-conditioned warehouses is highest during the winter months with natural gas representing 30% of the monthly energy consumption. In contrast, the unconditioned warehouse shows little seasonal variation. *Note that the Title 24-compliant buildings use natural gas for space heating and for domestic hot water.*

Figure 2: Baseline monthly energy consumption

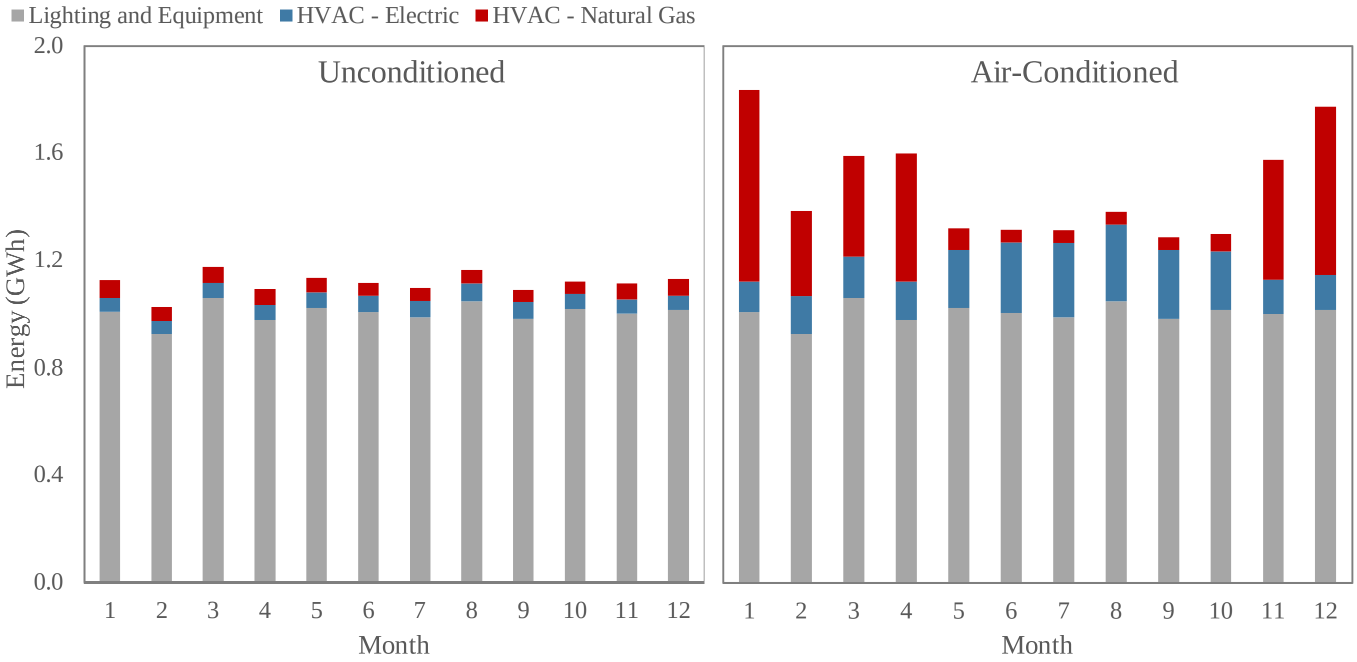

Figure 3 details an average weekday electric load profile projected for the Phase 1 unconditioned and air-conditioned WLC buildings during the summer and winter. As anticipated, the warehouse's operating schedule determines the shape of the load profiles. Demand quickly ramps up during the start of the 8:00 AM shifts and then remains relatively flat for the rest of the day. There is a small dip around 6:00 PM when the office schedule ends but the major drop happens at 12:00 AM when the warehouse shift ends. The need for air conditioning adds to the air-conditioned warehouse demand during the summer while there is little difference between the unconditioned and air-conditioned warehouses during the winter.

Figure 3: Average weekday electric load profiles for Phase 1 buildings

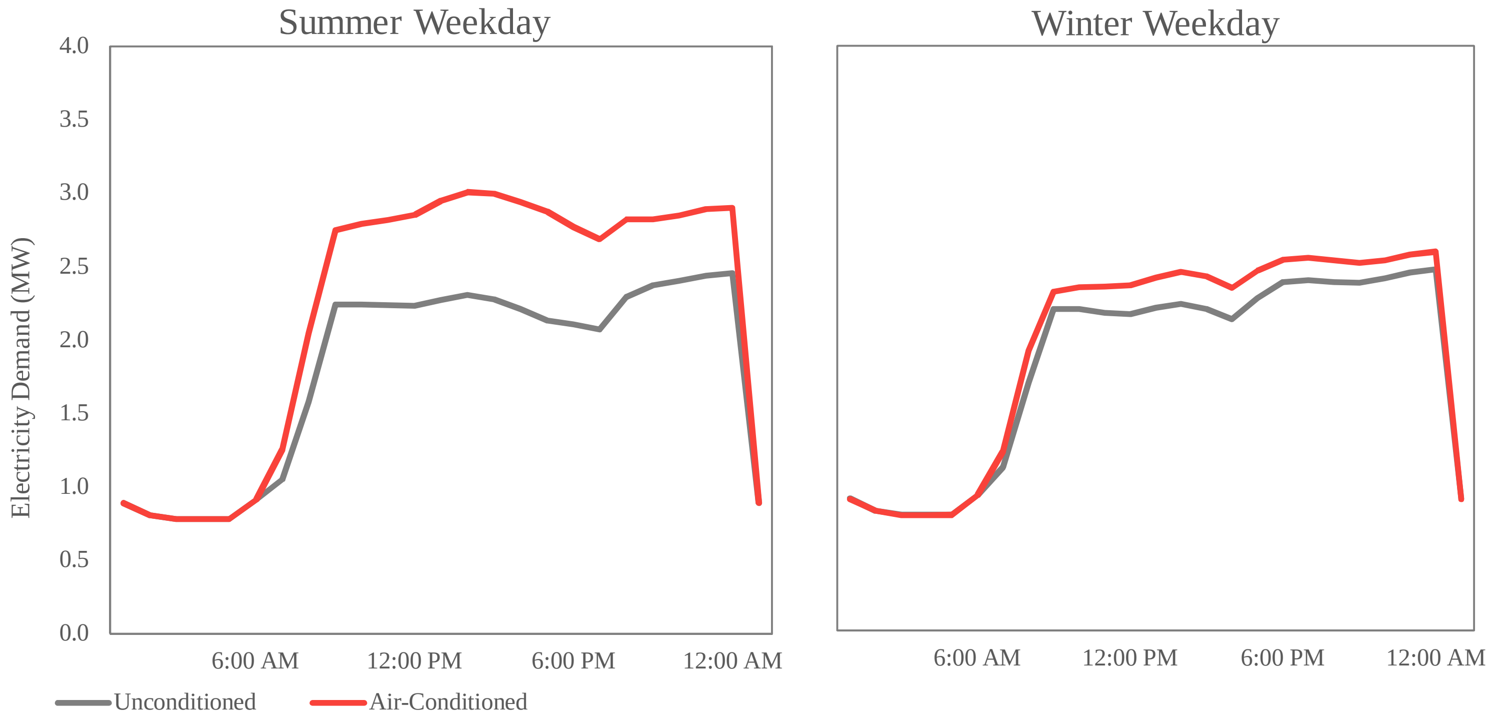

The peak electric demand for each of the 13 Phase 1 buildings with an unconditioned warehouse is projected to be about 2.1 MW, including estimated EV charging loads. The peak for each of the two Phase 1 buildings with air-conditioned warehouses is projected to be about 4.1 MW. Total aggregated peak demand at the end of Phase 1 construction is projected to be approximately 34.9 MW across 13 buildings with unconditioned warehouses and two buildings with air-conditioned warehouses. *Note that these are peak demand values as opposed to the average demand values depicted in Figure 3.*

For Phase 2, the peak electric demand for each of the 11 Phase 2 buildings with an unconditioned warehouse is projected to be about 3.7 MW, including the substantially greater EV charging loads that are projected for the 2025 – 2040 Phase 2 period. The peak for the one Phase 2 building with an air-conditioned warehouse is projected to be about 5.4 MW. Total aggregated peak demand at full build-out is projected to be approximately 58.2 MW across 24 buildings with unconditioned warehouses and three buildings with air-conditioned warehouses.

3.3 ELECTRIC VEHICLES

In addition to building energy consumption, electric vehicles are expected to contribute significantly to the electricity demand and consumption at the WLC. For this analysis, electric vehicle (EV) demand and consumption were calculated based on Title 24 code requirements, vehicle traffic, battery sizes, and anticipated charging requirements. Only passenger EVs and light-duty truck EVs were considered. No medium-duty or heavy-duty trucks were included since current code is silent on these vehicle classes. The resulting hourly data was then added to the building model outputs to create combined load profiles.

Peak EV charging rate was estimated by allocating the annual electricity consumption of EVs – the average daily consumption multiplied by 365 – on an hourly basis per the building operating schedules. Specifically, EV charging was assumed to follow the same hourly schedule as that of the building interior lighting and process loads. Logically, when the lights are on and the process equipment is operating, staff are on duty and the vehicles that brought them to the building are parked in the parking lot. The annual EV electricity usage was allocated across each week day and each weekend day such that the hourly EV load shape tracked the lighting and process load shape all year long.

The resulting peak electric load imposed by EV charging is about 25% of the aggregate nameplate capacity of all charging stations. This result is in line with industry expectations that charging blocks managed with automated 'smart' controls will reduce the coincident peak demand to 20-25% of the aggregate capacity of the individual charging stations. So for example, when all charging stations of a 100 kW-rated charging block are plugged into EVs, the block is expected to experience a maximum power draw of only about 25 kW at any point in time.

The incremental EV charging loads projected for WLC determine the peak and the minimum daytime electric loads on each building. The daytime minimum defines the maximum amount of PV that MVU's rules allow on each building's roof. See Section 5.4 for details.

3.4 BASELINE ENERGY PERFORMANCE

Because of the anticipated improvements in building energy performance and the expected rise of electric vehicles, Phase 2 models were adjusted to 2040 conditions. The electric vehicle load is expected to increase 20-fold during Phase 2 while the average Title 24-compliant building energy consumption is expected to decrease by about 13% in Phase 2. The breakdown of energy usage intensity (kWh/ft^2-yr) is shown in Table 4 for Phase 1 and Phase 2 buildings with unconditioned and air-conditioned warehouses.

Table 4: Breakdown of energy usage intensity (kWh/ft^2-yr) for Title 24-compliant buildings

End Use	Phase 1		Phase 2	
	Unconditioned	Air-Conditioned	Unconditioned	Air-Conditioned
Equipment and Lighting	8.02	8.02	7.08	7.08
HVAC	0.88	3.73	0.81	3.43
Building Total	8.90	11.75	7.88	10.51
Electric Vehicles	0.48	0.48	9.66	9.66
TOTAL	**9.38**	**12.23**	**17.55**	**20.17**

3.5 WLC ENERGY PROJECTIONS

Based on the results of the energy modeling and electric vehicle load definitions, the Title 24-compliant annual energy consumption and GHG emissions profile shown in the following figure were derived for the WLC over the buildout of the project. This projection considers expected changes to California's electric grid (ever-increasing amounts of renewable electricity in the mix) as well as the estimated increased penetration of passenger EVs and light-duty truck EVs at WLC in future years.

Figure 4: Projected Title 24-compliant annual energy consumption and GHG emissions of WLC over build-out period

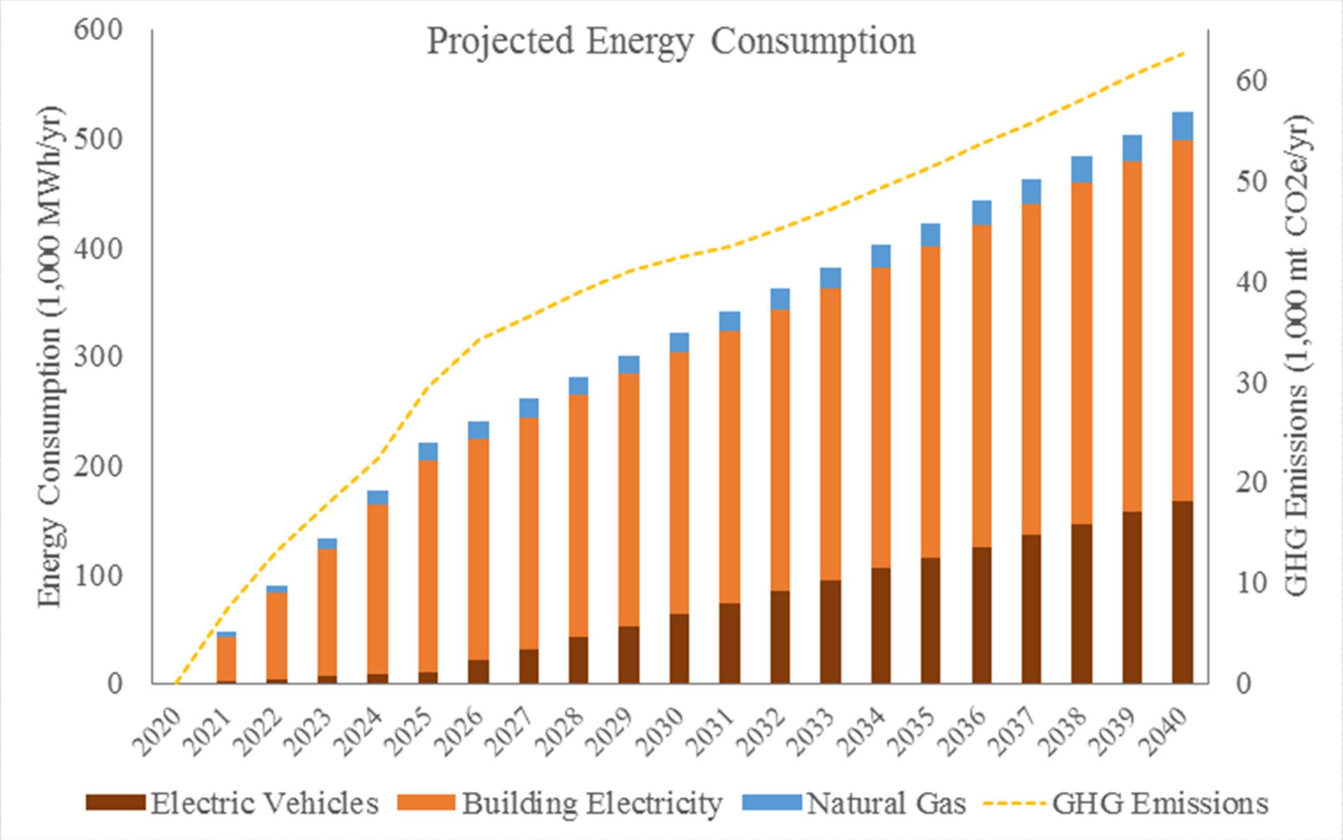

4 DEMAND-SIDE ENERGY ANALYSIS

4.1 RECOMMENDED MEASURES

Energy efficiency is often the most cost-effective method to reduce the energy and carbon impacts of a building. Regulatory constraints limiting the capacity of on-site renewables that can be implemented at the WLC, outlined further in Section 5: Supply-Side Energy Strategy, further highlight the importance of reducing energy consumption through demand-side measures.

Using the baseline energy models discussed in Section 3: Baseline Performance, WSP evaluated a wide range of energy conservation measures (ECMs) to identify the most cost-effective set for reducing building energy consumption and related emissions beyond Title 24 energy code. The engineering analysis underpinning this proposal led WSP to reject some of the evaluated demand-side options because they are duplicative with other more advantageous options or are incompatible with the most advantageous HVAC systems. The ECMs outlined in Table 5 are the best choice for the WLC based on maximizing environmental protections in the most cost-effective manner practical.

The ECMs address internal loads, such as lighting and equipment, as well as the energy required to provide heating, cooling, and domestic hot water. While most energy consumption is due to lighting and equipment loads, there is still an opportunity to reduce the amount of energy required to provide heating and cooling for the buildings. For the office space, the recommended system is underfloor air distribution coupled with water-cooled variable refrigerant flow (VRF) technology that is served by a shared water loop. The shared water loop allows for sharing of energy among zones so that if one zone requires heating while another requires cooling, energy can be transferred between zones resulting in built-in energy recovery. If additional cooling is needed during extremely warm weather, a cooling tower provides supplemental heat rejection to the atmosphere.

Air-conditioned warehouse spaces are recommended to be served by displacement ventilation whereby conditioned air is delivered at low velocity from air diffusers near floor level. Cooling of supply air is achieved via direct evaporative cooling sections that deliver sufficiently cool air at required warehouse conditions for most hours during the typical weather year. During hours that evaporative cooling doesn’t meet the cooling load or doesn’t maintain acceptable relative humidity in the warehouse, VRF systems are utilized for supplemental space cooling. The shared water loop of the warehouse VRF systems is connected to an air-to-water heat pump to provide supplemental cooling via heat rejection to the atmosphere. When heating requirements exceed the heat recovered within the shared water loop by the VRF units, supplemental heat for the water loop is extracted from the atmosphere by the same air-to-water heat pump running in reverse.

Because all heating and cooling in the buildings is provided via direct evaporative cooling and heat pumps, natural gas is not required. This allows the WLC to eliminate on-site fossil fuel combustion that would normally be associated with service water and space heating, thereby eliminating associated air emissions. Additionally, in all-electric buildings there is not a need for natural gas distribution infrastructure. Cleaner options could be considered by WLC tenants to fuel back-up generators, including E85 (85% ethanol, 15% gasoline), biodiesel, propane, and batteries. SCAQMD discusses permitted emergency generation at http://www.aqmd.gov/home/permits/emergency-generators#Fact1.

The WLC Specific Plan has previously publicly committed to certain energy efficiency features that will appear in the WLC buildings. The ECMs in Table 5 go substantially beyond that previous commitment in terms of the features of the buildings. They individually and collectively, in addition to the HVAC systems recommended above, reduce the amount of energy consumed by the various equipment that the buildings will contain. This package of ECMs delivers energy performance that exceeds minimal compliance with current Title 24 requirements by 16-17%. Table 6 summarizes the energy performance of the ECM package.

Table 5: ECM Descriptions

Category	ECM Description	Application Area
Envelope	Optimal Choice of Vertical Fenestration Construction	All
	Optimal Choice of Skylight Construction	Warehouse
	Optimal Window to Wall Ratio	All
	Optimal Skylight to Roof Ratio	Warehouse
Exterior Loads	LED exterior lighting	All
	Daylight sensor based exterior lighting	All
Internal Equip. Loads	Automatic Receptacle Control	Office
	Highest Efficiency Office Equipment	Office
	Highest Efficiency Other Internal Loads	Office
Lighting	Multi-Level Switching	All
	High Performance Lighting (LED)	All
	Use separate controls for lighting areas near windows	All
	Occupant sensors	Office
Daylighting	High-on-wall continuous daylighting windows/clerestory windows	Warehouse
	Optimal Daylighting Control	All
	Dimming daylight controls	Office
HVAC	Thermostat setback/setup	Office
	Shut off outdoor air and exhaust air dampers during unoccupied periods	Office
	Supply air temperature reset	Office
	High Performance Fans	All
	Variable Speed Fans	Office
	High efficiency pumps	All
	Variable Speed Pump motors	All
	Reduce service water consumption	All
	Efficient service water pumping	All
	Integrated and optimized air side economizer	Office
	Direct Evaporative Cooling	Warehouse
	Variable refrigerant flow heat pump & cooling	Office
	Dedicated Outside Air System Ventilation with Heat Recovery	Office
	Demand controlled ventilation/CO_2 controls	Office

Table 6: Efficiency Scenario Performance

Stage	Energy Savings (MWh/yr)	Energy Savings (%)	GHG Savings (tonnes CO_2e/yr)	GHG Savings (%)	Renewable Energy Supply (%)*
Phase 1	34,892	16.7%	6,019	10%	49%
Full build	57,449	16.2%	9,085	18%	55%

*Renewable energy fraction takes account of renewables on the California grid

The impact of the recommended ECMs on the annual energy consumption and GHG emissions of the WLC at the end of Phase 1 is shown in Figure 5.

Figure 5: Phase 1 and Full Build-Out Energy and GHG Results

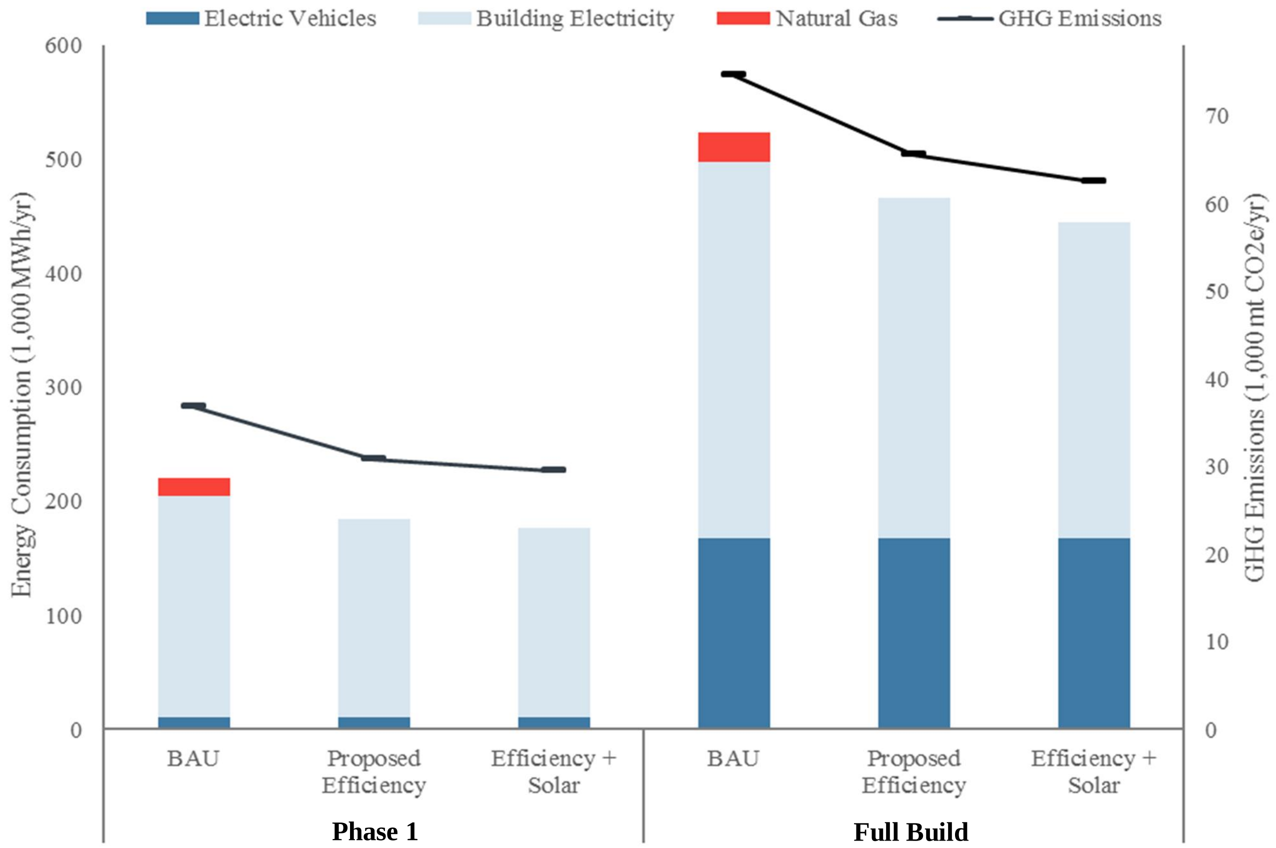

4.2 TENANT LOADS

It is unknown at this time who will be the tenants within the WLC buildings. Warehouse operations could vary widely, from relatively low-energy operations featuring high-pile goods storage and materials to relatively high-energy operations featuring highly automated facilities with extensive material handling equipment. WSP's analysis assumes the typical WLC tenant will have highly automated warehouse operations. Because the WLC developer has no direct control over warehouse equipment and operations, the ECM analysis did not consider any opportunities to reduce energy usage by warehouse equipment.

5 SUPPLY-SIDE ENERGY STRATEGY

5.1 ENERGY SUPPLY SCREENING

As a preliminary step in developing a sustainable energy strategy for WLC, WSP has undertaken a high-level screening analysis of renewable energy technologies. The purpose is to identify feasible supply options. The screening criteria used in this exercise are categorized in the matrix below as Carbon, Resiliency, Financial, Technical, and Regulatory:

Table 7: Screening Criteria Matrix

Screening Criteria	✓	✗	—
Carbon	Net carbon emissions will be reduced	Net carbon emissions will not be reduced	Effect on net carbon emissions is unclear without analysis
Resiliency	Energy resiliency will be enhanced	Energy resiliency will not be enhanced	Effect on energy resiliency is unclear without analysis
Financial	Financial performance will likely be attractive	Financial performance will likely be unattractive	Financial performance is unclear without analysis
Technical	No anticipated technical challenges	Technical challenges are expected	Existence of technical challenges is unclear without analysis
Regulatory	No anticipated regulatory challenges	Regulatory challenges are expected	Existence of regulatory challenges is unclear without analysis

Incorporating high-performance energy efficiency into the WLC is the least-cost sustainable energy resource available and, thus, should be the first step in reducing energy demand and greenhouse gas (GHG) emissions. Furthermore, improving the energy efficiency of the buildings will reduce the additional electrical distribution capacity that must be built to supply the WLC, and MVU may be able to avoid associated substation, transformer, and local distribution capital costs. WLC has committed to achieve energy efficiency 10% better than 2008 Title 24 code or the most current code at the time of construction, whichever is more efficient. Additional, cost effective efficiency improvements are possible through adoption of additional available energy efficiency opportunities identified by the Energy Demand Side Analysis task (see Section 5 of this report).

In the business-as-usual (BAU) scenario, each warehouse will be served by 12 kV service from the Moreno Valley Electric Utility (MVU). Currently the WLC developer intends to own the buildings. However, under certain circumstance, the developer may wish to sell portions of an individual building or an entire building. In any case, the developer expects that the building occupants will be responsible for paying utility bills.

The figure below shows the results of the high-level qualitative screening analysis.

Table 8: Energy Resources Screening Results

Supply Option	Screening Criteria				
	Carbon	**Resiliency**	**Financial**	**Technical**	**Regulatory**
Recommended for further investigation:					
Combined Cooling, Heat and Power (CCHP)	—	✓	✓	✓	—
Ground Source Heat Pump (GSHP)	✓	—	—	—	✓
Solar photovoltaic (PV)	✓	—	—	✓	✓
Solar PV + battery	✓	✓	—	✓	✓
Off-site procurement	—	—	✓	✓	—
Not recommended for further investigation:					
Biomass	✓	✓	—	✗	✗
Biogas/landfill gas	✓	✓	—	✗	—
District energy	✓	✓	✗	✗	—
In-line hydro	✓	✓	—	✗	—
Microgrid	✓	✓	✗	✓	✗
Natural gas pressure recovery	✓	✓	—	✗	—
Wind	✓	—	—	✗	✗

The WLC build-out cycle will occur over 20 years. The evident trends in the decreasing capital cost and the increasing efficiency over time of PV, batteries, lighting technology, and controls technology have been considered and are reflected in the analyses underpinning the comparison of renewable energy technologies.

Energy supply options that warrant further investigation are discussed in sections 5.3 – 5.6. These investigations were conducted using the HOMER energy modeling software. Several supply options were removed from consideration and are discussed briefly described below.

Biomass:

Biomass systems replace conventional fuel boilers with boilers that burn biofuels, such as agricultural residues, forest and mill residues, and urban wood waste. Biomass systems can be used to generate heat only, or, generate both heat and electricity. Because WLC is expected to have minimal heating loads, the most advantageous configuration would be to use biomass to generate electricity and potentially heat for use in an absorption chiller.

An analysis using National Renewable Energy Lab's System Advisor Model found that there are limited biomass resources available within a 50-mile radius of WLC, enough for roughly 11 MW of generating capacity, and that these resources primarily consist of urban wood waste. Due to the logistical complexity of obtaining and ensuring sufficient feedstock and concerns about criteria pollutant emissions, specifically NO_x in this SCAQMD air shed, WSP has not given biomass further consideration.

Biogas/landfill gas:

Biogas is a methane-rich gas, similar to natural gas, that can be generated from wastewater treatment plants, landfills, and anaerobic digesters. Biogas could potentially be sourced from the Badlands Landfill, which is less than a mile north of the planned site of WLC. However, the amount of gas presently being captured at the landfill is relatively small – 1.3 million cubic feet per day, which is sufficient to generate roughly 2 MW of electricity. Much of the gas is already being used to generate electricity at the Badlands Landfill[1]. Therefore, WSP has not given further consideration to the direct use of biogas.

District energy:

District energy distribution is a common approach for supplying both heating and cooling energy to universities, medical and military campuses, and urban areas. District energy can be a tool for achieving GHG and energy use reductions by serving buildings with centralized, high-efficiency equipment instead of distributed, less efficient systems. District energy systems can open the opportunity to recover heat rejection from one building to be used as a heat source in another building. Lastly, district energy systems can reduce the overall plant equipment installed in the district, since diversity (not all buildings peak at the same time) and back-up systems can be centralized.

However, the benefits mentioned above are best realized by dense development with a large building diversity, i.e. a mixture of commercial, community, residential, and retail space. In the WLC, it is expected that the buildings will have similar loads, therefore reducing the potential for capital savings to be unlocked by a district energy system's ability to exploit high demand diversity on the customer side. While there are no technical constraints to district energy, most of the warehouses are unconditioned and so the distance between air-conditioned spaces in the WLC makes the cost of installing a district energy distribution system prohibitively expensive.

In addition, SCAQMD air quality standards are greatly exceeded by current air pollution levels in the WLC air shed. District energy systems that are energized by the combustion of fuels will exacerbate the already untenable local air quality and so are not given further consideration. District energy energized by electrically driven heat pumps are discussed in Section 5.2 below.

In-line hydro:

WSP understands that a 145-inch diameter water transmission pipeline, owned by the California Aqueduct/Metropolitan Water District, crosses the project area. In-line turbines can be used to generate electricity from water flowing through transmission pipelines. While this offers the opportunity for zero-carbon electricity to be generated at WLC, the generation potential is expected to be small and complexity relatively high. Therefore, WSP did not give further consideration to in-line hydro.

Microgrid:

Microgrids are local electricity distribution systems that can be "islanded", ie, they can operate independently of the regional grid when the latter experiences a failure. The resiliency provided by microgrids can sustain operations that are mission-critical. Such resilience can also greatly benefit operations that value the ability to continue operating in the face of a grid interruption. However, electricity distribution regulations preclude delivery of electric power across public rights-of-way by any entity besides the utility. Furthermore, MVU is currently precluded from owning/operating generation assets. Finally, the extra expense of the specialized microgrid equipment causes microgrid economics to favor high-density collections of buildings, such as urban districts and campuses. The layout of WLC and MVU restrictions only accommodate small clusters of buildings, perhaps two or three buildings. At this scale, a microgrid is impractical and so WSP has not given microgrids further consideration.

Natural gas pressure recovery:

Several high-pressure natural gas pipelines cross the property. These can be used to generate electricity by dropping the high pressure in the pipes down to local distribution pressure through expansion turbines. There are strict rules and safety standards governing the natural gas transmission facilities. While this offers the opportunity for zero-carbon electricity to be

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[1] EPA's LMOP database, *Landfill- and project-level data (2018).xlsx*, February 2018.

generated at WLC, the generation potential is expected to be small and complexity relatively high. Therefore, WSP has not given further consideration to natural gas pressure recovery.

Wind:

The annual average wind speed in Moreno Valley is relatively low[2]. In addition, while utility-scale wind farms are very cost competitive, smaller-scale wind technology deployments are less so. Furthermore, on-site deployment of wind turbines would likely face opposition by regulators and the public over safety and noise concerns. For these reasons, WSP has not given further consideration to on-site wind.

5.2 GROUND-SOURCE HEAT PUMP

A ground-source heat pump (GSHP) plant uses a reversible chiller (heat pump) to provide both heating and cooling to the building(s) being served. Typically, a ground loop consisting of a field of vertical geo-exchange boreholes (300-600 ft deep) is drilled below the lowest parking level of the site. Other configurations, such as foundation- and slab-integrated exchange fields, have been used successfully in numerous locations.

Under the right conditions, these systems can provide improved heating and cooling performance seasonally compared to an air-source heat pump or traditional natural gas or electric resistance heating. Furthermore, they can eliminate noise, rooftop equipment, and cooling towers and associated water use. GSHP heating and cooling is one means to make the transition to an all-electric energy profile, thereby creating a possible pathway for WLC to eventually offer buildings with the potential to be powered by 100% renewable energy.

However, GSHP is not recommended in the WLC location due to building space cooling requirements being much greater than space heating needs. Such an imbalance would cause the geo-exchange field to grow increasingly warmer over time. This, in turn, would degrade GSHP performance in providing building space cooling. For this reason, VRF reversible heat pumps are recommended for offices and air-conditioned warehouses. These systems also create a possible pathway for WLC to eventually offer buildings with the potential to be powered by 100% renewable energy.

5.3 FUEL CELL COMBINED COOLING, HEAT, AND POWER

CCHP plants generate electricity and useful thermal energy through the capture of waste heat. Combined heat and power plants (CHP) supply thermal energy as heat and combined cooling heat and power plants (CCHP) provide thermal energy as both heating and cooling, the latter by means of an absorption chiller. Making use of waste heat from electricity generation increases the overall efficiency of the plant.

WSP evaluated the suitability for CCHP – using a fuel cell as primary plant equipment – to reduce lifetime GHG emissions from the WLC. While fuel cells are costlier than combustion turbines and reciprocating engines (the CCHP primary equipment alternatives), they have the advantage of dramatically lowering NO_x emissions, which is an important criterion in this SCAQMD air shed.

Because the California electricity grid features so much renewable energy and is therefore so clean, and getting cleaner every year, on-site electricity generation by CCHP, energized by natural gas-fed fuel cells, actually produces more GHG emissions and requires more overall energy consumption when compared to WLC receiving all required energy from the grid.

While fuel cells offer an advantage through shifting energy usage from electricity to cheaper natural gas, they would increase site energy consumption and GHG emissions compared to the base case while decreasing the percentage of renewables in the WLC’s energy supply due to decreased use of cleaner grid electricity. Because California’s grid electricity already contains a high percentage of renewable electricity, it is less carbon intensive than the electricity generated by a fuel cell. While fuel cells are more efficient than the natural gas-fired power plants that operate during periods of peak power demand on the

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[2] Wind resource estimates developed by AWS Truepower, LLC for windNavigator . Web: http://www.windnavigator.com | http://www.awstruepower.com. Spatial resolution of wind resource data: 2.5 km. Projection: UTM Zone 11 WGS84.

California grid, the long-term expectation of the California Energy Commission and EIA is that the majority of new capacity in California will come from renewables, not from gas-fired plants. Considering this, using generating capacity at WLC that relies on natural gas, even if it is efficient fuel cells, will increase WLC emissions.

Table 9 summarizes the performance of fuel cell CCHP at WLC. Negative values indicate net increases compared to baseline.

Table 9: Fuel Cell CCHP Performance

Stage	Energy Savings (MWh/yr)	Energy Savings (%)	GHG Savings (tonnes CO_2e/yr)	GHG Savings (%)	Renewable Energy Supply (%)*
Phase 1	-95,739	-52%	-18,425	-60%	19%
Full build	-240,849	-52%	-50,888	-78%	21%

*Renewable energy fraction takes account of renewables on the California grid

5.4 SOLAR PV

On-site solar PV generation is scalable, becoming more cost competitive as project size increases, and can thus be a foundational component of WLC's sustainable energy strategy. Understanding available options and trade-offs is important to optimize the use of solar at WLC. WSP has analyzed the feasibility and impact of on-site solar at the WLC, considering the trade-offs between roof- and ground-mounted solar and current and future electric rate structures.

As pointed out in Section 2.2.1, MVU limits on-site PV size to one-half the minimum electric demand a building experiences during daytime hours. To determine the specific allowable PV size, WSP analyzed the hourly electric loads simulated using the IES modeling software. Phase 1 building simulation produced a minimum daytime electric load of about 600 kW. The minimum daytime electric load for Phase 2 buildings was simulated to be about 1,600 kW. Thus, to stay within all the constraints facing the WLC project, Phase 1 buildings can feature 300 kW of PV (one-half the 600 kW minimum daytime electric load) and Phase 2 buildings can feature 800 kW. At these PV system sizes, a total of 4.5 MW of PV capacity would exist at WLC at the end of Phase 1 and a total of 14.1 MW of PV capacity would exist at WLC at full build-out.

The WLC Specific Plan commits to meet the annual energy requirements of all office spaces with PV, thereby effectively achieving net-zero energy (NZE) office operations. Since each individual WLC building is expected to feature about 60,000 sqft of office space, this is the equivalent of fifteen 60,000 square-foot office buildings at WLC achieving NZE consumption by 2025. The entire state of California has about 30 NZE office buildings in operation, under construction, or publicly committed as of 2016[3]. Thus, the WLC Specific Plan will grow California's NZE office population by about 50% by 2025. At full WLC build-out there will be the equivalent of twenty seven 60,000 square-foot office buildings achieving NZE status.

WSP estimates that the offices in each typical WLC building will consume about 474,120 kWh/yr and experience peak electric demand of about 280 kW. The maximum allowed amount of PV capacity/building in Phase 1 (300 kW) will generate about 512,275 kWh/yr at the WLC location. The maximum allowed amount of PV capacity/building in Phase 2 (800 kW) will generate about 1,366,400 kWh/yr. Thus, in all cases, the maximum allowed PV capacities are sufficient in both Phase 1 and Phase 2 to satisfy 100% of the office energy needs, thereby meeting the NZE objective for WLC office space.

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[3] New Buildings Institute, 2016 List of Zero Net Energy Buildings

Table 10 summarizes the performance of solar PV at WLC in the amounts allowed by MVU.

Table 10: Solar PV Performance

Stage	Energy Savings (MWh/yr)	Energy Savings (%)	GHG Savings (tonnes CO_2e/yr)	GHG Savings (%)	Renewable Energy Supply (%)*
Phase 1	7,686	4%	1,276	4%	51%
Full build	24,083	5%	3,386	5%	57%

*Renewable energy fraction takes account of renewables on the California grid

5.5 ENERGY STORAGE

Energy storage using either Lithium-ion batteries or Vehicle-to-Grid technology (see below) is not viable under current regulatory and economic conditions. For example, MVU currently has no policies or rules that would allow WLC to use battery storage to increase usage of solar electricity. However, these conditions may change. In the future, energy storage may help:

- maximize direct use of on-site renewable electricity generation,
- optimize the building's demand curve ("peak shaving") to reduce strain on the electric grid and lower WLC tenant demand charges,
- shift WLC on-site electricity generation to time-of-use periods with lower electricity rates ("load shifting").

5.5.1 LITHIUM-ION BATTERIES

Lithium-ion (Li-ion) batteries can connect to electrical systems and store electricity. Because of the MVU solar sizing limit, there is no excess solar generation available to charge a battery with the Phase 1 and Phase 2 300 kW and 800 kW solar systems. In addition, MVU currently disallows the use of batteries to get around the PV size limits by enabling the generation and storage of excess solar output without feeding power to MVU's system.   Consequently, greater renewable energy penetration at WLC is not currently possible. Further, MVU's rate structures, combined with WLC's load characteristics, make battery integration unviable – MVU's Time-of-Use rates do not match up with WLC's peak electric usage and WLC's electric load profiles are not 'spikey' enough for batteries to deliver meaningful reductions in the electric demand charge.

5.5.2 VEHICLE-TO-GRID

This section is included in the report for completeness of the energy storage discussion. Vehicle-to-grid (V2G) technology is not currently available but is expected to become available at some point during WLC build-out period.

A V2G system uses the on-board battery packs of parked electric vehicles as distributed energy resources to store electricity for use during peak electricity demand periods. Smart controls on EV charging stations will enable each EV owner to decide whether or not to allow V2G charging and discharging of the EV's battery pack. MVU rules and rate structures would need to change to accommodate V2G technology and to incentivize EV owners to make their vehicle's batteries available while the vehicle is parked.

Vehicle manufactures currently do not enable 2-way V2G exchanges of electricity, but this is expected to change in the coming years. Like stationary Li-ion batteries, V2G could be used by WLC in the future to maximize use of on-site renewable electricity and perform peak-shaving and load-shifting functions if MVU's rules and rate structures were to change. Electric vehicle population estimates for WLC suggest that significant amounts of potential V2G storage would be available for Phase 1 if electricity exchanges were enabled. With the anticipated proliferation of electric vehicles, V2G storage potential will increase substantially for Phase 2. Should V2G technology be enabled in the future, it should be investigated.

5.6 OFF-SITE RENEWABLE ENERGY PROCUREMENT

Various mechanisms exist for many electricity customers to procure renewable energy from off-site projects, including renewable energy certificates, green tariffs, power purchase agreements, virtual power purchase agreements, community choice aggregation, and directed biogas. Procurement of off-site renewable energy can hedge against energy cost fluctuations, support the development of new renewable energy projects, and allow electricity consumers to claim the environmental benefits associated with the renewable energy generation. However, off-site procurement of renewable energy does not reduce the consumers' reliance on the electric grid to transport electricity nor the natural gas grid to transport biogas. Furthermore, off-site renewable energy procurement is likely to come at a cost premium to the energy end-user.

Under current regulations, WLC tenants will be able to purchase electricity only from MVU. Should electricity regulations change in the future to allow procurement of off-site renewable energy, and should WLC tenants elect for corporate, marketing, or other reasons to pursue procurement of off-site renewable energy, the means of doing so via one of the means presented in this report may become available to them.

The price premium associated with off-site renewable energy procurement would increase WLC tenant utility costs and thus run counter to the Project Objectives and the City's Economic Development Objectives (see Section 3.6 of the Project Final EIR and Section 1.3.1 of the WLC Specific Plan). Even if regulations allowed it, it would be counterproductive to require WLC tenants to procure renewable energy from off-site sources. Rather, WLC must establish and maintain a competitive position that supports achievement of the Project and City objectives. For these reasons, the concept of requiring a tenant to procure off-site renewable energy was not considered a viable sustainable supply option to impose on the Project. However, for the sake of completeness, WSP has evaluated the means for off-site procurement of renewable energy at WLC. We herein describe multiple off-site renewable electricity procurement methods that are available in many other electric utility service territories. These include:

- Unbundled renewable energy certificates (RECs);
- Power purchase agreements (PPAs);
- Community choice aggregation (CCA);
- Green tariffs.

Each option is evaluated on the following criteria:

- Market credibility;
- Relevance to future zero net energy regulations expected to be implemented in California;
- Risk profile;
- Impact on lifetime energy costs of the development.

Pricing of green power is highly variable depending on the particular circumstances surrounding each individual project or the current pricing offered by commodities markets. Thus, it is impossible to estimate with any accuracy what might be the impact on overall WLC energy costs if green power were part of the equation. The discussions below present some limited indications of possible cost considerations. It would be prudent to assume that some amount of cost premium would come with green power. To the extent this is the case, the resulting higher electricity costs would run counter to the strategic objective of the City of Moreno Valley to use low-cost electricity as an economic development tool.

5.6.1 BACKGROUND INFORMATION

RENEWABLE ENERGY CLAIMS

Renewable electricity generation projects produce two products of interest; physical electricity and RECs. RECs are an important characteristic of green power to understand, because they are the mechanism that allows an organization to claim the renewable benefits of a green power project. The Environmental Protection Agency (EPA) defines a REC as the representation of the property rights to the environmental, social, and other non-power qualities of one MWh of renewable electricity generation, which can be sold as a separate commodity from the electricity being produced by the renewable energy system.[4]

If RECs are sold together with their associated electricity, they are known as bundled RECs. If they are sold separately, they are known as unbundled RECs.

To be able to claim and communicate the renewable energy benefits from any green power, an organization must own and retire the RECs associated with the green power, or have the RECs retired on its behalf per the Federal Trade Commission's Green Guides.[5]

For all options evaluated herein other than unbundled RECs and Community Choice Aggregation, it is assumed the end purchaser of off-site renewable energy can claim ownership to the associated RECs per the FTC's guidelines.

ZERO ENERGY BUILDINGS IN CALIFORNIA

Relevant to this project, the California Energy Efficiency Strategic Plan indicates that "50% of commercial buildings will be retrofit to Zero Net Energy by 2030."[6] Zero Net Energy for the commercial sector being defined as "an energy-efficient building where, on a source-energy basis, the actual annual consumed energy is less than or equal to the on-site renewable generated energy." Source energy is all energy consumed on-site "plus the energy consumed in the extraction, processing and transport of primary fuels such as coal, oil and natural gas; energy losses in thermal combustion in power generation plants; and energy losses in transmission and distribution to the building site."[7]

For the purposes of this analysis, it is assumed that the California Energy Efficiency Strategic Plan is aligned with the U.S. Department of Energy (USDOE) definition of Zero Energy Buildings and the associated guidance in relation to the use of off-site energy in achieving zero energy status. USDOE guidance indicates that net zero energy status can be achieved through the purchase of off-site renewable electricity for energy efficient buildings that have maximized the installation of on-site renewable energy. The USDOE Zero Energy Building definition does not include specific guidance on what off-site renewable energy procurement mechanisms can be used toward net zero energy status.

5.6.2 UNBUNDLED RENEWABLE ENERGY CERTIFICATES (RECS)

An organization can directly purchase RECs that are unbundled from the electricity supply. When purchased as unbundled commodities, RECs provide no physical electricity to the purchaser. Instead, the purchaser will continue to contract with their utility for electricity generated by the region's grid mix (including non-renewable fuel sources), but purchase the environmental attributes from individual green power projects.

RECs may be purchased in regulated or deregulated markets, and across markets, providing renewable attributes to electricity use at facilities of choice, regardless of geography or local green power resources. However, because unbundled RECs are typically purchased from existing renewable energy projects, their impact on the development of new green power projects is not as direct or significant as with other green power procurement options. Unbundled RECs are typically available for a price premium of about 1% of the cost of physical power.

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[4] https://www.epa.gov/greenpower/renewable-energy-certificates-recs
[5] https://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-issues-revised-green-guides/greenguidesstatement.pdf
[6] http://www.cpuc.ca.gov/ZNE/
[7] https://www.energy.gov/sites/prod/files/2015/09/f26/bto_common_definition_zero_energy_buildings_093015.pdf

Table 11: Unbundled RECs.

CRITERIA	EVALUATION
Market credibility	Based on WSP's experience in the renewable energy marketplace through memberships such as Rocky Mountain Institute's (RMI's) Business Renewable Center, corporate renewable energy buyers are evolving their renewable energy procurement strategies to go beyond unbundled RECs. This evolution is due to the desire to have more of an impact on development of new renewable energy generation. Unbundled RECs typically come from renewable energy generation already in operation, and thus are perceived to have a lower impact on new generation.
Relevance to future zero net energy regulations expected to be implemented in California	Per USDOE, energy efficient buildings can achieve net-zero energy status using RECs if physical limitations preclude the building from fully meeting its energy demand with on-site renewables. These buildings can achieve net zero energy status with the "REC-ZEB" qualifier.WSP's opinion is that unbundled RECs would qualify under the current forecasted regulation only after the demand and supply side options outlined herein are implemented. It is uncertain whether the limitations on the size of on-site solar imposed by MVU would qualify the buildings in the WLC to achieve net zero status using RECs. Importantly, unbundled RECs are increasingly being considered low impact, and the leading governing bodies in the net zero energy space may require long-term contracts for such procurement. WSP is aware that market credibility is shifting away from unbundled RECs.
Risk profile	Purchasers of unbundled RECs are subject to spot pricing on an ongoing (e.g., annual) procurement cycle. There is no physical power risk associated with unbundled purchases.
Impact on lifetime energy costs of the project	There is no direct financial return on investment in purchasing unbundled RECs, nor does the purchase reduce vulnerability to future increases in electricity prices. Regardless if WLC tenants purchase unbundled RECs, there will be an increase to the energy costs of the project. Unbundled RECs are typically available for about 1% of the cost of physical power.

5.6.3 POWER PURCHASER AGREEMENTS (PPAs)

PPAs are contractual agreements used in the utility power sector for the long-term purchase of electricity produced by a specific project. For electricity producers, PPAs offer long-term revenue certainty with a credit-worthy purchaser that allows the project to attract capital investment. For electricity purchasers, PPAs offer a long-term supply of green power with price stability. In California, "Direct Access" agreements offer an alternative similar to a PPA, but using the utility as an intermediary. However, the program is currently at capacity and therefore not available to WLC tenants.[8]

Alternatively, WLC tenants may consider a virtual power purchase agreement (VPPA), also known as a synthetic PPA or "contract for differences." A VPPA is a financial swap that allows an electricity purchaser to provide financial and credit support to a project developer by setting a floor price for electricity sold by the project to the wholesale electricity market. If the wholesale price is below the floor price, the purchaser pays the developer the difference. If the wholesale price exceeds

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[8] http://www.cpuc.ca.gov/General.aspx?id=7881

the floor price, the developer pays the purchaser. In return for guaranteeing a floor price, the purchaser may receive RECs from the project.

This option is a potential solution for customers that have electricity load distributed over many facilities or with loads in regulated electricity markets, like California. Unlike a physical PPA, synthetic PPAs do not include the physical consumption of electricity and therefore, there is no need for a purchaser's facilities to be in the same power market as the project. The combination of wholesale electricity market revenues and the floor price provides financial and credit support to the project owner sufficient to proceed with project financing and construction, thereby providing the critical support necessary for a new project to be implemented.

From an electricity purchaser's perspective, a VPPA can provide a long-term fixed supply of RECs along with potential for annual revenues on the contract. The purchaser, in a sense, is making a bet that market prices will continue to rise and that revenue from increasing prices will flow through the project to the purchaser. If properly structured, this contract can hedge against future electricity price increases or volatility. Purchasers must also understand the risk and financial exposure they face if market prices decline over the term of the agreement.

PPA pricing is highly dependent on the deal, and given the confidential, bilateral nature of the deals, pricing details are not publicly available. Moreover, VPPA deals discussed in the report, beyond a long-term contract for RECs, are often structured to be a hedge against of the price of electricity being procured by the offtaker (e.g., WLC tenants from MVU). VPPA pricing has fallen considerably over the past several years. Current publicly available estimates have VPPA prices at $22/MWh. As to whether this would represent a price premium, be cost-neutral, or result in increased income is dependent on the deal structure and electricity market pricing forecasts. The VPPA imposes an incremental cost on top of the cost WLC tenants pay to MVU for electricity. If the VPPA yields a cost savings, this benefit would effectively reduce the net cost paid to MVU for delivered electricity. However, if the VPPA yields a cost adder, it would effectively raise the net cost of delivered electricity. See https://www.epa.gov/greenpower/green-power-pricing for more details.

Table 12: VPPA Evaluation

CRITERIA	EVALUATION
Market credibility	PPA and VPPA transactions are viewed as having a higher impact relative to development of new renewable energy generation sources when compared to purchasing unbundled RECs. Net zero energy certification through voluntary programs such as the International Future Living Institute may require the project to be located physically close to the WLC.[9]
Relevance to future zero net energy regulations expected to be rolled out in California	The previously referenced Department of Energy paper titled "A Common Definition for Zero Energy Buildings" dated 2015 does not specifically address PPAs or VPPAs in the context contemplated in this report. However, if the RECs are obtained through the PPA or VPPA, WSP expects that these procurement methods will qualify for achieving zero net energy status per the Department of Energy Guidance, once efficiency and on-site renewables have been maximized.
Risk profile	There are several risk factors to evaluate when completing investment-grade due diligence on a PPA or VPPA contract, many of which are beyond the scope of this analysis. However, two risks germane to WLC are the typical contract length and price risk. Both are addressed just below. - Contract length: While the market is currently grappling with overcoming the length of typical deals, current structures are long-term commitments of 10-20 years. If WLC tenants are party to a PPA or VPPA, assuming the transactional complexity due to multi-party offtakers could be overcome, they would be contracting for a length of time (again, 10-20 years) that many businesses are not comfortable with. For example, this term may in fact be longer than the lease agreement at WLC. - Price risk: In PPAs and VPPAs, the purchaser can be exposed if future electricity prices drop below contract pricing. Contracts are typically for an electricity price forecast believed to outperform escalation of their current utility's forecasted rate. Some purchasers find value in having price certainty, which a PPA or VPPA could provide depending on the details of the contract.
Impact on lifetime energy costs of the project	PPAs and VPPAs can provide a hedge or "price stability" mechanism for electricity. If structured well, there should be either minimal or, at best, an improvement on the lifetime energy costs of the project. The discussion on price brings up the issue of the parties at the WLC that would enter into the PPA or VPPA. There are two options: the developer of the WLC or the tenants. Due to transaction costs and complexity, it is likely the only applicable party to execute a PPA or VPPA would be the developer. However, since the developer is not responsible for purchasing electricity – the tenants are – the transaction costs and any reconciliation of the price of the energy delivered to WLC and the price of the PPA or VPPA would likely have to be incorporated into the lease agreements.

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[9] https://living-future.org/wp-content/uploads/2017/03/Net-Zero-Energy-Offsite-Renewables-Exception.pdf

5.6.4 COMMUNITY CHOICE AGGREGATION (CCA)

Community Choice Aggregation (CCA) is a program that allows cities and counties to buy and/or generate electricity for residents and businesses within their areas."[10] Basically, CCA is intended to provide utility rate payers with more options, which are increasingly providing green power procurement options.

CCA options are not currently available in Moreno Valley.[11] The below evaluation is provided in the circumstance that CCA options become available to WLC in the future. CCAs in California have shown they can be competitive with local utility pricing.

Table 13: CCA Evaluation

CRITERIA	EVALUATION
Market credibility	Purchasing from a CCA who has a higher than the required renewable energy fuel mix by actively bringing new renewable energy projects on line as opposed to procuring unbundled RECs would be viewed as credibly procuring renewable energy.
Relevance to future zero net energy regulations expected to be rolled out in California	As highlighted in the unbundled REC section above, the current DOE definition for zero energy buildings is not clear on certain emerging renewable energy procurement options such as PPAs, CCA, and green tariffs. Based on a New Building Institute paper titled "ZNE Project Guide for State Buildings", co-sponsored by California utilities PG&E and Southern California Edison, procurement from a CCA would qualify towards a zero energy build status.[12]
Risk profile	CCA procurement has a similar risk profile to conventional procurement from the local utility.
Impact on lifetime energy costs of the project	CCAs in California have shown to be competitive with local utility pricing.

5.6.5 GREEN TARIFF

Electricity markets in a growing number of states offer customers the ability to purchase green power directly from a local utility. These agreements allow the customer to contract for some or all of their purchased electricity to be attributed to existing green power projects feeding into the local grid. The utility will then retire the coinciding RECs on the customer's behalf, allowing the customer to claim the environmental benefits associated with the purchase of green power. Variations of this mechanism are available in regulated and deregulated markets. In deregulated markets, a customer may directly choose their electricity provider (e.g., CCA programs discussed above), while customers in regulated markets may have the option to pay a premium on their electric bill to claim energy generated from the utility's renewable portfolio.

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[10] https://www.pge.com/en_US/residential/customer-service/other-services/alternative-energy-providers/community-choice-aggregation/community-choice-aggregation.page

[11] https://cal-cca.org/

[12] https://newbuildings.org/wp-content/uploads/2018/04/ZneProjectGuideForStateBuildings.pdf

Because utility products and green tariffs are typically based on existing renewable energy projects, their impact on the development of new green power projects is not as direct or significant as with other green power procurement options. MVU currently does not have a green tariff option. However, there may be an opportunity for Highland Fairview to work with MVU to develop such a tariff.

Per MVU's Integrated Resource Plan (IRP; 2015-2016), the utility indicates a desire to contract for new renewable energy.[13]

"*It is important to note that, due to typical project development timelines associated with renewable generator development, most of MVU's near-term incremental renewable energy requirements will need to be served by existing generators that have already qualified for California RPS eligibility. Looking forward, MVU may choose to contract with yet-to-be developed resources for renewable energy needs that have been identified in the medium- and long-term planning horizons. These planning horizons will allow sufficient time for necessary solicitation and contracting activities (to be completed by MVU) as well as new resource development. Based on recently completed renewable energy solicitations throughout the market, there appears to be ample renewable energy supply available for interested buyers, although prices are above the cost of conventional energy purchases. As discussed in this Plan, before making firm purchase commitments for additional renewable energy supply, MVU will continue to evaluate the cost/rate impacts that would result from additional renewable energy procurement.*"

Due to the large energy demands WLC will put on MVU, the developer of WLC may consider exploring working with MVU on the development of a green tariff similar to recent projects in regulated markets.[14] For example, Facebook recently worked to deliver two green tariffs with their local utilities in New Mexico and Nebraska.[15]

Pricing analysis for a green tariff (which is distinguished from utility green pricing products which could be the utility simply delivering unbundled RECs as part of the rate) is highly subjective to the structure of the rate. They may be cost competitive with current utility rates. See https://www.nrel.gov/docs/fy17osti/68179.pdf for more details.

Table 14: Green Tariff Evaluation

CRITERIA	EVALUATION
Market credibility	Development of a green tariff by MVU that is delivering renewable energy through an owned asset or a contract with an independent power provider would be perceived as being highly credible.
Relevance to future zero net energy regulations expected to be rolled out in California	As highlighted in the unbundled REC section above, the current DOE definition for zero energy buildings is not clear on some of emerging renewable energy procurement options such as PPAs, CCA, and green tariffs. Provided the rate payer has claim to the environmental attributes of the electricity they are procuring, it is WSP's opinion that such purchases would qualify the building as zero net energy in that it's a similar argument to that made by the New Buildings Institute in the aforementioned paper.
Risk profile	Given MVU would be the offtaker or owner of the renewable energy generation, this option has a similar risk profile to conventional procurement from the local utility.
Impact on lifetime energy costs of the project	Unknown at this time. The rate would be dependent on MVU's agreements or assets. Per their IRP, MVU states "*Based on recently completed renewable energy solicitations throughout the market, there appears to be ample renewable energy supply available for interested buyers, although prices are above the cost of conventional energy purchases.*"

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[13] http://www.moreno-valley.ca.us/resident_services/utilities/pdfs/mvuAnnualReport0217.pdf
[14] http://www.wri.org/sites/default/files/emerging-green-tariffs-in-us-regulated-electricity-markets-sep2017_0.pdf
[15] http://buyersprinciples.org/2017/04/05/facebook-implements-new-green-tariff-for-new-nebraska-data-center/

5.7 RECOMMENDED PATH FORWARD

The recommended pathway does not include any on-site combustion or conversion of natural gas to electricity. Any CCHP configuration involving combustion is immediately disqualified due to the significant NO_x emissions it would contribute to an air shed that is already three times over the allowed NO_x limit. While fuel cells emit minimal NO_x and exploit the relatively low cost of natural gas compared to electricity, they result in a net increase in site energy consumption and GHG emissions and are therefore not recommended.

The recommended path forward also does not include requiring WLC tenants to procure renewable energy from off-site sources. The price premium associated with off-site renewable energy procurement would increase WLC tenant utility costs and thus run counter to the Project Objectives and the City's Economic Development Objectives.

The recommended path includes all-electric building systems which eliminates the need for on-site natural gas usage. WLC is then positioned with the future potential to operate 100% on renewable energy. However, PV capacity of 300 kW per building in Phase 1 is the maximum allowed by MVU rules.

The impact of the recommended ECMs and the proposed on-site PV on the annual energy consumption and GHG emissions of the WLC is shown in Figure 6.

Figure 6: Energy and GHG impact of proposed ECMs + PV for Phase 1 and Full Build-Out

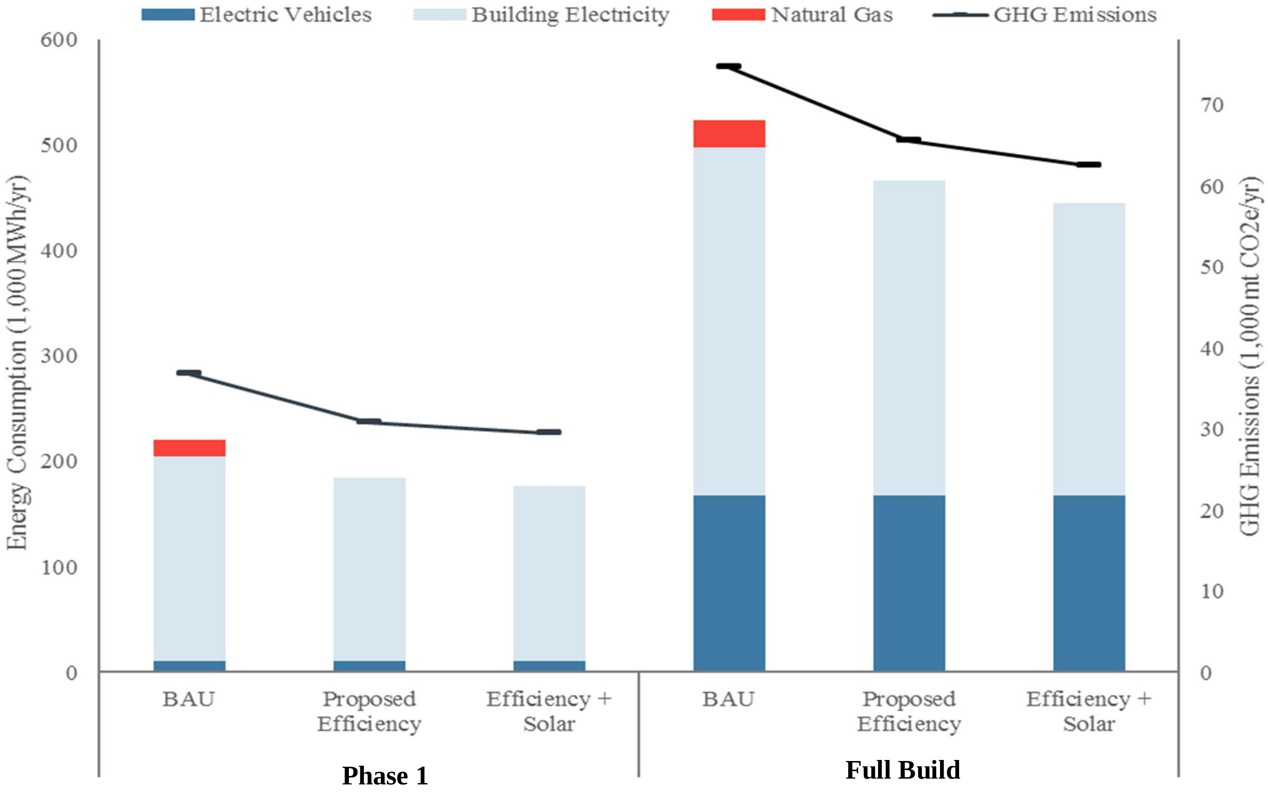

6 CONCLUSION

6.1 SUMMARY OF OPPORTUNITIES

The State of California is expected to implement regulations to promote net-zero energy buildings. WLC has the opportunity to proactively embrace all-electric design standards at the outset of project construction. Doing so in advance of these regulations would make WLC net-zero-ready and position it to comply with future net-zero regulations. This, combined with WLC's commitment to solar-ready roof construction, positions the development to achieve its environmental stewardship and sustainability goals.

6.2 SUMMARY OF RECOMMENDATIONS

- Establish the ability of WLC to achieve net-zero energy over time by embracing all-electric design standards at the outset of project construction.
- Adopt maximum allowable solar PV capacity of 300 kW per building as a component of the Phase 1 design standards.
- Revisit this analysis with some frequency to capture inevitable changes over time in the MVU solar limit, MVU rate structures, Title 24 requirements, net-zero regulations, and changes in sustainable energy equipment costs.
- Implement recommended ECMs and maximum allowable solar PV capacity in Phase 1.

7 APPENDIX A: CURRENT AND FUTURE ENERGY CONTEXT

7.1 ELECTRIC GRID PROJECTIONS

Driven by an aggressive Renewable Portfolio Standard (RPS)[16] and a decreased reliance on coal, California's grid is one of the cleanest in the country. In 2017, 25% of its electricity was derived from renewable sources and the resulting carbon intensity of 529 lb $CO2_e$/MWh is nearly 50% below the national average of 1,000 lb $CO2_e$ /MWh. As highlighted in the graph below, rapid decarbonization of the California grid is expected to continue. The U.S. Energy Information Administration projects that that the grid's emissions factor will decline 31% from current levels by 2025 and 41% by 2040.

Figure 7: CAMX Emissions Factor Projection

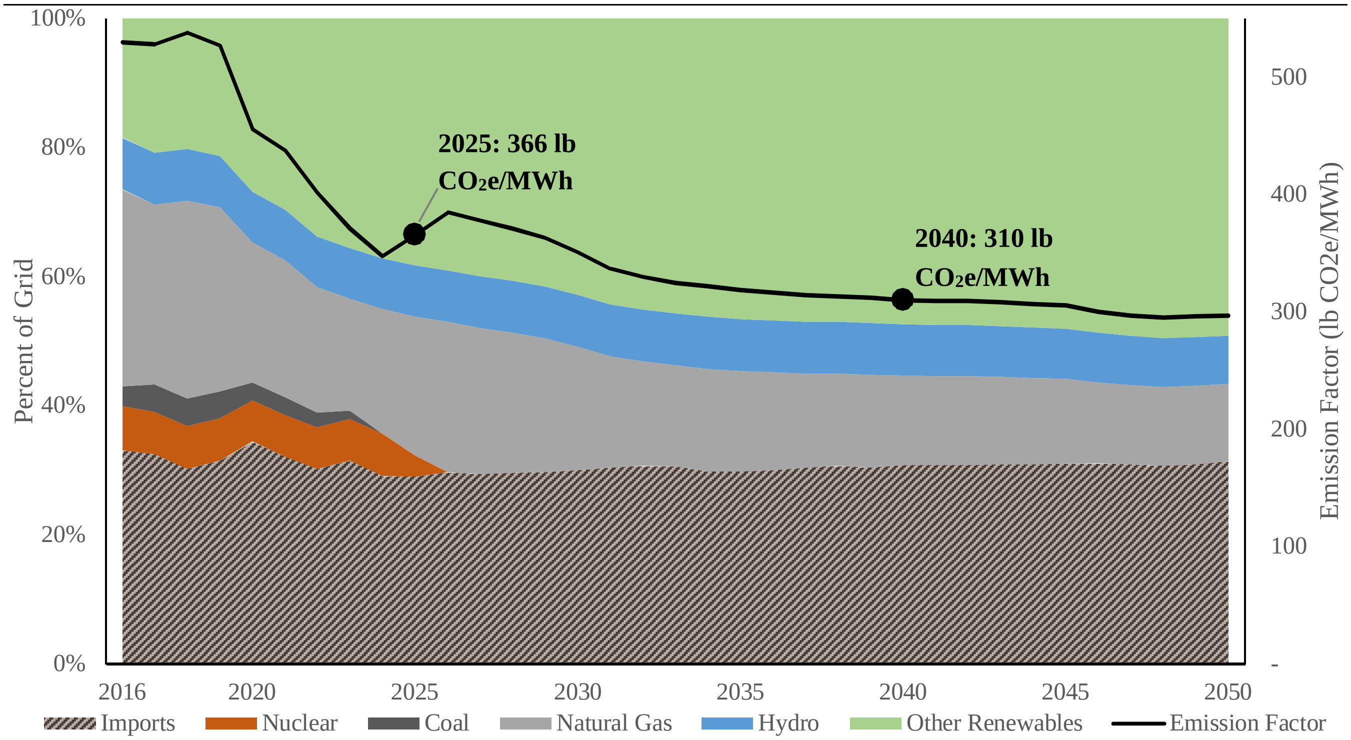

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[16] California's RPS requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable sources by 2030

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APPENDIX F

Traffic Impact Assessment Technical Report (Revised)

Traffic Impact Analysis Report

for

The World Logistics Center

Moreno Valley Case #P12-016

Prepared for

The City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

DONALD R. HUBBARD
NO. TR2260
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July 2018

World Logistics Center

TRAFFIC IMPACT ANALYSIS

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LIST OF ACRONYMS

ADA	Americans with Disabilities Act
ADT	average daily traffic
AM	ante-meridian (before noon)
AWS	all-way stop
BNSF	Not an acronym; the proper name for a railroad company once known as Burlington Northern and Santa Fe Railway
CEQA	California Environmental Quality Act
CMP	congestion management plan
CNG	compressed natural gas
CSSS	cross-street stop controlled
DIF	Development Impact Fee
EB	Eastbound
EIR	environmental impact report
ESA	Environmental Science Associates, the lead environmental firm for this EIR
F	freeway mainline basic section
HCM	Highway Capacity Manual
HFCP	Highland Fairview Corporate Park
HOV	High Occupancy Vehicle
I	Interstate
IN	intersection
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation Systems
LOS	level of service
LNG	liquefied natural gas
LS	Logistics Support
MUTCD	Manual of Uniform Traffic Control Devices
N/A	not applicable
NAIOP	National Association of Industrial and Office Properties
NB	Northbound
PCE	Passenger Car Equivalents
PM	post-meridian (after noon)
PWC	Public Works Committee
RABT	roundabout
RCTC	Riverside County Transportation Commission
RIVTAM	Not an acronym; the proper name for the traffic model used by agencies in Riverside County
RSHA	Regional System of Highways and Arterials

RTP	Regional Transportation Plan
RV	recreational vehicles
SB	Southbound
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
SJWA	San Jacinto Wildlife Area
SR	State Route
TAZ	traffic analysis zone
TIA	Traffic Impact Analysis
TUMF	Transportation Uniform Mitigation Fee
UP	Union Pacific Railroad
VMT	vehicle-miles of travel
W	weaving section
WB	Westbound
WLC	World Logistics Center
WLCSP	World Logistics Center Specific Plan
WRCOG	Western Riverside Council of Governments
WSP	Not an acronym; the proper name for the consulting firm that prepared this report, once known as Williams Sale Partnership

1. INTRODUCTION

A. PURPOSE OF THE TRAFFIC IMPACT ANALYSIS

The purpose of this Traffic Impact Analysis (TIA) is to fully analyze the local and regional traffic impacts of the proposed World Logistics Center (WLC) located in Moreno Valley, California. The TIA identifies the specific near-term and longer-term circulation improvements that would be required to mitigate project impacts and maintain acceptable peak hour and daily levels of service (LOS) on surface streets and freeways affected by the project. As part of this comprehensive analysis special attention was paid to analyzing truck access routes, safety issues relating to trucks, and the effects of truck traffic on traffic operations.

B. SCOPE OF STUDY

The study considers seven development scenarios, namely:

1) Existing baseline conditions (2018) without the WLC project
2) Existing baseline conditions plus Phase 1 (only) of the WLC project
3) Existing baseline conditions plus the Full Build-out of the WLC project
4) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2025, without the WLC project
5) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2025, plus Phase 1 (only) of the WLC project
6) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2040, including full build-out of the City of Moreno Valley General Plan, except that existing conditions remain on the site of the WLC project. The horizon year 2040 corresponds with the long-term planning horizon in the Southern California Association of Governments (SCAG) regional forecasts.
7) Existing baseline conditions plus other past, present, and reasonably foreseeable projects expected to be constructed by 2040, including full build-out of the City of Moreno Valley General Plan except for the WLC site, where full build-out of the WLC project was assumed.

2040 was selected for the horizon year because it corresponds to the horizon year used by agencies in the SCAG region for the most recent Sustainable Communities Strategy. The interim year analysis shows the Project when it is approximately half built out. 2025 was selected for the interim year based on SCAG's projection that 222 million square feet of logistics warehouses would be built in the region between 2016 and 2025[1], and the assumption that the WLC would attract approximately 10% of the regional total (around 22 million square feet).

Most of the LOS analyses focused on the morning and evening peak hours because that is when capacity problems most frequently occur. An analysis was performed using daily traffic volumes to determine if the proposed circulation element amendment would achieve City LOS goals.

The study area for surface streets covered all intersections in Moreno Valley of collector or higher functional classification with another collector or higher classification street, at which the proposed project would add 50 or more peak hour trips[2]. The study area also included the main routes between the project and the neighboring communities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area also extended west to the nearest ramps to SR-91 and as far south as the I-215 ramps at Redlands Ave. in

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[1] See Table 3.2 in *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities (Task Report 5)*, SCAG, June 2010

[2] City of Moreno Valley Traffic Impact Preparation Guide, 2007

Perris. These limits represent the extreme range of the RIVTAM model's capacity to accurately predict real differences between the No-Project and Plus-Project scenarios. Figure 1 shows the study area for surface street intersections.

The study area for freeways was selected to encompass the freeway routes extending from the project site to the north, south, east, and west. The analysis covered SR-60 from I-10 in the east to SR-71 in the west, SR-91/I-215 from I-210 in the east to I-15 in the west, I-215 from Redlands Ave. in the north to the Scott Rd. interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west. (see Figure 2). These limits represent the extreme range of the RIVTAM model's capacity to accurately predict differences between No-Project and Plus-Project scenarios. In addition, the two main routes to the ports of Los Angeles and Long Beach were studied (see Figure 3). For these corridors, trips from the WLC were manually added to forecasts for the No-Project scenario taken from the SCAG model[3].

Any freeway ramp where the project added 100 or more peak-hour trips was also studied. These included:

- All ramps of the SR-60/Theodore Interchange
- All ramps of the SR-60/Gilman Springs Rd. Interchange
- All ramps of the SR-60/Redlands Blvd. Interchange
- Westbound off- and eastbound on-ramps to the SR-60/Central Ave. Interchange, and
- Westbound off- and eastbound on-ramps to the SR-60/Martin Luther King Blvd. interchange.

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[3] The modeling data in the SCAG model is based upon modeling information originally developed by the Southern California Association of Governments (SCAG), which has been modified by WSP. The modeling data used in this study does not necessarily reflect the official views or policies of SCAG. WSP is wholly responsible for the modeling results and the content of the documentation.

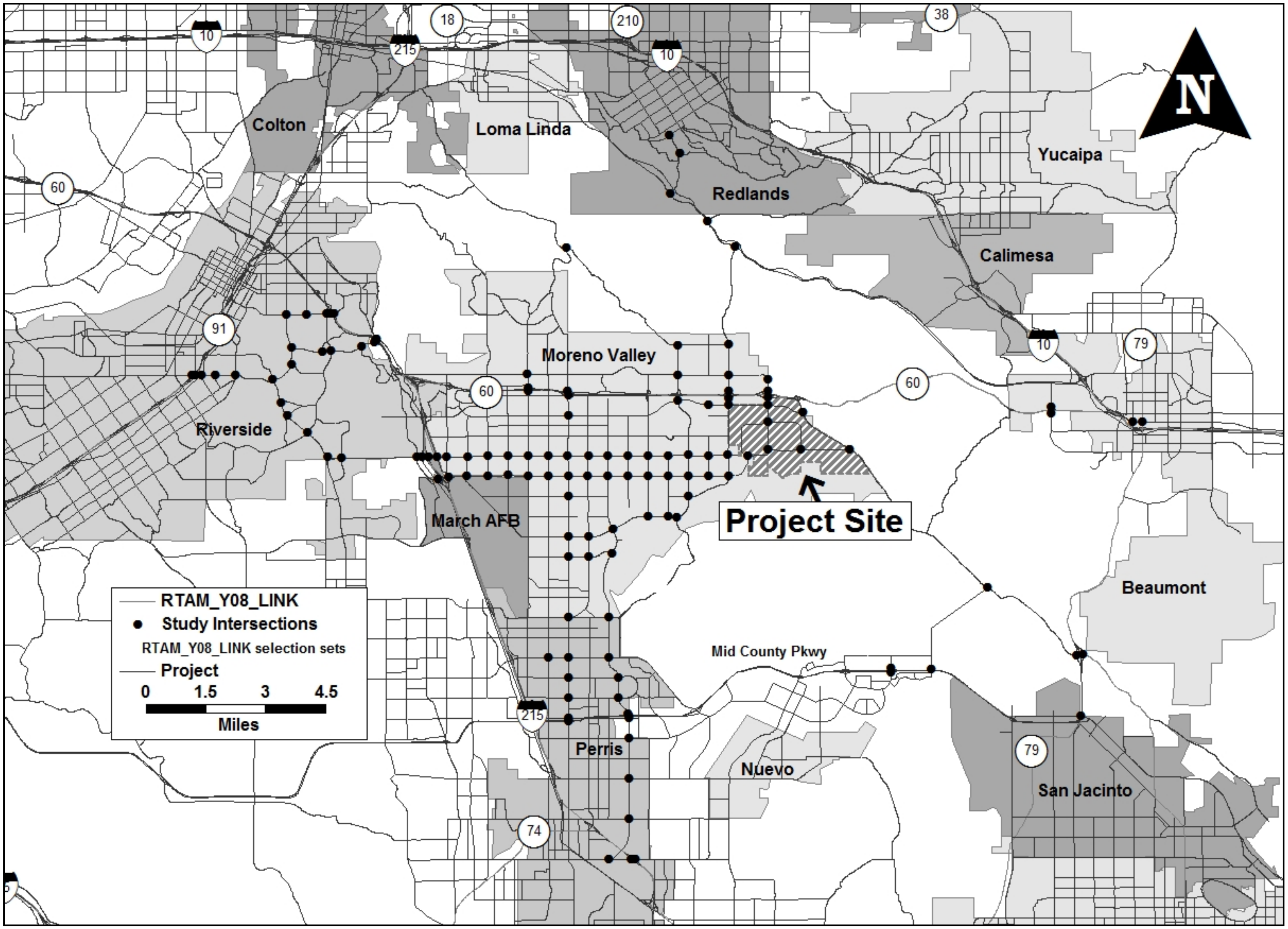

Figure 1: Study Intersections for Surface Streets

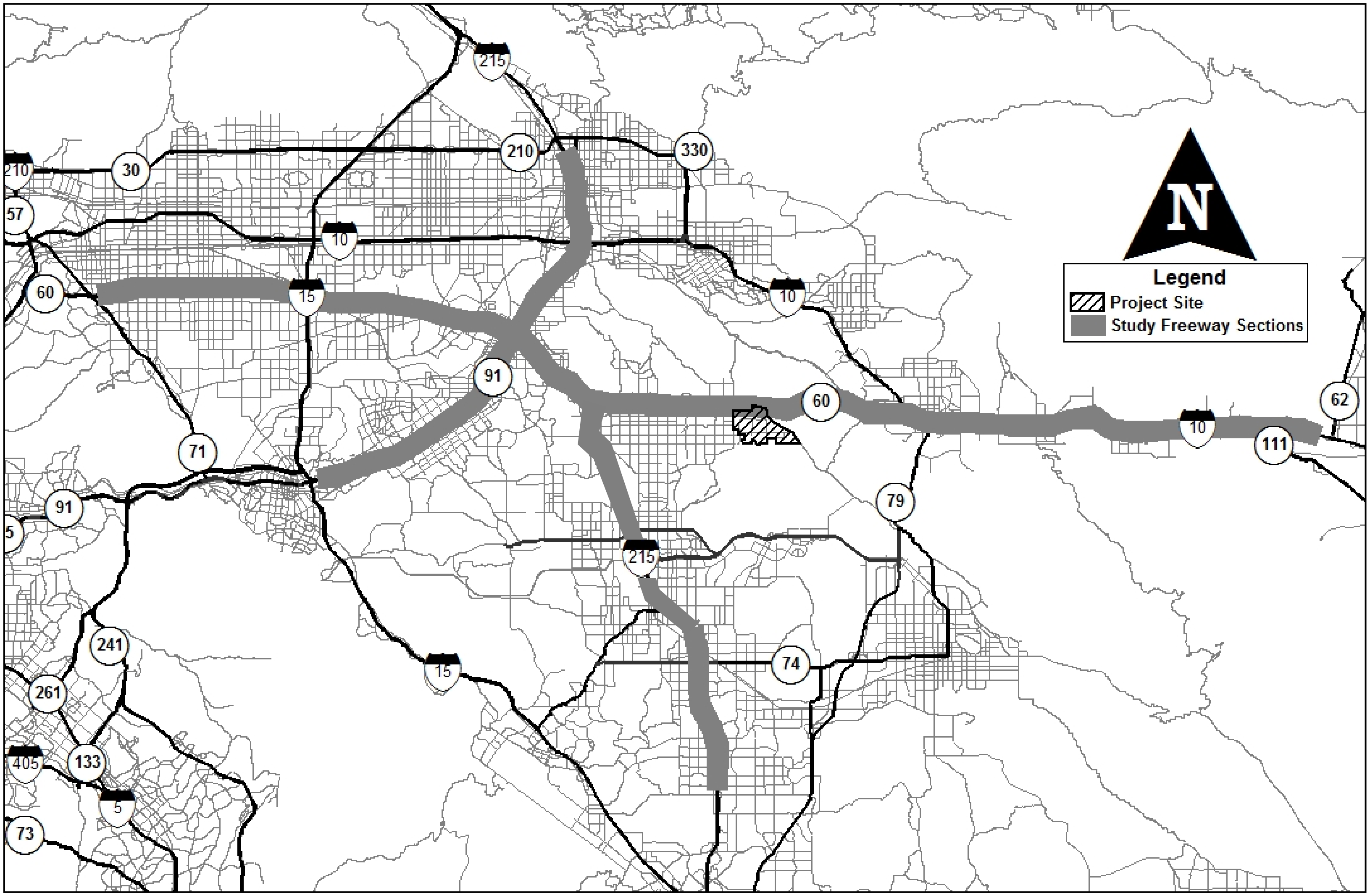

Figure 2: Study Freeway Sections

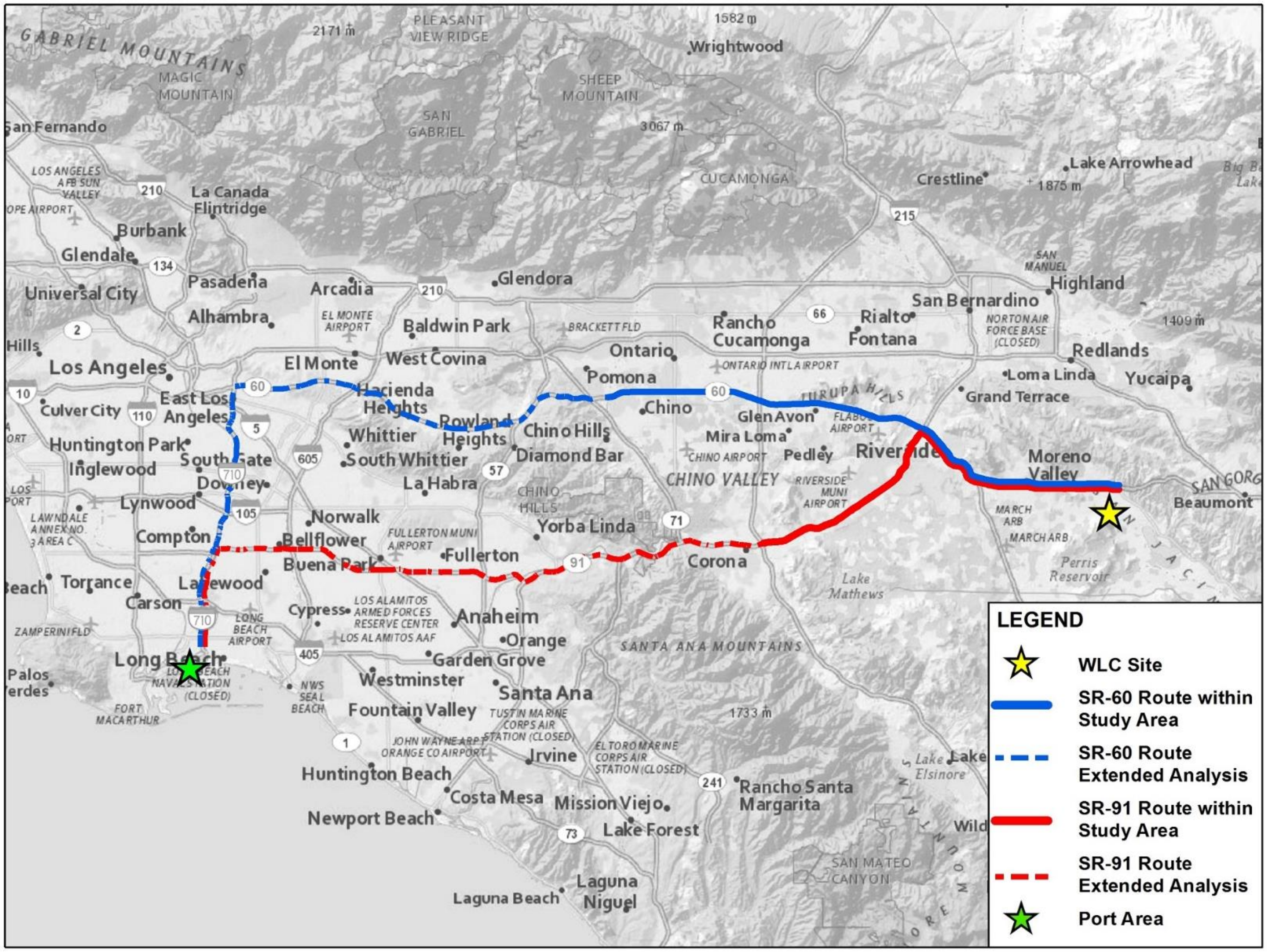

Figure 3: Routes to the Port

C. CHANGES SINCE 2014

In 2012 an application was made to the City of Moreno Valley for the World Logistics Center (WLC), a new plan for the area that had been subject to the Moreno Highlands Specific Plan. A notice of preparation for the WLC environmental impact report (EIR) was issued in February 2012. A traffic impact analysis (TIA) was prepared as one of several technical studies in support of the EIR and submitted to the City in September 2014. The full Draft EIR, including traffic sections based on the TIA, was submitted for public comment in February 2013 and was the subject of public hearings held in June 2015. The General Plan Amendment, zoning change, and the WLC Specific Plan, were adopted by the City Council in August 2015 and adopted again by ballot initiative in November 2015.

In the time since the 2014TIA, a number of developments have occurred that effect the forecast of traffic impacts from the WLC. These changes include:

- The most important new development was the completion in October 2016 of *High-Cube Warehouse Vehicle Trip Generation Analysis*, a major trip generation study for high-cube warehouses, the predominant form of land use in the WLC. This study was jointly sponsored by the South Coast Air Quality Management District (SCAQMD) and the National Association of Industrial and Office Properties (NAIOP), and was conducted by the Institute of Transportation Engineers (ITE). The results were incorporated into the 10th edition of ITE's *Trip Generation Manual*.

  This study replaces the multitude of earlier, smaller studies that produced conflicting results and created uncertainty regarding the amount of traffic generated by the newer, more automated type of high-cube warehouse proposed for the WLC. The 2016 study found that on average, warehouses generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis). However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed.

- The trip generation rates for other land uses (light logistics, convenience market, etc.) were also updated to those in the 10th edition of ITE's *Trip Generation Manual*.

- The study analysis years were updated so that 2018 is used for Existing Conditions, 2025 is used for Phase 1, and 2040 is used for the Cumulative Scenarios.

- The assumptions regarding background (i.e. non-WLC) land development have been updated to reflect the Sustainable Community Strategy adopted by SCAG in 2016. The list of reasonably foreseeable projects was also updated to account for projects that have been completed or have dropped out, and for proposed projects that have been added to the pipeline.

- The assumptions regarding changes to the transportation network have been updated to reflect the Regional Transportation Plan adopted by SCAG in 2016. The existing conditions network was also updated to account for projects completed since the base year of the previous TIA (2012).

- New traffic counts were performed for all study intersections and roadway segments, and new data was collected for volumes on the study freeway segments.

- An analysis of the effect of the Project on regional vehicle-miles of travel (VMT) has been added. This analysis was done primarily to provide data needed for the air quality analysis. Readers may be aware that, as a result of Senate Bill 743 (Steinberg, 2013), CEQA analysis of traffic impacts is likely to change at some point in the future from LOS-based to VMT-based. This change will not take effect before January 1st 2020 at the earliest, so the LOS approach that is the primary focus of the current study accords with current state law. The VMT analysis is therefore included in this traffic study for informational purposes only.

Please note one other change that has no effect on the analysis, which is that Parsons Brinckerhoff Inc. was acquired by WSP USA Inc. So although the company name on the cover of this report is different from that on the previous report, lead traffic engineer and key staff from the previous study also conducted the current study.

2. METHODOLOGY

This chapter describes the methodology used in the traffic impact analysis.

A. ASSUMPTIONS

Land Use Assumptions

The Existing Conditions scenario was based on the land uses as they existed at the time when this study was initiated (February 2018). The Existing Plus Build-out scenarios were also based on the land uses as they existed at that time and with either Phase 1 or the full build-out of the WLC added.

The scenarios analyzing future conditions required the use of forecasts for land use in the Inland Empire. The most well-researched and officially accepted source of longer-term land use forecasts is the Southern California Association of Governments (SCAG), which is the designated Regional Transportation Planning Agency under state law. In April 2016, SCAG adopted its 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for use in regional planning. The RTP/SCS was the result of a multi-year effort involving consultation with numerous agencies including work through the Transportation Conformity Working Group[4] as well as input from members of the public. The RTP/SCS forecasts include the effects of the recent recession and subsequent recovery on employment and residential uses. The forecasts reflect regional birth, death, and migration rates, household formation, and expected changes in employment by economic sector.

The land use assumptions for the 2025 scenarios were derived through interpolation of the 2016 and 2040 RTP/SCS regional population and employment forecasts[5]. In addition, other past, present, and reasonably foreseeable projects in the study area were added to the 2025 scenarios based on their likely timeline for development. The land use assumptions for the cumulative (2040) scenarios were taken from the RTP/SCS 2040 regional population and employment forecasts for all areas outside of the City of Moreno Valley. In traffic analysis zones where there were both growth in the SCS and other past, present, and reasonably foreseeable projects of the same land use type, the higher figure was taken. Within Moreno Valley, the cumulative-year analysis assumed build-out of the City's General Plan except for locations where other past, present, and reasonably foreseeable projects were identified, in which case those were used instead. Because it is unlikely that the city will fully build out by 2040, the cumulative impact analysis set forth in this TIA assumes worse background traffic than is likely to occur and is therefore conservative in the sense that it would tend to over-state project impacts.

The other past, present, and reasonably foreseeable projects are listed in Table 1 with their locations shown in Figure 4 (the numbers on the figure corresponds with the identifying numbers in the table). In some cases there are plans that, while not being development projects in themselves, that may affect one or more of the listed projects. For example, the *Draft Land Management Plan for the San Jacinto Wildlife Area*[6] could, if adopted, affect land developments in Moreno Valley, Beaumont unincorporated Riverside County.

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[4] A forum for implementing the interagency consultation requirements. Membership includes federal (US EPA, FHWA, FTA), state (ARB, Caltrans), regional (Air Quality Management Districts, SCAG, etc.), and sub-regional (County Transportation Commissions) agencies and other stakeholders.

[5] In other words, the amounts of each type of land use in each TAZ were interpolated between the values in the 2016 scenario and those in the 2040 scenario.

[6] *Draft Land Management Plan for the San Jacinto Wildlife Area*, California Department of Fish and Wildlife, December 2017

Table 1: Other Past, Present, and Reasonable Foreseeable Projects

MapID	Project	In 2018 Scenarios?	In 2025 Scenarios?	In 2040 Scenarios?
City of Beaumont				
B-1	Fairway Canyon SCPGA Tract Nos. 31462, 36558, and 36783 (#29)	No	Yes	Yes
B-2	Tournament Hills 3	Yes	Yes	Yes
B-3	Heartland	No	Yes	Yes
B-4	Hidden Canyon	No	No	Yes
B-5	ProLogis/Rolling Hills Ranch Industrial	Yes	Yes	Yes
B-6	Mountain Bridge Regional Commercial Planned Community	No	No	Yes
B-7	Kirkwood Ranch (#14)	No	Yes	Yes
B-8	Noble Creek Vistas (#10)	No	Yes	Yes
B-9	Sundance (#17)	No	Yes	Yes
B-10	Tract No. 32850 (#39)	No	Yes	Yes
B-11	San Gorgonio Village, Phase 2 (#45)	No	No	Yes
B-12	Beaumont Commercial Center	Yes	Yes	Yes
B-13	Four Seasons (#23) Tract Nos. 32260 and 33096	No	Yes	Yes
B-14	Potrero Creek Estates (#26)	No	Yes	Yes
City of Calimesa				
C-1	TTM 33931 Fiesta Oak Valley/Mesa Verde Estates	No	Yes	Yes
C-2	Summerwind Ranch	No	Yes	Yes
C-3	JP Ranch	No	Yes	Yes
City of Hemet				
H-1	TTM 36841	No	Yes	Yes
H-2	Rancho Diamante	No	Yes	Yes
H-3	Tres Cerritos Specific Plan	No	Yes	Yes
H-4	Sanderson Square	No	No	Yes
H-5	McSweeny Farms Specific Plan	No	Yes	Yes
H-6	Ramona Creek Specific Plan	No	Yes	Yes
H-7	Peppertree Specific Plan	No	Yes	Yes
H-8	Florida Promenade Residential	No	No	Yes
H-9	Pulte Del Web (TTM 31807 and 31808)	Yes	Yes	Yes
H-10	Downtown Hemet Specific Plan	No	Yes	Yes
City of Moreno Valley				
MV-1	Auto Mall Specific Plan Planning Area C	No	No	Yes
MV-2	TR35823 / Stowe Passco Development	No	No	Yes
MV-3	ProLogis	No	Yes	Yes
MV-4	Westridge Commerce Center	Yes	Yes	Yes
MV-5	P06-158 / Gascon	No	No	Yes
MV-6	Highland Fairview, Corporate Park, (Phases 2 and 3)	No	No	Yes
MV-7	TR33962 / Pacific Scene Homes	No	Yes	Yes
MV-8	TR32460 / Sussex Capital	No	Yes	Yes
MV-9	TR32459 / Sussex Capital	No	Yes	Yes
MV-10	TR30998 / Pacific Communities	No	Yes	Yes
MV-11	TR30411 / Pacific Communities	No	Yes	Yes
MV-12	Moreno Medical Campus	Yes	Yes	Yes
MV-13	Cresta Bella	No	No	Yes
MV-14	TR32548 / Gabel, Cook & Associates	No	Yes	Yes
MV-15	TR32218 / Whitney	No	Yes	Yes
MV-16	TR32284 / 26thCorporation & Granite Capitol	No	Yes	Yes
MV-17	TR31590 / Winchester Associates	No	Yes	Yes
MV-18	Convenience Store / Fueling Station	Yes	Yes	Yes
MV-19	Senior Assisted Living	Yes	Yes	Yes
MV-20	Moreno Marketplace	Yes	Yes	Yes
MV-21	PEN16-0053 Medical Center	No	No	Yes
MV-22	TR36882 (PA15-0010) SFR	Yes	Yes	Yes
MV-23	PEN16-0129/0130 MV Ranch Apartments	No	Yes	Yes
MV-24	TM 36436 (PA12-0005)	No	Yes	Yes
MV-25	TR32142	No	Yes	Yes
MV-26	TR 30268 (PA01-0072) Pacific Communities	No	Yes	Yes
MV-27	TR32917 / Empire land	No	Yes	Yes
MV-28	TR34329 / Granite Capitol	No	No	Yes

Table 1: Other Past, Present, and Reasonable Foreseeable Projects (continued)

MapID	Project	In 2018 Scenarios?	In 2025 Scenarios?	In 2040 Scenarios?
MV-29	TR36340	No	Yes	Yes
MV-30	PA03-0168 TR 31517	No	Yes	Yes
MV-31	PA15-0034 TR 36983	No	Yes	Yes
MV-32	TTM 31592 (P13-078) SFR	No	No	Yes
MV-33	TR32645 / Winchester Associates	No	Yes	Yes
MV-34	TR34397 / Winchester Associates	No	Yes	Yes
MV-35	TR31771 / Sanchez	No	No	Yes
MV-36	TM 31618 (PA03-0106)	Yes	Yes	Yes
MV-37	Vogel /PA09-004	Yes	Yes	Yes
MV-38	Vogel Properties	Yes	Yes	Yes
MV-39	VIP Moreno Valley (SaresRegis/Vogel)	Yes	Yes	Yes
MV-40	PEN17-0036 Warehouse	No	Yes	Yes
MV-41	First Nandina Logistics Center	No	Yes	Yes
MV-42	Indian Street Commerce Center	No	Yes	Yes
MV-43	Ivan Devries / PA06-0017	Yes	Yes	Yes
MV-44	Modular Logistics Center (Kearny RE Co)	No	Yes	Yes
MV-45	Iris Plaza	No	No	Yes
MV-46	Harley Knox/Redlands Development	Yes	Yes	Yes
MV-47	PA07-0129 TR 35606 SFR	No	Yes	Yes
MV-48	PA11-001 thru 007, March Business Center (Industrial Area SP)	Yes	Yes	Yes
MV-49	PA07-0079/0080/0093, & 0121 and PA08-0018, Indian Business Park	Yes	Yes	Yes
MV-50	San Michele Industrial Center, (Industrial Area SP)	Yes	Yes	Yes
MV-51	Nandina Distribution Center IDS	Yes	Yes	Yes
MV-52	First Industrial III & IV, (Industrial Area SP)	Yes	Yes	Yes
MV-53	I-215 Logistics Center (Amazon)	Yes	Yes	Yes
MV-54	Moreno Valley Logistics Center (Prologis)	No	No	Yes
MV-55	MV Commerce Park II (Alere) - Built before 2012	Yes	Yes	Yes
MV-56	Tract Map 33810	No	No	Yes
MV-57	Tract Map 34151	No	Yes	Yes
MV-58	Tract Map 33024	Yes	Yes	Yes
MV-59	Tract Map 31442	No	No	Yes
MV-60	Tract Map 36401	No	No	Yes
MV-61	Walmart & Gas Station	No	No	Yes
MV-62	Tract Map 22180	No	Yes	Yes
MV-63	PA14-0053 (TTM 36760) Legacy Park	No	Yes	Yes
MV-64	TR22180 / Young Homes	No	No	Yes
MV-65	TR33607 / TL Group	No	Yes	Yes
MV-66	TR34988 / Stratus Properties	No	No	Yes
MV-67	TR32515	No	Yes	Yes
MV-68	PA07-0035	No	Yes	Yes
MV-69	PA07-0039, (Industrial Area SP)	Yes	Yes	Yes
MV-70	TR32756 / CTK, Inc.	No	No	Yes
MV-71	TR34681 / Perris Pacific Co.	No	Yes	Yes
MV-119	35861 Frederick Homes	No	No	Yes
MV-72	TR36038 / Alessandro Village Plaza LLC	No	No	Yes
MV-73	TR34216 / Creative Design Associates	No	Yes	Yes
MV-74	Aqua Bella Specific Plan	No	No	Yes
MV-75	Commercial Medical Plaza, PA09-0033 thru 0039, and PA09-0019 & 0020	No	No	Yes
MV-76	Minka Lighting	Yes	Yes	Yes
MV-77	Overton Moore Properties PA08-0072	Yes	Yes	Yes
MV-122	Shaw Development	Yes	Yes	Yes
MV-78	PA15-0032 MV Cactus Center	No	Yes	Yes
MV-79	Ridge Property Trust, PA07-0147 & PA 07-0157	Yes	Yes	Yes
MV-80	Centerpointe Bus. Ctr	Yes	Yes	Yes
MV-81	Centerpointe Business Park	Yes	Yes	Yes
MV-82	PA16-0075 Brodiaea Business Center	Yes	Yes	Yes
MV-83	Retail Center / Winco Foods, PA08-0079/0080/0081	No	No	Yes
MV-84	TR32505 / DR Horton	Yes	Yes	Yes
MV-85	TR31814 / Moreno Valley Investors	No	No	Yes

Table 1: Other Past, Present, and Reasonable Foreseeable Projects (continued)

MapID	Project	In 2018 Scenarios?	In 2025 Scenarios?	In 2040 Scenarios?
MV-86	TR33771 / Creative Design Associates	No	Yes	Yes
MV-87	TR35663 / Kha	No	Yes	Yes
MV-88	PEN16-0110 Commercial Pad H	No	No	Yes
MV-89	TR31305 / Richmond American	No	Yes	Yes
MV-90	TR 33256	No	No	Yes
MV-91	PA14-0042 Edgemont Apartments	Yes	Yes	Yes
MV-92	PA15-0002 Box Springs Apartments	No	Yes	Yes
MV-93	Moreno Beach Marketplace / Lowes	No	No	Yes
MV-94	31394 Pigeon Pass, Ltd.	No	No	Yes
MV-95	32005 Red Hill Village, LLC	No	No	Yes
MV-96	33388 SCH Development, LLC	No	No	Yes
MV-97	36038 Alessandro Village Plaza, LLC	No	No	Yes
MV-98	Scottish Village	No	No	Yes
MV-99	Restaurant	No	Yes	Yes
MV-100	Moreno Valley Professional Center	No	No	Yes
MV-101	Gateway Business Park	No	Yes	Yes
MV-102	373K Industrial Facility	Yes	Yes	Yes
MV-103	35369 Tason Myers Property	No	No	Yes
MV-104	35304 Jimmy Lee	No	No	Yes
MV-105	32711 Isaac Genah	No	No	Yes
MV-106	O'Reilly Automotive	No	Yes	Yes
MV-107	Quail Ranch	No	No	Yes
MV-108	TM 33417	No	No	Yes
MV-109	35769 Michael Chen	No	No	Yes
MV-110	PA09-0006 Jim Nydam	No	No	Yes
MV-111	Ironwood Residential	No	No	Yes
MV-112	Stoneridge Town Centre - Vacant Restaurant	No	Yes	Yes
MV-113	Olivewood Plaza - Office Building	No	No	Yes
MV-114	31621 Peter Sanchez	No	No	Yes
MV-115	Riverside County Office Building	No	No	Yes
MV-116	28860 Professor's Fun IV, LLC/Winchester Associates,Inc.	No	No	Yes
MV-117	32126 Salvador Torres	No	No	Yes
MV-118	Moreno Valley Shopping Center	No	No	Yes
MV-120	Yum Donut Shop	No	Yes	Yes
MV-121	Centerpointe Business Park	Yes	Yes	Yes
MV-123	Rancho Belago Plaza - Retail	No	No	Yes
MV-124	Alessandro & Lasselle	No	No	Yes
MV-125	32756 Jimmy Lee	No	No	Yes
MV-126	TTM 33222	No	Yes	Yes
City of Perris				
P-1	TR32707	Yes	Yes	Yes
P-2	TR34716	Yes	Yes	Yes
P-3	P05-0477	Yes	Yes	Yes
P-4	Bookend	No	No	Yes
P-5	Markham East	No	Yes	Yes
P-6	Perris Circle Industrial Park	No	No	Yes
P-7	Duke Warehouse	No	Yes	Yes
P-8	First Perry Logistics Project	No	Yes	Yes
P-9	Aiere	No	No	Yes
P-10	IDS	Yes	Yes	Yes
P-11	Ridge II	Yes	Yes	Yes
P-12	Starcrest, P011-0005; 08-11-0006	No	No	Yes
P-13	Ridge	No	Yes	Yes
P-14	Rados Distribution Center	No	Yes	Yes
P-15	Duke Perris Logistics Center I	Yes	Yes	Yes
P-16	Perris Ridge Commerce Center I	Yes	Yes	Yes
P-17	SRG Perris LC	Yes	Yes	Yes
P-18	P07-07-0029	Yes	Yes	Yes
P-19	P05-0192	Yes	Yes	Yes

Table 1: Other Past, Present, and Reasonable Foreseeable Projects (continued)

MapID	Project	In 2018 Scenarios?	In 2025 Scenarios?	In 2040 Scenarios?
P-20	P05-0113	Yes	Yes	Yes
P-21	P07-09-0018	Yes	Yes	Yes
P-22	NICOL	No	No	Yes
P-23	Westcoast Textiles	No	No	Yes
P-24	Optimus Logistics Center 1	No	Yes	Yes
P-25	Optimus Logistics Center 2	No	Yes	Yes
P-26	Duke Warehouse	No	Yes	Yes
P-27	Perris DC (Industrial Property Trust)/Integra	Yes	Yes	Yes
P-28	Duke Warehouse	No	Yes	Yes
P-29	P06-0411	Yes	Yes	Yes
P-30	Avelina	No	Yes	Yes
P-31	Perris Family Apartments	No	Yes	Yes
P-32	Lewis Retail Center	No	Yes	Yes
P-33	Harvest Landing Specific Plan	No	No	Yes
P-34	South Perris Industrial Phase 3	No	No	Yes
P-35	Verano Apartments	No	Yes	Yes
P-36	South Perris Industrial Phase 2	No	No	Yes
P-37	Cabrillo	Yes	Yes	Yes
P-38	Sequoia	Yes	Yes	Yes
P-39	South Perris Industrial Phase 1	No	No	Yes
P-40	TR 32041	No	No	Yes
P-41	P 06-0228	No	No	Yes
P-42	TR 31650	No	No	Yes
P-43	TR 31225	No	No	Yes
P-44	TR 33193	No	No	Yes
P-45	P 12-05-0013	No	No	Yes
P-46	P 06-0378	No	No	Yes
P-47	Park West Specific Plan	No	No	Yes
P-48	TR 33338	No	No	Yes
P-49	TR 31240	No	No	Yes
P-50	P 11-09-0011	No	No	Yes
P-51	TR 30973	No	No	Yes
P-52	TR 31226	No	No	Yes
P-53	TR 31659	No	No	Yes
P-54	TTM 32708 (50% Complete)	No	No	Yes
P-55	Perris Marketplace	No	No	Yes
P-56	PM 34199/TPM 34697	No	No	Yes
P-57	P 04-0343	No	No	Yes
P-58	Jordan Distribution	No	No	Yes
P-59	TR 31407	No	No	Yes
P-60	Retail on San Jacinto	No	No	Yes
P-61	Investment Development Services (IDS) II	No	No	Yes
City of Riverside				
R-1	Sycamore Canyon Business Park - Bldgs 1&2	Yes	Yes	Yes
R-2	Alessandro Business Center (Western Realco)	Yes	Yes	Yes
R-3	P07-1028, -0102; and P09-0416, -0418, -0419	Yes	Yes	Yes
R-4	Quail Run	No	No	Yes
R-5	Canyon Springs Healthcare Campus Specific Plan	No	No	Yes
R-6	2450 Market Streetca (P13-0087; P13-0262)	No	No	Yes
R-7	2861 Mary Street (P12-0442; P12-0443; P12-0444)	No	No	Yes
R-8	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	No	No	Yes
R-9	Magnolia Avenue Specific Plan	No	No	Yes
R-10	SR-91/Van Buren Commercial	No	No	Yes
R-11	Citrus Business Park Specific Plan	No	No	Yes
R-12	Sycamore Canyon Business Park Specific Plan	No	No	Yes
R-13	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697;P12-0698)	No	No	Yes
R-14	360 Alessandro Boulevard (P12-0419; P12-0557; P12- 0558; P12-0559)	No	No	Yes
R-15	Mission Grove Specific Plan	No	No	Yes
R-16	Sycamore Canyon Specific Plan	No	No	Yes

Table 1: Other Past, Present, and Reasonable Foreseeable Projects (continued)

MapID	Project	In 2018 Scenarios?	In 2025 Scenarios?	In 2040 Scenarios?
R-17	P13-0553; P13-0554; P13-0583; P14-0065	No	No	Yes
R-18	Hunter Business Park	No	No	Yes
R-19	807 Blaine Street (P09-0717; P09-0718)	No	No	Yes
R-20	P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966	No	No	Yes
R-21	1006 & 1008 Clark Street	No	No	Yes
R-22	3719 Strong Street (P05-0269; P08-0416; TM 33550)	No	No	Yes
R-23	1710 Main Street (P12-0717)	No	No	Yes
R-24	Downtown Specific Plan	No	No	Yes
R-25	P14-0045; P14-0046; P14-0047; P14-0048; P14-0049	No	No	Yes
R-26	Marketplace Specific Plan	No	No	Yes
R-27	2586 University avenue (P13-0650; P13-0651)	No	No	Yes
R-28	2340 Fourteenth Street (P09-0808; P08-0809)	No	No	Yes
R-29	P13-0196; P13-0197	No	No	Yes
R-30	3545 Central Avenue (P12-0741; P12-0743)	No	No	Yes
R-31	P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	No	No	Yes
R-32	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	No	No	Yes
R-33	P13-0198; P13-0199; P13-0200; P13-0201	No	No	Yes
R-34	4247 Van Buren Boulevard (P13-0785; P13-0787)	No	No	Yes
R-35	3990 Reynolds Road (P12-0021; P12-0022; P12-0074;PM 36442)	No	No	Yes
R-36	3875 Dawes Street (P10-0438; Magnolia GardenCondominiums)	No	No	Yes
R-37	3705 Tyler Street (P13-0501; P13-0502)	No	No	Yes
R-38	Park Sierra Avenue (P14-0026; P14-0027)	No	No	Yes
R-39	Riverwalk Vista Specific Plan	No	No	Yes
R-40	P12- 0019; P12-0156; P12-0158	No	No	Yes
R-41	4824 Jones Avenue (P13-0181; P13-0182)	No	No	Yes
R-42	Rancho La Sierra Specific Plan	No	No	Yes
R-43	P05-1528; P09-0087; TM 34509	No	No	Yes
R-44	6465 Sycamore Canyon Boulevard	No	No	Yes
R-45	P06-0591	No	No	Yes
R-46	Sycamore-Highlands Specific Plan	No	No	Yes
R-47	P06-0160/P06-1281	No	No	Yes
R-48	P06-1408	No	No	Yes
R-49	Canyon Springs Specific Plan	No	No	Yes
R-50	Orangecrest Specific Plan	No	No	Yes
R-51	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	No	No	Yes
R-52	19811 Lurin Avenue (P06-1355; TM 33480)	No	No	Yes
R-53	APN:266140002, 021, 022 (P06-1404; Lurin Avenue;TM 33482)	No	No	Yes
R-54	APN:266140029, 030 (P06-1396; Mariposa Avenue;TM 33481)	No	No	Yes
R-55	P06-0900; P08- 0269; P08-0270; TTM 32301	No	No	Yes
R-56	Office, Magnon & Panattoni	No	No	Yes
R-57	P13-0607; P13-0608; P0609; P13-0854	No	No	Yes
R-58	Canyon / Valley Springs Parkway	No	Yes	Yes
R-59	Alessandro and Gorgonio	No	No	Yes
R-60	APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848	No	No	Yes
R-61	Gless Ranch	No	Yes	Yes
R-62	6091 Victoria Avenue (P13-0432)	No	No	Yes
R-63	8616 California Avenue (P08-0084; PM 35852)	No	No	Yes
R-64	P13-0389; TM36579	No	No	Yes
R-66	P13-0723; P13-0724; P13-0725; TM 36654	No	No	Yes
R-67	Azar Plaza	No	No	Yes
Unincorporated Riverside County				
RC-1	TR35530 / Quail Ranch Specific Plan	No	No	Yes
RC-2	Jack Rabbit Trail	No	No	Yes
RC-3	The Preserve / Legacy Highlands SP - Residential	No	No	Yes
RC-5	Badlands Sanitary Landfill	Yes	Yes	Yes
RC-6	Villages of Lakeview -Residential/Commercial Development	No	Yes	Yes
RC-8	Rider Business Center (Core 5 Industrial Partners)	No	No	Yes
RC-9	Nuevo Distribution Center	No	No	Yes
RC-10	Trucking DC (Central Freight, LLC)	No	No	Yes

Table 1: Other Past, Present, and Reasonable Foreseeable Projects (continued)

MapID	Project	In 2018 Scenarios?	In 2025 Scenarios?	In 2040 Scenarios?
RC-11	Oleander Business Park, PP20699	Yes	Yes	Yes
RC-12	Majestic Freeway Business Center, SP 341 / PP21552	No	No	Yes
RC-13	Meridian Business Park - Phase 3	No	Yes	Yes
RC-14	Meridian LNR Phase 5	No	Yes	Yes
RC-15	Meridian Business Park Phases I and II	Yes	Yes	Yes
RC-16	March LifeCare Campus Specific Plan	No	No	Yes
RC-17	Meridian Business Park - Phase K4	No	Yes	Yes
RC-19	Amstar/Kaliber Development, PP22925	No	No	Yes
RC-18	Alessandro Commerce Center	No	No	Yes
RC-20	Cores Industrial Partners	No	No	Yes
RC-21	Sunny-Cal Specific Plan (#40)	No	No	Yes
RC-22	University Highlands	No	No	Yes
RC-23	TTM 33410 Box Springs	No	No	Yes
RC-24	Rider Street Quarry	No	No	Yes
RC-25	PP 24608	No	No	Yes
RC-26	TR 32406	No	No	Yes
RC-27	CUP 03599	No	No	Yes
RC-28	PP 25699	No	No	Yes
RC-29	CUP 03527	No	No	Yes
RC-30	TR30592	No	No	Yes
RC-31	PP 25768	No	No	Yes
RC-32	PP 21144	No	No	Yes
RC-33	PP 16976	No	No	Yes
RC-34	PM 32699	No	No	Yes
RC-35	Yocum Baldwin	No	No	Yes
RC-36	CUP03315	No	No	Yes
RC-37	Airport Master Plan	No	No	Yes
RC-38	TM 34748	No	No	Yes
RC-39	18580 Van Buren Boulevard (P08-0402; P13-0822)	No	No	Yes
RC-40	Ben Clark Training Facility	No	No	Yes
RC-41	March Business Center - South Campus	No	No	Yes
RC-42	PA 06-0014 (Pierce Hardy Limited Partnership)	No	No	Yes
RC-44	Knox Logistics	No	Yes	Yes
RC-45	PP23342	No	No	Yes
RC-46	TR31537	No	No	Yes
RC-47	TR34130	No	No	Yes
RC-48	Emerald Acres SP (SP00381)	No	No	Yes
RC-49	TR34677, TR31100, TR32391, TR33448, TR31101, TR31009, TR32282	No	Yes	Yes
RC-50	TR36478, TR36480, PP25219	No	No	Yes
RC-51	TR36504	No	No	Yes
RC-53	San Gorgonio Crossings	No	Yes	Yes
RC-54	Tract 33869	No	No	Yes
City of Redlands				
RD-1	Tract 18988	Yes	Yes	Yes
RD-2	Redlands Pioneer Tract	Yes	Yes	Yes
RD-3	Newland Homes Tract	No	Yes	Yes
RD-4	Redlands Pennsylvania Tract	No	Yes	Yes
RD-5	I-10 Redlands LC - A	Yes	Yes	Yes
RD-6	Woodsprings Hotel	No	Yes	Yes
RD-7	RV Storage Facility	No	Yes	Yes
RD-8	Liberty Lane Apartments	No	Yes	Yes
RD-9	Hilton Home2 Suites	No	Yes	Yes
RD-10	Park Ave Industrial Center	No	Yes	Yes
RD-11	Marriott Springhill Suites	No	Yes	Yes
RD-12	I-10 Redlands LC - B	Yes	Yes	Yes
RD-13	Ashley Furniture	Yes	Yes	Yes
RD-14	Redlands DC 772,000 SF (2015)	Yes	Yes	Yes
RD-15	2220 Almond Ave	Yes	Yes	Yes
RD-16	APL Logistics	Yes	Yes	Yes

Table 1: Other Past, Present, and Reasonable Foreseeable Projects (continued)

MapID	Project	In 2018 Scenarios?	In 2025 Scenarios?	In 2040 Scenarios?
Unincorporated San Bernardino County				
SB-1	Redlands Gateway Logistics - B	Yes	Yes	Yes
SB-2	Redlands Gateway Logistics - A	Yes	Yes	Yes
SB-3	Prologis #12	Yes	Yes	Yes
SB-4	Prologis #17	Yes	Yes	Yes
SB-5	Prologis #13	Yes	Yes	Yes
SB-6	Prologis #8	Yes	Yes	Yes
SB-7	Sam Redlands Tract	No	Yes	Yes
SB-8	Jacinto Tract	No	Yes	Yes
City of San Jacinto				
SJ-1	Gateway Area Specific Plan	No	Yes	Yes
SJ-2	TR31886 - Under Construction	No	Yes	Yes
SJ-3	TR30598 (SP 1-03)	No	No	Yes
SJ-4	TR32955 (SP 1-02)	No	Yes	Yes

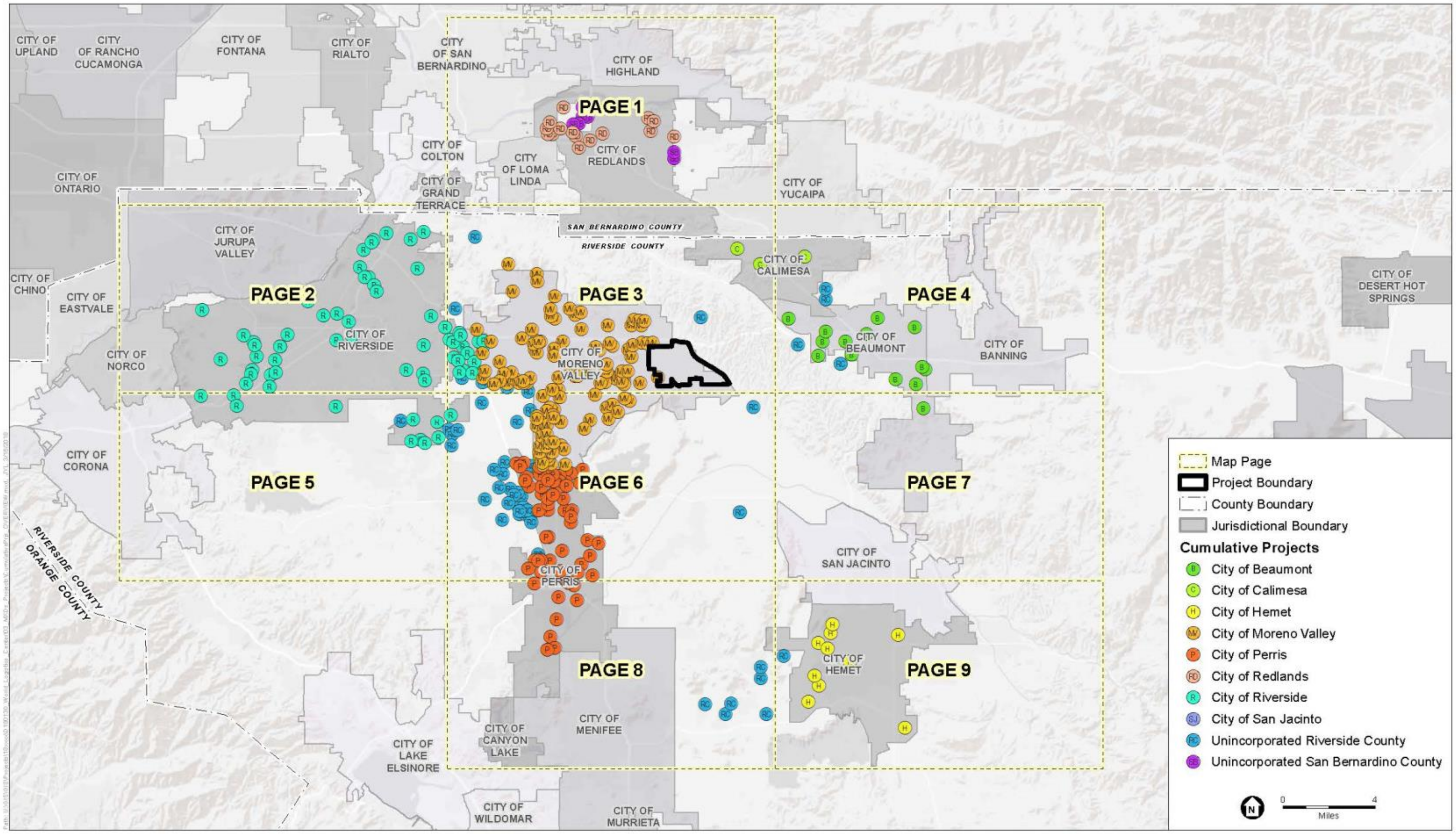

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area

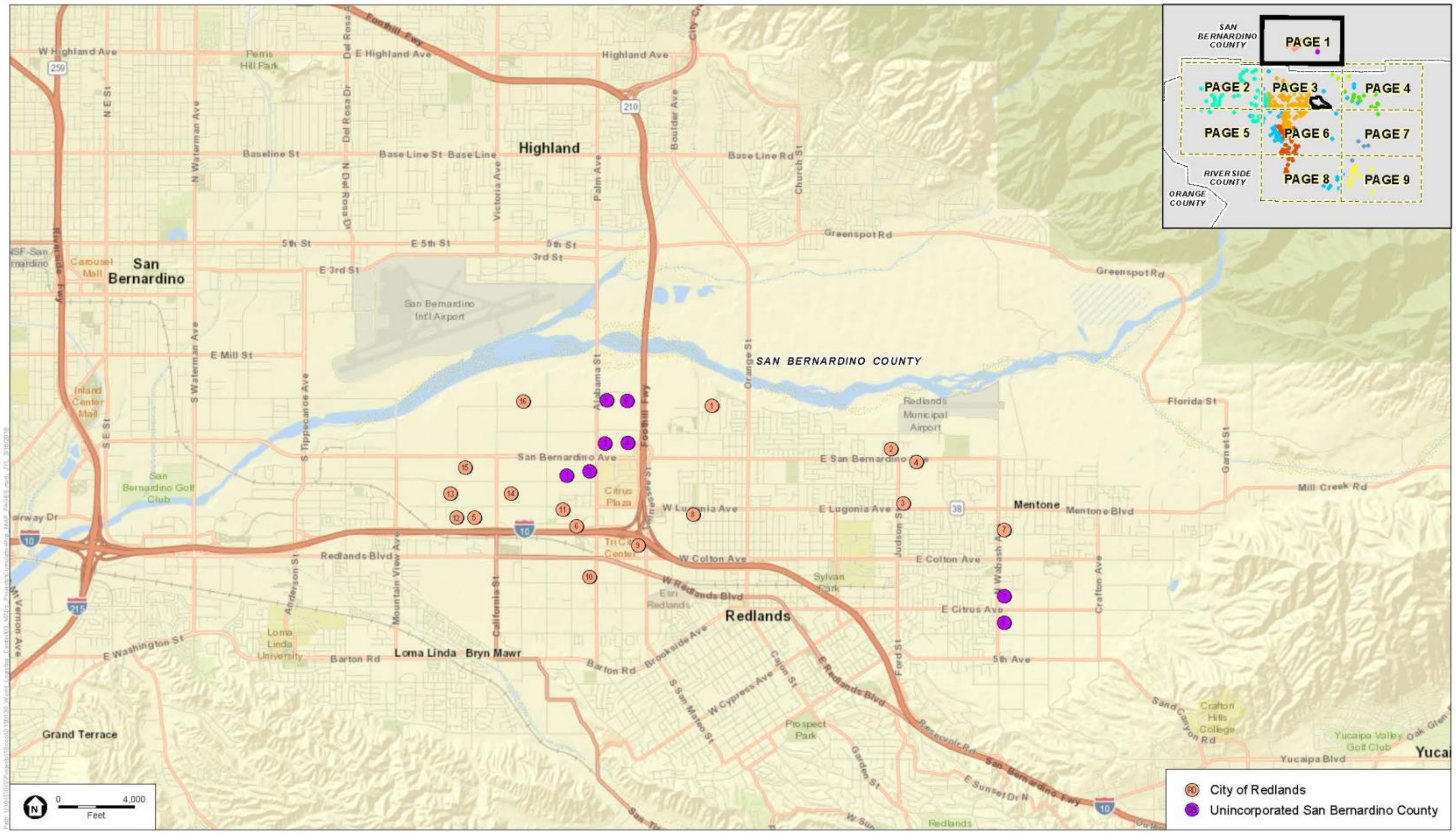

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

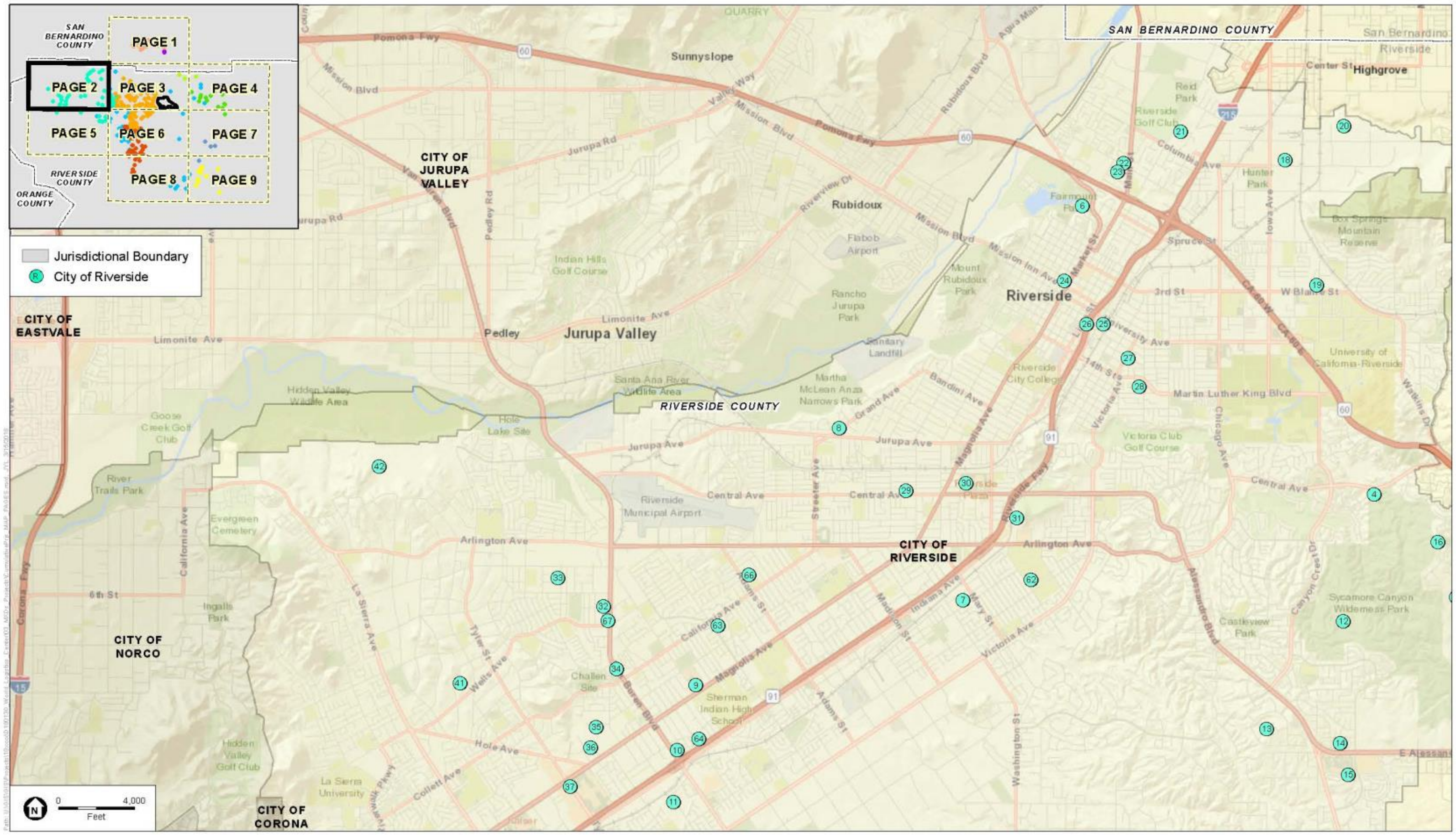

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

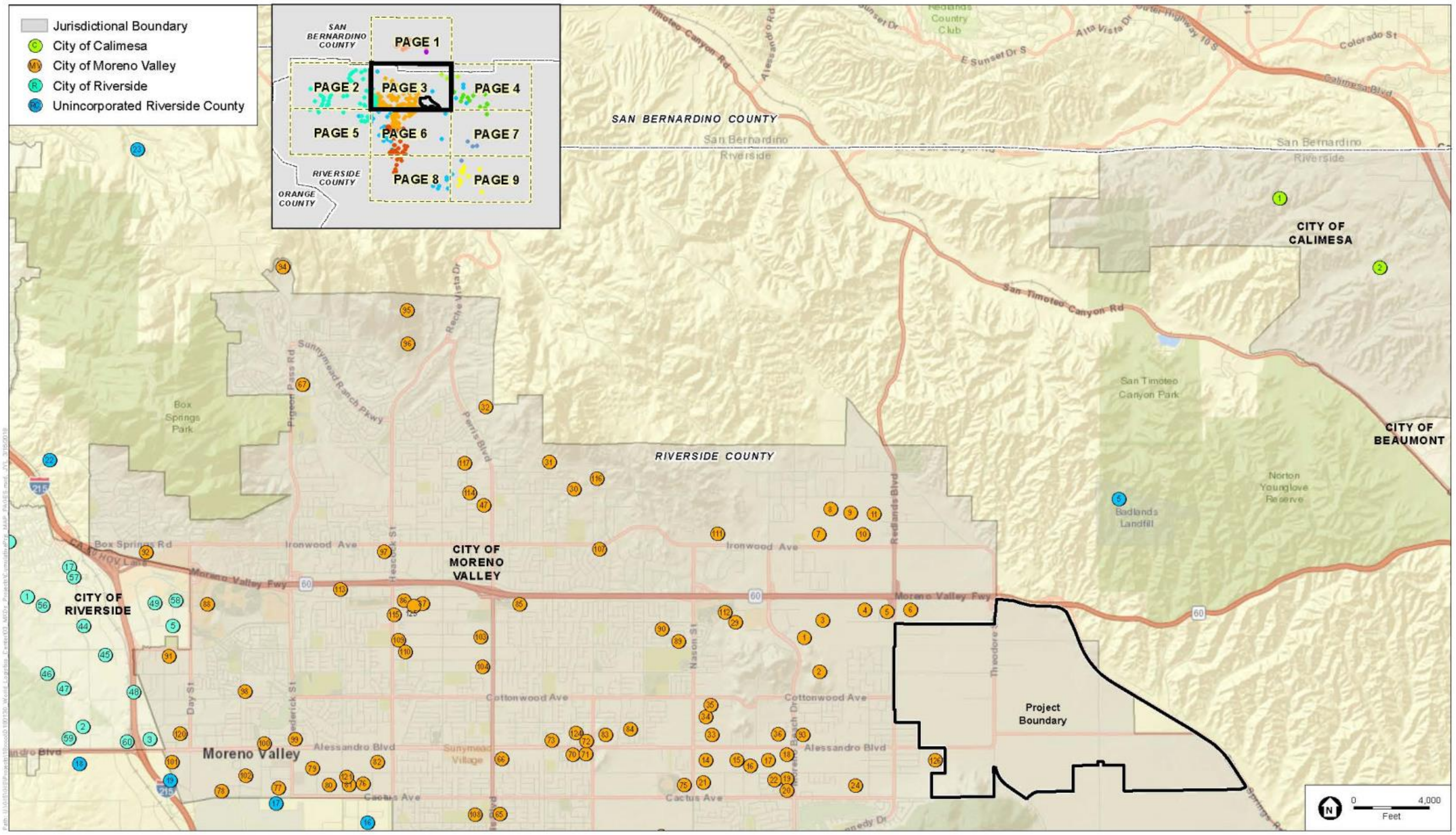

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

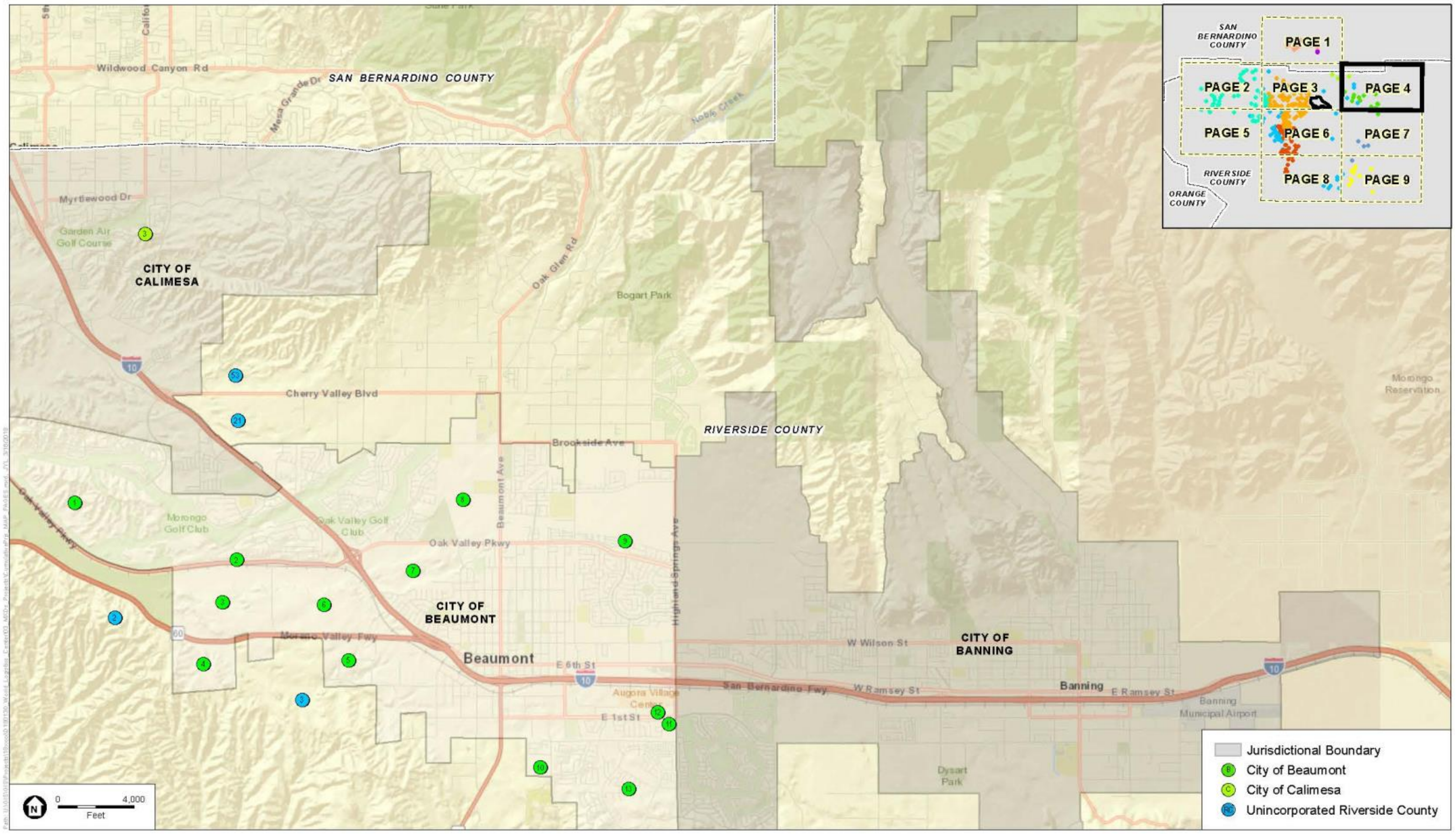

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

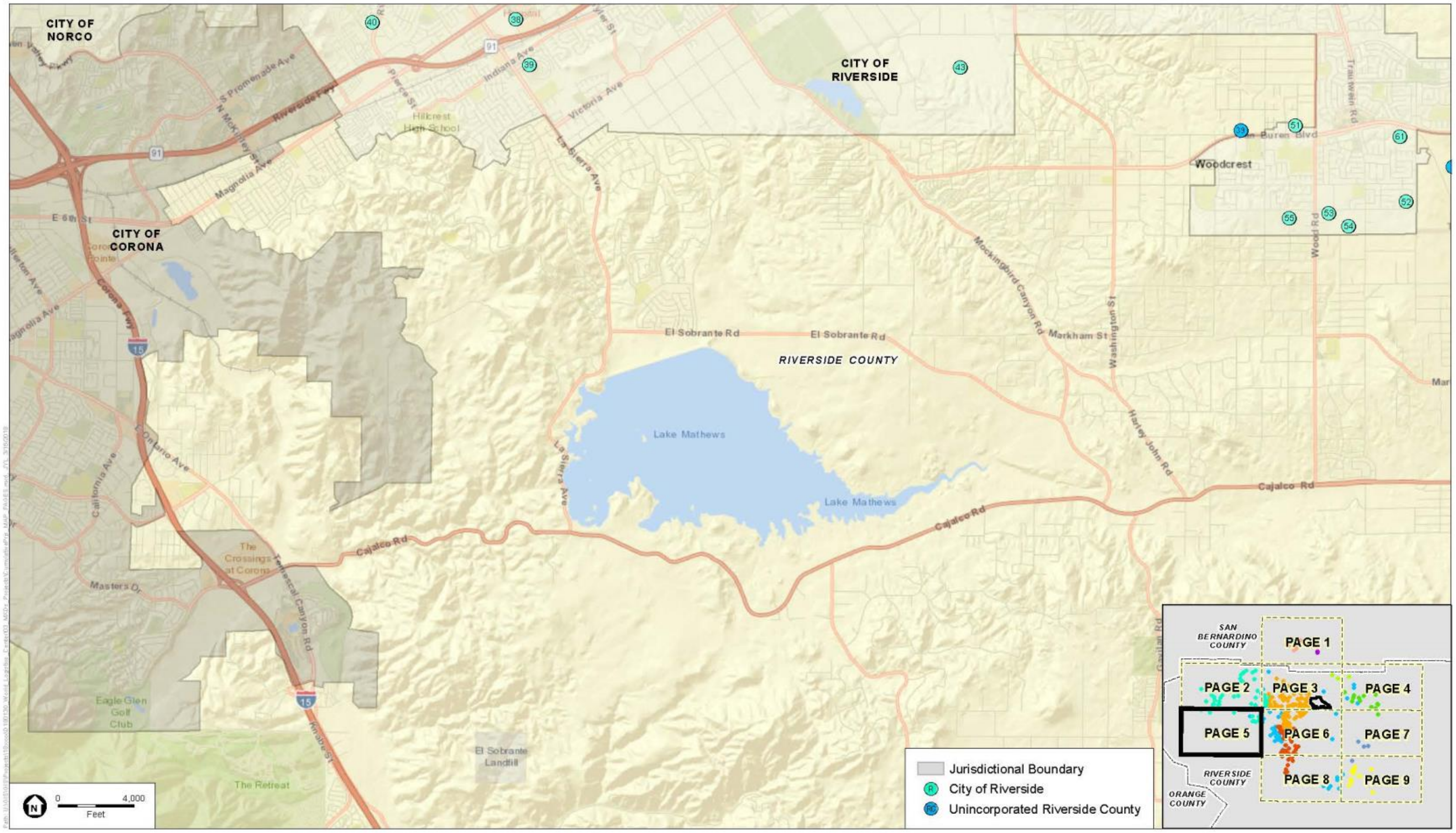

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

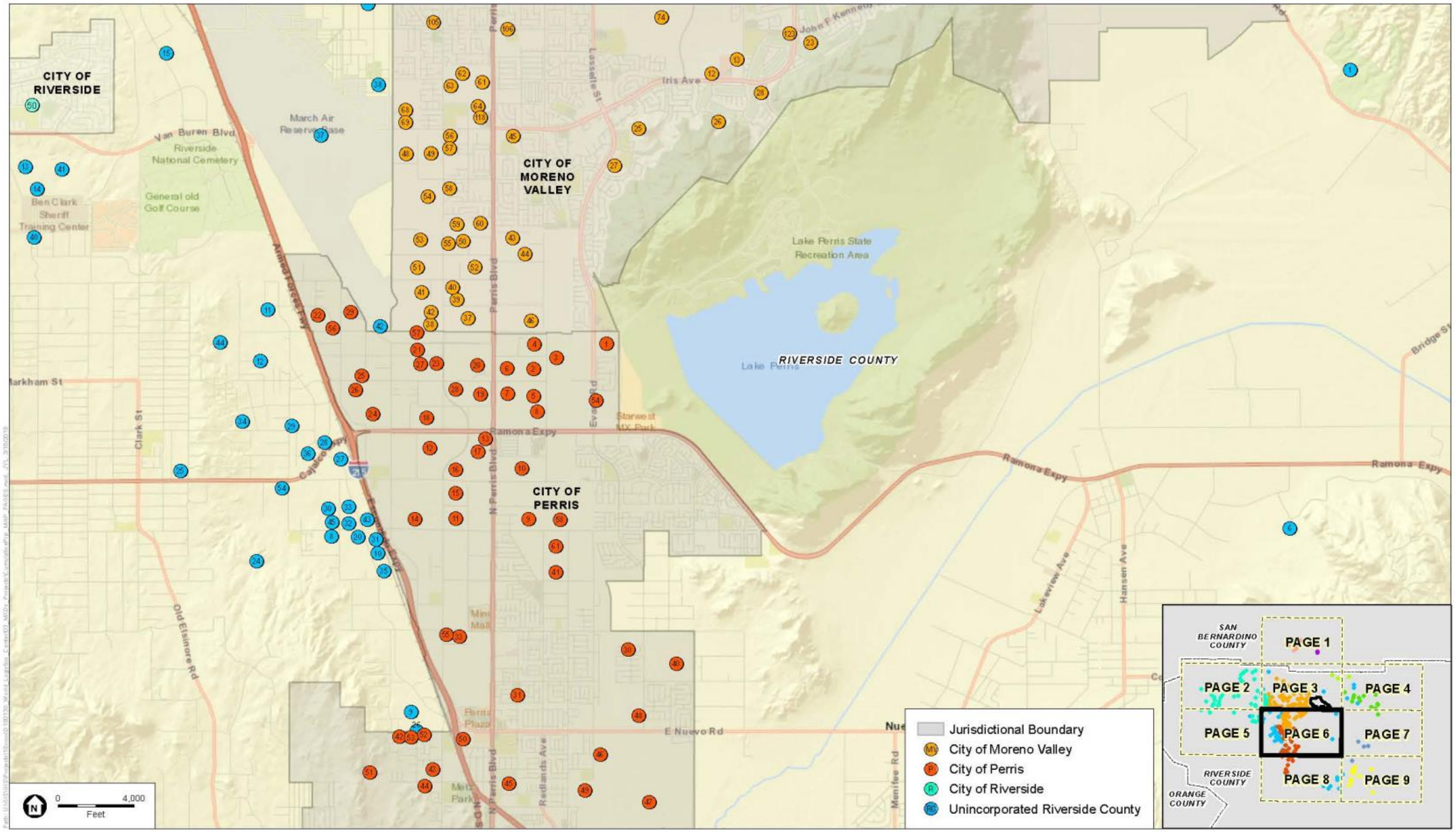

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

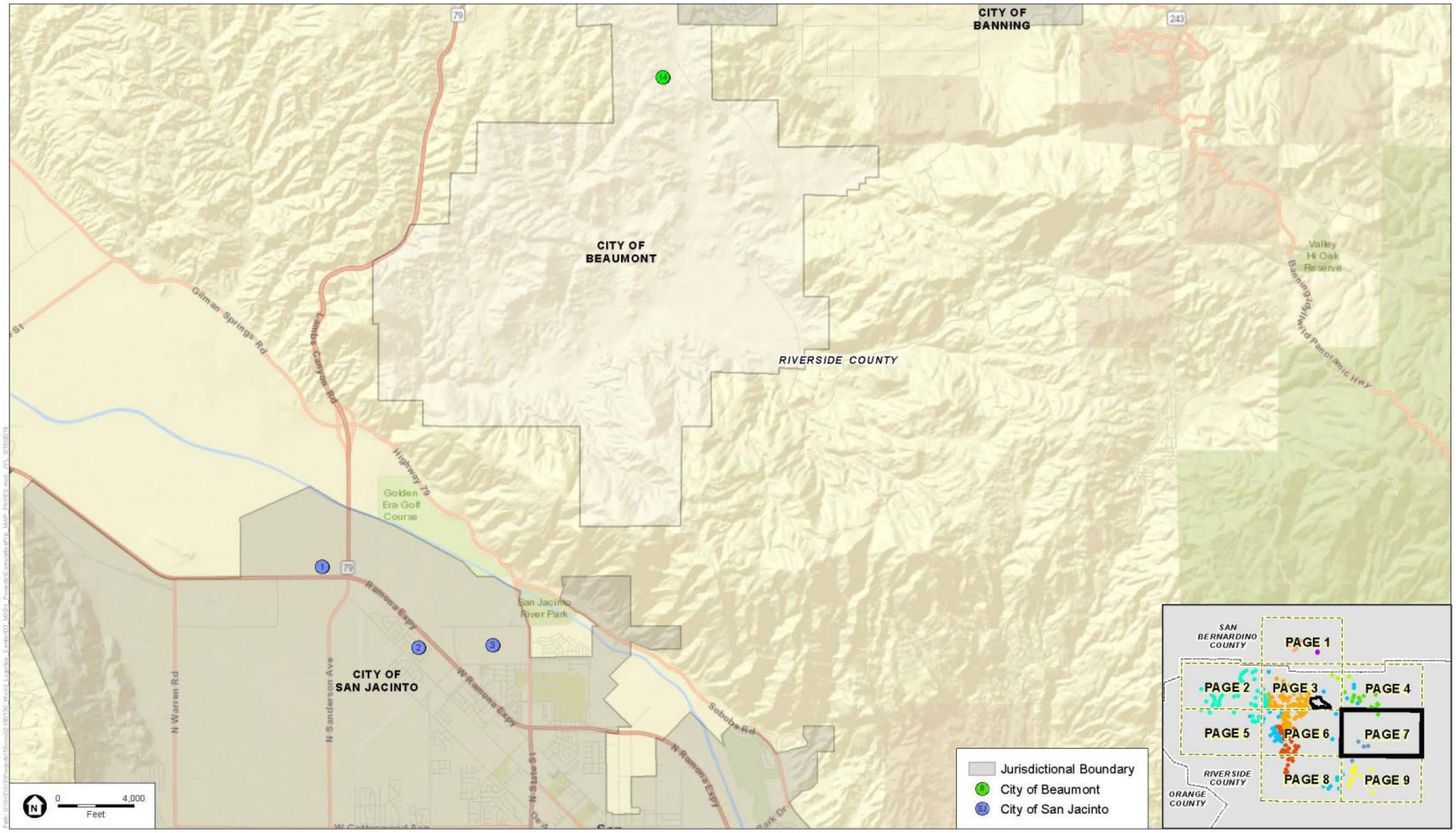

SOURCE: ESRI; Highland Fairview 3/12/2018

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ESA

Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

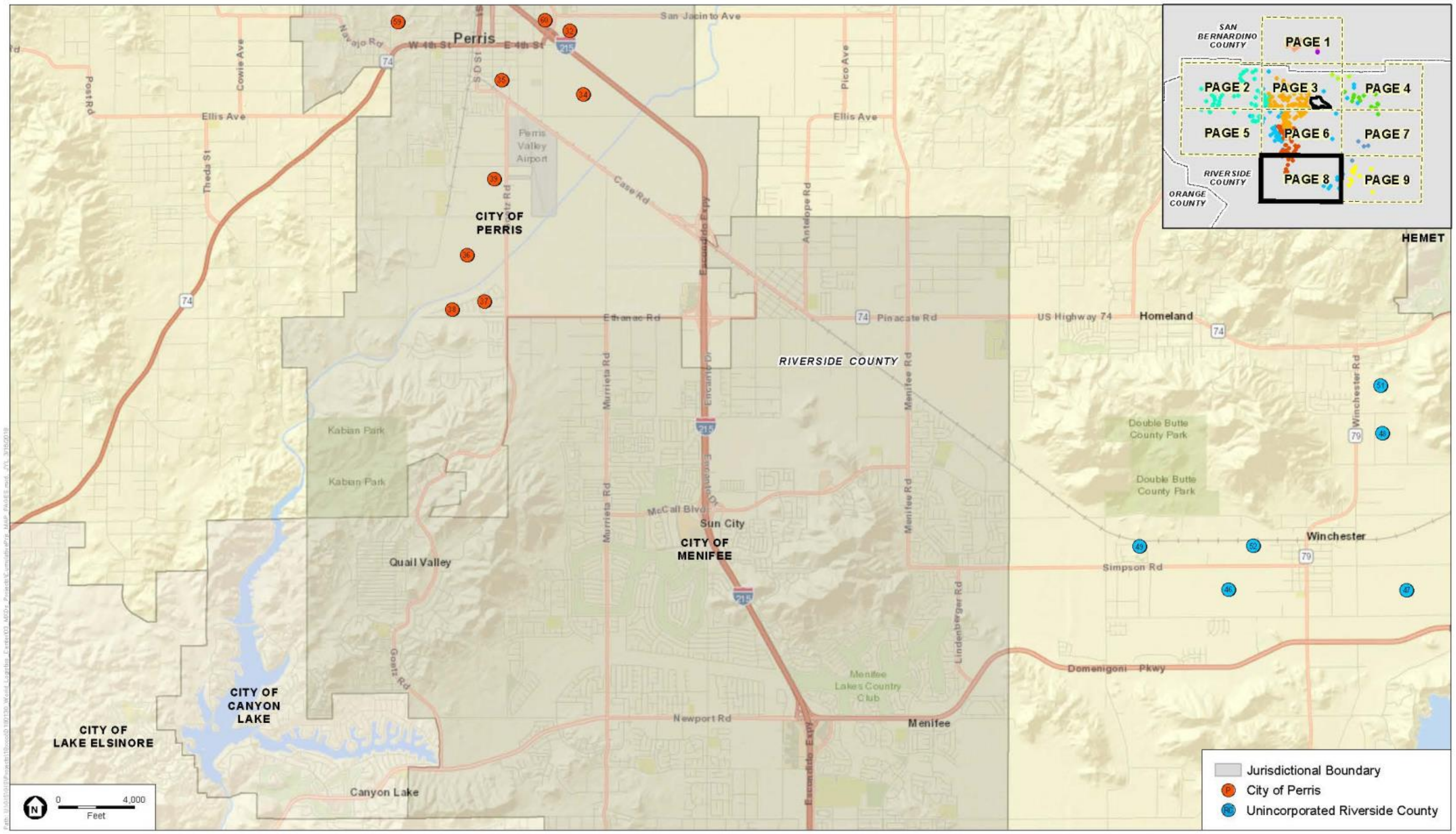

SOURCE: ESRI; Highland Fairview 3/12/2018

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ESA

Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

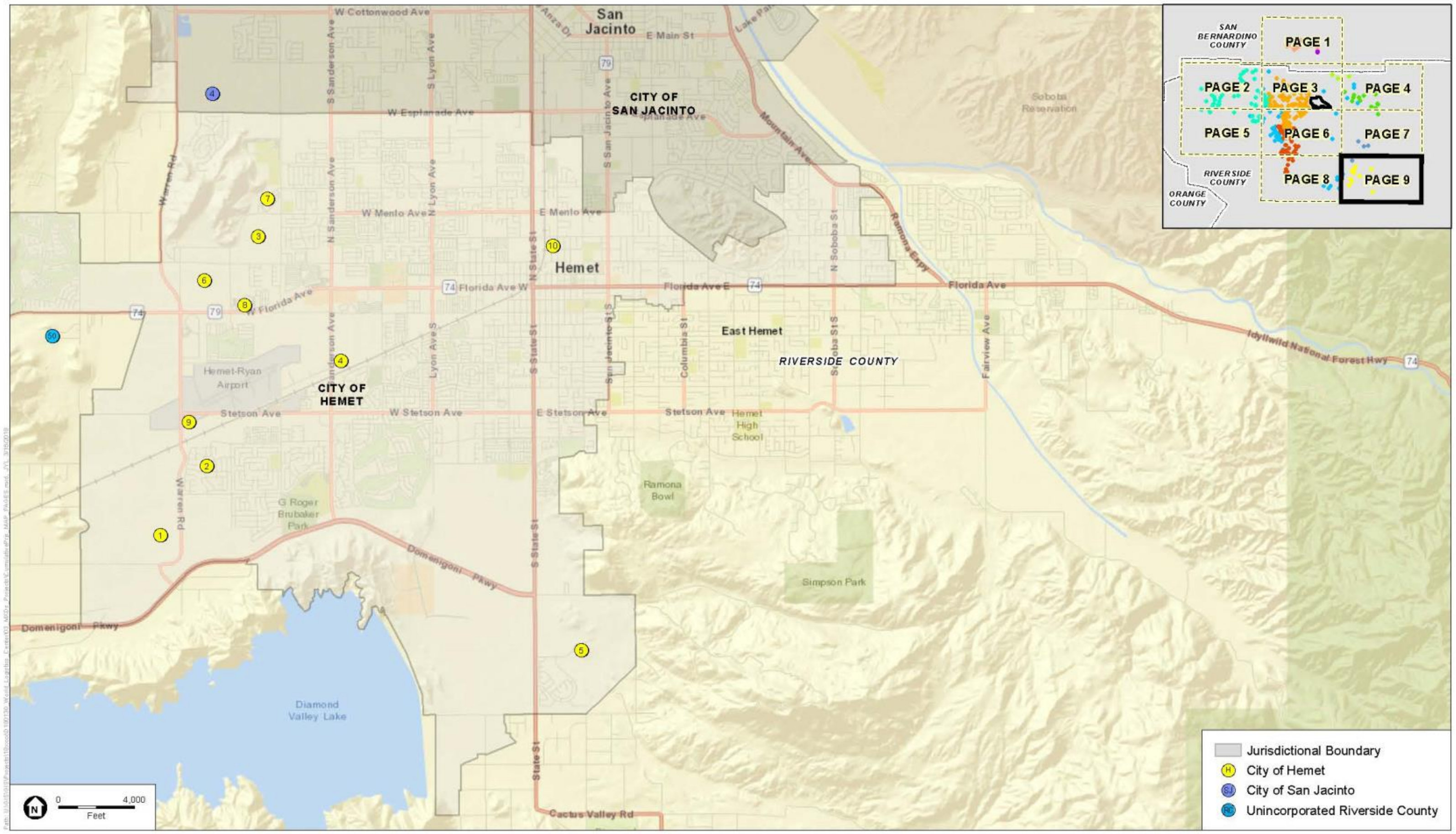

SOURCE: ESRI; Highland Fairview 3/12/2018

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Figure 4: Locations of Other Past, Present, and Reasonably Foreseeable Projects in the Study Area (continued)

Network Assumptions

The scenarios analyzing future conditions required the use of assumptions regarding changes in the road network that may occur between now and the study year. The most well-researched and officially accepted source of longer-term land use forecasts is the SCAG 2016-2040 Regional Transportation Plan (RTP), which was adopted in April 2016 along with the SCS land use forecasts. The RTP was developed through a bottom-up process where agency projects were reviewed, prioritized, and matched against federal, state, and local funding sources. The result was three lists of approved projects, namely:

- The Federal Transportation Improvement Program, which covers the first four years of the program including projects that are already funded and are either already under construction or are in an advanced stage of development.
- A second project list for 2016-2040, the financially constrained project list, that includes only transportation projects that have committed, available, or reasonably available revenue sources, and thus are probable for implementation.
- The Strategic Plan, which is an illustrative list of additional transportation investments that the region would pursue if additional funding and regional commitment were secured. Such investments are potential candidates for inclusion in the constrained RTP/SCS through future amendments or updates.

For this study, only the projects in the Federal Transportation Improvement Program and the financially constrained[7] project list were assumed to be completed (see Figure 5). The projects in the Strategic Plan were not assumed completed because funding for them was considered to be too uncertain.

The network for the 2040 study year was also based on the RTP. However, within the City of Moreno Valley the General Plan road network was incorporated into the study (see Figure 6). The General Plan network includes future planned improvements that are funded through the City's Development Impact Fee (DIF), Western Riverside Council of Governments' Transportation Uniform Mitigation Fee (TUMF), and improvements made directly by developers. The expectation that these improvements will be in place is therefore consistent with and based upon the assumption of build-out of the General Plan land uses, since most of the improvements will be funded through fees on the new developments. If other sites do not fully build out per the General Plan, then less traffic will be generated and the LOS on the study streets and intersection would likely be better than shown in this report.

The truck routes assumed for roads in Moreno Valley were based on the current Municipal Code. Within the project site all roads would be truck routes, but trucks would not be permitted to enter or leave the site through the Cactus Ave. Extension.

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[7] These are the projects for which funds are committed or reasonably available.

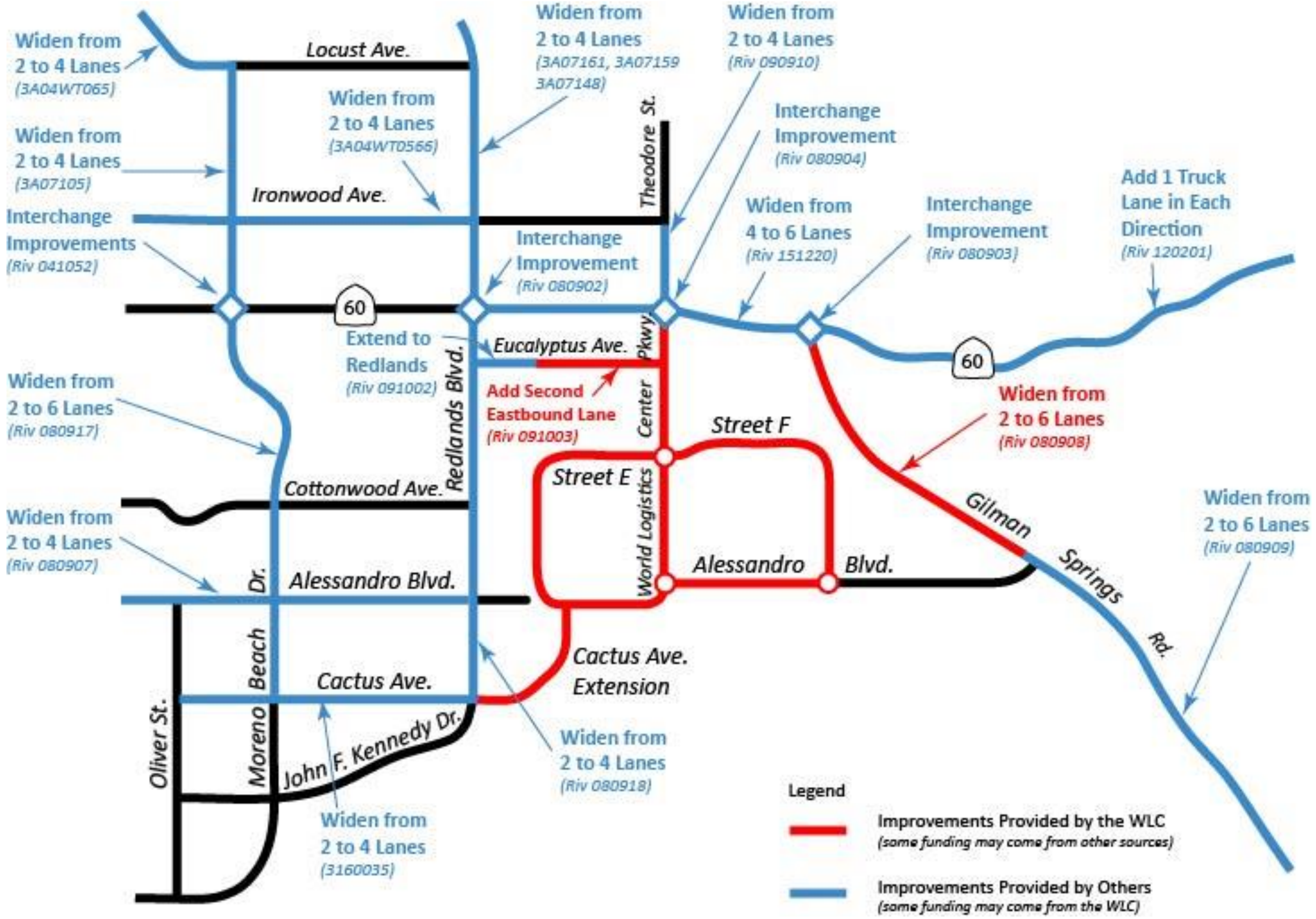

Figure 5: Roadway Improvements Assumed for 2025

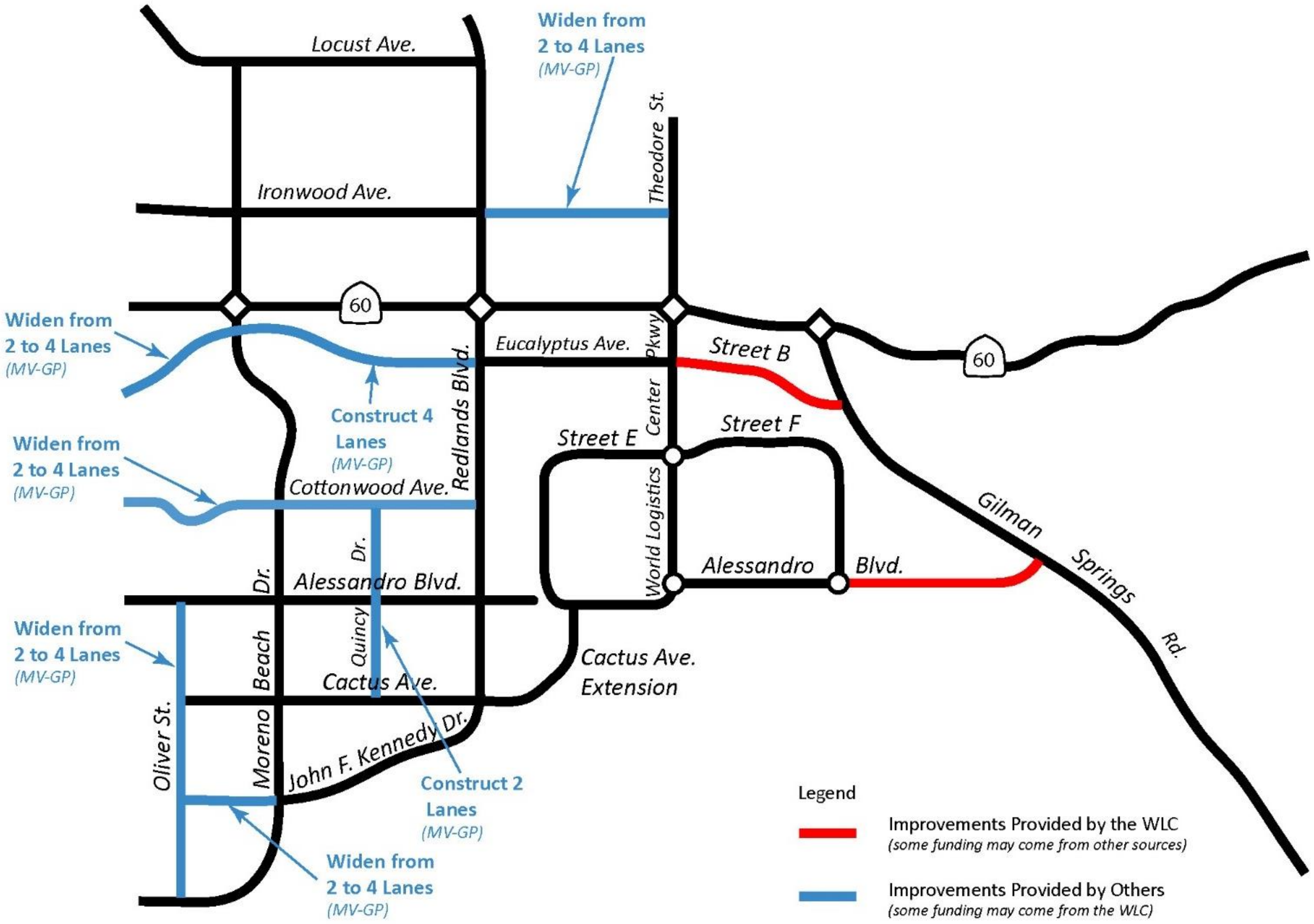

Figure 6: Roadway Improvements Assumed for 2040

Trip Generation Assumptions for High-Cube Warehouses

Based on the proposed WLC Specific Plan, high-cube logistics warehousing would comprise 99.4% of the floor space of the WLC, so a considerable amount of deliberation and study went into the selection of the most appropriate trip generation rate for this particular type of building. In the 2014 TIA four possible sources of trip generation rates were identified and evaluated, with a combination of two sources eventually being used. These were ITE's *Trip Generation Manual 9th Edition* being the source of the overall trip generation rate and the City of Fontana *Truck Trip Generation Study* being the source of the vehicle mix percentages.

Given the growing importance of high-cube logistics to southern California and plethora of small, conflicting studies of trip-generation rates for that type of building, a consensus formed on the need for a single, comprehensive survey that would provide definitive trip-gen rates for use in TIAs going forward. Accordingly, the South Coast Air Quality Management District (SCAQMD), a leading environmental agency for Riverside County, and the National Association of Industrial and Office Properties (NAIOP), representing developers, jointly sponsored a study to be conducted by a highly respected neutral party, ITE. The findings of this very large[8] study were released in October 2016 as a report entitled *High-Cube Warehouse Vehicle Trip Generation Analysis*.

The 2016 ITE study found that on average high-cube transload and short-term storage warehouses, the type of warehouse proposed for the WLC, generate fewer trips than had been assumed in the previous TIA for every analysis period (24% fewer in the AM peak period, 14% fewer in the PM peak hour, and 15% fewer on a daily basis). However, the volume of truck trips being generated in off-peak periods was higher than had been previously assumed. These results have been incorporated into the 10th edition of ITE's *Trip Generation Manual* in a new land use code (Code 154). SCAQMD has indicated its acceptance of these results on its website[9],

> "*Draft final results for the Warehouse Truck Trip Study were completed and were lower than SCAQMD recommended truck trip rates in the California Emissions Estimator Model (CalEEMod). Staff recommends truck trip rates from the Institute of Transportation Engineers (ITE) for high cube warehouse projects located in SCAQMD. Consistent with CEQA Guidelines, a CEQA document may use a non-default trip rate if there is substantial evidence in the recording supporting another rate is more appropriate for the air quality analysis.*"

Based on the substantial evidence collected by ITE and presented in the 10th edition of ITE's *Trip Generation Manual* and in *High-Cube Warehouse Vehicle Trip Generation Analysis*, the data from these two sources were used in the current analysis of WLC traffic impacts. Specifically, the trip generation rates and directionality (percent of vehicle entering and leaving the site) were taken from the 10th edition of *Trip Generation Manual*, while the percentage of vehicles in each vehicle class was taken from *High-Cube Warehouse Vehicle Trip Generation Analysis*. A mixture was required because Trip Generation Manual reported the directional split but not the vehicle mix while High-Cube Warehouse Vehicle Trip Generation Analysis reported the vehicle mix but not the directional mix.

High-Cube Warehouse Vehicle Trip Generation Analysis classified vehicles into three classes, namely passenger vehicles, 2- to 4-axle trucks, and 5+ axle trucks. The "passenger vehicles" category corresponds directly with the "passenger vehicle" category used in the RIVTAM model, and all of the vehicles in the "5+ axle trucks" fall within RIVTAM's "Heavy Truck" category. However, ITE's middle category, 2- to 4-axle trucks, covers three different categories used in RIVTAM. Specifically, 2-axle trucks correspond with RIVTAM's "Light Truck" category, 3-axle trucks correspond with RIVTAM's "Medium Truck" category, and 4-axle trucks fall within RIVTAM's "Heavy Truck" category along with 5+ axle trucks. Vehicle mix data from NAIOP's survey of 31 southern California warehouses was used to disaggregate ITE's middle category into the corresponding RIVTAM vehicle classes.

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[8] Counts were taken at 107 sites

[9] http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/high-cube-warehouse accessed 2/16/2018

The final derivation of the trip generation rates used for high-cube logistics warehouse is shown in Table 2.

Table 2: Derivation of Trip Generation Rates for High-Cube Warehouses

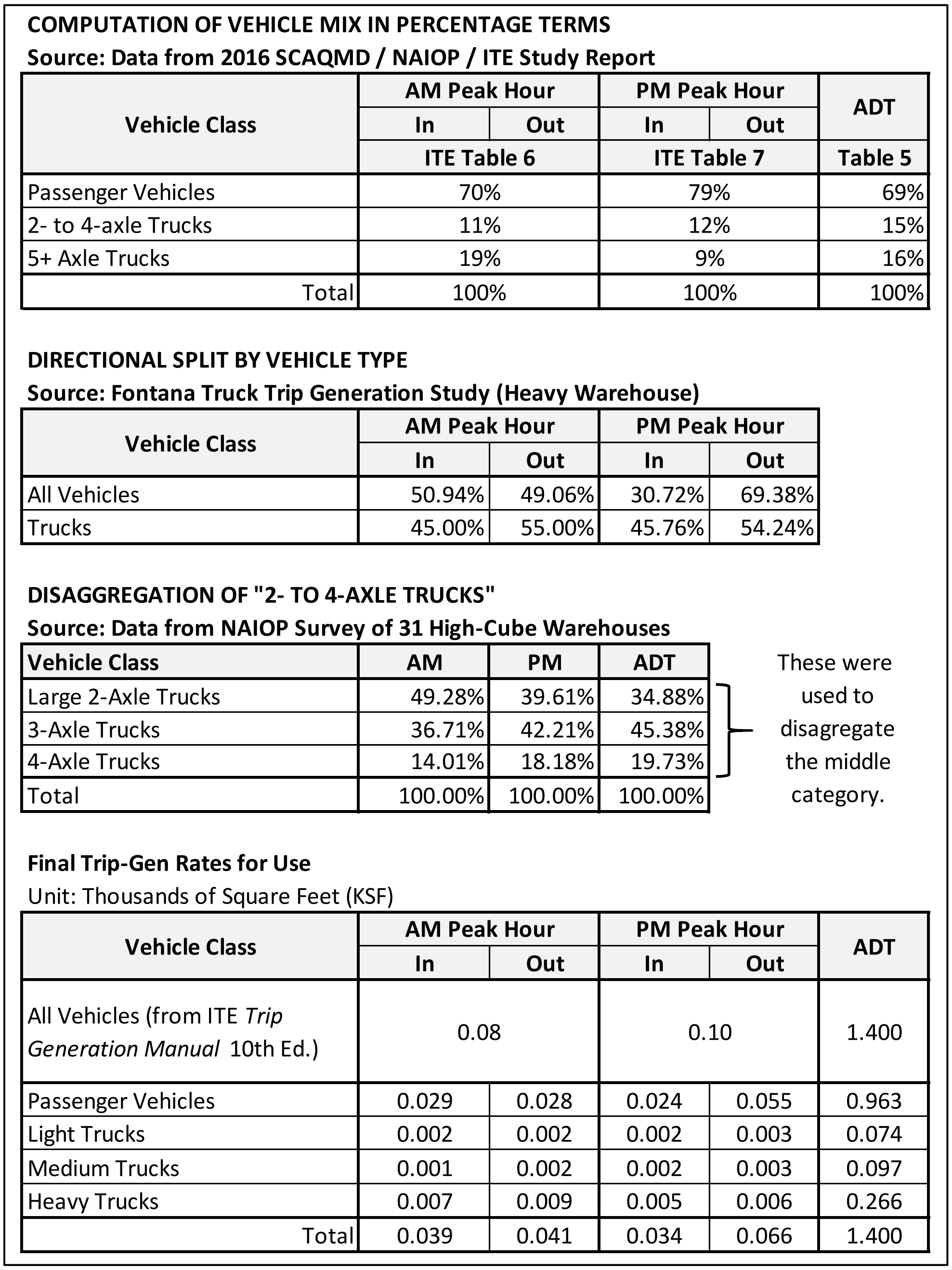

COMPUTATION OF VEHICLE MIX IN PERCENTAGE TERMS
Source: Data from 2016 SCAQMD / NAIOP / ITE Study Report

Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
	ITE Table 6		ITE Table 7		Table 5
Passenger Vehicles	70%		79%		69%
2- to 4-axle Trucks	11%		12%		15%
5+ Axle Trucks	19%		9%		16%
Total	100%		100%		100%

DIRECTIONAL SPLIT BY VEHICLE TYPE
Source: Fontana Truck Trip Generation Study (Heavy Warehouse)

Vehicle Class	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
All Vehicles	50.94%	49.06%	30.72%	69.38%
Trucks	45.00%	55.00%	45.76%	54.24%

DISAGGREGATION OF "2- TO 4-AXLE TRUCKS"
Source: Data from NAIOP Survey of 31 High-Cube Warehouses

Vehicle Class	AM	PM	ADT
Large 2-Axle Trucks	49.28%	39.61%	34.88%
3-Axle Trucks	36.71%	42.21%	45.38%
4-Axle Trucks	14.01%	18.18%	19.73%
Total	100.00%	100.00%	100.00%

These were used to disagregate the middle category.

Final Trip-Gen Rates for Use
Unit: Thousands of Square Feet (KSF)

Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
All Vehicles (from ITE *Trip Generation Manual* 10th Ed.)	0.08		0.10		1.400
Passenger Vehicles	0.029	0.028	0.024	0.055	0.963
Light Trucks	0.002	0.002	0.002	0.003	0.074
Medium Trucks	0.001	0.002	0.002	0.003	0.097
Heavy Trucks	0.007	0.009	0.005	0.006	0.266
Total	0.039	0.041	0.034	0.066	1.400

Trip Generation Assumptions for Other WLC Land Uses

The 10th edition of the ITE *Trip Generation Manual* was the main source used for trip generation rates for other land uses on the WLC site. Other data sources and assumptions were used to supplement this source as follows:

Light Logistics

The 10th edition of the ITE *Trip Generation Manual* was the source for the overall trip generation rates and directional split. No vehicle mix for this type of land use was available from the ITE study, so the vehicle mix was taken from the City of Fontana Truck Trip Generation Study per the City of Moreno Valley's TIA guidelines. The derivation of the trip generation rates for this category of land use is shown in Table 3.

Table 3: Derivation of Trip Generation Rates for Light Logistics

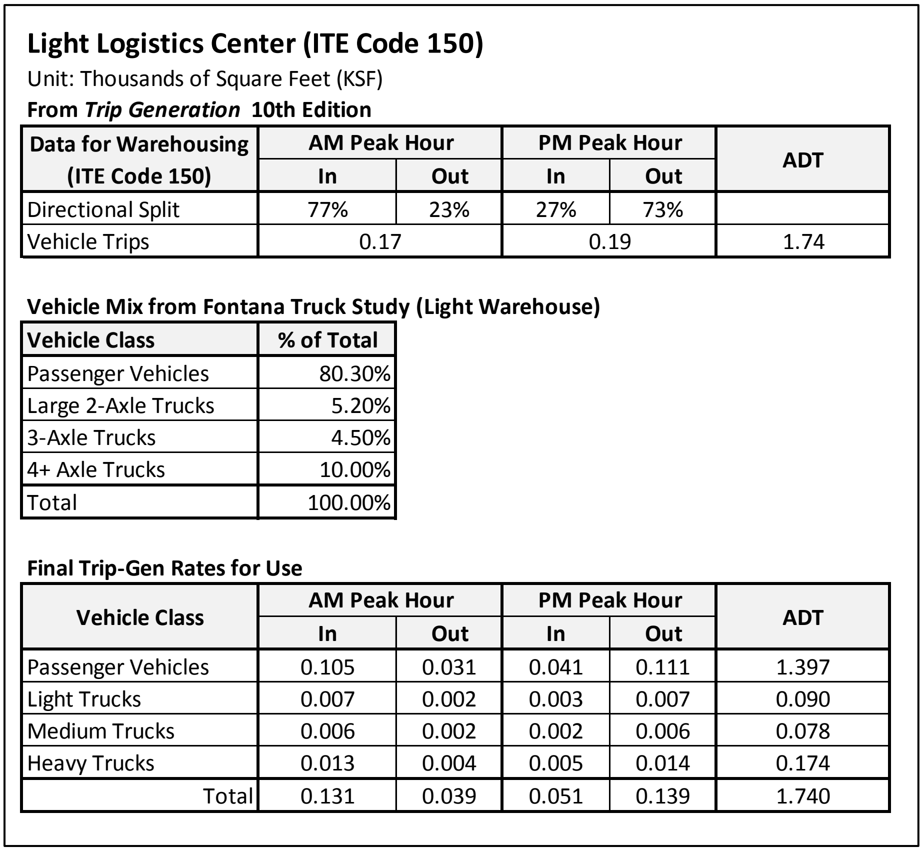

Light Logistics Center (ITE Code 150)

Unit: Thousands of Square Feet (KSF)

From *Trip Generation* 10th Edition

Data for Warehousing (ITE Code 150)	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
Directional Split	77%	23%	27%	73%	
Vehicle Trips	0.17		0.19		1.74

Vehicle Mix from Fontana Truck Study (Light Warehouse)

Vehicle Class	% of Total
Passenger Vehicles	80.30%
Large 2-Axle Trucks	5.20%
3-Axle Trucks	4.50%
4+ Axle Trucks	10.00%
Total	100.00%

Final Trip-Gen Rates for Use

Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
Passenger Vehicles	0.105	0.031	0.041	0.111	1.397
Light Trucks	0.007	0.002	0.003	0.007	0.090
Medium Trucks	0.006	0.002	0.002	0.006	0.078
Heavy Trucks	0.013	0.004	0.005	0.014	0.174
Total	0.131	0.039	0.051	0.139	1.740

Utilities

San Diego Gas & Electric operates a natural gas compressor station, known as the Moreno Compressor Station, on 19 acres in the southern portion of the project area. Southern California Gas Company operates a valving, metering, and pipe cleaning station on a one-acre parcel in the south-central portion of the project area. The 10th edition of the ITE *Trip Generation Manual* was the source for the overall trip generation rates and directional split. No vehicle mix for this type of land use was available from the ITE study or the Fontana study, so the vehicle mix was taken from the SCAG travel demand model. The derivation of the trip generation rates for this category of land use is shown in Table 4.

Table 4: Derivation of Trip Generation Rates for Utilities

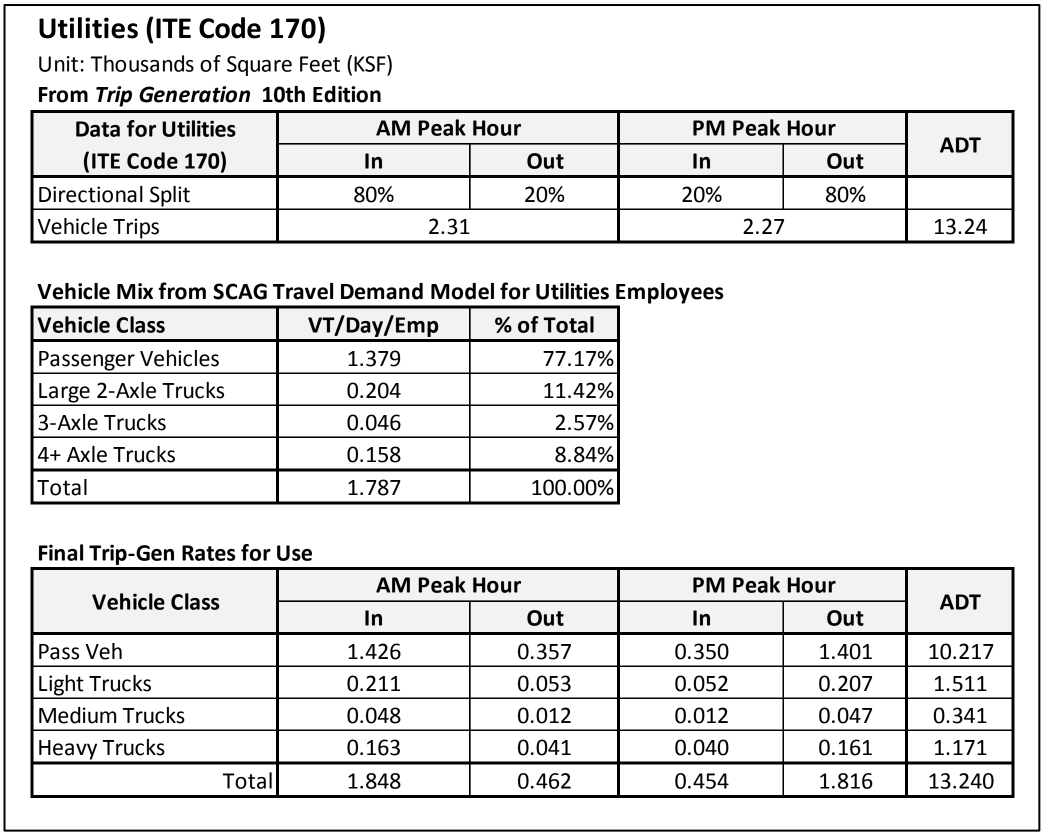

Utilities (ITE Code 170)

Unit: Thousands of Square Feet (KSF)

From *Trip Generation* 10th Edition

Data for Utilities (ITE Code 170)	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
Directional Split	80%	20%	20%	80%	
Vehicle Trips	2.31		2.27		13.24

Vehicle Mix from SCAG Travel Demand Model for Utilities Employees

Vehicle Class	VT/Day/Emp	% of Total
Passenger Vehicles	1.379	77.17%
Large 2-Axle Trucks	0.204	11.42%
3-Axle Trucks	0.046	2.57%
4+ Axle Trucks	0.158	8.84%
Total	1.787	100.00%

Final Trip-Gen Rates for Use

Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
Pass Veh	1.426	0.357	0.350	1.401	10.217
Light Trucks	0.211	0.053	0.052	0.207	1.511
Medium Trucks	0.048	0.012	0.012	0.047	0.341
Heavy Trucks	0.163	0.041	0.040	0.161	1.171
Total	1.848	0.462	0.454	1.816	13.240

Alternative Fueling Station and Convenience Store

The project includes a fueling station and convenience store intended to serve the needs of truckers picking up or delivering cargos at the WLC site. Traffic to the fueling station/convenience store was estimated using the ITE trip generation rates separately for the refueling function (ITE code 945, Gas Station with Convenience Store, measured in pumps) and the convenience store function (ITE code 851, Convenience Store, measured in square feet). In accordance with industry practice, a reduction was made for trips categorized as either pass-by trips or diverted linked trips. These are trips that stop at the fueling station as a side trip during the course of a primary trip or from their primary destination in the WLC. Figure 7 shows examples of diverted linked trip paths for inbound trucks going to WLC destinations at the north and south end of the WLC site. The percentage of trips reduced was based on the function and time of day, per ITE *Trip Generation Handbook 3rd Edition.*

The derivation of the trip generation rates for the fueling stations is shown in Table 5, and for the convenience store is shown in Table 6 .

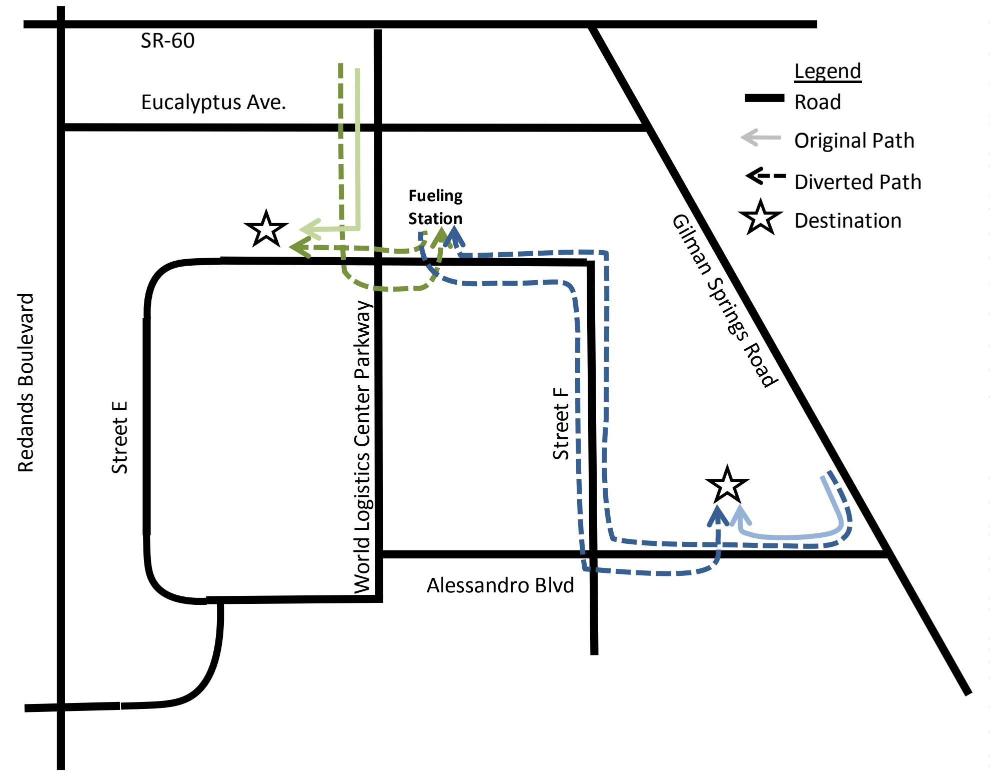

Figure 7: Examples of Routes Taken by Diverted Linked Trips

Table 5: Derivation of Trip Generation Rates for Fueling Station

Gas Station with Convenience Store (ITE Category 945)

Unit: Pumps

From *Trip Generation* 10th Edition

Data for ITE Code 945	**AM Peak Hour**		**PM Peak Hour**		**ADT**
	In	**Out**	**In**	**Out**	
Directional Split	51%	49%	51%	49%	
Vehicle Trips	12.47		13.99		205

From ITE *Trip Generation Handbook* 3rd Edition

For ITE Code 945	**AM Peak Hour**	**PM Peak Hour**	**Daily**
Pass-By & Diverted	82%	87%	85%

(trips made by vehicles that would be on the WLC site anyway)

Final Trip-Gen Rates for Use (net after reduction for pass-by trips)

Vehicle Class	**AM Peak Hour**		**PM Peak Hour**		**ADT**
	In	**Out**	**In**	**Out**	
Heavy Trucks	1.160	1.114	0.899	0.864	31.613

Note: All trucks using fueling station are CNG or LPG

Table 6: Derivation of Trip Generation Rates for Convenience Store

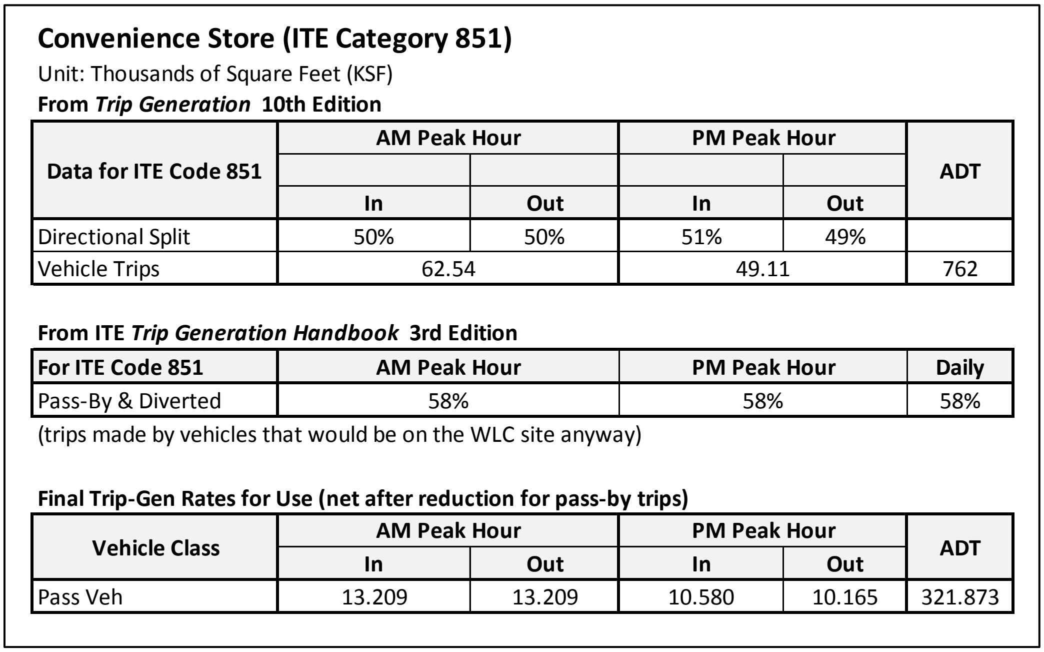

Convenience Store (ITE Category 851)

Unit: Thousands of Square Feet (KSF)

From *Trip Generation* 10th Edition

Data for ITE Code 851	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
Directional Split	50%	50%	51%	49%	
Vehicle Trips	62.54		49.11		762

From ITE *Trip Generation Handbook* 3rd Edition

For ITE Code 851	AM Peak Hour	PM Peak Hour	Daily
Pass-By & Diverted	58%	58%	58%

(trips made by vehicles that would be on the WLC site anyway)

Final Trip-Gen Rates for Use (net after reduction for pass-by trips)

Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
	In	Out	In	Out	
Pass Veh	13.209	13.209	10.580	10.165	321.873

Fire Station

There is little data available for trip generation from fire stations. The 10th edition of the ITE *Trip Generation Manual* introduced a new land use code, 575 Fire and Rescue Station. However, the manual cautioned against its use due to the small sample size. Moreover, it offered no data at all for the AM peak hour and daily analysis periods. For that reason, we instead used the average trip-gen rate from three previous studies of fire stations[10].

Passenger Car Equivalents (PCEs)

The analytical methods used to forecast traffic impacts must take into account the driving characteristics of different classes of vehicles. This is typically done through the use of Passenger Car Equivalents (PCE) factors, which convert the number of heavy vehicles in the traffic stream into an equivalent number of passenger cars. The term PCE was first used in the 1965 *Highway Capacity Manual* (HCM), and was determined by comparing the number of times cars passed trucks to the number of times trucks pass cars. According to the *HCM 2000*:

> *"The entry of heavy vehicles-that is, vehicles other than passenger cars (a category that includes small trucks and vans)-into the traffic stream affects the number of vehicles that can be served. Heavy vehicles are vehicles that have more than four tires touching the pavement.*
>
> *Trucks, buses, and recreational vehicles (RVs) are the three groups of heavy vehicles addressed by the methods in this manual. Heavy vehicles adversely affect traffic in two ways:*
>
> - *They are larger than passenger cars and occupy more roadway space; and*
> - *They have poorer operating capabilities than passenger cars, particularly with respect to acceleration, deceleration, and the ability to maintain speed on upgrades.*

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[10] LLG Engineers, *Peaceful Valley Ranch*, County of San Diego, 2007. Fehr and Peers, *Loyola Marymount University Master Plan Project*, City of Los Angeles Department of Transportation, 2009. McMahon, *Upper Dublin Fire House*, Montgomery County, Pennsylvania, 2010.

> *The second impact is more critical. The inability of heavy vehicles to keep pace with passenger cars in many situations creates large gaps in the traffic stream, which are difficult to fill by passing maneuvers. The resulting inefficiencies in the use of roadway space cannot be completely overcome. This effect is particularly harmful on sustained, steep upgrades, where the difference in operating capabilities is most pronounced, and on two-lane highways, where passing requires use of the opposing travel lane." (*Transportation Research Board, *Highway Capacity Manual 2000*, page 2-5)

Grade is by far the most important determinant in the PCE factor to be used. The HCM's recommended PCE for trucks ranges from 1.5 for places with slopes of less than 2% up to 7.0 for places with steep grades more than a mile long[11]. HCM's recommended PCE factors were used for the WLC freeway analysis.

For the analysis of surface streets, the City's TIA guidelines mandate the use of PCE factors taken from the San Bernardino County CMP, 2003 Update. These are more precise and on average somewhat higher than the HCM rates, because HCM recommends two PCEs per heavy truck while the San Bernardino County CMP uses three (see Table 7). This means that the San Bernardino County CMP PCE rates used in the WLC analysis represent a deliberately conservative approach in the sense that the analysis will tend to over-state the impact of trucks on traffic conditions.

Table 7: PCE Factors for Surface Streets

Vehicle Class	HCM	San Bernardino CMP
Passenger Cars	1.0	1.0
2-Axle Trucks	2.0	1.5
3-Axle Trucks		2.0
4 or more-Axle Trucks		3.0

B. ANALYTICAL TOOLS

Regional Model

The macro-level traffic forecasting was conducted using the Riverside County Transportation and Analysis Model (RIVTAM). RIVTAM is a version of SCAG six-county model with additional detail (traffic analysis zones and local roads) added within Riverside County. It was developed for TIAs in Riverside County as a replacement for several older models that covered different portions of the county. RIVTAM has both the geographic scope needed to capture all likely impacts and conformity with regional planning assumptions. There is a memorandum of understanding[12] among the jurisdictions of Riverside County that encourages the use of the RIVTAM model for TIAs. The MOU reads, in part,

> *"RIVTAM was designed to address most city and county level modeling needs in Riverside County. The model inputs and zone system were designed with sufficient detail to support most city/county planning applications. The modeling methodology can support evaluation of a range of highway, HOV, and transit scenarios. The Agencies encourage the use of RIVTAM by Cities, other governmental jurisdictions, and private entities for their own transportation planning purposes.*

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[11] A PCE factor of 7.0 means that under the stated conditions each truck takes up 7 times as much road capacity as a car would use in level terrain.

[12] *MOU for RIVTAM Model Maintenance, Update, and Usage*. Not dated, but signed by various parties between June and September, 2010. The signatories were Riverside County Transportation Department, Riverside County Transportation Commission, Western Riverside Council of Governments, Coachella Valley Association of Governments, Southern California Association of Governments, and Caltrans.

> *Universal use of RIVTAM by the Agencies, Cities, other governmental jurisdictions, and private entities, and their consultants will ensure that planning decisions in Riverside County are made on accurate and consistent travel forecasts."* (*MOU for RIVTAM Model Maintenance, Update, and Usage*, page 4)

The use of RIVTAM for the analysis in this TIA[13] included the following refinements:

- The traffic analysis zones (TAZs) within the project site were subdivided to allow for a detailed analysis of internal traffic patterns, and the proposed internal road network was substituted for the existing road network for all "with-project" scenarios.
- RIVTAM forecasts traffic for two peak periods; a three-hour period in the morning and a four-hour period in the evening. These were converted into forecasts for single peak hours using conversion factors in the *San Bernardino County CMP Appendix H – Post Processed Traffic Volume Guidelines* in accordance with the City's TIA guidelines.
- RIVTAM quantifies non-residential developments in units of employees rather than acres or square feet of building space. For developments in the City of Moreno Valley, future developments' acreage was converted into square feet of development using the existing developmental densities in Moreno Valley, and then the square footage was used to estimate the number of employees using the conversion factors in the City's General Plan. For areas outside Moreno Valley the conversion factors used in the Riverside County General Plan were used.
- In the trip distribution stage of RIVTAM the model assigns destinations to the trucks trips originating in the WLC warehouses. Since WLC warehouses are attractors of truck trips as well as generators of truck trips, the model assigns approximately 10% of WLC truck trips to destinations that are other warehouses within the project site. As this does not reflect the WLC's expected operations and might result in an under-estimation of truck trips entering and leaving the WLC site, these internal trips were replaced with an equal number of external trips that were distributed among the routes available to trucks leaving the site. Since some trucks may in fact have deliveries or pick-ups at more than one warehouse within the WLC site this represents a conservative assumption.
- Like other regional travel demand models, RIVTAM is designed to forecast movements along paths consisting of links between trip origins and destinations. Therefore post-processing is required to convert the link-level forecasts from RIVTAM into turning movements for the intersection-level analysis. The Furness method[14] was used to allocate approach volumes among the possible turning movements based on traffic counts of existing traffic patterns.
- The RIVTAM model was calibrated to ensure that its forecasts are reasonable. Nevertheless, a model covering a six-county area cannot be expected to be perfectly accurate on each of the hundreds of thousands of links in the model. For that reason, best industry practice is to use the model to forecast the change in traffic volumes and add this change to existing traffic volumes, rather than using the forecast volumes directly from the model. This technique, called the "difference method", was used in this TIA[15]. The difference method eliminates certain types of imperfections in the forecast of background traffic and so improves the accuracy of traffic forecasts.
- To ensure that vehicle trips were not under-estimated, it was also assumed that no trips would be taken by transit. This is another conservative assumption since the WLC would be designed to

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[13] The modeling data in RIVTAM is based upon modeling information originally developed by the Southern California Association of Governments (SCAG), which has been modified by WSP. The modeling data used in this study does not necessarily reflect the official views or policies of SCAG. WSP is wholly responsible for the modeling results and the content of the documentation.

[14] The Furness method is a technique for balancing the forecast turning movements in such a way as to match both the total approach volume and the total departure volume for each leg predicted in the traffic model. Furness K.P. *Time Function Interaction*. Traffic Engineering and Control, Vol. 7, No. 7, 1970, pp. 19-36

[15] This is the "difference method" described in NCHRP Report 255 *Highway Traffic Data for Urbanized Area Project Planning and Design*, Transportation Research Board, 1982.

accommodate bus routes and it is expected that transit service would be provided once the project reaches a transit-supportable level of development.

In summary, RIVTAM was used to provide accurate forecasts of project impacts on the regional road network. Several highly conservative assumptions were used to ensure that the TIA over-estimated rather than under-estimated impacts.

Definition of LOS

The HCM defines level of service as a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six LOS are defined for each type of facility, ranging from “A” for the best operating conditions to “F” for the worst, based on driver’s perceptions of those conditions. Most jurisdictions have adopted policies that set target levels of LOS for road facilities under their control.

Daily Roadway LOS

For the road segments affected by the proposed General Plan amendment, a roadway segment analysis was performed consistent with the City of Moreno Valley *Traffic Impact Analysis Preparation Guide* using the daily capacity standards identified in the Guide and shown in Table 8.

Table 8: Level of Service (LOS) Thresholds for Surface Streets in Moreno Valley

Type of Roadway	Level of Service*				
	LOS A	LOS B	LOS C	LOS D	LOS E
6-Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
4-Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
4-Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
2-Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
2-Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

* Maximum Average Daily Traffic (ADT)

Source: City of Moreno Valley *Traffic Impact Analysis Preparation Guide* , 2007

Note: These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration, and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.

Gilman Springs Road is a Riverside County facility and so the County LOS thresholds would apply for this study road segment. These thresholds are shown on Table 9[16].

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[16] Road types not relevant to this study are not shown.

Table 9: Riverside County LOS Thresholds for Surface Streets

Type of Roadway	Level of Service(1)		
	LOS C	LOS D	LOS E
8-Lane Urban Arterial	57,400	64,600	71,800
6-Lane Urban Arterial	43,100	48,500	53,900
4-Lane Urban Arterial	28,700	32,300	35,900
2-Lane Collector	10400	11700	13,000

Notes: All capacity figures are based on optimum conditions and are intended as guidelines for planning purpose only.
(1) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.

Source: County of Riverside General Plan, Circulation Element, 2008

Intersection LOS

The LOS analysis of study intersections was performed using the methodology described in the Highway Capacity Manual (HCM) 2010 Chapter 16, for signalized intersections, and Chapter 17 for unsignalized intersections. The computations were performed using Synchro computer software with the settings specified in the City's *Traffic Impact Analysis Preparation Guide*[17]. Synchro defaults were used as appropriate with the standard saturation flow rate of 1900 vehicles/hour and zero percent grade for the signalized intersections. Signal timings were optimized within Synchro and considered uncoordinated except for the following corridors which were identified by the City of Moreno Valley to be coordinated:

- Alessandro Blvd. from Old 215 Frontage Rd. to Kitching St.
- Cactus Ave. from SR 215 Ramps to Lasselle St.
- Ironwood Ave. from Moreno Beach Dr to Redland Blvd.
- Perris Blvd. from Iris Ave. to Krameria Ave.
- Arlington Blvd. from SR-91 WB Ramps to Victoria Ave
- Alessandro Blvd from Sycamore Canyon Blvd to SR-215 NB Ramps
- Martin Luther King Jr. Blvd. from Canyon Crest Dr to SR-60 EB Ramp
- Central Ave. from Lochmoor Dr to SR-60 WB Ramps
- The Ramona Expressway in the City of Perris
- Perris Blvd. in the City of Perris

A cycle length of 120 seconds was used for all coordinated signals. Cycle lengths were maintained at 120 seconds or less with a 3 second yellow and a one-second all red for consistency. Except for the existing conditions scenario which uses actual traffic and truck counts, all future scenario volumes were calculated in PCEs therefore the heavy truck percentage in Synchro was set to zero to avoid double-counting truck trips.

The HCM LOS thresholds for signalized and unsignalized intersections are shown in Table 10. Note that a lower boundary is defined for LOS "F" but no upper boundary is defined. In cases where the forecast delay is greater than 180 seconds drivers would tend to divert to other routes, change their time of travel, select an alternate destination (for example choose to shop at a different store) or change their behavior in other ways that are not well represented in the HCM methodology. For that reason results over 180 seconds are not meaningful and so the results are shown simply as ">180".

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[17] Although HCM 2010 does not account for right-turn-on-red (RTOR), Synchro 9 has an algorithm that adjusts to account for RTOR.

Table 10: LOS Thresholds for Signalized and Unsignalized Intersections

Level of Service	Description	Average Control Delay (seconds/vehicle)	
		Signalized	Unsignalized & Roundabouts
A	Volume-to-capacity ratio is low and either the progression is exceptionally favorable or the cycle length is short. If due to favourable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10	≤ 10
B	Volume-to-capacity ratio is low and either the progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	> 10 to 20	> 10 to 15
C	Progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e. one or more queued vehicles are not able to depart as a result of insuffucient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 20 to 35	> 15 to 25
D	Volume-to-capacity ratio is high and either progression is ineffective or cycle length is long. Most vehicles stop and individual cycle failures are noticeable.	> 35 to 55	> 25 to 35
E	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 55 to 80	> 35 to 50
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 80	> 50

Source: *Highway Capacity Manual 2010* , Transportation Research Board

Note: The description is from the HCM 2010 chapter on signalized intersections. For signalized intersections and roundabouts the LOS is based on the average for all vehicles entering the intersection. For unsignalized intersections the LOS is based on the delay for the worst-performing approach.

Freeway LOS

The freeway LOS was determined using the density analysis methodology in the HCM. The capacities are based on information contained in the HCM and the Caltrans Ramp Meter Design Manual. Freeway terrains were determined by comparing the grades found in Google Earth Pro to the HCM definitions for level, rolling and mountainous terrain. Existing count data were obtained from Caltrans for the freeway mainline volumes. Three types of freeway facilities were analyzed, namely:

- Freeway mainline levels of service are determined from segment density.
- Freeway weaving is defined as the crossing of two streams of traffic traveling in the same direction along a significant length of highway without the aid of traffic control devices. The weaving analysis used the most current version of the HCM to find the density for the weaving area within the freeway segment and the corresponding LOS.
- The ramp merge and diverge analysis was performed by applying Highway Capacity Software (HCS), the electronic version of the HCM for freeway-to-arterial interchanges. The HCM

methodology for ramp areas focused on an influence area of 1,500 feet, including the acceleration or deceleration lane and adjacent freeway lanes.

Table 11 presents the correlation between LOS and density in terms of passenger cars per mile per lane (pc/mi/ln) for various types of freeway facilities.

Table 11: Caltrans Freeway LOS Criteria

LOS	Basic Freeway Segment Denstiy	Freeway Weaving Segment Density	Freeway Ramp Density
	(pc/mi/ln)	(pc/mi/ln)	(pc/mi/ln)
A	0-11.0	≤ 10.0	≤ 10.0
B	11.0 – 18.0	> 10.0 and ≤ 20.0	> 10.0 and ≤ 20.0
C	18.0 – 26.0	> 20.0 and ≤ 28.0	> 20.0 and ≤ 28.0
D	26.0 – 35.0	> 28.0 and ≤ 35.0	> 28.0 and ≤ 35.0
E	35.0 – 45.0	>35.0 and ≤ 43.0	> 35.0
F	> 45.0	> 43.0	Demand Exceeds Capacity

C. PERFORMANCE CRITERIA

The study area for surface streets includes intersections located in seven jurisdictions. Each of these jurisdictions has established a target level of service for use in traffic impact studies, which are shown in Table 12.

Table 12: Intersection LOS Standards by Jurisdiction

Jurisdiction	Type of Facility	# of Study Intersections	LOS Standard	Source
Moreno Valley	Intersections adjacent to freeways or employment centers	57	D	Moreno Valley General Plan, Chapter 5: Circulation element; Adopted July 2006
	All other intersections	14	C	
Beaumont	Intersections (during peak hours)	4	D	City of Beaumont General Plan; Section 3.0: Circulation Element; Approved March 2007
Perris	Intersections with SR-74, Ramona Exp, or I-215	5	E	City of Perris General Plan, Circulation Element; Amended August 2008
	All other intersections	16	D	
Redlands	Intersections currently operating at "D" or worse	1	Existing LOS	City of Redlands General Plan 2035, Chapter 5: Connected City; Adopted December 2017
	All other intersections	2	C	
Riverside (County)	Intersections in area plans near WLC*	9	D	County of Riverside General Plan, Chapter 4: Circulation Element; Revised December 2016
Riverside (City)	Intersections of collectors or higher roads	27	D	
San Jacinto	Arterial intersections	1	D	San Jacinto General Plan, Circulation Element; Adopted May 2006
Caltrans	State highway facilities currently operating at LOS "E" or "F"		Existing Density	Guide for the Preparation of Traffic Impact Studies, Chapter I; December 2002
	State highway facilities		D	

* LOS D applies to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans. LOS C applies at all other locations in unincorporated Riverside County.

A project's impact on an intersection is considered significant if the project adds more than 50 peak-hour trips to a surface street or 100 peak-hour trips to a freeway and it would either cause the LOS to exceed the target level set by the jurisdiction or, if the LOS in the no-project scenario would already exceed the target LOS level, if the project causes an increase in traffic delay beyond the no-project condition.

Caltrans has established LOS D as the threshold of significance for freeway mainline segments and freeway ramps in the corridors relevant to this study. It is Caltrans policy that if an existing state facility is operating at less than the appropriate target LOS, the existing measure of effectiveness should be maintained. Caltrans uses traffic density (passenger-cars per mile per lane) as the measure of effectiveness for freeways, so if a freeway facility currently operates at LOS "E" or "F" then a project that would increase the traffic density on that facility would be deemed to have a significant impact.

3. TRANSPORTATION SETTING

A. PROJECT SITE

The World Logistics Center (WLC) project area is located in the northwestern Riverside County in the Rancho Belago area, within the eastern portion of the City of Moreno Valley. The proposed project is situated south of State Route 60 (SR-60), between Redlands Blvd. and Gilman Springs Rd. (the easterly City limit), extending to the southerly City limit. Figure 8 depicts the location of the proposed project within the region.

Existing Land Uses

At the present time, the project area is largely undeveloped land. There are seven single-family homes in various locations along with associated ranch/farm buildings within the area. Most of the area has been used intermittently for dry farming since the early 1900s, and much of it continues to be used for dry farming. San Diego Gas & Electric operates a natural gas compressor station, known as the Moreno Compressor Station, on 19 acres in the southern portion of the project area. Southern California Gas Company operates a valving, metering, and pipe cleaning station on a one-acre parcel in the south-central portion of the project area.

The major roadways that currently provide access to the project area are SR-60, Redlands Blvd., Alessandro Blvd., Gilman Springs Rd., Theodore St., and World Logistics Center Parkway[18]. SR-60 is a highway running in a 70-mile-long east-west alignment from Beaumont to Los Angeles. The portion of SR-60 that forms the northern boundary of the project currently has two lanes in each direction of travel. Redlands Blvd. and Theodore St. and World Logistics Center Parkway are north-south collector roadways that intersect with SR-60. Alessandro Blvd. is an east-west thoroughfare that runs through Moreno Valley from Interstate-215 on the west end to Gilman Springs Rd. on the east end. Gilman Springs Rd. runs in a northwesterly-southeasterly direction connecting SR-60 to the Hemet-San Jacinto area and beyond. Redlands Blvd., Theodore St., World Logistics Center Parkway, Alessandro Blvd., and Gilman Springs Rd. all currently have one lane for each direction of travel.

The areas adjacent to the east and south boundaries of the project area are mostly undeveloped. The area east of the project, commonly referred to as the Badlands, is a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Due to its steep slopes and canyons, the Badlands area has had little development; however there are several single-family homes in this area east of Gilman Springs Rd. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeast of the project area.

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[18] The City of Moreno Valley re-named the portion of Theodore Street south of the SR-60 interchange, “World Logistics Center Parkway” in February 2018.

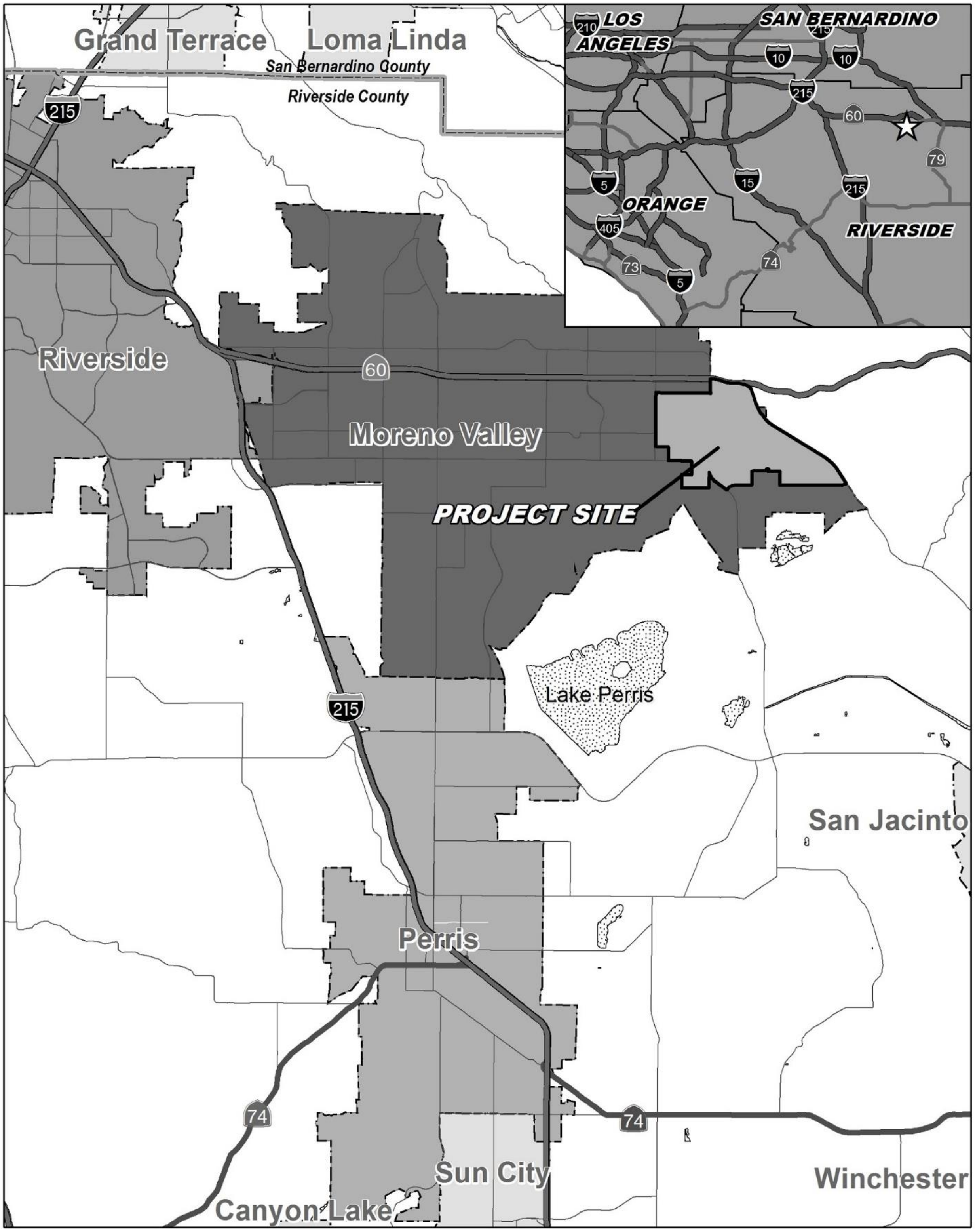

Figure 8: Project Location

Directly south of the proposed project is the San Jacinto Wildlife Area (SJWA), which includes the Upland Game Hunting Area and the Lake Perris State Recreation Area. These are state-owned lands and access to these areas is restricted. The SJWA is owned and operated by the California Department of Fish and Wildlife and comprises approximately 20,000 acres of restored wetland and ponds. The Lake Perris State Recreation Area is owned and operated by the California State Parks Department and comprises approximately 9,000 acres of open space land, which is used both for recreation and for the preservation of the native southern California landscape.

Highland Fairview Corporate Park (HFCP), located north and west of the project area between Redlands Blvd. and World Logistics Center Parkway, is currently under development, with the first phase (the Skechers building) completed in late 2011. The area north of SR-60 is largely undeveloped, with clusters of low density residential uses within the Moreno Valley city limits.

To the west of the proposed project is the more developed portion of the City of Moreno Valley. There are existing single family homes located west of Redlands Blvd. Near the southwest corner of the proposed project there is an existing residential neighborhood at the intersection of Redlands Blvd. and Alessandro Blvd.; a small market and a post office are also located near this intersection. The Moreno Valley Ranch and Golf Club residential community is approximately one mile southwest of the project area.

B. EXISTING TRANSPORTATION FACILITIES

The analysis of existing conditions provides a basis for comparison with the forecasted future scenarios with the proposed project.

The existing road system serving the project site consists of:

- World Logistics Center Parkway, a 2-lane undivided arterial running in a north-south direction through the center of the project.
- Alessandro Blvd., a 2-lane undivided arterial running in an east-west direction through the southern half of the project. Alessandro Blvd. has a discontinuity at World Logistics Center Parkway, with its eastern portion intersecting World Logistics Center Parkway approximately 600 feet north of where the western section intersects World Logistics Center Parkway.
- State Route 60 (SR-60), which runs in a generally east-west alignment from the I-110 in Los Angeles to I-10 in Beaumont. The portion of SR-60 running along the northern edge of the project has two travel lanes per direction.
- Eucalyptus Ave. is part-way through the process of conversion from a 2-lane minor arterial into a 4-lane arterial. The westbound direction along the HFCP (Skechers) site currently has two lanes while the eastbound direction has one. Eucalyptus is closed between HFCP and Redlands Blvd. with a gate allowing only emergency vehicles to pass.
- Redlands Blvd. is a 2-lane minor arterial running in a north-south direction along a portion of the western edge of the project.
- Gilman Springs Rd. is a 2-lane undivided arterial running in a northwest-southeast direction alongside the eastern edge of the project.
- Dracaea Ave. is a discontinuous east-west residential street providing access to several existing houses on the project site.
- Cottonwood Ave. is a short east-west residential street providing access to several houses on the project site.
- Virginia St. is a north-south access road serving a utilities site. The portion south of Alessandro Blvd. is paved while the portion north of Alessandro Blvd. is unpaved.
- Eucalyptus Ave. is an unpaved service road running east-west between World Logistics Center Parkway and Gilman Springs Rd.

- Sinclair St. is currently an unimproved right-of-way running north-south between World Logistics Center Parkway and Redlands Blvd.

A short section of Redlands Blvd. from Dracaea Ave. to McAbee Ave. has sidewalks and a bicycle lane, as does the westbound portion of Eucalyptus Ave. fronting HFCP. A class 1 mixed-use trail runs along the east side of Redlands Blvd. from McAbee Ave. to Dracaea Ave. These are the only roads with sidewalks or bicycle lanes. At the present time there is no bus or other transit service to the project site.

Truck Routes

Cities and counties in California have the authority to adopt codes that restrict the use of trucks on public roadways, though not all jurisdictions choose to do so. Figure 9 shows the designated truck routes in the vicinity of the WLC. The Cities of Moreno Valley and Perris have designated specific routes while the County of Riverside does not (i.e. trucks may use any County road, though truck parking restrictions may apply). The City of Riverside does not designate truck routes but instead identifies roadways where trucks are not allowed (mostly residential streets). There are no restrictions on truck usage of the state highway system.

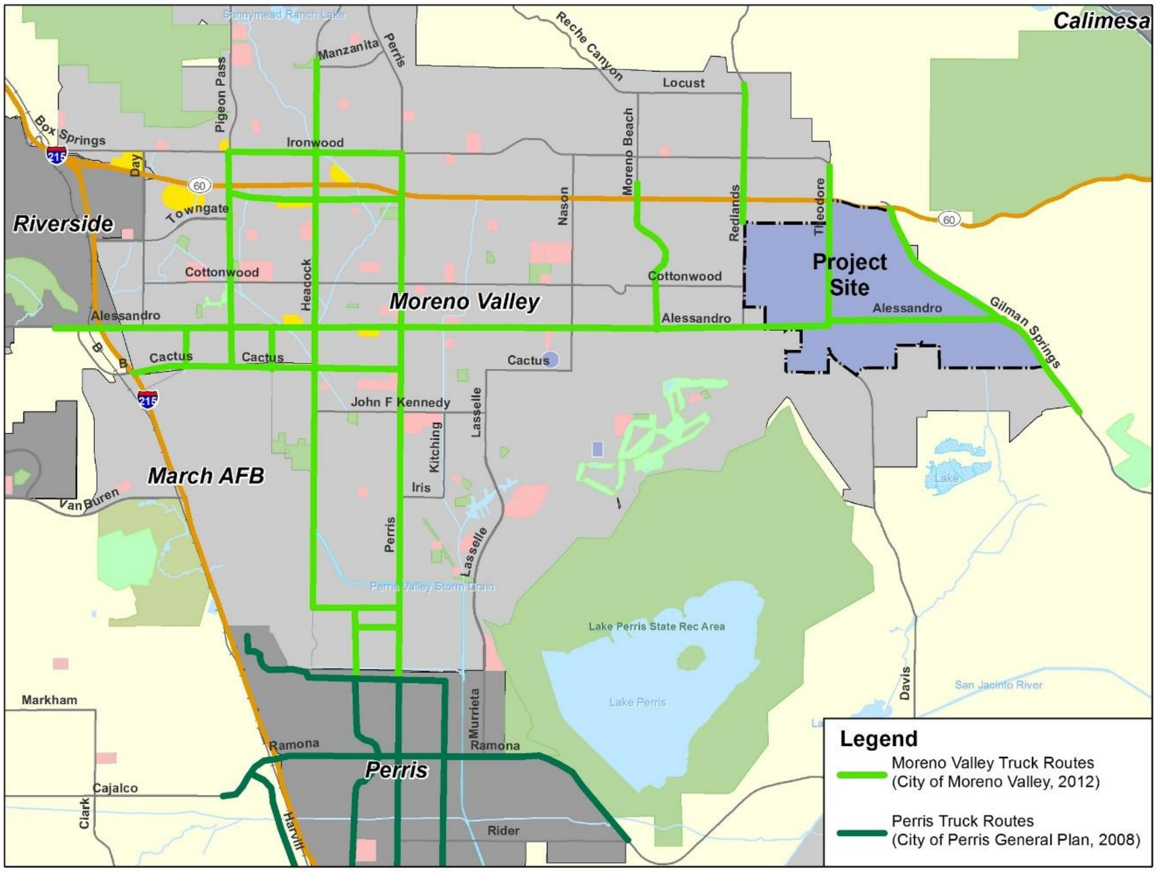

Figure 9: Existing Designated Truck Routes

Transit Services

Transit services in the area are provided by the Riverside Transit Agency, which operates several bus routes in the City of Moreno Valley. Figure 10 displays the Riverside Transit Agency's existing routes in the area. The bus routes do not currently provide service in the vicinity of the project site.

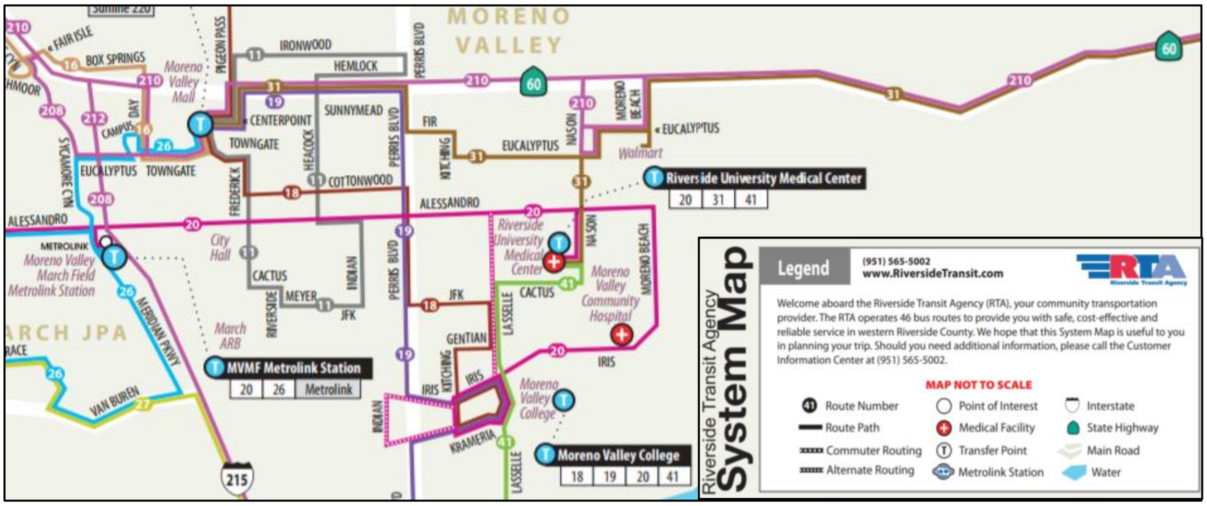

Welcome aboard the Riverside Transit Agency (RTA), your community transportation provider. The RTA operates 46 bus routes to provide you with safe, cost-effective and reliable service in western Riverside County. We hope that this System Map is useful to you in planning your trip. Should you need additional information, please call the Customer Information Center at (951) 565-5002.

Figure 10: Existing Transit Services in Moreno Valley
(Source: Riverside Transit Agency System Map)

C. EXISTING TRAFFIC VOLUMES

Traffic counts for turning movements in the AM and PM peak hours were collected for study intersections during typical workdays in 2018. Figure 11 provides a key diagram for the location of each study intersection in the intersection turning volume graphics, including Figure 12 (and similar figures for other scenarios) which shows the turning movement volumes under Existing Conditions. The traffic counts are reported in detail in Appendix A. In situations where an intersection does not exist in the scenario the intersection is marked “Future”, if it will be built later, or “Non-Existent” if had existed but has been replaced by an intersection in a different location.

When counts were taken in early 2018, the intersection of Cactus Ave, and Quincy St. (Intersection 26) was under construction. However, this construction has been completed and the intersection has since opened. The existing analysis reflects the counts which did not include this intersection while all future years assume this intersection has been built.

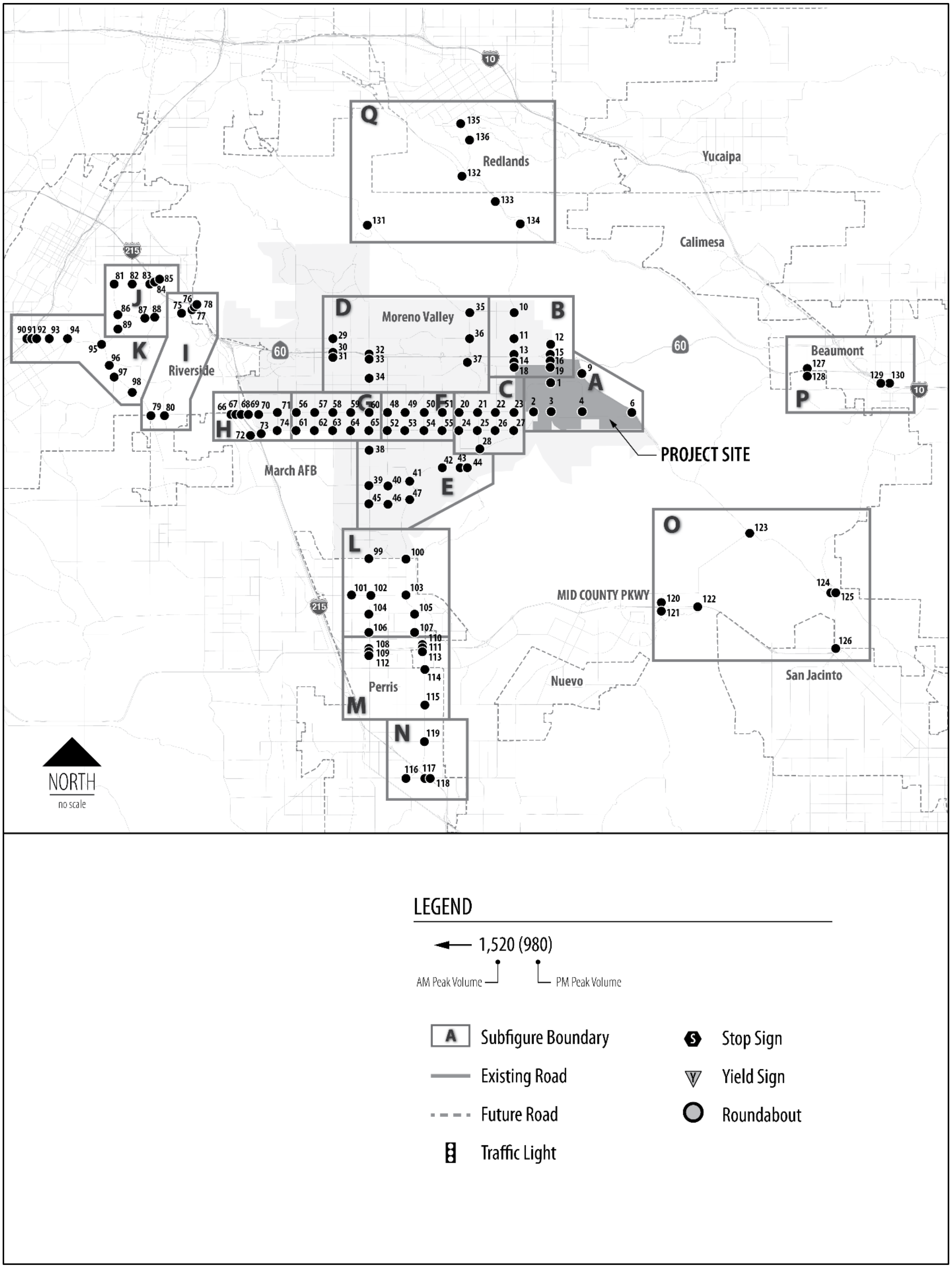

Figure 11: Study Intersections

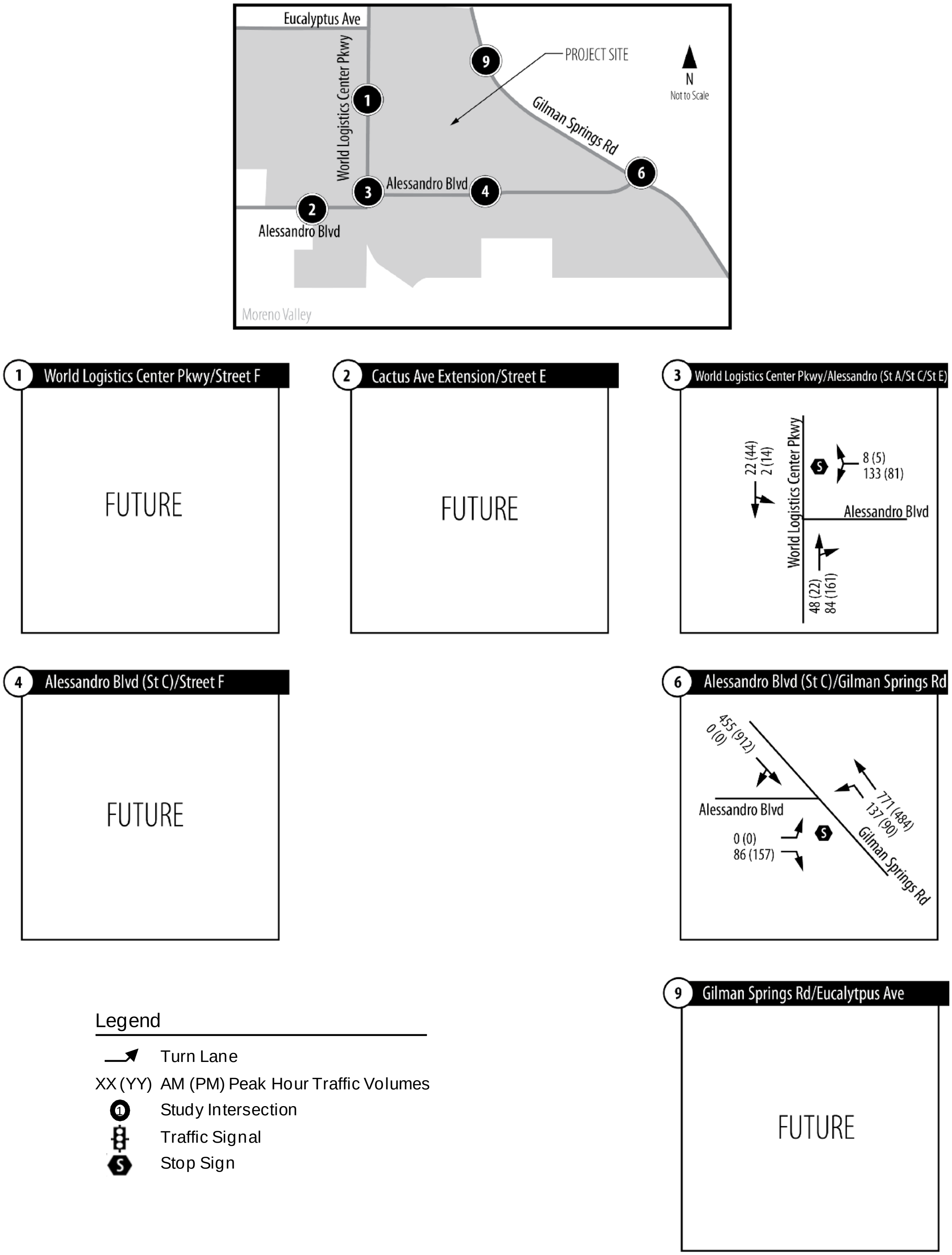

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions

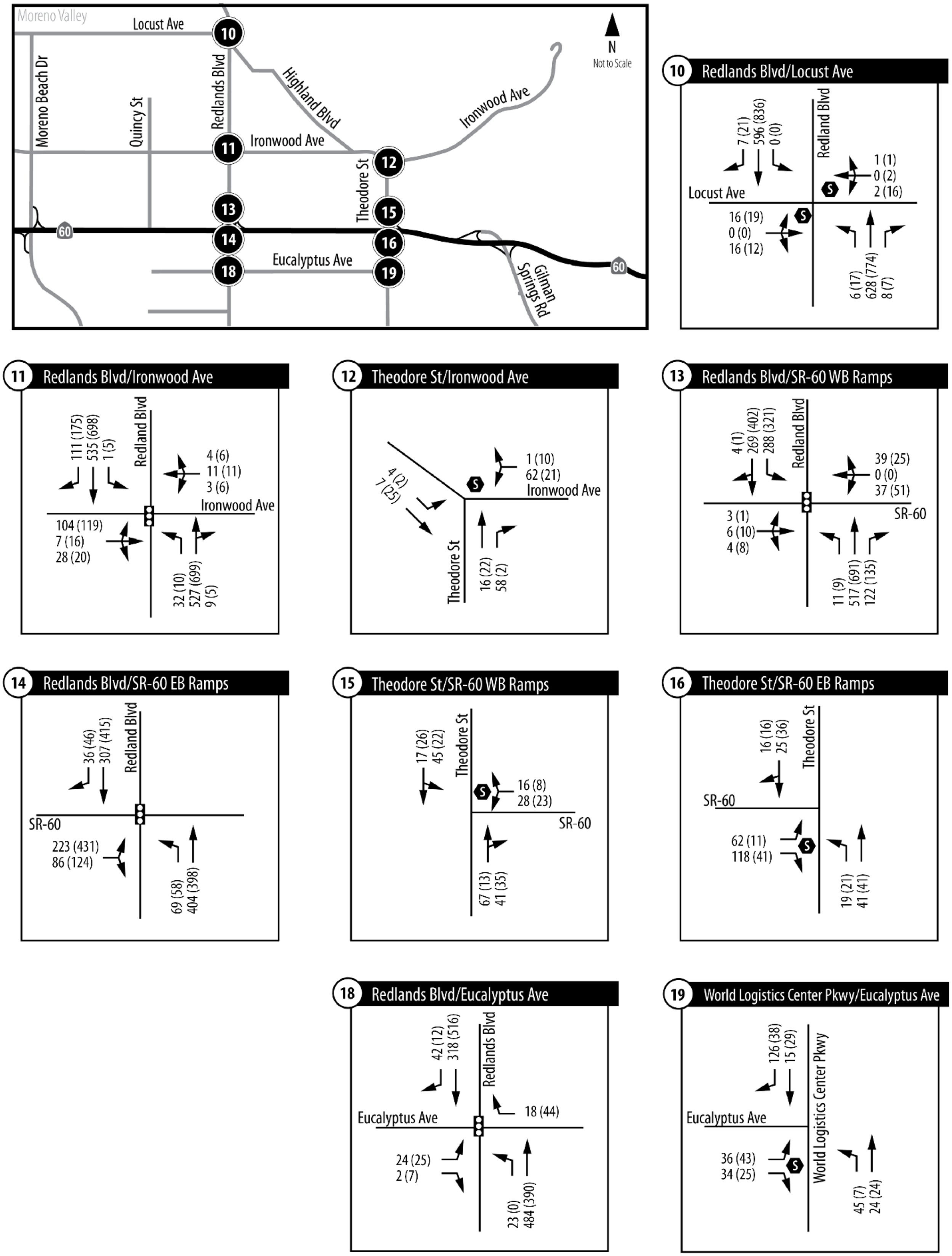

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (B)

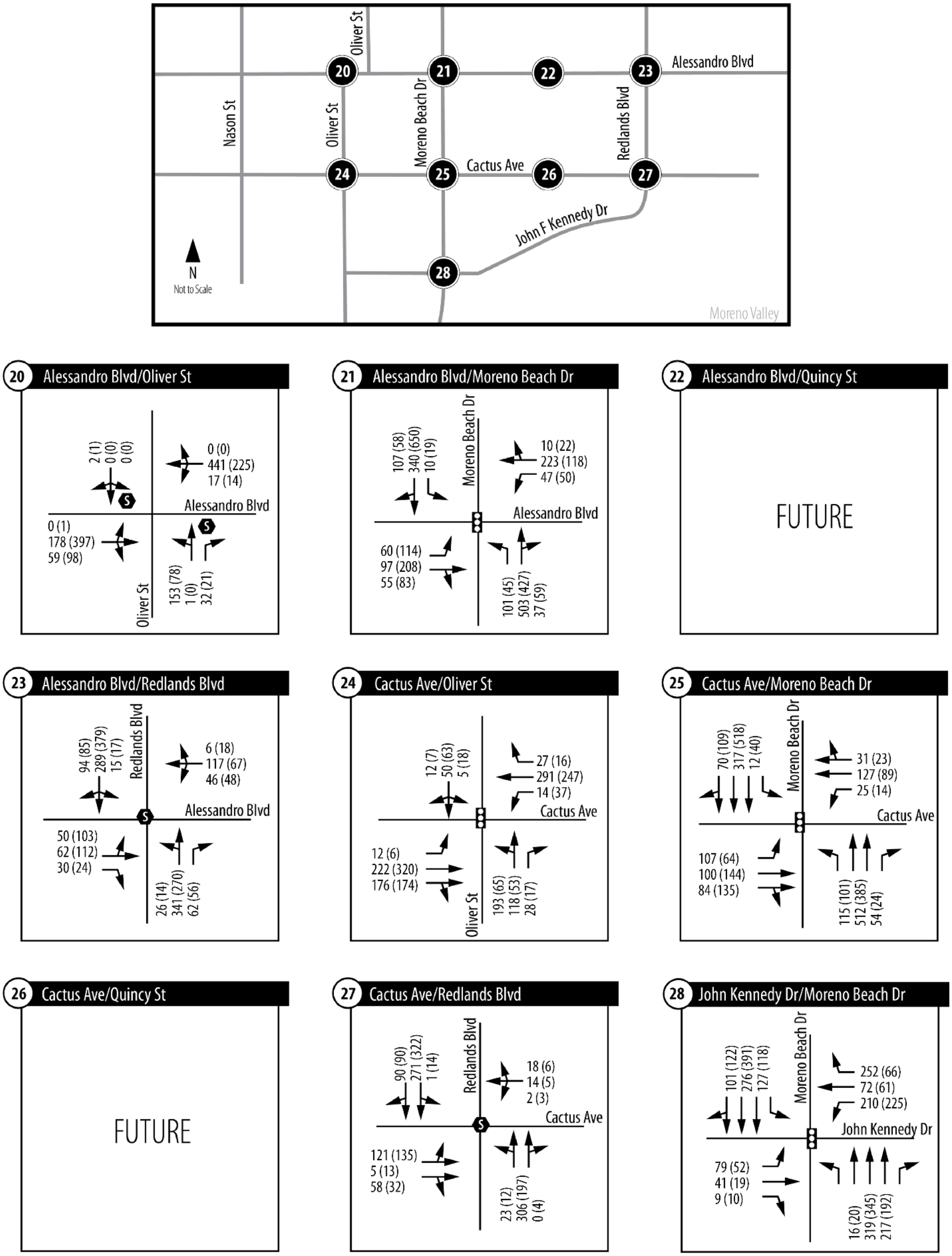

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (C)

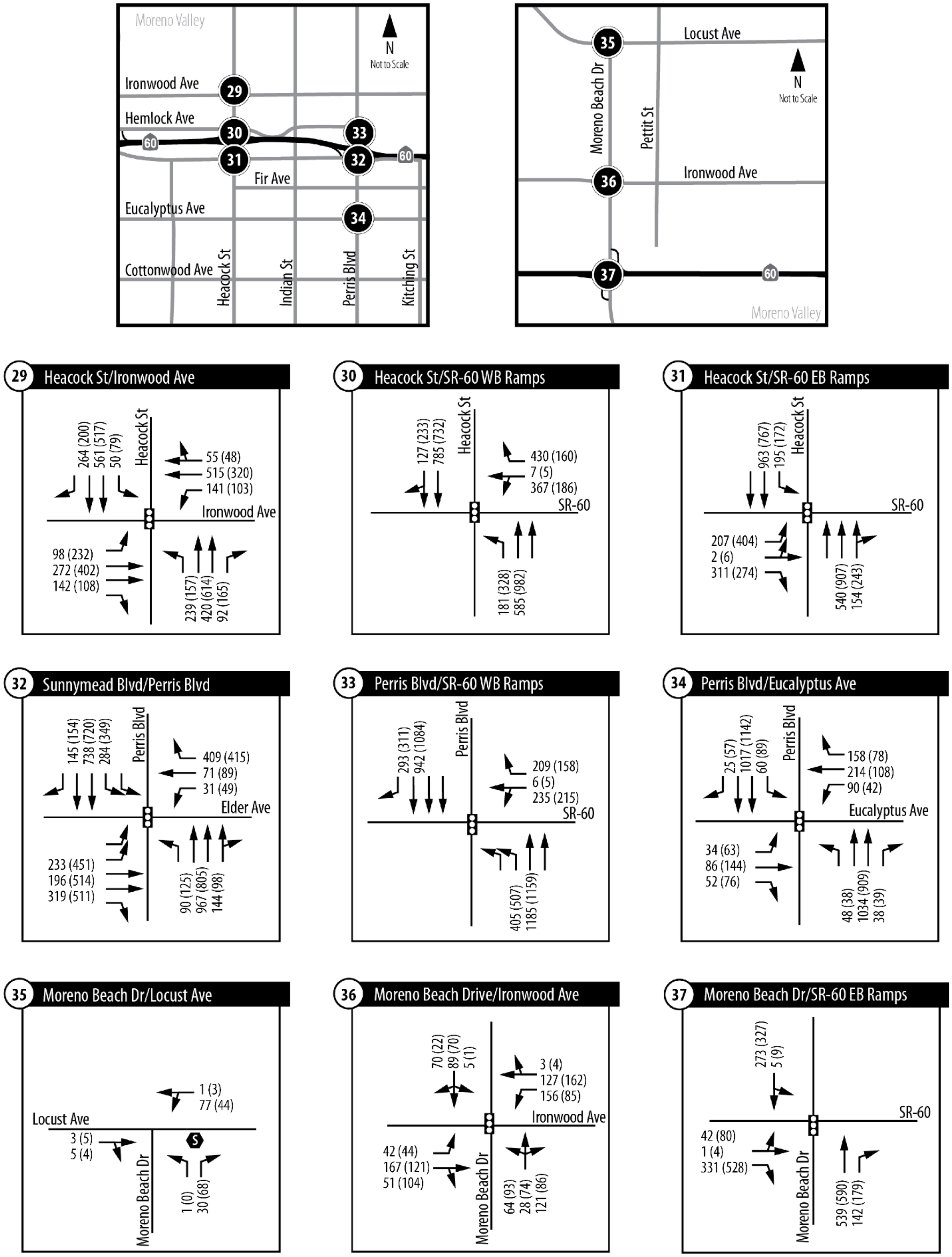

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (D)

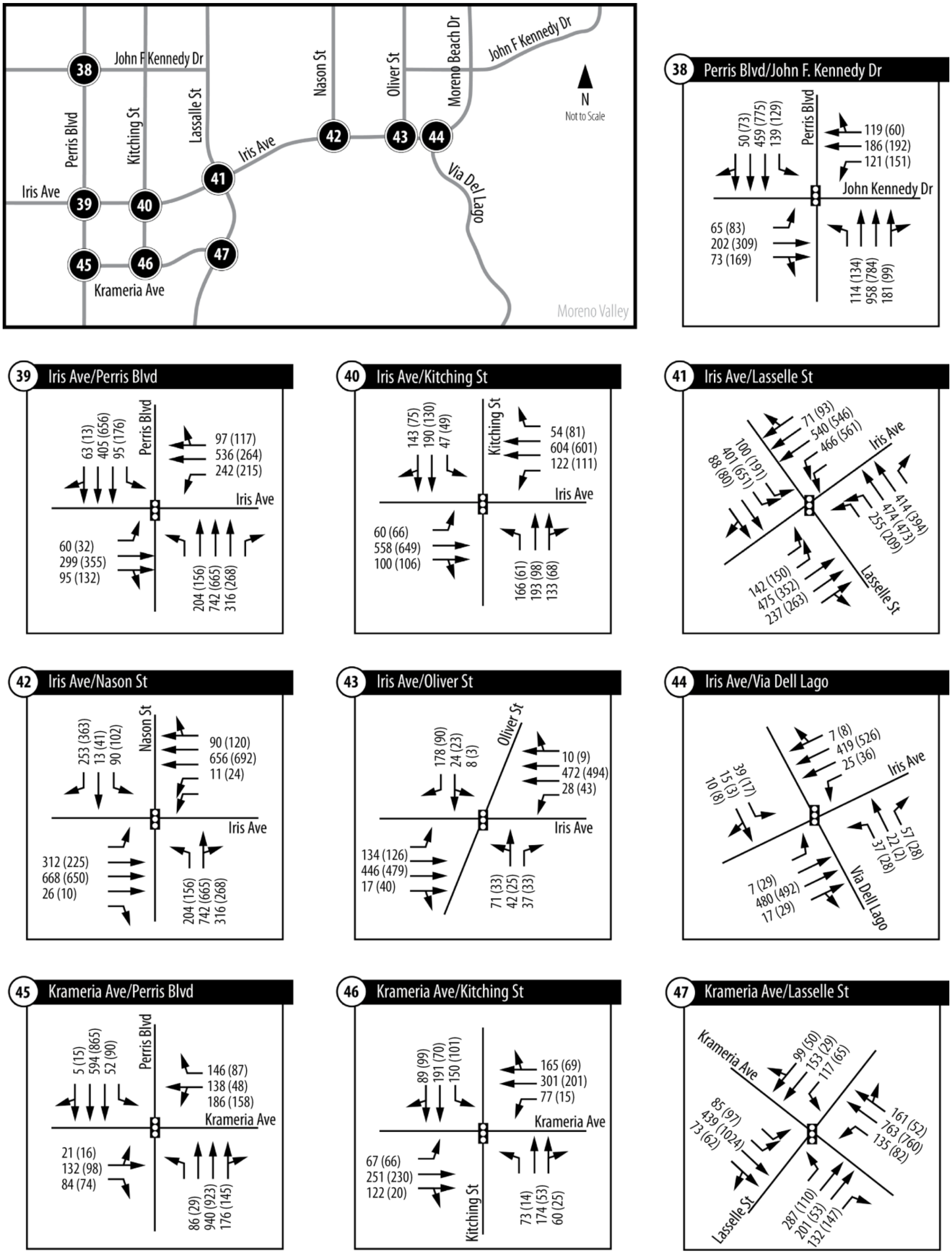

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (E)

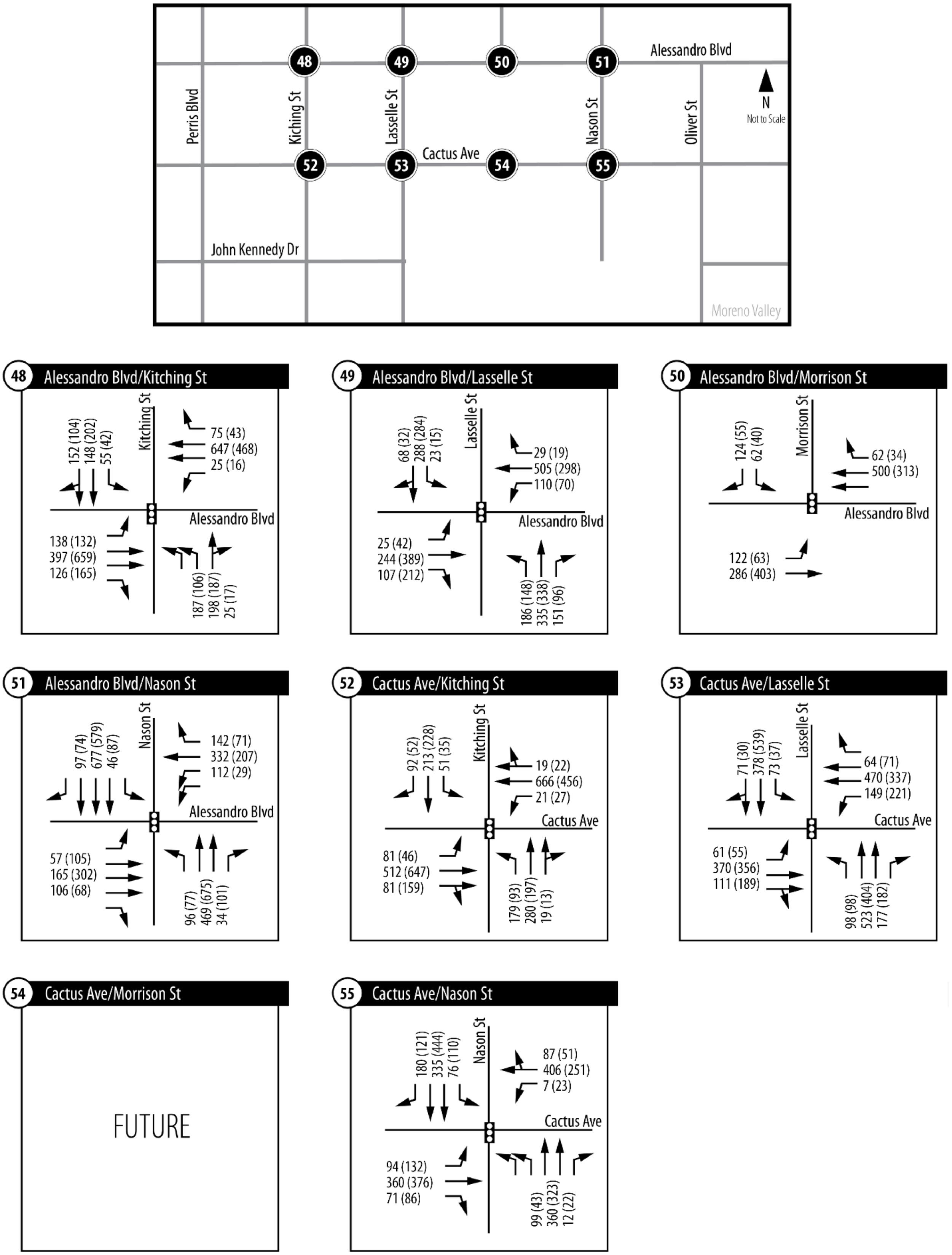

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (F)

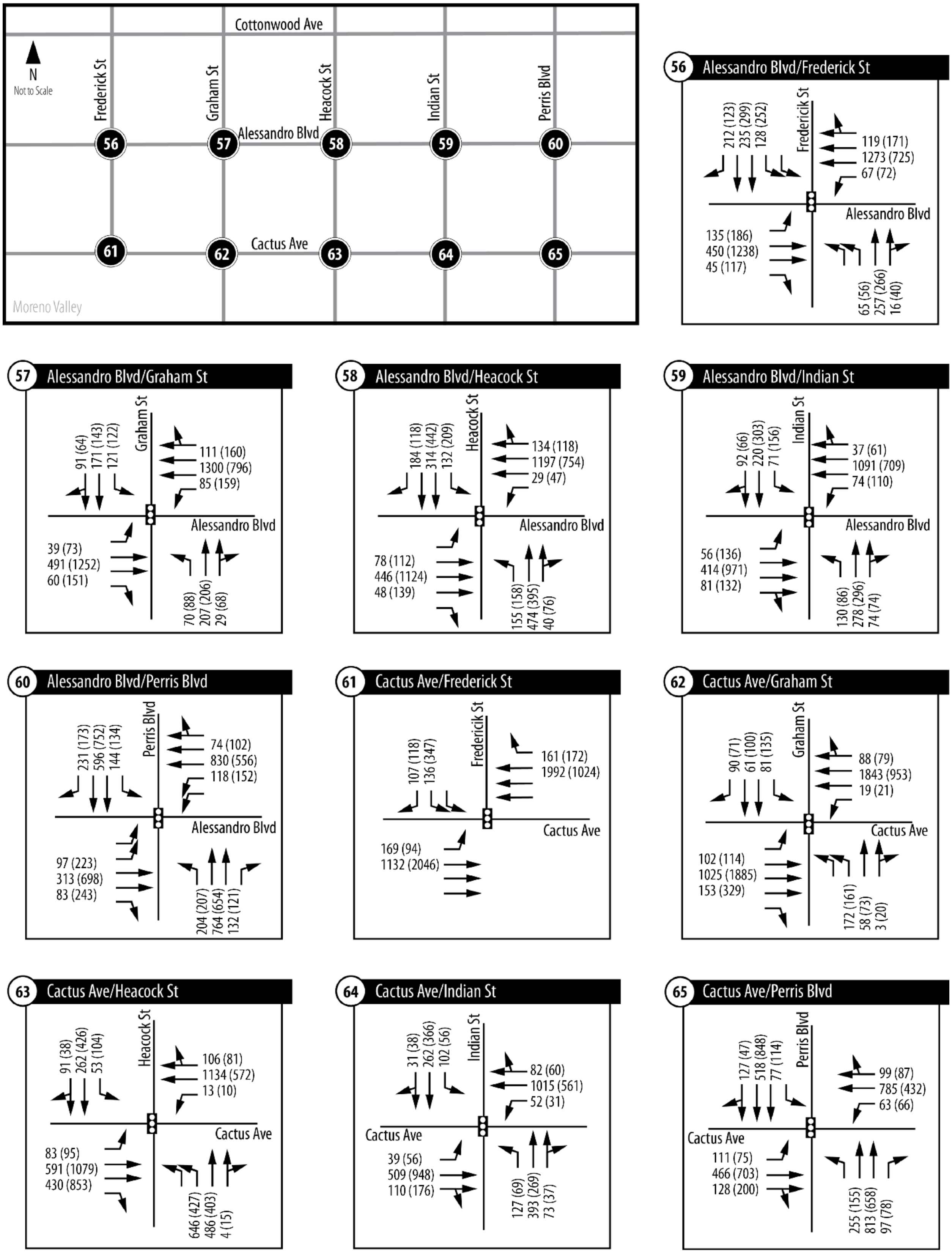

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (G)

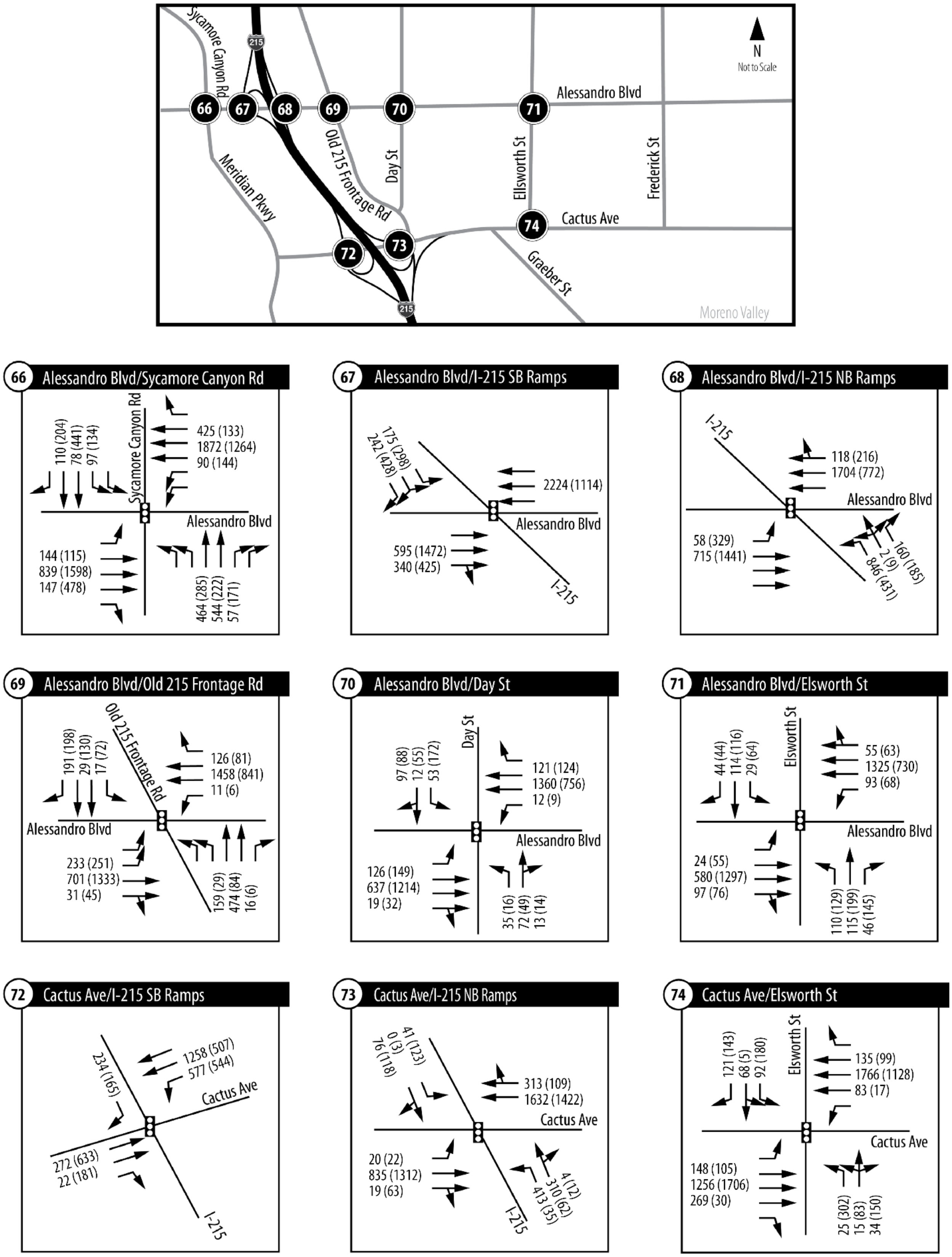

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (H)

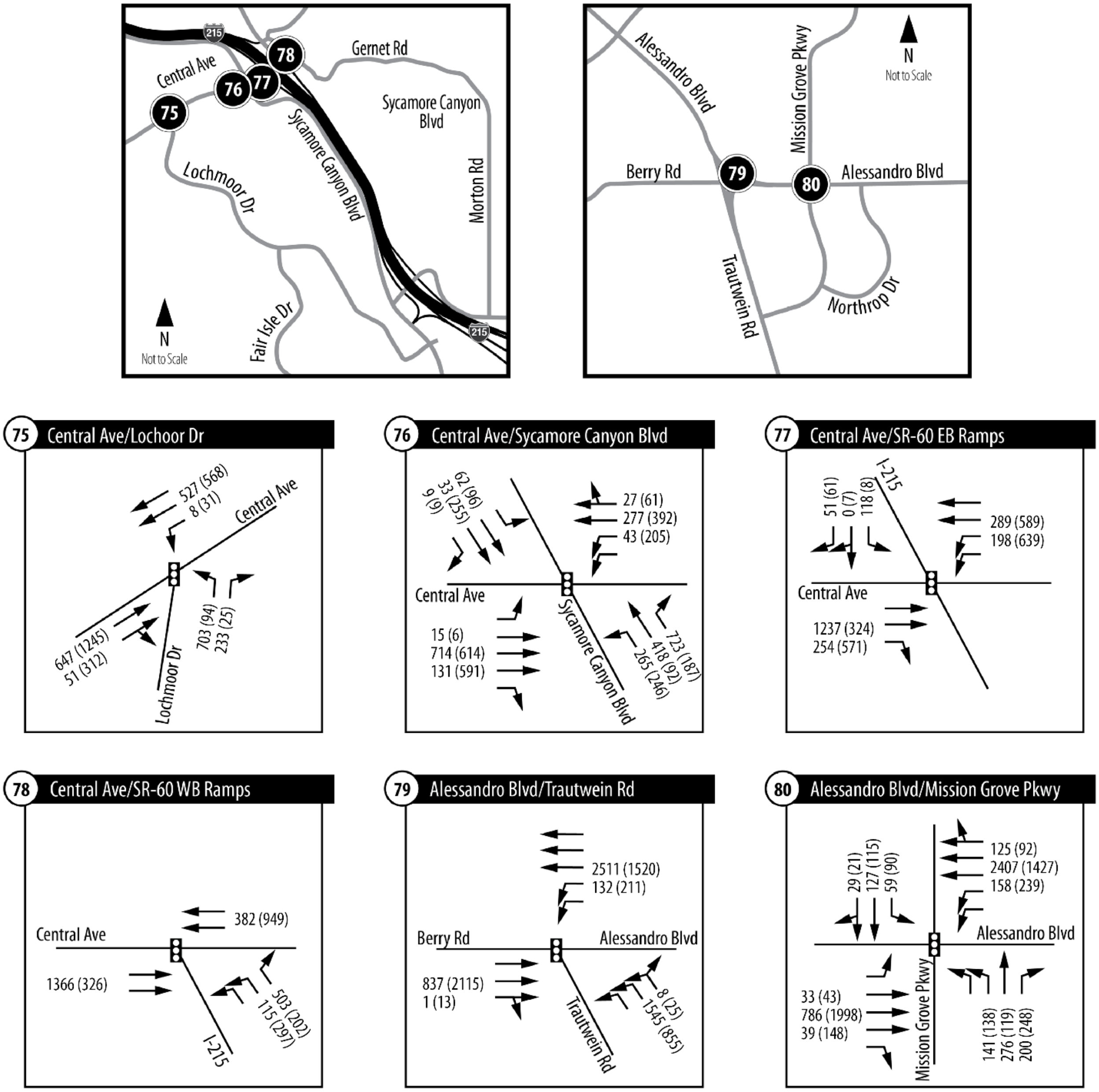

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (I)

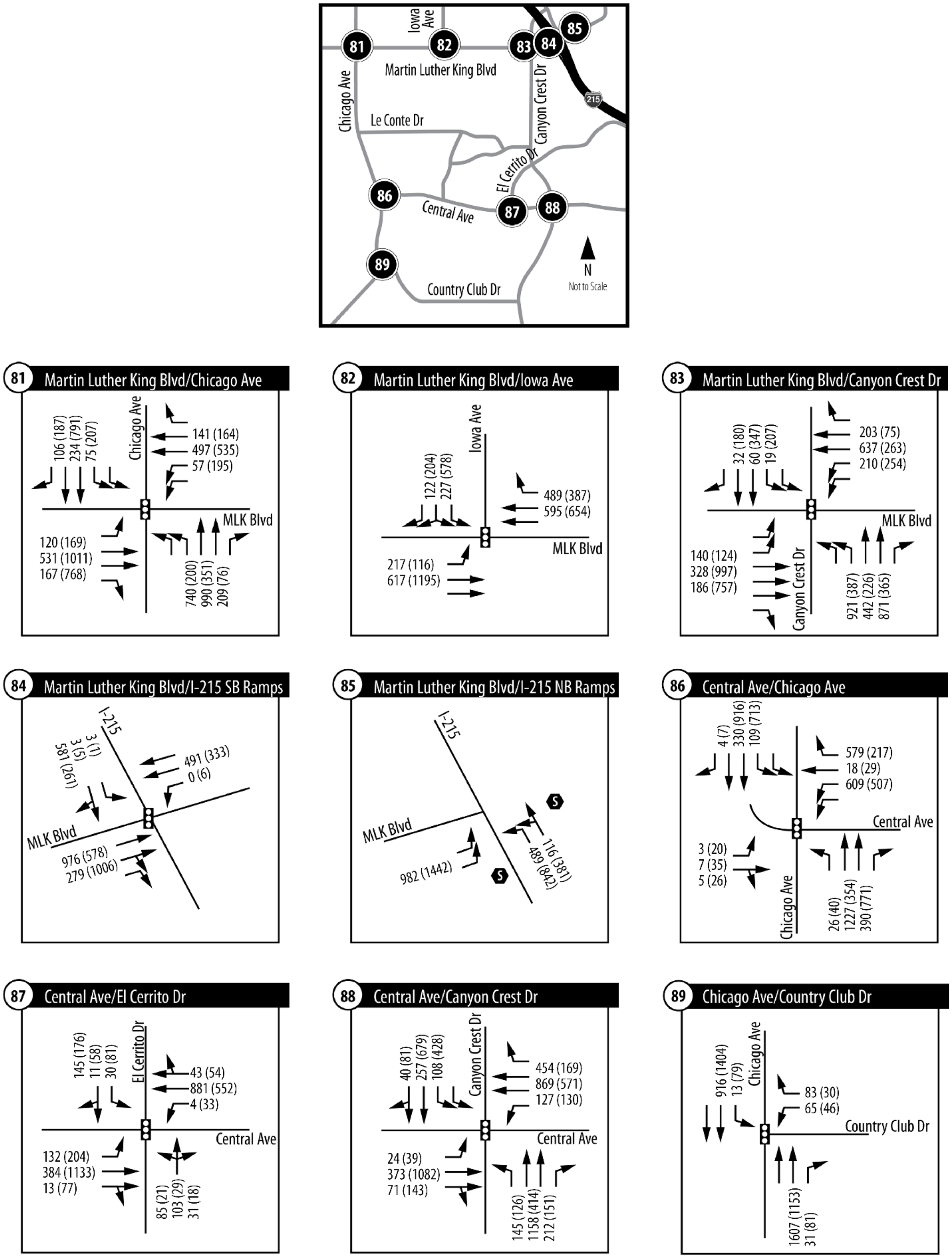

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (J)

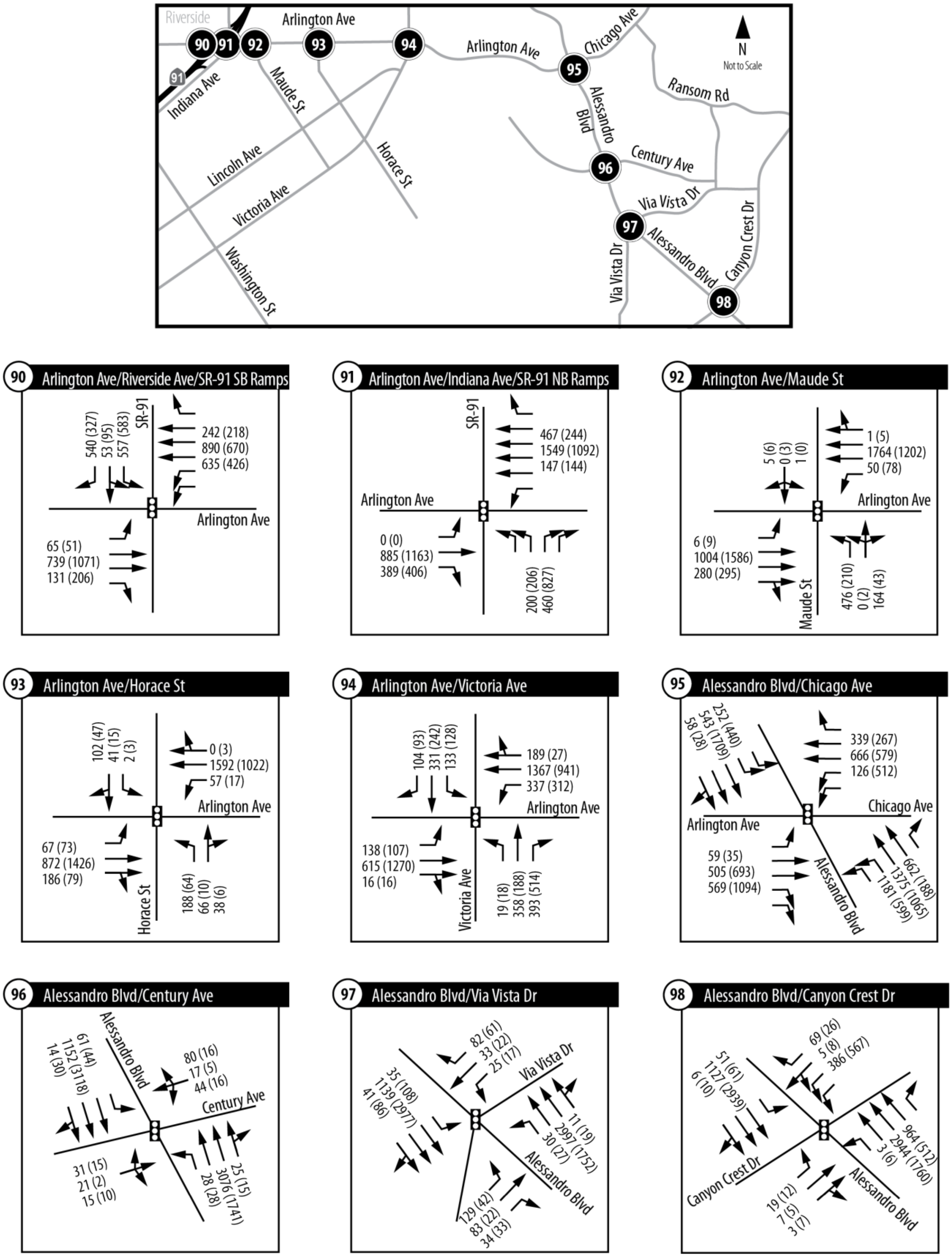

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (K)

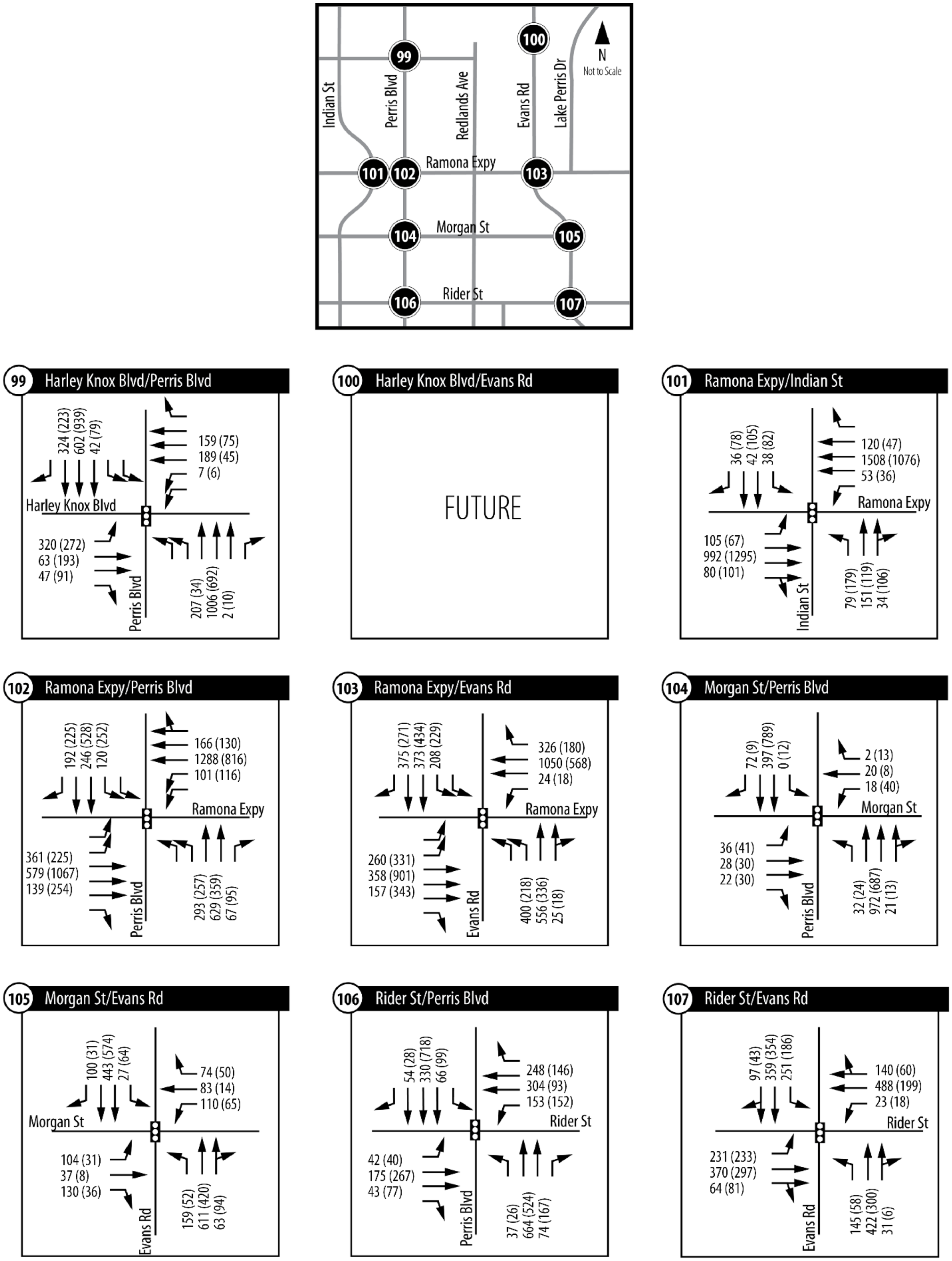

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (L)

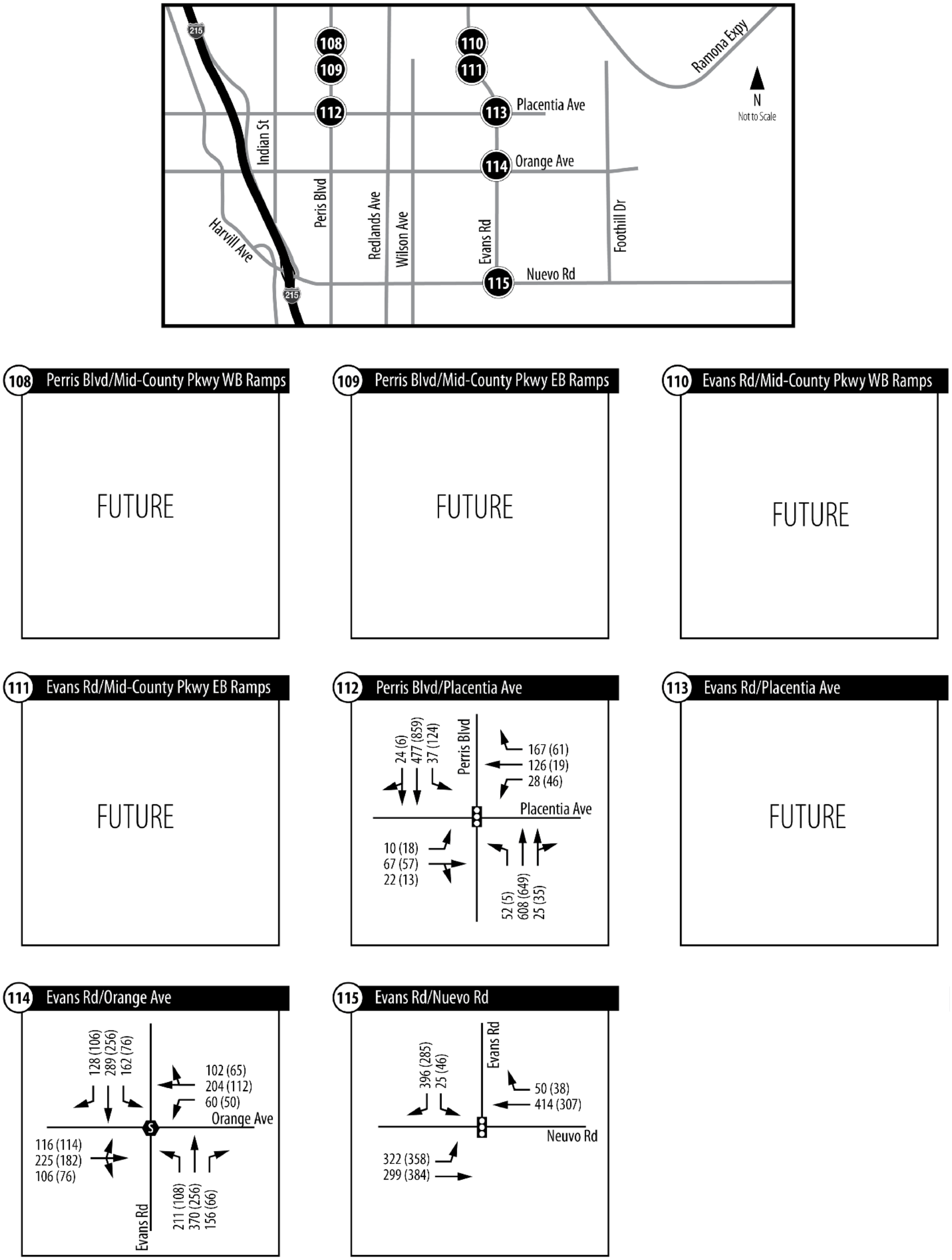

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (M)

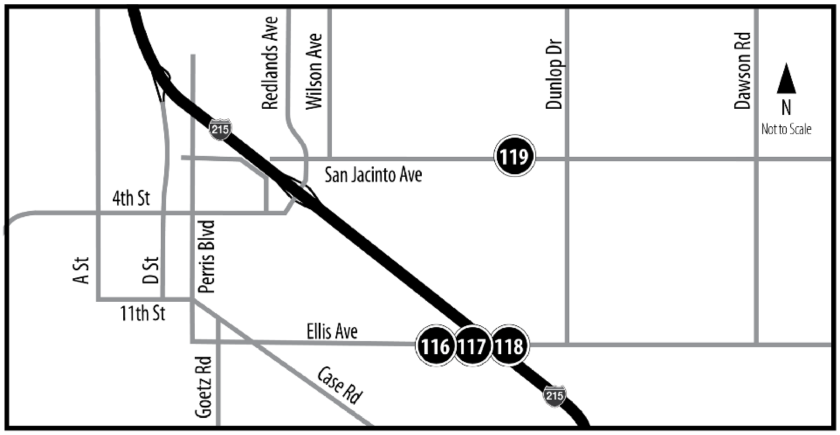

116 Ellis Ave/Evans Rd

FUTURE

117 Ellis Ave/I-215 SB Ramps

FUTURE

118 Ellis Ave/I-215 NB Ramps

FUTURE

119 Evans Rd/San Jacinto Ave

FUTURE

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (N)

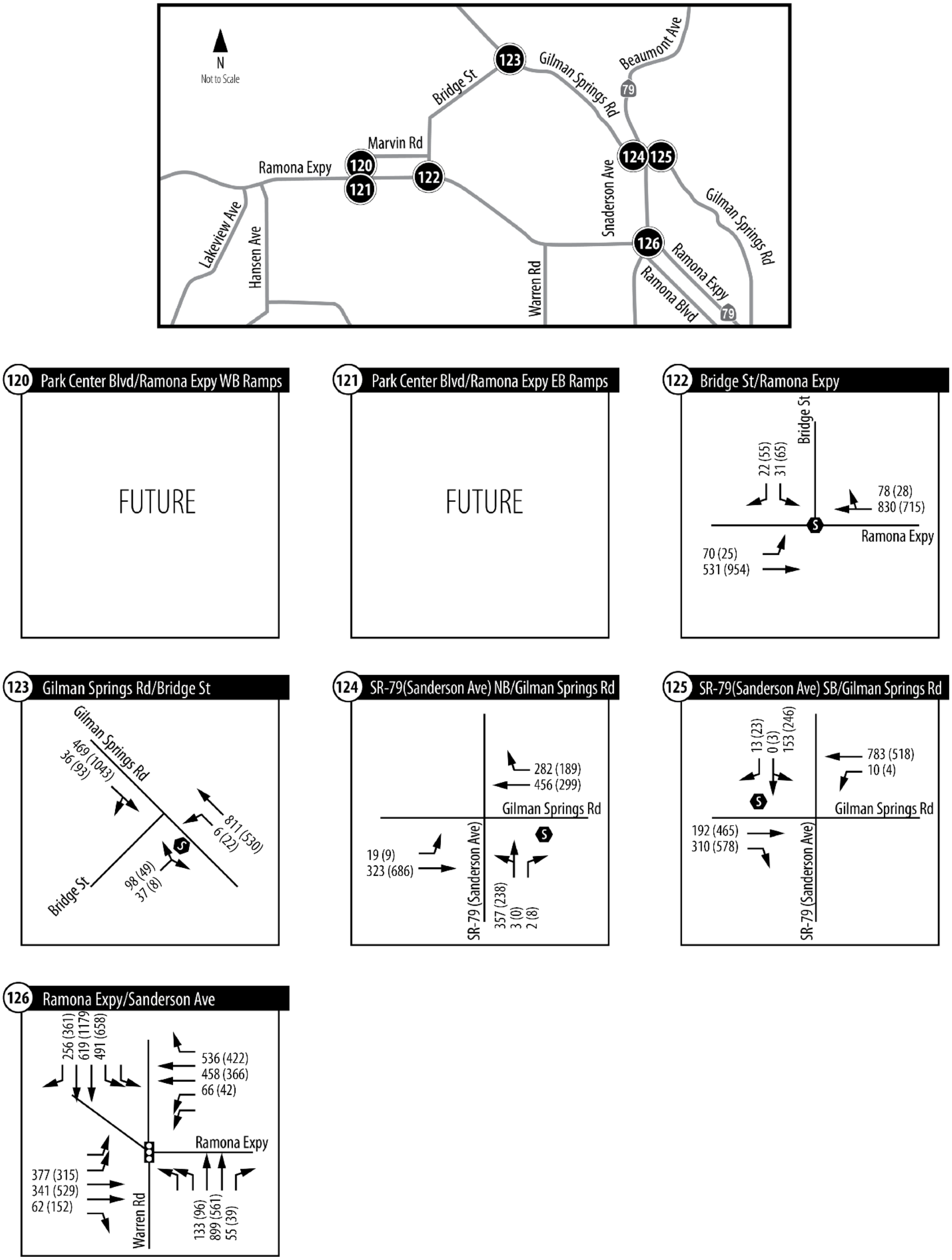

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (O)

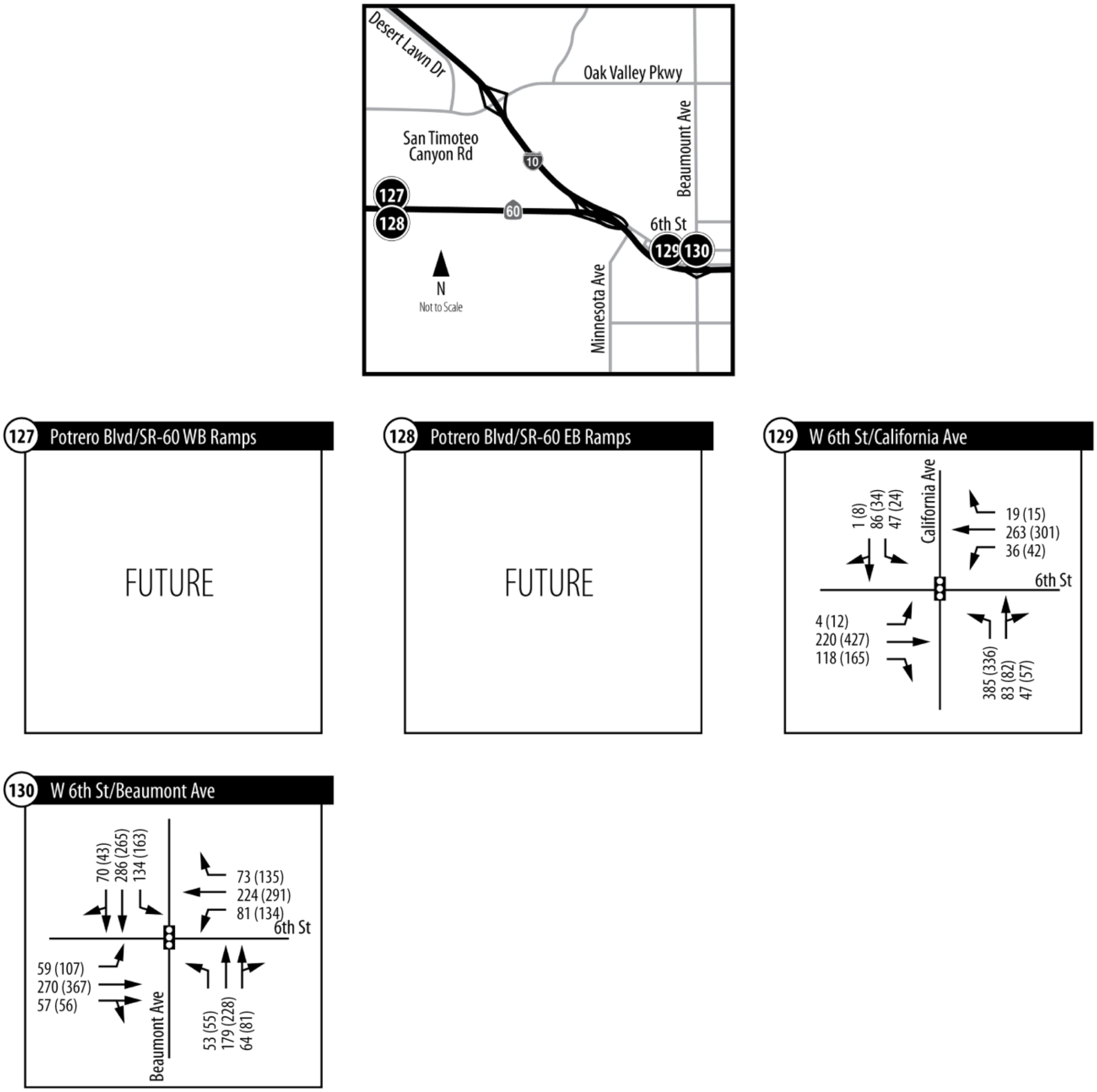

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (P)

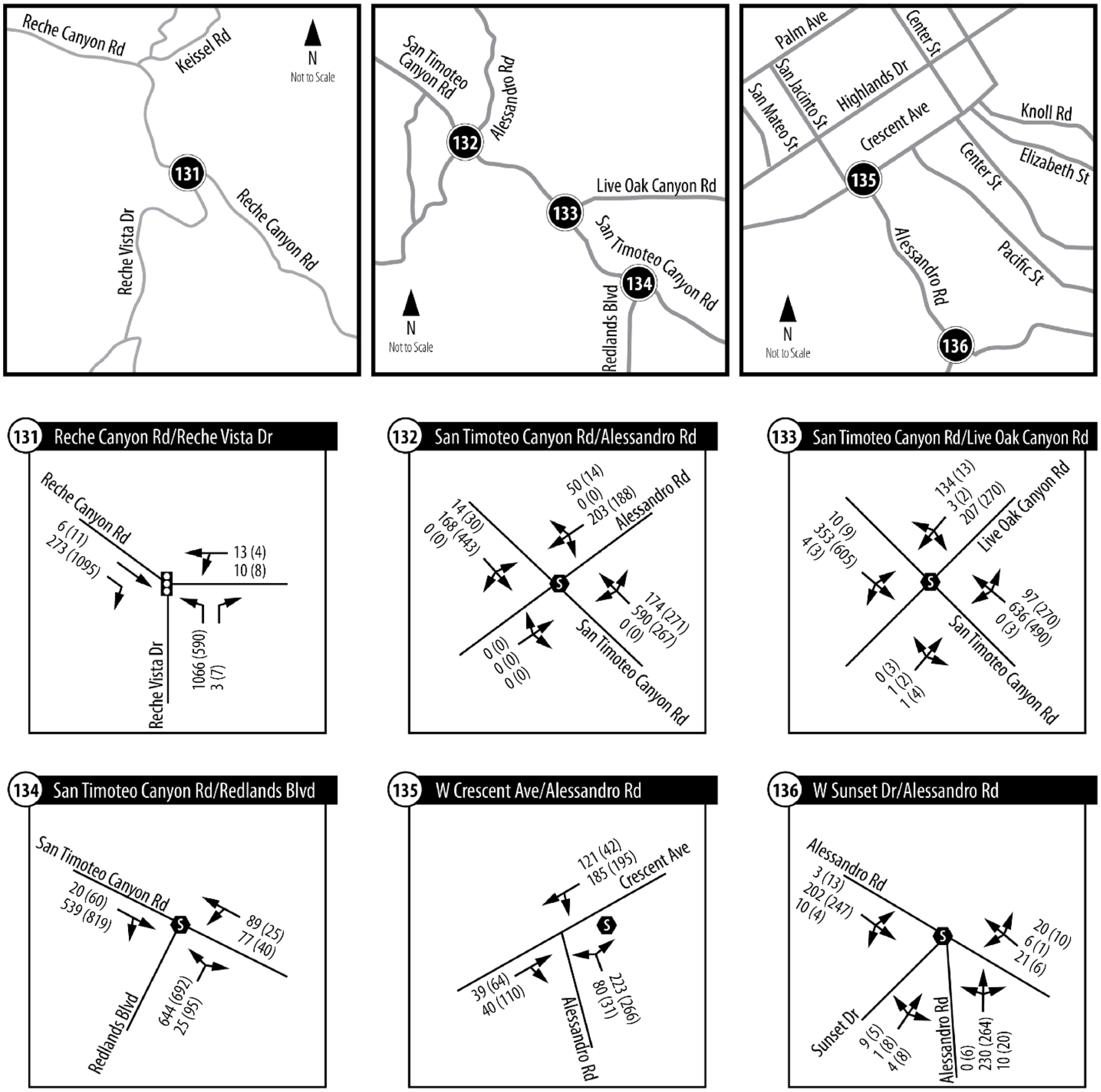

Figure 12: Turning Movement Volumes (PCE) under Existing Conditions (Q)

D. EXISTING LEVELS OF SERVICE

Roadway Segment Analysis

Part of the project involves building a new road network on the Project site in accordance with the General Plan amendment adopted last year. The roads that would be affected by the change are shown in Figure 13, which is the key map for the tables reporting sectional traffic volumes.

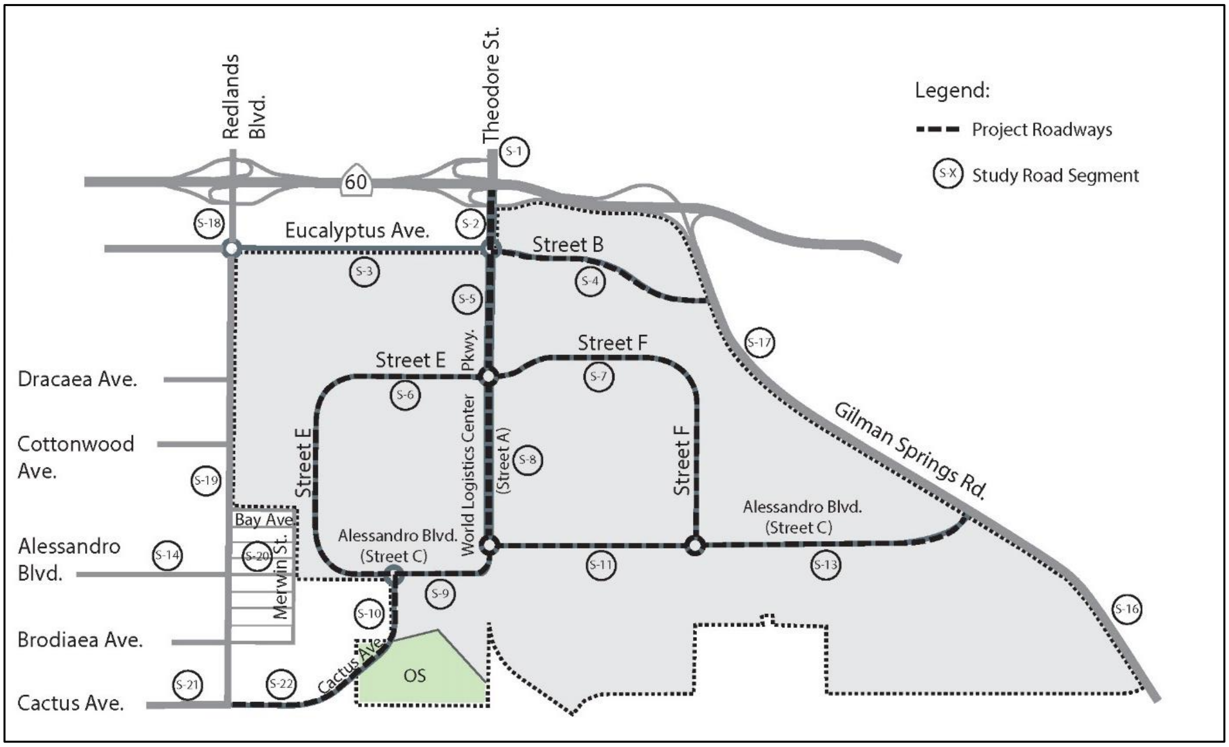

Figure 13: Study Road Segments

24-Hour traffic counts were collected on the study road segments. Table 13 shows the existing LOS for the study road segments. As shown in the table, Gilman Springs Rd. north and south of Alessandro Blvd. (road segments S-16 and S-17) and Redland Boulevard between Eucalyptus and the SR-60 eastbound ramps currently exceed the target LOS established in the General Plan. The existing traffic volumes on all other study roadway segments meet the LOS target in the General Plan.

Table 13: LOS of Study Road Segments under Existing Conditions

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road		
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	**F**
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	**E**
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

Intersection Level of Service (LOS)

Table 14 shows the existing LOS for the study intersections in the AM and PM peak hours. Detailed worksheets are presented in Appendix B. Of the 136 study intersections that were studied, 21 intersections failed to meet the General Plan target under Existing Conditions in the AM peak hour, the PM peak hour, or both. These intersections were:

- IN-10 Redlands Blvd./Locust Ave. (AM, PM)
- IN-20 Oliver St./Alessandro Blvd. (AM)
- IN-23 Redlands Blvd./Alessandro Str. (PM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-39 Iris Ave./Perris Blvd. (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM)
- IN-125 SR-79 (Sanderson Ave) SB/Gilman Springs Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Table 14: Existing Conditions LOS at Study Intersections

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		Non-Existent	
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Non-Existent	
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	10.2	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	29.4	D
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	73.0	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	28.5	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	21.2	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	17.8	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	9.1	A
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	9.0	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	2.6	A
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	9.0	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	19.3	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	29.3	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	33.7	**D**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	17.1	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	15.4	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	10.6	B
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	18.7	B
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	33.4	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	20.8	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	13.9	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	36.3	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	18.5	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	18.5	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	41.8	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	61.8	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	31.1	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	56.6	**E**
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	17.2	B
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	34.4	C
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	19.4	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	15.0	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	10.7	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	20.7	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	14.6	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	19.5	B
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	20.0	C

Table 14: Existing Conditions LOS at Study Intersections (continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	22.5	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	7.5	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	19.4	B
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	19.9	B
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	28.8	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	18.8	B
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	26.3	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	27.9	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	36.7	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	26.6	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	34.5	C
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	9.3	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	21.0	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	31.8	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	23.1	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	35.5	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	29.0	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	9.0	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	13.0	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	17.4	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	14.5	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	20.8	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	14.4	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	7.0	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	26.5	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	8.8	A
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	53.6	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	15.8	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	9.4	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	15.8	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	27.8	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	51.6	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	10.9	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	34.2	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	7.4	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	91.4	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	15.8	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	39.6	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	5.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	24.2	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	6.4	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	27.1	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	5.9	A
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	39.0	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	78.5	**E**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	11.1	B

Table 14: Existing Conditions LOS at Study Intersections (continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	22.8	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	34.4	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	29.9	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	20.1	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	27.9	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	36.1	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	16.7	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	21.3	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	22.8	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	28.4	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	11.9	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	39.0	**E**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	23.8	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	111.0	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	84.5	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	146.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	115.4	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	29.7	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	31.4	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	14.0	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	17.5	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	23.1	C
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	104.8	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	178.9	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	12.5	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	9.6	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Freeway Mainline Basic Sections LOS

The LOS for freeway mainline sections under existing conditions is shown in Table 15 (for basic freeway sections[19])[20]. The target LOS is currently exceeded in 34 mainline sections as follows:

North or Eastbound

- SR-60 Ramona Ave. to Central Ave. (AM, PM)
- SR-60 Central Ave. to Mountain Ave. (PM)
- SR-60 Mountain Ave. to Euclid Ave. (PM)
- SR-60 Euclid Ave. to Grove Ave. (PM)
- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (PM)
- SR-60 Market St. to Main St. (PM)
- SR-60 Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 Pigeon Pass Rd. to Heacock St. (PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Adams St. to Madison St. (AM, PM)
- SR-91 Central Ave. to 14th St. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave./Washington St. (AM)
- I-215 Auto Plaza Dr. to Mill St. (PM)

Southbound or Westbound

- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (PM)
- SR-60 Market St. to Main St. (AM)
- SR-60 Main St. to SR-91 (AM)
- SR-60 Fair Isle Dr./Box Springs Rd. to I-215 (PM)
- SR-60 I-215 to Day St. (AM)
- SR-60 Pigeon Pass Rd. to Heacock St. (AM)
- SR-91 McKinley St. to Pierce St. (AM, PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Magnolia Ave. to La Sierra Ave. (AM, PM)
- SR-91 La Sierra Ave. to Tyler St. (PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Van Buren Blvd. to Adams St. (PM)
- SR-91 Madison St. to Arlington Ave. (AM, PM)
- I-215 Harley Knox Blvd. to Van Buren Blvd. (PM)
- I-215 Alessandro Blvd. to Eucalyptus Ave. (PM)
- I-215 Center St. to La Cadena Dr. (AM, PM)
- I-215 La Cadena Dr. to Barton Rd. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave. (PM)

Most of the freeway basic sections currently exceeding the target LOS involve congestion in the peak direction. That is why regional agencies stress the importance of promoting reverse commuting; to move some traffic from the congested side of the freeway to the uncongested side. To the extent that the WLC can encourage this shift, it can help reduce congestion for all travelers, including those not directly associated with the WLC. This is discussed further in Section D of the next chapter.

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[19] A basic freeway segment is one that is outside the influence of ramps and weaving areas. Basic freeway segments exist between interchanges that are not closely spaced. Note that segment numbers are not always consecutive in the table because weaving sections may occur between basic freeway segments, and because the two directions of travel may be different in terms of where ramps are provided.

[20] In addition to the analysis shown here, there is a supplemental analysis of truck trips to the Ports of Los Angeles and Long Beach found in Chapter 12, Section F of this report.

Table 15: Existing Freeway Mainline Level of Service

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6,638	26.3	D	6,223	24.8	C
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	E	9,400	47.3	F	6,167	24.4	C	6,459	26.1	D
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	E	6,751	28.4	D	6,489	26.9	D
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	E	6,859	28.8	D	6,883	29.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	E	7,108	29.3	D	7,527	32.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	F	6,656	26.2	D	9,400	51.0	F
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	F	7,821	34.9	D	9,400	53.0	F
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,339	22.4	C	5,698	17.5	B
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	5,456	20.8	C	5,111	19.6	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	4,888	14.7	B	4,648	14.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	2,913	11.5	B	3,567	13.3	B	5,070	19.2	C	5,970	23.7	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	2,437	9.8	A	2,959	11.3	B	4,277	16.3	B	4,958	19.3	C
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	4,296	16.3	B	4,981	19.4	C
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	4,326	16.4	B	5,020	19.6	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,515	23.2	C	5,262	29.2	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,697	24.1	C	5,477	30.6	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	E	6,485	40.3	E	5,115	27.9	D
F-20	SR-60	Main St to SR-91	See Weaving Analysis			See Weaving Analysis			7,050	47.9	F	4,062	21.0	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	F	9,400	51.1	F	7,050	33.3	D	6,885	30.5	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	7,385	30.6	D	8,085	36.9	E
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			4,328	41.6	E	3,251	26.8	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	F	4,700	49.0	F	2,786	21.9	C
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	3,192	25.1	C	3,003	24.0	C
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,592	19.5	C	2,695	21.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,817	14.0	B	1,882	14.7	B
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,481	11.6	B	1,504	11.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	1,460	11.4	B	1,486	11.7	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,121	13.4	B	1,165	12.7	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,121	9.0	A	1,165	9.3	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	6,576	26.3	D	7,158	31.4	D
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	7,050	49.6	F	7,050	55.5	F
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	E	7,050	54.7	F	7,050	48.4	F	7,050	53.3	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			7,050	48.4	F	7,050	53.3	F
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	5,943	34.3	D	7,050	53.3	F
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	E	6,106	23.6	C	7,990	37.2	E

Table 15: Existing Freeway Mainline Level of Service (continued)

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	6,381	25.0	C	7,990	37.2	E
F-46	SR-91	Adam St to Madison St	7,451	57.6	F	8,209	96.0	F	5,931	22.8	C	7,582	33.9	D
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,050	48.4	F	7,050	52.6	F
F-49	SR-91	Central Ave to 14th St	7,050	52.1	F	5,797	35.9	E	5,166	19.5	C	7,050	30.0	D
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	5,166	19.5	C	7,050	30.0	D
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,294	11.5	B	2,318	11.5	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	2,528	12.6	B	3,111	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,528	12.6	B	3,111	15.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	2,882	14.4	B	3,854	19.1	C
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	4,515	23.2	C	4,700	24.1	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	2,538	12.7	B	2,634	13.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,380	12.7	B	3,249	12.1	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,515	23.2	C	5,262	28.0	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,913	27.7	D	5,947	34.3	D	2,658	13.3	B	5,310	28.1	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	3,802	19.7	C	7,050	46.7	F
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	3,572	13.4	B	6,195	23.6	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	5,031	26.7	D	6,129	35.5	E
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	7,050	29.6	D	7,050	28.4	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	7,050	50.2	F	7,050	47.3	F
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	7,050	49.6	F	7,050	46.7	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	E	5,640	32.0	D	5,974	34.6	D	7,050	46.7	F
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	5,726	22.1	C	5,432	20.5	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	F	6,123	23.7	C	5,837	22.0	C
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	4,700	17.6	B	3,704	13.7	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	4,888	20.9	C	4,190	15.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	4,968	21.5	C	4,259	16.3	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	5,209	22.7	C	4,465	17.0	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	5,009	21.7	C	4,293	16.4	B
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	4,888	16.7	B	4,190	12.8	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	4,808	20.7	C	4,121	15.7	B
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	4,808	20.7	C	4,121	15.7	B
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	4,327	18.6	C	3,709	14.2	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	4,127	17.7	B	3,537	13.6	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	3,646	15.4	B	3,125	11.8	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	3,646	15.4	B	3,125	11.7	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	3,165	13.4	B	2,713	10.2	A
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	3,165	13.4	B	2,713	10.3	A

▨ Indicates that the LOS exceeds the target level

Freeway Weaving Sections LOS

Table 16 shows the existing LOS for the study weaving sections[21]. The target LOS is currently exceeded in 7 weave sections as follows:

North or Eastbound

- SR-60 from SR-91 to Blaine St./3rd St. (PM)
- SR-60 from I-215 to Day St. (PM)
- I-215 from SR-60 to Columbia Ave. (AM)

South or Westbound

- SR-60 from University Ave. to Martin Luther King Blvd. (AM, PM)
- SR-91 from Arlington Ave. to Central Ave. (PM)
- SR-91 from SR-60 to Mission Inn Ave./University Ave. (PM)
- I-215 from SR-60 to Columbia Ave. (AM)

Freeway Ramps LOS

Table 17 shows the existing level of service (LOS) at the study freeway ramps. One study ramp currently operates below the LOS “D” target, namely the SR-60 eastbound on-ramp from Martin Luther King Boulevard in the AM and PM peak hours.

Details of the LOS calculations for freeways under Existing Conditions can be found in Appendix I.

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[21] A weaving section occurs when one traffic movement must cross the path of another along a relatively short length of roadway without the aid of signals or other traffic control devices. Such cases typically occur where merge junction is followed closely by a diverge junction.

Table 16: Existing Freeway Weaving Sections Level of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,466	19.6	B	5,871	21.3	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,671	26.3	C	7,844	33.1	D
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	**E**	5,660	21.3	C	5,717	21.6	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,568	22.6	C	6,273	22.6	C
W-23	SR-60	University Ave to Martin Luther King Blvd	5,965	22.6	C	7,050	24.6	C	7,050	38.2	**E**	7,050	44.9	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	5,979	25.0	C	8,119	31.6	D	7,050	34.2	D	7,050	34.5	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	**E**	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,197	14.4	B	7,050	32.7	D	4,700	30.6	D	3,279	20.4	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,207	12.1	B	2,252	12.5	B
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	7,050	33.4	D	7,050	36.0	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			8,102	29.2	D	11,750	> Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	5,036	23.0	C	6,139	28.5	D
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			6,019	21.4	C	7,017	25.6	C
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	**F**	4,317	22.0	C	7,050	35.1	**E**	7,050	34.9	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	6,311	21.8	C	6,261	21.9	C
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	7,050	24.5	C	6,421	22.7	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	7,050	22.5	C	5,762	18.0	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	3,646	13.9	B	3,125	11.7	B

▨ Indicates that the LOS exceeds the target level

Table 17: Existing Freeway Ramp Level of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	**F**	8,384	1,016	34.3	**F**
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C

▨ Indicates that the LOS exceeds the target level

E. REGIONAL CONTEXT

This chapter discusses the regional context of the proposed World Logistics Center (WLC) project.

Moreno Valley's Economy

Moreno Valley is a predominantly residential community, with one of the lowest jobs-to-housing ratios in the six-county SCAG region[22]. More than three-quarters[23] of jobs in the city are in education, retail, public administration and other services with local client bases. Moreno Valley has relatively few jobs that bring in revenue from outside the city. For example, the manufacturing sector is both quite small (2.6% of jobs in Moreno Valley) and shrinking[24].

One consequence of the existing imbalance between jobs and housing is that a large majority (87%[25]) of Moreno Valley workers commute to jobs outside the city, and in many cases far outside the city. According to the U.S. Census Bureau[26], 19.5% of Moreno Valley workers commute more than 50 miles one way to work, and another 20.1% drive 25 to 50 miles one way. Eighty percent of Moreno Valley workers drive to work alone[27]. Since other Inland Empire cities have similar commute characteristics, the resulting transportation pattern is one of heavy westbound flows in the morning and eastbound flows in the evening, overwhelming the freeway system during peak commuting hours. Another consequence is the high cost of commuting both in terms of out-of-pocket expenses and reduced quality of life for the commuters and their families.

Policy Updates

An updated Housing Element, adopted by the City in February 2011, identified the Moreno Highlands area as a potential location for future jobs-producing land uses[28]. In April 2011, the City adopted its Economic Development Action Plan which identified eastern Moreno Valley as a potential area for major job-producing land uses[29]. The proposed World Logistics Center project is consistent with this planning objective, as it provides a comprehensive plan for jobs-producing land uses.

Regional Truck Traffic Patterns

Truck traffic in the SCAG region is comprised of five major components. These are:

- Internal Trips – Truck trips that begin and end within the SCAG region. These include trips between industries, warehouses, and retail businesses within the region, excluding port-related cargo trips.
- External Trips – Truck trips with either the origin or destination in the SCAG region, and the other end of the trips outside the region, excluding port-related cargo trips. These include agricultural

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[22] Only 0.75 jobs/household, compared to the regional average of 1.29. Source: *Profile of the City of Moreno Valley*, SCAG, May 2017.

[23] ibid.

[24] ibid. The number of manufacturing jobs in Moreno Valley has declined 42% since 2007.

[25] Ibid.

[26] Source: On-the-Map website, U.S. Census Bureau. Data for 2015 (most recent available) accessed on 2/16/2018.

[27] Source: *Profile of the City of Moreno Valley*, SCAG, May 2017.

[28] *City of Moreno Valley Draft Housing Element 2008-2014*, page 6

[29] *Economic Development Action Plan, April 2011*, page 10

products brought into the region and industrial goods made in southern California and shipped to other parts of the U.S.

- Port Trips – Truck trips that begin or end at the Ports of Los Angeles or Long Beach
- Secondary Port Truck Trips - These are truck trips with an initial origin or destination at the San Pedro Bay Ports that are moved a second time after the first trip to or from the San Pedro Bay Ports. Transloading trips are in this category, or secondary trips involving cargos transloaded from trucks from the port.
- Intermodal Trips – Truck trips involving cargos transferred to or from trains that are not port-related.

Table 18 shows the relative sizes of these components[30]. In Riverside County, 94.5% of the truck trips are internal to the region, and another 4.4% are external trips. Port-related trips account for less than 1% of truck traffic to or from Riverside County.

Table 18: Daily Truck Trips by Major Category

Type of Truck Trip	SCAG Region		Riverside County	
	Truck Trips	% of Truck Trips	Truck Trips	% of Truck Trips
Internal	982,965	87.4%	89,910	94.5%
External	72,278	6.4%	4,231	4.4%
Intermodal	7,571	0.7%	197	0.2%
Port-Related	54,719	4.9%	659	0.7%
Secondary Port Trips	7,648	0.7%	128	0.1%
Total	1,125,181	100.0%	95,125	100.0%

The truck traffic associated with the WLC and other logistics centers is expected to follow this general pattern. Most of the warehouse occupants in the NAIOP survey of logistics centers in southern California (Lowe's, Target, Big5, Walgreen's, Home Depot, Costco, Toys "R" Us, Staples, etc.) have extensive business interests in southern California. Thus, it is reasonable to assume that a future warehouse logistics center located in this region would be used in part to support operations within the region; i.e. some of the truck trips they generate would be internal to the region. It is also reasonable to assume that the external trips would follow the overall regional pattern, which is as follows (also see Figure 14)[31]:

- I-5 and US-101 are the main truck routes for cargos transported north of the SCAG region, accounting for 38% of external truck trips
- I-15 is the main route for cargos going northeast (Salt Lake City, Chicago, etc.), accounting for 10% of external truck trips
- I-40 is the main route for cargos going east (Albuquerque, St. Louis, Atlanta, New York, etc.), accounting for 11% of external truck trips
- I-10 is the main route for cargos going southeast (Phoenix, Houston, New Orleans, etc.), accounting for 12% of external truck trips

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[30] Source: *Regional Transportation Plan 2016-2040*, *Transportation System | Goods Movement,* Southern California Association of Governments. April 2016.

[31] Data Source: Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF^3), March 2010.

- I-5 and I-215 are the major routes going south (San Diego, Mexico), accounting for 29% of external truck trips.

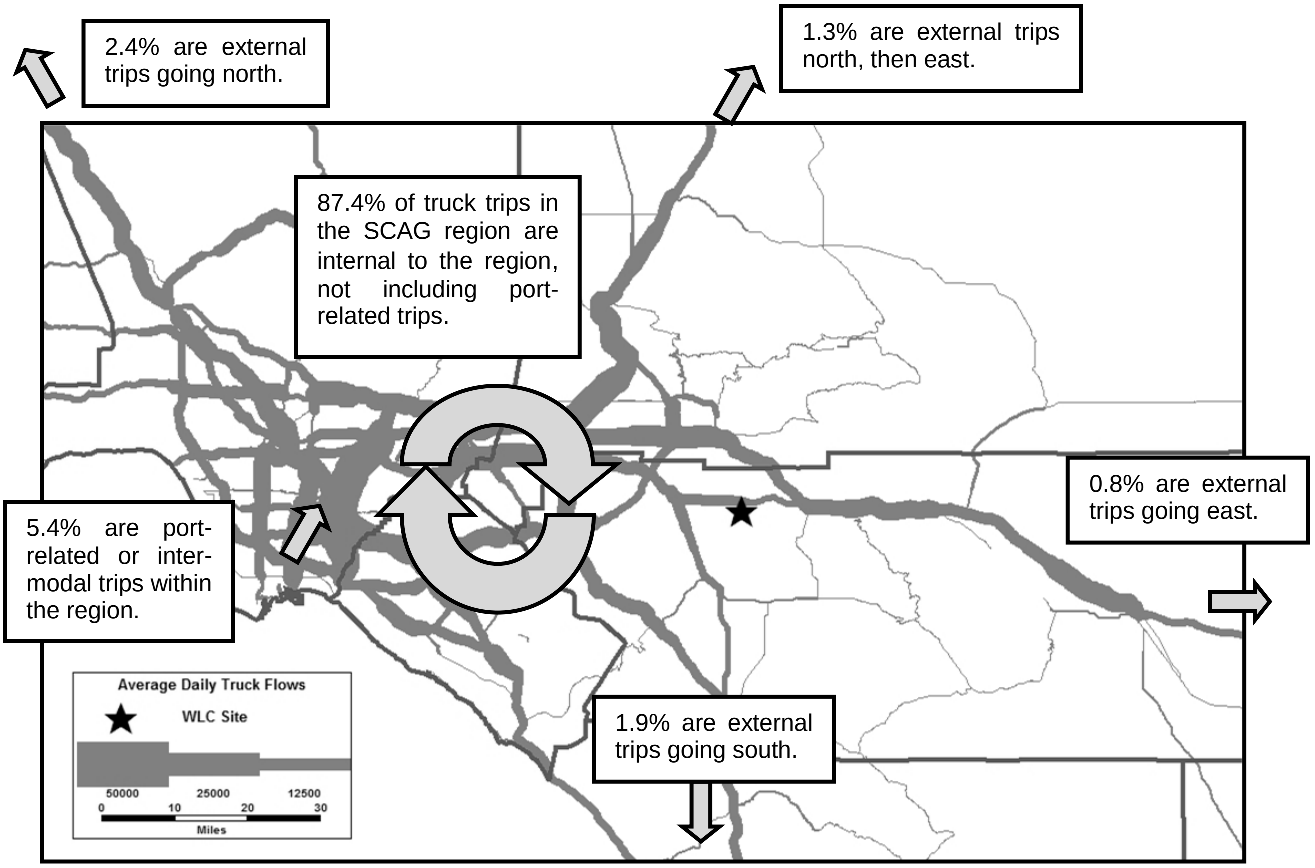

2.4% are external trips going north.

1.3% are external trips north, then east.

87.4% of truck trips in the SCAG region are internal to the region, not including port-related trips.

5.4% are port-related or inter-modal trips within the region.

0.8% are external trips going east.

1.9% are external trips going south.

Figure 14: Major Truck Flows in the SCAG Region, 2012

4. PROPOSED PROJECT

A. POTENTIAL ROLE OF LOGISTICS

The mixed-use and business park type of development envisioned in the Moreno Highland Specific Plan (the previous specific plan for the WLC area) has proven to be infeasible at this location; between the plan's approval in 1992 until its repeal in 2015 no development occurred on the site. This raises the question of whether a different type of development would be more feasible and so would provide more scope for benefits to Moreno Valley. SCAG has studied this issue in the larger context of the region's relative standard of living. In the period from 1987 to 2001, the SCAG region slipped from 4th place to 17th (last) place in per capita income among the 17 consolidated metropolitan areas in the United States[32]. Among the chief reasons for this decline was the loss in manufacturing jobs, which reduced the earning potential for the region's large and growing number of workers who lack a college education. One possibility for replacing these lost jobs is the logistics sector, since:

- Logistics has shown steady growth due to the adoption of "just-in-time" inventory systems, which rely on rapid-response warehouses as a substitute for goods stored on-site.
- The growth in trade with Asia has increased the volume of cargos while the introduction of post-Panamax container ships[33] limits the choice of west coast ports to L.A./Long Beach, Seattle/Tacoma, and Vancouver. Consequently they all have good prospects for continuing long-term growth.
- Logistics jobs offer better-than-average wages. These wages are better than the wages of the blue-collar jobs in the declining sectors of manufacturing and construction[34].

Within the Inland Empire context, logistics development would bring high-paying blue collar jobs into an area with an under-employed labor force, including many workers lacking a college education[35]. Also, since modern logistics warehouses are very large buildings requiring large vacant parcels of land near freeways, it gives the Inland Empire region a comparative advantage over the coastal counties that do not have such parcels readily available or regions further inland that are not as easily accessible from the Ports of Los Angeles and Long Beach. Forecasts suggest that the regional demand for warehouse space will triple over the next 25 years, from approximately 1.5 billion square feet to 4.5 billion square feet, and that half of this space will be built in the Inland Empire[36].

B. PROJECT DESCRIPTION

The proposed World Logistics Center is a plan for the development of modern high-cube logistics warehouse distribution facilities on land in eastern Moreno Valley. The project includes the development of up to 40.6 million square feet of modern high-cube logistics facilities within the 2,610-acre World Logistics Center Specific Plan.

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[32] *Logistics & Distribution: An Answer to Regional Upward Social Mobility*, Dr. John Husing for SCAG, June 2004, page 1.

[33] Post-Panamax vessels are too large to go through the Panama Canal.

[34] In 2003 the average pay was $45,314/yr for logistics jobs compared to $43,871 for manufacturing and $40,439 for construction (from *Logistics & Distribution: An Answer to Regional Upward Social Mobility*, Dr. John Husing for SCAG, June 2004, page 12.)

[35] In 2016 only 15% of adults aged 25 or older in Moreno Valley had a bachelor's degree or higher. This compares to 37% in Orange County. Sources: *Profile of the City of Moreno Valley*, SCAG, May 2017, *Profile of the Orange County*, SCAG, May 2017.

[36] Source: *Multi-County Goods Movement Action Plan*, Wilbur Smith Associates, August 2008.

Proposed Land Uses

The project includes development of the buildings and infrastructure consistent with the adopted World Logistics Center Specific Plan. The Specific Plan provides for a master planned development of up to 40.6 million square feet of modern high-cube logistics warehouse distribution facilities.

The Specific Plan includes development standards and use regulations, a master plan for circulation and infrastructure, architectural, landscape and design guidelines, and sustainability goals which would be applicable to all future development within the project area.

Table 19 lists the acreage associated with the proposed Logistics Development, Light Logistics, and Open Space uses within the project site.

Table 19: The World Logistics Center Land Use Summary

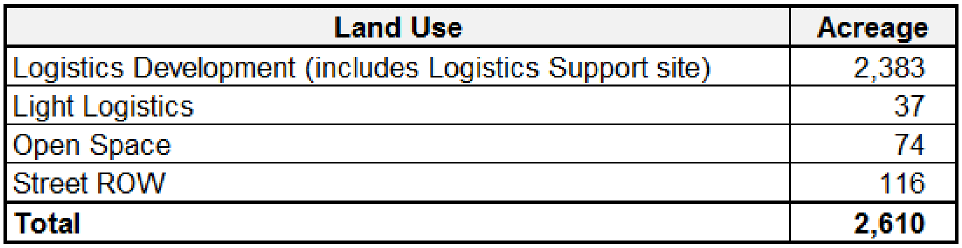

Land Use	Acreage
Logistics Development (includes Logistics Support site)	2,383
Light Logistics	37
Open Space	74
Street ROW	116
Total	**2,610**

Within the Specific Plan, the primary land use category is Logistics Development. This land use designation would provide for development of high-cube logistics warehouse uses consisting of warehouse buildings at least 500,000 square feet in size. Warehousing and logistics activities, consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets, would be permitted within this category. Ancillary office and maintenance space would be permitted, along with the outdoor storage of trucks, trailers, and shipping containers.

A smaller area would be devoted to Light Logistics. The light logistics land use designation is for conventional warehouse buildings smaller than 500,000 square feet in floor area.

In consultation with the South Coast Air Quality Management District (SCAQMD) a combined fueling station and convenience store was been added to the plans for the WLC which would be developed within the Logistics Support (LS) land use area. The purpose of the fueling station/convenience store is to provide an on-site location to purchase alternative fuels such as compressed/liquefied natural gas (CNG) / (LNG), diesel fuel, snacks, soft drinks, toiletries, cigarettes, etc. for WLC truck drivers. The station is not intended to attract customers from outside of the WLC and would only have driveway access onto a side street in the WLC; no driveway access to external roads would be provided. The facility would have restrooms and operate on a 24/7 basis. There would be no shower facilities, stand-alone food uses, drive-through food operations, alcohol products, vehicle maintenance, vehicle washing, or long-term parking.

Proposed Road Network

The proposed network, which follows the adopted WLC Specific Plan, is shown in Figure 15 and the lane configurations are summarized in Table 20. The proposed road network would feature two major east-west connections for through traffic between Redlands Blvd. and Gilman Springs Rd. World Logistics Center Parkway would remain the main north-south road but would be changed from a minor arterial (in the current plan) to a major arterial. The other project streets are designed to provide internal access to project buildings and are not expected to serve external traffic. The overall density of streets is low because the very large size of the WLC buildings can only be accommodated in large blocks.

Table 20: Lane Configurations for WLC Internal Roads

Road	Lane Configuration
Street A (World Logistics Center Pkwy.)	6 lanes and 4 lanes, wide median
Street B (Eucalyptus Ave.)	4 lanes, standard median
Street C (Alessandro Blvd.)	4 lanes, undivided
Cactus Ave. Extension	4 lanes, undivided
Street E (Alessandro Blvd.)	4 lanes, undivided
Street F	2 lanes, undivided

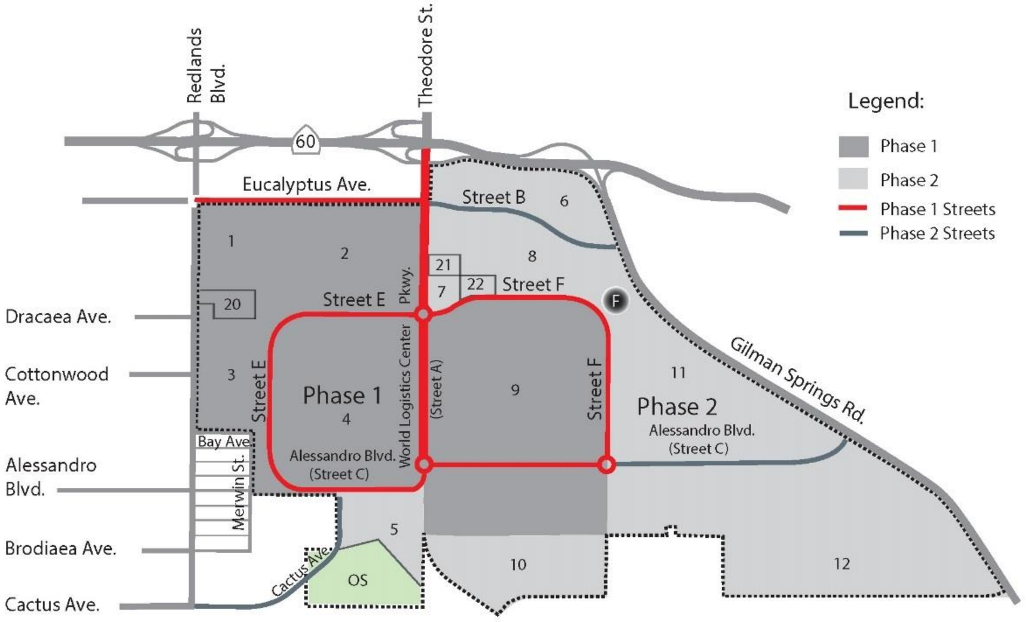

Figure 15: Proposed Roadways and Phasing

The WLC's internal streets are proposed as follows:

World Logistics Center Parkway would run on its present alignment north-south through the World Logistics Center. It is planned to be a 6-lane divided roadway north of Street E/F (see Figure 16) and 4-lane divided roadway south of Street E/F (see Figure 17), with additional widening and lane improvements at its intersections with SR-60, Eucalyptus Ave. and local interior collector streets. Three interior intersections would be roundabouts to provide for efficient traffic flow.

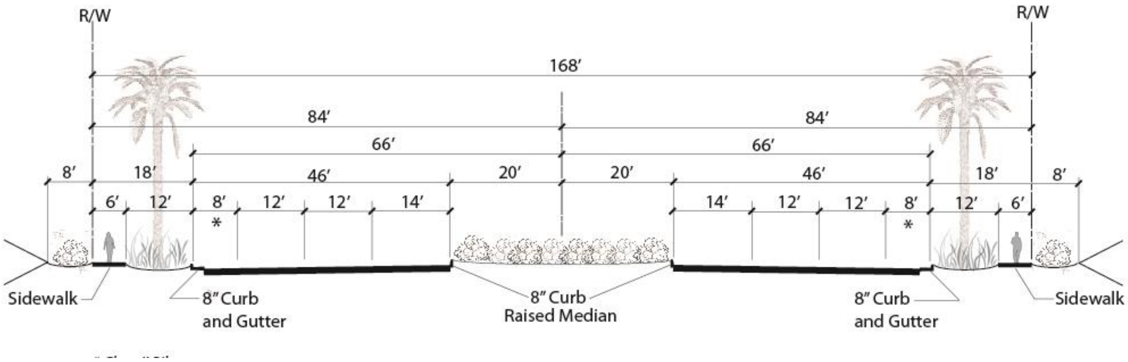

Figure 16: World Logistics Center Parkway Typical 6-Lane Section

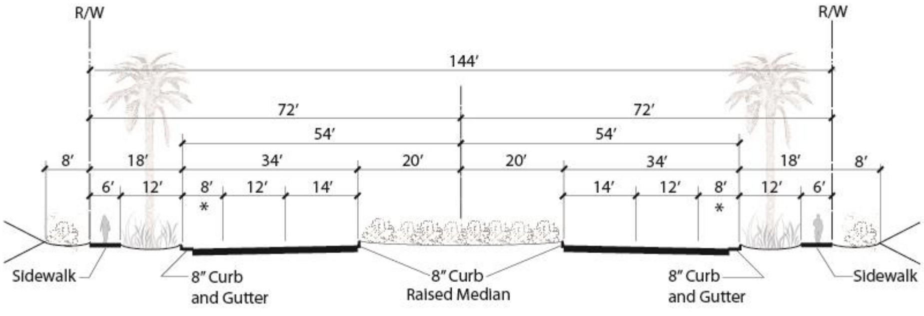

* Class II Bikeway

Figure 17: World Logistics Center Parkway Typical 4-Lane Section

Street "B" is proposed to be a 4-lane divided roadway running east-west through the northerly portion of the World Logistics Center from Gilman Springs Rd. on the east to existing Eucalyptus Ave. at Street "A" on the west (see Figure 18). The City's General Plan shows this street ultimately extending westerly across the City.

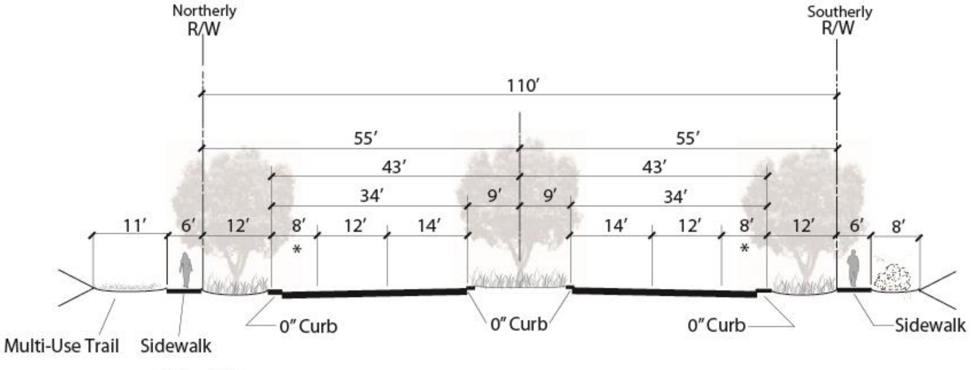

* Class II Bikeway

Figure 18: Street B Typical Section

Alessandro Boulevard[37] would retain its name. ROW width, and current alignment as an undivided roadway running east-west through the World Logistics Center, intersecting with Gilman Springs Rd. on the east (see Figure 19) and the Cactus Avenue Extension on the west. An existing section of Alessandro Blvd. between Merwin Street and the Cactus Avenue Extension would be closed to vehicular traffic except for emergency vehicles and bicycles and pedestrians. This is to prevent project traffic from traveling through existing residential neighborhoods. Passenger cars and light trucks heading west through the site would use Cactus Ave. Extension.

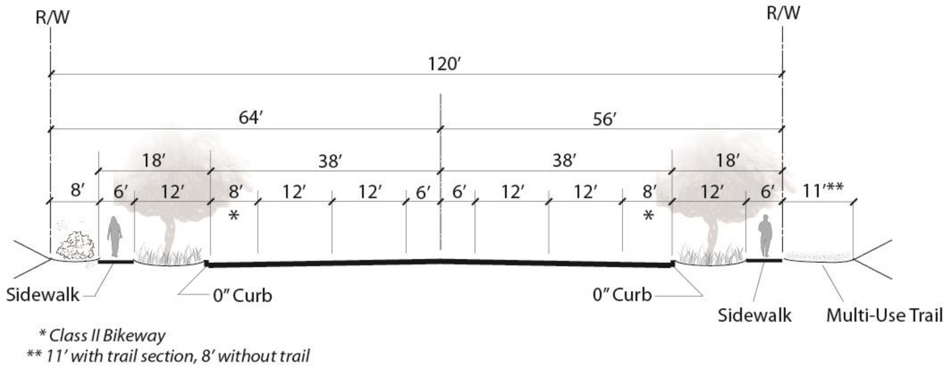

** Class II Bikeway*
*** 11′ with trail section, 8′ without trail*

Figure 19: Alessandro Boulevard Typical Section

Cactus Avenue Extension is proposed to be a 4-lane undivided north-south roadway (see Figure 20) connecting existing Cactus Ave. with the westerly internal loop street (Street "E"). The intersection with Street "E" would be designed to prohibit large trucks from using Cactus Ave. Extension to prevent their travel through adjacent residential neighborhoods. Special design features and signage will reinforce this restriction.

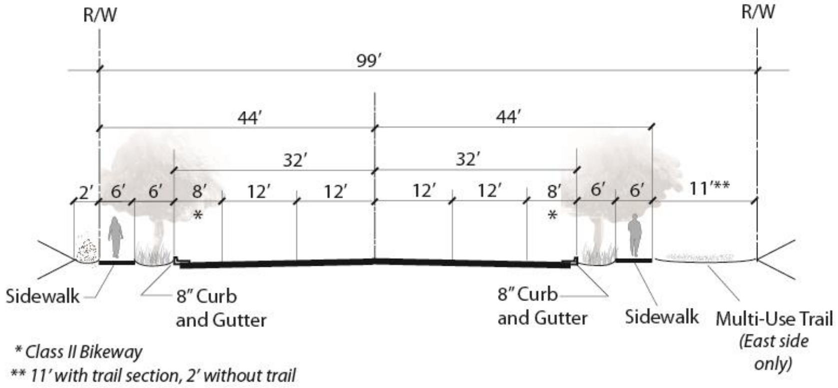

** Class II Bikeway*
*** 11′ with trail section, 2′ without trail*

Figure 20: Cactus Boulevard Extension Typical Section

Street "E" is proposed to be a 4-lane undivided internal collector loop (see Figure 21) road providing direct access to development areas in the westerly portion of the project. Design details of this roadway will be

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[37] Alessandro Boulevard was labeled “Street C” and “Street E” (the western portion) in some draft reports discussing the WLC internal road network.

determined by subsequent subdivision and site development approvals.

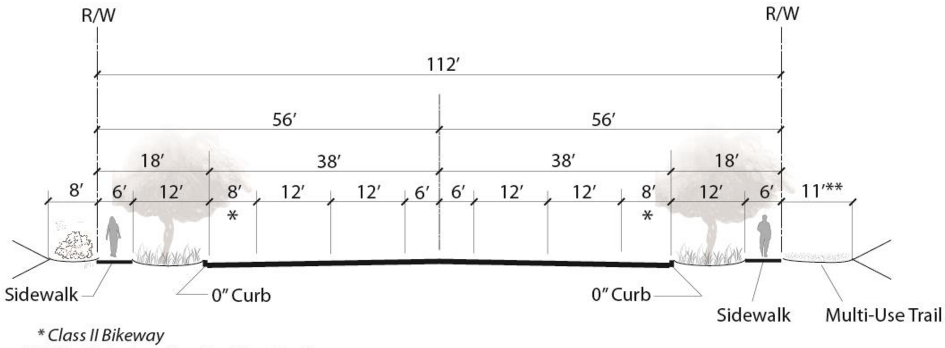

* Class II Bikeway
** 11’ with trail section, 8’ without trail

Figure 21: Street E Typical Section

Street "F" is proposed to be a 2-lane internal collector road providing direct access to development areas in the central portion of the project (see Figure 22). It would intersect with Street "A" at its northerly end and with Alessandro Boulevard at its southerly end. A roundabout is planned at its intersection with Alessandro Boulevard. Specific design details of this roadway will be determined by subsequent subdivision and site development approvals.

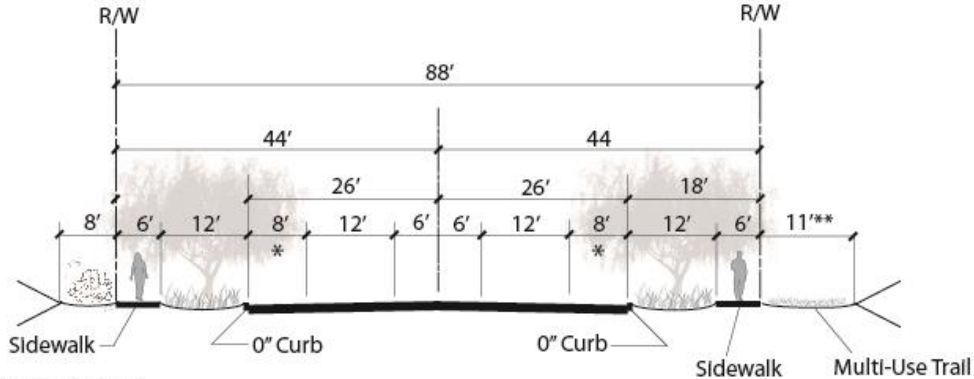

* Class II Bikeway
** 11’ with trail section, 8’ without trail

Figure 22: Street F Typical Section

Eucalyptus Avenue is proposed to be a 4-lane divided roadway running east-west through the northerly portion of the World Logistics Center from Street “B” on the east to Eucalyptus Ave. west of Redlands Blvd. (see Figure 23). The City's General Plan shows this street ultimately extending westerly across the City.

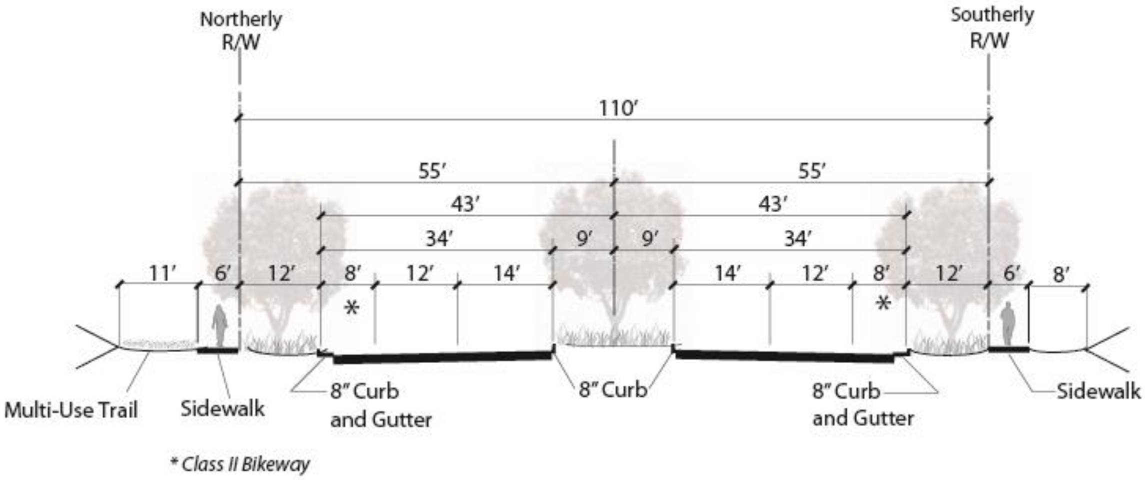

Figure 23: Eucalyptus Avenue Typical Section

The project would change a number of existing intersections in or adjacent to the project site, including:

- **Alessandro Blvd./Gilman Springs Rd. (IN-6)** would be signalized in Phase 1, and the eastbound approach changed from a shared left-turn/right-turn lane to dedicated left-turn lane and right-turn lanes. The northbound approach would have a left-turn pocket and two through lanes while the southbound approach would have a right-turn pocket and two through lanes. In Phase 2 an additional through lane would be added to the northbound and southbound approaches.
- **Theodore St./SR-60 WB ramps (IN-15)** would be signalized in Phase 1, one westbound and two northbound right-turn pockets would be added along with a southbound left-turn pocket. In Phase 2 this intersection would be replaced as part of the re-configuration of the interchange that will be described later in this section.
- **Theodore St./SR-60 EB ramps (IN-16)** would be signalized in Phase 1, eastbound and southbound right-turn pockets would be added, a northbound through lane would be added, and the existing left-turn pocket would be extended south to the adjacent intersection (IN-19). In Phase 2 this intersection would be eliminated and replaced with a new intersection to the north as part of the re-configuration of the interchange that will be described later in this section.
- **World Logistics Center Parkway/Eucalyptus Ave. (IN-19)** would be signalized in Phase 1 and two northbound and southbound lanes added as part of the widening of World Logistics Center Parkway. In Phase 2 right-turn pockets would be added in the northbound, southbound, and eastbound directions, and an eastbound through lane added. A new westbound approach would be added with a left-turn pocket and a shared through/right turn lane.

Three roundabouts would be created, namely:

- **Alessandro Blvd. (Streets C and E)/World Logistics Center Parkway (IN-3)** is currently two closely-spaced offset intersections. These would be replaced with a 3-legged roundabout as shown in Figure 24.

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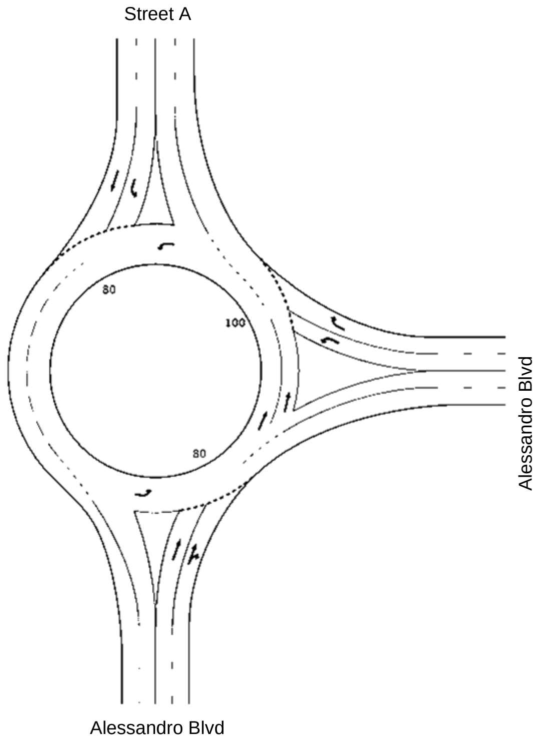

Figure 24: Alessandro Blvd. (Streets C and E)/ World Logistics Center Parkway Roundabout

- **Streets E and F/World Logistics Center Parkway (IN-1)** would be created as a 4-leg roundabout in Phase 1 as shown in Figure 25.

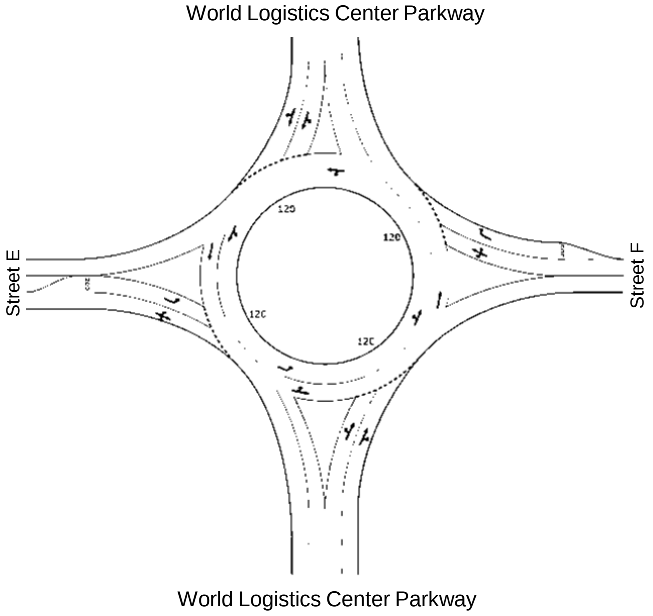

Figure 25: Roundabout at Intersection of World Logistics Center Parkway, E, and F

- **Streets C/Street F (IN-4)** would be created as a 4-leg roundabout as shown in Figure 26.

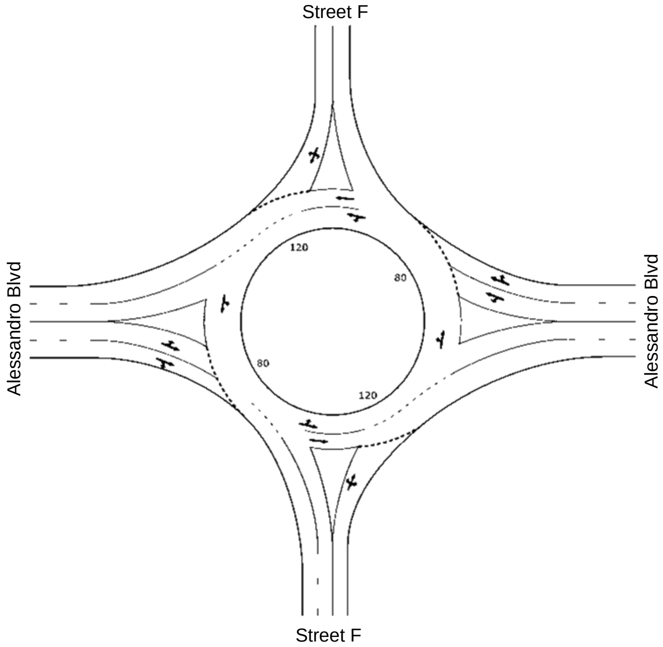

Figure 26: Roundabout at Intersection of Streets F and C (Alessandro Blvd.)

Another change that the adopted WLC Specific Plan made to the General Plan is that Alessandro Blvd. would be severed east of Merwin St. and connected to Cactus Ave. via Cactus Ave. Extension. This re-configuration is intended to avoid impacts to the existing residential community west of the project area that would occur if Alessandro Blvd. were not severed and was widened into a 6-lane arterial as shown in earlier versions of the General Plan.

The current circulation plan for the General Plan is shown in Figure 27.

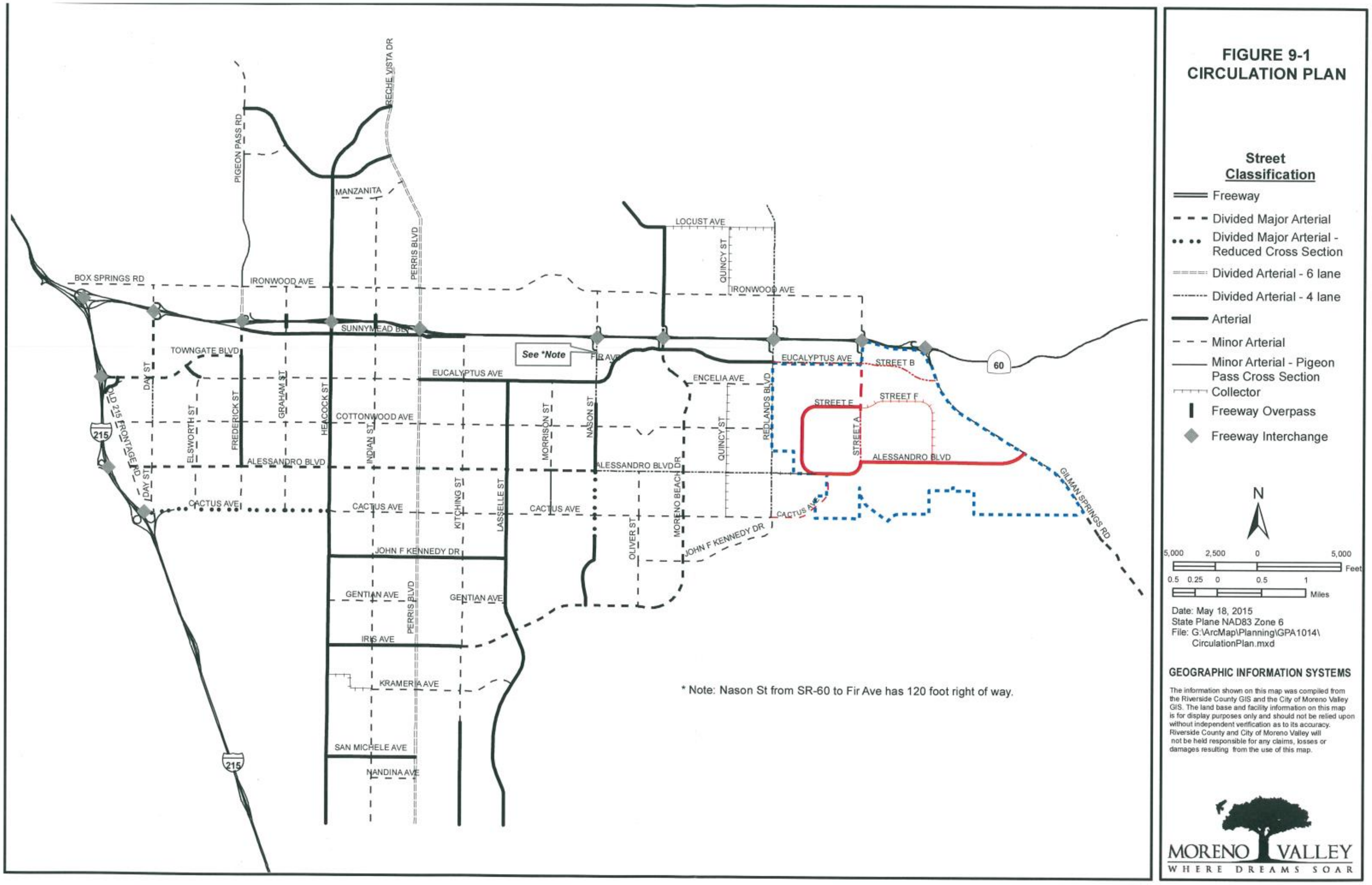

Figure 27: Circulation Plan After Adoption of the WLC Specific Plan

A closely-related project that would serve the WLC is the reconfiguration of the SR-60 interchange at Theodore St./WLC Parkway. One of the new configurations being considered is shown in Figure 28. This project is included in the financially-constrained RTP project list and was assumed to be completed prior to Phase 2 of the WLC.

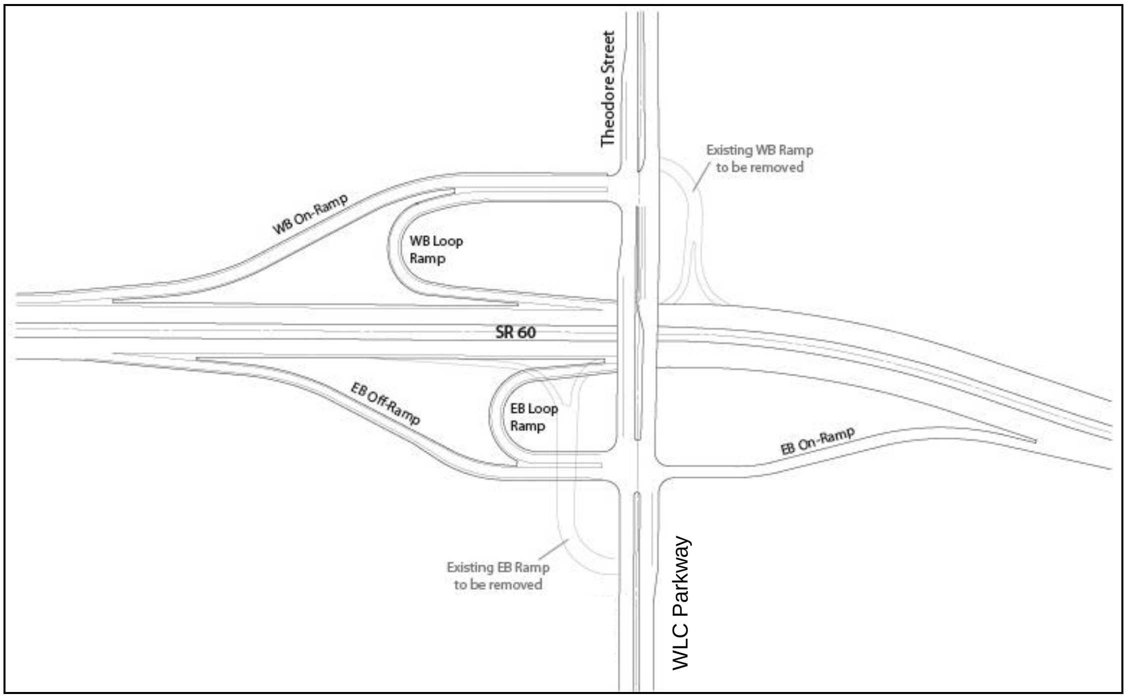

Figure 28: Possible Future Configuration for the SR-60 Interchange at Theodore St.

The developer of the WLC has discussed the interchange project with the City and has also entered into discussions with Caltrans and other agencies regarding this interchange project. The planning and design of this interchange is currently underway. For the purposes of this report, the improvements to the SR-60/Theodore/WLC Parkway interchange have been analyzed as part of the WLC project and have been studied in the same manner as the proposed project’s internal roadways.

Truck Routes

The truck routes near the project site is shown in Figure 29. These routes include changes made as part of the WLC Specific Plan.

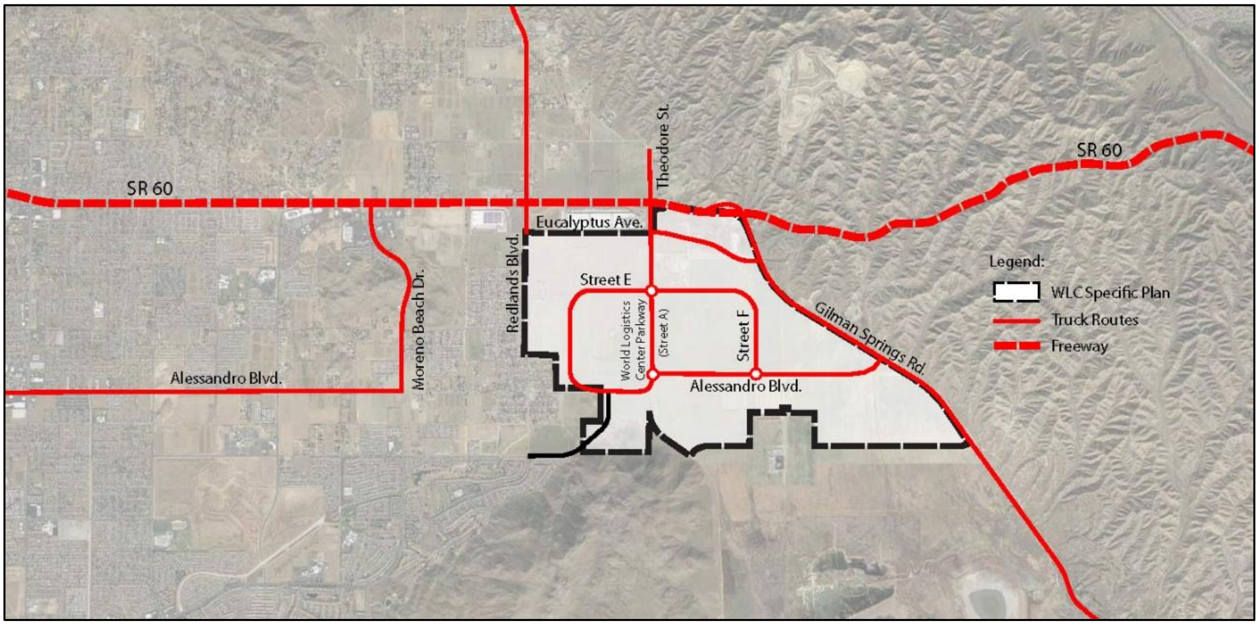

Figure 29: Truck Routes Near Project Site

Bicycle and Pedestrian Facilities

The WLC proposes Class II bike routes on all of its internal streets, thus providing safe access to all WLC buildings for employees wishing to commute by bicycle, as well as creating north-south and east-west paths through the site for bicycle through trips (see Figure 30).

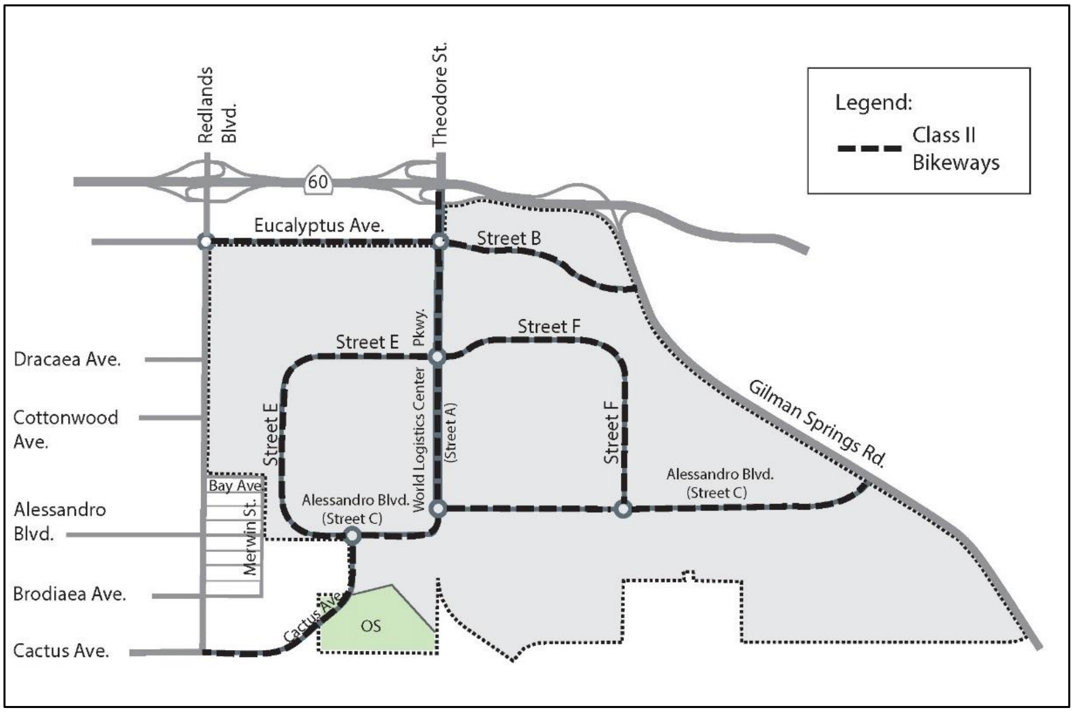

Figure 30: Proposed WLC Bikeways

The World Logistics Center proposes a network of pedestrian ways on project streets, as required to comply with ADA and other applicable codes, to connect all areas of the project to surrounding areas and to interconnect all buildings within the project.

An extension of the City's Redlands Blvd multi-use trail is proposed to be routed along the eastside of Redlands Blvd., and extend southerly through the project connecting to the existing trail along the south side of Cactus Ave., and to the San Jacinto Wildlife Area at the former Davis Rd. alignment (see Figure 31). Details of this trail alignment would be established with site-specific development proposals. The multi-use trails within the World Logistics Center would comply with existing City standards.

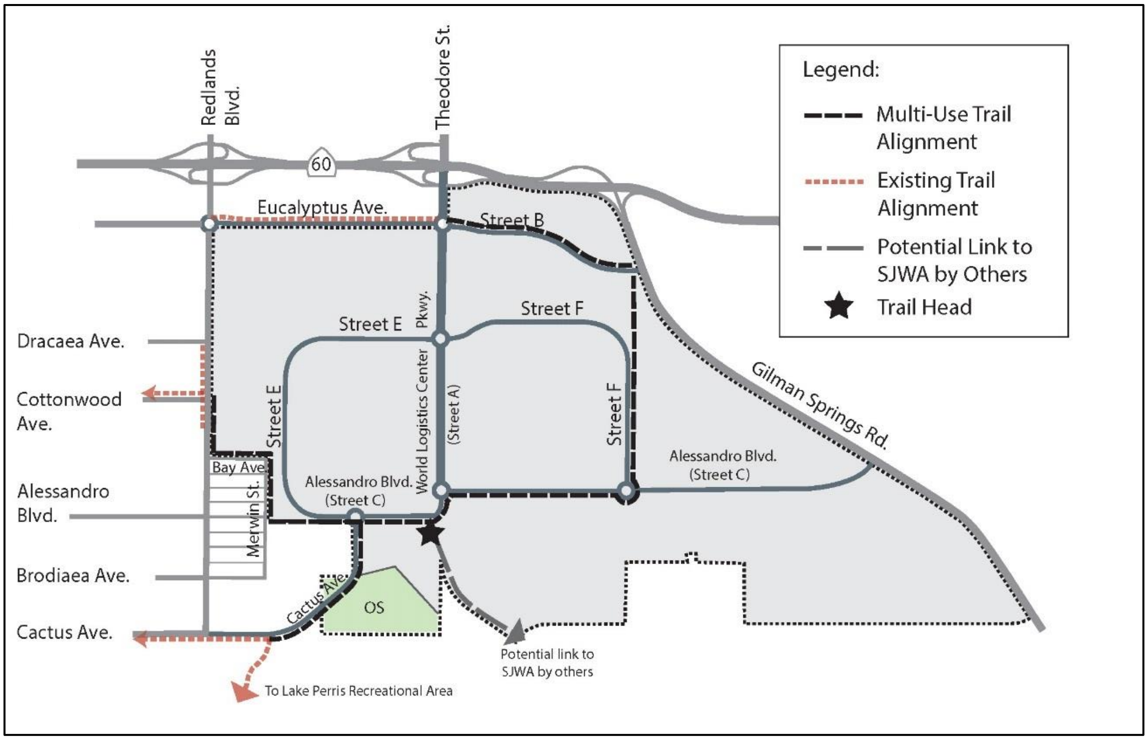

Figure 31: Proposed Multi-Use Trails

Phasing

The WLC would be developed over a number of years. For planning purposes it was assumed that Phase 1, to be completed by 2025, would contain approximately 22,946,000 square feet of logistics warehouse uses. This is approximately 57% of the total project building space. At that time, the road system would be partially built out (see Figure 15) with east-west through traffic served by Cactus Ave. Extension and Streets C and E, and north-south traffic served by World Logistics Center Parkway.

For Phase 2, full build-out of the project was assumed. An additional east-west through route would be provided when Eucalyptus Ave. (Street B) is connected with Redlands Blvd. to the west and Gilman Springs Rd. to the east.

C. PROJECT TRIP GENERATION

Chapter 2 of this report described the derivation of the trip generation rates used in the analysis. These rates are summarized in Table 21.

Table 21: Trip Generation Rates for Proposed and Existing Land Uses

Vehicle Class	Vehicle Class	AM Peak Hour		PM Peak Hour		ADT
		In	Out	In	Out	
High-Cube Logistics (per KSF)	Pass Veh	0.029	0.028	0.024	0.055	0.963
	Light Trucks	0.002	0.002	0.002	0.003	0.074
	Medium Trucks	0.001	0.002	0.002	0.003	0.097
	Heavy Trucks	0.007	0.009	0.005	0.006	0.266
	Total	0.039	0.041	0.034	0.066	1.400
Light Logistics (per KSF)	Pass Veh	0.105	0.031	0.041	0.111	1.397
	Light Trucks	0.007	0.002	0.003	0.007	0.090
	Medium Trucks	0.006	0.002	0.002	0.006	0.078
	Heavy Trucks	0.013	0.004	0.005	0.014	0.174
	Total	0.131	0.039	0.051	0.139	1.740
Utilities (per KSF)	Pass Veh	1.426	0.357	0.350	1.401	10.217
	Light Trucks	0.211	0.053	0.052	0.207	1.511
	Medium Trucks	0.048	0.012	0.012	0.047	0.341
	Heavy Trucks	0.163	0.041	0.040	0.161	1.171
	Total	1.848	0.462	0.454	1.816	13.240
Gas Station w Mart (Pumps)	Heavy Trucks	1.160	1.114	0.899	0.864	31.613
Fire Station (site)	Pass Veh	20.000	8.000	10.000	20.000	137.000
Convenience Market (KSF)	Pass Veh	13.209	13.209	10.580	10.165	321.873

Notes: 1) Trips for gas station and convenience market are net of pass-by and diverted trips
2) Trucks using the fueling stations are all non-diesel

Using these rates, the trips that would be generated by the WLC are shown in Table 22 and Table 23.

Table 22: Trips Generated by Proposed and Existing Land Uses

	Unit	Amount	AM Peak Hour			PM Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Proposed Land Uses									
High-Cube Logistics Center	KSF	40,400	1,589	1,643	3,232	1,370	2,673	4,043	56,560
Light Logistics	KSF	200	26	8	34	10	28	38	348
SCG Valve/Metering Station (Utilities)	KSF	0.15	0.3	0.1	0.3	0.1	0.3	0	2.0
SDG&E Gas Compression Station (Utilities)	KSF	30.8	57	14	71	14	56	70	408
Fire Station	Site	1.0	20	8	28	10	20	30	137
Gas Station with Convenience Store	Pumps	12	14	13	27	11	10	21	379
Convenience Store	KSF	3	40	40	79	32	30	62	966
Total			1,746	1,726	3,472	1,447	2,818	4,265	58,800
Existing Land Uses									
Single-Family Dwellings (ITE Code 210)	DU	7	1	4	5	4	3	7	66
SCG Valve/Metering Station (Utilities)	KSF	0.15	0.3	0.1	0.3	0.1	0.3	0.3	2
SDG&E Gas Compression Station (Utilities)	KSF	30.8	57	14	71	14	56	70	408
Total			58	18	77	18	59	77	476
Difference			1,688	1,708	3,395	1,429	2,759	4,188	58,324

Table 23: WLC Trips by Vehicle Type [38]

Phase and Vehicle Type	AM Peak Hour			PM Peak Hour			ADT
	In	Out	Total	In	Out	Total	
Phase 1							
Pass Veh	763	691	1,454	608	1,349	1,958	23,532
Light Trucks	52	56	108	52	66	118	1,751
Medium Trucks	35	41	76	54	65	119	2,226
Heavy Trucks (using alternative fuel station, so non-diesel)	14	13	27	11	10	21	379
Heavy Trucks	174	207	380	121	148	269	6,143
Total	1,037	1,008	2,046	846	1,638	2,484	34,031
Phase 2							
Pass Veh	517	487	1,003	429	973	1,402	17,066
Light Trucks	35	42	77	39	46	85	1,313
Medium Trucks	26	31	58	41	49	90	1,702
Heavy Trucks	130	157	288	92	111	203	4,688
Total	709	718	1,426	602	1,179	1,781	24,769
Full Build-Out							
Pass Veh	1,280	1,178	2,458	1,038	2,322	3,360	40,598
Light Trucks	87	98	185	90	112	203	3,064
Medium Trucks	61	73	134	95	114	209	3,928
Heavy Trucks (using alternative fuel station, so non-diesel)	14	13	27	11	10	21	379
Heavy Trucks	304	364	668	214	259	473	10,831
Total	1,746	1,726	3,472	1,447	2,818	4,265	58,800

D. PROJECT TRIP DISTRIBUTION

A survey of warehouses in the Inland Empire[39] found that 80% of the vehicles entering or leaving warehouse sites are passenger cars, nearly all of which are used for commute trips by employees of the warehouses. The travel pattern of the project-related auto traffic is discussed below, followed by a discussion of project-related truck traffic.

WLC Auto Traffic

As discussed previously, Moreno Valley currently has a severe jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately 20,000 local job opportunities[40]; a nearly fifty percent increase in the number of jobs in Moreno Valley. This would have several effects on commute patterns:

- Many current and future residents of Moreno Valley would have the opportunity to work locally with very short commute trips.
- Residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the Western Riverside Council of Governments and the Riverside County Transportation Commission to promote use of the arterial road network as an alternative to freeways. Tests with the RIVTAM model (see Figure 32) suggest that nearly half of auto traffic associated with the WLC would be on surface streets; i.e. not on freeways.
- Workers coming from more distant locations would, in most cases, be travelling on freeways in the off-peak direction; i.e. commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to

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[38] Light trucks are 2 axle trucks with six wheels, medium trucks are those with three axles, and heavy trucks are those with four or more axles. Pickup trucks with four wheels are included in the “auto” category.

[39] *Truck Trip Generation Study*, City of Fontana, August 2003.

[40] Based on a ratio of 0.5 employees per 1000 square feet of logistics. This ratio is taken from: *DTA Public Works Database; confirmed by “Employment Density Study,” SCAG (2001), and “Logistics Trends and Specific Industries,” NAIOP Research Foundation (March 2010).San Bernardino Planning Department.*

take advantage of the existing unused off-peak capacity of freeways, since the freeways were sized for flows in the peak direction.

- Assuming, as RIVTAM does, that WLC employees would work elsewhere if the WLC project were not implemented, then the availability of jobs at the east end of Moreno Valley would reduce the number of workers driving long commutes to distant jobsites to the west and southwest. Figure 33 shows that although the project would increase freeway auto traffic eastbound in the morning (where unused capacity is available), it would also decrease the traffic in the more congested westbound direction. In the evening the pattern would reverse, with the project relieving traffic in the congested eastbound direction (see Figure 34). Therefore, the WLC project would have a net beneficial impact on the regional freeway auto traffic. This is the effect sought in the policies of SCAG, WRCOG, and other regional governments and agencies that encourage better jobs/housing balances as a way to reduce peak directional flows on the regional freeway system.

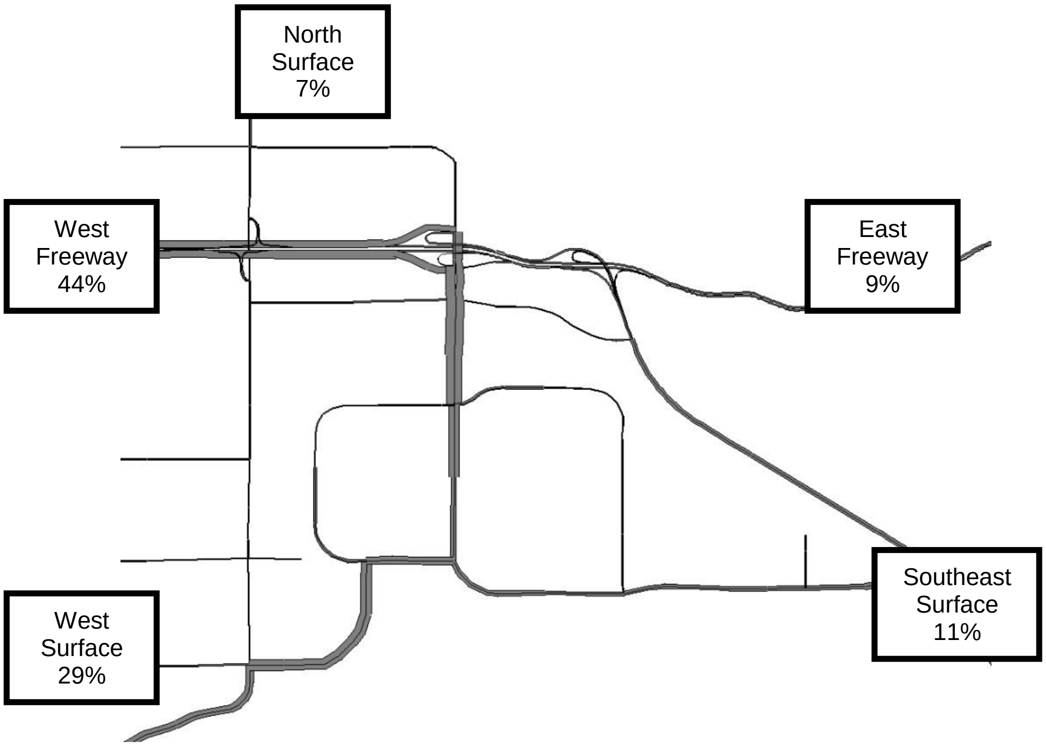

Figure 32: Daily Distribution of WLC Auto Trips

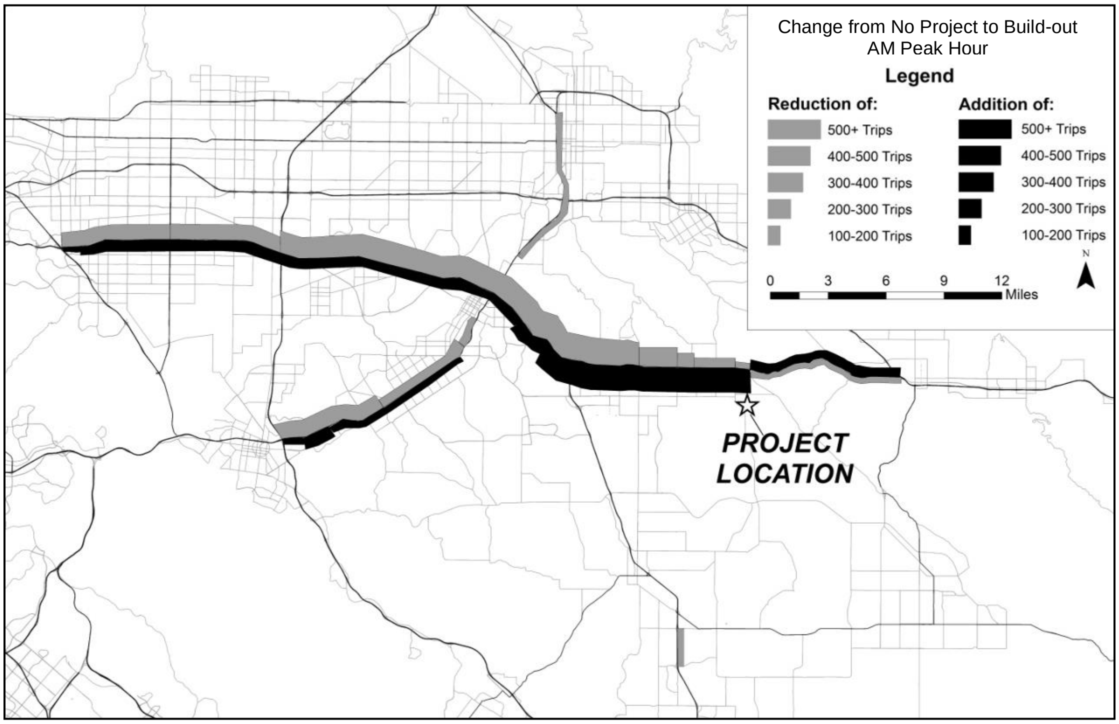

Figure 33: Effect of WLC on Freeway Car Traffic, AM Peak Hour

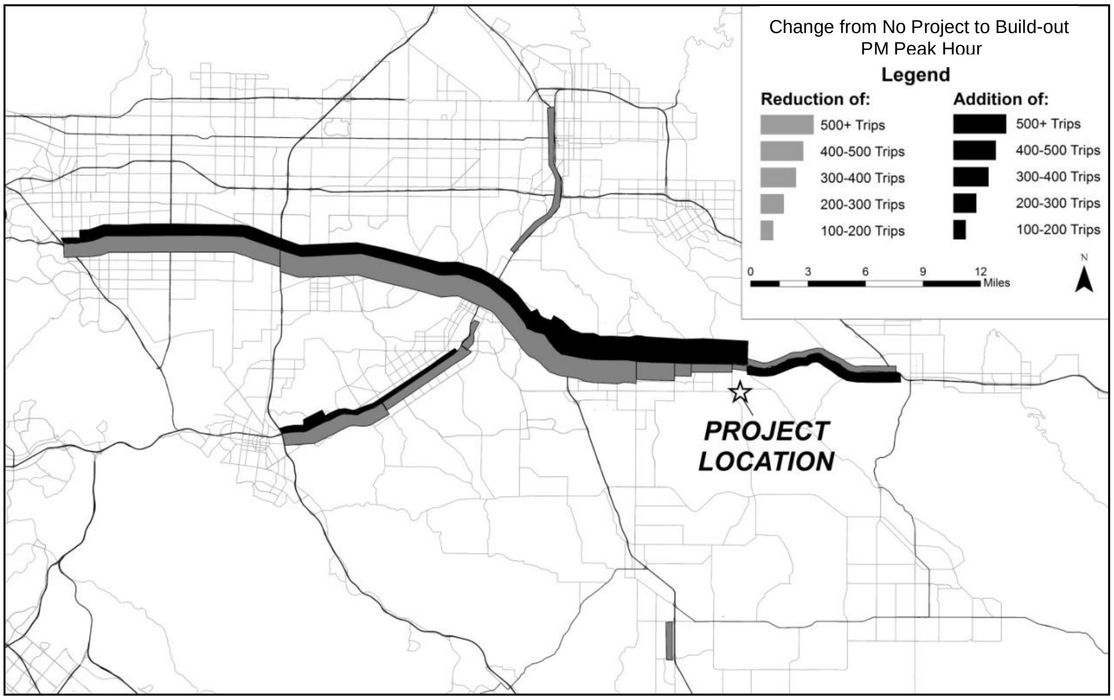

Figure 34: Effect of WLC on Freeway Car Traffic, PM Peak Hour

WLC Truck Traffic

The truck traffic associated with a typical logistics center has a much different time-of-day pattern than auto traffic. Figure 35 shows the combined traffic data for vehicles entering or leaving the 31 logistics centers in 2011 NAIOP trip generation study. As shown, besides being much larger, the auto traffic shows distinct peaks while truck traffic is spread much more evenly throughout the 24-hour period. The five hours with the highest truck traffic all occurred outside of the freeway peak periods.

Some readers of the previous TIA misunderstood Figure 35 to mean that the WLC traffic analysis did not cover the worst-case scenario. In fact, because the peak hour of trip generation for the WLC was assumed to occur simultaneous with the peak hour of background traffic, the assumptions in the WLC analysis are far more conservative (i.e. assume worse conditions) than the NAIOP survey would suggest is likely to occur (see Figure 36). In addition, the 2PM to 3PM hour was also studied with regards to possible impacts on pedestrians in the areas around schools, since most schools release students at that time of the day (see Chapter 12, Section B of this report).

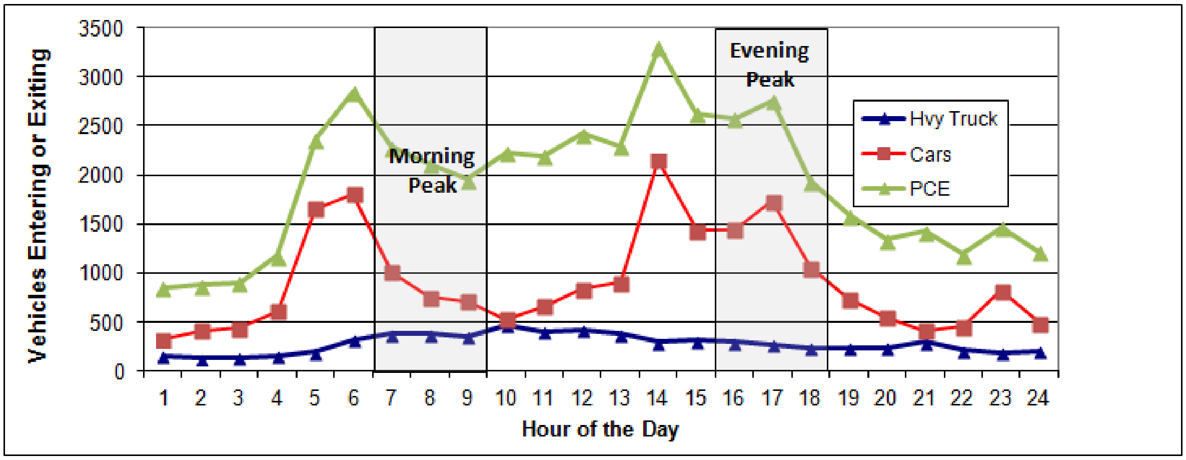

Figure 35: Time-of-Day Distribution of Traffic from Logistics Warehouses

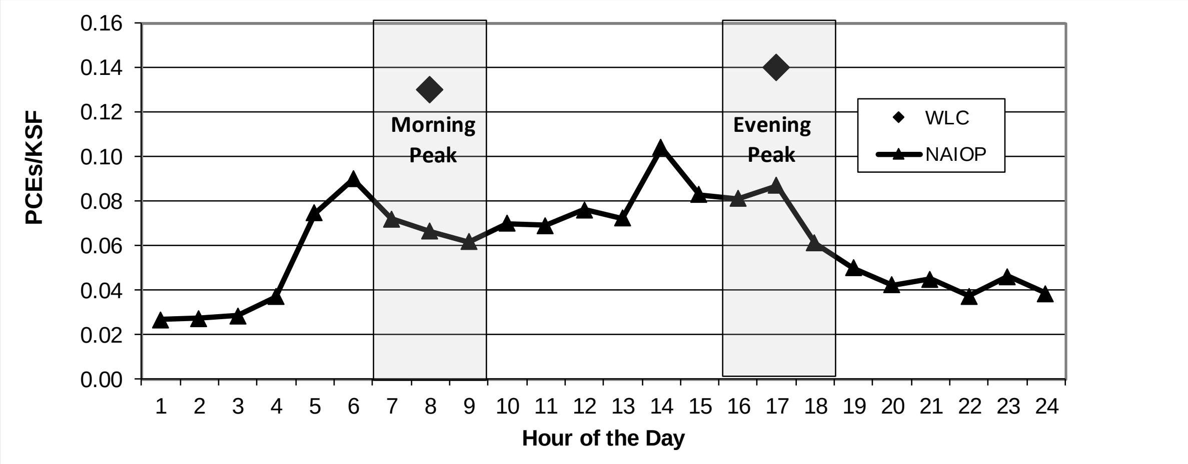

Figure 36: Time-of-Day Distribution, WLC Assumptions Compared to NAIOP

Since the internal trips, the port-related trips, and the majority of external trips (all but those on I-10) use routes west of the project site, it is anticipated that a large majority of the WLC truck traffic would be oriented to the west of the project, with a much smaller amount to and from the east. Also, due to truck routing restrictions, the majority of WLC truck traffic would use the freeway system to enter and leave the site. However, there may be some trips between the WLC and local businesses, for example trip chaining among warehouses to consolidate cargos, that may use surface streets such as Gilman Springs Rd. Tests with the RIVTAM model confirm this pattern (see Figure 37).

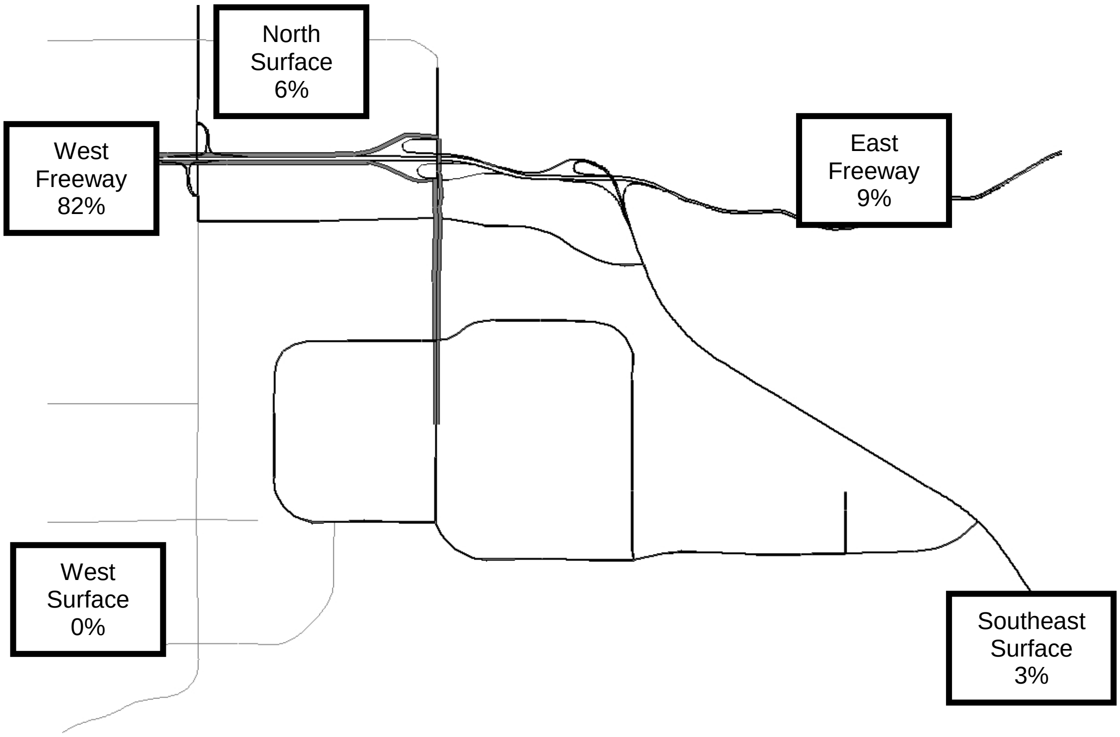

Figure 37: Daily Distribution of WLC Truck Trips

The percentage of WLC truck trips that would go to the port were estimated based on the assumptions described in Chapter 11 (see Table 86) for each study year. These percentages were then applied to the trip generation rates to find the number of WLC trucks going to and from the port in each analysis period. These are shown in Table 24. Tests with the SCAG traffic model showed that these trips would split approximately evenly between the two routes shown in Figure 48, so half of these trips were assigned to the SR-60 route and the other half assigned to the SR-91 route.

Table 24: WLC Truck Trips to and from the Port by Analysis Period

Scenario	AM Peak Hour		PM Peak Hour		Daily	
	In	Out	In	Out	In	Out
2018 Plus Build-out	7	8	5	7	130	130
2025 Plus Phase 1	6	7	5	6	111	111
2040 Plus Build-out	19	23	16	20	385	385

E. RAIL ALTERNATIVE

Several comments received on the previous TIA requested that the provision of rail service to the project site be studied as a potential means of reducing the number of trucks driving between the ports and the site, and therefore a reduction in the number of significant impacts caused by the project. This section describes why rail service is not considered a viable option for reducing the traffic impacts of the WLC. This conclusion is based on several factors, including the physical constraints to bringing rail service to the WLC site, the cost of cargo movement by rail relative to movement by truck, capacity constraints in the rail system that the WLC branch line would tie into, and the minimal effect that rail service would have even if all other factors could be overcome. These factors are discussed in turn below.

The Possible Alignments for Bringing Rail Service to the WLC Site

The WLC site is not currently served by rail. The rail lines nearest the site are the Union Pacific Yuma Line (single-track in this area), the Riverside County Transportation Commission's San Jacinto Branch Line (single-track, currently inactive), and the BNSF double-track line through the City of Riverside (see Figure 38).

As can be seen in Figure 38, there are four general alignment possibilities for a branch line to the WLC. Each has problems associated with it:

- Western Alignment – Alignments running from the BNSF line in Riverside to the WLC, an approximate distance of 15 miles, would have to run through built-up areas of the Cities of Riverside and Moreno Valley. The cost of acquiring right-of-way through these areas, and the impacts to the community (noise, traffic disruption, safety, division of the community, etc.) render such alignments unviable. Moreover, trains using the at-grade rail crossings in the City of Riverside already impose substantial delays on road traffic. In fact, in recent years the City of Riverside has sued the ports over the issue of traffic impacts from additional trains passing through their city. Adding more crossings and more trains would exacerbate this problem.
- Southern Alignment – It would be possible to avoid densely populated and built-out areas by connecting to the San Jacinto Branch Line south of March Air Reserve Base. However, the only way to avoid established communities would be to pass along the northern portion of the Lake Perris State Recreation Area. The alignment, approximately 10 miles in length, would be a major impact as it would require constructing and operating a rail line along the slopes of the Lake Perris State Recreation Area and potentially the San Jacinto Wildlife Area. There would also be traffic impacts at road crossings, potential grade issues, and grade separated crossings needed for drainage channels and I-215. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways (which will be discussed in a later section).
- Northern Alignment – The shortest alignment to an existing rail line is to the north in the vicinity of Redlands Blvd. and connecting to the UP Yuma line near the intersection of Redlands Blvd. and San Timoteo Canyon Rd., approximately five miles from the project site. This alignment would require extensive ROW acquisition, very serious grade issues that would increase the length of track needed[41], environmental impacts on the Badlands, and a grade separated crossing of SR-60. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways.
- Eastern Alignment – The final possibility would be to connect to the UP Yuma line along an alignment parallel to SR-60. This alignment would connect to the existing rail network near the Morongo Golf Club at Tukwet Canyon, approximately five miles to the east of the WLC site. The

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[41] Although the grade passable by train depends on the load, generally tracks climb at less than three percent. For example, as the BNSF Cajon line traverses the Cajon Pass, the maximum uphill grade is 2.2 percent. Therefore, constructing a track through the Badlands, either near Redlands Blvd. or State Route 60, may require a longer more circuitous layout to avoid the grades. A longer track would require more right-of-way, result in a greater impact to the environmentally sensitive area, and be more costly to construct.

eastern alignment would be affected by the same drawbacks as the northern alignment, with the addition of the need to construct a bridge over San Timoteo Creek.

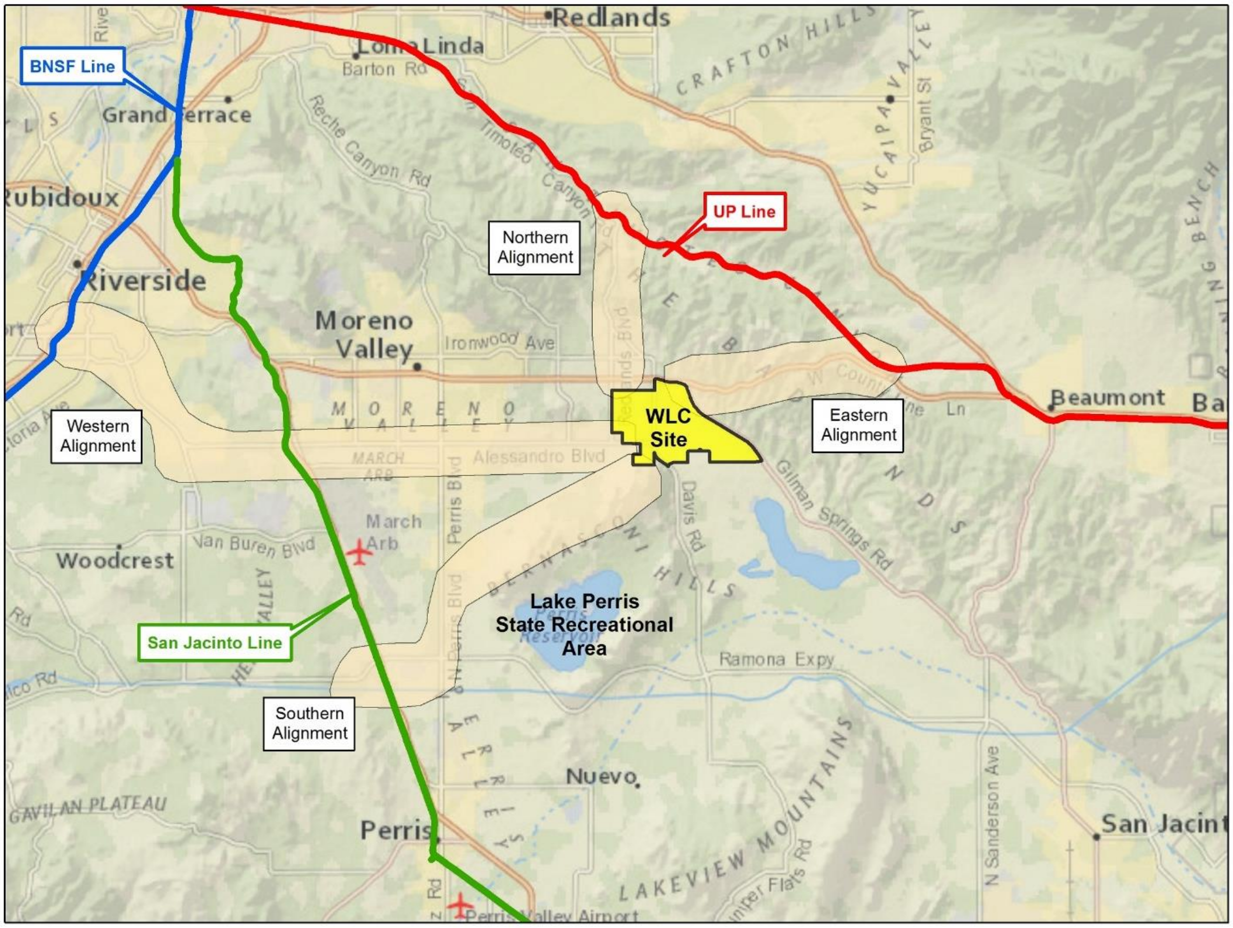

Figure 38: Conceptual Rail Alignments

As can be seen from the discussion above, providing rail service to the WLC along any of the possible alignments would in itself create serious environmental impacts.

Relative Costs of Truck and Rail Service

The loading and unloading of rail cargos require special equipment and handling and can only be performed at specialized places, which adds to the cost of shipping goods by rail. On the other hand, the actual movement of goods by rail is more energy-efficient and less expensive than movement by truck. This combination of relatively high fixed costs at each end of a trip with low variable costs for the distance traveled means rail can be a less expensive way to ship cargo than truck, but only if the shipping distance is sufficiently long.

The breakeven distance between rail and truck shipping has been the subject of several studies. The industry rule-of-thumb is that the rail becomes economically viable when cargos are shipped more than 500 miles. For example, the National Rail Plan, a nationwide guiding document from the U.S. Department of Transportation Federal Railroad Administration, has set the freight rail goal to, “Develop strategies to attract

50 percent of all shipments 500 miles or greater to intermodal rail."[42] In addition, the Plan highlights the importance that trucks have in conjunction with rail when moving freight as trucks, "excel in providing time-sensitive delivery services for high-value goods being transported over medium and short-haul distances."[43] A local example is the Ports of Long Beach/Los Angeles Rail Master Planning Study, which indicates that rail loaded with two levels of shipping containers, "traditionally competes well with trucks at distances greater than 500 miles.[44] Figure 39, from the San Pedro Bay Ports Rail Market Study, shows the breakeven point between truck and rail freight transport beginning east of Las Vegas and Phoenix, and north of the Bay Area. For shipments between the Ports of Los Angeles and Long Beach and the WLC, a distance of about 70 miles, shipping by rail would be far more expensive than by truck. So even if a rail line were built to the WLC, it would be uneconomical to use it for trips to and from the ports.

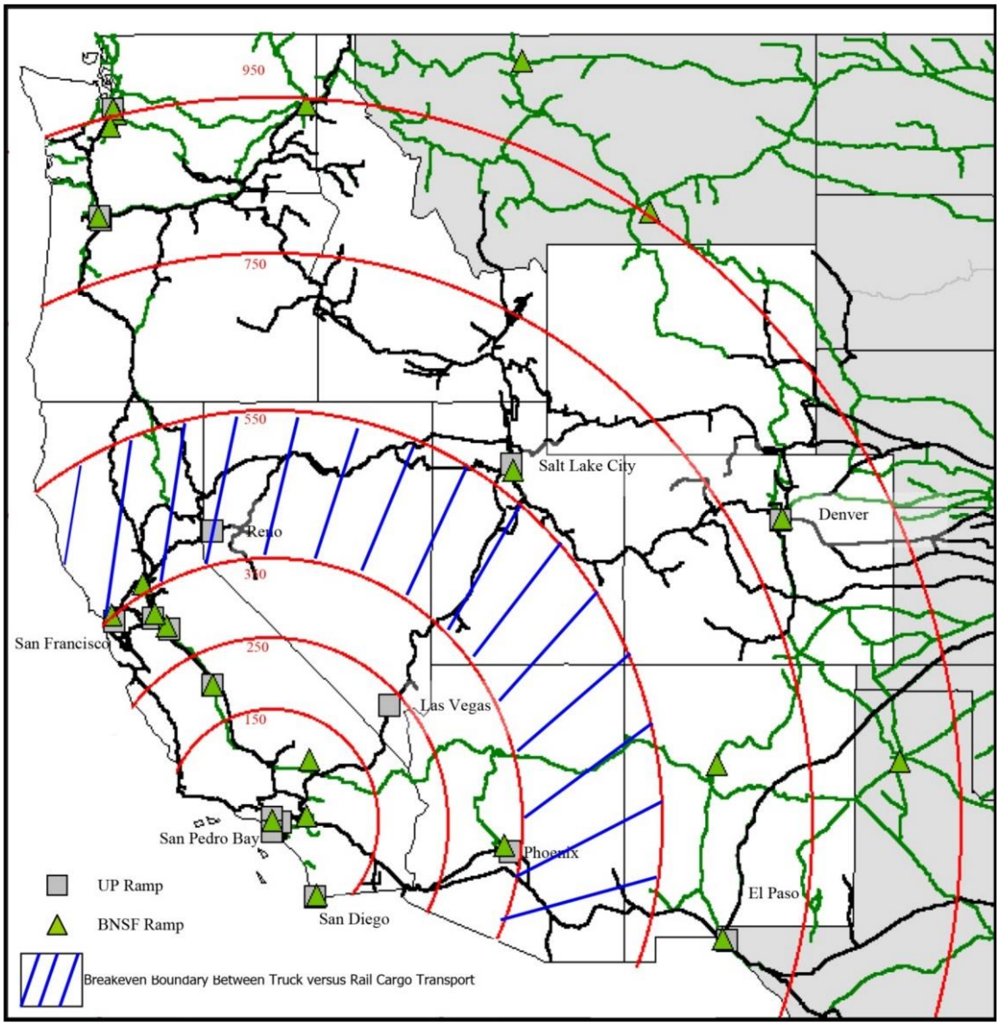

Figure 39: Range of Typical Rail Market in Southern California[45]

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[42] National Rail Plan, U.S. Department of Transportation Federal Railroad Administration, September 2010. Available at: https://www.fra.dot.gov/eLib/Details/L02696, page 14.

[43] Ibid.

[44] Ports of Long Beach/Los Angeles Rail Master Planning Study, Michael Leue, PE, Kerry Cartwright, PE, 2004. Available at: http://www.ite.org/Membersonly/annualmeeting/2004/AB04H4203.pdf

[45] San Pedro Bay Ports Rail Market Study, Port of Los Angeles and Parsons Transportation Group, April 2004.Available at: http://www.portoflosangeles.org/DOC/REPORT_SPBayPortsRailMarketStudy.pdf, page 9.

Capacity Constraints in the Rail System

If a rail line could be built to the WLC site and tenants could be induced to use it despite higher costs, this would only be helpful if the regional rail system had sufficient capacity to accommodate WLC freight without detriment to other users.

In fact, there are serious capacity constraints in the rail network in the Los Angeles basin. Among other things, rail operations for both BNSF and UP are already constrained by the capacity of the lines between the ports and western Riverside County. Two studies, completed in the early 2000s and using the year 2000 as the existing condition, found that many of the rail lines were already operating near capacity.[46] The studies evaluated 10 and 25 years of projected growth on the network and found that within 10 years (of the date of the study) the network would be overcapacity. Without capacity increasing improvements, 10 years of train traffic growth was forecast to increase delay more than six-fold. This did not include additional delays that would be caused by trains serving the WLC.

The Los Angeles-Inland Empire Railroad Main Line Advanced Planning Study from October 2002 found that the, "region's rail system is inadequate for forecast train traffic."[47] The study presented other findings that illustrate the near-capacity state of the rail network, for example, "…just 25 percent of the forecast 2010 traffic is sufficient to roughly double the average delay per train, to 67.6 minutes for BNSF freight and 54.4 minutes for UP freight." This occurs because small increases in train traffic result in disproportionate delays as the network nears capacity.

Several minor improvements to the rail network have been made since the 2002 study. However, accommodating estimated future demand in the year 2025 by providing capacity improvements alone would be costly; to meet future demand without rerouting would require capacity of some segments to be increased from two to four tracks. Therefore, an approach has been developed to revise train routing on the existing rail network and make limited capacity-increasing improvements. Even the limited improvements are estimated to cost over $2 billion.[48]

The fact that the rail system has limited capacity to accommodate additional traffic means that potential users have to be prioritized so that the capacity can be allocated efficiently. Highest priority would be for long-distance rail service direct from the ports. Short-distance cargo trips between the ports and the WLC would receive much lower priority than long-distance shipments because they would generate less revenue (unless a premium was charged). If regional passenger trains (e.g. Metrolink) share the tracks with freight trains, as is the case for some lines, then service to WLC would drop even further on the priority list.

Based on existing capacity of the rail network and projected growth, the studies indicated that the rail network would be overcapacity without further capital investments, which are beyond the scope of the WLC project.

Minimal Reduction in Traffic

Assuming that a rail line could be built to the WLC site and assuming that WLC freight could be accommodated by the rail network and that the costs for these things could be covered by subsidies or by increasing the prices on goods moved through the WLC, the question must be asked, "how much of a reduction in truck traffic impacts would be achieved?"

The answer is, "very little". As was discussed earlier, the economics of freight shipment make rail viable only for trips of 500 miles or more. As is described elsewhere in this report (Chapter 12, Section F), between 1% and 5% (depending on the year) of the truck trips beginning or ending in WLC go to the ports and these trips have no significant impact on freeway LOS for most of their length. So the effect of rail service on reducing truck impacts would be very small.

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[46] Los Angeles-Inland Empire Railroad Main Line Advanced Planning Study, Los Angeles Economic Development Corporation, October 2002, page 15.

[47] Ibid. page 8.

[48] Inland Empire Railroad Main Line Study, Southern California Association of Governments, June 2005, page 75.

Conclusions About the Rail Alternative

This analysis of the rail alternative found that bringing rail service to the site would be very costly, result in serious environmental impacts, create major disruption to existing communities, and take many years to design, acquire right-of-way and construct. Even if a line were built, both economics and system constraints would deter its use for cargos between the WLC and the ports. Even if built and used, rail service would have very little effect on reducing the traffic impacts of the WLC. Based on these considerations rail service was not included in the design of the WLC.

5. EXISTING PLUS PHASE 1 SCENARIO

The analysis of the Existing Plus Phase 1 Scenario shows the effect of project-related traffic using the same land use and road network assumptions as the Existing scenario plus the build-out of Phase 1 (only) of the WLC and no changes occurred to the off-site land uses or roadway system.

A. ROAD SEGMENT LOS, IMPACTS, AND MITIGATIONS

Table 25 compares the average daily traffic (ADT) volumes for study roadway segments to Existing Conditions and to their threshold of significance under the City's General Plan policies. Under the Existing Plus Phase 1 Scenario, 3 segments would exceed the threshold of significance set by General Plan policy, namely:

- Gilman Springs Rd. between SR-60 and Alessandro Blvd. would exceed the threshold of significance under both Existing Conditions and under the Existing Plus Phase 1 Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.
- Gilman Springs Rd. from Alessandro Blvd. to Bridge St. would exceed the threshold of significance under both Existing Conditions and under the Existing Plus Phase 1 Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.
- Redlands Boulevard from Eucalyptus Avenue to the SR-60 eastbound ramps. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Phase 1 Scenario.

In each case adding lanes would bring the LOS above the target threshold set in the General Plan. The feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

B. INTERSECTION LOS, IMPACTS, AND MITIGATIONS

Figure 40 shows the turning movement volumes under Existing Plus Phase 1 (see Figure 11 for the key map). Table 26 presents the LOS for the study intersections under the Existing Plus Phase 1 Scenario in the AM and PM peak hours. Detailed worksheets are presented in Appendix C.

Table 25: Existing Plus Phase 1 Road Segment Impacts and Mitigations

Roadway		From	To	LOS Standard*	Existing Conditions			Existing Plus Phase 1 Conditions			Project Impact Significant?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
					Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS			
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A	2U	2,438	A			
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	6D	11,196	A			
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A	4D	1,822	A			
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	4D	21,762	A			
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			2U	3,415	A			
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	869	A			
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	10,705	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A	4U	6,181	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	10,044	A			
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	2,895	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	4,563	A			
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A	2U	5,456	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	**F**	2U	21,882	**F**	Yes	Widen to 4 lanes	D
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	**F**	2U	17,491	**F**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	**E**	2U	12,135	**E**	Yes	Widen to 4 lanes	A
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C	2U	8,083	B			
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A	2U	300	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B	2U	6,847	A			
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A	4U	8,353	A			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

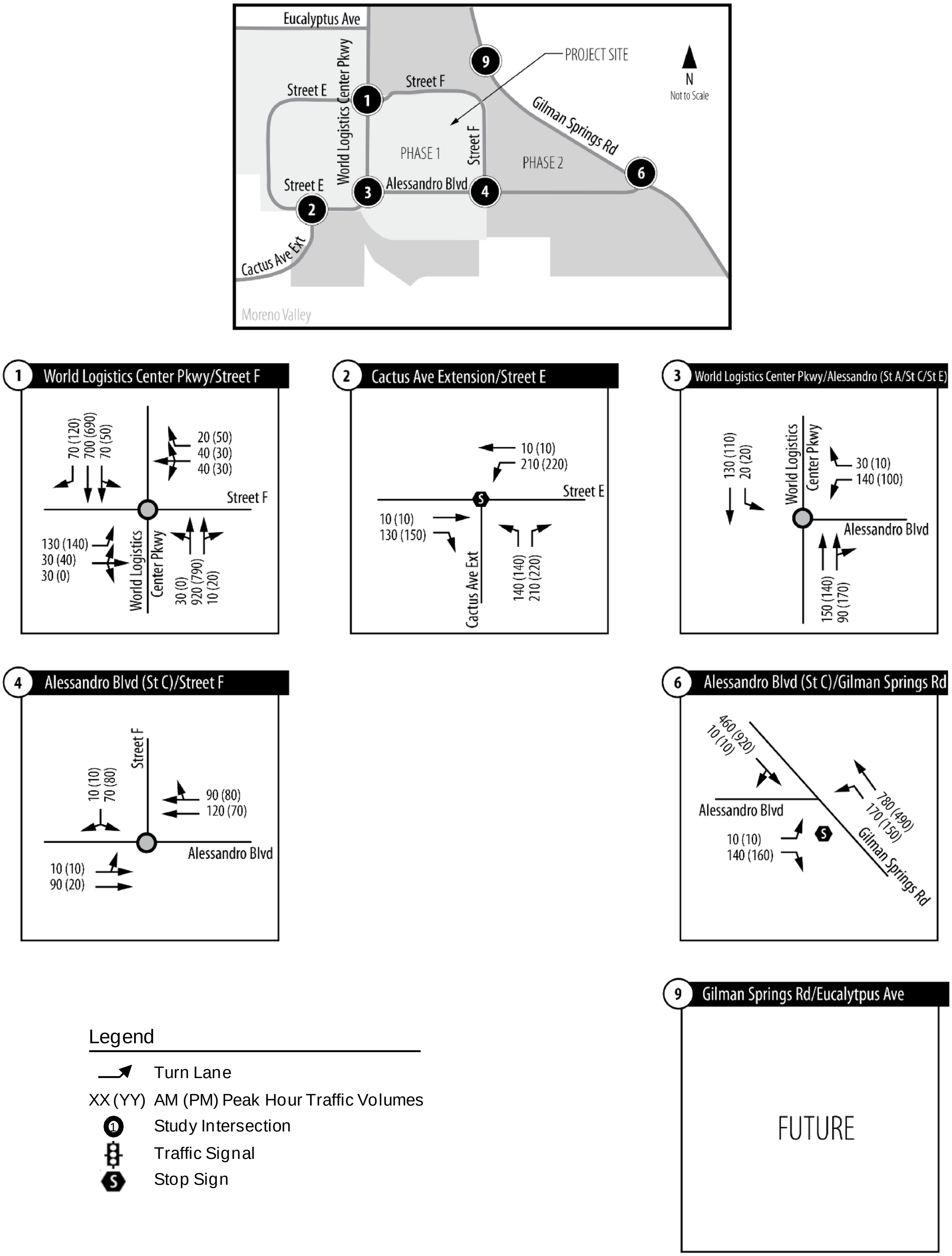

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario

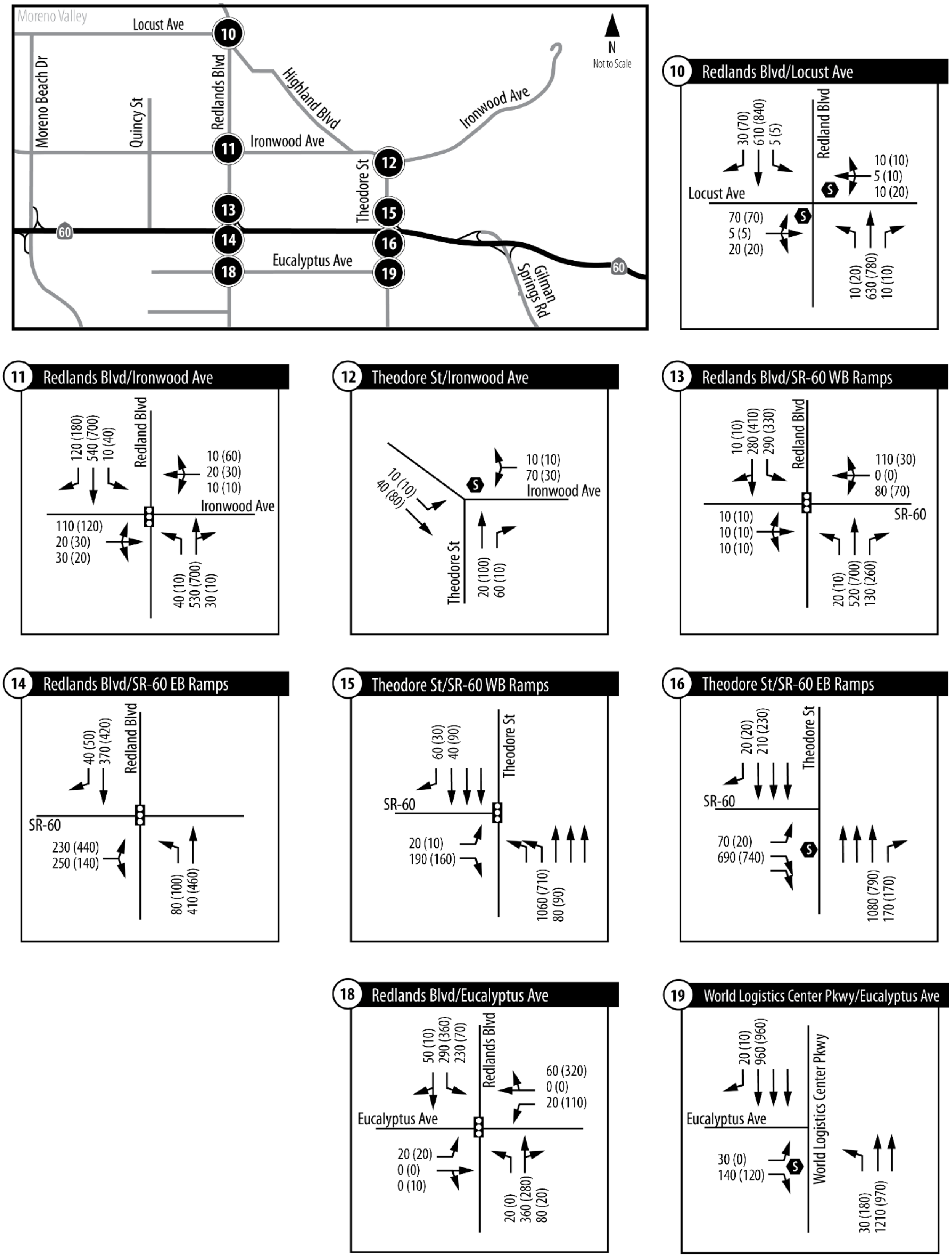

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (B)

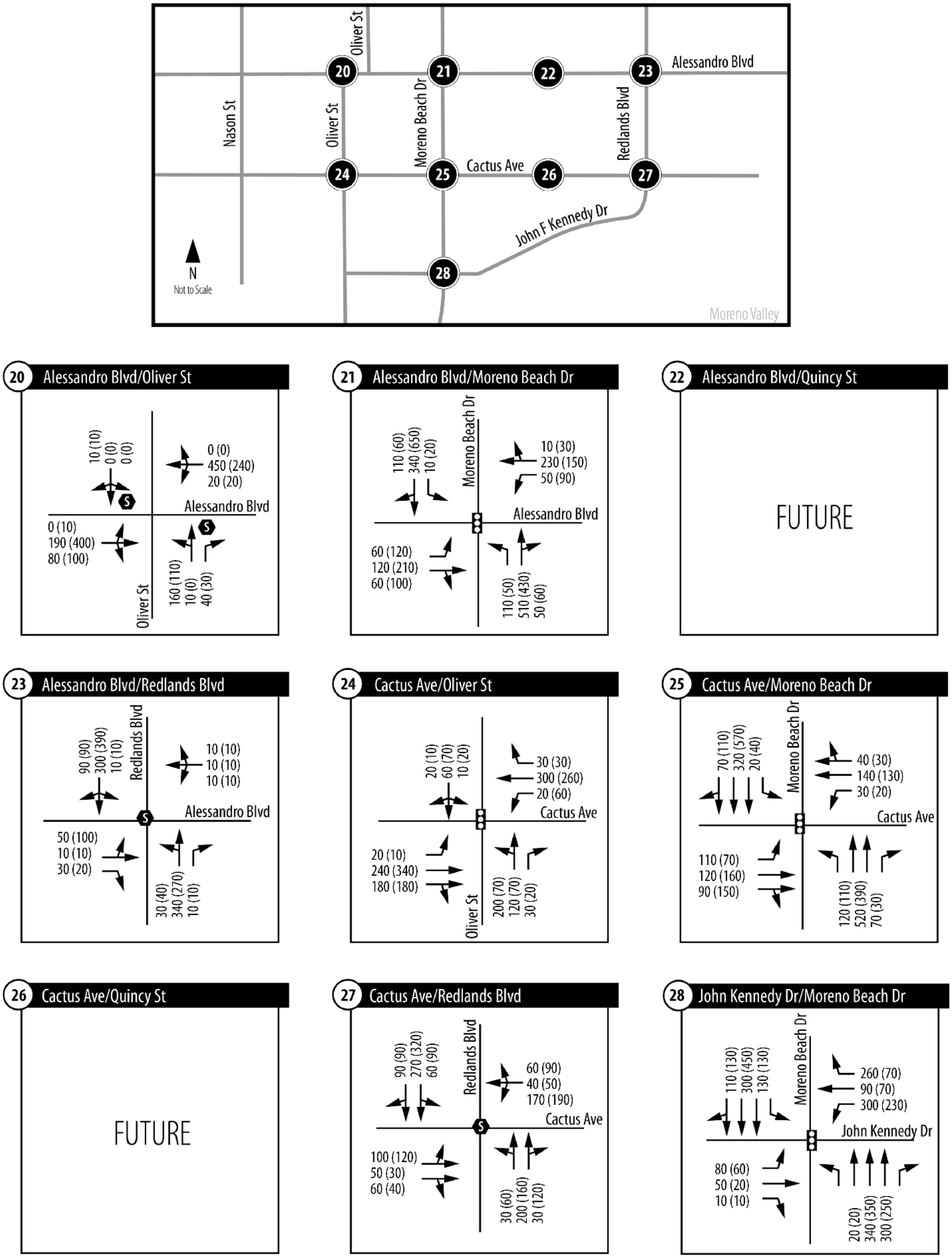

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (C)

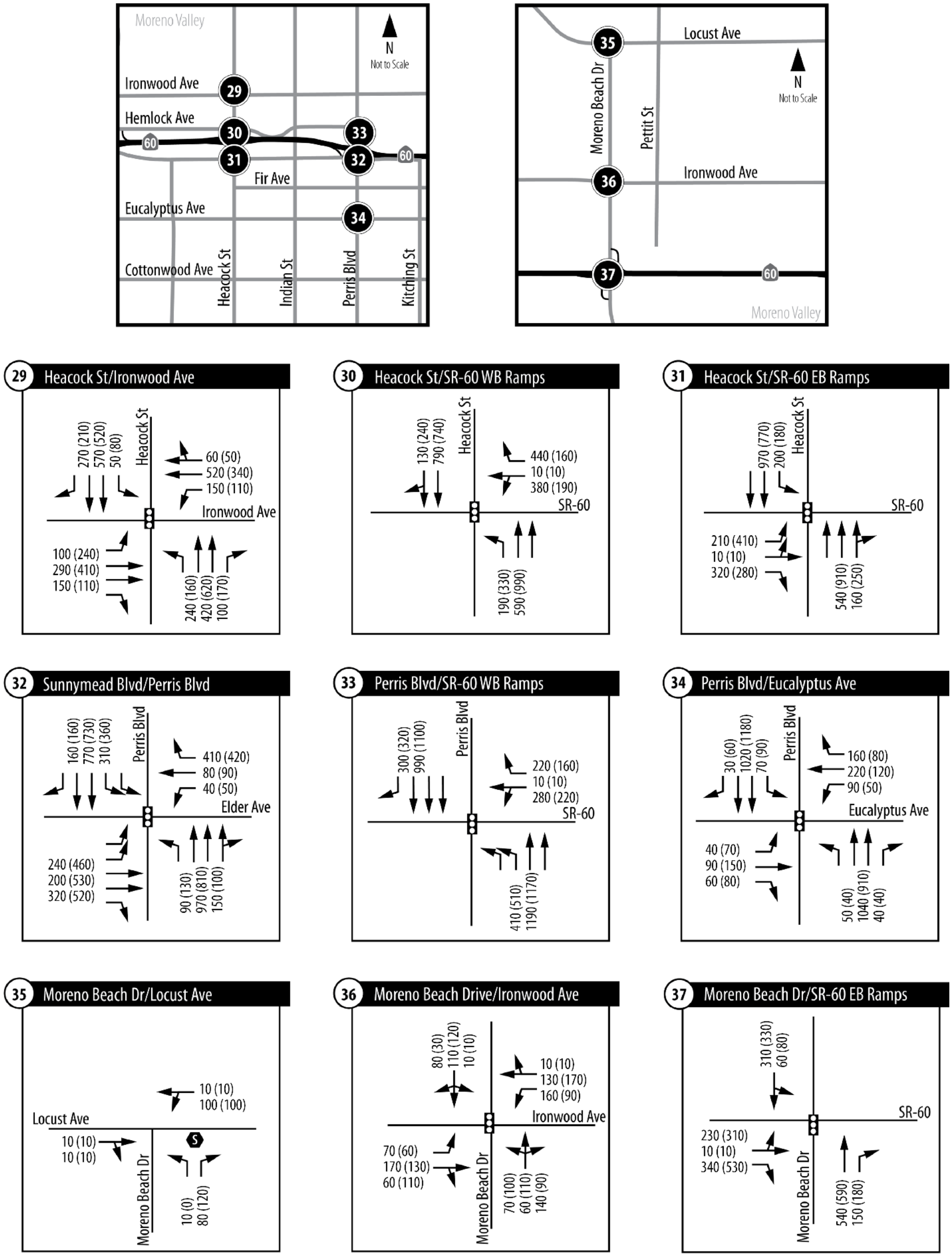

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (D)

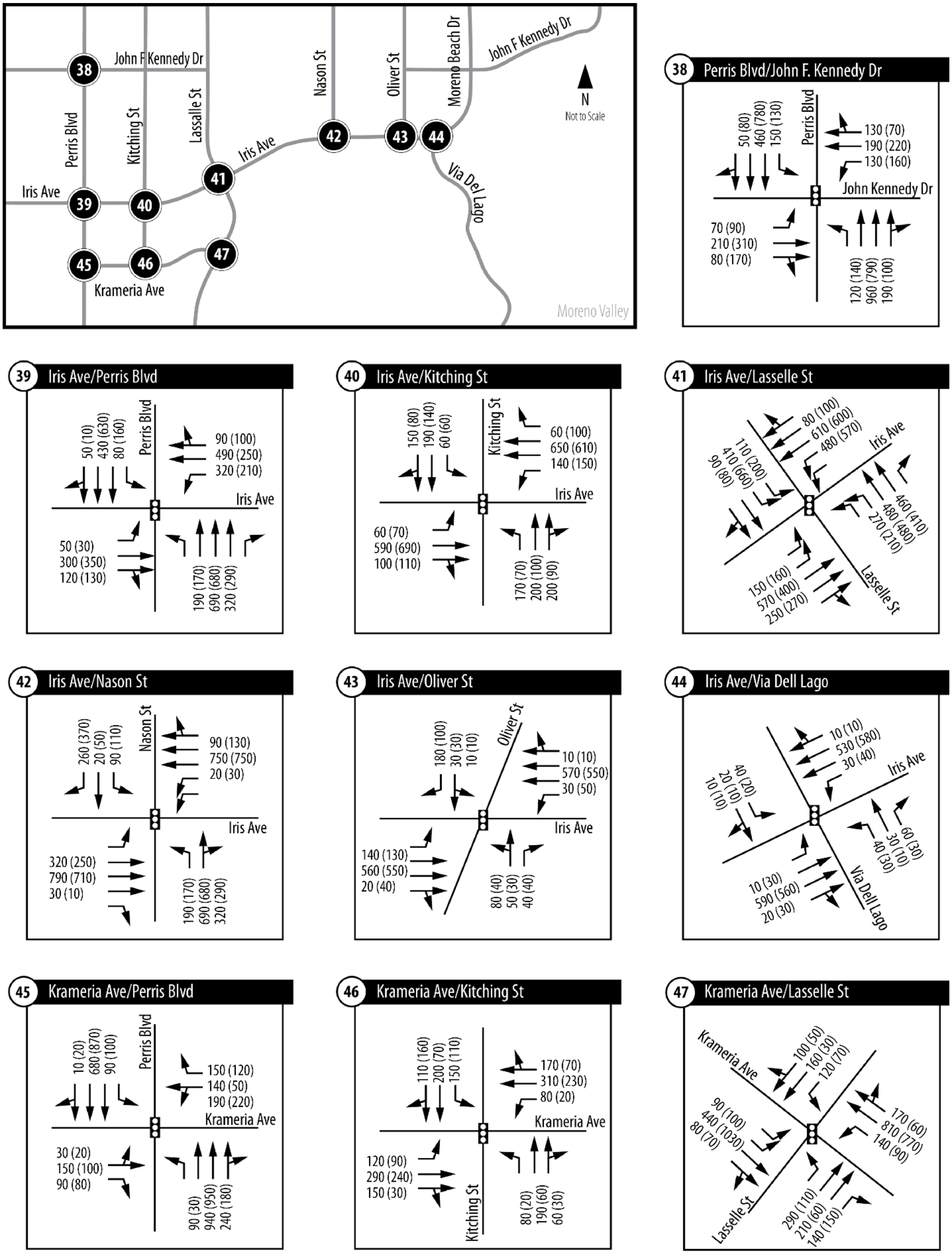

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (E)

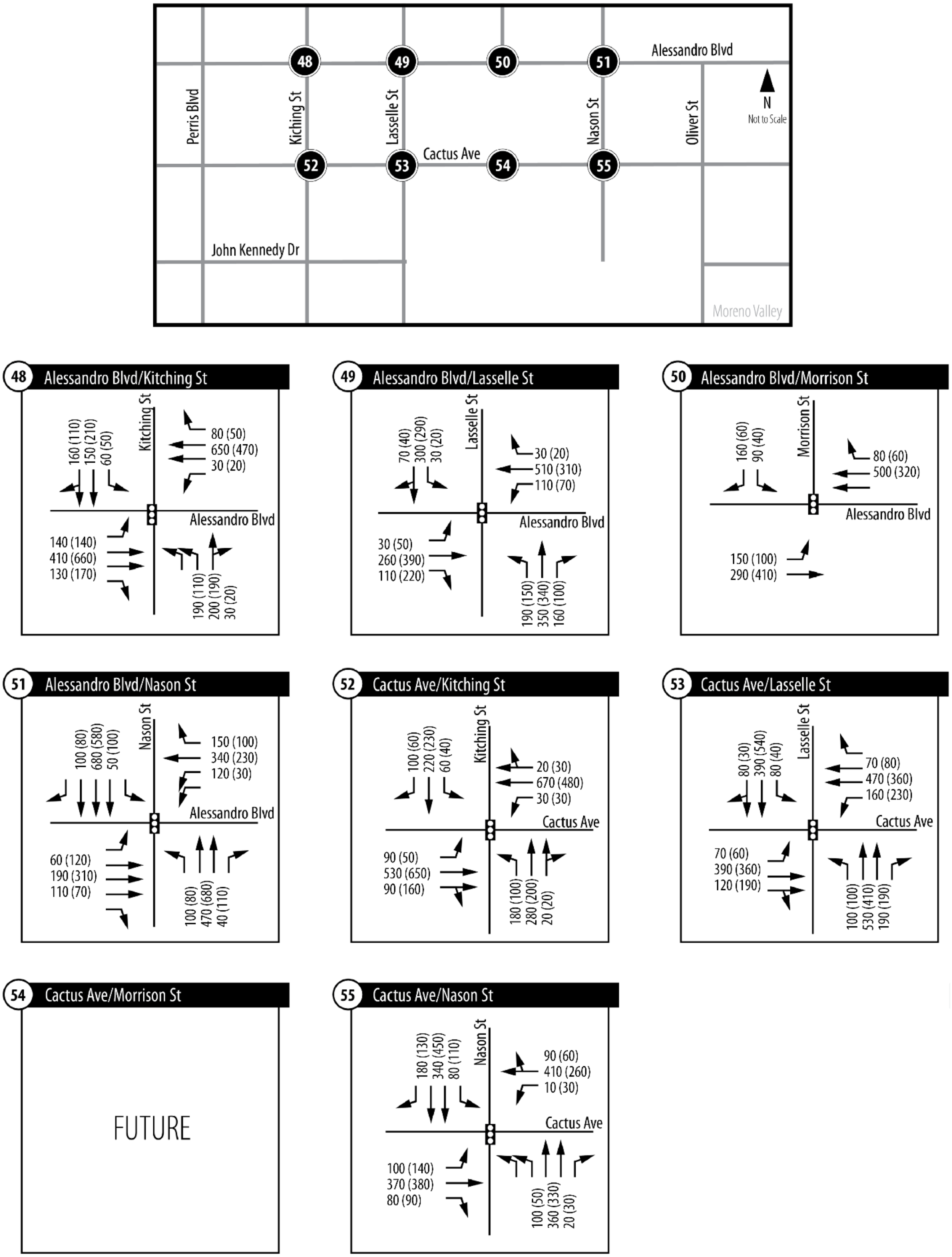

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (F)

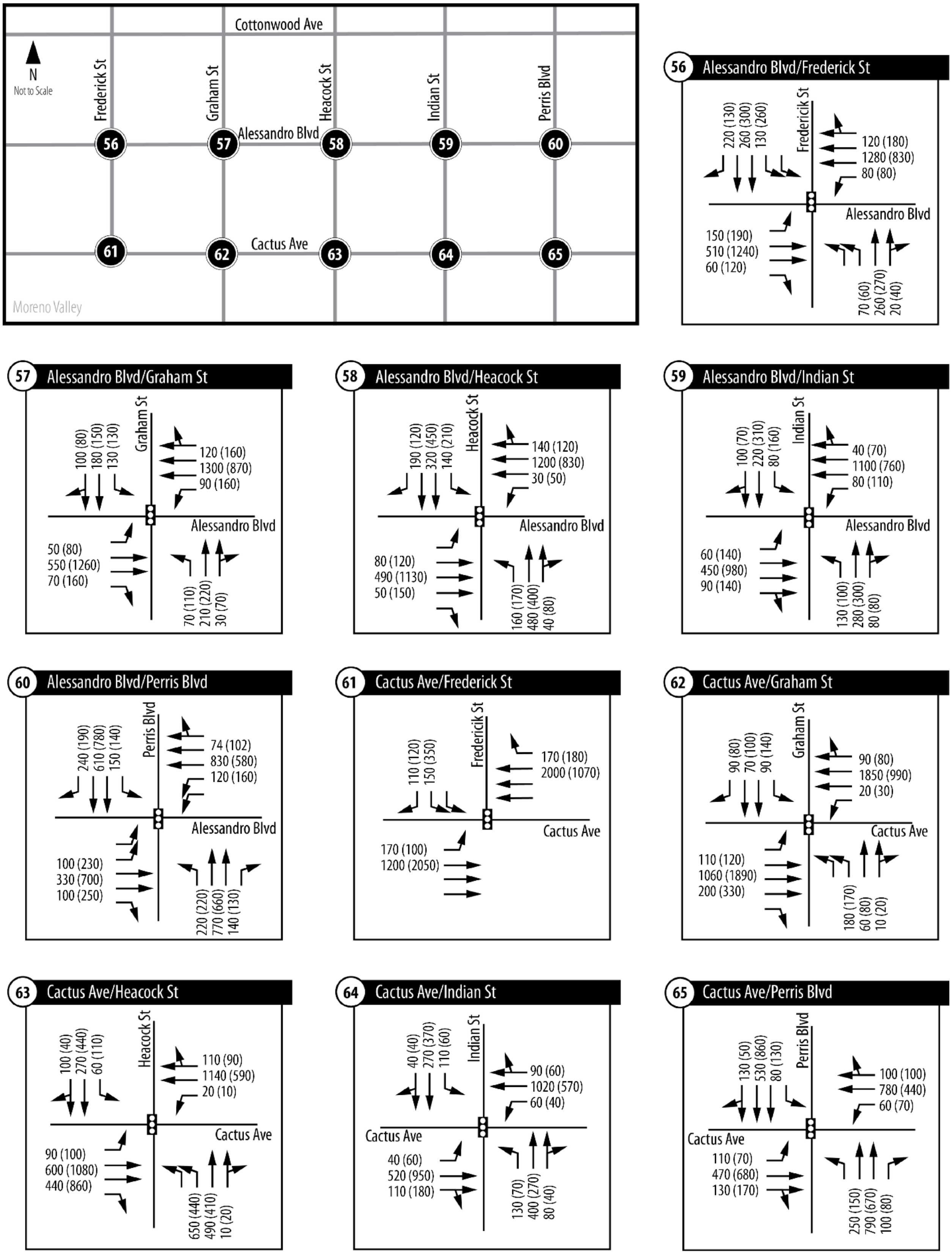

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (G)

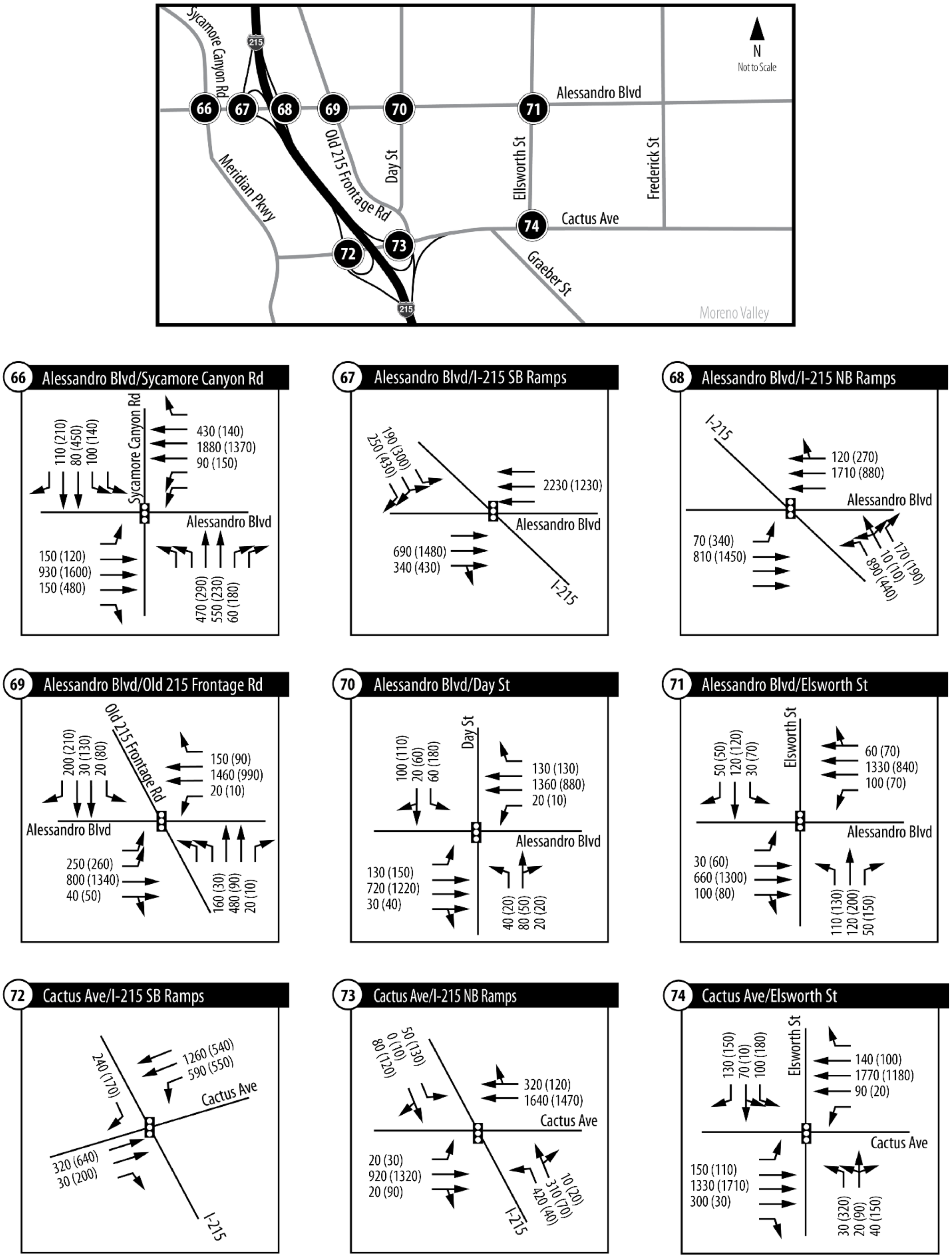

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (H)

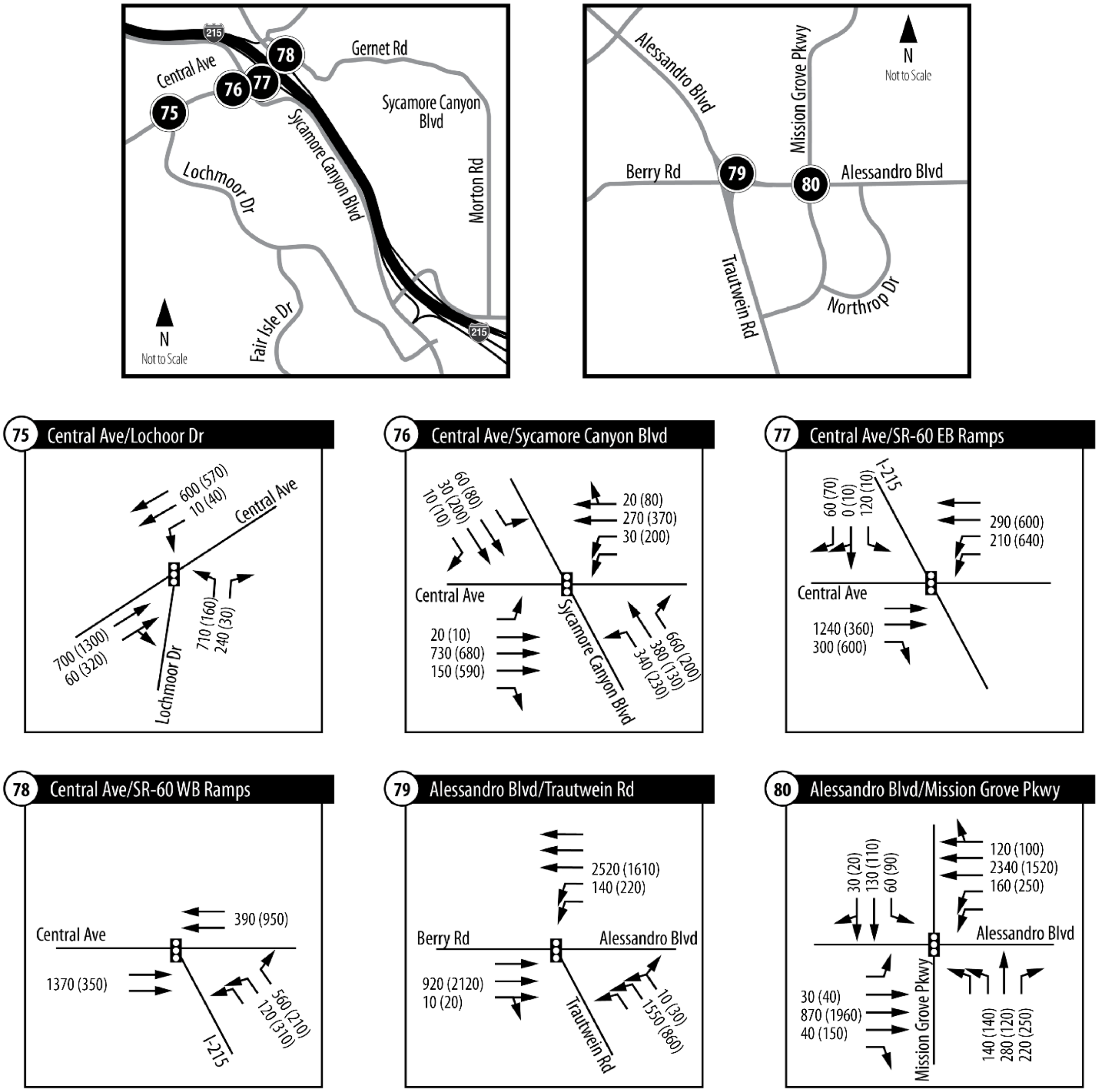

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (I)

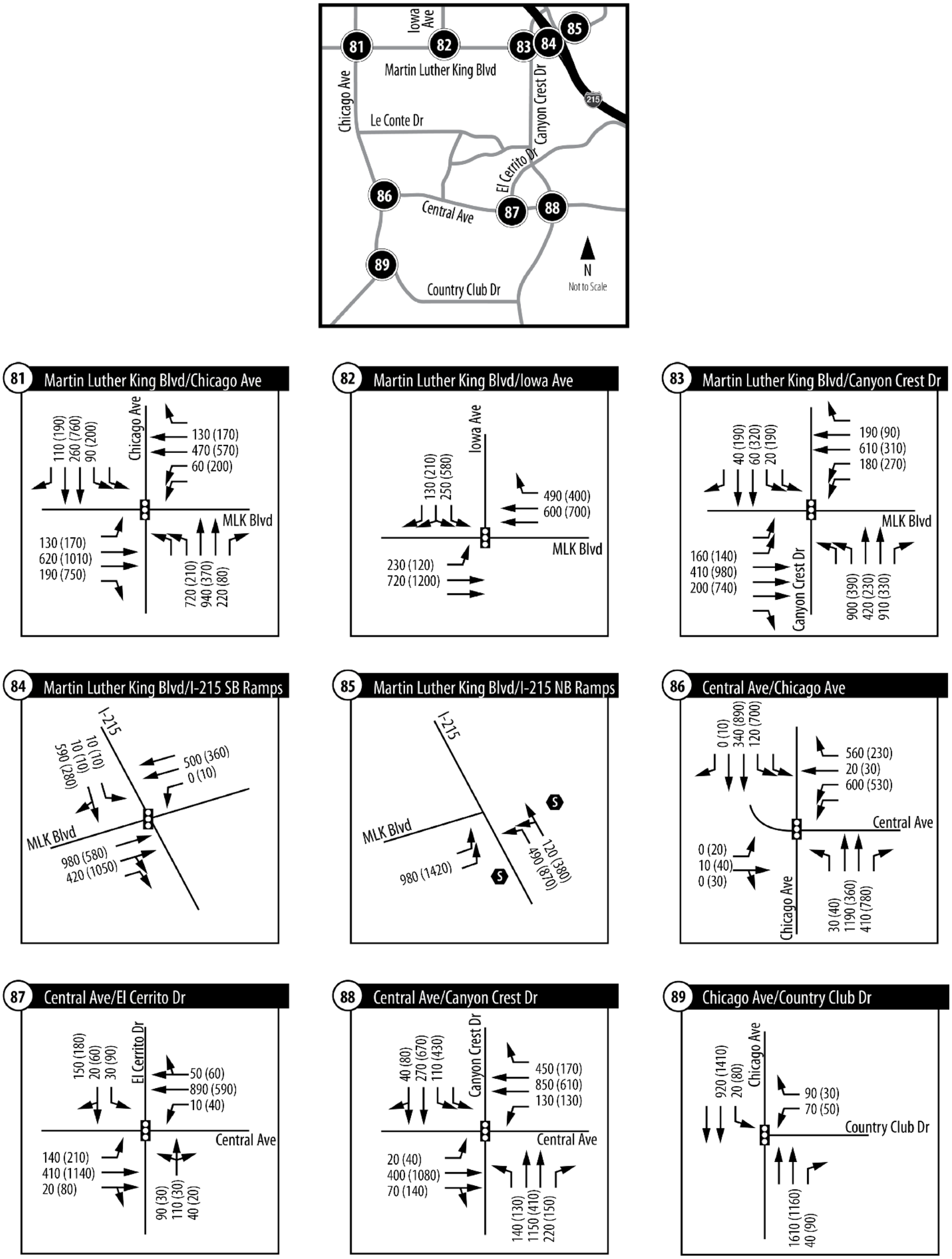

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (J)

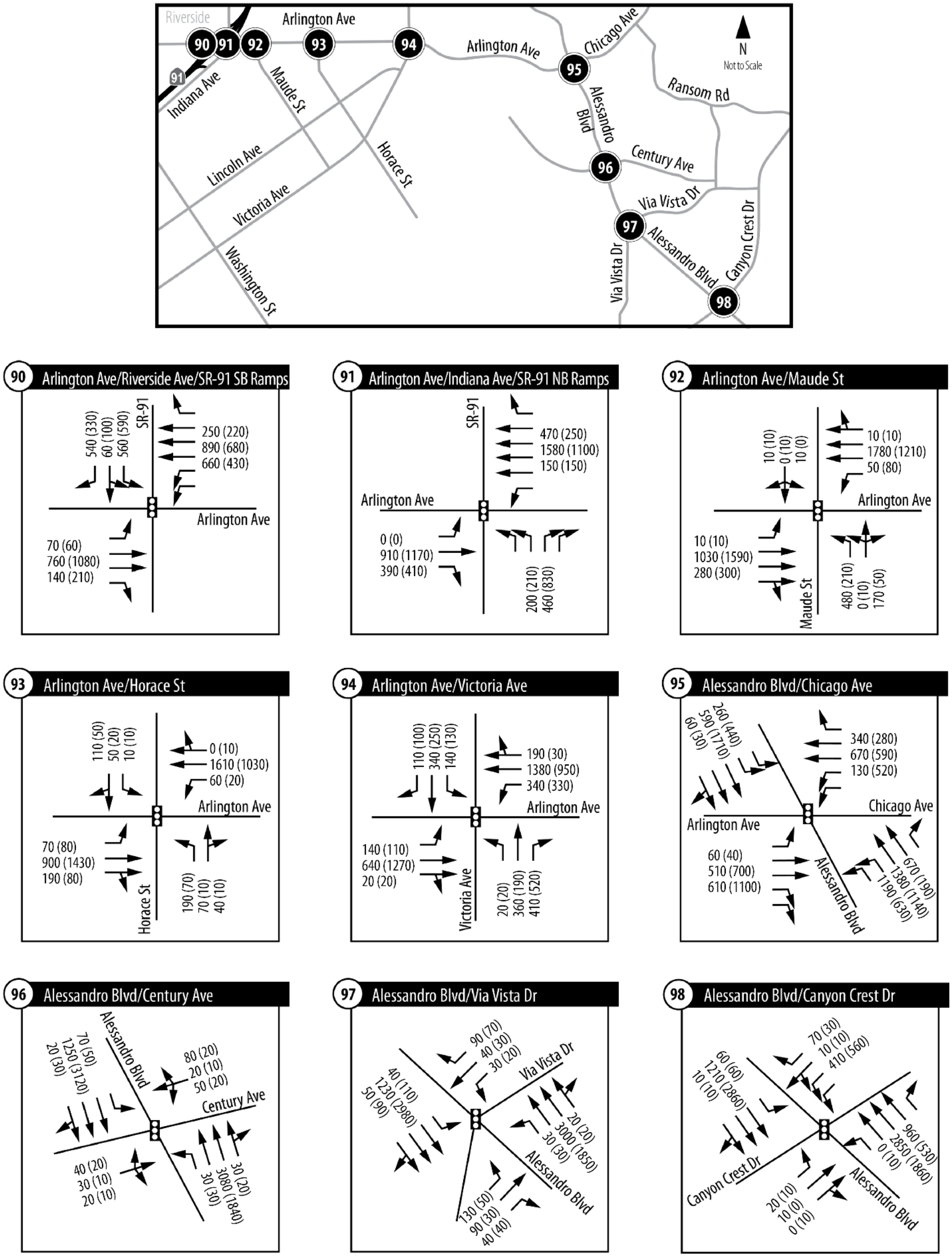

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (K)

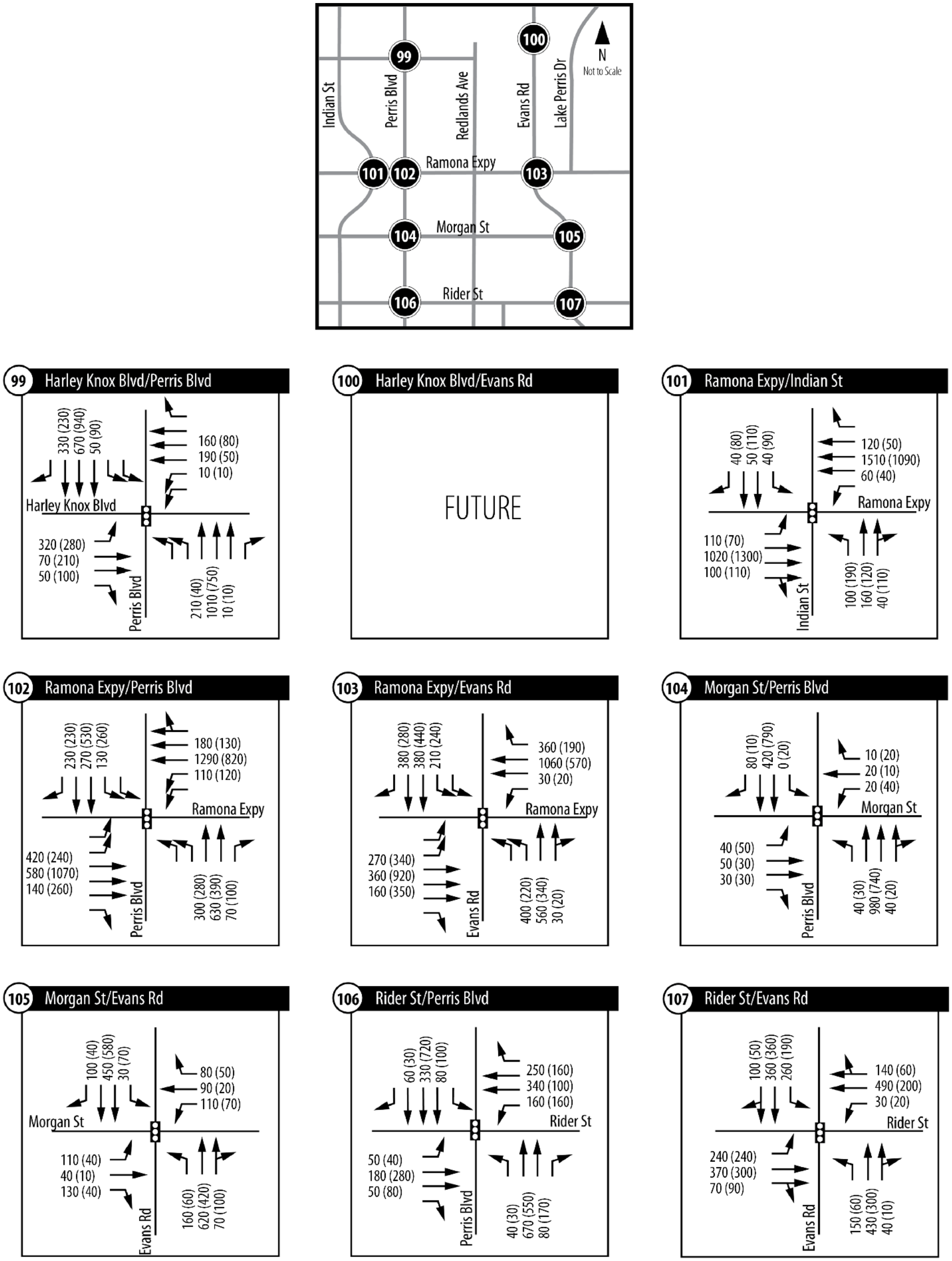

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (L)

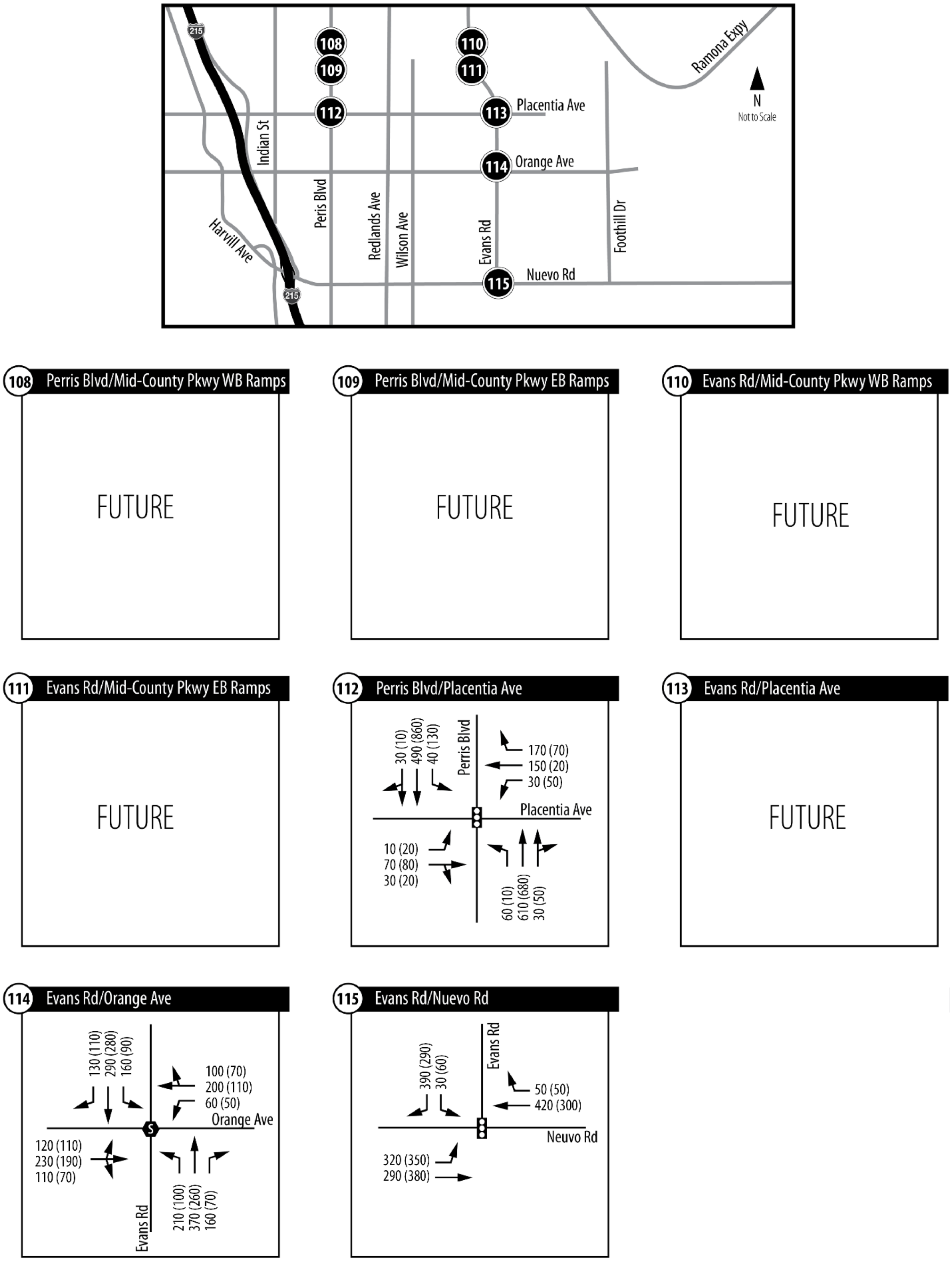

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (M)

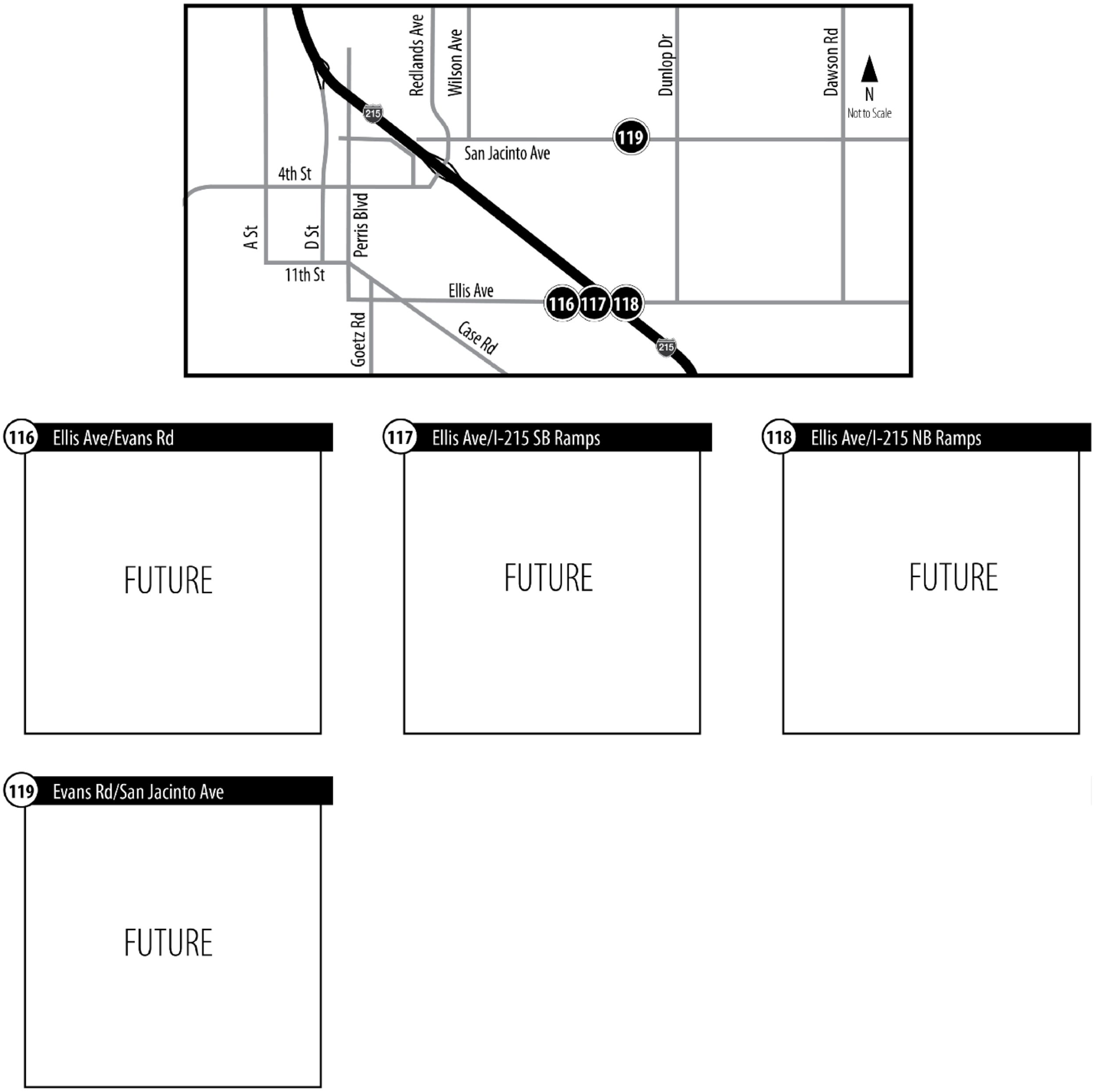

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (N)

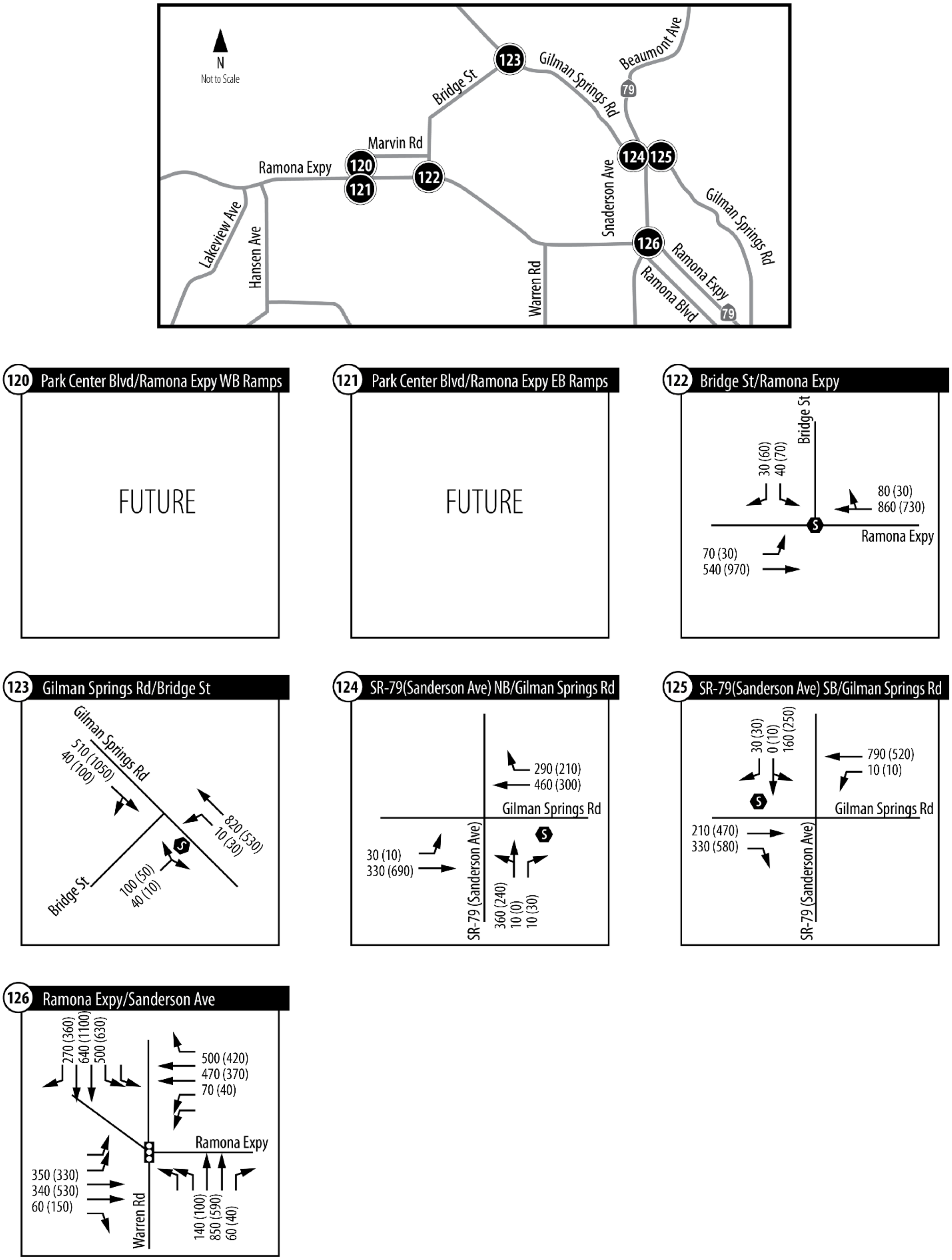

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (O)

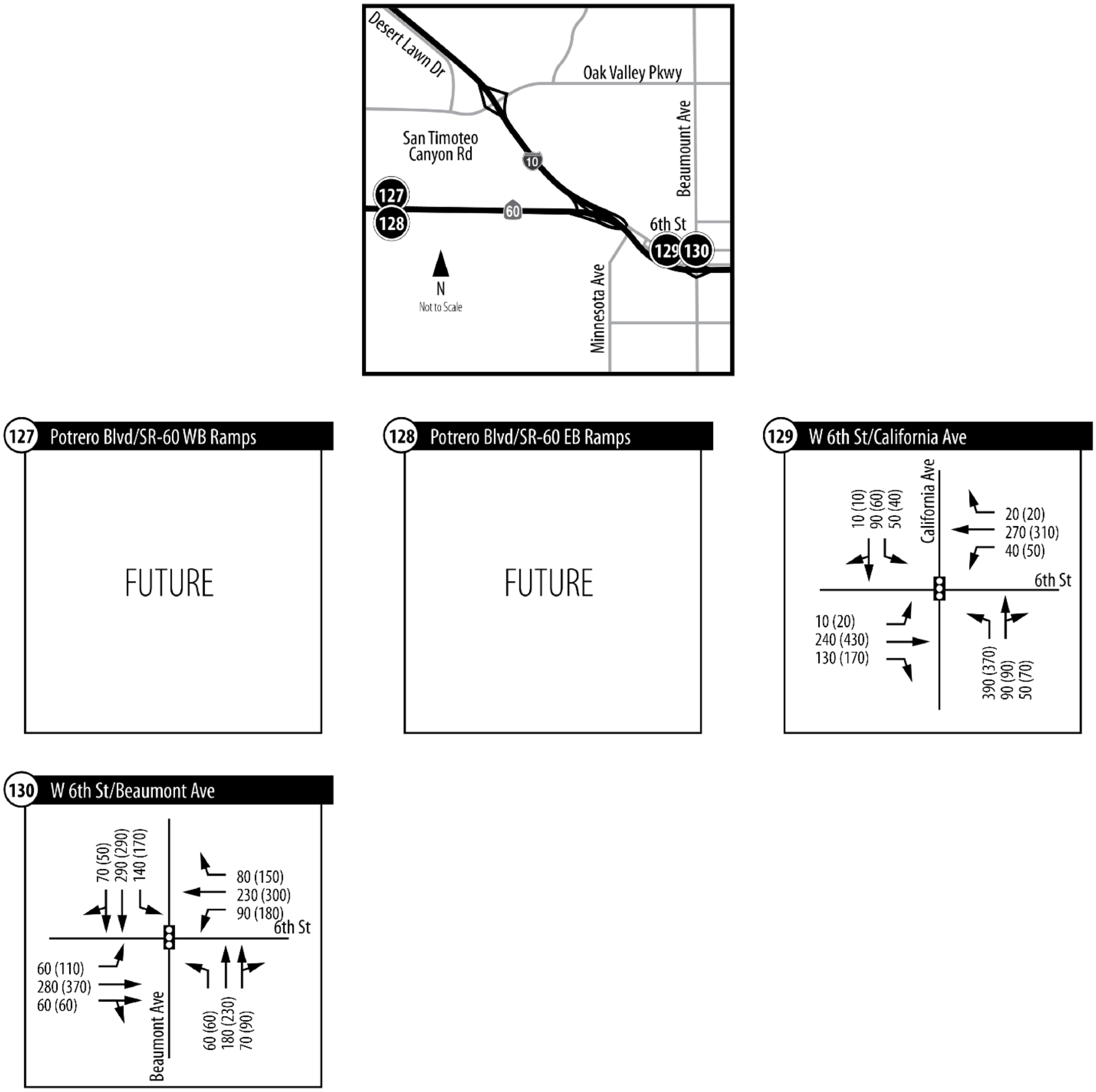

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (P)

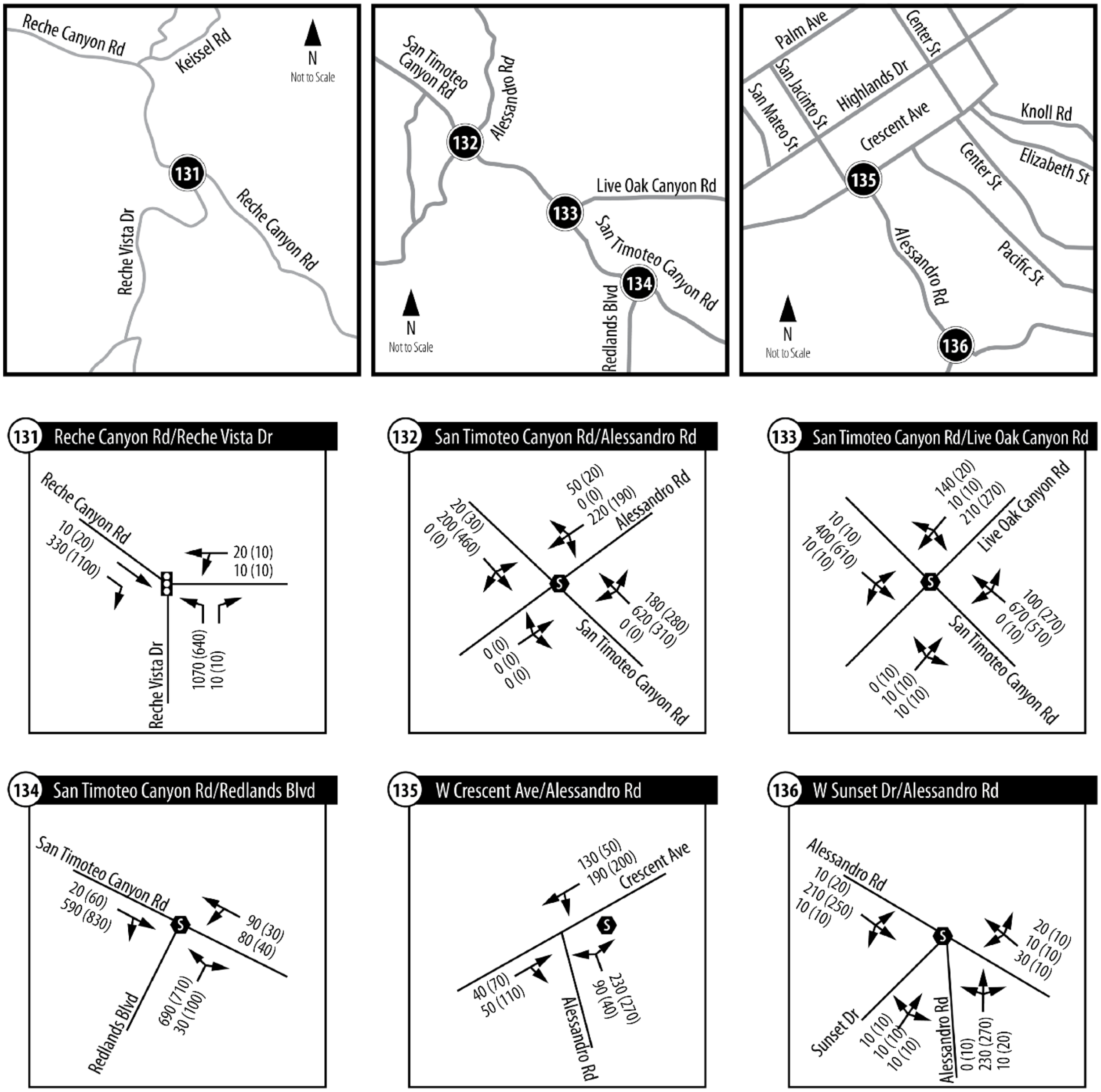

Figure 40: Turning Movement Volumes (PCE) under Existing Plus Phase 1 Scenario (Q)

Table 26 shows the LOS at study intersections under the Existing Plus Phase 1 Scenario. As shown in the table, there are 19 study intersections where the LOS would exceed the general plan target. In all of these locations the LOS would have been worse than the target for at least one peak hour (AM or PM) even in the No Project scenario. The intersections with poor LOS under the Existing Plus Phase 1 Scenario are:

Would Exceed Threshold of Significance Under Both the Existing Conditions and the Existing Plus Phase 1 Scenario

- IN-10 Redlands Blvd./Locust Ave. (AM, PM)
- IN-20 Oliver St./Alessandro Blvd. (PM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-83 Martin Luther King Blvd/Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd/I-215 NB Ramps (AM, PM)
- IN-86 Central Ave/Chicago Ave (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM)
- IN-125 SR-79 (Sanderson Ave) SB/Gilman Springs Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Table 27 identifies where impacts occur. As shown in the table, there are 15 study intersections where the project would have a significant impact[49]. The mitigation measures shown in Table 27 are those that would be needed to reduce the impact of the project to a less-than-significant level. While these measures are feasible in the sense that if they could be constructed they would achieve the target LOS, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

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[49] For 4 of the 16 intersections where the LOS in the Plus Phase 1 scenario is below the target, the Project would nevertheless not have a significant impact because the average delay for the Plus Project scenario is less than in the No Project scenario. These are Intersections 65, 95, 107, and 115.

Table 26: Intersection LOS under Existing Plus Phase 1 Scenario

			Existing Conditions			Existing Plus Phase 1		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.8	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	10.7	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.0	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	10.9	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	CSS	16.7	C
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	86.8	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	SIGNAL	29.1	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	SIGNAL	22.7	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	SIGNAL	16.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	SIGNAL	14.9	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	SIGNAL	3.6	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	16.9	B
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	SIGNAL	8.4	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	57.6	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	SIGNAL	28.8	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	AWS	16.2	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	SIGNAL	22.0	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	16.5	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	AWS	17.0	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	SIGNAL	23.2	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	SIGNAL	32.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	SIGNAL	25.8	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	SIGNAL	21.7	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	SIGNAL	27.9	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	SIGNAL	19.6	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	SIGNAL	20.9	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	CSS	8.9	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	53.1	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	42.3	D
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	SIGNAL	31.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	SIGNAL	40.1	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	SIGNAL	23.3	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	SIGNAL	43.1	D
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	SIGNAL	17.0	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	SIGNAL	22.8	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	SIGNAL	12.3	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	SIGNAL	30.7	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	21.3	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	SIGNAL	22.9	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	SIGNAL	24.7	C

Table 26: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	SIGNAL	32.0	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	SIGNAL	9.6	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	SIGNAL	22.9	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	SIGNAL	28.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	SIGNAL	27.6	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	SIGNAL	27.1	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.6	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.0	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	SIGNAL	28.0	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	22.7	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	SIGNAL	35.3	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	SIGNAL	10.6	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	SIGNAL	21.2	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	SIGNAL	40.7	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	SIGNAL	28.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	SIGNAL	66.3	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	SIGNAL	30.2	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	SIGNAL	4.7	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	SIGNAL	23.7	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.0	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	SIGNAL	16.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	SIGNAL	18.8	B
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	SIGNAL	6.2	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	SIGNAL	38.1	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	SIGNAL	20.9	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	SIGNAL	26.1	C
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	SIGNAL	26.7	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	SIGNAL	13.3	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	SIGNAL	21.4	C
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	SIGNAL	24.5	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	SIGNAL	44.8	D
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	SIGNAL	41.3	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	SIGNAL	17.5	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	75.4	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	SIGNAL	18.7	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.3	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	50.4	D
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	SIGNAL	15.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	SIGNAL	33.1	C
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	SIGNAL	8.6	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	SIGNAL	32.6	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	SIGNAL	13.6	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	SIGNAL	20.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	SIGNAL	12.6	B

Table 26: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	SIGNAL	62.9	**E**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	SIGNAL	46.4	D
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	SIGNAL	28.3	C
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	SIGNAL	30.5	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	SIGNAL	54.8	D
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	SIGNAL	32.4	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	SIGNAL	14.1	B
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	SIGNAL	37.7	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	SIGNAL	57.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	SIGNAL	8.9	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	SIGNAL	28.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	SIGNAL	28.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	SIGNAL	41.3	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	SIGNAL	20.0	C
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	SIGNAL	44.5	**D**
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	CSS	53.0	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	CSS	101.7	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	CSS	44.4	**E**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	SIGNAL	40.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	SIGNAL	18.3	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	SIGNAL	12.4	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	SIGNAL	18.0	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	AWS	73.1	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	AWS	116.2	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	AWS	109.1	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	CSS	14.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	AWS	9.4	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means the cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 26: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Phase 1		
			Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	11.2	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	6.5	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	10.0	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	29.4	D	CSS	33.7	D
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	73.0	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	37.2	D
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.9	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	21.2	C	SIGNAL	22.6	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	17.8	B	SIGNAL	20.9	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.1	A	SIGNAL	12.6	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.0	A	SIGNAL	2.4	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	2.6	A	SIGNAL	19.7	B
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.0	A	SIGNAL	8.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	19.3	C	CSS	25.1	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	29.3	C	SIGNAL	35.2	D
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	33.7	**D**	AWS	20.4	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	17.1	B	SIGNAL	18.0	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	15.4	B	SIGNAL	15.9	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	10.6	B	AWS	20.2	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.7	B	SIGNAL	19.6	B
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	33.4	C	SIGNAL	41.4	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	20.8	C	SIGNAL	18.8	B
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	13.9	B	SIGNAL	22.4	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	36.3	D	SIGNAL	37.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	18.5	B	SIGNAL	19.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	19.4	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.9	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	41.8	D	SIGNAL	44.8	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	61.8	**E**	SIGNAL	66.6	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.1	C	SIGNAL	32.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	56.6	**E**	SIGNAL	54.2	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	17.2	B	SIGNAL	18.8	B
IN-41	Lasselle St/Iris Ave	D	SIGNAL	34.4	C	SIGNAL	36.3	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	15.5	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	15.0	B	SIGNAL	15.9	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	10.7	B	SIGNAL	11.5	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	20.7	C	SIGNAL	24.1	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	14.6	B	SIGNAL	15.5	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	20.1	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	20.0	C	SIGNAL	20.6	C

Table 26: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			Existing Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.5	C	SIGNAL	23.1	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	7.5	A	SIGNAL	7.9	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	20.4	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	19.9	B	SIGNAL	20.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	29.4	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	18.8	B	SIGNAL	19.7	B
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	26.3	C	SIGNAL	27.1	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	29.9	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	36.7	D	SIGNAL	38.6	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	27.7	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	36.3	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	9.3	A	SIGNAL	9.4	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	31.8	C	SIGNAL	33.0	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	23.1	C	SIGNAL	22.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	35.5	D	SIGNAL	35.9	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.0	C	SIGNAL	30.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.8	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	13.0	B	SIGNAL	14.0	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.4	B	SIGNAL	18.2	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.5	B	SIGNAL	15.5	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.1	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	14.4	B	SIGNAL	14.6	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	7.0	A	SIGNAL	7.7	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	26.5	C	SIGNAL	27.8	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	8.8	A	SIGNAL	10.6	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	53.6	D	SIGNAL	48.4	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	15.8	B	SIGNAL	24.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.4	A	SIGNAL	8.3	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.8	B	SIGNAL	16.0	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	27.8	C	SIGNAL	27.8	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	51.6	D	SIGNAL	48.8	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	10.9	B	SIGNAL	11.1	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	34.2	C	SIGNAL	32.6	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.4	A	SIGNAL	8.2	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	91.4	**F**	SIGNAL	94.8	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	15.8	B	SIGNAL	16.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	39.6	D	SIGNAL	51.5	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	5.9	A	SIGNAL	6.0	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	24.2	C	SIGNAL	23.9	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	6.4	A	SIGNAL	6.9	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	27.1	C	SIGNAL	27.5	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	5.9	A	SIGNAL	6.5	A

Table 26: Intersection LOS under Existing Plus Phase 1 Scenario (continued)

			Existing Conditions			**Existing Plus Phase 1**		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	39.0	D	SIGNAL	40.9	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	78.5	**E**	SIGNAL	66.2	**E**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	11.1	B	SIGNAL	11.9	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	22.8	C	SIGNAL	28.3	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	34.4	C	SIGNAL	35.7	D
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	20.1	C	SIGNAL	20.9	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.9	C	SIGNAL	28.5	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	36.1	D	SIGNAL	36.4	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	16.7	B	SIGNAL	18.0	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	21.3	C	SIGNAL	24.9	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	22.8	C	SIGNAL	23.2	C
IN-107	Evans Rd/Rider St	C	SIGNAL	28.4	C	SIGNAL	28.9	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	11.9	B	SIGNAL	13.2	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	39.0	**E**	AWS	41.5	**E**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	23.8	C	SIGNAL	23.3	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	111.0	**F**	CSS	140.5	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	84.5	**F**	CSS	94.1	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	146.0	**F**	CSS	141.9	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	115.4	**F**	CSS	138.6	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	29.7	C	SIGNAL	29.0	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	31.4	C	SIGNAL	34.8	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	14.0	B	SIGNAL	15.1	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	17.5	B	SIGNAL	18.3	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.1	C	AWS	30.5	D
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	104.8	**F**	AWS	127.8	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	178.9	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	12.5	B	CSS	13.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.6	A	AWS	10.0	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 27: Existing Plus Phase 1 Intersection Impacts and Mitigations

			Existing Conditions			Existing Plus Phase 1			Existing Conditions			Existing Plus Phase 1			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1 & Mitigations				
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level																				
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	D	CSS	86.8	F	CSS	73.0	F	CSS	>180	F	Signalize. Add 1 EB LT and 1 WB LT.	SIGNAL	8.6	A	9.1	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	E	CSS	57.6	F	CSS	19.3	C	CSS	25.1	D	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	CSS	20.4	C	15.0	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	42.3	D	SIGNAL	61.8	E	SIGNAL	66.6	E	Add 1 SB LT Change Phasing to Prot.	SIGNAL	17.0	B	34.6	C
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)																				
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	E	SIGNAL	75.4	E	SIGNAL	34.2	C	SIGNAL	32.6	C	Change 1 NBT to NBT-R	SIGNAL	36.8	D	31.9	C
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	E	AWS	40.3	E	AWS	>180	F	AWS	>180	F	Signalize.	SIGNAL	0.7	A	0.9	A
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	50.4	D	SIGNAL	91.4	F	SIGNAL	94.8	F	Change WBT to WBT-R and NBT to NBT-R	SIGNAL	27.8	C	35.2	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	E	SIGNAL	62.9	E	SIGNAL	39.0	D	SIGNAL	40.9	D	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage)	SIGNAL	43.2	D	32.5	C
IN-114	Evans Rd/Orange Ave	C	AWS	>180	F	AWS	>180	F	AWS	39.0	E	AWS	41.5	E	Signalize.	SIGNAL	91.8	F	14.6	B
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	E	CSS	53.0	F	CSS	111.0	F	CSS	140.5	F	Signalize.	SIGNAL	11.8	B	13.8	B
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	F	CSS	101.7	F	CSS	84.5	F	CSS	94.1	F	Signalize.	SIGNAL	7.3	A	19.9	B
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	F	CSS	>180	F	CSS	146.0	F	CSS	141.9	F	Signalize.	SIGNAL	8.2	A	7.3	A
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	E	CSS	44.4	E	CSS	115.4	F	CSS	138.6	F	Signalize.	SIGNAL	7.6	A	8.0	A
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	F	AWS	73.1	F	AWS	23.1	C	AWS	30.5	D	Signalize.	SIGNAL	10.8	B	10.4	B
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	F	AWS	116.2	F	AWS	104.8	F	AWS	127.8	F	Signalize.	SIGNAL	17.0	B	18.5	B
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	F	AWS	109.1	F	AWS	178.9	F	AWS	>180	F	Signalize. Add 1 EB Right Lane and 1 NB Left Lane.	SIGNAL	8.2	A	10.1	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means the cross-street is stop-controlled

"AWS" means all-way stop

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

C. FREEWAY SEGMENT LOS, IMPACTS, AND MITIGATIONS

Freeway Mainline Basic Sections LOS

Table 28 compares the LOS for freeway mainline sections for the Existing and the Existing Plus Phase 1 Scenarios. Details of the LOS calculations for freeways under the Existing Plus Phase 1 Scenario can be found in Appendix J. There are 33 locations where the LOS would be worse than the "D".

Table 29 identifies the 24 sections where the project would have a significant impact[50]. All of these sections are already deficient under Existing conditions. The Existing Plus Phase 1 scenario would have significant impacts at:

Northbound or Eastbound

- SR-60 from Ramona Ave. to Central Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Barton Rd. to Mt. Vernon Ave.
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- SR-60 from Grove Ave. to Vineyard Ave.
- SR-60 from Vineyard Ave. to Archibald Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
- SR-60 from I-215 to Day St.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-91 from McKinley St. to Pierce St.
- SR-91 from Pierce St. to Magnolia Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- SR-91 from Madison St. to Arlington Ave.
- I-215 from Center St. to La Cadena Dr.
- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.

Adding a mixed-flow lane would improve these 22 of these sections to better than LOS "E" in the Plus Phase 1 scenario and thus would reduce the impact of the WLC project to a less-than-significant level. In the two other sections with significant impacts, adding a mixed-flow lane would improve the LOS from "F" to "E". The mitigated LOS would be better than the LOS for the No Project scenario and so this measure would reduce the impact of the WLC project to a less-than-significant level. Mitigation measures that would be needed to reduce the impact of the project to a less-than-significant level are summarized in Table 29. While these measures are feasible in the sense that, if they could be constructed, they would achieve the target LOS, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

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[50] In some sections where the LOS in the Plus Phase 1 scenario is below the target, the Project would nevertheless not have a significant impact because the traffic density in the Plus Project scenario is less than in the No Project scenario.

Table 28: Existing Plus Phase 1 Freeway Mainline LOS

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6170	27.6	D	6,400	27.3	D
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	E	9,400	47.3	F	8,280	40.6	E	9,310	46.7	F
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	E	7,370	32.9	D	8,180	35.9	E
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	E	7,690	35.3	E	8,130	35.5	E
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	E	7,600	34.6	D	8,240	36.4	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	F	6,980	30.2	D	9,140	44.8	E
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	F	6,830	29.0	D	9,290	46.5	F
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	6,890	29.4	D	6,660	26.2	D
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,840	26.3	D	7,250	22.2	C
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	4,380	17.5	B	5,090	19.2	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	3,740	14.9	B	4,220	15.9	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village	2,913	11.5	B	3,567	13.3	B	3,160	12.6	B	3,440	13.0	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,437	9.8	A	2,959	11.3	B	2,680	10.9	A	2,870	11.2	B
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	2,910	11.8	B	3,070	11.9	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	3,620	14.5	B	3,520	13.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,740	26.2	D	5,160	27.6	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,790	26.6	D	5,370	29.4	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	E	5,200	29.9	D	6,260	37.6	E
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	F	9,400	51.1	F	9,740	69.7	F	9,320	51.9	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	5,540	22.2	C	6,060	23.3	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	F	2,960	25.3	C	4,690	49.9	F
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	2,770	23.2	C	3,290	26.3	D
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,480	20.4	C	2,830	22.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	2,110	11.6	B	2,500	12.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,860	10.4	A	2,140	11.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,850	15.5	B	1,850	14.5	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,270	13.8	B	1,280	12.5	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,270	10.3	A	1,280	9.8	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	4,270	16.1	B	6,340	26.2	D
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	4,890	25.7	C	5,250	30.1	D
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	E	7,050	54.7	F	6,450	41.1	E	7,030	54.3	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	7,130	29.2	D	7,020	30.4	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	E	7,170	29.3	D	7,970	37.0	E
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	4,800	18.1	C	4,940	19.5	C
F-46	SR-91	Adam St to Madison St	7,451	57.6	F	8,209	96.0	F	7,500	59.6	F	8,190	94.9	F

Table 28: Existing Plus Phase 1 Freeway Mainline LOS (continued)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,710	33.6	D	5,370	21.6	C
F-49	SR-91	Central Ave to 14th St	7,050	52.1	**F**	5,797	35.9	**E**	7,000	51.8	**F**	5,800	36.3	**E**
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	4,570	17.2	B	4,240	16.5	B
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	5,880	17.9	B	5,500	17.4	B
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,730	14.4	B	3,270	16.3	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	1,840	9.7	A	2,040	10.2	A
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,350	12.4	B	3,280	16.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	3,670	19.4	C	3,140	15.7	B
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	3,200	17.1	B	4,180	21.3	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	4,290	23.1	C	3,190	16.0	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,360	13.3	B	4,780	18.0	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,520	24.8	C	5,230	28.1	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,913	27.7	D	5,947	34.3	D	4,920	27.8	D	5,940	34.3	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	5,070	28.8	D	4,430	23.0	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	4,770	19.0	C	4,210	15.8	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	4,450	24.4	C	5,350	29.1	D
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	4,820	27.0	D	6,010	35.0	D
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	6,660	28.8	D	7,100	28.9	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	5,120	29.4	D	5,310	28.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	5,160	29.6	D	4,980	26.1	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	**E**	5,640	32.0	D	5,690	35.5	**E**	5,700	32.5	D
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	6,070	25.7	C	5,880	22.8	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	**F**	5,190	20.7	C	9,440	48.3	**F**
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	3,140	12.5	B	4,730	17.7	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	3,490	13.7	B	4,740	18.3	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	3,530	14.1	B	4,890	19.2	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	3,700	14.7	B	5,120	20.2	C
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	3,540	14.1	B	4,960	19.5	C
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	3,450	11.0	A	4,850	15.2	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	3,390	13.5	B	4,770	18.7	C
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	3,380	13.5	B	4,770	18.7	C
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	3,040	12.2	B	4,300	16.9	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	2,890	11.6	B	4,110	16.2	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	2,560	10.1	A	3,630	14.1	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	2,560	10.0	A	3,640	14.1	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	2,230	8.8	A	3,160	12.2	B
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	2,230	8.8	A	3,160	12.2	B

▨ Indicates that the LOS exceeds the target level

Table 28: Existing Plus Phase 1 Freeway Mainline LOS (continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,638	26.3	D	6,223	24.8	C	6,560	26.0	D	6,330	25.5	C
F-3	SR-60	Ramona Ave to Central Ave	6,167	24.4	C	6,459	26.1	D	6,090	24.3	C	6,560	26.8	D
F-4	SR-60	Central Ave to Mountain Ave	6,751	28.4	D	6,489	26.9	D	6,650	28.0	D	6,600	27.7	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,859	28.8	D	6,883	29.0	D	6,770	28.5	D	6,990	29.9	D
F-6	SR-60	Euclid Ave to Grove Ave	7,108	29.3	D	7,527	32.6	D	7,020	29.0	D	7,630	33.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,656	26.2	D	9,400	51.0	**F**	6,570	25.9	C	9,510	53.3	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,821	34.9	D	9,400	53.0	**F**	7,710	34.4	D	9,510	54.7	**F**
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,339	22.4	C	5,698	17.5	B	7,220	22.1	C	5,820	18.0	B
F-11	SR-60	Milliken Ave to I-15	5,456	20.8	C	5,111	19.6	C	5,330	20.4	C	5,240	20.3	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,888	14.7	B	4,648	14.3	B	4,680	14.2	B	4,780	14.8	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village	5,070	19.2	C	5,970	23.7	C	5,000	19.1	C	6,120	24.6	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,277	16.3	B	4,958	19.3	C	4,150	15.9	B	5,090	20.0	C
F-15	SR-60	Pedley Rd to Pyrite St	4,296	16.3	B	4,981	19.4	C	4,160	16.0	B	5,120	20.1	C
F-16	SR-60	Pyrite St to Valley Way	4,326	16.4	B	5,020	19.6	C	4,170	16.0	B	5,100	20.0	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	23.2	C	5,262	29.2	D	4,520	23.5	C	5,400	30.8	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	24.1	C	5,477	30.6	D	4,520	23.2	C	5,610	32.3	D
F-19	SR-60	Market St to Main St	6,485	40.3	**E**	5,115	27.9	D	6,310	38.6	**E**	5,220	29.1	D
F-20	SR-60	Main to SR-91	7,050	47.9	**F**	4,062	21.0	C	6,830	45.5	**F**	4,330	22.9	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	33.3	D	6,885	30.5	D	6,940	34.0	D	6,970	32.4	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,385	30.6	D	8,085	36.9	**E**	7,270	30.3	D	8,230	38.8	**E**
F-27	SR-60	I-215 to Day St	4,328	41.6	**E**	3,251	26.8	D	4,320	43.2	**E**	3,230	27.5	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	4,700	49.0	**F**	2,786	21.9	C	4,740	52.6	**F**	2,800	22.7	C
F-30	SR-60	Heacock St to Perris Blvd	3,192	25.1	C	3,003	24.0	C	3,240	26.6	D	3,070	25.5	C
F-31	SR-60	Perris Blvd to Nason St	2,592	19.5	C	2,695	21.0	C	2,700	21.3	C	2,810	23.0	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,817	14.0	B	1,882	14.7	B	2,000	16.2	B	1,960	16.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,481	11.6	B	1,504	11.8	B	1,770	14.6	B	1,670	13.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,460	11.4	B	1,486	11.7	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,121	13.4	B	1,165	12.7	B	1,140	13.9	B	1,120	12.8	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,121	9.0	A	1,165	9.3	A	1,140	9.2	A	1,120	9.0	A
F-39	SR-91	I-15 to McKinley St	6,576	26.3	D	7,158	31.4	D	6,480	26.0	C	7,220	32.0	D
F-40	SR-91	McKinley St to Pierce St	7,050	49.6	**F**	7,050	55.5	**F**	6,960	48.6	**F**	7,100	56.6	**F**
F-41	SR-91	Pierce St to Magnolia Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,960	47.5	**F**	7,100	55.1	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	7,050	48.4	**F**	7,050	53.3	**F**	6,990	48.0	**F**	7,090	54.8	**F**
F-43	SR-91	La Sierra Ave to Tyler St	5,943	34.3	D	7,050	53.3	**F**	5,870	33.9	D	7,100	55.1	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	6,106	23.6	C	7,990	37.2	**E**	6,040	23.5	C	8,020	37.8	**E**
F-45	SR-91	Van Buren Blvd to Adam St	6,381	25.0	C	7,990	37.2	**E**	6,310	24.8	C	8,010	37.7	**E**
F-46	SR-91	Adam St to Madison St	5,931	22.8	C	7,582	33.9	D	5,870	22.7	C	7,590	34.2	D

Table 28: Existing Plus Phase 1 Freeway Mainline LOS (continued)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
ID	Freeway	Segment	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,050	48.4	F	7,050	52.6	F	7,000	48.2	F	7,030	52.9	F
F-49	SR-91	Central Ave to 14th St	5,166	19.5	C	7,050	30.0	D	5,150	19.6	C	7,020	30.0	D
F-50	SR-91	14th St to University Ave	5,805	22.2	C	7,050	30.0	D	5,830	22.5	C	6,990	29.8	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	11.5	B	2,318	11.5	B	2,290	11.4	B	2,270	11.2	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	12.6	B	3,111	15.4	B	2,530	12.6	B	3,020	14.9	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,528	12.6	B	3,111	15.4	B	2,530	12.6	B	3,020	14.9	B
F-70	I-215	Ethanac Rd to SR-74	2,882	14.4	B	3,854	19.1	C	2,900	14.5	B	3,760	18.6	C
F-71	I-215	SR-74 to Redlands Ave	4,515	23.2	C	4,700	24.1	C	4,540	23.4	C	4,610	23.5	C
F-86	I-215	Redlands Blvd to D St	2,538	12.7	B	2,634	13.1	B	2,570	13.0	B	2,550	12.7	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,380	12.7	B	3,249	12.1	B	3,410	12.8	B	3,160	11.8	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	23.2	C	5,262	28.0	D	4,550	23.4	C	5,240	27.8	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	2,658	13.3	B	5,310	28.1	D	2,680	13.4	B	5,260	27.8	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,802	19.7	C	7,050	46.7	F	3,850	20.0	C	7,000	45.9	F
F-92	I-215	Van Buren Blvd to Cactus Ave	3,572	13.4	B	6,195	23.6	C	3,600	13.5	B	6,170	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,031	26.7	D	6,129	35.5	E	5,110	27.2	D	6,070	34.9	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,050	29.6	D	7,050	28.4	D	7,070	29.7	D	6,990	28.0	D
F-75	I-215	Center St to La Cadena Dr	7,050	50.2	F	7,050	47.3	F	7,070	50.6	F	7,010	47.2	F
F-76	I-215	La Cadena Dr to Barton Rd	7,050	49.6	F	7,050	46.7	F	7,100	50.5	F	7,030	46.4	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,974	34.6	D	7,050	46.7	F	6,010	35.3	E	7,040	46.6	F
F-78	I-215	Mt. Vernon Ave to I-10	5,726	22.1	C	5,432	20.5	C	5,780	22.4	C	5,420	20.4	C
F-80	I-215	Auto Plaza Dr to Mill St	6,123	23.7	C	5,837	22.0	C	6,110	23.6	C	5,830	22.0	C
F-83	I-215	Baseline Rd to Highland Ave	4,700	17.6	B	3,704	13.7	B	4,670	17.5	B	3,700	13.7	B
F-52	I-10	SR-60 to Beaumont Ave	4,888	20.9	C	4,190	15.8	B	4,910	21.0	C	4,160	15.7	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,968	21.5	C	4,259	16.3	B	4,970	21.5	C	4,200	16.0	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,209	22.7	C	4,465	17.0	B	5,190	22.6	C	4,440	17.0	B
F-55	I-10	Highland Springs Ave to Sunset Ave	5,009	21.7	C	4,293	16.4	B	5,010	21.7	C	4,270	16.3	B
F-56	I-10	Sunset Ave to 22nd St	4,888	16.7	B	4,190	12.8	B	4,900	16.7	B	4,160	12.7	B
F-57	I-10	22nd St to 8th St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,090	15.6	B
F-58	I-10	8th St to Hargrave St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,080	15.6	B
F-59	I-10	Hargrave St to Fields Rd	4,327	18.6	C	3,709	14.2	B	4,350	18.7	C	3,660	14.0	B
F-60	I-10	Fields Rd to Morongo Trail	4,127	17.7	B	3,537	13.6	B	4,150	17.8	B	3,490	13.5	B
F-61	I-10	Morongo Trail to Main St	3,646	15.4	B	3,125	11.8	B	3,670	15.5	B	3,080	11.6	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,646	15.4	B	3,125	11.7	B	3,680	15.5	B	3,080	11.5	B
F-64	I-10	SR-111 to Tipton Rd	3,165	13.4	B	2,713	10.2	A	3,190	13.5	B	2,680	10.0	A
F-65	I-10	Tipton Rd to SR-62	3,165	13.4	B	2,713	10.3	A	3,190	13.5	B	2,680	10.1	A

▨ Indicates that the LOS exceeds the target level

Table 29: Existing Plus Phase 1 Freeway Mainline Impacts and Mitigations

			Northbound / Eastbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Phase 1 & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-3	SR-60	Ramona Ave to Central Ave	**E**	**E**	**F**	**F**	Yes	8,280	28.0	D	9,310	30.7	D	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	D	**E**	**E**	**E**	Yes	7,690	25.3	C	8,130	25.4	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	**F**	**F**	**F**	**F**	Yes	9,740	39.0	**E**	9,320	32.9	D	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	C	C	**F**	**F**	Yes	2,960	16.2	B	4,690	24.8	C	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**E**	**E**	**F**	**F**	Yes	6,450	25.8	C	7,030	30.5	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison St	**F**	**F**	**F**	**F**	Yes	7,500	32.1	D	8,190	39.7	**E**	Add 1 mixed flow lane
F-49	SR-91	Central Ave to 14th St	**F**	**F**	**E**	**E**	Yes	7,000	29.7	D	5,800	23.8	C	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	**E**	**E**	D	D	Yes	5,690	23.4	C	5,700	22.0	C	Add 1 mixed flow lane
F-80	I-215	Auto Plaza Dr to Mill St	C	C	**F**	**F**	Yes	5,190	16.4	B	9,440	31.4	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Phase 1 & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-7	SR-60	Grove Ave to Vineyard Ave	D	C	**F**	**F**	Yes	6,570	19.9	C	9,510	33.4	D	Add 1 mixed flow lane
F-8	SR-60	Vineyard Ave to Archibald Ave	D	D	**F**	**F**	Yes	7,710	24.8	C	9,510	34.0	D	Add 1 mixed flow lane
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	D	D	**E**	**E**	Yes	7,270	22.5	C	8,230	27.1	D	Add 1 mixed flow lane
F-27	SR-60	I-215 to Day St	**E**	**E**	D	D	Yes	4,320	22.9	C	3,230	17.2	B	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	**F**	**F**	C	C	Yes	4,740	25.4	C	2,800	14.8	B	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	**F**	**F**	**F**	**F**	Yes	6,960	28.6	D	7,100	31.2	D	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**F**	**F**	**F**	**F**	Yes	6,960	28.2	D	7,100	30.7	D	Add 1 mixed flow lane
F-42	SR-91	Magnolia Ave to La Sierra Ave	**F**	**F**	**F**	**F**	Yes	6,990	28.4	D	7,090	30.7	D	Add 1 mixed flow lane
F-43	SR-91	La Sierra Ave to Tyler St	D	D	**F**	**F**	Yes	5,870	22.7	C	7,100	30.7	D	Add 1 mixed flow lane
F-44	SR-91	Tyler St to Van Buren Blvd	C	C	**E**	**E**	Yes	6,040	18.3	C	8,020	26.6	D	Add 1 mixed flow lane
F-45	SR-91	Van Buren Blvd to Adam St	C	C	**E**	**E**	Yes	6,310	19.1	C	8,010	26.5	D	Add 1 mixed flow lane
F-47	SR-91	Madison St to Arlington Ave	**F**	**F**	**F**	**F**	Yes	7,000	28.5	D	7,030	30.1	D	Add 1 mixed flow lane
F-75	I-215	Center St to La Cadena Dr	**F**	**F**	**F**	**F**	Yes	7,070	29.3	D	7,010	28.1	D	Add 1 mixed flow lane
F-76	I-215	La Cadena Dr to Barton Rd	**F**	**F**	**F**	**F**	Yes	7,100	29.3	D	7,030	27.9	D	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	D	**E**	**F**	**F**	Yes	6,010	23.3	C	7,040	27.9	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Weaving LOS

Table 30 compares the LOS for study weaving sections under the Existing and the Existing Plus Phase 1 Scenarios. Table 31 identifies five weaving section where the Project would have a significant impact, namely:

Northbound or Eastbound

- I-215 from SR-60 to Columbia Ave.
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

- SR-60 from University Ave. to Martin Luther King Blvd.
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
- SR-91 from Arlington Ave. to Central Ave.

Table 31 identifies mitigation measures that would reduce the impact of the WLC project to a less-than-significant level. While these measures are feasible in the sense that, if they could be constructed, they would achieve the target LOS, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 30: Existing Plus Phase 1 Freeway Weaving Section LOS

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,480	22	C	6,760	25	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	6,890	34.8	D	6,940	33.9	D
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	**E**	6,350	26.5	C	9,150	41.2	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,240	24.4	C	6,880	28.4	D
W-23	SR-60	University Ave to Martin Luther King	5,965	22.6	C	7,050	24.6	C	6,190	23.7	C	6,980	24.7	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	5,979	25.0	C	8,119	31.6	D	6,260	27.2	C	8,010	31.9	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	**E**	3,280	13.1	B	9,230	41.5	**E**
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,197	14.4	B	7,050	32.7	D	3,330	15.2	B	7,010	32.7	D
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			1,600	9.6	A	1,600	9.0	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	7,170	32.8	D	7,970	34.8	D
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	4,570	26.9	C	4,240	19.1	B
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	5,120	23.2	C	5,310	24.4	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	**F**	4,317	22.0	C	6,070	>Capacity	**F**	5,880	22.4	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	4,670	23.2	C	3,700	35.2	**E**
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	7,040	22.1	C	6,390	26.7	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	6,110	12.5	B	5,830	21.9	C
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	2,230	8.6	A	3,160	12.2	B

▨ Indicates that the LOS exceeds the target level

Table 30: Existing Plus Phase 1 Freeway Weaving Section LOS (continued)

			Existing Conditions						Existing Plus Phase 1 Conditions					
ID	Freeway	Weaving Segment	Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,466	19.6	B	5,871	21.3	C	6,247	19.5	B	7,109	22.0	C
W-9	SR-60	Haven Ave to Archibald Ave	6,671	26.3	C	7,844	33.1	D	6,570	26.0	C	9,510	33.8	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	5,660	21.3	C	5,717	21.6	C	6,310	21.3	C	5,220	22.3	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,568	22.6	C	6,273	22.6	C	6,830	22.6	C	4,330	23.2	C
W-23	SR-60	University Ave to Martin Luther King	7,050	38.2	**E**	7,050	44.9	**F**	5,580	37.9	**E**	5,820	45.7	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	34.2	D	7,050	34.5	D	6,940	34.5	D	7,100	36.1	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,700	30.6	D	3,279	20.4	C	7,270	31.1	D	8,230	21.4	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,207	12.1	B	2,252	12.5	B	3,240	13.3	B	3,070	13.0	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,000	7.2	A	1,960	8.1	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	33.4	D	7,050	36.0	**E**	5,870	33.2	D	7,590	36.4	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	8,102	29.2	D	11,750	> Capacity	**F**	5,150	29.5	D	7,020	>Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	5,036	23.0	C	6,139	28.5	D	3,410	23.4	C	3,160	28.2	D
W-95	I-215	Eucalyptus Ave to SR-60	6,019	21.4	C	7,017	25.6	C	2,680	21.8	C	5,260	25.2	C
W-73	I-215	SR-60 to Columbia Ave	7,050	35.1	**E**	7,050	34.9	D	3,850	35.0	**E**	7,000	34.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,311	21.8	C	6,261	21.9	C	7,070	21.7	C	6,990	21.7	C
W-81	I-215	Mill St to 2nd St	7,050	24.5	C	6,421	22.7	C	7,100	24.5	C	7,030	22.6	C
W-82	I-215	5th St to Baseline Rd	7,050	22.5	C	5,762	18.0	B	6,010	22.5	C	7,040	18.0	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,646	13.9	B	3,125	11.7	B	3,670	14.1	B	3,080	11.5	B

▨ Indicates that the LOS exceeds the target level

Table 31: Existing Plus Phase 1 Freeway Weaving Impacts and Mitigations

			Northbound / Eastbound												
			Determination of Impact					Existing Plus Phase 1 & Mitigations							
			AM Peak Hour		PM Peak Hour				AM Peak Hour			PM Peak Hour			
ID	Freeway	Weaving Segment	No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Sgement type	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
W-73	I-215	SR-60 to Columbia Ave	F	F	C	C	Yes	Basic	4,280	17.1	B	4,370	16.5	B	Extend auxillary lane beyond off-ramp
								On-Ramp	2,020	20.4	C	1,690	18.4	B	
								Off-Ramp	330	21.2	C	540	21.7	C	
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	D	E	Yes	Weaving	4,670	19.1	B	3,700	28.7	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound												
			Determination of Impact					Existing Plus Phase 1 & Mitigations							
			AM Peak Hour		PM Peak Hour				AM Peak Hour			PM Peak Hour			
ID	Freeway	Weaving Segment	No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Sgement type	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
W-23	SR-60	University Ave to Martin Luther King	E	E	F	F	Yes	Weaving	5,580	29.5	D	5,820	35.4	E	Add 1 mixed flow lane
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	D	D	D	E	Yes	Weaving	6,940	26.8	C	7,100	28.0	D	Add 1 mixed flow lane
W-48	SR-91	Arlington Ave to Central Ave	D	D	E	E	Yes	Weaving	5,870	25.8	C	7,590	28.3	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Ramp LOS

Table 32 compares the freeway ramp level of service on SR-60 under the Existing and the Existing Plus Phase 1 Scenarios. Table 33 identifies the one ramp segment where the Project would have a significant impact, namely:

- SR-60 eastbound On-Ramp from Martin Luther King Blvd.

Table 33 shows the mitigation measures needed to reduce the impacts of the WLC to a less-than-significant level. The mitigation measure shown in Table 33 is what would be needed to reduce the impact of the project to a less-than-significant level. While this measure is feasible in the sense that if it could be constructed it would achieve the target LOS, this does not necessarily mean that it passes other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 32: Existing Plus Phase 1 Freeway Ramp LOS

				Existing Conditions								Existing Plus Phase 1 Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	F	8,384	1,016	34.3	F	9,360	380	40.4	F	8,280	1,040	34.3	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C	5,760	500	15.1	B	6,780	1,230	22.3	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A	1,860	430	4.9	A	2,140	560	5.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B	1,740	110	17.7	B	1,730	120	16.6	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B	1,850	410	21.1	C	1,850	420	19.9	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B	1,580	20	18.0	B	1,580	20	17.1	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B	1,260	10	14.2	B	1,270	10	13.6	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B	1,770	10	13.5	B	1,670	10	13.3	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B	1,660	680	15.8	B	1,840	410	15.0	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B	2,340	150	20.0	B	2,250	90	19.0	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B	2,290	410	18.0	B	2,300	510	17.8	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A	6,940	670	2.6	A	7,100	520	3.9	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C	6,490	600	22.1	C	6,370	980	25.4	C

▨ Indicates that the LOS exceeds the target level

Table 33: Existing Plus Phase 1 Freeway Ramp Impacts and Mitigations

				Determination of Impact					Existing Plus Phase 1 & Mitigations								Mitigation Measures Required to Reduce Impact to Less-Than-Significant
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	F	F	F	F	Yes	9,360	380	26.6	C	8,280	1,040	26.5	C	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

6. EXISTING PLUS BUILD-OUT SCENARIO

The analysis of the Existing Plus Build-out Scenario shows the effects that project-related traffic would have on the local and regional road system if the WLC's land uses and internal road network were built-out in full in 2018 and no changes occurred to the off-site land uses or roadway system.

A. ROAD SEGMENT LOS, IMPACTS, AND MITIGATIONS

Table 34 compares the LOS for study roadway segments under the Existing Conditions and the Existing Plus Build-out Scenario. As shown, under Existing Plus Build-out Scenario 3segments exceed the target LOS set by General Plan policy, namely:

- Gilman Springs Rd. between SR-60 and Alessandro Blvd. exceeds the target LOS under both Existing Conditions and under the Existing Plus Build-out Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Build-out Scenario.
- Gilman Springs Rd. from Alessandro Blvd. to Bridge St. exceeds the threshold of significance under both Existing Conditions and under the Existing Plus Build-out Scenario. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Build-out Scenario.
- Redlands Boulevard from Eucalyptus Avenue to the SR-60 eastbound ramps. Widening the road from two lanes to four lanes would allow it to achieve the target LOS under the Existing Plus Build-out Scenario.

In each case adding lanes would achieve the LOS target set in the General Plan. The feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 34: Existing Plus Build-out Road Segment Impacts and Mitigations

					Existing Conditions			Existing Plus Build-out Conditions					
	Roadway	From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Project Impact Significant?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	2U	1,174	A	2U	3,670	A			
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	4D	32,466	D			
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	797	A	2U	3,712	A			
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	6D	33,184	A			
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			4U	3,448	A			
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	8,262	B			
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	13,283	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,479	A	4U	11,714	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	15,602	B			
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	7,503	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	8,746	A			
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	5,305	A	2U	6,512	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	2U	22,065	**F**	2U	21,405	**F**	Yes	Widen to 4 lanes	D
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	19,394	**F**	2U	18,693	**F**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	2U	11,346	**E**	2U	13,002	**F**	Yes	Widen to 4 lanes	A
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	2U	8,914	C	2U	7,890	B			
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,325	A	2U	300	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,149	B	2U	6,857	A			
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	527	A	4U	13,902	A			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

B. INTERSECTION LOS, IMPACTS, AND MITIGATIONS

Figure 41 shows the turning movement volumes under the Existing Plus Build-out Scenario (see Figure 11 for the key map).Table 35 presents the LOS for the study intersections under the Existing Plus Build-out Scenario in the AM and PM peak hours. Detailed worksheets are presented in Appendix D. As shown in the table, there are 25 study intersections where the LOS would exceed the general plan target. In 20 of these locations the LOS would have been worse than the target for at least one peak hour (AM or PM) even in the No Project scenario. The Project would cause the LOS to exceed the target in 2 locations that would otherwise have met the target in both peak hours, and in 3 cases the Project would case the LOS to exceed the target in both peak hours when it would otherwise have exceeded the target in only one of the peak hours (AM or PM). The intersections with poor LOS under the Existing Plus Buildout Scenario are:

Would Exceed Threshold of Significance Under Both the Existing Conditions and the Existing Plus Buildout Scenario

- IN-10 Redlands Blvd./Locust Ave. (AM, PM)
- IN-20 Oliver St./Alessandro Blvd. (AM)
- IN-23 Redlands Blvd/Alessandro Blvd (PM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-83 Martin Luther King Blvd/Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd/I-215 NB Ramps (AM, PM)
- IN-86 Central Ave/Chicago Ave (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM)
- IN-95 Alessandro Blvd./Chicago Ave. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-122 Bridge St./Ramona Expy. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave) SB/Gilman Springs Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Would Exceed Threshold of Significance Under the Existing Plus Buildout Scenario (only)

- IN-18 Redlands Blvd/Eucalyptus Ave (PM)
- IN-36 Moreno Beach Drive & Ironwood Avenue (AM)
- IN-37 Moreno Beach Dr./SR-60 EB Ramps (AM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (PM),

Table 36 identifies the 17 intersections where the Project has significant impacts[51] and the mitigation measures that would reduce the impacts to a less-than-significant level. The feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

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[51] In some places, such as Intersection 23, where the LOS for the Existing Plus Buildout is worse than the target LOS but the Project does not have a significant impact. This is because the Project reduces delay through the intersection compared with the No-Project scenario.

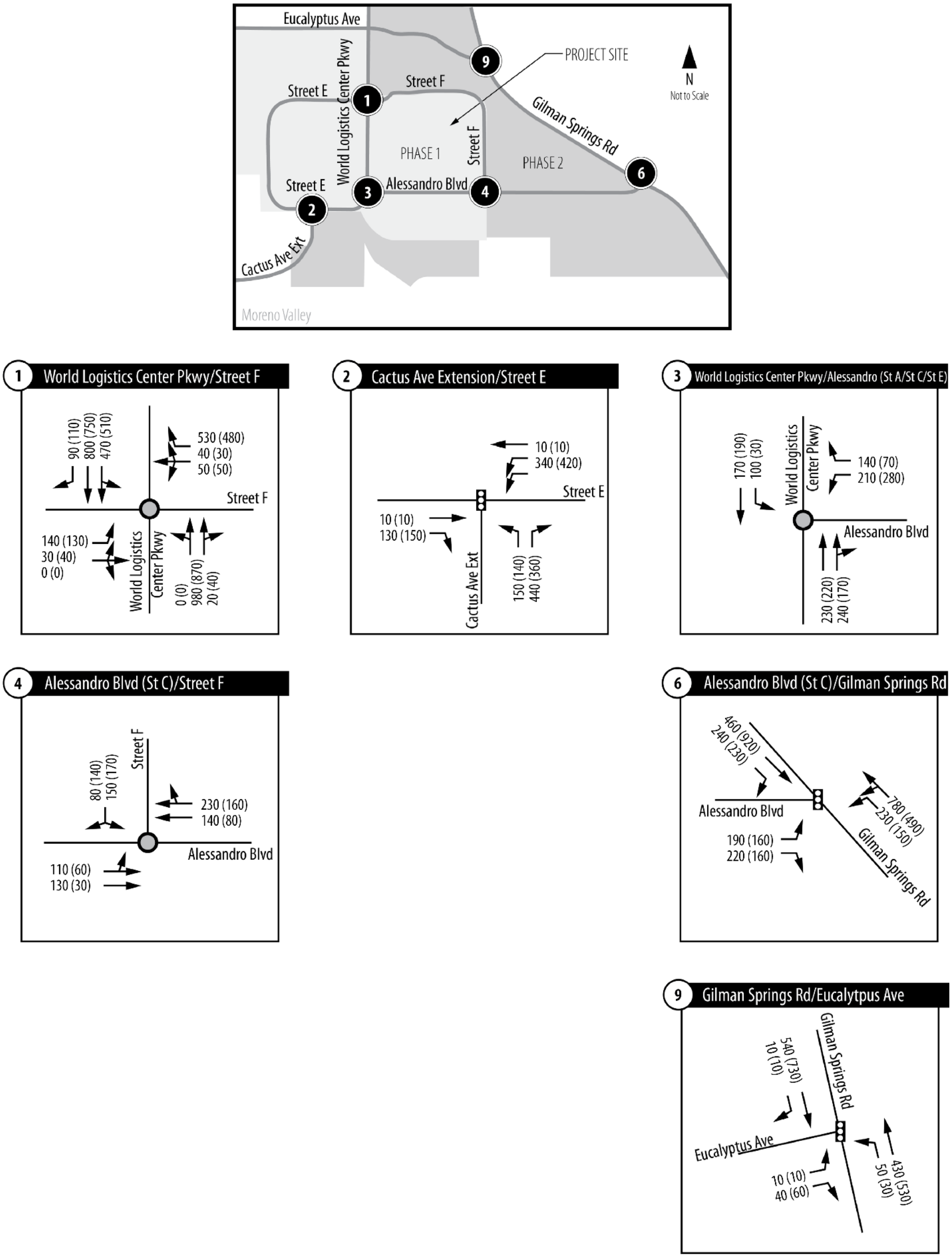

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario

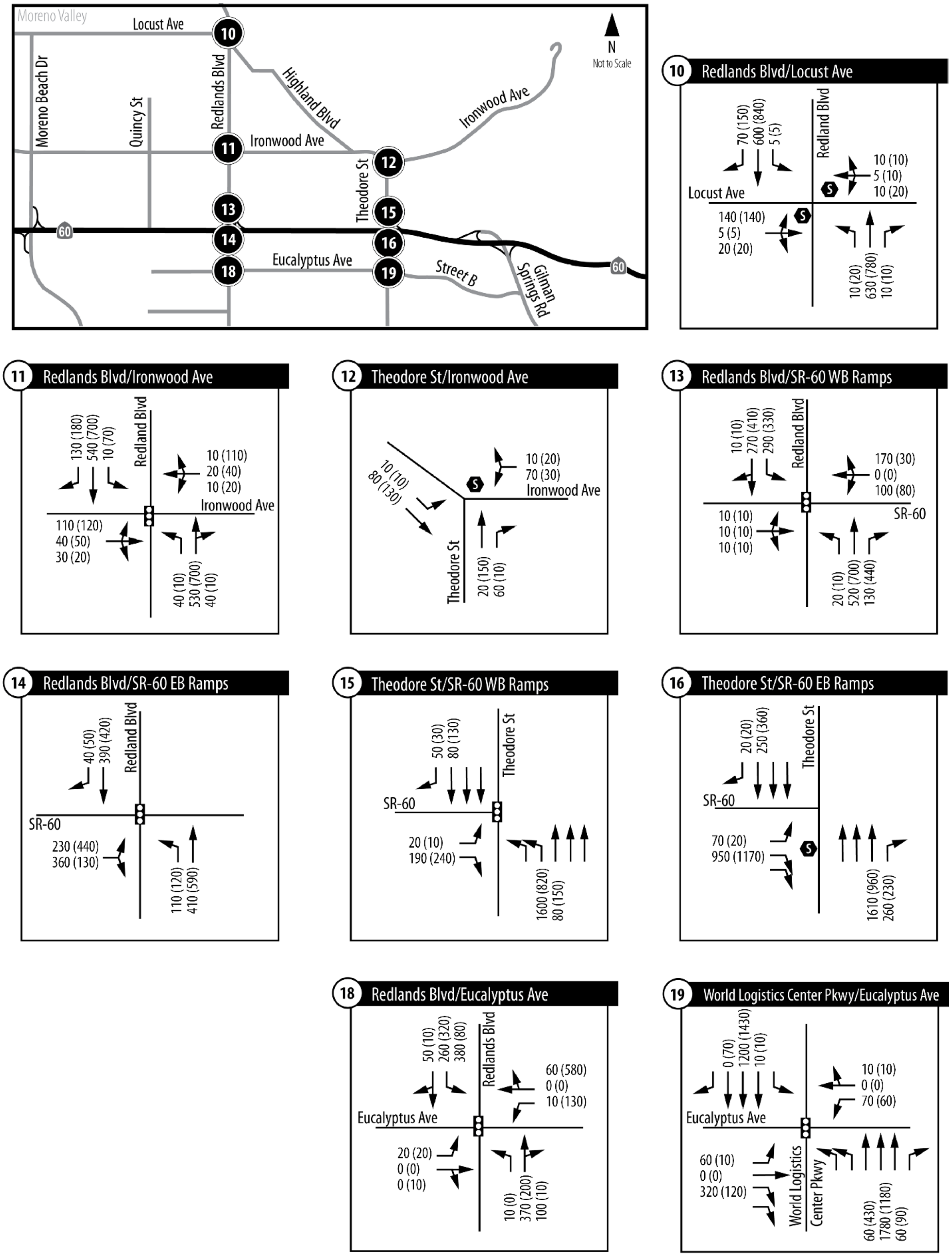

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (B)

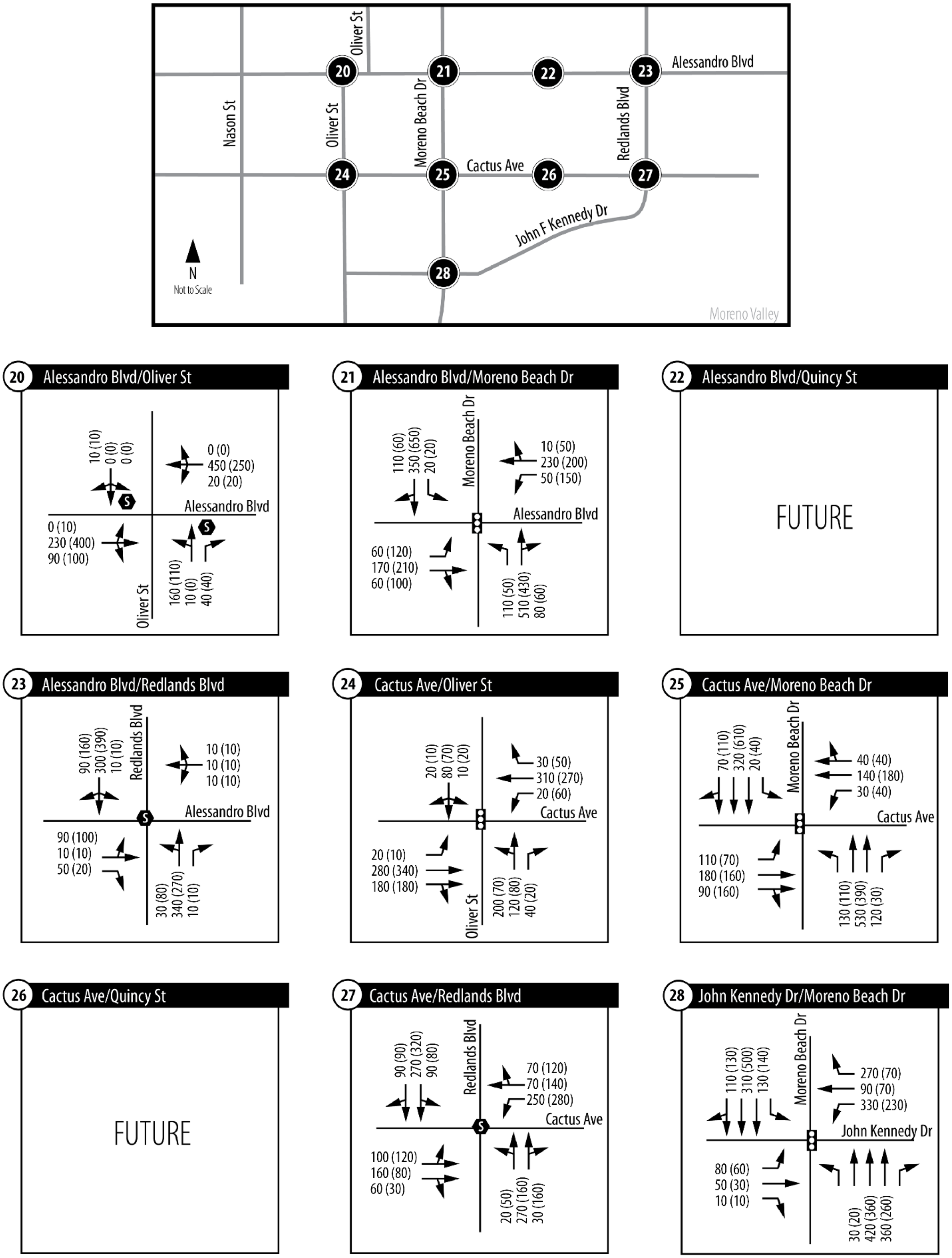

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (C)

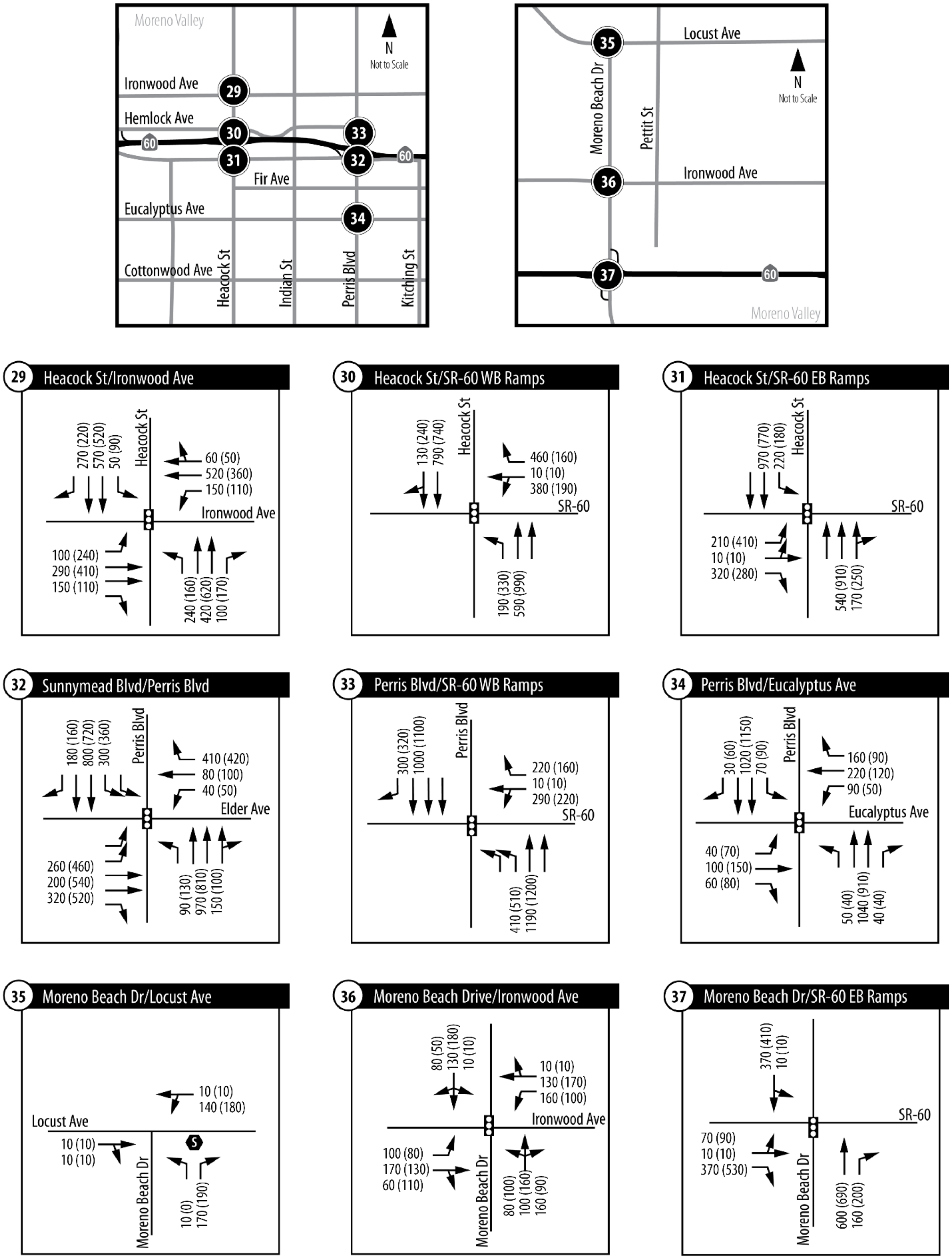

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (D)

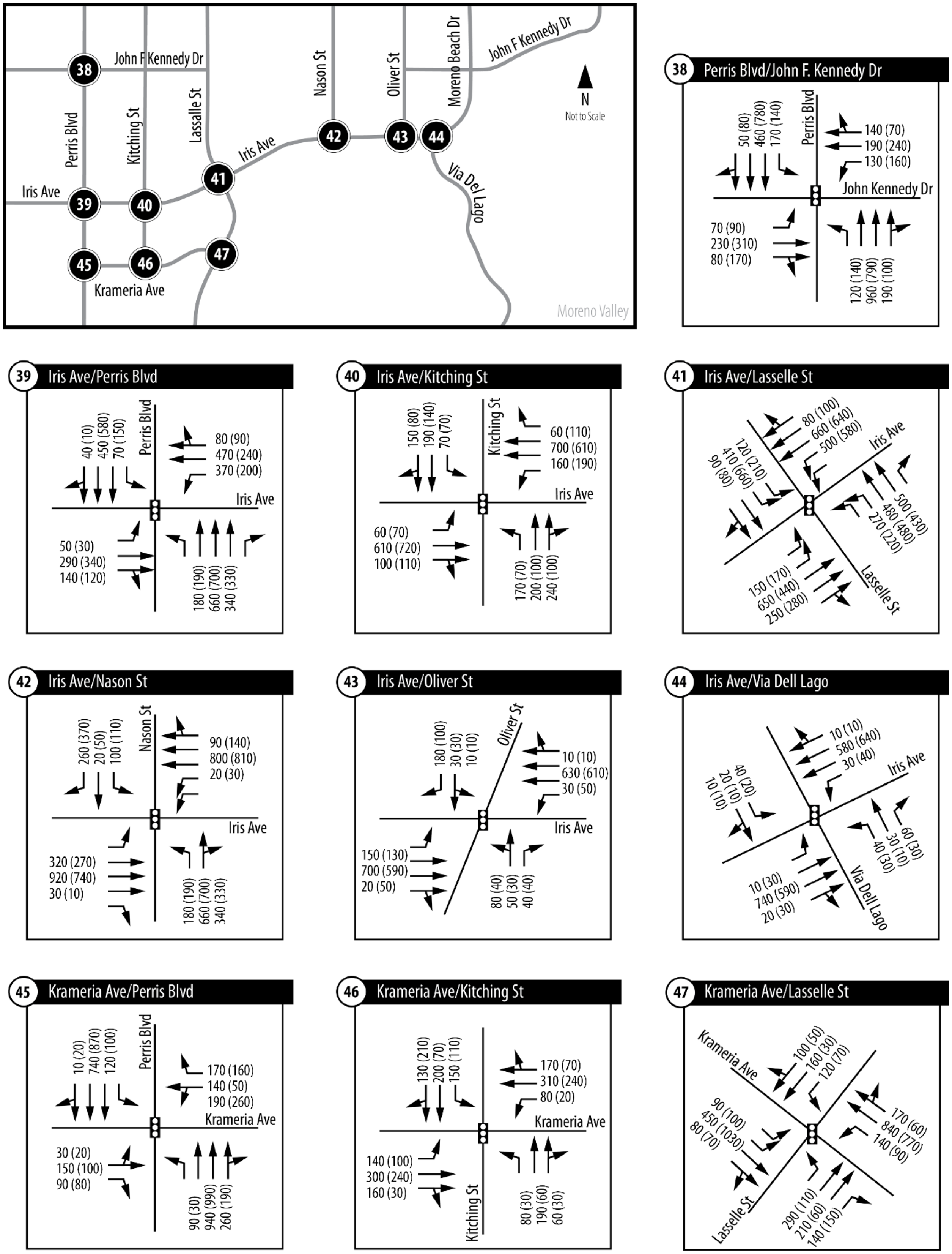

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (E)

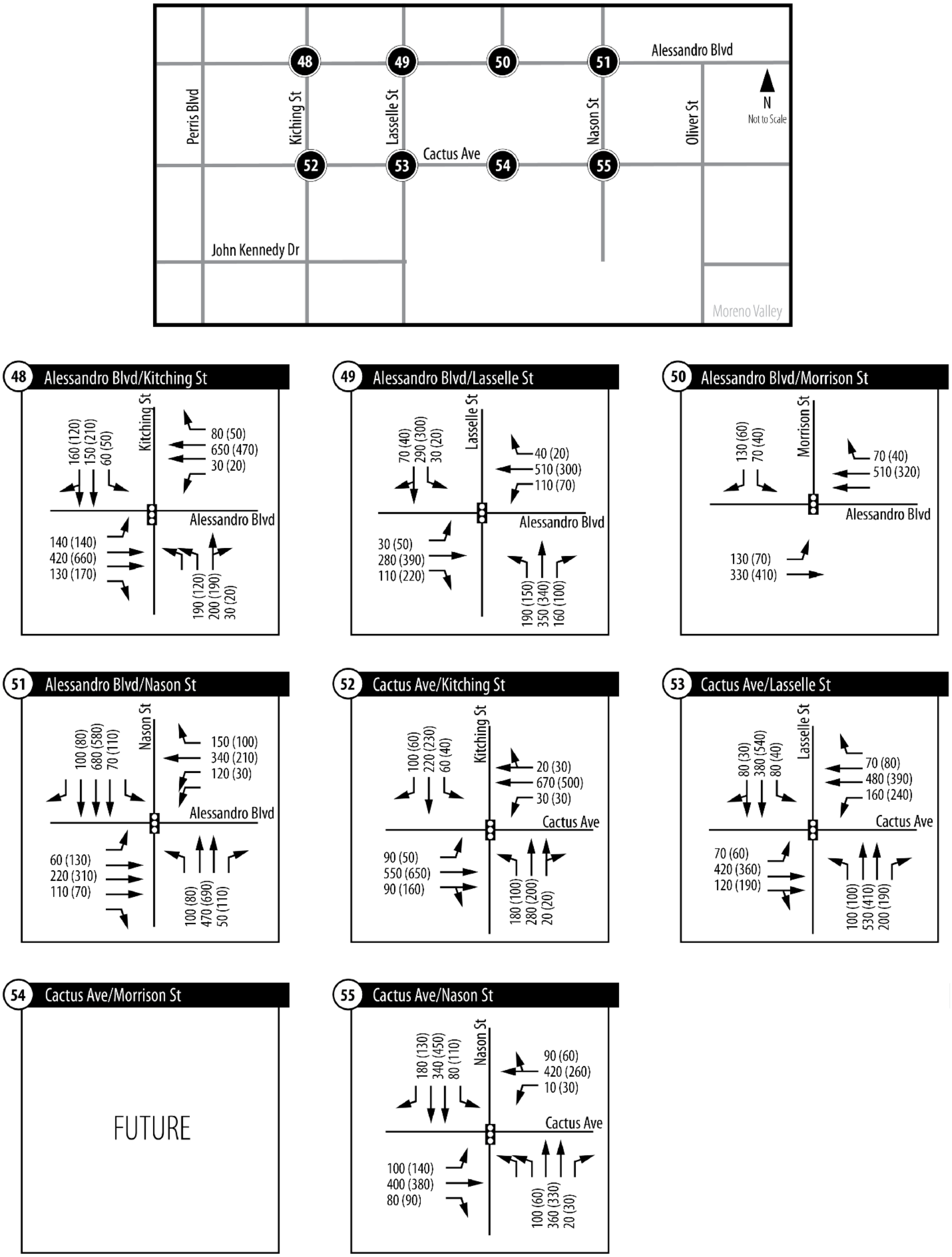

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (F)

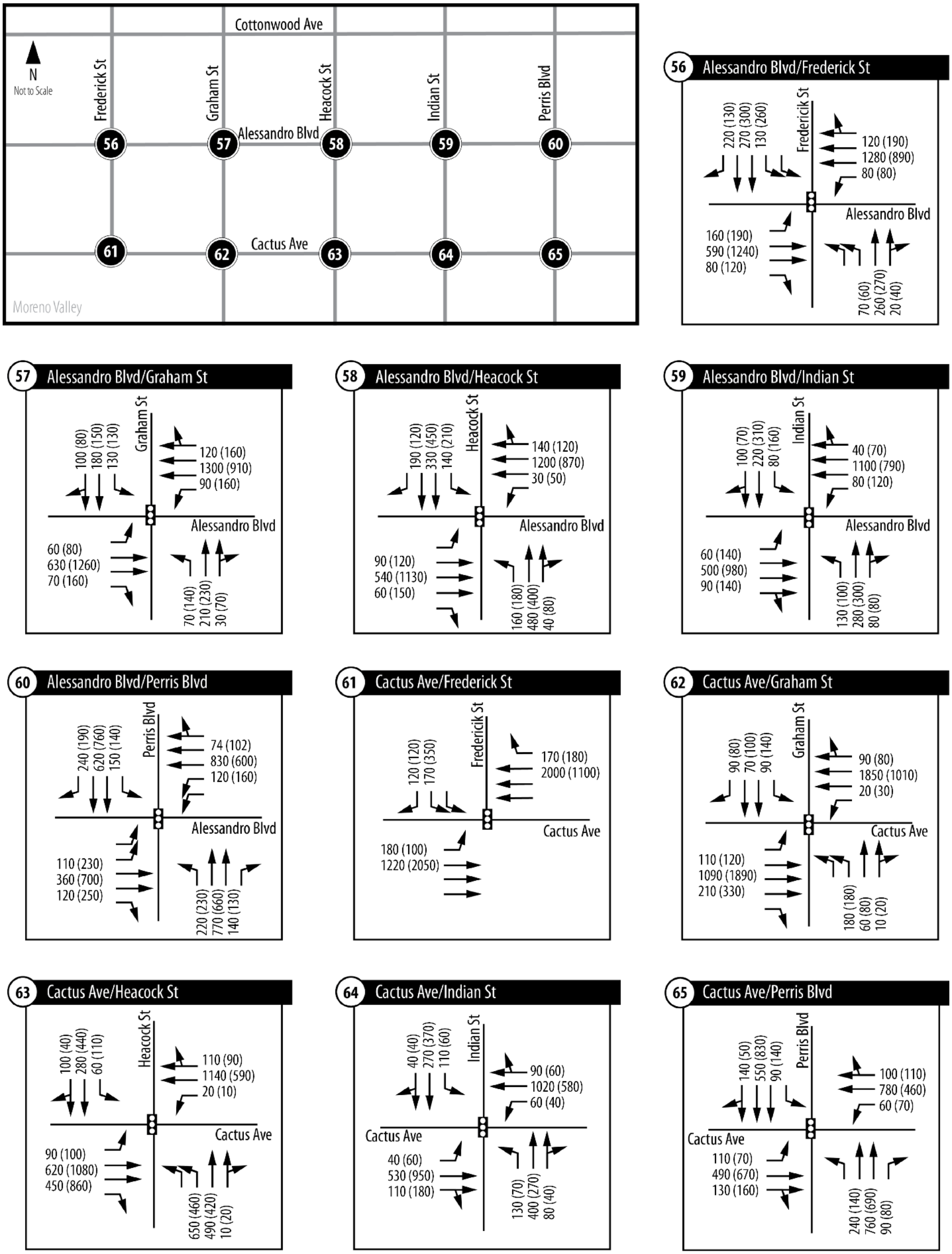

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (G)

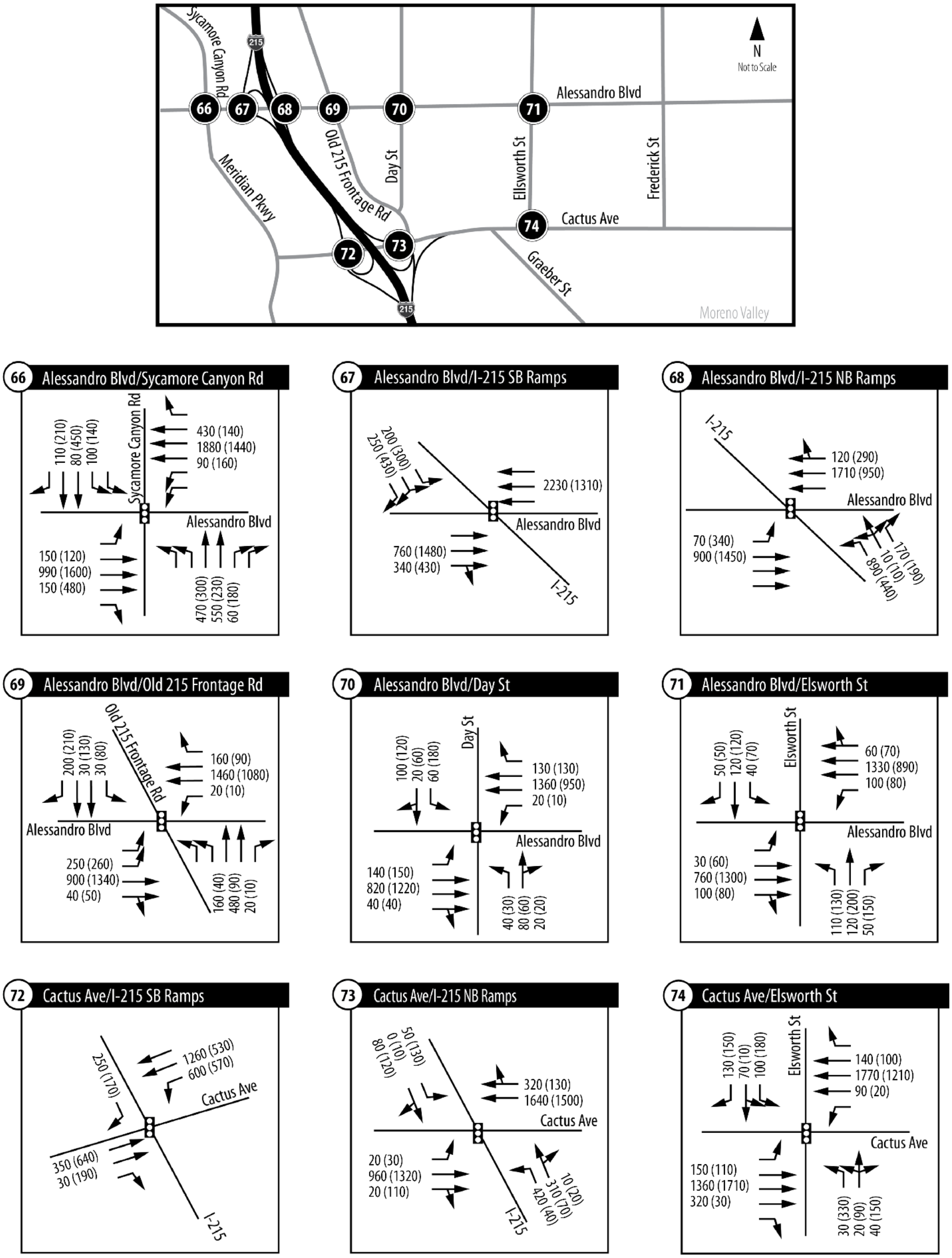

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (H)

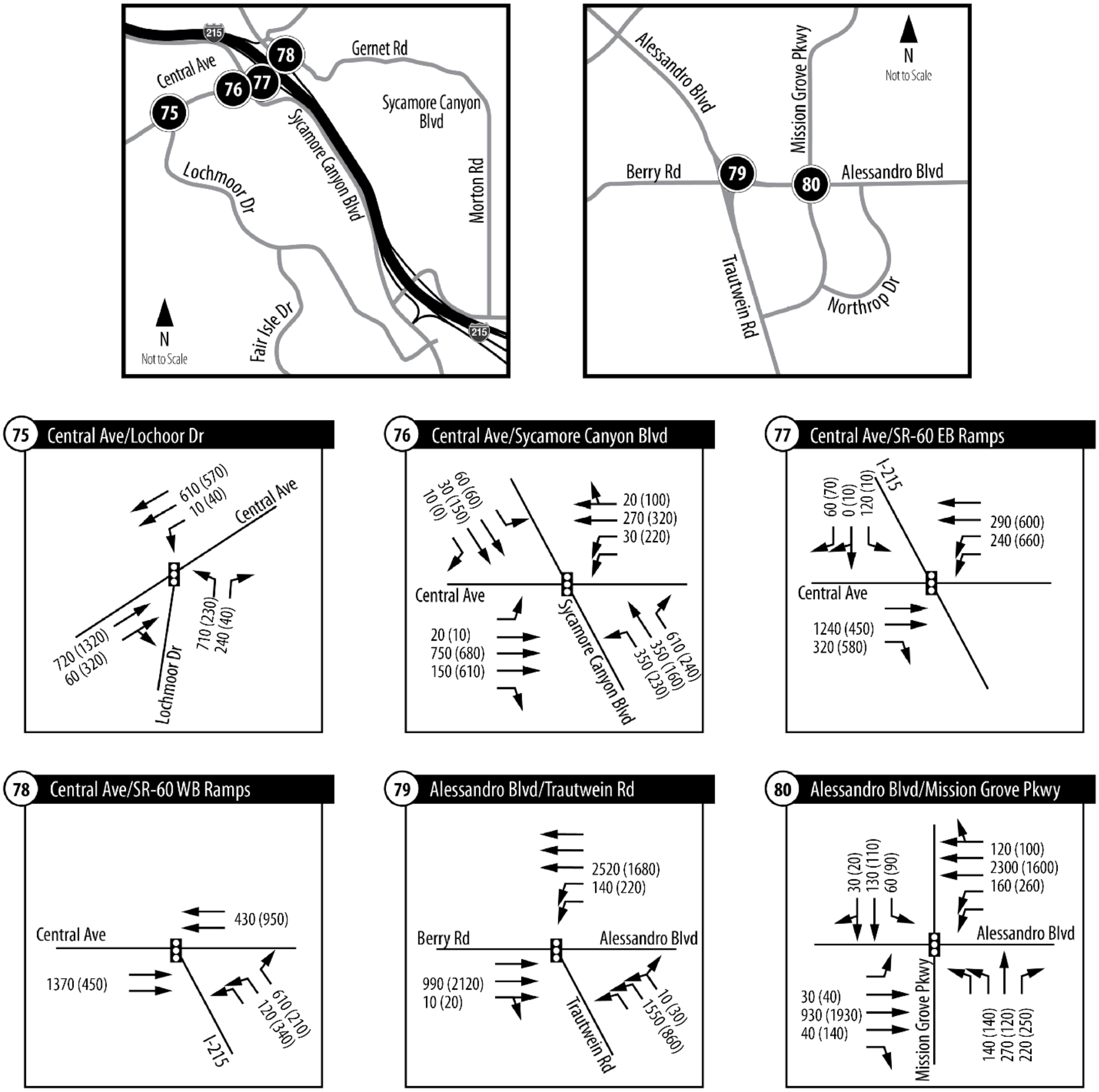

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (I)

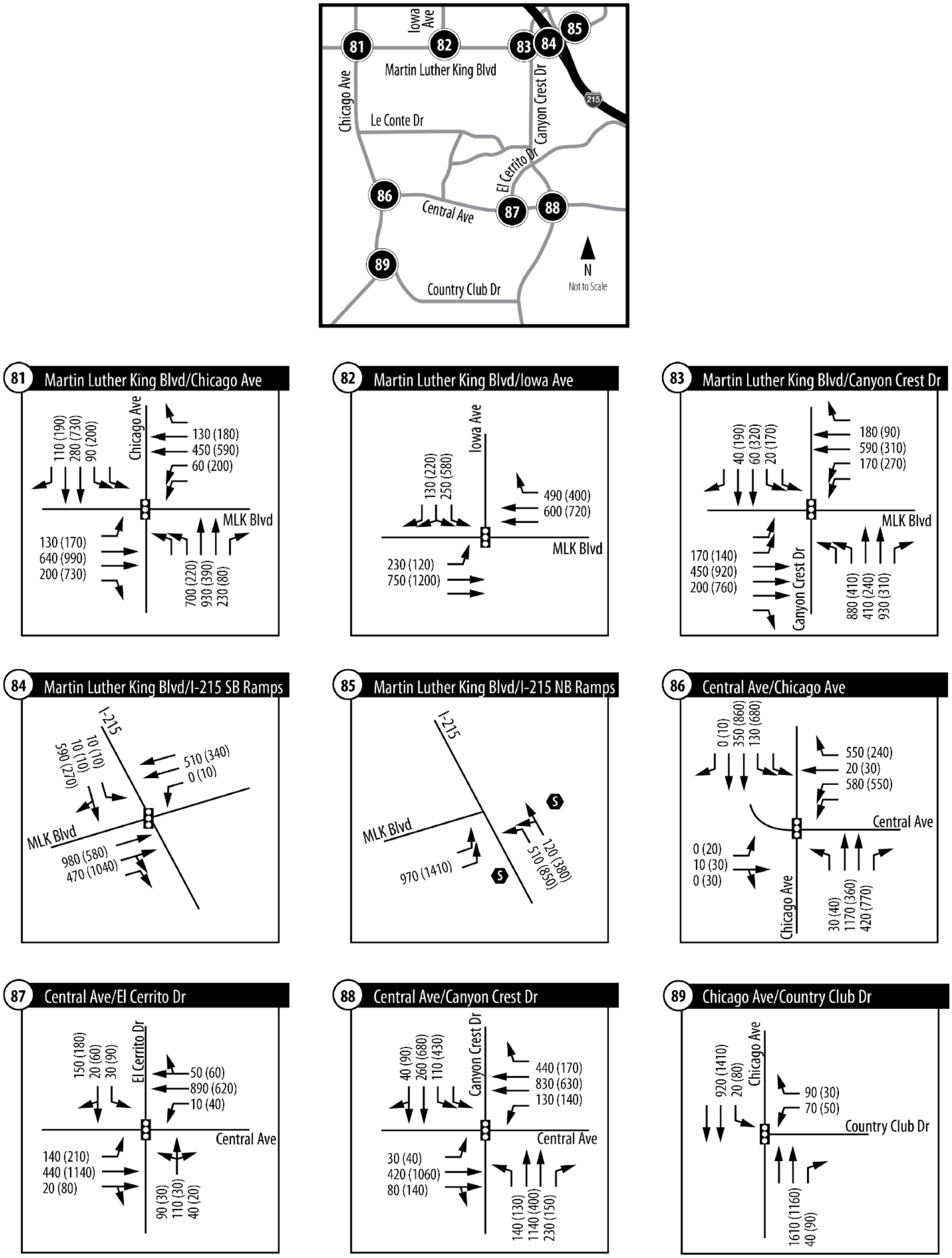

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (J)

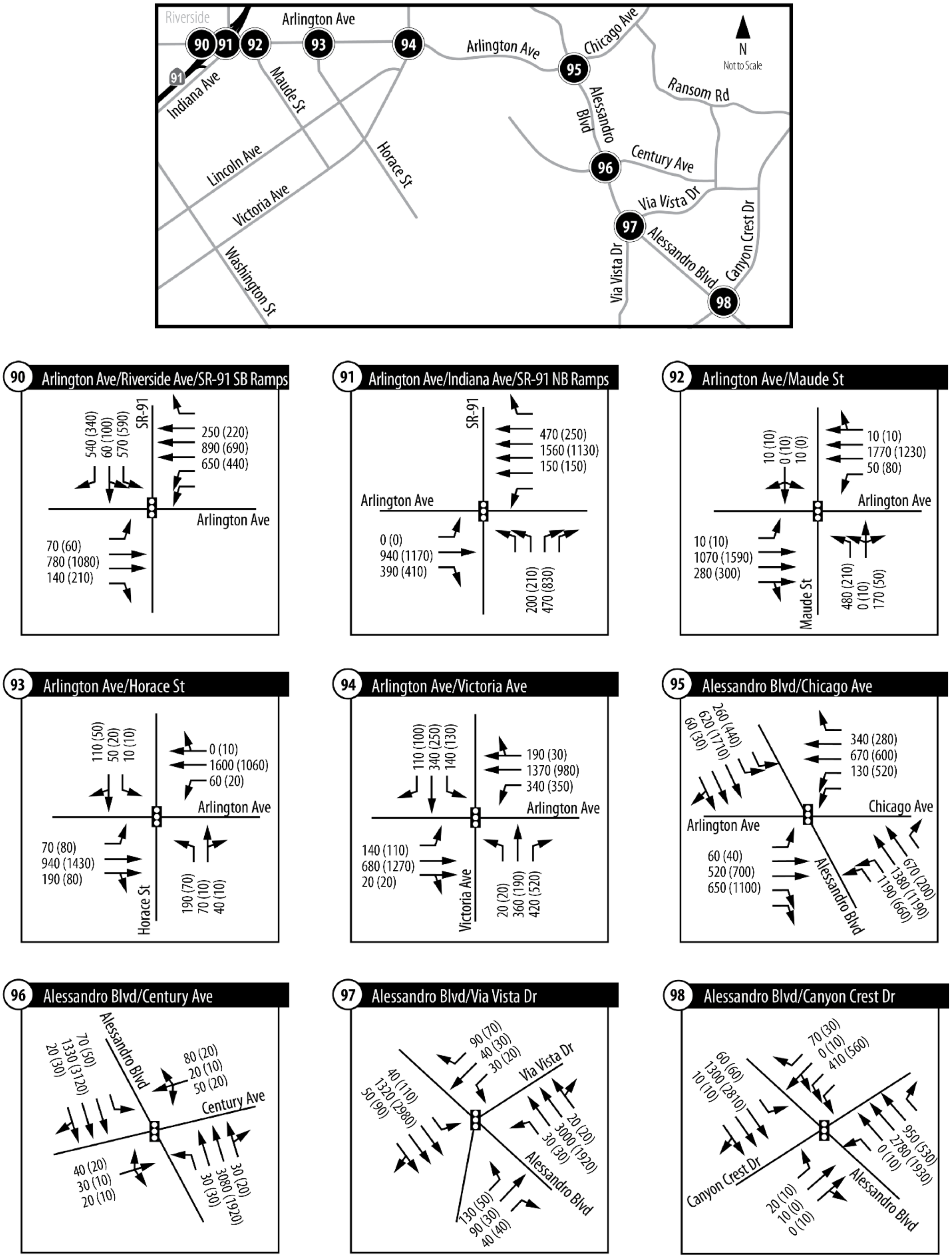

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (K)

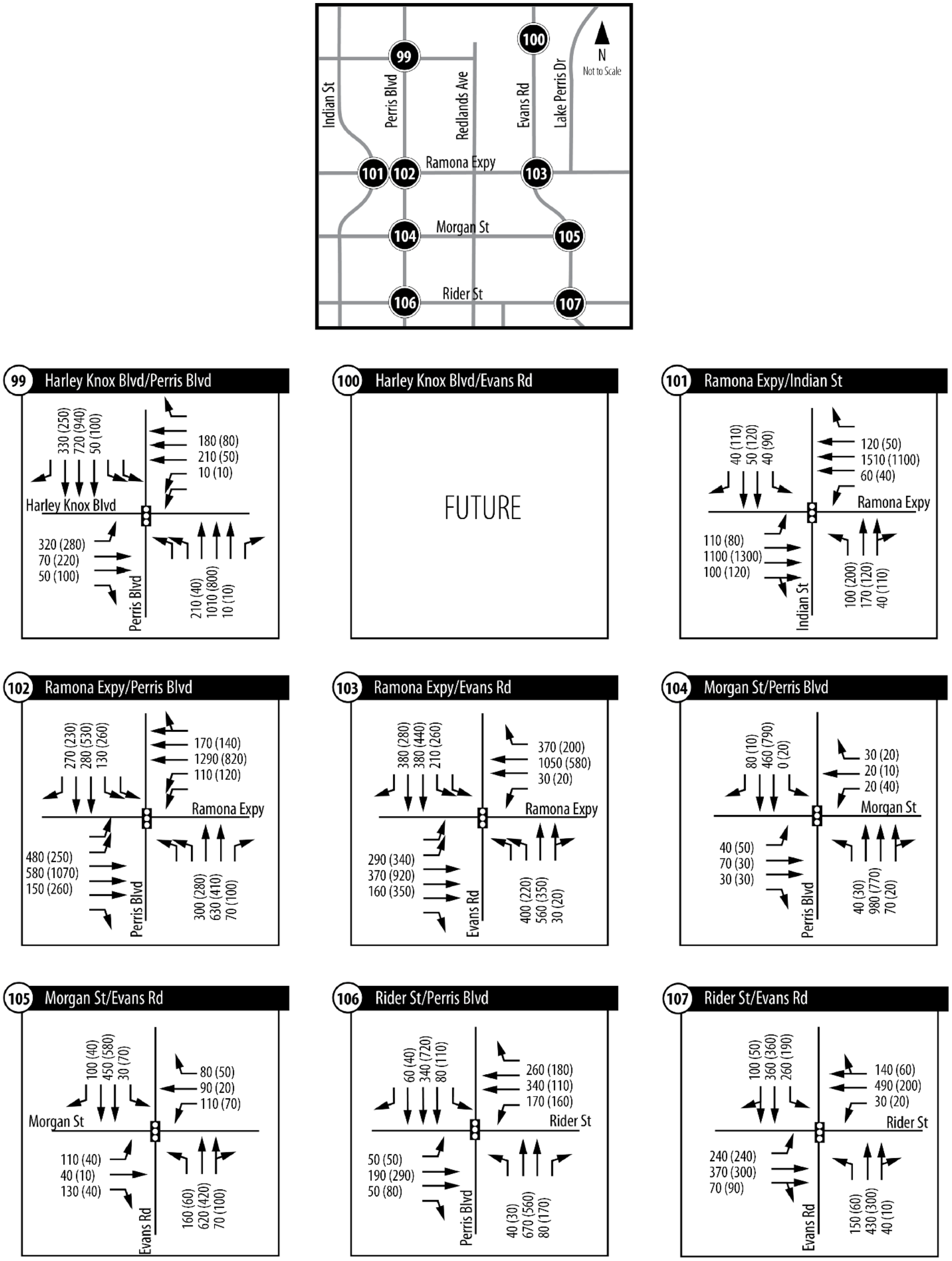

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (L)

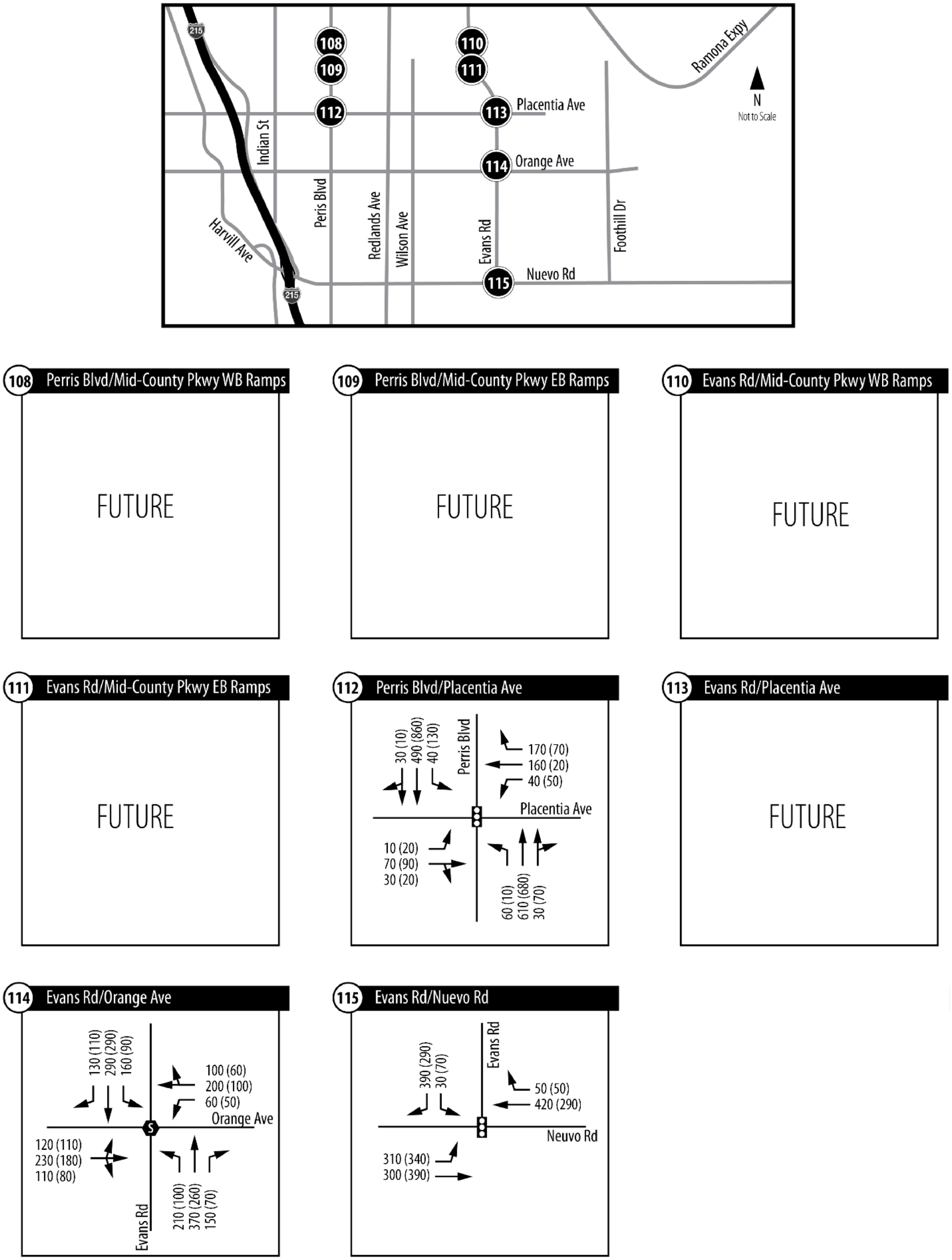

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (M)

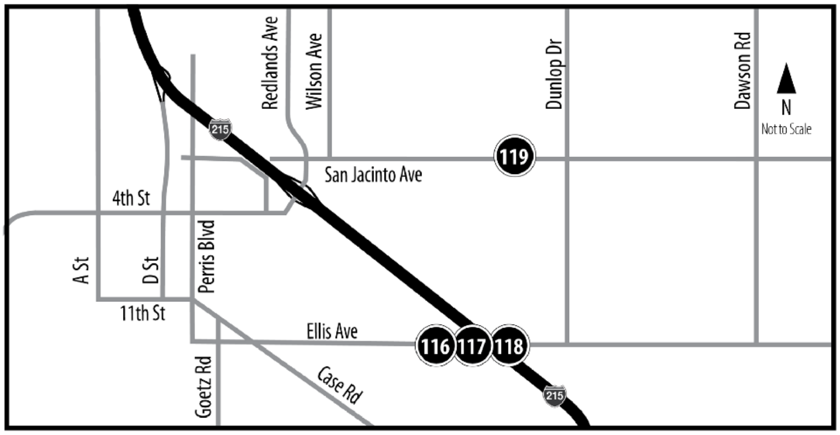

116 Ellis Ave/Evans Rd

FUTURE

117 Ellis Ave/I-215 SB Ramps

FUTURE

118 Ellis Ave/I-215 NB Ramps

FUTURE

119 Evans Rd/San Jacinto Ave

FUTURE

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (N)

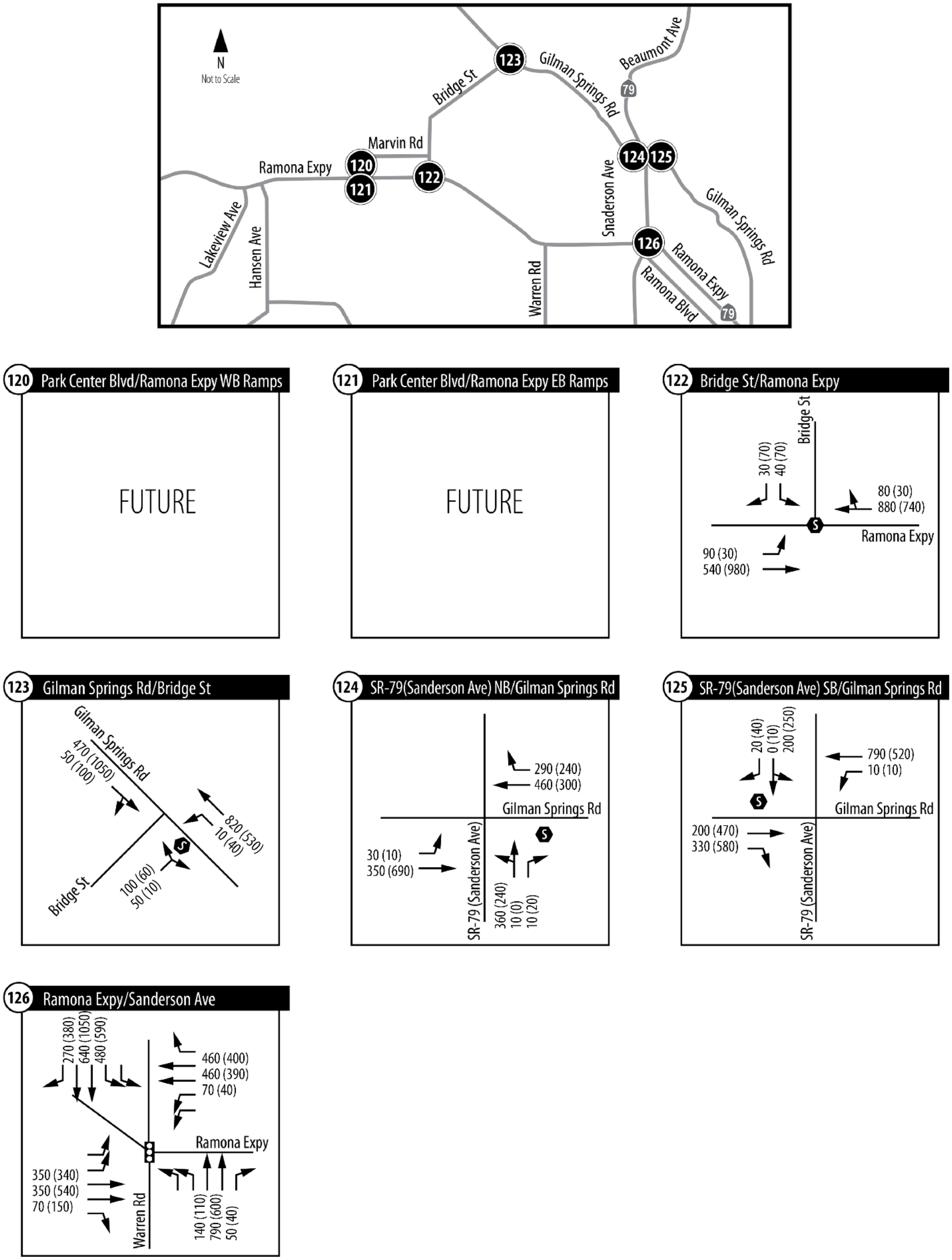

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (O)

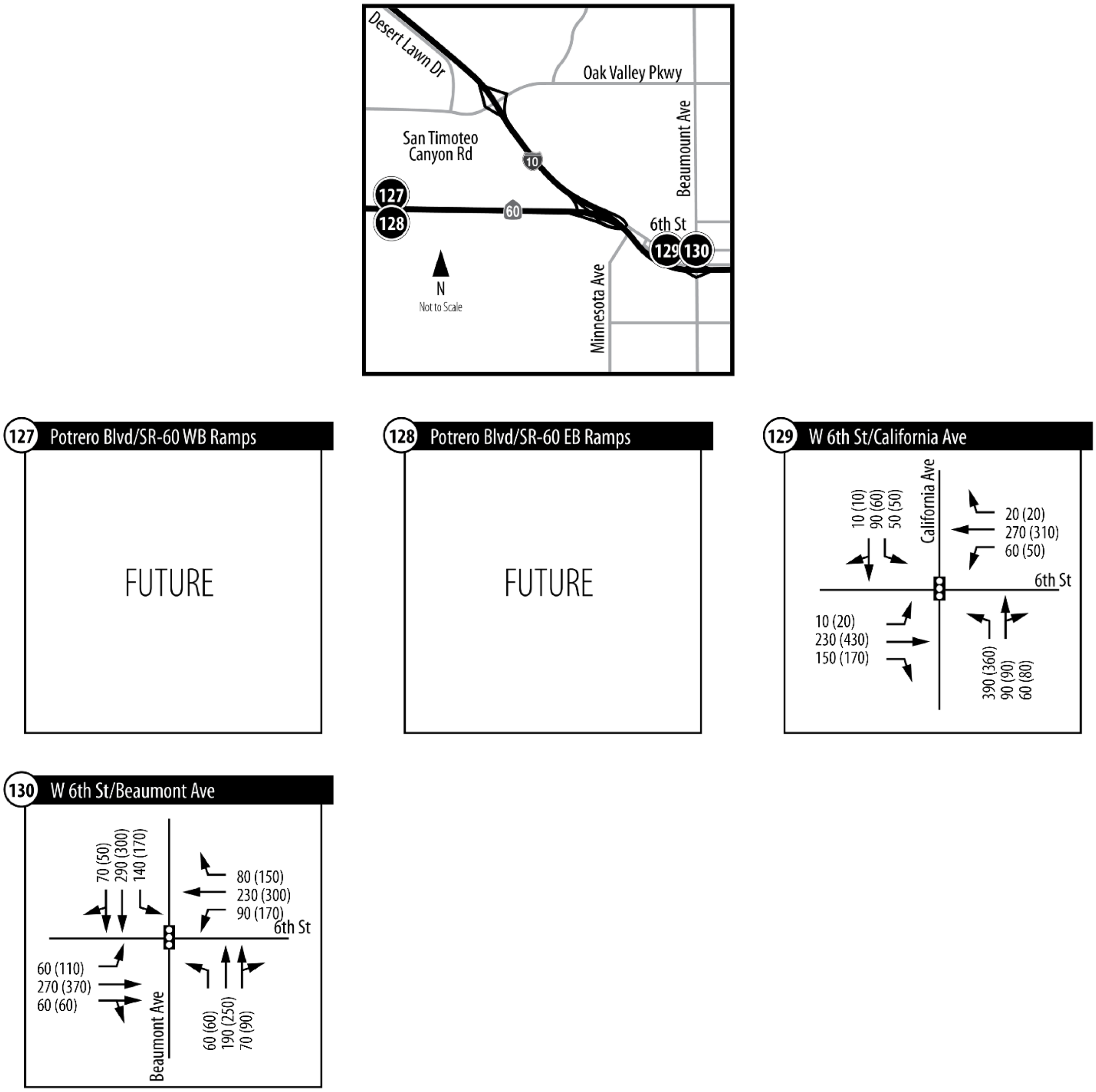

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (P)

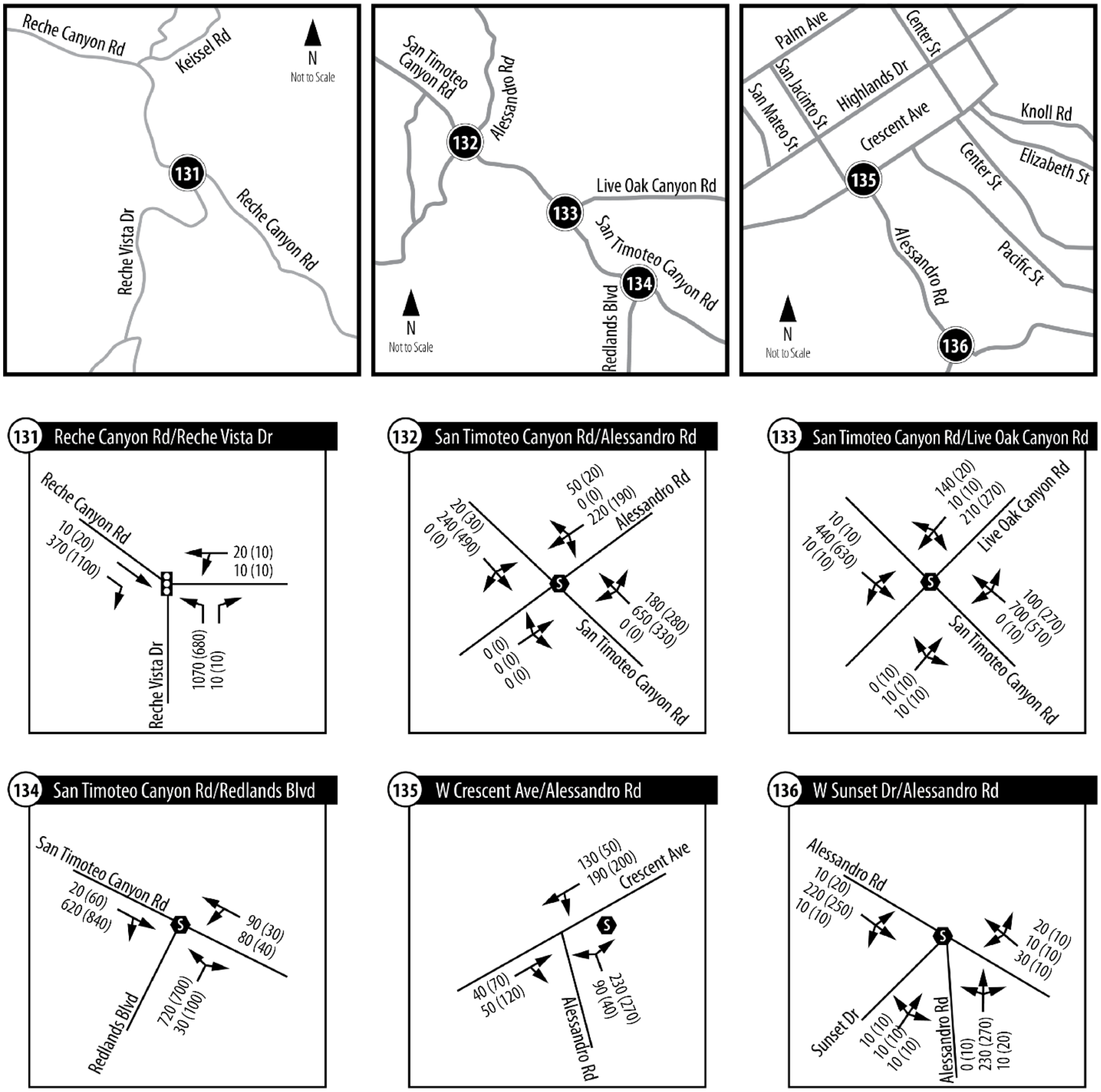

Figure 41: Turning Movement Volumes (PCE) under Existing Plus Build-out Scenario (Q)

Table 35: Intersection LOS under the Existing Plus Build-out Scenario

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Build-out		
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.6	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.3	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.4	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.7	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	12.3	B	SIGNAL	13.6	B
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.2	C	SIGNAL	29.4	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	8.5	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	16.3	B	SIGNAL	28.0	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.0	A	SIGNAL	23.2	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.7	A	SIGNAL	24.1	C
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.3	A	SIGNAL	4.0	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	22.8	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.3	A	SIGNAL	28.9	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	74.5	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	26.9	C	SIGNAL	34.1	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	23.7	C	AWS	17.6	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	20.8	C	SIGNAL	22.3	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	16.5	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	11.5	B	AWS	22.7	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	20.5	C	SIGNAL	26.1	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	31.8	C	SIGNAL	32.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.2	C	SIGNAL	28.9	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	18.8	B	SIGNAL	22.2	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.9	C	SIGNAL	27.7	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	16.1	B	SIGNAL	19.8	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.4	B	SIGNAL	21.0	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.4	A	CSS	9.2	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	59.5	**E**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	58.2	**E**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.6	C	SIGNAL	35.7	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	37.3	D	SIGNAL	46.0	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	21.7	C	SIGNAL	25.0	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	31.2	C	SIGNAL	38.5	D
IN-42	Nason St/Iris Ave	C	SIGNAL	16.1	B	SIGNAL	17.3	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	20.5	C	SIGNAL	25.0	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.9	B	SIGNAL	12.4	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.6	C	SIGNAL	33.1	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	22.3	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	21.8	C	SIGNAL	23.3	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.9	C	SIGNAL	24.6	C

Table 35: Intersection LOS under the Existing Plus Build-out Scenario (continued)

			Existing Conditions			Existing Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	29.9	C	SIGNAL	31.4	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.1	A	SIGNAL	9.1	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	22.4	C	SIGNAL	23.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	27.3	C	SIGNAL	28.6	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.9	C	SIGNAL	28.3	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	26.3	C	SIGNAL	27.4	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.9	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.3	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	27.0	C	SIGNAL	28.3	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	22.6	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	35.3	D	SIGNAL	35.6	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.6	B	SIGNAL	11.0	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	20.0	C	SIGNAL	21.2	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	40.3	D	SIGNAL	40.9	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	27.6	C	SIGNAL	28.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	68.4	**E**	SIGNAL	62.7	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.7	C	SIGNAL	30.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.3	A	SIGNAL	6.5	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	18.9	B	SIGNAL	20.0	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.7	B	SIGNAL	16.1	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	18.4	B	SIGNAL	18.8	B
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.6	A	SIGNAL	6.8	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	35.6	D	SIGNAL	37.7	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	22.4	C	SIGNAL	20.8	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	23.0	C	SIGNAL	27.0	C
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	32.2	C	SIGNAL	24.8	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	12.5	B	SIGNAL	13.5	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	14.3	B	SIGNAL	26.3	C
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	35.0	C	SIGNAL	24.4	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	32.2	C	SIGNAL	40.7	D
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	44.6	D	SIGNAL	39.2	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	15.1	B	SIGNAL	17.4	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	77.8	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	18.5	B	SIGNAL	19.8	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.4	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	41.4	D
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	14.5	B	SIGNAL	15.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.4	D	SIGNAL	33.6	C
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	8.1	A	SIGNAL	8.6	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.2	C	SIGNAL	39.0	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.5	B	SIGNAL	15.1	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	21.5	C	SIGNAL	24.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.8	B	SIGNAL	13.2	B

Table 35: Intersection LOS under the Existing Plus Build-out Scenario (continued)

			Existing Conditions			Existing Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	SIGNAL	62.7	**E**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	38.0	D	SIGNAL	39.6	D
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	27.0	C	SIGNAL	27.9	C
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	28.9	C	SIGNAL	30.2	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	32.8	C	SIGNAL	30.0	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	32.1	C	SIGNAL	33.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	15.4	B	SIGNAL	14.2	B
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	36.0	D	SIGNAL	41.6	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	55.3	E	SIGNAL	58.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	7.7	A	SIGNAL	9.7	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.3	C	SIGNAL	28.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	27.6	C	SIGNAL	28.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	41.3	**D**	SIGNAL	41.3	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	19.2	B	SIGNAL	20.4	C
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.8	**D**	SIGNAL	42.9	**D**
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	CSS	64.1	**F**
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	CSS	90.3	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	150.8	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	40.9	**E**	CSS	67.9	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.6	D	SIGNAL	35.8	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	17.5	B	SIGNAL	18.7	B
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	12.1	B	SIGNAL	12.4	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.0	B	SIGNAL	18.4	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	AWS	87.8	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	AWS	136.3	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	AWS	124.1	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	13.4	B	CSS	14.4	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.1	A	AWS	9.5	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 35: Intersection LOS under the Existing Plus Build-out Scenario (continued)

			Existing Conditions			Existing Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.2	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.2	B	RABT	7.6	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.4	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	29.4	D	SIGNAL	18.8	B
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	73.0	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	47.0	D
IN-12	Theodore St/Ironwood Ave	D	CSS	8.5	A	CSS	9.2	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	21.2	C	SIGNAL	22.7	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	17.8	B	SIGNAL	20.9	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.1	A	SIGNAL	14.7	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.0	A	SIGNAL	2.3	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	2.6	A	SIGNAL	64.6	**E**
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.0	A	SIGNAL	20.4	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	19.3	C	CSS	24.9	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	29.3	C	SIGNAL	36.3	D
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	33.7	**D**	AWS	29.7	**D**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	17.1	B	SIGNAL	18.0	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	15.4	B	SIGNAL	16.4	B
IN-26	Quincy St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-27	Redlands Blvd/Cactus Ave	C	AWS	10.6	B	AWS	22.5	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.7	B	SIGNAL	20.2	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	33.4	C	SIGNAL	41.9	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	20.8	C	SIGNAL	21.1	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	13.9	B	SIGNAL	14.2	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	36.3	D	SIGNAL	37.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	18.5	B	SIGNAL	18.9	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	19.3	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	9.2	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	41.8	D	SIGNAL	50.6	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	61.8	**E**	SIGNAL	88.8	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.1	C	SIGNAL	34.3	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	56.6	**E**	SIGNAL	53.9	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	17.2	B	SIGNAL	21.1	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	34.4	C	SIGNAL	38.8	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	15.8	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	15.0	B	SIGNAL	15.9	B
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	10.7	B	SIGNAL	11.5	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	20.7	C	SIGNAL	26.0	C
IN-46	Kitching St/Krameria Ave	D	SIGNAL	14.6	B	SIGNAL	16.0	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	19.5	B	SIGNAL	20.1	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	20.0	C	SIGNAL	20.8	C

Table 35: Intersection LOS under the Existing Plus Build-out Scenario (continued)

			Existing Conditions			Existing Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.5	C	SIGNAL	23.3	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	7.5	A	SIGNAL	7.5	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	20.3	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	19.9	B	SIGNAL	20.5	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	29.9	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	18.8	B	SIGNAL	20.0	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	26.3	C	SIGNAL	27.0	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	30.5	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	36.7	D	SIGNAL	39.6	D
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	28.0	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	36.6	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	9.3	A	SIGNAL	9.5	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	31.8	C	SIGNAL	33.3	C
IN-64	Indian St/Cactus Ave	C	SIGNAL	23.1	C	SIGNAL	22.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	35.5	D	SIGNAL	35.6	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	29.0	C	SIGNAL	31.1	C
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.4	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	13.0	B	SIGNAL	14.5	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.4	B	SIGNAL	18.4	B
IN-70	Day St/Alessandro Blvd	D	SIGNAL	14.5	B	SIGNAL	17.4	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.8	C	SIGNAL	21.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	14.4	B	SIGNAL	14.4	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	7.0	A	SIGNAL	7.8	A
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	26.5	C	SIGNAL	28.2	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	8.8	A	SIGNAL	14.0	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	53.6	D	SIGNAL	53.2	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	15.8	B	SIGNAL	25.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.4	A	SIGNAL	8.1	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.8	B	SIGNAL	15.8	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	27.8	C	SIGNAL	27.3	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	51.6	D	SIGNAL	45.8	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	10.9	B	SIGNAL	11.2	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	34.2	C	SIGNAL	33.7	C
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.4	A	SIGNAL	8.0	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	91.4	**F**	SIGNAL	93.4	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	15.8	B	SIGNAL	16.7	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	39.6	D	SIGNAL	37.0	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	5.9	A	SIGNAL	6.0	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	24.2	C	SIGNAL	23.8	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	6.4	A	SIGNAL	6.9	A
IN-92	Arlington Ave/Maude St	D	SIGNAL	27.1	C	SIGNAL	27.6	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	5.9	A	SIGNAL	6.5	A

Table 35: Intersection LOS under the Existing Plus Build-out Scenario (continued)

ID	Study Intersection	LOS Standard	Existing Conditions			Existing Plus Build-out		
			Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	39.0	D	SIGNAL	41.6	D
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	78.5	E	SIGNAL	67.7	E
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	11.1	B	SIGNAL	11.9	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	22.8	C	SIGNAL	28.3	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	34.4	C	SIGNAL	29.8	C
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.0	C
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	20.1	C	SIGNAL	22.1	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.9	C	SIGNAL	28.7	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	36.1	D	SIGNAL	36.6	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	16.7	B	SIGNAL	15.2	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	21.3	C	SIGNAL	24.9	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	22.8	C	SIGNAL	23.6	C
IN-107	Evans Rd/Rider St	C	SIGNAL	28.4	C	SIGNAL	28.9	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	11.9	B	SIGNAL	13.5	B
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	39.0	E	AWS	41.3	E
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	23.8	C	SIGNAL	22.4	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	C	CSS	111.0	F	CSS	143.6	F
IN-123	Gilman Springs Rd/Bridge St	C	CSS	84.5	F	CSS	126.3	F
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	146.0	F	CSS	146.8	F
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	115.4	F	CSS	134.4	F
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	29.7	C	SIGNAL	29.3	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	31.4	C	SIGNAL	34.1	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	14.0	B	SIGNAL	15.2	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	17.5	B	SIGNAL	18.9	B
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.1	C	AWS	37.0	E
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	104.8	F	AWS	133.0	F
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	178.9	F	AWS	90.7	F
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	12.5	B	CSS	13.5	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.6	A	AWS	10.0	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 36: Existing Plus Build-out Intersection Impacts and Mitigations

			Existing Conditions			Existing Plus Build-out			Existing Conditions			Existing Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1 & Mitigations				
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hou		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level																				
IN-10	Redlands Blvd/Locust Ave	C	CSS	27.7	**D**	CSS	>180	**F**	CSS	73.0	**F**	CSS	>180	**F**	Signalize. Add 1 EB LT and 1 WB LT.	SIGNAL	7.7	A	10.6	B
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	4	A	SIGNAL	22.8	C	SIGNAL	2.6	A	SIGNAL	64.6	**E**	Add WB RT pocket.	SIGNAL	21.1	C	31.5	C
IN-20	Oliver St/Alessandro Blvd	C	CSS	38.0	**E**	CSS	74.5	**F**	CSS	19.3	C	CSS	24.9	C	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	CSS	21.2	C	14.9	B
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	40.1	D	SIGNAL	59.5	**E**	SIGNAL	41.8	D	SIGNAL	50.6	D	Add 1 NB RT lane.	SIGNAL	38.0	D	27.9	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	30.7	C	SIGNAL	58.2	**E**	SIGNAL	61.8	**E**	SIGNAL	88.8	**F**	Add 1 SB LT Change Phasing to Prot.	SIGNAL	16.2	B	30.3	C
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)																				
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	71.0	**E**	SIGNAL	77.8	**E**	SIGNAL	34.2	C	SIGNAL	33.7	C	change 1 NBT to NBT-R	SIGNAL	34.3	C	40.3	D
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	40.2	**E**	AWS	40.4	**E**	AWS	>180	**F**	AWS	>180	F	Signalize.	AWS	1.0	A	0.9	A
IN-86	Central Ave/Chicago Ave	D	SIGNAL	53.1	D	SIGNAL	41.4	D	SIGNAL	91.4	**F**	SIGNAL	93.4	**F**	Change WBT to WBT-R and NBT to NBT-R	SIGNAL	28.4	C	45.6	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	60.7	**E**	SIGNAL	62.7	**E**	SIGNAL	39.0	D	SIGNAL	41.6	D	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage)	SIGNAL	47.4	D	32.7	C
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**	AWS	39.0	**E**	AWS	41.3	**E**	Signalize	SIGNAL	92.1	F	13.5	B
IN-122	Bridge St/Ramona Expy	C	CSS	43.6	**E**	CSS	64.1	**F**	CSS	111.0	**F**	CSS	143.6	**F**	Signalize.	SIGNAL	13.4	B	14.6	B
IN-123	Gilman Springs Rd/Bridge St	C	CSS	75.8	**F**	CSS	90.3	**F**	CSS	84.5	**F**	CSS	126.3	**F**	Signalize.	SIGNAL	7.6	A	21.1	C
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs R	C	CSS	150.8	**F**	CSS	>180	**F**	CSS	146.0	**F**	CSS	146.8	**F**	Signalize.	SIGNAL	8.2	A	7.2	A
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs R	C	CSS	40.9	**E**	CSS	67.9	**F**	CSS	115.4	**F**	CSS	134.4	**F**	Signalize.	SIGNAL	8.6	A	8.0	A
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	55.0	**F**	AWS	87.8	**F**	AWS	19.8	C	AWS	37.0	**E**	Signalize.	SIGNAL	11.2	B	7.9	A
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	85.4	**F**	AWS	136.3	**F**	AWS	26.9	**D**	AWS	133.0	**F**	Signalize.	SIGNAL	17.7	B	12.8	B
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	78.0	**F**	AWS	124.1	**F**	AWS	55.0	**F**	AWS	90.7	**F**	Signalize. Add 1 EB Right Turn and 1 NB Left Turn.	SIGNAL	8.9	A	10.0	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

C. FREEWAY SEGMENT LOS, IMPACTS, AND MITIGATIONS

Freeway Mainline Basic Sections LOS

Table 37 compares the LOS for freeway mainline sections for the Existing and Existing Plus Build-out scenarios. Details of the LOS calculations for freeways under the Existing Plus Build-out Scenario can be found in Appendix K. Table 38 identifies 24 sections where the project would have a significant impact. In 23 of the 24 cases these sections are already deficient under Existing conditions so the Project would be adding to an existing problem. The Project would have impacts at:

Northbound or Eastbound

- SR-60 from Ramona Ave. to Central Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Eucalyptus Ave. to SR-60
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- SR-60 from Grove Ave. to Vineyard Ave.
- SR-60 from Vineyard Ave. to Archibald Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
- SR-60 from I-215 to Day St.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-91 from McKinley St. to Pierce St.
- SR-91 from Pierce St. to Magnolia Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- I-215 from Center St. to La Cadena Dr.
- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.

Table 38 also identifies the mitigation measures needed to reduce the impact to a less-than-significant level. In each case adding a mixed-flow lane[52] would bring the LOS to “D” or better. While these measures are feasible in the sense that, if they could be constructed, they would achieve the target LOS, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

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[52] A “mixed-flow lane” is the most common type of freeway lane. The term is used to distinguish them from carpool lanes, truck lanes, etc.

Table 37: Existing Plus Build-out Freeway Mainline LOS

			Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	26.7	D	6,467	27.6	D	6280	28.5	D	6,330	27.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,109	38.6	**E**	9,400	47.3	**F**	8,380	41.6	**E**	9,240	45.9	**F**
F-4	SR-60	Central Ave to Mountain Ave	7,190	31.3	D	8,271	36.3	**E**	7,480	33.7	D	8,120	35.4	**E**
F-5	SR-60	Mountain Ave to Euclid Ave	7,513	33.6	D	8,231	36.0	**E**	7,810	36.3	**E**	8,060	35.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,423	33.0	D	8,339	36.9	**E**	7,720	35.5	**E**	8,180	35.9	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	6,809	28.9	D	9,236	45.4	**F**	7,080	30.8	D	9,080	44.2	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	6,662	27.8	D	9,400	47.3	**F**	6,950	29.7	D	9,210	45.6	**F**
F-9	SR-60	Archibald Ave to Haven Ave	6,718	28.1	D	6,764	26.6	D	7,010	30.4	D	6,560	25.9	C
F-10	SR-60	Haven Ave to Milliken Ave	7,667	25.4	C	7,366	22.5	C	7,970	27.1	D	7,150	22.0	C
F-11	SR-60	Milliken Ave to I-15	4,225	16.8	B	5,182	19.4	C	4,500	18.0	C	5,000	18.9	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	3,541	14.0	B	4,369	16.3	B	3,890	15.6	B	4,100	15.5	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	2,913	11.5	B	3,567	13.3	B	3,340	13.4	B	3,400	12.9	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	2,437	9.8	A	2,959	11.3	B	2,860	11.7	B	2,770	10.9	A
F-15	SR-60	Pedley Rd to Pyrite St	2,650	10.7	A	3,232	12.3	B	3,020	12.3	B	3,130	12.2	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.3	B	3,642	13.8	B	3,750	15.1	B	3,520	13.6	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	24.5	C	5,262	28.0	D	4,900	27.6	D	5,130	27.5	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	25.7	C	5,477	29.8	D	4,950	28.0	D	5,310	29.1	D
F-19	SR-60	Market St to Main St	4,971	27.8	D	6,433	39.2	**E**	5,310	31.1	D	6,220	37.5	**E**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,400	59.2	**F**	9,400	51.1	**F**	9,870	77.2	**F**	9,250	52.7	**F**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,188	20.4	C	6,193	23.6	C	5,530	22.5	C	6,190	24.2	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,828	23.2	C	4,700	47.8	**F**	2,990	26.3	D	4,690	51.1	**F**
F-30	SR-60	Heacock St to Perris Blvd	2,529	20.2	C	3,336	25.9	C	2,880	24.7	C	3,190	25.9	C
F-31	SR-60	Perris Blvd to Nason St	2,269	17.9	B	2,843	21.3	C	2,550	21.5	C	2,750	21.8	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,977	10.5	A	2,468	12.3	B	2,100	11.9	B	2,430	12.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,757	9.4	A	2,053	10.2	A	1,780	10.3	A	2,050	10.9	A
F-34	SR-60	Redlands Blvd to Theodore St	1,671	13.4	B	1,708	12.8	B	1,910	16.3	B	1,870	15.2	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,600	12.9	B	1,738	13.0	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,271	13.5	B	1,319	12.3	B	1,260	14.4	B	1,240	12.5	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,272	10.2	A	1,317	10.0	A	1,270	10.4	A	1,240	9.5	A
F-39	SR-91	I-15 to McKinley St	4,206	15.7	B	6,373	26.2	D	4,380	16.6	B	6,300	25.9	C
F-40	SR-91	McKinley St to Pierce St	4,797	24.9	C	5,269	30.0	D	4,950	26.1	D	5,210	29.7	D
F-41	SR-91	Pierce St to Magnolia Ave	6,354	39.4	**E**	7,050	54.7	**F**	6,520	42.0	**E**	7,010	54.6	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,050	28.6	D	7,050	30.4	D	7,180	29.5	D	7,010	30.4	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,101	28.7	D	7,990	37.2	**E**	7,200	29.4	D	7,950	37.2	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,763	17.8	B	4,956	19.4	C	4,810	18.2	C	4,940	19.5	C
F-46	SR-91	Adam St to Madison St	7,451	57.6	**F**	8,209	96.0	**F**	7,530	60.3	**F**	8,190	97.1	**F**

Table 37: Existing Plus Build-out Freeway Mainline LOS (continued)

			Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,677	33.1	D	5,386	21.5	C	7,720	33.6	D	5,370	21.6	C
F-49	SR-91	Central Ave to 14th St	7,050	52.1	**F**	5,797	35.9	**E**	6,970	51.2	**F**	5,810	36.4	**E**
F-50	SR-91	14th St to University Ave	4,644	17.4	B	4,194	16.3	B	4,550	17.1	B	4,280	16.7	B
F-51	SR-91	University Ave to Spruce St	5,924	17.9	B	5,450	17.2	B	5,850	17.8	B	5,530	17.4	B
F-66	I-215	Scott Rd to Newport Rd	2,739	14.4	B	3,285	16.4	B	2,670	14.1	B	3,270	16.3	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	10.0	A	2,047	10.2	A	1,790	9.5	A	2,030	10.2	A
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	12.9	B	3,293	16.4	B	2,280	12.1	B	3,280	16.4	B
F-70	I-215	Ethanac Rd to SR-74	3,787	20.1	C	3,150	15.7	B	3,590	19.0	C	3,140	15.7	B
F-71	I-215	SR-74 to Redlands Ave	3,350	17.9	B	4,181	21.4	C	3,090	16.6	B	4,190	21.5	C
F-86	I-215	Redlands Blvd to D St	4,431	24.1	C	3,185	16.0	B	4,210	22.6	C	3,220	16.2	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,500	13.8	B	4,813	18.0	C	3,290	13.1	B	4,800	18.1	C
F-88	I-215	Nuevo St to Ramona Expy	4,515	24.8	C	5,262	28.4	D	4,460	24.4	C	5,240	28.2	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,913	27.7	D	5,947	34.3	D	4,870	27.4	D	5,950	34.4	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,097	29.0	D	4,415	22.9	C	5,030	28.5	D	4,460	23.2	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,817	19.2	C	4,206	15.7	B	4,740	18.8	C	4,230	15.9	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,515	24.8	C	5,262	28.4	D	4,400	24.1	C	5,400	29.7	D
F-95	I-215	Eucalyptus Ave to SR-60	4,877	27.5	D	5,885	33.7	D	4,770	26.6	D	6,110	36.0	**E**
F-74	I-215	Columbia Ave to Center St	6,697	28.8	D	7,050	28.6	D	6,650	28.7	D	7,100	28.9	D
F-75	I-215	Center St to La Cadena Dr	5,146	29.7	D	5,293	28.4	D	5,110	29.6	D	5,330	28.7	D
F-76	I-215	La Cadena Dr to Barton Rd	5,191	29.8	D	4,937	25.8	C	5,150	29.5	D	5,010	26.3	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,708	35.3	**E**	5,640	32.0	D	5,650	35.0	**E**	5,740	32.9	D
F-78	I-215	Mt. Vernon Ave to I-10	6,088	25.8	C	5,802	22.5	C	6,040	25.5	C	5,930	23.1	C
F-80	I-215	Auto Plaza Dr to Mill St	5,201	20.7	C	9,400	47.9	**F**	5,150	20.5	C	9,480	48.9	**F**
F-83	I-215	Baseline Rd to Highland Ave	3,158	12.5	B	4,700	17.6	B	3,130	12.5	B	4,760	17.8	B
F-52	I-10	SR-60 to Beaumont Ave	3,462	13.6	B	4,847	18.8	C	3,500	13.8	B	4,730	18.4	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,519	14.0	B	4,927	19.4	C	3,520	14.1	B	4,860	19.2	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,689	14.6	B	5,165	20.4	C	3,670	14.6	B	5,080	20.0	C
F-55	I-10	Highland Springs Ave to Sunset Ave	3,547	14.1	B	4,966	19.6	C	3,500	14.0	B	4,960	19.5	C
F-56	I-10	Sunset Ave to 22nd St	3,462	11.0	B	4,847	15.2	B	3,410	10.9	A	4,850	15.2	B
F-57	I-10	22nd St to 8th St	3,406	13.6	B	4,768	18.7	C	3,350	13.4	B	4,770	18.8	C
F-58	I-10	8th St to Hargrave St	3,406	13.6	B	4,768	18.7	C	3,340	13.4	B	4,780	18.9	C
F-59	I-10	Hargrave St to Fields Rd	3,065	12.3	B	4,291	16.9	B	2,980	12.0	B	4,310	17.0	B
F-60	I-10	Fields Rd to Morongo Trail	2,923	11.7	B	4,092	16.1	B	2,840	11.4	B	4,120	16.3	B
F-61	I-10	Morongo Trail to Main St	2,583	10.2	A	3,616	14.0	B	2,500	10.0	A	3,650	14.2	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,583	10.1	A	3,616	14.0	B	2,500	9.8	A	3,660	14.2	B
F-64	I-10	SR-111 to Tipton Rd	2,242	8.8	A	3,139	12.1	B	2,190	8.6	A	3,180	12.3	B
F-65	I-10	Tipton Rd to SR-62	2,242	8.8	A	3,139	12.1	B	2,190	8.6	A	3,180	12.3	B

▨ Indicates that the LOS exceeds the target level

Table 37: Existing Plus Build-out Freeway Mainline LOS (continued)

ID	Freeway	Segment	Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,638	26.3	D	6,223	24.8	C	6,470	25.7	C	6,410	26.1	D
F-3	SR-60	Ramona Ave to Central Ave	6,167	24.4	C	6,459	26.1	D	6,000	24.0	C	6,640	27.4	D
F-4	SR-60	Central Ave to Mountain Ave	6,751	28.4	D	6,489	26.9	D	6,580	27.7	D	6,690	28.5	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,859	28.8	D	6,883	29.0	D	6,700	28.2	D	7,080	30.7	D
F-6	SR-60	Euclid Ave to Grove Ave	7,108	29.3	D	7,527	32.6	D	6,940	28.7	D	7,720	34.3	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,656	26.2	D	9,400	51.0	F	6,480	25.6	C	9,600	54.7	F
F-8	SR-60	Vineyard Ave to Archibald Ave	7,821	34.9	D	9,400	53.0	F	7,620	34.0	D	9,590	56.8	F
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,339	22.4	C	5,698	17.5	B	7,140	22.0	C	5,920	18.4	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.8	C	5,111	19.6	C	5,200	20.0	C	5,350	20.9	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,888	14.7	B	4,648	14.3	B	4,630	14.2	B	4,940	15.4	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	5,070	19.2	C	5,970	23.7	C	4,880	18.8	C	6,290	25.7	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	4,277	16.3	B	4,958	19.3	C	4,060	15.7	B	5,270	20.9	C
F-15	SR-60	Pedley Rd to Pyrite St	4,296	16.3	B	4,981	19.4	C	4,040	15.6	B	5,310	21.0	C
F-16	SR-60	Pyrite St to Valley Way	4,326	16.4	B	5,020	19.6	C	4,070	15.8	B	5,340	21.2	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,515	23.2	C	5,262	29.2	D	4,400	23.1	C	5,550	32.4	D
F-18	SR-60	Rubidoux Blvd to Market St	4,697	24.1	C	5,477	30.6	D	4,270	22.0	C	5,760	34.0	D
F-19	SR-60	Market St to Main St	6,485	40.3	E	5,115	27.9	D	6,050	36.3	E	5,380	30.7	D
F-20	SR-60	Main to SR-91	7,050	47.9	F	4,062	21.0	C	6,610	42.8	E	4,500	24.1	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	33.3	D	6,885	30.5	D	6,870	34.9	D	7,000	34.1	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,385	30.6	D	8,085	36.9	E	7,170	30.1	D	8,340	40.2	E
F-27	SR-60	I-215 to Day St	4,328	41.6	E	3,251	26.8	D	4,280	43.6	E	3,220	28.1	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	4,700	49.0	F	2,786	21.9	C	4,740	54.0	F	2,850	23.9	C
F-30	SR-60	Heacock St to Perris Blvd	3,192	25.1	C	3,003	24.0	C	3,280	27.8	D	3,120	26.9	D
F-31	SR-60	Perris Blvd to Nason St	2,592	19.5	C	2,695	21.0	C	2,740	22.2	C	2,890	24.4	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,817	14.0	B	1,882	14.7	B	1,980	16.6	B	1,890	16.1	B
F-34	SR-60	Redlands Blvd to Theodore St	1,481	11.6	B	1,504	11.8	B	1,860	15.8	B	1,630	13.8	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,460	11.4	B	1,486	11.7	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,121	13.4	B	1,165	12.7	B	1,130	14.4	B	1,090	13.0	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,121	9.0	A	1,165	9.3	A	1,130	9.2	A	1,090	8.9	A
F-39	SR-91	I-15 to McKinley St	6,576	26.3	D	7,158	31.4	D	6,470	25.9	C	7,290	32.5	D
F-40	SR-91	McKinley St to Pierce St	7,050	49.6	F	7,050	55.5	F	6,950	48.5	F	7,140	58.4	F
F-41	SR-91	Pierce St to Magnolia Ave	7,050	48.4	F	7,050	53.3	F	6,950	47.4	F	7,140	55.9	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	7,050	48.4	F	7,050	53.3	F	6,970	47.7	F	7,130	55.7	F
F-43	SR-91	La Sierra Ave to Tyler St	5,943	34.3	D	7,050	53.3	F	5,860	33.8	D	7,140	55.9	F
F-44	SR-91	Tyler St to Van Buren Blvd	6,106	23.6	C	7,990	37.2	E	6,050	23.5	C	8,050	38.1	E
F-45	SR-91	Van Buren Blvd to Adam St	6,381	25.0	C	7,990	37.2	E	6,310	24.8	C	8,020	37.8	E
F-46	SR-91	Adam St to Madison St	5,931	22.8	C	7,582	33.9	D	5,870	22.7	C	7,590	34.2	D

Table 37: Existing Plus Build-out Freeway Mainline LOS (continued)

			Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,050	48.4	F	7,050	52.6	F	7,010	48.3	F	7,010	52.5	F
F-49	SR-91	Central Ave to 14th St	5,166	19.5	C	7,050	30.0	D	5,140	19.6	C	6,970	29.7	D
F-50	SR-91	14th St to University Ave	5,166	19.5	C	7,050	30.0	D	5,140	19.6	C	6,970	29.7	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	11.5	B	2,318	11.5	B	2,290	11.5	B	2,220	11.0	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	12.6	B	3,111	15.4	B	2,530	12.7	B	2,950	14.6	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,528	12.6	B	3,111	15.4	B	2,530	12.7	B	2,950	14.6	B
F-70	I-215	Ethanac Rd to SR-74	2,882	14.4	B	3,854	19.1	C	2,910	14.6	B	3,660	18.2	C
F-71	I-215	SR-74 to Redlands Ave	4,515	23.2	C	4,700	24.1	C	4,560	23.6	C	4,540	23.2	C
F-86	I-215	Redlands Blvd to D St	2,538	12.7	B	2,634	13.1	B	2,600	13.1	B	2,490	12.4	B
F-87	I-215	D St to Nuevo St/Harvil Ave	3,380	12.7	B	3,249	12.1	B	3,450	13.0	B	3,110	11.6	B
F-88	I-215	Nuevo St to Ramona Expy	4,515	23.2	C	5,262	28.0	D	4,580	23.8	C	5,230	27.7	D
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	2,658	13.3	B	5,310	28.1	D	2,690	13.5	B	5,230	27.5	D
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,802	19.7	C	7,050	46.7	F	3,890	20.2	C	6,990	45.8	F
F-92	I-215	Van Buren Blvd to Cactus Ave	3,572	13.4	B	6,195	23.6	C	3,640	13.7	B	6,180	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,031	26.7	D	6,129	35.5	E	5,180	27.7	D	6,060	34.9	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,050	29.6	D	7,050	28.4	D	7,090	29.8	D	7,000	28.1	D
F-75	I-215	Center St to La Cadena Dr	7,050	50.2	F	7,050	47.3	F	7,090	51.0	F	6,950	46.2	F
F-76	I-215	La Cadena Dr to Barton Rd	7,050	49.6	F	7,050	46.7	F	7,150	51.4	F	7,020	46.2	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,974	34.6	D	7,050	46.7	F	6,060	35.8	E	7,050	46.7	F
F-78	I-215	Mt. Vernon Ave to I-10	5,726	22.1	C	5,432	20.5	C	5,840	22.7	C	5,410	20.4	C
F-80	I-215	Auto Plaza Dr to Mill St	6,123	23.7	C	5,837	22.0	C	6,130	23.7	C	5,810	21.9	C
F-83	I-215	Baseline Rd to Highland Ave	4,700	17.6	B	3,704	13.7	B	4,680	17.5	B	3,680	13.6	B
F-52	I-10	SR-60 to Beaumont Ave	4,888	20.9	C	4,190	15.8	B	4,830	20.7	C	4,170	15.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,968	21.5	C	4,259	16.3	B	4,920	21.2	C	4,210	16.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,209	22.7	C	4,465	17.0	B	5,170	22.5	C	4,400	16.8	B
F-55	I-10	Highland Springs Ave to Sunset Ave	5,009	21.7	C	4,293	16.4	B	5,010	21.7	C	4,270	16.3	B
F-56	I-10	Sunset Ave to 22nd St	4,888	16.7	B	4,190	12.8	B	4,900	16.7	B	4,160	12.7	B
F-57	I-10	22nd St to 8th St	4,808	20.7	C	4,121	15.7	B	4,820	20.8	C	4,050	15.5	B
F-58	I-10	8th St to Hargrave St	4,808	20.7	C	4,121	15.7	B	4,830	20.8	C	4,050	15.5	B
F-59	I-10	Hargrave St to Fields Rd	4,327	18.6	C	3,709	14.2	B	4,360	18.7	C	3,620	13.9	B
F-60	I-10	Fields Rd to Morongo Trail	4,127	17.7	B	3,537	13.6	B	4,170	17.9	B	3,450	13.3	B
F-61	I-10	Morongo Trail to Main St	3,646	15.4	B	3,125	11.8	B	3,690	15.6	B	3,040	11.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,646	15.4	B	3,125	11.7	B	3,700	15.6	B	3,040	11.4	B
F-64	I-10	SR-111 to Tipton Rd	3,165	13.4	B	2,713	10.2	A	3,210	13.6	B	2,640	9.9	A
F-65	I-10	Tipton Rd to SR-62	3,165	13.4	B	2,713	10.3	A	3,210	13.6	B	2,640	10.0	A

▨ Indicates that the LOS exceeds the target level

Table 38: Existing Plus Build-out Freeway Mainline Impacts and Mitigations

			Northbound / Eastbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-3	SR-60	Ramona Ave to Central Ave	**E**	**E**	**F**	**F**	Yes	8,380	28.4	D	9,240	30.4	D	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	D	**E**	**E**	D	Yes	7,810	25.8	C	8,060	25.1	C	Add 1 mixed flow lane
F-6	SR-60	Euclid Ave to Grove Ave	D	**E**	**E**	**E**	Yes	7,720	25.4	C	8,180	25.6	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	**F**	**F**	**F**	**F**	Yes	9,870	41.2	**E**	9,250	33.2	D	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	C	D	**F**	**F**	Yes	2,990	16.6	B	4,690	25.1	C	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**E**	**E**	**F**	**F**	Yes	6,520	26.2	D	7,010	30.6	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison St	**F**	**F**	**F**	**F**	Yes	7,530	32.3	D	8,190	40.1	**E**	Add 1 mixed flow lane
F-49	SR-91	Central Ave to 14th St	**F**	**F**	**E**	**E**	Yes	6,970	29.5	D	5,810	23.8	C	Add 1 mixed flow lane
F-95	I-215	Eucalyptus Ave to SR-60	D	D	D	**E**	Yes	4,770	19.0	C	6,110	23.6	C	Add 1 mixed flow lane
F-80	I-215	Auto Plaza Dr to Mill St	C	C	**F**	**F**	Yes	5,150	16.3	B	9,480	31.7	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound											
ID	Freeway	Segment	Determination of Impact					Existing Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-7	SR-60	Grove Ave to Vineyard Ave	D	C	**F**	**F**	Yes	6,480	19.7	C	9,600	34.0	D	Add 1 mixed flow lane
F-8	SR-60	Vineyard Ave to Archibald Ave	D	D	**F**	**F**	Yes	7,620	24.6	C	9,590	34.8	D	Add 1 mixed flow lane
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	D	D	**E**	**E**	Yes	7,170	22.4	C	8,340	27.8	D	Add 1 mixed flow lane
F-27	SR-60	I-215 to Day St	**E**	**E**	D	D	Yes	4,280	23.1	C	3,220	17.5	B	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	**F**	**F**	C	C	Yes	4,740	25.8	C	2,850	15.5	B	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	**F**	**F**	**F**	**F**	Yes	6,950	28.6	D	7,140	31.7	D	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**F**	**F**	**F**	**F**	Yes	6,950	28.2	D	7,140	31.0	D	Add 1 mixed flow lane
F-42	SR-91	Magnolia Ave to La Sierra Ave	**F**	**F**	**F**	**F**	Yes	6,970	28.3	D	7,130	30.9	D	Add 1 mixed flow lane
F-43	SR-91	La Sierra Ave to Tyler St	D	D	**F**	**F**	Yes	5,860	22.6	C	7,140	31.0	D	Add 1 mixed flow lane
F-44	SR-91	Tyler St to Van Buren Blvd	C	C	**E**	**E**	Yes	6,050	18.3	C	8,050	26.7	D	Add 1 mixed flow lane
F-45	SR-91	Van Buren Blvd to Adam St	C	C	**E**	**E**	Yes	6,310	19.1	C	8,020	26.6	D	Add 1 mixed flow lane
F-75	I-215	Center St to La Cadena Dr	**F**	**F**	**F**	**F**	Yes	7,090	29.4	D	6,950	27.8	D	Add 1 mixed flow lane
F-76	I-215	La Cadena Dr to Barton Rd	**F**	**F**	**F**	**F**	Yes	7,150	29.6	D	7,020	27.8	D	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	D	**E**	**F**	**F**	Yes	6,060	23.6	C	7,050	28.0	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Weaving LOS

Table 39 compares the LOS for the study weaving sections under the Existing and the Existing Plus Build-out Scenarios. As shown in Table 39 identifies five weaving section where the Project would have a significant impact, namely:

Northbound or Eastbound

- I-215 from Main St. to SR-91
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

- SR-60 from University Ave. to Martin Luther King Blvd.
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
- SR-91 from Arlington Ave. to Central Ave.

Table 40 shows that in every case the addition of a mixed-flow lane would reduce the impact of the WLC project to a less-than-significant level. While these measures are feasible in the sense that, if they could be constructed, they would achieve the target LOS, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 39: Existing Plus Build-out Freeway Weaving Section LOS

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,335	21	C	6,819	25	C	5,590	22	C	6,680	25	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	6,646	33.2	D	7,050	34.3	D	6,920	35.2	**E**	6,770	33.1	D
W-21	SR-60	SR-91 to Blaine St/3rd St	6,137	25.2	C	9,400	42.1	**E**	6,410	26.9	C	9,130	41.3	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	6,061	23.1	C	7,050	28.9	D	6,310	24.7	C	6,850	28.5	D
W-23	SR-60	University Ave to Martin Luther King	5,965	22.6	C	7,050	24.6	C	6,260	24.2	C	6,900	24.5	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	5,979	25.0	C	8,119	31.6	D	6,440	28.4	D	8,000	32.3	D
W-27	SR-60	I-215 to Day St	3,040	11.9	B	9,400	41.9	**E**	3,370	13.6	B	9,230	41.7	**E**
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,197	14.4	B	7,050	32.7	D	3,340	15.4	B	6,980	32.8	D
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			1,580	9.5	A	1,410	8.2	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,925	32.1	D	7,050	34.8	D	7,070	33.0	D	6,980	34.6	D
W-48	SR-91	Arlington Ave to Central Ave	7,050	26.5	C	4,922	19.0	B	7,050	26.9	C	4,900	19.0	B
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	4,515	23.1	C	5,262	24.1	C	4,470	23.1	C	5,350	24.7	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	4,275	> Capacity	**F**	4,317	22.0	C	4,260	>Capacity	**F**	4,380	22.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,300	23.3	C	9,400	35.0	D	6,250	23.1	C	9,460	35.3	**E**
W-81	I-215	Mill St to 2nd St	5,888	22.2	C	7,050	26.6	C	5,840	22.1	C	7,100	26.8	C
W-82	I-215	5th St to Baseline Rd	4,255	12.6	B	7,050	21.8	C	4,220	12.5	B	7,110	22.0	C
W-63	I-10	Haugen-Lehmann Way to SR-111	2,583	8.7	A	3,616	12.1	B	2,500	8.4	A	3,660	12.3	B

▨ Indicates that the LOS exceeds the target level

Table 39: Existing Plus Build-out Freeway Weaving Section LOS (continued)

			Existing Conditions						Existing Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,466	19.6	B	5,871	21.3	C	5,320	19.2	B	6,060	22.4	C
W-9	SR-60	Haven Ave to Archibald Ave	6,671	26.3	C	7,844	33.1	D	6,480	25.7	C	8,040	34.2	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	5,660	21.3	C	5,717	21.6	C	5,480	21.0	C	5,840	22.5	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,568	22.6	C	6,273	22.6	C	6,390	22.5	C	6,410	23.6	C
W-23	SR-60	University Ave to Martin Luther King	7,050	38.2	**E**	7,050	44.9	**F**	6,850	37.7	**E**	7,160	46.6	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	34.2	D	7,050	34.5	D	6,890	35.2	**E**	7,160	37.2	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,700	30.6	D	3,279	20.4	C	4,690	31.4	D	3,350	21.9	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,207	12.1	B	2,252	12.5	B	2,370	13.8	B	2,220	13.1	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			1,030	6.0	A	1,370	8.3	A
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	33.4	D	7,050	36.0	**E**	6,940	33.0	D	7,030	36.3	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	8,102	29.2	D	11,750	> Capacity	**F**	8,140	29.5	D	11,670	>Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	5,036	23.0	C	6,139	28.5	D	5,160	23.7	C	6,060	28.2	D
W-95	I-215	Eucalyptus Ave to SR-60	6,019	21.4	C	7,017	25.6	C	6,220	22.1	C	6,860	25.0	C
W-73	I-215	SR-60 to Columbia Ave	7,050	35.1	**E**	7,050	34.9	D	7,010	35.1	**E**	6,990	34.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,311	21.8	C	6,261	21.9	C	6,310	21.8	C	6,200	21.8	C
W-81	I-215	Mill St to 2nd St	7,050	24.5	C	6,421	22.7	C	7,060	24.6	C	6,370	22.6	C
W-82	I-215	5th St to Baseline Rd	7,050	22.5	C	5,762	18.0	B	7,060	22.5	C	5,740	17.9	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,646	13.9	B	3,125	11.7	B	3,700	14.2	B	3,040	11.4	B

▨ Indicates that the LOS exceeds the target level

Table 40: Existing Plus Build-out Freeway Weaving Impacts and Mitigations

			Northbound / Eastbound												
ID	Freeway	Weaving Segment	Determination of Impact					Existing Plus Project& Mitigations							
			AM Peak Hour		PM Peak Hour		Project Impact?	Sgement type	AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS			Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	
W-20	SR-60	Main St to SR-91	D	**E**	D	D	Yes	Weaving	6,920	27.4	C	6,770	25.8	C	Add 1 mixed flow lane
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	D	**E**	Yes	Weaving	6,250	19.0	B	9,460	28.8	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound												
ID	Freeway	Weaving Segment	Determination of Impact					Existing Plus Project& Mitigations							
			AM Peak Hour		PM Peak Hour		Project Impact?	Sgement type	AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS			Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	
W-23	SR-60	University Ave to Martin Luther King	**E**	**E**	**F**	**F**	Yes	Weaving	6,850	29.3	D	7,160	36.0	**E**	Add 1 mixed flow lane
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	D	**E**	D	**E**	Yes	Weaving	6,890	27.4	C	7,160	28.9	D	Add 1 mixed flow lane
W-48	SR-91	Arlington Ave to Central Ave	D	D	**E**	**E**	Yes	Weaving	6,940	25.7	C	7,030	28.2	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Ramp LOS

Table 41 compares the freeway ramp level of service on SR-60 under the Existing and the Existing Plus Build-out Scenario.

Table 42 identifies the one ramp segment where the Project would have a significant impact, namely:

- SR-60 eastbound On-Ramp from Martin Luther King Blvd.

Table 42 shows the mitigation measure needed to reduce the impacts of the WLC to a less-than-significant level. While this measure is feasible in the sense that, if it could be constructed it would achieve the target LOS, this does not necessarily mean that it passes other tests of feasibility. The physical and financial feasibility of mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 41: Existing Plus Build-out Freeway Ramp Level of Service

				Existing Conditions								Existing Plus Project Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,134	266	37.1	**F**	8,384	1,016	34.3	**F**	9,134	266	41.9	**F**	8,384	1,016	34.1	**F**
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,529	450	14.5	B	6,913	1,206	22.2	C	5,529	450	15.6	B	6,913	1,206	22.2	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,757	278	3.3	A	2,053	543	4.9	A	1,757	278	4.7	A	2,053	543	5.7	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,575	96	15.4	B	1,609	99	14.7	B	1,575	96	18.5	B	1,609	99	17.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,671	133	18.6	B	1,708	40	17.8	B	1,671	133	22.1	C	1,708	40	20.7	C
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,569	31	17.9	B	1,703	35	18.1	B	1,569	31	18.0	B	1,703	35	15.8	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,600	335	17.9	B	1,738	428	18.1	B	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,264	7	14.2	B	1,310	9	13.8	B	1,264	7	14.2	B	1,310	9	13.4	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,121	10	13.3	B	1,165	10	13.6	B	1,121	10	13.5	B	1,165	10	13.1	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,111	349	15.3	B	1,155	331	15.6	B	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,460	38	15.7	B	1,486	29	16.1	B	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,422	59	12.8	B	1,457	47	13.1	B	1,422	59	17.2	B	1,457	47	14.9	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,481	73	16.4	B	1,504	73	16.7	B	1,481	73	21.5	C	1,504	73	19.0	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,427	390	15.6	B	1,448	434	16.3	B	1,427	390	18.4	B	1,448	434	17.7	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	606	2.8	A	7,050	498	3.3	A	7,050	606	2.7	A	7,050	498	4.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	595	22.2	C	6,885	976	24.8	C	7,050	595	22.1	C	6,885	976	25.7	C

▨ Indicates that the LOS exceeds the target level

Table 42: Existing Plus Build-out Freeway Ramp Impacts and Mitigations

				Determination of Impact					Existing Plus Project & Mitigations								Mitigation Measures Required to Reduce Impact to Less-Than-Significant
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	**F**	**F**	**F**	**F**	Yes	9,134	266	27.2	C	8,384	1,016	26.3	C	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

7. 2025 NO-PROJECT SCENARIO

This chapter describes traffic conditions under the assumption that existing land uses plus other past, present, and reasonably foreseeable projects (both land development and roadway improvements) up to the year 2025 are implemented. Conditions on the WLC site were assumed to be unchanged from existing conditions. This scenario forms a basis of comparison for the 2025 Plus Phase 1 scenario that is discussed in the next chapter of this report.

A. 2025 NO-PROJECT TRAFFIC VOLUMES

The forecast turning movement volumes for this scenario are shown in Figure 42. Figure 11 is the key map for the Figure 42 sub-figures.

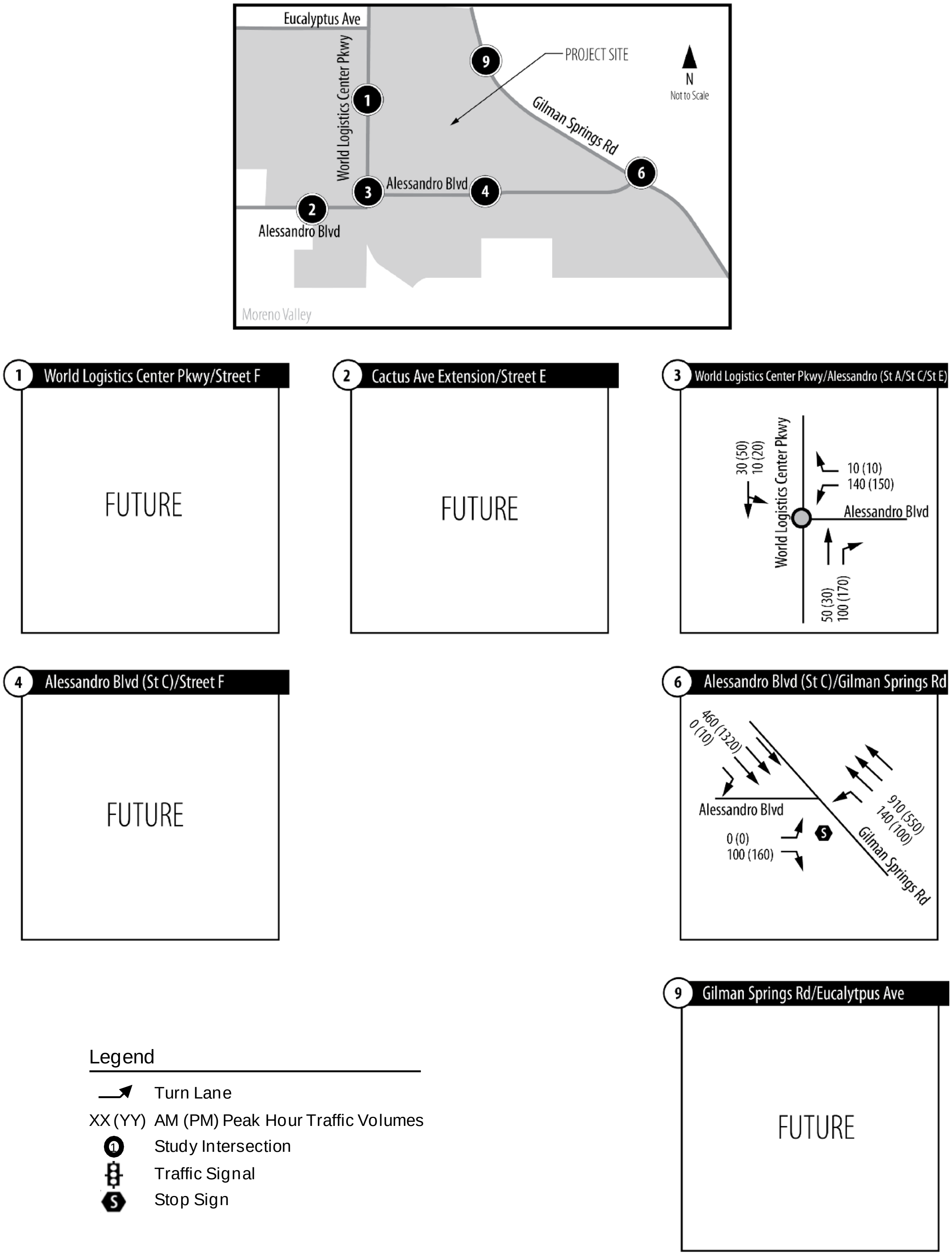

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario

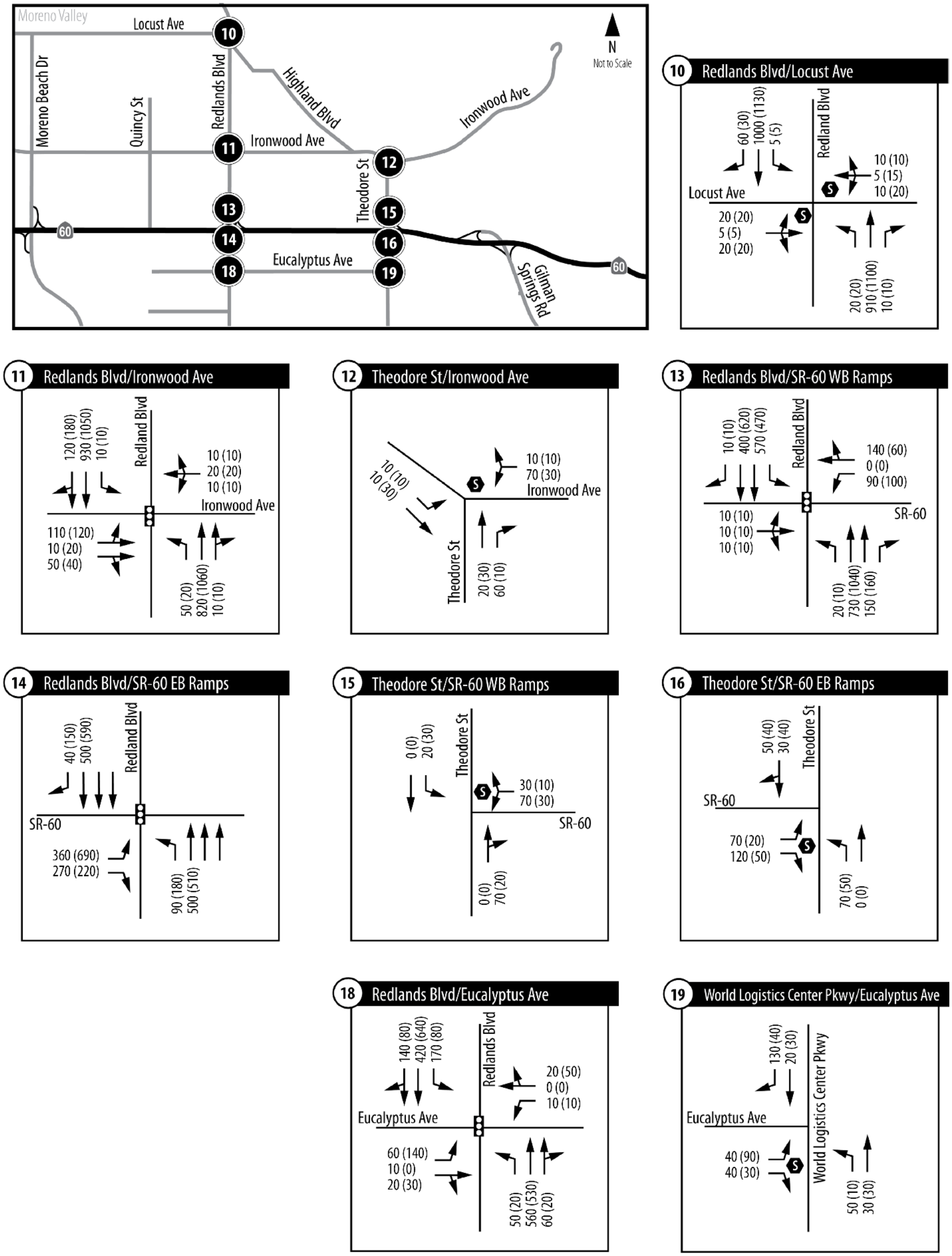

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (B)

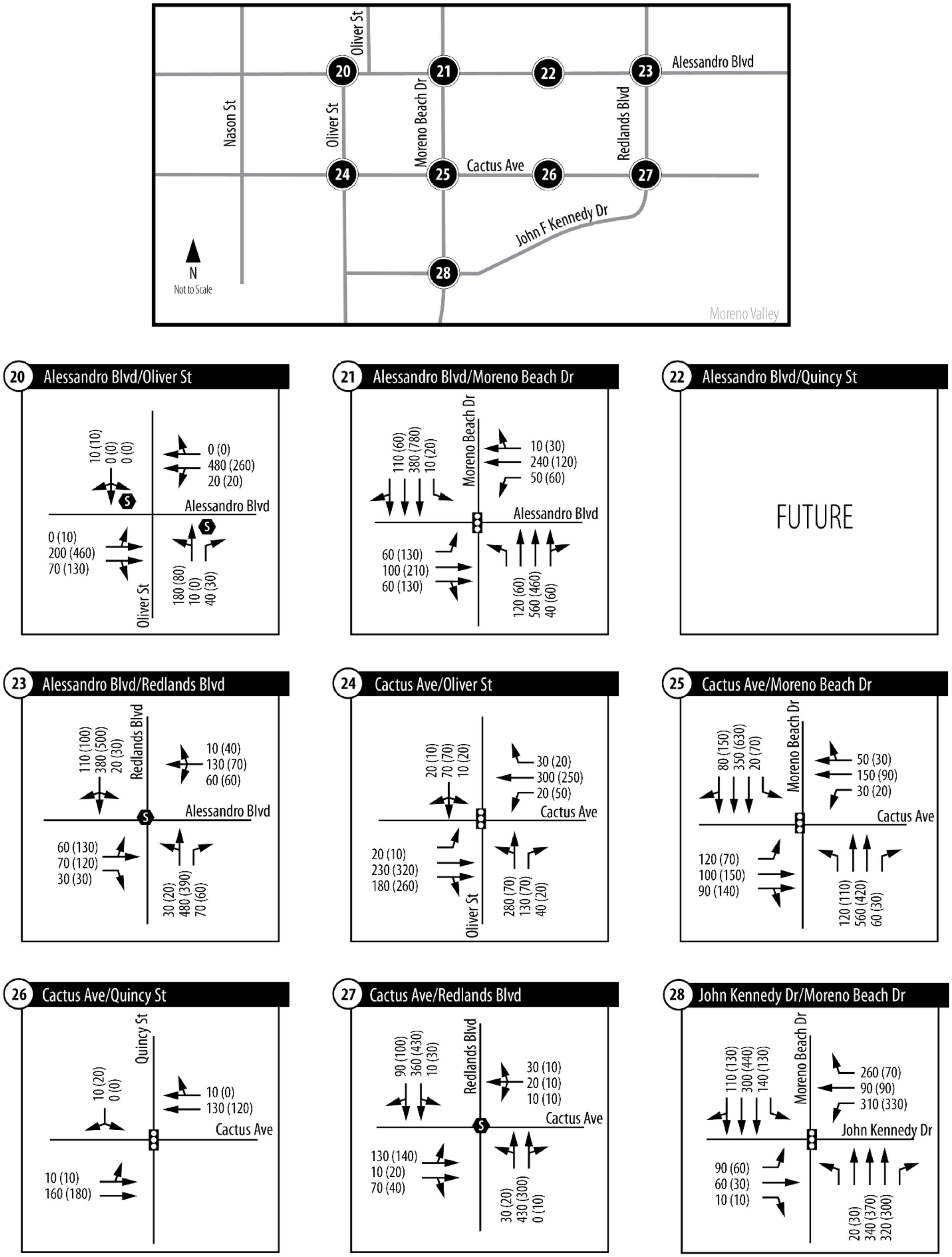

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (C)

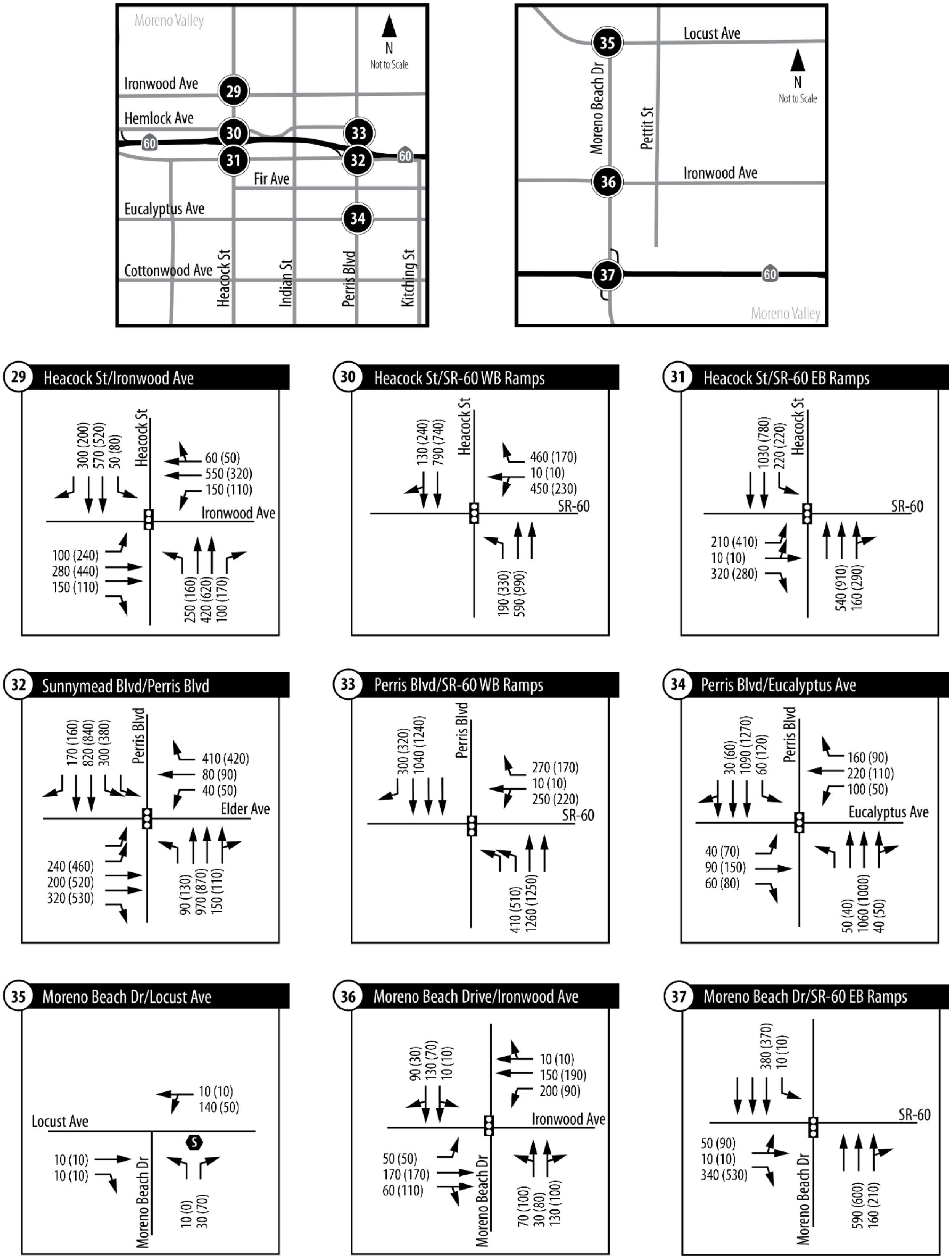

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (D)

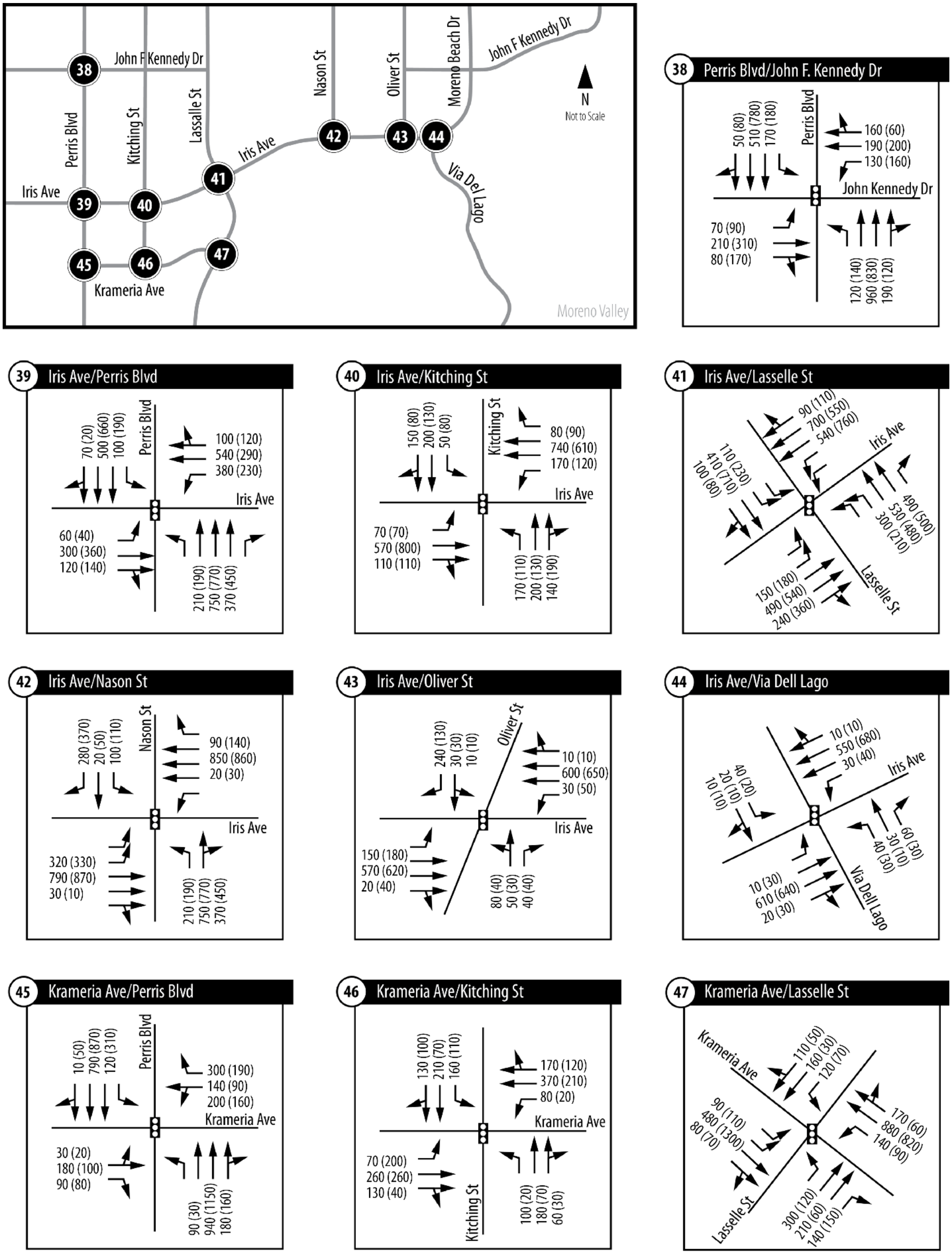

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (E)

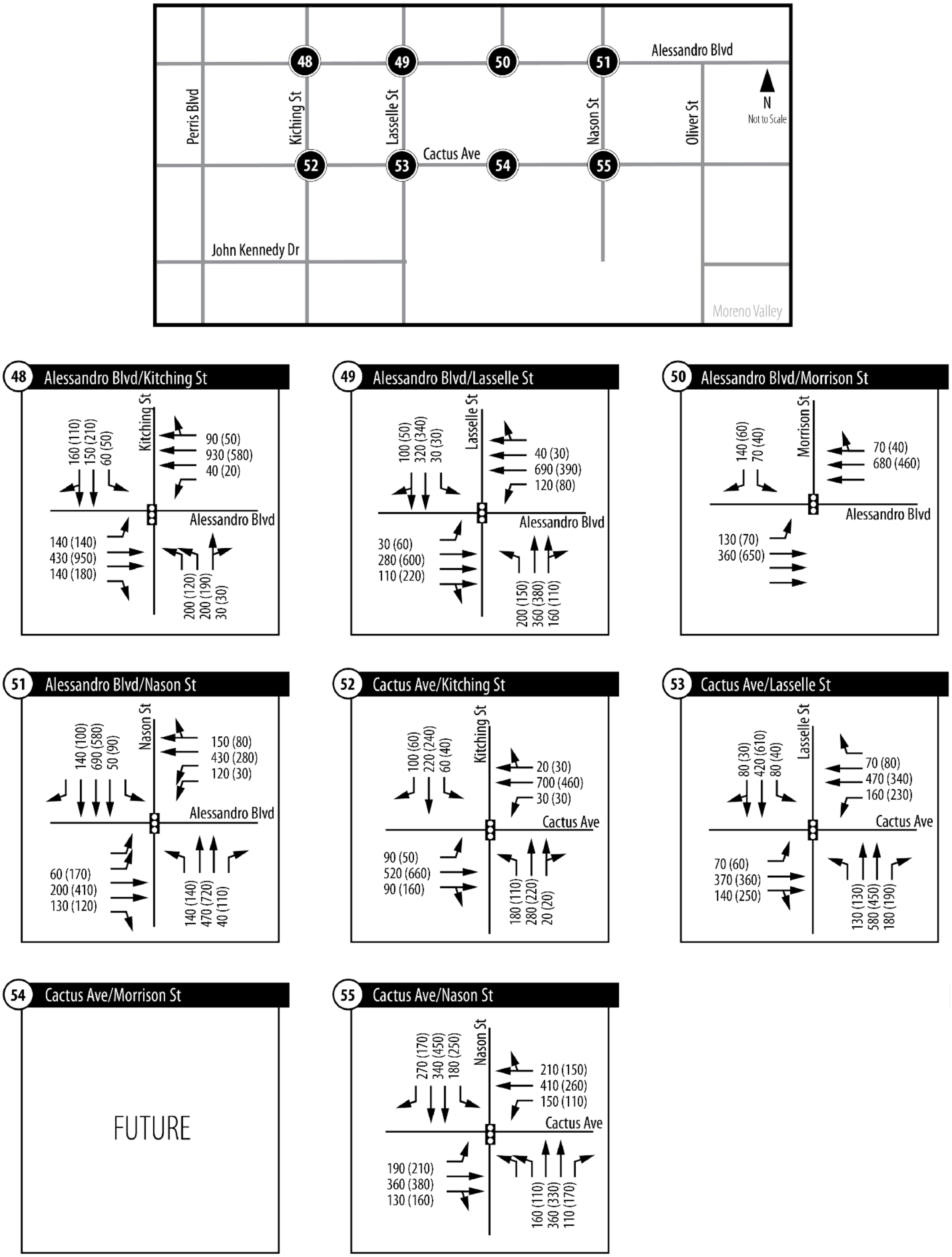

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (F)

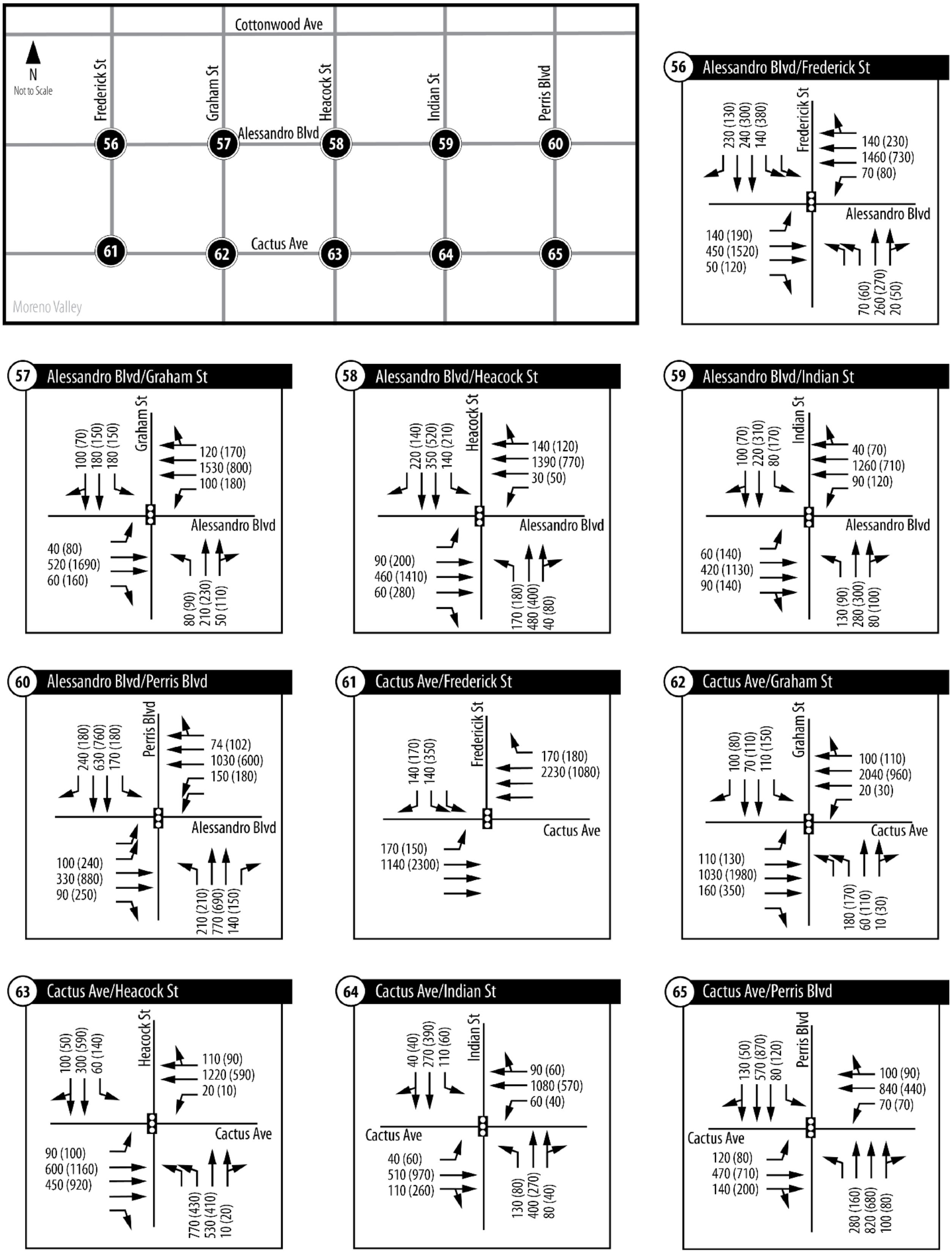

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (G)

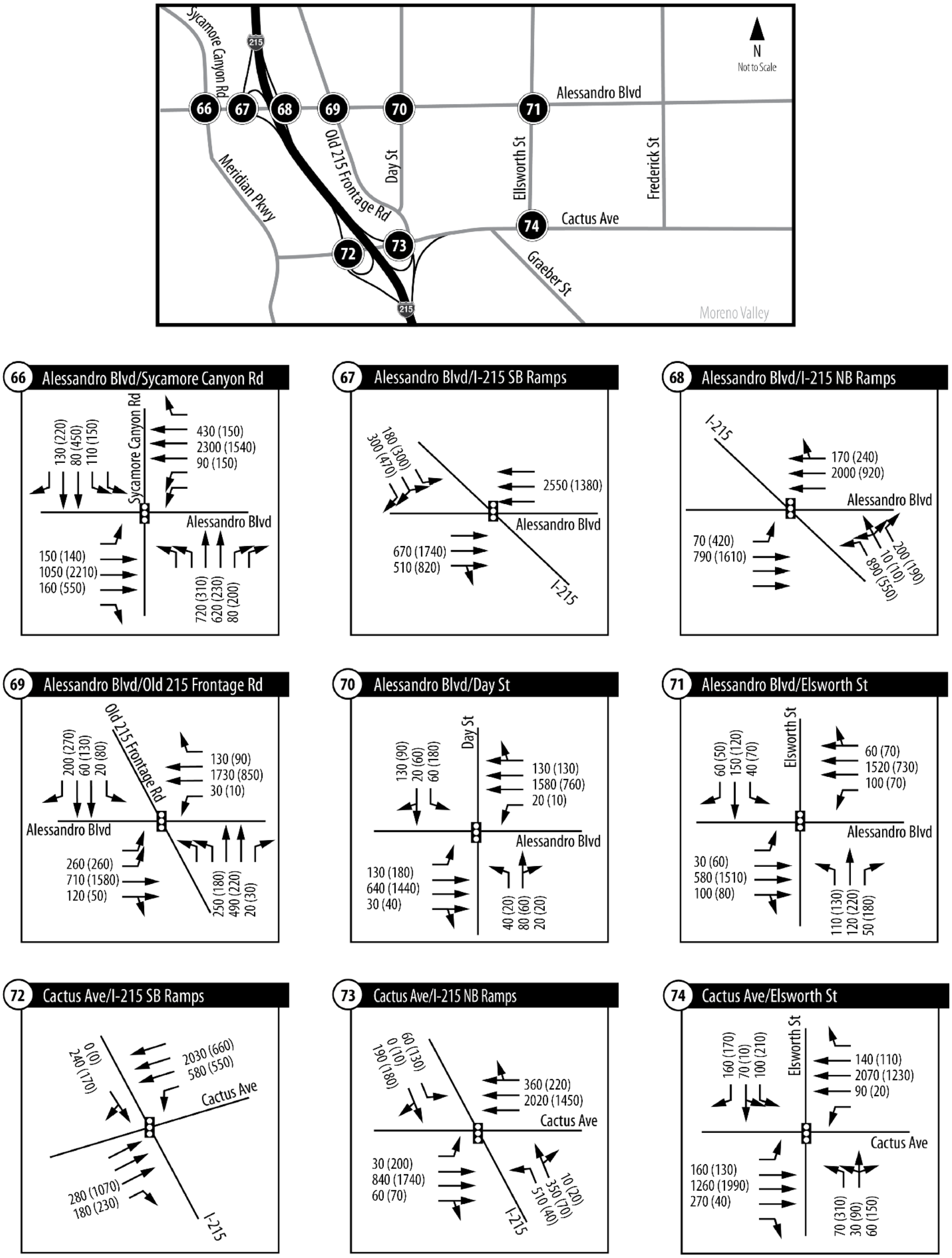

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (H)

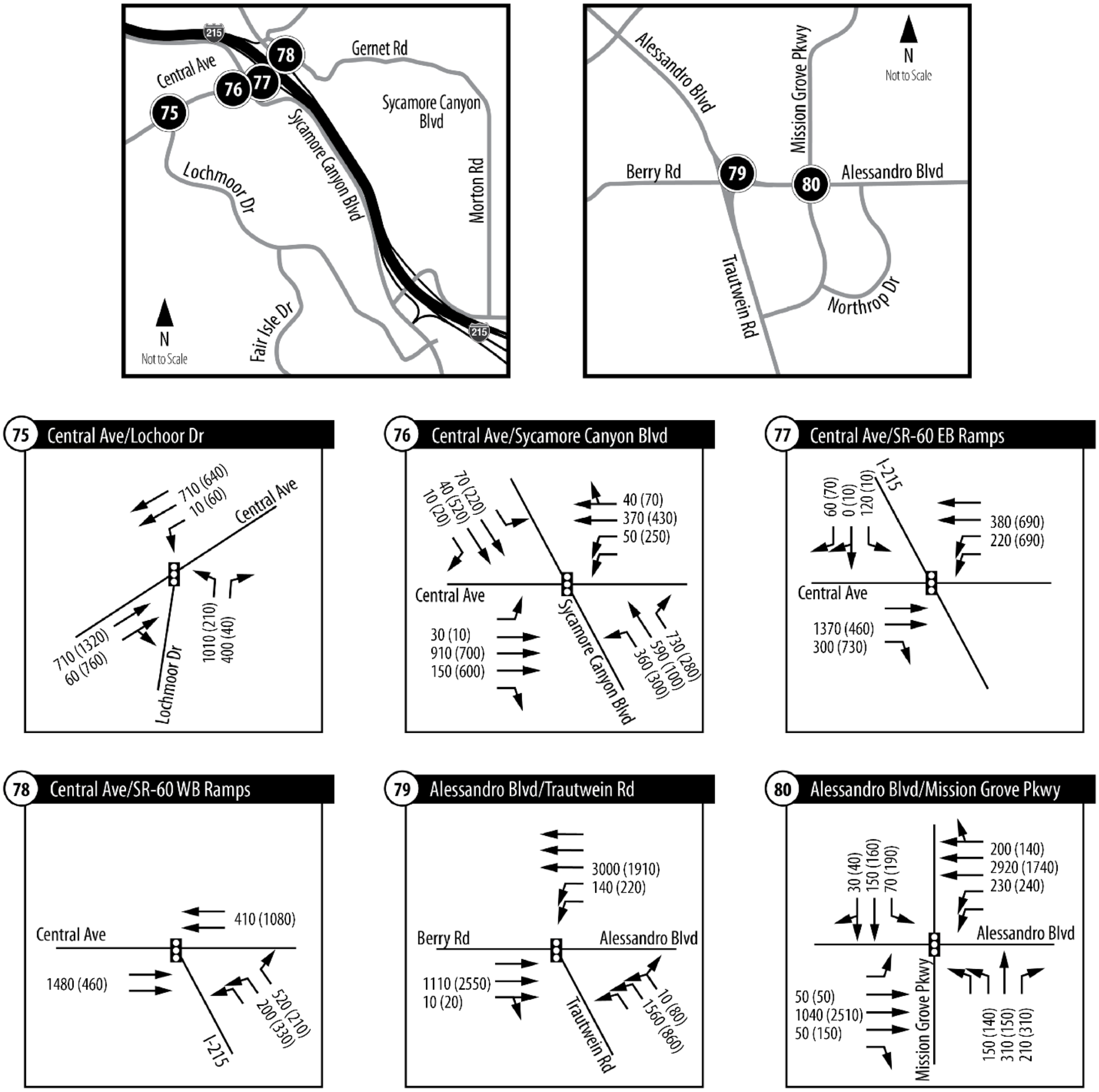

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (I)

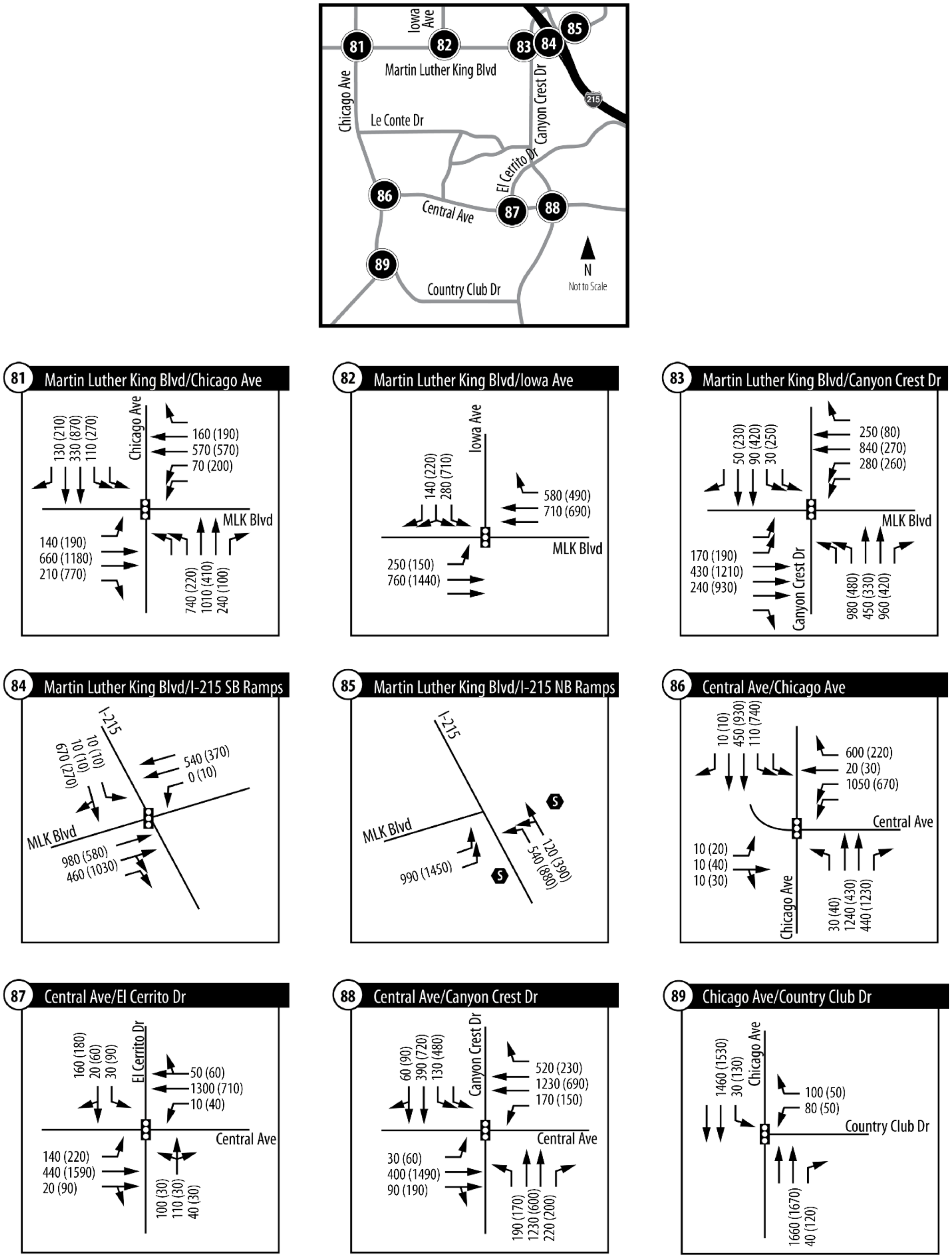

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (J)

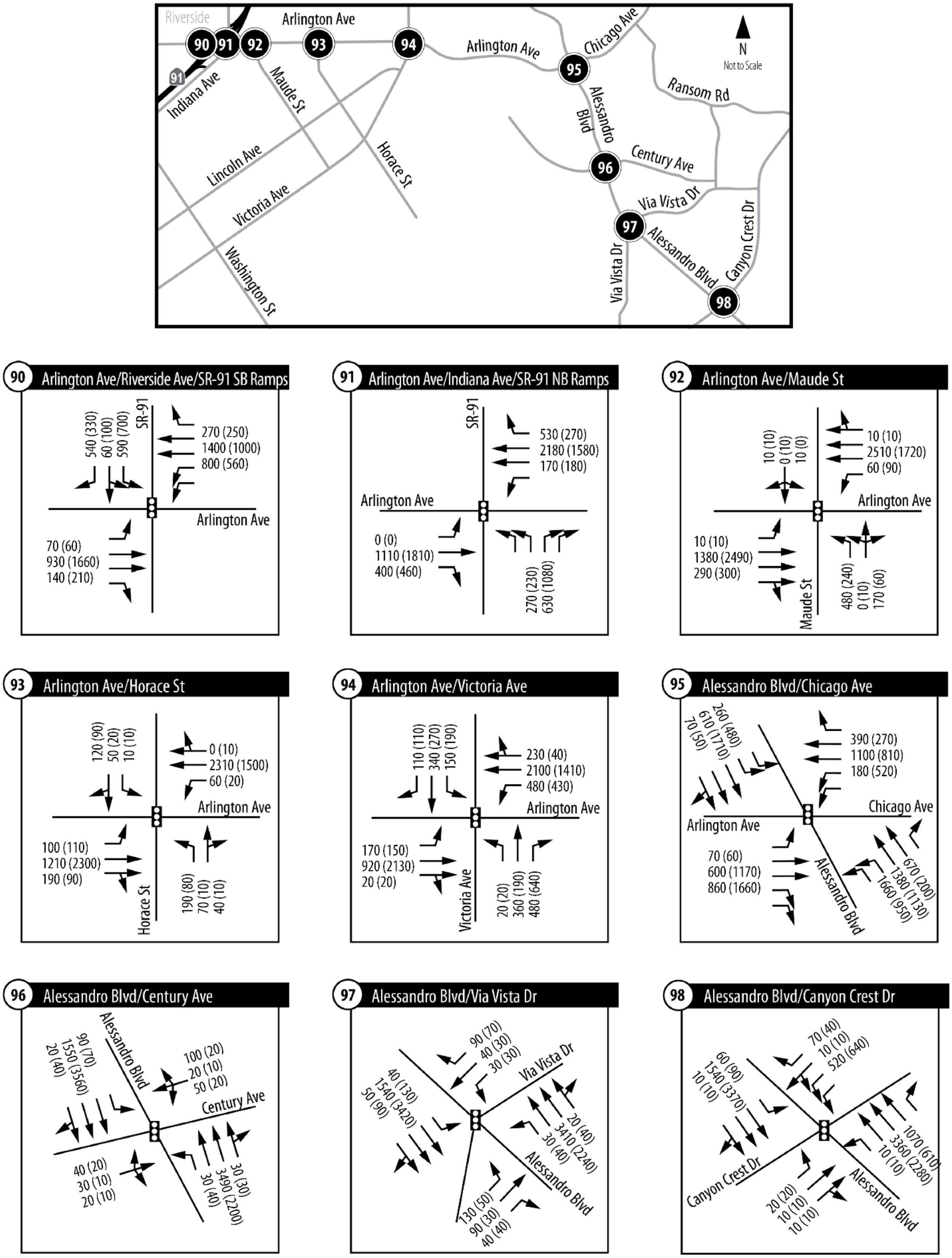

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (K)

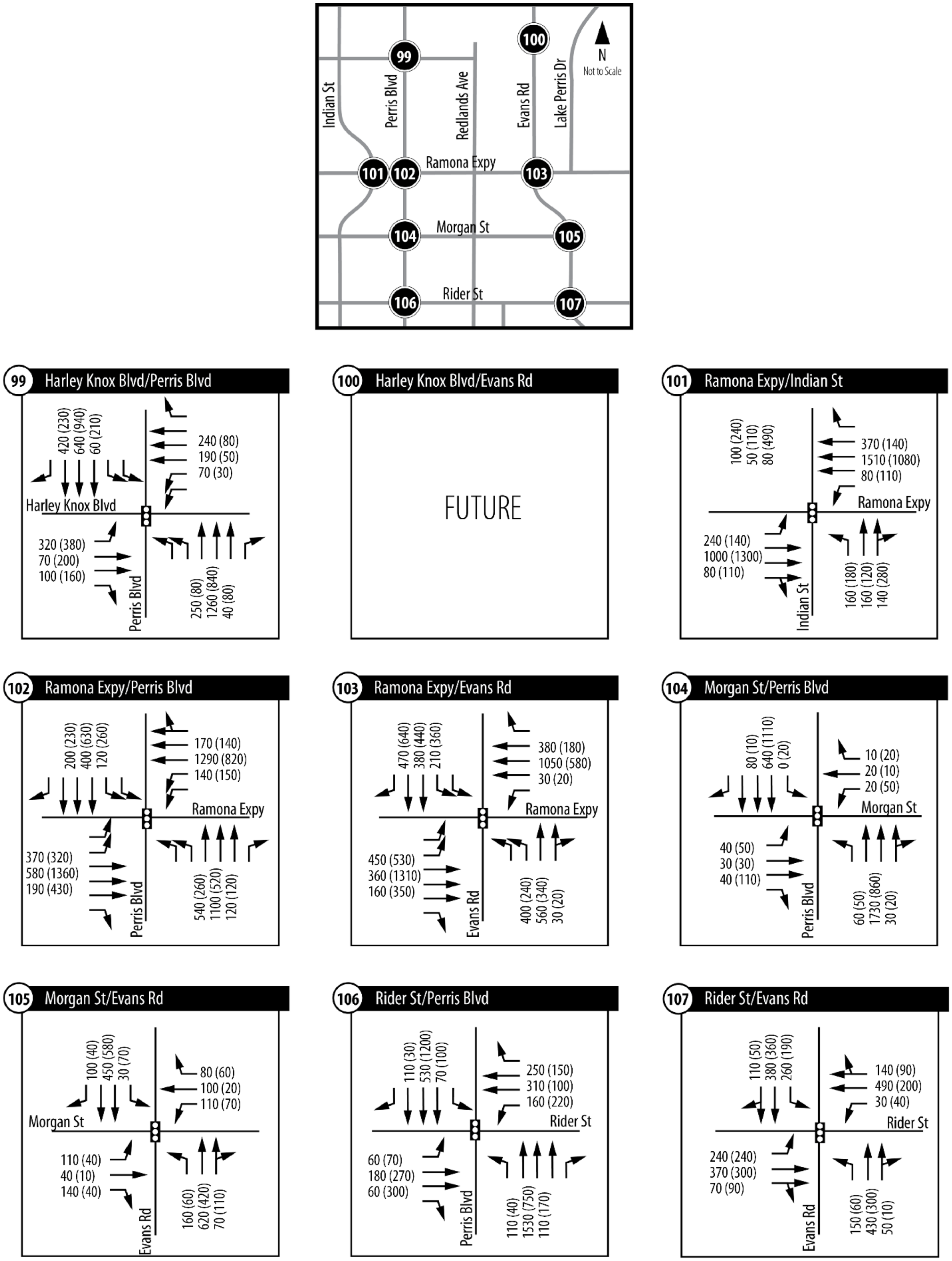

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (L)

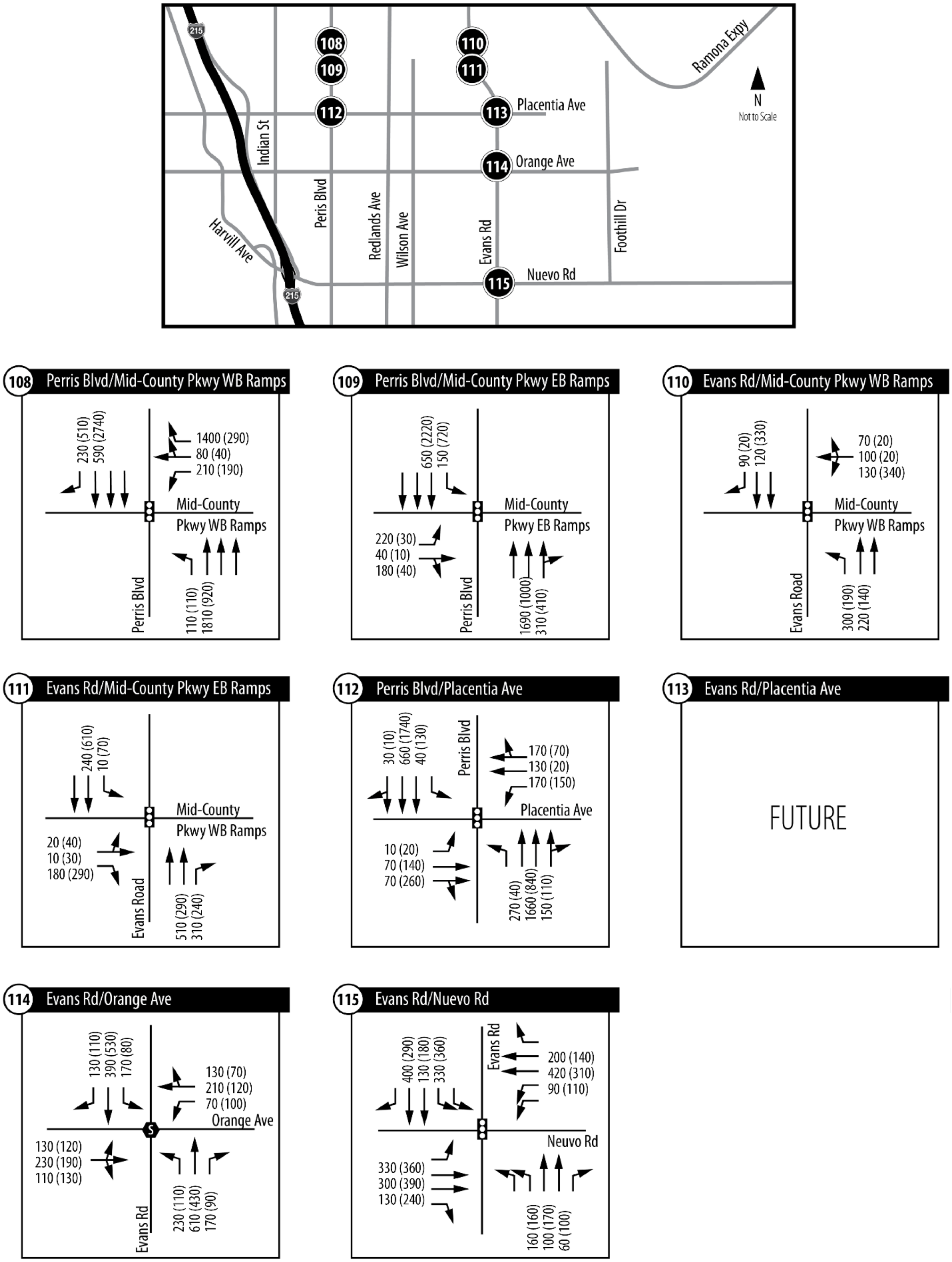

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (M)

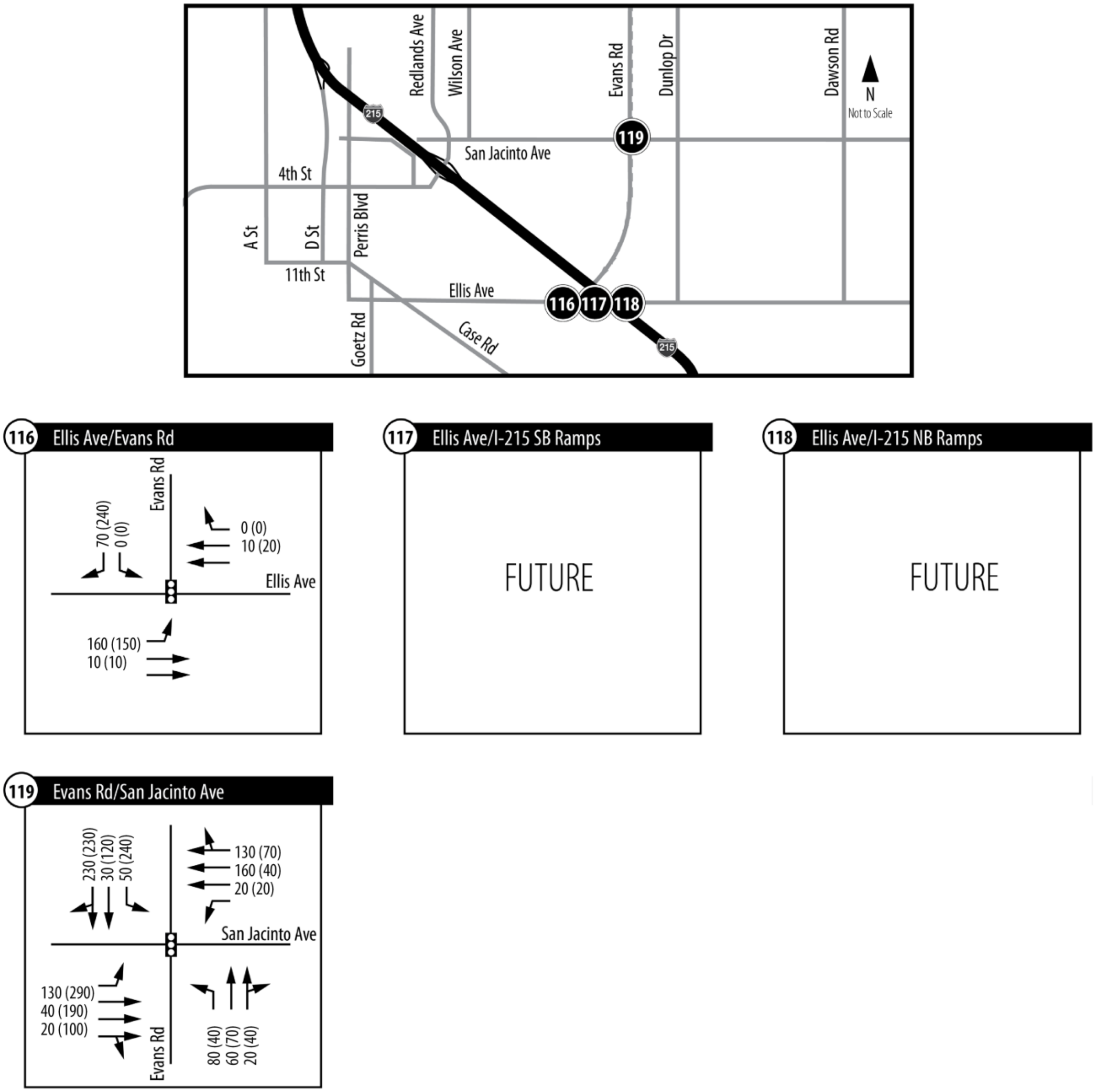

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (N)

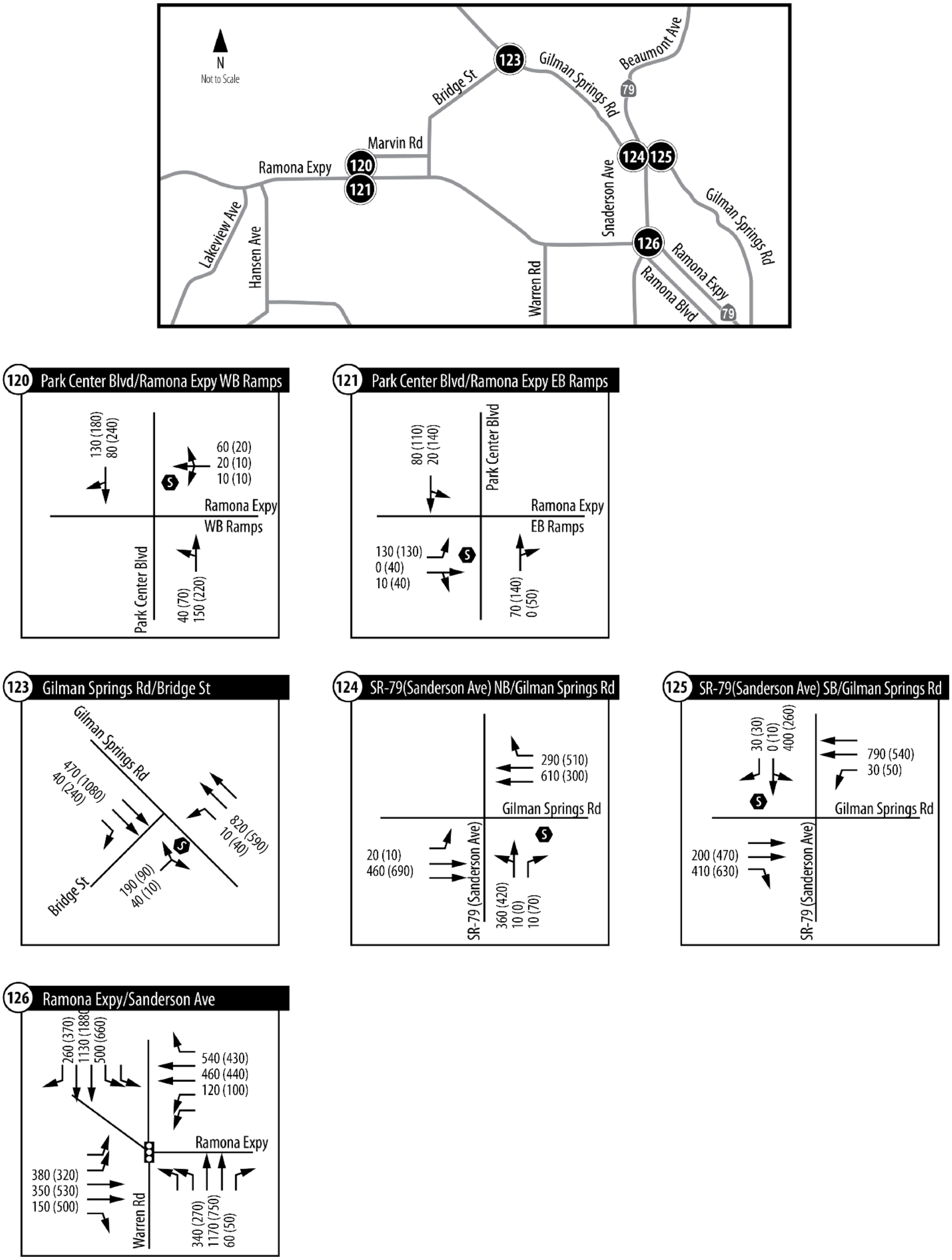

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (O)

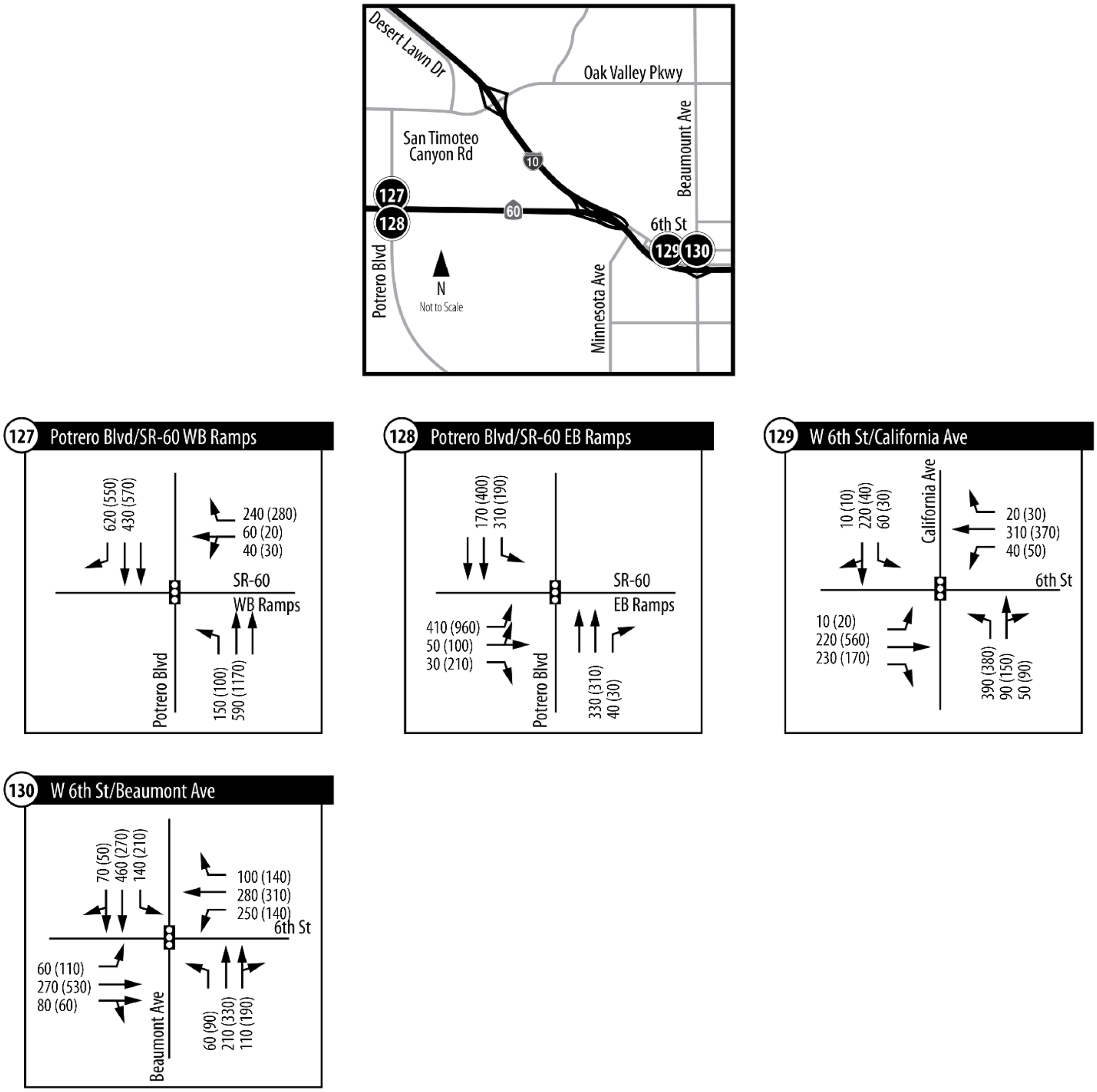

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (P)

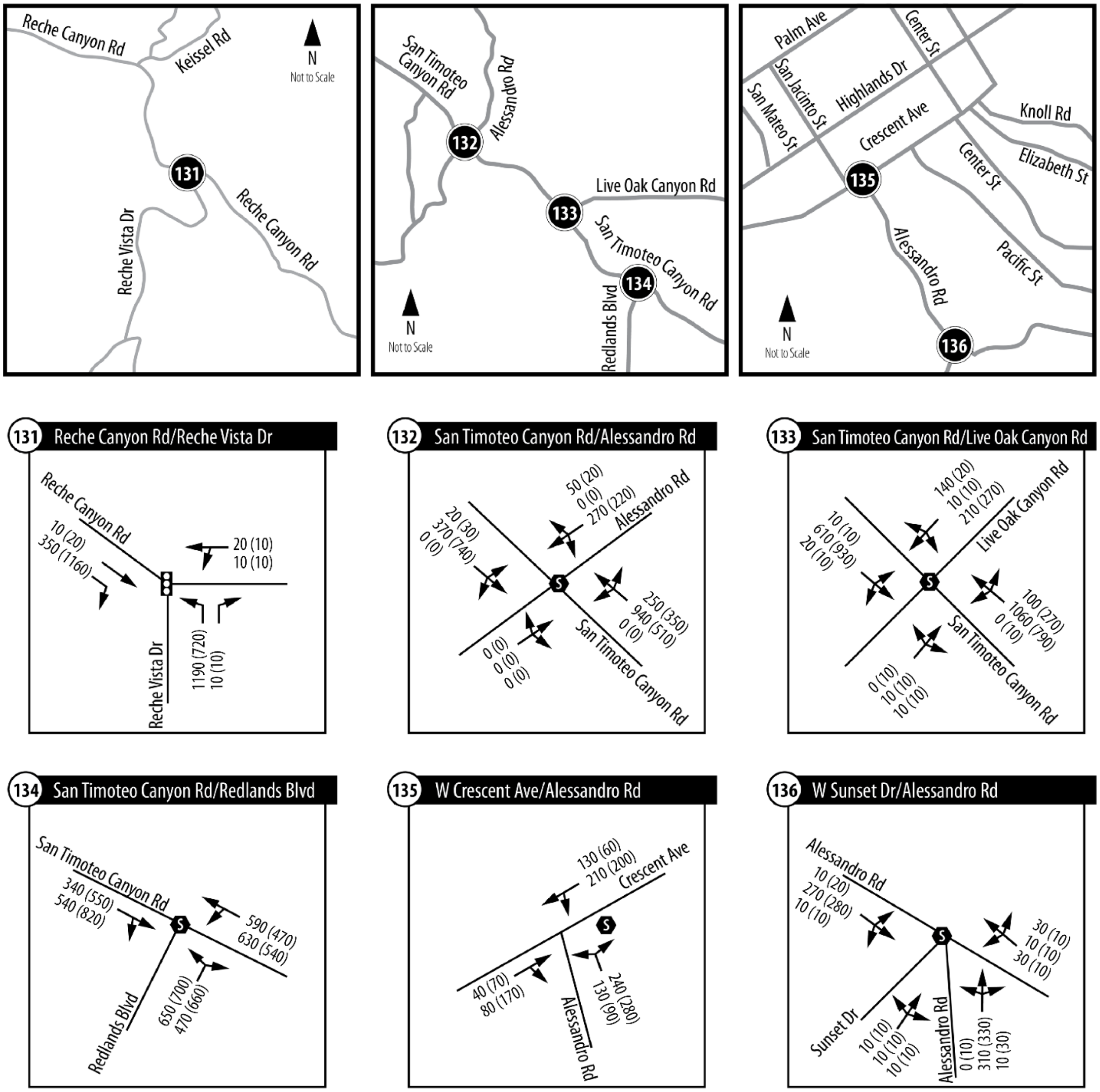

Figure 42: Turning Movement Volumes (PCE) under the 2025 No-Project Scenario (Q)

B. 2025 NO-PROJECT LEVEL OF SERVICE

Roadway Segment Analysis

Table 43 shows the LOS for study roadway segments under the 2025 No-Project Scenario. All segments would meet the general plan LOS target.

Table 43: LOS of Study Road Segments under the 2025 No-Project Scenario

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	1,174	A
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	906	A
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road		
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,524	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	5,484	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	22,365	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	20,260	C
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	16,194	B
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	11,586	A
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,885	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	10,282	A
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	990	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

▨ Indicates LOS exceeds the target level

Intersection LOS

Table 44 presents the LOS for the study intersections under the 2025 No-Project Scenario in the AM and PM peak hours. Detailed worksheets are presented in Appendix E. The number of intersections that exceeded the LOS target in the AM peak hour, PM peak hour, or both, rose from 19 under Existing Conditions to 30 under the 2025 No-Project Scenario due to population and employment growth. The intersections that were forecast to exceed the LOS target were:

- IN-10 Redlands Blvd/Locust Ave (AM, PM)
- IN-20 Oliver St/Alessandro Blvd. (AM, PM)
- IN-23 Redlands Blvd./Alessandro Blvd. (AM, PM)
- IN-41 Lasselle St/Iris Ave (PM)
- IN-53 Lasselle St./Cactus Ave. (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM, PM)
- IN-66 Alessandro Blvd./Sycamore Canyon Blvd. (AM)
- IN-75 Central Ave./Lochmoor Dr. (AM, PM)
- IN-76 Sycamore Canyon Blvd/Central Ave (AM, PM)
- IN-80 Alessandro Blvd./Mission Grove Pkwy. (AM, PM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM, PM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (PM)

- IN-94 Arlington Ave./Victoria Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-96 Alessandro Blvd./Century Ave. (AM)
- IN-97 Alessandro Blvd./Via Vista Dr. (AM, PM)
- IN-98 Alessandro Blvd./Canyon Crest Dr. (AM, PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave.) SB/Gilman Springs Rd. (AM, PM)
- IN-126 Ramona Expy./Sanderson Ave. (AM, PM)
- IN-129 W 6th St/California Ave (PM)
- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM, PM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Table 44: 2025 No-Project Scenario LOS at Study Intersections

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		Non-Existent	
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Non-Existent	
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.0	A	10.3	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	6.2	A	9.5	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	25.0	C
IN-12	Theodore St/Ironwood Ave	D	CSS	9.0	A	8.8	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	26.5	C	23.2	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.3	B	19.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	10.4	B	9.3	A
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.7	A	9.5	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	26.1	C	25.1	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	9.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	31.9	**D**	27.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	15.6	B	17.8	B
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	46.2	**E**	36.2	**E**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	26.2	C	19.7	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.1	B	17.5	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.0	A	3.2	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	15.1	C	14.2	B
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	24.7	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	34.3	C	47.3	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	30.7	C	21.2	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	22.2	C	23.3	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.8	C	42.4	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	17.2	B	19.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	19.0	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	9.0	A	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	37.6	D	20.9	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	16.6	B	25.2	C
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	34.8	C	50.4	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	44.3	D	42.3	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	24.5	C	22.9	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	39.6	D	58.7	**E**
IN-42	Nason St/Iris Ave	C	SIGNAL	18.0	B	19.4	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	28.6	C	25.7	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	12.3	B	11.8	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	37.0	D	35.9	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	21.0	C	18.7	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	23.9	C	24.2	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	26.2	C	24.8	C

Table 44: 2025 No-Project Scenario LOS at Study Intersections (continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.1	C	22.3	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.0	A	6.6	A
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	25.2	C	23.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	28.7	C	24.2	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	30.3	C	36.9	**D**
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	34.8	C	32.9	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	27.9	C	42.2	D
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	26.0	C	49.7	D
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	30.1	C	34.5	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	23.2	C	32.0	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	38.6	D	40.4	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	11.5	B	10.2	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	22.3	C	23.6	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.4	D	52.3	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.5	C	30.9	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	79.0	**E**	42.0	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	61.2	**E**	42.0	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	5.4	A	10.3	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	29.0	C	15.6	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	32.6	C	22.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.7	B	15.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.6	C	22.1	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.4	A	24.8	C
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	46.7	D	13.2	B
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	27.9	C	34.7	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.9	**E**	72.3	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	63.6	**E**	83.8	**F**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	9.1	A	23.5	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	24.0	C	9.1	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	37.7	D	22.7	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	72.1	**E**	56.9	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	32.8	C	54.3	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	23.9	C	13.7	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	107.5	**F**	57.3	**E**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	23.5	C	7.9	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.2	**E**	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	25.2	C	33.6	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	44.6	D	88.1	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.3	A	9.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	26.1	C	42.6	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.0	B	27.7	C
IN-92	Arlington Ave/Maude St	D	SIGNAL	34.5	C	53.5	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	24.3	C	11.5	B
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	175.9	**F**	>180	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	122.6	**F**	151.6	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	133.9	**F**	19.8	B

Table 44: 2025 No-Project Scenario LOS at Study Intersections (continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	120.7	**F**	114.3	**F**
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	60.9	**E**	85.6	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	37.5	D	37.5	D
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	24.0	C	62.8	E
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	46.0	D	27.2	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	59.4	E	68.1	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	15.5	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.8	C	24.7	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	25.6	C	18.4	B
IN-107	Evans Rd/Rider St	C	SIGNAL	40.1	**D**	30.2	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	40.4	D	35.2	D
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	33.5	C	30.4	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	88.9	**F**	97.4	**F**
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	24.7	C	37.1	**D**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	15.6	B	20.2	C
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	51.4	**D**	21.3	C
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	>180	**F**	171.9	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	19.6	C	20.3	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.8	B	11.1	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Freeway Mainline Basic Sections LOS

Table 45 presents the results of the LOS analysis for freeway mainline sections. The target LOS is currently exceeded in 40 mainline sections as follows:

North or Eastbound

- SR-60 Ramona Ave. to Central Ave. (AM, PM)
- SR-60 Central Ave. to Mountain Ave. (AM, PM)
- SR-60 Mountain Ave. to Euclid Ave. (AM, PM)
- SR-60 Euclid Ave. to Grove Ave. (AM, PM)
- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (PM)
- SR-60 Rubidoux Blvd. to Market St. (PM)
- SR-60 Market St. to Main St. (AM, PM)
- SR-60 Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 Pigeon Pass Rd. to Heacock St. (PM)
- SR-91 McKinley St. to Pierce St. (PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Adams St. to Madison St. (AM, PM)
- SR-91 Central Ave. to 14th St. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave./Washington St. (AM, PM)
- I-215 Auto Plaza Dr. to Mill St. (PM)

Southbound or Westbound

- SR-60 Euclid Ave. to Grove Ave. (PM)
- SR-60 Grove Ave. to Vineyard Ave. (PM)
- SR-60 Vineyard Ave. to Archibald Ave. (AM, PM)
- SR-60 Valley Way to Rubidoux Blvd. (PM)
- SR-60 Rubidoux Blvd. to Market St. (PM)
- SR-60 Market St. to Main St. (AM)
- SR-60 Main St. to SR-91 (AM)
- SR-60 Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 Fair Isle Dr./Box Springs Rd. to I-215 (PM)
- SR-60 I-215 to Day St. (AM)
- SR-60 Pigeon Pass Rd. to Heacock St. (AM)
- SR-91 McKinley St. to Pierce St. (AM, PM)
- SR-91 Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 Magnolia Ave. to La Sierra Ave. (AM, PM)
- SR-91 La Sierra Ave. to Tyler St. (AM, PM)
- SR-91 Tyler St. to Van Buren Blvd. (PM)
- SR-91 Van Buren Blvd. to Adams St. (PM)
- SR-91 Adams St. to Madison St. (PM)
- SR-91 Madison St. to Arlington Ave. (AM, PM)
- I-215 Harley Knox Blvd. to Van Buren Blvd. (PM)
- I-215 Center St. to La Cadena Dr. (AM, PM)
- I-215 La Cadena Dr. to Barton Rd. (AM, PM)
- I-215 Barton Rd. to Mt. Vernon Ave. (PM)

Table 45: 2025 No-Project Freeway Mainline Level of Service

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,520	29.7	D	6,580	28.2	D	6,700	26.6	D	6,540	26.5	D
F-3	SR-60	Ramona Ave to Central Ave	8,600	43.5	**E**	9,500	48.5	**F**	6,250	24.9	C	6,780	28.0	D
F-4	SR-60	Central Ave to Mountain Ave	7,710	35.2	**E**	8,390	37.3	**E**	6,850	29.0	D	6,860	29.3	D
F-5	SR-60	Mountain Ave to Euclid Ave	8,040	38.0	**E**	8,390	37.3	**E**	6,970	29.5	D	7,260	31.7	D
F-6	SR-60	Euclid Ave to Grove Ave	7,960	37.3	**E**	8,560	38.7	**E**	7,250	30.4	D	7,930	35.6	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	7,320	32.2	D	9,460	48.0	**F**	6,820	27.1	D	9,890	58.8	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,210	31.2	D	9,610	49.9	**F**	7,980	36.2	**E**	9,930	62.2	**F**
F-9	SR-60	Archibald Ave to Haven Ave	7,290	32.0	D	6,980	27.8	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	8,240	28.2	D	7,640	23.5	C	7,510	23.0	C	6,280	19.4	C
F-11	SR-60	Milliken Ave to I-15	4,670	18.6	C	5,430	20.5	C	5,640	21.6	C	5,880	23.0	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,210	16.7	B	4,820	18.0	B	5,200	15.7	B	5,290	16.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,640	14.4	B	3,970	14.9	B	5,480	20.9	C	6,690	27.5	D
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	3,120	12.6	B	3,430	13.1	B	4,790	18.2	C	5,670	22.4	C
F-15	SR-60	Pedley Rd to Pyrite St	3,290	13.2	B	3,760	14.3	B	4,760	18.1	C	5,670	22.4	C
F-16	SR-60	Pyrite St to Valley Way	3,940	15.8	B	4,170	15.8	B	4,940	18.8	C	5,650	22.3	C
F-17	SR-60	Valley Way to Rubidoux Blvd	5,110	29.1	D	5,840	32.7	D	5,170	27.7	D	5,930	35.7	**E**
F-18	SR-60	Rubidoux Blvd to Market St	5,320	30.9	D	6,110	35.6	**E**	5,340	28.6	D	6,210	38.2	**E**
F-19	SR-60	Market St to Main St	5,780	35.5	**E**	6,910	45.6	**F**	7,070	48.8	**F**	5,810	34.2	D
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			7,450	56.0	**F**	4,820	26.1	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,930	74.8	**F**	10,270	66.4	**F**	7,770	38.8	**E**	7,500	35.8	**E**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,300	21.0	C	6,590	25.5	C	7,540	31.6	D	8,230	38.5	**E**
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			4,740	50.7	**F**	3,260	26.9	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,020	25.3	C	5,100	59.6	**F**	5,080	59.8	**F**	2,860	22.7	C
F-30	SR-60	Heacock St to Perris Blvd	2,770	22.5	C	3,740	30.5	D	3,730	31.3	D	3,160	25.6	C
F-31	SR-60	Perris Blvd to Nason St	2,530	20.2	C	3,410	26.7	D	3,340	26.2	D	2,920	23.2	C
F-32	SR-60	Nason St to Moreno Beach Dr	2,270	12.1	B	3,140	15.5	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,120	11.3	B	2,910	14.4	B	2,780	21.4	C	2,410	18.8	C
F-34	SR-60	Redlands Blvd to Theodore St	1,800	9.6	A	2,790	13.8	B	2,500	12.7	B	2,050	10.7	A
F-35	SR-60	Theodore St to Gilman Springs Rd	1,930	7.7	A	3,050	11.3	B	2,530	9.7	A	2,040	8.0	A
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,380	8.0	A	2,220	11.5	B	1,810	10.1	A	1,580	9.0	A
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	1,500	12.1	B	2,270	16.8	B	1,460	11.5	B	1,390	11.1	B
F-38	SR-60	Potero Blvd to I-10	1,420	11.5	B	1,340	10.0	A	1,940	14.4	B	1,720	13.3	B
F-39	SR-91	I-15 to McKinley St	4,670	17.5	B	6,840	28.9	D	6,700	27.0	D	7,610	34.7	D
F-40	SR-91	McKinley St to Pierce St	5,230	27.9	D	5,840	35.5	**E**	7,250	53.3	**F**	7,330	62.3	**F**
F-41	SR-91	Pierce St to Magnolia Ave	6,760	44.9	**E**	7,590	68.9	**F**	7,260	52.2	**F**	7,260	57.8	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			7,410	55.1	**F**	7,330	59.6	**F**
F-43	SR-91	La Sierra Ave to Tyler St	7,390	30.6	D	7,530	33.8	D	6,320	38.3	**E**	7,390	61.1	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	7,410	30.5	D	8,330	40.3	**E**	6,470	25.4	C	8,280	39.8	**E**
F-45	SR-91	Van Buren Blvd to Adam St	4,950	18.6	C	5,280	20.8	C	6,760	27.0	D	8,230	39.3	**E**
F-46	SR-91	Adam St to Madison St	7,670	63.0	**F**	8,550	120.9	**F**	6,320	24.7	C	7,790	35.5	**E**

Table 45: 2025 No-Project Freeway Mainline Level of Service (continued)

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,440	55.8	**F**	7,240	56.6	**F**
F-49	SR-91	Central Ave to 14th St	7,300	56.6	**F**	6,200	40.8	**E**	5,650	21.6	C	7,260	31.3	D
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	5,650	21.6	C	7,260	31.3	D
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,030	11.3	B	2,500	9.3	A
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	2,990	11.2	B	2,930	10.9	A
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	3,170	11.9	B	3,680	13.6	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,170	11.9	B	3,680	13.6	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	3,700	13.9	B	4,350	16.1	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	5,200	19.8	C	5,000	18.7	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	3,160	11.9	B	2,640	9.8	A
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,020	12.1	B	3,250	9.7	A
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,430	13.4	B	4,080	12.3	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,830	14.6	B	5,980	17.8	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	4,440	14.2	B	5,920	17.9	B	2,790	8.5	A	5,460	16.3	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	3,770	19.8	C	6,720	42.4	**E**
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,000	15.1	B	6,260	24.1	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	5,410	29.5	D	5,950	34.0	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	7,630	33.2	D	7,220	29.4	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	7,710	64.0	**F**	7,280	51.2	**F**
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	7,720	64.3	**F**	7,400	52.7	**F**
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	**E**	6,150	36.7	**E**	6,570	41.4	**E**	7,460	53.9	**F**
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,350	25.1	C	5,840	22.3	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	**F**	6,460	25.4	C	6,020	22.8	C
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	4,930	18.5	C	3,740	13.9	B
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	5,750	25.3	C	5,190	19.6	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	5,880	26.4	D	5,330	20.4	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	6,330	29.3	D	5,480	21.1	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	5,810	26.0	D	5,150	19.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	5,580	19.1	C	5,060	15.5	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	5,460	24.0	C	4,960	19.0	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	5,390	23.6	C	4,980	19.1	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	4,830	20.9	C	4,660	17.8	B
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	4,620	19.9	C	4,560	17.4	B
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	4,110	17.4	B	4,150	15.6	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	4,100	17.4	B	4,200	15.8	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	3,570	15.2	B	3,570	13.4	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	3,590	15.2	B	3,580	13.5	B

▨ Indicates that the LOS exceeds the target level

Freeway Weaving LOS

Table 46 shows the weaving LOS under the 2025 No-Project Scenario. The target LOS is currently exceeded in 13 weave sections as follows:

North or Eastbound

- SR-60 from Main St. to SR-91 (AM, PM)
- SR-60 from SR-91 to Blaine St./3rd St. (PM)
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd. (PM)
- SR-60 from I-215 to Day St. (PM)
- SR-60 from Day St. to Pigeon Pass Rd./Frederick St. (PM)
- SR-91 from Magnolia Ave. to La Sierra Ave. (PM)
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd. (PM)

South or Westbound

- SR-60 from Haven Ave. to Archibald Ave. (PM)
- SR-60 from University Ave. to Martin Luther King Blvd. (AM, PM)
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd. (AM, PM)
- SR-91 from Arlington Ave. to Central Ave. (AM, PM)
- SR-91 from SR-60 to Mission Inn Ave./University Ave. (PM)
- I-215 from SR-60 to Columbia Ave. (AM, PM)

Table 46: 2025 No-Project Freeway Weaving Level of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,820	23	C	6,930	26	C	5,570	20.1	C	6,240	22.9	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,840	27.1	C	8,360	35.6	E
W-20	SR-60	Main St to SR-91	7,350	37.6	E	7,570	37.4	E	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,600	27.1	C	9,810	43.8	F	6,460	24.6	C	6,350	24.4	C
W-22	SR-60	Blaine St/3rd St to University Ave	6,460	25.4	C	7,490	31.3	D	7,390	25.8	C	7,010	25.8	C
W-23	SR-60	University Ave to Martin Luther King	6,400	24.7	C	7,750	27.4	C	7,710	42.4	E	7,610	> Capacity	F
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	6,480	27.4	C	9,050	35.6	E	7,900	39.1	E	7,550	38.0	E
W-27	SR-60	I-215 to Day St	3,320	12.9	B	10,550	47.4	F	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,400	15.4	B	7,590	35.6	E	5,080	34.3	D	3,460	21.9	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,720	15.1	B	2,340	13.2	B
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	7,320	34.2	D	7,590	38.0	E	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,300	27.8	C	5,250	20.6	C	7,550	36.4	E	7,320	38.0	E
W-51	SR-91	SR-60 to Mission Inn Ave/University	See Basic Analysis			See Basic Analysis			8,690	31.7	D	12,040	> Capacity	F
W-93	I-215	Cactus Ave to Alessandro Blvd	4,500	23.4	C	5,370	25.1	C	5,490	23.8	C	6,300	26.9	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			6,110	22.0	C	6,800	25.8	C
W-73	I-215	SR-60 to Columbia Ave	4,590	25.2	C	4,680	23.9	C	7,530	38.0	E	7,240	36.0	E
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,570	24.5	C	9,930	37.5	E	6,750	23.5	C	6,540	23.0	C
W-81	I-215	Mill St to 2nd St	6,060	23.0	C	7,480	28.4	D	7,430	26.0	C	6,600	23.4	C
W-82	I-215	5th St to Baseline Rd	4,370	12.9	B	7,510	23.4	C	7,460	23.9	C	5,970	18.7	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,280	11.2	B	4,260	14.4	B	4,100	16.0	B	4,190	16.2	B

▨ Indicates that the LOS exceeds the target level

Freeway Ramp LOS

Table 47 shows the level of service at study freeway ramps under the 2025 No-Project Scenario. One study ramp currently operates below the LOS “D” target, namely the SR-60 eastbound on-ramp from Martin Luther King Boulevard in the AM and PM peak hours.

Details of the LOS calculations for freeways under the 2025 No-Project Scenario can be found in Appendix L.

Table 47: 2025 No-Project Freeway Ramp Level of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,500	430	41.9	**F**	9,220	1,050	39.9	**F**
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,960	520	15.6	B	7,620	1,430	25.3	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,120	570	6.2	A	2,910	860	10.3	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,680	120	9.1	A	2,470	320	13.8	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,800	90	12.3	B	2,790	70	17.0	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,870	60	7.3	A	2,940	110	12.2	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,930	340	7.2	A	3,050	760	13.5	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,370	10	9.9	A	2,210	10	13.5	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,810	10	14.1	B	1,580	50	13.0	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	2,010	520	10.6	B	1,650	390	7.9	A
R-13	SR-60 WB	Off-Ramp to Theodore St	1	2,530	90	7.0	A	2,040	40	4.4	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	2,430	70	12.9	B	1,990	60	10.9	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	2,500	220	7.1	A	2,050	150	4.6	A
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	2,090	690	15.2	B	1,810	600	13.3	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,900	710	5.9	A	7,550	540	5.3	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,770	650	25.2	C	7,500	1,010	27.6	C

▨ Indicates that the LOS exceeds the target level

8. 2025 PLUS PHASE 1 SCENARIO

The analysis of the 2025 Plus Phase 1 Scenario shows the effect of project-related traffic if the first phase of the WLC project were built and no other changes from the 2025 No-Project scenario occurred to the roadway system or land uses.

A. ROAD SEGMENT LOS, IMPACTS, AND MITIGATIONS

Table 48compares the average daily traffic (ADT) volumes for study roadway segments for the 2025 No-Project Scenario and to their threshold of significance under the City's General Plan policies. The Project would have no impacts on roadway segments provided that the improvements in the RTP are implemented.

Table 48: 2025 Plus Phase 1 Road Segment Impacts and Mitigations

					2025 No-Project Conditions			2025 Plus Phase 1 Conditions			
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Project Impact Significant?
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	1,174	A	4U	2,267	A	
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,246	A	6D	24,242	A	
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	906	A	4D	1,668	A	
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			Future Road			
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	6D	22,164	A	
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			4U	3,342	A	
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	1,164	A	
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	10,947	A	
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	3,524	A	4U	6,214	A	
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	9,706	A	
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	2,801	A	4U	3,719	A	
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,801	A	4U	5,951	A	
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	5,484	A	4U	6,690	A	****
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	22,365	C	6D	23,267	C	
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	20,260	C	6D	18,028	C	
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	16,194	B	4U	15,793	B	
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	11,586	A	4U	10,950	A	
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	5,885	A	2U	350	A	
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	10,282	A	4U	8,351	A	
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	990	A	4U	8,819	A	

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

**** Due to the severing of Alessandro Blvd. and the diversion of traffic to other routes, there would be no need to widen this section beyond the current 2U configuration

▨ Indicates LOS exceeds the target level

B. INTERSECTION LOS, IMPACTS, AND MITIGATIONS

Figure 43 shows the turning movement volumes under the 2025 Plus Phase 1 Scenario (see Figure 11 for the key map). Table 49 presents the LOS for the study intersections under the 2025 Plus Phase 1 Scenario in the AM and PM peak hours. Detailed worksheets are presented in Appendix F. Conditions would be worse than the target LOS at 26 locations, 24 of which would have poor LOS even if the WLC were not built. These are:

Would Exceed Threshold of Significance Under Both the 2025 No-Project Scenario and the 2025 Plus Phase 1 Scenario

- IN-10 Redlands Blvd/Locust Ave. (AM, PM)
- IN-20 Oliver St/Alessandro Blvd. (AM, PM)
- IN-53 Lasselle St./Cactus Ave. (PM)
- IN-65 Perris Blvd./Cactus Ave. (AM)
- IN-66 Alessandro Blvd./Sycamore Canyon Blvd. (AM)
- IN-75 Central Ave./Lochmoor Dr. (AM)
- IN-76 Sycamore Canyon Blvd/Central Ave (PM)
- IN-80 Alessandro Blvd./Mission Grove Pkwy. (AM, PM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (PM)
- IN-94 Arlington Ave./Victoria Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-98 Alessandro Blvd./Canyon Crest Dr. (PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-114 Evans Rd./Orange Ave. (AM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave.) SB/Gilman Springs Rd. (AM, PM)
- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM, PM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Would exceed the target LOS under the 2025 Plus Phase 1 Scenario, but not under the 2025 No Project Scenario:

- IN-27 Redlands Blvd./Cactus Ave. (PM)
- IN-123 Gilman Springs Rd./Bridge St. (PM)

Table 50 identifies where impacts occur and mitigation measures that would reduce the impacts to a less-than-significant level. As shown in Table 50, there are 13 study intersections where the project would have a significant impact. The mitigation measures shown in Table 50 are those that would be needed to reduce the impact of the project to a less-than-significant level. The feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

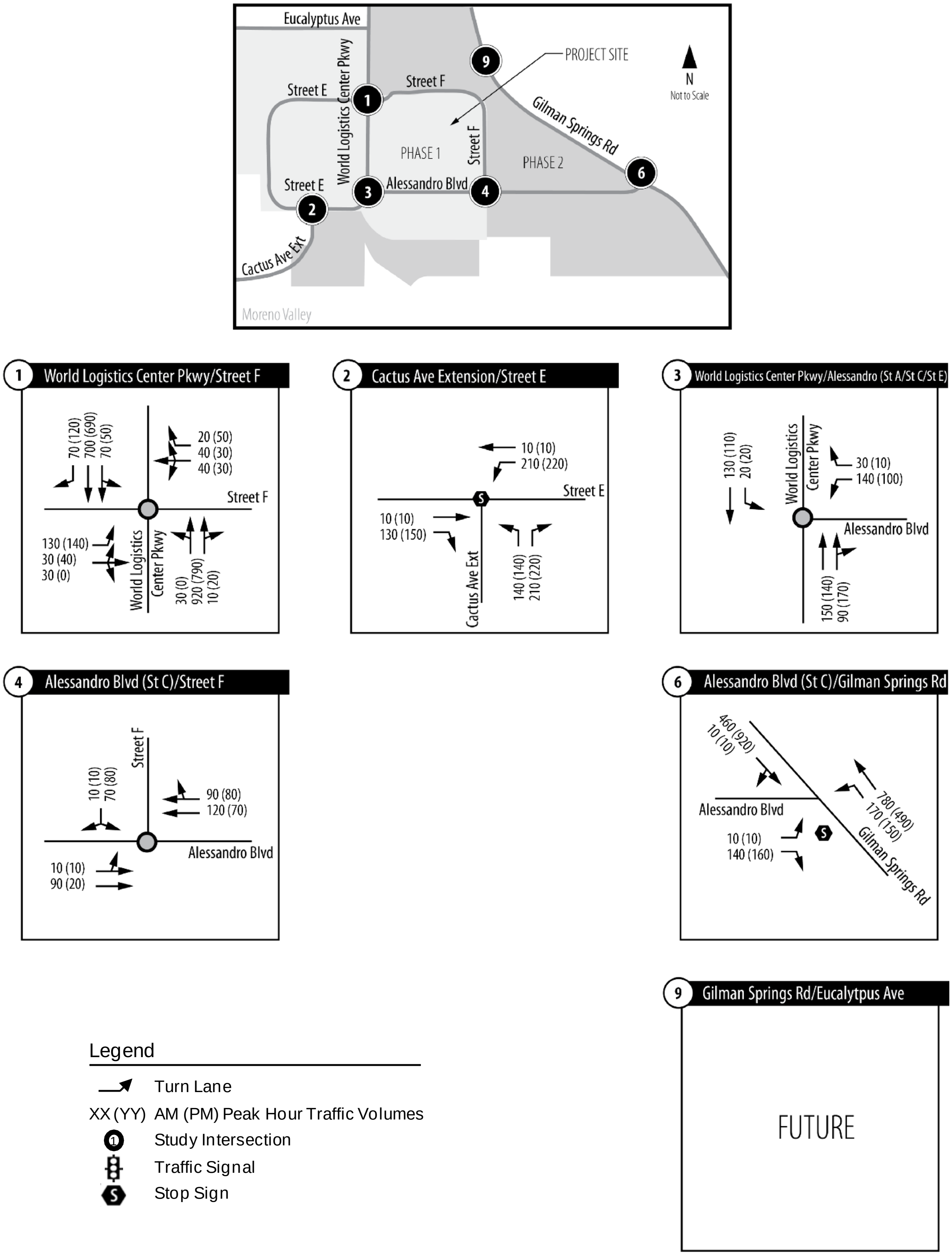

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario

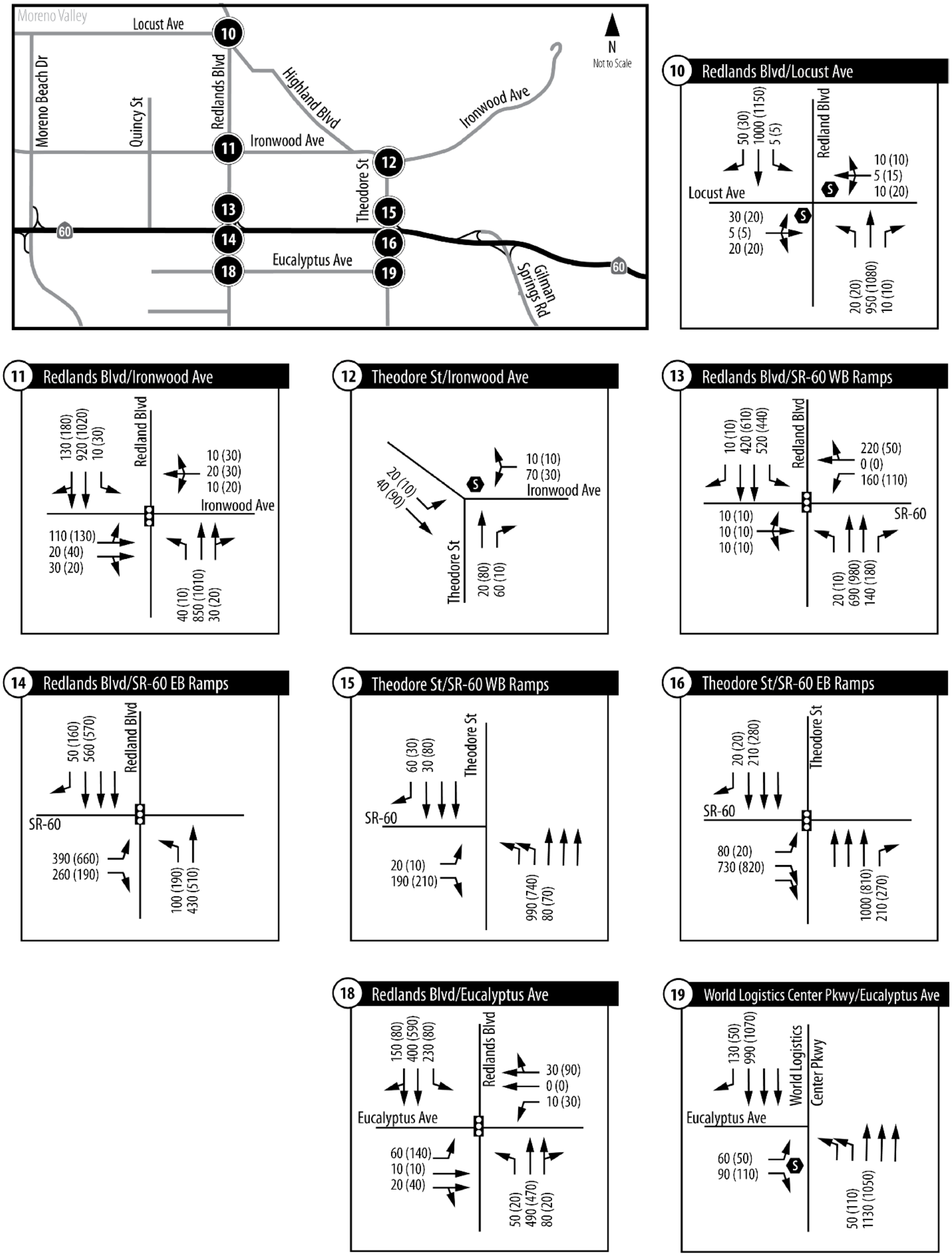

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (B)

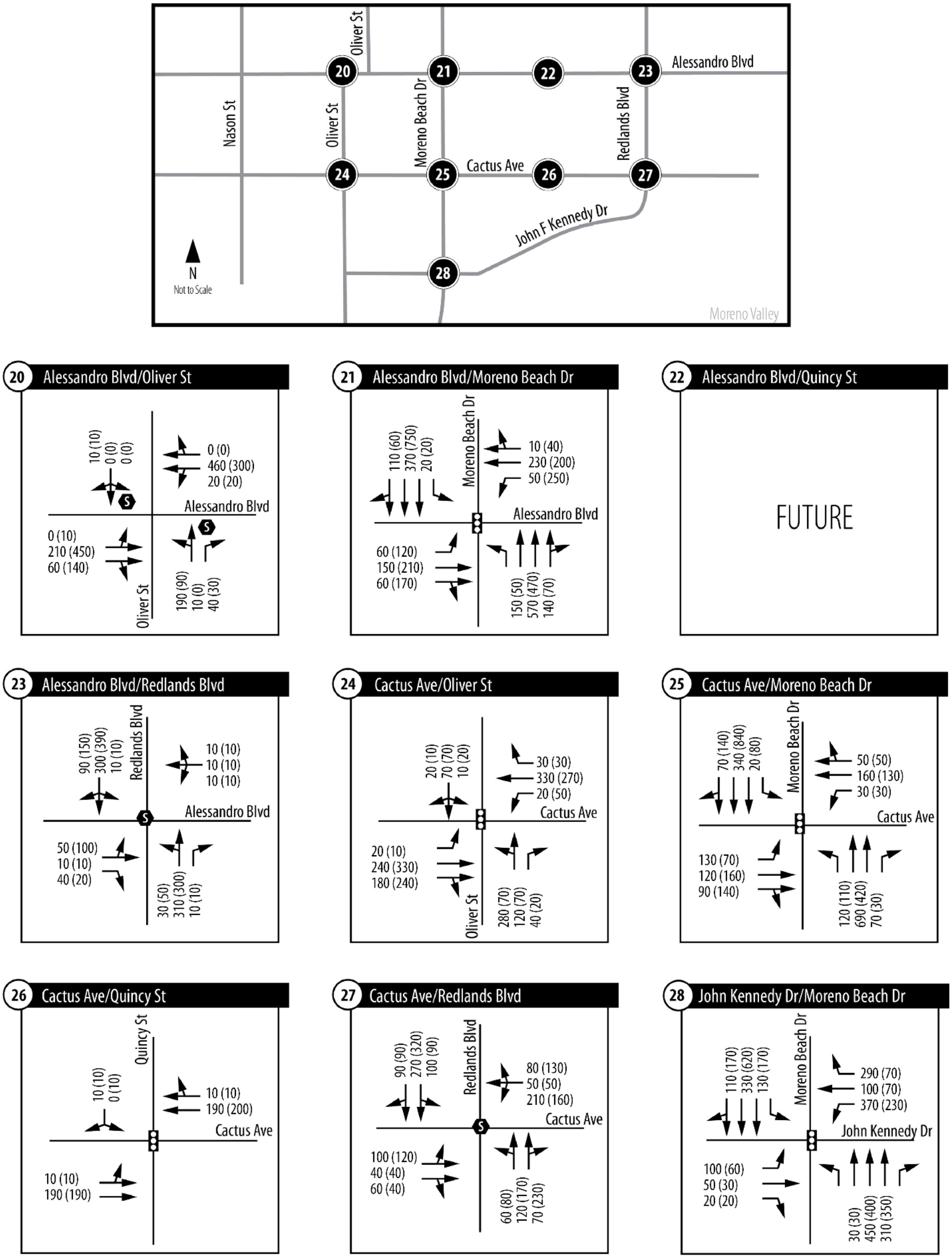

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (C)

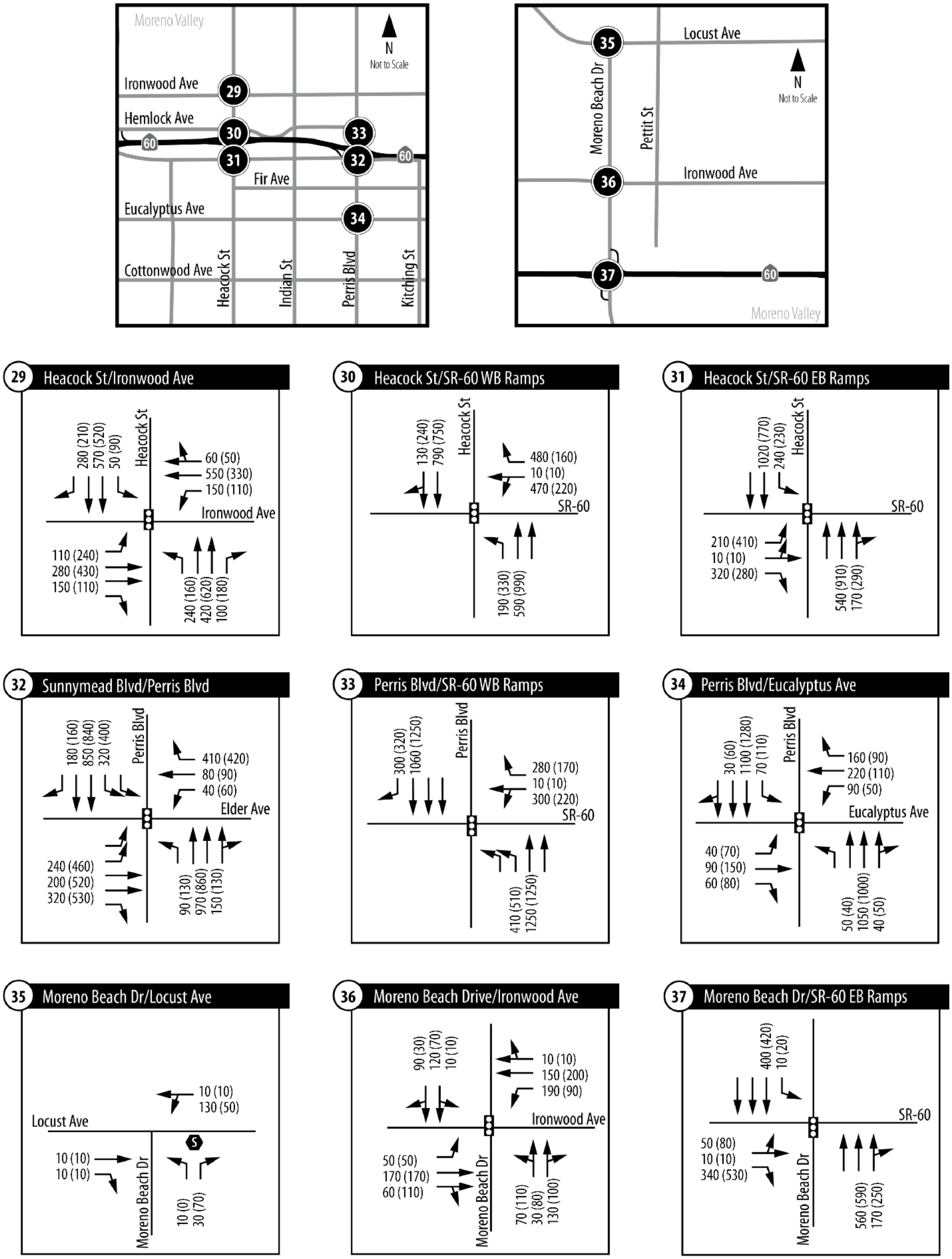

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (D)

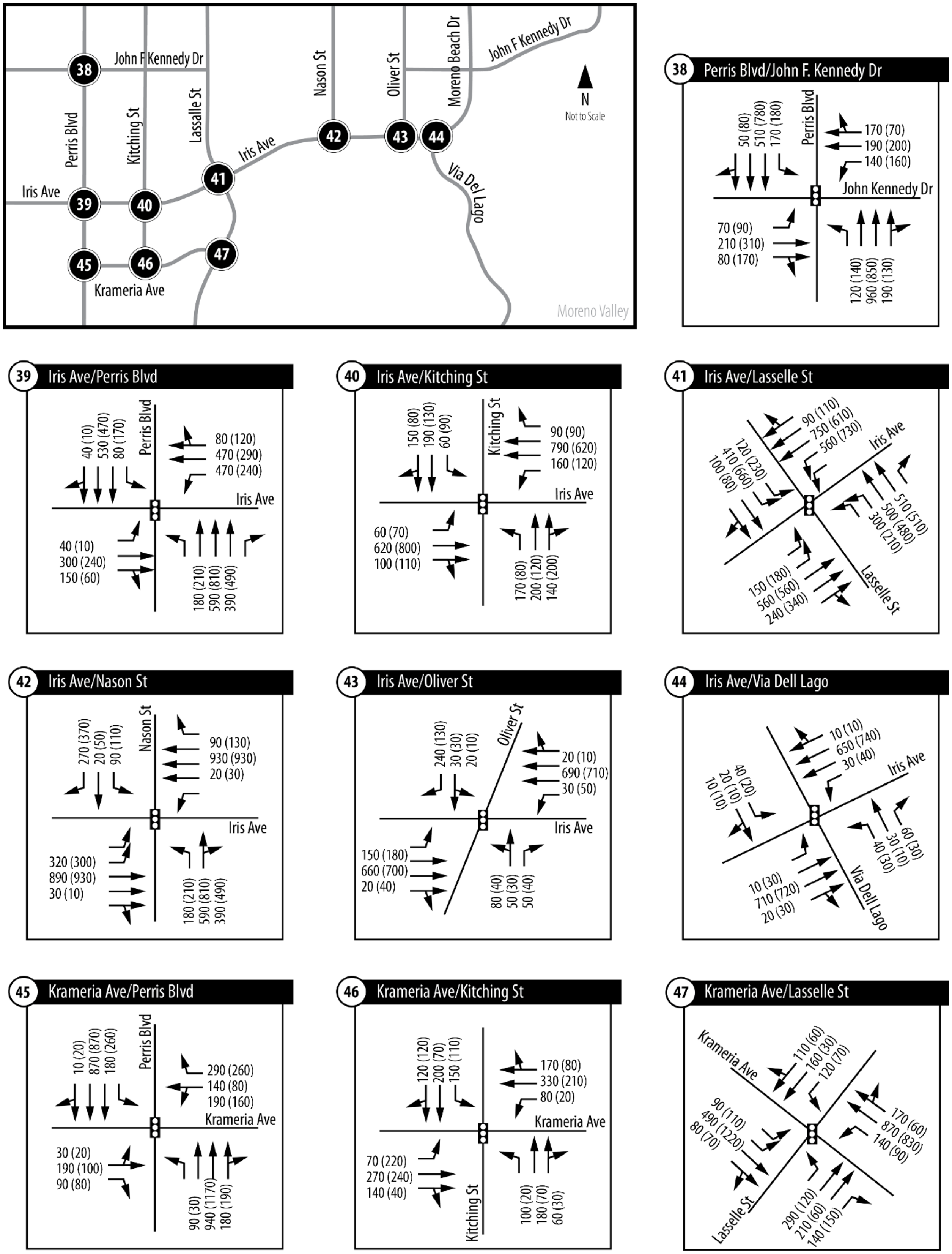

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (E)

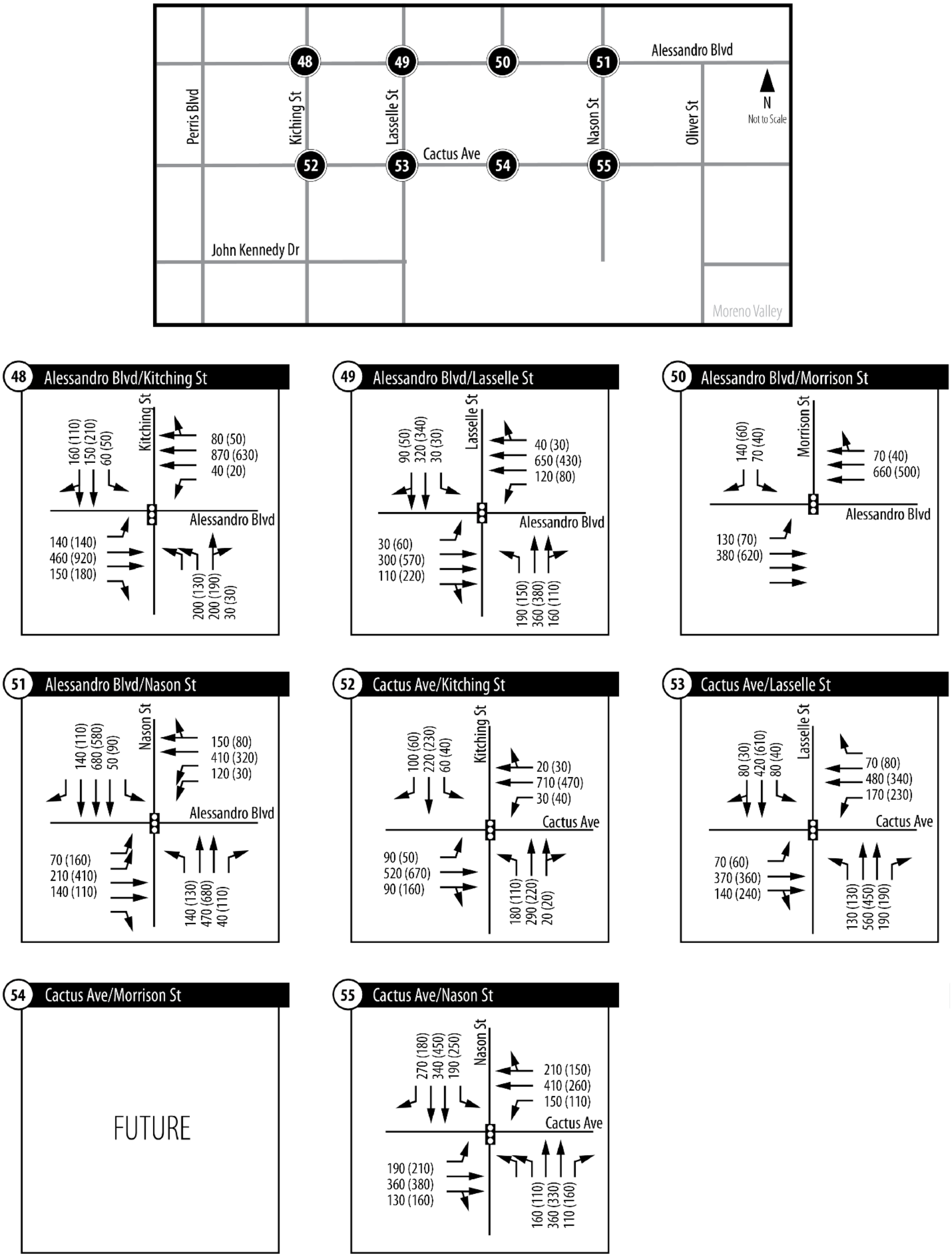

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (F)

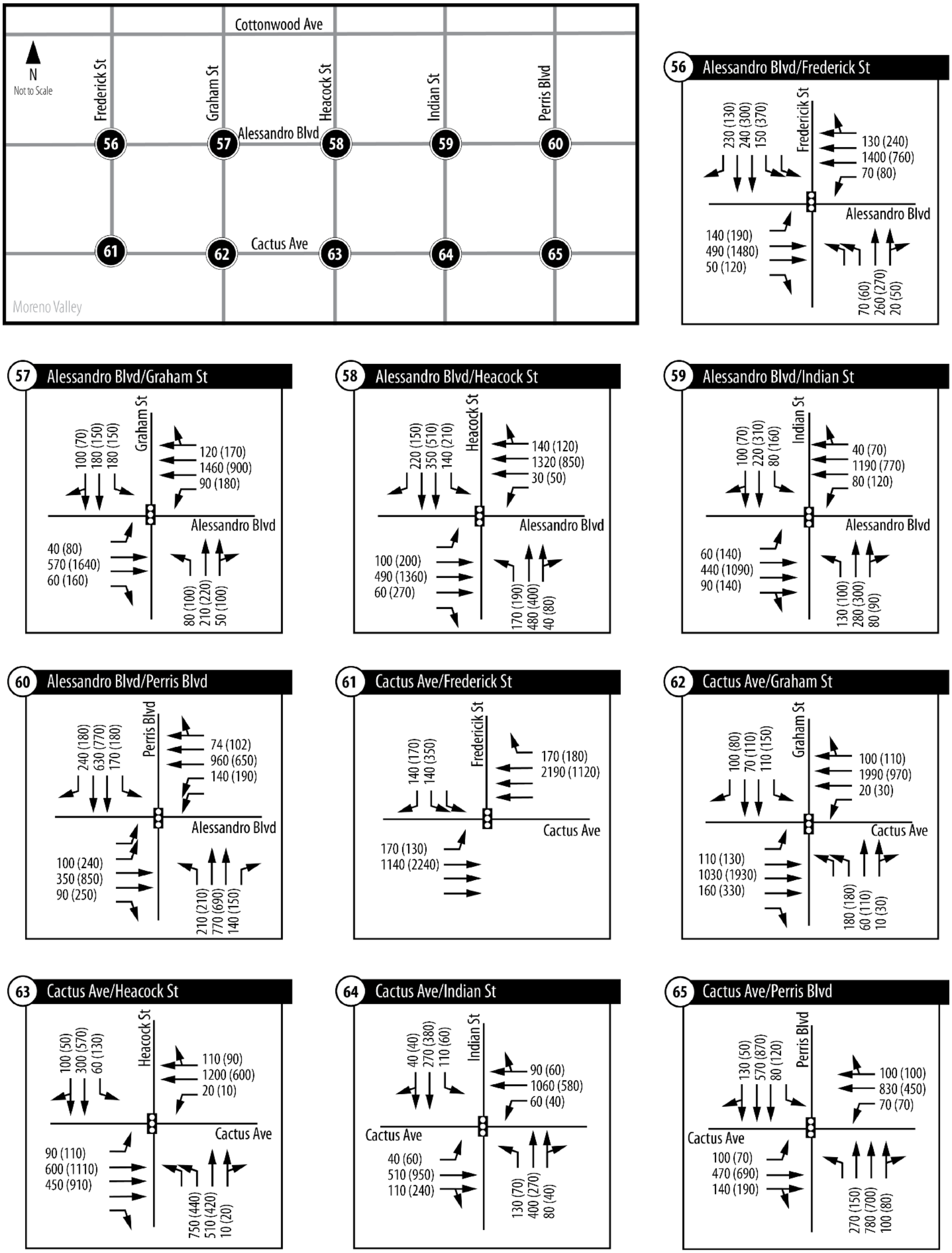

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (G)

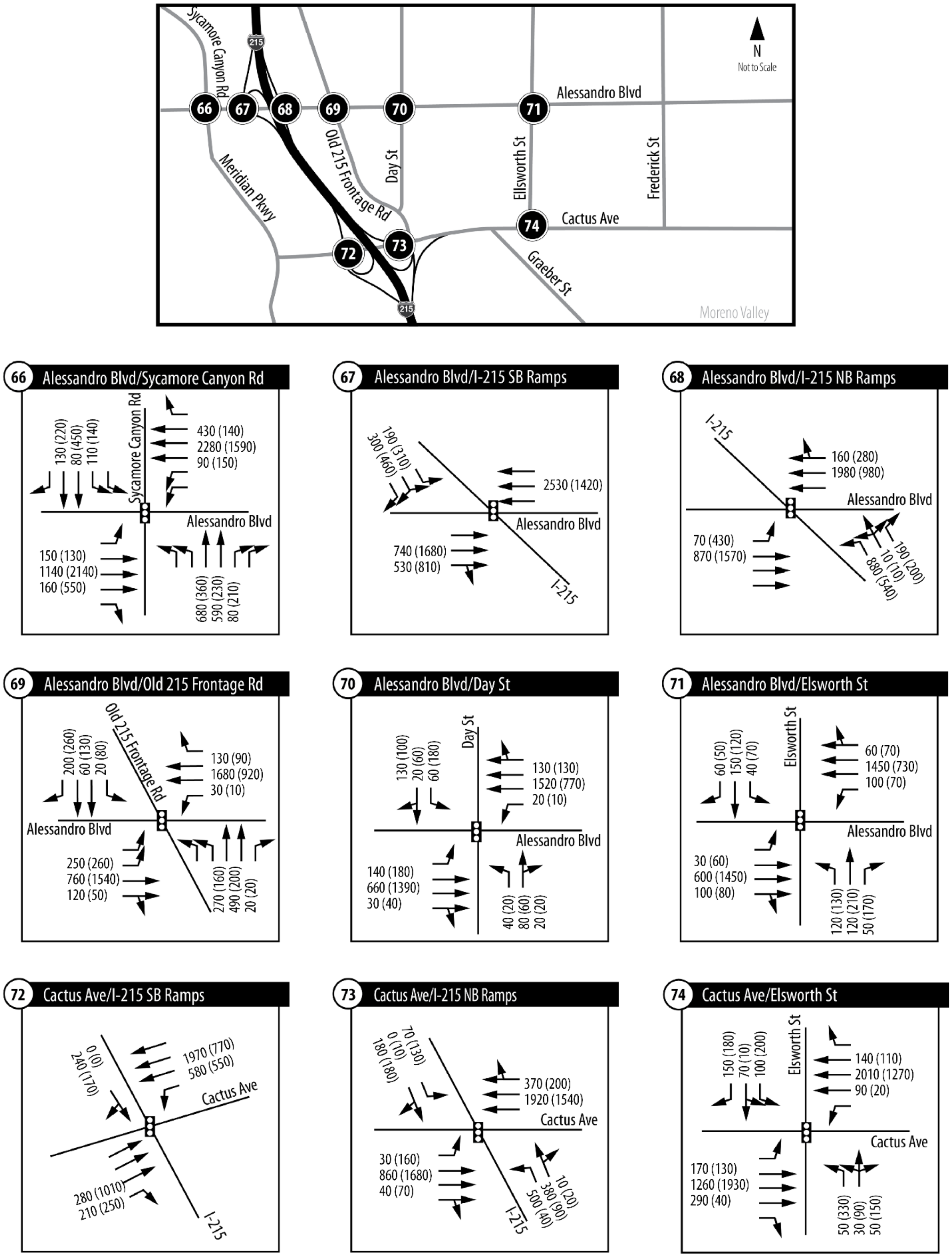

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (H)

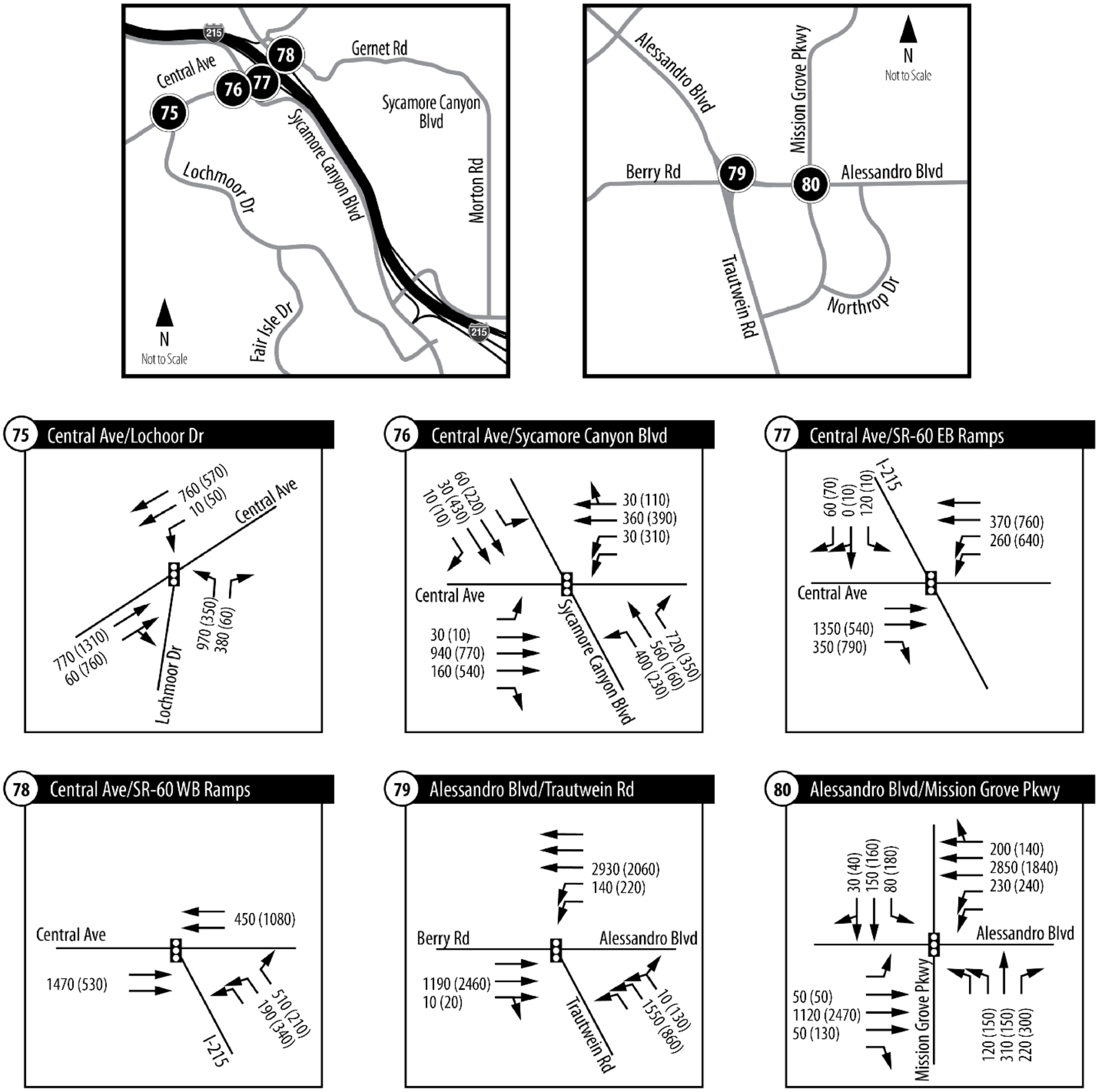

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (I)

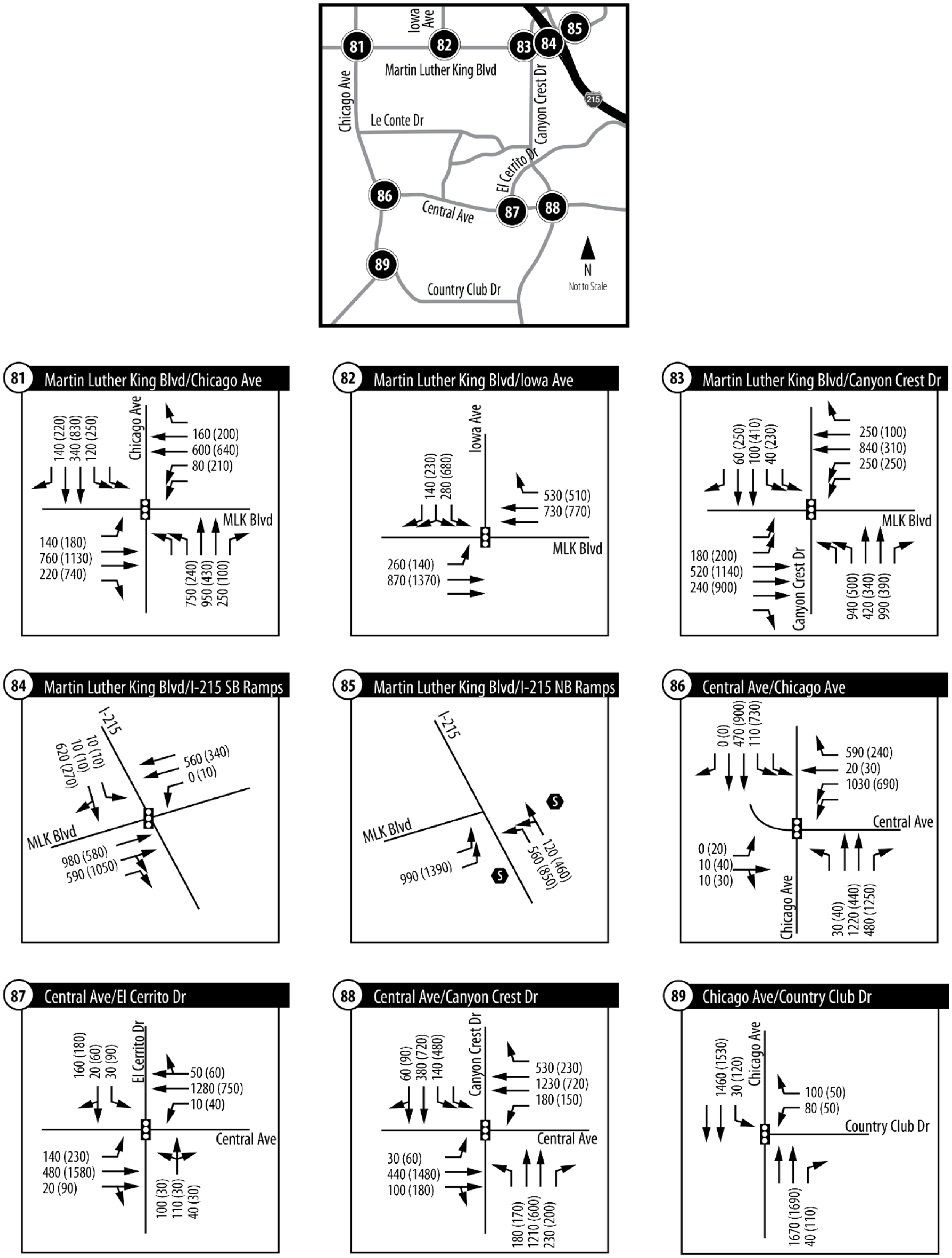

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (J)

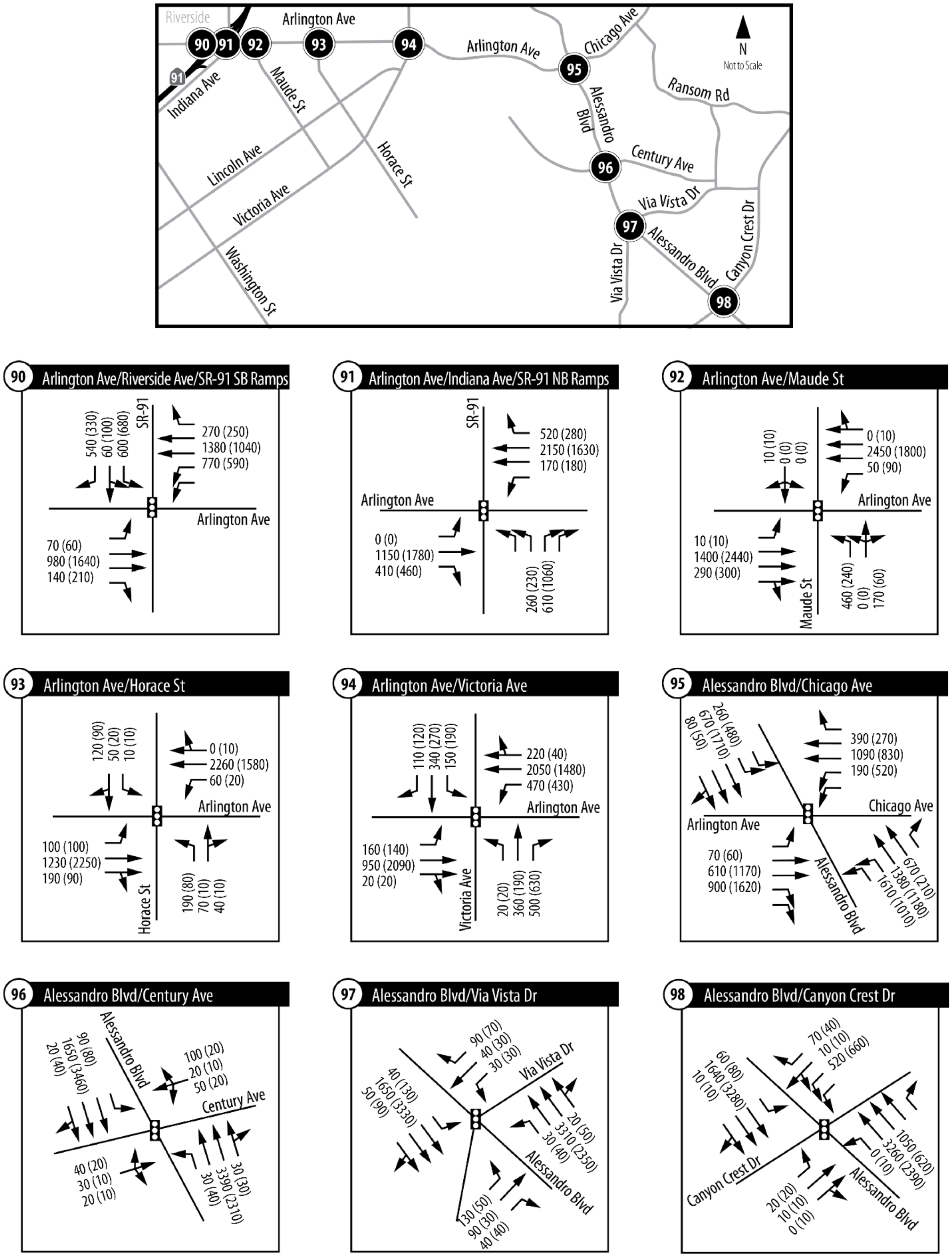

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (K)

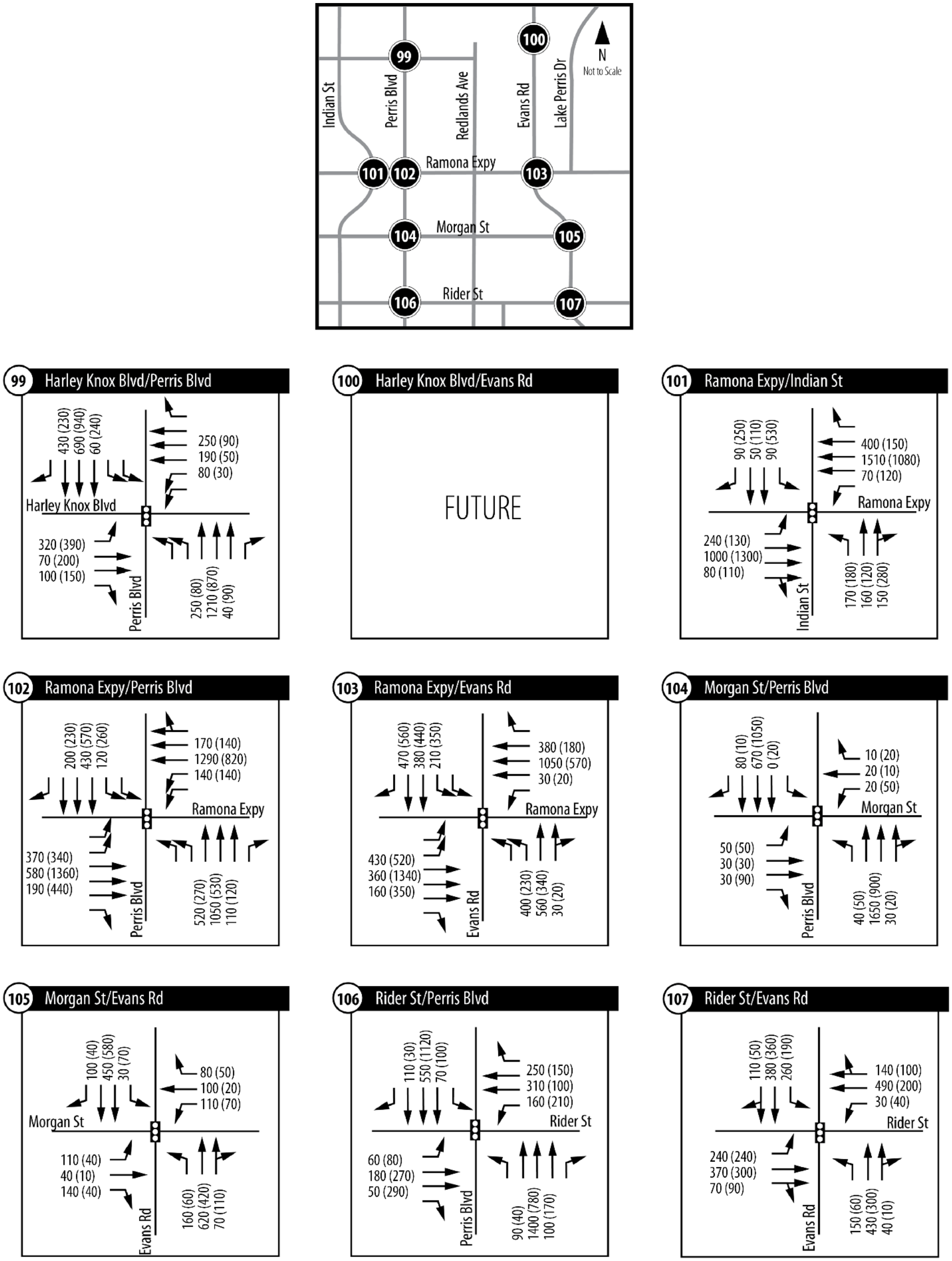

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (L)

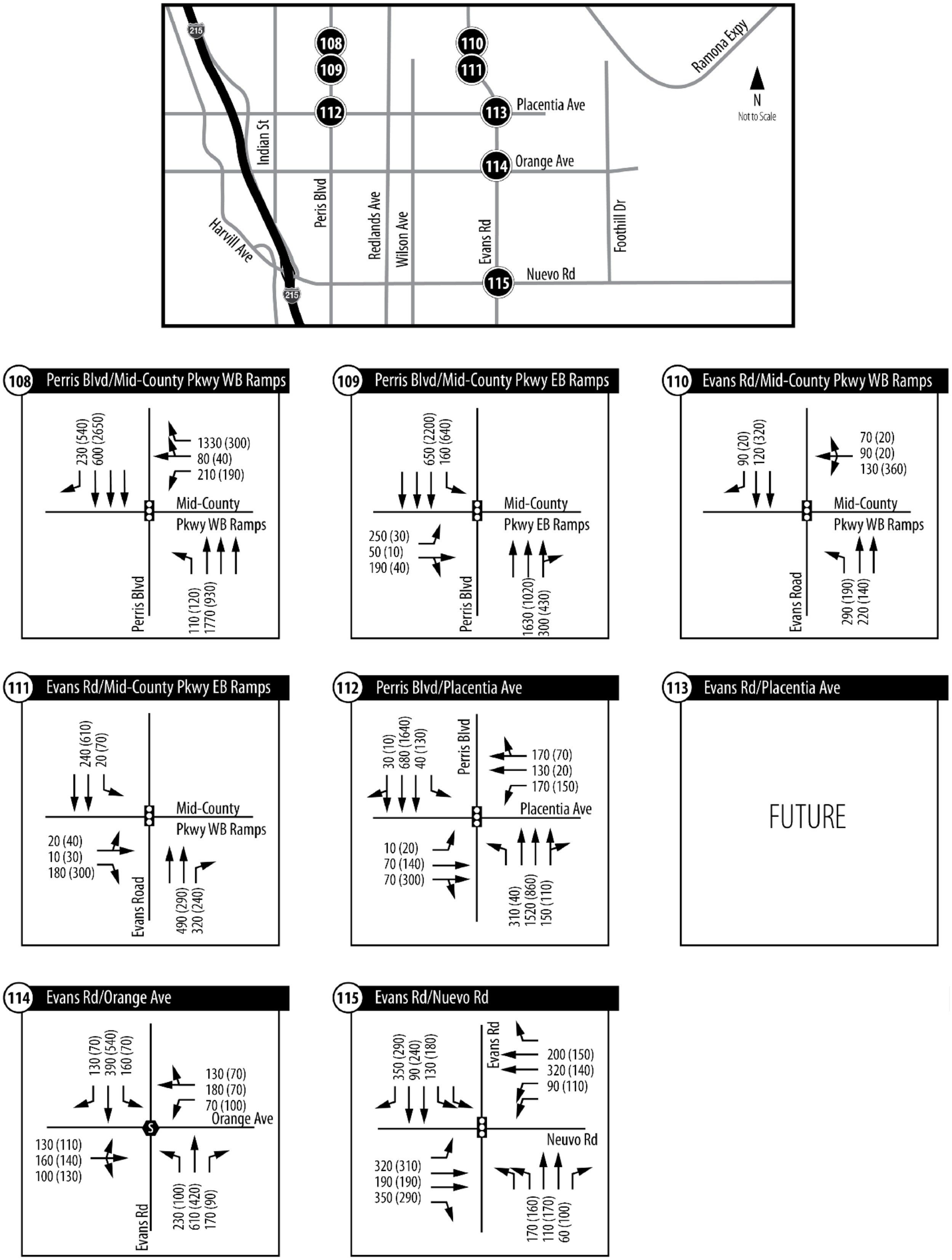

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (M)

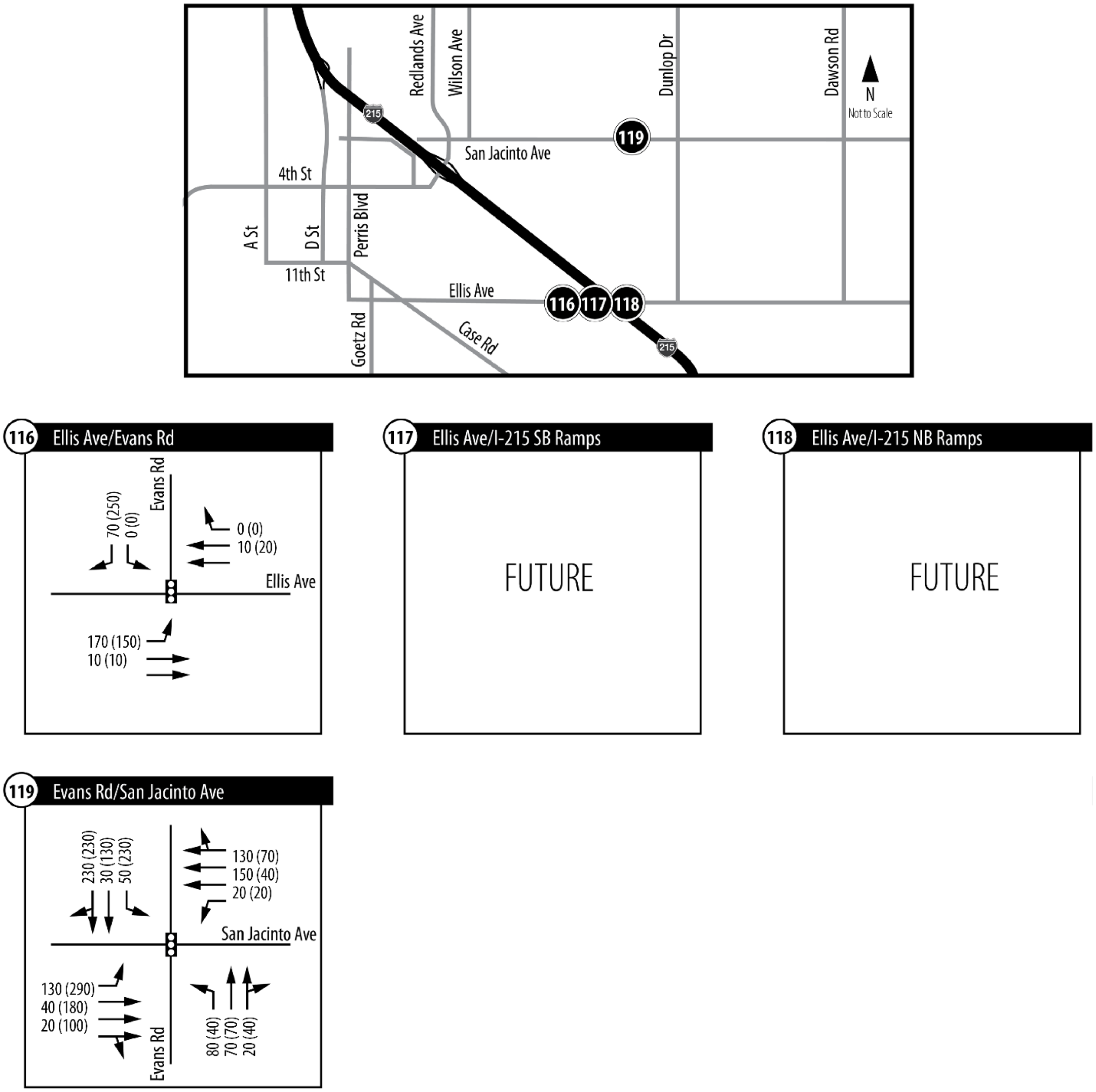

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (N)

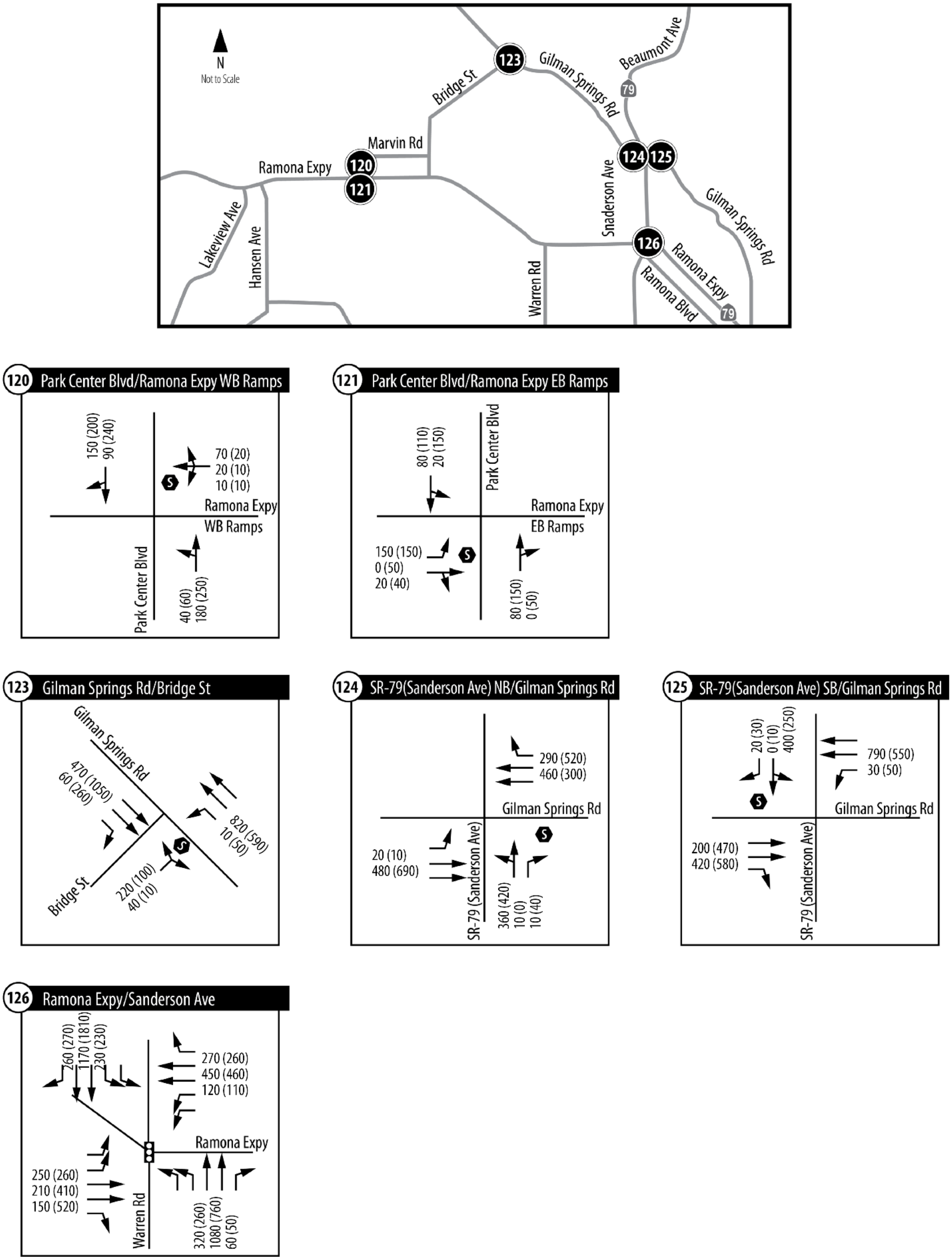

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (O)

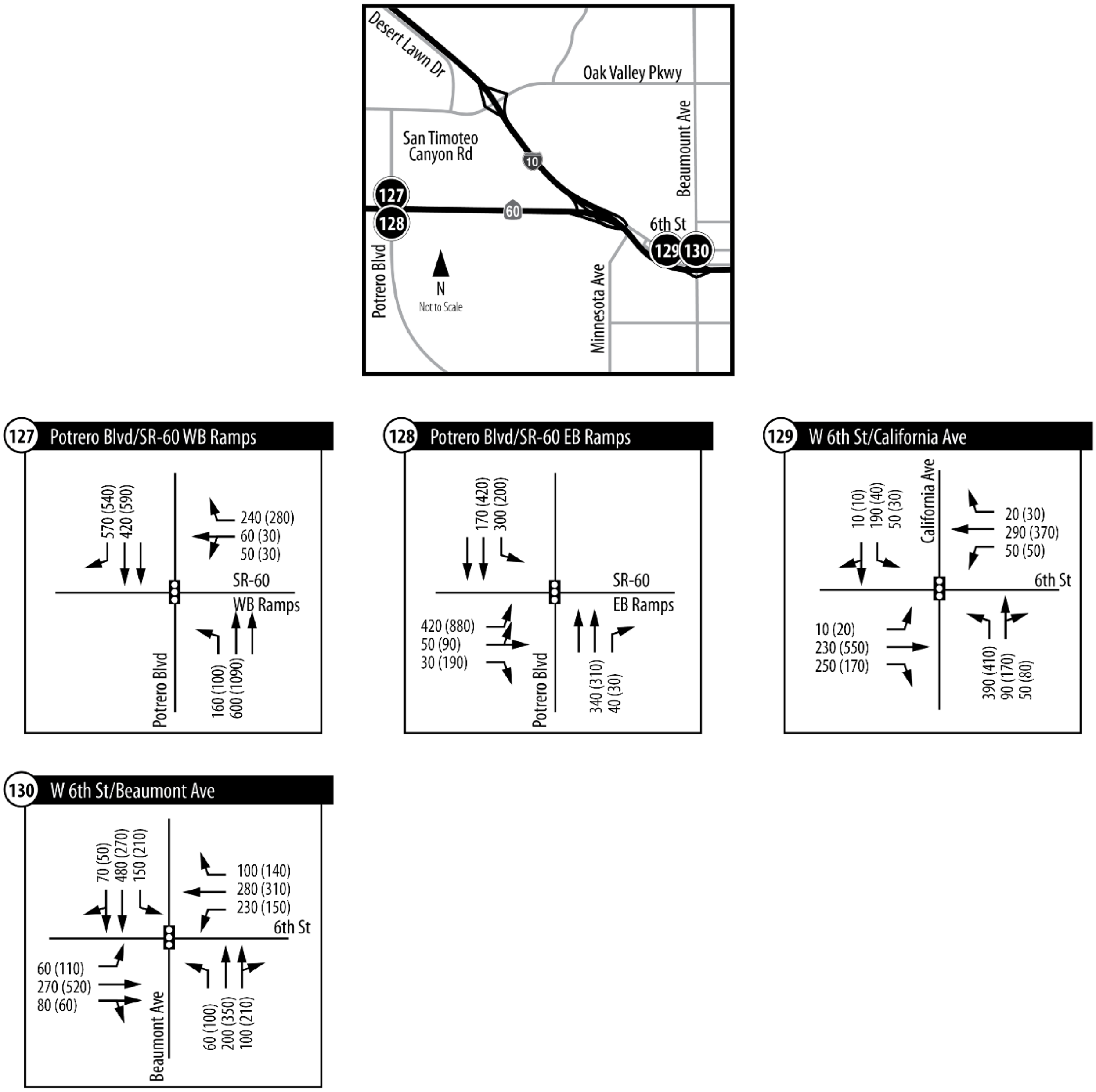

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (P)

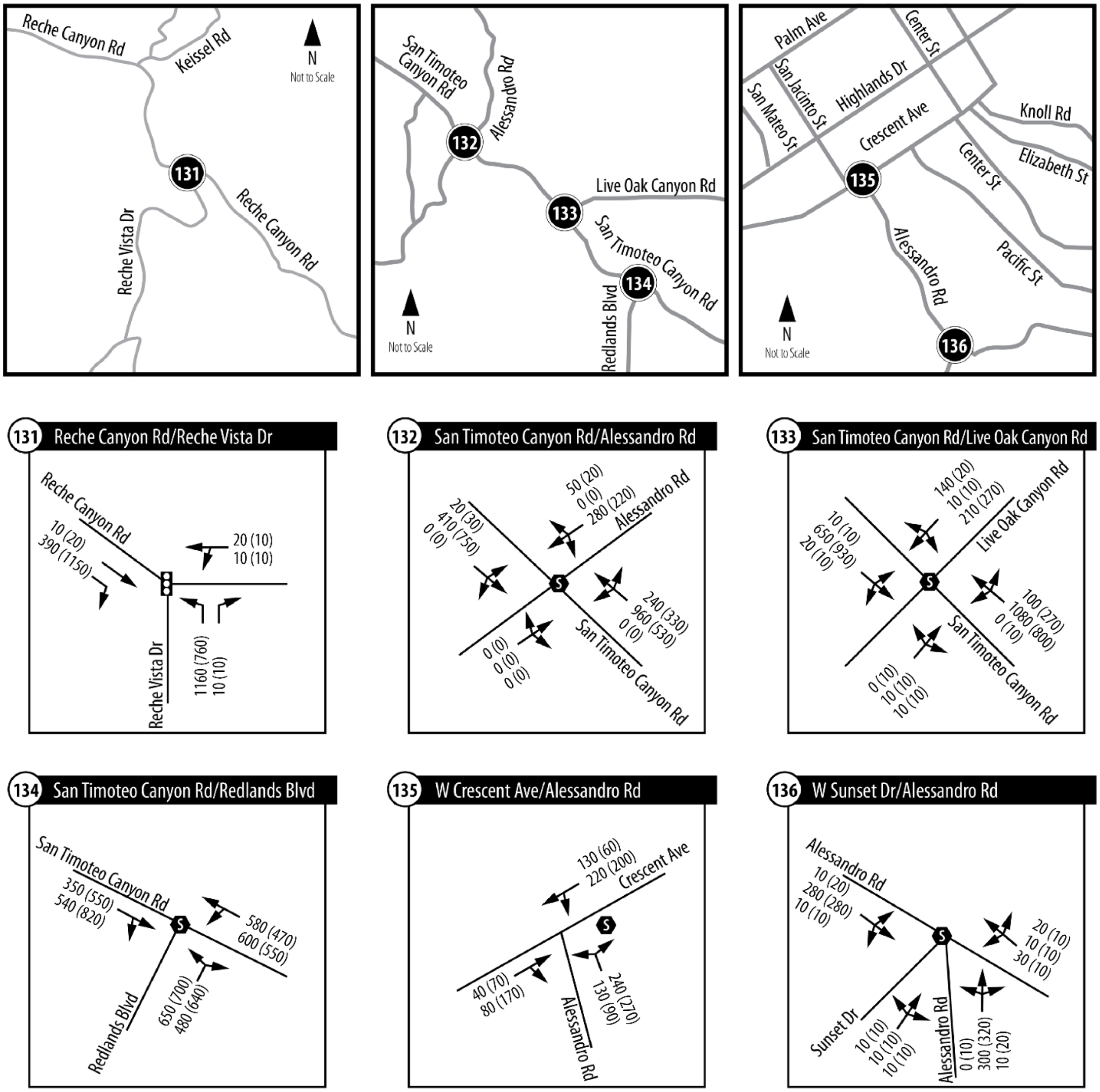

Figure 43: Turning Movement Volumes (PCE) under the 2025 Plus Phase 1 Scenario (Q)

Table 49: Intersection LOS under the 2025 Plus Phase 1 Scenario

			2025 No Project			2025 Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.8	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	10.8	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.0	A	RABT	7.1	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	11.3	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	6.2	A	SIGNAL	8.4	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	28.5	C	SIGNAL	28.1	C
IN-12	Theodore St/Ironwood Ave	D	CSS	9.0	A	CSS	9.1	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	26.5	C	SIGNAL	27.8	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	10.3	B	SIGNAL	11.0	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	10.4	B	SIGNAL	14.6	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.7	A	SIGNAL	3.9	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	26.1	C	SIGNAL	28.2	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	SIGNAL	7.5	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	31.9	**D**	CSS	34.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	15.6	B	SIGNAL	16.3	B
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	46.2	**E**	AWS	12.0	B
IN-24	Oliver St/Cactus Ave	D	SIGNAL	26.2	C	SIGNAL	27.2	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.1	B	SIGNAL	17.9	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.0	A	SIGNAL	2.9	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	15.1	C	AWS	23.1	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	SIGNAL	27.7	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	34.3	C	SIGNAL	33.1	C
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	30.7	C	SIGNAL	31.5	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	22.2	C	SIGNAL	22.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	25.8	C	SIGNAL	25.6	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	17.2	B	SIGNAL	18.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	18.5	B	SIGNAL	18.6	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	9.0	A	CSS	9.0	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	37.6	D	SIGNAL	34.1	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	16.6	B	SIGNAL	16.6	B
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	34.8	C	SIGNAL	40.2	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	44.3	D	SIGNAL	55.0	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	24.5	C	SIGNAL	24.3	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	39.6	D	SIGNAL	43.8	D
IN-42	Nason St/Iris Ave	C	SIGNAL	18.0	B	SIGNAL	18.7	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	28.6	C	SIGNAL	29.8	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	12.3	B	SIGNAL	12.3	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	37.0	D	SIGNAL	47.2	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	21.0	C	SIGNAL	20.4	C
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	23.9	C	SIGNAL	23.7	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	26.2	C	SIGNAL	25.8	C
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.1	C	SIGNAL	21.4	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	9.0	A	SIGNAL	8.9	A

Table 49: Intersection LOS under the 2025 Plus Phase 1 Scenario (continued)

			2025 No Project			2025 Plus Phase 1		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**AM Peak Hour**		**Traffic Control**	**AM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	25.2	C	SIGNAL	25.0	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	28.7	C	SIGNAL	28.8	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	30.3	C	SIGNAL	29.5	C
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	34.8	C	SIGNAL	35.4	D
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	27.2	C
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	26.0	C	SIGNAL	25.3	C
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	30.1	C	SIGNAL	29.9	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	23.2	C	SIGNAL	22.9	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	38.6	D	SIGNAL	38.1	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	11.5	B	SIGNAL	11.8	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	22.3	C	SIGNAL	22.0	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.4	D	SIGNAL	50.5	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.5	C	SIGNAL	29.8	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	79.0	**E**	SIGNAL	73.9	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	61.2	**E**	SIGNAL	56.6	**E**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	5.4	A	SIGNAL	7.6	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	29.0	C	SIGNAL	24.1	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	32.6	C	SIGNAL	30.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.7	B	SIGNAL	15.7	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	20.6	C	SIGNAL	20.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	4.4	A	SIGNAL	5.0	A
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	46.7	D	SIGNAL	38.7	D
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	27.9	C	SIGNAL	26.5	C
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.9	**E**	SIGNAL	61.0	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	63.6	**E**	SIGNAL	35.3	D
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	9.1	A	SIGNAL	13.1	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	24.0	C	SIGNAL	14.3	B
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	37.7	D	SIGNAL	33.0	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	72.1	**E**	SIGNAL	72.8	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	32.8	C	SIGNAL	33.7	C
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	23.9	C	SIGNAL	25.1	C
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	107.5	**F**	SIGNAL	107.4	**F**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	23.5	C	SIGNAL	23.1	C
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.2	**E**	AWS	46.8	**E**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	158.1	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	25.2	C	SIGNAL	24.2	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	44.6	D	SIGNAL	42.2	D
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.3	A	SIGNAL	9.4	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	26.1	C	SIGNAL	26.4	C
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	13.0	B	SIGNAL	14.8	B
IN-92	Arlington Ave/Maude St	D	SIGNAL	34.5	C	SIGNAL	46.4	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	24.3	C	SIGNAL	22.1	C
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	175.9	**F**	SIGNAL	166.0	**F**

Table 49: Intersection LOS under the 2025 Plus Phase 1 Scenario (continued)

			2025 No Project			2025 Plus Phase 1		
				AM Peak Hour			AM Peak Hour	
ID	Study Intersection	LOS Standard	Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	122.6	**F**	SIGNAL	122.8	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	133.9	**F**	SIGNAL	36.0	D
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	120.7	**F**	SIGNAL	27.6	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	60.9	**E**	SIGNAL	54.6	D
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	37.5	D	SIGNAL	38.6	D
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	24.0	C	SIGNAL	23.8	C
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	46.0	D	SIGNAL	44.3	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	59.4	E	SIGNAL	58.5	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	SIGNAL	6.4	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.8	C	SIGNAL	28.8	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	25.6	C	SIGNAL	25.5	C
IN-107	Evans Rd/Rider St	C	SIGNAL	40.1	**D**	SIGNAL	40.1	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	40.4	D	SIGNAL	40.2	D
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	33.5	C	SIGNAL	31.1	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	88.9	**F**	SIGNAL	34.5	C
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	24.7	C	SIGNAL	24.5	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	15.6	B	SIGNAL	15.5	B
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	51.4	**D**	SIGNAL	38.4	**D**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	>180	**F**	AWS	>180	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	19.6	C	CSS	20.5	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.8	B	AWS	10.7	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 49: Intersection LOS under the 2025 Plus Phase 1 Scenario (continued)

			2025 No Project			2025 Plus Phase 1		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	5.5	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		AWS	11.3	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	10.3	B	RABT	6.4	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	11.0	B
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	9.5	A	SIGNAL	9.7	A
IN-9	Gilman Springs Rd/Eucalytpus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	CSS	>180	**F**
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	25.0	C	SIGNAL	26.5	C
IN-12	Theodore St/Ironwood Ave	D	CSS	8.8	A	CSS	9.0	A
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	23.2	C	SIGNAL	21.6	C
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	19.1	B	SIGNAL	19.1	B
IN-15	Theodore St/SR-60 WB ramps	D	CSS	9.3	A	SIGNAL	15.3	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	9.5	A	SIGNAL	2.5	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	25.1	C	SIGNAL	24.2	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	9.5	A	SIGNAL	8.7	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	27.0	**D**	CSS	31.0	**D**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.8	B	SIGNAL	29.9	C
IN-22	Quincy St/Alessandro Blvd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	36.2	**E**	AWS	14.5	B
IN-24	Oliver St/Cactus Ave	D	SIGNAL	19.7	B	SIGNAL	19.5	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.5	B	SIGNAL	18.9	B
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.2	A	SIGNAL	3.1	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	14.2	B	AWS	36.4	**E**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	24.7	C	SIGNAL	24.5	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	47.3	D	SIGNAL	47.5	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	21.2	C	SIGNAL	21.0	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	23.3	C	SIGNAL	23.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	42.4	D	SIGNAL	43.2	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	19.1	B	SIGNAL	19.2	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	19.0	B	SIGNAL	18.7	B
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.6	A
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	20.9	C	SIGNAL	21.0	C
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	25.2	C	SIGNAL	27.1	C
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.4	D	SIGNAL	50.3	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	42.3	D	SIGNAL	38.1	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	22.9	C	SIGNAL	23.2	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	58.7	**E**	SIGNAL	52.9	D
IN-42	Nason St/Iris Ave	C	SIGNAL	19.4	B	SIGNAL	19.5	B
IN-43	Oliver St/Iris Ave	D	SIGNAL	25.7	C	SIGNAL	26.2	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	11.8	B	SIGNAL	11.8	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	35.9	D	SIGNAL	37.0	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	18.7	B	SIGNAL	19.1	B
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	24.2	C	SIGNAL	22.7	C
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	24.8	C	SIGNAL	24.7	C
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	22.3	C	SIGNAL	22.1	C
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	6.6	A	SIGNAL	6.7	A

Table 49: Intersection LOS under the 2025 Plus Phase 1 Scenario (continued)

			2025 No Project			2025 Plus Phase 1		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	23.0	C	SIGNAL	23.1	C
IN-52	Kitching St/Cactus Ave	C	SIGNAL	24.2	C	SIGNAL	24.4	C
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	36.9	**D**	SIGNAL	36.8	**D**
IN-54	Morrison St/Cactus Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-55	Nason St/Cactus Ave	D	SIGNAL	32.9	C	SIGNAL	32.9	C
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	42.2	D	SIGNAL	40.3	D
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	49.7	D	SIGNAL	45.7	D
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	34.5	C	SIGNAL	34.9	C
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	32.0	C	SIGNAL	30.4	C
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	40.4	D	SIGNAL	40.8	D
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.2	B	SIGNAL	10.1	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	23.6	C	SIGNAL	23.4	C
IN-63	Heacock St/Cactus Ave	D	SIGNAL	52.3	D	SIGNAL	51.3	D
IN-64	Indian St/Cactus Ave	C	SIGNAL	30.9	C	SIGNAL	28.2	C
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	42.0	D	SIGNAL	39.8	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	42.0	D	SIGNAL	44.0	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	10.3	B	SIGNAL	11.7	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	15.6	B	SIGNAL	18.8	B
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	22.7	C	SIGNAL	21.8	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	15.0	B	SIGNAL	15.0	B
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	22.1	C	SIGNAL	21.4	C
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	24.8	C	SIGNAL	21.3	C
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	13.2	B	SIGNAL	10.9	B
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	34.7	C	SIGNAL	36.0	D
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	72.3	**E**	SIGNAL	49.1	D
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	83.8	**F**	SIGNAL	55.5	**E**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	23.5	C	SIGNAL	25.9	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	9.1	A	SIGNAL	9.9	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	22.7	C	SIGNAL	24.1	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	56.9	**E**	SIGNAL	55.2	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	54.3	D	SIGNAL	51.4	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	13.7	B	SIGNAL	13.0	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	57.3	**E**	SIGNAL	51.0	D
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	7.9	A	SIGNAL	8.0	A
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	33.6	C	SIGNAL	22.2	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	88.1	**F**	SIGNAL	71.0	**E**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	9.9	A	SIGNAL	9.9	A
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	42.6	D	SIGNAL	45.7	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	27.7	C	SIGNAL	24.5	C
IN-92	Arlington Ave/Maude St	D	SIGNAL	53.5	D	SIGNAL	36.8	D
IN-93	Horace St/Arlington Ave	D	SIGNAL	11.5	B	SIGNAL	11.0	B
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	SIGNAL	179.3	**F**

Table 49: Intersection LOS under the 2025 Plus Phase 1 Scenario (continued)

			2025 No Project			2025 Plus Phase 1		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	151.6	**F**	SIGNAL	158.4	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	19.8	B	SIGNAL	18.8	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	114.3	**F**	SIGNAL	54.8	D
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	85.6	**F**	SIGNAL	54.8	**D**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	37.5	D	SIGNAL	40.2	D
IN-100	Harley Knox Blvd/Evan Rd	-	N/A	Non-Existent		N/A	Non-Existent	
IN-101	Ramona Expy/Indian St	E	SIGNAL	62.8	E	SIGNAL	71.3	E
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	27.2	C	SIGNAL	27.2	C
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	68.1	E	SIGNAL	56.2	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	15.5	B	SIGNAL	12.8	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	24.7	C	SIGNAL	24.5	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	18.4	B	SIGNAL	18.5	B
IN-107	Evans Rd/Rider St	C	SIGNAL	30.2	C	SIGNAL	30.3	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	35.2	D	SIGNAL	38.6	D
IN-113	Evans Rd/Placentia Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-114	Evans Rd/Orange Ave	C	AWS	>180	**F**	AWS	>180	**F**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	30.4	C	SIGNAL	28.0	C
IN-116	Evans Rd/Ellis Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-117	Ellis Ave/I-215 SB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-118	Ellis Ave/SR-215 NB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-119	Evans Rd/San Jacinto Ave	-	N/A	Non-Existent		N/A	Non-Existent	
IN-120	Park Center Blvd/Ramona Expy WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-121	Park Center Blvd/Ramona Expy EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	97.4	**F**	SIGNAL	53.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-128	Potrero Blvd/SR-60 EB Ramps	-	N/A	Non-Existent		N/A	Non-Existent	
IN-129	W 6th St/California Ave	C	SIGNAL	37.1	**D**	SIGNAL	37.4	**D**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	20.2	C	SIGNAL	21.1	C
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	21.3	C	SIGNAL	21.0	C
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	171.9	**F**	AWS	175.8	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	20.3	C	CSS	20.0	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	11.1	B	AWS	10.9	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 50: 2025 Plus Phase 1 Intersection Impacts and Mitigations

ID	Study Intersection	LOS Standard	2025 No Project			2025 Plus Phase 1			2025 No Project			2025 Plus Phase 1			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1				
			Traffic Control	AM Peak Hou		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hou		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level																				
IN-10	Redlands Blvd/Locust Ave	C	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	F	Signalize. Add EB and WB LT pockets. Add 1 SB TH lane.	SIGNAL	7.1	A	9.0	A
IN-20	Oliver St/Alessandro Blvd	C	CSS	31.9	**D**	CSS	34.0	**D**	CSS	27.0	**D**	CSS	31.0	**D**	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	CSS	16.8	C	17.0	C
IN-27	Redlands Blvd/Cactus Ave	C	AWS	15.1	C	AWS	23.1	C	AWS	14.2	B	AWS	36.4	**E**	Signalize. Add 1 EB LT and 1 WB LT lanes.	SIGNAL	13.1	B	13.2	B
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)																				
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	72.1	**E**	SIGNAL	72.8	**E**	SIGNAL	56.9	**E**	SIGNAL	55.2	E	Add EB LT. Add WB RT. Add NB TH lane.	SIGNAL	49.5	D	51.0	D
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.2	**E**	AWS	46.8	**E**	AWS	>180	**F**	AWS	>180	F	Signalize.	SIGNAL	0.9	A	1.0	A
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	158.1	F	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Change cycle length to 150s. Reconfigure NB approach to 2 LT, 1 Th-RT and 1 RT lane	SIGNAL	51.6	D	90.5	F
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	122.6	**F**	SIGNAL	122.8	**F**	SIGNAL	151.6	**F**	SIGNAL	158.4	**F**	Reconfigure SB approach to 1 LT, 3 THs and 1 RT lane. Change cycle length to 150 s	SIGNAL	82.5	F	125.2	F
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	**F**	Signalize. Change EB to EB LT and RT (100 ft storage)	SIGNAL	8.0	A	12.5	B
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	F	CSS	>180	**F**	CSS	>180	**F**	Signalize.	SIGNAL	8.4	A	12.4	B
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	**F**	CSS	>180	**F**	Signalize.	SIGNAL	16.1	B	8.1	A
IN-129	W 6th St/California Ave	C	SIGNAL	24.7	C	SIGNAL	24.5	C	SIGNAL	37.1	**D**	SIGNAL	37.4	**D**	Change cycle time to 70 s in the AM & 100 s in the PM	SIGNAL	22.5	C	36.7	D
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	>180	**F**	AWS	>180	**F**	AWS	171.9	**F**	AWS	175.8	**F**	Signalize.	SIGNAL	41.4	D	13.3	B
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**	AWS	>180	**F**	AWS	>180	**F**	Signalize. Add RT lanes in EB and WB approaches	SIGNAL	32.9	C	54.6	D

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

C. FREEWAY SEGMENT LOS, IMPACTS, AND MITIGATIONS

Freeway Mainline Basic Sections LOS

Table 51 compares the LOS for freeway mainline sections for the 2025 No-Project and the 2025 Plus Phase 1 scenarios. Details of the LOS calculations for freeways under the 2025 Plus Build-out Scenario can be found in Appendix M. Table 52 identifies 34 sections where the project would have a significant impact. In 32 of the 34 cases these sections would be deficient in 2025 even under the No Project Scenario. The Project would have significant impacts at:

Northbound or Eastbound

- SR-60 from Ramona Ave. to Central Ave.
- SR-60 from Central Ave. to Mountain Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Market St. to Main St.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Eucalyptus Ave. to SR-60
- I-215 from Barton Rd. to Mt. Vernon Ave.
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Grove Ave. to Vineyard Ave.
- SR-60 from Vineyard Ave. to Archibald Ave.
- SR-60 from Valley Way to Rubidoux Blvd.
- SR-60 from Rubidoux Blvd. to Market St.
- SR-60 from Market St. to Main St.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
- SR-60 from I-215 to Day St.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from I-15 to McKinley St.
- SR-91 from McKinley St. to Pierce St.
- SR-91 from Pierce St. to Magnolia Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Van Buren Blvd. to Adams St.
- SR-91 from Adams St. to Madison St.
- SR-91 from Madison St. to Arlington Ave.
- I-215 from Center St. to La Cadena Dr.
- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.

As shown in Table 52, adding a mixed-flow lane would improve these 30 of these sections to better than LOS "E" in the 2025 Plus Phase 1 scenario and thus would reduce the impact of the WLC project to a less-than-significant level. In the other 4 sections with significant impacts, adding a mixed-flow lane would improve the LOS from "F" to "E". The mitigated LOS would be better than the LOS for the 2025 No Project scenario and so this measure would reduce the impact of the WLC project to a less-than-significant level.

Table 51: 2025 Plus Phase 1 Freeway Mainline Level of Service

ID	Freeway	Segment	2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,520	29.7	D	6,580	28.2	D	6640	30.5	D	6,530	28.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,600	43.5	E	9,500	48.5	F	8,730	45.5	F	9,460	48.5	F
F-4	SR-60	Central Ave to Mountain Ave	7,710	35.2	E	8,390	37.3	E	7,850	36.6	E	8,350	37.3	E
F-5	SR-60	Mountain Ave to Euclid Ave	8,040	38.0	E	8,390	37.3	E	8,190	39.7	E	8,340	37.2	E
F-6	SR-60	Euclid Ave to Grove Ave	7,960	37.3	E	8,560	38.7	E	8,110	39.0	E	8,500	38.6	E
F-7	SR-60	Grove Ave to Vineyard Ave	7,320	32.2	D	9,460	48.0	F	7,480	33.7	D	9,390	47.7	F
F-8	SR-60	Vineyard Ave to Archibald Ave	7,210	31.2	D	9,610	49.9	F	7,360	32.5	D	9,530	49.5	F
F-9	SR-60	Archibald Ave to Haven Ave	7,290	32.0	D	6,980	27.8	D	7,440	33.1	D	6,900	27.5	D
F-10	SR-60	Haven Ave to Milliken Ave	8,240	28.2	D	7,640	23.5	C	8,390	28.9	D	7,520	23.2	C
F-11	SR-60	Milliken Ave to I-15	4,670	18.6	C	5,430	20.5	C	4,820	19.3	C	5,310	20.1	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,210	16.7	B	4,820	18.0	B	4,430	17.6	B	4,700	17.7	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,640	14.4	B	3,970	14.9	B	3,830	15.3	B	3,810	14.3	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	3,120	12.6	B	3,430	13.1	B	3,370	13.7	B	3,340	12.9	B
F-15	SR-60	Pedley Rd to Pyrite St	3,290	13.2	B	3,760	14.3	B	3,520	14.2	B	3,670	14.1	B
F-16	SR-60	Pyrite St to Valley Way	3,940	15.8	B	4,170	15.8	B	4,240	17.0	B	4,060	15.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	5,110	29.1	D	5,840	32.7	D	5,400	31.9	D	5,700	32.0	D
F-18	SR-60	Rubidoux Blvd to Market St	5,320	30.9	D	6,110	35.6	E	5,450	32.4	D	5,970	34.5	D
F-19	SR-60	Market St to Main St	5,780	35.5	E	6,910	45.6	F	5,890	36.7	E	6,870	45.5	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,930	74.8	F	10,270	66.4	F	10,310	87.7	F	10,130	66.5	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	5,300	21.0	C	6,590	25.5	C	5,540	22.2	C	6,340	24.6	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,020	25.3	C	5,100	59.6	F	3,140	27.4	D	4,980	58.0	F
F-30	SR-60	Heacock St to Perris Blvd	2,770	22.5	C	3,740	30.5	D	3,010	25.5	C	3,690	30.8	D
F-31	SR-60	Perris Blvd to Nason St	2,530	20.2	C	3,410	26.7	D	2,790	23.2	C	3,400	27.3	D
F-32	SR-60	Nason St to Moreno Beach Dr	2,270	12.1	B	3,140	15.5	B	2,490	13.6	B	3,120	15.8	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,120	11.3	B	2,910	14.4	B	2,380	13.1	B	2,900	14.8	B
F-34	SR-60	Redlands Blvd to Theodore St	1,800	9.6	A	2,790	13.8	B	2,320	12.8	B	2,880	14.7	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,930	7.7	A	3,050	11.3	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,380	8.0	A	2,220	11.5	B	1,330	7.7	A	2,150	11.5	B
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	1,500	12.1	B	2,270	16.8	B	1,440	11.6	B	2,230	16.7	B
F-38	SR-60	Potero Blvd to I-10	1,420	11.5	B	1,340	10.0	A	1,360	11.0	A	1,400	10.6	A
F-39	SR-91	I-15 to McKinley St	4,670	17.5	B	6,840	28.9	D	4,790	18.0	C	6,730	28.2	D
F-40	SR-91	McKinley St to Pierce St	5,230	27.9	D	5,840	35.5	E	5,350	28.9	D	5,720	34.2	D
F-41	SR-91	Pierce St to Magnolia Ave	6,760	44.9	E	7,590	68.9	F	6,880	46.8	F	7,490	65.8	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	7,390	30.6	D	7,530	33.8	D	7,460	31.3	D	7,450	33.5	D
F-44	SR-91	Tyler St to Van Buren Blvd	7,410	30.5	D	8,330	40.3	E	7,480	31.0	D	8,320	40.2	E
F-45	SR-91	Van Buren Blvd to Adam St	4,950	18.6	C	5,280	20.8	C	5,010	18.9	C	5,280	20.8	C
F-46	SR-91	Adam St to Madison St	7,670	63.0	F	8,550	120.9	F	7,720	64.3	F	8,560	121.9	F

Table 51: 2025 Plus Phase 1 Freeway Mainline Level of Service (Continued)

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,840	34.2	D	5,710	23.1	C	7,870	34.5	D	5,730	23.2	C
F-49	SR-91	Central Ave to 14th St	7,300	56.6	**F**	6,200	40.8	**E**	7,310	57.6	**F**	6,200	40.8	**E**
F-50	SR-91	14th St to University Ave	4,820	18.0	B	4,600	17.9	B	4,770	18.0	B	4,630	18.0	C
F-51	SR-91	University Ave to Spruce St	6,140	18.5	C	5,880	18.5	C	6,090	18.5	C	5,920	18.7	C
F-66	I-215	Scott Rd to Newport Rd	3,430	13.5	B	4,650	17.4	B	3,410	13.5	B	4,610	17.3	B
F-67	I-215	Gambroni Rd to Newport Rd	3,150	12.4	B	4,140	15.5	B	3,120	12.3	B	4,110	15.4	B
F-68	I-215	Newport Rd to McCall Blvd	2,500	9.9	A	3,040	11.4	B	2,450	9.7	A	3,030	11.3	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,110	12.3	B	4,290	16.1	B	3,040	12.0	B	4,280	16.0	B
F-70	I-215	Ethanac Rd to SR-74	4,230	16.7	B	4,070	15.2	B	4,130	16.4	B	4,050	15.2	B
F-71	I-215	SR-74 to Redlands Ave	3,600	14.4	B	4,910	18.6	C	3,490	14.0	B	4,900	18.6	C
F-86	I-215	Redlands Blvd to D St	4,810	19.0	C	4,010	15.1	B	4,760	18.8	C	4,010	15.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,100	12.9	B	5,590	16.8	B	4,040	12.8	B	5,570	16.8	B
F-88	I-215	Nuevo St to Mid-County Pkwy	4,110	13.1	B	4,960	15.0	B	4,020	12.8	B	4,930	14.9	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,970	15.8	B	5,850	17.7	B	4,860	15.4	B	5,850	17.7	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	4,440	14.2	B	5,920	17.9	B	4,370	13.9	B	5,900	17.8	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	4,570	25.2	C	4,230	22.0	C	4,470	24.5	C	4,340	22.7	C
F-92	I-215	Van Buren Blvd to Cactus Ave	4,860	19.4	C	4,320	16.3	B	4,840	19.4	C	4,420	16.7	B
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,470	24.6	C	5,380	29.5	D	4,430	24.4	C	5,530	30.8	D
F-95	I-215	Eucalyptus Ave to SR-60	4,730	26.5	D	5,960	34.7	D	4,720	26.4	D	6,170	37.0	**E**
F-74	I-215	Columbia Ave to Center St	6,970	30.6	D	7,380	30.6	D	6,950	30.5	D	7,410	30.8	D
F-75	I-215	Center St to La Cadena Dr	5,390	31.9	D	5,620	31.1	D	5,380	31.8	D	5,660	31.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,470	32.4	D	5,400	29.2	D	5,450	32.2	D	5,460	29.7	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,930	37.9	**E**	6,150	36.7	**E**	5,910	37.6	**E**	6,220	37.9	**E**
F-78	I-215	Mt. Vernon Ave to I-10	6,380	27.5	D	6,370	25.2	C	6,330	27.2	D	6,460	25.7	C
F-80	I-215	Auto Plaza Dr to Mill St	5,470	22.0	C	9,900	54.7	**F**	5,420	21.7	C	9,970	55.8	**F**
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.8	B	5,020	18.8	C	3,200	12.7	B	5,050	19.0	C
F-52	I-10	SR-60 to Beaumont Ave	4,100	16.1	B	5,400	21.1	C	4,060	15.9	B	5,330	20.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,210	16.8	B	5,850	23.6	C	4,180	16.6	B	5,800	23.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,400	17.4	B	6,080	24.7	C	4,370	17.4	B	6,040	24.5	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,320	17.2	B	5,930	24.0	C	4,270	17.0	B	5,900	23.8	C
F-56	I-10	Sunset Ave to 22nd St	4,220	13.4	B	5,700	17.9	B	4,170	13.3	B	5,690	17.8	B
F-57	I-10	22nd St to 8th St	4,120	16.4	B	5,560	22.2	C	4,070	16.2	B	5,550	22.1	C
F-58	I-10	8th St to Hargrave St	4,110	16.4	B	5,490	21.9	C	4,050	16.1	B	5,490	21.9	C
F-59	I-10	Hargrave St to Fields Rd	3,790	15.1	B	4,970	19.7	C	3,720	14.9	B	4,980	19.7	C
F-60	I-10	Fields Rd to Morongo Trail	3,630	14.5	B	4,740	18.7	C	3,560	14.2	B	4,760	18.8	C
F-61	I-10	Morongo Trail to Main St	3,260	12.9	B	4,250	16.5	B	3,190	12.6	B	4,270	16.7	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,290	12.9	B	4,260	16.5	B	3,220	12.6	B	4,280	16.6	B
F-64	I-10	SR-111 to Tipton Rd	2,870	11.3	B	3,710	14.4	B	2,740	10.8	A	3,740	14.5	B
F-65	I-10	Tipton Rd to SR-62	2,740	10.8	A	3,740	14.5	B	2,690	10.6	A	3,770	14.6	B

▨ Indicates that the LOS exceeds the target level

Table 51: 2025 Plus Phase 1 Freeway Mainline Level of Service (Continued)

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,700	26.6	D	6,540	26.5	D	6,620	26.4	D	6,610	27.1	D
F-3	SR-60	Ramona Ave to Central Ave	6,250	24.9	C	6,780	28.0	D	6,170	24.7	C	6,850	28.6	D
F-4	SR-60	Central Ave to Mountain Ave	6,850	29.0	D	6,860	29.3	D	6,770	28.7	D	6,930	29.7	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,970	29.5	D	7,260	31.7	D	6,890	29.2	D	7,330	32.2	D
F-6	SR-60	Euclid Ave to Grove Ave	7,250	30.4	D	7,930	35.6	**E**	7,150	29.8	D	8,000	36.5	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	6,820	27.1	D	9,890	58.8	**F**	6,710	26.7	D	9,970	61.1	**F**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,980	36.2	**E**	9,930	62.2	**F**	7,850	35.5	**E**	10,010	63.9	**F**
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,510	23.0	C	6,280	19.4	C	7,340	22.5	C	6,380	19.8	C
F-11	SR-60	Milliken Ave to I-15	5,640	21.6	C	5,880	23.0	C	5,360	20.5	C	5,980	23.6	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	5,200	15.7	B	5,290	16.3	B	5,060	15.4	B	5,440	16.9	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	5,480	20.9	C	6,690	27.5	D	5,330	20.4	C	6,870	28.8	D
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	4,790	18.2	C	5,670	22.4	C	4,600	17.6	B	5,860	23.5	C
F-15	SR-60	Pedley Rd to Pyrite St	4,760	18.1	C	5,670	22.4	C	4,580	17.5	B	5,830	23.3	C
F-16	SR-60	Pyrite St to Valley Way	4,940	18.8	C	5,650	22.3	C	4,790	18.3	C	5,890	23.6	C
F-17	SR-60	Valley Way to Rubidoux Blvd	5,170	27.7	D	5,930	35.7	**E**	5,000	26.8	D	6,170	38.8	**E**
F-18	SR-60	Rubidoux Blvd to Market St	5,340	28.6	D	6,210	38.2	**E**	5,210	28.0	D	6,450	41.6	**E**
F-19	SR-60	Market St to Main St	7,070	48.8	**F**	5,810	34.2	D	6,900	46.6	**F**	6,020	36.7	**E**
F-20	SR-60	Main to SR-91	7,450	56.0	**F**	4,820	26.1	D	7,300	53.6	**F**	5,070	28.3	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,770	38.8	**E**	7,500	35.8	**E**	7,650	39.6	**E**	7,790	39.5	**E**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,540	31.6	D	8,230	38.5	**E**	7,540	32.1	D	8,580	42.2	**E**
F-27	SR-60	I-215 to Day St	4,740	50.7	**F**	3,260	26.9	D	4,760	53.9	**F**	3,410	29.7	D
F-29	SR-60	Pigeon Pass Rd to Heacock St	5,080	59.8	**F**	2,860	22.7	C	5,000	60.5	**F**	3,050	25.3	C
F-30	SR-60	Heacock St to Perris Blvd	3,730	31.3	D	3,160	25.6	C	3,680	31.9	D	3,370	29.0	D
F-31	SR-60	Perris Blvd to Nason St	3,340	26.2	D	2,920	23.2	C	3,320	27.0	D	3,180	26.7	D
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,780	21.4	C	2,410	18.8	C	2,820	22.6	C	2,690	22.1	C
F-34	SR-60	Redlands Blvd to Theodore St	2,500	12.7	B	2,050	10.7	A	2,720	14.4	B	2,460	13.2	B
F-35	SR-60	Theodore St to Gilman Springs Rd	2,530	9.7	A	2,040	8.0	A	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,810	10.1	A	1,580	9.0	A	1,810	10.1	A	1,500	8.5	A
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	1,460	11.5	B	1,390	11.1	B	1,520	12.0	B	1,320	10.6	A
F-38	SR-60	Potero Blvd to I-10	1,940	14.4	B	1,720	13.3	B	1,960	14.7	B	1,640	12.7	B
F-39	SR-91	I-15 to McKinley St	6,700	27.0	D	7,610	34.7	D	6,630	26.8	D	7,660	35.1	**E**
F-40	SR-91	McKinley St to Pierce St	7,250	53.3	**F**	7,330	62.3	**F**	7,190	52.2	**F**	7,400	64.3	**F**
F-41	SR-91	Pierce St to Magnolia Ave	7,260	52.2	**F**	7,260	57.8	**F**	7,220	51.4	**F**	7,320	59.3	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	7,410	55.1	**F**	7,330	59.6	**F**	7,340	53.7	**F**	7,390	61.1	**F**
F-43	SR-91	La Sierra Ave to Tyler St	6,320	38.3	**E**	7,390	61.1	**F**	6,260	38.0	**E**	7,450	62.7	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	6,470	25.4	C	8,280	39.8	**E**	6,440	25.3	C	8,340	40.4	**E**
F-45	SR-91	Van Buren Blvd to Adam St	6,760	27.0	D	8,230	39.3	**E**	6,740	26.8	D	8,280	39.8	**E**
F-46	SR-91	Adam St to Madison St	6,320	24.7	C	7,790	35.5	**E**	6,300	24.6	C	7,820	36.1	**E**

Table 51: 2025 Plus Phase 1 Freeway Mainline Level of Service (Continued)

ID	Freeway	Segment	2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-47	SR-91	Madison St to Arlington Ave	7,440	55.8	F	7,240	56.6	F	7,440	55.8	F	7,240	57.4	F
F-49	SR-91	Central Ave to 14th St	5,650	21.6	C	7,260	31.3	D	5,680	21.7	C	7,260	31.6	D
F-50	SR-91	14th St to University Ave	5,650	21.6	C	7,260	31.3	D	5,680	21.7	C	7,260	31.6	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	3,030	11.3	B	2,500	9.3	A	1,420	5.5	A	1,320	5.0	A
F-67	I-215	Gambroni Rd to Newport Rd	2,990	11.2	B	2,930	10.9	A	3,010	11.3	B	2,450	9.1	A
F-68	I-215	Newport Rd to McCall Blvd	3,170	11.9	B	3,680	13.6	B	3,180	12.0	B	3,630	13.5	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,170	11.9	B	3,680	13.6	B	3,180	12.0	B	3,630	13.5	B
F-70	I-215	Ethanac Rd to SR-74	3,700	13.9	B	4,350	16.1	B	3,700	13.9	B	4,250	15.8	B
F-71	I-215	SR-74 to Redlands Ave	5,200	19.8	C	5,000	18.7	C	5,210	19.8	C	4,900	18.3	C
F-86	I-215	Redlands Blvd to D St	3,160	11.9	B	2,640	9.8	A	3,170	12.0	B	2,630	9.8	A
F-87	I-215	D St to Nuevo St/Harvil Ave	4,020	12.1	B	3,250	9.7	A	4,040	12.2	B	3,250	9.7	A
F-88	I-215	Nuevo St to Mid-County Pkwy	4,430	13.4	B	4,080	12.3	B	4,430	13.5	B	4,120	12.4	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	4,830	14.6	B	5,980	17.8	B	4,870	14.7	B	6,010	17.9	B
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox	2,790	8.5	A	5,460	16.3	B	2,840	8.6	A	5,420	16.1	B
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	3,770	19.8	C	6,720	42.4	E	3,840	20.1	C	6,720	42.4	E
F-92	I-215	Van Buren Blvd to Cactus Ave	4,000	15.1	B	6,260	24.1	C	4,020	15.2	B	6,150	23.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	5,410	29.5	D	5,950	34.0	D	5,470	30.2	D	5,800	32.6	D
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	7,630	33.2	D	7,220	29.4	D	7,650	33.4	D	7,230	29.4	D
F-75	I-215	Center St to La Cadena Dr	7,710	64.0	F	7,280	51.2	F	7,770	65.8	F	7,320	51.9	F
F-76	I-215	La Cadena Dr to Barton Rd	7,720	64.3	F	7,400	52.7	F	7,770	65.8	F	7,380	52.4	F
F-77	I-215	Barton Rd to Mt. Vernon Ave	6,570	41.4	E	7,460	53.9	F	6,620	42.0	E	7,430	53.3	F
F-78	I-215	Mt. Vernon Ave to I-10	6,350	25.1	C	5,840	22.3	C	6,410	25.4	C	5,810	22.1	C
F-80	I-215	Auto Plaza Dr to Mill St	6,460	25.4	C	6,020	22.8	C	6,520	25.7	C	6,010	22.8	C
F-83	I-215	Baseline Rd to Highland Ave	4,930	18.5	C	3,740	13.9	B	5,000	18.8	C	3,750	13.9	B
F-52	I-10	SR-60 to Beaumont Ave	5,750	25.3	C	5,190	19.6	C	5,710	25.3	C	5,160	19.5	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,880	26.4	D	5,330	20.4	C	5,840	26.2	D	5,300	20.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	6,330	29.3	D	5,480	21.1	C	6,290	29.0	D	5,440	20.9	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,810	26.0	D	5,150	19.8	C	5,800	26.0	C	5,100	19.6	C
F-56	I-10	Sunset Ave to 22nd St	5,580	19.1	C	5,060	15.5	B	5,590	19.1	C	5,020	15.3	B
F-57	I-10	22nd St to 8th St	5,460	24.0	C	4,960	19.0	C	5,470	24.2	C	4,930	18.9	C
F-58	I-10	8th St to Hargrave St	5,390	23.6	C	4,980	19.1	C	5,400	23.8	C	4,930	18.9	C
F-59	I-10	Hargrave St to Fields Rd	4,830	20.9	C	4,660	17.8	B	4,860	21.1	C	4,600	17.6	B
F-60	I-10	Fields Rd to Morongo Trail	4,620	19.9	C	4,560	17.4	B	4,650	20.1	C	4,510	17.3	B
F-61	I-10	Morongo Trail to Main St	4,110	17.4	B	4,150	15.6	B	4,140	17.6	B	4,090	15.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	4,100	17.4	B	4,200	15.8	B	4,130	17.5	B	4,140	15.6	B
F-64	I-10	SR-111 to Tipton Rd	3,570	15.2	B	3,570	13.4	B	3,600	15.3	B	3,540	13.3	B
F-65	I-10	Tipton Rd to SR-62	3,590	15.2	B	3,580	13.5	B	3,620	15.4	B	3,550	13.4	B

▨ Indicates that the LOS exceeds the target level

Table 52: 2025 Plus Phase 1 Freeway Mainline Impacts and Mitigations

			Northbound / Eastbound											
ID	Freeway	Segment	Determination of Impact					2025 Plus Phase 1 & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-3	SR-60	Ramona Ave to Central Ave	E	F	F	F	Yes	8,730	30.2	D	9,460	31.5	D	Add 1 mixed flow lane
F-4	SR-60	Central Ave to Mountain Ave	E	E	E	E	Yes	7,850	26.0	D	8,350	26.3	D	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	E	E	E	E	Yes	8,190	27.5	D	8,340	26.3	D	Add 1 mixed flow lane
F-6	SR-60	Euclid Ave to Grove Ave	E	E	E	E	Yes	8,110	27.2	D	8,500	27.0	D	Add 1 mixed flow lane
F-19	SR-60	Market St to Main St	E	E	F	F	Yes	5,890	23.9	C	6,870	27.5	D	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	F	F	F	F	Yes	10,310	43.9	E	10,130	38.1	E	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	E	F	F	F	Yes	6,880	28.0	D	7,490	33.8	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison St	F	F	F	F	Yes	7,720	33.3	D	8,560	43.5	E	Add 1 mixed flow lane
F-49	SR-91	Central Ave to 14th St	F	F	E	E	Yes	7,310	31.5	D	6,200	25.7	C	Add 1 mixed flow lane
F-95	I-215	Eucalyptus Ave to SR-60	D	D	D	E	Yes	4,720	18.9	C	6,170	24.1	C	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	E	E	E	E	Yes	5,910	24.4	C	6,220	24.5	C	Add 1 mixed flow lane
F-80	I-215	Auto Plaza Dr to Mill St	C	C	F	F	Yes	5,420	17.1	B	9,970	34.4	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Table 52: 2025 Plus Phase 1 Freeway Mainline Impacts and Mitigations (continued)

			Southbound / Westbound											
ID	Freeway	Segment	Determination of Impact					2025 Plus Phase 1 & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-6	SR-60	Euclid Ave to Grove Ave	D	D	E	E	Yes	7,150	22.2	C	8,000	25.9	C	Add 1 mixed flow lane
F-7	SR-60	Grove Ave to Vineyard Ave	D	D	F	F	Yes	6,710	20.4	C	9,970	36.3	E	Add 1 mixed flow lane
F-8	SR-60	Vineyard Ave to Archibald Ave	E	E	F	F	Yes	7,850	25.4	C	10,010	37.2	E	Add 1 mixed flow lane
F-17	SR-60	Valley Way to Rubidoux Blvd	D	D	E	E	Yes	5,000	19.1	C	6,170	24.9	C	Add 1 mixed flow lane
F-18	SR-60	Rubidoux Blvd to Market St	D	D	E	E	Yes	5,210	19.7	C	6,450	26.0	D	Add 1 mixed flow lane
F-19	SR-60	Market St to Main St	F	F	D	E	Yes	6,900	27.9	D	6,020	24.0	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	E	E	E	E	Yes	7,650	27.5	D	7,790	27.4	D	Add 1 mixed flow lane
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	D	D	E	E	Yes	7,540	23.6	C	8,580	28.7	D	Add 1 mixed flow lane
F-27	SR-60	I-215 to Day St	F	F	D	D	Yes	4,760	25.7	C	3,410	18.2	C	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	F	F	C	C	Yes	5,000	27.1	D	3,050	16.2	B	Add 1 mixed flow lane
F-39	SR-91	I-15 to McKinley St	D	D	D	E	Yes	6,630	20.4	C	7,660	25.2	C	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	F	F	F	F	Yes	7,190	29.8	D	7,400	33.3	D	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	F	F	F	F	Yes	7,220	29.6	D	7,320	32.0	D	Add 1 mixed flow lane
F-42	SR-91	Magnolia Ave to La Sierra Ave	F	F	F	F	Yes	7,340	30.3	D	7,390	32.5	D	Add 1 mixed flow lane
F-43	SR-91	La Sierra Ave to Tyler St	E	E	F	F	Yes	6,260	24.5	C	7,450	32.9	D	Add 1 mixed flow lane
F-44	SR-91	Tyler St to Van Buren Blvd	C	C	E	E	Yes	6,440	19.5	C	8,340	27.9	D	Add 1 mixed flow lane
F-45	SR-91	Van Buren Blvd to Adam St	D	D	E	E	Yes	6,740	20.4	C	8,280	27.6	D	Add 1 mixed flow lane
F-46	SR-91	Adam St to Madison St	C	C	E	E	Yes	6,300	19.0	C	7,820	25.7	C	Add 1 mixed flow lane
F-47	SR-91	Madison St to Arlington Ave	F	F	F	F	Yes	7,440	31.0	D	7,240	31.4	D	Add 1 mixed flow lane
F-75	I-215	Center St to La Cadena Dr	F	F	F	F	Yes	7,770	33.7	D	7,320	29.7	D	Add 1 mixed flow lane
F-76	I-215	La Cadena Dr to Barton Rd	F	F	F	F	Yes	7,770	33.7	D	7,380	29.9	D	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	E	E	F	F	Yes	6,620	26.2	D	7,430	30.2	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Weaving LOS

Table 53 compares the LOS for study weaving sections under the 2025 No-Project and the 2025 Plus Phase 1 Scenario. Table 54 shows where the Project would have significant impacts. As shown in the table, there are 9 sections where the project would have a significant impact. All of these sections would be deficient under the 2025 No-Project Scenario; the Project's impact is that it would add to a problem that would occur in any case. The impacts would occur at:

Northbound or Eastbound

- SR-60 from Main St. to SR-91
- SR-60 from SR-91 to Blaine St./3rd St.
- SR-60 from I-215 to Day St.
- I-215 from SR-60 to Columbia Ave.
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

- SR-60 from Haven Ave. to Archibald Ave.
- SR-60 from University Ave. to Martin Luther King Blvd.
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
- SR-91 from Arlington Ave. to Central Ave.

Table 54 identifies mitigation measures that would reduce the impact of the WLC project to a less-than-significant level. These mitigation measures may not all be feasible due physical and financial constraints, and may not be desirable as a matter of public policy. Chapter 11 analyses the mitigation measures in greater detail and discusses options for funding those that are feasible.

Table 53: 2025 Plus Phase 1 Freeway Weaving Section LOS

			2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
ID	Freeway	Weaving Segment	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,820	23	C	6,930	26	C	5,950	24	C	6,880	26	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	7,350	37.6	**E**	7,570	37.4	**E**	7,550	38.8	**E**	7,410	36.5	**E**
W-21	SR-60	SR-91 to Blaine St/3rd St	6,600	27.4	C	9,810	44.4	**F**	6,750	28.4	D	9,830	45.1	**F**
W-22	SR-60	Blaine St/3rd St to University Ave	6,460	25.5	C	7,490	31.6	D	6,520	25.6	C	7,590	32.3	D
W-23	SR-60	University Ave to Martin Luther King	6,400	24.7	C	7,750	27.5	C	6,640	25.7	C	7,630	27.1	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	6,480	27.4	C	9,050	35.7	**E**	6,940	30.1	D	8,860	35.3	**E**
W-27	SR-60	I-215 to Day St	3,320	13.0	B	10,550	48.3	**F**	3,640	14.5	B	10,510	48.8	**F**
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	3,400	15.4	B	7,590	35.6	**E**	3,620	16.6	B	7,500	35.4	**E**
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			1,870	11.2	B	2,760	16.0	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	7,320	34.2	D	7,590	38.0	**E**	7,420	34.9	D	7,480	37.6	**E**
W-48	SR-91	Arlington Ave to Central Ave	7,300	27.9	C	5,250	20.6	C	7,370	28.4	D	5,260	20.7	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	4,500	23.4	C	5,370	25.1	C	4,440	23.0	C	5,480	25.7	C
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	4,590	> Capacity	**F**	4,680	24.4	C	4,580	>Capacity	**F**	4,740	> Capacity	**F**
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,570	24.5	C	9,930	37.5	**E**	6,520	24.3	C	9,980	37.7	**E**
W-81	I-215	Mill St to 2nd St	6,060	23.0	C	7,480	28.4	D	6,020	22.8	C	7,520	28.6	D
W-82	I-215	5th St to Baseline Rd	4,370	12.9	B	7,510	23.4	C	4,350	12.9	B	7,540	23.5	C
W-63	I-10	Haugen-Lehmann Way to SR-111	3,280	11.2	B	4,260	14.4	B	3,210	10.9	B	4,290	14.5	B

▨ Indicates that the LOS exceeds the target level

Table 53: 2025 Plus Phase 1 Freeway Weaving Section LOS (continued)

ID	Freeway	Weaving Segment	2025 No-Project Conditions						2025 Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,570	20.1	C	6,240	22.9	C	5,500	19.9	B	6,330	23.5	C
W-9	SR-60	Haven Ave to Archibald Ave	6,840	27.1	C	8,360	35.7	**E**	6,680	26.5	C	8,440	36.2	**E**
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,460	24.7	C	6,350	24.4	C	6,320	24.3	C	6,570	25.4	C
W-22	SR-60	Blaine St/3rd St to University Ave	7,390	25.8	C	7,010	25.8	C	7,260	25.5	C	7,190	26.7	C
W-23	SR-60	University Ave to Martin Luther King	7,710	42.6	**E**	7,610	> Capacity	**F**	7,590	42.2	**E**	7,900	>Capacity	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,900	39.1	**E**	7,550	38.0	**E**	7,660	38.8	**E**	7,850	40.4	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	5,080	34.3	D	3,460	21.9	C	5,050	34.5	D	3,640	23.7	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,720	15.1	B	2,340	13.2	B	2,760	15.8	B	2,510	14.6	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			2,250	13.0	B	1,940	11.4	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,550	36.6	**E**	7,320	38.2	**E**	7,560	36.5	**E**	7,320	38.2	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	8,690	31.9	D	12,040	> Capacity	**F**	8,710	31.9	D	11,970	>Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	5,490	23.8	C	6,300	27.0	C	5,580	24.2	C	6,150	26.4	C
W-95	I-215	Eucalyptus Ave to SR-60	6,110	22.0	C	6,800	25.8	C	6,200	22.3	C	6,570	24.7	C
W-73	I-215	SR-60 to Columbia Ave	7,530	38.0	**E**	7,240	36.0	**E**	7,540	38.0	**E**	7,250	36.1	**E**
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,750	23.5	C	6,540	23.0	C	6,800	23.7	C	6,510	22.9	C
W-81	I-215	Mill St to 2nd St	7,430	26.0	C	6,600	23.4	C	7,500	26.2	C	6,590	23.3	C
W-82	I-215	5th St to Baseline Rd	7,460	24.1	C	5,970	18.8	B	7,520	24.2	C	5,960	18.7	B
W-63	I-10	Haugen-Lehmann Way to SR-111	4,100	16.1	B	4,190	16.5	B	4,140	16.2	B	4,140	16.2	B

▨ Indicates that the LOS exceeds the target level

Table 54: 2025 Plus Phase 1 Freeway Weaving Impacts and Mitigations

ID	Freeway	Weaving Segment	Northbound / Eastbound												
			Determination of Impact					2025 Plus Phase 1 & Mitigations							
			AM Peak Hour		PM Peak Hour				AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Segment type	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
W-20	SR-60	Main St to SR-91	E	E	E	E	Yes	Weaving	7,550	30.1	D	7,410	28.4	D	Add 1 mixed flow lane
W-21	SR-60	SR-91 to Blaine St/3rd St	C	D	F	F	Yes	Weaving	6,750	23.3	C	9,830	36.5	E	Add 1 mixed flow lane
W-27	SR-60	I-215 to Day St	B	B	F	F	Yes	Weaving	3,640	12.0	B	10,510	39.4	E	Add 1 mixed flow lane
W-73	I-215	SR-60 to Columbia Ave	F	F	C	F	Yes	Basic	4,580	17.3	B	4,740	17.7	B	Extend auxillary lane beyond off-ramp
								On-Ramp	2,038	21.1	C	1,780	20.0	B	
								Off-Ramp	339	22.5	C	614	23.5	C	
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	E	E	Yes	Weaving	6,520	19.9	B	9,980	30.7	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

ID	Freeway	Weaving Segment	Southbound / Westbound												
			Determination of Impact					2025 Plus Phase 1 & Mitigations							
			AM Peak Hour		PM Peak Hour				AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Segment type	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Freeway / Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
W-9	SR-60	Haven Ave to Archibald Ave	C	C	E	E	Yes	Weaving	6,680	21.7	C	8,440	29.4	D	Add 1 mixed flow lane
W-23	SR-60	University Ave to Martin Luther King Blvd	E	E	F	F	Yes	Basic	7,590	33.5	D	7,900	34.9	D	Extend auxillary lane beyond off-ramp
								On-Ramp	1,090	26.7	C	1,460	31.4	D	
								Off-Ramp	657	35.8	E	662	37.6	E	
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	E	E	E	E	Yes	Weaving	7,660	30.1	D	7,850	31.3	D	Add 1 mixed flow lane
W-73	I-215	SR-60 to Columbia Ave	E	E	E	E	Yes	Weaving	7,540	29.5	D	7,250	28.1	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Ramp LOS

Table 55 compares the freeway ramp level of service on SR-60 under the 2025 No-Project and the 2025 Plus Phase 1 Scenarios. Table 56 identifies the one ramp segment where the Project would have a significant impact, namely:

- SR-60 eastbound On-Ramp from Martin Luther King Blvd.

Table 56 shows the mitigation measure needed to reduce the impacts of the WLC to a less-than-significant level. While this measure is feasible in the sense that, if it could be constructed, it would achieve the target LOS, this does not necessarily mean that it passes other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 55: 2025 Plus Phase 1 Freeway Ramp LOS

				2025 No-Project Conditions								2025 Plus Phase 1 Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	9,500	430	41.9	F	9,220	1,050	39.9	F	9,780	530	45.2	F	9,060	1,070	39.1	F
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,960	520	15.6	B	7,620	1,430	25.3	C	6,350	590	17.3	B	7,450	1,410	24.8	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,120	570	6.2	A	2,910	860	10.3	B	2,380	590	8.2	A	2,900	810	10.5	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,680	120	9.1	A	2,470	320	13.8	B	2,190	130	12.3	B	2,550	330	14.7	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,800	90	12.3	B	2,790	70	17.0	B	2,320	460	16.8	B	2,880	510	18.9	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,870	60	7.3	A	2,940	110	12.2	B	1,850	20	6.9	A	2,740	20	10.6	B
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,930	340	7.2	A	3,050	760	13.5	B	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,370	10	9.9	A	2,210	10	13.5	B	1,323	7	9.7	A	2,141	9	13.2	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	1,810	10	14.1	B	1,580	50	13.0	B	1,810	12	14.1	B	1,500	36	12.5	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	2,010	520	10.6	B	1,650	390	7.9	A	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	2,530	90	7.0	A	2,040	40	4.4	A	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	2,430	70	12.9	B	1,990	60	10.9	B	2,090	630	16.5	B	2,040	420	14.6	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	2,500	220	7.1	A	2,050	150	4.6	A	2,720	340	9.1	A	2,460	150	7.5	A
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	2,090	690	15.2	B	1,810	600	13.3	B	2,180	640	15.7	B	2,110	580	15.2	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,900	710	5.9	A	7,550	540	5.3	A	7,660	680	5.3	A	7,850	540	6.6	A
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,770	650	25.2	C	7,500	1,010	27.6	C	7,650	660	25.1	C	7,790	1,020	29.0	D

▨ Indicates that the LOS exceeds the target level

Table 56: 2025 Plus Phase 1 Freeway Ramp Impacts and Mitigations

				Determination of Impact					Existing Plus Phase 1 & Mitigations								
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	No-Project LOS	Plus Phase 1 LOS	No-Project LOS	Plus Phase 1 LOS	Project Impact?	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	F	F	F	F	Yes	9,780	530	29.2	D	9,060	1,070	29.2	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

9. 2040 NO-PROJECT SCENARIO

This chapter describes traffic conditions under the assumption that existing land uses plus other past, present, and reasonably foreseeable projects (both land development and roadway improvements) up to the year 2040 are implemented. Within the City of Moreno Valley full build-out of the General Plan was assumed, except for the project site which was assumed to be unchanged from existing conditions. This scenario forms a basis of comparison for the 2040 Plus Build-out scenario.

A. 2040 NO-PROJECT TRAFFIC VOLUMES

The forecast turning movement volumes for this scenario are shown in Figure 44. Figure 11 is the key map for the Figure 44 sub-figures.

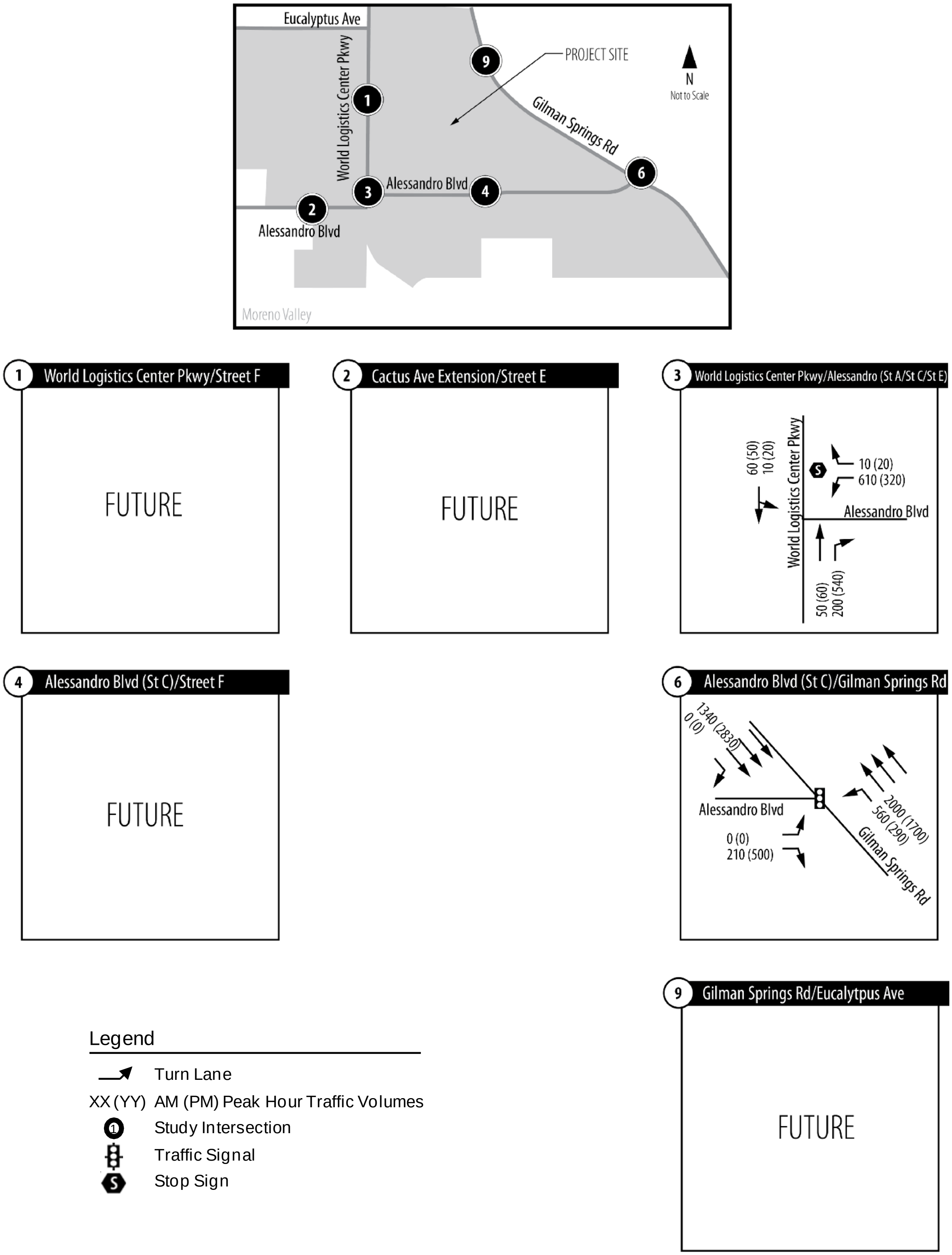

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario

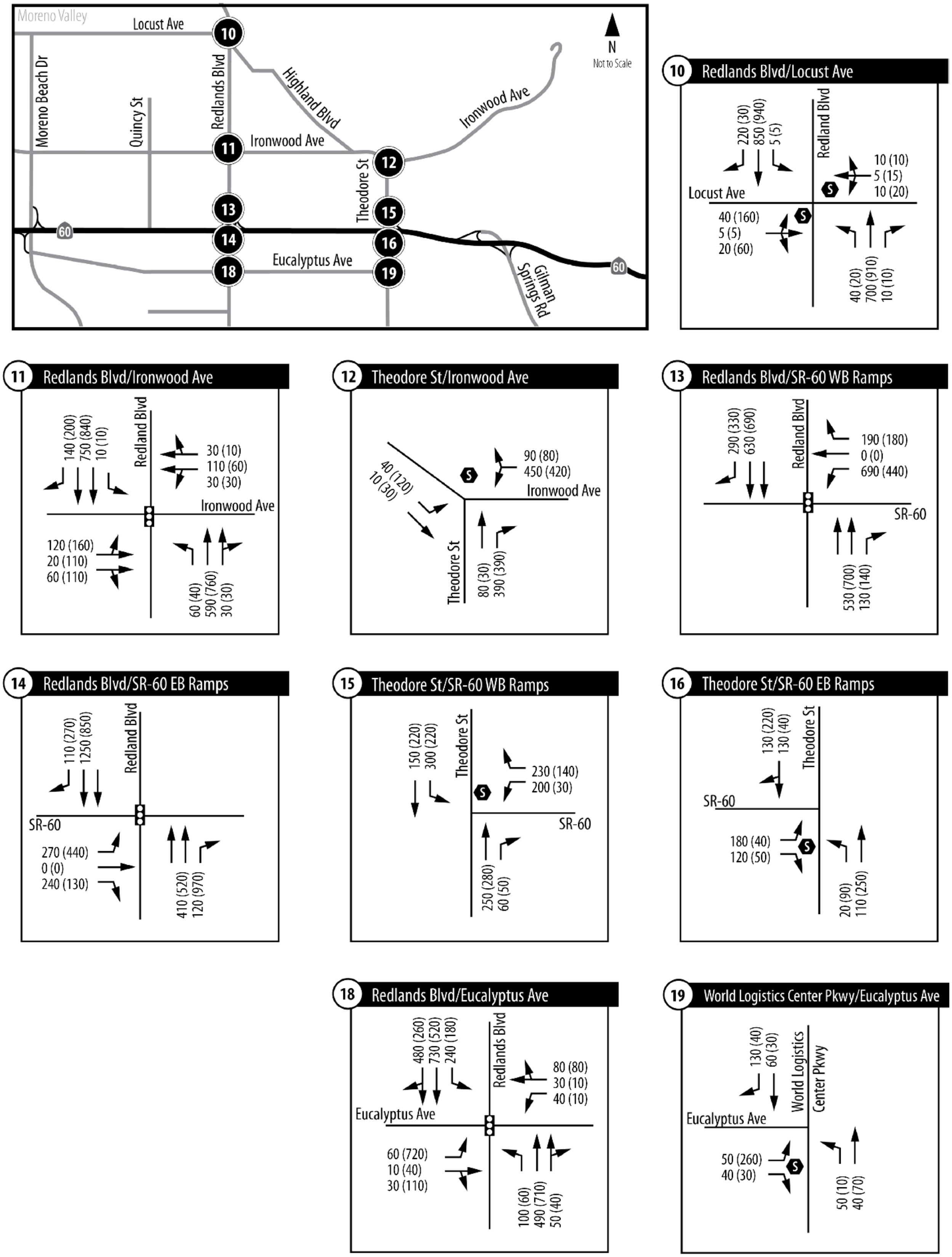

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (B)

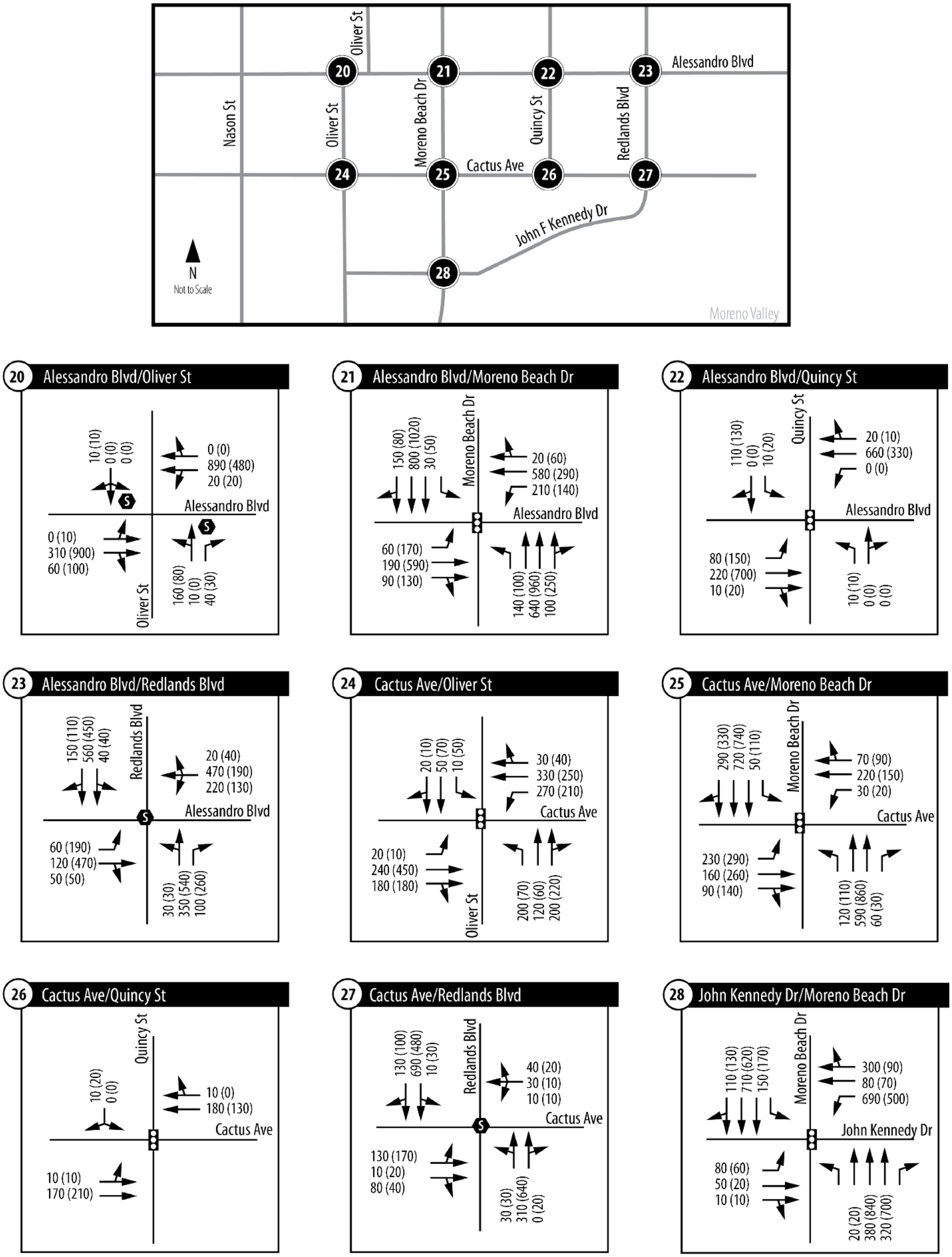

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (C)

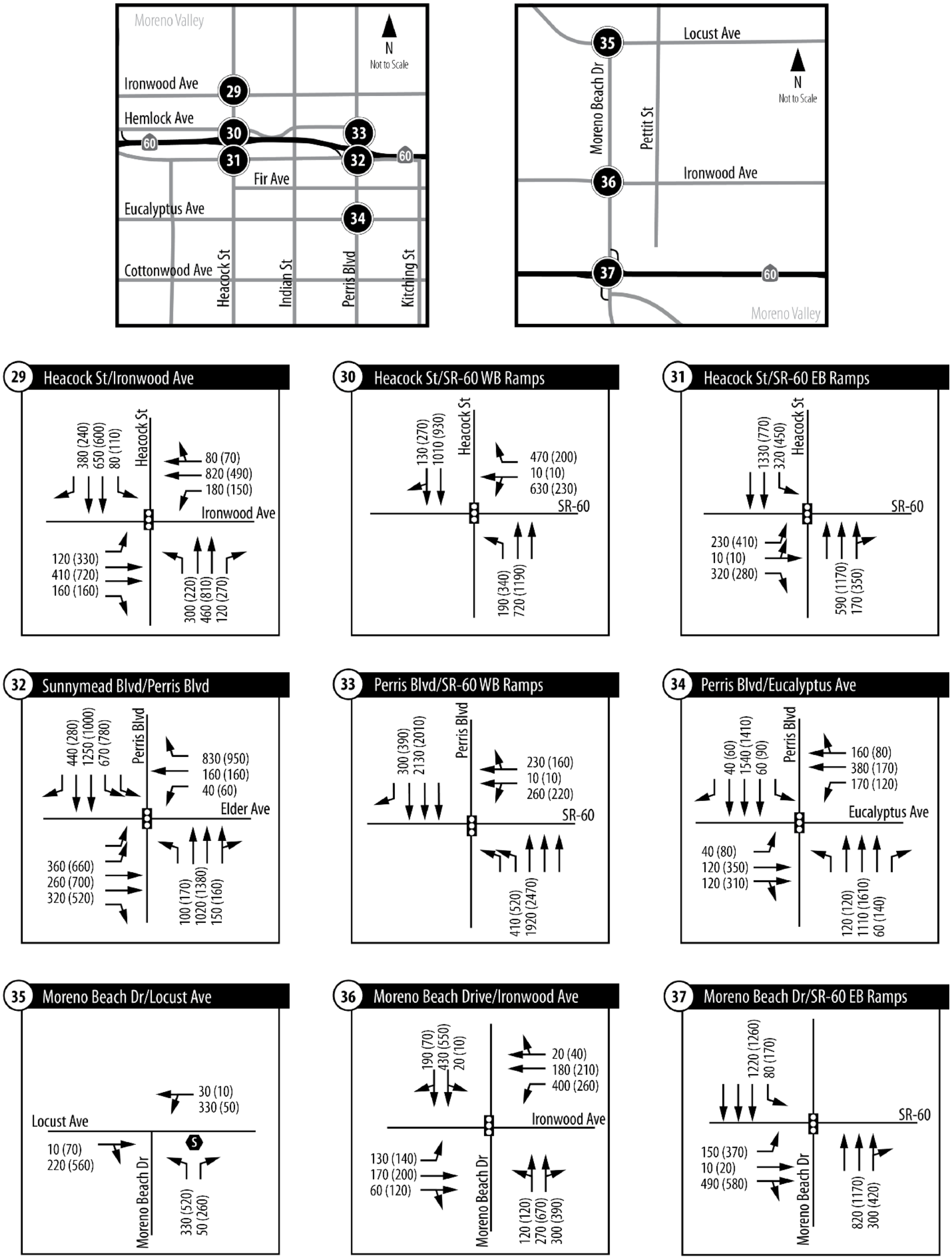

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (D)

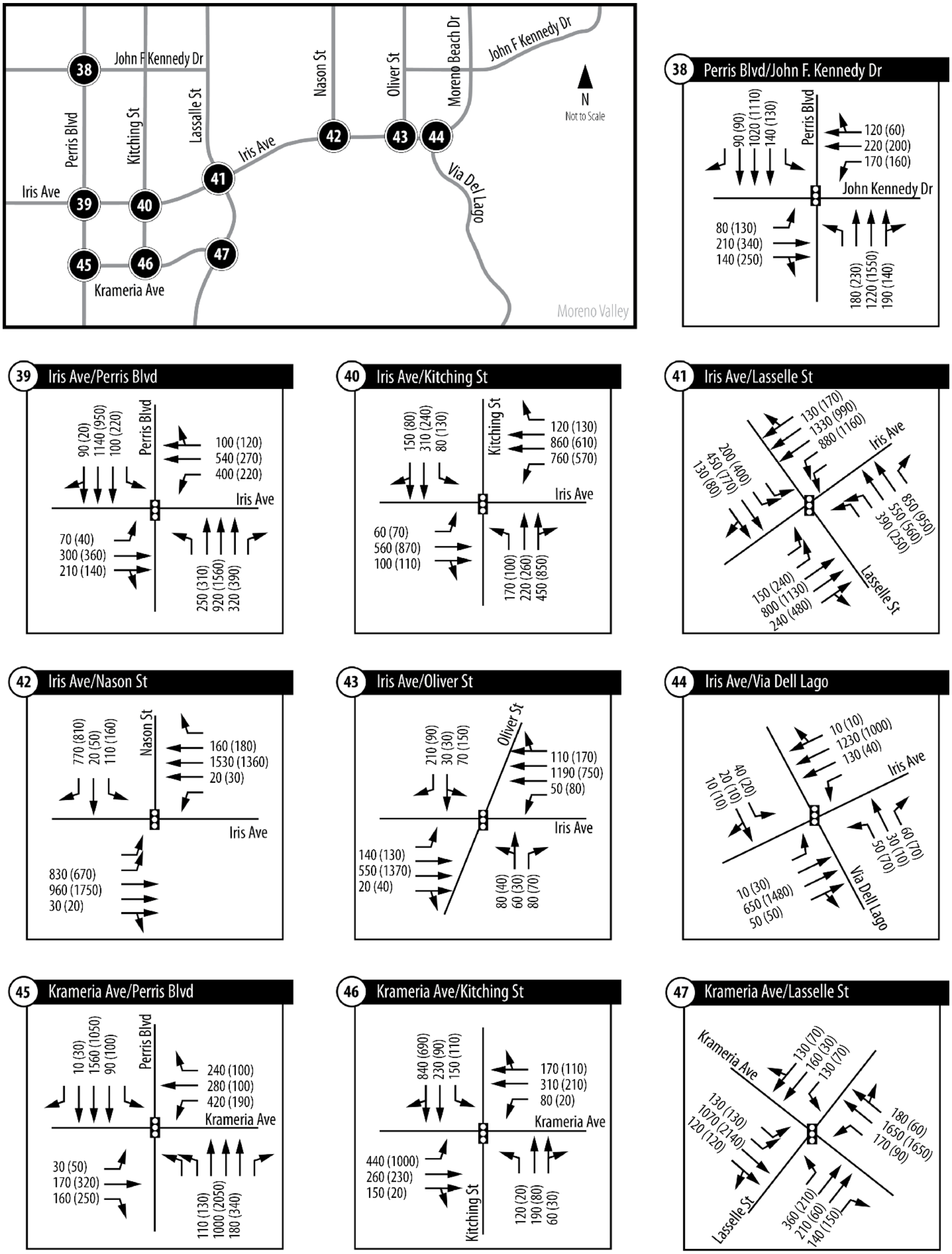

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (E)

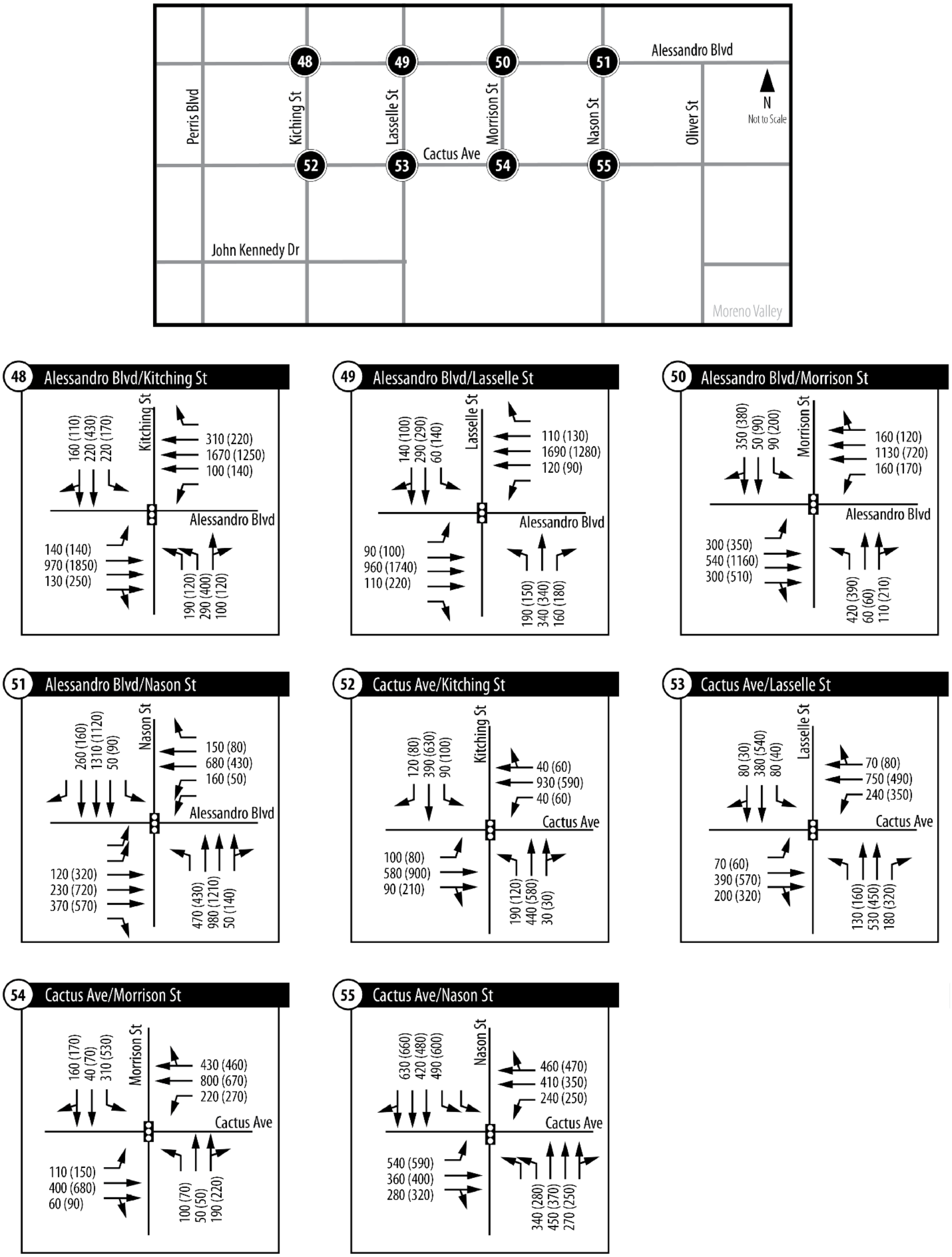

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (F)

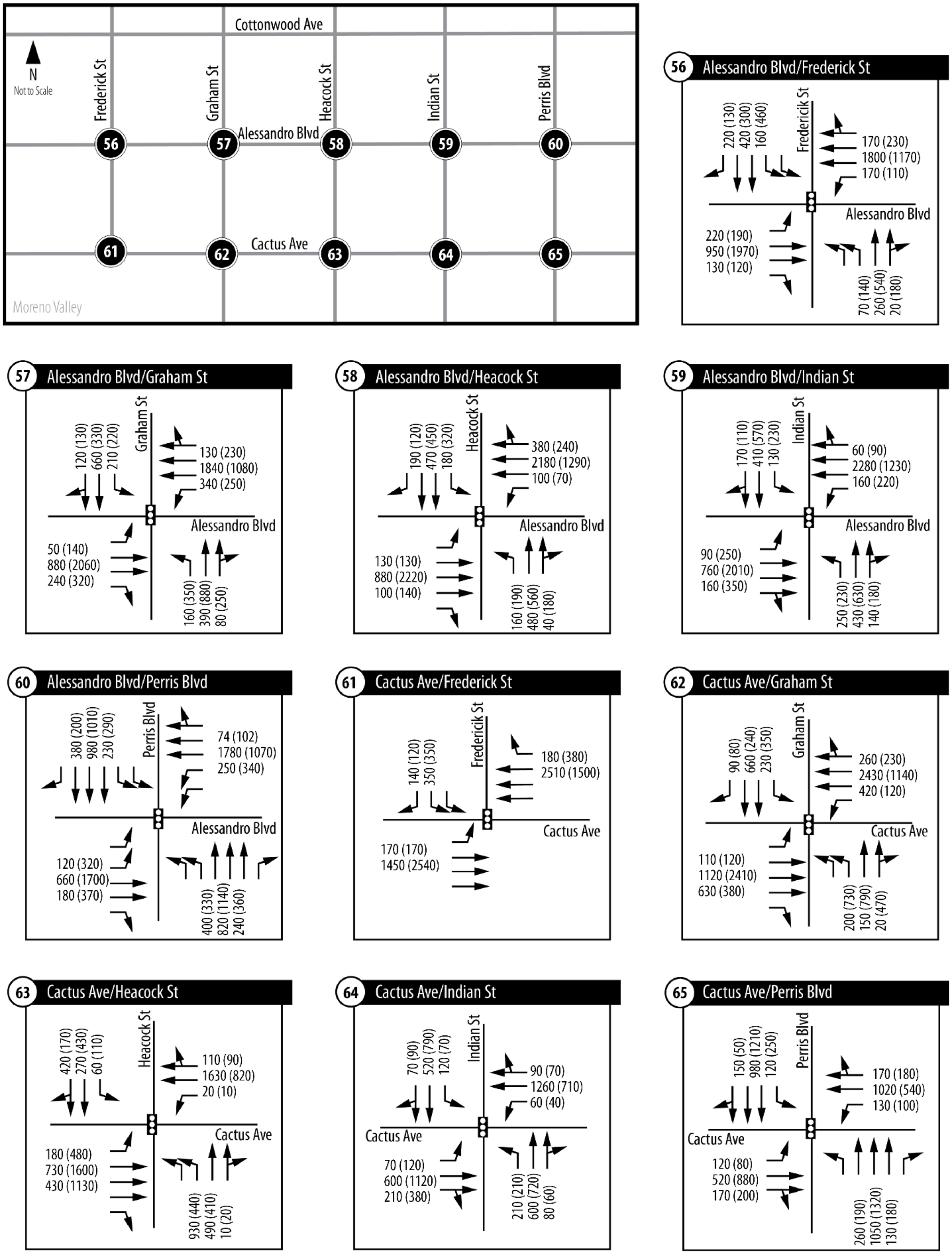

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (G)

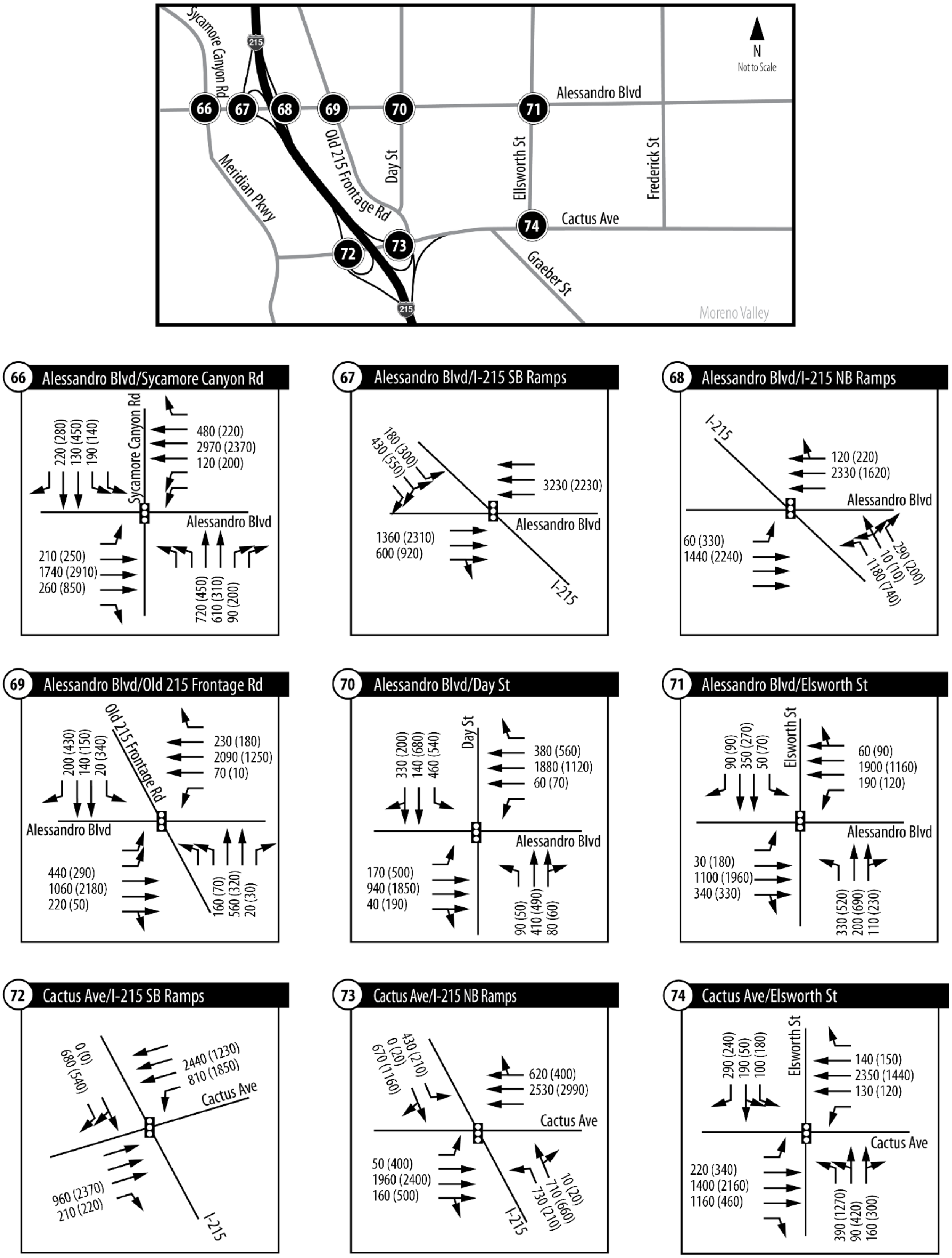

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (H)

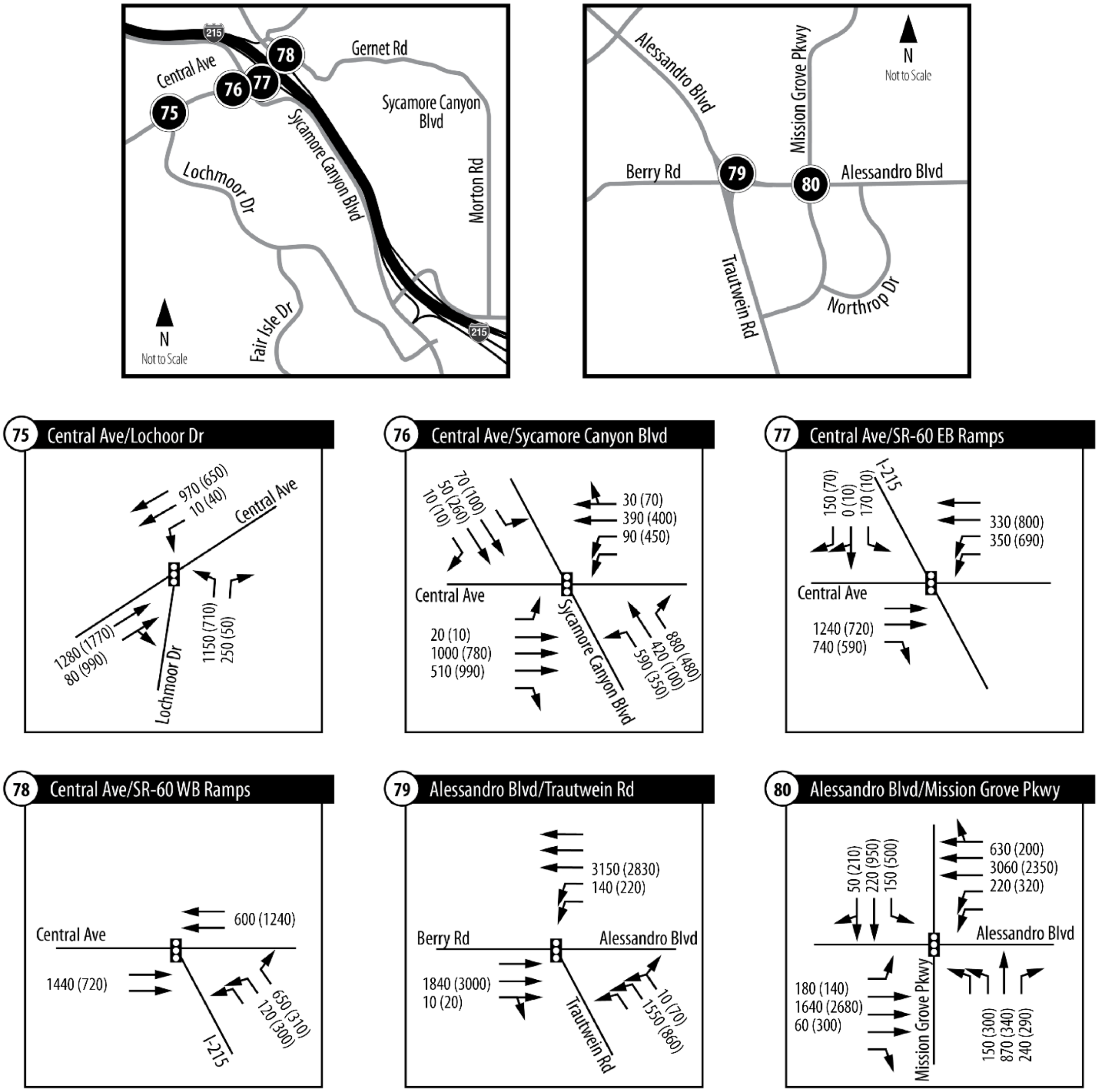

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (I)

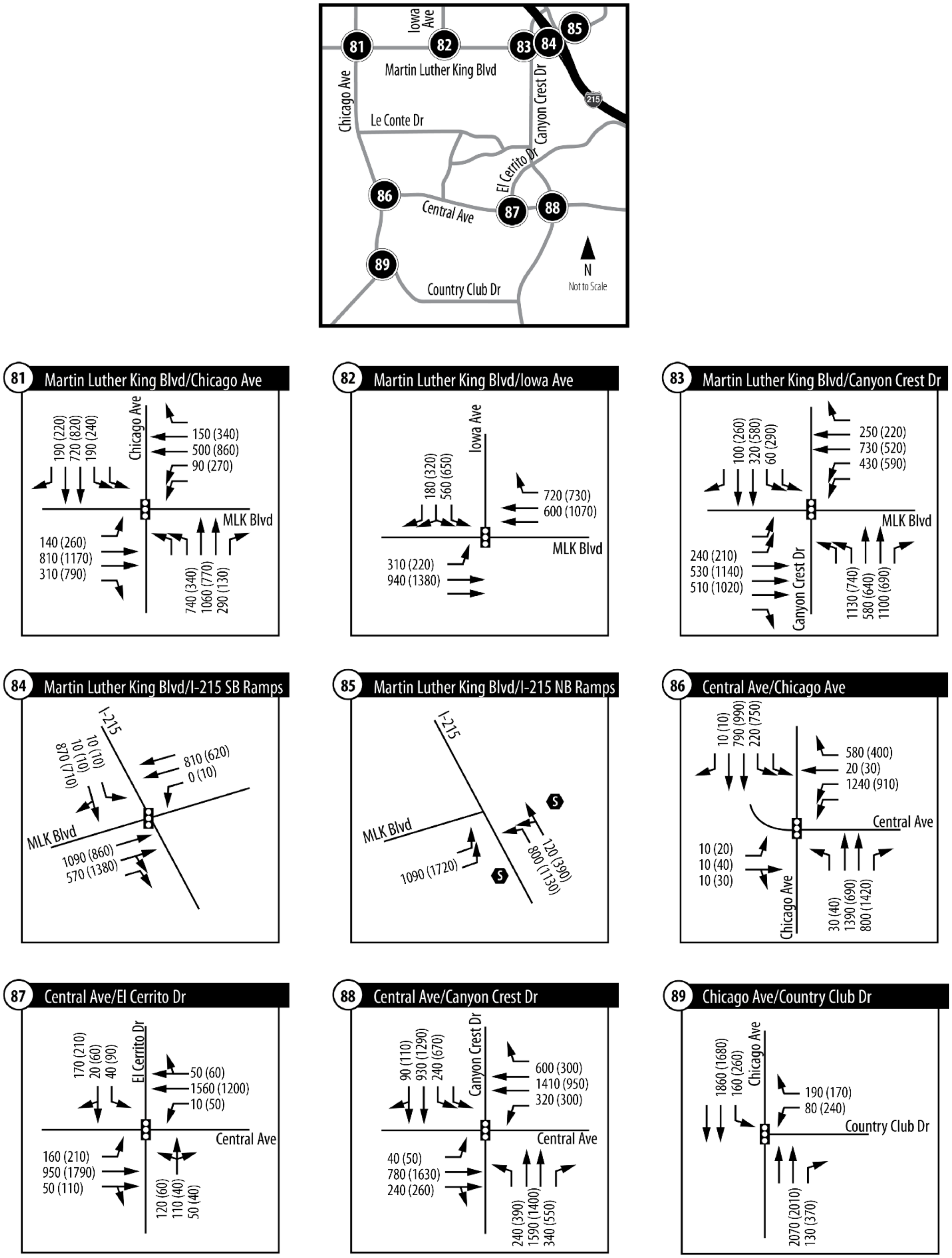

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (J)

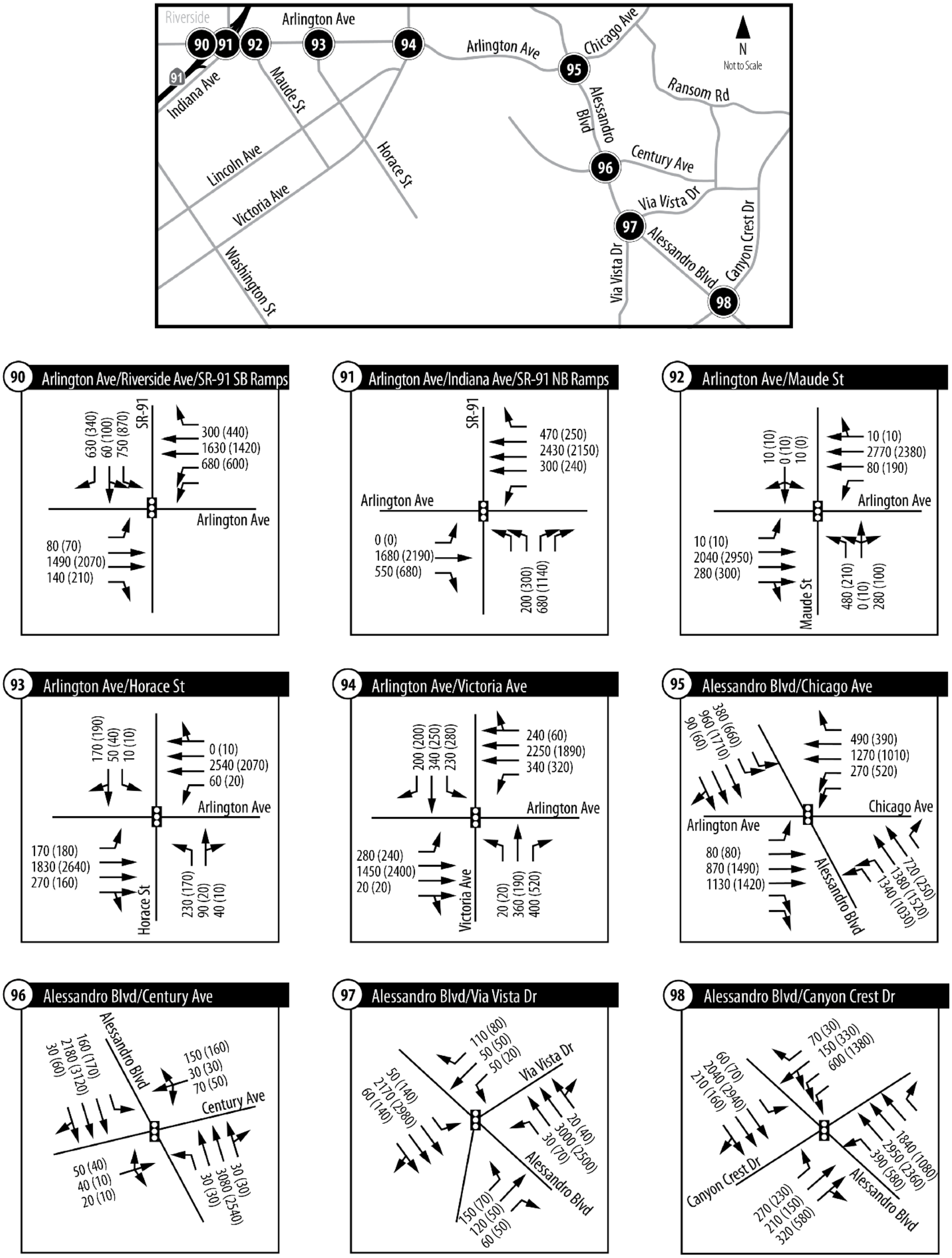

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (K)

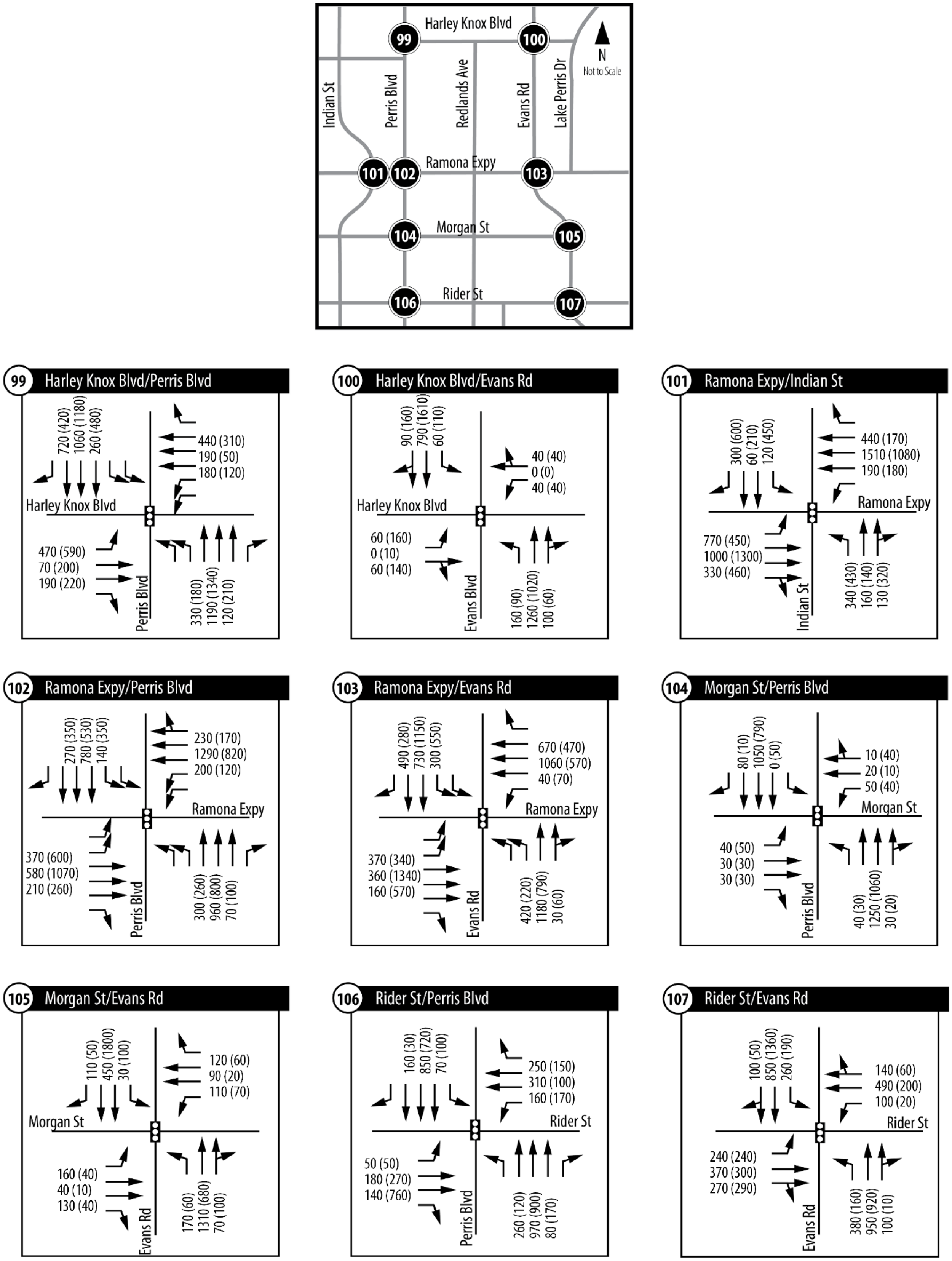

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (L)

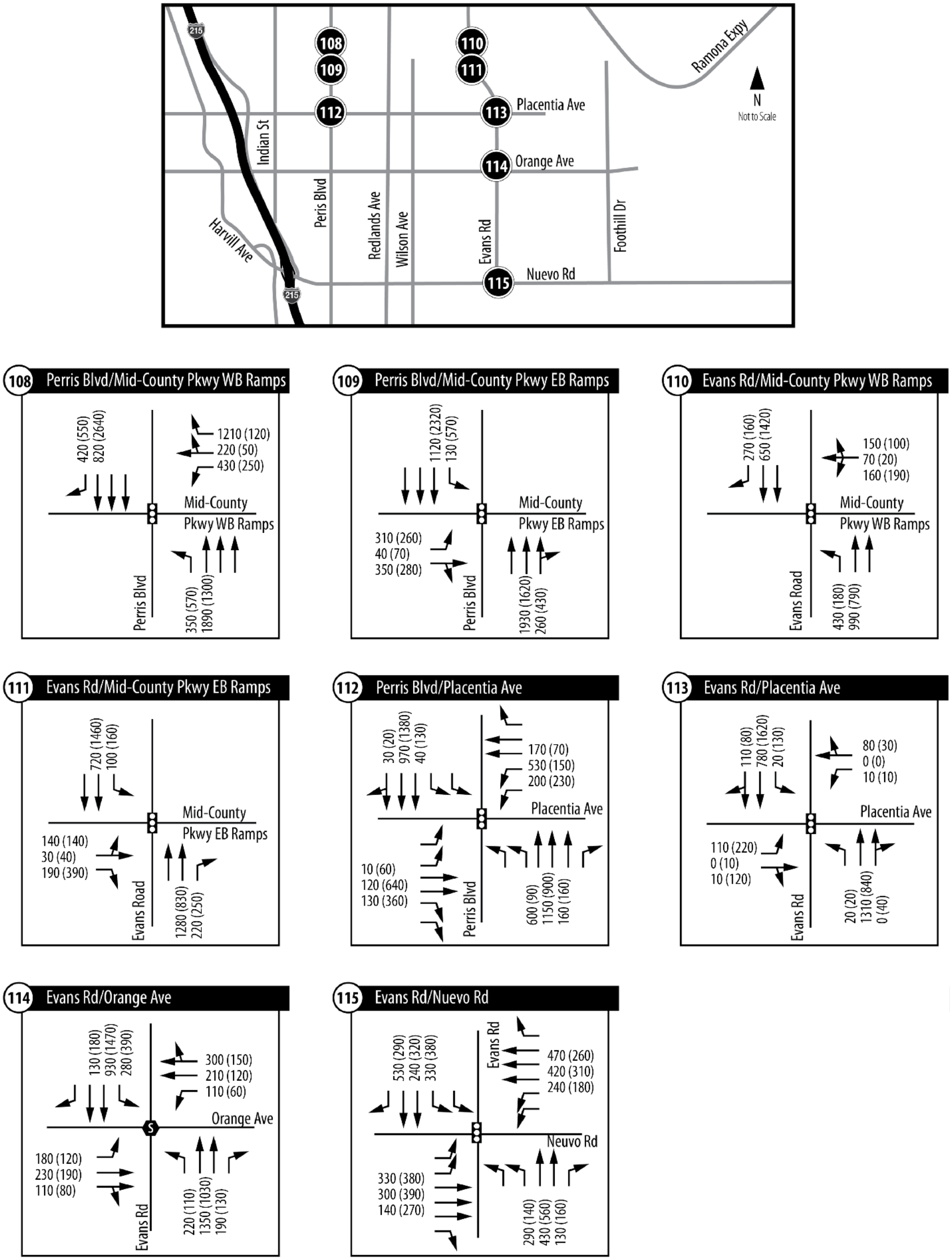

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (M)

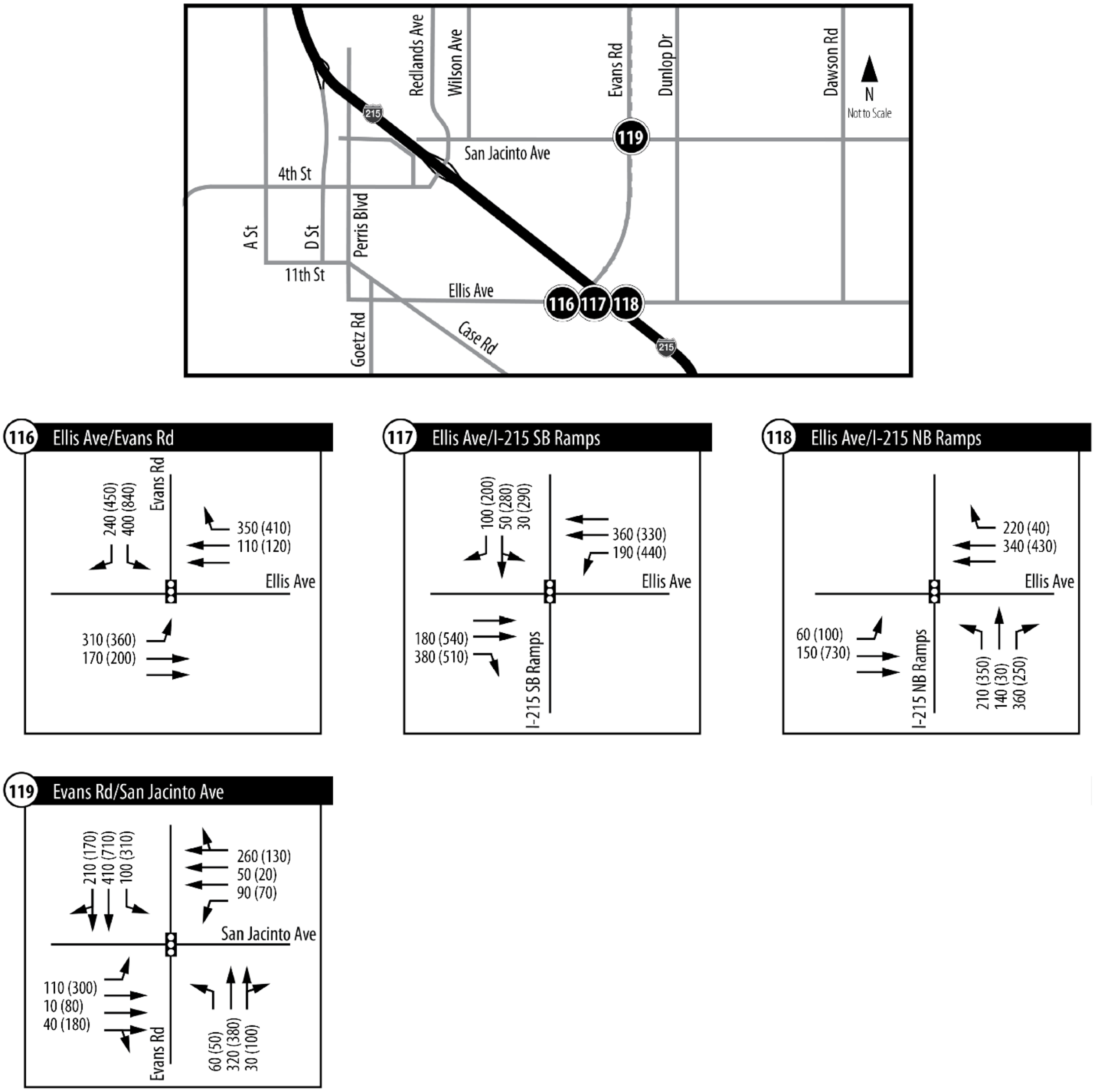

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (N)

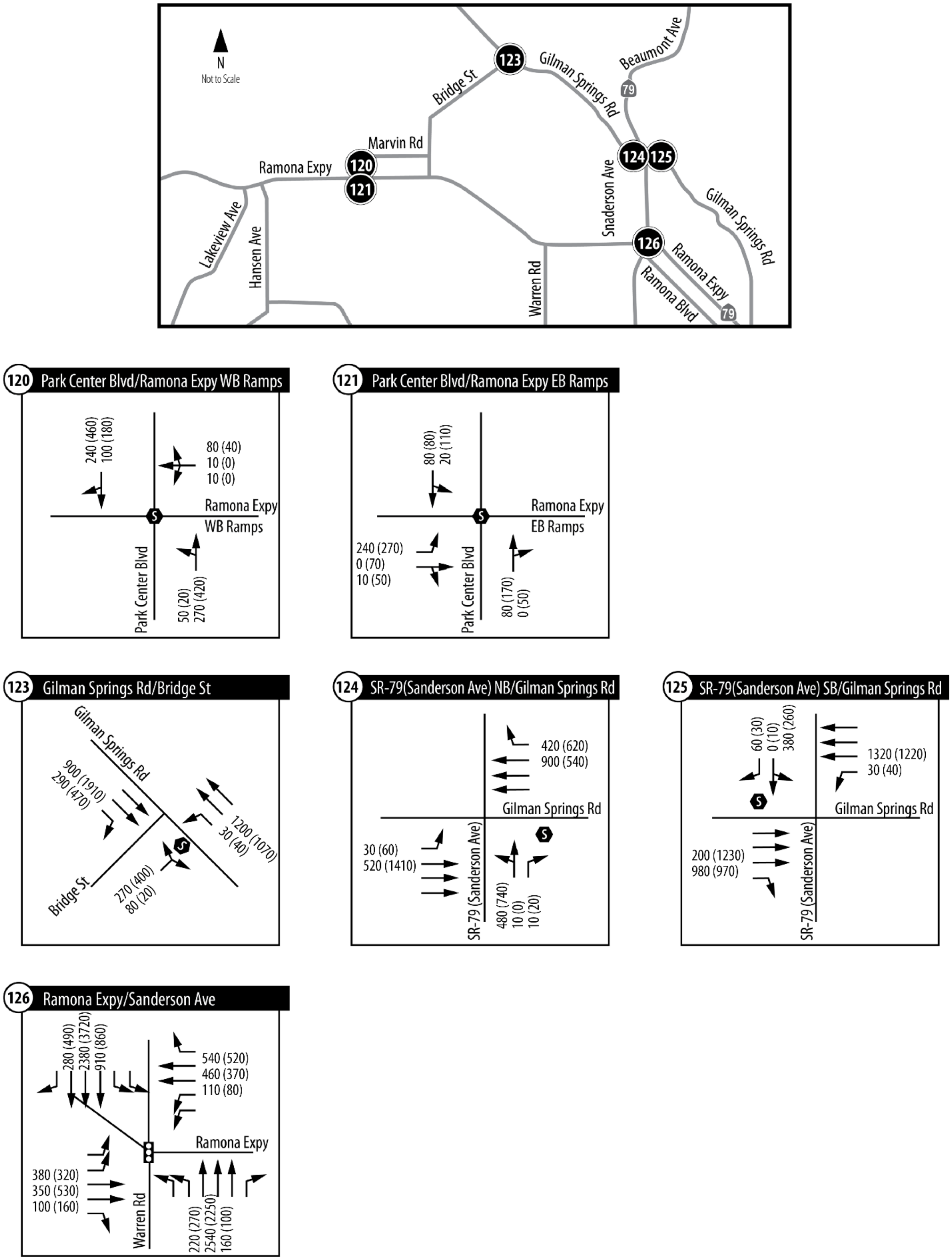

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (O)

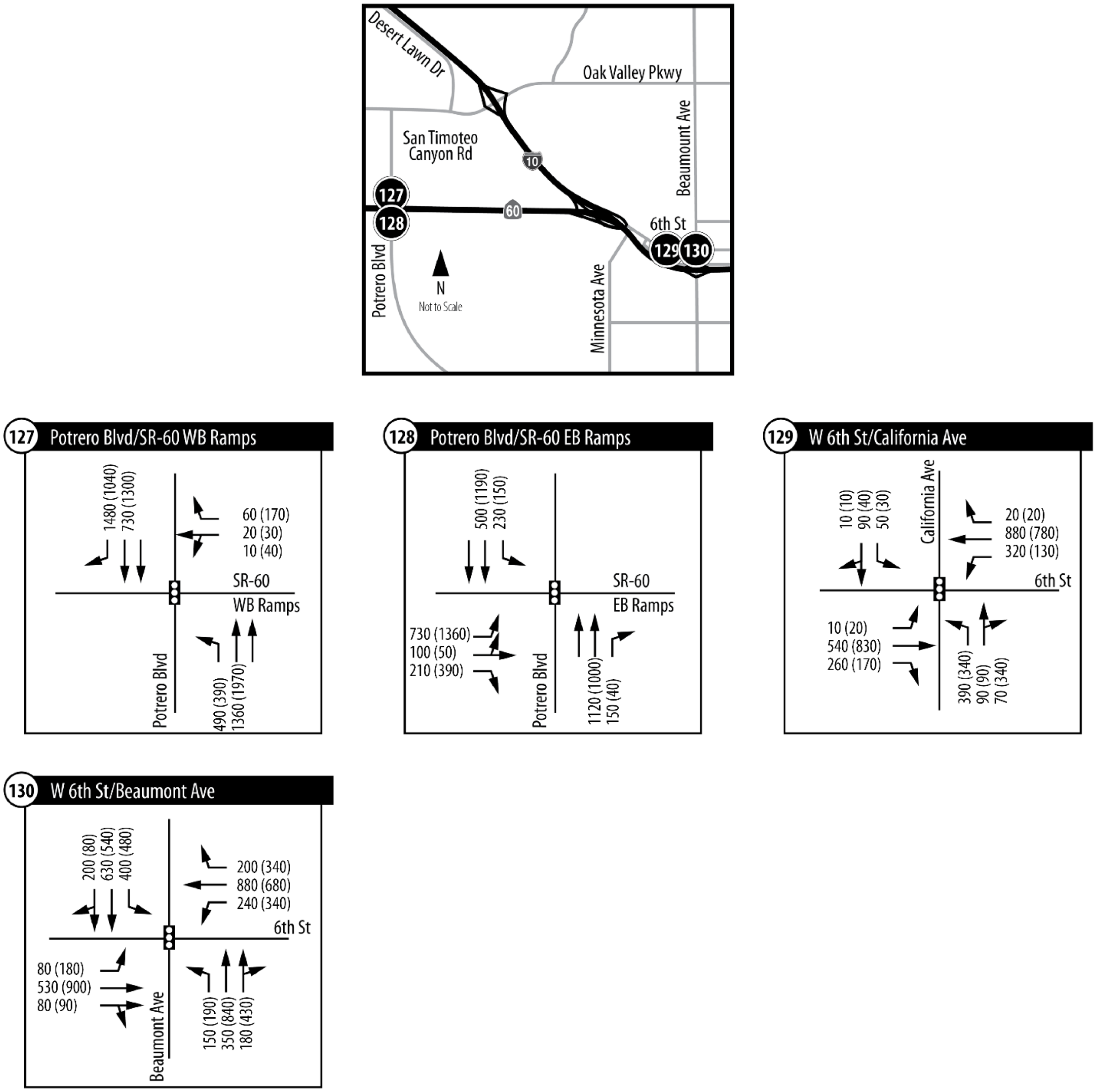

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (P)

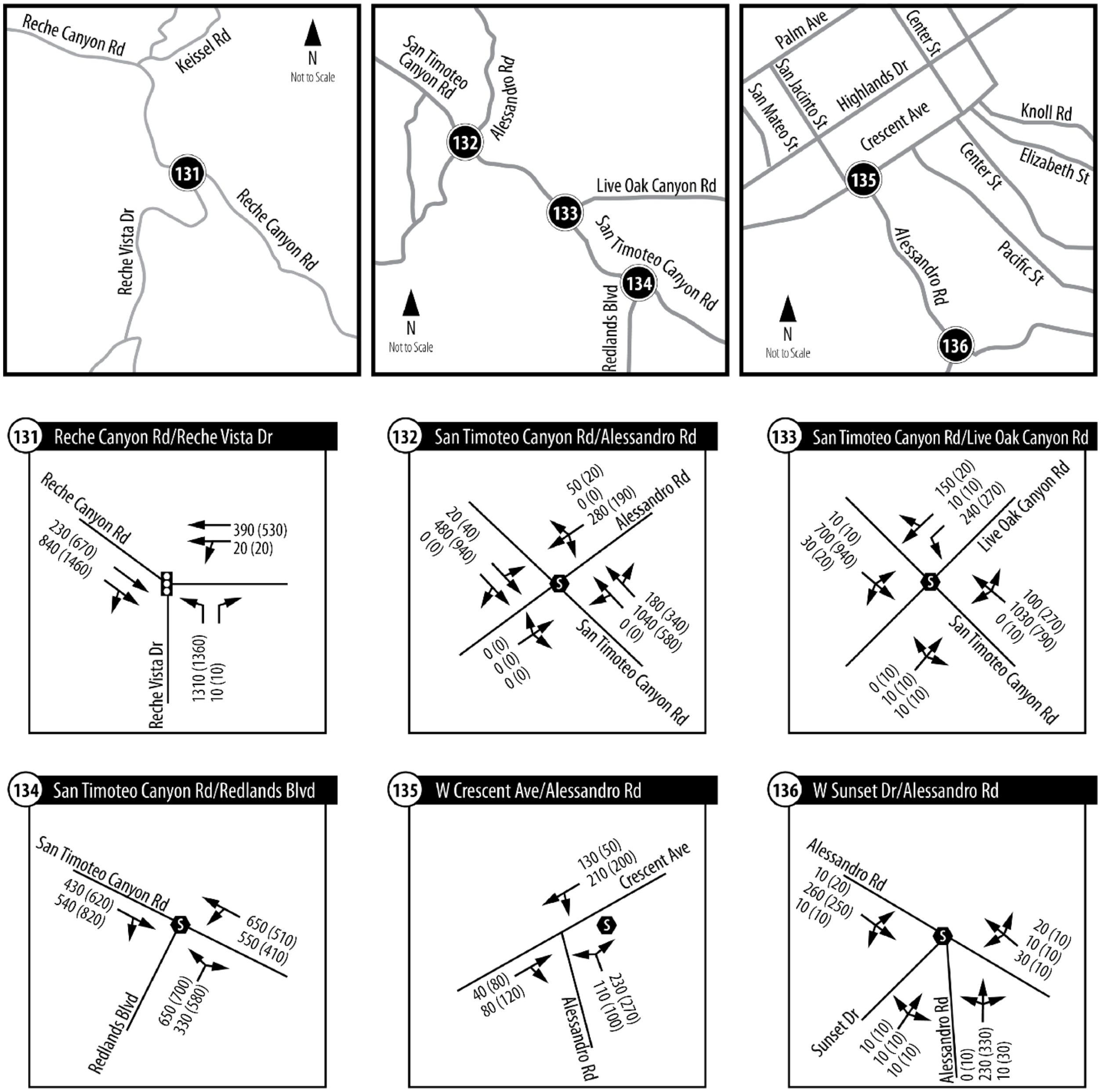

Figure 44: Turning Movement Volumes (PCE) under the 2040 No-Project Scenario (Q)

B. 2040 NO-PROJECT LEVEL OF SERVICE

Roadway Segment Analysis

Table 57 shows the LOS for study roadway segments under the 2040 No-Project Scenario. In this scenario Gilman Springs Rd. and Redlands Blvd. are assumed to have been widened in accordance with General Plan policy to six and four lanes respectively. Under the 2040 No-Project Scenario Gilman Springs Road between Alessandro Boulevard and Bridge Street, and Alessandro Boulevard between Redlands Avenue and Merwin Street, would not meet the target LOS.

Table 57: LOS of Study Road Segments under the 2040 No-Project Scenario

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	9,822	A
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,653	A
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	2,427	A
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road		
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	9,622	C
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	7,871	B
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	7,887	B
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	10,083	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	55,483	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	47,721	D
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	21,678	D
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	12,719	A
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	11,852	**E**
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	12,934	A
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	1,120	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.
▨ Indicates LOS exceeds the target level

Intersection LOS

Table 58 presents the LOS for the study intersections under the 2040 No-Project Scenario in the AM and PM peak hours. Detailed worksheets are presented in Appendix G. The number of intersections that would exceed the target LOS rose from 19 under Existing Conditions to 30 under the 2025 No-Project Scenario to 72 under the 2040 No-Project Scenario due to population and employment growth. The intersections that would operate exceed the target LOS are:

- IN-6 Alessandro Blvd (Street C)/Gilman Springs Rd (PM)
- IN-12 Theodore St./Ironwood Ave. (PM)
- IN-15 Theodore St./SR-60 WB ramps (AM)
- IN-18 Redlands Blvd./Eucalyptus Ave. (PM)
- IN-20 Oliver St/Alessandro Blvd. (AM, PM)
- IN-23 Redlands Blvd./Alessandro Blvd. (AM, PM)
- IN-25 Moreno Beach Dr./Cactus Ave. (PM)
- IN-27 Redlands Blvd./Cactus Ave. (AM, PM)
- IN-28 Moreno Beach Dr./John Kennedy Dr. (AM)
- IN-32 Sunnymead Blvd./Perris Blvd. (PM)
- IN-35 Moreno Beach Dr./Locust Ave. (AM)
- IN-36 Moreno Beach Dr./Ironwood Ave. (AM, PM)
- IN-39 Iris Ave./Perris Blvd. (AM)
- IN-40 Kitching St./Iris Ave. (AM, PM)

- IN-41 Lasselle St./Iris Ave. (AM, PM)
- IN-42 Nason St./Iris Ave. (AM, PM)
- IN-46 Kitching St./Krameria Ave. (AM, PM)
- IN-48 Kitching St./Alessandro Blvd. (AM, PM)
- IN-50 Morrison St./Alessandro Blvd. (AM, PM)
- IN-51 Nason St./Alessandro Blvd. (AM, PM)
- IN-52 Kitching St./Cactus Ave. (AM, PM)
- IN-53 Lasselle St./Cactus Ave. (PM)
- IN-54 Morrison St./Cactus Ave. (PM)
- IN-55 Nason St./Cactus Ave. (AM, PM)
- IN-56 Frederick St./Alessandro Blvd. (PM)
- IN-57 Graham St./Alessandro Blvd. (AM, PM)
- IN-58 Heacok St./Alessandro Blvd. (AM, PM)
- IN-59 Indian St./ Alessandro Blvd. (AM, PM)
- IN-60 Perris Blvd./Alessandro Blvd. (AM, PM)
- IN-62 Graham St./Cactus Ave. (AM, PM)
- IN-63 Heacok St./ Cactus Ave. (AM, PM)
- IN-64 Indian St./Cactus Ave. (AM, PM)
- IN-65 Perris Blvd./Cactus Ave. (AM, PM)
- IN-66 Alessandro Blvd./Sycamore Canyon Blvd. (AM, PM)
- IN-70 Day St./Alessandro Blvd. (AM, PM)
- IN-71 Elsworth St./Alessandro Blvd. (PM)
- IN-72 I-215 SB Ramps/Cactus Ave. (PM)
- IN-73 I-215 NB Ramps/Cactus Ave. (AM, PM)
- IN-74 Elsworth St./Cactus Ave. (AM, PM)
- IN-75 Central Ave./Lochmoor Dr. (AM, PM)
- IN-76 Sycamore Canyon Blvd/Central Ave (AM, PM)
- IN-80 Alessandro Blvd./Mission Grove Pkwy. (AM, PM)
- IN-81 Martin Luther King Blvd./Chicago Ave. (AM, PM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM, PM)
- IN-84 Martin Luther King Blvd./I-215 SB Ramps (PM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (AM, PM)
- IN-90 Arlington Ave./Riverside Ave./SR-91 SB Ramps (AM, PM)
- IN-92 Arlington Ave./Maude St. (PM)
- IN-93 Horace St./Arlington Ave. (AM)
- IN-94 Arlington Ave./Victoria Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-98 Alessandro Blvd./Canyon Crest Dr. (AM, PM)
- IN-99 Harley Knox Blvd./Perris Blvd. (AM)
- IN-101 Ramona Expy./Indian St. (AM, PM)
- IN-103 Ramona Expy./Evans Rd. (AM)
- IN-107 Evans Rd./Rider St. (AM, PM)
- IN-108 Perris Blvd./Mid-County Pky. WB Ramps (PM)
- IN-114 Evans Rd./Orange Ave. (AM, PM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave.) SB/Gilman Springs Rd. (AM, PM)
- IN-126 Ramona Expy./Sanderson Ave. (AM, PM)
- IN-127 Potrero Blvd./SR-60 WB Ramps (AM)
- IN-129 W 6th St./California Ave. (AM, PM)

- IN-130 W 6th St./Beaumont Ave. (AM, PM)
- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM, PM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Table 58: 2040 No-Project Scenario LOS at Study Intersections

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		Non-Existent	
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Non-Existent	
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	30.2	D	13.2	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	19.6	B	77.7	**E**
IN-9	Gilman Springs Rd/Eucalytpus Ave	D	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	SIGNAL	5.7	A	15.4	B
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	15.4	B	16.5	B
IN-12	Theodore St/Ironwood Ave	D	CSS	25.8	D	48.0	**E**
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	11.7	B	8.4	A
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	7.7	A	38.1	D
IN-15	Theodore St/SR-60 WB ramps	D	CSS	116.1	**F**	14.0	B
IN-16	Theodore St/SR-60 EB ramps	D	CSS	14.2	B	13.2	B
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	64.3	**E**
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	10.1	B	12.9	B
IN-20	Oliver St/Alessandro Blvd	C	CSS	168.0	**F**	>180	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	28.1	C	38.6	D
IN-22	Quincy St/Alessandro Blvd	C	SIGNAL	4.8	A	5.1	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	>180	**F**	174.5	**F**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	29.1	C	54.9	D
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	29.5	C	37.1	**D**
IN-26	Quincy St/Cactus Ave	C	SIGNAL	2.9	A	3.2	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	32.3	**D**	26.5	**D**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	57.5	**E**	40.4	D
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	53.5	D	49.1	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	39.6	D	23.4	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	14.4	B	28.9	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	54.2	D	81.1	**F**
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	21.2	C	18.9	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	29.0	C	32.3	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	125.7	**F**	16.9	C
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	92.9	**F**	119.7	**F**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	19.2	B	38.8	D
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	46.1	D	50.2	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	64.4	**E**	51.5	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	89.2	**F**	170.3	**F**
IN-41	Lasselle St/Iris Ave	D	SIGNAL	61.9	**E**	142.6	**F**
IN-42	Nason St/Iris Ave	C	SIGNAL	77.7	**E**	55.8	**E**
IN-43	Oliver St/Iris Ave	D	SIGNAL	33.5	C	24.3	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	14.6	B	15.7	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	44.0	D	41.4	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	43.5	D	49.3	D
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	62.7	**E**	105.3	**F**
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	34.8	C	36.8	D

Table 58: 2040 No-Project Scenario LOS at Study Intersections (continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	107.8	**F**	119.3	**F**
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	87.5	**F**	92.0	**F**
IN-52	Kitching St/Cactus Ave	C	SIGNAL	43.9	**D**	68.5	**E**
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.8	C	52.9	**D**
IN-54	Morrison St/Cactus Ave	D	SIGNAL	39.5	D	74.8	**E**
IN-55	Nason St/Cactus Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	43.2	D	111.8	**F**
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	59.8	**E**	>180	**F**
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	74.4	**E**	82.6	**F**
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	71.6	**E**	118.6	**F**
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	55.5	**E**	87.3	**F**
IN-61	Frederick St/Cactus Ave	D	SIGNAL	15.8	B	10.0	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	79.7	**E**	131.9	**F**
IN-63	Heacock St/Cactus Ave	D	SIGNAL	151.6	**F**	74.0	**E**
IN-64	Indian St/Cactus Ave	C	SIGNAL	51.1	**D**	77.9	**E**
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	64.5	**E**	60.3	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	132.6	**F**	146.7	**F**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	14.2	B	19.4	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	45.1	D	25.0	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	31.1	C	35.3	D
IN-70	Day St/Alessandro Blvd	D	SIGNAL	66.8	**E**	110.8	**F**
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	44.3	D	90.4	**F**
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	20.7	C	>180	**F**
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	108.5	**F**	177.1	**F**
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	152.3	**F**	>180	**F**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	76.2	**E**	176.6	**F**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	22.0	C	24.0	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	31.4	C	11.8	B
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	41.6	D	26.1	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	>180	**F**	>180	**F**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	68.5	**E**	72.3	**E**
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	20.4	C	16.3	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	162.9	**F**	171.0	**F**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	52.3	D	59.4	**E**
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	91.5	**F**	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	41.3	D	35.0	D
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	106.4	**F**	>180	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	31.7	C	34.7	C
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	61.2	**E**	92.2	**F**
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	49.8	D	48.2	D
IN-92	Arlington Ave/Maude St	D	SIGNAL	51.3	D	101.3	**F**
IN-93	Horace St/Arlington Ave	D	SIGNAL	79.0	**E**	54.2	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	131.5	**F**	>180	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	48.7	D	31.5	C

Table 58: 2040 No-Project Scenario LOS at Study Intersections (continued)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	32.0	C	39.3	D
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	>180	**F**	>180	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	65.5	**E**	52.7	D
IN-100	Harley Knox Blvd/Evan Rd	D	SIGNAL	13.4	B	19.9	B
IN-101	Ramona Expy/Indian St	E	SIGNAL	137.9	**F**	159.2	**F**
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	53.7	D	65.5	E
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	83.7	**F**	58.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	8.1	A	10.4	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	20.6	C	22.9	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	25.4	C	28.3	C
IN-107	Evans Rd/Rider St	C	SIGNAL	68.3	**E**	39.4	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	34.3	C	63.2	**E**
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	23.0	C	39.2	D
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	23.8	C	19.8	B
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	9.1	A	11.1	B
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	35.1	D	25.5	C
IN-113	Evans Rd/Placentia Ave	D	SIGNAL	4.3	A	6.4	A
IN-114	Evans Rd/Orange Ave	C	SIGNAL	52.3	**D**	38.0	**D**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.5	**D**	29.9	C
IN-116	Evans Rd/Ellis Ave	D	SIGNAL	18.2	B	28.9	C
IN-117	Ellis Ave/I-215 SB Ramps	E	SIGNAL	29.7	C	34.6	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	SIGNAL	24.8	C	23.1	C
IN-119	Evans Rd/San Jacinto Ave	D	SIGNAL	32.2	C	47.8	D
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	10.8	B	11.0	B
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	11.5	B	17.3	C
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	>180	**F**	>180	**F**
IN-127	Potrero Blvd/SR-60 WB Ramps	D	SIGNAL	121.6	**F**	32.2	C
IN-128	Potrero Blvd/SR-60 EB Ramps	D	SIGNAL	20.9	C	26.9	C
IN-129	W 6th St/California Ave	C	SIGNAL	47.4	**D**	60.5	**E**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	58.9	**E**	167.2	**F**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	>180	**F**	>180	**F**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	83.2	**F**	70.1	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	17.3	C	20.2	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.9	A	10.8	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Freeway Mainline Basic Sections LOS

Table 59 presents the results of the LOS analysis for freeway mainline sections. A total of 58 freeway mainline basic sections were forecast to exceed the target LOS of "D", up from 40 under the 2025 No-Project Scenario, and 34 under Existing No-Project conditions. The general worsening of conditions is due to the fact that freeway capacity is growing more slowly than population. The sections that would exceed the target LOS would be:

North or Eastbound

- SR-60 from Reservoir St. to Ramona Ave. (AM)
- SR-60 from Ramona Ave. to Central Ave. (AM)
- SR-60 from Mountain Ave. to Euclid Ave. (AM)
- SR-60 from Valley Way to Rubidoux Blvd. (AM)
- SR-60 from Rubidoux Blvd. to Market St. (AM)
- SR-60 from Market St. to Main St. (AM)
- SR-60 from Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 from Pigeon Pass Rd. to Heacock St. (PM)
- SR-60 from Heacock St. to Perris Blvd. (PM)
- SR-60 from Jack Rabbit Trail to Potrero Blvd. (PM)
- SR-91 from I-15 to McKinley St. (PM)
- SR-91 from McKinley St. to Pierce St. (AM, PM)
- SR-91 from Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 from La Sierra Ave. to Tyler St. (AM, PM)
- SR-91 from Tyler St. to Van Buren Blvd. (AM, PM)
- SR-91 from Adams St. to Madison St. (AM, PM)
- SR-91 from Madison St. to Arlington Ave. (AM)
- SR-91 from Central Ave. to 14th St. (AM, PM)
- I-215 from Alessandro Blvd. to Eucalyptus Ave. (PM)
- I-215 from Eucalyptus Ave. to SR-60 (PM)
- I-215 from Auto Plaza Dr. to Mill St. (PM)
- I-10 from Beaumont Ave. to Pennsylvania Ave. (PM)
- I-10 from Pennsylvania Ave. to Highland Springs Ave. (PM)
- I-10 from Highland Springs Ave to Sunset Ave. (PM)

Southbound or Westbound

- SR-60 from Grove Ave. to Vineyard Ave. (PM)
- SR-60 from Vineyard Ave. to Archibald Ave. (PM)
- SR-60 from Valley Way to Rubidoux Blvd. (PM)
- SR-60 from Rubidoux Blvd. to Market St. (PM)
- SR-60 from Market St. to Main St. (AM, PM)
- SR-60 from Main St. to SR-91 (AM)
- SR-60 from Martin Luther King Blvd. to Central Ave. (AM, PM)
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215 (AM, PM)
- SR-60 from I-215 to Day St. (AM, PM)
- SR-60 from Pigeon Pass Rd. to Heacock St. (AM)
- SR-60 from Heacock St. to Perris Blvd. (AM, PM)
- SR-60 from Moreno Beach Dr. to Redlands Blvd. (AM)
- SR-60 from Jack Rabbit Trail to Potrero Blvd. (AM)
- SR-91 from I-15 to McKinley St. (AM, PM)
- SR-91 from McKinley St. to Pierce St. (AM, PM)
- SR-91 from Pierce St. to Magnolia Ave. (AM, PM)
- SR-91 from Magnolia Ave. to La Sierra Ave. (AM, PM)
- SR-91 from La Sierra Ave. to Tyler St. (AM, PM)
- SR-91 from Tyler St. to Van Buren Blvd. (PM)
- SR-91 from Van Buren Blvd. to Adams St. (PM)
- SR-91 from Adams St. to Madison St. (PM)

- SR-91 from Madison St. to Arlington Ave. (AM, PM)
- I-215 from Alessandro Blvd. to Eucalyptus Ave. (AM, PM)
- I-215 from Center St. to La Cadena Dr. (AM, PM)
- I-215 from La Cadena Dr. to Barton Rd. (AM)
- I-215 from Barton Rd. to Mt. Vernon Ave. (AM)
- I-10 from SR-60 to Beaumont Ave. (AM)
- I-10 from Beaumont Ave. to Pennsylvania Ave. (AM)
- I-10 from Pennsylvania Ave. to Highland Springs Ave. (AM)
- I-10 from Highland Springs Ave. to Sunset Ave. (AM)
- I-10 from 22nd St. to 8th St. (AM)
- I-10 from 8th St. to Hargrave St. (AM)
- I-10 from Hargrave St. to Fields Rd. (AM)
- I-10 from Fields Rd. to Morongo Trail (AM)

Table 59: 2040 No-Project Freeway Mainline Level of Service

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,210	43.6	E	7,210	32.2	D	6,640	26.3	D	7,610	32.9	D
F-3	SR-60	Ramona Ave to Central Ave	10,170	38.8	E	9,940	34.2	D	6,170	18.9	C	8,050	25.8	C
F-4	SR-60	Central Ave to Mountain Ave	9,310	33.2	D	8,810	28.4	D	6,760	21.4	C	7,730	25.1	C
F-5	SR-60	Mountain Ave to Euclid Ave	9,710	35.6	E	8,770	28.2	D	6,860	21.7	C	8,410	27.9	D
F-6	SR-60	Euclid Ave to Grove Ave	9,500	34.3	D	8,430	26.7	D	7,110	22.0	C	8,950	29.9	D
F-7	SR-60	Grove Ave to Vineyard Ave	8,980	31.1	D	9,410	31.3	D	6,660	20.1	C	10,570	39.8	E
F-8	SR-60	Vineyard Ave to Archibald Ave	8,820	30.2	D	9,670	32.7	D	7,830	25.1	C	10,530	40.3	E
F-9	SR-60	Archibald Ave to Haven Ave	8,880	30.5	D	6,990	21.3	C	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	10,160	29.1	D	8,130	20.7	C	7,340	22.4	C	7,830	24.9	C
F-11	SR-60	Milliken Ave to I-15	5,460	21.9	C	5,190	19.4	C	5,460	20.9	C	7,180	29.6	D
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,900	19.3	C	4,370	16.3	B	4,890	14.7	B	6,470	19.8	C
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	4,700	18.5	C	3,570	13.3	B	5,070	19.2	C	7,350	31.1	D
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley	4,120	16.4	B	2,960	11.3	B	4,280	16.3	B	6,330	25.4	C
F-15	SR-60	Pedley Rd to Pyrite St	4,430	17.6	B	3,240	12.4	B	4,300	16.3	B	6,450	26.0	D
F-16	SR-60	Pyrite St to Valley Way	5,010	19.9	C	3,650	13.9	B	4,330	16.5	B	6,110	24.3	C
F-17	SR-60	Valley Way to Rubidoux Blvd	6,200	40.1	E	5,270	28.0	D	4,520	23.2	C	6,670	44.2	E
F-18	SR-60	Rubidoux Blvd to Market St	6,080	38.6	E	5,480	29.9	D	4,700	24.1	C	6,710	43.8	E
F-19	SR-60	Market St to Main St	6,460	43.6	E	5,710	32.1	D	6,030	35.5	E	6,250	38.3	E
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			6,530	40.8	E	5,680	32.7	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	12,700	1172.3	F	11,030	94.2	F	9,320	36.8	E	10,420	42.9	E
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,240	25.5	C	5,460	20.5	C	8,070	36.0	E	10,560	74.6	F
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			4,630	48.4	F	4,080	38.2	E
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,690	33.7	D	5,220	65.1	F	5,610	88.2	F	3,750	32.7	D
F-30	SR-60	Heacock St to Perris Blvd	3,520	30.8	D	4,210	37.5	E	4,380	41.8	E	4,020	36.8	E
F-31	SR-60	Perris Blvd to Nason St	3,210	26.8	D	3,920	33.1	D	3,990	20.0	C	3,530	18.2	C
F-32	SR-60	Nason St to Moreno Beach Dr	3,100	16.4	B	3,940	19.7	C	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,960	15.7	B	3,790	18.9	C	4,120	37.1	E	3,270	26.8	D
F-34	SR-60	Redlands Blvd to Theodore St	3,080	16.3	B	5,370	28.6	D	5,230	28.1	D	3,750	19.4	C
F-35	SR-60	Theodore St to Gilman Springs Rd	3,120	12.4	B	5,700	21.4	C	5,320	20.3	C	3,640	14.1	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,100	11.8	B	4,180	22.0	C	3,900	21.3	C	2,860	15.8	B
F-37	SR-60	Jack Rabbit Trail to Potrero Blvd	2,400	19.3	C	4,630	45.6	F	4,360	41.8	E	3,200	26.1	D
F-38	SR-60	Potrero Blvd to I-10	1,860	14.9	B	3,080	23.7	C	2,490	18.7	C	2,010	15.5	B
F-39	SR-91	I-15 to McKinley St	7,030	28.3	D	8,550	43.0	E	8,090	36.5	E	10,760	88.4	F
F-40	SR-91	McKinley St to Pierce St	6,820	44.8	E	6,550	45.5	F	8,440	93.8	F	10,000	> Capacity	F
F-41	SR-91	Pierce St to Magnolia Ave	8,280	83.8	F	8,300	104.3	F	8,400	87.6	F	9,450	298.6	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			8,190	78.4	F	8,980	162.4	F
F-43	SR-91	La Sierra Ave to Tyler St	8,760	41.4	E	8,320	41.4	E	6,970	47.7	F	8,520	114.8	F
F-44	SR-91	Tyler St to Van Buren Blvd	8,790	41.7	E	9,080	49.4	F	7,340	30.6	D	9,450	54.8	F
F-45	SR-91	Van Buren Blvd to Adams St	6,110	23.6	C	6,510	27.3	D	7,820	33.8	D	9,410	54.1	F
F-46	SR-91	Adams St to Madison St	8,760	111.7	F	9,970	> Capacity	F	7,710	33.0	D	9,100	49.6	F
F-47	SR-91	Madison St to Arlington Ave	8,430	39.1	E	6,870	29.7	D	8,950	124.0	F	8,460	107.0	F
F-49	SR-91	Central Ave to 14th St	7,100	53.8	F	6,400	44.2	E	6,340	24.9	C	7,390	32.7	D

Table 59: 2040 No-Project Freeway Mainline Level of Service (continued)

ID	Freeway	Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-50	SR-91	14th St to University Ave	4,930	18.6	C	5,210	20.6	C	6,340	24.9	C	7,390	32.7	D
F-51	SR-91	University Ave to Spruce St	6,450	19.7	C	7,020	22.7	C	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Gambroni Rd	2,800	11.1	B	4,530	17.0	B	3,570	13.4	B	3,030	11.2	B
F-67	I-215	Gambroni Rd to Newport Rd	2,800	11.1	B	4,150	15.6	B	3,040	11.4	B	2,880	10.7	A
F-68	I-215	Newport Rd to McCall Blvd	2,510	9.9	A	3,380	12.7	B	3,610	13.6	B	4,020	14.9	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,870	11.3	B	4,500	16.9	B	3,610	13.6	B	4,020	14.9	B
F-70	I-215	Ethanac Rd to SR-74	4,150	16.4	B	4,650	17.5	B	4,260	16.0	B	4,460	16.5	B
F-71	I-215	SR-74 to Ellis Ave	3,930	15.7	B	5,780	22.3	C	6,060	23.4	C	4,380	16.4	B
F-72	I-215	Ellis Ave to Redlands Blvd	2,700	10.9	A	4,380	16.7	B	5,600	21.5	C	4,890	18.3	C
F-86	I-215	Redlands Blvd to D St	4,950	19.7	C	4,330	16.4	B	3,780	14.3	B	3,160	11.8	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,620	14.6	B	6,080	18.3	C	4,710	14.2	B	3,850	11.5	B
F-88	I-215	Nuevo St to Mid-County Pkwy	5,000	15.9	B	5,630	17.1	B	5,200	15.7	B	5,100	15.3	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	7,120	23.2	C	7,270	22.4	C	5,960	18.0	C	7,370	22.4	C
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	6,210	19.9	C	7,170	22.1	C	3,960	12.0	B	6,670	20.0	C
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	6,020	25.0	C	5,580	21.6	C	5,090	19.8	C	7,880	33.4	D
F-92	I-215	Van Buren Blvd to Cactus Ave	5,650	23.1	C	5,410	20.6	C	5,260	20.0	C	7,460	30.6	D
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,570	25.7	C	6,420	40.3	E	7,200	51.1	F	6,070	35.5	E
F-95	I-215	Eucalyptus Ave to SR-60	4,760	27.1	D	6,990	48.0	F	See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	4,800	19.6	C	5,420	20.8	C	6,810	28.3	D	5,510	21.2	C
F-75	I-215	Center St to La Cadena Dr	4,180	23.0	C	4,700	24.6	C	7,710	65.1	F	6,040	35.2	E
F-76	I-215	La Cadena Dr to Barton Rd	4,270	23.3	C	4,220	21.6	C	6,750	45.2	F	5,360	28.9	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	4,840	27.9	D	4,920	26.6	D	6,160	36.9	E	5,720	31.9	D
F-78	I-215	Mt. Vernon Ave to I-10	5,370	22.3	C	6,650	26.9	D	6,830	27.7	D	4,770	18.0	C
F-80	I-215	Auto Plaza Dr to Mill St	5,420	21.8	C	11,080	80.0	F	7,940	34.1	D	6,220	23.9	C
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.9	B	6,230	24.1	C	6,740	26.7	D	4,470	16.6	B
F-52	I-10	SR-60 to Beaumont Ave	5,350	21.7	C	7,510	33.8	D	8,010	45.2	F	6,300	25.2	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,360	22.0	C	7,590	35.0	E	7,990	45.4	F	6,200	25.0	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,530	22.8	C	7,760	36.1	E	8,510	53.0	F	6,240	25.2	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,590	23.1	C	7,740	36.3	E	7,990	45.4	F	5,950	23.9	C
F-56	I-10	Sunset Ave to 22nd St	5,200	16.9	B	7,130	23.4	C	7,630	28.4	D	5,770	18.0	B
F-57	I-10	22nd St to 8th St	5,190	21.3	C	6,910	30.3	D	7,560	40.7	E	5,510	21.8	C
F-58	I-10	8th St to Hargrave St	5,330	22.0	C	7,140	31.9	D	7,680	42.1	E	5,760	22.9	C
F-59	I-10	Hargrave St to Fields Rd	5,350	22.1	C	6,990	30.9	D	7,400	39.1	E	5,610	22.4	C
F-60	I-10	Fields Rd to Morongo Trail	4,800	19.7	C	6,500	27.9	D	6,980	35.3	E	5,090	20.1	C
F-61	I-10	Morongo Trail to Main St	5,040	20.5	C	6,790	29.1	D	6,860	33.8	D	5,710	22.4	C
F-62	I-10	Main St to Haugen-Lehmann Way	4,920	19.8	C	6,420	26.9	D	6,450	30.8	D	5,530	21.5	C
F-64	I-10	SR-111 to Tipton Rd	4,380	17.6	B	5,880	24.1	C	5,780	26.2	D	5,590	21.8	C
F-65	I-10	Tipton Rd to SR-62	4,370	17.6	B	5,930	24.4	C	5,820	26.6	D	5,600	21.9	C

▨ Indicates that the LOS exceeds the target level

Freeway Weaving LOS

Table 60 shows the weaving LOS under the 2040 No-Project Scenario. Ten north- or east-bound sections and nine south- or westbound sections would operate below LOS “D”. These sections are:

North or Eastbound

- SR-60 from Main St. to SR-91 (AM)
- SR-60 from SR-91 to Blaine St./3rd St. (AM, PM)
- SR-60 from Blaine St/3rd St. to University Ave. (AM, PM)
- SR-60 from University Ave. to Martin Luther King Blvd. (AM)
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd. (AM, PM)
- SR-60 from I-215 to Day St. (PM)
- SR-60 from Day St. to Pigeon Pass Rd./Frederick St. (PM)
- SR-91 from Magnolia Ave. to La Sierra Ave. (AM, PM)
- I-215 from SR-60 to Columbia Ave. (PM)
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd. (PM)
-

Southbound or Westbound

- SR-60 from Haven Ave. to Archibald Ave. (PM)
- SR-60 from SR-91 to Blaine St./3rd St. (PM)
- SR-60 from University Ave. to Martin Luther King Blvd. (AM, PM)
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd. (AM, PM)
- SR-60 from Day St. to Pigeon Pass Rd./Frederick St. (AM)
- SR-91 from Arlington Ave. to Central Ave. (AM, PM)
- SR-91 from SR-60 to Mission Inn Ave./University Ave. (AM, PM)
- I-215 from SR-60 to Columbia Ave. (AM, PM)
- I-10 from Haugen-Lehmann Way to SR-111 (PM)

Table 60: 2040 No-Project Freeway Weaving Section Level of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	7,600	35	D	7,780	32	D	5,210	18.8	B	7,520	28.2	D
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,680	27.5	C	9,660	45.6	F
W-20	SR-60	Main St to SR-91	8,310	> Capacity	F	7,050	34.3	D	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	9,280	43.9	F	10,780	> Capacity	F	6,880	27.0	C	8,630	35.3	E
W-22	SR-60	Blaine St/3rd St to University Ave	9,310	40.0	E	8,830	37.9	E	7,640	27.0	C	8,960	34.2	D
W-23	SR-60	University Ave to Martin Luther King	9,290	38.6	E	8,790	33.4	D	9,120	>Capacity	F	10,580	> Capacity	F
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	9,310	41.4	E	9,510	39.6	E	9,130	>Capacity	F	10,340	> Capacity	F
W-27	SR-60	I-215 to Day St	4,380	18.4	B	11,050	> Capacity	F	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,340	20.5	C	8,460	> Capacity	F	5,380	37.9	E	4,090	27.1	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			3,790	21.9	C	3,020	> Capacity	B
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	8,730	42.1	E	8,150	42.0	E	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,270	28.3	D	5,420	21.2	C	8,130	39.6	E	7,400	38.7	E
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			10,440	42.3	E	12,850	> Capacity	F
W-93	I-215	Cactus Ave to Alessandro Blvd	5,020	28.6	D	6,810	34.2	D	7,270	34.3	D	6,560	29.6	D
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			8,020	29.4	D	6,700	25.5	C
W-73	I-215	SR-60 to Columbia Ave	2,980	15.5	B	3,510	> Capacity	F	7,950	>Capacity	F	6,920	> Capacity	F
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,220	23.8	C	11,140	> Capacity	F	7,840	28.1	D	6,360	22.8	C
W-81	I-215	Mill St to 2nd St	5,950	22.7	C	8,720	33.8	D	9,180	33.4	D	7,050	25.5	C
W-82	I-215	5th St to Baseline Rd	4,260	12.8	B	8,570	27.6	C	9,170	31.1	D	6,310	20.2	C
W-63	I-10	Haugen-Lehmann Way to SR-111	5,210	19.0	B	6,840	25.5	C	6,630	29.2	D	6,660	> Capacity	F

▨ Indicates that the LOS exceeds the target level

Freeway Ramp LOS

Table 61 shows the level of service of study freeway ramps under the 2040 No-Project Scenario. Three ramps would exceed the target LOS of “D”. The ramps that would exceed LOS “D” under the 2040 No-Project Scenario would be:

- SR-60 eastbound on-ramp from Martin Luther King Boulevard (AM, PM)
- SR-60 westbound off-ramp to Central Avenue (AM, PM)
- SR-60 westbound off-ramp to Martin Luther King Boulevard (AM, PM)

Details of the LOS calculations for freeways under the 2040 No-Project Scenario can be found in Appendix N.

Table 61: 2040 No-Project Freeway Ramp Level of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	12,160	540	65.9	**F**	9,630	1,400	47.6	**F**
R-2	SR-60 EB	On-Ramp from Central Ave	1	8,290	1,020	25.7	C	8,220	1,290	25.9	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,960	460	10.2	B	3,790	520	14.6	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	2,970	110	17.3	B	5,100	270	26.7	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	1	2,970	110	21.4	C	4,410	960	32.7	D
R-6	SR-60 EB	Off-Ramp to Theodore St	1	3,080	240	21.8	C	5,370	90	29.9	D
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,980	140	13.1	B	5,400	300	23.2	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	3,120	1,010	14.8	B	5,700	1,690	25.5	C
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,990	110	13.3	B	3,870	310	22.5	C
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	3,900	140	24.5	C	2,860	550	20.1	C
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	3,940	1,380	23.5	C	2,430	1,210	17.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	5,320	420	18.2	B	3,640	160	12.7	B
R-14	SR-60 WB	On-Ramp from Theodore St	1	4,900	330	27.8	C	3,490	260	21.4	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	5,230	870	22.3	C	3,750	600	16.1	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	4,000	120	21.1	C	3,140	130	16.4	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	1	3,850	270	25.6	C	2,960	310	21.1	C
R-18	SR-60 WB	Off-Ramp to Central Ave	2	9,130	770	13.7	**F**	10,340	610	27.3	**F**
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	9,320	920	33.0	**F**	10,420	1,270	41.8	**F**

▨ Indicates that the LOS exceeds the target level

10. 2040 PLUS BUILD-OUT SCENARIO

The analysis of the 2040 Plus Build-out Scenario shows the effect of project-related traffic if the WLC project were built-out in full and no other changes from the 2040 No-Project scenario occurred to the roadway system of land uses.

A. ROAD SEGMENT LOS, IMPACTS, AND MITIGATIONS

Table 62 compares the LOS for study roadway segments under the 2040 Plus Build-out Scenario to the 2040 No-Project Scenario and to the target LOS under the City's General Plan policies. Under the 2040 Plus Build-out Scenario traffic volumes on one segment would exceed the target LOS, namely:

- **Gilman Springs Rd. from Alessandro Blvd. to Bridge St.** would exceed the threshold of significance under the 2040 Plus Build-out Scenario. Widening the road from six lanes to eight lanes would allow it to achieve the target under the 2040 Plus Build-out Scenario. However, 6 lanes is the maximum planned for under the City of Moreno Valley General Plan and further widening may be undesirable from a public policy standpoint.

The feasibility of this mitigation measure and the means to fund it are discussed in greater depth in Chapter 11.

Table 62: 2040 Plus Build-out Road Segment Impacts and Mitigations

					2040 No-Project Conditions			2040 Plus Build-out					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS	Project Impact Significant?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore St	SR-60 WB Ramps	Ironwood Ave	D	4U	9,822	A	4U	11,735	A			
S-2	World Logistics Center Pkwy (A)	SR-60 EB Ramps	Eucalyptus Ave	D	2U	2,653	A	6D	31,680	A			
S-3	Eucalyptus Ave	Redlands Blvd	World Logistics Center Pkwy (A)	D	2U***	2,427	A	4D	4,864	A			
S-4	Eucalyptus Ave (Street B)	World Logistics Center Pkwy (A)	Gilman Springs Rd	N/A	Future Road			4D	3,158	A			
S-5	World Logistics Center Pkwy (A)	Eucalyptus Ave	Street E/Street F	D	2U	1,120	A	6D	31,255	A			
S-6	Street E	World Logistics Center Pkwy (A)	Cactus Ave Extension	N/A	Future Road			4U	3,341	A			
S-7	Street F	World Logistics Center Pkwy (A)	Alessandro Blvd (Street C)	N/A	Future Road			2U	8,320	B			
S-8	World Logistics Center Pkwy (A)	Street E/Street F	Alessandro Blvd (Street C)	D	2U	1,120	A	4D	12,506	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	World Logistics Center Pkwy (A)	D	2U	9,622	C	4U	14,111	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	N/A	Future Road			4U	17,597	C			
S-11	Alessandro Blvd (Street C)	World Logistics Center Pkwy (A)	Street F	D	2U	7,871	B	4U	11,068	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	7,887	B	4U	15,773	B			
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	10,083	A	4U	7,358	A	****		
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	D	6D	55,483	**F**	6D	57,779	**F**	Yes	Widen to 8 lanes	D
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	47,721	D	6D	46,290	D			
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	D	4U	21,678	D	4U	21,062	D			
S-19	Redlands Blvd	Eucalyptus Ave	Alessandro Blvd	C	4U	12,719	A	4U	10,946	A			
S-20	Alessandro Blvd	Redlands Blvd	Merwin St	C	2U	11,852	**E**	2U	350	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	12,934	A	4U	9,799	A			
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	1,120	A	4U	16,831	B			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

**** Due to the severing of Alessandro Blvd. and the diversion of traffic to other routes, there is no need to widen this section beyond the current 2U configuration

░ Indicates LOS exceeds the target level

B. INTERSECTION LOS, IMPACTS, AND MITIGATIONS

Figure 45 shows the turning movement volumes under the 2040 Plus Build-out Scenario (see Figure 11 for the key map). Table 63 presents the LOS for the study intersections under the 2040 Plus Build-out Scenario in the AM and PM peak hours. Detailed worksheets are presented in Appendix H. Seventy-two intersections would exceed the target LOS under the 2040 Plus Project Scenario. Of the 72 intersections, 67 would exceed the threshold of significance even if the WLC were not built (i.e. under the 2040 No-Project Scenario) and 5 more would exceed the threshold of significance with the addition of the project. These intersections are:

Would Exceed Threshold of Significance Under Both the 2040 No-Project Scenario and the 2040 Plus Build-out Scenario

- IN-6 Alessandro Blvd (Street C)/Gilman Springs Rd (PM)
- IN-12 Theodore St./Ironwood Ave. (PM)
- IN-20 Oliver St/Alessandro Blvd. (AM, PM)
- IN-23 Redlands Blvd./Alessandro Blvd. (PM)
- IN-25 Moreno Beach Dr./Cactus Ave. (PM)
- IN-27 Redlands Blvd./Cactus Ave. (AM, PM)
- IN-28 Moreno Beach Dr./John Kennedy Dr. (AM)
- IN-32 Sunnymead Blvd./Perris Blvd. (PM)
- IN-35 Moreno Beach Dr./Locust Ave. (AM)
- IN-36 Moreno Beach Dr./Ironwood Ave. (AM, PM)
- IN-39 Iris Ave./Perris Blvd. (AM)
- IN-40 Kitching St./Iris Ave. (AM, PM)
- IN-41 Lasselle St./Iris Ave. (AM, PM)
- IN-42 Nason St./Iris Ave. (AM, PM)
- IN-46 Kitching St./Krameria Ave. (AM, PM)
- IN-48 Kitching St./Alessandro Blvd. (AM, PM)
- IN-50 Morrison St./Alessandro Blvd. (AM, PM)
- IN-51 Nason St./Alessandro Blvd. (AM, PM)
- IN-52 Kitching St./Cactus Ave. (AM, PM)
- IN-53 Lasselle St./Cactus Ave. (PM)
- IN-54 Morrison St./Cactus Ave. (PM)
- IN-55 Nason St./Cactus Ave. (AM, PM)
- IN-56 Frederick St./Alessandro Blvd. (PM)
- IN-57 Graham St./Alessandro Blvd. (AM, PM)
- IN-58 Heacok St./Alessandro Blvd. (AM, PM)
- IN-59 Indian St./ Alessandro Blvd. (AM, PM)
- IN-60 Perris Blvd./Alessandro Blvd. (AM, PM)
- IN-62 Graham St./Cactus Ave. (AM, PM)
- IN-63 Heacok St./ Cactus Ave. (AM, PM)
- IN-64 Indian St./Cactus Ave. (AM, PM)
- IN-65 Perris Blvd./Cactus Ave. (AM, PM)
- IN-66 Alessandro Blvd./Sycamore Canyon Blvd. (AM, PM)
- IN-70 Day St./Alessandro Blvd. (AM, PM)
- IN-71 Elsworth St./Alessandro Blvd. (PM)
- IN-72 I-215 SB Ramps/Cactus Ave. (PM)
- IN-73 I-215 NB Ramps/Cactus Ave. (AM, PM)
- IN-74 Elsworth St./Cactus Ave. (AM, PM)
- IN-75 Central Ave./Lochmoor Dr. (AM, PM)
- IN-76 Sycamore Canyon Blvd/Central Ave (AM, PM)
- IN-80 Alessandro Blvd./Mission Grove Pkwy. (AM, PM)

- IN-81 Martin Luther King Blvd./Chicago Ave. (AM, PM)
- IN-83 Martin Luther King Blvd./Canyon Crest Dr. (AM, PM)
- IN-85 Martin Luther King Blvd./I-215 NB Ramps (AM, PM)
- IN-86 Central Ave./Chicago Ave. (AM, PM)
- IN-88 Central Ave./Canyon Crest Dr. (AM, PM)
- IN-90 Arlington Ave./Riverside Ave./SR-91 SB Ramps (AM, PM)
- IN-92 Arlington Ave./Maude St. (PM)
- IN-93 Horace St./Arlington Ave. (AM)
- IN-94 Arlington Ave./Victoria Ave. (AM, PM)
- IN-95 Alessandro Blvd./Chicago Ave. (AM, PM)
- IN-98 Alessandro Blvd./Canyon Crest Dr. (AM, PM)
- IN-99 Harley Knox Blvd./Perris Blvd. (AM)
- IN-101 Ramona Expy./Indian St. (AM, PM)
- IN-107 Evans Rd./Rider St. (AM)
- IN-108 Perris Blvd./Mid-County Pky. WB Ramps (PM)
- IN-114 Evans Rd./Orange Ave. (AM)
- IN-115 Evans Rd./Nuevo Rd. (AM)
- IN-123 Gilman Springs Rd./Bridge St. (AM, PM)
- IN-124 SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. (AM, PM)
- IN-125 SR-79 (Sanderson Ave.) SB/Gilman Springs Rd. (AM, PM)
- IN-126 Ramona Expy./Sanderson Ave. (AM, PM)
- IN-127 Potrero Blvd./SR-60 WB Ramps (AM)
- IN-129 W 6th St./California Ave. (AM, PM)
- IN-130 W 6th St./Beaumont Ave. (AM, PM)
- IN-131 Reche Canyon Rd./Reche Vista Rd. (AM, PM)
- IN-132 San Timoteo Canyon Rd./Alessandro Rd. (AM, PM)
- IN-133 San Timoteo Canyon Rd./Live Oak Canyon Rd. (AM, PM)
- IN-134 Redlands Blvd./San Timoteo Canyon Rd. (AM, PM)

Would Exceed Threshold of Significance Under the 2040 Plus Build-out Scenario (only)

- IN-12 Theodore St./Ironwood Ave. (AM)
- IN-25 Moreno Beach Dr./Cactus Ave. (PM)
- IN-35 Moreno Beach Dr./Locust Ave. (PM)
- IN-91 Arlington Ave/Indiana Ave/SR-91 NB Ramps (AM)
- IN-93 Horace St./Arlington Ave. (PM)

Table 64 identifies where impacts occur and mitigation measures that would reduce the impacts to a less-than-significant level. As shown in Table 64 there are 30 study intersections where the project would have a significant impact. The mitigation measures shown in Table 64 are those that would be needed to reduce the impact of the project to a less-than-significant level. While these measures are feasible in the sense that, if they could be constructed, they would achieve the target LOS, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

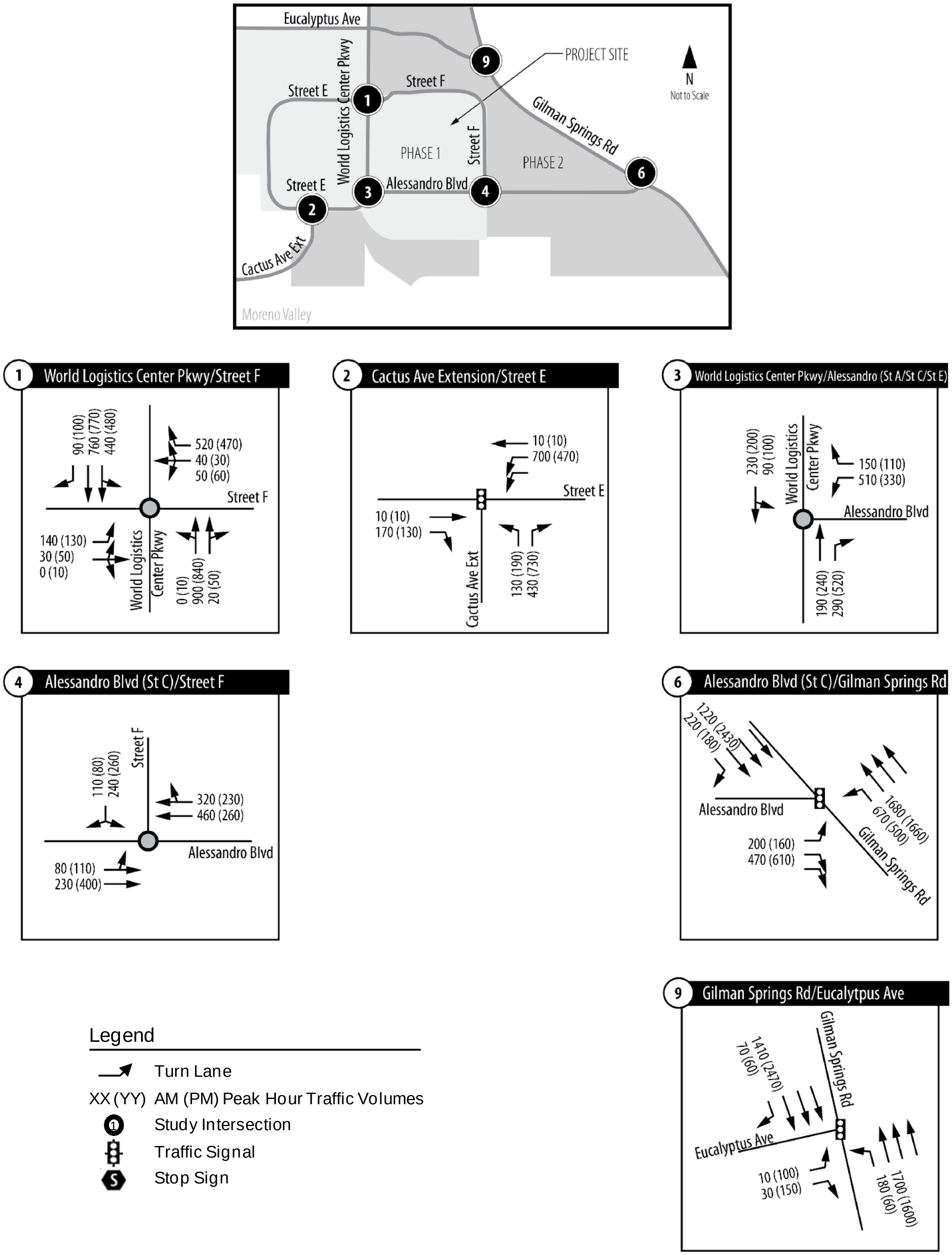

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario

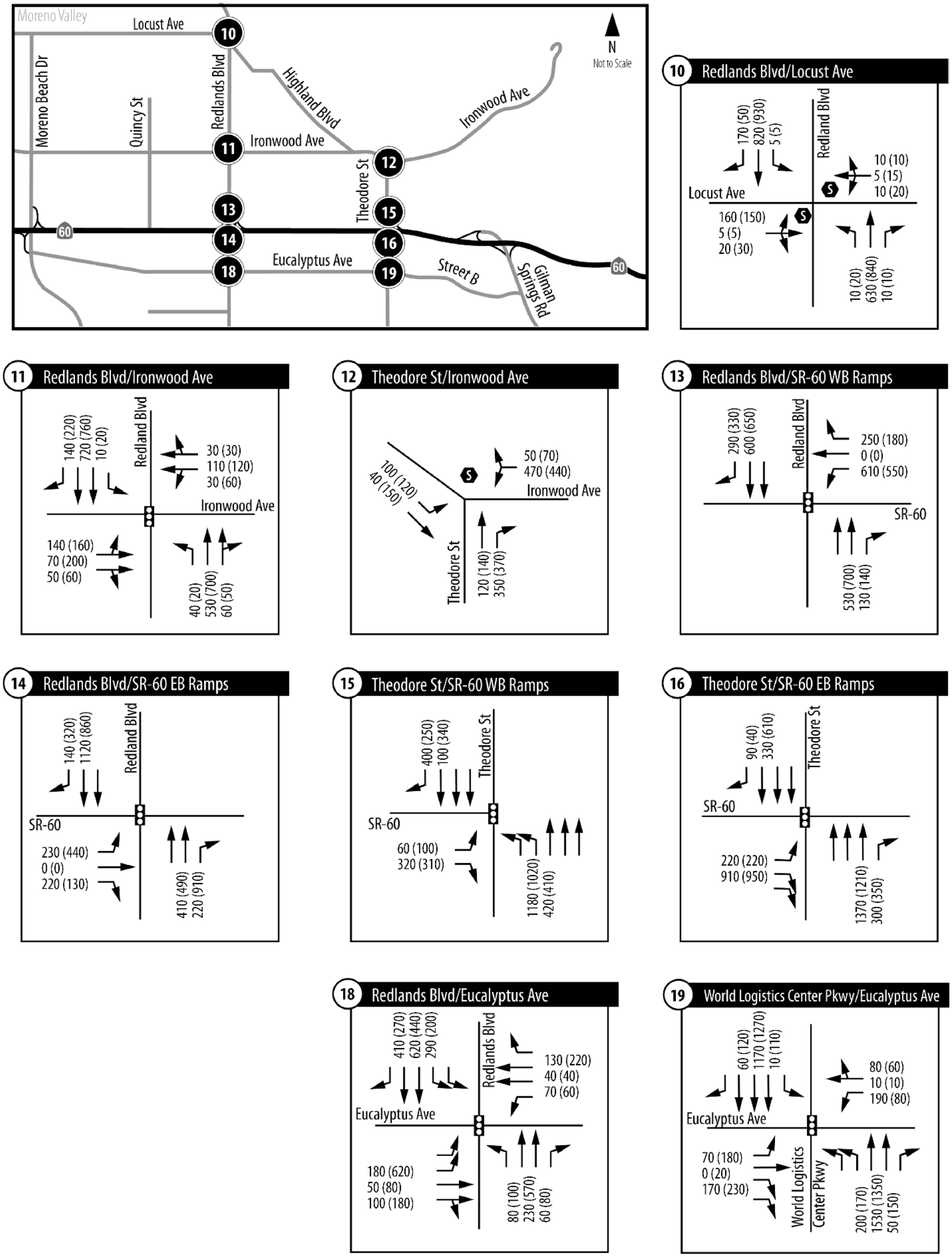

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (B)

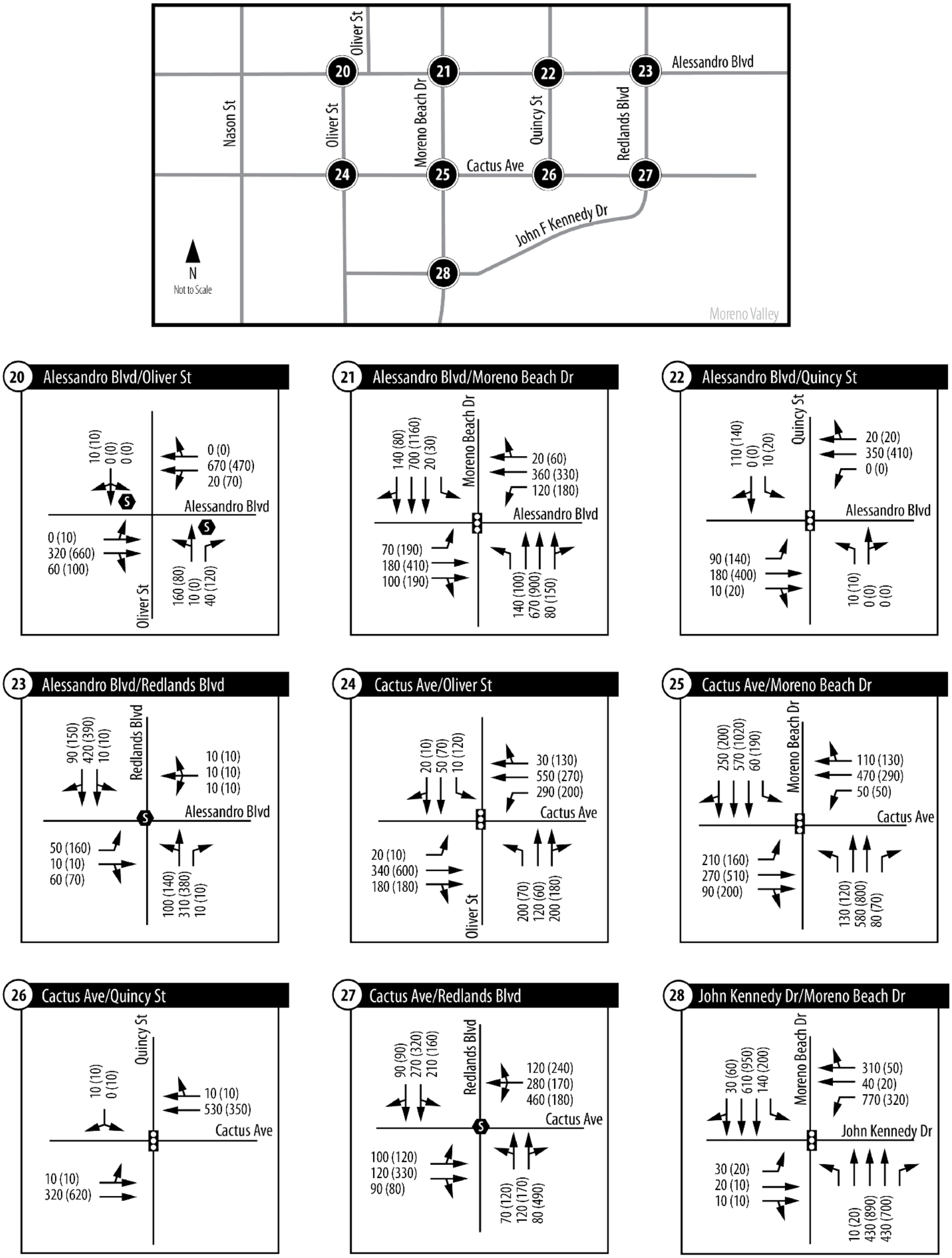

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (C)

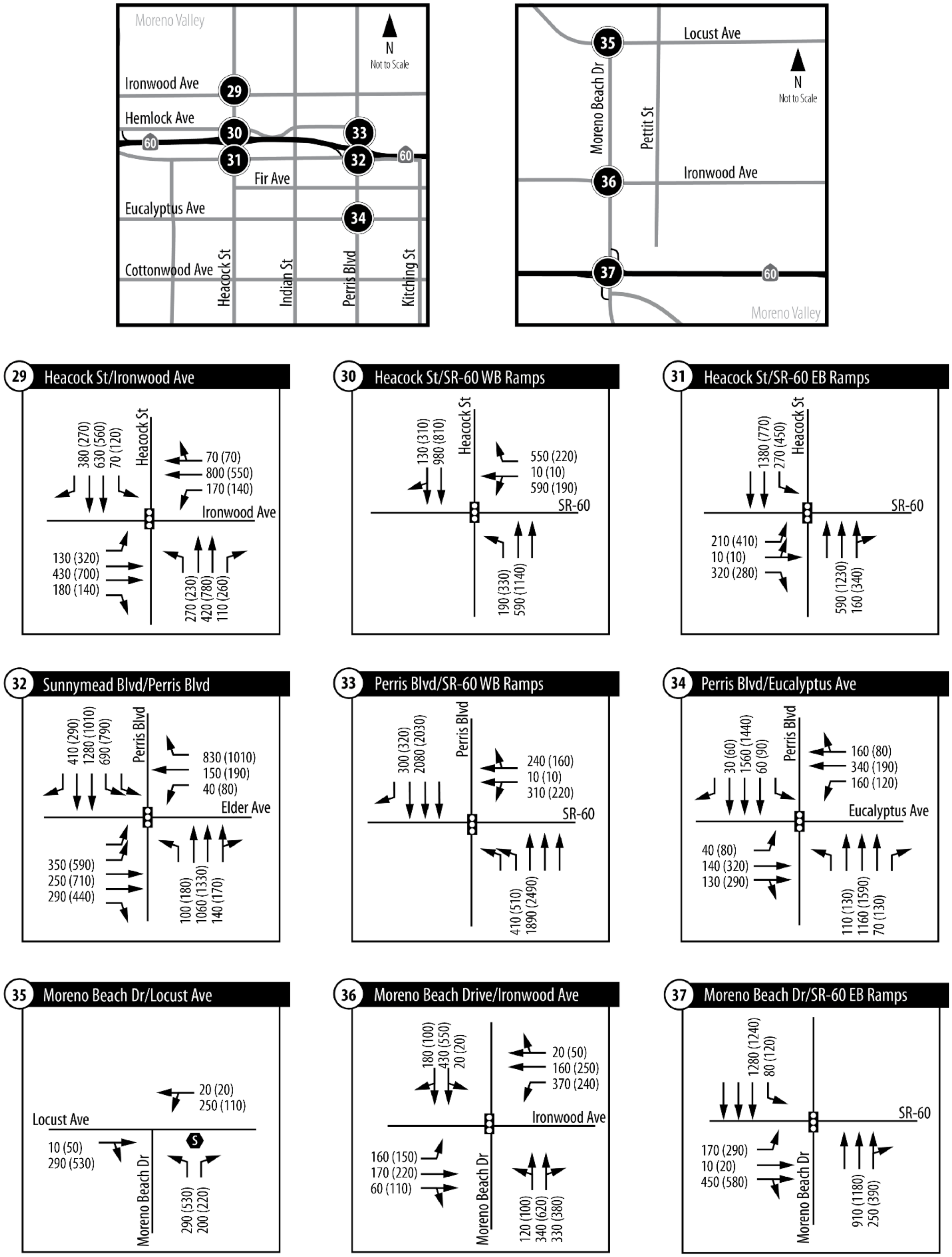

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (D)

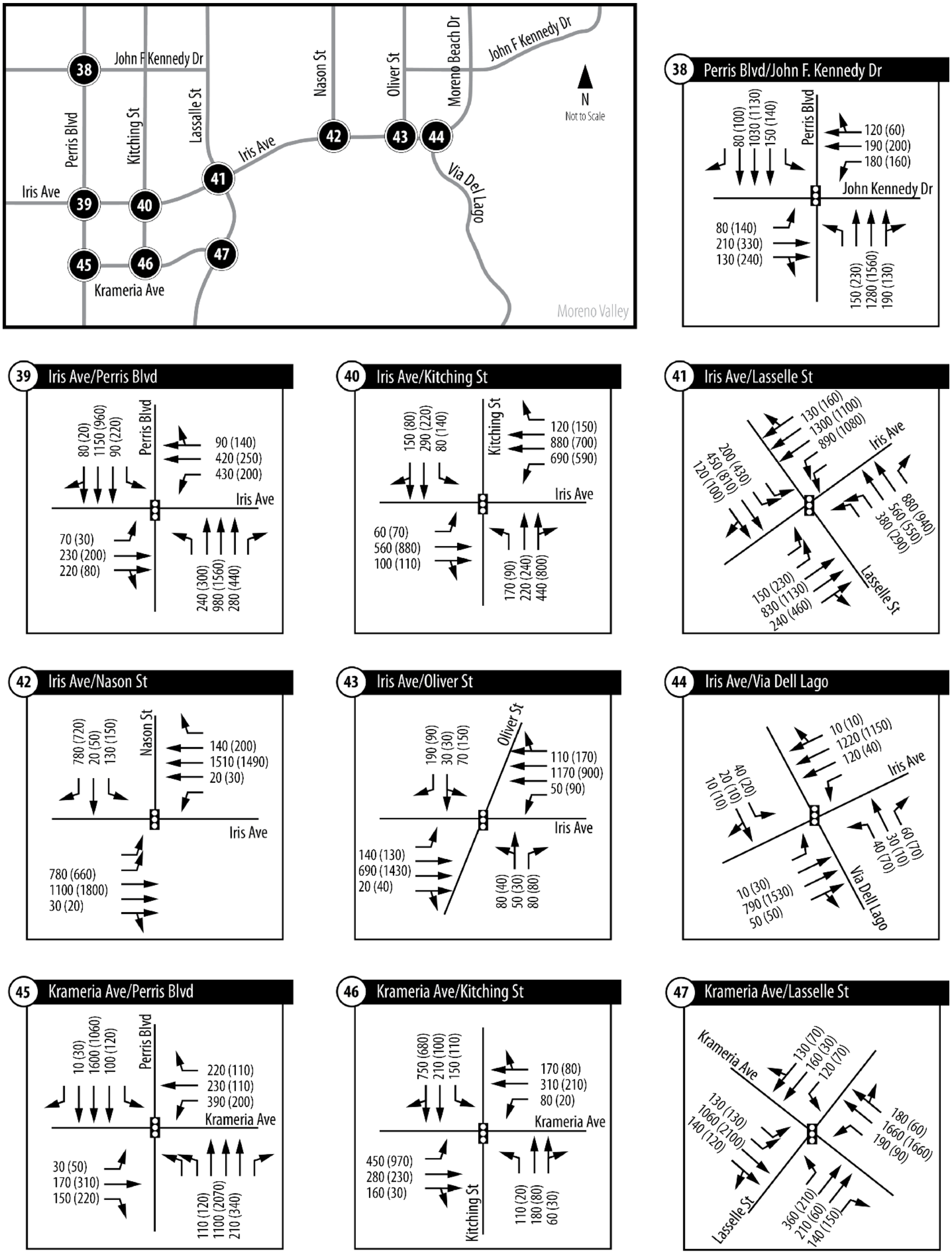

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (E)

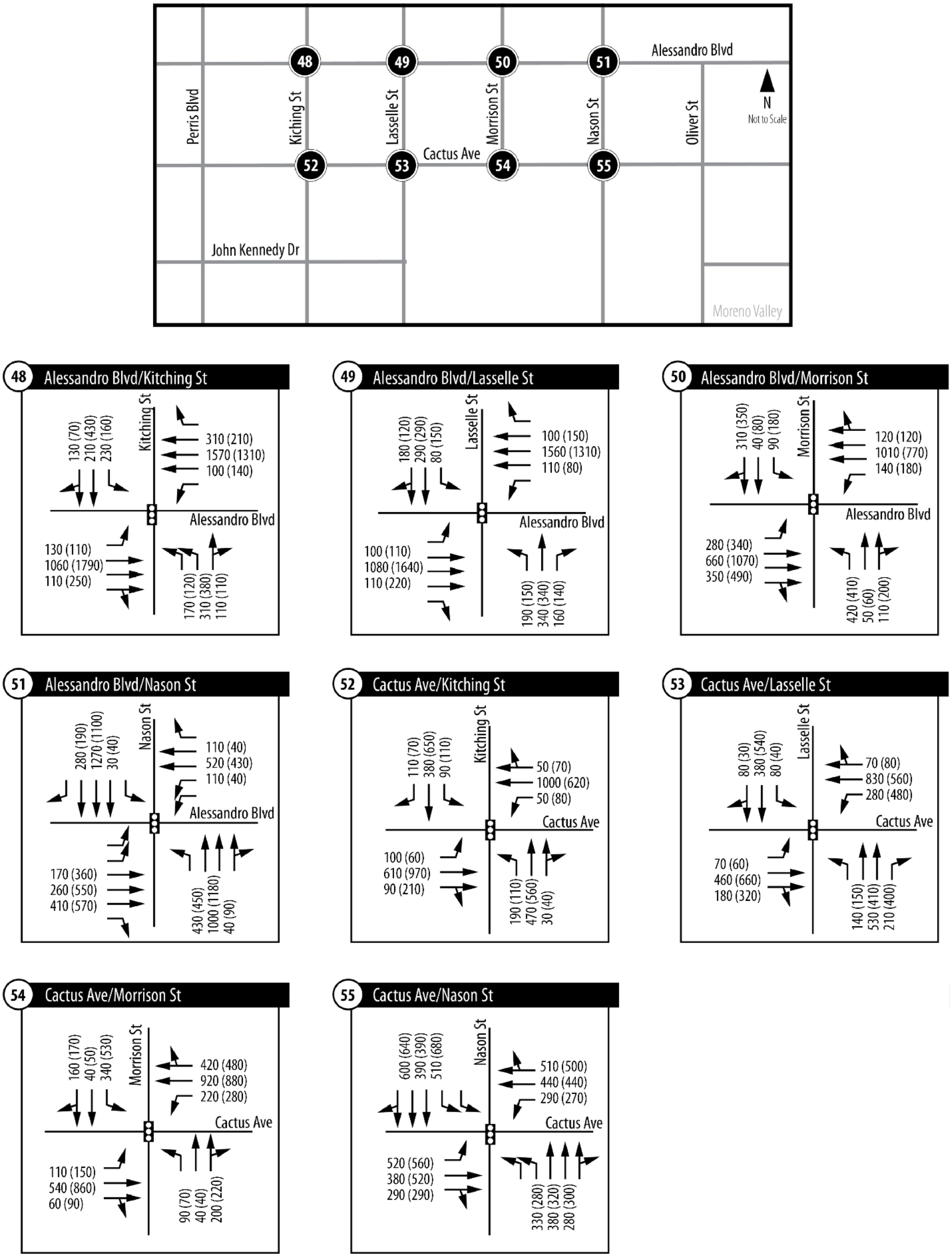

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (F)

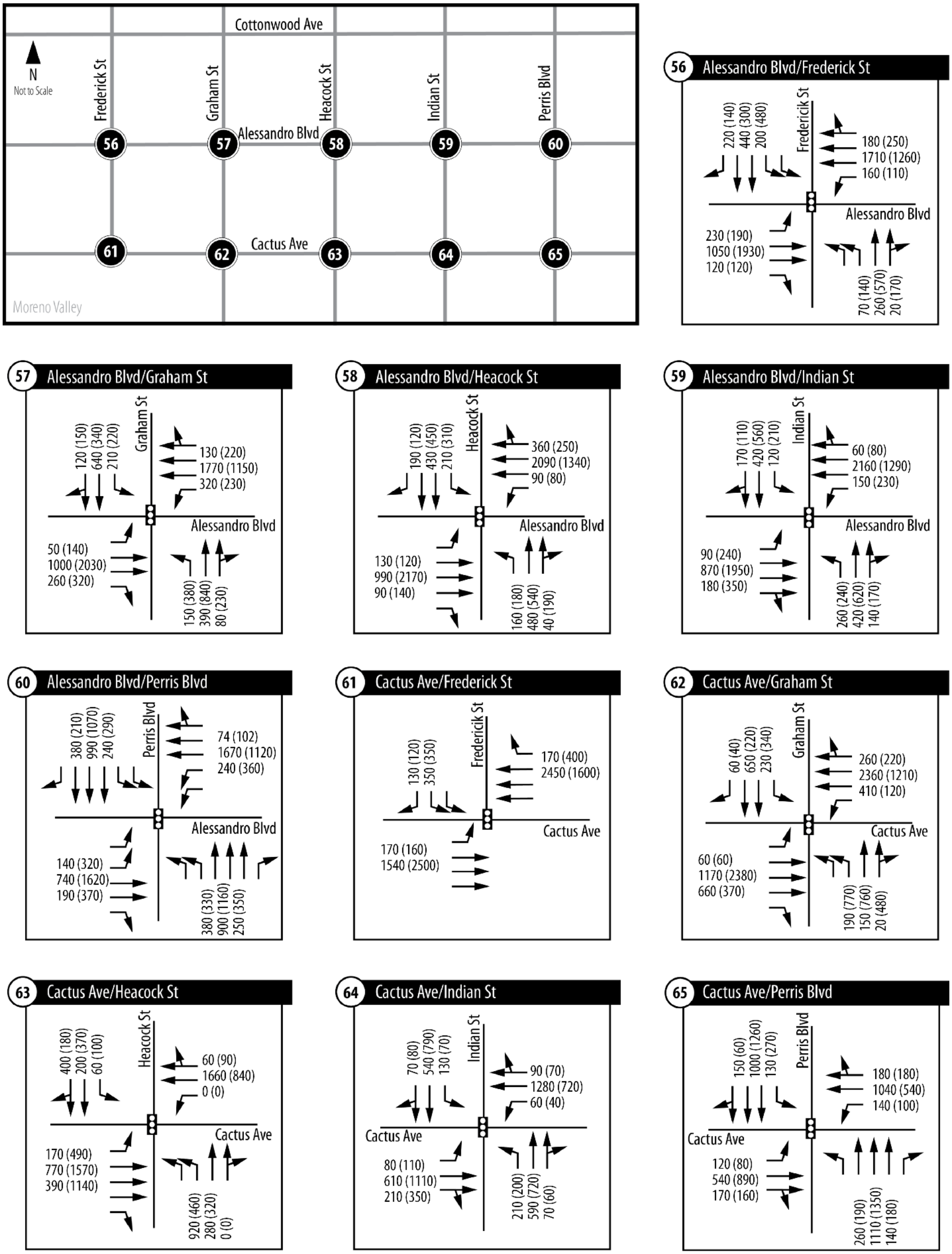

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (G)

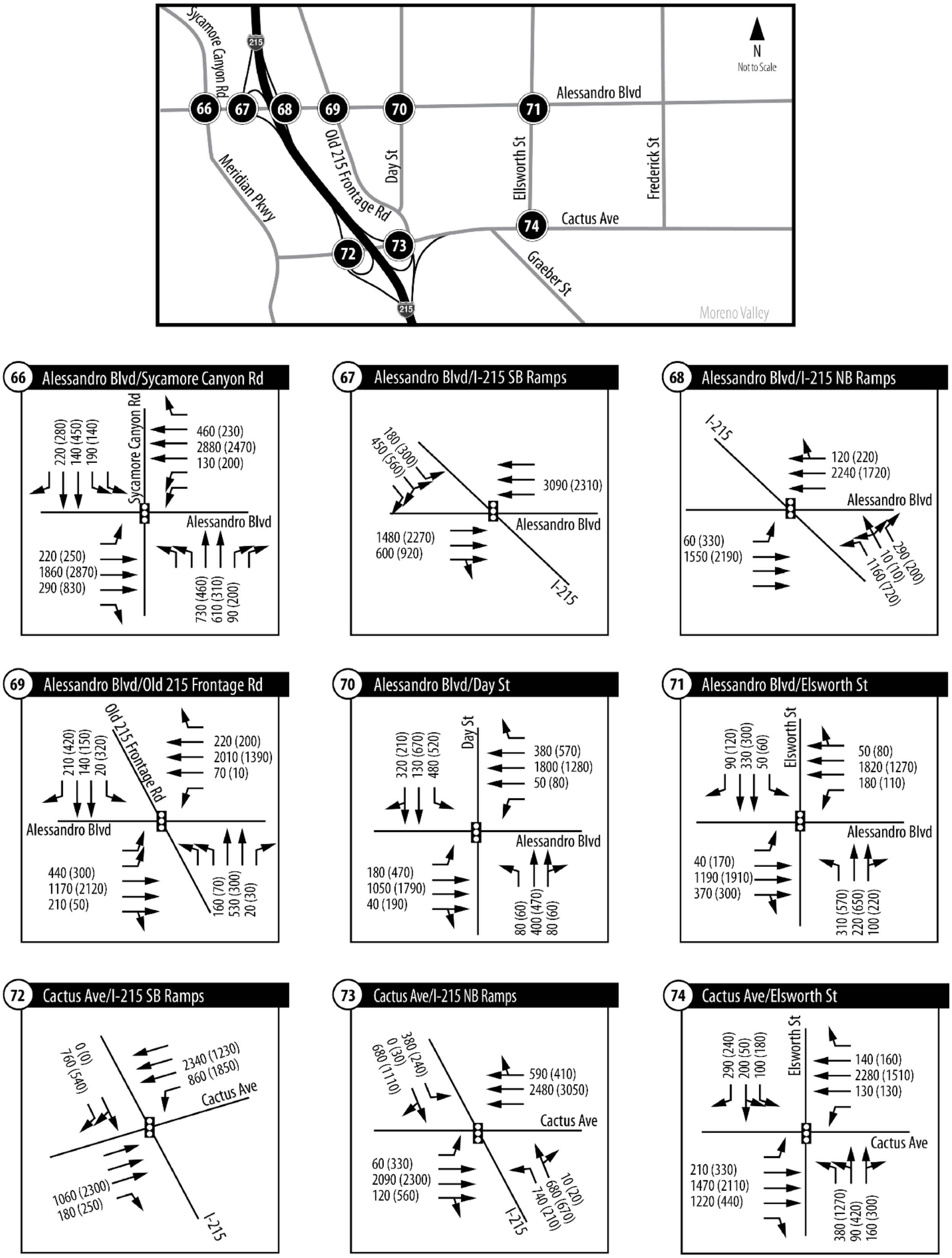

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (H)

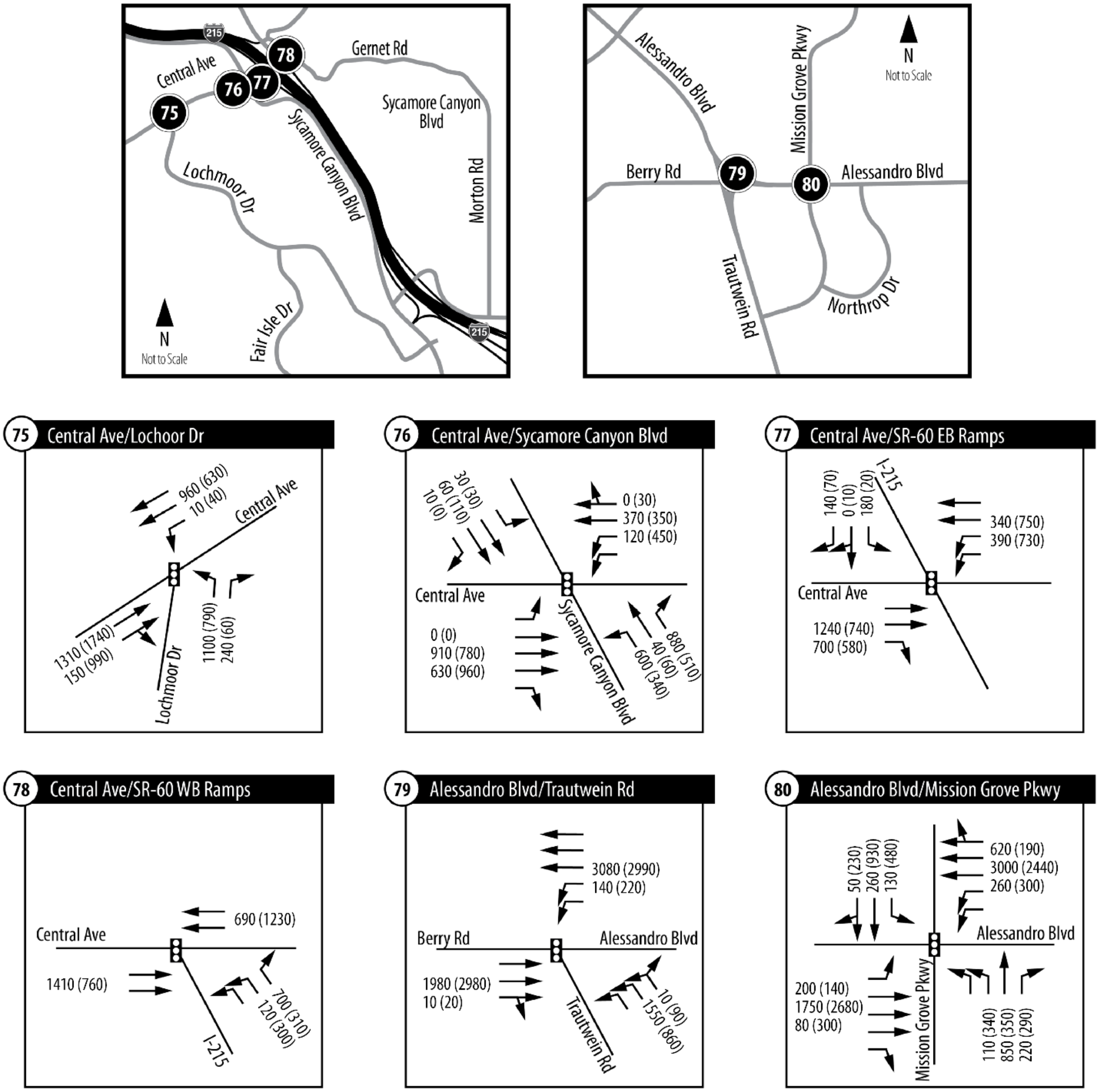

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (I)

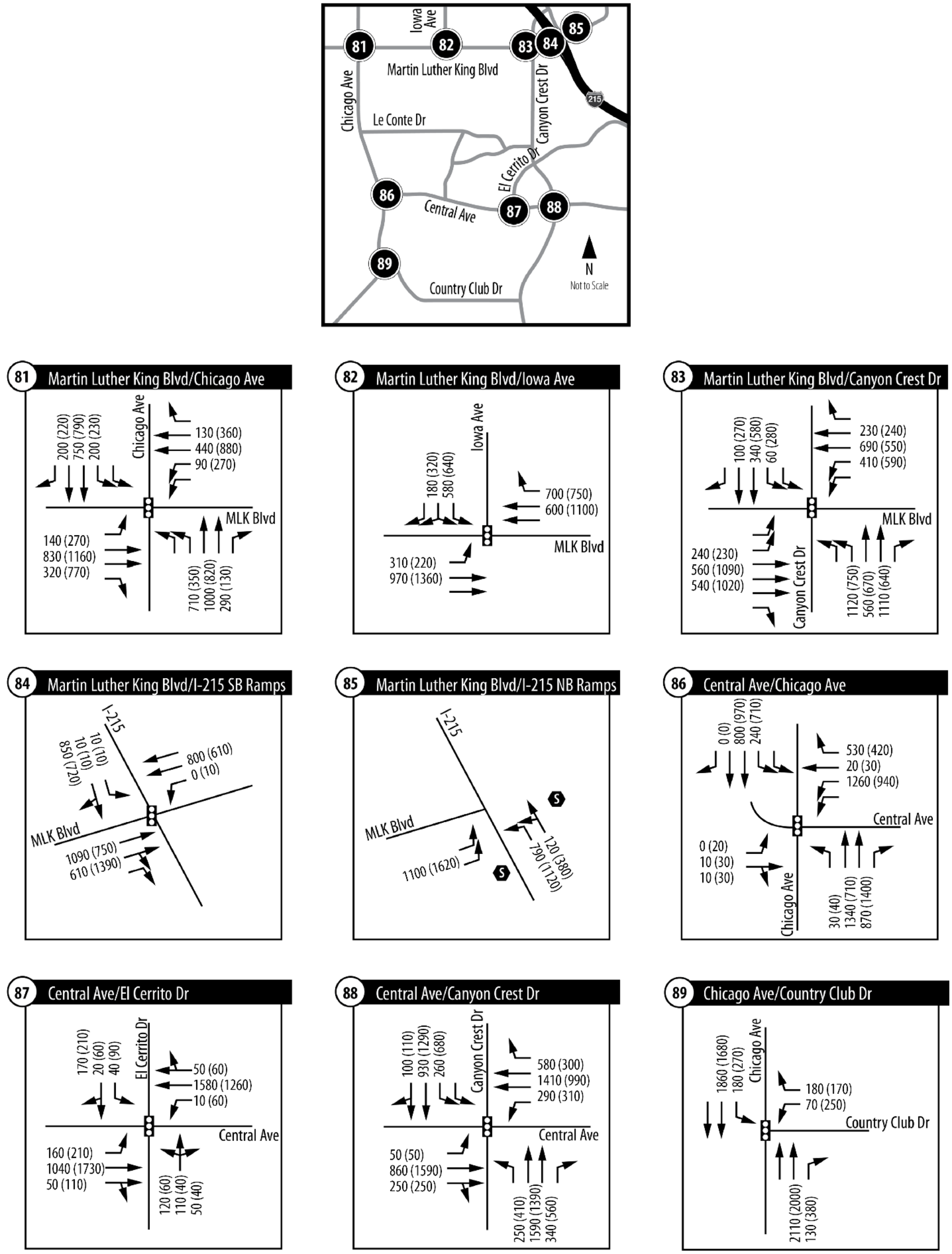

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (J)

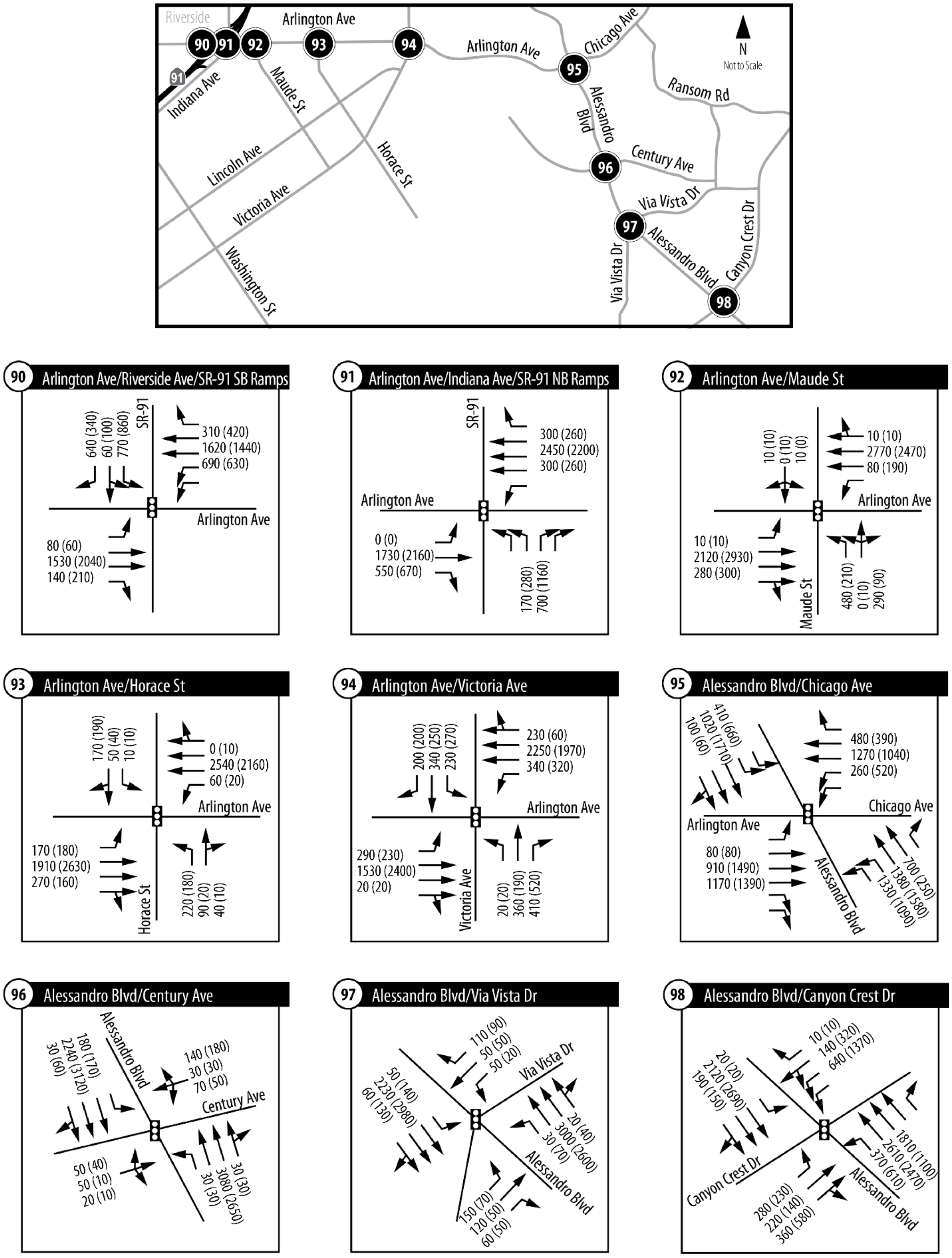

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (K)

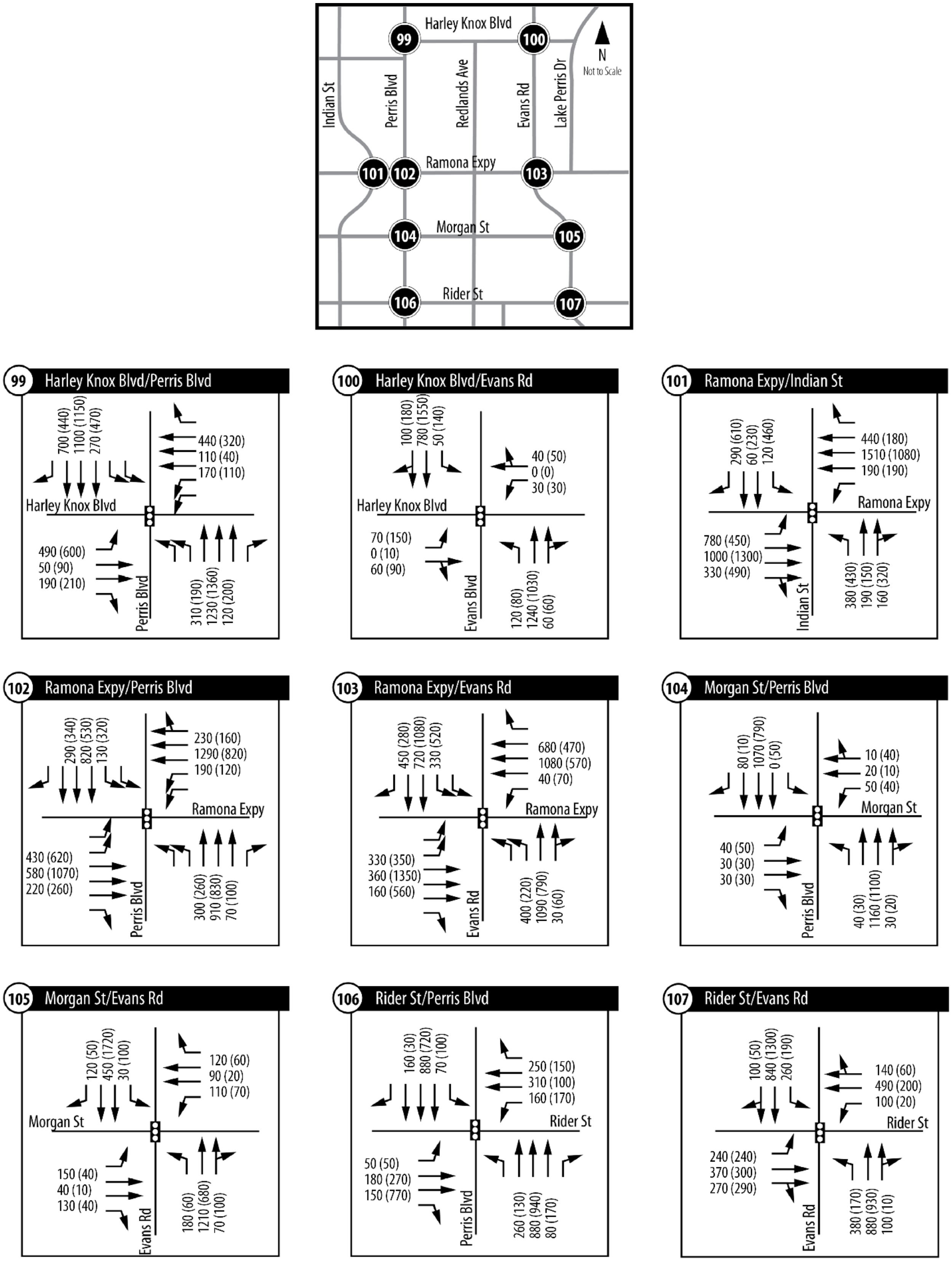

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (L)

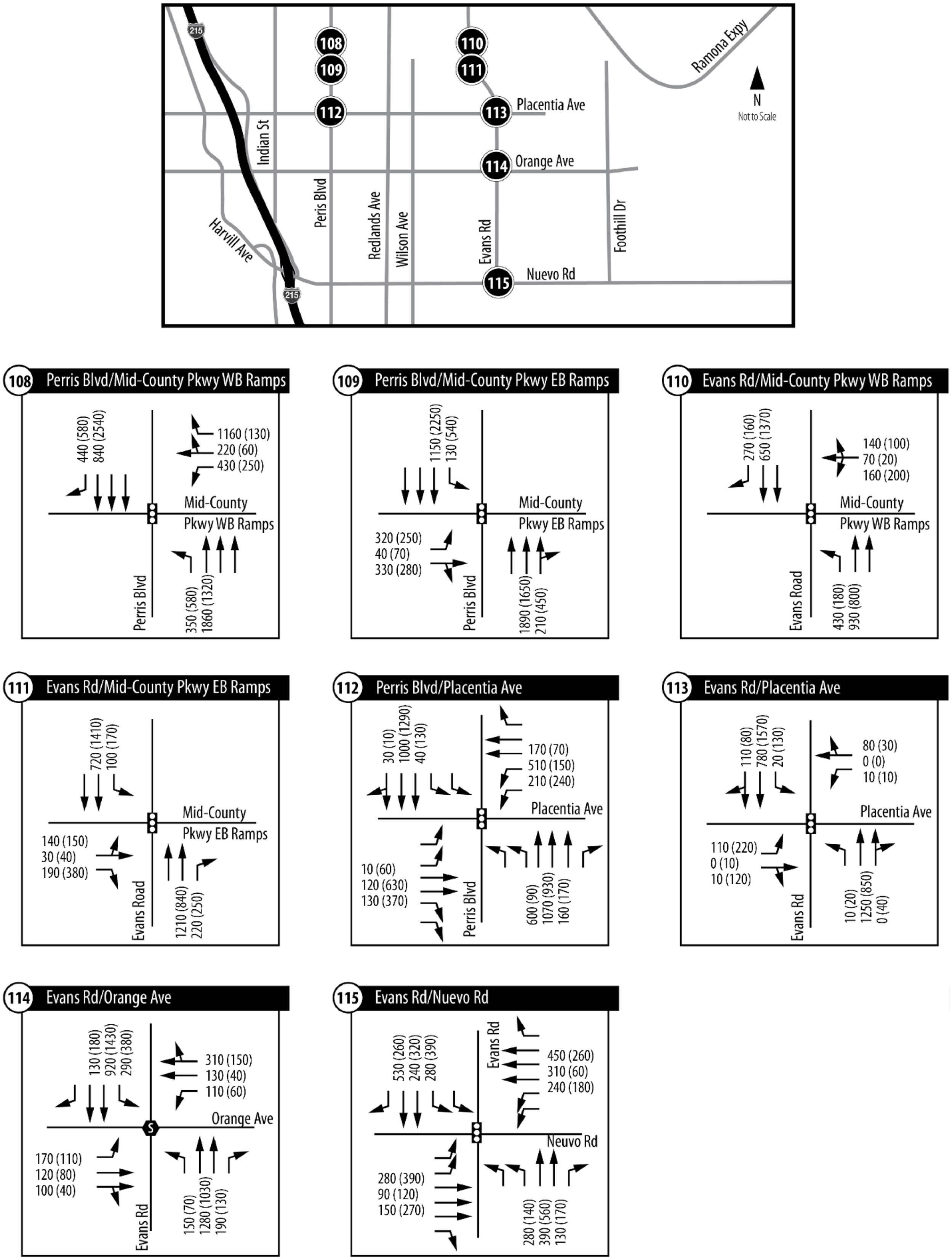

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (M)

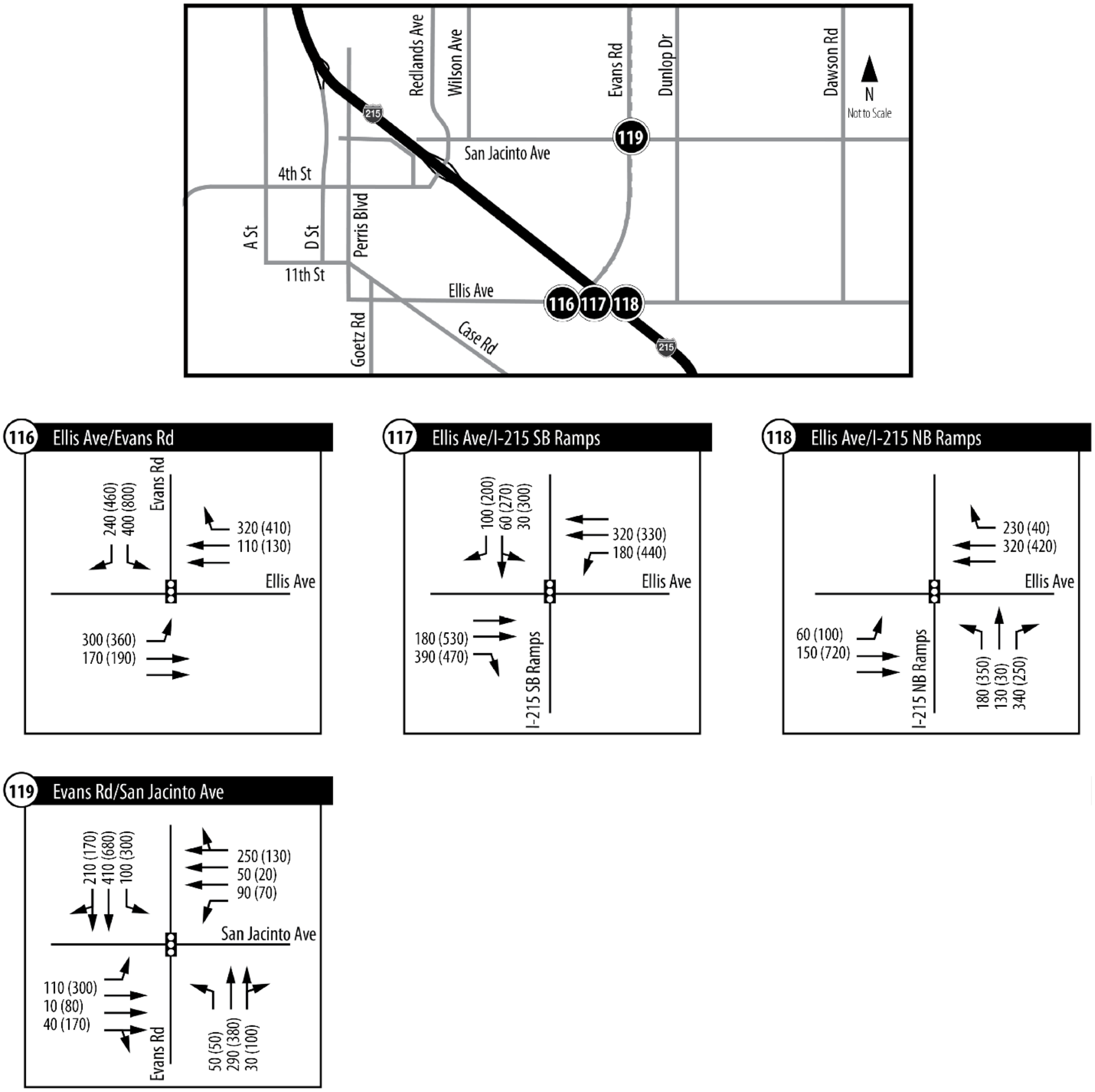

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (N)

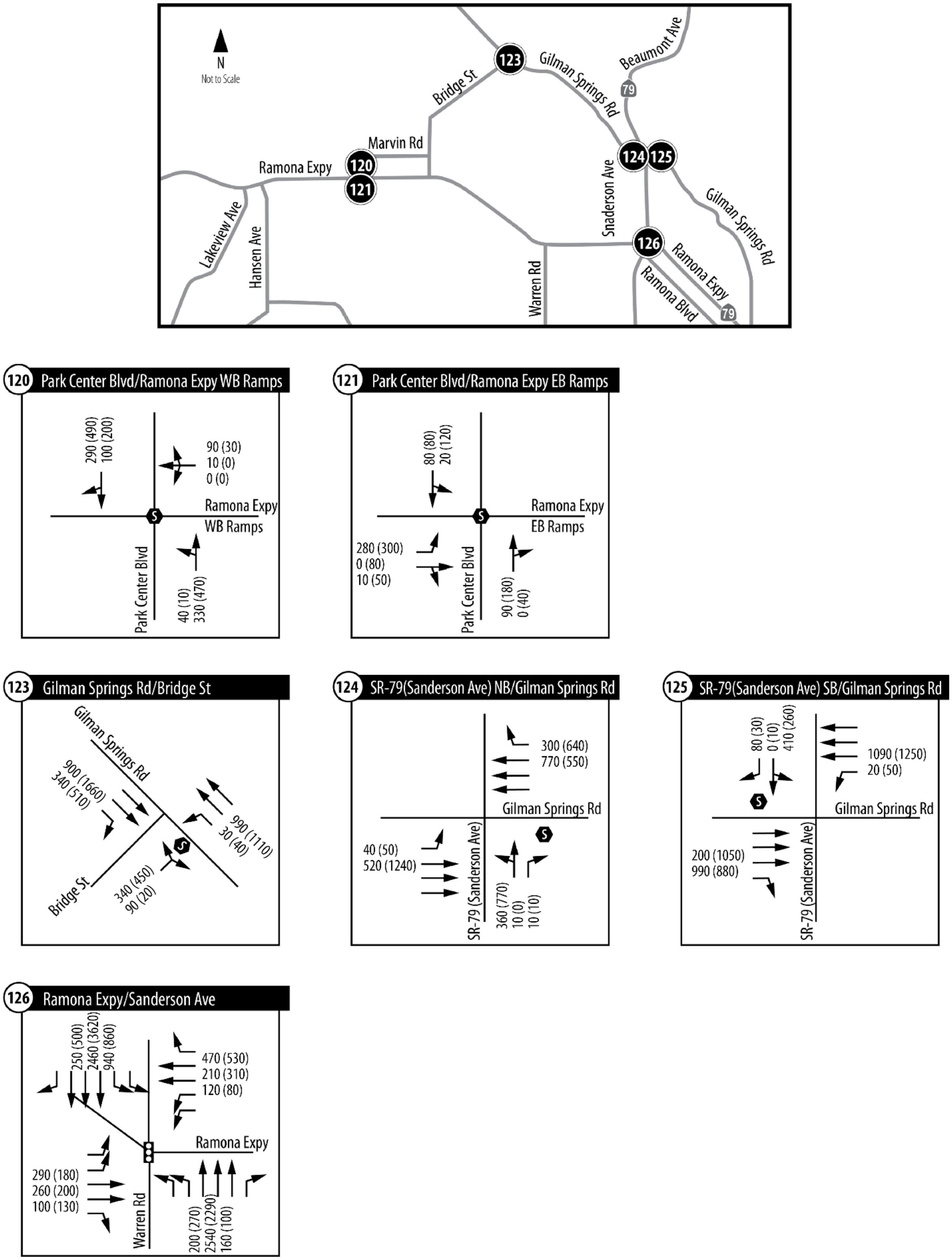

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (O)

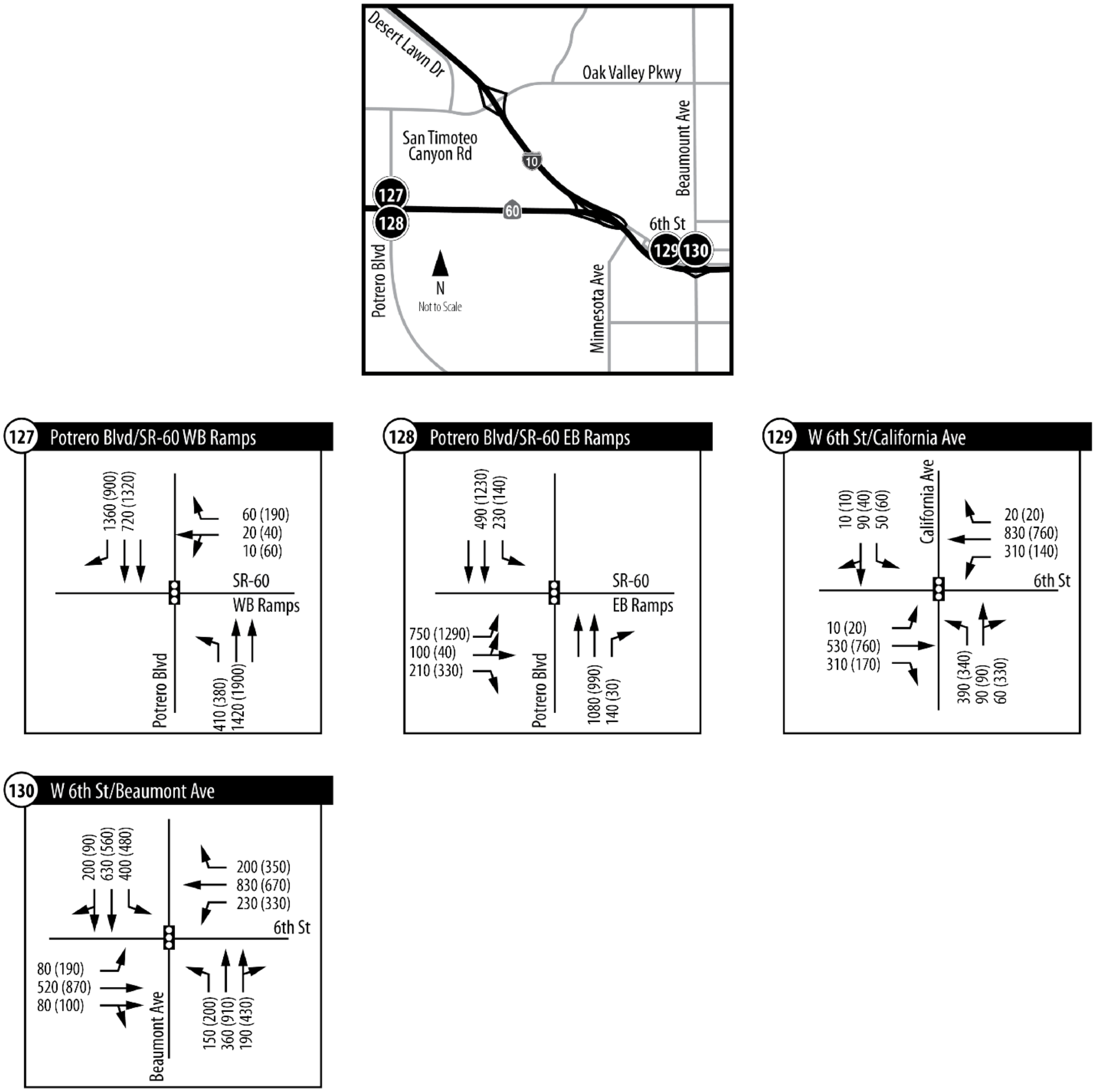

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (P)

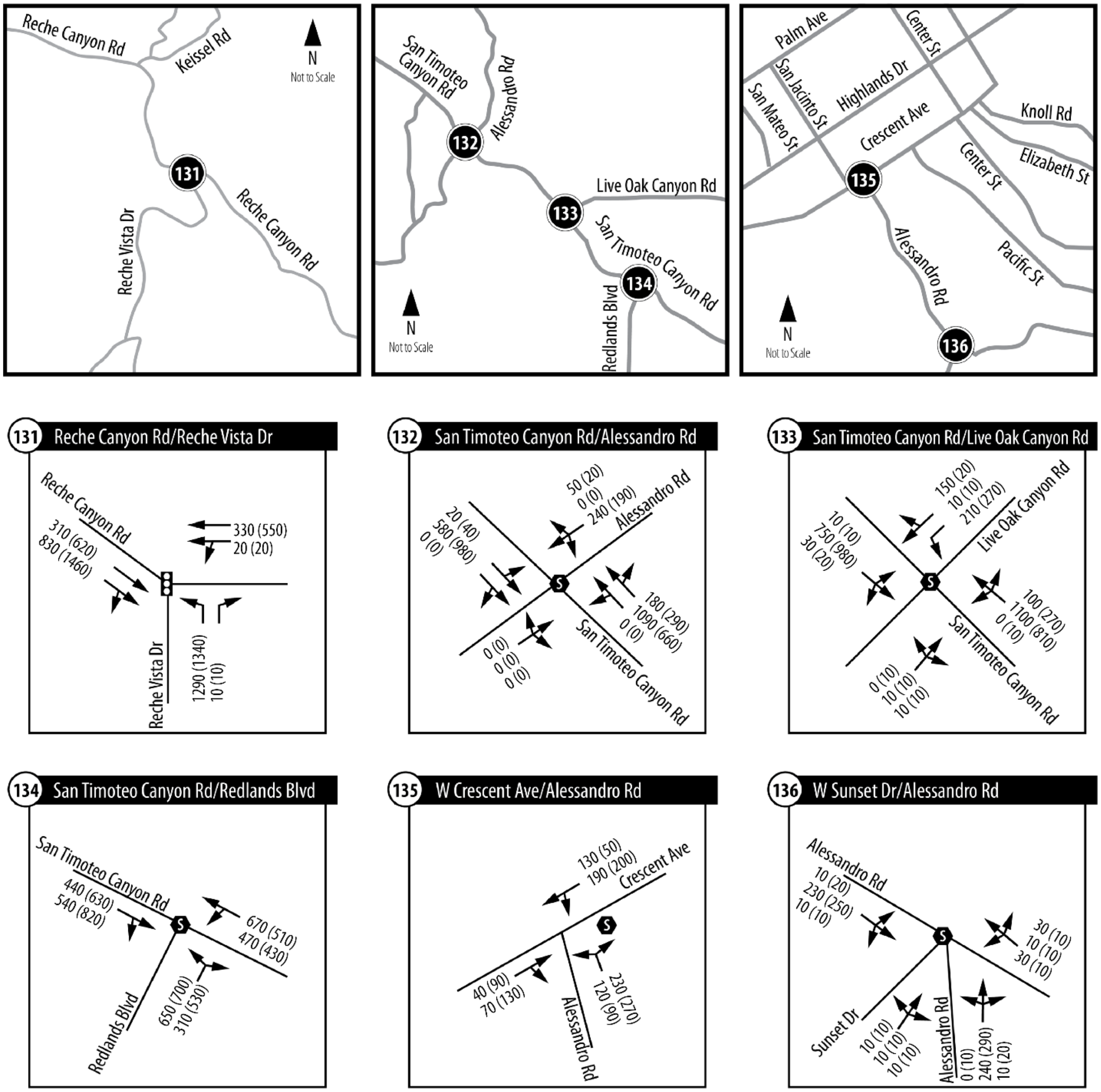

Figure 45: Turning Movement Volumes (PCE) under the 2040 Plus Build-out Scenario (Q)

Table 63: Intersection LOS under the 2040 Plus Build-out Scenario

			2040 No Project			2040 Plus Build-out		
				AM Peak Hour			AM Peak Hour	
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**Delay**	**LOS**	**Traffic Control**	**Delay**	**LOS**
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.3	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	9.0	A
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	30.2	D	RABT	8.6	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.3	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	19.6	B	SIGNAL	30.9	C
IN-9	Gilman Springs Rd/Eucalytpus Ave	D	N/A	Non-Existent		SIGNAL	3.0	A
IN-10	Redlands Blvd/Locust Ave	C	SIGNAL	5.7	A	SIGNAL	7.9	A
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	15.4	B	SIGNAL	15.4	B
IN-12	Theodore St/Ironwood Ave	D	CSS	25.8	D	CSS	92.9	**F**
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	11.7	B	SIGNAL	10.2	B
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	7.7	A	SIGNAL	6.7	A
IN-15	Theodore St/SR-60 WB ramps	D	CSS	116.1	**F**	SIGNAL	35.2	D
IN-16	Theodore St/SR-60 EB ramps	D	CSS	14.2	B	SIGNAL	6.2	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	SIGNAL	19.9	B
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	10.1	B	SIGNAL	13.0	B
IN-20	Oliver St/Alessandro Blvd	C	CSS	168.0	**F**	CSS	86.1	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	28.1	C	SIGNAL	21.6	C
IN-22	Quincy St/Alessandro Blvd	C	SIGNAL	4.8	A	SIGNAL	4.8	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	>180	**F**	AWS	16.0	C
IN-24	Oliver St/Cactus Ave	D	SIGNAL	29.1	C	SIGNAL	32.7	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	29.5	C	SIGNAL	50.4	**D**
IN-26	Quincy St/Cactus Ave	C	SIGNAL	2.9	A	SIGNAL	2.8	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	32.3	**D**	AWS	>180	**F**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	57.5	**E**	SIGNAL	65.8	**E**
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	53.5	D	SIGNAL	47.5	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	39.6	D	SIGNAL	40.6	D
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	14.4	B	SIGNAL	13.7	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	54.2	D	SIGNAL	37.4	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	21.2	C	SIGNAL	20.5	C
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	29.0	C	SIGNAL	26.7	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	125.7	**F**	CSS	25.2	**D**
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	92.9	**F**	SIGNAL	97.2	**F**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	19.2	B	SIGNAL	17.4	B
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	46.1	D	SIGNAL	35.5	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	64.4	**E**	SIGNAL	64.7	**E**
IN-40	Kitching St/Iris Ave	C	SIGNAL	89.2	**F**	SIGNAL	77.2	**E**
IN-41	Lasselle St/Iris Ave	D	SIGNAL	61.9	**E**	SIGNAL	64.4	**E**
IN-42	Nason St/Iris Ave	C	SIGNAL	77.7	**E**	SIGNAL	74.2	**E**
IN-43	Oliver St/Iris Ave	D	SIGNAL	33.5	C	SIGNAL	30.2	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	14.6	B	SIGNAL	14.0	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	44.0	D	SIGNAL	37.1	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	>180	**F**	SIGNAL	155.9	**F**
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	43.5	D	SIGNAL	44.1	D
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	62.7	**E**	SIGNAL	62.5	**E**
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	34.8	C	SIGNAL	32.5	C

Table 63: Intersection LOS under the 2040 Plus Build-out Scenario (continued)

			2040 No Project			2040 Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	107.8	**F**	SIGNAL	86.2	**F**
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	87.5	**F**	SIGNAL	78.7	**E**
IN-52	Kitching St/Cactus Ave	C	SIGNAL	43.9	**D**	SIGNAL	46.7	**D**
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.8	C	SIGNAL	33.4	C
IN-54	Morrison St/Cactus Ave	D	SIGNAL	39.5	D	SIGNAL	49.1	D
IN-55	Nason St/Cactus Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	43.2	D	SIGNAL	42.9	D
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	59.8	**E**	SIGNAL	57.6	**E**
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	74.4	**E**	SIGNAL	70.3	**E**
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	71.6	**E**	SIGNAL	65.4	**E**
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	55.5	**E**	SIGNAL	55.2	**E**
IN-61	Frederick St/Cactus Ave	D	SIGNAL	15.8	B	SIGNAL	15.1	B
IN-62	Graham St/Cactus Ave	D	SIGNAL	79.7	**E**	SIGNAL	71.2	**E**
IN-63	Heacock St/Cactus Ave	D	SIGNAL	151.6	**F**	SIGNAL	147.5	**F**
IN-64	Indian St/Cactus Ave	C	SIGNAL	51.1	**D**	SIGNAL	53.0	**D**
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	64.5	**E**	SIGNAL	65.5	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	132.6	**F**	SIGNAL	120.7	**F**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	14.2	B	SIGNAL	13.0	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	45.1	D	SIGNAL	40.4	D
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	31.1	C	SIGNAL	28.7	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	66.8	**E**	SIGNAL	66.4	**E**
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	44.3	D	SIGNAL	42.0	D
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	20.7	C	SIGNAL	18.9	B
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	108.5	**F**	SIGNAL	98.8	**F**
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	152.3	**F**	SIGNAL	156.8	**F**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	76.2	**E**	SIGNAL	109.8	**F**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	22.0	C	SIGNAL	24.3	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	31.4	C	SIGNAL	36.1	D
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	41.6	D	SIGNAL	38.3	D
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	68.5	**E**	SIGNAL	63.2	**E**
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	20.4	C	SIGNAL	20.1	C
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	162.9	**F**	SIGNAL	156.1	**F**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	52.3	D	SIGNAL	51.9	D
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	91.5	**F**	AWS	95.8	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	41.3	D	SIGNAL	42.5	D
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	106.4	**F**	SIGNAL	110.3	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	31.7	C	SIGNAL	32.9	C
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	61.2	**E**	SIGNAL	55.9	**E**
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	49.8	D	SIGNAL	35.3	D
IN-92	Arlington Ave/Maude St	D	SIGNAL	51.3	D	SIGNAL	33.4	C
IN-93	Horace St/Arlington Ave	D	SIGNAL	79.0	**E**	SIGNAL	77.0	**E**
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	131.5	**F**	SIGNAL	137.1	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	48.7	D	SIGNAL	50.8	D

Table 63: Intersection LOS under the 2040 Plus Build-out Scenario (continued)

			2040 No Project			2040 Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour	
				Delay	LOS		Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	32.0	C	SIGNAL	32.1	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	65.5	**E**	SIGNAL	60.9	**E**
IN-100	Harley Knox Blvd/Evan Rd	D	SIGNAL	13.4	B	SIGNAL	12.6	B
IN-101	Ramona Expy/Indian St	E	SIGNAL	137.9	**F**	SIGNAL	160.6	**F**
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	53.7	D	SIGNAL	44.2	D
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	83.7	**F**	SIGNAL	78.3	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	8.1	A	SIGNAL	8.3	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	20.6	C	SIGNAL	21.1	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	25.4	C	SIGNAL	26.3	C
IN-107	Evans Rd/Rider St	C	SIGNAL	68.3	**E**	SIGNAL	68.4	**E**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	34.3	C	SIGNAL	34.4	C
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	23.0	C	SIGNAL	21.4	C
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	23.8	C	SIGNAL	23.8	C
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	9.1	A	SIGNAL	9.2	A
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	35.1	D	SIGNAL	32.9	C
IN-113	Evans Rd/Placentia Ave	D	SIGNAL	4.3	A	SIGNAL	4.4	A
IN-114	Evans Rd/Orange Ave	C	SIGNAL	52.3	**D**	SIGNAL	47.4	**D**
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	45.5	**D**	SIGNAL	43.3	**D**
IN-116	Evans Rd/Ellis Ave	D	SIGNAL	18.2	B	SIGNAL	18.2	B
IN-117	Ellis Ave/I-215 SB Ramps	E	SIGNAL	29.7	C	SIGNAL	30.0	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	SIGNAL	24.8	C	SIGNAL	27.0	C
IN-119	Evans Rd/San Jacinto Ave	D	SIGNAL	32.2	C	SIGNAL	31.6	C
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	10.8	B	CSS	10.8	B
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	11.5	B	CSS	12.2	B
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-127	Potrero Blvd/SR-60 WB Ramps	D	SIGNAL	121.6	**F**	SIGNAL	86.9	**F**
IN-128	Potrero Blvd/SR-60 EB Ramps	D	SIGNAL	20.9	C	SIGNAL	20.6	C
IN-129	W 6th St/California Ave	C	SIGNAL	47.4	**D**	SIGNAL	44.5	**D**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	58.9	**E**	SIGNAL	55.1	**E**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	83.2	**F**	AWS	94.2	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	17.3	C	CSS	16.9	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	9.9	A	AWS	9.7	A

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 63: Intersection LOS under the 2040 Plus Build-out Scenario (continued)

			2040 No Project			2040 Plus Build-out		
ID	Study Intersection	LOS Standard	Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-1	World Logistics Center Pkwy/Street F	D	N/A	Non-Existent		RABT	7.4	A
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	15.6	B
IN-3	World Logistics Center Pkwy/Alessandro St	D	CSS	13.2	B	RABT	7.7	A
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	6.6	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	77.7	**E**	SIGNAL	77.7	**E**
IN-9	Gilman Springs Rd/Eucalytpus Ave	D	N/A	Non-Existent		SIGNAL	7.5	A
IN-10	Redlands Blvd/Locust Ave	C	SIGNAL	15.4	B	SIGNAL	11.4	B
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	16.5	B	SIGNAL	17.5	B
IN-12	Theodore St/Ironwood Ave	D	CSS	48.0	**E**	CSS	>180	**F**
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	8.4	A	SIGNAL	9.8	A
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	38.1	D	SIGNAL	28.5	C
IN-15	Theodore St/SR-60 WB ramps	D	CSS	14.0	B	SIGNAL	28.0	C
IN-16	Theodore St/SR-60 EB ramps	D	CSS	13.2	B	SIGNAL	5.9	A
IN-18	Redlands Blvd/Eucalyptus Ave	D	SIGNAL	64.3	**E**	SIGNAL	26.9	C
IN-19	World Logistics Center Pkwy/Eucalyptus Ave	D	CSS	12.9	B	SIGNAL	11.9	B
IN-20	Oliver St/Alessandro Blvd	C	CSS	>180	**F**	CSS	100.6	**F**
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	38.6	D	SIGNAL	37.8	D
IN-22	Quincy St/Alessandro Blvd	C	SIGNAL	5.1	A	SIGNAL	5.1	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	174.5	**F**	AWS	38.7	**E**
IN-24	Oliver St/Cactus Ave	D	SIGNAL	54.9	D	SIGNAL	33.6	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	37.1	**D**	SIGNAL	42.6	**D**
IN-26	Quincy St/Cactus Ave	C	SIGNAL	3.2	A	SIGNAL	2.9	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	26.5	**D**	AWS	>180	**F**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	40.4	D	SIGNAL	34.9	C
IN-29	Heacock St/Ironwood Ave	D	SIGNAL	49.1	D	SIGNAL	49.5	D
IN-30	Heacock St/SR-60 WB Ramps	D	SIGNAL	23.4	C	SIGNAL	21.9	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	28.9	C	SIGNAL	30.3	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	81.1	**F**	SIGNAL	96.1	**F**
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	18.9	B	SIGNAL	18.5	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	32.3	C	SIGNAL	31.3	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	16.9	C	CSS	30.4	**D**
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	119.7	**F**	SIGNAL	111.2	**F**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	38.8	D	SIGNAL	34.5	C
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.2	D	SIGNAL	50.8	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	51.5	D	SIGNAL	40.4	D
IN-40	Kitching St/Iris Ave	C	SIGNAL	170.3	**F**	SIGNAL	162.3	**F**
IN-41	Lasselle St/Iris Ave	D	SIGNAL	142.6	**F**	SIGNAL	137.9	**F**
IN-42	Nason St/Iris Ave	C	SIGNAL	55.8	**E**	SIGNAL	52.0	**D**
IN-43	Oliver St/Iris Ave	D	SIGNAL	24.3	C	SIGNAL	26.4	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	15.7	B	SIGNAL	16.0	B
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	41.4	D	SIGNAL	42.8	D
IN-46	Kitching St/Krameria Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-47	Lasselle St/Krameria Ave	D	SIGNAL	49.3	D	SIGNAL	46.9	D
IN-48	Kitching St/Alessandro Blvd	D	SIGNAL	105.3	**F**	SIGNAL	91.3	**F**
IN-49	Lasselle St/Alessandro Blvd	D	SIGNAL	36.8	D	SIGNAL	34.0	C

Table 63: Intersection LOS under the 2040 Plus Build-out Scenario (continued)

ID	Study Intersection	LOS Standard	2040 No Project			2040 Plus Build-out		
			Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour	
				Delay	LOS		Delay	LOS
IN-50	Morrison St/Alessandro Blvd	D	SIGNAL	119.3	**F**	SIGNAL	113.2	**F**
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	92.0	**F**	SIGNAL	95.3	**F**
IN-52	Kitching St/Cactus Ave	C	SIGNAL	68.5	**E**	SIGNAL	75.7	**E**
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	52.9	**D**	SIGNAL	72.7	**E**
IN-54	Morrison St/Cactus Ave	D	SIGNAL	74.8	**E**	SIGNAL	89.9	**F**
IN-55	Nason St/Cactus Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-56	Frederick St/Alessandro Blvd	D	SIGNAL	111.8	**F**	SIGNAL	110.3	**F**
IN-57	Graham St/Alessandro Blvd	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-58	Heacock St/Alessandro Blvd	D	SIGNAL	82.6	**F**	SIGNAL	80.1	**F**
IN-59	Indian St/Alessandro Blvd	D	SIGNAL	118.6	**F**	SIGNAL	117.3	**F**
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	87.3	**F**	SIGNAL	83.6	**F**
IN-61	Frederick St/Cactus Ave	D	SIGNAL	10.0	A	SIGNAL	9.8	A
IN-62	Graham St/Cactus Ave	D	SIGNAL	131.9	**F**	SIGNAL	126.2	**F**
IN-63	Heacock St/Cactus Ave	D	SIGNAL	74.0	**E**	SIGNAL	66.4	**E**
IN-64	Indian St/Cactus Ave	C	SIGNAL	77.9	**E**	SIGNAL	72.5	**E**
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	60.3	**E**	SIGNAL	62.5	**E**
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	146.7	**F**	SIGNAL	136.0	**F**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	23.7	C
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	25.0	C	SIGNAL	26.9	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	35.3	D	SIGNAL	32.5	C
IN-70	Day St/Alessandro Blvd	D	SIGNAL	110.8	**F**	SIGNAL	103.1	**F**
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	90.4	**F**	SIGNAL	93.3	**F**
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-74	Elsworth St/Cactus Ave	D	SIGNAL	177.1	**F**	SIGNAL	176.1	**F**
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	176.6	**F**	SIGNAL	>180	**F**
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	24.0	C	SIGNAL	27.8	C
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	11.8	B	SIGNAL	8.9	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	26.1	C	SIGNAL	26.1	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	72.3	**E**	SIGNAL	69.6	**E**
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	16.3	B	SIGNAL	16.5	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	171.0	**F**	SIGNAL	165.9	**F**
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	59.4	**E**	SIGNAL	53.0	D
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	>180	**F**	AWS	>180	**F**
IN-86	Central Ave/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	35.0	D	SIGNAL	34.4	C
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	34.7	C	SIGNAL	36.2	D
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	92.2	**F**	SIGNAL	92.0	**F**
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	48.2	D	SIGNAL	48.3	D
IN-92	Arlington Ave/Maude St	D	SIGNAL	101.3	**F**	SIGNAL	89.0	**F**
IN-93	Horace St/Arlington Ave	D	SIGNAL	54.2	D	SIGNAL	59.1	**E**
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	31.5	C	SIGNAL	38.8	D

Table 63: Intersection LOS under the 2040 Plus Build-out Scenario (continued)

			2040 No Project			2040 Plus Build-out		
ID	**Study Intersection**	**LOS Standard**	**Traffic Control**	**PM Peak Hour**		**Traffic Control**	**PM Peak Hour**	
				Delay	**LOS**		**Delay**	**LOS**
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	39.3	D	SIGNAL	42.5	D
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	52.7	D	SIGNAL	54.5	D
IN-100	Harley Knox Blvd/Evan Rd	D	SIGNAL	19.9	B	SIGNAL	19.4	B
IN-101	Ramona Expy/Indian St	E	SIGNAL	159.2	**F**	SIGNAL	163.0	**F**
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	65.5	E	SIGNAL	60.6	E
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	58.3	E	SIGNAL	56.8	E
IN-104	Perris Blvd/Morgan St	D	SIGNAL	10.4	B	SIGNAL	10.3	B
IN-105	Evans Rd/Morgan St	C	SIGNAL	22.9	C	SIGNAL	17.6	B
IN-106	Perris Blvd/Rider St	C	SIGNAL	28.3	C	SIGNAL	29.8	C
IN-107	Evans Rd/Rider St	C	SIGNAL	39.4	**D**	SIGNAL	34.0	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	63.2	**E**	SIGNAL	60.2	**E**
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	39.2	D	SIGNAL	38.2	D
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	19.8	B	SIGNAL	19.9	B
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	11.1	B	SIGNAL	11.2	B
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	25.5	C	SIGNAL	25.3	C
IN-113	Evans Rd/Placentia Ave	D	SIGNAL	6.4	A	SIGNAL	6.5	A
IN-114	Evans Rd/Orange Ave	C	SIGNAL	38.0	**D**	SIGNAL	35.0	C
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	29.9	C	SIGNAL	29.0	C
IN-116	Evans Rd/Ellis Ave	D	SIGNAL	28.9	C	SIGNAL	27.7	C
IN-117	Ellis Ave/I-215 SB Ramps	E	SIGNAL	34.6	C	SIGNAL	34.4	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	SIGNAL	23.1	C	SIGNAL	23.1	C
IN-119	Evans Rd/San Jacinto Ave	D	SIGNAL	47.8	D	SIGNAL	49.0	D
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	11.0	B	CSS	11.3	B
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	17.3	C	CSS	20.2	C
IN-122	Bridge St/Ramona Expy	-	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge St	C	CSS	>180	**F**	CSS	>180	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	>180	**F**	CSS	>180	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	>180	**F**	SIGNAL	153.3	**F**
IN-127	Potrero Blvd/SR-60 WB Ramps	D	SIGNAL	32.2	C	SIGNAL	29.1	C
IN-128	Potrero Blvd/SR-60 EB Ramps	D	SIGNAL	26.9	C	SIGNAL	24.6	C
IN-129	W 6th St/California Ave	C	SIGNAL	60.5	**E**	SIGNAL	56.0	**E**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	167.2	**F**	SIGNAL	173.6	**F**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	>180	**F**	SIGNAL	>180	**F**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	70.1	**F**	AWS	79.2	**F**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	20.2	C	CSS	19.6	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.8	B	AWS	10.2	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

Table 64: 2040 Plus Build-out Intersection Impacts and Mitigations

ID	Study Intersection	LOS Standard	2040 No Project			2040 Plus Build-out			2040 No Project			2040 Plus Build-out			Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Existing Plus Phase 1				
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour			Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level																				
IN-12	Theodore St/Ironwood Ave	D	CSS	25.8	D	CSS	92.9	F	CSS	48.0	E	CSS	>180	F	Signalize.	SIGNAL	10.7	B	10.9	B
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	29.5	C	SIGNAL	50.4	D	SIGNAL	37.1	D	SIGNAL	42.6	D	Add 1 EB LT lane. Change NB RT to NB Through-RT.	SIGNAL	28.7	C	36.9	D
IN-27	Redlands Blvd/Cactus Ave	C	AWS	32.3	D	AWS	>180	F	AWS	26.5	D	AWS	>180	F	Signalize. Add 1 EB LT and 2 WB LT lanes. Add 1 NB LT and 1 SB LT.	SIGNAL	18.0	B	34.5	C
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	57.5	E	SIGNAL	65.8	E	SIGNAL	40.4	D	SIGNAL	34.9	C	Change E/W from protected to split phase. Convert WB Through to WB LT-Through.	SIGNAL	26.4	C	25.6	C
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	54.2	D	SIGNAL	37.4	D	SIGNAL	81.1	F	SIGNAL	96.1	F	Add 1 WB RT pocket.	SIGNAL	36.9	D	63.7	E
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	125.7	F	CSS	25.2	D	CSS	16.9	C	CSS	30.4	D	Signalize. Add 1 WB LT lane.	SIGNAL	7.1	A	14.4	B
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	92.9	F	SIGNAL	97.2	F	SIGNAL	119.7	F	SIGNAL	111.2	F	Change N/S from split to protected LT phase. Add NB and SB LT lanes.	SIGNAL	42.7	D	42.4	D
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	64.4	E	SIGNAL	64.7	E	SIGNAL	51.5	D	SIGNAL	40.4	D	Add 1 WB LT and 1 SB LT lane.	SIGNAL	44.7	D	29.0	C
IN-41	Lasselle St/Iris Ave	D	SIGNAL	61.9	E	SIGNAL	64.4	E	SIGNAL	142.6	F	SIGNAL	137.9	F	Add 1 WB LT lane (resulting 3 turn lanes), and 1 EB RT Need to widen Lasselle in the SB to have 3 receiving lanes.	SIGNAL	51.8	D	84.6	F
IN-51	Nason St/Alessandro Blvd	D	SIGNAL	87.5	F	SIGNAL	78.7	E	SIGNAL	92.0	F	SIGNAL	95.3	F	Add permissive / overlap phase for EB RT, SB RT, and WB RT.	SIGNAL	58.5	E	71.4	E
IN-52	Kitching St/Cactus Ave	C	SIGNAL	43.9	D	SIGNAL	46.7	D	SIGNAL	68.5	E	SIGNAL	75.7	E	Change SB RT Lane to SB Through-RT Lane	SIGNAL	39.5	D	46.2	D
IN-53	Lasselle St/Cactus Ave	C	SIGNAL	26.8	C	SIGNAL	33.4	C	SIGNAL	52.9	D	SIGNAL	72.7	E	Add 1 WB LT lane.	SIGNAL	25.5	C	46.4	D
IN-54	Morrison St/Cactus Ave	D	SIGNAL	39.5	D	SIGNAL	49.1	D	SIGNAL	74.8	E	SIGNAL	89.9	F	Add 1 WB RT pocket with overlap phasing.	SIGNAL	35.4	D	64.0	E
IN-55	Nason St/Cactus Ave	D	SIGNAL	>180	F	SIGNAL	>180	F	SIGNAL	>180	F	SIGNAL	>180	F	Convert 1 SB Through-RT to 1 SB RT, and add permissive / overlap phase at SB RT.	SIGNAL	124.6	F	150.3	F
IN-64	Indian St/Cactus Ave	C	SIGNAL	51.1	D	SIGNAL	53.0	D	SIGNAL	77.9	E	SIGNAL	72.5	E	Add 1 NB LT pocket	SIGNAL	50.7	D	59.4	E
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	64.5	E	SIGNAL	65.5	E	SIGNAL	60.3	E	SIGNAL	62.5	E	Add 1 EB RT pocket, 1 SB LT pocket, and NB RT overlap phase.	SIGNAL	64.3	E	55.6	E
IN-71	Elsworth St/Alessandro Blvd	D	SIGNAL	44.3	D	SIGNAL	42.0	D	SIGNAL	90.4	F	SIGNAL	93.3	F	Add 1 NB LT pocket	SIGNAL	31.4	C	57.0	E
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)																				
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	152.3	F	SIGNAL	156.8	F	SIGNAL	>180	F	SIGNAL	>180	F	Change NB approach to one LT and 1 shared LT/RT lane. Change EB approach to two through and 1 RT lane (150 ft storage)	SIGNAL	48.0	D	44.9	D
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	76.2	E	SIGNAL	109.8	F	SIGNAL	176.6	F	SIGNAL	>180	F	Change NB approach to one LT and 1 shared through/RT lane and 1 RT lane. Change EB approach to one LT, 2 through, 1 through/RT and 1 RT lane	SIGNAL	33.8	D	39.7	D

Table 64: 2040 Plus Build-out Intersection Impacts and Mitigations (continued)

ID	Study Intersection	LOS Standard	2040 No Project			2040 Plus Build-out			2040 No Project			2040 Plus Build-out			Mitigation	Existing Plus Phase 1				
			Traffic Control	AM Peak Hour		Traffic Control	AM Peak Hour		Traffic Control	PM Peak Hour		Traffic Control	PM Peak Hour		Measures Required to Reduce Impact to Less-Than-Significant	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS		Delay	LOS		Delay	LOS		Delay	LOS			Delay	LOS	Delay	LOS
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)																				
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	>180	**F**	SIGNAL	>180	F	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Add EB LT. Add NB TH lane. Change WB to 2 LT, 3 Th and RT lane (300 ft storage). Change SB to 1 RT (100 ft storage), 2 Th and 1 LT	SIGNAL	174.4	F	183.6	F
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	91.5	**F**	AWS	95.8	**F**	AWS	>180	**F**	AWS	>180	F	Signalize.	SIGNAL	1.0	A	1.1	A
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	106.4	**F**	SIGNAL	110.3	**F**	SIGNAL	>180	**F**	SIGNAL	>180	F	Change EB approach to 1 LT, 2 THs and 1 RT. Change SB approach to 2 LTs, 2 THs and 1 RT. Add one WB LT lane. Add one NB LT lane.	SIGNAL	78.4	E	141.7	F
IN-93	Horace St/Arlington Ave	D	SIGNAL	79.0	**E**	SIGNAL	77.0	E	SIGNAL	54.2	D	SIGNAL	59.1	**E**	Change EB approach to 1	SIGNAL	70.8	E	46.3	D
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	SIGNAL	>180	F	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage). Add one more EB LT lnae (195 ft storage)	SIGNAL	185.4	F	215.7	F
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	131.5	**F**	SIGNAL	137.1	**F**	SIGNAL	>180	**F**	SIGNAL	>180	**F**	Reconfigure SB approach to 1 LT, 3 THs and 1 RT lane.	SIGNAL	119.1	F	209.7	F
IN-101	Ramona Expy/Indian St	E	SIGNAL	137.9	**F**	SIGNAL	160.6	**F**	SIGNAL	159.2	**F**	SIGNAL	163.0	**F**	Add 1 EB RT. Add 2nd NB LT and 1 NB RT. Provide signal phase overlap for all RTs.	SIGNAL	124.2	F	92.0	F
IN-107	Evans Rd/Rider St	C	SIGNAL	68.3	**E**	SIGNAL	68.4	**E**	SIGNAL	39.4	**D**	SIGNAL	34.0	C	Reconfigure SB approach to include 1 LT, 2 THs and 1 RT.	SIGNAL	63.6	E	29.2	C
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	58.9	**E**	SIGNAL	55.1	E	SIGNAL	167.2	**F**	SIGNAL	173.6	**F**	Reconfigure EB approach to 2 LTs, 2 THs and 1 RT. Reconfigure NB approach to 1 LT, 2 THs and 1 RT. change EB & WB lefts to protected.	SIGNAL	63.7	E	105.6	F
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	>180	**F**	AWS	>180	**F**	AWS	>180	**F**	AWS	>180	**F**	Signalize.	SIGNAL	28.0	C	18.3	B

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

When refering to lanes, "T" demotes a through lane

When refering to lanes, "L" demotes a left-turn lane

When refering to lanes, "R" demotes a right-turn lane

C. FREEWAY SEGMENT LOS, IMPACTS, AND MITIGATIONS

Freeway Mainline Basic Sections

Table 65 compares the LOS for freeway mainline sections for the 2040 No-Project and the 2040 Plus Build-out scenarios. Details of the LOS calculations for freeways under the 2040 Plus Build-out Scenario can be found in Appendix O. Table 66 identifies the 42 basic freeway sections where the project has a significant impact and identifies measures that would reduce project impacts to a less-than-significant level. In 41 of the 42 segments there would be a deficiency in 2040 even under the No-Project Scenario. The Project would have significant impacts at:

North or Eastbound

- SR-60 from Reservoir St. to Ramona Ave.
- SR-60 from Ramona Ave. to Central Ave.
- SR-60 from Mountain Ave. to Euclid Ave.
- SR-60 from Euclid Ave. to Grove Ave.
- SR-60 from Valley Way to Rubidoux Blvd.
- SR-60 from Rubidoux Blvd. to Market St.
- SR-60 from Market St. to Main St.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from Heacock St. to Perris Blvd.
- SR-91 from McKinley St. to Pierce St.
- SR-60 from Pierce St. to Magnolia Ave.
- SR-91 from La Sierra Ave. to Tyler St.
- SR-91 from Tyler St. to Van Buren Blvd.
- SR-91 from Adams St. to Madison St.
- SR-91 from Central Ave. to 14th St.
- I-215 from Alessandro Blvd. to Eucalyptus Ave.
- I-215 from Eucalyptus Ave. to SR-60
- I-215 from Auto Plaza Dr. to Mill St.

Southbound or Westbound

- SR-60 from Grove Ave. to Vineyard Ave.
- SR-60 from Vineyard Ave. to Archibald Ave.
- SR-60 from Valley Way to Rubidoux Blvd.
- SR-60 from Rubidoux Blvd. to Market St.
- SR-60 from Market St. to Main St.
- SR-60 from Martin Luther King Blvd. to Central Ave.
- SR-60 from Fair Isle Dr./Box Springs Rd. to I-215
- SR-60 from I-215 to Day St.
- SR-60 from Pigeon Pass Rd. to Heacock St.
- SR-60 from Heacock St. to Perris Blvd.
- SR-60 from Moreno Beach Dr. to Redlands Blvd.
- SR-60 from I-15 to McKinley St.
- SR-91 from McKinley St. to Pierce St.
- SR-91 from Pierce St. to Magnolia Ave.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- I-215 from Alessandro Blvd. to Eucalyptus Ave.
- I-215 from Center St. to La Cadena Dr.
- I-215 from La Cadena Dr. to Barton Rd.
- I-215 from Barton Rd. to Mt. Vernon Ave.
- I-10 from Highland Springs Ave. to Sunset Ave.
- I-10 from 8th St. to Hargrave St.

- I-10 from Hargrave St. to Fields Rd.
- I-10 from Fields Rd. to Morongo Trail

The mitigation measures shown in Table 66 are those that would be needed to reduce the impact of the project to a less-than-significant level. In 37 of the cases adding a mixed-flow lane would achieve the target LOS. In the other 4 sections with significant impacts, adding a mixed-flow lane would vehicle density (on which LOS is based) to less than would occur in the 2025 No Project scenario, so this measure would reduce the impact of the WLC project to a less-than-significant level. While these measures are feasible in the sense that, if they could be constructed, they would achieve the target LOS, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 65: 2040 Plus Build-out Freeway Mainline LOS

			2040 No-Project Conditions						2040 Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,210	43.6	E	7,210	32.2	D	8380	45.7	F	7,110	31.7	D
F-3	SR-60	Ramona Ave to Central Ave	10,170	38.8	E	9,940	34.2	D	10,340	40.1	E	9,860	34.0	D
F-4	SR-60	Central Ave to Mountain Ave	9,310	33.2	D	8,810	28.4	D	9,480	34.2	D	8,750	28.3	D
F-5	SR-60	Mountain Ave to Euclid Ave	9,710	35.6	E	8,770	28.2	D	9,860	36.6	E	8,680	27.9	D
F-6	SR-60	Euclid Ave to Grove Ave	9,500	34.3	D	8,430	26.7	D	9,670	35.4	E	8,370	26.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	8,980	31.1	D	9,410	31.3	D	9,170	32.3	D	9,350	31.2	D
F-8	SR-60	Vineyard Ave to Archibald Ave	8,820	30.2	D	9,670	32.7	D	9,000	31.2	D	9,600	32.5	D
F-9	SR-60	Archibald Ave to Haven Ave	8,880	30.5	D	6,990	21.3	C	9,070	31.8	D	6,920	21.2	C
F-10	SR-60	Haven Ave to Milliken Ave	10,160	29.1	D	8,130	20.7	C	10,380	30.0	D	8,030	20.5	C
F-11	SR-60	Milliken Ave to I-15	5,460	21.9	C	5,190	19.4	C	5,660	22.9	C	5,170	19.5	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,900	19.3	C	4,370	16.3	B	5,070	20.1	C	4,360	16.4	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	4,700	18.5	C	3,570	13.3	B	4,960	19.7	C	3,520	13.3	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,120	16.4	B	2,960	11.3	B	4,380	17.5	B	2,940	11.4	B
F-15	SR-60	Pedley Rd to Pyrite St	4,430	17.6	B	3,240	12.4	B	4,670	18.6	C	3,180	12.3	B
F-16	SR-60	Pyrite St to Valley Way	5,010	19.9	C	3,650	13.9	B	5,220	20.9	C	3,590	13.8	B
F-17	SR-60	Valley Way to Rubidoux Blvd	6,200	40.1	E	5,270	28.0	D	6,340	42.4	E	5,200	27.9	D
F-18	SR-60	Rubidoux Blvd to Market St	6,080	38.6	E	5,480	29.9	D	6,190	40.3	E	5,320	29.0	D
F-19	SR-60	Market St to Main St	6,460	43.6	E	5,710	32.1	D	6,590	46.2	F	5,590	31.5	D
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	12,700	1172.3	F	11,030	94.2	F	12,730	> Capacity	F	11,050	110.4	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,240	25.5	C	5,460	20.5	C	6,450	27.0	D	5,540	21.2	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,690	33.7	D	5,220	65.1	F	3,530	32.6	D	5,200	68.7	F
F-30	SR-60	Heacock St to Perris Blvd	3,520	30.8	D	4,210	37.5	E	3,520	32.0	D	4,150	38.2	E
F-31	SR-60	Perris Blvd to Nason St	3,210	26.8	D	3,920	33.1	D	3,210	28.0	D	3,860	33.9	D
F-32	SR-60	Nason St to Moreno Beach Dr	3,100	16.4	B	3,940	19.7	C	3,020	16.6	B	3,910	20.1	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,960	15.7	B	3,790	18.9	C	2,750	15.2	B	3,760	19.4	C
F-34	SR-60	Redlands Blvd to Theodore St	3,080	16.3	B	5,370	28.6	D	3,290	18.0	B	5,320	29.2	D
F-35	SR-60	Theodore St to Gilman Springs Rd	3,120	12.4	B	5,700	21.4	C	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,100	11.8	B	4,180	22.0	C	2,000	11.6	B	3,940	20.6	C
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	2,400	19.3	C	4,630	45.6	F	2,270	18.2	C	4,420	41.7	E
F-38	SR-60	Potero Blvd to I-10	1,860	14.9	B	3,080	23.7	C	1,730	13.9	B	3,010	23.2	C
F-39	SR-91	I-15 to McKinley St	7,030	28.3	D	8,550	43.0	E	7,230	29.6	D	8,500	42.9	E
F-40	SR-91	McKinley St to Pierce St	6,820	44.8	E	6,550	45.5	F	6,880	45.7	F	6,490	45.1	F
F-41	SR-91	Pierce St to Magnolia Ave	8,280	83.8	F	8,300	104.3	F	8,340	86.6	F	8,240	103.0	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	8,760	41.4	E	8,320	41.4	E	8,790	42.1	E	8,300	41.2	E
F-44	SR-91	Tyler St to Van Buren Blvd	8,790	41.7	E	9,080	49.4	F	8,810	41.9	E	9,040	49.4	F
F-45	SR-91	Van Buren Blvd to Adams St	6,110	23.6	C	6,510	27.3	D	6,120	23.7	C	6,430	27.0	D

Table 65: 2040 Plus Build-out Freeway Mainline LOS (continued)

ID	Freeway	Segment	2040 No-Project Conditions						2040 Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-46	SR-91	Adams St to Madison St	8,760	111.7	**F**	9,970	> Capacity	**F**	8,760	115.0	**F**	9,910	> Capacity	**F**
F-47	SR-91	Madison St to Arlington Ave	8,430	39.1	**E**	6,870	29.7	D	8,370	38.9	**E**	6,840	29.7	D
F-49	SR-91	Central Ave to 14th St	7,100	53.8	**F**	6,400	44.2	**E**	6,970	51.9	**F**	6,420	44.9	**E**
F-50	SR-91	14th St to University Ave	4,930	18.6	C	5,210	20.6	C	4,800	18.2	C	5,210	20.7	C
F-51	SR-91	University Ave to Spruce St	6,450	19.7	C	7,020	22.7	C	6,320	19.3	C	7,020	22.7	C
F-66	I-215	Scott Rd to Gambroni Rd	2,800	11.1	B	4,530	17.0	B	2,800	11.1	B	4,480	16.9	B
F-67	I-215	Gambroni Rd to Newport Rd	2,800	11.1	B	4,150	15.6	B	2,770	11.0	A	4,100	15.4	B
F-68	I-215	Newport Rd to McCall Blvd	2,510	9.9	A	3,380	12.7	B	2,480	9.8	A	3,320	12.5	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,870	11.3	B	4,500	16.9	B	2,780	11.0	A	4,440	16.7	B
F-70	I-215	Ethanac Rd to SR-74	4,150	16.4	B	4,650	17.5	B	4,090	16.1	B	4,590	17.3	B
F-71	I-215	SR-74 to Redlands Ave	3,930	15.7	B	5,780	22.3	C	3,860	15.5	B	5,730	22.0	C
F-86	I-215	Redlands Blvd to D St	4,950	19.7	C	4,330	16.4	B	4,930	19.7	C	4,260	16.1	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,620	14.6	B	6,080	18.3	C	4,610	14.6	B	5,980	18.0	C
F-88	I-215	Nuevo St to Mid-County Pkwy	5,000	15.9	B	5,630	17.1	B	4,970	15.9	B	5,510	16.7	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	7,120	23.2	C	7,270	22.4	C	7,110	23.1	C	7,160	22.0	C
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	6,210	19.9	C	7,170	22.1	C	6,170	19.8	C	7,090	21.8	C
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	6,020	25.0	C	5,580	21.6	C	5,940	24.5	C	5,570	21.6	C
F-92	I-215	Van Buren Blvd to Cactus Ave	5,650	23.1	C	5,410	20.6	C	5,660	23.1	C	5,370	20.5	C
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	4,570	25.7	C	6,420	40.3	**E**	4,560	25.6	C	6,500	40.9	**E**
F-95	I-215	Eucalyptus Ave to SR-60	4,760	27.1	D	6,990	48.0	**F**	4,690	26.6	D	7,060	49.2	**F**
F-74	I-215	Columbia Ave to Center St	4,800	19.6	C	5,420	20.8	C	4,810	19.6	C	5,490	21.1	C
F-75	I-215	Center St to La Cadena Dr	4,180	23.0	C	4,700	24.6	C	4,170	22.9	C	4,860	25.6	C
F-76	I-215	La Cadena Dr to Barton Rd	4,270	23.3	C	4,220	21.6	C	4,280	23.5	C	4,260	21.8	C
F-77	I-215	Barton Rd to Mt. Vernon Ave	4,840	27.9	D	4,920	26.6	D	4,840	27.9	D	4,950	26.8	D
F-78	I-215	Mt. Vernon Ave to I-10	5,370	22.3	C	6,650	26.9	D	5,290	22.1	C	6,700	27.2	D
F-80	I-215	Auto Plaza Dr to Mill St	5,420	21.8	C	11,080	80.0	**F**	5,320	21.4	C	11,160	82.4	**F**
F-83	I-215	Baseline Rd to Highland Ave	3,230	12.9	B	6,230	24.1	C	3,210	12.9	B	6,270	24.3	C
F-52	I-10	SR-60 to Beaumont Ave	5,350	21.7	C	7,510	33.8	D	5,390	21.9	C	7,350	32.7	D
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,360	22.0	C	7,590	35.0	**E**	5,430	22.4	C	7,440	33.9	D
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,530	22.8	C	7,760	36.1	**E**	5,530	22.8	C	7,590	35.0	**E**
F-55	I-10	Highland Springs Ave to Sunset Ave	5,590	23.1	C	7,740	36.3	**E**	5,590	23.3	C	7,640	35.4	**E**
F-56	I-10	Sunset Ave to 22nd St	5,200	16.9	B	7,130	23.4	C	5,190	16.9	B	7,060	23.1	C
F-57	I-10	22nd St to 8th St	5,190	21.3	C	6,910	30.3	D	5,180	21.3	C	6,860	30.0	D
F-58	I-10	8th St to Hargrave St	5,330	22.0	C	7,140	31.9	D	5,320	22.0	C	7,120	31.8	D
F-59	I-10	Hargrave St to Fields Rd	5,350	22.1	C	6,990	30.9	D	5,320	22.0	C	6,980	31.0	D
F-60	I-10	Fields Rd to Morongo Trail	4,800	19.7	C	6,500	27.9	D	4,760	19.5	C	6,530	28.1	D
F-61	I-10	Morongo Trail to Main St	5,040	20.5	C	6,790	29.1	D	4,890	19.8	C	6,800	29.4	D
F-62	I-10	Main St to Haugen-Lehmann Way	4,920	19.8	C	6,420	26.9	D	4,890	19.8	C	6,440	27.2	D
F-64	I-10	SR-111 to Tipton Rd	4,380	17.6	B	5,880	24.1	C	4,340	17.4	B	5,920	24.4	C
F-65	I-10	Tipton Rd to SR-62	4,370	17.6	B	5,930	24.4	C	4,340	17.5	B	5,970	24.6	C

▨ Indicates that the LOS exceeds the target level

Table 65: 2040 Plus Build-out Freeway Mainline LOS (continued)

ID	Freeway	Segment	2040 No-Project Conditions						2040 Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,640	26.3	D	7,610	32.9	D	6,530	25.9	C	7,710	33.9	D
F-3	SR-60	Ramona Ave to Central Ave	6,170	18.9	C	8,050	25.8	C	6,100	18.9	C	8,180	26.5	D
F-4	SR-60	Central Ave to Mountain Ave	6,760	21.4	C	7,730	25.1	C	6,700	21.3	C	7,820	25.6	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,860	21.7	C	8,410	27.9	D	6,810	21.6	C	8,490	28.5	D
F-6	SR-60	Euclid Ave to Grove Ave	7,110	22.0	C	8,950	29.9	D	7,050	22.0	C	9,040	30.6	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,660	20.1	C	10,570	39.8	**E**	6,610	20.0	C	10,690	41.1	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	7,830	25.1	C	10,530	40.3	**E**	7,760	25.0	C	10,640	41.5	**E**
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	7,340	22.4	C	7,830	24.9	C	7,260	22.3	C	7,940	25.5	C
F-11	SR-60	Milliken Ave to I-15	5,460	20.9	C	7,180	29.6	D	5,380	20.6	C	7,330	31.0	D
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,890	14.7	B	6,470	19.8	C	4,780	14.5	B	6,520	20.2	C
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	5,070	19.2	C	7,350	31.1	D	4,970	19.0	C	7,460	32.4	D
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,280	16.3	B	6,330	25.4	C	4,180	16.0	B	6,400	26.1	D
F-15	SR-60	Pedley Rd to Pyrite St	4,300	16.3	B	6,450	26.0	D	4,150	15.9	B	6,510	26.7	D
F-16	SR-60	Pyrite St to Valley Way	4,330	16.5	B	6,110	24.3	C	4,240	16.3	B	6,160	24.8	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,520	23.2	C	6,670	44.2	**E**	4,410	23.0	C	6,660	45.0	**F**
F-18	SR-60	Rubidoux Blvd to Market St	4,700	24.1	C	6,710	43.8	**E**	4,700	24.6	C	6,770	45.7	**F**
F-19	SR-60	Market St to Main St	6,030	35.5	**E**	6,250	38.3	**E**	5,900	34.7	D	6,290	39.9	**E**
F-20	SR-60	Main to SR-91	6,530	40.8	**E**	5,680	32.7	D	6,460	40.8	**E**	5,620	32.6	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,320	36.8	**E**	10,420	42.9	**E**	9,220	37.8	**E**	10,430	45.7	**F**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	8,070	36.0	**E**	10,560	74.6	**F**	8,000	36.1	**E**	10,420	72.2	**F**
F-27	SR-60	I-215 to Day St	4,630	48.4	**F**	4,080	38.2	**E**	4,710	53.7	**F**	3,990	38.7	**E**
F-29	SR-60	Pigeon Pass Rd to Heacock St	5,610	88.2	**F**	3,750	32.7	D	5,680	103.4	**F**	3,580	31.8	D
F-30	SR-60	Heacock St to Perris Blvd	4,380	41.8	**E**	4,020	36.8	**E**	4,510	47.0	**F**	3,790	35.2	**E**
F-31	SR-60	Perris Blvd to Nason St	3,990	20.0	C	3,530	18.2	C	4,090	21.3	C	3,420	18.3	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	4,120	37.1	**E**	3,270	26.8	D	4,180	40.7	**E**	3,160	27.0	D
F-34	SR-60	Redlands Blvd to Theodore St	5,230	28.1	D	3,750	19.4	C	5,250	29.5	D	3,900	21.0	C
F-35	SR-60	Theodore St to Gilman Springs Rd	5,320	20.3	C	3,640	14.1	B	See Weaving Analysis			See Weaving Analysis		
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	3,900	21.3	C	2,860	15.8	B	3,660	19.9	C	2,620	14.9	B
F-37	SR-60	Jack Rabbit Trail to Potero Blvd	4,360	41.8	**E**	3,200	26.1	D	4,100	37.1	**E**	2,970	23.9	C
F-38	SR-60	Potero Blvd to I-10	2,490	18.7	C	2,010	15.5	B	2,430	18.2	C	1,990	15.4	B
F-39	SR-91	I-15 to McKinley St	8,090	36.5	**E**	10,760	88.4	**F**	7,930	35.5	**E**	10,840	91.5	**F**
F-40	SR-91	McKinley St to Pierce St	8,440	93.8	**F**	10,000	> Capacity	**F**	8,290	88.0	**F**	10,050	> Capacity	**F**
F-41	SR-91	Pierce St to Magnolia Ave	8,400	87.6	**F**	9,450	298.6	**F**	8,270	83.4	**F**	9,490	350.8	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	8,190	78.4	**F**	8,980	162.4	**F**	8,060	75.0	**F**	9,010	175.1	**F**
F-43	SR-91	La Sierra Ave to Tyler St	6,970	47.7	**F**	8,520	114.8	**F**	6,840	46.2	**F**	8,520	114.8	**F**
F-44	SR-91	Tyler St to Van Buren Blvd	7,340	30.6	D	9,450	54.8	**F**	7,250	30.2	D	9,440	54.6	**F**
F-45	SR-91	Van Buren Blvd to Adams St	7,820	33.8	D	9,410	54.1	**F**	7,720	33.1	D	9,370	53.5	**F**

Table 65: 2040 Plus Build-out Freeway Mainline LOS (continued)

			2040 No-Project Conditions						2040 Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
ID	Freeway	Segment	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-46	SR-91	Adams St to Madison St	7,710	33.0	D	9,100	49.6	F	7,610	32.3	D	9,060	49.1	F
F-47	SR-91	Madison St to Arlington Ave	8,950	124.0	F	8,460	107.0	F	8,900	119.4	F	8,420	107.0	F
F-49	SR-91	Central Ave to 14th St	6,340	24.9	C	7,390	32.7	D	6,200	24.4	C	7,340	32.4	D
F-50	SR-91	14th St to University Ave	6,340	24.9	C	7,390	32.7	D	6,200	24.4	C	7,340	32.4	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Gambroni Rd	3,570	13.4	B	3,030	11.2	B	3,500	13.1	B	3,000	11.1	B
F-67	I-215	Gambroni Rd to Newport Rd	3,040	11.4	B	2,880	10.7	A	3,000	11.2	B	2,860	10.6	A
F-68	I-215	Newport Rd to McCall Blvd	3,610	13.6	B	4,020	14.9	B	3,530	13.3	B	3,990	14.8	B
F-69	I-215	McCall Blvd to Ethanac Rd	3,610	13.6	B	4,020	14.9	B	3,530	13.3	B	3,990	14.8	B
F-70	I-215	Ethanac Rd to SR-74	4,260	16.0	B	4,460	16.5	B	4,190	15.8	B	4,430	16.4	B
F-71	I-215	SR-74 to Redlands Ave	5,600	21.5	C	4,890	18.3	C	5,530	21.2	C	4,900	18.4	C
F-86	I-215	Redlands Blvd to D St	3,780	14.3	B	3,160	11.8	B	3,730	14.1	B	3,150	11.8	B
F-87	I-215	D St to Nuevo St/Harvil Ave	4,710	14.2	B	3,850	11.5	B	4,650	14.1	B	3,850	11.5	B
F-88	I-215	Nuevo St to Mid-County Pkwy	5,200	15.7	B	5,100	15.3	B	5,160	15.6	B	5,130	15.4	B
F-89	I-215	Mid-Count Pkwy to Ramona Expy	5,960	18.0	C	7,370	22.4	C	5,930	18.0	B	7,430	22.6	C
F-90	I-215	Ramona Expy/Cajalco Expy to Harley Knox Blvd	3,960	12.0	B	6,670	20.0	C	4,010	12.1	B	6,740	20.2	C
F-91	I-215	Harley Knox Blvd to Van Buren Blvd	5,090	19.8	C	7,880	33.4	D	5,170	20.1	C	7,960	34.0	D
F-92	I-215	Van Buren Blvd to Cactus Ave	5,260	20.0	C	7,460	30.6	D	5,330	20.3	C	7,510	30.9	D
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	7,200	51.1	F	6,070	35.5	E	7,290	52.7	F	6,070	35.5	E
F-95	I-215	Eucalyptus Ave to SR-60	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-74	I-215	Columbia Ave to Center St	6,810	28.3	D	5,510	21.2	C	6,790	28.2	D	5,510	21.2	C
F-75	I-215	Center St to La Cadena Dr	7,710	65.1	F	6,040	35.2	E	7,700	64.8	F	6,030	35.4	E
F-76	I-215	La Cadena Dr to Barton Rd	6,750	45.2	F	5,360	28.9	D	6,830	46.5	F	5,320	28.6	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	6,160	36.9	E	5,720	31.9	D	6,260	38.0	E	5,680	31.6	D
F-78	I-215	Mt. Vernon Ave to I-10	6,830	27.7	D	4,770	18.0	C	6,900	28.1	D	4,730	17.9	B
F-80	I-215	Auto Plaza Dr to Mill St	7,940	34.1	D	6,220	23.9	C	7,990	34.5	D	6,170	23.6	C
F-83	I-215	Baseline Rd to Highland Ave	6,740	26.7	D	4,470	16.6	B	6,780	26.9	D	4,470	16.6	B
F-52	I-10	SR-60 to Beaumont Ave	8,010	45.2	F	6,300	25.2	C	7,920	44.0	E	6,250	24.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	7,990	45.4	F	6,200	25.0	C	7,920	44.5	E	6,180	24.9	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	8,510	53.0	F	6,240	25.2	C	8,420	51.6	F	6,250	25.2	C
F-55	I-10	Highland Springs Ave to Sunset Ave	7,990	45.4	F	5,950	23.9	C	7,960	45.5	F	5,970	23.9	C
F-56	I-10	Sunset Ave to 22nd St	7,630	28.4	D	5,770	18.0	B	7,630	28.4	D	5,790	18.0	C
F-57	I-10	22nd St to 8th St	7,560	40.7	E	5,510	21.8	C	7,550	40.6	E	5,460	21.7	C
F-58	I-10	8th St to Hargrave St	7,680	42.1	E	5,760	22.9	C	7,700	42.3	E	5,690	22.7	C
F-59	I-10	Hargrave St to Fields Rd	7,400	39.1	E	5,610	22.4	C	7,420	39.6	E	5,340	21.1	C
F-60	I-10	Fields Rd to Morongo Trail	6,980	35.3	E	5,090	20.1	C	7,030	35.8	E	5,160	20.4	C
F-61	I-10	Morongo Trail to Main St	6,860	33.8	D	5,710	22.4	C	6,930	34.3	D	5,780	22.8	C
F-62	I-10	Main St to Haugen-Lehmann Way	6,450	30.8	D	5,530	21.5	C	6,530	31.4	D	5,350	20.7	C
F-64	I-10	SR-111 to Tipton Rd	5,780	26.2	D	5,590	21.8	C	5,850	26.8	D	5,540	21.7	C
F-65	I-10	Tipton Rd to SR-62	5,820	26.6	D	5,600	21.9	C	5,890	27.0	D	5,550	21.8	C

▨ Indicates that the LOS exceeds the target level

Table 66: 2040 Plus Build-out Freeway Mainline Impacts and Mitigations

			Northbound / Eastbound												
ID	Freeway	Segment	Determination of Impact					2040 Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-2	SR-60	Reservoir St to Ramona Ave	**E**	**F**	D	D	Yes	8,380	30.3	D	7,110	23.3	C	Add 1 mixed flow lane
F-3	SR-60	Ramona Ave to Central Ave	**E**	**E**	D	D	Yes	10,340	29.4	D	9,860	25.9	C	Add 1 mixed flow lane
F-5	SR-60	Mountain Ave to Euclid Ave	**E**	**E**	D	D	Yes	9,860	27.5	D	8,680	22.1	C	Add 1 mixed flow lane
F-6	SR-60	Euclid Ave to Grove Ave	D	**E**	D	D	Yes	9,670	26.7	D	8,370	21.2	C	Add 1 mixed flow lane
F-17	SR-60	Valley Way to Rubidoux Blvd	**E**	**E**	D	D	Yes	6,340	26.3	D	5,200	19.7	C	Add 1 mixed flow lane
F-18	SR-60	Rubidoux Blvd to Market St	**E**	**E**	D	D	Yes	6,190	25.5	C	5,320	20.2	C	Add 1 mixed flow lane
F-19	SR-60	Market St to Main St	**E**	**F**	D	D	Yes	6,590	27.7	D	5,590	21.5	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	**F**	**F**	**F**	**F**	Yes	12,730	82.9	**F**	11,050	48.7	**F**	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	D	D	**F**	**F**	Yes	3,530	19.4	C	5,200	28.7	D	Add 1 mixed flow lane
F-30	SR-60	Heacock St to Perris Blvd	D	D	**E**	**E**	Yes	3,520	19.1	C	4,150	21.4	C	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	**E**	**F**	**F**	**F**	Yes	6,880	27.6	D	6,490	27.3	D	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**F**	**F**	**F**	**F**	Yes	8,340	38.3	**E**	8,240	41.0	**E**	Add 1 mixed flow lane
F-43	SR-91	La Sierra Ave to Tyler St	**E**	**E**	**E**	**E**	Yes	8,790	28.7	D	8,300	28.2	D	Add 1 mixed flow lane
F-44	SR-91	Tyler St to Van Buren Blvd	**E**	**E**	**F**	**F**	Yes	8,810	28.6	D	9,040	31.9	D	Add 1 mixed flow lane
F-46	SR-91	Adams St to Madison St	**F**	**F**	**F**	**F**	Yes	8,760	42.6	**E**	9,910	65.2	**F**	Add 1 mixed flow lane
F-49	SR-91	Central Ave to 14th St	**F**	**F**	**E**	**E**	Yes	6,970	29.7	D	6,420	27.3	D	Add 1 mixed flow lane
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	C	C	**E**	**E**	Yes	4,560	18.4	C	6,500	25.7	C	Add 1 mixed flow lane
F-95	I-215	Eucalyptus Ave to SR-60	D	D	**F**	**F**	Yes	4,690	18.9	C	7,060	28.8	D	Add 1 mixed flow lane
F-80	I-215	Auto Plaza Dr to Mill St	C	C	**F**	**F**	Yes	5,320	16.9	B	11,160	42.6	**E**	Add 1 mixed flow lane

			Southbound / Westbound											
ID	Freeway	Segment	Determination of Impact					2040 Plus Project & Mitigations						Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			AM Peak Hour		PM Peak Hour		Project Impact?	AM Peak Hour			PM Peak Hour			
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS		Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
F-7	SR-60	Grove Ave to Vineyard Ave	C	C	**E**	**E**	Yes	6,610	16.6	B	10,690	29.9	D	Add 1 mixed flow lane
F-8	SR-60	Vineyard Ave to Archibald Ave	C	C	**E**	**E**	Yes	7,760	20.2	C	10,640	30.1	D	Add 1 mixed flow lane
F-17	SR-60	Valley Way to Rubidoux Blvd	C	C	**E**	**F**	Yes	4,410	16.8	B	6,660	27.3	D	Add 1 mixed flow lane
F-18	SR-60	Rubidoux Blvd to Market St	C	C	**E**	**F**	Yes	4,700	17.8	B	6,770	27.6	D	Add 1 mixed flow lane
F-19	SR-60	Market St to Main St	**E**	D	**E**	**E**	Yes	5,900	23.1	C	6,290	25.3	C	Add 1 mixed flow lane
F-24	SR-60	Martin Luther King Blvd to Central Ave	**E**	**E**	**E**	**F**	Yes	9,220	28.2	D	10,430	32.3	D	Add 1 mixed flow lane
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	**E**	**E**	**F**	**F**	Yes	8,000	25.7	C	10,420	39.8	**E**	Add 1 mixed flow lane
F-27	SR-60	I-215 to Day St	**F**	**F**	**E**	**E**	Yes	4,710	25.7	C	3,990	21.5	C	Add 1 mixed flow lane
F-29	SR-60	Pigeon Pass Rd to Heacock St	**F**	**F**	D	D	Yes	5,680	33.1	D	3,580	19.0	C	Add 1 mixed flow lane
F-30	SR-60	Heacock St to Perris Blvd	**E**	**F**	**E**	**E**	Yes	4,510	24.0	C	3,790	20.3	C	Add 1 mixed flow lane
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	**E**	**E**	D	D	Yes	4,180	22.2	C	3,160	17.0	B	Add 1 mixed flow lane
F-39	SR-91	I-15 to McKinley St	**E**	**E**	**F**	**F**	Yes	7,930	25.4	C	10,840	44.8	**E**	Add 1 mixed flow lane
F-40	SR-91	McKinley St to Pierce St	**F**	**F**	**F**	**F**	Yes	8,290	38.5	**E**	10,050	68.4	**F**	Add 1 mixed flow lane
F-41	SR-91	Pierce St to Magnolia Ave	**F**	**F**	**F**	**F**	Yes	8,270	37.7	**E**	9,490	55.4	**F**	Add 1 mixed flow lane
F-42	SR-91	Magnolia Ave to La Sierra Ave	**F**	**F**	**F**	**F**	Yes	8,060	35.9	**E**	9,010	48.4	**F**	Add 1 mixed flow lane
F-94	I-215	Alessandro Blvd to Eucalyptus Ave	**F**	**F**	**E**	**E**	Yes	7,290	30.0	D	6,070	23.4	C	Add 1 mixed flow lane
F-75	I-215	Center St to La Cadena Dr	**F**	**F**	**E**	**E**	Yes	7,700	33.5	D	6,030	23.4	C	Add 1 mixed flow lane
F-76	I-215	La Cadena Dr to Barton Rd	**F**	**F**	D	D	Yes	6,830	27.9	D	5,320	20.0	C	Add 1 mixed flow lane
F-77	I-215	Barton Rd to Mt. Vernon Ave	**E**	**E**	D	D	Yes	6,260	24.5	C	5,680	21.6	C	Add 1 mixed flow lane
F-55	I-10	Highland Springs Ave to Sunset Ave	**F**	**F**	C	C	Yes	7,960	30.2	D	5,970	18.6	C	Add 1 mixed flow lane
F-58	I-10	8th St to Hargrave St	**E**	**E**	C	C	Yes	7,700	28.8	D	5,690	17.8	B	Add 1 mixed flow lane
F-59	I-10	Hargrave St to Fields Rd	**E**	**E**	C	C	Yes	7,420	27.5	D	5,340	16.7	B	Add 1 mixed flow lane
F-60	I-10	Fields Rd to Morongo Trail	**E**	**E**	C	C	Yes	7,030	25.6	C	5,160	16.2	B	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Weaving LOS

Table 67 compares the LOS for study weaving sections under the 2040 No-Project and the 2040 Plus Build-out Scenarios. Table 68 shows where significant impacts would occur. As shown in the table, there are 14 sections where the project would have a significant impact. In 13 of the 14 sections the LOS would be deficient under the 2025 No-Project Scenario; the Project's impact is that it would add to a problem that would occur even without the Project. The impacts would occur at:

North or Eastbound

- SR-60 from SR-71/Garey Ave. to Reservoir St.
- SR-60 from Main St. to SR-91
- SR-60 from SR-91 to Blaine St./3rd St.
- SR-60 from Blaine St/3rd St. to University Ave.
- SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.
- SR-60 from I-215 to Day St.
- SR-60 from Day St. to Pigeon Pass Rd./Frederick St.
- SR-91 from Magnolia Ave. to La Sierra Ave.
- I-215 from SR-60 to Columbia Ave.
- I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.

Southbound or Westbound

- SR-60 from Haven Ave. to Archibald Ave.
- SR-60 from Day St. to Pigeon Pass Rd./Frederick St.
- SR-91 from Arlington Ave. to Central Ave.
- I-215 from SR-60 to Columbia Ave

Table 68 identifies mitigation measures that would reduce the impact of the WLC project to a less-than-significant level. In 7 of the cases adding a mixed-flow lane would achieve the target LOS. In the other 7 sections with significant impacts, adding a mixed-flow lane would reduce vehicle density (on which LOS is based) to less than would occur in the 2040 No Project scenario, so this measure would reduce the impact of the WLC project to a less-than-significant level.

The mitigation measures shown in Table 68 are those that would be needed to reduce the impact of the project to a less-than-significant level. While these measures are feasible in the sense that, if they could be constructed, they would mitigate the Project's impacts, this does not necessarily mean that they pass other tests of feasibility. The physical and financial feasibility of these mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 67: 2040 Plus Build-out Freeway Weaving Section LOS

ID	Freeway	Weaving Segment	2040 No-Project Conditions						2040 Plus Project Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	7,600	35	D	7,780	32	D	7,770	36	**E**	7,670	31	D
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	8,310	> Capacity	**F**	7,050	34.3	D	8,530	>Capacity	**F**	6,750	33.0	D
W-21	SR-60	SR-91 to Blaine St/3rd St	9,280	43.9	**F**	10,780	> Capacity	**F**	9,300	44.0	**F**	10,770	> Capacity	**F**
W-22	SR-60	Blaine St/3rd St to University Ave	9,310	40.0	**E**	8,830	37.9	**E**	9,250	39.9	**E**	8,850	38.1	**E**
W-23	SR-60	University Ave to Martin Luther King	9,290	38.6	**E**	8,790	33.4	D	9,280	38.6	**E**	8,830	33.9	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	9,310	41.4	**E**	9,510	39.6	**E**	9,300	>Capacity	**F**	9,500	41.1	**E**
W-27	SR-60	I-215 to Day St	4,380	18.4	B	11,050	> Capacity	**F**	4,410	18.6	B	11,100	> Capacity	**F**
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	4,340	20.5	C	8,460	> Capacity	**F**	4,270	20.3	C	8,540	> Capacity	**F**
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-35	SR-61	Theodore St to Gilman Springs Rd	See Basic Analysis			See Basic Analysis			2,970	19.6	B	5,090	34.5	D
W-42	SR-91	Magnolia Ave to La Sierra Ave	8,730	42.1	**E**	8,150	42.0	**E**	8,730	42.3	**E**	8,110	41.8	**E**
W-48	SR-91	Arlington Ave to Central Ave	7,270	28.3	D	5,420	21.2	C	7,170	28.0	C	5,450	21.6	C
W-51	SR-91	SR-60 to Mission Inn Ave/University	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-93	I-215	Cactus Ave to Alessandro Blvd	5,020	28.6	D	6,810	34.2	D	4,980	28.5	D	6,840	34.3	D
W-95	I-215	Eucalyptus Ave to SR-60	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	2,980	15.5	B	3,510	> Capacity	**F**	3,000	>Capacity	**F**	3,590	> Capacity	**F**
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,220	23.8	C	11,140	> Capacity	**F**	6,160	23.6	C	11,160	> Capacity	**F**
W-81	I-215	Mill St to 2nd St	5,950	22.7	C	8,720	33.8	D	5,880	22.4	C	8,710	33.9	D
W-82	I-215	5th St to Baseline Rd	4,260	12.8	B	8,570	27.6	C	4,220	12.7	B	8,590	27.7	C
W-63	I-10	Haugen-Lehmann Way to SR-111	5,210	19.0	B	6,840	25.5	C	5,170	18.8	B	6,890	25.8	C

▨ Indicates that the LOS exceeds the target level

Table 67: 2040 Plus Build-out Freeway Weaving Section LOS (continued)

ID	Freeway	Weaving Segment	2040 No-Project Conditions						2040 Plus Project Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,210	18.8	B	7,520	28.2	D	5,100	18.5	B	7,660	28.9	D
W-9	SR-60	Haven Ave to Archibald Ave	6,680	27.5	C	9,660	45.6	**F**	6,600	27.3	C	9,760	46.3	**F**
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,880	27.0	C	8,630	35.3	**E**	6,830	27.1	C	8,540	35.3	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	7,640	27.0	C	8,960	34.2	D	7,600	27.1	C	8,860	33.8	D
W-23	SR-60	University Ave to Martin Luther King	9,120	>Capacity	**F**	10,580	> Capacity	**F**	9,050	> Capacity	**F**	10,500	>Capacity	**F**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	9,130	>Capacity	**F**	10,340	> Capacity	**F**	9,020	> Capacity	**F**	10,330	>Capacity	**F**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick	5,380	37.9	**E**	4,090	27.1	C	5,470	39.4	**E**	3,960	26.5	C
W-32	SR-60	Moreno Beach Dr to Nason St	3,790	21.9	C	3,020	> Capacity	B	3,910	23.3	C	2,950	17.3	B
W-35	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			4,590	30.2	D	3,470	22.8	C
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	8,130	39.6	**E**	7,400	38.7	**E**	8,090	39.6	**E**	7,370	38.9	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University	10,440	42.3	**E**	12,850	> Capacity	**F**	10,420	42.2	**E**	12,770	>Capacity	**F**
W-93	I-215	Cactus Ave to Alessandro Blvd	7,270	34.3	D	6,560	29.6	D	7,370	35.0	D	6,540	29.5	D
W-95	I-215	Eucalyptus Ave to SR-60	8,020	29.4	D	6,700	25.5	C	8,160	30.2	D	6,650	25.5	C
W-73	I-215	SR-60 to Columbia Ave	7,950	>Capacity	**F**	6,920	> Capacity	**F**	7,880	> Capacity	**F**	6,930	>Capacity	**F**
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	7,840	28.1	D	6,360	22.8	C	7,870	28.2	D	6,300	22.5	C
W-81	I-215	Mill St to 2nd St	9,180	33.4	D	7,050	25.5	C	9,210	33.5	D	7,030	25.4	C
W-82	I-215	5th St to Baseline Rd	9,170	31.1	D	6,310	20.2	C	9,210	31.3	D	6,290	20.2	C
W-63	I-10	Haugen-Lehmann Way to SR-111	6,630	29.2	D	6,660	> Capacity	**F**	6,710	29.8	D	6,590	>Capacity	**F**

▨ Indicates that the LOS exceeds the target level

Table 68: 2040 Plus Build-out Freeway Weaving Impacts and Mitigations

			Northbound / Eastbound											
ID	Freeway	Weaving Segment	Determination of Impact					2040 Plus Project & Mitigations						
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
W-1	SR-60	SR-71/Garey Ave to Reservoir St	D	E	D	D	Yes	7,770	29.1	D	7,670	25.5	C	Add 1 mixed flow lane
W-20	SR-60	Main St to SR-91	F	F	D	D	Yes	8,530	34.4	D	6,750	25.7	C	Add 1 mixed flow lane
W-21	SR-60	SR-91 to Blaine St/3rd St	F	F	F	F	Yes	9,300	35.7	E	10,770	42.6	E	Add 1 mixed flow lane
W-22	SR-60	Blaine St/3rd St to University Ave	E	E	E	E	Yes	9,250	32.3	D	8,850	30.9	D	Add 1 mixed flow lane
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	E	F	E	E	Yes	9,300	34.1	D	9,500	33.4	D	Add 1 mixed flow lane
W-27	SR-60	I-215 to Day St	B	B	F	F	Yes	4,410	15.4	B	11,100	44.0	F	Add 1 mixed flow lane
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	C	C	F	F	Yes	4,270	16.1	B	8,540	> Capacity	F	Add 1 mixed flow lane
W-42	SR-91	Magnolia Ave to La Sierra Ave	E	E	E	E	Yes	8,730	32.7	D	8,110	32.4	D	Add 1 mixed flow lane
W-73	I-215	SR-60 to Columbia Ave	B	F	F	F	Yes	3,000	> Capacity	F	3,590	> Capacity	F	Add 1 mixed flow lane
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	C	C	F	F	Yes	6,160	19.4	B	11,160	36.5	E	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

			Southbound / Westbound											
ID	Freeway	Weaving Segment	Determination of Impact					2040 Plus Project & Mitigations						
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			Mitigation Measures Required to Reduce Impact to Less-Than-Significant
			No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	
W-9	SR-60	Haven Ave to Archibald Ave	C	C	F	F	Yes	6,600	22.4	C	9,760	37.4	E	Add 1 mixed flow lane
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	E	E	C	C	Yes	5,470	28.5	D	3,960	19.4	B	Add 1 mixed flow lane
W-48	SR-91	Arlington Ave to Central Ave	E	E	E	E	Yes	8,090	30.6	D	7,370	30.2	D	Add 1 mixed flow lane
W-73	I-215	SR-60 to Columbia Ave	F	F	F	F	Yes	7,880	> Capacity	F	6,930	> Capacity	F	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

Freeway Ramp LOS

Table 69 compares the freeway ramp level of service on SR-60 under the 2040 No-Project and the 2040 Plus Build-out Scenarios. Three ramps would operate at below LOS “D” under the 2040 Plus Build-out Scenario, and in each case the ramps would have operated at worse than “D” even without the Project (i.e. in the 2040 No Project Scenario). These locations are:

- SR-60 eastbound on-ramp from Martin Luther King Boulevard (AM, PM)
- SR-60 westbound off-ramp to Central Avenue (AM, PM)
- SR-60 westbound off-ramp to Martin Luther King Boulevard (AM, PM)

Table 70 shows where the Project would have a significant impact. As shown in the table, there is one ramp where the project would have a significant impact. The mitigation measure shown in Table 70 would reduce the impact of the project to a less-than-significant level. While that measure is feasible in the sense that if it was constructed then it would achieve the target LOS, this does not necessarily mean that it passes other tests of feasibility. The physical and financial feasibility of mitigation measures and the means to fund them are discussed in greater depth in Chapter 11.

Table 69: 2040 Plus Build-out Freeway Ramp LOS

				2040 No-Project Conditions								2040 Plus Project Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	12,160	540	65.9	**F**	9,630	1,400	47.6	**F**	12,170	560	65.9	**F**	9,660	1,390	47.6	**F**
R-2	SR-60 EB	On-Ramp from Central Ave	1	8,290	1,020	25.7	C	8,220	1,290	25.9	C	8,310	990	25.5	C	8,240	1,260	25.9	C
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,960	460	10.2	B	3,790	520	14.6	B	2,750	380	10.1	B	3,760	530	14.6	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	2,970	110	17.3	B	5,100	270	26.7	C	3,160	130	17.4	B	5,020	300	26.8	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	2,970	110	21.4	C	4,410	960	32.7	D	3,080	210	21.8	C	4,420	900	32.5	D
R-6	SR-60 EB	Off-Ramp to Theodore St	1	3,080	240	21.8	C	5,370	90	29.9	D	3,290	650	22.8	C	5,320	700	31.1	D
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,980	140	13.1	B	5,400	300	23.2	C	2,880	90	12.9	B	5,050	40	22.5	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	3,120	1,010	14.8	B	5,700	1,690	25.5	C	See Weaving Analysis				See Weaving Analysis			
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,990	110	13.3	B	3,870	310	22.5	C	1,900	100	13.3	B	3,630	310	22.5	C
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	3,900	140	24.5	C	2,860	550	20.1	C	3,660	310	24.8	C	2,620	450	19.9	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	3,940	1,380	23.5	C	2,430	1,210	17.6	B	See Weaving Analysis				See Weaving Analysis			
R-13	SR-60 WB	Off-Ramp to Theodore St	1	5,320	420	18.2	B	3,640	160	12.7	B	See Weaving Analysis				See Weaving Analysis			
R-14	SR-60 WB	On-Ramp from Theodore St	1	4,900	330	27.8	C	3,490	260	21.4	C	4,260	990	30.2	D	3,140	760	23.1	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	5,230	870	22.3	C	3,750	600	16.1	B	5,250	810	22.2	C	3,900	710	16.4	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	4,000	120	21.1	C	3,140	130	16.4	B	4,060	120	21.1	C	3,030	130	16.4	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	3,850	270	25.6	C	2,960	310	21.1	C	3,900	280	25.7	C	2,850	310	21.1	C
R-18	SR-60 WB	Off-Ramp to Central Ave	2	9,130	770	13.7	**F**	10,340	610	27.3	**F**	9,020	810	13.7	**F**	10,330	590	27.3	**F**
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	9,320	920	33.0	**F**	10,420	1,270	41.8	**F**	9,220	900	32.9	**F**	10,430	1,240	41.8	**F**

▨ Indicates that the LOS exceeds the target level

Table 70: 2040 Plus Build-out Freeway Ramp Impacts and Mitigations

				Determination of Impact					2040 Plus Project & Mitigations								
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	No-Project LOS	Plus Project LOS	No-Project LOS	Plus Project LOS	Project Impact?	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mitigation Measures Required to Reduce Impact to Less-Than-Significant
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	**F**	**F**	**F**	**F**	Yes	12,170	560	46.4	**E**	9,660	1,390	34.1	D	Add 1 mixed flow lane

▨ Indicates that the LOS exceeds the target level

11. MITIGATION MEASURES

The results of the traffic analysis indicate the proposed project would have some level of impact on the local and regional roadway system. The greatest impact by number of locations would occur under the 2040 Plus Build-out Scenario. This chapter discusses the mitigation measures that would be needed to reduce the impact of the project to a less-than-significant level. The discussion includes the fee programs relevant to the WLC, the methodology used to determine project impacts, and policy considerations regarding possible mitigations. The objective of each recommended measure is to allow the road or intersection to achieve the target level of service under the 2040 Plus Build-out Plus Mitigations Scenario or, where that is not feasible, to improve the level of service at the impacted locations to a level not worse than under the No-Project Scenario.

As set forth in greater detail below, in some circumstances mitigation is infeasible and so project impacts cannot be mitigated to less than significant levels. In such cases a statement of overriding considerations should be considered in accordance with City of Moreno Valley General Plan Policy 5.3.7 which reads:

> "*Provide consideration to projects that have overriding regional or local benefits that would be desirable even though the LOS standards cannot be met. These projects would be required to analyze traffic impacts and mitigate such impacts to the extent that it is deemed feasible*."

A. THE TUMF PROGRAM

In 1988 the voters of Riverside County approved Measure A, a half-cent sales tax to fund transportation projects. In 2002 voters approved a 20-year extension of Measure A, this time including a Transportation Uniform Mitigation Fee or TUMF. The rationale behind TUMF was that having a single uniform fee program to mitigate the cumulative regional impacts of new development on the area's arterial highway system would be more effective than having multiple, and potentially uncoordinated, fee programs with varying policies, fee amounts and project lists. Under the TUMF, developers of residential, industrial, and commercial properties pay a development fee to fund transportation projects that will be required as a result of the growth the projects create. The program is recognition by voters that residents and employees in all of western Riverside County's jurisdictions benefit from arterials located not just in their own city, but also in nearby cities as well.

The TUMF program is designed to provide a network of roads, bridges, interchanges and railroad grade separations, known as the Regional System of Highways and Arterials (RSHA), needed to accommodate future growth in the area through 2040. The RSHA was developed by the Public Works Directors of the WRCOG member jurisdictions. A "Nexus Study" was then prepared in accordance with the California Mitigation Fee Act, which requires that a reasonable relationship exist between the impact fee collected and the proposed improvements for which a fee is used. The study determined the proportion of the cost of the improvements that should be borne by different types of development based on the trip generating characteristics of each land use type. The Nexus Study was updated in 2016 and the RSHA was revised to reflect the most current transportation needs and costs for western Riverside County. The new RSHA network reflected several changes due to completed projects and recommendations from the WRCOG Public Works Committee (PWC) to better represent the transportation needs of western Riverside County.

TUMF is administered by the Western Riverside Council of Governments (WRCOG). As administrator, WRCOG receives all fees generated from the TUMF as collected by the local jurisdictions. TUMF funds are programmed by WRCOG's partner agencies, which are responsible for prioritizing projects and overseeing their development.

The TUMF program uses six categories of land uses; two residential and four non-residential. The two residential types are single-family residential and multi-family residential. Non-residential categories include industrial, retail, service commercial, and high-cube warehouse, with fees being assessed at different rates depending on the category. The high-cube warehouses in the WLC would fall into the "high-cube" category of non-residential development. Based on the current formula for calculating fees, if the WLC builds out as planned the developer would pay $34 million in TUMF fees.

TUMF fees are collected when a development reaches the building permit stage. TUMF revenues are allocated as follows[53]:

- 46.39 percent is allocated for regional improvements. These revenues are programmed by the RCTC pursuant to an agreement with WRCOG.
- 46.39 percent is allocated to the geographic zone from which the fees are collected. Project prioritization and programming are undertaken by the jurisdictions in each of the five zones.
- 1.64 percent is allocated for regional transit projects. WRCOG administers the funds on behalf of the Riverside Transit Agency which prioritizes and programs capital transit projects.
- 1.59 percent is allocated to the Multiple Species Habitat Conservation Plan (MSHCP)
- 4.00% is used for program administration.

Since its inception TUMF has collected more than $686 million in revenues, making it the largest multi-jurisdictional fee program in the nation. It has completed 85 projects[54] with several dozen more under development. The projects successfully funded by the program include a variety of road widening, intersection improvements, and freeway interchanges, including:

- Widening Pigeon Pass Rd. from 2 lanes to 4 lanes from Climbing Rose Dr. to Hidden Springs Dr.
- Widening the Ramona Expressway from 2 lanes to 6 lanes from I-215 to Evans Rd.
- Improvements to the Ironwood Ave./Moreno Beach Dr. Intersection
- Improvements to the Ironwood Ave./Nason St. intersection
- Adding a northbound lane to Lasselle St. from John F Kennedy Dr. to Alessandro Blvd.
- Widening Oleander Ave. from Perris Blvd to Indian Ave.
- The Van Buren Blvd./SR-91 Interchange project
- Widening State St. in Hemet from 2 to 4 lanes with a center turn lane
- Widening Sanderson Ave. from Menlo to Ramona Expressway

This track record of success is a key reason to believe that TUMF projects have a good probability of being implemented. Between now and 2040, when the program is scheduled for completion, the TUMF Program is forecasted to provide $2.9 billion towards a total of $3.7 billion in arterial road, bridge, intersection and interchange improvements in western Riverside County[55].

B. THE DIF PROGRAM

The City of Moreno Valley's Development Impact Fee (DIF) program is used to fund road and intersection improvements needed to accommodate new residential, commercial, and industrial development. The program collects fees from three categories of residential development (single-family, multi-family, and mobile homes) and five categories of commercial development (general commercial, regional commercial, general industrial, high-cube warehouse, and office) based on their respective trip generating characteristics. In many cases developers dedicate right-of-way and/or construct improvements that are part of the TUMF or DIF programs in lieu of paying the fees. These facilities are typically part of a project's direct frontage or are necessary to accommodate traffic needs in the immediate area of the project. DIF

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[53] *Transportation Uniform Mitigation Fee Program, 2016 Annual Report*, WRCOG

[54] T*ransportation Uniform Mitigation Fee Program, 85 Projects and Counting* …, WRCOG, 2015

[55] *Transportation Uniform Mitigation Fee Nexus Study 2016 Update*, WSP for WRCOG. The TUMF program is one of several sources used to fund improvements.

fees on high-cube warehouses are currently set at $1.016 per square foot, which means that the WLC would more than $41 million in DIF fees if the project builds out and is required to pay DIF[56].

DIF funds are overseen by the City's Public Works Department. Department staff monitor traffic volumes and periodically develop a Capital Improvement Program (CIP) for use of the funds. The CIP is reviewed and approved by the city council. Examples of projects successfully completed using DIF funds include:

- Iris Ave. from Indian St. to Perris Blvd.
- Lasselle St./Bay Ave. traffic signal
- Lasselle St./Cottonwood Ave. traffic signal
- Cactus Ave. eastbound improvements from I-215 to Veterans Way

This track record of success is a key reason to believe that DIF projects have a good probability of being implemented. The DIF program supplements the TUMF program by funding elements of the City's General Plan Circulation Element not covered by TUMF, and in some projects by providing funds for additional capacity beyond what the TUMF project will provide. DIF and TUMF are routinely used in combination with other funding sources so that the inability of any single source to fund an entire project does not prevent the project from being implemented. Table 71 shows a sample of projects from Moreno Valley's Capital Improvement Program that used DIF and/or TUMF funds in combination with other funding sources.

Table 71: Projects Using DIF and TUMF in Combination with Other Funding Sources

Project	DIF Funds	TUMF Funds	Other Funds	Sources of Other Funds
Iron Avenue / Heacock Street to Perris Boulevard	$1,509,420	$72,413	$57,358	2005 Lease Revenue Bonds
Nason Street / Cactus Avenue Street Improvements	$9,272,000		$15,910,845	Measure "A"; State-Local Partnership Program; General Fund; General City C.P.; Successor Agency Tax Revenue; Redevelopment Agency Cap. Proj.; Eastern Municipal Water District; Riverside County Flood Control; 2007 Taxable Lease Revenue Bonds
SR-60 / Moreno Beach Drive South Side of Interchange (Phase 1)		$3,500,000	$6,110,735	Successor Agency; Redevelopment Agency
SR-60 / Nason Street Interchange	$740,000		$13,285,777	Measure "A"; Federal Demonstration Funds; Demo Toll Credit - Const.; Surface Transportation Program Local (construction); Surface Transportation Program Local Toll Credit - Const.
Heacock Street South Extension		$300,000	$564,172	Measure "A"
Emergency Vehicle Pre-emption at 117 Traffic Signals	$93,534		$840,000	Highway Safety Improvement Program
Nason Street / Riverside County Regional Medical Center Main Driveway Traffic Signal	$250,000		$50,000	Measure "A"
Transportation Management Center	$316,578		$214,646	Air Quality Management
Lasselle Street / John F. Kennedy Drive to Alessandro Boulevard		$2,757,886	$1,058,143	2005 Lease Revenue Bonds
Kitching Street / Alessandro Boulevard to Gentian Avenue	$11,903		$1,639,854	2005 Lease Revenue Bonds
Pigeon Pass Road Widening / Climbing Rose Drive to North City Limits	$462,239	$679,953	$22,664	Measure "A"
Total	$12,655,674	$7,310,252	$39,754,194	
Percentage of Total	21%	12%	67%	

The DIF program has been updated several times, most recently in October 2012, to reflect changes in priorities as development occurs in different parts of the city.

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[56] Section 4.8 of the Development Agreement requires Highland Fairview to fully fund or construct all needed improvements within Moreno Valley in lieu of paying the traffic DIF. However, if the court sets aside the Development Agreement then Highland Fairview would pay into DIF.

C. METHODOLOGY FOR DETERMINING IMPACTS

The potential impacts of the project were classified as either direct impacts or cumulative impacts. A direct impact of the project is one that would occur if the proposed project was the only change from existing conditions. A cumulative impact is defined in the CEQA Guidelines, Section 15355 as, “an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.” Both types of impacts can be either significant or less-than-significant depending on whether or not they result in traffic conditions that exceed the threshold of significance set by the agency that has jurisdiction over the road in question. For example, if a road was subject to a threshold of significance of LOS “D”, and the proposed project would by itself cause the LOS to change from “B” to “C”, then the direct impact would be less-than-significant. If the addition of other past, present, and reasonably foreseeable future projects would result in LOS “E”, then the cumulative impact of the project would be significant.

The methodology used to identify mitigation measures included:

1) Determining whether the LOS exceeded the target threshold in the Plus Build-out scenario.
2) If so, then determining whether the LOS under the Plus Build-out Scenario was better than the LOS under the No-Project Scenario. Some study intersections and freeway segments were found to exceed the threshold of significance under the Plus Build-out Scenario but the traffic density was better under the Plus Build-out Scenario than the No-Project Scenario. This would happen because detailed computer modeling shows that the project would cause some commuters to switch from the peak direction to the off-peak direction, thus reducing congestion at some locations (see Figure 33 and Figure 34). The project’s impacts were considered significant only when the Plus Build-out Scenario was worse than the No-Project Scenario.
3) If the project had a significant impact, capacity-increasing improvements were then added incrementally until the LOS was within the target threshold of significance.
4) For cumulative projects, determining whether the mitigations could be funded as part of an established fee program such as TUMF. If so, then Payment into the TUMF program could constitute mitigation of impacts to the TUMF facilities.
5) For improvements that would not be funded from an established fee program the project’s fair-share contribution was computed as the Project’s share of horizon-year traffic using the facility, computed in PCEs. This formula thus takes into account the effect of WLC at full build-out, including the effect of WLC-related trucks. Where there were significant impacts in both the AM and PM peak periods, the period with the higher share of project traffic was used to determine the fair-share contribution.

Potential mitigation measures were analyzed to determine whether they were feasible or not. Improvements were deemed to be infeasible if they would require the acquisition of existing homes or businesses, if they would result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or would create safety impacts that could be considered less acceptable than a reduced traffic LOS. In cases where feasibility is uncertain, the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities (i.e. “conservative” in the sense that the project’s responsibilities would not be under-estimated).

In cases where a proposed modification to an existing intersection would result in the elimination of an existing bus stop or bicycle lane the proposed mitigation would include the replacement of the bicycle lane or bus stop even if not explicitly stated. This is also true of the replacement of existing curbs, gutters, sidewalks, lights, and other existing design features.

D. FORMAT FOR REPORTING IMPACTS

The remainder of the chapter is devoted to reporting project impacts and mitigation measures. The situation for each impacted facility is discussed in the text and the results are summarized in Table 72 through Table 77. These tables all follow a similar format which includes the following data fields (columns):

(A) This field identifies the location of the impact.

(B) This field identifies which agency has jurisdiction over the facility in question.

(C) This field shows the agency's target LOS for the facility in question.

(D) This field shows the LOS under Existing conditions. This is used to determine whether or not there is an existing deficiency.

(E) This field shows the LOS under the Existing Plus Build-out Scenario. This is used to determine whether or not the project has a significant impact.

(F) This field shows whether there is a significant impact. It is based on the thresholds of significance described in Chapter 2.

(G) This field describes what improvements would be required to achieve the target LOS under the Existing Plus Build-out Scenario.

(H) This field states whether the measure described in Column G is feasible or not. In some cases the needed improvements may not be feasible. For example, it may be infeasible to widen a road because doing so would cause serious negative impacts to an adjacent neighborhood.

(I) This field shows the LOS after all feasible mitigations have been implemented. If mitigation is infeasible then Column I will be the same as Column E.

(J) This field states whether the impact would still be significant after all feasible mitigation measures have been implemented. For those facilities under the jurisdiction of the City of Moreno Valley (see Column B) a "No" in Column J indicates that the impact will be mitigated to a less-than-significant level. For those facilities outside the jurisdiction of the City of Moreno Valley, Column J indicates what would happen if the jurisdiction that controls the facility implements the recommended feasible mitigations. However, because the City of Moreno Valley cannot guarantee that the other agency will implement the needed improvement the City cannot guarantee that the impact will be mitigated to a less-than-significant level.

(K) This field shows whether or not there is an existing deficiency. Generally speaking, under state law a developer is responsible for mitigating the impacts of their project but is not responsible for rectifying existing deficiencies that are the result of earlier projects. They need only pay a fair-share representing the portion of the improvements required to mitigate the impacts attributable to their own project.

(L) This field reports the action that the developers of the WLC will be required to take as a condition of approval.

E. PROJECT DIRECT IMPACTS

The direct impacts of the WLC project were determined by comparing the LOS of study facilities under the Existing and the Existing Plus Build-out Scenarios. The direct impacts of the project and their mitigation measures were as follows:

Road Section Direct Impacts

The project's direct impacts on road sections are summarized in Table 72. These impacts would be:

- **Gilman Springs Rd. from Alessandro Blvd. to Bridge St.** (S-16) is already deficient and needs to be widened to four lanes and will need to be widened to six lanes in the future. In accordance with General Plan Policy 5.5.7 the City will require the developer to widen Gilman Springs Rd. to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair-share contribution.

  However, because Gilman Springs Rd. is a Riverside County facility and is thus outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to four lanes between Alessandro Blvd. and Bridge St., or even preclude any widening at all. The project's impacts on Gilman Springs Rd. must therefore be considered significant and unavoidable. The City will work with Riverside County to find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

- **Gilman Springs Rd. from SR-60 to Alessandro Blvd.** (S-17) is already deficient and needs to be widened to four lanes. In accordance with General Plan Policy 5.5.7 the City will require the developer to widen Gilman Springs Rd. to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer would receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair-share contribution.

  However, because Gilman Springs Rd. is a Riverside County facility and is thus outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on Gilman Springs Rd. must therefore be considered significant and unavoidable. The City will work with Riverside County to find funding for improvements that would provide an acceptable LOS on this road to the extent feasible

- **Redlands Boulevard between Eucalyptus Avenue and the SR-60 eastbound ramps** (S-18) is already deficient and needs to be widened to four lanes. This project is in the City's Capital Improvement Program with planned funding from the TUMF and DIF programs. Mitigation is for the developer to pay into the TUMF and to pay a fair-share contribution towards this improvement as a condition of approval.

Table 72: Project Direct Impacts on Road Sections

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Impacts that can be Mitigated to a Less-Than-Significant Level														
S-18	Redlands Blvd	SR-60 EB Ramps	Eucalyptus Ave	Moreno Valley	C	**E** ▨	**F** ▨	Yes	Widen to 4 lanes	Yes	A	No	Yes	Pay fair share (7.9%)
Road Section Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge St	Riverside County	D	**F** ▨	**F** ▨	Yes	Widen to 4 lanes	No	**F** ▨	Yes	Yes	N/A**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	Riverside County	D	**F** ▨	**F** ▨	Yes	Widen to 4 lanes	No	**F** ▨	Yes	Yes	N/A**

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Not applicable because mitigation is infeasible

▨ Indicates LOS exceeds the target level

Intersection Direct Impacts

The project’s direct impacts on study intersections are summarized in Table 73. These impacts would be:

- **Redlands Blvd./Locust Ave. intersection** (IN-10) already exceeds the LOS threshold in both the AM and PM peak hours and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection and adding an eastbound left-turn and westbound left-turn lanes would reduce project impacts to a less-than-significant level. Improvements to this intersection are already programmed in the RTP, so no action is required by the developer.
- **Redlands Blvd./Eucalyptus Avenue** (IN-18) would exceed the LOS threshold in the PM peak hour under the Existing Plus Build-out Scenario. Adding a westbound right-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Oliver St./Alessandro Blvd. intersection** (IN-20) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Adding a receiving lane for left turns from Oliver Street would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Moreno Beach Dr./Ironwood Ave.** (IN-36) would exceed the LOS threshold in the AM peak hour under the Existing Plus Build-out Scenario. Adding a northbound right-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Moreno Beach Dr./SR-60 EB Ramps intersection** (IN-37) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Adding a southbound left-turn lane and changing the phasing to protected would reduce project impacts to a less-than-significant level. At time of publication, the needed improvements were already being made to the intersection.
- **Martin Luther King Blvd./Canyon Crest Dr.** (IN-83) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Changing a northbound through lane to a shared through-right-turn lane would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project’s impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

Table 73: Direct Impacts on Intersections and Mitigation Measures

ID	Study Intersection	Jurisdiction	LOS Standard	Existing LOS		Existing Plus Buildout LOS		Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented ?	Is There an Existing Deficiency?	Developer Action Required
				AM	PM	AM	PM				AM	PM			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level															
IN-10	Redlands Blvd/Locust Ave	Moreno Valley	C	**D**	**F**	**F**	**F**	Yes	Signalize. Add 1 EB LT and 1 WB LT.	Yes			No	Yes	No action required. Improvement is already in RTP
IN-18	Redlands Blvd/Eucalyptus Ave	Moreno Valley	D	A	A	C	**E**	Yes	Add WB RT pocket. Perm / Ovlp phasing.	Yes			No	No	Implement improvement, with reimbursement agreement based on fair share contribution (19.4%)
IN-20	Oliver St/Alessandro Blvd	Moreno Valley	C	**E**	C	**F**	C	Yes	Add TWLTL on Alessandro Blvd. for 2-stage gap acceptance.	Yes			No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (9.8%)
IN-36	Moreno Beach Dr/Ironwood Ave	Moreno Valley	D	D	D	**E**	D	Yes	Add 1 NB RT lane.	Yes			No	No	Implement improvement, with reimbursement agreement based on fair share contribution (11.3%)
IN-37	Moreno Beach Dr/SR-60 EB Ramps	Moreno Valley	D	C	**E**	**E**	**F**	Yes	Add 1 SB LT Change Phasing to Prot.	Yes			No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (10.6%)
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)															
IN-83	Martin Luther King Blvd/Canyon Crest Dr	Riverside (City)	D	**E**	C	**E**	C	Yes	change 1 NBT to NBT-R	Yes			No	Yes	Pay fair share (0.9%)
IN-85	Martin Luther King Blvd/I-215 NB Ramps	Riverside (City)	D	**E**	**F**	**E**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (0.6%)
IN-86	Central Ave/Chicago Ave	Riverside (City)	D	D	**F**	D	**F**	Yes	Change WBT to WBT-R and NBT to NBT-R	Yes			No	Yes	Pay fair share (3.7%)
IN-94	Arlington Ave/Victoria Ave	Riverside (City)	D	**E**	D	**E**	D	Yes	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage)	Yes			No	Yes	Pay fair share (2.1%)
IN-114	Evans Rd/Orange Ave	Perris	C	**F**	**E**	**F**	**E**	Yes	Signalize	Yes			No	Yes	Pay fair share (1.5%)
IN-122	Bridge St/Ramona Expy	Riverside County	C	**E**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	No Actions required. Intersection eliminated in the future.
IN-123	Gilman Springs Rd/Bridge St	Riverside County	C	**F**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (2.2%)
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	Riverside County	C	**F**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (3.9%)
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	Riverside County	C	**E**	**F**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (3.2%)
IN-132	San Timoteo Canyon Rd/Alessandro Rd	Redlands	D	**F**	C	**F**	**E**	Yes	Signalize.	Yes			No	Yes	Pay fair share (13.1%)
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	Riverside County	C	**F**	**D**	**F**	**F**	Yes	Signalize.	Yes			No	Yes	Pay fair share (11.5%)
IN-134	Redlands Blvd/San Timoteo Canyon Rd	Riverside County	C	**F**	**F**	**F**	**F**	Yes	Signalize. Add 1 EB Right Turn and 1 NB Left Turn.	Yes			No	Yes	Pay fair share (5.4%)

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

- **Martin Luther King Blvd./I-215 northbound ramps** (IN-85) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Central Ave./Chicago Ave.** (IN-86) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Changing a westbound through lane to a shared through-right-turn lane and changing a northbound through lane to a shared through-right-turn lane would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Victoria Ave.** (IN-94) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Re-configuring the westbound approach to one left-turn lane, two through lanes, and one right-turn lane would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Riverside has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Evans Rd./Orange Ave.** (IN-114) already exceeds the LOS threshold in both the AM and PM peak hours and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing the intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval if the City of Perris has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **Bridge St./Ramona Expy.** (IN-122) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

This intersection will be eliminated as part of planned improvements to the Ramona Expressway. Therefore no action is required by the developer.

- **Gilman Springs Rd./Bridge St.** (IN-123) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **SR-79 (Sanderson Ave.) NB/Gilman Springs Rd. intersection** (IN-124) already exceeds the LOS threshold in both the AM and PM peak hours and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **SR-79 (Sanderson Ave.) SB/Gilman Springs Rd.** (IN-125) already exceeds the LOS threshold in the AM and PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **San Timoteo Canyon Rd./Alessandro Rd. intersection** (IN-132) already exceeds the LOS threshold in the AM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Redlands. The City will require the developer to pay for a fair share of this improvement as a condition of approval if the City of Redlands has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because this intersection is outside the jurisdiction of the

City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Redlands to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- **San Timoteo Canyon Rd./Live Oak Canyon Rd. intersection** (IN-133) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- **Redlands Blvd./San Timoteo Canyon Rd. intersection** (IN-134) already exceeds the LOS threshold in the PM peak hour and traffic using the intersection would experience longer delays under the Existing Plus Build-out Scenario. Signalizing this intersection and adding an eastbound right turn and a northbound left turn lane would reduce project impacts to a less-than-significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval if the Riverside County has a fair share program in effect at the time of approval that would provide the remaining funds needed to construct the improvements. However, because intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

Freeway Direct Impacts

Unlike the surface streets, where intersection improvements are generally both feasible and desirable, the strategic situation for freeways in western Riverside County is such that major freeway improvements are becoming increasingly problematic over time. A key problem is that the rights-of way are essentially built out in many locations and cannot be expanded without severe impacts to existing communities (loss of homes and businesses, visual intrusion, increased noise and air quality impacts, etc.) and high costs to replace overcrossing structures. Moreover, there is a growing consensus that over-provision of freeway capacity facilitates long-distance commuting by car and leads to more auto-oriented residential development on the urban fringe, which in turn increases greenhouse gas emissions. This has resulted in a policy shift away from continued expansion of the freeway system, as reflected, for example, in Riverside County Transportation Commission's Ordinance No. 02-001 which reads in part,

> *"State Routes 91 and 60 and Interstate Routes 15 and 215 cannot cost effectively be widened enough to provide for the traffic expected as Riverside County continues to grow. In addition to the specific highway improvements listed in Section 1 above, congestion relief for these highways will require that new north–south and east-west transportation corridors will have to be developed to provide mobility within Riverside County and between Riverside County and its neighboring Orange and San Bernardino Counties."*

In other words, as a matter of policy, with the exception of spot improvements in some specific locations, the overall strategy to relieve congestion on SR-60 and SR-91 is to improve the capacity of surface streets that could serve as alternate routes to freeways. The policy to forego further widening of some sections of SR-60 and SR-91 is also noted in the Riverside County Congestion Management Program (CMP) which permits LOS "F" for some of the study freeway sections because those sections already operated at LOS

"F" when the CMP was established in 1991[57]. For these reasons some of the identified mitigation measures may not be pursued even if they are deemed feasible in an engineering sense. In such cases the project's payment into the TUMF and DIF programs and funding for the surface street improvements would constitute a type of mitigation because they help create viable alternative routes that would substitute for freeway travel for some trips. For the purposes of this report, however, the impacts were treated as significant and unavoidable.

The project's direct impacts on the regional freeway system are summarized in Table 74. The freeways studied in this report are state facilities outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvements of these freeways as a condition of approval. However, because the freeways are outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place either for collecting fees from WLC or for ensuring the availability of the non-project portion of the needed funds[58], the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable. These impacts would be:

Direct Impacts on Freeway Mainline Basic Sections

- **Eastbound SR-60 from Ramona Ave. to Central Ave.** (F-3) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.
- **Eastbound SR-60 from Mountain Ave. to Euclid Ave.** (F-5) currently operates at an acceptable LOS in the AM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.
- **Eastbound SR-60 from Euclid Ave. to Grove Ave.** (F-6) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.
- **Eastbound SR-60 from Martin Luther King Blvd. to Central Ave.** (F-24) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.

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[57] *2011 Riverside County Congestion Management Program*, Page 4-7.

[58] The City and Highland Fairview are providing funds for a study, currently underway, to determine the feasibility of establishing a freeway impact fee to mitigate the effects of truck traffic from new logistics warehouses in Riverside County.

Table 74: Direct Impacts on Freeways and Mitigations

	Study Facility	Juris-diction	LOS Standard	Determination of Impact					Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
				Existing		Existing Plus Project		Does the Project Have a Significant Impact?							
				AM	PM	AM	PM				AM LOS	PM LOS			
	(A)	(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-3	EB SR-60 Ramona Ave to Central Ave	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	N/A*
F-5	EB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	D	**E**	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A*
F-6	EB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A*
F-24	EB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**
F-29	EB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	C	**F**	D	**F**	Yes	Add one mixed flow lane.	Yes	B	C	No	Yes	Pay fair share (6.9%)
F-41	EB SR-91 Pierce St to Magnolia Ave	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (3.1%)
F-46	EB SR-91 Adams St to Madison St	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**
F-49	EB SR-91 Central Ave to 14th St	Caltrans	D	**F**	**E**	**F**	**E**	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (1.4%)
F-95	NB I-215 Eucalyptus Ave to SR-60	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (3.1%)
F-80	NB I-215 Auto Plaza Dr to Mill St	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (0.7%)
F-7	WB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	D	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A*
F-8	WB SR-60 Vineyard Ave to Archibald Ave	Caltrans	D	D	**F**	D	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A*
F-26	WB SR-60 Fair Isle Dr/Box Springs Rd to I-215	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (5.7%)
F-27	WB SR-60 I-215 to Day St	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (7.1%)
F-29	WB SR-60 Pigeon Pass Rd to Heacock St	Caltrans	D	**F**	C	**F**	C	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (7.3%)
F-40	WB SR-91 McKinley St to Pierce St	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.9%)
F-41	WB SR-91 Pierce St to Magnolia Ave	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (2.0%)
F-42	WB SR-91 Magnolia Ave to La Sierra Ave	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (2.0%)
F-43	WB SR-91 La Sierra Ave to Tyler St	Caltrans	D	D	**F**	D	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (2.2%)
F-44	WB SR-91 Tyler St to Van Buren Blvd	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.8%)
F-45	WB SR-91 Van Buren Blvd to Adam St	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.5%)
F-75	SB I-215 Center St to La Cadena Dr	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**
F-76	SB I-215 La Cadena Dr to Barton Rd	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.4%)
F-77	SB I-215 Barton Rd to Mt. Vernon Ave	Caltrans	D	D	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (2.7%)
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-20	EB SR-60 Main St to SR-91	Caltrans	D	D	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	Pay fair share (5.4%)
W-79	NB I-215 I-10 to Auto Plaza Dr/Orange Show Rd	Caltrans	D	C	C	D	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (0.5%)
W-23	WB SR-60 University Ave to Martin Luther King Blvd	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	D	**E**	No	Yes	Pay fair share (4.7%)
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	D	D	**E**	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (4.9%)
W-48	WB SR-91 Arlington Ave to Central Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.1%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-1	SR-60 EB On-Ramp from Martin Luther King Blvd	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A**

▨ Indicates LOS exceeds the target level

* Project is in the current RTP and is planned to be completed independent of the WLC project

** Not applicable because mitigation is infeasible

- **Eastbound SR-60 from Pigeon Pass Rd./Frederick St. to Heacock St.** (F-29) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Eastbound SR-91 from Pierce St. to Magnolia Ave.** (F-41) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Eastbound SR-91 from Adams St. to Madison St.** (F-46) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

  - **Eastbound SR-91 from Central Ave. to 14th St.** (F-49) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from Eucalyptus Ave. to SR-60** (F-95) currently operates at an acceptable LOS but would exceed the LOS threshold in the PM peak hour under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Northbound I-215 from Auto Plaza Dr. to Mill St.** (F-80) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Grove Ave. to Vineyard Ave.** (F-7) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Westbound SR-60 from Vineyard Ave. to Archibald Ave.** (F-8) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2040 independent of the WLC project.

- **Westbound SR-60 from Fair Isle Dr./Box Springs Rd. to I-215** (F-26) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from I-215 to Day St.** (F-27) already exceeds the LOS threshold in the AM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Pigeon Pass Rd. to Heacock St.** (F-29) already exceeds the LOS threshold in the AM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from McKinley St. to Pierce St.** (F-40) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Pierce St. to Magnolia Ave.** (F-41) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Magnolia Ave. to La Sierra Ave.** (F-42) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from La Sierra Ave. to Tyler St.** (F-43) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Tyler St. to Van Buren Blvd.** (F-44) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Van Buren Blvd. to Adams St.** (F-45) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Southbound I-215 from Center St. to La Cadena Dr.** (F-75) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.
- **Southbound I-215 from La Cadena Dr. to Barton Rd.** (F-76) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Southbound I-215 from Barton Rd. to Mt. Vernon Ave.** (F-77) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

Direct Impacts on Freeway Weaving Sections

- **Eastbound SR-60 from Main St. to SR-91** (W-20) currently operates at an acceptable LOS in the AM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
- **Northbound I-215 from SR-60 to Columbia Ave.** (W-73) already exceeds the LOS threshold in the AM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Extending the auxiliary lane beyond the off-ramp would bring the LOS to within the target threshold.

  I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
- **Northbound I-215 from I-10 to Auto Plaza Dr./Orange Show Rd.** (W-79) currently operates at an acceptable LOS in the PM peak hour but would exceed the LOS threshold under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

I-215 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from University Ave. to Martin Luther King Blvd.** (W-23) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the AM peak hour LOS to within the target threshold and reduce the PM peak hour from "F" to "E".

SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.** (W-25) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- **Westbound SR-91 from Arlington Ave. to Central Ave.** (W-48) already exceeds the LOS threshold in the PM peak hour and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

Direct Impacts on Freeway Ramps

- **Eastbound SR-60 on-ramp from Martin Luther King Blvd.** (R-1) already exceeds the LOS threshold in the AM and PM peak hours and traffic density would increase under the Existing Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.

As individual projects within the WLC are processed the City will require that each project do a traffic impact assessment in accordance with City guidelines. These project-level assessments will determine the timing of each mitigation measure.

F. PROJECT CUMULATIVE IMPACTS

The cumulative impacts of the WLC project were determined by comparing the LOS of study facilities under the 2040 No-Project and 2040 Plus Build-out Scenarios[59]. The cumulative impacts of the project and their associated mitigation measures are described below. In cases where the facility had mitigation measures identified for direct impacts and requires additional improvements under cumulative scenarios, the improvements described below are the improvements required beyond those described in the previous section on direct impacts.

Cumulative Impacts on Road Sections

The project's cumulative impact on road sections is summarized in Table 75. This impact would be:

Gilman Springs Rd. from Alessandro Blvd. to Bridge St. (S-16) should be widened from two lanes to six lanes in the short term (see previous section on direct impacts) and may need to be further widened to eight lanes sometime in the 2025-to-2040 timeframe. Gilman Springs is a TUMF facility. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because Gilman Springs Rd. is a Riverside County facility and is thus outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to six lanes between Alessandro Blvd. and Bridge St., or even preclude any widening at all. The project's impacts on Gilman Springs Rd. must therefore be considered significant and unavoidable. The City will work with Riverside County and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

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[59] As a reminder, both 2040 scenarios included in their land use assumptions the growth associated with the adopted SCS, the list of other past, present, and reasonably foreseeable projects, and buildout of the Moreno Valley General Plan. Sections Section 1.A. for details.

Table 75: Cumulative Impacts on Road Sections and Mitigations

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	**F**	**F**	Yes	Widen to 8 lanes	No	**F**	Yes	Yes	N/A**

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Not applicable because mitigation is infeasible

▨ Indicates LOS exceeds the target level

Cumulative Impacts on Study Intersections

The WLC project's cumulative impacts on study intersections is summarized in Table 76, and described in detail below:

- **Theodore St./Ironwood Ave. intersection** (IN-12) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Moreno Beach Dr./Cactus Ave. intersection** (IN-25) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a second eastbound left-turn lane and changing a northbound through lane to a shared through-right-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Redlands Blvd./Cactus Ave. intersection** (IN-27) should be signalized and added eastbound and westbound left-turn lanes in the short term (see previous section on direct impacts) and may exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a northbound left-turn lane and a southbound left turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Moreno Beach Dr./John Kennedy Dr.** (IN-28) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the east/west directions from protected to split phase and converting a westbound through lane to a share through-left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Sunnymead Blvd./Perris Blvd.** (IN-32) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Moreno Beach Dr./Locust Ave. intersection** (IN-35) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Signalizing the intersection and constructing a westbound left-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

Table 76: Cumulative Intersection Impacts and Mitigations

ID	Study Intersection	Jurisdiction	LOS Standard	2040 LOS		2040 Plus Buildout LOS		Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented ?	Is There an Existing Deficiency?	Developer Action Required
				AM	PM	AM	PM				AM	PM			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Intersection Impacts that can be Mitigated to a Less-Than-Signficant Level															
IN-12	Theodore St/Ironwood Ave	Moreno Valley	D	D	**E**	**F**	**F**	Yes	Signalize.	Yes			No	No	Pay fair share (17.1%)
IN-25	Moreno Beach Dr/Cactus Ave	Moreno Valley	C	C	**D**	**D**	**D**	Yes	Add 1 EB LT lane. Change NB RT to NB Through-RT.	Yes			No	No	Pay fair share (16.3%)
IN-27	Redlands Blvd/Cactus Ave	Moreno Valley	C	**D**	**D**	**F**	**F**	Yes	Signalize. Add 1 EB LT and 2 WB LT lanes. Add 1 NB LT and 1 SB LT.	Yes			No	No	Pay fair share (36.4%)
IN-28	Moreno Beach Dr/John Kennedy Dr	Moreno Valley	D	**E**	D	**E**	C	Yes	Change E/W from protected to split phase. Convert WB Through to WB LT-Through.	Yes			No	No	Pay fair share (16.6%)
IN-32	Sunnymead Blvd/Perris Blvd	Moreno Valley	D	D	**F**	D	**F**	Yes	Add 1 WB RT pocket.	Yes			No	No	Pay fair share (1.3%)
IN-35	Moreno Beach Dr/Locust Ave	Moreno Valley	C	**F**	C	**D**	**D**	Yes	Signalize. Add 1 WB LT lane.	Yes			No	No	Pay fair share (18.9%)
IN-39	Iris Ave/Perris Blvd	Moreno Valley	D	**E**	D	**E**	D	Yes	Add 1 WB LT and 1 SB LT lane.	Yes			No	Yes	Pay TUMF
IN-41	Lasselle St/Iris Ave	Moreno Valley	D	**E**	**F**	**E**	**F**	Yes	Add 1 WB LT lane (resulting 3 turn lanes), and 1 EB RT Need to widen Lasselle in the SB to have 3 receiving lanes.	Yes			No	No	Pay TUMF
IN-51	Nason St/Alessandro Blvd	Moreno Valley	D	**F**	**F**	**E**	**F**	Yes	Add permissive / overlap phase for EB RT, SB RT, and WB RT.	Yes			No	No	Pay TUMF
IN-52	Kitching St/Cactus Ave	Moreno Valley	C	**D**	**E**	**D**	**E**	Yes	Change SB RT Lane to SB Through-RT Lane	Yes			No	No	Pay fair share (4.1%)
IN-53	Lasselle St/Cactus Ave	Moreno Valley	C	C	**D**	C	**E**	Yes	Add 1 WB LT lane.	Yes			No	No	Pay fair share (8.6%)
IN-54	Morrison St/Cactus Ave	Moreno Valley	D	D	**E**	D	**F**	Yes	Add 1 WB RT pocket with overlap phasing.	Yes			No	No	Pay fair share (10.2%)
IN-55	Nason St/Cactus Ave	Moreno Valley	D	**F**	**F**	**F**	**F**	Yes	Convert 1 SB Through-RT to 1 SB RT, and add permissive / overlap phase at SB RT.	Yes			No	No	Pay TUMF
IN-64	Indian St/Cactus Ave	Moreno Valley	C	**D**	**E**	**D**	**E**	Yes	Add 1 NB LT pocket	Yes			No	No	Pay fair share (1.3%)
IN-65	Perris Blvd/Cactus Ave	Moreno Valley	D	**E**	**E**	**E**	**E**	Yes	Add 1 EB RT pocket, 1 SB LT pocket, and NB RT overlap phase.	Yes			No	Yes	Pay TUMF
IN-71	Elsworth St/Alessandro Blvd	Moreno Valley	D	D	**F**	D	**F**	Yes	Add 1 NB LT pocket	Yes			No	No	Pay fair share (0.9%)
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)															
IN-75	Central Ave/Lochmoor Dr.	Riverside (City)	D	**F**	**F**	**F**	**F**	Yes	Change NB approach to one LT and 1 shared LT/RT lane. Change EB approach to two through and 1 RT lane (150 ft storage)	Yes			No	No	Pay TUMF
IN-76	Sycamore Canyon Blvd/Central Ave	Riverside (City)	D	**E**	**F**	**F**	**F**	Yes	Change NB approach to one LT and 1 shared through/RT lane and 1 RT lane. Change EB approach to one LT, 2 through, 1 through/RT and 1 RT lane	Yes			No	No	Pay TUMF

Table 76: Cumulative Intersection Impacts and Mitigations (continued)

ID	Study Intersection	Jurisdiction	LOS Standard	2040 LOS		2040 Plus Buildout LOS		Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
				AM	PM	AM	PM				AM	PM			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Intersection Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)															
IN-80	Alessandro Blvd/Mission Grove Pkwy	Riverside (City)	D	**F**	**F**	**F**	**F**	Yes	Add EB LT. Add NB TH lane. Change WB to 2 LT, 3 Th and RT lane (300 ft storage). Change SB to 1 RT (100 ft storage), 2 Th and 1 LT	Yes			No	No	Pay TUMF
IN-88	Central Ave/Canyon Crest Dr	Riverside (City)	D	**F**	**F**	**F**	**F**	Yes	Change EB approach to 1 LT, 2 THs and 1 RT. Change SB approach to 2 LTs, 2 THs and 1 RT. Add one WB LT lane. Add one NB LT lane.	Yes			No	No	Pay TUMF
IN-93	Horace St/Arlington Ave	Riverside (City)	D	**E**	D	**E**	**E**	Yes	Change EB approach to 1 LT, 2 THs and 1 RT.	Yes			No	No	Pay TUMF
IN-94	Arlington Ave/Victoria Ave	Riverside (City)	D	**F**	**F**	**F**	**F**	Yes	Change WB approach to one left (375 ft storage - existing), 2 through and 1 right (100 ft storage). Add one more EB LT lnae (195 ft storage)	Yes			No	Yes	Pay TUMF
IN-95	Alessandro Blvd/Chicago Ave	Riverside (City)	D	**F**	**F**	**F**	**F**	Yes	Reconfigure SB approach to 1 LT, 3 THs and 1 RT lane.	**No**	**F**	**F**	**Yes**	Yes	Measure Not Feasible
IN-101	Ramona Expy/Indian St	Perris	E	**F**	**F**	**F**	**F**	Yes	Add 1 EB RT. Add 2nd NB LT and 1 NB RT. Provide signal phase overlap for all RTs.	Yes			No	No	Pay TUMF
IN-107	Evans Rd/Rider St	Perris	C	**E**	**D**	**E**	C	Yes	Reconfigure SB approach to include 1 LT, 2 THs and 1 RT.	Yes			No	Yes	Pay TUMF
IN-130	W 6th St/Beaumont Ave	Beaumont	C	**E**	**F**	**E**	**F**	Yes	Reconfigure EB approach to 2 LTs, 2 THs and 1 RT. Reconfigure NB approach to 1 LT, 2 THs and 1 RT. change EB & WB lefts to protected.	**No**	**E**	**F**	**Yes**	No	Measure Not Feasible

Notes:

"NB" and "SB" denote northbound and southbound respectively

"EB" and "WB" denote eastbound and westbound respectively

▨ Indicates LOS exceeds the target level

"CSS" means cross-street is stop-controlled

"AWS" means all-way stop

"RABT" means roundabout

- **Iris Ave./Perris Blvd. intersection** (IN-39) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing a second westbound left-turn lane and a second southbound left-turn lane would reduce cumulative impacts to a less-than-significant level. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Lasselle St./Iris Ave. intersection** (IN-41) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a third westbound left-turn lane and an eastbound right-turn lane would reduce project impacts to a less-than-significant level. This improvement is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Nason St/Alessandro Blvd.** (IN-51) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a permissive overlap phase for the eastbound right turn, southbound right turn, and westbound right turn would reduce cumulative impacts to a less-than-significant level. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Kitching St./Cactus Ave.** (IN-52) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the southbound right turn lane into a shared southbound through-right-turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Lasselle St./Cactus Ave.** (IN-53) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- **Morrison St./Cactus Ave.** (IN-54) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a westbound right turn lane with overlap phasing would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Nason St./Cactus Ave.** (IN-55) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the southbound shared through-right-turn lane into a right turn lane with overlap phasing would reduce cumulative impacts to a less-than-significant level. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Indian St./Cactus Ave.** (IN-64) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a northbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.
- **Perris Blvd./Cactus Ave.** (IN-65) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding an eastbound right turn lane, a southbound left turn lane, and a northbound right turn overlap phase would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- **Elsworth St./Alessandro Blvd.** (IN-71) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding a northbound left turn lane would reduce cumulative impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards

this improvement as a condition of approval. This intersection is eligible for funds under the DIF program, which is expected to provide the remaining funds needed to implement the improvement.

- **Central Ave./Lochmoor Dr. intersection** (IN-75) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Converting the northbound approach to one left-turn lane and a shared left-right-turn lane and changing the eastbound approach to two through lanes and one right turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Alessandro Blvd./Mission Grove Pkwy. intersection** (IN-80) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Adding an eastbound left turn lane and a northbound through lane, and changing the westbound approach to have two left turn lanes, three through lanes, and one right turn lane3, and changing the southbound approach to one right turn, two through, and one left turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Central Ave./Canyon Crest Dr. intersection** (IN-88) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the eastbound approach to one left turn, two through, and one right turn lane, changing the southbound approach to two left turn, two through, and one right turn lane, adding a westbound left-turn lane, and a northbound left-turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Horace St./Arlington Ave.** (IN-93) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the eastbound approach to one left, two through, and one right turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Arlington Ave./Victoria Ave. intersection** (IN-94) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Changing the westbound approach to one left, two through, and one right turn lane, and adding an eastbound left turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Alessandro Blvd./Chicago Ave. intersection** (IN-95) is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this it already operates at LOS "F" in the PM peak period. Reconfiguring the southbound approach to one left turn, three through, and one right turn would mitigation the Project's cumulative impact but still result in LOS "F" during peak hours. There are established residential communities on each corner that would be impacted by such a widening or by grade separation. These mitigation measures are thus likely to be infeasible, and the project impact at this location is therefore considered to be a significant and unavoidable.

- **Ramona Expwy./Indian St. intersection** (IN-101) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Constructing one eastbound right-turn lane, a second northbound left-turn lane, and one northbound right-turn lane, and modifying the traffic signal to provide overlap phasing for all right-turn movements would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **Evans Rd./Rider St. intersection** (IN-107) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Reconfiguring the southbound approach to have one left turn, two through, and one right turn lane would reduce cumulative impacts to a less-than-significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF fees in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection.

- **W. 6th St./Beaumont Ave. intersection** (IN-130) will exceed the target LOS threshold at some point in the 2025-to-2040 period. Reconfiguring the eastbound approach to two left, two through, and one right turn, and reconfiguring the northbound approach to one left, two through and one right turn, and making the eastbound and westbound left turns protected movements would reduce cumulative impacts to a less-than-significant level.

There are established commercial buildings on the corners on the northern part of the intersection that would be impacted by such a widening. These mitigation measures are thus infeasible, and the project impact at this location is therefore considered to be significant and unavoidable.

Cumulative Freeway Impacts

The WLC's cumulative impacts on the freeways system are summarized in Table 77, and described in detail below:

Cumulative Impacts on Mainline Basic Sections

- **Eastbound SR-60 from Reservoir St. to Ramona Ave.** (F-2) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  The state freeway system is owned and operated by Caltrans and is thus outside the jurisdiction of the City of Moreno Valley. The City will work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC

Table 77: Cumulative Freeway Impacts and Mitigations

Study Facility		Juris-diction	LOS Standard	Determination of Impact					Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
				2040 No-Project		2040 Plus Build-out		Does the Project Have a Significant Impact?			AM LOS	PM LOS			
				AM	PM	AM	PM								
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-2	EB SR-60 Reservoir St to Ramona Ave	Caltrans	D	**E**	D	**F**	D	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (2.0%)
F-17	EB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (3.6%)
F-18	EB SR-60 Rubidoux Blvd to Market St	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (3.1%)
F-19	EB SR-60 Market St to Main St	Caltrans	D	**E**	D	**F**	D	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (3.3%)
F-30	EB SR-60 Heacock St to Perris Blvd	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	Pay fair share (5.3%)
F-40	EB SR-91 Mckinley St. to Pierce St.	Caltrans	D	**E**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (0.9%)
F-43	EB SR-91 La Sierra Ave to Tyler St	Caltrans	D	**E**	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.7%)
F-44	EB SR-91 Tyler St to Van Buren Blvd	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (0.2%)
F-95	NB I-215 Eucalyptus Ave to SR-60	Caltrans	D	D	**F**	D	**F**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (1.0%)
F-17	WB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	C	**E**	C	**F**	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (2.6%)
F-18	WB SR-60 Rubidoux Blvd to Market St	Caltrans	D	C	**E**	C	**F**	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (3.7%)
F-19	WB SR-60 Market St to Main St	Caltrans	D	**E**	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	Pay fair share (4.8%)
F-24	WB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	**E**	**E**	**E**	**F**	Yes	Add one mixed flow lane.**	Yes	D	D	No	Yes	Pay fair share (2.8%)
F-30	WB SR-60 Heacock St to Perris Blvd	Caltrans	D	**E**	**E**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	Pay fair share (9.2%)
F-33	WB SR-60 Moreno Beach Dr to Redlands Blvd	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (10.2%)
F-39	WB SR-91 I-15 to McKinley St.	Caltrans	D	**E**	**F**	**E**	**F**	Yes	Add one mixed flow lane.	Yes	C	**E**	No*	Yes	Pay fair share (0.7%)
F-94	SB I-215 Alessandro Blvd to Eucalyptus Ave	Caltrans	D	**F**	**E**	**F**	**E**	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (1.2%)
F-55	WB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	**F**	C	**F**	C	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (1.0%)
F-58	WB I-10 8th St to Hargrave St	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	D	B	No	Yes	Pay fair share (0.3%)
F-59	WB I-10 Hargrave St to Fields Rd	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	D	B	No	Yes	Pay fair share (1.6%)
F-60	WB-I-10 Fields Rd to Morongo Trail	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	C	B	No	Yes	Pay fair share (0.7%)
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-1	EB SR-60 SR-71/Garey Ave to Reservoir St	Caltrans	D	D	D	**E**	D	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (3.6%)
W-21	EB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	No	**F**	**F**	Yes	Yes	N/A***
W-22	EB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	**E**	**E**	**E**	**E**	Yes	Add one mixed flow lane.	No	**E**	**E**	Yes	Yes	N/A***
W-25	EB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	**E**	**E**	**F**	**E**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (2.5%)
W-27	EB SR-60 I-215 to Day St	Caltrans	D	B	**F**	B	**F**	Yes	Add one mixed flow lane.	Yes	B	**F**	No*	Yes	Pay fair share (5.7%)
W-28	EB SR-60 Day St to Pigeon Pass Rd/Frederick St	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	B	**F**	No*	Yes	Pay fair share (5.0%)
W-42	EB SR-91 Magnolia Ave to Sierra Ave	Caltrans	D	**E**	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (1.4%)
W-73	NB I-215 SR-60 to Columbia Ave	Caltrans	D	B	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	**F**	**F**	No*	Yes	Pay fair share (2.0%)
W-9	WB SR-60 Haven Ave to Archibald Ave	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	C	**E**	No*	Yes	Pay fair share (1.0%)
W-28	WB SR-60 Day St to Pigeon Pass Rd/Frederick St	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	D	B	No	Yes	Pay fair share (6.9%)
W-73	SB I-215 SR-60 to Columbia Ave	Caltrans	D	**F**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	**F**	**F**	No*	Yes	Pay fair share (0.1%)

▨ Indicates LOS exceeds the target level

* Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

** This is in addition to the lane that will be added under the current RTP

*** Not applicable because mitigation is infeasible impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, this and all other freeway impacts must be considered as significant and unavoidable.

- **Eastbound SR-60 from Valley Way to Rubidoux Blvd.** (F-17) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-60 from Rubidoux Blvd. to Market St.** (F-18) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-60 from Market St. to Main St.** (F-19) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-60 from Heacock St. to Perris Blvd.** (F-30) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-91 from McKinley St. to Pierce St.** (F-40) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-91 from La Sierra Ave. to Tyler St.** (F-43) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-91 from Tyler St. to Van Buren Blvd.** (F-44) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Northbound I-215 from Eucalyptus Ave. to SR-60** (F-95) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-215 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Valley Way to Rubidoux Blvd.** (F-17) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Rubidoux Blvd. to Market St.** (F-18) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Market St. to Main St.** (F-19) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Martin Luther King Blvd. to Central Ave.** (F-24) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Heacock St. to Perris Blvd.** (F-30) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus

Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Moreno Beach Dr. to Redlands Blvd.** (F-33) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of an HOV lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-91 from I-15 to McKinley St.** (F-39) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Southbound I-215 from Alessandro Blvd. to Eucalyptus Ave.** (F-94) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-215 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound I-10 from Highland Springs Ave. to Sunset Ave.** (F-55) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound I-10 from 8th St. to Hargrave St.** (F-58) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound I-10 from Hargrave St. to Fields Rd.** (F-59) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound I-10 from Fields Rd. to Morongo Trail** (F-60) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

Cumulative Impacts on Weaving Sections

- **Eastbound SR-60 from SR-71/Garey Ave. to Reservoir St.** (W-1) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-60 from SR-91 to Blaine St.** (W-21) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- **Eastbound SR-60 from Blaine St. to University Ave.** (W-22) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- **Eastbound SR-60 from Central Ave. to Fair Isle Dr./Box Springs Rd.** (W-25) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-60 from I-215 to Day St.** (W-27) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-60 from Day St. to Pigeon Pass Rd./Fredrick St.** (W-28) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Eastbound SR-91 from Magnolia Ave. to Sierra Ave.** (W-42) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Northbound I-215 from SR-60 to Columbia Ave.** (W-73) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-215 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Haven Ave. to Archibald Ave.** (W-9) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Day St. to Pigeon Pass Rd./Fredrick St.** (W-28) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of an HOV lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- **Southbound I-215 from SR-60 to Columbia Ave.** (W-73) will exceed the target LOS threshold at some point in the 2025-to-2040 period and traffic density would increase under the 2040 Plus Build-out Scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-215 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

G. RECOMMENDED MITIGATION MEASURES

Based on the analysis described above following Mitigation Measures are recommended:

- MM Trans-1: A traffic impact analysis ("TIA"), conforming to the guidelines for TIAs adopted by the City shall be submitted in conjunction with each Plot Plan application within the WLCSP. Prior to the approval of the Plot Plan, the City shall review the TIA to determine if any of the traffic improvements listed in Table 72, Table 73, Table 75, or Table 76 of the TIA prepared for the Program EIR are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to reimbursement agreement for those costs that exceed the fair share contribution determined for the specific Plot Plan application. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in MM Trans-6 prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the program EIR, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.
- MM Trans-2: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way, where feasible, consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map, as shown in Figure 22. Required dedications shall be made prior to the issuance of occupancy permits for the requested development Figure 15.
- MM Trans-3: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the Applicant to construct or to fully fund the transportation measures identified in the development's TIA (see MM Trans-1) as needed to mitigate the transportation impacts of the Plot Plan development. The payment or construction shall be made prior to the issuance of occupancy permits for the requested development. This condition shall apply only to mitigation measures where mechanism has been established to collect funds from the Project and any other funds needed to complete the improvements.
- MM Trans-4: As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Chapter 3.44. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.
- MM Trans-5: In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the Traffic Impact Analysis, *i.e.,* under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to MM Trans-6. As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 *et seq.*, and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies.

- MM Trans-6: The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the Project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the WLC project as a whole has a significant impact identified in the programmatic EIR) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the program EIR will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

  For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the WLC contributes to an existing deficiency, and where the fair share contribution of the WLC project as a whole was computed to be 0.6%. If the City of Riverside establishes a fair share contribution program consistent with this MM Trans-6 to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million sq.ft. high-cube warehouse in the WLC (approximately 5% of the entire WLC project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due	=	Total cost of Improvement	*	Total WLC fair Share (0.6%) as determined by TIA	*	% attributable to the building that is subject to the certificate of occupancy (5%)

  A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire WLC to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with MM Trans-6.

- MM Trans-7: City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the needs of the City, including improvements identified in this TIA. Toward this end, City shall meet regularly with WRCOG.

Level of Significance after Mitigation

The mitigation measures described above can be usefully grouped into four categories based on who is responsible for the facility, which is the primary determinant of the level of significance after mitigation. The four categories are as follows:

> On-Site Improvements – These are changes to the road system within the WLC project site that are being undertaken as part of the WLC project. The developer shall be responsible for constructing the improvements described in the section “*Proposed Road Network*” in Chapter 4 above in accordance with City standards for roadway construction and the roadway cross-sections in the proposed Specific Plan. Completion of these improvements shall constitute the developer’s mitigation of the project’s on-site impacts. When these improvements are completed the project’s impacts on the roadway system within the WLC project site will be mitigated to a **less-than-significant** level.

Off-Site Improvements for Non-TUMF Roads Under the Jurisdiction of the City of Moreno Valley - These are improvements to public streets in Moreno Valley that are outside the area covered by the proposed WLC Specific Plan Amendment. The developer shall be responsible for paying its fair share contribution which the City shall use to implement the mitigation measures identified in Table 72, Table 73, Table 75, and Table 76 pertaining to facilities under the City's jurisdiction. These payments shall constitute the developer's mitigation of project impacts on this category of roads. When these improvements are completed the project's impacts on the City roadway system will be mitigated to a **less-than-significant** level.

Off-Site Improvements to TUMF Facilities – These are improvements to roads that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads.

The City shall implement the mitigation measures identified in Table 72, Table 73, Table 75, and Table 76 pertaining to TUMF facilities under the City's jurisdiction. When these improvements are completed the project's impacts on the roadway system within the WLC project site will be mitigated to a **less-than-significant** level.

The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in Table 72, Table 73, Table 75 and Table 76 pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. Thus at this point the project's impacts on these facilities must be considered **significant and unavoidable**.

Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program – This category includes all of the recommended mitigation measures that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials.

At this time the City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. The City shall therefore work with the Cities of Beaumont, Perris, Redlands and Riverside, and with Riverside County, to collect funds from the developer and to implement the mitigations measures identified in Table 72, Table 73, Table 75, and Table 76 that are in these jurisdictions. To the extent that the City is able to establish such a funding mechanism (as described in MM Trans-6) and the other jurisdiction constructs the recommended improvement the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. Thus at this point the project's impacts on these facilities must be considered **significant and unavoidable**.

Similarly, the City has not entered into an agreement with Caltrans for the collection of developer payments for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in Table 74 and Table 77. Instead, Caltrans has traditionally relied on other means to fund freeway improvements; means involving multiple stages of review and input from other agencies, with priorities and constraints applied at each stage, that preclude a direct connection between developer-provided fair-share funds and specific highway improvements.

Decisions on funding for improvements to the state highway system are made by four bodies, namely[60]:

> Legislature: Establishes overall policies, including determining funding sources and distribution, and spending priorities through state statutes such as Revenue and Taxation Code, Streets and Highways Code, and Government Code. The Legislature appropriates funds through the annual budget for transportation projects and has authority to designate transportation projects statutorily.
>
> California Transportation Commission (CTC): The nine-member CTC, appointed by the Governor, reviews and adopts the state transportation programs and approves projects nominated by Caltrans and regional agencies for funding. The CTC recommends policy and funding priorities to the Legislature and is also responsible for project delivery oversight.
>
> California Department of Transportation (Caltrans): Caltrans owns, operates and maintains the state highway system. Caltrans plans, designs, and nominates interregional capital improvement projects on the state highway system and also manages the intercity rail operation.
>
> Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs): MPOs and RTPAs are responsible for planning, coordinating and administering funds for regional transportation systems. In California, 17 MPOs and 48 RTPAs develop 20-year Regional Transportation Plans (RTPs) as well as 5-year Regional Transportation Improvement Program (RTIP), which identify projects for the regional portion of the State Transportation Improvement Program (STIP). SCAG is the MPO for Riverside County.

Most funds for improvements to the state highway system come through the State Highway Account (SHA), which receives funding from a variety of sources including:

- motor vehicle fuel taxes, part of which goes into the Highway Users Tax Account, a portion of which goes to the SHA and the rest goes to cities and counties according to a statutory formula.
- The fuel tax swap, enacted in 2011 (Fuel Tax Swap Fix), reenacted the provisions of the Fuel Tax Swap of 2010 addressing issues raised by the passage of Propositions 22 and 26. The Fuel Tax Swap eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ (July 2010). The increase in the excise tax would generate revenues equivalent to what would have been collected from the state sales tax on gasoline. These revenues are intended for new road construction (STIP), highway maintenance and operations (SHOPP), and local roadways.
- the federal fuel tax, which goes into the Highway Trust fund for use on the portions of the system that are designated ad federal aid highways

In addition local sales tax measures, such as Measure A in Riverside County, and the proceeds of Proposition 1B provide funding for improvements to certain portions of the state highway system.

The key feature of this system pertaining to the recommended freeway mitigation measures is that this system is outside the control of the City of Moreno Valley. The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements (as described in MM Trans-6). However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered **significant and unavoidable**.

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[60] This information came from *Transportation Funding in California*, Caltrans Economic Analysis Branch, 2011, page 2.

12. OTHER ISSUES

At the request of the City of Moreno Valley and to facilitate a more complete understanding of transportation issues related to the WLC, the following additional issues were studied.

A. TRAFFIC SIGNAL WARRANT ANALYSIS

Traffic signal warrants are criteria used to determine whether a traffic signal might be justified at a particular location. The warrants represent minimum criteria for justifiability; in other words, meeting a warrant by itself does not necessarily mean that a signal should be installed. The City of Moreno Valley's TIA Guidelines mandate that study intersections that are not currently signalized be analyzed to determine whether the *California Manual of Uniform Traffic Control Devices*' (California MUTCD) peak-hour warrant is met for existing intersections or whether the California MUCTD daily warrant is met for future intersections. Table 78 through Table 80 show this analysis for the No-Project and Plus Build-out Scenarios for the existing, 2025, and 2040 study years. Detailed signal warrant analyses can be found in Appendix P.

Table 78: Signal Warrant Analysis for Existing Conditions

Study Intersection		Jurisdiction	Traffic Control	Existing		Existing Plus Phase 1		Existing Plus Build-out	
				AM	PM	AM	PM	AM	PM
10	Redlands Blvd & Locust Ave	Moreno Valley	CSS	No	No	No	No	Yes	Yes
85	Martin Luther King Blvd & SR-60 NB Ramp	Riverside	AWS	Yes	Yes	Yes	Yes	Yes	Yes
114	Evans Rd & Orange Ave	Perris	AWS	Yes	Yes	Yes	Yes	Yes	Yes
124	Gilman Springs Rd. & SR-79 NB Ramps	San Jacinto	CSS	Yes	Yes	Yes	Yes	Yes	Yes
132	San Timoteo Canyon Rd. & Alessandro Rd.	Redlands	AWS	Yes	Yes	Yes	Yes	Yes	Yes
133	Live Oak Canyon & San Timoteo Canyon Rd.	Redlands	AWS	Yes	Yes	Yes	Yes	Yes	Yes
134	San Timoteo Canyon Rd. & Redlands Blvd.	Redlands	AWS	Yes	Yes	Yes	Yes	Yes	Yes

CCS = Cross Street Stop Controlled
AWS = All Way Stop Control

Table 79: Signal Warrant Analysis for 2025

Study Intersection		Jurisdiction	Traffic Control	2025 No-Project		2025 Plus Phase 1	
				AM	PM	AM	PM
10	Redlands Blvd & Locust Ave	Moreno Valley	CSS	No	No	No	No
85	Martin Luther King Blvd & SR-60 NB Ramp	Riverside	AWS	Yes	Yes	Yes	Yes
114	Evans Rd & Orange Ave	Perris	AWS	Yes	Yes	Yes	Yes
124	Gilman Springs Rd. & SR-79 NB Ramps	San Jacinto	CSS	Yes	Yes	Yes	Yes
132	San Timoteo Canyon Rd. & Alessandro Rd.	Redlands	AWS	Yes	Yes	Yes	Yes
133	Live Oak Canyon & San Timoteo Canyon Rd.	Redlands	AWS	Yes	Yes	Yes	Yes

CCS = Cross Street Stop Controlled
AWS = All Way Stop Control

Table 80: Signal Warrant Analysis for 2040

Study Intersection		Jurisdiction	Traffic Control	2040 No-Project		2040 Plus Build-out	
				AM	PM	AM	PM
12	Ironwood Ave. & Theodore St.	Moreno Valley	CSS	Yes	Yes	Yes	Yes
27	Cactus Ave. & Redlands Blvd.	Moreno Valley	AWS	Yes	Yes	Yes	Yes
35	Locust Ave. & Moreno Beach Dr.	Moreno Valley	CSS	Yes	Yes	Yes	Yes
85	Martin Luther King Blvd. & SR-60 NB Ramp	Riverside	AWS	Yes	Yes	Yes	Yes
123	Bridge St. Gilman Springs Rd.	San Jacinto	CSS	Yes	Yes	Yes	Yes
125	Gilman Springs Rd. & SR-79 SB Ramps	San Jacinto	CSS	Yes	Yes	Yes	Yes
132	San Timoteo Canyon Rd. & Alessandro Rd.	Redlands	AWS	Yes	Yes	Yes	Yes
133	San Timoteo Canyon Rd & Live Oak Canyon	Redlands	AWS	Yes	Yes	Yes	Yes

CCS = Cross Street Stop Controlled
AWS = All Way Stop Control

In 2025 there would be five intersections that would meet the signal warrant with the WLC project. In all five cases they would meet the warrant even without the project. These are:

- IN-85 Martin Luther King Blvd./SR-60 NB Ramp
- IN-114 Evans Rd./Orange Ave.
- IN-124 Gilman Springs Rd./SR-79 NB Ramps
- IN-132 San Timoteo Canyon Rd./Alessandro Rd.
- IN-133 Live Oak Canyon/San Timoteo Canyon Rd.

In 2040 there would be eight intersections that would meet the signal warrant with the WLC project. In all eight cases they would meet the warrant even without the project. These are:

- IN-12 Ironwood Ave./Theodore St.
- IN-27 Evans Rd./Orange Ave.
- IN-35 Locust Ave./Moreno Beach Dr.
- IN-85 Martin Luther King Blvd./SR-60 NB Ramp
- IN-123 Bridge St./Gilman Springs Rd.
- IN-125 Gilman Springs Rd./SR-79 SB Ramps
- IN-132 San Timoteo Canyon Rd./Alessandro Rd.
- IN-133 Live Oak Canyon/San Timoteo Canyon Rd.

B. TRAFFIC NEAR SCHOOLS

Several comments were received in the previous DEIR regarding possible traffic safety issues related to traffic going to or from the WLC passing near schools.

In one case the commenter mistakenly believed that WLC trucks would be using Alessandro Blvd. to access SR-60 and I-215. In fact, trucks will be prohibited from using Cactus Ave. Extension and trucks are already prohibited from using Redlands Blvd. south of Eucalyptus Ave., which means that they will not be using Alessandro Blvd. to get to and from the WLC. Figure 46 shows the designated trucks routes in and around Moreno Valley[61], while Figure 47 shows the main routes expected to be taken by WLC trucks. With the

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[61] Note that Riverside County does not identify truck routes. The City of Riverside's code does not identify a positive list of where trucks are allowed, but does have a negative list of where trucks are prohibited based on weight.

exception of Perris Blvd., which will be used by a small volume of WLC trucks[62], none of the routes go near schools.

It was assumed that other comments regarding “streets adjacent and near schools” were safety related due to the fact that there may be a higher amount of pedestrian activity near schools. Therefore, the safety impact of Project-related auto trips along streets adjacent to and near schools was evaluated by reviewing the existing pedestrian facilities and collecting pedestrian counts at the intersections along Project truck trip distribution routes.

The intersections reviewed exhibit the characteristics of typical suburban arterial roadways with common pedestrian accommodations, such as crosswalks, curb ramps, push buttons, pedestrian walk/don’t walk signals, etc. All pedestrian crossings at the signalized intersections are protected; a protected crossing occurs where traffic that conflicts with the pedestrian movement is required to stop. Crosswalks near a school are striped in yellow, consistent with guidance from the *California Manual on Traffic Control Devices* (page 1282). In most cases, sidewalks exist along roadways and lead to the striped, protected crosswalks at the intersections.

Key intersections along the truck trip distribution routes were reviewed during a site visit and found to provide adequate pedestrian amenities with protected crossings, crosswalks, curb ramps, and pedestrian signals, consistent with other signalized intersections in the City. Therefore, the location of an intersection on a Project truck trip distribution route is not expected to cause unsafe pedestrian facilities.

Pedestrian counts were collected at 25 study intersections along the Project truck trip distribution routes to determine if unusually high pedestrian volumes were being experienced at intersections. Table 81 shows that many of the intersections along the routes have fewer than 30 pedestrian crossings per hour between the hours of 2:00 to 4:00 PM (the peak of school children crossing activity). Table 81 also shows the net change in traffic, in PCEs, that would occur with the Project in the 2040 Plus Full Buildout scenario[63]. Only two locations were identified where noteworthy pedestrian activity (50 or more pedestrians per hour) may encounter a noteworthy increase (50 or more peak-hour trips) in traffic. These would occur at the Iris Ave./Laselle St and Alessandro Blvd./Perris Blvd. intersections. These intersections were specifically reviewed to ensure that pedestrian accommodations were provided. Protected, marked crosswalks exist at all of these intersections and pedestrian amenities are consistent with other, standard signalized intersections in the City.

Based on this analysis the conclusion was reached that the WLC project poses no special traffic safety risk to children near schools, and that appropriate safety measures have already been taken to minimize traffic risks in the vicinity of the schools near the project.

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[62] 22 medium and heavy trucks in the AM peak hour and 25 in the PM peak hour.

[63] Note that traffic at some intersections would decrease as a result of the Project. In most cases this would be due to the severing of Alessandro Boulevard west of Merwin Street. In other cases this is due to the general re-distribution of traffic as a result of adding a major employment center at the east end of Moreno Valley.

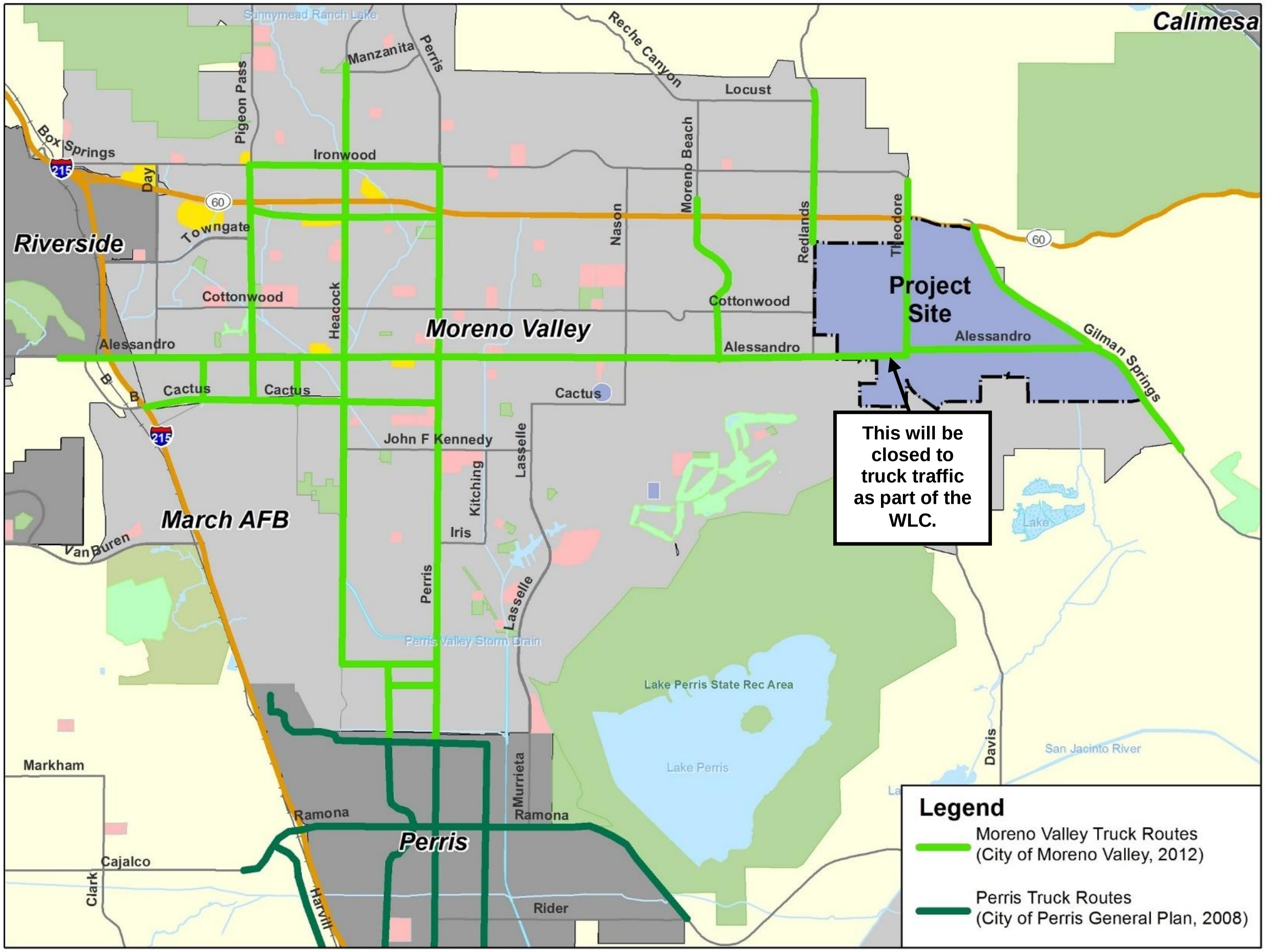

This will be closed to truck traffic as part of the WLC.

Figure 46: Existing Truck Routes in and Near Moreno Valley

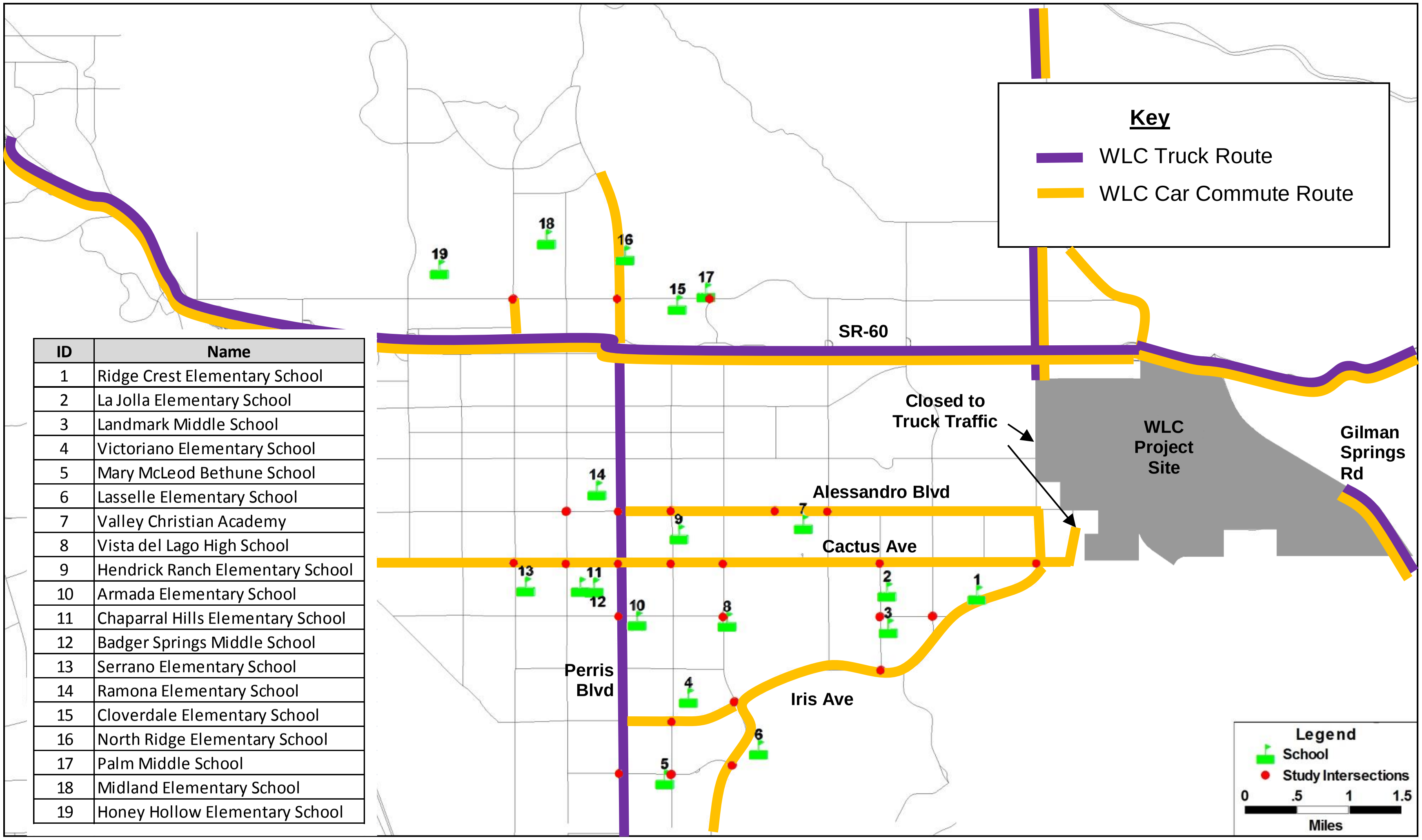

ID	Name
1	Ridge Crest Elementary School
2	La Jolla Elementary School
3	Landmark Middle School
4	Victoriano Elementary School
5	Mary McLeod Bethune School
6	Lasselle Elementary School
7	Valley Christian Academy
8	Vista del Lago High School
9	Hendrick Ranch Elementary School
10	Armada Elementary School
11	Chaparral Hills Elementary School
12	Badger Springs Middle School
13	Serrano Elementary School
14	Ramona Elementary School
15	Cloverdale Elementary School
16	North Ridge Elementary School
17	Palm Middle School
18	Midland Elementary School
19	Honey Hollow Elementary School

Figure 47: Routes Taken by WLC Trips in Relation to Schools

Table 81: Pedestrian and Project Traffic in Vicinity of Schools[64]

ID	Intersection	Pedestrian Crossings	Net Change, as a Result of the Project, in PCEs Entering Intersection
24	Cactus Ave / Oliver St	0	280
27	Cactus Ave / Redlands Blvd	0	900
28	John F. Kennedy Dr / Moreno Beach Dr	2	20
29	Ironwood Ave / Heacock St	23	-30
38	John F. Kennedy Dr / Perris Blvd	20	30
40	Iris Ave / Kitching St	17	50
41	Iris Ave / Lasselle St	112	100
43	Iris Ave/Moreno Beach Dr / Oliver St	0	230
45	Krameria Ave / Perris Blvd	18	30
46	Krameria Ave / Kitching St	128	-50
47	Krameria Ave / Lasselle St	25	-30
48	Alessandro Blvd / Kitching St	18	-120
50	Alessandro Blvd / Morrison St	0	-110
51	Alessandro Blvd / Nason St	5	-280
52	Cactus Ave / Kitching St	22	110
53	Cactus Ave / Lasselle St	1	320
59	Alessandro Blvd / Indian St	55	-50
60	Alessandro Blvd / Perris Blvd	82	80
63	Cactus Ave / Heacock St	4	-150
64	Cactus Ave / Indian St	23	-60
65	Cactus Ave / Perris Blvd	17	80
201	John F. Kennedy Dr / Oliver St	5	-14
202	John F. Kennedy Dr / Lasselle St	4	88
203	Ironwood Dr / Lasselle St	3	-12
204	Ironwood Dr / Perris Blvd	12	-15

C. SAFETY AND OPERATIONAL CONSIDERATIONS

The City's guidelines mandate that the TIA cover the following safety and operational issues:

- Turn Lanes: The improvements needed for study intersections were described in detail in the preceding chapters.
- Intersections Needing Future Sight Distance Studies: The City's established sight distance standard will be applied at all street intersections in connection with all plot plan and subdivision applications.
- Parking Restrictions: Each plot plan application will be reviewed to ensure that off-street parking will be provided at each building in compliance with the Moreno Valley Municipal Code. A limited

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[64] Peak hour car volumes are shown as a worse-case. Actual traffic volumes in the 2:00 to 3:00 PM period are forecast to be lower. Peak hour pedestrian crossings are shown as the one peak hour within the 2:00 to 4:00 PM period.

amount of short-term on-street parking for trucks will be provided in selected areas of the WLC. Overnight or extended parking would be prohibited.

- Measures to Reduce Cut-Through Traffic in Adjacent Residential Neighborhoods: The design of the WLC incorporates several features that limit the project's impacts on adjacent residential areas. Eastbound Alessandro Blvd. will end at Merwin St. to prevent traffic from passing through the neighborhood directly west of the project. Cactus Ave. Extension would be for cars and light trucks only. The intersection of Cactus Ave. Extension and Street E would include signage and, if deemed necessary by the City, a design feature, such as a median island, height-restricting gateway, or reduced curb return, which would preclude trucks from turning onto Cactus Ave.

- Potential Impacts to Adjacent Schools, Parks, and/or Trails: There are no schools or parks within or adjacent to the WLC. The WLC Specific Plan provides for the continuation of a public multi-use trail from Redlands Blvd. through the WLC linking to the Lake Perris State Recreation Area and the San Jacinto Wildlife Area.

- Queue Lengths and Impacts to Adjacent Intersections and/or Driveways: As individual buildings are developed, a traffic study will be performed including a queue length analysis to ensure there is not spill back affecting nearby intersections.

- Emergency Access: Every plot plan will be conditioned to provide all emergency access required by federal, state, and local regulations. Emergency vehicles that currently pass through the site using either World Logistics Center Parkway or Alessandro Blvd. would continue to have those routes available to them, upgraded to arterial standards. The Alessandro route would reach Redlands Blvd. at Cactus Ave. instead of at Alessandro. The change would not lengthen the route between Gilman Springs Rd. and the Riverside Community Regional Medical Center on Cactus Ave. or the route to and from the Kaiser Moreno Valley Community Hospital on Iris Ave. The extension of Eucalyptus Ave. through the WLC would provide an upgraded [65] route to the project site from the nearest existing fire station (the Moreno Beach fire station). Moreover, the WLC would include a fire station on site.

D. TRANSIT, PEDESTRIAN, AND BICYCLE FACILITIES

There is currently no transit service in the project area. The WLC would be designed to accommodate bus access on all project streets. Bus turn-outs and shelters would be provided at all active bus stops. It is expected that transit service would be provided once the project reaches a transit-supportable level of operations.

The WLC pedestrian and bicycle facilities were described previously in Chapter 4 (see Figure 30, Figure 31, etc.).

E. CONSTRUCTION TRAFFIC IMPACTS

A project phasing plan was developed to estimate the level of construction activity occurring during any given year during build-out of the project. Based on this plan, the expected level of truck activity related to construction of the project is shown in Table 82.

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[65] There is currently a gated connection available to emergency vehicles only between Eucalyptus Avenue and Redlands Blvd.

Table 82: Estimated Construction-Related Truck Traffic

Land Use	2025 Study Year		
	Daily	AM Peak Hour	PM Peak Hour
Building			
Concrete Trucks	50	5	5
Material Delivery Trucks	20	2	2
Service/Support Trucks	80	8	8
Utilities			
Service/Support Trucks	15	2	2
Curbing			
Concrete Trucks	4	1	1
Service/Support Trucks	5	1	1
Paving			
Service/Support Trucks	5	1	1
Landscaping			
Service/Support Trucks	6	1	1
Project Total	**185**	**21**	**21**

F. TRUCK TRIPS TO PORT

Several comments received on the Draft EIR indicated confusion regarding the volume of truck traffic between the WLC and the Ports of Los Angeles and Long Beach. In general, the DEIR commenters seemed to believe that the truck traffic between the WLC and the ports will be much higher than will actually occur. This section responds to these comments by 1) describing the current share of port-related use of warehouse space, 2) estimating the truck traffic between the WLC and the ports using three different methods, 3) estimating the growth in WLC truck traffic to the port over time, and 4) determining whether WLC trucks would impose significant impacts on the freeways to the ports beyond those identified in previous chapters.

Current Share of Port-Related Warehouse Space

The DEIR commenters referred to SCAG's study entitled *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities*[66]. This study states that 13% of the occupied warehouse space in the SCAG region in 2009 was port-related. This indicates that while the ports are important sources of demand for warehouse space, the great majority of warehouse space serves other demands. In a large regional economy such as southern California this other demand amounted to 578 million square feet in 2009, and is growing over time.

The SCAG study also shows wide differentiation in the markets served. As can be seen in Table 83[67], Riverside County serves only a small percentage of port-related demand while playing a much more

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[66] *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities (Task Report 5)*, SCAG, June 2010

[67] Ibid

important role in serving non-port demand. This differentiation reflects the tendency of warehouse tenants whose operations rely on the ports to self-select locations close to the port.

Table 83: Share of Port and Non-Port Demand by County

County	Share of Port Demand for Warehouse Space	Share of Non-Port Demand for Warehouse Space
Los Angeles	61%	21%
Orange	7%	7%
Ventura	1%	3%
San Bernardino	19%	34%
Riverside	12%	34%
Imperial	0%	1%
Total	100%	100%

The information provided in the report indicates that only 5% of the warehouse space in Riverside County serves port-related demand (See Table 85), which suggests that the volume of truck traffic between the ports and warehouses in Riverside County, including those in WLC, will be relatively small.

The study also reached two conclusions regarding the regional supply of warehouse space, taken from the report's Executive Summary (pages ES-1 and ES-2):

- "*According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet.*
- *During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available.*"

In other words, according to SCAG study cited by the commenters, even if all of the land currently zoned for warehouse space were developed, there would still be a massive shortfall of warehouse space by 2035 unless projects like the WLC are approved and built.

Estimating Truck Trips between WLC and the Ports

In order to ensure that a reasonable worst case scenario was used for the impact analysis, the number of truck trips between the WLC and the ports was forecast using three different methods, all based on data provided by regional planning agencies, with the highest of the three forecasts used for the analysis. The three methods were as follows:

Method 1: RIVTAM Model

The first method for estimating truck trips to the port was to use the RIVTAM model. As described in Chapter 2, RIVTAM is the standard traffic forecasting tool used by agencies in Riverside County to analyze the regional effects of proposed projects. Like most other traffic models, RIVTAM assigns trips to destinations using a gravity model where the number of trips between each origin-destination pair increases in proportion to the number of trips generated at each end, but decreases in proportion to the distance between the origin and destination. The effect of distance on the likelihood of travel between origin-destination pairs is determined by the trip length distribution which in turn is based on survey data.

The WLC's proposed land uses were input into the RIVTAM model as described in Chapter 2, the model was run, and the outputs were checked to find how many truck trips were assigned between the port TAZs and the WLC. Using the RIVTAM model to estimate truck trips yields **82 truck trips per day between the ports and the WLC** if the WLC were built today (i.e. the Existing Plus Full Build-Out scenario).

Method 2: Based on Port Truck Study

The best information currently available on truck trips from the ports comes from the Ports of Los Angeles and Long Beach Year 2010 Marine Terminal Gate Surveys[68]. These surveys found that 1.5% of truck trips entering the ports came from Riverside County, and 1.7% of trucks leaving the ports went to Riverside County. These finding are consistent with an earlier study[69] that found 1% of truck trips entering the ports came from Riverside County and 2% of truck trips leaving the ports went to Riverside County (the numbers are rounded in the study). Applying the percentages from the 2010 survey to the approximately 54,700 truck trips per day generated by the ports[70] yields a total of approximately 875 trucks per day between the ports and Riverside County.

If we make the conservative assumption that every one of these 875 truck trips goes to a warehouse rather than to a factory, store, or some other destination, and divide these trips among the 136 million square feet of occupied warehouse space in Riverside County, we find an average of 6.5 truck trips to or from the ports per million square feet of warehouse space per day. Applying this rate to the 40.6 million square feet of warehouse space proposed for the WLC yields **261 truck trips per day between the ports and the WLC** if the WLC were built today (the Existing Plus Full Build-Out scenario).

Method 3: Based on Truck Flows from Riverside County

The best information currently available on regional truck traffic patterns comes from SCAG's Goods Movement Study[71] that was done in preparation for the 2016 RTP/SCS. Table 84 shows SCAG's estimated truck flows between Riverside County and other locations.

Table 84: Location of Other End of Trip, for Truck Trips Beginning or Ending in Riverside County

Type of Truck Trip	Riverside County	
	Truck Trips	% of Truck Trips
Other Places in SCAG Region	89,910	94.5%
Places Outside SCAG Region	4,231	4.4%
Intermodal	197	0.2%
Port-Related (Including secondary trips)	787	0.8%
Total	95,125	100.0%

Applying the ports' 0.8% share of Riverside County truck trips applies to WLC's 15,138 medium and heavy truck trips per day yields **125 truck trips per day between the ports and the WLC** if the WLC were built today (the Existing Plus Full Build-Out scenario).

This analysis shows that a reasonable estimate of truck traffic between WLC and the ports would be in the range of 82-to-261 truck trips per day. The higher figure of 261 truck trips per day was used as a reasonable worst-case scenario.

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[68] Technical Memorandum, *Ports of Los Angeles and Long Beach Year 2010 Marine Terminal Gate Surveys*, Cambridge Systematics to SCAG, November 2010

[69] *Ports of Long Beach/Los Angeles Transportation Study*, Meyer, Mohaddes Associates, June 2001

[70] *2016-2040 RTP/SCS Goods Movement Appendix,* Southern California Association of Governments, April 2016

[71] Ibid.

Growth in Truck Trips to the Port

Some comments suggested that the analysis should consider the possibility that the share of warehouse space in the Inland Empire, and by extension the WLC, may grow over time. This section addresses those comments.

As discussed previously (see Table 84) currently only 0.8% of the truck trips in Riverside County are to or from the ports. In the future, port-related uses are anticipated to require a greater share of warehouse space. Table 85 shows the expected growth in port-related cargo's share of warehouse space by county. For Riverside County, SCAG estimates that the percentage of warehouse space devoted to port uses would more than double between 2018 and 2035, from 6.6% to 16.3%.

Table 85: Percentage of Warehouse Space that is Port-Related[72]

Year	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Imperial	Total
2018	30.6%	11.9%	6.6%	8.2%	4.3%	0.0%	17.9%
2025	29.1%	17.5%	9.8%	22.3%	5.8%	0.0%	21.1%
2035	28.3%	28.5%	16.3%	21.8%	7.6%	0.0%	22.5%

Note that the percentage of warehouse space devoted to port-related cargo will always be larger than the percentage of trucks going to and from the port. That is because the cargo that has come from the port to the warehouse then leaves the warehouse in trucks going to non-port destinations. There may also be inbound truck trips to warehouses from places other than the ports, delivering shipments of packaging material and other items which might be combined with port-related cargo, thus further reducing the proportion of trucks that come from the ports.

The estimated percentage of WLC trucks going to the ports is summarized in Table 86. The percentage of WLC going to the port (1.72%) was estimated from 261 truck trips per day to the port compared to 15,138 medium and heavy truck trips per day to and from the WLC. For later years the percentage of WLC trucks going to the port was based on the growth trends in port-related warehouse space.

Table 86: Percentage of WLC Trucks to or from the Port

Year	% of Warehouse Space Used for Port-Related Cargo	% of WLC Truck Trips Going to and from the Ports
2018	6.6%	1.72%
2025	9.8%	2.54%
2035	16.3%	4.24%
2040	19.6%	5.09%

These percentages were then applied to the trip generation rates to obtain the number of WLC trucks to and from the port for each analysis period. These are shown in Table 87.

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[72] Source: *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities* (Task 5 Report), Southern California Association of Governments. June 2010, pages 16-19.

Table 87: Medium & Heavy Truck Trips between WLC and the Ports by Analysis Period

Scenario		AM Peak Hour		PM Peak Hour		Daily	
		In	Out	In	Out	In	Out
2018 Plus Full Build-Out	Total WLC Med & Hvy Trucks	379	450	319	383	7,569	7,569
	Percent to or from Ports	1.72%	1.72%	1.72%	1.72%	1.72%	1.72%
	WLC Med & Hvy Trucks to Port	7	8	5	7	130	130
2025 Plus Phase 1	Total WLC Med & Hvy Trucks	223	261	186	223	4,374	4,374
	Percent to or from Ports	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%
	WLC Med & Hvy Trucks to Port	6	7	5	6	111	111
2040 Plus Full Build-Out	Total WLC Med & Hvy Trucks	379	450	319	383	7,569	7,569
	Percent to or from Ports	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%
	WLC Med & Hvy Trucks to Port	19	23	16	20	385	385

Tests with the SCAG traffic model showed that these trips would split approximately evenly between the two routes shown in Figure 48 and thus, half of these trips were assigned to the SR-60 route and half to the SR-91 route.

Determination of Whether Impacts are Significant

The potential for traffic impacts along the SR-60 and SR-91 corridors was assessed by manually adding the forecasts for WLC trucks to and from the port to the No-Project scenario from the SCAG model. Because the ports and the freeways leading to them are in Los Angeles County, the threshold of significance for the analysis was taken from the Los Angeles County Congestion Management Program (CMP)[73]. The CMP states that a significant impact would be deemed to occur if the project increased demand on a highway by at least 2% causing LOS "F" or, if the highway facility already operates at LOS "F", then a significant impact would be deemed to occur if the project increases traffic demand by 2% or more of capacity.

Table 88 through Table 99[74] show the results of this analysis for each section of the SR-60 and SR-91 corridors and in each direction, for both the AM and PM peak periods, for three of the four Plus Build-out scenarios studied in other sections of the report[75]. As shown in the tables the addition of the WLC traffic, which ranges from 0.03% to 0.51% of non-project traffic, would not cause a significant impact on any segment of these freeways.

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[73] Note that Caltrans has not established thresholds of significance for freeway impacts, and neither have the CMPs for Orange, San Bernardino, or Riverside Counties.

[74] The determination of whether the 2% threshold was reached was done in Passenger Car Equivalents. Please see Chapter 2 Section A for an explanation of the PCE factors used.

[75] For freeway traffic the Existing Plus Phase 1 (Only) scenario is identical to the Existing Plus Full Build-Out scenario but with much less warehouse space and so fewer freeway truck trips. If the Existing Plus Full Build-Out scenario does not generate any significant impacts then the Existing Plus Phase 1 (only) would necessarily not generate any significant impacts, either.

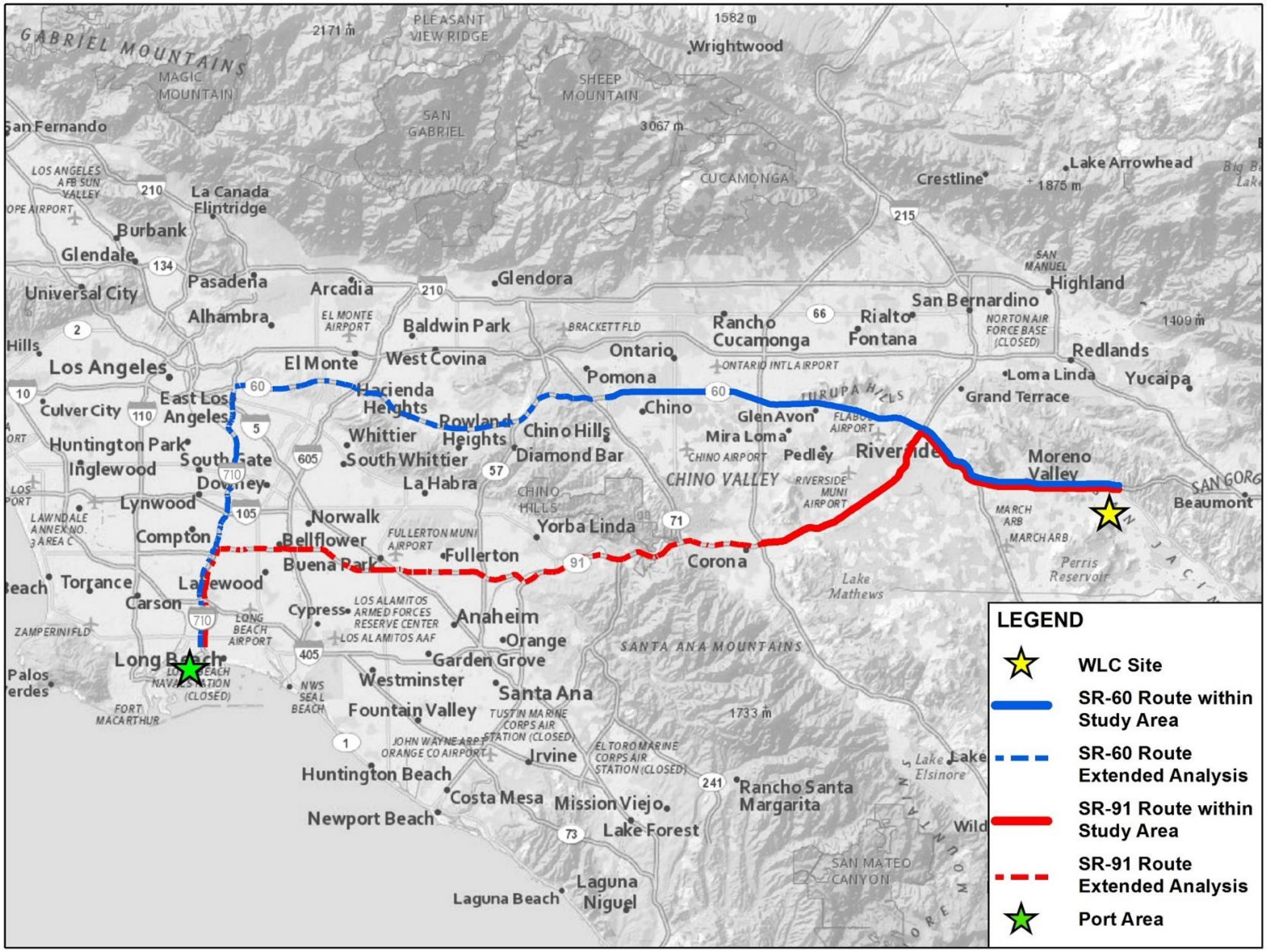

Figure 48: Routes to the Port Outside of the Study Area

Table 88: Volumes Along Routes to Port, Existing, Eastbound, AM Peak Hour

Route		Segment Descripton	2018 No Project (Existing Conditions)					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 EB	SR -71 S to Phillips Ranch Rd	5,977	337	6,314	6,483	130	4	5	0.08%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	7,162	311	7,473	7,629	153	4	5	0.07%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	13,563	361	13,924	14,105	282	4	5	0.04%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	13,563	361	13,924	14,105	282	4	5	0.04%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	6,416	180	6,596	6,686	134	4	5	0.08%	No
		Lemon Ave to Fairway Dr	6,416	180	6,596	6,686	134	4	5	0.08%	No
		Fairway Dr to Nogales St	6,001	396	6,397	6,595	132	4	5	0.08%	No
		Nogales St to Fullerton Rd	6,057	702	6,759	7,110	142	4	5	0.07%	No
		Fullerton Rd to S. Azusa Ave	7,085	310	7,395	7,550	151	4	5	0.07%	No
		S. Azusa Ave to S. Hacienda Blvd	9,096	652	9,748	10,074	201	4	5	0.05%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	8,218	457	8,675	8,904	178	4	5	0.06%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	8,006	583	8,589	8,881	178	4	5	0.06%	No
		Crossroads Pkwy N to I-605	6,944	690	7,634	7,979	160	4	5	0.07%	No
		I-605 to Peck Rd	6,564	694	7,258	7,605	152	4	5	0.07%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	6,182	441	6,623	6,844	137	4	5	0.08%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	6,783	403	7,186	7,388	148	4	5	0.07%	No
		Rosemead Blvd to San Gabriel Blvd	6,096	758	6,854	7,233	145	4	5	0.07%	No
		San Gabriel Blvd to Paramount Blvd	6,669	489	7,158	7,403	148	4	5	0.07%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	4,921	532	5,453	5,719	114	4	5	0.09%	No
		E Markland Dr to W Pomona Blvd E of Findlay	4,899	415	5,314	5,522	110	4	5	0.10%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	5,740	526	6,266	6,529	131	4	5	0.08%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	6,314	445	6,759	6,982	140	4	5	0.08%	No
		S Atlantic Blvd to I-710	5,838	365	6,203	6,386	128	4	5	0.08%	No
	SR-710 NB	SR 60 to S Eastern Ave/Olympic Blvd	8,885	515	9,400	9,658	193	4	5	0.05%	No
		I-5 to E Washington Blvd	5,849	244	6,093	6,215	124	4	5	0.08%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	6,560	280	6,840	6,980	140	4	5	0.08%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	6,618	276	6,894	7,032	141	4	5	0.07%	No
		Florence Ave to Firestone Blvd	5,918	311	6,229	6,385	128	4	5	0.08%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,694	323	8,017	8,179	164	4	5	0.06%	No
		Imperial Hwy/Abott Rd to I-105	8,885	515	9,400	9,658	193	4	5	0.05%	No
		I-105 to E Alondra Blvd	6,648	277	6,925	7,064	141	4	5	0.07%	No
		E Alondra Blvd to SR 91	6,200	298	6,498	6,647	133	4	5	0.08%	No
SR-91 Route	SR-91 EB	I-15 to N Main St	3,887	184	4,071	4,163	83	4	5	0.13%	No
		Main St/Grand Blvd to Lincoln Ave	7,183	493	7,676	7,923	158	4	5	0.07%	No
		N Lincoln Ave to S Maple St/W 6th St	6,790	464	7,254	7,486	150	4	5	0.07%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	6,606	312	6,918	7,074	141	4	5	0.07%	No
		Serfas Club Dr/Auto Center Dr to SR-71	7,161	491	7,652	7,898	158	4	5	0.07%	No
		SR-71 to Green River Rd	7,004	1,244	8,248	8,870	177	4	5	0.06%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	8,041	352	8,393	8,569	171	4	5	0.06%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	7,845	359	8,204	8,384	168	4	5	0.06%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	7,732	498	8,230	8,479	170	4	5	0.06%	No
		SR-90/Imperial Hwy to N Lakeview Ave	9,105	769	9,874	10,259	205	4	5	0.05%	No
		N Lakeview Ave to SR-55	8,407	410	8,817	9,022	180	4	5	0.06%	No
		SR-55 to Tustin Ave	7,590	279	7,869	8,009	160	4	5	0.07%	No
		Tustin Ave to Kraemer Blvd	6,674	241	6,915	7,036	141	4	5	0.07%	No
		Kraemer Blvd to SR-57	8,140	259	8,399	8,529	171	4	5	0.06%	No
		SR-57 to State College Blvd	7,943	534	8,477	8,744	175	4	5	0.06%	No
		State College Blvd to Raymond Ave/East St	8,655	278	8,933	9,072	181	4	5	0.06%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	8,655	278	8,933	9,072	181	4	5	0.06%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,556	271	8,827	8,963	179	4	5	0.06%	No
		Euclid St to Brookhurst Rd	8,107	253	8,360	8,487	170	4	5	0.06%	No
		Brookhurst Rd to I-5	9,253	683	9,936	10,278	206	4	5	0.05%	No
		I-5 to Beach Blvd	8,927	288	9,215	9,359	187	4	5	0.06%	No
		Beach Blvd to Knott Ave	9,125	410	9,535	9,740	195	4	5	0.05%	No
		Knott Ave to Valley View St	8,190	386	8,576	8,769	175	4	5	0.06%	No
		Valley View St to Carmenita Rd	7,866	282	8,148	8,289	166	4	5	0.06%	No
		Carmenita Rd to Artesia Blvd	6,319	761	7,080	7,461	149	4	5	0.07%	No
		Artesia Blvd to Bloomfield Ave	6,938	422	7,360	7,571	151	4	5	0.07%	No
		Bloomfield Ave to Norwalk Blvd	8,209	325	8,534	8,697	174	4	5	0.06%	No
		Norwalk Blvd to Pioneer Blvd	9,457	338	9,795	9,964	199	4	5	0.05%	No
		Pioneer Blvd to SR-605	11,181	414	11,595	11,802	236	4	5	0.04%	No
		SR-605 to Bellflower Blvd	9,816	568	10,384	10,668	213	4	5	0.05%	No
		Bellflower Blvd to Clark Ave	8,332	590	8,922	9,217	184	4	5	0.06%	No
		Clark Ave to Lakewood Blvd	7,835	814	8,649	9,056	181	4	5	0.06%	No
		Lakewood Blvd to Downey Ave	8,943	436	9,379	9,597	192	4	5	0.05%	No
		Downey Ave to Paramount Blvd	10,573	454	11,027	11,254	225	4	5	0.05%	No
		Paramount Blvd to Cherry Ave	9,795	331	10,126	10,292	206	4	5	0.05%	No
		Cherry Ave to I-710	10,273	610	10,883	11,188	224	4	5	0.05%	No
Shared Portion	SR-710 NB	SR 91 to Long Beach Blvd	10,927	823	11,750	12,162	243	7	11	0.09%	No
		Long Beach Blvd to W Del Amo Blvd	3,700	279	3,979	4,119	82	7	11	0.25%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	4,174	314	4,488	4,645	93	7	11	0.23%	No
		I-405/W Wardlow Rd to W Willow St	5,901	1,149	7,050	7,625	152	7	11	0.14%	No
		W Willow St to Pacific Coast Hwy	5,789	1,261	7,050	7,681	154	7	11	0.14%	No
		Pacific Coast Hwy to W Anaheim St/9th St	8,742	658	9,400	9,729	195	7	11	0.11%	No

Table 89: Volumes Along Routes to Port, Existing, Westbound, AM Peak Hour

Route		Segment Descripton	2018 No Project (Existing Conditions)					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 WB	SR -71 S to Phillips Ranch Rd	7,730	308	8,038	8,192	164	4	6	0.1%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	10,118	1,177	11,295	11,884	238	4	6	0.1%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	13,563	361	13,924	14,105	282	4	6	0.0%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	10,651	323	10,974	11,136	223	4	6	0.1%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	7,932	214	8,146	8,253	165	4	6	0.1%	No
		Lemon Ave to Fairway Dr	7,932	214	8,146	8,253	165	4	6	0.1%	No
		Fairway Dr to Nogales St	6,285	502	6,787	7,038	141	4	6	0.1%	No
		Nogales St to Fullerton Rd	6,958	487	7,445	7,689	154	4	6	0.1%	No
		Fullerton Rd to S. Azusa Ave	8,049	323	8,372	8,534	171	4	6	0.1%	No
		S. Azusa Ave to S. Hacienda Blvd	10,772	523	11,295	11,557	231	4	6	0.1%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	9,392	1,256	10,648	11,276	226	4	6	0.1%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	11,397	353	11,750	11,927	239	4	6	0.05%	No
		Crossroads Pkwy N to I-605	11,397	353	11,750	11,927	239	4	6	0.05%	No
		I-605 to Peck Rd	11,121	629	11,750	12,065	241	4	6	0.05%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	11,147	603	11,750	12,052	241	4	6	0.05%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	10,492	1,258	11,750	12,379	248	4	6	0.05%	No
		Rosemead Blvd to San Gabriel Blvd	9,066	396	9,462	9,660	193	4	6	0.06%	No
		San Gabriel Blvd to Paramount Blvd	10,748	1,002	11,750	12,251	245	4	6	0.05%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	6,597	1,354	7,951	8,628	173	4	6	0.07%	No
		E Markland Dr to W Pomona Blvd E of Findlay	7,225	635	7,860	8,178	164	4	6	0.07%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Fir	8,846	521	9,367	9,628	193	4	6	0.06%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	9,163	1,136	10,299	10,867	217	4	6	0.06%	No
		S Atlantic Blvd to I-710	7,881	587	8,468	8,762	175	4	6	0.07%	No
	SR-710 SB	SR 60 to S Eastern Ave/Olympic Blvd	9,118	282	9,400	9,541	191	4	6	0.06%	No
		I-5 to E Washington Blvd	8,530	355	8,885	9,063	181	4	6	0.07%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	6,764	326	7,090	7,253	145	4	6	0.08%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	7,413	309	7,722	7,877	158	4	6	0.08%	No
		Florence Ave to Firestone Blvd	6,961	366	7,327	7,510	150	4	6	0.08%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,694	323	8,017	8,179	164	4	6	0.07%	No
		Imperial Hwy/Abott Rd to I-105	6,551	373	6,924	7,111	142	4	6	0.08%	No
		I-105 to E Alondra Blvd	9,020	376	9,396	9,584	192	4	6	0.06%	No
		E Alondra Blvd to SR 91	6,696	354	7,050	7,227	145	4	6	0.08%	No
SR-91 Route	SR-91 WB	I-15 to N Main St	6,963	261	7,224	7,355	147	4	6	0.08%	No
		Main St/Grand Blvd to Lincoln Ave	10,371	383	10,754	10,946	219	4	6	0.05%	No
		N Lincoln Ave to S Maple St/W 6th St	10,485	376	10,861	11,049	221	4	6	0.05%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	10,373	396	10,769	10,967	219	4	6	0.05%	No
		Serfas Club Dr/Auto Center Dr to SR-71	10,384	376	10,760	10,948	219	4	6	0.05%	No
		SR-71 to Green River Rd	13,699	895	14,594	15,042	301	4	6	0.04%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	12,434	448	12,882	13,106	262	4	6	0.05%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	8,863	529	9,392	9,657	193	4	6	0.06%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	9,324	368	9,692	9,876	198	4	6	0.06%	No
		SR-90/Imperial Hwy to N Lakeview Ave	12,974	470	13,444	13,679	274	4	6	0.04%	No
		N Lakeview Ave to SR-55	10,640	2,804	13,444	14,846	297	4	6	0.04%	No
		SR-55 to Tustin Ave	7,264	661	7,925	8,256	165	4	6	0.07%	No
		Tustin Ave to Kraemer Blvd	8,108	356	8,464	8,642	173	4	6	0.07%	No
		Kraemer Blvd to SR-57	8,402	269	8,671	8,806	176	4	6	0.07%	No
		SR-57 to State College Blvd	7,522	343	7,865	8,037	161	4	6	0.07%	No
		State College Blvd to Raymond Ave/East St	8,655	278	8,933	9,072	181	4	6	0.07%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	9,870	331	10,201	10,367	207	4	6	0.06%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,558	272	8,830	8,966	179	4	6	0.07%	No
		Euclid St to Brookhurst Rd	8,109	253	8,362	8,489	170	4	6	0.07%	No
		Brookhurst Rd to I-5	8,011	282	8,293	8,434	169	4	6	0.07%	No
		I-5 to Beach Blvd	8,961	292	9,253	9,399	188	4	6	0.06%	No
		Beach Blvd to Knott Ave	9,182	323	9,505	9,667	193	4	6	0.06%	No
		Knott Ave to Valley View St	7,092	1,695	8,787	9,635	193	4	6	0.06%	No
		Valley View St to Carmenita Rd	10,637	390	11,027	11,222	224	4	6	0.05%	No
		Carmenita Rd to Artesia Blvd	9,736	376	10,112	10,300	206	4	6	0.06%	No
		Artesia Blvd to Bloomfield Ave	10,118	722	10,840	11,201	224	4	6	0.05%	No
		Bloomfield Ave to Norwalk Blvd	9,736	376	10,112	10,300	206	4	6	0.06%	No
		Norwalk Blvd to Pioneer Blvd	9,370	742	10,112	10,483	210	4	6	0.06%	No
		Pioneer Blvd to SR-605	9,152	960	10,112	10,592	212	4	6	0.06%	No
		SR-605 to Bellflower Blvd	10,663	870	11,533	11,968	239	4	6	0.05%	No
		Bellflower Blvd to Clark Ave	9,518	1,309	10,827	11,482	230	4	6	0.05%	No
		Clark Ave to Lakewood Blvd	10,400	426	10,826	11,039	221	4	6	0.05%	No
		Lakewood Blvd to Downey Ave	9,943	794	10,737	11,134	223	4	6	0.05%	No
		Downey Ave to Paramount Blvd	9,090	320	9,410	9,570	191	4	6	0.06%	No
		Paramount Blvd to Cherry Ave	12,334	828	13,162	13,576	272	4	6	0.04%	No
		Cherry Ave to I-710	9,611	584	10,195	10,487	210	4	6	0.06%	No
Shared Portion	SR-710 SB	SR 91 to Long Beach Blvd	8,742	658	9,400	9,729	195	8	12	0.12%	No
		Long Beach Blvd to W Del Amo Blvd	6,597	497	7,094	7,343	147	8	12	0.16%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	8,742	658	9,400	9,729	195	8	12	0.12%	No
		I-405/W Wardlow Rd to W Willow St	4,887	841	5,728	6,149	123	8	12	0.20%	No
		W Willow St to Pacific Coast Hwy	4,348	841	5,189	5,610	112	8	12	0.21%	No
		Pacific Coast Hwy to W Anaheim St/9th St	5,199	391	5,590	5,786	116	8	12	0.21%	No

Table 90: Volumes Along Routes to Port, Existing, Eastbound, PM Peak Hour

Route		Segment Descripton	2018 No Project (Existing Conditions)					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 EB	SR -71 S to Phillips Ranch Rd	6,859	221	7,080	7,191	144	3	4	0.05%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	9,055	313	9,368	9,525	190	3	4	0.04%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	13,414	355	13,769	13,947	279	3	4	0.03%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	13,414	355	13,769	13,947	279	3	4	0.03%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	10,379	282	10,661	10,802	216	3	4	0.03%	No
		Lemon Ave to Fairway Dr	10,379	282	10,661	10,802	216	3	4	0.03%	No
		Fairway Dr to Nogales St	10,248	408	10,656	10,860	217	3	4	0.03%	No
		Nogales St to Fullerton Rd	8,727	1,606	10,333	11,136	223	3	4	0.03%	No
		Fullerton Rd to S. Azusa Ave	9,663	260	9,923	10,053	201	3	4	0.04%	No
		S. Azusa Ave to S. Hacienda Blvd	11,164	505	11,669	11,922	238	3	4	0.03%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	8,909	410	9,319	9,524	190	3	4	0.04%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	10,511	789	11,300	11,695	234	3	4	0.03%	No
		Crossroads Pkwy N to I-605	9,104	920	10,024	10,484	210	3	4	0.04%	No
		I-605 to Peck Rd	11,287	463	11,750	11,982	240	3	4	0.03%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	9,092	638	9,730	10,049	201	3	4	0.04%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	10,964	786	11,750	12,143	243	3	4	0.03%	No
		Rosemead Blvd to San Gabriel Blvd	8,216	1,184	9,400	9,992	200	3	4	0.04%	No
		San Gabriel Blvd to Paramount Blvd	9,118	282	9,400	9,541	191	3	4	0.04%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	11,397	353	11,750	11,927	239	3	4	0.03%	No
		E Markland Dr to W Pomona Blvd E of Findlay	9,114	286	9,400	9,543	191	3	4	0.04%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	10,953	797	11,750	12,149	243	3	4	0.03%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	13,564	474	14,038	14,275	286	3	4	0.03%	No
		S Atlantic Blvd to I-710	9,220	503	9,723	9,975	199	3	4	0.04%	No
	SR-710 NB	SR 60 to S Eastern Ave/Olympic Blvd	8,883	517	9,400	9,659	193	3	4	0.04%	No
		I-5 to E Washington Blvd	5,993	250	6,243	6,368	127	3	4	0.06%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	7,258	314	7,572	7,729	155	3	4	0.05%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	6,606	275	6,881	7,019	140	3	4	0.05%	No
		Florence Ave to Firestone Blvd	5,904	311	6,215	6,371	127	3	4	0.06%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,713	324	8,037	8,199	164	3	4	0.05%	No
		Imperial Hwy/Abott Rd to I-105	8,883	517	9,400	9,659	193	3	4	0.04%	No
		I-105 to E Alondra Blvd	6,540	273	6,813	6,950	139	3	4	0.05%	No
		E Alondra Blvd to SR 91	7,865	381	8,246	8,437	169	3	4	0.04%	No
SR-91 Route	SR-91 EB	I-15 to N Main St	10,019	470	10,489	10,724	214	3	4	0.03%	No
		Main St/Grand Blvd to Lincoln Ave	9,595	470	10,065	10,300	206	3	4	0.04%	No
		N Lincoln Ave to S Maple St/W 6th St	8,995	444	9,439	9,661	193	3	4	0.04%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	8,596	355	8,951	9,129	183	3	4	0.04%	No
		Serfas Club Dr/Auto Center Dr to SR-71	9,819	413	10,232	10,439	209	3	4	0.04%	No
		SR-71 to Green River Rd	8,559	1,616	10,175	10,983	220	3	4	0.03%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	11,244	422	11,666	11,877	238	3	4	0.03%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	8,857	368	9,225	9,409	188	3	4	0.04%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	10,204	346	10,550	10,723	214	3	4	0.03%	No
		SR-90/Imperial Hwy to N Lakeview Ave	10,674	727	11,401	11,765	235	3	4	0.03%	No
		N Lakeview Ave to SR-55	7,793	240	8,033	8,153	163	3	4	0.05%	No
		SR-55 to Tustin Ave	7,501	269	7,770	7,905	158	3	4	0.05%	No
		Tustin Ave to Kraemer Blvd	7,053	250	7,303	7,428	149	3	4	0.05%	No
		Kraemer Blvd to SR-57	9,536	320	9,856	10,016	200	3	4	0.04%	No
		SR-57 to State College Blvd	7,633	582	8,215	8,506	170	3	4	0.04%	No
		State College Blvd to Raymond Ave/East St	8,734	281	9,015	9,156	183	3	4	0.04%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	8,734	281	9,015	9,156	183	3	4	0.04%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,500	269	8,769	8,904	178	3	4	0.04%	No
		Euclid St to Brookhurst Rd	8,073	251	8,324	8,450	169	3	4	0.04%	No
		Brookhurst Rd to I-5	8,933	552	9,485	9,761	195	3	4	0.04%	No
		I-5 to Beach Blvd	9,073	292	9,365	9,511	190	3	4	0.04%	No
		Beach Blvd to Knott Ave	9,059	355	9,414	9,592	192	3	4	0.04%	No
		Knott Ave to Valley View St	10,181	360	10,541	10,721	214	3	4	0.03%	No
		Valley View St to Carmenita Rd	10,409	376	10,785	10,973	219	3	4	0.03%	No
		Carmenita Rd to Artesia Blvd	7,512	1,031	8,543	9,059	181	3	4	0.04%	No
		Artesia Blvd to Bloomfield Ave	8,714	551	9,265	9,541	191	3	4	0.04%	No
		Bloomfield Ave to Norwalk Blvd	8,366	347	8,713	8,887	178	3	4	0.04%	No
		Norwalk Blvd to Pioneer Blvd	9,595	340	9,935	10,105	202	3	4	0.04%	No
		Pioneer Blvd to SR-605	11,278	414	11,692	11,899	238	3	4	0.03%	No
		SR-605 to Bellflower Blvd	11,427	423	11,850	12,062	241	3	4	0.03%	No
		Bellflower Blvd to Clark Ave	10,189	367	10,556	10,740	215	3	4	0.03%	No
		Clark Ave to Lakewood Blvd	10,513	571	11,084	11,370	227	3	4	0.03%	No
		Lakewood Blvd to Downey Ave	9,074	437	9,511	9,730	195	3	4	0.04%	No
		Downey Ave to Paramount Blvd	11,551	526	12,077	12,340	247	3	4	0.03%	No
		Paramount Blvd to Cherry Ave	10,761	376	11,137	11,325	227	3	4	0.03%	No
		Cherry Ave to I-710	11,115	597	11,712	12,011	240	3	4	0.03%	No
Shared Portion	SR-710 NB	SR 91 to Long Beach Blvd	10,927	823	11,750	12,162	243	5	8	0.06%	No
		Long Beach Blvd to W Del Amo Blvd	4,351	327	4,678	4,842	97	5	8	0.15%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	4,835	364	5,199	5,381	108	5	8	0.14%	No
		I-405/W Wardlow Rd to W Willow St	6,169	881	7,050	7,491	150	5	8	0.10%	No
		W Willow St to Pacific Coast Hwy	6,077	973	7,050	7,537	151	5	8	0.10%	No
		Pacific Coast Hwy to W Anaheim St/9th St	8,742	658	9,400	9,729	195	5	8	0.08%	No

Table 91: Volumes Along Routes to Port, Existing, Westbound, PM Peak Hour

Route		Segment Descripton	2018 No Project (Existing Conditions)					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 WB	SR -71 S to Phillips Ranch Rd	6,416	227	6,643	6,757	135	4	5	0.08%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	7,856	562	8,418	8,699	174	4	5	0.06%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	13,414	355	13,769	13,947	279	4	5	0.04%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	10,276	324	10,600	10,762	215	4	5	0.05%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	6,944	191	7,135	7,231	145	4	5	0.07%	No
		Lemon Ave to Fairway Dr	6,944	191	7,135	7,231	145	4	5	0.07%	No
		Fairway Dr to Nogales St	6,012	414	6,426	6,633	133	4	5	0.08%	No
		Nogales St to Fullerton Rd	6,815	343	7,158	7,330	147	4	5	0.07%	No
		Fullerton Rd to S. Azusa Ave	7,573	305	7,878	8,031	161	4	5	0.07%	No
		S. Azusa Ave to S. Hacienda Blvd	8,853	305	9,158	9,311	186	4	5	0.06%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	8,997	783	9,780	10,172	203	4	5	0.05%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	9,367	420	9,787	9,997	200	4	5	0.05%	No
		Crossroads Pkwy N to I-605	11,083	667	11,750	12,084	242	4	5	0.04%	No
		I-605 to Peck Rd	7,240	306	7,546	7,699	154	4	5	0.07%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	7,358	306	7,664	7,817	156	4	5	0.07%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	6,963	496	7,459	7,707	154	4	5	0.07%	No
		Rosemead Blvd to San Gabriel Blvd	7,243	313	7,556	7,713	154	4	5	0.07%	No
		San Gabriel Blvd to Paramount Blvd	6,112	430	6,542	6,757	135	4	5	0.08%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	4,428	844	5,272	5,694	114	4	5	0.09%	No
		E Markland Dr to W Pomona Blvd E of Findlay	4,932	324	5,256	5,418	108	4	5	0.10%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	6,021	314	6,335	6,492	130	4	5	0.08%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	6,357	425	6,782	6,995	140	4	5	0.08%	No
		S Atlantic Blvd to I-710	6,115	374	6,489	6,676	134	4	5	0.08%	No
	SR-710 SB	SR 60 to S Eastern Ave/Olympic Blvd	9,118	282	9,400	9,541	191	4	5	0.06%	No
		I-5 to E Washington Blvd	7,938	331	8,269	8,435	169	4	5	0.06%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	6,035	295	6,330	6,478	130	4	5	0.08%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	7,270	303	7,573	7,725	154	4	5	0.07%	No
		Florence Ave to Firestone Blvd	6,878	362	7,240	7,421	148	4	5	0.07%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,713	324	8,037	8,199	164	4	5	0.06%	No
		Imperial Hwy/Abott Rd to I-105	6,444	371	6,815	7,001	140	4	5	0.07%	No
		I-105 to E Alondra Blvd	7,596	317	7,913	8,072	161	4	5	0.07%	No
		E Alondra Blvd to SR 91	6,926	371	7,297	7,483	150	4	5	0.07%	No
SR-91 Route	SR-91 WB	I-15 to N Main St	7,569	286	7,855	7,998	160	4	5	0.07%	No
		Main St/Grand Blvd to Lincoln Ave	10,850	376	11,226	11,414	228	4	5	0.05%	No
		N Lincoln Ave to S Maple St/W 6th St	13,774	376	14,150	14,338	287	4	5	0.04%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	10,717	526	11,243	11,506	230	4	5	0.05%	No
		Serfas Club Dr/Auto Center Dr to SR-71	10,837	385	11,222	11,415	228	4	5	0.05%	No
		SR-71 to Green River Rd	9,093	287	9,380	9,524	190	4	5	0.06%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	7,441	271	7,712	7,848	157	4	5	0.07%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	7,340	461	7,801	8,032	161	4	5	0.07%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	8,226	294	8,520	8,667	173	4	5	0.06%	No
		SR-90/Imperial Hwy to N Lakeview Ave	12,341	470	12,811	13,046	261	4	5	0.04%	No
		N Lakeview Ave to SR-55	6,461	1,803	8,264	9,166	183	4	5	0.06%	No
		SR-55 to Tustin Ave	7,253	649	7,902	8,227	165	4	5	0.06%	No
		Tustin Ave to Kraemer Blvd	7,678	384	8,062	8,254	165	4	5	0.06%	No
		Kraemer Blvd to SR-57	8,069	256	8,325	8,453	169	4	5	0.06%	No
		SR-57 to State College Blvd	7,967	282	8,249	8,390	168	4	5	0.06%	No
		State College Blvd to Raymond Ave/East St	8,734	281	9,015	9,156	183	4	5	0.06%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	9,914	334	10,248	10,415	208	4	5	0.05%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,494	269	8,763	8,898	178	4	5	0.06%	No
		Euclid St to Brookhurst Rd	8,070	251	8,321	8,447	169	4	5	0.06%	No
		Brookhurst Rd to I-5	8,138	278	8,416	8,555	171	4	5	0.06%	No
		I-5 to Beach Blvd	8,691	279	8,970	9,110	182	4	5	0.06%	No
		Beach Blvd to Knott Ave	8,532	300	8,832	8,982	180	4	5	0.06%	No
		Knott Ave to Valley View St	7,427	2,043	9,470	10,492	210	4	5	0.05%	No
		Valley View St to Carmenita Rd	10,871	451	11,322	11,548	231	4	5	0.05%	No
		Carmenita Rd to Artesia Blvd	9,978	376	10,354	10,542	211	4	5	0.05%	No
		Artesia Blvd to Bloomfield Ave	10,180	603	10,783	11,085	222	4	5	0.05%	No
		Bloomfield Ave to Norwalk Blvd	9,978	376	10,354	10,542	211	4	5	0.05%	No
		Norwalk Blvd to Pioneer Blvd	9,626	728	10,354	10,718	214	4	5	0.05%	No
		Pioneer Blvd to SR-605	9,085	952	10,037	10,513	210	4	5	0.05%	No
		SR-605 to Bellflower Blvd	10,743	767	11,510	11,894	238	4	5	0.04%	No
		Bellflower Blvd to Clark Ave	9,165	1,522	10,687	11,448	229	4	5	0.05%	No
		Clark Ave to Lakewood Blvd	9,739	573	10,312	10,599	212	4	5	0.05%	No
		Lakewood Blvd to Downey Ave	9,491	797	10,288	10,687	214	4	5	0.05%	No
		Downey Ave to Paramount Blvd	8,912	320	9,232	9,392	188	4	5	0.06%	No
		Paramount Blvd to Cherry Ave	8,136	883	9,019	9,461	189	4	5	0.06%	No
		Cherry Ave to I-710	8,372	573	8,945	9,232	185	4	5	0.06%	No
Shared Portion	SR-710 SB	SR 91 to Long Beach Blvd	8,742	658	9,400	9,729	195	7	11	0.11%	No
		Long Beach Blvd to W Del Amo Blvd	5,662	426	6,088	6,301	126	7	11	0.17%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	7,931	597	8,528	8,827	177	7	11	0.12%	No
		I-405/W Wardlow Rd to W Willow St	4,727	590	5,317	5,612	112	7	11	0.19%	No
		W Willow St to Pacific Coast Hwy	4,232	590	4,822	5,117	102	7	11	0.21%	No
		Pacific Coast Hwy to W Anaheim St/9th St	4,267	321	4,588	4,749	95	7	11	0.22%	No

Table 92: Volumes Along Routes to Port, 2025, Eastbound, AM Peak Hour

Route		Segment Descripton	2025 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 EB	SR -71 S to Phillips Ranch Rd	6,562	374	6,936	7,123	142	3	5	0.06%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	7,747	344	8,091	8,263	165	3	5	0.05%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	14,296	364	14,660	14,842	297	3	5	0.03%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	14,231	363	14,594	14,776	296	3	5	0.03%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	6,878	189	7,067	7,162	143	3	5	0.06%	No
		Lemon Ave to Fairway Dr	6,878	189	7,067	7,162	143	3	5	0.06%	No
		Fairway Dr to Nogales St	6,438	404	6,842	7,044	141	3	5	0.06%	No
		Nogales St to Fullerton Rd	6,487	705	7,192	7,545	151	3	5	0.06%	No
		Fullerton Rd to S. Azusa Ave	7,539	314	7,853	8,010	160	3	5	0.06%	No
		S. Azusa Ave to S. Hacienda Blvd	9,540	654	10,194	10,521	210	3	5	0.04%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	8,659	456	9,115	9,343	187	3	5	0.05%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	8,499	568	9,067	9,351	187	3	5	0.05%	No
		Crossroads Pkwy N to I-605	7,444	679	8,123	8,463	169	3	5	0.05%	No
		I-605 to Peck Rd	7,034	657	7,691	8,020	160	3	5	0.06%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	6,642	405	7,047	7,250	145	3	5	0.06%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	7,227	374	7,601	7,788	156	3	5	0.06%	No
		Rosemead Blvd to San Gabriel Blvd	6,466	730	7,196	7,561	151	3	5	0.06%	No
		San Gabriel Blvd to Paramount Blvd	7,022	463	7,485	7,717	154	3	5	0.06%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	5,276	506	5,782	6,035	121	3	5	0.07%	No
		E Markland Dr to W Pomona Blvd E of Findlay	5,241	392	5,633	5,829	117	3	5	0.08%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	6,093	501	6,594	6,845	137	3	5	0.07%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	6,693	419	7,112	7,322	146	3	5	0.06%	No
		S Atlantic Blvd to I-710	6,214	344	6,558	6,730	135	3	5	0.07%	No
	SR-710 NB	SR 60 to S Eastern Ave/Olympic Blvd	9,039	474	9,513	9,750	195	3	5	0.05%	No
		I-5 to E Washington Blvd	5,961	216	6,177	6,285	126	3	5	0.07%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	6,615	256	6,871	6,999	140	3	5	0.06%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	6,728	251	6,979	7,105	142	3	5	0.06%	No
		Florence Ave to Firestone Blvd	6,037	288	6,325	6,469	129	3	5	0.07%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,842	299	8,141	8,291	166	3	5	0.05%	No
		Imperial Hwy/Abott Rd to I-105	9,049	496	9,545	9,793	196	3	5	0.05%	No
		I-105 to E Alondra Blvd	6,807	272	7,079	7,215	144	3	5	0.06%	No
		E Alondra Blvd to SR 91	6,360	294	6,654	6,801	136	3	5	0.07%	No
SR-91 Route	SR-91 EB	I-15 to N Main St	4,416	168	4,584	4,668	93	3	5	0.10%	No
		Main St/Grand Blvd to Lincoln Ave	7,853	477	8,330	8,569	171	3	5	0.05%	No
		N Lincoln Ave to S Maple St/W 6th St	7,509	455	7,964	8,192	164	3	5	0.05%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	7,342	300	7,642	7,792	156	3	5	0.06%	No
		Serfas Club Dr/Auto Center Dr to SR-71	8,007	467	8,474	8,708	174	3	5	0.05%	No
		SR-71 to Green River Rd	7,711	1,226	8,937	9,550	191	3	5	0.05%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	8,829	329	9,158	9,323	186	3	5	0.05%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	8,491	327	8,818	8,982	180	3	5	0.05%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	8,287	464	8,751	8,983	180	3	5	0.05%	No
		SR-90/Imperial Hwy to N Lakeview Ave	9,670	726	10,396	10,759	215	3	5	0.04%	No
		N Lakeview Ave to SR-55	8,989	359	9,348	9,528	191	3	5	0.05%	No
		SR-55 to Tustin Ave	7,899	265	8,164	8,297	166	3	5	0.05%	No
		Tustin Ave to Kraemer Blvd	6,980	223	7,203	7,315	146	3	5	0.06%	No
		Kraemer Blvd to SR-57	8,486	236	8,722	8,840	177	3	5	0.05%	No
		SR-57 to State College Blvd	8,320	504	8,824	9,076	182	3	5	0.05%	No
		State College Blvd to Raymond Ave/East St	9,027	247	9,274	9,398	188	3	5	0.05%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	9,021	248	9,269	9,393	188	3	5	0.05%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,904	239	9,143	9,263	185	3	5	0.05%	No
		Euclid St to Brookhurst Rd	8,433	222	8,655	8,766	175	3	5	0.05%	No
		Brookhurst Rd to I-5	9,576	649	10,225	10,550	211	3	5	0.04%	No
		I-5 to Beach Blvd	9,354	256	9,610	9,738	195	3	5	0.05%	No
		Beach Blvd to Knott Ave	9,538	381	9,919	10,110	202	3	5	0.04%	No
		Knott Ave to Valley View St	8,586	357	8,943	9,122	182	3	5	0.05%	No
		Valley View St to Carmenita Rd	8,256	260	8,516	8,646	173	3	5	0.05%	No
		Carmenita Rd to Artesia Blvd	6,728	737	7,465	7,834	157	3	5	0.06%	No
		Artesia Blvd to Bloomfield Ave	7,352	399	7,751	7,951	159	3	5	0.06%	No
		Bloomfield Ave to Norwalk Blvd	8,625	301	8,926	9,077	182	3	5	0.05%	No
		Norwalk Blvd to Pioneer Blvd	9,816	310	10,126	10,281	206	3	5	0.04%	No
		Pioneer Blvd to SR-605	11,525	388	11,913	12,107	242	3	5	0.04%	No
		SR-605 to Bellflower Blvd	10,265	549	10,814	11,089	222	3	5	0.04%	No
		Bellflower Blvd to Clark Ave	8,779	573	9,352	9,639	193	3	5	0.05%	No
		Clark Ave to Lakewood Blvd	8,282	797	9,079	9,478	190	3	5	0.05%	No
		Lakewood Blvd to Downey Ave	9,375	422	9,797	10,008	200	3	5	0.04%	No
		Downey Ave to Paramount Blvd	10,992	441	11,433	11,654	233	3	5	0.04%	No
		Paramount Blvd to Cherry Ave	10,199	322	10,521	10,682	214	3	5	0.04%	No
		Cherry Ave to I-710	10,685	601	11,286	11,587	232	3	5	0.04%	No
Shared Portion	SR-710 NB	SR 91 to Long Beach Blvd	11,066	846	11,912	12,335	247	6	9	0.07%	No
		Long Beach Blvd to W Del Amo Blvd	3,858	301	4,159	4,310	86	6	9	0.21%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	4,326	330	4,656	4,821	96	6	9	0.19%	No
		I-405/W Wardlow Rd to W Willow St	5,975	1,194	7,169	7,766	155	6	9	0.12%	No
		W Willow St to Pacific Coast Hwy	5,861	1,306	7,167	7,820	156	6	9	0.12%	No
		Pacific Coast Hwy to W Anaheim St/9th St	8,840	705	9,545	9,898	198	6	9	0.09%	No

Table 93: Volumes Along Routes to Port, 2025, Westbound, AM Peak Hour

Route		Segment Descripton	2025 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 WB	SR -71 S to Phillips Ranch Rd	7,845	310	8,155	8,310	166	4	5	0.06%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	10,200	1,175	11,375	11,963	239	4	5	0.04%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	13,735	331	14,066	14,232	285	4	5	0.04%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	10,838	295	11,133	11,281	226	4	5	0.05%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	7,998	203	8,201	8,303	166	4	5	0.06%	No
		Lemon Ave to Fairway Dr	7,998	203	8,201	8,303	166	4	5	0.06%	No
		Fairway Dr to Nogales St	6,350	491	6,841	7,087	142	4	5	0.07%	No
		Nogales St to Fullerton Rd	6,958	487	7,445	7,689	154	4	5	0.07%	No
		Fullerton Rd to S. Azusa Ave	8,101	303	8,404	8,556	171	4	5	0.06%	No
		S. Azusa Ave to S. Hacienda Blvd	10,803	495	11,298	11,546	231	4	5	0.05%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	9,456	1,229	10,685	11,300	226	4	5	0.05%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	11,484	316	11,800	11,958	239	4	5	0.04%	No
		Crossroads Pkwy N to I-605	11,491	318	11,809	11,968	239	4	5	0.04%	No
		I-605 to Peck Rd	11,198	597	11,795	12,094	242	4	5	0.04%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	11,194	568	11,762	12,046	241	4	5	0.04%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	10,568	1,230	11,798	12,413	248	4	5	0.04%	No
		Rosemead Blvd to San Gabriel Blvd	9,112	374	9,486	9,673	193	4	5	0.05%	No
		San Gabriel Blvd to Paramount Blvd	10,795	982	11,777	12,268	245	4	5	0.04%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	6,662	1,335	7,997	8,665	173	4	5	0.06%	No
		E Markland Dr to W Pomona Blvd E of Findlay	7,284	620	7,904	8,214	164	4	5	0.06%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Fir	8,876	502	9,378	9,629	193	4	5	0.05%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	9,208	1,118	10,326	10,885	218	4	5	0.05%	No
		S Atlantic Blvd to I-710	7,921	568	8,489	8,773	175	4	5	0.06%	No
	SR-710 SB	SR 60 to S Eastern Ave/Olympic Blvd	9,424	240	9,664	9,784	196	4	5	0.05%	No
		I-5 to E Washington Blvd	8,833	328	9,161	9,325	187	4	5	0.06%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	7,030	302	7,332	7,483	150	4	5	0.07%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	7,707	285	7,992	8,135	163	4	5	0.06%	No
		Florence Ave to Firestone Blvd	7,264	345	7,609	7,782	156	4	5	0.07%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,963	302	8,265	8,416	168	4	5	0.06%	No
		Imperial Hwy/Abott Rd to I-105	6,814	352	7,166	7,342	147	4	5	0.07%	No
		I-105 to E Alondra Blvd	9,331	371	9,702	9,888	198	4	5	0.05%	No
		E Alondra Blvd to SR 91	6,999	351	7,350	7,526	151	4	5	0.07%	No
SR-91 Route	SR-91 WB	I-15 to N Main St	7,023	270	7,293	7,428	149	4	5	0.07%	No
		Main St/Grand Blvd to Lincoln Ave	10,371	383	10,754	10,946	219	4	5	0.05%	No
		N Lincoln Ave to S Maple St/W 6th St	10,485	376	10,861	11,049	221	4	5	0.05%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	10,453	400	10,853	11,053	221	4	5	0.05%	No
		Serfas Club Dr/Auto Center Dr to SR-71	10,384	376	10,760	10,948	219	4	5	0.05%	No
		SR-71 to Green River Rd	13,802	888	14,690	15,134	303	4	5	0.03%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	12,477	436	12,913	13,131	263	4	5	0.04%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	8,893	521	9,414	9,675	193	4	5	0.05%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	9,426	362	9,788	9,969	199	4	5	0.05%	No
		SR-90/Imperial Hwy to N Lakeview Ave	13,033	461	13,494	13,725	274	4	5	0.04%	No
		N Lakeview Ave to SR-55	10,730	2,784	13,514	14,906	298	4	5	0.04%	No
		SR-55 to Tustin Ave	7,280	646	7,926	8,249	165	4	5	0.06%	No
		Tustin Ave to Kraemer Blvd	8,139	341	8,480	8,651	173	4	5	0.06%	No
		Kraemer Blvd to SR-57	8,450	250	8,700	8,825	177	4	5	0.06%	No
		SR-57 to State College Blvd	7,602	318	7,920	8,079	162	4	5	0.06%	No
		State College Blvd to Raymond Ave/East St	8,752	252	9,004	9,130	183	4	5	0.06%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	9,974	302	10,276	10,427	209	4	5	0.05%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,637	246	8,883	9,006	180	4	5	0.06%	No
		Euclid St to Brookhurst Rd	8,169	226	8,395	8,508	170	4	5	0.06%	No
		Brookhurst Rd to I-5	8,083	258	8,341	8,470	169	4	5	0.06%	No
		I-5 to Beach Blvd	9,018	258	9,276	9,405	188	4	5	0.06%	No
		Beach Blvd to Knott Ave	9,241	289	9,530	9,675	193	4	5	0.05%	No
		Knott Ave to Valley View St	7,148	1,656	8,804	9,632	193	4	5	0.05%	No
		Valley View St to Carmenita Rd	10,711	355	11,066	11,244	225	4	5	0.05%	No
		Carmenita Rd to Artesia Blvd	9,795	340	10,135	10,305	206	4	5	0.05%	No
		Artesia Blvd to Bloomfield Ave	10,162	688	10,850	11,194	224	4	5	0.05%	No
		Bloomfield Ave to Norwalk Blvd	9,772	340	10,112	10,282	206	4	5	0.05%	No
		Norwalk Blvd to Pioneer Blvd	9,433	708	10,141	10,495	210	4	5	0.05%	No
		Pioneer Blvd to SR-605	9,243	929	10,172	10,637	213	4	5	0.05%	No
		SR-605 to Bellflower Blvd	10,753	857	11,610	12,039	241	4	5	0.04%	No
		Bellflower Blvd to Clark Ave	9,587	1,298	10,885	11,534	231	4	5	0.05%	No
		Clark Ave to Lakewood Blvd	10,468	414	10,882	11,089	222	4	5	0.05%	No
		Lakewood Blvd to Downey Ave	10,049	786	10,835	11,228	225	4	5	0.05%	No
		Downey Ave to Paramount Blvd	9,157	313	9,470	9,627	193	4	5	0.05%	No
		Paramount Blvd to Cherry Ave	12,395	823	13,218	13,630	273	4	5	0.04%	No
		Cherry Ave to I-710	9,694	581	10,275	10,566	211	4	5	0.05%	No
Shared Portion	SR-710 SB	SR 91 to Long Beach Blvd	8,891	686	9,577	9,920	198	7	11	0.11%	No
		Long Beach Blvd to W Del Amo Blvd	6,761	523	7,284	7,546	151	7	11	0.14%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	8,936	681	9,617	9,958	199	7	11	0.11%	No
		I-405/W Wardlow Rd to W Willow St	4,996	884	5,880	6,322	126	7	11	0.17%	No
		W Willow St to Pacific Coast Hwy	4,456	883	5,339	5,781	116	7	11	0.18%	No
		Pacific Coast Hwy to W Anaheim St/9th St	5,336	436	5,772	5,990	120	7	11	0.18%	No

Table 94: Volumes Along Routes to Port, 2025, Eastbound, PM Peak Hour

Route		Segment Descripton	2025 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 EB	SR -71 S to Phillips Ranch Rd	7,019	231	7,250	7,366	147	3	4	0.05%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	9,209	323	9,532	9,694	194	3	4	0.04%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	13,713	335	14,048	14,216	284	3	4	0.03%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	13,656	333	13,989	14,156	283	3	4	0.03%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	10,453	275	10,728	10,866	217	3	4	0.03%	No
		Lemon Ave to Fairway Dr	10,453	275	10,728	10,866	217	3	4	0.03%	No
		Fairway Dr to Nogales St	10,315	401	10,716	10,917	218	3	4	0.03%	No
		Nogales St to Fullerton Rd	8,820	1,598	10,418	11,217	224	3	4	0.03%	No
		Fullerton Rd to S. Azusa Ave	9,767	249	10,016	10,141	203	3	4	0.04%	No
		S. Azusa Ave to S. Hacienda Blvd	11,237	488	11,725	11,969	239	3	4	0.03%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	9,009	390	9,399	9,594	192	3	4	0.04%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	10,668	754	11,422	11,799	236	3	4	0.03%	No
		Crossroads Pkwy N to I-605	9,249	889	10,138	10,583	212	3	4	0.04%	No
		I-605 to Peck Rd	11,411	424	11,835	12,047	241	3	4	0.03%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	9,257	593	9,850	10,147	203	3	4	0.04%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	11,092	751	11,843	12,219	244	3	4	0.03%	No
		Rosemead Blvd to San Gabriel Blvd	8,314	1,159	9,473	10,053	201	3	4	0.04%	No
		San Gabriel Blvd to Paramount Blvd	9,222	256	9,478	9,606	192	3	4	0.04%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	11,519	328	11,847	12,011	240	3	4	0.03%	No
		E Markland Dr to W Pomona Blvd E of Findlay	9,204	262	9,466	9,597	192	3	4	0.04%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	11,005	773	11,778	12,165	243	3	4	0.03%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	13,657	450	14,107	14,332	287	3	4	0.03%	No
		S Atlantic Blvd to I-710	9,309	481	9,790	10,031	201	3	4	0.04%	No
	SR-710 NB	SR 60 to S Eastern Ave/Olympic Blvd	9,271	488	9,759	10,003	200	3	4	0.04%	No
		I-5 to E Washington Blvd	6,283	221	6,504	6,615	132	3	4	0.06%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	7,524	285	7,809	7,952	159	3	4	0.05%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	6,835	243	7,078	7,200	144	3	4	0.05%	No
		Florence Ave to Firestone Blvd	6,140	284	6,424	6,566	131	3	4	0.06%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,953	292	8,245	8,391	168	3	4	0.04%	No
		Imperial Hwy/Abott Rd to I-105	9,132	491	9,623	9,869	197	3	4	0.04%	No
		I-105 to E Alondra Blvd	6,727	291	7,018	7,164	143	3	4	0.05%	No
		E Alondra Blvd to SR 91	8,038	400	8,438	8,638	173	3	4	0.04%	No
SR-91 Route	SR-91 EB	I-15 to N Main St	10,323	449	10,772	10,997	220	3	4	0.03%	No
		Main St/Grand Blvd to Lincoln Ave	9,895	442	10,337	10,558	211	3	4	0.04%	No
		N Lincoln Ave to S Maple St/W 6th St	9,347	427	9,774	9,988	200	3	4	0.04%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	8,817	321	9,138	9,299	186	3	4	0.04%	No
		Serfas Club Dr/Auto Center Dr to SR-71	10,023	379	10,402	10,592	212	3	4	0.04%	No
		SR-71 to Green River Rd	8,805	1,583	10,388	11,180	224	3	4	0.03%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	11,410	388	11,798	11,992	240	3	4	0.03%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	8,968	336	9,304	9,472	189	3	4	0.04%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	10,263	312	10,575	10,731	215	3	4	0.03%	No
		SR-90/Imperial Hwy to N Lakeview Ave	10,674	727	11,401	11,765	235	3	4	0.03%	No
		N Lakeview Ave to SR-55	7,858	201	8,059	8,160	163	3	4	0.05%	No
		SR-55 to Tustin Ave	7,501	269	7,770	7,905	158	3	4	0.05%	No
		Tustin Ave to Kraemer Blvd	7,150	231	7,381	7,497	150	3	4	0.05%	No
		Kraemer Blvd to SR-57	9,668	296	9,964	10,112	202	3	4	0.04%	No
		SR-57 to State College Blvd	7,755	550	8,305	8,580	172	3	4	0.04%	No
		State College Blvd to Raymond Ave/East St	8,850	244	9,094	9,216	184	3	4	0.04%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	8,865	244	9,109	9,231	185	3	4	0.04%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,645	229	8,874	8,989	180	3	4	0.04%	No
		Euclid St to Brookhurst Rd	8,224	209	8,433	8,538	171	3	4	0.04%	No
		Brookhurst Rd to I-5	9,089	509	9,598	9,853	197	3	4	0.04%	No
		I-5 to Beach Blvd	9,291	235	9,526	9,644	193	3	4	0.04%	No
		Beach Blvd to Knott Ave	9,239	301	9,540	9,691	194	3	4	0.04%	No
		Knott Ave to Valley View St	10,402	308	10,710	10,864	217	3	4	0.03%	No
		Valley View St to Carmenita Rd	10,589	326	10,915	11,078	222	3	4	0.03%	No
		Carmenita Rd to Artesia Blvd	7,704	979	8,683	9,173	183	3	4	0.04%	No
		Artesia Blvd to Bloomfield Ave	8,917	501	9,418	9,669	193	3	4	0.04%	No
		Bloomfield Ave to Norwalk Blvd	8,575	297	8,872	9,021	180	3	4	0.04%	No
		Norwalk Blvd to Pioneer Blvd	9,803	291	10,094	10,240	205	3	4	0.04%	No
		Pioneer Blvd to SR-605	11,460	366	11,826	12,009	240	3	4	0.03%	No
		SR-605 to Bellflower Blvd	11,645	366	12,011	12,194	244	3	4	0.03%	No
		Bellflower Blvd to Clark Ave	10,395	312	10,707	10,863	217	3	4	0.03%	No
		Clark Ave to Lakewood Blvd	10,719	516	11,235	11,493	230	3	4	0.03%	No
		Lakewood Blvd to Downey Ave	9,280	385	9,665	9,858	197	3	4	0.04%	No
		Downey Ave to Paramount Blvd	11,778	477	12,255	12,494	250	3	4	0.03%	No
		Paramount Blvd to Cherry Ave	10,942	328	11,270	11,434	229	3	4	0.03%	No
		Cherry Ave to I-710	11,329	553	11,882	12,159	243	3	4	0.03%	No
Shared Portion	SR-710 NB	SR 91 to Long Beach Blvd	11,011	854	11,865	12,292	246	5	8	0.06%	No
		Long Beach Blvd to W Del Amo Blvd	4,466	360	4,826	5,006	100	5	8	0.15%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	4,987	390	5,377	5,572	111	5	8	0.13%	No
		I-405/W Wardlow Rd to W Willow St	6,239	932	7,171	7,637	153	5	8	0.10%	No
		W Willow St to Pacific Coast Hwy	6,145	1,024	7,169	7,681	154	5	8	0.10%	No
		Pacific Coast Hwy to W Anaheim St/9th St	8,830	712	9,542	9,898	198	5	8	0.08%	No

Table 95: Volumes Along Routes to Port, 2025, Westbound, PM Peak Hour

Route		Segment Descripton	2025 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 WB	SR -71 S to Phillips Ranch Rd	6,972	261	7,233	7,364	147	3	5	0.06%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	8,391	593	8,984	9,281	186	3	5	0.05%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	14,103	346	14,449	14,622	292	3	5	0.03%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	10,759	309	11,068	11,223	224	3	5	0.04%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	7,369	180	7,549	7,639	153	3	5	0.06%	No
		Lemon Ave to Fairway Dr	7,369	180	7,549	7,639	153	3	5	0.06%	No
		Fairway Dr to Nogales St	6,437	404	6,841	7,043	141	3	5	0.06%	No
		Nogales St to Fullerton Rd	7,241	330	7,571	7,736	155	3	5	0.06%	No
		Fullerton Rd to S. Azusa Ave	7,968	291	8,259	8,405	168	3	5	0.05%	No
		S. Azusa Ave to S. Hacienda Blvd	9,288	283	9,571	9,713	194	3	5	0.05%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	9,397	754	10,151	10,528	211	3	5	0.04%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	9,773	380	10,153	10,343	207	3	5	0.04%	No
		Crossroads Pkwy N to I-605	11,495	631	12,126	12,442	249	3	5	0.04%	No
		I-605 to Peck Rd	7,726	261	7,987	8,118	162	3	5	0.06%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	7,799	261	8,060	8,191	164	3	5	0.05%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	7,408	460	7,868	8,098	162	3	5	0.06%	No
		Rosemead Blvd to San Gabriel Blvd	7,651	290	7,941	8,086	162	3	5	0.06%	No
		San Gabriel Blvd to Paramount Blvd	6,481	409	6,890	7,095	142	3	5	0.06%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	4,802	822	5,624	6,035	121	3	5	0.07%	No
		E Markland Dr to W Pomona Blvd E of Findlay	5,279	307	5,586	5,740	115	3	5	0.08%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	6,410	296	6,706	6,854	137	3	5	0.07%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	6,734	405	7,139	7,342	147	3	5	0.06%	No
		S Atlantic Blvd to I-710	6,543	355	6,898	7,076	142	3	5	0.06%	No
	SR-710 SB	SR 60 to S Eastern Ave/Olympic Blvd	9,322	213	9,535	9,642	193	3	5	0.05%	No
		I-5 to E Washington Blvd	8,147	290	8,437	8,582	172	3	5	0.05%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	6,219	255	6,474	6,602	132	3	5	0.07%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	7,429	264	7,693	7,825	157	3	5	0.06%	No
		Florence Ave to Firestone Blvd	7,084	327	7,411	7,575	151	3	5	0.06%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	7,889	287	8,176	8,320	166	3	5	0.05%	No
		Imperial Hwy/Abott Rd to I-105	6,631	339	6,970	7,140	143	3	5	0.06%	No
		I-105 to E Alondra Blvd	7,786	286	8,072	8,215	164	3	5	0.05%	No
		E Alondra Blvd to SR 91	7,115	342	7,457	7,628	153	3	5	0.06%	No
SR-91 Route	SR-91 WB	I-15 to N Main St	8,044	276	8,320	8,458	169	3	5	0.05%	No
		Main St/Grand Blvd to Lincoln Ave	11,396	357	11,753	11,932	239	3	5	0.04%	No
		N Lincoln Ave to S Maple St/W 6th St	14,403	369	14,772	14,957	299	3	5	0.03%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	11,431	519	11,950	12,210	244	3	5	0.04%	No
		Serfas Club Dr/Auto Center Dr to SR-71	11,642	362	12,004	12,185	244	3	5	0.04%	No
		SR-71 to Green River Rd	9,856	259	10,115	10,245	205	3	5	0.04%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	8,262	239	8,501	8,621	172	3	5	0.05%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	8,089	425	8,514	8,727	175	3	5	0.05%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	8,861	255	9,116	9,244	185	3	5	0.05%	No
		SR-90/Imperial Hwy to N Lakeview Ave	13,002	436	13,438	13,656	273	3	5	0.03%	No
		N Lakeview Ave to SR-55	7,112	1,755	8,867	9,745	195	3	5	0.05%	No
		SR-55 to Tustin Ave	7,678	628	8,306	8,620	172	3	5	0.05%	No
		Tustin Ave to Kraemer Blvd	8,121	362	8,483	8,664	173	3	5	0.05%	No
		Kraemer Blvd to SR-57	8,471	229	8,700	8,815	176	3	5	0.05%	No
		SR-57 to State College Blvd	8,293	250	8,543	8,668	173	3	5	0.05%	No
		State College Blvd to Raymond Ave/East St	9,050	250	9,300	9,425	189	3	5	0.05%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	10,233	306	10,539	10,692	214	3	5	0.04%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	8,782	243	9,025	9,147	183	3	5	0.05%	No
		Euclid St to Brookhurst Rd	8,342	224	8,566	8,678	174	3	5	0.05%	No
		Brookhurst Rd to I-5	8,384	246	8,630	8,753	175	3	5	0.05%	No
		I-5 to Beach Blvd	9,018	242	9,260	9,381	188	3	5	0.05%	No
		Beach Blvd to Knott Ave	8,844	262	9,106	9,237	185	3	5	0.05%	No
		Knott Ave to Valley View St	7,785	1,999	9,784	10,784	216	3	5	0.04%	No
		Valley View St to Carmenita Rd	11,207	404	11,611	11,813	236	3	5	0.04%	No
		Carmenita Rd to Artesia Blvd	10,322	331	10,653	10,819	216	3	5	0.04%	No
		Artesia Blvd to Bloomfield Ave	10,537	558	11,095	11,374	227	3	5	0.04%	No
		Bloomfield Ave to Norwalk Blvd	10,304	332	10,636	10,802	216	3	5	0.04%	No
		Norwalk Blvd to Pioneer Blvd	9,961	683	10,644	10,986	220	3	5	0.04%	No
		Pioneer Blvd to SR-605	9,444	910	10,354	10,809	216	3	5	0.04%	No
		SR-605 to Bellflower Blvd	11,117	753	11,870	12,247	245	3	5	0.04%	No
		Bellflower Blvd to Clark Ave	9,526	1,507	11,033	11,787	236	3	5	0.04%	No
		Clark Ave to Lakewood Blvd	10,084	558	10,642	10,921	218	3	5	0.04%	No
		Lakewood Blvd to Downey Ave	9,871	786	10,657	11,050	221	3	5	0.04%	No
		Downey Ave to Paramount Blvd	9,295	310	9,605	9,760	195	3	5	0.05%	No
		Paramount Blvd to Cherry Ave	8,539	875	9,414	9,852	197	3	5	0.05%	No
		Cherry Ave to I-710	8,807	567	9,374	9,658	193	3	5	0.05%	No
Shared Portion	SR-710 SB	SR 91 to Long Beach Blvd	8,861	673	9,534	9,871	197	6	9	0.09%	No
		Long Beach Blvd to W Del Amo Blvd	5,780	442	6,222	6,443	129	6	9	0.14%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	8,056	609	8,665	8,970	179	6	9	0.10%	No
		I-405/W Wardlow Rd to W Willow St	4,777	638	5,415	5,734	115	6	9	0.16%	No
		W Willow St to Pacific Coast Hwy	4,303	639	4,942	5,262	105	6	9	0.17%	No
		Pacific Coast Hwy to W Anaheim St/9th St	4,347	374	4,721	4,908	98	6	9	0.18%	No

Table 96: Volumes Along Routes to Port, 2040, Eastbound, AM Peak Hour

Route		Segment Descripton	2040 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 EB	SR -71 S to Phillips Ranch Rd	7,916	357	8,273	8,452	169	10	14	0.17%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	9,009	327	9,336	9,500	190	10	14	0.15%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	15,871	383	16,254	16,446	329	10	14	0.09%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	15,655	370	16,025	16,210	324	10	14	0.09%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	8,576	268	8,844	8,978	180	10	14	0.16%	No
		Lemon Ave to Fairway Dr	8,314	262	8,576	8,707	174	10	14	0.16%	No
		Fairway Dr to Nogales St	7,731	471	8,202	8,438	169	10	14	0.17%	No
		Nogales St to Fullerton Rd	7,831	766	8,597	8,980	180	10	14	0.16%	No
		Fullerton Rd to S. Azusa Ave	8,837	369	9,206	9,391	188	10	14	0.15%	No
		S. Azusa Ave to S. Hacienda Blvd	10,681	694	11,375	11,722	234	10	14	0.12%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	9,806	491	10,297	10,543	211	10	14	0.14%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	9,757	599	10,356	10,656	213	10	14	0.13%	No
		Crossroads Pkwy N to I-605	8,779	713	9,492	9,849	197	10	14	0.14%	No
		I-605 to Peck Rd	7,636	682	8,318	8,659	173	10	14	0.16%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	7,249	431	7,680	7,896	158	10	14	0.18%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	7,847	399	8,246	8,446	169	10	14	0.17%	No
		Rosemead Blvd to San Gabriel Blvd	7,078	757	7,835	8,214	164	10	14	0.17%	No
		San Gabriel Blvd to Paramount Blvd	7,560	490	8,050	8,295	166	10	14	0.17%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	5,839	536	6,375	6,643	133	10	14	0.21%	No
		E Markland Dr to W Pomona Blvd E of Findlay	5,735	433	6,168	6,385	128	10	14	0.22%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	6,650	545	7,195	7,468	149	10	14	0.19%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	7,308	467	7,775	8,009	160	10	14	0.18%	No
		S Atlantic Blvd to I-710	6,920	393	7,313	7,510	150	10	14	0.19%	No
	SR-710 NB	SR 60 to S Eastern Ave/Olympic Blvd	10,818	684	11,502	11,844	237	10	14	0.12%	No
		I-5 to E Washington Blvd	7,489	333	7,822	7,989	160	10	14	0.18%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	7,604	354	7,958	8,135	163	10	14	0.18%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	7,727	322	8,049	8,210	164	10	14	0.17%	No
		Florence Ave to Firestone Blvd	6,947	351	7,298	7,474	149	10	14	0.19%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	8,649	349	8,998	9,173	183	10	14	0.16%	No
		Imperial Hwy/Abott Rd to I-105	9,739	542	10,281	10,552	211	10	14	0.14%	No
		I-105 to E Alondra Blvd	7,517	287	7,804	7,948	159	10	14	0.18%	No
		E Alondra Blvd to SR 91	7,100	308	7,408	7,562	151	10	14	0.19%	No
SR-91 Route	SR-91 EB	I-15 to N Main St	8,256	401	8,657	8,858	177	10	14	0.16%	No
		Main St/Grand Blvd to Lincoln Ave	12,154	701	12,855	13,206	264	10	14	0.11%	No
		N Lincoln Ave to S Maple St/W 6th St	11,884	681	12,565	12,906	258	10	14	0.11%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	11,525	543	12,068	12,340	247	10	14	0.12%	No
		Serfas Club Dr/Auto Center Dr to SR-71	12,021	679	12,700	13,040	261	10	14	0.11%	No
		SR-71 to Green River Rd	12,959	1,523	14,482	15,244	305	10	14	0.09%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	14,205	651	14,856	15,182	304	10	14	0.09%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	10,104	496	10,600	10,848	217	10	14	0.13%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	9,349	623	9,972	10,284	206	10	14	0.14%	No
		SR-90/Imperial Hwy to N Lakeview Ave	10,677	911	11,588	12,044	241	10	14	0.12%	No
		N Lakeview Ave to SR-55	9,900	532	10,432	10,698	214	10	14	0.13%	No
		SR-55 to Tustin Ave	10,191	417	10,608	10,817	216	10	14	0.13%	No
		Tustin Ave to Kraemer Blvd	8,827	370	9,197	9,382	188	10	14	0.15%	No
		Kraemer Blvd to SR-57	10,099	371	10,470	10,656	213	10	14	0.13%	No
		SR-57 to State College Blvd	9,902	643	10,545	10,867	217	10	14	0.13%	No
		State College Blvd to Raymond Ave/East St	10,490	387	10,877	11,071	221	10	14	0.13%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	10,412	392	10,804	11,000	220	10	14	0.13%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	10,169	379	10,548	10,738	215	10	14	0.13%	No
		Euclid St to Brookhurst Rd	9,947	368	10,315	10,499	210	10	14	0.14%	No
		Brookhurst Rd to I-5	11,120	797	11,917	12,316	246	10	14	0.12%	No
		I-5 to Beach Blvd	9,617	339	9,956	10,126	203	10	14	0.14%	No
		Beach Blvd to Knott Ave	9,807	461	10,268	10,499	210	10	14	0.14%	No
		Knott Ave to Valley View St	8,846	430	9,276	9,491	190	10	14	0.15%	No
		Valley View St to Carmenita Rd	8,532	326	8,858	9,021	180	10	14	0.16%	No
		Carmenita Rd to Artesia Blvd	6,991	804	7,795	8,197	164	10	14	0.17%	No
		Artesia Blvd to Bloomfield Ave	7,620	465	8,085	8,318	166	10	14	0.17%	No
		Bloomfield Ave to Norwalk Blvd	8,968	367	9,335	9,519	190	10	14	0.15%	No
		Norwalk Blvd to Pioneer Blvd	10,204	381	10,585	10,776	216	10	14	0.13%	No
		Pioneer Blvd to SR-605	11,998	460	12,458	12,688	254	10	14	0.11%	No
		SR-605 to Bellflower Blvd	11,582	626	12,208	12,521	250	10	14	0.11%	No
		Bellflower Blvd to Clark Ave	10,747	664	11,411	11,743	235	10	14	0.12%	No
		Clark Ave to Lakewood Blvd	9,671	875	10,546	10,984	220	10	14	0.13%	No
		Lakewood Blvd to Downey Ave	10,708	500	11,208	11,458	229	10	14	0.12%	No
		Downey Ave to Paramount Blvd	12,222	513	12,735	12,992	260	10	14	0.11%	No
		Paramount Blvd to Cherry Ave	11,395	391	11,786	11,982	240	10	14	0.12%	No
		Cherry Ave to I-710	11,975	672	12,647	12,983	260	10	14	0.11%	No
Shared Portion	SR-710 NB	SR 91 to Long Beach Blvd	12,608	872	13,480	13,916	278	19	29	0.20%	No
		Long Beach Blvd to W Del Amo Blvd	5,467	328	5,795	5,959	119	19	29	0.48%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	5,906	351	6,257	6,433	129	19	29	0.44%	No
		I-405/W Wardlow Rd to W Willow St	7,508	1,181	8,689	9,280	186	19	29	0.31%	No
		W Willow St to Pacific Coast Hwy	7,462	1,299	8,761	9,411	188	19	29	0.30%	No
		Pacific Coast Hwy to W Anaheim St/9th St	10,383	707	11,090	11,444	229	19	29	0.25%	No

Table 97: Volumes Along Routes to Port, 2040, Westbound, AM Peak Hour

Route		Segment Descripton	2040 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 WB	SR -71 S to Phillips Ranch Rd	7,730	308	8,038	8,192	164	12	17	0.21%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	10,118	1,177	11,295	11,884	238	12	17	0.15%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	14,408	414	14,822	15,029	301	12	17	0.11%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	12,276	388	12,664	12,858	257	12	17	0.13%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	8,665	314	8,979	9,136	183	12	17	0.19%	No
		Lemon Ave to Fairway Dr	7,951	304	8,255	8,407	168	12	17	0.21%	No
		Fairway Dr to Nogales St	6,285	502	6,787	7,038	141	12	17	0.25%	No
		Nogales St to Fullerton Rd	6,958	487	7,445	7,689	154	12	17	0.22%	No
		Fullerton Rd to S. Azusa Ave	8,049	323	8,372	8,534	171	12	17	0.20%	No
		S. Azusa Ave to S. Hacienda Blvd	10,772	522	11,294	11,555	231	12	17	0.15%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	9,392	1,257	10,649	11,278	226	12	17	0.15%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	11,397	352	11,749	11,925	239	12	17	0.14%	No
		Crossroads Pkwy N to I-605	11,397	352	11,749	11,925	239	12	17	0.14%	No
		I-605 to Peck Rd	11,121	629	11,750	12,065	241	12	17	0.14%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	11,147	602	11,749	12,050	241	12	17	0.14%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	10,492	1,257	11,749	12,378	248	12	17	0.14%	No
		Rosemead Blvd to San Gabriel Blvd	9,066	396	9,462	9,660	193	12	17	0.18%	No
		San Gabriel Blvd to Paramount Blvd	10,748	1,002	11,750	12,251	245	12	17	0.14%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	6,597	1,354	7,951	8,628	173	12	17	0.20%	No
		E Markland Dr to W Pomona Blvd E of Findlay	7,225	636	7,861	8,179	164	12	17	0.21%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	8,846	521	9,367	9,628	193	12	17	0.18%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	9,163	1,137	10,300	10,869	217	12	17	0.16%	No
		S Atlantic Blvd to I-710	7,881	587	8,468	8,762	175	12	17	0.20%	No
	SR-710 SB	SR 60 to S Eastern Ave/Olympic Blvd	10,584	432	11,016	11,232	225	12	17	0.15%	No
		I-5 to E Washington Blvd	9,838	435	10,273	10,491	210	12	17	0.16%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	7,935	387	8,322	8,516	170	12	17	0.20%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	8,640	365	9,005	9,188	184	12	17	0.19%	No
		Florence Ave to Firestone Blvd	8,079	418	8,497	8,706	174	12	17	0.20%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	8,615	362	8,977	9,158	183	12	17	0.19%	No
		Imperial Hwy/Abott Rd to I-105	7,414	414	7,828	8,035	161	12	17	0.21%	No
		I-105 to E Alondra Blvd	9,647	425	10,072	10,285	206	12	17	0.17%	No
		E Alondra Blvd to SR 91	7,232	398	7,630	7,829	157	12	17	0.22%	No
SR-91 Route	SR-91 WB	I-15 to N Main St	6,963	261	7,224	7,355	147	12	17	0.23%	No
		Main St/Grand Blvd to Lincoln Ave	13,354	661	14,015	14,346	287	12	17	0.12%	No
		N Lincoln Ave to S Maple St/W 6th St	12,654	635	13,289	13,607	272	12	17	0.13%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	12,271	647	12,918	13,242	265	12	17	0.13%	No
		Serfas Club Dr/Auto Center Dr to SR-71	11,915	628	12,543	12,857	257	12	17	0.13%	No
		SR-71 to Green River Rd	15,574	1,088	16,662	17,206	344	12	17	0.10%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	14,592	680	15,272	15,612	312	12	17	0.11%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	8,863	529	9,392	9,657	193	12	17	0.18%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	9,324	368	9,692	9,876	198	12	17	0.17%	No
		SR-90/Imperial Hwy to N Lakeview Ave	12,974	470	13,444	13,679	274	12	17	0.13%	No
		N Lakeview Ave to SR-55	10,640	2,804	13,444	14,846	297	12	17	0.12%	No
		SR-55 to Tustin Ave	7,808	804	8,612	9,014	180	12	17	0.19%	No
		Tustin Ave to Kraemer Blvd	8,698	495	9,193	9,441	189	12	17	0.18%	No
		Kraemer Blvd to SR-57	9,065	405	9,470	9,673	193	12	17	0.18%	No
		SR-57 to State College Blvd	8,462	495	8,957	9,205	184	12	17	0.19%	No
		State College Blvd to Raymond Ave/East St	9,695	441	10,136	10,357	207	12	17	0.17%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	10,980	484	11,464	11,706	234	12	17	0.15%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	9,671	428	10,099	10,313	206	12	17	0.17%	No
		Euclid St to Brookhurst Rd	9,233	405	9,638	9,841	197	12	17	0.18%	No
		Brookhurst Rd to I-5	8,960	430	9,390	9,605	192	12	17	0.18%	No
		I-5 to Beach Blvd	8,961	292	9,253	9,399	188	12	17	0.18%	No
		Beach Blvd to Knott Ave	9,182	323	9,505	9,667	193	12	17	0.18%	No
		Knott Ave to Valley View St	7,092	1,694	8,786	9,633	193	12	17	0.18%	No
		Valley View St to Carmenita Rd	10,637	390	11,027	11,222	224	12	17	0.15%	No
		Carmenita Rd to Artesia Blvd	9,736	375	10,111	10,299	206	12	17	0.17%	No
		Artesia Blvd to Bloomfield Ave	10,118	722	10,840	11,201	224	12	17	0.15%	No
		Bloomfield Ave to Norwalk Blvd	9,736	375	10,111	10,299	206	12	17	0.17%	No
		Norwalk Blvd to Pioneer Blvd	9,370	742	10,112	10,483	210	12	17	0.16%	No
		Pioneer Blvd to SR-605	9,152	961	10,113	10,594	212	12	17	0.16%	No
		SR-605 to Bellflower Blvd	10,841	936	11,777	12,245	245	12	17	0.14%	No
		Bellflower Blvd to Clark Ave	9,702	1,380	11,082	11,772	235	12	17	0.15%	No
		Clark Ave to Lakewood Blvd	10,574	495	11,069	11,317	226	12	17	0.15%	No
		Lakewood Blvd to Downey Ave	10,170	865	11,035	11,468	229	12	17	0.15%	No
		Downey Ave to Paramount Blvd	9,265	390	9,655	9,850	197	12	17	0.18%	No
		Paramount Blvd to Cherry Ave	12,534	899	13,433	13,883	278	12	17	0.12%	No
		Cherry Ave to I-710	9,882	658	10,540	10,869	217	12	17	0.16%	No
Shared Portion	SR-710 SB	SR 91 to Long Beach Blvd	9,858	765	10,623	11,006	220	23	35	0.31%	No
		Long Beach Blvd to W Del Amo Blvd	7,769	603	8,372	8,674	173	23	35	0.40%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	9,969	759	10,728	11,108	222	23	35	0.31%	No
		I-405/W Wardlow Rd to W Willow St	5,890	910	6,800	7,255	145	23	35	0.48%	No
		W Willow St to Pacific Coast Hwy	5,442	910	6,352	6,807	136	23	35	0.51%	No
		Pacific Coast Hwy to W Anaheim St/9th St	6,341	476	6,817	7,055	141	23	35	0.49%	No

Table 98: Volumes Along Routes to Port, 2040, Eastbound, PM Peak Hour

Route		Segment Descripton	2040 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 EB	SR -71 S to Phillips Ranch Rd	7,404	293	7,697	7,844	157	8	12	0.15%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	9,636	389	10,025	10,220	204	8	12	0.12%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	14,479	449	14,928	15,153	303	8	12	0.08%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	13,996	418	14,414	14,623	292	8	12	0.08%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	11,487	391	11,878	12,074	241	8	12	0.10%	No
		Lemon Ave to Fairway Dr	11,159	382	11,541	11,732	235	8	12	0.10%	No
		Fairway Dr to Nogales St	10,780	493	11,273	11,520	230	8	12	0.10%	No
		Nogales St to Fullerton Rd	9,286	1,692	10,978	11,824	236	8	12	0.10%	No
		Fullerton Rd to S. Azusa Ave	10,151	330	10,481	10,646	213	8	12	0.11%	No
		S. Azusa Ave to S. Hacienda Blvd	11,465	569	12,034	12,319	246	8	12	0.10%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	9,570	483	10,053	10,295	206	8	12	0.12%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	10,994	839	11,833	12,253	245	8	12	0.10%	No
		Crossroads Pkwy N to I-605	9,104	920	10,024	10,484	210	8	12	0.11%	No
		I-605 to Peck Rd	11,287	464	11,751	11,983	240	8	12	0.10%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	9,092	638	9,730	10,049	201	8	12	0.12%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	10,964	786	11,750	12,143	243	8	12	0.10%	No
		Rosemead Blvd to San Gabriel Blvd	8,216	1,184	9,400	9,992	200	8	12	0.12%	No
		San Gabriel Blvd to Paramount Blvd	9,118	282	9,400	9,541	191	8	12	0.13%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	11,397	353	11,750	11,927	239	8	12	0.10%	No
		E Markland Dr to W Pomona Blvd E of Findlay	9,114	286	9,400	9,543	191	8	12	0.13%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	10,953	797	11,750	12,149	243	8	12	0.10%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	13,564	474	14,038	14,275	286	8	12	0.08%	No
		S Atlantic Blvd to I-710	9,220	503	9,723	9,975	199	8	12	0.12%	No
	SR-710 NB	SR 60 to S Eastern Ave/Olympic Blvd	10,935	628	11,563	11,877	238	8	12	0.10%	No
		I-5 to E Washington Blvd	8,300	314	8,614	8,771	175	8	12	0.14%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	9,518	377	9,895	10,084	202	8	12	0.12%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	8,646	321	8,967	9,128	183	8	12	0.13%	No
		Florence Ave to Firestone Blvd	7,922	352	8,274	8,450	169	8	12	0.14%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	9,709	351	10,060	10,236	205	8	12	0.12%	No
		Imperial Hwy/Abott Rd to I-105	10,794	546	11,340	11,613	232	8	12	0.10%	No
		I-105 to E Alondra Blvd	8,371	252	8,623	8,749	175	8	12	0.14%	No
		E Alondra Blvd to SR 91	9,682	362	10,044	10,225	205	8	12	0.12%	No
SR-91 Route	SR-91 EB	I-15 to N Main St	14,960	843	15,803	16,225	324	8	12	0.07%	No
		Main St/Grand Blvd to Lincoln Ave	14,582	833	15,415	15,832	317	8	12	0.08%	No
		N Lincoln Ave to S Maple St/W 6th St	14,133	842	14,975	15,396	308	8	12	0.08%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	13,180	773	13,953	14,340	287	8	12	0.08%	No
		Serfas Club Dr/Auto Center Dr to SR-71	14,677	842	15,519	15,940	319	8	12	0.08%	No
		SR-71 to Green River Rd	14,689	2,020	16,709	17,719	354	8	12	0.07%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	16,789	833	17,622	18,039	361	8	12	0.07%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	10,550	579	11,129	11,419	228	8	12	0.11%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	11,657	563	12,220	12,502	250	8	12	0.10%	No
		SR-90/Imperial Hwy to N Lakeview Ave	12,137	947	13,084	13,558	271	8	12	0.09%	No
		N Lakeview Ave to SR-55	9,284	459	9,743	9,973	199	8	12	0.12%	No
		SR-55 to Tustin Ave	9,768	518	10,286	10,545	211	8	12	0.11%	No
		Tustin Ave to Kraemer Blvd	9,126	495	9,621	9,869	197	8	12	0.12%	No
		Kraemer Blvd to SR-57	11,408	547	11,955	12,229	245	8	12	0.10%	No
		SR-57 to State College Blvd	9,045	787	9,832	10,226	205	8	12	0.12%	No
		State College Blvd to Raymond Ave/East St	10,074	484	10,558	10,800	216	8	12	0.11%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	10,051	488	10,539	10,783	216	8	12	0.11%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	9,707	471	10,178	10,414	208	8	12	0.12%	No
		Euclid St to Brookhurst Rd	9,469	453	9,922	10,149	203	8	12	0.12%	No
		Brookhurst Rd to I-5	10,572	761	11,333	11,714	234	8	12	0.10%	No
		I-5 to Beach Blvd	9,179	387	9,566	9,760	195	8	12	0.12%	No
		Beach Blvd to Knott Ave	9,205	452	9,657	9,883	198	8	12	0.12%	No
		Knott Ave to Valley View St	10,418	451	10,869	11,095	222	8	12	0.11%	No
		Valley View St to Carmenita Rd	10,643	456	11,099	11,327	227	8	12	0.11%	No
		Carmenita Rd to Artesia Blvd	7,728	1,111	8,839	9,395	188	8	12	0.13%	No
		Artesia Blvd to Bloomfield Ave	8,868	629	9,497	9,812	196	8	12	0.12%	No
		Bloomfield Ave to Norwalk Blvd	8,560	424	8,984	9,196	184	8	12	0.13%	No
		Norwalk Blvd to Pioneer Blvd	9,840	419	10,259	10,469	209	8	12	0.11%	No
		Pioneer Blvd to SR-605	11,564	496	12,060	12,308	246	8	12	0.10%	No
		SR-605 to Bellflower Blvd	12,434	474	12,908	13,145	263	8	12	0.09%	No
		Bellflower Blvd to Clark Ave	11,690	434	12,124	12,341	247	8	12	0.10%	No
		Clark Ave to Lakewood Blvd	11,473	623	12,096	12,408	248	8	12	0.10%	No
		Lakewood Blvd to Downey Ave	9,954	487	10,441	10,685	214	8	12	0.11%	No
		Downey Ave to Paramount Blvd	12,368	574	12,942	13,229	265	8	12	0.09%	No
		Paramount Blvd to Cherry Ave	11,547	425	11,972	12,185	244	8	12	0.10%	No
		Cherry Ave to I-710	12,069	657	12,726	13,055	261	8	12	0.09%	No
Shared Portion	SR-710 NB	SR 91 to Long Beach Blvd	13,879	848	14,727	15,151	303	16	24	0.16%	No
		Long Beach Blvd to W Del Amo Blvd	7,364	355	7,719	7,897	158	16	24	0.30%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	7,946	395	8,341	8,539	171	16	24	0.28%	No
		I-405/W Wardlow Rd to W Willow St	9,323	884	10,207	10,649	213	16	24	0.23%	No
		W Willow St to Pacific Coast Hwy	9,272	988	10,260	10,754	215	16	24	0.22%	No
		Pacific Coast Hwy to W Anaheim St/9th St	11,906	691	12,597	12,943	259	16	24	0.19%	No

Table 99: Volumes Along Routes to Port, 2040, Westbound, PM Peak Hour

Route		Segment Descripton	2040 No Project					WLC Trucks		WLC Truck PCEs as % of No-Project PCES	Do WLC PCEs Exceed 2% Threshold?
			Cars	Trucks	Total Vehicles	Total PCEs	2% of Total PCEs	Vehicles	PCEs		
SR-60 Route	SR-60 WB	SR -71 S to Phillips Ranch Rd	8,720	174	8,894	8,981	180	10	15	0.17%	No
		Phillips Ranch Rd to N Diamond Bar Blvd/Orange Fwy	10,175	545	10,720	10,993	220	10	15	0.14%	No
		N Diamond Bar Blvd/Orange Fwy to Grand Ave	17,146	350	17,496	17,671	353	10	15	0.08%	No
		Grand Ave to Orange Fwy/Brea Canyon Rd	14,187	325	14,512	14,675	293	10	15	0.10%	No
		Orange Fwy/Brea Canyon Rd to Fairway Dr/Lemon Ave	9,485	234	9,719	9,836	197	10	15	0.15%	No
		Lemon Ave to Fairway Dr	8,656	213	8,869	8,976	180	10	15	0.17%	No
		Fairway Dr to Nogales St	7,612	423	8,035	8,247	165	10	15	0.18%	No
		Nogales St to Fullerton Rd	8,471	344	8,815	8,987	180	10	15	0.17%	No
		Fullerton Rd to S. Azusa Ave	9,263	304	9,567	9,719	194	10	15	0.15%	No
		S. Azusa Ave to S. Hacienda Blvd	10,519	275	10,794	10,932	219	10	15	0.14%	No
		S. Hacienda Blvd to S 7th Ave/E Gale Ave	10,620	746	11,366	11,739	235	10	15	0.13%	No
		S 7th Ave/E Gale Ave to Crossroads Pkwy N	11,110	371	11,481	11,667	233	10	15	0.13%	No
		Crossroads Pkwy N to I-605	12,174	576	12,750	13,038	261	10	15	0.12%	No
		I-605 to Peck Rd	8,372	281	8,653	8,794	176	10	15	0.17%	No
		Peck Rd to Fawcett Ave/Santa Anita Ave	8,662	288	8,950	9,094	182	10	15	0.16%	No
		Fawcett Ave/Santa Anita Ave to Rosemead Blvd	8,343	483	8,826	9,068	181	10	15	0.17%	No
		Rosemead Blvd to San Gabriel Blvd	8,635	321	8,956	9,117	182	10	15	0.16%	No
		San Gabriel Blvd to Paramount Blvd	7,437	438	7,875	8,094	162	10	15	0.19%	No
		Paramount Blvd to E Markland Dr/Potrero Dr	5,630	858	6,488	6,917	138	10	15	0.22%	No
		E Markland Dr to W Pomona Blvd E of Findlay	6,066	355	6,421	6,599	132	10	15	0.23%	No
		W Pomona Blvd E of Findlay to W Pomona Blvd W of Findl	7,260	345	7,605	7,778	156	10	15	0.19%	No
		W Pomona Blvd W of Findlay Ave to S Atlantic Blvd	7,601	459	8,060	8,290	166	10	15	0.18%	No
		S Atlantic Blvd to I-710	7,433	411	7,844	8,050	161	10	15	0.19%	No
	SR-710 SB	SR 60 to S Eastern Ave/Olympic Blvd	10,235	448	10,683	10,907	218	10	15	0.14%	No
		I-5 to E Washington Blvd	9,079	446	9,525	9,748	195	10	15	0.15%	No
		E Washington Blvd to S Atlantic Blvd/Bandini Blvd	7,047	390	7,437	7,632	153	10	15	0.20%	No
		S Atlantic Blvd/Bandini Blvd to Florence Ave	8,486	412	8,898	9,104	182	10	15	0.16%	No
		Florence Ave to Firestone Blvd	8,048	476	8,524	8,762	175	10	15	0.17%	No
		Firestone Blvd to Imperial Hwy/Abott Rd	8,699	418	9,117	9,326	187	10	15	0.16%	No
		Imperial Hwy/Abott Rd to I-105	7,268	464	7,732	7,964	159	10	15	0.19%	No
		I-105 to E Alondra Blvd	7,902	394	8,296	8,493	170	10	15	0.18%	No
		E Alondra Blvd to SR 91	7,197	443	7,640	7,862	157	10	15	0.19%	No
SR-91 Route	SR-91 WB	I-15 to N Main St	8,484	122	8,606	8,667	173	10	15	0.17%	No
		Main St/Grand Blvd to Lincoln Ave	16,098	681	16,779	17,120	342	10	15	0.09%	No
		N Lincoln Ave to S Maple St/W 6th St	18,877	681	19,558	19,899	398	10	15	0.08%	No
		Maple St/6th St to Serfas Club Dr/Auto Center Dr	15,887	808	16,695	17,099	342	10	15	0.09%	No
		Serfas Club Dr/Auto Center Dr to SR-71	16,116	656	16,772	17,100	342	10	15	0.09%	No
		SR-71 to Green River Rd	14,443	502	14,945	15,196	304	10	15	0.10%	No
		Green River Rd to Gypsum Cyn Rd/SR-241	13,341	514	13,855	14,112	282	10	15	0.11%	No
		Gypsum Cyn Rd/SR-241 to Yorba Linda Blvd	10,121	540	10,661	10,931	219	10	15	0.14%	No
		Yorba Linda Blvd to SR-90/Imperial Hwy	10,835	368	11,203	11,387	228	10	15	0.13%	No
		SR-90/Imperial Hwy to N Lakeview Ave	13,973	532	14,505	14,771	295	10	15	0.10%	No
		N Lakeview Ave to SR-55	7,755	1,837	9,592	10,511	210	10	15	0.14%	No
		SR-55 to Tustin Ave	8,806	780	9,586	9,976	200	10	15	0.15%	No
		Tustin Ave to Kraemer Blvd	9,232	517	9,749	10,008	200	10	15	0.15%	No
		Kraemer Blvd to SR-57	9,451	371	9,822	10,008	200	10	15	0.15%	No
		SR-57 to State College Blvd	9,933	431	10,364	10,580	212	10	15	0.14%	No
		State College Blvd to Raymond Ave/East St	10,740	450	11,190	11,415	228	10	15	0.13%	No
		Raymond Ave/East St to Anaheim Blvd/Harbor Blvd	11,923	501	12,424	12,675	253	10	15	0.12%	No
		Anaheim Blvd/Harbor Blvd to Euclid St	10,604	443	11,047	11,269	225	10	15	0.13%	No
		Euclid St to Brookhurst Rd	10,183	424	10,607	10,819	216	10	15	0.14%	No
		Brookhurst Rd to I-5	9,970	436	10,406	10,624	212	10	15	0.14%	No
		I-5 to Beach Blvd	8,766	331	9,097	9,263	185	10	15	0.16%	No
		Beach Blvd to Knott Ave	8,592	351	8,943	9,119	182	10	15	0.16%	No
		Knott Ave to Valley View St	7,513	2,080	9,593	10,633	213	10	15	0.14%	No
		Valley View St to Carmenita Rd	10,990	484	11,474	11,716	234	10	15	0.13%	No
		Carmenita Rd to Artesia Blvd	10,129	409	10,538	10,743	215	10	15	0.14%	No
		Artesia Blvd to Bloomfield Ave	10,328	631	10,959	11,275	225	10	15	0.13%	No
		Bloomfield Ave to Norwalk Blvd	10,103	405	10,508	10,711	214	10	15	0.14%	No
		Norwalk Blvd to Pioneer Blvd	9,758	762	10,520	10,901	218	10	15	0.14%	No
		Pioneer Blvd to SR-605	9,295	991	10,286	10,782	216	10	15	0.14%	No
		SR-605 to Bellflower Blvd	11,485	853	12,338	12,765	255	10	15	0.12%	No
		Bellflower Blvd to Clark Ave	9,837	1,604	11,441	12,243	245	10	15	0.12%	No
		Clark Ave to Lakewood Blvd	10,385	653	11,038	11,365	227	10	15	0.13%	No
		Lakewood Blvd to Downey Ave	10,150	877	11,027	11,466	229	10	15	0.13%	No
		Downey Ave to Paramount Blvd	9,625	400	10,025	10,225	205	10	15	0.15%	No
		Paramount Blvd to Cherry Ave	8,920	966	9,886	10,369	207	10	15	0.14%	No
		Cherry Ave to I-710	9,279	660	9,939	10,269	205	10	15	0.15%	No
Shared Portion	SR-710 SB	SR 91 to Long Beach Blvd	9,879	800	10,679	11,079	222	20	30	0.27%	No
		Long Beach Blvd to W Del Amo Blvd	6,852	564	7,416	7,698	154	20	30	0.39%	No
		W Del Amo Blvd to I-405/W Wardlow Rd	9,095	724	9,819	10,181	204	20	30	0.29%	No
		I-405/W Wardlow Rd to W Willow St	5,892	653	6,545	6,872	137	20	30	0.44%	No
		W Willow St to Pacific Coast Hwy	5,489	657	6,146	6,475	129	20	30	0.46%	No
		Pacific Coast Hwy to W Anaheim St/9th St	5,576	409	5,985	6,190	124	20	30	0.48%	No

G. GENERAL PLAN CONFORMITY

The City General Plan has established a set of goals, policies, and objectives for the Circulation Element. Table 100 shows how the WLC project conforms to these goals, policies, and objectives with the implementation of the proposed Specific Plan and General Plan amendments. In Table 100 WLCSP refers to the World Logistics Center Specific Plan while WLC is the World Logistics Center business entity for the project's development that ensures implementation of mitigations.

Table 100: Conformity to General Plan (as Amended)

Goals, Policies, and Objectives Goal, Policy, or Objective as Stated in the General Plan		**Consistent?**	**Explanation**
9.5 Circulation Element Goals, Objectives. Policies and Programs			
9.5.1 Circulation Element Goals			
Goal 5.1	Develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system consistent with the City General Plan Circulation Element Map, Figure 9-1, which provides access to development and supports mobility requirements of the system's users.	Yes	The WLC Specific Plan (WLCSP) meets the intent of the General Plan Circulation Element Map based on land use and design criteria. The WLCSP provides planned cross sections that satisfy minimum City requirements and serve the unique needs of logistics development.
Goal 5.2	Maintain safe and adequate pedestrian, bicycle, and public transportation systems to provide alternatives to single occupant vehicular travel and to support planned land uses.	Yes	The WLCSP supports this goal of the General Plan Circulation Element based on land use and design criteria. All on-site roads would include design features to facilitate the use of alternative transportation modes including but not limited to bus, bicycle, pedestrian, etc.
9.5.2 Circulation Element Objectives and Policies			
Objective 5.1	***Create a safe, efficient and neighborhood- friendly street system.***	Yes	The WLCSP supports this objective in that the specific plan is designed to reduce vehicle and pedestrian conflicts near residential neighborhoods by prohibiting truck access to nearby residential areas.
Policy 5.1.1	Plan access and circulation of each development project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.	Yes	The planned street network features multiple routes to most buildings and would have two major east-west connectors called for in the General Plan. This would facilitate the passage of emergency and service vehicles. On-site roads would be provided with sidewalks and bicycle lanes. All of the WLC logistics buildings would be provided with bicycle racks.
Policy 5.1.2	Plan the circulation system to reduce conflicts between vehicular, pedestrian and bicycle traffic.	Yes	The project features modern roundabouts at key locations, which are proven to be effective in reducing the frequency and severity of traffic accidents. Pedestrian ways are not curb-adjacent, and streets are designed to accommodate bikeways.
Policy 5.1.3	Require adequate off-street parking for all developments.	Yes	Off-street parking would be provided for all WLC buildings in accordance with City of Moreno Valley standards.

Policy 5.1.4	Driveway placement shall be designed for safety and to enhance circulation wherever possible.	Yes	Driveway design and placement would not be less than City code or engineering standards. Specific proposals will be reviewed with the plot plans.
Policy 5.1.5	Incorporate Americans with Disabilities Act (ADA) and Title 24 requirements in roadway improvements as appropriate.	Yes	ADA compliant paths of travel would be required with all building permits.
Policy 5.1.6	Design new developments to provide opportunity for access and circulation to future adjacent developments.	Yes	The WLCSP is bounded by SR-60 to the north, Gilman Springs Rd. to the east, and permanent open space to the south. There is a small amount of developable land west of the project that would benefit from the construction of Cactus Ave. Extension.
Objective 5.2	***Implement access management policies.***	Yes	The WLCSP supports this objective by prohibiting truck movements on Cactus Ave. Extension. All developments subject to plot plans including detailed access management conditions.
Policy 5.2.1	Locate residential units with access from local streets. Minimize direct residential access from collectors. Prohibit direct single-family driveway access on arterials and higher classification roadways.	NA	The project has no residential component. Existing non-conforming uses would continue to have driveway access as long as the use continues.
Policy 5.2.2	Feed short local streets into collectors.	NA	The project has no local streets. All on-site streets are classified as arterials or collectors and meet City standards.
Policy 5.2.3	Encourage the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds.	Yes	The project has no residential component that would need traffic calming. There are three roundabouts to ensure that vehicle movement is fluid and to reduce pedestrian and vehicle conflicts.
Policy 5.2.4	Design new subdivisions to minimize the disruptive impact of motor vehicles on local streets. Long, broad and linear streets should be avoided. Residential streets should be no wider than 40 feet, and should have an uninterrupted length of less than one half mile. Curvilinear streets and cul-de-sacs are preferred. Streets within the subdivision should be designed to facilitate access to residences and to discourage through traffic.	NA	The project has no residential component and so design features intended to enhance the quality of life for residents of the street are not applicable to the WLCSP.

Objective 5.3	***Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers. Figure 9-2 depicts the LOS standards that are applicable to all segments of the General Plan Circulation Element Map.***	Yes	All WLC streets would be designed to function at LOS D or better.
Policy 5.3.1	Obtain right-of-way and construct roadways in accordance with the designations shown on the General Plan Circulation Element Map and the City street improvement standards.	Yes	The project would obtain right-of-way and construct roadways in accordance with the General Plan Circulation Element Map as revised.
Policy 5.3.2	Wherever feasible, promote the development of roadways in accordance with the City standard roadway cross-sections, as shown in Figure 9-3. Cross-sections range from two-lane undivided roadways to 8-lane divided facilities.	Yes	The project would develop roadways in accordance with City standard cross-sections.
Policy 5.3.3	Create new roadway classifications to accommodate future traffic demand, including; Divided Major Arterial – Reduced Cross-Section, and Divided Arterial – 6-lane. These cross-sections are shown on Figure 9-3.	Yes	The project would develop roadways in accordance with City standard cross-sections.
Policy 5.3.4	For planning purposes, utilize LOS standards shown on Table 5 –1 to determine recommended roadway widths.	Yes	The City LOS standards were used to develop the General Plan Amendment.
Policy 5.3.5	Ensure that new development pays a fair share of costs to provide local and regional transportation improvements and to mitigate cumulative traffic impacts. For this purpose, require new developments to participate in Transportation Uniform Mitigation Fee Program (TUMF), the Development Impact Fee Program (DIF) and any other applicable transportation fee programs and benefit assessment districts.	Yes	By the terms of the Development Agreement the WLC will make fair-share contributions rather than pay into DIF.

Policy 5.3.6	Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements.	Yes	The project applicant would pay fair-share contributions towards improvements needed to mitigate the project's traffic impacts where applicable.
Policy 5.3.7	Provide consideration to projects that have overriding regional or local benefits that would be desirable even though the LOS standards cannot be met. These projects would be required to analyze traffic impacts and mitigate such impacts to the extent that it is deemed feasible.	Yes	Moreno Valley's jobs/housing ratio is currently very imbalanced, with too few jobs for the number of employable residents. By creating a large number of jobs in a housing-rich area, The WLCSP would reduce the need for long-distance out-commuting. The WLC has the potential to support reverse commute conditions reducing westbound commute impacts on SR-60. Also, the project helps fill the expected deficit in warehousing capacity that SCAG has identified as a drag on the regional economy (see *Logistics & Distribution: An Answer to Regional Upward Social Mobility*, SCAG June 2004).
Policy 5.3.8	Pursue arterial improvements that link and/or cross the State route 60 (SR-60) Freeway, including an additional over-crossing at Graham St.	Yes	The project would participate in the TUMF program which funds interchange improvements.
Policy 5.3.9	Address additional widenings at arterials providing access to SR-60 at Day St., Frederick St./Pigeon Pass Rd. and Perris Blvd.	Yes	The project would fund its fair share of improvements to these roads through its contributions to TUMF and its fair-share contributions to non-TUMF locations where the Project has significant impacts.
Objective 5.4	***Maximize efficiency of the regional circulation system through close coordination with state and regional agencies and implementation of regional transportation policies.***	Yes	WLC would pay all applicable TUMF fees and would participate in other multi-jurisdictional funding programs as established.
Policy 5.4.1	Coordinate with Caltrans and the Riverside County Transportation Commission (RCTC) to identify and protect ultimate rights-of-way, including those for freeways, regional arterial projects, transit, bikeways and interchange expansion.	Yes	Project-specific Plot Plans and subdivisions would provide for the ultimate rights of way or regional facilities.

Policy 5.4.2	Coordinate with Caltrans and RCTC regarding the integration of Intelligent Transportation Systems (ITS) consistent with the principles and recommendations of the Inland Empire Regional ITS Architecture Project.	NA	This policy concerns system-wide improvements that are not associated with individual development projects.
Policy 5.4.3	Work with property owners, in cooperation with RCTC, to reserve rights-of-way for potential Community and Environmental Transportation Acceptability Process (CETAP) corridors through site design, dedication, and land acquisition, as appropriate.	NA	The project site is not on any of the four corridors being studied: Winchester to Temecula, Hemet to the Corona/Lake Elsinore area, west Moreno Valley to San Bernardino County, and Riverside County to Orange County.
Policy 5.4.4	The City Council will commit to establishing ongoing relationships with all agencies that play a role in the development of the City’s transportation system. Council members who are appointed to these agencies as City representatives shall seek out leadership roles to maximize their effectiveness on behalf of the City. Council will strive to maintain continuity in their appointments of representatives.	NA	This policy concerns relationships that are not associated with individual development projects.
Policy 5.4.5	Work with RCTC, WRCOG, and the TUMF Central Zone Committee to facilitate the expeditious construction of TUMF Network projects, especially projects that directly benefit Moreno Valley.	Yes	The WLC would participate in the TUMF program.
Policy 5.4.6	Cooperatively participate with SCAG, RCTC, and WRCOG in the planning for a transportation system that anticipates regional needs for the safe and efficient movement of goods and people.	NA	This policy is not directly related to the WLC project.
Policy 5.4.7	Utilizing a combination of regional, state and federal funds, development impact fees, and other locally generated funds, provide needed improvements along SR 60 and the associated interchanges, including interchange and grade separation improvements.	Yes	With implementation of a cooperative program, the WLC would participate in a fair-share funding program for improvements to SR-60, if such a program is established among all contributing jurisdictions.

Policy 5.4.8	Reserve rights-of-way to accomplish future improvements as specified in the Caltrans District 8 Route Concept Fact Sheet for SR-60. Specifically, SR-60 shall be built to six general purpose lanes and two High Occupancy Vehicle (HOV) lanes through Moreno Valley. Additional auxiliary lanes may be required between interchanges. The need for auxiliary lanes will be determined from future studies.	Yes	The City would work with Caltrans to define and protect the ultimate right-of-way for SR-60 and its interchange at Theodore St.
Policy 5.4.9	Lobby the State Legislature to keep triple trailer trucks off highways in developed areas of California.	NA	This policy is not directly related to the WLC project.
Objective 5.5	***Maximize efficiency of the local circulation system by using appropriate policies and standards to design, locate and size roadways.***	Yes	The WLCSP supports this objective by requiring right of way standards that accommodates automobile and truck traffic that the project requires. Street cross sections meet or exceed minimum City standards.
Policy 5.5.1	Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.	Yes	The WLCSP supports this policy. The spacing of roadways for collectors is at appropriate intervals to reflect the size and scale of the WLC buildings.
Policy 5.5.2	Provide dedicated left-turn lanes at all major intersections on minor arterials and higher classification roadways.	Yes, Partially	The most critical intersections within the project site would use modern roundabout rather than conventional intersections. These conform to the intent of the policy which is to minimize conflicts between left-turning traffic and through traffic. Subsequent subdivision applications will provide dedicated left-turn lanes in public streets as required by the City.
Policy 5.5.3	Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.	Yes	Plot plans and subdivisions would be reviewed to analyze all points of access on a project by project basis. The WLC features a relatively small number of very large buildings. There would therefore be fewer access points needed than for the same square footage of conventional low-rise commercial buildings. The driveways to WLC would be located away from intersections at distances not be less than required by City code or engineering standards.

Policy 5.5.4	Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.	Yes	The WLC features a relatively small number of very large buildings. There would be fewer access points needed than for the same square footage of conventional low-rise business parks. Plot plans and subdivisions would be reviewed to analyze all points of access on a project by project basis.
Policy 5.5.5	Design streets and intersections in accordance with the Moreno Valley Municipal Code.	Yes	Project streets and intersections would be built to comply with City standards. The cross-sections would be designed to accommodate the type of traffic associated with high-cube logistics.
Policy 5.5.6	Consider the overall safety, efficiency and capacity of street designs as more important than the location of on-street parking.	Yes	On-street parking would be prohibited except at selected locations within the project subject to city approval. Safety, efficiency, and the capacity of the street would be key factors in selecting the location of on-street parking areas.
Policy 5.5.7	For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.	Yes	The applicant would comply with this policy.
Policy 5.5.8	Whenever possible, require private and public land developments to provide on-site and off-site improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system. The City may require developers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.	Yes	A traffic impact study has been conducted for the project. Improvements needed to mitigate project impacts have been identified. The project would pay TUMF that would cover its share of many improvements, and would pay its fair share towards the cost of implementing the remaining (non-TUMF) improvements.
Policy 5.5.9	Design curves and grades to permit safe movement of vehicular traffic per applicable Caltrans and Moreno Valley standards.	Yes	All WLC roadways would be designed to meet or exceed City standards.

Policy 5.5.10	Provide adequate sight distances for safe vehicular movement at all intersections and driveways.	Yes	Plot plans and subdivisions would be reviewed to ensure compliance with City standards. Driveways would provide sight distances per City code and engineering standards.
Policy 5.5.11	Implement National Pollutant Discharge Elimination System (NPDES) Best Management Practices (BMPs) relating to construction of roadways to control runoff contamination from affecting water resources.	Yes	The WLCSP would design streets to comply with NPDES BMPs for street run-off.
Objective 5.6	***Support development of a ground access system to March Inland Port in accordance with its development plan as a major cargo airport.***	NA	The WLC is not related to the March Inland Cargo Port project.
Policy 5.6.1	Ensure that City arterials that provide access to and from March Inland Port are properly designed to accommodate projected traffic volumes, including truck traffic.	NA	The WLC is not involved in the development of the March Inland Cargo Port.
Policy 5.6.2	Ensure that traffic routes to March Inland Port are planned to minimize impacts to City residential communities.	NA	The WLC is not involved in the development of the March Inland Cargo Port.
Objective 5.7	***Design roads to meet the needs of the residents of the community without detracting from the "rural" atmosphere in designated portions of Moreno Valley. (Designated "rural" areas include those encompassed by the Residential Agriculture 2, Residential 1, Rural Residential and Hillside Residential zoning districts. "Urban" areas encompass all other zoning districts.)***	NA	The WLC project has no rural residential component.
Policy 5.7.1	Pursue development of modified sidewalk standards for local and collector roads within low density areas to reflect the rural character of those areas.	NA	The WLC would not be a low density residential area.

Policy 5.7.2	Provide sidewalks on arterials in designated low density areas that provide access to schools and bus stops.	NA	There is no residential component in this project.
Objective 5.8	***Encourage development of an efficient public transportation system for the entire community.***	Yes	All WLC streets would accommodate bus traffic, bus turnouts, and shelters.
Policy 5.8.1	Support the development of high-speed transit linkages, or express routes, that would benefit the citizens and employers of Moreno Valley.	Yes	All WLC streets would accommodate bus traffic, bus turnouts, and shelters.
Policy 5.8.2	Support the efforts of the March Joint Powers Authority in its pursuit of a Transit Center	NA	This policy is not directly related to the WLC.
Policy 5.8.3	Encourage public transportation opportunities that address the particular needs of transit dependent individuals in the City such as senior citizens, the disabled and low -income residents.	Yes	The WLC would be designed to accommodate transit. The City would work with Riverside Transit Agency to develop routes serving WLC when development on the site has reached transit-supportive levels.
Policy 5.8.4	Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.	Yes	WLC would provide bus turn-outs and shelters at all active bus stops.
Policy 5.8.5	Continue on-going coordination with transit authorities toward the expansion of transit facilities into newly developed areas.	Yes	The WLC would be designed to accommodate transit and would work with transit operators to establish routes once the WLC has reached a transit-supportive level of development.

Objective 5.9	***Support and encourage development of safe, efficient and aesthetic pedestrian facilities.***	Yes	The WLCSP establishes right of way standards and street sections appropriate for an employment center. The Specific Plan requires pedestrian ways (sidewalks) along both sides of all streets in the WLC. Project provides multi-use trails throughout.
Policy 5.9.1	Encourage walking as an alternative to single occupancy vehicle travel, and help ensure the safety of the pedestrian as follows:	Yes	The WLC encourages walking to work by providing jobs within walking distance of many homes in Moreno Valley.
	(a) All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas.	Yes	All streets in the WLC would conform to GP cross-sections, as amended including the provision of sidewalks on all streets.
	(b) The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.	NA	The WLC is not an infill area.
Policy 5.9.2	Walkways shall be designed to minimize conflicts between vehicles and pedestrians.	Yes	All streets and sidewalks in the WLC would meet minimum city standards
Policy 5.9.3	Where appropriate, provide amenities such as, but not limited to, enhanced paving, seating, and landscaping to enhance the pedestrian experience.	Yes	The WLC provides and supports pedestrian facilities along street right of ways as designed. California-friendly and drought-tolerant landscaping would be incorporated into the plan to create a pleasing environment.
Policy 5.9.4	Require the provision of convenient and safe pedestrian access to buildings from the public sidewalk.	Yes	Pedestrian considerations are incorporated into the appropriate streetscapes and rely on individual building site planning efforts as established in the development standards and design guidelines. All plot plans would provide such access.

Objective 5.10	***Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution. The Moreno Bikeway Plan is shown in Figure 9-4.***	Yes	All WLC streets would provide class II bikeways. The WLCSP provides continued trail use on the west side of Redlands Blvd. towards Alessandro Blvd. The WLCSP establishes right of way standards conducive to the economic center and to support heavy truck use. Pedestrian considerations are incorporated into the appropriate streetscapes and rely on individual building site planning efforts as established in the development standards and design guidelines.
Policy 5.10.1	Bikeways shall link residential neighborhood areas with parks, employment centers, civic and commercial areas, and schools.	Yes	All streets within the WLC will include class II bikeways. They will link to bikeways to the west to provide paths between residential areas outside WLC and employment centers within the WLC site.
Policy 5.10.2	Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.	Yes	The WLCSP provides continued trail use on the west side of Redlands Blvd. towards Alessandro Blvd. Class II bikeways are provided on all streets in the WLC.
Policy 5.10.3	Support bicycle safety programs, and active enforcement of laws relating to the safe operation of bicycles on City streets.	NA	This is a system-wide policy not associated with any specific development proposal.
Policy 5.10.4	Link local bikeways with existing and planned regional bikeways.	Yes	All streets within the WLC will include class II bikeways. They would link to bikeways to the west to provide paths between residential areas outside WLC and employment centers in WLC.
Objective 5.11	***Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.***	Yes	The WLC would provide a comprehensively planned network of roads, bikeways, pedestrian ways and trails to facilitate, efficient, safe travel for vehicles, cyclists, and pedestrians. Roadways would be designed with 8-ft shoulders with no parking, allowing unobstructed Class II bikeways.

Policy 5.11.1	Landscaping adjacent to City streets, sidewalks and bikeways shall be designed, installed and maintained so as not to physically or visually impede public use of these facilities.	Yes	WLC landscape design standards would provide a safe environment for motorists, pedestrians, and cyclists that would not impede visibility or access to facilities. Landscape areas adjacent to streets would be maintained by a Property Owner Association
	(a) The removal or relocation of mature trees, street trees and landscaping may be necessary to construct safe pedestrian, bicycle and street facilities.	NA	Existing vegetation may be removed to provide adequate pedestrian, bicycle, and street facilities.
	(b) New landscaping, especially street trees shall be planted in such a manner to avoid overhang into streets, obstruction of traffic control devices or sight distances, or creation of other safety hazards.	Yes	The WLCSP would establish right of way standards and street design that allow for safe sight distances.
Policy 5.11.2	Driveways shall be designed to avoid conflicts with pedestrian and bicycle travel.	Yes	Project-specific Plot Plans and subdivisions would be reviewed and approved by the City to ensure the safe design of streets, bikeways, and pedestrian ways.
Objective 5.12	***Promote efficient circulation planning for all school sites that will maximize pedestrian safety, and minimize traffic congestion and neighborhood impacts.***	NA	There are no schools in the WLC.
Policy 5.12.1	Coordinate with school districts to identify suggested pedestrian routes within existing and new subdivisions for school children to walk to and from schools and/or bus stops.	NA	There are no schools in the WLC.

H. VEHICLE MILES OF TRAVEL

An analysis was performed of the effect that the WLC would have on regional vehicle miles of travel (VMT). This analysis was done primarily to provide data needed for the air quality analysis. Readers may be aware that, as a result of Senate Bill 743 (Steinberg, 2013), CEQA analysis of traffic impacts is likely to change at some point in the future from LOS-based to VMT-based. This change will not take effect before January 1st 2020 at the earliest, so the LOS approach that is the primary focus of the current study is in accordance with current state law. The VMT analysis is therefore included in this traffic study for informational purposes only.

The VMT analysis was performed by using the RIVTAM model to forecast the difference in regional VMT for different vehicle classes. This is consistent with long-standing practice in regional air quality conformity analyses and is a method recommended by the Governor's Office of Policy and Research (OPR) in their April 2018 *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*:

> *"Assessing Change in Total VMT*
>
> *A third method, estimating the change in total VMT with and without the project, can evaluate whether a project is likely to divert existing trips, and what the effect of those diversions will be on total VMT. This method answers the question, "What is the net effect of the project on area VMT?" As an illustration, assessing the total change in VMT for a grocery store built in a food desert that diverts trips from more distant stores could reveal a net VMT reduction. The analysis should address the full area over which the project affects travel behavior, even if the effect on travel behavior crosses political boundaries."*

The effects of the WLC on daily regional VMT can be seen in Table 101, which uses the Existing Plus Buildout scenario as an example. The table distinguishes between trips that have an origin or destination in the WLC, called "WLC Trips" in the table, and trips that have neither an origin nor a destination in the WLC, called "Non-Project Trips". The sections of the table are as follows:

- Columns A, B, and C (the columns with tan-colored headers) show existing conditions in the region, as represented in the RIVTAM model. Since the WLC does not yet exist, all trips are non-project trips.
- Columns D through I represent what conditions would be like with the addition of the WLC. Columns G and H show the vehicle trips and VMT for the WLC, and Column I uses those to compute the average trip length for WLC trips (see the columns with green-colored headers). The WLC tend to be longer than the regional average, as is generally true of land uses in Riverside County.
- The addition of the WLC would not just add WLC trips (Columns G through I), it would also affect non-project trips. For example, because of the WLC, some people that would have driven to jobs somewhere else would instead drive to work at the WLC, thereby converting a non-project trip into a WLC trip (this is an example of what the OPR guidelines quoted above calls a "diverted" trip). Similarly, the VMT for their drive to some other job site is changed from non-project VMT to WLC VMT. Columns D through F (the columns with yellow-colored headers) show RIVTAM's forecast of non-project vehicle trips and VMT in the Existing Plus Full Build-Out scenario.
- Columns N through P (the columns with pink-colored headers) compute the change in regional vehicle trips as a result of the WLC. Column N shows that there would be a reduction in non-project trips that would partially (see Column P) offset the new project-related trips. Note that there is a net increase in trips as a result of the WLC. This is because not every WLC trip would be a replacement for a trip that would otherwise have occurred; it depends on the trip purpose. Specifically, work trips, which are based on the number of households in the region[76], are held constant while trips between employment places increase or decrease based on the expansion or contraction of different sectors of the economy. The net growth in vehicle trips shown in Column O of the table can be thought of as the result of additional economic activity created by the WLC. For a logistics center, most of the increase will be truck trips. However, there will be some additional car trips; perhaps driving to and from meetings at WLC or lunch trips taken by WLC employees. Column O shows 4,317 additional car trip-ends (entering and leaving counted separately), or 2,158 cars trips (the way people usually think of them) as a result of the WLC. That works out to about 1 non-commute car trip for every 9 of the 20,000 workers expected at the WLC, which is a reasonable number.
- Columns J though M (the columns with the blue-colored headers) compute the change in regional VMT as a result of the WLC. Of particular interest for the air quality analysis is the fact that every heavy-duty truck trip generated by the WLC results in a net increase of 35 miles of heavy truck travel, even though the average trip length is 47 miles. This is because a portion of the heavy truck trips that are forecast to go to the WLC would have taken place even without the project; they would just have gone to some other place.

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[76] The land use data in the Sustainable Communities Strategy is based on birth, deaths, and migration. It includes the growth-inducing effects of new employment, including the WLC.

	Existing Conditions Scenario			Existing Plus Full Build-Out Scenario						Changes as a Result of WLC						
	Non-Project Trips			Non-Project Trips			WLC Project Trips			Changes in VMT				Changes in Vehicle Trips		
	(A)	(B)	(C)=(B)/(A)	(D)	(E)	(F)=(E)/(D)	(G)	(H)	(I)=(H)/(G)	(J)=(E)-(B)	(K)=(H)+(J)	(L)=1-(K)/(H)	(M)=(K)/(G)	(N)=(D)-(A)	(O)=(G)+(N)	(P)=1-(O)/(G)
Vehicle Class	Vehicle Trips	VMT	Average Non-Project Trip Length	Vehicle Trips	VMT	Average Non-Project Trip Length	Vehicle Trips	VMT	Average WLC Trip Length	Change in Non-Project VMT as a Result of the WLC	Net Change in Total VMT as a Result of the WLC	% of Increase by WLC Offset by Reductions in Non-Project Trips	Net VMT Increase per WLC Vehicle Trip	Change in Non-Project Vehicle Trips as a Result of the WLC	Net Change in Vehicle Trips as a Result of the WLC	% of Increase by WLC Offset by Reductions in Non-Project Trips
Cars	34,801,589	363,467,155	10	34,765,309	362,681,935	10	40,598	895,178	22	-785,220	109,958	88%	3	-36,281	4,317	89%
Light Trucks	413,221	3,749,785	9	412,926	3,746,040	9	3,064	53,968	18	-3,745	50,223	7%	16	-294	2,770	10%
Medium Trucks	280,333	6,523,280	23	278,907	6,493,203	23	3,928	102,797	26	-30,078	72,719	29%	19	-1,426	2,502	36%
Heavy Trucks	400,821	18,906,355	47	397,049	18,750,329	47	11,210	551,522	49	-156,027	395,496	28%	35	-3,771	7,439	34%
Total	35,895,964	392,646,576	11	35,854,191	391,671,507	11	58,800	1,603,465	27	-975,070	628,396	61%		-41,773	17,027	71%

Trips in Riverside County tend to be longer than the regional average

The net effect of the WLC is like a 35-mile trip
per heavy truck entering or leaving the WLC site ...

... even though the average trip length for
WLC heavy trucks is somewhat longer.

Table 101: Effect of WLC on Regional VMT, Existing Plus Buildout Scenario

Table 102 disaggregates the effects on the Project between freeway and non-freeway VMT. Several things are worth noting:

- As can be seen in the table, for the 2018 and 2025 scenarios the largest increase in VMT is for heavy-duty trucks. That is because heavy-duty trucks have the longest average trip lengths of any vehicle class and longer-distance trips tend to use freeways rather than surface streets.
- For the 2018 and 2025 scenarios, the Project reduces cars' VMT on freeways but increases cars' VMT on arterial roads. This would be due to some people switching from driving long distances on freeways to get to jobs in L.A. and Orange Counties and instead driving shorter distances on arterial roads to jobs in the WLC.
- The 2040 Plus Buildout scenario assumes, based on the SCS and Moreno Valley's General Plan, the development of other employment centers in Moreno Valley and the surrounding communities. The WLC would therefore need to draw workers from farther afield, which would increase the freeway VMT for Project-related cars.

	2018					2025			2040		
	Existing	Existing Plus Phase 1		Existing Plus Buildout		2025 No Project	2025 Plus Phase 1		2040 No Project	2040 Plus Buildout	
	VMT	VMT	Change in VMT	VMT	Change in VMT	VMT	VMT	Change in VMT	VMT	VMT	Change in VMT
Non-Freeway VMT											
Cars	187,834,233	187,846,353	12,120	187,954,544	120,311	203,542,747	203,560,320	17,574	259,350,631	259,611,649	261,018
Light Trucks	1,838,219	1,848,709	10,490	1,860,035	21,817	1,799,647	1,810,057	10,410	2,190,095	2,212,019	21,924
Medium Trucks	2,100,068	2,110,832	10,764	2,124,611	24,543	1,923,099	1,934,183	11,084	2,625,390	2,652,434	27,045
Heavy Trucks	3,998,371	4,029,006	30,635	4,070,538	72,168	3,973,988	4,006,720	32,732	5,756,633	5,828,145	71,512
Total	195,770,890	195,834,899	64,009	196,009,729	238,839	211,239,481	211,311,280	71,799	269,922,749	270,304,248	381,499
Freeway VMT											
Cars	175,632,922	175,584,699	-48,223	175,622,568	-10,354	185,289,166	185,232,432	-56,734	227,569,252	227,677,190	107,938
Light Trucks	1,911,567	1,925,694	14,127	1,939,973	28,406	1,880,251	1,893,052	12,801	2,507,312	2,526,247	18,935
Medium Trucks	4,423,212	4,449,958	26,745	4,471,389	48,176	4,110,143	4,133,435	23,292	6,556,116	6,585,113	28,996
Heavy Trucks	14,907,985	15,089,955	181,970	15,231,313	323,328	14,802,950	14,956,299	153,349	25,558,343	25,816,179	257,836
Total	196,875,686	197,050,306	174,619	197,265,243	389,557	206,082,510	206,215,218	132,708	262,191,024	262,604,729	413,705
All VMT											
Cars	363,467,155	363,431,053	-36,103	363,577,113	109,958	388,831,913	388,792,752	-39,160	486,919,883	487,288,840	368,957
Light Trucks	3,749,785	3,774,402	24,617	3,800,008	50,223	3,679,898	3,703,109	23,211	4,697,407	4,738,267	40,859
Medium Trucks	6,523,280	6,560,790	37,509	6,596,000	72,719	6,033,242	6,067,618	34,376	9,181,506	9,237,547	56,041
Heavy Trucks	18,906,355	19,118,961	212,605	19,301,851	395,496	18,776,938	18,963,019	186,081	31,314,977	31,644,324	329,347
Total	392,646,576	392,885,205	238,629	393,274,972	628,396	417,321,991	417,526,499	204,507	532,113,773	532,908,977	795,204

Table 102: Effect of WLC on Regional Freeway and Non-Freeway VMT

Traffic Impact Analysis Report

for the World Logistics Center

Appendix A

Traffic Counts

INTERSECTION #3 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	5	0	0	26	0	2	0	0	8	18	0	0	0	0	0
07:15 AM	0	6	0	0	32	0	2	0	0	15	19	0	0	0	0	0
07:30 AM	2	6	0	0	43	0	0	0	0	6	27	0	0	0	0	0
07:45 AM	0	5	0	0	28	0	1	0	0	10	18	0	0	0	0	0
08:00 AM	0	3	0	0	30	0	3	0	0	12	15	0	0	0	0	0
08:15 AM	2	1	0	0	22	0	3	0	0	25	7	0	0	0	0	0
08:30 AM	6	23	0	0	26	0	1	0	0	8	15	0	0	0	0	0
08:45 AM	3	10	0	0	21	0	2	0	0	4	8	0	0	0	0	0

2-Axle Trucks	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0

3-Axle Trucks	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #3 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	4	9	0	0	28	0	3	0	0	6	38	0	0	0	0	0
04:15 PM	3	11	0	0	15	0	2	0	0	4	30	0	0	0	0	0
04:30 PM	3	12	0	0	23	0	0	0	0	2	39	0	0	0	0	0
04:45 PM	2	10	0	0	14	0	2	0	0	4	44	0	0	0	0	0
05:00 PM	6	12	0	0	24	0	1	0	0	7	41	0	0	0	0	0
05:15 PM	1	10	0	0	18	0	0	0	0	9	37	0	0	0	0	0
05:30 PM	1	8	0	0	31	0	1	0	0	6	27	0	0	0	0	0
05:45 PM	1	7	0	0	22	0	1	0	0	4	29	0	0	0	0	0

2-Axle Trucks	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

3-Axle Trucks	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				Alessandro Boulevard Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #6 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Gilman Springs Road
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	85	0	0	0	0	0	0	32	223	0	0	0	0	10	0
07:15 AM	0	102	0	0	0	0	0	0	32	181	0	0	0	0	26	0
07:30 AM	0	91	0	0	0	0	0	0	40	180	0	0	0	0	28	0
07:45 AM	0	97	0	0	0	0	0	0	33	144	0	0	0	0	17	0
08:00 AM	0	80	2	0	0	0	0	0	26	147	0	0	0	0	16	0
08:15 AM	0	80	1	0	0	0	0	0	25	137	0	0	0	0	9	0
08:30 AM	0	86	1	0	0	0	0	0	23	164	0	0	1	0	19	0
08:45 AM	0	90	1	0	0	0	0	0	26	131	0	0	0	0	11	0

2-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	12	0	0	0	0	0	0	0	3	0	0	0	0	1	0
07:15 AM	0	6	0	0	0	0	0	0	0	2	0	0	0	0	1	0
07:30 AM	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0
07:45 AM	0	5	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	6	0	0	0	0	0	0	1	2	0	0	0	0	1	0
08:30 AM	0	7	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:45 AM	0	6	0	0	0	0	0	0	0	1	0	0	0	0	1	0

3-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	6	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0
08:15 AM	0	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:30 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:45 AM	0	3	0	0	0	0	0	0	1	2	0	0	0	0	0	0

INTERSECTION #6 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Gilman Springs Road
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	198	3	0	0	0	0	0	26	127	0	0	0	0	35	0
04:15 PM	0	217	0	0	0	0	0	0	18	90	0	0	0	0	39	0
04:30 PM	0	206	0	0	0	0	0	0	22	118	0	0	0	0	42	0
04:45 PM	0	219	0	0	0	0	0	0	16	106	0	0	0	0	42	0
05:00 PM	0	188	0	0	0	0	0	0	22	110	0	0	0	0	44	0
05:15 PM	0	238	0	0	0	0	0	0	20	115	0	0	0	0	40	0
05:30 PM	0	213	0	0	0	0	0	0	29	114	0	0	0	0	28	0
05:45 PM	0	214	1	0	0	0	0	0	16	94	0	0	0	0	33	0

2-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	3	0	0	0	0	0	0	0	7	0	0	0	0	0	0
04:15 PM	0	6	0	0	0	0	0	0	0	4	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
04:45 PM	0	9	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	10	0	0	0	0	0	0	0	6	0	0	0	0	0	0
05:15 PM	0	6	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	6	0	0	0	0	0	0	2	6	0	0	0	0	1	0
05:45 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	1	0

3-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #10 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Locust Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	131	1	0	0	0	1	0	1	198	1	0	9	0	2	0
07:15 AM	0	149	2	0	1	0	0	0	1	162	2	0	1	0	3	0
07:30 AM	0	156	2	0	0	0	0	0	1	117	1	0	2	0	5	0
07:45 AM	0	152	2	0	1	0	0	0	0	125	4	0	4	0	6	0
08:00 AM	1	111	3	0	3	1	0	0	1	145	5	0	6	0	3	0
08:15 AM	1	109	4	0	0	0	0	0	4	144	4	0	3	0	1	0
08:30 AM	0	95	1	0	2	1	1	0	2	148	0	0	7	0	6	0
08:45 AM	0	60	2	0	1	0	0	0	2	140	0	0	6	0	4	0

2-Axle Trucks	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	2	1	0	0	0	0	0	0
07:30 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #10 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Locust Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	190	6	0	2	0	0	0	7	165	3	0	1	0	2	0
04:15 PM	0	203	4	0	1	0	0	0	3	165	3	0	4	1	3	0
04:30 PM	0	195	3	0	4	0	0	0	4	162	5	0	3	0	3	0
04:45 PM	0	193	8	0	0	0	1	0	5	200	2	0	8	0	2	0
05:00 PM	0	201	2	0	7	1	0	0	6	183	0	0	2	0	2	0
05:15 PM	0	203	4	0	4	1	0	0	2	188	3	0	4	0	3	0
05:30 PM	0	216	7	0	5	0	0	0	2	192	2	0	5	0	5	0
05:45 PM	1	200	8	0	5	1	0	0	3	185	1	0	4	0	2	0

2-Axle Trucks	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	5	0	0	0	0	0	0	0	1	0	0	1	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:45 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:15 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Locust Avenue Westbound				Redlands Boulevard Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #11 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	102	24	0	0	1	1	0	2	168	1	0	33	0	0	0
07:15 AM	0	139	33	0	1	1	0	0	7	129	2	0	21	1	5	0
07:30 AM	1	143	26	0	0	4	0	0	9	98	0	0	25	2	6	0
07:45 AM	0	139	25	0	2	2	1	0	11	106	0	0	20	1	11	0
08:00 AM	0	108	12	0	2	1	0	0	4	121	2	0	37	2	8	0
08:15 AM	0	88	11	0	1	0	2	0	2	131	0	0	23	1	1	0
08:30 AM	1	92	19	0	0	2	0	0	0	135	3	0	11	0	5	0
08:45 AM	0	54	21	0	0	1	5	0	0	134	4	0	0	0	24	0

2-Axle Trucks	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0
07:15 AM	0	2	0	0	0	0	0	0	1	1	0	0	0	1	0	0
07:30 AM	0	3	2	0	0	2	1	0	0	2	0	0	0	0	1	0
07:45 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	1	1	0
08:00 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:45 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	2	1	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:30 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #11 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	3	146	39	0	1	8	1	0	4	161	0	0	14	5	6	0
04:15 PM	2	152	44	0	0	9	1	0	5	149	1	0	26	2	3	0
04:30 PM	0	163	53	0	0	3	1	0	5	153	2	0	20	3	5	0
04:45 PM	1	160	41	0	1	1	3	0	1	171	0	0	26	4	3	0
05:00 PM	0	162	47	0	0	4	1	0	3	174	0	0	28	4	3	0
05:15 PM	2	181	39	0	0	3	1	0	3	170	4	0	21	6	5	0
05:30 PM	2	169	46	0	2	3	1	0	3	172	1	0	39	2	9	0
05:45 PM	0	154	47	0	0	2	0	0	5	168	0	0	24	2	6	0

2-Axle Trucks	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	1	2	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	1	1	0	0	0	0	0	0	3	0	0	0	1	2	0
04:45 PM	0	2	1	0	0	0	0	0	0	2	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
05:15 PM	0	3	0	0	0	0	0	0	0	1	0	0	1	0	0	0
05:30 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	5	0	0	0	1	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Ironwood Avenue Westbound				Redlands Boulevard Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #12 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	5	0	5	0	0	0	1	0
07:15 AM	0	0	0	0	0	2	0	0	2	0	4	0	0	2	4	0
07:30 AM	0	0	0	0	1	1	0	0	4	0	1	0	0	1	3	0
07:45 AM	0	0	0	0	1	0	0	0	4	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	2	0	0	0	4	0	5	0	0	1	2	0
08:15 AM	0	0	0	0	3	0	0	0	3	0	2	0	0	0	2	0
08:30 AM	0	0	0	0	1	1	0	0	3	0	4	0	0	0	3	0
08:45 AM	0	0	0	0	5	0	0	0	10	0	1	0	0	0	3	0

2-Axle Trucks	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
08:00 AM	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0
08:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0
07:15 AM	0	0	0	0	6	0	0	0	0	0	2	0	0	0	0	0
07:30 AM	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	6	0	0	0	0	0	4	0	0	0	0	0
08:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0
08:30 AM	0	0	0	0	1	0	0	0	0	0	5	0	0	0	0	0
08:45 AM	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0

INTERSECTION #12 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	4	3	0	0	4	0	1	0	0	1	6	0
04:15 PM	0	0	0	0	2	2	0	0	8	0	0	0	0	1	7	0
04:30 PM	0	0	0	0	5	2	0	0	4	0	1	0	0	0	5	0
04:45 PM	0	0	0	0	2	3	0	0	6	0	0	0	0	0	5	0
05:00 PM	0	0	0	0	4	2	0	0	4	0	0	0	0	0	4	0
05:15 PM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	3	0
05:30 PM	0	0	0	0	6	0	0	0	6	0	0	0	0	0	4	0
05:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0

2-Axle Trucks	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

3-Axle Trucks	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Ironwood Avenue Westbound				Theodore Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #13 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Spruce Avenue/SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	61	42	0	0	5	0	10	0	1	156	26	0	0	0	1	0
07:15 AM	72	64	1	0	11	0	5	0	1	123	27	0	0	3	0	0
07:30 AM	73	80	0	0	10	0	9	0	2	105	26	0	0	0	2	0
07:45 AM	76	72	1	0	9	0	12	0	7	101	14	0	1	1	1	0
08:00 AM	61	55	0	0	11	0	5	0	4	123	20	0	1	0	3	0
08:15 AM	53	46	0	0	8	0	4	0	0	137	17	0	0	2	1	0
08:30 AM	53	38	1	0	7	0	9	0	3	122	44	0	1	0	0	0
08:45 AM	38	26	3	0	3	0	5	0	0	108	39	0	3	0	0	0

2-Axle Trucks	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0
07:30 AM	2	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	5	0	0	1	0	0	0
08:00 AM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	1	0
08:15 AM	1	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
08:45 AM	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:30 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
07:45 AM	1	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0
08:15 AM	1	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
08:30 AM	2	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0

INTERSECTION #13 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Spruce Avenue/SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	71	82	0	0	12	0	9	0	1	153	27	0	0	2	2	0
04:15 PM	73	80	0	0	8	0	7	0	4	158	29	0	1	2	2	0
04:30 PM	74	92	1	0	5	0	3	0	3	140	24	0	1	3	1	0
04:45 PM	66	94	1	0	15	0	4	0	0	176	24	0	0	2	0	0
05:00 PM	69	93	0	0	7	0	9	0	4	165	29	0	0	3	1	0
05:15 PM	72	104	0	0	13	0	4	0	0	175	37	0	0	2	2	0
05:30 PM	98	100	0	0	13	0	6	0	1	166	25	0	1	1	2	0
05:45 PM	72	93	0	0	5	0	7	0	2	158	25	0	0	0	0	0

2-Axle Trucks	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	4	0	0	0	1	0	0	0	1	1	0	0	0	0	0
04:15 PM	1	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0
04:30 PM	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	1	0	0	0	1	0	0	0	0	0
05:30 PM	1	2	0	0	0	0	0	0	0	1	2	0	0	0	0	0
05:45 PM	3	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0

3-Axle Trucks	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
04:30 PM	1	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				SR-60 Westbound Ramps Westbound				Redlands Boulevard Northbound				Spruce Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
04:30 PM	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0
04:45 PM	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:00 PM	2	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #14 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	48	4	0	0	0	0	0	10	140	0	0	50	0	11	0
07:15 AM	0	63	10	0	0	0	0	0	16	105	0	0	39	0	10	0
07:30 AM	0	79	4	0	0	0	0	0	14	95	0	0	35	0	25	0
07:45 AM	0	85	7	0	0	0	0	0	17	82	0	0	49	0	17	0
08:00 AM	0	70	7	0	0	0	0	0	15	77	0	0	64	0	16	0
08:15 AM	0	46	0	0	0	0	0	0	10	83	0	0	72	0	21	0
08:30 AM	0	42	8	0	0	0	0	0	9	106	0	0	61	0	12	0
08:45 AM	0	28	4	0	0	0	0	0	10	78	0	0	72	0	16	0

2-Axle Trucks	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:15 AM	0	2	0	0	0	0	0	0	0	2	0	0	2	0	0	0
07:30 AM	0	0	1	0	0	0	0	0	0	3	0	0	2	0	2	0
07:45 AM	0	2	0	0	0	0	0	0	0	5	0	0	4	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	2	0	1	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0

3-Axle Trucks	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0

4+ Axle Trucks	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	1	0	2	0
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	3	0	1	0
07:45 AM	0	0	1	0	0	0	0	0	0	1	0	0	2	0	0	0
08:00 AM	0	0	1	0	0	0	0	0	1	2	0	0	2	0	2	0
08:15 AM	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0

INTERSECTION #14 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	85	8	0	0	0	0	0	10	84	0	0	95	0	26	0
04:15 PM	0	75	12	0	0	0	0	0	14	92	0	0	98	0	35	0
04:30 PM	0	93	9	0	0	0	0	0	10	79	0	0	102	0	31	0
04:45 PM	0	93	13	0	0	0	0	0	20	90	0	0	103	0	33	0
05:00 PM	0	97	9	0	0	0	0	0	14	87	0	0	110	0	33	0
05:15 PM	0	107	6	0	0	0	0	0	14	92	0	0	104	0	26	0
05:30 PM	0	103	13	0	0	0	0	0	5	104	0	0	99	0	24	0
05:45 PM	0	87	10	0	0	0	0	0	10	70	0	0	109	0	25	0

2-Axle Trucks	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	5	1	0	0	0	0	0	1	3	0	0	1	0	2	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	3	0	0	1	0	2	0
04:45 PM	0	0	2	0	0	0	0	0	1	2	0	0	2	0	2	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	2	1	0	0	0	0	0	0	2	0	0	1	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	2	0	2	0

3-Axle Trucks	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Dead End Westbound				Redlands Boulevard Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0
04:30 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0
05:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #15 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	6	0	6	0	0	3	3	0	0	0	0	0
07:15 AM	0	3	0	0	4	0	4	0	0	3	1	0	0	0	0	0
07:30 AM	0	5	0	0	5	0	6	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	6	0	2	0	0	1	1	0	0	0	0	0
08:00 AM	0	2	0	0	4	0	4	0	0	7	3	0	0	0	0	0
08:15 AM	1	4	0	0	4	0	1	0	0	5	5	0	0	0	0	0
08:30 AM	4	2	0	0	6	0	2	0	0	5	14	0	0	0	0	0
08:45 AM	4	5	0	0	5	0	7	0	0	5	10	0	0	0	0	0

2-Axle Trucks	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:00 AM	3	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

3-Axle Trucks	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:15 AM	5	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:30 AM	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	6	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0
08:00 AM	3	0	0	0	2	0	0	0	0	1	1	0	0	0	0	0
08:15 AM	3	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:30 AM	1	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0
08:45 AM	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0

INTERSECTION #15 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	3	9	0	0	7	0	3	0	0	3	6	0	0	0	0	0
04:15 PM	1	7	0	0	6	0	2	0	0	4	5	0	0	0	0	0
04:30 PM	7	4	0	0	3	0	1	0	0	3	6	0	0	0	0	0
04:45 PM	3	4	0	0	4	0	2	0	0	3	8	0	0	0	0	0
05:00 PM	3	7	0	0	4	0	2	0	0	4	8	0	0	0	0	0
05:15 PM	0	3	0	0	5	0	4	0	0	2	6	0	0	0	0	0
05:30 PM	2	9	0	0	2	0	0	0	0	5	13	0	0	0	0	0
05:45 PM	1	2	0	0	4	0	1	0	0	5	5	0	0	0	0	0

2-Axle Trucks	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				SR-60 Westbound Ramps Westbound				Theodore Street Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

INTERSECTION #16 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	7	2	0	0	0	0	0	8	3	0	0	2	0	8	0
07:15 AM	0	5	1	0	0	0	0	0	7	2	0	0	2	0	4	0
07:30 AM	0	8	2	0	0	0	0	0	4	2	0	0	0	0	10	0
07:45 AM	0	7	0	0	0	0	0	0	5	2	0	0	1	0	17	0
08:00 AM	0	3	2	0	0	0	0	0	5	5	0	0	6	0	16	0
08:15 AM	0	6	3	0	0	0	0	0	3	6	0	0	2	0	27	0
08:30 AM	0	4	4	0	0	0	0	0	6	17	0	0	5	0	30	0
08:45 AM	0	5	5	0	0	0	0	0	4	10	0	0	2	0	14	0

2-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
08:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	4	0	1	0
08:00 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	2	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	4	0	3	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0

INTERSECTION #16 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	11	6	0	0	0	0	0	7	7	0	0	2	0	11	0
04:15 PM	0	8	5	0	0	0	0	0	4	9	0	0	1	0	5	0
04:30 PM	0	5	3	0	0	0	0	0	4	10	0	0	2	0	3	0
04:45 PM	0	7	2	0	0	0	0	0	3	9	0	0	3	0	4	0
05:00 PM	0	5	5	0	0	0	0	0	7	10	0	0	1	0	6	0
05:15 PM	0	6	4	0	0	0	0	0	9	7	0	0	2	0	4	0
05:30 PM	0	6	4	0	0	0	0	0	1	16	0	0	4	0	5	0
05:45 PM	0	7	1	0	0	0	0	0	2	9	0	0	1	0	2	0

2-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				SR-60 Eastbound Ramps Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
05:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0

INTERSECTION #18 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Eucalyptus Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	59	6	0	1	0	2	0	9	132	0	0	0	0	0	0
07:15 AM	0	66	6	0	0	0	4	0	3	140	0	0	3	0	2	0
07:30 AM	0	91	8	0	1	0	1	0	2	100	0	0	0	0	0	0
07:45 AM	0	92	7	0	1	0	2	0	5	101	0	0	2	0	0	0
08:00 AM	1	80	6	0	0	0	2	0	4	83	0	0	6	0	1	0
08:15 AM	3	64	1	0	0	1	1	0	1	94	3	0	4	0	2	0
08:30 AM	1	61	2	0	1	0	20	0	2	78	0	0	2	0	4	0
08:45 AM	0	38	3	0	1	0	31	0	0	59	0	0	6	0	0	0

2-Axle Trucks	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:15 AM	0	0	2	0	0	0	1	0	0	0	0	0	2	0	0	0
07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
07:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
08:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	1	0	0	0	3	0	0	2	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

INTERSECTION #18 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Eucalyptus Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	114	0	0	0	0	4	0	0	84	0	0	6	0	3	0
04:15 PM	1	99	4	0	0	0	1	0	0	92	0	0	13	0	5	0
04:30 PM	0	125	0	0	0	0	11	0	0	83	0	0	3	1	1	0
04:45 PM	1	134	1	0	0	0	4	0	0	96	1	0	8	0	2	0
05:00 PM	0	118	0	0	2	0	9	0	0	94	0	0	2	0	5	0
05:15 PM	0	119	3	0	0	0	4	0	0	103	0	0	7	0	0	0
05:30 PM	0	136	2	0	0	0	10	0	0	91	0	0	5	0	0	0
05:45 PM	0	116	0	0	0	0	9	0	1	72	0	0	3	0	1	0

2-Axle Trucks	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:15 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	1	0	0	2	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Eucalyptus Avenue Westbound				Redlands Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #19 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: Eucalyptus Avenue
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	6	9	0	0	0	0	0	2	10	0	0	1	0	0	0
07:15 AM	0	5	4	0	0	0	0	0	8	9	0	0	0	0	1	0
07:30 AM	0	9	10	0	0	0	0	0	2	4	0	0	0	0	0	0
07:45 AM	0	5	17	0	0	0	0	0	7	5	0	0	1	0	1	0
08:00 AM	0	2	17	0	0	0	0	0	9	6	0	0	5	0	1	0
08:15 AM	0	2	31	0	0	0	0	0	22	6	0	0	4	0	6	0
08:30 AM	0	4	30	0	0	0	0	0	7	2	0	0	20	0	26	0
08:45 AM	0	4	14	0	0	0	0	0	1	5	0	0	8	0	6	0

2-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0

3-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
08:00 AM	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #19 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Theodore Street
Comment 3: E/W: Eucalyptus Avenue
Comment 4: Weather: Clear

Cars	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	10	11	0	0	0	0	0	2	7	0	0	5	0	5	0
04:15 PM	0	5	6	0	0	0	0	0	1	5	0	0	8	0	6	0
04:30 PM	0	5	3	0	0	0	0	0	1	1	0	0	13	0	7	0
04:45 PM	0	7	5	0	0	0	0	0	3	3	0	0	9	0	5	0
05:00 PM	0	7	5	0	0	0	0	0	0	7	0	0	10	0	13	0
05:15 PM	0	8	1	0	0	0	0	0	2	7	0	0	9	0	4	0
05:30 PM	0	7	4	0	0	0	0	0	2	5	0	0	12	0	3	0
05:45 PM	0	6	4	0	0	0	0	0	2	3	0	0	8	0	1	0

2-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Theodore Street Southbound				Dead End Westbound				Theodore Street Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0
04:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0

INTERSECTION #20 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Pearl Lane/Oliver Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	1	65	1	0	21	0	1	0	0	27	11	0
07:15 AM	0	0	0	0	3	102	0	0	28	0	6	0	0	36	8	0
07:30 AM	0	0	0	0	2	110	0	0	38	1	6	0	0	47	11	0
07:45 AM	0	0	1	0	3	135	0	0	56	0	9	0	0	40	21	0
08:00 AM	0	0	1	0	7	79	0	0	23	0	8	0	0	43	19	0
08:15 AM	0	0	0	0	1	54	0	0	26	0	3	0	0	35	12	0
08:30 AM	0	0	0	0	3	56	0	0	25	0	0	0	0	26	9	0
08:45 AM	0	0	0	0	4	63	0	0	31	0	8	0	0	26	10	0

2-Axle Trucks	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0
07:15 AM	0	0	0	0	0	1	0	0	3	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0
08:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	1	0
08:30 AM	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	6	0	0	0	0	2	2	0

3-Axle Trucks	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

INTERSECTION #20 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Pearl Lane/Oliver Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	4	49	0	0	16	0	5	0	1	81	11	0
04:15 PM	0	0	0	0	5	62	0	0	20	0	2	0	1	67	10	0
04:30 PM	0	0	0	0	4	62	0	0	27	0	3	0	1	113	19	0
04:45 PM	0	0	1	0	2	47	0	0	15	0	2	0	0	104	24	0
05:00 PM	0	0	0	0	2	54	0	0	17	0	7	0	0	89	30	0
05:15 PM	0	0	0	0	6	57	0	0	19	0	7	0	0	83	23	0
05:30 PM	0	0	0	0	4	50	0	0	9	0	4	0	0	86	15	0
05:45 PM	0	0	0	0	4	64	0	0	13	0	1	0	0	84	16	0

2-Axle Trucks	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0
05:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Pearl Lane Southbound				Alessandro Boulevard Westbound				Oliver Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #21 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	65	16	0	3	31	2	0	11	121	5	0	12	12	10	0
07:15 AM	0	59	27	0	11	56	5	0	14	96	6	0	6	24	7	0
07:30 AM	2	84	24	0	14	65	2	0	27	118	9	0	17	27	11	0
07:45 AM	3	106	34	0	20	67	2	0	30	163	11	0	17	17	17	0
08:00 AM	3	84	18	0	2	35	1	0	20	112	9	0	17	27	12	0
08:15 AM	2	84	10	0	6	34	0	0	11	99	7	0	13	18	8	0
08:30 AM	1	75	7	0	11	44	4	0	10	104	7	0	7	19	5	0
08:45 AM	8	71	13	0	14	31	2	0	15	97	8	0	7	4	10	0

2-Axle Trucks	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0
07:15 AM	0	1	0	0	0	0	0	0	1	2	1	0	0	0	1	0
07:30 AM	1	2	1	0	0	0	0	0	0	1	0	0	1	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
08:15 AM	0	1	1	0	0	1	0	0	0	1	0	0	0	2	1	0
08:30 AM	0	2	0	0	0	0	1	0	1	2	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	1	1	1	0	0	1	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0
07:45 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #21 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	4	145	15	0	9	24	6	0	8	134	12	0	19	53	14	0
04:15 PM	3	147	13	0	19	39	6	0	7	91	9	0	22	36	22	0
04:30 PM	4	160	20	0	6	30	7	0	14	125	11	0	32	53	16	0
04:45 PM	3	147	10	0	15	22	4	0	11	92	13	0	27	58	18	0
05:00 PM	9	168	11	0	23	34	4	0	7	111	19	0	21	49	21	0
05:15 PM	3	166	15	0	6	30	7	0	11	94	14	0	30	45	26	0
05:30 PM	6	156	9	0	5	31	3	0	13	105	9	0	19	51	21	0
05:45 PM	4	138	16	0	20	28	3	0	18	113	12	0	18	40	28	0

2-Axle Trucks	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	2	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
05:15 PM	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0
05:30 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	1	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				Alessandro Boulevard Westbound				Moreno Beach Drive Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #23 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	44	15	0	4	21	4	0	2	104	21	0	13	5	2	0
07:15 AM	5	53	20	0	17	28	1	0	6	82	18	0	9	14	6	0
07:30 AM	1	77	27	0	9	34	2	0	6	82	13	0	13	18	10	0
07:45 AM	3	93	30	0	12	29	0	0	7	81	14	0	12	13	7	0
08:00 AM	6	61	15	0	6	24	1	0	7	81	12	0	13	14	5	0
08:15 AM	3	35	11	0	4	23	3	0	3	63	14	0	13	10	1	0
08:30 AM	2	37	21	0	12	29	4	0	3	61	7	0	13	13	4	0
08:45 AM	2	24	8	0	11	25	2	0	2	45	7	0	9	4	4	0

2-Axle Trucks	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	0
07:30 AM	0	0	0	0	0	1	1	0	0	5	2	0	0	0	0	0
07:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	2	1	1	0
08:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
08:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #23 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	8	82	14	0	11	24	5	0	8	55	11	0	18	35	6	0
04:15 PM	6	71	19	0	10	20	2	0	5	73	12	0	22	22	7	0
04:30 PM	5	83	11	0	13	20	2	0	4	55	3	0	19	35	3	0
04:45 PM	3	97	21	0	11	18	4	0	3	77	13	0	24	29	10	0
05:00 PM	3	91	24	0	12	18	6	0	4	63	12	0	23	38	5	0
05:15 PM	4	85	23	0	9	13	5	0	3	62	19	0	29	28	6	0
05:30 PM	7	103	12	0	14	18	3	0	4	59	10	0	27	15	3	0
05:45 PM	4	82	19	0	14	22	1	0	1	47	11	0	18	25	8	0

2-Axle Trucks	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	3	1	0	0	1	1	0	0	0	0	0	1	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0
05:45 PM	0	2	1	0	0	0	0	0	0	1	0	0	1	1	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Alessandro Boulevard Westbound				Redlands Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

INTERSECTION #24 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Oliver Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	8	2	0	0	66	2	0	19	15	3	0	1	26	5	0
07:15 AM	2	5	3	0	2	66	4	0	34	23	3	0	1	38	15	0
07:30 AM	0	4	2	0	3	73	9	0	42	23	7	0	5	46	41	0
07:45 AM	3	25	2	0	5	85	9	0	63	38	9	0	2	58	66	0
08:00 AM	0	14	3	0	4	61	3	0	48	29	9	0	2	69	49	0
08:15 AM	2	6	1	0	3	45	4	0	31	21	3	0	3	44	43	0
08:30 AM	0	10	2	0	5	37	1	0	38	22	12	0	1	35	58	0
08:45 AM	0	13	4	0	6	45	1	0	78	32	15	0	2	25	35	0

2-Axle Trucks	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	0
07:15 AM	0	1	0	0	0	1	0	0	2	1	0	0	0	5	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
07:45 AM	0	0	1	0	0	0	0	0	1	0	0	0	1	0	2	0
08:00 AM	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0
08:15 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0
08:45 AM	0	2	0	0	0	2	0	0	1	5	0	0	0	1	0	0

3-Axle Trucks	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #24 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Oliver Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	12	1	0	7	53	3	0	22	16	8	0	2	86	26	0
04:15 PM	1	7	5	0	6	53	4	0	20	15	10	0	3	88	25	0
04:30 PM	2	10	1	0	9	57	5	0	17	17	1	0	1	71	38	0
04:45 PM	5	15	0	0	10	56	3	0	18	11	5	0	1	85	48	0
05:00 PM	4	15	4	0	10	74	4	0	15	9	2	0	0	92	43	0
05:15 PM	7	21	2	0	8	57	4	0	13	16	9	0	4	70	45	0
05:30 PM	1	11	2	0	5	57	3	0	19	11	2	0	3	75	30	0
05:45 PM	1	11	4	0	6	37	1	0	22	13	11	0	1	93	28	0

2-Axle Trucks	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
04:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Oliver Street Southbound				Cactus Avenue Westbound				Oliver Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #25 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	8	52	13	0	1	26	10	0	20	109	15	0	14	22	7	0
07:15 AM	1	55	19	0	4	32	5	0	17	88	12	0	26	19	12	0
07:30 AM	3	83	21	0	5	29	7	0	30	135	15	0	25	21	17	0
07:45 AM	4	103	21	0	11	29	9	0	38	157	22	0	25	24	30	0
08:00 AM	2	71	9	0	3	31	4	0	28	120	5	0	28	31	22	0
08:15 AM	3	75	14	0	0	17	8	0	22	81	9	0	19	23	12	0
08:30 AM	4	67	14	0	9	8	5	0	17	89	7	0	18	14	15	0
08:45 AM	2	64	18	0	4	23	7	0	21	97	5	0	15	15	7	0

2-Axle Trucks	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0
07:15 AM	0	1	0	0	0	1	1	0	1	2	0	0	1	1	2	0
07:30 AM	1	2	0	0	1	0	1	0	0	0	0	0	1	1	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
08:30 AM	1	0	1	0	2	0	0	0	0	1	0	0	0	2	0	0
08:45 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #25 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	7	115	19	0	4	20	8	0	24	91	7	0	20	32	32	0
04:15 PM	15	126	19	0	0	18	4	0	23	64	3	0	30	44	29	0
04:30 PM	9	111	29	0	3	21	5	0	18	113	5	0	15	23	29	0
04:45 PM	8	125	28	0	7	19	4	0	33	77	10	0	18	41	32	0
05:00 PM	7	131	34	0	1	21	4	0	33	96	6	0	14	37	32	0
05:15 PM	16	143	18	0	3	28	8	0	17	90	3	0	15	43	39	0
05:30 PM	8	119	18	0	6	20	4	0	27	96	3	0	16	31	36	0
05:45 PM	6	122	22	0	4	20	2	0	27	94	2	0	19	24	31	0

2-Axle Trucks	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:15 PM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				Cactus Avenue Westbound				Moreno Beach Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #27 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Blvd/John F Kennedy Drive
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	34	18	0	0	4	5	0	5	88	0	0	27	1	2	0
07:15 AM	1	52	21	0	0	0	7	0	5	61	0	0	32	0	10	0
07:30 AM	0	87	21	0	2	3	4	0	6	74	0	0	26	1	19	0
07:45 AM	0	92	28	0	0	5	2	0	4	70	0	0	30	1	25	0
08:00 AM	2	43	27	0	0	1	0	0	5	67	0	0	27	2	4	0
08:15 AM	0	33	11	0	0	0	2	0	3	54	0	0	26	1	3	0
08:30 AM	1	43	12	0	0	1	3	0	2	48	0	0	18	3	3	0
08:45 AM	1	30	17	0	1	0	4	0	3	38	1	0	19	1	1	0

2-Axle Trucks	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0
07:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	2	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	5	0	0	1	1	1	0
07:45 AM	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #27 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Redlands Blvd/John F Kennedy Drive
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	73	26	0	1	3	1	0	4	38	0	0	27	3	4	0
04:15 PM	5	65	11	0	0	0	2	0	3	48	0	0	42	4	7	0
04:30 PM	5	77	22	0	0	4	1	0	2	36	0	0	22	4	5	0
04:45 PM	4	82	21	0	0	0	1	0	5	58	1	0	35	0	7	0
05:00 PM	3	74	17	0	2	1	0	0	4	49	0	0	36	2	5	0
05:15 PM	6	69	24	0	0	3	2	0	2	52	3	0	35	8	12	0
05:30 PM	1	92	25	0	1	1	1	0	1	32	0	0	26	3	8	0
05:45 PM	4	61	24	0	0	4	1	0	0	44	0	0	23	1	5	0

2-Axle Trucks	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0
05:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0
05:45 PM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Redlands Boulevard Southbound				Cactus Avenue Westbound				John F Kennedy Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #28 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: John F Kennedy Drive
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	22	41	4	0	45	0	23	0	5	81	58	0	15	2	1	0
07:15 AM	16	48	7	0	41	8	29	0	4	71	56	0	10	7	2	0
07:30 AM	28	80	19	0	56	25	74	0	3	81	47	0	16	16	0	0
07:45 AM	56	71	43	0	60	23	94	0	3	87	59	0	21	9	2	0
08:00 AM	27	69	30	0	48	14	52	0	4	71	44	0	29	7	1	0
08:15 AM	19	47	30	0	29	20	17	0	4	52	37	0	19	9	3	0
08:30 AM	6	61	33	0	29	22	15	0	4	72	34	0	31	10	3	0
08:45 AM	5	47	22	0	23	17	15	0	4	65	24	0	21	18	3	0

2-Axle Trucks	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	2	1	0	0	0	0	2	0	0	0	0	0
07:15 AM	0	2	0	0	2	1	1	0	1	3	4	0	0	1	0	0
07:30 AM	0	3	1	0	0	0	0	0	0	1	1	0	0	0	1	0
07:45 AM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:30 AM	0	1	3	0	0	0	1	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	4	0	0	0	1	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #28 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: John F Kennedy Drive
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	34	99	15	0	63	15	13	0	4	76	39	0	18	6	2	0
04:15 PM	22	106	14	0	59	8	19	0	2	60	39	0	8	8	2	0
04:30 PM	29	87	25	0	53	15	24	0	2	92	41	0	12	6	2	0
04:45 PM	25	87	40	0	47	18	12	0	6	85	49	0	16	6	3	0
05:00 PM	30	92	25	0	68	16	17	0	5	75	49	0	13	1	2	0
05:15 PM	32	120	27	0	54	10	13	0	7	84	50	0	11	6	3	0
05:30 PM	37	93	21	0	75	9	25	0	5	78	34	0	11	4	2	0
05:45 PM	23	104	18	0	43	9	16	0	1	77	34	0	14	7	3	0

2-Axle Trucks	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #29 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	111	88	0	29	142	5	0	21	97	20	0	14	23	17	0
07:15 AM	8	125	61	0	22	146	7	0	40	77	24	0	13	34	22	0
07:30 AM	5	132	65	0	29	116	7	0	56	102	29	0	20	71	31	0
07:45 AM	22	135	86	0	35	131	12	0	69	86	30	0	28	64	36	0
08:00 AM	8	130	56	0	43	153	19	0	50	105	12	0	24	64	34	0
08:15 AM	13	143	55	0	32	101	8	0	45	104	19	0	23	62	35	0
08:30 AM	10	99	43	0	24	80	9	0	46	110	15	0	32	43	39	0
08:45 AM	17	104	37	0	28	91	8	0	32	89	27	0	16	43	39	0

2-Axle Trucks	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	1	5	2	0	1	1	0	0	0	1	2	0
07:15 AM	1	0	1	0	0	1	1	0	0	0	1	0	0	3	0	0
07:30 AM	0	0	0	0	1	2	3	0	2	1	0	0	1	2	1	0
07:45 AM	0	4	0	0	0	3	0	0	3	6	0	0	1	1	0	0
08:00 AM	1	4	1	0	0	4	1	0	0	2	1	0	0	3	0	0
08:15 AM	0	4	0	0	0	0	0	0	2	5	0	0	0	1	3	0
08:30 AM	0	4	1	0	0	3	0	0	0	3	0	0	1	2	4	0
08:45 AM	0	2	0	0	2	1	0	0	0	2	0	0	1	0	3	0

3-Axle Trucks	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #29 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	16	117	35	0	30	79	11	0	35	143	45	0	31	62	28	0
04:15 PM	18	125	33	0	29	74	10	0	39	135	32	0	48	89	30	0
04:30 PM	18	127	37	0	16	76	8	0	28	133	40	0	47	81	30	0
04:45 PM	22	135	44	0	20	66	10	0	38	136	45	0	58	79	33	0
05:00 PM	22	129	42	0	26	62	10	0	37	164	44	0	41	70	16	0
05:15 PM	19	114	46	0	28	94	15	0	41	157	33	0	65	105	34	0
05:30 PM	24	136	57	0	21	79	15	0	45	159	36	0	66	93	31	0
05:45 PM	14	130	53	0	28	82	8	0	34	132	52	0	60	129	27	0

2-Axle Trucks	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	1	2	1	0	0	1	1	0	1	1	0	0
04:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	2	1	0
04:30 PM	0	2	0	0	0	0	1	0	1	4	1	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	2	0	1	2	0	0	0	1	1	0
05:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Heacock Street Southbound				Ironwood Avenue Westbound				Heacock Street Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #30 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	121	60	0	57	0	54	0	59	113	0	0	0	0	0	0
07:15 AM	0	167	42	0	71	0	93	0	51	104	0	0	0	0	0	0
07:30 AM	0	176	31	0	95	1	126	0	32	125	0	0	0	0	0	0
07:45 AM	0	201	29	0	85	2	136	0	27	145	0	0	0	0	0	0
08:00 AM	0	195	25	0	83	1	91	0	38	139	0	0	0	0	0	0
08:15 AM	0	177	37	0	67	1	59	0	48	150	0	0	0	0	0	0
08:30 AM	0	135	70	0	57	0	46	0	40	138	0	0	0	0	0	0
08:45 AM	0	142	55	0	39	2	33	0	44	143	0	0	0	0	0	0

2-Axle Trucks	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	6	1	0	0	0	2	0	0	7	0	0	0	0	0	0
07:15 AM	0	1	1	0	0	0	2	0	0	2	0	0	0	0	0	0
07:30 AM	0	11	0	0	5	0	2	0	1	5	0	0	0	0	0	0
07:45 AM	0	4	0	0	3	0	2	0	2	5	0	0	0	0	0	0
08:00 AM	0	3	1	0	2	0	2	0	1	3	0	0	0	0	0	0
08:15 AM	0	6	0	0	5	1	0	0	1	4	0	0	0	0	0	0
08:30 AM	0	9	2	0	3	1	2	0	3	5	0	0	0	0	0	0
08:45 AM	0	9	3	0	0	0	1	0	2	3	0	0	0	0	0	0

3-Axle Trucks	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	1	0	1	0	4	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	2	0	1	0	1	0	0	0	0	0	0	0
08:30 AM	0	1	1	0	2	0	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

INTERSECTION #30 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	146	71	4	57	2	40	0	60	222	0	0	0	0	0	0
04:15 PM	0	163	64	0	60	1	35	0	50	208	0	0	0	0	0	0
04:30 PM	0	170	72	0	40	0	42	0	75	249	0	0	0	0	0	0
04:45 PM	0	189	58	0	40	0	31	0	63	240	0	0	0	0	0	0
05:00 PM	0	174	51	0	39	0	41	0	86	252	0	0	0	0	0	0
05:15 PM	0	185	46	0	47	3	41	0	89	227	0	0	0	0	0	0
05:30 PM	0	176	65	0	48	2	35	0	83	244	0	0	0	0	0	0
05:45 PM	0	184	68	0	42	1	42	0	68	216	0	0	0	0	0	0

2-Axle Trucks	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	1	0	1	0	0	0	0	5	0	0	0	0	0	0
04:15 PM	0	4	1	0	2	0	1	0	2	4	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	1	4	0	0	0	0	0	0
04:45 PM	0	1	1	0	1	0	1	0	2	2	0	0	0	0	0	0
05:00 PM	0	4	3	0	1	0	1	0	1	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	2	1	1	0	0	3	0	0	0	0	0	0
05:30 PM	0	2	3	0	0	0	0	0	1	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	1	0	0	2	1	0	0	0	0	0	0

3-Axle Trucks	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Heacock Street Southbound				SR-60 Westbound Off Ramp Westbound				Heacock Street Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	3	0	0	0	2	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #31 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	34	151	0	0	0	0	0	0	0	138	30	0	40	0	47	0
07:15 AM	41	206	0	0	0	0	0	0	0	116	20	0	44	0	65	0
07:30 AM	60	219	0	0	0	0	0	0	0	115	33	0	45	1	76	0
07:45 AM	50	240	0	0	0	0	0	0	0	121	34	0	53	1	58	0
08:00 AM	47	226	0	0	0	0	0	0	0	129	34	0	45	0	65	0
08:15 AM	30	223	0	0	0	0	0	0	0	135	20	0	57	0	89	0
08:30 AM	24	174	0	0	0	0	0	0	0	123	37	0	53	0	81	0
08:45 AM	13	176	0	0	0	0	0	0	0	132	32	0	57	0	78	0

2-Axle Trucks	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	0	0	0	0	3	1	0	1	0	0	0
07:15 AM	1	3	0	0	0	0	0	0	0	3	1	0	1	0	3	0
07:30 AM	0	5	0	0	0	0	0	0	0	3	0	0	0	0	1	0
07:45 AM	1	4	0	0	0	0	0	0	0	5	2	0	1	0	2	0
08:00 AM	1	6	0	0	0	0	0	0	0	6	2	0	1	0	1	0
08:15 AM	2	9	0	0	0	0	0	0	0	3	0	0	1	0	3	0
08:30 AM	2	9	0	0	0	0	0	0	0	6	0	0	2	0	2	0
08:45 AM	1	3	0	0	0	0	0	0	0	1	2	0	0	0	1	0

3-Axle Trucks	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
07:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
07:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

4+ Axle Trucks	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	5	0	0	0	1	0
08:00 AM	0	1	0	0	0	0	0	0	0	1	3	0	0	0	2	0
08:15 AM	0	1	0	0	0	0	0	0	0	3	1	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	1	0
08:45 AM	0	1	0	0	0	0	0	0	0	3	3	0	2	0	0	0

INTERSECTION #31 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	33	182	0	0	0	0	0	0	0	212	47	0	85	0	72	0
04:15 PM	35	182	0	0	0	0	0	0	0	184	50	0	81	1	74	0
04:30 PM	27	191	0	0	0	0	0	0	0	239	54	0	89	0	66	0
04:45 PM	32	200	0	0	0	0	0	0	0	212	56	0	99	0	67	0
05:00 PM	45	181	0	0	0	0	0	0	0	232	51	0	102	2	53	0
05:15 PM	40	182	0	0	0	0	0	0	0	219	55	0	92	0	60	0
05:30 PM	45	188	0	0	0	0	0	0	0	235	58	0	102	2	66	0
05:45 PM	36	195	0	0	0	0	0	0	0	198	65	0	97	2	85	0

2-Axle Trucks	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0
04:15 PM	0	3	0	0	0	0	0	0	0	3	3	0	2	0	0	0
04:30 PM	4	2	0	0	0	0	0	0	0	1	1	0	1	0	1	0
04:45 PM	0	2	0	0	0	0	0	0	0	2	1	0	1	0	0	0
05:00 PM	0	3	0	0	0	0	0	0	0	2	2	0	0	0	0	0
05:15 PM	3	2	0	0	0	0	0	0	0	4	0	0	1	0	1	0
05:30 PM	1	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0
05:45 PM	0	2	0	0	0	0	0	0	0	4	1	0	2	0	1	0

3-Axle Trucks	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Heacock Street Southbound				SR-60 Eastbound On Ramp Westbound				Heacock Street Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	1	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
05:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #32 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Sunnymead Boulevard
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	46	106	18	0	3	9	100	0	10	208	22	0	46	38	44	0
07:15 AM	51	155	35	0	6	17	114	0	17	236	36	0	53	49	71	0
07:30 AM	79	195	32	0	5	16	90	0	22	227	23	0	62	43	77	0
07:45 AM	79	180	46	0	9	20	93	0	16	208	25	0	53	47	66	0
08:00 AM	72	173	32	0	6	16	107	0	24	256	23	0	50	41	71	0
08:15 AM	39	86	25	0	6	23	93	0	21	215	25	0	66	53	42	0
08:30 AM	43	102	33	0	5	15	84	0	19	161	18	0	64	40	55	0
08:45 AM	47	96	21	0	7	14	88	0	30	194	22	0	71	37	50	0

2-Axle Trucks	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	2	0	0	0	0	0	0	2	8	0	0	4	2	5	0
07:15 AM	0	2	0	0	0	0	0	0	2	5	1	0	1	0	3	0
07:30 AM	0	6	0	0	0	1	0	0	3	6	0	0	0	4	4	0
07:45 AM	0	4	0	0	0	0	1	0	1	4	1	0	2	3	3	0
08:00 AM	0	1	0	0	0	0	2	0	1	2	3	0	3	2	3	0
08:15 AM	0	5	2	0	0	0	0	0	2	1	1	0	1	0	8	0
08:30 AM	2	2	0	0	0	0	0	0	2	1	0	0	3	0	11	0
08:45 AM	0	3	1	0	0	1	0	0	2	2	0	0	0	4	5	0

3-Axle Trucks	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0
07:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
07:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	1	0	0	0	0	0	0	0	1	2	0	0	1	1	0
07:15 AM	0	0	0	0	0	0	0	0	0	2	3	0	0	0	1	0
07:30 AM	0	1	0	0	0	0	0	0	0	1	1	0	2	0	1	0
07:45 AM	1	2	0	0	0	0	0	0	0	0	4	0	0	0	2	0
08:00 AM	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	0	1	3	0	0	1	0	0
08:30 AM	0	2	0	0	0	0	0	0	1	2	1	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #32 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Sunnymead Boulevard
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	73	171	26	0	11	28	87	0	27	215	23	0	104	121	97	0
04:15 PM	103	164	41	0	23	22	86	0	14	157	19	0	119	127	93	0
04:30 PM	84	190	34	0	11	25	113	0	31	184	17	0	106	143	114	0
04:45 PM	76	173	37	0	15	15	101	0	26	205	25	0	122	126	121	0
05:00 PM	86	167	36	0	9	29	109	2	29	188	22	0	100	122	128	0
05:15 PM	98	165	42	0	14	17	89	0	31	202	19	0	107	117	124	0
05:30 PM	94	186	32	0	12	21	94	0	35	206	18	0	107	116	119	0
05:45 PM	101	188	29	0	17	18	110	0	23	201	24	0	126	130	113	0

2-Axle Trucks	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	0	0	0	0	0	2	0	2	2	0	0	0	0	1	0
04:15 PM	1	0	0	0	0	0	1	0	1	5	0	0	0	1	4	0
04:30 PM	2	1	1	0	0	2	0	0	3	3	0	0	2	3	5	0
04:45 PM	0	0	1	0	0	0	0	0	0	2	0	0	1	1	0	0
05:00 PM	1	1	1	0	0	0	0	0	2	5	0	0	1	0	1	0
05:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	5	0	3	0
05:30 PM	0	1	0	0	0	1	1	0	1	0	0	0	1	2	0	0
05:45 PM	1	3	1	0	0	0	0	0	1	1	0	0	1	1	1	0

3-Axle Trucks	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0
05:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Sunnymead Boulevard Westbound				Perris Boulevard Northbound				Sunnymead Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	1	1	0
04:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	2	0
04:30 PM	0	1	0	0	0	0	1	0	0	1	3	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #33 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	129	62	0	33	0	30	0	145	218	0	0	0	0	0	0
07:15 AM	0	191	81	0	46	0	47	0	101	303	0	0	0	0	0	0
07:30 AM	0	257	62	0	52	0	46	0	84	296	0	0	0	0	0	0
07:45 AM	0	249	69	0	64	0	56	0	94	268	0	0	0	0	0	0
08:00 AM	0	214	70	0	60	0	51	0	109	267	0	0	0	0	0	0
08:15 AM	0	127	80	0	22	1	38	0	104	300	0	0	0	0	0	0
08:30 AM	0	147	72	0	36	0	33	0	105	233	0	0	0	0	0	0
08:45 AM	0	132	72	0	44	1	28	0	104	223	0	0	0	0	0	0

2-Axle Trucks	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	1	0	0	1	1	0	4	9	0	0	0	0	0	0
07:15 AM	0	3	3	0	0	0	0	0	0	11	0	0	0	0	0	0
07:30 AM	0	6	1	0	0	0	2	0	2	2	0	0	0	0	0	0
07:45 AM	0	5	0	0	2	0	0	0	3	7	0	0	0	0	0	0
08:00 AM	0	1	1	0	0	0	0	0	0	5	0	0	0	0	0	0
08:15 AM	0	2	2	0	2	1	2	0	4	4	0	0	0	0	0	0
08:30 AM	0	8	3	0	1	0	1	0	0	1	0	0	0	0	0	0
08:45 AM	0	3	1	0	1	0	0	0	2	2	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	2	0	0	0	1	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	1	0	1	3	0	0	0	0	0	0
07:45 AM	0	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	2	0	2	1	0	0	1	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0

INTERSECTION #33 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: SR-60 Westbound Ramps
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	219	70	0	55	0	43	0	106	291	0	0	0	0	0	0
04:15 PM	0	244	69	0	52	0	38	0	115	258	0	0	0	0	0	0
04:30 PM	0	256	75	0	50	1	33	0	108	297	0	0	0	0	0	0
04:45 PM	0	244	66	0	46	0	29	0	114	318	0	0	0	0	0	0
05:00 PM	0	257	69	0	56	0	37	0	125	294	0	0	0	0	0	0
05:15 PM	0	264	77	0	49	2	34	0	112	267	0	0	0	0	0	0
05:30 PM	0	262	64	0	52	0	43	0	111	291	0	0	0	0	0	0
05:45 PM	0	273	92	0	34	0	41	0	147	287	0	0	0	0	0	0

2-Axle Trucks	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	0	4	0	4	2	0	0	0	0	0	0
04:15 PM	0	3	1	0	1	0	0	0	2	2	0	0	0	0	0	0
04:30 PM	0	1	1	0	1	0	0	0	3	5	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	1	0	2	2	0	0	0	0	0	0
05:00 PM	0	3	1	0	0	0	0	0	2	3	0	0	0	0	0	0
05:15 PM	0	2	2	0	2	1	1	0	1	5	0	0	0	0	0	0
05:30 PM	0	2	2	0	0	0	1	0	3	2	0	0	0	0	0	0
05:45 PM	0	2	1	0	2	1	0	0	0	3	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0
05:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				SR-60 Westbound Off Ramp Westbound				Perris Boulevard Northbound				SR-60 Westbound On Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #34 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Eucalyptus Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	6	159	7	0	8	20	31	0	4	219	9	0	5	11	6	0
07:15 AM	15	224	3	0	11	43	40	0	7	232	1	0	7	9	8	0
07:30 AM	11	269	4	0	26	44	32	0	7	219	11	0	6	22	15	0
07:45 AM	20	238	7	0	28	56	42	0	8	225	12	0	10	30	19	0
08:00 AM	11	215	9	0	23	66	42	0	23	288	11	0	8	20	7	0
08:15 AM	6	122	8	0	9	30	30	0	8	225	7	0	10	7	9	0
08:30 AM	7	150	11	0	8	21	17	0	16	201	6	0	6	11	9	0
08:45 AM	8	121	7	0	10	31	22	0	13	178	6	0	6	14	4	0

2-Axle Trucks	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	3	0	0	0	0	2	0	0	8	0	0	0	0	0	0
07:15 AM	0	7	0	0	0	0	0	0	1	8	1	0	0	2	0	0
07:30 AM	1	7	0	0	1	1	0	0	0	3	1	0	0	1	1	0
07:45 AM	1	10	0	0	0	1	1	0	0	6	0	0	1	0	0	0
08:00 AM	0	4	1	0	0	1	0	0	1	3	0	0	1	0	1	0
08:15 AM	0	11	0	0	0	1	0	0	0	4	0	0	0	0	0	0
08:30 AM	0	14	1	0	0	0	0	0	1	4	1	0	1	1	0	0
08:45 AM	0	9	0	0	0	0	0	0	0	5	0	0	0	1	0	0

3-Axle Trucks	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	0	0	0	0	5	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
07:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:30 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #34 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Eucalyptus Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	14	239	9	0	13	23	17	0	12	197	9	0	17	29	15	0
04:15 PM	25	227	15	0	11	32	22	0	11	184	9	0	12	40	14	0
04:30 PM	17	296	16	0	9	21	13	0	8	216	8	0	16	39	14	0
04:45 PM	16	279	16	0	10	26	20	0	11	242	10	0	16	32	15	0
05:00 PM	25	246	17	0	6	24	23	0	7	194	9	0	17	30	22	0
05:15 PM	21	267	8	0	10	37	22	0	10	218	12	0	12	43	22	0
05:30 PM	30	266	12	0	15	26	19	0	18	197	5	0	12	48	21	0
05:45 PM	34	209	41	0	13	24	33	0	15	207	11	0	15	47	16	0

2-Axle Trucks	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	2	0	0	0	0	1	0	0	2	0	0	0	0	0	0
04:15 PM	0	3	0	0	0	0	2	0	0	6	0	0	1	1	0	0
04:30 PM	1	4	0	0	0	0	0	0	0	5	0	0	0	0	0	0
04:45 PM	1	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	5	0	0	2	0	0	0	1	5	0	0	1	0	0	0
05:15 PM	1	4	0	0	0	0	0	0	0	4	0	0	0	0	1	0
05:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
05:45 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
04:45 PM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #35 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Locust Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	21	0	0	0	0	0	5	0	0	1	1	0
07:15 AM	0	0	0	0	20	1	0	0	0	0	2	0	0	0	0	0
07:30 AM	0	0	0	0	20	0	0	0	1	0	6	0	0	1	3	0
07:45 AM	0	0	0	0	13	0	0	0	0	0	14	0	0	1	1	0
08:00 AM	0	0	0	0	13	0	0	0	1	0	7	0	0	0	0	0
08:15 AM	0	0	0	0	9	1	0	0	1	0	9	0	0	1	0	0
08:30 AM	0	0	0	0	4	0	0	0	0	0	8	0	0	0	0	0
08:45 AM	0	0	0	0	6	0	0	0	2	0	4	0	0	1	2	0

2-Axle Trucks	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #35 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Locust Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	12	0	0	0	1	0	19	0	0	0	1	0
04:15 PM	0	0	0	0	10	0	0	0	1	0	14	0	0	0	2	0
04:30 PM	0	0	0	0	10	0	0	0	2	0	10	0	0	0	0	0
04:45 PM	0	0	0	0	12	1	0	0	0	0	18	0	0	3	1	0
05:00 PM	0	0	0	0	7	0	0	0	0	0	16	0	0	0	1	0
05:15 PM	0	0	0	0	12	2	0	0	0	0	20	0	0	0	1	0
05:30 PM	0	0	0	0	13	0	0	0	0	0	14	0	0	2	1	0
05:45 PM	0	0	0	0	15	0	0	0	0	0	12	0	0	1	0	0

2-Axle Trucks	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Locust Avenue Westbound				Moreno Beach Drive Northbound				Locust Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #36 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	24	9	0	22	27	0	0	17	6	18	0	1	27	7	0
07:15 AM	1	19	16	0	17	30	0	0	22	4	13	0	5	28	9	0
07:30 AM	1	24	25	0	43	36	0	0	15	6	30	0	5	36	7	0
07:45 AM	3	20	17	0	59	34	1	0	15	6	54	0	21	54	14	0
08:00 AM	0	24	6	0	35	24	2	0	10	12	22	0	9	46	21	0
08:15 AM	0	20	3	0	12	14	0	0	9	5	9	0	11	23	14	0
08:30 AM	0	16	1	0	19	10	0	0	9	12	8	0	4	16	5	0
08:45 AM	2	11	4	0	10	16	1	0	7	8	11	0	10	17	16	0

2-Axle Trucks	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	2	1	0	0	0	0	1	0	1	2	0	0
07:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0
07:30 AM	0	0	1	0	0	1	0	0	1	0	0	0	0	1	0	0
07:45 AM	0	1	0	0	1	1	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #36 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: Ironwood Avenue
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	18	4	0	29	35	0	0	12	24	10	0	13	26	19	0
04:15 PM	0	18	6	0	25	48	0	0	16	22	24	0	11	26	21	0
04:30 PM	0	16	1	0	19	9	0	0	9	12	8	0	4	17	5	0
04:45 PM	2	11	3	0	11	16	0	0	7	8	11	0	10	16	16	0
05:00 PM	0	13	3	0	23	40	1	0	25	16	24	0	12	26	25	0
05:15 PM	0	20	5	0	23	35	1	0	34	24	25	0	14	27	29	0
05:30 PM	1	17	8	0	16	46	1	0	11	16	23	0	7	37	23	0
05:45 PM	0	20	6	0	23	39	1	0	23	18	14	0	11	28	27	0

2-Axle Trucks	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	1	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				Ironwood Avenue Westbound				Moreno Beach Drive Northbound				Ironwood Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #37 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	48	0	0	0	0	0	0	0	141	29	0	4	1	71	0
07:15 AM	0	59	0	0	0	0	0	0	0	122	27	0	6	0	66	0
07:30 AM	0	69	0	0	0	0	0	0	0	110	46	0	15	0	73	0
07:45 AM	2	91	0	0	0	0	0	0	0	127	26	0	17	0	95	0
08:00 AM	5	69	0	0	0	0	0	0	0	102	30	0	8	1	85	0
08:15 AM	1	47	0	0	0	0	0	0	0	110	27	0	11	0	92	0
08:30 AM	2	47	0	0	0	0	0	0	0	98	28	0	7	0	86	0
08:45 AM	3	42	0	0	0	0	0	0	0	103	24	0	4	0	72	0

2-Axle Trucks	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	2	0
07:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	4	0
07:45 AM	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	1	1	0	0	0	2	0
08:45 AM	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	0

3-Axle Trucks	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	2	0
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #37 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Moreno Beach Drive
Comment 3: E/W: SR-60 Eastbound Ramps
Comment 4: Weather: Clear

Cars	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	3	80	0	0	0	0	0	0	0	133	44	0	12	0	120	0
04:15 PM	2	76	0	0	0	0	0	0	0	148	57	0	19	0	128	0
04:30 PM	1	77	0	0	0	0	0	0	0	139	47	0	14	0	125	0
04:45 PM	1	73	0	0	0	0	0	0	0	140	33	0	24	1	128	0
05:00 PM	2	78	0	0	0	0	0	0	0	134	53	0	23	3	132	0
05:15 PM	5	94	0	0	0	0	0	0	0	155	37	0	17	0	126	0
05:30 PM	1	68	0	0	0	0	0	0	0	128	49	0	13	0	121	0
05:45 PM	1	77	0	0	0	0	0	0	0	132	43	0	9	0	129	0

2-Axle Trucks	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
04:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	2	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0
04:45 PM	0	0	0	0	0	0	0	0	0	2	2	0	1	0	3	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	3	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Moreno Beach Drive Southbound				SR-60 Eastbound On Ramp Westbound				Moreno Beach Drive Northbound				SR-60 Eastbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	2	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #38 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: John F Kennedy Drive
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	12	62	2	0	13	39	19	0	24	222	13	0	7	19	14	0
07:15 AM	21	85	8	0	17	29	20	0	21	224	31	0	5	33	10	0
07:30 AM	29	91	9	0	28	54	28	0	26	197	56	0	14	63	16	0
07:45 AM	48	105	17	0	35	52	31	0	32	264	59	0	22	65	18	0
08:00 AM	29	120	16	0	39	43	32	0	27	206	26	0	16	39	21	0
08:15 AM	16	79	8	0	21	27	26	0	22	163	18	0	10	49	13	0
08:30 AM	29	72	9	0	23	49	15	0	28	137	31	0	7	84	21	0
08:45 AM	35	100	11	0	30	90	33	0	16	137	34	0	9	113	14	0

2-Axle Trucks	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	2	1	0	2	0	0	0	0	7	0	0	0	1	1	0
07:15 AM	3	4	0	0	0	1	2	0	1	5	2	0	0	1	2	0
07:30 AM	0	6	0	0	0	2	1	0	2	8	0	0	0	0	0	0
07:45 AM	4	7	0	0	1	0	1	0	0	0	2	0	0	0	0	0
08:00 AM	1	6	0	0	0	2	1	0	2	6	2	0	1	0	1	0
08:15 AM	0	4	0	0	1	0	0	0	1	2	1	0	0	0	0	0
08:30 AM	1	2	0	0	1	0	0	0	0	9	2	0	1	1	2	0
08:45 AM	0	4	1	0	0	0	1	0	0	6	1	0	0	3	1	0

3-Axle Trucks	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0
07:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	1	0
07:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:30 AM	0	2	0	0	0	0	0	0	1	2	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

INTERSECTION #38 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: John F Kennedy Drive
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	23	171	13	0	29	39	11	0	27	153	25	0	15	66	37	0
04:15 PM	26	151	16	0	35	46	16	0	30	159	29	0	23	53	30	0
04:30 PM	33	182	18	0	31	43	16	0	28	199	28	0	21	71	32	0
04:45 PM	28	199	24	0	48	48	16	0	25	191	26	0	25	76	48	0
05:00 PM	29	182	13	0	41	59	14	0	35	191	20	0	18	74	38	0
05:15 PM	37	175	18	0	31	42	11	0	44	169	23	0	19	88	45	0
05:30 PM	20	205	13	0	34	52	11	0	31	185	28	0	21	73	43	0
05:45 PM	23	188	20	0	38	56	10	0	43	149	29	0	19	67	38	0

2-Axle Trucks	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	6	1	0	0	0	1	0
04:15 PM	1	4	0	0	1	0	1	0	0	6	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	1	0	0	1	0	0	0	0	1	0
04:45 PM	1	7	0	0	0	0	0	0	1	4	0	0	0	0	0	0
05:00 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	1	0	0	1	0	0	0	0	0	0
05:30 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	1	1	0

3-Axle Trucks	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	2	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				John F Kennedy Drive Westbound				Perris Boulevard Northbound				John F Kennedy Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #39 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	19	75	14	0	58	110	14	0	44	143	54	0	9	58	22	0
07:15 AM	18	96	13	0	63	136	14	0	39	188	72	0	12	60	25	0
07:30 AM	18	93	18	0	64	135	25	0	52	163	92	0	18	69	15	0
07:45 AM	31	99	9	0	55	143	33	0	57	188	80	0	15	104	28	0
08:00 AM	32	86	2	0	49	104	28	0	39	116	48	0	6	64	19	0
08:15 AM	21	78	2	0	53	64	22	0	31	129	49	0	4	41	13	0
08:30 AM	21	81	3	0	27	59	23	0	16	118	39	0	5	34	14	0
08:45 AM	23	70	5	0	25	66	22	0	31	117	36	0	6	33	17	0

2-Axle Trucks	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	2	1	0	0	1	1	0	2	4	1	0	1	0	0	0
07:15 AM	1	5	0	0	0	0	3	0	0	2	4	0	0	2	2	0
07:30 AM	1	3	3	0	1	2	1	0	3	7	2	0	1	0	0	0
07:45 AM	1	4	0	0	0	3	2	0	1	1	1	0	0	3	1	0
08:00 AM	2	1	0	0	0	0	2	0	4	1	1	0	0	0	2	0
08:15 AM	1	2	0	0	0	0	1	0	0	4	0	0	0	0	0	0
08:30 AM	2	3	0	0	3	1	1	0	0	2	2	0	0	2	2	0
08:45 AM	2	3	0	0	0	1	2	0	1	5	2	0	1	1	0	0

3-Axle Trucks	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:30 AM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:15 AM	1	1	1	0	0	0	0	0	1	2	1	0	0	0	0	0
07:30 AM	0	2	0	0	0	0	0	0	0	3	0	0	1	0	0	0
07:45 AM	0	2	0	0	0	1	0	0	0	3	1	0	0	0	0	0
08:00 AM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	1	0
08:15 AM	0	1	0	0	0	0	0	0	1	2	0	0	1	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	1	1	0	0	0	1	0	0	1	0	0	1	0	0	0

INTERSECTION #39 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	56	145	7	0	35	62	19	0	34	134	62	0	10	72	29	0
04:15 PM	44	116	10	0	55	61	14	0	31	144	48	0	7	78	44	0
04:30 PM	33	174	6	0	56	53	27	0	32	168	77	0	11	85	30	0
04:45 PM	30	148	2	0	57	69	30	0	41	190	77	0	10	93	38	0
05:00 PM	46	124	2	0	44	68	22	0	42	133	63	0	5	84	22	0
05:15 PM	55	185	3	0	53	69	33	0	33	150	51	0	6	90	34	0
05:30 PM	54	198	8	0	44	57	19	0	36	146	56	0	10	87	41	0
05:45 PM	39	128	1	0	67	61	26	0	32	146	61	0	7	81	26	0

2-Axle Trucks	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	1	0	0	0	0	1	0	0	3	1	0	0	2	0	0
04:15 PM	1	4	0	0	1	0	1	0	0	1	2	0	0	1	0	0
04:30 PM	1	1	0	0	0	2	1	0	0	3	0	0	0	0	1	0
04:45 PM	3	1	0	0	1	0	1	0	0	3	0	0	0	0	0	0
05:00 PM	1	3	0	0	1	1	0	0	1	3	0	0	0	1	0	0
05:15 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0
05:30 PM	2	2	1	0	0	0	1	0	0	1	0	0	0	0	0	0
05:45 PM	1	2	0	0	0	0	1	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Iris Avenue Westbound				Perris Boulevard Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0
04:15 PM	0	3	0	0	0	0	0	0	1	2	0	0	0	0	0	0
04:30 PM	0	3	0	0	0	0	0	0	1	2	0	0	0	0	0	0
04:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:30 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #40 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Kitching Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	5	45	15	0	38	144	11	0	18	37	22	0	7	106	12	0
07:15 AM	5	70	28	0	46	158	11	0	44	52	39	0	19	104	22	0
07:30 AM	12	38	32	0	22	139	15	0	32	55	41	0	21	147	26	0
07:45 AM	14	46	50	0	35	169	18	0	37	30	31	0	13	147	24	0
08:00 AM	13	31	25	0	14	116	8	0	50	53	20	0	5	126	25	0
08:15 AM	4	23	11	0	19	100	17	0	10	17	8	0	12	107	6	0
08:30 AM	6	7	11	0	13	99	15	0	7	24	18	0	8	104	8	0
08:45 AM	8	11	20	0	11	115	17	0	13	19	18	0	21	101	4	0

2-Axle Trucks	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	8	0	0	0	2	0	0	0	6	0	0
07:15 AM	0	1	3	0	0	4	0	0	0	1	0	0	1	5	0	0
07:30 AM	1	1	1	0	2	3	0	0	1	0	1	0	0	4	1	0
07:45 AM	1	0	1	0	1	3	1	0	0	0	0	0	0	1	1	0
08:00 AM	0	1	0	0	0	3	0	0	1	1	0	0	0	3	0	0
08:15 AM	0	0	1	0	0	3	0	0	0	0	0	0	0	5	1	0
08:30 AM	0	2	0	0	0	2	0	0	0	0	1	0	0	4	0	0
08:45 AM	1	0	0	0	0	2	0	0	2	1	1	0	0	3	0	0

3-Axle Trucks	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #40 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Kitching Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	12	26	23	0	25	120	21	0	6	16	20	0	18	119	17	0
04:15 PM	11	20	20	0	26	136	14	0	7	23	10	0	13	142	31	0
04:30 PM	7	31	18	0	24	131	22	0	15	23	24	0	21	152	25	0
04:45 PM	11	31	19	0	26	148	23	0	12	24	22	0	15	181	28	0
05:00 PM	13	34	18	0	26	153	19	0	20	20	16	0	19	160	20	0
05:15 PM	13	27	15	0	29	141	18	0	15	29	14	0	14	128	28	0
05:30 PM	12	30	23	0	30	134	19	0	14	25	14	0	18	152	30	0
05:45 PM	14	36	25	0	30	119	22	0	8	26	24	0	17	191	27	0

2-Axle Trucks	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	1	0	0	0	1	0	0	8	1	0
04:15 PM	0	1	0	0	0	3	0	0	0	1	0	0	1	3	0	0
04:30 PM	1	0	0	0	0	6	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	5	0	0
05:00 PM	0	0	0	0	0	3	0	0	0	0	1	0	0	4	0	0
05:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	3	0	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

3-Axle Trucks	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Kitching Street Southbound				Iris Avenue Westbound				Kitching Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

INTERSECTION #41 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Lasselle Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	20	57	23	0	102	127	10	0	52	121	98	0	20	67	38	0
07:15 AM	19	63	22	0	99	132	17	0	81	134	108	0	31	89	41	0
07:30 AM	22	108	29	0	108	160	14	0	63	113	98	0	46	114	51	0
07:45 AM	26	129	23	0	130	131	18	0	47	100	96	0	37	145	78	0
08:00 AM	31	90	14	0	127	103	20	0	47	121	103	0	26	101	61	0
08:15 AM	26	58	6	0	63	74	27	0	46	129	109	0	21	66	27	0
08:30 AM	56	63	10	0	74	95	36	0	32	94	79	0	26	63	35	0
08:45 AM	37	78	26	0	67	92	62	0	38	108	71	0	38	66	29	0

2-Axle Trucks	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	1	2	0	2	0	0	0	0	2	2	0
07:15 AM	1	3	0	0	0	4	0	0	1	0	2	0	1	2	1	0
07:30 AM	0	3	0	0	1	2	0	0	1	1	1	0	0	4	1	0
07:45 AM	0	1	0	0	0	1	1	0	3	2	3	0	0	2	0	0
08:00 AM	0	0	0	0	0	1	0	0	2	1	0	0	0	0	2	0
08:15 AM	0	1	0	0	2	0	0	0	2	4	2	0	0	4	1	0
08:30 AM	1	2	0	0	2	1	0	0	2	0	2	0	0	3	1	0
08:45 AM	0	1	0	0	0	1	0	0	2	3	0	0	0	3	2	0

3-Axle Trucks	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #41 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Lasselle Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	52	131	20	0	95	112	21	0	44	112	108	0	38	80	36	0
04:15 PM	58	121	20	0	126	121	22	0	50	123	108	0	41	88	42	0
04:30 PM	53	152	19	0	132	103	20	0	56	160	92	0	44	101	53	0
04:45 PM	42	136	26	0	115	130	22	0	60	102	92	0	35	101	52	0
05:00 PM	50	132	26	0	124	137	25	0	54	119	103	0	47	99	45	0
05:15 PM	31	145	21	0	153	140	28	0	45	110	116	0	32	79	69	0
05:30 PM	49	178	16	0	141	143	20	0	56	108	77	0	33	81	57	0
05:45 PM	56	189	15	0	138	109	20	0	43	131	96	0	36	88	83	0

2-Axle Trucks	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	3	0	0	4	1	1	0	2	0	1	0	0	5	2	0
04:15 PM	0	2	0	0	3	0	1	0	1	0	1	0	1	1	1	0
04:30 PM	0	0	0	0	0	3	0	0	1	2	0	0	0	0	4	0
04:45 PM	0	1	0	0	1	1	0	0	1	3	0	0	0	1	1	0
05:00 PM	0	1	0	0	1	1	0	0	2	1	1	0	1	1	2	0
05:15 PM	0	2	1	0	0	1	0	0	2	0	0	0	0	2	2	0
05:30 PM	1	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0
05:45 PM	0	0	0	0	2	0	0	0	2	1	0	0	0	0	1	0

3-Axle Trucks	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
05:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Lasselle Street Southbound				Iris Avenue Westbound				Lasselle Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #42 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Hillrose Lane/Nason Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	15	6	55	0	1	117	21	0	9	13	4	0	69	124	3	0
07:15 AM	12	3	32	0	0	110	23	0	11	15	2	0	66	134	4	0
07:30 AM	14	3	64	0	4	177	29	0	5	13	1	0	81	149	8	0
07:45 AM	29	1	87	0	4	198	19	0	8	16	3	0	103	186	7	0
08:00 AM	26	6	67	0	3	150	14	0	4	9	0	0	59	174	5	0
08:15 AM	27	6	39	0	1	90	17	0	2	6	6	0	55	137	4	0
08:30 AM	31	3	41	0	4	121	16	0	3	8	3	0	29	163	2	0
08:45 AM	21	2	38	0	1	133	21	0	0	9	2	0	30	150	1	0

2-Axle Trucks	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	1	3	0	0	0	0	0	0	0	6	0	0
07:15 AM	4	0	0	0	0	5	1	0	0	0	0	0	0	9	0	0
07:30 AM	1	0	0	0	0	4	0	0	0	0	0	0	1	2	0	0
07:45 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	3	1	0
08:00 AM	1	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0
08:15 AM	1	0	1	0	0	2	0	0	0	0	0	0	0	2	0	0
08:30 AM	2	0	1	0	0	0	1	0	0	0	0	0	2	6	0	0
08:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0

3-Axle Trucks	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

INTERSECTION #42 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Hillrose Lane/Nason Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	25	9	75	0	6	139	20	0	2	4	1	0	36	112	6	0
04:15 PM	28	9	56	0	4	168	26	0	0	9	2	0	46	137	5	0
04:30 PM	26	6	84	0	5	180	37	0	0	10	2	0	50	155	4	0
04:45 PM	19	12	90	0	4	153	25	0	1	7	2	0	62	171	2	0
05:00 PM	21	10	94	0	7	188	31	0	3	4	1	0	61	152	3	0
05:15 PM	36	13	86	0	6	162	27	0	4	10	5	0	41	158	1	0
05:30 PM	27	13	89	0	7	172	26	0	2	3	2	0	63	140	6	0
05:45 PM	30	10	79	0	7	147	21	0	2	7	1	0	48	151	5	0

2-Axle Trucks	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	0	3	1	0	0	0	0	0	2	1	0	0
04:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	1	2	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0
04:45 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	1	0	1	1	0	0	0	0	0	0	1	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #43 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Oliver Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	0	16	0	3	93	2	0	19	8	17	0	7	96	3	0
07:15 AM	0	1	13	0	1	92	2	0	21	7	4	0	19	109	2	0
07:30 AM	1	5	45	0	5	129	6	0	17	11	12	0	37	96	2	0
07:45 AM	3	9	69	0	9	143	2	0	16	16	13	0	43	121	6	0
08:00 AM	4	9	49	0	11	89	0	0	12	6	8	0	32	94	7	0
08:15 AM	4	5	29	0	8	64	1	0	8	6	3	0	27	83	6	0
08:30 AM	2	6	45	0	3	76	1	0	12	10	8	0	70	79	4	0
08:45 AM	2	6	66	0	1	70	0	0	5	10	7	0	45	69	1	0

2-Axle Trucks	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	1	4	0	0	2	0	0	0	0	4	1	0
07:15 AM	0	0	1	0	0	3	0	0	2	1	0	0	1	11	0	0
07:30 AM	0	0	0	0	1	4	0	0	0	0	0	0	1	2	0	0
07:45 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	3	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	6	1	1	0
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	5	0	0

3-Axle Trucks	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

INTERSECTION #43 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Oliver Street
Comment 3: E/W: Iris Avenue
Comment 4: Weather: Clear

Cars	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	4	17	0	12	99	0	0	6	4	4	0	15	107	11	0
04:15 PM	1	6	13	0	10	130	2	0	5	4	3	0	25	99	8	0
04:30 PM	0	6	36	0	11	116	4	0	14	7	10	0	21	100	6	0
04:45 PM	1	2	21	0	10	106	1	0	6	9	7	0	50	126	9	0
05:00 PM	2	7	21	0	7	125	1	0	6	3	8	1	29	113	12	0
05:15 PM	0	6	9	0	15	136	1	0	7	6	8	0	24	125	13	0
05:30 PM	0	4	18	0	11	141	2	0	14	5	4	0	17	106	12	0
05:45 PM	1	11	21	0	10	120	4	0	8	3	6	0	29	98	8	0

2-Axle Trucks	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	1	1	0	0	2	1	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
05:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #44 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Via Del Lago
Comment 3: E/W: Iris Avenue/Moreno Beach Drive
Comment 4: Weather: Clear

Cars	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	1	6	0	3	84	1	0	9	0	12	0	0	118	5	0
07:15 AM	1	0	5	0	5	81	0	0	7	0	13	0	2	113	3	0
07:30 AM	2	0	9	0	6	124	2	0	9	0	11	0	2	113	3	0
07:45 AM	2	0	19	0	6	128	1	0	9	1	18	0	3	132	4	0
08:00 AM	2	0	1	0	7	104	2	0	4	1	2	0	11	94	7	0
08:15 AM	1	0	1	0	3	62	1	0	6	0	9	0	5	75	8	0
08:30 AM	2	0	4	0	4	85	1	0	3	0	6	0	3	88	4	0
08:45 AM	3	0	4	0	4	61	1	0	3	1	5	0	1	72	4	0

2-Axle Trucks	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	0	1	0	1	2	1	0	0	0	1	0
07:15 AM	0	2	0	0	1	0	0	0	1	7	0	0	0	0	0	0
07:30 AM	2	3	0	0	1	0	0	0	0	2	1	0	0	0	0	0
07:45 AM	0	1	0	0	1	0	1	0	0	3	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0

3-Axle Trucks	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #44 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Via Del Lago
Comment 3: E/W: Iris Avenue/Moreno Beach Drive
Comment 4: Weather: Clear

Cars	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	5	0	4	0	12	107	12	0	3	0	6	0	8	93	6	0
04:15 PM	2	0	3	0	11	142	3	0	3	0	10	0	8	101	6	0
04:30 PM	2	1	3	0	10	122	1	0	8	1	10	0	5	116	5	0
04:45 PM	2	0	7	0	9	111	3	0	4	0	7	0	9	128	8	0
05:00 PM	3	0	1	0	9	133	0	0	7	1	5	0	6	113	8	0
05:15 PM	1	2	4	0	8	152	4	0	7	0	6	0	9	123	6	0
05:30 PM	2	1	5	0	7	145	3	0	2	0	7	0	7	106	3	0
05:45 PM	2	0	5	0	14	119	3	0	9	0	7	0	3	99	8	0

2-Axle Trucks	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
04:45 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Via Del Lago Southbound				Moreno Beach Drive Westbound				Via Del Lago Northbound				Iris Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #45 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Krameria Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	9	119	0	0	44	20	27	0	13	215	45	0	3	15	20	0
07:15 AM	12	138	2	0	53	33	40	0	22	210	44	0	5	22	15	0
07:30 AM	13	155	1	0	40	26	37	0	30	245	38	0	6	40	21	0
07:45 AM	16	135	0	0	38	51	40	0	15	190	41	0	7	49	25	0
08:00 AM	21	103	3	0	36	28	36	0	5	194	26	0	2	27	16	0
08:15 AM	13	83	1	0	46	13	17	0	4	148	15	0	5	13	7	0
08:30 AM	5	99	2	0	20	14	18	0	1	143	21	0	6	10	9	0
08:45 AM	10	108	2	0	22	9	17	0	0	121	9	0	4	11	6	0

2-Axle Trucks	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	2	0	0	1	3	1	0	0	1	0	0
07:15 AM	0	3	1	0	1	0	1	0	0	7	2	0	0	1	0	0
07:30 AM	1	2	0	0	3	2	0	0	1	11	0	0	0	2	1	0
07:45 AM	0	7	0	0	3	1	0	0	0	4	2	0	0	0	1	0
08:00 AM	0	3	0	0	2	1	0	0	1	9	1	0	1	0	1	0
08:15 AM	0	5	0	0	1	0	0	0	0	7	2	0	0	0	1	0
08:30 AM	0	8	0	0	2	0	0	0	0	8	1	0	0	0	0	0
08:45 AM	1	5	0	0	1	0	1	0	0	5	2	0	0	1	0	0

3-Axle Trucks	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0
08:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0	0
07:15 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0
07:45 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:45 AM	0	2	0	0	0	0	0	0	1	1	0	0	0	0	1	0

INTERSECTION #45 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Krameria Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	23	178	6	0	18	19	16	0	7	206	37	0	2	26	18	0
04:15 PM	13	170	5	0	31	17	24	0	5	154	23	0	6	26	17	0
04:30 PM	24	206	3	0	35	10	28	0	4	253	41	0	3	23	15	0
04:45 PM	19	182	4	0	36	16	23	0	5	242	37	0	4	32	24	0
05:00 PM	29	181	4	0	33	12	15	0	11	203	28	0	5	19	16	0
05:15 PM	18	216	4	0	32	10	18	0	7	192	33	0	4	22	17	0
05:30 PM	18	211	4	0	33	6	26	0	9	202	39	0	6	32	15	0
05:45 PM	20	200	4	0	32	11	23	0	11	177	39	0	6	26	20	0

2-Axle Trucks	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	3	0	0	0	0	4	1	0	0	0	1	0
04:15 PM	0	3	0	0	1	0	1	0	0	4	0	0	1	0	1	0
04:30 PM	0	5	0	0	2	0	1	0	1	1	2	0	0	0	0	0
04:45 PM	0	3	0	0	1	0	1	0	0	5	0	0	0	0	1	0
05:00 PM	0	5	0	0	2	0	0	0	0	2	1	0	0	1	0	0
05:15 PM	0	6	0	0	1	0	0	0	0	0	1	0	0	0	0	0
05:30 PM	1	0	0	0	1	0	1	0	0	4	1	0	0	1	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	2	1	0	1	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	1	0	0	0	0	4	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
04:45 PM	0	2	0	0	3	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	8	0	0	1	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:15 PM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
04:30 PM	0	4	0	0	1	0	0	0	0	2	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #46 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Kitching Street
Comment 3: E/W: Krameria Avenue
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	74	9	16	0	7	61	40	0	7	11	5	0	11	52	7	0
07:15 AM	92	36	17	0	22	84	82	0	9	21	15	0	9	78	14	0
07:30 AM	18	47	22	0	22	69	35	0	17	36	16	0	21	44	34	0
07:45 AM	16	81	24	0	25	73	21	0	22	57	14	0	19	62	47	0
08:00 AM	21	25	20	0	8	60	22	0	22	57	15	0	15	55	19	0
08:15 AM	11	14	17	0	5	40	15	0	7	10	1	0	2	29	11	0
08:30 AM	8	4	12	0	1	37	11	0	2	15	0	0	11	28	2	0
08:45 AM	7	4	9	0	1	37	17	0	2	4	4	0	7	30	0	0

2-Axle Trucks	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	0	3	0	0
07:15 AM	1	0	0	0	0	4	2	0	0	0	0	0	0	2	0	0
07:30 AM	1	0	2	0	0	3	1	0	0	1	0	0	1	1	1	0
07:45 AM	0	1	1	0	0	2	0	0	1	1	0	0	0	3	4	0
08:00 AM	0	0	1	0	0	1	0	0	1	0	0	0	1	2	0	0
08:15 AM	0	0	1	0	0	1	1	0	0	1	0	0	0	1	0	0
08:30 AM	1	0	1	0	0	3	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	1	2	0	1	0	0	0	1	2	0	0

3-Axle Trucks	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #46 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Kitching Street
Comment 3: E/W: Krameria Avenue
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	22	13	14	0	5	47	14	0	2	8	3	0	15	61	4	0
04:15 PM	28	13	23	0	7	52	14	0	1	8	8	0	12	47	7	0
04:30 PM	22	11	26	0	1	51	16	0	3	18	7	0	26	55	4	0
04:45 PM	25	17	26	0	3	41	13	0	8	8	2	0	14	58	2	0
05:00 PM	23	27	18	0	4	41	23	0	2	17	6	0	14	62	7	0
05:15 PM	28	17	18	0	3	36	16	0	5	8	4	0	17	52	5	0
05:30 PM	20	22	27	0	5	38	21	0	10	17	4	0	15	54	9	0
05:45 PM	26	15	26	0	2	29	17	0	7	8	3	0	19	65	10	0

2-Axle Trucks	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	3	2	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0
04:30 PM	1	0	0	0	0	1	0	0	0	0	1	0	0	2	0	0
04:45 PM	1	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Kitching Street Southbound				Krameria Avenue Westbound				Kitching Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #47 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Lasselle Street
Comment 3: E/W: Krameria Avenue
Comment 4: Weather: Clear

Cars	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	18	90	65	0	6	23	11	0	56	178	9	0	83	32	49	0
07:15 AM	10	100	20	0	14	42	18	0	43	147	14	0	115	66	44	0
07:30 AM	18	115	17	0	23	34	19	0	26	194	28	0	56	39	21	0
07:45 AM	37	107	17	0	17	22	19	0	36	215	56	0	53	52	25	0
08:00 AM	18	108	13	0	61	50	41	0	22	183	60	0	54	42	33	0
08:15 AM	4	103	7	0	41	23	26	0	20	172	9	0	29	9	24	0
08:30 AM	2	102	13	0	4	5	5	0	21	162	6	0	31	6	21	0
08:45 AM	5	111	11	0	1	5	3	0	11	145	0	0	27	1	24	0

2-Axle Trucks	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0
07:15 AM	0	3	1	0	0	1	0	0	3	1	0	0	0	0	0	0
07:30 AM	1	2	1	0	0	1	0	0	1	2	0	0	2	1	3	0
07:45 AM	0	1	1	0	0	1	1	0	1	3	1	0	3	0	2	0
08:00 AM	0	0	1	0	1	0	0	0	0	4	1	0	1	0	1	0
08:15 AM	0	3	2	0	0	0	0	0	1	2	0	0	1	0	0	0
08:30 AM	1	3	3	0	1	0	0	0	0	3	0	0	1	0	0	0
08:45 AM	0	1	1	0	0	0	0	0	1	1	0	0	2	1	0	0

3-Axle Trucks	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #47 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Lasselle Street
Comment 3: E/W: Krameria Avenue
Comment 4: Weather: Clear

Cars	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	21	203	19	0	12	8	10	0	24	179	5	0	22	4	38	0
04:15 PM	20	226	19	0	8	11	14	0	32	209	6	0	26	11	41	0
04:30 PM	26	218	15	0	13	5	16	0	38	189	11	0	34	7	49	0
04:45 PM	21	262	14	0	6	5	7	0	27	205	12	0	22	11	37	0
05:00 PM	20	218	13	0	10	6	11	0	25	179	8	0	24	10	44	0
05:15 PM	23	261	16	0	11	6	5	0	23	193	16	0	30	15	40	0
05:30 PM	21	257	16	0	20	7	14	0	22	190	11	0	18	10	28	0
05:45 PM	33	272	9	0	22	8	20	0	12	192	17	0	27	18	35	0

2-Axle Trucks	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	4	3	0	0	0	0	0	1	2	0	0	1	0	0	0
04:15 PM	0	5	2	0	0	0	0	0	1	4	0	0	0	1	0	0
04:30 PM	1	1	1	0	0	0	0	0	0	1	0	0	2	0	1	0
04:45 PM	0	3	2	0	1	0	0	0	0	3	0	0	1	0	0	0
05:00 PM	0	3	2	0	0	0	0	0	0	2	0	0	3	0	0	0
05:15 PM	0	3	1	0	0	1	0	0	0	0	0	0	1	0	0	0
05:30 PM	0	0	1	0	1	0	0	0	0	1	0	0	2	0	0	0
05:45 PM	0	3	1	0	0	0	0	0	0	1	0	0	1	0	0	0

3-Axle Trucks	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Lasselle Street Southbound				Krameria Avenue Westbound				Lasselle Street Northbound				Krameria Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #48 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Kitching Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	20	19	0	1	143	1	0	36	27	0	0	8	51	12	0
07:15 AM	11	27	18	0	3	163	9	0	39	48	6	0	18	81	28	0
07:30 AM	8	33	33	0	5	153	24	0	48	41	5	0	29	90	33	0
07:45 AM	19	48	56	0	7	149	29	0	44	69	6	0	66	118	36	0
08:00 AM	15	37	45	0	10	165	13	0	53	37	6	0	20	102	24	0
08:15 AM	9	32	25	0	1	128	7	0	35	45	5	0	11	93	16	0
08:30 AM	2	20	18	0	1	122	7	0	33	34	1	0	14	75	13	0
08:45 AM	2	27	19	0	1	139	7	0	36	41	5	0	5	86	18	0

2-Axle Trucks	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	1	0	0	1	1	0	1	2	0	0	0	5	0	0
07:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	1	1	1	0
07:30 AM	0	0	0	0	0	4	0	0	0	1	0	0	1	0	0	0
07:45 AM	0	1	0	0	0	3	0	0	1	0	1	0	1	0	1	0
08:00 AM	1	1	0	0	0	2	0	0	0	1	0	0	0	1	1	0
08:15 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	1	1	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	4	1	0
08:45 AM	0	0	1	0	0	4	2	0	2	0	1	0	0	2	0	0

3-Axle Trucks	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #48 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Kitching Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	9	53	14	0	6	94	6	0	37	41	5	0	23	109	26	0
04:15 PM	8	42	24	0	1	124	10	0	24	42	1	0	21	140	37	0
04:30 PM	11	50	15	0	10	118	26	0	36	38	1	0	27	115	41	0
04:45 PM	15	37	36	0	4	134	12	0	31	52	7	0	42	145	38	0
05:00 PM	13	60	28	0	5	94	15	0	25	49	3	0	30	155	40	0
05:15 PM	6	45	15	0	3	123	8	0	23	31	2	0	31	185	39	0
05:30 PM	6	53	23	0	4	102	6	0	27	55	5	0	29	164	48	0
05:45 PM	6	38	24	0	3	96	5	0	26	44	2	0	32	178	31	0

2-Axle Trucks	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	1	1	0	0	1	0	0	1	1	0	0
04:45 PM	1	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
05:30 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Kitching Street Southbound				Alessandro Boulevard Westbound				Kitching Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #49 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Lasselle Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	4	31	16	0	13	88	1	0	44	50	25	0	4	26	20	0
07:15 AM	4	36	18	0	24	104	5	0	45	75	38	0	3	43	16	0
07:30 AM	4	75	21	0	28	129	7	0	52	98	43	0	6	61	23	0
07:45 AM	9	99	10	0	27	139	8	0	44	82	38	0	8	72	34	0
08:00 AM	6	64	17	0	29	117	9	0	42	71	29	0	8	59	34	0
08:15 AM	7	45	15	0	14	73	3	0	39	71	26	0	4	59	25	0
08:30 AM	5	47	6	0	17	93	2	0	38	74	13	0	5	35	35	0
08:45 AM	2	56	8	0	14	89	1	0	46	73	16	0	7	50	37	0

2-Axle Trucks	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	6	0	0	1	0	0	0	1	0	0	0	1	4	0	0
07:15 AM	0	3	1	0	0	2	0	0	0	2	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	2	0	0	0	1	1	0	0	0	0	0
07:45 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	2	0	0	0	2	0	0	2	1	1	0	0	2	0	0
08:15 AM	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0
08:45 AM	0	1	0	0	1	6	0	0	1	3	0	0	0	6	0	0

3-Axle Trucks	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #49 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Lasselle Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	59	6	0	14	48	4	0	46	70	34	0	10	71	36	0
04:15 PM	4	58	8	0	15	80	9	0	46	98	14	0	10	80	44	0
04:30 PM	5	83	12	0	17	70	6	0	40	76	25	0	11	86	47	0
04:45 PM	2	66	6	0	18	72	4	0	36	104	27	0	11	88	45	0
05:00 PM	3	54	7	0	14	63	5	0	27	72	22	0	13	89	58	0
05:15 PM	5	74	7	0	18	78	4	0	45	84	22	0	7	119	60	0
05:30 PM	3	88	8	0	34	56	4	0	32	70	19	0	14	88	50	0
05:45 PM	3	81	9	0	22	57	2	0	33	91	17	0	16	116	51	0

2-Axle Trucks	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	1	0	0	1	1	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0
04:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	1	0	0	2	1	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Lasselle Street Southbound				Alessandro Boulevard Westbound				Lasselle Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #50 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Morrison Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	11	0	19	0	0	73	3	0	0	0	0	0	9	43	0	0
07:15 AM	8	0	33	0	0	98	9	0	0	0	0	0	22	60	0	0
07:30 AM	17	0	31	0	0	137	18	0	0	0	0	0	39	54	0	0
07:45 AM	20	0	31	0	0	133	20	0	0	0	0	0	37	85	0	0
08:00 AM	13	0	29	0	0	113	13	0	0	0	0	0	22	72	0	0
08:15 AM	18	0	14	0	0	70	9	0	0	0	0	0	10	79	0	0
08:30 AM	5	0	13	0	0	105	9	0	0	0	0	0	7	45	0	0
08:45 AM	7	0	12	0	0	89	5	0	0	0	0	0	8	57	0	0

2-Axle Trucks	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0
07:15 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	4	0	0
07:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
08:00 AM	1	0	0	0	0	2	0	0	0	0	0	0	1	2	0	0
08:15 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	2	0	0
08:45 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	5	0	0

3-Axle Trucks	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #50 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Morrison Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	10	0	7	0	0	61	8	0	0	0	0	0	14	94	0	0
04:15 PM	11	0	8	0	0	87	6	0	0	0	0	0	10	71	0	0
04:30 PM	11	0	10	0	0	73	8	0	0	0	0	0	17	87	0	0
04:45 PM	8	0	16	0	0	81	8	0	0	0	0	0	20	92	0	0
05:00 PM	9	0	13	0	0	58	10	0	0	0	0	0	12	95	0	0
05:15 PM	12	0	14	0	0	84	8	0	0	0	0	0	14	116	0	0
05:30 PM	6	0	12	0	0	69	10	0	0	0	0	0	19	95	0	0
05:45 PM	14	0	13	0	0	62	10	0	0	0	0	0	15	104	0	0

2-Axle Trucks	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Morrison Street Southbound				Alessandro Boulevard Westbound				Dead End Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #51 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Nason Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	6	116	14	0	22	50	15	0	21	81	1	0	9	40	10	0
07:15 AM	8	145	30	0	18	85	30	0	16	94	4	0	9	24	13	0
07:30 AM	9	145	18	0	23	74	38	0	25	144	11	0	13	40	22	0
07:45 AM	11	231	25	0	44	100	47	0	28	140	8	0	18	43	36	0
08:00 AM	16	139	24	0	24	64	22	0	22	79	8	0	17	49	29	0
08:15 AM	4	136	15	0	10	65	16	0	18	105	2	0	27	38	21	0
08:30 AM	5	97	8	0	19	50	15	0	11	69	2	0	10	27	15	0
08:45 AM	10	91	7	0	10	58	14	0	9	81	2	0	16	28	15	0

2-Axle Trucks	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	0	1	3	0
07:15 AM	0	3	0	0	1	2	0	0	0	4	1	0	0	0	1	0
07:30 AM	1	1	0	0	0	0	2	0	2	3	0	0	0	0	0	0
07:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	2	1	0
08:00 AM	0	0	0	0	1	0	1	0	1	1	1	0	0	0	2	0
08:15 AM	0	2	0	0	0	1	0	0	0	0	1	0	0	0	1	0
08:30 AM	0	4	0	0	0	0	2	0	0	3	0	0	0	0	1	0
08:45 AM	1	0	0	0	1	4	2	0	0	3	0	0	0	2	1	0

3-Axle Trucks	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
07:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0

INTERSECTION #51 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Nason Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	11	120	15	0	5	43	13	0	9	128	16	0	25	69	23	0
04:15 PM	17	123	21	0	8	58	19	0	16	128	13	0	18	53	12	0
04:30 PM	20	139	12	0	6	59	21	0	24	203	33	0	24	73	12	0
04:45 PM	20	134	22	0	7	47	17	0	21	160	23	0	33	88	20	0
05:00 PM	26	138	17	0	5	50	15	0	21	152	24	0	21	65	10	0
05:15 PM	21	154	23	0	8	49	18	0	9	145	19	0	25	70	23	0
05:30 PM	19	151	14	0	4	45	10	0	20	147	17	0	27	71	20	0
05:45 PM	20	146	21	0	7	61	12	0	9	121	7	0	21	66	16	0

2-Axle Trucks	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	1	5	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	5	0	0	1	0	0	0	0	3	0	0	0	2	2	0
04:45 PM	0	1	0	0	1	0	0	0	1	2	1	0	0	0	0	0
05:00 PM	0	1	0	0	0	1	0	0	0	4	0	0	1	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	0
05:30 PM	0	3	1	0	1	2	0	0	1	1	1	0	1	2	1	0
05:45 PM	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0

3-Axle Trucks	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Nason Street Southbound				Alessandro Boulevard Westbound				Nason Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #52 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Kitching Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	19	7	0	2	148	5	0	39	40	0	0	4	77	10	0
07:15 AM	1	31	7	0	5	145	0	0	30	69	4	0	7	87	23	0
07:30 AM	9	47	22	0	8	181	5	0	55	77	1	0	20	132	26	0
07:45 AM	22	65	28	0	5	183	9	0	46	75	8	0	36	168	15	0
08:00 AM	17	65	33	0	3	129	5	0	37	59	4	0	15	108	11	0
08:15 AM	3	39	8	0	1	128	5	0	31	49	2	0	7	94	13	0
08:30 AM	3	21	8	0	3	117	6	0	30	44	3	0	7	125	29	0
08:45 AM	3	29	7	0	5	119	8	0	49	55	1	0	2	111	43	0

2-Axle Trucks	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	0	3	0	0	0	2	1	0	0	6	1	0
07:15 AM	0	1	0	0	0	1	0	0	4	0	0	0	0	3	0	0
07:30 AM	0	1	0	0	0	8	0	0	0	0	0	0	1	4	1	0
07:45 AM	0	0	1	0	0	5	0	0	1	0	0	0	1	3	1	0
08:00 AM	1	1	0	0	0	1	0	0	2	0	1	0	0	1	2	0
08:15 AM	0	1	0	0	0	3	0	0	2	0	0	0	1	6	1	0
08:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	4	0	0
08:45 AM	0	0	1	0	0	2	1	0	0	2	0	0	0	3	0	0

3-Axle Trucks	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #52 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Kitching Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	10	42	16	0	5	128	5	0	23	43	1	0	7	152	36	0
04:15 PM	9	54	5	0	6	83	4	0	17	53	3	0	4	125	25	0
04:30 PM	7	63	14	0	8	143	6	0	19	45	7	0	11	125	44	0
04:45 PM	4	51	16	0	8	118	8	0	27	56	3	0	15	165	41	0
05:00 PM	14	62	9	0	4	101	3	0	24	43	3	0	5	144	37	0
05:15 PM	9	52	13	0	6	119	6	0	21	45	2	0	10	156	41	0
05:30 PM	8	59	14	0	9	107	5	0	21	53	5	0	16	174	40	0
05:45 PM	10	47	7	0	8	103	5	0	32	56	7	0	14	126	40	0

2-Axle Trucks	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	1	0
04:15 PM	0	1	0	0	0	1	0	0	2	0	0	0	1	1	0	0
04:30 PM	0	1	0	0	0	1	0	0	1	0	0	0	0	2	2	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Kitching Street Southbound				Cactus Avenue Westbound				Kitching Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #53 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Laselle Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	7	55	10	0	14	109	10	0	31	89	26	0	9	49	18	0
07:15 AM	8	43	9	0	24	91	13	0	35	118	40	0	9	66	20	0
07:30 AM	16	95	15	0	44	145	18	0	19	156	35	0	18	71	24	0
07:45 AM	19	109	28	0	30	117	18	0	30	132	47	0	22	126	34	0
08:00 AM	22	103	17	0	44	94	15	0	17	110	44	0	14	86	30	0
08:15 AM	14	63	11	0	20	93	11	0	30	116	42	0	5	76	20	0
08:30 AM	23	77	11	0	47	81	13	0	30	90	74	0	5	90	48	0
08:45 AM	9	99	2	0	63	93	16	0	40	129	77	0	10	76	49	0

2-Axle Trucks	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	3	1	0	0	1	0	0	0	0	1	0	0	6	0	0
07:15 AM	1	3	0	0	4	1	1	0	1	1	3	0	0	2	0	0
07:30 AM	0	0	0	0	3	3	0	0	0	2	1	0	0	3	0	0
07:45 AM	0	1	0	0	2	4	0	0	0	0	2	0	0	0	0	0
08:00 AM	1	2	0	0	1	0	1	0	0	3	1	0	0	1	0	0
08:15 AM	0	1	0	0	0	3	0	0	1	1	2	0	1	3	2	0
08:30 AM	0	0	0	0	0	1	1	0	0	1	0	0	0	1	1	0
08:45 AM	0	3	0	0	0	3	1	0	0	5	2	0	0	2	0	0

3-Axle Trucks	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #53 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Laselle Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	5	102	7	0	57	106	25	0	15	115	43	0	9	97	37	0
04:15 PM	10	101	6	0	38	73	10	0	23	121	45	0	5	89	36	0
04:30 PM	3	95	7	0	66	140	28	0	19	101	24	0	10	94	30	0
04:45 PM	13	121	6	0	46	61	15	0	31	113	47	0	15	76	42	0
05:00 PM	5	132	6	0	64	108	16	0	21	104	46	0	10	82	49	0
05:15 PM	9	106	12	0	56	85	18	0	19	106	41	0	19	110	43	0
05:30 PM	8	175	6	0	49	81	20	0	25	79	40	0	9	82	55	0
05:45 PM	6	136	1	0	29	67	10	0	27	108	40	0	7	75	49	0

2-Axle Trucks	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	5	1	0	0	2	0	0	1	1	1	0	1	4	0	0
04:15 PM	0	0	0	0	2	1	0	0	0	0	1	0	0	0	1	0
04:30 PM	0	3	0	0	0	0	0	0	0	1	1	0	0	0	1	0
04:45 PM	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0
05:00 PM	0	1	0	0	0	1	0	0	1	0	3	0	0	2	0	0
05:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0
05:30 PM	0	1	0	0	2	0	1	0	0	0	1	0	0	1	0	0
05:45 PM	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0

3-Axle Trucks	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Laselle Street Southbound				Cactus Avenue Westbound				Laselle Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #55 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Nason Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	5	51	30	0	2	81	16	0	21	90	0	0	4	27	9	0
07:15 AM	7	50	28	0	1	81	18	0	22	93	3	0	23	43	5	0
07:30 AM	15	74	46	0	0	113	25	0	27	88	5	0	27	85	11	0
07:45 AM	26	97	59	0	4	122	27	0	35	118	4	0	25	100	22	0
08:00 AM	13	82	36	0	1	99	18	0	19	70	2	0	17	101	21	0
08:15 AM	20	73	26	0	2	61	15	0	15	81	1	0	19	68	15	0
08:30 AM	9	59	22	0	2	71	15	0	12	43	3	0	20	91	16	0
08:45 AM	3	51	22	0	3	105	13	0	17	59	1	0	21	41	19	0

2-Axle Trucks	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	1	1	0	0	0	0	0	0	0	0	0	0	5	0	0
07:15 AM	0	1	3	0	0	2	1	0	0	2	0	0	1	4	3	0
07:30 AM	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0
07:45 AM	1	0	1	0	0	2	0	0	1	0	0	0	1	1	0	0
08:00 AM	0	1	1	0	0	2	0	0	1	1	0	0	0	3	0	0
08:15 AM	0	3	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:30 AM	1	3	0	0	0	0	0	0	0	1	0	0	0	3	0	0
08:45 AM	0	0	1	0	0	3	0	0	0	2	0	0	2	2	1	0

3-Axle Trucks	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0

INTERSECTION #55 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Nason Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	25	97	27	0	6	62	8	0	6	56	3	0	35	94	11	0
04:15 PM	19	87	30	0	9	48	16	0	5	68	5	0	42	95	18	0
04:30 PM	23	120	38	0	5	63	9	0	11	87	8	0	30	83	15	0
04:45 PM	28	96	24	0	3	57	11	0	11	89	4	0	31	102	32	0
05:00 PM	31	117	30	0	10	71	18	0	11	73	7	0	28	96	18	0
05:15 PM	28	100	24	0	5	57	13	0	10	62	3	0	38	95	19	0
05:30 PM	33	123	36	0	3	53	13	0	12	79	3	0	30	69	15	0
05:45 PM	18	113	17	0	4	51	11	0	7	76	6	0	18	88	22	0

2-Axle Trucks	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	2	0	1	0	0	0	1	2	0	0	1	0	0	0
04:15 PM	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	1	0
05:00 PM	0	1	1	0	0	0	0	0	0	3	0	0	2	0	0	0
05:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0

3-Axle Trucks	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Nason Street Southbound				Cactus Avenue Westbound				Nason Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #56 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Frederick Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	19	36	38	0	10	324	22	0	17	25	5	0	22	54	16	0
07:15 AM	24	88	34	0	20	320	23	0	10	44	3	0	18	75	8	0
07:30 AM	30	58	43	0	17	304	22	0	12	44	1	0	26	86	11	0
07:45 AM	34	70	46	0	12	327	35	0	20	85	3	0	33	102	12	0
08:00 AM	29	45	60	0	17	270	29	0	11	61	6	0	39	110	11	0
08:15 AM	27	51	49	0	16	306	27	0	13	55	6	0	28	114	8	0
08:30 AM	45	51	34	0	18	177	20	0	7	41	10	0	35	111	14	0
08:45 AM	24	48	38	0	35	237	24	0	12	43	7	0	27	104	11	0

2-Axle Trucks	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	7	2	0	0	2	0	0	0	4	1	0
07:15 AM	0	1	1	0	0	3	2	0	1	0	0	0	1	3	0	0
07:30 AM	0	1	3	0	1	7	0	0	1	2	0	0	0	1	0	0
07:45 AM	1	3	0	0	1	9	1	0	1	2	0	0	0	3	0	0
08:00 AM	1	3	1	0	0	9	0	0	0	1	0	0	2	3	0	0
08:15 AM	1	0	1	0	1	1	1	0	0	1	0	0	2	5	0	0
08:30 AM	0	3	2	0	1	6	0	0	1	1	0	0	1	3	0	0
08:45 AM	1	1	1	0	1	7	0	0	0	1	0	0	1	3	0	0

3-Axle Trucks	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	2	0	0	4	0	0	1	1	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	1	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	5	1	0	1	0	0	0	0	1	1	0
08:15 AM	1	0	1	0	0	2	0	0	1	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0

INTERSECTION #56 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Frederick Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	65	57	27	0	18	205	49	0	21	55	15	0	43	243	21	0
04:15 PM	56	68	25	0	9	162	32	0	8	71	16	0	35	258	10	0
04:30 PM	73	74	25	0	19	167	30	0	18	51	14	0	42	275	30	0
04:45 PM	62	65	35	0	23	176	45	0	13	68	9	0	46	311	24	0
05:00 PM	64	82	36	0	16	168	48	0	17	67	14	0	53	264	20	0
05:15 PM	62	68	26	0	18	179	39	0	13	47	8	0	45	328	28	0
05:30 PM	64	78	24	0	13	172	37	0	13	78	7	0	37	306	36	0
05:45 PM	69	110	33	0	18	146	38	0	16	70	15	0	35	270	25	0

2-Axle Trucks	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	2	0	1	1	1	0	0	2	0	0	1	2	0	0
04:15 PM	1	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	2	1	0
04:45 PM	0	2	1	0	0	3	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	3	0	0	0	1	0	0	1	3	0	0
05:15 PM	0	1	0	0	0	4	0	0	0	1	0	0	1	5	0	0
05:30 PM	0	1	0	0	0	2	1	0	0	0	0	0	1	3	0	0
05:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	3	0	0

3-Axle Trucks	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Frederick Street Southbound				Alessandro Boulevard Westbound				Frederick Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0

INTERSECTION #57 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Graham Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	19	18	12	0	18	314	16	0	12	19	2	0	5	55	9	0
07:15 AM	14	32	13	0	21	320	21	0	8	33	7	0	10	94	12	0
07:30 AM	23	34	26	0	20	319	19	0	18	57	7	0	4	90	6	0
07:45 AM	34	62	19	0	16	315	37	0	12	58	8	0	11	122	23	0
08:00 AM	30	37	18	0	25	313	26	0	14	39	7	0	9	110	16	0
08:15 AM	29	33	20	0	24	300	22	0	14	41	7	0	15	131	10	0
08:30 AM	25	27	17	0	20	236	25	0	12	36	7	0	7	125	16	0
08:45 AM	19	22	20	0	34	212	18	0	8	19	10	0	8	132	9	0

2-Axle Trucks	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	5	0	0	0	1	0	0	0	3	0	0
07:15 AM	1	3	2	0	0	4	3	0	1	1	0	0	0	2	0	0
07:30 AM	0	0	0	0	0	5	1	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	9	0	0	2	0	0	0	0	3	1	0
08:00 AM	2	1	2	0	0	6	0	0	0	1	0	0	0	2	0	0
08:15 AM	0	1	2	0	0	1	0	0	0	1	0	0	0	5	1	0
08:30 AM	0	1	0	0	0	6	1	0	0	0	0	0	0	2	0	0
08:45 AM	0	3	2	0	0	7	0	0	0	0	0	0	0	3	0	0

3-Axle Trucks	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
07:45 AM	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0
08:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	1	0
07:30 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	4	0	0	2	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	3	0	0
08:30 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #57 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Graham Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	29	44	16	0	34	225	40	0	17	44	9	0	21	270	29	0
04:15 PM	27	25	10	0	42	183	40	0	15	45	19	0	23	282	24	0
04:30 PM	40	31	8	0	40	205	38	0	26	51	20	0	14	310	31	0
04:45 PM	26	44	14	0	45	199	32	0	14	50	15	0	24	296	50	0
05:00 PM	28	30	20	0	42	216	53	0	21	55	18	0	13	312	32	0
05:15 PM	28	38	14	0	32	163	37	0	22	45	15	0	22	309	33	0
05:30 PM	32	35	21	0	19	191	28	0	14	38	12	0	12	333	20	0
05:45 PM	29	50	13	0	38	195	24	0	13	42	14	0	19	330	35	0

2-Axle Trucks	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
04:15 PM	1	0	0	0	0	4	0	0	0	1	2	0	0	2	0	0
04:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	1	0	0	1	0	0	1	1	0	0	0	1	0	0
05:00 PM	0	0	1	0	0	1	0	0	0	1	0	0	0	3	1	0
05:15 PM	0	0	2	0	0	2	0	0	0	1	0	0	0	4	0	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	Graham Street Southbound				Alessandro Boulevard Westbound				Graham Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0

INTERSECTION #58 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	19	50	40	0	4	290	13	0	30	46	4	0	6	49	10	0
07:15 AM	17	85	21	0	7	296	23	0	35	87	8	0	11	84	18	0
07:30 AM	23	78	36	0	8	296	27	0	39	89	13	0	16	71	13	0
07:45 AM	39	96	45	0	3	294	30	0	38	138	12	0	18	114	8	0
08:00 AM	34	58	38	0	8	295	44	0	34	93	5	0	25	100	7	0
08:15 AM	33	56	55	0	10	267	27	0	33	105	8	0	19	123	17	0
08:30 AM	34	36	38	0	11	205	33	0	36	50	25	0	23	100	16	0
08:45 AM	59	23	50	0	11	186	28	0	47	56	29	0	23	116	12	0

2-Axle Trucks	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	1	8	1	0	3	0	0	0	0	3	1	0
07:15 AM	0	0	0	0	1	2	2	0	2	1	0	0	0	2	0	0
07:30 AM	1	1	0	0	0	5	1	0	2	1	0	0	0	2	0	0
07:45 AM	0	3	1	0	0	9	1	0	0	2	0	0	0	4	0	0
08:00 AM	1	2	1	0	0	8	0	0	1	0	0	0	0	5	0	0
08:15 AM	0	1	0	0	0	1	2	0	0	0	1	0	0	5	0	0
08:30 AM	2	2	2	0	1	6	3	0	0	2	0	0	0	2	0	0
08:45 AM	1	0	1	0	0	4	1	0	1	2	0	0	1	5	0	0

3-Axle Trucks	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
08:15 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	1	0
08:45 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0

4+ Axle Trucks	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	1	0	0	1	2	0	0	0	1	0	0
07:15 AM	0	4	1	0	0	1	0	0	1	2	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	1	0	0	0	2	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:00 AM	0	1	1	0	0	1	0	0	2	7	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0
08:30 AM	0	2	2	0	0	1	0	0	0	5	0	0	0	1	1	0
08:45 AM	0	1	2	0	0	0	0	0	2	2	0	0	0	0	0	0

INTERSECTION #58 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	44	85	37	0	11	188	45	0	45	78	16	0	31	258	32	0
04:15 PM	55	76	21	0	6	159	44	0	44	103	13	0	21	219	27	0
04:30 PM	51	128	36	0	17	193	22	0	42	97	19	0	29	272	26	0
04:45 PM	47	86	26	0	15	197	34	0	38	113	26	0	24	277	44	0
05:00 PM	53	114	31	0	8	161	30	0	40	97	17	0	24	262	28	0
05:15 PM	52	96	25	0	7	190	29	0	35	71	12	0	33	296	36	0
05:30 PM	57	98	26	0	7	142	32	0	32	87	28	0	43	255	38	0
05:45 PM	48	100	32	0	8	188	37	0	38	74	16	0	32	317	27	0

2-Axle Trucks	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	1	0	0	2	0	0	1	0	0	0	1	0	0	0
04:15 PM	0	1	1	0	0	4	1	0	0	2	0	0	1	4	1	0
04:30 PM	1	3	0	0	0	0	1	0	0	0	0	0	0	2	0	0
04:45 PM	1	1	0	0	0	2	1	0	0	1	1	0	0	2	0	0
05:00 PM	2	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	3	1	0
05:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	2	2	1	0
05:45 PM	1	0	0	0	0	1	1	0	0	3	1	0	0	1	0	0

3-Axle Trucks	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Heacock Street Southbound				Alessandro Boulevard Westbound				Heacock Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
04:15 PM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	0

INTERSECTION #59 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Indian Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	7	15	13	0	4	239	3	0	18	22	10	0	3	52	5	0
07:15 AM	8	36	20	0	6	247	9	0	21	50	15	0	11	89	9	0
07:30 AM	13	50	17	0	15	281	4	0	26	62	23	0	8	67	13	0
07:45 AM	20	61	23	0	16	267	12	0	35	79	20	0	20	111	20	0
08:00 AM	21	47	21	0	21	266	10	0	34	75	18	0	14	92	17	0
08:15 AM	15	53	26	0	22	235	11	0	27	54	11	0	12	108	26	0
08:30 AM	19	34	11	0	14	191	9	0	31	40	11	0	8	98	29	0
08:45 AM	29	50	9	0	10	175	10	0	35	63	27	0	9	124	35	0

2-Axle Trucks	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	1	6	0	0	1	2	0	0	0	4	1	0
07:15 AM	0	4	2	0	0	3	0	0	2	2	0	0	0	2	0	0
07:30 AM	0	3	0	0	0	6	0	0	0	1	1	0	0	1	2	0
07:45 AM	0	0	2	0	0	5	0	0	2	1	0	0	0	4	0	0
08:00 AM	0	0	1	0	0	6	0	0	0	0	0	0	0	6	0	0
08:15 AM	1	3	0	0	0	4	0	0	1	3	0	0	1	5	0	0
08:30 AM	0	0	2	0	1	6	1	0	0	1	0	0	0	3	0	0
08:45 AM	1	2	1	0	2	3	0	0	0	6	1	0	2	6	1	0

3-Axle Trucks	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #59 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Indian Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	30	52	11	0	21	162	9	0	31	53	19	0	30	219	23	0
04:15 PM	33	59	17	0	25	186	20	0	29	77	19	0	28	179	19	0
04:30 PM	47	63	19	0	23	173	18	0	18	64	13	0	42	241	29	0
04:45 PM	30	74	22	0	27	201	17	1	8	104	20	0	30	206	33	1
05:00 PM	41	78	15	0	29	170	13	0	32	59	16	0	40	260	31	0
05:15 PM	33	75	7	0	26	152	13	0	26	64	25	0	20	244	34	0
05:30 PM	33	71	12	0	28	149	13	0	38	52	19	0	30	249	35	0
05:45 PM	21	60	16	0	27	154	12	0	28	67	33	0	37	241	31	0

2-Axle Trucks	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	2	0	0	0	2	1	0	0	1	1	0	0	1	0	0
04:30 PM	1	0	0	0	0	1	0	0	1	0	0	0	0	3	1	0
04:45 PM	0	4	0	0	0	1	0	0	0	1	0	0	1	1	0	0
05:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	2	1	0
05:15 PM	1	0	2	0	3	2	0	0	0	2	0	0	0	4	1	0
05:30 PM	0	1	0	0	0	5	0	0	0	2	0	0	1	1	0	0
05:45 PM	0	0	0	0	0	3	0	0	1	0	1	0	0	1	0	0

3-Axle Trucks	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
04:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Indian Street Southbound				Alessandro Boulevard Westbound				Indian Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #60 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	27	88	35	0	18	193	15	2	42	142	14	4	9	45	7	4
07:15 AM	31	111	45	2	19	193	20	0	51	182	22	3	24	67	12	4
07:30 AM	32	131	51	2	29	224	33	5	44	150	36	4	18	79	15	9
07:45 AM	31	182	63	2	41	190	31	0	48	203	49	10	19	90	25	15
08:00 AM	41	129	61	0	25	214	23	3	56	170	23	6	27	71	17	16
08:15 AM	23	84	45	3	37	148	16	3	53	157	17	8	31	74	20	25
08:30 AM	27	71	34	2	28	166	13	0	45	115	13	3	33	74	35	14
08:45 AM	23	102	36	4	30	138	15	2	45	126	14	18	40	68	32	24

2-Axle Trucks	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	1	2	0	0	1	1	1	0	1	4	2	0
07:15 AM	0	4	0	0	0	1	1	0	1	2	0	0	0	1	0	0
07:30 AM	0	1	0	0	0	3	1	0	2	3	1	0	0	0	3	0
07:45 AM	2	4	1	0	1	1	0	0	0	4	0	0	1	0	0	1
08:00 AM	2	8	3	0	0	1	0	0	0	5	0	0	1	1	1	0
08:15 AM	0	3	2	0	0	4	1	0	0	4	0	0	1	0	1	0
08:30 AM	0	1	3	0	0	1	0	0	1	5	0	0	0	2	2	0
08:45 AM	1	3	1	0	1	1	1	0	0	2	1	0	1	2	0	0

3-Axle Trucks	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:15 AM	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	1	0	0	0	5	0	0	0	0	1	0
07:15 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
07:30 AM	1	1	0	0	0	0	0	0	0	3	0	0	0	1	0	0
07:45 AM	0	3	0	0	0	0	0	0	0	2	0	0	2	0	1	0
08:00 AM	0	0	1	0	0	0	0	0	0	3	0	0	0	0	1	0
08:15 AM	0	2	0	0	0	0	0	0	1	3	0	0	1	0	0	0
08:30 AM	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

INTERSECTION #60 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	30	179	30	1	30	105	13	4	59	147	14	10	52	125	53	36
04:15 PM	33	154	41	3	41	140	29	3	41	148	18	11	44	144	49	29
04:30 PM	32	209	65	1	32	126	27	6	55	166	34	5	58	156	58	29
04:45 PM	32	175	36	3	46	159	13	0	59	173	31	9	57	164	59	30
05:00 PM	32	168	35	2	41	120	15	1	46	134	28	11	42	175	55	30
05:15 PM	38	143	32	1	30	142	25	4	44	154	28	13	63	194	63	39
05:30 PM	41	194	36	1	42	117	16	7	44	163	30	10	66	174	57	29
05:45 PM	40	135	25	1	38	122	15	10	50	136	19	15	78	194	53	35

2-Axle Trucks	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	1	0	0	2	0	0	0	3	0	0	0	1	0	0
04:15 PM	0	1	0	0	0	1	0	0	1	6	0	0	0	0	0	0
04:30 PM	0	4	0	0	0	0	1	0	0	2	0	0	0	1	0	0
04:45 PM	0	3	1	0	2	2	0	0	0	2	0	0	0	0	1	0
05:00 PM	0	3	0	0	0	0	0	0	1	1	0	0	0	0	1	0
05:15 PM	0	3	1	0	0	1	0	0	1	1	0	0	2	1	1	0
05:30 PM	0	1	0	0	0	1	0	0	1	2	0	0	0	0	0	0
05:45 PM	0	3	0	0	0	3	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Alessandro Boulevard Westbound				Perris Boulevard Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0
04:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	4	0	0	0	1	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	7	0	0	0	0	0	0	0	2	0	0	0	0	1	0
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #61 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Frederick Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	19	0	17	0	0	458	28	0	0	0	0	0	28	229	0	0
07:15 AM	42	0	27	0	0	529	24	0	0	0	0	0	35	237	0	0
07:30 AM	34	0	17	0	0	433	30	0	0	0	0	0	30	269	0	0
07:45 AM	35	0	28	0	0	459	61	0	0	0	0	0	50	273	0	0
08:00 AM	22	0	21	0	0	376	49	0	0	0	0	0	36	232	0	0
08:15 AM	31	0	19	0	0	300	43	0	0	0	0	0	42	244	0	0
08:30 AM	39	0	15	0	0	260	28	0	0	0	0	0	29	219	0	0
08:45 AM	22	0	23	0	0	266	44	0	0	0	0	0	31	199	0	0

2-Axle Trucks	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	1	0	0	3	0	0	0	0	0	0	1	2	0	0
07:15 AM	0	0	0	0	0	4	1	0	0	0	0	0	0	5	0	0
07:30 AM	1	0	1	0	0	4	1	0	0	0	0	0	0	4	0	0
07:45 AM	2	0	0	0	0	4	2	0	0	0	0	0	0	2	0	0
08:00 AM	2	0	0	0	0	2	1	0	0	0	0	0	0	4	0	0
08:15 AM	0	0	0	0	0	4	1	0	0	0	0	0	0	3	0	0
08:30 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	6	0	0
08:45 AM	0	0	0	0	0	5	1	0	0	0	0	0	0	5	0	0

3-Axle Trucks	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	7	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	3	1	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0	0
08:45 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	5	3	0	0	0	0	0	2	7	0	0
07:15 AM	0	0	2	0	0	6	0	0	0	0	0	0	3	6	0	0
07:30 AM	0	0	1	0	0	3	0	0	0	0	0	0	3	8	0	0
07:45 AM	0	0	1	0	0	4	1	0	0	0	0	0	0	11	0	0
08:00 AM	0	0	3	0	0	2	0	0	0	0	0	0	2	8	0	0
08:15 AM	0	0	0	0	0	5	2	0	0	0	0	0	3	11	0	0
08:30 AM	0	0	1	0	0	7	1	0	0	0	0	0	1	12	0	0
08:45 AM	3	0	5	0	0	4	1	0	0	0	0	0	1	9	0	0

INTERSECTION #61 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Frederick Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	69	0	21	0	0	243	46	0	0	0	0	0	26	435	0	0
04:15 PM	61	0	25	0	0	243	39	0	0	0	0	0	33	463	0	0
04:30 PM	84	0	26	0	0	220	25	0	0	0	0	0	24	463	0	0
04:45 PM	62	0	18	0	0	295	53	0	0	0	0	0	22	495	0	0
05:00 PM	101	0	36	0	0	200	34	0	0	0	0	0	22	443	0	0
05:15 PM	80	0	16	0	0	239	27	0	0	0	0	0	18	510	0	0
05:30 PM	94	0	35	0	0	236	49	0	0	0	0	0	12	504	0	0
05:45 PM	86	0	21	0	0	234	48	0	0	0	0	0	25	487	0	0

2-Axle Trucks	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0	0
04:15 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
04:30 PM	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0

3-Axle Trucks	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
04:30 PM	1	0	1	0	0	2	1	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	1	2	0	0
05:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
05:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0
05:45 PM	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0

4+ Axle Trucks	Frederick Street Southbound				Cactus Avenue Westbound				Dead End Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	0	0	0	0	8	1	0	0	0	0	0	0	6	0	0
04:15 PM	0	0	0	0	0	8	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	1	6	0	0
04:45 PM	1	0	1	0	0	6	0	0	0	0	0	0	0	7	0	0
05:00 PM	0	0	0	0	0	6	0	0	0	0	0	0	1	8	0	0
05:15 PM	0	0	2	0	0	0	1	0	0	0	0	0	5	5	0	0
05:30 PM	1	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0
05:45 PM	1	0	0	0	0	2	0	0	0	0	0	0	2	6	0	0

INTERSECTION #62 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Graham Street/Riverside Drive
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	19	9	21	0	0	415	9	0	36	11	1	0	17	190	30	0
07:15 AM	15	11	27	0	5	483	7	0	49	11	0	0	18	216	42	0
07:30 AM	16	15	15	0	3	426	22	0	41	16	3	0	25	223	38	0
07:45 AM	20	18	29	0	2	425	33	0	43	14	0	0	29	248	38	0
08:00 AM	22	17	11	0	7	405	23	0	34	14	0	0	19	213	35	0
08:15 AM	16	18	18	0	4	328	19	0	11	9	1	0	20	221	31	0
08:30 AM	20	10	8	0	2	269	25	0	16	5	1	0	10	193	36	0
08:45 AM	18	19	19	0	2	238	20	0	29	2	2	0	10	172	42	0

2-Axle Trucks	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	0	0	0	0	3	0	0	0	0	0	0	0	1	1	0
07:15 AM	1	0	0	0	0	2	0	0	0	1	0	0	1	4	0	0
07:30 AM	1	0	1	0	0	7	0	0	1	0	0	0	0	6	0	0
07:45 AM	0	0	0	0	0	3	1	0	2	0	0	0	0	2	0	0
08:00 AM	3	0	0	0	1	4	1	0	0	1	0	0	0	5	0	0
08:15 AM	1	0	1	0	0	4	0	0	1	0	0	0	0	1	2	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	5	1	0
08:45 AM	2	0	1	0	0	3	0	0	0	0	0	0	0	4	1	0

3-Axle Trucks	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
08:30 AM	0	0	1	0	0	3	0	0	0	0	0	0	0	3	0	0
08:45 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	7	0	0	0	0	0	0	0	8	0	0
07:15 AM	0	0	0	0	0	7	0	0	0	0	0	0	0	6	0	0
07:30 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	5	0	0
07:45 AM	0	0	0	0	0	6	0	0	0	0	0	0	3	10	0	0
08:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	12	0	0
08:15 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	11	0	0
08:30 AM	0	0	1	0	0	7	0	0	0	0	0	0	0	9	1	0
08:45 AM	3	0	0	0	0	3	0	0	1	0	0	0	2	10	0	0

INTERSECTION #62 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Graham Street/Riverside Drive
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	31	17	24	0	2	176	19	0	71	18	5	0	29	386	67	0
04:15 PM	35	14	17	0	1	221	26	1	53	19	3	0	28	428	57	0
04:30 PM	35	24	22	0	5	199	25	0	44	23	7	0	27	445	91	0
04:45 PM	37	16	10	0	5	269	18	0	42	13	7	0	32	431	77	0
05:00 PM	32	39	13	0	5	166	15	0	42	18	4	0	28	418	76	0
05:15 PM	31	21	20	0	6	241	19	0	31	17	2	0	24	496	85	0
05:30 PM	32	20	25	0	6	196	22	0	36	8	5	0	29	444	98	0
05:45 PM	22	24	17	0	2	256	25	0	31	14	1	0	23	483	84	0

2-Axle Trucks	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	4	0	0	1	0	0	0	0	3	0	0
04:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	4	1	0
04:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	1	1	0	0
04:45 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	4	0	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	1	0
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	3	0	0

3-Axle Trucks	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0

4+ Axle Trucks	Graham Street Southbound				Cactus Avenue Westbound				Riverside Drive Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	11	0	0	0	0	0	0	1	4	0	0
04:15 PM	0	0	0	0	0	9	0	0	0	0	0	0	0	3	0	0
04:30 PM	0	0	1	0	0	5	0	0	0	0	0	0	0	4	0	0
04:45 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	10	0	0
05:00 PM	0	0	1	0	0	5	0	0	0	0	0	0	0	8	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
05:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	1	6	0	0
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0	0

INTERSECTION #63 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	10	44	11	0	1	288	5	0	154	76	1	0	13	99	101	0
07:15 AM	11	69	24	0	3	302	20	0	161	99	3	0	23	120	92	0
07:30 AM	13	72	23	0	5	240	20	0	143	125	0	0	10	132	86	0
07:45 AM	16	54	27	0	5	306	37	0	150	109	1	0	27	181	85	0
08:00 AM	10	49	12	0	0	255	20	0	126	114	0	0	23	126	84	0
08:15 AM	14	45	11	0	1	237	22	0	97	70	3	0	20	143	82	0
08:30 AM	7	32	3	0	0	175	18	0	107	61	2	0	17	116	71	0
08:45 AM	11	11	5	0	3	178	23	0	91	68	4	0	24	124	51	0

2-Axle Trucks	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	2	0	0	0	2	0	0	0	3	1	0	0	2	1	0
07:15 AM	1	0	0	0	0	4	1	0	1	2	0	0	0	4	1	0
07:30 AM	0	1	0	0	0	2	2	0	1	1	0	0	0	5	1	0
07:45 AM	1	2	0	0	0	7	0	0	0	2	0	0	0	1	2	0
08:00 AM	0	1	0	0	0	3	1	0	2	1	0	0	0	5	0	0
08:15 AM	0	0	0	0	0	1	0	0	2	1	0	0	0	2	0	0
08:30 AM	1	0	1	0	1	0	1	0	0	3	0	0	0	4	3	0
08:45 AM	0	0	0	0	0	4	0	0	2	3	2	0	0	3	2	0

3-Axle Trucks	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	4	1	0	0	0	0	1	0
07:15 AM	0	0	0	0	0	1	0	0	4	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	3	0	0	0	0	0	1	0
08:00 AM	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	3	0
08:45 AM	0	0	0	0	0	1	0	0	6	1	1	0	0	0	1	0

4+ Axle Trucks	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	2	0	0	3	3	0	0	0	2	5	0
07:15 AM	0	3	0	0	0	1	0	0	4	2	0	0	0	1	6	0
07:30 AM	0	0	0	0	0	0	0	0	3	2	0	0	0	1	4	0
07:45 AM	0	0	0	0	0	0	1	0	3	1	0	0	0	0	5	0
08:00 AM	0	1	1	0	0	0	0	0	0	5	0	0	0	1	10	0
08:15 AM	0	1	1	0	0	1	0	0	8	2	0	0	0	0	10	0
08:30 AM	0	1	0	0	0	0	0	0	5	3	0	0	0	0	7	0
08:45 AM	0	0	0	0	0	0	0	0	4	1	0	0	1	1	10	0

INTERSECTION #63 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Heacock Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	17	104	9	0	1	138	24	0	75	91	0	0	36	213	154	1
04:15 PM	18	65	5	0	0	136	22	0	87	76	3	0	24	258	210	0
04:30 PM	33	128	8	0	4	132	18	0	101	106	5	0	24	245	165	0
04:45 PM	20	97	6	0	2	191	24	0	103	118	5	0	29	276	202	0
05:00 PM	23	103	12	0	1	106	19	0	82	84	2	0	23	263	185	0
05:15 PM	28	87	10	0	3	134	18	0	88	81	3	0	19	288	212	0
05:30 PM	22	103	9	0	2	151	13	0	86	73	4	0	35	274	197	0
05:45 PM	19	87	18	0	3	144	16	0	93	89	1	0	12	272	213	0

2-Axle Trucks	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	0
04:15 PM	1	1	1	0	0	0	0	0	1	1	0	0	0	3	1	0
04:30 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	2	3	0

3-Axle Trucks	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
04:30 PM	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
05:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
05:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	0
05:45 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0

4+ Axle Trucks	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	3	0	0	6	0	0	0	0	0	4	0
04:15 PM	0	1	0	0	0	0	0	0	7	1	0	0	0	1	3	0
04:30 PM	0	1	0	0	0	0	0	0	2	1	0	0	0	0	4	0
04:45 PM	0	1	0	0	0	1	0	0	5	1	0	0	0	1	9	0
05:00 PM	0	0	0	0	0	0	0	0	4	1	0	0	0	0	8	0
05:15 PM	0	1	0	0	0	0	0	0	2	1	0	0	0	0	3	0
05:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	6	0
05:45 PM	0	2	0	0	0	0	0	0	2	1	0	0	0	0	5	0

INTERSECTION #64 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Indian Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	20	4	0	1	264	9	0	26	37	4	0	3	89	21	0
07:15 AM	11	58	9	0	8	233	11	0	25	58	10	0	6	93	19	0
07:30 AM	29	64	4	0	11	280	13	0	34	90	12	0	15	145	32	0
07:45 AM	44	86	9	0	19	243	32	0	33	114	25	0	7	134	27	0
08:00 AM	15	45	6	0	11	219	24	0	30	120	21	0	11	107	27	0
08:15 AM	11	51	5	0	5	208	21	0	17	63	3	0	6	109	24	0
08:30 AM	14	44	5	0	4	157	15	0	19	76	7	0	6	109	30	0
08:45 AM	22	37	5	0	4	165	26	0	23	104	11	0	9	110	22	0

2-Axle Trucks	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	4	1	0	0	1	1	0	1	2	0	0
07:15 AM	1	1	1	0	1	3	0	0	1	2	1	0	0	4	0	0
07:30 AM	0	5	1	0	0	1	0	0	0	0	0	0	0	5	0	0
07:45 AM	0	0	0	0	1	5	1	0	1	2	2	0	0	2	1	0
08:00 AM	1	0	0	0	0	7	0	0	1	3	0	0	0	5	0	0
08:15 AM	0	0	0	0	0	1	2	0	0	1	0	0	0	5	0	0
08:30 AM	1	0	0	0	0	4	0	0	0	2	1	0	0	5	1	0
08:45 AM	0	1	1	0	1	3	1	0	0	5	0	0	0	3	0	0

3-Axle Trucks	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0
07:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
08:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

INTERSECTION #64 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Indian Street
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	13	82	3	0	8	140	20	0	17	60	4	0	9	225	30	0
04:15 PM	17	77	3	0	12	118	16	0	12	77	9	0	20	206	23	0
04:30 PM	28	102	7	0	7	158	21	0	23	63	6	0	12	194	23	0
04:45 PM	19	94	2	0	8	144	13	0	15	68	7	0	13	183	40	0
05:00 PM	17	80	7	0	12	133	19	0	17	73	9	0	12	238	44	0
05:15 PM	13	113	9	0	8	126	13	0	14	82	7	0	18	223	42	0
05:30 PM	14	60	15	0	6	171	14	0	20	50	16	0	11	238	53	0
05:45 PM	12	102	7	0	5	117	14	0	16	59	5	0	13	232	37	0

2-Axle Trucks	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	4	0	0	0	1	0	0	1	5	1	0
04:15 PM	0	1	0	0	0	3	0	0	0	0	1	0	1	5	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	2	0	0	1	1	1	0
04:45 PM	1	1	0	0	0	1	0	0	0	2	0	0	0	3	1	0
05:00 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	7	0	0
05:15 PM	0	2	0	0	0	3	0	0	1	1	0	0	1	1	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Indian Street Southbound				Cactus Avenue Westbound				Indian Street Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #65 AM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	4	91	22	0	6	182	16	1	61	167	21	0	12	66	14	0
07:15 AM	16	105	33	0	7	179	37	0	56	161	18	0	19	109	31	0
07:30 AM	17	138	38	2	13	200	16	2	69	231	29	3	28	115	29	1
07:45 AM	29	140	32	0	25	218	22	1	65	228	33	0	40	141	38	0
08:00 AM	15	126	24	1	16	183	24	0	65	191	17	2	24	99	26	1
08:15 AM	9	83	15	0	19	107	7	2	54	172	18	1	17	70	28	2
08:30 AM	10	108	17	1	18	95	8	1	27	140	18	1	19	95	26	4
08:45 AM	14	94	9	0	11	109	19	1	45	140	13	0	23	79	31	0

2-Axle Trucks	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0
08:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
08:30 AM	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #65 PM

Start Date: 1/30/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	20	193	20	0	15	105	12	1	39	164	12	0	26	138	45	3
04:15 PM	23	169	15	0	17	94	22	1	45	166	19	0	17	175	45	1
04:30 PM	31	215	12	0	19	116	24	1	46	171	19	0	14	158	37	0
04:45 PM	32	204	12	0	14	111	18	7	41	181	18	1	23	177	54	1
05:00 PM	32	203	8	0	18	111	21	0	32	148	20	0	23	167	45	1
05:15 PM	19	212	15	0	15	94	24	1	36	155	21	0	15	199	64	1
05:30 PM	24	226	11	0	16	93	22	0	40	151	16	2	21	164	54	2
05:45 PM	22	183	10	1	16	84	22	0	38	179	22	0	17	160	55	1

2-Axle Trucks	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

4+ Axle Trucks	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #66 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Sycamore Canyon Blvd/Meridian Pkwy
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	17	19	16	0	17	481	75	0	121	117	15	0	16	136	14	0
07:15 AM	24	14	21	0	13	518	81	0	122	111	13	0	26	168	23	0
07:30 AM	16	11	27	0	18	426	106	0	115	154	12	0	35	215	35	0
07:45 AM	15	21	21	0	25	437	114	0	99	114	13	0	40	215	43	0
08:00 AM	12	15	24	0	23	417	76	0	104	124	11	0	37	209	41	0
08:15 AM	11	13	13	0	20	443	75	0	114	103	10	0	30	192	34	0
08:30 AM	16	6	19	0	11	357	81	0	83	63	15	0	27	186	38	0
08:45 AM	12	12	17	0	22	351	73	0	63	59	12	0	21	184	17	0

2-Axle Trucks	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	0	1	0	1	7	0	0	1	1	0	0	1	2	0	0
07:15 AM	1	0	2	0	1	2	0	0	1	1	0	0	1	3	0	0
07:30 AM	10	0	1	0	0	8	4	0	3	0	0	0	0	2	2	0
07:45 AM	5	1	1	0	2	4	0	0	3	2	1	0	1	0	0	0
08:00 AM	0	2	0	0	0	8	2	0	3	0	0	0	0	8	0	0
08:15 AM	0	2	0	0	1	10	1	0	0	4	1	0	1	5	0	0
08:30 AM	2	0	0	0	2	10	1	0	2	2	0	0	2	3	1	0
08:45 AM	2	1	4	0	2	7	4	0	2	2	2	0	0	7	0	0

3-Axle Trucks	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
08:15 AM	0	0	0	0	0	3	1	0	0	0	1	0	0	2	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0
08:45 AM	0	0	0	0	0	4	0	0	0	0	1	0	1	1	0	0

4+ Axle Trucks	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	0	0	0	0	1	2	0	1	1	0	0	0	1	1	0
07:15 AM	0	3	0	0	0	1	4	0	1	3	0	0	0	2	0	0
07:30 AM	0	0	1	0	1	4	2	0	0	4	1	0	1	0	0	0
07:45 AM	1	1	1	0	1	2	4	0	1	3	0	0	0	1	0	0
08:00 AM	1	0	1	0	0	4	3	0	1	2	1	0	0	1	0	0
08:15 AM	3	1	1	0	2	7	3	0	1	6	0	0	0	2	0	0
08:30 AM	1	0	0	0	0	4	6	0	2	1	1	0	0	1	0	0
08:45 AM	0	0	0	0	1	5	2	0	0	1	1	0	0	0	0	0

INTERSECTION #66 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Sycamore Canyon Blvd/Meridian Pkwy
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	18	44	47	0	8	325	35	0	55	69	25	0	21	362	91	0
04:15 PM	27	94	35	0	21	309	32	0	71	52	21	0	26	302	76	0
04:30 PM	35	66	61	0	8	272	78	0	57	74	29	0	22	371	103	0
04:45 PM	31	88	45	0	31	331	28	0	66	47	29	0	23	348	85	0
05:00 PM	38	107	48	0	41	276	36	0	85	73	66	0	31	363	129	0
05:15 PM	27	111	57	0	28	312	25	0	73	48	47	0	22	435	130	0
05:30 PM	30	115	48	0	38	302	21	0	51	40	23	0	27	394	119	0
05:45 PM	35	70	37	0	22	299	22	0	48	44	28	0	23	330	107	0

2-Axle Trucks	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	2	0	0	1	4	5	0	1	2	2	0	1	3	1	0
04:15 PM	0	2	1	0	0	6	1	0	1	1	1	0	2	2	1	0
04:30 PM	0	2	0	0	1	5	3	0	1	2	0	0	1	4	3	0
04:45 PM	1	1	0	0	0	2	0	0	0	2	1	0	1	6	1	0
05:00 PM	0	0	1	0	2	2	3	0	1	0	2	0	4	7	3	0
05:15 PM	0	3	1	0	0	5	1	0	2	0	0	0	1	4	3	0
05:30 PM	0	1	0	0	2	2	0	0	0	2	1	0	0	8	0	0
05:45 PM	0	1	0	0	0	2	0	0	1	0	1	0	0	4	2	0

3-Axle Trucks	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0

4+ Axle Trucks	Sycamore Canyon Boulevard Southbound				Alessandro Boulevard Westbound				Meridian Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	4	0	0	0	1	1	0	0	2	0	0
04:15 PM	1	1	0	0	0	2	1	0	0	1	0	0	0	2	0	0
04:30 PM	0	1	0	0	1	2	1	0	0	3	0	0	0	1	0	0
04:45 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	2	0	0	0	3	4	0	0	1	0	0	0	1	0	0
05:15 PM	1	1	1	0	0	3	1	0	0	0	0	0	1	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	4	0	0
05:45 PM	1	1	0	0	0	1	1	0	0	0	0	0	0	2	0	0

INTERSECTION #67 AM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: I-215 Southbound Ramps
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	32	0	48	0	0	536	0	0	0	0	0	0	0	112	67	1
07:15 AM	43	0	42	0	0	566	0	0	0	0	0	0	0	137	73	0
07:30 AM	26	0	44	0	0	501	0	0	0	0	0	0	0	143	96	0
07:45 AM	27	0	67	0	0	515	0	0	0	0	0	0	0	170	82	0
08:00 AM	33	0	55	0	0	454	0	0	0	0	0	0	0	175	66	0
08:15 AM	33	0	64	0	0	474	0	0	0	0	0	0	0	164	59	2
08:30 AM	30	0	59	0	0	398	0	0	0	0	0	0	0	163	58	2
08:45 AM	34	0	70	0	0	369	0	0	0	0	0	0	0	156	58	1

2-Axle Trucks	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	2	0	0	10	0	0	0	0	0	0	0	4	2	0
07:15 AM	4	0	0	0	0	6	0	0	0	0	0	0	0	2	0	0
07:30 AM	2	0	1	0	0	14	0	0	0	0	0	0	0	3	9	0
07:45 AM	1	0	2	0	0	5	0	0	0	0	0	0	0	1	2	0
08:00 AM	3	0	3	0	0	8	0	0	0	0	0	0	0	3	4	0
08:15 AM	4	0	2	0	0	11	0	0	0	0	0	0	0	3	2	0
08:30 AM	6	0	1	0	0	7	0	0	0	0	0	0	0	4	1	0
08:45 AM	0	0	5	0	0	7	0	0	0	0	0	0	0	5	2	0

3-Axle Trucks	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:15 AM	1	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	0	0	0	4	0	0	0	0	0	0	0	0	1	0

4+ Axle Trucks	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	4	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
07:15 AM	3	0	3	0	0	2	0	0	0	0	0	0	0	2	0	0
07:30 AM	3	0	3	0	0	6	0	0	0	0	0	0	0	1	0	0
07:45 AM	1	0	3	0	0	3	0	0	0	0	0	0	0	2	0	0
08:00 AM	1	0	0	0	0	5	0	0	0	0	0	0	0	0	1	0
08:15 AM	4	0	2	0	0	8	0	0	0	0	0	0	0	3	0	0
08:30 AM	2	0	7	0	0	5	0	0	0	0	0	0	0	3	0	0
08:45 AM	2	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #67 PM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: I-215 Southbound Ramps
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	49	0	78	0	0	287	0	0	0	0	0	0	0	300	114	0
04:15 PM	44	0	82	0	0	289	0	0	0	0	0	0	0	258	93	0
04:30 PM	59	0	106	0	0	248	0	0	0	0	0	0	0	361	83	0
04:45 PM	68	0	105	0	0	275	0	0	0	0	0	0	0	302	101	0
05:00 PM	40	0	95	0	0	269	0	0	0	0	0	0	0	383	97	0
05:15 PM	47	0	100	0	0	264	0	0	0	0	0	0	0	391	108	0
05:30 PM	45	0	101	0	0	269	0	0	0	0	0	0	0	350	105	0
05:45 PM	48	0	107	0	0	242	0	0	0	0	0	0	0	330	72	0

2-Axle Trucks	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	3	0	5	0	0	4	0	0	0	0	0	0	0	1	1	0
04:15 PM	1	0	1	0	0	10	0	0	0	0	0	0	0	4	0	0
04:30 PM	0	0	1	0	0	6	0	0	0	0	0	0	0	3	0	0
04:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	3	0
05:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	7	1	0
05:15 PM	1	0	1	0	0	5	0	0	0	0	0	0	0	2	1	0
05:30 PM	1	0	0	0	0	3	0	0	0	0	0	0	0	6	4	0
05:45 PM	2	0	0	0	0	3	0	0	0	0	0	0	0	3	2	0

3-Axle Trucks	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	I-215 Southbound Ramps Southbound				Alessandro Boulevard Westbound				I-215 Southbound On Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	6	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0
04:15 PM	2	0	2	0	0	2	0	0	0	0	0	0	0	2	1	0
04:30 PM	4	0	2	0	0	2	0	0	0	0	0	0	0	2	0	0
04:45 PM	8	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	13	0	4	0	0	2	0	0	0	0	0	0	0	1	0	0
05:15 PM	4	0	1	0	0	3	0	0	0	0	0	0	0	2	0	0
05:30 PM	6	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
05:45 PM	4	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0

INTERSECTION #68 AM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: I-215 Northbound Ramps
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	460	17	0	176	0	35	0	8	145	0	0
07:15 AM	0	0	0	0	0	407	22	0	207	0	43	0	3	183	0	0
07:30 AM	0	0	0	0	0	405	16	0	224	2	26	0	18	133	0	0
07:45 AM	0	0	0	0	0	351	16	0	209	0	48	0	4	197	0	0
08:00 AM	0	0	0	0	0	311	7	0	189	2	47	0	9	198	0	0
08:15 AM	0	0	0	0	0	323	24	0	191	0	41	0	11	195	0	0
08:30 AM	0	0	0	0	0	224	22	0	178	1	40	0	14	173	0	0
08:45 AM	0	0	0	0	0	217	19	0	192	0	28	0	16	175	0	0

2-Axle Trucks	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	5	1	0	1	0	1	0	3	3	0	0
07:15 AM	0	0	0	0	0	12	2	0	3	0	0	0	1	0	0	0
07:30 AM	0	0	0	0	0	8	1	0	2	0	1	0	1	3	0	0
07:45 AM	0	0	0	0	0	7	0	0	3	0	3	0	0	2	0	0
08:00 AM	0	0	0	0	0	4	1	0	7	0	3	0	0	4	0	0
08:15 AM	0	0	0	0	0	5	1	0	5	0	2	0	1	3	0	0
08:30 AM	0	0	0	0	0	11	2	0	2	0	1	0	0	10	0	0
08:45 AM	0	0	0	0	0	10	0	0	0	0	2	0	3	2	0	0

3-Axle Trucks	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	3	0	0	0	0	0	1	1	0	0
07:45 AM	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0

4+ Axle Trucks	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	4	0	0
07:15 AM	0	0	0	0	0	3	2	0	3	0	0	0	2	3	0	0
07:30 AM	0	0	0	0	0	3	5	0	1	0	0	0	2	2	0	0
07:45 AM	0	0	0	0	0	4	2	0	0	0	0	0	1	2	0	0
08:00 AM	0	0	0	0	0	1	3	0	5	0	1	0	0	1	0	0
08:15 AM	0	0	0	0	0	8	5	0	7	0	0	0	1	5	0	0
08:30 AM	0	0	0	0	0	3	3	0	4	0	0	0	3	2	0	0
08:45 AM	0	0	0	0	0	0	2	0	2	0	1	0	1	0	0	0

INTERSECTION #68 PM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: I-215 Northbound Ramps
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	206	38	0	118	1	46	0	58	292	0	0
04:15 PM	0	0	0	0	0	213	43	0	108	0	55	0	41	262	0	0
04:30 PM	0	0	0	0	0	189	44	0	90	0	58	0	77	340	0	0
04:45 PM	0	0	0	0	0	198	42	0	118	3	44	0	47	312	0	0
05:00 PM	0	0	0	0	0	197	41	0	85	2	37	0	96	326	0	0
05:15 PM	0	0	0	0	0	168	42	0	112	2	37	0	86	355	0	0
05:30 PM	0	0	0	0	0	207	45	0	74	0	47	0	54	335	0	0
05:45 PM	0	0	0	0	0	162	45	0	100	2	51	0	52	328	0	0

2-Axle Trucks	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	3	0	0	1	0	0	0	1	2	0	0
04:15 PM	0	0	0	0	0	3	1	0	3	0	0	0	0	3	0	0
04:30 PM	0	0	0	0	0	4	2	0	1	0	0	0	2	3	0	0
04:45 PM	0	0	0	0	0	2	2	0	2	0	1	0	1	1	0	0
05:00 PM	0	0	0	0	0	3	2	0	0	0	1	0	0	5	0	0
05:15 PM	0	0	0	0	0	0	3	0	3	0	0	0	2	3	0	0
05:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	2	7	0	0
05:45 PM	0	0	0	0	0	2	1	0	1	0	0	0	3	6	0	0

3-Axle Trucks	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	I-215 Northbound On Ramp Southbound				Alessandro Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	4	0	0	0	0	0	2	7	0	0
04:15 PM	0	0	0	0	0	2	5	0	0	0	0	0	1	2	0	0
04:30 PM	0	0	0	0	0	1	3	0	1	0	1	0	2	5	0	0
04:45 PM	0	0	0	0	0	0	2	0	0	0	1	0	0	9	0	0
05:00 PM	0	0	0	0	0	1	3	0	1	0	0	0	1	13	0	0
05:15 PM	0	0	0	0	0	0	3	0	3	0	0	0	2	3	0	0
05:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	2	7	0	0
05:45 PM	0	0	0	0	0	2	1	0	1	0	0	0	3	6	0	0

INTERSECTION #69 AM

Start Date: 2/7/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Old 215 Frontage Road
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	3	49	0	2	374	25	0	42	66	1	0	29	121	0	0
07:15 AM	2	6	42	0	0	369	32	0	37	119	2	0	48	151	1	0
07:30 AM	3	6	43	0	3	352	35	0	24	128	6	0	60	195	3	0
07:45 AM	6	5	47	0	3	285	29	0	33	117	5	0	85	187	2	0
08:00 AM	5	1	39	0	1	315	28	0	21	64	5	0	57	179	2	0
08:15 AM	14	2	38	0	1	275	22	0	24	79	1	0	94	152	2	0
08:30 AM	4	5	33	0	2	247	19	0	16	47	1	0	55	176	1	0
08:45 AM	7	1	29	0	1	198	15	0	20	47	7	0	68	157	1	0

2-Axle Trucks	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	8	0	0	0	0	0	0	0	3	0	0
07:15 AM	0	0	4	0	0	2	1	0	0	3	0	0	3	3	0	0
07:30 AM	0	0	0	0	0	7	0	0	3	1	0	0	1	3	1	0
07:45 AM	1	0	0	0	0	6	0	0	0	2	0	0	0	4	0	0
08:00 AM	0	1	0	0	0	14	0	0	0	1	0	0	1	1	0	0
08:15 AM	2	0	0	0	0	4	0	0	0	2	0	0	2	3	0	0
08:30 AM	0	0	0	0	0	5	0	0	1	0	0	0	2	8	1	0
08:45 AM	0	0	1	0	0	1	3	0	0	0	0	0	3	4	1	0

3-Axle Trucks	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
08:00 AM	0	0	0	0	0	0	1	0	0	2	1	0	1	0	1	0
08:15 AM	0	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0
08:30 AM	0	0	0	0	1	0	1	0	1	0	0	0	1	2	0	0
08:45 AM	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	5	1	0	1	4	0	0	0	2	4	0
07:15 AM	1	0	0	0	1	2	0	0	4	3	0	0	0	1	3	0
07:30 AM	0	0	0	0	0	3	0	0	1	3	0	0	0	1	0	0
07:45 AM	0	3	0	0	0	3	0	0	0	1	0	0	1	3	0	0
08:00 AM	1	1	0	0	0	2	0	0	0	1	0	0	1	2	3	0
08:15 AM	0	0	0	0	2	4	1	0	1	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	4	0	0	3	1	0	0	0	4	0	0
08:45 AM	0	0	0	0	0	2	1	0	0	0	0	0	2	6	3	0

INTERSECTION #69 PM

Start Date: 2/7/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Old 215 Frontage Road
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	19	19	45	0	4	223	23	0	6	19	4	0	82	282	1	0
04:15 PM	14	18	35	0	0	178	26	0	6	28	1	0	77	310	3	0
04:30 PM	16	19	58	0	1	218	24	0	11	10	3	0	51	315	4	0
04:45 PM	19	24	55	0	1	205	22	0	9	27	0	0	66	287	5	0
05:00 PM	18	41	47	0	1	189	22	0	3	15	4	0	56	296	6	0
05:15 PM	20	30	46	0	2	178	20	0	7	17	1	0	60	319	6	0
05:30 PM	13	32	48	0	2	228	14	0	1	20	1	0	61	373	7	0
05:45 PM	25	26	38	0	2	170	18	0	3	15	2	0	47	320	4	0

2-Axle Trucks	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	1	0	0	2	0	0	0	0	0	0	1	4	0	0
04:15 PM	0	0	1	0	0	4	0	0	2	0	0	0	0	5	0	0
04:30 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0
04:45 PM	1	0	0	0	0	6	1	0	0	0	0	0	1	4	0	0
05:00 PM	0	0	1	0	0	3	0	0	0	0	0	0	1	6	0	0
05:15 PM	0	0	0	0	0	6	1	0	0	0	0	0	1	5	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	2	0	0	1	4	0	0
05:45 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Old 215 Frontage Road Southbound				Alessandro Boulevard Westbound				Old 215 Frontage Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	3	1	0	0	0	0	0	0	3	2	0
04:15 PM	0	0	0	0	0	3	0	0	0	1	0	0	0	2	1	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	5	5	0
04:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	3	2	0
05:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	3	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	3	2	0
05:45 PM	0	0	0	0	0	1	0	0	6	0	0	0	0	2	2	0

INTERSECTION #70 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Day Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	9	5	27	0	2	366	15	0	1	7	3	0	15	90	2	2
07:15 AM	14	5	24	0	0	351	19	0	1	13	4	0	33	104	0	3
07:30 AM	8	5	25	0	5	372	27	0	1	15	3	0	29	140	4	2
07:45 AM	16	2	26	0	2	296	33	0	0	17	4	0	33	141	0	1
08:00 AM	13	4	20	0	0	306	29	0	0	23	2	0	33	154	4	1
08:15 AM	16	1	24	0	3	306	29	0	2	12	1	0	26	155	2	0
08:30 AM	20	6	16	0	2	199	30	0	2	9	3	0	20	124	0	1
08:45 AM	21	7	15	0	3	210	11	0	4	15	4	0	14	148	1	0

2-Axle Trucks	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	7	1	0	0	0	0	0	0	5	0	0
07:15 AM	0	0	3	0	1	4	0	0	0	0	1	0	0	3	0	0
07:30 AM	0	0	0	0	1	10	1	0	1	0	0	0	1	2	1	0
07:45 AM	0	0	0	0	0	8	0	0	0	0	0	0	1	4	0	0
08:00 AM	0	0	0	0	0	9	1	0	1	0	0	0	0	3	0	0
08:15 AM	0	0	1	0	0	3	0	0	0	1	0	0	1	9	0	0
08:30 AM	0	0	1	0	0	8	0	0	0	0	0	0	1	5	0	0
08:45 AM	0	0	0	0	0	12	1	0	1	0	0	0	0	8	0	0

3-Axle Trucks	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0

4+ Axle Trucks	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	5	1	0	2	0	1	0	0	3	1	0
07:15 AM	0	0	0	0	0	5	0	0	3	0	0	0	0	2	1	0
07:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	3	0	0	2	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	0	4	0	0	5	0	0	0	0	3	1	0
08:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0
08:45 AM	0	0	0	0	0	1	0	0	4	0	0	0	0	1	1	0

INTERSECTION #70 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Day Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	24	4	20	0	3	201	45	0	6	13	6	0	30	235	3	0
04:15 PM	36	14	25	0	0	165	31	0	2	19	2	0	33	254	2	0
04:30 PM	26	3	24	0	5	204	35	0	3	4	5	0	30	293	3	0
04:45 PM	37	14	20	0	4	180	29	0	4	17	4	0	28	299	0	0
05:00 PM	38	13	23	0	1	179	27	0	3	10	5	0	33	261	2	0
05:15 PM	50	12	25	0	1	160	42	0	1	6	3	0	36	308	1	0
05:30 PM	45	16	18	0	1	204	24	0	3	16	0	0	50	302	2	0
05:45 PM	36	10	15	0	1	172	30	0	0	8	3	0	38	281	2	0

2-Axle Trucks	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	5	0	0
04:15 PM	0	0	0	0	0	6	1	0	0	0	0	0	0	4	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	4	0	0
04:45 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0
05:00 PM	0	0	1	0	0	4	1	0	0	0	1	0	0	3	0	0
05:15 PM	1	0	0	0	0	3	0	0	1	0	0	0	0	7	0	0
05:30 PM	0	0	0	0	1	5	0	0	0	0	0	0	1	4	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0

3-Axle Trucks	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Day Street Southbound				Alessandro Boulevard Westbound				Day Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	2	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	5	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0

INTERSECTION #71 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Elsworth Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	27	14	0	14	348	9	0	17	17	8	0	4	80	18	0
07:15 AM	3	36	21	0	19	343	7	0	18	24	13	0	3	90	24	4
07:30 AM	13	27	15	0	17	360	14	0	37	32	8	0	2	116	25	0
07:45 AM	6	36	12	0	28	301	18	1	25	24	8	0	6	155	18	2
08:00 AM	4	27	8	0	22	305	8	0	24	33	10	0	4	132	24	3
08:15 AM	6	24	9	0	26	298	12	0	21	21	17	0	9	148	22	6
08:30 AM	14	32	7	0	16	206	12	1	27	23	15	0	5	126	23	3
08:45 AM	4	16	11	0	22	208	13	0	12	31	7	0	7	147	22	2

2-Axle Trucks	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	7	0	0	0	1	0	0	0	3	0	0
07:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	6	1	0	1	0	1	0	0	0	0	0
07:45 AM	0	0	0	0	0	6	0	0	0	2	1	0	0	1	1	0
08:00 AM	0	0	0	0	0	3	1	0	0	1	0	0	0	2	0	0
08:15 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	4	2	0
08:30 AM	1	0	0	0	0	6	0	0	0	2	0	0	0	2	0	0
08:45 AM	0	0	0	0	0	6	1	0	1	0	1	0	0	2	0	0

3-Axle Trucks	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	1	0
07:15 AM	0	0	0	0	0	4	0	0	1	0	0	0	0	3	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	1	2	0	0
08:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0

INTERSECTION #71 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Elsworth Street
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	16	31	12	0	12	201	13	0	29	50	23	0	12	246	25	2
04:15 PM	9	32	4	0	8	178	16	0	32	45	32	0	17	270	14	4
04:30 PM	12	22	14	0	12	190	15	1	26	43	26	0	17	307	26	2
04:45 PM	17	22	13	0	18	170	14	6	32	58	35	0	12	320	15	1
05:00 PM	11	28	9	0	18	163	21	1	35	52	32	0	12	276	17	1
05:15 PM	19	29	8	0	24	188	16	1	26	41	38	0	21	345	22	4
05:30 PM	15	35	14	0	8	186	12	0	36	48	34	0	10	327	20	4
05:45 PM	11	34	13	0	24	169	14	0	26	28	19	0	22	314	17	6

2-Axle Trucks	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
04:15 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	1	0	0
04:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0
05:15 PM	1	0	0	0	0	2	0	0	0	0	1	0	0	3	0	0
05:30 PM	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0
05:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0

3-Axle Trucks	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Elsworth Street Southbound				Alessandro Boulevard Westbound				Elsworth Street Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0

INTERSECTION #72 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: I-215 Southbound Ramps
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	23	0	103	297	0	0	0	0	0	0	0	52	2	0
07:15 AM	0	1	42	0	105	288	0	0	0	0	0	0	0	64	2	0
07:30 AM	0	0	35	0	163	333	0	0	0	0	0	0	0	69	7	0
07:45 AM	0	0	65	0	142	293	0	0	0	0	0	0	0	63	2	0
08:00 AM	0	1	40	0	81	264	0	0	0	0	0	0	0	64	4	0
08:15 AM	1	0	43	0	107	226	0	0	0	0	0	0	0	60	2	0
08:30 AM	1	0	23	0	54	145	0	0	0	0	0	0	0	58	2	0
08:45 AM	0	0	42	0	65	161	0	0	0	0	0	0	0	51	4	0

2-Axle Trucks	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	2	3	0	0	0	0	0	0	0	2	0	0
08:00 AM	0	0	2	0	3	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	1	0	2	3	0	0	0	0	0	0	0	3	0	0
08:30 AM	0	0	1	0	3	5	0	0	0	0	0	0	0	1	1	0
08:45 AM	0	0	3	0	2	3	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	2	0	7	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0
08:30 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	4	0	1	1	0	0	0	0	0	0	0	1	1	0
07:15 AM	0	0	6	0	2	4	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	8	0	0	2	0	0	0	0	0	0	0	2	0	0
07:45 AM	0	0	2	0	1	3	0	0	0	0	0	0	0	3	2	0
08:00 AM	0	0	4	0	2	2	0	0	0	0	0	0	0	5	1	0
08:15 AM	0	0	4	0	1	3	0	0	0	0	0	0	0	4	0	0
08:30 AM	0	0	4	0	2	2	0	0	0	0	0	0	0	3	0	0
08:45 AM	0	0	11	0	1	1	0	0	0	0	0	0	0	0	1	0

INTERSECTION #72 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: I-215 Southbound Ramps
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	17	0	142	129	0	0	0	0	0	0	0	121	29	0
04:15 PM	0	0	24	0	146	129	0	0	0	0	0	0	0	108	25	0
04:30 PM	0	0	33	0	132	116	0	0	0	0	0	0	0	144	22	0
04:45 PM	0	0	36	0	140	140	0	0	0	0	0	0	0	139	33	0
05:00 PM	0	0	22	0	135	115	0	0	0	0	0	0	0	187	57	0
05:15 PM	0	0	25	0	114	122	0	0	0	0	0	0	0	136	54	0
05:30 PM	0	0	20	0	150	95	0	0	0	0	0	0	0	153	32	0
05:45 PM	0	0	23	0	117	102	0	0	0	0	0	0	0	113	21	0

2-Axle Trucks	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	1	1	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	2	1	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	1	0	1	1	0	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	1	0	0	3	0	0	0	0	0	0	0	3	1	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
05:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0

4+ Axle Trucks	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	3	1	0
04:15 PM	0	0	1	0	2	0	0	0	0	0	0	0	0	3	0	0
04:30 PM	0	0	6	0	1	0	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	1	0	2	0	0	0	0	0	0	0	0	2	1	0
05:00 PM	0	0	4	0	1	0	0	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	3	0	1	0	0	0	0	0	0	0	0	0	2	0
05:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #73 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Old 215 Frontage Rd/I-215 NB Ramps
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	4	0	4	0	0	373	60	1	83	67	0	0	0	173	2	1
07:15 AM	6	0	6	0	0	346	82	0	111	67	3	4	0	167	1	0
07:30 AM	6	0	12	0	0	413	57	2	110	83	1	1	2	205	3	0
07:45 AM	6	0	2	0	0	396	73	1	96	71	0	0	2	184	1	0
08:00 AM	3	0	1	0	0	307	43	0	82	78	5	2	2	157	5	0
08:15 AM	6	0	3	0	0	265	42	1	89	46	1	1	1	139	4	1
08:30 AM	16	0	2	0	0	206	33	1	44	35	1	0	4	156	4	2
08:45 AM	16	0	10	0	0	245	25	1	38	24	3	3	5	115	3	0

2-Axle Trucks	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	4	0	0	2	0	0	0	0	2	0	1
07:15 AM	0	0	0	1	0	2	1	0	0	1	0	0	0	4	0	0
07:30 AM	0	0	0	1	0	6	0	0	0	0	0	0	0	3	0	0
07:45 AM	0	0	1	3	0	6	1	0	1	1	0	1	1	4	0	0
08:00 AM	0	0	0	3	0	6	0	0	0	1	0	0	0	5	0	0
08:15 AM	0	0	0	4	0	9	1	0	2	2	0	0	3	1	1	0
08:30 AM	0	0	1	0	0	5	3	0	2	0	1	0	0	4	1	0
08:45 AM	1	0	0	4	0	6	0	0	0	1	0	2	0	2	1	0

3-Axle Trucks	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	2	0	0	1	2	0	0	0	0	0	1	1	0	0
07:15 AM	1	0	5	0	0	0	2	0	0	4	0	0	0	0	0	0
07:30 AM	1	0	2	0	0	2	6	0	0	1	0	0	0	0	0	0
07:45 AM	3	0	4	0	0	1	3	0	1	0	0	0	0	0	0	0
08:00 AM	3	0	1	0	0	0	4	0	0	2	0	0	0	0	0	0
08:15 AM	4	0	7	0	0	1	2	0	0	1	0	0	0	1	1	0
08:30 AM	0	0	2	0	0	1	3	0	0	0	0	0	0	2	0	0
08:45 AM	4	0	2	0	0	1	2	0	2	3	0	0	0	0	0	0

4+ Axle Trucks	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	2	0	6	0	2	0	0	0	0	1	4	1	0
07:15 AM	1	0	3	5	0	7	4	2	0	1	0	0	0	9	0	0
07:30 AM	0	0	1	2	0	4	0	6	1	1	0	0	1	10	2	0
07:45 AM	2	0	3	4	0	6	0	3	1	1	0	0	2	5	1	0
08:00 AM	1	0	8	1	0	5	0	4	3	1	0	0	2	7	7	0
08:15 AM	0	0	4	7	0	8	1	2	1	2	0	0	0	6	2	1
08:30 AM	0	0	1	2	0	7	2	3	2	3	0	0	2	9	3	0
08:45 AM	0	0	2	2	0	8	2	2	1	1	0	0	1	3	0	0

INTERSECTION #73 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Old 215 Frontage Rd/I-215 NB Ramps
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	24	0	9	0	0	347	24	0	15	21	1	0	2	235	12	0
04:15 PM	23	0	10	0	0	353	24	0	11	20	0	0	3	247	8	1
04:30 PM	21	0	15	0	0	336	14	5	13	13	2	0	3	278	19	2
04:45 PM	23	0	24	0	0	384	29	0	9	12	1	0	9	275	11	2
05:00 PM	34	0	27	0	0	322	25	1	10	9	1	0	1	308	18	2
05:15 PM	29	0	21	0	0	317	19	2	5	9	2	0	7	308	11	1
05:30 PM	35	0	26	0	0	320	27	2	3	12	2	0	2	309	9	3
05:45 PM	30	0	19	0	0	304	19	1	5	9	5	0	2	301	7	2

2-Axle Trucks	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	0	3	0	0	0	0	0	1	0	4	1	0
04:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	1	2	0	0
04:45 PM	0	0	0	0	0	3	0	0	0	0	0	1	0	3	0	0
05:00 PM	0	0	0	0	0	2	1	0	0	0	0	1	0	2	0	0
05:15 PM	0	0	1	1	0	2	0	0	1	1	0	0	0	1	2	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
05:45 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
04:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0
04:30 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0
05:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0
05:15 PM	1	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	3	1	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0

4+ Axle Trucks	Old 215 Frontage Road Southbound				Cactus Avenue Westbound				I-215 Northbound Ramps Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	9	0	0	0	0	0	0	0	6	3	1
04:15 PM	0	0	0	0	0	7	0	2	0	0	0	0	1	1	2	1
04:30 PM	0	0	1	0	0	5	0	0	0	1	1	0	0	9	2	0
04:45 PM	0	0	2	0	0	6	1	1	0	1	0	0	0	5	1	0
05:00 PM	0	0	0	0	0	8	0	0	0	1	2	0	0	10	1	0
05:15 PM	0	0	2	0	0	2	0	1	0	2	0	0	1	10	0	0
05:30 PM	0	1	2	0	0	3	0	0	0	2	0	0	0	4	1	1
05:45 PM	0	0	3	0	0	4	0	0	0	0	0	0	0	5	0	0

INTERSECTION #74 AM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Elsworth Street/March ARB Entrance
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	13	15	20	0	15	428	17	0	7	1	14	0	21	228	66	0
07:15 AM	29	21	36	0	21	423	38	0	6	5	4	0	33	264	63	0
07:30 AM	18	18	25	0	13	401	38	0	5	4	5	0	39	301	63	0
07:45 AM	27	14	29	0	31	396	34	0	7	5	8	0	53	335	63	0
08:00 AM	24	7	24	0	17	313	29	0	8	12	7	0	47	275	39	0
08:15 AM	30	9	20	0	8	301	24	0	4	3	4	0	37	248	31	0
08:30 AM	22	8	22	0	12	222	33	0	7	6	3	0	34	248	29	0
08:45 AM	12	12	23	0	9	220	23	0	12	6	10	0	34	203	25	0

2-Axle Trucks	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	3	0	0	0	0	1	0	0	2	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	2	1	0
07:30 AM	0	0	1	0	0	5	1	0	0	0	0	0	1	2	1	0
07:45 AM	1	0	0	0	0	2	2	0	0	0	0	0	0	2	0	0
08:00 AM	0	1	0	0	0	2	0	0	0	0	0	0	3	2	0	0
08:15 AM	0	0	0	0	0	4	0	0	1	0	0	0	1	2	0	0
08:30 AM	1	0	3	0	0	2	0	0	0	0	0	0	1	5	0	0
08:45 AM	0	0	0	0	0	4	1	0	1	0	0	0	0	3	0	0

3-Axle Trucks	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	1	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
08:30 AM	0	0	0	0	0	3	0	0	1	0	1	0	1	2	0	0
08:45 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0

4+ Axle Trucks	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	5	0	0	0	0	0	0	0	6	0	0
07:15 AM	0	0	3	0	1	5	0	0	0	0	0	0	0	10	0	0
07:30 AM	0	0	0	0	0	5	1	0	0	0	0	0	0	11	1	0
07:45 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	11	2	0
08:00 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	10	0	0
08:15 AM	0	0	0	0	0	7	0	0	1	0	0	0	0	14	0	0
08:30 AM	0	0	0	0	0	8	0	0	1	0	0	0	0	16	0	0
08:45 AM	0	0	0	0	0	6	0	0	3	0	0	0	0	8	0	0

INTERSECTION #74 PM

Start Date: 1/31/2018
Comment 1: City of Moreno Valley
Comment 2: N/S: Elsworth Street/March ARB Entrance
Comment 3: E/W: Cactus Avenue
Comment 4: Weather: Clear

Cars	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	39	2	33	0	2	227	23	0	94	26	65	0	32	376	8	0
04:15 PM	38	1	35	0	6	259	21	0	65	13	30	0	16	403	9	0
04:30 PM	57	0	30	0	2	238	25	0	81	23	35	0	24	392	5	0
04:45 PM	44	2	40	0	5	303	26	0	51	21	20	0	28	447	6	0
05:00 PM	44	3	58	0	5	221	18	0	44	8	17	0	28	417	3	0
05:15 PM	47	5	44	0	7	250	20	0	41	11	10	0	28	469	6	0
05:30 PM	59	6	50	0	5	250	24	0	40	6	14	0	26	444	6	0
05:45 PM	27	3	29	0	3	254	17	1	26	7	13	0	20	443	10	0

2-Axle Trucks	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
04:30 PM	0	0	0	0	1	1	0	0	1	0	0	0	0	2	0	0
04:45 PM	1	0	1	0	0	1	0	0	0	0	0	0	1	2	0	0
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0
05:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	4	0	0

3-Axle Trucks	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	3	1	0	3	0	0	0	0	2	0	0
04:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	2	1	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	0	0	0	1	0	0	3	0	0	0	1	1	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0
05:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0

4+ Axle Trucks	Elsworth Street Southbound				Cactus Avenue Westbound				March ARB Entrance Northbound				Cactus Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	10	0	0	1	0	0	0	0	6	0	0
04:15 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	1	0	0	4	0	0	0	0	0	0	0	7	0	0
04:45 PM	0	0	0	0	0	7	0	0	0	0	0	0	1	7	0	0
05:00 PM	0	0	0	0	0	6	0	0	0	0	0	0	1	9	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	7	0	0
05:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0
05:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	8	0	0

INTERSECTION #75 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Lochmoor Drive
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	2	120	0	0	186	0	31	0	0	117	7	0
07:15 AM	0	0	0	0	1	113	0	0	193	0	55	0	0	166	10	0
07:30 AM	0	0	0	0	4	161	0	0	180	0	76	0	0	206	17	0
07:45 AM	0	0	0	0	1	110	0	0	136	0	71	0	0	141	14	0
08:00 AM	0	0	0	0	3	126	0	0	109	0	38	0	0	107	10	0
08:15 AM	0	0	0	0	5	122	0	0	81	0	22	0	0	118	11	0
08:30 AM	0	0	0	0	5	127	0	0	80	0	25	0	0	90	25	0
08:45 AM	0	0	0	0	2	131	0	0	58	0	9	0	0	87	18	0

2-Axle Trucks	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	3	0	0	2	0	0	0	0	1	1	0
07:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0
07:30 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	1	0
07:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0
08:00 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	3	0	0
08:15 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	2	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
08:45 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #75 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Lochmoor Drive
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	2	140	0	0	22	0	6	0	0	207	51	0
04:15 PM	0	0	0	0	2	118	0	1	28	0	3	0	0	281	63	0
04:30 PM	0	0	0	0	5	140	0	0	27	0	5	0	0	247	57	0
04:45 PM	0	0	0	0	5	162	0	1	29	0	9	0	0	241	72	0
05:00 PM	0	0	0	0	10	133	0	0	27	0	3	0	0	310	68	0
05:15 PM	0	0	0	0	9	162	0	0	23	0	8	0	0	296	95	0
05:30 PM	0	0	0	0	4	142	0	0	22	0	3	0	0	304	67	0
05:45 PM	0	0	0	0	8	117	0	0	20	0	11	0	0	324	79	0

2-Axle Trucks	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	1	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0
05:15 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	3	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	1	0

3-Axle Trucks	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Central Avenue Westbound				Lochmoor Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #76 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Sycamore Canyon Boulevard
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	10	4	0	0	11	49	6	0	71	121	224	0	2	115	20	0
07:15 AM	16	4	4	0	8	56	7	0	53	119	170	0	1	190	20	0
07:30 AM	24	10	2	0	8	81	7	0	78	90	134	0	5	225	40	0
07:45 AM	12	10	1	0	14	77	5	0	47	82	157	0	7	175	46	1
08:00 AM	8	9	3	0	9	49	11	0	78	96	181	0	5	82	44	0
08:15 AM	8	4	2	0	13	46	3	0	70	85	192	0	1	119	33	0
08:30 AM	8	5	1	1	13	49	5	0	87	92	145	0	1	82	37	0
08:45 AM	11	8	0	0	12	55	2	0	75	66	127	0	0	69	26	0

2-Axle Trucks	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	1	0	0	2	0	1	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0
07:30 AM	0	0	1	0	0	1	0	0	2	1	1	0	0	1	1	0
07:45 AM	0	1	0	0	0	0	1	0	2	2	2	0	0	0	2	0
08:00 AM	0	0	1	0	0	0	0	0	3	1	0	0	0	0	2	0
08:15 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0
08:30 AM	0	0	1	0	0	1	0	0	1	1	2	0	0	0	2	0
08:45 AM	0	0	0	0	0	2	0	0	1	0	1	0	0	0	1	0

3-Axle Trucks	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0
08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM	0	0	0	0	0	3	0	0	1	0	4	0	0	0	0	0
08:00 AM	0	0	0	0	0	5	0	0	2	0	6	0	0	1	0	0
08:15 AM	0	1	0	0	0	3	0	0	2	1	4	0	0	3	0	0
08:30 AM	0	0	0	0	0	6	0	0	1	1	5	0	0	2	0	0
08:45 AM	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0

INTERSECTION #76 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: Sycamore Canyon Boulevard
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	15	41	2	3	42	89	13	0	48	24	41	0	1	103	111	0
04:15 PM	13	54	3	0	35	77	17	0	46	32	40	0	3	145	137	0
04:30 PM	20	49	1	0	37	82	12	0	55	23	38	0	2	135	111	0
04:45 PM	16	58	1	1	52	106	11	0	63	26	48	0	3	128	126	0
05:00 PM	24	51	2	0	42	88	10	0	63	30	50	0	3	162	149	0
05:15 PM	22	85	2	0	54	101	16	0	63	16	42	0	0	162	149	1
05:30 PM	26	61	4	0	55	97	21	0	46	20	31	0	0	156	161	0
05:45 PM	19	65	2	0	60	90	12	0	38	14	20	0	3	160	150	0

2-Axle Trucks	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0
04:15 PM	0	0	0	0	0	0	0	0	1	0	2	0	0	0	1	0
04:30 PM	0	0	0	0	0	3	0	0	1	0	0	0	0	2	2	0
04:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0
05:00 PM	1	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
05:15 PM	0	0	0	0	1	0	0	0	1	0	0	0	0	1	1	0
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
05:45 PM	0	1	0	0	1	1	0	0	1	0	0	0	0	0	2	0

3-Axle Trucks	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Sycamore Canyon Boulevard Southbound				Central Avenue Westbound				Sycamore Canyon Boulevard Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
05:00 PM	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #77 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-60 EB/I-215 SB Ramps
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	32	59	0	0	0	0	0	0	0	300	59	0	14	0	9	0
07:15 AM	53	62	0	0	0	0	0	0	0	300	72	0	23	0	7	0
07:30 AM	46	83	0	0	0	0	0	0	0	325	61	0	50	0	17	0
07:45 AM	67	76	0	0	0	0	0	0	0	268	58	0	31	0	13	0
08:00 AM	34	65	0	0	0	0	0	0	0	250	40	0	3	1	12	0
08:15 AM	28	44	0	0	0	0	0	0	0	239	78	0	3	1	18	0
08:30 AM	29	47	0	0	0	0	0	0	0	206	37	0	5	0	17	0
08:45 AM	29	54	0	0	0	0	0	0	0	166	39	0	2	0	15	0

2-Axle Trucks	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	2	0

3-Axle Trucks	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	3	0	0	0	0	0	0	0	5	0	0	0	0	0	0
08:00 AM	0	5	0	0	0	0	0	0	0	4	1	0	0	0	0	0
08:15 AM	0	3	0	0	0	0	0	0	0	5	2	0	0	0	0	0
08:30 AM	0	5	0	0	0	0	0	0	0	6	1	0	0	0	1	0
08:45 AM	0	4	0	0	0	0	0	0	0	2	1	0	0	0	0	0

INTERSECTION #77 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-60 EB/I-215 SB Ramps
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	115	129	0	0	0	0	0	0	0	65	85	0	7	1	19	0
04:15 PM	144	113	0	0	0	0	0	0	0	65	123	0	4	2	12	0
04:30 PM	154	131	0	0	0	0	0	0	0	71	135	0	4	0	13	0
04:45 PM	140	143	0	0	0	0	0	0	0	81	111	0	4	0	12	0
05:00 PM	165	131	0	0	0	0	0	0	0	76	141	0	1	1	17	0
05:15 PM	169	153	0	0	0	0	0	0	0	82	151	0	0	0	14	0
05:30 PM	162	159	0	0	0	0	0	0	0	61	154	0	3	3	18	0
05:45 PM	145	134	0	0	0	0	0	0	0	67	127	0	2	0	14	0

2-Axle Trucks	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
04:15 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	1	2	0	0	0	1	0
04:45 PM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
05:45 PM	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

4+ Axle Trucks	Central Avenue Southbound				SR-60 Eastbound/I-215 Southbound On Ramp Westbound				Central Avenue Northbound				SR-60 Eastbound/I-215 Southbound Off Ramp Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #78 AM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-60 WB/I-215 NB Ramps
Comment 3: E/W: Central Avenue/Watkins Drive
Comment 4: Weather: Clear

Cars	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	66	0	0	26	0	106	0	0	311	0	0	0	0	0	0
07:15 AM	0	79	0	0	33	0	141	0	0	321	0	0	0	0	0	0
07:30 AM	0	101	0	0	33	0	137	0	0	381	0	0	0	0	0	0
07:45 AM	0	130	0	0	14	0	107	0	0	308	0	0	0	0	0	0
08:00 AM	0	63	0	0	31	0	105	0	0	258	0	0	0	0	0	0
08:15 AM	0	43	0	0	32	0	110	0	0	229	0	0	0	0	0	0
08:30 AM	0	39	0	0	35	0	89	0	0	224	0	0	0	0	0	0
08:45 AM	0	51	0	0	30	0	70	0	0	164	0	0	0	0	0	0

2-Axle Trucks	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	2	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0
07:45 AM	0	2	0	0	0	0	1	0	0	3	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	1	0	0	5	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0
08:00 AM	0	0	0	0	5	0	0	0	0	4	0	0	0	0	0	0
08:15 AM	0	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0
08:30 AM	0	0	0	0	5	0	0	0	0	6	0	0	0	0	0	0
08:45 AM	0	0	0	0	4	0	1	0	0	2	0	0	0	0	0	0

INTERSECTION #78 PM

Start Date: 1/31/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-60 WB/I-215 NB Ramps
Comment 3: E/W: Central Avenue/Watkins Drive
Comment 4: Weather: Clear

Cars	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	171	0	0	75	0	69	0	0	75	0	0	0	0	0	0
04:15 PM	0	187	0	0	73	0	75	0	0	69	0	0	0	0	0	0
04:30 PM	0	217	0	0	63	0	53	0	0	72	0	0	0	0	0	0
04:45 PM	0	212	0	0	76	0	56	0	0	88	0	0	0	0	0	0
05:00 PM	0	223	0	0	70	0	55	0	0	78	0	0	0	0	0	0
05:15 PM	0	257	0	0	78	0	47	0	0	79	0	0	0	0	0	0
05:30 PM	0	252	0	0	73	0	41	0	0	65	0	0	0	0	0	0
05:45 PM	0	206	0	0	72	0	53	0	0	65	0	0	0	0	0	0

2-Axle Trucks	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:45 PM	0	3	0	0	1	0	1	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Watkins Drive Southbound				SR-60 Westbound/I-215 Northbound Off Ramp Westbound				Central Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #79 AM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: Trautwein Road
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	36	665	0	0	351	0	1	0	0	180	0	0
07:15 AM	0	0	0	0	24	530	0	1	434	0	1	1	0	164	1	0
07:30 AM	0	0	0	0	25	642	0	0	375	0	1	3	0	242	0	0
07:45 AM	0	0	0	0	36	610	0	0	351	0	1	6	0	233	0	0
08:00 AM	0	0	0	0	25	503	0	1	392	0	1	2	0	214	0	0
08:15 AM	0	0	0	0	34	563	0	0	316	0	1	1	0	165	0	0
08:30 AM	0	0	0	0	33	415	0	0	277	0	4	2	0	189	0	0
08:45 AM	0	0	0	0	30	380	0	2	280	0	6	0	0	180	0	0

2-Axle Trucks	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	5	0	0	0	0	4	0	0
07:15 AM	0	0	0	0	4	4	0	0	4	0	0	0	0	2	0	0
07:30 AM	0	0	0	0	0	6	0	0	6	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	1	4	0	0	6	0	0	0	0	3	0	0
08:00 AM	0	0	0	0	0	6	0	0	6	0	0	0	0	3	0	0
08:15 AM	0	0	0	0	0	2	0	0	5	0	0	0	0	4	0	0
08:30 AM	0	0	0	0	0	10	0	0	5	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	10	0	0	3	0	0	0	0	2	0	0

3-Axle Trucks	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

INTERSECTION #79 PM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: Trautwein Road
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	34	331	0	0	170	0	9	1	0	482	2	0
04:15 PM	0	0	0	0	51	324	0	2	243	0	11	6	0	446	1	0
04:30 PM	0	0	0	0	51	386	0	1	239	0	9	2	0	511	0	0
04:45 PM	0	0	0	0	40	388	0	1	156	0	4	2	0	540	5	0
05:00 PM	0	0	0	0	58	356	0	0	225	0	6	6	0	509	1	0
05:15 PM	0	0	0	0	57	349	0	2	223	0	6	1	0	516	7	0
05:30 PM	0	0	0	0	52	328	0	0	188	0	7	2	0	595	1	0
05:45 PM	0	0	0	0	51	278	0	0	215	0	6	2	0	528	7	0

2-Axle Trucks	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	5	0	0	0	0	4	0	0
04:15 PM	0	0	0	0	0	3	0	0	4	0	0	0	0	4	0	0
04:30 PM	0	0	0	0	0	5	0	0	4	0	0	0	0	2	0	0
04:45 PM	0	0	0	0	2	4	0	0	2	0	0	0	0	2	0	0
05:00 PM	0	0	0	0	1	5	0	0	1	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	2	0	0
05:30 PM	0	0	0	0	1	1	0	0	1	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Alessandro Boulevard Westbound				Trautwein Road Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	6	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
05:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #80 AM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: Mission Grove Parkway
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	13	51	9	0	29	646	17	1	31	32	35	1	3	163	6	3
07:15 AM	21	33	8	0	37	532	35	2	37	88	45	0	9	180	9	1
07:30 AM	12	21	3	0	39	621	43	1	30	96	50	0	4	224	12	2
07:45 AM	13	20	9	0	48	541	30	0	37	60	62	0	15	206	9	8
08:00 AM	21	19	7	0	39	463	23	1	44	36	50	0	13	223	8	2
08:15 AM	19	13	3	0	49	491	20	1	28	13	43	0	7	148	6	3
08:30 AM	30	10	10	0	61	393	9	0	26	10	38	0	5	175	9	4
08:45 AM	14	13	10	0	54	354	13	3	26	8	36	0	3	195	18	3

2-Axle Trucks	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	2	1	0	0	2	0	1	0	0	2	0	0
07:15 AM	0	0	0	0	1	7	0	0	0	0	1	0	0	2	1	0
07:30 AM	0	0	0	0	0	6	0	0	1	0	3	0	0	1	0	0
07:45 AM	0	0	0	0	0	3	0	0	1	0	0	0	1	1	1	0
08:00 AM	1	0	0	0	1	3	1	0	3	1	0	0	0	2	0	0
08:15 AM	0	0	0	0	0	1	0	0	1	0	2	0	0	1	2	0
08:30 AM	0	0	0	0	2	10	0	0	0	0	2	0	0	0	0	0
08:45 AM	0	0	0	0	1	9	0	0	0	0	1	0	0	0	1	0

3-Axle Trucks	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

INTERSECTION #80 PM

Start Date: 1/31/2018
Comment 1: City of Riverside
Comment 2: N/S: Mission Grove Parkway
Comment 3: E/W: Alessandro Boulevard
Comment 4: Weather: Clear

Cars	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	16	28	7	0	55	335	22	5	34	18	60	1	6	438	36	1
04:15 PM	13	20	8	0	59	297	20	2	22	21	65	0	10	413	24	1
04:30 PM	34	24	6	0	62	383	21	2	32	30	68	0	6	420	34	0
04:45 PM	25	35	4	0	57	364	12	2	39	37	56	0	9	521	51	0
05:00 PM	23	18	4	0	51	343	19	2	39	32	69	0	5	450	42	2
05:15 PM	22	34	9	0	63	323	24	2	33	26	62	0	12	462	35	1
05:30 PM	18	28	4	0	63	355	37	1	24	24	56	0	17	527	18	0
05:45 PM	22	23	6	0	38	249	19	4	37	24	50	0	10	478	26	0

2-Axle Trucks	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	4	0	0
04:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	1	0
04:30 PM	0	0	0	0	1	3	0	0	1	0	1	0	0	2	0	0
04:45 PM	0	0	0	0	0	7	0	0	0	0	0	0	0	2	0	0
05:00 PM	1	0	0	0	0	2	0	0	1	0	2	0	0	1	0	0
05:15 PM	0	0	0	0	1	3	0	0	1	0	0	0	0	1	1	0
05:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	0	2	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0

3-Axle Trucks	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Mission Grove Parkway Southbound				Alessandro Boulevard Westbound				Mission Grove Parkway Northbound				Alessandro Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
05:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #81 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Chicago Avenue
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	7	38	22	0	8	119	40	0	131	176	22	0	12	65	22	0
07:15 AM	14	40	9	0	14	114	32	0	160	224	46	0	16	89	41	0
07:30 AM	13	63	24	0	21	120	39	0	177	228	53	0	26	126	42	0
07:45 AM	16	49	25	0	18	120	37	0	214	269	92	0	37	183	37	0
08:00 AM	19	48	27	0	13	135	36	0	173	232	32	0	22	119	33	0
08:15 AM	22	47	25	0	5	110	29	0	165	192	30	0	32	103	49	0
08:30 AM	20	53	33	0	15	88	38	0	85	158	34	0	31	105	34	1
08:45 AM	23	68	26	0	14	97	20	0	68	122	28	0	33	105	9	0

2-Axle Trucks	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	1	0	0	1	2	0	0	0	0	2	0
07:15 AM	3	3	1	0	0	1	0	0	3	5	0	0	2	2	1	0
07:30 AM	1	4	1	0	0	1	0	0	3	10	1	0	1	0	2	0
07:45 AM	1	9	0	0	0	4	0	0	1	6	0	0	0	0	1	0
08:00 AM	0	4	0	0	0	2	0	0	2	10	0	0	0	0	1	0
08:15 AM	1	1	2	0	0	1	0	0	1	15	0	0	1	0	0	0
08:30 AM	0	4	1	0	0	0	0	0	0	17	3	0	0	0	1	0
08:45 AM	1	2	1	0	2	2	2	0	1	7	0	0	0	1	0	0

3-Axle Trucks	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #81 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Chicago Avenue
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	39	160	45	0	38	99	32	0	33	100	16	0	42	290	139	0
04:15 PM	60	180	50	0	20	84	29	0	35	108	16	0	43	298	145	0
04:30 PM	66	188	43	0	36	95	37	0	35	109	22	0	38	278	176	0
04:45 PM	47	195	45	0	32	116	40	0	42	90	12	0	42	252	164	0
05:00 PM	64	201	36	0	48	126	40	0	66	81	21	0	48	255	191	0
05:15 PM	47	196	54	0	55	154	47	0	53	78	18	0	33	253	217	0
05:30 PM	46	187	46	0	60	127	37	0	39	93	22	0	41	246	191	0
05:45 PM	50	192	30	0	38	104	33	0	48	89	18	0	38	247	179	0

2-Axle Trucks	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	3	0	0	0	0	0	0	0	7	0	0	1	4	0	0
04:15 PM	0	4	0	0	1	3	1	0	0	5	0	0	1	2	0	0
04:30 PM	0	2	2	0	0	3	1	0	0	7	0	0	0	1	0	0
04:45 PM	0	1	1	0	0	1	0	0	0	2	0	0	0	0	0	0
05:00 PM	1	2	1	0	0	2	0	0	0	1	1	0	2	3	1	0
05:15 PM	0	2	2	0	0	2	0	0	0	1	0	0	0	0	0	0
05:30 PM	1	1	0	0	0	0	0	0	0	2	1	0	0	0	2	0
05:45 PM	2	0	0	0	0	2	0	0	0	2	0	0	1	1	3	0

3-Axle Trucks	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Chicago Avenue Southbound				Martin Luther King Boulevard Westbound				Chicago Avenue Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #82 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Iowa Avenue
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	28	0	14	0	0	154	100	0	0	0	0	0	14	69	0	0
07:15 AM	36	0	24	0	0	138	124	0	0	0	0	0	29	114	0	0
07:30 AM	60	0	25	0	0	153	112	0	0	0	0	0	64	142	0	0
07:45 AM	73	0	37	0	0	145	135	0	0	0	0	0	83	212	0	0
08:00 AM	55	0	33	0	0	151	104	0	0	0	0	0	39	138	0	0
08:15 AM	31	0	26	0	0	127	80	0	0	0	0	0	32	123	0	0
08:30 AM	36	0	25	0	0	115	108	0	0	0	0	0	39	112	0	0
08:45 AM	52	0	31	0	0	85	83	0	0	0	0	0	36	119	0	0

2-Axle Trucks	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	2	0	0	0	0	1	3	0	0	0	0	0	0	4	0	0
07:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0
07:45 AM	0	0	1	0	0	2	1	0	0	0	0	0	1	1	0	0
08:00 AM	0	0	1	0	0	1	3	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0
08:45 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #82 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Iowa Avenue
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	130	0	42	0	0	125	82	0	0	0	0	0	31	304	0	0
04:15 PM	128	0	36	0	0	107	49	0	0	0	0	0	36	329	0	0
04:30 PM	128	0	39	0	0	145	68	0	0	0	0	0	27	338	0	0
04:45 PM	143	0	40	0	0	135	87	0	0	0	0	0	28	281	0	0
05:00 PM	170	0	61	0	0	160	100	0	0	0	0	0	30	297	0	0
05:15 PM	131	0	64	0	0	200	127	0	0	0	0	0	29	273	0	0
05:30 PM	116	0	67	0	0	147	71	0	0	0	0	0	34	300	0	0
05:45 PM	151	0	40	0	0	123	74	0	0	0	0	0	37	266	0	0

2-Axle Trucks	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
04:15 PM	1	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	0	0	0	4	1	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0
05:15 PM	1	0	0	0	0	2	2	0	0	0	0	0	0	1	0	0
05:30 PM	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
05:45 PM	1	0	0	0	0	3	1	0	0	0	0	0	0	3	0	0

3-Axle Trucks	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Iowa Avenue Southbound				Martin Luther King Boulevard Westbound				Dead End Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #83 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Canyon Crest Drive
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	8	7	0	54	89	18	0	175	49	215	0	6	55	48	0
07:15 AM	4	10	1	2	64	109	24	0	197	85	214	0	20	60	49	0
07:30 AM	0	9	5	0	46	173	41	0	240	98	225	0	27	90	35	0
07:45 AM	6	15	5	4	31	213	74	0	252	136	201	0	57	96	46	0
08:00 AM	7	23	18	4	52	132	62	0	221	115	205	0	33	77	50	0
08:15 AM	2	6	4	2	41	108	27	0	129	54	174	0	24	69	48	0
08:30 AM	3	7	4	0	74	114	33	0	191	85	176	0	29	61	37	0
08:45 AM	5	18	8	4	65	107	45	0	158	79	140	0	21	41	45	0

2-Axle Trucks	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	2	2	0	0	0	1	0	0	0	0	3	0
07:15 AM	0	0	0	0	4	1	1	0	3	0	0	0	1	1	3	0
07:30 AM	0	1	0	0	1	1	0	0	1	2	0	0	0	2	0	0
07:45 AM	1	0	1	0	2	2	0	0	1	1	1	0	1	0	1	0
08:00 AM	0	1	1	0	3	1	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	1	0	0	0	1	1	1	0	0	0	1	0
08:30 AM	0	1	2	0	1	0	0	0	1	1	5	0	0	0	0	0
08:45 AM	0	2	1	0	1	2	0	0	2	1	2	0	0	1	0	0

3-Axle Trucks	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0
08:45 AM	0	0	0	0	2	0	0	0	0	0	5	0	0	0	0	0

INTERSECTION #83 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Canyon Crest Drive
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	33	60	19	4	59	67	7	0	73	44	78	0	31	264	193	0
04:15 PM	34	50	10	1	43	70	10	0	77	35	67	0	29	258	169	0
04:30 PM	42	55	39	0	55	58	22	0	104	50	79	0	24	243	166	0
04:45 PM	31	48	17	4	66	78	34	0	100	78	65	0	35	238	203	0
05:00 PM	58	106	55	3	73	46	13	0	94	52	100	0	35	226	185	0
05:15 PM	74	132	67	0	60	66	6	0	85	40	100	0	30	290	200	0
05:30 PM	36	98	30	2	49	84	3	0	77	34	67	0	21	242	195	0
05:45 PM	32	97	17	2	62	85	8	0	87	44	86	0	20	253	163	0

2-Axle Trucks	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	0
04:15 PM	0	1	0	0	0	5	0	0	1	0	0	0	0	0	2	0
04:30 PM	0	1	0	0	0	4	0	0	0	2	3	0	0	0	1	0
04:45 PM	0	1	1	0	0	1	0	0	0	1	3	0	0	0	0	0
05:00 PM	0	1	0	0	0	2	0	0	0	0	2	0	0	0	0	0
05:15 PM	1	1	0	0	0	3	0	0	1	1	3	0	0	0	1	0
05:30 PM	0	1	0	0	0	0	0	0	1	1	1	0	0	1	1	0
05:45 PM	2	1	2	0	0	2	0	0	1	1	0	0	0	2	2	0

3-Axle Trucks	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

4+ Axle Trucks	Canyon Crest Drive Southbound				Martin Luther King Boulevard Westbound				Canyon Crest Drive Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #84 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: SR-60 EB/I-215 SB Ramps
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	76	0	0	84	0	0	0	0	0	0	0	246	35	0
07:15 AM	0	2	93	0	0	108	0	0	0	0	0	0	0	238	47	0
07:30 AM	0	0	142	0	0	123	0	0	0	0	0	0	0	249	72	0
07:45 AM	3	0	178	0	0	150	0	0	0	0	0	0	0	233	71	0
08:00 AM	0	1	144	0	0	102	0	0	0	0	0	0	0	244	62	0
08:15 AM	1	0	99	0	0	88	0	0	0	0	0	0	0	188	59	0
08:30 AM	0	0	140	0	1	74	0	0	0	0	0	0	0	189	58	0
08:45 AM	2	0	145	0	0	84	0	0	0	0	0	0	0	153	38	0

2-Axle Trucks	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	4	0	0	1	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	2	0
07:45 AM	0	0	1	0	0	3	0	0	0	0	0	0	0	1	1	0
08:00 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	3	2	0
08:45 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	2	1	0

3-Axle Trucks	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
08:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0
08:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	1	4	0

INTERSECTION #84 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: SR-60 EB/I-215 SB Ramps
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	55	0	2	74	0	0	0	0	0	0	0	119	258	0
04:15 PM	0	1	55	0	0	73	0	0	0	0	0	0	0	108	248	0
04:30 PM	0	0	54	0	1	82	0	0	0	0	0	0	0	118	255	0
04:45 PM	1	4	74	0	1	101	0	0	0	0	0	0	0	99	236	0
05:00 PM	0	1	75	0	3	66	0	0	0	0	0	0	0	153	240	0
05:15 PM	0	0	56	0	1	70	0	0	0	0	0	0	0	192	273	0
05:30 PM	0	1	51	0	2	93	0	0	0	0	0	0	0	121	225	0
05:45 PM	0	4	61	0	0	84	0	0	0	0	0	0	0	118	255	0

2-Axle Trucks	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
04:15 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	1	0	0	4	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0
05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0
05:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	4	0

3-Axle Trucks	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-60 Eastbound/I-215 Southbound Off Ramp Southbound				Martin Luther King Boulevard Westbound				SR-60 Eastbound/I-215 Southbound On Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #85 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: SR-60 WB/I-215 NB Ramps
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	84	27	0	0	246	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	106	16	0	0	241	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	121	28	0	0	239	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	158	28	0	0	233	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	97	35	0	0	257	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	91	26	0	0	191	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	75	47	0	0	179	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	86	31	0	0	165	0	0	0

2-Axle Trucks	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	2	2	0	0	2	0	0	0

3-Axle Trucks	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0

INTERSECTION #85 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: SR-60 WB/I-215 NB Ramps
Comment 3: E/W: Martin Luther King Boulevard
Comment 4: Weather: Clear

Cars	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	77	58	0	0	115	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	70	54	0	0	109	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	86	56	0	0	109	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	101	47	0	0	107	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	68	31	0	0	152	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	71	44	0	0	186	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	96	29	0	0	131	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	87	22	0	0	116	0	0	0

2-Axle Trucks	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	77	58	0	0	115	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	70	54	0	0	109	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	86	56	0	0	109	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	101	47	0	0	107	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	68	31	0	0	152	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	71	44	0	0	186	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	96	29	0	0	131	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	87	22	0	0	116	0	0	0

3-Axle Trucks	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-60 Westbound/I-215 Northbound On Ramp Southbound				Dead End Westbound				SR-60 Westbound/I-215 Northbound Off Ramp Northbound				Martin Luther King Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #86 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Chicago Avenue
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	17	39	0	1	167	2	88	4	3	233	75	2	0	0	1	0
07:15 AM	20	69	1	3	152	1	163	4	4	259	85	0	1	0	0	0
07:30 AM	22	89	1	1	173	5	134	7	7	315	113	0	0	2	1	0
07:45 AM	29	92	1	7	142	5	135	7	11	356	108	1	1	5	3	0
08:00 AM	30	51	1	10	131	7	133	6	4	251	79	2	1	0	1	0
08:15 AM	37	58	0	4	120	2	122	3	5	258	98	1	1	1	2	0
08:30 AM	34	65	1	3	126	2	81	2	3	171	80	0	1	3	2	0
08:45 AM	27	69	1	5	119	3	56	0	6	156	77	1	4	7	4	0

2-Axle Trucks	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	0	1	0	0	4	3	0	0	0	0	0
07:15 AM	1	2	0	0	0	0	1	0	0	4	2	0	0	0	0	0
07:30 AM	2	4	0	0	2	0	2	0	0	10	1	0	0	0	0	0
07:45 AM	1	10	0	0	2	0	3	0	0	6	0	0	0	0	0	0
08:00 AM	1	3	0	0	3	0	1	0	0	9	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	1	0	0	16	1	0	1	0	0	0
08:30 AM	0	2	0	0	0	0	2	0	0	14	1	0	0	0	0	0
08:45 AM	0	1	0	0	1	0	0	0	0	4	0	0	0	0	0	0

3-Axle Trucks	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

INTERSECTION #86 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Chicago Avenue
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	138	159	1	11	111	9	53	3	14	80	188	1	2	2	2	0
04:15 PM	147	186	0	4	136	4	48	6	7	106	219	0	2	5	2	0
04:30 PM	132	204	1	8	151	5	61	4	5	100	184	1	2	4	5	0
04:45 PM	171	182	1	6	118	2	47	3	11	86	189	0	1	3	3	0
05:00 PM	171	234	0	13	134	13	62	6	11	71	193	1	4	9	5	0
05:15 PM	197	251	2	11	129	7	61	4	10	91	207	2	5	6	8	0
05:30 PM	174	239	4	16	126	7	45	4	8	98	180	2	10	17	10	0
05:45 PM	118	185	1	5	127	6	48	3	5	96	185	0	8	6	4	0

2-Axle Trucks	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	0	0	0	0	2	0	0	4	2	0	0	0	0	0
04:15 PM	1	3	0	0	1	0	1	0	0	4	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	2	0	0	6	1	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	1	0	0	1	1	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Chicago Avenue Southbound				Central Avenue Westbound				Chicago Avenue Northbound				Andulka Park Driveway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #87 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: El Cerrito Drive
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	5	2	26	0	0	185	2	0	7	8	7	0	20	60	1	0
07:15 AM	5	1	28	0	3	237	8	0	13	23	13	0	28	93	2	0
07:30 AM	6	2	41	0	1	211	13	0	23	30	9	0	33	102	6	0
07:45 AM	7	4	36	0	0	209	8	0	36	28	3	0	38	97	2	0
08:00 AM	6	4	37	0	0	204	12	0	13	22	4	0	28	81	3	0
08:15 AM	5	5	39	0	0	154	9	0	13	11	4	0	29	92	7	0
08:30 AM	9	4	25	0	2	160	10	0	12	15	4	0	34	71	2	1
08:45 AM	3	3	25	0	1	131	6	0	12	12	5	0	32	73	4	0

2-Axle Trucks	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0
07:15 AM	2	0	0	0	0	1	1	0	0	0	0	0	1	3	0	0
07:30 AM	0	0	1	0	0	4	0	0	0	0	0	0	0	2	0	0
07:45 AM	0	0	1	0	0	3	0	0	0	0	0	0	0	2	0	0
08:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
08:15 AM	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

INTERSECTION #87 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: El Cerrito Drive
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	22	10	33	0	6	148	15	3	1	9	6	0	58	246	10	0
04:15 PM	21	6	30	0	7	141	17	2	11	5	6	0	49	291	14	0
04:30 PM	17	14	48	0	1	155	9	1	7	8	7	0	41	254	14	0
04:45 PM	13	10	36	0	13	135	17	2	6	9	5	0	44	285	15	0
05:00 PM	18	14	48	0	2	142	13	4	3	6	5	0	41	284	18	0
05:15 PM	25	13	48	0	12	136	9	6	6	9	3	0	55	299	23	0
05:30 PM	25	21	44	0	6	137	15	3	6	5	5	0	64	265	21	0
05:45 PM	31	10	42	0	10	113	6	2	8	10	8	0	60	252	14	0

2-Axle Trucks	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
04:15 PM	0	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0

3-Axle Trucks	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	El Cerrito Drive Southbound				Central Avenue Westbound				El Cerrito Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #88 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Canyon Crest Drive
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	26	62	9	0	22	188	58	0	24	272	36	3	3	54	14	0
07:15 AM	34	78	12	0	29	234	90	0	29	293	52	0	7	96	11	1
07:30 AM	16	62	8	0	38	207	114	0	31	307	86	1	7	95	17	1
07:45 AM	30	43	8	0	22	227	137	0	39	274	41	5	6	91	22	0
08:00 AM	20	65	9	0	36	178	78	0	41	276	33	2	4	77	19	0
08:15 AM	18	50	8	0	29	151	60	0	56	280	47	4	8	79	8	0
08:30 AM	16	55	21	0	22	149	58	0	37	218	28	3	11	65	22	3
08:45 AM	21	62	13	1	14	113	61	0	36	212	25	0	7	58	15	0

2-Axle Trucks	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	2	0	3	0	1	0	0	0	1	0	0	1	1	0
07:15 AM	2	2	0	0	0	3	2	0	0	0	0	0	0	3	1	0
07:30 AM	0	2	0	0	0	3	1	0	0	1	0	0	0	2	0	0
07:45 AM	2	2	2	0	0	2	2	0	1	1	0	0	0	4	0	0
08:00 AM	1	0	0	0	1	1	0	0	2	1	0	0	0	0	0	0
08:15 AM	1	1	0	0	0	2	1	0	0	2	0	0	2	0	1	0
08:30 AM	1	1	1	0	0	1	2	0	0	1	0	0	0	0	1	0
08:45 AM	1	2	0	0	0	1	1	0	0	1	1	0	0	2	3	0

3-Axle Trucks	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0

INTERSECTION #88 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Canyon Crest Drive
Comment 3: E/W: Central Avenue
Comment 4: Weather: Clear

Cars	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	100	112	21	0	37	130	45	0	30	70	34	3	9	234	36	1
04:15 PM	97	109	15	0	29	132	40	0	21	84	30	1	11	238	33	0
04:30 PM	90	127	19	0	28	163	39	0	33	96	35	0	7	257	50	0
04:45 PM	91	123	16	0	26	154	58	0	24	94	28	0	12	266	34	0
05:00 PM	105	182	22	0	36	140	37	0	38	121	34	2	13	250	40	1
05:15 PM	106	201	17	0	33	136	29	0	28	105	47	1	7	264	33	0
05:30 PM	121	170	24	1	35	138	36	1	34	80	42	2	7	299	36	1
05:45 PM	98	155	22	0	31	102	33	0	26	102	49	0	10	229	43	0

2-Axle Trucks	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	0	0	0	0	0	2	0	0	1	0	0	1	2	0	0
04:15 PM	3	0	1	0	0	2	1	0	0	0	0	0	0	0	1	0
04:30 PM	1	0	0	0	0	1	1	0	0	2	0	0	0	3	0	0
04:45 PM	1	0	0	0	0	2	1	0	0	4	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:15 PM	1	1	1	0	0	0	2	0	1	2	0	0	0	1	0	0
05:30 PM	1	1	0	0	0	0	2	0	0	0	0	0	0	1	0	0
05:45 PM	1	0	1	0	0	1	1	0	0	2	0	0	0	1	0	0

3-Axle Trucks	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	4	0	0	0	0	0	0
04:15 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Canyon Crest Drive Southbound				Central Avenue Westbound				Canyon Crest Drive Northbound				Central Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #89 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Chicago Avenue
Comment 3: E/W: Country Club Drive
Comment 4: Weather: Clear

Cars	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	181	0	2	14	0	15	0	0	268	12	0	0	0	0	0
07:15 AM	3	214	0	1	24	0	17	0	0	342	5	0	0	0	0	0
07:30 AM	4	246	0	1	14	0	26	0	0	410	6	0	0	0	0	0
07:45 AM	2	235	0	1	17	0	29	0	0	438	8	0	0	0	0	0
08:00 AM	4	183	0	1	7	0	9	0	0	363	9	0	0	0	0	0
08:15 AM	3	179	0	1	9	0	9	0	0	330	7	0	0	0	0	0
08:30 AM	3	188	0	1	10	0	11	0	0	250	8	0	0	0	0	0
08:45 AM	1	194	0	0	15	0	11	0	0	223	3	0	0	0	0	0

2-Axle Trucks	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	6	0	0	0	0	0	0
07:15 AM	0	3	0	0	0	0	0	0	0	6	0	0	0	0	0	0
07:30 AM	0	5	0	0	1	0	0	0	0	12	2	0	0	0	0	0
07:45 AM	0	10	0	0	1	0	1	0	0	4	0	0	0	0	0	0
08:00 AM	0	7	0	0	0	0	0	0	0	9	0	0	0	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	0	17	1	0	0	0	0	0
08:30 AM	0	4	0	0	0	0	0	0	0	17	0	0	0	0	0	0
08:45 AM	0	3	0	0	0	0	0	0	0	6	0	0	0	0	0	0

3-Axle Trucks	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #89 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Chicago Avenue
Comment 3: E/W: Country Club Drive
Comment 4: Weather: Clear

Cars	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	15	247	0	1	13	0	5	0	0	301	17	0	0	0	0	0
04:15 PM	10	321	0	2	7	0	4	0	0	311	28	0	0	0	0	0
04:30 PM	16	329	0	1	14	0	6	0	0	273	15	0	0	0	0	0
04:45 PM	15	314	0	3	13	0	5	0	0	288	15	0	0	0	0	0
05:00 PM	24	342	0	1	8	0	8	0	0	252	18	0	0	0	0	0
05:15 PM	20	358	0	2	14	0	10	0	0	312	27	0	0	0	0	0
05:30 PM	18	382	0	1	11	0	7	0	0	290	21	0	0	0	0	0
05:45 PM	15	298	0	1	7	0	4	0	0	265	26	0	0	0	0	0

2-Axle Trucks	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
04:15 PM	0	3	0	0	1	0	0	0	0	4	0	0	0	0	0	0
04:30 PM	0	3	0	0	0	0	0	0	0	8	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Chicago Avenue Southbound				Country Club Drive Westbound				Chicago Avenue Northbound				Dead End Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #90 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Riverside Avenue/SR-91 SB On Ramp
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	114	9	80	0	175	187	29	1	0	0	0	0	7	140	14	0
07:15 AM	135	14	114	0	172	220	54	0	0	0	0	0	7	168	25	0
07:30 AM	125	11	119	0	159	203	62	0	0	0	0	0	14	169	30	0
07:45 AM	133	10	155	0	139	210	54	0	0	0	0	0	16	198	31	0
08:00 AM	123	13	135	0	148	233	62	0	0	0	0	0	26	177	43	0
08:15 AM	118	12	100	0	156	228	39	0	0	0	0	0	18	177	28	0
08:30 AM	97	17	122	0	124	162	40	0	0	0	0	0	7	159	21	0
08:45 AM	97	9	126	0	154	184	55	0	0	0	0	0	13	124	19	0

2-Axle Trucks	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	6	0	1	0	2	1	0	0	0	0	0	0	0	8	1	0
07:15 AM	5	2	0	0	1	3	1	0	0	0	0	0	1	2	0	0
07:30 AM	9	0	1	0	2	2	1	0	0	0	0	0	0	6	0	0
07:45 AM	7	0	3	0	3	5	3	0	0	0	0	0	0	3	1	0
08:00 AM	2	1	3	0	5	4	0	0	0	0	0	0	0	3	0	0
08:15 AM	3	1	3	0	5	1	0	0	0	0	0	0	1	4	0	0
08:30 AM	2	1	2	0	1	1	1	0	0	0	0	0	0	5	0	0
08:45 AM	2	1	2	0	2	0	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
07:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	1	0	2	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	1	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
08:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0

INTERSECTION #90 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Riverside Avenue/SR-91 SB On Ramp
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	168	8	95	0	103	142	44	0	0	0	0	0	13	217	38	0
04:15 PM	170	17	114	0	115	133	43	0	0	0	0	0	13	216	31	0
04:30 PM	155	12	117	0	113	149	57	0	0	0	0	0	18	212	40	0
04:45 PM	172	21	86	0	99	162	46	0	0	0	0	0	6	219	35	0
05:00 PM	130	24	85	0	104	145	52	0	0	0	0	0	20	266	58	0
05:15 PM	135	22	80	0	104	173	58	0	0	0	0	0	10	276	34	0
05:30 PM	144	25	74	0	119	151	57	0	0	0	0	0	9	254	58	0
05:45 PM	149	18	102	0	111	138	47	0	0	0	0	0	16	223	34	0

2-Axle Trucks	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	1	0	0	2	0	0	0	0	0	0	1	4	0	0
04:15 PM	0	0	1	0	0	4	0	0	0	0	0	0	0	5	0	0
04:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:45 PM	1	0	0	0	0	6	1	0	0	0	0	0	1	4	0	0
05:00 PM	0	0	1	0	0	3	0	0	0	0	0	0	1	6	0	0
05:15 PM	0	0	0	0	0	6	1	0	0	0	0	0	1	5	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	4	0	0
05:45 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Riverside Avenue Southbound				Arlington Avenue Westbound				SR-91 Southbound On Ramp Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	3	1	0	0	0	0	0	0	3	2	0
04:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0
05:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	3	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	3	2	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2	0

INTERSECTION #91 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: SR-91 NB On Ramp/Indiana Avenue
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	16	371	101	0	26	0	89	0	0	182	67	0
07:15 AM	0	0	0	0	25	404	124	0	34	0	121	0	0	220	78	0
07:30 AM	0	0	0	0	40	373	112	0	38	0	121	0	0	200	88	0
07:45 AM	0	0	0	0	38	338	101	0	54	0	100	0	0	228	94	0
08:00 AM	0	0	0	0	40	393	89	0	61	0	93	0	0	192	108	0
08:15 AM	0	0	0	0	43	372	66	0	50	0	97	0	0	187	100	0
08:30 AM	0	0	0	0	57	286	72	0	40	0	92	0	0	169	78	0
08:45 AM	0	0	0	0	49	331	50	0	55	0	99	0	0	137	79	0

2-Axle Trucks	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	3	1	0	0	0	2	0	0	11	3	0
07:15 AM	0	0	0	0	0	4	0	0	1	0	5	0	0	5	1	0
07:30 AM	0	0	0	0	0	5	0	0	1	0	2	0	0	13	1	0
07:45 AM	0	0	0	0	0	10	17	0	3	0	2	0	0	7	3	0
08:00 AM	0	0	0	0	1	6	9	0	0	0	5	0	0	3	3	0
08:15 AM	0	0	0	0	0	6	1	0	1	0	4	0	0	2	5	0
08:30 AM	0	0	0	0	1	2	0	0	1	0	1	0	0	4	4	0
08:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0

3-Axle Trucks	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	0
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
08:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

INTERSECTION #91 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: SR-91 NB On Ramp/Indiana Avenue
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	37	245	53	0	47	0	185	0	0	272	107	0
04:15 PM	0	0	0	0	41	249	44	0	41	0	159	0	0	277	98	0
04:30 PM	0	0	0	0	38	260	71	0	54	0	168	0	0	270	90	0
04:45 PM	0	0	0	0	36	254	60	0	41	0	193	0	0	274	105	0
05:00 PM	0	0	0	0	42	249	59	0	66	0	215	0	0	297	93	0
05:15 PM	0	0	0	0	36	290	60	0	55	0	210	0	0	299	103	0
05:30 PM	0	0	0	0	27	286	65	0	39	0	200	0	0	288	100	0
05:45 PM	0	0	0	0	35	243	46	0	41	0	183	0	0	276	92	0

2-Axle Trucks	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	0	1	0	2	0	4	0	0	4	2	0
04:15 PM	0	0	0	0	0	4	0	0	0	0	3	0	0	1	2	0
04:30 PM	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0
04:45 PM	0	0	0	0	2	3	0	0	2	0	1	0	0	1	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0
05:15 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	2	0
05:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0

3-Axle Trucks	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-91 Northbound On Ramp Southbound				Arlington Avenue Westbound				Indiana Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #92 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Maude Street
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	13	395	0	0	89	1	17	0	4	194	74	2
07:15 AM	0	0	1	0	7	429	0	0	129	0	50	0	3	228	90	1
07:30 AM	1	0	0	0	11	413	0	0	119	0	51	0	1	260	62	1
07:45 AM	0	0	1	0	20	432	1	0	101	0	31	0	1	260	65	1
08:00 AM	0	0	3	0	7	447	0	0	89	0	13	0	1	215	52	0
08:15 AM	1	0	1	0	7	423	5	0	77	1	12	0	3	217	31	1
08:30 AM	0	0	1	0	6	342	1	0	49	1	9	0	2	220	30	1
08:45 AM	1	0	3	1	10	360	0	1	38	0	5	0	1	172	37	1

2-Axle Trucks	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	0	0	0	1	0	1	0	0	9	1	0
07:15 AM	0	0	0	0	1	1	0	0	2	0	1	0	0	9	2	0
07:30 AM	0	0	0	0	0	3	0	0	4	0	1	0	0	11	3	0
07:45 AM	0	0	0	0	2	9	0	0	17	0	8	0	0	5	2	0
08:00 AM	0	0	0	0	0	8	0	0	2	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0
08:30 AM	0	0	0	0	0	2	0	0	2	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	7	0	0	0	0	0	0	0	5	0	0

3-Axle Trucks	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #92 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Maude Street
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	2	1	0	16	300	1	1	49	0	7	0	4	339	77	2
04:15 PM	1	0	1	0	11	310	0	0	48	1	7	0	6	358	83	3
04:30 PM	3	0	4	0	17	315	0	0	37	0	15	0	6	406	58	3
04:45 PM	0	0	2	0	19	304	3	0	49	0	13	0	1	348	60	1
05:00 PM	0	0	1	0	20	273	1	0	41	0	15	0	4	389	65	4
05:15 PM	0	2	1	0	19	309	1	0	61	2	7	0	2	403	62	1
05:30 PM	0	0	2	0	24	302	0	2	52	0	10	0	0	415	89	0
05:45 PM	0	1	2	0	15	304	3	2	54	0	11	0	3	373	77	2

2-Axle Trucks	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	2	0
04:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Maude Street Southbound				Arlington Avenue Westbound				Maude Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #93 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Durango Road/Horace Street
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	15	27	0	17	327	0	0	41	7	5	0	11	177	27	3
07:15 AM	1	20	19	0	23	366	0	0	70	18	17	0	14	206	40	0
07:30 AM	0	9	37	0	14	361	0	0	45	20	8	0	20	248	52	0
07:45 AM	0	9	32	0	9	388	0	0	27	19	5	0	23	217	47	1
08:00 AM	1	3	11	0	5	452	0	0	33	3	3	0	7	184	17	2
08:15 AM	2	1	14	0	3	372	2	0	21	1	6	0	7	179	12	2
08:30 AM	1	4	9	0	2	314	0	0	22	1	1	0	9	180	11	1
08:45 AM	0	2	13	0	0	304	0	0	20	1	0	0	5	125	11	2

2-Axle Trucks	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	1	2	6	0
07:15 AM	0	0	0	0	0	2	0	0	0	3	1	0	1	2	5	0
07:30 AM	0	0	0	0	2	2	0	0	0	0	2	0	0	6	10	0
07:45 AM	0	0	2	0	1	6	0	0	5	0	0	0	1	2	5	0
08:00 AM	0	0	0	0	1	3	0	0	2	1	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	7	0	0
08:30 AM	0	0	1	0	0	2	0	0	0	0	0	0	1	2	0	0
08:45 AM	0	0	0	0	0	8	0	0	1	0	0	0	0	3	0	0

3-Axle Trucks	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #93 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Durango Road/Horace Street
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	3	2	17	0	0	231	0	0	28	3	5	0	7	293	7	3
04:15 PM	0	4	16	0	0	262	1	0	21	2	0	0	13	341	11	4
04:30 PM	0	6	15	0	1	261	2	0	22	1	1	0	19	394	18	5
04:45 PM	2	3	13	0	2	241	0	0	16	4	3	0	12	330	9	2
05:00 PM	0	1	11	0	1	252	0	0	15	1	2	0	19	374	18	3
05:15 PM	0	5	9	0	5	234	0	0	19	4	2	0	13	346	11	2
05:30 PM	1	5	16	0	8	276	3	0	15	1	0	0	18	348	22	2
05:45 PM	0	4	11	0	3	249	0	0	13	4	2	0	23	352	28	5

2-Axle Trucks	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	3	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Durango Road Southbound				Arlington Avenue Westbound				Horace Street Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #94 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Victroria Avenue
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	9	85	13	5	99	368	28	0	2	69	90	0	16	136	2	0
07:15 AM	23	81	18	16	88	326	45	0	5	100	100	1	27	140	5	0
07:30 AM	50	68	29	32	63	308	50	0	5	77	87	0	47	138	4	0
07:45 AM	49	85	36	39	73	342	61	0	2	99	96	0	44	187	2	0
08:00 AM	16	39	19	11	82	403	13	0	6	53	88	0	22	142	5	0
08:15 AM	14	31	10	7	61	346	22	0	8	36	53	0	26	171	5	0
08:30 AM	14	34	23	5	47	293	15	0	6	27	50	0	14	167	4	0
08:45 AM	7	23	20	6	56	250	10	0	8	37	57	0	10	113	3	0

2-Axle Trucks	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	4	0	0	2	0	0	0	1	0	1	0	0	1	0	0
07:15 AM	0	1	1	0	0	1	1	0	2	2	4	0	0	1	1	0
07:30 AM	0	3	0	2	3	4	0	0	0	3	4	0	0	4	1	0
07:45 AM	0	0	2	0	4	6	2	0	0	2	3	0	1	3	0	0
08:00 AM	0	0	0	0	1	3	0	0	0	5	3	0	0	1	0	0
08:15 AM	0	4	1	0	1	3	0	0	0	1	1	0	1	6	0	0
08:30 AM	1	0	1	2	0	2	1	0	0	1	4	0	1	0	0	0
08:45 AM	0	0	0	1	3	5	0	0	0	1	2	0	2	2	1	0

3-Axle Trucks	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #94 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Victroria Avenue
Comment 3: E/W: Arlington Avenue
Comment 4: Weather: Clear

Cars	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	11	41	28	2	56	207	9	0	4	54	160	0	15	277	1	0
04:15 PM	22	56	22	10	55	206	7	0	8	39	106	0	16	288	3	0
04:30 PM	28	59	23	4	85	240	8	0	5	33	110	0	17	335	9	0
04:45 PM	25	60	18	3	67	242	6	0	3	43	130	0	31	316	2	0
05:00 PM	35	64	20	12	69	200	3	0	6	43	130	0	29	314	3	0
05:15 PM	37	54	22	6	89	250	7	0	4	45	115	0	15	323	3	0
05:30 PM	31	61	31	3	85	244	8	0	5	52	130	0	32	309	6	6
05:45 PM	35	53	25	9	72	185	6	0	3	52	132	0	25	308	6	0

2-Axle Trucks	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	1	0	0	1	0	0	0	2	2	0	0	0	0	0
04:15 PM	0	0	0	0	1	2	0	0	0	3	1	0	0	2	1	0
04:30 PM	0	0	0	0	2	0	1	0	0	1	2	0	0	3	0	0
04:45 PM	0	1	1	0	1	1	1	0	0	1	1	0	0	1	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	2	2	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	0
05:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Victoria Avenue Southbound				Arlington Avenue Westbound				Victoria Avenue Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0

INTERSECTION #95 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Arlington Avenue/Chicago Avenue
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	43	125	17	0	18	186	62	0	304	344	162	0	12	99	119	0
07:15 AM	72	137	11	0	23	154	79	0	278	337	143	0	13	130	128	0
07:30 AM	69	127	11	0	37	164	115	0	286	346	175	0	19	124	153	0
07:45 AM	60	145	14	0	37	153	78	0	292	306	162	0	12	133	157	0
08:00 AM	48	131	16	0	31	117	63	0	310	297	177	0	13	113	132	0
08:15 AM	56	118	14	0	26	114	78	0	285	288	140	0	11	115	121	0
08:30 AM	54	127	14	0	30	141	49	0	211	270	106	0	10	110	110	0
08:45 AM	27	117	8	0	27	109	72	0	175	295	83	0	10	83	101	0

2-Axle Trucks	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	3	2	0	0	0	1	0	0	1	2	0	0	3	2	0
07:15 AM	1	1	0	0	0	0	0	0	0	4	1	0	0	2	0	0
07:30 AM	1	0	1	0	2	3	1	0	7	2	3	0	2	4	1	0
07:45 AM	0	2	0	0	5	3	1	0	3	1	3	0	0	1	5	0
08:00 AM	0	4	0	0	5	2	1	0	2	3	6	0	0	2	1	0
08:15 AM	2	1	0	0	0	1	0	0	2	4	7	0	0	4	3	0
08:30 AM	0	2	0	0	1	1	0	0	3	3	11	0	0	6	0	0
08:45 AM	2	2	0	0	1	1	2	0	6	7	2	0	1	3	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
08:15 AM	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0

INTERSECTION #95 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Arlington Avenue/Chicago Avenue
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	103	393	4	0	80	120	55	0	128	202	51	0	8	190	231	0
04:15 PM	132	376	6	0	101	126	46	0	150	126	54	0	5	263	226	0
04:30 PM	120	376	5	0	118	169	63	0	162	223	41	0	5	174	289	0
04:45 PM	94	429	8	0	113	147	61	0	135	292	44	0	13	178	261	0
05:00 PM	108	413	6	0	106	112	60	0	157	262	48	0	10	154	282	0
05:15 PM	119	380	3	0	132	175	62	0	161	226	48	0	7	198	273	0
05:30 PM	119	452	11	0	155	145	79	0	138	256	45	0	5	158	267	0
05:45 PM	107	436	7	0	115	114	62	0	148	251	49	0	7	187	286	0

2-Axle Trucks	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	4	0	0	0	0	0	0	2	2	5	0	0	0	1	0
04:15 PM	1	0	0	0	1	1	1	0	2	1	3	0	0	1	2	0
04:30 PM	0	0	0	0	1	2	0	0	1	4	3	0	0	4	1	0
04:45 PM	0	4	0	0	0	0	1	0	2	3	0	0	0	1	2	0
05:00 PM	0	1	0	0	0	0	1	0	1	6	0	0	0	0	1	0
05:15 PM	0	2	0	0	1	0	1	0	0	1	1	0	0	2	1	0
05:30 PM	0	1	0	0	3	0	0	0	0	1	1	0	0	0	1	0
05:45 PM	0	3	3	0	0	1	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Chicago Avenue Westbound				Alessandro Boulevard Northbound				Arlington Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	5	0	0	0	0	0	0	0	1	0	0	0	0	2	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:15 PM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

INTERSECTION #96 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Century Avenue
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	5	252	1	0	2	2	15	0	1	752	4	0	11	3	1	0
07:15 AM	21	255	1	0	5	3	17	0	5	749	8	0	9	4	4	0
07:30 AM	29	272	3	0	18	9	40	0	7	776	5	0	7	9	6	0
07:45 AM	4	291	4	0	11	5	12	0	7	710	7	0	6	7	3	0
08:00 AM	4	304	4	0	5	0	8	0	9	747	5	0	9	1	2	0
08:15 AM	2	258	2	0	1	1	9	0	6	690	0	0	6	2	1	0
08:30 AM	2	276	2	0	1	1	4	0	8	549	6	0	6	1	3	0
08:45 AM	5	219	4	1	2	0	12	0	4	538	4	0	6	2	2	0

2-Axle Trucks	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
07:15 AM	2	1	1	0	2	0	1	0	0	5	0	0	0	0	0	0
07:30 AM	0	3	0	0	1	0	1	0	0	9	0	0	0	0	0	0
07:45 AM	0	5	0	0	0	0	0	0	0	8	0	0	0	0	0	0
08:00 AM	0	11	0	0	0	0	0	0	0	15	0	0	0	0	0	0
08:15 AM	0	5	0	0	0	0	0	0	0	12	0	0	0	0	0	0
08:30 AM	0	1	1	0	1	0	0	0	0	15	0	0	0	0	0	0
08:45 AM	0	2	0	0	0	0	0	0	0	15	0	0	0	0	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #96 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Century Avenue
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	13	678	8	2	2	2	3	0	4	418	4	0	1	1	1	0
04:15 PM	9	704	8	1	6	2	4	0	6	397	4	0	4	0	0	0
04:30 PM	9	749	9	0	8	2	5	0	8	439	2	0	7	3	3	0
04:45 PM	9	748	6	2	5	2	3	0	7	453	7	0	3	0	2	0
05:00 PM	8	759	7	0	4	0	6	0	8	395	2	0	4	1	1	0
05:15 PM	14	762	7	2	5	3	4	0	9	436	3	0	5	0	6	0
05:30 PM	13	801	10	0	2	0	3	0	4	419	3	0	3	1	1	0
05:45 PM	17	750	13	1	10	0	10	0	3	376	9	0	9	1	3	0

2-Axle Trucks	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	5	0	0	0	0	0	0	0	7	0	0	0	0	0	0
04:15 PM	0	3	0	0	0	0	0	0	0	6	0	0	0	0	0	0
04:30 PM	0	3	0	0	1	0	0	0	0	7	0	0	0	0	0	0
04:45 PM	0	3	0	0	0	0	0	0	0	5	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:15 PM	0	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Century Avenue Westbound				Alessandro Boulevard Northbound				Century Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	7	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:15 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #97 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Via Vista Drive
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	246	7	0	2	0	16	0	8	777	3	0	17	7	4	0
07:15 AM	7	245	4	0	10	4	19	0	7	730	4	0	30	20	5	0
07:30 AM	9	285	7	0	6	12	29	0	6	769	1	0	36	34	6	0
07:45 AM	11	297	17	0	5	9	15	0	3	689	3	0	42	19	13	0
08:00 AM	8	280	11	0	4	8	19	0	9	721	3	1	19	8	10	0
08:15 AM	11	246	17	1	2	13	15	0	24	582	3	2	39	12	12	0
08:30 AM	5	253	5	0	5	5	17	0	11	478	1	1	31	14	14	0
08:45 AM	9	233	6	0	4	0	19	0	3	537	5	1	13	6	11	0

2-Axle Trucks	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	7	0	0	0	0	0	0	0	5	0	0	0	0	0	0
07:15 AM	0	2	0	0	0	0	0	0	2	5	0	0	0	1	0	0
07:30 AM	0	4	0	0	0	0	0	0	0	9	0	0	0	0	0	0
07:45 AM	0	5	0	0	0	0	0	0	0	10	0	0	0	0	0	0
08:00 AM	0	10	1	0	0	0	0	0	1	9	0	0	1	0	0	0
08:15 AM	0	6	0	0	0	0	1	0	0	13	0	0	0	0	1	0
08:30 AM	0	2	0	0	0	0	0	0	0	13	0	0	0	0	0	0
08:45 AM	0	2	0	0	0	0	0	0	0	15	0	0	0	0	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #97 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Via Vista Drive
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	9	642	19	0	1	6	13	0	8	415	2	1	7	9	6	0
04:15 PM	15	699	14	0	0	7	17	0	5	416	3	0	13	4	5	0
04:30 PM	24	717	13	1	4	8	12	0	8	398	2	3	10	8	10	0
04:45 PM	19	747	14	0	8	4	15	0	7	464	5	0	9	4	7	0
05:00 PM	29	718	24	0	2	2	14	0	10	414	3	0	10	10	11	0
05:15 PM	29	723	22	0	2	4	12	0	4	434	2	0	11	3	5	0
05:30 PM	31	735	26	0	5	12	20	0	6	398	9	1	12	5	10	0
05:45 PM	13	745	29	0	0	15	21	0	4	385	5	1	11	11	5	0

2-Axle Trucks	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	5	0	0	0	0	0	0	0	7	0	0	1	0	0	0
04:15 PM	0	3	0	0	0	0	0	0	0	8	0	0	0	0	0	0
04:30 PM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0
04:45 PM	0	4	0	0	0	0	0	0	0	6	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:15 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Via Vista Drive Westbound				Alessandro Boulevard Northbound				Via Vista Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	7	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	6	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #98 AM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Canyon Crest Drive/Overlook Parkway
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	4	230	0	0	79	1	16	0	0	745	225	0	1	2	1	0
07:15 AM	4	239	1	0	124	1	14	0	2	693	242	0	6	1	1	0
07:30 AM	5	300	0	0	107	2	26	0	1	773	226	0	3	3	0	0
07:45 AM	20	305	1	1	73	2	15	0	0	680	242	0	4	0	0	0
08:00 AM	13	268	2	0	74	0	14	0	0	703	246	0	6	1	2	0
08:15 AM	17	241	0	0	48	0	24	0	0	602	213	0	2	4	1	0
08:30 AM	8	255	1	0	75	1	24	1	2	495	156	0	2	5	0	0
08:45 AM	13	248	1	2	81	1	11	0	0	483	183	0	4	1	0	0

2-Axle Trucks	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	7	0	0	2	0	0	0	0	5	1	0	0	0	0	0
07:15 AM	0	1	0	0	2	0	0	0	0	7	1	0	0	0	0	0
07:30 AM	0	3	0	0	3	0	0	0	0	9	1	0	0	0	0	0
07:45 AM	1	3	1	0	0	0	0	0	0	11	0	0	0	0	0	0
08:00 AM	5	3	0	0	0	0	0	0	0	11	2	0	0	1	0	0
08:15 AM	2	7	0	0	1	0	5	0	0	7	1	0	0	0	0	0
08:30 AM	0	0	0	0	2	0	2	0	0	12	2	0	0	0	0	0
08:45 AM	0	2	0	0	1	0	0	0	0	14	2	0	0	0	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #98 PM

Start Date: 2/1/2018
Comment 1: City of Riverside
Comment 2: N/S: Alessandro Boulevard
Comment 3: E/W: Canyon Crest Drive/Overlook Parkway
Comment 4: Weather: Clear

Cars	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	17	612	2	0	110	3	10	0	1	368	96	0	0	1	2	0
04:15 PM	13	670	2	0	128	3	6	0	3	410	115	0	3	3	1	0
04:30 PM	14	744	3	0	106	3	1	1	3	458	129	1	1	1	3	0
04:45 PM	15	710	1	0	138	2	11	0	1	410	116	0	5	1	0	0
05:00 PM	14	692	3	0	142	1	5	0	1	408	125	1	3	2	2	0
05:15 PM	16	747	3	0	179	2	9	0	1	442	129	0	1	1	2	0
05:30 PM	14	657	4	0	183	2	7	0	1	343	102	0	1	0	0	0
05:45 PM	13	793	3	0	138	2	6	0	0	370	117	0	2	0	1	0

2-Axle Trucks	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	6	0	0	0	0	0	0	0	6	1	0	0	0	0	0
04:15 PM	0	2	0	0	0	0	0	0	0	7	0	0	0	0	0	0
04:30 PM	0	2	0	0	1	0	0	0	0	5	2	0	0	0	0	0
04:45 PM	0	3	0	0	0	0	0	0	0	5	3	0	1	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	3	2	0	0	0	0	0
05:15 PM	1	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	4	0	0	1	0	0	0	0	2	1	0	0	0	0	0
05:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	2	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Boulevard Southbound				Canyon Crest Drive Westbound				Alessandro Boulevard Northbound				Overlook Parkway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	8	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	5	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #99 AM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Harley Knox Boulevard
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	113	97	0	0	62	32	0	43	231	0	1	42	6	9	0
07:15 AM	16	148	67	0	0	42	33	0	55	271	0	0	58	9	3	0
07:30 AM	10	159	47	0	1	35	49	0	50	240	2	0	62	4	6	0
07:45 AM	7	124	53	1	0	30	39	0	45	215	0	0	83	32	15	0
08:00 AM	4	116	52	0	1	14	24	1	36	174	0	0	68	13	17	0
08:15 AM	5	106	43	0	1	15	9	0	16	134	0	0	47	9	9	0
08:30 AM	1	83	25	0	1	10	8	1	15	123	0	0	43	3	6	0
08:45 AM	3	77	34	1	0	13	6	0	22	117	1	0	40	4	4	0

2-Axle Trucks	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	3	0	0	0	0	0	0	0	4	0	0	0	1	0	0
07:15 AM	0	1	0	0	0	1	0	0	2	6	0	0	0	0	0	0
07:30 AM	0	3	2	0	0	0	1	0	0	8	0	0	0	0	1	0
07:45 AM	0	3	3	0	0	0	1	0	0	4	0	0	1	1	0	0
08:00 AM	0	8	0	0	0	0	0	0	0	4	0	0	1	1	1	0
08:15 AM	0	2	0	0	0	1	0	0	1	5	0	0	3	0	0	0
08:30 AM	0	8	0	0	0	0	0	0	0	4	0	0	2	0	0	0
08:45 AM	0	3	1	0	0	0	1	0	0	5	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	2	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	2	0
07:30 AM	0	1	0	0	0	0	0	0	1	1	0	0	2	0	0	0
07:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0
08:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0
08:15 AM	0	1	1	0	0	2	0	0	0	0	0	0	2	0	0	0
08:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	2	0	1	0
08:45 AM	0	2	0	0	0	0	1	0	1	2	0	0	2	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	2	0	0	2	1	0	2	2	0	0	1	2	0	0
07:15 AM	2	2	3	0	0	1	0	0	1	1	0	0	2	1	0	0
07:30 AM	0	3	3	0	1	2	0	0	0	0	0	0	7	0	1	0
07:45 AM	0	6	8	0	1	1	0	0	0	1	0	0	11	0	1	0
08:00 AM	1	2	12	0	1	1	0	0	1	3	0	0	8	1	0	0
08:15 AM	0	4	8	0	1	2	0	0	0	1	0	0	4	2	0	0
08:30 AM	1	1	3	0	0	3	0	0	0	3	0	0	1	1	3	0
08:45 AM	0	2	7	0	0	0	0	0	0	1	1	0	2	2	2	0

INTERSECTION #99 PM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Harley Knox Boulevard
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	13	188	46	0	1	7	16	0	8	149	1	0	59	37	22	0
04:15 PM	13	178	57	1	1	7	11	0	6	158	2	0	81	36	27	0
04:30 PM	17	238	69	0	1	9	21	1	4	176	4	0	75	45	24	0
04:45 PM	19	205	37	1	1	6	17	0	6	163	0	0	59	31	22	0
05:00 PM	19	222	42	0	0	5	9	0	7	151	0	0	64	38	20	0
05:15 PM	17	246	53	0	2	9	12	1	8	167	0	0	63	51	25	0
05:30 PM	23	225	47	0	1	3	14	0	8	172	0	0	63	40	24	0
05:45 PM	15	159	40	1	2	4	17	0	4	148	0	0	60	43	26	0

2-Axle Trucks	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	3	1	0	0	1	0	0	1	4	0	0	1	1	1	0
04:15 PM	0	5	1	0	1	0	0	0	1	3	0	0	1	1	0	0
04:30 PM	0	3	0	0	1	0	0	0	0	2	0	0	1	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	3	0	0	1	2	0	0
05:00 PM	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	1	3	1	0	0	1	0	0	1	2	0	0	1	0	0	0
05:45 PM	0	3	0	0	0	1	0	0	0	1	0	0	0	1	0	0

3-Axle Trucks	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
04:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
04:30 PM	0	1	1	0	0	1	1	0	0	0	0	0	1	1	0	0
04:45 PM	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0
05:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	1	0	0
05:45 PM	1	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Harley Knox Boulevard Westbound				Perris Boulevard Northbound				Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	3	0	0	0	1	0	0	0	1	0	0	1	1	0
04:15 PM	0	3	0	0	0	1	0	0	0	2	0	0	4	3	0	0
04:30 PM	0	1	2	0	0	1	0	0	0	2	0	0	0	1	0	0
04:45 PM	1	1	2	0	0	1	0	0	1	1	2	0	1	1	0	0
05:00 PM	0	0	0	0	0	2	2	0	0	1	0	0	1	1	0	0
05:15 PM	0	1	2	0	0	0	0	0	0	4	0	0	0	4	0	0
05:30 PM	0	4	3	0	0	2	0	0	2	3	0	0	2	0	0	0
05:45 PM	0	1	3	0	0	1	0	0	0	2	0	0	1	2	0	0

INTERSECTION #101 AM

Start Date: 10/17/2017
Comment 1: City of Perris
Comment 2: N/S: Indian Avenue
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	5	1	0	10	385	20	0	8	33	8	0	16	181	3	0
07:15 AM	4	6	6	0	6	336	35	0	8	39	7	0	17	200	7	0
07:30 AM	8	7	2	0	19	351	32	0	5	23	6	0	16	210	6	0
07:45 AM	4	9	5	0	8	326	20	0	2	22	9	0	13	241	16	0
08:00 AM	1	10	8	0	7	286	10	0	5	14	15	0	16	212	7	0
08:15 AM	1	2	3	0	6	294	7	0	7	4	1	0	6	182	12	0
08:30 AM	5	3	5	0	7	275	8	0	4	10	5	0	4	154	5	0
08:45 AM	3	7	3	0	6	268	11	0	1	6	3	0	2	150	7	0

2-Axle Trucks	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	1	0	1	9	1	0	0	2	0	0	0	7	1	0
07:15 AM	1	0	0	0	0	7	2	0	0	0	0	0	0	16	0	0
07:30 AM	1	0	0	0	2	12	0	0	0	1	0	0	1	5	1	0
07:45 AM	0	2	0	0	2	4	0	0	1	0	1	0	0	7	0	0
08:00 AM	0	2	0	0	0	10	0	0	1	1	0	0	1	6	0	0
08:15 AM	0	1	0	0	0	12	0	0	1	0	0	0	0	12	4	0
08:30 AM	0	0	0	0	1	6	0	0	1	0	0	0	0	5	1	0
08:45 AM	0	0	0	0	0	8	1	0	0	0	0	0	0	8	0	0

3-Axle Trucks	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
07:15 AM	2	0	1	0	0	1	1	0	1	3	0	0	2	3	0	0
07:30 AM	2	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0
07:45 AM	0	0	0	0	0	2	0	0	1	3	1	0	0	3	0	0
08:00 AM	4	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
08:15 AM	3	1	0	0	1	4	1	0	1	0	0	0	0	1	1	0
08:30 AM	2	2	0	0	1	2	4	0	0	0	1	0	0	4	2	0
08:45 AM	3	0	0	0	0	1	3	0	0	0	1	0	0	3	1	0

4+ Axle Trucks	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	1	0	0	4	0	0	3	1	0	0	2	8	4	0
07:15 AM	2	2	0	0	0	10	0	0	6	2	0	0	2	7	3	0
07:30 AM	0	1	3	0	0	1	2	0	3	2	0	0	3	7	7	0
07:45 AM	0	1	2	0	0	3	0	0	4	0	0	0	4	9	1	0
08:00 AM	0	3	4	0	0	5	1	0	4	1	0	0	2	6	3	0
08:15 AM	0	0	4	0	0	7	1	0	3	1	0	0	5	14	3	0
08:30 AM	1	2	5	0	0	8	0	0	5	2	0	0	1	10	3	0
08:45 AM	0	1	2	0	0	6	0	0	3	3	0	0	0	2	1	0

INTERSECTION #101 PM

Start Date: 10/17/2017
Comment 1: City of Perris
Comment 2: N/S: Indian Avenue
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	9	17	1	0	4	212	8	0	13	10	8	0	7	272	7	0
04:15 PM	14	16	9	0	9	221	9	0	22	15	21	0	16	281	7	0
04:30 PM	33	26	17	0	7	202	14	0	52	37	57	0	19	251	3	0
04:45 PM	18	22	20	0	7	312	7	0	17	16	11	0	12	341	12	0
05:00 PM	13	23	14	0	4	233	5	0	19	9	13	0	3	318	10	0
05:15 PM	8	18	2	0	13	243	9	0	13	7	11	0	5	256	12	0
05:30 PM	13	42	5	0	28	244	16	0	7	10	9	0	10	329	26	0
05:45 PM	17	19	4	0	15	211	17	0	9	11	8	0	8	308	22	0

2-Axle Trucks	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	8	0	0	1	0	1	0	0	4	0	0
04:15 PM	0	0	1	0	2	3	0	0	0	0	0	0	0	7	1	0
04:30 PM	0	0	0	0	1	2	0	0	1	0	0	0	1	8	0	0
04:45 PM	1	0	1	0	1	3	0	0	0	0	0	0	0	2	0	0
05:00 PM	0	1	0	0	2	1	0	0	0	0	0	0	0	7	0	0
05:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	1	0
05:30 PM	0	0	0	0	2	7	0	0	0	0	0	0	0	5	0	0
05:45 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	4	1	0

3-Axle Trucks	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	1	2	0	1	1	0	0	2	1	1	0
04:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	1	1	0
04:30 PM	1	0	0	0	0	1	2	0	1	4	0	0	0	1	0	0
04:45 PM	0	1	0	0	0	0	1	0	1	1	1	0	0	1	1	0
05:00 PM	0	1	0	0	0	4	1	0	1	1	1	0	0	1	0	0
05:15 PM	1	0	0	0	0	1	0	0	0	2	0	0	1	0	0	0
05:30 PM	0	0	0	0	1	3	0	0	1	0	0	0	0	1	2	0
05:45 PM	0	0	0	0	1	3	0	0	1	1	0	0	1	1	0	0

4+ Axle Trucks	Indian Avenue Southbound				Ramona Expressway Westbound				Indian Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	2	1	0	0	7	0	0	1	1	0	0	5	7	4	0
04:15 PM	0	0	3	0	0	8	0	0	5	1	0	0	1	5	9	0
04:30 PM	0	3	0	0	0	3	0	0	4	6	0	0	1	1	2	0
04:45 PM	0	0	1	0	0	5	0	0	1	2	0	0	2	8	5	0
05:00 PM	0	1	1	0	0	12	0	0	9	1	0	0	1	6	5	0
05:15 PM	0	0	1	0	1	5	0	0	2	3	1	0	0	1	1	0
05:30 PM	0	1	1	0	0	7	0	0	2	1	0	0	0	5	4	0
05:45 PM	1	0	1	0	0	3	1	0	0	1	0	0	0	2	3	0

INTERSECTION #102 AM

Start Date: 5/10/2017
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	29	46	27	9	16	319	29	1	78	150	19	16	55	130	27	10
07:15 AM	29	55	47	16	23	312	42	4	60	161	12	7	93	131	18	8
07:30 AM	21	54	44	9	24	284	48	3	71	146	15	8	96	122	31	10
07:45 AM	26	75	36	16	34	295	38	5	48	129	13	6	79	121	27	12
08:00 AM	29	61	42	13	17	241	35	4	39	106	11	4	69	123	35	19
08:15 AM	29	56	31	16	14	238	18	1	60	82	16	9	57	115	19	10
08:30 AM	21	47	31	17	22	177	22	7	56	69	11	5	56	118	31	20
08:45 AM	20	45	24	8	22	205	14	5	64	61	14	9	33	130	28	15

2-Axle Trucks	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	1	2	5	2	0	8	1	0	4	2	1	1	2	7	3	3
07:15 AM	2	0	3	0	1	4	1	0	2	6	1	0	2	0	1	0
07:30 AM	1	0	2	0	0	6	4	0	2	4	1	1	4	7	2	1
07:45 AM	2	3	1	0	0	5	0	0	2	1	2	1	4	2	0	0
08:00 AM	0	5	4	1	0	10	1	0	1	2	0	0	2	3	3	2
08:15 AM	0	7	0	0	0	6	0	0	3	3	2	2	1	2	3	2
08:30 AM	0	6	1	1	1	1	2	1	2	1	0	0	1	4	0	0
08:45 AM	0	2	2	0	0	2	0	0	1	1	0	0	5	3	0	0

3-Axle Trucks	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	2	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
07:30 AM	0	0	0	0	1	2	0	0	1	0	0	0	0	3	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
08:00 AM	0	0	1	1	0	1	1	0	0	1	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	1	1	0	0	1	0	0	1	1	1	0
08:30 AM	1	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0
08:45 AM	0	1	1	0	0	2	1	0	0	0	1	0	3	1	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	1	0	0	0	3	0	0	0	1	0	0	3	4	3	1
07:15 AM	1	1	1	0	0	3	0	0	2	2	0	0	1	1	1	1
07:30 AM	1	0	4	0	0	5	0	0	1	1	0	0	0	5	1	0
07:45 AM	0	0	2	0	0	2	0	0	2	3	0	0	2	3	4	3
08:00 AM	1	0	1	1	0	3	0	0	1	1	0	0	1	1	1	0
08:15 AM	0	0	1	1	0	5	0	0	3	0	0	0	2	2	2	1
08:30 AM	0	0	1	0	0	3	0	0	4	3	0	0	4	6	1	0
08:45 AM	0	0	1	0	1	5	0	0	0	0	0	0	4	4	0	0

INTERSECTION #102 PM

Start Date: 5/10/2017
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
04:00 PM	42	96	29	15	23	154	19	2	50	90	19	7	49	257	46	21
04:15 PM	54	104	47	12	25	156	27	2	46	84	25	17	40	222	34	3
04:30 PM	56	115	55	22	21	171	22	4	68	125	34	19	78	253	41	14
04:45 PM	54	112	53	15	40	181	19	2	43	93	18	6	57	264	49	21
05:00 PM	68	122	52	14	36	187	27	5	66	75	22	9	58	246	60	25
05:15 PM	44	138	48	7	28	174	25	2	62	94	26	14	54	254	53	22
05:30 PM	62	123	53	22	28	186	36	3	48	87	24	17	58	246	53	22
05:45 PM	66	135	57	22	24	195	31	4	65	85	23	13	28	276	60	19

2-Axle Trucks	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
04:00 PM	0	2	0	0	0	4	1	0	1	2	0	0	3	4	2	0
04:15 PM	2	2	2	1	0	3	0	0	0	0	0	0	1	4	1	0
04:30 PM	0	0	0	0	0	0	0	0	4	0	0	0	0	5	3	1
04:45 PM	3	6	0	0	1	3	1	0	0	1	0	0	1	3	2	1
05:00 PM	0	1	1	0	0	4	0	0	4	0	0	0	1	4	2	0
05:15 PM	1	2	1	0	0	4	0	0	0	4	0	0	0	2	1	1
05:30 PM	1	0	1	0	0	5	1	0	2	2	0	0	2	3	2	0
05:45 PM	1	0	1	0	0	4	0	0	0	2	0	0	0	4	3	1

3-Axle Trucks	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
04:00 PM	1	0	0	0	0	2	1	0	1	2	0	0	3	2	1	0
04:15 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	4	0	0
04:30 PM	1	0	0	0	0	0	0	0	1	2	0	0	0	2	0	0
04:45 PM	5	0	2	1	0	1	0	0	1	0	0	0	1	0	0	0
05:00 PM	1	0	0	0	0	1	0	0	0	2	0	0	1	2	0	0
05:15 PM	1	0	0	0	0	2	0	0	0	0	0	0	2	1	0	0
05:30 PM	0	0	0	0	0	2	0	0	1	1	0	0	2	1	1	1
05:45 PM	0	1	0	0	0	1	0	0	1	0	0	0	0	1	1	1

4+ Axle Trucks	Perris Boulevard Southbound				Ramona Expressway Westbound				Perris Boulevard Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
04:00 PM	0	0	1	1	0	7	0	0	2	0	0	0	2	1	0	0
04:15 PM	0	0	0	0	0	7	0	0	0	0	0	0	2	4	3	1
04:30 PM	0	1	1	0	0	4	1	1	0	0	0	0	2	0	2	0
04:45 PM	0	0	1	1	0	5	0	0	0	0	0	0	1	2	1	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1
05:15 PM	1	0	2	0	0	6	1	0	1	0	0	0	0	1	1	0
05:30 PM	0	0	1	0	0	3	1	0	0	0	0	0	4	1	1	0
05:45 PM	0	1	0	0	0	2	1	0	0	0	0	0	0	3	0	0

INTERSECTION #103 AM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Evans Road
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	56	88	90	0	0	286	88	0	105	156	6	0	69	79	39	1
07:15 AM	56	105	92	0	2	245	90	0	105	141	6	0	80	89	39	3
07:30 AM	69	124	112	0	11	262	70	1	85	122	10	0	44	80	33	0
07:45 AM	22	48	70	0	8	214	75	0	96	120	3	0	51	72	41	2
08:00 AM	30	47	54	0	3	192	44	4	78	86	1	0	58	89	23	2
08:15 AM	23	50	55	0	1	133	32	3	51	69	0	0	51	77	30	1
08:30 AM	24	31	54	0	2	188	50	2	55	84	2	0	52	94	25	3
08:45 AM	21	54	43	0	1	135	29	2	39	59	2	0	34	78	22	5

2-Axle Trucks	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	1	4	0	0	5	1	0	0	5	0	0	5	7	2	0
07:15 AM	0	1	1	0	1	6	1	0	1	1	0	0	1	0	1	1
07:30 AM	0	1	1	0	1	4	0	0	4	2	0	0	2	0	0	0
07:45 AM	0	2	1	0	0	2	0	0	1	3	0	0	0	0	0	1
08:00 AM	1	3	1	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	1	1	0	0	0	0	0	1	2	0	0	0	0	0	0
08:30 AM	0	1	1	0	0	6	0	0	0	0	0	0	0	2	0	0
08:45 AM	1	0	1	0	0	2	1	0	1	1	0	0	0	4	0	1

3-Axle Trucks	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
08:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0
08:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
08:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	5	0	0

4+ Axle Trucks	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
07:15 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
08:45 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0

INTERSECTION #103 PM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Evans Road
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	45	98	52	0	1	107	36	0	36	88	2	0	73	174	78	0
04:15 PM	49	109	67	0	2	150	46	0	36	62	4	0	70	204	70	0
04:30 PM	66	108	70	0	5	144	45	0	53	83	5	0	96	246	80	0
04:45 PM	46	125	71	0	6	131	42	0	50	74	1	0	79	226	80	0
05:00 PM	66	96	64	0	4	114	41	0	47	77	8	0	76	211	76	0
05:15 PM	51	99	61	0	3	123	50	0	66	100	2	0	80	194	98	0
05:30 PM	69	135	74	0	9	135	47	0	44	112	4	0	81	182	71	0
05:45 PM	49	129	74	0	1	160	44	0	60	79	2	0	59	205	93	0

2-Axle Trucks	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
04:30 PM	0	2	0	0	0	1	0	0	1	1	0	0	0	2	2	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	2	0	0	2	1	0	0	0	1	0	0	3	1	0
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0

3-Axle Trucks	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
04:15 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	6	0	0	0	0	0	0	1	3	0	0
05:45 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0

4+ Axle Trucks	Evans Road Southbound				Ramona Expressway Westbound				Evans Road Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0
05:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0

INTERSECTION #104 AM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Morgan Street
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	81	8	0	3	0	0	0	7	251	8	0	8	4	2	0
07:15 AM	0	83	16	0	2	5	0	0	10	251	5	0	3	5	6	0
07:30 AM	0	111	21	0	2	4	2	0	5	212	4	0	8	2	4	0
07:45 AM	0	91	22	0	11	11	0	0	8	205	4	0	17	9	10	0
08:00 AM	0	86	5	0	1	3	0	0	9	122	0	0	9	2	13	0
08:15 AM	1	103	7	0	2	1	1	0	6	134	2	0	14	4	5	0
08:30 AM	1	60	8	0	3	1	1	0	4	137	2	0	2	6	5	0
08:45 AM	2	83	6	0	7	2	0	0	8	122	2	0	5	1	6	0

2-Axle Trucks	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0
07:30 AM	0	2	0	0	0	0	0	0	1	7	0	0	0	0	0	0
07:45 AM	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	5	0	0	0	0	0	0	0	7	0	0	0	0	1	0
08:30 AM	0	7	0	0	0	0	0	0	1	5	0	0	0	0	0	0
08:45 AM	0	4	1	0	0	0	0	0	0	3	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0	0
08:45 AM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	1	0

4+ Axle Trucks	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	1	0	0	0	0	0	0	5	0	0	0	1	0	0
08:00 AM	0	1	1	0	0	0	0	0	1	2	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	3	0	0	0	1	0	0	0	2	0	0	1	0	0	0
08:45 AM	0	3	2	0	0	0	0	0	0	0	0	0	1	0	0	0

INTERSECTION #104 PM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Morgan Street
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	3	139	2	0	5	0	0	0	8	150	3	0	17	8	13	0
04:15 PM	3	137	4	0	2	0	2	0	7	162	4	0	8	3	5	0
04:30 PM	3	197	4	0	17	3	6	0	5	178	2	0	12	9	8	0
04:45 PM	6	175	2	0	5	2	2	0	6	149	3	0	7	8	8	0
05:00 PM	3	199	2	0	7	1	3	0	7	170	4	0	8	4	10	0
05:15 PM	0	199	1	0	11	2	2	0	6	172	2	0	6	3	2	0
05:30 PM	1	173	5	0	7	0	0	0	1	171	6	0	12	2	4	0
05:45 PM	2	172	3	0	10	1	1	0	9	164	2	0	10	2	5	0

2-Axle Trucks	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:15 PM	0	1	0	0	1	0	0	0	0	3	1	0	0	1	0	0
04:30 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	2	1	0	1	0	0	0
05:00 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Morgan Street Westbound				Perris Boulevard Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

INTERSECTION #105 AM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Evans Road
Comment 3: E/W: Morgan Street
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	91	17	0	24	5	20	0	29	147	7	0	13	4	18	0
07:15 AM	6	99	22	0	31	20	21	0	38	160	18	0	28	7	45	0
07:30 AM	7	146	21	0	33	23	20	0	41	131	15	0	31	16	47	0
07:45 AM	9	102	40	0	20	35	11	0	49	162	23	0	30	10	18	0
08:00 AM	9	59	15	0	16	22	13	0	26	104	13	0	35	17	37	0
08:15 AM	6	63	8	0	11	1	17	0	7	68	11	0	24	13	16	0
08:30 AM	7	46	6	0	12	1	7	0	2	89	10	0	4	1	4	0
08:45 AM	6	48	1	0	15	2	7	0	6	63	8	0	4	1	5	0

2-Axle Trucks	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	1	0	0	0	1	3	0	0	1	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	1	0	0	3	0	0	0	0	1	0
08:00 AM	0	3	1	0	0	0	1	0	0	1	1	0	0	0	0	0
08:15 AM	0	1	0	0	1	0	0	0	0	2	0	0	1	0	0	0
08:30 AM	0	2	0	0	0	0	0	0	1	1	0	0	0	0	1	0
08:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #105 PM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Evans Road
Comment 3: E/W: Morgan Street
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	18	123	4	0	22	0	6	0	15	93	13	0	8	2	7	0
04:15 PM	9	104	9	0	17	4	7	0	8	80	20	0	2	1	5	0
04:30 PM	19	118	10	0	14	1	13	0	14	75	24	0	7	1	2	0
04:45 PM	20	134	5	0	10	8	12	0	12	94	24	0	11	4	19	0
05:00 PM	19	139	6	0	12	1	9	0	9	77	16	0	6	3	13	0
05:15 PM	11	117	2	0	17	1	14	0	7	124	24	0	9	1	4	0
05:30 PM	18	126	6	0	21	4	16	0	19	107	26	0	5	3	7	0
05:45 PM	16	181	17	0	13	8	9	0	17	107	28	0	11	1	12	0

2-Axle Trucks	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	3	0	0	0	0	1	0	0	1	1	0	0	0	0	0
04:30 PM	2	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	1	0	0	0	0	2	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:30 PM	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Morgan Street Westbound				Evans Road Northbound				Morgan Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #106 AM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Rider Street
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	6	74	3	0	18	55	61	1	2	215	14	0	4	24	1	0
07:15 AM	13	65	9	0	27	77	61	5	8	206	18	0	4	36	2	0
07:30 AM	17	75	15	0	36	72	61	0	16	152	14	0	5	46	8	1
07:45 AM	14	72	10	0	41	75	62	1	8	150	11	0	12	57	12	0
08:00 AM	19	79	9	0	47	66	53	0	5	106	29	0	15	36	6	0
08:15 AM	8	86	5	0	32	18	27	0	4	113	11	0	3	22	5	0
08:30 AM	9	55	5	0	18	19	18	0	6	129	18	0	3	14	4	0
08:45 AM	8	69	5	0	34	16	27	0	7	104	18	0	2	19	7	0

2-Axle Trucks	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	5	0	0	0	0	0	0	0	6	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	5	0	0	0	0	0	0
07:30 AM	1	3	0	0	1	2	3	0	0	8	0	0	1	0	0	0
07:45 AM	1	4	1	0	0	1	1	0	0	5	1	0	0	0	0	0
08:00 AM	0	5	2	0	0	1	1	0	0	3	0	0	1	0	2	0
08:15 AM	2	2	3	0	0	0	1	0	0	7	0	0	0	0	0	0
08:30 AM	1	8	2	0	1	0	1	0	0	3	1	0	0	0	2	0
08:45 AM	0	6	1	0	1	1	0	0	0	1	1	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0
07:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	2	0
07:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	1	0
08:00 AM	0	1	1	0	0	1	0	0	0	2	0	0	0	0	1	0
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #106 PM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Rider Street
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	19	134	4	0	34	26	30	0	2	139	32	0	3	53	15	0
04:15 PM	12	123	3	0	29	20	32	0	4	114	44	0	11	53	8	0
04:30 PM	22	162	5	0	31	27	31	0	13	130	32	0	10	81	27	0
04:45 PM	24	172	3	0	30	17	29	0	2	126	37	0	9	67	21	0
05:00 PM	27	166	6	0	54	24	44	0	4	119	31	2	6	52	18	0
05:15 PM	23	196	9	0	32	22	42	1	5	125	63	0	12	61	5	0
05:30 PM	27	136	3	0	46	17	36	0	6	135	55	0	8	57	18	0
05:45 PM	27	147	1	0	36	27	44	0	2	131	37	1	2	60	17	1

2-Axle Trucks	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	1	0	0	0	0	0	0	0	4	0	0	0	3	0	0
04:15 PM	0	2	2	0	0	1	0	0	0	3	0	0	0	3	0	0
04:30 PM	1	2	1	0	0	1	0	0	1	2	1	0	1	2	0	0
04:45 PM	1	4	0	0	1	0	0	0	0	5	0	0	1	0	3	0
05:00 PM	0	4	0	0	1	0	0	0	0	1	0	0	0	1	1	0
05:15 PM	0	3	0	0	1	1	0	0	0	3	0	0	0	1	0	0
05:30 PM	1	2	0	0	0	0	1	0	0	0	1	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0

3-Axle Trucks	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Rider Street Westbound				Perris Boulevard Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #107 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Evans Road
Comment 3: E/W: Rider Street
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	31	66	41	0	4	72	29	0	36	94	11	0	42	78	9	0
07:15 AM	32	102	67	0	7	109	29	0	29	85	6	0	63	90	22	0
07:30 AM	18	139	71	0	8	132	36	0	38	118	4	0	53	107	19	0
07:45 AM	13	46	67	0	4	160	44	0	39	120	10	0	68	87	11	0
08:00 AM	16	60	57	0	3	119	14	0	22	52	3	0	48	64	9	0
08:15 AM	9	35	33	0	2	46	5	0	11	41	2	0	26	41	3	0
08:30 AM	3	34	22	0	0	40	15	0	8	46	2	0	28	27	9	0
08:45 AM	4	43	28	0	1	46	5	0	15	37	2	0	30	29	10	0

2-Axle Trucks	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	1	0	0	0	0	0	0	2	0	0	1	3	1	0
07:15 AM	2	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	1	0	0	1	1	0	2	0	0	0	1	0	0	0
07:45 AM	0	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0
08:00 AM	0	2	2	0	0	0	0	0	1	0	0	0	2	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	1	1	0	0	0	1	0	0
08:30 AM	0	1	3	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	1	0	0	0	2	0	0	0	1	0	0	1	1	0	0

3-Axle Trucks	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0

INTERSECTION #107 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Evans Road
Comment 3: E/W: Rider Street
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	9	72	51	0	4	53	11	0	7	64	1	0	48	64	14	0
04:15 PM	10	74	34	0	2	39	13	0	16	46	1	0	44	75	22	0
04:30 PM	8	67	40	0	5	40	11	0	18	67	1	0	37	64	28	0
04:45 PM	13	87	48	0	2	44	5	0	7	59	3	0	49	79	25	0
05:00 PM	9	84	44	0	5	54	16	0	20	55	1	0	46	65	19	0
05:15 PM	10	73	39	0	1	34	18	0	12	81	1	0	54	68	18	0
05:30 PM	10	89	49	0	2	48	8	0	13	83	1	0	75	83	26	0
05:45 PM	14	102	52	0	10	60	16	0	13	79	3	0	53	76	18	0

2-Axle Trucks	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	4	0	0	0	0	0	0	0	0	0	1	0	0	0
04:15 PM	1	0	0	0	0	1	0	0	1	0	0	0	2	2	1	0
04:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	1	3	1	0
04:45 PM	0	2	1	0	0	1	0	0	0	1	0	0	0	2	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0
05:45 PM	0	2	0	0	0	1	1	0	0	0	0	0	1	0	0	0

3-Axle Trucks	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Rider Street Westbound				Evans Road Northbound				Rider Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #112 AM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Placentia Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	8	89	5	0	3	11	37	0	6	167	5	0	1	4	1	0
07:15 AM	11	100	6	0	5	21	50	0	10	180	8	0	1	8	3	0
07:30 AM	8	117	7	0	6	45	45	0	16	124	3	0	3	18	2	0
07:45 AM	10	114	6	0	9	49	45	0	20	147	6	0	5	29	9	0
08:00 AM	8	126	5	0	8	11	27	0	6	137	6	0	1	10	5	0
08:15 AM	8	117	2	0	6	0	16	0	2	102	6	0	3	3	0	0
08:30 AM	5	74	0	0	7	6	27	0	1	106	11	0	5	1	3	0
08:45 AM	7	109	2	0	6	4	17	0	2	115	7	0	1	2	3	0

2-Axle Trucks	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:30 AM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #112 PM

Start Date: 2/1/2018
Comment 1: City of Perris
Comment 2: N/S: Perris Boulevard
Comment 3: E/W: Placentia Avenue
Comment 4: Weather: Clear

Cars	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	17	160	2	0	9	5	23	0	2	149	11	0	7	11	5	0
04:15 PM	20	151	3	0	11	5	20	0	3	162	8	0	7	14	2	0
04:30 PM	30	225	0	0	7	2	12	0	1	146	8	0	5	23	6	0
04:45 PM	27	176	1	0	15	9	14	0	1	150	10	0	2	12	1	0
05:00 PM	33	224	2	0	11	3	14	0	3	149	8	0	7	13	4	0
05:15 PM	32	209	3	0	11	5	19	0	0	182	7	0	4	7	2	0
05:30 PM	22	176	1	0	9	5	26	0	2	155	9	0	7	14	5	0
05:45 PM	32	171	0	0	8	9	19	0	4	155	17	0	5	11	6	0

2-Axle Trucks	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:15 PM	0	2	0	0	1	0	1	0	0	2	0	0	0	0	2	0
04:30 PM	0	2	0	0	0	0	0	0	0	4	0	0	0	1	0	0
04:45 PM	0	7	0	0	1	0	0	0	0	4	0	0	0	0	0	0
05:00 PM	1	4	0	0	0	0	0	0	0	1	1	0	0	0	0	0
05:15 PM	0	2	0	0	0	0	1	0	0	2	0	0	0	0	0	0
05:30 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

3-Axle Trucks	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Perris Boulevard Southbound				Placentia Avenue Westbound				Perris Boulevard Northbound				Placentia Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #114 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Evans Road
Comment 3: E/W: Orange Avenue
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	25	42	19	0	21	39	26	0	19	68	23	0	26	47	10	0
07:15 AM	50	80	28	0	18	33	17	0	63	76	17	0	25	66	40	0
07:30 AM	67	118	40	0	11	73	32	0	70	128	77	0	39	86	51	0
07:45 AM	17	46	38	0	10	53	25	0	57	92	33	0	19	24	5	0
08:00 AM	4	50	31	0	21	49	12	0	16	35	4	0	10	32	13	0
08:15 AM	5	26	13	0	5	16	9	0	11	25	4	0	9	15	9	0
08:30 AM	10	26	10	0	9	11	6	0	3	24	5	0	10	18	4	0
08:45 AM	6	36	8	0	10	15	10	0	9	31	5	0	10	19	5	0

2-Axle Trucks	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
07:15 AM	1	0	1	0	0	1	1	0	0	2	0	0	1	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
08:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0
08:15 AM	1	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0

INTERSECTION #114 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Evans Road
Comment 3: E/W: Orange Avenue
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	17	50	19	0	8	24	12	0	21	59	14	0	20	30	16	0
04:15 PM	9	59	20	0	9	23	9	0	13	39	15	0	26	49	10	0
04:30 PM	18	53	19	0	9	22	13	0	10	54	14	0	21	27	15	0
04:45 PM	21	60	28	0	22	34	14	0	24	62	13	0	27	41	18	0
05:00 PM	16	66	24	0	6	17	17	0	23	55	11	0	28	51	16	0
05:15 PM	16	56	17	0	12	30	15	0	38	66	18	0	29	50	15	0
05:30 PM	21	67	35	0	8	28	17	0	21	73	21	0	27	38	25	0
05:45 PM	20	76	25	0	11	24	14	0	11	66	23	0	24	38	9	0

2-Axle Trucks	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	0	0	0	1	0	0	0	2	0	0	3	0	0
04:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0
04:45 PM	1	1	0	0	1	1	1	0	1	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	1	0	0	1	0	0	0	0	1	0	0	1	1	0
05:45 PM	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0

3-Axle Trucks	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Orange Avenue Westbound				Evans Road Northbound				Orange Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #115 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Evans Road
Comment 3: E/W: Nuevo Road
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	8	0	74	0	0	76	15	0	0	0	0	0	64	39	0	0
07:15 AM	7	0	99	0	0	89	16	0	0	0	0	0	69	60	0	0
07:30 AM	5	0	107	0	0	125	10	0	0	0	0	0	114	84	0	0
07:45 AM	5	0	104	0	0	110	7	0	0	0	0	0	62	95	0	0
08:00 AM	6	0	63	0	0	55	3	0	0	0	0	0	42	54	0	0
08:15 AM	9	0	51	0	0	62	4	0	0	0	0	0	39	42	0	0
08:30 AM	3	0	48	0	0	52	8	0	0	0	0	0	28	29	0	0
08:45 AM	1	0	56	0	0	63	6	0	0	0	0	0	19	48	0	0

2-Axle Trucks	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0
07:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	1	4	0	0
07:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	2	2	0	0
07:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
08:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	2	0	0

3-Axle Trucks	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
08:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #115 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Evans Road
Comment 3: E/W: Nuevo Road
Comment 4: Weather: Clear

Cars	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	13	0	68	0	0	64	11	0	0	0	0	0	78	93	0	0
04:15 PM	11	0	66	0	0	70	18	0	0	0	0	0	69	80	0	0
04:30 PM	13	0	81	0	0	68	10	0	0	0	0	0	69	85	0	0
04:45 PM	16	0	66	0	0	57	6	0	0	0	0	0	64	79	0	0
05:00 PM	8	0	66	0	0	60	8	0	0	0	0	0	85	93	0	0
05:15 PM	11	0	70	0	0	69	10	0	0	0	0	0	88	90	0	0
05:30 PM	16	0	81	0	0	82	12	0	0	0	0	0	90	99	0	0
05:45 PM	11	0	62	0	0	83	8	0	0	0	0	0	87	91	0	0

2-Axle Trucks	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
04:15 PM	2	0	1	0	0	1	0	0	0	0	0	0	2	2	0	0
04:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0
04:45 PM	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	3	0	0	2	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0

3-Axle Trucks	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Evans Road Southbound				Nuevo Road Westbound				Dead End Northbound				Nuevo Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #122 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Bridge Street
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	3	0	5	0	0	203	13	0	0	0	0	0	14	104	0	0
07:15 AM	4	0	1	0	0	216	23	0	0	0	0	0	9	114	0	0
07:30 AM	4	0	3	0	0	204	19	0	0	0	0	0	11	141	0	0
07:45 AM	6	0	4	0	0	157	12	0	0	0	0	0	11	122	0	0
08:00 AM	5	0	4	0	0	137	14	0	0	0	0	0	10	135	0	0
08:15 AM	1	0	0	0	0	144	12	0	0	0	0	0	6	124	0	0
08:30 AM	2	0	1	0	0	112	11	0	0	0	0	0	7	118	0	0
08:45 AM	7	0	4	0	0	129	12	0	0	0	0	0	8	95	0	0

2-Axle Trucks	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
07:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0
07:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	2	2	0	0	0	0	0	1	7	0	0
08:00 AM	1	0	1	0	0	2	0	0	0	0	0	0	1	5	0	0
08:15 AM	0	0	0	0	0	2	1	0	0	0	0	0	1	2	0	0
08:30 AM	0	0	2	0	0	5	0	0	0	0	0	0	1	5	0	0
08:45 AM	2	0	1	0	0	6	1	0	0	0	0	0	0	3	0	0

3-Axle Trucks	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
07:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	3	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
08:30 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	2	0	0
08:45 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0

4+ Axle Trucks	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	0	1	0	0	3	1	0	0	0	0	0	2	1	0	0
07:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
07:30 AM	1	0	2	0	0	1	0	0	0	0	0	0	3	2	0	0
07:45 AM	1	0	0	0	0	3	1	0	0	0	0	0	2	0	0	0
08:00 AM	3	0	1	0	0	1	1	0	0	0	0	0	0	1	0	0
08:15 AM	2	0	2	0	0	2	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	1	0	0	2	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0

INTERSECTION #122 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Bridge Street
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	14	0	13	0	0	138	12	0	0	0	0	0	4	200	0	0
04:15 PM	14	0	9	0	0	168	7	0	0	0	0	0	6	166	0	0
04:30 PM	15	0	6	0	0	167	6	0	0	0	0	0	3	221	0	0
04:45 PM	17	0	9	0	0	158	5	0	0	0	0	0	6	258	0	0
05:00 PM	14	0	12	0	0	130	6	0	0	0	0	0	4	214	0	0
05:15 PM	11	0	11	0	0	185	6	0	0	0	0	0	7	221	0	0
05:30 PM	14	0	9	0	0	179	8	0	0	0	0	0	0	158	0	0
05:45 PM	14	0	9	0	0	155	8	0	0	0	0	0	0	177	0	0

2-Axle Trucks	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
04:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
04:30 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
04:45 PM	0	0	2	0	0	4	0	0	0	0	0	0	1	5	0	0
05:00 PM	0	0	1	0	0	4	1	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	2	0	0	1	0	0	0	0	0	0	0	5	0	0
05:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
05:45 PM	1	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0

3-Axle Trucks	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Bridge Street Southbound				Ramona Expressway Westbound				Dead End Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0
04:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
04:30 PM	0	0	1	0	0	2	1	0	0	0	0	0	0	1	0	0
04:45 PM	2	0	2	0	0	4	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
05:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	1	2	0	0
05:30 PM	1	0	1	0	0	2	0	0	0	0	0	0	1	2	0	0
05:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0

INTERSECTION #123 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Bridge Street
Comment 3: E/W: Gilman Springs Road
Comment 4: Weather: Clear

Cars	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	75	6	0	0	0	0	0	0	210	0	0	18	0	3	0
07:15 AM	0	114	3	0	0	0	0	0	2	188	0	0	22	0	3	0
07:30 AM	0	124	7	0	0	0	0	0	1	208	0	0	25	0	3	0
07:45 AM	0	109	3	0	0	0	0	0	0	173	0	0	19	0	2	0
08:00 AM	0	92	4	0	0	0	0	0	1	163	0	0	21	0	0	0
08:15 AM	0	93	1	0	0	0	0	0	1	160	0	0	13	0	1	0
08:30 AM	0	91	5	0	0	0	0	0	1	160	0	0	12	0	3	0
08:45 AM	0	100	8	0	0	0	0	0	1	135	0	0	14	0	3	0

2-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0
07:15 AM	0	6	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0
07:45 AM	0	2	0	0	0	0	0	0	0	2	0	0	2	0	1	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	6	0	0	0	0	0	0	0	3	0	0	3	0	0	0
08:30 AM	0	4	2	0	0	0	0	0	0	1	0	0	1	0	1	0
08:45 AM	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0

3-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:30 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0

4+ Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	2	0	0	0
07:15 AM	0	3	1	0	0	0	0	0	0	2	0	0	1	0	2	0
07:30 AM	0	2	0	0	0	0	0	0	1	2	0	0	0	0	3	0
07:45 AM	0	0	2	0	0	0	0	0	0	3	0	0	0	0	3	0
08:00 AM	0	1	2	0	0	0	0	0	1	2	0	0	1	0	1	0
08:15 AM	0	1	2	0	0	0	0	0	2	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	1	0
08:45 AM	0	2	0	0	0	0	0	0	1	3	0	0	1	0	2	0

INTERSECTION #123 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Bridge Street
Comment 3: E/W: Gilman Springs Road
Comment 4: Weather: Clear

Cars	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	232	18	0	0	0	0	0	3	131	0	0	10	0	1	0
04:15 PM	0	224	14	0	0	0	0	0	2	125	0	0	11	0	2	0
04:30 PM	0	242	11	0	0	0	0	0	5	113	0	0	5	0	3	0
04:45 PM	0	248	20	0	0	0	0	0	4	116	0	0	11	0	2	0
05:00 PM	0	256	10	0	0	0	0	0	6	115	0	0	7	0	2	0
05:15 PM	0	245	19	0	0	0	0	0	4	148	0	0	8	0	1	0
05:30 PM	0	263	21	0	0	0	0	0	3	137	0	0	11	0	0	0
05:45 PM	0	250	22	0	0	0	0	0	5	111	0	0	7	0	0	0

2-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	3	0	0	0	0	0	0	0	5	0	0	2	0	1	0
04:15 PM	0	5	1	0	0	0	0	0	0	3	0	0	3	0	0	0
04:30 PM	0	6	0	0	0	0	0	0	2	3	0	0	0	0	0	0
04:45 PM	0	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0
05:00 PM	0	2	1	0	0	0	0	0	1	1	0	0	2	0	0	0
05:15 PM	0	6	2	0	0	0	0	0	1	2	0	0	1	0	0	0
05:30 PM	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:45 PM	0	4	1	0	0	0	0	0	0	1	0	0	1	0	0	0

3-Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Gilman Springs Road Southbound				Dead End Westbound				Gilman Springs Road Northbound				Bridge Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	1	0	0	0	0	0	0	3	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
05:15 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0

INTERSECTION #124 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-79 Northbound Ramps
Comment 3: E/W: Gilman Springs Road
Comment 4: Weather: Clear

Cars	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	120	76	0	93	1	2	0	4	54	0	0
07:15 AM	0	0	0	0	0	123	85	0	81	0	0	0	2	74	0	0
07:30 AM	0	0	0	0	0	121	55	0	88	0	0	0	3	74	0	0
07:45 AM	0	0	0	0	0	78	55	0	85	0	0	0	5	87	0	0
08:00 AM	0	0	0	0	0	103	58	0	78	0	0	0	1	66	0	0
08:15 AM	0	0	0	0	0	73	59	0	78	0	0	0	1	48	0	0
08:30 AM	0	0	0	0	0	80	32	0	82	0	4	0	2	48	0	0
08:45 AM	0	0	0	0	0	67	56	0	73	0	1	0	6	56	0	0

2-Axle Trucks	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	2	0	0
07:30 AM	0	0	0	0	0	0	2	0	0	1	0	0	0	3	0	0
07:45 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	2	1	0	1	0	0	0	0	3	0	0
08:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	1	0	2	0	0	0	0	4	0	0

3-Axle Trucks	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0

4+ Axle Trucks	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
07:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0
08:00 AM	0	0	0	0	0	1	1	0	2	0	0	0	1	0	0	0
08:15 AM	0	0	0	0	0	0	2	0	1	0	0	0	1	2	0	0
08:30 AM	0	0	0	0	0	0	3	0	2	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	1	2	0	0

INTERSECTION #124 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-79 Northbound Ramps
Comment 3: E/W: Gilman Springs Road
Comment 4: Weather: Clear

Cars	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	64	55	0	63	0	0	0	0	161	0	0
04:15 PM	0	0	0	0	0	74	36	0	66	0	1	0	3	153	0	0
04:30 PM	0	0	0	0	0	55	46	0	52	0	0	0	3	154	0	0
04:45 PM	0	0	0	0	0	63	40	0	53	0	2	0	2	188	0	0
05:00 PM	0	0	0	0	0	74	44	0	50	0	0	0	2	172	0	0
05:15 PM	0	0	0	0	0	81	64	0	80	0	0	0	3	166	0	0
05:30 PM	0	0	0	0	0	75	41	0	52	0	3	0	0	148	0	0
05:45 PM	0	0	0	0	0	60	43	0	62	1	0	0	0	147	0	0

2-Axle Trucks	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	5	2	0	1	0	0	0	0	5	0	0
04:15 PM	0	0	0	0	0	3	2	0	1	0	2	0	0	1	0	0
04:30 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0	0
04:45 PM	0	0	0	0	0	1	0	0	1	0	0	0	1	3	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	4	0	0

3-Axle Trucks	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-79 Northbound On Ramp Southbound				Gilman Springs Road Westbound				SR-79 Northbound Off Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

INTERSECTION #125 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-79 Southbound Ramps
Comment 3: E/W: Gilman Springs Road
Comment 4: Weather: Clear

Cars	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	27	0	0	0	1	209	0	0	0	0	0	0	0	31	46	0
07:15 AM	32	0	2	0	3	199	0	0	0	0	0	0	0	42	74	0
07:30 AM	30	0	0	0	1	209	0	0	0	0	0	0	0	47	78	0
07:45 AM	45	0	0	0	0	163	0	0	0	0	0	0	0	47	74	0
08:00 AM	33	0	0	0	3	173	0	0	0	0	0	0	0	29	60	0
08:15 AM	17	0	3	0	2	145	0	0	0	0	0	0	0	31	59	0
08:30 AM	21	0	1	0	2	159	0	0	0	0	0	0	0	29	59	0
08:45 AM	24	0	2	0	0	138	0	0	0	0	0	0	0	38	65	0

2-Axle Trucks	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	2	2	0
07:30 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
07:45 AM	1	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0
08:00 AM	1	0	0	0	0	3	0	0	0	0	0	0	0	1	1	0
08:15 AM	2	0	0	0	0	4	0	0	0	0	0	0	0	3	3	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	4	0
08:45 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	2	1	0

3-Axle Trucks	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0
07:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
07:45 AM	0	0	3	0	0	2	0	0	0	0	0	0	0	2	0	0
08:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	1	1	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
08:45 AM	2	0	0	0	0	2	0	0	0	0	0	0	0	1	2	0

INTERSECTION #125 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: SR-79 Southbound Ramps
Comment 3: E/W: Gilman Springs Road
Comment 4: Weather: Clear

Cars	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	46	0	0	0	1	128	0	0	0	0	0	0	0	115	135	0
04:15 PM	57	0	1	0	0	138	0	0	0	0	0	0	0	100	120	0
04:30 PM	58	0	5	0	0	105	0	0	0	0	0	0	0	108	149	0
04:45 PM	61	2	6	0	1	111	0	0	0	0	0	0	0	118	131	0
05:00 PM	56	1	5	0	3	117	0	0	0	0	0	0	0	124	138	0
05:15 PM	63	0	4	0	0	162	0	0	0	0	0	0	0	103	143	0
05:30 PM	60	2	3	0	1	122	0	0	0	0	0	0	0	89	153	0
05:45 PM	35	0	4	0	0	121	0	0	0	0	0	0	0	109	162	0

2-Axle Trucks	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	0	0	0	0	6	0	0	0	0	0	0	0	3	2	0
04:15 PM	1	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0
04:30 PM	3	0	1	0	0	3	0	0	0	0	0	0	0	1	4	0
04:45 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	4	1	0
05:00 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:15 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	2	3	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	3	0
05:45 PM	1	0	0	0	0	3	0	0	0	0	0	0	0	5	3	0

3-Axle Trucks	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	SR-79 Southbound Off Ramp Southbound				Gilman Springs Road Westbound				SR-79 Southbound On Ramp Northbound				Gilman Springs Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
04:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

INTERSECTION #126 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: North Sanderson Avenue
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	79	121	56	0	14	126	121	0	32	235	11	0	90	63	7	0
07:15 AM	125	150	52	0	13	115	133	0	31	212	7	0	72	70	15	0
07:30 AM	125	146	47	0	15	121	144	0	37	210	11	0	81	94	12	0
07:45 AM	133	144	64	0	14	72	109	0	27	195	17	0	73	73	18	0
08:00 AM	101	107	45	0	11	73	116	0	33	200	17	0	88	82	22	0
08:15 AM	92	124	46	0	10	73	115	0	35	169	10	0	83	73	15	0
08:30 AM	102	124	52	0	9	57	116	0	22	170	12	0	68	64	18	0
08:45 AM	108	118	33	0	14	64	107	0	16	168	9	0	62	62	12	0

2-Axle Trucks	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	0	1	0	0	2	1	0	1	2	0	0	5	3	1	0
07:15 AM	3	6	2	0	0	1	3	0	1	5	0	0	5	4	2	0
07:30 AM	2	7	4	0	0	1	1	0	0	3	0	0	2	0	0	0
07:45 AM	2	2	0	0	1	2	3	0	0	4	1	0	4	2	0	0
08:00 AM	3	3	1	0	1	2	2	0	1	5	0	0	4	4	1	0
08:15 AM	1	1	1	0	0	2	4	0	0	2	1	0	6	3	0	0
08:30 AM	2	8	1	0	0	1	4	0	0	2	0	0	3	1	1	0
08:45 AM	1	2	1	0	0	2	2	0	0	1	0	0	2	1	0	0

3-Axle Trucks	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	2	8	0	0
07:15 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0
07:30 AM	3	1	1	0	0	0	0	0	0	1	1	0	0	2	1	0
07:45 AM	0	1	0	0	1	1	1	0	0	0	0	0	0	1	0	0
08:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
08:15 AM	0	0	1	0	0	1	0	0	0	0	3	0	0	2	0	0
08:30 AM	2	0	0	0	0	2	1	0	0	1	0	0	0	1	0	0
08:45 AM	0	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0

4+ Axle Trucks	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	4	1	0	0	2	0	0	0	0	0	0	4	0	0	0
07:15 AM	1	3	2	0	2	0	1	0	0	3	0	0	3	0	0	0
07:30 AM	1	2	2	0	0	1	3	0	0	2	1	0	3	0	1	0
07:45 AM	1	0	3	0	0	0	1	0	1	3	0	0	1	1	0	0
08:00 AM	2	1	1	0	0	0	2	0	0	3	1	0	2	1	0	0
08:15 AM	0	1	2	0	0	2	1	0	0	4	0	0	3	1	0	0
08:30 AM	2	0	2	0	0	1	4	0	0	2	0	0	3	0	0	0
08:45 AM	0	4	2	0	0	0	2	0	0	1	0	0	1	0	0	0

INTERSECTION #126 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: North Sanderson Avenue
Comment 3: E/W: Ramona Expressway
Comment 4: Weather: Clear

Cars	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	160	234	94	0	10	77	91	0	32	150	11	0	64	108	29	0
04:15 PM	168	265	84	0	16	90	88	0	22	140	7	0	76	99	30	0
04:30 PM	183	282	100	0	8	86	104	0	31	111	10	0	57	111	39	0
04:45 PM	141	270	74	0	6	66	84	0	17	136	6	0	70	136	45	0
05:00 PM	153	308	70	0	7	71	99	0	25	147	11	0	75	130	35	0
05:15 PM	147	276	67	0	14	110	121	0	21	148	10	0	77	132	31	0
05:30 PM	194	295	90	0	12	82	100	0	33	129	6	0	56	71	30	0
05:45 PM	137	238	50	0	7	86	103	0	19	106	6	0	46	88	33	0

2-Axle Trucks	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	4	3	4	0	0	0	0	0	1	2	0	0	1	2	0	0
04:15 PM	1	5	0	0	0	1	2	0	1	1	0	0	0	0	0	0
04:30 PM	2	3	1	0	0	0	1	0	0	3	1	0	6	2	1	0
04:45 PM	2	8	1	0	1	2	0	0	1	3	0	0	4	2	0	0
05:00 PM	1	2	1	0	0	3	1	0	0	3	0	0	2	0	0	0
05:15 PM	4	8	2	0	0	0	1	0	0	1	0	0	3	2	0	0
05:30 PM	3	5	0	0	0	2	1	0	0	2	0	0	0	0	1	0
05:45 PM	1	0	1	0	1	0	0	0	0	4	0	0	1	2	0	0

3-Axle Trucks	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	2	2	0	0	0	1	0	0	1	0	0	0	0	1	0
04:30 PM	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	0
04:45 PM	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	0
05:15 PM	1	0	0	0	0	6	2	0	0	0	0	0	1	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0

4+ Axle Trucks	North Sanderson Avenue Southbound				Ramona Expressway Westbound				North Sanderson Avenue Northbound				Ramona Expressway Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	3	2	0	0	0	1	0	0	2	0	0	2	0	0	0
04:15 PM	0	4	3	0	0	0	1	0	0	3	0	0	0	0	0	0
04:30 PM	0	1	4	0	0	1	1	0	0	0	0	0	1	0	0	0
04:45 PM	3	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	1	2	0	1	1	0	0	0	0	0	0	2	3	0	0
05:30 PM	0	1	3	0	0	0	0	0	0	1	0	0	1	1	1	0
05:45 PM	0	2	1	0	0	1	3	0	0	0	0	0	2	0	1	0

INTERSECTION #129 AM

Start Date: 2/1/2018
Comment 1: City of Beaumont
Comment 2: N/S: North California Avenue
Comment 3: E/W: East 6th Street
Comment 4: Weather: Clear

Cars	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	23	0	0	8	67	2	0	98	18	6	0	1	39	33	0
07:15 AM	11	26	0	0	8	53	9	0	90	26	7	0	0	45	32	0
07:30 AM	10	19	0	0	9	59	4	0	87	18	17	0	2	60	26	0
07:45 AM	17	16	1	0	5	67	4	0	79	19	15	0	1	69	18	0
08:00 AM	8	17	2	0	7	68	3	0	68	7	19	0	2	74	18	0
08:15 AM	1	10	2	0	11	66	2	0	79	5	11	0	1	58	17	0
08:30 AM	0	10	1	0	10	57	2	0	89	9	12	0	8	48	22	0
08:45 AM	4	9	1	0	6	55	1	0	68	13	12	0	1	47	15	0

2-Axle Trucks	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0
07:15 AM	1	1	0	0	0	2	0	0	4	0	0	0	0	1	1	0
07:30 AM	2	0	0	0	1	2	0	0	1	0	1	0	0	1	1	0
07:45 AM	0	0	0	0	1	2	0	0	4	1	0	0	0	1	0	0
08:00 AM	0	1	1	0	0	1	0	0	1	0	1	0	1	0	0	0
08:15 AM	0	1	0	0	0	1	0	0	2	0	1	0	0	2	1	0
08:30 AM	0	0	0	0	0	0	0	0	5	1	0	0	0	2	1	0
08:45 AM	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0

3-Axle Trucks	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:15 AM	0	0	0	0	0	1	0	0	5	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
08:45 AM	0	0	0	0	0	1	0	0	2	0	0	0	0	1	0	0

INTERSECTION #129 PM

Start Date: 2/1/2018
Comment 1: City of Beaumont
Comment 2: N/S: North California Avenue
Comment 3: E/W: East 6th Street
Comment 4: Weather: Clear

Cars	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	7	14	0	0	11	60	4	0	61	15	18	0	1	93	42	0
04:15 PM	1	7	2	0	12	65	3	0	85	21	18	0	3	90	43	0
04:30 PM	8	11	3	0	12	64	6	0	68	16	21	0	0	90	45	0
04:45 PM	8	9	0	0	15	53	5	0	42	10	10	0	1	89	44	0
05:00 PM	10	11	2	0	11	88	3	0	58	22	11	0	5	107	37	0
05:15 PM	4	6	2	0	13	63	4	0	82	20	20	0	3	107	36	0
05:30 PM	6	7	2	0	9	70	6	0	91	23	15	0	1	107	44	0
05:45 PM	4	10	0	0	6	65	2	0	85	17	6	0	1	98	42	0

2-Axle Trucks	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	1	0	1	1	0	0	5	0	0	0	0	3	1	0
04:15 PM	0	0	0	0	1	2	0	0	1	0	1	0	1	2	1	0
04:30 PM	0	0	0	0	0	2	0	0	3	0	1	0	0	2	0	0
04:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0	0
05:00 PM	0	0	1	0	0	3	0	0	0	0	1	0	1	1	1	0
05:15 PM	0	0	0	0	1	0	0	0	1	0	1	0	0	1	1	0
05:30 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0
05:45 PM	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0

3-Axle Trucks	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	North California Avenue Southbound				East 6th Street Westbound				North California Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
05:30 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

INTERSECTION #130 AM

Start Date: 2/1/2018
Comment 1: City of Beaumont
Comment 2: N/S: Beaumont Avenue
Comment 3: E/W: East 6th Street
Comment 4: Weather: Clear

Cars	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	20	49	10	0	22	53	12	0	10	38	7	0	12	32	6	0
07:15 AM	29	53	7	0	26	52	19	0	13	31	11	0	9	45	18	0
07:30 AM	27	62	9	0	15	47	19	0	13	50	14	0	16	55	19	0
07:45 AM	41	67	12	0	20	56	14	0	16	48	12	0	12	75	18	0
08:00 AM	34	75	25	0	12	46	17	0	8	29	19	0	14	78	7	0
08:15 AM	29	60	16	0	27	61	21	0	13	36	16	0	12	53	10	0
08:30 AM	26	57	12	0	26	60	13	0	4	36	10	0	11	39	10	0
08:45 AM	26	49	11	0	25	49	15	0	7	31	19	0	9	53	9	0

2-Axle Trucks	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	2	1	0	0	0	2	0	0	0	1	0	0	0	2	0	0
07:15 AM	0	1	1	0	0	1	1	0	1	2	0	0	0	1	1	0
07:30 AM	0	1	3	0	0	0	0	0	0	3	0	0	1	5	0	0
07:45 AM	1	2	0	0	0	2	0	0	2	2	0	0	0	0	0	0
08:00 AM	1	1	1	0	2	0	0	0	0	1	2	0	1	0	0	0
08:15 AM	0	5	1	0	1	1	1	0	0	1	0	0	1	1	0	0
08:30 AM	1	2	0	0	0	0	1	0	0	3	2	0	0	2	0	0
08:45 AM	1	1	0	0	0	2	1	0	1	0	0	0	4	1	1	0

3-Axle Trucks	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

4+ Axle Trucks	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0

INTERSECTION #130 PM

Start Date: 2/1/2018
Comment 1: City of Beaumont
Comment 2: N/S: Beaumont Avenue
Comment 3: E/W: East 6th Street
Comment 4: Weather: Clear

Cars	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	34	74	12	0	24	59	51	0	15	34	20	0	28	79	12	0
04:15 PM	38	57	11	0	32	67	35	0	7	62	16	0	22	84	10	0
04:30 PM	41	66	12	0	27	58	45	0	9	70	14	0	18	77	8	0
04:45 PM	45	66	10	0	30	67	44	0	11	53	16	0	18	82	13	0
05:00 PM	41	57	9	0	30	72	34	0	15	64	17	0	21	87	17	0
05:15 PM	35	56	8	0	36	62	27	0	13	54	21	0	36	84	11	0
05:30 PM	39	81	14	0	38	72	27	0	10	49	24	0	26	106	12	0
05:45 PM	37	70	7	0	27	52	29	0	6	61	20	0	13	81	9	0

2-Axle Trucks	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	2	0	0	0	1	2	0	0	0	0	0	3	1	0	0
04:15 PM	0	0	2	0	0	3	1	0	0	0	0	0	1	1	0	0
04:30 PM	1	3	1	0	0	0	0	0	0	0	0	0	2	2	0	0
04:45 PM	0	1	0	0	0	3	0	0	0	1	0	0	0	1	1	0
05:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	0
05:15 PM	1	2	1	0	0	2	2	0	3	0	0	0	0	2	0	0
05:30 PM	1	0	0	0	0	2	0	0	0	1	0	0	2	1	0	0
05:45 PM	1	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0

3-Axle Trucks	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Beaumont Avenue Southbound				East 6th Street Westbound				Beaumont Avenue Northbound				East 6th Street Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #131 AM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Reche Vista Drive
Comment 3: E/W: Reche Canyon Road
Comment 4: Weather: Clear

Cars	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	4	4	0	0	325	0	2	0	0	1	62	0
07:15 AM	0	0	0	0	0	4	0	0	299	0	0	0	0	0	68	0
07:30 AM	0	0	0	0	4	1	0	0	256	0	0	0	0	0	65	0
07:45 AM	0	0	0	0	2	1	0	0	181	0	1	0	0	2	71	0
08:00 AM	0	0	0	0	1	1	0	0	199	0	1	0	0	0	66	0
08:15 AM	0	0	0	0	0	1	0	0	224	0	0	0	0	0	59	0
08:30 AM	0	0	0	0	1	1	0	0	222	0	2	0	0	0	65	0
08:45 AM	0	0	0	0	0	1	0	0	176	0	1	0	0	1	65	0

2-Axle Trucks	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
08:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

3-Axle Trucks	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

INTERSECTION #131 PM

Start Date: 2/1/2018
Comment 1: County of Riverside
Comment 2: N/S: Reche Vista Drive
Comment 3: E/W: Reche Canyon Road
Comment 4: Weather: Clear

Cars	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	1	0	0	136	0	2	0	0	0	246	0
04:15 PM	0	0	0	0	2	0	0	0	147	0	0	0	0	2	280	0
04:30 PM	0	0	0	0	1	0	0	0	147	0	3	0	0	6	253	0
04:45 PM	0	0	0	0	2	3	0	0	149	0	0	0	0	4	233	0
05:00 PM	0	0	0	0	2	0	0	0	141	0	2	0	0	0	278	1
05:15 PM	0	0	0	0	0	0	0	0	177	0	1	0	0	3	278	0
05:30 PM	0	0	0	0	2	2	0	0	132	0	2	0	0	2	277	0
05:45 PM	0	0	0	0	4	0	0	0	134	0	2	0	0	4	247	0

2-Axle Trucks	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0
04:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
05:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
05:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0

3-Axle Trucks	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Reche Canyon Road Westbound				Reche Vista Drive Northbound				Reche Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #132 AM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Alessandro Road
Comment 3: E/W: San Timoteo Canyon Road
Comment 4: Weather: Clear

Cars	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	33	0	13	0	0	122	58	0	0	0	0	0	3	42	0	0
07:15 AM	59	0	11	0	0	141	37	0	0	0	0	0	4	42	0	0
07:30 AM	63	0	19	0	0	134	37	0	0	0	0	0	4	39	0	0
07:45 AM	41	0	6	0	0	164	34	0	0	0	0	0	2	36	0	0
08:00 AM	40	0	10	0	0	136	61	0	0	0	0	0	4	40	0	0
08:15 AM	24	0	9	0	0	155	46	0	0	0	0	0	6	33	0	0
08:30 AM	34	0	7	0	0	89	41	0	0	0	0	0	4	27	0	0
08:45 AM	18	0	5	0	0	97	52	0	0	0	0	0	3	20	0	0

2-Axle Trucks	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	3	0	0
08:15 AM	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
08:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0

3-Axle Trucks	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0

4+ Axle Trucks	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

INTERSECTION #132 PM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Alessandro Road
Comment 3: E/W: San Timoteo Canyon Road
Comment 4: Weather: Clear

Cars	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	46	0	5	0	0	45	39	0	0	0	0	0	10	123	0	0
04:15 PM	46	0	3	0	0	59	76	0	0	0	0	0	0	109	0	0
04:30 PM	33	0	3	0	0	61	57	0	0	0	0	0	12	144	0	0
04:45 PM	52	0	6	0	0	70	65	0	0	0	0	0	9	88	0	0
05:00 PM	54	0	2	0	0	62	70	0	0	0	0	0	7	86	0	0
05:15 PM	61	0	6	0	0	58	39	0	0	0	0	0	6	97	0	0
05:30 PM	22	0	4	0	0	70	62	0	0	0	0	0	6	123	0	0
05:45 PM	51	0	1	0	0	44	54	0	0	0	0	0	10	109	0	0

2-Axle Trucks	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
04:15 PM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
04:30 PM	2	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Road Southbound				San Timoteo Canyon Road Westbound				Dead End Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #133 AM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Live Oak Canyon Road
Comment 3: E/W: San Timoteo Canyon Road
Comment 4: Weather: Clear

Cars	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	51	1	15	0	0	165	17	0	2	1	0	0	4	72	1	0
07:15 AM	49	0	21	0	0	158	25	0	3	0	0	0	1	98	0	0
07:30 AM	59	1	42	0	0	142	16	0	0	0	0	0	1	95	1	0
07:45 AM	44	0	38	0	0	167	21	0	2	0	0	0	0	78	1	0
08:00 AM	37	2	26	0	0	151	27	0	3	1	1	0	6	71	2	0
08:15 AM	37	0	17	0	0	164	35	0	3	0	0	0	2	64	0	0
08:30 AM	30	0	5	0	1	120	17	0	2	0	0	0	2	54	2	0
08:45 AM	33	2	7	0	0	138	22	0	0	0	0	0	2	37	0	0

2-Axle Trucks	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
07:15 AM	1	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
07:30 AM	4	0	1	0	0	4	2	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
08:00 AM	3	0	1	0	0	5	2	0	0	0	0	0	1	1	0	0
08:15 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
08:30 AM	0	0	0	0	0	1	2	0	0	0	0	0	1	2	0	0
08:45 AM	1	0	2	0	0	0	2	0	0	0	0	0	1	1	0	0

3-Axle Trucks	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
08:45 AM	2	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0

INTERSECTION #133 PM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Live Oak Canyon Road
Comment 3: E/W: San Timoteo Canyon Road
Comment 4: Weather: Clear

Cars	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	46	2	0	0	1	76	42	0	7	3	2	0	3	141	4	0
04:15 PM	56	1	7	0	0	125	39	0	5	1	0	0	5	148	2	0
04:30 PM	76	0	7	0	0	108	60	0	1	4	0	0	3	139	2	0
04:45 PM	64	0	4	0	1	127	57	0	2	0	1	0	4	145	1	0
05:00 PM	62	0	5	0	1	124	71	0	2	0	1	0	3	142	2	0
05:15 PM	73	1	1	0	1	94	71	0	1	2	0	0	1	146	0	0
05:30 PM	58	1	3	0	0	134	65	0	3	0	2	0	1	150	0	0
05:45 PM	59	1	3	0	1	96	55	0	0	1	4	0	2	150	1	0

2-Axle Trucks	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	3	0	0	0	0	1	0	0	0	3	0	0	0	4	3	0
04:15 PM	0	0	2	0	0	3	3	0	0	0	0	0	0	1	0	0
04:30 PM	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
05:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
05:15 PM	2	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
05:45 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	1	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
04:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Live Oak Canyon Road Southbound				San Timoteo Canyon Road Westbound				Live Oak Canyon Road Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0
04:45 PM	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #134 AM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: San Timoteo Canyon Road
Comment 4: Weather: Clear

Cars	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	16	27	0	0	178	0	4	0	0	2	118	0
07:15 AM	0	0	0	0	17	26	0	0	139	0	7	0	0	5	127	0
07:30 AM	0	0	0	0	22	19	0	0	158	0	5	0	0	3	143	0
07:45 AM	0	0	0	0	19	14	0	0	151	0	7	0	0	5	128	0
08:00 AM	0	0	0	0	14	11	0	0	141	0	9	0	0	7	95	0
08:15 AM	0	0	0	0	7	13	0	0	148	0	4	0	0	4	101	0
08:30 AM	0	0	0	0	11	8	0	0	147	0	3	0	0	6	78	1
08:45 AM	0	0	0	0	12	16	0	0	125	0	3	0	0	5	65	0

2-Axle Trucks	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0
07:15 AM	0	0	0	0	0	2	0	0	4	0	0	0	0	0	2	0
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	3	2	0
07:45 AM	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	0
08:00 AM	0	0	0	0	0	0	0	0	6	0	1	0	0	0	3	0
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3	0
08:30 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0
08:45 AM	0	0	0	0	2	0	0	0	2	0	0	0	0	1	2	0

3-Axle Trucks	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0

INTERSECTION #134 PM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Redlands Boulevard
Comment 3: E/W: San Timoteo Canyon Road
Comment 4: Weather: Clear

Cars	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	10	4	0	0	146	0	20	0	0	17	164	0
04:15 PM	0	0	0	0	9	4	0	0	143	0	19	0	0	23	188	0
04:30 PM	0	0	0	0	15	7	0	0	165	0	15	0	0	20	180	0
04:45 PM	0	0	0	0	11	8	0	0	173	0	29	0	0	10	195	0
05:00 PM	0	0	0	0	8	7	0	0	170	0	21	0	0	13	193	0
05:15 PM	0	0	0	0	9	3	0	0	159	0	17	0	0	17	205	0
05:30 PM	0	0	0	0	10	7	0	0	179	0	20	0	0	15	195	0
05:45 PM	0	0	0	0	9	4	0	0	135	0	20	0	0	13	193	0

2-Axle Trucks	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	1	1	0	0	3	0	0	0	0	1	5	0
04:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	1	1	0
04:30 PM	0	0	0	0	0	1	0	0	2	0	0	0	0	1	2	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	3	0
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
05:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0

3-Axle Trucks	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
04:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				San Timoteo Canyon Road Westbound				Redlands Boulevard Northbound				San Timoteo Canyon Road Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #135 AM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Alessandro Road
Comment 3: E/W: Crescent Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	42	22	0	0	23	0	70	0	0	6	6	0
07:15 AM	0	0	0	0	46	29	0	0	17	0	59	0	0	6	10	0
07:30 AM	0	0	0	0	49	29	0	0	20	0	50	0	0	13	12	0
07:45 AM	0	0	0	0	38	39	0	0	18	0	40	0	0	11	12	0
08:00 AM	0	0	0	0	39	17	0	0	20	0	48	0	0	7	8	0
08:15 AM	0	0	0	0	21	19	0	0	16	0	59	0	0	5	9	0
08:30 AM	0	0	0	0	28	15	0	0	20	0	42	0	0	6	17	0
08:45 AM	0	0	0	0	25	8	0	0	19	0	53	0	0	10	4	0

2-Axle Trucks	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0
07:30 AM	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	2	0	0	0	2	0	4	0	0	0	0	0
08:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

INTERSECTION #135 PM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Alessandro Road
Comment 3: E/W: Crescent Avenue
Comment 4: Weather: Clear

Cars	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	46	11	0	0	5	0	56	0	0	9	19	0
04:15 PM	0	0	0	0	53	12	0	0	7	0	63	0	0	13	17	0
04:30 PM	0	0	0	0	39	5	0	0	9	0	70	0	0	13	24	0
04:45 PM	0	0	0	0	45	13	0	0	5	0	70	0	0	15	27	0
05:00 PM	0	0	0	0	56	12	0	0	8	0	70	0	0	19	30	0
05:15 PM	0	0	0	0	52	10	0	0	9	0	53	0	0	17	29	0
05:30 PM	0	0	0	0	37	9	0	0	8	0	54	0	0	16	22	0
05:45 PM	0	0	0	0	37	10	0	0	14	0	61	0	0	13	22	0

2-Axle Trucks	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
04:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Dead End Southbound				Crescent Avenue Westbound				Alessandro Road Northbound				Crescent Avenue Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION #136 AM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Alessandro Road
Comment 3: E/W: Sunset Drive
Comment 4: Weather: Clear

Cars	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	1	43	5	0	2	1	3	0	0	79	2	0	4	0	0	0
07:15 AM	0	52	3	0	2	1	6	0	0	54	2	0	3	0	3	0
07:30 AM	2	58	0	0	8	4	7	0	0	51	3	0	0	1	0	0
07:45 AM	0	39	2	0	6	0	4	0	0	41	3	0	2	0	1	0
08:00 AM	1	46	2	0	2	3	3	0	0	65	1	0	3	0	1	0
08:15 AM	1	25	0	0	2	1	4	0	3	67	3	0	0	0	0	0
08:30 AM	3	42	2	0	1	2	4	0	0	43	2	0	1	3	1	0
08:45 AM	0	19	2	0	1	0	3	0	1	61	4	0	0	1	1	0

2-Axle Trucks	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
08:15 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
08:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3-Axle Trucks	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

INTERSECTION #136 PM

Start Date: 2/1/2018
Comment 1: City of Redlands
Comment 2: N/S: Alessandro Road
Comment 3: E/W: Sunset Drive
Comment 4: Weather: Clear

Cars	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	2	45	2	0	2	2	1	0	1	47	7	0	3	3	2	0
04:15 PM	3	60	0	0	0	1	6	0	0	59	4	0	1	1	4	0
04:30 PM	4	46	0	0	1	0	0	0	1	70	4	0	2	3	0	0
04:45 PM	3	67	1	0	2	0	3	0	2	65	4	0	1	1	0	0
05:00 PM	3	72	3	0	1	0	1	0	1	68	6	0	1	3	2	0
05:15 PM	3	69	3	0	1	0	3	0	1	52	2	0	0	3	2	0
05:30 PM	3	45	0	0	2	1	0	0	1	54	5	0	2	1	0	0
05:45 PM	4	52	0	0	3	0	4	0	0	59	7	0	3	0	0	0

2-Axle Trucks	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
04:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

3-Axle Trucks	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4+ Axle Trucks	Alessandro Road Southbound				Sunset Drive Westbound				Alessandro Road Northbound				Sunset Drive Eastbound			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of Moreno Valley
Theodore Street
B/ Ironwood Avenue - State Route 60 Westbound
24 Hour Directional Classification Count

MRV001C
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	2	3	0	0	0	1	0	0	0	0	0	0	0	6
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	1	0	0	0	0	0	0	0	**1**	0	0	3
04:00	3	7	3	0	0	3	0	0	11	0	0	0	0	27
05:00	2	6	3	0	1	2	0	1	14	0	0	0	0	29
06:00	**4**	**25**	7	1	2	4	0	0	6	0	0	0	0	49
07:00	2	14	7	0	6	4	0	3	6	0	0	0	0	42
08:00	2	17	9	1	**9**	**5**	0	1	9	0	0	0	0	53
09:00	2	10	8	0	5	3	0	2	13	0	0	0	0	43
10:00	4	6	8	0	1	5	0	1	**15**	0	0	0	0	40
11:00	1	18	**10**	**2**	3	3	0	**4**	13	0	0	0	0	**54**
12 PM	**7**	13	6	1	3	**6**	0	3	11	0	0	0	0	**50**
13:00	2	13	7	**2**	**5**	4	0	3	**13**	0	**1**	0	0	50
14:00	2	6	6	0	2	5	**1**	2	7	0	0	0	0	31
15:00	2	10	**10**	0	2	3	0	**4**	1	0	0	0	0	32
16:00	3	**16**	3	0	0	0	0	0	0	0	0	0	0	22
17:00	2	15	4	0	0	0	0	0	0	0	0	0	0	21
18:00	0	15	3	0	3	0	0	0	0	0	0	0	0	21
19:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
20:00	0	4	0	1	0	0	0	0	0	0	0	0	0	5
21:00	0	7	1	0	0	0	0	1	0	0	0	0	0	9
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
23:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
Total	40	215	102	8	42	48	1	25	119	0	2	0	0	602
Percent	6.6%	35.7%	16.9%	1.3%	7.0%	8.0%	0.2%	4.2%	19.8%	0.0%	0.3%	0.0%	0.0%	
AM Peak	06:00	06:00	11:00	11:00	08:00	08:00		11:00	10:00		03:00			11:00
Vol.	4	25	10	2	9	5		4	15		1			54
PM Peak	12:00	16:00	15:00	13:00	13:00	12:00	14:00	15:00	13:00		13:00			12:00
Vol.	7	16	10	2	5	6	1	4	13		1			50
Grand Total	40	215	102	8	42	48	1	25	119	0	2	0	0	602
Percent	6.6%	35.7%	16.9%	1.3%	7.0%	8.0%	0.2%	4.2%	19.8%	0.0%	0.3%	0.0%	0.0%	

City of Moreno Valley
Theodore Street
B/ Ironwood Avenue - State Route 60 Westbound
24 Hour Directional Classification Count

MRV001C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	3	2	0	0	0	0	0	1	0	0	0	0	6
02:00	0	2	1	0	2	0	0	0	0	0	**1**	0	0	6
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	7	0	0	1	0	0	0	0	0	0	0	0	8
05:00	0	6	2	2	0	0	0	2	9	0	0	0	0	21
06:00	**2**	5	3	0	2	1	0	1	11	0	1	0	0	26
07:00	0	8	2	**3**	3	0	0	0	16	0	0	0	0	32
08:00	0	9	4	1	**11**	**3**	0	1	9	0	0	0	0	38
09:00	0	7	3	0	7	1	0	1	16	0	0	0	0	35
10:00	0	9	7	1	5	1	0	2	11	0	0	0	0	36
11:00	1	**15**	**9**	0	3	2	0	**3**	**17**	0	0	0	0	**50**
12 PM	1	13	8	**2**	3	2	0	**5**	11	0	0	0	0	45
13:00	1	10	12	0	3	2	0	1	13	0	0	0	0	42
14:00	1	16	**13**	2	**5**	**4**	0	3	10	0	0	0	0	**54**
15:00	0	15	7	1	4	3	0	4	**14**	0	0	0	0	48
16:00	**3**	**28**	8	0	4	2	0	0	0	0	0	0	0	45
17:00	1	14	9	0	0	0	0	0	0	0	0	0	0	24
18:00	0	13	7	0	1	0	0	0	0	0	0	0	0	21
19:00	0	11	3	0	1	0	0	0	0	0	0	0	0	15
20:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
21:00	0	3	3	0	0	0	0	1	0	0	0	0	0	7
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
Total	10	205	105	12	55	21	0	24	138	0	2	0	0	572
Percent	1.7%	35.8%	18.4%	2.1%	9.6%	3.7%	0.0%	4.2%	24.1%	0.0%	0.3%	0.0%	0.0%	
AM Peak	06:00	11:00	11:00	07:00	08:00	08:00		11:00	11:00		02:00			11:00
Vol.	2	15	9	3	11	3		3	17		1			50
PM Peak	16:00	16:00	14:00	12:00	14:00	14:00		12:00	15:00					14:00
Vol.	3	28	13	2	5	4		5	14					54
Grand Total	10	205	105	12	55	21	0	24	138	0	2	0	0	572
Percent	1.7%	35.8%	18.4%	2.1%	9.6%	3.7%	0.0%	4.2%	24.1%	0.0%	0.3%	0.0%	0.0%	

City of Moreno Valley
Theodore Street
B/ Ironwood Avenue - State Route 60 Westbound
24 Hour Directional Classification Count

MRV001C
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	2	6	0	0	0	1	0	0	0	0	0	0	0	9
01:00	0	4	3	0	0	0	0	0	1	0	0	0	0	8
02:00	0	3	2	0	2	0	0	0	0	0	**1**	0	0	8
03:00	0	3	1	0	0	0	0	0	0	0	1	0	0	5
04:00	3	14	3	0	1	3	0	0	11	0	0	0	0	35
05:00	2	12	5	2	1	2	0	3	23	0	0	0	0	50
06:00	**6**	30	10	1	4	5	0	1	17	0	1	0	0	75
07:00	2	22	9	**3**	9	4	0	3	22	0	0	0	0	74
08:00	2	26	13	2	**20**	**8**	0	2	18	0	0	0	0	91
09:00	2	17	11	0	12	4	0	3	29	0	0	0	0	78
10:00	4	15	15	1	6	6	0	3	26	0	0	0	0	76
11:00	2	**33**	**19**	2	6	5	0	**7**	**30**	0	0	0	0	**104**
12 PM	**8**	26	14	**3**	6	8	0	**8**	22	0	0	0	0	**95**
13:00	3	23	**19**	2	**8**	6	0	4	**26**	0	**1**	0	0	92
14:00	3	22	19	2	7	**9**	**1**	5	17	0	0	0	0	85
15:00	2	25	17	1	6	6	0	8	15	0	0	0	0	80
16:00	6	**44**	11	0	4	2	0	0	0	0	0	0	0	67
17:00	3	29	13	0	0	0	0	0	0	0	0	0	0	45
18:00	0	28	10	0	4	0	0	0	0	0	0	0	0	42
19:00	0	15	5	0	1	0	0	0	0	0	0	0	0	21
20:00	0	8	0	1	0	0	0	0	0	0	0	0	0	9
21:00	0	10	4	0	0	0	0	2	0	0	0	0	0	16
22:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
23:00	0	3	3	0	0	0	0	0	0	0	0	0	0	6
Total	50	420	207	20	97	69	1	49	257	0	4	0	0	1174
Percent	4.3%	35.8%	17.6%	1.7%	8.3%	5.9%	0.1%	4.2%	21.9%	0.0%	0.3%	0.0%	0.0%	
AM Peak	06:00	11:00	11:00	07:00	08:00	08:00		11:00	11:00		02:00			11:00
Vol.	6	33	19	3	20	8		7	30		1			104
PM Peak	12:00	16:00	13:00	12:00	13:00	14:00	14:00	12:00	13:00		13:00			12:00
Vol.	8	44	19	3	8	9	1	8	26		1			95
Grand Total	50	420	207	20	97	69	1	49	257	0	4	0	0	1174
Percent	4.3%	35.8%	17.6%	1.7%	8.3%	5.9%	0.1%	4.2%	21.9%	0.0%	0.3%	0.0%	0.0%	

City of Moreno Valley
Theodore Street
B/ State Route 60 Eastbound - Fir Avenue
24 Hour Directional Classification Count

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

MRV002C
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	1	6	0	0	1	1	0	0	0	0	0	0	0	9
01:00	1	2	0	0	0	1	0	0	0	0	0	0	0	4
02:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
03:00	0	1	1	0	0	0	0	0	0	0	**1**	0	0	3
04:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
05:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
06:00	1	21	3	0	**5**	1	0	0	0	0	0	0	0	31
07:00	1	25	5	0	3	**2**	0	**2**	0	0	0	0	0	38
08:00	1	**45**	11	0	3	1	0	0	**1**	0	0	0	0	**62**
09:00	1	11	11	0	3	1	0	1	0	0	0	0	0	28
10:00	**2**	26	11	**1**	3	1	0	0	0	0	0	0	0	44
11:00	1	30	**13**	0	3	1	0	0	0	0	0	0	0	48
12 PM	1	39	**14**	0	2	1	0	0	**2**	0	0	0	0	59
13:00	3	42	10	0	3	**3**	0	1	0	0	0	0	0	62
14:00	3	40	8	**1**	**4**	3	0	0	0	0	0	0	0	59
15:00	2	**53**	9	0	4	2	0	0	1	0	0	0	0	**71**
16:00	**5**	42	7	0	0	2	0	**2**	0	0	0	0	0	58
17:00	5	50	7	0	3	3	0	0	0	0	0	0	0	68
18:00	2	44	5	0	1	2	0	0	0	0	0	0	0	54
19:00	1	15	0	0	0	1	0	0	0	0	0	0	0	17
20:00	0	16	3	0	0	0	0	1	1	0	0	0	0	21
21:00	2	31	5	0	0	2	0	0	0	0	0	0	0	40
22:00	2	11	4	0	0	2	0	0	1	0	0	0	0	20
23:00	1	2	1	0	1	0	0	0	0	0	0	0	0	5
Total	36	569	133	2	41	30	0	7	6	0	1	0	0	825
Percent	4.4%	69.0%	16.1%	0.2%	5.0%	3.6%	0.0%	0.8%	0.7%	0.0%	0.1%	0.0%	0.0%	
AM Peak	10:00	08:00	11:00	10:00	06:00	07:00		07:00	08:00		03:00			08:00
Vol.	2	45	13	1	5	2		2	1		1			62
PM Peak	16:00	15:00	12:00	14:00	14:00	13:00		16:00	12:00					15:00
Vol.	5	53	14	1	4	3		2	2					71
Grand Total	36	569	133	2	41	30	0	7	6	0	1	0	0	825
Percent	4.4%	69.0%	16.1%	0.2%	5.0%	3.6%	0.0%	0.8%	0.7%	0.0%	0.1%	0.0%	0.0%	

Counts Unlimited, Inc

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email: counts@countsunlimited.com

City of Moreno Valley
Theodore Street
B/ State Route 60 Eastbound - Fir Avenue
24 Hour Directional Classification Count

MRV002C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	6	1	0	1	0	0	0	1	0	0	0	0	9
01:00	1	7	0	0	0	1	0	0	2	0	0	0	0	11
02:00	2	4	1	0	0	2	0	0	2	0	0	0	0	11
03:00	2	10	2	0	0	2	0	0	1	0	0	0	0	17
04:00	1	64	22	0	3	1	0	0	0	0	0	0	0	91
05:00	1	76	13	0	2	1	0	**2**	2	0	0	0	0	97
06:00	2	27	7	0	3	2	0	0	0	0	0	0	0	41
07:00	5	49	12	0	3	5	0	0	0	0	0	0	0	74
08:00	5	**82**	**24**	1	2	5	0	1	2	0	0	0	0	**122**
09:00	**8**	27	14	1	**9**	**7**	0	1	4	0	0	0	0	71
10:00	3	30	12	**2**	7	5	0	2	3	0	0	0	0	64
11:00	7	37	12	1	4	6	0	0	**8**	0	0	0	0	75
12 PM	5	40	8	**1**	1	5	0	**2**	8	0	**1**	0	0	71
13:00	7	52	**17**	1	3	6	0	0	2	0	1	0	0	89
14:00	**8**	38	13	0	4	**7**	0	1	1	0	0	0	0	72
15:00	4	32	8	1	4	2	0	2	1	0	0	0	0	54
16:00	7	40	11	0	5	3	0	0	2	0	0	0	0	68
17:00	7	27	8	0	**7**	4	0	0	0	0	0	0	0	53
18:00	3	28	9	0	2	4	**1**	1	0	0	0	0	0	48
19:00	2	46	7	0	1	3	0	1	2	0	0	0	0	62
20:00	5	31	11	1	1	4	0	0	**15**	0	0	0	0	68
21:00	3	**70**	9	0	2	3	0	1	13	0	0	0	0	**101**
22:00	2	17	4	0	0	3	0	0	8	0	0	0	0	34
23:00	3	7	2	0	0	3	0	0	3	0	0	0	0	18
Total	93	847	227	9	64	84	1	14	80	0	2	0	0	1421
Percent	6.5%	59.6%	16.0%	0.6%	4.5%	5.9%	0.1%	1.0%	5.6%	0.0%	0.1%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	10:00	09:00	09:00		05:00	11:00					08:00
Vol.	8	82	24	2	9	7		2	8					122
PM Peak	14:00	21:00	13:00	12:00	17:00	14:00	18:00	12:00	20:00		12:00			21:00
Vol.	8	70	17	1	7	7	1	2	15		1			101
Grand Total	93	847	227	9	64	84	1	14	80	0	2	0	0	1421
Percent	6.5%	59.6%	16.0%	0.6%	4.5%	5.9%	0.1%	1.0%	5.6%	0.0%	0.1%	0.0%	0.0%	

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City of Moreno Valley
Theodore Street
B/ State Route 60 Eastbound - Fir Avenue
24 Hour Directional Classification Count

MRV002C
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	1	12	1	0	2	1	0	0	1	0	0	0	0	18
01:00	2	9	0	0	0	2	0	0	2	0	0	0	0	15
02:00	2	6	2	0	1	2	0	0	2	0	0	0	0	15
03:00	2	11	3	0	0	2	0	0	1	0	**1**	0	0	20
04:00	1	69	24	0	3	1	0	0	0	0	0	0	0	98
05:00	1	86	15	0	3	1	0	**2**	2	0	0	0	0	110
06:00	3	48	10	0	8	3	0	0	0	0	0	0	0	72
07:00	6	74	17	0	6	7	0	2	0	0	0	0	0	112
08:00	6	**127**	**35**	1	5	6	0	1	3	0	0	0	0	**184**
09:00	**9**	38	25	1	**12**	**8**	0	2	4	0	0	0	0	99
10:00	5	56	23	**3**	10	6	0	2	3	0	0	0	0	108
11:00	8	67	25	1	7	7	0	0	**8**	0	0	0	0	123
12 PM	6	79	22	**1**	3	6	0	**2**	10	0	**1**	0	0	130
13:00	10	94	**27**	1	6	9	0	1	2	0	1	0	0	**151**
14:00	11	78	21	1	8	**10**	0	1	1	0	0	0	0	131
15:00	6	85	17	1	8	4	0	2	2	0	0	0	0	125
16:00	**12**	82	18	0	5	5	0	2	2	0	0	0	0	126
17:00	12	77	15	0	**10**	7	0	0	0	0	0	0	0	121
18:00	5	72	14	0	3	6	**1**	1	0	0	0	0	0	102
19:00	3	61	7	0	1	4	0	1	2	0	0	0	0	79
20:00	5	47	14	1	1	4	0	1	**16**	0	0	0	0	89
21:00	5	**101**	14	0	2	5	0	1	13	0	0	0	0	141
22:00	4	28	8	0	0	5	0	0	9	0	0	0	0	54
23:00	4	9	3	0	1	3	0	0	3	0	0	0	0	23
Total	129	1416	360	11	105	114	1	21	86	0	3	0	0	2246
Percent	5.7%	63.0%	16.0%	0.5%	4.7%	5.1%	0.0%	0.9%	3.8%	0.0%	0.1%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	10:00	09:00	09:00		05:00	11:00		03:00			08:00
Vol.	9	127	35	3	12	8		2	8		1			184
PM Peak	16:00	21:00	13:00	12:00	17:00	14:00	18:00	12:00	20:00		12:00			13:00
Vol.	12	101	27	1	10	10	1	2	16		1			151
Grand Total	129	1416	360	11	105	114	1	21	86	0	3	0	0	2246
Percent	5.7%	63.0%	16.0%	0.5%	4.7%	5.1%	0.0%	0.9%	3.8%	0.0%	0.1%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Moreno Valley
Fir Avenue
B/ Redlands Boulevard - Theodore Street
24 Hour Directional Classification Count

MRV003C
Site Code: 098-18079

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	1	0	0	1	0	0	0	**1**	0	0	0	0	3
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	2	0	0	1	0	0	0	1	0	0	0	0	4
07:00	**1**	2	1	0	2	**1**	0	0	0	0	0	0	0	7
08:00	1	**11**	0	0	1	1	0	0	0	0	0	0	0	**14**
09:00	1	2	**2**	0	1	1	0	0	0	0	0	0	0	7
10:00	0	2	0	0	1	0	0	**1**	1	0	0	0	0	5
11:00	0	3	2	0	**3**	0	0	0	0	0	0	0	0	8
12 PM	0	3	**2**	0	**2**	0	0	0	**3**	0	0	0	0	10
13:00	0	**5**	1	0	1	0	0	0	2	0	0	0	0	9
14:00	**2**	4	1	0	1	**2**	0	0	1	0	0	0	0	**11**
15:00	0	4	0	**1**	0	0	0	0	1	0	0	0	0	6
16:00	1	2	2	0	1	1	0	0	0	0	0	0	0	7
17:00	0	1	0	0	0	0	0	0	3	0	0	0	0	4
18:00	0	1	0	0	0	0	0	0	2	0	0	0	0	3
19:00	2	2	0	0	1	1	0	0	0	0	0	0	0	6
20:00	0	1	0	0	0	0	0	**1**	1	0	0	0	0	3
21:00	1	3	0	0	0	1	0	0	1	0	0	0	0	6
22:00	1	4	0	0	0	1	0	0	2	0	0	0	0	8
23:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	10	59	11	1	17	9	0	3	19	0	0	0	0	129
Percent	7.8%	45.7%	8.5%	0.8%	13.2%	7.0%	0.0%	2.3%	14.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	09:00		11:00	07:00		10:00	00:00					08:00
Vol.	1	11	2		3	1		1	1					14
PM Peak	14:00	13:00	12:00	15:00	12:00	14:00		20:00	12:00					14:00
Vol.	2	5	2	1	2	2		1	3					11
Grand Total	10	59	11	1	17	9	0	3	19	0	0	0	0	129
Percent	7.8%	45.7%	8.5%	0.8%	13.2%	7.0%	0.0%	2.3%	14.7%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Fir Avenue
B/ Redlands Boulevard - Theodore Street
24 Hour Directional Classification Count

MRV003C
Site Code: 098-18079

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	3	1	0	1	0	0	0	1	0	0	0	0	6
01:00	0	4	0	0	0	0	0	0	3	0	0	0	0	7
02:00	0	2	0	0	0	0	0	0	4	0	0	0	0	6
03:00	0	2	0	0	0	0	0	0	4	0	0	0	0	6
04:00	**1**	7	2	0	1	1	0	0	1	0	0	0	0	13
05:00	1	12	3	0	0	**2**	0	0	2	0	0	0	0	20
06:00	0	11	4	0	4	0	0	1	2	0	0	0	0	22
07:00	1	10	3	0	2	1	0	0	3	0	0	0	0	20
08:00	1	**53**	**12**	0	0	1	0	2	6	0	0	0	0	**75**
09:00	1	15	3	1	1	0	0	1	11	0	0	0	0	33
10:00	0	13	1	**2**	3	1	0	**3**	6	0	0	0	0	29
11:00	0	8	4	1	**5**	0	0	0	**13**	0	0	0	0	31
12 PM	0	8	4	**1**	0	1	0	**2**	12	0	0	0	0	28
13:00	1	27	4	1	1	1	0	1	6	0	0	0	0	42
14:00	**2**	15	3	0	**3**	2	0	1	8	0	0	0	0	34
15:00	0	17	2	1	0	0	0	1	3	0	0	0	0	24
16:00	1	14	4	0	2	1	0	1	4	0	0	0	0	27
17:00	1	32	3	0	1	0	0	1	4	0	0	0	0	42
18:00	2	24	**6**	0	0	**4**	0	1	0	0	0	0	0	37
19:00	0	23	3	0	0	0	0	1	4	0	0	0	0	31
20:00	1	15	2	0	3	0	0	0	**19**	0	0	0	0	40
21:00	1	**43**	4	0	0	1	0	2	14	0	0	0	0	**65**
22:00	0	10	0	0	0	1	0	0	9	0	0	0	0	20
23:00	0	3	1	0	0	0	0	0	6	0	0	0	0	10
Total	14	371	69	7	27	17	0	18	145	0	0	0	0	668
Percent	2.1%	55.5%	10.3%	1.0%	4.0%	2.5%	0.0%	2.7%	21.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	04:00	08:00	08:00	10:00	11:00	05:00		10:00	11:00					08:00
Vol.	1	53	12	2	5	2		3	13					75
PM Peak	14:00	21:00	18:00	12:00	14:00	18:00		12:00	20:00					21:00
Vol.	2	43	6	1	3	4		2	19					65
Grand Total	14	371	69	7	27	17	0	18	145	0	0	0	0	668
Percent	2.1%	55.5%	10.3%	1.0%	4.0%	2.5%	0.0%	2.7%	21.7%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Fir Avenue
B/ Redlands Boulevard - Theodore Street
24 Hour Directional Classification Count

MRV003C
Site Code: 098-18079

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	4	1	0	2	0	0	0	2	0	0	0	0	9
01:00	0	5	0	0	0	0	0	0	3	0	0	0	0	8
02:00	0	2	0	0	0	0	0	0	4	0	0	0	0	6
03:00	0	2	0	0	1	0	0	0	4	0	0	0	0	7
04:00	1	11	2	0	1	1	0	0	1	0	0	0	0	17
05:00	1	13	3	0	0	**2**	0	0	2	0	0	0	0	21
06:00	0	13	4	0	5	0	0	1	3	0	0	0	0	26
07:00	**2**	12	4	0	4	2	0	0	3	0	0	0	0	27
08:00	2	**64**	**12**	0	1	2	0	2	6	0	0	0	0	**89**
09:00	2	17	5	1	2	1	0	1	11	0	0	0	0	40
10:00	0	15	1	**2**	4	1	0	**4**	7	0	0	0	0	34
11:00	0	11	6	1	**8**	0	0	0	**13**	0	0	0	0	39
12 PM	0	11	**6**	1	2	1	0	**2**	15	0	0	0	0	38
13:00	1	32	5	1	2	1	0	1	8	0	0	0	0	51
14:00	**4**	19	4	0	**4**	**4**	0	1	9	0	0	0	0	45
15:00	0	21	2	**2**	0	0	0	1	4	0	0	0	0	30
16:00	2	16	6	0	3	2	0	1	4	0	0	0	0	34
17:00	1	33	3	0	1	0	0	1	7	0	0	0	0	46
18:00	2	25	6	0	0	4	0	1	2	0	0	0	0	40
19:00	2	25	3	0	1	1	0	1	4	0	0	0	0	37
20:00	1	16	2	0	3	0	0	1	**20**	0	0	0	0	43
21:00	2	**46**	4	0	0	2	0	2	15	0	0	0	0	**71**
22:00	1	14	0	0	0	2	0	0	11	0	0	0	0	28
23:00	0	3	1	0	0	0	0	1	6	0	0	0	0	11
Total	24	430	80	8	44	26	0	21	164	0	0	0	0	797
Percent	3.0%	54.0%	10.0%	1.0%	5.5%	3.3%	0.0%	2.6%	20.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	10:00	11:00	05:00		10:00	11:00					08:00
Vol.	2	64	12	2	8	2		4	13					89
PM Peak	14:00	21:00	12:00	15:00	14:00	14:00		12:00	20:00					21:00
Vol.	4	46	6	2	4	4		2	20					71
Grand Total	24	430	80	8	44	26	0	21	164	0	0	0	0	797
Percent	3.0%	54.0%	10.0%	1.0%	5.5%	3.3%	0.0%	2.6%	20.6%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Moreno Valley
Theodore Street
B/ Fir Avenue - Alessandro Boulevard
24 Hour Directional Classification Count

MRV008C
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	**1**	4	0	0	0	**1**	0	0	0	0	0	0	0	6
02:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	19	4	0	0	0	0	0	0	0	0	0	0	23
05:00	0	16	2	0	2	0	0	0	0	0	0	0	0	20
06:00	0	21	3	0	**3**	0	0	0	0	0	0	0	0	27
07:00	0	33	**12**	**1**	3	0	0	**2**	0	0	0	0	0	51
08:00	0	**48**	9	0	2	0	0	0	0	0	0	0	0	**59**
09:00	0	13	6	0	1	0	0	1	0	0	0	0	0	21
10:00	0	16	7	1	1	0	0	0	0	0	0	0	0	25
11:00	0	15	11	0	1	0	0	0	0	0	0	0	0	27
12 PM	0	9	7	0	1	0	0	0	0	0	0	0	0	17
13:00	0	25	9	0	3	0	0	0	0	0	0	0	0	37
14:00	0	16	7	**1**	4	**1**	0	0	**2**	0	0	0	0	31
15:00	0	33	**12**	0	**5**	0	0	0	1	0	0	0	0	**51**
16:00	**3**	11	3	0	1	0	0	**1**	0	0	0	0	0	19
17:00	1	21	5	1	2	0	0	0	0	0	0	0	0	30
18:00	0	14	4	0	1	0	0	0	0	0	0	0	0	19
19:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
20:00	0	14	1	0	0	0	0	0	0	0	0	0	0	15
21:00	0	**34**	10	0	0	0	0	0	0	0	0	0	0	44
22:00	0	8	5	0	0	0	0	0	0	0	0	0	0	13
23:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	5	385	122	4	30	2	0	4	3	0	0	0	0	555
Percent	0.9%	69.4%	22.0%	0.7%	5.4%	0.4%	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	08:00	07:00	07:00	06:00	01:00		07:00						08:00
Vol.	1	48	12	1	3	1		2						59
PM Peak	16:00	21:00	15:00	14:00	15:00	14:00		16:00	14:00					15:00
Vol.	3	34	12	1	5	1		1	2					51
Grand Total	5	385	122	4	30	2	0	4	3	0	0	0	0	555
Percent	0.9%	69.4%	22.0%	0.7%	5.4%	0.4%	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Theodore Street
B/ Fir Avenue - Alessandro Boulevard
24 Hour Directional Classification Count

MRV008C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	5	1	0	0	0	0	0	0	0	0	0	0	6
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
05:00	**1**	10	3	0	1	0	0	**1**	0	0	0	0	0	16
06:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
07:00	0	16	5	**1**	2	0	0	0	0	0	0	0	0	24
08:00	0	**37**	**11**	0	2	0	0	0	0	0	0	0	0	**50**
09:00	0	16	5	0	**3**	0	0	0	0	0	0	0	0	24
10:00	0	13	6	0	1	0	0	0	0	0	0	0	0	20
11:00	0	16	7	0	1	0	0	0	0	0	0	0	0	24
12 PM	0	19	5	0	2	0	0	0	0	0	0	0	0	26
13:00	0	21	7	0	1	0	0	0	0	0	0	0	0	29
14:00	0	23	10	0	**4**	0	0	**1**	0	0	0	0	0	38
15:00	**1**	28	**13**	0	3	0	0	0	0	0	0	0	0	45
16:00	1	**40**	10	0	3	0	0	0	0	0	0	0	0	**54**
17:00	0	37	9	0	2	0	0	0	0	0	0	0	0	48
18:00	0	24	8	0	2	**1**	0	0	0	0	0	0	0	35
19:00	0	16	3	0	1	1	0	0	0	0	0	0	0	21
20:00	0	14	3	0	1	0	0	0	0	0	0	0	0	18
21:00	0	37	5	0	1	0	0	0	**1**	0	0	0	0	44
22:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
23:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
Total	3	406	120	1	30	2	0	2	1	0	0	0	0	565
Percent	0.5%	71.9%	21.2%	0.2%	5.3%	0.4%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	08:00	08:00	07:00	09:00			05:00						08:00
Vol.	1	37	11	1	3			1						50
PM Peak	15:00	16:00	15:00		14:00	18:00		14:00	21:00					16:00
Vol.	1	40	13		4	1		1	1					54
Grand Total	3	406	120	1	30	2	0	2	1	0	0	0	0	565
Percent	0.5%	71.9%	21.2%	0.2%	5.3%	0.4%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Theodore Street
B/ Fir Avenue - Alessandro Boulevard
24 Hour Directional Classification Count

MRV008C
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	7	1	0	0	0	0	0	0	0	0	0	0	8
01:00	**1**	10	0	0	0	**1**	0	0	0	0	0	0	0	12
02:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	22	6	0	0	0	0	0	0	0	0	0	0	28
05:00	1	26	5	0	3	0	0	1	0	0	0	0	0	36
06:00	0	32	5	0	3	0	0	0	0	0	0	0	0	40
07:00	0	49	17	**2**	**5**	0	0	**2**	0	0	0	0	0	75
08:00	0	**85**	**20**	0	4	0	0	0	0	0	0	0	0	**109**
09:00	0	29	11	0	4	0	0	1	0	0	0	0	0	45
10:00	0	29	13	1	2	0	0	0	0	0	0	0	0	45
11:00	0	31	18	0	2	0	0	0	0	0	0	0	0	51
12 PM	0	28	12	0	3	0	0	0	0	0	0	0	0	43
13:00	0	46	16	0	4	0	0	0	0	0	0	0	0	66
14:00	0	39	17	**1**	**8**	**1**	0	**1**	**2**	0	0	0	0	69
15:00	1	61	**25**	0	8	0	0	0	1	0	0	0	0	**96**
16:00	**4**	51	13	0	4	0	0	1	0	0	0	0	0	73
17:00	1	58	14	1	4	0	0	0	0	0	0	0	0	78
18:00	0	38	12	0	3	1	0	0	0	0	0	0	0	54
19:00	0	25	4	0	1	1	0	0	0	0	0	0	0	31
20:00	0	28	4	0	1	0	0	0	0	0	0	0	0	33
21:00	0	**71**	15	0	1	0	0	0	1	0	0	0	0	88
22:00	0	14	8	0	0	0	0	0	0	0	0	0	0	22
23:00	0	8	4	0	0	0	0	0	0	0	0	0	0	12
Total	8	791	242	5	60	4	0	6	4	0	0	0	0	1120
Percent	0.7%	70.6%	21.6%	0.4%	5.4%	0.4%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	08:00	08:00	07:00	07:00	01:00		07:00						08:00
Vol.	1	85	20	2	5	1		2						109
PM Peak	16:00	21:00	15:00	14:00	14:00	14:00		14:00	14:00					15:00
Vol.	4	71	25	1	8	1		1	2					96
Grand Total	8	791	242	5	60	4	0	6	4	0	0	0	0	1120
Percent	0.7%	70.6%	21.6%	0.4%	5.4%	0.4%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Alessandro Boulevard
B/ Merwin Street - Theodore Street
24 Hour Directional Classification Count

MRV009C
Site Code: 098-18079

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	12	2	0	0	0	0	0	0	0	0	0	0	14
01:00	0	8	0	0	1	0	0	0	0	0	0	0	0	9
02:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
03:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12
04:00	0	26	3	0	0	0	0	0	0	0	0	0	0	29
05:00	0	26	4	0	1	0	0	0	0	0	0	0	0	31
06:00	0	57	4	0	3	0	0	0	0	0	0	0	0	64
07:00	0	**106**	15	**1**	**7**	0	0	**2**	0	0	0	0	0	**131**
08:00	0	73	14	0	3	0	0	0	0	0	0	0	0	90
09:00	0	65	15	1	1	0	0	2	0	0	0	0	0	84
10:00	0	60	**17**	0	5	0	0	1	0	0	0	0	0	83
11:00	0	55	14	0	2	0	0	0	0	0	0	0	0	71
12 PM	0	56	11	0	3	0	0	0	0	0	0	0	0	70
13:00	0	76	16	0	4	0	0	0	0	0	0	0	0	96
14:00	0	86	22	0	5	0	0	0	0	0	0	0	0	113
15:00	0	**126**	30	0	6	0	0	0	0	0	0	0	0	162
16:00	0	122	**34**	0	**7**	0	0	0	0	0	0	0	0	**163**
17:00	0	125	27	0	5	0	0	0	0	0	0	0	0	157
18:00	0	83	18	0	5	0	0	0	0	0	0	0	0	106
19:00	0	72	13	0	0	0	0	0	0	0	0	0	0	85
20:00	0	55	5	0	0	0	0	0	0	0	0	0	0	60
21:00	0	67	14	0	1	0	0	0	0	0	0	0	0	82
22:00	0	25	5	0	0	0	0	0	0	0	0	0	0	30
23:00	0	20	5	0	0	0	0	0	0	0	0	0	0	25
Total	0	1417	293	2	59	0	0	5	0	0	0	0	0	1776
Percent	0.0%	79.8%	16.5%	0.1%	3.3%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	10:00	07:00	07:00			07:00						07:00
Vol.		106	17	1	7			2						131
PM Peak		15:00	16:00		16:00									16:00
Vol.		126	34		7									163
Grand Total	0	1417	293	2	59	0	0	5	0	0	0	0	0	1776
Percent	0.0%	79.8%	16.5%	0.1%	3.3%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Alessandro Boulevard
B/ Merwin Street - Theodore Street
24 Hour Directional Classification Count

MRV009C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	7	5	0	0	0	0	0	0	0	0	0	0	12
01:00	0	16	4	0	0	0	0	0	0	0	0	0	0	20
02:00	0	3	0	0	1	0	0	**1**	0	0	0	0	0	5
03:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
04:00	0	26	3	0	1	0	0	0	0	0	0	0	0	30
05:00	0	47	12	0	4	0	0	1	0	0	0	0	0	64
06:00	0	83	**27**	0	7	0	0	0	0	0	0	0	0	117
07:00	0	**121**	23	0	**10**	0	0	0	0	0	0	0	0	**154**
08:00	0	104	24	**2**	6	0	0	1	0	0	**1**	0	0	138
09:00	0	60	20	0	4	0	0	1	0	0	0	0	0	85
10:00	0	40	18	0	1	0	0	0	0	0	0	0	0	59
11:00	0	53	13	0	6	0	0	0	0	0	0	0	0	72
12 PM	0	42	18	0	6	**1**	0	**2**	0	0	0	0	0	69
13:00	0	57	20	0	2	0	0	0	0	0	0	0	0	79
14:00	0	73	26	**1**	4	0	0	0	**1**	0	0	0	0	105
15:00	0	80	**31**	0	**7**	0	0	0	0	0	0	0	0	118
16:00	**1**	86	31	0	6	0	0	0	0	0	0	0	0	124
17:00	0	**96**	29	0	6	0	0	0	0	0	0	0	0	**131**
18:00	0	74	22	0	4	1	0	1	0	0	0	0	0	102
19:00	0	38	8	0	4	1	0	0	0	0	0	0	0	51
20:00	0	33	5	0	0	0	0	0	0	0	0	0	0	38
21:00	0	51	11	0	2	0	0	0	0	0	0	0	0	64
22:00	0	23	8	0	0	0	0	0	0	0	0	0	0	31
23:00	0	20	8	0	0	0	0	0	0	0	0	0	0	28
Total	1	1239	367	3	81	3	0	7	1	0	1	0	0	1703
Percent	0.1%	72.8%	21.6%	0.2%	4.8%	0.2%	0.0%	0.4%	0.1%	0.0%	0.1%	0.0%	0.0%	
AM Peak		07:00	06:00	08:00	07:00			02:00			08:00			07:00
Vol.		121	27	2	10			1			1			154
PM Peak	16:00	17:00	15:00	14:00	15:00	12:00		12:00	14:00					17:00
Vol.	1	96	31	1	7	1		2	1					131
Grand Total	1	1239	367	3	81	3	0	7	1	0	1	0	0	1703
Percent	0.1%	72.8%	21.6%	0.2%	4.8%	0.2%	0.0%	0.4%	0.1%	0.0%	0.1%	0.0%	0.0%	

City of Moreno Valley
Alessandro Boulevard
B/ Merwin Street - Theodore Street
24 Hour Directional Classification Count

MRV009C
Site Code: 098-18079

Eastbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	19	7	0	0	0	0	0	0	0	0	0	0	26
01:00	0	24	4	0	1	0	0	0	0	0	0	0	0	29
02:00	0	10	2	0	1	0	0	1	0	0	0	0	0	14
03:00	0	15	4	0	0	0	0	0	0	0	0	0	0	19
04:00	0	52	6	0	1	0	0	0	0	0	0	0	0	59
05:00	0	73	16	0	5	0	0	1	0	0	0	0	0	95
06:00	0	140	31	0	10	0	0	0	0	0	0	0	0	181
07:00	0	**227**	**38**	1	**17**	0	0	2	0	0	0	0	0	**285**
08:00	0	177	38	**2**	9	0	0	1	0	0	**1**	0	0	228
09:00	0	125	35	1	5	0	0	**3**	0	0	0	0	0	169
10:00	0	100	35	0	6	0	0	1	0	0	0	0	0	142
11:00	0	108	27	0	8	0	0	0	0	0	0	0	0	143
12 PM	0	98	29	0	9	**1**	0	**2**	0	0	0	0	0	139
13:00	0	133	36	0	6	0	0	0	0	0	0	0	0	175
14:00	0	159	48	**1**	9	0	0	0	**1**	0	0	0	0	218
15:00	0	206	61	0	**13**	0	0	0	0	0	0	0	0	280
16:00	**1**	208	**65**	0	13	0	0	0	0	0	0	0	0	287
17:00	0	**221**	56	0	11	0	0	0	0	0	0	0	0	**288**
18:00	0	157	40	0	9	1	0	1	0	0	0	0	0	208
19:00	0	110	21	0	4	1	0	0	0	0	0	0	0	136
20:00	0	88	10	0	0	0	0	0	0	0	0	0	0	98
21:00	0	118	25	0	3	0	0	0	0	0	0	0	0	146
22:00	0	48	13	0	0	0	0	0	0	0	0	0	0	61
23:00	0	40	13	0	0	0	0	0	0	0	0	0	0	53
Total	1	2656	660	5	140	3	0	12	1	0	1	0	0	3479
Percent	0.0%	76.3%	19.0%	0.1%	4.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	08:00	07:00			09:00			08:00			07:00
Vol.		227	38	2	17			3			1			285
PM Peak	16:00	17:00	16:00	14:00	15:00	12:00		12:00	14:00					17:00
Vol.	1	221	65	1	13	1		2	1					288
Grand Total	1	2656	660	5	140	3	0	12	1	0	1	0	0	3479
Percent	0.0%	76.3%	19.0%	0.1%	4.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Alessandro Boulevard
B/ Theodore Street - Gilman Springs Road
24 Hour Directional Classification Count

MRV011C
Site Code: 098-18079

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	14	2	0	0	0	0	0	0	0	0	0	0	16
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
03:00	0	10	3	0	0	0	0	0	0	0	0	0	0	13
04:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
05:00	**1**	14	5	0	1	0	0	1	0	0	0	0	0	22
06:00	0	34	4	0	0	0	0	0	0	0	0	0	0	38
07:00	1	**73**	7	0	**5**	0	0	**2**	0	0	0	0	0	**88**
08:00	0	45	9	0	2	0	0	0	0	0	0	0	0	56
09:00	0	56	4	**1**	0	0	0	2	0	0	0	0	0	63
10:00	0	53	**14**	0	3	0	0	1	0	0	0	0	0	71
11:00	0	46	9	0	0	0	0	0	0	0	0	0	0	55
12 PM	**1**	49	12	0	0	0	0	0	0	0	0	0	0	62
13:00	0	64	11	0	3	0	0	0	0	0	0	0	0	78
14:00	1	87	12	0	**5**	0	0	**1**	0	0	0	0	0	106
15:00	0	108	22	0	3	0	0	0	0	0	0	0	0	133
16:00	0	**135**	**26**	0	5	0	0	0	0	0	0	0	0	**166**
17:00	1	127	17	0	1	0	0	0	0	0	0	0	0	146
18:00	0	86	16	0	4	0	0	0	0	0	0	0	0	106
19:00	0	73	10	0	0	0	0	0	0	0	0	0	0	83
20:00	0	48	6	0	0	0	0	0	0	0	0	0	0	54
21:00	1	30	9	0	1	**1**	0	0	0	0	0	0	0	42
22:00	0	20	2	0	0	0	0	0	0	0	0	0	0	22
23:00	0	18	2	0	0	0	0	0	0	0	0	0	0	20
Total	6	1208	205	1	33	1	0	7	0	0	0	0	0	1461
Percent	0.4%	82.7%	14.0%	0.1%	2.3%	0.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	10:00	09:00	07:00			07:00						07:00
Vol.	1	73	14	1	5			2						88
PM Peak	12:00	16:00	16:00		14:00	21:00		14:00						16:00
Vol.	1	135	26		5	1		1						166
Grand Total	6	1208	205	1	33	1	0	7	0	0	0	0	0	1461
Percent	0.4%	82.7%	14.0%	0.1%	2.3%	0.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Moreno Valley
Alessandro Boulevard
B/ Theodore Street - Gilman Springs Road
24 Hour Directional Classification Count

MRV011C
Site Code: 098-18079

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	7	2	0	0	0	0	0	0	0	0	0	0	9
01:00	0	12	3	0	0	0	0	0	0	0	0	0	0	15
02:00	0	9	3	0	1	0	0	0	0	0	0	0	0	13
03:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10
04:00	0	27	1	0	4	0	0	0	0	0	0	0	0	32
05:00	0	49	12	0	3	0	0	0	0	0	0	0	0	64
06:00	0	80	18	0	**7**	0	0	0	0	0	0	0	0	105
07:00	0	**111**	17	0	7	0	0	**1**	0	0	0	0	0	**136**
08:00	0	86	**19**	0	2	0	0	1	0	0	**1**	0	0	109
09:00	0	47	14	0	2	0	0	1	0	0	0	0	0	64
10:00	0	34	16	**1**	0	0	0	0	0	0	0	0	0	51
11:00	0	46	9	0	4	**1**	0	0	0	0	0	0	0	60
12 PM	0	36	12	0	2	**1**	0	**1**	0	0	0	0	0	52
13:00	0	43	17	0	1	0	0	0	0	0	0	0	0	61
14:00	0	57	20	**2**	3	0	0	0	**1**	0	0	0	0	83
15:00	1	59	**22**	0	**5**	0	0	0	0	0	0	0	0	87
16:00	**4**	58	20	0	1	0	0	0	0	0	0	0	0	83
17:00	0	**75**	20	1	2	0	0	0	0	0	0	0	0	**98**
18:00	0	61	13	0	1	0	0	1	0	0	0	0	0	76
19:00	0	32	4	0	3	0	0	0	0	0	0	0	0	39
20:00	0	25	2	0	0	0	0	0	0	0	0	0	0	27
21:00	0	23	6	0	1	0	0	0	0	0	0	0	0	30
22:00	0	16	6	0	0	0	0	0	0	0	0	0	0	22
23:00	0	8	6	0	0	0	0	0	0	0	0	0	0	14
Total	5	1009	263	4	50	2	0	5	1	0	1	0	0	1340
Percent	0.4%	75.3%	19.6%	0.3%	3.7%	0.1%	0.0%	0.4%	0.1%	0.0%	0.1%	0.0%	0.0%	
AM Peak		07:00	08:00	10:00	06:00	11:00		07:00			08:00			07:00
Vol.		111	19	1	7	1		1			1			136
PM Peak	16:00	17:00	15:00	14:00	15:00	12:00		12:00	14:00					17:00
Vol.	4	75	22	2	5	1		1	1					98
Grand Total	5	1009	263	4	50	2	0	5	1	0	1	0	0	1340
Percent	0.4%	75.3%	19.6%	0.3%	3.7%	0.1%	0.0%	0.4%	0.1%	0.0%	0.1%	0.0%	0.0%	

City of Moreno Valley
Alessandro Boulevard
B/ Theodore Street - Gilman Springs Road
24 Hour Directional Classification Count

MRV011C
Site Code: 098-18079

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	21	4	0	0	0	0	0	0	0	0	0	0	25
01:00	0	16	3	0	0	0	0	0	0	0	0	0	0	19
02:00	0	16	5	0	1	0	0	0	0	0	0	0	0	22
03:00	0	18	4	0	1	0	0	0	0	0	0	0	0	23
04:00	0	34	2	0	4	0	0	0	0	0	0	0	0	40
05:00	**1**	63	17	0	4	0	0	1	0	0	0	0	0	86
06:00	0	114	22	0	7	0	0	0	0	0	0	0	0	143
07:00	1	**184**	24	0	**12**	0	0	**3**	0	0	0	0	0	**224**
08:00	0	131	28	0	4	0	0	1	0	0	**1**	0	0	165
09:00	0	103	18	**1**	2	0	0	3	0	0	0	0	0	127
10:00	0	87	**30**	1	3	0	0	1	0	0	0	0	0	122
11:00	0	92	18	0	4	**1**	0	0	0	0	0	0	0	115
12 PM	1	85	24	0	2	**1**	0	**1**	0	0	0	0	0	114
13:00	0	107	28	0	4	0	0	0	0	0	0	0	0	139
14:00	1	144	32	**2**	**8**	0	0	1	**1**	0	0	0	0	189
15:00	1	167	44	0	8	0	0	0	0	0	0	0	0	220
16:00	**4**	193	**46**	0	6	0	0	0	0	0	0	0	0	**249**
17:00	1	**202**	37	1	3	0	0	0	0	0	0	0	0	244
18:00	0	147	29	0	5	0	0	1	0	0	0	0	0	182
19:00	0	105	14	0	3	0	0	0	0	0	0	0	0	122
20:00	0	73	8	0	0	0	0	0	0	0	0	0	0	81
21:00	1	53	15	0	2	1	0	0	0	0	0	0	0	72
22:00	0	36	8	0	0	0	0	0	0	0	0	0	0	44
23:00	0	26	8	0	0	0	0	0	0	0	0	0	0	34
Total	11	2217	468	5	83	3	0	12	1	0	1	0	0	2801
Percent	0.4%	79.2%	16.7%	0.2%	3.0%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	10:00	09:00	07:00	11:00		07:00			08:00			07:00
Vol.	1	184	30	1	12	1		3			1			224
PM Peak	16:00	17:00	16:00	14:00	14:00	12:00		12:00	14:00					16:00
Vol.	4	202	46	2	8	1		1	1					249
Grand Total	11	2217	468	5	83	3	0	12	1	0	1	0	0	2801
Percent	0.4%	79.2%	16.7%	0.2%	3.0%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Alessandro Boulevard
B/ Moreno Beach Drive - Redlands Boulevard
24 Hour Directional Classification Count

MRV014C
Site Code: 098-18079

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	18	5	0	0	0	0	0	0	0	0	0	0	23
01:00	**1**	9	1	0	0	**1**	0	0	0	0	0	0	0	12
02:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
03:00	0	8	3	0	0	0	0	0	0	0	0	0	0	11
04:00	0	28	4	0	0	0	0	0	0	0	0	0	0	32
05:00	1	31	3	0	1	1	0	0	0	0	0	0	0	37
06:00	0	67	9	0	2	0	0	**2**	0	0	0	0	0	80
07:00	0	98	20	1	6	0	0	1	1	0	0	0	0	127
08:00	0	**109**	**27**	**2**	4	1	0	1	0	0	0	0	0	**144**
09:00	1	91	12	0	**7**	0	0	0	0	0	0	0	0	111
10:00	0	79	21	0	3	1	0	0	0	0	0	0	0	104
11:00	1	97	20	0	7	0	0	0	**2**	0	0	0	0	127
12 PM	0	120	31	0	5	0	0	**1**	0	0	0	0	0	157
13:00	1	138	24	0	**7**	0	0	1	0	0	0	0	0	171
14:00	0	169	35	0	3	0	0	1	0	0	0	0	0	208
15:00	1	192	35	0	6	0	0	0	0	0	0	0	0	234
16:00	1	201	30	0	3	0	0	0	0	0	0	0	0	235
17:00	**3**	**207**	**38**	0	4	0	0	0	0	0	0	0	0	**252**
18:00	1	148	24	0	2	0	0	0	0	0	0	0	0	175
19:00	0	123	12	0	2	0	0	0	0	0	0	0	0	137
20:00	0	79	12	0	0	0	0	0	**1**	0	0	0	0	92
21:00	0	62	12	0	2	**1**	0	0	1	0	0	0	0	78
22:00	1	48	4	0	2	0	0	0	0	0	0	0	0	55
23:00	0	34	3	0	0	0	0	0	0	0	0	0	0	37
Total	12	2165	387	3	66	5	0	7	5	0	0	0	0	2650
Percent	0.5%	81.7%	14.6%	0.1%	2.5%	0.2%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	08:00	08:00	08:00	09:00	01:00		06:00	11:00					08:00
Vol.	1	109	27	2	7	1		2	2					144
PM Peak	17:00	17:00	17:00		13:00	21:00		12:00	20:00					17:00
Vol.	3	207	38		7	1		1	1					252
Grand Total	12	2165	387	3	66	5	0	7	5	0	0	0	0	2650
Percent	0.5%	81.7%	14.6%	0.1%	2.5%	0.2%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Alessandro Boulevard
B/ Moreno Beach Drive - Redlands Boulevard
24 Hour Directional Classification Count

MRV014C
Site Code: 098-18079

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	11	5	0	1	**1**	0	0	0	0	0	0	0	18
01:00	0	16	2	0	0	0	0	0	0	0	0	0	0	18
02:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
03:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
04:00	0	21	9	0	2	0	0	0	0	0	0	0	0	32
05:00	0	58	19	0	6	0	0	0	0	0	0	0	0	83
06:00	0	123	34	0	**13**	0	0	0	0	0	0	0	0	170
07:00	1	**222**	47	**1**	7	0	0	0	0	0	0	0	0	**278**
08:00	1	154	**56**	0	5	0	0	**3**	0	0	0	0	0	219
09:00	0	96	32	0	10	1	0	0	0	0	**1**	0	0	140
10:00	0	79	21	1	10	0	0	0	0	0	0	0	0	111
11:00	**2**	93	32	0	8	0	0	0	**1**	0	0	0	0	136
12 PM	0	98	28	**1**	**6**	0	0	0	0	0	0	0	0	133
13:00	**2**	117	28	0	6	0	0	**1**	0	0	0	0	0	154
14:00	0	121	33	0	4	0	0	0	0	0	0	0	0	158
15:00	2	124	28	0	6	**2**	0	1	0	0	0	0	0	163
16:00	2	135	**47**	0	6	0	0	0	0	0	0	0	0	**190**
17:00	0	**139**	37	1	2	0	0	0	0	0	0	0	0	179
18:00	1	104	27	0	2	0	0	0	0	0	0	0	0	134
19:00	1	87	18	0	2	1	0	0	0	0	0	0	0	109
20:00	0	60	12	0	2	0	0	1	0	0	0	0	0	75
21:00	0	59	11	0	3	0	0	0	0	0	0	0	0	73
22:00	0	36	7	0	2	0	0	0	0	0	0	0	0	45
23:00	0	22	2	0	0	0	0	0	0	0	0	0	0	24
Total	12	1985	537	4	104	5	0	6	1	0	1	0	0	2655
Percent	0.5%	74.8%	20.2%	0.2%	3.9%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	08:00	07:00	06:00	00:00		08:00	11:00		09:00			07:00
Vol.	2	222	56	1	13	1		3	1		1			278
PM Peak	13:00	17:00	16:00	12:00	12:00	15:00		13:00						16:00
Vol.	2	139	47	1	6	2		1						190
Grand Total	12	1985	537	4	104	5	0	6	1	0	1	0	0	2655
Percent	0.5%	74.8%	20.2%	0.2%	3.9%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Moreno Valley
Alessandro Boulevard
B/ Moreno Beach Drive - Redlands Boulevard
24 Hour Directional Classification Count

MRV014C
Site Code: 098-18079

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	29	10	0	1	**1**	0	0	0	0	0	0	0	41
01:00	1	25	3	0	0	1	0	0	0	0	0	0	0	30
02:00	0	13	2	0	1	0	0	0	0	0	0	0	0	16
03:00	0	14	5	0	0	0	0	0	0	0	0	0	0	19
04:00	0	49	13	0	2	0	0	0	0	0	0	0	0	64
05:00	1	89	22	0	7	1	0	0	0	0	0	0	0	120
06:00	0	190	43	0	15	0	0	2	0	0	0	0	0	250
07:00	1	**320**	67	**2**	13	0	0	1	1	0	0	0	0	**405**
08:00	1	263	**83**	2	9	1	0	**4**	0	0	0	0	0	363
09:00	1	187	44	0	**17**	1	0	0	0	0	**1**	0	0	251
10:00	0	158	42	1	13	1	0	0	0	0	0	0	0	215
11:00	**3**	190	52	0	15	0	0	0	**3**	0	0	0	0	263
12 PM	0	218	59	**1**	11	0	0	1	0	0	0	0	0	290
13:00	**3**	255	52	0	**13**	0	0	**2**	0	0	0	0	0	325
14:00	0	290	68	0	7	0	0	1	0	0	0	0	0	366
15:00	3	316	63	0	12	**2**	0	1	0	0	0	0	0	397
16:00	3	336	**77**	0	9	0	0	0	0	0	0	0	0	425
17:00	3	**346**	75	1	6	0	0	0	0	0	0	0	0	**431**
18:00	2	252	51	0	4	0	0	0	0	0	0	0	0	309
19:00	1	210	30	0	4	1	0	0	0	0	0	0	0	246
20:00	0	139	24	0	2	0	0	1	**1**	0	0	0	0	167
21:00	0	121	23	0	5	1	0	0	1	0	0	0	0	151
22:00	1	84	11	0	4	0	0	0	0	0	0	0	0	100
23:00	0	56	5	0	0	0	0	0	0	0	0	0	0	61
Total	24	4150	924	7	170	10	0	13	6	0	1	0	0	5305
Percent	0.5%	78.2%	17.4%	0.1%	3.2%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	08:00	07:00	09:00	00:00		08:00	11:00		09:00			07:00
Vol.	3	320	83	2	17	1		4	3		1			405
PM Peak	13:00	17:00	16:00	12:00	13:00	15:00		13:00	20:00					17:00
Vol.	3	346	77	1	13	2		2	1					431
Grand Total	24	4150	924	7	170	10	0	13	6	0	1	0	0	5305
Percent	0.5%	78.2%	17.4%	0.1%	3.2%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Moreno Valley
Gilman Springs Road
B/ Alessandro Boulevard - Bridge Street
24 Hour Directional Classification Count

MRV016C
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	1	60	14	2	2	0	0	0	3	0	0	0	0	82
01:00	0	59	9	1	1	0	0	0	3	0	0	0	0	73
02:00	3	85	22	0	1	0	0	2	3	0	0	0	0	116
03:00	2	191	63	2	12	0	0	3	5	0	0	0	0	278
04:00	3	397	147	2	44	**3**	0	5	6	0	0	0	0	607
05:00	2	529	198	0	**45**	2	0	6	4	**1**	1	0	0	788
06:00	**7**	**732**	**200**	2	42	0	0	**7**	9	0	1	0	0	**1000**
07:00	2	688	148	2	30	2	0	5	3	0	**2**	0	0	882
08:00	1	539	121	**4**	17	1	0	6	**10**	0	1	0	0	700
09:00	0	419	127	1	21	1	0	4	10	0	0	0	0	583
10:00	5	375	100	2	19	2	0	4	8	0	0	0	0	515
11:00	1	330	80	3	22	2	0	4	9	0	0	0	0	451
12 PM	1	388	73	4	14	5	0	9	7	0	0	0	0	501
13:00	3	436	**114**	3	20	1	0	8	**11**	0	**1**	0	0	597
14:00	1	410	104	**10**	24	**6**	0	**10**	11	0	0	0	0	576
15:00	2	**457**	114	7	**30**	2	0	5	7	0	0	0	0	**624**
16:00	**6**	393	109	2	22	0	0	3	3	0	0	0	0	538
17:00	1	436	81	1	15	0	0	3	4	0	0	0	0	541
18:00	2	329	60	0	13	2	0	1	4	0	0	0	0	411
19:00	0	211	33	1	7	0	0	2	6	0	0	0	0	260
20:00	0	164	42	2	4	0	0	2	3	0	0	0	0	217
21:00	0	174	34	1	6	0	0	1	3	0	0	0	0	219
22:00	0	115	18	1	1	0	0	0	3	0	0	0	0	138
23:00	0	64	13	0	1	1	0	0	4	0	0	0	0	83
Total	43	7981	2024	53	413	30	0	90	139	1	6	0	0	10780
Percent	0.4%	74.0%	18.8%	0.5%	3.8%	0.3%	0.0%	0.8%	1.3%	0.0%	0.1%	0.0%	0.0%	
AM Peak	06:00	06:00	06:00	08:00	05:00	04:00		06:00	08:00	05:00	07:00			06:00
Vol.	7	732	200	4	45	3		7	10	1	2			1000
PM Peak	16:00	15:00	13:00	14:00	15:00	14:00		14:00	13:00		13:00			15:00
Vol.	6	457	114	10	30	6		10	11		1			624
Grand Total	43	7981	2024	53	413	30	0	90	139	1	6	0	0	10780
Percent	0.4%	74.0%	18.8%	0.5%	3.8%	0.3%	0.0%	0.8%	1.3%	0.0%	0.1%	0.0%	0.0%	

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City of Moreno Valley
Gilman Springs Road
B/ Alessandro Boulevard - Bridge Street
24 Hour Directional Classification Count

MRV016C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	133	20	1	5	0	0	0	3	0	0	0	0	162
01:00	0	75	13	2	1	0	0	0	1	0	0	0	0	92
02:00	0	59	13	1	3	1	0	1	8	0	0	0	0	86
03:00	1	56	11	0	2	0	0	2	8	0	0	0	0	80
04:00	1	68	14	1	7	2	0	0	3	0	0	0	0	96
05:00	0	97	48	3	15	0	0	6	9	0	0	0	0	178
06:00	1	229	74	**6**	25	1	0	5	9	0	**2**	0	0	352
07:00	0	**354**	99	5	**35**	**4**	0	2	8	0	0	0	0	**507**
08:00	2	294	98	3	28	3	0	4	8	0	0	0	0	440
09:00	3	259	79	5	18	1	0	2	9	0	0	0	0	376
10:00	2	318	**104**	5	24	1	0	5	**10**	0	0	0	0	469
11:00	**4**	316	104	2	30	2	0	**7**	10	0	0	0	0	475
12 PM	2	397	111	**4**	31	0	**1**	4	**12**	0	0	0	0	562
13:00	1	417	129	2	34	0	1	2	11	0	0	0	0	597
14:00	**7**	500	149	2	33	0	0	**9**	7	0	0	0	0	707
15:00	2	687	195	1	62	0	0	2	6	0	0	0	0	955
16:00	3	755	225	1	49	0	0	3	3	0	0	0	0	1039
17:00	6	**779**	**229**	0	**65**	**2**	0	2	1	0	0	0	0	**1084**
18:00	4	724	175	0	43	2	0	3	2	0	0	0	0	953
19:00	4	491	111	1	20	0	0	2	1	0	0	0	0	630
20:00	1	389	85	2	16	1	0	0	6	0	0	0	0	500
21:00	1	325	77	2	12	0	0	1	4	0	0	0	0	422
22:00	1	240	50	0	6	0	0	1	3	0	0	0	0	301
23:00	1	180	35	0	4	0	0	1	1	0	0	0	0	222
Total	47	8142	2248	49	568	20	2	64	143	0	2	0	0	11285
Percent	0.4%	72.1%	19.9%	0.4%	5.0%	0.2%	0.0%	0.6%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	10:00	06:00	07:00	07:00		11:00	10:00		06:00			07:00
Vol.	4	354	104	6	35	4		7	10		2			507
PM Peak	14:00	17:00	17:00	12:00	17:00	17:00	12:00	14:00	12:00					17:00
Vol.	7	779	229	4	65	2	1	9	12					1084
Grand Total	47	8142	2248	49	568	20	2	64	143	0	2	0	0	11285
Percent	0.4%	72.1%	19.9%	0.4%	5.0%	0.2%	0.0%	0.6%	1.3%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Gilman Springs Road
B/ Alessandro Boulevard - Bridge Street
24 Hour Directional Classification Count

MRV016C
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	1	193	34	3	7	0	0	0	6	0	0	0	0	244
01:00	0	134	22	3	2	0	0	0	4	0	0	0	0	165
02:00	3	144	35	1	4	1	0	3	11	0	0	0	0	202
03:00	3	247	74	2	14	0	0	5	13	0	0	0	0	358
04:00	4	465	161	3	51	5	0	5	9	0	0	0	0	703
05:00	2	626	246	3	60	2	0	**12**	13	**1**	1	0	0	966
06:00	**8**	961	**274**	**8**	**67**	1	0	12	18	0	**3**	0	0	1352
07:00	2	**1042**	247	7	65	**6**	0	7	11	0	2	0	0	**1389**
08:00	3	833	219	7	45	4	0	10	18	0	1	0	0	1140
09:00	3	678	206	6	39	2	0	6	**19**	0	0	0	0	959
10:00	7	693	204	7	43	3	0	9	18	0	0	0	0	984
11:00	5	646	184	5	52	4	0	11	19	0	0	0	0	926
12 PM	3	785	184	8	45	5	**1**	13	19	0	0	0	0	1063
13:00	4	853	243	5	54	1	1	10	**22**	0	**1**	0	0	1194
14:00	8	910	253	**12**	57	**6**	0	**19**	18	0	0	0	0	1283
15:00	4	1144	309	8	**92**	2	0	7	13	0	0	0	0	1579
16:00	**9**	1148	**334**	3	71	0	0	6	6	0	0	0	0	1577
17:00	7	**1215**	310	1	80	2	0	5	5	0	0	0	0	**1625**
18:00	6	1053	235	0	56	4	0	4	6	0	0	0	0	1364
19:00	4	702	144	2	27	0	0	4	7	0	0	0	0	890
20:00	1	553	127	4	20	1	0	2	9	0	0	0	0	717
21:00	1	499	111	3	18	0	0	2	7	0	0	0	0	641
22:00	1	355	68	1	7	0	0	1	6	0	0	0	0	439
23:00	1	244	48	0	5	1	0	1	5	0	0	0	0	305
Total	90	16123	4272	102	981	50	2	154	282	1	8	0	0	22065
Percent	0.4%	73.1%	19.4%	0.5%	4.4%	0.2%	0.0%	0.7%	1.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	06:00	06:00	07:00		05:00	09:00	05:00	06:00			07:00
Vol.	8	1042	274	8	67	6		12	19	1	3			1389
PM Peak	16:00	17:00	16:00	14:00	15:00	14:00	12:00	14:00	13:00		13:00			17:00
Vol.	9	1215	334	12	92	6	1	19	22		1			1625
Grand Total	90	16123	4272	102	981	50	2	154	282	1	8	0	0	22065
Percent	0.4%	73.1%	19.4%	0.5%	4.4%	0.2%	0.0%	0.7%	1.3%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Gilman Springs Road
B/ State Rotue 60 - Alessandro Boulevard
24 Hour Directional Classification Count

MRV017
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	1	51	10	1	4	0	0	0	4	0	0	0	0	71
01:00	1	61	7	3	1	0	0	0	1	0	0	0	0	74
02:00	2	62	18	0	2	0	0	1	5	0	0	0	0	90
03:00	1	181	58	2	12	0	0	4	4	0	0	0	0	262
04:00	2	364	142	3	41	**3**	0	5	5	0	0	0	0	565
05:00	2	478	**190**	0	**44**	2	0	4	4	**1**	1	0	0	726
06:00	**8**	**647**	181	1	43	0	0	**7**	**11**	0	1	0	0	**899**
07:00	2	593	123	2	32	2	0	3	3	0	**2**	0	0	762
08:00	3	464	109	**5**	15	0	0	4	10	0	0	0	0	610
09:00	0	373	110	1	21	1	0	4	10	0	0	0	0	520
10:00	5	317	98	1	18	2	0	5	8	0	0	0	0	454
11:00	2	290	81	2	22	1	0	4	9	0	0	0	0	411
12 PM	1	358	66	4	10	3	0	9	9	0	0	0	0	460
13:00	**3**	**386**	97	3	20	1	0	7	**10**	0	**1**	0	0	528
14:00	1	345	95	**10**	21	**5**	0	**11**	10	0	0	0	0	498
15:00	2	383	98	6	**28**	3	0	4	7	0	0	0	0	**531**
16:00	2	332	**100**	2	24	0	0	3	4	0	0	0	0	467
17:00	1	363	67	1	13	0	0	4	4	0	0	0	0	453
18:00	2	272	57	0	15	2	0	0	4	0	0	0	0	352
19:00	0	182	32	1	6	0	0	2	6	0	0	0	0	229
20:00	0	145	37	2	4	1	0	2	2	0	0	0	0	193
21:00	0	154	26	1	4	0	0	1	3	0	0	0	0	189
22:00	0	98	20	1	2	0	0	0	3	0	0	0	0	124
23:00	0	59	10	0	1	1	0	0	3	0	0	0	0	74
Total	41	6958	1832	52	403	27	0	84	139	1	5	0	0	9542
Percent	0.4%	72.9%	19.2%	0.5%	4.2%	0.3%	0.0%	0.9%	1.5%	0.0%	0.1%	0.0%	0.0%	
AM Peak	06:00	06:00	05:00	08:00	05:00	04:00		06:00	06:00	05:00	07:00			06:00
Vol.	8	647	190	5	44	3		7	11	1	2			899
PM Peak	13:00	13:00	16:00	14:00	15:00	14:00		14:00	13:00		13:00			15:00
Vol.	3	386	100	10	28	5		11	10		1			531
Grand Total	41	6958	1832	52	403	27	0	84	139	1	5	0	0	9542
Percent	0.4%	72.9%	19.2%	0.5%	4.2%	0.3%	0.0%	0.9%	1.5%	0.0%	0.1%	0.0%	0.0%	

City of Moreno Valley
Gilman Springs Road
B/ State Rotue 60 - Alessandro Boulevard
24 Hour Directional Classification Count

MRV017
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	103	29	0	6	0	0	0	4	0	0	0	0	142
01:00	0	75	10	1	5	1	0	1	3	0	0	0	0	96
02:00	0	53	10	1	2	1	0	1	9	0	0	0	0	77
03:00	2	46	5	0	2	1	0	2	7	0	0	0	0	65
04:00	0	57	12	1	7	1	0	0	4	0	0	0	0	82
05:00	0	90	38	2	14	0	0	5	9	0	1	0	0	159
06:00	0	215	59	**6**	21	**3**	0	5	8	0	**2**	0	0	319
07:00	0	**309**	75	2	**30**	2	0	1	**11**	0	0	0	0	430
08:00	3	252	**90**	3	17	3	0	3	8	0	0	0	0	379
09:00	2	218	69	3	13	2	0	1	10	0	0	0	0	318
10:00	1	274	86	5	16	1	0	3	9	0	0	0	0	395
11:00	**4**	293	89	2	29	3	0	**6**	9	0	0	0	0	**435**
12 PM	1	358	85	4	26	0	**1**	5	13	0	0	0	0	493
13:00	0	374	114	2	23	0	1	3	10	0	0	0	0	527
14:00	**7**	452	120	3	31	0	0	5	8	0	0	0	0	626
15:00	1	589	164	4	42	0	0	4	11	0	0	0	0	815
16:00	0	639	180	8	45	0	0	8	18	0	0	0	0	898
17:00	0	**650**	**183**	**9**	**46**	0	0	**9**	**19**	0	0	0	0	**916**
18:00	0	604	170	8	43	0	0	8	18	0	0	0	0	851
19:00	0	386	108	4	27	0	0	4	12	0	0	0	0	541
20:00	0	311	87	4	23	0	0	4	8	0	0	0	0	437
21:00	0	269	76	4	20	0	0	4	7	0	0	0	0	380
22:00	0	194	55	4	13	0	0	4	4	0	0	0	0	274
23:00	0	142	40	1	9	0	0	1	4	0	0	0	0	197
Total	21	6953	1954	81	510	18	2	87	223	0	3	0	0	9852
Percent	0.2%	70.6%	19.8%	0.8%	5.2%	0.2%	0.0%	0.9%	2.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	08:00	06:00	07:00	06:00		11:00	07:00		06:00			11:00
Vol.	4	309	90	6	30	3		6	11		2			435
PM Peak	14:00	17:00	17:00	17:00	17:00		12:00	17:00	17:00					17:00
Vol.	7	650	183	9	46		1	9	19					916
Grand Total	21	6953	1954	81	510	18	2	87	223	0	3	0	0	9852
Percent	0.2%	70.6%	19.8%	0.8%	5.2%	0.2%	0.0%	0.9%	2.3%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

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City of Moreno Valley
Gilman Springs Road
B/ State Rotue 60 - Alessandro Boulevard
24 Hour Directional Classification Count

MRV017
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	1	154	39	1	10	0	0	0	8	0	0	0	0	213
01:00	1	136	17	4	6	1	0	1	4	0	0	0	0	170
02:00	2	115	28	1	4	1	0	2	14	0	0	0	0	167
03:00	3	227	63	2	14	1	0	6	11	0	0	0	0	327
04:00	2	421	154	4	48	**4**	0	5	9	0	0	0	0	647
05:00	2	568	228	2	58	2	0	9	13	**1**	2	0	0	885
06:00	**8**	862	**240**	7	**64**	3	0	**12**	19	0	**3**	0	0	**1218**
07:00	2	**902**	198	4	62	4	0	4	14	0	2	0	0	1192
08:00	6	716	199	**8**	32	3	0	7	18	0	0	0	0	989
09:00	2	591	179	4	34	3	0	5	**20**	0	0	0	0	838
10:00	6	591	184	6	34	3	0	8	17	0	0	0	0	849
11:00	6	583	170	4	51	4	0	10	18	0	0	0	0	846
12 PM	2	716	151	8	36	3	**1**	14	22	0	0	0	0	953
13:00	3	760	211	5	43	1	1	10	20	0	**1**	0	0	1055
14:00	**8**	797	215	**13**	52	**5**	0	**16**	18	0	0	0	0	1124
15:00	3	972	262	10	**70**	3	0	8	18	0	0	0	0	1346
16:00	2	971	**280**	10	69	0	0	11	22	0	0	0	0	1365
17:00	1	**1013**	250	10	59	0	0	13	**23**	0	0	0	0	**1369**
18:00	2	876	227	8	58	2	0	8	22	0	0	0	0	1203
19:00	0	568	140	5	33	0	0	6	18	0	0	0	0	770
20:00	0	456	124	6	27	1	0	6	10	0	0	0	0	630
21:00	0	423	102	5	24	0	0	5	10	0	0	0	0	569
22:00	0	292	75	5	15	0	0	4	7	0	0	0	0	398
23:00	0	201	50	1	10	1	0	1	7	0	0	0	0	271
Total	62	13911	3786	133	913	45	2	171	362	1	8	0	0	19394
Percent	0.3%	71.7%	19.5%	0.7%	4.7%	0.2%	0.0%	0.9%	1.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	06:00	08:00	06:00	04:00		06:00	09:00	05:00	06:00			06:00
Vol.	8	902	240	8	64	4		12	20	1	3			1218
PM Peak	14:00	17:00	16:00	14:00	15:00	14:00	12:00	14:00	17:00		13:00			17:00
Vol.	8	1013	280	13	70	5	1	16	23		1			1369
Grand Total	62	13911	3786	133	913	45	2	171	362	1	8	0	0	19394
Percent	0.3%	71.7%	19.5%	0.7%	4.7%	0.2%	0.0%	0.9%	1.9%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Redlands Boulevard
B/ State Route 60 Eastbound - Fir Avenue
24 Hour Directional Classification Count

MRV018C
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	3	23	1	0	0	8	0	0	1	0	0	0	0	36
01:00	1	28	3	0	0	2	0	0	0	0	0	0	0	34
02:00	**5**	30	2	0	0	11	0	0	**3**	0	0	0	0	51
03:00	4	62	15	0	3	3	0	0	0	0	0	0	0	87
04:00	4	99	24	1	5	8	0	0	2	0	0	0	0	143
05:00	5	186	37	0	11	**12**	0	2	1	0	0	0	0	254
06:00	4	**475**	**77**	0	16	8	0	1	2	0	0	0	0	**583**
07:00	3	410	67	**2**	**17**	4	0	0	0	0	0	0	0	503
08:00	3	330	61	2	9	6	**1**	**4**	2	0	0	0	0	418
09:00	5	243	41	1	11	10	0	1	1	0	0	0	0	313
10:00	5	197	47	2	12	10	1	1	0	**1**	0	0	0	276
11:00	4	183	34	0	10	12	0	2	1	0	0	**1**	0	247
12 PM	**5**	216	38	2	10	11	0	0	2	0	0	0	0	284
13:00	4	245	44	1	7	5	0	**2**	0	0	0	0	0	308
14:00	2	256	42	0	10	8	0	2	1	0	0	0	0	321
15:00	4	303	**69**	**3**	**18**	5	0	0	0	0	0	0	0	402
16:00	2	341	69	1	17	7	0	1	1	0	0	0	0	**439**
17:00	2	**346**	53	0	12	2	0	0	2	0	0	0	0	417
18:00	3	251	38	0	6	2	0	0	1	0	0	0	0	301
19:00	1	141	21	0	6	3	0	0	0	0	0	0	0	172
20:00	4	119	17	1	1	13	0	0	0	0	0	0	0	155
21:00	4	112	15	1	6	9	0	1	**3**	0	0	0	0	151
22:00	5	79	7	0	4	**14**	0	0	2	0	0	0	0	111
23:00	3	53	2	0	3	10	0	0	0	0	0	0	0	71
Total	85	4728	824	17	194	183	2	17	25	1	0	1	0	6077
Percent	1.4%	77.8%	13.6%	0.3%	3.2%	3.0%	0.0%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	02:00	06:00	06:00	07:00	07:00	05:00	08:00	08:00	02:00	10:00		11:00		06:00
Vol.	5	475	77	2	17	12	1	4	3	1		1		583
PM Peak	12:00	17:00	15:00	15:00	15:00	22:00		13:00	21:00					16:00
Vol.	5	346	69	3	18	14		2	3					439
Grand Total	85	4728	824	17	194	183	2	17	25	1	0	1	0	6077
Percent	1.4%	77.8%	13.6%	0.3%	3.2%	3.0%	0.0%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Redlands Boulevard
B/ State Route 60 Eastbound - Fir Avenue
24 Hour Directional Classification Count

MRV018C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	4	54	4	0	1	4	0	0	1	0	0	0	0	68
01:00	4	24	1	0	1	4	0	0	0	0	0	0	0	34
02:00	**9**	14	3	0	0	**9**	0	0	**11**	0	0	0	0	46
03:00	8	20	3	**3**	3	8	0	0	4	0	0	0	0	49
04:00	6	33	7	0	2	6	0	0	2	0	0	0	0	56
05:00	0	104	32	0	2	1	0	0	0	0	0	0	0	139
06:00	6	190	36	1	9	5	0	2	1	0	0	**1**	0	251
07:00	3	**282**	47	1	10	4	0	**3**	0	0	0	0	0	**350**
08:00	2	187	**50**	1	9	3	0	1	0	0	0	0	0	253
09:00	1	100	39	1	**17**	2	0	3	0	0	0	0	0	163
10:00	1	107	36	0	13	4	0	2	0	0	0	0	0	163
11:00	1	123	37	1	14	3	0	2	1	0	0	0	0	182
12 PM	2	165	38	**3**	20	3	0	0	0	0	0	0	0	231
13:00	2	162	51	0	16	3	0	1	1	0	0	0	0	236
14:00	5	196	77	1	24	4	0	**3**	0	0	0	0	0	310
15:00	2	281	**95**	0	26	1	0	0	0	0	0	0	0	405
16:00	5	358	95	2	**29**	5	0	1	**2**	0	0	0	0	497
17:00	3	**393**	81	0	25	2	0	0	1	0	0	0	0	**505**
18:00	2	368	66	0	13	0	0	2	1	0	0	0	0	452
19:00	2	209	46	0	17	1	0	0	1	0	0	0	0	276
20:00	1	163	32	1	8	1	0	0	1	0	0	0	0	207
21:00	4	143	19	0	7	3	0	0	0	0	0	0	0	176
22:00	**6**	94	13	0	8	**6**	0	0	0	0	0	0	0	127
23:00	1	75	16	0	0	1	0	0	0	0	0	0	0	93
Total	80	3845	924	15	274	83	0	20	27	0	0	1	0	5269
Percent	1.5%	73.0%	17.5%	0.3%	5.2%	1.6%	0.0%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	02:00	07:00	08:00	03:00	09:00	02:00		07:00	02:00			06:00		07:00
Vol.	9	282	50	3	17	9		3	11			1		350
PM Peak	22:00	17:00	15:00	12:00	16:00	22:00		14:00	16:00					17:00
Vol.	6	393	95	3	29	6		3	2					505
Grand Total	80	3845	924	15	274	83	0	20	27	0	0	1	0	5269
Percent	1.5%	73.0%	17.5%	0.3%	5.2%	1.6%	0.0%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Redlands Boulevard
B/ State Route 60 Eastbound - Fir Avenue
24 Hour Directional Classification Count

MRV018C
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	7	77	5	0	1	12	0	0	2	0	0	0	0	104
01:00	5	52	4	0	1	6	0	0	0	0	0	0	0	68
02:00	**14**	44	5	0	0	**20**	0	0	**14**	0	0	0	0	97
03:00	12	82	18	**3**	6	11	0	0	4	0	0	0	0	136
04:00	10	132	31	1	7	14	0	0	4	0	0	0	0	199
05:00	5	290	69	0	13	13	0	2	1	0	0	0	0	393
06:00	10	665	113	1	25	13	0	3	3	0	0	**1**	0	834
07:00	6	**692**	**114**	3	27	8	0	3	0	0	0	0	0	**853**
08:00	5	517	111	3	18	9	**1**	**5**	2	0	0	0	0	671
09:00	6	343	80	2	**28**	12	0	4	1	0	0	0	0	476
10:00	6	304	83	2	25	14	1	3	0	**1**	0	0	0	439
11:00	5	306	71	1	24	15	0	4	2	0	0	1	0	429
12 PM	7	381	76	**5**	30	14	0	0	2	0	0	0	0	515
13:00	6	407	95	1	23	8	0	3	1	0	0	0	0	544
14:00	7	452	119	1	34	12	0	**5**	1	0	0	0	0	631
15:00	6	584	**164**	3	44	6	0	0	0	0	0	0	0	807
16:00	7	699	164	3	**46**	12	0	2	**3**	0	0	0	0	**936**
17:00	5	**739**	134	0	37	4	0	0	3	0	0	0	0	922
18:00	5	619	104	0	19	2	0	2	2	0	0	0	0	753
19:00	3	350	67	0	23	4	0	0	1	0	0	0	0	448
20:00	5	282	49	2	9	14	0	0	1	0	0	0	0	362
21:00	8	255	34	1	13	12	0	1	3	0	0	0	0	327
22:00	**11**	173	20	0	12	**20**	0	0	2	0	0	0	0	238
23:00	4	128	18	0	3	11	0	0	0	0	0	0	0	164
Total	165	8573	1748	32	468	266	2	37	52	1	0	2	0	11346
Percent	1.5%	75.6%	15.4%	0.3%	4.1%	2.3%	0.0%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	02:00	07:00	07:00	03:00	09:00	02:00	08:00	08:00	02:00	10:00		06:00		07:00
Vol.	14	692	114	3	28	20	1	5	14	1		1		853
PM Peak	22:00	17:00	15:00	12:00	16:00	22:00		14:00	16:00					16:00
Vol.	11	739	164	5	46	20		5	3					936
Grand Total	165	8573	1748	32	468	266	2	37	52	1	0	2	0	11346
Percent	1.5%	75.6%	15.4%	0.3%	4.1%	2.3%	0.0%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Redlands Boulevard
B/ Cottonwood Avenue - Alessandro Boulevard
24 Hour Directional Classification Count

MRV019C
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	17	1	0	1	0	0	0	0	0	0	0	0	19
01:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
02:00	0	13	4	0	0	0	0	0	0	0	0	0	0	17
03:00	0	37	12	0	0	0	0	0	0	0	0	0	0	49
04:00	1	64	15	0	2	0	0	0	0	0	0	0	0	82
05:00	1	142	33	0	7	1	0	0	0	0	0	0	0	184
06:00	0	**387**	**61**	0	10	**2**	0	**5**	1	0	0	0	0	**466**
07:00	1	342	60	**4**	**17**	1	0	0	1	0	0	0	0	426
08:00	2	243	46	1	8	1	0	0	**2**	0	0	0	0	303
09:00	2	184	37	2	8	0	0	1	1	0	0	0	0	235
10:00	2	163	34	0	6	2	0	0	0	0	0	0	0	207
11:00	**3**	134	29	0	10	0	0	3	0	0	0	0	0	179
12 PM	1	169	35	**1**	10	0	0	1	0	0	0	0	0	217
13:00	0	169	34	1	**13**	**1**	0	1	**1**	0	0	0	0	220
14:00	0	232	37	1	11	1	0	**2**	0	0	0	0	0	284
15:00	1	266	54	0	10	1	0	0	0	0	0	0	0	332
16:00	1	270	**56**	0	9	1	0	1	0	0	0	0	0	338
17:00	**4**	**287**	54	0	3	0	0	0	0	0	0	0	0	**348**
18:00	0	194	30	0	6	0	0	2	0	0	0	0	0	232
19:00	1	127	25	0	2	0	0	1	0	0	0	0	0	156
20:00	0	64	19	0	3	0	0	0	0	0	0	0	0	86
21:00	0	58	10	1	2	0	0	0	0	0	0	0	0	71
22:00	0	47	4	0	1	0	0	0	1	0	0	0	0	53
23:00	0	26	6	0	1	0	0	0	0	0	0	0	0	33
Total	20	3644	696	11	140	11	0	17	7	0	0	0	0	4546
Percent	0.4%	80.2%	15.3%	0.2%	3.1%	0.2%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	06:00	06:00	07:00	07:00	06:00		06:00	08:00					06:00
Vol.	3	387	61	4	17	2		5	2					466
PM Peak	17:00	17:00	16:00	12:00	13:00	13:00		14:00	13:00					17:00
Vol.	4	287	56	1	13	1		2	1					348
Grand Total	20	3644	696	11	140	11	0	17	7	0	0	0	0	4546
Percent	0.4%	80.2%	15.3%	0.2%	3.1%	0.2%	0.0%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Redlands Boulevard
B/ Cottonwood Avenue - Alessandro Boulevard
24 Hour Directional Classification Count

MRV019C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	29	9	0	0	1	0	0	0	0	0	0	0	39
01:00	0	27	7	0	0	0	0	0	0	0	0	0	0	34
02:00	0	12	3	0	2	1	0	0	0	0	0	0	0	18
03:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
04:00	0	33	7	0	0	0	0	1	0	0	0	0	0	41
05:00	0	65	16	0	6	1	0	0	0	0	0	0	0	88
06:00	0	138	39	0	15	0	0	0	**1**	0	0	0	0	193
07:00	0	**314**	**65**	0	**19**	**2**	0	2	0	0	0	0	0	**402**
08:00	0	171	43	**1**	9	1	0	**4**	1	0	0	0	0	230
09:00	0	100	24	0	9	1	0	2	0	0	0	0	0	136
10:00	**2**	98	26	1	9	0	0	1	1	0	0	0	0	138
11:00	1	131	33	1	11	0	0	0	0	0	0	0	0	177
12 PM	0	144	55	**1**	10	**1**	0	0	0	0	0	0	0	211
13:00	2	172	39	1	12	0	0	0	0	0	0	0	0	226
14:00	0	185	54	1	16	1	0	2	0	0	0	0	0	259
15:00	**4**	239	74	0	**19**	0	0	1	0	0	0	0	0	337
16:00	2	302	85	0	14	1	0	0	**1**	0	0	0	0	405
17:00	2	**352**	**94**	0	18	1	0	**3**	0	0	0	0	0	**470**
18:00	2	201	46	0	10	0	0	1	0	0	0	0	0	260
19:00	1	176	42	0	7	0	0	2	0	0	0	0	0	228
20:00	0	131	27	0	3	0	0	0	0	0	0	0	0	161
21:00	0	117	32	0	4	0	0	0	0	0	0	0	0	153
22:00	1	74	15	0	3	0	0	0	0	0	0	0	0	93
23:00	1	45	9	0	2	0	0	0	0	0	0	0	0	57
Total	18	3268	844	6	198	11	0	19	4	0	0	0	0	4368
Percent	0.4%	74.8%	19.3%	0.1%	4.5%	0.3%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	08:00	07:00	07:00		08:00	06:00					07:00
Vol.	2	314	65	1	19	2		4	1					402
PM Peak	15:00	17:00	17:00	12:00	15:00	12:00		17:00	16:00					17:00
Vol.	4	352	94	1	19	1		3	1					470
Grand Total	18	3268	844	6	198	11	0	19	4	0	0	0	0	4368
Percent	0.4%	74.8%	19.3%	0.1%	4.5%	0.3%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Redlands Boulevard
B/ Cottonwood Avenue - Alessandro Boulevard
24 Hour Directional Classification Count

MRV019C
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	46	10	0	1	1	0	0	0	0	0	0	0	58
01:00	0	36	7	0	0	0	0	0	0	0	0	0	0	43
02:00	0	25	7	0	2	1	0	0	0	0	0	0	0	35
03:00	0	49	12	0	0	0	0	0	0	0	0	0	0	61
04:00	1	97	22	0	2	0	0	1	0	0	0	0	0	123
05:00	1	207	49	0	13	2	0	0	0	0	0	0	0	272
06:00	0	525	100	0	25	2	0	**5**	2	0	0	0	0	659
07:00	1	**656**	**125**	**4**	**36**	**3**	0	2	1	0	0	0	0	**828**
08:00	2	414	89	2	17	2	0	4	**3**	0	0	0	0	533
09:00	2	284	61	2	17	1	0	3	1	0	0	0	0	371
10:00	**4**	261	60	1	15	2	0	1	1	0	0	0	0	345
11:00	4	265	62	1	21	0	0	3	0	0	0	0	0	356
12 PM	1	313	90	**2**	20	1	0	1	0	0	0	0	0	428
13:00	2	341	73	2	25	1	0	1	**1**	0	0	0	0	446
14:00	0	417	91	2	27	**2**	0	**4**	0	0	0	0	0	543
15:00	5	505	128	0	**29**	1	0	1	0	0	0	0	0	669
16:00	3	572	141	0	23	2	0	1	1	0	0	0	0	743
17:00	**6**	**639**	**148**	0	21	1	0	3	0	0	0	0	0	**818**
18:00	2	395	76	0	16	0	0	3	0	0	0	0	0	492
19:00	2	303	67	0	9	0	0	3	0	0	0	0	0	384
20:00	0	195	46	0	6	0	0	0	0	0	0	0	0	247
21:00	0	175	42	1	6	0	0	0	0	0	0	0	0	224
22:00	1	121	19	0	4	0	0	0	1	0	0	0	0	146
23:00	1	71	15	0	3	0	0	0	0	0	0	0	0	90
Total	38	6912	1540	17	338	22	0	36	11	0	0	0	0	8914
Percent	0.4%	77.5%	17.3%	0.2%	3.8%	0.2%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	07:00	07:00	07:00		06:00	08:00					07:00
Vol.	4	656	125	4	36	3		5	3					828
PM Peak	17:00	17:00	17:00	12:00	15:00	14:00		14:00	13:00					17:00
Vol.	6	639	148	2	29	2		4	1					818
Grand Total	38	6912	1540	17	338	22	0	36	11	0	0	0	0	8914
Percent	0.4%	77.5%	17.3%	0.2%	3.8%	0.2%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Moreno Valley
Alessandro Boulevard
B/ Redlands Boulevard - Merwin Street
24 Hour Directional Classification Count

MRV020C
Site Code: 098-18079

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	12	4	0	0	0	0	0	0	0	0	0	0	16
01:00	**1**	7	0	0	0	**1**	0	0	0	0	0	0	0	9
02:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
03:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12
04:00	0	26	3	0	0	0	0	0	0	0	0	0	0	29
05:00	0	25	4	0	2	0	0	0	0	0	0	0	0	31
06:00	0	47	7	0	3	0	0	0	0	0	0	0	0	57
07:00	0	**106**	**16**	**1**	**7**	0	0	1	0	0	0	0	0	**131**
08:00	0	76	15	0	2	0	0	0	0	0	0	0	0	93
09:00	0	70	14	1	1	0	0	**2**	0	0	0	0	0	88
10:00	0	60	16	0	5	0	0	0	0	0	0	0	0	81
11:00	0	54	16	0	2	0	0	0	0	0	0	0	0	72
12 PM	0	56	16	0	2	0	0	0	0	0	0	0	0	74
13:00	0	81	16	0	**5**	**1**	0	0	0	0	0	0	0	103
14:00	0	96	19	0	4	0	0	0	**2**	0	0	0	0	121
15:00	0	126	**36**	0	5	1	0	0	0	0	0	0	0	168
16:00	0	141	26	0	2	0	0	**1**	0	0	0	0	0	**170**
17:00	0	**145**	20	0	3	0	0	0	0	0	0	0	0	168
18:00	0	89	20	0	5	0	0	0	0	0	0	0	0	114
19:00	0	72	13	0	0	0	0	0	0	0	0	0	0	85
20:00	0	58	3	0	0	0	0	0	0	0	0	0	0	61
21:00	0	64	18	0	1	0	0	0	0	0	0	0	0	83
22:00	0	29	7	0	0	0	0	0	0	0	0	0	0	36
23:00	0	19	4	0	0	0	0	0	0	0	0	0	0	23
Total	1	1476	298	2	49	3	0	4	2	0	0	0	0	1835
Percent	0.1%	80.4%	16.2%	0.1%	2.7%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	07:00	07:00	07:00	07:00	01:00		09:00						07:00
Vol.	1	106	16	1	7	1		2						131
PM Peak		17:00	15:00		13:00	13:00		16:00	14:00					16:00
Vol.		145	36		5	1		1	2					170
Grand Total	1	1476	298	2	49	3	0	4	2	0	0	0	0	1835
Percent	0.1%	80.4%	16.2%	0.1%	2.7%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Alessandro Boulevard
B/ Redlands Boulevard - Merwin Street
24 Hour Directional Classification Count

MRV020C
Site Code: 098-18079

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	7	4	0	0	0	0	0	0	0	0	0	0	11
01:00	0	19	1	0	0	0	0	0	0	0	0	0	0	20
02:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
03:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
04:00	0	23	6	0	0	0	0	0	0	0	0	0	0	29
05:00	0	49	11	0	3	0	0	**1**	0	0	0	0	0	64
06:00	0	90	**27**	0	4	0	0	0	0	0	0	0	0	121
07:00	0	**125**	24	0	4	0	0	0	0	0	0	0	0	**153**
08:00	0	112	25	**1**	4	0	0	1	0	0	**1**	0	0	144
09:00	0	67	18	0	4	0	0	1	0	0	0	0	0	90
10:00	0	44	19	0	3	0	0	0	0	0	0	0	0	66
11:00	0	55	11	0	**5**	**1**	0	1	0	0	0	0	0	73
12 PM	0	38	20	0	5	**1**	0	**2**	0	0	0	0	0	66
13:00	0	55	19	0	3	0	0	0	0	0	0	0	0	77
14:00	0	75	29	**1**	3	0	0	0	**1**	0	0	0	0	109
15:00	1	82	26	0	**11**	0	0	0	0	0	0	0	0	120
16:00	**3**	91	**35**	0	5	0	0	0	0	0	0	0	0	**134**
17:00	0	**98**	24	0	3	1	0	0	0	0	0	0	0	126
18:00	0	81	21	0	0	0	**1**	2	0	0	0	0	0	105
19:00	0	42	8	0	3	0	0	0	0	0	0	0	0	53
20:00	0	39	4	0	1	0	0	0	0	0	0	0	0	44
21:00	0	55	10	0	2	0	0	0	0	0	0	0	0	67
22:00	0	24	5	0	0	0	0	0	0	0	0	0	0	29
23:00	0	22	8	0	0	0	0	0	0	0	0	0	0	30
Total	4	1304	358	2	63	3	1	8	1	0	1	0	0	1745
Percent	0.2%	74.7%	20.5%	0.1%	3.6%	0.2%	0.1%	0.5%	0.1%	0.0%	0.1%	0.0%	0.0%	
AM Peak		07:00	06:00	08:00	11:00	11:00		05:00			08:00			07:00
Vol.		125	27	1	5	1		1			1			153
PM Peak	16:00	17:00	16:00	14:00	15:00	12:00	18:00	12:00	14:00					16:00
Vol.	3	98	35	1	11	1	1	2	1					134
Grand Total	4	1304	358	2	63	3	1	8	1	0	1	0	0	1745
Percent	0.2%	74.7%	20.5%	0.1%	3.6%	0.2%	0.1%	0.5%	0.1%	0.0%	0.1%	0.0%	0.0%	

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City of Moreno Valley
Alessandro Boulevard
B/ Redlands Boulevard - Merwin Street
24 Hour Directional Classification Count

MRV020C
Site Code: 098-18079

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	19	8	0	0	0	0	0	0	0	0	0	0	27
01:00	**1**	26	1	0	0	**1**	0	0	0	0	0	0	0	29
02:00	0	12	3	0	0	0	0	0	0	0	0	0	0	15
03:00	0	16	5	0	0	0	0	0	0	0	0	0	0	21
04:00	0	49	9	0	0	0	0	0	0	0	0	0	0	58
05:00	0	74	15	0	5	0	0	1	0	0	0	0	0	95
06:00	0	137	34	0	7	0	0	0	0	0	0	0	0	178
07:00	0	**231**	**40**	**1**	**11**	0	0	1	0	0	0	0	0	**284**
08:00	0	188	40	1	6	0	0	1	0	0	**1**	0	0	237
09:00	0	137	32	1	5	0	0	**3**	0	0	0	0	0	178
10:00	0	104	35	0	8	0	0	0	0	0	0	0	0	147
11:00	0	109	27	0	7	1	0	1	0	0	0	0	0	145
12 PM	0	94	36	0	7	**1**	0	**2**	0	0	0	0	0	140
13:00	0	136	35	0	8	1	0	0	0	0	0	0	0	180
14:00	0	171	48	**1**	7	0	0	0	**3**	0	0	0	0	230
15:00	1	208	**62**	0	**16**	1	0	0	0	0	0	0	0	288
16:00	**3**	232	61	0	7	0	0	1	0	0	0	0	0	**304**
17:00	0	**243**	44	0	6	1	0	0	0	0	0	0	0	294
18:00	0	170	41	0	5	0	**1**	2	0	0	0	0	0	219
19:00	0	114	21	0	3	0	0	0	0	0	0	0	0	138
20:00	0	97	7	0	1	0	0	0	0	0	0	0	0	105
21:00	0	119	28	0	3	0	0	0	0	0	0	0	0	150
22:00	0	53	12	0	0	0	0	0	0	0	0	0	0	65
23:00	0	41	12	0	0	0	0	0	0	0	0	0	0	53
Total	5	2780	656	4	112	6	1	12	3	0	1	0	0	3580
Percent	0.1%	77.7%	18.3%	0.1%	3.1%	0.2%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	07:00	07:00	07:00	07:00	01:00		09:00			08:00			07:00
Vol.	1	231	40	1	11	1		3			1			284
PM Peak	16:00	17:00	15:00	14:00	15:00	12:00	18:00	12:00	14:00					16:00
Vol.	3	243	62	1	16	1	1	2	3					304
Grand Total	5	2780	656	4	112	6	1	12	3	0	1	0	0	3580
Percent	0.1%	77.7%	18.3%	0.1%	3.1%	0.2%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Redlands Boulevard
B/ Alessandro Boulevard - Cactus Avenue
24 Hour Directional Classification Count

MRV021C
Site Code: 098-18079

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	18	0	0	1	0	0	0	0	0	0	0	0	19
01:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
02:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
03:00	0	28	7	0	0	0	0	0	0	0	0	0	0	35
04:00	0	49	10	0	0	0	0	0	0	0	0	0	0	59
05:00	0	124	20	0	2	1	0	0	0	0	0	0	0	147
06:00	0	317	43	0	7	1	0	**4**	1	0	0	0	0	373
07:00	1	**367**	**49**	1	**15**	**3**	0	0	1	0	0	0	0	**437**
08:00	**2**	276	41	1	4	0	0	0	**2**	0	0	0	0	326
09:00	2	174	31	**2**	6	0	0	1	1	0	0	0	0	217
10:00	2	167	30	0	4	0	0	0	0	0	0	0	0	203
11:00	2	138	19	1	4	0	0	3	0	0	0	0	0	167
12 PM	0	182	36	1	4	0	0	0	0	0	0	0	0	223
13:00	0	167	24	**2**	5	**2**	**1**	0	**1**	0	0	0	0	202
14:00	1	214	36	0	**8**	2	0	**1**	0	0	0	0	0	262
15:00	2	**278**	40	0	6	1	0	0	0	0	0	0	0	**327**
16:00	0	259	**46**	0	6	0	0	1	0	0	0	0	0	312
17:00	**4**	272	30	0	2	0	0	0	0	0	0	0	0	308
18:00	0	172	22	0	2	0	0	0	0	0	0	0	0	196
19:00	0	119	14	0	0	0	0	1	0	0	0	0	0	134
20:00	0	74	14	0	3	0	0	0	0	0	0	0	0	91
21:00	1	72	9	0	1	0	0	0	0	0	0	0	0	83
22:00	0	50	5	0	0	0	0	0	1	0	0	0	0	56
23:00	0	25	2	0	1	0	0	0	0	0	0	0	0	28
Total	17	3565	531	8	81	10	1	11	7	0	0	0	0	4231
Percent	0.4%	84.3%	12.6%	0.2%	1.9%	0.2%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	09:00	07:00	07:00		06:00	08:00					07:00
Vol.	2	367	49	2	15	3		4	2					437
PM Peak	17:00	15:00	16:00	13:00	14:00	13:00	13:00	14:00	13:00					15:00
Vol.	4	278	46	2	8	2	1	1	1					327
Grand Total	17	3565	531	8	81	10	1	11	7	0	0	0	0	4231
Percent	0.4%	84.3%	12.6%	0.2%	1.9%	0.2%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Redlands Boulevard
B/ Alessandro Boulevard - Cactus Avenue
24 Hour Directional Classification Count

MRV021C
Site Code: 098-18079

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	29	3	0	0	0	0	0	0	0	0	0	0	32
01:00	0	34	3	0	0	0	0	0	0	0	0	0	0	37
02:00	0	8	3	0	1	**1**	0	0	0	0	0	0	0	13
03:00	0	15	2	0	1	0	0	0	0	0	0	0	0	18
04:00	0	37	4	0	0	0	0	0	0	0	0	0	0	41
05:00	0	67	15	0	4	0	0	0	0	0	0	0	0	86
06:00	0	108	29	0	**8**	0	0	0	0	0	0	0	0	145
07:00	0	**310**	**56**	0	6	0	0	**1**	0	0	0	0	0	**373**
08:00	0	205	48	**1**	5	0	0	1	**1**	0	0	0	0	261
09:00	0	86	29	0	8	0	0	1	0	0	0	0	0	124
10:00	**2**	89	21	0	4	0	0	0	1	0	0	0	0	117
11:00	0	143	34	1	6	0	0	0	0	0	0	0	0	184
12 PM	0	137	42	**1**	6	0	**1**	0	0	0	0	0	0	187
13:00	**3**	140	27	1	6	0	0	1	0	0	0	0	0	178
14:00	1	190	39	1	10	0	0	**3**	0	0	0	0	0	244
15:00	1	222	46	1	**15**	0	0	2	0	0	0	0	0	287
16:00	2	296	63	0	8	0	0	2	0	0	0	0	0	371
17:00	1	**318**	**70**	0	8	0	0	2	0	0	0	0	0	**399**
18:00	2	178	22	0	3	0	0	0	0	0	0	0	0	205
19:00	1	168	30	0	4	0	0	2	0	0	0	0	0	205
20:00	0	132	18	0	1	0	0	0	0	0	0	0	0	151
21:00	0	118	28	0	0	0	0	0	0	0	0	0	0	146
22:00	0	72	7	0	0	0	0	0	0	0	0	0	0	79
23:00	1	29	4	0	1	0	0	0	0	0	0	0	0	35
Total	14	3131	643	6	105	1	1	15	2	0	0	0	0	3918
Percent	0.4%	79.9%	16.4%	0.2%	2.7%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	08:00	06:00	02:00		07:00	08:00					07:00
Vol.	2	310	56	1	8	1		1	1					373
PM Peak	13:00	17:00	17:00	12:00	15:00		12:00	14:00						17:00
Vol.	3	318	70	1	15		1	3						399
Grand Total	14	3131	643	6	105	1	1	15	2	0	0	0	0	3918
Percent	0.4%	79.9%	16.4%	0.2%	2.7%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Redlands Boulevard
B/ Alessandro Boulevard - Cactus Avenue
24 Hour Directional Classification Count

MRV021C
Site Code: 098-18079

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/31/18	0	47	3	0	1	0	0	0	0	0	0	0	0	51
01:00	0	45	4	0	0	0	0	0	0	0	0	0	0	49
02:00	0	20	5	0	1	1	0	0	0	0	0	0	0	27
03:00	0	43	9	0	1	0	0	0	0	0	0	0	0	53
04:00	0	86	14	0	0	0	0	0	0	0	0	0	0	100
05:00	0	191	35	0	6	1	0	0	0	0	0	0	0	233
06:00	0	425	72	0	15	1	0	**4**	1	0	0	0	0	518
07:00	1	**677**	**105**	1	**21**	**3**	0	1	1	0	0	0	0	**810**
08:00	2	481	89	**2**	9	0	0	1	**3**	0	0	0	0	587
09:00	2	260	60	2	14	0	0	2	1	0	0	0	0	341
10:00	**4**	256	51	0	8	0	0	0	1	0	0	0	0	320
11:00	2	281	53	2	10	0	0	3	0	0	0	0	0	351
12 PM	0	319	78	2	10	0	**1**	0	0	0	0	0	0	410
13:00	3	307	51	**3**	11	**2**	1	1	**1**	0	0	0	0	380
14:00	2	404	75	1	18	2	0	**4**	0	0	0	0	0	506
15:00	3	500	86	1	**21**	1	0	2	0	0	0	0	0	614
16:00	2	555	**109**	0	14	0	0	3	0	0	0	0	0	683
17:00	**5**	**590**	100	0	10	0	0	2	0	0	0	0	0	**707**
18:00	2	350	44	0	5	0	0	0	0	0	0	0	0	401
19:00	1	287	44	0	4	0	0	3	0	0	0	0	0	339
20:00	0	206	32	0	4	0	0	0	0	0	0	0	0	242
21:00	1	190	37	0	1	0	0	0	0	0	0	0	0	229
22:00	0	122	12	0	0	0	0	0	1	0	0	0	0	135
23:00	1	54	6	0	2	0	0	0	0	0	0	0	0	63
Total	31	6696	1174	14	186	11	2	26	9	0	0	0	0	8149
Percent	0.4%	82.2%	14.4%	0.2%	2.3%	0.1%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	08:00	07:00	07:00		06:00	08:00					07:00
Vol.	4	677	105	2	21	3		4	3					810
PM Peak	17:00	17:00	16:00	13:00	15:00	13:00	12:00	14:00	13:00					17:00
Vol.	5	590	109	3	21	2	1	4	1					707
Grand Total	31	6696	1174	14	186	11	2	26	9	0	0	0	0	8149
Percent	0.4%	82.2%	14.4%	0.2%	2.3%	0.1%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Moreno Valley
Cactus Avenue
B/ Redlands Boulevard - Cactus Avenue Extension
24 Hour Directional Classification Count

MRV022C
Site Code: 098-18079

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
06:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
08:00	0	8	2	**1**	1	0	0	0	0	0	0	0	0	12
09:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
10:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
11:00	0	**11**	**4**	0	**2**	0	0	0	0	0	0	0	0	**17**
12 PM	0	5	1	0	2	0	0	0	0	0	0	0	0	8
13:00	0	8	4	0	0	0	0	0	0	0	0	0	0	12
14:00	0	4	3	0	1	0	0	0	0	0	0	0	0	8
15:00	0	**21**	2	0	3	0	0	0	0	0	0	0	0	26
16:00	0	21	4	0	1	0	0	0	0	0	0	0	0	26
17:00	**1**	16	**13**	0	1	0	0	0	0	0	0	0	0	**31**
18:00	0	14	5	0	0	0	0	0	0	0	0	0	0	19
19:00	0	10	7	0	**4**	0	0	0	0	0	0	0	0	21
20:00	0	10	3	0	1	0	0	0	0	0	0	0	0	14
21:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
22:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
23:00	0	6	0	0	2	0	0	0	0	0	0	0	0	8
Total	1	195	55	1	19	0	0	0	0	0	0	0	0	271
Percent	0.4%	72.0%	20.3%	0.4%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	11:00	08:00	11:00									11:00
Vol.		11	4	1	2									17
PM Peak	17:00	15:00	17:00		19:00									17:00
Vol.	1	21	13		4									31
Grand Total	1	195	55	1	19	0	0	0	0	0	0	0	0	271
Percent	0.4%	72.0%	20.3%	0.4%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Cactus Avenue
B/ Redlands Boulevard - Cactus Avenue Extension
24 Hour Directional Classification Count

MRV022C
Site Code: 098-18079

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	1	2	0	1	0	0	0	0	0	0	0	0	4
03:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
04:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:00	0	15	0	0	1	0	0	0	0	0	0	0	0	16
06:00	0	17	4	0	1	0	0	0	0	0	0	0	0	22
07:00	**1**	**23**	**7**	0	**2**	0	0	0	0	0	0	0	0	**33**
08:00	1	9	1	0	1	0	0	0	0	0	0	0	0	12
09:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
10:00	0	9	1	0	1	0	0	0	0	0	0	0	0	11
11:00	0	8	1	0	2	0	0	0	0	0	0	0	0	11
12 PM	0	7	**4**	0	0	0	0	0	0	0	0	0	0	11
13:00	0	10	4	0	**3**	0	0	0	0	0	0	0	0	**17**
14:00	0	8	2	0	3	0	0	0	0	0	0	0	0	13
15:00	0	7	2	0	3	0	0	0	0	0	0	0	0	12
16:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
17:00	**1**	**13**	2	0	1	0	0	0	0	0	0	0	0	17
18:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
19:00	0	9	3	0	1	0	0	0	0	0	0	0	0	13
20:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
21:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
22:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
23:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
Total	3	191	42	0	20	0	0	0	0	0	0	0	0	256
Percent	1.2%	74.6%	16.4%	0.0%	7.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00		07:00									07:00
Vol.	1	23	7		2									33
PM Peak	17:00	17:00	12:00		13:00									13:00
Vol.	1	13	4		3									17
Grand Total	3	191	42	0	20	0	0	0	0	0	0	0	0	256
Percent	1.2%	74.6%	16.4%	0.0%	7.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

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24 Hour Directional Classification Count

MRV022C
Site Code: 098-18079

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
01/30/18	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
02:00	0	4	2	0	1	0	0	0	0	0	0	0	0	7
03:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
04:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
05:00	0	22	2	0	1	0	0	0	0	0	0	0	0	25
06:00	0	18	4	0	1	0	0	0	0	0	0	0	0	23
07:00	**1**	**25**	**8**	0	3	0	0	0	0	0	0	0	0	**37**
08:00	1	17	3	**1**	2	0	0	0	0	0	0	0	0	24
09:00	0	15	2	0	0	0	0	0	0	0	0	0	0	17
10:00	0	19	2	0	1	0	0	0	0	0	0	0	0	22
11:00	0	19	5	0	**4**	0	0	0	0	0	0	0	0	28
12 PM	0	12	5	0	2	0	0	0	0	0	0	0	0	19
13:00	0	18	8	0	3	0	0	0	0	0	0	0	0	29
14:00	0	12	5	0	4	0	0	0	0	0	0	0	0	21
15:00	0	28	4	0	**6**	0	0	0	0	0	0	0	0	38
16:00	0	**31**	5	0	1	0	0	0	0	0	0	0	0	37
17:00	**2**	29	**15**	0	2	0	0	0	0	0	0	0	0	**48**
18:00	0	25	7	0	0	0	0	0	0	0	0	0	0	32
19:00	0	19	10	0	5	0	0	0	0	0	0	0	0	34
20:00	0	19	3	0	1	0	0	0	0	0	0	0	0	23
21:00	0	16	0	0	0	0	0	0	0	0	0	0	0	16
22:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
23:00	0	7	2	0	2	0	0	0	0	0	0	0	0	11
Total	4	386	97	1	39	0	0	0	0	0	0	0	0	527
Percent	0.8%	73.2%	18.4%	0.2%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	08:00	11:00									07:00
Vol.	1	25	8	1	4									37
PM Peak	17:00	16:00	17:00		15:00									17:00
Vol.	2	31	15		6									48
Grand Total	4	386	97	1	39	0	0	0	0	0	0	0	0	527
Percent	0.8%	73.2%	18.4%	0.2%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Traffic Impact Analysis Report

for the World Logistics Center

Appendix B

Intersection LOS Worksheets
for Existing Conditions

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↑↱			↰↑
Traffic Vol, veh/h	133	8	48	84	2	22
Future Vol, veh/h	133	8	48	84	2	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	158	10	57	100	2	26

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	138	107	0	0	157	0
Stage 1	107	-	-	-	-	-
Stage 2	31	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	860	953	-	-	1435	-
Stage 1	922	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	953	-	-	1435	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	996	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	864	1435	-
HCM Lane V/C Ratio	-	-	0.194	0.002	-
HCM Control Delay (s)	-	-	10.2	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	0	86	137	771	455	0
Future Vol, veh/h	0	86	137	771	455	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	20	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	91	146	820	484	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1596	484	484	0	-	0
Stage 1	484	-	-	-	-	-
Stage 2	1112	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	119	587	1089	-	-	-
Stage 1	624	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	103	587	1089	-	-	-
Mov Cap-2 Maneuver	103	-	-	-	-	-
Stage 1	624	-	-	-	-	-
Stage 2	275	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1089	-	-	587	-	-
HCM Lane V/C Ratio	0.134	-	-	0.156	-	-
HCM Control Delay (s)	8.8	-	0	12.3	-	-
HCM Lane LOS	A	-	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.5	-	-

HCM 2010 TWSC
10: Redlands Blvd & Locust Ave

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	16	0	16	2	0	1	6	628	8	0	596	7
Future Vol, veh/h	16	0	16	2	0	1	6	628	8	0	596	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	300	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	0	17	2	0	1	7	683	9	0	648	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1344	1344	648	1353	1344	683	648	0	0	683	0	0
Stage 1	648	648	-	696	696	-	-	-	-	-	-	-
Stage 2	696	696	-	657	648	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	130	153	474	128	153	453	947	-	-	919	-	-
Stage 1	462	469	-	435	446	-	-	-	-	-	-	-
Stage 2	435	446	-	457	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	129	152	474	123	152	453	947	-	-	919	-	-
Mov Cap-2 Maneuver	129	152	-	123	152	-	-	-	-	-	-	-
Stage 1	459	469	-	432	443	-	-	-	-	-	-	-
Stage 2	431	443	-	440	469	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.4	27.7	0.1	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	947	-	-	203	162	919	-	-
HCM Lane V/C Ratio	0.007	-	-	0.171	0.02	-	-	-
HCM Control Delay (s)	8.8	-	-	26.4	27.7	0	-	-
HCM Lane LOS	A	-	-	D	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0	-	-

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↱		↰	↑	↱
Traffic Volume (veh/h)	104	7	28	3	11	4	32	527	9	1	535	111
Future Volume (veh/h)	104	7	28	3	11	4	32	527	9	1	535	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	7	29	3	11	4	33	538	9	1	546	113
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	449	30	123	14	51	18	86	717	12	3	645	544
Arrive On Green	0.34	0.34	0.34	0.05	0.05	0.05	0.05	0.38	0.38	0.00	0.34	0.34
Sat Flow, veh/h	1319	87	361	300	1101	400	1810	1863	31	1810	1900	1603
Grp Volume(v), veh/h	142	0	0	18	0	0	33	0	547	1	546	113
Grp Sat Flow(s),veh/h/ln	1767	0	0	1802	0	0	1810	0	1894	1810	1900	1603
Q Serve(g_s), s	4.1	0.0	0.0	0.7	0.0	0.0	1.2	0.0	17.6	0.0	18.8	3.5
Cycle Q Clear(g_c), s	4.1	0.0	0.0	0.7	0.0	0.0	1.2	0.0	17.6	0.0	18.8	3.5
Prop In Lane	0.75		0.20	0.17		0.22	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	601	0	0	83	0	0	86	0	729	3	645	544
V/C Ratio(X)	0.24	0.00	0.00	0.22	0.00	0.00	0.39	0.00	0.75	0.29	0.85	0.21
Avail Cap(c_a), veh/h	601	0	0	664	0	0	180	0	729	180	728	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	0.0	32.4	0.0	0.0	32.6	0.0	18.8	35.1	21.6	16.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.3	0.0	0.0	2.8	0.0	4.4	40.0	8.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.4	0.0	0.0	0.7	0.0	10.0	0.1	11.2	1.6
LnGrp Delay(d),s/veh	17.6	0.0	0.0	33.7	0.0	0.0	35.4	0.0	23.1	75.1	29.9	16.7
LnGrp LOS	B			C			D		C	E	C	B
Approach Vol, veh/h		142			18			580			660	
Approach Delay, s/veh		17.6			33.7			23.8			27.8	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.1	31.1		28.0	7.3	27.9		7.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	27.0		24.0	7.0	27.0		26.0
Max Q Clear Time (g_c+I1), s	2.0	19.6		6.1	3.2	20.8		2.7
Green Ext Time (p_c), s	0.0	3.7		0.5	0.0	3.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑	↱	↰	↑
Traffic Vol, veh/h	62	1	16	58	4	7
Future Vol, veh/h	62	1	16	58	4	7
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	73	1	19	68	5	8

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	42	29	0	0	24	0
Stage 1	24	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	974	1052	-	-	1604	-
Stage 1	1004	-	-	-	-	-
Stage 2	1010	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	967	1043	-	-	1597	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1043	1597	-
HCM Lane V/C Ratio	-	-	0.001	0.003	-
HCM Control Delay (s)	-	-	8.5	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

	⤴	→	↘	↙	←	↖	↰	↑	↱	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	3	6	4	37	0	39	11	517	122	288	269	4
Future Volume (veh/h)	3	6	4	37	0	39	11	517	122	288	269	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	6	4	38	0	40	11	528	124	294	274	4
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	19	13	78	0	82	36	650	704	382	996	15
Arrive On Green	0.02	0.02	0.02	0.09	0.00	0.09	0.02	0.34	0.34	0.21	0.53	0.53
Sat Flow, veh/h	411	823	548	830	0	874	1810	1900	1615	1810	1868	27
Grp Volume(v), veh/h	13	0	0	78	0	0	11	528	124	294	0	278
Grp Sat Flow(s),veh/h/ln	1783	0	0	1704	0	0	1810	1900	1615	1810	0	1895
Q Serve(g_s), s	0.3	0.0	0.0	2.1	0.0	0.0	0.3	12.3	2.3	7.4	0.0	3.9
Cycle Q Clear(g_c), s	0.3	0.0	0.0	2.1	0.0	0.0	0.3	12.3	2.3	7.4	0.0	3.9
Prop In Lane	0.23		0.31	0.49		0.51	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	41	0	0	160	0	0	36	650	704	382	0	1011
V/C Ratio(X)	0.31	0.00	0.00	0.49	0.00	0.00	0.31	0.81	0.18	0.77	0.00	0.28
Avail Cap(c_a), veh/h	661	0	0	632	0	0	261	940	951	522	0	1211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.3	0.0	0.0	20.9	0.0	0.0	23.4	14.5	8.4	18.0	0.0	6.2
Incr Delay (d2), s/veh	4.3	0.0	0.0	2.3	0.0	0.0	4.7	3.6	0.1	4.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.1	0.0	0.0	0.2	7.0	1.2	4.2	0.0	2.0
LnGrp Delay(d),s/veh	27.6	0.0	0.0	23.2	0.0	0.0	28.1	18.1	8.5	22.8	0.0	6.3
LnGrp LOS	C			C			C	B	A	C		A
Approach Vol, veh/h		13			78			663			572	
Approach Delay, s/veh		27.6			23.2			16.5			14.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.2	20.6		5.1	5.0	29.9		8.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	14.0	24.0		18.0	7.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	9.4	14.3		2.3	2.3	5.9		4.1
Green Ext Time (p_c), s	1.0	2.3		0.0	0.0	2.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↑	↱
Traffic Volume (veh/h)	223	86	69	404	307	36
Future Volume (veh/h)	223	86	69	404	307	36
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	230	89	71	416	316	37
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	302	117	184	982	558	475
Arrive On Green	0.24	0.24	0.10	0.52	0.29	0.29
Sat Flow, veh/h	1259	487	1810	1900	1900	1615
Grp Volume(v), veh/h	320	0	71	416	316	37
Grp Sat Flow(s),veh/h/ln	1751	0	1810	1900	1900	1615
Q Serve(g_s), s	5.6	0.0	1.2	4.5	4.6	0.5
Cycle Q Clear(g_c), s	5.6	0.0	1.2	4.5	4.6	0.5
Prop In Lane	0.72	0.28	1.00			1.00
Lane Grp Cap(c), veh/h	420	0	184	982	558	475
V/C Ratio(X)	0.76	0.00	0.39	0.42	0.57	0.08
Avail Cap(c_a), veh/h	958	0	385	1675	1040	884
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	0.0	13.8	4.9	9.8	8.4
Incr Delay (d2), s/veh	2.9	0.0	1.3	0.3	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.7	2.4	2.5	0.2
LnGrp Delay(d),s/veh	14.5	0.0	15.1	5.2	10.7	8.5
LnGrp LOS	B		B	A	B	A
Approach Vol, veh/h	320			487	353	
Approach Delay, s/veh	14.5			6.7	10.5	
Approach LOS	B			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		21.0		11.9	7.3	13.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		18.0	7.0	18.0		
Max Q Clear Time (g_c+I1), s		6.5		7.6	3.2	6.6		
Green Ext Time (p_c), s		3.9		0.7	0.0	3.0		

Intersection Summary			
HCM 2010 Ctrl Delay			10.0
HCM 2010 LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↑↱			↰↑
Traffic Vol, veh/h	28	16	67	41	45	17
Future Vol, veh/h	28	16	67	41	45	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	31	18	75	46	51	19

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	218	98	0	0	121	0
Stage 1	98	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	775	963	-	-	1479	-
Stage 1	931	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	748	963	-	-	1479	-
Mov Cap-2 Maneuver	748	-	-	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	5.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1479	-
HCM Lane V/C Ratio	-	-	0.061	0.034	-
HCM Control Delay (s)	-	-	9.7	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

HCM 2010 TWSC
16: Theodore St & SR-60 EB Ramps

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	62	118	19	41	25	16
Future Vol, veh/h	62	118	19	41	25	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	260	270	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	83	157	25	55	33	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	149	44	55	0	-	0
Stage 1	44	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	848	1032	1563	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	834	1032	1563	-	-	-
Mov Cap-2 Maneuver	834	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	2.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1563	-	834	1032	-	-
HCM Lane V/C Ratio	0.016	-	0.099	0.152	-	-
HCM Control Delay (s)	7.3	-	9.8	9.1	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.5	-	-

HCM 2010 Signalized Intersection Summary
18: Redlands Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱			↱	↰	↑			↑	↱
Traffic Volume (veh/h)	24	0	2	3	0	18	23	484	0	0	318	42
Future Volume (veh/h)	24	0	2	3	0	18	23	484	0	0	318	42
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900	1900	0	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	26	0	2	3	0	20	25	526	0	0	346	46
Adj No. of Lanes	1	0	1	0	0	1	1	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	0	0	0	0	0	76	1454	0	0	1192	1084
Arrive On Green	0.04	0.00	0.00	0.00	0.00	0.00	0.04	0.77	0.00	0.00	0.63	0.63
Sat Flow, veh/h	1810	26			0		1810	1900	0	0	1900	1615
Grp Volume(v), veh/h	26	21.8			0.0		25	526	0	0	346	46
Grp Sat Flow(s),veh/h/ln	1810	C					1810	1900	0	0	1900	1615
Q Serve(g_s), s	0.6						0.6	3.8	0.0	0.0	3.5	0.4
Cycle Q Clear(g_c), s	0.6						0.6	3.8	0.0	0.0	3.5	0.4
Prop In Lane	1.00						1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	79						76	1454	0	0	1192	1084
V/C Ratio(X)	0.33						0.33	0.36	0.00	0.00	0.29	0.04
Avail Cap(c_a), veh/h	303						303	1454	0	0	1192	1084
HCM Platoon Ratio	1.00						1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00						1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.4						19.5	1.6	0.0	0.0	3.6	2.3
Incr Delay (d2), s/veh	2.4						2.5	0.7	0.0	0.0	0.6	0.1
Initial Q Delay(d3),s/veh	0.0						0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3						0.3	2.2	0.0	0.0	1.9	0.2
LnGrp Delay(d),s/veh	21.8						21.9	2.3	0.0	0.0	4.2	2.4
LnGrp LOS	C						C	A			A	A
Approach Vol, veh/h								551			392	
Approach Delay, s/veh								3.2			4.0	
Approach LOS								A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1		3	4				8
Phs Duration (G+Y+Rc), s	5.8		5.8	30.2				36.0
Change Period (Y+Rc), s	4.0		4.0	4.0				4.0
Max Green Setting (Gmax), s	7.0		7.0	21.0				32.0
Max Q Clear Time (g_c+I1), s	2.6		2.6	5.5				5.8
Green Ext Time (p_c), s	0.0		0.0	4.3				5.1

Intersection Summary	
HCM 2010 Ctrl Delay	4.0
HCM 2010 LOS	A

HCM 2010 TWSC
19: Theodore St & Fir Ave

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Vol, veh/h	36	34	45	24	15	126
Future Vol, veh/h	36	34	45	24	15	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	280	0	120	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	50	66	35	22	185

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	190	22	22	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	168	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	804	1061	1607	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	771	1061	1607	-	-	-
Mov Cap-2 Maneuver	771	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	831	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	4.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1607	-	771	1061	-	-
HCM Lane V/C Ratio	0.041	-	0.069	0.047	-	-
HCM Control Delay (s)	7.3	-	10	8.6	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			↰	↱		✥	
Traffic Vol, veh/h	0	178	59	17	441	0	153	1	32	0	0	2
Future Vol, veh/h	0	178	59	17	441	0	153	1	32	0	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	223	74	21	551	0	191	1	40	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	551	0	0	296	0	0	854	853	259	854	890	551
Stage 1	-	-	-	-	-	-	259	259	-	594	594	-
Stage 2	-	-	-	-	-	-	595	594	-	260	296	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1029	-	-	1277	-	-	281	299	785	281	284	538
Stage 1	-	-	-	-	-	-	750	697	-	495	496	-
Stage 2	-	-	-	-	-	-	494	496	-	749	672	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1029	-	-	1277	-	-	275	292	785	261	277	538
Mov Cap-2 Maneuver	-	-	-	-	-	-	275	292	-	261	277	-
Stage 1	-	-	-	-	-	-	750	697	-	495	484	-
Stage 2	-	-	-	-	-	-	480	484	-	710	672	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	38	11.7
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	275	785	1029	-	-	1277	-	-	538
HCM Lane V/C Ratio	0.7	0.051	-	-	-	0.017	-	-	0.005
HCM Control Delay (s)	43.8	9.8	0	-	-	7.9	0	-	11.7
HCM Lane LOS	E	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	4.8	0.2	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	60	97	55	47	223	10	101	503	37	10	340	107
Future Volume (veh/h)	60	97	55	47	223	10	101	503	37	10	340	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	123	70	59	282	13	128	637	47	13	430	135
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	190	108	231	388	18	177	756	56	41	495	155
Arrive On Green	0.08	0.17	0.17	0.13	0.22	0.22	0.10	0.43	0.43	0.02	0.36	0.36
Sat Flow, veh/h	1810	1131	644	1810	1801	83	1810	1747	129	1810	1385	435
Grp Volume(v), veh/h	76	0	193	59	0	295	128	0	684	13	0	565
Grp Sat Flow(s),veh/h/ln	1810	0	1775	1810	0	1884	1810	0	1876	1810	0	1820
Q Serve(g_s), s	2.6	0.0	6.5	1.9	0.0	9.4	4.4	0.0	20.9	0.5	0.0	18.6
Cycle Q Clear(g_c), s	2.6	0.0	6.5	1.9	0.0	9.4	4.4	0.0	20.9	0.5	0.0	18.6
Prop In Lane	1.00		0.36	1.00		0.04	1.00		0.07	1.00		0.24
Lane Grp Cap(c), veh/h	146	0	298	231	0	406	177	0	812	41	0	650
V/C Ratio(X)	0.52	0.00	0.65	0.25	0.00	0.73	0.72	0.00	0.84	0.32	0.00	0.87
Avail Cap(c_a), veh/h	197	0	718	231	0	763	197	0	847	197	0	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	24.9	25.3	0.0	23.4	28.1	0.0	16.3	30.9	0.0	19.2
Incr Delay (d2), s/veh	2.9	0.0	2.4	0.6	0.0	2.5	11.0	0.0	7.5	4.4	0.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.4	1.0	0.0	5.1	2.7	0.0	12.3	0.3	0.0	10.7
LnGrp Delay(d),s/veh	31.2	0.0	27.3	25.8	0.0	25.9	39.1	0.0	23.8	35.3	0.0	27.5
LnGrp LOS	C		C	C		C	D		C	D		C
Approach Vol, veh/h		269			354			812			578	
Approach Delay, s/veh		28.4			25.9			26.2			27.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	31.8	12.2	14.8	10.3	26.9	9.2	17.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.5	22.9	3.9	8.5	6.4	20.6	4.6	11.4
Green Ext Time (p_c), s	0.0	2.3	0.1	0.8	0.3	2.1	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	23.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		✥			↰	↱		✥	
Traffic Vol, veh/h	50	62	30	46	117	6	26	341	62	15	289	94
Future Vol, veh/h	50	62	30	46	117	6	26	341	62	15	289	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	54	67	33	50	127	7	28	371	67	16	314	102
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	13.1	16	23.8	30.7
HCM LOS	B	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	7%	0%	45%	0%	27%	4%
Vol Thru, %	93%	0%	55%	0%	69%	73%
Vol Right, %	0%	100%	0%	100%	4%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	367	62	112	30	169	398
LT Vol	26	0	50	0	46	15
Through Vol	341	0	62	0	117	289
RT Vol	0	62	0	30	6	94
Lane Flow Rate	399	67	122	33	184	433
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.74	0.111	0.272	0.064	0.398	0.795
Departure Headway (Hd)	6.675	5.924	8.046	7.094	7.804	6.615
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	543	604	446	503	459	545
Service Time	4.427	3.675	5.814	4.862	5.872	4.666
HCM Lane V/C Ratio	0.735	0.111	0.274	0.066	0.401	0.794
HCM Control Delay	26.2	9.4	13.8	10.4	16	30.7
HCM Lane LOS	D	A	B	B	C	D
HCM 95th-tile Q	6.3	0.4	1.1	0.2	1.9	7.5

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰	↱		✥	
Traffic Volume (veh/h)	12	222	176	14	291	27	193	118	28	5	50	12
Future Volume (veh/h)	12	222	176	14	291	27	193	118	28	5	50	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	288	229	18	378	35	251	153	36	6	65	16
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	50	468	361	92	503	423	324	197	454	17	189	47
Arrive On Green	0.03	0.24	0.24	0.05	0.26	0.26	0.28	0.28	0.28	0.14	0.14	0.14
Sat Flow, veh/h	1810	1936	1494	1810	1900	1600	1145	698	1606	126	1365	336
Grp Volume(v), veh/h	16	268	249	18	378	35	404	0	36	87	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1625	1810	1900	1600	1843	0	1606	1827	0	0
Q Serve(g_s), s	0.5	7.4	7.7	0.5	10.2	0.9	11.2	0.0	0.9	2.4	0.0	0.0
Cycle Q Clear(g_c), s	0.5	7.4	7.7	0.5	10.2	0.9	11.2	0.0	0.9	2.4	0.0	0.0
Prop In Lane	1.00		0.92	1.00		1.00	0.62		1.00	0.07		0.18
Lane Grp Cap(c), veh/h	50	436	392	92	503	423	521	0	454	253	0	0
V/C Ratio(X)	0.32	0.61	0.63	0.20	0.75	0.08	0.78	0.00	0.08	0.34	0.00	0.00
Avail Cap(c_a), veh/h	227	905	815	227	953	802	924	0	806	851	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.6	18.9	19.0	25.4	18.8	15.4	18.4	0.0	14.7	21.8	0.0	0.0
Incr Delay (d2), s/veh	3.6	1.4	1.7	1.0	2.3	0.1	2.5	0.0	0.1	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.8	3.6	0.3	5.7	0.4	6.1	0.0	0.4	1.3	0.0	0.0
LnGrp Delay(d),s/veh	30.3	20.3	20.7	26.4	21.1	15.5	20.9	0.0	14.8	22.6	0.0	0.0
LnGrp LOS	C	C	C	C	C	B	C		B	C		
Approach Vol, veh/h		533			431			440			87	
Approach Delay, s/veh		20.8			20.9			20.4			22.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		19.8	6.8	17.5		11.7	5.5	18.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		13.2	2.5	9.7		4.4	2.5	12.2
Green Ext Time (p_c), s		2.0	0.0	2.6		0.3	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	107	100	84	25	127	31	115	512	54	12	317	70
Future Volume (veh/h)	107	100	84	25	127	31	115	512	54	12	317	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	123	104	31	157	38	142	632	67	15	391	86
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	223	523	407	90	571	134	229	1110	574	48	886	189
Arrive On Green	0.12	0.27	0.27	0.05	0.20	0.20	0.13	0.31	0.31	0.03	0.21	0.21
Sat Flow, veh/h	1810	1929	1501	1810	2893	681	1810	3610	1607	1810	4279	911
Grp Volume(v), veh/h	132	114	113	31	96	99	142	632	67	15	313	164
Grp Sat Flow(s),veh/h/ln	1810	1805	1625	1810	1805	1770	1810	1805	1607	1810	1729	1731
Q Serve(g_s), s	3.2	2.3	2.5	0.8	2.1	2.2	3.4	6.8	1.3	0.4	3.7	3.8
Cycle Q Clear(g_c), s	3.2	2.3	2.5	0.8	2.1	2.2	3.4	6.8	1.3	0.4	3.7	3.8
Prop In Lane	1.00		0.92	1.00		0.38	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	223	489	441	90	356	349	229	1110	574	48	716	359
V/C Ratio(X)	0.59	0.23	0.26	0.34	0.27	0.28	0.62	0.57	0.12	0.31	0.44	0.46
Avail Cap(c_a), veh/h	273	1597	1438	273	1597	1566	312	2260	1086	273	2090	1046
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	13.1	13.2	21.3	15.8	15.8	19.2	13.5	10.0	22.1	16.0	16.1
Incr Delay (d2), s/veh	2.5	0.2	0.3	2.3	0.4	0.4	2.7	0.5	0.1	3.6	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.2	1.2	0.4	1.1	1.1	1.9	3.4	0.6	0.2	1.8	1.9
LnGrp Delay(d),s/veh	21.7	13.4	13.5	23.5	16.2	16.2	21.9	13.9	10.1	25.8	16.4	17.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		359			226			841			492	
Approach Delay, s/veh		16.5			17.2			15.0			16.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	18.2	6.3	16.6	9.9	13.6	9.7	13.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	2.4	8.8	2.8	4.5	5.4	5.8	5.2	4.2
Green Ext Time (p_c), s	0.0	4.2	0.0	1.5	1.1	2.5	0.3	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

HCM 2010 AWSC
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			✥			↰↑↱			↰↑↱	
Traffic Vol, veh/h	121	5	58	2	14	18	23	306	0	1	271	90
Future Vol, veh/h	121	5	58	2	14	18	23	306	0	1	271	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	141	6	67	2	16	21	27	356	0	1	315	105
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	11.5	10.2	11.7	11.5
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	18%	0%	98%	0%	6%	1%	0%
Vol Thru, %	82%	100%	2%	4%	41%	99%	60%
Vol Right, %	0%	0%	0%	96%	53%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	204	124	61	34	137	226
LT Vol	23	0	121	0	2	1	0
Through Vol	102	204	3	3	14	136	136
RT Vol	0	0	0	58	18	0	90
Lane Flow Rate	145	237	144	70	40	159	262
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.241	0.388	0.282	0.115	0.073	0.258	0.406
Departure Headway (Hd)	5.977	5.883	7.069	5.891	6.643	5.859	5.572
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	600	612	508	608	538	613	645
Service Time	3.715	3.622	4.814	3.635	4.701	3.596	3.309
HCM Lane V/C Ratio	0.242	0.387	0.283	0.115	0.074	0.259	0.406
HCM Control Delay	10.6	12.3	12.6	9.4	10.2	10.6	12.1
HCM Lane LOS	B	B	B	A	B	B	B
HCM 95th-tile Q	0.9	1.8	1.1	0.4	0.2	1	2

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	79	41	9	210	72	252	16	319	217	127	276	101
Future Volume (veh/h)	79	41	9	210	72	252	16	319	217	127	276	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	51	11	262	90	315	20	399	271	159	345	126
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	167	359	303	323	522	441	60	1353	707	205	1296	448
Arrive On Green	0.09	0.19	0.19	0.18	0.27	0.27	0.03	0.26	0.26	0.11	0.34	0.34
Sat Flow, veh/h	1810	1900	1602	1810	1900	1606	1810	5187	1606	1810	3801	1314
Grp Volume(v), veh/h	99	51	11	262	90	315	20	399	271	159	312	159
Grp Sat Flow(s),veh/h/ln	1810	1900	1602	1810	1900	1606	1810	1729	1606	1810	1729	1657
Q Serve(g_s), s	3.2	1.4	0.3	8.6	2.2	10.9	0.7	3.8	7.0	5.3	4.0	4.3
Cycle Q Clear(g_c), s	3.2	1.4	0.3	8.6	2.2	10.9	0.7	3.8	7.0	5.3	4.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	167	359	303	323	522	441	60	1353	707	205	1179	565
V/C Ratio(X)	0.59	0.14	0.04	0.81	0.17	0.71	0.34	0.29	0.38	0.78	0.26	0.28
Avail Cap(c_a), veh/h	380	1352	1140	644	1628	1377	205	2433	1041	410	2013	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	20.9	20.5	24.4	17.1	20.2	29.2	18.3	11.7	26.7	14.8	14.8
Incr Delay (d2), s/veh	3.3	0.2	0.0	4.9	0.2	2.2	3.3	0.1	0.3	6.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.7	0.2	4.7	1.2	5.1	0.4	1.8	3.1	3.0	1.9	2.0
LnGrp Delay(d),s/veh	30.2	21.1	20.5	29.3	17.2	22.4	32.5	18.4	12.0	32.9	14.9	15.1
LnGrp LOS	C	C	C	C	B	C	C	B	B	C	B	B
Approach Vol, veh/h		161			667			690			630	
Approach Delay, s/veh		26.7			24.4			16.3			19.5	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	20.1	15.0	15.7	6.0	25.1	9.7	21.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	29.0	22.0	44.0	7.0	36.0	13.0	53.0
Max Q Clear Time (g_c+I1), s	7.3	9.0	10.6	3.4	2.7	6.3	5.2	12.9
Green Ext Time (p_c), s	0.2	5.9	0.5	1.9	0.0	6.6	0.1	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	98	272	142	141	515	55	239	420	92	50	561	264
Future Volume (veh/h)	98	272	142	141	515	55	239	420	92	50	561	264
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	105	292	153	152	554	59	257	452	99	54	603	284
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	844	634	167	830	88	290	1640	880	100	1261	681
Arrive On Green	0.07	0.23	0.23	0.09	0.25	0.25	0.16	0.45	0.45	0.06	0.35	0.35
Sat Flow, veh/h	1810	3610	1605	1810	3291	350	1810	3610	1610	1810	3610	1608
Grp Volume(v), veh/h	105	292	153	152	303	310	257	452	99	54	603	284
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1836	1810	1805	1610	1810	1805	1608
Q Serve(g_s), s	5.6	6.6	1.4	8.1	14.7	14.8	13.5	7.6	2.9	2.8	12.7	6.1
Cycle Q Clear(g_c), s	5.6	6.6	1.4	8.1	14.7	14.8	13.5	7.6	2.9	2.8	12.7	6.1
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	844	634	167	455	463	290	1640	880	100	1261	681
V/C Ratio(X)	0.78	0.35	0.24	0.91	0.67	0.67	0.89	0.28	0.11	0.54	0.48	0.42
Avail Cap(c_a), veh/h	242	1484	918	167	668	679	297	1640	880	149	1261	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	31.1	9.2	43.8	32.7	32.7	40.0	16.6	10.7	44.8	24.7	7.5
Incr Delay (d2), s/veh	9.6	0.2	0.2	44.1	1.7	1.7	25.5	0.4	0.3	4.5	1.3	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.3	1.8	6.1	7.5	7.7	8.8	3.9	1.3	1.5	6.5	3.1
LnGrp Delay(d),s/veh	53.9	31.3	9.3	87.9	34.4	34.4	65.5	17.0	10.9	49.3	26.0	9.4
LnGrp LOS	D	C	A	F	C	C	E	B	B	D	C	A
Approach Vol, veh/h		550			765			808			941	
Approach Delay, s/veh		29.5			45.0			31.7			22.3	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	48.2	13.0	26.7	19.6	38.0	11.2	28.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	42.0	9.0	40.0	16.0	34.0	13.0	36.0
Max Q Clear Time (g_c+I1), s	4.8	9.6	10.1	8.6	15.5	14.7	7.6	16.8
Green Ext Time (p_c), s	0.0	4.3	0.0	7.2	0.1	4.5	0.1	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↑	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	367	7	430	181	585	0	0	785	127
Future Volume (veh/h)	0	0	0	367	7	430	181	585	0	0	785	127
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				395	8	462	195	629	0	0	844	137
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				601	12	544	226	2027	0	0	1202	195
Arrive On Green				0.34	0.34	0.34	0.25	1.00	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1775	36	1608	1810	3705	0	0	3204	505
Grp Volume(v), veh/h				403	0	462	195	629	0	0	490	491
Grp Sat Flow(s),veh/h/ln				1811	0	1608	1810	1805	0	0	1805	1809
Q Serve(g_s), s				15.1	0.0	21.3	8.2	0.0	0.0	0.0	18.3	18.3
Cycle Q Clear(g_c), s				15.1	0.0	21.3	8.2	0.0	0.0	0.0	18.3	18.3
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				613	0	544	226	2027	0	0	698	699
V/C Ratio(X)				0.66	0.00	0.85	0.86	0.31	0.00	0.00	0.70	0.70
Avail Cap(c_a), veh/h				770	0	683	226	2027	0	0	698	699
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.96	0.96	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.5	0.0	24.6	29.3	0.0	0.0	0.0	20.7	20.7
Incr Delay (d2), s/veh				1.4	0.0	8.2	26.3	0.4	0.0	0.0	5.8	5.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.7	0.0	10.6	5.7	0.1	0.0	0.0	10.2	10.3
LnGrp Delay(d),s/veh				23.9	0.0	32.8	55.6	0.4	0.0	0.0	26.5	26.5
LnGrp LOS				C		C	E	A			C	C
Approach Vol, veh/h					865			824			981	
Approach Delay, s/veh					28.6			13.5			26.5	
Approach LOS					C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		48.9			14.0	34.9		31.1
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		38.0			10.0	24.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			10.2	20.3		23.3
Green Ext Time (p_c), s		14.0			0.0	2.9		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Lane Configurations	↰	↰↑	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	207	2	311	0	0	0	0	540	154	195	963	0
Future Volume (veh/h)	207	2	311	0	0	0	0	540	154	195	963	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	212	0	317				0	551	157	199	983	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	879	0	390				0	1908	530	242	2373	0
Arrive On Green	0.24	0.00	0.24				0.00	0.47	0.47	0.09	0.44	0.00
Sat Flow, veh/h	3619	0	1605				0	4203	1121	1810	3705	0
Grp Volume(v), veh/h	212	0	317				0	471	237	199	983	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1695	1810	1805	0
Q Serve(g_s), s	3.8	0.0	14.9				0.0	6.6	6.9	8.6	14.9	0.0
Cycle Q Clear(g_c), s	3.8	0.0	14.9				0.0	6.6	6.9	8.6	14.9	0.0
Prop In Lane	1.00		1.00				0.00		0.66	1.00		0.00
Lane Grp Cap(c), veh/h	879	0	390				0	1636	802	242	2373	0
V/C Ratio(X)	0.24	0.00	0.81				0.00	0.29	0.30	0.82	0.41	0.00
Avail Cap(c_a), veh/h	1493	0	662				0	1636	802	339	2373	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.59	0.59	0.00
Uniform Delay (d), s/veh	24.4	0.0	28.6				0.0	12.8	12.9	35.5	11.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.1				0.0	0.4	0.9	6.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	7.1				0.0	3.2	3.4	4.8	7.6	0.0
LnGrp Delay(d),s/veh	24.5	0.0	32.7				0.0	13.3	13.8	42.0	12.2	0.0
LnGrp LOS	C		C					B	B	D	B	
Approach Vol, veh/h		529						708			1182	
Approach Delay, s/veh		29.4						13.5			17.2	
Approach LOS		C						B			B	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.7	41.9		23.4		56.6		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	15.0	20.0		33.0		39.0		
Max Q Clear Time (g_c+I1), s	10.6	8.9		16.9		16.9		
Green Ext Time (p_c), s	0.2	7.6		1.7		12.2		

Intersection Summary			
HCM 2010 Ctrl Delay			18.8
HCM 2010 LOS			B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	233	196	319	31	71	409	90	967	144	284	738	145
Future Volume (veh/h)	233	196	319	31	71	409	90	967	144	284	738	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	202	329	32	73	422	93	997	148	293	761	149
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	309	922	410	73	395	719	118	1433	212	833	1756	924
Arrive On Green	0.09	0.26	0.26	0.04	0.21	0.21	0.07	0.31	0.31	0.47	0.97	0.97
Sat Flow, veh/h	3510	3610	1606	1810	1900	1615	1810	4560	675	3510	3610	1607
Grp Volume(v), veh/h	240	202	329	32	73	422	93	756	389	293	761	149
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1810	1900	1615	1810	1729	1777	1755	1805	1607
Q Serve(g_s), s	7.0	4.6	20.1	1.8	3.3	4.7	5.3	20.1	20.2	5.5	1.0	0.3
Cycle Q Clear(g_c), s	7.0	4.6	20.1	1.8	3.3	4.7	5.3	20.1	20.2	5.5	1.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	309	922	410	73	395	719	118	1087	558	833	1756	924
V/C Ratio(X)	0.78	0.22	0.80	0.44	0.18	0.59	0.79	0.70	0.70	0.35	0.43	0.16
Avail Cap(c_a), veh/h	401	1238	550	121	561	860	138	1087	558	833	1756	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79	0.94	0.94	0.94
Uniform Delay (d), s/veh	46.9	30.8	36.6	49.2	34.3	10.0	48.4	31.6	31.6	22.5	0.7	0.5
Incr Delay (d2), s/veh	7.0	0.1	6.1	4.1	0.2	0.8	18.5	2.9	5.6	0.2	0.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.3	9.6	1.0	1.8	5.9	3.3	10.0	10.7	2.7	0.5	0.2
LnGrp Delay(d),s/veh	53.9	30.9	42.7	53.3	34.5	10.7	66.8	34.5	37.3	22.7	1.5	0.9
LnGrp LOS	D	C	D	D	C	B	E	C	D	C	A	A
Approach Vol, veh/h		771			527			1238			1203	
Approach Delay, s/veh		43.1			16.6			37.8			6.6	
Approach LOS		D			B			D			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.9	37.0	8.2	30.8	10.8	55.1	13.2	25.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	12.0	31.0				
Max Q Clear Time (g_c+I1), s	7.5	22.2	3.8	22.1	7.3	3.0	9.0	6.7				
Green Ext Time (p_c), s	3.0	5.2	0.0	4.0	0.0	7.6	0.2	4.7				
Intersection Summary												
HCM 2010 Ctrl Delay			25.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	235	6	209	405	1185	0	0	942	293
Future Volume (veh/h)	0	0	0	235	6	209	405	1185	0	0	942	293
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				242	6	215	418	1222	0	0	971	302
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				300	7	271	498	2723	0	0	2979	925
Arrive On Green				0.17	0.17	0.17	0.28	1.00	0.00	0.00	0.57	0.57
Sat Flow, veh/h				1768	44	1601	3510	3705	0	0	5358	1611
Grp Volume(v), veh/h				248	0	215	418	1222	0	0	971	302
Grp Sat Flow(s),veh/h/ln				1812	0	1601	1755	1805	0	0	1729	1611
Q Serve(g_s), s				13.8	0.0	13.5	11.8	0.0	0.0	0.0	10.3	10.3
Cycle Q Clear(g_c), s				13.8	0.0	13.5	11.8	0.0	0.0	0.0	10.3	10.3
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				307	0	271	498	2723	0	0	2979	925
V/C Ratio(X)				0.81	0.00	0.79	0.84	0.45	0.00	0.00	0.33	0.33
Avail Cap(c_a), veh/h				535	0	473	836	2723	0	0	2979	925
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.0	0.0	41.8	36.5	0.0	0.0	0.0	11.7	11.7
Incr Delay (d2), s/veh				5.0	0.0	5.2	3.1	0.4	0.0	0.0	0.3	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.3	0.0	6.4	5.8	0.2	0.0	0.0	4.9	4.8
LnGrp Delay(d),s/veh				47.0	0.0	47.0	39.6	0.4	0.0	0.0	12.0	12.6
LnGrp LOS				D		D	D	A			B	B
Approach Vol, veh/h					463			1640			1273	
Approach Delay, s/veh					47.0			10.4			12.1	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		83.2			18.9	64.3		21.8
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		66.0			25.0	37.0		31.0
Max Q Clear Time (g_c+I1), s		2.0			13.8	12.3		15.8
Green Ext Time (p_c), s		33.6			1.1	18.4		2.0

Intersection Summary			
HCM 2010 Ctrl Delay			16.1
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	34	86	52	90	214	158	48	1034	38	60	1017	25
Future Volume (veh/h)	34	86	52	90	214	158	48	1034	38	60	1017	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	36	91	55	96	228	168	51	1100	40	64	1082	27
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	314	265	154	380	321	129	1614	718	129	1614	718
Arrive On Green	0.05	0.17	0.17	0.09	0.20	0.20	0.07	0.45	0.45	0.07	0.45	0.45
Sat Flow, veh/h	1810	1900	1600	1810	1900	1603	1810	3610	1606	1810	3610	1606
Grp Volume(v), veh/h	36	91	55	96	228	168	51	1100	40	64	1082	27
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1603	1810	1805	1606	1810	1805	1606
Q Serve(g_s), s	1.3	2.9	1.6	3.6	7.6	5.0	1.9	16.8	0.6	2.4	16.4	0.5
Cycle Q Clear(g_c), s	1.3	2.9	1.6	3.6	7.6	5.0	1.9	16.8	0.6	2.4	16.4	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	314	265	154	380	321	129	1614	718	129	1614	718
V/C Ratio(X)	0.39	0.29	0.21	0.62	0.60	0.52	0.39	0.68	0.06	0.49	0.67	0.04
Avail Cap(c_a), veh/h	183	932	785	183	932	786	183	1614	718	183	1614	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	25.4	15.1	30.6	25.2	14.6	30.8	15.2	4.4	31.0	15.1	5.3
Incr Delay (d2), s/veh	2.7	0.5	0.4	4.8	1.5	1.3	1.9	2.3	0.1	2.9	2.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	0.9	2.0	4.1	2.6	1.0	8.8	0.4	1.3	8.6	0.3
LnGrp Delay(d),s/veh	34.6	25.9	15.4	35.5	26.7	15.9	32.7	17.6	4.6	33.9	17.4	5.4
LnGrp LOS	C	C	B	D	C	B	C	B	A	C	B	A
Approach Vol, veh/h		182			492			1191			1173	
Approach Delay, s/veh		24.4			24.7			17.8			18.0	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	35.0	9.9	15.5	9.0	35.0	7.5	17.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	4.4	18.8	5.6	4.9	3.9	18.4	3.3	9.6
Green Ext Time (p_c), s	0.1	5.9	0.0	2.5	0.1	5.9	0.0	2.4

Intersection Summary			
HCM 2010 Ctrl Delay			19.4
HCM 2010 LOS			B

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰	↱
Traffic Vol, veh/h	3	5	77	1	1	30
Future Vol, veh/h	3	5	77	1	1	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	5	82	1	1	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	9	0	171	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	165	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1624	-	824	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	869	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1624	-	782	1083
Mov Cap-2 Maneuver	-	-	-	-	782	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	825	-

Approach	EB		WB		NB
HCM Control Delay, s	0		7.2		8.4
HCM LOS					A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	782	1083	-	-	1624	-
HCM Lane V/C Ratio	0.001	0.029	-	-	0.05	-
HCM Control Delay (s)	9.6	8.4	-	-	7.3	0
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0.2	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (veh/h)	42	167	51	156	127	3	64	28	121	5	89	70
Future Volume (veh/h)	42	167	51	156	127	3	64	28	121	5	89	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	220	67	205	167	4	84	37	159	7	117	92
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	509	155	242	829	20	97	43	184	9	143	112
Arrive On Green	0.05	0.36	0.36	0.13	0.45	0.45	0.19	0.19	0.19	0.15	0.15	0.15
Sat Flow, veh/h	1810	1396	425	1810	1848	44	507	223	960	57	948	746
Grp Volume(v), veh/h	55	0	287	205	0	171	280	0	0	216	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1822	1810	0	1892	1690	0	0	1751	0	0
Q Serve(g_s), s	3.0	0.0	11.9	11.1	0.0	5.5	16.1	0.0	0.0	12.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	11.9	11.1	0.0	5.5	16.1	0.0	0.0	12.0	0.0	0.0
Prop In Lane	1.00		0.23	1.00		0.02	0.30		0.57	0.03		0.43
Lane Grp Cap(c), veh/h	90	0	664	242	0	849	324	0	0	264	0	0
V/C Ratio(X)	0.61	0.00	0.43	0.85	0.00	0.20	0.86	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	162	0	664	415	0	849	455	0	0	401	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.7	0.0	24.0	42.5	0.0	16.8	39.3	0.0	0.0	41.3	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	2.0	8.0	0.0	0.5	11.8	0.0	0.0	7.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	6.4	6.1	0.0	3.0	8.6	0.0	0.0	6.4	0.0	0.0
LnGrp Delay(d),s/veh	53.2	0.0	26.1	50.4	0.0	17.3	51.1	0.0	0.0	49.1	0.0	0.0
LnGrp LOS	D		C	D		B	D			D		
Approach Vol, veh/h		342			376			280			216	
Approach Delay, s/veh		30.5			35.4			51.1			49.1	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		23.2	17.4	40.6		19.1	9.0	49.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		27.0	23.0	31.0		23.0	9.0	45.0
Max Q Clear Time (g_c+I1), s		18.1	13.1	13.9		14.0	5.0	7.5
Green Ext Time (p_c), s		0.9	0.4	1.4		0.6	0.1	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	40.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱		↰	
Traffic Volume (veh/h)	42	1	331	0	0	0	0	539	142	5	273	0
Future Volume (veh/h)	42	1	331	0	0	0	0	539	142	5	273	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	47	1	372				0	606	160	6	307	0
Adj No. of Lanes	0	1	1				0	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	481	10	434				0	698	589	7	363	0
Arrive On Green	0.27	0.27	0.27				0.00	0.37	0.37	0.19	0.19	0.00
Sat Flow, veh/h	1774	38	1600				0	1900	1604	36	1862	0
Grp Volume(v), veh/h	48	0	372				0	606	160	313	0	0
Grp Sat Flow(s),veh/h/ln	1811	0	1600				0	1900	1604	1898	0	0
Q Serve(g_s), s	1.4	0.0	15.9				0.0	21.3	5.1	11.5	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	15.9				0.0	21.3	5.1	11.5	0.0	0.0
Prop In Lane	0.98		1.00				0.00		1.00	0.02		0.00
Lane Grp Cap(c), veh/h	491	0	434				0	698	589	370	0	0
V/C Ratio(X)	0.10	0.00	0.86				0.00	0.87	0.27	0.85	0.00	0.00
Avail Cap(c_a), veh/h	704	0	622				0	870	735	448	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	24.9				0.0	21.2	16.0	28.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	8.2				0.0	7.9	0.2	12.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	8.0				0.0	12.6	2.3	7.2	0.0	0.0
LnGrp Delay(d),s/veh	19.7	0.0	33.1				0.0	29.0	16.3	40.0	0.0	0.0
LnGrp LOS	B		C					C	B	D		
Approach Vol, veh/h		420						766			313	
Approach Delay, s/veh		31.6						26.4			40.0	
Approach LOS		C						C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		23.5		30.5				18.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		33.0				17.0
Max Q Clear Time (g_c+I1), s		17.9		23.3				13.5
Green Ext Time (p_c), s		1.2		2.8				0.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	65	202	73	121	186	119	114	958	181	139	459	50
Future Volume (veh/h)	65	202	73	121	186	119	114	958	181	139	459	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	238	86	142	219	140	134	1127	213	164	540	59
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	511	179	159	455	278	228	1818	343	182	1852	200
Arrive On Green	0.07	0.20	0.20	0.09	0.21	0.21	0.13	0.41	0.41	0.10	0.39	0.39
Sat Flow, veh/h	1810	2615	919	1810	2148	1314	1810	4381	828	1810	4752	513
Grp Volume(v), veh/h	76	162	162	142	182	177	134	890	450	164	391	208
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1657	1810	1729	1750	1810	1729	1807
Q Serve(g_s), s	3.2	6.3	6.6	6.2	7.1	7.5	5.6	16.1	16.1	7.1	6.2	6.3
Cycle Q Clear(g_c), s	3.2	6.3	6.6	6.2	7.1	7.5	5.6	16.1	16.1	7.1	6.2	6.3
Prop In Lane	1.00		0.53	1.00		0.79	1.00		0.47	1.00		0.28
Lane Grp Cap(c), veh/h	130	352	338	159	382	351	228	1435	726	182	1348	704
V/C Ratio(X)	0.59	0.46	0.48	0.89	0.48	0.50	0.59	0.62	0.62	0.90	0.29	0.30
Avail Cap(c_a), veh/h	159	817	783	159	817	750	228	1435	726	182	1348	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	28.3	28.4	35.9	27.5	27.7	32.8	18.3	18.3	35.4	16.7	16.7
Incr Delay (d2), s/veh	4.2	0.9	1.1	41.6	0.9	1.1	3.9	2.0	4.0	40.0	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.2	3.2	4.9	3.6	3.5	3.0	8.1	8.6	5.6	3.0	3.3
LnGrp Delay(d),s/veh	39.9	29.2	29.5	77.5	28.4	28.8	36.8	20.3	22.3	75.4	17.2	17.8
LnGrp LOS	D	C	C	E	C	C	D	C	C	E	B	B
Approach Vol, veh/h		400			501			1474			763	
Approach Delay, s/veh		31.4			42.5			22.4			29.9	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	37.0	11.0	19.5	14.0	35.0	9.7	20.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	9.1	18.1	8.2	8.6	7.6	8.3	5.2	9.5
Green Ext Time (p_c), s	0.0	7.3	0.0	4.5	0.2	3.6	0.0	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	299	95	242	536	97	204	742	316	95	405	63
Future Volume (veh/h)	60	299	95	242	536	97	204	742	316	95	405	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	340	108	275	609	110	232	843	359	108	460	72
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	531	166	279	804	145	219	1942	602	179	1598	245
Arrive On Green	0.09	0.20	0.20	0.15	0.26	0.26	0.12	0.37	0.37	0.10	0.35	0.35
Sat Flow, veh/h	1810	2703	845	1810	3054	550	1810	5187	1609	1810	4536	696
Grp Volume(v), veh/h	68	225	223	275	359	360	232	843	359	108	348	184
Grp Sat Flow(s),veh/h/ln	1810	1805	1743	1810	1805	1799	1810	1729	1609	1810	1729	1774
Q Serve(g_s), s	3.2	10.4	10.7	13.8	16.6	16.7	11.0	11.0	10.0	5.2	6.6	6.8
Cycle Q Clear(g_c), s	3.2	10.4	10.7	13.8	16.6	16.7	11.0	11.0	10.0	5.2	6.6	6.8
Prop In Lane	1.00		0.48	1.00		0.31	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	158	354	342	279	475	474	219	1942	602	179	1218	625
V/C Ratio(X)	0.43	0.64	0.65	0.99	0.76	0.76	1.06	0.43	0.60	0.60	0.29	0.29
Avail Cap(c_a), veh/h	179	735	710	279	835	832	219	1942	602	179	1218	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	33.5	33.6	38.3	30.8	30.8	39.9	21.2	8.6	39.2	21.2	21.3
Incr Delay (d2), s/veh	1.9	1.9	2.1	49.9	2.5	2.5	77.2	0.7	4.3	5.6	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.4	5.3	10.7	8.6	8.6	10.1	5.4	6.3	2.9	3.2	3.5
LnGrp Delay(d),s/veh	41.2	35.4	35.7	88.2	33.3	33.3	117.1	21.9	12.9	44.8	21.8	22.4
LnGrp LOS	D	D	D	F	C	C	F	C	B	D	C	C
Approach Vol, veh/h		516			994			1434			640	
Approach Delay, s/veh		36.3			48.5			35.1			25.8	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	38.0	18.0	21.8	15.0	36.0	11.9	27.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	34.0	14.0	37.0	11.0	32.0	9.0	42.0
Max Q Clear Time (g_c+I1), s	7.2	13.0	15.8	12.7	13.0	8.8	5.2	18.7
Green Ext Time (p_c), s	0.6	6.6	0.0	2.5	0.0	3.4	0.9	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	558	100	122	604	54	166	193	133	47	190	143
Future Volume (veh/h)	60	558	100	122	604	54	166	193	133	47	190	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	594	106	130	643	57	177	205	141	50	202	152
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	978	174	176	1238	655	226	570	373	116	425	304
Arrive On Green	0.07	0.32	0.32	0.10	0.34	0.34	0.12	0.27	0.27	0.06	0.21	0.21
Sat Flow, veh/h	1810	3061	545	1810	3610	1608	1810	2087	1368	1810	2007	1433
Grp Volume(v), veh/h	64	350	350	130	643	57	177	176	170	50	181	173
Grp Sat Flow(s),veh/h/ln	1810	1805	1801	1810	1805	1608	1810	1805	1650	1810	1805	1635
Q Serve(g_s), s	2.2	10.6	10.7	4.5	9.3	1.4	6.2	5.1	5.4	1.7	5.7	6.1
Cycle Q Clear(g_c), s	2.2	10.6	10.7	4.5	9.3	1.4	6.2	5.1	5.4	1.7	5.7	6.1
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.83	1.00		0.88
Lane Grp Cap(c), veh/h	134	576	575	176	1238	655	226	493	450	116	383	347
V/C Ratio(X)	0.48	0.61	0.61	0.74	0.52	0.09	0.78	0.36	0.38	0.43	0.47	0.50
Avail Cap(c_a), veh/h	251	806	804	278	1667	846	501	1195	1092	195	889	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	18.7	18.7	28.5	17.1	11.8	27.6	19.0	19.1	29.3	22.4	22.6
Incr Delay (d2), s/veh	2.7	1.0	1.0	5.9	0.3	0.1	5.9	0.4	0.5	2.5	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	5.4	5.4	2.6	4.6	0.6	3.4	2.6	2.5	0.9	2.9	2.9
LnGrp Delay(d),s/veh	31.5	19.7	19.7	34.4	17.4	11.9	33.4	19.5	19.7	31.8	23.3	23.7
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		764			830			523			404	
Approach Delay, s/veh		20.7			19.7			24.3			24.5	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	21.7	10.3	24.8	12.1	17.8	8.8	26.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	29.0	18.0	32.0	9.0	30.0
Max Q Clear Time (g_c+I1), s	3.7	7.4	6.5	12.7	8.2	8.1	4.2	11.3
Green Ext Time (p_c), s	0.0	4.2	0.1	7.3	0.3	3.9	0.0	7.8

Intersection Summary			
HCM 2010 Ctrl Delay			21.7
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	142	475	237	466	540	71	255	474	414	100	401	88
Future Volume (veh/h)	142	475	237	466	540	71	255	474	414	100	401	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	511	255	501	581	76	274	510	445	108	431	95
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	258	929	432	579	1674	216	346	1172	788	247	873	191
Arrive On Green	0.07	0.27	0.27	0.16	0.36	0.36	0.10	0.32	0.32	0.07	0.30	0.30
Sat Flow, veh/h	3510	3458	1606	3510	4649	600	3510	3610	1608	3510	2944	644
Grp Volume(v), veh/h	153	511	255	501	430	227	274	510	445	108	263	263
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1791	1755	1805	1608	1755	1805	1783
Q Serve(g_s), s	3.9	11.8	12.9	13.0	8.5	8.7	7.1	10.4	18.3	2.8	11.2	11.4
Cycle Q Clear(g_c), s	3.9	11.8	12.9	13.0	8.5	8.7	7.1	10.4	18.3	2.8	11.2	11.4
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	258	929	432	579	1245	645	346	1172	788	247	535	528
V/C Ratio(X)	0.59	0.55	0.59	0.87	0.35	0.35	0.79	0.44	0.56	0.44	0.49	0.50
Avail Cap(c_a), veh/h	338	1333	619	639	1629	844	376	1701	1024	263	792	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	29.3	29.7	38.0	21.8	21.9	41.2	24.8	16.8	41.6	27.1	27.1
Incr Delay (d2), s/veh	2.2	0.5	1.3	11.2	0.2	0.3	10.3	0.3	0.6	1.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.7	5.9	7.2	4.1	4.3	4.0	5.2	8.1	1.4	5.7	5.7
LnGrp Delay(d),s/veh	44.1	29.8	31.0	49.2	22.0	22.2	51.4	25.1	17.5	42.8	27.8	27.8
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		919			1158			1229			634	
Approach Delay, s/veh		32.5			33.8			28.2			30.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	34.3	19.4	29.1	13.2	31.7	10.9	37.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	17.0	36.0	10.0	41.0	9.0	44.0
Max Q Clear Time (g_c+I1), s	4.8	20.3	15.0	14.9	9.1	13.4	5.9	10.7
Green Ext Time (p_c), s	0.1	8.1	0.4	8.7	0.1	8.5	0.1	10.2

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	312	668	26	11	656	90	28	53	6	90	13	253
Future Volume (veh/h)	312	668	26	11	656	90	28	53	6	90	13	253
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	815	32	13	800	110	34	65	7	110	16	309
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	520	2087	82	42	1464	456	94	263	28	193	400	580
Arrive On Green	0.15	0.41	0.41	0.02	0.28	0.28	0.05	0.16	0.16	0.11	0.21	0.21
Sat Flow, veh/h	3510	5122	201	1810	5187	1615	1810	1686	182	1810	1900	1615
Grp Volume(v), veh/h	380	550	297	13	800	110	34	0	72	110	16	309
Grp Sat Flow(s),veh/h/ln	1755	1729	1865	1810	1729	1615	1810	0	1868	1810	1900	1615
Q Serve(g_s), s	5.4	5.8	5.9	0.4	6.8	2.7	0.9	0.0	1.8	3.0	0.3	7.9
Cycle Q Clear(g_c), s	5.4	5.8	5.9	0.4	6.8	2.7	0.9	0.0	1.8	3.0	0.3	7.9
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	520	1409	760	42	1464	456	94	0	292	193	400	580
V/C Ratio(X)	0.73	0.39	0.39	0.31	0.55	0.24	0.36	0.00	0.25	0.57	0.04	0.53
Avail Cap(c_a), veh/h	673	1409	760	243	1789	557	243	0	680	243	692	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	10.9	10.9	25.1	15.9	14.4	23.9	0.0	19.3	22.2	16.4	13.3
Incr Delay (d2), s/veh	2.9	0.2	0.3	4.2	0.3	0.3	2.3	0.0	0.4	2.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.8	3.0	0.2	3.3	1.2	0.5	0.0	0.9	1.6	0.2	3.6
LnGrp Delay(d),s/veh	24.2	11.1	11.2	29.3	16.2	14.7	26.2	0.0	19.8	24.8	16.4	14.0
LnGrp LOS	C	B	B	C	B	B	C		B	C	B	B
Approach Vol, veh/h		1227			923			106			435	
Approach Delay, s/veh		15.2			16.2			21.8			16.8	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	12.1	5.2	25.3	6.7	15.0	11.7	18.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.0	3.8	2.4	7.9	2.9	9.9	7.4	8.8
Green Ext Time (p_c), s	0.0	1.4	0.0	8.0	0.0	1.1	0.4	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰↑	↱		↰↑	↱
Traffic Volume (veh/h)	134	446	17	28	472	10	71	42	37	8	24	178
Future Volume (veh/h)	134	446	17	28	472	10	71	42	37	8	24	178
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	170	565	22	35	597	13	90	53	47	10	30	225
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	214	1685	65	95	1375	30	159	94	220	93	279	318
Arrive On Green	0.12	0.33	0.33	0.05	0.26	0.26	0.14	0.14	0.14	0.20	0.20	0.20
Sat Flow, veh/h	1810	5123	199	1810	5224	113	1159	683	1597	469	1407	1603
Grp Volume(v), veh/h	170	381	206	35	395	215	143	0	47	40	0	225
Grp Sat Flow(s),veh/h/ln	1810	1729	1863	1810	1729	1879	1842	0	1597	1877	0	1603
Q Serve(g_s), s	5.2	4.7	4.7	1.1	5.4	5.4	4.1	0.0	1.5	1.0	0.0	7.4
Cycle Q Clear(g_c), s	5.2	4.7	4.7	1.1	5.4	5.4	4.1	0.0	1.5	1.0	0.0	7.4
Prop In Lane	1.00		0.11	1.00		0.06	0.63		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	214	1138	613	95	910	495	253	0	220	372	0	318
V/C Ratio(X)	0.80	0.33	0.34	0.37	0.43	0.44	0.56	0.00	0.21	0.11	0.00	0.71
Avail Cap(c_a), veh/h	224	1591	857	224	1591	864	1108	0	961	1228	0	1049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	14.3	14.3	25.9	17.3	17.3	22.8	0.0	21.7	18.6	0.0	21.1
Incr Delay (d2), s/veh	17.2	0.2	0.3	2.4	0.3	0.6	2.0	0.0	0.5	0.1	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.2	2.5	0.6	2.6	2.8	2.2	0.0	0.7	0.5	0.0	3.5
LnGrp Delay(d),s/veh	41.5	14.5	14.6	28.3	17.6	17.9	24.8	0.0	22.1	18.7	0.0	24.1
LnGrp LOS	D	B	B	C	B	B	C		C	B		C
Approach Vol, veh/h		757			645			190			265	
Approach Delay, s/veh		20.6			18.3			24.1			23.2	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		11.8	7.0	22.6		15.2	10.7	18.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	26.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		6.1	3.1	6.7		9.4	7.2	7.4
Green Ext Time (p_c), s		1.0	0.0	6.7		0.9	0.0	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	7	480	17	25	419	7	37	22	57	10	15	39
Future Volume (veh/h)	7	480	17	25	419	7	37	22	57	10	15	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	565	20	29	493	8	44	26	67	12	18	46
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	27	1600	56	87	1809	29	121	455	461	39	92	234
Arrive On Green	0.01	0.31	0.31	0.05	0.34	0.34	0.07	0.24	0.24	0.02	0.19	0.19
Sat Flow, veh/h	1810	5144	181	1810	5257	85	1810	1900	1605	1810	471	1205
Grp Volume(v), veh/h	8	379	206	29	324	177	44	26	67	12	0	64
Grp Sat Flow(s),veh/h/ln	1810	1729	1867	1810	1729	1884	1810	1900	1605	1810	0	1676
Q Serve(g_s), s	0.2	3.6	3.6	0.7	2.9	2.9	1.0	0.4	1.3	0.3	0.0	1.3
Cycle Q Clear(g_c), s	0.2	3.6	3.6	0.7	2.9	2.9	1.0	0.4	1.3	0.3	0.0	1.3
Prop In Lane	1.00		0.10	1.00		0.05	1.00		1.00	1.00		0.72
Lane Grp Cap(c), veh/h	27	1076	581	87	1190	648	121	455	461	39	0	325
V/C Ratio(X)	0.30	0.35	0.35	0.34	0.27	0.27	0.36	0.06	0.15	0.30	0.00	0.20
Avail Cap(c_a), veh/h	301	2465	1331	301	2465	1343	301	2031	1793	301	0	1792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.5	11.2	11.2	19.4	10.0	10.0	18.8	12.3	11.2	20.3	0.0	14.2
Incr Delay (d2), s/veh	6.0	0.2	0.4	2.2	0.1	0.2	1.8	0.1	0.1	4.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.7	1.9	0.4	1.4	1.5	0.6	0.2	0.6	0.2	0.0	0.6
LnGrp Delay(d),s/veh	26.5	11.4	11.6	21.6	10.1	10.2	20.6	12.4	11.3	24.5	0.0	14.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		593			530			137			76	
Approach Delay, s/veh		11.7			10.8			14.5			16.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	14.1	6.0	17.1	6.8	12.2	4.6	18.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	3.3	2.7	5.6	3.0	3.3	2.2	4.9
Green Ext Time (p_c), s	0.0	0.8	0.0	6.5	0.0	0.8	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	21	132	84	186	138	146	86	940	176	52	594	5
Future Volume (veh/h)	21	132	84	186	138	146	86	940	176	52	594	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	145	92	204	152	160	95	1033	193	57	653	5
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	35	220	215	256	191	389	219	1626	303	111	1650	13
Arrive On Green	0.13	0.13	0.13	0.24	0.24	0.24	0.12	0.37	0.37	0.06	0.31	0.31
Sat Flow, veh/h	258	1629	1597	1058	789	1605	1810	4391	819	1810	5310	41
Grp Volume(v), veh/h	168	0	92	356	0	160	95	813	413	57	425	233
Grp Sat Flow(s),veh/h/ln	1887	0	1597	1847	0	1605	1810	1729	1752	1810	1729	1892
Q Serve(g_s), s	7.1	0.0	4.4	15.1	0.0	7.0	4.1	16.2	16.2	2.6	8.1	8.1
Cycle Q Clear(g_c), s	7.1	0.0	4.4	15.1	0.0	7.0	4.1	16.2	16.2	2.6	8.1	8.1
Prop In Lane	0.14		1.00	0.57		1.00	1.00		0.47	1.00		0.02
Lane Grp Cap(c), veh/h	254	0	215	447	0	389	219	1281	649	111	1074	588
V/C Ratio(X)	0.66	0.00	0.43	0.80	0.00	0.41	0.43	0.63	0.64	0.51	0.40	0.40
Avail Cap(c_a), veh/h	654	0	553	706	0	614	259	1281	649	151	1074	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	33.2	29.8	0.0	26.7	34.1	21.7	21.7	38.1	22.7	22.7
Incr Delay (d2), s/veh	2.9	0.0	1.3	3.4	0.0	0.7	1.3	2.4	4.7	3.6	1.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	2.0	8.1	0.0	3.2	2.1	8.1	8.6	1.4	4.0	4.5
LnGrp Delay(d),s/veh	37.3	0.0	34.6	33.1	0.0	27.4	35.5	24.1	26.4	41.7	23.8	24.7
LnGrp LOS	D		C	C		C	D	C	C	D	C	C
Approach Vol, veh/h		260			516			1321			715	
Approach Delay, s/veh		36.3			31.4			25.6			25.5	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.1	35.0		15.3	14.1	30.0		24.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	12.0	26.0		32.0
Max Q Clear Time (g_c+I1), s	4.6	18.2		9.1	6.1	10.1		17.1
Green Ext Time (p_c), s	0.1	5.9		1.2	0.2	3.3		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	67	251	122	77	301	165	73	174	60	150	191	89
Future Volume (veh/h)	67	251	122	77	301	165	73	174	60	150	191	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	289	140	89	346	190	84	200	69	172	220	102
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	699	330	172	680	366	168	516	172	221	542	242
Arrive On Green	0.09	0.29	0.29	0.10	0.30	0.30	0.09	0.19	0.19	0.12	0.22	0.22
Sat Flow, veh/h	1810	2378	1122	1810	2263	1219	1810	2653	887	1810	2422	1083
Grp Volume(v), veh/h	77	218	211	89	275	261	84	134	135	172	162	160
Grp Sat Flow(s),veh/h/ln	1810	1805	1695	1810	1805	1678	1810	1805	1735	1810	1805	1700
Q Serve(g_s), s	2.2	5.3	5.5	2.5	6.8	7.0	2.4	3.5	3.7	5.0	4.2	4.4
Cycle Q Clear(g_c), s	2.2	5.3	5.5	2.5	6.8	7.0	2.4	3.5	3.7	5.0	4.2	4.4
Prop In Lane	1.00		0.66	1.00		0.73	1.00		0.51	1.00		0.64
Lane Grp Cap(c), veh/h	160	530	498	172	542	504	168	351	337	221	404	380
V/C Ratio(X)	0.48	0.41	0.42	0.52	0.51	0.52	0.50	0.38	0.40	0.78	0.40	0.42
Avail Cap(c_a), veh/h	233	997	936	233	997	927	300	1030	990	366	1097	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	15.4	15.5	23.4	15.7	15.7	23.4	19.0	19.1	23.1	18.0	18.1
Incr Delay (d2), s/veh	2.2	0.5	0.6	2.4	0.7	0.8	2.3	0.7	0.8	5.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.7	2.6	1.4	3.5	3.3	1.3	1.8	1.8	2.8	2.1	2.1
LnGrp Delay(d),s/veh	25.8	15.9	16.0	25.8	16.4	16.6	25.8	19.7	19.9	29.0	18.6	18.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		506			625			353			494	
Approach Delay, s/veh		17.5			17.8			21.2			22.3	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	14.6	9.2	20.0	9.0	16.2	8.8	20.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	7.0	30.0	9.0	33.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	5.7	4.5	7.5	4.4	6.4	4.2	9.0
Green Ext Time (p_c), s	0.1	3.2	0.0	6.4	0.1	3.3	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	287	201	132	117	153	99	135	763	161	85	439	73
Future Volume (veh/h)	287	201	132	117	153	99	135	763	161	85	439	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	305	214	140	124	163	105	144	812	171	90	467	78
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	425	438	274	179	396	241	185	1272	728	160	1047	174
Arrive On Green	0.12	0.21	0.21	0.10	0.18	0.18	0.10	0.35	0.35	0.09	0.34	0.34
Sat Flow, veh/h	3510	2128	1330	1810	2158	1315	1810	3610	1615	1810	3097	514
Grp Volume(v), veh/h	305	180	174	124	135	133	144	812	171	90	271	274
Grp Sat Flow(s),veh/h/ln	1755	1805	1654	1810	1805	1668	1810	1805	1615	1810	1805	1807
Q Serve(g_s), s	5.2	5.5	5.9	4.2	4.1	4.4	4.9	11.8	4.1	3.0	7.3	7.4
Cycle Q Clear(g_c), s	5.2	5.5	5.9	4.2	4.1	4.4	4.9	11.8	4.1	3.0	7.3	7.4
Prop In Lane	1.00		0.80	1.00		0.79	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	425	372	340	179	331	306	185	1272	728	160	610	611
V/C Ratio(X)	0.72	0.48	0.51	0.69	0.41	0.44	0.78	0.64	0.23	0.56	0.44	0.45
Avail Cap(c_a), veh/h	615	1007	922	202	891	824	231	1783	957	317	978	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	22.0	22.1	27.4	22.6	22.7	27.5	17.0	10.6	27.5	16.2	16.2
Incr Delay (d2), s/veh	2.3	1.0	1.2	8.5	0.8	1.0	12.4	0.5	0.2	3.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.9	2.8	2.5	2.1	2.1	3.1	6.0	1.8	1.6	3.7	3.7
LnGrp Delay(d),s/veh	28.8	23.0	23.3	35.9	23.4	23.7	39.8	17.5	10.7	30.5	16.7	16.7
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		659			392			1127			635	
Approach Delay, s/veh		25.8			27.5			19.3			18.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	26.1	10.2	16.9	10.4	25.2	11.6	15.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	7.0	35.0	8.0	34.0	11.0	31.0
Max Q Clear Time (g_c+I1), s	5.0	13.8	6.2	7.9	6.9	9.4	7.2	6.4
Green Ext Time (p_c), s	0.1	8.0	0.0	4.1	0.0	9.5	0.4	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	138	397	126	25	647	75	187	198	25	55	148	152
Future Volume (veh/h)	138	397	126	25	647	75	187	198	25	55	148	152
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	484	154	30	789	91	228	241	30	67	180	185
Adj No. of Lanes	1	2	1	1	2	1	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	206	1519	865	114	1335	739	409	369	46	162	353	314
Arrive On Green	0.11	0.42	0.42	0.06	0.37	0.37	0.12	0.22	0.22	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	1609	1810	3610	1608	3510	1656	206	1810	1805	1603
Grp Volume(v), veh/h	168	484	154	30	789	91	228	0	271	67	180	185
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1608	1755	0	1862	1810	1805	1603
Q Serve(g_s), s	7.1	7.0	0.0	1.2	13.8	2.5	4.8	0.0	10.4	2.7	7.0	8.2
Cycle Q Clear(g_c), s	7.1	7.0	0.0	1.2	13.8	2.5	4.8	0.0	10.4	2.7	7.0	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	206	1519	865	114	1335	739	409	0	415	162	353	314
V/C Ratio(X)	0.81	0.32	0.18	0.26	0.59	0.12	0.56	0.00	0.65	0.41	0.51	0.59
Avail Cap(c_a), veh/h	254	1519	865	162	1335	739	537	0	973	415	1082	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	15.2	9.3	35.0	19.9	12.2	32.7	0.0	27.7	33.8	28.2	28.7
Incr Delay (d2), s/veh	15.1	0.6	0.5	1.2	1.9	0.3	1.2	0.0	1.7	1.7	1.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.6	1.8	0.7	7.3	1.2	2.4	0.0	5.5	1.5	3.6	3.8
LnGrp Delay(d),s/veh	49.1	15.7	9.7	36.2	21.9	12.5	33.9	0.0	29.5	35.5	29.3	30.4
LnGrp LOS	D	B	A	D	C	B	C		C	D	C	C
Approach Vol, veh/h		806			910			499			432	
Approach Delay, s/veh		21.5			21.4			31.5			30.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.5	8.9	37.0	13.1	19.3	12.9	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	12.0	47.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	4.7	12.4	3.2	9.0	6.8	10.2	9.1	15.8
Green Ext Time (p_c), s	0.1	2.3	1.8	3.4	1.1	2.2	0.1	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	25	244	107	110	505	29	186	335	151	23	288	68
Future Volume (veh/h)	25	244	107	110	505	29	186	335	151	23	288	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	271	119	122	561	32	207	372	168	26	320	76
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	390	329	304	631	677	232	631	804	162	436	103
Arrive On Green	0.04	0.21	0.21	0.17	0.33	0.33	0.13	0.33	0.33	0.09	0.29	0.29
Sat Flow, veh/h	1810	1900	1603	1810	1900	1603	1810	1900	1603	1810	1482	352
Grp Volume(v), veh/h	28	271	119	122	561	32	207	372	168	26	0	396
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1603	1810	1900	1603	1810	0	1834
Q Serve(g_s), s	1.2	10.3	3.5	4.7	21.8	0.9	8.8	12.7	1.3	1.0	0.0	15.2
Cycle Q Clear(g_c), s	1.2	10.3	3.5	4.7	21.8	0.9	8.8	12.7	1.3	1.0	0.0	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	74	390	329	304	631	677	232	631	804	162	0	539
V/C Ratio(X)	0.38	0.70	0.36	0.40	0.89	0.05	0.89	0.59	0.21	0.16	0.00	0.73
Avail Cap(c_a), veh/h	162	803	677	304	803	822	232	900	1031	162	0	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.5	28.8	13.4	29.0	24.7	13.3	33.5	21.6	3.7	32.8	0.0	24.8
Incr Delay (d2), s/veh	3.2	2.2	0.7	0.9	10.0	0.0	32.4	0.9	0.1	0.5	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.7	2.0	2.4	13.1	0.4	6.5	6.8	1.1	0.5	0.0	8.0
LnGrp Delay(d),s/veh	39.7	31.0	14.1	29.8	34.7	13.3	65.9	22.5	3.9	33.3	0.0	26.8
LnGrp LOS	D	C	B	C	C	B	E	C	A	C		C
Approach Vol, veh/h		418			715			747			422	
Approach Delay, s/veh		26.8			32.9			30.3			27.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	17.1	20.0	14.0	27.0	7.2	30.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	3.0	14.7	6.7	12.3	10.8	17.2	3.2	23.8
Green Ext Time (p_c), s	0.0	4.9	0.1	1.7	0.0	4.5	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	122	286	500	62	62	124
Future Volume (veh/h)	122	286	500	62	62	124
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	142	333	581	72	72	144
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	263	1129	1231	547	342	540
Arrive On Green	0.15	0.59	0.34	0.34	0.19	0.19
Sat Flow, veh/h	1810	1900	3705	1603	1810	1615
Grp Volume(v), veh/h	142	333	581	72	72	144
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1603	1810	1615
Q Serve(g_s), s	2.7	3.2	4.7	1.1	1.2	2.4
Cycle Q Clear(g_c), s	2.7	3.2	4.7	1.1	1.2	2.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	263	1129	1231	547	342	540
V/C Ratio(X)	0.54	0.29	0.47	0.13	0.21	0.27
Avail Cap(c_a), veh/h	440	2106	2733	1214	2006	2025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	3.7	9.6	8.4	12.7	9.0
Incr Delay (d2), s/veh	1.7	0.1	0.3	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.6	2.3	0.5	0.6	2.5
LnGrp Delay(d),s/veh	16.4	3.8	9.9	8.5	13.0	9.3
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		475	653		216	
Approach Delay, s/veh		7.6	9.7		10.5	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				26.0		11.0	9.4	16.6
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				5.2		4.4	4.7	6.7
Green Ext Time (p_c), s				6.2		0.7	0.1	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	57	165	106	112	332	142	96	469	34	46	677	97
Future Volume (veh/h)	57	165	106	112	332	142	96	469	34	46	677	97
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	212	136	144	426	182	123	601	44	59	868	124
Adj No. of Lanes	2	2	1	2	1	1	1	2	1	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	593	263	745	570	482	173	931	412	218	1467	453
Arrive On Green	0.08	0.16	0.16	0.21	0.30	0.30	0.10	0.26	0.26	0.12	0.28	0.28
Sat Flow, veh/h	3510	3610	1600	3510	1900	1607	1810	3610	1599	1810	5187	1601
Grp Volume(v), veh/h	73	212	136	144	426	182	123	601	44	59	868	124
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1755	1900	1607	1810	1805	1599	1810	1729	1601
Q Serve(g_s), s	1.3	3.4	5.1	2.2	13.2	5.8	4.3	9.7	1.4	1.9	9.4	3.9
Cycle Q Clear(g_c), s	1.3	3.4	5.1	2.2	13.2	5.8	4.3	9.7	1.4	1.9	9.4	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	593	263	745	570	482	173	931	412	218	1467	453
V/C Ratio(X)	0.27	0.36	0.52	0.19	0.75	0.38	0.71	0.65	0.11	0.27	0.59	0.27
Avail Cap(c_a), veh/h	376	1935	858	745	1047	886	277	1824	808	222	2462	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	24.2	24.9	21.1	20.6	18.0	28.6	21.6	18.5	26.1	20.2	18.2
Incr Delay (d2), s/veh	0.5	0.4	1.6	0.1	2.0	0.5	5.3	0.8	0.1	0.7	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.7	2.3	1.1	7.2	2.6	2.4	4.9	0.6	1.0	4.6	1.8
LnGrp Delay(d),s/veh	29.0	24.6	26.5	21.3	22.6	18.5	33.9	22.3	18.6	26.7	20.5	18.5
LnGrp LOS	C	C	C	C	C	B	C	C	B	C	C	B
Approach Vol, veh/h		421			752			768			1051	
Approach Delay, s/veh		26.0			21.4			24.0			20.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	20.8	17.9	14.7	10.2	22.5	9.0	23.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	8.0	35.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	3.9	11.7	4.2	7.1	6.3	11.4	3.3	15.2
Green Ext Time (p_c), s	0.2	3.8	0.2	1.6	0.1	5.8	0.1	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
52: Cactus Ave & Kitching St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	81	512	81	21	666	19	179	280	19	51	213	92
Future Volume (veh/h)	81	512	81	21	666	19	179	280	19	51	213	92
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	624	99	26	812	23	218	341	23	62	260	112
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	1254	199	70	1294	37	257	984	66	120	401	339
Arrive On Green	0.08	0.40	0.40	0.04	0.36	0.36	0.14	0.29	0.29	0.07	0.21	0.21
Sat Flow, veh/h	1810	3121	494	1810	3585	102	1810	3432	230	1810	1900	1604
Grp Volume(v), veh/h	99	360	363	26	409	426	218	179	185	62	260	112
Grp Sat Flow(s),veh/h/ln	1810	1805	1811	1810	1805	1882	1810	1805	1858	1810	1900	1604
Q Serve(g_s), s	4.1	11.6	11.6	1.1	14.5	14.5	9.1	6.1	6.1	2.6	9.7	4.6
Cycle Q Clear(g_c), s	4.1	11.6	11.6	1.1	14.5	14.5	9.1	6.1	6.1	2.6	9.7	4.6
Prop In Lane	1.00		0.27	1.00		0.05	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	144	725	728	70	652	679	257	517	532	120	401	339
V/C Ratio(X)	0.69	0.50	0.50	0.37	0.63	0.63	0.85	0.35	0.35	0.52	0.65	0.33
Avail Cap(c_a), veh/h	163	725	728	163	652	679	257	721	743	187	686	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	17.3	17.3	36.4	20.5	20.5	32.5	21.9	21.9	35.0	27.9	25.9
Incr Delay (d2), s/veh	9.8	2.4	2.4	3.2	4.5	4.3	22.7	0.4	0.4	3.4	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.2	6.2	0.6	8.0	8.3	6.2	3.1	3.2	1.4	5.3	2.1
LnGrp Delay(d),s/veh	44.6	19.8	19.8	39.6	25.0	24.8	55.1	22.3	22.3	38.4	29.7	26.5
LnGrp LOS	D	B	B	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		822			861			582			434	
Approach Delay, s/veh		22.8			25.3			34.6			30.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	26.2	7.0	35.2	15.0	20.4	10.2	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	31.0	7.0	28.0	11.0	28.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.6	8.1	3.1	13.6	11.1	11.7	6.1	16.5
Green Ext Time (p_c), s	0.0	3.7	0.0	7.4	0.0	3.3	0.0	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	61	370	111	149	470	64	98	523	177	73	378	71
Future Volume (veh/h)	61	370	111	149	470	64	98	523	177	73	378	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	420	126	169	534	73	111	594	0	83	430	81
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	1031	306	208	1493	666	188	848	379	134	622	116
Arrive On Green	0.08	0.38	0.38	0.11	0.41	0.41	0.10	0.23	0.00	0.07	0.20	0.20
Sat Flow, veh/h	1810	2743	815	1810	3610	1609	1810	3610	1615	1810	3033	567
Grp Volume(v), veh/h	69	275	271	169	534	73	111	594	0	83	255	256
Grp Sat Flow(s),veh/h/ln	1810	1805	1752	1810	1805	1609	1810	1805	1615	1810	1805	1795
Q Serve(g_s), s	2.9	8.9	9.1	7.3	8.1	1.6	4.7	12.0	0.0	3.6	10.4	10.6
Cycle Q Clear(g_c), s	2.9	8.9	9.1	7.3	8.1	1.6	4.7	12.0	0.0	3.6	10.4	10.6
Prop In Lane	1.00		0.46	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	140	679	659	208	1493	666	188	848	379	134	370	368
V/C Ratio(X)	0.49	0.41	0.41	0.81	0.36	0.11	0.59	0.70	0.00	0.62	0.69	0.70
Avail Cap(c_a), veh/h	204	679	659	272	1493	666	188	1357	607	159	656	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	18.3	18.4	34.5	16.1	7.1	34.1	28.0	0.0	35.9	29.4	29.4
Incr Delay (d2), s/veh	2.7	1.8	1.9	13.3	0.7	0.3	4.9	1.1	0.0	5.4	2.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.8	4.7	4.4	4.1	1.0	2.6	6.1	0.0	2.0	5.4	5.4
LnGrp Delay(d),s/veh	38.0	20.1	20.3	47.7	16.8	7.4	39.0	29.0	0.0	41.3	31.6	31.8
LnGrp LOS	D	C	C	D	B	A	D	C		D	C	C
Approach Vol, veh/h		615			776			705			594	
Approach Delay, s/veh		22.2			22.6			30.6			33.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	22.7	13.2	34.0	12.3	20.4	10.2	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	12.0	30.0	8.0	29.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	5.6	14.0	9.3	11.1	6.7	12.6	4.9	10.1
Green Ext Time (p_c), s	0.0	3.4	0.1	2.9	0.5	2.4	1.2	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	94	360	71	7	406	87	99	360	12	76	335	180
Future Volume (veh/h)	94	360	71	7	406	87	99	360	12	76	335	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	119	456	90	9	514	110	125	456	15	96	424	228
Adj No. of Lanes	1	1	1	1	1	0	2	2	1	1	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	909	770	29	622	133	296	700	309	190	776	345
Arrive On Green	0.08	0.48	0.48	0.02	0.41	0.41	0.08	0.19	0.19	0.11	0.21	0.21
Sat Flow, veh/h	1810	1900	1610	1810	1517	325	3510	3610	1594	1810	3610	1604
Grp Volume(v), veh/h	119	456	90	9	0	624	125	456	15	96	424	228
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1841	1755	1805	1594	1810	1805	1604
Q Serve(g_s), s	5.0	12.8	2.4	0.4	0.0	23.4	2.6	9.0	0.5	3.9	8.1	10.1
Cycle Q Clear(g_c), s	5.0	12.8	2.4	0.4	0.0	23.4	2.6	9.0	0.5	3.9	8.1	10.1
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	909	770	29	0	756	296	700	309	190	776	345
V/C Ratio(X)	0.78	0.50	0.12	0.31	0.00	0.83	0.42	0.65	0.05	0.50	0.55	0.66
Avail Cap(c_a), veh/h	210	1006	852	164	0	927	317	1305	576	190	1352	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	13.9	11.2	37.7	0.0	20.4	33.7	28.8	18.4	32.7	27.0	27.8
Incr Delay (d2), s/veh	12.2	0.4	0.1	6.0	0.0	5.2	1.0	1.0	0.1	2.1	0.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.7	1.1	0.2	0.0	12.9	1.3	4.6	0.3	2.1	4.1	4.6
LnGrp Delay(d),s/veh	47.0	14.3	11.2	43.7	0.0	25.5	34.6	29.8	18.5	34.9	27.6	30.0
LnGrp LOS	D	B	B	D		C	C	C	B	C	C	C
Approach Vol, veh/h		665			633			596			748	
Approach Delay, s/veh		19.7			25.8			30.5			29.3	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	19.0	5.2	41.0	10.5	20.6	10.5	35.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	7.0	41.0	7.0	29.0	9.0	39.0
Max Q Clear Time (g_c+I1), s	5.9	11.0	2.4	14.8	4.6	12.1	7.0	25.4
Green Ext Time (p_c), s	0.8	2.5	0.0	7.3	0.1	3.3	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	135	450	45	67	1273	119	65	257	16	128	235	212
Future Volume (veh/h)	135	450	45	67	1273	119	65	257	16	128	235	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	148	495	49	74	1399	131	71	282	18	141	258	233
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	1543	688	184	2063	193	236	692	44	281	771	343
Arrive On Green	0.10	0.43	0.43	0.10	0.43	0.43	0.07	0.20	0.20	0.08	0.21	0.21
Sat Flow, veh/h	1810	3610	1609	1810	4825	452	3510	3446	219	3510	3610	1604
Grp Volume(v), veh/h	148	495	49	74	1003	527	71	147	153	141	258	233
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1729	1818	1755	1805	1859	1755	1805	1604
Q Serve(g_s), s	6.7	7.7	1.1	3.2	19.7	19.7	1.6	6.0	6.0	3.2	5.1	8.4
Cycle Q Clear(g_c), s	6.7	7.7	1.1	3.2	19.7	19.7	1.6	6.0	6.0	3.2	5.1	8.4
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	184	1543	688	184	1478	777	236	363	374	281	771	343
V/C Ratio(X)	0.81	0.32	0.07	0.40	0.68	0.68	0.30	0.41	0.41	0.50	0.33	0.68
Avail Cap(c_a), veh/h	215	1543	688	215	1478	777	292	879	905	292	1758	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	16.0	7.3	35.4	19.4	19.4	37.4	29.3	29.3	37.1	28.0	17.1
Incr Delay (d2), s/veh	17.4	0.5	0.2	1.4	2.5	4.7	0.7	0.7	0.7	1.4	0.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.9	0.7	1.7	9.8	10.8	0.8	3.1	3.2	1.6	2.6	4.4
LnGrp Delay(d),s/veh	54.4	16.5	7.5	36.9	22.0	24.2	38.1	30.0	30.0	38.5	28.3	19.5
LnGrp LOS	D	B	A	D	C	C	D	C	C	D	C	B
Approach Vol, veh/h		692			1604			371			632	
Approach Delay, s/veh		24.0			23.4			31.5			27.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	20.9	12.5	40.0	9.7	22.0	12.5	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	10.0	36.0	7.0	41.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	5.2	8.0	5.2	9.7	3.6	10.4	8.7	21.7
Green Ext Time (p_c), s	0.1	4.7	0.2	3.2	0.0	4.6	0.1	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	39	491	60	85	1300	111	70	207	29	121	171	91
Future Volume (veh/h)	39	491	60	85	1300	111	70	207	29	121	171	91
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	534	0	92	1413	121	76	225	32	132	186	99
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	1499	671	179	2230	191	140	513	72	172	415	211
Arrive On Green	0.06	0.42	0.00	0.10	0.46	0.46	0.08	0.16	0.16	0.10	0.18	0.18
Sat Flow, veh/h	1810	3610	1615	1810	4866	417	1810	3176	446	1810	2311	1175
Grp Volume(v), veh/h	42	534	0	92	1004	530	76	127	130	132	143	142
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1825	1810	1805	1816	1810	1805	1681
Q Serve(g_s), s	1.6	7.1	0.0	3.4	15.5	15.5	2.8	4.4	4.5	5.0	4.9	5.3
Cycle Q Clear(g_c), s	1.6	7.1	0.0	3.4	15.5	15.5	2.8	4.4	4.5	5.0	4.9	5.3
Prop In Lane	1.00		1.00	1.00		0.23	1.00		0.25	1.00		0.70
Lane Grp Cap(c), veh/h	101	1499	671	179	1584	836	140	292	294	172	324	302
V/C Ratio(X)	0.42	0.36	0.00	0.51	0.63	0.63	0.54	0.43	0.44	0.77	0.44	0.47
Avail Cap(c_a), veh/h	181	1499	671	259	1584	836	233	1085	1092	207	1060	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	14.0	0.0	29.9	14.4	14.4	31.0	26.4	26.4	30.8	25.5	25.7
Incr Delay (d2), s/veh	2.7	0.7	0.0	2.3	1.9	3.6	3.3	1.0	1.1	13.1	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.6	0.0	1.8	7.7	8.6	1.5	2.3	2.4	3.1	2.6	2.5
LnGrp Delay(d),s/veh	34.6	14.7	0.0	32.2	16.4	18.1	34.3	27.4	27.5	43.9	26.5	26.8
LnGrp LOS	C	B		C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		576			1626			333			417	
Approach Delay, s/veh		16.1			17.8			29.0			32.1	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	15.3	10.9	33.0	9.4	16.5	7.9	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	42.0	10.0	29.0	9.0	41.0	7.0	32.0
Max Q Clear Time (g_c+I1), s	7.0	6.5	5.4	9.1	4.8	7.3	3.6	17.5
Green Ext Time (p_c), s	0.2	1.6	0.1	3.1	0.0	2.2	0.1	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	78	446	48	29	1197	134	155	474	40	132	314	184
Future Volume (veh/h)	78	446	48	29	1197	134	155	474	40	132	314	184
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	485	52	32	1301	146	168	515	43	143	341	200
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	2112	871	133	1926	216	242	794	66	156	678	420
Arrive On Green	0.07	0.41	0.41	0.07	0.41	0.41	0.13	0.24	0.24	0.09	0.19	0.19
Sat Flow, veh/h	1810	5187	1609	1810	4731	531	1810	3372	281	1810	3610	1602
Grp Volume(v), veh/h	85	485	52	32	951	496	168	275	283	143	341	200
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1804	1810	1805	1848	1810	1805	1602
Q Serve(g_s), s	3.7	5.0	0.0	1.4	18.2	18.2	7.2	11.1	11.2	6.4	6.9	5.3
Cycle Q Clear(g_c), s	3.7	5.0	0.0	1.4	18.2	18.2	7.2	11.1	11.2	6.4	6.9	5.3
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	133	2112	871	133	1408	734	242	425	435	156	678	420
V/C Ratio(X)	0.64	0.23	0.06	0.24	0.68	0.68	0.69	0.65	0.65	0.92	0.50	0.48
Avail Cap(c_a), veh/h	156	2112	871	156	1408	734	242	935	958	156	1871	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	15.7	8.8	35.4	19.6	19.6	33.5	27.9	28.0	36.7	29.5	11.2
Incr Delay (d2), s/veh	6.5	0.3	0.1	0.9	2.6	4.9	8.2	1.7	1.6	47.8	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.4	0.6	0.7	9.1	10.0	4.1	5.7	5.9	5.3	3.5	2.5
LnGrp Delay(d),s/veh	43.0	16.0	9.0	36.3	22.3	24.6	41.7	29.6	29.6	84.5	30.1	12.0
LnGrp LOS	D	B	A	D	C	C	D	C	C	F	C	B
Approach Vol, veh/h		622			1479			726			684	
Approach Delay, s/veh		19.1			23.3			32.4			36.2	
Approach LOS		B			C			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	23.1	10.0	37.0	14.9	19.2	10.0	37.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	7.0	33.0				
Max Q Clear Time (g_c+I1), s	8.4	13.2	3.4	7.0	9.2	8.9	5.7	20.2				
Green Ext Time (p_c), s	0.0	3.2	2.6	3.2	0.0	3.1	0.0	7.2				
Intersection Summary												
HCM 2010 Ctrl Delay			27.0									
HCM 2010 LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	56	414	81	74	1091	37	130	278	74	71	220	92
Future Volume (veh/h)	56	414	81	74	1091	37	130	278	74	71	220	92
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	450	88	80	1186	40	141	302	80	77	239	100
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	1807	345	140	2129	72	178	569	148	160	478	194
Arrive On Green	0.08	0.41	0.41	0.08	0.41	0.41	0.10	0.20	0.20	0.09	0.19	0.19
Sat Flow, veh/h	1810	4373	834	1810	5153	174	1810	2831	737	1810	2502	1015
Grp Volume(v), veh/h	61	353	185	80	796	430	141	191	191	77	170	169
Grp Sat Flow(s),veh/h/ln	1810	1729	1749	1810	1729	1869	1810	1805	1763	1810	1805	1711
Q Serve(g_s), s	2.3	4.8	5.0	3.1	12.7	12.7	5.5	6.9	7.1	2.9	6.1	6.4
Cycle Q Clear(g_c), s	2.3	4.8	5.0	3.1	12.7	12.7	5.5	6.9	7.1	2.9	6.1	6.4
Prop In Lane	1.00		0.48	1.00		0.09	1.00		0.42	1.00		0.59
Lane Grp Cap(c), veh/h	140	1429	723	140	1429	772	178	363	354	160	345	327
V/C Ratio(X)	0.44	0.25	0.26	0.57	0.56	0.56	0.79	0.53	0.54	0.48	0.49	0.52
Avail Cap(c_a), veh/h	174	1429	723	174	1429	772	199	1069	1045	224	1094	1037
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	13.9	14.0	32.3	16.2	16.2	32.0	25.9	26.0	31.5	26.2	26.4
Incr Delay (d2), s/veh	2.1	0.4	0.9	3.7	1.6	2.9	17.7	1.2	1.3	2.3	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.4	2.6	1.7	6.4	7.2	3.6	3.5	3.6	1.6	3.1	3.2
LnGrp Delay(d),s/veh	34.1	14.3	14.8	36.0	17.8	19.1	49.8	27.1	27.3	33.8	27.3	27.6
LnGrp LOS	C	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		599			1306			523			416	
Approach Delay, s/veh		16.5			19.4			33.3			28.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	18.6	9.6	34.0	11.1	17.9	9.6	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	7.0	30.0	8.0	44.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	4.9	9.1	5.1	7.0	7.5	8.4	4.3	14.7
Green Ext Time (p_c), s	0.2	2.4	0.1	3.1	0.0	2.2	0.1	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	97	313	83	118	830	110	204	764	132	144	596	231
Future Volume (veh/h)	97	313	83	118	830	110	204	764	132	144	596	231
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	109	352	93	133	933	124	229	858	148	162	670	260
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	1272	567	241	1640	217	237	1118	498	196	1036	461
Arrive On Green	0.07	0.35	0.35	0.07	0.35	0.35	0.13	0.31	0.31	0.11	0.29	0.29
Sat Flow, veh/h	3510	3610	1608	3510	4633	614	1810	3610	1607	1810	3610	1607
Grp Volume(v), veh/h	109	352	93	133	696	361	229	858	148	162	670	260
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1789	1810	1805	1607	1810	1805	1607
Q Serve(g_s), s	3.0	7.0	3.9	3.6	16.2	16.3	12.5	21.4	5.5	8.7	16.1	13.7
Cycle Q Clear(g_c), s	3.0	7.0	3.9	3.6	16.2	16.3	12.5	21.4	5.5	8.7	16.1	13.7
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	1272	567	241	1224	633	237	1118	498	196	1036	461
V/C Ratio(X)	0.46	0.28	0.16	0.55	0.57	0.57	0.97	0.77	0.30	0.83	0.65	0.56
Avail Cap(c_a), veh/h	247	1272	567	247	1224	633	237	1490	663	200	1417	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	23.1	22.1	44.8	25.9	26.0	43.0	31.1	16.0	43.4	31.0	30.1
Incr Delay (d2), s/veh	1.4	0.5	0.6	2.5	1.9	3.7	49.1	1.8	0.3	23.5	0.7	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.6	1.8	1.9	8.1	8.7	9.5	10.9	2.8	5.6	8.1	6.2
LnGrp Delay(d),s/veh	46.0	23.6	22.7	47.3	27.9	29.7	92.1	32.8	16.4	66.9	31.7	31.2
LnGrp LOS	D	C	C	D	C	C	F	C	B	E	C	C
Approach Vol, veh/h		554			1190			1235			1092	
Approach Delay, s/veh		27.9			30.6			41.8			36.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	34.8	10.8	39.0	17.0	32.5	10.7	39.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	10.7	23.4	5.6	9.0	14.5	18.1	5.0	18.3
Green Ext Time (p_c), s	0.2	5.8	0.0	10.2	0.0	5.7	0.0	8.3

Intersection Summary			
HCM 2010 Ctrl Delay			35.3
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

	↗	→	←	↖	↘	↙
Movement	**EBL**	**EBT**	**WBT**	**WBR**	**SBL**	**SBR**
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	169	1132	1992	161	136	107
Future Volume (veh/h)	169	1132	1992	161	136	107
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	180	1204	2119	171	145	114
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	237	3912	2891	1081	403	397
Arrive On Green	0.13	0.75	0.56	0.56	0.11	0.11
Sat Flow, veh/h	1810	5358	5358	1608	3510	1615
Grp Volume(v), veh/h	180	1204	2119	171	145	114
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1608	1755	1615
Q Serve(g_s), s	5.9	4.5	18.6	2.4	2.3	0.0
Cycle Q Clear(g_c), s	5.9	4.5	18.6	2.4	2.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	237	3912	2891	1081	403	397
V/C Ratio(X)	0.76	0.31	0.73	0.16	0.36	0.29
Avail Cap(c_a), veh/h	237	3912	2891	1081	1784	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	2.4	10.1	3.7	24.9	18.7
Incr Delay (d2), s/veh	13.2	0.2	1.7	0.3	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.2	9.1	1.5	1.2	1.9
LnGrp Delay(d),s/veh	38.8	2.6	11.8	4.0	25.5	19.1
LnGrp LOS	D	A	B	A	C	B
Approach Vol, veh/h		1384	2290		259	
Approach Delay, s/veh		7.3	11.2		22.6	
Approach LOS		A	B		C	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		11.0	12.0	38.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	8.0	34.0
Max Q Clear Time (g_c+I1), s				6.5		4.3	7.9	20.6
Green Ext Time (p_c), s				10.3		0.9	0.1	10.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	102	1025	153	19	1843	88	172	58	3	81	61	90
Future Volume (veh/h)	102	1025	153	19	1843	88	172	58	3	81	61	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	107	1079	161	20	1940	93	181	61	3	85	64	95
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	2590	804	146	2532	121	308	489	24	137	459	333
Arrive On Green	0.08	0.50	0.50	0.08	0.50	0.50	0.09	0.14	0.14	0.08	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	1810	5072	243	3510	3502	171	1810	3610	1596
Grp Volume(v), veh/h	107	1079	161	20	1321	712	181	31	33	85	64	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1856	1755	1805	1868	1810	1805	1596
Q Serve(g_s), s	4.5	10.3	2.7	0.8	24.2	24.3	3.9	1.2	1.2	3.6	1.2	3.9
Cycle Q Clear(g_c), s	4.5	10.3	2.7	0.8	24.2	24.3	3.9	1.2	1.2	3.6	1.2	3.9
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	146	2590	804	146	1727	927	308	252	261	137	459	333
V/C Ratio(X)	0.73	0.42	0.20	0.14	0.77	0.77	0.59	0.12	0.13	0.62	0.14	0.28
Avail Cap(c_a), veh/h	162	2590	804	162	1727	927	315	832	861	162	1664	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	12.4	4.2	33.4	15.8	15.9	34.3	29.4	29.4	35.0	30.3	26.0
Incr Delay (d2), s/veh	14.0	0.5	0.6	0.4	3.3	6.1	2.7	0.2	0.2	5.4	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.0	1.8	0.4	12.2	13.8	2.0	0.6	0.6	2.0	0.6	1.8
LnGrp Delay(d),s/veh	49.1	12.9	4.7	33.8	19.1	22.0	37.0	29.6	29.6	40.4	30.4	26.5
LnGrp LOS	D	B	A	C	B	C	D	C	C	D	C	C
Approach Vol, veh/h		1347			2053			245			244	
Approach Delay, s/veh		14.8			20.3			35.1			32.4	
Approach LOS		B			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	14.9	10.3	43.0	10.9	13.9	10.3	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	7.0	36.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	5.6	3.2	2.8	12.3	5.9	5.9	6.5	26.3
Green Ext Time (p_c), s	0.0	1.1	3.6	8.2	0.1	1.1	0.0	9.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	83	591	430	13	1134	106	646	486	4	53	262	91
Future Volume (veh/h)	83	591	430	13	1134	106	646	486	4	53	262	91
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	642	467	14	1233	115	702	528	4	58	285	99
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1512	1024	111	1398	130	760	1208	9	93	433	147
Arrive On Green	0.06	0.42	0.42	0.06	0.42	0.42	0.22	0.33	0.33	0.05	0.16	0.16
Sat Flow, veh/h	1810	3610	1609	1810	3338	311	3510	3672	28	1810	2640	897
Grp Volume(v), veh/h	90	642	467	14	665	683	702	259	273	58	193	191
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1844	1755	1805	1895	1810	1805	1732
Q Serve(g_s), s	5.6	14.4	0.0	0.8	38.9	39.1	22.4	12.9	12.9	3.6	11.5	11.9
Cycle Q Clear(g_c), s	5.6	14.4	0.0	0.8	38.9	39.1	22.4	12.9	12.9	3.6	11.5	11.9
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.01	1.00		0.52
Lane Grp Cap(c), veh/h	111	1512	1024	111	756	772	760	594	623	93	296	284
V/C Ratio(X)	0.81	0.42	0.46	0.13	0.88	0.88	0.92	0.44	0.44	0.62	0.65	0.67
Avail Cap(c_a), veh/h	111	1512	1024	111	756	772	766	788	827	142	536	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	23.5	10.7	50.9	30.6	30.7	44.0	30.1	30.1	53.3	44.8	45.0
Incr Delay (d2), s/veh	35.5	0.9	1.5	0.5	13.9	14.0	16.8	0.5	0.5	6.6	2.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	7.3	7.9	0.4	22.1	22.9	12.6	6.5	6.8	2.0	5.9	5.9
LnGrp Delay(d),s/veh	88.6	24.4	12.2	51.4	44.5	44.7	60.7	30.6	30.6	59.9	47.3	47.8
LnGrp LOS	F	C	B	D	D	D	E	C	C	E	D	D
Approach Vol, veh/h		1199			1362			1234			442	
Approach Delay, s/veh		24.5			44.7			47.8			49.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	41.7	11.0	52.0	28.8	22.8	11.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	50.0	7.0	48.0	25.0	34.0	7.0	48.0
Max Q Clear Time (g_c+I1), s	5.6	14.9	2.8	16.4	24.4	13.9	7.6	41.1
Green Ext Time (p_c), s	0.0	6.9	0.1	6.1	0.4	2.2	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	39	509	110	52	1015	82	127	393	73	102	262	31
Future Volume (veh/h)	39	509	110	52	1015	82	127	393	73	102	262	31
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	585	126	60	1167	94	146	452	84	117	301	36
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1219	262	105	1397	112	262	679	125	156	536	63
Arrive On Green	0.06	0.41	0.41	0.06	0.41	0.41	0.14	0.22	0.22	0.09	0.16	0.16
Sat Flow, veh/h	1810	2955	635	1810	3384	272	1810	3040	561	1810	3248	385
Grp Volume(v), veh/h	45	357	354	60	622	639	146	267	269	117	166	171
Grp Sat Flow(s),veh/h/ln	1810	1805	1785	1810	1805	1851	1810	1805	1796	1810	1805	1828
Q Serve(g_s), s	1.7	10.5	10.6	2.3	22.4	22.5	5.5	9.8	9.9	4.6	6.2	6.3
Cycle Q Clear(g_c), s	1.7	10.5	10.6	2.3	22.4	22.5	5.5	9.8	9.9	4.6	6.2	6.3
Prop In Lane	1.00		0.36	1.00		0.15	1.00		0.31	1.00		0.21
Lane Grp Cap(c), veh/h	104	745	736	105	745	764	262	403	401	156	298	301
V/C Ratio(X)	0.43	0.48	0.48	0.57	0.83	0.84	0.56	0.66	0.67	0.75	0.56	0.57
Avail Cap(c_a), veh/h	174	745	736	174	745	764	262	720	716	199	720	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	15.6	15.7	33.4	19.1	19.1	28.9	25.7	25.8	32.5	27.9	28.0
Incr Delay (d2), s/veh	2.8	2.2	2.2	4.9	10.6	10.5	2.6	1.9	1.9	11.1	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.7	5.7	1.3	13.3	13.6	2.9	5.1	5.1	2.8	3.2	3.3
LnGrp Delay(d),s/veh	35.9	17.8	17.9	38.2	29.8	29.7	31.6	27.6	27.7	43.5	29.6	29.7
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		756			1321			682			454	
Approach Delay, s/veh		18.9			30.1			28.5			33.2	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	20.2	8.2	34.0	14.5	16.0	8.2	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	29.0	7.0	30.0	8.0	29.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	6.6	11.9	4.3	12.6	7.5	8.3	3.7	24.5
Green Ext Time (p_c), s	0.1	3.0	1.1	3.6	0.0	1.9	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	111	466	128	63	785	99	255	813	97	77	518	127
Future Volume (veh/h)	111	466	128	63	785	99	255	813	97	77	518	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	536	147	72	902	114	293	934	111	89	595	146
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	1073	293	118	1161	147	143	1416	168	127	1220	294
Arrive On Green	0.09	0.38	0.38	0.07	0.36	0.36	0.08	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	1810	2801	765	1810	3224	407	1810	4700	557	1810	4171	1004
Grp Volume(v), veh/h	128	345	338	72	505	511	293	686	359	89	491	250
Grp Sat Flow(s),veh/h/ln	1810	1805	1761	1810	1805	1826	1810	1729	1798	1810	1729	1717
Q Serve(g_s), s	6.2	12.9	13.0	3.4	22.1	22.1	7.0	15.4	15.5	4.3	10.4	10.7
Cycle Q Clear(g_c), s	6.2	12.9	13.0	3.4	22.1	22.1	7.0	15.4	15.5	4.3	10.4	10.7
Prop In Lane	1.00		0.43	1.00		0.22	1.00		0.31	1.00		0.58
Lane Grp Cap(c), veh/h	160	692	675	118	650	658	143	1042	542	127	1012	502
V/C Ratio(X)	0.80	0.50	0.50	0.61	0.78	0.78	2.06	0.66	0.66	0.70	0.49	0.50
Avail Cap(c_a), veh/h	183	692	675	143	650	658	143	1042	542	143	1012	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	20.9	20.9	40.4	25.3	25.3	40.9	27.1	27.1	40.4	25.9	26.0
Incr Delay (d2), s/veh	19.3	2.6	2.7	5.1	8.9	8.8	498.5	3.3	6.2	12.6	1.7	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	6.9	6.8	1.9	12.5	12.7	23.2	7.8	8.6	2.6	5.2	5.6
LnGrp Delay(d),s/veh	59.1	23.4	23.6	45.6	34.1	34.0	539.5	30.3	33.3	53.0	27.6	29.5
LnGrp LOS	E	C	C	D	C	C	F	C	C	D	C	C
Approach Vol, veh/h		811			1088			1338			830	
Approach Delay, s/veh		29.1			34.8			142.6			30.9	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	30.8	9.8	38.1	11.0	30.0	11.9	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.3	17.5	5.4	15.0	9.0	12.7	8.2	24.1
Green Ext Time (p_c), s	0.0	4.6	0.0	3.9	0.0	3.8	0.1	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	68.4
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	144	839	147	90	1872	425	464	544	57	97	78	110
Future Volume (veh/h)	144	839	147	90	1872	425	464	544	57	97	78	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	874	153	94	1950	443	483	567	59	101	81	115
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	2394	743	253	2351	730	514	755	795	258	491	217
Arrive On Green	0.08	0.46	0.46	0.07	0.45	0.45	0.15	0.21	0.21	0.07	0.14	0.14
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2822	3510	3610	1597
Grp Volume(v), veh/h	150	874	153	94	1950	443	483	567	59	101	81	115
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1411	1755	1805	1597
Q Serve(g_s), s	7.0	9.5	2.7	2.2	28.7	18.1	11.9	12.8	1.3	2.4	1.7	4.7
Cycle Q Clear(g_c), s	7.0	9.5	2.7	2.2	28.7	18.1	11.9	12.8	1.3	2.4	1.7	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	2394	743	253	2351	730	514	755	795	258	491	217
V/C Ratio(X)	1.03	0.37	0.21	0.37	0.83	0.61	0.94	0.75	0.07	0.39	0.16	0.53
Avail Cap(c_a), veh/h	145	2394	743	282	2383	739	514	1866	1663	282	1866	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	15.2	4.3	38.5	20.9	18.0	36.8	32.3	23.0	38.5	33.2	22.4
Incr Delay (d2), s/veh	83.1	0.1	0.1	0.9	2.6	1.4	25.3	1.5	0.0	1.0	0.2	2.0
Initial Q Delay(d3),s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	4.6	1.9	1.1	14.1	8.2	7.6	6.5	0.5	1.2	0.9	2.5
LnGrp Delay(d),s/veh	123.5	15.3	4.5	39.4	23.4	19.4	62.1	33.8	23.0	39.5	33.4	24.4
LnGrp LOS	F	B	A	D	C	B	E	C	C	D	C	C
Approach Vol, veh/h		1177			2487			1109			297	
Approach Delay, s/veh		27.7			23.3			45.6			32.0	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	22.2	10.3	44.2	16.8	15.8	11.0	43.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	4.4	14.8	4.2	11.5	13.9	6.7	9.0	30.7
Green Ext Time (p_c), s	0.1	3.4	0.1	24.7	0.0	0.8	0.0	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	29.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✣	↱
Traffic Volume (veh/h)	0	595	340	0	2224	0	0	0	0	175	0	242
Future Volume (veh/h)	0	595	340	0	2224	0	0	0	0	175	0	242
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	613	351	0	2293	0				268	0	154
Adj No. of Lanes	0	3	0	0	3	0				2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2276	1063	0	3414	0				599	0	241
Arrive On Green	0.00	0.66	0.66	0.00	0.66	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3629	1615	0	5529	0				3619	0	1454
Grp Volume(v), veh/h	0	613	351	0	2293	0				268	0	154
Grp Sat Flow(s),veh/h/ln	0	1729	1615	0	1729	0				1810	0	1454
Q Serve(g_s), s	0.0	3.3	4.3	0.0	12.3	0.0				3.0	0.0	4.5
Cycle Q Clear(g_c), s	0.0	3.3	4.3	0.0	12.3	0.0				3.0	0.0	4.5
Prop In Lane	0.00		1.00	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2276	1063	0	3414	0				599	0	241
V/C Ratio(X)	0.00	0.27	0.33	0.00	0.67	0.00				0.45	0.00	0.64
Avail Cap(c_a), veh/h	0	2363	1104	0	3544	0				1276	0	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.2	3.4	0.0	4.8	0.0				17.1	0.0	17.7
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.5	0.0				0.5	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	1.9	0.0	5.9	0.0				1.5	0.0	2.0
LnGrp Delay(d),s/veh	0.0	3.3	3.6	0.0	5.2	0.0				17.6	0.0	20.5
LnGrp LOS		A	A		A					B		C
Approach Vol, veh/h		964			2293						422	
Approach Delay, s/veh		3.4			5.2						18.6	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				33.9		11.5		33.9
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				31.0		16.0		31.0
Max Q Clear Time (g_c+I1), s				6.3		6.5		14.3
Green Ext Time (p_c), s				22.4		1.1		15.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	58	715	0	0	1704	118	846	2	160	0	0	0
Future Volume (veh/h)	58	715	0	0	1704	118	846	2	160	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	60	737	0	0	1757	122	924	0	111			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	134	2927	0	0	2094	145	1089	0	486			
Arrive On Green	0.07	0.56	0.00	0.00	0.42	0.42	0.30	0.00	0.30			
Sat Flow, veh/h	1810	5358	0	0	5124	343	3619	0	1615			
Grp Volume(v), veh/h	60	737	0	0	1226	653	924	0	111			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1838	1810	0	1615			
Q Serve(g_s), s	1.9	4.3	0.0	0.0	18.8	18.9	14.2	0.0	3.1			
Cycle Q Clear(g_c), s	1.9	4.3	0.0	0.0	18.8	18.9	14.2	0.0	3.1			
Prop In Lane	1.00		0.00	0.00		0.19	1.00		1.00			
Lane Grp Cap(c), veh/h	134	2927	0	0	1462	777	1089	0	486			
V/C Ratio(X)	0.45	0.25	0.00	0.00	0.84	0.84	0.85	0.00	0.23			
Avail Cap(c_a), veh/h	213	3235	0	0	1515	805	1220	0	544			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	26.3	6.6	0.0	0.0	15.3	15.3	19.5	0.0	15.6			
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.0	4.2	7.8	5.3	0.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.0	2.1	0.0	0.0	9.7	11.1	7.9	0.0	1.4			
LnGrp Delay(d),s/veh	28.6	6.6	0.0	0.0	19.5	23.1	24.8	0.0	15.8			
LnGrp LOS	C	A			B	C	C		B			
Approach Vol, veh/h		797			1879			1035				
Approach Delay, s/veh		8.3			20.8			23.8				
Approach LOS		A			C			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		21.8		37.5			8.4	29.1				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		20.0		37.0			7.0	26.0				
Max Q Clear Time (g_c+I1), s		16.2		6.3			3.9	20.9				
Green Ext Time (p_c), s		1.6		5.4			1.4	4.2				
Intersection Summary												
HCM 2010 Ctrl Delay			18.9									
HCM 2010 LOS			B									
Notes												

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	233	701	31	11	1458	126	159	474	16	17	29	191
Future Volume (veh/h)	233	701	31	11	1458	126	159	474	16	17	29	191
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	738	33	12	1535	0	167	499	17	18	31	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	324	1924	86	125	1890	845	410	621	278	48	294	131
Arrive On Green	0.09	0.55	0.55	0.07	0.52	0.00	0.12	0.17	0.17	0.03	0.08	0.00
Sat Flow, veh/h	3510	3519	157	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	245	378	393	12	1535	0	167	499	17	18	31	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1872	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	5.9	10.3	10.3	0.5	30.3	0.0	3.8	11.4	0.8	0.8	0.7	0.0
Cycle Q Clear(g_c), s	5.9	10.3	10.3	0.5	30.3	0.0	3.8	11.4	0.8	0.8	0.7	0.0
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	987	1023	125	1890	845	410	621	278	48	294	131
V/C Ratio(X)	0.76	0.38	0.38	0.10	0.81	0.00	0.41	0.80	0.06	0.38	0.11	0.00
Avail Cap(c_a), veh/h	367	987	1023	147	1890	845	410	756	338	147	756	338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.1	11.2	11.2	37.5	17.0	0.0	35.2	34.2	29.8	41.2	36.6	0.0
Incr Delay (d2), s/veh	7.7	1.1	1.1	0.3	3.9	0.0	0.6	5.2	0.1	4.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.5	5.7	0.3	16.0	0.0	1.9	6.1	0.3	0.5	0.3	0.0
LnGrp Delay(d),s/veh	45.8	12.3	12.3	37.8	20.9	0.0	35.9	39.4	29.9	46.1	36.7	0.0
LnGrp LOS	D	B	B	D	C		D	D	C	D	D	
Approach Vol, veh/h		1016			1547			683			49	
Approach Delay, s/veh		20.4			21.1			38.3			40.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	18.8	9.9	51.0	14.0	11.0	11.9	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	9.0	45.0
Max Q Clear Time (g_c+I1), s	2.8	13.4	2.5	12.3	5.8	2.7	7.9	32.3
Green Ext Time (p_c), s	0.0	1.4	3.4	4.7	0.1	0.1	0.1	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	126	637	19	12	1360	121	35	72	13	53	12	97
Future Volume (veh/h)	126	637	19	12	1360	121	35	72	13	53	12	97
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	671	20	13	1432	127	37	76	14	56	13	102
Adj No. of Lanes	1	3	0	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	3067	91	41	1855	826	285	300	55	315	35	278
Arrive On Green	0.10	0.59	0.59	0.02	0.51	0.51	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	5176	154	1810	3610	1607	1290	1559	287	1319	184	1447
Grp Volume(v), veh/h	133	448	243	13	1432	127	37	0	90	56	0	115
Grp Sat Flow(s),veh/h/ln	1810	1729	1872	1810	1805	1607	1290	0	1847	1319	0	1631
Q Serve(g_s), s	4.4	3.8	3.8	0.4	19.9	2.6	1.6	0.0	2.6	2.3	0.0	3.8
Cycle Q Clear(g_c), s	4.4	3.8	3.8	0.4	19.9	2.6	5.4	0.0	2.6	4.9	0.0	3.8
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.16	1.00		0.89
Lane Grp Cap(c), veh/h	183	2049	1109	41	1855	826	285	0	355	315	0	313
V/C Ratio(X)	0.73	0.22	0.22	0.32	0.77	0.15	0.13	0.00	0.25	0.18	0.00	0.37
Avail Cap(c_a), veh/h	203	2049	1109	203	1855	826	949	0	1305	993	0	1153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	5.9	5.9	30.0	12.2	8.0	24.2	0.0	21.4	23.4	0.0	21.9
Incr Delay (d2), s/veh	11.0	0.2	0.5	4.4	3.2	0.4	0.2	0.0	0.4	0.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.9	2.1	0.3	10.6	1.2	0.6	0.0	1.3	0.9	0.0	1.8
LnGrp Delay(d),s/veh	38.1	6.2	6.4	34.3	15.4	8.4	24.4	0.0	21.7	23.7	0.0	22.6
LnGrp LOS	D	A	A	C	B	A	C		C	C		C
Approach Vol, veh/h		824			1572			127			171	
Approach Delay, s/veh		11.4			15.0			22.5			22.9	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		16.0	5.4	40.9		16.0	10.3	36.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		7.4	2.4	5.8		6.9	6.4	21.9
Green Ext Time (p_c), s		1.6	0.0	17.1		1.6	0.0	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	24	580	97	93	1325	55	110	115	46	29	114	44
Future Volume (veh/h)	24	580	97	93	1325	55	110	115	46	29	114	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	611	102	98	1395	58	116	121	48	31	120	46
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	1902	313	160	2242	93	169	379	320	83	289	243
Arrive On Green	0.07	0.42	0.42	0.09	0.44	0.44	0.09	0.20	0.20	0.05	0.15	0.15
Sat Flow, veh/h	1810	4486	738	1810	5107	212	1810	1900	1603	1810	1900	1599
Grp Volume(v), veh/h	25	469	244	98	945	508	116	121	48	31	120	46
Grp Sat Flow(s),veh/h/ln	1810	1729	1767	1810	1729	1861	1810	1900	1603	1810	1900	1599
Q Serve(g_s), s	0.9	6.0	6.1	3.4	13.9	13.9	4.1	3.6	1.2	1.1	3.8	1.7
Cycle Q Clear(g_c), s	0.9	6.0	6.1	3.4	13.9	13.9	4.1	3.6	1.2	1.1	3.8	1.7
Prop In Lane	1.00		0.42	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	1466	749	160	1518	817	169	379	320	83	289	243
V/C Ratio(X)	0.19	0.32	0.33	0.61	0.62	0.62	0.69	0.32	0.15	0.37	0.42	0.19
Avail Cap(c_a), veh/h	192	1466	749	219	1518	817	192	1180	995	192	1180	993
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	12.7	12.7	29.0	14.3	14.3	29.0	22.6	11.9	30.6	25.3	24.5
Incr Delay (d2), s/veh	0.7	0.6	1.2	3.8	1.9	3.6	8.4	0.5	0.2	2.8	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.9	3.2	1.9	7.0	7.9	2.4	1.9	0.6	0.6	2.0	0.8
LnGrp Delay(d),s/veh	29.4	13.3	13.9	32.8	16.2	17.8	37.4	23.1	12.1	33.3	26.3	24.8
LnGrp LOS	C	B	B	C	B	B	D	C	B	C	C	C
Approach Vol, veh/h		738			1551			285			197	
Approach Delay, s/veh		14.0			17.8			27.1			27.1	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	17.2	9.8	32.0	10.2	14.0	8.8	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	8.0	28.0	7.0	41.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.1	5.6	5.4	8.1	6.1	5.8	2.9	15.9
Green Ext Time (p_c), s	0.0	1.2	0.1	4.1	0.1	0.8	0.1	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↱	
Traffic Volume (veh/h)	0	272	22	577	1258	0	0	0	0	0	0	234
Future Volume (veh/h)	0	272	22	577	1258	0	0	0	0	0	0	234
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	306	25	648	1413	0				0	0	263
Adj No. of Lanes	0	2	1	1	2	0				0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	722	319	1287	3450	0				0	0	0
Arrive On Green	0.00	0.20	0.20	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3705	1595	1810	3705	0					0	
Grp Volume(v), veh/h	0	306	25	648	1413	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	1595	1810	1805	0						
Q Serve(g_s), s	0.0	6.7	1.1	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	6.7	1.1	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	722	319	1287	3450	0						
V/C Ratio(X)	0.00	0.42	0.08	0.50	0.41	0.00						
Avail Cap(c_a), veh/h	0	722	319	1287	3450	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	31.5	29.3	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	1.8	0.5	0.0	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.5	0.0	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	33.3	29.7	0.0	0.0	0.0						
LnGrp LOS		C	C	A	A							
Approach Vol, veh/h		331			2061							
Approach Delay, s/veh		33.0			0.0							
Approach LOS		C			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			68.0	22.0				90.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			41.0	18.0				63.0
Max Q Clear Time (g_c+I1), s			2.0	8.7				2.0
Green Ext Time (p_c), s			16.8	1.2				19.2

Intersection Summary	
HCM 2010 Ctrl Delay	4.6
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	835	19	0	1632	313	413	310	4	41	0	76
Future Volume (veh/h)	20	835	19	0	1632	313	413	310	4	41	0	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	908	21	0	1774	340	449	337	4	45	0	83
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	2124	49	0	1790	332	461	604	7	263	0	520
Arrive On Green	1.00	1.00	1.00	0.00	0.59	0.59	0.32	0.32	0.32	0.32	0.00	0.32
Sat Flow, veh/h	196	3607	83	0	3134	564	1336	1874	22	1056	0	1615
Grp Volume(v), veh/h	22	454	475	0	1030	1084	449	0	341	45	0	83
Grp Sat Flow(s),veh/h/ln	196	1805	1885	0	1805	1798	1336	0	1896	1056	0	1615
Q Serve(g_s), s	0.0	0.0	0.0	0.0	49.2	53.0	25.7	0.0	13.4	3.3	0.0	3.3
Cycle Q Clear(g_c), s	53.0	0.0	0.0	0.0	49.2	53.0	29.0	0.0	13.4	16.7	0.0	3.3
Prop In Lane	1.00		0.04	0.00		0.31	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	80	1063	1110	0	1063	1059	461	0	611	263	0	520
V/C Ratio(X)	0.27	0.43	0.43	0.00	0.97	1.02	0.97	0.00	0.56	0.17	0.00	0.16
Avail Cap(c_a), veh/h	80	1063	1110	0	1063	1059	461	0	611	263	0	520
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	0.0	0.0	17.7	18.5	34.1	0.0	25.2	32.1	0.0	21.8
Incr Delay (d2), s/veh	7.9	1.2	1.1	0.0	21.1	33.9	34.9	0.0	1.1	0.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	0.4	0.0	30.3	35.9	15.6	0.0	7.2	1.0	0.0	1.5
LnGrp Delay(d),s/veh	34.4	1.2	1.1	0.0	38.8	52.4	68.9	0.0	26.3	32.4	0.0	21.9
LnGrp LOS	C	A	A		D	F	E		C	C		C
Approach Vol, veh/h		951			2114			790			128	
Approach Delay, s/veh		1.9			45.8			50.6			25.6	
Approach LOS		A			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.0		57.0		33.0		57.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		29.0		53.0		29.0		53.0
Max Q Clear Time (g_c+I1), s		31.0		55.0		18.7		55.0
Green Ext Time (p_c), s		0.0		0.0		3.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✣		↰	↰↑	↱
Traffic Volume (veh/h)	148	1256	269	83	1766	135	25	15	34	92	68	121
Future Volume (veh/h)	148	1256	269	83	1766	135	25	15	34	92	68	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	1351	0	89	1899	145	27	16	37	86	91	130
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	2597	808	228	2703	837	167	46	107	213	224	358
Arrive On Green	0.11	0.50	0.00	0.13	0.52	0.52	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1810	5187	1615	1810	5187	1607	1810	505	1167	1810	1900	1594
Grp Volume(v), veh/h	159	1351	0	89	1899	145	27	0	53	86	91	130
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1607	1810	0	1671	1810	1900	1594
Q Serve(g_s), s	8.4	17.2	0.0	4.4	27.1	4.6	1.3	0.0	2.9	4.3	4.3	6.7
Cycle Q Clear(g_c), s	8.4	17.2	0.0	4.4	27.1	4.6	1.3	0.0	2.9	4.3	4.3	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	191	2597	808	228	2703	837	167	0	154	213	224	358
V/C Ratio(X)	0.83	0.52	0.00	0.39	0.70	0.17	0.16	0.00	0.34	0.40	0.41	0.36
Avail Cap(c_a), veh/h	222	2597	808	259	2703	837	684	0	632	629	660	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	16.5	0.0	39.3	17.7	12.3	41.0	0.0	41.7	40.0	40.0	32.1
Incr Delay (d2), s/veh	20.3	0.7	0.0	1.1	1.6	0.4	0.5	0.0	1.3	1.2	1.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	8.3	0.0	2.3	13.2	2.2	0.7	0.0	1.4	2.2	2.3	3.0
LnGrp Delay(d),s/veh	63.2	17.3	0.0	40.4	19.3	12.8	41.4	0.0	43.0	41.2	41.2	32.7
LnGrp LOS	E	B		D	B	B	D		D	D	D	C
Approach Vol, veh/h		1510			2133			80			307	
Approach Delay, s/veh		22.1			19.7			42.5			37.6	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.0	16.4	53.0		15.5	14.4	55.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	14.0	49.0		34.0	12.0	51.0
Max Q Clear Time (g_c+I1), s		4.9	6.4	19.2		8.7	10.4	29.1
Green Ext Time (p_c), s		0.3	6.2	10.4		1.2	0.1	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	647	51	8	527	703	233
Future Volume (veh/h)	647	51	8	527	703	233
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	789	62	10	643	857	284
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1015	80	32	1346	934	862
Arrive On Green	0.30	0.30	0.02	0.37	0.52	0.52
Sat Flow, veh/h	3484	266	1810	3705	1810	1615
Grp Volume(v), veh/h	420	431	10	643	857	284
Grp Sat Flow(s),veh/h/ln	1805	1850	1810	1805	1810	1615
Q Serve(g_s), s	15.3	15.3	0.4	9.8	31.3	7.2
Cycle Q Clear(g_c), s	15.3	15.3	0.4	9.8	31.3	7.2
Prop In Lane		0.14	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	541	554	32	1346	934	862
V/C Ratio(X)	0.78	0.78	0.31	0.48	0.92	0.33
Avail Cap(c_a), veh/h	602	617	176	1757	1182	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	23.0	34.9	17.2	16.0	9.5
Incr Delay (d2), s/veh	5.8	5.6	5.5	0.3	9.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	8.6	0.2	4.9	18.0	3.2
LnGrp Delay(d),s/veh	28.8	28.7	40.4	17.5	25.7	9.7
LnGrp LOS	C	C	D	B	C	A
Approach Vol, veh/h	851			653	1141	
Approach Delay, s/veh	28.7			17.8	21.7	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		41.1	5.3	25.5				30.8
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		47.0	7.0	24.0				35.0
Max Q Clear Time (g_c+I1), s		33.3	2.4	17.3				11.8
Green Ext Time (p_c), s		3.8	0.0	4.2				9.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	15	714	131	43	277	27	265	418	723	62	33	9
Future Volume (veh/h)	15	714	131	43	277	27	265	418	723	62	33	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	760	139	46	295	29	282	445	769	66	35	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	1081	334	190	487	47	777	926	784	117	442	198
Arrive On Green	0.12	0.21	0.21	0.05	0.15	0.15	0.43	0.49	0.49	0.06	0.12	0.00
Sat Flow, veh/h	1810	5187	1603	3510	3318	324	1810	1900	1610	1810	3610	1615
Grp Volume(v), veh/h	16	760	139	46	159	165	282	445	769	66	35	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1603	1755	1805	1836	1810	1900	1610	1810	1805	1615
Q Serve(g_s), s	0.7	11.7	2.2	1.1	7.1	7.2	9.1	13.5	40.4	3.1	0.7	0.0
Cycle Q Clear(g_c), s	0.7	11.7	2.2	1.1	7.1	7.2	9.1	13.5	40.4	3.1	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	1081	334	190	265	269	777	926	784	117	442	198
V/C Ratio(X)	0.08	0.70	0.42	0.24	0.60	0.61	0.36	0.48	0.98	0.57	0.08	0.00
Avail Cap(c_a), veh/h	210	1685	521	285	586	596	777	926	784	147	1591	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.0	31.6	3.4	39.1	34.4	34.5	16.6	14.8	21.7	39.1	33.5	0.0
Incr Delay (d2), s/veh	0.2	0.8	0.8	0.7	2.2	2.2	0.3	0.4	27.2	4.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.6	2.7	0.5	3.7	3.8	4.6	7.1	23.7	1.7	0.4	0.0
LnGrp Delay(d),s/veh	34.1	32.5	4.3	39.7	36.6	36.7	16.9	15.2	48.9	43.4	33.6	0.0
LnGrp LOS	C	C	A	D	D	D	B	B	D	D	C	
Approach Vol, veh/h		915			370			1496			101	
Approach Delay, s/veh		28.2			37.0			32.8			40.0	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	46.0	8.7	22.0	41.0	14.6	14.0	16.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	28.0	11.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	5.1	42.4	3.1	13.7	11.1	2.7	2.7	9.2
Green Ext Time (p_c), s	0.0	0.0	0.0	4.3	0.0	0.1	2.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	118	0	51	0	0	0	0	1237	254	198	289	0
Future Volume (veh/h)	118	0	51	0	0	0	0	1237	254	198	289	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	130	0	56				0	1359	279	218	318	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	234	0	368				0	1733	775	529	2565	0
Arrive On Green	0.13	0.00	0.13				0.00	0.48	0.48	0.15	0.71	0.00
Sat Flow, veh/h	1810	0	2842				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	130	0	56				0	1359	279	218	318	0
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1805	1615	1755	1805	0
Q Serve(g_s), s	3.4	0.0	0.9				0.0	15.7	5.4	2.8	1.4	0.0
Cycle Q Clear(g_c), s	3.4	0.0	0.9				0.0	15.7	5.4	2.8	1.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	234	0	368				0	1733	775	529	2565	0
V/C Ratio(X)	0.56	0.00	0.15				0.00	0.78	0.36	0.41	0.12	0.00
Avail Cap(c_a), veh/h	253	0	398				0	1733	775	529	2565	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.64	0.64	0.99	0.99	0.00
Uniform Delay (d), s/veh	20.4	0.0	19.3				0.0	10.8	8.2	19.2	2.3	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.2				0.0	2.4	0.8	0.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.4				0.0	8.3	2.6	1.4	0.7	0.0
LnGrp Delay(d),s/veh	22.7	0.0	19.5				0.0	13.2	9.0	19.7	2.4	0.0
LnGrp LOS	C		B					B	A	B	A	
Approach Vol, veh/h		186						1638			536	
Approach Delay, s/veh		21.7						12.5			9.4	
Approach LOS		C						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			11.5	28.0		10.5		39.5
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			7.0	24.0		7.0		35.0
Max Q Clear Time (g_c+I1), s			4.8	17.7		5.4		3.4
Green Ext Time (p_c), s			0.6	4.4		0.1		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	115	503	1366	0	0	382
Future Volume (veh/h)	115	503	1366	0	0	382
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	128	559	1518	0	0	424
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1264	581	1733	0	0	1733
Arrive On Green	0.36	0.36	0.96	0.00	0.00	0.48
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	128	559	1518	0	0	424
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	1.2	16.9	5.3	0.0	0.0	3.5
Cycle Q Clear(g_c), s	1.2	16.9	5.3	0.0	0.0	3.5
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1264	581	1733	0	0	1733
V/C Ratio(X)	0.10	0.96	0.88	0.00	0.00	0.24
Avail Cap(c_a), veh/h	1264	581	1733	0	0	1733
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.73	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.6	15.7	0.6	0.0	0.0	7.7
Incr Delay (d2), s/veh	0.0	27.9	4.9	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	12.0	1.6	0.0	0.0	1.8
LnGrp Delay(d),s/veh	10.7	43.5	5.6	0.0	0.0	8.0
LnGrp LOS	B	D	A			A
Approach Vol, veh/h	687		1518			424
Approach Delay, s/veh	37.4		5.6			8.0
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		28.0				28.0		22.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		24.0				24.0		18.0
Max Q Clear Time (g_c+I1), s		7.3				5.5		18.9
Green Ext Time (p_c), s		11.4				12.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	837	1	132	2511	1545	8
Future Volume (veh/h)	837	1	132	2511	1545	8
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	872	1	138	2616	1616	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1157	1	1235	3102	1858	553
Arrive On Green	0.22	0.22	0.35	0.60	0.34	0.00
Sat Flow, veh/h	5522	6	3510	5358	5429	1615
Grp Volume(v), veh/h	564	309	138	2616	1616	0
Grp Sat Flow(s),veh/h/ln	1729	1899	1755	1729	1810	1615
Q Serve(g_s), s	20.4	20.5	3.6	54.8	37.4	0.0
Cycle Q Clear(g_c), s	20.4	20.5	3.6	54.8	37.4	0.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	748	411	1235	3102	1858	553
V/C Ratio(X)	0.75	0.75	0.11	0.84	0.87	0.00
Avail Cap(c_a), veh/h	1858	1020	1235	3367	2228	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.2	49.2	29.3	21.8	41.3	0.0
Incr Delay (d2), s/veh	1.6	2.8	0.0	2.0	3.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	11.1	1.7	26.5	19.3	0.0
LnGrp Delay(d),s/veh	50.7	52.0	29.3	23.8	44.8	0.0
LnGrp LOS	D	D	C	C	D	
Approach Vol, veh/h	873			2754	1616	
Approach Delay, s/veh	51.2			24.1	44.8	
Approach LOS	D			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		49.9	51.2	33.0				84.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		55.0	11.0	72.0				87.0
Max Q Clear Time (g_c+I1), s		39.4	5.6	22.5				56.8
Green Ext Time (p_c), s		6.5	5.1	5.7				23.4

Intersection Summary		
HCM 2010 Ctrl Delay		35.0
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	33	786	39	158	2407	125	141	276	200	59	127	29
Future Volume (veh/h)	33	786	39	158	2407	125	141	276	200	59	127	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	845	42	170	2588	134	152	297	215	63	137	31
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	69	2848	884	228	2909	149	485	393	332	91	348	77
Arrive On Green	0.04	0.55	0.55	0.06	0.58	0.58	0.14	0.21	0.21	0.05	0.12	0.12
Sat Flow, veh/h	1810	5187	1611	3510	5053	258	3510	1900	1603	1810	2935	646
Grp Volume(v), veh/h	35	845	42	170	1761	961	152	297	215	63	83	85
Grp Sat Flow(s),veh/h/ln	1810	1729	1611	1755	1729	1853	1755	1900	1603	1810	1805	1776
Q Serve(g_s), s	2.3	10.9	0.8	5.9	54.5	56.7	4.8	18.2	15.2	4.2	5.2	5.5
Cycle Q Clear(g_c), s	2.3	10.9	0.8	5.9	54.5	56.7	4.8	18.2	15.2	4.2	5.2	5.5
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	69	2848	884	228	1991	1067	485	393	332	91	214	211
V/C Ratio(X)	0.50	0.30	0.05	0.75	0.88	0.90	0.31	0.76	0.65	0.70	0.39	0.40
Avail Cap(c_a), veh/h	102	2848	884	340	2038	1092	485	660	557	161	685	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	15.0	3.9	56.9	22.7	23.2	48.1	46.2	45.0	57.9	50.4	50.5
Incr Delay (d2), s/veh	5.6	0.1	0.0	4.8	5.0	10.2	0.4	3.0	2.1	9.2	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.2	0.6	3.0	27.3	31.9	2.4	9.9	7.0	2.3	2.7	2.8
LnGrp Delay(d),s/veh	64.0	15.1	3.9	61.7	27.7	33.3	48.5	49.2	47.1	67.1	51.6	51.8
LnGrp LOS	E	B	A	E	C	C	D	D	D	E	D	D
Approach Vol, veh/h		922			2892			664			231	
Approach Delay, s/veh		16.5			31.6			48.3			55.9	
Approach LOS		B			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	29.6	12.0	72.0	21.1	18.7	8.7	75.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	43.0	12.0	68.0	7.0	47.0	7.0	73.0
Max Q Clear Time (g_c+I1), s	16.2	20.2	7.9	12.9	6.8	7.5	4.3	58.7
Green Ext Time (p_c), s	0.0	2.4	0.2	6.3	0.1	1.0	1.2	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	120	531	167	57	497	141	740	990	209	75	234	106
Future Volume (veh/h)	120	531	167	57	497	141	740	990	209	75	234	106
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	141	625	196	67	585	166	871	1165	246	88	275	125
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	989	784	115	849	490	748	1493	768	244	975	599
Arrive On Green	0.10	0.27	0.27	0.06	0.24	0.24	0.21	0.41	0.41	0.07	0.27	0.27
Sat Flow, veh/h	1810	3610	1606	1810	3610	1605	3510	3610	1609	3510	3610	1606
Grp Volume(v), veh/h	141	625	196	67	585	166	871	1165	246	88	275	125
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1605	1755	1805	1609	1755	1805	1606
Q Serve(g_s), s	6.8	13.6	6.4	3.2	13.2	0.9	19.0	24.9	5.1	2.1	5.4	1.9
Cycle Q Clear(g_c), s	6.8	13.6	6.4	3.2	13.2	0.9	19.0	24.9	5.1	2.1	5.4	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	989	784	115	849	490	748	1493	768	244	975	599
V/C Ratio(X)	0.76	0.63	0.25	0.58	0.69	0.34	1.16	0.78	0.32	0.36	0.28	0.21
Avail Cap(c_a), veh/h	203	1538	1028	142	1417	742	748	2105	1041	276	1619	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	28.4	13.4	40.6	31.1	24.0	35.1	22.6	6.0	39.6	25.7	7.0
Incr Delay (d2), s/veh	14.2	0.7	0.2	4.6	1.0	0.4	88.4	1.3	0.2	0.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	6.9	2.9	1.7	6.7	3.1	18.3	12.6	2.4	1.1	2.7	1.0
LnGrp Delay(d),s/veh	53.2	29.1	13.5	45.2	32.1	24.4	123.4	23.9	6.3	40.5	25.9	7.2
LnGrp LOS	D	C	B	D	C	C	F	C	A	D	C	A
Approach Vol, veh/h		962			818			2282			488	
Approach Delay, s/veh		29.5			31.7			60.0			23.7	
Approach LOS		C			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	40.9	9.7	28.4	23.0	28.1	13.1	25.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	52.0	7.0	38.0	19.0	40.0	10.0	35.0
Max Q Clear Time (g_c+I1), s	4.1	26.9	5.2	15.6	21.0	7.4	8.8	15.2
Green Ext Time (p_c), s	0.7	9.7	0.0	5.0	0.0	2.4	0.7	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	44.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	217	617	595	489	227	122
Future Volume (veh/h)	217	617	595	489	227	122
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	265	752	726	596	284	142
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	261	2493	1674	978	523	467
Arrive On Green	0.14	0.69	0.46	0.46	0.14	0.14
Sat Flow, veh/h	1810	3705	3705	1606	3619	1615
Grp Volume(v), veh/h	265	752	726	596	284	142
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1606	1810	1615
Q Serve(g_s), s	7.0	3.9	6.5	11.2	3.5	3.3
Cycle Q Clear(g_c), s	7.0	3.9	6.5	11.2	3.5	3.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	261	2493	1674	978	523	467
V/C Ratio(X)	1.01	0.30	0.43	0.61	0.54	0.30
Avail Cap(c_a), veh/h	261	2829	2010	1128	2538	1366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	2.9	8.7	5.9	19.3	13.4
Incr Delay (d2), s/veh	59.4	0.1	0.2	0.7	0.9	0.4
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	1.9	3.3	6.8	1.8	3.3
LnGrp Delay(d),s/veh	80.2	3.0	8.9	6.7	20.1	13.8
LnGrp LOS	F	A	A	A	C	B
Approach Vol, veh/h		1017	1322		426	
Approach Delay, s/veh		23.1	7.9		18.0	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				37.5		11.0	11.0	26.5
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				5.9		5.5	9.0	13.2
Green Ext Time (p_c), s				15.0		1.5	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	328	186	210	637	203	921	442	871	19	60	32
Future Volume (veh/h)	140	328	186	210	637	203	921	442	871	19	60	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	373	211	239	724	231	1047	502	990	22	68	36
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	277	1523	974	283	1066	475	1092	1552	692	39	469	335
Arrive On Green	0.08	0.29	0.29	0.08	0.30	0.30	0.31	0.43	0.43	0.01	0.13	0.13
Sat Flow, veh/h	3510	5187	1607	3510	3610	1607	3510	3610	1609	3510	3610	1596
Grp Volume(v), veh/h	159	373	211	239	724	231	1047	502	990	22	68	36
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1607	1755	1805	1609	1755	1805	1596
Q Serve(g_s), s	3.8	4.7	1.7	5.8	15.3	10.3	25.4	8.0	26.0	0.5	1.4	0.0
Cycle Q Clear(g_c), s	3.8	4.7	1.7	5.8	15.3	10.3	25.4	8.0	26.0	0.5	1.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	1523	974	283	1066	475	1092	1552	692	39	469	335
V/C Ratio(X)	0.57	0.24	0.22	0.84	0.68	0.49	0.96	0.32	1.43	0.56	0.14	0.11
Avail Cap(c_a), veh/h	283	2631	1318	283	1831	815	1092	1914	853	283	1831	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	23.3	2.4	39.3	26.9	25.2	29.3	16.4	12.0	42.7	33.5	27.8
Incr Delay (d2), s/veh	2.7	0.1	0.1	20.1	0.8	0.8	18.1	0.1	202.0	11.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.3	1.1	3.6	7.8	4.7	15.0	4.0	50.3	0.3	0.7	0.7
LnGrp Delay(d),s/veh	41.2	23.4	2.5	59.5	27.7	25.9	47.4	16.5	214.0	54.5	33.6	27.9
LnGrp LOS	D	C	A	E	C	C	D	B	F	D	C	C
Approach Vol, veh/h		743			1194			2539			126	
Approach Delay, s/veh		21.3			33.7			106.2			35.6	
Approach LOS		C			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	41.3	11.0	29.5	31.0	15.3	10.8	29.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	2.5	28.0	7.8	6.7	27.4	3.4	5.8	17.3
Green Ext Time (p_c), s	0.0	8.2	0.0	3.6	0.0	0.5	0.5	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	71.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	976	279	0	491	0	0	0	0	3	3	581
Future Volume (veh/h)	0	976	279	0	491	0	0	0	0	3	3	581
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1084	310	0	546	0				3	3	646
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1539	654	165	1462	0				745	3	663
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	3800	1615	394	3705	0				1810	7	1609
Grp Volume(v), veh/h	0	1084	310	0	546	0				3	0	649
Grp Sat Flow(s),veh/h/ln	0	1900	1615	394	1805	0				1810	0	1616
Q Serve(g_s), s	0.0	10.4	6.2	0.0	4.6	0.0				0.0	0.0	17.2
Cycle Q Clear(g_c), s	0.0	10.4	6.2	0.0	4.6	0.0				0.0	0.0	17.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1539	654	165	1462	0				745	0	666
V/C Ratio(X)	0.00	0.70	0.47	0.00	0.37	0.00				0.00	0.00	0.97
Avail Cap(c_a), veh/h	0	1652	702	177	1570	0				745	0	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.8	9.6	0.0	9.1	0.0				7.6	0.0	12.6
Incr Delay (d2), s/veh	0.0	1.3	0.5	0.0	0.2	0.0				0.0	0.0	28.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.5	2.8	0.0	2.3	0.0				0.0	0.0	12.9
LnGrp Delay(d),s/veh	0.0	12.1	10.1	0.0	9.3	0.0				7.6	0.0	41.2
LnGrp LOS		B	B		A					A		D
Approach Vol, veh/h		1394			546						652	
Approach Delay, s/veh		11.7			9.3						41.0	
Approach LOS		B			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.7		22.0		21.7
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				19.0		18.0		19.0
Max Q Clear Time (g_c+I1), s				12.4		19.2		6.6
Green Ext Time (p_c), s				5.3		0.0		9.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	40.2
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	982	0	489	116	0	0
Future Vol, veh/h	982	0	489	116	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1056	0	526	125	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	50.2	24
HCM LOS	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	62%	100%	100%
Vol Thru, %	0%	38%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	298	307	491	491
LT Vol	298	191	491	491
Through Vol	0	116	0	0
RT Vol	0	0	0	0
Lane Flow Rate	321	330	528	528
Geometry Grp	7	7	7	7
Degree of Util (X)	0.666	0.668	1.035	0.783
Departure Headway (Hd)	7.617	7.425	7.059	5.338
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	478	491	517	676
Service Time	5.317	5.125	4.793	3.073
HCM Lane V/C Ratio	0.672	0.672	1.021	0.781
HCM Control Delay	24.2	23.8	75.7	24.6
HCM Lane LOS	C	C	F	C
HCM 95th-tile Q	4.8	4.9	15.2	7.6

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	3	7	5	609	18	579	26	1227	390	109	330	4
Future Volume (veh/h)	3	7	5	609	18	579	26	1227	390	109	330	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	8	6	684	20	651	29	1379	438	122	371	4
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	213	160	737	790	669	61	1501	669	173	1557	693
Arrive On Green	0.01	0.21	0.21	0.21	0.42	0.42	0.03	0.42	0.42	0.05	0.43	0.43
Sat Flow, veh/h	1810	1006	755	3510	1900	1609	1810	3610	1609	3510	3610	1606
Grp Volume(v), veh/h	3	0	14	684	20	651	29	1379	438	122	371	4
Grp Sat Flow(s),veh/h/ln	1810	0	1761	1755	1900	1609	1810	1805	1609	1755	1805	1606
Q Serve(g_s), s	0.2	0.0	0.9	26.9	0.9	55.9	2.2	50.9	30.8	4.8	9.2	0.2
Cycle Q Clear(g_c), s	0.2	0.0	0.9	26.9	0.9	55.9	2.2	50.9	30.8	4.8	9.2	0.2
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	10	0	372	737	790	669	61	1501	669	173	1557	693
V/C Ratio(X)	0.30	0.00	0.04	0.93	0.03	0.97	0.48	0.92	0.65	0.71	0.24	0.01
Avail Cap(c_a), veh/h	90	0	450	773	809	686	90	1538	686	174	1557	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.8	0.0	44.1	54.6	24.3	40.4	66.8	38.9	33.0	65.9	25.4	22.8
Incr Delay (d2), s/veh	16.0	0.0	0.0	17.0	0.0	27.4	5.6	9.1	2.2	12.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.4	14.8	0.5	29.9	1.2	27.2	14.1	2.6	4.6	0.1
LnGrp Delay(d),s/veh	85.8	0.0	44.2	71.6	24.3	67.7	72.5	48.0	35.2	78.0	25.5	22.8
LnGrp LOS	F		D	E	C	E	E	D	D	E	C	C
Approach Vol, veh/h		17			1355			1846			497	
Approach Delay, s/veh		51.5			69.1			45.3			38.3	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	62.6	33.6	33.8	8.7	64.7	4.8	62.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	60.0	31.0	36.0	7.0	60.0	7.0	60.0
Max Q Clear Time (g_c+I1), s	6.8	52.9	28.9	2.9	4.2	11.2	2.2	57.9
Green Ext Time (p_c), s	0.0	5.7	0.6	2.8	0.0	22.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥		↰	↱	
Traffic Volume (veh/h)	132	384	13	4	881	43	85	103	31	30	11	145
Future Volume (veh/h)	132	384	13	4	881	43	85	103	31	30	11	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	139	404	14	4	927	45	89	108	33	32	12	153
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	1812	63	14	1414	69	199	219	55	441	31	396
Arrive On Green	0.11	0.51	0.51	0.01	0.40	0.40	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3559	123	1810	3504	170	407	834	208	1263	118	1506
Grp Volume(v), veh/h	139	204	214	4	478	494	230	0	0	32	0	165
Grp Sat Flow(s),veh/h/ln	1810	1805	1878	1810	1805	1869	1449	0	0	1263	0	1624
Q Serve(g_s), s	4.0	3.4	3.4	0.1	11.7	11.7	3.5	0.0	0.0	0.0	0.0	4.5
Cycle Q Clear(g_c), s	4.0	3.4	3.4	0.1	11.7	11.7	8.0	0.0	0.0	1.2	0.0	4.5
Prop In Lane	1.00		0.07	1.00		0.09	0.39		0.14	1.00		0.93
Lane Grp Cap(c), veh/h	204	919	956	14	728	754	472	0	0	441	0	427
V/C Ratio(X)	0.68	0.22	0.22	0.29	0.66	0.66	0.49	0.00	0.00	0.07	0.00	0.39
Avail Cap(c_a), veh/h	266	1063	1105	233	1029	1066	1031	0	0	899	0	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.2	7.4	7.4	26.8	13.1	13.1	17.6	0.0	0.0	15.2	0.0	16.4
Incr Delay (d2), s/veh	4.5	0.1	0.1	11.4	1.0	1.0	0.8	0.0	0.0	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.7	1.8	0.1	5.9	6.1	3.1	0.0	0.0	0.4	0.0	2.1
LnGrp Delay(d),s/veh	27.7	7.5	7.5	38.2	14.2	14.1	18.4	0.0	0.0	15.3	0.0	17.0
LnGrp LOS	C	A	A	D	B	B	B			B		B
Approach Vol, veh/h		557			976			230			197	
Approach Delay, s/veh		12.5			14.2			18.4			16.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		18.3	4.4	31.7		18.3	10.1	25.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		10.0	2.1	5.4		6.5	6.0	13.7
Green Ext Time (p_c), s		2.7	0.0	9.0		2.8	0.1	7.5

Intersection Summary			
HCM 2010 Ctrl Delay			14.5
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	24	373	71	127	869	454	145	1158	212	108	257	40
Future Volume (veh/h)	24	373	71	127	869	454	145	1158	212	108	257	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	389	74	132	905	473	151	1206	221	112	268	42
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	64	939	177	133	1255	671	151	1372	730	244	1146	177
Arrive On Green	0.04	0.31	0.31	0.07	0.35	0.35	0.08	0.38	0.38	0.07	0.37	0.37
Sat Flow, veh/h	1810	3030	571	1810	3610	1608	1810	3610	1609	3510	3132	485
Grp Volume(v), veh/h	25	230	233	132	905	473	151	1206	221	112	153	157
Grp Sat Flow(s),veh/h/ln	1810	1805	1796	1810	1805	1608	1810	1805	1609	1755	1805	1812
Q Serve(g_s), s	1.3	9.6	9.8	7.0	20.9	23.2	8.0	29.7	8.3	2.9	5.6	5.7
Cycle Q Clear(g_c), s	1.3	9.6	9.8	7.0	20.9	23.2	8.0	29.7	8.3	2.9	5.6	5.7
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	64	559	556	133	1255	671	151	1372	730	244	660	663
V/C Ratio(X)	0.39	0.41	0.42	1.00	0.72	0.70	1.00	0.88	0.30	0.46	0.23	0.24
Avail Cap(c_a), veh/h	133	699	695	133	1398	735	151	1436	758	257	699	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	26.1	26.1	44.3	27.1	23.0	43.8	27.6	16.6	42.7	21.0	21.0
Incr Delay (d2), s/veh	3.8	0.5	0.5	76.8	1.6	2.8	72.1	6.4	0.2	1.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.9	4.9	6.3	10.6	10.7	7.0	16.0	3.7	1.5	2.8	2.9
LnGrp Delay(d),s/veh	48.9	26.6	26.6	121.1	28.8	25.8	115.9	34.0	16.8	44.1	21.2	21.2
LnGrp LOS	D	C	C	F	C	C	F	C	B	D	C	C
Approach Vol, veh/h		488			1510			1578			422	
Approach Delay, s/veh		27.8			35.9			39.4			27.3	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	40.3	11.0	33.6	12.0	39.0	7.4	37.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	38.0	7.0	37.0	8.0	37.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	4.9	31.7	9.0	11.8	10.0	7.7	3.3	25.2
Green Ext Time (p_c), s	0.1	4.6	0.0	11.8	0.0	13.0	0.0	7.4

Intersection Summary		
HCM 2010 Ctrl Delay		35.4
HCM 2010 LOS		D

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	65	83	1607	31	13	916
Future Volume (veh/h)	65	83	1607	31	13	916
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	93	1806	35	15	1029
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	227	202	2205	982	48	2586
Arrive On Green	0.13	0.13	0.61	0.61	0.03	0.72
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	73	93	1806	35	15	1029
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	1.9	2.7	19.7	0.1	0.4	5.7
Cycle Q Clear(g_c), s	1.9	2.7	19.7	0.1	0.4	5.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	227	202	2205	982	48	2586
V/C Ratio(X)	0.32	0.46	0.82	0.04	0.32	0.40
Avail Cap(c_a), veh/h	251	224	2433	1084	251	3220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	20.5	7.7	0.3	24.1	2.8
Incr Delay (d2), s/veh	0.8	1.6	2.1	0.0	3.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.3	10.2	0.2	0.3	2.8
LnGrp Delay(d),s/veh	20.9	22.1	9.8	0.3	27.8	2.9
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	166		1841			1044
Approach Delay, s/veh	21.6		9.6			3.3
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.3	34.8				40.1		10.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	2.4	21.7				7.7		4.7
Green Ext Time (p_c), s	2.6	9.1				8.1		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		8.1
HCM 2010 LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	65	739	131	635	890	242	0	0	0	557	53	540
Future Volume (veh/h)	65	739	131	635	890	242	0	0	0	557	53	540
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	68	770	0	661	927	0				619	0	562
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	111	1064	476	924	1792	802				1143	0	607
Arrive On Green	0.06	0.29	0.00	0.26	0.50	0.00				0.32	0.00	0.32
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1607
Grp Volume(v), veh/h	68	770	0	661	927	0				619	0	562
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1607
Q Serve(g_s), s	3.5	18.2	0.0	16.2	16.5	0.0				13.4	0.0	30.0
Cycle Q Clear(g_c), s	3.5	18.2	0.0	16.2	16.5	0.0				13.4	0.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	111	1064	476	924	1792	802				1143	0	607
V/C Ratio(X)	0.61	0.72	0.00	0.72	0.52	0.00				0.54	0.00	0.93
Avail Cap(c_a), veh/h	171	1064	476	924	1792	802				1143	0	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	43.5	30.0	0.0	31.8	16.2	0.0				26.8	0.0	28.3
Incr Delay (d2), s/veh	5.3	4.3	0.0	2.5	1.0	0.0				0.5	0.0	20.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.6	0.0	8.2	8.5	0.0				6.8	0.0	17.5
LnGrp Delay(d),s/veh	48.8	34.3	0.0	34.2	17.2	0.0				27.3	0.0	48.7
LnGrp LOS	D	C		C	B					C		D
Approach Vol, veh/h		838			1588						1181	
Approach Delay, s/veh		35.5			24.3						37.5	
Approach LOS		D			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			29.0	32.0		34.0	9.8	51.2
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			25.0	28.0		30.0	9.0	44.0
Max Q Clear Time (g_c+I1), s			18.2	20.2		32.0	5.5	18.5
Green Ext Time (p_c), s			3.9	3.0		0.0	0.0	9.9

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	885	389	147	1549	467	200	0	460	0	0	0
Future Volume (veh/h)	0	885	389	147	1549	467	200	0	460	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	894	393	148	1565	0	202	0	465			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1845	1124	305	3755	1169	657	0	532			
Arrive On Green	0.00	0.51	0.51	0.34	1.00	0.00	0.19	0.00	0.19			
Sat Flow, veh/h	0	3705	1607	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	894	393	148	1565	0	202	0	465			
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	14.5	8.8	5.8	0.0	0.0	4.5	0.0	14.3			
Cycle Q Clear(g_c), s	0.0	14.5	8.8	5.8	0.0	0.0	4.5	0.0	14.3			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1845	1124	305	3755	1169	657	0	532			
V/C Ratio(X)	0.00	0.48	0.35	0.49	0.42	0.00	0.31	0.00	0.87			
Avail Cap(c_a), veh/h	0	1845	1124	305	3755	1169	702	0	568			
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.73	0.73	0.70	0.70	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	14.3	5.4	26.8	0.0	0.0	31.5	0.0	35.5			
Incr Delay (d2), s/veh	0.0	0.7	0.6	0.8	0.2	0.0	0.3	0.0	13.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	7.4	6.4	2.9	0.1	0.0	2.2	0.0	6.6			
LnGrp Delay(d),s/veh	0.0	15.0	6.0	27.6	0.2	0.0	31.8	0.0	49.1			
LnGrp LOS		B	A	C	A		C		D			
Approach Vol, veh/h		1287			1713			667				
Approach Delay, s/veh		12.2			2.6			43.8				
Approach LOS		B			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		20.8	19.2	50.0				69.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	14.0	46.0				64.0
Max Q Clear Time (g_c+I1), s		16.3	7.8	16.5				2.0
Green Ext Time (p_c), s		0.5	4.7	8.5				18.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	6	1004	280	50	1764	1	476	0	164	1	0	5
Future Volume (veh/h)	6	1004	280	50	1764	1	476	0	164	1	0	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	1057	295	53	1857	1	337	230	173	1	0	5
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	20	1432	399	225	2512	1	474	389	293	96	29	395
Arrive On Green	0.02	0.71	0.71	0.12	0.47	0.47	0.39	0.39	0.39	0.39	0.00	0.39
Sat Flow, veh/h	1810	4027	1123	1810	5355	3	1429	1006	757	129	76	1023
Grp Volume(v), veh/h	6	908	444	53	1199	659	337	0	403	6	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1692	1810	1729	1899	1429	0	1763	1227	0	0
Q Serve(g_s), s	0.3	14.4	14.4	2.4	25.4	25.4	13.7	0.0	16.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	14.4	14.4	2.4	25.4	25.4	30.1	0.0	16.4	16.4	0.0	0.0
Prop In Lane	1.00		0.66	1.00		0.00	1.00		0.43	0.17		0.83
Lane Grp Cap(c), veh/h	20	1230	602	225	1622	891	474	0	682	521	0	0
V/C Ratio(X)	0.31	0.74	0.74	0.24	0.74	0.74	0.71	0.00	0.59	0.01	0.00	0.00
Avail Cap(c_a), veh/h	141	1230	602	225	1622	891	541	0	764	589	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.7	10.5	10.5	35.5	19.4	19.4	29.4	0.0	21.9	17.2	0.0	0.0
Incr Delay (d2), s/veh	7.4	3.5	6.9	0.5	3.1	5.5	3.7	0.0	1.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	7.1	7.6	1.2	12.7	14.5	8.4	0.0	8.1	0.1	0.0	0.0
LnGrp Delay(d),s/veh	51.1	13.9	17.4	36.1	22.5	24.9	33.1	0.0	22.9	17.3	0.0	0.0
LnGrp LOS	D	B	B	D	C	C	C		C	B		
Approach Vol, veh/h		1358			1911			740			6	
Approach Delay, s/veh		15.2			23.7			27.6			17.3	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		38.8	15.2	36.0		38.8	5.0	46.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	32.0		39.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		32.1	4.4	16.4		18.4	2.3	27.4
Green Ext Time (p_c), s		2.2	0.1	7.9		3.6	0.0	3.8

Intersection Summary		
HCM 2010 Ctrl Delay		21.5
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	67	872	186	57	1592	0	188	66	38	2	41	102
Future Volume (veh/h)	67	872	186	57	1592	0	188	66	38	2	41	102
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	928	198	61	1694	0	200	70	40	2	44	109
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	2029	433	355	2475	0	337	256	146	46	423	362
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.00	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	295	2960	631	508	3705	0	1247	1133	648	17	1875	1604
Grp Volume(v), veh/h	71	566	560	61	1694	0	200	0	110	46	0	109
Grp Sat Flow(s),veh/h/ln	295	1805	1786	508	1805	0	1247	0	1781	1892	0	1604
Q Serve(g_s), s	16.9	12.9	12.9	5.6	25.0	0.0	13.6	0.0	4.6	0.0	0.0	5.1
Cycle Q Clear(g_c), s	41.9	12.9	12.9	18.6	25.0	0.0	15.4	0.0	4.6	1.7	0.0	5.1
Prop In Lane	1.00		0.35	1.00		0.00	1.00		0.36	0.04		1.00
Lane Grp Cap(c), veh/h	200	1237	1224	355	2475	0	337	0	402	469	0	362
V/C Ratio(X)	0.35	0.46	0.46	0.17	0.68	0.00	0.59	0.00	0.27	0.10	0.00	0.30
Avail Cap(c_a), veh/h	200	1237	1224	355	2475	0	513	0	653	731	0	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	6.5	6.5	10.7	8.4	0.0	33.8	0.0	28.8	27.7	0.0	29.0
Incr Delay (d2), s/veh	4.9	1.2	1.2	0.1	0.1	0.0	1.7	0.0	0.4	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.7	6.6	0.8	12.3	0.0	4.8	0.0	2.3	0.9	0.0	2.3
LnGrp Delay(d),s/veh	25.7	7.7	7.7	10.8	8.5	0.0	35.4	0.0	29.1	27.7	0.0	29.4
LnGrp LOS	C	A	A	B	A		D		C	C		C
Approach Vol, veh/h		1197			1755			310			155	
Approach Delay, s/veh		8.8			8.6			33.2			28.9	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		24.3		65.7		24.3		65.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		49.0		33.0		49.0
Max Q Clear Time (g_c+I1), s		17.4		43.9		7.1		27.0
Green Ext Time (p_c), s		1.7		4.9		2.0		19.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	138	615	16	337	1367	189	19	358	393	133	331	104
Future Volume (veh/h)	138	615	16	337	1367	189	19	358	393	133	331	104
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	683	18	374	1519	210	21	398	437	148	368	116
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	850	22	539	1450	198	166	478	885	129	439	371
Arrive On Green	0.08	0.24	0.24	0.30	0.45	0.45	0.09	0.25	0.25	0.07	0.23	0.23
Sat Flow, veh/h	1810	3592	95	1810	3191	435	1810	1900	1605	1810	1900	1605
Grp Volume(v), veh/h	153	343	358	374	850	879	21	398	437	148	368	116
Grp Sat Flow(s),veh/h/ln	1810	1805	1882	1810	1805	1820	1810	1900	1605	1810	1900	1605
Q Serve(g_s), s	9.0	20.1	20.1	20.5	51.0	51.0	1.2	22.3	4.5	8.0	20.7	5.4
Cycle Q Clear(g_c), s	9.0	20.1	20.1	20.5	51.0	51.0	1.2	22.3	4.5	8.0	20.7	5.4
Prop In Lane	1.00		0.05	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	427	445	539	820	827	166	478	885	129	439	371
V/C Ratio(X)	1.05	0.80	0.80	0.69	1.04	1.06	0.13	0.83	0.49	1.15	0.84	0.31
Avail Cap(c_a), veh/h	145	547	570	539	820	827	166	609	996	129	626	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	40.4	40.4	34.9	30.6	30.6	46.8	39.8	6.6	52.1	41.1	23.1
Incr Delay (d2), s/veh	90.0	6.7	6.4	3.8	41.2	49.5	0.3	7.7	0.4	124.4	6.8	0.5
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	10.8	11.2	10.9	34.7	36.9	0.6	12.6	5.0	8.4	11.7	2.8
LnGrp Delay(d),s/veh	141.7	47.0	46.8	38.7	71.8	80.1	47.2	47.5	7.0	176.5	48.0	23.5
LnGrp LOS	F	D	D	D	F	F	D	D	A	F	D	C
Approach Vol, veh/h		854			2103			856			632	
Approach Delay, s/veh		63.9			69.4			26.8			73.6	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	32.3	37.4	30.6	14.3	30.0	13.0	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	26.0	34.0	7.0	37.0	9.0	51.0
Max Q Clear Time (g_c+I1), s	11.0	24.3	22.5	22.1	3.2	22.7	11.0	53.0
Green Ext Time (p_c), s	0.0	3.0	3.0	3.2	1.5	2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	60.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	59	505	569	126	666	339	1181	1375	662	252	543	58
Future Volume (veh/h)	59	505	569	126	666	339	1181	1375	662	252	543	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	537	605	134	709	361	1256	1463	704	268	578	62
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	855	1845	188	865	533	1452	1792	886	322	831	88
Arrive On Green	0.05	0.24	0.24	0.05	0.24	0.24	0.41	0.50	0.50	0.09	0.17	0.17
Sat Flow, veh/h	1810	3610	2824	3510	3610	1605	3510	3610	1610	3510	4759	505
Grp Volume(v), veh/h	63	537	605	134	709	361	1256	1463	704	268	418	222
Grp Sat Flow(s),veh/h/ln	1810	1805	1412	1755	1805	1605	1755	1805	1610	1755	1729	1806
Q Serve(g_s), s	4.5	17.6	3.0	4.9	24.5	20.1	43.0	45.2	46.1	9.9	15.0	15.2
Cycle Q Clear(g_c), s	4.5	17.6	3.0	4.9	24.5	20.1	43.0	45.2	46.1	9.9	15.0	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	92	855	1845	188	865	533	1452	1792	886	322	604	315
V/C Ratio(X)	0.68	0.63	0.33	0.71	0.82	0.68	0.87	0.82	0.79	0.83	0.69	0.70
Avail Cap(c_a), veh/h	110	1014	1969	320	1123	648	1452	1945	954	373	892	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.5	45.1	4.1	61.4	47.4	24.2	35.3	28.1	23.7	58.8	51.1	51.2
Incr Delay (d2), s/veh	12.9	0.9	0.1	5.0	3.8	2.1	5.7	2.6	4.4	13.2	1.4	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	8.9	2.8	2.5	12.7	9.2	21.9	23.0	21.5	5.4	7.3	7.8
LnGrp Delay(d),s/veh	74.4	46.0	4.2	66.3	51.2	26.3	41.0	30.7	28.1	72.0	52.5	54.0
LnGrp LOS	E	D	A	E	D	C	D	C	C	E	D	D
Approach Vol, veh/h		1205			1204			3423			908	
Approach Delay, s/veh		26.5			45.4			34.0			58.6	
Approach LOS		C			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	69.4	11.0	35.2	58.5	27.0	10.7	35.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	71.0	12.0	37.0	51.0	34.0	8.0	41.0
Max Q Clear Time (g_c+I1), s	11.9	48.1	6.9	19.6	45.0	17.2	6.5	26.5
Green Ext Time (p_c), s	0.2	17.3	0.1	5.9	5.6	3.5	0.9	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	31	21	15	44	17	80	28	3076	25	61	1152	14
Future Volume (veh/h)	31	21	15	44	17	80	28	3076	25	61	1152	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	22	16	47	18	85	30	3272	27	65	1226	15
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	98	56	108	51	142	697	3473	29	110	1742	21
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.39	0.65	0.65	0.06	0.33	0.33
Sat Flow, veh/h	605	620	356	369	320	902	1810	5306	44	1810	5281	65
Grp Volume(v), veh/h	71	0	0	150	0	0	30	2129	1170	65	803	438
Grp Sat Flow(s),veh/h/ln	1582	0	0	1592	0	0	1810	1729	1892	1810	1729	1888
Q Serve(g_s), s	0.0	0.0	0.0	4.5	0.0	0.0	1.0	52.2	52.8	3.3	19.1	19.1
Cycle Q Clear(g_c), s	3.4	0.0	0.0	8.1	0.0	0.0	1.0	52.2	52.8	3.3	19.1	19.1
Prop In Lane	0.46		0.23	0.31		0.57	1.00		0.02	1.00		0.03
Lane Grp Cap(c), veh/h	305	0	0	301	0	0	697	2263	1238	110	1141	623
V/C Ratio(X)	0.23	0.00	0.00	0.50	0.00	0.00	0.04	0.94	0.94	0.59	0.70	0.70
Avail Cap(c_a), veh/h	692	0	0	698	0	0	697	2272	1243	134	2272	1241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	0.0	0.0	36.8	0.0	0.0	18.1	14.7	14.8	43.2	27.6	27.6
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.3	0.0	0.0	0.0	8.6	14.3	5.0	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.7	0.0	0.0	0.5	27.2	31.9	1.8	9.3	10.2
LnGrp Delay(d),s/veh	35.2	0.0	0.0	38.1	0.0	0.0	18.1	23.3	29.1	48.2	28.4	29.1
LnGrp LOS	D			D			B	C	C	D	C	C
Approach Vol, veh/h		71			150			3329			1306	
Approach Delay, s/veh		35.2			38.1			25.2			29.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	65.8		18.9	40.4	35.1		18.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	62.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	5.3	54.8		5.4	3.0	21.1		10.1
Green Ext Time (p_c), s	0.0	7.0		1.4	3.9	10.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary

97: Alessandro Blvd & Via Vista Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	129	83	34	25	33	82	30	2997	11	35	1139	41
Future Volume (veh/h)	129	83	34	25	33	82	30	2997	11	35	1139	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	136	87	36	26	35	86	32	3155	12	37	1199	43
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	200	168	294	200	168	77	3222	12	77	3106	111
Arrive On Green	0.08	0.11	0.11	0.08	0.11	0.11	0.04	0.60	0.60	0.04	0.60	0.60
Sat Flow, veh/h	1810	1900	1592	1810	1900	1592	1810	5334	20	1810	5140	184
Grp Volume(v), veh/h	136	87	36	26	35	86	32	2044	1123	37	806	436
Grp Sat Flow(s),veh/h/ln	1810	1900	1592	1810	1900	1592	1810	1729	1896	1810	1729	1867
Q Serve(g_s), s	6.2	4.0	1.9	1.1	1.6	4.1	1.6	53.1	53.3	1.9	11.2	11.2
Cycle Q Clear(g_c), s	6.2	4.0	1.9	1.1	1.6	4.1	1.6	53.1	53.3	1.9	11.2	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		0.10
Lane Grp Cap(c), veh/h	327	200	168	294	200	168	77	2089	1145	77	2089	1128
V/C Ratio(X)	0.42	0.43	0.21	0.09	0.17	0.51	0.42	0.98	0.98	0.48	0.39	0.39
Avail Cap(c_a), veh/h	327	594	498	294	594	498	137	2089	1146	137	2089	1128
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	38.9	38.0	31.6	37.8	28.7	43.3	17.8	17.8	43.4	9.5	9.5
Incr Delay (d2), s/veh	0.8	1.5	0.6	0.1	0.4	2.4	3.6	14.9	21.9	4.6	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.2	0.9	0.6	0.8	2.1	0.9	29.3	34.4	1.0	5.3	5.8
LnGrp Delay(d),s/veh	34.5	40.4	38.6	31.8	38.2	31.2	46.9	32.7	39.7	47.9	9.6	9.7
LnGrp LOS	C	D	D	C	D	C	D	C	D	D	A	A
Approach Vol, veh/h		259			147			3199			1279	
Approach Delay, s/veh		37.0			32.9			35.3			10.7	
Approach LOS		D			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	60.0	11.0	13.8	7.9	60.0	11.0	13.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	56.0	7.0	29.0	7.0	56.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.9	55.3	3.1	6.0	3.6	13.2	8.2	6.1
Green Ext Time (p_c), s	1.7	0.7	0.0	1.0	0.0	9.4	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	19	7	3	386	5	69	3	2944	964	51	1127	6
Future Volume (veh/h)	19	7	3	386	5	69	3	2944	964	51	1127	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	7	3	410	0	73	3	3099	1015	54	1186	6
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	249	99	522	0	165	679	3214	1154	89	1564	8
Arrive On Green	0.09	0.10	0.10	0.10	0.00	0.10	0.38	0.62	0.62	0.05	0.29	0.29
Sat Flow, veh/h	1810	2512	999	5429	0	1592	1810	5187	1611	1810	5326	27
Grp Volume(v), veh/h	20	5	5	410	0	73	3	3099	1015	54	770	422
Grp Sat Flow(s),veh/h/ln	1810	1805	1706	1810	0	1592	1810	1729	1611	1810	1729	1895
Q Serve(g_s), s	1.2	0.3	0.3	8.7	0.0	4.4	0.1	66.5	57.0	3.4	23.8	23.8
Cycle Q Clear(g_c), s	1.2	0.3	0.3	8.7	0.0	4.4	0.1	66.5	57.0	3.4	23.8	23.8
Prop In Lane	1.00		0.59	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	165	179	169	522	0	165	679	3214	1154	89	1015	556
V/C Ratio(X)	0.12	0.03	0.03	0.79	0.00	0.44	0.00	0.96	0.88	0.61	0.76	0.76
Avail Cap(c_a), veh/h	165	598	565	692	0	635	679	3216	1154	108	2144	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	47.9	47.9	52.0	0.0	37.4	23.0	21.2	12.9	54.9	37.8	37.8
Incr Delay (d2), s/veh	0.3	0.1	0.1	4.4	0.0	1.8	0.0	9.1	8.1	6.5	1.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.2	4.6	0.0	2.2	0.1	34.0	27.5	1.9	11.5	12.8
LnGrp Delay(d),s/veh	49.5	48.0	48.0	56.4	0.0	39.3	23.0	30.3	20.9	61.4	39.0	39.9
LnGrp LOS	D	D	D	E		D	C	C	C	E	D	D
Approach Vol, veh/h		30			483			4117			1246	
Approach Delay, s/veh		49.0			53.8			28.0			40.3	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	77.0	15.3	15.7	48.2	38.6	14.8	16.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	73.0	15.0	39.0	7.0	73.0	7.0	47.0
Max Q Clear Time (g_c+I1), s	5.4	68.5	10.7	2.3	2.1	25.8	3.2	6.4
Green Ext Time (p_c), s	0.0	4.5	0.6	0.0	4.8	8.7	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	63	47	7	189	159	207	1006	2	42	602	324
Future Volume (veh/h)	320	63	47	7	189	159	207	1006	2	42	602	324
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	65	48	7	195	164	213	1037	2	43	621	334
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	363	1245	555	25	786	242	775	2469	766	93	1462	453
Arrive On Green	0.20	0.34	0.34	0.01	0.15	0.15	0.22	0.48	0.48	0.03	0.28	0.28
Sat Flow, veh/h	1810	3610	1608	3510	5187	1599	3510	5187	1610	3510	5187	1606
Grp Volume(v), veh/h	330	65	48	7	195	164	213	1037	2	43	621	334
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1729	1599	1755	1729	1610	1755	1729	1606
Q Serve(g_s), s	19.6	1.3	1.2	0.2	3.6	10.7	5.5	14.4	0.1	1.3	10.7	12.9
Cycle Q Clear(g_c), s	19.6	1.3	1.2	0.2	3.6	10.7	5.5	14.4	0.1	1.3	10.7	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	1245	555	25	786	242	775	2469	766	93	1462	453
V/C Ratio(X)	0.91	0.05	0.09	0.28	0.25	0.68	0.27	0.42	0.00	0.46	0.42	0.74
Avail Cap(c_a), veh/h	428	1641	731	128	1320	407	775	2469	766	128	1462	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	24.0	7.4	54.3	41.1	44.1	35.6	18.9	15.1	52.8	32.2	13.8
Incr Delay (d2), s/veh	21.2	0.0	0.1	6.2	0.2	3.3	0.2	0.5	0.0	3.5	0.9	10.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.7	0.6	0.1	1.8	4.9	2.7	6.9	0.0	0.7	5.2	6.9
LnGrp Delay(d),s/veh	64.2	24.1	7.5	60.5	41.3	47.4	35.7	19.4	15.1	56.3	33.1	24.0
LnGrp LOS	E	C	A	E	D	D	D	B	B	E	C	C
Approach Vol, veh/h		443			366			1252			998	
Approach Delay, s/veh		52.2			44.4			22.2			31.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	56.4	4.8	41.9	28.3	35.0	26.0	20.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	36.0	4.0	50.0	9.0	31.0	26.0	28.0
Max Q Clear Time (g_c+I1), s	3.3	16.4	2.2	3.3	7.5	14.9	21.6	12.7
Green Ext Time (p_c), s	0.0	7.4	0.0	2.6	0.5	4.6	0.4	2.1

Intersection Summary		
HCM 2010 Ctrl Delay		32.1
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	105	992	80	53	1508	120	79	151	34	38	42	36
Future Volume (veh/h)	105	992	80	53	1508	120	79	151	34	38	42	36
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	109	1033	83	55	1571	125	82	157	35	40	44	38
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	3139	252	71	3141	976	105	351	76	51	323	142
Arrive On Green	0.07	0.64	0.64	0.05	0.81	0.81	0.06	0.12	0.12	0.03	0.09	0.09
Sat Flow, veh/h	1810	4895	393	1810	5187	1611	1810	2943	639	1810	3610	1588
Grp Volume(v), veh/h	109	729	387	55	1571	125	82	95	97	40	44	38
Grp Sat Flow(s),veh/h/ln	1810	1729	1830	1810	1729	1611	1810	1805	1778	1810	1805	1588
Q Serve(g_s), s	6.5	10.5	10.6	3.3	10.9	1.9	4.9	5.4	5.6	2.4	1.2	2.5
Cycle Q Clear(g_c), s	6.5	10.5	10.6	3.3	10.9	1.9	4.9	5.4	5.6	2.4	1.2	2.5
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	136	2217	1173	71	3141	976	105	215	212	51	323	142
V/C Ratio(X)	0.80	0.33	0.33	0.77	0.50	0.13	0.78	0.44	0.46	0.78	0.14	0.27
Avail Cap(c_a), veh/h	165	2217	1173	132	3141	976	148	596	587	99	1083	476
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.52	0.52	0.52	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	9.0	9.0	51.6	5.3	4.4	51.1	45.0	45.1	53.1	46.1	46.7
Incr Delay (d2), s/veh	19.3	0.4	0.7	8.8	0.3	0.1	15.9	1.4	1.5	21.9	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.1	5.5	1.8	5.1	0.8	2.9	2.8	2.8	1.5	0.6	1.1
LnGrp Delay(d),s/veh	69.4	9.3	9.7	60.4	5.6	4.5	67.0	46.4	46.7	75.0	46.3	47.7
LnGrp LOS	E	A	A	E	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1225			1751			274			122	
Approach Delay, s/veh		14.8			7.2			52.7			56.2	
Approach LOS		B			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	76.5	10.4	14.8	12.2	72.6	7.1	18.0
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	8.0	41.1	9.0	33.0	10.0	39.1	6.0	* 36
Max Q Clear Time (g_c+I1), s	5.3	12.6	6.9	4.5	8.5	12.9	4.4	7.6
Green Ext Time (p_c), s	0.0	21.5	0.0	1.5	0.0	20.2	0.0	1.5

Intersection Summary		
HCM 2010 Ctrl Delay		15.4
HCM 2010 LOS		B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	361	579	139	101	1288	166	293	629	67	120	246	192
Future Volume (veh/h)	361	579	139	101	1288	166	293	629	67	120	246	192
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	372	597	143	104	1328	171	302	648	69	124	254	198
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	383	2496	775	160	1944	250	319	886	394	183	746	331
Arrive On Green	0.22	0.96	0.96	0.05	0.42	0.42	0.09	0.25	0.25	0.05	0.21	0.21
Sat Flow, veh/h	3510	5187	1610	3510	4651	599	3510	3610	1605	3510	3610	1603
Grp Volume(v), veh/h	372	597	143	104	987	512	302	648	69	124	254	198
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1792	1755	1805	1605	1755	1805	1603
Q Serve(g_s), s	11.6	0.6	0.4	3.2	25.6	25.6	9.4	18.2	3.7	3.8	6.6	12.3
Cycle Q Clear(g_c), s	11.6	0.6	0.4	3.2	25.6	25.6	9.4	18.2	3.7	3.8	6.6	12.3
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	2496	775	160	1445	749	319	886	394	183	746	331
V/C Ratio(X)	0.97	0.24	0.18	0.65	0.68	0.68	0.95	0.73	0.18	0.68	0.34	0.60
Avail Cap(c_a), veh/h	383	2496	775	223	1445	749	319	1149	511	255	1083	481
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.21	0.21	0.21	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	1.1	1.1	51.6	26.1	26.1	49.7	38.2	32.7	51.2	37.2	39.5
Incr Delay (d2), s/veh	37.2	0.2	0.5	0.9	0.6	1.1	36.4	1.7	0.2	4.3	0.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	0.3	0.3	1.6	12.3	12.9	6.2	9.3	1.7	2.0	3.3	5.6
LnGrp Delay(d),s/veh	80.0	1.3	1.6	52.5	26.6	27.1	86.1	39.9	32.9	55.5	37.5	41.2
LnGrp LOS	E	A	A	D	C	C	F	D	C	E	D	D
Approach Vol, veh/h		1112			1603			1019			576	
Approach Delay, s/veh		27.7			28.5			53.1			42.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	58.9	14.0	28.0	16.0	52.0	9.7	32.3
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	7.0	40.7	10.0	33.0	12.0	35.7	8.0	35.0
Max Q Clear Time (g_c+I1), s	5.2	2.6	11.4	14.3	13.6	27.6	5.8	20.2
Green Ext Time (p_c), s	0.0	19.8	0.0	6.7	0.0	6.5	0.1	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	260	358	157	24	1050	326	400	556	25	208	373	375
Future Volume (veh/h)	260	358	157	24	1050	326	400	556	25	208	373	375
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	283	389	0	26	1141	354	435	604	27	226	405	408
Adj No. of Lanes	2	3	1	1	2	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	1924	599	36	1116	497	447	1211	54	292	1083	482
Arrive On Green	0.08	0.37	0.00	0.02	0.31	0.31	0.13	0.34	0.34	0.08	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	3610	1607	3510	3519	157	3510	3610	1607
Grp Volume(v), veh/h	283	389	0	26	1141	354	435	310	321	226	405	408
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1805	1607	1755	1805	1871	1755	1805	1607
Q Serve(g_s), s	8.9	5.6	0.0	1.6	34.0	21.5	13.6	14.9	15.0	6.9	9.7	26.2
Cycle Q Clear(g_c), s	8.9	5.6	0.0	1.6	34.0	21.5	13.6	14.9	15.0	6.9	9.7	26.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	287	1924	599	36	1116	497	447	621	644	292	1083	482
V/C Ratio(X)	0.99	0.20	0.00	0.72	1.02	0.71	0.97	0.50	0.50	0.77	0.37	0.85
Avail Cap(c_a), veh/h	287	1924	599	99	1116	497	447	621	644	383	1083	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	23.5	0.0	53.6	38.0	33.7	47.8	28.6	28.6	49.4	30.4	36.1
Incr Delay (d2), s/veh	48.0	0.2	0.0	23.5	32.8	8.4	35.6	2.8	2.8	7.1	1.0	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	2.7	0.0	1.0	22.0	10.7	8.8	7.9	8.2	3.6	5.0	13.8
LnGrp Delay(d),s/veh	98.5	23.8	0.0	77.1	70.8	42.1	83.4	31.4	31.3	56.5	31.3	52.7
LnGrp LOS	F	C		E	F	D	F	C	C	E	C	D
Approach Vol, veh/h		672			1521			1066			1039	
Approach Delay, s/veh		55.2			64.2			52.6			45.2	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	46.8	18.0	39.0	13.0	40.0	13.1	43.9
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	37.0	14.0	33.0	9.0	34.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	3.6	7.6	15.6	28.2	10.9	36.0	8.9	17.0
Green Ext Time (p_c), s	0.0	13.7	0.0	3.2	0.0	0.0	0.2	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	36	28	22	18	20	2	32	972	21	0	397	72
Future Volume (veh/h)	36	28	22	18	20	2	32	972	21	0	397	72
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	30	23	19	21	2	34	1034	22	0	422	77
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	231	101	29	101	83	43	4167	89	2	2661	1188
Arrive On Green	0.03	0.06	0.06	0.02	0.05	0.05	0.03	1.00	1.00	0.00	0.74	0.74
Sat Flow, veh/h	1810	3610	1577	1810	1900	1569	1810	5227	111	1810	3610	1612
Grp Volume(v), veh/h	38	30	23	19	21	2	34	684	372	0	422	77
Grp Sat Flow(s),veh/h/ln	1810	1805	1577	1810	1900	1569	1810	1729	1880	1810	1805	1612
Q Serve(g_s), s	2.3	0.9	1.5	1.1	1.2	0.1	2.1	0.0	0.0	0.0	3.8	1.5
Cycle Q Clear(g_c), s	2.3	0.9	1.5	1.1	1.2	0.1	2.1	0.0	0.0	0.0	3.8	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	49	231	101	29	101	83	43	2757	1499	2	2661	1188
V/C Ratio(X)	0.78	0.13	0.23	0.66	0.21	0.02	0.79	0.25	0.25	0.00	0.16	0.06
Avail Cap(c_a), veh/h	197	814	356	165	396	327	181	2757	1499	82	2661	1188
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	48.6	48.9	53.8	49.9	49.4	53.0	0.0	0.0	0.0	4.3	4.0
Incr Delay (d2), s/veh	22.8	0.3	1.1	22.3	1.0	0.1	24.7	0.2	0.4	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.4	0.7	0.8	0.6	0.1	1.3	0.1	0.2	0.0	1.9	0.7
LnGrp Delay(d),s/veh	75.9	48.8	50.0	76.1	50.9	49.5	77.6	0.2	0.4	0.0	4.4	4.1
LnGrp LOS	E	D	D	E	D	D	E	A	A		A	A
Approach Vol, veh/h		91			42			1090			499	
Approach Delay, s/veh		60.5			62.2			2.7			4.4	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	93.0	5.8	11.2	6.6	86.4	7.0	10.0
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	5.0	52.7	10.0	* 25	11.0	46.7	12.0	* 23
Max Q Clear Time (g_c+I1), s	0.0	2.0	3.1	3.5	4.1	5.8	4.3	3.2
Green Ext Time (p_c), s	0.0	14.1	0.0	0.3	0.0	13.5	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	104	37	130	110	83	74	159	611	63	27	443	100
Future Volume (veh/h)	104	37	130	110	83	74	159	611	63	27	443	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	41	143	121	91	81	175	671	69	30	487	110
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	267	224	150	275	231	207	2014	207	39	1866	833
Arrive On Green	0.08	0.14	0.14	0.08	0.14	0.14	0.11	0.61	0.61	0.02	0.52	0.52
Sat Flow, veh/h	1810	1900	1598	1810	1900	1598	1810	3305	339	1810	3610	1610
Grp Volume(v), veh/h	114	41	143	121	91	81	175	366	374	30	487	110
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1598	1810	1805	1839	1810	1805	1610
Q Serve(g_s), s	6.8	2.1	9.3	7.2	4.7	5.0	10.4	10.9	11.0	1.8	8.3	3.9
Cycle Q Clear(g_c), s	6.8	2.1	9.3	7.2	4.7	5.0	10.4	10.9	11.0	1.8	8.3	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	142	267	224	150	275	231	207	1100	1121	39	1866	833
V/C Ratio(X)	0.80	0.15	0.64	0.81	0.33	0.35	0.85	0.33	0.33	0.76	0.26	0.13
Avail Cap(c_a), veh/h	214	553	465	230	570	479	296	1100	1121	99	1866	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	41.5	44.6	49.6	42.3	42.4	47.8	10.5	10.5	53.5	14.8	13.8
Incr Delay (d2), s/veh	12.2	0.3	3.0	11.4	0.7	0.9	11.4	0.6	0.6	25.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	1.1	4.3	4.1	2.5	2.3	5.9	5.6	5.7	1.2	4.2	1.8
LnGrp Delay(d),s/veh	62.0	41.8	47.6	61.0	43.0	43.3	59.2	11.2	11.1	78.8	15.2	14.1
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		298			293			915			627	
Approach Delay, s/veh		52.3			50.5			20.3			18.0	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	71.0	13.1	19.4	16.6	60.9	12.6	19.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	42.0	14.0	32.0	18.0	30.0	13.0	33.0
Max Q Clear Time (g_c+I1), s	3.8	13.0	9.2	11.3	12.4	10.3	8.8	7.0
Green Ext Time (p_c), s	0.0	9.7	0.1	1.4	0.2	8.3	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	42	175	43	153	304	248	37	664	74	66	330	54
Future Volume (veh/h)	42	175	43	153	304	248	37	664	74	66	330	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	180	44	158	313	256	38	685	76	68	340	56
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	822	366	285	822	366	49	2131	949	89	3177	987
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.59	0.59	0.02	0.20	0.20
Sat Flow, veh/h	854	3610	1604	1170	3610	1604	1810	3610	1608	1810	5187	1611
Grp Volume(v), veh/h	43	180	44	158	313	256	38	685	76	68	340	56
Grp Sat Flow(s),veh/h/ln	854	1805	1604	1170	1805	1604	1810	1805	1608	1810	1729	1611
Q Serve(g_s), s	4.9	4.5	2.4	14.0	8.1	16.1	2.3	10.6	2.2	4.1	5.9	3.1
Cycle Q Clear(g_c), s	13.0	4.5	2.4	18.4	8.1	16.1	2.3	10.6	2.2	4.1	5.9	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	822	366	285	822	366	49	2131	949	89	3177	987
V/C Ratio(X)	0.22	0.22	0.12	0.56	0.38	0.70	0.78	0.32	0.08	0.76	0.11	0.06
Avail Cap(c_a), veh/h	288	1204	535	408	1204	535	165	2131	949	214	3177	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	41.4	34.5	33.7	42.0	35.9	39.0	53.2	11.4	9.7	53.5	19.4	18.2
Incr Delay (d2), s/veh	0.5	0.1	0.1	1.7	0.3	2.4	22.9	0.4	0.2	12.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.2	1.1	4.7	4.0	7.4	1.5	5.4	1.0	2.4	2.8	1.4
LnGrp Delay(d),s/veh	41.9	34.6	33.9	43.7	36.2	41.5	76.1	11.8	9.9	66.1	19.4	18.3
LnGrp LOS	D	C	C	D	D	D	E	B	A	E	B	B
Approach Vol, veh/h		267			727			799			464	
Approach Delay, s/veh		35.7			39.7			14.7			26.1	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	70.2		30.4	7.0	72.7		30.4
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	13.0	45.7		36.7	10.0	48.7		36.7
Max Q Clear Time (g_c+I1), s	6.1	12.6		15.0	4.3	7.9		20.4
Green Ext Time (p_c), s	0.1	8.7		5.1	0.0	9.0		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	231	370	64	23	488	140	145	422	31	97	359	251
Future Volume (veh/h)	231	370	64	23	488	140	145	422	31	97	359	251
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	425	74	26	561	161	167	485	36	111	413	289
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	294	1214	210	36	697	199	181	1239	92	138	692	480
Arrive On Green	0.16	0.39	0.39	0.02	0.25	0.25	0.10	0.36	0.36	0.10	0.45	0.45
Sat Flow, veh/h	1810	3077	532	1810	2768	792	1810	3407	252	1810	2037	1412
Grp Volume(v), veh/h	266	248	251	26	365	357	167	256	265	111	366	336
Grp Sat Flow(s),veh/h/ln	1810	1805	1804	1810	1805	1755	1810	1805	1854	1810	1805	1643
Q Serve(g_s), s	15.9	10.6	10.8	1.6	20.9	21.0	10.1	11.6	11.7	6.6	16.7	16.9
Cycle Q Clear(g_c), s	15.9	10.6	10.8	1.6	20.9	21.0	10.1	11.6	11.7	6.6	16.7	16.9
Prop In Lane	1.00		0.29	1.00		0.45	1.00		0.14	1.00		0.86
Lane Grp Cap(c), veh/h	294	712	712	36	455	442	181	656	674	138	614	559
V/C Ratio(X)	0.90	0.35	0.35	0.72	0.80	0.81	0.92	0.39	0.39	0.80	0.60	0.60
Avail Cap(c_a), veh/h	296	712	712	99	509	495	181	656	674	214	614	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	45.2	23.4	23.4	53.6	38.6	38.6	49.1	26.0	26.0	48.6	24.5	24.5
Incr Delay (d2), s/veh	29.0	0.3	0.3	23.5	8.2	8.7	45.4	1.7	1.7	10.9	4.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	5.4	5.4	1.0	11.4	11.3	7.3	6.1	6.3	3.7	8.9	8.4
LnGrp Delay(d),s/veh	74.3	23.7	23.7	77.1	46.8	47.4	94.4	27.7	27.7	59.5	28.4	29.0
LnGrp LOS	E	C	C	E	D	D	F	C	C	E	C	C
Approach Vol, veh/h		765			748			688			813	
Approach Delay, s/veh		41.3			48.1			43.9			32.9	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	44.0	6.2	47.4	15.0	41.4	21.9	31.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	32.0	6.0	43.0	11.0	34.0	18.0	31.0
Max Q Clear Time (g_c+I1), s	8.6	13.7	3.6	12.8	12.1	18.9	17.9	23.0
Green Ext Time (p_c), s	0.1	7.3	0.0	9.2	0.0	6.6	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	10	67	22	28	126	167	52	608	25	37	477	24
Future Volume (veh/h)	10	67	22	28	126	167	52	608	25	37	477	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	76	25	32	143	190	59	691	28	42	542	27
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	206	68	41	310	261	76	2231	90	54	2165	108
Arrive On Green	0.01	0.15	0.15	0.02	0.16	0.16	0.08	1.00	1.00	0.03	0.62	0.62
Sat Flow, veh/h	1810	1366	449	1810	1900	1600	1810	3536	143	1810	3499	174
Grp Volume(v), veh/h	11	0	101	32	143	190	59	353	366	42	279	290
Grp Sat Flow(s),veh/h/ln	1810	0	1815	1810	1900	1600	1810	1805	1874	1810	1805	1868
Q Serve(g_s), s	0.7	0.0	5.5	1.9	7.5	12.4	3.5	0.0	0.0	2.5	7.7	7.7
Cycle Q Clear(g_c), s	0.7	0.0	5.5	1.9	7.5	12.4	3.5	0.0	0.0	2.5	7.7	7.7
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.08	1.00		0.09
Lane Grp Cap(c), veh/h	19	0	274	41	310	261	76	1139	1183	54	1117	1156
V/C Ratio(X)	0.59	0.00	0.37	0.78	0.46	0.73	0.77	0.31	0.31	0.78	0.25	0.25
Avail Cap(c_a), veh/h	99	0	530	132	589	496	197	1139	1183	132	1117	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	0.0	42.0	53.5	41.6	43.7	49.8	0.0	0.0	53.0	9.5	9.5
Incr Delay (d2), s/veh	25.7	0.0	0.8	26.4	1.1	3.8	14.0	0.7	0.6	20.7	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.8	1.3	4.0	5.8	2.0	0.2	0.2	1.6	4.0	4.1
LnGrp Delay(d),s/veh	79.9	0.0	42.8	79.9	42.7	47.5	63.9	0.7	0.6	73.7	10.0	10.0
LnGrp LOS	E		D	E	D	D	E	A	A	E	B	A
Approach Vol, veh/h		112			365			778			611	
Approach Delay, s/veh		46.4			48.5			5.4			14.4	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	74.7	6.5	21.5	8.6	73.3	5.1	22.9
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	8.0	43.7	8.0	32.1	12.0	39.7	6.0	34.1
Max Q Clear Time (g_c+I1), s	4.5	2.0	3.9	7.5	5.5	9.7	2.7	14.4
Green Ext Time (p_c), s	0.0	9.3	0.0	2.0	0.0	8.7	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1090	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1090	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

HCM 2010 AWSC
114: Evans Rd & Orange Ave

Intersection	
Intersection Delay, s/veh	309
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	116	225	106	60	204	102	211	370	156	162	289	128
Future Vol, veh/h	116	225	106	60	204	102	211	370	156	162	289	128
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	173	336	158	90	304	152	315	552	233	242	431	191
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	661.6	272.5	240.1	147.6
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	26%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	50%	0%	67%	0%	100%	0%
Vol Right, %	0%	0%	100%	24%	0%	33%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	211	370	156	447	60	306	162	289	128
LT Vol	211	0	0	116	60	0	162	0	0
Through Vol	0	370	0	225	0	204	0	289	0
RT Vol	0	0	156	106	0	102	0	0	128
Lane Flow Rate	315	552	233	667	90	457	242	431	191
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1.044	1.754	0.694	2.382	0.33	1.593	0.82	1.402	0.584
Departure Headway (Hd)	16.495	15.933	15.146	13.918	16.038	15.226	16.143	15.582	14.796
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	224	232	242	267	226	242	227	237	246
Service Time	14.195	13.633	12.846	11.618	13.738	12.926	13.843	13.282	12.496
HCM Lane V/C Ratio	1.406	2.379	0.963	2.498	0.398	1.888	1.066	1.819	0.776
HCM Control Delay	117.7	391.6	46.3	661.6	26.4	320.8	65.5	242.9	36.4
HCM Lane LOS	F	F	E	F	D	F	F	F	E
HCM 95th-tile Q	9.9	26.8	4.5	49.4	1.4	23.5	6.1	18.3	3.3

HCM 2010 Signalized Intersection Summary
115: Nuevo Rd & Evans Rd

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑	↱	↰	↱
Traffic Volume (veh/h)	322	299	414	50	25	396
Future Volume (veh/h)	322	299	414	50	25	396
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	398	369	511	62	31	489
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	441	1179	623	525	510	455
Arrive On Green	0.24	0.62	0.33	0.33	0.28	0.28
Sat Flow, veh/h	1810	1900	1900	1603	1810	1615
Grp Volume(v), veh/h	398	369	511	62	31	489
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1603	1810	1615
Q Serve(g_s), s	17.4	7.5	20.2	2.2	1.0	23.0
Cycle Q Clear(g_c), s	17.4	7.5	20.2	2.2	1.0	23.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	441	1179	623	525	510	455
V/C Ratio(X)	0.90	0.31	0.82	0.12	0.06	1.07
Avail Cap(c_a), veh/h	510	1373	745	628	510	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	7.3	25.2	19.2	21.4	29.3
Incr Delay (d2), s/veh	17.8	0.2	6.2	0.1	0.2	63.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	3.9	11.6	1.0	0.5	25.7
LnGrp Delay(d),s/veh	47.7	7.5	31.5	19.3	21.7	93.1
LnGrp LOS	D	A	C	B	C	F
Approach Vol, veh/h		767	573		520	
Approach Delay, s/veh		28.4	30.1		88.8	
Approach LOS		C	C		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				54.7		27.0	23.9	30.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				59.0		23.0	23.0	32.0
Max Q Clear Time (g_c+I1), s				9.5		25.0	19.4	22.2
Green Ext Time (p_c), s				6.7		0.0	0.5	3.9

Intersection Summary			
HCM 2010 Ctrl Delay			45.8
HCM 2010 LOS			D

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Vol, veh/h	70	531	830	78	31	22
Future Vol, veh/h	70	531	830	78	31	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	35
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	577	902	85	34	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	987	0	-	0	1674	945
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	729	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	708	-	-	-	106	320
Stage 1	-	-	-	-	381	-
Stage 2	-	-	-	-	481	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	708	-	-	-	95	320
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	381	-
Stage 2	-	-	-	-	429	-

Approach	EB		WB		SB
HCM Control Delay, s	1.2		0		43.6
HCM LOS					E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	708	-	-	-	95	320
HCM Lane V/C Ratio	0.107	-	-	-	0.355	0.075
HCM Control Delay (s)	10.7	-	-	-	62.4	17.2
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.4	0.2

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↱	
Traffic Vol, veh/h	98	37	6	811	469	36
Future Vol, veh/h	98	37	6	811	469	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	108	41	7	891	515	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1439	535	555	0	-	0
Stage 1	535	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	148	549	1026	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	147	549	1026	-	-	-
Mov Cap-2 Maneuver	147	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	395	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	75.8	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1026	-	184	-	-
HCM Lane V/C Ratio	0.006	-	0.806	-	-
HCM Control Delay (s)	8.5	-	75.8	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0	-	5.6	-	-

Intersection	
Int Delay, s/veh	38

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Vol, veh/h	19	323	0	0	456	282	357	3	2	0	0	0
Future Vol, veh/h	19	323	0	0	456	282	357	3	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	344	0	0	485	300	380	3	2	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	485	0	-	-	-	0	869	869	344
Stage 1	-	-	-	-	-	-	384	384	-
Stage 2	-	-	-	-	-	-	485	485	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1088	-	0	0	-	-	~ 325	292	703
Stage 1	-	-	0	0	-	-	693	615	-
Stage 2	-	-	0	0	-	-	623	555	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1088	-	-	-	-	-	~ 319	0	703
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 319	0	-
Stage 1	-	-	-	-	-	-	680	0	-
Stage 2	-	-	-	-	-	-	623	0	-

Approach	EB			WB			NB
HCM Control Delay, s	0.5			0			150.8
HCM LOS							F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	319	703	1088	-	-	-
HCM Lane V/C Ratio	1.201	0.003	0.019	-	-	-
HCM Control Delay (s)	151.6	10.1	8.4	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	16.6	0	0.1	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Vol, veh/h	0	192	310	10	783	0	0	0	0	153	0	13
Future Vol, veh/h	0	192	310	10	783	0	0	0	0	153	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	204	330	11	833	0	0	0	0	163	0	14

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	204	0	0				1058	1058	833
Stage 1	-	-	-	-	-	-				854	854	-
Stage 2	-	-	-	-	-	-				204	204	-
Critical Hdwy	-	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1380	-	0				251	227	372
Stage 1	0	-	-	-	-	0				421	378	-
Stage 2	0	-	-	-	-	0				835	737	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1380	-	-				249	0	372
Mov Cap-2 Maneuver	-	-	-	-	-	-				249	0	-
Stage 1	-	-	-	-	-	-				418	0	-
Stage 2	-	-	-	-	-	-				835	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	40.9
HCM LOS			E

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1380	-	249	372
HCM Lane V/C Ratio	-	-	0.008	-	0.654	0.037
HCM Control Delay (s)	-	-	7.6	-	43.1	15.1
HCM Lane LOS	-	-	A	-	E	C
HCM 95th %tile Q(veh)	-	-	0	-	4.1	0.1

HCM Signalized Intersection Capacity Analysis
126: SR-79(Sanderson Ave) & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (vph)	377	341	62	66	458	536	133	899	55	491	619	256
Future Volume (vph)	377	341	62	66	458	536	133	899	55	491	619	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3610	1593	3502	3610	1615	3502	3610	1593	3502	3610	1595
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3610	1593	3502	3610	1615	3502	3610	1593	3502	3610	1595
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	401	363	66	70	487	570	141	956	59	522	659	272
RTOR Reduction (vph)	0	0	39	0	0	35	0	0	37	0	0	30
Lane Group Flow (vph)	401	363	27	70	487	535	141	956	22	522	659	242
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	8 1	5	2	3	1	6	7
Permitted Phases			4						2			6
Actuated Green, G (s)	19.3	45.5	55.5	7.2	33.4	62.1	10.0	42.6	49.8	24.7	57.3	76.6
Effective Green, g (s)	19.3	45.5	55.5	7.2	33.4	62.1	10.0	42.6	49.8	24.7	57.3	76.6
Actuated g/C Ratio	0.14	0.33	0.41	0.05	0.25	0.46	0.07	0.31	0.37	0.18	0.42	0.56
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	496	1207	696	185	886	737	257	1130	630	636	1520	945
v/s Ratio Prot	c0.11	0.10	0.00	0.02	0.13	c0.33	0.04	c0.26	0.00	c0.15	0.18	0.04
v/s Ratio Perm			0.01						0.01			0.12
v/c Ratio	0.81	0.30	0.04	0.38	0.55	0.73	0.55	0.85	0.03	0.82	0.43	0.26
Uniform Delay, d1	56.6	33.5	24.2	62.2	44.7	30.0	60.8	43.6	27.7	53.5	27.9	15.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.4	0.1	0.0	1.3	0.7	3.6	2.4	6.0	0.0	8.4	0.2	0.1
Delay (s)	66.0	33.6	24.2	63.5	45.4	33.6	63.2	49.6	27.7	61.9	28.1	15.3
Level of Service	E	C	C	E	D	C	E	D	C	E	C	B
Approach Delay (s)		48.5			40.6			50.2			37.8	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	43.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	4	220	118	36	263	19	385	83	47	47	86	1
Future Volume (veh/h)	4	220	118	36	263	19	385	83	47	47	86	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	224	120	37	268	19	393	85	48	48	88	1
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	8	405	341	60	460	333	483	401	226	73	234	3
Arrive On Green	0.00	0.21	0.21	0.03	0.24	0.24	0.27	0.35	0.35	0.04	0.13	0.13
Sat Flow, veh/h	1810	1900	1596	1810	1900	1375	1810	1138	643	1810	1875	21
Grp Volume(v), veh/h	4	224	120	37	268	19	393	0	133	48	0	89
Grp Sat Flow(s),veh/h/ln	1810	1900	1596	1810	1900	1375	1810	0	1781	1810	0	1896
Q Serve(g_s), s	0.1	4.7	2.8	0.9	5.5	0.5	9.0	0.0	2.3	1.2	0.0	1.9
Cycle Q Clear(g_c), s	0.1	4.7	2.8	0.9	5.5	0.5	9.0	0.0	2.3	1.2	0.0	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.01
Lane Grp Cap(c), veh/h	8	405	341	60	460	333	483	0	627	73	0	237
V/C Ratio(X)	0.51	0.55	0.35	0.62	0.58	0.06	0.81	0.00	0.21	0.66	0.00	0.38
Avail Cap(c_a), veh/h	163	687	577	204	730	528	858	0	1287	245	0	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	15.5	14.8	21.1	14.8	12.9	15.2	0.0	10.0	20.9	0.0	17.8
Incr Delay (d2), s/veh	43.1	1.2	0.6	10.0	1.2	0.1	3.4	0.0	0.2	9.7	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.6	1.3	0.6	3.0	0.2	4.9	0.0	1.1	0.8	0.0	1.1
LnGrp Delay(d),s/veh	65.1	16.7	15.4	31.1	16.0	13.0	18.6	0.0	10.2	30.6	0.0	18.8
LnGrp LOS	E	B	B	C	B	B	B		B	C		B
Approach Vol, veh/h		348			324			526			137	
Approach Delay, s/veh		16.8			17.5			16.4			22.9	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	19.6	5.5	13.4	15.8	9.5	4.2	14.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	32.0	5.0	16.0	21.0	17.0	4.0	17.0
Max Q Clear Time (g_c+I1), s	3.2	4.3	2.9	6.7	11.0	3.9	2.1	7.5
Green Ext Time (p_c), s	0.0	1.3	0.0	2.4	0.9	1.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	59	270	57	81	224	73	53	179	64	134	286	70
Future Volume (veh/h)	59	270	57	81	224	73	53	179	64	134	286	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	281	59	84	233	76	55	186	67	140	298	73
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	428	955	197	445	609	464	145	615	214	252	846	204
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.08	0.23	0.23	0.14	0.29	0.29
Sat Flow, veh/h	1085	2977	616	1054	1900	1447	1810	2623	913	1810	2881	694
Grp Volume(v), veh/h	61	169	171	84	233	76	55	126	127	140	185	186
Grp Sat Flow(s),veh/h/ln	1085	1805	1788	1054	1900	1447	1810	1805	1732	1810	1805	1770
Q Serve(g_s), s	1.8	2.8	2.8	2.6	3.7	1.5	1.1	2.3	2.4	2.8	3.2	3.3
Cycle Q Clear(g_c), s	5.5	2.8	2.8	5.4	3.7	1.5	1.1	2.3	2.4	2.8	3.2	3.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.53	1.00		0.39
Lane Grp Cap(c), veh/h	428	579	574	445	609	464	145	423	406	252	530	520
V/C Ratio(X)	0.14	0.29	0.30	0.19	0.38	0.16	0.38	0.30	0.31	0.55	0.35	0.36
Avail Cap(c_a), veh/h	825	1240	1228	831	1305	994	322	1240	1190	414	1332	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	10.0	10.0	12.1	10.3	9.6	17.1	12.4	12.4	15.8	10.9	11.0
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.2	0.4	0.2	1.6	0.4	0.4	1.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.4	1.4	0.8	2.0	0.6	0.6	1.2	1.2	1.5	1.6	1.6
LnGrp Delay(d),s/veh	12.6	10.3	10.3	12.3	10.7	9.7	18.8	12.8	12.9	17.7	11.3	11.4
LnGrp LOS	B	B	B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		401			393			308			511	
Approach Delay, s/veh		10.7			10.9			13.9			13.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	13.2		16.6	7.2	15.5		16.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	4.8	4.4		7.5	3.1	5.3		7.4
Green Ext Time (p_c), s	0.1	3.8		4.2	0.0	3.9		4.3

Intersection Summary			
HCM 2010 Ctrl Delay			12.1
HCM 2010 LOS			B

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰↑	↰	↱
Traffic Volume (vph)	6	273	10	13	1066	3
Future Volume (vph)	6	273	10	13	1066	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1528		1756	1615	1530
Flt Permitted	1.00	1.00		0.85	0.95	1.00
Satd. Flow (perm)	1800	1528		1533	1615	1530
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	7	321	12	15	1254	4
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	7	321	0	27	1254	4
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	4	2		8	2	2
Permitted Phases		4	8			
Actuated Green, G (s)	7.3	91.3		7.3	84.0	84.0
Effective Green, g (s)	7.3	91.3		7.3	84.0	84.0
Actuated g/C Ratio	0.07	0.90		0.07	0.83	0.83
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	129	1528		110	1339	1268
v/s Ratio Prot	0.00	c0.17			c0.78	0.00
v/s Ratio Perm		0.04		0.02		
v/c Ratio	0.05	0.21		0.25	0.94	0.00
Uniform Delay, d1	43.8	0.6		44.4	6.6	1.5
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		1.2	12.3	0.0
Delay (s)	44.0	0.7		45.6	18.9	1.5
Level of Service	D	A		D	B	A
Approach Delay (s)	1.6			45.6	18.9	
Approach LOS	A			D	B	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	101.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	55
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↲↳	
Traffic Vol, veh/h	14	168	590	174	203	50
Future Vol, veh/h	14	168	590	174	203	50
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	173	608	179	209	52
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	11.4	78.8	14.5
HCM LOS	B	F	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	0%	80%
Vol Thru, %	92%	77%	0%
Vol Right, %	0%	23%	20%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	182	764	253
LT Vol	14	0	203
Through Vol	168	590	0
RT Vol	0	174	50
Lane Flow Rate	188	788	261
Geometry Grp	1	1	1
Degree of Util (X)	0.296	1.082	0.446
Departure Headway (Hd)	5.902	4.944	6.415
Convergence, Y/N	Yes	Yes	Yes
Cap	614	740	566
Service Time	3.902	2.944	4.415
HCM Lane V/C Ratio	0.306	1.065	0.461
HCM Control Delay	11.4	78.8	14.5
HCM Lane LOS	B	F	B
HCM 95th-tile Q	1.2	21.3	2.3

HCM 2010 AWSC
133: Live Oak Canyon & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	85.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	353	4	0	636	97	8	1	1	207	3	134
Future Vol, veh/h	10	353	4	0	636	97	8	1	1	207	3	134
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	372	4	0	669	102	8	1	1	218	3	141
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	22.1	147.7	12	22.4
HCM LOS	C	F	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	80%	3%	0%	60%
Vol Thru, %	10%	96%	87%	1%
Vol Right, %	10%	1%	13%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	367	733	344
LT Vol	8	10	0	207
Through Vol	1	353	636	3
RT Vol	1	4	97	134
Lane Flow Rate	11	386	772	362
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.669	1.255	0.655
Departure Headway (Hd)	8.817	6.655	5.854	7.034
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	408	549	625	518
Service Time	6.817	4.655	3.905	5.034
HCM Lane V/C Ratio	0.027	0.703	1.235	0.699
HCM Control Delay	12	22.1	147.7	22.4
HCM Lane LOS	B	C	F	C
HCM 95th-tile Q	0.1	5	29.2	4.7

Intersection	
Intersection Delay, s/veh	78
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	20	539	77	89	644	25
Future Vol, veh/h	20	539	77	89	644	25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	556	79	92	664	26
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	39.2	14.2	126.2
HCM LOS	E	B	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	96%	0%	46%
Vol Thru, %	0%	4%	54%
Vol Right, %	4%	96%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	669	559	166
LT Vol	644	0	77
Through Vol	0	20	89
RT Vol	25	539	0
Lane Flow Rate	690	576	171
Geometry Grp	1	1	1
Degree of Util (X)	1.196	0.887	0.331
Departure Headway (Hd)	6.241	6.109	7.546
Convergence, Y/N	Yes	Yes	Yes
Cap	586	599	479
Service Time	4.251	4.109	5.546
HCM Lane V/C Ratio	1.177	0.962	0.357
HCM Control Delay	126.2	39.2	14.2
HCM Lane LOS	F	E	B
HCM 95th-tile Q	24.6	10.4	1.4

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	7.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	39	40	185	121	80	223
Future Vol, veh/h	39	40	185	121	80	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	40	41	191	125	82	230

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	81	0	567	61
Stage 1	-	-	-	-	61	-
Stage 2	-	-	-	-	506	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1529	-	488	1010
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	610	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	423	1010
Mov Cap-2 Maneuver	-	-	-	-	423	-
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	528	-

Approach	EB		WB		NB
HCM Control Delay, s	0		4.6		13.4
HCM LOS					B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	739	-	-	1529	-
HCM Lane V/C Ratio	0.423	-	-	0.125	-
HCM Control Delay (s)	13.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.1	-	-	0.4	-

HCM 2010 AWSC
136: Alessandro Rd & Sunset Dr

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	9	1	4	21	6	20	0	230	10	3	202	10
Future Vol, veh/h	9	1	4	21	6	20	0	230	10	3	202	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	1	4	24	7	22	0	258	11	3	227	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.3	9.3	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	64%	45%	1%
Vol Thru, %	96%	7%	13%	94%
Vol Right, %	4%	29%	43%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	14	47	215
LT Vol	0	9	21	3
Through Vol	230	1	6	202
RT Vol	10	4	20	10
Lane Flow Rate	270	16	53	242
Geometry Grp	1	1	1	1
Degree of Util (X)	0.322	0.022	0.071	0.29
Departure Headway (Hd)	4.294	5.042	4.862	4.321
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	709	737	833
Service Time	2.31	3.076	2.893	2.338
HCM Lane V/C Ratio	0.322	0.023	0.072	0.291
HCM Control Delay	9.3	8.2	8.3	9.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.4	0.1	0.2	1.2

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	81	5	22	161	14	44
Future Vol, veh/h	81	5	22	161	14	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	91	6	25	181	16	49

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	196	115	0	0	206	0
Stage 1	115	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	797	943	-	-	1377	-
Stage 1	915	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	787	943	-	-	1377	-
Mov Cap-2 Maneuver	787	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	936	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s	10.2		0		1.8	
HCM LOS	B					

Minor Lane/Major Mvmt		NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)		-	-	795	1377	-
HCM Lane V/C Ratio		-	-	0.122	0.011	-
HCM Control Delay (s)		-	-	10.2	7.6	0
HCM Lane LOS		-	-	B	A	A
HCM 95th %tile Q(veh)		-	-	0.4	0	-

HCM 2010 TWSC
6: Gilman Springs Rd & Alessandro Blvd

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	0	157	90	484	912	0
Future Vol, veh/h	0	157	90	484	912	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	20	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	167	96	515	970	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1676	970	970	0	-	0
Stage 1	970	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	106	310	719	-	-	-
Stage 1	371	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	92	310	719	-	-	-
Mov Cap-2 Maneuver	92	-	-	-	-	-
Stage 1	371	-	-	-	-	-
Stage 2	427	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.4	1.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	719	-	-	310	-	-
HCM Lane V/C Ratio	0.133	-	-	0.539	-	-
HCM Control Delay (s)	10.8	-	0	29.4	-	-
HCM Lane LOS	B	-	A	D	-	-
HCM 95th %tile Q(veh)	0.5	-	-	3	-	-

HCM 2010 TWSC
10: Redlands Blvd & Locust Ave

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	19	0	12	16	2	1	17	774	7	0	836	21
Future Vol, veh/h	19	0	12	16	2	1	17	774	7	0	836	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	300	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	0	13	17	2	1	18	806	7	0	871	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1714	1713	871	1719	1713	806	871	0	0	806	0	0
Stage 1	871	871	-	842	842	-	-	-	-	-	-	-
Stage 2	843	842	-	877	871	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	72	91	353	71	91	385	783	-	-	828	-	-
Stage 1	349	371	-	362	383	-	-	-	-	-	-	-
Stage 2	361	383	-	346	371	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	69	89	353	67	89	385	783	-	-	828	-	-
Mov Cap-2 Maneuver	69	89	-	67	89	-	-	-	-	-	-	-
Stage 1	341	371	-	354	374	-	-	-	-	-	-	-
Stage 2	350	374	-	334	371	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	57.3	73	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	783	-	-	100	72	828	-	-
HCM Lane V/C Ratio	0.023	-	-	0.323	0.275	-	-	-
HCM Control Delay (s)	9.7	-	-	57.3	73	0	-	-
HCM Lane LOS	A	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	1	0	-	-

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↑	↱
Traffic Volume (veh/h)	119	16	20	6	11	6	10	699	5	5	698	175
Future Volume (veh/h)	119	16	20	6	11	6	10	699	5	5	698	175
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	17	21	6	11	6	10	728	5	5	727	182
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	409	56	69	24	43	24	32	832	6	17	823	696
Arrive On Green	0.30	0.30	0.30	0.05	0.05	0.05	0.02	0.44	0.44	0.01	0.43	0.43
Sat Flow, veh/h	1369	188	232	464	851	464	1810	1885	13	1810	1900	1606
Grp Volume(v), veh/h	162	0	0	23	0	0	10	0	733	5	727	182
Grp Sat Flow(s),veh/h/ln	1788	0	0	1779	0	0	1810	0	1898	1810	1900	1606
Q Serve(g_s), s	5.6	0.0	0.0	1.0	0.0	0.0	0.4	0.0	28.2	0.2	28.2	5.8
Cycle Q Clear(g_c), s	5.6	0.0	0.0	1.0	0.0	0.0	0.4	0.0	28.2	0.2	28.2	5.8
Prop In Lane	0.77		0.13	0.26		0.26	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	535	0	0	91	0	0	32	0	838	17	823	696
V/C Ratio(X)	0.30	0.00	0.00	0.25	0.00	0.00	0.32	0.00	0.87	0.30	0.88	0.26
Avail Cap(c_a), veh/h	535	0	0	576	0	0	158	0	875	158	876	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	0.0	36.6	0.0	0.0	39.0	0.0	20.4	39.5	20.9	14.5
Incr Delay (d2), s/veh	1.5	0.0	0.0	1.5	0.0	0.0	5.6	0.0	9.6	9.7	10.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	0.5	0.0	0.0	0.3	0.0	16.9	0.2	17.1	2.6
LnGrp Delay(d),s/veh	23.2	0.0	0.0	38.1	0.0	0.0	44.6	0.0	30.0	49.2	31.0	14.7
LnGrp LOS	C			D			D		C	D	C	B
Approach Vol, veh/h		162			23			743			914	
Approach Delay, s/veh		23.2			38.1			30.2			27.9	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.7	39.5		28.0	5.4	38.8		8.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	37.0		24.0	7.0	37.0		26.0
Max Q Clear Time (g_c+I1), s	2.2	30.2		7.6	2.4	30.2		3.0
Green Ext Time (p_c), s	0.0	4.6		0.6	0.0	4.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑	↱	↰	↑
Traffic Vol, veh/h	21	10	22	2	2	25
Future Vol, veh/h	21	10	22	2	2	25
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	11	24	2	2	27

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	61	34	0	0	29	0
Stage 1	29	-	-	-	-	-
Stage 2	32	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	950	1045	-	-	1597	-
Stage 1	999	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	945	1036	-	-	1590	-
Mov Cap-2 Maneuver	945	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	995	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1036	1590	-
HCM Lane V/C Ratio	-	-	0.01	0.001	-
HCM Control Delay (s)	-	-	8.5	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	1	10	8	51	0	25	9	691	135	321	402	1
Future Volume (veh/h)	1	10	8	51	0	25	9	691	135	321	402	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	10	8	53	0	26	9	720	141	334	419	1
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	3	29	23	92	0	45	29	821	826	408	1216	3
Arrive On Green	0.03	0.03	0.03	0.08	0.00	0.08	0.02	0.43	0.43	0.23	0.64	0.64
Sat Flow, veh/h	93	929	743	1168	0	573	1810	1900	1615	1810	1895	5
Grp Volume(v), veh/h	19	0	0	79	0	0	9	720	141	334	0	420
Grp Sat Flow(s),veh/h/ln	1764	0	0	1741	0	0	1810	1900	1615	1810	0	1899
Q Serve(g_s), s	0.7	0.0	0.0	3.0	0.0	0.0	0.3	23.9	3.2	12.1	0.0	7.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	3.0	0.0	0.0	0.3	23.9	3.2	12.1	0.0	7.0
Prop In Lane	0.05		0.42	0.67		0.33	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	55	0	0	138	0	0	29	821	826	408	0	1219
V/C Ratio(X)	0.35	0.00	0.00	0.57	0.00	0.00	0.31	0.88	0.17	0.82	0.00	0.34
Avail Cap(c_a), veh/h	461	0	0	454	0	0	184	1075	1041	499	0	1405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	0.0	30.6	0.0	0.0	33.5	17.9	9.0	25.4	0.0	5.7
Incr Delay (d2), s/veh	3.7	0.0	0.0	3.7	0.0	0.0	5.9	6.7	0.1	8.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	1.6	0.0	0.0	0.2	13.9	1.7	7.0	0.0	3.7
LnGrp Delay(d),s/veh	36.5	0.0	0.0	34.4	0.0	0.0	39.4	24.6	9.1	34.0	0.0	5.8
LnGrp LOS	D			C			D	C	A	C		A
Approach Vol, veh/h		19			79			870			754	
Approach Delay, s/veh		36.5			34.4			22.3			18.3	
Approach LOS		D			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.6	33.8		6.1	5.1	48.3		9.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	19.0	39.0		18.0	7.0	51.0		18.0
Max Q Clear Time (g_c+I1), s	14.1	25.9		2.7	2.3	9.0		5.0
Green Ext Time (p_c), s	1.5	3.9		0.0	0.0	3.3		0.2

Intersection Summary			
HCM 2010 Ctrl Delay			21.2
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	**EBL**	**EBR**	**NBL**	**NBT**	**SBT**	**SBR**
Lane Configurations	↰↱		↰	↑	↑	↱
Traffic Volume (veh/h)	431	124	58	398	415	46
Future Volume (veh/h)	431	124	58	398	415	46
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	444	128	60	410	428	47
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	503	145	145	883	572	486
Arrive On Green	0.37	0.37	0.08	0.46	0.30	0.30
Sat Flow, veh/h	1366	394	1810	1900	1900	1615
Grp Volume(v), veh/h	573	0	60	410	428	47
Grp Sat Flow(s),veh/h/ln	1762	0	1810	1900	1900	1615
Q Serve(g_s), s	14.6	0.0	1.5	7.1	9.7	1.0
Cycle Q Clear(g_c), s	14.6	0.0	1.5	7.1	9.7	1.0
Prop In Lane	0.77	0.22	1.00			1.00
Lane Grp Cap(c), veh/h	649	0	145	883	572	486
V/C Ratio(X)	0.88	0.00	0.41	0.46	0.75	0.10
Avail Cap(c_a), veh/h	808	0	264	1188	753	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	21.0	8.8	15.1	12.1
Incr Delay (d2), s/veh	9.6	0.0	1.9	0.4	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	0.8	3.7	5.6	0.5
LnGrp Delay(d),s/veh	23.8	0.0	22.8	9.1	18.1	12.1
LnGrp LOS	C		C	A	B	B
Approach Vol, veh/h	573			470	475	
Approach Delay, s/veh	23.8			10.9	17.5	
Approach LOS	C			B	B	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		26.3		21.7	7.9	18.4		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		30.0		22.0	7.0	19.0		
Max Q Clear Time (g_c+I1), s		9.1		16.6	3.5	11.7		
Green Ext Time (p_c), s		4.5		1.1	0.0	2.7		

Intersection Summary		
HCM 2010 Ctrl Delay		17.8
HCM 2010 LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 TWSC
15: Theodore St & SR-60 WB Ramps

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	23	8	13	35	22	26
Future Vol, veh/h	23	8	13	35	22	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	10	15	42	26	31

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	119	36	0	0	57	0
Stage 1	36	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	882	1042	-	-	1560	-
Stage 1	992	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	867	1042	-	-	1560	-
Mov Cap-2 Maneuver	867	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s	9.1		0		3.4	
HCM LOS	A					

Minor Lane/Major Mvmt		NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)		-	-	906	1560	-
HCM Lane V/C Ratio		-	-	0.041	0.017	-
HCM Control Delay (s)		-	-	9.1	7.3	0
HCM Lane LOS		-	-	A	A	A
HCM 95th %tile Q(veh)		-	-	0.1	0.1	-

HCM 2010 TWSC
16: Theodore St & SR-60 EB Ramps

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	11	41	21	41	36	16
Future Vol, veh/h	11	41	21	41	36	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	260	270	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	60	31	60	53	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	187	65	76	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	122	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	807	1005	1536	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	791	1005	1536	-	-	-
Mov Cap-2 Maneuver	791	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	2.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1536	-	791	1005	-	-
HCM Lane V/C Ratio	0.02	-	0.02	0.06	-	-
HCM Control Delay (s)	7.4	-	9.6	8.8	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.2	-	-

HCM 2010 Signalized Intersection Summary
18: Redlands Blvd & Eucalyptus Ave

	⤴	→	⤵	↙	←	↖	↰	↑	↱	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱			↱	↰	↑			↑	↱
Traffic Volume (veh/h)	25	0	7	2	0	44	0	390	1	1	516	12
Future Volume (veh/h)	25	0	7	2	0	44	0	390	1	1	516	12
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900	1900	0	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	0	7	2	0	45	0	402	1	1	532	12
Adj No. of Lanes	1	0	1	0	0	1	1	1	0	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	0	0	0	0	0	4	1459	4	84	1462	1314
Arrive On Green	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.77	0.77	0.77	0.77
Sat Flow, veh/h	1810	26			0		1810	1894	5	0	1899	1615
Grp Volume(v), veh/h	26	22.3			0.0		0	0	403	533	0	12
Grp Sat Flow(s),veh/h/ln	1810	C					1810	0	1899	1900	0	1615
Q Serve(g_s), s	0.6						0.0	0.0	2.7	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.6						0.0	0.0	2.7	3.8	0.0	0.1
Prop In Lane	1.00						1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	79						4	0	1462	1547	0	1314
V/C Ratio(X)	0.33						0.00	0.00	0.28	0.34	0.00	0.01
Avail Cap(c_a), veh/h	296						296	0	1462	1547	0	1314
HCM Platoon Ratio	1.00						1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00						0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9						0.0	0.0	1.4	1.6	0.0	0.8
Incr Delay (d2), s/veh	2.4						0.0	0.0	0.5	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0						0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3						0.0	0.0	1.5	2.2	0.0	0.0
LnGrp Delay(d),s/veh	22.3						0.0	0.0	1.9	2.2	0.0	0.8
LnGrp LOS	C								A	A		A
Approach Vol, veh/h								403			545	
Approach Delay, s/veh								1.9			2.2	
Approach LOS								A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1		3	4				8
Phs Duration (G+Y+Rc), s	5.9		0.0	37.0				37.0
Change Period (Y+Rc), s	4.0		4.0	4.0				4.0
Max Green Setting (Gmax), s	7.0		7.0	22.0				33.0
Max Q Clear Time (g_c+I1), s	2.6		0.0	5.8				4.7
Green Ext Time (p_c), s	0.0		0.0	4.6				5.5

Intersection Summary	
HCM 2010 Ctrl Delay	2.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Vol, veh/h	43	25	7	24	29	38
Future Vol, veh/h	43	25	7	24	29	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	280	0	120	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	31	9	30	36	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	83	36	36	0	-	0
Stage 1	36	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	924	1042	1588	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	981	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	919	1042	1588	-	-	-
Mov Cap-2 Maneuver	919	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	975	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1588	-	919	1042	-	-
HCM Lane V/C Ratio	0.005	-	0.058	0.03	-	-
HCM Control Delay (s)	7.3	-	9.2	8.6	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑	↱		↰↑↱	
Traffic Vol, veh/h	1	397	98	14	225	0	78	0	21	0	0	1
Future Vol, veh/h	1	397	98	14	225	0	78	0	21	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	446	110	16	253	0	88	0	24	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	253	0	0	556	0	0	788	787	501	787	842	253
Stage 1	-	-	-	-	-	-	503	503	-	284	284	-
Stage 2	-	-	-	-	-	-	285	284	-	503	558	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1324	-	-	1025	-	-	311	326	574	312	303	791
Stage 1	-	-	-	-	-	-	555	545	-	727	680	-
Stage 2	-	-	-	-	-	-	727	680	-	555	515	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1324	-	-	1025	-	-	306	320	574	295	297	791
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	320	-	295	297	-
Stage 1	-	-	-	-	-	-	554	544	-	726	668	-
Stage 2	-	-	-	-	-	-	713	668	-	532	514	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	19.3	9.6
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	306	574	1324	-	-	1025	-	-	791
HCM Lane V/C Ratio	0.286	0.041	0.001	-	-	0.015	-	-	0.001
HCM Control Delay (s)	21.4	11.5	7.7	0	-	8.6	0	-	9.6
HCM Lane LOS	C	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	1.2	0.1	0	-	-	0	-	-	0

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	114	208	83	50	118	22	45	427	59	19	650	58
Future Volume (veh/h)	114	208	83	50	118	22	45	427	59	19	650	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	121	221	88	53	126	23	48	454	63	20	691	62
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	271	290	116	116	218	40	88	718	100	59	728	65
Arrive On Green	0.15	0.23	0.23	0.06	0.14	0.14	0.05	0.44	0.44	0.03	0.42	0.42
Sat Flow, veh/h	1810	1289	513	1810	1559	285	1810	1632	226	1810	1718	154
Grp Volume(v), veh/h	121	0	309	53	0	149	48	0	517	20	0	753
Grp Sat Flow(s),veh/h/ln	1810	0	1803	1810	0	1844	1810	0	1859	1810	0	1872
Q Serve(g_s), s	4.1	0.0	10.8	1.9	0.0	5.1	1.7	0.0	14.5	0.7	0.0	26.1
Cycle Q Clear(g_c), s	4.1	0.0	10.8	1.9	0.0	5.1	1.7	0.0	14.5	0.7	0.0	26.1
Prop In Lane	1.00		0.28	1.00		0.15	1.00		0.12	1.00		0.08
Lane Grp Cap(c), veh/h	271	0	406	116	0	257	88	0	818	59	0	794
V/C Ratio(X)	0.45	0.00	0.76	0.46	0.00	0.58	0.55	0.00	0.63	0.34	0.00	0.95
Avail Cap(c_a), veh/h	271	0	697	188	0	713	188	0	818	188	0	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	24.4	30.3	0.0	27.1	31.3	0.0	14.6	31.8	0.0	18.7
Incr Delay (d2), s/veh	1.2	0.0	3.0	2.8	0.0	2.1	5.2	0.0	1.6	3.4	0.0	20.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	5.7	1.0	0.0	2.7	1.0	0.0	7.7	0.4	0.0	17.8
LnGrp Delay(d),s/veh	27.2	0.0	27.3	33.1	0.0	29.1	36.5	0.0	16.2	35.2	0.0	38.7
LnGrp LOS	C		C	C		C	D		B	D		D
Approach Vol, veh/h		430			202			565			773	
Approach Delay, s/veh		27.3			30.2			17.9			38.6	
Approach LOS		C			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	33.6	8.3	19.1	7.3	32.5	14.1	13.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.7	16.5	3.9	12.8	3.7	28.1	6.1	7.1
Green Ext Time (p_c), s	0.0	2.4	0.0	1.3	0.1	0.4	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	33.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		✣			↰	↱		✣	
Traffic Vol, veh/h	103	112	24	48	67	18	14	270	56	17	379	85
Future Vol, veh/h	103	112	24	48	67	18	14	270	56	17	379	85
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	110	119	26	51	71	19	15	287	60	18	403	90
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	18	15.5	18.7	57.2
HCM LOS	C	C	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	5%	0%	48%	0%	36%	4%
Vol Thru, %	95%	0%	52%	0%	50%	79%
Vol Right, %	0%	100%	0%	100%	14%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	284	56	215	24	133	481
LT Vol	14	0	103	0	48	17
Through Vol	270	0	112	0	67	379
RT Vol	0	56	0	24	18	85
Lane Flow Rate	302	60	229	26	141	512
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.602	0.106	0.508	0.05	0.33	0.965
Departure Headway (Hd)	7.178	6.434	8.003	7.035	8.385	6.792
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	499	553	448	506	432	532
Service Time	4.969	4.224	5.793	4.825	6.385	4.87
HCM Lane V/C Ratio	0.605	0.108	0.511	0.051	0.326	0.962
HCM Control Delay	20.4	10	18.9	10.2	15.5	57.2
HCM Lane LOS	C	A	C	B	C	F
HCM 95th-tile Q	3.9	0.4	2.8	0.2	1.4	12.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰	↱		✥	
Traffic Volume (veh/h)	6	320	174	37	247	16	65	53	17	18	63	7
Future Volume (veh/h)	6	320	174	37	247	16	65	53	17	18	63	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	340	185	39	263	17	69	56	18	19	67	7
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	589	314	108	413	347	170	138	267	63	221	23
Arrive On Green	0.10	0.26	0.26	0.06	0.22	0.22	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1810	2271	1212	1810	1900	1596	1021	828	1600	379	1336	140
Grp Volume(v), veh/h	6	269	256	39	263	17	125	0	18	93	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1678	1810	1900	1596	1849	0	1600	1854	0	0
Q Serve(g_s), s	0.1	6.0	6.1	1.0	5.8	0.4	2.8	0.0	0.4	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	6.0	6.1	1.0	5.8	0.4	2.8	0.0	0.4	2.0	0.0	0.0
Prop In Lane	1.00		0.72	1.00		1.00	0.55		1.00	0.20		0.08
Lane Grp Cap(c), veh/h	184	468	435	108	413	347	309	0	267	307	0	0
V/C Ratio(X)	0.03	0.57	0.59	0.36	0.64	0.05	0.40	0.00	0.07	0.30	0.00	0.00
Avail Cap(c_a), veh/h	276	1100	1023	276	1158	973	1127	0	976	1049	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.6	14.8	14.9	20.8	16.3	14.2	17.1	0.0	16.1	16.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.1	1.3	2.0	1.6	0.1	0.9	0.0	0.1	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.1	3.0	0.5	3.2	0.2	1.5	0.0	0.2	1.1	0.0	0.0
LnGrp Delay(d),s/veh	18.7	15.9	16.1	22.8	18.0	14.3	17.9	0.0	16.2	17.4	0.0	0.0
LnGrp LOS	B	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		531			319			143			93	
Approach Delay, s/veh		16.1			18.4			17.7			17.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		11.7	6.7	15.9		11.6	8.7	14.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		4.8	3.0	8.1		4.0	2.1	7.8
Green Ext Time (p_c), s		0.6	0.0	2.7		0.4	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	64	144	135	14	89	23	101	385	24	40	518	109
Future Volume (veh/h)	64	144	135	14	89	23	101	385	24	40	518	109
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	152	142	15	94	24	106	405	25	42	545	115
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	473	410	48	566	140	204	1100	533	114	1099	227
Arrive On Green	0.09	0.26	0.26	0.03	0.20	0.20	0.11	0.30	0.30	0.06	0.26	0.26
Sat Flow, veh/h	1810	1830	1584	1810	2864	706	1810	3610	1607	1810	4305	890
Grp Volume(v), veh/h	67	150	144	15	58	60	106	405	25	42	435	225
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1765	1810	1805	1607	1810	1729	1737
Q Serve(g_s), s	1.6	3.1	3.4	0.4	1.2	1.3	2.5	4.1	0.5	1.0	5.0	5.1
Cycle Q Clear(g_c), s	1.6	3.1	3.4	0.4	1.2	1.3	2.5	4.1	0.5	1.0	5.0	5.1
Prop In Lane	1.00		0.98	1.00		0.40	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	158	467	416	48	357	349	204	1100	533	114	882	443
V/C Ratio(X)	0.42	0.32	0.35	0.31	0.16	0.17	0.52	0.37	0.05	0.37	0.49	0.51
Avail Cap(c_a), veh/h	275	1604	1431	275	1604	1569	314	2270	1053	275	2099	1054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	13.8	13.9	22.0	15.3	15.4	19.3	12.6	10.5	20.7	14.6	14.7
Incr Delay (d2), s/veh	1.8	0.4	0.5	3.6	0.2	0.2	2.0	0.2	0.0	2.0	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.6	1.5	0.2	0.6	0.7	1.4	2.1	0.2	0.6	2.4	2.5
LnGrp Delay(d),s/veh	21.7	14.2	14.4	25.7	15.5	15.6	21.3	12.8	10.5	22.7	15.1	15.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		361			133			536			702	
Approach Delay, s/veh		15.7			16.7			14.4			15.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	18.1	5.2	15.9	9.2	15.8	8.0	13.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	3.0	6.1	2.4	5.4	4.5	7.1	3.6	3.3
Green Ext Time (p_c), s	0.0	2.6	0.0	1.8	0.9	3.6	0.5	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

HCM 2010 AWSC
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			✥			↰↑↱			↰↑↱	
Traffic Vol, veh/h	135	13	32	3	5	6	12	197	4	14	322	90
Future Vol, veh/h	135	13	32	3	5	6	12	197	4	14	322	90
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	144	14	34	3	5	6	13	210	4	15	343	96
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	11.2	9.5	9.7	10.8
HCM LOS	B	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	11%	0%	95%	0%	21%	8%	0%
Vol Thru, %	89%	96%	5%	17%	36%	92%	64%
Vol Right, %	0%	4%	0%	83%	43%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	103	142	39	14	175	251
LT Vol	12	0	135	0	3	14	0
Through Vol	99	99	7	7	5	161	161
RT Vol	0	4	0	32	6	0	90
Lane Flow Rate	118	109	151	41	15	186	267
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.189	0.172	0.279	0.064	0.026	0.28	0.38
Departure Headway (Hd)	5.778	5.695	6.663	5.593	6.308	5.522	5.228
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	625	634	542	643	569	655	692
Service Time	3.478	3.395	4.374	3.304	4.328	3.222	2.928
HCM Lane V/C Ratio	0.189	0.172	0.279	0.064	0.026	0.284	0.386
HCM Control Delay	9.8	9.6	11.9	8.7	9.5	10.4	11.1
HCM Lane LOS	A	A	B	A	A	B	B
HCM 95th-tile Q	0.7	0.6	1.1	0.2	0.1	1.1	1.8

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	52	19	10	225	61	66	20	345	192	118	391	122
Future Volume (veh/h)	52	19	10	225	61	66	20	345	192	118	391	122
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	20	10	234	64	69	21	359	200	123	407	127
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	336	283	286	499	421	63	1326	665	199	1307	391
Arrive On Green	0.07	0.18	0.18	0.16	0.26	0.26	0.04	0.26	0.26	0.11	0.33	0.33
Sat Flow, veh/h	1810	1900	1601	1810	1900	1606	1810	5187	1606	1810	3955	1184
Grp Volume(v), veh/h	54	20	10	234	64	69	21	359	200	123	354	180
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1606	1810	1729	1606	1810	1729	1680
Q Serve(g_s), s	1.5	0.5	0.3	6.7	1.4	1.8	0.6	3.0	4.5	3.5	4.1	4.3
Cycle Q Clear(g_c), s	1.5	0.5	0.3	6.7	1.4	1.8	0.6	3.0	4.5	3.5	4.1	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	131	336	283	286	499	421	63	1326	665	199	1143	555
V/C Ratio(X)	0.41	0.06	0.04	0.82	0.13	0.16	0.33	0.27	0.30	0.62	0.31	0.32
Avail Cap(c_a), veh/h	271	1566	1320	305	1602	1354	237	2818	1127	237	1879	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	18.3	18.2	21.7	15.0	15.2	25.1	15.9	10.5	22.7	13.3	13.4
Incr Delay (d2), s/veh	2.1	0.1	0.1	15.2	0.1	0.2	3.0	0.1	0.3	3.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.3	0.1	4.5	0.7	0.8	0.4	1.4	2.0	1.9	1.9	2.0
LnGrp Delay(d),s/veh	25.8	18.4	18.3	37.0	15.1	15.4	28.1	16.0	10.7	26.2	13.5	13.7
LnGrp LOS	C	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		84			367			580			657	
Approach Delay, s/veh		23.1			29.1			14.6			15.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	17.6	12.4	13.4	5.9	21.6	7.9	18.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	9.0	44.0	7.0	29.0	8.0	45.0
Max Q Clear Time (g_c+I1), s	5.5	6.5	8.7	2.5	2.6	6.3	3.5	3.8
Green Ext Time (p_c), s	0.0	6.0	0.0	0.7	0.0	6.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	232	402	108	103	320	48	157	614	165	79	517	200
Future Volume (veh/h)	232	402	108	103	320	48	157	614	165	79	517	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	419	112	107	333	50	164	640	172	82	539	208
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	246	972	579	136	657	98	164	1347	721	184	1388	838
Arrive On Green	0.14	0.27	0.27	0.07	0.21	0.21	0.09	0.37	0.37	0.10	0.38	0.38
Sat Flow, veh/h	1810	3610	1606	1810	3150	468	1810	3610	1609	1810	3610	1609
Grp Volume(v), veh/h	242	419	112	107	189	194	164	640	172	82	539	208
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1813	1810	1805	1609	1810	1805	1609
Q Serve(g_s), s	11.8	8.5	0.8	5.1	8.2	8.4	8.0	11.9	3.3	3.8	9.6	3.3
Cycle Q Clear(g_c), s	11.8	8.5	0.8	5.1	8.2	8.4	8.0	11.9	3.3	3.8	9.6	3.3
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	246	972	579	136	376	378	164	1347	721	184	1388	838
V/C Ratio(X)	0.99	0.43	0.19	0.79	0.50	0.51	1.00	0.48	0.24	0.45	0.39	0.25
Avail Cap(c_a), veh/h	246	1633	872	143	714	718	164	1347	721	184	1388	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	26.7	9.5	40.2	30.9	31.0	40.2	21.1	6.0	37.4	19.7	4.2
Incr Delay (d2), s/veh	53.3	0.3	0.2	24.0	1.0	1.1	70.9	1.2	0.8	1.7	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	4.3	1.3	3.5	4.2	4.3	7.2	6.2	1.8	2.0	4.9	1.8
LnGrp Delay(d),s/veh	91.4	27.0	9.6	64.2	32.0	32.1	111.1	22.3	6.7	39.1	20.5	4.9
LnGrp LOS	F	C	A	E	C	C	F	C	A	D	C	A
Approach Vol, veh/h		773			490			976			829	
Approach Delay, s/veh		44.6			39.1			34.5			18.4	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	37.0	10.6	27.8	12.0	38.0	16.0	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	33.0	7.0	40.0	8.0	34.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	5.8	13.9	7.1	10.5	10.0	11.6	13.8	10.4
Green Ext Time (p_c), s	0.2	4.7	0.0	6.1	0.0	4.0	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	186	5	160	328	982	0	0	732	233
Future Volume (veh/h)	0	0	0	186	5	160	328	982	0	0	732	233
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				192	5	165	338	1012	0	0	755	240
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				279	7	253	362	2718	0	0	1370	436
Arrive On Green				0.16	0.16	0.16	0.20	0.75	0.00	0.00	0.51	0.51
Sat Flow, veh/h				1766	46	1600	1810	3705	0	0	2789	856
Grp Volume(v), veh/h				197	0	165	338	1012	0	0	506	489
Grp Sat Flow(s),veh/h/ln				1812	0	1600	1810	1805	0	0	1805	1746
Q Serve(g_s), s				9.2	0.0	8.7	16.5	8.7	0.0	0.0	17.2	17.2
Cycle Q Clear(g_c), s				9.2	0.0	8.7	16.5	8.7	0.0	0.0	17.2	17.2
Prop In Lane				0.97		1.00	1.00		0.00	0.00		0.49
Lane Grp Cap(c), veh/h				286	0	253	362	2718	0	0	918	888
V/C Ratio(X)				0.69	0.00	0.65	0.93	0.37	0.00	0.00	0.55	0.55
Avail Cap(c_a), veh/h				684	0	604	362	2718	0	0	918	888
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.76	0.76	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.8	0.0	35.6	35.4	3.8	0.0	0.0	15.1	15.1
Incr Delay (d2), s/veh				2.9	0.0	2.8	25.7	0.3	0.0	0.0	2.4	2.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.8	0.0	4.0	10.8	4.3	0.0	0.0	9.2	8.9
LnGrp Delay(d),s/veh				38.7	0.0	38.4	61.1	4.1	0.0	0.0	17.5	17.6
LnGrp LOS				D		D	E	A			B	B
Approach Vol, veh/h					362			1350			995	
Approach Delay, s/veh					38.6			18.4			17.5	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		71.8			22.0	49.8		18.2
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		48.0			18.0	26.0		34.0
Max Q Clear Time (g_c+I1), s		10.7			18.5	19.2		11.2
Green Ext Time (p_c), s		19.7			0.0	5.6		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↱	↱					↑↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	404	6	274	0	0	0	0	907	243	172	767	0
Future Volume (veh/h)	404	6	274	0	0	0	0	907	243	172	767	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	420	0	282				0	935	251	177	791	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	910	0	404				0	1684	451	229	2201	0
Arrive On Green	0.25	0.00	0.25				0.00	0.41	0.41	0.13	0.61	0.00
Sat Flow, veh/h	3619	0	1605				0	4240	1089	1810	3705	0
Grp Volume(v), veh/h	420	0	282				0	794	392	177	791	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1700	1810	1805	0
Q Serve(g_s), s	5.7	0.0	9.2				0.0	10.1	10.1	5.5	6.3	0.0
Cycle Q Clear(g_c), s	5.7	0.0	9.2				0.0	10.1	10.1	5.5	6.3	0.0
Prop In Lane	1.00		1.00				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	910	0	404				0	1431	703	229	2201	0
V/C Ratio(X)	0.46	0.00	0.70				0.00	0.56	0.56	0.77	0.36	0.00
Avail Cap(c_a), veh/h	2073	0	919				0	1740	856	502	3070	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.3	0.0	19.6				0.0	12.9	12.9	24.4	5.6	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.2				0.0	0.3	0.7	5.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	4.3				0.0	4.8	4.8	3.1	3.1	0.0
LnGrp Delay(d),s/veh	18.6	0.0	21.8				0.0	13.2	13.6	29.9	5.7	0.0
LnGrp LOS	B		C					B	B	C	A	
Approach Vol, veh/h		702						1186			968	
Approach Delay, s/veh		19.9						13.3			10.1	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.3	27.8		18.5		39.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	16.0	29.0		33.0		49.0		
Max Q Clear Time (g_c+I1), s	7.5	12.1		11.2		8.3		
Green Ext Time (p_c), s	0.3	11.7		2.5		20.1		

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	451	514	511	49	89	415	125	805	98	349	720	154
Future Volume (veh/h)	451	514	511	49	89	415	125	805	98	349	720	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	465	530	527	51	92	428	129	830	101	360	742	159
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	549	1233	549	93	450	574	138	1575	191	416	1366	859
Arrive On Green	0.16	0.34	0.34	0.05	0.24	0.24	0.08	0.34	0.34	0.24	0.76	0.76
Sat Flow, veh/h	3510	3610	1608	1810	1900	1615	1810	4687	567	3510	3610	1604
Grp Volume(v), veh/h	465	530	527	51	92	428	129	611	320	360	742	159
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1810	1900	1615	1810	1729	1797	1755	1805	1604
Q Serve(g_s), s	13.5	11.9	33.7	2.9	4.1	24.4	7.4	15.0	15.1	10.3	8.9	2.4
Cycle Q Clear(g_c), s	13.5	11.9	33.7	2.9	4.1	24.4	7.4	15.0	15.1	10.3	8.9	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	549	1233	549	93	450	574	138	1162	604	416	1366	859
V/C Ratio(X)	0.85	0.43	0.96	0.55	0.20	0.75	0.94	0.53	0.53	0.87	0.54	0.19
Avail Cap(c_a), veh/h	702	1238	551	121	450	574	138	1162	604	435	1366	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	0.86	0.86	0.86
Uniform Delay (d), s/veh	43.1	26.7	33.9	48.6	32.1	29.7	48.2	28.1	28.2	39.3	9.0	4.7
Incr Delay (d2), s/veh	7.7	0.2	28.3	4.9	0.2	5.3	52.5	1.5	2.9	14.2	1.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	5.9	19.3	1.6	2.2	11.7	5.7	7.4	7.9	5.8	4.5	1.1
LnGrp Delay(d),s/veh	50.8	26.9	62.2	53.5	32.3	35.0	100.8	29.6	31.0	53.5	10.4	5.1
LnGrp LOS	D	C	E	D	C	C	F	C	C	D	B	A
Approach Vol, veh/h		1522			571			1060			1261	
Approach Delay, s/veh		46.4			36.2			38.7			22.0	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	39.3	9.4	39.9	12.0	43.7	20.4	28.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	21.0	22.0
Max Q Clear Time (g_c+I1), s	12.3	17.1	4.9	35.7	9.4	10.9	15.5	26.4
Green Ext Time (p_c), s	0.1	9.8	0.0	0.2	0.0	13.5	0.9	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	215	5	158	507	1159	0	0	1084	311
Future Volume (veh/h)	0	0	0	215	5	158	507	1159	0	0	1084	311
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				224	5	165	528	1207	0	0	1129	324
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				276	6	249	1292	2773	0	0	1877	582
Arrive On Green				0.16	0.16	0.16	0.74	1.00	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1772	40	1599	3510	3705	0	0	5358	1608
Grp Volume(v), veh/h				229	0	165	528	1207	0	0	1129	324
Grp Sat Flow(s),veh/h/ln				1811	0	1599	1755	1805	0	0	1729	1608
Q Serve(g_s), s				12.8	0.0	10.2	6.0	0.0	0.0	0.0	18.6	16.9
Cycle Q Clear(g_c), s				12.8	0.0	10.2	6.0	0.0	0.0	0.0	18.6	16.9
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				282	0	249	1292	2773	0	0	1877	582
V/C Ratio(X)				0.81	0.00	0.66	0.41	0.44	0.00	0.00	0.60	0.56
Avail Cap(c_a), veh/h				466	0	411	1292	2773	0	0	1877	582
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.77	0.77	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.8	0.0	41.7	9.5	0.0	0.0	0.0	27.3	26.8
Incr Delay (d2), s/veh				5.6	0.0	3.0	0.2	0.4	0.0	0.0	1.4	3.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.9	0.0	4.7	2.7	0.1	0.0	0.0	9.1	8.1
LnGrp Delay(d),s/veh				48.4	0.0	44.7	9.7	0.4	0.0	0.0	28.8	30.6
LnGrp LOS				D		D	A	A			C	C
Approach Vol, veh/h					394			1735			1453	
Approach Delay, s/veh					46.9			3.2			29.2	
Approach LOS					D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		84.7			42.7	42.0		20.3
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		70.0			28.0	38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0			8.0	20.6		14.8
Green Ext Time (p_c), s		15.8			10.6	8.8		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	63	144	76	42	108	78	38	909	39	89	1142	57
Future Volume (veh/h)	63	144	76	42	108	78	38	909	39	89	1142	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	148	78	43	111	80	39	937	40	92	1177	59
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	308	260	104	279	234	154	1655	736	154	1655	736
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.09	0.46	0.46	0.09	0.46	0.46
Sat Flow, veh/h	1810	1900	1600	1810	1900	1598	1810	3610	1606	1810	3610	1606
Grp Volume(v), veh/h	65	148	78	43	111	80	39	937	40	92	1177	59
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1598	1810	1805	1606	1810	1805	1606
Q Serve(g_s), s	2.3	4.8	2.2	1.6	3.6	3.0	1.4	12.8	0.9	3.3	17.7	0.9
Cycle Q Clear(g_c), s	2.3	4.8	2.2	1.6	3.6	3.0	1.4	12.8	0.9	3.3	17.7	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	132	308	260	104	279	234	154	1655	736	154	1655	736
V/C Ratio(X)	0.49	0.48	0.30	0.41	0.40	0.34	0.25	0.57	0.05	0.60	0.71	0.08
Avail Cap(c_a), veh/h	214	956	805	187	927	780	187	1655	736	187	1655	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	25.7	14.3	30.8	26.1	25.9	28.9	13.4	10.2	29.8	14.7	4.3
Incr Delay (d2), s/veh	2.8	1.2	0.6	2.6	0.9	0.9	0.9	1.4	0.1	3.7	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	1.3	0.9	2.0	1.4	0.7	6.7	0.4	1.8	9.3	0.6
LnGrp Delay(d),s/veh	32.9	26.9	14.9	33.4	27.1	26.8	29.8	14.8	10.3	33.5	17.3	4.5
LnGrp LOS	C	C	B	C	C	C	C	B	B	C	B	A
Approach Vol, veh/h		291			234			1016			1328	
Approach Delay, s/veh		25.0			28.1			15.2			17.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	35.0	7.9	15.0	9.8	35.0	8.9	13.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	8.0	33.0
Max Q Clear Time (g_c+I1), s	5.3	14.8	3.6	6.8	3.4	19.7	4.3	5.6
Green Ext Time (p_c), s	0.0	5.9	0.0	1.9	2.1	6.0	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	7.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰	↱
Traffic Vol, veh/h	5	4	44	3	0	68
Future Vol, veh/h	5	4	44	3	0	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	4	49	3	0	76

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	10	0	110	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	102	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1623	-	892	1080
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	927	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1623	-	865	1080
Mov Cap-2 Maneuver	-	-	-	-	865	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	899	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.8	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	1080	-	-	1623	-
HCM Lane V/C Ratio	-	0.071	-	-	0.03	-
HCM Control Delay (s)	0	8.6	-	-	7.3	0
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	-	0.2	-	-	0.1	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Lane Configurations	↰	↱		↰	↱			✥			✥	
Traffic Volume (veh/h)	44	121	104	85	162	4	93	74	86	1	70	22
Future Volume (veh/h)	44	121	104	85	162	4	93	74	86	1	70	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	48	133	114	93	178	4	102	81	95	1	77	24
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	246	211	610	1018	23	117	93	109	1	111	35
Arrive On Green	0.05	0.26	0.26	0.34	0.55	0.55	0.18	0.18	0.18	0.08	0.08	0.08
Sat Flow, veh/h	1810	941	807	1810	1851	42	643	511	599	18	1365	425
Grp Volume(v), veh/h	48	0	247	93	0	182	278	0	0	102	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1748	1810	0	1892	1752	0	0	1808	0	0
Q Serve(g_s), s	3.0	0.0	14.0	4.1	0.0	5.5	17.7	0.0	0.0	6.3	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	14.0	4.1	0.0	5.5	17.7	0.0	0.0	6.3	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.02	0.37		0.34	0.01		0.24
Lane Grp Cap(c), veh/h	86	0	456	610	0	1041	318	0	0	147	0	0
V/C Ratio(X)	0.56	0.00	0.54	0.15	0.00	0.17	0.87	0.00	0.00	0.69	0.00	0.00
Avail Cap(c_a), veh/h	126	0	456	610	0	1041	472	0	0	377	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	53.6	0.0	36.6	26.6	0.0	12.9	45.8	0.0	0.0	51.4	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.0	4.6	0.1	0.0	0.4	11.6	0.0	0.0	5.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	7.3	2.1	0.0	3.0	9.6	0.0	0.0	3.4	0.0	0.0
LnGrp Delay(d),s/veh	59.0	0.0	41.1	26.8	0.0	13.2	57.4	0.0	0.0	57.1	0.0	0.0
LnGrp LOS	E		D	C		B	E			E		
Approach Vol, veh/h		295			275			278			102	
Approach Delay, s/veh		44.1			17.8			57.4			57.1	
Approach LOS		D			B			E			E	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		24.9	42.8	34.0		13.4	9.5	67.3
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		31.0	14.0	30.0		24.0	8.0	36.0
Max Q Clear Time (g_c+I1), s		19.7	6.1	16.0		8.3	5.0	7.5
Green Ext Time (p_c), s		1.0	0.6	1.0		0.3	0.0	1.1

Intersection Summary		
HCM 2010 Ctrl Delay		41.8
HCM 2010 LOS		D

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps & Moreno Beach Dr

	↰	→	↘	↙	←	↖	↖	↑	↱	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱		↰	
Traffic Volume (veh/h)	80	4	528	0	0	0	0	590	179	9	327	0
Future Volume (veh/h)	80	4	528	0	0	0	0	590	179	9	327	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	83	4	550				0	615	186	9	341	0
Adj No. of Lanes	0	1	1				0	1	1	0	1	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	534	26	494				0	653	551	11	398	0
Arrive On Green	0.31	0.31	0.31				0.00	0.34	0.34	0.22	0.22	0.00
Sat Flow, veh/h	1730	83	1602				0	1900	1603	49	1849	0
Grp Volume(v), veh/h	87	0	550				0	615	186	350	0	0
Grp Sat Flow(s),veh/h/ln	1813	0	1602				0	1900	1603	1898	0	0
Q Serve(g_s), s	3.2	0.0	28.0				0.0	28.5	7.8	16.1	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	28.0				0.0	28.5	7.8	16.1	0.0	0.0
Prop In Lane	0.95		1.00				0.00		1.00	0.03		0.00
Lane Grp Cap(c), veh/h	560	0	494				0	653	551	409	0	0
V/C Ratio(X)	0.16	0.00	1.11				0.00	0.94	0.34	0.86	0.00	0.00
Avail Cap(c_a), veh/h	560	0	494				0	670	566	586	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.8	0.0	31.4				0.0	28.9	22.1	34.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	74.9				0.0	21.4	0.4	8.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	22.5				0.0	18.7	3.5	9.4	0.0	0.0
LnGrp Delay(d),s/veh	22.9	0.0	106.2				0.0	50.3	22.5	42.8	0.0	0.0
LnGrp LOS	C		F					D	C	D		
Approach Vol, veh/h		637						801			350	
Approach Delay, s/veh		94.8						43.9			42.8	
Approach LOS		F						D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		32.0		35.2				23.5
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		32.0				28.0
Max Q Clear Time (g_c+I1), s		30.0		30.5				18.1
Green Ext Time (p_c), s		0.0		0.7				1.4

Intersection Summary	
HCM 2010 Ctrl Delay	61.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	83	309	169	151	192	60	134	784	99	129	775	73
Future Volume (veh/h)	83	309	169	151	192	60	134	784	99	129	775	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	329	180	161	204	64	143	834	105	137	824	78
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	543	291	172	713	217	178	1831	229	151	1819	171
Arrive On Green	0.07	0.24	0.24	0.10	0.26	0.26	0.10	0.39	0.39	0.08	0.38	0.38
Sat Flow, veh/h	1810	2268	1214	1810	2723	830	1810	4668	585	1810	4821	454
Grp Volume(v), veh/h	88	260	249	161	133	135	143	617	322	137	590	312
Grp Sat Flow(s),veh/h/ln	1810	1805	1677	1810	1805	1748	1810	1729	1794	1810	1729	1818
Q Serve(g_s), s	4.0	10.8	11.1	7.4	5.0	5.2	6.5	11.1	11.2	6.3	10.8	10.9
Cycle Q Clear(g_c), s	4.0	10.8	11.1	7.4	5.0	5.2	6.5	11.1	11.2	6.3	10.8	10.9
Prop In Lane	1.00		0.72	1.00		0.48	1.00		0.33	1.00		0.25
Lane Grp Cap(c), veh/h	131	432	401	172	473	458	178	1356	704	151	1305	686
V/C Ratio(X)	0.67	0.60	0.62	0.94	0.28	0.29	0.81	0.45	0.46	0.91	0.45	0.46
Avail Cap(c_a), veh/h	151	772	717	172	794	769	215	1356	704	151	1305	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	28.4	28.6	37.8	24.7	24.8	37.2	18.9	18.9	38.3	19.7	19.7
Incr Delay (d2), s/veh	9.1	1.4	1.6	50.1	0.3	0.4	16.7	1.1	2.1	47.7	1.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.5	5.3	6.1	2.5	2.6	4.1	5.5	6.0	5.2	5.3	5.9
LnGrp Delay(d),s/veh	47.2	29.8	30.1	87.9	25.1	25.2	53.9	20.0	21.1	85.9	20.8	21.9
LnGrp LOS	D	C	C	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		597			429			1082			1039	
Approach Delay, s/veh		32.5			48.7			24.8			29.7	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.0	12.0	24.1	12.3	35.7	10.1	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0	8.0	36.0	10.0	30.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	8.3	13.2	9.4	13.1	8.5	12.9	6.0	7.2
Green Ext Time (p_c), s	0.0	11.4	0.0	5.0	0.0	10.4	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	32	355	132	215	264	117	156	665	268	176	656	13
Future Volume (veh/h)	32	355	132	215	264	117	156	665	268	176	656	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	378	140	229	281	124	166	707	285	187	698	14
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	83	628	229	152	691	297	152	2057	638	152	2076	42
Arrive On Green	0.05	0.24	0.24	0.08	0.28	0.28	0.08	0.40	0.40	0.08	0.40	0.40
Sat Flow, veh/h	1810	2587	945	1810	2456	1056	1810	5187	1609	1810	5234	105
Grp Volume(v), veh/h	34	262	256	229	205	200	166	707	285	187	461	251
Grp Sat Flow(s),veh/h/ln	1810	1805	1726	1810	1805	1707	1810	1729	1609	1810	1729	1881
Q Serve(g_s), s	1.5	10.7	11.0	7.0	7.6	8.0	7.0	7.9	10.8	7.0	7.7	7.7
Cycle Q Clear(g_c), s	1.5	10.7	11.0	7.0	7.6	8.0	7.0	7.9	10.8	7.0	7.7	7.7
Prop In Lane	1.00		0.55	1.00		0.62	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	83	438	419	152	508	480	152	2057	638	152	1371	746
V/C Ratio(X)	0.41	0.60	0.61	1.50	0.40	0.42	1.09	0.34	0.45	1.23	0.34	0.34
Avail Cap(c_a), veh/h	152	803	768	152	803	759	152	2057	638	152	1371	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	27.9	28.0	38.1	24.2	24.4	38.1	17.5	18.4	38.1	17.5	17.5
Incr Delay (d2), s/veh	3.2	1.3	1.4	257.9	0.5	0.6	99.2	0.5	2.3	147.2	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.5	5.4	14.4	3.9	3.8	7.7	3.9	5.2	9.7	3.8	4.2
LnGrp Delay(d),s/veh	41.8	29.2	29.4	296.1	24.8	24.9	137.3	18.0	20.7	185.3	18.1	18.7
LnGrp LOS	D	C	C	F	C	C	F	B	C	F	B	B
Approach Vol, veh/h		552			634			1158			899	
Approach Delay, s/veh		30.1			122.8			35.8			53.1	
Approach LOS		C			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.0	11.0	24.2	11.0	37.0	7.8	27.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0	7.0	37.0	7.0	33.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	9.0	12.8	9.0	13.0	9.0	9.7	3.5	10.0
Green Ext Time (p_c), s	0.0	9.8	0.0	5.1	0.0	10.5	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	56.6
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	66	649	106	111	601	81	61	98	68	49	130	75
Future Volume (veh/h)	66	649	106	111	601	81	61	98	68	49	130	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	70	690	113	118	639	86	65	104	72	52	138	80
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	1146	188	188	1411	740	143	370	237	125	372	203
Arrive On Green	0.08	0.37	0.37	0.10	0.39	0.39	0.08	0.18	0.18	0.07	0.17	0.17
Sat Flow, veh/h	1810	3105	508	1810	3610	1609	1810	2106	1347	1810	2248	1227
Grp Volume(v), veh/h	70	401	402	118	639	86	65	88	88	52	109	109
Grp Sat Flow(s),veh/h/ln	1810	1805	1808	1810	1805	1609	1810	1805	1649	1810	1805	1670
Q Serve(g_s), s	2.1	10.2	10.2	3.5	7.4	1.7	1.9	2.4	2.6	1.6	3.0	3.3
Cycle Q Clear(g_c), s	2.1	10.2	10.2	3.5	7.4	1.7	1.9	2.4	2.6	1.6	3.0	3.3
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.82	1.00		0.73
Lane Grp Cap(c), veh/h	149	666	667	188	1411	740	143	317	290	125	299	277
V/C Ratio(X)	0.47	0.60	0.60	0.63	0.45	0.12	0.45	0.28	0.30	0.42	0.37	0.39
Avail Cap(c_a), veh/h	287	923	924	287	1845	934	287	1400	1279	223	1336	1236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	14.5	14.5	24.4	12.8	8.7	25.0	20.3	20.4	25.3	21.0	21.1
Incr Delay (d2), s/veh	2.3	0.9	0.9	3.4	0.2	0.1	2.2	0.5	0.6	2.2	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.2	5.2	1.9	3.7	0.8	1.1	1.2	1.2	0.9	1.6	1.6
LnGrp Delay(d),s/veh	27.1	15.4	15.4	27.7	13.0	8.8	27.2	20.7	21.0	27.5	21.8	22.0
LnGrp LOS	C	B	B	C	B	A	C	C	C	C	C	C
Approach Vol, veh/h		873			843			241			270	
Approach Delay, s/veh		16.3			14.6			22.6			23.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	14.0	9.9	24.9	8.5	13.4	8.7	26.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	9.0	29.0	9.0	42.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	3.6	4.6	5.5	12.2	3.9	5.3	4.1	9.4
Green Ext Time (p_c), s	0.0	2.2	0.1	8.0	0.0	2.2	0.0	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	352	263	561	546	93	209	473	394	191	651	80
Future Volume (veh/h)	150	352	263	561	546	93	209	473	394	191	651	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	155	363	271	578	563	96	215	488	406	197	671	82
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	251	914	424	619	1651	277	287	1158	800	255	1009	123
Arrive On Green	0.07	0.26	0.26	0.18	0.37	0.37	0.08	0.32	0.32	0.07	0.31	0.31
Sat Flow, veh/h	3510	3458	1606	3510	4472	750	3510	3610	1607	3510	3238	395
Grp Volume(v), veh/h	155	363	271	578	433	226	215	488	406	197	374	379
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1764	1755	1805	1607	1755	1805	1828
Q Serve(g_s), s	4.1	8.3	14.4	15.7	8.7	8.9	5.8	10.2	16.4	5.3	17.3	17.4
Cycle Q Clear(g_c), s	4.1	8.3	14.4	15.7	8.7	8.9	5.8	10.2	16.4	5.3	17.3	17.4
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	251	914	424	619	1277	651	287	1158	800	255	562	569
V/C Ratio(X)	0.62	0.40	0.64	0.93	0.34	0.35	0.75	0.42	0.51	0.77	0.66	0.67
Avail Cap(c_a), veh/h	328	1291	600	619	1578	805	364	1648	1018	255	768	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	29.2	31.4	39.2	21.9	22.0	43.3	25.7	16.3	43.9	28.8	28.8
Incr Delay (d2), s/veh	2.5	0.3	1.6	21.4	0.2	0.3	6.3	0.2	0.5	13.7	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.0	6.6	9.4	4.2	4.4	3.1	5.1	7.4	3.1	8.8	9.0
LnGrp Delay(d),s/veh	46.0	29.4	33.0	60.5	22.1	22.3	49.6	26.0	16.8	57.6	30.2	30.2
LnGrp LOS	D	C	C	E	C	C	D	C	B	E	C	C
Approach Vol, veh/h		789			1237			1109			950	
Approach Delay, s/veh		33.9			40.1			27.2			35.9	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	34.9	21.0	29.5	11.9	34.0	10.9	39.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	17.0	36.0	10.0	41.0	9.0	44.0
Max Q Clear Time (g_c+I1), s	7.3	18.4	17.7	16.4	7.8	19.4	6.1	10.9
Green Ext Time (p_c), s	0.0	9.7	0.0	7.5	0.1	9.1	0.1	9.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	225	650	10	24	692	120	8	31	10	102	41	363
Future Volume (veh/h)	225	650	10	24	692	120	8	31	10	102	41	363
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	670	10	25	713	124	8	32	10	105	42	374
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	393	1636	24	72	1237	385	26	408	127	172	711	785
Arrive On Green	0.11	0.31	0.31	0.04	0.24	0.24	0.01	0.29	0.29	0.10	0.37	0.37
Sat Flow, veh/h	3510	5266	78	1810	5187	1615	1810	1389	434	1810	1900	1615
Grp Volume(v), veh/h	232	440	240	25	713	124	8	0	42	105	42	374
Grp Sat Flow(s),veh/h/ln	1755	1729	1886	1810	1729	1615	1810	0	1823	1810	1900	1615
Q Serve(g_s), s	3.9	6.2	6.2	0.8	7.4	3.9	0.3	0.0	1.0	3.4	0.9	9.5
Cycle Q Clear(g_c), s	3.9	6.2	6.2	0.8	7.4	3.9	0.3	0.0	1.0	3.4	0.9	9.5
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	393	1075	586	72	1237	385	26	0	535	172	711	785
V/C Ratio(X)	0.59	0.41	0.41	0.35	0.58	0.32	0.30	0.00	0.08	0.61	0.06	0.48
Avail Cap(c_a), veh/h	573	1184	646	207	1523	474	207	0	535	236	711	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	16.7	16.7	28.7	20.6	19.3	29.9	0.0	15.7	26.6	12.3	10.5
Incr Delay (d2), s/veh	1.4	0.3	0.5	2.9	0.4	0.5	6.3	0.0	0.3	3.5	0.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.0	3.3	0.5	3.5	1.8	0.2	0.0	0.6	1.9	0.5	4.7
LnGrp Delay(d),s/veh	27.3	16.9	17.1	31.6	21.0	19.7	36.2	0.0	15.9	30.1	12.4	12.6
LnGrp LOS	C	B	B	C	C	B	D		B	C	B	B
Approach Vol, veh/h		912			862			50			521	
Approach Delay, s/veh		19.6			21.2			19.2			16.1	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	22.0	6.4	23.1	4.9	26.9	10.9	18.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	18.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.4	3.0	2.8	8.2	2.3	11.5	5.9	9.4
Green Ext Time (p_c), s	0.1	1.6	0.0	6.9	0.0	1.1	0.3	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰↑	↱		↰↑	↱
Traffic Volume (veh/h)	126	479	40	43	494	9	33	25	33	3	23	90
Future Volume (veh/h)	126	479	40	43	494	9	33	25	33	3	23	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	494	41	44	509	9	34	26	34	3	24	93
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	1587	130	118	1407	25	132	101	201	29	236	224
Arrive On Green	0.12	0.33	0.33	0.07	0.27	0.27	0.13	0.13	0.13	0.14	0.14	0.14
Sat Flow, veh/h	1810	4883	401	1810	5248	93	1047	801	1599	210	1680	1599
Grp Volume(v), veh/h	130	348	187	44	335	183	60	0	34	27	0	93
Grp Sat Flow(s),veh/h/ln	1810	1729	1826	1810	1729	1883	1848	0	1599	1890	0	1599
Q Serve(g_s), s	3.2	3.5	3.6	1.1	3.7	3.7	1.4	0.0	0.9	0.6	0.0	2.5
Cycle Q Clear(g_c), s	3.2	3.5	3.6	1.1	3.7	3.7	1.4	0.0	0.9	0.6	0.0	2.5
Prop In Lane	1.00		0.22	1.00		0.05	0.57		1.00	0.11		1.00
Lane Grp Cap(c), veh/h	221	1124	594	118	927	505	233	0	201	265	0	224
V/C Ratio(X)	0.59	0.31	0.31	0.37	0.36	0.36	0.26	0.00	0.17	0.10	0.00	0.41
Avail Cap(c_a), veh/h	272	1929	1019	272	1929	1051	1348	0	1166	1500	0	1269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.3	11.8	11.8	20.9	13.8	13.8	18.4	0.0	18.2	17.5	0.0	18.3
Incr Delay (d2), s/veh	2.5	0.2	0.3	1.9	0.2	0.4	0.6	0.0	0.4	0.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.7	1.8	0.6	1.8	1.9	0.7	0.0	0.4	0.3	0.0	1.2
LnGrp Delay(d),s/veh	21.8	12.0	12.1	22.8	14.1	14.3	19.0	0.0	18.6	17.6	0.0	19.5
LnGrp LOS	C	B	B	C	B	B	B		B	B		B
Approach Vol, veh/h		665			562			94			120	
Approach Delay, s/veh		13.9			14.8			18.8			19.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		9.9	7.0	19.2		10.5	9.7	16.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	26.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		3.4	3.1	5.6		4.5	5.2	5.7
Green Ext Time (p_c), s		0.4	0.0	5.9		0.4	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	29	492	29	36	526	8	28	2	28	8	3	17
Future Volume (veh/h)	29	492	29	36	526	8	28	2	28	8	3	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	535	32	39	572	9	30	2	30	9	3	18
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	1676	100	112	1810	28	90	334	381	30	33	200
Arrive On Green	0.05	0.33	0.33	0.06	0.34	0.34	0.05	0.18	0.18	0.02	0.14	0.14
Sat Flow, veh/h	1810	5007	297	1810	5260	83	1810	1900	1602	1810	234	1404
Grp Volume(v), veh/h	32	368	199	39	376	205	30	2	30	9	0	21
Grp Sat Flow(s),veh/h/ln	1810	1729	1846	1810	1729	1885	1810	1900	1602	1810	0	1638
Q Serve(g_s), s	0.7	3.1	3.1	0.8	3.1	3.1	0.6	0.0	0.6	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.7	3.1	3.1	0.8	3.1	3.1	0.6	0.0	0.6	0.2	0.0	0.4
Prop In Lane	1.00		0.16	1.00		0.04	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	95	1158	618	112	1190	649	90	334	381	30	0	233
V/C Ratio(X)	0.34	0.32	0.32	0.35	0.32	0.32	0.33	0.01	0.08	0.30	0.00	0.09
Avail Cap(c_a), veh/h	325	2665	1423	325	2665	1453	325	2197	1952	325	0	1894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	9.6	9.6	17.5	9.4	9.4	17.9	13.2	11.5	18.9	0.0	14.5
Incr Delay (d2), s/veh	2.1	0.2	0.3	1.8	0.2	0.3	2.1	0.0	0.1	5.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.5	1.6	0.5	1.5	1.6	0.4	0.0	0.3	0.1	0.0	0.2
LnGrp Delay(d),s/veh	19.8	9.8	9.9	19.3	9.5	9.7	20.0	13.2	11.6	24.3	0.0	14.7
LnGrp LOS	B	A	A	B	A	A	C	B	B	C		B
Approach Vol, veh/h		599			620			62			30	
Approach Delay, s/veh		10.4			10.2			15.7			17.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.6	10.8	6.4	17.0	5.9	9.5	6.0	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.2	2.6	2.8	5.1	2.6	2.4	2.7	5.1
Green Ext Time (p_c), s	0.0	0.2	0.0	6.9	0.0	0.2	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	16	98	74	158	48	87	29	923	145	90	865	15
Future Volume (veh/h)	16	98	74	158	48	87	29	923	145	90	865	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	107	80	172	52	95	32	1003	158	98	940	16
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	30	186	182	248	75	282	82	1873	294	147	2365	40
Arrive On Green	0.11	0.11	0.11	0.18	0.18	0.18	0.05	0.41	0.41	0.08	0.45	0.45
Sat Flow, veh/h	259	1628	1594	1405	425	1601	1810	4519	710	1810	5252	89
Grp Volume(v), veh/h	124	0	80	224	0	95	32	767	394	98	619	337
Grp Sat Flow(s),veh/h/ln	1887	0	1594	1830	0	1601	1810	1729	1772	1810	1729	1884
Q Serve(g_s), s	4.7	0.0	3.5	8.6	0.0	3.9	1.3	12.5	12.5	3.9	9.0	9.0
Cycle Q Clear(g_c), s	4.7	0.0	3.5	8.6	0.0	3.9	1.3	12.5	12.5	3.9	9.0	9.0
Prop In Lane	0.14		1.00	0.77		1.00	1.00		0.40	1.00		0.05
Lane Grp Cap(c), veh/h	216	0	182	322	0	282	82	1433	734	147	1557	848
V/C Ratio(X)	0.58	0.00	0.44	0.69	0.00	0.34	0.39	0.54	0.54	0.67	0.40	0.40
Avail Cap(c_a), veh/h	731	0	618	783	0	685	169	1433	734	169	1557	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	30.9	28.9	0.0	27.0	34.7	16.5	16.5	33.4	13.8	13.8
Incr Delay (d2), s/veh	2.4	0.0	1.7	2.7	0.0	0.7	3.0	1.4	2.8	7.9	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	1.6	4.6	0.0	1.8	0.7	6.3	6.7	2.3	4.4	4.9
LnGrp Delay(d),s/veh	33.8	0.0	32.6	31.6	0.0	27.7	37.7	17.9	19.3	41.2	14.5	15.2
LnGrp LOS	C		C	C		C	D	B	B	D	B	B
Approach Vol, veh/h		204			319			1193			1054	
Approach Delay, s/veh		33.3			30.5			18.9			17.2	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.1	35.0		12.5	7.4	37.7		17.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	7.0	31.0		32.0
Max Q Clear Time (g_c+I1), s	5.9	14.5		6.7	3.3	11.0		10.6
Green Ext Time (p_c), s	0.0	11.1		0.9	0.0	12.7		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	66	230	20	15	201	69	14	53	25	101	70	99
Future Volume (veh/h)	66	230	20	15	201	69	14	53	25	101	70	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	242	21	16	212	73	15	56	26	106	74	104
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	964	83	51	593	198	48	479	208	212	516	460
Arrive On Green	0.09	0.29	0.29	0.03	0.22	0.22	0.03	0.20	0.20	0.12	0.29	0.29
Sat Flow, veh/h	1810	3363	289	1810	2654	887	1810	2445	1062	1810	1805	1607
Grp Volume(v), veh/h	69	129	134	16	142	143	15	40	42	106	74	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1847	1810	1805	1736	1810	1805	1703	1810	1805	1607
Q Serve(g_s), s	1.5	2.4	2.4	0.4	2.9	3.0	0.3	0.8	0.9	2.4	1.3	2.1
Cycle Q Clear(g_c), s	1.5	2.4	2.4	0.4	2.9	3.0	0.3	0.8	0.9	2.4	1.3	2.1
Prop In Lane	1.00		0.16	1.00		0.51	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	165	517	530	51	404	388	48	353	333	212	516	460
V/C Ratio(X)	0.42	0.25	0.25	0.31	0.35	0.37	0.31	0.11	0.12	0.50	0.14	0.23
Avail Cap(c_a), veh/h	295	1260	1289	295	1260	1212	295	1344	1268	421	1470	1308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	11.8	11.8	20.5	14.1	14.1	20.5	14.2	14.2	17.8	11.4	11.7
Incr Delay (d2), s/veh	1.7	0.2	0.2	3.4	0.5	0.6	3.6	0.1	0.2	1.8	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	1.3	0.2	1.5	1.5	0.2	0.4	0.4	1.3	0.7	1.0
LnGrp Delay(d),s/veh	20.1	12.0	12.0	23.9	14.6	14.7	24.1	14.4	14.4	19.6	11.5	12.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	B	B	B
Approach Vol, veh/h		332			301			97			284	
Approach Delay, s/veh		13.7			15.1			15.9			14.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	12.4	5.2	16.3	5.1	16.3	7.9	13.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	32.0	7.0	30.0	7.0	35.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	4.4	2.9	2.4	4.4	2.3	4.1	3.5	5.0
Green Ext Time (p_c), s	0.1	1.4	0.0	3.4	0.0	1.4	0.0	3.3

Intersection Summary		
HCM 2010 Ctrl Delay		14.6
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	110	53	147	65	29	50	82	760	52	97	1024	62
Future Volume (veh/h)	110	53	147	65	29	50	82	760	52	97	1024	62
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	56	156	69	31	53	87	809	55	103	1089	66
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	322	297	263	136	267	239	151	1574	825	160	1525	92
Arrive On Green	0.09	0.16	0.16	0.08	0.15	0.15	0.08	0.44	0.44	0.09	0.44	0.44
Sat Flow, veh/h	3510	1805	1600	1810	1805	1615	1810	3610	1615	1810	3458	209
Grp Volume(v), veh/h	117	56	156	69	31	53	87	809	55	103	568	587
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1810	1805	1615	1810	1805	1615	1810	1805	1862
Q Serve(g_s), s	2.1	1.8	6.1	2.5	1.0	2.0	3.1	11.0	1.2	3.7	17.4	17.4
Cycle Q Clear(g_c), s	2.1	1.8	6.1	2.5	1.0	2.0	3.1	11.0	1.2	3.7	17.4	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	322	297	263	136	267	239	151	1574	825	160	796	821
V/C Ratio(X)	0.36	0.19	0.59	0.51	0.12	0.22	0.58	0.51	0.07	0.64	0.71	0.71
Avail Cap(c_a), veh/h	363	932	826	187	932	834	187	1651	860	294	932	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	24.4	26.2	30.1	25.0	25.4	29.9	13.9	8.4	29.9	15.5	15.5
Incr Delay (d2), s/veh	0.7	0.3	2.1	2.9	0.2	0.5	3.5	0.3	0.0	4.3	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.9	2.8	1.4	0.5	0.9	1.7	5.6	0.5	2.0	9.0	9.3
LnGrp Delay(d),s/veh	29.6	24.7	28.3	33.1	25.2	25.9	33.4	14.2	8.4	34.1	17.6	17.6
LnGrp LOS	C	C	C	C	C	C	C	B	A	C	B	B
Approach Vol, veh/h		329			153			951			1258	
Approach Delay, s/veh		28.2			29.0			15.6			18.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	33.5	9.1	15.2	9.6	33.9	10.2	14.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	7.0	35.0	7.0	35.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	5.7	13.0	4.5	8.1	5.1	19.4	4.1	4.0
Green Ext Time (p_c), s	0.1	11.3	0.0	1.9	0.0	10.3	0.1	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	132	659	165	16	468	43	106	187	17	42	202	104
Future Volume (veh/h)	132	659	165	16	468	43	106	187	17	42	202	104
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	701	176	17	498	46	113	199	18	45	215	111
Adj No. of Lanes	1	2	1	1	2	1	2	1	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	178	1686	891	51	1433	793	302	326	30	173	466	231
Arrive On Green	0.10	0.47	0.47	0.03	0.40	0.40	0.09	0.19	0.19	0.10	0.20	0.20
Sat Flow, veh/h	1810	3610	1610	1810	3610	1609	3510	1716	155	1810	2333	1158
Grp Volume(v), veh/h	140	701	176	17	498	46	113	0	217	45	164	162
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1609	1755	0	1871	1810	1805	1685
Q Serve(g_s), s	5.5	9.4	4.0	0.7	7.1	0.3	2.2	0.0	7.8	1.7	5.9	6.2
Cycle Q Clear(g_c), s	5.5	9.4	4.0	0.7	7.1	0.3	2.2	0.0	7.8	1.7	5.9	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		0.69
Lane Grp Cap(c), veh/h	178	1686	891	51	1433	793	302	0	356	173	361	337
V/C Ratio(X)	0.79	0.42	0.20	0.34	0.35	0.06	0.37	0.00	0.61	0.26	0.46	0.48
Avail Cap(c_a), veh/h	272	1686	891	173	1433	793	384	0	1050	446	1260	1176
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	12.9	8.2	34.9	15.4	3.1	31.5	0.0	27.1	30.6	25.7	25.9
Incr Delay (d2), s/veh	8.2	0.8	0.5	3.8	0.7	0.1	0.8	0.0	1.7	0.8	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.9	1.9	0.4	3.6	0.3	1.1	0.0	4.1	0.9	3.0	3.0
LnGrp Delay(d),s/veh	40.4	13.6	8.7	38.7	16.1	3.3	32.3	0.0	28.8	31.4	26.6	26.9
LnGrp LOS	D	B	A	D	B	A	C		C	C	C	C
Approach Vol, veh/h		1017			561			330			371	
Approach Delay, s/veh		16.5			15.7			30.0			27.3	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	17.9	6.0	38.1	10.3	18.6	11.2	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	8.0	51.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	3.7	9.8	2.7	11.4	4.2	8.2	7.5	9.1
Green Ext Time (p_c), s	1.6	1.2	0.0	8.6	0.1	2.0	0.1	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	42	389	212	70	298	19	148	338	96	15	284	32
Future Volume (veh/h)	42	389	212	70	298	19	148	338	96	15	284	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	46	427	233	77	327	21	163	371	105	16	312	35
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	560	473	142	596	666	213	557	596	184	465	52
Arrive On Green	0.06	0.29	0.29	0.08	0.31	0.31	0.12	0.29	0.29	0.10	0.28	0.28
Sat Flow, veh/h	1810	1900	1607	1810	1900	1602	1810	1900	1601	1810	1677	188
Grp Volume(v), veh/h	46	427	233	77	327	21	163	371	105	16	0	347
Grp Sat Flow(s),veh/h/ln	1810	1900	1607	1810	1900	1602	1810	1900	1601	1810	0	1865
Q Serve(g_s), s	1.7	14.1	5.5	2.8	9.8	0.5	6.0	11.8	0.8	0.6	0.0	11.4
Cycle Q Clear(g_c), s	1.7	14.1	5.5	2.8	9.8	0.5	6.0	11.8	0.8	0.6	0.0	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	108	560	473	142	596	666	213	557	596	184	0	517
V/C Ratio(X)	0.43	0.76	0.49	0.54	0.55	0.03	0.77	0.67	0.18	0.09	0.00	0.67
Avail Cap(c_a), veh/h	184	910	770	184	910	931	263	1020	986	184	0	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	22.1	9.0	30.6	19.6	11.9	29.5	21.4	5.5	28.1	0.0	22.1
Incr Delay (d2), s/veh	2.7	2.2	0.8	3.2	0.8	0.0	10.3	1.4	0.1	0.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.7	3.1	1.5	5.3	0.2	3.6	6.4	0.8	0.3	0.0	6.0
LnGrp Delay(d),s/veh	33.9	24.3	9.8	33.8	20.4	12.0	39.8	22.8	5.7	28.3	0.0	23.6
LnGrp LOS	C	C	A	C	C	B	D	C	A	C		C
Approach Vol, veh/h		706			425			639			363	
Approach Delay, s/veh		20.1			22.4			24.3			23.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	24.2	9.4	24.3	12.1	23.1	8.1	25.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	2.6	13.8	4.8	16.1	8.0	13.4	3.7	11.8
Green Ext Time (p_c), s	0.0	4.3	0.4	2.9	0.1	4.2	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
	↗	→	←	↖	↘	↙
Lane Configurations	↰	↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	63	403	313	34	40	55
Future Volume (veh/h)	63	403	313	34	40	55
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	453	352	38	45	62
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	185	1006	1088	483	397	520
Arrive On Green	0.10	0.53	0.30	0.30	0.22	0.22
Sat Flow, veh/h	1810	1900	3705	1602	1810	1615
Grp Volume(v), veh/h	71	453	352	38	45	62
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1602	1810	1615
Q Serve(g_s), s	1.2	4.7	2.4	0.5	0.6	0.9
Cycle Q Clear(g_c), s	1.2	4.7	2.4	0.5	0.6	0.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	185	1006	1088	483	397	520
V/C Ratio(X)	0.38	0.45	0.32	0.08	0.11	0.12
Avail Cap(c_a), veh/h	511	2444	3171	1407	2328	2243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	4.6	8.6	8.0	10.0	7.6
Incr Delay (d2), s/veh	1.3	0.3	0.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.5	1.2	0.2	0.3	0.9
LnGrp Delay(d),s/veh	14.7	5.0	8.8	8.0	10.1	7.7
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		524	390		107	
Approach Delay, s/veh		6.3	8.7		8.7	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				20.9		11.0	7.3	13.6
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				6.7		2.9	3.2	4.4
Green Ext Time (p_c), s				5.1		0.3	0.1	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	105	302	68	29	207	71	77	675	101	87	579	74
Future Volume (veh/h)	105	302	68	29	207	71	77	675	101	87	579	74
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	328	74	32	225	77	84	734	110	95	629	80
Adj No. of Lanes	2	2	1	2	1	1	1	2	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	362	672	298	420	385	325	308	1136	504	174	1249	385
Arrive On Green	0.10	0.19	0.19	0.12	0.20	0.20	0.17	0.31	0.31	0.10	0.24	0.24
Sat Flow, veh/h	3510	3610	1602	3510	1900	1603	1810	3610	1602	1810	5187	1598
Grp Volume(v), veh/h	114	328	74	32	225	77	84	734	110	95	629	80
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1900	1603	1810	1805	1602	1810	1729	1598
Q Serve(g_s), s	1.7	4.6	2.2	0.5	6.0	2.3	2.3	9.9	2.9	2.8	5.9	2.3
Cycle Q Clear(g_c), s	1.7	4.6	2.2	0.5	6.0	2.3	2.3	9.9	2.9	2.8	5.9	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	672	298	420	385	325	308	1136	504	174	1249	385
V/C Ratio(X)	0.31	0.49	0.25	0.08	0.58	0.24	0.27	0.65	0.22	0.55	0.50	0.21
Avail Cap(c_a), veh/h	435	2302	1021	435	1211	1022	320	1982	880	320	2848	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	20.6	19.6	22.1	20.4	18.9	20.4	16.6	14.2	24.3	18.5	17.1
Incr Delay (d2), s/veh	0.5	0.6	0.4	0.1	1.4	0.4	0.5	0.6	0.2	2.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.3	1.0	0.2	3.3	1.0	1.2	5.0	1.3	1.5	2.8	1.0
LnGrp Delay(d),s/veh	24.0	21.1	20.0	22.2	21.8	19.2	20.9	17.3	14.4	27.0	18.8	17.4
LnGrp LOS	C	C	C	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		516			334			928			804	
Approach Delay, s/veh		21.6			21.2			17.3			19.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	21.8	10.8	14.5	13.6	17.6	9.8	15.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	31.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	4.8	11.9	2.5	6.6	4.3	7.9	3.7	8.0
Green Ext Time (p_c), s	0.2	4.8	0.2	2.1	0.2	4.2	0.1	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	46	647	159	27	456	22	93	197	13	35	228	52
Future Volume (veh/h)	46	647	159	27	456	22	93	197	13	35	228	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	48	681	167	28	480	23	98	207	14	37	240	55
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	110	1263	310	76	1475	71	156	805	54	93	380	321
Arrive On Green	0.06	0.44	0.44	0.04	0.42	0.42	0.09	0.23	0.23	0.05	0.20	0.20
Sat Flow, veh/h	1810	2874	704	1810	3507	168	1810	3432	230	1810	1900	1603
Grp Volume(v), veh/h	48	428	420	28	247	256	98	108	113	37	240	55
Grp Sat Flow(s),veh/h/ln	1810	1805	1773	1810	1805	1870	1810	1805	1858	1810	1900	1603
Q Serve(g_s), s	1.8	12.0	12.0	1.0	6.3	6.3	3.6	3.4	3.4	1.4	8.0	2.0
Cycle Q Clear(g_c), s	1.8	12.0	12.0	1.0	6.3	6.3	3.6	3.4	3.4	1.4	8.0	2.0
Prop In Lane	1.00		0.40	1.00		0.09	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	110	793	779	76	759	786	156	424	436	93	380	321
V/C Ratio(X)	0.43	0.54	0.54	0.37	0.32	0.33	0.63	0.26	0.26	0.40	0.63	0.17
Avail Cap(c_a), veh/h	184	793	779	184	759	786	262	812	835	184	772	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	14.2	14.2	32.1	13.4	13.4	30.4	21.5	21.5	31.7	25.2	22.8
Incr Delay (d2), s/veh	2.7	2.6	2.7	2.9	1.1	1.1	4.1	0.3	0.3	2.7	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.5	6.4	0.6	3.4	3.5	2.0	1.7	1.8	0.7	4.4	0.9
LnGrp Delay(d),s/veh	33.9	16.8	16.9	35.1	14.5	14.5	34.6	21.8	21.8	34.4	27.0	23.1
LnGrp LOS	C	B	B	D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		896			531			319			332	
Approach Delay, s/veh		17.7			15.6			25.7			27.1	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	20.2	6.9	34.3	9.9	17.8	8.2	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	29.0	10.0	28.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.4	5.4	3.0	14.0	5.6	10.0	3.8	8.3
Green Ext Time (p_c), s	0.0	2.6	0.0	6.6	0.1	2.4	0.0	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	55	356	189	221	337	71	98	404	182	37	539	30
Future Volume (veh/h)	55	356	189	221	337	71	98	404	182	37	539	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	371	197	230	351	74	102	421	0	39	561	31
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	814	426	270	1596	712	140	899	402	91	772	43
Arrive On Green	0.06	0.36	0.36	0.15	0.44	0.44	0.08	0.25	0.00	0.05	0.22	0.22
Sat Flow, veh/h	1810	2290	1197	1810	3610	1610	1810	3610	1615	1810	3478	192
Grp Volume(v), veh/h	57	291	277	230	351	74	102	421	0	39	291	301
Grp Sat Flow(s),veh/h/ln	1810	1805	1683	1810	1805	1610	1810	1805	1615	1810	1805	1865
Q Serve(g_s), s	2.5	10.1	10.4	10.1	4.9	2.2	4.5	8.1	0.0	1.7	12.2	12.2
Cycle Q Clear(g_c), s	2.5	10.1	10.4	10.1	4.9	2.2	4.5	8.1	0.0	1.7	12.2	12.2
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	113	642	598	270	1596	712	140	899	402	91	401	414
V/C Ratio(X)	0.51	0.45	0.46	0.85	0.22	0.10	0.73	0.47	0.00	0.43	0.73	0.73
Avail Cap(c_a), veh/h	177	642	598	288	1596	712	177	1328	594	155	642	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	20.2	20.3	33.8	14.1	13.3	36.8	26.0	0.0	37.6	29.4	29.4
Incr Delay (d2), s/veh	3.5	2.3	2.6	20.3	0.3	0.3	10.6	0.4	0.0	3.2	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.4	5.2	6.6	2.5	1.0	2.7	4.1	0.0	0.9	6.3	6.6
LnGrp Delay(d),s/veh	40.5	22.5	22.8	54.1	14.4	13.6	47.4	26.4	0.0	40.8	31.9	31.9
LnGrp LOS	D	C	C	D	B	B	D	C		D	C	C
Approach Vol, veh/h		625			655			523			631	
Approach Delay, s/veh		24.3			28.2			30.5			32.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	24.3	16.2	33.0	10.3	22.1	9.1	40.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	8.0	29.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	3.7	10.1	12.1	12.4	6.5	14.2	4.5	6.9
Green Ext Time (p_c), s	0.0	2.6	0.1	2.8	0.4	2.7	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	132	376	86	23	251	51	43	323	22	110	444	121
Future Volume (veh/h)	132	376	86	23	251	51	43	323	22	110	444	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	139	396	91	24	264	54	45	340	23	116	467	127
Adj No. of Lanes	1	1	1	1	1	0	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	203	704	596	71	454	93	222	663	293	207	848	377
Arrive On Green	0.11	0.37	0.37	0.04	0.30	0.30	0.06	0.18	0.18	0.11	0.23	0.23
Sat Flow, veh/h	1810	1900	1608	1810	1530	313	3510	3610	1593	1810	3610	1605
Grp Volume(v), veh/h	139	396	91	24	0	318	45	340	23	116	467	127
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1843	1755	1805	1593	1810	1805	1605
Q Serve(g_s), s	4.0	9.1	2.1	0.7	0.0	8.0	0.7	4.6	0.5	3.3	6.2	3.6
Cycle Q Clear(g_c), s	4.0	9.1	2.1	0.7	0.0	8.0	0.7	4.6	0.5	3.3	6.2	3.6
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	704	596	71	0	547	222	663	293	207	848	377
V/C Ratio(X)	0.68	0.56	0.15	0.34	0.00	0.58	0.20	0.51	0.08	0.56	0.55	0.34
Avail Cap(c_a), veh/h	298	1458	1235	231	0	1347	449	1847	815	231	1847	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	13.7	11.5	25.6	0.0	16.3	24.3	20.1	11.1	22.9	18.4	17.4
Incr Delay (d2), s/veh	4.0	0.7	0.1	2.8	0.0	1.0	0.4	0.6	0.1	2.4	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.9	0.9	0.4	0.0	4.2	0.3	2.4	0.3	1.8	3.1	1.6
LnGrp Delay(d),s/veh	27.4	14.4	11.6	28.4	0.0	17.3	24.8	20.7	11.2	25.3	19.0	17.9
LnGrp LOS	C	B	B	C		B	C	C	B	C	B	B
Approach Vol, veh/h		626			342			408			710	
Approach Delay, s/veh		16.9			18.1			20.6			19.8	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	14.1	6.1	24.3	7.5	16.8	10.2	20.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	9.0	40.0
Max Q Clear Time (g_c+I1), s	5.3	6.6	2.7	11.1	2.7	8.2	6.0	10.0
Green Ext Time (p_c), s	0.7	2.0	0.0	4.4	0.0	3.4	0.1	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	186	1238	117	72	725	171	56	266	40	252	299	123
Future Volume (veh/h)	186	1238	117	72	725	171	56	266	40	252	299	123
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	188	1251	118	73	732	173	57	269	40	255	302	124
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	219	1757	784	124	1826	427	217	526	77	297	684	304
Arrive On Green	0.12	0.49	0.49	0.07	0.43	0.43	0.06	0.17	0.17	0.08	0.19	0.19
Sat Flow, veh/h	1810	3610	1610	1810	4199	981	3510	3155	463	3510	3610	1602
Grp Volume(v), veh/h	188	1251	118	73	601	304	57	152	157	255	302	124
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1723	1755	1805	1813	1755	1805	1602
Q Serve(g_s), s	8.4	22.5	3.4	3.2	9.9	10.0	1.3	6.4	6.5	5.9	6.1	4.1
Cycle Q Clear(g_c), s	8.4	22.5	3.4	3.2	9.9	10.0	1.3	6.4	6.5	5.9	6.1	4.1
Prop In Lane	1.00		1.00	1.00		0.57	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	219	1757	784	124	1503	749	217	301	302	297	684	304
V/C Ratio(X)	0.86	0.71	0.15	0.59	0.40	0.41	0.26	0.51	0.52	0.86	0.44	0.41
Avail Cap(c_a), veh/h	219	1757	784	153	1503	749	297	894	898	297	1788	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	16.7	11.8	37.4	16.0	16.1	37.0	31.4	31.5	37.4	29.7	15.8
Incr Delay (d2), s/veh	27.5	2.5	0.4	4.3	0.8	1.6	0.6	1.3	1.4	21.5	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	11.7	1.6	1.8	4.8	5.1	0.6	3.3	3.4	3.8	3.1	2.3
LnGrp Delay(d),s/veh	63.3	19.2	12.2	41.7	16.8	17.7	37.7	32.7	32.8	58.9	30.1	16.7
LnGrp LOS	E	B	B	D	B	B	D	C	C	E	C	B
Approach Vol, veh/h		1557			978			366			681	
Approach Delay, s/veh		24.0			18.9			33.5			38.5	
Approach LOS		C			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	17.8	9.7	44.3	9.1	19.7	14.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	7.0	39.0	7.0	41.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	7.9	8.5	5.2	24.5	3.3	8.1	10.4	12.0
Green Ext Time (p_c), s	0.0	1.9	0.0	7.9	0.0	3.5	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	73	1252	151	159	796	160	88	206	68	122	143	64
Future Volume (veh/h)	73	1252	151	159	796	160	88	206	68	122	143	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	1318	0	167	838	168	93	217	72	128	151	67
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	202	1632	730	202	1961	391	201	436	141	160	344	146
Arrive On Green	0.11	0.45	0.00	0.11	0.45	0.45	0.11	0.16	0.16	0.09	0.14	0.14
Sat Flow, veh/h	1810	3610	1615	1810	4338	864	1810	2679	864	1810	2464	1043
Grp Volume(v), veh/h	77	1318	0	167	667	339	93	144	145	128	109	109
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1744	1810	1805	1738	1810	1805	1703
Q Serve(g_s), s	3.4	27.2	0.0	7.8	11.3	11.4	4.2	6.3	6.6	6.0	4.8	5.1
Cycle Q Clear(g_c), s	3.4	27.2	0.0	7.8	11.3	11.4	4.2	6.3	6.6	6.0	4.8	5.1
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.50	1.00		0.61
Lane Grp Cap(c), veh/h	202	1632	730	202	1563	788	201	294	283	160	252	238
V/C Ratio(X)	0.38	0.81	0.00	0.83	0.43	0.43	0.46	0.49	0.51	0.80	0.43	0.46
Avail Cap(c_a), veh/h	210	1632	730	210	1563	788	201	879	846	168	858	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	20.4	0.0	37.5	16.1	16.1	35.9	32.9	33.0	38.6	34.0	34.1
Incr Delay (d2), s/veh	1.2	4.4	0.0	22.6	0.9	1.7	1.6	1.3	1.4	22.8	1.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	14.4	0.0	5.2	5.6	5.8	2.2	3.2	3.3	4.0	2.4	2.5
LnGrp Delay(d),s/veh	36.8	24.8	0.0	60.1	16.9	17.8	37.6	34.1	34.4	61.4	35.1	35.5
LnGrp LOS	D	C		E	B	B	D	C	C	E	D	D
Approach Vol, veh/h		1395			1173			382			346	
Approach Delay, s/veh		25.5			23.3			35.1			45.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	18.0	13.6	43.0	13.6	16.1	13.6	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	42.0	10.0	39.0	9.0	41.0	10.0	39.0
Max Q Clear Time (g_c+I1), s	8.0	8.6	9.8	29.2	6.2	7.1	5.4	13.4
Green Ext Time (p_c), s	0.0	1.9	0.0	5.9	0.5	1.3	3.2	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	112	1124	139	47	754	118	158	395	76	209	442	118
Future Volume (veh/h)	112	1124	139	47	754	118	158	395	76	209	442	118
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	1159	143	48	777	122	163	407	78	215	456	122
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	147	2155	819	124	1823	284	169	685	130	159	798	486
Arrive On Green	0.08	0.42	0.42	0.07	0.40	0.40	0.09	0.23	0.23	0.09	0.22	0.22
Sat Flow, veh/h	1810	5187	1609	1810	4525	705	1810	3024	575	1810	3610	1604
Grp Volume(v), veh/h	115	1159	143	48	592	307	163	242	243	215	456	122
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1772	1810	1805	1794	1810	1805	1604
Q Serve(g_s), s	5.0	13.4	0.0	2.0	9.8	9.9	7.1	9.5	9.6	7.0	8.9	3.0
Cycle Q Clear(g_c), s	5.0	13.4	0.0	2.0	9.8	9.9	7.1	9.5	9.6	7.0	8.9	3.0
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	147	2155	819	124	1393	714	169	409	406	159	798	486
V/C Ratio(X)	0.78	0.54	0.17	0.39	0.43	0.43	0.96	0.59	0.60	1.35	0.57	0.25
Avail Cap(c_a), veh/h	182	2155	819	159	1393	714	169	954	949	159	1909	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	17.5	10.5	35.4	17.1	17.1	35.9	27.4	27.5	36.2	27.6	9.7
Incr Delay (d2), s/veh	16.0	1.0	0.5	2.0	1.0	1.9	58.4	1.4	1.4	192.4	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.5	1.8	1.1	4.9	5.2	6.3	4.9	4.9	12.0	4.5	1.5
LnGrp Delay(d),s/veh	51.8	18.4	11.0	37.4	18.0	19.0	94.2	28.8	28.9	228.6	28.2	10.0
LnGrp LOS	D	B	B	D	B	B	F	C	C	F	C	A
Approach Vol, veh/h		1417			947			648			793	
Approach Delay, s/veh		20.4			19.3			45.3			79.7	
Approach LOS		C			B			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.0	9.4	37.0	11.4	21.6	10.4	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	9.0	11.6	4.0	15.4	9.1	10.9	7.0	11.9
Green Ext Time (p_c), s	0.0	3.5	1.6	7.6	0.0	3.7	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	136	971	132	110	709	61	86	296	74	156	303	66
Future Volume (veh/h)	136	971	132	110	709	61	86	296	74	156	303	66
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	1001	136	113	731	63	89	305	76	161	312	68
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	1752	238	189	1910	164	197	566	139	198	583	125
Arrive On Green	0.09	0.38	0.38	0.10	0.39	0.39	0.11	0.20	0.20	0.11	0.20	0.20
Sat Flow, veh/h	1810	4618	626	1810	4866	417	1810	2871	704	1810	2953	635
Grp Volume(v), veh/h	140	749	388	113	518	276	89	190	191	161	189	191
Grp Sat Flow(s),veh/h/ln	1810	1729	1787	1810	1729	1825	1810	1805	1769	1810	1805	1782
Q Serve(g_s), s	5.8	13.1	13.2	4.6	8.2	8.3	3.5	7.2	7.4	6.6	7.2	7.4
Cycle Q Clear(g_c), s	5.8	13.1	13.2	4.6	8.2	8.3	3.5	7.2	7.4	6.6	7.2	7.4
Prop In Lane	1.00		0.35	1.00		0.23	1.00		0.40	1.00		0.36
Lane Grp Cap(c), veh/h	166	1312	678	189	1357	716	197	356	349	198	357	352
V/C Ratio(X)	0.84	0.57	0.57	0.60	0.38	0.39	0.45	0.53	0.55	0.81	0.53	0.54
Avail Cap(c_a), veh/h	166	1312	678	189	1357	716	197	1015	995	213	1063	1049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	18.8	18.8	32.7	16.6	16.6	31.9	27.5	27.6	33.3	27.5	27.6
Incr Delay (d2), s/veh	31.0	1.8	3.5	5.0	0.8	1.6	1.6	1.2	1.3	19.6	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	6.6	7.1	2.5	4.0	4.4	1.8	3.7	3.7	4.4	3.7	3.7
LnGrp Delay(d),s/veh	65.2	20.6	22.3	37.7	17.4	18.2	33.5	28.8	29.0	52.8	28.7	28.9
LnGrp LOS	E	C	C	D	B	B	C	C	C	D	C	C
Approach Vol, veh/h		1277			907			470			541	
Approach Delay, s/veh		26.0			20.2			29.8			35.9	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	19.1	12.0	33.0	12.3	19.1	11.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	8.0	29.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	8.6	9.4	6.6	15.2	5.5	9.4	7.8	10.3
Green Ext Time (p_c), s	0.0	2.4	0.8	5.9	0.1	2.4	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	26.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	223	698	243	152	556	82	207	654	121	134	752	173
Future Volume (veh/h)	223	698	243	152	556	82	207	654	121	134	752	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	235	735	256	160	585	86	218	688	127	141	792	182
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	314	1266	564	243	1513	219	236	955	425	281	1044	465
Arrive On Green	0.09	0.35	0.35	0.07	0.33	0.33	0.13	0.26	0.26	0.16	0.29	0.29
Sat Flow, veh/h	3510	3610	1608	3510	4574	663	1810	3610	1606	1810	3610	1607
Grp Volume(v), veh/h	235	735	256	160	440	231	218	688	127	141	792	182
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1779	1810	1805	1606	1810	1805	1607
Q Serve(g_s), s	6.5	16.6	8.3	4.4	9.7	10.0	11.9	17.3	5.0	7.1	19.9	9.1
Cycle Q Clear(g_c), s	6.5	16.6	8.3	4.4	9.7	10.0	11.9	17.3	5.0	7.1	19.9	9.1
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	1266	564	243	1144	588	236	955	425	281	1044	465
V/C Ratio(X)	0.75	0.58	0.45	0.66	0.38	0.39	0.92	0.72	0.30	0.50	0.76	0.39
Avail Cap(c_a), veh/h	317	1266	564	246	1144	588	236	1483	660	281	1411	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	26.4	11.4	45.3	25.6	25.7	42.9	33.3	18.6	38.6	32.3	28.4
Incr Delay (d2), s/veh	9.4	1.9	2.6	6.2	1.0	2.0	38.7	1.0	0.4	1.4	1.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	8.6	5.0	2.4	4.8	5.2	8.5	8.7	2.6	3.7	10.1	4.1
LnGrp Delay(d),s/veh	53.8	28.4	14.1	51.4	26.6	27.6	81.6	34.4	19.0	40.0	33.9	29.0
LnGrp LOS	D	C	B	D	C	C	F	C	B	D	C	C
Approach Vol, veh/h		1226			831			1033			1115	
Approach Delay, s/veh		30.2			31.7			42.5			33.9	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	30.4	10.9	39.0	17.0	32.9	12.9	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	9.1	19.3	6.4	18.6	13.9	21.9	8.5	12.0
Green Ext Time (p_c), s	0.2	4.9	0.0	5.9	0.0	5.4	0.3	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	94	2046	1024	172	347	118
Future Volume (veh/h)	94	2046	1024	172	347	118
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	2154	1078	181	365	124
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	283	3730	2595	1056	547	504
Arrive On Green	0.16	0.72	0.50	0.50	0.16	0.16
Sat Flow, veh/h	1810	5358	5358	1607	3510	1615
Grp Volume(v), veh/h	99	2154	1078	181	365	124
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1607	1755	1615
Q Serve(g_s), s	3.1	12.8	8.4	2.8	6.3	0.0
Cycle Q Clear(g_c), s	3.1	12.8	8.4	2.8	6.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	283	3730	2595	1056	547	504
V/C Ratio(X)	0.35	0.58	0.42	0.17	0.67	0.25
Avail Cap(c_a), veh/h	283	3730	2595	1056	1701	1035
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	4.3	10.1	4.3	25.4	16.4
Incr Delay (d2), s/veh	0.7	0.7	0.5	0.4	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.2	4.1	1.9	3.1	2.2
LnGrp Delay(d),s/veh	24.8	5.0	10.6	4.6	26.8	16.6
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		2253	1259		489	
Approach Delay, s/veh		5.8	9.7		24.3	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		14.0	14.0	36.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	10.0	32.0
Max Q Clear Time (g_c+I1), s				14.8		8.3	5.1	10.4
Green Ext Time (p_c), s				20.2		1.7	4.3	7.7

Intersection Summary			
HCM 2010 Ctrl Delay			9.3
HCM 2010 LOS			A

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	114	1885	329	21	953	79	161	73	20	135	100	71
Future Volume (veh/h)	114	1885	329	21	953	79	161	73	20	135	100	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	1943	339	22	982	81	166	75	21	139	103	73
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	2576	799	150	2425	200	318	359	97	161	457	336
Arrive On Green	0.08	0.50	0.50	0.08	0.50	0.50	0.09	0.13	0.13	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	1810	4884	402	3510	2806	755	1810	3610	1596
Grp Volume(v), veh/h	118	1943	339	22	695	368	166	47	49	139	103	73
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1828	1755	1805	1756	1810	1805	1596
Q Serve(g_s), s	5.0	23.7	10.5	0.9	9.9	10.0	3.5	1.8	2.0	6.0	2.0	0.0
Cycle Q Clear(g_c), s	5.0	23.7	10.5	0.9	9.9	10.0	3.5	1.8	2.0	6.0	2.0	0.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	150	2576	799	150	1717	907	318	231	225	161	457	336
V/C Ratio(X)	0.79	0.75	0.42	0.15	0.40	0.41	0.52	0.20	0.22	0.86	0.23	0.22
Avail Cap(c_a), veh/h	161	2576	799	161	1717	907	358	827	805	161	1609	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	15.9	12.6	33.5	12.5	12.5	34.1	30.7	30.7	35.3	30.8	25.7
Incr Delay (d2), s/veh	21.3	2.1	1.6	0.4	0.7	1.3	1.3	0.4	0.5	34.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	11.7	5.0	0.5	4.9	5.4	1.8	0.9	1.0	4.5	1.0	1.3
LnGrp Delay(d),s/veh	56.7	18.0	14.3	33.9	13.2	13.8	35.4	31.1	31.2	70.2	31.1	26.0
LnGrp LOS	E	B	B	C	B	B	D	C	C	E	C	C
Approach Vol, veh/h		2400			1085			262			315	
Approach Delay, s/veh		19.4			13.8			33.9			47.2	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	14.1	10.5	43.0	11.1	13.9	10.5	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	8.0	35.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	8.0	4.0	2.9	25.7	5.5	4.0	7.0	12.0
Green Ext Time (p_c), s	0.0	0.5	0.1	10.3	0.3	0.9	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	95	1079	853	10	572	81	427	403	15	104	426	38
Future Volume (veh/h)	95	1079	853	10	572	81	427	403	15	104	426	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	1199	948	11	636	90	474	448	17	116	473	42
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	1512	972	34	1155	163	649	1099	42	148	693	61
Arrive On Green	0.07	0.42	0.42	0.02	0.36	0.36	0.18	0.31	0.31	0.08	0.21	0.21
Sat Flow, veh/h	1810	3610	1609	1810	3175	449	3510	3546	134	1810	3353	297
Grp Volume(v), veh/h	106	1199	948	11	361	365	474	228	237	116	254	261
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1819	1755	1805	1876	1810	1805	1845
Q Serve(g_s), s	5.4	27.0	24.2	0.6	14.9	14.9	11.9	9.3	9.3	5.9	12.1	12.2
Cycle Q Clear(g_c), s	5.4	27.0	24.2	0.6	14.9	14.9	11.9	9.3	9.3	5.9	12.1	12.2
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.07	1.00		0.16
Lane Grp Cap(c), veh/h	133	1512	972	34	656	661	649	559	581	148	373	381
V/C Ratio(X)	0.79	0.79	0.97	0.33	0.55	0.55	0.73	0.41	0.41	0.79	0.68	0.69
Avail Cap(c_a), veh/h	232	1512	972	135	656	661	901	830	863	290	656	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	23.6	9.1	45.3	23.7	23.7	35.9	25.5	25.5	42.1	34.2	34.3
Incr Delay (d2), s/veh	10.2	4.4	23.4	5.5	3.3	3.3	1.9	0.5	0.5	8.9	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	14.2	20.3	0.3	8.0	8.1	6.0	4.7	4.9	3.3	6.3	6.5
LnGrp Delay(d),s/veh	52.8	28.0	32.5	50.8	27.0	27.0	37.8	26.0	26.0	51.0	36.4	36.5
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		2253			737			939			631	
Approach Delay, s/veh		31.1			27.3			31.9			39.1	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	33.0	5.7	43.2	21.3	23.3	10.9	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	43.0	7.0	39.0	24.0	34.0	12.0	34.0
Max Q Clear Time (g_c+I1), s	7.9	11.3	2.6	29.0	13.9	14.2	7.4	16.9
Green Ext Time (p_c), s	0.1	5.0	0.0	7.6	3.4	3.0	0.2	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	56	948	176	31	561	60	69	269	37	56	366	38
Future Volume (veh/h)	56	948	176	31	561	60	69	269	37	56	366	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	58	988	183	32	584	62	72	280	39	58	381	40
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	1337	247	122	1448	153	135	511	70	191	631	66
Arrive On Green	0.07	0.44	0.44	0.07	0.44	0.44	0.07	0.16	0.16	0.11	0.19	0.19
Sat Flow, veh/h	1810	3041	563	1810	3293	349	1810	3184	439	1810	3297	344
Grp Volume(v), veh/h	58	586	585	32	320	326	72	157	162	58	208	213
Grp Sat Flow(s),veh/h/ln	1810	1805	1798	1810	1805	1837	1810	1805	1818	1810	1805	1836
Q Serve(g_s), s	2.2	19.0	19.1	1.2	8.5	8.5	2.7	5.7	5.8	2.1	7.4	7.5
Cycle Q Clear(g_c), s	2.2	19.0	19.1	1.2	8.5	8.5	2.7	5.7	5.8	2.1	7.4	7.5
Prop In Lane	1.00		0.31	1.00		0.19	1.00		0.24	1.00		0.19
Lane Grp Cap(c), veh/h	122	793	791	122	793	808	135	290	292	191	346	352
V/C Ratio(X)	0.48	0.74	0.74	0.26	0.40	0.40	0.53	0.54	0.55	0.30	0.60	0.61
Avail Cap(c_a), veh/h	180	793	791	180	793	808	180	742	747	191	742	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	16.4	16.4	31.2	13.5	13.5	31.4	27.2	27.3	29.1	26.0	26.1
Incr Delay (d2), s/veh	2.9	6.1	6.2	1.1	1.5	1.5	3.2	1.6	1.6	0.9	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	10.8	10.8	0.6	4.5	4.6	1.5	2.9	3.0	1.1	3.9	4.0
LnGrp Delay(d),s/veh	34.5	22.5	22.6	32.4	15.0	15.0	34.7	28.8	28.9	30.0	27.7	27.8
LnGrp LOS	C	C	C	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1229			678			391			479	
Approach Delay, s/veh		23.1			15.8			29.9			28.0	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	15.3	8.8	35.0	9.3	17.5	8.8	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	31.0	7.0	29.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	4.1	7.8	3.2	21.1	4.7	9.5	4.2	10.5
Green Ext Time (p_c), s	0.1	1.8	1.3	4.8	0.0	2.4	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	75	703	200	66	432	87	155	658	78	114	848	47
Future Volume (veh/h)	75	703	200	66	432	87	155	658	78	114	848	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	725	206	68	445	90	160	678	80	118	874	48
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	1063	302	116	1080	217	143	1380	161	143	1475	81
Arrive On Green	0.09	0.38	0.38	0.06	0.36	0.36	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2774	788	1810	2995	601	1810	4707	550	1810	5032	276
Grp Volume(v), veh/h	77	472	459	68	267	268	160	496	262	118	600	322
Grp Sat Flow(s),veh/h/ln	1810	1805	1757	1810	1805	1791	1810	1729	1800	1810	1729	1850
Q Serve(g_s), s	3.6	19.3	19.4	3.2	9.8	10.0	7.0	10.5	10.7	5.7	13.2	13.2
Cycle Q Clear(g_c), s	3.6	19.3	19.4	3.2	9.8	10.0	7.0	10.5	10.7	5.7	13.2	13.2
Prop In Lane	1.00		0.45	1.00		0.34	1.00		0.31	1.00		0.15
Lane Grp Cap(c), veh/h	157	692	674	116	651	646	143	1014	528	143	1014	542
V/C Ratio(X)	0.49	0.68	0.68	0.59	0.41	0.41	1.12	0.49	0.50	0.83	0.59	0.59
Avail Cap(c_a), veh/h	184	692	674	143	651	646	143	1014	528	143	1014	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	22.8	22.8	40.4	21.3	21.3	40.8	25.9	25.9	40.2	26.8	26.8
Incr Delay (d2), s/veh	2.4	5.4	5.5	4.6	1.9	2.0	111.2	1.7	3.3	31.2	2.5	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	10.6	10.3	1.8	5.2	5.3	7.9	5.3	5.8	4.1	6.6	7.4
LnGrp Delay(d),s/veh	41.0	28.2	28.3	45.0	23.2	23.3	152.1	27.6	29.2	71.4	29.3	31.6
LnGrp LOS	D	C	C	D	C	C	F	C	C	E	C	C
Approach Vol, veh/h		1008			603			918			1040	
Approach Delay, s/veh		29.2			25.7			49.7			34.8	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	9.7	38.0	11.0	30.0	11.7	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	7.7	12.7	5.2	21.4	9.0	15.2	5.6	12.0
Green Ext Time (p_c), s	0.0	3.8	0.0	4.5	0.0	4.2	1.8	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	115	1598	478	144	1264	133	285	222	171	134	441	204
Future Volume (veh/h)	115	1598	478	144	1264	133	285	222	171	134	441	204
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	1700	509	153	1345	141	303	236	182	143	469	217
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	2299	713	271	2289	710	277	802	847	269	794	353
Arrive On Green	0.08	0.44	0.44	0.08	0.44	0.44	0.08	0.22	0.22	0.08	0.22	0.22
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2823	3510	3610	1604
Grp Volume(v), veh/h	122	1700	509	153	1345	141	303	236	182	143	469	217
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1412	1755	1805	1604
Q Serve(g_s), s	5.9	24.0	15.9	3.7	17.3	4.8	7.0	4.8	4.3	3.5	10.3	8.5
Cycle Q Clear(g_c), s	5.9	24.0	15.9	3.7	17.3	4.8	7.0	4.8	4.3	3.5	10.3	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	2299	713	271	2289	710	277	802	847	269	794	353
V/C Ratio(X)	0.85	0.74	0.71	0.56	0.59	0.20	1.09	0.29	0.21	0.53	0.59	0.62
Avail Cap(c_a), veh/h	143	2343	727	277	2343	727	277	1753	1590	357	1834	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	20.4	9.7	39.4	18.7	15.1	40.8	28.7	23.2	39.4	31.0	19.1
Incr Delay (d2), s/veh	36.3	1.3	3.3	2.5	0.4	0.1	80.8	0.2	0.1	1.6	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	11.6	7.6	1.9	8.3	2.1	6.5	2.4	1.7	1.7	5.2	4.3
LnGrp Delay(d),s/veh	76.6	21.7	13.0	41.9	19.0	15.3	121.6	28.9	23.4	41.0	31.7	20.8
LnGrp LOS	E	C	B	D	B	B	F	C	C	D	C	C
Approach Vol, veh/h		2331			1639			721			829	
Approach Delay, s/veh		22.7			20.8			66.5			30.4	
Approach LOS		C			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	23.7	10.8	43.2	11.0	23.5	11.0	43.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	5.5	6.8	5.7	26.0	9.0	12.3	7.9	19.3
Green Ext Time (p_c), s	0.1	3.3	0.1	13.1	0.0	3.8	0.0	18.9

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	1472	425	0	1114	0	0	0	0	298	0	428
Future Volume (veh/h)	0	1472	425	0	1114	0	0	0	0	298	0	428
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1518	438	0	1148	0				465	0	272
Adj No. of Lanes	0	3	0	0	3	0				2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2695	769	0	3485	0				774	0	345
Arrive On Green	0.00	0.67	0.67	0.00	1.00	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	4182	1145	0	5529	0				3619	0	1615
Grp Volume(v), veh/h	0	1306	650	0	1148	0				465	0	272
Grp Sat Flow(s),veh/h/ln	0	1729	1698	0	1729	0				1810	0	1615
Q Serve(g_s), s	0.0	13.9	14.2	0.0	0.0	0.0				8.1	0.0	11.1
Cycle Q Clear(g_c), s	0.0	13.9	14.2	0.0	0.0	0.0				8.1	0.0	11.1
Prop In Lane	0.00		0.67	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2323	1141	0	3485	0				774	0	345
V/C Ratio(X)	0.00	0.56	0.57	0.00	0.33	0.00				0.60	0.00	0.79
Avail Cap(c_a), veh/h	0	2323	1141	0	3485	0				1086	0	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.69	0.69	0.00	0.83	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.1	6.1	0.0	0.0	0.0				24.8	0.0	26.0
Incr Delay (d2), s/veh	0.0	0.7	1.4	0.0	0.2	0.0				0.8	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.8	7.0	0.0	0.1	0.0				4.1	0.0	5.5
LnGrp Delay(d),s/veh	0.0	6.7	7.5	0.0	0.2	0.0				25.6	0.0	31.7
LnGrp LOS		A	A		A					C		C
Approach Vol, veh/h		1956			1148						737	
Approach Delay, s/veh		7.0			0.2						27.8	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				51.0		19.0		51.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				41.0		21.0		41.0
Max Q Clear Time (g_c+I1), s				16.2		13.1		2.0
Green Ext Time (p_c), s				21.6		1.8		31.9

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	329	1441	0	0	772	216	431	9	185	0	0	0
Future Volume (veh/h)	329	1441	0	0	772	216	431	9	185	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	336	1470	0	0	788	220	502	0	129			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	533	3676	0	0	1442	399	641	0	286			
Arrive On Green	0.59	1.00	0.00	0.00	0.36	0.36	0.18	0.00	0.18			
Sat Flow, veh/h	1810	5358	0	0	4209	1117	3619	0	1615			
Grp Volume(v), veh/h	336	1470	0	0	674	334	502	0	129			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1697	1810	0	1615			
Q Serve(g_s), s	8.5	0.0	0.0	0.0	10.9	11.0	9.3	0.0	5.0			
Cycle Q Clear(g_c), s	8.5	0.0	0.0	0.0	10.9	11.0	9.3	0.0	5.0			
Prop In Lane	1.00		0.00	0.00		0.66	1.00		1.00			
Lane Grp Cap(c), veh/h	533	3676	0	0	1235	606	641	0	286			
V/C Ratio(X)	0.63	0.40	0.00	0.00	0.55	0.55	0.78	0.00	0.45			
Avail Cap(c_a), veh/h	533	3676	0	0	1235	606	827	0	369			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	11.9	0.0	0.0	0.0	18.0	18.0	27.5	0.0	25.8			
Incr Delay (d2), s/veh	1.9	0.3	0.0	0.0	1.7	3.6	3.8	0.0	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.4	0.1	0.0	0.0	5.4	5.7	4.9	0.0	2.3			
LnGrp Delay(d),s/veh	13.8	0.3	0.0	0.0	19.7	21.6	31.3	0.0	26.9			
LnGrp LOS	B	A			B	C	C		C			
Approach Vol, veh/h		1806			1008			631				
Approach Delay, s/veh		2.8			20.3			30.4				
Approach LOS		A			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		16.4		53.6			24.6	29.0
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0		46.0			17.0	25.0
Max Q Clear Time (g_c+I1), s		11.3		2.0			10.5	13.0
Green Ext Time (p_c), s		1.1		16.4			4.9	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	251	1333	45	6	841	81	29	84	6	72	130	198
Future Volume (veh/h)	251	1333	45	6	841	81	29	84	6	72	130	198
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	273	1449	49	7	914	0	32	91	7	78	141	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	371	2224	75	23	1917	858	255	319	143	131	319	143
Arrive On Green	0.11	0.62	0.62	0.01	0.53	0.00	0.07	0.09	0.09	0.07	0.09	0.00
Sat Flow, veh/h	3510	3563	120	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	273	733	765	7	914	0	32	91	7	78	141	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1878	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.0	20.3	20.4	0.3	12.6	0.0	0.7	1.9	0.3	3.3	2.9	0.0
Cycle Q Clear(g_c), s	6.0	20.3	20.4	0.3	12.6	0.0	0.7	1.9	0.3	3.3	2.9	0.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	1126	1172	23	1917	858	255	319	143	131	319	143
V/C Ratio(X)	0.74	0.65	0.65	0.31	0.48	0.00	0.13	0.28	0.05	0.59	0.44	0.00
Avail Cap(c_a), veh/h	533	1126	1172	160	1917	858	311	822	368	160	822	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.3	9.4	9.4	38.7	11.6	0.0	34.3	33.7	25.3	35.6	34.2	0.0
Incr Delay (d2), s/veh	3.1	2.9	2.8	7.4	0.9	0.0	0.2	0.5	0.1	4.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	10.9	11.3	0.2	6.4	0.0	0.3	0.9	0.1	1.8	1.5	0.0
LnGrp Delay(d),s/veh	37.4	12.3	12.3	46.1	12.5	0.0	34.5	34.2	25.4	39.8	35.2	0.0
LnGrp LOS	D	B	B	D	B		C	C	C	D	D	
Approach Vol, veh/h		1771			921			130			219	
Approach Delay, s/veh		16.2			12.8			33.8			36.8	
Approach LOS		B			B			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	11.0	5.0	53.4	9.7	11.0	12.4	46.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	12.0	42.0				
Max Q Clear Time (g_c+I1), s	5.3	3.9	2.3	22.4	2.7	4.9	8.0	14.6				
Green Ext Time (p_c), s	0.0	0.4	0.0	12.2	0.1	0.6	0.4	6.5				
Intersection Summary												
HCM 2010 Ctrl Delay			17.4									
HCM 2010 LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	149	1214	32	9	756	124	16	49	14	172	55	88
Future Volume (veh/h)	149	1214	32	9	756	124	16	49	14	172	55	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	1291	34	10	804	132	17	52	15	183	59	94
Adj No. of Lanes	1	3	0	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	203	2658	70	87	1616	719	333	352	102	412	164	261
Arrive On Green	0.11	0.51	0.51	0.05	0.45	0.45	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	5196	137	1810	3610	1606	1248	1416	409	1348	658	1049
Grp Volume(v), veh/h	159	859	466	10	804	132	17	0	67	183	0	153
Grp Sat Flow(s),veh/h/ln	1810	1729	1875	1810	1805	1606	1248	0	1825	1348	0	1707
Q Serve(g_s), s	5.4	10.1	10.1	0.3	9.9	3.1	0.7	0.0	1.8	7.7	0.0	4.6
Cycle Q Clear(g_c), s	5.4	10.1	10.1	0.3	9.9	3.1	5.3	0.0	1.8	9.5	0.0	4.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.22	1.00		0.61
Lane Grp Cap(c), veh/h	203	1769	959	87	1616	719	333	0	454	412	0	424
V/C Ratio(X)	0.78	0.49	0.49	0.11	0.50	0.18	0.05	0.00	0.15	0.44	0.00	0.36
Avail Cap(c_a), veh/h	318	1769	959	202	1616	719	901	0	1284	1025	0	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	9.9	9.9	28.5	12.3	10.4	21.6	0.0	18.3	22.0	0.0	19.4
Incr Delay (d2), s/veh	6.5	1.0	1.8	0.6	1.1	0.6	0.1	0.0	0.1	0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.0	5.6	0.2	5.2	1.5	0.3	0.0	0.9	2.9	0.0	2.2
LnGrp Delay(d),s/veh	33.6	10.9	11.7	29.1	13.4	11.0	21.7	0.0	18.5	22.8	0.0	19.9
LnGrp LOS	C	B	B	C	B	B	C		B	C		B
Approach Vol, veh/h		1484			946			84			336	
Approach Delay, s/veh		13.6			13.2			19.1			21.5	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		19.5	7.0	36.0		19.5	11.0	32.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	11.0	28.0
Max Q Clear Time (g_c+I1), s		7.3	2.3	12.1		11.5	7.4	11.9
Green Ext Time (p_c), s		2.0	0.2	8.3		2.0	0.1	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	55	1297	76	68	730	63	129	199	145	64	116	44
Future Volume (veh/h)	55	1297	76	68	730	63	129	199	145	64	116	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	59	1380	81	72	777	67	137	212	154	68	123	47
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	2078	122	139	2017	173	174	374	316	135	333	281
Arrive On Green	0.08	0.41	0.41	0.08	0.41	0.41	0.10	0.20	0.20	0.07	0.18	0.18
Sat Flow, veh/h	1810	5011	294	1810	4864	417	1810	1900	1603	1810	1900	1601
Grp Volume(v), veh/h	59	952	509	72	551	293	137	212	154	68	123	47
Grp Sat Flow(s),veh/h/ln	1810	1729	1847	1810	1729	1823	1810	1900	1603	1810	1900	1601
Q Serve(g_s), s	2.1	15.0	15.0	2.6	7.5	7.6	5.0	6.8	5.8	2.4	3.9	1.3
Cycle Q Clear(g_c), s	2.1	15.0	15.0	2.6	7.5	7.6	5.0	6.8	5.8	2.4	3.9	1.3
Prop In Lane	1.00		0.16	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	1434	766	139	1434	756	174	374	316	135	333	281
V/C Ratio(X)	0.42	0.66	0.66	0.52	0.38	0.39	0.79	0.57	0.49	0.50	0.37	0.17
Avail Cap(c_a), veh/h	188	1434	766	188	1434	756	214	1126	949	241	1154	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	16.0	16.0	30.0	13.8	13.8	29.8	24.5	24.1	30.0	24.5	13.8
Incr Delay (d2), s/veh	2.0	2.4	4.5	3.0	0.8	1.5	14.4	1.4	1.2	2.9	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.6	8.6	1.4	3.7	4.1	3.2	3.7	2.6	1.3	2.1	0.7
LnGrp Delay(d),s/veh	31.8	18.4	20.5	32.9	14.5	15.3	44.3	25.9	25.3	32.9	25.2	14.1
LnGrp LOS	C	B	C	C	B	B	D	C	C	C	C	B
Approach Vol, veh/h		1520			916			503			238	
Approach Delay, s/veh		19.6			16.2			30.7			25.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	17.3	9.2	32.0	10.5	15.8	9.2	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	40.0	7.0	28.0	8.0	41.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.4	8.8	4.6	17.0	7.0	5.9	4.1	9.6
Green Ext Time (p_c), s	0.4	1.8	0.1	6.5	0.0	1.1	0.1	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↳	
Traffic Volume (veh/h)	0	633	181	544	507	0	0	0	0	0	0	165
Future Volume (veh/h)	0	633	181	544	507	0	0	0	0	0	0	165
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	681	195	585	545	0				0	0	177
Adj No. of Lanes	0	2	1	1	2	0				0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	866	384	1182	3417	0				0	0	0
Arrive On Green	0.00	0.24	0.24	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3705	1598	1810	3705	0					0	
Grp Volume(v), veh/h	0	681	195	585	545	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	1598	1810	1805	0						
Q Serve(g_s), s	0.0	13.3	7.9	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	13.3	7.9	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	866	384	1182	3417	0						
V/C Ratio(X)	0.00	0.79	0.51	0.49	0.16	0.00						
Avail Cap(c_a), veh/h	0	866	384	1182	3417	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.77	0.77	0.00						
Uniform Delay (d), s/veh	0.0	26.7	24.7	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	7.1	4.8	0.2	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	7.5	4.0	0.1	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	33.8	29.4	0.2	0.1	0.0						
LnGrp LOS		C	C	A	A							
Approach Vol, veh/h		876			1130							
Approach Delay, s/veh		32.8			0.2							
Approach LOS		C			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			53.0	22.0				75.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			27.0	18.0				49.0
Max Q Clear Time (g_c+I1), s			2.0	15.3				2.0
Green Ext Time (p_c), s			5.4	1.3				5.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	22	1312	63	0	1422	109	35	62	12	123	3	118
Future Volume (veh/h)	22	1312	63	0	1422	109	35	62	12	123	3	118
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	1353	65	0	1466	112	36	64	12	127	3	122
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	267	2549	122	0	2471	188	221	259	49	272	6	264
Arrive On Green	1.00	1.00	1.00	0.00	0.73	0.73	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	330	3507	168	0	3495	258	1286	1557	292	1344	39	1582
Grp Volume(v), veh/h	23	695	723	0	775	803	36	0	76	127	0	125
Grp Sat Flow(s),veh/h/ln	330	1805	1870	0	1805	1853	1286	0	1848	1344	0	1621
Q Serve(g_s), s	1.7	0.0	0.0	0.0	15.4	15.7	2.0	0.0	2.7	6.8	0.0	5.2
Cycle Q Clear(g_c), s	17.3	0.0	0.0	0.0	15.4	15.7	7.2	0.0	2.7	9.5	0.0	5.2
Prop In Lane	1.00		0.09	0.00		0.14	1.00		0.16	1.00		0.98
Lane Grp Cap(c), veh/h	267	1312	1359	0	1312	1347	221	0	308	272	0	270
V/C Ratio(X)	0.09	0.53	0.53	0.00	0.59	0.60	0.16	0.00	0.25	0.47	0.00	0.46
Avail Cap(c_a), veh/h	267	1312	1359	0	1312	1347	332	0	468	389	0	411
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.5	0.0	0.0	0.0	4.9	4.9	31.5	0.0	27.2	31.3	0.0	28.2
Incr Delay (d2), s/veh	0.6	1.3	1.3	0.0	2.0	2.0	0.3	0.0	0.4	1.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.5	0.0	8.2	8.5	0.7	0.0	1.4	2.6	0.0	2.4
LnGrp Delay(d),s/veh	3.0	1.3	1.3	0.0	6.9	6.9	31.8	0.0	27.6	32.5	0.0	29.5
LnGrp LOS	A	A	A		A	A	C		C	C		C
Approach Vol, veh/h		1441			1578			112			252	
Approach Delay, s/veh		1.3			6.9			28.9			31.0	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		16.5		58.5		16.5		58.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		19.0		48.0		19.0		48.0
Max Q Clear Time (g_c+I1), s		9.2		19.3		11.5		17.7
Green Ext Time (p_c), s		1.2		23.3		1.0		24.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰	↱
Traffic Volume (veh/h)	105	1706	30	17	1128	99	302	83	150	180	5	143
Future Volume (veh/h)	105	1706	30	17	1128	99	302	83	150	180	5	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	113	1834	0	18	1213	106	288	141	161	198	0	154
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	2482	773	50	2212	685	406	181	207	373	0	293
Arrive On Green	0.08	0.48	0.00	0.03	0.43	0.43	0.22	0.22	0.22	0.10	0.00	0.10
Sat Flow, veh/h	1810	5187	1615	1810	5187	1606	1810	808	922	3619	0	1591
Grp Volume(v), veh/h	113	1834	0	18	1213	106	288	0	302	198	0	154
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1606	1810	0	1730	1810	0	1591
Q Serve(g_s), s	5.9	27.4	0.0	0.9	16.8	3.9	14.1	0.0	15.8	5.0	0.0	0.6
Cycle Q Clear(g_c), s	5.9	27.4	0.0	0.9	16.8	3.9	14.1	0.0	15.8	5.0	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	144	2482	773	50	2212	685	406	0	388	373	0	293
V/C Ratio(X)	0.78	0.74	0.00	0.36	0.55	0.15	0.71	0.00	0.78	0.53	0.00	0.53
Avail Cap(c_a), veh/h	226	2482	773	132	2212	685	697	0	666	1280	0	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	20.2	0.0	45.9	20.6	16.9	34.4	0.0	35.0	40.9	0.0	35.5
Incr Delay (d2), s/veh	8.9	2.0	0.0	4.2	1.0	0.5	2.3	0.0	3.4	1.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	13.5	0.0	0.5	8.2	1.8	7.3	0.0	7.9	2.6	0.0	3.8
LnGrp Delay(d),s/veh	52.3	22.2	0.0	50.1	21.6	17.4	36.7	0.0	38.5	42.1	0.0	36.9
LnGrp LOS	D	C		D	C	B	D		D	D		D
Approach Vol, veh/h		1947			1337			590			352	
Approach Delay, s/veh		24.0			21.7			37.6			39.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		25.6	6.7	50.0		13.9	11.7	45.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	7.0	46.0		34.0	12.0	41.0
Max Q Clear Time (g_c+I1), s		17.8	2.9	29.4		7.0	7.9	18.8
Green Ext Time (p_c), s		2.7	0.1	10.9		1.2	0.1	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1245	312	31	568	94	25
Future Volume (veh/h)	1245	312	31	568	94	25
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1324	332	33	604	100	27
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1769	434	92	2675	200	260
Arrive On Green	0.62	0.62	0.05	0.74	0.11	0.11
Sat Flow, veh/h	2967	705	1810	3705	1810	1615
Grp Volume(v), veh/h	822	834	33	604	100	27
Grp Sat Flow(s),veh/h/ln	1805	1772	1810	1805	1810	1615
Q Serve(g_s), s	17.3	18.4	0.9	2.8	2.8	0.8
Cycle Q Clear(g_c), s	17.3	18.4	0.9	2.8	2.8	0.8
Prop In Lane		0.40	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1112	1092	92	2675	200	260
V/C Ratio(X)	0.74	0.76	0.36	0.23	0.50	0.10
Avail Cap(c_a), veh/h	1274	1250	235	3284	1109	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	7.5	24.7	2.2	22.6	19.3
Incr Delay (d2), s/veh	2.0	2.5	2.4	0.0	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	9.6	0.5	1.4	1.5	0.4
LnGrp Delay(d),s/veh	9.3	10.0	27.1	2.2	24.5	19.4
LnGrp LOS	A	B	C	A	C	B
Approach Vol, veh/h	1656			637	127	
Approach Delay, s/veh	9.6			3.5	23.4	
Approach LOS	A			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		10.0	6.7	37.2				43.9
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		33.0	7.0	38.0				49.0
Max Q Clear Time (g_c+I1), s		4.8	2.9	20.4				4.8
Green Ext Time (p_c), s		0.3	0.0	12.8				23.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	6	614	591	205	392	61	246	92	187	96	255	9
Future Volume (veh/h)	6	614	591	205	392	61	246	92	187	96	255	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	646	622	216	413	64	259	97	197	101	268	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	339	1512	468	375	660	102	342	497	420	165	591	264
Arrive On Green	0.19	0.29	0.29	0.11	0.21	0.21	0.19	0.26	0.26	0.09	0.16	0.00
Sat Flow, veh/h	1810	5187	1607	3510	3131	482	1810	1900	1606	1810	3610	1615
Grp Volume(v), veh/h	6	646	622	216	237	240	259	97	197	101	268	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1607	1755	1805	1808	1810	1900	1606	1810	1805	1615
Q Serve(g_s), s	0.2	6.5	10.4	3.8	7.7	7.8	8.7	2.6	6.6	3.5	4.3	0.0
Cycle Q Clear(g_c), s	0.2	6.5	10.4	3.8	7.7	7.8	8.7	2.6	6.6	3.5	4.3	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	1512	468	375	381	381	342	497	420	165	591	264
V/C Ratio(X)	0.02	0.43	1.33	0.58	0.62	0.63	0.76	0.20	0.47	0.61	0.45	0.00
Avail Cap(c_a), veh/h	339	2665	826	547	1012	1014	648	1420	1200	366	2136	956
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.3	18.4	7.1	27.3	23.0	23.1	24.7	18.4	20.0	28.1	24.3	0.0
Incr Delay (d2), s/veh	0.0	0.2	156.5	1.4	1.7	1.7	3.4	0.2	0.8	3.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.1	26.1	1.9	4.0	4.1	4.6	1.4	3.0	1.9	2.2	0.0
LnGrp Delay(d),s/veh	21.3	18.6	163.6	28.7	24.7	24.8	28.1	18.6	20.8	31.8	24.8	0.0
LnGrp LOS	C	B	F	C	C	C	C	B	C	C	C	
Approach Vol, veh/h		1274			693			553			369	
Approach Delay, s/veh		89.4			26.0			23.8			26.7	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	20.8	10.9	22.7	16.1	14.5	16.0	17.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	48.0	10.0	33.0	23.0	38.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	10.5	8.6	5.8	12.4	10.7	6.3	2.2	9.8
Green Ext Time (p_c), s	0.1	1.9	0.2	6.3	1.6	1.6	2.6	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	53.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	8	7	61	0	0	0	0	324	571	639	589	0
Future Volume (veh/h)	8	7	61	0	0	0	0	324	571	639	589	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	9	0	70				0	345	607	680	627	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	155	0	276				0	1744	780	812	2820	0
Arrive On Green	0.09	0.00	0.09				0.00	0.48	0.48	0.23	0.78	0.00
Sat Flow, veh/h	1810	0	3230				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	9	0	70				0	345	607	680	627	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1755	1805	0
Q Serve(g_s), s	0.3	0.0	1.2				0.0	3.3	18.7	11.1	2.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	1.2				0.0	3.3	18.7	11.1	2.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	155	0	276				0	1744	780	812	2820	0
V/C Ratio(X)	0.06	0.00	0.25				0.00	0.20	0.78	0.84	0.22	0.00
Avail Cap(c_a), veh/h	211	0	377				0	1744	780	936	2820	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.90	0.90	0.91	0.91	0.00
Uniform Delay (d), s/veh	25.2	0.0	25.7				0.0	8.9	12.8	22.0	1.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.5				0.0	0.2	6.8	5.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.6				0.0	1.7	9.7	6.0	1.4	0.0
LnGrp Delay(d),s/veh	25.4	0.0	26.1				0.0	9.1	19.7	27.4	1.9	0.0
LnGrp LOS	C		C					A	B	C	A	
Approach Vol, veh/h		79						952			1307	
Approach Delay, s/veh		26.0						15.8			15.2	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			17.9	33.0		9.1		50.9
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			16.0	25.0		7.0		45.0
Max Q Clear Time (g_c+I1), s			13.1	20.7		3.2		4.8
Green Ext Time (p_c), s			0.8	2.9		0.1		10.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

78: Central Ave & SR60 WB Ramps

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	297	202	326	0	0	949
Future Volume (veh/h)	297	202	326	0	0	949
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	316	215	347	0	0	1010
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	625	288	2486	0	0	2486
Arrive On Green	0.18	0.18	1.00	0.00	0.00	0.69
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	316	215	347	0	0	1010
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	4.9	7.6	0.0	0.0	0.0	7.3
Cycle Q Clear(g_c), s	4.9	7.6	0.0	0.0	0.0	7.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	625	288	2486	0	0	2486
V/C Ratio(X)	0.51	0.75	0.14	0.00	0.00	0.41
Avail Cap(c_a), veh/h	936	431	2486	0	0	2486
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.99	0.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	23.4	0.0	0.0	0.0	4.0
Incr Delay (d2), s/veh	0.6	3.9	0.1	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.7	0.0	0.0	0.0	3.7
LnGrp Delay(d),s/veh	22.9	27.3	0.1	0.0	0.0	4.5
LnGrp LOS	C	C	A			A
Approach Vol, veh/h	531		347			1010
Approach Delay, s/veh	24.7		0.1			4.5
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		45.3				45.3		14.7
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		36.0				36.0		16.0
Max Q Clear Time (g_c+I1), s		2.0				9.3		9.6
Green Ext Time (p_c), s		11.8				10.8		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	2115	13	211	1520	855	25
Future Volume (veh/h)	2115	13	211	1520	855	25
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2158	13	215	1551	896	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2641	16	371	3442	1157	344
Arrive On Green	0.50	0.50	0.11	0.66	0.21	0.00
Sat Flow, veh/h	5491	32	3510	5358	5429	1615
Grp Volume(v), veh/h	1402	769	215	1551	896	0
Grp Sat Flow(s),veh/h/ln	1729	1894	1755	1729	1810	1615
Q Serve(g_s), s	22.3	22.3	3.8	9.3	10.1	0.0
Cycle Q Clear(g_c), s	22.3	22.3	3.8	9.3	10.1	0.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1717	940	371	3442	1157	344
V/C Ratio(X)	0.82	0.82	0.58	0.45	0.77	0.00
Avail Cap(c_a), veh/h	1812	992	379	3597	1422	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.8	13.8	27.6	5.2	24.1	0.0
Incr Delay (d2), s/veh	2.9	5.2	2.1	0.1	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	12.9	1.9	4.3	5.3	0.0
LnGrp Delay(d),s/veh	16.8	19.1	29.8	5.3	26.3	0.0
LnGrp LOS	B	B	C	A	C	
Approach Vol, veh/h	2171			1766	896	
Approach Delay, s/veh	17.6			8.3	26.3	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		17.8	10.9	36.2				47.1
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		17.0	7.0	34.0				45.0
Max Q Clear Time (g_c+I1), s		12.1	5.8	24.3				11.3
Green Ext Time (p_c), s		1.7	1.0	7.8				14.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	43	1998	148	239	1427	92	138	119	248	90	115	21
Future Volume (veh/h)	43	1998	148	239	1427	92	138	119	248	90	115	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	2103	156	252	1502	97	145	125	261	95	121	22
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	283	2436	756	279	1954	126	481	381	321	125	406	72
Arrive On Green	0.16	0.47	0.47	0.08	0.39	0.39	0.14	0.20	0.20	0.07	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	3510	4977	321	3510	1900	1603	1810	3059	543
Grp Volume(v), veh/h	45	2103	156	252	1043	556	145	125	261	95	70	73
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1841	1755	1900	1603	1810	1805	1797
Q Serve(g_s), s	1.9	31.9	2.9	6.3	23.1	23.2	3.3	5.0	10.8	4.5	3.1	3.2
Cycle Q Clear(g_c), s	1.9	31.9	2.9	6.3	23.1	23.2	3.3	5.0	10.8	4.5	3.1	3.2
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	283	2436	756	279	1358	723	481	381	321	125	239	238
V/C Ratio(X)	0.16	0.86	0.21	0.90	0.77	0.77	0.30	0.33	0.81	0.76	0.29	0.31
Avail Cap(c_a), veh/h	283	2529	785	279	1686	898	481	905	763	246	962	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	20.9	4.5	40.3	23.3	23.3	34.3	30.2	20.9	40.3	34.5	34.6
Incr Delay (d2), s/veh	0.3	3.3	0.1	30.4	1.7	3.2	0.3	0.5	5.0	9.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	15.9	2.0	4.2	11.3	12.4	1.6	2.7	5.4	2.6	1.6	1.6
LnGrp Delay(d),s/veh	32.5	24.1	4.6	70.7	25.0	26.5	34.6	30.7	25.8	49.3	35.2	35.3
LnGrp LOS	C	C	A	E	C	C	C	C	C	D	D	D
Approach Vol, veh/h		2304			1851			531			238	
Approach Delay, s/veh		23.0			31.7			29.4			40.9	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	21.7	11.0	45.4	16.1	15.7	17.8	38.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	7.0	43.0	7.0	47.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	6.5	12.8	8.3	33.9	5.3	5.2	3.9	25.2
Green Ext Time (p_c), s	0.1	1.6	0.0	7.5	0.1	0.8	2.8	9.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	169	1011	768	195	535	164	200	351	76	207	791	187
Future Volume (veh/h)	169	1011	768	195	535	164	200	351	76	207	791	187
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	176	1053	800	203	557	171	208	366	79	216	824	195
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	1277	697	202	1268	695	278	1101	671	284	1107	677
Arrive On Green	0.11	0.35	0.35	0.11	0.35	0.35	0.08	0.31	0.31	0.08	0.31	0.31
Sat Flow, veh/h	1810	3610	1608	1810	3610	1608	3510	3610	1607	3510	3610	1607
Grp Volume(v), veh/h	176	1053	800	203	557	171	208	366	79	216	824	195
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1608	1755	1805	1607	1755	1805	1607
Q Serve(g_s), s	10.3	28.6	38.0	12.0	12.7	7.3	6.2	8.4	3.2	6.5	22.0	8.6
Cycle Q Clear(g_c), s	10.3	28.6	38.0	12.0	12.7	7.3	6.2	8.4	3.2	6.5	22.0	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	1277	697	202	1268	695	278	1101	671	284	1107	677
V/C Ratio(X)	0.85	0.82	1.15	1.00	0.44	0.25	0.75	0.33	0.12	0.76	0.74	0.29
Avail Cap(c_a), veh/h	236	1277	697	202	1268	695	457	1411	808	392	1344	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	31.7	30.5	47.7	26.8	19.4	48.4	28.9	19.2	48.4	33.5	20.5
Incr Delay (d2), s/veh	22.6	4.6	82.8	64.5	0.2	0.2	4.0	0.2	0.1	5.7	1.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	15.0	36.5	9.6	6.4	3.3	3.2	4.2	1.5	3.4	11.3	3.8
LnGrp Delay(d),s/veh	69.3	36.3	113.3	112.3	27.0	19.6	52.4	29.1	19.3	54.1	35.3	20.8
LnGrp LOS	E	D	F	F	C	B	D	C	B	D	D	C
Approach Vol, veh/h		2029			931			653			1235	
Approach Delay, s/veh		69.5			44.2			35.3			36.3	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	36.8	16.0	42.0	12.5	36.9	16.3	41.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	12.0	38.0	14.0	40.0	14.0	36.0
Max Q Clear Time (g_c+I1), s	8.5	10.4	14.0	40.0	8.2	24.0	12.3	14.7
Green Ext Time (p_c), s	0.2	10.4	0.0	0.0	0.3	7.7	0.1	15.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	116	1195	654	387	578	204
Future Volume (veh/h)	116	1195	654	387	578	204
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	1271	696	412	615	217
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	198	2170	1505	1072	903	580
Arrive On Green	0.11	0.60	0.42	0.42	0.25	0.25
Sat Flow, veh/h	1810	3705	3705	1605	3619	1615
Grp Volume(v), veh/h	123	1271	696	412	615	217
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1605	1810	1615
Q Serve(g_s), s	3.5	11.6	7.5	6.2	8.2	5.3
Cycle Q Clear(g_c), s	3.5	11.6	7.5	6.2	8.2	5.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	198	2170	1505	1072	903	580
V/C Ratio(X)	0.62	0.59	0.46	0.38	0.68	0.37
Avail Cap(c_a), veh/h	236	2558	1818	1211	2295	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	6.6	11.3	4.0	18.2	12.7
Incr Delay (d2), s/veh	3.6	0.3	0.2	0.2	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.7	3.7	4.8	4.2	5.3
LnGrp Delay(d),s/veh	26.4	6.8	11.5	4.2	19.1	13.1
LnGrp LOS	C	A	B	A	B	B
Approach Vol, veh/h		1394	1108		832	
Approach Delay, s/veh		8.6	8.8		17.5	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				36.2		17.4	9.9	26.4
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				13.6		10.2	5.5	9.5
Green Ext Time (p_c), s				16.1		3.1	0.0	12.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	124	997	757	254	263	75	387	226	365	207	347	180
Future Volume (veh/h)	124	997	757	254	263	75	387	226	365	207	347	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	1108	841	282	292	83	430	251	406	230	386	200
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	982	1881	893	267	575	255	673	1123	500	267	705	765
Arrive On Green	0.28	0.36	0.36	0.08	0.16	0.16	0.19	0.31	0.31	0.08	0.20	0.20
Sat Flow, veh/h	3510	5187	1608	3510	3610	1600	3510	3610	1607	3510	3610	1603
Grp Volume(v), veh/h	138	1108	841	282	292	83	430	251	406	230	386	200
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1805	1600	1755	1805	1607	1755	1805	1603
Q Serve(g_s), s	2.7	15.9	18.3	7.0	6.8	3.4	10.4	4.7	21.4	6.0	8.9	0.0
Cycle Q Clear(g_c), s	2.7	15.9	18.3	7.0	6.8	3.4	10.4	4.7	21.4	6.0	8.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	982	1881	893	267	575	255	673	1123	500	267	705	765
V/C Ratio(X)	0.14	0.59	0.94	1.05	0.51	0.33	0.64	0.22	0.81	0.86	0.55	0.26
Avail Cap(c_a), veh/h	982	2483	1080	267	1689	748	673	1807	804	267	1728	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	23.7	8.3	42.5	35.4	22.3	34.2	23.4	29.2	42.0	33.3	14.5
Incr Delay (d2), s/veh	0.1	0.3	13.9	70.2	0.7	0.7	2.0	0.1	3.4	23.5	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.6	16.8	6.0	3.5	1.8	5.2	2.4	10.0	3.7	4.5	3.0
LnGrp Delay(d),s/veh	24.9	24.0	22.2	112.6	36.0	23.0	36.2	23.5	32.5	65.5	34.0	14.6
LnGrp LOS	C	C	C	F	D	C	D	C	C	E	C	B
Approach Vol, veh/h		2087			657			1087			816	
Approach Delay, s/veh		23.3			67.3			31.9			38.1	
Approach LOS		C			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	32.6	11.0	37.3	21.6	21.9	29.7	18.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	8.0	23.4	9.0	20.3	12.4	10.9	4.7	8.8
Green Ext Time (p_c), s	0.0	3.0	0.0	11.9	0.0	3.5	2.7	2.3

Intersection Summary			
HCM 2010 Ctrl Delay			34.2
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	578	1006	6	333	0	0	0	0	1	5	261
Future Volume (veh/h)	0	578	1006	6	333	0	0	0	0	1	5	261
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	635	1105	7	366	0				1	5	287
Adj No. of Lanes	0	1	2	1	2	0				1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	974	1656	291	1851	0				448	7	394
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	1900	3230	282	3705	0				1810	28	1591
Grp Volume(v), veh/h	0	635	1105	7	366	0				1	0	292
Grp Sat Flow(s),veh/h/ln	0	1900	1615	282	1805	0				1810	0	1619
Q Serve(g_s), s	0.0	8.2	8.5	0.6	1.8	0.0				0.0	0.0	5.5
Cycle Q Clear(g_c), s	0.0	8.2	8.5	8.8	1.8	0.0				0.0	0.0	5.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	974	1656	291	1851	0				448	0	401
V/C Ratio(X)	0.00	0.65	0.67	0.02	0.20	0.00				0.00	0.00	0.73
Avail Cap(c_a), veh/h	0	1081	1837	307	2053	0				975	0	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.0	6.0	9.2	4.4	0.0				9.5	0.0	11.5
Incr Delay (d2), s/veh	0.0	1.2	0.8	0.0	0.1	0.0				0.0	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	3.9	0.1	0.9	0.0				0.0	0.0	2.7
LnGrp Delay(d),s/veh	0.0	7.2	6.8	9.2	4.5	0.0				9.5	0.0	14.1
LnGrp LOS		A	A	A	A					A		B
Approach Vol, veh/h		1740			373						293	
Approach Delay, s/veh		7.0			4.6						14.1	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.1		12.3		21.1
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				19.0		18.0		19.0
Max Q Clear Time (g_c+I1), s				10.5		7.5		10.8
Green Ext Time (p_c), s				6.6		1.3		6.3

Intersection Summary	
HCM 2010 Ctrl Delay	7.4
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	253.6
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1442	0	842	381	0	0
Future Vol, veh/h	1442	0	842	381	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1620	0	946	428	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	272.5	231.4
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	38%	100%	100%
Vol Thru, %	0%	62%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	606	617	721	721
LT Vol	606	236	721	721
Through Vol	0	381	0	0
RT Vol	0	0	0	0
Lane Flow Rate	681	693	810	810
Geometry Grp	7	7	7	7
Degree of Util (X)	1.454	1.42	1.729	1.347
Departure Headway (Hd)	8.323	8.011	8.233	6.514
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	443	457	446	567
Service Time	6.023	5.711	5.933	4.214
HCM Lane V/C Ratio	1.537	1.516	1.816	1.429
HCM Control Delay	239.2	223.7	357.5	187.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	31.9	31.3	46	32.5

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	35	26	507	29	217	40	354	771	713	916	7
Future Volume (veh/h)	20	35	26	507	29	217	40	354	771	713	916	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	38	28	545	31	233	43	381	829	767	985	8
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	114	84	482	413	349	91	1450	646	631	1917	854
Arrive On Green	0.03	0.11	0.11	0.14	0.22	0.22	0.05	0.40	0.40	0.18	0.53	0.53
Sat Flow, veh/h	1810	1011	745	3510	1900	1604	1810	3610	1609	3510	3610	1607
Grp Volume(v), veh/h	22	0	66	545	31	233	43	381	829	767	985	8
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1755	1900	1604	1810	1805	1609	1755	1805	1607
Q Serve(g_s), s	1.1	0.0	3.3	13.0	1.2	12.6	2.2	6.7	38.0	17.0	16.7	0.2
Cycle Q Clear(g_c), s	1.1	0.0	3.3	13.0	1.2	12.6	2.2	6.7	38.0	17.0	16.7	0.2
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	0	197	482	413	349	91	1450	646	631	1917	854
V/C Ratio(X)	0.37	0.00	0.33	1.13	0.08	0.67	0.47	0.26	1.28	1.22	0.51	0.01
Avail Cap(c_a), veh/h	134	0	668	482	843	712	134	1450	646	631	1917	854
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	0.0	38.7	40.8	29.5	33.9	43.7	18.9	28.3	38.8	14.3	10.5
Incr Delay (d2), s/veh	3.9	0.0	1.0	81.8	0.1	2.2	3.8	0.1	139.0	111.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.6	11.7	0.7	5.8	1.2	3.4	41.8	17.9	8.3	0.1
LnGrp Delay(d),s/veh	48.7	0.0	39.7	122.6	29.5	36.1	47.6	19.0	167.3	150.2	14.5	10.5
LnGrp LOS	D		D	F	C	D	D	B	F	F	B	B
Approach Vol, veh/h		88			809			1253			1760	
Approach Delay, s/veh		42.0			94.1			118.1			73.6	
Approach LOS		D			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	42.0	17.0	14.6	8.7	54.3	7.1	24.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	38.0	13.0	36.0	7.0	48.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	19.0	40.0	15.0	5.3	4.2	18.7	3.1	14.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	15.9	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	91.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✣		↰	↱	
Traffic Volume (veh/h)	204	1133	77	33	552	54	21	29	18	81	58	176
Future Volume (veh/h)	204	1133	77	33	552	54	21	29	18	81	58	176
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	215	1193	81	35	581	57	22	31	19	85	61	185
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	1591	108	97	1230	120	147	184	85	453	102	310
Arrive On Green	0.15	0.46	0.46	0.05	0.37	0.37	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	3430	233	1810	3320	325	220	743	345	1371	414	1255
Grp Volume(v), veh/h	215	627	647	35	315	323	72	0	0	85	0	246
Grp Sat Flow(s),veh/h/ln	1810	1805	1857	1810	1805	1840	1309	0	0	1371	0	1669
Q Serve(g_s), s	5.9	14.5	14.6	1.0	6.8	6.8	0.1	0.0	0.0	0.0	0.0	6.6
Cycle Q Clear(g_c), s	5.9	14.5	14.6	1.0	6.8	6.8	6.8	0.0	0.0	3.0	0.0	6.6
Prop In Lane	1.00		0.13	1.00		0.18	0.31		0.26	1.00		0.75
Lane Grp Cap(c), veh/h	266	837	861	97	668	681	415	0	0	453	0	412
V/C Ratio(X)	0.81	0.75	0.75	0.36	0.47	0.47	0.17	0.00	0.00	0.19	0.00	0.60
Avail Cap(c_a), veh/h	284	1134	1167	249	1099	1120	1056	0	0	1030	0	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	11.2	11.2	23.2	12.2	12.2	15.1	0.0	0.0	15.6	0.0	16.9
Incr Delay (d2), s/veh	15.0	1.9	1.9	2.2	0.5	0.5	0.2	0.0	0.0	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	7.6	7.8	0.5	3.4	3.5	0.8	0.0	0.0	1.0	0.0	3.2
LnGrp Delay(d),s/veh	36.0	13.1	13.1	25.5	12.7	12.8	15.3	0.0	0.0	15.8	0.0	18.3
LnGrp LOS	D	B	B	C	B	B	B			B		B
Approach Vol, veh/h		1489			673			72			331	
Approach Delay, s/veh		16.4			13.4			15.3			17.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		16.6	6.7	27.6		16.6	11.5	22.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		8.8	3.0	16.6		8.6	7.9	8.8
Green Ext Time (p_c), s		2.3	1.4	7.0		2.3	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	39	1082	143	130	571	169	126	414	151	428	679	81
Future Volume (veh/h)	39	1082	143	130	571	169	126	414	151	428	679	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	1115	147	134	589	174	130	427	156	441	700	84
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	83	1261	166	163	1579	936	173	800	501	505	875	105
Arrive On Green	0.05	0.39	0.39	0.09	0.44	0.44	0.10	0.22	0.22	0.14	0.27	0.27
Sat Flow, veh/h	1810	3207	422	1810	3610	1609	1810	3610	1604	3510	3245	389
Grp Volume(v), veh/h	40	627	635	134	589	174	130	427	156	441	389	395
Grp Sat Flow(s),veh/h/ln	1810	1805	1824	1810	1805	1609	1810	1805	1604	1755	1805	1829
Q Serve(g_s), s	2.3	34.1	34.2	7.7	11.6	5.4	7.4	11.0	7.8	13.0	21.2	21.2
Cycle Q Clear(g_c), s	2.3	34.1	34.2	7.7	11.6	5.4	7.4	11.0	7.8	13.0	21.2	21.2
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	83	710	717	163	1579	936	173	800	501	505	486	493
V/C Ratio(X)	0.48	0.88	0.89	0.82	0.37	0.19	0.75	0.53	0.31	0.87	0.80	0.80
Avail Cap(c_a), veh/h	120	736	743	172	1579	936	206	1198	677	532	667	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	29.8	29.8	47.2	20.0	10.4	46.5	36.3	27.7	44.2	35.9	35.9
Incr Delay (d2), s/veh	4.3	12.0	12.2	25.5	0.1	0.1	11.9	0.6	0.4	14.4	4.9	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	19.2	19.6	5.0	5.8	2.4	4.3	5.6	3.5	7.3	11.3	11.4
LnGrp Delay(d),s/veh	53.4	41.8	42.0	72.7	20.1	10.5	58.4	36.8	28.1	58.6	40.8	40.8
LnGrp LOS	D	D	D	E	C	B	E	D	C	E	D	D
Approach Vol, veh/h		1302			897			713			1225	
Approach Delay, s/veh		42.3			26.1			38.8			47.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	27.4	13.5	45.5	14.1	32.4	8.8	50.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	35.0	10.0	43.0	12.0	39.0	7.0	46.0
Max Q Clear Time (g_c+I1), s	15.0	13.0	9.7	36.2	9.4	23.2	4.3	13.6
Green Ext Time (p_c), s	0.2	3.4	0.0	5.2	0.9	4.0	0.0	16.2

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	46	30	1153	81	79	1404
Future Volume (veh/h)	46	30	1153	81	79	1404
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	49	32	1240	87	85	1510
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	167	149	2114	942	171	2729
Arrive On Green	0.09	0.09	0.59	0.59	0.09	0.76
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	49	32	1240	87	85	1510
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	1.3	1.0	11.4	1.2	2.4	9.2
Cycle Q Clear(g_c), s	1.3	1.0	11.4	1.2	2.4	9.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	167	149	2114	942	171	2729
V/C Ratio(X)	0.29	0.21	0.59	0.09	0.50	0.55
Avail Cap(c_a), veh/h	240	214	2328	1037	240	3082
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	22.2	6.9	4.8	22.7	2.7
Incr Delay (d2), s/veh	1.0	0.7	0.3	0.0	2.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.5	5.6	0.6	1.3	4.5
LnGrp Delay(d),s/veh	23.3	22.9	7.2	4.8	24.9	2.9
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	81		1327			1595
Approach Delay, s/veh	23.1		7.1			4.0
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.0	34.9				43.9		8.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	4.4	13.4				11.2		3.3
Green Ext Time (p_c), s	0.0	17.4				26.3		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			5.9
HCM 2010 LOS			A

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	51	1071	206	426	670	218	0	0	0	583	95	327
Future Volume (veh/h)	51	1071	206	426	670	218	0	0	0	583	95	327
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	52	1093	0	435	684	0				664	0	334
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	328	1444	646	882	1697	759				828	0	660
Arrive On Green	0.18	0.40	0.00	0.50	0.94	0.00				0.23	0.00	0.23
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1604
Grp Volume(v), veh/h	52	1093	0	435	684	0				664	0	334
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1604
Q Serve(g_s), s	2.4	26.1	0.0	8.2	1.8	0.0				17.3	0.0	0.0
Cycle Q Clear(g_c), s	2.4	26.1	0.0	8.2	1.8	0.0				17.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	328	1444	646	882	1697	759				828	0	660
V/C Ratio(X)	0.16	0.76	0.00	0.49	0.40	0.00				0.80	0.00	0.51
Avail Cap(c_a), veh/h	328	1444	646	882	1697	759				1086	0	774
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	25.8	0.0	20.7	1.6	0.0				36.4	0.0	21.9
Incr Delay (d2), s/veh	0.2	3.8	0.0	0.4	0.7	0.0				3.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	13.7	0.0	3.9	0.9	0.0				9.1	0.0	7.0
LnGrp Delay(d),s/veh	34.7	29.6	0.0	21.1	2.3	0.0				39.8	0.0	22.5
LnGrp LOS	C	C		C	A					D		C
Approach Vol, veh/h		1145			1119						998	
Approach Delay, s/veh		29.8			9.6						34.0	
Approach LOS		C			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			29.1	44.0		26.9	22.1	51.0
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			18.0	40.0		30.0	11.0	47.0
Max Q Clear Time (g_c+I1), s			10.2	28.1		19.3	4.4	3.8
Green Ext Time (p_c), s			1.1	5.7		3.0	1.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1163	406	144	1092	244	206	0	827	0	0	0
Future Volume (veh/h)	0	1163	406	144	1092	244	206	0	827	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1211	423	150	1138	0	215	0	0			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1624	862	622	4325	1347	302	0	245			
Arrive On Green	0.00	0.90	0.90	0.69	1.00	0.00	0.09	0.00	0.00			
Sat Flow, veh/h	0	3705	1606	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1211	423	150	1138	0	215	0	0			
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	10.2	4.7	3.1	0.0	0.0	6.0	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	10.2	4.7	3.1	0.0	0.0	6.0	0.0	0.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1625	862	622	4325	1347	302	0	245			
V/C Ratio(X)	0.00	0.75	0.49	0.24	0.26	0.00	0.71	0.00	0.00			
Avail Cap(c_a), veh/h	0	1625	862	622	4325	1347	983	0	796			
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.65	0.65	0.94	0.94	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	3.3	2.2	10.7	0.0	0.0	44.5	0.0	0.0			
Incr Delay (d2), s/veh	0.0	2.1	1.3	0.2	0.1	0.0	3.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	4.8	2.4	1.5	0.1	0.0	3.0	0.0	0.0			
LnGrp Delay(d),s/veh	0.0	5.3	3.5	10.9	0.1	0.0	47.6	0.0	0.0			
LnGrp LOS		A	A	B	A		D					
Approach Vol, veh/h		1634			1288			215				
Approach Delay, s/veh		4.9			1.4			47.6				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		12.6	38.4	49.0				87.4
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		28.0	15.0	45.0				64.0
Max Q Clear Time (g_c+I1), s		8.0	5.1	12.2				2.0
Green Ext Time (p_c), s		0.7	5.4	12.8				10.8

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

92: Maude St & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	9	1586	295	78	1202	5	210	2	43	0	3	6
Future Volume (veh/h)	9	1586	295	78	1202	5	210	2	43	0	3	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	1652	307	81	1252	5	262	0	0	0	3	6
Adj No. of Lanes	1	3	0	1	3	0	2	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	550	1847	341	550	2240	9	573	296	0	0	88	176
Arrive On Green	0.40	0.56	0.56	0.30	0.42	0.42	0.16	0.00	0.00	0.00	0.16	0.16
Sat Flow, veh/h	1810	4398	811	1810	5333	21	2830	1900	0	0	563	1126
Grp Volume(v), veh/h	9	1296	663	81	812	445	262	0	0	0	0	9
Grp Sat Flow(s),veh/h/ln	1810	1729	1751	1810	1729	1896	1415	1900	0	0	0	1688
Q Serve(g_s), s	0.3	33.0	33.6	3.3	17.8	17.8	8.7	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.3	33.0	33.6	3.3	17.8	17.8	9.1	0.0	0.0	0.0	0.0	0.5
Prop In Lane	1.00		0.46	1.00		0.01	1.00		0.00	0.00		0.67
Lane Grp Cap(c), veh/h	550	1452	735	550	1452	796	573	296	0	0	0	263
V/C Ratio(X)	0.02	0.89	0.90	0.15	0.56	0.56	0.46	0.00	0.00	0.00	0.00	0.03
Avail Cap(c_a), veh/h	550	1452	735	550	1452	796	1235	741	0	0	0	659
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	20.1	20.2	25.4	22.0	22.0	39.7	0.0	0.0	0.0	0.0	35.8
Incr Delay (d2), s/veh	0.0	5.6	10.8	0.1	1.6	2.8	0.6	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	16.7	18.2	1.6	8.8	9.9	3.4	0.0	0.0	0.0	0.0	0.2
LnGrp Delay(d),s/veh	20.8	25.7	31.0	25.5	23.5	24.8	40.2	0.0	0.0	0.0	0.0	35.9
LnGrp LOS	C	C	C	C	C	C	D					D
Approach Vol, veh/h		1968			1338			262			9	
Approach Delay, s/veh		27.5			24.1			40.2			35.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		19.6	34.4	46.0		19.6	34.4	46.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	42.0		39.0	7.0	42.0
Max Q Clear Time (g_c+I1), s		11.1	5.3	35.6		2.5	2.3	19.8
Green Ext Time (p_c), s		0.9	0.0	5.3		1.0	0.1	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	73	1426	79	17	1022	3	64	10	6	3	15	47
Future Volume (veh/h)	73	1426	79	17	1022	3	64	10	6	3	15	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	1485	82	18	1065	3	67	10	6	3	16	49
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	467	2826	155	296	2999	8	205	119	72	54	188	172
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	536	3479	191	333	3693	10	1341	1107	664	114	1745	1593
Grp Volume(v), veh/h	76	768	799	18	521	547	67	0	16	19	0	49
Grp Sat Flow(s),veh/h/ln	536	1805	1866	333	1805	1898	1341	0	1772	1859	0	1593
Q Serve(g_s), s	4.4	13.9	14.1	1.9	7.6	7.6	4.7	0.0	0.8	0.0	0.0	2.8
Cycle Q Clear(g_c), s	12.0	13.9	14.1	15.9	7.6	7.6	5.6	0.0	0.8	0.9	0.0	2.8
Prop In Lane	1.00		0.10	1.00		0.01	1.00		0.38	0.16		1.00
Lane Grp Cap(c), veh/h	467	1466	1515	296	1466	1542	205	0	191	242	0	172
V/C Ratio(X)	0.16	0.52	0.53	0.06	0.36	0.36	0.33	0.00	0.08	0.08	0.00	0.29
Avail Cap(c_a), veh/h	467	1466	1515	296	1466	1542	503	0	585	642	0	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.83	0.83	0.83	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.1	3.1	3.1	5.7	2.5	2.5	42.7	0.0	40.2	40.2	0.0	41.1
Incr Delay (d2), s/veh	0.7	1.3	1.3	0.3	0.6	0.5	0.9	0.0	0.2	0.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.2	7.7	0.2	4.0	4.2	1.8	0.0	0.4	0.5	0.0	1.3
LnGrp Delay(d),s/veh	4.8	4.4	4.4	6.0	3.0	3.0	43.7	0.0	40.3	40.3	0.0	42.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		D
Approach Vol, veh/h		1643			1086			83			68	
Approach Delay, s/veh		4.4			3.1			43.0			41.5	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		14.8		85.2		14.8		85.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		59.0		33.0		59.0
Max Q Clear Time (g_c+I1), s		7.6		16.1		4.8		17.9
Green Ext Time (p_c), s		0.5		30.5		0.5		29.5

Intersection Summary	
HCM 2010 Ctrl Delay	5.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	107	1270	16	312	941	27	18	188	514	128	242	93
Future Volume (veh/h)	107	1270	16	312	941	27	18	188	514	128	242	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	1323	17	325	980	28	19	196	535	133	252	97
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	1424	18	354	1822	52	138	323	588	159	345	291
Arrive On Green	0.08	0.39	0.39	0.20	0.51	0.51	0.08	0.17	0.17	0.09	0.18	0.18
Sat Flow, veh/h	1810	3649	47	1810	3584	102	1810	1900	1601	1810	1900	1602
Grp Volume(v), veh/h	111	654	686	325	494	514	19	196	535	133	252	97
Grp Sat Flow(s),veh/h/ln	1810	1805	1891	1810	1805	1881	1810	1900	1601	1810	1900	1602
Q Serve(g_s), s	6.2	35.5	35.5	18.0	18.9	18.9	1.0	9.8	8.3	7.4	12.8	4.4
Cycle Q Clear(g_c), s	6.2	35.5	35.5	18.0	18.9	18.9	1.0	9.8	8.3	7.4	12.8	4.4
Prop In Lane	1.00		0.02	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	704	738	354	918	956	138	323	588	159	345	291
V/C Ratio(X)	0.79	0.93	0.93	0.92	0.54	0.54	0.14	0.61	0.91	0.84	0.73	0.33
Avail Cap(c_a), veh/h	248	723	758	354	918	956	138	631	848	159	668	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	29.8	29.8	40.4	17.0	17.0	44.1	39.3	16.0	45.9	39.5	23.9
Incr Delay (d2), s/veh	9.6	18.1	17.5	28.3	0.6	0.6	0.4	1.8	10.4	30.3	3.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	21.2	22.1	11.8	9.5	9.9	0.5	5.3	14.0	5.0	7.0	2.3
LnGrp Delay(d),s/veh	56.0	47.9	47.4	68.7	17.6	17.6	44.6	41.2	26.5	76.2	42.5	24.6
LnGrp LOS	E	D	D	E	B	B	D	D	C	E	D	C
Approach Vol, veh/h		1451			1333			750			482	
Approach Delay, s/veh		48.3			30.1			30.8			48.2	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	21.4	24.0	43.9	11.8	22.6	11.9	56.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	34.0	20.0	41.0	7.0	36.0	14.0	47.0
Max Q Clear Time (g_c+I1), s	9.4	11.8	20.0	37.5	3.0	14.8	8.2	20.9
Green Ext Time (p_c), s	0.0	3.0	0.0	2.4	1.3	1.5	0.1	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	35	693	1094	512	579	267	599	1065	188	440	1709	28
Future Volume (veh/h)	35	693	1094	512	579	267	599	1065	188	440	1709	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	36	707	1116	522	591	272	611	1087	192	449	1744	29
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	326	1065	1194	381	806	563	444	1175	698	444	1710	28
Arrive On Green	0.18	0.29	0.29	0.11	0.22	0.22	0.13	0.33	0.33	0.13	0.33	0.33
Sat Flow, veh/h	1810	3610	2828	3510	3610	1604	3510	3610	1608	3510	5255	87
Grp Volume(v), veh/h	36	707	1116	522	591	272	611	1087	192	449	1148	625
Grp Sat Flow(s),veh/h/ln	1810	1805	1414	1755	1805	1604	1755	1805	1608	1755	1729	1884
Q Serve(g_s), s	1.8	19.0	22.4	12.0	16.8	8.2	14.0	32.2	8.5	14.0	36.0	36.0
Cycle Q Clear(g_c), s	1.8	19.0	22.4	12.0	16.8	8.2	14.0	32.2	8.5	14.0	36.0	36.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	326	1065	1194	381	806	563	444	1175	698	444	1125	613
V/C Ratio(X)	0.11	0.66	0.93	1.37	0.73	0.48	1.38	0.93	0.27	1.01	1.02	1.02
Avail Cap(c_a), veh/h	326	1207	1305	381	1370	813	444	1175	698	444	1125	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	34.2	18.2	49.3	39.9	11.8	48.3	36.0	20.1	48.3	37.3	37.3
Incr Delay (d2), s/veh	0.1	1.2	11.9	182.9	1.3	0.6	182.7	12.3	0.2	45.4	31.9	41.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.6	13.9	15.4	8.5	3.7	18.0	18.0	3.8	9.5	22.0	25.6
LnGrp Delay(d),s/veh	38.1	35.4	30.1	232.2	41.2	12.5	231.0	48.3	20.3	93.8	69.2	78.9
LnGrp LOS	D	D	C	F	D	B	F	D	C	F	F	F
Approach Vol, veh/h		1859			1385			1890			2222	
Approach Delay, s/veh		32.2			107.5			104.5			76.9	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	40.0	16.0	36.6	18.0	40.0	23.9	28.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	36.0	12.0	37.0	14.0	36.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	16.0	34.2	14.0	24.4	16.0	38.0	3.8	18.8
Green Ext Time (p_c), s	0.0	1.5	0.0	7.5	0.0	0.0	2.5	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	78.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	15	2	10	16	5	16	28	1741	15	44	3118	30
Future Volume (veh/h)	15	2	10	16	5	16	28	1741	15	44	3118	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	2	10	16	5	16	29	1777	15	45	3182	31
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	30	62	114	45	75	74	3697	31	97	3760	37
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.04	0.70	0.70	0.05	0.71	0.71
Sat Flow, veh/h	692	280	572	491	414	690	1810	5305	45	1810	5297	51
Grp Volume(v), veh/h	27	0	0	37	0	0	29	1158	634	45	2074	1139
Grp Sat Flow(s),veh/h/ln	1543	0	0	1595	0	0	1810	1729	1892	1810	1729	1891
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.3	13.0	13.0	2.1	37.1	37.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	1.6	0.0	0.0	1.3	13.0	13.0	2.1	37.1	37.6
Prop In Lane	0.56		0.37	0.43		0.43	1.00		0.02	1.00		0.03
Lane Grp Cap(c), veh/h	234	0	0	234	0	0	74	2410	1318	97	2455	1342
V/C Ratio(X)	0.12	0.00	0.00	0.16	0.00	0.00	0.39	0.48	0.48	0.46	0.84	0.85
Avail Cap(c_a), veh/h	754	0	0	769	0	0	148	2472	1352	170	2512	1374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	0.0	34.6	0.0	0.0	39.9	5.9	5.9	39.2	9.0	9.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	3.4	0.1	0.3	3.4	2.8	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.8	0.0	0.0	0.7	6.2	6.8	1.1	18.2	20.9
LnGrp Delay(d),s/veh	34.6	0.0	0.0	34.9	0.0	0.0	43.3	6.0	6.2	42.6	11.8	14.2
LnGrp LOS	C			C			D	A	A	D	B	B
Approach Vol, veh/h		27			37			1821			3258	
Approach Delay, s/veh		34.6			34.9			6.7			13.0	
Approach LOS		C			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	63.5		13.3	7.5	64.6		13.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	8.0	61.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	4.1	15.0		3.2	3.3	39.6		3.6
Green Ext Time (p_c), s	0.0	17.0		0.3	3.0	21.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	42	22	33	17	22	61	27	1752	19	108	2977	86
Future Volume (veh/h)	42	22	33	17	22	61	27	1752	19	108	2977	86
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	23	34	18	23	63	28	1806	20	111	3069	89
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	192	161	331	196	164	15	3051	34	141	3350	96
Arrive On Green	0.07	0.10	0.10	0.07	0.10	0.10	0.01	0.58	0.58	0.08	0.65	0.65
Sat Flow, veh/h	1810	1900	1591	1810	1900	1591	1810	5289	59	1810	5182	149
Grp Volume(v), veh/h	43	23	34	18	23	63	28	1181	645	111	2038	1120
Grp Sat Flow(s),veh/h/ln	1810	1900	1591	1810	1900	1591	1810	1729	1889	1810	1729	1873
Q Serve(g_s), s	1.9	1.0	1.6	0.8	1.0	3.5	0.8	20.6	20.6	5.6	47.5	49.2
Cycle Q Clear(g_c), s	1.9	1.0	1.6	0.8	1.0	3.5	0.8	20.6	20.6	5.6	47.5	49.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.08
Lane Grp Cap(c), veh/h	327	192	161	331	196	164	15	1995	1090	141	2236	1211
V/C Ratio(X)	0.13	0.12	0.21	0.05	0.12	0.38	1.82	0.59	0.59	0.78	0.91	0.92
Avail Cap(c_a), veh/h	333	588	493	334	588	493	135	1995	1090	270	2252	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	38.3	31.0	32.3	38.2	39.2	46.4	12.7	12.7	42.4	14.3	14.6
Incr Delay (d2), s/veh	0.2	0.3	0.6	0.1	0.3	1.5	417.1	0.5	0.9	9.2	6.1	11.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.6	0.8	0.4	0.6	1.6	2.2	9.8	10.8	3.2	24.3	29.2
LnGrp Delay(d),s/veh	33.1	38.6	31.7	32.3	38.4	40.7	463.5	13.2	13.6	51.6	20.4	26.4
LnGrp LOS	C	D	C	C	D	D	F	B	B	D	C	C
Approach Vol, veh/h		100			104			1854			3269	
Approach Delay, s/veh		33.9			38.8			20.1			23.5	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	58.0	10.8	13.5	4.8	64.6	10.7	13.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	54.0	7.0	29.0	7.0	61.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	7.6	22.6	2.8	3.6	2.8	51.2	3.9	5.5
Green Ext Time (p_c), s	0.1	15.1	0.0	0.5	0.6	9.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	12	5	7	567	8	26	6	1760	512	61	2939	10
Future Volume (veh/h)	12	5	7	567	8	26	6	1760	512	61	2939	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	5	7	609	0	28	6	1872	545	65	3127	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	189	167	584	0	206	20	2593	979	175	3125	11
Arrive On Green	0.08	0.10	0.10	0.11	0.00	0.13	0.01	0.50	0.50	0.10	0.59	0.59
Sat Flow, veh/h	1810	1805	1592	5429	0	1596	1810	5187	1610	1810	5336	19
Grp Volume(v), veh/h	13	5	7	609	0	28	6	1872	545	65	2025	1113
Grp Sat Flow(s),veh/h/ln	1810	1805	1592	1810	0	1596	1810	1729	1610	1810	1729	1897
Q Serve(g_s), s	0.6	0.2	0.3	9.0	0.0	1.3	0.3	23.6	6.5	2.8	49.0	49.0
Cycle Q Clear(g_c), s	0.6	0.2	0.3	9.0	0.0	1.3	0.3	23.6	6.5	2.8	49.0	49.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	151	189	167	584	0	206	20	2593	979	175	2025	1111
V/C Ratio(X)	0.09	0.03	0.04	1.04	0.00	0.14	0.30	0.72	0.56	0.37	1.00	1.00
Avail Cap(c_a), veh/h	151	841	742	584	0	782	151	3038	1117	175	2025	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	33.6	33.7	37.3	0.0	32.3	41.1	16.4	2.8	35.4	17.3	17.3
Incr Delay (d2), s/veh	0.2	0.1	0.1	48.9	0.0	0.3	8.4	0.7	0.5	1.3	20.0	27.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.2	7.1	0.0	0.6	0.2	11.3	3.2	1.5	28.7	33.8
LnGrp Delay(d),s/veh	35.7	33.7	33.8	86.3	0.0	32.6	49.5	17.1	3.3	36.7	37.4	44.8
LnGrp LOS	D	C	C	F		C	D	B	A	D	F	F
Approach Vol, veh/h		25			637			2423			3203	
Approach Delay, s/veh		34.7			83.9			14.1			39.9	
Approach LOS		C			F			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	45.8	13.0	12.8	4.9	53.0	11.0	14.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	49.0	9.0	39.0	7.0	49.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	4.8	25.6	11.0	2.3	2.3	51.0	2.6	3.3
Green Ext Time (p_c), s	2.1	16.2	0.0	0.1	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	272	193	91	6	45	75	34	692	10	79	939	223
Future Volume (veh/h)	272	193	91	6	45	75	34	692	10	79	939	223
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	299	212	100	7	49	82	37	760	11	87	1032	245
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	334	987	439	25	496	152	899	2772	861	140	1650	511
Arrive On Green	0.18	0.27	0.27	0.01	0.10	0.10	0.26	0.53	0.53	0.04	0.32	0.32
Sat Flow, veh/h	1810	3610	1606	3510	5187	1590	3510	5187	1610	3510	5187	1607
Grp Volume(v), veh/h	299	212	100	7	49	82	37	760	11	87	1032	245
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1755	1729	1590	1755	1729	1610	1755	1729	1607
Q Serve(g_s), s	17.8	5.0	2.9	0.2	0.9	5.4	0.9	8.8	0.4	2.7	18.6	8.4
Cycle Q Clear(g_c), s	17.8	5.0	2.9	0.2	0.9	5.4	0.9	8.8	0.4	2.7	18.6	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	987	439	25	496	152	899	2772	861	140	1650	511
V/C Ratio(X)	0.89	0.21	0.23	0.28	0.10	0.54	0.04	0.27	0.01	0.62	0.63	0.48
Avail Cap(c_a), veh/h	461	1477	657	128	990	303	899	2772	861	191	1650	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	30.9	9.3	54.3	45.4	47.4	30.8	14.0	12.0	52.0	31.9	11.7
Incr Delay (d2), s/veh	15.5	0.1	0.3	6.2	0.1	3.0	0.0	0.2	0.0	4.5	1.8	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	2.5	1.3	0.1	0.5	2.5	0.4	4.2	0.2	1.4	9.2	4.2
LnGrp Delay(d),s/veh	59.3	31.0	9.5	60.5	45.5	50.4	30.8	14.2	12.0	56.5	33.7	14.9
LnGrp LOS	E	C	A	E	D	D	C	B	B	E	C	B
Approach Vol, veh/h		611			138			808			1364	
Approach Delay, s/veh		41.3			49.2			14.9			31.8	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	62.8	4.8	34.1	32.2	39.0	24.3	14.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	39.0	4.0	45.0	10.0	35.0	28.0	21.0
Max Q Clear Time (g_c+I1), s	4.7	10.8	2.2	7.0	2.9	20.6	19.8	7.4
Green Ext Time (p_c), s	0.0	5.3	0.0	2.4	2.8	6.4	0.6	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	67	1295	101	36	1076	47	179	119	106	82	105	78
Future Volume (veh/h)	67	1295	101	36	1076	47	179	119	106	82	105	78
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	1408	110	39	1170	51	195	129	115	89	114	85
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	2726	213	50	2756	856	226	343	281	113	435	192
Arrive On Green	0.05	0.56	0.56	0.05	1.00	1.00	0.12	0.18	0.18	0.06	0.12	0.12
Sat Flow, veh/h	1810	4906	383	1810	5187	1610	1810	1879	1539	1810	3610	1595
Grp Volume(v), veh/h	73	992	526	39	1170	51	195	123	121	89	114	85
Grp Sat Flow(s),veh/h/ln	1810	1729	1831	1810	1729	1610	1810	1805	1613	1810	1805	1595
Q Serve(g_s), s	4.4	19.7	19.7	2.3	0.0	0.0	11.6	6.6	7.3	5.3	3.2	5.4
Cycle Q Clear(g_c), s	4.4	19.7	19.7	2.3	0.0	0.0	11.6	6.6	7.3	5.3	3.2	5.4
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.95	1.00		1.00
Lane Grp Cap(c), veh/h	94	1921	1017	50	2756	856	226	329	294	113	435	192
V/C Ratio(X)	0.78	0.52	0.52	0.78	0.42	0.06	0.86	0.38	0.41	0.78	0.26	0.44
Avail Cap(c_a), veh/h	115	1921	1017	66	2756	856	263	628	562	181	1083	478
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	15.2	15.2	51.7	0.0	0.0	47.2	39.5	39.7	50.8	43.9	45.0
Incr Delay (d2), s/veh	21.4	0.9	1.7	30.5	0.4	0.1	22.1	0.7	0.9	11.2	0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	9.6	10.4	1.6	0.1	0.0	7.2	3.4	3.3	3.0	1.6	2.5
LnGrp Delay(d),s/veh	72.9	16.1	16.9	82.2	0.4	0.1	69.4	40.2	40.7	62.0	44.3	46.6
LnGrp LOS	E	B	B	F	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1591			1260			439			288	
Approach Delay, s/veh		19.0			2.9			53.3			50.4	
Approach LOS		B			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	67.1	17.7	18.1	9.7	64.4	10.9	25.0
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	4.0	38.1	16.0	33.0	7.0	35.1	11.0	* 38
Max Q Clear Time (g_c+I1), s	4.3	21.7	13.6	7.4	6.4	2.0	7.3	9.3
Green Ext Time (p_c), s	0.0	13.5	0.1	2.5	0.0	23.5	0.1	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

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* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	225	1067	254	116	816	130	257	359	95	252	528	225
Future Volume (veh/h)	225	1067	254	116	816	130	257	359	95	252	528	225
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	230	1089	259	118	833	133	262	366	97	257	539	230
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	291	2357	731	177	1904	302	329	821	365	324	816	363
Arrive On Green	0.17	0.91	0.91	0.05	0.42	0.42	0.09	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	3510	5187	1610	3510	4512	716	3510	3610	1604	3510	3610	1604
Grp Volume(v), veh/h	230	1089	259	118	637	329	262	366	97	257	539	230
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1771	1755	1805	1604	1755	1805	1604
Q Serve(g_s), s	6.9	3.6	2.4	3.6	14.4	14.5	8.0	9.6	5.5	7.9	14.9	14.2
Cycle Q Clear(g_c), s	6.9	3.6	2.4	3.6	14.4	14.5	8.0	9.6	5.5	7.9	14.9	14.2
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	291	2357	731	177	1459	747	329	821	365	324	816	363
V/C Ratio(X)	0.79	0.46	0.35	0.67	0.44	0.44	0.80	0.45	0.27	0.79	0.66	0.63
Avail Cap(c_a), veh/h	383	2357	731	255	1459	747	415	1106	492	415	1106	491
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	2.9	2.8	51.3	22.5	22.6	48.8	36.5	34.9	48.9	38.7	38.4
Incr Delay (d2), s/veh	6.8	0.5	1.1	3.4	0.8	1.5	8.3	0.4	0.4	8.0	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	1.7	1.1	1.9	7.0	7.3	4.3	4.8	2.5	4.2	7.5	6.5
LnGrp Delay(d),s/veh	51.7	3.4	4.0	54.7	23.3	24.1	57.2	36.9	35.3	56.9	39.6	40.3
LnGrp LOS	D	A	A	D	C	C	E	D	D	E	D	D
Approach Vol, veh/h		1578			1084			725			1026	
Approach Delay, s/veh		10.6			27.0			44.0			44.1	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	56.0	14.3	30.2	13.1	52.4	14.1	30.3
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	36.0	13.0	33.7	12.0	32.0	13.0	33.7
Max Q Clear Time (g_c+I1), s	5.6	5.6	10.0	16.9	8.9	16.5	9.9	11.6
Green Ext Time (p_c), s	0.1	17.7	0.3	6.6	0.2	11.2	0.3	7.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
103: Evans Road & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	331	901	343	18	568	180	218	336	18	229	434	271
Future Volume (veh/h)	331	901	343	18	568	180	218	336	18	229	434	271
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	352	959	0	19	604	191	232	357	19	244	462	288
Adj No. of Lanes	2	3	1	1	2	1	2	2	0	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	423	2148	669	29	1117	497	298	1046	55	309	1095	487
Arrive On Green	0.12	0.41	0.00	0.02	0.31	0.31	0.08	0.30	0.30	0.09	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	3610	1607	3510	3486	185	3510	3610	1607
Grp Volume(v), veh/h	352	959	0	19	604	191	232	184	192	244	462	288
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1805	1607	1755	1805	1866	1755	1805	1607
Q Serve(g_s), s	10.8	14.6	0.0	1.1	15.3	10.2	7.1	8.8	8.8	7.5	11.2	16.7
Cycle Q Clear(g_c), s	10.8	14.6	0.0	1.1	15.3	10.2	7.1	8.8	8.8	7.5	11.2	16.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	423	2148	669	29	1117	497	298	542	560	309	1095	487
V/C Ratio(X)	0.83	0.45	0.00	0.66	0.54	0.38	0.78	0.34	0.34	0.79	0.42	0.59
Avail Cap(c_a), veh/h	543	2148	669	99	1117	497	383	542	560	383	1095	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	23.2	0.0	53.8	31.5	29.8	49.3	30.0	30.0	49.2	30.6	32.5
Incr Delay (d2), s/veh	7.3	0.6	0.0	22.3	1.9	2.2	7.6	1.7	1.7	8.6	1.2	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	7.0	0.0	0.8	7.9	4.9	3.8	4.6	4.8	4.0	5.8	8.1
LnGrp Delay(d),s/veh	54.6	23.7	0.0	76.1	33.4	32.0	56.9	31.7	31.7	57.8	31.8	37.7
LnGrp LOS	D	C		E	C	C	E	C	C	E	C	D
Approach Vol, veh/h		1311			814			608			994	
Approach Delay, s/veh		32.0			34.0			41.3			39.9	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	51.5	13.3	39.4	17.3	40.0	13.7	39.0				
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	6.0	39.0	12.0	33.0	17.0	28.0	12.0	33.0				
Max Q Clear Time (g_c+I1), s	13.1	16.6	9.1	18.7	12.8	17.3	9.5	10.8				
Green Ext Time (p_c), s	0.0	11.1	0.2	5.6	0.5	7.0	0.2	6.7				
Intersection Summary												
HCM 2010 Ctrl Delay			36.1									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	41	30	30	40	8	13	24	687	13	12	789	9
Future Volume (veh/h)	41	30	30	40	8	13	24	687	13	12	789	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	33	33	44	9	14	26	755	14	13	867	10
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	58	223	97	57	116	96	36	3858	71	22	2627	1173
Arrive On Green	0.03	0.06	0.06	0.03	0.06	0.06	0.01	0.24	0.24	0.01	0.73	0.73
Sat Flow, veh/h	1810	3610	1576	1810	1900	1575	1810	5244	97	1810	3610	1612
Grp Volume(v), veh/h	45	33	33	44	9	14	26	498	271	13	867	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1576	1810	1900	1575	1810	1729	1883	1810	1805	1612
Q Serve(g_s), s	2.7	1.0	2.2	2.7	0.5	0.9	1.6	12.6	12.6	0.8	9.5	0.2
Cycle Q Clear(g_c), s	2.7	1.0	2.2	2.7	0.5	0.9	1.6	12.6	12.6	0.8	9.5	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	58	223	97	57	116	96	36	2544	1385	22	2627	1173
V/C Ratio(X)	0.77	0.15	0.34	0.77	0.08	0.15	0.72	0.20	0.20	0.60	0.33	0.01
Avail Cap(c_a), veh/h	148	715	312	148	378	314	115	2544	1385	99	2627	1173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	48.9	49.5	52.9	48.7	48.9	54.3	15.8	15.8	54.1	5.4	4.1
Incr Delay (d2), s/veh	19.2	0.3	2.0	19.6	0.3	0.7	22.9	0.2	0.3	24.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.5	1.0	1.6	0.3	0.4	1.0	6.1	6.7	0.5	4.8	0.1
LnGrp Delay(d),s/veh	72.0	49.2	51.5	72.5	49.0	49.6	77.2	15.9	16.1	78.2	5.7	4.1
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		111			67			795			890	
Approach Delay, s/veh		59.1			64.6			18.0			6.7	
Approach LOS		E			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	86.2	7.5	11.0	6.2	85.4	7.5	10.9
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	6.0	55.7	9.0	* 22	7.0	54.7	9.0	* 22
Max Q Clear Time (g_c+I1), s	2.8	14.6	4.7	4.2	3.6	11.5	4.7	2.9
Green Ext Time (p_c), s	0.0	15.4	0.0	0.3	0.0	15.6	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	31	8	36	65	14	50	52	420	94	64	574	31
Future Volume (veh/h)	31	8	36	65	14	50	52	420	94	64	574	31
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	36	9	42	76	16	59	61	494	111	75	675	36
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	46	155	130	98	210	176	80	1950	436	97	2435	1087
Arrive On Green	0.03	0.08	0.08	0.05	0.11	0.11	0.03	0.45	0.45	0.05	0.67	0.67
Sat Flow, veh/h	1810	1900	1585	1810	1900	1593	1810	2932	655	1810	3610	1611
Grp Volume(v), veh/h	36	9	42	76	16	59	61	303	302	75	675	36
Grp Sat Flow(s),veh/h/ln	1810	1900	1585	1810	1900	1593	1810	1805	1783	1810	1805	1611
Q Serve(g_s), s	2.2	0.5	2.7	4.6	0.8	3.8	3.7	11.5	11.7	4.5	8.2	0.8
Cycle Q Clear(g_c), s	2.2	0.5	2.7	4.6	0.8	3.8	3.7	11.5	11.7	4.5	8.2	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	46	155	130	98	210	176	80	1200	1185	97	2435	1087
V/C Ratio(X)	0.78	0.06	0.32	0.77	0.08	0.33	0.77	0.25	0.25	0.77	0.28	0.03
Avail Cap(c_a), veh/h	132	553	461	197	622	521	181	1200	1185	197	2435	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	46.6	47.6	51.3	43.9	45.2	52.8	13.4	13.5	51.4	7.2	6.0
Incr Delay (d2), s/veh	24.4	0.2	1.4	12.1	0.2	1.1	12.8	0.5	0.5	12.2	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.3	1.3	2.6	0.4	1.7	2.1	5.9	5.9	2.6	4.1	0.4
LnGrp Delay(d),s/veh	77.7	46.7	49.1	63.5	44.0	46.3	65.6	13.9	13.9	63.6	7.5	6.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		87			151			666			786	
Approach Delay, s/veh		60.7			54.7			18.6			12.7	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	77.1	10.0	13.0	8.8	78.2	6.8	16.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	38.0	12.0	32.0	11.0	39.0	8.0	36.0
Max Q Clear Time (g_c+I1), s	6.5	13.7	6.6	4.7	5.7	10.2	4.2	5.8
Green Ext Time (p_c), s	0.1	9.4	0.1	0.4	0.0	10.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	40	267	77	152	93	146	26	524	167	99	718	28
Future Volume (veh/h)	40	267	77	152	93	146	26	524	167	99	718	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	278	80	158	97	152	27	546	174	103	748	29
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	931	414	269	931	414	37	1942	865	129	3054	949
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.01	0.18	0.18	0.14	1.00	1.00
Sat Flow, veh/h	1144	3610	1606	1037	3610	1606	1810	3610	1607	1810	5187	1611
Grp Volume(v), veh/h	42	278	80	158	97	152	27	546	174	103	748	29
Grp Sat Flow(s),veh/h/ln	1144	1805	1606	1037	1805	1606	1810	1805	1607	1810	1729	1611
Q Serve(g_s), s	3.2	6.8	4.3	15.9	2.3	8.5	1.6	14.4	10.2	6.1	0.0	0.0
Cycle Q Clear(g_c), s	5.4	6.8	4.3	22.7	2.3	8.5	1.6	14.4	10.2	6.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	337	931	414	269	931	414	37	1942	865	129	3054	949
V/C Ratio(X)	0.12	0.30	0.19	0.59	0.10	0.37	0.73	0.28	0.20	0.80	0.24	0.03
Avail Cap(c_a), veh/h	465	1336	594	385	1336	594	115	1942	865	296	3054	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	0.95	0.95	0.95
Uniform Delay (d), s/veh	33.2	32.8	31.9	41.9	31.1	33.4	54.3	26.8	25.1	46.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.2	2.0	0.0	0.5	23.0	0.3	0.5	10.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.4	1.9	4.7	1.1	3.8	1.1	7.3	4.7	3.4	0.1	0.0
LnGrp Delay(d),s/veh	33.4	33.0	32.1	44.0	31.2	34.0	77.3	27.2	25.6	56.6	0.2	0.1
LnGrp LOS	C	C	C	D	C	C	E	C	C	E	A	A
Approach Vol, veh/h		400			407			747			880	
Approach Delay, s/veh		32.8			37.2			28.6			6.8	
Approach LOS		C			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	64.5		33.7	6.2	70.1		33.7
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	18.0	36.7		40.7	7.0	47.7		40.7
Max Q Clear Time (g_c+I1), s	8.1	16.4		8.8	3.6	2.0		24.7
Green Ext Time (p_c), s	0.1	9.6		4.3	0.0	12.8		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	233	297	81	18	199	60	58	300	6	43	354	186
Future Volume (veh/h)	233	297	81	18	199	60	58	300	6	43	354	186
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	256	326	89	20	219	66	64	330	7	47	389	204
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	289	834	224	30	422	124	83	1836	39	60	1140	590
Arrive On Green	0.16	0.30	0.30	0.02	0.15	0.15	0.05	0.51	0.51	0.07	0.99	0.99
Sat Flow, veh/h	1810	2811	756	1810	2747	806	1810	3615	77	1810	2301	1190
Grp Volume(v), veh/h	256	207	208	20	142	143	64	165	172	47	304	289
Grp Sat Flow(s),veh/h/ln	1810	1805	1762	1810	1805	1748	1810	1805	1886	1810	1805	1686
Q Serve(g_s), s	15.2	10.0	10.3	1.2	7.9	8.3	3.8	5.4	5.4	2.8	0.2	0.3
Cycle Q Clear(g_c), s	15.2	10.0	10.3	1.2	7.9	8.3	3.8	5.4	5.4	2.8	0.2	0.3
Prop In Lane	1.00		0.43	1.00		0.46	1.00		0.04	1.00		0.71
Lane Grp Cap(c), veh/h	289	535	523	30	277	269	83	917	958	60	894	835
V/C Ratio(X)	0.89	0.39	0.40	0.66	0.51	0.53	0.77	0.18	0.18	0.78	0.34	0.35
Avail Cap(c_a), veh/h	362	771	753	99	509	493	115	917	958	115	894	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	45.3	30.7	30.8	53.8	42.8	42.9	51.9	14.7	14.7	50.9	0.2	0.2
Incr Delay (d2), s/veh	19.2	0.5	0.5	22.3	1.5	1.6	19.0	0.4	0.4	18.4	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	5.1	5.1	0.8	4.1	4.1	2.4	2.8	2.9	1.7	0.3	0.3
LnGrp Delay(d),s/veh	64.4	31.2	31.3	76.1	44.2	44.5	70.9	15.1	15.1	69.3	1.2	1.3
LnGrp LOS	E	C	C	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		671			305			401			640	
Approach Delay, s/veh		43.9			46.5			24.0			6.3	
Approach LOS		D			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	59.9	5.8	36.6	9.0	58.5	21.6	20.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	34.0	6.0	47.0	7.0	34.0	22.0	31.0
Max Q Clear Time (g_c+I1), s	4.8	7.4	3.2	12.3	5.8	2.3	17.2	10.3
Green Ext Time (p_c), s	0.0	6.0	0.0	4.7	0.0	6.3	0.3	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	18	57	13	46	19	61	5	649	35	124	859	6
Future Volume (veh/h)	18	57	13	46	19	61	5	649	35	124	859	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	59	14	48	20	64	5	676	36	129	895	6
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	29	106	25	62	171	143	9	2239	119	157	2660	18
Arrive On Green	0.02	0.07	0.07	0.03	0.09	0.09	0.01	0.85	0.85	0.17	1.00	1.00
Sat Flow, veh/h	1810	1478	351	1810	1900	1588	1810	3486	186	1810	3676	25
Grp Volume(v), veh/h	19	0	73	48	20	64	5	350	362	129	439	462
Grp Sat Flow(s),veh/h/ln	1810	0	1829	1810	1900	1588	1810	1805	1867	1810	1805	1896
Q Serve(g_s), s	1.1	0.0	4.2	2.9	1.1	4.2	0.3	4.2	4.2	7.6	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	4.2	2.9	1.1	4.2	0.3	4.2	4.2	7.6	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.10	1.00		0.01
Lane Grp Cap(c), veh/h	29	0	131	62	171	143	9	1159	1199	157	1306	1372
V/C Ratio(X)	0.66	0.00	0.56	0.77	0.12	0.45	0.54	0.30	0.30	0.82	0.34	0.34
Avail Cap(c_a), veh/h	82	0	434	132	503	420	66	1159	1199	280	1306	1372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.96	0.96	0.96
Uniform Delay (d), s/veh	53.8	0.0	49.4	52.7	46.1	47.5	54.5	3.2	3.2	44.7	0.0	0.0
Incr Delay (d2), s/veh	22.3	0.0	3.7	18.0	0.3	2.2	35.0	0.6	0.6	9.8	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.3	1.8	0.6	1.9	0.2	2.2	2.3	4.2	0.2	0.2
LnGrp Delay(d),s/veh	76.1	0.0	53.1	70.7	46.4	49.7	89.5	3.7	3.7	54.5	0.7	0.6
LnGrp LOS	E		D	E	D	D	F	A	A	D	A	A
Approach Vol, veh/h		92			132			717			1030	
Approach Delay, s/veh		57.9			56.8			4.3			7.4	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	75.9	7.8	12.8	4.6	84.9	5.8	14.8
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	17.0	40.7	8.0	26.1	4.0	53.7	5.0	29.1
Max Q Clear Time (g_c+I1), s	9.6	6.2	4.9	6.2	2.3	2.0	3.1	6.2
Green Ext Time (p_c), s	0.2	12.3	0.0	0.6	0.0	13.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

HCM 2010 TWSC
113: Evans Rd & Placentia Ave

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1090	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1090	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	39
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	114	182	76	50	112	65	108	256	66	76	256	106
Future Vol, veh/h	114	182	76	50	112	65	108	256	66	76	256	106
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	121	194	81	53	119	69	115	272	70	81	272	113
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	82.1	20.8	25.5	25.1
HCM LOS	F	C	D	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	31%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	49%	0%	63%	0%	100%	0%
Vol Right, %	0%	0%	100%	20%	0%	37%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	108	256	66	372	50	177	76	256	106
LT Vol	108	0	0	114	50	0	76	0	0
Through Vol	0	256	0	182	0	112	0	256	0
RT Vol	0	0	66	76	0	65	0	0	106
Lane Flow Rate	115	272	70	396	53	188	81	272	113
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.313	0.703	0.168	1.022	0.154	0.507	0.22	0.703	0.269
Departure Headway (Hd)	10.124	9.596	8.858	9.297	10.703	9.914	10.117	9.59	8.851
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	357	379	407	396	337	365	357	379	408
Service Time	7.824	7.296	6.558	6.913	8.403	7.614	7.817	7.29	6.551
HCM Lane V/C Ratio	0.322	0.718	0.172	1	0.157	0.515	0.227	0.718	0.277
HCM Control Delay	17.4	32.1	13.3	82.1	15.3	22.4	15.6	32.1	14.8
HCM Lane LOS	C	D	B	F	C	C	C	D	B
HCM 95th-tile Q	1.3	5.2	0.6	12.8	0.5	2.7	0.8	5.2	1.1

HCM 2010 Signalized Intersection Summary
115: Nuevo Rd & Evans Rd

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑	↱	↰	↱
Traffic Volume (veh/h)	358	384	307	38	46	285
Future Volume (veh/h)	358	384	307	38	46	285
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	393	422	337	42	51	313
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	445	1082	509	428	578	516
Arrive On Green	0.25	0.57	0.27	0.27	0.32	0.32
Sat Flow, veh/h	1810	1900	1900	1600	1810	1615
Grp Volume(v), veh/h	393	422	337	42	51	313
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1600	1810	1615
Q Serve(g_s), s	15.1	8.9	11.4	1.4	1.4	11.8
Cycle Q Clear(g_c), s	15.1	8.9	11.4	1.4	1.4	11.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	445	1082	509	428	578	516
V/C Ratio(X)	0.88	0.39	0.66	0.10	0.09	0.61
Avail Cap(c_a), veh/h	578	1557	845	711	578	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	8.6	23.5	19.8	17.2	20.7
Incr Delay (d2), s/veh	12.3	0.2	1.5	0.1	0.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	4.6	6.1	0.6	0.8	11.2
LnGrp Delay(d),s/veh	38.4	8.8	24.9	19.9	17.5	25.9
LnGrp LOS	D	A	C	B	B	C
Approach Vol, veh/h		815	379		364	
Approach Delay, s/veh		23.1	24.4		24.7	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				45.0		27.0	21.7	23.3
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				59.0		23.0	23.0	32.0
Max Q Clear Time (g_c+I1), s				10.9		13.8	17.1	13.4
Green Ext Time (p_c), s				5.4		0.9	0.7	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Vol, veh/h	25	954	715	28	65	55
Future Vol, veh/h	25	954	715	28	65	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	35
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	1048	786	31	71	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	816	0	-	0	1904	801
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	1103	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	820	-	-	-	77	388
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	321	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	820	-	-	-	74	388
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	310	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	111
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	820	-	-	-	74	388
HCM Lane V/C Ratio	0.034	-	-	-	0.965	0.156
HCM Control Delay (s)	9.5	-	-	-	191.4	16
HCM Lane LOS	A	-	-	-	F	C
HCM 95th %tile Q(veh)	0.1	-	-	-	5	0.5

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↱	
Traffic Vol, veh/h	49	8	22	530	1043	93
Future Vol, veh/h	49	8	22	530	1043	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	52	8	23	558	1098	98

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1751	1147	1196	0	-	0
Stage 1	1147	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	95	245	591	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	91	245	591	-	-	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	529	-	-	-	-	-

Approach	EB		NB		SB
HCM Control Delay, s	84.5		0.5		0
HCM LOS	F				

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	591	-	100	-	-
HCM Lane V/C Ratio	0.039	-	0.6	-	-
HCM Control Delay (s)	11.3	-	84.5	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	2.9	-	-

HCM 2010 TWSC
124: SR-79 NB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	25.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Vol, veh/h	9	686	0	0	299	189	238	0	8	0	0	0
Future Vol, veh/h	9	686	0	0	299	189	238	0	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	762	0	0	332	210	264	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	332	0	-	-	-	0	1114	1114	762
Stage 1	-	-	-	-	-	-	782	782	-
Stage 2	-	-	-	-	-	-	332	332	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1239	-	0	0	-	-	~ 232	210	408
Stage 1	-	-	0	0	-	-	454	408	-
Stage 2	-	-	0	0	-	-	731	648	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1239	-	-	-	-	-	~ 230	0	408
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 230	0	-
Stage 1	-	-	-	-	-	-	450	0	-
Stage 2	-	-	-	-	-	-	731	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	146
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	230	408	1239	-	-	-
HCM Lane V/C Ratio	1.15	0.022	0.008	-	-	-
HCM Control Delay (s)	150.4	14	7.9	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	12.3	0.1	0	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

Intersection	
Int Delay, s/veh	17.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Vol, veh/h	0	465	578	4	518	0	0	0	0	246	3	23
Future Vol, veh/h	0	465	578	4	518	0	0	0	0	246	3	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	500	622	4	557	0	0	0	0	265	3	25

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	500	0	0				1066	1066	557
Stage 1	-	-	-	-	-	-				566	566	-
Stage 2	-	-	-	-	-	-				500	500	-
Critical Hdwy	-	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1075	-	0				~ 248	224	534
Stage 1	0	-	-	-	-	0				572	511	-
Stage 2	0	-	-	-	-	0				613	546	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1075	-	-				~ 247	0	534
Mov Cap-2 Maneuver	-	-	-	-	-	-				~ 247	0	-
Stage 1	-	-	-	-	-	-				570	0	-
Stage 2	-	-	-	-	-	-				613	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	115.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1075	-	247	534
HCM Lane V/C Ratio	-	-	0.004	-	1.084	0.046
HCM Control Delay (s)	-	-	8.4	-	124.9	12.1
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0	-	11.4	0.1

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM Signalized Intersection Capacity Analysis
126: SR-79(Sanderson Ave) & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (vph)	315	529	152	42	366	422	96	561	39	658	1179	361
Future Volume (vph)	315	529	152	42	366	422	96	561	39	658	1179	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3610	1597	3502	3610	1605	3502	3610	1595	3502	3610	1596
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3610	1597	3502	3610	1605	3502	3610	1595	3502	3610	1596
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	332	557	160	44	385	444	101	591	41	693	1241	380
RTOR Reduction (vph)	0	0	48	0	0	53	0	0	28	0	0	62
Lane Group Flow (vph)	332	557	112	44	385	391	101	591	13	693	1241	318
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.3	24.6	32.4	5.4	17.7	42.2	7.8	24.8	30.2	24.5	41.5	53.8
Effective Green, g (s)	12.3	24.6	32.4	5.4	17.7	42.2	7.8	24.8	30.2	24.5	41.5	53.8
Actuated g/C Ratio	0.13	0.26	0.34	0.06	0.19	0.44	0.08	0.26	0.32	0.26	0.44	0.56
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	451	931	609	198	670	778	286	939	572	900	1572	967
v/s Ratio Prot	c0.09	c0.15	0.02	0.01	0.11	0.13	0.03	0.16	0.00	c0.20	c0.34	0.04
v/s Ratio Perm			0.06			0.11			0.01			0.16
v/c Ratio	0.74	0.60	0.18	0.22	0.57	0.50	0.35	0.63	0.02	0.77	0.79	0.33
Uniform Delay, d1	39.9	31.0	22.1	42.9	35.4	19.0	41.4	31.2	22.4	32.8	23.1	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.2	1.0	0.1	0.6	1.2	0.5	0.8	1.3	0.0	4.1	2.7	0.2
Delay (s)	46.1	32.1	22.3	43.5	36.6	19.5	42.1	32.5	22.4	36.9	25.9	11.3
Level of Service	D	C	C	D	D	B	D	C	C	D	C	B
Approach Delay (s)		35.0			28.3			33.3			26.8	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	95.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	12	427	165	42	301	15	336	82	57	24	34	8
Future Volume (veh/h)	12	427	165	42	301	15	336	82	57	24	34	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	449	174	44	317	16	354	86	60	25	36	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	23	525	442	59	563	408	400	459	320	40	364	81
Arrive On Green	0.01	0.28	0.28	0.03	0.30	0.30	0.22	0.44	0.44	0.02	0.24	0.24
Sat Flow, veh/h	1810	1900	1600	1810	1900	1377	1810	1041	726	1810	1504	334
Grp Volume(v), veh/h	13	449	174	44	317	16	354	0	146	25	0	44
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1377	1810	0	1767	1810	0	1839
Q Serve(g_s), s	0.5	15.7	6.2	1.7	9.9	0.6	13.3	0.0	3.5	1.0	0.0	1.3
Cycle Q Clear(g_c), s	0.5	15.7	6.2	1.7	9.9	0.6	13.3	0.0	3.5	1.0	0.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		0.18
Lane Grp Cap(c), veh/h	23	525	442	59	563	408	400	0	779	40	0	445
V/C Ratio(X)	0.56	0.85	0.39	0.74	0.56	0.04	0.89	0.00	0.19	0.63	0.00	0.10
Avail Cap(c_a), veh/h	103	568	479	103	568	412	438	0	779	129	0	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	24.1	20.6	33.7	20.9	17.6	26.5	0.0	12.0	34.1	0.0	20.7
Incr Delay (d2), s/veh	19.7	11.5	0.6	16.4	1.3	0.0	18.1	0.0	0.5	15.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	9.9	2.8	1.1	5.4	0.2	8.6	0.0	1.8	0.6	0.0	0.7
LnGrp Delay(d),s/veh	54.2	35.6	21.2	50.1	22.1	17.6	44.6	0.0	12.5	49.2	0.0	21.1
LnGrp LOS	D	D	C	D	C	B	D		B	D		C
Approach Vol, veh/h		636			377			500			69	
Approach Delay, s/veh		32.0			25.2			35.2			31.3	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	35.0	6.3	23.4	19.5	21.0	4.9	24.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	29.0	4.0	21.0	17.0	17.0	4.0	21.0
Max Q Clear Time (g_c+I1), s	3.0	5.5	3.7	17.7	15.3	3.3	2.5	11.9
Green Ext Time (p_c), s	0.0	1.0	0.0	1.7	0.2	0.8	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	31.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	107	367	56	134	291	135	55	228	81	163	265	43
Future Volume (veh/h)	107	367	56	134	291	135	55	228	81	163	265	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	395	60	144	313	145	59	245	87	175	285	46
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	407	1234	186	438	746	725	143	601	208	237	873	139
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.08	0.23	0.23	0.13	0.28	0.28
Sat Flow, veh/h	947	3145	474	949	1900	1384	1810	2629	909	1810	3115	497
Grp Volume(v), veh/h	115	225	230	144	313	145	59	166	166	175	164	167
Grp Sat Flow(s),veh/h/ln	947	1805	1814	949	1900	1384	1810	1805	1733	1810	1805	1807
Q Serve(g_s), s	4.9	4.2	4.3	6.0	5.8	2.7	1.5	3.8	3.9	4.5	3.5	3.6
Cycle Q Clear(g_c), s	10.7	4.2	4.3	10.3	5.8	2.7	1.5	3.8	3.9	4.5	3.5	3.6
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.52	1.00		0.27
Lane Grp Cap(c), veh/h	407	708	712	438	746	725	143	413	396	237	506	507
V/C Ratio(X)	0.28	0.32	0.32	0.33	0.42	0.20	0.41	0.40	0.42	0.74	0.32	0.33
Avail Cap(c_a), veh/h	564	1007	1012	595	1060	954	262	1007	967	337	1082	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.6	10.2	10.2	13.8	10.7	6.1	21.2	15.9	15.9	20.2	13.8	13.8
Incr Delay (d2), s/veh	0.4	0.3	0.3	0.4	0.4	0.1	1.9	0.6	0.7	5.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.1	2.2	1.6	3.1	1.0	0.8	2.0	2.0	2.6	1.8	1.8
LnGrp Delay(d),s/veh	14.9	10.5	10.5	14.2	11.1	6.3	23.1	16.5	16.6	25.3	14.1	14.2
LnGrp LOS	B	B	B	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		570			602			391			506	
Approach Delay, s/veh		11.4			10.7			17.5			18.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.3	15.1		23.0	7.8	17.6		23.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	6.5	5.9		12.7	3.5	5.6		12.3
Green Ext Time (p_c), s	0.1	4.0		5.8	0.0	4.1		5.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

131: Reche Vista Dr & Reche Canyon Rd

Movement	EBT	EBR	WBL	WBT	NBL	NBR
	→	↘	↙	←	↖	↗
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (veh/h)	11	1095	8	4	590	7
Future Volume (veh/h)	11	1095	8	4	590	7
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	12	1190	9	4	641	8
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	734	1286	262	99	705	666
Arrive On Green	0.41	0.41	0.41	0.41	0.44	0.44
Sat Flow, veh/h	1800	1521	408	243	1619	1530
Grp Volume(v), veh/h	12	1190	13	0	641	8
Grp Sat Flow(s),veh/h/ln	1800	1521	651	0	1619	1530
Q Serve(g_s), s	0.3	26.0	0.0	0.0	23.6	0.2
Cycle Q Clear(g_c), s	0.3	26.0	0.3	0.0	23.6	0.2
Prop In Lane		1.00	0.69		1.00	1.00
Lane Grp Cap(c), veh/h	734	1286	361	0	705	666
V/C Ratio(X)	0.02	0.93	0.04	0.00	0.91	0.01
Avail Cap(c_a), veh/h	734	1286	361	0	1117	1055
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	2.8	11.3	0.0	16.8	10.2
Incr Delay (d2), s/veh	0.0	11.4	0.0	0.0	7.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	24.6	0.1	0.0	11.7	0.1
LnGrp Delay(d),s/veh	11.3	14.2	11.3	0.0	24.0	10.2
LnGrp LOS	B	B	B		C	B
Approach Vol, veh/h	1202			13	649	
Approach Delay, s/veh	14.2			11.3	23.8	
Approach LOS	B			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		32.8		31.0				31.0
Change Period (Y+Rc), s		5.0		5.0				5.0
Max Green Setting (Gmax), s		44.0		26.0				26.0
Max Q Clear Time (g_c+I1), s		25.6		28.0				2.3
Green Ext Time (p_c), s		2.2		0.0				7.3

Intersection Summary			
HCM 2010 Ctrl Delay			17.5
HCM 2010 LOS			B

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	23.1
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰↱	
Traffic Vol, veh/h	30	443	267	271	188	14
Future Vol, veh/h	30	443	267	271	188	14
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	471	284	288	200	15
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	23.8	25.9	14
HCM LOS	C	D	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	0%	93%
Vol Thru, %	94%	50%	0%
Vol Right, %	0%	50%	7%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	473	538	202
LT Vol	30	0	188
Through Vol	443	267	0
RT Vol	0	271	14
Lane Flow Rate	503	572	215
Geometry Grp	1	1	1
Degree of Util (X)	0.761	0.807	0.395
Departure Headway (Hd)	5.443	5.078	6.622
Convergence, Y/N	Yes	Yes	Yes
Cap	664	710	542
Service Time	3.5	3.134	4.691
HCM Lane V/C Ratio	0.758	0.806	0.397
HCM Control Delay	23.8	25.9	14
HCM Lane LOS	C	D	B
HCM 95th-tile Q	7	8.4	1.9

Intersection	
Intersection Delay, s/veh	104.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	9	605	3	3	490	270	8	2	4	270	2	13
Future Vol, veh/h	9	605	3	3	490	270	8	2	4	270	2	13
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	617	3	3	500	276	8	2	4	276	2	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	82.6	155.7	12.7	21.3
HCM LOS	F	F	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	57%	1%	0%	95%
Vol Thru, %	14%	98%	64%	1%
Vol Right, %	29%	0%	35%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	617	763	285
LT Vol	8	9	3	270
Through Vol	2	605	490	2
RT Vol	4	3	270	13
Lane Flow Rate	14	630	779	291
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	1.067	1.273	0.585
Departure Headway (Hd)	9.333	6.525	6.078	7.822
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	386	560	607	465
Service Time	7.333	4.525	4.078	5.822
HCM Lane V/C Ratio	0.036	1.125	1.283	0.626
HCM Control Delay	12.7	82.6	155.7	21.3
HCM Lane LOS	B	F	F	C
HCM 95th-tile Q	0.1	17.3	29.7	3.7

HCM 2010 AWSC
134: Redlands Blvd & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	178.9
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	60	819	40	25	692	95
Future Vol, veh/h	60	819	40	25	692	95
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	61	836	41	26	706	97
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	182.7	12.9	188.4
HCM LOS	F	B	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	88%	0%	62%
Vol Thru, %	0%	7%	38%
Vol Right, %	12%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	787	879	65
LT Vol	692	0	40
Through Vol	0	60	25
RT Vol	95	819	0
Lane Flow Rate	803	897	66
Geometry Grp	1	1	1
Degree of Util (X)	1.346	1.338	0.131
Departure Headway (Hd)	6.755	6.164	8.566
Convergence, Y/N	Yes	Yes	Yes
Cap	546	601	421
Service Time	4.755	4.164	6.566
HCM Lane V/C Ratio	1.471	1.493	0.157
HCM Control Delay	188.4	182.7	12.9
HCM Lane LOS	F	F	B
HCM 95th-tile Q	31.6	33.4	0.4

Intersection	
Int Delay, s/veh	7.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	64	110	195	42	31	266
Future Vol, veh/h	64	110	195	42	31	266
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	71	122	217	47	34	296

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	193	0	612	132
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	480	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1392	-	460	923
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	627	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1392	-	386	923
Mov Cap-2 Maneuver	-	-	-	-	386	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	527	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.6	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	806	-	-	1392	-
HCM Lane V/C Ratio	0.409	-	-	0.156	-
HCM Control Delay (s)	12.5	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0.6	-

HCM 2010 AWSC
136: Alessandro Rd & Sunset Dr

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	5	8	8	6	1	10	6	264	20	13	247	4
Future Vol, veh/h	5	8	8	6	1	10	6	264	20	13	247	4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	9	9	7	1	11	7	290	22	14	271	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.1	9.8	9.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	24%	35%	5%
Vol Thru, %	91%	38%	6%	94%
Vol Right, %	7%	38%	59%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	290	21	17	264
LT Vol	6	5	6	13
Through Vol	264	8	1	247
RT Vol	20	8	10	4
Lane Flow Rate	319	23	19	290
Geometry Grp	1	1	1	1
Degree of Util (X)	0.377	0.032	0.026	0.348
Departure Headway (Hd)	4.259	5.048	4.953	4.321
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	709	722	836
Service Time	2.274	3.08	2.985	2.338
HCM Lane V/C Ratio	0.376	0.032	0.026	0.347
HCM Control Delay	9.8	8.2	8.1	9.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.8	0.1	0.1	1.6

Traffic Impact Analysis Report

for the World Logistics Center

Appendix C

Intersection LOS Worksheets
for Existing Plus Phase 1 Conditions

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2018 AM-PH1]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A

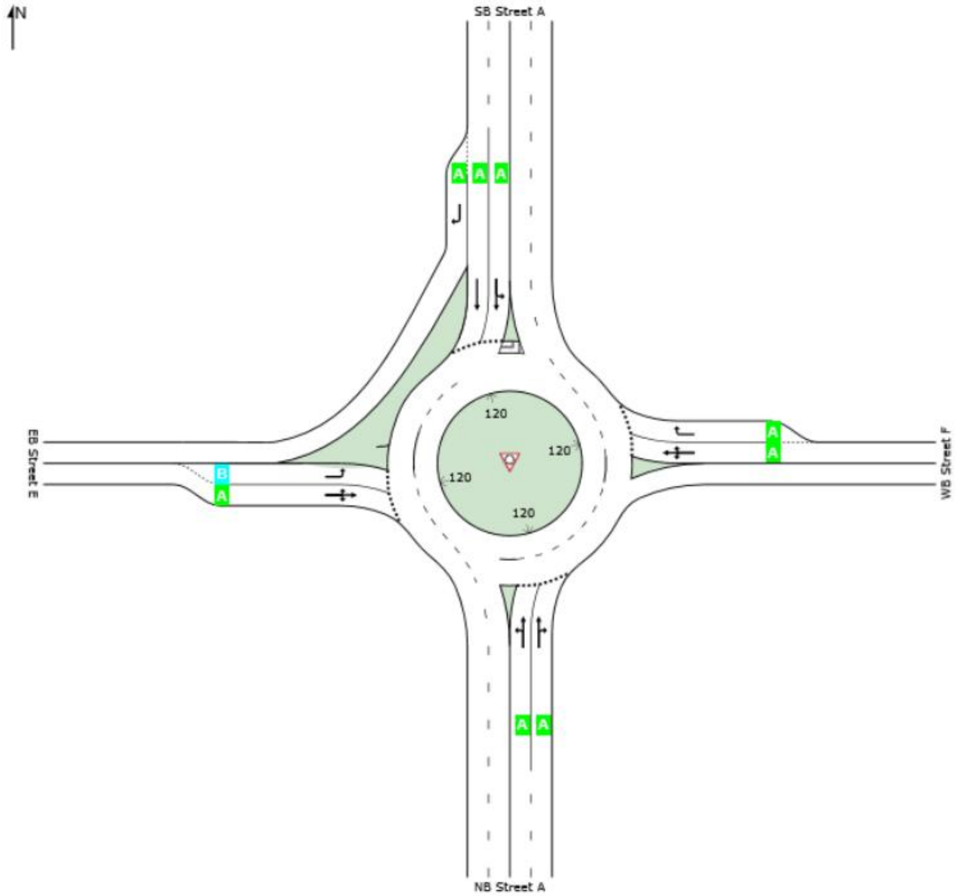

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int1_2018 AM-PH1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows		Cap.	Deg.	Lane	Average	Level of	95% Back of Queue		Lane	Lane	Cap.	Prob.
	Total	HV		Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h	%	veh/h	v/c	%	sec			ft		ft	%	%
South: NB Street A													
Lane 1	479	0.0	1161	0.413	100	6.0	LOS A	2.0	49.2	Full	1600	0.0	0.0
Lane 2[d]	481	0.0	1165	0.413	100	5.6	LOS A	2.0	49.2	Full	1600	0.0	0.0
Approach	960	0.0		0.413		5.8	LOS A	2.0	49.2				
East: WB Street F													
Lane 1[d]	80	0.0	801	0.100	100	9.1	LOS A	0.4	8.9	Full	1600	0.0	0.0
Lane 2	20	0.0	438	0.046	46[5]	8.5	LOS A	0.1	3.5	Short	200	0.0	NA
Approach	100	0.0		0.100		9.0	LOS A	0.4	8.9				
North: SB Street A													
Lane 1	368	0.0	1303	0.282	100	5.3	LOS A	1.6	40.3	Full	1600	0.0	0.0
Lane 2[d]	402	0.0	1423	0.282	100	4.0	LOS A	1.6	40.8	Full	1600	0.0	0.0
Lane 3	70	0.0	1675	0.042	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	840	0.0		0.282		4.5	LOS A	1.6	40.8				
West: EB Street E													
Lane 1	93	0.0	854	0.108	100	12.0	LOS B	0.4	9.1	Short	200	0.0	NA
Lane 2[d]	97	0.0	897	0.108	100	8.0	LOS A	0.4	9.2	Full	1600	0.0	0.0
Approach	190	0.0		0.108		9.9	LOS A	0.4	9.2				
Intersection	2090	0.0		0.413		5.8	LOS A	2.0	49.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[5] Lane under-utilisation found by the program
[d] Dominant lane on roundabout approach

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Vol, veh/h	10	130	210	10	140	210
Future Vol, veh/h	10	130	210	10	140	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	141	228	11	152	228
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.1	12.6	10.2
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	210	10	130	210	10
LT Vol	140	0	0	0	210	0
Through Vol	0	0	10	0	0	10
RT Vol	0	210	0	130	0	0
Lane Flow Rate	152	228	11	141	228	11
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.256	0.307	0.017	0.198	0.388	0.017
Departure Headway (Hd)	6.047	4.841	5.764	5.055	6.116	5.611
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	590	735	614	701	584	632
Service Time	3.823	2.616	3.561	2.852	3.905	3.4
HCM Lane V/C Ratio	0.258	0.31	0.018	0.201	0.39	0.017
HCM Control Delay	10.9	9.8	8.7	9.1	12.8	8.5
HCM Lane LOS	B	A	A	A	B	A
HCM 95th-tile Q	1	1.3	0.1	0.7	1.8	0.1

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2018 AM Ph1]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	B	A	A

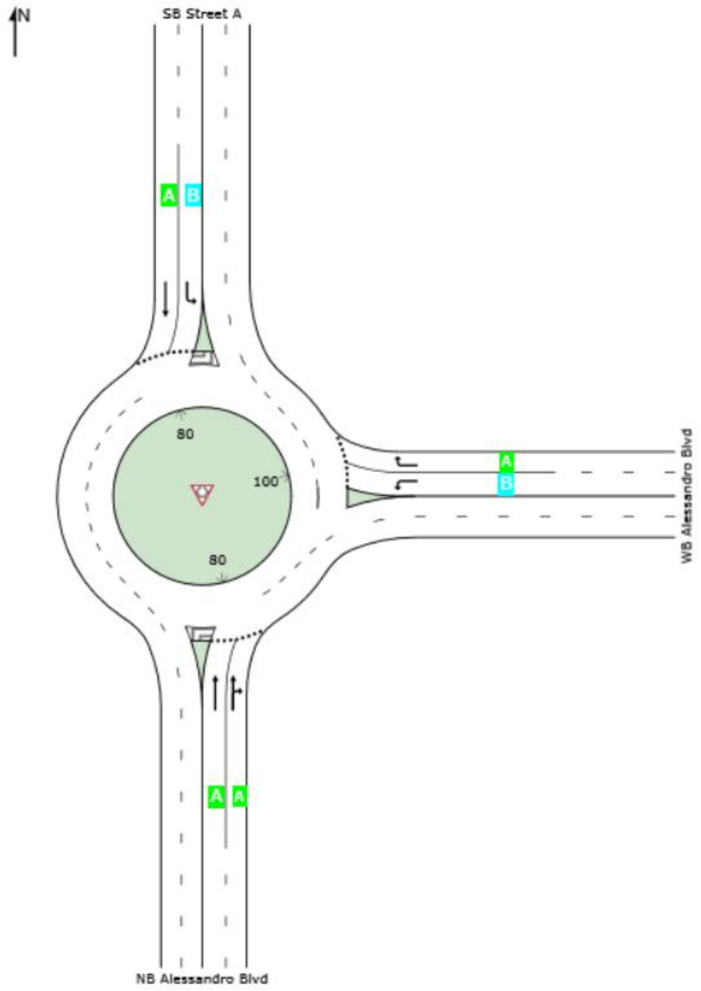

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int3_2018 AM Ph1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	127	0.0	1393	0.091	100	5.2	LOS A	0.5	11.4	Full	1600	0.0	0.0
Lane 2[d]	134	0.0	1469	0.091	100	5.1	LOS A	0.5	11.4	Full	1600	0.0	0.0
Approach	261	0.0		0.091		5.1	LOS A	0.5	11.4				
East: WB Alessandro Blvd													
Lane 1[d]	140	0.0	1124	0.125	100	11.3	LOS B	0.5	11.6	Full	1600	0.0	0.0
Lane 2	30	0.0	664	0.045	100	6.2	LOS A	0.2	3.8	Full	1600	0.0	0.0
Approach	170	0.0		0.125		10.4	LOS B	0.5	11.6				
North: SB Street A													
Lane 1	22	0.0	752	0.029	100	11.5	LOS B	0.1	3.0	Full	1600	0.0	0.0
Lane 2[d]	141	0.0	1224	0.115	100	5.7	LOS A	0.5	13.4	Full	1600	0.0	0.0
Approach	163	0.0		0.115		6.4	LOS A	0.5	13.4				
Intersection	594	0.0		0.125		7.0	LOS A	0.5	13.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

HCM 2010 TWSC
4: Alessandro Blvd/Street C & Street F

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	10	90	120	90	70	10
Future Vol, veh/h	10	90	120	90	70	10
Conflicting Peds, #/hr	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	98	130	98	76	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	233	0	-	0	309	189
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	125	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1346	-	-	-	687	858
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	906	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	675	851
Mov Cap-2 Maneuver	-	-	-	-	675	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	894	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	693
HCM Lane V/C Ratio	0.008	-	-	-	0.125
HCM Control Delay (s)	7.7	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱		↰↑	↑↱	
Traffic Vol, veh/h	10	140	170	780	460	10
Future Vol, veh/h	10	140	170	780	460	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	20	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	149	181	830	489	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1686	495	500	0	-	0
Stage 1	495	-	-	-	-	-
Stage 2	1191	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	104	579	1075	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	72	579	1075	-	-	-
Mov Cap-2 Maneuver	72	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	200	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	1.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1075	-	72	579	-	-
HCM Lane V/C Ratio	0.168	-	0.148	0.257	-	-
HCM Control Delay (s)	9	0	63.5	13.4	-	-
HCM Lane LOS	A	A	F	B	-	-
HCM 95th %tile Q(veh)	0.6	-	0.5	1	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	70	5	20	10	5	10	10	630	10	5	610	30
Future Vol, veh/h	70	5	20	10	5	10	10	630	10	5	610	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	300	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	76	5	22	11	5	11	11	685	11	5	663	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1389	1381	663	1395	1381	685	663	0	0	685	0	0
Stage 1	674	674	-	707	707	-	-	-	-	-	-	-
Stage 2	715	707	-	688	674	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	121	145	465	120	145	452	935	-	-	918	-	-
Stage 1	448	457	-	429	441	-	-	-	-	-	-	-
Stage 2	425	441	-	440	457	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	113	143	465	110	143	452	935	-	-	918	-	-
Mov Cap-2 Maneuver	113	143	-	110	143	-	-	-	-	-	-	-
Stage 1	443	455	-	424	436	-	-	-	-	-	-	-
Stage 2	405	436	-	412	455	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	86.8	30.3	0.1	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	935	-	-	136	169	918	-	-
HCM Lane V/C Ratio	0.012	-	-	0.759	0.161	0.006	-	-
HCM Control Delay (s)	8.9	-	-	86.8	30.3	8.9	-	-
HCM Lane LOS	A	-	-	F	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	4.5	0.6	0	-	-

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

	⤴	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↱		↰	↑	↱
Traffic Volume (veh/h)	110	20	30	10	20	10	40	530	30	10	540	120
Future Volume (veh/h)	110	20	30	10	20	10	40	530	30	10	540	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	20	31	10	20	10	41	541	31	10	551	122
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	398	71	110	31	61	31	98	659	38	32	635	536
Arrive On Green	0.33	0.33	0.33	0.07	0.07	0.07	0.05	0.37	0.37	0.02	0.33	0.33
Sat Flow, veh/h	1221	218	338	446	892	446	1810	1779	102	1810	1900	1603
Grp Volume(v), veh/h	163	0	0	40	0	0	41	0	572	10	551	122
Grp Sat Flow(s),veh/h/ln	1776	0	0	1785	0	0	1810	0	1881	1810	1900	1603
Q Serve(g_s), s	5.0	0.0	0.0	1.6	0.0	0.0	1.6	0.0	20.2	0.4	20.0	4.0
Cycle Q Clear(g_c), s	5.0	0.0	0.0	1.6	0.0	0.0	1.6	0.0	20.2	0.4	20.0	4.0
Prop In Lane	0.69		0.19	0.25		0.25	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	579	0	0	122	0	0	98	0	697	32	635	536
V/C Ratio(X)	0.28	0.00	0.00	0.33	0.00	0.00	0.42	0.00	0.82	0.31	0.87	0.23
Avail Cap(c_a), veh/h	579	0	0	630	0	0	172	0	697	172	697	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	32.7	0.0	0.0	33.7	0.0	20.9	35.7	23.0	17.7
Incr Delay (d2), s/veh	1.2	0.0	0.0	1.5	0.0	0.0	2.8	0.0	7.7	5.5	10.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	0.8	0.0	0.0	0.9	0.0	12.0	0.2	12.3	1.8
LnGrp Delay(d),s/veh	19.6	0.0	0.0	34.2	0.0	0.0	36.6	0.0	28.7	41.2	33.6	17.9
LnGrp LOS	B			C			D		C	D	C	B
Approach Vol, veh/h		163			40			613			683	
Approach Delay, s/veh		19.6			34.2			29.2			30.9	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	31.3		28.0	8.0	28.6		9.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	27.0		24.0	7.0	27.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	22.2		7.0	3.6	22.0		3.6
Green Ext Time (p_c), s	0.0	2.7		0.6	0.0	2.6		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.1
HCM 2010 LOS	C

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑	↱	↰	↑
Traffic Vol, veh/h	70	10	20	60	10	40
Future Vol, veh/h	70	10	20	60	10	40
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	82	12	24	71	12	47

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	100	34	0	0	29	0
Stage 1	29	-	-	-	-	-
Stage 2	71	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	904	1045	-	-	1597	-
Stage 1	999	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	893	1036	-	-	1590	-
Mov Cap-2 Maneuver	893	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	950	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1036	1590	-
HCM Lane V/C Ratio	-	-	0.011	0.007	-
HCM Control Delay (s)	-	-	8.5	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↳	
Traffic Volume (veh/h)	10	10	10	80	0	110	20	520	130	290	280	10
Future Volume (veh/h)	10	10	10	80	0	110	20	520	130	290	280	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	82	0	112	20	531	133	296	286	10
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	27	27	27	107	0	146	60	642	788	351	910	32
Arrive On Green	0.05	0.05	0.05	0.15	0.00	0.15	0.03	0.34	0.34	0.19	0.50	0.50
Sat Flow, veh/h	589	589	589	715	0	977	1810	1900	1615	1810	1825	64
Grp Volume(v), veh/h	30	0	0	194	0	0	20	531	133	296	0	296
Grp Sat Flow(s),veh/h/ln	1767	0	0	1692	0	0	1810	1900	1615	1810	0	1889
Q Serve(g_s), s	1.0	0.0	0.0	6.5	0.0	0.0	0.6	15.1	2.7	9.3	0.0	5.5
Cycle Q Clear(g_c), s	1.0	0.0	0.0	6.5	0.0	0.0	0.6	15.1	2.7	9.3	0.0	5.5
Prop In Lane	0.33		0.33	0.42		0.58	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	81	0	0	253	0	0	60	642	788	351	0	942
V/C Ratio(X)	0.37	0.00	0.00	0.77	0.00	0.00	0.33	0.83	0.17	0.84	0.00	0.31
Avail Cap(c_a), veh/h	541	0	0	518	0	0	215	776	901	431	0	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	0.0	24.0	0.0	0.0	27.8	17.9	8.4	22.8	0.0	8.8
Incr Delay (d2), s/veh	2.8	0.0	0.0	4.8	0.0	0.0	3.2	6.3	0.1	12.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	3.4	0.0	0.0	0.4	8.9	1.6	5.8	0.0	2.8
LnGrp Delay(d),s/veh	30.0	0.0	0.0	28.8	0.0	0.0	31.0	24.1	8.5	34.8	0.0	8.9
LnGrp LOS	C			C			C	C	A	C		A
Approach Vol, veh/h		30			194			684			592	
Approach Delay, s/veh		30.0			28.8			21.3			21.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.4	23.9		6.7	6.0	33.3		12.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	14.0	24.0		18.0	7.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	11.3	17.1		3.0	2.6	7.5		8.5
Green Ext Time (p_c), s	0.2	2.8		0.1	0.0	5.0		0.7

Intersection Summary			
HCM 2010 Ctrl Delay			22.7
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↑	↱
Traffic Volume (veh/h)	230	250	80	410	370	40
Future Volume (veh/h)	230	250	80	410	370	40
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	237	258	82	423	381	41
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	273	297	183	914	548	466
Arrive On Green	0.34	0.34	0.10	0.48	0.29	0.29
Sat Flow, veh/h	814	886	1810	1900	1900	1615
Grp Volume(v), veh/h	496	0	82	423	381	41
Grp Sat Flow(s),veh/h/ln	1703	0	1810	1900	1900	1615
Q Serve(g_s), s	11.9	0.0	1.9	6.5	7.8	0.8
Cycle Q Clear(g_c), s	11.9	0.0	1.9	6.5	7.8	0.8
Prop In Lane	0.48	0.52	1.00			1.00
Lane Grp Cap(c), veh/h	571	0	183	914	548	466
V/C Ratio(X)	0.87	0.00	0.45	0.46	0.70	0.09
Avail Cap(c_a), veh/h	703	0	290	1264	784	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	18.5	7.5	13.8	11.3
Incr Delay (d2), s/veh	9.6	0.0	1.7	0.4	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.0	1.0	3.4	4.3	0.4
LnGrp Delay(d),s/veh	23.2	0.0	20.2	7.9	15.4	11.4
LnGrp LOS	C		C	A	B	B
Approach Vol, veh/h	496			505	422	
Approach Delay, s/veh	23.2			9.9	15.0	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		25.0		18.6	8.4	16.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		18.0	7.0	18.0		
Max Q Clear Time (g_c+I1), s		8.5		13.9	3.9	9.8		
Green Ext Time (p_c), s		4.3		0.7	0.0	2.8		

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	20	190	1060	80	40	60
Future Volume (veh/h)	20	190	1060	80	40	60
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	213	1191	90	45	67
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	315	281	1472	3419	811	249
Arrive On Green	0.17	0.17	0.42	0.66	0.16	0.16
Sat Flow, veh/h	1810	1615	3510	5358	5358	1589
Grp Volume(v), veh/h	22	213	1191	90	45	67
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1589
Q Serve(g_s), s	0.5	6.0	14.3	0.3	0.4	1.8
Cycle Q Clear(g_c), s	0.5	6.0	14.3	0.3	0.4	1.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	315	281	1472	3419	811	249
V/C Ratio(X)	0.07	0.76	0.81	0.03	0.06	0.27
Avail Cap(c_a), veh/h	1057	943	2050	5841	2380	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	18.8	12.2	2.8	17.2	17.8
Incr Delay (d2), s/veh	0.1	4.2	1.7	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.5	7.1	0.1	0.2	0.8
LnGrp Delay(d),s/veh	16.7	23.0	14.0	2.8	17.2	18.4
LnGrp LOS	B	C	B	A	B	B
Approach Vol, veh/h	235			1281	112	
Approach Delay, s/veh	22.4			13.2	17.9	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		35.6		12.3	24.1	11.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		54.0		28.0	28.0	22.0		
Max Q Clear Time (g_c+I1), s		2.3		8.0	16.3	3.8		
Green Ext Time (p_c), s		1.0		0.7	3.8	0.8		

Intersection Summary			
HCM 2010 Ctrl Delay			14.9
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
16: Theodore St & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	70	0	690	0	0	0	0	1080	170	0	210	20
Future Volume (veh/h)	70	0	690	0	0	0	0	1080	170	0	210	20
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	93	0	0				0	1440	227	0	280	27
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.75	0.75	0.75				0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	229	0	359				0	3131	971	0	3131	971
Arrive On Green	0.13	0.00	0.00				0.00	0.60	0.60	0.00	0.60	0.60
Sat Flow, veh/h	1810	0	2842				0	5358	1608	0	5358	1608
Grp Volume(v), veh/h	93	0	0				0	1440	227	0	280	27
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1608	0	1729	1608
Q Serve(g_s), s	1.4	0.0	0.0				0.0	4.5	1.9	0.0	0.7	0.2
Cycle Q Clear(g_c), s	1.4	0.0	0.0				0.0	4.5	1.9	0.0	0.7	0.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	229	0	359				0	3131	971	0	3131	971
V/C Ratio(X)	0.41	0.00	0.00				0.00	0.46	0.23	0.00	0.09	0.03
Avail Cap(c_a), veh/h	1954	0	3069				0	4376	1357	0	4376	1357
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	0.0				0.0	3.2	2.7	0.0	2.5	2.4
Incr Delay (d2), s/veh	1.2	0.0	0.0				0.0	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0				0.0	2.0	0.9	0.0	0.3	0.1
LnGrp Delay(d),s/veh	13.1	0.0	0.0				0.0	3.3	2.8	0.0	2.5	2.4
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		93						1667			307	
Approach Delay, s/veh		13.1						3.3			2.5	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		21.9		7.7		21.9		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		25.0		32.0		25.0		
Max Q Clear Time (g_c+I1), s		6.5		3.4		2.7		
Green Ext Time (p_c), s		11.2		0.2		12.6		

Intersection Summary	
HCM 2010 Ctrl Delay	3.6
HCM 2010 LOS	A

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	0	0	20	0	60	20	360	80	230	290	50
Future Volume (veh/h)	20	0	0	20	0	60	20	360	80	230	290	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	0	0	22	0	65	22	391	87	250	315	54
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	110	0	65	0	94	65	707	157	304	951	163
Arrive On Green	0.04	0.00	0.00	0.04	0.00	0.06	0.04	0.47	0.47	0.17	0.60	0.60
Sat Flow, veh/h	1810	1900	0	1810	0	1615	1810	1506	335	1810	1581	271
Grp Volume(v), veh/h	22	0	0	22	0	65	22	0	478	250	0	369
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1810	0	1615	1810	0	1841	1810	0	1852
Q Serve(g_s), s	0.7	0.0	0.0	0.7	0.0	2.4	0.7	0.0	11.1	8.0	0.0	5.9
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.7	0.0	2.4	0.7	0.0	11.1	8.0	0.0	5.9
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.18	1.00		0.15
Lane Grp Cap(c), veh/h	65	110	0	65	0	94	65	0	865	304	0	1115
V/C Ratio(X)	0.34	0.00	0.00	0.34	0.00	0.69	0.34	0.00	0.55	0.82	0.00	0.33
Avail Cap(c_a), veh/h	213	510	0	213	0	434	213	0	865	395	0	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.0	0.0	0.0	28.0	0.0	27.6	28.0	0.0	11.3	23.9	0.0	5.9
Incr Delay (d2), s/veh	3.0	0.0	0.0	3.0	0.0	8.8	3.0	0.0	2.5	10.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.4	0.0	1.3	0.4	0.0	6.2	4.8	0.0	3.0
LnGrp Delay(d),s/veh	31.1	0.0	0.0	31.1	0.0	36.3	31.1	0.0	13.9	34.3	0.0	6.1
LnGrp LOS	C			C		D	C		B	C		A
Approach Vol, veh/h		22			87			500			619	
Approach Delay, s/veh		31.1			35.0			14.6			17.5	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	32.0	6.1	7.5	6.1	39.9	6.1	7.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	28.0	7.0	16.0	7.0	34.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	10.0	13.1	2.7	0.0	2.7	7.9	2.7	4.4
Green Ext Time (p_c), s	0.2	4.9	0.0	0.0	0.0	6.0	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑	↑↑↑	↱
Traffic Volume (veh/h)	30	140	30	1210	960	20
Future Volume (veh/h)	30	140	30	1210	960	20
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	206	44	1779	1412	29
Adj No. of Lanes	1	1	1	2	3	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	307	274	114	2455	2811	871
Arrive On Green	0.17	0.17	0.06	0.68	0.54	0.54
Sat Flow, veh/h	1810	1615	1810	3705	5358	1608
Grp Volume(v), veh/h	44	206	44	1779	1412	29
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1805	1729	1608
Q Serve(g_s), s	1.1	6.5	1.2	16.5	9.1	0.4
Cycle Q Clear(g_c), s	1.1	6.5	1.2	16.5	9.1	0.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	307	274	114	2455	2811	871
V/C Ratio(X)	0.14	0.75	0.39	0.72	0.50	0.03
Avail Cap(c_a), veh/h	1123	1002	238	2647	2811	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	21.0	23.9	5.4	7.7	5.7
Incr Delay (d2), s/veh	0.2	4.2	2.1	0.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.9	0.7	8.2	4.4	0.2
LnGrp Delay(d),s/veh	19.0	25.2	26.1	6.3	7.8	5.7
LnGrp LOS	B	C	C	A	A	A
Approach Vol, veh/h	250			1823	1441	
Approach Delay, s/veh	24.1			6.8	7.8	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		40.2		13.0	7.3	32.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		39.0		33.0	7.0	28.0		
Max Q Clear Time (g_c+I1), s		18.5		8.5	3.2	11.1		
Green Ext Time (p_c), s		17.6		0.8	0.0	15.3		

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

HCM 2010 TWSC
20: Oliver St & Alessandro Blvd

Intersection	
Int Delay, s/veh	12.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑	↱		↰↑↱	
Traffic Vol, veh/h	0	190	80	20	450	0	160	10	40	0	0	10
Future Vol, veh/h	0	190	80	20	450	0	160	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	238	100	25	563	0	200	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	563	0	0	338	0	0	907	901	288	907	951	563
Stage 1	-	-	-	-	-	-	288	288	-	613	613	-
Stage 2	-	-	-	-	-	-	619	613	-	294	338	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1019	-	-	1232	-	-	259	280	756	259	262	530
Stage 1	-	-	-	-	-	-	724	677	-	483	486	-
Stage 2	-	-	-	-	-	-	480	486	-	719	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1019	-	-	1232	-	-	247	272	756	228	254	530
Mov Cap-2 Maneuver	-	-	-	-	-	-	247	272	-	228	254	-
Stage 1	-	-	-	-	-	-	724	677	-	483	471	-
Stage 2	-	-	-	-	-	-	455	471	-	659	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	57.6	12
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	248	756	1019	-	-	1232	-	-	530
HCM Lane V/C Ratio	0.857	0.066	-	-	-	0.02	-	-	0.024
HCM Control Delay (s)	68.8	10.1	0	-	-	8	0	-	12
HCM Lane LOS	F	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	7	0.2	0	-	-	0.1	-	-	0.1

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	60	120	60	50	230	10	110	510	50	10	340	110
Future Volume (veh/h)	60	120	60	50	230	10	110	510	50	10	340	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	152	76	63	291	13	139	646	63	13	430	139
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	221	110	205	395	18	178	739	72	41	491	159
Arrive On Green	0.08	0.19	0.19	0.11	0.22	0.22	0.10	0.43	0.43	0.02	0.36	0.36
Sat Flow, veh/h	1810	1190	595	1810	1804	81	1810	1703	166	1810	1374	444
Grp Volume(v), veh/h	76	0	228	63	0	304	139	0	709	13	0	569
Grp Sat Flow(s),veh/h/ln	1810	0	1785	1810	0	1885	1810	0	1870	1810	0	1818
Q Serve(g_s), s	2.6	0.0	7.8	2.1	0.0	9.8	4.9	0.0	22.6	0.5	0.0	19.1
Cycle Q Clear(g_c), s	2.6	0.0	7.8	2.1	0.0	9.8	4.9	0.0	22.6	0.5	0.0	19.1
Prop In Lane	1.00		0.33	1.00		0.04	1.00		0.09	1.00		0.24
Lane Grp Cap(c), veh/h	144	0	331	205	0	413	178	0	811	41	0	650
V/C Ratio(X)	0.53	0.00	0.69	0.31	0.00	0.74	0.78	0.00	0.87	0.32	0.00	0.87
Avail Cap(c_a), veh/h	194	0	711	205	0	750	194	0	830	194	0	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.9	0.0	24.8	26.6	0.0	23.7	28.7	0.0	16.9	31.4	0.0	19.6
Incr Delay (d2), s/veh	3.0	0.0	2.6	0.8	0.0	2.6	16.9	0.0	10.1	4.4	0.0	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	4.0	1.1	0.0	5.4	3.3	0.0	13.7	0.3	0.0	11.1
LnGrp Delay(d),s/veh	31.8	0.0	27.4	27.4	0.0	26.3	45.7	0.0	27.0	35.8	0.0	28.6
LnGrp LOS	C		C	C		C	D		C	D		C
Approach Vol, veh/h		304			367			848			582	
Approach Delay, s/veh		28.5			26.5			30.0			28.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	32.3	11.4	16.1	10.4	27.4	9.2	18.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.5	24.6	4.1	9.8	6.9	21.1	4.6	11.8
Green Ext Time (p_c), s	0.0	1.9	0.1	1.0	0.1	2.0	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	16.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		✥			↰	↱		✥	
Traffic Vol, veh/h	50	10	30	10	10	10	30	340	10	10	300	90
Future Vol, veh/h	50	10	30	10	10	10	30	340	10	10	300	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	54	11	33	11	11	11	33	370	11	11	326	98
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	10.4	10.4	16.2	18
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	8%	0%	83%	0%	33%	3%
Vol Thru, %	92%	0%	17%	0%	33%	75%
Vol Right, %	0%	100%	0%	100%	33%	23%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	10	60	30	30	400
LT Vol	30	0	50	0	10	10
Through Vol	340	0	10	0	10	300
RT Vol	0	10	0	30	10	90
Lane Flow Rate	402	11	65	33	33	435
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.611	0.014	0.13	0.055	0.062	0.653
Departure Headway (Hd)	5.465	4.717	7.19	6.051	6.853	5.403
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	664	762	499	591	522	670
Service Time	3.174	2.426	4.933	3.794	4.902	3.414
HCM Lane V/C Ratio	0.605	0.014	0.13	0.056	0.063	0.649
HCM Control Delay	16.4	7.5	11	9.1	10.4	18
HCM Lane LOS	C	A	B	A	B	C
HCM 95th-tile Q	4.2	0	0.4	0.2	0.2	4.8

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰↑	↱		✥	
Traffic Volume (veh/h)	20	240	180	20	300	30	200	120	30	10	60	20
Future Volume (veh/h)	20	240	180	20	300	30	200	120	30	10	60	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	312	234	26	390	39	260	156	39	13	78	26
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	75	488	357	114	508	428	329	197	459	27	160	53
Arrive On Green	0.04	0.25	0.25	0.06	0.27	0.27	0.29	0.29	0.29	0.13	0.13	0.13
Sat Flow, veh/h	1810	1986	1453	1810	1900	1600	1152	691	1607	201	1207	402
Grp Volume(v), veh/h	26	283	263	26	390	39	416	0	39	117	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1633	1810	1900	1600	1842	0	1607	1810	0	0
Q Serve(g_s), s	0.8	8.2	8.5	0.8	11.1	1.1	12.2	0.0	1.0	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.8	8.2	8.5	0.8	11.1	1.1	12.2	0.0	1.0	3.5	0.0	0.0
Prop In Lane	1.00		0.89	1.00		1.00	0.62		1.00	0.11		0.22
Lane Grp Cap(c), veh/h	75	444	401	114	508	428	526	0	459	240	0	0
V/C Ratio(X)	0.35	0.64	0.66	0.23	0.77	0.09	0.79	0.00	0.08	0.49	0.00	0.00
Avail Cap(c_a), veh/h	216	862	780	216	908	764	880	0	768	803	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.3	19.8	19.9	26.1	19.8	16.1	19.3	0.0	15.3	23.6	0.0	0.0
Incr Delay (d2), s/veh	2.8	1.5	1.8	1.0	2.5	0.1	2.7	0.0	0.1	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.3	4.0	0.4	6.1	0.5	6.5	0.0	0.5	1.9	0.0	0.0
LnGrp Delay(d),s/veh	30.1	21.3	21.7	27.1	22.3	16.2	22.0	0.0	15.4	25.1	0.0	0.0
LnGrp LOS	C	C	C	C	C	B	C		B	C		
Approach Vol, veh/h		572			455			455			117	
Approach Delay, s/veh		21.9			22.0			21.5			25.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.7	7.7	18.4		11.8	6.4	19.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		14.2	2.8	10.5		5.5	2.8	13.1
Green Ext Time (p_c), s		2.1	0.0	2.7		0.5	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	110	120	90	30	140	40	120	520	70	20	320	70
Future Volume (veh/h)	110	120	90	30	140	40	120	520	70	20	320	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	136	148	111	37	173	49	148	642	86	25	395	86
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	223	527	370	103	542	149	251	1095	580	75	883	186
Arrive On Green	0.12	0.26	0.26	0.06	0.19	0.19	0.14	0.30	0.30	0.04	0.21	0.21
Sat Flow, veh/h	1810	2026	1419	1810	2791	767	1810	3610	1607	1810	4287	904
Grp Volume(v), veh/h	136	131	128	37	110	112	148	642	86	25	316	165
Grp Sat Flow(s),veh/h/ln	1810	1805	1640	1810	1805	1753	1810	1805	1607	1810	1729	1733
Q Serve(g_s), s	3.4	2.7	3.0	0.9	2.5	2.6	3.6	7.1	1.7	0.6	3.8	4.0
Cycle Q Clear(g_c), s	3.4	2.7	3.0	0.9	2.5	2.6	3.6	7.1	1.7	0.6	3.8	4.0
Prop In Lane	1.00		0.87	1.00		0.44	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	223	470	427	103	351	340	251	1095	580	75	712	357
V/C Ratio(X)	0.61	0.28	0.30	0.36	0.31	0.33	0.59	0.59	0.15	0.33	0.44	0.46
Avail Cap(c_a), veh/h	267	1563	1420	267	1563	1518	306	2211	1076	267	2044	1024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	14.0	14.1	21.5	16.4	16.4	19.1	14.0	10.2	22.1	16.4	16.5
Incr Delay (d2), s/veh	2.9	0.3	0.4	2.1	0.5	0.6	2.2	0.5	0.1	2.6	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.4	1.4	0.5	1.3	1.3	2.0	3.6	0.8	0.4	1.8	2.0
LnGrp Delay(d),s/veh	22.5	14.3	14.4	23.6	16.9	17.0	21.3	14.5	10.4	24.6	16.9	17.4
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		395			259			876			506	
Approach Delay, s/veh		17.2			17.9			15.2			17.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	18.4	6.7	16.3	10.6	13.8	9.8	13.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	2.6	9.1	2.9	5.0	5.6	6.0	5.4	4.6
Green Ext Time (p_c), s	0.0	4.3	0.0	1.7	1.1	2.5	0.3	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	17
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↱			↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	100	50	60	170	40	60	30	200	30	60	270	90
Future Vol, veh/h	100	50	60	170	40	60	30	200	30	60	270	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	116	58	70	198	47	70	35	233	35	70	314	105
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	13.6	23.5	13.8	16.6
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	23%	0%	80%	0%	63%	31%	0%
Vol Thru, %	77%	77%	20%	29%	15%	69%	60%
Vol Right, %	0%	23%	0%	71%	22%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	130	125	85	270	195	225
LT Vol	30	0	100	0	170	60	0
Through Vol	100	100	25	25	40	135	135
RT Vol	0	30	0	60	60	0	90
Lane Flow Rate	151	151	145	99	314	227	262
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.322	0.31	0.329	0.198	0.651	0.465	0.505
Departure Headway (Hd)	7.677	7.391	8.141	7.221	7.46	7.388	6.942
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	467	485	440	495	483	488	518
Service Time	5.443	5.157	5.907	4.987	5.517	5.148	4.702
HCM Lane V/C Ratio	0.323	0.311	0.33	0.2	0.65	0.465	0.506
HCM Control Delay	14.1	13.5	14.9	11.8	23.5	16.5	16.6
HCM Lane LOS	B	B	B	B	C	C	C
HCM 95th-tile Q	1.4	1.3	1.4	0.7	4.6	2.4	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	80	50	10	300	90	260	20	340	300	130	300	110
Future Volume (veh/h)	80	50	10	300	90	260	20	340	300	130	300	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	62	12	375	112	325	25	425	375	162	375	138
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	281	237	430	572	484	69	1439	830	203	1330	465
Arrive On Green	0.08	0.15	0.15	0.24	0.30	0.30	0.04	0.28	0.28	0.11	0.35	0.35
Sat Flow, veh/h	1810	1900	1599	1810	1900	1607	1810	5187	1606	1810	3788	1325
Grp Volume(v), veh/h	100	62	12	375	112	325	25	425	375	162	341	172
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1607	1810	1729	1606	1810	1729	1655
Q Serve(g_s), s	3.8	2.0	0.5	14.2	3.1	12.6	1.0	4.6	10.5	6.2	5.1	5.4
Cycle Q Clear(g_c), s	3.8	2.0	0.5	14.2	3.1	12.6	1.0	4.6	10.5	6.2	5.1	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	153	281	237	430	572	484	69	1439	830	203	1214	581
V/C Ratio(X)	0.65	0.22	0.05	0.87	0.20	0.67	0.36	0.30	0.45	0.80	0.28	0.30
Avail Cap(c_a), veh/h	330	1173	987	635	1493	1263	178	2111	1038	279	1601	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	26.7	26.1	26.1	18.5	21.8	33.4	20.3	10.9	30.9	16.6	16.7
Incr Delay (d2), s/veh	4.6	0.4	0.1	8.8	0.2	1.6	3.1	0.1	0.4	10.8	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.1	0.2	8.1	1.6	5.8	0.5	2.2	4.7	3.7	2.4	2.5
LnGrp Delay(d),s/veh	36.2	27.1	26.1	34.9	18.6	23.4	36.5	20.4	11.3	41.6	16.8	17.0
LnGrp LOS	D	C	C	C	B	C	D	C	B	D	B	B
Approach Vol, veh/h		174			812			825			675	
Approach Delay, s/veh		32.3			28.1			16.7			22.8	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.8	21.0	14.6	6.7	29.0	10.0	25.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	29.0	25.0	44.0	7.0	33.0	13.0	56.0
Max Q Clear Time (g_c+I1), s	8.2	12.5	16.2	4.0	3.0	7.4	5.8	14.6
Green Ext Time (p_c), s	0.1	6.3	0.8	2.1	0.0	7.4	0.1	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	290	150	150	520	60	240	420	100	50	570	270
Future Volume (veh/h)	100	290	150	150	520	60	240	420	100	50	570	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	108	312	161	161	559	65	258	452	108	54	613	290
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	833	619	186	838	97	278	1518	842	148	1259	683
Arrive On Green	0.08	0.23	0.23	0.10	0.26	0.26	0.15	0.42	0.42	0.08	0.35	0.35
Sat Flow, veh/h	1810	3610	1604	1810	3258	378	1810	3610	1609	1810	3610	1608
Grp Volume(v), veh/h	108	312	161	161	309	315	258	452	108	54	613	290
Grp Sat Flow(s),veh/h/ln	1810	1805	1604	1810	1805	1831	1810	1805	1609	1810	1805	1608
Q Serve(g_s), s	5.7	7.1	1.6	8.5	15.0	15.0	13.7	8.1	1.9	2.8	13.0	6.4
Cycle Q Clear(g_c), s	5.7	7.1	1.6	8.5	15.0	15.0	13.7	8.1	1.9	2.8	13.0	6.4
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	833	619	186	465	471	278	1518	842	148	1259	683
V/C Ratio(X)	0.79	0.37	0.26	0.87	0.67	0.67	0.93	0.30	0.13	0.36	0.49	0.42
Avail Cap(c_a), veh/h	241	1481	907	186	685	695	278	1518	842	148	1259	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	31.6	9.3	43.1	32.4	32.5	40.7	18.7	4.6	42.3	24.9	7.6
Incr Delay (d2), s/veh	9.5	0.3	0.2	32.5	1.6	1.6	35.1	0.5	0.3	1.5	1.3	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.6	1.9	5.9	7.7	7.8	9.6	4.1	1.1	1.4	6.7	3.3
LnGrp Delay(d),s/veh	53.8	31.9	9.6	75.6	34.1	34.1	75.8	19.2	5.0	43.8	26.3	9.5
LnGrp LOS	D	C	A	E	C	C	E	B	A	D	C	A
Approach Vol, veh/h		581			785			818			957	
Approach Delay, s/veh		29.8			42.6			35.2			22.2	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	45.0	14.0	26.5	19.0	38.0	11.4	29.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	41.0	10.0	40.0	15.0	34.0	13.0	37.0
Max Q Clear Time (g_c+I1), s	4.8	10.1	10.5	9.1	15.7	15.0	7.7	17.0
Green Ext Time (p_c), s	0.3	3.5	0.0	7.5	0.0	4.6	0.1	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	380	10	440	190	590	0	0	790	130
Future Volume (veh/h)	0	0	0	380	10	440	190	590	0	0	790	130
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				409	11	473	204	634	0	0	849	140
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				608	16	554	226	2004	0	0	1179	194
Arrive On Green				0.34	0.34	0.34	0.17	0.74	0.00	0.00	0.38	0.38
Sat Flow, veh/h				1764	47	1608	1810	3705	0	0	3196	511
Grp Volume(v), veh/h				420	0	473	204	634	0	0	494	495
Grp Sat Flow(s),veh/h/ln				1812	0	1608	1810	1805	0	0	1805	1807
Q Serve(g_s), s				15.8	0.0	21.8	8.8	4.8	0.0	0.0	18.7	18.7
Cycle Q Clear(g_c), s				15.8	0.0	21.8	8.8	4.8	0.0	0.0	18.7	18.7
Prop In Lane				0.97		1.00	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				625	0	554	226	2004	0	0	686	687
V/C Ratio(X)				0.67	0.00	0.85	0.90	0.32	0.00	0.00	0.72	0.72
Avail Cap(c_a), veh/h				770	0	683	226	2004	0	0	686	687
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.96	0.96	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.4	0.0	24.3	32.9	5.3	0.0	0.0	21.2	21.2
Incr Delay (d2), s/veh				1.7	0.0	8.6	33.6	0.4	0.0	0.0	6.4	6.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.2	0.0	10.9	6.5	2.5	0.0	0.0	10.4	10.4
LnGrp Delay(d),s/veh				24.0	0.0	33.0	66.5	5.7	0.0	0.0	27.6	27.6
LnGrp LOS				C		C	E	A			C	C
Approach Vol, veh/h					893			838			989	
Approach Delay, s/veh					28.8			20.5			27.6	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		48.4			14.0	34.4		31.6
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		38.0			10.0	24.0		34.0
Max Q Clear Time (g_c+I1), s		6.8			10.8	20.7		23.8
Green Ext Time (p_c), s		13.4			0.0	2.6		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	210	10	320	0	0	0	0	540	160	200	970	0
Future Volume (veh/h)	210	10	320	0	0	0	0	540	160	200	970	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	221	0	327				0	551	163	204	990	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	901	0	400				0	1851	534	249	2350	0
Arrive On Green	0.25	0.00	0.25				0.00	0.46	0.46	0.05	0.21	0.00
Sat Flow, veh/h	3619	0	1605				0	4166	1152	1810	3705	0
Grp Volume(v), veh/h	221	0	327				0	475	239	204	990	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1689	1810	1805	0
Q Serve(g_s), s	3.9	0.0	15.4				0.0	6.8	7.1	8.9	18.9	0.0
Cycle Q Clear(g_c), s	3.9	0.0	15.4				0.0	6.8	7.1	8.9	18.9	0.0
Prop In Lane	1.00		1.00				0.00		0.68	1.00		0.00
Lane Grp Cap(c), veh/h	901	0	400				0	1602	783	249	2350	0
V/C Ratio(X)	0.25	0.00	0.82				0.00	0.30	0.31	0.82	0.42	0.00
Avail Cap(c_a), veh/h	1493	0	662				0	1602	783	339	2350	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.55	0.55	0.00
Uniform Delay (d), s/veh	24.0	0.0	28.3				0.0	13.4	13.4	37.2	18.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2				0.0	0.5	1.0	6.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	7.3				0.0	3.3	3.5	4.9	9.6	0.0
LnGrp Delay(d),s/veh	24.2	0.0	32.5				0.0	13.8	14.4	43.4	18.7	0.0
LnGrp LOS	C		C					B	B	D	B	
Approach Vol, veh/h		548						714			1194	
Approach Delay, s/veh		29.2						14.0			22.9	
Approach LOS		C						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.0	41.1		23.9		56.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	15.0	20.0		33.0		39.0		
Max Q Clear Time (g_c+I1), s	10.9	9.1		17.4		20.9		
Green Ext Time (p_c), s	0.2	7.6		1.8		10.9		

Intersection Summary	
HCM 2010 Ctrl Delay	21.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	240	200	320	40	80	410	90	970	150	310	770	160
Future Volume (veh/h)	240	200	320	40	80	410	90	970	150	310	770	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	247	206	330	41	82	423	93	1000	155	320	794	165
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	316	1111	495	84	502	602	118	1744	270	381	1546	833
Arrive On Green	0.09	0.31	0.31	0.05	0.26	0.26	0.07	0.38	0.38	0.22	0.86	0.86
Sat Flow, veh/h	3510	3610	1607	1810	1900	1615	1810	4530	701	3510	3610	1606
Grp Volume(v), veh/h	247	206	330	41	82	423	93	763	392	320	794	165
Grp Sat Flow(s),veh/h/ln	1755	1805	1607	1810	1900	1615	1810	1729	1773	1755	1805	1606
Q Serve(g_s), s	7.2	4.4	18.8	2.3	3.5	23.4	5.3	18.3	18.3	9.2	5.9	1.6
Cycle Q Clear(g_c), s	7.2	4.4	18.8	2.3	3.5	23.4	5.3	18.3	18.3	9.2	5.9	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	316	1111	495	84	502	602	118	1331	682	381	1546	833
V/C Ratio(X)	0.78	0.19	0.67	0.49	0.16	0.70	0.79	0.57	0.57	0.84	0.51	0.20
Avail Cap(c_a), veh/h	401	1238	551	121	561	652	138	1331	682	435	1546	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76	0.90	0.90	0.90
Uniform Delay (d), s/veh	46.8	26.7	31.7	48.8	29.7	28.0	48.4	25.5	25.5	40.2	4.7	3.2
Incr Delay (d2), s/veh	7.5	0.1	2.7	4.3	0.2	3.1	17.8	1.4	2.7	11.4	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.2	8.7	1.3	1.8	11.0	3.2	8.9	9.4	5.0	3.0	0.8
LnGrp Delay(d),s/veh	54.3	26.8	34.3	53.1	29.8	31.1	66.1	26.8	28.2	51.6	5.8	3.6
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	A	A
Approach Vol, veh/h		783			546			1248			1279	
Approach Delay, s/veh		38.6			32.6			30.2			17.0	
Approach LOS		D			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	44.4	8.9	36.3	10.8	49.0	13.4	31.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	12.0	31.0
Max Q Clear Time (g_c+I1), s	11.2	20.3	4.3	20.8	7.3	7.9	9.2	25.4
Green Ext Time (p_c), s	0.2	9.4	0.0	4.2	0.0	17.1	0.2	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	280	10	220	410	1190	0	0	990	300
Future Volume (veh/h)	0	0	0	280	10	220	410	1190	0	0	990	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				289	10	227	423	1227	0	0	1021	309
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				349	12	320	1205	2615	0	0	1778	551
Arrive On Green				0.20	0.20	0.20	0.69	1.00	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1752	61	1603	3510	3705	0	0	5358	1608
Grp Volume(v), veh/h				299	0	227	423	1227	0	0	1021	309
Grp Sat Flow(s),veh/h/ln				1812	0	1603	1755	1805	0	0	1729	1608
Q Serve(g_s), s				16.6	0.0	13.9	5.2	0.0	0.0	0.0	16.9	16.4
Cycle Q Clear(g_c), s				16.6	0.0	13.9	5.2	0.0	0.0	0.0	16.9	16.4
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				362	0	320	1205	2615	0	0	1778	551
V/C Ratio(X)				0.83	0.00	0.71	0.35	0.47	0.00	0.00	0.57	0.56
Avail Cap(c_a), veh/h				587	0	519	1205	2615	0	0	1778	551
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.3	0.0	39.2	11.6	0.0	0.0	0.0	28.2	28.1
Incr Delay (d2), s/veh				5.2	0.0	2.9	0.1	0.5	0.0	0.0	1.4	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	6.4	2.4	0.2	0.0	0.0	8.3	7.9
LnGrp Delay(d),s/veh				45.4	0.0	42.1	11.8	0.5	0.0	0.0	29.6	32.1
LnGrp LOS				D		D	B	A			C	C
Approach Vol, veh/h					526			1650			1330	
Approach Delay, s/veh					44.0			3.4			30.2	
Approach LOS					D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		80.1			40.1	40.0		24.9
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		63.0			23.0	36.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			7.2	18.9		18.6
Green Ext Time (p_c), s		15.0			8.9	7.9		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	40	90	60	90	220	160	50	1040	40	70	1020	30
Future Volume (veh/h)	40	90	60	90	220	160	50	1040	40	70	1020	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	96	64	96	234	170	53	1106	43	74	1085	32
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	333	280	152	385	325	137	1584	704	137	1584	704
Arrive On Green	0.06	0.18	0.18	0.08	0.20	0.20	0.08	0.44	0.44	0.08	0.44	0.44
Sat Flow, veh/h	1810	1900	1601	1810	1900	1603	1810	3610	1606	1810	3610	1606
Grp Volume(v), veh/h	43	96	64	96	234	170	53	1106	43	74	1085	32
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1603	1810	1805	1606	1810	1805	1606
Q Serve(g_s), s	1.6	3.1	1.9	3.6	7.9	6.7	2.0	17.5	1.1	2.8	17.0	0.6
Cycle Q Clear(g_c), s	1.6	3.1	1.9	3.6	7.9	6.7	2.0	17.5	1.1	2.8	17.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	333	280	152	385	325	137	1584	704	137	1584	704
V/C Ratio(X)	0.42	0.29	0.23	0.63	0.61	0.52	0.39	0.70	0.06	0.54	0.69	0.05
Avail Cap(c_a), veh/h	179	914	770	179	914	771	179	1584	704	179	1584	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	25.3	14.9	31.3	25.6	25.1	31.1	16.1	11.4	31.5	15.9	5.5
Incr Delay (d2), s/veh	2.7	0.5	0.4	5.3	1.6	1.3	1.8	2.6	0.2	3.3	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	1.0	2.0	4.3	3.1	1.1	9.2	0.5	1.5	9.0	0.4
LnGrp Delay(d),s/veh	35.0	25.8	15.3	36.7	27.2	26.4	32.9	18.6	11.6	34.7	18.3	5.7
LnGrp LOS	C	C	B	D	C	C	C	B	B	C	B	A
Approach Vol, veh/h		203			500			1202			1191	
Approach Delay, s/veh		24.4			28.7			19.0			19.0	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	35.0	9.9	16.4	9.4	35.0	8.0	18.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	4.8	19.5	5.6	5.1	4.0	19.0	3.6	9.9
Green Ext Time (p_c), s	0.0	5.8	0.0	2.6	2.0	5.7	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰	↱
Traffic Vol, veh/h	10	10	100	10	10	80
Future Vol, veh/h	10	10	100	10	10	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	106	11	11	85

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	21	0	239	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	223	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1608	-	754	1069
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1608	-	704	1069
Mov Cap-2 Maneuver	-	-	-	-	704	-
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.7	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	704	1069	-	-	1608	-
HCM Lane V/C Ratio	0.015	0.08	-	-	0.066	-
HCM Control Delay (s)	10.2	8.7	-	-	7.4	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.3	-	-	0.2	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (veh/h)	70	170	60	160	130	10	70	60	140	10	110	80
Future Volume (veh/h)	70	170	60	160	130	10	70	60	140	10	110	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	224	79	211	171	13	92	79	184	13	145	105
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	326	115	403	700	53	100	86	199	15	165	119
Arrive On Green	0.06	0.24	0.24	0.22	0.40	0.40	0.22	0.22	0.22	0.17	0.17	0.17
Sat Flow, veh/h	1810	1339	472	1810	1743	133	443	380	886	87	970	702
Grp Volume(v), veh/h	92	0	303	211	0	184	355	0	0	263	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1811	1810	0	1876	1710	0	0	1759	0	0
Q Serve(g_s), s	5.8	0.0	17.5	11.8	0.0	7.5	23.4	0.0	0.0	16.8	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	17.5	11.8	0.0	7.5	23.4	0.0	0.0	16.8	0.0	0.0
Prop In Lane	1.00		0.26	1.00		0.07	0.26		0.52	0.05		0.40
Lane Grp Cap(c), veh/h	117	0	441	403	0	753	384	0	0	299	0	0
V/C Ratio(X)	0.79	0.00	0.69	0.52	0.00	0.24	0.92	0.00	0.00	0.88	0.00	0.00
Avail Cap(c_a), veh/h	189	0	441	403	0	753	416	0	0	367	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	53.0	0.0	39.5	39.3	0.0	22.8	43.6	0.0	0.0	46.6	0.0	0.0
Incr Delay (d2), s/veh	11.2	0.0	8.5	1.2	0.0	0.8	25.2	0.0	0.0	18.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	9.8	6.1	0.0	4.0	13.7	0.0	0.0	9.7	0.0	0.0
LnGrp Delay(d),s/veh	64.2	0.0	48.0	40.6	0.0	23.6	68.8	0.0	0.0	64.8	0.0	0.0
LnGrp LOS	E		D	D		C	E			E		
Approach Vol, veh/h		395			395			355			263	
Approach Delay, s/veh		51.8			32.6			68.8			64.8	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.8	29.6	32.0		23.5	11.4	50.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	19.0	28.0		24.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		25.4	13.8	19.5		18.8	7.8	9.5
Green Ext Time (p_c), s		0.5	0.7	0.9		0.6	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱		↰	
Traffic Volume (veh/h)	230	10	340	0	0	0	0	540	150	60	310	0
Future Volume (veh/h)	230	10	340	0	0	0	0	540	150	60	310	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	258	11	382				0	607	169	67	348	0
Adj No. of Lanes	0	1	1				0	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	483	21	445				0	645	545	73	378	0
Arrive On Green	0.28	0.28	0.28				0.00	0.34	0.34	0.24	0.24	0.00
Sat Flow, veh/h	1739	74	1600				0	1900	1603	304	1580	0
Grp Volume(v), veh/h	269	0	382				0	607	169	415	0	0
Grp Sat Flow(s),veh/h/ln	1813	0	1600				0	1900	1603	1885	0	0
Q Serve(g_s), s	10.5	0.0	18.9				0.0	25.9	6.5	18.0	0.0	0.0
Cycle Q Clear(g_c), s	10.5	0.0	18.9				0.0	25.9	6.5	18.0	0.0	0.0
Prop In Lane	0.96		1.00				0.00		1.00	0.16		0.00
Lane Grp Cap(c), veh/h	504	0	445				0	645	545	450	0	0
V/C Ratio(X)	0.53	0.00	0.86				0.00	0.94	0.31	0.92	0.00	0.00
Avail Cap(c_a), veh/h	629	0	555				0	659	556	451	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.6	0.0	28.6				0.0	26.8	20.4	31.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	10.8				0.0	21.4	0.3	24.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	9.7				0.0	17.3	2.9	12.4	0.0	0.0
LnGrp Delay(d),s/veh	26.5	0.0	39.4				0.0	48.2	20.7	55.4	0.0	0.0
LnGrp LOS	C		D					D	C	E		
Approach Vol, veh/h		651						776			415	
Approach Delay, s/veh		34.1						42.2			55.4	
Approach LOS		C						D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		27.2		32.4				24.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		29.0		29.0				20.0
Max Q Clear Time (g_c+I1), s		20.9		27.9				20.0
Green Ext Time (p_c), s		2.0		0.5				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	210	80	130	190	130	120	960	190	150	460	50
Future Volume (veh/h)	70	210	80	130	190	130	120	960	190	150	460	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	247	94	153	224	153	141	1129	224	176	541	59
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	518	192	158	450	294	176	1788	355	181	1969	212
Arrive On Green	0.07	0.20	0.20	0.09	0.22	0.22	0.10	0.41	0.41	0.10	0.41	0.41
Sat Flow, veh/h	1810	2575	953	1810	2088	1365	1810	4341	861	1810	4753	512
Grp Volume(v), veh/h	82	171	170	153	192	185	141	899	454	176	392	208
Grp Sat Flow(s),veh/h/ln	1810	1805	1723	1810	1805	1648	1810	1729	1744	1810	1729	1807
Q Serve(g_s), s	3.5	6.7	7.0	6.8	7.5	7.9	6.1	16.6	16.6	7.8	6.0	6.1
Cycle Q Clear(g_c), s	3.5	6.7	7.0	6.8	7.5	7.9	6.1	16.6	16.6	7.8	6.0	6.1
Prop In Lane	1.00		0.55	1.00		0.83	1.00		0.49	1.00		0.28
Lane Grp Cap(c), veh/h	133	363	347	158	389	355	176	1424	718	181	1432	749
V/C Ratio(X)	0.62	0.47	0.49	0.97	0.49	0.52	0.80	0.63	0.63	0.97	0.27	0.28
Avail Cap(c_a), veh/h	158	811	774	158	811	740	226	1424	718	181	1432	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	28.2	28.4	36.5	27.6	27.8	35.4	18.7	18.7	36.0	15.5	15.5
Incr Delay (d2), s/veh	5.2	0.9	1.1	61.8	1.0	1.2	14.4	2.1	4.2	59.2	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.4	3.4	6.1	3.8	3.7	3.8	8.3	8.8	6.8	2.9	3.2
LnGrp Delay(d),s/veh	41.3	29.2	29.4	98.2	28.6	29.0	49.8	20.9	22.9	95.2	16.0	16.5
LnGrp LOS	D	C	C	F	C	C	D	C	C	F	B	B
Approach Vol, veh/h		423			530			1494			776	
Approach Delay, s/veh		31.6			48.8			24.2			34.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	37.0	11.0	20.1	11.8	37.2	9.9	21.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	9.8	18.6	8.8	9.0	8.1	8.1	5.5	9.9
Green Ext Time (p_c), s	0.0	9.8	0.0	4.7	0.1	13.4	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	31.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	50	300	120	320	490	90	190	690	320	80	430	50
Future Volume (veh/h)	50	300	120	320	490	90	190	690	320	80	430	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	341	136	364	557	102	216	784	364	91	489	57
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	562	220	390	1171	214	220	1805	560	116	1370	157
Arrive On Green	0.05	0.22	0.22	0.22	0.38	0.38	0.12	0.35	0.35	0.06	0.29	0.29
Sat Flow, veh/h	1810	2531	991	1810	3048	556	1810	5187	1608	1810	4717	542
Grp Volume(v), veh/h	57	241	236	364	329	330	216	784	364	91	356	190
Grp Sat Flow(s),veh/h/ln	1810	1805	1717	1810	1805	1799	1810	1729	1608	1810	1729	1801
Q Serve(g_s), s	3.3	12.8	13.2	21.1	14.7	14.8	12.7	12.4	20.4	5.3	8.7	8.9
Cycle Q Clear(g_c), s	3.3	12.8	13.2	21.1	14.7	14.8	12.7	12.4	20.4	5.3	8.7	8.9
Prop In Lane	1.00		0.58	1.00		0.31	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	97	401	382	390	694	691	220	1805	560	116	1005	523
V/C Ratio(X)	0.59	0.60	0.62	0.93	0.47	0.48	0.98	0.43	0.65	0.78	0.35	0.36
Avail Cap(c_a), veh/h	153	626	595	390	863	860	220	1805	560	203	1005	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	37.3	37.4	41.1	24.7	24.8	46.7	26.7	29.3	49.2	29.9	30.0
Incr Delay (d2), s/veh	5.6	1.5	1.6	29.3	0.5	0.5	54.7	0.8	5.8	10.8	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	6.5	6.5	13.7	7.4	7.4	9.6	6.0	10.0	3.0	4.3	4.7
LnGrp Delay(d),s/veh	54.9	38.7	39.0	70.4	25.2	25.3	101.4	27.5	35.1	60.0	30.9	32.0
LnGrp LOS	D	D	D	E	C	C	F	C	D	E	C	C
Approach Vol, veh/h		534			1023			1364			637	
Approach Delay, s/veh		40.6			41.3			41.2			35.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	41.1	27.0	27.7	17.0	35.0	9.7	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	32.0	23.0	37.0	13.0	31.0	9.0	51.0
Max Q Clear Time (g_c+I1), s	7.3	22.4	23.1	15.2	14.7	10.9	5.3	16.8
Green Ext Time (p_c), s	0.1	6.0	0.0	6.4	0.0	9.6	0.0	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	40.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	590	100	140	650	60	170	200	200	60	190	150
Future Volume (veh/h)	60	590	100	140	650	60	170	200	200	60	190	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	628	106	149	691	64	181	213	213	64	202	160
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	991	167	189	1275	684	229	489	435	130	424	318
Arrive On Green	0.07	0.32	0.32	0.10	0.35	0.35	0.13	0.27	0.27	0.07	0.22	0.22
Sat Flow, veh/h	1810	3090	521	1810	3610	1608	1810	1805	1606	1810	1961	1472
Grp Volume(v), veh/h	64	366	368	149	691	64	181	213	213	64	185	177
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1810	1805	1608	1810	1805	1606	1810	1805	1628
Q Serve(g_s), s	2.3	11.9	11.9	5.5	10.5	1.6	6.7	6.7	7.7	2.3	6.2	6.6
Cycle Q Clear(g_c), s	2.3	11.9	11.9	5.5	10.5	1.6	6.7	6.7	7.7	2.3	6.2	6.6
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	130	579	579	189	1275	684	229	489	435	130	390	352
V/C Ratio(X)	0.49	0.63	0.63	0.79	0.54	0.09	0.79	0.44	0.49	0.49	0.47	0.50
Avail Cap(c_a), veh/h	237	761	761	263	1574	817	473	1128	1004	184	839	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	19.9	19.9	30.1	17.8	11.8	29.2	20.8	21.1	30.7	23.6	23.7
Incr Delay (d2), s/veh	2.9	1.1	1.2	10.4	0.4	0.1	6.1	0.6	0.9	2.9	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	6.1	6.1	3.3	5.2	0.7	3.7	3.4	3.5	1.3	3.2	3.1
LnGrp Delay(d),s/veh	33.6	21.1	21.1	40.5	18.2	11.9	35.2	21.4	22.0	33.6	24.5	24.8
LnGrp LOS	C	C	C	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		798			904			607			426	
Approach Delay, s/veh		22.1			21.4			25.7			26.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	22.6	11.2	26.1	12.7	18.9	8.9	28.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	29.0	18.0	32.0	9.0	30.0
Max Q Clear Time (g_c+I1), s	4.3	9.7	7.5	13.9	8.7	8.6	4.3	12.5
Green Ext Time (p_c), s	0.0	4.8	0.1	7.4	0.3	4.5	0.0	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	570	250	480	610	80	270	480	460	110	410	90
Future Volume (veh/h)	150	570	250	480	610	80	270	480	460	110	410	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	613	269	516	656	86	290	516	495	118	441	97
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	253	1019	437	439	1579	205	358	1270	768	245	941	205
Arrive On Green	0.07	0.29	0.29	0.13	0.34	0.34	0.10	0.35	0.35	0.07	0.32	0.32
Sat Flow, veh/h	3510	3554	1525	3510	4646	603	3510	3610	1608	3510	2945	643
Grp Volume(v), veh/h	161	596	286	516	487	255	290	516	495	118	269	269
Grp Sat Flow(s),veh/h/ln	1755	1729	1621	1755	1729	1790	1755	1805	1608	1755	1805	1783
Q Serve(g_s), s	4.3	14.3	14.7	12.0	10.4	10.5	7.8	10.4	22.3	3.1	11.4	11.6
Cycle Q Clear(g_c), s	4.3	14.3	14.7	12.0	10.4	10.5	7.8	10.4	22.3	3.1	11.4	11.6
Prop In Lane	1.00		0.94	1.00		0.34	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	253	991	465	439	1175	608	358	1270	768	245	577	570
V/C Ratio(X)	0.64	0.60	0.62	1.18	0.41	0.42	0.81	0.41	0.64	0.48	0.47	0.47
Avail Cap(c_a), veh/h	329	1297	608	439	1406	728	366	1656	939	256	771	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	29.5	29.6	42.0	24.3	24.4	42.2	23.5	19.0	43.0	26.1	26.2
Incr Delay (d2), s/veh	2.7	0.6	1.3	100.4	0.2	0.5	12.6	0.2	1.1	1.5	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.9	6.7	11.9	5.0	5.3	4.4	5.2	10.0	1.6	5.8	5.8
LnGrp Delay(d),s/veh	46.0	30.1	31.0	142.4	24.6	24.9	54.8	23.7	20.1	44.4	26.7	26.8
LnGrp LOS	D	C	C	F	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1043			1258			1301			656	
Approach Delay, s/veh		32.8			73.0			29.3			29.9	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	37.7	16.0	31.5	13.8	34.7	10.9	36.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	12.0	36.0	10.0	41.0	9.0	39.0
Max Q Clear Time (g_c+I1), s	5.1	24.3	14.0	16.7	9.8	13.6	6.3	12.5
Green Ext Time (p_c), s	0.1	7.9	0.0	9.6	0.0	9.0	0.1	11.2

Intersection Summary	
HCM 2010 Ctrl Delay	43.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
42: Iris Ave & Nason St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	320	790	30	20	750	90	30	60	10	90	20	260
Future Volume (veh/h)	320	790	30	20	750	90	30	60	10	90	20	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	390	963	37	24	915	110	37	73	12	110	24	317
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	522	2036	78	71	1492	464	100	262	43	189	406	586
Arrive On Green	0.15	0.40	0.40	0.04	0.29	0.29	0.06	0.16	0.16	0.10	0.21	0.21
Sat Flow, veh/h	3510	5127	197	1810	5187	1615	1810	1592	262	1810	1900	1615
Grp Volume(v), veh/h	390	649	351	24	915	110	37	0	85	110	24	317
Grp Sat Flow(s),veh/h/ln	1755	1729	1865	1810	1729	1615	1810	0	1854	1810	1900	1615
Q Serve(g_s), s	5.8	7.6	7.6	0.7	8.3	2.8	1.1	0.0	2.2	3.1	0.5	8.5
Cycle Q Clear(g_c), s	5.8	7.6	7.6	0.7	8.3	2.8	1.1	0.0	2.2	3.1	0.5	8.5
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	522	1374	741	71	1492	464	100	0	305	189	406	586
V/C Ratio(X)	0.75	0.47	0.47	0.34	0.61	0.24	0.37	0.00	0.28	0.58	0.06	0.54
Avail Cap(c_a), veh/h	647	1374	741	233	1720	535	233	0	649	233	665	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	12.1	12.1	25.4	16.7	14.8	24.7	0.0	19.9	23.2	17.0	13.7
Incr Delay (d2), s/veh	3.7	0.3	0.5	2.8	0.5	0.3	2.3	0.0	0.5	2.8	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.7	4.0	0.4	4.0	1.3	0.6	0.0	1.2	1.7	0.3	3.9
LnGrp Delay(d),s/veh	25.8	12.4	12.6	28.2	17.2	15.0	27.0	0.0	20.4	26.0	17.1	14.5
LnGrp LOS	C	B	B	C	B	B	C		C	C	B	B
Approach Vol, veh/h		1390			1049			122			451	
Approach Delay, s/veh		16.2			17.3			22.4			17.4	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	12.9	6.1	25.6	7.0	15.6	12.1	19.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.1	4.2	2.7	9.6	3.1	10.5	7.8	10.3
Green Ext Time (p_c), s	0.0	1.5	0.0	8.1	0.0	1.2	0.3	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	140	560	20	30	570	10	80	50	40	10	30	180
Future Volume (veh/h)	140	560	20	30	570	10	80	50	40	10	30	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	709	25	38	722	13	101	63	51	13	38	228
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	1766	62	98	1494	27	168	105	236	94	276	316
Arrive On Green	0.11	0.34	0.34	0.05	0.28	0.28	0.15	0.15	0.15	0.20	0.20	0.20
Sat Flow, veh/h	1810	5144	181	1810	5246	94	1135	708	1599	478	1398	1603
Grp Volume(v), veh/h	177	476	258	38	476	259	164	0	51	51	0	228
Grp Sat Flow(s),veh/h/ln	1810	1729	1867	1810	1729	1883	1843	0	1599	1876	0	1603
Q Serve(g_s), s	6.0	6.5	6.5	1.3	7.1	7.1	5.2	0.0	1.7	1.4	0.0	8.3
Cycle Q Clear(g_c), s	6.0	6.5	6.5	1.3	7.1	7.1	5.2	0.0	1.7	1.4	0.0	8.3
Prop In Lane	1.00		0.10	1.00		0.05	0.62		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	204	1187	641	98	985	536	272	0	236	370	0	316
V/C Ratio(X)	0.87	0.40	0.40	0.39	0.48	0.48	0.60	0.00	0.22	0.14	0.00	0.72
Avail Cap(c_a), veh/h	204	1447	781	204	1447	788	1008	0	875	1117	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	15.5	15.6	28.4	18.4	18.4	24.8	0.0	23.3	20.6	0.0	23.3
Incr Delay (d2), s/veh	30.5	0.2	0.4	2.5	0.4	0.7	2.1	0.0	0.5	0.2	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.1	3.4	0.7	3.4	3.8	2.8	0.0	0.8	0.7	0.0	3.9
LnGrp Delay(d),s/veh	57.6	15.8	16.0	30.9	18.8	19.1	26.9	0.0	23.8	20.7	0.0	26.4
LnGrp LOS	E	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		911			773			215			279	
Approach Delay, s/veh		24.0			19.5			26.2			25.4	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.2	7.4	25.3		16.3	11.0	21.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	26.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		7.2	3.3	8.5		10.3	8.0	9.1
Green Ext Time (p_c), s		1.1	0.0	8.0		1.0	0.0	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	590	20	30	530	10	40	30	60	10	20	40
Future Volume (veh/h)	10	590	20	30	530	10	40	30	60	10	20	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	694	24	35	624	12	47	35	71	12	24	47
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	1772	61	99	1977	38	124	446	465	39	107	210
Arrive On Green	0.02	0.34	0.34	0.05	0.38	0.38	0.07	0.23	0.23	0.02	0.19	0.19
Sat Flow, veh/h	1810	5148	178	1810	5239	101	1810	1900	1605	1810	572	1120
Grp Volume(v), veh/h	12	465	253	35	411	225	47	35	71	12	0	71
Grp Sat Flow(s),veh/h/ln	1810	1729	1868	1810	1729	1881	1810	1900	1605	1810	0	1692
Q Serve(g_s), s	0.3	4.7	4.8	0.9	3.9	3.9	1.2	0.7	1.5	0.3	0.0	1.7
Cycle Q Clear(g_c), s	0.3	4.7	4.8	0.9	3.9	3.9	1.2	0.7	1.5	0.3	0.0	1.7
Prop In Lane	1.00		0.10	1.00		0.05	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	39	1190	643	99	1305	710	124	446	465	39	0	318
V/C Ratio(X)	0.31	0.39	0.39	0.35	0.32	0.32	0.38	0.08	0.15	0.31	0.00	0.22
Avail Cap(c_a), veh/h	273	2235	1207	273	2235	1216	273	1842	1644	273	0	1640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	11.5	11.5	21.1	10.2	10.2	20.7	13.8	12.3	22.4	0.0	16.0
Incr Delay (d2), s/veh	4.3	0.2	0.4	2.1	0.1	0.3	1.9	0.1	0.2	4.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.3	2.5	0.5	1.9	2.0	0.6	0.4	0.7	0.2	0.0	0.8
LnGrp Delay(d),s/veh	26.7	11.7	11.9	23.3	10.4	10.5	22.6	13.9	12.4	26.7	0.0	16.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		730			671			153			83	
Approach Delay, s/veh		12.1			11.1			15.9			17.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	14.9	6.5	20.0	7.2	12.7	5.0	21.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	3.5	2.9	6.8	3.2	3.7	2.3	5.9
Green Ext Time (p_c), s	0.0	0.9	0.0	8.3	0.0	0.9	0.0	8.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	30	150	90	190	140	150	90	940	240	90	680	10
Future Volume (veh/h)	30	150	90	190	140	150	90	940	240	90	680	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	165	99	209	154	165	99	1033	264	99	747	11
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	234	239	258	190	390	131	1453	371	131	1859	27
Arrive On Green	0.15	0.15	0.15	0.24	0.24	0.24	0.07	0.35	0.35	0.07	0.35	0.35
Sat Flow, veh/h	314	1570	1599	1063	784	1605	1810	4116	1051	1810	5266	77
Grp Volume(v), veh/h	198	0	99	363	0	165	99	868	429	99	490	268
Grp Sat Flow(s),veh/h/ln	1884	0	1599	1847	0	1605	1810	1729	1709	1810	1729	1886
Q Serve(g_s), s	8.8	0.0	4.9	16.3	0.0	7.6	4.7	19.0	19.1	4.7	9.4	9.4
Cycle Q Clear(g_c), s	8.8	0.0	4.9	16.3	0.0	7.6	4.7	19.0	19.1	4.7	9.4	9.4
Prop In Lane	0.17		1.00	0.58		1.00	1.00		0.61	1.00		0.04
Lane Grp Cap(c), veh/h	281	0	239	449	0	390	131	1221	603	131	1221	666
V/C Ratio(X)	0.70	0.00	0.41	0.81	0.00	0.42	0.75	0.71	0.71	0.75	0.40	0.40
Avail Cap(c_a), veh/h	622	0	528	673	0	585	247	1221	603	144	1221	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	0.0	33.9	31.3	0.0	28.0	40.0	24.5	24.5	40.0	21.4	21.4
Incr Delay (d2), s/veh	3.2	0.0	1.2	4.5	0.0	0.7	8.4	3.5	7.0	18.3	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	2.2	8.8	0.0	3.4	2.7	9.6	10.1	3.0	4.7	5.2
LnGrp Delay(d),s/veh	38.7	0.0	35.0	35.8	0.0	28.8	48.4	28.1	31.5	58.3	22.4	23.2
LnGrp LOS	D		D	D		C	D	C	C	E	C	C
Approach Vol, veh/h		297			528			1396			857	
Approach Delay, s/veh		37.5			33.6			30.6			26.8	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	35.0		17.1	10.4	35.0		25.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	12.0	26.0		32.0
Max Q Clear Time (g_c+I1), s	6.7	21.1		10.8	6.7	11.4		18.3
Green Ext Time (p_c), s	0.0	7.4		1.3	0.1	10.0		2.4

Intersection Summary		
HCM 2010 Ctrl Delay		30.7
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	120	290	150	80	310	170	80	190	60	150	200	110
Future Volume (veh/h)	120	290	150	80	310	170	80	190	60	150	200	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	333	172	92	356	195	92	218	69	172	230	126
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	194	733	371	168	684	368	168	533	164	218	510	269
Arrive On Green	0.11	0.32	0.32	0.09	0.30	0.30	0.09	0.20	0.20	0.12	0.22	0.22
Sat Flow, veh/h	1810	2318	1173	1810	2264	1219	1810	2714	836	1810	2280	1203
Grp Volume(v), veh/h	138	258	247	92	283	268	92	143	144	172	180	176
Grp Sat Flow(s),veh/h/ln	1810	1805	1686	1810	1805	1678	1810	1805	1745	1810	1805	1678
Q Serve(g_s), s	4.3	6.6	6.9	2.8	7.6	7.8	2.8	4.0	4.2	5.4	5.0	5.3
Cycle Q Clear(g_c), s	4.3	6.6	6.9	2.8	7.6	7.8	2.8	4.0	4.2	5.4	5.0	5.3
Prop In Lane	1.00		0.70	1.00		0.73	1.00		0.48	1.00		0.72
Lane Grp Cap(c), veh/h	194	571	533	168	545	507	168	354	342	218	404	376
V/C Ratio(X)	0.71	0.45	0.46	0.55	0.52	0.53	0.55	0.40	0.42	0.79	0.45	0.47
Avail Cap(c_a), veh/h	248	959	896	217	928	862	310	959	927	310	959	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	15.9	16.0	25.3	16.9	16.9	25.3	20.5	20.5	24.9	19.5	19.6
Incr Delay (d2), s/veh	6.6	0.6	0.6	2.8	0.8	0.9	2.8	0.7	0.8	8.5	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.4	3.3	1.5	3.9	3.7	1.5	2.1	2.1	3.2	2.6	2.5
LnGrp Delay(d),s/veh	31.8	16.5	16.6	28.1	17.6	17.8	28.1	21.2	21.4	33.5	20.3	20.5
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		643			643			379			528	
Approach Delay, s/veh		19.8			19.2			22.9			24.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	15.5	9.4	22.5	9.4	17.1	10.3	21.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	31.0	7.0	31.0	10.0	31.0	8.0	30.0
Max Q Clear Time (g_c+I1), s	7.4	6.2	4.8	8.9	4.8	7.3	6.3	9.8
Green Ext Time (p_c), s	0.1	3.6	0.0	7.0	0.1	3.5	0.1	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	290	210	140	120	160	100	140	810	170	90	440	80
Future Volume (veh/h)	290	210	140	120	160	100	140	810	170	90	440	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	309	223	149	128	170	106	149	862	181	96	468	85
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	423	440	282	175	404	239	188	1306	740	160	1057	191
Arrive On Green	0.12	0.21	0.21	0.10	0.18	0.18	0.10	0.36	0.36	0.09	0.35	0.35
Sat Flow, veh/h	3510	2108	1348	1810	2184	1293	1810	3610	1615	1810	3054	551
Grp Volume(v), veh/h	309	190	182	128	139	137	149	862	181	96	276	277
Grp Sat Flow(s),veh/h/ln	1755	1805	1651	1810	1805	1672	1810	1805	1615	1810	1805	1800
Q Serve(g_s), s	5.6	6.1	6.4	4.5	4.4	4.8	5.3	13.1	4.5	3.3	7.7	7.8
Cycle Q Clear(g_c), s	5.6	6.1	6.4	4.5	4.4	4.8	5.3	13.1	4.5	3.3	7.7	7.8
Prop In Lane	1.00		0.82	1.00		0.77	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	423	377	345	175	334	309	188	1306	740	160	625	623
V/C Ratio(X)	0.73	0.50	0.53	0.73	0.42	0.44	0.79	0.66	0.24	0.60	0.44	0.45
Avail Cap(c_a), veh/h	590	965	883	194	855	792	221	1765	946	277	938	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	22.9	23.0	28.7	23.6	23.7	28.6	17.5	10.8	28.7	16.5	16.5
Incr Delay (d2), s/veh	2.8	1.0	1.3	12.0	0.8	1.0	15.3	0.6	0.2	3.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.1	3.1	2.8	2.3	2.3	3.4	6.6	2.0	1.8	3.9	3.9
LnGrp Delay(d),s/veh	30.6	23.9	24.3	40.8	24.4	24.7	43.9	18.1	11.0	32.3	17.0	17.0
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		681			404			1192			649	
Approach Delay, s/veh		27.0			29.7			20.2			19.3	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	27.7	10.3	17.7	10.8	26.6	11.9	16.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	32.0	7.0	35.0	8.0	34.0	11.0	31.0
Max Q Clear Time (g_c+I1), s	5.3	15.1	6.5	8.4	7.3	9.8	7.6	6.8
Green Ext Time (p_c), s	0.1	8.4	0.0	4.2	0.0	10.0	0.4	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	140	410	130	30	650	80	190	200	30	60	150	160
Future Volume (veh/h)	140	410	130	30	650	80	190	200	30	60	150	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	500	159	37	793	98	232	244	37	73	183	195
Adj No. of Lanes	1	2	1	1	2	1	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	1576	853	89	1336	740	327	355	54	162	391	347
Arrive On Green	0.12	0.44	0.44	0.05	0.37	0.37	0.09	0.22	0.22	0.09	0.22	0.22
Sat Flow, veh/h	1810	3610	1609	1810	3610	1608	3510	1611	244	1810	1805	1604
Grp Volume(v), veh/h	171	500	159	37	793	98	232	0	281	73	183	195
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1608	1755	0	1855	1810	1805	1604
Q Serve(g_s), s	7.2	7.1	4.0	1.6	13.9	0.8	5.0	0.0	10.9	3.0	6.9	8.5
Cycle Q Clear(g_c), s	7.2	7.1	4.0	1.6	13.9	0.8	5.0	0.0	10.9	3.0	6.9	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	210	1576	853	89	1336	740	327	0	409	162	391	347
V/C Ratio(X)	0.82	0.32	0.19	0.41	0.59	0.13	0.71	0.00	0.69	0.45	0.47	0.56
Avail Cap(c_a), veh/h	254	1576	853	162	1336	740	538	0	971	416	1083	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	14.4	9.6	36.1	19.9	4.2	34.5	0.0	28.1	33.8	26.8	27.4
Incr Delay (d2), s/veh	15.6	0.5	0.5	3.0	1.9	0.4	2.8	0.0	2.1	2.0	0.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	3.7	1.9	0.9	7.3	0.7	2.6	0.0	5.8	1.6	3.6	3.9
LnGrp Delay(d),s/veh	49.4	15.0	10.1	39.2	21.9	4.6	37.3	0.0	30.1	35.8	27.6	28.8
LnGrp LOS	D	B	B	D	C	A	D		C	D	C	C
Approach Vol, veh/h		830			928			513			451	
Approach Delay, s/veh		21.1			20.7			33.4			29.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.3	7.9	38.2	11.3	21.0	13.1	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	12.0	47.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	5.0	12.9	3.6	9.1	7.0	10.5	9.2	15.9
Green Ext Time (p_c), s	1.9	1.6	0.0	9.9	0.3	2.5	0.1	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	30	260	110	110	510	30	190	350	160	30	300	70
Future Volume (veh/h)	30	260	110	110	510	30	190	350	160	30	300	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	289	122	122	567	33	211	389	178	33	333	78
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	403	340	301	633	674	225	639	807	157	444	104
Arrive On Green	0.05	0.21	0.21	0.17	0.33	0.33	0.12	0.34	0.34	0.09	0.30	0.30
Sat Flow, veh/h	1810	1900	1604	1810	1900	1603	1810	1900	1603	1810	1487	348
Grp Volume(v), veh/h	33	289	122	122	567	33	211	389	178	33	0	411
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	1900	1603	1810	1900	1603	1810	0	1835
Q Serve(g_s), s	1.4	11.4	3.7	4.9	22.9	1.0	9.3	13.8	1.4	1.4	0.0	16.3
Cycle Q Clear(g_c), s	1.4	11.4	3.7	4.9	22.9	1.0	9.3	13.8	1.4	1.4	0.0	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	82	403	340	301	633	674	225	639	807	157	0	548
V/C Ratio(X)	0.40	0.72	0.36	0.41	0.90	0.05	0.94	0.61	0.22	0.21	0.00	0.75
Avail Cap(c_a), veh/h	157	778	657	301	778	797	225	872	1004	157	0	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.4	29.5	13.9	30.0	25.5	13.8	35.0	22.3	3.9	34.2	0.0	25.5
Incr Delay (d2), s/veh	3.1	2.4	0.6	0.9	11.3	0.0	43.5	0.9	0.1	0.7	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.2	2.2	2.5	14.0	0.4	7.3	7.4	1.1	0.7	0.0	8.6
LnGrp Delay(d),s/veh	40.6	31.9	14.5	30.9	36.9	13.9	78.5	23.3	4.1	34.9	0.0	28.1
LnGrp LOS	D	C	B	C	D	B	E	C	A	C		C
Approach Vol, veh/h		444			722			778			444	
Approach Delay, s/veh		27.8			34.8			33.9			28.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	31.1	17.4	21.1	14.0	28.1	7.7	30.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	3.4	15.8	6.9	13.4	11.3	18.3	3.4	24.9
Green Ext Time (p_c), s	0.0	5.1	0.1	1.8	0.0	4.6	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	150	290	500	80	90	160
Future Volume (veh/h)	150	290	500	80	90	160
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	337	581	93	105	186
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	282	1143	1227	545	336	552
Arrive On Green	0.16	0.60	0.34	0.34	0.19	0.19
Sat Flow, veh/h	1810	1900	3705	1603	1810	1615
Grp Volume(v), veh/h	174	337	581	93	105	186
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1603	1810	1615
Q Serve(g_s), s	3.4	3.2	4.8	1.5	1.9	3.2
Cycle Q Clear(g_c), s	3.4	3.2	4.8	1.5	1.9	3.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	282	1143	1227	545	336	552
V/C Ratio(X)	0.62	0.29	0.47	0.17	0.31	0.34
Avail Cap(c_a), veh/h	432	2068	2683	1192	1969	2009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	3.6	9.8	8.7	13.3	9.2
Incr Delay (d2), s/veh	2.2	0.1	0.3	0.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.7	2.4	0.7	1.0	3.2
LnGrp Delay(d),s/veh	17.1	3.8	10.1	8.9	13.8	9.6
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h		511	674		291	
Approach Delay, s/veh		8.3	9.9		11.1	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				26.7		11.0	9.9	16.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				5.2		5.2	5.4	6.8
Green Ext Time (p_c), s				6.3		0.9	0.1	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	60	190	110	120	340	150	100	470	40	50	680	100
Future Volume (veh/h)	60	190	110	120	340	150	100	470	40	50	680	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	244	141	154	436	192	128	603	51	64	872	128
Adj No. of Lanes	2	2	1	2	1	1	1	2	1	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	272	608	270	748	578	489	173	926	410	219	1462	451
Arrive On Green	0.08	0.17	0.17	0.21	0.30	0.30	0.10	0.26	0.26	0.12	0.28	0.28
Sat Flow, veh/h	3510	3610	1601	3510	1900	1607	1810	3610	1599	1810	5187	1601
Grp Volume(v), veh/h	77	244	141	154	436	192	128	603	51	64	872	128
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1900	1607	1810	1805	1599	1810	1729	1601
Q Serve(g_s), s	1.4	4.0	5.3	2.4	13.8	6.3	4.6	9.9	1.6	2.1	9.6	4.1
Cycle Q Clear(g_c), s	1.4	4.0	5.3	2.4	13.8	6.3	4.6	9.9	1.6	2.1	9.6	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	608	270	748	578	489	173	926	410	219	1462	451
V/C Ratio(X)	0.28	0.40	0.52	0.21	0.75	0.39	0.74	0.65	0.12	0.29	0.60	0.28
Avail Cap(c_a), veh/h	370	1903	844	748	1030	871	273	1740	771	245	2422	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	24.6	25.2	21.5	20.9	18.3	29.2	22.0	19.0	26.6	20.6	18.6
Incr Delay (d2), s/veh	0.6	0.4	1.6	0.1	2.0	0.5	6.1	0.8	0.1	0.7	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.0	2.5	1.2	7.5	2.9	2.6	5.0	0.7	1.1	4.7	1.9
LnGrp Delay(d),s/veh	29.4	25.0	26.7	21.6	22.9	18.8	35.3	22.8	19.1	27.3	21.0	18.9
LnGrp LOS	C	C	C	C	C	B	D	C	B	C	C	B
Approach Vol, veh/h		462			782			782			1064	
Approach Delay, s/veh		26.3			21.6			24.6			21.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	21.0	18.2	15.2	10.3	22.7	9.1	24.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	8.0	35.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	4.1	11.9	4.4	7.3	6.6	11.6	3.4	15.8
Green Ext Time (p_c), s	0.2	3.8	0.2	1.8	0.2	5.9	0.1	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑	↱
Traffic Volume (veh/h)	90	530	90	30	670	20	180	280	20	60	220	100
Future Volume (veh/h)	90	530	90	30	670	20	180	280	20	60	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	646	110	37	817	24	220	341	24	73	268	122
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	147	1204	205	89	1283	38	255	973	68	129	408	344
Arrive On Green	0.08	0.39	0.39	0.05	0.36	0.36	0.14	0.28	0.28	0.07	0.21	0.21
Sat Flow, veh/h	1810	3085	525	1810	3581	105	1810	3422	240	1810	1900	1604
Grp Volume(v), veh/h	110	378	378	37	412	429	220	179	186	73	268	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1810	1805	1881	1810	1805	1856	1810	1900	1604
Q Serve(g_s), s	4.6	12.6	12.6	1.6	14.8	14.8	9.3	6.2	6.2	3.1	10.1	5.1
Cycle Q Clear(g_c), s	4.6	12.6	12.6	1.6	14.8	14.8	9.3	6.2	6.2	3.1	10.1	5.1
Prop In Lane	1.00		0.29	1.00		0.06	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	147	704	704	89	647	674	255	513	528	129	408	344
V/C Ratio(X)	0.75	0.54	0.54	0.41	0.64	0.64	0.86	0.35	0.35	0.57	0.66	0.35
Avail Cap(c_a), veh/h	162	704	704	162	647	674	255	693	713	208	681	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	18.4	18.4	36.0	20.8	20.8	32.8	22.2	22.2	35.1	28.0	26.1
Incr Delay (d2), s/veh	15.7	2.9	2.9	3.0	4.7	4.6	25.0	0.4	0.4	3.9	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.9	6.9	0.8	8.2	8.5	6.4	3.1	3.3	1.7	5.5	2.3
LnGrp Delay(d),s/veh	50.9	21.3	21.3	39.1	25.6	25.4	57.8	22.6	22.6	39.0	29.8	26.7
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		866			878			585			463	
Approach Delay, s/veh		25.0			26.1			35.9			30.5	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	26.2	7.9	34.5	15.0	20.8	10.4	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0	7.0	28.0	11.0	28.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	5.1	8.2	3.6	14.6	11.3	12.1	6.6	16.8
Green Ext Time (p_c), s	0.0	3.7	0.0	7.2	0.0	3.4	0.0	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	70	390	120	160	470	70	100	530	190	80	390	80
Future Volume (veh/h)	70	390	120	160	470	70	100	530	190	80	390	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	443	136	182	534	80	114	602	0	91	443	91
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	986	300	227	1497	667	185	857	383	137	629	128
Arrive On Green	0.07	0.36	0.36	0.13	0.41	0.41	0.10	0.24	0.00	0.08	0.21	0.21
Sat Flow, veh/h	1810	2725	829	1810	3610	1609	1810	3610	1615	1810	2984	608
Grp Volume(v), veh/h	80	292	287	182	534	80	114	602	0	91	267	267
Grp Sat Flow(s),veh/h/ln	1810	1805	1750	1810	1805	1609	1810	1805	1615	1810	1805	1787
Q Serve(g_s), s	3.4	9.9	10.0	7.8	8.1	2.5	4.8	12.2	0.0	3.9	11.0	11.1
Cycle Q Clear(g_c), s	3.4	9.9	10.0	7.8	8.1	2.5	4.8	12.2	0.0	3.9	11.0	11.1
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	131	653	633	227	1497	667	185	857	383	137	380	377
V/C Ratio(X)	0.61	0.45	0.45	0.80	0.36	0.12	0.62	0.70	0.00	0.66	0.70	0.71
Avail Cap(c_a), veh/h	203	653	633	293	1497	667	203	1351	604	158	630	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	19.5	19.5	34.1	16.1	14.5	34.5	28.0	0.0	36.0	29.3	29.4
Incr Delay (d2), s/veh	4.5	2.2	2.3	11.4	0.7	0.4	4.7	1.1	0.0	8.2	2.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.3	5.3	4.6	4.1	1.2	2.6	6.2	0.0	2.3	5.7	5.8
LnGrp Delay(d),s/veh	40.6	21.7	21.9	45.5	16.8	14.8	39.2	29.0	0.0	44.3	31.7	31.8
LnGrp LOS	D	C	C	D	B	B	D	C		D	C	C
Approach Vol, veh/h		659			796			716			625	
Approach Delay, s/veh		24.1			23.2			30.7			33.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	23.0	14.1	33.0	12.2	20.9	9.8	37.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	9.0	28.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	5.9	14.2	9.8	12.0	6.8	13.1	5.4	10.1
Green Ext Time (p_c), s	0.0	3.5	0.4	2.8	0.9	2.4	0.0	3.9

Intersection Summary			
HCM 2010 Ctrl Delay			27.6
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	370	80	10	410	90	100	360	20	80	340	180
Future Volume (veh/h)	100	370	80	10	410	90	100	360	20	80	340	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	127	468	101	13	519	114	127	456	25	101	430	228
Adj No. of Lanes	1	1	1	1	1	0	2	2	1	1	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	914	774	40	625	137	292	697	308	184	764	339
Arrive On Green	0.09	0.48	0.48	0.02	0.41	0.41	0.08	0.19	0.19	0.10	0.21	0.21
Sat Flow, veh/h	1810	1900	1610	1810	1509	331	3510	3610	1594	1810	3610	1604
Grp Volume(v), veh/h	127	468	101	13	0	633	127	456	25	101	430	228
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1840	1755	1805	1594	1810	1805	1604
Q Serve(g_s), s	5.4	13.4	2.7	0.6	0.0	24.3	2.7	9.2	0.9	4.2	8.4	10.3
Cycle Q Clear(g_c), s	5.4	13.4	2.7	0.6	0.0	24.3	2.7	9.2	0.9	4.2	8.4	10.3
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	914	774	40	0	762	292	697	308	184	764	339
V/C Ratio(X)	0.79	0.51	0.13	0.33	0.00	0.83	0.44	0.65	0.08	0.55	0.56	0.67
Avail Cap(c_a), veh/h	206	1009	855	160	0	931	311	1278	565	184	1278	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	14.1	11.4	38.1	0.0	20.7	34.5	29.5	18.8	33.8	27.9	28.6
Incr Delay (d2), s/veh	14.6	0.4	0.1	4.7	0.0	5.4	1.0	1.1	0.1	3.4	0.7	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	7.1	1.2	0.3	0.0	13.4	1.4	4.7	0.4	2.3	4.2	4.8
LnGrp Delay(d),s/veh	49.9	14.6	11.4	42.8	0.0	26.1	35.5	30.5	18.9	37.2	28.5	31.0
LnGrp LOS	D	B	B	D		C	D	C	B	D	C	C
Approach Vol, veh/h		696			646			608			759	
Approach Delay, s/veh		20.6			26.4			31.1			30.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	19.3	5.7	42.0	10.6	20.7	11.0	36.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	9.0	40.0
Max Q Clear Time (g_c+I1), s	6.2	11.2	2.6	15.4	4.7	12.3	7.4	26.3
Green Ext Time (p_c), s	0.3	2.5	0.0	7.5	0.1	3.1	0.0	5.7

Intersection Summary			
HCM 2010 Ctrl Delay			27.1
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	150	510	60	80	1280	120	70	260	20	130	260	220
Future Volume (veh/h)	150	510	60	80	1280	120	70	260	20	130	260	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	560	66	88	1407	132	77	286	22	143	286	242
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	1687	752	132	2069	194	244	559	43	368	721	320
Arrive On Green	0.11	0.47	0.47	0.07	0.43	0.43	0.07	0.16	0.16	0.10	0.20	0.20
Sat Flow, veh/h	1810	3610	1610	1810	4824	453	3510	3397	260	3510	3610	1603
Grp Volume(v), veh/h	165	560	66	88	1009	530	77	151	157	143	286	242
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1818	1755	1805	1851	1755	1805	1603
Q Serve(g_s), s	7.5	8.2	1.9	4.0	19.7	19.7	1.8	6.4	6.5	3.2	5.8	8.9
Cycle Q Clear(g_c), s	7.5	8.2	1.9	4.0	19.7	19.7	1.8	6.4	6.5	3.2	5.8	8.9
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	201	1687	752	132	1483	780	244	297	304	368	721	320
V/C Ratio(X)	0.82	0.33	0.09	0.67	0.68	0.68	0.32	0.51	0.52	0.39	0.40	0.76
Avail Cap(c_a), veh/h	216	1687	752	237	1483	780	293	882	904	368	1764	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	14.1	12.4	37.9	19.3	19.3	37.1	32.0	32.0	35.1	29.2	17.4
Incr Delay (d2), s/veh	20.6	0.5	0.2	5.8	2.5	4.7	0.7	1.4	1.3	0.7	0.4	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	4.2	0.9	2.2	9.9	10.9	0.9	3.3	3.4	1.6	2.9	4.8
LnGrp Delay(d),s/veh	57.1	14.6	12.6	43.7	21.9	24.1	37.9	33.3	33.4	35.7	29.5	21.1
LnGrp LOS	E	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		791			1627			385			671	
Approach Delay, s/veh		23.3			23.8			34.2			27.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	17.8	10.1	43.2	9.8	20.8	13.3	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	11.0	35.0	7.0	41.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	5.2	8.5	6.0	10.2	3.8	10.9	9.5	21.7
Green Ext Time (p_c), s	0.6	1.9	0.1	4.2	0.0	2.9	0.0	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	50	550	70	90	1300	120	70	210	30	130	180	100
Future Volume (veh/h)	50	550	70	90	1300	120	70	210	30	130	180	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	598	0	98	1413	130	76	228	33	141	196	109
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	1500	671	156	2180	201	155	527	75	179	409	217
Arrive On Green	0.05	0.42	0.00	0.09	0.45	0.45	0.09	0.17	0.17	0.10	0.18	0.18
Sat Flow, veh/h	1810	3610	1615	1810	4833	445	1810	3168	452	1810	2272	1208
Grp Volume(v), veh/h	54	598	0	98	1011	532	76	129	132	141	154	151
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1820	1810	1805	1815	1810	1805	1675
Q Serve(g_s), s	2.0	8.0	0.0	3.6	15.6	15.6	2.8	4.4	4.5	5.2	5.2	5.6
Cycle Q Clear(g_c), s	2.0	8.0	0.0	3.6	15.6	15.6	2.8	4.4	4.5	5.2	5.2	5.6
Prop In Lane	1.00		1.00	1.00		0.24	1.00		0.25	1.00		0.72
Lane Grp Cap(c), veh/h	92	1500	671	156	1560	821	155	300	302	179	325	301
V/C Ratio(X)	0.59	0.40	0.00	0.63	0.65	0.65	0.49	0.43	0.44	0.79	0.47	0.50
Avail Cap(c_a), veh/h	184	1500	671	263	1560	821	237	1103	1110	237	1103	1024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	14.1	0.0	30.3	14.6	14.6	30.0	25.7	25.8	30.3	25.3	25.4
Incr Delay (d2), s/veh	5.9	0.8	0.0	4.1	2.1	3.9	2.4	1.0	1.0	12.1	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.1	0.0	2.0	7.9	8.7	1.5	2.3	2.3	3.2	2.7	2.7
LnGrp Delay(d),s/veh	37.8	14.9	0.0	34.5	16.7	18.6	32.4	26.7	26.8	42.4	26.3	26.7
LnGrp LOS	D	B		C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		652			1641			337			446	
Approach Delay, s/veh		16.8			18.4			28.0			31.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	15.4	9.9	32.6	9.9	16.4	7.5	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	42.0	10.0	28.0	9.0	42.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	7.2	6.5	5.6	10.0	4.8	7.6	4.0	17.6
Green Ext Time (p_c), s	0.1	1.8	0.1	3.6	0.6	1.9	0.1	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	80	490	50	30	1200	140	160	480	40	140	320	190
Future Volume (veh/h)	80	490	50	30	1200	140	160	480	40	140	320	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	533	54	33	1304	152	174	522	43	152	348	207
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	2106	868	134	1912	223	241	801	66	156	686	424
Arrive On Green	0.07	0.41	0.41	0.07	0.41	0.41	0.13	0.24	0.24	0.09	0.19	0.19
Sat Flow, veh/h	1810	5187	1609	1810	4710	549	1810	3377	277	1810	3610	1602
Grp Volume(v), veh/h	87	533	54	33	957	499	174	278	287	152	348	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1801	1810	1805	1849	1810	1805	1602
Q Serve(g_s), s	3.8	5.5	0.0	1.4	18.5	18.5	7.5	11.3	11.4	6.8	7.0	5.5
Cycle Q Clear(g_c), s	3.8	5.5	0.0	1.4	18.5	18.5	7.5	11.3	11.4	6.8	7.0	5.5
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	134	2106	868	134	1404	731	241	428	438	156	686	424
V/C Ratio(X)	0.65	0.25	0.06	0.25	0.68	0.68	0.72	0.65	0.65	0.98	0.51	0.49
Avail Cap(c_a), veh/h	156	2106	868	156	1404	731	241	933	955	156	1865	947
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	16.0	8.9	35.5	19.8	19.8	33.8	28.0	28.0	37.1	29.5	11.2
Incr Delay (d2), s/veh	7.3	0.3	0.1	0.9	2.7	5.1	10.2	1.7	1.7	64.5	0.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.7	0.6	0.7	9.3	10.2	4.4	5.8	6.0	6.2	3.5	2.6
LnGrp Delay(d),s/veh	43.9	16.3	9.1	36.4	22.5	24.9	44.0	29.6	29.7	101.6	30.1	12.1
LnGrp LOS	D	B	A	D	C	C	D	C	C	F	C	B
Approach Vol, veh/h		674			1489			739			707	
Approach Delay, s/veh		19.3			23.6			33.0			40.2	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	23.3	10.0	37.0	14.8	19.5	10.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	8.8	13.4	3.4	7.5	9.5	9.0	5.8	20.5
Green Ext Time (p_c), s	0.0	3.2	2.6	3.5	0.0	3.2	0.0	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	450	90	80	1100	40	130	280	80	80	220	100
Future Volume (veh/h)	60	450	90	80	1100	40	130	280	80	80	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	489	98	87	1196	43	141	304	87	87	239	109
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	1747	342	153	2134	77	178	568	160	160	473	209
Arrive On Green	0.07	0.40	0.40	0.08	0.42	0.42	0.10	0.20	0.20	0.09	0.19	0.19
Sat Flow, veh/h	1810	4352	852	1810	5140	185	1810	2779	781	1810	2432	1074
Grp Volume(v), veh/h	65	386	201	87	805	434	141	196	195	87	175	173
Grp Sat Flow(s),veh/h/ln	1810	1729	1746	1810	1729	1867	1810	1805	1755	1810	1805	1701
Q Serve(g_s), s	2.5	5.4	5.6	3.3	12.8	12.8	5.5	7.0	7.2	3.3	6.3	6.6
Cycle Q Clear(g_c), s	2.5	5.4	5.6	3.3	12.8	12.8	5.5	7.0	7.2	3.3	6.3	6.6
Prop In Lane	1.00		0.49	1.00		0.10	1.00		0.45	1.00		0.63
Lane Grp Cap(c), veh/h	128	1388	701	153	1436	775	178	369	359	160	351	331
V/C Ratio(X)	0.51	0.28	0.29	0.57	0.56	0.56	0.79	0.53	0.54	0.54	0.50	0.52
Avail Cap(c_a), veh/h	175	1388	701	200	1436	775	200	1099	1069	200	1099	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	14.6	14.6	31.8	16.1	16.1	31.9	25.6	25.7	31.5	26.0	26.1
Incr Delay (d2), s/veh	3.1	0.5	1.0	3.3	1.6	2.9	17.5	1.2	1.3	2.9	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.7	2.9	1.8	6.4	7.1	3.6	3.6	3.6	1.8	3.2	3.2
LnGrp Delay(d),s/veh	35.5	15.1	15.7	35.1	17.7	19.0	49.4	26.8	27.0	34.4	27.1	27.4
LnGrp LOS	D	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		652			1326			532			435	
Approach Delay, s/veh		17.3			19.3			32.9			28.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	18.8	10.1	33.0	11.1	18.1	9.1	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	44.0	8.0	29.0	8.0	44.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	5.3	9.2	5.3	7.6	7.5	8.6	4.5	14.8
Green Ext Time (p_c), s	0.2	2.5	1.8	3.4	0.0	2.3	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	330	100	120	830	110	220	770	140	150	610	240
Future Volume (veh/h)	100	330	100	120	830	110	220	770	140	150	610	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	371	112	135	933	124	247	865	157	169	685	270
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	243	1279	570	243	1642	217	270	1131	503	183	958	426
Arrive On Green	0.07	0.35	0.35	0.07	0.35	0.35	0.15	0.31	0.31	0.10	0.27	0.27
Sat Flow, veh/h	3510	3610	1608	3510	4633	614	1810	3610	1607	1810	3610	1606
Grp Volume(v), veh/h	112	371	112	135	696	361	247	865	157	169	685	270
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1789	1810	1805	1607	1810	1805	1606
Q Serve(g_s), s	3.0	7.3	3.1	3.7	16.1	16.1	13.3	21.4	5.7	9.1	17.0	14.7
Cycle Q Clear(g_c), s	3.0	7.3	3.1	3.7	16.1	16.1	13.3	21.4	5.7	9.1	17.0	14.7
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	1279	570	243	1225	634	270	1131	503	183	958	426
V/C Ratio(X)	0.46	0.29	0.20	0.56	0.57	0.57	0.92	0.76	0.31	0.92	0.72	0.63
Avail Cap(c_a), veh/h	249	1279	570	249	1225	634	270	1535	683	183	1426	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	22.9	9.2	44.5	25.8	25.8	41.4	30.6	15.8	44.0	32.9	32.0
Incr Delay (d2), s/veh	1.4	0.6	0.8	2.6	1.9	3.7	33.3	1.6	0.3	44.9	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.7	2.1	1.9	8.0	8.6	9.2	10.8	3.0	6.8	8.6	6.7
LnGrp Delay(d),s/veh	45.6	23.5	9.9	47.1	27.7	29.5	74.7	32.2	16.1	88.9	33.9	33.6
LnGrp LOS	D	C	A	D	C	C	E	C	B	F	C	C
Approach Vol, veh/h		595			1192			1269			1124	
Approach Delay, s/veh		25.1			30.4			38.5			42.1	
Approach LOS		C			C			D			D	
Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	34.9	10.8	39.0	18.7	30.2	10.8	39.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	42.0	7.0	35.0	13.0	39.0	7.0	35.0				
Max Q Clear Time (g_c+I1), s	11.1	23.4	5.7	9.3	15.3	19.0	5.0	18.1				
Green Ext Time (p_c), s	0.0	6.1	0.0	3.0	0.0	5.3	0.6	6.0				
Intersection Summary												
HCM 2010 Ctrl Delay			35.3									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	170	1200	2000	170	150	110
Future Volume (veh/h)	170	1200	2000	170	150	110
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	1277	2128	181	160	117
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	237	3912	2891	1081	403	397
Arrive On Green	0.13	0.75	0.56	0.56	0.11	0.11
Sat Flow, veh/h	1810	5358	5358	1608	3510	1615
Grp Volume(v), veh/h	181	1277	2128	181	160	117
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1608	1755	1615
Q Serve(g_s), s	5.9	4.9	18.8	2.5	2.6	0.0
Cycle Q Clear(g_c), s	5.9	4.9	18.8	2.5	2.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	237	3912	2891	1081	403	397
V/C Ratio(X)	0.76	0.33	0.74	0.17	0.40	0.29
Avail Cap(c_a), veh/h	237	3912	2891	1081	1784	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	2.4	10.1	3.7	25.0	18.7
Incr Delay (d2), s/veh	13.6	0.2	1.7	0.3	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.3	9.3	1.6	1.3	2.0
LnGrp Delay(d),s/veh	39.2	2.7	11.8	4.0	25.7	19.1
LnGrp LOS	D	A	B	A	C	B
Approach Vol, veh/h		1458	2309		277	
Approach Delay, s/veh		7.2	11.2		22.9	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		11.0	12.0	38.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	8.0	34.0
Max Q Clear Time (g_c+I1), s				6.9		4.6	7.9	20.8
Green Ext Time (p_c), s				11.2		0.9	0.1	10.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	1060	200	20	1850	90	180	60	10	90	70	90
Future Volume (veh/h)	110	1060	200	20	1850	90	180	60	10	90	70	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1116	0	21	1947	95	189	63	11	95	74	95
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	2585	805	149	2525	123	309	395	67	157	458	336
Arrive On Green	0.08	0.50	0.00	0.08	0.50	0.50	0.09	0.13	0.13	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1615	1810	5067	247	3510	3081	524	1810	3610	1596
Grp Volume(v), veh/h	116	1116	0	21	1327	715	189	36	38	95	74	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1856	1755	1805	1800	1810	1805	1596
Q Serve(g_s), s	4.9	10.8	0.0	0.8	24.5	24.6	4.1	1.4	1.5	4.0	1.4	0.0
Cycle Q Clear(g_c), s	4.9	10.8	0.0	0.8	24.5	24.6	4.1	1.4	1.5	4.0	1.4	0.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	149	2585	805	149	1723	925	309	232	231	157	458	336
V/C Ratio(X)	0.78	0.43	0.00	0.14	0.77	0.77	0.61	0.16	0.16	0.61	0.16	0.28
Avail Cap(c_a), veh/h	162	2585	805	162	1723	925	359	830	828	162	1614	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	12.5	0.0	33.3	16.0	16.0	34.4	30.3	30.4	34.5	30.4	26.0
Incr Delay (d2), s/veh	19.8	0.5	0.0	0.4	3.4	6.2	2.3	0.3	0.3	6.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.2	0.0	0.4	12.4	14.1	2.1	0.7	0.7	2.2	0.7	1.8
LnGrp Delay(d),s/veh	55.0	13.1	0.0	33.8	19.4	22.3	36.7	30.7	30.7	40.5	30.6	26.5
LnGrp LOS	E	B		C	B	C	D	C	C	D	C	C
Approach Vol, veh/h		1232			2063			263			264	
Approach Delay, s/veh		17.0			20.5			35.0			32.7	
Approach LOS		B			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	14.0	10.4	43.0	10.9	13.9	10.4	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	8.0	35.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	6.0	3.5	2.8	12.8	6.1	3.4	6.9	26.6
Green Ext Time (p_c), s	0.1	0.4	0.1	7.8	0.2	0.8	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	90	600	440	20	1140	110	650	490	10	60	270	100
Future Volume (veh/h)	90	600	440	20	1140	110	650	490	10	60	270	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	652	478	22	1239	120	707	533	11	65	293	109
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	110	1586	1065	56	1361	131	778	1220	25	96	437	159
Arrive On Green	0.06	0.44	0.44	0.03	0.41	0.41	0.22	0.34	0.34	0.05	0.17	0.17
Sat Flow, veh/h	1810	3610	1609	1810	3326	321	3510	3617	75	1810	2588	941
Grp Volume(v), veh/h	98	652	478	22	671	688	707	266	278	65	202	200
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1842	1755	1805	1886	1810	1805	1724
Q Serve(g_s), s	6.2	14.2	3.2	1.4	40.1	40.5	22.5	13.1	13.2	4.1	12.1	12.5
Cycle Q Clear(g_c), s	6.2	14.2	3.2	1.4	40.1	40.5	22.5	13.1	13.2	4.1	12.1	12.5
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.04	1.00		0.55
Lane Grp Cap(c), veh/h	110	1586	1065	56	739	754	778	609	636	96	305	291
V/C Ratio(X)	0.89	0.41	0.45	0.40	0.91	0.91	0.91	0.44	0.44	0.67	0.66	0.69
Avail Cap(c_a), veh/h	110	1586	1065	110	739	754	795	786	821	158	534	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	22.0	3.7	54.6	31.9	32.0	43.6	29.6	29.6	53.4	44.7	44.9
Incr Delay (d2), s/veh	52.5	0.8	1.4	4.5	17.1	17.3	14.1	0.5	0.5	7.9	2.5	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	7.2	4.7	0.8	23.4	24.1	12.4	6.7	7.0	2.2	6.2	6.2
LnGrp Delay(d),s/veh	106.0	22.8	5.1	59.1	49.0	49.3	57.7	30.1	30.1	61.3	47.2	47.7
LnGrp LOS	F	C	A	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		1228			1381			1251			467	
Approach Delay, s/veh		22.6			49.3			45.7			49.4	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	42.7	7.5	54.5	29.5	23.4	11.0	51.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	50.0	7.0	47.0	26.0	34.0	7.0	47.0
Max Q Clear Time (g_c+I1), s	6.1	15.2	3.4	16.2	24.5	14.5	8.2	42.5
Green Ext Time (p_c), s	0.0	7.1	0.0	6.6	0.9	2.3	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	40	520	110	60	1020	90	130	400	80	110	270	40
Future Volume (veh/h)	40	520	110	60	1020	90	130	400	80	110	270	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	46	598	126	69	1172	103	149	460	92	126	310	46
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	105	1172	246	130	1372	120	263	679	135	161	538	79
Arrive On Green	0.06	0.39	0.39	0.07	0.41	0.41	0.15	0.23	0.23	0.09	0.17	0.17
Sat Flow, veh/h	1810	2968	624	1810	3357	295	1810	2999	596	1810	3155	463
Grp Volume(v), veh/h	46	363	361	69	629	646	149	276	276	126	176	180
Grp Sat Flow(s),veh/h/ln	1810	1805	1787	1810	1805	1847	1810	1805	1790	1810	1805	1813
Q Serve(g_s), s	1.8	11.2	11.2	2.7	23.2	23.3	5.6	10.2	10.4	5.0	6.6	6.7
Cycle Q Clear(g_c), s	1.8	11.2	11.2	2.7	23.2	23.3	5.6	10.2	10.4	5.0	6.6	6.7
Prop In Lane	1.00		0.35	1.00		0.16	1.00		0.33	1.00		0.26
Lane Grp Cap(c), veh/h	105	713	706	130	737	755	263	409	406	161	308	309
V/C Ratio(X)	0.44	0.51	0.51	0.53	0.85	0.86	0.57	0.67	0.68	0.78	0.57	0.58
Avail Cap(c_a), veh/h	172	713	706	197	737	755	263	688	683	222	713	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	16.8	16.8	32.9	19.7	19.7	29.2	25.9	26.0	32.8	28.0	28.1
Incr Delay (d2), s/veh	2.9	2.6	2.6	3.4	12.0	12.0	2.9	1.9	2.0	11.6	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.1	6.0	1.5	14.0	14.3	3.0	5.3	5.3	3.0	3.4	3.5
LnGrp Delay(d),s/veh	36.3	19.4	19.5	36.3	31.7	31.7	32.1	27.9	28.0	44.4	29.7	29.8
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		770			1344			701			482	
Approach Delay, s/veh		20.5			32.0			28.8			33.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	20.6	9.3	33.0	14.7	16.5	8.3	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	28.0	8.0	29.0	8.0	29.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	12.4	4.7	13.2	7.6	8.7	3.8	25.3
Green Ext Time (p_c), s	0.1	3.0	2.2	3.5	0.0	2.0	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	110	470	130	60	780	100	250	790	100	80	530	130
Future Volume (veh/h)	110	470	130	60	780	100	250	790	100	80	530	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	540	149	69	897	115	287	908	115	92	609	149
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1073	295	117	1160	149	143	1365	172	143	1222	293
Arrive On Green	0.09	0.38	0.38	0.06	0.36	0.36	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2797	769	1810	3218	413	1810	4662	588	1810	4173	1002
Grp Volume(v), veh/h	126	348	341	69	503	509	287	673	350	92	503	255
Grp Sat Flow(s),veh/h/ln	1810	1805	1761	1810	1805	1825	1810	1729	1793	1810	1729	1717
Q Serve(g_s), s	6.1	13.1	13.2	3.3	21.9	21.9	7.0	15.2	15.3	4.4	10.7	11.0
Cycle Q Clear(g_c), s	6.1	13.1	13.2	3.3	21.9	21.9	7.0	15.2	15.3	4.4	10.7	11.0
Prop In Lane	1.00		0.44	1.00		0.23	1.00		0.33	1.00		0.58
Lane Grp Cap(c), veh/h	159	692	675	117	651	658	143	1013	525	143	1013	503
V/C Ratio(X)	0.79	0.50	0.51	0.59	0.77	0.77	2.01	0.66	0.67	0.64	0.50	0.51
Avail Cap(c_a), veh/h	183	692	675	143	651	658	143	1013	525	143	1013	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	20.9	20.9	40.4	25.2	25.2	40.9	27.6	27.6	39.7	26.0	26.1
Incr Delay (d2), s/veh	18.6	2.6	2.7	4.7	8.7	8.6	479.1	3.4	6.6	9.6	1.7	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	7.0	6.9	1.8	12.5	12.6	22.4	7.7	8.5	2.6	5.3	5.7
LnGrp Delay(d),s/veh	58.3	23.5	23.6	45.1	33.9	33.8	520.0	31.0	34.2	49.3	27.7	29.7
LnGrp LOS	E	C	C	D	C	C	F	C	C	D	C	C
Approach Vol, veh/h		815			1081			1310			850	
Approach Delay, s/veh		28.9			34.6			139.0			30.6	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	9.7	38.1	11.0	30.0	11.8	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.4	17.3	5.3	15.2	9.0	13.0	8.1	23.9
Green Ext Time (p_c), s	0.1	4.1	0.0	3.9	0.0	3.8	0.1	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	66.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	150	930	150	90	1880	430	470	550	60	100	80	110
Future Volume (veh/h)	150	930	150	90	1880	430	470	550	60	100	80	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	969	156	94	1958	448	490	573	62	104	83	115
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	2388	741	252	2345	728	522	762	800	259	491	217
Arrive On Green	0.08	0.46	0.46	0.07	0.45	0.45	0.15	0.21	0.21	0.07	0.14	0.14
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2822	3510	3610	1597
Grp Volume(v), veh/h	156	969	156	94	1958	448	490	573	62	104	83	115
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1411	1755	1805	1597
Q Serve(g_s), s	7.0	10.8	2.8	2.2	29.0	18.5	12.1	13.0	1.4	2.5	1.8	4.7
Cycle Q Clear(g_c), s	7.0	10.8	2.8	2.2	29.0	18.5	12.1	13.0	1.4	2.5	1.8	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	2388	741	252	2345	728	522	762	800	259	491	217
V/C Ratio(X)	1.08	0.41	0.21	0.37	0.83	0.62	0.94	0.75	0.08	0.40	0.17	0.53
Avail Cap(c_a), veh/h	145	2388	741	281	2374	737	522	1859	1657	281	1859	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	15.7	4.3	38.7	21.1	18.2	36.8	32.3	23.0	38.6	33.4	22.6
Incr Delay (d2), s/veh	96.7	0.1	0.1	0.9	2.7	1.5	25.0	1.5	0.0	1.0	0.2	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	5.1	2.0	1.1	14.4	8.5	7.7	6.6	0.6	1.2	0.9	2.5
LnGrp Delay(d),s/veh	136.9	15.8	4.5	39.6	23.8	19.7	61.9	33.9	23.0	39.7	33.6	24.6
LnGrp LOS	F	B	A	D	C	B	E	C	C	D	C	C
Approach Vol, veh/h		1281			2500			1125			302	
Approach Delay, s/veh		29.1			23.6			45.5			32.2	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	22.4	10.3	44.2	17.0	15.9	11.0	43.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	4.5	15.0	4.2	12.8	14.1	6.7	9.0	31.0
Green Ext Time (p_c), s	0.1	3.4	0.1	24.1	0.0	0.8	0.0	8.4

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	690	340	0	2230	0	0	0	0	190	0	250
Future Volume (veh/h)	0	690	340	0	2230	0	0	0	0	190	0	250
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	711	351	0	2299	0				286	0	162
Adj No. of Lanes	0	3	0	0	3	0				2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2546	1189	0	3819	0				541	0	217
Arrive On Green	0.00	0.74	0.74	0.00	1.00	0.00				0.15	0.00	0.15
Sat Flow, veh/h	0	3629	1615	0	5529	0				3619	0	1454
Grp Volume(v), veh/h	0	711	351	0	2299	0				286	0	162
Grp Sat Flow(s),veh/h/ln	0	1729	1615	0	1729	0				1810	0	1454
Q Serve(g_s), s	0.0	4.8	5.1	0.0	0.0	0.0				5.1	0.0	7.5
Cycle Q Clear(g_c), s	0.0	4.8	5.1	0.0	0.0	0.0				5.1	0.0	7.5
Prop In Lane	0.00		1.00	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2546	1189	0	3819	0				541	0	217
V/C Ratio(X)	0.00	0.28	0.30	0.00	0.60	0.00				0.53	0.00	0.75
Avail Cap(c_a), veh/h	0	2546	1189	0	3819	0				879	0	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	0.00	0.44	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.1	3.1	0.0	0.0	0.0				27.5	0.0	28.5
Incr Delay (d2), s/veh	0.0	0.3	0.6	0.0	0.3	0.0				0.8	0.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	2.4	0.0	0.1	0.0				2.6	0.0	3.3
LnGrp Delay(d),s/veh	0.0	3.3	3.7	0.0	0.3	0.0				28.3	0.0	33.5
LnGrp LOS		A	A		A					C		C
Approach Vol, veh/h		1062			2299						448	
Approach Delay, s/veh		3.4			0.3						30.2	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				55.5		14.5		55.5
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				45.0		17.0		45.0
Max Q Clear Time (g_c+I1), s				7.1		9.5		2.0
Green Ext Time (p_c), s				33.3		1.0		37.3

Intersection Summary	
HCM 2010 Ctrl Delay	4.7
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	70	810	0	0	1710	120	890	10	170	0	0	0
Future Volume (veh/h)	70	810	0	0	1710	120	890	10	170	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	72	835	0	0	1763	124	976	0	120			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	222	3009	0	0	1979	139	1106	0	494			
Arrive On Green	0.25	1.00	0.00	0.00	0.40	0.40	0.31	0.00	0.31			
Sat Flow, veh/h	1810	5358	0	0	5119	347	3619	0	1615			
Grp Volume(v), veh/h	72	835	0	0	1231	656	976	0	120			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1837	1810	0	1615			
Q Serve(g_s), s	2.3	0.0	0.0	0.0	23.2	23.3	17.9	0.0	3.9			
Cycle Q Clear(g_c), s	2.3	0.0	0.0	0.0	23.2	23.3	17.9	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		0.19	1.00		1.00			
Lane Grp Cap(c), veh/h	222	3009	0	0	1383	735	1106	0	494			
V/C Ratio(X)	0.32	0.28	0.00	0.00	0.89	0.89	0.88	0.00	0.24			
Avail Cap(c_a), veh/h	222	3009	0	0	1383	735	1189	0	531			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	24.0	0.0	0.0	0.0	19.6	19.6	23.1	0.0	18.2			
Incr Delay (d2), s/veh	0.8	0.2	0.0	0.0	8.9	15.4	7.7	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.0	0.0	12.7	14.8	10.1	0.0	1.8			
LnGrp Delay(d),s/veh	24.8	0.2	0.0	0.0	28.5	35.0	30.8	0.0	18.5			
LnGrp LOS	C	A			C	D	C		B			
Approach Vol, veh/h		907			1887			1096				
Approach Delay, s/veh		2.2			30.8			29.4				
Approach LOS		A			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		25.4		44.6			12.6	32.0
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		23.0		39.0			7.0	28.0
Max Q Clear Time (g_c+I1), s		19.9		2.0			4.3	25.3
Green Ext Time (p_c), s		1.4		6.5			1.4	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	250	800	40	20	1460	150	160	480	20	20	30	200
Future Volume (veh/h)	250	800	40	20	1460	150	160	480	20	20	30	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	263	842	42	21	1537	0	168	505	21	21	32	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	340	2035	102	58	1866	835	429	623	279	54	290	130
Arrive On Green	0.10	0.58	0.58	0.03	0.52	0.00	0.12	0.17	0.17	0.03	0.08	0.00
Sat Flow, veh/h	3510	3499	175	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	263	434	450	21	1537	0	168	505	21	21	32	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1869	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.4	11.5	11.5	1.0	31.2	0.0	3.8	11.7	0.8	1.0	0.7	0.0
Cycle Q Clear(g_c), s	6.4	11.5	11.5	1.0	31.2	0.0	3.8	11.7	0.8	1.0	0.7	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	340	1050	1087	58	1866	835	429	623	279	54	290	130
V/C Ratio(X)	0.77	0.41	0.41	0.36	0.82	0.00	0.39	0.81	0.08	0.39	0.11	0.00
Avail Cap(c_a), veh/h	363	1050	1087	145	1866	835	429	746	334	145	746	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.4	10.0	10.0	41.3	17.7	0.0	35.2	34.6	21.8	41.5	37.2	0.0
Incr Delay (d2), s/veh	9.4	1.2	1.2	3.8	4.3	0.0	0.6	5.7	0.1	4.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.0	6.2	0.6	16.5	0.0	1.9	6.3	0.4	0.6	0.4	0.0
LnGrp Delay(d),s/veh	47.8	11.2	11.2	45.0	22.0	0.0	35.8	40.3	21.9	45.9	37.3	0.0
LnGrp LOS	D	B	B	D	C		D	D	C	D	D	
Approach Vol, veh/h		1147			1558			694			53	
Approach Delay, s/veh		19.6			22.3			38.7			40.7	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	19.0	6.8	54.7	14.6	11.0	12.4	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	9.0	45.0
Max Q Clear Time (g_c+I1), s	3.0	13.7	3.0	13.5	5.8	2.7	8.4	33.2
Green Ext Time (p_c), s	0.0	1.3	0.0	6.8	0.1	0.1	0.1	7.6

Intersection Summary		
HCM 2010 Ctrl Delay		25.0
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	130	720	30	20	1360	130	40	80	20	60	20	100
Future Volume (veh/h)	130	720	30	20	1360	130	40	80	20	60	20	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	758	32	21	1432	137	42	84	21	63	21	105
Adj No. of Lanes	1	3	0	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	2587	109	182	1830	815	288	296	74	314	55	277
Arrive On Green	0.10	0.51	0.51	0.10	0.51	0.51	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1810	5104	215	1810	3610	1607	1278	1466	366	1302	274	1372
Grp Volume(v), veh/h	137	513	277	21	1432	137	42	0	105	63	0	126
Grp Sat Flow(s),veh/h/ln	1810	1729	1861	1810	1805	1607	1278	0	1832	1302	0	1646
Q Serve(g_s), s	4.6	5.4	5.4	0.7	20.5	2.9	1.9	0.0	3.1	2.7	0.0	4.2
Cycle Q Clear(g_c), s	4.6	5.4	5.4	0.7	20.5	2.9	6.0	0.0	3.1	5.8	0.0	4.2
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.20	1.00		0.83
Lane Grp Cap(c), veh/h	182	1753	943	182	1830	815	288	0	371	314	0	333
V/C Ratio(X)	0.75	0.29	0.29	0.12	0.78	0.17	0.15	0.00	0.28	0.20	0.00	0.38
Avail Cap(c_a), veh/h	201	1753	943	201	1830	815	920	0	1277	958	0	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	9.0	9.0	25.8	12.7	8.4	24.4	0.0	21.3	23.8	0.0	21.8
Incr Delay (d2), s/veh	13.4	0.4	0.8	0.3	3.4	0.4	0.2	0.0	0.4	0.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.7	3.0	0.3	11.0	1.4	0.7	0.0	1.6	1.0	0.0	2.0
LnGrp Delay(d),s/veh	41.0	9.4	9.8	26.1	16.1	8.8	24.6	0.0	21.7	24.1	0.0	22.5
LnGrp LOS	D	A	A	C	B	A	C		C	C		C
Approach Vol, veh/h		927			1590			147			189	
Approach Delay, s/veh		14.2			15.6			22.5			23.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		16.8	10.4	36.0		16.8	10.4	36.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		8.0	2.7	7.4		7.8	6.6	22.5
Green Ext Time (p_c), s		1.8	0.1	4.8		1.8	0.0	6.3

Intersection Summary			
HCM 2010 Ctrl Delay			16.0
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	30	660	100	100	1330	60	110	120	50	30	120	50
Future Volume (veh/h)	30	660	100	100	1330	60	110	120	50	30	120	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	695	105	105	1400	63	116	126	53	32	126	53
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	1926	288	164	2229	100	169	286	240	171	288	243
Arrive On Green	0.08	0.42	0.42	0.09	0.44	0.44	0.09	0.15	0.15	0.09	0.15	0.15
Sat Flow, veh/h	1810	4554	681	1810	5087	229	1810	1900	1599	1810	1900	1599
Grp Volume(v), veh/h	32	526	274	105	952	511	116	126	53	32	126	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1777	1810	1729	1858	1810	1900	1599	1810	1900	1599
Q Serve(g_s), s	1.1	6.9	7.0	3.7	14.1	14.1	4.1	4.0	1.9	1.1	4.0	1.5
Cycle Q Clear(g_c), s	1.1	6.9	7.0	3.7	14.1	14.1	4.1	4.0	1.9	1.1	4.0	1.5
Prop In Lane	1.00		0.38	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	1463	752	164	1515	814	169	286	240	171	288	243
V/C Ratio(X)	0.23	0.36	0.36	0.64	0.63	0.63	0.69	0.44	0.22	0.19	0.44	0.22
Avail Cap(c_a), veh/h	191	1463	752	219	1515	814	191	1177	990	191	1177	990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	13.0	13.0	29.1	14.4	14.4	29.1	25.6	24.7	27.6	25.5	14.6
Incr Delay (d2), s/veh	0.9	0.7	1.4	4.2	2.0	3.7	8.5	1.1	0.5	0.5	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.4	3.6	2.0	7.0	7.9	2.5	2.2	0.9	0.6	2.2	0.8
LnGrp Delay(d),s/veh	29.7	13.7	14.4	33.2	16.4	18.1	37.6	26.7	25.2	28.1	26.6	15.0
LnGrp LOS	C	B	B	C	B	B	D	C	C	C	C	B
Approach Vol, veh/h		832			1568			295			211	
Approach Delay, s/veh		14.5			18.1			30.7			23.9	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	14.0	10.0	32.0	10.2	14.0	9.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	8.0	28.0	7.0	41.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.1	6.0	5.7	9.0	6.1	6.0	3.1	16.1
Green Ext Time (p_c), s	0.3	0.9	0.1	4.6	0.0	1.0	0.1	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↳	
Traffic Volume (veh/h)	0	320	30	590	1260	0	0	0	0	0	0	240
Future Volume (veh/h)	0	320	30	590	1260	0	0	0	0	0	0	240
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	360	34	663	1416	0				0	0	270
Adj No. of Lanes	0	2	1	1	2	0				0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	686	303	1321	3466	0				0	0	0
Arrive On Green	0.00	0.19	0.19	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3705	1594	1810	3705	0					0	
Grp Volume(v), veh/h	0	360	34	663	1416	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	1594	1810	1805	0						
Q Serve(g_s), s	0.0	9.0	1.8	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	9.0	1.8	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	686	303	1321	3466	0						
V/C Ratio(X)	0.00	0.52	0.11	0.50	0.41	0.00						
Avail Cap(c_a), veh/h	0	686	303	1321	3466	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	36.4	33.5	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	2.9	0.8	0.0	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	4.7	0.8	0.0	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	39.3	34.3	0.0	0.0	0.0						
LnGrp LOS		D	C	A	A							
Approach Vol, veh/h		394			2079							
Approach Delay, s/veh		38.9			0.0							
Approach LOS		D			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			77.0	23.0				100.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			49.0	19.0				72.0
Max Q Clear Time (g_c+I1), s			2.0	11.0				2.0
Green Ext Time (p_c), s			18.1	1.3				19.9

Intersection Summary	
HCM 2010 Ctrl Delay	6.2
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	920	20	0	1640	320	420	310	10	50	0	80
Future Volume (veh/h)	20	920	20	0	1640	320	420	310	10	50	0	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	1000	22	0	1783	348	457	337	11	54	0	87
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	2131	47	0	1787	337	460	604	20	260	0	533
Arrive On Green	1.00	1.00	1.00	0.00	0.59	0.59	0.33	0.33	0.33	0.33	0.00	0.33
Sat Flow, veh/h	192	3612	79	0	3124	572	1331	1830	60	1049	0	1615
Grp Volume(v), veh/h	22	500	522	0	1038	1093	457	0	348	54	0	87
Grp Sat Flow(s),veh/h/ln	192	1805	1886	0	1805	1796	1331	0	1889	1049	0	1615
Q Serve(g_s), s	0.0	0.0	0.0	0.0	55.5	59.0	29.2	0.0	15.1	4.5	0.0	3.8
Cycle Q Clear(g_c), s	59.0	0.0	0.0	0.0	55.5	59.0	33.0	0.0	15.1	19.6	0.0	3.8
Prop In Lane	1.00		0.04	0.00		0.32	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	72	1065	1113	0	1065	1060	460	0	624	260	0	533
V/C Ratio(X)	0.31	0.47	0.47	0.00	0.97	1.03	0.99	0.00	0.56	0.21	0.00	0.16
Avail Cap(c_a), veh/h	72	1065	1113	0	1065	1060	460	0	624	260	0	533
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	0.0	0.0	19.8	20.5	37.6	0.0	27.5	35.6	0.0	23.7
Incr Delay (d2), s/veh	9.6	1.3	1.3	0.0	22.2	36.0	39.9	0.0	1.1	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	0.4	0.0	34.0	39.4	17.7	0.0	8.0	1.3	0.0	1.7
LnGrp Delay(d),s/veh	39.1	1.3	1.3	0.0	41.9	56.5	77.5	0.0	28.6	35.9	0.0	23.9
LnGrp LOS	D	A	A		D	F	E		C	D		C
Approach Vol, veh/h		1044			2131			805			141	
Approach Delay, s/veh		2.1			49.4			56.4			28.5	
Approach LOS		A			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		37.0		63.0		37.0		63.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		59.0		33.0		59.0
Max Q Clear Time (g_c+I1), s		35.0		61.0		21.6		61.0
Green Ext Time (p_c), s		0.0		0.0		3.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Traffic Volume (veh/h)	150	1330	300	90	1770	140	30	20	40	100	70	130
Future Volume (veh/h)	150	1330	300	90	1770	140	30	20	40	100	70	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	1430	0	97	1903	151	32	22	43	92	98	140
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	2844	885	158	2734	847	171	54	105	183	192	336
Arrive On Green	0.11	0.55	0.00	0.09	0.53	0.53	0.09	0.09	0.09	0.10	0.10	0.10
Sat Flow, veh/h	1810	5187	1615	1810	5187	1607	1810	569	1113	1810	1900	1591
Grp Volume(v), veh/h	161	1430	0	97	1903	151	32	0	65	92	98	140
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1607	1810	0	1682	1810	1900	1591
Q Serve(g_s), s	8.3	16.3	0.0	4.9	26.0	4.7	1.5	0.0	3.5	4.6	4.6	0.0
Cycle Q Clear(g_c), s	8.3	16.3	0.0	4.9	26.0	4.7	1.5	0.0	3.5	4.6	4.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	196	2844	885	158	2734	847	171	0	159	183	192	336
V/C Ratio(X)	0.82	0.50	0.00	0.61	0.70	0.18	0.19	0.00	0.41	0.50	0.51	0.42
Avail Cap(c_a), veh/h	248	2844	885	210	2734	847	706	0	656	649	681	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	13.4	0.0	41.7	16.7	11.7	39.6	0.0	40.5	40.4	40.4	32.4
Incr Delay (d2), s/veh	15.7	0.6	0.0	3.8	1.5	0.5	0.5	0.0	1.7	2.1	2.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	7.8	0.0	2.6	12.7	2.2	0.8	0.0	1.7	2.4	2.5	3.2
LnGrp Delay(d),s/veh	57.1	14.0	0.0	45.5	18.2	12.2	40.1	0.0	42.2	42.5	42.5	33.2
LnGrp LOS	E	B		D	B	B	D		D	D	D	C
Approach Vol, veh/h		1591			2151			97			330	
Approach Delay, s/veh		18.4			19.0			41.5			38.6	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.9	12.3	56.0		13.6	14.3	54.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	11.0	52.0		34.0	13.0	50.0
Max Q Clear Time (g_c+I1), s		5.5	6.9	18.3		6.6	10.3	28.0
Green Ext Time (p_c), s		0.4	0.3	11.7		1.3	0.2	14.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↱		↰	↑↑	↰	↱		
Traffic Volume (veh/h)	700	60	10	600	710	240		
Future Volume (veh/h)	700	60	10	600	710	240		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	854	73	12	732	866	293		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	1036	89	37	1374	932	865		
Arrive On Green	0.31	0.31	0.02	0.38	0.51	0.51		
Sat Flow, veh/h	3459	288	1810	3705	1810	1615		
Grp Volume(v), veh/h	458	469	12	732	866	293		
Grp Sat Flow(s),veh/h/ln	1805	1846	1810	1805	1810	1615		
Q Serve(g_s), s	18.0	18.0	0.5	12.1	34.1	7.9		
Cycle Q Clear(g_c), s	18.0	18.0	0.5	12.1	34.1	7.9		
Prop In Lane		0.16	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	556	568	37	1374	932	865		
V/C Ratio(X)	0.82	0.82	0.32	0.53	0.93	0.34		
Avail Cap(c_a), veh/h	589	603	165	1697	1087	1003		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	24.6	24.6	37.0	18.4	17.3	10.1		
Incr Delay (d2), s/veh	8.9	8.7	4.9	0.3	12.5	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	10.3	10.5	0.3	6.1	20.1	3.5		
LnGrp Delay(d),s/veh	33.5	33.3	41.9	18.7	29.8	10.3		
LnGrp LOS	C	C	D	B	C	B		
Approach Vol, veh/h	927			744	1159			
Approach Delay, s/veh	33.4			19.1	24.8			
Approach LOS	C			B	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		43.4	5.6	27.6				33.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		46.0	7.0	25.0				36.0
Max Q Clear Time (g_c+I1), s		36.1	2.5	20.0				14.1
Green Ext Time (p_c), s		3.3	0.0	3.5				10.1
Intersection Summary								
HCM 2010 Ctrl Delay			26.1					
HCM 2010 LOS			C					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	20	730	150	30	270	20	340	380	660	60	30	10
Future Volume (veh/h)	20	730	150	30	270	20	340	380	660	60	30	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	777	160	32	287	21	362	404	702	64	32	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	214	1136	351	156	496	36	737	893	757	120	466	208
Arrive On Green	0.12	0.22	0.22	0.04	0.15	0.15	0.41	0.47	0.47	0.07	0.13	0.00
Sat Flow, veh/h	1810	5187	1604	3510	3408	248	1810	1900	1610	1810	3610	1615
Grp Volume(v), veh/h	21	777	160	32	151	157	362	404	702	64	32	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1604	1755	1805	1851	1810	1900	1610	1810	1805	1615
Q Serve(g_s), s	0.8	11.0	2.4	0.7	6.3	6.3	11.9	11.5	32.8	2.7	0.6	0.0
Cycle Q Clear(g_c), s	0.8	11.0	2.4	0.7	6.3	6.3	11.9	11.5	32.8	2.7	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	1136	351	156	263	269	737	893	757	120	466	208
V/C Ratio(X)	0.10	0.68	0.46	0.20	0.58	0.58	0.49	0.45	0.93	0.53	0.07	0.00
Avail Cap(c_a), veh/h	214	1814	561	307	631	648	737	997	845	158	1714	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.5	28.7	3.3	36.9	31.9	31.9	17.6	14.3	19.9	36.2	30.6	0.0
Incr Delay (d2), s/veh	0.2	0.7	0.9	0.6	2.0	2.0	0.5	0.4	15.3	3.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.3	1.2	0.4	3.3	3.4	6.0	6.0	17.7	1.5	0.3	0.0
LnGrp Delay(d),s/veh	31.7	29.4	4.2	37.5	33.9	33.9	18.1	14.6	35.2	39.8	30.7	0.0
LnGrp LOS	C	C	A	D	C	C	B	B	D	D	C	
Approach Vol, veh/h		958			340			1468			96	
Approach Delay, s/veh		25.3			34.2			25.3			36.8	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	41.6	7.6	21.5	36.6	14.3	13.5	15.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	28.0	11.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.7	34.8	2.7	13.0	13.9	2.6	2.8	8.3
Green Ext Time (p_c), s	0.0	2.8	0.0	4.5	0.0	0.1	2.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	120	0	60	0	0	0	0	1240	300	210	290	0
Future Volume (veh/h)	120	0	60	0	0	0	0	1240	300	210	290	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	132	0	66				0	1363	330	231	319	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	203	0	319				0	1865	834	600	2723	0
Arrive On Green	0.11	0.00	0.11				0.00	0.52	0.52	0.17	0.75	0.00
Sat Flow, veh/h	1810	0	2842				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	132	0	66				0	1363	330	231	319	0
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1805	1615	1755	1805	0
Q Serve(g_s), s	4.2	0.0	1.3				0.0	17.6	7.4	3.5	1.4	0.0
Cycle Q Clear(g_c), s	4.2	0.0	1.3				0.0	17.6	7.4	3.5	1.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	203	0	319				0	1865	834	600	2723	0
V/C Ratio(X)	0.65	0.00	0.21				0.00	0.73	0.40	0.38	0.12	0.00
Avail Cap(c_a), veh/h	271	0	426				0	1865	834	600	2723	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.71	0.71	0.98	0.98	0.00
Uniform Delay (d), s/veh	25.5	0.0	24.2				0.0	11.3	8.8	22.1	2.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.3				0.0	1.8	1.0	0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.5				0.0	9.0	3.5	1.7	0.7	0.0
LnGrp Delay(d),s/veh	29.0	0.0	24.5				0.0	13.1	9.8	22.5	2.1	0.0
LnGrp LOS	C		C					B	A	C	A	
Approach Vol, veh/h		198						1693			550	
Approach Delay, s/veh		27.5						12.5			10.6	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			14.3	35.0		10.7		49.3
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			8.0	31.0		9.0		43.0
Max Q Clear Time (g_c+I1), s			5.5	19.6		6.2		3.4
Green Ext Time (p_c), s			0.7	7.1		0.2		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	120	560	1370	0	0	390
Future Volume (veh/h)	120	560	1370	0	0	390
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	133	622	1522	0	0	433
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1404	646	1685	0	0	1685
Arrive On Green	0.40	0.40	0.62	0.00	0.00	0.47
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	133	622	1522	0	0	433
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	1.4	22.5	21.8	0.0	0.0	4.4
Cycle Q Clear(g_c), s	1.4	22.5	21.8	0.0	0.0	4.4
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1404	646	1685	0	0	1685
V/C Ratio(X)	0.09	0.96	0.90	0.00	0.00	0.26
Avail Cap(c_a), veh/h	1404	646	1685	0	0	1685
HCM Platoon Ratio	1.00	1.00	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.70	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.2	17.6	10.2	0.0	0.0	9.7
Incr Delay (d2), s/veh	0.0	26.4	6.2	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	14.6	11.9	0.0	0.0	2.3
LnGrp Delay(d),s/veh	11.3	43.9	16.4	0.0	0.0	10.1
LnGrp LOS	B	D	B			B
Approach Vol, veh/h	755		1522			433
Approach Delay, s/veh	38.2		16.4			10.1
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		32.0				32.0		28.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		28.0				28.0		24.0
Max Q Clear Time (g_c+I1), s		23.8				6.4		24.5
Green Ext Time (p_c), s		3.5				13.7		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			21.4
HCM 2010 LOS			C

	→	↘	↙	←	↖	↗
Movement	**EBT**	**EBR**	**WBL**	**WBT**	**NBL**	**NBR**
Lane Configurations	↑↑↱		↖↖	↑↑↑	↖↖Y	
Traffic Volume (veh/h)	920	10	140	2520	1550	10
Future Volume (veh/h)	920	10	140	2520	1550	10
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	958	10	146	2625	1624	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1478	15	863	3005	1694	504
Arrive On Green	0.28	0.28	0.25	0.58	0.31	0.00
Sat Flow, veh/h	5463	55	3510	5358	5429	1615
Grp Volume(v), veh/h	626	342	146	2625	1624	0
Grp Sat Flow(s),veh/h/ln	1729	1890	1755	1729	1810	1615
Q Serve(g_s), s	11.7	11.7	2.4	31.8	21.6	0.0
Cycle Q Clear(g_c), s	11.7	11.7	2.4	31.8	21.6	0.0
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	966	528	863	3005	1694	504
V/C Ratio(X)	0.65	0.65	0.17	0.87	0.96	0.00
Avail Cap(c_a), veh/h	1548	846	863	3096	1694	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.4	23.4	21.9	13.2	24.9	0.0
Incr Delay (d2), s/veh	0.7	1.3	0.1	3.0	13.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	6.3	1.2	15.7	12.9	0.0
LnGrp Delay(d),s/veh	24.1	24.7	22.0	16.2	38.3	0.0
LnGrp LOS	C	C	C	B	D	
Approach Vol, veh/h	968			2771	1624	
Approach Delay, s/veh	24.3			16.5	38.3	
Approach LOS	C			B	D	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		27.0	22.1	24.6				46.7
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		23.0	7.0	33.0				44.0
Max Q Clear Time (g_c+I1), s		23.6	4.4	13.7				33.8
Green Ext Time (p_c), s		0.0	2.5	5.5				8.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	30	870	40	160	2340	120	140	280	220	60	130	30
Future Volume (veh/h)	30	870	40	160	2340	120	140	280	220	60	130	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	935	43	172	2516	129	151	301	237	65	140	32
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	2279	707	281	2405	122	563	442	374	112	394	88
Arrive On Green	0.04	0.44	0.44	0.08	0.48	0.48	0.16	0.23	0.23	0.06	0.13	0.13
Sat Flow, veh/h	1810	5187	1609	3510	5055	256	3510	1900	1605	1810	2930	651
Grp Volume(v), veh/h	32	935	43	172	1712	933	151	301	237	65	85	87
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1755	1729	1853	1755	1900	1605	1810	1805	1776
Q Serve(g_s), s	1.5	10.6	0.7	4.1	41.0	41.0	3.3	12.4	8.9	3.0	3.7	3.9
Cycle Q Clear(g_c), s	1.5	10.6	0.7	4.1	41.0	41.0	3.3	12.4	8.9	3.0	3.7	3.9
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	79	2279	707	281	1645	882	563	442	374	112	243	239
V/C Ratio(X)	0.41	0.41	0.06	0.61	1.04	1.06	0.27	0.68	0.63	0.58	0.35	0.36
Avail Cap(c_a), veh/h	147	2288	710	407	1645	882	563	1036	875	189	1026	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	16.5	4.2	38.4	22.6	22.6	31.7	30.1	17.9	39.3	33.9	33.9
Incr Delay (d2), s/veh	3.3	0.1	0.0	2.2	33.5	46.8	0.3	1.8	1.8	4.6	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.0	0.6	2.1	27.1	32.3	1.6	6.7	4.4	1.6	1.9	2.0
LnGrp Delay(d),s/veh	43.5	16.6	4.2	40.5	56.1	69.4	32.0	32.0	19.6	43.9	34.7	34.9
LnGrp LOS	D	B	A	D	F	F	C	C	B	D	C	C
Approach Vol, veh/h		1010			2817			689			237	
Approach Delay, s/veh		17.0			59.6			27.7			37.3	
Approach LOS		B			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	24.1	10.9	41.9	17.8	15.6	7.7	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	47.0	10.0	38.0	7.0	49.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	5.0	14.4	6.1	12.6	5.3	5.9	3.5	43.0
Green Ext Time (p_c), s	0.1	2.8	0.2	6.5	0.1	1.0	1.9	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	130	620	190	60	470	130	720	940	220	90	260	110
Future Volume (veh/h)	130	620	190	60	470	130	720	940	220	90	260	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	729	224	71	553	153	847	1106	259	106	306	129
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	224	1028	802	118	816	480	750	1435	744	256	927	612
Arrive On Green	0.12	0.28	0.28	0.07	0.23	0.23	0.21	0.40	0.40	0.07	0.26	0.26
Sat Flow, veh/h	1810	3610	1606	1810	3610	1604	3510	3610	1609	3510	3610	1606
Grp Volume(v), veh/h	153	729	224	71	553	153	847	1106	259	106	306	129
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1604	1755	1805	1609	1755	1805	1606
Q Serve(g_s), s	7.2	16.1	7.2	3.4	12.5	0.0	19.0	23.7	5.6	2.6	6.1	2.0
Cycle Q Clear(g_c), s	7.2	16.1	7.2	3.4	12.5	0.0	19.0	23.7	5.6	2.6	6.1	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	1028	802	118	816	480	750	1435	744	256	927	612
V/C Ratio(X)	0.68	0.71	0.28	0.60	0.68	0.32	1.13	0.77	0.35	0.41	0.33	0.21
Avail Cap(c_a), veh/h	224	1542	1031	142	1420	749	750	2069	1027	316	1623	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	28.5	13.0	40.5	31.5	24.2	35.0	23.3	6.5	39.4	26.9	6.8
Incr Delay (d2), s/veh	8.2	0.9	0.2	4.9	1.0	0.4	74.8	1.1	0.3	1.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	8.1	3.3	1.9	6.3	2.9	17.0	11.9	2.5	1.3	3.1	1.0
LnGrp Delay(d),s/veh	45.5	29.4	13.2	45.4	32.5	24.5	109.8	24.4	6.8	40.5	27.1	7.0
LnGrp LOS	D	C	B	D	C	C	F	C	A	D	C	A
Approach Vol, veh/h		1106			777			2212			541	
Approach Delay, s/veh		28.4			32.1			55.1			24.9	
Approach LOS		C			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	39.4	9.8	29.3	23.0	26.9	15.0	24.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	51.0	7.0	38.0	19.0	40.0	10.0	35.0
Max Q Clear Time (g_c+I1), s	4.6	25.7	5.4	18.1	21.0	8.1	9.2	14.5
Green Ext Time (p_c), s	0.9	9.2	0.0	5.6	0.0	2.7	0.5	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	230	720	600	490	250	130
Future Volume (veh/h)	230	720	600	490	250	130
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	878	732	598	309	155
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	255	2478	1677	992	551	474
Arrive On Green	0.14	0.69	0.46	0.46	0.15	0.15
Sat Flow, veh/h	1810	3705	3705	1606	3619	1615
Grp Volume(v), veh/h	280	878	732	598	309	155
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1606	1810	1615
Q Serve(g_s), s	7.0	5.0	6.8	11.3	3.9	3.7
Cycle Q Clear(g_c), s	7.0	5.0	6.8	11.3	3.9	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	255	2478	1677	992	551	474
V/C Ratio(X)	1.10	0.35	0.44	0.60	0.56	0.33
Avail Cap(c_a), veh/h	255	2767	1966	1121	2482	1336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	3.2	8.9	5.8	19.5	13.7
Incr Delay (d2), s/veh	84.4	0.1	0.2	0.7	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	2.5	3.4	7.0	2.0	3.7
LnGrp Delay(d),s/veh	105.7	3.3	9.1	6.5	20.4	14.1
LnGrp LOS	F	A	A	A	C	B
Approach Vol, veh/h		1158	1330		464	
Approach Delay, s/veh		28.1	7.9		18.3	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				38.0		11.6	11.0	27.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				7.0		5.9	9.0	13.3
Green Ext Time (p_c), s				16.2		1.6	0.0	9.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	160	410	200	180	610	190	900	420	910	20	60	40
Future Volume (veh/h)	160	410	200	180	610	190	900	420	910	20	60	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	182	466	227	205	693	216	1023	477	1034	23	68	45
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	285	1487	972	283	1032	459	1111	1568	699	45	471	340
Arrive On Green	0.08	0.29	0.29	0.08	0.29	0.29	0.32	0.43	0.43	0.01	0.13	0.13
Sat Flow, veh/h	3510	5187	1607	3510	3610	1607	3510	3610	1609	3510	3610	1596
Grp Volume(v), veh/h	182	466	227	205	693	216	1023	477	1034	23	68	45
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1607	1755	1805	1609	1755	1805	1596
Q Serve(g_s), s	4.3	6.1	1.8	4.9	14.6	9.6	24.2	7.4	26.0	0.6	1.4	0.0
Cycle Q Clear(g_c), s	4.3	6.1	1.8	4.9	14.6	9.6	24.2	7.4	26.0	0.6	1.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	1487	972	283	1032	459	1111	1568	699	45	471	340
V/C Ratio(X)	0.64	0.31	0.23	0.72	0.67	0.47	0.92	0.30	1.48	0.51	0.14	0.13
Avail Cap(c_a), veh/h	326	2647	1331	285	1801	801	1111	1926	859	285	1843	946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	24.1	2.4	38.7	27.2	25.4	28.4	15.9	11.7	42.3	33.2	27.5
Incr Delay (d2), s/veh	3.4	0.1	0.1	8.7	0.8	0.7	12.2	0.1	223.3	8.6	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.9	1.1	2.7	7.3	4.3	13.5	3.7	54.8	0.3	0.7	0.9
LnGrp Delay(d),s/veh	41.7	24.2	2.5	47.4	28.0	26.1	40.6	16.0	235.1	50.9	33.3	27.7
LnGrp LOS	D	C	A	D	C	C	D	B	F	D	C	C
Approach Vol, veh/h		875			1114			2534			136	
Approach Delay, s/veh		22.2			31.2			115.3			34.5	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	41.4	10.9	28.7	31.3	15.3	11.0	28.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	2.6	28.0	6.9	8.1	26.2	3.4	6.3	16.6
Green Ext Time (p_c), s	0.0	8.4	0.0	4.5	0.0	0.6	0.8	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.4
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	980	420	0	500	0	0	0	0	10	10	590
Future Volume (veh/h)	0	980	420	0	500	0	0	0	0	10	10	590
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1089	467	0	556	0				11	11	656
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1481	629	163	1407	0				777	11	684
Arrive On Green	0.00	0.39	0.39	0.00	0.39	0.00				0.43	0.43	0.43
Sat Flow, veh/h	0	3800	1615	337	3705	0				1810	27	1592
Grp Volume(v), veh/h	0	1089	467	0	556	0				11	0	667
Grp Sat Flow(s),veh/h/ln	0	1900	1615	337	1805	0				1810	0	1619
Q Serve(g_s), s	0.0	10.8	11.0	0.0	4.9	0.0				0.2	0.0	17.7
Cycle Q Clear(g_c), s	0.0	10.8	11.0	0.0	4.9	0.0				0.2	0.0	17.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	1481	629	163	1407	0				777	0	695
V/C Ratio(X)	0.00	0.74	0.74	0.00	0.40	0.00				0.01	0.00	0.96
Avail Cap(c_a), veh/h	0	1546	657	169	1469	0				777	0	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.5	11.6	0.0	9.7	0.0				7.2	0.0	12.2
Incr Delay (d2), s/veh	0.0	1.8	4.3	0.0	0.2	0.0				0.0	0.0	24.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	5.6	0.0	2.4	0.0				0.1	0.0	12.5
LnGrp Delay(d),s/veh	0.0	13.3	15.9	0.0	9.9	0.0				7.3	0.0	36.7
LnGrp LOS		B	B		A					A		D
Approach Vol, veh/h		1556			556						678	
Approach Delay, s/veh		14.1			9.9						36.2	
Approach LOS		B			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.2		23.0		21.2
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		19.0		18.0
Max Q Clear Time (g_c+I1), s				13.0		19.7		6.9
Green Ext Time (p_c), s				4.3		0.0		8.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	40.3
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	980	0	490	120	0	0
Future Vol, veh/h	980	0	490	120	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1054	0	527	129	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	50.2	24.3
HCM LOS	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	61%	100%	100%
Vol Thru, %	0%	39%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	304	306	490	490
LT Vol	304	186	490	490
Through Vol	0	120	0	0
RT Vol	0	0	0	0
Lane Flow Rate	327	329	527	527
Geometry Grp	7	7	7	7
Degree of Util (X)	0.678	0.666	1.035	0.783
Departure Headway (Hd)	7.617	7.418	7.071	5.35
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	477	491	516	674
Service Time	5.317	5.118	4.805	3.084
HCM Lane V/C Ratio	0.686	0.67	1.021	0.782
HCM Control Delay	24.9	23.7	75.7	24.7
HCM Lane LOS	C	C	F	C
HCM 95th-tile Q	5	4.8	15.2	7.6

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	0	10	0	600	20	560	30	1190	410	120	340	0
Future Volume (veh/h)	0	10	0	600	20	560	30	1190	410	120	340	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	11	0	674	22	629	34	1337	461	135	382	0
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	377	0	611	786	666	78	1421	633	245	1517	679
Arrive On Green	0.00	0.20	0.00	0.17	0.41	0.41	0.04	0.39	0.39	0.07	0.42	0.00
Sat Flow, veh/h	1810	1900	0	3510	1900	1609	1810	3610	1609	3510	3610	1615
Grp Volume(v), veh/h	0	11	0	674	22	629	34	1337	461	135	382	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1755	1900	1609	1810	1805	1609	1755	1805	1615
Q Serve(g_s), s	0.0	0.5	0.0	17.0	0.7	36.7	1.8	34.8	23.8	3.6	6.7	0.0
Cycle Q Clear(g_c), s	0.0	0.5	0.0	17.0	0.7	36.7	1.8	34.8	23.8	3.6	6.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	377	0	611	786	666	78	1421	633	245	1517	679
V/C Ratio(X)	0.00	0.03	0.00	1.10	0.03	0.95	0.44	0.94	0.73	0.55	0.25	0.00
Avail Cap(c_a), veh/h	130	701	0	611	895	758	130	1442	643	252	1517	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	31.5	0.0	40.3	17.0	27.6	45.5	28.5	25.2	43.9	18.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	67.7	0.0	19.2	3.8	12.2	4.1	2.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	13.9	0.4	19.8	1.0	19.7	11.2	1.8	3.4	0.0
LnGrp Delay(d),s/veh	0.0	31.6	0.0	108.1	17.0	46.8	49.3	40.7	29.3	46.3	18.4	0.0
LnGrp LOS		C		F	B	D	D	D	C	D	B	
Approach Vol, veh/h		11			1325			1832			517	
Approach Delay, s/veh		31.6			77.4			38.0			25.7	
Approach LOS		C			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	42.4	21.0	23.4	8.2	45.0	0.0	44.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	39.0	17.0	36.0	7.0	39.0	7.0	46.0
Max Q Clear Time (g_c+I1), s	5.6	36.8	19.0	2.5	3.8	8.7	0.0	38.7
Green Ext Time (p_c), s	0.0	1.6	0.0	2.7	0.0	17.2	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	50.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥		↰	↱	
Traffic Volume (veh/h)	140	410	20	10	890	50	90	110	40	30	20	150
Future Volume (veh/h)	140	410	20	10	890	50	90	110	40	30	20	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	432	21	11	937	53	95	116	42	32	21	158
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	1723	84	36	1392	79	196	221	66	432	54	403
Arrive On Green	0.11	0.49	0.49	0.02	0.40	0.40	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1810	3504	170	1810	3472	196	393	792	236	1244	192	1444
Grp Volume(v), veh/h	147	222	231	11	487	503	253	0	0	32	0	179
Grp Sat Flow(s),veh/h/ln	1810	1805	1869	1810	1805	1864	1421	0	0	1244	0	1636
Q Serve(g_s), s	4.5	4.1	4.1	0.3	12.7	12.7	4.5	0.0	0.0	0.0	0.0	5.1
Cycle Q Clear(g_c), s	4.5	4.1	4.1	0.3	12.7	12.7	9.6	0.0	0.0	1.4	0.0	5.1
Prop In Lane	1.00		0.09	1.00		0.11	0.38		0.17	1.00		0.88
Lane Grp Cap(c), veh/h	200	887	919	36	724	747	483	0	0	432	0	457
V/C Ratio(X)	0.74	0.25	0.25	0.31	0.67	0.67	0.52	0.00	0.00	0.07	0.00	0.39
Avail Cap(c_a), veh/h	253	1008	1044	221	976	1008	964	0	0	822	0	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	8.4	8.4	27.7	14.1	14.1	18.2	0.0	0.0	15.4	0.0	16.7
Incr Delay (d2), s/veh	8.1	0.1	0.1	4.8	1.1	1.1	0.9	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.1	2.2	0.2	6.4	6.6	3.6	0.0	0.0	0.4	0.0	2.4
LnGrp Delay(d),s/veh	32.8	8.6	8.6	32.6	15.2	15.1	19.1	0.0	0.0	15.4	0.0	17.3
LnGrp LOS	C	A	A	C	B	B	B			B		B
Approach Vol, veh/h		600			1001			253			211	
Approach Delay, s/veh		14.5			15.4			19.1			17.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.0	5.1	32.2		20.0	10.3	27.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		11.6	2.3	6.1		7.1	6.5	14.7
Green Ext Time (p_c), s		2.9	0.0	9.4		3.1	0.0	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	20	400	70	130	850	450	140	1150	220	110	270	40
Future Volume (veh/h)	20	400	70	130	850	450	140	1150	220	110	270	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	417	73	135	885	469	146	1198	229	115	281	42
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	917	159	154	1270	680	154	1359	743	248	1143	169
Arrive On Green	0.03	0.30	0.30	0.08	0.35	0.35	0.08	0.38	0.38	0.07	0.36	0.36
Sat Flow, veh/h	1810	3074	534	1810	3610	1608	1810	3610	1609	3510	3154	466
Grp Volume(v), veh/h	21	244	246	135	885	469	146	1198	229	115	159	164
Grp Sat Flow(s),veh/h/ln	1810	1805	1803	1810	1805	1608	1810	1805	1609	1755	1805	1815
Q Serve(g_s), s	1.1	10.3	10.5	7.0	19.9	22.4	7.6	29.2	8.4	3.0	5.8	6.0
Cycle Q Clear(g_c), s	1.1	10.3	10.5	7.0	19.9	22.4	7.6	29.2	8.4	3.0	5.8	6.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	57	539	538	154	1270	680	154	1359	743	248	654	658
V/C Ratio(X)	0.37	0.45	0.46	0.88	0.70	0.69	0.95	0.88	0.31	0.46	0.24	0.25
Avail Cap(c_a), veh/h	134	708	707	154	1455	762	154	1416	768	261	689	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	26.8	26.9	42.7	26.2	22.2	43.0	27.4	16.0	42.1	21.0	21.1
Incr Delay (d2), s/veh	4.0	0.6	0.6	40.0	1.2	2.3	58.0	6.6	0.2	1.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.2	5.3	5.2	10.1	10.4	6.2	15.7	3.8	1.5	2.9	3.0
LnGrp Delay(d),s/veh	48.7	27.4	27.5	82.6	27.5	24.5	100.9	34.1	16.2	43.5	21.2	21.3
LnGrp LOS	D	C	C	F	C	C	F	C	B	D	C	C
Approach Vol, veh/h		511			1489			1573			438	
Approach Delay, s/veh		28.3			31.5			37.7			27.1	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	39.5	12.0	32.1	12.0	38.2	7.0	37.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	8.0	37.0	8.0	36.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	5.0	31.2	9.0	12.5	9.6	8.0	3.1	24.4
Green Ext Time (p_c), s	0.1	4.3	0.0	11.6	0.0	12.8	0.0	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	70	90	1610	40	20	920
Future Volume (veh/h)	70	90	1610	40	20	920
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	101	1809	45	22	1034
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	227	203	2183	973	66	2596
Arrive On Green	0.13	0.13	0.60	0.60	0.04	0.72
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	79	101	1809	45	22	1034
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	2.1	3.0	20.4	0.2	0.6	5.8
Cycle Q Clear(g_c), s	2.1	3.0	20.4	0.2	0.6	5.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	227	203	2183	973	66	2596
V/C Ratio(X)	0.35	0.50	0.83	0.05	0.33	0.40
Avail Cap(c_a), veh/h	246	219	2383	1062	246	3154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	21.0	8.1	0.3	24.2	2.8
Incr Delay (d2), s/veh	0.9	1.9	2.4	0.0	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.4	10.5	0.2	0.4	2.8
LnGrp Delay(d),s/veh	21.5	22.9	10.5	0.4	27.1	2.9
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	180		1854			1056
Approach Delay, s/veh	22.3		10.2			3.4
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.9	35.1				41.0		10.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	2.6	22.4				7.8		5.0
Green Ext Time (p_c), s	2.5	8.7				8.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰↑	↱
Traffic Volume (veh/h)	70	760	140	660	890	250	0	0	0	560	60	540
Future Volume (veh/h)	70	760	140	660	890	250	0	0	0	560	60	540
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	73	792	0	688	927	0				627	0	562
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	114	1228	549	765	1787	799				1143	0	609
Arrive On Green	0.06	0.34	0.00	0.22	0.49	0.00				0.32	0.00	0.32
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1607
Grp Volume(v), veh/h	73	792	0	688	927	0				627	0	562
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1607
Q Serve(g_s), s	3.7	17.6	0.0	18.1	16.6	0.0				13.6	0.0	30.0
Cycle Q Clear(g_c), s	3.7	17.6	0.0	18.1	16.6	0.0				13.6	0.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	114	1228	549	765	1787	799				1143	0	609
V/C Ratio(X)	0.64	0.65	0.00	0.90	0.52	0.00				0.55	0.00	0.92
Avail Cap(c_a), veh/h	171	1228	549	813	1787	799				1143	0	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	43.5	26.5	0.0	36.1	16.3	0.0				26.9	0.0	28.2
Incr Delay (d2), s/veh	5.9	2.6	0.0	11.7	1.0	0.0				0.6	0.0	19.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	9.2	0.0	10.0	8.5	0.0				6.9	0.0	17.4
LnGrp Delay(d),s/veh	49.3	29.1	0.0	47.9	17.3	0.0				27.5	0.0	47.9
LnGrp LOS	D	C		D	B					C		D
Approach Vol, veh/h		865			1615						1189	
Approach Delay, s/veh		30.8			30.3						37.1	
Approach LOS		C			C						D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6	7	8				
Phs Duration (G+Y+Rc), s			24.7	36.3		34.0	10.0	51.0				
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s			22.0	31.0		30.0	9.0	44.0				
Max Q Clear Time (g_c+I1), s			20.1	19.6		32.0	5.7	18.6				
Green Ext Time (p_c), s			0.6	7.8		0.0	0.0	13.2				
Intersection Summary												
HCM 2010 Ctrl Delay			32.6									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	910	390	150	1580	470	200	0	460	0	0	0
Future Volume (veh/h)	0	910	390	150	1580	470	200	0	460	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	919	394	152	1596	0	202	0	465			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1805	1106	325	3755	1169	657	0	532			
Arrive On Green	0.00	0.50	0.50	0.36	1.00	0.00	0.19	0.00	0.19			
Sat Flow, veh/h	0	3705	1607	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	919	394	152	1596	0	202	0	465			
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	15.4	9.1	5.8	0.0	0.0	4.5	0.0	14.3			
Cycle Q Clear(g_c), s	0.0	15.4	9.1	5.8	0.0	0.0	4.5	0.0	14.3			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1805	1106	325	3755	1169	657	0	532			
V/C Ratio(X)	0.00	0.51	0.36	0.47	0.43	0.00	0.31	0.00	0.87			
Avail Cap(c_a), veh/h	0	1805	1106	325	3755	1169	702	0	568			
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.75	0.75	0.68	0.68	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	15.1	5.8	25.5	0.0	0.0	31.5	0.0	35.5			
Incr Delay (d2), s/veh	0.0	0.8	0.7	0.7	0.2	0.0	0.3	0.0	13.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	7.9	6.7	2.9	0.1	0.0	2.2	0.0	6.6			
LnGrp Delay(d),s/veh	0.0	15.9	6.5	26.3	0.2	0.0	31.8	0.0	49.1			
LnGrp LOS		B	A	C	A		C		D			
Approach Vol, veh/h		1313			1748			667				
Approach Delay, s/veh		13.1			2.5			43.8				
Approach LOS		B			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		20.8	20.2	49.0				69.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	15.0	45.0				64.0
Max Q Clear Time (g_c+I1), s		16.3	7.8	17.4				2.0
Green Ext Time (p_c), s		0.5	5.4	8.6				18.7

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✣			✣	
Traffic Volume (veh/h)	10	1030	280	50	1780	10	480	0	170	10	0	10
Future Volume (veh/h)	10	1030	280	50	1780	10	480	0	170	10	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	1084	295	53	1874	11	342	228	179	11	0	11
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	34	1441	392	286	2634	15	494	348	273	157	19	116
Arrive On Green	0.04	0.71	0.71	0.16	0.50	0.50	0.35	0.35	0.35	0.35	0.00	0.35
Sat Flow, veh/h	1810	4052	1102	1810	5321	31	1421	986	774	275	55	330
Grp Volume(v), veh/h	11	925	454	53	1218	667	342	0	407	22	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1696	1810	1729	1894	1421	0	1760	660	0	0
Q Serve(g_s), s	0.5	15.0	15.0	2.3	24.7	24.7	7.9	0.0	17.5	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.5	15.0	15.0	2.3	24.7	24.7	25.8	0.0	17.5	17.8	0.0	0.0
Prop In Lane	1.00		0.65	1.00		0.02	1.00		0.44	0.50		0.50
Lane Grp Cap(c), veh/h	34	1230	603	286	1712	938	494	0	621	293	0	0
V/C Ratio(X)	0.33	0.75	0.75	0.19	0.71	0.71	0.69	0.00	0.66	0.08	0.00	0.00
Avail Cap(c_a), veh/h	141	1230	603	286	1712	938	608	0	762	392	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.8	10.5	10.5	32.8	17.7	17.7	28.2	0.0	24.5	20.4	0.0	0.0
Incr Delay (d2), s/veh	4.7	3.7	7.3	0.3	2.5	4.6	2.5	0.0	1.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.3	7.8	1.2	12.3	14.0	8.2	0.0	8.7	0.4	0.0	0.0
LnGrp Delay(d),s/veh	47.4	14.2	17.9	33.2	20.2	22.3	30.7	0.0	26.0	20.6	0.0	0.0
LnGrp LOS	D	B	B	C	C	C	C		C	C		
Approach Vol, veh/h		1390			1938			749			22	
Approach Delay, s/veh		15.7			21.3			28.1			20.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		35.8	18.2	36.0		35.8	5.7	48.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	32.0		39.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		27.8	4.3	17.0		19.8	2.5	26.7
Green Ext Time (p_c), s		3.0	0.1	7.9		3.8	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	70	900	190	60	1610	0	190	70	40	10	50	110
Future Volume (veh/h)	70	900	190	60	1610	0	190	70	40	10	50	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	957	202	64	1713	0	202	74	43	11	53	117
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	190	2000	422	335	2434	0	338	267	155	90	386	380
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.00	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	289	2967	625	492	3705	0	1229	1126	654	184	1629	1605
Grp Volume(v), veh/h	74	582	577	64	1713	0	202	0	117	64	0	117
Grp Sat Flow(s),veh/h/ln	289	1805	1787	492	1805	0	1229	0	1780	1813	0	1605
Q Serve(g_s), s	19.2	13.9	14.0	6.5	26.5	0.0	14.0	0.0	4.8	0.0	0.0	5.4
Cycle Q Clear(g_c), s	45.6	13.9	14.0	20.5	26.5	0.0	16.4	0.0	4.8	2.4	0.0	5.4
Prop In Lane	1.00		0.35	1.00		0.00	1.00		0.37	0.17		1.00
Lane Grp Cap(c), veh/h	190	1217	1205	335	2434	0	338	0	421	476	0	380
V/C Ratio(X)	0.39	0.48	0.48	0.19	0.70	0.00	0.60	0.00	0.28	0.13	0.00	0.31
Avail Cap(c_a), veh/h	190	1217	1205	335	2434	0	498	0	653	704	0	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.2	7.0	7.1	12.0	9.1	0.0	33.6	0.0	28.1	27.1	0.0	28.3
Incr Delay (d2), s/veh	5.9	1.3	1.4	0.1	0.2	0.0	1.7	0.0	0.4	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	7.2	7.2	0.9	13.1	0.0	4.9	0.0	2.4	1.3	0.0	2.5
LnGrp Delay(d),s/veh	29.1	8.4	8.4	12.1	9.2	0.0	35.3	0.0	28.4	27.3	0.0	28.7
LnGrp LOS	C	A	A	B	A		D		C	C		C
Approach Vol, veh/h		1233			1777			319			181	
Approach Delay, s/veh		9.6			9.3			32.8			28.2	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.3		64.7		25.3		64.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		49.0		33.0		49.0
Max Q Clear Time (g_c+I1), s		18.4		47.6		7.4		28.5
Green Ext Time (p_c), s		1.9		1.3		2.2		18.6

Intersection Summary			
HCM 2010 Ctrl Delay			12.6
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	140	640	20	340	1380	190	20	360	410	140	340	110
Future Volume (veh/h)	140	640	20	340	1380	190	20	360	410	140	340	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	711	22	378	1533	211	22	400	456	156	378	122
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	875	27	516	1463	198	162	484	869	130	450	380
Arrive On Green	0.07	0.24	0.24	0.29	0.46	0.46	0.09	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	1810	3574	111	1810	3193	433	1810	1900	1605	1810	1900	1605
Grp Volume(v), veh/h	156	359	374	378	857	887	22	400	456	156	378	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1879	1810	1805	1821	1810	1900	1605	1810	1900	1605
Q Serve(g_s), s	8.0	20.9	20.9	21.0	51.0	51.0	1.2	22.1	4.8	8.0	21.1	5.7
Cycle Q Clear(g_c), s	8.0	20.9	20.9	21.0	51.0	51.0	1.2	22.1	4.8	8.0	21.1	5.7
Prop In Lane	1.00		0.06	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	442	460	516	827	834	162	484	869	130	450	380
V/C Ratio(X)	1.20	0.81	0.81	0.73	1.04	1.06	0.14	0.83	0.52	1.20	0.84	0.32
Avail Cap(c_a), veh/h	130	551	574	516	827	834	162	631	994	130	649	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	39.6	39.6	36.0	30.2	30.2	46.7	39.2	7.0	51.7	40.5	23.1
Incr Delay (d2), s/veh	142.4	7.4	7.1	5.3	41.0	49.6	0.4	7.0	0.5	142.4	6.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	11.3	11.7	11.3	34.7	37.0	0.6	12.5	5.4	9.1	11.9	2.9
LnGrp Delay(d),s/veh	194.0	47.0	46.8	41.3	71.1	79.7	47.1	46.2	7.5	194.0	47.1	23.6
LnGrp LOS	F	D	D	D	F	F	D	D	A	F	D	C
Approach Vol, veh/h		889			2122			878			656	
Approach Delay, s/veh		72.7			69.4			26.1			77.7	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	32.3	35.7	31.3	14.0	30.4	12.0	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	37.0	25.0	34.0	7.0	38.0	8.0	51.0
Max Q Clear Time (g_c+I1), s	10.0	24.1	23.0	22.9	3.2	23.1	10.0	53.0
Green Ext Time (p_c), s	0.0	3.2	1.8	3.2	1.5	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.9
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	60	510	610	130	670	340	1190	1380	670	260	590	60
Future Volume (veh/h)	60	510	610	130	670	340	1190	1380	670	260	590	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	543	649	138	713	362	1266	1468	713	277	628	64
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	112	916	1632	235	934	557	1130	1573	809	308	964	97
Arrive On Green	0.06	0.25	0.25	0.07	0.26	0.26	0.32	0.44	0.44	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	2826	3510	3610	1606	3510	3610	1609	3510	4785	483
Grp Volume(v), veh/h	64	543	649	138	713	362	1266	1468	713	277	452	240
Grp Sat Flow(s),veh/h/ln	1810	1805	1413	1755	1805	1606	1755	1805	1609	1755	1729	1810
Q Serve(g_s), s	3.5	13.6	3.2	3.9	18.7	14.2	33.0	39.7	40.6	8.0	12.3	12.5
Cycle Q Clear(g_c), s	3.5	13.6	3.2	3.9	18.7	14.2	33.0	39.7	40.6	8.0	12.3	12.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	112	916	1632	235	934	557	1130	1573	809	308	696	365
V/C Ratio(X)	0.57	0.59	0.40	0.59	0.76	0.65	1.12	0.93	0.88	0.90	0.65	0.66
Avail Cap(c_a), veh/h	159	1302	1934	240	1232	690	1130	1619	830	308	1146	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	33.6	4.6	46.5	35.1	15.6	34.8	27.5	22.8	46.3	37.6	37.7
Incr Delay (d2), s/veh	4.5	0.6	0.2	3.6	2.1	1.5	66.2	10.2	10.7	27.4	1.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	6.8	2.7	2.0	9.6	6.4	26.2	21.8	20.2	5.1	6.0	6.5
LnGrp Delay(d),s/veh	51.3	34.2	4.7	50.1	37.2	17.1	101.0	37.8	33.5	73.7	38.7	39.7
LnGrp LOS	D	C	A	D	D	B	F	D	C	E	D	D
Approach Vol, veh/h		1256			1213			3447			969	
Approach Delay, s/veh		19.9			32.7			60.1			48.9	
Approach LOS		B			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	48.7	10.9	30.0	37.0	24.7	10.4	30.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	46.0	7.0	37.0	21.0	34.0	9.0	35.0
Max Q Clear Time (g_c+I1), s	10.0	42.6	5.9	15.6	35.0	14.5	5.5	20.7
Green Ext Time (p_c), s	0.0	2.1	0.0	6.6	0.0	4.1	2.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

	↗	→	↘	↙	←	↖	↰	↑	↱	↳	↓	↲
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	40	30	20	50	20	80	30	3080	30	70	1250	20
Future Volume (veh/h)	40	30	20	50	20	80	30	3080	30	70	1250	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	32	21	53	21	85	32	3277	32	74	1330	21
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	106	56	117	54	139	643	3439	33	114	1877	30
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.36	0.65	0.65	0.06	0.36	0.36
Sat Flow, veh/h	582	659	347	414	337	862	1810	5297	52	1810	5260	83
Grp Volume(v), veh/h	96	0	0	159	0	0	32	2136	1173	74	874	477
Grp Sat Flow(s),veh/h/ln	1588	0	0	1613	0	0	1810	1729	1891	1810	1729	1885
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	0.0	1.1	54.0	54.7	3.8	20.7	20.7
Cycle Q Clear(g_c), s	4.8	0.0	0.0	8.4	0.0	0.0	1.1	54.0	54.7	3.8	20.7	20.7
Prop In Lane	0.45		0.22	0.33		0.53	1.00		0.03	1.00		0.04
Lane Grp Cap(c), veh/h	311	0	0	311	0	0	643	2245	1228	114	1234	673
V/C Ratio(X)	0.31	0.00	0.00	0.51	0.00	0.00	0.05	0.95	0.96	0.65	0.71	0.71
Avail Cap(c_a), veh/h	689	0	0	693	0	0	643	2251	1231	133	2251	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	0.0	36.9	0.0	0.0	20.1	15.3	15.4	43.6	26.4	26.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.3	0.0	0.0	0.0	9.9	16.2	8.4	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	4.0	0.0	0.0	0.6	28.3	33.6	2.2	10.0	11.0
LnGrp Delay(d),s/veh	36.0	0.0	0.0	38.2	0.0	0.0	20.2	25.2	31.7	52.0	27.1	27.8
LnGrp LOS	D			D			C	C	C	D	C	C
Approach Vol, veh/h		96			159			3341			1425	
Approach Delay, s/veh		36.0			38.2			27.4			28.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	65.8		19.4	37.9	38.0		19.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	62.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	5.8	56.7		6.8	3.1	22.7		10.4
Green Ext Time (p_c), s	0.0	5.2		1.6	3.8	11.3		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	130	90	40	30	40	90	30	3000	20	40	1230	50
Future Volume (veh/h)	130	90	40	30	40	90	30	3000	20	40	1230	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	95	42	32	42	95	32	3158	21	42	1295	53
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	210	176	293	210	176	77	3192	21	77	3070	126
Arrive On Green	0.08	0.11	0.11	0.08	0.11	0.11	0.04	0.60	0.60	0.04	0.60	0.60
Sat Flow, veh/h	1810	1900	1593	1810	1900	1593	1810	5316	35	1810	5111	209
Grp Volume(v), veh/h	137	95	42	32	42	95	32	2052	1127	42	876	472
Grp Sat Flow(s),veh/h/ln	1810	1900	1593	1810	1900	1593	1810	1729	1894	1810	1729	1862
Q Serve(g_s), s	6.2	4.4	2.2	1.4	1.9	4.5	1.6	54.4	54.8	2.1	12.6	12.6
Cycle Q Clear(g_c), s	6.2	4.4	2.2	1.4	1.9	4.5	1.6	54.4	54.8	2.1	12.6	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.11
Lane Grp Cap(c), veh/h	327	210	176	293	210	176	77	2076	1137	77	2077	1119
V/C Ratio(X)	0.42	0.45	0.24	0.11	0.20	0.54	0.42	0.99	0.99	0.55	0.42	0.42
Avail Cap(c_a), veh/h	327	591	495	293	591	495	136	2076	1137	136	2077	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	38.8	37.9	31.6	37.7	28.7	43.5	18.3	18.4	43.8	10.0	10.0
Incr Delay (d2), s/veh	0.9	1.5	0.7	0.2	0.5	2.6	3.6	16.9	24.5	5.9	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.4	1.0	0.7	1.0	2.3	0.9	30.5	35.9	1.2	6.0	6.5
LnGrp Delay(d),s/veh	34.4	40.4	38.6	31.8	38.2	31.3	47.1	35.2	42.9	49.7	10.1	10.2
LnGrp LOS	C	D	D	C	D	C	D	D	D	D	B	B
Approach Vol, veh/h		274			169			3211			1390	
Approach Delay, s/veh		37.1			33.1			38.1			11.3	
Approach LOS		D			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	60.0	11.0	14.3	7.9	60.0	11.0	14.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	56.0	7.0	29.0	7.0	56.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	4.1	56.8	3.4	6.4	3.6	14.6	8.2	6.5
Green Ext Time (p_c), s	1.3	0.0	0.0	1.2	0.0	10.6	0.0	1.2

Intersection Summary			
HCM 2010 Ctrl Delay			30.5
HCM 2010 LOS			C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	0	410	10	70	0	2850	960	60	1210	10
Future Volume (veh/h)	20	10	0	410	10	70	0	2850	960	60	1210	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	11	0	440	0	74	0	3000	1011	63	1274	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	430	0	563	0	205	446	2713	1010	116	1805	16
Arrive On Green	0.09	0.12	0.00	0.10	0.00	0.13	0.00	0.52	0.52	0.06	0.34	0.34
Sat Flow, veh/h	1810	3705	0	5429	0	1596	1810	5187	1610	1810	5304	46
Grp Volume(v), veh/h	21	11	0	440	0	74	0	3000	1011	63	831	454
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1810	0	1596	1810	1729	1610	1810	1729	1892
Q Serve(g_s), s	0.9	0.2	0.0	6.7	0.0	2.9	0.0	44.0	44.0	2.8	17.5	17.5
Cycle Q Clear(g_c), s	0.9	0.2	0.0	6.7	0.0	2.9	0.0	44.0	44.0	2.8	17.5	17.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	170	430	0	563	0	205	446	2713	1010	116	1177	644
V/C Ratio(X)	0.12	0.03	0.00	0.78	0.00	0.36	0.00	1.11	1.00	0.54	0.71	0.71
Avail Cap(c_a), veh/h	170	1673	0	581	0	778	446	2713	1010	151	1808	989
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	32.7	0.0	36.8	0.0	22.4	0.0	20.1	15.7	38.2	24.1	24.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	6.7	0.0	1.1	0.0	53.8	28.7	3.9	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.0	3.7	0.0	1.3	0.0	34.4	31.2	1.5	8.4	9.3
LnGrp Delay(d),s/veh	35.2	32.8	0.0	43.4	0.0	23.4	0.0	73.9	44.4	42.1	24.9	25.5
LnGrp LOS	D	C		D		C		F	F	D	C	C
Approach Vol, veh/h		32			514			4011			1348	
Approach Delay, s/veh		34.4			40.6			66.4			25.9	
Approach LOS		C			D			E			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	48.0	12.7	14.0	24.8	32.6	11.9	14.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	44.0	9.0	39.0	7.0	44.0	7.0	41.0				
Max Q Clear Time (g_c+I1), s	4.8	46.0	8.7	2.2	0.0	19.5	2.9	4.9				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	8.4	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			54.8									
HCM 2010 LOS			D									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	70	50	10	190	160	210	1010	10	50	670	330
Future Volume (veh/h)	320	70	50	10	190	160	210	1010	10	50	670	330
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	72	52	10	196	165	216	1041	10	52	691	340
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	363	1239	552	34	791	244	772	2452	761	102	1462	453
Arrive On Green	0.20	0.34	0.34	0.01	0.15	0.15	0.22	0.47	0.47	0.03	0.28	0.28
Sat Flow, veh/h	1810	3610	1608	3510	5187	1599	3510	5187	1610	3510	5187	1606
Grp Volume(v), veh/h	330	72	52	10	196	165	216	1041	10	52	691	340
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1729	1599	1755	1729	1610	1755	1729	1606
Q Serve(g_s), s	19.6	1.5	1.3	0.3	3.7	10.7	5.6	14.6	0.4	1.6	12.1	13.1
Cycle Q Clear(g_c), s	19.6	1.5	1.3	0.3	3.7	10.7	5.6	14.6	0.4	1.6	12.1	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	1239	552	34	791	244	772	2452	761	102	1462	453
V/C Ratio(X)	0.91	0.06	0.09	0.30	0.25	0.68	0.28	0.42	0.01	0.51	0.47	0.75
Avail Cap(c_a), veh/h	428	1641	731	128	1320	407	772	2452	761	128	1462	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	24.2	7.5	54.1	41.1	44.0	35.7	19.1	15.4	52.6	32.7	13.8
Incr Delay (d2), s/veh	21.2	0.0	0.1	4.8	0.2	3.3	0.2	0.5	0.0	3.9	1.1	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.7	0.6	0.2	1.8	5.0	2.8	7.1	0.2	0.8	5.9	7.1
LnGrp Delay(d),s/veh	64.2	24.2	7.6	58.9	41.2	47.3	35.9	19.7	15.4	56.6	33.8	24.7
LnGrp LOS	E	C	A	E	D	D	D	B	B	E	C	C
Approach Vol, veh/h		454			371			1267			1083	
Approach Delay, s/veh		51.4			44.4			22.4			32.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	56.0	5.1	41.8	28.2	35.0	26.0	20.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	36.0	4.0	50.0	9.0	31.0	26.0	28.0
Max Q Clear Time (g_c+I1), s	3.6	16.6	2.3	3.5	7.6	15.1	21.6	12.7
Green Ext Time (p_c), s	0.0	7.5	0.0	2.6	0.6	5.0	0.4	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	1020	100	60	1510	120	100	160	40	40	50	40
Future Volume (veh/h)	110	1020	100	60	1510	120	100	160	40	40	50	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	1062	104	62	1573	125	104	167	42	42	52	42
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	2975	291	80	3034	942	130	387	95	54	335	148
Arrive On Green	0.08	0.62	0.62	0.09	1.00	1.00	0.07	0.13	0.13	0.03	0.09	0.09
Sat Flow, veh/h	1810	4804	470	1810	5187	1611	1810	2870	702	1810	3610	1589
Grp Volume(v), veh/h	115	764	402	62	1573	125	104	103	106	42	52	42
Grp Sat Flow(s),veh/h/ln	1810	1729	1816	1810	1729	1611	1810	1805	1767	1810	1805	1589
Q Serve(g_s), s	6.9	11.9	11.9	3.7	0.0	0.0	6.2	5.8	6.1	2.5	1.5	2.7
Cycle Q Clear(g_c), s	6.9	11.9	11.9	3.7	0.0	0.0	6.2	5.8	6.1	2.5	1.5	2.7
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	142	2142	1125	80	3034	942	130	243	238	54	335	148
V/C Ratio(X)	0.81	0.36	0.36	0.78	0.52	0.13	0.80	0.42	0.44	0.78	0.15	0.28
Avail Cap(c_a), veh/h	165	2142	1125	148	3034	942	148	596	583	99	1083	477
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	10.2	10.2	49.6	0.0	0.0	50.3	43.7	43.8	53.0	45.9	46.5
Incr Delay (d2), s/veh	21.0	0.4	0.8	7.1	0.3	0.1	23.5	1.2	1.3	20.8	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	5.8	6.2	2.0	0.1	0.0	4.0	2.9	3.1	1.6	0.7	1.2
LnGrp Delay(d),s/veh	70.9	10.7	11.1	56.7	0.3	0.1	73.8	44.8	45.1	73.8	46.1	47.5
LnGrp LOS	E	B	B	E	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1281			1760			313			136	
Approach Delay, s/veh		16.2			2.3			54.5			55.1	
Approach LOS		B			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	74.1	11.9	15.1	12.6	70.3	7.3	19.7
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	9.0	40.1	9.0	33.0	10.0	39.1	6.0	* 36
Max Q Clear Time (g_c+I1), s	5.7	13.9	8.2	4.7	8.9	2.0	4.5	8.1
Green Ext Time (p_c), s	0.0	20.4	0.0	1.7	0.0	26.6	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	420	580	140	110	1290	180	300	630	70	130	270	230
Future Volume (veh/h)	420	580	140	110	1290	180	300	630	70	130	270	230
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	433	598	144	113	1330	186	309	649	72	134	278	237
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	447	2386	741	171	1754	245	319	941	418	194	812	361
Arrive On Green	0.25	0.92	0.92	0.05	0.38	0.38	0.09	0.26	0.26	0.06	0.23	0.23
Sat Flow, veh/h	3510	5187	1610	3510	4598	643	3510	3610	1606	3510	3610	1604
Grp Volume(v), veh/h	433	598	144	113	1000	516	309	649	72	134	278	237
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1784	1755	1805	1606	1755	1805	1604
Q Serve(g_s), s	13.4	1.3	1.0	3.5	27.7	27.7	9.7	17.8	3.8	4.1	7.1	14.8
Cycle Q Clear(g_c), s	13.4	1.3	1.0	3.5	27.7	27.7	9.7	17.8	3.8	4.1	7.1	14.8
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	447	2386	741	171	1319	680	319	941	418	194	812	361
V/C Ratio(X)	0.97	0.25	0.19	0.66	0.76	0.76	0.97	0.69	0.17	0.69	0.34	0.66
Avail Cap(c_a), veh/h	447	2386	741	223	1319	680	319	1149	511	255	1083	481
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	0.19	0.19	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	2.4	2.4	51.4	29.6	29.6	49.8	36.7	31.5	51.0	35.8	38.8
Incr Delay (d2), s/veh	33.3	0.2	0.5	0.9	0.8	1.5	41.7	1.3	0.2	5.1	0.2	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.6	0.5	1.7	13.3	13.9	6.5	9.1	1.7	2.1	3.6	6.7
LnGrp Delay(d),s/veh	74.1	2.7	3.0	52.3	30.4	31.2	91.5	38.0	31.7	56.1	36.0	40.8
LnGrp LOS	E	A	A	D	C	C	F	D	C	E	D	D
Approach Vol, veh/h		1175			1629			1030			649	
Approach Delay, s/veh		29.0			32.2			53.6			41.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	56.6	14.0	30.1	18.0	47.9	10.1	34.0
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	7.0	40.7	10.0	33.0	14.0	33.7	8.0	35.0
Max Q Clear Time (g_c+I1), s	5.5	3.3	11.7	16.8	15.4	29.7	6.1	19.8
Green Ext Time (p_c), s	0.0	19.9	0.0	6.6	0.0	3.5	0.1	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
103: Evans Road & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	270	360	160	30	1060	360	400	560	30	210	380	380
Future Volume (veh/h)	270	360	160	30	1060	360	400	560	30	210	380	380
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	293	391	0	33	1152	391	435	609	33	228	413	413
Adj No. of Lanes	2	3	1	1	2	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	1908	594	42	1116	497	447	1196	65	294	1083	482
Arrive On Green	0.08	0.37	0.00	0.02	0.31	0.31	0.13	0.34	0.34	0.08	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	3610	1607	3510	3482	188	3510	3610	1607
Grp Volume(v), veh/h	293	391	0	33	1152	391	435	315	327	228	413	413
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1805	1607	1755	1805	1866	1755	1805	1607
Q Serve(g_s), s	9.0	5.7	0.0	2.0	34.0	24.4	13.6	15.3	15.3	7.0	9.9	26.6
Cycle Q Clear(g_c), s	9.0	5.7	0.0	2.0	34.0	24.4	13.6	15.3	15.3	7.0	9.9	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	287	1908	594	42	1116	497	447	620	641	294	1083	482
V/C Ratio(X)	1.02	0.20	0.00	0.79	1.03	0.79	0.97	0.51	0.51	0.78	0.38	0.86
Avail Cap(c_a), veh/h	287	1908	594	99	1116	497	447	620	641	383	1083	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	23.8	0.0	53.5	38.0	34.7	47.8	28.7	28.7	49.4	30.4	36.3
Incr Delay (d2), s/veh	57.4	0.2	0.0	27.1	35.6	11.9	35.6	3.0	2.9	7.2	1.0	17.5
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	2.8	0.0	1.3	22.4	12.5	8.8	8.1	8.4	3.7	5.1	14.2
LnGrp Delay(d),s/veh	108.0	24.0	0.0	80.6	73.6	46.6	83.4	31.7	31.6	56.6	31.5	53.8
LnGrp LOS	F	C		F	F	D	F	C	C	E	C	D
Approach Vol, veh/h		684			1576			1077			1054	
Approach Delay, s/veh		60.0			67.1			52.6			45.7	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	46.5	18.0	39.0	13.0	40.0	13.2	43.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	37.0	14.0	33.0	9.0	34.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	4.0	7.7	15.6	28.6	11.0	36.0	9.0	17.3
Green Ext Time (p_c), s	0.0	14.1	0.0	2.9	0.0	0.0	0.2	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	57.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	50	30	20	20	10	40	980	40	0	420	80
Future Volume (veh/h)	40	50	30	20	20	10	40	980	40	0	420	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	53	32	21	21	11	43	1043	43	0	447	85
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	56	245	107	31	103	85	55	4048	167	2	2618	1169
Arrive On Green	0.03	0.07	0.07	0.02	0.05	0.05	0.06	1.00	1.00	0.00	0.73	0.73
Sat Flow, veh/h	1810	3610	1579	1810	1900	1570	1810	5110	210	1810	3610	1612
Grp Volume(v), veh/h	43	53	32	21	21	11	43	706	380	0	447	85
Grp Sat Flow(s),veh/h/ln	1810	1805	1579	1810	1900	1570	1810	1729	1862	1810	1805	1612
Q Serve(g_s), s	2.6	1.5	2.1	1.3	1.2	0.7	2.6	0.0	0.0	0.0	4.3	1.7
Cycle Q Clear(g_c), s	2.6	1.5	2.1	1.3	1.2	0.7	2.6	0.0	0.0	0.0	4.3	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	56	245	107	31	103	85	55	2740	1476	2	2618	1169
V/C Ratio(X)	0.77	0.22	0.30	0.67	0.20	0.13	0.78	0.26	0.26	0.00	0.17	0.07
Avail Cap(c_a), veh/h	181	781	342	148	378	313	181	2740	1476	66	2618	1169
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	48.5	48.8	53.7	49.7	49.5	51.3	0.0	0.0	0.0	4.7	4.4
Incr Delay (d2), s/veh	20.0	0.4	1.5	22.4	1.0	0.7	19.2	0.2	0.4	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.8	1.0	0.8	0.6	0.3	1.6	0.1	0.2	0.0	2.2	0.8
LnGrp Delay(d),s/veh	72.9	48.9	50.3	76.1	50.7	50.2	70.5	0.2	0.4	0.0	4.9	4.5
LnGrp LOS	E	D	D	E	D	D	E	A	A		A	A
Approach Vol, veh/h		128			53			1129			532	
Approach Delay, s/veh		57.3			60.7			3.0			4.8	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	92.5	5.9	11.7	7.4	85.1	7.4	10.2
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	4.0	55.7	9.0	* 24	11.0	48.7	11.0	* 22
Max Q Clear Time (g_c+I1), s	0.0	2.0	3.3	4.1	4.6	6.3	4.6	3.2
Green Ext Time (p_c), s	0.0	15.2	0.0	0.4	0.0	14.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	40	130	110	90	80	160	620	70	30	450	100
Future Volume (veh/h)	110	40	130	110	90	80	160	620	70	30	450	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	121	44	143	121	99	88	176	681	77	33	495	110
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	268	225	150	268	225	208	1987	224	42	1862	831
Arrive On Green	0.08	0.14	0.14	0.08	0.14	0.14	0.11	0.61	0.61	0.02	0.52	0.52
Sat Flow, veh/h	1810	1900	1598	1810	1900	1598	1810	3269	369	1810	3610	1610
Grp Volume(v), veh/h	121	44	143	121	99	88	176	376	382	33	495	110
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1598	1810	1805	1834	1810	1805	1610
Q Serve(g_s), s	7.2	2.2	9.3	7.2	5.2	5.5	10.5	11.3	11.4	2.0	8.5	3.9
Cycle Q Clear(g_c), s	7.2	2.2	9.3	7.2	5.2	5.5	10.5	11.3	11.4	2.0	8.5	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	150	268	225	150	268	225	208	1097	1114	42	1862	831
V/C Ratio(X)	0.81	0.16	0.63	0.81	0.37	0.39	0.85	0.34	0.34	0.79	0.27	0.13
Avail Cap(c_a), veh/h	230	553	465	230	553	465	296	1097	1114	99	1862	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	41.5	44.6	49.6	42.8	42.9	47.7	10.7	10.7	53.5	14.9	13.8
Incr Delay (d2), s/veh	11.4	0.3	2.9	11.4	0.8	1.1	11.2	0.6	0.6	27.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	1.2	4.3	4.1	2.8	2.5	5.9	5.8	5.9	1.3	4.3	1.8
LnGrp Delay(d),s/veh	61.0	41.8	47.5	61.0	43.7	44.0	59.0	11.3	11.3	80.5	15.3	14.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	F	B	B
Approach Vol, veh/h		308			308			934			638	
Approach Delay, s/veh		52.0			50.6			20.3			18.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	70.8	13.1	19.5	16.6	60.7	13.1	19.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	42.0	14.0	32.0	18.0	30.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	4.0	13.4	9.2	11.3	12.5	10.5	9.2	7.5
Green Ext Time (p_c), s	0.0	9.9	0.1	1.4	0.2	8.5	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	180	50	160	340	250	40	670	80	80	330	60
Future Volume (veh/h)	50	180	50	160	340	250	40	670	80	80	330	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	186	52	165	351	258	41	691	82	82	340	62
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	194	860	383	293	860	383	53	2058	917	107	3111	966
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.03	0.57	0.57	0.02	0.20	0.20
Sat Flow, veh/h	823	3610	1605	1156	3610	1605	1810	3610	1608	1810	5187	1611
Grp Volume(v), veh/h	52	186	52	165	351	258	41	691	82	82	340	62
Grp Sat Flow(s),veh/h/ln	823	1805	1605	1156	1805	1605	1810	1805	1608	1810	1729	1611
Q Serve(g_s), s	6.3	4.6	2.8	14.7	9.0	16.0	2.5	11.2	2.5	5.0	5.9	3.4
Cycle Q Clear(g_c), s	15.3	4.6	2.8	19.3	9.0	16.0	2.5	11.2	2.5	5.0	5.9	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	860	383	293	860	383	53	2058	917	107	3111	966
V/C Ratio(X)	0.27	0.22	0.14	0.56	0.41	0.67	0.78	0.34	0.09	0.77	0.11	0.06
Avail Cap(c_a), veh/h	273	1204	535	403	1204	535	132	2058	917	247	3111	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	41.8	33.6	33.0	41.4	35.3	38.0	53.0	12.6	10.7	53.2	20.0	19.0
Incr Delay (d2), s/veh	0.7	0.1	0.2	1.7	0.3	2.1	21.2	0.4	0.2	11.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.3	1.3	4.8	4.5	7.3	1.6	5.7	1.2	2.8	2.9	1.6
LnGrp Delay(d),s/veh	42.5	33.8	33.1	43.1	35.7	40.1	74.3	13.0	10.9	64.1	20.1	19.2
LnGrp LOS	D	C	C	D	D	D	E	B	B	E	C	B
Approach Vol, veh/h		290			774			814			484	
Approach Delay, s/veh		35.2			38.7			15.9			27.4	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.5	68.0		31.5	7.2	71.3		31.5
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	15.0	43.7		36.7	8.0	50.7		36.7
Max Q Clear Time (g_c+I1), s	7.0	13.2		17.3	4.5	7.9		21.3
Green Ext Time (p_c), s	0.1	8.6		5.4	0.0	9.2		5.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	370	70	30	490	140	150	430	40	100	360	260
Future Volume (veh/h)	240	370	70	30	490	140	150	430	40	100	360	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	425	80	34	563	161	172	494	46	115	414	299
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	1193	223	43	702	200	181	1199	111	142	678	485
Arrive On Green	0.16	0.39	0.39	0.02	0.25	0.25	0.10	0.36	0.36	0.13	0.56	0.56
Sat Flow, veh/h	1810	3035	567	1810	2770	790	1810	3339	310	1810	2007	1437
Grp Volume(v), veh/h	276	251	254	34	366	358	172	266	274	115	372	341
Grp Sat Flow(s),veh/h/ln	1810	1805	1797	1810	1805	1755	1810	1805	1844	1810	1805	1639
Q Serve(g_s), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.2	12.3	6.8	15.1	15.3
Cycle Q Clear(g_c), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.2	12.3	6.8	15.1	15.3
Prop In Lane	1.00		0.32	1.00		0.45	1.00		0.17	1.00		0.88
Lane Grp Cap(c), veh/h	296	710	707	43	457	445	181	648	662	142	609	553
V/C Ratio(X)	0.93	0.35	0.36	0.79	0.80	0.80	0.95	0.41	0.41	0.81	0.61	0.62
Avail Cap(c_a), veh/h	296	710	707	99	509	495	181	648	662	230	609	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	45.4	23.5	23.6	53.4	38.5	38.5	49.2	26.5	26.5	47.0	19.2	19.2
Incr Delay (d2), s/veh	34.8	0.3	0.3	26.2	8.1	8.6	52.5	1.9	1.9	9.8	4.2	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	5.4	5.5	1.3	11.4	11.2	7.8	6.4	6.6	3.8	8.1	7.5
LnGrp Delay(d),s/veh	80.2	23.8	23.9	79.6	46.6	47.1	101.7	28.4	28.4	56.8	23.4	24.0
LnGrp LOS	F	C	C	E	D	D	F	C	C	E	C	C
Approach Vol, veh/h		781			758			712			828	
Approach Delay, s/veh		43.8			48.3			46.1			28.3	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	43.5	6.6	47.2	15.0	41.1	22.0	31.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	31.0	6.0	43.0	11.0	34.0	18.0	31.0
Max Q Clear Time (g_c+I1), s	18.8	14.3	4.1	13.0	12.4	17.3	18.6	23.0
Green Ext Time (p_c), s	0.1	7.2	0.0	9.2	0.0	7.2	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	10	70	30	30	150	170	60	610	30	40	490	30
Future Volume (veh/h)	10	70	30	30	150	170	60	610	30	40	490	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	80	34	34	170	193	68	693	34	45	557	34
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	193	82	43	317	267	88	2190	107	58	2105	128
Arrive On Green	0.01	0.15	0.15	0.02	0.17	0.17	0.10	1.00	1.00	0.03	0.61	0.61
Sat Flow, veh/h	1810	1263	537	1810	1900	1600	1810	3502	172	1810	3456	211
Grp Volume(v), veh/h	11	0	114	34	170	193	68	357	370	45	290	301
Grp Sat Flow(s),veh/h/ln	1810	0	1799	1810	1900	1600	1810	1805	1869	1810	1805	1862
Q Serve(g_s), s	0.7	0.0	6.3	2.1	9.0	12.6	4.0	0.0	0.0	2.7	8.2	8.3
Cycle Q Clear(g_c), s	0.7	0.0	6.3	2.1	9.0	12.6	4.0	0.0	0.0	2.7	8.2	8.3
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.09	1.00		0.11
Lane Grp Cap(c), veh/h	19	0	275	43	317	267	88	1129	1169	58	1100	1134
V/C Ratio(X)	0.59	0.00	0.41	0.79	0.54	0.72	0.78	0.32	0.32	0.77	0.26	0.26
Avail Cap(c_a), veh/h	82	0	509	132	589	496	197	1129	1169	148	1100	1134
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	0.0	42.1	53.4	42.0	43.4	49.1	0.0	0.0	52.8	10.0	10.0
Incr Delay (d2), s/veh	25.7	0.0	1.0	26.0	1.4	3.7	12.6	0.7	0.7	19.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.2	1.3	4.8	5.8	2.3	0.2	0.2	1.7	4.3	4.4
LnGrp Delay(d),s/veh	79.9	0.0	43.1	79.5	43.4	47.2	61.7	0.7	0.7	72.0	10.6	10.6
LnGrp LOS	E		D	E	D	D	E	A	A	E	B	B
Approach Vol, veh/h		125			397			795			636	
Approach Delay, s/veh		46.4			48.3			5.9			14.9	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	74.1	6.6	21.7	9.3	72.3	5.1	23.2
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	9.0	43.7	8.0	31.1	12.0	40.7	5.0	34.1
Max Q Clear Time (g_c+I1), s	4.7	2.0	4.1	8.3	6.0	10.3	2.7	14.6
Green Ext Time (p_c), s	0.0	9.7	0.0	2.2	0.1	9.0	0.0	2.1

Intersection Summary			
HCM 2010 Ctrl Delay			20.0
HCM 2010 LOS			C

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↱		↰	↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1090	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1090	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

HCM 2010 AWSC
114: Evans Rd & Orange Ave

Intersection	
Intersection Delay, s/veh	316.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	120	230	110	60	200	100	210	370	160	160	290	130
Future Vol, veh/h	120	230	110	60	200	100	210	370	160	160	290	130
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	179	343	164	90	299	149	313	552	239	239	433	194
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	693.1	261.4	239.5	148.9
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	26%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	50%	0%	67%	0%	100%	0%
Vol Right, %	0%	0%	100%	24%	0%	33%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	370	160	460	60	300	160	290	130
LT Vol	210	0	0	120	60	0	160	0	0
Through Vol	0	370	0	230	0	200	0	290	0
RT Vol	0	0	160	110	0	100	0	0	130
Lane Flow Rate	313	552	239	687	90	448	239	433	194
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1.039	1.754	0.712	2.453	0.331	1.563	0.811	1.409	0.594
Departure Headway (Hd)	16.578	16.015	15.226	13.904	16.116	15.303	16.169	15.607	14.82
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	223	232	241	268	225	242	227	238	246
Service Time	14.278	13.715	12.926	11.604	13.816	13.003	13.869	13.307	12.52
HCM Lane V/C Ratio	1.404	2.379	0.992	2.563	0.4	1.851	1.053	1.819	0.789
HCM Control Delay	116.5	391.9	48.4	693.1	26.6	308.4	64.1	245.8	37.1
HCM Lane LOS	F	F	E	F	D	F	F	F	E
HCM 95th-tile Q	9.7	26.7	4.8	51.6	1.4	22.6	6	18.4	3.4

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑	↱	↰	↱
Traffic Volume (veh/h)	320	290	420	50	30	390
Future Volume (veh/h)	320	290	420	50	30	390
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	395	358	519	62	37	481
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	438	1180	628	529	509	454
Arrive On Green	0.24	0.62	0.33	0.33	0.28	0.28
Sat Flow, veh/h	1810	1900	1900	1603	1810	1615
Grp Volume(v), veh/h	395	358	519	62	37	481
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1603	1810	1615
Q Serve(g_s), s	17.3	7.2	20.6	2.2	1.2	23.0
Cycle Q Clear(g_c), s	17.3	7.2	20.6	2.2	1.2	23.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	438	1180	628	529	509	454
V/C Ratio(X)	0.90	0.30	0.83	0.12	0.07	1.06
Avail Cap(c_a), veh/h	509	1370	743	627	509	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	7.2	25.2	19.1	21.6	29.4
Incr Delay (d2), s/veh	17.6	0.1	6.7	0.1	0.3	58.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	3.7	12.0	1.0	0.7	25.1
LnGrp Delay(d),s/veh	47.7	7.4	31.9	19.2	21.9	88.3
LnGrp LOS	D	A	C	B	C	F
Approach Vol, veh/h		753	581		518	
Approach Delay, s/veh		28.5	30.5		83.5	
Approach LOS		C	C		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				54.8		27.0	23.8	31.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				59.0		23.0	23.0	32.0
Max Q Clear Time (g_c+I1), s				9.2		25.0	19.3	22.6
Green Ext Time (p_c), s				6.7		0.0	0.5	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

HCM 2010 TWSC
122: Ramona Expy & Bridge St

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Vol, veh/h	70	540	860	80	40	30
Future Vol, veh/h	70	540	860	80	40	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	35
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	587	935	87	43	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1022	0	-	0	1717	978
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	739	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	687	-	-	-	100	307
Stage 1	-	-	-	-	368	-
Stage 2	-	-	-	-	476	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	687	-	-	-	89	307
Mov Cap-2 Maneuver	-	-	-	-	89	-
Stage 1	-	-	-	-	368	-
Stage 2	-	-	-	-	423	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	53
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	687	-	-	-	89	307
HCM Lane V/C Ratio	0.111	-	-	-	0.489	0.106
HCM Control Delay (s)	10.9	-	-	-	79.1	18.1
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.4	-	-	-	2.1	0.4

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↑↱	
Traffic Vol, veh/h	100	40	10	820	510	40
Future Vol, veh/h	100	40	10	820	510	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	110	44	11	901	560	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1505	582	604	0	-	0
Stage 1	582	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	135	517	984	-	-	-
Stage 1	563	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	133	517	984	-	-	-
Mov Cap-2 Maneuver	133	-	-	-	-	-
Stage 1	563	-	-	-	-	-
Stage 2	386	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	101.7	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	984	-	169	-	-
HCM Lane V/C Ratio	0.011	-	0.91	-	-
HCM Control Delay (s)	8.7	-	101.7	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0	-	6.7	-	-

HCM 2010 TWSC
124: SR-79 NB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	48.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Vol, veh/h	30	330	0	0	460	290	360	10	10	0	0	0
Future Vol, veh/h	30	330	0	0	460	290	360	10	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	351	0	0	489	309	383	11	11	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	489	0	-	-	-	0	904	904	351
Stage 1	-	-	-	-	-	-	415	415	-
Stage 2	-	-	-	-	-	-	489	489	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1085	-	0	0	-	-	~ 310	279	697
Stage 1	-	-	0	0	-	-	671	596	-
Stage 2	-	-	0	0	-	-	621	553	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1085	-	-	-	-	-	~ 301	0	697
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 301	0	-
Stage 1	-	-	-	-	-	-	651	0	-
Stage 2	-	-	-	-	-	-	621	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.7	0	190.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	301	697	1085	-	-	-
HCM Lane V/C Ratio	1.308	0.015	0.029	-	-	-
HCM Control Delay (s)	195	10.2	8.4	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	19.2	0	0.1	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Vol, veh/h	0	210	330	10	790	0	0	0	0	160	0	30
Future Vol, veh/h	0	210	330	10	790	0	0	0	0	160	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	223	351	11	840	0	0	0	0	170	0	32

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	223	0	0				1085	1085	840
Stage 1	-	-	-	-	-	-				862	862	-
Stage 2	-	-	-	-	-	-				223	223	-
Critical Hdwy	-	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1358	-	0				242	218	368
Stage 1	0	-	-	-	-	0				417	375	-
Stage 2	0	-	-	-	-	0				819	723	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1358	-	-				240	0	368
Mov Cap-2 Maneuver	-	-	-	-	-	-				240	0	-
Stage 1	-	-	-	-	-	-				414	0	-
Stage 2	-	-	-	-	-	-				819	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	44.4
HCM LOS			E

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1358	-	240	368
HCM Lane V/C Ratio	-	-	0.008	-	0.709	0.087
HCM Control Delay (s)	-	-	7.7	-	49.8	15.7
HCM Lane LOS	-	-	A	-	E	C
HCM 95th %tile Q(veh)	-	-	0	-	4.7	0.3

HCM Signalized Intersection Capacity Analysis
126: SR-79(Sanderson Ave) & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (vph)	350	340	60	70	470	500	140	850	60	500	640	270
Future Volume (vph)	350	340	60	70	470	500	140	850	60	500	640	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3610	1594	3502	3610	1615	3502	3610	1593	3502	3610	1596
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3610	1594	3502	3610	1615	3502	3610	1593	3502	3610	1596
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	372	362	64	74	500	532	149	904	64	532	681	287
RTOR Reduction (vph)	0	0	38	0	0	35	0	0	41	0	0	28
Lane Group Flow (vph)	372	362	26	74	500	497	149	904	23	532	681	259
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	8 1	5	2	3	1	6	7
Permitted Phases			4						2			6
Actuated Green, G (s)	18.4	42.6	52.7	7.2	31.4	60.4	10.1	39.5	46.7	25.0	54.4	72.8
Effective Green, g (s)	18.4	42.6	52.7	7.2	31.4	60.4	10.1	39.5	46.7	25.0	54.4	72.8
Actuated g/C Ratio	0.14	0.33	0.40	0.06	0.24	0.46	0.08	0.30	0.36	0.19	0.42	0.56
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	494	1180	693	193	869	748	271	1094	619	671	1507	940
v/s Ratio Prot	c0.11	0.10	0.00	0.02	0.14	c0.31	0.04	c0.25	0.00	c0.15	0.19	0.04
v/s Ratio Perm			0.01						0.01			0.12
v/c Ratio	0.75	0.31	0.04	0.38	0.58	0.66	0.55	0.83	0.04	0.79	0.45	0.28
Uniform Delay, d1	53.8	32.8	23.5	59.4	43.6	27.1	57.9	42.2	27.2	50.2	27.2	15.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.4	0.1	0.0	1.3	0.9	2.2	2.3	5.2	0.0	6.4	0.2	0.2
Delay (s)	60.2	33.0	23.5	60.7	44.5	29.3	60.2	47.4	27.2	56.6	27.5	15.2
Level of Service	E	C	C	E	D	C	E	D	C	E	C	B
Approach Delay (s)		44.9			38.3			48.0			35.4	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	40.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	130.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	10	240	130	40	270	20	390	90	50	50	90	10
Future Volume (veh/h)	10	240	130	40	270	20	390	90	50	50	90	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	245	133	41	276	20	398	92	51	51	92	10
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	422	355	64	470	340	484	409	227	75	220	24
Arrive On Green	0.01	0.22	0.22	0.04	0.25	0.25	0.27	0.36	0.36	0.04	0.13	0.13
Sat Flow, veh/h	1810	1900	1597	1810	1900	1375	1810	1147	636	1810	1682	183
Grp Volume(v), veh/h	10	245	133	41	276	20	398	0	143	51	0	102
Grp Sat Flow(s),veh/h/ln	1810	1900	1597	1810	1900	1375	1810	0	1783	1810	0	1865
Q Serve(g_s), s	0.3	5.4	3.3	1.0	5.9	0.5	9.6	0.0	2.6	1.3	0.0	2.3
Cycle Q Clear(g_c), s	0.3	5.4	3.3	1.0	5.9	0.5	9.6	0.0	2.6	1.3	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.10
Lane Grp Cap(c), veh/h	19	422	355	64	470	340	484	0	636	75	0	244
V/C Ratio(X)	0.53	0.58	0.37	0.64	0.59	0.06	0.82	0.00	0.22	0.68	0.00	0.42
Avail Cap(c_a), veh/h	156	695	584	156	695	503	818	0	1227	234	0	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	16.1	15.3	22.1	15.4	13.4	16.0	0.0	10.5	22.0	0.0	18.6
Incr Delay (d2), s/veh	21.1	1.3	0.7	10.2	1.2	0.1	3.6	0.0	0.2	10.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	1.5	0.7	3.2	0.2	5.2	0.0	1.3	0.9	0.0	1.3
LnGrp Delay(d),s/veh	44.0	17.4	16.0	32.3	16.6	13.4	19.5	0.0	10.6	32.2	0.0	19.7
LnGrp LOS	D	B	B	C	B	B	B		B	C		B
Approach Vol, veh/h		388			337			541			153	
Approach Delay, s/veh		17.6			18.3			17.2			23.9	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	20.6	5.6	14.3	16.4	10.1	4.5	15.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	32.0	4.0	17.0	21.0	17.0	4.0	17.0
Max Q Clear Time (g_c+I1), s	3.3	4.6	3.0	7.4	11.6	4.3	2.3	7.9
Green Ext Time (p_c), s	0.0	1.4	0.0	2.6	0.9	1.1	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	280	60	90	230	80	60	180	70	140	290	70
Future Volume (veh/h)	60	280	60	90	230	80	60	180	70	140	290	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	292	62	94	240	83	62	188	73	146	302	73
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	426	975	204	443	624	475	157	602	226	253	830	198
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.09	0.23	0.23	0.14	0.29	0.29
Sat Flow, veh/h	1071	2970	621	1041	1900	1447	1810	2566	962	1810	2889	687
Grp Volume(v), veh/h	62	176	178	94	240	83	62	130	131	146	187	188
Grp Sat Flow(s),veh/h/ln	1071	1805	1787	1041	1900	1447	1810	1805	1723	1810	1805	1772
Q Serve(g_s), s	1.9	2.9	3.0	3.0	3.9	1.6	1.3	2.4	2.5	3.0	3.3	3.4
Cycle Q Clear(g_c), s	5.8	2.9	3.0	6.0	3.9	1.6	1.3	2.4	2.5	3.0	3.3	3.4
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.56	1.00		0.39
Lane Grp Cap(c), veh/h	426	592	587	443	624	475	157	423	404	253	519	509
V/C Ratio(X)	0.15	0.30	0.30	0.21	0.38	0.17	0.39	0.31	0.32	0.58	0.36	0.37
Avail Cap(c_a), veh/h	791	1208	1196	798	1272	968	314	1208	1153	404	1298	1274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	10.1	10.1	12.3	10.4	9.7	17.4	12.7	12.8	16.2	11.4	11.5
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.2	0.4	0.2	1.6	0.4	0.5	2.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	1.5	0.9	2.1	0.7	0.7	1.2	1.3	1.6	1.7	1.7
LnGrp Delay(d),s/veh	12.8	10.4	10.4	12.6	10.8	9.8	19.0	13.1	13.2	18.3	11.8	11.9
LnGrp LOS	B	B	B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		416			417			323			521	
Approach Delay, s/veh		10.7			11.0			14.3			13.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	13.5		17.2	7.5	15.6		17.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	5.0	4.5		7.8	3.3	5.4		8.0
Green Ext Time (p_c), s	0.1	3.9		4.5	0.0	3.9		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	10	330	10	20	1070	10
Future Volume (vph)	10	330	10	20	1070	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1528		1767	1615	1530
Flt Permitted	1.00	1.00		0.88	0.95	1.00
Satd. Flow (perm)	1800	1528		1589	1615	1530
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	12	388	12	24	1259	12
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	12	388	0	36	1259	12
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	4	2		8	2	2
Permitted Phases		4	8			
Actuated Green, G (s)	7.5	91.5		7.5	84.0	84.0
Effective Green, g (s)	7.5	91.5		7.5	84.0	84.0
Actuated g/C Ratio	0.07	0.90		0.07	0.83	0.83
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	133	1528		117	1336	1266
v/s Ratio Prot	0.01	c0.21			c0.78	0.01
v/s Ratio Perm		0.04		0.02		
v/c Ratio	0.09	0.25		0.31	0.94	0.01
Uniform Delay, d1	43.8	0.6		44.5	6.9	1.5
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1		1.5	13.2	0.0
Delay (s)	44.1	0.7		46.0	20.1	1.5
Level of Service	D	A		D	C	A
Approach Delay (s)	2.0			46.0	19.9	
Approach LOS	A			D	B	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	101.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	73.1
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↲↳	
Traffic Vol, veh/h	20	200	620	180	220	50
Future Vol, veh/h	20	200	620	180	220	50
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	206	639	186	227	52
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	12.5	109.2	15.7
HCM LOS	B	F	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	0%	81%
Vol Thru, %	91%	78%	0%
Vol Right, %	0%	23%	19%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	220	800	270
LT Vol	20	0	220
Through Vol	200	620	0
RT Vol	0	180	50
Lane Flow Rate	227	825	278
Geometry Grp	1	1	1
Degree of Util (X)	0.361	1.166	0.482
Departure Headway (Hd)	6.08	5.089	6.648
Convergence, Y/N	Yes	Yes	Yes
Cap	596	718	546
Service Time	4.08	3.089	4.648
HCM Lane V/C Ratio	0.381	1.149	0.509
HCM Control Delay	12.5	109.2	15.7
HCM Lane LOS	B	F	C
HCM 95th-tile Q	1.6	26.4	2.6

HCM 2010 AWSC
133: Live Oak Canyon & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	116.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	400	10	0	670	100	10	10	10	210	10	140
Future Vol, veh/h	10	400	10	0	670	100	10	10	10	210	10	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	421	11	0	705	105	11	11	11	221	11	147
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	32.1	207.9	13	26.9
HCM LOS	D	F	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	2%	0%	58%
Vol Thru, %	33%	95%	87%	3%
Vol Right, %	33%	2%	13%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	420	770	360
LT Vol	10	10	0	210
Through Vol	10	400	670	10
RT Vol	10	10	100	140
Lane Flow Rate	32	442	811	379
Geometry Grp	1	1	1	1
Degree of Util (X)	0.072	0.793	1.397	0.711
Departure Headway (Hd)	9.313	7.099	6.204	7.512
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	387	513	584	485
Service Time	7.313	5.099	4.29	5.512
HCM Lane V/C Ratio	0.083	0.862	1.389	0.781
HCM Control Delay	13	32.1	207.9	26.9
HCM Lane LOS	B	D	F	D
HCM 95th-tile Q	0.2	7.4	36.6	5.6

HCM 2010 AWSC
134: Redlands Blvd & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	109.1
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	20	590	80	90	690	30
Future Vol, veh/h	20	590	80	90	690	30
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	608	82	93	711	31
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	56.1	15.1	176.2
HCM LOS	F	C	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	96%	0%	47%
Vol Thru, %	0%	3%	53%
Vol Right, %	4%	97%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	720	610	170
LT Vol	690	0	80
Through Vol	0	20	90
RT Vol	30	590	0
Lane Flow Rate	742	629	175
Geometry Grp	1	1	1
Degree of Util (X)	1.32	0.971	0.344
Departure Headway (Hd)	6.4	6.385	7.957
Convergence, Y/N	Yes	Yes	Yes
Cap	572	572	456
Service Time	4.41	4.385	5.957
HCM Lane V/C Ratio	1.297	1.1	0.384
HCM Control Delay	176.2	56.1	15.1
HCM Lane LOS	F	F	C
HCM 95th-tile Q	31.3	13.3	1.5

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	8.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	40	50	190	130	90	230
Future Vol, veh/h	40	50	190	130	90	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	52	196	134	93	237

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	93	0	593	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	526	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1514	-	472	1002
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	597	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1514	-	406	1002
Mov Cap-2 Maneuver	-	-	-	-	406	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	513	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	709	-	-	1514	-
HCM Lane V/C Ratio	0.465	-	-	0.129	-
HCM Control Delay (s)	14.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.5	-	-	0.4	-

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	10	10	30	10	20	0	230	10	10	210	10
Future Vol, veh/h	10	10	10	30	10	20	0	230	10	10	210	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	34	11	22	0	258	11	11	236	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.6	9.6	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	33%	50%	4%
Vol Thru, %	96%	33%	17%	91%
Vol Right, %	4%	33%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	30	60	230
LT Vol	0	10	30	10
Through Vol	230	10	10	210
RT Vol	10	10	20	10
Lane Flow Rate	270	34	67	258
Geometry Grp	1	1	1	1
Degree of Util (X)	0.33	0.047	0.094	0.318
Departure Headway (Hd)	4.404	5.026	5.007	4.423
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	817	710	713	811
Service Time	2.434	3.077	3.054	2.452
HCM Lane V/C Ratio	0.33	0.048	0.094	0.318
HCM Control Delay	9.6	8.3	8.6	9.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.4	0.1	0.3	1.4

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2018 PM-PH1]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	B	A

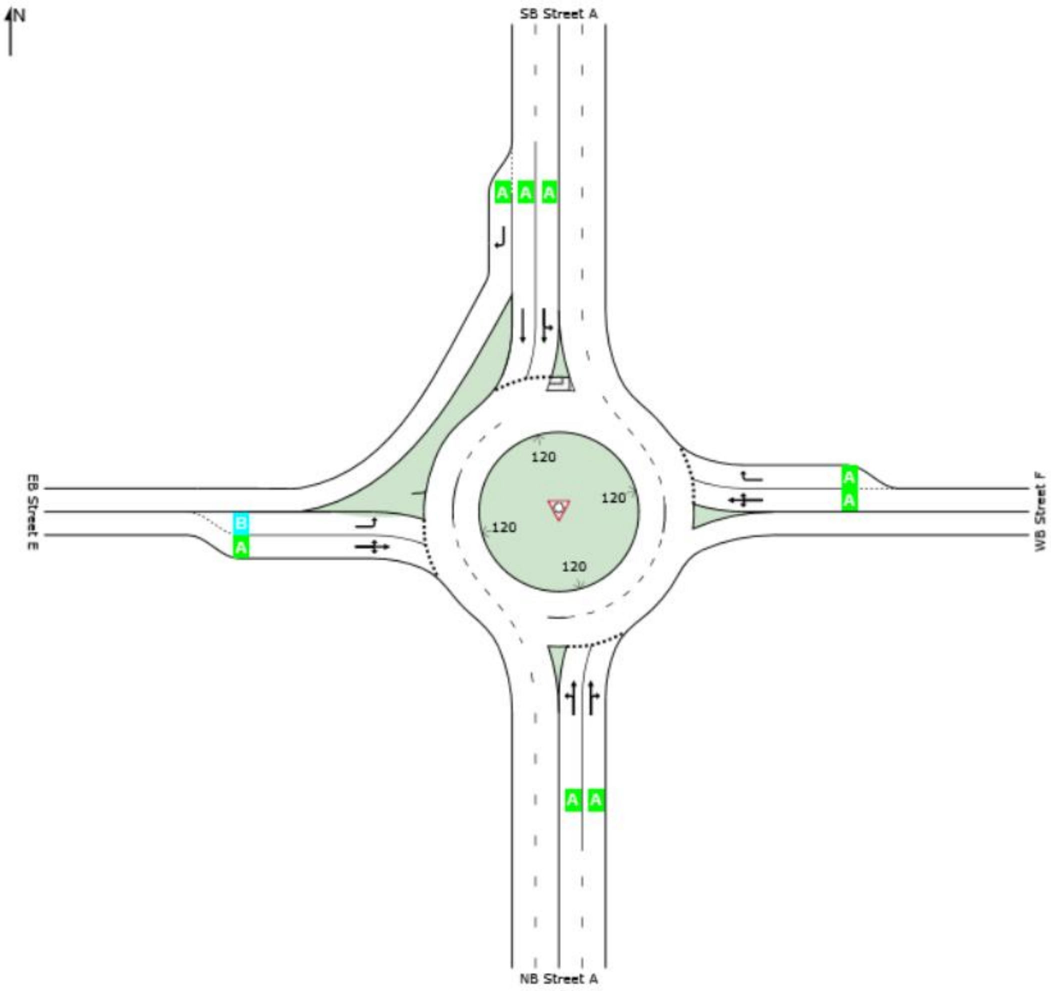

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int1_2018 PM-PH1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Street A													
Lane 1	406	0.0	1151	0.352	100	5.5	LOS A	1.6	39.6	Full	1600	0.0	0.0
Lane 2[d]	406	0.0	1151	0.352	100	5.5	LOS A	1.6	39.6	Full	1600	0.0	0.0
Approach	811	0.0		0.352		5.5	LOS A	1.6	39.6				
East: WB Street F													
Lane 1[d]	60	0.0	852	0.070	100	8.8	LOS A	0.2	6.0	Full	1600	0.0	0.0
Lane 2	50	0.0	776	0.064	91[5]	6.1	LOS A	0.2	5.4	Short	200	0.0	NA
Approach	110	0.0		0.070		7.5	LOS A	0.2	6.0				
North: SB Street A													
Lane 1	352	0.0	1374	0.256	100	4.7	LOS A	1.5	37.2	Full	1600	0.0	0.0
Lane 2[d]	388	0.0	1512	0.256	100	3.8	LOS A	1.5	37.7	Full	1600	0.0	0.0
Lane 3	120	0.0	1675	0.072	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	860	0.0		0.256		4.1	LOS A	1.5	37.7				
West: EB Street E													
Lane 1	89	0.0	884	0.100	100	11.9	LOS B	0.3	8.1	Short	200	0.0	NA
Lane 2[d]	92	0.0	923	0.100	100	8.9	LOS A	0.3	8.2	Full	1600	0.0	0.0
Approach	181	0.0		0.100		10.4	LOS B	0.3	8.2				
Intersection	1962	0.0		0.352		5.5	LOS A	1.6	39.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Vol, veh/h	10	150	220	10	140	220
Future Vol, veh/h	10	150	220	10	140	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	163	239	11	152	239
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.5	13.2	10.6
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	220	10	150	220	10
LT Vol	140	0	0	0	220	0
Through Vol	0	0	10	0	0	10
RT Vol	0	220	0	150	0	0
Lane Flow Rate	152	239	11	163	239	11
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.264	0.334	0.018	0.236	0.417	0.017
Departure Headway (Hd)	6.238	5.03	5.922	5.212	6.275	5.773
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	580	720	605	690	574	622
Service Time	3.938	2.73	3.649	2.939	4	3.494
HCM Lane V/C Ratio	0.262	0.332	0.018	0.236	0.416	0.018
HCM Control Delay	11.2	10.2	8.8	9.5	13.4	8.6
HCM Lane LOS	B	B	A	A	B	A
HCM 95th-tile Q	1.1	1.5	0.1	0.9	2	0.1

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2018 PM Ph1]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	B	A	A

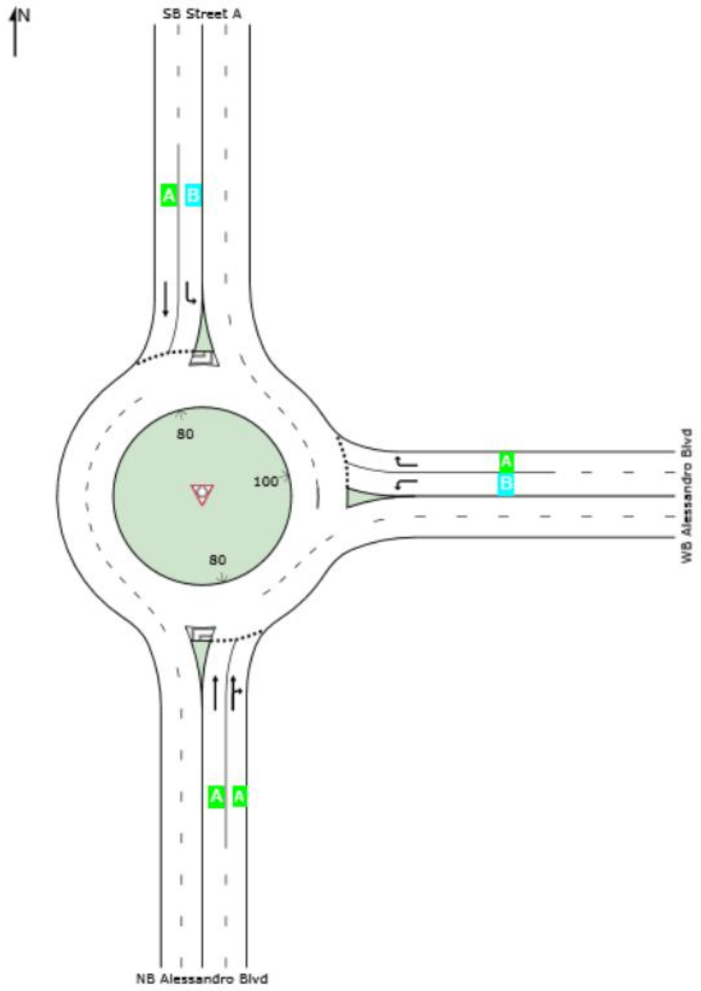

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Organisation: PARSONS BRINCKERHOFF | Processed: Tuesday, March 27, 2018 2:53:15 PM
Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 3.sip7

LANE SUMMARY

Site: 1 [Int3_2018 PM Ph1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	152	0.0	1368	0.111	90[5]	5.2	LOS A	0.6	13.9	Full	1600	0.0	0.0
Lane 2[d]	185	0.0	1497	0.123	100	5.1	LOS A	0.6	15.7	Full	1600	0.0	0.0
Approach	337	0.0		0.123		5.1	LOS A	0.6	15.7				
East: WB Alessandro Blvd													
Lane 1[d]	100	0.0	1129	0.089	100	11.2	LOS B	0.3	8.4	Full	1600	0.0	0.0
Lane 2	10	0.0	671	0.015	100	6.1	LOS A	0.1	1.3	Full	1600	0.0	0.0
Approach	110	0.0		0.089		10.8	LOS B	0.3	8.4				
North: SB Street A													
Lane 1	22	0.0	785	0.028	100	11.2	LOS B	0.1	2.8	Full	1600	0.0	0.0
Lane 2[d]	120	0.0	1265	0.094	100	5.5	LOS A	0.4	10.7	Full	1600	0.0	0.0
Approach	141	0.0		0.094		6.4	LOS A	0.4	10.7				
Intersection	588	0.0		0.123		6.5	LOS A	0.6	15.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[5] Lane under-utilisation found by the program
[d] Dominant lane on roundabout approach

Organisation: PARSONS BRINCKERHOFF | Processed: Tuesday, March 27, 2018 2:53:15 PM
Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 3.sip7

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↙↘	
Traffic Vol, veh/h	10	20	70	80	80	10
Future Vol, veh/h	10	20	70	80	80	10
Conflicting Peds, #/hr	5	0	0	5	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	22	76	87	87	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	168	0	-	0	173	130
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	48	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1422	-	-	-	822	925
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	980	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1416	-	-	-	809	917
Mov Cap-2 Maneuver	-	-	-	-	809	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	968	-

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1416	-	-	-	820
HCM Lane V/C Ratio	0.008	-	-	-	0.119
HCM Control Delay (s)	7.6	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

HCM 2010 TWSC
6: Gilman Springs Rd & Street C

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱		↰↑	↑↱	
Traffic Vol, veh/h	10	160	150	490	920	10
Future Vol, veh/h	10	160	150	490	920	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	20	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	170	160	521	979	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1824	984	989	0	-	0
Stage 1	984	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	86	304	707	-	-	-
Stage 1	365	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	59	304	707	-	-	-
Mov Cap-2 Maneuver	59	-	-	-	-	-
Stage 1	365	-	-	-	-	-
Stage 2	291	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.7	2.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	707	-	59	304	-	-
HCM Lane V/C Ratio	0.226	-	0.18	0.56	-	-
HCM Control Delay (s)	11.6	0	79	30.9	-	-
HCM Lane LOS	B	A	F	D	-	-
HCM 95th %tile Q(veh)	0.9	-	0.6	3.2	-	-

Intersection	
Int Delay, s/veh	19.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	70	5	20	20	10	10	20	780	10	5	840	70
Future Vol, veh/h	70	5	20	20	10	10	20	780	10	5	840	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	300	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	73	5	21	21	10	10	21	813	10	5	875	73

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1750	1739	875	1752	1739	813	875	0	0	813	0	0
Stage 1	885	885	-	854	854	-	-	-	-	-	-	-
Stage 2	865	854	-	898	885	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 68	88	351	68	88	382	780	-	-	823	-	-
Stage 1	342	366	-	356	378	-	-	-	-	-	-	-
Stage 2	351	378	-	337	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 58	85	351	59	85	382	780	-	-	823	-	-
Mov Cap-2 Maneuver	~ 58	85	-	59	85	-	-	-	-	-	-	-
Stage 1	333	364	-	346	368	-	-	-	-	-	-	-
Stage 2	323	368	-	311	364	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 334.2	85.8	0.2	0.1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	780	-	-	72	83	823	-	-
HCM Lane V/C Ratio	0.027	-	-	1.374	0.502	0.006	-	-
HCM Control Delay (s)	9.7	-	-	$ 334.2	85.8	9.4	-	-
HCM Lane LOS	A	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	8	2.1	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↱		↰	↑	↱
Traffic Volume (veh/h)	120	30	20	10	30	60	10	700	10	40	700	180
Future Volume (veh/h)	120	30	20	10	30	60	10	700	10	40	700	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	31	21	10	31	62	10	729	10	42	729	188
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	343	85	58	15	47	93	31	761	10	92	837	707
Arrive On Green	0.27	0.27	0.27	0.09	0.09	0.09	0.02	0.41	0.41	0.05	0.44	0.44
Sat Flow, veh/h	1269	315	213	163	506	1011	1810	1870	26	1810	1900	1606
Grp Volume(v), veh/h	177	0	0	103	0	0	10	0	739	42	729	188
Grp Sat Flow(s),veh/h/ln	1797	0	0	1680	0	0	1810	0	1895	1810	1900	1606
Q Serve(g_s), s	7.1	0.0	0.0	5.3	0.0	0.0	0.5	0.0	33.7	2.0	31.0	6.6
Cycle Q Clear(g_c), s	7.1	0.0	0.0	5.3	0.0	0.0	0.5	0.0	33.7	2.0	31.0	6.6
Prop In Lane	0.71		0.12	0.10		0.60	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	485	0	0	155	0	0	31	0	771	92	837	707
V/C Ratio(X)	0.36	0.00	0.00	0.66	0.00	0.00	0.32	0.00	0.96	0.46	0.87	0.27
Avail Cap(c_a), veh/h	485	0	0	491	0	0	142	0	789	142	837	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	0.0	39.0	0.0	0.0	43.2	0.0	25.6	41.0	22.6	15.8
Incr Delay (d2), s/veh	2.1	0.0	0.0	4.8	0.0	0.0	5.8	0.0	22.2	3.5	9.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.0	2.6	0.0	0.0	0.3	0.0	22.2	1.1	18.5	3.0
LnGrp Delay(d),s/veh	28.4	0.0	0.0	43.8	0.0	0.0	48.9	0.0	47.8	44.5	32.5	16.0
LnGrp LOS	C			D			D		D	D	C	B
Approach Vol, veh/h		177			103			749			959	
Approach Delay, s/veh		28.4			43.8			47.8			29.8	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	40.2		28.0	5.5	43.2		12.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	37.0		24.0	7.0	37.0		26.0
Max Q Clear Time (g_c+I1), s	4.0	35.7		9.1	2.5	33.0		7.3
Green Ext Time (p_c), s	0.0	0.5		0.7	0.0	3.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.2
HCM 2010 LOS	D

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑	↗	↖	↑
Traffic Vol, veh/h	30	10	100	10	10	80
Future Vol, veh/h	30	10	100	10	10	80
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	11	109	11	11	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	223	119	0	0	114	0
Stage 1	114	-	-	-	-	-
Stage 2	109	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	770	938	-	-	1488	-
Stage 1	916	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	761	930	-	-	1482	-
Mov Cap-2 Maneuver	761	-	-	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s	8.9		0		0.8	
HCM LOS	A					

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	930	1482	-
HCM Lane V/C Ratio	-	-	0.012	0.007	-
HCM Control Delay (s)	-	-	8.9	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	10	10	70	0	30	10	700	260	330	410	10
Future Volume (veh/h)	10	10	10	70	0	30	10	700	260	330	410	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	73	0	31	10	729	271	344	427	10
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	25	25	98	0	42	32	868	867	391	1212	28
Arrive On Green	0.04	0.04	0.04	0.08	0.00	0.08	0.02	0.46	0.46	0.22	0.66	0.66
Sat Flow, veh/h	589	589	589	1226	0	521	1810	1900	1615	1810	1849	43
Grp Volume(v), veh/h	30	0	0	104	0	0	10	729	271	344	0	437
Grp Sat Flow(s),veh/h/ln	1767	0	0	1747	0	0	1810	1900	1615	1810	0	1892
Q Serve(g_s), s	1.3	0.0	0.0	4.6	0.0	0.0	0.4	26.5	7.3	14.4	0.0	8.1
Cycle Q Clear(g_c), s	1.3	0.0	0.0	4.6	0.0	0.0	0.4	26.5	7.3	14.4	0.0	8.1
Prop In Lane	0.33		0.33	0.70		0.30	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	76	0	0	140	0	0	32	868	867	391	0	1240
V/C Ratio(X)	0.40	0.00	0.00	0.74	0.00	0.00	0.32	0.84	0.31	0.88	0.00	0.35
Avail Cap(c_a), veh/h	406	0	0	401	0	0	162	1116	1078	508	0	1474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	0.0	35.2	0.0	0.0	38.0	18.7	10.1	29.7	0.0	6.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	7.6	0.0	0.0	5.6	4.7	0.2	13.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	2.5	0.0	0.0	0.3	14.9	3.8	8.6	0.0	4.2
LnGrp Delay(d),s/veh	39.8	0.0	0.0	42.8	0.0	0.0	43.6	23.4	10.3	43.2	0.0	6.2
LnGrp LOS	D			D			D	C	B	D		A
Approach Vol, veh/h		30			104			1010			781	
Approach Delay, s/veh		39.8			42.8			20.1			22.5	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.9	39.8		7.4	5.4	55.3		10.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	22.0	46.0		18.0	7.0	61.0		18.0
Max Q Clear Time (g_c+I1), s	16.4	28.5		3.3	2.4	10.1		6.6
Green Ext Time (p_c), s	0.5	7.3		0.1	0.0	9.8		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↑	↱
Traffic Volume (veh/h)	440	140	100	460	420	50
Future Volume (veh/h)	440	140	100	460	420	50
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	454	144	103	474	433	52
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	503	160	188	893	552	469
Arrive On Green	0.38	0.38	0.10	0.47	0.29	0.29
Sat Flow, veh/h	1333	423	1810	1900	1900	1615
Grp Volume(v), veh/h	599	0	103	474	433	52
Grp Sat Flow(s),veh/h/ln	1759	0	1810	1900	1900	1615
Q Serve(g_s), s	16.9	0.0	2.8	9.2	11.0	1.2
Cycle Q Clear(g_c), s	16.9	0.0	2.8	9.2	11.0	1.2
Prop In Lane	0.76	0.24	1.00			1.00
Lane Grp Cap(c), veh/h	664	0	188	893	552	469
V/C Ratio(X)	0.90	0.00	0.55	0.53	0.78	0.11
Avail Cap(c_a), veh/h	771	0	241	1050	651	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	22.4	9.8	17.1	13.7
Incr Delay (d2), s/veh	12.7	0.0	2.5	0.5	5.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	0.0	1.5	4.9	6.6	0.6
LnGrp Delay(d),s/veh	28.1	0.0	24.9	10.3	22.5	13.8
LnGrp LOS	C		C	B	C	B
Approach Vol, veh/h	599			577	485	
Approach Delay, s/veh	28.1			12.9	21.5	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.7		23.8	9.4	19.2		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		23.0	7.0	18.0		
Max Q Clear Time (g_c+I1), s		11.2		18.9	4.8	13.0		
Green Ext Time (p_c), s		4.8		0.9	0.0	2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	10	160	710	90	90	30
Future Volume (veh/h)	10	160	710	90	90	30
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	190	845	107	107	36
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	295	263	1134	3241	1016	312
Arrive On Green	0.16	0.16	0.32	0.62	0.20	0.20
Sat Flow, veh/h	1810	1615	3510	5358	5358	1594
Grp Volume(v), veh/h	12	190	845	107	107	36
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1594
Q Serve(g_s), s	0.2	4.2	8.1	0.3	0.6	0.7
Cycle Q Clear(g_c), s	0.2	4.2	8.1	0.3	0.6	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	295	263	1134	3241	1016	312
V/C Ratio(X)	0.04	0.72	0.75	0.03	0.11	0.12
Avail Cap(c_a), veh/h	1342	1198	1674	6047	3023	929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	15.0	11.4	2.7	12.5	12.5
Incr Delay (d2), s/veh	0.1	3.7	1.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.9	4.0	0.1	0.3	0.3
LnGrp Delay(d),s/veh	13.4	18.7	12.4	2.7	12.5	12.6
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	202			952	143	
Approach Delay, s/veh	18.4			11.3	12.5	
Approach LOS	B			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		27.6		10.2	16.2	11.4		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		44.0		28.0	18.0	22.0		
Max Q Clear Time (g_c+I1), s		2.3		6.2	10.1	2.7		
Green Ext Time (p_c), s		1.4		0.6	2.1	1.1		

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
16: Theodore St & SR-60 EB Ramps

	↰	→	↘	↙	←	↖	↰	↑	↱	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	20	0	740	0	0	0	0	790	170	0	230	20
Future Volume (veh/h)	20	0	740	0	0	0	0	790	170	0	230	20
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	29	0	0				0	1162	250	0	338	29
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.68	0.68	0.68				0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	93	0	145				0	3233	1003	0	3233	1003
Arrive On Green	0.05	0.00	0.00				0.00	0.62	0.62	0.00	0.62	0.62
Sat Flow, veh/h	1810	0	2842				0	5358	1609	0	5358	1609
Grp Volume(v), veh/h	29	0	0				0	1162	250	0	338	29
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1609	0	1729	1609
Q Serve(g_s), s	0.4	0.0	0.0				0.0	2.7	1.7	0.0	0.6	0.2
Cycle Q Clear(g_c), s	0.4	0.0	0.0				0.0	2.7	1.7	0.0	0.6	0.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	93	0	145				0	3233	1003	0	3233	1003
V/C Ratio(X)	0.31	0.00	0.00				0.00	0.36	0.25	0.00	0.10	0.03
Avail Cap(c_a), veh/h	2356	0	3702				0	5277	1637	0	5277	1637
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	0.0	0.0				0.0	2.2	2.1	0.0	1.9	1.8
Incr Delay (d2), s/veh	1.9	0.0	0.0				0.0	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0				0.0	1.2	0.7	0.0	0.3	0.1
LnGrp Delay(d),s/veh	13.1	0.0	0.0				0.0	2.3	2.2	0.0	1.9	1.8
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		29						1412			367	
Approach Delay, s/veh		13.1						2.3			1.9	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		19.3		5.3		19.3		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		25.0		32.0		25.0		
Max Q Clear Time (g_c+I1), s		4.7		2.4		2.6		
Green Ext Time (p_c), s		10.4		0.0		10.9		

Intersection Summary	
HCM 2010 Ctrl Delay	2.4
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
18: Eucalyptus Ave & Redlands Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	0	10	110	0	320	0	280	20	70	360	10
Future Volume (veh/h)	20	0	10	110	0	320	0	280	20	70	360	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	0	10	113	0	330	0	289	21	72	371	10
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	0	280	189	0	392	3	605	44	154	928	25
Arrive On Green	0.03	0.00	0.17	0.10	0.00	0.24	0.00	0.35	0.35	0.08	0.50	0.50
Sat Flow, veh/h	1810	0	1615	1810	0	1615	1810	1750	127	1810	1842	50
Grp Volume(v), veh/h	21	0	10	113	0	330	0	0	310	72	0	381
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1810	0	1615	1810	0	1878	1810	0	1891
Q Serve(g_s), s	0.6	0.0	0.3	3.3	0.0	10.7	0.0	0.0	7.1	2.1	0.0	6.9
Cycle Q Clear(g_c), s	0.6	0.0	0.3	3.3	0.0	10.7	0.0	0.0	7.1	2.1	0.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	63	0	280	189	0	392	3	0	649	154	0	953
V/C Ratio(X)	0.33	0.00	0.04	0.60	0.00	0.84	0.00	0.00	0.48	0.47	0.00	0.40
Avail Cap(c_a), veh/h	231	0	470	231	0	470	231	0	649	231	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	18.9	23.5	0.0	19.8	0.0	0.0	14.1	23.9	0.0	8.5
Incr Delay (d2), s/veh	3.0	0.0	0.1	3.0	0.0	11.2	0.0	0.0	2.5	2.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	1.8	0.0	6.0	0.0	0.0	4.1	1.1	0.0	3.6
LnGrp Delay(d),s/veh	28.9	0.0	18.9	26.5	0.0	31.0	0.0	0.0	16.6	26.2	0.0	8.7
LnGrp LOS	C		B	C		C			B	C		A
Approach Vol, veh/h		31			443			310			453	
Approach Delay, s/veh		25.7			29.8			16.6			11.5	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	23.0	9.8	13.5	0.0	31.7	5.9	17.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	16.0	7.0	19.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	4.1	9.1	5.3	2.3	0.0	8.9	2.6	12.7
Green Ext Time (p_c), s	0.0	3.0	0.0	1.9	0.0	3.1	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
19: Theodore St & Eucalyptus Ave

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑	↑↑↑	↱
Traffic Volume (veh/h)	0	120	180	970	960	10
Future Volume (veh/h)	0	120	180	970	960	10
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	148	222	1198	1185	12
Adj No. of Lanes	1	1	1	2	3	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	234	209	282	2516	2356	729
Arrive On Green	0.00	0.13	0.16	0.70	0.45	0.45
Sat Flow, veh/h	1810	1615	1810	3705	5358	1606
Grp Volume(v), veh/h	0	148	222	1198	1185	12
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1805	1729	1606
Q Serve(g_s), s	0.0	4.0	5.4	6.9	7.4	0.2
Cycle Q Clear(g_c), s	0.0	4.0	5.4	6.9	7.4	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	234	209	282	2516	2356	729
V/C Ratio(X)	0.00	0.71	0.79	0.48	0.50	0.02
Avail Cap(c_a), veh/h	1297	1158	432	3059	2705	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	19.2	18.7	3.2	8.9	6.9
Incr Delay (d2), s/veh	0.0	4.4	5.3	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	3.1	3.4	3.5	0.1
LnGrp Delay(d),s/veh	0.0	23.6	24.0	3.3	9.1	6.9
LnGrp LOS		C	C	A	A	A
Approach Vol, veh/h	148			1420	1197	
Approach Delay, s/veh	23.6			6.5	9.0	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		36.1		9.9	11.2	24.9		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		39.0		33.0	11.0	24.0		
Max Q Clear Time (g_c+I1), s		8.9		6.0	7.4	9.4		
Green Ext Time (p_c), s		19.5		0.5	0.2	11.4		

Intersection Summary			
HCM 2010 Ctrl Delay			8.5
HCM 2010 LOS			A

HCM 2010 TWSC
20: Oliver St & Alessandro Blvd

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			↰	↱		✥	
Traffic Vol, veh/h	10	400	100	20	240	0	110	0	30	0	0	10
Future Vol, veh/h	10	400	100	20	240	0	110	0	30	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	449	112	22	270	0	124	0	34	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	270	0	0	562	0	0	848	843	506	843	899	270
Stage 1	-	-	-	-	-	-	528	528	-	315	315	-
Stage 2	-	-	-	-	-	-	320	315	-	528	584	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1305	-	-	1019	-	-	284	303	570	286	281	774
Stage 1	-	-	-	-	-	-	538	531	-	700	659	-
Stage 2	-	-	-	-	-	-	696	659	-	538	501	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1305	-	-	1019	-	-	272	292	570	262	271	774
Mov Cap-2 Maneuver	-	-	-	-	-	-	272	292	-	262	271	-
Stage 1	-	-	-	-	-	-	532	525	-	692	643	-
Stage 2	-	-	-	-	-	-	669	643	-	500	495	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	25.1	9.7
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	272	570	1305	-	-	1019	-	-	774
HCM Lane V/C Ratio	0.454	0.059	0.009	-	-	0.022	-	-	0.015
HCM Control Delay (s)	28.8	11.7	7.8	0	-	8.6	0	-	9.7
HCM Lane LOS	D	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	2.2	0.2	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	120	210	100	90	150	30	50	430	60	20	650	60
Future Volume (veh/h)	120	210	100	90	150	30	50	430	60	20	650	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	223	106	96	160	32	53	457	64	21	691	64
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	283	283	135	150	245	49	95	694	97	60	697	65
Arrive On Green	0.16	0.23	0.23	0.08	0.16	0.16	0.05	0.43	0.43	0.03	0.41	0.41
Sat Flow, veh/h	1810	1214	577	1810	1533	307	1810	1630	228	1810	1712	159
Grp Volume(v), veh/h	128	0	329	96	0	192	53	0	521	21	0	755
Grp Sat Flow(s),veh/h/ln	1810	0	1791	1810	0	1840	1810	0	1858	1810	0	1871
Q Serve(g_s), s	4.6	0.0	12.3	3.7	0.0	7.0	2.0	0.0	15.9	0.8	0.0	28.6
Cycle Q Clear(g_c), s	4.6	0.0	12.3	3.7	0.0	7.0	2.0	0.0	15.9	0.8	0.0	28.6
Prop In Lane	1.00		0.32	1.00		0.17	1.00		0.12	1.00		0.08
Lane Grp Cap(c), veh/h	283	0	417	150	0	294	95	0	792	60	0	762
V/C Ratio(X)	0.45	0.00	0.79	0.64	0.00	0.65	0.56	0.00	0.66	0.35	0.00	0.99
Avail Cap(c_a), veh/h	283	0	654	178	0	672	178	0	792	178	0	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.3	0.0	25.7	31.6	0.0	28.1	33.0	0.0	16.3	33.7	0.0	21.0
Incr Delay (d2), s/veh	1.1	0.0	3.4	5.7	0.0	2.5	5.1	0.0	2.0	3.4	0.0	30.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	6.4	2.1	0.0	3.7	1.1	0.0	8.5	0.5	0.0	21.1
LnGrp Delay(d),s/veh	28.4	0.0	29.1	37.4	0.0	30.5	38.0	0.0	18.3	37.1	0.0	51.4
LnGrp LOS	C		C	D		C	D		B	D		D
Approach Vol, veh/h		457			288			574			776	
Approach Delay, s/veh		28.9			32.8			20.1			51.0	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	34.3	9.9	20.6	7.7	33.0	15.1	15.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	26.0	7.0	29.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.8	17.9	5.7	14.3	4.0	30.6	6.6	9.0
Green Ext Time (p_c), s	0.0	2.3	0.0	1.3	0.1	0.0	0.0	0.8

Intersection Summary			
HCM 2010 Ctrl Delay			35.2
HCM 2010 LOS			D

23: Redlands Blvd & Alessandro Blvd

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		✥			↰	↱		✥	
Traffic Vol, veh/h	100	10	20	10	10	10	40	270	10	10	390	90
Future Vol, veh/h	100	10	20	10	10	10	40	270	10	10	390	90
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	106	11	21	11	11	11	43	287	11	11	415	96
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	11.9	10.7	14.7	27
HCM LOS	B	B	B	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	13%	0%	91%	0%	33%	2%
Vol Thru, %	87%	0%	9%	0%	33%	80%
Vol Right, %	0%	100%	0%	100%	33%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	310	10	110	20	30	490
LT Vol	40	0	100	0	10	10
Through Vol	270	0	10	0	10	390
RT Vol	0	10	0	20	10	90
Lane Flow Rate	330	11	117	21	32	521
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.531	0.015	0.239	0.036	0.063	0.8
Departure Headway (Hd)	5.794	5.019	7.34	6.162	7.124	5.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	623	712	489	580	501	657
Service Time	3.531	2.756	5.092	3.912	5.193	3.561
HCM Lane V/C Ratio	0.53	0.015	0.239	0.036	0.064	0.793
HCM Control Delay	14.9	7.8	12.4	9.1	10.7	27
HCM Lane LOS	B	A	B	A	B	D
HCM 95th-tile Q	3.1	0	0.9	0.1	0.2	8

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰	↱		✥	
Traffic Volume (veh/h)	10	340	180	60	260	30	70	70	20	20	70	10
Future Volume (veh/h)	10	340	180	60	260	30	70	70	20	20	70	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	362	191	64	277	32	74	74	21	21	74	11
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	606	314	151	423	355	149	149	257	58	205	30
Arrive On Green	0.13	0.26	0.26	0.08	0.22	0.22	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1810	2296	1191	1810	1900	1597	927	927	1600	365	1288	191
Grp Volume(v), veh/h	11	283	270	64	277	32	148	0	21	106	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1682	1810	1900	1597	1854	0	1600	1844	0	0
Q Serve(g_s), s	0.3	6.6	6.8	1.6	6.4	0.8	3.5	0.0	0.5	2.5	0.0	0.0
Cycle Q Clear(g_c), s	0.3	6.6	6.8	1.6	6.4	0.8	3.5	0.0	0.5	2.5	0.0	0.0
Prop In Lane	1.00		0.71	1.00		1.00	0.50		1.00	0.20		0.10
Lane Grp Cap(c), veh/h	226	476	444	151	423	355	297	0	257	293	0	0
V/C Ratio(X)	0.05	0.59	0.61	0.42	0.66	0.09	0.50	0.00	0.08	0.36	0.00	0.00
Avail Cap(c_a), veh/h	264	1052	981	264	1108	931	1081	0	933	998	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.5	15.4	15.5	20.9	17.0	14.8	18.4	0.0	17.2	18.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.2	1.3	1.9	1.7	0.1	1.3	0.0	0.1	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.4	3.2	0.9	3.5	0.3	1.9	0.0	0.2	1.3	0.0	0.0
LnGrp Delay(d),s/veh	18.6	16.6	16.9	22.8	18.7	14.9	19.7	0.0	17.3	18.8	0.0	0.0
LnGrp LOS	B	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		564			373			169			106	
Approach Delay, s/veh		16.8			19.1			19.4			18.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		11.7	8.0	16.7		11.6	10.0	14.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		5.5	3.6	8.8		4.5	2.3	8.4
Green Ext Time (p_c), s		0.7	0.0	2.8		0.4	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	70	160	150	20	130	30	110	390	30	40	570	110
Future Volume (veh/h)	70	160	150	20	130	30	110	390	30	40	570	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	168	158	21	137	32	116	411	32	42	600	116
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	453	397	64	563	128	208	1146	568	113	1159	220
Arrive On Green	0.09	0.25	0.25	0.04	0.19	0.19	0.12	0.32	0.32	0.06	0.26	0.26
Sat Flow, veh/h	1810	1818	1594	1810	2916	662	1810	3610	1607	1810	4374	832
Grp Volume(v), veh/h	74	167	159	21	83	86	116	411	32	42	472	244
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1773	1810	1805	1607	1810	1729	1748
Q Serve(g_s), s	1.8	3.6	3.9	0.5	1.9	2.0	2.9	4.2	0.6	1.1	5.5	5.7
Cycle Q Clear(g_c), s	1.8	3.6	3.9	0.5	1.9	2.0	2.9	4.2	0.6	1.1	5.5	5.7
Prop In Lane	1.00		0.99	1.00		0.37	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	166	450	400	64	348	342	208	1146	568	113	916	463
V/C Ratio(X)	0.45	0.37	0.40	0.33	0.24	0.25	0.56	0.36	0.06	0.37	0.52	0.53
Avail Cap(c_a), veh/h	265	1550	1381	265	1550	1523	303	2193	1034	265	2028	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	14.8	14.9	22.5	16.3	16.3	20.0	12.5	10.2	21.5	14.9	15.0
Incr Delay (d2), s/veh	1.9	0.5	0.6	2.9	0.4	0.4	2.3	0.2	0.0	2.0	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.9	1.8	0.3	1.0	1.0	1.6	2.1	0.3	0.6	2.7	2.8
LnGrp Delay(d),s/veh	22.4	15.3	15.6	25.3	16.6	16.7	22.3	12.7	10.2	23.5	15.4	15.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		400			190			559			758	
Approach Delay, s/veh		16.7			17.6			14.6			16.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	19.2	5.7	15.9	9.5	16.6	8.4	13.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	3.1	6.2	2.5	5.9	4.9	7.7	3.8	4.0
Green Ext Time (p_c), s	0.0	2.6	0.0	2.0	0.9	3.9	0.6	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

HCM 2010 AWSC
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave

Intersection	
Intersection Delay, s/veh	20.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑ ↑↱			↰↑↱			↰↑ ↑↱			↰↑ ↑↱	
Traffic Vol, veh/h	120	30	40	190	50	90	60	160	120	90	320	90
Future Vol, veh/h	120	30	40	190	50	90	60	160	120	90	320	90
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	128	32	43	202	53	96	64	170	128	96	340	96
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	14.7	30	15.3	19.1
HCM LOS	B	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	43%	0%	89%	0%	58%	36%	0%
Vol Thru, %	57%	40%	11%	27%	15%	64%	64%
Vol Right, %	0%	60%	0%	73%	27%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	200	135	55	330	250	250
LT Vol	60	0	120	0	190	90	0
Through Vol	80	80	15	15	50	160	160
RT Vol	0	120	0	40	90	0	90
Lane Flow Rate	149	213	144	59	351	266	266
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.331	0.434	0.345	0.125	0.745	0.566	0.533
Departure Headway (Hd)	7.996	7.34	8.646	7.661	7.639	7.658	7.213
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	489	415	466	474	468	497
Service Time	5.777	5.121	6.432	5.445	5.71	5.436	4.991
HCM Lane V/C Ratio	0.333	0.436	0.347	0.127	0.741	0.568	0.535
HCM Control Delay	14.7	15.7	16	11.5	30	20.1	18
HCM Lane LOS	B	C	C	B	D	C	C
HCM 95th-tile Q	1.4	2.2	1.5	0.4	6.2	3.4	3.1

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	20	10	230	70	70	20	350	250	130	450	130
Future Volume (veh/h)	60	20	10	230	70	70	20	350	250	130	450	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	21	10	240	73	73	21	365	260	135	469	135
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	325	274	287	481	406	63	1448	705	197	1423	396
Arrive On Green	0.08	0.17	0.17	0.16	0.25	0.25	0.03	0.28	0.28	0.11	0.35	0.35
Sat Flow, veh/h	1810	1900	1601	1810	1900	1605	1810	5187	1606	1810	4028	1122
Grp Volume(v), veh/h	62	21	10	240	73	73	21	365	260	135	400	204
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1605	1810	1729	1606	1810	1729	1693
Q Serve(g_s), s	1.9	0.5	0.3	7.3	1.7	2.0	0.6	3.1	6.2	4.1	4.8	5.0
Cycle Q Clear(g_c), s	1.9	0.5	0.3	7.3	1.7	2.0	0.6	3.1	6.2	4.1	4.8	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	139	325	274	287	481	406	63	1448	705	197	1221	598
V/C Ratio(X)	0.45	0.06	0.04	0.84	0.15	0.18	0.33	0.25	0.37	0.69	0.33	0.34
Avail Cap(c_a), veh/h	287	1474	1242	287	1474	1246	223	2653	1078	223	1768	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	19.7	19.6	23.1	16.5	16.6	26.7	15.8	10.7	24.3	13.4	13.5
Incr Delay (d2), s/veh	2.2	0.1	0.1	18.9	0.1	0.2	3.1	0.1	0.3	7.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	0.1	5.1	0.9	0.9	0.4	1.5	2.7	2.4	2.3	2.4
LnGrp Delay(d),s/veh	27.2	19.8	19.7	42.0	16.6	16.8	29.8	15.9	11.0	31.6	13.6	13.8
LnGrp LOS	C	B	B	D	B	B	C	B	B	C	B	B
Approach Vol, veh/h		93			386			646			739	
Approach Delay, s/veh		24.7			32.4			14.4			16.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	19.8	13.0	13.7	6.0	24.0	8.4	18.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	9.0	44.0	7.0	29.0	9.0	44.0
Max Q Clear Time (g_c+I1), s	6.1	8.2	9.3	2.5	2.6	7.0	3.9	4.0
Green Ext Time (p_c), s	0.0	6.6	0.0	0.7	0.0	6.7	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	240	410	110	110	340	50	160	620	170	80	520	210
Future Volume (veh/h)	240	410	110	110	340	50	160	620	170	80	520	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	250	427	115	115	354	52	167	646	177	83	542	219
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	914	536	145	690	100	146	1411	758	166	1452	833
Arrive On Green	0.11	0.25	0.25	0.08	0.22	0.22	0.08	0.39	0.39	0.09	0.40	0.40
Sat Flow, veh/h	1810	3610	1605	1810	3160	460	1810	3610	1609	1810	3610	1609
Grp Volume(v), veh/h	250	427	115	115	201	205	167	646	177	83	542	219
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1815	1810	1805	1609	1810	1805	1609
Q Serve(g_s), s	10.0	8.7	0.8	5.4	8.5	8.7	7.0	11.6	3.2	3.8	9.2	3.6
Cycle Q Clear(g_c), s	10.0	8.7	0.8	5.4	8.5	8.7	7.0	11.6	3.2	3.8	9.2	3.6
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	914	536	145	394	396	146	1411	758	166	1452	833
V/C Ratio(X)	1.20	0.47	0.21	0.79	0.51	0.52	1.15	0.46	0.23	0.50	0.37	0.26
Avail Cap(c_a), veh/h	208	1660	868	146	768	772	146	1411	758	166	1452	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	27.5	10.2	39.3	29.9	30.0	40.0	19.7	5.3	37.6	18.3	4.3
Incr Delay (d2), s/veh	127.6	0.4	0.2	25.1	1.0	1.0	119.5	1.1	0.7	2.3	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	4.4	1.3	3.7	4.4	4.4	8.3	6.0	1.6	2.0	4.7	1.8
LnGrp Delay(d),s/veh	166.1	27.9	10.4	64.5	30.9	31.0	159.5	20.7	6.0	39.9	19.0	5.1
LnGrp LOS	F	C	B	E	C	C	F	C	A	D	B	A
Approach Vol, veh/h		792			521			990			844	
Approach Delay, s/veh		69.0			38.4			41.5			17.5	
Approach LOS		E			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	38.0	11.0	26.0	11.0	39.0	14.0	23.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	34.0	7.0	40.0	7.0	35.0	10.0	37.0
Max Q Clear Time (g_c+I1), s	5.8	13.6	7.4	10.7	9.0	11.2	12.0	10.7
Green Ext Time (p_c), s	0.2	4.8	0.0	6.4	0.0	4.1	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	41.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	190	10	160	330	990	0	0	740	240
Future Volume (veh/h)	0	0	0	190	10	160	330	990	0	0	740	240
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				196	10	165	340	1021	0	0	763	247
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				281	14	261	362	2701	0	0	1351	437
Arrive On Green				0.16	0.16	0.16	0.40	1.00	0.00	0.00	0.50	0.50
Sat Flow, veh/h				1726	88	1600	1810	3705	0	0	2776	868
Grp Volume(v), veh/h				206	0	165	340	1021	0	0	514	496
Grp Sat Flow(s),veh/h/ln				1814	0	1600	1810	1805	0	0	1805	1744
Q Serve(g_s), s				9.7	0.0	8.7	16.3	0.0	0.0	0.0	17.8	17.8
Cycle Q Clear(g_c), s				9.7	0.0	8.7	16.3	0.0	0.0	0.0	17.8	17.8
Prop In Lane				0.95		1.00	1.00		0.00	0.00		0.50
Lane Grp Cap(c), veh/h				296	0	261	362	2701	0	0	909	878
V/C Ratio(X)				0.70	0.00	0.63	0.94	0.38	0.00	0.00	0.56	0.57
Avail Cap(c_a), veh/h				685	0	604	362	2701	0	0	909	878
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.86	0.86	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.6	0.0	35.2	26.5	0.0	0.0	0.0	15.5	15.5
Incr Delay (d2), s/veh				3.0	0.0	2.5	29.1	0.3	0.0	0.0	2.5	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.0	0.0	4.0	10.9	0.1	0.0	0.0	9.5	9.2
LnGrp Delay(d),s/veh				38.5	0.0	37.7	55.6	0.3	0.0	0.0	18.0	18.1
LnGrp LOS				D		D	E	A			B	B
Approach Vol, veh/h					371			1361			1010	
Approach Delay, s/veh					38.2			14.2			18.1	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		71.3			22.0	49.3		18.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		48.0			18.0	26.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			18.3	19.8		11.7
Green Ext Time (p_c), s		22.1			0.0	5.2		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	410	10	280	0	0	0	0	910	250	180	770	0
Future Volume (veh/h)	410	10	280	0	0	0	0	910	250	180	770	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	430	0	289				0	938	258	186	794	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	824	0	366				0	2077	570	227	2467	0
Arrive On Green	0.23	0.00	0.23				0.00	0.51	0.51	0.04	0.23	0.00
Sat Flow, veh/h	3619	0	1604				0	4217	1110	1810	3705	0
Grp Volume(v), veh/h	430	0	289				0	801	395	186	794	0
Grp Sat Flow(s),veh/h/ln	1810	0	1604				0	1729	1698	1810	1805	0
Q Serve(g_s), s	9.4	0.0	15.3				0.0	13.2	13.3	9.2	16.5	0.0
Cycle Q Clear(g_c), s	9.4	0.0	15.3				0.0	13.2	13.3	9.2	16.5	0.0
Prop In Lane	1.00		1.00				0.00		0.65	1.00		0.00
Lane Grp Cap(c), veh/h	824	0	366				0	1775	871	227	2467	0
V/C Ratio(X)	0.52	0.00	0.79				0.00	0.45	0.45	0.82	0.32	0.00
Avail Cap(c_a), veh/h	1327	0	588				0	1775	871	342	2467	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.69	0.69	0.00
Uniform Delay (d), s/veh	30.4	0.0	32.7				0.0	13.9	13.9	42.1	17.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.9				0.0	0.8	1.7	6.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	7.1				0.0	6.4	6.6	5.0	8.4	0.0
LnGrp Delay(d),s/veh	31.0	0.0	36.6				0.0	14.7	15.6	48.6	17.7	0.0
LnGrp LOS	C		D					B	B	D	B	
Approach Vol, veh/h		719						1196			980	
Approach Delay, s/veh		33.2						15.0			23.6	
Approach LOS		C						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.3	50.2		24.5		65.5		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	17.0	28.0		33.0		49.0		
Max Q Clear Time (g_c+I1), s	11.2	15.3		17.3		18.5		
Green Ext Time (p_c), s	0.2	9.5		2.4		17.5		

Intersection Summary			
HCM 2010 Ctrl Delay			22.4
HCM 2010 LOS			C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	460	530	520	50	90	420	130	810	100	360	730	160
Future Volume (veh/h)	460	530	520	50	90	420	130	810	100	360	730	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	474	546	536	52	93	433	134	835	103	371	753	165
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	557	1238	551	94	449	577	138	1552	190	425	1359	860
Arrive On Green	0.16	0.34	0.34	0.05	0.24	0.24	0.08	0.33	0.33	0.24	0.75	0.75
Sat Flow, veh/h	3510	3610	1608	1810	1900	1615	1810	4679	574	3510	3610	1604
Grp Volume(v), veh/h	474	546	536	52	93	433	134	616	322	371	753	165
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1810	1900	1615	1810	1729	1796	1755	1805	1604
Q Serve(g_s), s	13.8	12.3	34.5	2.9	4.1	24.7	7.8	15.2	15.3	10.7	9.3	2.5
Cycle Q Clear(g_c), s	13.8	12.3	34.5	2.9	4.1	24.7	7.8	15.2	15.3	10.7	9.3	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	557	1238	551	94	449	577	138	1147	595	425	1359	860
V/C Ratio(X)	0.85	0.44	0.97	0.55	0.21	0.75	0.97	0.54	0.54	0.87	0.55	0.19
Avail Cap(c_a), veh/h	702	1238	551	121	449	577	138	1147	595	435	1359	860
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.85	0.85	0.85
Uniform Delay (d), s/veh	43.0	26.7	34.0	48.6	32.2	29.6	48.4	28.5	28.6	39.0	9.2	4.7
Incr Delay (d2), s/veh	8.1	0.2	31.2	5.0	0.2	5.4	62.1	1.5	3.0	15.1	1.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.2	20.1	1.6	2.2	11.9	6.2	7.5	8.1	6.0	4.8	1.2
LnGrp Delay(d),s/veh	51.0	27.0	65.3	53.5	32.4	35.1	110.5	30.1	31.6	54.1	10.6	5.1
LnGrp LOS	D	C	E	D	C	D	F	C	C	D	B	A
Approach Vol, veh/h		1556			578			1072			1289	
Approach Delay, s/veh		47.5			36.3			40.6			22.4	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	38.8	9.5	40.0	12.0	43.5	20.7	28.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	21.0	22.0
Max Q Clear Time (g_c+I1), s	12.7	17.3	4.9	36.5	9.8	11.3	15.8	26.7
Green Ext Time (p_c), s	0.1	9.9	0.0	0.0	0.0	13.6	0.9	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	220	10	160	510	1170	0	0	1100	320
Future Volume (veh/h)	0	0	0	220	10	160	510	1170	0	0	1100	320
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				229	10	167	531	1219	0	0	1146	333
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				281	12	259	1305	2751	0	0	1828	567
Arrive On Green				0.16	0.16	0.16	0.74	1.00	0.00	0.00	0.35	0.35
Sat Flow, veh/h				1737	76	1600	3510	3705	0	0	5358	1608
Grp Volume(v), veh/h				239	0	167	531	1219	0	0	1146	333
Grp Sat Flow(s),veh/h/ln				1813	0	1600	1755	1805	0	0	1729	1608
Q Serve(g_s), s				13.4	0.0	10.3	5.8	0.0	0.0	0.0	19.3	17.8
Cycle Q Clear(g_c), s				13.4	0.0	10.3	5.8	0.0	0.0	0.0	19.3	17.8
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				293	0	259	1305	2751	0	0	1828	567
V/C Ratio(X)				0.82	0.00	0.65	0.41	0.44	0.00	0.00	0.63	0.59
Avail Cap(c_a), veh/h				484	0	427	1305	2751	0	0	1828	567
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.76	0.76	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.5	0.0	41.2	9.2	0.0	0.0	0.0	28.3	27.8
Incr Delay (d2), s/veh				5.5	0.0	2.7	0.2	0.4	0.0	0.0	1.6	4.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.2	0.0	4.7	2.8	0.2	0.0	0.0	9.5	8.6
LnGrp Delay(d),s/veh				48.0	0.0	43.9	9.4	0.4	0.0	0.0	29.9	32.2
LnGrp LOS				D		D	A	A			C	C
Approach Vol, veh/h					406			1750			1479	
Approach Delay, s/veh					46.3			3.1			30.4	
Approach LOS					D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		84.0			43.0	41.0		21.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		69.0			28.0	37.0		28.0
Max Q Clear Time (g_c+I1), s		2.0			7.8	21.3		15.4
Green Ext Time (p_c), s		16.1			10.7	8.4		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	70	150	80	50	120	80	40	910	40	90	1180	60
Future Volume (veh/h)	70	150	80	50	120	80	40	910	40	90	1180	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	155	82	52	124	82	41	938	41	93	1216	62
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	316	266	116	293	246	153	1631	726	153	1631	726
Arrive On Green	0.08	0.17	0.17	0.06	0.15	0.15	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1810	1900	1600	1810	1900	1599	1810	3610	1606	1810	3610	1606
Grp Volume(v), veh/h	72	155	82	52	124	82	41	938	41	93	1216	62
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1599	1810	1805	1606	1810	1805	1606
Q Serve(g_s), s	2.6	5.1	2.3	1.9	4.1	3.1	1.5	13.2	1.0	3.4	19.1	1.0
Cycle Q Clear(g_c), s	2.6	5.1	2.3	1.9	4.1	3.1	1.5	13.2	1.0	3.4	19.1	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	316	266	116	293	246	153	1631	726	153	1631	726
V/C Ratio(X)	0.52	0.49	0.31	0.45	0.42	0.33	0.27	0.58	0.06	0.61	0.75	0.09
Avail Cap(c_a), veh/h	237	942	793	185	886	746	185	1631	726	185	1631	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	26.0	14.5	30.9	26.3	25.9	29.4	13.9	10.6	30.3	15.5	4.5
Incr Delay (d2), s/veh	3.0	1.2	0.7	2.7	1.0	0.8	0.9	1.5	0.1	3.9	3.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.8	1.3	1.0	2.2	1.4	0.8	6.8	0.5	1.9	10.2	0.7
LnGrp Delay(d),s/veh	33.5	27.2	15.1	33.6	27.2	26.7	30.3	15.4	10.7	34.2	18.7	4.7
LnGrp LOS	C	C	B	C	C	C	C	B	B	C	B	A
Approach Vol, veh/h		309			258			1020			1371	
Approach Delay, s/veh		25.4			28.3			15.8			19.1	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	35.0	8.4	15.4	9.8	35.0	9.2	14.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	5.4	15.2	3.9	7.1	3.5	21.1	4.6	6.1
Green Ext Time (p_c), s	0.0	5.8	0.0	2.0	2.0	5.7	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	7.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱			↰↑	↰	↱
Traffic Vol, veh/h	10	10	100	10	0	120
Future Vol, veh/h	10	10	100	10	0	120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	112	11	0	135

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	22	0	253	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1607	-	740	1068
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1607	-	688	1068
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	751	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.7	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	1068	-	-	1607	-
HCM Lane V/C Ratio	-	0.126	-	-	0.07	-
HCM Control Delay (s)	0	8.9	-	-	7.4	0
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	-	0.4	-	-	0.2	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Lane Configurations	↰	↑↱		↰	↑↱			✥			✥	
Traffic Volume (veh/h)	60	130	110	90	170	10	100	110	90	10	120	30
Future Volume (veh/h)	60	130	110	90	170	10	100	110	90	10	120	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	143	121	99	187	11	110	121	99	11	132	33
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	255	216	472	848	50	123	136	111	14	166	41
Arrive On Green	0.05	0.27	0.27	0.26	0.48	0.48	0.21	0.21	0.21	0.12	0.12	0.12
Sat Flow, veh/h	1810	948	802	1810	1776	104	590	649	531	114	1369	342
Grp Volume(v), veh/h	66	0	264	99	0	198	330	0	0	176	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1750	1810	0	1881	1769	0	0	1825	0	0
Q Serve(g_s), s	4.1	0.0	14.9	4.9	0.0	7.1	20.9	0.0	0.0	10.8	0.0	0.0
Cycle Q Clear(g_c), s	4.1	0.0	14.9	4.9	0.0	7.1	20.9	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.06	0.33		0.30	0.06		0.19
Lane Grp Cap(c), veh/h	97	0	472	472	0	897	370	0	0	221	0	0
V/C Ratio(X)	0.68	0.00	0.56	0.21	0.00	0.22	0.89	0.00	0.00	0.80	0.00	0.00
Avail Cap(c_a), veh/h	142	0	472	472	0	897	508	0	0	365	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.96	0.00	0.96	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	53.5	0.0	36.1	33.2	0.0	17.6	44.2	0.0	0.0	49.1	0.0	0.0
Incr Delay (d2), s/veh	8.2	0.0	4.7	0.2	0.0	0.5	14.1	0.0	0.0	6.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	7.8	2.5	0.0	3.8	11.6	0.0	0.0	5.8	0.0	0.0
LnGrp Delay(d),s/veh	61.6	0.0	40.9	33.4	0.0	18.1	58.3	0.0	0.0	55.6	0.0	0.0
LnGrp LOS	E		D	C		B	E			E		
Approach Vol, veh/h		330			297			330			176	
Approach Delay, s/veh		45.0			23.2			58.3			55.6	
Approach LOS		D			C			E			E	
Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.0	34.0	35.0		17.9	10.1	58.9				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		33.0	12.0	31.0		23.0	9.0	34.0				
Max Q Clear Time (g_c+I1), s		22.9	6.9	16.9		12.8	6.1	9.1				
Green Ext Time (p_c), s		1.2	0.5	1.1		0.5	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			44.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱		↰	
Traffic Volume (veh/h)	310	10	530	0	0	0	0	590	180	80	330	0
Future Volume (veh/h)	310	10	530	0	0	0	0	590	180	80	330	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	323	10	552				0	615	188	83	344	0
Adj No. of Lanes	0	1	1				0	1	1	0	1	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	566	18	516				0	612	516	81	337	0
Arrive On Green	0.32	0.32	0.32				0.00	0.32	0.32	0.22	0.22	0.00
Sat Flow, veh/h	1758	54	1602				0	1900	1602	366	1516	0
Grp Volume(v), veh/h	333	0	552				0	615	188	427	0	0
Grp Sat Flow(s),veh/h/ln	1812	0	1602				0	1900	1602	1882	0	0
Q Serve(g_s), s	13.7	0.0	29.0				0.0	29.0	8.1	20.0	0.0	0.0
Cycle Q Clear(g_c), s	13.7	0.0	29.0				0.0	29.0	8.1	20.0	0.0	0.0
Prop In Lane	0.97		1.00				0.00		1.00	0.19		0.00
Lane Grp Cap(c), veh/h	584	0	516				0	612	516	418	0	0
V/C Ratio(X)	0.57	0.00	1.07				0.00	1.00	0.36	1.02	0.00	0.00
Avail Cap(c_a), veh/h	584	0	516				0	612	516	418	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.3	0.0	30.5				0.0	30.5	23.4	35.0	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	59.3				0.0	37.5	0.4	49.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	21.3				0.0	21.5	3.6	16.1	0.0	0.0
LnGrp Delay(d),s/veh	26.7	0.0	89.8				0.0	68.0	23.9	84.5	0.0	0.0
LnGrp LOS	C		F					F	C	F		
Approach Vol, veh/h		885						803			427	
Approach Delay, s/veh		66.1						57.7			84.5	
Approach LOS		E						E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		33.0		33.0				24.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		29.0		29.0				20.0
Max Q Clear Time (g_c+I1), s		31.0		31.0				22.0
Green Ext Time (p_c), s		0.0		0.0				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	66.6
HCM 2010 LOS	E

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	90	310	170	160	220	70	140	790	100	130	780	80
Future Volume (veh/h)	90	310	170	160	220	70	140	790	100	130	780	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	330	181	170	234	74	149	840	106	138	830	85
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	549	295	171	713	220	184	1823	229	150	1779	181
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.10	0.39	0.39	0.08	0.37	0.37
Sat Flow, veh/h	1810	2265	1216	1810	2715	837	1810	4666	586	1810	4782	487
Grp Volume(v), veh/h	96	262	249	170	154	154	149	621	325	138	599	316
Grp Sat Flow(s),veh/h/ln	1810	1805	1676	1810	1805	1747	1810	1729	1794	1810	1729	1812
Q Serve(g_s), s	4.4	10.8	11.2	7.9	5.8	6.0	6.8	11.3	11.4	6.4	11.1	11.2
Cycle Q Clear(g_c), s	4.4	10.8	11.2	7.9	5.8	6.0	6.8	11.3	11.4	6.4	11.1	11.2
Prop In Lane	1.00		0.73	1.00		0.48	1.00		0.33	1.00		0.27
Lane Grp Cap(c), veh/h	134	437	406	171	474	459	184	1351	701	150	1287	674
V/C Ratio(X)	0.72	0.60	0.61	0.99	0.32	0.34	0.81	0.46	0.46	0.92	0.47	0.47
Avail Cap(c_a), veh/h	171	769	715	171	769	745	214	1351	701	150	1287	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	28.4	28.5	38.2	25.1	25.2	37.1	19.1	19.1	38.4	20.1	20.2
Incr Delay (d2), s/veh	9.7	1.3	1.5	66.2	0.4	0.4	18.1	1.1	2.2	50.4	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.5	5.4	7.1	3.0	3.0	4.3	5.6	6.0	5.3	5.5	6.1
LnGrp Delay(d),s/veh	47.9	29.7	30.0	104.4	25.5	25.6	55.2	20.2	21.3	88.8	21.4	22.5
LnGrp LOS	D	C	C	F	C	C	E	C	C	F	C	C
Approach Vol, veh/h		607			478			1095			1053	
Approach Delay, s/veh		32.7			53.6			25.3			30.5	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.0	12.0	24.5	12.6	35.4	10.3	26.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0	8.0	36.0	10.0	30.0	8.0	36.0
Max Q Clear Time (g_c+I1), s	8.4	13.4	9.9	13.2	8.8	13.2	6.4	8.0
Green Ext Time (p_c), s	0.0	11.5	0.0	5.3	0.0	10.4	0.0	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	30	350	130	210	250	100	170	680	290	160	630	10
Future Volume (veh/h)	30	350	130	210	250	100	170	680	290	160	630	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	372	138	223	266	106	181	723	309	170	670	11
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	618	226	153	710	276	153	2068	641	153	2095	34
Arrive On Green	0.04	0.24	0.24	0.08	0.28	0.28	0.08	0.40	0.40	0.08	0.40	0.40
Sat Flow, veh/h	1810	2586	945	1810	2539	986	1810	5187	1609	1810	5256	86
Grp Volume(v), veh/h	32	258	252	223	187	185	181	723	309	170	440	241
Grp Sat Flow(s),veh/h/ln	1810	1805	1726	1810	1805	1720	1810	1729	1609	1810	1729	1884
Q Serve(g_s), s	1.4	10.5	10.8	7.0	6.9	7.2	7.0	8.1	11.8	7.0	7.3	7.3
Cycle Q Clear(g_c), s	1.4	10.5	10.8	7.0	6.9	7.2	7.0	8.1	11.8	7.0	7.3	7.3
Prop In Lane	1.00		0.55	1.00		0.57	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	80	431	413	153	505	481	153	2068	641	153	1378	751
V/C Ratio(X)	0.40	0.60	0.61	1.46	0.37	0.38	1.18	0.35	0.48	1.11	0.32	0.32
Avail Cap(c_a), veh/h	153	807	771	153	807	769	153	2068	641	153	1378	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	28.0	28.1	37.9	24.0	24.1	37.9	17.4	18.5	37.9	17.2	17.2
Incr Delay (d2), s/veh	3.2	1.3	1.5	238.3	0.5	0.5	130.4	0.5	2.6	105.7	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.4	5.3	13.6	3.5	3.5	9.0	3.9	5.7	7.9	3.5	4.0
LnGrp Delay(d),s/veh	41.7	29.3	29.5	276.2	24.4	24.6	168.3	17.9	21.1	143.6	17.8	18.3
LnGrp LOS	D	C	C	F	C	C	F	B	C	F	B	B
Approach Vol, veh/h		542			595			1213			851	
Approach Delay, s/veh		30.1			118.8			41.1			43.0	
Approach LOS		C			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.0	11.0	23.8	11.0	37.0	7.6	27.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0	7.0	37.0	7.0	33.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	9.0	13.8	9.0	12.8	9.0	9.3	3.4	9.2
Green Ext Time (p_c), s	0.0	9.5	0.0	4.9	0.0	10.6	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	690	110	150	610	100	70	100	90	60	140	80
Future Volume (veh/h)	70	690	110	150	610	100	70	100	90	60	140	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	734	117	160	649	106	74	106	96	64	149	85
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	1152	184	204	1443	766	149	331	272	138	385	208
Arrive On Green	0.08	0.37	0.37	0.11	0.40	0.40	0.08	0.18	0.18	0.08	0.17	0.17
Sat Flow, veh/h	1810	3118	497	1810	3610	1609	1810	1875	1542	1810	2260	1218
Grp Volume(v), veh/h	74	425	426	160	649	106	74	102	100	64	117	117
Grp Sat Flow(s),veh/h/ln	1810	1805	1810	1810	1805	1609	1810	1805	1612	1810	1805	1672
Q Serve(g_s), s	2.4	11.7	11.7	5.2	7.9	2.2	2.4	3.0	3.3	2.0	3.5	3.8
Cycle Q Clear(g_c), s	2.4	11.7	11.7	5.2	7.9	2.2	2.4	3.0	3.3	2.0	3.5	3.8
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.96	1.00		0.73
Lane Grp Cap(c), veh/h	149	667	669	204	1443	766	149	319	285	138	308	285
V/C Ratio(X)	0.50	0.64	0.64	0.79	0.45	0.14	0.50	0.32	0.35	0.46	0.38	0.41
Avail Cap(c_a), veh/h	270	867	869	300	1794	923	270	1285	1148	210	1226	1136
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	15.7	15.7	26.1	13.3	8.9	26.5	21.7	21.8	26.7	22.2	22.3
Incr Delay (d2), s/veh	2.5	1.0	1.0	8.0	0.2	0.1	2.5	0.6	0.7	2.4	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	6.0	6.0	3.0	4.0	1.0	1.3	1.5	1.5	1.1	1.8	1.8
LnGrp Delay(d),s/veh	29.0	16.7	16.7	34.1	13.5	9.0	29.0	22.3	22.6	29.1	23.0	23.3
LnGrp LOS	C	B	B	C	B	A	C	C	C	C	C	C
Approach Vol, veh/h		925			915			276			298	
Approach Delay, s/veh		17.7			16.6			24.2			24.4	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	14.7	10.8	26.3	9.0	14.3	9.0	28.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	29.0	9.0	41.0	9.0	30.0
Max Q Clear Time (g_c+I1), s	4.0	5.3	7.2	13.7	4.4	5.8	4.4	9.9
Green Ext Time (p_c), s	0.0	2.5	0.1	8.0	0.0	2.5	0.0	9.3

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	160	400	270	570	600	100	210	480	410	200	660	80
Future Volume (veh/h)	160	400	270	570	600	100	210	480	410	200	660	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	412	278	588	619	103	216	495	423	206	680	82
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	247	936	435	607	1675	275	287	1164	798	250	1011	122
Arrive On Green	0.07	0.27	0.27	0.17	0.37	0.37	0.08	0.32	0.32	0.07	0.31	0.31
Sat Flow, veh/h	3510	3458	1606	3510	4488	736	3510	3610	1607	3510	3243	391
Grp Volume(v), veh/h	165	412	278	588	475	247	216	495	423	206	378	384
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1767	1755	1805	1607	1755	1805	1829
Q Serve(g_s), s	4.5	9.7	15.0	16.4	9.8	10.0	5.9	10.6	17.7	5.7	17.9	18.0
Cycle Q Clear(g_c), s	4.5	9.7	15.0	16.4	9.8	10.0	5.9	10.6	17.7	5.7	17.9	18.0
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	247	936	435	607	1290	659	287	1164	798	250	563	570
V/C Ratio(X)	0.67	0.44	0.64	0.97	0.37	0.37	0.75	0.43	0.53	0.82	0.67	0.67
Avail Cap(c_a), veh/h	357	1267	588	607	1513	773	357	1616	999	250	753	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	29.7	31.6	40.4	22.4	22.4	44.2	26.2	17.0	45.0	29.4	29.5
Incr Delay (d2), s/veh	3.1	0.3	1.6	28.6	0.2	0.4	6.9	0.2	0.5	19.6	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.7	6.8	10.3	4.7	4.9	3.2	5.3	7.9	3.4	9.2	9.3
LnGrp Delay(d),s/veh	47.6	30.0	33.2	69.0	22.6	22.8	51.0	26.4	17.5	64.6	30.9	30.9
LnGrp LOS	D	C	C	E	C	C	D	C	B	E	C	C
Approach Vol, veh/h		855			1310			1134			968	
Approach Delay, s/veh		34.4			43.5			27.8			38.0	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	35.7	21.0	30.6	12.0	34.7	10.9	40.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	17.0	36.0	10.0	41.0	10.0	43.0
Max Q Clear Time (g_c+I1), s	7.7	19.7	18.4	17.0	7.9	20.0	6.5	12.0
Green Ext Time (p_c), s	0.0	9.7	0.0	8.2	0.1	9.1	0.1	9.9

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
42: Iris Ave & Nason St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	250	710	10	30	750	130	10	40	10	110	50	370
Future Volume (veh/h)	250	710	10	30	750	130	10	40	10	110	50	370
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	732	10	31	773	134	10	41	10	113	52	381
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	469	1937	26	88	1466	456	33	238	58	198	480	623
Arrive On Green	0.13	0.37	0.37	0.05	0.28	0.28	0.02	0.16	0.16	0.11	0.25	0.25
Sat Flow, veh/h	3510	5273	72	1810	5187	1615	1810	1476	360	1810	1900	1615
Grp Volume(v), veh/h	258	480	262	31	773	134	10	0	51	113	52	381
Grp Sat Flow(s),veh/h/ln	1755	1729	1887	1810	1729	1615	1810	0	1836	1810	1900	1615
Q Serve(g_s), s	3.5	5.2	5.2	0.8	6.4	3.3	0.3	0.0	1.2	3.0	1.1	9.7
Cycle Q Clear(g_c), s	3.5	5.2	5.2	0.8	6.4	3.3	0.3	0.0	1.2	3.0	1.1	9.7
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	469	1270	693	88	1466	456	33	0	296	198	480	623
V/C Ratio(X)	0.55	0.38	0.38	0.35	0.53	0.29	0.30	0.00	0.17	0.57	0.11	0.61
Avail Cap(c_a), veh/h	687	1422	776	248	1828	569	248	0	647	283	707	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	11.9	11.9	23.5	15.4	14.3	24.8	0.0	18.5	21.6	14.7	12.6
Incr Delay (d2), s/veh	1.0	0.2	0.3	2.4	0.3	0.4	5.1	0.0	0.3	2.6	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.5	2.8	0.5	3.0	1.5	0.2	0.0	0.6	1.6	0.6	4.4
LnGrp Delay(d),s/veh	21.7	12.1	12.2	25.9	15.7	14.7	29.9	0.0	18.8	24.2	14.8	13.6
LnGrp LOS	C	B	B	C	B	B	C		B	C	B	B
Approach Vol, veh/h		1000			938			61			546	
Approach Delay, s/veh		14.6			15.9			20.6			15.9	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	12.2	6.5	22.8	4.9	16.9	10.8	18.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	18.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.0	3.2	2.8	7.2	2.3	11.7	5.5	8.4
Green Ext Time (p_c), s	0.1	1.7	0.0	7.8	0.0	1.2	0.3	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	130	550	40	50	550	10	40	30	40	10	30	100
Future Volume (veh/h)	130	550	40	50	550	10	40	30	40	10	30	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	134	567	41	52	567	10	41	31	41	10	31	103
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	216	1619	116	131	1474	26	138	105	210	66	204	230
Arrive On Green	0.12	0.33	0.33	0.07	0.28	0.28	0.13	0.13	0.13	0.14	0.14	0.14
Sat Flow, veh/h	1810	4938	354	1810	5249	92	1052	795	1598	458	1419	1598
Grp Volume(v), veh/h	134	396	212	52	373	204	72	0	41	41	0	103
Grp Sat Flow(s),veh/h/ln	1810	1729	1834	1810	1729	1883	1847	0	1598	1877	0	1598
Q Serve(g_s), s	3.5	4.3	4.3	1.4	4.3	4.3	1.7	0.0	1.1	0.9	0.0	2.9
Cycle Q Clear(g_c), s	3.5	4.3	4.3	1.4	4.3	4.3	1.7	0.0	1.1	0.9	0.0	2.9
Prop In Lane	1.00		0.19	1.00		0.05	0.57		1.00	0.24		1.00
Lane Grp Cap(c), veh/h	216	1133	601	131	971	529	243	0	210	270	0	230
V/C Ratio(X)	0.62	0.35	0.35	0.40	0.38	0.39	0.30	0.00	0.19	0.15	0.00	0.45
Avail Cap(c_a), veh/h	257	1753	930	294	1824	993	1274	0	1102	1409	0	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	12.6	12.6	21.8	14.3	14.3	19.3	0.0	19.1	18.5	0.0	19.3
Incr Delay (d2), s/veh	3.3	0.2	0.4	1.9	0.2	0.5	0.7	0.0	0.4	0.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.1	2.2	0.7	2.1	2.3	0.9	0.0	0.5	0.5	0.0	1.4
LnGrp Delay(d),s/veh	24.0	12.8	13.0	23.8	14.5	14.8	20.0	0.0	19.5	18.7	0.0	20.7
LnGrp LOS	C	B	B	C	B	B	C		B	B		C
Approach Vol, veh/h		742			629			113			144	
Approach Delay, s/veh		14.8			15.4			19.8			20.1	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		10.5	7.6	20.2		11.1	9.9	17.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	8.0	25.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		3.7	3.4	6.3		4.9	5.5	6.3
Green Ext Time (p_c), s		0.5	0.0	6.5		0.5	0.0	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	30	560	30	40	580	10	30	10	30	10	10	20
Future Volume (veh/h)	30	560	30	40	580	10	30	10	30	10	10	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	609	33	43	630	11	33	11	33	11	11	22
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	1739	94	119	1878	33	96	366	414	36	90	179
Arrive On Green	0.05	0.35	0.35	0.07	0.36	0.36	0.05	0.19	0.19	0.02	0.16	0.16
Sat Flow, veh/h	1810	5037	271	1810	5250	91	1810	1900	1602	1810	563	1126
Grp Volume(v), veh/h	33	417	225	43	415	226	33	11	33	11	0	33
Grp Sat Flow(s),veh/h/ln	1810	1729	1851	1810	1729	1883	1810	1900	1602	1810	0	1689
Q Serve(g_s), s	0.7	3.8	3.8	1.0	3.7	3.7	0.7	0.2	0.7	0.3	0.0	0.7
Cycle Q Clear(g_c), s	0.7	3.8	3.8	1.0	3.7	3.7	0.7	0.2	0.7	0.3	0.0	0.7
Prop In Lane	1.00		0.15	1.00		0.05	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	96	1194	639	119	1237	674	96	366	414	36	0	269
V/C Ratio(X)	0.34	0.35	0.35	0.36	0.34	0.34	0.34	0.03	0.08	0.30	0.00	0.12
Avail Cap(c_a), veh/h	298	2442	1307	298	2442	1330	298	2013	1803	298	0	1789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	10.4	10.4	19.0	10.0	10.0	19.4	13.9	11.9	20.5	0.0	15.3
Incr Delay (d2), s/veh	2.1	0.2	0.3	1.9	0.2	0.3	2.1	0.0	0.1	4.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	2.0	0.5	1.8	1.9	0.4	0.1	0.3	0.2	0.0	0.3
LnGrp Delay(d),s/veh	21.5	10.5	10.7	20.8	10.1	10.3	21.5	14.0	12.0	25.1	0.0	15.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		675			684			77			44	
Approach Delay, s/veh		11.1			10.8			16.4			17.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	12.2	6.8	18.7	6.3	10.8	6.3	19.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	2.7	3.0	5.8	2.7	2.7	2.7	5.7
Green Ext Time (p_c), s	0.0	0.3	0.0	7.9	0.0	0.3	0.0	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	100	80	220	50	120	30	950	180	100	870	20
Future Volume (veh/h)	20	100	80	220	50	120	30	950	180	100	870	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	109	87	239	54	130	33	1033	196	109	946	22
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	183	186	317	72	341	82	1706	323	145	2212	51
Arrive On Green	0.12	0.12	0.12	0.21	0.21	0.21	0.05	0.39	0.39	0.08	0.42	0.42
Sat Flow, veh/h	316	1568	1594	1489	336	1604	1810	4378	829	1810	5215	121
Grp Volume(v), veh/h	131	0	87	293	0	130	33	816	413	109	627	341
Grp Sat Flow(s),veh/h/ln	1884	0	1594	1826	0	1604	1810	1729	1750	1810	1729	1878
Q Serve(g_s), s	5.3	0.0	4.1	12.0	0.0	5.5	1.4	15.0	15.0	4.7	10.1	10.2
Cycle Q Clear(g_c), s	5.3	0.0	4.1	12.0	0.0	5.5	1.4	15.0	15.0	4.7	10.1	10.2
Prop In Lane	0.17		1.00	0.82		1.00	1.00		0.47	1.00		0.06
Lane Grp Cap(c), veh/h	220	0	186	388	0	341	82	1347	682	145	1467	797
V/C Ratio(X)	0.60	0.00	0.47	0.75	0.00	0.38	0.40	0.61	0.61	0.75	0.43	0.43
Avail Cap(c_a), veh/h	687	0	581	734	0	645	159	1347	682	159	1467	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	0.0	32.8	29.4	0.0	26.8	36.9	19.4	19.4	35.8	16.1	16.1
Incr Delay (d2), s/veh	2.6	0.0	1.8	3.0	0.0	0.7	3.1	2.0	4.0	16.6	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	1.9	6.3	0.0	2.5	0.8	7.5	8.0	3.0	5.0	5.6
LnGrp Delay(d),s/veh	35.9	0.0	34.7	32.4	0.0	27.5	40.0	21.4	23.4	52.4	17.0	17.8
LnGrp LOS	D		C	C		C	D	C	C	D	B	B
Approach Vol, veh/h		218			423			1262			1077	
Approach Delay, s/veh		35.4			30.9			22.5			20.8	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	35.0		13.3	7.6	37.7		20.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	7.0	31.0		32.0
Max Q Clear Time (g_c+I1), s	6.7	17.0		7.3	3.4	12.2		14.0
Green Ext Time (p_c), s	0.0	10.1		0.9	0.0	12.6		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	90	240	30	20	230	70	20	60	30	110	70	160
Future Volume (veh/h)	90	240	30	20	230	70	20	60	30	110	70	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	253	32	21	242	74	21	63	32	116	74	168
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	195	979	122	65	633	189	65	446	211	215	489	435
Arrive On Green	0.11	0.30	0.30	0.04	0.23	0.23	0.04	0.19	0.19	0.12	0.27	0.27
Sat Flow, veh/h	1810	3228	404	1810	2737	817	1810	2373	1123	1810	1805	1606
Grp Volume(v), veh/h	95	140	145	21	158	158	21	47	48	116	74	168
Grp Sat Flow(s),veh/h/ln	1810	1805	1826	1810	1805	1750	1810	1805	1691	1810	1805	1606
Q Serve(g_s), s	2.2	2.7	2.7	0.5	3.3	3.5	0.5	1.0	1.1	2.7	1.4	3.8
Cycle Q Clear(g_c), s	2.2	2.7	2.7	0.5	3.3	3.5	0.5	1.0	1.1	2.7	1.4	3.8
Prop In Lane	1.00		0.22	1.00		0.47	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	195	547	554	65	417	405	65	339	318	215	489	435
V/C Ratio(X)	0.49	0.26	0.26	0.32	0.38	0.39	0.32	0.14	0.15	0.54	0.15	0.39
Avail Cap(c_a), veh/h	320	1239	1253	280	1199	1162	280	1278	1198	360	1358	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	11.9	11.9	21.2	14.6	14.7	21.2	15.3	15.3	18.7	12.5	13.4
Incr Delay (d2), s/veh	1.9	0.2	0.2	2.8	0.6	0.6	2.8	0.2	0.2	2.1	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.4	1.4	0.3	1.7	1.7	0.3	0.5	0.5	1.5	0.7	1.7
LnGrp Delay(d),s/veh	20.8	12.1	12.2	24.1	15.2	15.3	24.1	15.5	15.6	20.8	12.7	14.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		380			337			116			358	
Approach Delay, s/veh		14.3			15.8			17.1			15.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	12.5	5.6	17.7	5.6	16.2	8.9	14.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	7.0	31.0	7.0	34.0	8.0	30.0
Max Q Clear Time (g_c+I1), s	4.7	3.1	2.5	4.7	2.5	5.8	4.2	5.5
Green Ext Time (p_c), s	0.1	1.9	0.0	3.8	0.0	1.9	0.1	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	110	60	150	70	30	50	90	770	60	100	1030	70
Future Volume (veh/h)	110	60	150	70	30	50	90	770	60	100	1030	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	64	160	74	32	53	96	819	64	106	1096	74
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	318	301	267	139	276	247	154	1578	830	159	1509	102
Arrive On Green	0.09	0.17	0.17	0.08	0.15	0.15	0.09	0.44	0.44	0.09	0.44	0.44
Sat Flow, veh/h	3510	1805	1600	1810	1805	1615	1810	3610	1615	1810	3432	232
Grp Volume(v), veh/h	117	64	160	74	32	53	96	819	64	106	576	594
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1810	1805	1615	1810	1805	1615	1810	1805	1858
Q Serve(g_s), s	2.2	2.1	6.4	2.7	1.1	2.0	3.5	11.4	1.4	3.9	18.2	18.2
Cycle Q Clear(g_c), s	2.2	2.1	6.4	2.7	1.1	2.0	3.5	11.4	1.4	3.9	18.2	18.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	318	301	267	139	276	247	154	1578	830	159	794	817
V/C Ratio(X)	0.37	0.21	0.60	0.53	0.12	0.21	0.62	0.52	0.08	0.67	0.73	0.73
Avail Cap(c_a), veh/h	355	914	810	183	914	818	183	1619	848	288	914	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	24.9	26.7	30.7	25.3	25.6	30.5	14.2	8.5	30.5	15.9	15.9
Incr Delay (d2), s/veh	0.7	0.3	2.2	3.1	0.2	0.4	4.7	0.3	0.0	4.7	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	3.0	1.5	0.5	0.9	2.0	5.7	0.6	2.2	9.5	9.8
LnGrp Delay(d),s/veh	30.3	25.2	28.8	33.9	25.4	26.1	35.3	14.4	8.5	35.2	18.4	18.4
LnGrp LOS	C	C	C	C	C	C	D	B	A	D	B	B
Approach Vol, veh/h		341			159			979			1276	
Approach Delay, s/veh		28.7			29.6			16.1			19.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	34.2	9.3	15.5	9.9	34.4	10.3	14.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	7.0	35.0	7.0	35.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	5.9	13.4	4.7	8.4	5.5	20.2	4.2	4.0
Green Ext Time (p_c), s	0.1	11.3	0.0	1.9	0.0	10.0	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	140	660	170	20	470	50	110	190	20	50	210	110
Future Volume (veh/h)	140	660	170	20	470	50	110	190	20	50	210	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	702	181	21	500	53	117	202	21	53	223	117
Adj No. of Lanes	1	2	1	1	2	1	2	1	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	1671	884	60	1416	784	302	326	34	171	467	236
Arrive On Green	0.10	0.46	0.46	0.03	0.39	0.39	0.09	0.19	0.19	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	1610	1810	3610	1609	3510	1691	176	1810	2318	1170
Grp Volume(v), veh/h	149	702	181	21	500	53	117	0	223	53	172	168
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1609	1755	0	1867	1810	1805	1683
Q Serve(g_s), s	5.9	9.6	4.2	0.8	7.2	0.4	2.3	0.0	8.1	2.0	6.2	6.6
Cycle Q Clear(g_c), s	5.9	9.6	4.2	0.8	7.2	0.4	2.3	0.0	8.1	2.0	6.2	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.70
Lane Grp Cap(c), veh/h	188	1671	884	60	1416	784	302	0	360	171	364	339
V/C Ratio(X)	0.79	0.42	0.20	0.35	0.35	0.07	0.39	0.00	0.62	0.31	0.47	0.50
Avail Cap(c_a), veh/h	269	1671	884	171	1416	784	380	0	1036	441	1245	1161
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	13.2	8.5	35.0	15.8	3.3	31.9	0.0	27.3	31.2	26.0	26.2
Incr Delay (d2), s/veh	10.0	0.8	0.5	3.4	0.7	0.2	0.8	0.0	1.7	1.0	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	5.0	2.0	0.5	3.7	0.3	1.2	0.0	4.3	1.0	3.2	3.1
LnGrp Delay(d),s/veh	42.4	14.0	9.0	38.4	16.5	3.5	32.7	0.0	29.1	32.2	27.0	27.3
LnGrp LOS	D	B	A	D	B	A	C		C	C	C	C
Approach Vol, veh/h		1032			574			340			393	
Approach Delay, s/veh		17.2			16.1			30.3			27.8	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	18.3	6.5	38.2	10.4	18.9	11.7	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	8.0	51.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	4.0	10.1	2.8	11.6	4.3	8.6	7.9	9.2
Green Ext Time (p_c), s	1.7	1.2	0.0	8.6	0.1	2.2	0.1	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	50	390	220	70	310	20	150	340	100	20	290	40
Future Volume (veh/h)	50	390	220	70	310	20	150	340	100	20	290	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	429	242	77	341	22	165	374	110	22	319	44
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	118	559	472	140	581	650	213	575	609	180	464	64
Arrive On Green	0.07	0.29	0.29	0.08	0.31	0.31	0.12	0.30	0.30	0.10	0.28	0.28
Sat Flow, veh/h	1810	1900	1607	1810	1900	1602	1810	1900	1602	1810	1633	225
Grp Volume(v), veh/h	55	429	242	77	341	22	165	374	110	22	0	363
Grp Sat Flow(s),veh/h/ln	1810	1900	1607	1810	1900	1602	1810	1900	1602	1810	0	1858
Q Serve(g_s), s	2.1	14.5	5.9	2.9	10.7	0.6	6.2	12.1	0.8	0.8	0.0	12.3
Cycle Q Clear(g_c), s	2.1	14.5	5.9	2.9	10.7	0.6	6.2	12.1	0.8	0.8	0.0	12.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	118	559	472	140	581	650	213	575	609	180	0	528
V/C Ratio(X)	0.46	0.77	0.51	0.55	0.59	0.03	0.77	0.65	0.18	0.12	0.00	0.69
Avail Cap(c_a), veh/h	205	889	752	180	862	887	257	997	965	180	0	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.8	22.7	9.4	31.4	20.7	12.7	30.2	21.4	5.6	29.0	0.0	22.5
Incr Delay (d2), s/veh	2.8	2.3	0.9	3.3	0.9	0.0	11.4	1.3	0.1	0.3	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.0	3.4	1.6	5.7	0.3	3.8	6.5	0.8	0.4	0.0	6.5
LnGrp Delay(d),s/veh	34.6	25.0	10.2	34.7	21.7	12.7	41.6	22.6	5.7	29.3	0.0	24.1
LnGrp LOS	C	C	B	C	C	B	D	C	A	C		C
Approach Vol, veh/h		726			440			649			385	
Approach Delay, s/veh		20.8			23.5			24.6			24.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	25.3	9.5	24.7	12.3	24.0	8.6	25.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	2.8	14.1	4.9	16.5	8.2	14.3	4.1	12.7
Green Ext Time (p_c), s	0.0	4.5	0.5	2.9	0.1	4.3	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

	↗	→	←	↖	↘	↙
Movement	**EBL**	**EBT**	**WBT**	**WBR**	**SBL**	**SBR**
Lane Configurations	↰	↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	100	410	320	60	40	60
Future Volume (veh/h)	100	410	320	60	40	60
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	461	360	67	45	67
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	245	1051	1079	478	377	555
Arrive On Green	0.14	0.55	0.30	0.30	0.21	0.21
Sat Flow, veh/h	1810	1900	3705	1601	1810	1615
Grp Volume(v), veh/h	112	461	360	67	45	67
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1601	1810	1615
Q Serve(g_s), s	1.9	4.8	2.6	1.0	0.7	1.0
Cycle Q Clear(g_c), s	1.9	4.8	2.6	1.0	0.7	1.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	245	1051	1079	478	377	555
V/C Ratio(X)	0.46	0.44	0.33	0.14	0.12	0.12
Avail Cap(c_a), veh/h	485	2321	3012	1336	2210	2191
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	4.4	9.2	8.6	10.8	7.5
Incr Delay (d2), s/veh	1.3	0.3	0.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.5	1.3	0.5	0.4	1.0
LnGrp Delay(d),s/veh	14.7	4.7	9.3	8.7	10.9	7.6
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		573	427		112	
Approach Delay, s/veh		6.7	9.3		9.0	
Approach LOS		A	A		A	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				22.6		11.0	8.5	14.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				6.8		3.0	3.9	4.6
Green Ext Time (p_c), s				5.4		0.3	0.1	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	120	310	70	30	230	100	80	680	110	100	580	80
Future Volume (veh/h)	120	310	70	30	230	100	80	680	110	100	580	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	337	76	33	250	109	87	739	120	109	630	87
Adj No. of Lanes	2	2	1	2	1	1	1	2	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	366	672	298	466	407	344	310	1125	499	176	1233	380
Arrive On Green	0.10	0.19	0.19	0.13	0.21	0.21	0.17	0.31	0.31	0.10	0.24	0.24
Sat Flow, veh/h	3510	3610	1602	3510	1900	1604	1810	3610	1602	1810	5187	1598
Grp Volume(v), veh/h	130	337	76	33	250	109	87	739	120	109	630	87
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1900	1604	1810	1805	1602	1810	1729	1598
Q Serve(g_s), s	2.0	4.9	2.4	0.5	7.0	3.4	2.5	10.4	3.3	3.4	6.2	2.6
Cycle Q Clear(g_c), s	2.0	4.9	2.4	0.5	7.0	3.4	2.5	10.4	3.3	3.4	6.2	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	672	298	466	407	344	310	1125	499	176	1233	380
V/C Ratio(X)	0.35	0.50	0.25	0.07	0.61	0.32	0.28	0.66	0.24	0.62	0.51	0.23
Avail Cap(c_a), veh/h	418	2209	980	466	1163	981	310	1902	844	308	2821	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	21.5	20.5	22.3	20.9	19.5	21.2	17.5	15.1	25.5	19.5	18.1
Incr Delay (d2), s/veh	0.6	0.6	0.4	0.1	1.5	0.5	0.5	0.7	0.2	3.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.5	1.1	0.2	3.9	1.5	1.3	5.2	1.5	1.9	3.0	1.2
LnGrp Delay(d),s/veh	25.1	22.1	20.9	22.4	22.4	20.0	21.7	18.2	15.3	29.0	19.8	18.4
LnGrp LOS	C	C	C	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		543			392			946			826	
Approach Delay, s/veh		22.6			21.7			18.1			20.9	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	22.3	11.8	14.9	14.1	18.0	10.1	16.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	31.0	7.0	36.0	9.0	32.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	5.4	12.4	2.5	6.9	4.5	8.2	4.0	9.0
Green Ext Time (p_c), s	0.1	4.8	0.2	2.2	0.2	4.3	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	50	650	160	30	480	30	100	200	20	40	230	60
Future Volume (veh/h)	50	650	160	30	480	30	100	200	20	40	230	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	684	168	32	505	32	105	211	21	42	242	63
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	1249	307	84	1437	91	158	773	76	101	383	323
Arrive On Green	0.06	0.43	0.43	0.05	0.42	0.42	0.09	0.23	0.23	0.06	0.20	0.20
Sat Flow, veh/h	1810	2873	705	1810	3448	218	1810	3318	327	1810	1900	1603
Grp Volume(v), veh/h	53	430	422	32	264	273	105	114	118	42	242	63
Grp Sat Flow(s),veh/h/ln	1810	1805	1773	1810	1805	1861	1810	1805	1840	1810	1900	1603
Q Serve(g_s), s	2.0	12.3	12.3	1.2	7.0	7.0	3.9	3.6	3.7	1.6	8.1	2.3
Cycle Q Clear(g_c), s	2.0	12.3	12.3	1.2	7.0	7.0	3.9	3.6	3.7	1.6	8.1	2.3
Prop In Lane	1.00		0.40	1.00		0.12	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	117	785	771	84	752	775	158	421	429	101	383	323
V/C Ratio(X)	0.45	0.55	0.55	0.38	0.35	0.35	0.66	0.27	0.28	0.42	0.63	0.19
Avail Cap(c_a), veh/h	182	785	771	182	752	775	260	804	819	182	764	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	14.6	14.6	32.2	13.9	13.9	30.8	21.8	21.9	31.8	25.4	23.1
Incr Delay (d2), s/veh	2.7	2.7	2.8	2.8	1.3	1.3	4.7	0.3	0.3	2.7	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.7	6.6	0.7	3.7	3.8	2.2	1.8	1.9	0.9	4.4	1.0
LnGrp Delay(d),s/veh	34.1	17.3	17.4	35.0	15.2	15.1	35.5	22.2	22.2	34.5	27.1	23.4
LnGrp LOS	C	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		905			569			337			347	
Approach Delay, s/veh		18.3			16.3			26.3			27.3	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	20.2	7.2	34.3	10.1	18.0	8.5	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	29.0	10.0	28.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.6	5.7	3.2	14.3	5.9	10.1	4.0	9.0
Green Ext Time (p_c), s	0.0	2.7	0.0	6.7	0.1	2.5	0.0	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	60	360	190	230	360	80	100	410	190	40	540	30
Future Volume (veh/h)	60	360	190	230	360	80	100	410	190	40	540	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	375	198	240	375	83	104	427	0	42	562	31
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	809	421	278	1595	711	140	891	399	95	771	42
Arrive On Green	0.06	0.35	0.35	0.15	0.44	0.44	0.08	0.25	0.00	0.05	0.22	0.22
Sat Flow, veh/h	1810	2295	1193	1810	3610	1610	1810	3610	1615	1810	3478	192
Grp Volume(v), veh/h	62	294	279	240	375	83	104	427	0	42	291	302
Grp Sat Flow(s),veh/h/ln	1810	1805	1683	1810	1805	1610	1810	1805	1615	1810	1805	1865
Q Serve(g_s), s	2.7	10.4	10.6	10.6	5.3	2.5	4.6	8.3	0.0	1.9	12.3	12.4
Cycle Q Clear(g_c), s	2.7	10.4	10.6	10.6	5.3	2.5	4.6	8.3	0.0	1.9	12.3	12.4
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	117	636	593	278	1595	711	140	891	399	95	400	414
V/C Ratio(X)	0.53	0.46	0.47	0.86	0.24	0.12	0.74	0.48	0.00	0.44	0.73	0.73
Avail Cap(c_a), veh/h	176	636	593	286	1595	711	176	1316	589	154	636	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	20.6	20.7	34.0	14.3	13.5	37.1	26.5	0.0	37.8	29.7	29.7
Incr Delay (d2), s/veh	3.7	2.4	2.7	22.4	0.3	0.3	11.9	0.4	0.0	3.2	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.6	5.3	7.1	2.7	1.2	2.8	4.2	0.0	1.0	6.4	6.7
LnGrp Delay(d),s/veh	41.0	23.0	23.3	56.4	14.7	13.9	49.1	26.9	0.0	41.0	32.2	32.2
LnGrp LOS	D	C	C	E	B	B	D	C		D	C	C
Approach Vol, veh/h		635			698			531			635	
Approach Delay, s/veh		24.9			28.9			31.2			32.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	24.3	16.6	33.0	10.4	22.2	9.3	40.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	8.0	29.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	3.9	10.3	12.6	12.6	6.6	14.4	4.7	7.3
Green Ext Time (p_c), s	0.0	2.6	0.0	2.8	0.4	2.7	0.0	3.1

Intersection Summary			
HCM 2010 Ctrl Delay			29.4
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	140	380	90	30	260	60	50	330	30	110	450	130
Future Volume (veh/h)	140	380	90	30	260	60	50	330	30	110	450	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	400	95	32	274	63	53	347	32	116	474	137
Adj No. of Lanes	1	1	1	1	1	0	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	696	589	88	454	104	245	663	293	217	844	375
Arrive On Green	0.11	0.37	0.37	0.05	0.30	0.30	0.07	0.18	0.18	0.12	0.23	0.23
Sat Flow, veh/h	1810	1900	1608	1810	1494	343	3510	3610	1593	1810	3610	1605
Grp Volume(v), veh/h	147	400	95	32	0	337	53	347	32	116	474	137
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1837	1755	1805	1593	1810	1805	1605
Q Serve(g_s), s	4.5	9.6	2.3	1.0	0.0	8.9	0.8	4.9	0.7	3.4	6.6	4.1
Cycle Q Clear(g_c), s	4.5	9.6	2.3	1.0	0.0	8.9	0.8	4.9	0.7	3.4	6.6	4.1
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	696	589	88	0	558	245	663	293	217	844	375
V/C Ratio(X)	0.73	0.58	0.16	0.36	0.00	0.60	0.22	0.52	0.11	0.53	0.56	0.37
Avail Cap(c_a), veh/h	287	1404	1188	223	0	1293	432	1778	785	223	1778	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	14.5	12.1	26.2	0.0	16.9	25.0	21.0	11.4	23.5	19.2	18.2
Incr Delay (d2), s/veh	5.5	0.8	0.1	2.5	0.0	1.1	0.4	0.6	0.2	2.3	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.1	1.0	0.5	0.0	4.7	0.4	2.5	0.4	1.8	3.4	1.8
LnGrp Delay(d),s/veh	30.0	15.2	12.3	28.6	0.0	17.9	25.4	21.6	11.6	25.9	19.8	18.8
LnGrp LOS	C	B	B	C		B	C	C	B	C	B	B
Approach Vol, veh/h		642			369			432			727	
Approach Delay, s/veh		18.2			18.8			21.3			20.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	14.4	6.8	24.8	8.0	17.3	10.3	21.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	9.0	40.0
Max Q Clear Time (g_c+I1), s	5.4	6.9	3.0	11.6	2.8	8.6	6.5	10.9
Green Ext Time (p_c), s	0.6	2.0	0.0	4.6	0.0	3.5	0.1	4.6

Intersection Summary			
HCM 2010 Ctrl Delay			19.7
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1240	120	80	830	180	60	270	40	260	300	130
Future Volume (veh/h)	190	1240	120	80	830	180	60	270	40	260	300	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	192	1253	121	81	838	182	61	273	40	263	303	131
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	218	1745	778	129	1854	400	224	530	77	296	680	302
Arrive On Green	0.12	0.48	0.48	0.07	0.43	0.43	0.06	0.17	0.17	0.08	0.19	0.19
Sat Flow, veh/h	1810	3610	1610	1810	4270	921	3510	3162	458	3510	3610	1602
Grp Volume(v), veh/h	192	1253	121	81	678	342	61	154	159	263	303	131
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1734	1755	1805	1814	1755	1805	1602
Q Serve(g_s), s	8.7	22.8	3.5	3.6	11.4	11.5	1.4	6.5	6.6	6.1	6.2	4.4
Cycle Q Clear(g_c), s	8.7	22.8	3.5	3.6	11.4	11.5	1.4	6.5	6.6	6.1	6.2	4.4
Prop In Lane	1.00		1.00	1.00		0.53	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	218	1745	778	129	1502	753	224	303	304	296	680	302
V/C Ratio(X)	0.88	0.72	0.16	0.63	0.45	0.45	0.27	0.51	0.52	0.89	0.45	0.43
Avail Cap(c_a), veh/h	218	1745	778	153	1502	753	296	893	897	296	1785	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	16.9	12.0	37.4	16.5	16.5	37.0	31.4	31.5	37.6	29.8	16.0
Incr Delay (d2), s/veh	31.1	2.6	0.4	6.0	1.0	2.0	0.7	1.3	1.4	26.0	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	11.9	1.6	2.0	5.7	5.9	0.7	3.3	3.4	4.1	3.1	2.5
LnGrp Delay(d),s/veh	66.9	19.5	12.4	43.4	17.5	18.5	37.6	32.7	32.8	63.6	30.3	16.9
LnGrp LOS	E	B	B	D	B	B	D	C	C	E	C	B
Approach Vol, veh/h		1566			1101			374			697	
Approach Delay, s/veh		24.8			19.7			33.6			40.3	
Approach LOS		C			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	17.9	9.9	44.1	9.3	19.6	14.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	7.0	39.0	7.0	41.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	8.1	8.6	5.6	24.8	3.4	8.2	10.7	13.5
Green Ext Time (p_c), s	0.0	1.9	0.0	7.9	0.0	3.6	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	1260	160	160	870	160	110	220	70	130	150	80
Future Volume (veh/h)	80	1260	160	160	870	160	110	220	70	130	150	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	84	1326	0	168	916	168	116	232	74	137	158	84
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	1683	753	201	2055	375	207	444	138	168	330	166
Arrive On Green	0.11	0.47	0.00	0.11	0.47	0.47	0.11	0.16	0.16	0.09	0.14	0.14
Sat Flow, veh/h	1810	3610	1615	1810	4408	805	1810	2707	841	1810	2316	1168
Grp Volume(v), veh/h	84	1326	0	168	718	366	116	153	153	137	121	121
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1755	1810	1805	1742	1810	1805	1679
Q Serve(g_s), s	4.2	29.9	0.0	8.8	13.5	13.6	5.9	7.5	7.8	7.2	6.0	6.4
Cycle Q Clear(g_c), s	4.2	29.9	0.0	8.8	13.5	13.6	5.9	7.5	7.8	7.2	6.0	6.4
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.48	1.00		0.70
Lane Grp Cap(c), veh/h	201	1683	753	201	1612	818	207	296	286	168	257	239
V/C Ratio(X)	0.42	0.79	0.00	0.84	0.45	0.45	0.56	0.52	0.54	0.82	0.47	0.50
Avail Cap(c_a), veh/h	225	1683	753	225	1612	818	207	786	758	187	767	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	21.7	0.0	42.0	17.3	17.4	40.4	36.8	37.0	43.0	38.0	38.2
Incr Delay (d2), s/veh	1.4	3.8	0.0	21.4	0.9	1.8	3.4	1.4	1.6	21.6	1.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	15.6	0.0	5.6	6.6	6.9	3.1	3.8	3.9	4.6	3.1	3.1
LnGrp Delay(d),s/veh	41.4	25.5	0.0	63.5	18.2	19.1	43.8	38.2	38.5	64.6	39.4	39.9
LnGrp LOS	D	C		E	B	B	D	D	D	E	D	D
Approach Vol, veh/h		1410			1252			422			379	
Approach Delay, s/veh		26.5			24.6			39.9			48.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	19.8	14.7	49.0	15.0	17.8	14.7	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	42.0	12.0	45.0	11.0	41.0	12.0	45.0
Max Q Clear Time (g_c+I1), s	9.2	9.8	10.8	31.9	7.9	8.4	6.2	15.6
Green Ext Time (p_c), s	0.0	2.2	0.0	7.3	0.7	1.5	3.9	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	120	1130	150	50	830	120	170	400	80	210	450	120
Future Volume (veh/h)	120	1130	150	50	830	120	170	400	80	210	450	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	1165	155	52	856	124	175	412	82	216	464	124
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	2132	811	134	1825	263	168	687	135	158	804	497
Arrive On Green	0.09	0.41	0.41	0.07	0.40	0.40	0.09	0.23	0.23	0.09	0.22	0.22
Sat Flow, veh/h	1810	5187	1609	1810	4579	660	1810	3003	593	1810	3610	1604
Grp Volume(v), veh/h	124	1165	155	52	645	335	175	246	248	216	464	124
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1781	1810	1805	1791	1810	1805	1604
Q Serve(g_s), s	5.4	13.7	0.0	2.2	11.1	11.2	7.5	9.8	9.9	7.0	9.2	3.0
Cycle Q Clear(g_c), s	5.4	13.7	0.0	2.2	11.1	11.2	7.5	9.8	9.9	7.0	9.2	3.0
Prop In Lane	1.00		1.00	1.00		0.37	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	157	2132	811	134	1378	710	168	413	409	158	804	497
V/C Ratio(X)	0.79	0.55	0.19	0.39	0.47	0.47	1.04	0.60	0.61	1.37	0.58	0.25
Avail Cap(c_a), veh/h	180	2132	811	158	1378	710	168	944	937	158	1888	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	18.0	10.9	35.4	17.9	17.9	36.4	27.7	27.7	36.7	27.8	9.6
Incr Delay (d2), s/veh	18.7	1.0	0.5	1.8	1.1	2.2	80.4	1.4	1.4	201.2	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.7	2.0	1.2	5.5	5.9	7.4	5.0	5.1	12.3	4.6	1.5
LnGrp Delay(d),s/veh	54.6	19.0	11.5	37.3	19.0	20.1	116.9	29.1	29.2	237.8	28.5	9.9
LnGrp LOS	D	B	B	D	B	C	F	C	C	F	C	A
Approach Vol, veh/h		1444			1032			669			804	
Approach Delay, s/veh		21.2			20.3			52.1			81.9	
Approach LOS		C			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.4	9.9	37.0	11.5	21.9	10.9	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	9.0	11.9	4.2	15.7	9.5	11.2	7.4	13.2
Green Ext Time (p_c), s	0.0	3.6	1.6	7.6	0.0	3.8	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	980	140	110	760	70	100	300	80	160	310	70
Future Volume (veh/h)	140	980	140	110	760	70	100	300	80	160	310	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	1010	144	113	784	72	103	309	82	165	320	72
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	1836	261	164	1936	177	185	564	147	187	588	130
Arrive On Green	0.09	0.40	0.40	0.09	0.40	0.40	0.10	0.20	0.20	0.10	0.20	0.20
Sat Flow, veh/h	1810	4587	653	1810	4836	442	1810	2830	739	1810	2934	651
Grp Volume(v), veh/h	144	761	393	113	559	297	103	195	196	165	195	197
Grp Sat Flow(s),veh/h/ln	1810	1729	1782	1810	1729	1820	1810	1805	1763	1810	1805	1779
Q Serve(g_s), s	6.1	13.1	13.1	4.7	9.0	9.0	4.2	7.5	7.7	7.0	7.5	7.7
Cycle Q Clear(g_c), s	6.1	13.1	13.1	4.7	9.0	9.0	4.2	7.5	7.7	7.0	7.5	7.7
Prop In Lane	1.00		0.37	1.00		0.24	1.00		0.42	1.00		0.37
Lane Grp Cap(c), veh/h	164	1384	713	164	1384	729	185	360	352	187	362	357
V/C Ratio(X)	0.88	0.55	0.55	0.69	0.40	0.41	0.56	0.54	0.56	0.88	0.54	0.55
Avail Cap(c_a), veh/h	164	1384	713	164	1384	729	185	1002	979	187	1025	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	17.9	17.9	34.2	16.6	16.6	33.1	27.8	27.9	34.3	27.8	27.8
Incr Delay (d2), s/veh	38.4	1.6	3.1	11.7	0.9	1.7	3.6	1.3	1.4	35.4	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	6.5	7.0	2.9	4.4	4.9	2.3	3.9	3.9	5.3	3.9	3.9
LnGrp Delay(d),s/veh	73.2	19.4	20.9	45.9	17.5	18.3	36.7	29.1	29.3	69.7	29.0	29.2
LnGrp LOS	E	B	C	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		1298			969			494			557	
Approach Delay, s/veh		25.9			21.1			30.8			41.1	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	19.4	11.0	35.0	11.9	19.5	11.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	43.0	7.0	31.0	7.0	44.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	9.0	9.7	6.7	15.1	6.2	9.7	8.1	11.0
Green Ext Time (p_c), s	0.0	2.5	0.2	6.4	0.1	2.5	0.0	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	230	700	250	160	580	90	220	660	130	140	780	190
Future Volume (veh/h)	230	700	250	160	580	90	220	660	130	140	780	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	737	263	168	611	95	232	695	137	147	821	200
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	1254	559	242	1486	228	233	959	427	288	1068	476
Arrive On Green	0.09	0.35	0.35	0.07	0.33	0.33	0.13	0.27	0.27	0.16	0.30	0.30
Sat Flow, veh/h	3510	3610	1608	3510	4536	696	1810	3610	1606	1810	3610	1607
Grp Volume(v), veh/h	242	737	263	168	464	242	232	695	137	147	821	200
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1773	1810	1805	1606	1810	1805	1607
Q Serve(g_s), s	6.8	16.9	8.8	4.7	10.5	10.7	12.9	17.6	5.5	7.5	20.9	10.1
Cycle Q Clear(g_c), s	6.8	16.9	8.8	4.7	10.5	10.7	12.9	17.6	5.5	7.5	20.9	10.1
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	1254	559	242	1133	581	233	959	427	288	1068	476
V/C Ratio(X)	0.78	0.59	0.47	0.70	0.41	0.42	0.99	0.72	0.32	0.51	0.77	0.42
Avail Cap(c_a), veh/h	314	1254	559	244	1133	581	233	1469	653	288	1397	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	27.0	11.9	45.9	26.3	26.4	43.8	33.6	18.9	38.8	32.3	28.5
Incr Delay (d2), s/veh	11.6	2.0	2.8	8.2	1.1	2.2	57.0	1.1	0.4	1.5	1.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	8.7	5.2	2.6	5.2	5.6	10.1	8.9	2.8	3.9	10.7	4.5
LnGrp Delay(d),s/veh	56.5	29.0	14.7	54.1	27.4	28.6	100.8	34.7	19.3	40.3	34.3	29.1
LnGrp LOS	E	C	B	D	C	C	F	C	B	D	C	C
Approach Vol, veh/h		1242			874			1064			1168	
Approach Delay, s/veh		31.3			32.9			47.1			34.1	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	30.8	10.9	39.0	17.0	33.8	12.9	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	9.5	19.6	6.7	18.9	14.9	22.9	8.8	12.7
Green Ext Time (p_c), s	0.2	5.0	0.0	5.9	0.0	5.5	0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	100	2050	1070	180	350	120
Future Volume (veh/h)	100	2050	1070	180	350	120
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	105	2158	1126	189	368	126
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	283	3725	2592	1056	551	505
Arrive On Green	0.16	0.72	0.50	0.50	0.16	0.16
Sat Flow, veh/h	1810	5358	5358	1607	3510	1615
Grp Volume(v), veh/h	105	2158	1126	189	368	126
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1607	1755	1615
Q Serve(g_s), s	3.3	12.9	8.9	2.9	6.3	0.0
Cycle Q Clear(g_c), s	3.3	12.9	8.9	2.9	6.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	283	3725	2592	1056	551	505
V/C Ratio(X)	0.37	0.58	0.43	0.18	0.67	0.25
Avail Cap(c_a), veh/h	283	3725	2592	1056	1699	1034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	4.4	10.2	4.3	25.4	16.4
Incr Delay (d2), s/veh	0.8	0.7	0.5	0.4	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.2	4.3	2.0	3.2	0.0
LnGrp Delay(d),s/veh	25.0	5.0	10.8	4.7	26.8	16.6
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		2263	1315		494	
Approach Delay, s/veh		5.9	9.9		24.2	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		14.0	14.0	36.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	10.0	32.0
Max Q Clear Time (g_c+I1), s				14.9		8.3	5.3	10.9
Green Ext Time (p_c), s				20.3		1.7	4.1	8.0

Intersection Summary		
HCM 2010 Ctrl Delay		9.4
HCM 2010 LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	120	1890	330	30	990	80	170	80	20	140	100	80
Future Volume (veh/h)	120	1890	330	30	990	80	170	80	20	140	100	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	1948	0	31	1021	82	175	82	21	144	103	82
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	2564	798	156	2420	194	316	365	90	161	456	341
Arrive On Green	0.09	0.49	0.00	0.09	0.49	0.49	0.09	0.13	0.13	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1615	1810	4895	393	3510	2863	707	1810	3610	1596
Grp Volume(v), veh/h	124	1948	0	31	721	382	175	51	52	144	103	82
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1829	1755	1805	1765	1810	1805	1596
Q Serve(g_s), s	5.3	24.0	0.0	1.3	10.5	10.5	3.8	2.0	2.1	6.2	2.0	0.0
Cycle Q Clear(g_c), s	5.3	24.0	0.0	1.3	10.5	10.5	3.8	2.0	2.1	6.2	2.0	0.0
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	156	2564	798	156	1710	904	316	230	225	161	456	341
V/C Ratio(X)	0.79	0.76	0.00	0.20	0.42	0.42	0.55	0.22	0.23	0.90	0.23	0.24
Avail Cap(c_a), veh/h	161	2564	798	161	1710	904	316	824	806	161	1647	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	16.1	0.0	33.5	12.7	12.7	34.4	30.9	30.9	35.6	31.0	25.8
Incr Delay (d2), s/veh	22.7	2.2	0.0	0.6	0.8	1.4	2.1	0.5	0.5	42.6	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	11.9	0.0	0.7	5.2	5.7	1.9	1.0	1.1	5.0	1.0	1.5
LnGrp Delay(d),s/veh	58.1	18.3	0.0	34.1	13.5	14.2	36.5	31.4	31.5	78.2	31.2	26.1
LnGrp LOS	E	B		C	B	B	D	C	C	E	C	C
Approach Vol, veh/h		2072			1134			278			329	
Approach Delay, s/veh		20.7			14.3			34.6			50.5	
Approach LOS		C			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	14.1	10.8	43.0	11.1	14.0	10.8	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	7.0	36.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	8.2	4.1	3.3	26.0	5.8	4.0	7.3	12.5
Green Ext Time (p_c), s	0.0	0.5	0.1	9.5	0.1	0.9	0.0	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	100	1080	860	10	590	90	440	410	20	110	440	40
Future Volume (veh/h)	100	1080	860	10	590	90	440	410	20	110	440	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	1200	956	11	656	100	489	456	22	122	489	44
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	1564	1005	33	1178	179	668	1088	52	153	684	61
Arrive On Green	0.08	0.43	0.43	0.02	0.38	0.38	0.19	0.31	0.31	0.08	0.20	0.20
Sat Flow, veh/h	1810	3610	1609	1810	3140	478	3510	3505	169	1810	3349	300
Grp Volume(v), veh/h	111	1200	956	11	377	379	489	234	244	122	263	270
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1813	1755	1805	1869	1810	1805	1844
Q Serve(g_s), s	6.3	29.3	25.6	0.6	17.1	17.2	13.6	10.7	10.7	6.9	14.1	14.2
Cycle Q Clear(g_c), s	6.3	29.3	25.6	0.6	17.1	17.2	13.6	10.7	10.7	6.9	14.1	14.2
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	138	1564	1005	33	677	680	668	560	580	153	369	377
V/C Ratio(X)	0.80	0.77	0.95	0.33	0.56	0.56	0.73	0.42	0.42	0.80	0.71	0.72
Avail Cap(c_a), veh/h	191	1564	1005	122	677	680	1013	833	863	278	590	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	25.0	9.6	50.4	25.7	25.7	39.6	28.4	28.4	46.7	38.5	38.6
Incr Delay (d2), s/veh	15.4	3.7	18.9	5.7	3.3	3.3	1.6	0.5	0.5	9.2	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	15.3	16.3	0.4	9.1	9.2	6.7	5.4	5.6	3.8	7.3	7.5
LnGrp Delay(d),s/veh	62.7	28.7	28.4	56.1	28.9	29.0	41.2	28.9	28.9	56.0	41.1	41.1
LnGrp LOS	E	C	C	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		2267			767			967			655	
Approach Delay, s/veh		30.3			29.3			35.1			43.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	36.3	5.9	49.0	23.8	25.2	11.9	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	48.0	7.0	43.0	30.0	34.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	8.9	12.7	2.6	31.3	15.6	16.2	8.3	19.2
Green Ext Time (p_c), s	0.2	5.2	0.0	8.6	4.2	3.0	0.1	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	950	180	40	570	60	70	270	40	60	370	40
Future Volume (veh/h)	60	950	180	40	570	60	70	270	40	60	370	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	990	188	42	594	62	73	281	42	62	385	42
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	1346	255	101	1419	148	137	511	75	195	637	69
Arrive On Green	0.07	0.44	0.44	0.06	0.43	0.43	0.08	0.16	0.16	0.11	0.19	0.19
Sat Flow, veh/h	1810	3027	574	1810	3299	344	1810	3152	466	1810	3283	356
Grp Volume(v), veh/h	62	590	588	42	324	332	73	159	164	62	211	216
Grp Sat Flow(s),veh/h/ln	1810	1805	1796	1810	1805	1838	1810	1805	1813	1810	1805	1834
Q Serve(g_s), s	2.3	18.8	18.9	1.6	8.7	8.7	2.7	5.7	5.8	2.2	7.4	7.5
Cycle Q Clear(g_c), s	2.3	18.8	18.9	1.6	8.7	8.7	2.7	5.7	5.8	2.2	7.4	7.5
Prop In Lane	1.00		0.32	1.00		0.19	1.00		0.26	1.00		0.19
Lane Grp Cap(c), veh/h	127	802	799	101	777	791	137	293	294	195	350	356
V/C Ratio(X)	0.49	0.73	0.74	0.42	0.42	0.42	0.53	0.54	0.56	0.32	0.60	0.61
Avail Cap(c_a), veh/h	208	802	799	182	777	791	182	725	728	208	751	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	16.0	16.0	31.8	13.8	13.8	31.0	26.8	26.9	28.7	25.6	25.7
Incr Delay (d2), s/veh	2.9	5.9	6.0	2.7	1.7	1.6	3.2	1.6	1.6	0.9	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	10.7	10.6	0.9	4.7	4.8	1.5	3.0	3.0	1.2	3.8	4.0
LnGrp Delay(d),s/veh	34.1	21.9	22.0	34.5	15.5	15.4	34.2	28.4	28.5	29.6	27.3	27.3
LnGrp LOS	C	C	C	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1240			698			396			489	
Approach Delay, s/veh		22.6			16.6			29.5			27.6	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	15.3	7.9	35.0	9.3	17.5	8.9	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	7.0	31.0	7.0	29.0	8.0	30.0
Max Q Clear Time (g_c+I1), s	4.2	7.8	3.6	20.9	4.7	9.5	4.3	10.7
Green Ext Time (p_c), s	0.1	1.8	1.2	4.9	0.1	2.4	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	680	170	70	440	100	150	670	80	130	860	50
Future Volume (veh/h)	70	680	170	70	440	100	150	670	80	130	860	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	701	175	72	454	103	155	691	82	134	887	52
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1095	273	118	1054	238	143	1377	162	143	1467	86
Arrive On Green	0.09	0.38	0.38	0.07	0.36	0.36	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2862	714	1810	2926	659	1810	4704	553	1810	5011	293
Grp Volume(v), veh/h	72	442	434	72	279	278	155	506	267	134	611	328
Grp Sat Flow(s),veh/h/ln	1810	1805	1771	1810	1805	1780	1810	1729	1799	1810	1729	1847
Q Serve(g_s), s	3.4	17.8	17.8	3.4	10.4	10.5	7.0	10.8	10.9	6.5	13.5	13.5
Cycle Q Clear(g_c), s	3.4	17.8	17.8	3.4	10.4	10.5	7.0	10.8	10.9	6.5	13.5	13.5
Prop In Lane	1.00		0.40	1.00		0.37	1.00		0.31	1.00		0.16
Lane Grp Cap(c), veh/h	159	691	678	118	650	641	143	1012	527	143	1012	541
V/C Ratio(X)	0.45	0.64	0.64	0.61	0.43	0.43	1.09	0.50	0.51	0.94	0.60	0.61
Avail Cap(c_a), veh/h	183	691	678	143	650	641	143	1012	527	143	1012	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	22.4	22.4	40.4	21.5	21.5	40.9	26.0	26.1	40.7	27.0	27.0
Incr Delay (d2), s/veh	2.0	4.5	4.6	5.1	2.1	2.1	100.5	1.8	3.5	57.2	2.7	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	9.7	9.5	1.9	5.6	5.6	7.4	5.4	5.9	5.5	6.8	7.7
LnGrp Delay(d),s/veh	40.5	26.9	27.0	45.5	23.6	23.7	141.4	27.8	29.5	97.9	29.7	32.0
LnGrp LOS	D	C	C	D	C	C	F	C	C	F	C	C
Approach Vol, veh/h		948			629			928			1073	
Approach Delay, s/veh		28.0			26.1			47.3			38.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	9.8	38.0	11.0	30.0	11.8	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	8.5	12.9	5.4	19.8	9.0	15.5	5.4	12.5
Green Ext Time (p_c), s	0.0	3.9	0.0	4.4	0.0	4.2	1.8	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	260	1340	50	10	990	90	30	90	10	80	130	210
Future Volume (veh/h)	260	1340	50	10	990	90	30	90	10	80	130	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	283	1457	54	11	1076	0	33	98	11	87	141	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	385	2175	80	34	1884	843	266	322	144	137	322	144
Arrive On Green	0.11	0.61	0.61	0.02	0.52	0.00	0.08	0.09	0.09	0.08	0.09	0.00
Sat Flow, veh/h	3510	3550	131	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	283	739	772	11	1076	0	33	98	11	87	141	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1876	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.1	21.1	21.3	0.5	16.0	0.0	0.7	2.0	0.4	3.7	2.9	0.0
Cycle Q Clear(g_c), s	6.1	21.1	21.3	0.5	16.0	0.0	0.7	2.0	0.4	3.7	2.9	0.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	1106	1149	34	1884	843	266	322	144	137	322	144
V/C Ratio(X)	0.73	0.67	0.67	0.32	0.57	0.00	0.12	0.30	0.08	0.63	0.44	0.00
Avail Cap(c_a), veh/h	581	1106	1149	161	1884	843	313	827	370	161	827	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.9	10.0	10.0	38.0	12.8	0.0	33.9	33.5	24.7	35.3	33.9	0.0
Incr Delay (d2), s/veh	2.7	3.2	3.1	5.2	1.3	0.0	0.2	0.5	0.2	6.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	11.3	11.9	0.3	8.3	0.0	0.3	1.0	0.2	2.1	1.5	0.0
LnGrp Delay(d),s/veh	36.6	13.2	13.2	43.3	14.1	0.0	34.1	34.0	24.9	41.4	34.9	0.0
LnGrp LOS	D	B	B	D	B		C	C	C	D	C	
Approach Vol, veh/h		1794			1087			142			228	
Approach Delay, s/veh		16.9			14.4			33.3			37.3	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	11.0	5.5	52.1	10.0	11.0	12.6	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	13.0	41.0
Max Q Clear Time (g_c+I1), s	5.7	4.0	2.5	23.3	2.7	4.9	8.1	18.0
Green Ext Time (p_c), s	0.0	0.4	0.0	12.2	0.1	0.6	0.5	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	150	1220	40	10	880	130	20	50	20	180	60	110
Future Volume (veh/h)	150	1220	40	10	880	130	20	50	20	180	60	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	1298	43	11	936	138	21	53	21	191	64	117
Adj No. of Lanes	1	3	0	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	2590	86	90	1587	706	322	336	133	418	156	285
Arrive On Green	0.11	0.50	0.50	0.05	0.44	0.44	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	5156	171	1810	3610	1606	1218	1294	513	1340	601	1098
Grp Volume(v), veh/h	160	870	471	11	936	138	21	0	74	191	0	181
Grp Sat Flow(s),veh/h/ln	1810	1729	1869	1810	1805	1606	1218	0	1806	1340	0	1699
Q Serve(g_s), s	5.5	10.7	10.7	0.4	12.5	3.4	0.9	0.0	2.0	8.2	0.0	5.6
Cycle Q Clear(g_c), s	5.5	10.7	10.7	0.4	12.5	3.4	6.6	0.0	2.0	10.2	0.0	5.6
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.28	1.00		0.65
Lane Grp Cap(c), veh/h	204	1737	939	90	1587	706	322	0	469	418	0	441
V/C Ratio(X)	0.79	0.50	0.50	0.12	0.59	0.20	0.07	0.00	0.16	0.46	0.00	0.41
Avail Cap(c_a), veh/h	312	1737	939	199	1587	706	847	0	1247	996	0	1173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.5	10.5	10.5	28.9	13.5	10.9	22.3	0.0	18.2	22.1	0.0	19.5
Incr Delay (d2), s/veh	7.1	1.0	1.9	0.6	1.6	0.6	0.1	0.0	0.2	0.8	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.3	6.0	0.2	6.5	1.6	0.3	0.0	1.0	3.1	0.0	2.7
LnGrp Delay(d),s/veh	34.6	11.6	12.5	29.5	15.1	11.6	22.3	0.0	18.4	22.9	0.0	20.2
LnGrp LOS	C	B	B	C	B	B	C		B	C		C
Approach Vol, veh/h		1501			1085			95			372	
Approach Delay, s/veh		14.3			14.8			19.2			21.6	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.5	7.2	36.0		20.5	11.2	32.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	11.0	28.0
Max Q Clear Time (g_c+I1), s		8.6	2.4	12.7		12.2	7.5	14.5
Green Ext Time (p_c), s		2.3	0.2	8.3		2.3	0.1	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	60	1300	80	70	840	70	130	200	150	70	120	50
Future Volume (veh/h)	60	1300	80	70	840	70	130	200	150	70	120	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	1383	85	74	894	74	138	213	160	74	128	53
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	2059	127	140	2012	166	175	375	316	140	338	285
Arrive On Green	0.08	0.41	0.41	0.08	0.41	0.41	0.10	0.20	0.20	0.08	0.18	0.18
Sat Flow, veh/h	1810	4995	307	1810	4881	403	1810	1900	1603	1810	1900	1601
Grp Volume(v), veh/h	64	957	511	74	633	335	138	213	160	74	128	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1844	1810	1729	1826	1810	1900	1603	1810	1900	1601
Q Serve(g_s), s	2.3	15.3	15.3	2.7	8.9	9.0	5.1	6.9	6.0	2.7	4.0	1.5
Cycle Q Clear(g_c), s	2.3	15.3	15.3	2.7	8.9	9.0	5.1	6.9	6.0	2.7	4.0	1.5
Prop In Lane	1.00		0.17	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	1425	760	140	1425	753	175	375	316	140	338	285
V/C Ratio(X)	0.46	0.67	0.67	0.53	0.44	0.45	0.79	0.57	0.51	0.53	0.38	0.19
Avail Cap(c_a), veh/h	186	1425	760	186	1425	753	213	1119	944	240	1147	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	16.2	16.2	30.1	14.4	14.4	30.0	24.7	24.3	30.1	24.6	13.8
Incr Delay (d2), s/veh	2.3	2.5	4.7	3.0	1.0	1.9	14.8	1.4	1.3	3.0	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.7	8.7	1.5	4.4	4.9	3.3	3.8	2.8	1.5	2.2	0.8
LnGrp Delay(d),s/veh	32.3	18.8	20.9	33.2	15.4	16.3	44.8	26.0	25.6	33.2	25.3	14.1
LnGrp LOS	C	B	C	C	B	B	D	C	C	C	C	B
Approach Vol, veh/h		1532			1042			511			255	
Approach Delay, s/veh		20.1			16.9			31.0			25.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	17.4	9.3	32.0	10.6	16.1	9.3	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	40.0	7.0	28.0	8.0	41.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.7	8.9	4.7	17.3	7.1	6.0	4.3	11.0
Green Ext Time (p_c), s	0.4	1.8	0.1	6.4	0.0	1.1	0.1	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↱	
Traffic Volume (veh/h)	0	640	200	550	540	0	0	0	0	0	0	170
Future Volume (veh/h)	0	640	200	550	540	0	0	0	0	0	0	170
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	688	215	591	581	0				0	0	183
Adj No. of Lanes	0	2	1	1	2	0				0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	866	384	1182	3417	0				0	0	0
Arrive On Green	0.00	0.24	0.24	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3705	1598	1810	3705	0					0	
Grp Volume(v), veh/h	0	688	215	591	581	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	1598	1810	1805	0						
Q Serve(g_s), s	0.0	13.4	8.9	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	13.4	8.9	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	866	384	1182	3417	0						
V/C Ratio(X)	0.00	0.79	0.56	0.50	0.17	0.00						
Avail Cap(c_a), veh/h	0	866	384	1182	3417	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.74	0.74	0.00						
Uniform Delay (d), s/veh	0.0	26.8	25.0	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	7.4	5.8	0.2	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	7.6	4.5	0.1	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	34.2	30.8	0.2	0.1	0.0						
LnGrp LOS		C	C	A	A							
Approach Vol, veh/h		903			1172							
Approach Delay, s/veh		33.4			0.2							
Approach LOS		C			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			53.0	22.0				75.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			27.0	18.0				49.0
Max Q Clear Time (g_c+I1), s			2.0	15.4				2.0
Green Ext Time (p_c), s			5.7	1.3				6.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	30	1320	90	0	1470	120	40	70	20	130	10	120
Future Volume (veh/h)	30	1320	90	0	1470	120	40	70	20	130	10	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	1361	93	0	1515	124	41	72	21	134	10	124
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	244	2446	167	0	2411	196	232	255	74	276	22	272
Arrive On Green	1.00	1.00	1.00	0.00	0.71	0.71	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	311	3430	234	0	3475	275	1275	1415	413	1324	122	1511
Grp Volume(v), veh/h	31	714	740	0	804	835	41	0	93	134	0	134
Grp Sat Flow(s),veh/h/ln	311	1805	1859	0	1805	1850	1275	0	1827	1324	0	1633
Q Serve(g_s), s	2.9	0.0	0.0	0.0	17.3	17.7	2.2	0.0	3.3	7.3	0.0	5.5
Cycle Q Clear(g_c), s	20.6	0.0	0.0	0.0	17.3	17.7	7.7	0.0	3.3	10.6	0.0	5.5
Prop In Lane	1.00		0.13	0.00		0.15	1.00		0.23	1.00		0.93
Lane Grp Cap(c), veh/h	244	1287	1326	0	1287	1320	232	0	329	276	0	294
V/C Ratio(X)	0.13	0.55	0.56	0.00	0.62	0.63	0.18	0.00	0.28	0.49	0.00	0.46
Avail Cap(c_a), veh/h	244	1287	1326	0	1287	1320	309	0	439	356	0	392
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.4	0.0	0.0	0.0	5.6	5.6	30.9	0.0	26.6	31.1	0.0	27.5
Incr Delay (d2), s/veh	0.9	1.5	1.5	0.0	2.3	2.3	0.4	0.0	0.5	1.3	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.5	0.0	9.3	9.7	0.8	0.0	1.7	2.7	0.0	2.5
LnGrp Delay(d),s/veh	4.3	1.5	1.5	0.0	7.9	7.9	31.3	0.0	27.0	32.5	0.0	28.6
LnGrp LOS	A	A	A		A	A	C		C	C		C
Approach Vol, veh/h		1485			1639			134			268	
Approach Delay, s/veh		1.5			7.9			28.3			30.5	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		17.5		57.5		17.5		57.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		49.0		18.0		49.0
Max Q Clear Time (g_c+I1), s		9.7		22.6		12.6		19.7
Green Ext Time (p_c), s		1.2		22.5		0.9		24.5

Intersection Summary		
HCM 2010 Ctrl Delay		7.7
HCM 2010 LOS		A

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Traffic Volume (veh/h)	110	1710	30	20	1180	100	320	90	150	180	10	150
Future Volume (veh/h)	110	1710	30	20	1180	100	320	90	150	180	10	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	1839	0	22	1269	108	301	157	161	202	0	161
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	2435	758	58	2170	672	419	199	204	375	0	299
Arrive On Green	0.08	0.47	0.00	0.03	0.42	0.42	0.23	0.23	0.23	0.10	0.00	0.10
Sat Flow, veh/h	1810	5187	1615	1810	5187	1605	1810	858	880	3619	0	1592
Grp Volume(v), veh/h	118	1839	0	22	1269	108	301	0	318	202	0	161
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1605	1810	0	1738	1810	0	1592
Q Serve(g_s), s	6.3	28.6	0.0	1.2	18.5	4.1	15.0	0.0	16.9	5.2	0.0	0.7
Cycle Q Clear(g_c), s	6.3	28.6	0.0	1.2	18.5	4.1	15.0	0.0	16.9	5.2	0.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	151	2435	758	58	2170	672	419	0	402	375	0	299
V/C Ratio(X)	0.78	0.76	0.00	0.38	0.58	0.16	0.72	0.00	0.79	0.54	0.00	0.54
Avail Cap(c_a), veh/h	222	2435	758	129	2170	672	683	0	656	1256	0	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	21.4	0.0	46.5	21.9	17.8	34.7	0.0	35.4	41.7	0.0	36.0
Incr Delay (d2), s/veh	10.5	2.2	0.0	4.0	1.2	0.5	2.3	0.0	3.5	1.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	14.1	0.0	0.7	9.0	1.9	7.8	0.0	8.5	2.7	0.0	0.4
LnGrp Delay(d),s/veh	54.5	23.6	0.0	50.5	23.1	18.3	37.0	0.0	38.9	42.9	0.0	37.5
LnGrp LOS	D	C		D	C	B	D		D	D		D
Approach Vol, veh/h		1957			1399			619			363	
Approach Delay, s/veh		25.5			23.2			38.0			40.5	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.7	7.2	50.0		14.2	12.2	45.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	7.0	46.0		34.0	12.0	41.0
Max Q Clear Time (g_c+I1), s		18.9	3.2	30.6		7.2	8.3	20.5
Green Ext Time (p_c), s		2.8	0.1	10.3		1.3	0.1	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1300	320	40	570	160	30
Future Volume (veh/h)	1300	320	40	570	160	30
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1383	340	43	606	170	32
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1773	425	108	2670	232	303
Arrive On Green	0.61	0.61	0.06	0.74	0.13	0.13
Sat Flow, veh/h	2982	692	1810	3705	1810	1615
Grp Volume(v), veh/h	852	871	43	606	170	32
Grp Sat Flow(s),veh/h/ln	1805	1774	1810	1805	1810	1615
Q Serve(g_s), s	20.8	22.5	1.4	3.2	5.5	0.0
Cycle Q Clear(g_c), s	20.8	22.5	1.4	3.2	5.5	0.0
Prop In Lane		0.39	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1108	1089	108	2670	232	303
V/C Ratio(X)	0.77	0.80	0.40	0.23	0.73	0.11
Avail Cap(c_a), veh/h	1433	1409	210	3524	988	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	8.9	27.4	2.5	25.4	20.4
Incr Delay (d2), s/veh	1.9	2.6	2.4	0.0	4.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	11.7	0.8	1.5	3.0	0.4
LnGrp Delay(d),s/veh	10.5	11.4	29.8	2.5	29.8	20.5
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	1723			649	202	
Approach Delay, s/veh	10.9			4.3	28.4	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		11.7	7.6	41.1				48.7
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		33.0	7.0	48.0				59.0
Max Q Clear Time (g_c+I1), s		7.5	3.4	24.5				5.2
Green Ext Time (p_c), s		0.5	1.2	12.6				4.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	680	590	200	370	80	230	130	200	80	200	10
Future Volume (veh/h)	10	680	590	200	370	80	230	130	200	80	200	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	716	621	211	389	84	242	137	211	84	211	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	369	1579	489	394	628	134	292	282	237	309	569	255
Arrive On Green	0.20	0.30	0.30	0.11	0.21	0.21	0.16	0.15	0.15	0.17	0.16	0.00
Sat Flow, veh/h	1810	5187	1607	3510	2954	631	1810	1900	1599	1810	3610	1615
Grp Volume(v), veh/h	11	716	621	211	236	237	242	137	211	84	211	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1607	1755	1805	1780	1810	1900	1599	1810	1805	1615
Q Serve(g_s), s	0.3	6.7	10.7	3.4	7.2	7.3	7.8	4.0	5.6	2.4	3.2	0.0
Cycle Q Clear(g_c), s	0.3	6.7	10.7	3.4	7.2	7.3	7.8	4.0	5.6	2.4	3.2	0.0
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	369	1579	489	394	384	379	292	282	237	309	569	255
V/C Ratio(X)	0.03	0.45	1.27	0.54	0.61	0.63	0.83	0.49	0.89	0.27	0.37	0.00
Avail Cap(c_a), veh/h	369	2313	717	464	835	823	329	1224	1030	309	2266	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.3	17.0	7.0	25.4	21.6	21.6	24.6	23.7	12.9	21.8	22.8	0.0
Incr Delay (d2), s/veh	0.0	0.2	133.6	1.1	1.6	1.7	14.7	1.3	10.9	0.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.2	23.7	1.7	3.7	3.7	5.1	2.2	3.7	1.3	1.6	0.0
LnGrp Delay(d),s/veh	19.3	17.2	140.7	26.5	23.2	23.3	39.3	25.0	23.8	22.3	23.2	0.0
LnGrp LOS	B	B	F	C	C	C	D	C	C	C	C	
Approach Vol, veh/h		1348			684			590			295	
Approach Delay, s/veh		74.1			24.3			30.4			23.0	
Approach LOS		E			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	13.0	10.8	22.4	13.8	13.5	16.3	16.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	39.0	8.0	27.0	11.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.4	7.6	5.4	12.7	9.8	5.2	2.3	9.3
Green Ext Time (p_c), s	0.5	1.4	0.2	5.8	0.1	1.2	2.7	2.2

Intersection Summary		
HCM 2010 Ctrl Delay		48.4
HCM 2010 LOS		D

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	10	10	70	0	0	0	0	360	600	640	600	0
Future Volume (veh/h)	10	10	70	0	0	0	0	360	600	640	600	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	11	0	81				0	383	638	681	638	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	183	0	326				0	1372	614	979	2668	0
Arrive On Green	0.10	0.00	0.10				0.00	0.38	0.38	0.28	0.74	0.00
Sat Flow, veh/h	1810	0	3230				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	11	0	81				0	383	638	681	638	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1755	1805	0
Q Serve(g_s), s	0.3	0.0	1.2				0.0	3.7	19.0	8.7	2.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	1.2				0.0	3.7	19.0	8.7	2.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	183	0	326				0	1372	614	979	2668	0
V/C Ratio(X)	0.06	0.00	0.25				0.00	0.28	1.04	0.70	0.24	0.00
Avail Cap(c_a), veh/h	253	0	452				0	1372	614	979	2668	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.89	0.89	0.90	0.90	0.00
Uniform Delay (d), s/veh	20.3	0.0	20.7				0.0	10.8	15.5	16.1	2.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.4				0.0	0.5	45.1	1.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.5				0.0	1.9	16.0	4.4	1.4	0.0
LnGrp Delay(d),s/veh	20.5	0.0	21.1				0.0	11.2	60.6	18.1	2.3	0.0
LnGrp LOS	C		C					B	F	B	A	
Approach Vol, veh/h		92						1021			1319	
Approach Delay, s/veh		21.0						42.0			10.4	
Approach LOS		C						D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			18.0	23.0		9.0		41.0
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			12.0	19.0		7.0		35.0
Max Q Clear Time (g_c+I1), s			10.7	21.0		3.2		4.8
Green Ext Time (p_c), s			0.9	0.0		0.1		7.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	310	210	350	0	0	950
Future Volume (veh/h)	310	210	350	0	0	950
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	330	223	372	0	0	1011
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	677	311	2337	0	0	2337
Arrive On Green	0.19	0.19	1.00	0.00	0.00	0.65
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	330	223	372	0	0	1011
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	4.2	6.5	0.0	0.0	0.0	6.9
Cycle Q Clear(g_c), s	4.2	6.5	0.0	0.0	0.0	6.9
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	677	311	2337	0	0	2337
V/C Ratio(X)	0.49	0.72	0.16	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1053	484	2337	0	0	2337
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	18.9	0.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	0.5	3.1	0.1	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.1	0.0	0.0	0.0	3.6
LnGrp Delay(d),s/veh	18.5	22.0	0.1	0.0	0.0	4.9
LnGrp LOS	B	C	A			A
Approach Vol, veh/h	553		372			1011
Approach Delay, s/veh	19.9		0.1			4.9
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		36.4				36.4		13.6
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		27.0				27.0		15.0
Max Q Clear Time (g_c+I1), s		2.0				8.9		8.5
Green Ext Time (p_c), s		10.7				9.1		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.3
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↖↖	↑↑↑	↖↖Y	
Traffic Volume (veh/h)	2120	20	220	1610	860	30
Future Volume (veh/h)	2120	20	220	1610	860	30
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2163	20	224	1643	907	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2629	24	370	3438	1164	346
Arrive On Green	0.50	0.50	0.11	0.66	0.21	0.00
Sat Flow, veh/h	5471	49	3510	5358	5429	1615
Grp Volume(v), veh/h	1411	772	224	1643	907	0
Grp Sat Flow(s),veh/h/ln	1729	1891	1755	1729	1810	1615
Q Serve(g_s), s	22.6	22.7	4.0	10.2	10.3	0.0
Cycle Q Clear(g_c), s	22.6	22.7	4.0	10.2	10.3	0.0
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1715	938	370	3438	1164	346
V/C Ratio(X)	0.82	0.82	0.60	0.48	0.78	0.00
Avail Cap(c_a), veh/h	1803	986	377	3580	1416	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.0	14.0	27.9	5.4	24.2	0.0
Incr Delay (d2), s/veh	3.1	5.5	2.7	0.1	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	13.0	2.1	4.7	5.4	0.0
LnGrp Delay(d),s/veh	17.1	19.5	30.5	5.5	26.5	0.0
LnGrp LOS	B	B	C	A	C	
Approach Vol, veh/h	2183			1867	907	
Approach Delay, s/veh	17.9			8.5	26.5	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		18.0	10.9	36.3				47.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		17.0	7.0	34.0				45.0
Max Q Clear Time (g_c+I1), s		12.3	6.0	24.7				12.2
Green Ext Time (p_c), s		1.7	0.9	7.6				15.4

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	40	1960	150	250	1520	100	140	120	250	90	110	20
Future Volume (veh/h)	40	1960	150	250	1520	100	140	120	250	90	110	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	2063	158	263	1600	105	147	126	263	95	116	21
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	242	2406	747	283	2040	134	484	383	323	126	410	72
Arrive On Green	0.13	0.46	0.46	0.08	0.41	0.41	0.14	0.20	0.20	0.07	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	3510	4972	326	3510	1900	1603	1810	3061	541
Grp Volume(v), veh/h	42	2063	158	263	1112	593	147	126	263	95	67	70
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1840	1755	1900	1603	1810	1805	1797
Q Serve(g_s), s	1.8	30.8	2.9	6.5	24.3	24.4	3.3	4.9	10.7	4.5	2.9	3.0
Cycle Q Clear(g_c), s	1.8	30.8	2.9	6.5	24.3	24.4	3.3	4.9	10.7	4.5	2.9	3.0
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	242	2406	747	283	1419	755	484	383	323	126	242	240
V/C Ratio(X)	0.17	0.86	0.21	0.93	0.78	0.78	0.30	0.33	0.81	0.75	0.28	0.29
Avail Cap(c_a), veh/h	242	2505	777	283	1670	889	484	939	792	250	996	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	20.8	4.5	39.7	22.3	22.3	33.7	29.7	20.4	39.7	33.9	33.9
Incr Delay (d2), s/veh	0.3	3.1	0.1	35.6	2.1	4.0	0.4	0.5	4.9	8.6	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	15.2	1.3	4.5	12.0	13.2	1.6	2.6	5.2	2.5	1.5	1.6
LnGrp Delay(d),s/veh	33.7	23.9	4.7	75.4	24.4	26.3	34.1	30.2	25.3	48.3	34.5	34.6
LnGrp LOS	C	C	A	E	C	C	C	C	C	D	C	C
Approach Vol, veh/h		2263			1968			536			232	
Approach Delay, s/veh		22.7			31.8			28.9			40.2	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	21.6	11.0	44.3	16.0	15.6	15.7	39.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	43.0	7.0	42.0	7.0	48.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	6.5	12.7	8.5	32.8	5.3	5.0	3.8	26.4
Green Ext Time (p_c), s	0.1	1.7	0.0	7.6	0.1	0.8	2.9	9.3

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	170	1010	750	200	570	170	210	370	80	200	760	190
Future Volume (veh/h)	170	1010	750	200	570	170	210	370	80	200	760	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	1052	781	208	594	177	219	385	83	208	792	198
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	1281	704	203	1271	693	290	1101	671	276	1087	669
Arrive On Green	0.11	0.35	0.35	0.11	0.35	0.35	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	1810	3610	1608	1810	3610	1608	3510	3610	1607	3510	3610	1607
Grp Volume(v), veh/h	177	1052	781	208	594	177	219	385	83	208	792	198
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1608	1755	1805	1607	1755	1805	1607
Q Serve(g_s), s	10.3	28.4	38.0	12.0	13.7	7.5	6.5	8.9	3.4	6.2	21.0	8.8
Cycle Q Clear(g_c), s	10.3	28.4	38.0	12.0	13.7	7.5	6.5	8.9	3.4	6.2	21.0	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	1281	704	203	1271	693	290	1101	671	276	1087	669
V/C Ratio(X)	0.85	0.82	1.11	1.03	0.47	0.26	0.76	0.35	0.12	0.75	0.73	0.30
Avail Cap(c_a), veh/h	237	1281	704	203	1271	693	459	1416	811	393	1349	786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	31.4	30.1	47.5	26.9	19.5	48.1	28.9	19.2	48.3	33.5	20.8
Incr Delay (d2), s/veh	22.6	4.4	68.0	70.0	0.3	0.2	4.0	0.2	0.1	5.0	1.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	15.0	34.1	9.9	6.8	3.4	3.3	4.5	1.5	3.2	10.7	3.9
LnGrp Delay(d),s/veh	69.1	35.8	98.1	117.8	27.2	19.7	52.1	29.1	19.3	53.3	35.1	21.1
LnGrp LOS	E	D	F	F	C	B	D	C	B	D	D	C
Approach Vol, veh/h		2010			979			687			1198	
Approach Delay, s/veh		63.0			45.1			35.3			35.9	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	36.7	16.0	42.0	12.8	36.2	16.3	41.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	12.0	38.0	14.0	40.0	14.0	36.0
Max Q Clear Time (g_c+I1), s	8.2	10.9	14.0	40.0	8.5	23.0	12.3	15.7
Green Ext Time (p_c), s	0.2	10.2	0.0	0.0	0.3	7.9	0.1	14.6

Intersection Summary	
HCM 2010 Ctrl Delay	48.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	120	1200	700	400	580	210
Future Volume (veh/h)	120	1200	700	400	580	210
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	1277	745	426	617	223
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	199	2181	1519	1078	902	580
Arrive On Green	0.11	0.60	0.42	0.42	0.25	0.25
Sat Flow, veh/h	1810	3705	3705	1605	3619	1615
Grp Volume(v), veh/h	128	1277	745	426	617	223
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1605	1810	1615
Q Serve(g_s), s	3.7	11.8	8.2	6.5	8.4	5.6
Cycle Q Clear(g_c), s	3.7	11.8	8.2	6.5	8.4	5.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	199	2181	1519	1078	902	580
V/C Ratio(X)	0.64	0.59	0.49	0.40	0.68	0.38
Avail Cap(c_a), veh/h	232	2517	1788	1198	2257	1185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	6.6	11.5	4.0	18.5	13.0
Incr Delay (d2), s/veh	4.7	0.3	0.2	0.2	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.8	4.1	5.0	4.3	5.6
LnGrp Delay(d),s/veh	27.9	6.9	11.8	4.3	19.4	13.4
LnGrp LOS	C	A	B	A	B	B
Approach Vol, veh/h		1405	1171		840	
Approach Delay, s/veh		8.8	9.0		17.8	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				36.9		17.6	10.0	26.9
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				13.8		10.4	5.7	10.2
Green Ext Time (p_c), s				16.5		3.2	0.0	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	980	740	270	310	90	390	230	330	190	320	190
Future Volume (veh/h)	140	980	740	270	310	90	390	230	330	190	320	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1089	822	300	344	100	433	256	367	211	356	211
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	939	1896	883	280	641	284	641	1058	471	280	686	737
Arrive On Green	0.27	0.37	0.37	0.08	0.18	0.18	0.18	0.29	0.29	0.08	0.19	0.19
Sat Flow, veh/h	3510	5187	1608	3510	3610	1601	3510	3610	1607	3510	3610	1602
Grp Volume(v), veh/h	156	1089	822	300	344	100	433	256	367	211	356	211
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1805	1601	1755	1805	1607	1755	1805	1602
Q Serve(g_s), s	3.0	14.8	17.0	7.0	7.6	3.8	10.1	4.7	18.4	5.2	7.8	0.0
Cycle Q Clear(g_c), s	3.0	14.8	17.0	7.0	7.6	3.8	10.1	4.7	18.4	5.2	7.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	939	1896	883	280	641	284	641	1058	471	280	686	737
V/C Ratio(X)	0.17	0.57	0.93	1.07	0.54	0.35	0.68	0.24	0.78	0.75	0.52	0.29
Avail Cap(c_a), veh/h	939	2598	1101	280	1808	802	641	1891	841	280	1891	1271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	22.4	7.7	40.4	32.8	19.9	33.5	23.6	28.5	39.6	32.0	14.9
Incr Delay (d2), s/veh	0.1	0.3	12.0	74.3	0.7	0.7	2.8	0.1	2.8	11.0	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.1	15.3	6.2	3.8	2.0	5.1	2.4	8.5	2.9	3.9	3.2
LnGrp Delay(d),s/veh	24.7	22.7	19.7	114.7	33.5	20.6	36.3	23.7	31.3	50.6	32.6	15.1
LnGrp LOS	C	C	B	F	C	C	D	C	C	D	C	B
Approach Vol, veh/h		2067			744			1056			778	
Approach Delay, s/veh		21.7			64.5			31.5			32.7	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	29.7	11.0	36.1	20.0	20.7	27.5	19.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	7.0	46.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	7.2	20.4	9.0	19.0	12.1	9.8	5.0	9.6
Green Ext Time (p_c), s	0.0	2.9	0.0	11.9	0.0	3.3	1.7	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	580	1050	10	360	0	0	0	0	10	10	280
Future Volume (veh/h)	0	580	1050	10	360	0	0	0	0	10	10	280
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	637	1154	11	396	0				11	11	308
Adj No. of Lanes	0	1	2	1	2	0				1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	958	1629	274	1821	0				482	15	418
Arrive On Green	0.00	0.50	0.50	0.50	0.50	0.00				0.27	0.27	0.27
Sat Flow, veh/h	0	1900	3230	268	3705	0				1810	56	1567
Grp Volume(v), veh/h	0	637	1154	11	396	0				11	0	319
Grp Sat Flow(s),veh/h/ln	0	1900	1615	268	1805	0				1810	0	1623
Q Serve(g_s), s	0.0	8.7	9.6	1.1	2.1	0.0				0.2	0.0	6.3
Cycle Q Clear(g_c), s	0.0	8.7	9.6	9.8	2.1	0.0				0.2	0.0	6.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.97
Lane Grp Cap(c), veh/h	0	958	1629	274	1821	0				482	0	433
V/C Ratio(X)	0.00	0.66	0.71	0.04	0.22	0.00				0.02	0.00	0.74
Avail Cap(c_a), veh/h	0	1033	1757	285	1964	0				932	0	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.5	6.7	10.1	4.8	0.0				9.5	0.0	11.7
Incr Delay (d2), s/veh	0.0	1.5	1.2	0.1	0.1	0.0				0.0	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.8	4.4	0.1	1.1	0.0				0.1	0.0	3.0
LnGrp Delay(d),s/veh	0.0	7.9	7.9	10.2	4.9	0.0				9.5	0.0	14.2
LnGrp LOS		A	A	B	A					A		B
Approach Vol, veh/h		1791			407						330	
Approach Delay, s/veh		7.9			5.0						14.0	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.6		13.3		21.6
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				19.0		18.0		19.0
Max Q Clear Time (g_c+I1), s				11.6		8.3		11.8
Green Ext Time (p_c), s				5.9		1.4		5.8

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	254.4
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1420	0	870	380	0	0
Future Vol, veh/h	1420	0	870	380	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1596	0	978	427	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	262.8	244.9
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	40%	100%	100%
Vol Thru, %	0%	60%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	618	632	710	710
LT Vol	618	252	710	710
Through Vol	0	380	0	0
RT Vol	0	0	0	0
Lane Flow Rate	694	710	798	798
Geometry Grp	7	7	7	7
Degree of Util (X)	1.481	1.457	1.703	1.327
Departure Headway (Hd)	8.313	8.009	8.251	6.533
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	444	462	447	566
Service Time	6.013	5.709	5.951	4.233
HCM Lane V/C Ratio	1.563	1.537	1.785	1.41
HCM Control Delay	250.6	239.3	346.2	179.3
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	33.3	33.1	44.6	31.3

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	40	30	530	30	230	40	360	780	700	890	10
Future Volume (veh/h)	20	40	30	530	30	230	40	360	780	700	890	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	43	32	570	32	247	43	387	839	753	957	11
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	115	85	481	415	351	91	1447	645	629	1914	852
Arrive On Green	0.03	0.11	0.11	0.14	0.22	0.22	0.05	0.40	0.40	0.18	0.53	0.53
Sat Flow, veh/h	1810	1007	749	3510	1900	1604	1810	3610	1609	3510	3610	1607
Grp Volume(v), veh/h	22	0	75	570	32	247	43	387	839	753	957	11
Grp Sat Flow(s),veh/h/ln	1810	0	1756	1755	1900	1604	1810	1805	1609	1755	1805	1607
Q Serve(g_s), s	1.1	0.0	3.7	13.0	1.3	13.5	2.2	6.8	38.0	17.0	16.1	0.3
Cycle Q Clear(g_c), s	1.1	0.0	3.7	13.0	1.3	13.5	2.2	6.8	38.0	17.0	16.1	0.3
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	0	200	481	415	351	91	1447	645	629	1914	852
V/C Ratio(X)	0.37	0.00	0.37	1.18	0.08	0.70	0.47	0.27	1.30	1.20	0.50	0.01
Avail Cap(c_a), veh/h	134	0	667	481	842	711	134	1447	645	629	1914	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	0.0	38.9	40.9	29.4	34.2	43.8	19.1	28.4	38.9	14.2	10.5
Incr Delay (d2), s/veh	3.9	0.0	1.2	102.3	0.1	2.6	3.8	0.1	146.6	103.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.9	13.1	0.7	6.2	1.2	3.4	43.1	17.2	8.0	0.1
LnGrp Delay(d),s/veh	48.8	0.0	40.0	143.2	29.5	36.8	47.6	19.2	175.0	142.1	14.4	10.5
LnGrp LOS	D		D	F	C	D	D	B	F	F	B	B
Approach Vol, veh/h		97			849			1269			1721	
Approach Delay, s/veh		42.0			108.0			123.2			70.3	
Approach LOS		D			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	42.0	17.0	14.8	8.7	54.3	7.1	24.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	38.0	13.0	36.0	7.0	48.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	19.0	40.0	15.0	5.7	4.2	18.1	3.1	15.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	15.9	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	94.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥		↰	↱	
Traffic Volume (veh/h)	210	1140	80	40	590	60	30	30	20	90	60	180
Future Volume (veh/h)	210	1140	80	40	590	60	30	30	20	90	60	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1200	84	42	621	63	32	32	21	95	63	189
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	271	1575	110	110	1228	124	159	148	70	452	105	315
Arrive On Green	0.15	0.46	0.46	0.06	0.37	0.37	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	3422	239	1810	3308	335	260	587	278	1367	418	1253
Grp Volume(v), veh/h	221	632	652	42	338	346	85	0	0	95	0	252
Grp Sat Flow(s),veh/h/ln	1810	1805	1856	1810	1805	1838	1125	0	0	1367	0	1670
Q Serve(g_s), s	6.2	15.4	15.4	1.2	7.7	7.7	0.2	0.0	0.0	0.0	0.0	7.0
Cycle Q Clear(g_c), s	6.2	15.4	15.4	1.2	7.7	7.7	7.3	0.0	0.0	3.5	0.0	7.0
Prop In Lane	1.00		0.13	1.00		0.18	0.38		0.25	1.00		0.75
Lane Grp Cap(c), veh/h	271	831	854	110	670	682	377	0	0	452	0	420
V/C Ratio(X)	0.81	0.76	0.76	0.38	0.51	0.51	0.23	0.00	0.00	0.21	0.00	0.60
Avail Cap(c_a), veh/h	274	1095	1126	240	1060	1080	953	0	0	989	0	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	11.8	11.8	23.8	12.8	12.8	15.7	0.0	0.0	16.1	0.0	17.4
Incr Delay (d2), s/veh	16.8	2.3	2.3	2.1	0.6	0.6	0.3	0.0	0.0	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	8.1	8.3	0.6	3.9	4.0	1.0	0.0	0.0	1.2	0.0	3.4
LnGrp Delay(d),s/veh	38.5	14.1	14.1	26.0	13.4	13.4	16.0	0.0	0.0	16.3	0.0	18.8
LnGrp LOS	D	B	B	C	B	B	B			B		B
Approach Vol, veh/h		1505			726			85			347	
Approach Delay, s/veh		17.7			14.2			16.0			18.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.3	7.2	28.3		17.3	11.9	23.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		9.3	3.2	17.4		9.0	8.2	9.7
Green Ext Time (p_c), s		2.4	1.4	6.9		2.4	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	40	1080	140	130	610	170	130	410	150	430	670	80
Future Volume (veh/h)	40	1080	140	130	610	170	130	410	150	430	670	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	1113	144	134	629	175	134	423	155	443	691	82
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	1256	162	139	1510	833	139	927	537	348	906	107
Arrive On Green	0.05	0.39	0.39	0.08	0.42	0.42	0.08	0.26	0.26	0.10	0.28	0.28
Sat Flow, veh/h	1810	3215	415	1810	3610	1609	1810	3610	1606	3510	3249	385
Grp Volume(v), veh/h	41	624	633	134	629	175	134	423	155	443	384	389
Grp Sat Flow(s),veh/h/ln	1810	1805	1825	1810	1805	1609	1810	1805	1606	1755	1805	1830
Q Serve(g_s), s	2.0	29.2	29.4	6.7	11.2	5.3	6.7	9.0	6.5	9.0	17.7	17.7
Cycle Q Clear(g_c), s	2.0	29.2	29.4	6.7	11.2	5.3	6.7	9.0	6.5	9.0	17.7	17.7
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	90	705	713	139	1510	833	139	927	537	348	503	510
V/C Ratio(X)	0.46	0.88	0.89	0.96	0.42	0.21	0.96	0.46	0.29	1.27	0.76	0.76
Avail Cap(c_a), veh/h	139	735	743	139	1510	833	139	1431	761	348	755	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	25.8	25.8	41.8	18.6	11.9	41.8	28.4	22.3	40.9	30.0	30.0
Incr Delay (d2), s/veh	3.6	12.1	12.3	64.1	0.2	0.1	64.1	0.4	0.3	143.7	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	16.9	17.2	5.8	5.5	2.4	5.8	4.5	2.9	11.2	9.1	9.2
LnGrp Delay(d),s/veh	45.5	37.9	38.1	105.9	18.8	12.0	105.9	28.8	22.6	184.6	32.5	32.6
LnGrp LOS	D	D	D	F	B	B	F	C	C	F	C	C
Approach Vol, veh/h		1298			938			712			1216	
Approach Delay, s/veh		38.2			30.0			41.9			88.0	
Approach LOS		D			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	27.3	11.0	39.5	11.0	29.3	8.5	42.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	36.0	7.0	37.0	7.0	38.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	11.0	11.0	8.7	31.4	8.7	19.7	4.0	13.2
Green Ext Time (p_c), s	0.0	3.4	0.0	4.0	0.0	4.2	0.0	14.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	50	30	1160	90	80	1410
Future Volume (veh/h)	50	30	1160	90	80	1410
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	32	1247	97	86	1516
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	172	153	2109	939	172	2723
Arrive On Green	0.09	0.09	0.58	0.58	0.09	0.75
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	54	32	1247	97	86	1516
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	1.5	1.0	11.6	1.4	2.4	9.4
Cycle Q Clear(g_c), s	1.5	1.0	11.6	1.4	2.4	9.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	172	153	2109	939	172	2723
V/C Ratio(X)	0.31	0.21	0.59	0.10	0.50	0.56
Avail Cap(c_a), veh/h	239	213	2314	1031	239	3062
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	22.2	7.0	4.9	22.8	2.8
Incr Delay (d2), s/veh	1.0	0.7	0.3	0.0	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.5	5.8	0.6	1.3	4.5
LnGrp Delay(d),s/veh	23.4	22.8	7.3	4.9	25.1	2.9
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	86		1344			1602
Approach Delay, s/veh	23.2		7.2			4.1
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.0	35.0				44.0		9.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	4.4	13.6				11.4		3.5
Green Ext Time (p_c), s	0.0	17.4				26.3		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	6.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	60	1080	210	430	680	220	0	0	0	590	100	330
Future Volume (veh/h)	60	1080	210	430	680	220	0	0	0	590	100	330
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	61	1102	0	439	694	0				675	0	337
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	323	1516	678	802	1697	759				838	0	660
Arrive On Green	0.18	0.42	0.00	0.46	0.94	0.00				0.23	0.00	0.23
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1605
Grp Volume(v), veh/h	61	1102	0	439	694	0				675	0	337
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1605
Q Serve(g_s), s	2.9	25.5	0.0	9.1	1.9	0.0				17.6	0.0	0.0
Cycle Q Clear(g_c), s	2.9	25.5	0.0	9.1	1.9	0.0				17.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	323	1516	678	802	1697	759				838	0	660
V/C Ratio(X)	0.19	0.73	0.00	0.55	0.41	0.00				0.81	0.00	0.51
Avail Cap(c_a), veh/h	323	1516	678	802	1697	759				1086	0	770
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	34.9	24.2	0.0	23.4	1.6	0.0				36.3	0.0	22.0
Incr Delay (d2), s/veh	0.3	3.1	0.0	0.8	0.7	0.0				3.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	13.4	0.0	4.3	0.9	0.0				9.2	0.0	6.9
LnGrp Delay(d),s/veh	35.2	27.3	0.0	24.2	2.3	0.0				39.8	0.0	22.6
LnGrp LOS	D	C		C	A					D		C
Approach Vol, veh/h		1163			1133						1012	
Approach Delay, s/veh		27.7			10.8						34.1	
Approach LOS		C			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			26.9	46.0		27.1	21.9	51.0
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			16.0	42.0		30.0	11.0	47.0
Max Q Clear Time (g_c+I1), s			11.1	27.5		19.6	4.9	3.9
Green Ext Time (p_c), s			0.8	6.4		3.0	1.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1170	410	150	1100	250	210	0	830	0	0	0
Future Volume (veh/h)	0	1170	410	150	1100	250	210	0	830	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1219	427	156	1146	0	219	0	0			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1588	848	638	4319	1345	307	0	248			
Arrive On Green	0.00	0.88	0.88	0.71	1.00	0.00	0.09	0.00	0.00			
Sat Flow, veh/h	0	3705	1606	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1219	427	156	1146	0	219	0	0			
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	12.5	5.8	3.1	0.0	0.0	6.1	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	12.5	5.8	3.1	0.0	0.0	6.1	0.0	0.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1588	848	638	4319	1345	307	0	248			
V/C Ratio(X)	0.00	0.77	0.50	0.24	0.27	0.00	0.71	0.00	0.00			
Avail Cap(c_a), veh/h	0	1588	848	638	4319	1345	983	0	796			
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.67	0.67	0.94	0.94	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	4.1	2.7	10.0	0.0	0.0	44.4	0.0	0.0			
Incr Delay (d2), s/veh	0.0	2.4	1.4	0.2	0.1	0.0	3.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	6.0	2.9	1.5	0.1	0.0	3.1	0.0	0.0			
LnGrp Delay(d),s/veh	0.0	6.6	4.1	10.2	0.1	0.0	47.5	0.0	0.0			
LnGrp LOS		A	A	B	A		D					
Approach Vol, veh/h		1646			1302			219				
Approach Delay, s/veh		5.9			1.3			47.5				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		12.7	39.3	48.0				87.3
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		28.0	16.0	44.0				64.0
Max Q Clear Time (g_c+I1), s		8.1	5.1	14.5				2.0
Green Ext Time (p_c), s		0.7	5.8	12.4				10.9

Intersection Summary	
HCM 2010 Ctrl Delay	6.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✣			✣	
Traffic Volume (veh/h)	10	1590	300	80	1210	10	210	10	50	0	10	10
Future Volume (veh/h)	10	1590	300	80	1210	10	210	10	50	0	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	1656	312	83	1260	10	140	120	52	0	10	10
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	523	1843	345	523	2229	18	299	215	93	0	149	149
Arrive On Green	0.38	0.56	0.56	0.29	0.42	0.42	0.17	0.17	0.17	0.00	0.17	0.17
Sat Flow, veh/h	1810	4387	820	1810	5308	42	1403	1255	544	0	869	869
Grp Volume(v), veh/h	10	1303	665	83	821	449	140	0	172	0	0	20
Grp Sat Flow(s),veh/h/ln	1810	1729	1749	1810	1729	1892	1403	0	1798	0	0	1738
Q Serve(g_s), s	0.3	33.3	34.0	3.4	18.1	18.1	9.3	0.0	8.8	0.0	0.0	1.0
Cycle Q Clear(g_c), s	0.3	33.3	34.0	3.4	18.1	18.1	10.3	0.0	8.8	0.0	0.0	1.0
Prop In Lane	1.00		0.47	1.00		0.02	1.00		0.30	0.00		0.50
Lane Grp Cap(c), veh/h	523	1452	735	523	1452	795	299	0	308	0	0	297
V/C Ratio(X)	0.02	0.90	0.91	0.16	0.57	0.57	0.47	0.00	0.56	0.00	0.00	0.07
Avail Cap(c_a), veh/h	523	1452	735	523	1452	795	605	0	701	0	0	678
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	20.2	20.3	26.5	22.1	22.1	39.0	0.0	38.0	0.0	0.0	34.7
Incr Delay (d2), s/veh	0.0	5.7	11.1	0.1	1.6	2.9	1.1	0.0	1.6	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	16.8	18.3	1.7	8.9	10.0	3.7	0.0	4.5	0.0	0.0	0.5
LnGrp Delay(d),s/veh	22.0	25.9	31.4	26.6	23.7	25.0	40.2	0.0	39.6	0.0	0.0	34.8
LnGrp LOS	C	C	C	C	C	C	D		D			C
Approach Vol, veh/h		1978			1353			312			20	
Approach Delay, s/veh		27.7			24.3			39.8			34.8	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		21.1	32.9	46.0		21.1	32.9	46.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	42.0		39.0	7.0	42.0
Max Q Clear Time (g_c+I1), s		12.3	5.4	36.0		3.0	2.3	20.1
Green Ext Time (p_c), s		1.5	0.0	5.0		1.6	0.1	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	80	1430	80	20	1030	10	70	10	10	10	20	50
Future Volume (veh/h)	80	1430	80	20	1030	10	70	10	10	10	20	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	1490	83	21	1073	10	73	10	10	10	21	52
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	453	2789	155	288	2939	27	210	102	102	92	164	188
Arrive On Green	0.80	0.80	0.80	0.80	0.80	0.80	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	529	3477	193	331	3665	34	1333	867	867	373	1392	1594
Grp Volume(v), veh/h	83	771	802	21	528	555	73	0	20	31	0	52
Grp Sat Flow(s),veh/h/ln	529	1805	1865	331	1805	1894	1333	0	1734	1766	0	1594
Q Serve(g_s), s	5.2	14.8	14.9	2.4	8.2	8.2	5.2	0.0	1.0	0.0	0.0	3.0
Cycle Q Clear(g_c), s	13.4	14.8	14.9	17.3	8.2	8.2	6.7	0.0	1.0	1.5	0.0	3.0
Prop In Lane	1.00		0.10	1.00		0.02	1.00		0.50	0.32		1.00
Lane Grp Cap(c), veh/h	453	1448	1496	288	1448	1519	210	0	205	256	0	188
V/C Ratio(X)	0.18	0.53	0.54	0.07	0.37	0.37	0.35	0.00	0.10	0.12	0.00	0.28
Avail Cap(c_a), veh/h	453	1448	1496	288	1448	1519	493	0	572	617	0	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.7	3.4	3.4	6.4	2.8	2.8	42.5	0.0	39.3	39.5	0.0	40.2
Incr Delay (d2), s/veh	0.9	1.4	1.4	0.4	0.6	0.6	1.0	0.0	0.2	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.6	8.2	0.2	4.2	4.4	2.0	0.0	0.5	0.8	0.0	1.4
LnGrp Delay(d),s/veh	5.5	4.8	4.8	6.8	3.4	3.3	43.5	0.0	39.6	39.7	0.0	41.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		D
Approach Vol, veh/h		1656			1104			93			83	
Approach Delay, s/veh		4.9			3.4			42.7			40.5	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		15.8		84.2		15.8		84.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		59.0		33.0		59.0
Max Q Clear Time (g_c+I1), s		8.7		16.9		5.0		19.3
Green Ext Time (p_c), s		0.6		30.5		0.6		29.2

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	110	1270	20	330	950	30	20	190	520	130	250	100
Future Volume (veh/h)	110	1270	20	330	950	30	20	190	520	130	250	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	1323	21	344	990	31	21	198	542	135	260	104
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	1395	22	368	1812	57	132	324	602	158	352	297
Arrive On Green	0.08	0.38	0.38	0.20	0.51	0.51	0.07	0.17	0.17	0.09	0.19	0.19
Sat Flow, veh/h	1810	3637	58	1810	3573	112	1810	1900	1601	1810	1900	1602
Grp Volume(v), veh/h	115	656	688	344	500	521	21	198	542	135	260	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1889	1810	1805	1880	1810	1900	1601	1810	1900	1602
Q Serve(g_s), s	6.4	36.4	36.4	19.3	19.5	19.5	1.1	10.0	7.7	7.6	13.3	4.7
Cycle Q Clear(g_c), s	6.4	36.4	36.4	19.3	19.5	19.5	1.1	10.0	7.7	7.6	13.3	4.7
Prop In Lane	1.00		0.03	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	692	725	368	915	953	132	324	602	158	352	297
V/C Ratio(X)	0.79	0.95	0.95	0.93	0.55	0.55	0.16	0.61	0.90	0.86	0.74	0.35
Avail Cap(c_a), veh/h	263	700	732	368	915	953	132	626	856	158	663	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	30.8	30.8	40.4	17.3	17.3	44.9	39.6	15.5	46.5	39.7	23.8
Incr Delay (d2), s/veh	9.4	22.0	21.5	30.6	0.7	0.7	0.6	1.9	9.5	34.2	3.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	22.3	23.2	12.8	9.9	10.3	0.6	5.4	14.2	5.3	7.3	2.4
LnGrp Delay(d),s/veh	56.1	52.9	52.3	71.0	18.0	18.0	45.4	41.5	25.0	80.7	42.7	24.6
LnGrp LOS	E	D	D	E	B	B	D	D	C	F	D	C
Approach Vol, veh/h		1459			1365			761			499	
Approach Delay, s/veh		52.9			31.4			29.8			49.2	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	21.6	25.0	43.6	11.5	23.1	12.3	56.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	34.0	21.0	40.0	7.0	36.0	15.0	46.0
Max Q Clear Time (g_c+I1), s	9.6	12.0	21.3	38.4	3.1	15.3	8.4	21.5
Green Ext Time (p_c), s	0.0	3.1	0.0	1.2	1.3	1.6	0.1	8.0

Intersection Summary			
HCM 2010 Ctrl Delay			40.9
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	40	700	1100	520	590	280	630	1140	190	440	1710	30
Future Volume (veh/h)	40	700	1100	520	590	280	630	1140	190	440	1710	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	714	1122	531	602	286	643	1163	194	449	1745	31
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	857	1169	497	747	558	616	1346	829	492	1771	31
Arrive On Green	0.17	0.24	0.24	0.14	0.21	0.21	0.18	0.37	0.37	0.14	0.34	0.34
Sat Flow, veh/h	1810	3610	2824	3510	3610	1603	3510	3610	1609	3510	5248	93
Grp Volume(v), veh/h	41	714	1122	531	602	286	643	1163	194	449	1150	626
Grp Sat Flow(s),veh/h/ln	1810	1805	1412	1755	1805	1603	1755	1805	1609	1755	1729	1883
Q Serve(g_s), s	2.8	27.9	25.8	21.0	23.5	12.9	26.0	44.2	9.9	18.7	48.9	48.9
Cycle Q Clear(g_c), s	2.8	27.9	25.8	21.0	23.5	12.9	26.0	44.2	9.9	18.7	48.9	48.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	311	857	1169	497	747	558	616	1346	829	492	1167	635
V/C Ratio(X)	0.13	0.83	0.96	1.07	0.81	0.51	1.04	0.86	0.23	0.91	0.99	0.99
Avail Cap(c_a), veh/h	311	901	1204	497	1218	767	616	1346	829	497	1167	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	53.7	23.7	63.6	55.9	18.0	61.1	43.0	19.9	62.8	48.7	48.7
Incr Delay (d2), s/veh	0.2	6.5	16.9	59.5	2.1	0.7	48.2	6.1	0.1	21.2	22.8	32.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	14.7	20.0	14.3	11.9	5.8	16.7	23.1	4.4	10.6	27.0	31.0
LnGrp Delay(d),s/veh	52.1	60.2	40.6	123.1	58.0	18.7	109.3	49.1	20.0	84.0	71.5	80.7
LnGrp LOS	D	E	D	F	E	B	F	D	B	F	E	F
Approach Vol, veh/h		1877			1419			2000			2225	
Approach Delay, s/veh		48.3			74.5			65.6			76.6	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	59.2	25.0	39.2	30.0	54.0	29.5	34.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	55.0	21.0	37.0	26.0	50.0	8.0	50.0
Max Q Clear Time (g_c+I1), s	20.7	46.2	23.0	29.9	28.0	50.9	4.8	25.5
Green Ext Time (p_c), s	0.1	6.4	0.0	4.9	0.0	0.0	2.5	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	66.2
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	20	10	20	30	1840	20	50	3120	30
Future Volume (veh/h)	20	10	10	20	10	20	30	1840	20	50	3120	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	10	10	20	10	20	31	1878	20	51	3184	31
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	67	46	110	60	75	77	3643	39	104	3725	36
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.04	0.69	0.69	0.06	0.70	0.70
Sat Flow, veh/h	625	577	401	450	519	646	1810	5291	56	1810	5297	51
Grp Volume(v), veh/h	40	0	0	50	0	0	31	1227	671	51	2075	1140
Grp Sat Flow(s),veh/h/ln	1602	0	0	1614	0	0	1810	1729	1890	1810	1729	1891
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.4	14.8	14.8	2.4	38.5	38.9
Cycle Q Clear(g_c), s	1.7	0.0	0.0	2.2	0.0	0.0	1.4	14.8	14.8	2.4	38.5	38.9
Prop In Lane	0.50		0.25	0.40		0.40	1.00		0.03	1.00		0.03
Lane Grp Cap(c), veh/h	247	0	0	245	0	0	77	2381	1301	104	2431	1329
V/C Ratio(X)	0.16	0.00	0.00	0.20	0.00	0.00	0.40	0.52	0.52	0.49	0.85	0.86
Avail Cap(c_a), veh/h	765	0	0	768	0	0	147	2442	1334	168	2482	1357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	0.0	34.8	0.0	0.0	40.3	6.5	6.5	39.5	9.5	9.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.0	3.4	0.2	0.3	3.6	3.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.1	0.0	0.0	0.8	7.0	7.8	1.3	18.9	22.0
LnGrp Delay(d),s/veh	34.9	0.0	0.0	35.2	0.0	0.0	43.7	6.7	6.8	43.1	12.6	15.2
LnGrp LOS	C			D			D	A	A	D	B	B
Approach Vol, veh/h		40			50			1929			3266	
Approach Delay, s/veh		34.9			35.2			7.3			14.0	
Approach LOS		C			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.9	63.5		14.0	7.7	64.7		14.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	8.0	61.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	4.4	16.8		3.7	3.4	40.9		4.2
Green Ext Time (p_c), s	0.0	18.5		0.5	3.0	19.8		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	50	30	40	20	30	70	30	1850	20	110	2980	90
Future Volume (veh/h)	50	30	40	20	30	70	30	1850	20	110	2980	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	31	41	21	31	72	31	1907	21	113	3072	93
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	197	165	332	199	167	75	3011	33	143	3139	94
Arrive On Green	0.07	0.10	0.10	0.07	0.10	0.10	0.04	0.57	0.57	0.08	0.61	0.61
Sat Flow, veh/h	1810	1900	1592	1810	1900	1592	1810	5289	58	1810	5175	155
Grp Volume(v), veh/h	52	31	41	21	31	72	31	1247	681	113	2043	1122
Grp Sat Flow(s),veh/h/ln	1810	1900	1592	1810	1900	1592	1810	1729	1889	1810	1729	1872
Q Serve(g_s), s	2.2	1.4	1.9	0.9	1.4	3.9	1.5	22.4	22.4	5.7	52.4	54.4
Cycle Q Clear(g_c), s	2.2	1.4	1.9	0.9	1.4	3.9	1.5	22.4	22.4	5.7	52.4	54.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.08
Lane Grp Cap(c), veh/h	328	197	165	332	199	167	75	1968	1075	143	2097	1135
V/C Ratio(X)	0.16	0.16	0.25	0.06	0.16	0.43	0.41	0.63	0.63	0.79	0.97	0.99
Avail Cap(c_a), veh/h	332	597	500	333	597	500	137	1985	1085	196	2097	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	37.7	28.0	31.5	37.6	38.8	43.1	13.4	13.4	41.8	17.5	17.8
Incr Delay (d2), s/veh	0.2	0.4	0.8	0.1	0.4	1.8	3.6	0.7	1.2	14.0	14.0	23.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	1.0	0.5	0.7	1.8	0.8	10.7	11.9	3.4	28.8	35.3
LnGrp Delay(d),s/veh	32.4	38.1	28.7	31.6	38.0	40.5	46.7	14.1	14.6	55.7	31.5	41.7
LnGrp LOS	C	D	C	C	D	D	D	B	B	E	C	D
Approach Vol, veh/h		124			124			1959			3278	
Approach Delay, s/veh		32.6			38.4			14.8			35.8	
Approach LOS		C			D			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	56.6	10.9	13.6	7.8	60.0	10.8	13.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	53.0	7.0	29.0	7.0	56.0	7.0	29.0				
Max Q Clear Time (g_c+I1), s	7.7	24.4	2.9	3.9	3.5	56.4	4.2	5.9				
Green Ext Time (p_c), s	0.0	15.5	0.0	0.7	2.9	0.0	0.0	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			28.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	10	0	10	560	10	30	10	1860	530	60	2860	10
Future Volume (veh/h)	10	0	10	560	10	30	10	1860	530	60	2860	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	0	11	604	0	32	11	1979	564	64	3043	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	195	172	558	0	216	34	2647	988	133	3014	11
Arrive On Green	0.08	0.00	0.11	0.10	0.00	0.14	0.02	0.51	0.51	0.07	0.57	0.57
Sat Flow, veh/h	1810	1805	1593	5429	0	1597	1810	5187	1610	1810	5335	19
Grp Volume(v), veh/h	11	0	11	604	0	32	11	1979	564	64	1971	1083
Grp Sat Flow(s),veh/h/ln	1810	1805	1593	1810	0	1597	1810	1729	1610	1810	1729	1897
Q Serve(g_s), s	0.4	0.0	0.5	8.0	0.0	1.4	0.5	23.5	6.7	2.6	44.0	44.0
Cycle Q Clear(g_c), s	0.4	0.0	0.5	8.0	0.0	1.4	0.5	23.5	6.7	2.6	44.0	44.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	136	195	172	558	0	216	34	2647	988	133	1954	1072
V/C Ratio(X)	0.08	0.00	0.06	1.08	0.00	0.15	0.32	0.75	0.57	0.48	1.01	1.01
Avail Cap(c_a), veh/h	163	927	818	558	0	841	163	2931	1076	163	1954	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	0.0	31.2	34.9	0.0	29.7	37.7	15.1	2.5	34.6	16.9	16.9
Incr Delay (d2), s/veh	0.3	0.0	0.2	62.5	0.0	0.3	5.2	1.0	0.6	2.7	22.5	30.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	7.2	0.0	0.6	0.3	11.4	3.1	1.4	26.7	31.6
LnGrp Delay(d),s/veh	33.8	0.0	31.4	97.5	0.0	30.0	42.9	16.1	3.1	37.3	39.5	47.1
LnGrp LOS	C		C	F		C	D	B	A	D	F	F
Approach Vol, veh/h		22			636			2554			3118	
Approach Delay, s/veh		32.6			94.1			13.3			42.1	
Approach LOS		C			F			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	43.7	12.0	12.4	5.5	48.0	9.8	14.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	8.0	40.0	7.0	44.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	4.6	25.5	10.0	2.5	2.5	46.0	2.4	3.4
Green Ext Time (p_c), s	2.3	14.2	0.0	0.1	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	280	210	100	10	50	80	40	750	10	90	940	230
Future Volume (veh/h)	280	210	100	10	50	80	40	750	10	90	940	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	308	231	110	11	55	88	44	824	11	99	1033	253
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	1007	448	36	516	158	867	2704	840	154	1650	511
Arrive On Green	0.19	0.28	0.28	0.01	0.10	0.10	0.25	0.52	0.52	0.04	0.32	0.32
Sat Flow, veh/h	1810	3610	1606	3510	5187	1591	3510	5187	1610	3510	5187	1607
Grp Volume(v), veh/h	308	231	110	11	55	88	44	824	11	99	1033	253
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1755	1729	1591	1755	1729	1610	1755	1729	1607
Q Serve(g_s), s	18.3	5.4	3.2	0.3	1.1	5.8	1.1	9.9	0.4	3.1	18.7	8.6
Cycle Q Clear(g_c), s	18.3	5.4	3.2	0.3	1.1	5.8	1.1	9.9	0.4	3.1	18.7	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1007	448	36	516	158	867	2704	840	154	1650	511
V/C Ratio(X)	0.90	0.23	0.25	0.30	0.11	0.56	0.05	0.30	0.01	0.64	0.63	0.49
Avail Cap(c_a), veh/h	477	1477	657	128	943	289	867	2704	840	191	1650	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	30.6	9.5	54.0	45.1	47.2	31.6	15.0	12.7	51.7	31.9	11.5
Incr Delay (d2), s/veh	15.2	0.1	0.3	4.5	0.1	3.0	0.0	0.3	0.0	5.0	1.8	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	2.7	1.5	0.2	0.5	2.7	0.5	4.8	0.2	1.6	9.2	4.3
LnGrp Delay(d),s/veh	58.7	30.7	9.8	58.6	45.2	50.3	31.6	15.3	12.7	56.7	33.7	14.9
LnGrp LOS	E	C	A	E	D	D	C	B	B	E	C	B
Approach Vol, veh/h		649			154			879			1385	
Approach Delay, s/veh		40.4			49.0			16.1			31.9	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	61.4	5.1	34.7	31.2	39.0	24.9	14.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	39.0	4.0	45.0	10.0	35.0	29.0	20.0
Max Q Clear Time (g_c+I1), s	5.1	11.9	2.3	7.4	3.1	20.7	20.3	7.8
Green Ext Time (p_c), s	0.0	5.8	0.0	2.6	3.0	6.4	0.6	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	70	1300	110	40	1090	50	190	120	110	90	110	80
Future Volume (veh/h)	70	1300	110	40	1090	50	190	120	110	90	110	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	1413	120	43	1185	54	207	130	120	98	120	87
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	2653	225	55	2704	839	237	341	289	124	440	195
Arrive On Green	0.05	0.54	0.54	0.06	1.00	1.00	0.13	0.18	0.18	0.07	0.12	0.12
Sat Flow, veh/h	1810	4870	414	1810	5187	1610	1810	1848	1565	1810	3610	1595
Grp Volume(v), veh/h	76	1003	530	43	1185	54	207	127	123	98	120	87
Grp Sat Flow(s),veh/h/ln	1810	1729	1826	1810	1729	1610	1810	1805	1609	1810	1805	1595
Q Serve(g_s), s	4.6	20.5	20.5	2.6	0.0	0.0	12.3	6.8	7.4	5.9	3.3	5.6
Cycle Q Clear(g_c), s	4.6	20.5	20.5	2.6	0.0	0.0	12.3	6.8	7.4	5.9	3.3	5.6
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.97	1.00		1.00
Lane Grp Cap(c), veh/h	97	1883	994	55	2704	839	237	333	297	124	440	195
V/C Ratio(X)	0.78	0.53	0.53	0.78	0.44	0.06	0.87	0.38	0.42	0.79	0.27	0.45
Avail Cap(c_a), veh/h	115	1883	994	66	2704	839	263	612	545	197	1083	479
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	16.1	16.1	51.3	0.0	0.0	46.9	39.3	39.6	50.5	43.9	44.8
Incr Delay (d2), s/veh	22.6	1.0	1.9	33.1	0.4	0.1	24.3	0.7	0.9	10.6	0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	10.0	10.8	1.8	0.1	0.0	7.8	3.4	3.4	3.3	1.7	2.5
LnGrp Delay(d),s/veh	74.0	17.0	17.9	84.4	0.4	0.1	71.2	40.0	40.5	61.1	44.2	46.4
LnGrp LOS	E	B	B	F	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1609			1282			457			305	
Approach Delay, s/veh		20.0			3.2			54.3			50.3	
Approach LOS		C			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	65.9	18.4	18.3	9.9	63.3	11.5	25.2
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	4.0	38.1	16.0	33.0	7.0	35.1	12.0	* 37
Max Q Clear Time (g_c+I1), s	6.6	22.5	14.3	7.6	6.6	2.0	7.9	9.4
Green Ext Time (p_c), s	0.0	13.1	0.1	2.5	0.0	23.8	0.1	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	240	1070	260	120	820	130	280	390	100	260	530	230
Future Volume (veh/h)	240	1070	260	120	820	130	280	390	100	260	530	230
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	1092	265	122	837	133	286	398	102	265	541	235
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	307	2304	715	181	1844	291	356	844	375	333	821	365
Arrive On Green	0.17	0.89	0.89	0.05	0.41	0.41	0.10	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	3510	5187	1610	3510	4516	713	3510	3610	1605	3510	3610	1604
Grp Volume(v), veh/h	245	1092	265	122	640	330	286	398	102	265	541	235
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1771	1755	1805	1605	1755	1805	1604
Q Serve(g_s), s	7.4	4.5	3.0	3.8	14.8	14.9	8.8	10.4	5.7	8.1	15.0	14.6
Cycle Q Clear(g_c), s	7.4	4.5	3.0	3.8	14.8	14.9	8.8	10.4	5.7	8.1	15.0	14.6
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	2304	715	181	1412	723	356	844	375	333	821	365
V/C Ratio(X)	0.80	0.47	0.37	0.67	0.45	0.46	0.80	0.47	0.27	0.79	0.66	0.64
Avail Cap(c_a), veh/h	415	2304	715	255	1412	723	479	1119	497	447	1086	483
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	3.7	3.6	51.2	23.6	23.7	48.4	36.3	34.5	48.7	38.6	38.5
Incr Delay (d2), s/veh	6.4	0.6	1.2	3.4	0.8	1.6	7.1	0.4	0.4	7.0	0.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	1.9	1.4	1.9	7.2	7.6	4.6	5.2	2.6	4.3	7.5	6.7
LnGrp Delay(d),s/veh	50.8	4.2	4.8	54.7	24.5	25.3	55.4	36.7	34.9	55.8	39.5	40.4
LnGrp LOS	D	A	A	D	C	C	E	D	C	E	D	D
Approach Vol, veh/h		1602			1092			786			1041	
Approach Delay, s/veh		11.5			28.1			43.3			43.8	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	54.9	15.2	30.3	13.6	50.9	14.4	31.0
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	34.6	15.0	33.1	13.0	29.6	14.0	34.1
Max Q Clear Time (g_c+I1), s	5.8	6.5	10.8	17.0	9.4	16.9	10.1	12.4
Green Ext Time (p_c), s	0.1	17.0	0.4	6.7	0.3	9.6	0.3	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
103: Evans Road & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	340	920	350	20	570	190	220	340	20	240	440	280
Future Volume (veh/h)	340	920	350	20	570	190	220	340	20	240	440	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	362	979	0	21	606	202	234	362	21	255	468	298
Adj No. of Lanes	2	3	1	1	2	1	2	2	0	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	433	2156	671	31	1117	497	300	1018	59	322	1083	482
Arrive On Green	0.12	0.42	0.00	0.02	0.31	0.31	0.09	0.29	0.29	0.09	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	3610	1607	3510	3468	200	3510	3610	1607
Grp Volume(v), veh/h	362	979	0	21	606	202	234	188	195	255	468	298
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1805	1607	1755	1805	1863	1755	1805	1607
Q Serve(g_s), s	11.1	15.0	0.0	1.3	15.3	10.9	7.2	9.0	9.1	7.8	11.5	17.5
Cycle Q Clear(g_c), s	11.1	15.0	0.0	1.3	15.3	10.9	7.2	9.0	9.1	7.8	11.5	17.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	433	2156	671	31	1117	497	300	530	547	322	1083	482
V/C Ratio(X)	0.84	0.45	0.00	0.67	0.54	0.41	0.78	0.35	0.36	0.79	0.43	0.62
Avail Cap(c_a), veh/h	543	2156	671	99	1117	497	383	530	547	415	1083	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	23.2	0.0	53.7	31.5	30.0	49.3	30.6	30.7	48.9	31.0	33.1
Incr Delay (d2), s/veh	7.7	0.6	0.0	22.4	1.9	2.5	7.7	1.9	1.8	7.8	1.3	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	7.3	0.0	0.8	8.0	5.2	3.8	4.8	4.9	4.1	5.9	8.6
LnGrp Delay(d),s/veh	54.9	23.7	0.0	76.1	33.4	32.4	57.0	32.5	32.5	56.7	32.2	38.9
LnGrp LOS	D	C		E	C	C	E	C	C	E	C	D
Approach Vol, veh/h		1341			829			617			1021	
Approach Delay, s/veh		32.1			34.2			41.8			40.3	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	51.7	13.4	39.0	17.6	40.0	14.1	38.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	39.0	12.0	33.0	17.0	28.0	13.0	32.0
Max Q Clear Time (g_c+I1), s	3.3	17.0	9.2	19.5	13.1	17.3	9.8	11.1
Green Ext Time (p_c), s	0.0	11.3	0.2	5.5	0.5	7.0	0.3	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	50	30	30	40	10	20	30	740	20	20	790	10
Future Volume (veh/h)	50	30	30	40	10	20	30	740	20	20	790	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	33	33	44	11	22	33	813	22	22	868	11
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	226	99	57	103	85	42	3786	102	32	2613	1167
Arrive On Green	0.04	0.06	0.06	0.03	0.05	0.05	0.01	0.24	0.24	0.02	0.72	0.72
Sat Flow, veh/h	1810	3610	1576	1810	1900	1570	1810	5193	140	1810	3610	1612
Grp Volume(v), veh/h	55	33	33	44	11	22	33	541	294	22	868	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1576	1810	1900	1570	1810	1729	1875	1810	1805	1612
Q Serve(g_s), s	3.3	1.0	2.2	2.7	0.6	1.5	2.0	13.8	13.8	1.3	9.6	0.2
Cycle Q Clear(g_c), s	3.3	1.0	2.2	2.7	0.6	1.5	2.0	13.8	13.8	1.3	9.6	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	72	226	99	57	103	85	42	2521	1367	32	2613	1167
V/C Ratio(X)	0.77	0.15	0.33	0.77	0.11	0.26	0.79	0.21	0.22	0.68	0.33	0.01
Avail Cap(c_a), veh/h	197	715	312	148	326	270	132	2521	1367	115	2613	1167
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	48.8	49.4	52.9	49.5	49.9	54.3	16.5	16.6	53.7	5.5	4.2
Incr Delay (d2), s/veh	15.6	0.3	2.0	19.6	0.4	1.6	26.0	0.2	0.3	22.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.5	1.0	1.6	0.3	0.7	1.3	6.7	7.3	0.9	4.8	0.1
LnGrp Delay(d),s/veh	67.9	49.1	51.3	72.5	49.9	51.5	80.3	16.7	16.9	76.2	5.9	4.2
LnGrp LOS	E	D	D	E	D	D	F	B	B	E	A	A
Approach Vol, veh/h		121			77			868			901	
Approach Delay, s/veh		58.3			63.3			19.2			7.6	
Approach LOS		E			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	85.5	7.5	11.1	6.5	84.9	8.4	10.2
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	7.0	54.7	9.0	* 22	8.0	53.7	12.0	* 19
Max Q Clear Time (g_c+I1), s	3.3	15.8	4.7	4.2	4.0	11.6	5.3	3.5
Green Ext Time (p_c), s	0.0	15.9	0.0	0.3	0.0	16.4	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	10	40	70	20	50	60	420	100	70	580	40
Future Volume (veh/h)	40	10	40	70	20	50	60	420	100	70	580	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	12	47	82	24	59	71	494	118	82	682	47
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	61	162	135	106	209	175	92	1889	449	106	2383	1064
Arrive On Green	0.03	0.09	0.09	0.06	0.11	0.11	0.02	0.22	0.22	0.06	0.66	0.66
Sat Flow, veh/h	1810	1900	1587	1810	1900	1593	1810	2894	688	1810	3610	1611
Grp Volume(v), veh/h	47	12	47	82	24	59	71	307	305	82	682	47
Grp Sat Flow(s),veh/h/ln	1810	1900	1587	1810	1900	1593	1810	1805	1777	1810	1805	1611
Q Serve(g_s), s	2.8	0.6	3.1	4.9	1.3	3.8	4.3	15.6	15.7	4.9	8.7	1.1
Cycle Q Clear(g_c), s	2.8	0.6	3.1	4.9	1.3	3.8	4.3	15.6	15.7	4.9	8.7	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	61	162	135	106	209	175	92	1178	1160	106	2383	1064
V/C Ratio(X)	0.77	0.07	0.35	0.78	0.12	0.34	0.77	0.26	0.26	0.78	0.29	0.04
Avail Cap(c_a), veh/h	148	553	462	214	622	521	181	1178	1160	214	2383	1064
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	46.3	47.4	51.1	44.1	45.3	53.4	21.1	21.1	51.1	7.8	6.5
Incr Delay (d2), s/veh	18.4	0.2	1.5	11.5	0.2	1.1	11.1	0.5	0.5	11.5	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.3	1.4	2.8	0.7	1.7	2.4	7.9	7.9	2.8	4.4	0.5
LnGrp Delay(d),s/veh	71.1	46.5	49.0	62.6	44.4	46.4	64.5	21.6	21.6	62.6	8.1	6.6
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	A	A
Approach Vol, veh/h		106			165			683			811	
Approach Delay, s/veh		58.5			54.1			26.1			13.6	
Approach LOS		E			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	75.8	10.4	13.4	9.6	76.6	7.7	16.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	36.0	13.0	32.0	11.0	38.0	9.0	36.0
Max Q Clear Time (g_c+I1), s	6.9	17.7	6.9	5.1	6.3	10.7	4.8	5.8
Green Ext Time (p_c), s	0.1	8.4	0.1	0.5	0.0	10.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	40	280	80	160	100	160	30	550	170	100	720	30
Future Volume (veh/h)	40	280	80	160	100	160	30	550	170	100	720	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	292	83	167	104	167	31	573	177	104	750	31
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	346	981	436	277	981	436	40	1891	842	130	2974	924
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.01	0.17	0.17	0.14	1.00	1.00
Sat Flow, veh/h	1122	3610	1606	1021	3610	1606	1810	3610	1607	1810	5187	1611
Grp Volume(v), veh/h	42	292	83	167	104	167	31	573	177	104	750	31
Grp Sat Flow(s),veh/h/ln	1122	1805	1606	1021	1805	1606	1810	1805	1607	1810	1729	1611
Q Serve(g_s), s	3.2	7.1	4.4	17.0	2.4	9.3	1.9	15.2	10.4	6.1	0.0	0.0
Cycle Q Clear(g_c), s	5.6	7.1	4.4	24.1	2.4	9.3	1.9	15.2	10.4	6.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	981	436	277	981	436	40	1891	842	130	2974	924
V/C Ratio(X)	0.12	0.30	0.19	0.60	0.11	0.38	0.77	0.30	0.21	0.80	0.25	0.03
Avail Cap(c_a), veh/h	456	1336	594	378	1336	594	132	1891	842	263	2974	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.95	0.95	0.95
Uniform Delay (d), s/veh	32.1	31.7	30.8	41.3	30.0	32.6	54.3	28.0	26.0	46.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.2	2.1	0.0	0.6	24.5	0.4	0.5	10.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.6	2.0	5.0	1.2	4.2	1.2	7.7	4.8	3.4	0.1	0.0
LnGrp Delay(d),s/veh	32.3	31.9	31.0	43.4	30.1	33.1	78.9	28.4	26.5	56.6	0.2	0.1
LnGrp LOS	C	C	C	D	C	C	E	C	C	E	A	A
Approach Vol, veh/h		417			438			781			885	
Approach Delay, s/veh		31.8			36.3			29.9			6.8	
Approach LOS		C			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	62.9		35.2	6.4	68.4		35.2
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	16.0	38.7		40.7	8.0	46.7		40.7
Max Q Clear Time (g_c+I1), s	8.1	17.2		9.1	3.9	2.0		26.1
Green Ext Time (p_c), s	0.1	10.1		4.6	0.0	13.2		3.8

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	300	90	20	200	60	60	300	10	50	360	190
Future Volume (veh/h)	240	300	90	20	200	60	60	300	10	50	360	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	264	330	99	22	220	66	66	330	11	55	396	209
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	826	244	32	425	124	85	1771	59	71	1122	585
Arrive On Green	0.16	0.30	0.30	0.02	0.15	0.15	0.05	0.50	0.50	0.08	0.98	0.98
Sat Flow, veh/h	1810	2746	811	1810	2750	804	1810	3565	119	1810	2294	1195
Grp Volume(v), veh/h	264	215	214	22	142	144	66	167	174	55	310	295
Grp Sat Flow(s),veh/h/ln	1810	1805	1752	1810	1805	1749	1810	1805	1879	1810	1805	1685
Q Serve(g_s), s	15.7	10.4	10.7	1.3	8.0	8.3	4.0	5.6	5.7	3.3	0.6	0.7
Cycle Q Clear(g_c), s	15.7	10.4	10.7	1.3	8.0	8.3	4.0	5.6	5.7	3.3	0.6	0.7
Prop In Lane	1.00		0.46	1.00		0.46	1.00		0.06	1.00		0.71
Lane Grp Cap(c), veh/h	296	543	527	32	279	271	85	897	933	71	883	824
V/C Ratio(X)	0.89	0.40	0.41	0.68	0.51	0.53	0.77	0.19	0.19	0.78	0.35	0.36
Avail Cap(c_a), veh/h	362	771	749	99	509	493	115	897	933	132	883	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	45.0	30.5	30.6	53.7	42.7	42.8	51.8	15.3	15.3	50.2	0.6	0.6
Incr Delay (d2), s/veh	20.2	0.5	0.5	22.5	1.4	1.6	20.0	0.5	0.4	15.8	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	5.3	5.2	0.9	4.1	4.2	2.5	2.9	3.0	1.9	0.5	0.5
LnGrp Delay(d),s/veh	65.2	31.0	31.1	76.2	44.1	44.4	71.8	15.8	15.8	66.0	1.7	1.8
LnGrp LOS	E	C	C	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		693			308			407			660	
Approach Delay, s/veh		44.1			46.5			24.9			7.1	
Approach LOS		D			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	58.7	6.0	37.1	9.2	57.8	22.0	21.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	6.0	47.0	7.0	34.0	22.0	31.0
Max Q Clear Time (g_c+I1), s	5.3	7.7	3.3	12.7	6.0	2.7	17.7	10.3
Green Ext Time (p_c), s	0.0	6.1	0.0	4.8	0.0	6.4	0.3	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	80	20	50	20	70	10	680	50	130	860	10
Future Volume (veh/h)	20	80	20	50	20	70	10	680	50	130	860	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	83	21	52	21	73	10	708	52	135	896	10
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	31	117	30	67	191	160	17	2137	157	163	2586	29
Arrive On Green	0.02	0.08	0.08	0.04	0.10	0.10	0.01	0.83	0.83	0.18	1.00	1.00
Sat Flow, veh/h	1810	1458	369	1810	1900	1591	1810	3410	250	1810	3657	41
Grp Volume(v), veh/h	21	0	104	52	21	73	10	375	385	135	442	464
Grp Sat Flow(s),veh/h/ln	1810	0	1827	1810	1900	1591	1810	1805	1855	1810	1805	1893
Q Serve(g_s), s	1.3	0.0	6.1	3.1	1.1	4.8	0.6	5.3	5.3	7.9	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	6.1	3.1	1.1	4.8	0.6	5.3	5.3	7.9	0.0	0.0
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.13	1.00		0.02
Lane Grp Cap(c), veh/h	31	0	147	67	191	160	17	1131	1162	163	1276	1338
V/C Ratio(X)	0.67	0.00	0.71	0.77	0.11	0.46	0.58	0.33	0.33	0.83	0.35	0.35
Avail Cap(c_a), veh/h	82	0	433	132	503	421	66	1131	1162	280	1276	1338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.95	0.95	0.95
Uniform Delay (d), s/veh	53.7	0.0	49.3	52.5	45.0	46.6	54.1	3.9	3.9	44.3	0.0	0.0
Incr Delay (d2), s/veh	22.4	0.0	6.1	16.7	0.3	2.0	23.2	0.7	0.6	9.7	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.3	1.9	0.6	2.2	0.4	2.7	2.7	4.3	0.3	0.3
LnGrp Delay(d),s/veh	76.1	0.0	55.4	69.2	45.2	48.6	77.2	4.5	4.5	54.0	0.7	0.7
LnGrp LOS	E		E	E	D	D	E	A	A	D	A	A
Approach Vol, veh/h		125			146			770			1041	
Approach Delay, s/veh		58.9			55.5			5.5			7.6	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	74.2	8.1	13.8	5.1	83.1	5.9	16.0
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	17.0	40.7	8.0	26.1	4.0	53.7	5.0	29.1
Max Q Clear Time (g_c+I1), s	9.9	7.3	5.1	8.1	2.6	2.0	3.3	6.8
Green Ext Time (p_c), s	0.2	12.8	0.0	0.8	0.0	14.3	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1090	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1090	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	41.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	110	190	70	50	110	70	100	260	70	90	280	110
Future Vol, veh/h	110	190	70	50	110	70	100	260	70	90	280	110
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	117	202	74	53	117	74	106	277	74	96	298	117
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	86.2	21.6	27.4	29.2
HCM LOS	F	C	D	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	51%	0%	61%	0%	100%	0%
Vol Right, %	0%	0%	100%	19%	0%	39%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	260	70	370	50	180	90	280	110
LT Vol	100	0	0	110	50	0	90	0	0
Through Vol	0	260	0	190	0	110	0	280	0
RT Vol	0	0	70	70	0	70	0	0	110
Lane Flow Rate	106	277	74	394	53	191	96	298	117
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.293	0.73	0.181	1.033	0.157	0.521	0.261	0.776	0.281
Departure Headway (Hd)	10.338	9.81	9.07	9.444	10.941	10.133	10.204	9.677	8.937
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	350	371	398	386	330	358	354	375	405
Service Time	8.038	7.51	6.77	7.139	8.641	7.833	7.904	7.377	6.637
HCM Lane V/C Ratio	0.303	0.747	0.186	1.021	0.161	0.534	0.271	0.795	0.289
HCM Control Delay	17.3	34.9	13.8	86.2	15.7	23.3	16.5	38.9	15.1
HCM Lane LOS	C	D	B	F	C	C	C	E	C
HCM 95th-tile Q	1.2	5.6	0.7	13	0.5	2.9	1	6.4	1.1

HCM 2010 Signalized Intersection Summary
115: Nuevo Rd & Evans Rd

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑	↱	↰	↱
Traffic Volume (veh/h)	350	380	300	50	60	290
Future Volume (veh/h)	350	380	300	50	60	290
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	385	418	330	55	66	319
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	438	1072	505	425	585	522
Arrive On Green	0.24	0.56	0.27	0.27	0.32	0.32
Sat Flow, veh/h	1810	1900	1900	1600	1810	1615
Grp Volume(v), veh/h	385	418	330	55	66	319
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1600	1810	1615
Q Serve(g_s), s	14.6	8.7	11.0	1.9	1.8	11.9
Cycle Q Clear(g_c), s	14.6	8.7	11.0	1.9	1.8	11.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	438	1072	505	425	585	522
V/C Ratio(X)	0.88	0.39	0.65	0.13	0.11	0.61
Avail Cap(c_a), veh/h	585	1576	855	720	585	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	8.7	23.2	19.9	16.9	20.3
Incr Delay (d2), s/veh	11.4	0.2	1.4	0.1	0.4	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	4.6	6.0	0.8	1.0	11.3
LnGrp Delay(d),s/veh	37.3	8.9	24.6	20.0	17.3	25.6
LnGrp LOS	D	A	C	B	B	C
Approach Vol, veh/h		803	385		385	
Approach Delay, s/veh		22.5	24.0		24.1	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				44.2		27.0	21.2	22.9
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				59.0		23.0	23.0	32.0
Max Q Clear Time (g_c+I1), s				10.7		13.9	16.6	13.0
Green Ext Time (p_c), s				5.4		0.9	0.7	4.5

Intersection Summary		
HCM 2010 Ctrl Delay		23.3
HCM 2010 LOS		C

HCM 2010 TWSC
122: Ramona Expy & Bridge St

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑↱		↰	↱
Traffic Vol, veh/h	30	970	730	30	70	60
Future Vol, veh/h	30	970	730	30	70	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	35
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	1066	802	33	77	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	835	0	-	0	1951	819
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	1132	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	807	-	-	-	~ 72	379
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	311	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	807	-	-	-	~ 69	379
Mov Cap-2 Maneuver	-	-	-	-	~ 69	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	298	-

Approach	EB		WB		SB
HCM Control Delay, s	0.3		0		140.5
HCM LOS					F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	807	-	-	-	69	379
HCM Lane V/C Ratio	0.041	-	-	-	1.115	0.174
HCM Control Delay (s)	9.7	-	-	-	246.8	16.5
HCM Lane LOS	A	-	-	-	F	C
HCM 95th %tile Q(veh)	0.1	-	-	-	5.9	0.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↱	
Traffic Vol, veh/h	50	10	30	530	1050	100
Future Vol, veh/h	50	10	30	530	1050	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	11	32	558	1105	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1779	1158	1211	0	-	0
Stage 1	1158	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	92	241	583	-	-	-
Stage 1	302	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	87	241	583	-	-	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	302	-	-	-	-	-
Stage 2	510	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	94.1	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	583	-	97	-	-
HCM Lane V/C Ratio	0.054	-	0.651	-	-
HCM Control Delay (s)	11.5	-	94.1	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.2	-	3.2	-	-

Intersection	
Int Delay, s/veh	25.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Vol, veh/h	10	690	0	0	300	210	240	0	30	0	0	0
Future Vol, veh/h	10	690	0	0	300	210	240	0	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	767	0	0	333	233	267	0	33	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	333	0	-	-	-	0	1122	1122	767
Stage 1	-	-	-	-	-	-	789	789	-
Stage 2	-	-	-	-	-	-	333	333	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1238	-	0	0	-	-	~ 230	208	405
Stage 1	-	-	0	0	-	-	451	405	-
Stage 2	-	-	0	0	-	-	731	647	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1238	-	-	-	-	-	~ 228	0	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 228	0	-
Stage 1	-	-	-	-	-	-	447	0	-
Stage 2	-	-	-	-	-	-	731	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	141.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	228	405	1238	-	-	-
HCM Lane V/C Ratio	1.17	0.082	0.009	-	-	-
HCM Control Delay (s)	157.8	14.7	7.9	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	12.7	0.3	0	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	21.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑	↱
Traffic Vol, veh/h	0	470	580	10	520	0	0	0	0	250	10	30
Future Vol, veh/h	0	470	580	10	520	0	0	0	0	250	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	505	624	11	559	0	0	0	0	269	11	32

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	505	0	0				1086	1086	559
Stage 1	-	-	-	-	-	-				581	581	-
Stage 2	-	-	-	-	-	-				505	505	-
Critical Hdwy	-	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1070	-	0				~ 242	218	532
Stage 1	0	-	-	-	-	0				563	503	-
Stage 2	0	-	-	-	-	0				610	544	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1070	-	-				~ 240	0	532
Mov Cap-2 Maneuver	-	-	-	-	-	-				~ 240	0	-
Stage 1	-	-	-	-	-	-				557	0	-
Stage 2	-	-	-	-	-	-				610	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.2	138.6
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1070	-	240	532
HCM Lane V/C Ratio	-	-	0.01	-	1.165	0.061
HCM Control Delay (s)	-	-	8.4	-	153.2	12.2
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0	-	13	0.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM Signalized Intersection Capacity Analysis
126: SR-79(Sanderson Ave) & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (vph)	330	530	150	40	370	420	100	590	40	630	1100	360
Future Volume (vph)	330	530	150	40	370	420	100	590	40	630	1100	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3610	1597	3502	3610	1605	3502	3610	1596	3502	3610	1597
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3610	1597	3502	3610	1605	3502	3610	1596	3502	3610	1597
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	347	558	158	42	389	442	105	621	42	663	1158	379
RTOR Reduction (vph)	0	0	48	0	0	47	0	0	29	0	0	61
Lane Group Flow (vph)	347	558	110	42	389	395	105	621	13	663	1158	318
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.2	23.9	31.6	5.5	17.2	41.5	7.7	23.0	28.5	24.3	39.6	51.8
Effective Green, g (s)	12.2	23.9	31.6	5.5	17.2	41.5	7.7	23.0	28.5	24.3	39.6	51.8
Actuated g/C Ratio	0.13	0.26	0.34	0.06	0.19	0.45	0.08	0.25	0.31	0.26	0.43	0.56
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	460	930	613	207	669	787	290	895	559	918	1542	961
v/s Ratio Prot	c0.10	c0.15	0.01	0.01	0.11	0.13	0.03	0.17	0.00	c0.19	c0.32	0.04
v/s Ratio Perm			0.05			0.11			0.01			0.16
v/c Ratio	0.75	0.60	0.18	0.20	0.58	0.50	0.36	0.69	0.02	0.72	0.75	0.33
Uniform Delay, d1	38.8	30.2	21.4	41.5	34.5	18.2	40.2	31.7	22.4	31.1	22.4	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.9	1.1	0.1	0.5	1.3	0.5	0.8	2.3	0.0	2.8	2.1	0.2
Delay (s)	45.7	31.3	21.6	42.0	35.8	18.7	41.0	34.0	22.4	34.0	24.5	11.3
Level of Service	D	C	C	D	D	B	D	C	C	C	C	B
Approach Delay (s)		34.5			27.4			34.3			25.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	92.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	20	430	170	50	310	20	370	90	70	40	60	10
Future Volume (veh/h)	20	430	170	50	310	20	370	90	70	40	60	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	453	179	53	326	21	389	95	74	42	63	11
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	34	505	425	67	540	391	431	438	341	57	372	65
Arrive On Green	0.02	0.27	0.27	0.04	0.28	0.28	0.24	0.44	0.44	0.03	0.24	0.24
Sat Flow, veh/h	1810	1900	1600	1810	1900	1377	1810	989	770	1810	1575	275
Grp Volume(v), veh/h	21	453	179	53	326	21	389	0	169	42	0	74
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1377	1810	0	1759	1810	0	1849
Q Serve(g_s), s	0.8	16.5	6.7	2.1	10.7	0.8	15.0	0.0	4.3	1.7	0.0	2.3
Cycle Q Clear(g_c), s	0.8	16.5	6.7	2.1	10.7	0.8	15.0	0.0	4.3	1.7	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.44	1.00		0.15
Lane Grp Cap(c), veh/h	34	505	425	67	540	391	431	0	779	57	0	437
V/C Ratio(X)	0.61	0.90	0.42	0.79	0.60	0.05	0.90	0.00	0.22	0.74	0.00	0.17
Avail Cap(c_a), veh/h	101	528	445	101	540	391	453	0	779	126	0	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	25.5	21.8	34.4	22.3	18.7	26.6	0.0	12.3	34.5	0.0	21.9
Incr Delay (d2), s/veh	16.1	17.5	0.7	21.1	1.9	0.1	20.4	0.0	0.6	16.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.1	3.0	1.4	5.9	0.3	9.9	0.0	2.2	1.1	0.0	1.3
LnGrp Delay(d),s/veh	51.1	42.9	22.5	55.5	24.2	18.8	47.0	0.0	13.0	51.1	0.0	22.7
LnGrp LOS	D	D	C	E	C	B	D		B	D		C
Approach Vol, veh/h		653			400			558			116	
Approach Delay, s/veh		37.6			28.0			36.7			33.0	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	35.9	6.7	23.1	21.2	21.0	5.4	24.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	30.0	4.0	20.0	18.0	17.0	4.0	20.0
Max Q Clear Time (g_c+I1), s	3.7	6.3	4.1	18.5	17.0	4.3	2.8	12.7
Green Ext Time (p_c), s	0.0	1.4	0.0	0.6	0.1	1.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	370	60	180	300	150	60	230	90	170	290	50
Future Volume (veh/h)	110	370	60	180	300	150	60	230	90	170	290	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	398	65	194	323	161	65	247	97	183	312	54
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	409	1283	208	445	784	749	148	583	222	232	846	145
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.08	0.23	0.23	0.13	0.27	0.27
Sat Flow, veh/h	924	3110	504	942	1900	1384	1810	2552	974	1810	3080	527
Grp Volume(v), veh/h	118	230	233	194	323	161	65	173	171	183	181	185
Grp Sat Flow(s),veh/h/ln	924	1805	1809	942	1900	1384	1810	1805	1721	1810	1805	1801
Q Serve(g_s), s	5.4	4.5	4.5	9.1	6.3	3.1	1.8	4.2	4.4	5.1	4.2	4.3
Cycle Q Clear(g_c), s	11.6	4.5	4.5	13.6	6.3	3.1	1.8	4.2	4.4	5.1	4.2	4.3
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.57	1.00		0.29
Lane Grp Cap(c), veh/h	409	745	746	445	784	749	148	412	393	232	496	495
V/C Ratio(X)	0.29	0.31	0.31	0.44	0.41	0.21	0.44	0.42	0.44	0.79	0.37	0.37
Avail Cap(c_a), veh/h	507	937	939	546	987	897	244	937	893	313	1007	1005
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	10.3	10.3	14.9	10.8	6.2	22.7	17.1	17.2	22.0	15.2	15.2
Incr Delay (d2), s/veh	0.4	0.2	0.2	0.7	0.3	0.1	2.0	0.7	0.8	9.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.2	2.3	2.4	3.3	1.2	1.0	2.2	2.2	3.1	2.1	2.2
LnGrp Delay(d),s/veh	15.3	10.5	10.5	15.6	11.2	6.3	24.8	17.8	18.0	31.1	15.7	15.7
LnGrp LOS	B	B	B	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		581			678			409			549	
Approach Delay, s/veh		11.5			11.3			19.0			20.8	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.7	15.9		25.4	8.3	18.3		25.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	7.1	6.4		13.6	3.8	6.3		15.6
Green Ext Time (p_c), s	0.1	4.3		5.9	0.0	4.4		5.4

Intersection Summary			
HCM 2010 Ctrl Delay			15.1
HCM 2010 LOS			B

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	20	1100	10	10	640	10
Future Volume (vph)	20	1100	10	10	640	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1529		1754	1615	1491
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	1800	1529		1797	1615	1491
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1196	11	11	696	11
RTOR Reduction (vph)	0	0	0	0	0	1
Lane Group Flow (vph)	22	1196	0	22	696	10
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm
Protected Phases	4	2		8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	1.2	41.2		1.2	40.0	40.0
Effective Green, g (s)	1.2	41.2		1.2	40.0	40.0
Actuated g/C Ratio	0.02	0.80		0.02	0.78	0.78
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	42	1529		42	1261	1164
v/s Ratio Prot	0.01	c0.61			0.43	
v/s Ratio Perm		0.17		0.01		0.01
v/c Ratio	0.52	0.78		0.52	0.55	0.01
Uniform Delay, d1	24.7	2.6		24.7	2.2	1.2
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	11.3	2.7		11.3	0.5	0.0
Delay (s)	36.0	5.3		36.0	2.7	1.2
Level of Service	D	A		D	A	A
Approach Delay (s)	5.9			36.0	2.7	
Approach LOS	A			D	A	

Intersection Summary			
HCM 2000 Control Delay	5.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	51.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	30.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			✥			✥			✥	
Traffic Vol, veh/h	30	460	0	0	310	280	0	0	0	190	0	20
Future Vol, veh/h	30	460	0	0	310	280	0	0	0	190	0	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	489	0	0	330	298	0	0	0	202	0	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	28.2	38	0	14.8
HCM LOS	D	E	-	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	6%	0%	90%
Vol Thru, %	100%	94%	53%	0%
Vol Right, %	0%	0%	47%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	490	590	210
LT Vol	0	30	0	190
Through Vol	0	460	310	0
RT Vol	0	0	280	20
Lane Flow Rate	0	521	628	223
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.809	0.906	0.422
Departure Headway (Hd)	7.719	5.59	5.195	6.793
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	641	697	527
Service Time	5.719	3.662	3.262	4.876
HCM Lane V/C Ratio	0	0.813	0.901	0.423
HCM Control Delay	10.7	28.2	38	14.8
HCM Lane LOS	N	D	E	B
HCM 95th-tile Q	0	8.2	11.7	2.1

HCM 2010 AWSC
133: Live Oak Canyon & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	127.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	610	10	10	510	270	10	10	10	270	10	20
Future Vol, veh/h	10	610	10	10	510	270	10	10	10	270	10	20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	622	10	10	520	276	10	10	10	276	10	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	101.4	192.9	13.4	23.5
HCM LOS	F	F	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	2%	1%	90%
Vol Thru, %	33%	97%	65%	3%
Vol Right, %	33%	2%	34%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	630	790	300
LT Vol	10	10	10	270
Through Vol	10	610	510	10
RT Vol	10	10	270	20
Lane Flow Rate	31	643	806	306
Geometry Grp	1	1	1	1
Degree of Util (X)	0.072	1.12	1.361	0.622
Departure Headway (Hd)	9.669	6.827	6.342	8.1
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	373	540	580	450
Service Time	7.669	4.827	4.342	6.1
HCM Lane V/C Ratio	0.083	1.191	1.39	0.68
HCM Control Delay	13.4	101.4	192.9	23.5
HCM Lane LOS	B	F	F	C
HCM 95th-tile Q	0.2	19.4	34.1	4.1

Intersection	
Intersection Delay, s/veh	190.8
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	60	830	40	30	710	100
Future Vol, veh/h	60	830	40	30	710	100
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	61	847	41	31	724	102
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	191.4	13.1	205.6
HCM LOS	F	B	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	88%	0%	57%
Vol Thru, %	0%	7%	43%
Vol Right, %	12%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	810	890	70
LT Vol	710	0	40
Through Vol	0	60	30
RT Vol	100	830	0
Lane Flow Rate	827	908	71
Geometry Grp	1	1	1
Degree of Util (X)	1.387	1.358	0.141
Departure Headway (Hd)	6.8	6.261	8.69
Convergence, Y/N	Yes	Yes	Yes
Cap	546	590	415
Service Time	4.8	4.261	6.69
HCM Lane V/C Ratio	1.515	1.539	0.171
HCM Control Delay	205.6	191.4	13.1
HCM Lane LOS	F	F	B
HCM 95th-tile Q	33.8	34.3	0.5

Intersection	
Int Delay, s/veh	7.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	70	110	200	50	40	270
Future Vol, veh/h	70	110	200	50	40	270
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	78	122	222	56	44	300

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	639	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1384	-	443	915
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1384	-	369	915
Mov Cap-2 Maneuver	-	-	-	-	369	-
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	511	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.5	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	768	-	-	1384	-
HCM Lane V/C Ratio	0.448	-	-	0.161	-
HCM Control Delay (s)	13.4	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.3	-	-	0.6	-

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	10	10	10	10	10	10	270	20	20	250	10
Future Vol, veh/h	10	10	10	10	10	10	10	270	20	20	250	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	11	11	11	11	297	22	22	275	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.5	10.3	10.1
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	33%	7%
Vol Thru, %	90%	33%	33%	89%
Vol Right, %	7%	33%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	30	30	280
LT Vol	10	10	10	20
Through Vol	270	10	10	250
RT Vol	20	10	10	10
Lane Flow Rate	330	33	33	308
Geometry Grp	1	1	1	1
Degree of Util (X)	0.399	0.048	0.048	0.376
Departure Headway (Hd)	4.355	5.195	5.195	4.401
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	827	687	687	818
Service Time	2.383	3.243	3.243	2.429
HCM Lane V/C Ratio	0.399	0.048	0.048	0.377
HCM Control Delay	10.3	8.5	8.5	10.1
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.9	0.2	0.2	1.8

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	70	5	20	10	5	10	10	630	10	5	610	30
Future Volume (veh/h)	70	5	20	10	5	10	10	630	10	5	610	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	5	22	11	5	11	11	685	11	5	663	33
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	395	44	193	385	76	167	37	964	819	17	943	802
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.02	0.51	0.51	0.01	0.50	0.50
Sat Flow, veh/h	1419	308	1354	1405	530	1165	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	76	0	27	11	0	16	11	685	11	5	663	33
Grp Sat Flow(s),veh/h/ln	1419	0	1661	1405	0	1694	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	1.7	0.0	0.5	0.2	0.0	0.3	0.2	9.8	0.1	0.1	9.5	0.4
Cycle Q Clear(g_c), s	2.0	0.0	0.5	0.7	0.0	0.3	0.2	9.8	0.1	0.1	9.5	0.4
Prop In Lane	1.00		0.81	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	0	237	385	0	242	37	964	819	17	943	802
V/C Ratio(X)	0.19	0.00	0.11	0.03	0.00	0.07	0.30	0.71	0.01	0.29	0.70	0.04
Avail Cap(c_a), veh/h	917	0	848	902	0	865	359	1239	1053	359	1239	1053
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	13.2	13.5	0.0	13.1	17.0	6.7	4.3	17.3	6.9	4.6
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.0	0.0	0.1	4.5	1.4	0.0	9.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.2	0.1	0.0	0.1	0.1	5.3	0.1	0.1	5.1	0.2
LnGrp Delay(d),s/veh	14.2	0.0	13.4	13.5	0.0	13.2	21.5	8.1	4.3	26.4	8.1	4.6
LnGrp LOS	B		B	B		B	C	A	A	C	A	A
Approach Vol, veh/h		103			27			707			701	
Approach Delay, s/veh		14.0			13.3			8.2			8.0	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.3	21.9		9.0	4.7	21.5		9.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	23.0		18.0	7.0	23.0		18.0
Max Q Clear Time (g_c+I1), s	2.1	11.8		4.0	2.2	11.5		2.7
Green Ext Time (p_c), s	0.0	5.9		0.3	0.0	6.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			↰	↱		✥	
Traffic Vol, veh/h	0	190	80	20	450	0	160	10	40	0	0	10
Future Vol, veh/h	0	190	80	20	450	0	160	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	238	100	25	563	0	200	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	563	0	0	338	0	0	907	901	288	907	951	563
Stage 1	-	-	-	-	-	-	288	288	-	613	613	-
Stage 2	-	-	-	-	-	-	619	613	-	294	338	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1019	-	-	1232	-	-	259	280	756	259	262	530
Stage 1	-	-	-	-	-	-	724	677	-	483	486	-
Stage 2	-	-	-	-	-	-	480	486	-	719	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1019	-	-	1232	-	-	247	272	756	231	254	530
Mov Cap-2 Maneuver	-	-	-	-	-	-	409	421	-	412	410	-
Stage 1	-	-	-	-	-	-	724	677	-	483	471	-
Stage 2	-	-	-	-	-	-	455	471	-	659	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	20.4	12
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	410	756	1019	-	-	1232	-	-	530
HCM Lane V/C Ratio	0.518	0.066	-	-	-	0.02	-	-	0.024
HCM Control Delay (s)	22.8	10.1	0	-	-	8	0	-	12
HCM Lane LOS	C	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	2.9	0.2	0	-	-	0.1	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱	↰	↳	
Traffic Volume (veh/h)	230	10	340	0	0	0	0	540	150	60	310	0
Future Volume (veh/h)	230	10	340	0	0	0	0	540	150	60	310	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	11	382				0	607	169	67	348	0
Adj No. of Lanes	0	1	1				0	1	1	1	1	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	506	22	466				0	739	624	152	1049	0
Arrive On Green	0.29	0.29	0.29				0.00	0.39	0.39	0.08	0.55	0.00
Sat Flow, veh/h	1739	74	1601				0	1900	1605	1810	1900	0
Grp Volume(v), veh/h	269	0	382				0	607	169	67	348	0
Grp Sat Flow(s),veh/h/ln	1813	0	1601				0	1900	1605	1810	1900	0
Q Serve(g_s), s	6.3	0.0	11.3				0.0	14.6	3.7	1.8	5.1	0.0
Cycle Q Clear(g_c), s	6.3	0.0	11.3				0.0	14.6	3.7	1.8	5.1	0.0
Prop In Lane	0.96		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	527	0	466				0	739	624	152	1049	0
V/C Ratio(X)	0.51	0.00	0.82				0.00	0.82	0.27	0.44	0.33	0.00
Avail Cap(c_a), veh/h	641	0	566				0	859	725	249	1269	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	0.0	16.8				0.0	14.0	10.6	22.2	6.3	0.0
Incr Delay (d2), s/veh	0.8	0.0	7.9				0.0	5.6	0.2	2.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	5.9				0.0	8.7	1.6	1.0	2.7	0.0
LnGrp Delay(d),s/veh	15.8	0.0	24.7				0.0	19.6	10.8	24.2	6.4	0.0
LnGrp LOS	B		C					B	B	C	A	
Approach Vol, veh/h		651						776			415	
Approach Delay, s/veh		21.0						17.7			9.3	
Approach LOS		C						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		18.8	8.3	23.8				32.1
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	7.0	23.0				34.0
Max Q Clear Time (g_c+I1), s		13.3	3.8	16.6				7.1
Green Ext Time (p_c), s		1.4	0.0	3.2				6.8

Intersection Summary		
HCM 2010 Ctrl Delay		17.0
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	160	410	200	180	610	190	900	420	910	20	60	40
Future Volume (veh/h)	160	410	200	180	610	190	900	420	910	20	60	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	182	466	227	205	693	216	1023	477	1034	23	68	45
Adj No. of Lanes	2	3	1	2	2	1	2	1	2	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	321	1557	888	323	1086	484	908	729	1235	37	517	376
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.25	0.38	0.38	0.01	0.14	0.14
Sat Flow, veh/h	3510	5187	1607	3510	3610	1607	3619	1900	3217	3510	3610	1598
Grp Volume(v), veh/h	182	466	227	205	693	216	1023	477	1034	23	68	45
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1607	1810	1900	1609	1755	1805	1598
Q Serve(g_s), s	3.7	5.2	1.8	4.2	12.4	8.1	18.8	15.5	14.8	0.5	1.2	0.0
Cycle Q Clear(g_c), s	3.7	5.2	1.8	4.2	12.4	8.1	18.8	15.5	14.8	0.5	1.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	1557	888	323	1086	484	908	729	1235	37	517	376
V/C Ratio(X)	0.57	0.30	0.26	0.63	0.64	0.45	1.13	0.65	0.84	0.63	0.13	0.12
Avail Cap(c_a), veh/h	375	3046	1349	328	2072	922	908	1167	1975	328	2120	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	20.2	2.6	32.8	22.7	21.1	28.1	19.0	9.6	36.9	28.0	22.6
Incr Delay (d2), s/veh	1.6	0.1	0.2	3.9	0.6	0.6	70.9	1.0	1.9	16.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.5	1.1	2.2	6.3	3.6	18.3	8.3	6.8	0.3	0.6	0.7
LnGrp Delay(d),s/veh	34.2	20.3	2.8	36.7	23.3	21.8	98.9	20.0	11.5	53.2	28.1	22.7
LnGrp LOS	C	C	A	D	C	C	F	B	B	D	C	C
Approach Vol, veh/h		875			1114			2534			136	
Approach Delay, s/veh		18.6			25.5			48.4			30.6	
Approach LOS		B			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	32.8	10.9	26.5	22.8	14.7	10.8	26.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	2.5	17.5	6.2	7.2	20.8	3.2	5.7	14.4
Green Ext Time (p_c), s	0.0	9.3	0.1	4.5	0.0	0.6	1.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	36.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Volume (veh/h)	980	0	490	120	0	0
Future Volume (veh/h)	980	0	490	120	0	0
Number	7	14	5	2		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	0	1900	1900		
Adj Flow Rate, veh/h	1054	0	328	408		
Adj No. of Lanes	2	0	1	1		
Peak Hour Factor	0.93	0.93	0.93	0.93		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	0	0	1808	1619		
Arrive On Green	0.00	0.00	0.85	0.85		
Sat Flow, veh/h	0		1810	1900		
Grp Volume(v), veh/h	0.0		328	408		
Grp Sat Flow(s),veh/h/ln			1810	1900		
Q Serve(g_s), s			0.9	1.1		
Cycle Q Clear(g_c), s			0.9	1.1		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			1808	1619		
V/C Ratio(X)			0.18	0.25		
Avail Cap(c_a), veh/h			1808	1619		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			0.4	0.4		
Incr Delay (d2), s/veh			0.2	0.4		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.5	0.6		
LnGrp Delay(d),s/veh			0.6	0.8		
LnGrp LOS			A	A		
Approach Vol, veh/h				736		
Approach Delay, s/veh				0.7		
Approach LOS				A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						
Phs Duration (G+Y+Rc), s		27.0						
Change Period (Y+Rc), s		4.0						
Max Green Setting (Gmax), s		23.0						
Max Q Clear Time (g_c+I1), s		3.1						
Green Ext Time (p_c), s		3.4						

Intersection Summary		
HCM 2010 Ctrl Delay		0.7
HCM 2010 LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↱	↱	↰	↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	0	10	0	600	20	560	30	1190	410	120	340	0
Future Volume (veh/h)	0	10	0	600	20	560	30	1190	410	120	340	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	11	0	674	0	644	34	1337	461	135	382	0
Adj No. of Lanes	1	1	0	2	0	2	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	188	0	751	0	1128	81	1659	703	268	1689	756
Arrive On Green	0.00	0.10	0.00	0.21	0.00	0.35	0.04	0.44	0.44	0.08	0.47	0.00
Sat Flow, veh/h	1810	1900	0	3619	0	3207	1810	3800	1609	3510	3610	1615
Grp Volume(v), veh/h	0	11	0	674	0	644	34	1337	461	135	382	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1810	0	1604	1810	1900	1609	1755	1805	1615
Q Serve(g_s), s	0.0	0.5	0.0	16.1	0.0	14.4	1.6	27.1	20.0	3.3	5.6	0.0
Cycle Q Clear(g_c), s	0.0	0.5	0.0	16.1	0.0	14.4	1.6	27.1	20.0	3.3	5.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	188	0	751	0	1128	81	1659	703	268	1689	756
V/C Ratio(X)	0.00	0.06	0.00	0.90	0.00	0.57	0.42	0.81	0.66	0.50	0.23	0.00
Avail Cap(c_a), veh/h	143	773	0	777	0	1740	143	1804	764	278	1714	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	36.1	0.0	34.2	0.0	23.3	41.1	21.7	19.7	39.3	14.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	13.0	0.0	0.5	3.4	2.6	1.8	1.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.0	9.4	0.0	6.5	0.9	14.7	9.2	1.6	2.8	0.0
LnGrp Delay(d),s/veh	0.0	36.3	0.0	47.2	0.0	23.7	44.6	24.3	21.5	40.7	14.1	0.0
LnGrp LOS		D		D		C	D	C	C	D	B	
Approach Vol, veh/h		11			1318			1832			517	
Approach Delay, s/veh		36.3			35.7			24.0			21.0	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	42.6	22.4	12.8	8.0	45.4	0.0	35.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	19.0	36.0	7.0	42.0	7.0	48.0
Max Q Clear Time (g_c+I1), s	5.3	29.1	18.1	2.5	3.6	7.6	0.0	16.4
Green Ext Time (p_c), s	0.1	9.6	0.3	2.8	0.0	18.4	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	140	640	20	340	1380	190	20	360	410	140	340	110
Future Volume (veh/h)	140	640	20	340	1380	190	20	360	410	140	340	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	711	22	378	1533	211	22	400	456	156	378	122
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	938	29	508	1439	640	294	512	777	220	472	399
Arrive On Green	0.08	0.26	0.26	0.21	0.40	0.40	0.10	0.27	0.27	0.08	0.25	0.25
Sat Flow, veh/h	1810	3574	111	1810	3610	1605	1810	1900	1606	1810	1900	1605
Grp Volume(v), veh/h	156	359	374	378	1533	211	22	400	456	156	378	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1879	1810	1805	1605	1810	1900	1606	1810	1900	1605
Q Serve(g_s), s	6.5	16.5	16.6	11.1	36.0	8.2	0.0	17.6	4.4	6.6	16.9	4.4
Cycle Q Clear(g_c), s	6.5	16.5	16.6	11.1	36.0	8.2	0.0	17.6	4.4	6.6	16.9	4.4
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	474	493	508	1439	640	294	512	777	220	472	399
V/C Ratio(X)	0.71	0.76	0.76	0.74	1.07	0.33	0.07	0.78	0.59	0.71	0.80	0.31
Avail Cap(c_a), veh/h	220	679	707	508	1439	640	294	715	949	220	715	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	30.7	30.7	30.2	27.2	18.8	34.4	30.5	6.9	30.6	31.9	16.8
Incr Delay (d2), s/veh	10.1	3.0	2.9	5.9	43.4	0.3	0.1	3.7	0.7	10.1	3.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	8.7	9.0	9.3	26.4	3.7	0.5	9.8	4.8	3.9	9.3	2.3
LnGrp Delay(d),s/veh	39.8	33.7	33.6	36.1	70.5	19.1	34.5	34.3	7.6	40.7	35.7	17.2
LnGrp LOS	D	C	C	D	F	B	C	C	A	D	D	B
Approach Vol, veh/h		889			2122			878			656	
Approach Delay, s/veh		34.7			59.3			20.4			33.4	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	28.3	23.3	27.7	12.9	26.4	11.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	34.0	9.0	34.0	7.0	34.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	8.6	19.6	13.1	18.6	2.0	18.9	8.5	38.0
Green Ext Time (p_c), s	0.0	3.4	0.0	3.8	1.9	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
114: Evans Rd & Orange Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	120	230	110	60	200	100	210	370	160	160	290	130
Future Volume (veh/h)	120	230	110	60	200	100	210	370	160	160	290	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	179	343	164	90	299	149	313	552	239	239	433	194
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	285	131	320	609	303	263	518	436	197	449	378
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.15	0.27	0.27	0.11	0.24	0.24
Sat Flow, veh/h	259	559	257	906	1196	596	1810	1900	1600	1810	1900	1598
Grp Volume(v), veh/h	686	0	0	90	0	448	313	552	239	239	433	194
Grp Sat Flow(s),veh/h/ln	1075	0	0	906	0	1791	1810	1900	1600	1810	1900	1598
Q Serve(g_s), s	38.0	0.0	0.0	0.0	0.0	18.0	16.0	30.0	14.0	12.0	24.8	11.6
Cycle Q Clear(g_c), s	56.0	0.0	0.0	11.8	0.0	18.0	16.0	30.0	14.0	12.0	24.8	11.6
Prop In Lane	0.26		0.24	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	589	0	0	320	0	912	263	518	436	197	449	378
V/C Ratio(X)	1.17	0.00	0.00	0.28	0.00	0.49	1.19	1.07	0.55	1.21	0.96	0.51
Avail Cap(c_a), veh/h	589	0	0	320	0	912	263	518	436	197	449	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	0.0	16.2	0.0	17.7	47.0	40.0	34.2	49.0	41.5	36.5
Incr Delay (d2), s/veh	91.9	0.0	0.0	0.5	0.0	0.4	116.5	58.1	1.4	132.4	33.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.8	0.0	0.0	1.7	0.0	8.9	16.5	24.0	6.3	13.2	17.1	5.2
LnGrp Delay(d),s/veh	126.7	0.0	0.0	16.6	0.0	18.1	163.5	98.1	35.6	181.4	74.8	37.7
LnGrp LOS	F			B		B	F	F	D	F	E	D
Approach Vol, veh/h		686			538			1104			866	
Approach Delay, s/veh		126.7			17.8			103.1			95.9	
Approach LOS		F			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.0	34.0		60.0	20.0	30.0		60.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	12.0	30.0		56.0	16.0	26.0		56.0
Max Q Clear Time (g_c+I1), s	14.0	32.0		58.0	18.0	26.8		20.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		11.2

Intersection Summary			
HCM 2010 Ctrl Delay			91.8
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
122: Ramona Expy & Bridge St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	70	540	860	80	40	30
Future Volume (veh/h)	70	540	860	80	40	30
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	587	935	87	43	33
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	307	1140	1028	96	241	215
Arrive On Green	0.60	0.60	0.60	0.60	0.13	0.13
Sat Flow, veh/h	561	1900	1713	159	1810	1615
Grp Volume(v), veh/h	76	587	0	1022	43	33
Grp Sat Flow(s),veh/h/ln	561	1900	0	1872	1810	1615
Q Serve(g_s), s	3.6	5.4	0.0	14.4	0.6	0.5
Cycle Q Clear(g_c), s	18.0	5.4	0.0	14.4	0.6	0.5
Prop In Lane	1.00			0.09	1.00	1.00
Lane Grp Cap(c), veh/h	307	1140	0	1123	241	215
V/C Ratio(X)	0.25	0.51	0.00	0.91	0.18	0.15
Avail Cap(c_a), veh/h	307	1140	0	1123	1086	969
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	3.5	0.0	5.3	11.5	11.5
Incr Delay (d2), s/veh	0.4	0.4	0.0	11.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.7	0.0	10.5	0.3	0.3
LnGrp Delay(d),s/veh	13.9	3.9	0.0	16.2	11.9	11.8
LnGrp LOS	B	A		B	B	B
Approach Vol, veh/h		663	1022		76	
Approach Delay, s/veh		5.0	16.2		11.9	
Approach LOS		A	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				22.0		8.0		22.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				20.0		2.6		16.4
Green Ext Time (p_c), s				0.0		0.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
123: Gilman Springs Rd & Bridge St

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↱	
Traffic Volume (veh/h)	100	40	10	820	510	40
Future Volume (veh/h)	100	40	10	820	510	40
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	44	11	901	560	44
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	146	58	591	1121	1027	81
Arrive On Green	0.12	0.12	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1242	497	829	1900	1739	137
Grp Volume(v), veh/h	155	0	11	901	0	604
Grp Sat Flow(s),veh/h/ln	1750	0	829	1900	0	1876
Q Serve(g_s), s	2.3	0.0	0.2	10.1	0.0	5.3
Cycle Q Clear(g_c), s	2.3	0.0	5.6	10.1	0.0	5.3
Prop In Lane	0.71	0.28	1.00			0.07
Lane Grp Cap(c), veh/h	206	0	591	1121	0	1107
V/C Ratio(X)	0.75	0.00	0.02	0.80	0.00	0.55
Avail Cap(c_a), veh/h	1150	0	646	1249	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	5.1	4.4	0.0	3.4
Incr Delay (d2), s/veh	5.5	0.0	0.0	3.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.1	6.1	0.0	2.8
LnGrp Delay(d),s/veh	17.2	0.0	5.1	7.9	0.0	3.8
LnGrp LOS	B		A	A		A
Approach Vol, veh/h	155			912	604	
Approach Delay, s/veh	17.2			7.9	3.8	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		20.2		7.2		20.2		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		12.1		4.3		7.3		
Green Ext Time (p_c), s		4.0		0.3		6.5		

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
124: SR-79 NB Ramps & Gilman Springs Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Volume (veh/h)	30	330	0	0	460	290	360	10	10	0	0	0
Future Volume (veh/h)	30	330	0	0	460	290	360	10	10	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	32	351	0	0	489	309	383	11	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	396	864	0	0	864	735	545	16	500			
Arrive On Green	0.45	0.45	0.00	0.00	0.45	0.45	0.31	0.31	0.00			
Sat Flow, veh/h	692	1900	0	0	1900	1615	1761	51	1615			
Grp Volume(v), veh/h	32	351	0	0	489	309	394	0	0			
Grp Sat Flow(s),veh/h/ln	692	1900	0	0	1900	1615	1812	0	1615			
Q Serve(g_s), s	1.2	4.2	0.0	0.0	6.4	4.4	6.5	0.0	0.0			
Cycle Q Clear(g_c), s	7.6	4.2	0.0	0.0	6.4	4.4	6.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	396	864	0	0	864	735	560	0	500			
V/C Ratio(X)	0.08	0.41	0.00	0.00	0.57	0.42	0.70	0.00	0.00			
Avail Cap(c_a), veh/h	632	1513	0	0	1513	1286	1336	0	1191			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.6	6.2	0.0	0.0	6.8	6.2	10.3	0.0	0.0			
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.0	0.6	0.4	1.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	2.2	0.0	0.0	3.4	2.0	3.4	0.0	0.0			
LnGrp Delay(d),s/veh	9.7	6.5	0.0	0.0	7.4	6.6	12.0	0.0	0.0			
LnGrp LOS	A	A			A	A	B					
Approach Vol, veh/h		383			798			394				
Approach Delay, s/veh		6.8			7.1			12.0				
Approach LOS		A			A			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		14.5		19.4				19.4
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		25.0		27.0				27.0
Max Q Clear Time (g_c+I1), s		8.5		9.6				8.4
Green Ext Time (p_c), s		2.0		5.8				6.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Volume (veh/h)	0	210	330	10	790	0	0	0	0	160	0	30
Future Volume (veh/h)	0	210	330	10	790	0	0	0	0	160	0	30
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	223	351	11	840	0				170	0	0
Adj No. of Lanes	0	1	1	1	1	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1041	885	662	1041	0				322	0	288
Arrive On Green	0.00	0.55	0.55	0.55	0.55	0.00				0.18	0.00	0.00
Sat Flow, veh/h	0	1900	1615	852	1900	0				1810	0	1615
Grp Volume(v), veh/h	0	223	351	11	840	0				170	0	0
Grp Sat Flow(s),veh/h/ln	0	1900	1615	852	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	1.8	3.7	0.2	10.5	0.0				2.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.8	3.7	2.0	10.5	0.0				2.5	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1041	885	662	1041	0				322	0	288
V/C Ratio(X)	0.00	0.21	0.40	0.02	0.81	0.00				0.53	0.00	0.00
Avail Cap(c_a), veh/h	0	1172	996	721	1172	0				1116	0	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	3.4	3.8	3.9	5.3	0.0				10.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.3	0.0	3.8	0.0				1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	1.6	0.0	6.2	0.0				1.3	0.0	0.0
LnGrp Delay(d),s/veh	0.0	3.5	4.1	3.9	9.2	0.0				12.2	0.0	0.0
LnGrp LOS		A	A	A	A					B		
Approach Vol, veh/h		574			851						170	
Approach Delay, s/veh		3.9			9.1						12.2	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				20.0		9.2		20.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				5.7		4.5		12.5
Green Ext Time (p_c), s				6.4		0.7		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	7.6
HCM 2010 LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Volume (veh/h)	20	200	620	180	220	50
Future Volume (veh/h)	20	200	620	180	220	50
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	21	206	639	186	227	0
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	864	779	227	312	0
Arrive On Green	0.58	0.58	0.58	0.58	0.18	0.00
Sat Flow, veh/h	50	1487	1341	390	1707	0
Grp Volume(v), veh/h	227	0	0	825	228	0
Grp Sat Flow(s),veh/h/ln	1536	0	0	1731	1715	0
Q Serve(g_s), s	0.4	0.0	0.0	16.1	5.3	0.0
Cycle Q Clear(g_c), s	16.6	0.0	0.0	16.1	5.3	0.0
Prop In Lane	0.09			0.23	1.00	0.00
Lane Grp Cap(c), veh/h	986	0	0	1006	313	0
V/C Ratio(X)	0.23	0.00	0.00	0.82	0.73	0.00
Avail Cap(c_a), veh/h	1296	0	0	1351	689	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.3	0.0	0.0	7.1	16.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	3.1	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	8.4	2.8	0.0
LnGrp Delay(d),s/veh	4.5	0.0	0.0	10.2	19.5	0.0
LnGrp LOS	A			B	B	
Approach Vol, veh/h		227	825		228	
Approach Delay, s/veh		4.5	10.2		19.5	
Approach LOS		A	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				29.6		12.7		29.6
Change Period (Y+Rc), s				5.0		5.0		5.0
Max Green Setting (Gmax), s				33.0		17.0		33.0
Max Q Clear Time (g_c+I1), s				18.6		7.3		18.1
Green Ext Time (p_c), s				6.0		0.4		6.1

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
133: Live Oak Canyon & San Timoteo Canyon Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Volume (veh/h)	10	400	10	0	670	100	10	10	10	210	10	140
Future Volume (veh/h)	10	400	10	0	670	100	10	10	10	210	10	140
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	11	421	11	0	705	105	11	11	11	221	11	147
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	838	21	0	808	120	199	191	151	345	22	166
Arrive On Green	0.53	0.53	0.53	0.00	0.53	0.53	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	10	1588	41	0	1532	228	384	656	520	829	75	573
Grp Volume(v), veh/h	443	0	0	0	0	810	33	0	0	379	0	0
Grp Sat Flow(s),veh/h/ln	1638	0	0	0	0	1760	1560	0	0	1476	0	0
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	12.7	0.0	0.0
Cycle Q Clear(g_c), s	22.9	0.0	0.0	0.0	0.0	22.2	0.8	0.0	0.0	13.5	0.0	0.0
Prop In Lane	0.02		0.02	0.00		0.13	0.33		0.33	0.58		0.39
Lane Grp Cap(c), veh/h	932	0	0	0	0	929	541	0	0	533	0	0
V/C Ratio(X)	0.48	0.00	0.00	0.00	0.00	0.87	0.06	0.00	0.00	0.71	0.00	0.00
Avail Cap(c_a), veh/h	1024	0	0	0	0	1023	595	0	0	586	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.2	0.0	0.0	0.0	0.0	11.4	14.1	0.0	0.0	18.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0	3.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	0.0	0.0	0.0	12.6	0.4	0.0	0.0	6.0	0.0	0.0
LnGrp Delay(d),s/veh	8.6	0.0	0.0	0.0	0.0	19.2	14.2	0.0	0.0	22.2	0.0	0.0
LnGrp LOS	A					B	B			C		
Approach Vol, veh/h		443			810			33			379	
Approach Delay, s/veh		8.6			19.2			14.2			22.2	
Approach LOS		A			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		21.0		34.0		21.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		32.0		18.0		32.0		18.0
Max Q Clear Time (g_c+I1), s		24.2		2.8		24.9		15.5
Green Ext Time (p_c), s		4.4		2.0		4.1		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
134: Redlands Blvd & San Timoteo Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰↑	↰	↱
Traffic Volume (veh/h)	20	590	80	90	690	30
Future Volume (veh/h)	20	590	80	90	690	30
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	21	608	82	93	711	31
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	488	1146	248	230	820	732
Arrive On Green	0.27	0.27	0.27	0.27	0.48	0.48
Sat Flow, veh/h	1800	1530	427	850	1714	1530
Grp Volume(v), veh/h	21	608	175	0	711	31
Grp Sat Flow(s),veh/h/ln	1800	1530	1277	0	1714	1530
Q Serve(g_s), s	0.3	6.6	1.6	0.0	14.7	0.4
Cycle Q Clear(g_c), s	0.3	6.6	3.8	0.0	14.7	0.4
Prop In Lane		1.00	0.47		1.00	1.00
Lane Grp Cap(c), veh/h	488	1146	479	0	820	732
V/C Ratio(X)	0.04	0.53	0.37	0.00	0.87	0.04
Avail Cap(c_a), veh/h	722	1345	628	0	1461	1304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	2.1	11.8	0.0	9.3	5.5
Incr Delay (d2), s/veh	0.0	0.4	0.5	0.0	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.7	1.6	0.0	7.6	0.2
LnGrp Delay(d),s/veh	10.8	2.5	12.3	0.0	12.2	5.6
LnGrp LOS	B	A	B		B	A
Approach Vol, veh/h	629			175	742	
Approach Delay, s/veh	2.7			12.3	12.0	
Approach LOS	A			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		24.1		15.8				15.8
Change Period (Y+Rc), s		5.0		5.0				5.0
Max Green Setting (Gmax), s		34.0		16.0				16.0
Max Q Clear Time (g_c+I1), s		16.7		8.6				5.8
Green Ext Time (p_c), s		2.3		2.2				2.7

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	70	5	20	20	10	10	20	780	10	5	840	70
Future Volume (veh/h)	70	5	20	20	10	10	20	780	10	5	840	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	5	21	21	10	10	21	812	10	5	875	73
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	302	39	162	296	106	106	64	1191	1013	17	1142	971
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.04	0.63	0.63	0.01	0.60	0.60
Sat Flow, veh/h	1414	320	1343	1407	873	873	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	73	0	26	21	0	20	21	812	10	5	875	73
Grp Sat Flow(s),veh/h/ln	1414	0	1663	1407	0	1746	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	2.4	0.0	0.7	0.7	0.0	0.5	0.6	13.8	0.1	0.1	16.8	0.9
Cycle Q Clear(g_c), s	2.9	0.0	0.7	1.4	0.0	0.5	0.6	13.8	0.1	0.1	16.8	0.9
Prop In Lane	1.00		0.81	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	0	201	296	0	211	64	1191	1013	17	1142	971
V/C Ratio(X)	0.24	0.00	0.13	0.07	0.00	0.09	0.33	0.68	0.01	0.29	0.77	0.08
Avail Cap(c_a), veh/h	646	0	605	638	0	635	256	1460	1241	256	1460	1241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	19.4	20.0	0.0	19.3	23.3	6.0	3.5	24.3	7.3	4.1
Incr Delay (d2), s/veh	0.4	0.0	0.3	0.1	0.0	0.2	2.9	1.0	0.0	9.3	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.3	0.3	0.0	0.3	0.3	7.3	0.1	0.1	9.1	0.4
LnGrp Delay(d),s/veh	21.0	0.0	19.7	20.1	0.0	19.5	26.2	7.0	3.5	33.6	9.2	4.2
LnGrp LOS	C		B	C		B	C	A	A	C	A	A
Approach Vol, veh/h		99			41			843			953	
Approach Delay, s/veh		20.7			19.8			7.4			8.9	
Approach LOS		C			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	35.0		10.0	5.8	33.7		10.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	38.0		18.0	7.0	38.0		18.0
Max Q Clear Time (g_c+I1), s	2.1	15.8		4.9	2.6	18.8		3.4
Green Ext Time (p_c), s	0.0	11.9		0.3	0.0	10.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			↰	↱		✣	
Traffic Vol, veh/h	10	400	100	20	240	0	110	0	30	0	0	10
Future Vol, veh/h	10	400	100	20	240	0	110	0	30	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	449	112	22	270	0	124	0	34	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	270	0	0	562	0	0	848	843	506	843	899	270
Stage 1	-	-	-	-	-	-	528	528	-	315	315	-
Stage 2	-	-	-	-	-	-	320	315	-	528	584	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1305	-	-	1019	-	-	284	303	570	286	281	774
Stage 1	-	-	-	-	-	-	538	531	-	700	659	-
Stage 2	-	-	-	-	-	-	696	659	-	538	501	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1305	-	-	1019	-	-	272	292	570	262	271	774
Mov Cap-2 Maneuver	-	-	-	-	-	-	452	450	-	424	418	-
Stage 1	-	-	-	-	-	-	532	525	-	692	643	-
Stage 2	-	-	-	-	-	-	669	643	-	500	495	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	15	9.7
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	452	570	1305	-	-	1019	-	-	774
HCM Lane V/C Ratio	0.273	0.059	0.009	-	-	0.022	-	-	0.015
HCM Control Delay (s)	15.9	11.7	7.8	0	-	8.6	0	-	9.7
HCM Lane LOS	C	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	1.1	0.2	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱	↰	↱	
Traffic Volume (veh/h)	310	10	530	0	0	0	0	590	180	80	330	0
Future Volume (veh/h)	310	10	530	0	0	0	0	590	180	80	330	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	323	10	552				0	615	188	83	344	0
Adj No. of Lanes	0	1	1				0	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	563	17	513				0	714	603	164	1021	0
Arrive On Green	0.32	0.32	0.32				0.00	0.38	0.38	0.09	0.54	0.00
Sat Flow, veh/h	1758	54	1602				0	1900	1604	1810	1900	0
Grp Volume(v), veh/h	333	0	552				0	615	188	83	344	0
Grp Sat Flow(s),veh/h/ln	1812	0	1602				0	1900	1604	1810	1900	0
Q Serve(g_s), s	8.6	0.0	18.0				0.0	16.8	4.7	2.5	5.7	0.0
Cycle Q Clear(g_c), s	8.6	0.0	18.0				0.0	16.8	4.7	2.5	5.7	0.0
Prop In Lane	0.97		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	580	0	513				0	714	603	164	1021	0
V/C Ratio(X)	0.57	0.00	1.08				0.00	0.86	0.31	0.51	0.34	0.00
Avail Cap(c_a), veh/h	580	0	513				0	777	656	225	1149	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.9	0.0	19.1				0.0	16.2	12.4	24.4	7.3	0.0
Incr Delay (d2), s/veh	1.4	0.0	61.6				0.0	9.2	0.3	2.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	16.7				0.0	10.5	2.1	1.3	3.0	0.0
LnGrp Delay(d),s/veh	17.3	0.0	80.7				0.0	25.4	12.7	26.8	7.5	0.0
LnGrp LOS	B		F					C	B	C	A	
Approach Vol, veh/h		885						803			427	
Approach Delay, s/veh		56.9						22.4			11.3	
Approach LOS		E						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		22.0	9.1	25.1				34.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	7.0	23.0				34.0
Max Q Clear Time (g_c+I1), s		20.0	4.5	18.8				7.7
Green Ext Time (p_c), s		0.0	0.0	2.3				6.8

Intersection Summary			
HCM 2010 Ctrl Delay			34.6
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↱	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	980	740	270	310	90	390	230	330	190	320	190
Future Volume (veh/h)	140	980	740	270	310	90	390	230	330	190	320	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1089	822	300	344	100	433	256	367	211	356	211
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	952	1896	883	288	661	278	641	1058	471	280	686	743
Arrive On Green	0.27	0.37	0.37	0.08	0.17	0.17	0.18	0.29	0.29	0.08	0.19	0.19
Sat Flow, veh/h	3510	5187	1608	3619	3800	1601	3510	3610	1607	3510	3610	1602
Grp Volume(v), veh/h	156	1089	822	300	344	100	433	256	367	211	356	211
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1810	1900	1601	1755	1805	1607	1755	1805	1602
Q Serve(g_s), s	3.0	14.8	17.0	7.0	7.2	3.8	10.1	4.7	18.4	5.2	7.8	0.0
Cycle Q Clear(g_c), s	3.0	14.8	17.0	7.0	7.2	3.8	10.1	4.7	18.4	5.2	7.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	952	1896	883	288	661	278	641	1058	471	280	686	743
V/C Ratio(X)	0.16	0.57	0.93	1.04	0.52	0.36	0.68	0.24	0.78	0.75	0.52	0.28
Avail Cap(c_a), veh/h	952	2598	1101	288	1904	802	641	1891	841	280	1891	1277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	22.4	7.7	40.4	33.0	20.1	33.5	23.6	28.5	39.6	32.0	14.7
Incr Delay (d2), s/veh	0.1	0.3	12.0	63.8	0.6	0.8	2.8	0.1	2.8	11.0	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.1	15.3	6.0	3.8	2.0	5.1	2.4	8.5	2.9	3.9	3.2
LnGrp Delay(d),s/veh	24.5	22.7	19.7	104.2	33.6	20.9	36.3	23.7	31.3	50.6	32.6	14.9
LnGrp LOS	C	C	B	F	C	C	D	C	C	D	C	B
Approach Vol, veh/h		2067			744			1056			778	
Approach Delay, s/veh		21.6			60.4			31.5			32.7	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	29.7	11.0	36.1	20.0	20.7	27.8	19.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	7.0	46.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	7.2	20.4	9.0	19.0	12.1	9.8	5.0	9.2
Green Ext Time (p_c), s	0.0	2.9	0.0	11.9	0.0	3.3	1.7	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	31.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Volume (veh/h)	1420	0	870	380	0	0
Future Volume (veh/h)	1420	0	870	380	0	0
Number	7	14	5	2		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	0	1900	1900		
Adj Flow Rate, veh/h	1596	0	702	813		
Adj No. of Lanes	2	0	1	1		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	0	0	1808	1514		
Arrive On Green	0.00	0.00	0.80	0.80		
Sat Flow, veh/h	0		1810	1900		
Grp Volume(v), veh/h	0.0		702	813		
Grp Sat Flow(s),veh/h/ln			1810	1900		
Q Serve(g_s), s			2.5	3.0		
Cycle Q Clear(g_c), s			2.5	3.0		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			1808	1514		
V/C Ratio(X)			0.39	0.54		
Avail Cap(c_a), veh/h			3952	3765		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			0.7	0.7		
Incr Delay (d2), s/veh			0.1	0.3		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			1.0	1.5		
LnGrp Delay(d),s/veh			0.8	1.0		
LnGrp LOS			A	A		
Approach Vol, veh/h				1515		
Approach Delay, s/veh				0.9		
Approach LOS				A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						
Phs Duration (G+Y+Rc), s		19.7						
Change Period (Y+Rc), s		4.0						
Max Green Setting (Gmax), s		39.0						
Max Q Clear Time (g_c+I1), s		5.0						
Green Ext Time (p_c), s		10.7						

Intersection Summary		
HCM 2010 Ctrl Delay		0.9
HCM 2010 LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↱	↱	↰	↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	40	30	530	30	230	40	360	780	700	890	10
Future Volume (veh/h)	20	40	30	530	30	230	40	360	780	700	890	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	43	32	570	0	268	43	387	839	753	957	11
Adj No. of Lanes	1	1	0	2	0	2	1	1	2	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	61	127	95	588	0	815	298	568	957	746	1251	556
Arrive On Green	0.03	0.13	0.13	0.16	0.00	0.25	0.16	0.30	0.30	0.21	0.35	0.35
Sat Flow, veh/h	1810	1007	750	3619	0	3198	1810	1900	3203	3510	3610	1603
Grp Volume(v), veh/h	22	0	75	570	0	268	43	387	839	753	957	11
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1810	0	1599	1810	1900	1601	1755	1805	1603
Q Serve(g_s), s	1.0	0.0	3.1	12.5	0.0	3.2	1.6	14.4	12.5	17.0	18.9	0.3
Cycle Q Clear(g_c), s	1.0	0.0	3.1	12.5	0.0	3.2	1.6	14.4	12.5	17.0	18.9	0.3
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	0	222	588	0	815	298	568	957	746	1251	556
V/C Ratio(X)	0.36	0.00	0.34	0.97	0.00	0.33	0.14	0.68	0.88	1.01	0.76	0.02
Avail Cap(c_a), veh/h	158	0	790	588	0	1679	298	902	1521	746	2165	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	0.0	31.9	33.3	0.0	8.2	28.6	24.7	10.4	31.5	23.2	10.9
Incr Delay (d2), s/veh	3.5	0.0	0.9	29.5	0.0	0.2	0.2	1.5	3.7	35.4	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.6	8.7	0.0	1.4	0.8	7.8	6.0	11.8	9.5	0.1
LnGrp Delay(d),s/veh	41.3	0.0	32.8	62.8	0.0	8.4	28.8	26.2	14.1	66.9	24.2	10.9
LnGrp LOS	D		C	E		A	C	C	B	F	C	B
Approach Vol, veh/h		97			838			1269			1721	
Approach Delay, s/veh		34.7			45.4			18.3			42.8	
Approach LOS		C			D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	27.9	17.0	14.1	17.2	31.7	6.7	24.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	38.0	13.0	36.0	7.0	48.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	19.0	16.4	14.5	5.1	3.6	20.9	3.0	5.2
Green Ext Time (p_c), s	0.0	6.0	0.0	1.5	1.1	6.9	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	110	1270	20	330	950	30	20	190	520	130	250	100
Future Volume (veh/h)	110	1270	20	330	950	30	20	190	520	130	250	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	1323	21	344	990	31	21	198	542	135	260	104
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	261	1480	23	414	1865	830	231	346	579	201	356	300
Arrive On Green	0.07	0.41	0.41	0.18	0.52	0.52	0.07	0.18	0.18	0.07	0.19	0.19
Sat Flow, veh/h	1810	3637	58	1810	3610	1607	1810	1900	1602	1810	1900	1602
Grp Volume(v), veh/h	115	656	688	344	990	31	21	198	542	135	260	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1889	1810	1805	1607	1810	1900	1602	1810	1900	1602
Q Serve(g_s), s	4.1	33.4	33.5	12.8	18.0	0.9	0.0	9.4	10.5	6.6	12.7	4.5
Cycle Q Clear(g_c), s	4.1	33.4	33.5	12.8	18.0	0.9	0.0	9.4	10.5	6.6	12.7	4.5
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	735	769	414	1865	830	231	346	579	201	356	300
V/C Ratio(X)	0.44	0.89	0.89	0.83	0.53	0.04	0.09	0.57	0.94	0.67	0.73	0.35
Avail Cap(c_a), veh/h	321	787	824	441	1903	847	240	674	855	201	674	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	27.3	27.3	36.8	15.9	11.7	40.4	36.8	17.4	37.4	37.7	23.2
Incr Delay (d2), s/veh	1.2	12.1	11.8	12.1	0.3	0.0	0.2	1.5	13.3	8.3	2.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	19.1	19.9	10.3	9.0	0.4	0.5	5.0	14.2	3.7	6.9	2.3
LnGrp Delay(d),s/veh	23.5	39.4	39.0	48.8	16.1	11.8	40.6	38.3	30.7	45.7	40.6	23.9
LnGrp LOS	C	D	D	D	B	B	D	D	C	D	D	C
Approach Vol, veh/h		1459			1365			761			499	
Approach Delay, s/veh		38.0			24.3			33.0			38.5	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.0	21.5	44.1	10.5	22.5	10.7	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	35.0	19.0	43.0	7.0	35.0	10.0	52.0
Max Q Clear Time (g_c+I1), s	8.6	12.5	14.8	35.5	2.0	14.7	6.1	20.0
Green Ext Time (p_c), s	0.0	3.1	2.7	4.7	1.5	1.6	0.1	9.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
114: Evans Rd & Orange Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	110	190	70	50	110	70	100	260	70	90	280	110
Future Volume (veh/h)	110	190	70	50	110	70	100	260	70	90	280	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	202	74	53	117	74	106	277	74	96	298	117
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	230	331	107	510	383	242	204	534	450	194	524	441
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.11	0.28	0.28	0.11	0.28	0.28
Sat Flow, veh/h	365	938	302	1118	1086	687	1810	1900	1601	1810	1900	1600
Grp Volume(v), veh/h	393	0	0	53	0	191	106	277	74	96	298	117
Grp Sat Flow(s),veh/h/ln	1605	0	0	1118	0	1773	1810	1900	1601	1810	1900	1600
Q Serve(g_s), s	5.9	0.0	0.0	0.0	0.0	3.6	2.6	5.7	1.6	2.3	6.2	2.6
Cycle Q Clear(g_c), s	9.6	0.0	0.0	1.8	0.0	3.6	2.6	5.7	1.6	2.3	6.2	2.6
Prop In Lane	0.30		0.19	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	667	0	0	510	0	625	204	534	450	194	524	441
V/C Ratio(X)	0.59	0.00	0.00	0.10	0.00	0.31	0.52	0.52	0.16	0.49	0.57	0.27
Avail Cap(c_a), veh/h	1745	0	0	1276	0	1838	586	1477	1245	547	1436	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	10.3	0.0	10.9	19.4	14.0	12.5	19.5	14.4	13.1
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.1	0.0	0.3	2.1	0.8	0.2	1.9	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.0	0.5	0.0	1.8	1.4	3.0	0.7	1.3	3.4	1.2
LnGrp Delay(d),s/veh	13.5	0.0	0.0	10.4	0.0	11.2	21.4	14.8	12.7	21.4	15.4	13.4
LnGrp LOS	B			B		B	C	B	B	C	B	B
Approach Vol, veh/h		393			244			457			511	
Approach Delay, s/veh		13.5			11.0			16.0			16.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	17.0		20.3	9.2	16.8		20.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	14.0	36.0		48.0	15.0	35.0		48.0
Max Q Clear Time (g_c+I1), s	4.3	7.7		11.6	4.6	8.2		5.6
Green Ext Time (p_c), s	0.1	3.9		4.3	0.2	3.8		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
122: Ramona Expy & Bridge St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	30	970	730	30	70	60
Future Volume (veh/h)	30	970	730	30	70	60
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1066	802	33	77	66
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	428	1138	1086	45	242	216
Arrive On Green	0.60	0.60	0.60	0.60	0.13	0.13
Sat Flow, veh/h	668	1900	1812	75	1810	1615
Grp Volume(v), veh/h	33	1066	0	835	77	66
Grp Sat Flow(s),veh/h/ln	668	1900	0	1887	1810	1615
Q Serve(g_s), s	1.1	15.3	0.0	9.5	1.2	1.1
Cycle Q Clear(g_c), s	10.6	15.3	0.0	9.5	1.2	1.1
Prop In Lane	1.00			0.04	1.00	1.00
Lane Grp Cap(c), veh/h	428	1138	0	1130	242	216
V/C Ratio(X)	0.08	0.94	0.00	0.74	0.32	0.31
Avail Cap(c_a), veh/h	430	1143	0	1135	1088	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.1	5.5	0.0	4.3	11.7	11.7
Incr Delay (d2), s/veh	0.1	14.0	0.0	2.6	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	12.1	0.0	5.4	0.6	0.5
LnGrp Delay(d),s/veh	8.2	19.5	0.0	6.9	12.5	12.5
LnGrp LOS	A	B		A	B	B
Approach Vol, veh/h		1099	835		143	
Approach Delay, s/veh		19.1	6.9		12.5	
Approach LOS		B	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.9		8.0		21.9
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				17.3		3.2		11.5
Green Ext Time (p_c), s				0.6		0.3		5.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
123: Gilman Springs Rd & Bridge St

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↱	
Traffic Volume (veh/h)	50	10	30	530	1050	100
Future Volume (veh/h)	50	10	30	530	1050	100
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	11	32	558	1105	105
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	82	17	270	1241	1116	106
Arrive On Green	0.06	0.06	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1447	300	469	1900	1709	162
Grp Volume(v), veh/h	65	0	32	558	0	1210
Grp Sat Flow(s),veh/h/ln	1775	0	469	1900	0	1871
Q Serve(g_s), s	1.0	0.0	0.5	4.0	0.0	17.5
Cycle Q Clear(g_c), s	1.0	0.0	18.0	4.0	0.0	17.5
Prop In Lane	0.82	0.17	1.00			0.09
Lane Grp Cap(c), veh/h	101	0	270	1241	0	1222
V/C Ratio(X)	0.64	0.00	0.12	0.45	0.00	0.99
Avail Cap(c_a), veh/h	1159	0	270	1241	0	1222
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	13.7	2.4	0.0	4.7
Incr Delay (d2), s/veh	6.7	0.0	0.2	0.3	0.0	23.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.2	2.1	0.0	16.3
LnGrp Delay(d),s/veh	19.4	0.0	13.9	2.6	0.0	28.0
LnGrp LOS	B		B	A		C
Approach Vol, veh/h	65			590	1210	
Approach Delay, s/veh	19.4			3.2	28.0	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.0		5.6		22.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		20.0		3.0		19.5		
Green Ext Time (p_c), s		0.0		0.1		0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
124: SR-79 NB Ramps & Gilman Springs Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Volume (veh/h)	10	690	0	0	300	210	240	0	30	0	0	0
Future Volume (veh/h)	10	690	0	0	300	210	240	0	30	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	11	767	0	0	333	233	267	0	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	602	1075	0	0	1075	914	393	0	350			
Arrive On Green	0.57	0.57	0.00	0.00	0.57	0.57	0.22	0.00	0.00			
Sat Flow, veh/h	858	1900	0	0	1900	1615	1810	0	1615			
Grp Volume(v), veh/h	11	767	0	0	333	233	267	0	0			
Grp Sat Flow(s),veh/h/ln	858	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	0.3	10.8	0.0	0.0	3.4	2.7	5.0	0.0	0.0			
Cycle Q Clear(g_c), s	3.6	10.8	0.0	0.0	3.4	2.7	5.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	602	1075	0	0	1075	914	393	0	350			
V/C Ratio(X)	0.02	0.71	0.00	0.00	0.31	0.26	0.68	0.00	0.00			
Avail Cap(c_a), veh/h	909	1754	0	0	1754	1491	885	0	789			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	5.2	5.8	0.0	0.0	4.2	4.1	13.2	0.0	0.0			
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.2	0.1	2.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.1	5.8	0.0	0.0	1.8	1.2	2.7	0.0	0.0			
LnGrp Delay(d),s/veh	5.2	6.7	0.0	0.0	4.4	4.2	15.3	0.0	0.0			
LnGrp LOS	A	A			A	A	B					
Approach Vol, veh/h		778			566			267				
Approach Delay, s/veh		6.7			4.3			15.3				
Approach LOS		A			A			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		12.0		24.8				24.8
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		18.0		34.0				34.0
Max Q Clear Time (g_c+I1), s		7.0		12.8				5.4
Green Ext Time (p_c), s		1.0		8.0				8.9

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
125: SR-79 SB Ramps & Gilman Springs Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Volume (veh/h)	0	470	580	10	520	0	0	0	0	250	10	30
Future Volume (veh/h)	0	470	580	10	520	0	0	0	0	250	10	30
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	505	624	11	559	0				269	11	0
Adj No. of Lanes	0	1	1	1	1	0				0	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	961	817	393	961	0				420	17	389
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.24	0.24	0.00
Sat Flow, veh/h	0	1900	1615	507	1900	0				1742	71	1615
Grp Volume(v), veh/h	0	505	624	11	559	0				280	0	0
Grp Sat Flow(s),veh/h/ln	0	1900	1615	507	1900	0				1813	0	1615
Q Serve(g_s), s	0.0	5.7	9.8	0.5	6.5	0.0				4.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.7	9.8	6.1	6.5	0.0				4.4	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.96		1.00
Lane Grp Cap(c), veh/h	0	961	817	393	961	0				437	0	389
V/C Ratio(X)	0.00	0.53	0.76	0.03	0.58	0.00				0.64	0.00	0.00
Avail Cap(c_a), veh/h	0	1082	920	426	1082	0				1033	0	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.3	6.3	7.3	5.5	0.0				10.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	3.4	0.0	0.6	0.0				1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	4.9	0.1	3.4	0.0				2.4	0.0	0.0
LnGrp Delay(d),s/veh	0.0	5.7	9.7	7.3	6.1	0.0				12.3	0.0	0.0
LnGrp LOS		A	A	A	A					B		
Approach Vol, veh/h		1129			570						280	
Approach Delay, s/veh		7.9			6.1						12.3	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				20.0		11.6		20.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				11.8		6.4		8.5
Green Ext Time (p_c), s				4.2		1.2		5.8

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

HCM Signalized Intersection Capacity Analysis
132: San Timoteo Canyon Rd & Alessandro Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			✥			✥			✥	
Traffic Volume (vph)	30	460	0	0	310	280	0	0	0	190	0	20
Future Volume (vph)	30	460	0	0	310	280	0	0	0	190	0	20
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		5.0			5.0						5.0	
Lane Util. Factor		1.00			1.00						1.00	
Frt		1.00			0.94						0.99	
Flt Protected		1.00			1.00						0.96	
Satd. Flow (prot)		1794			1685						1700	
Flt Permitted		0.94			1.00						0.75	
Satd. Flow (perm)		1686			1685						1325	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	489	0	0	330	298	0	0	0	202	0	21
RTOR Reduction (vph)	0	0	0	0	69	0	0	0	0	0	38	0
Lane Group Flow (vph)	0	521	0	0	559	0	0	0	0	0	185	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA			NA					Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.2			16.2						10.0	
Effective Green, g (s)		16.2			16.2						10.0	
Actuated g/C Ratio		0.45			0.45						0.28	
Clearance Time (s)		5.0			5.0						5.0	
Vehicle Extension (s)		3.0			3.0						3.0	
Lane Grp Cap (vph)		754			754						366	
v/s Ratio Prot					c0.33							
v/s Ratio Perm		0.31									c0.14	
v/c Ratio		0.69			0.74						0.51	
Uniform Delay, d1		8.0			8.3						11.0	
Progression Factor		1.00			1.00						1.00	
Incremental Delay, d2		2.7			3.9						1.1	
Delay (s)		10.7			12.2						12.1	
Level of Service		B			B						B	
Approach Delay (s)		10.7			12.2			0.0			12.1	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	36.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
133: Live Oak Canyon & San Timoteo Canyon Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Volume (vph)	10	610	10	10	510	270	10	10	10	270	10	20
Future Volume (vph)	10	610	10	10	510	270	10	10	10	270	10	20
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			0.95			0.95			0.99	
Flt Protected		1.00			1.00			0.98			0.96	
Satd. Flow (prot)		1795			1716			1691			1707	
Flt Permitted		0.99			0.99			0.87			0.73	
Satd. Flow (perm)		1770			1701			1494			1294	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	10	622	10	10	520	276	10	10	10	276	10	20
RTOR Reduction (vph)	0	1	0	0	40	0	0	7	0	0	7	0
Lane Group Flow (vph)	0	641	0	0	766	0	0	23	0	0	299	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		18.8			18.8			13.5			13.5	
Effective Green, g (s)		18.8			18.8			13.5			13.5	
Actuated g/C Ratio		0.44			0.44			0.32			0.32	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		786			756			476			412	
v/s Ratio Prot												
v/s Ratio Perm		0.36			c0.45			0.02			c0.23	
v/c Ratio		0.82			1.01			0.05			0.73	
Uniform Delay, d1		10.2			11.7			10.0			12.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		6.5			36.1			0.0			6.3	
Delay (s)		16.8			47.8			10.0			19.0	
Level of Service		B			D			B			B	
Approach Delay (s)		16.8			47.8			10.0			19.0	
Approach LOS		B			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	42.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
134: Redlands Blvd & San Timoteo Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	60	830	40	30	710	100
Future Volume (vph)	60	830	40	30	710	100
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.97	0.95	1.00
Satd. Flow (prot)	1800	1530		1750	1710	1530
Flt Permitted	1.00	1.00		0.79	0.95	1.00
Satd. Flow (perm)	1800	1530		1421	1710	1530
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	61	847	41	31	724	102
RTOR Reduction (vph)	0	0	0	0	0	21
Lane Group Flow (vph)	61	847	0	72	724	81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm
Protected Phases	4	2		8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	4.8	37.6		4.8	32.8	32.8
Effective Green, g (s)	4.8	37.6		4.8	32.8	32.8
Actuated g/C Ratio	0.10	0.79		0.10	0.69	0.69
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	181	1530		143	1178	1054
v/s Ratio Prot	0.03	c0.38			0.42	
v/s Ratio Perm		0.17		0.05		0.05
v/c Ratio	0.34	0.55		0.50	0.61	0.08
Uniform Delay, d1	19.9	1.9		20.3	4.0	2.4
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.4		2.8	1.0	0.0
Delay (s)	21.0	2.3		23.0	5.0	2.5
Level of Service	C	A		C	A	A
Approach Delay (s)	3.6			23.0	4.6	
Approach LOS	A			C	A	

Intersection Summary			
HCM 2000 Control Delay	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	47.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Traffic Impact Analysis Report
for the World Logistics Center

Appendix D

Intersection LOS Worksheets
for Existing Plus Build-out Conditions

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2018 AM-PP]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	B	A

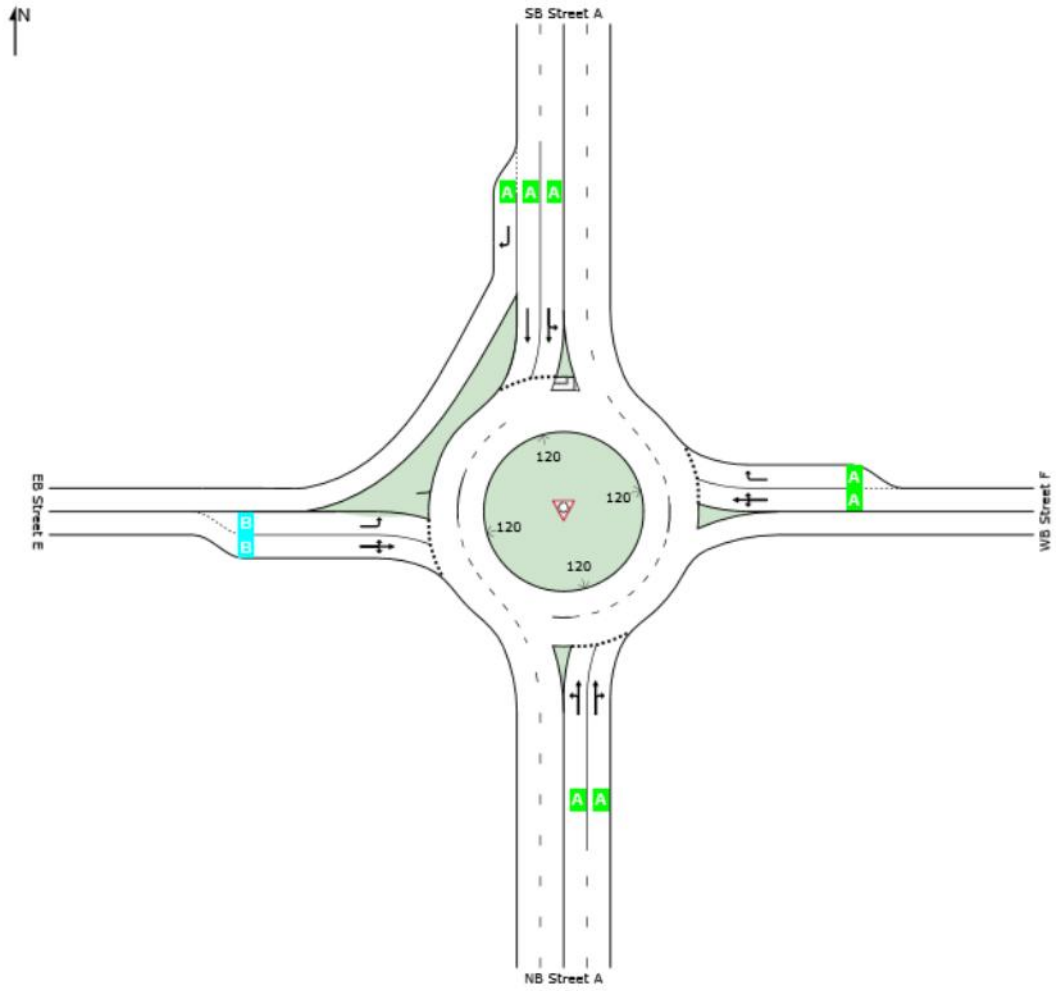

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int1_2018 AM-PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Street A													
Lane 1	494	0.0	888	0.556	100	8.6	LOS A	3.5	88.0	Full	1600	0.0	0.0
Lane 2[d]	507	0.0	911	0.556	100	8.5	LOS A	3.5	88.6	Full	1600	0.0	0.0
Approach	1001	0.0		0.556		8.5	LOS A	3.5	88.6				
East: WB Street F													
Lane 1	295	0.0	662	0.446	100	8.8	LOS A	2.2	53.9	Full	1600	0.0	0.0
Lane 2[d]	325	0.0	728	0.446	100	7.4	LOS A	2.2	55.4	Short	200	0.0	NA
Approach	620	0.0		0.446		8.0	LOS A	2.2	55.4				
North: SB Street A													
Lane 1	602	0.0	1332	0.452	100	9.1	LOS A	3.5	86.5	Full	1600	0.0	0.0
Lane 2[d]	668	0.0	1477	0.452	100	4.0	LOS A	3.5	88.2	Full	1600	0.0	0.0
Lane 3	90	0.0	1675	0.054	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	1360	0.0		0.452		6.2	LOS A	3.5	88.2				
West: EB Street E													
Lane 1	80	0.0	654	0.123	100	13.3	LOS B	0.4	11.0	Short	200	0.0	NA
Lane 2[d]	91	0.0	741	0.123	100	10.7	LOS B	0.5	11.3	Full	1600	0.0	0.0
Approach	171	0.0		0.123		11.9	LOS B	0.5	11.3				
Intersection	3152	0.0		0.556		7.6	LOS A	3.5	88.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰↰	↑	↰	↱
Traffic Volume (veh/h)	10	130	340	10	150	440
Future Volume (veh/h)	10	130	340	10	150	440
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	141	370	11	163	478
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	302	253	608	823	662	591
Arrive On Green	0.16	0.16	0.17	0.43	0.37	0.37
Sat Flow, veh/h	1900	1592	3510	1900	1810	1615
Grp Volume(v), veh/h	11	141	370	11	163	478
Grp Sat Flow(s),veh/h/ln	1900	1592	1755	1900	1810	1615
Q Serve(g_s), s	0.2	3.2	3.9	0.1	2.5	10.6
Cycle Q Clear(g_c), s	0.2	3.2	3.9	0.1	2.5	10.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	302	253	608	823	662	591
V/C Ratio(X)	0.04	0.56	0.61	0.01	0.25	0.81
Avail Cap(c_a), veh/h	1100	922	884	1770	1139	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	15.4	15.2	6.4	8.8	11.4
Incr Delay (d2), s/veh	0.0	1.9	1.0	0.0	0.2	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.5	1.9	0.1	1.3	5.1
LnGrp Delay(d),s/veh	14.2	17.3	16.2	6.4	9.0	14.1
LnGrp LOS	B	B	B	A	A	B
Approach Vol, veh/h	152			381	641	
Approach Delay, s/veh	17.1			15.9	12.8	
Approach LOS	B			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		18.5	10.9	10.3				21.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		25.0	10.0	23.0				37.0
Max Q Clear Time (g_c+I1), s		12.6	5.9	5.2				2.1
Green Ext Time (p_c), s		1.9	0.5	0.5				0.6

Intersection Summary			
HCM 2010 Ctrl Delay			14.3
HCM 2010 LOS			B

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2018 AM PP]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	A	A	A

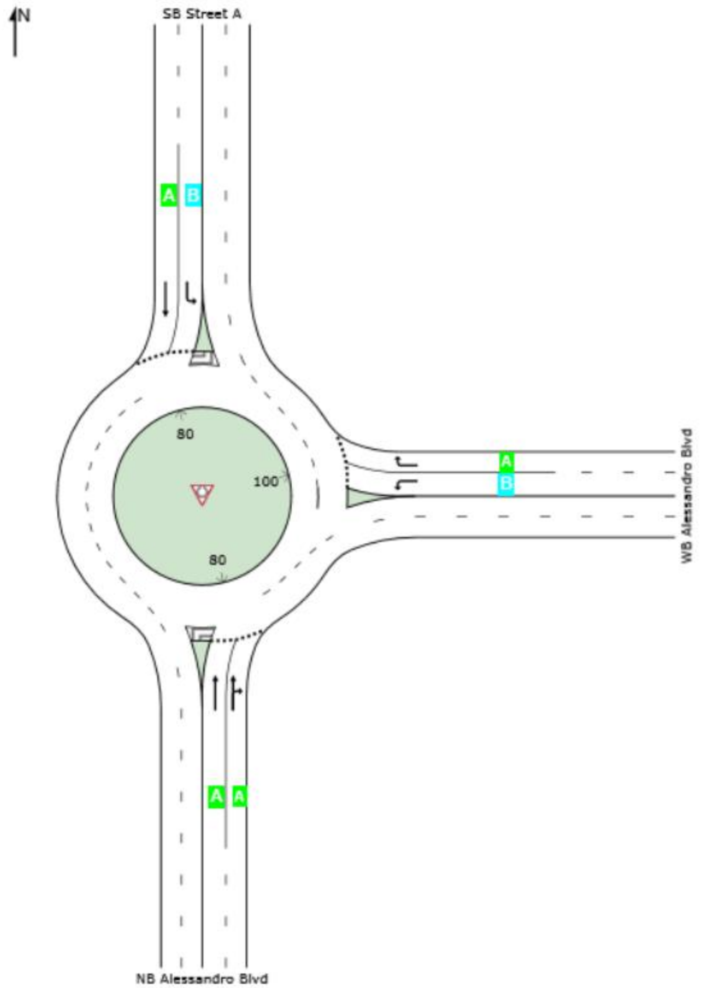

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Organisation: PARSONS BRINCKERHOFF | Processed: Tuesday, March 27, 2018 2:52:33 PM
Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 3.sip7

LANE SUMMARY

Site: 1 [Int3_2018 AM PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	250	0.0	1245	0.201	99[5]	5.6	LOS A	1.1	27.7	Full	1600	0.0	0.0
Lane 2[d]	261	0.0	1291	0.202	100	5.6	LOS A	1.1	28.0	Full	1600	0.0	0.0
Approach	511	0.0		0.202		5.6	LOS A	1.1	28.0				
East: WB Alessandro Blvd													
Lane 1[d]	210	0.0	1046	0.201	100	11.7	LOS B	0.9	22.5	Full	1600	0.0	0.0
Lane 2	140	0.0	963	0.145	100	6.0	LOS A	0.6	15.3	Full	1600	0.0	0.0
Approach	350	0.0		0.201		9.4	LOS A	0.9	22.5				
North: SB Street A													
Lane 1	109	0.0	998	0.109	100	11.4	LOS B	0.5	12.7	Full	1600	0.0	0.0
Lane 2[d]	185	0.0	1155	0.160	100	6.0	LOS A	0.8	20.0	Full	1600	0.0	0.0
Approach	293	0.0		0.160		8.0	LOS A	0.8	20.0				
Intersection	1154	0.0		0.202		7.4	LOS A	1.1	28.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int4_2018 AM/PP]

New Site
Roundabout

All Movement Classes

	East	North	West	Intersection
LOS	A	A	A	A

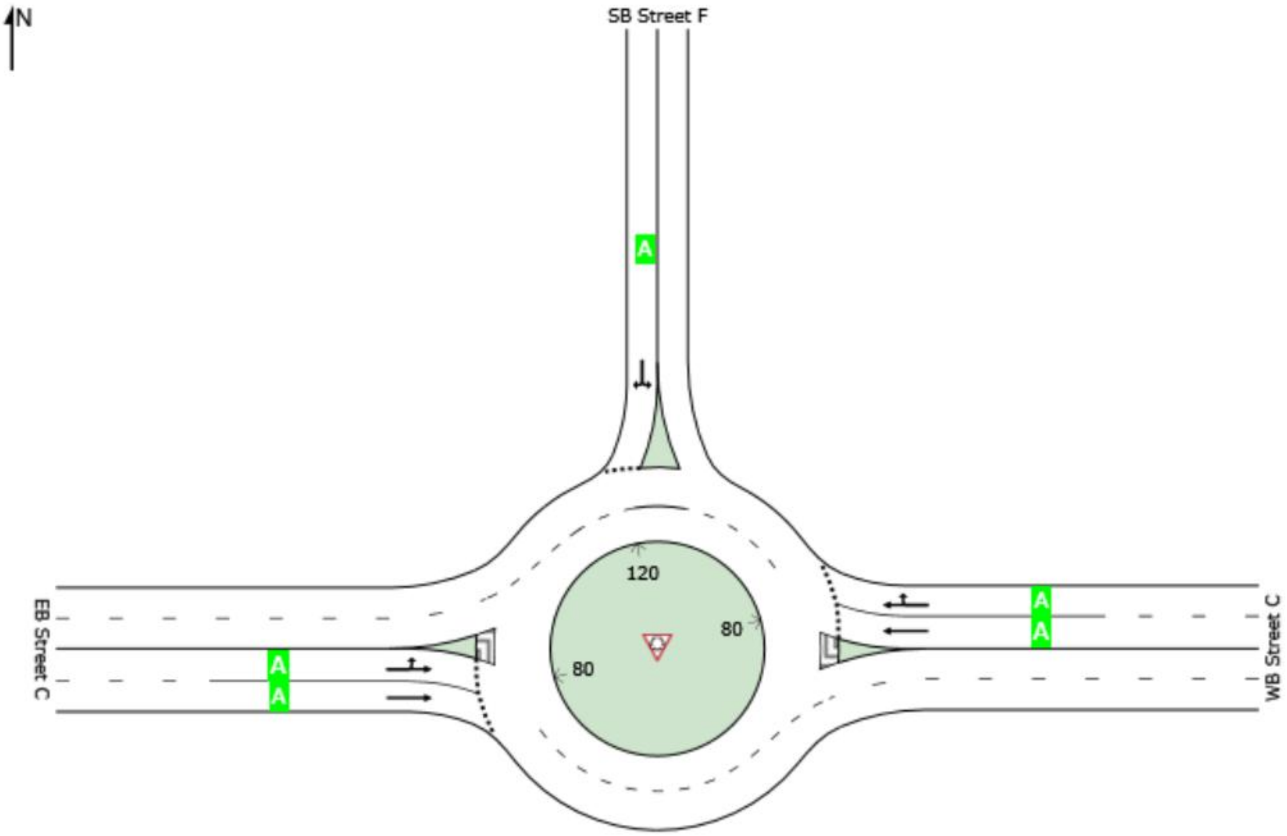

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Organisation: PARSONS BRINCKERHOFF | Processed: Tuesday, March 27, 2018 3:15:28 PM
Project: Not Saved

LANE SUMMARY

Site: 1 [Int4_2018 AM/PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: WB Street C													
Lane 1	140	0.0	1114	0.126	71[5]	5.4	LOS A	0.6	14.1	Full	1600	0.0	0.0
Lane 2[d]	230	0.0	1297	0.177	100	5.5	LOS A	0.8	21.2	Full	1600	0.0	0.0
Approach	370	0.0		0.177		5.5	LOS A	0.8	21.2				
North: SB Street F													
Lane 1[d]	230	0.0	1028	0.224	100	8.3	LOS A	0.9	22.8	Full	1600	0.0	0.0
Approach	230	0.0		0.224		8.3	LOS A	0.9	22.8				
West: EB Street C													
Lane 1	119	0.0	1205	0.099	100	9.6	LOS A	0.4	11.0	Full	1600	0.0	0.0
Lane 2[d]	121	0.0	1220	0.099	100	4.8	LOS A	0.4	11.0	Full	1600	0.0	0.0
Approach	240	0.0		0.099		7.2	LOS A	0.4	11.0				
Intersection	840	0.0		0.224		6.7	LOS A	0.9	22.8				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[5] Lane under-utilisation found by the program
[d] Dominant lane on roundabout approach

Organisation: PARSONS BRINCKERHOFF | Processed: Tuesday, March 27, 2018 3:15:28 PM
Project: Not Saved

	↗	↘	↖	↑	↓	↙
Movement	**EBL**	**EBR**	**NBL**	**NBT**	**SBT**	**SBR**
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Volume (veh/h)	190	220	230	780	460	240
Future Volume (veh/h)	190	220	230	780	460	240
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	202	234	245	830	489	255
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	356	318	315	1215	728	615
Arrive On Green	0.20	0.20	0.17	0.64	0.38	0.38
Sat Flow, veh/h	1810	1615	1810	1900	1900	1604
Grp Volume(v), veh/h	202	234	245	830	489	255
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1900	1900	1604
Q Serve(g_s), s	4.9	6.6	6.3	13.7	10.4	5.7
Cycle Q Clear(g_c), s	4.9	6.6	6.3	13.7	10.4	5.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	356	318	315	1215	728	615
V/C Ratio(X)	0.57	0.74	0.78	0.68	0.67	0.41
Avail Cap(c_a), veh/h	705	629	408	1480	896	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	18.4	19.2	5.6	12.5	11.0
Incr Delay (d2), s/veh	1.4	3.3	7.0	1.0	1.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.0	3.7	7.3	5.7	2.6
LnGrp Delay(d),s/veh	19.1	21.7	26.3	6.6	13.9	11.5
LnGrp LOS	B	C	C	A	B	B
Approach Vol, veh/h	436			1075	744	
Approach Delay, s/veh	20.5			11.1	13.1	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		35.2		13.6	12.5	22.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		38.0		19.0	11.0	23.0		
Max Q Clear Time (g_c+I1), s		15.7		8.6	8.3	12.4		
Green Ext Time (p_c), s		9.4		1.0	0.2	6.1		

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
9: Gilman Springs Rd & Street B

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Volume (veh/h)	10	40	50	430	540	10
Future Volume (veh/h)	10	40	50	430	540	10
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	43	54	467	587	11
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	153	136	153	1235	822	695
Arrive On Green	0.08	0.08	0.08	0.65	0.43	0.43
Sat Flow, veh/h	1810	1615	1810	1900	1900	1606
Grp Volume(v), veh/h	11	43	54	467	587	11
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1900	1900	1606
Q Serve(g_s), s	0.2	0.8	0.8	3.4	7.6	0.1
Cycle Q Clear(g_c), s	0.2	0.8	0.8	3.4	7.6	0.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	153	136	153	1235	822	695
V/C Ratio(X)	0.07	0.32	0.35	0.38	0.71	0.02
Avail Cap(c_a), veh/h	1081	965	420	2144	1450	1225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	13.0	13.0	2.4	7.0	4.9
Incr Delay (d2), s/veh	0.2	1.3	1.4	0.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.7	0.5	1.8	4.2	0.1
LnGrp Delay(d),s/veh	12.9	14.3	14.4	2.6	8.2	4.9
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	54			521	598	
Approach Delay, s/veh	14.0			3.9	8.1	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		23.6		6.5	6.5	17.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		34.0		18.0	7.0	23.0		
Max Q Clear Time (g_c+I1), s		5.4		2.8	2.8	9.6		
Green Ext Time (p_c), s		3.3		0.1	1.2	3.3		

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	26.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	140	0	20	10	0	10	10	630	10	0	600	70
Future Vol, veh/h	140	0	20	10	0	10	10	630	10	0	600	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	300	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	152	0	22	11	0	11	11	685	11	0	652	76

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1364	1359	652	1370	1359	685	652	0	0	685	0	0
Stage 1	652	652	-	707	707	-	-	-	-	-	-	-
Stage 2	712	707	-	663	652	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 126	150	471	125	150	452	944	-	-	918	-	-
Stage 1	460	467	-	429	441	-	-	-	-	-	-	-
Stage 2	427	441	-	454	467	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 122	148	471	118	148	452	944	-	-	918	-	-
Mov Cap-2 Maneuver	~ 122	148	-	118	148	-	-	-	-	-	-	-
Stage 1	455	467	-	424	436	-	-	-	-	-	-	-
Stage 2	412	436	-	433	467	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	240.9	26.8	0.1	0
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	944	-	-	134	187	918	-	-
HCM Lane V/C Ratio	0.012	-	-	1.298	0.116	-	-	-
HCM Control Delay (s)	8.9	-	-	240.9	26.8	0	-	-
HCM Lane LOS	A	-	-	F	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	10.9	0.4	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↑	↱
Traffic Volume (veh/h)	110	40	30	10	20	10	40	530	40	10	540	130
Future Volume (veh/h)	110	40	30	10	20	10	40	530	40	10	540	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	41	31	10	20	10	41	541	41	10	551	133
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	355	130	98	31	61	31	98	646	49	32	635	536
Arrive On Green	0.33	0.33	0.33	0.07	0.07	0.07	0.05	0.37	0.37	0.02	0.33	0.33
Sat Flow, veh/h	1089	399	302	446	892	446	1810	1743	132	1810	1900	1603
Grp Volume(v), veh/h	184	0	0	40	0	0	41	0	582	10	551	133
Grp Sat Flow(s),veh/h/ln	1790	0	0	1785	0	0	1810	0	1876	1810	1900	1603
Q Serve(g_s), s	5.7	0.0	0.0	1.6	0.0	0.0	1.6	0.0	20.8	0.4	20.0	4.4
Cycle Q Clear(g_c), s	5.7	0.0	0.0	1.6	0.0	0.0	1.6	0.0	20.8	0.4	20.0	4.4
Prop In Lane	0.61		0.17	0.25		0.25	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	583	0	0	122	0	0	98	0	695	32	635	536
V/C Ratio(X)	0.32	0.00	0.00	0.33	0.00	0.00	0.42	0.00	0.84	0.31	0.87	0.25
Avail Cap(c_a), veh/h	583	0	0	630	0	0	172	0	695	172	697	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	0.0	32.7	0.0	0.0	33.7	0.0	21.1	35.7	23.0	17.8
Incr Delay (d2), s/veh	1.4	0.0	0.0	1.5	0.0	0.0	2.9	0.0	8.8	5.5	10.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	0.8	0.0	0.0	0.9	0.0	12.4	0.2	12.3	2.0
LnGrp Delay(d),s/veh	20.1	0.0	0.0	34.2	0.0	0.0	36.6	0.0	30.0	41.2	33.5	18.0
LnGrp LOS	C			C			D		C	D	C	B
Approach Vol, veh/h		184			40			623			694	
Approach Delay, s/veh		20.1			34.2			30.4			30.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	31.3		28.0	8.0	28.6		9.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	27.0		24.0	7.0	27.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	22.8		7.7	3.6	22.0		3.6
Green Ext Time (p_c), s	0.0	2.5		0.7	0.0	2.6		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.4
HCM 2010 LOS	C

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑	↱	↰	↑
Traffic Vol, veh/h	70	10	20	60	10	80
Future Vol, veh/h	70	10	20	60	10	80
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	82	12	24	71	12	94

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	147	34	0	0	29	0
Stage 1	29	-	-	-	-	-
Stage 2	118	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	850	1045	-	-	1597	-
Stage 1	999	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	840	1036	-	-	1590	-
Mov Cap-2 Maneuver	840	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	905	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1036	1590	-
HCM Lane V/C Ratio	-	-	0.011	0.007	-
HCM Control Delay (s)	-	-	8.5	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	10	10	100	0	170	20	520	130	290	270	10
Future Volume (veh/h)	10	10	10	100	0	170	20	520	130	290	270	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	102	0	173	20	531	133	296	276	10
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	26	26	123	0	209	59	613	841	344	875	32
Arrive On Green	0.04	0.04	0.04	0.20	0.00	0.20	0.03	0.32	0.32	0.19	0.48	0.48
Sat Flow, veh/h	589	589	589	624	0	1058	1810	1900	1615	1810	1822	66
Grp Volume(v), veh/h	30	0	0	275	0	0	20	531	133	296	0	286
Grp Sat Flow(s),veh/h/ln	1767	0	0	1682	0	0	1810	1900	1615	1810	0	1888
Q Serve(g_s), s	1.1	0.0	0.0	10.3	0.0	0.0	0.7	17.2	2.8	10.4	0.0	6.1
Cycle Q Clear(g_c), s	1.1	0.0	0.0	10.3	0.0	0.0	0.7	17.2	2.8	10.4	0.0	6.1
Prop In Lane	0.33		0.33	0.37		0.63	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	79	0	0	333	0	0	59	613	841	344	0	907
V/C Ratio(X)	0.38	0.00	0.00	0.83	0.00	0.00	0.34	0.87	0.16	0.86	0.00	0.32
Avail Cap(c_a), veh/h	486	0	0	462	0	0	193	696	911	387	0	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	0.0	0.0	25.2	0.0	0.0	31.0	20.9	8.2	25.7	0.0	10.4
Incr Delay (d2), s/veh	2.9	0.0	0.0	8.4	0.0	0.0	3.3	10.2	0.1	16.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	5.5	0.0	0.0	0.4	10.7	1.8	6.7	0.0	3.2
LnGrp Delay(d),s/veh	33.3	0.0	0.0	33.6	0.0	0.0	34.3	31.1	8.3	41.8	0.0	10.6
LnGrp LOS	C			C			C	C	A	D		B
Approach Vol, veh/h		30			275			684			582	
Approach Delay, s/veh		33.3			33.6			26.8			26.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.5	25.1		6.9	6.1	35.5		17.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	14.0	24.0		18.0	7.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	12.4	19.2		3.1	2.7	8.1		12.3
Green Ext Time (p_c), s	0.1	1.9		0.1	0.0	4.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↑	↱
Traffic Volume (veh/h)	230	360	110	410	390	40
Future Volume (veh/h)	230	360	110	410	390	40
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	237	371	113	423	402	41
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	256	401	193	873	528	449
Arrive On Green	0.39	0.39	0.11	0.46	0.28	0.28
Sat Flow, veh/h	656	1027	1810	1900	1900	1615
Grp Volume(v), veh/h	609	0	113	423	402	41
Grp Sat Flow(s),veh/h/ln	1686	0	1810	1900	1900	1615
Q Serve(g_s), s	18.4	0.0	3.2	8.3	10.3	1.0
Cycle Q Clear(g_c), s	18.4	0.0	3.2	8.3	10.3	1.0
Prop In Lane	0.39	0.61	1.00			1.00
Lane Grp Cap(c), veh/h	658	0	193	873	528	449
V/C Ratio(X)	0.92	0.00	0.59	0.48	0.76	0.09
Avail Cap(c_a), veh/h	695	0	237	1068	676	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	0.0	22.7	10.0	17.6	14.3
Incr Delay (d2), s/veh	17.8	0.0	2.8	0.4	3.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	0.0	1.7	4.3	5.9	0.5
LnGrp Delay(d),s/veh	33.3	0.0	25.5	10.4	21.5	14.4
LnGrp LOS	C		C	B	C	B
Approach Vol, veh/h	609			536	443	
Approach Delay, s/veh	33.3			13.6	20.8	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.5		24.8	9.7	18.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		30.0		22.0	7.0	19.0		
Max Q Clear Time (g_c+I1), s		10.3		20.4	5.2	12.3		
Green Ext Time (p_c), s		4.4		0.5	0.0	2.5		

Intersection Summary		
HCM 2010 Ctrl Delay		23.2
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	20	190	1600	80	80	50
Future Volume (veh/h)	20	190	1600	80	80	50
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	213	1798	90	90	56
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	298	266	1912	3722	590	180
Arrive On Green	0.16	0.16	0.54	0.72	0.11	0.11
Sat Flow, veh/h	1810	1615	3510	5358	5358	1579
Grp Volume(v), veh/h	22	213	1798	90	90	56
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1579
Q Serve(g_s), s	0.7	8.6	32.4	0.3	1.1	2.2
Cycle Q Clear(g_c), s	0.7	8.6	32.4	0.3	1.1	2.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	298	266	1912	3722	590	180
V/C Ratio(X)	0.07	0.80	0.94	0.02	0.15	0.31
Avail Cap(c_a), veh/h	748	667	1969	4900	1684	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	27.2	14.4	2.8	27.1	27.6
Incr Delay (d2), s/veh	0.1	5.6	9.5	0.0	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.7	18.0	0.2	0.5	1.0
LnGrp Delay(d),s/veh	24.0	32.8	23.8	2.8	27.2	28.6
LnGrp LOS	C	C	C	A	C	C
Approach Vol, veh/h	235			1888	146	
Approach Delay, s/veh	32.0			22.8	27.7	
Approach LOS	C			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.6		15.1	40.9	11.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		64.0		28.0	38.0	22.0		
Max Q Clear Time (g_c+I1), s		2.3		10.6	34.4	4.2		
Green Ext Time (p_c), s		1.2		0.7	2.5	1.0		

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
16: Theodore St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	70	0	950	0	0	0	0	1610	260	0	250	20
Future Volume (veh/h)	70	0	950	0	0	0	0	1610	260	0	250	20
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	93	0	0				0	2147	347	0	333	27
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.75	0.75	0.75				0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	215	0	338				0	3390	1051	0	3390	1051
Arrive On Green	0.12	0.00	0.00				0.00	0.65	0.65	0.00	0.65	0.65
Sat Flow, veh/h	1810	0	2842				0	5358	1609	0	5358	1609
Grp Volume(v), veh/h	93	0	0				0	2147	347	0	333	27
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1609	0	1729	1609
Q Serve(g_s), s	1.7	0.0	0.0				0.0	8.6	3.3	0.0	0.8	0.2
Cycle Q Clear(g_c), s	1.7	0.0	0.0				0.0	8.6	3.3	0.0	0.8	0.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	215	0	338				0	3390	1051	0	3390	1051
V/C Ratio(X)	0.43	0.00	0.00				0.00	0.63	0.33	0.00	0.10	0.03
Avail Cap(c_a), veh/h	360	0	566				0	3689	1144	0	3689	1144
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	0.0				0.0	3.6	2.7	0.0	2.3	2.1
Incr Delay (d2), s/veh	1.4	0.0	0.0				0.0	0.3	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0				0.0	4.1	1.5	0.0	0.4	0.4
LnGrp Delay(d),s/veh	15.8	0.0	0.0				0.0	3.9	2.9	0.0	2.3	2.2
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		93						2494			360	
Approach Delay, s/veh		15.8						3.8			2.3	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		27.0		8.2		27.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		25.0		7.0		25.0		
Max Q Clear Time (g_c+I1), s		10.6		3.7		2.8		
Green Ext Time (p_c), s		12.4		0.1		17.9		

Intersection Summary	
HCM 2010 Ctrl Delay	4.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
18: Eucalyptus Ave & Redlands Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	0	0	10	0	60	10	370	100	380	260	50
Future Volume (veh/h)	20	0	0	10	0	60	10	370	100	380	260	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	0	0	11	0	65	11	402	109	413	283	54
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	134	0	35	0	88	35	597	162	470	1015	194
Arrive On Green	0.04	0.00	0.00	0.02	0.00	0.05	0.02	0.41	0.41	0.26	0.65	0.65
Sat Flow, veh/h	1810	1900	0	1810	0	1615	1810	1440	391	1810	1552	296
Grp Volume(v), veh/h	22	0	0	11	0	65	11	0	511	413	0	337
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1810	0	1615	1810	0	1831	1810	0	1848
Q Serve(g_s), s	0.8	0.0	0.0	0.4	0.0	2.7	0.4	0.0	15.3	14.8	0.0	5.2
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	0.0	2.7	0.4	0.0	15.3	14.8	0.0	5.2
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.21	1.00		0.16
Lane Grp Cap(c), veh/h	63	134	0	35	0	88	35	0	758	470	0	1209
V/C Ratio(X)	0.35	0.00	0.00	0.31	0.00	0.74	0.31	0.00	0.67	0.88	0.00	0.28
Avail Cap(c_a), veh/h	187	450	0	187	0	382	187	0	758	616	0	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	0.0	0.0	32.7	0.0	31.5	32.7	0.0	16.1	24.0	0.0	4.9
Incr Delay (d2), s/veh	3.2	0.0	0.0	5.0	0.0	11.3	5.0	0.0	4.7	11.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.3	0.0	1.5	0.3	0.0	8.7	8.8	0.0	2.7
LnGrp Delay(d),s/veh	35.1	0.0	0.0	37.7	0.0	42.7	37.7	0.0	20.8	35.2	0.0	5.1
LnGrp LOS	D			D		D	D		C	D		A
Approach Vol, veh/h		22			76			522			750	
Approach Delay, s/veh		35.1			42.0			21.2			21.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	32.0	5.3	8.8	5.3	48.2	6.4	7.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	23.0	28.0	7.0	16.0	7.0	44.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	16.8	17.3	2.4	0.0	2.4	7.2	2.8	4.7
Green Ext Time (p_c), s	0.7	4.1	0.0	0.0	0.0	6.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

	⤴	→	⤵	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰	↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	60	0	320	70	0	10	60	1780	60	10	1200	0
Future Volume (veh/h)	60	0	320	70	0	10	60	1780	60	10	1200	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	0	471	103	0	15	88	2618	88	15	1765	0
Adj No. of Lanes	1	1	2	1	1	0	2	3	1	1	3	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	397	590	121	0	344	194	2944	912	42	2776	864
Arrive On Green	0.06	0.00	0.21	0.07	0.00	0.21	0.06	0.57	0.57	0.02	0.54	0.00
Sat Flow, veh/h	1810	1900	2822	1810	0	1604	3510	5187	1608	1810	5187	1615
Grp Volume(v), veh/h	88	0	471	103	0	15	88	2618	88	15	1765	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1411	1810	0	1604	1755	1729	1608	1810	1729	1615
Q Serve(g_s), s	5.7	0.0	19.0	6.7	0.0	0.9	2.9	52.8	3.0	1.0	28.7	0.0
Cycle Q Clear(g_c), s	5.7	0.0	19.0	6.7	0.0	0.9	2.9	52.8	3.0	1.0	28.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	397	590	121	0	344	194	2944	912	42	2776	864
V/C Ratio(X)	0.79	0.00	0.80	0.85	0.00	0.04	0.45	0.89	0.10	0.36	0.64	0.00
Avail Cap(c_a), veh/h	121	587	872	121	0	496	205	2944	912	106	2903	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.5	0.0	44.9	55.3	0.0	37.3	54.8	22.6	11.8	57.6	19.6	0.0
Incr Delay (d2), s/veh	27.6	0.0	3.2	40.8	0.0	0.1	1.6	3.8	0.0	5.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	7.6	4.7	0.0	0.4	1.5	26.0	1.3	0.5	13.7	0.0
LnGrp Delay(d),s/veh	83.1	0.0	48.2	96.1	0.0	37.3	56.4	26.4	11.9	62.8	20.0	0.0
LnGrp LOS	F		D	F		D	E	C	B	E	C	
Approach Vol, veh/h		559			118			2794			1780	
Approach Delay, s/veh		53.7			88.6			26.9			20.4	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	71.9	12.0	29.0	10.6	68.1	11.3	29.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	67.0	8.0	37.0	7.0	67.0	8.0	37.0
Max Q Clear Time (g_c+I1), s	3.0	54.8	8.7	21.0	4.9	30.7	7.7	2.9
Green Ext Time (p_c), s	0.0	12.1	0.0	1.9	0.0	33.4	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	15.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			↰	↱		✥	
Traffic Vol, veh/h	0	230	90	20	450	0	160	10	40	0	0	10
Future Vol, veh/h	0	230	90	20	450	0	160	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	288	113	25	563	0	200	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	563	0	0	400	0	0	963	957	344	963	1013	563
Stage 1	-	-	-	-	-	-	344	344	-	613	613	-
Stage 2	-	-	-	-	-	-	619	613	-	350	400	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1019	-	-	1170	-	-	237	260	703	237	241	530
Stage 1	-	-	-	-	-	-	676	640	-	483	486	-
Stage 2	-	-	-	-	-	-	480	486	-	671	605	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1019	-	-	1170	-	-	226	252	703	207	234	530
Mov Cap-2 Maneuver	-	-	-	-	-	-	226	252	-	207	234	-
Stage 1	-	-	-	-	-	-	676	640	-	483	471	-
Stage 2	-	-	-	-	-	-	454	471	-	611	605	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	74.5	12
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	703	1019	-	-	1170	-	-	530
HCM Lane V/C Ratio	0.936	0.071	-	-	-	0.021	-	-	0.024
HCM Control Delay (s)	89.5	10.5	0	-	-	8.1	0	-	12
HCM Lane LOS	F	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	8.1	0.2	0	-	-	0.1	-	-	0.1

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	60	170	60	50	230	10	110	510	80	20	350	110
Future Volume (veh/h)	60	170	60	50	230	10	110	510	80	20	350	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	215	76	63	291	13	139	646	101	25	443	139
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	290	102	148	394	18	182	676	106	70	499	156
Arrive On Green	0.08	0.22	0.22	0.08	0.22	0.22	0.10	0.42	0.42	0.04	0.36	0.36
Sat Flow, veh/h	1810	1337	473	1810	1804	81	1810	1603	251	1810	1385	435
Grp Volume(v), veh/h	76	0	291	63	0	304	139	0	747	25	0	582
Grp Sat Flow(s),veh/h/ln	1810	0	1810	1810	0	1885	1810	0	1854	1810	0	1820
Q Serve(g_s), s	2.7	0.0	9.9	2.2	0.0	10.0	5.0	0.0	25.9	0.9	0.0	19.9
Cycle Q Clear(g_c), s	2.7	0.0	9.9	2.2	0.0	10.0	5.0	0.0	25.9	0.9	0.0	19.9
Prop In Lane	1.00		0.26	1.00		0.04	1.00		0.14	1.00		0.24
Lane Grp Cap(c), veh/h	144	0	392	148	0	412	182	0	782	70	0	655
V/C Ratio(X)	0.53	0.00	0.74	0.43	0.00	0.74	0.76	0.00	0.96	0.35	0.00	0.89
Avail Cap(c_a), veh/h	191	0	737	191	0	768	191	0	783	191	0	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	0.0	24.2	29.0	0.0	24.1	29.1	0.0	18.6	31.0	0.0	20.0
Incr Delay (d2), s/veh	3.0	0.0	2.8	1.9	0.0	2.6	16.0	0.0	22.0	3.0	0.0	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	5.2	1.2	0.0	5.4	3.3	0.0	17.8	0.5	0.0	12.0
LnGrp Delay(d),s/veh	32.3	0.0	27.0	30.9	0.0	26.7	45.1	0.0	40.5	34.0	0.0	31.0
LnGrp LOS	C		C	C		C	D		D	C		C
Approach Vol, veh/h		367			367			886			607	
Approach Delay, s/veh		28.1			27.5			41.2			31.2	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	31.9	9.4	18.4	10.7	27.9	9.3	18.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	27.0	7.0	28.0	7.0	27.0
Max Q Clear Time (g_c+I1), s	2.9	27.9	4.2	11.9	7.0	21.9	4.7	12.0
Green Ext Time (p_c), s	0.0	0.1	0.1	1.3	0.0	1.7	0.1	1.4

Intersection Summary			
HCM 2010 Ctrl Delay			34.1
HCM 2010 LOS			C

HCM 2010 AWSC
23: Redlands Blvd & Alessandro Blvd

Intersection	
Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		✣			↰	↱		✣	
Traffic Vol, veh/h	90	10	50	10	10	10	30	340	10	10	300	90
Future Vol, veh/h	90	10	50	10	10	10	30	340	10	10	300	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	98	11	54	11	11	11	33	370	11	11	326	98
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	11.3	10.7	18	20.2
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	8%	0%	90%	0%	33%	3%
Vol Thru, %	92%	0%	10%	0%	33%	75%
Vol Right, %	0%	100%	0%	100%	33%	23%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	10	100	50	30	400
LT Vol	30	0	90	0	10	10
Through Vol	340	0	10	0	10	300
RT Vol	0	10	0	50	10	90
Lane Flow Rate	402	11	109	54	33	435
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.642	0.015	0.221	0.093	0.065	0.685
Departure Headway (Hd)	5.751	5.001	7.317	6.143	7.154	5.672
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	627	714	490	582	499	635
Service Time	3.491	2.74	5.072	3.897	5.226	3.711
HCM Lane V/C Ratio	0.641	0.015	0.222	0.093	0.066	0.685
HCM Control Delay	18.3	7.8	12.2	9.5	10.7	20.2
HCM Lane LOS	C	A	B	A	B	C
HCM 95th-tile Q	4.6	0	0.8	0.3	0.2	5.4

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰	↱		✢	
Traffic Volume (veh/h)	20	280	180	20	310	30	200	120	40	10	80	20
Future Volume (veh/h)	20	280	180	20	310	30	200	120	40	10	80	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	364	234	26	403	39	260	156	52	13	104	26
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	549	347	99	519	437	328	197	458	22	174	44
Arrive On Green	0.04	0.26	0.26	0.05	0.27	0.27	0.29	0.29	0.29	0.13	0.13	0.13
Sat Flow, veh/h	1810	2119	1340	1810	1900	1600	1152	691	1607	166	1328	332
Grp Volume(v), veh/h	26	309	289	26	403	39	416	0	52	143	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1654	1810	1900	1600	1842	0	1607	1826	0	0
Q Serve(g_s), s	0.8	9.1	9.3	0.8	11.6	1.1	12.4	0.0	1.4	4.4	0.0	0.0
Cycle Q Clear(g_c), s	0.8	9.1	9.3	0.8	11.6	1.1	12.4	0.0	1.4	4.4	0.0	0.0
Prop In Lane	1.00		0.81	1.00		1.00	0.62		1.00	0.09		0.18
Lane Grp Cap(c), veh/h	74	468	429	99	519	437	526	0	458	239	0	0
V/C Ratio(X)	0.35	0.66	0.67	0.26	0.78	0.09	0.79	0.00	0.11	0.60	0.00	0.00
Avail Cap(c_a), veh/h	213	851	780	213	896	755	869	0	758	799	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.7	19.7	19.7	26.9	19.9	16.1	19.6	0.0	15.7	24.3	0.0	0.0
Incr Delay (d2), s/veh	2.8	1.6	1.8	1.4	2.5	0.1	2.7	0.0	0.1	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.7	4.5	0.4	6.4	0.5	6.6	0.0	0.6	2.3	0.0	0.0
LnGrp Delay(d),s/veh	30.5	21.3	21.6	28.3	22.5	16.2	22.3	0.0	15.8	26.7	0.0	0.0
LnGrp LOS	C	C	C	C	C	B	C		B	C		
Approach Vol, veh/h		624			468			468			143	
Approach Delay, s/veh		21.8			22.3			21.6			26.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.9	7.3	19.4		11.8	6.4	20.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		14.4	2.8	11.3		6.4	2.8	13.6
Green Ext Time (p_c), s		2.1	0.0	3.0		0.6	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	110	180	90	30	140	40	130	530	120	20	320	70
Future Volume (veh/h)	110	180	90	30	140	40	130	530	120	20	320	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	136	222	111	37	173	49	160	654	148	25	395	86
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	609	293	103	538	148	265	1119	590	75	878	185
Arrive On Green	0.12	0.26	0.26	0.06	0.19	0.19	0.15	0.31	0.31	0.04	0.20	0.20
Sat Flow, veh/h	1810	2360	1137	1810	2791	767	1810	3610	1607	1810	4287	904
Grp Volume(v), veh/h	136	168	165	37	110	112	160	654	148	25	316	165
Grp Sat Flow(s),veh/h/ln	1810	1805	1692	1810	1805	1753	1810	1805	1607	1810	1729	1733
Q Serve(g_s), s	3.4	3.6	3.8	0.9	2.5	2.6	4.0	7.3	3.1	0.6	3.8	4.0
Cycle Q Clear(g_c), s	3.4	3.6	3.8	0.9	2.5	2.6	4.0	7.3	3.1	0.6	3.8	4.0
Prop In Lane	1.00		0.67	1.00		0.44	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	221	466	436	103	348	338	265	1119	590	75	709	355
V/C Ratio(X)	0.62	0.36	0.38	0.36	0.32	0.33	0.60	0.58	0.25	0.33	0.45	0.46
Avail Cap(c_a), veh/h	264	1545	1447	264	1545	1500	302	2185	1065	264	2021	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	14.5	14.6	21.8	16.6	16.7	19.2	13.9	10.6	22.3	16.7	16.7
Incr Delay (d2), s/veh	3.1	0.5	0.5	2.1	0.5	0.6	2.7	0.5	0.2	2.6	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.9	1.9	0.5	1.3	1.3	2.2	3.7	1.4	0.4	1.8	2.0
LnGrp Delay(d),s/veh	23.0	15.0	15.2	23.9	17.1	17.3	21.8	14.4	10.8	24.9	17.1	17.7
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		469			259			962			506	
Approach Delay, s/veh		17.4			18.2			15.1			17.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	18.8	6.7	16.4	11.0	13.8	9.9	13.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	2.6	9.3	2.9	5.8	6.0	6.0	5.4	4.6
Green Ext Time (p_c), s	0.0	4.6	0.0	2.1	1.0	2.5	0.4	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

HCM 2010 AWSC
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave/Street D

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Vol, veh/h	100	160	60	250	70	70	20	270	30	90	270	90
Future Vol, veh/h	100	160	60	250	70	70	20	270	30	90	270	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	116	186	70	291	81	81	23	314	35	105	314	105
Number of Lanes	0	2	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	19.4	27	18.7	24
HCM LOS	C	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	13%	0%	56%	0%	100%	0%	40%	0%
Vol Thru, %	87%	82%	44%	57%	0%	50%	60%	60%
Vol Right, %	0%	18%	0%	43%	0%	50%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	165	180	140	250	140	225	225
LT Vol	20	0	100	0	250	0	90	0
Through Vol	135	135	80	80	0	70	135	135
RT Vol	0	30	0	60	0	70	0	90
Lane Flow Rate	180	192	209	163	291	163	262	262
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.445	0.463	0.529	0.384	0.735	0.372	0.633	0.597
Departure Headway (Hd)	8.883	8.684	9.096	8.494	9.099	8.216	8.711	8.213
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	406	416	398	425	398	438	416	440
Service Time	6.625	6.425	6.838	6.236	6.839	5.956	6.452	5.954
HCM Lane V/C Ratio	0.443	0.462	0.525	0.384	0.731	0.372	0.63	0.595
HCM Control Delay	18.6	18.7	21.6	16.5	33.3	15.8	25.4	22.5
HCM Lane LOS	C	C	C	C	D	C	D	C
HCM 95th-tile Q	2.2	2.4	3	1.8	5.8	1.7	4.2	3.8

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	80	50	10	330	90	270	30	420	360	130	310	110
Future Volume (veh/h)	80	50	10	330	90	270	30	420	360	130	310	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	62	12	412	112	338	38	525	450	162	388	138
Adj No. of Lanes	1	1	1	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	273	230	460	577	514	90	1508	877	199	1341	455
Arrive On Green	0.08	0.14	0.14	0.25	0.32	0.32	0.05	0.29	0.29	0.11	0.35	0.35
Sat Flow, veh/h	1810	1900	1598	1810	1805	1607	1810	5187	1607	1810	3825	1298
Grp Volume(v), veh/h	100	62	12	412	112	338	38	525	450	162	349	177
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1805	1607	1810	1729	1607	1810	1729	1664
Q Serve(g_s), s	4.3	2.3	0.5	17.5	3.6	14.4	1.6	6.3	14.1	7.0	5.8	6.1
Cycle Q Clear(g_c), s	4.3	2.3	0.5	17.5	3.6	14.4	1.6	6.3	14.1	7.0	5.8	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	142	273	230	460	577	514	90	1508	877	199	1213	584
V/C Ratio(X)	0.71	0.23	0.05	0.90	0.19	0.66	0.42	0.35	0.51	0.81	0.29	0.30
Avail Cap(c_a), veh/h	296	1052	885	592	1294	1153	159	1892	997	228	1392	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	30.1	29.4	28.6	19.6	23.3	36.6	22.3	11.4	34.6	18.6	18.8
Incr Delay (d2), s/veh	6.3	0.4	0.1	13.7	0.2	1.4	3.1	0.1	0.5	17.9	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.2	0.2	10.4	1.8	6.6	0.9	3.0	6.3	4.5	2.8	2.8
LnGrp Delay(d),s/veh	42.0	30.5	29.4	42.3	19.8	24.7	39.7	22.4	11.9	52.4	18.8	19.0
LnGrp LOS	D	C	C	D	B	C	D	C	B	D	B	B
Approach Vol, veh/h		174			862			1013			688	
Approach Delay, s/veh		37.0			32.5			18.4			26.8	
Approach LOS		D			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	27.1	24.2	15.4	8.0	31.9	10.2	29.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	29.0	26.0	44.0	7.0	32.0	13.0	57.0
Max Q Clear Time (g_c+I1), s	9.0	16.1	19.5	4.3	3.6	8.1	6.3	16.4
Green Ext Time (p_c), s	0.0	6.3	0.7	3.3	0.0	8.5	0.1	3.3

Intersection Summary			
HCM 2010 Ctrl Delay			26.1
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	290	150	150	520	60	240	420	100	50	570	270
Future Volume (veh/h)	100	290	150	150	520	60	240	420	100	50	570	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	108	312	161	161	559	65	258	452	108	54	613	290
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	833	619	186	838	97	278	1518	842	148	1259	683
Arrive On Green	0.08	0.23	0.23	0.10	0.26	0.26	0.15	0.42	0.42	0.08	0.35	0.35
Sat Flow, veh/h	1810	3610	1604	1810	3258	378	1810	3610	1609	1810	3610	1608
Grp Volume(v), veh/h	108	312	161	161	309	315	258	452	108	54	613	290
Grp Sat Flow(s),veh/h/ln	1810	1805	1604	1810	1805	1831	1810	1805	1609	1810	1805	1608
Q Serve(g_s), s	5.7	7.1	1.6	8.5	15.0	15.0	13.7	8.1	1.9	2.8	13.0	6.4
Cycle Q Clear(g_c), s	5.7	7.1	1.6	8.5	15.0	15.0	13.7	8.1	1.9	2.8	13.0	6.4
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	833	619	186	465	471	278	1518	842	148	1259	683
V/C Ratio(X)	0.79	0.37	0.26	0.87	0.67	0.67	0.93	0.30	0.13	0.36	0.49	0.42
Avail Cap(c_a), veh/h	241	1481	907	186	685	695	278	1518	842	148	1259	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	31.6	9.3	43.1	32.4	32.5	40.7	18.7	4.6	42.3	24.9	7.6
Incr Delay (d2), s/veh	9.5	0.3	0.2	32.5	1.6	1.6	35.1	0.5	0.3	1.5	1.3	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.6	1.9	5.9	7.7	7.8	9.6	4.1	1.1	1.4	6.7	3.3
LnGrp Delay(d),s/veh	53.8	31.9	9.6	75.6	34.1	34.1	75.8	19.2	5.0	43.8	26.3	9.5
LnGrp LOS	D	C	A	E	C	C	E	B	A	D	C	A
Approach Vol, veh/h		581			785			818			957	
Approach Delay, s/veh		29.8			42.6			35.2			22.2	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	45.0	14.0	26.5	19.0	38.0	11.4	29.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	41.0	10.0	40.0	15.0	34.0	13.0	37.0
Max Q Clear Time (g_c+I1), s	4.8	10.1	10.5	9.1	15.7	15.0	7.7	17.0
Green Ext Time (p_c), s	0.3	3.5	0.0	7.5	0.0	4.6	0.1	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	380	10	460	190	590	0	0	790	130
Future Volume (veh/h)	0	0	0	380	10	460	190	590	0	0	790	130
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				409	11	495	204	634	0	0	849	140
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				628	17	572	226	1965	0	0	1145	189
Arrive On Green				0.36	0.36	0.36	0.08	0.36	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1764	47	1608	1810	3705	0	0	3196	511
Grp Volume(v), veh/h				420	0	495	204	634	0	0	494	495
Grp Sat Flow(s),veh/h/ln				1812	0	1608	1810	1805	0	0	1805	1807
Q Serve(g_s), s				15.6	0.0	22.9	8.9	10.1	0.0	0.0	19.0	19.0
Cycle Q Clear(g_c), s				15.6	0.0	22.9	8.9	10.1	0.0	0.0	19.0	19.0
Prop In Lane				0.97		1.00	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				645	0	572	226	1965	0	0	667	667
V/C Ratio(X)				0.65	0.00	0.87	0.90	0.32	0.00	0.00	0.74	0.74
Avail Cap(c_a), veh/h				770	0	683	226	1965	0	0	667	667
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.6	0.0	24.0	36.2	14.8	0.0	0.0	21.9	21.9
Incr Delay (d2), s/veh				1.5	0.0	9.9	33.5	0.4	0.0	0.0	7.3	7.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.0	0.0	11.7	6.6	5.2	0.0	0.0	10.8	10.8
LnGrp Delay(d),s/veh				23.1	0.0	33.8	69.7	15.2	0.0	0.0	29.2	29.2
LnGrp LOS				C		C	E	B			C	C
Approach Vol, veh/h					915			838			989	
Approach Delay, s/veh					28.9			28.5			29.2	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		47.5			14.0	33.5		32.5
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		38.0			10.0	24.0		34.0
Max Q Clear Time (g_c+I1), s		12.1			10.9	21.0		24.9
Green Ext Time (p_c), s		12.3			0.0	2.3		3.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↰	↱					↑↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	210	10	320	0	0	0	0	540	170	220	970	0
Future Volume (veh/h)	210	10	320	0	0	0	0	540	170	220	970	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	221	0	327				0	551	173	224	990	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	901	0	400				0	1779	544	270	2350	0
Arrive On Green	0.25	0.00	0.25				0.00	0.45	0.45	0.05	0.21	0.00
Sat Flow, veh/h	3619	0	1605				0	4105	1203	1810	3705	0
Grp Volume(v), veh/h	221	0	327				0	483	241	224	990	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1680	1810	1805	0
Q Serve(g_s), s	3.9	0.0	15.4				0.0	7.1	7.4	9.8	18.9	0.0
Cycle Q Clear(g_c), s	3.9	0.0	15.4				0.0	7.1	7.4	9.8	18.9	0.0
Prop In Lane	1.00		1.00				0.00		0.72	1.00		0.00
Lane Grp Cap(c), veh/h	901	0	400				0	1563	759	270	2350	0
V/C Ratio(X)	0.25	0.00	0.82				0.00	0.31	0.32	0.83	0.42	0.00
Avail Cap(c_a), veh/h	1493	0	662				0	1563	759	339	2350	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.54	0.54	0.00
Uniform Delay (d), s/veh	24.0	0.0	28.3				0.0	14.0	14.0	37.0	18.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2				0.0	0.5	1.1	7.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	7.3				0.0	3.5	3.7	5.5	9.6	0.0
LnGrp Delay(d),s/veh	24.2	0.0	32.5				0.0	14.5	15.1	44.6	18.7	0.0
LnGrp LOS	C		C					B	B	D	B	
Approach Vol, veh/h		548						724			1214	
Approach Delay, s/veh		29.2						14.7			23.5	
Approach LOS		C						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.9	40.2		23.9		56.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	15.0	20.0		33.0		39.0		
Max Q Clear Time (g_c+I1), s	11.8	9.4		17.4		20.9		
Green Ext Time (p_c), s	0.2	7.4		1.8		10.9		

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	260	200	320	40	80	410	90	970	150	300	800	180
Future Volume (veh/h)	260	200	320	40	80	410	90	970	150	300	800	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	268	206	330	41	82	423	93	1000	155	309	825	186
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	338	1127	502	84	498	594	118	1737	269	371	1530	836
Arrive On Green	0.10	0.31	0.31	0.05	0.26	0.26	0.07	0.38	0.38	0.21	0.85	0.85
Sat Flow, veh/h	3510	3610	1607	1810	1900	1615	1810	4530	701	3510	3610	1605
Grp Volume(v), veh/h	268	206	330	41	82	423	93	763	392	309	825	186
Grp Sat Flow(s),veh/h/ln	1755	1805	1607	1810	1900	1615	1810	1729	1773	1755	1805	1605
Q Serve(g_s), s	7.8	4.4	18.7	2.3	3.5	23.6	5.3	18.3	18.4	8.8	6.7	2.0
Cycle Q Clear(g_c), s	7.8	4.4	18.7	2.3	3.5	23.6	5.3	18.3	18.4	8.8	6.7	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	338	1127	502	84	498	594	118	1326	680	371	1530	836
V/C Ratio(X)	0.79	0.18	0.66	0.49	0.16	0.71	0.79	0.58	0.58	0.83	0.54	0.22
Avail Cap(c_a), veh/h	435	1238	551	121	543	632	138	1326	680	435	1530	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76	0.89	0.89	0.89
Uniform Delay (d), s/veh	46.4	26.3	31.3	48.8	29.9	28.4	48.4	25.6	25.6	40.5	5.1	3.3
Incr Delay (d2), s/veh	7.5	0.1	2.5	4.3	0.2	3.5	17.8	1.4	2.7	10.4	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.2	8.6	1.3	1.8	11.1	3.2	8.9	9.4	4.8	3.3	0.9
LnGrp Delay(d),s/veh	53.9	26.4	33.8	53.1	30.0	31.9	66.1	27.0	28.3	50.9	6.3	3.9
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	A	A
Approach Vol, veh/h		804			546			1248			1320	
Approach Delay, s/veh		38.6			33.2			30.3			16.4	
Approach LOS		D			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	44.2	8.9	36.8	10.8	48.5	14.1	31.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	13.0	30.0
Max Q Clear Time (g_c+I1), s	10.8	20.4	4.3	20.7	7.3	8.7	9.8	25.6
Green Ext Time (p_c), s	0.2	9.5	0.0	4.2	0.0	17.2	0.3	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	290	10	220	410	1190	0	0	1000	300
Future Volume (veh/h)	0	0	0	290	10	220	410	1190	0	0	1000	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				299	10	227	423	1227	0	0	1031	309
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				360	12	329	1186	2595	0	0	1778	551
Arrive On Green				0.21	0.21	0.21	0.68	1.00	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1754	59	1603	3510	3705	0	0	5358	1608
Grp Volume(v), veh/h				309	0	227	423	1227	0	0	1031	309
Grp Sat Flow(s),veh/h/ln				1812	0	1603	1755	1805	0	0	1729	1608
Q Serve(g_s), s				17.2	0.0	13.8	5.4	0.0	0.0	0.0	17.1	16.4
Cycle Q Clear(g_c), s				17.2	0.0	13.8	5.4	0.0	0.0	0.0	17.1	16.4
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				372	0	329	1186	2595	0	0	1778	551
V/C Ratio(X)				0.83	0.00	0.69	0.36	0.47	0.00	0.00	0.58	0.56
Avail Cap(c_a), veh/h				587	0	519	1186	2595	0	0	1778	551
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.0	0.0	38.7	12.2	0.0	0.0	0.0	28.3	28.1
Incr Delay (d2), s/veh				5.7	0.0	2.6	0.1	0.5	0.0	0.0	1.4	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.2	0.0	6.4	2.5	0.2	0.0	0.0	8.3	7.9
LnGrp Delay(d),s/veh				45.7	0.0	41.2	12.3	0.5	0.0	0.0	29.7	32.1
LnGrp LOS				D		D	B	A			C	C
Approach Vol, veh/h					536			1650			1340	
Approach Delay, s/veh					43.8			3.5			30.2	
Approach LOS					D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		79.5			39.5	40.0		25.5
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		63.0			23.0	36.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			7.4	19.1		19.2
Green Ext Time (p_c), s		15.0			8.9	7.9		2.4

Intersection Summary			
HCM 2010 Ctrl Delay			19.8
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	40	100	60	90	220	160	50	1040	40	70	1020	30
Future Volume (veh/h)	40	100	60	90	220	160	50	1040	40	70	1020	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	106	64	96	234	170	53	1106	43	74	1085	32
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	334	281	152	386	326	137	1582	704	137	1582	704
Arrive On Green	0.06	0.18	0.18	0.08	0.20	0.20	0.08	0.44	0.44	0.08	0.44	0.44
Sat Flow, veh/h	1810	1900	1601	1810	1900	1603	1810	3610	1606	1810	3610	1606
Grp Volume(v), veh/h	43	106	64	96	234	170	53	1106	43	74	1085	32
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1603	1810	1805	1606	1810	1805	1606
Q Serve(g_s), s	1.6	3.4	1.9	3.6	7.9	6.7	2.0	17.5	1.1	2.8	17.1	0.6
Cycle Q Clear(g_c), s	1.6	3.4	1.9	3.6	7.9	6.7	2.0	17.5	1.1	2.8	17.1	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	334	281	152	386	326	137	1582	704	137	1582	704
V/C Ratio(X)	0.42	0.32	0.23	0.63	0.61	0.52	0.39	0.70	0.06	0.54	0.69	0.05
Avail Cap(c_a), veh/h	179	913	770	179	913	771	179	1582	704	179	1582	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	25.5	14.9	31.3	25.6	25.1	31.1	16.1	11.5	31.5	16.0	5.5
Incr Delay (d2), s/veh	2.7	0.5	0.4	5.4	1.5	1.3	1.8	2.6	0.2	3.3	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	1.0	2.0	4.3	3.1	1.1	9.2	0.5	1.5	9.0	0.4
LnGrp Delay(d),s/veh	35.0	26.0	15.3	36.7	27.1	26.4	32.9	18.7	11.6	34.8	18.4	5.7
LnGrp LOS	C	C	B	D	C	C	C	B	B	C	B	A
Approach Vol, veh/h		213			500			1202			1191	
Approach Delay, s/veh		24.6			28.7			19.1			19.1	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	35.0	9.9	16.4	9.4	35.0	8.0	18.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	4.8	19.5	5.6	5.4	4.0	19.1	3.6	9.9
Green Ext Time (p_c), s	0.0	5.8	0.0	2.7	2.0	5.7	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	7.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰	↱
Traffic Vol, veh/h	10	10	140	10	10	170
Future Vol, veh/h	10	10	140	10	10	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	149	11	11	181

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	21	0	325	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1608	-	673	1069
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1608	-	610	1069
Mov Cap-2 Maneuver	-	-	-	-	610	-
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	679	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	610	1069	-	-	1608	-
HCM Lane V/C Ratio	0.017	0.169	-	-	0.093	-
HCM Control Delay (s)	11	9.1	-	-	7.5	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.6	-	-	0.3	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (veh/h)	100	170	60	160	130	10	80	100	160	10	130	80
Future Volume (veh/h)	100	170	60	160	130	10	80	100	160	10	130	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	224	79	211	171	13	105	132	211	13	171	105
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	312	110	323	564	43	112	140	224	14	188	115
Arrive On Green	0.09	0.23	0.23	0.18	0.32	0.32	0.28	0.28	0.28	0.18	0.18	0.18
Sat Flow, veh/h	1810	1339	472	1810	1743	133	405	509	814	80	1048	644
Grp Volume(v), veh/h	132	0	303	211	0	184	448	0	0	289	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1811	1810	0	1875	1727	0	0	1772	0	0
Q Serve(g_s), s	8.6	0.0	18.5	13.0	0.0	8.8	30.4	0.0	0.0	19.2	0.0	0.0
Cycle Q Clear(g_c), s	8.6	0.0	18.5	13.0	0.0	8.8	30.4	0.0	0.0	19.2	0.0	0.0
Prop In Lane	1.00		0.26	1.00		0.07	0.23		0.47	0.04		0.36
Lane Grp Cap(c), veh/h	160	0	422	323	0	607	476	0	0	317	0	0
V/C Ratio(X)	0.83	0.00	0.72	0.65	0.00	0.30	0.94	0.00	0.00	0.91	0.00	0.00
Avail Cap(c_a), veh/h	241	0	422	323	0	607	504	0	0	340	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	53.8	0.0	42.4	45.8	0.0	30.4	42.5	0.0	0.0	48.3	0.0	0.0
Incr Delay (d2), s/veh	13.2	0.0	10.0	4.6	0.0	1.3	25.4	0.0	0.0	26.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	10.4	6.9	0.0	4.8	17.9	0.0	0.0	11.7	0.0	0.0
LnGrp Delay(d),s/veh	67.0	0.0	52.4	50.4	0.0	31.7	67.9	0.0	0.0	74.9	0.0	0.0
LnGrp LOS	E		D	D		C	E			E		
Approach Vol, veh/h		435			395			448			289	
Approach Delay, s/veh		56.8			41.7			67.9			74.9	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		37.1	25.4	32.0		25.5	14.6	42.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		35.0	18.0	28.0		23.0	16.0	30.0
Max Q Clear Time (g_c+I1), s		32.4	15.0	20.5		21.2	10.6	10.8
Green Ext Time (p_c), s		0.6	0.2	0.9		0.3	0.1	1.3

Intersection Summary			
HCM 2010 Ctrl Delay			59.5
HCM 2010 LOS			E

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱		↰	
Traffic Volume (veh/h)	70	10	370	0	0	0	0	600	160	10	370	0
Future Volume (veh/h)	70	10	370	0	0	0	0	600	160	10	370	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	79	11	416				0	674	180	11	416	0
Adj No. of Lanes	0	1	1				0	1	1	0	1	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	460	64	461				0	665	561	11	410	0
Arrive On Green	0.29	0.29	0.29				0.00	0.35	0.35	0.22	0.22	0.00
Sat Flow, veh/h	1598	222	1601				0	1900	1603	49	1849	0
Grp Volume(v), veh/h	90	0	416				0	674	180	427	0	0
Grp Sat Flow(s),veh/h/ln	1820	0	1601				0	1900	1603	1898	0	0
Q Serve(g_s), s	3.2	0.0	21.4				0.0	30.0	7.0	19.0	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	21.4				0.0	30.0	7.0	19.0	0.0	0.0
Prop In Lane	0.88		1.00				0.00		1.00	0.03		0.00
Lane Grp Cap(c), veh/h	524	0	461				0	665	561	421	0	0
V/C Ratio(X)	0.17	0.00	0.90				0.00	1.01	0.32	1.01	0.00	0.00
Avail Cap(c_a), veh/h	616	0	542				0	665	561	421	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.8	0.0	29.3				0.0	27.8	20.4	33.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	16.6				0.0	38.2	0.3	47.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	11.6				0.0	22.6	3.2	15.4	0.0	0.0
LnGrp Delay(d),s/veh	23.0	0.0	45.9				0.0	66.1	20.7	81.1	0.0	0.0
LnGrp LOS	C		D					F	C	F		
Approach Vol, veh/h		506						854			427	
Approach Delay, s/veh		41.8						56.5			81.1	
Approach LOS		D						E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		28.7		34.0				23.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		29.0		30.0				19.0
Max Q Clear Time (g_c+I1), s		23.4		32.0				21.0
Green Ext Time (p_c), s		1.1		0.0				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	58.2
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	70	230	80	130	190	140	120	960	190	170	460	50
Future Volume (veh/h)	70	230	80	130	190	140	120	960	190	170	460	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	271	94	153	224	165	141	1129	224	200	541	59
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	550	186	157	448	316	176	1474	657	179	1948	210
Arrive On Green	0.07	0.21	0.21	0.09	0.22	0.22	0.10	0.41	0.41	0.10	0.41	0.41
Sat Flow, veh/h	1810	2644	896	1810	2020	1422	1810	3610	1609	1810	4753	512
Grp Volume(v), veh/h	82	183	182	153	199	190	141	1129	224	200	392	208
Grp Sat Flow(s),veh/h/ln	1810	1805	1734	1810	1805	1638	1810	1805	1609	1810	1729	1807
Q Serve(g_s), s	3.6	7.2	7.5	6.8	7.8	8.3	6.2	21.8	7.7	8.0	6.1	6.2
Cycle Q Clear(g_c), s	3.6	7.2	7.5	6.8	7.8	8.3	6.2	21.8	7.7	8.0	6.1	6.2
Prop In Lane	1.00		0.52	1.00		0.87	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	132	376	361	157	401	363	176	1474	657	179	1417	741
V/C Ratio(X)	0.62	0.49	0.50	0.98	0.50	0.52	0.80	0.77	0.34	1.12	0.28	0.28
Avail Cap(c_a), veh/h	157	804	772	157	804	729	224	1474	657	179	1417	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	28.2	28.3	36.8	27.5	27.7	35.7	20.6	16.4	36.4	15.9	15.9
Incr Delay (d2), s/veh	5.5	1.0	1.1	64.6	1.0	1.2	14.7	3.9	1.4	102.0	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.7	3.7	6.2	4.0	3.9	3.8	11.6	3.7	9.0	3.0	3.3
LnGrp Delay(d),s/veh	41.9	29.2	29.4	101.4	28.5	28.8	50.4	24.4	17.8	138.4	16.4	16.9
LnGrp LOS	D	C	C	F	C	C	D	C	B	F	B	B
Approach Vol, veh/h		447			542			1494			800	
Approach Delay, s/veh		31.6			49.2			25.9			47.0	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	37.0	11.0	20.8	11.9	37.1	9.9	21.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	10.0	23.8	8.8	9.5	8.2	8.2	5.6	10.3
Green Ext Time (p_c), s	0.0	6.8	0.0	5.0	0.1	13.1	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	50	290	140	370	470	80	180	660	340	70	450	40
Future Volume (veh/h)	50	290	140	370	470	80	180	660	340	70	450	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	330	159	420	534	91	205	750	386	80	511	45
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	533	252	406	1220	207	186	1777	551	107	1453	127
Arrive On Green	0.05	0.22	0.22	0.22	0.40	0.40	0.10	0.34	0.34	0.06	0.30	0.30
Sat Flow, veh/h	1810	2377	1122	1810	3086	524	1810	5187	1608	1810	4858	423
Grp Volume(v), veh/h	57	249	240	420	311	314	205	750	386	80	362	194
Grp Sat Flow(s),veh/h/ln	1810	1805	1693	1810	1805	1805	1810	1729	1608	1810	1729	1823
Q Serve(g_s), s	3.3	13.3	13.7	24.0	13.5	13.6	11.0	11.9	22.2	4.7	8.8	8.9
Cycle Q Clear(g_c), s	3.3	13.3	13.7	24.0	13.5	13.6	11.0	11.9	22.2	4.7	8.8	8.9
Prop In Lane	1.00		0.66	1.00		0.29	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	97	405	380	406	713	713	186	1777	551	107	1034	545
V/C Ratio(X)	0.59	0.61	0.63	1.03	0.44	0.44	1.10	0.42	0.70	0.74	0.35	0.36
Avail Cap(c_a), veh/h	152	624	585	406	877	877	186	1777	551	152	1034	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	37.3	37.5	41.5	23.7	23.7	48.0	27.0	30.4	49.5	29.4	29.4
Incr Delay (d2), s/veh	5.6	1.5	1.7	53.9	0.4	0.4	95.9	0.7	7.3	11.4	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	6.8	6.6	18.0	6.8	6.9	10.4	5.8	10.9	2.7	4.3	4.7
LnGrp Delay(d),s/veh	55.1	38.9	39.2	95.4	24.1	24.1	143.9	27.8	37.7	60.9	30.3	31.2
LnGrp LOS	E	D	D	F	C	C	F	C	D	E	C	C
Approach Vol, veh/h		546			1045			1341			636	
Approach Delay, s/veh		40.7			52.8			48.4			34.4	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	40.6	28.0	28.0	15.0	36.0	9.7	46.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	34.0	24.0	37.0	11.0	32.0	9.0	52.0
Max Q Clear Time (g_c+I1), s	6.7	24.2	26.0	15.7	13.0	10.9	5.3	15.6
Green Ext Time (p_c), s	0.0	6.0	0.0	6.2	0.0	9.7	0.0	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	610	100	160	700	60	170	200	240	70	190	150
Future Volume (veh/h)	60	610	100	160	700	60	170	200	240	70	190	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	649	106	170	745	64	181	213	255	74	202	160
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	126	990	161	210	1318	708	227	488	434	135	431	324
Arrive On Green	0.07	0.32	0.32	0.12	0.36	0.36	0.13	0.27	0.27	0.07	0.22	0.22
Sat Flow, veh/h	1810	3106	507	1810	3610	1608	1810	1805	1606	1810	1961	1472
Grp Volume(v), veh/h	64	377	378	170	745	64	181	213	255	74	185	177
Grp Sat Flow(s),veh/h/ln	1810	1805	1808	1810	1805	1608	1810	1805	1606	1810	1805	1628
Q Serve(g_s), s	2.5	13.1	13.1	6.7	12.0	1.7	7.1	7.1	10.0	2.9	6.5	6.9
Cycle Q Clear(g_c), s	2.5	13.1	13.1	6.7	12.0	1.7	7.1	7.1	10.0	2.9	6.5	6.9
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	126	575	576	210	1318	708	227	488	434	135	397	358
V/C Ratio(X)	0.51	0.65	0.66	0.81	0.57	0.09	0.80	0.44	0.59	0.55	0.47	0.49
Avail Cap(c_a), veh/h	224	720	721	249	1489	784	448	1067	950	174	794	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	21.3	21.3	31.4	18.5	11.9	30.9	21.9	23.0	32.5	24.7	24.8
Incr Delay (d2), s/veh	3.1	1.5	1.5	15.5	0.4	0.1	6.3	0.6	1.3	3.4	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	6.7	6.8	4.2	6.0	0.8	3.9	3.6	4.5	1.6	3.3	3.2
LnGrp Delay(d),s/veh	35.7	22.8	22.8	46.9	18.9	11.9	37.2	22.6	24.3	35.9	25.5	25.9
LnGrp LOS	D	C	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		819			979			649			436	
Approach Delay, s/veh		23.8			23.3			27.3			27.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	23.7	12.4	27.2	13.1	20.0	9.1	30.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	29.0	18.0	32.0	9.0	30.0
Max Q Clear Time (g_c+I1), s	4.9	12.0	8.7	15.1	9.1	8.9	4.5	14.0
Green Ext Time (p_c), s	0.0	5.1	0.1	7.4	0.3	4.8	0.0	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	650	250	500	660	80	270	480	500	120	410	90
Future Volume (veh/h)	150	650	250	500	660	80	270	480	500	120	410	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	699	269	538	710	86	290	516	538	129	441	97
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1047	397	556	1769	212	327	1247	811	224	931	203
Arrive On Green	0.06	0.28	0.28	0.16	0.38	0.38	0.09	0.35	0.35	0.06	0.32	0.32
Sat Flow, veh/h	3510	3699	1403	3510	4692	564	3510	3610	1608	3510	2945	643
Grp Volume(v), veh/h	161	653	315	538	522	274	290	516	538	129	269	269
Grp Sat Flow(s),veh/h/ln	1755	1729	1644	1755	1729	1798	1755	1805	1608	1755	1805	1783
Q Serve(g_s), s	4.8	17.9	18.2	16.3	11.9	12.0	8.8	11.7	26.8	3.8	12.9	13.0
Cycle Q Clear(g_c), s	4.8	17.9	18.2	16.3	11.9	12.0	8.8	11.7	26.8	3.8	12.9	13.0
Prop In Lane	1.00		0.85	1.00		0.31	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	227	979	465	556	1303	678	327	1247	811	224	571	564
V/C Ratio(X)	0.71	0.67	0.68	0.97	0.40	0.40	0.89	0.41	0.66	0.58	0.47	0.48
Avail Cap(c_a), veh/h	327	1160	551	556	1386	720	327	1480	915	229	690	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	34.0	34.1	44.9	24.5	24.6	48.1	26.8	19.8	48.8	29.5	29.6
Incr Delay (d2), s/veh	4.0	1.1	2.6	30.0	0.2	0.4	24.0	0.2	1.5	3.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	8.7	8.7	10.2	5.7	6.0	5.4	5.8	12.2	2.0	6.5	6.5
LnGrp Delay(d),s/veh	53.2	35.1	36.7	74.9	24.7	25.0	72.1	27.0	21.4	52.2	30.1	30.2
LnGrp LOS	D	D	D	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		1129			1334			1344			667	
Approach Delay, s/veh		38.2			45.0			34.5			34.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	41.1	21.0	34.4	14.0	37.9	10.9	44.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	17.0	36.0	10.0	41.0	10.0	43.0
Max Q Clear Time (g_c+I1), s	5.8	28.8	18.3	20.2	10.8	15.0	6.8	14.0
Green Ext Time (p_c), s	0.0	7.2	0.0	9.2	0.0	9.1	0.1	12.9

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	320	920	30	20	800	90	30	60	10	100	20	260
Future Volume (veh/h)	320	920	30	20	800	90	30	60	10	100	20	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	390	1122	37	24	976	110	37	73	12	122	24	317
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	521	2060	68	71	1504	468	100	256	42	195	406	585
Arrive On Green	0.15	0.40	0.40	0.04	0.29	0.29	0.06	0.16	0.16	0.11	0.21	0.21
Sat Flow, veh/h	3510	5158	170	1810	5187	1615	1810	1592	262	1810	1900	1615
Grp Volume(v), veh/h	390	752	407	24	976	110	37	0	85	122	24	317
Grp Sat Flow(s),veh/h/ln	1755	1729	1870	1810	1729	1615	1810	0	1854	1810	1900	1615
Q Serve(g_s), s	5.8	9.1	9.1	0.7	9.0	2.8	1.1	0.0	2.2	3.5	0.5	8.5
Cycle Q Clear(g_c), s	5.8	9.1	9.1	0.7	9.0	2.8	1.1	0.0	2.2	3.5	0.5	8.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	521	1381	747	71	1504	468	100	0	298	195	406	585
V/C Ratio(X)	0.75	0.54	0.54	0.34	0.65	0.23	0.37	0.00	0.29	0.62	0.06	0.54
Avail Cap(c_a), veh/h	643	1381	747	232	1709	532	232	0	645	232	661	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	12.6	12.6	25.6	17.0	14.8	24.9	0.0	20.2	23.3	17.1	13.8
Incr Delay (d2), s/veh	3.8	0.4	0.8	2.8	0.7	0.3	2.3	0.0	0.5	3.8	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	4.4	4.8	0.4	4.3	1.3	0.6	0.0	1.2	2.0	0.3	3.9
LnGrp Delay(d),s/veh	26.1	13.0	13.4	28.3	17.7	15.0	27.2	0.0	20.7	27.1	17.2	14.6
LnGrp LOS	C	B	B	C	B	B	C		C	C	B	B
Approach Vol, veh/h		1549			1110			122			463	
Approach Delay, s/veh		16.4			17.6			22.7			18.0	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	12.8	6.1	25.8	7.0	15.7	12.1	19.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.5	4.2	2.7	11.1	3.1	10.5	7.8	11.0
Green Ext Time (p_c), s	0.0	1.5	0.0	7.7	0.0	1.2	0.3	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	150	700	20	30	630	10	80	50	40	10	30	180
Future Volume (veh/h)	150	700	20	30	630	10	80	50	40	10	30	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	886	25	38	797	13	101	63	51	13	38	228
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	1853	52	97	1591	26	166	104	234	94	274	314
Arrive On Green	0.11	0.36	0.36	0.05	0.30	0.30	0.15	0.15	0.15	0.20	0.20	0.20
Sat Flow, veh/h	1810	5185	146	1810	5257	86	1135	708	1598	478	1398	1603
Grp Volume(v), veh/h	190	591	320	38	524	286	164	0	51	51	0	228
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1884	1843	0	1598	1876	0	1603
Q Serve(g_s), s	6.8	8.6	8.6	1.3	8.1	8.1	5.4	0.0	1.8	1.5	0.0	8.6
Cycle Q Clear(g_c), s	6.8	8.6	8.6	1.3	8.1	8.1	5.4	0.0	1.8	1.5	0.0	8.6
Prop In Lane	1.00		0.08	1.00		0.05	0.62		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	196	1236	669	97	1047	570	269	0	234	367	0	314
V/C Ratio(X)	0.97	0.48	0.48	0.39	0.50	0.50	0.61	0.00	0.22	0.14	0.00	0.73
Avail Cap(c_a), veh/h	196	1389	753	196	1389	757	969	0	840	1073	0	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	16.1	16.1	29.6	18.5	18.5	25.9	0.0	24.4	21.5	0.0	24.4
Incr Delay (d2), s/veh	55.6	0.3	0.5	2.6	0.4	0.7	2.2	0.0	0.5	0.2	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	4.1	4.5	0.7	3.9	4.3	2.9	0.0	0.8	0.8	0.0	4.1
LnGrp Delay(d),s/veh	84.4	16.4	16.7	32.2	18.9	19.2	28.1	0.0	24.8	21.7	0.0	27.6
LnGrp LOS	F	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		1101			848			215			279	
Approach Delay, s/veh		28.2			19.6			27.3			26.5	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.5	7.5	27.1		16.7	11.0	23.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	26.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		7.4	3.3	10.6		10.6	8.8	10.1
Green Ext Time (p_c), s		1.1	0.0	8.7		1.0	0.0	8.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	740	20	30	580	10	40	30	60	10	20	40
Future Volume (veh/h)	10	740	20	30	580	10	40	30	60	10	20	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	871	24	35	682	12	47	35	71	12	24	47
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	1958	54	98	2151	38	122	429	450	39	103	202
Arrive On Green	0.02	0.38	0.38	0.05	0.41	0.41	0.07	0.23	0.23	0.02	0.18	0.18
Sat Flow, veh/h	1810	5189	143	1810	5249	92	1810	1900	1604	1810	572	1120
Grp Volume(v), veh/h	12	580	315	35	449	245	47	35	71	12	0	71
Grp Sat Flow(s),veh/h/ln	1810	1729	1874	1810	1729	1883	1810	1900	1604	1810	0	1691
Q Serve(g_s), s	0.3	6.2	6.3	0.9	4.4	4.4	1.2	0.7	1.7	0.3	0.0	1.8
Cycle Q Clear(g_c), s	0.3	6.2	6.3	0.9	4.4	4.4	1.2	0.7	1.7	0.3	0.0	1.8
Prop In Lane	1.00		0.08	1.00		0.05	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	39	1305	707	98	1417	772	122	429	450	39	0	305
V/C Ratio(X)	0.31	0.44	0.45	0.36	0.32	0.32	0.39	0.08	0.16	0.31	0.00	0.23
Avail Cap(c_a), veh/h	254	2083	1129	254	2083	1134	254	1717	1537	254	0	1528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	11.6	11.6	22.7	10.0	10.0	22.2	15.2	13.5	24.0	0.0	17.5
Incr Delay (d2), s/veh	4.4	0.2	0.4	2.2	0.1	0.2	2.0	0.1	0.2	4.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.0	3.3	0.5	2.1	2.3	0.7	0.4	0.7	0.2	0.0	0.9
LnGrp Delay(d),s/veh	28.4	11.8	12.0	24.9	10.1	10.2	24.2	15.3	13.7	28.4	0.0	17.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		907			729			153			83	
Approach Delay, s/veh		12.1			10.8			17.3			19.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	15.3	6.7	22.8	7.3	13.0	5.1	24.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	3.7	2.9	8.3	3.2	3.8	2.3	6.4
Green Ext Time (p_c), s	0.0	0.9	0.0	9.7	0.0	0.9	0.0	10.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	30	150	90	190	140	170	90	940	260	120	740	10
Future Volume (veh/h)	30	150	90	190	140	170	90	940	260	120	740	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	165	99	209	154	187	99	1033	286	132	813	11
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	234	238	258	190	390	130	1410	390	143	1878	25
Arrive On Green	0.15	0.15	0.15	0.24	0.24	0.24	0.07	0.35	0.35	0.08	0.36	0.36
Sat Flow, veh/h	314	1570	1599	1063	784	1605	1810	4038	1117	1810	5274	71
Grp Volume(v), veh/h	198	0	99	363	0	187	99	884	435	132	533	291
Grp Sat Flow(s),veh/h/ln	1884	0	1599	1847	0	1605	1810	1729	1697	1810	1729	1887
Q Serve(g_s), s	8.9	0.0	5.0	16.4	0.0	8.9	4.8	19.9	19.9	6.4	10.4	10.4
Cycle Q Clear(g_c), s	8.9	0.0	5.0	16.4	0.0	8.9	4.8	19.9	19.9	6.4	10.4	10.4
Prop In Lane	0.17		1.00	0.58		1.00	1.00		0.66	1.00		0.04
Lane Grp Cap(c), veh/h	280	0	238	449	0	390	130	1207	593	143	1231	672
V/C Ratio(X)	0.71	0.00	0.42	0.81	0.00	0.48	0.76	0.73	0.73	0.93	0.43	0.43
Avail Cap(c_a), veh/h	615	0	522	666	0	579	245	1207	593	143	1231	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	0.0	34.3	31.7	0.0	28.8	40.4	25.3	25.3	40.6	21.8	21.8
Incr Delay (d2), s/veh	3.3	0.0	1.2	4.6	0.0	0.9	8.7	4.0	7.8	53.3	1.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	2.3	8.9	0.0	4.0	2.7	10.1	10.6	5.3	5.1	5.8
LnGrp Delay(d),s/veh	39.2	0.0	35.4	36.3	0.0	29.7	49.2	29.2	33.1	93.9	22.9	23.8
LnGrp LOS	D		D	D		C	D	C	C	F	C	C
Approach Vol, veh/h		297			550			1418			956	
Approach Delay, s/veh		37.9			34.1			31.8			33.0	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	35.0		17.2	10.4	35.6		25.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	12.0	26.0		32.0
Max Q Clear Time (g_c+I1), s	8.4	21.9		10.9	6.8	12.4		18.4
Green Ext Time (p_c), s	0.0	7.1		1.3	0.1	9.8		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	300	160	80	310	170	80	190	60	150	200	130
Future Volume (veh/h)	140	300	160	80	310	170	80	190	60	150	200	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	345	184	92	356	195	92	218	69	172	230	149
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	738	386	166	683	367	166	534	164	217	479	298
Arrive On Green	0.11	0.32	0.32	0.09	0.30	0.30	0.09	0.20	0.20	0.12	0.22	0.22
Sat Flow, veh/h	1810	2289	1198	1810	2264	1219	1810	2714	836	1810	2134	1326
Grp Volume(v), veh/h	161	271	258	92	283	268	92	143	144	172	193	186
Grp Sat Flow(s),veh/h/ln	1810	1805	1682	1810	1805	1678	1810	1805	1745	1810	1805	1655
Q Serve(g_s), s	5.2	7.1	7.3	2.9	7.7	7.9	2.9	4.1	4.3	5.5	5.5	5.8
Cycle Q Clear(g_c), s	5.2	7.1	7.3	2.9	7.7	7.9	2.9	4.1	4.3	5.5	5.5	5.8
Prop In Lane	1.00		0.71	1.00		0.73	1.00		0.48	1.00		0.80
Lane Grp Cap(c), veh/h	204	582	542	166	544	506	166	355	343	217	405	372
V/C Ratio(X)	0.79	0.46	0.48	0.55	0.52	0.53	0.55	0.40	0.42	0.79	0.48	0.50
Avail Cap(c_a), veh/h	274	911	849	274	911	846	304	941	910	274	911	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	16.1	16.1	25.8	17.2	17.3	25.8	20.8	20.9	25.5	20.0	20.1
Incr Delay (d2), s/veh	10.4	0.6	0.7	2.8	0.8	0.9	2.8	0.7	0.8	11.8	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.6	3.5	1.6	4.0	3.8	1.6	2.1	2.2	3.4	2.8	2.7
LnGrp Delay(d),s/veh	36.1	16.6	16.8	28.7	18.0	18.1	28.7	21.6	21.7	37.3	20.9	21.2
LnGrp LOS	D	B	B	C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		690			643			379			551	
Approach Delay, s/veh		21.2			19.6			23.4			26.1	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	15.7	9.5	23.2	9.5	17.4	10.7	21.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	31.0	9.0	30.0	10.0	30.0	9.0	30.0
Max Q Clear Time (g_c+I1), s	7.5	6.3	4.9	9.3	4.9	7.8	7.2	9.9
Green Ext Time (p_c), s	0.1	3.7	0.1	7.0	0.1	3.6	0.1	7.0

Intersection Summary			
HCM 2010 Ctrl Delay			22.3
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	290	210	140	120	160	100	140	840	170	90	450	80
Future Volume (veh/h)	290	210	140	120	160	100	140	840	170	90	450	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	309	223	149	128	170	106	149	894	181	96	479	85
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	420	436	279	172	397	235	188	1345	755	157	1091	193
Arrive On Green	0.12	0.21	0.21	0.09	0.18	0.18	0.10	0.37	0.37	0.09	0.36	0.36
Sat Flow, veh/h	3510	2108	1348	1810	2184	1293	1810	3610	1615	1810	3066	541
Grp Volume(v), veh/h	309	190	182	128	139	137	149	894	181	96	281	283
Grp Sat Flow(s),veh/h/ln	1755	1805	1651	1810	1805	1672	1810	1805	1615	1810	1805	1802
Q Serve(g_s), s	5.7	6.2	6.6	4.6	4.6	4.9	5.4	13.8	4.5	3.4	8.0	8.0
Cycle Q Clear(g_c), s	5.7	6.2	6.6	4.6	4.6	4.9	5.4	13.8	4.5	3.4	8.0	8.0
Prop In Lane	1.00		0.82	1.00		0.77	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	420	373	341	172	328	304	188	1345	755	157	642	641
V/C Ratio(X)	0.74	0.51	0.53	0.75	0.42	0.45	0.79	0.66	0.24	0.61	0.44	0.44
Avail Cap(c_a), veh/h	576	943	862	189	835	774	216	1832	973	216	916	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	23.5	23.7	29.5	24.3	24.4	29.3	17.5	10.7	29.5	16.5	16.5
Incr Delay (d2), s/veh	3.2	1.1	1.3	13.6	0.9	1.0	16.2	0.6	0.2	3.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.2	3.1	3.0	2.4	2.3	3.5	6.9	2.0	1.9	4.0	4.1
LnGrp Delay(d),s/veh	31.6	24.6	25.0	43.1	25.2	25.5	45.5	18.1	10.9	33.3	16.9	17.0
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		681			404			1224			660	
Approach Delay, s/veh		27.9			30.9			20.4			19.3	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	29.0	10.4	17.9	10.9	27.8	12.0	16.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	34.0	7.0	35.0	8.0	34.0	11.0	31.0
Max Q Clear Time (g_c+I1), s	5.4	15.8	6.6	8.6	7.4	10.0	7.7	6.9
Green Ext Time (p_c), s	0.0	9.0	0.0	4.2	0.0	10.3	0.4	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	140	420	130	30	650	80	190	200	30	60	150	160
Future Volume (veh/h)	140	420	130	30	650	80	190	200	30	60	150	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	512	159	37	793	98	232	244	37	73	183	195
Adj No. of Lanes	1	2	1	1	2	1	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	1576	853	89	1336	740	327	355	54	162	391	347
Arrive On Green	0.12	0.44	0.44	0.05	0.37	0.37	0.09	0.22	0.22	0.09	0.22	0.22
Sat Flow, veh/h	1810	3610	1609	1810	3610	1608	3510	1611	244	1810	1805	1604
Grp Volume(v), veh/h	171	512	159	37	793	98	232	0	281	73	183	195
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1608	1755	0	1855	1810	1805	1604
Q Serve(g_s), s	7.2	7.3	4.0	1.6	13.9	0.8	5.0	0.0	10.9	3.0	6.9	8.5
Cycle Q Clear(g_c), s	7.2	7.3	4.0	1.6	13.9	0.8	5.0	0.0	10.9	3.0	6.9	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	210	1576	853	89	1336	740	327	0	409	162	391	347
V/C Ratio(X)	0.82	0.32	0.19	0.41	0.59	0.13	0.71	0.00	0.69	0.45	0.47	0.56
Avail Cap(c_a), veh/h	254	1576	853	162	1336	740	538	0	971	416	1083	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	14.5	9.6	36.1	19.9	4.2	34.5	0.0	28.1	33.8	26.8	27.4
Incr Delay (d2), s/veh	15.6	0.5	0.5	3.0	1.9	0.4	2.8	0.0	2.1	2.0	0.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	3.7	1.9	0.9	7.3	0.7	2.6	0.0	5.8	1.6	3.6	3.9
LnGrp Delay(d),s/veh	49.4	15.0	10.1	39.2	21.9	4.6	37.3	0.0	30.1	35.8	27.6	28.8
LnGrp LOS	D	B	B	D	C	A	D		C	D	C	C
Approach Vol, veh/h		842			928			513			451	
Approach Delay, s/veh		21.1			20.7			33.4			29.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.3	7.9	38.2	11.3	21.0	13.1	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	12.0	47.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	5.0	12.9	3.6	9.3	7.0	10.5	9.2	15.9
Green Ext Time (p_c), s	1.9	1.6	0.0	10.0	0.3	2.5	0.1	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	30	280	110	110	510	40	190	350	160	30	290	70
Future Volume (veh/h)	30	280	110	110	510	40	190	350	160	30	290	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	311	122	122	567	44	211	389	178	33	322	78
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	425	359	282	635	677	227	632	785	159	435	105
Arrive On Green	0.05	0.22	0.22	0.16	0.33	0.33	0.13	0.33	0.33	0.09	0.29	0.29
Sat Flow, veh/h	1810	1900	1604	1810	1900	1603	1810	1900	1603	1810	1476	357
Grp Volume(v), veh/h	33	311	122	122	567	44	211	389	178	33	0	400
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	1900	1603	1810	1900	1603	1810	0	1833
Q Serve(g_s), s	1.4	12.1	3.6	4.9	22.6	1.3	9.2	13.7	1.4	1.4	0.0	15.7
Cycle Q Clear(g_c), s	1.4	12.1	3.6	4.9	22.6	1.3	9.2	13.7	1.4	1.4	0.0	15.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	82	425	359	282	635	677	227	632	785	159	0	541
V/C Ratio(X)	0.40	0.73	0.34	0.43	0.89	0.06	0.93	0.62	0.23	0.21	0.00	0.74
Avail Cap(c_a), veh/h	159	785	663	282	785	804	227	880	995	159	0	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	28.8	13.1	30.5	25.2	13.7	34.6	22.4	4.2	33.9	0.0	25.4
Incr Delay (d2), s/veh	3.1	2.5	0.6	1.0	10.9	0.0	41.2	1.0	0.1	0.6	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.7	2.1	2.5	13.7	0.6	7.2	7.3	1.2	0.7	0.0	8.2
LnGrp Delay(d),s/veh	40.2	31.2	13.7	31.5	36.2	13.8	75.8	23.4	4.4	34.5	0.0	27.6
LnGrp LOS	D	C	B	C	D	B	E	C	A	C		C
Approach Vol, veh/h		466			733			778			433	
Approach Delay, s/veh		27.3			34.1			33.2			28.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.6	16.5	21.9	14.0	27.6	7.6	30.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	3.4	15.7	6.9	14.1	11.2	17.7	3.4	24.6
Green Ext Time (p_c), s	0.0	5.0	0.1	1.9	0.0	4.6	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	130	330	510	70	70	130
Future Volume (veh/h)	130	330	510	70	70	130
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	151	384	593	81	81	151
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	267	1145	1262	561	335	537
Arrive On Green	0.15	0.60	0.35	0.35	0.19	0.19
Sat Flow, veh/h	1810	1900	3705	1603	1810	1615
Grp Volume(v), veh/h	151	384	593	81	81	151
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1603	1810	1615
Q Serve(g_s), s	2.9	3.8	4.8	1.3	1.4	2.6
Cycle Q Clear(g_c), s	2.9	3.8	4.8	1.3	1.4	2.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	267	1145	1262	561	335	537
V/C Ratio(X)	0.57	0.34	0.47	0.14	0.24	0.28
Avail Cap(c_a), veh/h	431	2063	2676	1189	1964	1991
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	3.7	9.6	8.4	13.1	9.3
Incr Delay (d2), s/veh	1.9	0.2	0.3	0.1	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.0	2.4	0.6	0.8	2.7
LnGrp Delay(d),s/veh	16.9	3.9	9.8	8.5	13.5	9.6
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		535	674		232	
Approach Delay, s/veh		7.6	9.7		10.9	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				26.8		11.0	9.6	17.2
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				5.8		4.6	4.9	6.8
Green Ext Time (p_c), s				6.7		0.7	0.1	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	60	220	110	120	340	150	100	470	50	70	680	100
Future Volume (veh/h)	60	220	110	120	340	150	100	470	50	70	680	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	282	141	154	436	192	128	603	64	90	872	128
Adj No. of Lanes	2	2	1	2	1	1	1	2	1	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	272	619	275	738	578	489	173	925	410	219	1462	451
Arrive On Green	0.08	0.17	0.17	0.21	0.30	0.30	0.10	0.26	0.26	0.12	0.28	0.28
Sat Flow, veh/h	3510	3610	1601	3510	1900	1607	1810	3610	1599	1810	5187	1601
Grp Volume(v), veh/h	77	282	141	154	436	192	128	603	64	90	872	128
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1900	1607	1810	1805	1599	1810	1729	1601
Q Serve(g_s), s	1.4	4.7	5.3	2.4	13.8	6.3	4.6	9.9	2.1	3.1	9.6	4.1
Cycle Q Clear(g_c), s	1.4	4.7	5.3	2.4	13.8	6.3	4.6	9.9	2.1	3.1	9.6	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	619	275	738	578	489	173	925	410	219	1462	451
V/C Ratio(X)	0.28	0.46	0.51	0.21	0.75	0.39	0.74	0.65	0.16	0.41	0.60	0.28
Avail Cap(c_a), veh/h	370	1903	844	738	1030	871	273	1686	747	273	2422	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	24.7	25.0	21.7	20.9	18.3	29.2	22.0	19.1	27.0	20.6	18.6
Incr Delay (d2), s/veh	0.6	0.5	1.5	0.1	2.0	0.5	6.1	0.8	0.2	1.2	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.4	2.5	1.2	7.5	2.9	2.6	5.0	0.9	1.6	4.7	1.9
LnGrp Delay(d),s/veh	29.4	25.2	26.5	21.8	22.9	18.8	35.3	22.8	19.3	28.2	21.0	18.9
LnGrp LOS	C	C	C	C	C	B	D	C	B	C	C	B
Approach Vol, veh/h		500			782			795			1090	
Approach Delay, s/veh		26.2			21.7			24.6			21.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	21.0	18.0	15.4	10.3	22.7	9.1	24.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	31.0	8.0	35.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	5.1	11.9	4.4	7.3	6.6	11.6	3.4	15.8
Green Ext Time (p_c), s	0.2	3.7	0.2	2.0	0.2	5.9	0.1	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑	↱
Traffic Volume (veh/h)	90	550	90	30	670	20	180	280	20	60	220	100
Future Volume (veh/h)	90	550	90	30	670	20	180	280	20	60	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	671	110	37	817	24	220	341	24	73	268	122
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	147	1211	198	89	1283	38	255	973	68	129	408	344
Arrive On Green	0.08	0.39	0.39	0.05	0.36	0.36	0.14	0.28	0.28	0.07	0.21	0.21
Sat Flow, veh/h	1810	3105	508	1810	3581	105	1810	3422	240	1810	1900	1604
Grp Volume(v), veh/h	110	390	391	37	412	429	220	179	186	73	268	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1808	1810	1805	1881	1810	1805	1856	1810	1900	1604
Q Serve(g_s), s	4.6	13.1	13.2	1.6	14.8	14.8	9.3	6.2	6.2	3.1	10.1	5.1
Cycle Q Clear(g_c), s	4.6	13.1	13.2	1.6	14.8	14.8	9.3	6.2	6.2	3.1	10.1	5.1
Prop In Lane	1.00		0.28	1.00		0.06	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	147	704	706	89	647	674	255	513	528	129	408	344
V/C Ratio(X)	0.75	0.55	0.55	0.41	0.64	0.64	0.86	0.35	0.35	0.57	0.66	0.35
Avail Cap(c_a), veh/h	162	704	706	162	647	674	255	693	713	208	681	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	18.5	18.5	36.0	20.8	20.8	32.8	22.2	22.2	35.1	28.0	26.1
Incr Delay (d2), s/veh	15.7	3.1	3.1	3.0	4.7	4.6	25.0	0.4	0.4	3.9	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	7.1	7.1	0.8	8.2	8.5	6.4	3.1	3.3	1.7	5.5	2.3
LnGrp Delay(d),s/veh	50.9	21.6	21.7	39.1	25.6	25.4	57.8	22.6	22.6	39.0	29.8	26.7
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		891			878			585			463	
Approach Delay, s/veh		25.3			26.1			35.9			30.5	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	26.2	7.9	34.5	15.0	20.8	10.4	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0	7.0	28.0	11.0	28.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	5.1	8.2	3.6	15.2	11.3	12.1	6.6	16.8
Green Ext Time (p_c), s	0.0	3.7	0.0	7.1	0.0	3.4	0.0	6.5

Intersection Summary			
HCM 2010 Ctrl Delay			28.6
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	70	420	120	160	480	70	100	530	200	80	380	80
Future Volume (veh/h)	70	420	120	160	480	70	100	530	200	80	380	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	477	136	182	545	80	114	602	0	91	432	91
Adj No. of Lanes	1	1	1	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	687	582	227	1497	667	191	857	383	137	617	129
Arrive On Green	0.07	0.36	0.36	0.13	0.41	0.41	0.11	0.24	0.00	0.08	0.21	0.21
Sat Flow, veh/h	1810	1900	1608	1810	3610	1609	1810	3610	1615	1810	2970	621
Grp Volume(v), veh/h	80	477	136	182	545	80	114	602	0	91	261	262
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1805	1609	1810	1805	1615	1810	1805	1785
Q Serve(g_s), s	3.4	17.2	4.7	7.8	8.3	2.5	4.8	12.2	0.0	3.9	10.7	10.9
Cycle Q Clear(g_c), s	3.4	17.2	4.7	7.8	8.3	2.5	4.8	12.2	0.0	3.9	10.7	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	131	687	582	227	1497	667	191	857	383	137	375	371
V/C Ratio(X)	0.61	0.69	0.23	0.80	0.36	0.12	0.60	0.70	0.00	0.66	0.70	0.71
Avail Cap(c_a), veh/h	203	687	582	293	1497	667	203	1351	604	158	630	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	21.8	17.8	34.1	16.2	14.5	34.2	28.0	0.0	36.1	29.4	29.5
Incr Delay (d2), s/veh	4.5	5.7	0.9	11.4	0.7	0.4	4.3	1.1	0.0	8.2	2.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	10.1	2.2	4.6	4.3	1.2	2.6	6.2	0.0	2.3	5.6	5.6
LnGrp Delay(d),s/veh	40.6	27.5	18.8	45.5	16.9	14.8	38.5	29.0	0.0	44.3	31.8	31.9
LnGrp LOS	D	C	B	D	B	B	D	C		D	C	C
Approach Vol, veh/h		693			807			716			614	
Approach Delay, s/veh		27.3			23.1			30.6			33.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	23.0	14.1	33.0	12.4	20.7	9.8	37.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	9.0	28.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	5.9	14.2	9.8	19.2	6.8	12.9	5.4	10.3
Green Ext Time (p_c), s	0.0	3.5	0.4	2.2	0.9	2.4	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	400	80	10	420	90	100	360	20	80	340	180
Future Volume (veh/h)	100	400	80	10	420	90	100	360	20	80	340	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	127	506	101	13	532	114	127	456	25	101	430	228
Adj No. of Lanes	1	1	1	1	1	0	2	2	1	1	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	923	782	40	635	136	288	693	306	182	760	338
Arrive On Green	0.09	0.49	0.49	0.02	0.42	0.42	0.08	0.19	0.19	0.10	0.21	0.21
Sat Flow, veh/h	1810	1900	1610	1810	1516	325	3510	3610	1594	1810	3610	1603
Grp Volume(v), veh/h	127	506	101	13	0	646	127	456	25	101	430	228
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1841	1755	1805	1594	1810	1805	1603
Q Serve(g_s), s	5.5	15.0	2.8	0.6	0.0	25.2	2.8	9.4	0.9	4.3	8.6	10.5
Cycle Q Clear(g_c), s	5.5	15.0	2.8	0.6	0.0	25.2	2.8	9.4	0.9	4.3	8.6	10.5
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	160	923	782	40	0	772	288	693	306	182	760	338
V/C Ratio(X)	0.79	0.55	0.13	0.33	0.00	0.84	0.44	0.66	0.08	0.55	0.57	0.68
Avail Cap(c_a), veh/h	203	996	844	158	0	919	307	1261	557	182	1261	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	14.4	11.3	38.6	0.0	20.8	35.0	29.9	19.2	34.3	28.4	29.1
Incr Delay (d2), s/veh	15.1	0.5	0.1	4.7	0.0	5.9	1.1	1.1	0.1	3.6	0.7	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	7.9	1.2	0.3	0.0	14.0	1.4	4.8	0.4	2.3	4.3	4.9
LnGrp Delay(d),s/veh	50.9	15.0	11.4	43.3	0.0	26.8	36.1	31.0	19.3	38.0	29.0	31.5
LnGrp LOS	D	B	B	D		C	D	C	B	D	C	C
Approach Vol, veh/h		734			659			608			759	
Approach Delay, s/veh		20.7			27.1			31.6			31.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	19.4	5.8	42.9	10.6	20.9	11.1	37.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	9.0	40.0
Max Q Clear Time (g_c+I1), s	6.3	11.4	2.6	17.0	4.8	12.5	7.5	27.2
Green Ext Time (p_c), s	0.3	2.5	0.0	7.8	0.1	3.1	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	27.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	160	590	80	80	1280	120	70	260	20	130	270	220
Future Volume (veh/h)	160	590	80	80	1280	120	70	260	20	130	270	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	176	648	88	88	1407	132	77	286	22	143	297	242
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	212	1697	757	131	2052	193	243	557	43	367	720	319
Arrive On Green	0.12	0.47	0.47	0.07	0.43	0.43	0.07	0.16	0.16	0.10	0.20	0.20
Sat Flow, veh/h	1810	3610	1610	1810	4824	453	3510	3397	260	3510	3610	1603
Grp Volume(v), veh/h	176	648	88	88	1009	530	77	151	157	143	297	242
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1818	1755	1805	1851	1755	1805	1603
Q Serve(g_s), s	8.1	9.8	2.6	4.0	20.0	20.0	1.8	6.5	6.5	3.2	6.1	8.9
Cycle Q Clear(g_c), s	8.1	9.8	2.6	4.0	20.0	20.0	1.8	6.5	6.5	3.2	6.1	8.9
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	212	1697	757	131	1471	774	243	296	304	367	720	319
V/C Ratio(X)	0.83	0.38	0.12	0.67	0.69	0.69	0.32	0.51	0.52	0.39	0.41	0.76
Avail Cap(c_a), veh/h	214	1697	757	235	1471	774	290	875	897	367	1749	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	14.5	12.6	38.3	19.7	19.7	37.5	32.3	32.3	35.4	29.6	17.3
Incr Delay (d2), s/veh	23.3	0.7	0.3	5.9	2.6	4.9	0.7	1.4	1.4	0.7	0.4	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	5.0	1.2	2.2	10.1	11.1	0.9	3.3	3.5	1.6	3.0	4.8
LnGrp Delay(d),s/veh	59.8	15.1	12.9	44.2	22.3	24.6	38.2	33.6	33.7	36.0	29.9	21.0
LnGrp LOS	E	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		912			1627			385			682	
Approach Delay, s/veh		23.5			24.3			34.6			28.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	17.9	10.1	43.8	9.9	20.9	13.9	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	11.0	35.0	7.0	41.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	10.2	8.5	6.0	11.8	3.8	10.9	10.1	22.0
Green Ext Time (p_c), s	0.7	1.9	0.1	4.9	0.0	3.0	0.0	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	630	70	90	1300	120	70	210	30	130	180	100
Future Volume (veh/h)	60	630	70	90	1300	120	70	210	30	130	180	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	685	0	98	1413	130	76	228	33	141	196	109
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1512	676	155	2161	199	154	526	75	179	408	217
Arrive On Green	0.06	0.42	0.00	0.09	0.45	0.45	0.09	0.17	0.17	0.10	0.18	0.18
Sat Flow, veh/h	1810	3610	1615	1810	4833	445	1810	3168	452	1810	2272	1208
Grp Volume(v), veh/h	65	685	0	98	1011	532	76	129	132	141	154	151
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1820	1810	1805	1815	1810	1805	1675
Q Serve(g_s), s	2.4	9.4	0.0	3.6	15.8	15.8	2.8	4.4	4.6	5.3	5.3	5.6
Cycle Q Clear(g_c), s	2.4	9.4	0.0	3.6	15.8	15.8	2.8	4.4	4.6	5.3	5.3	5.6
Prop In Lane	1.00		1.00	1.00		0.24	1.00		0.25	1.00		0.72
Lane Grp Cap(c), veh/h	104	1512	676	155	1546	814	154	299	301	179	324	300
V/C Ratio(X)	0.63	0.45	0.00	0.63	0.65	0.65	0.49	0.43	0.44	0.79	0.48	0.50
Avail Cap(c_a), veh/h	183	1512	676	261	1546	814	235	1094	1100	235	1094	1015
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	14.5	0.0	30.6	15.0	15.0	30.3	26.0	26.0	30.5	25.5	25.7
Incr Delay (d2), s/veh	6.1	1.0	0.0	4.2	2.2	4.1	2.4	1.0	1.0	12.4	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.9	0.0	2.0	7.9	8.8	1.5	2.3	2.4	3.2	2.7	2.7
LnGrp Delay(d),s/veh	38.0	15.4	0.0	34.8	17.1	19.0	32.7	26.9	27.0	42.9	26.6	27.0
LnGrp LOS	D	B		C	B	B	C	C	C	D	C	C
Approach Vol, veh/h		750			1641			337			446	
Approach Delay, s/veh		17.4			18.8			28.3			31.9	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	15.5	9.9	33.0	9.9	16.4	8.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	42.0	10.0	28.0	9.0	42.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	7.3	6.6	5.6	11.4	4.8	7.6	4.4	17.8
Green Ext Time (p_c), s	0.1	1.8	0.1	4.0	0.6	1.9	0.1	7.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	90	540	60	30	1200	140	160	480	40	140	330	190
Future Volume (veh/h)	90	540	60	30	1200	140	160	480	40	140	330	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	587	65	33	1304	152	174	522	43	152	359	207
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	2099	860	138	1906	222	234	800	66	155	697	433
Arrive On Green	0.08	0.40	0.40	0.08	0.40	0.40	0.13	0.24	0.24	0.09	0.19	0.19
Sat Flow, veh/h	1810	5187	1609	1810	4710	549	1810	3377	277	1810	3610	1602
Grp Volume(v), veh/h	98	587	65	33	957	499	174	278	287	152	359	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1801	1810	1805	1849	1810	1805	1602
Q Serve(g_s), s	4.3	6.2	0.0	1.4	18.6	18.6	7.6	11.4	11.4	6.8	7.3	5.5
Cycle Q Clear(g_c), s	4.3	6.2	0.0	1.4	18.6	18.6	7.6	11.4	11.4	6.8	7.3	5.5
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	138	2099	860	138	1399	729	234	428	438	155	697	433
V/C Ratio(X)	0.71	0.28	0.08	0.24	0.68	0.68	0.74	0.65	0.65	0.98	0.51	0.48
Avail Cap(c_a), veh/h	155	2099	860	155	1399	729	234	930	952	155	1859	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	16.3	9.2	35.4	20.0	20.0	34.2	28.1	28.1	37.2	29.5	11.1
Incr Delay (d2), s/veh	12.2	0.3	0.2	0.9	2.7	5.2	12.0	1.7	1.7	65.6	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.0	0.7	0.7	9.3	10.2	4.5	5.8	6.0	6.2	3.7	2.6
LnGrp Delay(d),s/veh	48.9	16.6	9.4	36.3	22.7	25.2	46.2	29.8	29.8	102.8	30.1	11.9
LnGrp LOS	D	B	A	D	C	C	D	C	C	F	C	B
Approach Vol, veh/h		750			1489			739			718	
Approach Delay, s/veh		20.2			23.8			33.6			40.2	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	23.3	10.2	37.0	14.6	19.8	10.2	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	8.8	13.4	3.4	8.2	9.6	9.3	6.3	20.6
Green Ext Time (p_c), s	0.0	3.2	2.6	4.0	0.0	3.3	0.0	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	500	90	80	1100	40	130	280	80	80	220	100
Future Volume (veh/h)	60	500	90	80	1100	40	130	280	80	80	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	543	98	87	1196	43	141	304	87	87	239	109
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	1779	315	153	2134	77	178	568	160	160	473	209
Arrive On Green	0.07	0.40	0.40	0.08	0.42	0.42	0.10	0.20	0.20	0.09	0.19	0.19
Sat Flow, veh/h	1810	4431	785	1810	5140	185	1810	2779	781	1810	2432	1074
Grp Volume(v), veh/h	65	422	219	87	805	434	141	196	195	87	175	173
Grp Sat Flow(s),veh/h/ln	1810	1729	1758	1810	1729	1867	1810	1805	1755	1810	1805	1701
Q Serve(g_s), s	2.5	6.0	6.2	3.3	12.8	12.8	5.5	7.0	7.2	3.3	6.3	6.6
Cycle Q Clear(g_c), s	2.5	6.0	6.2	3.3	12.8	12.8	5.5	7.0	7.2	3.3	6.3	6.6
Prop In Lane	1.00		0.45	1.00		0.10	1.00		0.45	1.00		0.63
Lane Grp Cap(c), veh/h	128	1388	706	153	1436	775	178	369	359	160	351	331
V/C Ratio(X)	0.51	0.30	0.31	0.57	0.56	0.56	0.79	0.53	0.54	0.54	0.50	0.52
Avail Cap(c_a), veh/h	175	1388	706	200	1436	775	200	1099	1069	200	1099	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	14.7	14.8	31.8	16.1	16.1	31.9	25.6	25.7	31.5	26.0	26.1
Incr Delay (d2), s/veh	3.1	0.6	1.1	3.3	1.6	2.9	17.5	1.2	1.3	2.9	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.0	3.2	1.8	6.4	7.1	3.6	3.6	3.6	1.8	3.2	3.2
LnGrp Delay(d),s/veh	35.5	15.3	15.9	35.1	17.7	19.0	49.4	26.8	27.0	34.4	27.1	27.4
LnGrp LOS	D	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		706			1326			532			435	
Approach Delay, s/veh		17.4			19.3			32.9			28.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	18.8	10.1	33.0	11.1	18.1	9.1	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	44.0	8.0	29.0	8.0	44.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	5.3	9.2	5.3	8.2	7.5	8.6	4.5	14.8
Green Ext Time (p_c), s	0.2	2.5	1.8	3.7	0.0	2.3	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	110	360	120	120	830	110	220	770	140	150	620	240
Future Volume (veh/h)	110	360	120	120	830	110	220	770	140	150	620	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	404	135	135	933	124	247	865	157	169	697	270
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	278	1279	570	243	1595	211	264	1131	503	183	969	431
Arrive On Green	0.08	0.35	0.35	0.07	0.34	0.34	0.15	0.31	0.31	0.10	0.27	0.27
Sat Flow, veh/h	3510	3610	1608	3510	4633	614	1810	3610	1607	1810	3610	1606
Grp Volume(v), veh/h	124	404	135	135	696	361	247	865	157	169	697	270
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1789	1810	1805	1607	1810	1805	1606
Q Serve(g_s), s	3.3	8.0	3.8	3.7	16.3	16.4	13.3	21.4	5.7	9.1	17.3	14.6
Cycle Q Clear(g_c), s	3.3	8.0	3.8	3.7	16.3	16.4	13.3	21.4	5.7	9.1	17.3	14.6
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	1279	570	243	1190	616	264	1131	503	183	969	431
V/C Ratio(X)	0.45	0.32	0.24	0.56	0.58	0.59	0.93	0.76	0.31	0.92	0.72	0.63
Avail Cap(c_a), veh/h	284	1279	570	249	1190	616	264	1535	683	183	1426	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	23.2	9.4	44.5	26.6	26.6	41.7	30.6	15.8	44.0	32.7	31.8
Incr Delay (d2), s/veh	1.1	0.6	1.0	2.6	2.1	4.1	38.2	1.6	0.3	44.9	1.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.1	2.5	1.9	8.1	8.7	9.5	10.8	3.0	6.8	8.8	6.6
LnGrp Delay(d),s/veh	44.5	23.8	10.4	47.1	28.7	30.7	79.9	32.2	16.1	88.9	33.8	33.3
LnGrp LOS	D	C	B	D	C	C	E	C	B	F	C	C
Approach Vol, veh/h		663			1192			1269			1136	
Approach Delay, s/veh		25.0			31.4			39.5			41.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	34.9	10.8	39.0	18.4	30.5	11.8	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	42.0	7.0	35.0	13.0	39.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	11.1	23.4	5.7	10.0	15.3	19.3	5.3	18.4
Green Ext Time (p_c), s	0.0	6.1	0.0	3.3	0.0	5.4	0.9	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

	↗	→	←	↖	↘	↙
Movement	**EBL**	**EBT**	**WBT**	**WBR**	**SBL**	**SBR**
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	180	1220	2000	170	170	120
Future Volume (veh/h)	180	1220	2000	170	170	120
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	191	1298	2128	181	181	128
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	267	3912	2806	1055	403	424
Arrive On Green	0.15	0.75	0.54	0.54	0.11	0.11
Sat Flow, veh/h	1810	5358	5358	1608	3510	1615
Grp Volume(v), veh/h	191	1298	2128	181	181	128
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1608	1755	1615
Q Serve(g_s), s	6.1	5.0	19.5	2.7	2.9	0.0
Cycle Q Clear(g_c), s	6.1	5.0	19.5	2.7	2.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	267	3912	2806	1055	403	424
V/C Ratio(X)	0.72	0.33	0.76	0.17	0.45	0.30
Avail Cap(c_a), veh/h	267	3912	2806	1055	1784	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	2.5	10.9	4.1	25.2	18.0
Incr Delay (d2), s/veh	8.8	0.2	2.0	0.4	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.4	9.6	1.7	1.5	2.2
LnGrp Delay(d),s/veh	33.6	2.7	12.9	4.4	26.0	18.4
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		1489	2309		309	
Approach Delay, s/veh		6.6	12.2		22.9	
Approach LOS		A	B		C	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		11.0	13.0	37.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	9.0	33.0
Max Q Clear Time (g_c+I1), s				7.0		4.9	8.1	21.5
Green Ext Time (p_c), s				11.5		1.0	0.7	9.4

Intersection Summary			
HCM 2010 Ctrl Delay			11.0
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	1090	210	20	1850	90	180	60	10	90	70	90
Future Volume (veh/h)	110	1090	210	20	1850	90	180	60	10	90	70	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1147	0	21	1947	95	189	63	11	95	74	95
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	2585	805	149	2525	123	309	395	67	157	458	336
Arrive On Green	0.08	0.50	0.00	0.08	0.50	0.50	0.09	0.13	0.13	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1615	1810	5067	247	3510	3081	524	1810	3610	1596
Grp Volume(v), veh/h	116	1147	0	21	1327	715	189	36	38	95	74	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1856	1755	1805	1800	1810	1805	1596
Q Serve(g_s), s	4.9	11.1	0.0	0.8	24.5	24.6	4.1	1.4	1.5	4.0	1.4	0.0
Cycle Q Clear(g_c), s	4.9	11.1	0.0	0.8	24.5	24.6	4.1	1.4	1.5	4.0	1.4	0.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	149	2585	805	149	1723	925	309	232	231	157	458	336
V/C Ratio(X)	0.78	0.44	0.00	0.14	0.77	0.77	0.61	0.16	0.16	0.61	0.16	0.28
Avail Cap(c_a), veh/h	162	2585	805	162	1723	925	359	830	828	162	1614	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	12.6	0.0	33.3	16.0	16.0	34.4	30.3	30.4	34.5	30.4	26.0
Incr Delay (d2), s/veh	19.8	0.6	0.0	0.4	3.4	6.2	2.3	0.3	0.3	6.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.4	0.0	0.4	12.4	14.1	2.1	0.7	0.7	2.2	0.7	1.8
LnGrp Delay(d),s/veh	55.0	13.2	0.0	33.8	19.4	22.3	36.7	30.7	30.7	40.5	30.6	26.5
LnGrp LOS	E	B		C	B	C	D	C	C	D	C	C
Approach Vol, veh/h		1263			2063			263			264	
Approach Delay, s/veh		17.0			20.5			35.0			32.7	
Approach LOS		B			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	14.0	10.4	43.0	10.9	13.9	10.4	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	8.0	35.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	6.0	3.5	2.8	13.1	6.1	3.4	6.9	26.6
Green Ext Time (p_c), s	0.1	0.4	0.1	8.0	0.2	0.8	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	90	620	450	20	1140	110	650	490	10	60	280	100
Future Volume (veh/h)	90	620	450	20	1140	110	650	490	10	60	280	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	674	489	22	1239	120	707	533	11	65	304	109
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	110	1581	1062	56	1356	131	777	1228	25	96	448	157
Arrive On Green	0.06	0.44	0.44	0.03	0.41	0.41	0.22	0.34	0.34	0.05	0.17	0.17
Sat Flow, veh/h	1810	3610	1609	1810	3326	321	3510	3617	75	1810	2615	918
Grp Volume(v), veh/h	98	674	489	22	671	688	707	266	278	65	208	205
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1842	1755	1805	1886	1810	1805	1728
Q Serve(g_s), s	6.2	14.9	3.3	1.4	40.4	40.7	22.6	13.1	13.2	4.1	12.4	12.9
Cycle Q Clear(g_c), s	6.2	14.9	3.3	1.4	40.4	40.7	22.6	13.1	13.2	4.1	12.4	12.9
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.04	1.00		0.53
Lane Grp Cap(c), veh/h	110	1581	1062	56	736	751	777	613	640	96	309	296
V/C Ratio(X)	0.89	0.43	0.46	0.40	0.91	0.92	0.91	0.43	0.43	0.68	0.67	0.69
Avail Cap(c_a), veh/h	110	1581	1062	110	736	751	792	783	818	157	532	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	22.4	3.9	54.8	32.2	32.3	43.8	29.5	29.5	53.6	44.7	44.9
Incr Delay (d2), s/veh	53.4	0.8	1.4	4.5	17.5	17.8	14.4	0.5	0.5	8.0	2.5	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	7.6	4.9	0.8	23.7	24.3	12.6	6.7	7.0	2.3	6.4	6.4
LnGrp Delay(d),s/veh	107.2	23.2	5.3	59.3	49.7	50.0	58.2	30.0	30.0	61.6	47.2	47.8
LnGrp LOS	F	C	A	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		1261			1381			1251			478	
Approach Delay, s/veh		22.8			50.0			45.9			49.4	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	43.1	7.5	54.5	29.5	23.8	11.0	51.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	50.0	7.0	47.0	26.0	34.0	7.0	47.0
Max Q Clear Time (g_c+I1), s	6.1	15.2	3.4	16.9	24.6	14.9	8.2	42.7
Green Ext Time (p_c), s	0.0	7.1	0.0	6.9	0.9	2.4	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	40.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	40	530	110	60	1020	90	130	400	80	110	270	40
Future Volume (veh/h)	40	530	110	60	1020	90	130	400	80	110	270	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	46	609	126	69	1172	103	149	460	92	126	310	46
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	105	1176	243	130	1372	120	263	679	135	161	538	79
Arrive On Green	0.06	0.39	0.39	0.07	0.41	0.41	0.15	0.23	0.23	0.09	0.17	0.17
Sat Flow, veh/h	1810	2979	615	1810	3357	295	1810	2999	596	1810	3155	463
Grp Volume(v), veh/h	46	369	366	69	629	646	149	276	276	126	176	180
Grp Sat Flow(s),veh/h/ln	1810	1805	1789	1810	1805	1847	1810	1805	1790	1810	1805	1813
Q Serve(g_s), s	1.8	11.4	11.4	2.7	23.2	23.3	5.6	10.2	10.4	5.0	6.6	6.7
Cycle Q Clear(g_c), s	1.8	11.4	11.4	2.7	23.2	23.3	5.6	10.2	10.4	5.0	6.6	6.7
Prop In Lane	1.00		0.34	1.00		0.16	1.00		0.33	1.00		0.26
Lane Grp Cap(c), veh/h	105	713	706	130	737	755	263	409	406	161	308	309
V/C Ratio(X)	0.44	0.52	0.52	0.53	0.85	0.86	0.57	0.67	0.68	0.78	0.57	0.58
Avail Cap(c_a), veh/h	172	713	706	197	737	755	263	688	683	222	713	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	16.9	16.9	32.9	19.7	19.7	29.2	25.9	26.0	32.8	28.0	28.1
Incr Delay (d2), s/veh	2.9	2.7	2.7	3.4	12.0	12.0	2.9	1.9	2.0	11.6	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	6.1	1.5	14.0	14.3	3.0	5.3	5.3	3.0	3.4	3.5
LnGrp Delay(d),s/veh	36.3	19.6	19.6	36.3	31.7	31.7	32.1	27.9	28.0	44.4	29.7	29.8
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		781			1344			701			482	
Approach Delay, s/veh		20.6			32.0			28.8			33.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	20.6	9.3	33.0	14.7	16.5	8.3	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	28.0	8.0	29.0	8.0	29.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	12.4	4.7	13.4	7.6	8.7	3.8	25.3
Green Ext Time (p_c), s	0.1	3.0	2.2	3.6	0.0	2.0	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	110	490	130	60	780	100	240	760	90	90	550	140
Future Volume (veh/h)	110	490	130	60	780	100	240	760	90	90	550	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	563	149	69	897	115	276	874	103	103	632	161
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1084	286	117	1160	149	143	1378	162	143	1211	303
Arrive On Green	0.09	0.38	0.38	0.06	0.36	0.36	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2825	745	1810	3218	413	1810	4705	552	1810	4134	1035
Grp Volume(v), veh/h	126	359	353	69	503	509	276	641	336	103	527	266
Grp Sat Flow(s),veh/h/ln	1810	1805	1765	1810	1805	1825	1810	1729	1799	1810	1729	1711
Q Serve(g_s), s	6.1	13.6	13.7	3.3	21.9	21.9	7.0	14.3	14.4	4.9	11.3	11.6
Cycle Q Clear(g_c), s	6.1	13.6	13.7	3.3	21.9	21.9	7.0	14.3	14.4	4.9	11.3	11.6
Prop In Lane	1.00		0.42	1.00		0.23	1.00		0.31	1.00		0.60
Lane Grp Cap(c), veh/h	159	692	677	117	651	658	143	1013	527	143	1013	501
V/C Ratio(X)	0.79	0.52	0.52	0.59	0.77	0.77	1.93	0.63	0.64	0.72	0.52	0.53
Avail Cap(c_a), veh/h	183	692	677	143	651	658	143	1013	527	143	1013	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	21.1	21.1	40.4	25.2	25.2	40.9	27.3	27.3	39.9	26.2	26.3
Incr Delay (d2), s/veh	18.6	2.8	2.9	4.7	8.7	8.6	445.2	3.0	5.8	16.3	1.9	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	7.3	7.2	1.8	12.5	12.6	21.1	7.2	7.9	3.1	5.6	6.0
LnGrp Delay(d),s/veh	58.3	23.8	23.9	45.1	33.9	33.8	486.1	30.3	33.1	56.3	28.1	30.3
LnGrp LOS	E	C	C	D	C	C	F	C	C	E	C	C
Approach Vol, veh/h		838			1081			1253			896	
Approach Delay, s/veh		29.1			34.6			131.4			32.0	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	9.7	38.1	11.0	30.0	11.8	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.9	16.4	5.3	15.7	9.0	13.6	8.1	23.9
Green Ext Time (p_c), s	0.0	4.1	0.0	4.0	0.0	3.9	0.1	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	62.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	150	990	150	90	1880	430	470	550	60	100	80	110
Future Volume (veh/h)	150	990	150	90	1880	430	470	550	60	100	80	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1031	156	94	1958	448	490	573	62	104	83	115
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	2388	741	252	2346	728	522	762	800	259	491	217
Arrive On Green	0.08	0.46	0.46	0.07	0.45	0.45	0.15	0.21	0.21	0.07	0.14	0.14
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2822	3510	3610	1597
Grp Volume(v), veh/h	156	1031	156	94	1958	448	490	573	62	104	83	115
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1411	1755	1805	1597
Q Serve(g_s), s	7.0	11.7	2.8	2.2	29.0	18.5	12.1	13.0	1.4	2.5	1.8	4.7
Cycle Q Clear(g_c), s	7.0	11.7	2.8	2.2	29.0	18.5	12.1	13.0	1.4	2.5	1.8	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	2388	741	252	2346	728	522	762	800	259	491	217
V/C Ratio(X)	1.08	0.43	0.21	0.37	0.83	0.62	0.94	0.75	0.08	0.40	0.17	0.53
Avail Cap(c_a), veh/h	145	2388	741	281	2373	736	522	1858	1657	281	1858	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	15.9	4.3	38.7	21.1	18.2	36.8	32.3	23.0	38.7	33.4	22.6
Incr Delay (d2), s/veh	96.7	0.1	0.1	0.9	2.7	1.5	25.1	1.5	0.0	1.0	0.2	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	5.6	2.0	1.1	14.4	8.5	7.7	6.6	0.6	1.2	0.9	2.5
LnGrp Delay(d),s/veh	137.0	16.0	4.5	39.6	23.8	19.7	61.9	33.9	23.0	39.7	33.6	24.6
LnGrp LOS	F	B	A	D	C	B	E	C	C	D	C	C
Approach Vol, veh/h		1343			2500			1125			302	
Approach Delay, s/veh		28.7			23.6			45.5			32.2	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	22.4	10.3	44.2	17.0	15.9	11.0	43.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	4.5	15.0	4.2	13.7	14.1	6.7	9.0	31.0
Green Ext Time (p_c), s	0.1	3.4	0.1	23.6	0.0	0.8	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	760	340	0	2230	0	0	0	0	200	0	250
Future Volume (veh/h)	0	760	340	0	2230	0	0	0	0	200	0	250
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	0.90
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	784	351	0	2299	0				294	0	163
Adj No. of Lanes	0	3	0	0	3	0				2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2300	1023	0	3392	0				624	0	251
Arrive On Green	0.00	0.65	0.65	0.00	0.65	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3689	1564	0	5529	0				3619	0	1454
Grp Volume(v), veh/h	0	771	364	0	2299	0				294	0	163
Grp Sat Flow(s),veh/h/ln	0	1729	1624	0	1729	0				1810	0	1454
Q Serve(g_s), s	0.0	4.6	4.6	0.0	12.7	0.0				3.4	0.0	4.8
Cycle Q Clear(g_c), s	0.0	4.6	4.6	0.0	12.7	0.0				3.4	0.0	4.8
Prop In Lane	0.00		0.96	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2261	1062	0	3392	0				624	0	251
V/C Ratio(X)	0.00	0.34	0.34	0.00	0.68	0.00				0.47	0.00	0.65
Avail Cap(c_a), veh/h	0	2328	1093	0	3492	0				1258	0	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.5	3.6	0.0	5.0	0.0				17.2	0.0	17.8
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.5	0.0				0.6	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.2	2.1	0.0	5.9	0.0				1.7	0.0	2.1
LnGrp Delay(d),s/veh	0.0	3.6	3.7	0.0	5.5	0.0				17.7	0.0	20.6
LnGrp LOS		A	A		A					B		C
Approach Vol, veh/h		1135			2299						457	
Approach Delay, s/veh		3.7			5.5						18.7	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				34.1		11.9		34.1
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				31.0		16.0		31.0
Max Q Clear Time (g_c+I1), s				6.6		6.8		14.7
Green Ext Time (p_c), s				22.5		1.1		15.4

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✣	↱			
Traffic Volume (veh/h)	70	900	0	0	1710	120	890	10	170	0	0	0
Future Volume (veh/h)	70	900	0	0	1710	120	890	10	170	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	72	928	0	0	1763	124	976	0	120			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	142	2907	0	0	2077	146	1142	0	509			
Arrive On Green	0.08	0.56	0.00	0.00	0.42	0.42	0.32	0.00	0.32			
Sat Flow, veh/h	1810	5358	0	0	5119	347	3619	0	1615			
Grp Volume(v), veh/h	72	928	0	0	1231	656	976	0	120			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1837	1810	0	1615			
Q Serve(g_s), s	2.5	6.2	0.0	0.0	20.7	20.8	16.3	0.0	3.5			
Cycle Q Clear(g_c), s	2.5	6.2	0.0	0.0	20.7	20.8	16.3	0.0	3.5			
Prop In Lane	1.00		0.00	0.00		0.19	1.00		1.00			
Lane Grp Cap(c), veh/h	142	2907	0	0	1452	771	1142	0	509			
V/C Ratio(X)	0.51	0.32	0.00	0.00	0.85	0.85	0.85	0.00	0.24			
Avail Cap(c_a), veh/h	196	3137	0	0	1502	798	1291	0	576			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.5	7.6	0.0	0.0	16.9	16.9	20.7	0.0	16.3			
Incr Delay (d2), s/veh	2.8	0.1	0.0	0.0	4.6	8.5	5.3	0.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.3	2.9	0.0	0.0	10.7	12.2	9.0	0.0	1.6			
LnGrp Delay(d),s/veh	31.3	7.6	0.0	0.0	21.5	25.4	26.0	0.0	16.6			
LnGrp LOS	C	A			C	C	C		B			
Approach Vol, veh/h		1000			1887			1096				
Approach Delay, s/veh		9.3			22.8			25.0				
Approach LOS		A			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		24.3		40.1			9.1	31.1
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		23.0		39.0			7.0	28.0
Max Q Clear Time (g_c+I1), s		18.3		8.2			4.5	22.8
Green Ext Time (p_c), s		2.0		7.2			1.5	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	250	900	40	20	1460	160	160	480	20	30	30	200
Future Volume (veh/h)	250	900	40	20	1460	160	160	480	20	30	30	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	263	947	42	21	1537	0	168	505	21	32	32	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	339	2021	90	58	1839	823	469	620	277	75	286	128
Arrive On Green	0.10	0.57	0.57	0.03	0.51	0.00	0.13	0.17	0.17	0.04	0.08	0.00
Sat Flow, veh/h	3510	3521	156	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	263	485	504	21	1537	0	168	505	21	32	32	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1872	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.5	13.8	13.8	1.0	32.1	0.0	3.8	11.9	0.8	1.5	0.7	0.0
Cycle Q Clear(g_c), s	6.5	13.8	13.8	1.0	32.1	0.0	3.8	11.9	0.8	1.5	0.7	0.0
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	1036	1074	58	1839	823	469	620	277	75	286	128
V/C Ratio(X)	0.78	0.47	0.47	0.36	0.84	0.00	0.36	0.81	0.08	0.43	0.11	0.00
Avail Cap(c_a), veh/h	358	1036	1074	143	1839	823	469	736	329	143	736	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.0	11.0	11.0	41.9	18.5	0.0	34.8	35.2	22.3	41.3	37.8	0.0
Incr Delay (d2), s/veh	9.8	1.5	1.5	3.8	4.7	0.0	0.5	6.0	0.1	3.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	7.3	7.6	0.6	17.0	0.0	1.9	6.4	0.4	0.8	0.4	0.0
LnGrp Delay(d),s/veh	48.8	12.5	12.4	45.7	23.2	0.0	35.3	41.3	22.4	45.2	38.0	0.0
LnGrp LOS	D	B	B	D	C		D	D	C	D	D	
Approach Vol, veh/h		1252			1558			694			64	
Approach Delay, s/veh		20.1			23.5			39.2			41.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	19.2	6.8	54.7	15.8	11.0	12.5	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	9.0	45.0
Max Q Clear Time (g_c+I1), s	3.5	13.9	3.0	15.8	5.8	2.7	8.5	34.1
Green Ext Time (p_c), s	0.0	1.3	0.0	7.7	0.1	0.1	0.1	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	140	820	40	20	1360	130	40	80	20	60	20	100
Future Volume (veh/h)	140	820	40	20	1360	130	40	80	20	60	20	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	863	42	21	1432	137	42	84	21	63	21	105
Adj No. of Lanes	1	3	0	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	2887	140	135	1959	872	259	283	71	285	53	264
Arrive On Green	0.10	0.57	0.57	0.07	0.54	0.54	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	5067	246	1810	3610	1608	1278	1466	366	1302	274	1371
Grp Volume(v), veh/h	147	588	317	21	1432	137	42	0	105	63	0	126
Grp Sat Flow(s),veh/h/ln	1810	1729	1855	1810	1805	1608	1278	0	1832	1302	0	1645
Q Serve(g_s), s	5.9	6.5	6.5	0.8	22.2	3.1	2.2	0.0	3.6	3.2	0.0	4.9
Cycle Q Clear(g_c), s	5.9	6.5	6.5	0.8	22.2	3.1	7.1	0.0	3.6	6.8	0.0	4.9
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.20	1.00		0.83
Lane Grp Cap(c), veh/h	184	1970	1057	135	1959	872	259	0	353	285	0	317
V/C Ratio(X)	0.80	0.30	0.30	0.16	0.73	0.16	0.16	0.00	0.30	0.22	0.00	0.40
Avail Cap(c_a), veh/h	221	1970	1057	172	1959	872	775	0	1093	811	0	982
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	8.2	8.2	31.9	12.8	8.4	29.1	0.0	25.5	28.4	0.0	26.0
Incr Delay (d2), s/veh	15.6	0.4	0.7	0.5	2.4	0.4	0.3	0.0	0.5	0.4	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.2	3.6	0.4	11.6	1.5	0.8	0.0	1.9	1.2	0.0	2.3
LnGrp Delay(d),s/veh	48.0	8.6	9.0	32.5	15.2	8.8	29.4	0.0	25.9	28.8	0.0	26.8
LnGrp LOS	D	A	A	C	B	A	C		C	C		C
Approach Vol, veh/h		1052			1590			147			189	
Approach Delay, s/veh		14.2			14.9			26.9			27.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		18.2	9.5	46.0		18.2	11.5	44.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	42.0		44.0	9.0	40.0
Max Q Clear Time (g_c+I1), s		9.1	2.8	8.5		8.8	7.9	24.2
Green Ext Time (p_c), s		1.8	0.1	6.1		1.8	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
71: Elsworth St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	30	760	100	100	1330	60	110	120	50	40	120	50
Future Volume (veh/h)	30	760	100	100	1330	60	110	120	50	40	120	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	800	105	105	1400	63	116	126	53	42	126	53
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	1964	256	164	2228	100	169	286	240	171	288	243
Arrive On Green	0.08	0.42	0.42	0.09	0.44	0.44	0.09	0.15	0.15	0.09	0.15	0.15
Sat Flow, veh/h	1810	4643	606	1810	5087	229	1810	1900	1599	1810	1900	1599
Grp Volume(v), veh/h	32	595	310	105	952	511	116	126	53	42	126	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1791	1810	1729	1858	1810	1900	1599	1810	1900	1599
Q Serve(g_s), s	1.1	7.9	8.0	3.7	14.1	14.1	4.1	4.0	1.9	1.4	4.0	1.5
Cycle Q Clear(g_c), s	1.1	7.9	8.0	3.7	14.1	14.1	4.1	4.0	1.9	1.4	4.0	1.5
Prop In Lane	1.00		0.34	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	1463	757	164	1515	814	169	286	240	171	288	243
V/C Ratio(X)	0.23	0.41	0.41	0.64	0.63	0.63	0.69	0.44	0.22	0.25	0.44	0.22
Avail Cap(c_a), veh/h	191	1463	757	219	1515	814	191	1177	990	191	1177	990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	13.3	13.3	29.1	14.4	14.4	29.1	25.6	24.7	27.8	25.5	14.6
Incr Delay (d2), s/veh	0.9	0.8	1.6	4.2	2.0	3.7	8.5	1.1	0.5	0.7	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.0	4.3	2.0	7.2	8.1	2.5	2.2	0.9	0.7	2.2	0.8
LnGrp Delay(d),s/veh	29.7	14.2	15.0	33.2	16.4	18.1	37.6	26.7	25.2	28.5	26.6	15.0
LnGrp LOS	C	B	B	C	B	B	D	C	C	C	C	B
Approach Vol, veh/h		937			1568			295			221	
Approach Delay, s/veh		15.0			18.1			30.7			24.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	14.0	10.0	32.0	10.2	14.0	9.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	8.0	28.0	7.0	41.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.4	6.0	5.7	10.0	6.1	6.0	3.1	16.1
Green Ext Time (p_c), s	0.3	0.9	0.1	5.2	0.0	1.0	0.1	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↳	
Traffic Volume (veh/h)	0	350	30	600	1260	0	0	0	0	0	0	250
Future Volume (veh/h)	0	350	30	600	1260	0	0	0	0	0	0	250
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	393	34	674	1416	0				0	0	281
Adj No. of Lanes	0	2	1	1	2	0				0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	686	303	1321	3466	0				0	0	0
Arrive On Green	0.00	0.19	0.19	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3705	1594	1810	3705	0					0	
Grp Volume(v), veh/h	0	393	34	674	1416	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	1594	1810	1805	0						
Q Serve(g_s), s	0.0	9.9	1.8	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	9.9	1.8	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	686	303	1321	3466	0						
V/C Ratio(X)	0.00	0.57	0.11	0.51	0.41	0.00						
Avail Cap(c_a), veh/h	0	686	303	1321	3466	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	36.8	33.5	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	3.5	0.8	0.0	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	5.2	0.8	0.0	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	40.3	34.3	0.0	0.0	0.0						
LnGrp LOS		D	C	A	A							
Approach Vol, veh/h		427			2090							
Approach Delay, s/veh		39.8			0.0							
Approach LOS		D			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			77.0	23.0				100.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			48.0	19.0				71.0
Max Q Clear Time (g_c+I1), s			2.0	11.9				2.0
Green Ext Time (p_c), s			18.1	1.3				20.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.8
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	960	20	0	1640	320	420	310	10	50	0	80
Future Volume (veh/h)	20	960	20	0	1640	320	420	310	10	50	0	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	1043	22	0	1783	348	457	337	11	54	0	87
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	2133	45	0	1787	337	460	604	20	260	0	533
Arrive On Green	1.00	1.00	1.00	0.00	0.59	0.59	0.33	0.33	0.33	0.33	0.00	0.33
Sat Flow, veh/h	192	3615	76	0	3124	572	1331	1830	60	1049	0	1615
Grp Volume(v), veh/h	22	521	544	0	1038	1093	457	0	348	54	0	87
Grp Sat Flow(s),veh/h/ln	192	1805	1887	0	1805	1796	1331	0	1889	1049	0	1615
Q Serve(g_s), s	0.0	0.0	0.0	0.0	55.5	59.0	29.2	0.0	15.1	4.5	0.0	3.8
Cycle Q Clear(g_c), s	59.0	0.0	0.0	0.0	55.5	59.0	33.0	0.0	15.1	19.6	0.0	3.8
Prop In Lane	1.00		0.04	0.00		0.32	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	72	1065	1113	0	1065	1060	460	0	624	260	0	533
V/C Ratio(X)	0.31	0.49	0.49	0.00	0.97	1.03	0.99	0.00	0.56	0.21	0.00	0.16
Avail Cap(c_a), veh/h	72	1065	1113	0	1065	1060	460	0	624	260	0	533
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	0.0	0.0	19.8	20.5	37.6	0.0	27.5	35.6	0.0	23.7
Incr Delay (d2), s/veh	9.3	1.4	1.3	0.0	22.2	36.0	39.9	0.0	1.1	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	0.4	0.0	34.0	39.4	17.7	0.0	8.0	1.3	0.0	1.7
LnGrp Delay(d),s/veh	38.8	1.4	1.3	0.0	41.9	56.5	77.5	0.0	28.6	35.9	0.0	23.9
LnGrp LOS	D	A	A		D	F	E		C	D		C
Approach Vol, veh/h		1087			2131			805			141	
Approach Delay, s/veh		2.1			49.4			56.4			28.5	
Approach LOS		A			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		37.0		63.0		37.0		63.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		59.0		33.0		59.0
Max Q Clear Time (g_c+I1), s		35.0		61.0		21.6		61.0
Green Ext Time (p_c), s		0.0		0.0		3.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Traffic Volume (veh/h)	150	1360	320	90	1770	140	30	20	40	100	70	130
Future Volume (veh/h)	150	1360	320	90	1770	140	30	20	40	100	70	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	1462	0	97	1903	151	32	22	43	92	98	140
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	2844	885	158	2734	847	171	54	105	183	192	336
Arrive On Green	0.11	0.55	0.00	0.09	0.53	0.53	0.09	0.09	0.09	0.10	0.10	0.10
Sat Flow, veh/h	1810	5187	1615	1810	5187	1607	1810	569	1113	1810	1900	1591
Grp Volume(v), veh/h	161	1462	0	97	1903	151	32	0	65	92	98	140
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1607	1810	0	1682	1810	1900	1591
Q Serve(g_s), s	8.3	16.8	0.0	4.9	26.0	4.7	1.5	0.0	3.5	4.6	4.6	0.0
Cycle Q Clear(g_c), s	8.3	16.8	0.0	4.9	26.0	4.7	1.5	0.0	3.5	4.6	4.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	196	2844	885	158	2734	847	171	0	159	183	192	336
V/C Ratio(X)	0.82	0.51	0.00	0.61	0.70	0.18	0.19	0.00	0.41	0.50	0.51	0.42
Avail Cap(c_a), veh/h	248	2844	885	210	2734	847	706	0	656	649	681	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	13.5	0.0	41.7	16.7	11.7	39.6	0.0	40.5	40.4	40.4	32.4
Incr Delay (d2), s/veh	15.7	0.7	0.0	3.8	1.5	0.5	0.5	0.0	1.7	2.1	2.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	8.2	0.0	2.6	12.7	2.2	0.8	0.0	1.7	2.4	2.5	3.2
LnGrp Delay(d),s/veh	57.1	14.1	0.0	45.5	18.2	12.2	40.1	0.0	42.2	42.5	42.5	33.2
LnGrp LOS	E	B		D	B	B	D		D	D	D	C
Approach Vol, veh/h		1623			2151			97			330	
Approach Delay, s/veh		18.4			19.0			41.5			38.6	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.9	12.3	56.0		13.6	14.3	54.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	11.0	52.0		34.0	13.0	50.0
Max Q Clear Time (g_c+I1), s		5.5	6.9	18.8		6.6	10.3	28.0
Green Ext Time (p_c), s		0.4	0.3	12.0		1.3	0.2	14.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	720	60	10	610	710	240
Future Volume (veh/h)	720	60	10	610	710	240
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	878	73	12	744	866	293
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1060	88	37	1394	926	859
Arrive On Green	0.31	0.31	0.02	0.39	0.51	0.51
Sat Flow, veh/h	3467	280	1810	3705	1810	1615
Grp Volume(v), veh/h	470	481	12	744	866	293
Grp Sat Flow(s),veh/h/ln	1805	1848	1810	1805	1810	1615
Q Serve(g_s), s	18.9	18.9	0.5	12.5	35.0	8.1
Cycle Q Clear(g_c), s	18.9	18.9	0.5	12.5	35.0	8.1
Prop In Lane		0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	567	581	37	1394	926	859
V/C Ratio(X)	0.83	0.83	0.32	0.53	0.94	0.34
Avail Cap(c_a), veh/h	600	615	162	1709	1042	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	24.8	37.7	18.6	17.9	10.4
Incr Delay (d2), s/veh	9.0	8.8	4.9	0.3	14.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	11.0	0.3	6.3	20.9	3.6
LnGrp Delay(d),s/veh	33.9	33.7	42.6	18.9	31.9	10.7
LnGrp LOS	C	C	D	B	C	B
Approach Vol, veh/h	951			756	1159	
Approach Delay, s/veh	33.8			19.2	26.5	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		44.0	5.6	28.6				34.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		45.0	7.0	26.0				37.0
Max Q Clear Time (g_c+I1), s		37.0	2.5	20.9				14.5
Green Ext Time (p_c), s		2.9	0.0	3.7				10.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	20	750	150	30	270	20	350	350	610	60	30	10
Future Volume (veh/h)	20	750	150	30	270	20	350	350	610	60	30	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	798	160	32	287	21	372	372	649	64	32	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	228	1186	367	159	505	37	689	848	718	124	484	217
Arrive On Green	0.13	0.23	0.23	0.05	0.15	0.15	0.38	0.45	0.45	0.07	0.13	0.00
Sat Flow, veh/h	1810	5187	1604	3510	3408	248	1810	1900	1610	1810	3610	1615
Grp Volume(v), veh/h	21	798	160	32	151	157	372	372	649	64	32	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1604	1755	1805	1851	1810	1900	1610	1810	1805	1615
Q Serve(g_s), s	0.8	10.6	2.4	0.7	5.9	6.0	12.1	10.2	28.3	2.6	0.6	0.0
Cycle Q Clear(g_c), s	0.8	10.6	2.4	0.7	5.9	6.0	12.1	10.2	28.3	2.6	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	1186	367	159	268	274	689	848	718	124	484	217
V/C Ratio(X)	0.09	0.67	0.44	0.20	0.56	0.57	0.54	0.44	0.90	0.52	0.07	0.00
Avail Cap(c_a), veh/h	228	1918	593	324	667	684	689	1054	893	167	1811	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.3	26.6	3.4	34.8	30.0	30.0	18.3	14.4	19.4	34.1	28.6	0.0
Incr Delay (d2), s/veh	0.2	0.7	0.8	0.6	1.9	1.9	0.9	0.4	10.7	3.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.1	2.6	0.3	3.1	3.2	6.2	5.4	14.6	1.4	0.3	0.0
LnGrp Delay(d),s/veh	29.5	27.3	4.2	35.4	31.9	31.9	19.1	14.8	30.2	37.4	28.7	0.0
LnGrp LOS	C	C	A	D	C	C	B	B	C	D	C	
Approach Vol, veh/h		979			340			1393			96	
Approach Delay, s/veh		23.6			32.2			23.1			34.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	37.8	7.4	21.3	32.8	14.2	13.5	15.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	28.0	11.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	14.6	30.3	2.7	12.6	14.1	2.6	2.8	8.0
Green Ext Time (p_c), s	0.0	3.5	0.0	4.7	0.0	0.1	2.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	120	0	60	0	0	0	0	1240	320	240	290	0
Future Volume (veh/h)	120	0	60	0	0	0	0	1240	320	240	290	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	132	0	66				0	1363	352	264	319	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	203	0	319				0	1865	834	600	2723	0
Arrive On Green	0.11	0.00	0.11				0.00	0.52	0.52	0.17	0.75	0.00
Sat Flow, veh/h	1810	0	2842				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	132	0	66				0	1363	352	264	319	0
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1805	1615	1755	1805	0
Q Serve(g_s), s	4.2	0.0	1.3				0.0	17.6	8.1	4.0	1.4	0.0
Cycle Q Clear(g_c), s	4.2	0.0	1.3				0.0	17.6	8.1	4.0	1.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	203	0	319				0	1865	834	600	2723	0
V/C Ratio(X)	0.65	0.00	0.21				0.00	0.73	0.42	0.44	0.12	0.00
Avail Cap(c_a), veh/h	271	0	426				0	1865	834	600	2723	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.76	0.76	0.98	0.98	0.00
Uniform Delay (d), s/veh	25.5	0.0	24.2				0.0	11.3	9.0	22.3	2.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.3				0.0	1.9	1.2	0.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.5				0.0	9.0	3.8	2.0	0.7	0.0
LnGrp Delay(d),s/veh	29.0	0.0	24.5				0.0	13.2	10.1	22.8	2.1	0.0
LnGrp LOS	C		C					B	B	C	A	
Approach Vol, veh/h		198						1715			583	
Approach Delay, s/veh		27.5						12.6			11.5	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			14.3	35.0		10.7		49.3
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			8.0	31.0		9.0		43.0
Max Q Clear Time (g_c+I1), s			6.0	19.6		6.2		3.4
Green Ext Time (p_c), s			0.6	7.2		0.2		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	120	610	1370	0	0	430
Future Volume (veh/h)	120	610	1370	0	0	430
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	133	678	1522	0	0	478
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1463	673	1624	0	0	1624
Arrive On Green	0.42	0.42	0.60	0.00	0.00	0.45
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	133	678	1522	0	0	478
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	1.4	25.0	23.1	0.0	0.0	5.0
Cycle Q Clear(g_c), s	1.4	25.0	23.1	0.0	0.0	5.0
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1463	673	1625	0	0	1625
V/C Ratio(X)	0.09	1.01	0.94	0.00	0.00	0.29
Avail Cap(c_a), veh/h	1463	673	1625	0	0	1625
HCM Platoon Ratio	1.00	1.00	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.70	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.6	17.5	11.3	0.0	0.0	10.5
Incr Delay (d2), s/veh	0.0	36.6	8.8	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	17.9	13.0	0.0	0.0	2.6
LnGrp Delay(d),s/veh	10.6	54.1	20.1	0.0	0.0	10.9
LnGrp LOS	B	F	C			B
Approach Vol, veh/h	811		1522			478
Approach Delay, s/veh	47.0		20.1			10.9
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		31.0				31.0		29.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		27.0				27.0		25.0
Max Q Clear Time (g_c+I1), s		25.1				7.0		27.0
Green Ext Time (p_c), s		1.7				13.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	990	10	140	2520	1550	10
Future Volume (veh/h)	990	10	140	2520	1550	10
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1031	10	146	2625	1624	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1558	15	811	3005	1694	504
Arrive On Green	0.29	0.29	0.23	0.58	0.31	0.00
Sat Flow, veh/h	5468	51	3510	5358	5429	1615
Grp Volume(v), veh/h	673	368	146	2625	1624	0
Grp Sat Flow(s),veh/h/ln	1729	1890	1755	1729	1810	1615
Q Serve(g_s), s	12.6	12.6	2.5	31.8	21.6	0.0
Cycle Q Clear(g_c), s	12.6	12.6	2.5	31.8	21.6	0.0
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1017	556	811	3005	1694	504
V/C Ratio(X)	0.66	0.66	0.18	0.87	0.96	0.00
Avail Cap(c_a), veh/h	1548	846	811	3096	1694	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.8	22.8	22.7	13.2	24.9	0.0
Incr Delay (d2), s/veh	0.7	1.4	0.1	3.0	13.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	6.8	1.2	15.7	12.9	0.0
LnGrp Delay(d),s/veh	23.5	24.2	22.8	16.2	38.3	0.0
LnGrp LOS	C	C	C	B	D	
Approach Vol, veh/h	1041			2771	1624	
Approach Delay, s/veh	23.8			16.5	38.3	
Approach LOS	C			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		27.0	21.0	25.7				46.7
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		23.0	7.0	33.0				44.0
Max Q Clear Time (g_c+I1), s		23.6	4.5	14.6				33.8
Green Ext Time (p_c), s		0.0	2.4	5.8				8.9

Intersection Summary			
HCM 2010 Ctrl Delay			24.4
HCM 2010 LOS			C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	30	930	40	160	2300	120	140	270	220	60	130	30
Future Volume (veh/h)	30	930	40	160	2300	120	140	270	220	60	130	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	1000	43	172	2473	129	151	290	237	65	140	32
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	2294	712	282	2419	125	545	429	363	116	396	88
Arrive On Green	0.04	0.44	0.44	0.08	0.48	0.48	0.16	0.23	0.23	0.06	0.14	0.14
Sat Flow, veh/h	1810	5187	1610	3510	5050	261	3510	1900	1604	1810	2930	652
Grp Volume(v), veh/h	32	1000	43	172	1685	917	151	290	237	65	85	87
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1852	1755	1900	1604	1810	1805	1776
Q Serve(g_s), s	1.5	11.4	0.7	4.1	41.0	41.0	3.2	11.9	11.5	3.0	3.6	3.8
Cycle Q Clear(g_c), s	1.5	11.4	0.7	4.1	41.0	41.0	3.2	11.9	11.5	3.0	3.6	3.8
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	79	2294	712	282	1657	887	545	429	363	116	244	240
V/C Ratio(X)	0.41	0.44	0.06	0.61	1.02	1.03	0.28	0.68	0.65	0.56	0.35	0.36
Avail Cap(c_a), veh/h	148	2303	715	410	1657	887	545	1044	881	190	1034	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	16.5	4.2	38.0	22.3	22.3	31.9	30.3	30.1	38.9	33.6	33.7
Incr Delay (d2), s/veh	3.3	0.1	0.0	2.1	26.5	39.0	0.3	1.9	2.0	4.1	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.4	0.6	2.0	25.4	30.3	1.6	6.5	5.3	1.6	1.9	1.9
LnGrp Delay(d),s/veh	43.2	16.6	4.2	40.2	48.8	61.3	32.2	32.1	32.1	43.0	34.4	34.6
LnGrp LOS	D	B	A	D	F	F	C	C	C	D	C	C
Approach Vol, veh/h		1075			2774			678			237	
Approach Delay, s/veh		16.9			52.4			32.1			36.8	
Approach LOS		B			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	23.3	10.9	41.8	17.3	15.6	7.7	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	47.0	10.0	38.0	7.0	49.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	5.0	13.9	6.1	13.4	5.2	5.8	3.5	43.0
Green Ext Time (p_c), s	0.0	2.6	0.2	6.9	0.6	1.0	2.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	130	640	200	60	450	130	700	930	230	90	280	110
Future Volume (veh/h)	130	640	200	60	450	130	700	930	230	90	280	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	753	235	71	529	153	824	1094	271	106	329	129
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	1045	808	117	791	469	746	1422	739	255	917	626
Arrive On Green	0.14	0.29	0.29	0.06	0.22	0.22	0.21	0.39	0.39	0.07	0.25	0.25
Sat Flow, veh/h	1810	3610	1607	1810	3610	1604	3510	3610	1609	3510	3610	1605
Grp Volume(v), veh/h	153	753	235	71	529	153	824	1094	271	106	329	129
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1604	1755	1805	1609	1755	1805	1605
Q Serve(g_s), s	7.1	16.7	7.6	3.4	12.0	0.1	19.0	23.6	6.1	2.6	6.7	2.0
Cycle Q Clear(g_c), s	7.1	16.7	7.6	3.4	12.0	0.1	19.0	23.6	6.1	2.6	6.7	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	1045	808	117	791	469	746	1422	739	255	917	626
V/C Ratio(X)	0.62	0.72	0.29	0.60	0.67	0.33	1.10	0.77	0.37	0.42	0.36	0.21
Avail Cap(c_a), veh/h	245	1534	1026	142	1413	745	746	2059	1022	314	1615	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	28.5	13.0	40.7	31.9	24.8	35.2	23.6	6.7	39.6	27.4	6.6
Incr Delay (d2), s/veh	4.9	1.0	0.2	5.0	1.0	0.4	65.4	1.1	0.3	1.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.5	3.4	1.9	6.1	2.9	15.9	11.9	2.8	1.3	3.4	1.1
LnGrp Delay(d),s/veh	41.4	29.5	13.2	45.7	32.9	25.2	100.6	24.7	7.1	40.7	27.6	6.8
LnGrp LOS	D	C	B	D	C	C	F	C	A	D	C	A
Approach Vol, veh/h		1141			753			2189			564	
Approach Delay, s/veh		27.7			32.5			51.1			25.3	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	39.2	9.8	29.9	23.0	26.7	16.1	23.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	51.0	7.0	38.0	19.0	40.0	10.0	35.0
Max Q Clear Time (g_c+I1), s	4.6	25.6	5.4	18.7	21.0	8.7	9.1	14.0
Green Ext Time (p_c), s	0.9	9.1	0.0	5.6	0.0	2.9	0.5	3.5

Intersection Summary			
HCM 2010 Ctrl Delay			39.2
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	230	750	600	490	250	130
Future Volume (veh/h)	230	750	600	490	250	130
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	915	732	598	309	155
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	255	2480	1682	994	551	473
Arrive On Green	0.14	0.69	0.47	0.47	0.15	0.15
Sat Flow, veh/h	1810	3705	3705	1606	3619	1615
Grp Volume(v), veh/h	280	915	732	598	309	155
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1606	1810	1615
Q Serve(g_s), s	7.0	5.3	6.8	11.3	3.9	3.7
Cycle Q Clear(g_c), s	7.0	5.3	6.8	11.3	3.9	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	255	2480	1682	994	551	473
V/C Ratio(X)	1.10	0.37	0.44	0.60	0.56	0.33
Avail Cap(c_a), veh/h	255	2758	1960	1118	2474	1331
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	3.3	8.9	5.8	19.5	13.8
Incr Delay (d2), s/veh	85.5	0.1	0.2	0.7	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	2.6	3.4	7.0	2.0	3.7
LnGrp Delay(d),s/veh	106.9	3.4	9.1	6.5	20.4	14.2
LnGrp LOS	F	A	A	A	C	B
Approach Vol, veh/h		1195	1330		464	
Approach Delay, s/veh		27.6	7.9		18.3	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				38.2		11.6	11.0	27.2
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				7.3		5.9	9.0	13.3
Green Ext Time (p_c), s				16.5		1.6	0.0	9.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	170	450	200	170	590	180	880	410	930	20	60	40
Future Volume (veh/h)	170	450	200	170	590	180	880	410	930	20	60	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	193	511	227	193	670	205	1000	466	1057	23	68	45
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	295	1465	970	283	1008	449	1121	1578	703	47	473	345
Arrive On Green	0.08	0.28	0.28	0.08	0.28	0.28	0.32	0.44	0.44	0.01	0.13	0.13
Sat Flow, veh/h	3510	5187	1606	3510	3610	1606	3510	3610	1609	3510	3610	1596
Grp Volume(v), veh/h	193	511	227	193	670	205	1000	466	1057	23	68	45
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1805	1606	1755	1805	1609	1755	1805	1596
Q Serve(g_s), s	4.6	6.7	1.8	4.6	14.1	9.0	23.3	7.2	25.9	0.6	1.4	0.0
Cycle Q Clear(g_c), s	4.6	6.7	1.8	4.6	14.1	9.0	23.3	7.2	25.9	0.6	1.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	1465	970	283	1008	449	1121	1578	703	47	473	345
V/C Ratio(X)	0.65	0.35	0.23	0.68	0.66	0.46	0.89	0.30	1.50	0.49	0.14	0.13
Avail Cap(c_a), veh/h	327	2659	1339	286	1809	805	1121	1935	863	286	1851	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	24.5	2.4	38.4	27.4	25.5	27.8	15.6	11.5	42.1	33.0	27.2
Incr Delay (d2), s/veh	4.0	0.1	0.1	6.3	0.8	0.7	9.2	0.1	233.6	7.8	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.2	1.2	2.5	7.1	4.1	12.7	3.6	57.1	0.3	0.7	0.9
LnGrp Delay(d),s/veh	42.1	24.6	2.5	44.7	28.1	26.3	37.0	15.7	245.2	49.9	33.2	27.4
LnGrp LOS	D	C	A	D	C	C	D	B	F	D	C	C
Approach Vol, veh/h		931			1068			2523			136	
Approach Delay, s/veh		22.9			30.8			120.3			34.1	
Approach LOS		C			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	41.5	10.9	28.2	31.4	15.2	11.2	28.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	2.6	27.9	6.6	8.7	25.3	3.4	6.6	16.1
Green Ext Time (p_c), s	0.0	8.5	0.0	4.8	0.0	0.6	0.7	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	77.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	980	470	0	510	0	0	0	0	10	10	590
Future Volume (veh/h)	0	980	470	0	510	0	0	0	0	10	10	590
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1089	522	0	567	0				11	11	656
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1501	638	161	1426	0				770	11	678
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00				0.43	0.43	0.43
Sat Flow, veh/h	0	3800	1615	319	3705	0				1810	27	1592
Grp Volume(v), veh/h	0	1089	522	0	567	0				11	0	667
Grp Sat Flow(s),veh/h/ln	0	1900	1615	319	1805	0				1810	0	1619
Q Serve(g_s), s	0.0	10.8	12.9	0.0	5.0	0.0				0.2	0.0	18.0
Cycle Q Clear(g_c), s	0.0	10.8	12.9	0.0	5.0	0.0				0.2	0.0	18.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	1501	638	161	1426	0				770	0	689
V/C Ratio(X)	0.00	0.73	0.82	0.00	0.40	0.00				0.01	0.00	0.97
Avail Cap(c_a), veh/h	0	1532	651	164	1456	0				770	0	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.4	12.1	0.0	9.7	0.0				7.4	0.0	12.5
Incr Delay (d2), s/veh	0.0	1.7	8.0	0.0	0.2	0.0				0.0	0.0	26.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	7.1	0.0	2.5	0.0				0.1	0.0	13.0
LnGrp Delay(d),s/veh	0.0	13.2	20.0	0.0	9.9	0.0				7.4	0.0	38.9
LnGrp LOS		B	C		A					A		D
Approach Vol, veh/h		1611			567						678	
Approach Delay, s/veh		15.4			9.9						38.4	
Approach LOS		B			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.6		23.0		21.6
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		19.0		18.0
Max Q Clear Time (g_c+I1), s				14.9		20.0		7.0
Green Ext Time (p_c), s				2.7		0.0		8.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	40.4
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	970	0	510	120	0	0
Future Vol, veh/h	970	0	510	120	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1043	0	548	129	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	50	25.6
HCM LOS	E	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	62%	100%	100%
Vol Thru, %	0%	38%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	311	319	485	485
LT Vol	311	199	485	485
Through Vol	0	120	0	0
RT Vol	0	0	0	0
Lane Flow Rate	335	343	522	522
Geometry Grp	7	7	7	7
Degree of Util (X)	0.695	0.694	1.032	0.782
Departure Headway (Hd)	7.613	7.422	7.121	5.401
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	478	490	511	668
Service Time	5.313	5.122	4.857	3.137
HCM Lane V/C Ratio	0.701	0.7	1.022	0.781
HCM Control Delay	25.9	25.3	75.2	24.8
HCM Lane LOS	D	D	F	C
HCM 95th-tile Q	5.3	5.3	15	7.6

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	0	10	0	580	20	550	30	1170	420	130	350	0
Future Volume (veh/h)	0	10	0	580	20	550	30	1170	420	130	350	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	11	0	652	22	618	34	1315	472	146	393	0
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	338	0	665	778	659	79	1415	631	253	1518	679
Arrive On Green	0.00	0.18	0.00	0.19	0.41	0.41	0.04	0.39	0.39	0.07	0.42	0.00
Sat Flow, veh/h	1810	1900	0	3510	1900	1609	1810	3610	1609	3510	3610	1615
Grp Volume(v), veh/h	0	11	0	652	22	618	34	1315	472	146	393	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1755	1900	1609	1810	1805	1609	1755	1805	1615
Q Serve(g_s), s	0.0	0.5	0.0	17.6	0.7	35.0	1.7	33.1	24.0	3.8	6.7	0.0
Cycle Q Clear(g_c), s	0.0	0.5	0.0	17.6	0.7	35.0	1.7	33.1	24.0	3.8	6.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	338	0	665	778	659	79	1415	631	253	1518	679
V/C Ratio(X)	0.00	0.03	0.00	0.98	0.03	0.94	0.43	0.93	0.75	0.58	0.26	0.00
Avail Cap(c_a), veh/h	133	720	0	665	940	796	133	1444	644	259	1518	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	32.3	0.0	38.3	16.8	26.9	44.3	27.6	24.8	42.7	17.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	29.8	0.0	16.8	3.7	10.7	4.7	3.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	11.3	0.3	18.5	0.9	18.5	11.4	2.0	3.3	0.0
LnGrp Delay(d),s/veh	0.0	32.3	0.0	68.1	16.8	43.6	47.9	38.3	29.6	45.7	18.0	0.0
LnGrp LOS		C		E	B	D	D	D	C	D	B	
Approach Vol, veh/h		11			1292			1821			539	
Approach Delay, s/veh		32.3			55.5			36.2			25.5	
Approach LOS		C			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	41.2	22.0	20.9	8.1	43.9	0.0	42.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	38.0	18.0	36.0	7.0	38.0	7.0	47.0
Max Q Clear Time (g_c+I1), s	5.8	35.1	19.6	2.5	3.7	8.7	0.0	37.0
Green Ext Time (p_c), s	0.0	2.1	0.0	2.6	0.0	16.8	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	41.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	440	20	10	890	50	90	110	40	30	20	150
Future Volume (veh/h)	140	440	20	10	890	50	90	110	40	30	20	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	463	21	11	937	53	95	116	42	32	21	158
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	199	1733	78	35	1397	79	196	221	66	431	54	403
Arrive On Green	0.11	0.49	0.49	0.02	0.40	0.40	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1810	3517	159	1810	3472	196	393	791	236	1244	192	1444
Grp Volume(v), veh/h	147	237	247	11	487	503	253	0	0	32	0	179
Grp Sat Flow(s),veh/h/ln	1810	1805	1871	1810	1805	1864	1420	0	0	1244	0	1636
Q Serve(g_s), s	4.5	4.4	4.4	0.3	12.7	12.7	4.5	0.0	0.0	0.0	0.0	5.1
Cycle Q Clear(g_c), s	4.5	4.4	4.4	0.3	12.7	12.7	9.6	0.0	0.0	1.4	0.0	5.1
Prop In Lane	1.00		0.09	1.00		0.11	0.38		0.17	1.00		0.88
Lane Grp Cap(c), veh/h	199	889	922	35	726	750	482	0	0	431	0	457
V/C Ratio(X)	0.74	0.27	0.27	0.31	0.67	0.67	0.52	0.00	0.00	0.07	0.00	0.39
Avail Cap(c_a), veh/h	252	1004	1041	220	972	1004	960	0	0	818	0	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	8.5	8.5	27.8	14.1	14.1	18.3	0.0	0.0	15.4	0.0	16.8
Incr Delay (d2), s/veh	8.3	0.2	0.2	4.8	1.1	1.1	0.9	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.2	2.3	0.2	6.4	6.6	3.6	0.0	0.0	0.4	0.0	2.4
LnGrp Delay(d),s/veh	33.1	8.7	8.7	32.7	15.2	15.1	19.2	0.0	0.0	15.5	0.0	17.3
LnGrp LOS	C	A	A	C	B	B	B			B		B
Approach Vol, veh/h		631			1001			253			211	
Approach Delay, s/veh		14.4			15.3			19.2			17.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.1	5.1	32.3		20.1	10.3	27.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		11.6	2.3	6.4		7.1	6.5	14.7
Green Ext Time (p_c), s		2.9	0.0	9.6		3.1	0.0	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	30	420	80	130	830	440	140	1140	230	110	260	40
Future Volume (veh/h)	30	420	80	130	830	440	140	1140	230	110	260	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	438	83	135	865	458	146	1188	240	115	271	42
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	922	173	152	1253	671	152	1348	736	246	1127	173
Arrive On Green	0.04	0.30	0.30	0.08	0.35	0.35	0.08	0.37	0.37	0.07	0.36	0.36
Sat Flow, veh/h	1810	3031	570	1810	3610	1608	1810	3610	1609	3510	3138	480
Grp Volume(v), veh/h	31	260	261	135	865	458	146	1188	240	115	154	159
Grp Sat Flow(s),veh/h/ln	1810	1805	1796	1810	1805	1608	1810	1805	1609	1755	1805	1813
Q Serve(g_s), s	1.6	11.1	11.3	7.0	19.6	22.1	7.6	29.2	9.0	3.0	5.7	5.8
Cycle Q Clear(g_c), s	1.6	11.1	11.3	7.0	19.6	22.1	7.6	29.2	9.0	3.0	5.7	5.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	74	549	546	152	1253	671	152	1348	736	246	648	651
V/C Ratio(X)	0.42	0.47	0.48	0.89	0.69	0.68	0.96	0.88	0.33	0.47	0.24	0.24
Avail Cap(c_a), veh/h	133	703	699	152	1443	756	152	1405	762	258	684	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	26.9	26.9	43.1	26.6	22.6	43.4	27.8	16.4	42.5	21.3	21.4
Incr Delay (d2), s/veh	3.7	0.6	0.7	41.8	1.2	2.2	60.4	6.7	0.3	1.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.6	5.7	5.3	9.9	10.1	6.4	15.8	4.0	1.5	2.9	2.9
LnGrp Delay(d),s/veh	48.1	27.5	27.6	84.9	27.8	24.7	103.8	34.5	16.7	43.9	21.5	21.6
LnGrp LOS	D	C	C	F	C	C	F	C	B	D	C	C
Approach Vol, veh/h		552			1458			1574			428	
Approach Delay, s/veh		28.7			32.1			38.2			27.6	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	39.5	12.0	32.9	12.0	38.2	7.9	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	8.0	37.0	8.0	36.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	5.0	31.2	9.0	13.3	9.6	7.8	3.6	24.1
Green Ext Time (p_c), s	0.1	4.3	0.0	11.4	0.0	12.7	0.0	8.4

Intersection Summary			
HCM 2010 Ctrl Delay			33.6
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	70	90	1610	40	20	920
Future Volume (veh/h)	70	90	1610	40	20	920
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	101	1809	45	22	1034
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	227	203	2183	973	66	2596
Arrive On Green	0.13	0.13	0.60	0.60	0.04	0.72
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	79	101	1809	45	22	1034
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	2.1	3.0	20.4	0.2	0.6	5.8
Cycle Q Clear(g_c), s	2.1	3.0	20.4	0.2	0.6	5.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	227	203	2183	973	66	2596
V/C Ratio(X)	0.35	0.50	0.83	0.05	0.33	0.40
Avail Cap(c_a), veh/h	246	219	2383	1062	246	3154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	21.0	8.1	0.3	24.2	2.8
Incr Delay (d2), s/veh	0.9	1.9	2.4	0.0	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.4	10.5	0.2	0.4	2.8
LnGrp Delay(d),s/veh	21.5	22.9	10.5	0.4	27.1	2.9
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	180		1854			1056
Approach Delay, s/veh	22.3		10.2			3.4
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.9	35.1				41.0		10.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	2.6	22.4				7.8		5.0
Green Ext Time (p_c), s	2.5	8.7				8.2		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		8.6
HCM 2010 LOS		A

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	70	780	140	650	890	250	0	0	0	570	60	540
Future Volume (veh/h)	70	780	140	650	890	250	0	0	0	570	60	540
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	73	812	0	677	927	0				638	0	562
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	110	1119	501	948	1874	839				1086	0	580
Arrive On Green	0.06	0.31	0.00	0.09	0.17	0.00				0.30	0.00	0.30
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1607
Grp Volume(v), veh/h	73	812	0	677	927	0				638	0	562
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1607
Q Serve(g_s), s	3.9	20.0	0.0	18.8	23.2	0.0				15.0	0.0	30.0
Cycle Q Clear(g_c), s	3.9	20.0	0.0	18.8	23.2	0.0				15.0	0.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	110	1119	501	948	1874	839				1086	0	580
V/C Ratio(X)	0.66	0.73	0.00	0.71	0.49	0.00				0.59	0.00	0.97
Avail Cap(c_a), veh/h	253	1119	501	948	1874	839				1086	0	580
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	46.0	30.7	0.0	41.8	29.6	0.0				29.7	0.0	31.4
Incr Delay (d2), s/veh	6.7	4.1	0.0	2.4	0.9	0.0				0.8	0.0	29.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	10.6	0.0	9.4	11.9	0.0				7.6	0.0	19.9
LnGrp Delay(d),s/veh	52.6	34.8	0.0	44.2	30.4	0.0				30.6	0.0	60.9
LnGrp LOS	D	C		D	C					C		E
Approach Vol, veh/h		885			1604						1200	
Approach Delay, s/veh		36.3			36.2						44.8	
Approach LOS		D			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			31.0	35.0		34.0	10.1	55.9
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			27.0	31.0		30.0	14.0	44.0
Max Q Clear Time (g_c+I1), s			20.8	22.0		32.0	5.9	25.2
Green Ext Time (p_c), s			1.7	3.5		0.0	0.1	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	940	390	150	1560	470	200	0	470	0	0	0
Future Volume (veh/h)	0	940	390	150	1560	470	200	0	470	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	949	394	152	1576	0	202	0	475			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1769	1095	360	3782	1178	670	0	542			
Arrive On Green	0.00	0.49	0.49	0.40	1.00	0.00	0.19	0.00	0.19			
Sat Flow, veh/h	0	3705	1607	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	949	394	152	1576	0	202	0	475			
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	18.2	10.4	6.1	0.0	0.0	4.9	0.0	16.2			
Cycle Q Clear(g_c), s	0.0	18.2	10.4	6.1	0.0	0.0	4.9	0.0	16.2			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1769	1095	360	3782	1178	670	0	542			
V/C Ratio(X)	0.00	0.54	0.36	0.42	0.42	0.00	0.30	0.00	0.88			
Avail Cap(c_a), veh/h	0	1769	1095	360	3782	1178	737	0	597			
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.70	0.70	0.71	0.71	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	17.6	6.8	25.9	0.0	0.0	34.7	0.0	39.3			
Incr Delay (d2), s/veh	0.0	0.8	0.6	0.6	0.2	0.0	0.3	0.0	12.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	9.2	7.5	3.0	0.1	0.0	2.4	0.0	7.4			
LnGrp Delay(d),s/veh	0.0	18.5	7.4	26.5	0.2	0.0	35.0	0.0	52.2			
LnGrp LOS		B	A	C	A		C		D			
Approach Vol, veh/h		1343			1728			677				
Approach Delay, s/veh		15.2			2.5			47.1				
Approach LOS		B			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		23.1	23.9	53.0				76.9
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		21.0	18.0	49.0				71.0
Max Q Clear Time (g_c+I1), s		18.2	8.1	20.2				2.0
Green Ext Time (p_c), s		0.8	7.0	9.0				18.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	1070	280	50	1770	10	480	0	170	10	0	10
Future Volume (veh/h)	10	1070	280	50	1770	10	480	0	170	10	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	1126	295	53	1863	11	342	228	179	11	0	11
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	1718	450	210	2235	13	470	339	266	144	17	107
Arrive On Green	0.23	0.84	0.84	0.12	0.42	0.42	0.34	0.34	0.34	0.34	0.00	0.34
Sat Flow, veh/h	1810	4090	1071	1810	5321	31	1421	986	774	261	51	312
Grp Volume(v), veh/h	11	952	469	53	1211	663	342	0	407	22	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1703	1810	1729	1894	1421	0	1759	624	0	0
Q Serve(g_s), s	0.5	9.8	9.8	2.7	31.2	31.3	9.2	0.0	19.7	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.5	9.8	9.8	2.7	31.2	31.3	29.2	0.0	19.7	20.1	0.0	0.0
Prop In Lane	1.00		0.63	1.00		0.02	1.00		0.44	0.50		0.50
Lane Grp Cap(c), veh/h	210	1452	715	210	1452	796	470	0	605	268	0	0
V/C Ratio(X)	0.05	0.66	0.66	0.25	0.83	0.83	0.73	0.00	0.67	0.08	0.00	0.00
Avail Cap(c_a), veh/h	210	1452	715	210	1452	796	535	0	686	325	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.1	5.4	5.4	40.2	25.9	25.9	32.3	0.0	28.0	23.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.0	4.0	0.6	5.8	10.0	4.3	0.0	2.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.6	5.0	1.4	16.0	18.4	9.5	0.0	10.0	0.4	0.0	0.0
LnGrp Delay(d),s/veh	34.2	7.4	9.4	40.9	31.6	35.9	36.7	0.0	30.2	23.5	0.0	0.0
LnGrp LOS	C	A	A	D	C	D	D		C	C		
Approach Vol, veh/h		1432			1927			749			22	
Approach Delay, s/veh		8.3			33.4			33.1			23.5	
Approach LOS		A			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		38.4	15.6	46.0		38.4	15.6	46.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	42.0		39.0	7.0	42.0
Max Q Clear Time (g_c+I1), s		31.2	4.7	11.8		22.1	2.5	33.3
Green Ext Time (p_c), s		2.4	0.0	11.5		3.6	0.0	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	70	940	190	60	1600	0	190	70	40	10	50	110
Future Volume (veh/h)	70	940	190	60	1600	0	190	70	40	10	50	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	1000	202	64	1702	0	202	74	43	11	53	117
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	193	2064	416	324	2489	0	322	259	151	86	373	370
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.00	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	292	2993	603	473	3705	0	1228	1126	654	190	1620	1604
Grp Volume(v), veh/h	74	602	600	64	1702	0	202	0	117	64	0	117
Grp Sat Flow(s),veh/h/ln	292	1805	1791	473	1805	0	1228	0	1780	1810	0	1604
Q Serve(g_s), s	19.9	15.5	15.6	7.3	27.7	0.0	15.7	0.0	5.4	0.0	0.0	6.1
Cycle Q Clear(g_c), s	47.6	15.5	15.6	22.9	27.7	0.0	18.4	0.0	5.4	2.7	0.0	6.1
Prop In Lane	1.00		0.34	1.00		0.00	1.00		0.37	0.17		1.00
Lane Grp Cap(c), veh/h	193	1245	1235	324	2489	0	322	0	410	459	0	370
V/C Ratio(X)	0.38	0.48	0.49	0.20	0.68	0.00	0.63	0.00	0.29	0.14	0.00	0.32
Avail Cap(c_a), veh/h	193	1245	1235	324	2489	0	444	0	587	634	0	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	7.2	7.2	12.6	9.1	0.0	38.0	0.0	31.7	30.6	0.0	31.9
Incr Delay (d2), s/veh	5.7	1.3	1.4	0.1	0.1	0.0	2.0	0.0	0.4	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	8.2	8.1	1.0	13.5	0.0	5.5	0.0	2.7	1.4	0.0	2.7
LnGrp Delay(d),s/veh	28.8	8.6	8.6	12.7	9.3	0.0	40.0	0.0	32.1	30.8	0.0	32.4
LnGrp LOS	C	A	A	B	A		D		C	C		C
Approach Vol, veh/h		1276			1766			319			181	
Approach Delay, s/veh		9.8			9.4			37.1			31.8	
Approach LOS		A			A			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		27.0		73.0		27.0		73.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		59.0		33.0		59.0
Max Q Clear Time (g_c+I1), s		20.4		49.6		8.1		29.7
Green Ext Time (p_c), s		1.8		8.9		2.2		25.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	140	680	20	340	1370	190	20	360	420	140	340	110
Future Volume (veh/h)	140	680	20	340	1370	190	20	360	420	140	340	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	756	22	378	1522	211	22	400	467	156	378	122
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	909	26	506	1446	198	160	481	858	129	448	378
Arrive On Green	0.08	0.25	0.25	0.28	0.45	0.45	0.09	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	1810	3581	104	1810	3189	436	1810	1900	1605	1810	1900	1605
Grp Volume(v), veh/h	156	381	397	378	852	881	22	400	467	156	378	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1880	1810	1805	1820	1810	1900	1605	1810	1900	1605
Q Serve(g_s), s	9.0	22.5	22.5	21.4	51.0	51.0	1.3	22.4	4.9	8.0	21.3	5.7
Cycle Q Clear(g_c), s	9.0	22.5	22.5	21.4	51.0	51.0	1.3	22.4	4.9	8.0	21.3	5.7
Prop In Lane	1.00		0.06	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	458	477	506	818	825	160	481	858	129	448	378
V/C Ratio(X)	1.08	0.83	0.83	0.75	1.04	1.07	0.14	0.83	0.54	1.21	0.84	0.32
Avail Cap(c_a), veh/h	145	546	568	506	818	825	160	608	966	129	625	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	39.7	39.7	36.9	30.7	30.7	47.3	39.7	7.5	52.2	41.0	22.9
Incr Delay (d2), s/veh	97.0	9.1	8.8	6.0	42.5	51.1	0.4	7.8	0.5	147.2	7.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	12.4	12.9	11.6	34.9	37.2	0.6	12.8	5.8	9.2	12.2	2.9
LnGrp Delay(d),s/veh	148.7	48.8	48.5	42.9	73.2	81.8	47.7	47.5	8.1	199.5	48.5	23.4
LnGrp LOS	F	D	D	D	F	F	D	D	A	F	D	C
Approach Vol, veh/h		934			2111			889			656	
Approach Delay, s/veh		65.4			71.4			26.8			79.7	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	32.5	35.5	32.5	14.0	30.5	13.0	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	26.0	34.0	7.0	37.0	9.0	51.0
Max Q Clear Time (g_c+I1), s	10.0	24.4	23.4	24.5	3.3	23.3	11.0	53.0
Green Ext Time (p_c), s	0.0	3.1	2.3	3.1	1.5	2.1	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		62.7
HCM 2010 LOS		E

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	60	520	650	130	670	340	1190	1380	670	260	620	60
Future Volume (veh/h)	60	520	650	130	670	340	1190	1380	670	260	620	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	553	691	138	713	362	1266	1468	713	277	660	64
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	868	1805	192	865	537	1391	1768	877	332	905	87
Arrive On Green	0.06	0.24	0.24	0.05	0.24	0.24	0.40	0.49	0.49	0.09	0.19	0.19
Sat Flow, veh/h	1810	3610	2825	3510	3610	1605	3510	3610	1610	3510	4809	463
Grp Volume(v), veh/h	64	553	691	138	713	362	1266	1468	713	277	473	251
Grp Sat Flow(s),veh/h/ln	1810	1805	1412	1755	1805	1605	1755	1805	1610	1755	1729	1814
Q Serve(g_s), s	4.6	18.2	3.6	5.1	24.8	20.1	45.2	46.4	48.1	10.3	17.1	17.3
Cycle Q Clear(g_c), s	4.6	18.2	3.6	5.1	24.8	20.1	45.2	46.4	48.1	10.3	17.1	17.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	100	868	1805	192	865	537	1391	1768	877	332	651	341
V/C Ratio(X)	0.64	0.64	0.38	0.72	0.82	0.67	0.91	0.83	0.81	0.83	0.73	0.74
Avail Cap(c_a), veh/h	123	1006	1913	344	1115	648	1391	1876	925	397	886	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.4	45.2	4.8	61.7	47.8	23.8	37.9	29.1	24.7	59.1	50.7	50.8
Incr Delay (d2), s/veh	7.6	1.1	0.1	5.0	4.0	2.1	9.2	3.1	5.4	12.4	2.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.2	3.6	2.6	12.9	9.2	23.6	23.8	22.6	5.6	8.3	9.0
LnGrp Delay(d),s/veh	69.0	46.3	4.9	66.7	51.8	25.9	47.1	32.3	30.1	71.5	52.6	54.7
LnGrp LOS	E	D	A	E	D	C	D	C	C	E	D	D
Approach Vol, veh/h		1308			1213			3447			1001	
Approach Delay, s/veh		25.6			45.8			37.3			58.4	
Approach LOS		C			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	69.0	11.3	35.9	56.6	29.0	11.4	35.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	69.0	13.0	37.0	50.0	34.0	9.0	41.0
Max Q Clear Time (g_c+I1), s	12.3	50.1	7.1	20.2	47.2	19.3	6.6	26.8
Green Ext Time (p_c), s	0.3	15.0	0.2	6.3	2.7	3.8	1.5	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	40	30	20	50	20	80	30	3080	30	70	1330	20
Future Volume (veh/h)	40	30	20	50	20	80	30	3080	30	70	1330	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	32	21	53	21	85	32	3277	32	74	1415	21
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	106	56	117	54	139	605	3439	33	114	1991	30
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.33	0.65	0.65	0.06	0.38	0.38
Sat Flow, veh/h	582	659	347	414	337	862	1810	5297	52	1810	5265	78
Grp Volume(v), veh/h	96	0	0	159	0	0	32	2136	1173	74	929	507
Grp Sat Flow(s),veh/h/ln	1588	0	0	1613	0	0	1810	1729	1891	1810	1729	1886
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	0.0	1.1	54.0	54.7	3.8	21.8	21.8
Cycle Q Clear(g_c), s	4.8	0.0	0.0	8.4	0.0	0.0	1.1	54.0	54.7	3.8	21.8	21.8
Prop In Lane	0.45		0.22	0.33		0.53	1.00		0.03	1.00		0.04
Lane Grp Cap(c), veh/h	311	0	0	311	0	0	605	2245	1228	114	1308	713
V/C Ratio(X)	0.31	0.00	0.00	0.51	0.00	0.00	0.05	0.95	0.96	0.65	0.71	0.71
Avail Cap(c_a), veh/h	689	0	0	693	0	0	605	2251	1231	133	2251	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	0.0	36.9	0.0	0.0	21.5	15.3	15.4	43.6	25.2	25.2
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.3	0.0	0.0	0.0	9.9	16.2	8.4	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	4.0	0.0	0.0	0.6	28.3	33.6	2.2	10.5	11.5
LnGrp Delay(d),s/veh	36.0	0.0	0.0	38.2	0.0	0.0	21.5	25.2	31.7	52.0	25.9	26.5
LnGrp LOS	D			D			C	C	C	D	C	C
Approach Vol, veh/h		96			159			3341			1510	
Approach Delay, s/veh		36.0			38.2			27.4			27.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	65.8		19.4	35.8	40.0		19.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	62.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	5.8	56.7		6.8	3.1	23.8		10.4
Green Ext Time (p_c), s	0.0	5.2		1.6	3.8	12.2		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	130	90	40	30	40	90	30	3000	20	40	1320	50
Future Volume (veh/h)	130	90	40	30	40	90	30	3000	20	40	1320	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	95	42	32	42	95	32	3158	21	42	1389	53
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	210	176	293	210	176	77	3192	21	77	3080	118
Arrive On Green	0.08	0.11	0.11	0.08	0.11	0.11	0.04	0.60	0.60	0.04	0.60	0.60
Sat Flow, veh/h	1810	1900	1593	1810	1900	1593	1810	5316	35	1810	5127	196
Grp Volume(v), veh/h	137	95	42	32	42	95	32	2052	1127	42	937	505
Grp Sat Flow(s),veh/h/ln	1810	1900	1593	1810	1900	1593	1810	1729	1894	1810	1729	1865
Q Serve(g_s), s	6.2	4.4	2.2	1.4	1.9	4.5	1.6	54.4	54.8	2.1	13.8	13.8
Cycle Q Clear(g_c), s	6.2	4.4	2.2	1.4	1.9	4.5	1.6	54.4	54.8	2.1	13.8	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.10
Lane Grp Cap(c), veh/h	327	210	176	293	210	176	77	2077	1137	77	2077	1120
V/C Ratio(X)	0.42	0.45	0.24	0.11	0.20	0.54	0.42	0.99	0.99	0.55	0.45	0.45
Avail Cap(c_a), veh/h	327	591	495	293	591	495	136	2077	1137	136	2077	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	38.8	37.9	31.6	37.7	28.7	43.5	18.3	18.4	43.8	10.2	10.2
Incr Delay (d2), s/veh	0.9	1.5	0.7	0.2	0.5	2.6	3.6	16.9	24.5	5.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.4	1.0	0.7	1.0	2.3	0.9	30.5	35.9	1.2	6.6	7.1
LnGrp Delay(d),s/veh	34.4	40.4	38.6	31.8	38.2	31.3	47.1	35.2	42.9	49.7	10.4	10.5
LnGrp LOS	C	D	D	C	D	C	D	D	D	D	B	B
Approach Vol, veh/h		274			169			3211			1484	
Approach Delay, s/veh		37.1			33.1			38.1			11.5	
Approach LOS		D			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	60.0	11.0	14.3	7.9	60.0	11.0	14.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	56.0	7.0	29.0	7.0	56.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	4.1	56.8	3.4	6.4	3.6	15.8	8.2	6.5
Green Ext Time (p_c), s	1.4	0.0	0.0	1.2	0.0	11.7	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	0	410	0	70	0	2780	950	60	1300	10
Future Volume (veh/h)	20	10	0	410	0	70	0	2780	950	60	1300	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	11	0	432	0	74	0	2926	1000	63	1368	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	359	0	548	0	166	588	3171	1148	94	1797	14
Arrive On Green	0.10	0.10	0.00	0.10	0.00	0.10	0.00	0.61	0.61	0.05	0.34	0.34
Sat Flow, veh/h	1810	3705	0	5429	0	1592	1810	5187	1611	1810	5307	43
Grp Volume(v), veh/h	21	11	0	432	0	74	0	2926	1000	63	891	488
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1810	0	1592	1810	1729	1611	1810	1729	1892
Q Serve(g_s), s	1.2	0.3	0.0	9.1	0.0	4.4	0.0	59.0	55.3	4.0	27.0	27.0
Cycle Q Clear(g_c), s	1.2	0.3	0.0	9.1	0.0	4.4	0.0	59.0	55.3	4.0	27.0	27.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	174	359	0	548	0	166	588	3171	1148	94	1171	641
V/C Ratio(X)	0.12	0.03	0.00	0.79	0.00	0.45	0.00	0.92	0.87	0.67	0.76	0.76
Avail Cap(c_a), veh/h	174	1200	0	740	0	651	588	3182	1152	108	2122	1161
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	47.7	0.0	51.5	0.0	37.0	0.0	20.3	12.8	54.6	34.6	34.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	4.1	0.0	1.9	0.0	5.2	7.5	12.4	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.0	4.8	0.0	2.0	0.0	29.4	26.5	2.3	13.0	14.4
LnGrp Delay(d),s/veh	48.8	47.8	0.0	55.6	0.0	38.9	0.0	25.5	20.3	67.1	35.6	36.5
LnGrp LOS	D	D		E		D		C	C	E	D	D
Approach Vol, veh/h		32			506			3926			1442	
Approach Delay, s/veh		48.4			53.1			24.2			37.3	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	75.7	15.9	15.7	42.1	43.7	15.3	16.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	72.0	16.0	39.0	7.0	72.0	7.0	48.0
Max Q Clear Time (g_c+I1), s	6.0	61.0	11.1	2.3	0.0	29.0	3.2	6.4
Green Ext Time (p_c), s	0.0	10.7	0.7	0.0	0.0	10.8	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	70	50	10	210	180	210	1010	10	50	720	330
Future Volume (veh/h)	320	70	50	10	210	180	210	1010	10	50	720	330
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	72	52	10	216	186	216	1041	10	52	742	340
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	363	1281	571	34	851	262	731	2392	742	102	1462	453
Arrive On Green	0.20	0.35	0.35	0.01	0.16	0.16	0.21	0.46	0.46	0.03	0.28	0.28
Sat Flow, veh/h	1810	3610	1608	3510	5187	1600	3510	5187	1610	3510	5187	1606
Grp Volume(v), veh/h	330	72	52	10	216	186	216	1041	10	52	742	340
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1729	1600	1755	1729	1610	1755	1729	1606
Q Serve(g_s), s	19.6	1.4	1.3	0.3	4.0	12.1	5.7	14.9	0.4	1.6	13.2	13.1
Cycle Q Clear(g_c), s	19.6	1.4	1.3	0.3	4.0	12.1	5.7	14.9	0.4	1.6	13.2	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	1281	571	34	851	262	731	2392	742	102	1462	453
V/C Ratio(X)	0.91	0.06	0.09	0.30	0.25	0.71	0.30	0.44	0.01	0.51	0.51	0.75
Avail Cap(c_a), veh/h	428	1641	731	128	1320	407	731	2392	742	128	1462	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	23.4	7.5	54.1	40.1	43.5	36.7	20.0	16.1	52.6	33.1	13.8
Incr Delay (d2), s/veh	21.2	0.0	0.1	4.8	0.2	3.5	0.2	0.6	0.0	3.9	1.3	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.7	0.6	0.2	1.9	5.6	2.8	7.2	0.2	0.8	6.5	7.1
LnGrp Delay(d),s/veh	64.2	23.4	7.6	58.9	40.3	47.0	37.0	20.6	16.1	56.6	34.4	24.7
LnGrp LOS	E	C	A	E	D	D	D	C	B	E	C	C
Approach Vol, veh/h		454			412			1267			1134	
Approach Delay, s/veh		51.2			43.8			23.3			32.5	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	54.7	5.1	43.0	26.9	35.0	26.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	36.0	4.0	50.0	9.0	31.0	26.0	28.0
Max Q Clear Time (g_c+I1), s	3.6	16.9	2.3	3.4	7.7	15.2	21.6	14.1
Green Ext Time (p_c), s	0.0	7.4	0.0	2.9	0.6	5.3	0.4	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	1100	100	60	1510	120	100	170	40	40	50	40
Future Volume (veh/h)	110	1100	100	60	1510	120	100	170	40	40	50	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	1146	104	62	1573	125	104	177	42	42	52	42
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	2995	272	80	3031	941	130	393	91	54	337	148
Arrive On Green	0.08	0.62	0.62	0.09	1.00	1.00	0.07	0.14	0.14	0.03	0.09	0.09
Sat Flow, veh/h	1810	4840	439	1810	5187	1611	1810	2905	672	1810	3610	1589
Grp Volume(v), veh/h	115	819	431	62	1573	125	104	108	111	42	52	42
Grp Sat Flow(s),veh/h/ln	1810	1729	1821	1810	1729	1611	1810	1805	1773	1810	1805	1589
Q Serve(g_s), s	6.9	13.0	13.0	3.7	0.0	0.0	6.2	6.1	6.3	2.5	1.5	2.7
Cycle Q Clear(g_c), s	6.9	13.0	13.0	3.7	0.0	0.0	6.2	6.1	6.3	2.5	1.5	2.7
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	142	2140	1127	80	3031	941	130	244	240	54	337	148
V/C Ratio(X)	0.81	0.38	0.38	0.78	0.52	0.13	0.80	0.44	0.46	0.78	0.15	0.28
Avail Cap(c_a), veh/h	165	2140	1127	148	3031	941	148	596	585	99	1083	477
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.37	0.37	0.37	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	10.5	10.5	49.6	0.0	0.0	50.3	43.7	43.9	53.0	45.9	46.4
Incr Delay (d2), s/veh	21.0	0.5	0.9	5.9	0.2	0.1	23.5	1.3	1.4	20.8	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	6.3	6.8	2.0	0.1	0.0	4.0	3.1	3.2	1.6	0.7	1.2
LnGrp Delay(d),s/veh	70.9	10.9	11.4	55.5	0.2	0.1	73.8	45.0	45.2	73.8	46.1	47.5
LnGrp LOS	E	B	B	E	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1365			1760			323			136	
Approach Delay, s/veh		16.1			2.2			54.3			55.1	
Approach LOS		B			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	74.1	11.9	15.2	12.6	70.3	7.3	19.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	9.0	40.1	9.0	33.0	10.0	39.1	6.0	* 36
Max Q Clear Time (g_c+I1), s	5.7	15.0	8.2	4.7	8.9	2.0	4.5	8.3
Green Ext Time (p_c), s	0.0	20.2	0.0	1.7	0.0	27.3	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	480	580	150	110	1290	170	300	630	70	130	280	270
Future Volume (veh/h)	480	580	150	110	1290	170	300	630	70	130	280	270
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	495	598	155	113	1330	175	309	649	72	134	289	278
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	479	2295	712	171	1645	216	319	1004	447	194	876	389
Arrive On Green	0.23	0.74	0.74	0.05	0.35	0.35	0.09	0.28	0.28	0.06	0.24	0.24
Sat Flow, veh/h	3510	5187	1610	3510	4637	610	3510	3610	1606	3510	3610	1605
Grp Volume(v), veh/h	495	598	155	113	992	513	309	649	72	134	289	278
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1789	1755	1805	1606	1755	1805	1605
Q Serve(g_s), s	15.0	4.1	3.3	3.5	28.5	28.5	9.7	17.4	3.7	4.1	7.3	17.5
Cycle Q Clear(g_c), s	15.0	4.1	3.3	3.5	28.5	28.5	9.7	17.4	3.7	4.1	7.3	17.5
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	479	2295	712	171	1226	635	319	1004	447	194	876	389
V/C Ratio(X)	1.03	0.26	0.22	0.66	0.81	0.81	0.97	0.65	0.16	0.69	0.33	0.71
Avail Cap(c_a), veh/h	479	2295	712	223	1226	635	319	1149	511	255	1083	482
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.20	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	8.5	8.4	51.4	32.1	32.1	49.8	34.9	30.0	51.0	34.3	38.2
Incr Delay (d2), s/veh	48.6	0.3	0.7	0.9	1.2	2.4	41.7	1.0	0.2	5.1	0.2	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	2.0	1.6	1.7	13.8	14.5	6.5	8.8	1.7	2.1	3.6	8.2
LnGrp Delay(d),s/veh	91.1	8.8	9.1	52.4	33.4	34.5	91.5	36.0	30.2	56.1	34.5	41.9
LnGrp LOS	F	A	A	D	C	C	F	D	C	E	C	D
Approach Vol, veh/h		1248			1618			1030			701	
Approach Delay, s/veh		41.5			35.0			52.2			41.6	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	54.7	14.0	32.0	19.0	45.0	10.1	35.9
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	7.0	40.7	10.0	33.0	15.0	32.7	8.0	35.0
Max Q Clear Time (g_c+I1), s	5.5	6.1	11.7	19.5	17.0	30.5	6.1	19.4
Green Ext Time (p_c), s	0.0	19.0	0.0	6.2	0.0	1.9	0.1	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑	↱	↰↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	290	370	160	30	1050	370	400	560	30	210	380	380
Future Volume (veh/h)	290	370	160	30	1050	370	400	560	30	210	380	380
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	315	402	0	33	1141	402	435	609	33	228	413	413
Adj No. of Lanes	2	3	1	1	2	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	1955	609	42	1149	511	415	1165	63	294	1083	482
Arrive On Green	0.08	0.38	0.00	0.02	0.32	0.32	0.12	0.33	0.33	0.08	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	3610	1607	3510	3482	188	3510	3610	1607
Grp Volume(v), veh/h	315	402	0	33	1141	402	435	315	327	228	413	413
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1805	1607	1755	1805	1866	1755	1805	1607
Q Serve(g_s), s	9.0	5.8	0.0	2.0	34.7	25.0	13.0	15.5	15.5	7.0	9.9	26.6
Cycle Q Clear(g_c), s	9.0	5.8	0.0	2.0	34.7	25.0	13.0	15.5	15.5	7.0	9.9	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	287	1955	609	42	1149	511	415	604	624	294	1083	482
V/C Ratio(X)	1.10	0.21	0.00	0.79	0.99	0.79	1.05	0.52	0.52	0.78	0.38	0.86
Avail Cap(c_a), veh/h	287	1955	609	99	1149	511	415	604	624	383	1083	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	23.1	0.0	53.5	37.4	34.1	48.5	29.5	29.5	49.4	30.4	36.3
Incr Delay (d2), s/veh	80.5	0.2	0.0	27.1	25.0	11.5	57.5	3.2	3.1	7.2	1.0	17.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	2.8	0.0	1.3	21.3	12.7	9.6	8.2	8.5	3.7	5.1	14.2
LnGrp Delay(d),s/veh	131.0	23.4	0.0	80.6	62.4	45.6	106.0	32.7	32.7	56.6	31.5	53.8
LnGrp LOS	F	C		F	E	D	F	C	C	E	C	D
Approach Vol, veh/h		717			1576			1077			1054	
Approach Delay, s/veh		70.7			58.5			62.3			45.7	
Approach LOS		E			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	47.5	17.0	39.0	13.0	41.0	13.2	42.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	38.0	13.0	33.0	9.0	35.0	12.0	34.0
Max Q Clear Time (g_c+I1), s	4.0	7.8	15.0	28.6	11.0	36.7	9.0	17.5
Green Ext Time (p_c), s	0.0	14.3	0.0	2.9	0.0	0.0	0.2	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	58.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	70	30	20	20	30	40	980	70	0	460	80
Future Volume (veh/h)	40	70	30	20	20	30	40	980	70	0	460	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	74	32	21	21	32	43	1043	74	0	489	85
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	56	267	117	31	115	95	55	3887	275	2	2596	1159
Arrive On Green	0.03	0.07	0.07	0.02	0.06	0.06	0.06	1.00	1.00	0.00	0.72	0.72
Sat Flow, veh/h	1810	3610	1582	1810	1900	1575	1810	4945	350	1810	3610	1612
Grp Volume(v), veh/h	43	74	32	21	21	32	43	729	388	0	489	85
Grp Sat Flow(s),veh/h/ln	1810	1805	1582	1810	1900	1575	1810	1729	1837	1810	1805	1612
Q Serve(g_s), s	2.6	2.1	2.1	1.3	1.2	2.1	2.6	0.0	0.0	0.0	4.8	1.7
Cycle Q Clear(g_c), s	2.6	2.1	2.1	1.3	1.2	2.1	2.6	0.0	0.0	0.0	4.8	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	56	267	117	31	115	95	55	2718	1444	2	2596	1159
V/C Ratio(X)	0.77	0.28	0.27	0.67	0.18	0.34	0.78	0.27	0.27	0.00	0.19	0.07
Avail Cap(c_a), veh/h	165	781	342	148	396	328	165	2718	1444	66	2596	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	48.1	48.1	53.7	49.1	49.6	51.3	0.0	0.0	0.0	5.0	4.6
Incr Delay (d2), s/veh	20.0	0.6	1.2	22.4	0.8	2.0	19.3	0.2	0.4	0.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.1	1.0	0.8	0.6	1.0	1.6	0.1	0.2	0.0	2.4	0.8
LnGrp Delay(d),s/veh	73.0	48.7	49.4	76.1	49.8	51.6	70.5	0.2	0.4	0.0	5.2	4.7
LnGrp LOS	E	D	D	E	D	D	E	A	A		A	A
Approach Vol, veh/h		149			74			1160			574	
Approach Delay, s/veh		55.9			58.1			2.9			5.1	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	91.8	5.9	12.3	7.4	84.4	7.4	10.9
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	4.0	55.7	9.0	* 24	10.0	49.7	10.0	* 23
Max Q Clear Time (g_c+I1), s	0.0	2.0	3.3	4.1	4.6	6.8	4.6	4.1
Green Ext Time (p_c), s	0.0	16.4	0.0	0.6	0.0	15.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	40	130	110	90	80	160	620	70	30	450	100
Future Volume (veh/h)	110	40	130	110	90	80	160	620	70	30	450	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	121	44	143	121	99	88	176	681	77	33	495	110
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	268	225	150	268	225	208	1987	224	42	1862	831
Arrive On Green	0.08	0.14	0.14	0.08	0.14	0.14	0.11	0.61	0.61	0.02	0.52	0.52
Sat Flow, veh/h	1810	1900	1598	1810	1900	1598	1810	3269	369	1810	3610	1610
Grp Volume(v), veh/h	121	44	143	121	99	88	176	376	382	33	495	110
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1598	1810	1805	1834	1810	1805	1610
Q Serve(g_s), s	7.2	2.2	9.3	7.2	5.2	5.5	10.5	11.3	11.4	2.0	8.5	3.9
Cycle Q Clear(g_c), s	7.2	2.2	9.3	7.2	5.2	5.5	10.5	11.3	11.4	2.0	8.5	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	150	268	225	150	268	225	208	1097	1114	42	1862	831
V/C Ratio(X)	0.81	0.16	0.63	0.81	0.37	0.39	0.85	0.34	0.34	0.79	0.27	0.13
Avail Cap(c_a), veh/h	230	553	465	230	553	465	296	1097	1114	99	1862	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	41.5	44.6	49.6	42.8	42.9	47.7	10.7	10.7	53.5	14.9	13.8
Incr Delay (d2), s/veh	11.4	0.3	2.9	11.4	0.8	1.1	11.2	0.6	0.6	27.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	1.2	4.3	4.1	2.8	2.5	5.9	5.8	5.9	1.3	4.3	1.8
LnGrp Delay(d),s/veh	61.0	41.8	47.5	61.0	43.7	44.0	59.0	11.3	11.3	80.5	15.3	14.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	F	B	B
Approach Vol, veh/h		308			308			934			638	
Approach Delay, s/veh		52.0			50.6			20.3			18.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	70.8	13.1	19.5	16.6	60.7	13.1	19.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	42.0	14.0	32.0	18.0	30.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	4.0	13.4	9.2	11.3	12.5	10.5	9.2	7.5
Green Ext Time (p_c), s	0.0	9.9	0.1	1.4	0.2	8.5	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	190	50	170	340	260	40	670	80	80	340	60
Future Volume (veh/h)	50	190	50	170	340	260	40	670	80	80	340	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	196	52	175	351	268	41	691	82	82	351	62
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	904	402	303	904	402	53	2015	897	107	3049	947
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.03	0.56	0.56	0.02	0.19	0.19
Sat Flow, veh/h	816	3610	1605	1145	3610	1605	1810	3610	1608	1810	5187	1611
Grp Volume(v), veh/h	52	196	52	175	351	268	41	691	82	82	351	62
Grp Sat Flow(s),veh/h/ln	816	1805	1605	1145	1805	1605	1810	1805	1608	1810	1729	1611
Q Serve(g_s), s	6.2	4.7	2.8	15.7	8.9	16.5	2.5	11.5	2.6	5.0	6.1	3.5
Cycle Q Clear(g_c), s	15.1	4.7	2.8	20.5	8.9	16.5	2.5	11.5	2.6	5.0	6.1	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	904	402	303	904	402	53	2015	897	107	3049	947
V/C Ratio(X)	0.26	0.22	0.13	0.58	0.39	0.67	0.78	0.34	0.09	0.77	0.12	0.07
Avail Cap(c_a), veh/h	279	1237	550	409	1237	550	132	2015	897	247	3049	947
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	40.5	32.7	31.9	40.8	34.2	37.1	53.0	13.3	11.3	53.2	20.7	19.7
Incr Delay (d2), s/veh	0.7	0.1	0.1	1.7	0.3	1.9	21.2	0.5	0.2	10.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.4	1.2	5.1	4.5	7.5	1.6	5.8	1.2	2.8	3.0	1.6
LnGrp Delay(d),s/veh	41.2	32.8	32.1	42.5	34.5	39.0	74.3	13.7	11.5	64.1	20.8	19.8
LnGrp LOS	D	C	C	D	C	D	E	B	B	E	C	B
Approach Vol, veh/h		300			794			814			495	
Approach Delay, s/veh		34.1			37.8			16.6			27.9	
Approach LOS		C			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.5	66.7		32.8	7.2	70.0		32.8
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	15.0	42.7		37.7	8.0	49.7		37.7
Max Q Clear Time (g_c+I1), s	17.0	13.5		17.1	4.5	8.1		22.5
Green Ext Time (p_c), s	0.1	8.6		5.7	0.0	9.3		5.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	370	70	30	490	140	150	430	40	100	360	260
Future Volume (veh/h)	240	370	70	30	490	140	150	430	40	100	360	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	425	80	34	563	161	172	494	46	115	414	299
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	1193	223	43	702	200	181	1199	111	142	678	485
Arrive On Green	0.16	0.39	0.39	0.02	0.25	0.25	0.10	0.36	0.36	0.13	0.56	0.56
Sat Flow, veh/h	1810	3035	567	1810	2770	790	1810	3339	310	1810	2007	1437
Grp Volume(v), veh/h	276	251	254	34	366	358	172	266	274	115	372	341
Grp Sat Flow(s),veh/h/ln	1810	1805	1797	1810	1805	1755	1810	1805	1844	1810	1805	1639
Q Serve(g_s), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.2	12.3	6.8	15.1	15.3
Cycle Q Clear(g_c), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.2	12.3	6.8	15.1	15.3
Prop In Lane	1.00		0.32	1.00		0.45	1.00		0.17	1.00		0.88
Lane Grp Cap(c), veh/h	296	710	707	43	457	445	181	648	662	142	609	553
V/C Ratio(X)	0.93	0.35	0.36	0.79	0.80	0.80	0.95	0.41	0.41	0.81	0.61	0.62
Avail Cap(c_a), veh/h	296	710	707	99	509	495	181	648	662	230	609	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	45.4	23.5	23.6	53.4	38.5	38.5	49.2	26.5	26.5	47.0	19.2	19.2
Incr Delay (d2), s/veh	34.8	0.3	0.3	26.2	8.1	8.6	52.5	1.9	1.9	9.8	4.2	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	5.4	5.5	1.3	11.4	11.2	7.8	6.4	6.6	3.8	8.1	7.5
LnGrp Delay(d),s/veh	80.2	23.8	23.9	79.6	46.6	47.1	101.7	28.4	28.4	56.8	23.4	24.0
LnGrp LOS	F	C	C	E	D	D	F	C	C	E	C	C
Approach Vol, veh/h		781			758			712			828	
Approach Delay, s/veh		43.8			48.3			46.1			28.3	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	43.5	6.6	47.2	15.0	41.1	22.0	31.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	31.0	6.0	43.0	11.0	34.0	18.0	31.0
Max Q Clear Time (g_c+I1), s	8.8	14.3	4.1	13.0	12.4	17.3	18.6	23.0
Green Ext Time (p_c), s	0.1	7.2	0.0	9.2	0.0	7.2	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	10	70	30	40	160	170	60	610	30	40	490	30
Future Volume (veh/h)	10	70	30	40	160	170	60	610	30	40	490	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	80	34	45	182	193	68	693	34	45	557	34
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	183	78	58	317	267	88	2189	107	58	2104	128
Arrive On Green	0.01	0.15	0.15	0.03	0.17	0.17	0.10	1.00	1.00	0.03	0.61	0.61
Sat Flow, veh/h	1810	1262	536	1810	1900	1601	1810	3502	172	1810	3456	211
Grp Volume(v), veh/h	11	0	114	45	182	193	68	357	370	45	290	301
Grp Sat Flow(s),veh/h/ln	1810	0	1799	1810	1900	1601	1810	1805	1869	1810	1805	1862
Q Serve(g_s), s	0.7	0.0	6.4	2.7	9.7	12.6	4.0	0.0	0.0	2.7	8.3	8.3
Cycle Q Clear(g_c), s	0.7	0.0	6.4	2.7	9.7	12.6	4.0	0.0	0.0	2.7	8.3	8.3
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.09	1.00		0.11
Lane Grp Cap(c), veh/h	19	0	261	58	317	267	88	1128	1168	58	1099	1133
V/C Ratio(X)	0.59	0.00	0.44	0.77	0.57	0.72	0.78	0.32	0.32	0.77	0.26	0.27
Avail Cap(c_a), veh/h	82	0	492	148	589	496	197	1128	1168	148	1099	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	0.0	42.9	52.8	42.2	43.4	49.1	0.0	0.0	52.8	10.0	10.0
Incr Delay (d2), s/veh	25.7	0.0	1.1	19.2	1.6	3.7	12.6	0.7	0.7	19.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.2	1.7	5.3	5.8	2.3	0.2	0.2	1.7	4.3	4.4
LnGrp Delay(d),s/veh	79.9	0.0	44.0	72.0	43.8	47.1	61.7	0.7	0.7	72.0	10.6	10.6
LnGrp LOS	E		D	E	D	D	E	A	A	E	B	B
Approach Vol, veh/h		125			420			795			636	
Approach Delay, s/veh		47.2			48.3			5.9			15.0	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	74.0	7.5	20.9	9.3	72.3	5.1	23.3
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	9.0	43.7	9.0	30.1	12.0	40.7	5.0	34.1
Max Q Clear Time (g_c+I1), s	4.7	2.0	4.7	8.4	6.0	10.3	2.7	14.6
Green Ext Time (p_c), s	0.0	9.7	0.0	2.3	0.1	9.0	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

HCM 2010 TWSC
113: Evans Rd & Placentia Ave

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1090	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1090	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

HCM 2010 AWSC
114: Evans Rd & Orange Ave

Intersection	
Intersection Delay, s/veh	316
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	120	230	110	60	200	100	210	370	150	160	290	130
Future Vol, veh/h	120	230	110	60	200	100	210	370	150	160	290	130
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	179	343	164	90	299	149	313	552	224	239	433	194
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	690.5	259.6	241.1	148.2
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	26%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	50%	0%	67%	0%	100%	0%
Vol Right, %	0%	0%	100%	24%	0%	33%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	370	150	460	60	300	160	290	130
LT Vol	210	0	0	120	60	0	160	0	0
Through Vol	0	370	0	230	0	200	0	290	0
RT Vol	0	0	150	110	0	100	0	0	130
Lane Flow Rate	313	552	224	687	90	448	239	433	194
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1.039	1.754	0.667	2.447	0.33	1.558	0.808	1.405	0.592
Departure Headway (Hd)	16.563	16	15.211	13.918	16.084	15.271	16.245	15.684	14.897
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	223	232	240	268	225	242	224	238	244
Service Time	14.263	13.7	12.911	11.618	13.784	12.971	13.945	13.384	12.597
HCM Lane V/C Ratio	1.404	2.379	0.933	2.563	0.4	1.851	1.067	1.819	0.795
HCM Control Delay	116.5	391.8	43.9	690.5	26.5	306.2	63.9	244.5	37.1
HCM Lane LOS	F	F	E	F	D	F	F	F	E
HCM 95th-tile Q	9.7	26.7	4.2	51.4	1.4	22.6	6	18.2	3.4

HCM 2010 Signalized Intersection Summary
115: Nuevo Rd & Evans Rd

	↗	→	←	↖	↘	↙
Movement	**EBL**	**EBT**	**WBT**	**WBR**	**SBL**	**SBR**
Lane Configurations	↰	↑	↑	↱	↰	↱
Traffic Volume (veh/h)	310	300	420	50	30	390
Future Volume (veh/h)	310	300	420	50	30	390
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	383	370	519	62	37	481
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	427	1173	631	532	514	458
Arrive On Green	0.24	0.62	0.33	0.33	0.28	0.28
Sat Flow, veh/h	1810	1900	1900	1603	1810	1615
Grp Volume(v), veh/h	383	370	519	62	37	481
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1603	1810	1615
Q Serve(g_s), s	16.6	7.5	20.3	2.2	1.2	23.0
Cycle Q Clear(g_c), s	16.6	7.5	20.3	2.2	1.2	23.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	427	1173	631	532	514	458
V/C Ratio(X)	0.90	0.32	0.82	0.12	0.07	1.05
Avail Cap(c_a), veh/h	514	1383	750	633	514	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	7.4	24.9	18.8	21.2	29.0
Incr Delay (d2), s/veh	16.3	0.2	6.3	0.1	0.3	55.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	4.0	11.8	1.0	0.6	7.1
LnGrp Delay(d),s/veh	46.3	7.5	31.2	18.9	21.5	84.6
LnGrp LOS	D	A	C	B	C	F
Approach Vol, veh/h		753	581		518	
Approach Delay, s/veh		27.2	29.9		80.1	
Approach LOS		C	C		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				54.0		27.0	23.1	30.9
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				59.0		23.0	23.0	32.0
Max Q Clear Time (g_c+I1), s				9.5		25.0	18.6	22.3
Green Ext Time (p_c), s				6.8		0.0	0.5	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	42.9
HCM 2010 LOS	D

HCM 2010 TWSC
122: Ramona Expy & Bridge St

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Vol, veh/h	90	540	880	80	40	30
Future Vol, veh/h	90	540	880	80	40	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	35
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	98	587	957	87	43	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1043	0	-	0	1783	1000
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	783	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	675	-	-	-	91	298
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	454	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	675	-	-	-	78	298
Mov Cap-2 Maneuver	-	-	-	-	78	-
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	388	-

Approach	EB		WB		SB	
HCM Control Delay, s	1.6		0		64.1	
HCM LOS					F	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	675	-	-	-	78	298
HCM Lane V/C Ratio	0.145	-	-	-	0.557	0.109
HCM Control Delay (s)	11.2	-	-	-	98.2	18.6
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.4	0.4

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↱	
Traffic Vol, veh/h	100	50	10	820	470	50
Future Vol, veh/h	100	50	10	820	470	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	110	55	11	901	516	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1467	544	571	0	-	0
Stage 1	544	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	142	543	1012	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	140	543	1012	-	-	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	386	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	90.3	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1012	-	186	-	-
HCM Lane V/C Ratio	0.011	-	0.886	-	-
HCM Control Delay (s)	8.6	-	90.3	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0	-	6.7	-	-

Intersection	
Int Delay, s/veh	52.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Vol, veh/h	30	350	0	0	460	290	360	10	10	0	0	0
Future Vol, veh/h	30	350	0	0	460	290	360	10	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	372	0	0	489	309	383	11	11	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	489	0	-	-	-	0	925	925	372
Stage 1	-	-	-	-	-	-	436	436	-
Stage 2	-	-	-	-	-	-	489	489	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1085	-	0	0	-	-	~ 301	271	678
Stage 1	-	-	0	0	-	-	656	583	-
Stage 2	-	-	0	0	-	-	621	553	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1085	-	-	-	-	-	~ 292	0	678
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 292	0	-
Stage 1	-	-	-	-	-	-	637	0	-
Stage 2	-	-	-	-	-	-	621	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.7	0	207
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	292	678	1085	-	-	-
HCM Lane V/C Ratio	1.348	0.016	0.029	-	-	-
HCM Control Delay (s)	212.3	10.4	8.4	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	20.1	0	0.1	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	9.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↲	↱
Traffic Vol, veh/h	0	200	330	10	790	0	0	0	0	200	0	20
Future Vol, veh/h	0	200	330	10	790	0	0	0	0	200	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	213	351	11	840	0	0	0	0	213	0	21

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	213	0	0	1075	1075	840
Stage 1	-	-	-	-	-	-	862	862	-
Stage 2	-	-	-	-	-	-	213	213	-
Critical Hdwy	-	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1369	-	0	245	221	368
Stage 1	0	-	-	-	-	0	417	375	-
Stage 2	0	-	-	-	-	0	827	730	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1369	-	-	243	0	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	243	0	-
Stage 1	-	-	-	-	-	-	414	0	-
Stage 2	-	-	-	-	-	-	827	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	67.9
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1369	-	243	368
HCM Lane V/C Ratio	-	-	0.008	-	0.876	0.058
HCM Control Delay (s)	-	-	7.7	-	73.2	15.4
HCM Lane LOS	-	-	A	-	F	C
HCM 95th %tile Q(veh)	-	-	0	-	7.2	0.2

HCM Signalized Intersection Capacity Analysis
126: SR-79(Sanderson Ave) & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (vph)	350	350	70	70	460	460	140	790	50	480	640	270
Future Volume (vph)	350	350	70	70	460	460	140	790	50	480	640	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3610	1595	3502	3610	1599	3502	3610	1594	3502	3610	1596
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3610	1595	3502	3610	1599	3502	3610	1594	3502	3610	1596
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	372	372	74	74	489	489	149	840	53	511	681	287
RTOR Reduction (vph)	0	0	43	0	0	43	0	0	35	0	0	47
Lane Group Flow (vph)	372	372	31	74	489	446	149	840	18	511	681	241
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Actuated Green, G (s)	13.3	36.6	45.8	5.4	28.7	47.1	9.2	31.4	36.8	18.4	40.6	53.9
Effective Green, g (s)	13.3	36.6	45.8	5.4	28.7	47.1	9.2	31.4	36.8	18.4	40.6	53.9
Actuated g/C Ratio	0.12	0.34	0.42	0.05	0.27	0.44	0.09	0.29	0.34	0.17	0.38	0.50
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	432	1225	736	175	961	757	298	1051	603	597	1359	857
v/s Ratio Prot	c0.11	0.10	0.00	0.02	0.14	c0.10	0.04	c0.23	0.00	c0.15	0.19	0.03
v/s Ratio Perm			0.02			0.18			0.01			0.12
v/c Ratio	0.86	0.30	0.04	0.42	0.51	0.59	0.50	0.80	0.03	0.86	0.50	0.28
Uniform Delay, d1	46.3	26.2	18.2	49.7	33.6	23.0	47.1	35.3	23.6	43.4	25.8	15.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.0	0.1	0.0	1.6	0.4	1.2	1.3	4.3	0.0	11.6	0.3	0.2
Delay (s)	62.3	26.4	18.2	51.3	34.0	24.2	48.4	39.6	23.6	55.0	26.1	15.9
Level of Service	E	C	B	D	C	C	D	D	C	D	C	B
Approach Delay (s)		42.0			30.7			40.1			34.1	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	36.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	107.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	10	230	150	60	270	20	390	90	60	50	90	10
Future Volume (veh/h)	10	230	150	60	270	20	390	90	60	50	90	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	235	153	61	276	20	398	92	61	51	92	10
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	412	346	84	481	348	483	379	251	75	220	24
Arrive On Green	0.01	0.22	0.22	0.05	0.25	0.25	0.27	0.36	0.36	0.04	0.13	0.13
Sat Flow, veh/h	1810	1900	1596	1810	1900	1375	1810	1064	706	1810	1682	183
Grp Volume(v), veh/h	10	235	153	61	276	20	398	0	153	51	0	102
Grp Sat Flow(s),veh/h/ln	1810	1900	1596	1810	1900	1375	1810	0	1770	1810	0	1865
Q Serve(g_s), s	0.3	5.2	3.9	1.6	6.0	0.5	9.8	0.0	2.9	1.3	0.0	2.4
Cycle Q Clear(g_c), s	0.3	5.2	3.9	1.6	6.0	0.5	9.8	0.0	2.9	1.3	0.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.10
Lane Grp Cap(c), veh/h	19	412	346	84	481	348	483	0	630	75	0	244
V/C Ratio(X)	0.53	0.57	0.44	0.72	0.57	0.06	0.82	0.00	0.24	0.68	0.00	0.42
Avail Cap(c_a), veh/h	153	684	575	153	684	495	805	0	1200	230	0	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.2	16.5	16.0	22.2	15.4	13.4	16.3	0.0	10.7	22.3	0.0	18.9
Incr Delay (d2), s/veh	21.2	1.2	0.9	11.0	1.1	0.1	3.6	0.0	0.2	10.4	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.9	1.8	1.0	3.3	0.2	5.4	0.0	1.4	0.9	0.0	1.3
LnGrp Delay(d),s/veh	44.4	17.8	16.9	33.2	16.5	13.4	19.9	0.0	10.9	32.7	0.0	20.0
LnGrp LOS	D	B	B	C	B	B	B		B	C		C
Approach Vol, veh/h		398			357			551			153	
Approach Delay, s/veh		18.1			19.2			17.4			24.2	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	20.8	6.2	14.2	16.6	10.2	4.5	15.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	32.0	4.0	17.0	21.0	17.0	4.0	17.0
Max Q Clear Time (g_c+I1), s	3.3	4.9	3.6	7.2	11.8	4.4	2.3	8.0
Green Ext Time (p_c), s	0.0	1.5	0.0	2.6	0.9	1.1	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	270	60	90	230	80	60	190	70	140	290	70
Future Volume (veh/h)	60	270	60	90	230	80	60	190	70	140	290	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	281	62	94	240	83	62	198	73	146	302	73
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	421	956	208	443	616	469	157	620	221	253	841	200
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.09	0.24	0.24	0.14	0.29	0.29
Sat Flow, veh/h	1071	2948	640	1051	1900	1447	1810	2605	929	1810	2889	687
Grp Volume(v), veh/h	62	170	173	94	240	83	62	135	136	146	187	188
Grp Sat Flow(s),veh/h/ln	1071	1805	1784	1051	1900	1447	1810	1805	1729	1810	1805	1772
Q Serve(g_s), s	1.9	2.8	2.9	3.0	3.9	1.7	1.3	2.5	2.6	3.0	3.3	3.4
Cycle Q Clear(g_c), s	5.9	2.8	2.9	5.9	3.9	1.7	1.3	2.5	2.6	3.0	3.3	3.4
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.54	1.00		0.39
Lane Grp Cap(c), veh/h	421	585	578	443	616	469	157	430	412	253	525	516
V/C Ratio(X)	0.15	0.29	0.30	0.21	0.39	0.18	0.39	0.31	0.33	0.58	0.36	0.37
Avail Cap(c_a), veh/h	792	1209	1195	807	1273	969	314	1209	1159	404	1299	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	10.2	10.2	12.4	10.5	9.8	17.4	12.6	12.7	16.2	11.3	11.3
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.2	0.4	0.2	1.6	0.4	0.5	2.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	1.5	0.9	2.1	0.7	0.7	1.3	1.3	1.6	1.7	1.7
LnGrp Delay(d),s/veh	13.0	10.4	10.5	12.6	10.9	9.9	19.0	13.1	13.2	18.3	11.7	11.8
LnGrp LOS	B	B	B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		405			417			333			521	
Approach Delay, s/veh		10.8			11.1			14.2			13.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	13.6		17.1	7.5	15.7		17.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	5.0	4.6		7.9	3.3	5.4		7.9
Green Ext Time (p_c), s	0.1	4.0		4.4	0.0	4.0		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	10	370	10	20	1070	10
Future Volume (vph)	10	370	10	20	1070	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1528		1767	1615	1530
Flt Permitted	1.00	1.00		0.88	0.95	1.00
Satd. Flow (perm)	1800	1528		1589	1615	1530
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	12	435	12	24	1259	12
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	12	435	0	36	1259	12
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	4	2		8	2	2
Permitted Phases		4	8			
Actuated Green, G (s)	7.5	91.5		7.5	84.0	84.0
Effective Green, g (s)	7.5	91.5		7.5	84.0	84.0
Actuated g/C Ratio	0.07	0.90		0.07	0.83	0.83
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	133	1528		117	1336	1266
v/s Ratio Prot	0.01	c0.24			c0.78	0.01
v/s Ratio Perm		0.05		0.02		
v/c Ratio	0.09	0.28		0.31	0.94	0.01
Uniform Delay, d1	43.8	0.7		44.5	6.9	1.5
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1		1.5	13.2	0.0
Delay (s)	44.1	0.8		46.0	20.1	1.5
Level of Service	D	A		D	C	A
Approach Delay (s)	1.9			46.0	19.9	
Approach LOS	A			D	B	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	101.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	87.8
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↲↳	
Traffic Vol, veh/h	20	240	650	180	220	50
Future Vol, veh/h	20	240	650	180	220	50
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	247	670	186	227	52
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	13.7	134.4	16.1
HCM LOS	B	F	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	0%	81%
Vol Thru, %	92%	78%	0%
Vol Right, %	0%	22%	19%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	260	830	270
LT Vol	20	0	220
Through Vol	240	650	0
RT Vol	0	180	50
Lane Flow Rate	268	856	278
Geometry Grp	1	1	1
Degree of Util (X)	0.428	1.23	0.487
Departure Headway (Hd)	6.156	5.174	6.831
Convergence, Y/N	Yes	Yes	Yes
Cap	590	710	532
Service Time	4.156	3.174	4.831
HCM Lane V/C Ratio	0.454	1.206	0.523
HCM Control Delay	13.7	134.4	16.1
HCM Lane LOS	B	F	C
HCM 95th-tile Q	2.1	30.5	2.6

HCM 2010 AWSC
133: Live Oak Canyon & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	136.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	440	10	0	700	100	10	10	10	210	10	140
Future Vol, veh/h	10	440	10	0	700	100	10	10	10	210	10	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	463	11	0	737	105	11	11	11	221	11	147
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	42	243.7	13.5	28.3
HCM LOS	E	F	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	2%	0%	58%
Vol Thru, %	33%	96%	88%	3%
Vol Right, %	33%	2%	12%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	460	800	360
LT Vol	10	10	0	210
Through Vol	10	440	700	10
RT Vol	10	10	100	140
Lane Flow Rate	32	484	842	379
Geometry Grp	1	1	1	1
Degree of Util (X)	0.074	0.872	1.48	0.722
Departure Headway (Hd)	9.712	7.237	6.326	7.727
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	371	504	573	470
Service Time	7.712	5.237	4.42	5.727
HCM Lane V/C Ratio	0.086	0.96	1.469	0.806
HCM Control Delay	13.5	42	243.7	28.3
HCM Lane LOS	B	E	F	D
HCM 95th-tile Q	0.2	9.4	41.2	5.7

Intersection	
Intersection Delay, s/veh	124.1
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	⅄	
Traffic Vol, veh/h	20	620	80	90	720	30
Future Vol, veh/h	20	620	80	90	720	30
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	639	82	93	742	31
Number of Lanes	1	0	0	1	1	0

Approach	EB		WB		NB	
Opposing Approach	WB		EB			
Opposing Lanes	1		1		0	
Conflicting Approach Left			NB		EB	
Conflicting Lanes Left	0		1		1	
Conflicting Approach Right	NB				WB	
Conflicting Lanes Right	1		0		1	
HCM Control Delay	68.7		15.4		196.1	
HCM LOS	F		C		F	

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	96%	0%	47%
Vol Thru, %	0%	3%	53%
Vol Right, %	4%	97%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	750	640	170
LT Vol	720	0	80
Through Vol	0	20	90
RT Vol	30	620	0
Lane Flow Rate	773	660	175
Geometry Grp	1	1	1
Degree of Util (X)	1.367	1.02	0.345
Departure Headway (Hd)	6.497	6.485	8.139
Convergence, Y/N	Yes	Yes	Yes
Cap	564	567	445
Service Time	4.497	4.485	6.139
HCM Lane V/C Ratio	1.371	1.164	0.393
HCM Control Delay	196.1	68.7	15.4
HCM Lane LOS	F	F	C
HCM 95th-tile Q	33.8	15.3	1.5

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	8.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	40	50	190	130	90	230
Future Vol, veh/h	40	50	190	130	90	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	52	196	134	93	237

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	93	0	593	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	526	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1514	-	472	1002
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	597	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1514	-	406	1002
Mov Cap-2 Maneuver	-	-	-	-	406	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	513	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	709	-	-	1514	-
HCM Lane V/C Ratio	0.465	-	-	0.129	-
HCM Control Delay (s)	14.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.5	-	-	0.4	-

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	10	10	30	10	20	0	230	10	10	220	10
Future Vol, veh/h	10	10	10	30	10	20	0	230	10	10	220	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	34	11	22	0	258	11	11	247	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.6	9.6	9.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	33%	50%	4%
Vol Thru, %	96%	33%	17%	92%
Vol Right, %	4%	33%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	30	60	240
LT Vol	0	10	30	10
Through Vol	230	10	10	220
RT Vol	10	10	20	10
Lane Flow Rate	270	34	67	270
Geometry Grp	1	1	1	1
Degree of Util (X)	0.331	0.047	0.094	0.332
Departure Headway (Hd)	4.419	5.055	5.034	4.426
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	706	710	812
Service Time	2.446	3.104	3.08	2.454
HCM Lane V/C Ratio	0.332	0.048	0.094	0.333
HCM Control Delay	9.6	8.4	8.6	9.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.5	0.1	0.3	1.5

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2018 PM-PP]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	B	A

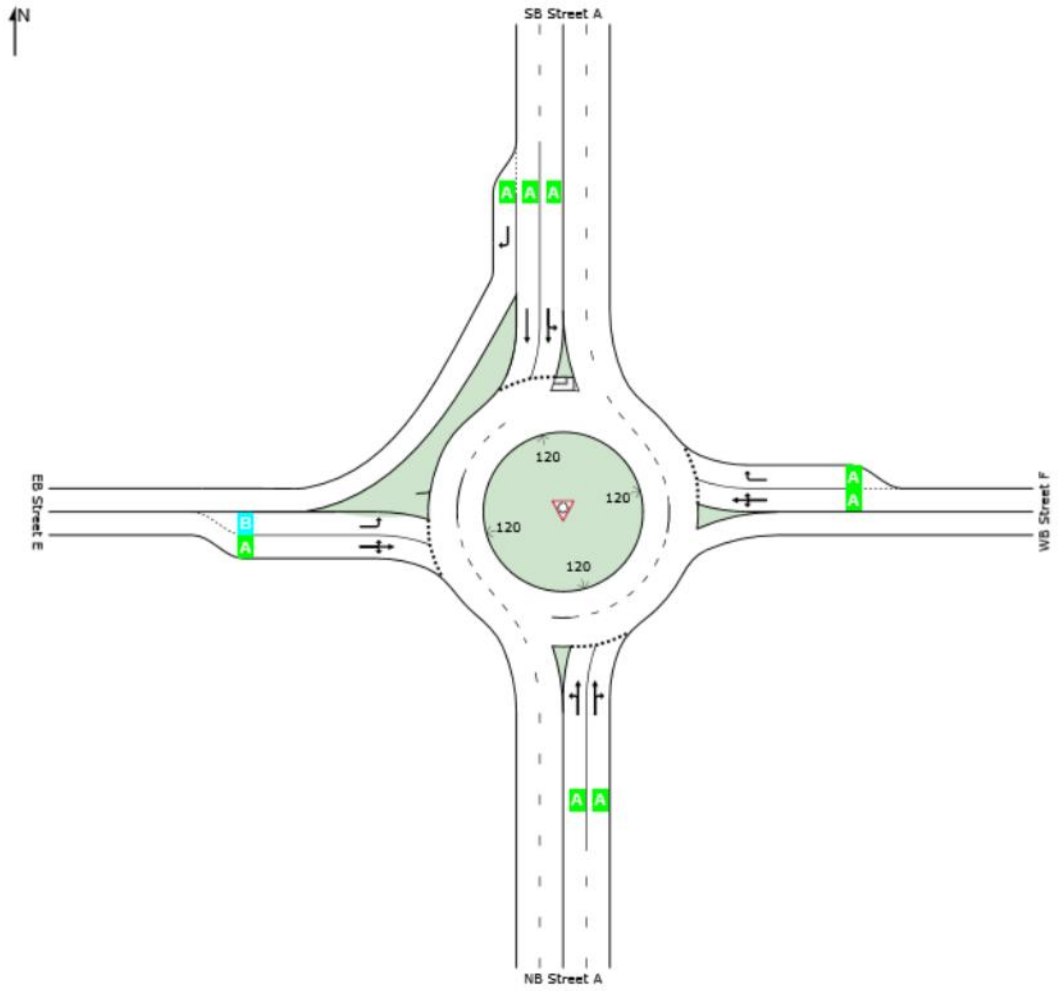

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int1_2018 PM-PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Street A													
Lane 1	449	0.0	867	0.518	100	8.5	LOS A	3.1	77.2	Full	1600	0.0	0.0
Lane 2[d]	462	0.0	893	0.518	100	8.4	LOS A	3.1	77.8	Full	1600	0.0	0.0
Approach	911	0.0		0.518		8.5	LOS A	3.1	77.8				
East: WB Street F													
Lane 1	269	0.0	713	0.378	100	8.1	LOS A	1.7	42.6	Full	1600	0.0	0.0
Lane 2[d]	291	0.0	769	0.378	100	6.7	LOS A	1.7	43.4	Short	200	0.0	NA
Approach	560	0.0		0.378		7.4	LOS A	1.7	43.4				
North: SB Street A													
Lane 1	597	0.0	1350	0.442	100	9.5	LOS A	3.3	83.1	Full	1600	0.0	0.0
Lane 2[d]	663	0.0	1499	0.442	100	3.9	LOS A	3.4	84.6	Full	1600	0.0	0.0
Lane 3	110	0.0	1675	0.066	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	1370	0.0		0.442		6.3	LOS A	3.4	84.6				
West: EB Street E													
Lane 1	80	0.0	664	0.121	100	13.2	LOS B	0.4	10.7	Short	200	0.0	NA
Lane 2[d]	91	0.0	751	0.121	100	9.9	LOS A	0.4	11.0	Full	1600	0.0	0.0
Approach	171	0.0		0.121		11.5	LOS B	0.4	11.0				
Intersection	3012	0.0		0.518		7.5	LOS A	3.4	84.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[d] Dominant lane on roundabout approach

HCM 2010 Signalized Intersection Summary
2: Street D & Street E

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰↰	↑	↰	↱
Traffic Volume (veh/h)	10	150	420	10	140	360
Future Volume (veh/h)	10	150	420	10	140	360
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	163	457	11	152	391
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	327	274	666	891	573	511
Arrive On Green	0.17	0.17	0.19	0.47	0.32	0.32
Sat Flow, veh/h	1900	1593	3510	1900	1810	1615
Grp Volume(v), veh/h	11	163	457	11	152	391
Grp Sat Flow(s),veh/h/ln	1900	1593	1755	1900	1810	1615
Q Serve(g_s), s	0.2	3.5	4.5	0.1	2.3	8.1
Cycle Q Clear(g_c), s	0.2	3.5	4.5	0.1	2.3	8.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	327	274	666	891	573	511
V/C Ratio(X)	0.03	0.59	0.69	0.01	0.27	0.76
Avail Cap(c_a), veh/h	1171	982	941	1885	1213	1082
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	14.2	14.1	5.3	9.5	11.5
Incr Delay (d2), s/veh	0.0	2.1	1.3	0.0	0.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.7	2.3	0.1	1.2	3.9
LnGrp Delay(d),s/veh	12.9	16.3	15.3	5.3	9.8	13.9
LnGrp LOS	B	B	B	A	A	B
Approach Vol, veh/h	174			468	543	
Approach Delay, s/veh	16.1			15.1	12.7	
Approach LOS	B			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		15.8	11.1	10.4				21.5
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		25.0	10.0	23.0				37.0
Max Q Clear Time (g_c+I1), s		10.1	6.5	5.5				2.1
Green Ext Time (p_c), s		1.7	0.6	0.6				0.7

Intersection Summary			
HCM 2010 Ctrl Delay			14.2
HCM 2010 LOS			B

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2018 PM PP]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	B	A	A

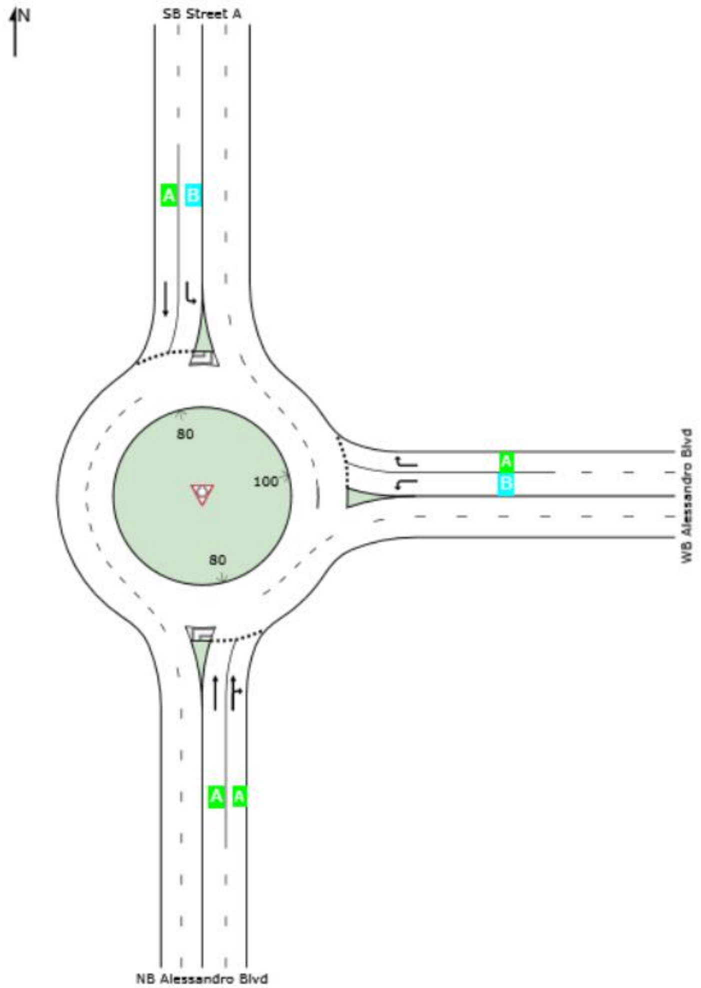

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Organisation: PARSONS BRINCKERHOFF | Processed: Tuesday, March 27, 2018 2:52:44 PM
Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 3.sip7

LANE SUMMARY

Site: 1 [Int3_2018 PM PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	206	0.0	1376	0.150	100	5.2	LOS A	0.8	20.5	Full	1600	0.0	0.0
Lane 2[d]	218	0.0	1460	0.150	100	5.2	LOS A	0.8	20.7	Full	1600	0.0	0.0
Approach	424	0.0		0.150		5.2	LOS A	0.8	20.7				
East: WB Alessandro Blvd													
Lane 1[d]	280	0.0	1073	0.261	100	11.7	LOS B	1.1	27.9	Full	1600	0.0	0.0
Lane 2	70	0.0	618	0.113	100	6.9	LOS A	0.4	10.1	Full	1600	0.0	0.0
Approach	350	0.0		0.261		10.7	LOS B	1.1	27.9				
North: SB Street A													
Lane 1	33	0.0	651	0.050	100	12.7	LOS B	0.2	5.3	Full	1600	0.0	0.0
Lane 2[d]	207	0.0	1099	0.188	100	6.3	LOS A	1.0	24.1	Full	1600	0.0	0.0
Approach	239	0.0		0.188		7.2	LOS A	1.0	24.1				
Intersection	1013	0.0		0.261		7.6	LOS A	1.1	27.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[d] Dominant lane on roundabout approach

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Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 3.sip7

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int4_2018 PM/PP]

New Site
Roundabout

All Movement Classes

	East	North	West	Intersection
LOS	A	A	A	A

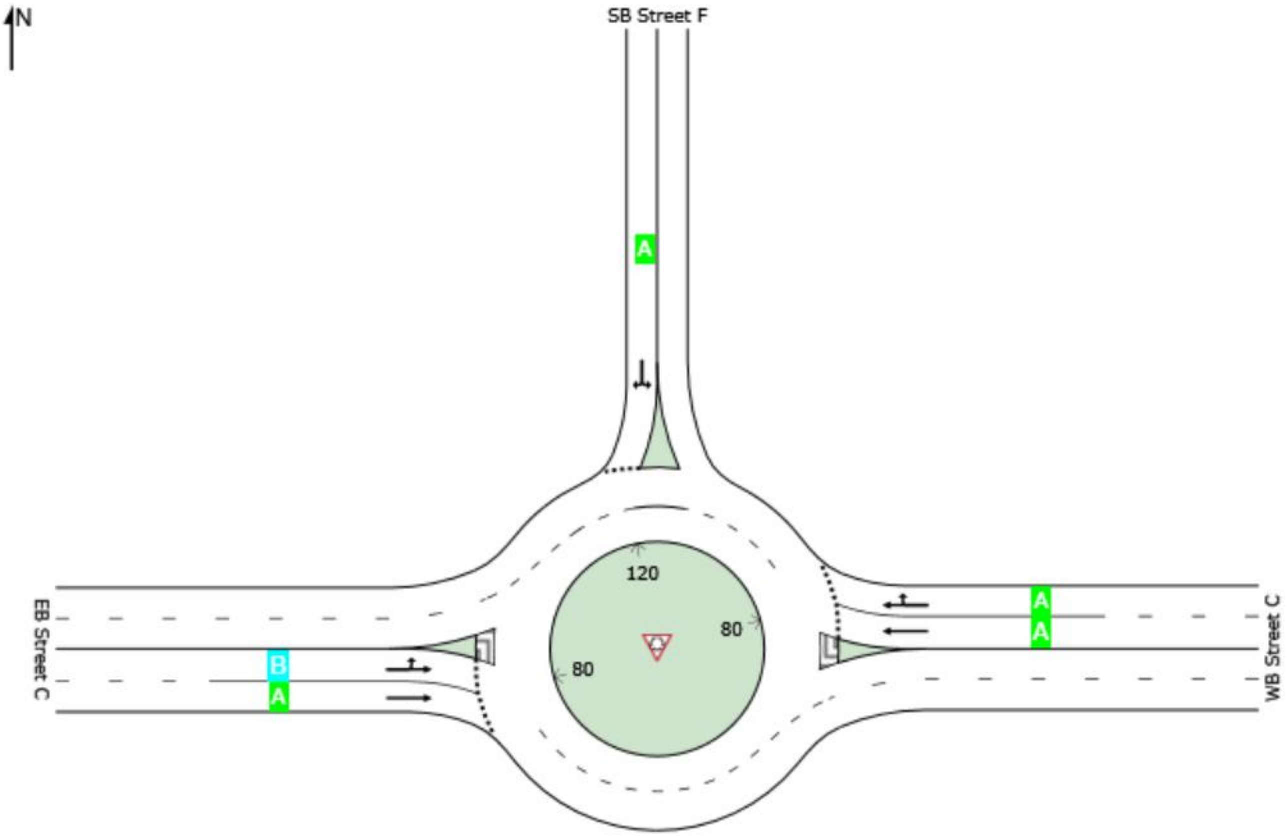

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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LANE SUMMARY

Site: 1 [Int4_2018 PM/PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: WB Street C													
Lane 1	80	0.0	1101	0.073	62[5]	4.2	LOS A	0.3	7.7	Full	1600	0.0	0.0
Lane 2[d]	160	0.0	1366	0.117	100	4.6	LOS A	0.5	13.3	Full	1600	0.0	0.0
Approach	240	0.0		0.117		4.5	LOS A	0.5	13.3				
North: SB Street F													
Lane 1[d]	310	0.0	1155	0.268	100	7.4	LOS A	1.1	28.2	Full	1600	0.0	0.0
Approach	310	0.0		0.268		7.4	LOS A	1.1	28.2				
West: EB Street C													
Lane 1[d]	60	0.0	1207	0.050	100	10.0	LOS B	0.2	5.2	Full	1600	0.0	0.0
Lane 2	30	0.0	996	0.030	61[5]	5.0	LOS A	0.1	3.0	Full	1600	0.0	0.0
Approach	90	0.0		0.050		8.3	LOS A	0.2	5.2				
Intersection	640	0.0		0.268		6.4	LOS A	1.1	28.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[5] Lane under-utilisation found by the program
[d] Dominant lane on roundabout approach

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↰↑	↑	↱
Traffic Volume (veh/h)	160	160	150	490	920	230
Future Volume (veh/h)	160	160	150	490	920	230
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	170	170	160	521	979	245
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	249	222	205	1434	1116	945
Arrive On Green	0.14	0.14	0.11	0.75	0.59	0.59
Sat Flow, veh/h	1810	1615	1810	1900	1900	1608
Grp Volume(v), veh/h	170	170	160	521	979	245
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1900	1900	1608
Q Serve(g_s), s	6.6	7.5	6.4	6.9	32.5	5.5
Cycle Q Clear(g_c), s	6.6	7.5	6.4	6.9	32.5	5.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	249	222	205	1434	1116	945
V/C Ratio(X)	0.68	0.76	0.78	0.36	0.88	0.26
Avail Cap(c_a), veh/h	463	413	219	1613	1280	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	30.8	32.0	3.1	13.0	7.5
Incr Delay (d2), s/veh	3.3	5.4	15.5	0.2	6.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.9	4.1	3.5	18.9	2.5
LnGrp Delay(d),s/veh	33.7	36.3	47.5	3.2	19.5	7.6
LnGrp LOS	C	D	D	A	B	A
Approach Vol, veh/h	340			681	1224	
Approach Delay, s/veh	35.0			13.6	17.1	
Approach LOS	D			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		14.2	12.4	47.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		63.0		19.0	9.0	50.0		
Max Q Clear Time (g_c+I1), s		8.9		9.5	8.4	34.5		
Green Ext Time (p_c), s		15.4		0.7	0.0	9.1		

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
9: Gilman Springs Rd & Street B

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Volume (veh/h)	10	60	30	530	730	10
Future Volume (veh/h)	10	60	30	530	730	10
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	65	33	576	793	11
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	187	167	99	1280	965	816
Arrive On Green	0.10	0.10	0.05	0.67	0.51	0.51
Sat Flow, veh/h	1810	1615	1810	1900	1900	1607
Grp Volume(v), veh/h	11	65	33	576	793	11
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1900	1900	1607
Q Serve(g_s), s	0.2	1.4	0.6	5.1	12.7	0.1
Cycle Q Clear(g_c), s	0.2	1.4	0.6	5.1	12.7	0.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	187	167	99	1280	965	816
V/C Ratio(X)	0.06	0.39	0.33	0.45	0.82	0.01
Avail Cap(c_a), veh/h	906	809	352	1797	1216	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	15.0	16.4	2.7	7.5	4.4
Incr Delay (d2), s/veh	0.1	1.5	2.0	0.2	3.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	0.4	2.6	7.4	0.1
LnGrp Delay(d),s/veh	14.7	16.5	18.3	3.0	11.2	4.4
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	76			609	804	
Approach Delay, s/veh	16.3			3.8	11.1	
Approach LOS	B			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.2		7.7	6.0	22.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		34.0		18.0	7.0	23.0		
Max Q Clear Time (g_c+I1), s		7.1		3.4	2.6	14.7		
Green Ext Time (p_c), s		4.2		0.1	1.5	3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

10: Redlands Blvd & Locust Ave

Intersection	
Int Delay, s/veh	74.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	140	5	20	20	10	10	20	780	10	5	840	150
Future Vol, veh/h	140	5	20	20	10	10	20	780	10	5	840	150
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	300	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	146	5	21	21	10	10	21	813	10	5	875	156

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1750	1739	875	1752	1739	813	875	0	0	813	0	0
Stage 1	885	885	-	854	854	-	-	-	-	-	-	-
Stage 2	865	854	-	898	885	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 68	88	351	68	88	382	780	-	-	823	-	-
Stage 1	342	366	-	356	378	-	-	-	-	-	-	-
Stage 2	351	378	-	337	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 58	85	351	59	85	382	780	-	-	823	-	-
Mov Cap-2 Maneuver	~ 58	85	-	59	85	-	-	-	-	-	-	-
Stage 1	333	364	-	346	368	-	-	-	-	-	-	-
Stage 2	323	368	-	311	364	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 880.6	85.8	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	780	-	-	65	83	823	-	-
HCM Lane V/C Ratio	0.027	-	-	2.644	0.502	0.006	-	-
HCM Control Delay (s)	9.7	-	-	$ 880.6	85.8	9.4	-	-
HCM Lane LOS	A	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	17.1	2.1	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↑	↱
Traffic Volume (veh/h)	120	50	20	20	40	110	10	700	10	70	700	180
Future Volume (veh/h)	120	50	20	20	40	110	10	700	10	70	700	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	52	21	21	42	115	10	729	10	73	729	188
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	284	118	48	27	55	150	31	718	10	113	816	689
Arrive On Green	0.25	0.25	0.25	0.14	0.14	0.14	0.02	0.38	0.38	0.06	0.43	0.43
Sat Flow, veh/h	1141	475	192	198	395	1083	1810	1870	26	1810	1900	1606
Grp Volume(v), veh/h	198	0	0	178	0	0	10	0	739	73	729	188
Grp Sat Flow(s),veh/h/ln	1807	0	0	1676	0	0	1810	0	1895	1810	1900	1606
Q Serve(g_s), s	8.9	0.0	0.0	9.9	0.0	0.0	0.5	0.0	37.0	3.8	34.2	7.3
Cycle Q Clear(g_c), s	8.9	0.0	0.0	9.9	0.0	0.0	0.5	0.0	37.0	3.8	34.2	7.3
Prop In Lane	0.63		0.11	0.12		0.65	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	450	0	0	232	0	0	31	0	728	113	816	689
V/C Ratio(X)	0.44	0.00	0.00	0.77	0.00	0.00	0.32	0.00	1.02	0.65	0.89	0.27
Avail Cap(c_a), veh/h	450	0	0	452	0	0	131	0	728	131	816	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	0.0	40.0	0.0	0.0	46.8	0.0	29.7	44.1	25.4	17.8
Incr Delay (d2), s/veh	3.1	0.0	0.0	5.3	0.0	0.0	5.9	0.0	37.2	8.4	12.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.0	4.9	0.0	0.0	0.3	0.0	26.7	2.2	20.6	3.3
LnGrp Delay(d),s/veh	33.6	0.0	0.0	45.3	0.0	0.0	52.7	0.0	66.9	52.5	37.7	18.0
LnGrp LOS	C			D			D		F	D	D	B
Approach Vol, veh/h		198			178			749			990	
Approach Delay, s/veh		33.6			45.3			66.7			35.1	
Approach LOS		C			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	41.0		28.0	5.6	45.4		17.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	37.0		24.0	7.0	37.0		26.0
Max Q Clear Time (g_c+I1), s	5.8	39.0		10.9	2.5	36.2		11.9
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.6		0.7

Intersection Summary			
HCM 2010 Ctrl Delay			47.0
HCM 2010 LOS			D

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑	↗	↖	↑
Traffic Vol, veh/h	30	20	150	10	10	130
Future Vol, veh/h	30	20	150	10	10	130
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	22	163	11	11	141

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	331	173	0	0	168	0
Stage 1	168	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	668	876	-	-	1422	-
Stage 1	867	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	660	869	-	-	1416	-
Mov Cap-2 Maneuver	660	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	864	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	869	1416	-
HCM Lane V/C Ratio	-	-	0.025	0.008	-
HCM Control Delay (s)	-	-	9.2	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	10	10	10	80	0	30	10	700	440	330	410	10
Future Volume (veh/h)	10	10	10	80	0	30	10	700	440	330	410	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	83	0	31	10	729	458	344	427	10
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	25	25	109	0	41	32	872	880	389	1214	28
Arrive On Green	0.04	0.04	0.04	0.09	0.00	0.09	0.02	0.46	0.46	0.21	0.66	0.66
Sat Flow, veh/h	589	589	589	1276	0	476	1810	1900	1615	1810	1849	43
Grp Volume(v), veh/h	30	0	0	114	0	0	10	729	458	344	0	437
Grp Sat Flow(s),veh/h/ln	1767	0	0	1752	0	0	1810	1900	1615	1810	0	1892
Q Serve(g_s), s	1.3	0.0	0.0	5.1	0.0	0.0	0.4	27.2	14.6	14.9	0.0	8.3
Cycle Q Clear(g_c), s	1.3	0.0	0.0	5.1	0.0	0.0	0.4	27.2	14.6	14.9	0.0	8.3
Prop In Lane	0.33		0.33	0.73		0.27	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	75	0	0	150	0	0	32	872	880	389	0	1242
V/C Ratio(X)	0.40	0.00	0.00	0.76	0.00	0.00	0.32	0.84	0.52	0.89	0.00	0.35
Avail Cap(c_a), veh/h	394	0	0	390	0	0	157	1082	1058	493	0	1428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.7	0.0	0.0	36.1	0.0	0.0	39.2	19.2	11.7	30.8	0.0	6.2
Incr Delay (d2), s/veh	3.4	0.0	0.0	7.6	0.0	0.0	5.6	4.8	0.5	14.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	2.8	0.0	0.0	0.3	15.3	7.8	9.0	0.0	4.3
LnGrp Delay(d),s/veh	41.1	0.0	0.0	43.7	0.0	0.0	44.9	24.0	12.2	45.4	0.0	6.4
LnGrp LOS	D			D			D	C	B	D		A
Approach Vol, veh/h		30			114			1197			781	
Approach Delay, s/veh		41.1			43.7			19.7			23.6	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.4	41.1		7.4	5.4	57.0		10.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	22.0	46.0		18.0	7.0	61.0		18.0
Max Q Clear Time (g_c+I1), s	16.9	29.2		3.3	2.4	10.3		7.1
Green Ext Time (p_c), s	0.5	7.9		0.1	0.0	11.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	⑂		↰	↑	↑	↱
Traffic Volume (veh/h)	440	130	120	590	420	50
Future Volume (veh/h)	440	130	120	590	420	50
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	454	134	124	608	433	52
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	504	149	200	910	558	474
Arrive On Green	0.37	0.37	0.11	0.48	0.29	0.29
Sat Flow, veh/h	1358	401	1810	1900	1900	1615
Grp Volume(v), veh/h	589	0	124	608	433	52
Grp Sat Flow(s),veh/h/ln	1761	0	1810	1900	1900	1615
Q Serve(g_s), s	16.8	0.0	3.5	13.1	11.1	1.3
Cycle Q Clear(g_c), s	16.8	0.0	3.5	13.1	11.1	1.3
Prop In Lane	0.77	0.23	1.00			1.00
Lane Grp Cap(c), veh/h	653	0	200	910	558	474
V/C Ratio(X)	0.90	0.00	0.62	0.67	0.78	0.11
Avail Cap(c_a), veh/h	760	0	238	1034	642	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	22.6	10.6	17.2	13.7
Incr Delay (d2), s/veh	12.7	0.0	3.6	1.4	5.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	0.0	1.9	7.1	6.6	0.6
LnGrp Delay(d),s/veh	28.5	0.0	26.2	12.0	22.4	13.8
LnGrp LOS	C		C	B	C	B
Approach Vol, veh/h	589			732	485	
Approach Delay, s/veh	28.5			14.4	21.5	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		29.5		23.8	9.9	19.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		23.0	7.0	18.0		
Max Q Clear Time (g_c+I1), s		15.1		18.8	5.5	13.1		
Green Ext Time (p_c), s		5.1		0.9	0.0	2.5		

Intersection Summary			
HCM 2010 Ctrl Delay			20.9
HCM 2010 LOS			C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
15: Theodore St & SR 60 WB Ramp

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	10	240	820	150	130	30
Future Volume (veh/h)	10	240	820	150	130	30
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	286	976	179	155	36
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	406	362	1282	3150	819	251
Arrive On Green	0.22	0.22	0.37	0.61	0.16	0.16
Sat Flow, veh/h	1810	1615	3510	5358	5358	1589
Grp Volume(v), veh/h	12	286	976	179	155	36
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1589
Q Serve(g_s), s	0.2	7.9	11.6	0.7	1.2	0.9
Cycle Q Clear(g_c), s	0.2	7.9	11.6	0.7	1.2	0.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	406	362	1282	3150	819	251
V/C Ratio(X)	0.03	0.79	0.76	0.06	0.19	0.14
Avail Cap(c_a), veh/h	1068	953	2811	6995	2405	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	17.4	13.2	3.8	17.3	17.2
Incr Delay (d2), s/veh	0.0	3.9	1.0	0.0	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.1	5.7	0.3	0.6	0.4
LnGrp Delay(d),s/veh	14.4	21.2	14.2	3.8	17.5	17.5
LnGrp LOS	B	C	B	A	B	B
Approach Vol, veh/h	298			1155	191	
Approach Delay, s/veh	21.0			12.6	17.5	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		32.8		14.6	21.3	11.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		64.0		28.0	38.0	22.0		
Max Q Clear Time (g_c+I1), s		2.7		9.9	13.6	3.2		
Green Ext Time (p_c), s		2.1		0.9	3.7	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
16: Theodore St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	20	0	1170	0	0	0	0	960	230	0	360	20
Future Volume (veh/h)	20	0	1170	0	0	0	0	960	230	0	360	20
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	29	0	0				0	1412	338	0	529	29
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.68	0.68	0.68				0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	91	0	143				0	3454	1072	0	3454	1072
Arrive On Green	0.05	0.00	0.00				0.00	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h	1810	0	2842				0	5358	1609	0	5358	1609
Grp Volume(v), veh/h	29	0	0				0	1412	338	0	529	29
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1609	0	1729	1609
Q Serve(g_s), s	0.4	0.0	0.0				0.0	3.5	2.5	0.0	1.1	0.2
Cycle Q Clear(g_c), s	0.4	0.0	0.0				0.0	3.5	2.5	0.0	1.1	0.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	91	0	143				0	3454	1072	0	3454	1072
V/C Ratio(X)	0.32	0.00	0.00				0.00	0.41	0.32	0.00	0.15	0.03
Avail Cap(c_a), veh/h	449	0	705				0	4597	1426	0	4597	1426
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	0.0				0.0	2.2	2.0	0.0	1.8	1.6
Incr Delay (d2), s/veh	2.0	0.0	0.0				0.0	0.1	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0				0.0	1.6	1.1	0.0	0.5	0.3
LnGrp Delay(d),s/veh	14.9	0.0	0.0				0.0	2.2	2.2	0.0	1.8	1.6
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		29						1750			558	
Approach Delay, s/veh		14.9						2.2			1.8	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.8		5.4		22.8		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		25.0		7.0		25.0		
Max Q Clear Time (g_c+I1), s		5.5		2.4		3.1		
Green Ext Time (p_c), s		13.1		0.0		14.2		

Intersection Summary	
HCM 2010 Ctrl Delay	2.3
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
18: Eucalyptus Ave & Redlands Blvd

	⤴	→	⤵	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	0	10	130	0	580	0	200	10	80	320	10
Future Volume (veh/h)	20	0	10	130	0	580	0	200	10	80	320	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	0	10	134	0	598	0	206	10	82	330	10
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	0	384	193	0	500	3	525	26	160	825	25
Arrive On Green	0.03	0.00	0.24	0.11	0.00	0.31	0.00	0.29	0.29	0.09	0.45	0.45
Sat Flow, veh/h	1810	0	1615	1810	0	1615	1810	1797	87	1810	1835	56
Grp Volume(v), veh/h	21	0	10	134	0	598	0	0	216	82	0	340
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1810	0	1615	1810	0	1885	1810	0	1890
Q Serve(g_s), s	0.7	0.0	0.3	4.2	0.0	18.0	0.0	0.0	5.3	2.5	0.0	7.0
Cycle Q Clear(g_c), s	0.7	0.0	0.3	4.2	0.0	18.0	0.0	0.0	5.3	2.5	0.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	63	0	384	193	0	500	3	0	551	160	0	850
V/C Ratio(X)	0.34	0.00	0.03	0.69	0.00	1.20	0.00	0.00	0.39	0.51	0.00	0.40
Avail Cap(c_a), veh/h	218	0	444	280	0	500	218	0	551	218	0	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	17.0	25.1	0.0	20.1	0.0	0.0	16.4	25.3	0.0	10.7
Incr Delay (d2), s/veh	3.1	0.0	0.0	4.5	0.0	106.5	0.0	0.0	2.1	2.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	2.3	0.0	22.7	0.0	0.0	3.1	1.4	0.0	3.7
LnGrp Delay(d),s/veh	30.5	0.0	17.0	29.5	0.0	126.6	0.0	0.0	18.5	27.8	0.0	11.0
LnGrp LOS	C		B	C		F			B	C		B
Approach Vol, veh/h		31			732			216			422	
Approach Delay, s/veh		26.2			108.8			18.5			14.3	
Approach LOS		C			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	21.0	10.2	17.8	0.0	30.1	6.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	17.0	9.0	16.0	7.0	17.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	4.5	7.3	6.2	2.3	0.0	9.0	2.7	20.0
Green Ext Time (p_c), s	0.0	2.4	0.1	3.8	0.0	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.6
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰	↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	10	0	120	60	0	10	430	1180	90	10	1430	70
Future Volume (veh/h)	10	0	120	60	0	10	430	1180	90	10	1430	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	0	148	74	0	12	531	1457	111	12	1765	86
Adj No. of Lanes	1	1	2	1	1	0	2	3	1	1	3	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	234	346	125	0	275	624	3082	956	37	2265	703
Arrive On Green	0.02	0.00	0.12	0.07	0.00	0.17	0.18	0.59	0.59	0.02	0.44	0.44
Sat Flow, veh/h	1810	1900	2808	1810	0	1601	3510	5187	1608	1810	5187	1609
Grp Volume(v), veh/h	12	0	148	74	0	12	531	1457	111	12	1765	86
Grp Sat Flow(s),veh/h/ln	1810	1900	1404	1810	0	1601	1755	1729	1608	1810	1729	1609
Q Serve(g_s), s	0.5	0.0	4.0	3.3	0.0	0.5	12.1	13.1	2.5	0.5	24.1	2.6
Cycle Q Clear(g_c), s	0.5	0.0	4.0	3.3	0.0	0.5	12.1	13.1	2.5	0.5	24.1	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	37	234	346	125	0	275	624	3082	956	37	2265	703
V/C Ratio(X)	0.33	0.00	0.43	0.59	0.00	0.04	0.85	0.47	0.12	0.33	0.78	0.12
Avail Cap(c_a), veh/h	153	849	1254	153	0	715	720	3082	956	153	2380	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	33.6	37.4	0.0	28.6	33.0	9.5	7.3	40.0	19.9	13.9
Incr Delay (d2), s/veh	5.0	0.0	0.8	4.4	0.0	0.1	8.6	0.1	0.1	5.0	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.6	1.8	0.0	0.2	6.6	6.2	1.1	0.3	11.8	1.2
LnGrp Delay(d),s/veh	45.0	0.0	34.5	41.8	0.0	28.7	41.5	9.6	7.4	45.0	21.6	14.0
LnGrp LOS	D		C	D		C	D	A	A	D	C	B
Approach Vol, veh/h		160			86			2099			1863	
Approach Delay, s/veh		35.2			40.0			17.6			21.4	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	53.2	9.7	14.2	18.7	40.2	5.7	18.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	48.0	7.0	37.0	17.0	38.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	2.5	15.1	5.3	6.0	14.1	26.1	2.5	2.5
Green Ext Time (p_c), s	0.0	27.8	0.0	0.6	0.6	10.1	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			↰	↱		✥	
Traffic Vol, veh/h	10	400	100	20	250	0	110	0	40	0	0	10
Future Vol, veh/h	10	400	100	20	250	0	110	0	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	449	112	22	281	0	124	0	45	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	281	0	0	562	0	0	859	854	506	854	910	281
Stage 1	-	-	-	-	-	-	528	528	-	326	326	-
Stage 2	-	-	-	-	-	-	331	326	-	528	584	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1293	-	-	1019	-	-	279	298	570	281	277	763
Stage 1	-	-	-	-	-	-	538	531	-	691	652	-
Stage 2	-	-	-	-	-	-	687	652	-	538	501	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1293	-	-	1019	-	-	267	286	570	251	266	763
Mov Cap-2 Maneuver	-	-	-	-	-	-	267	286	-	251	266	-
Stage 1	-	-	-	-	-	-	531	524	-	682	635	-
Stage 2	-	-	-	-	-	-	659	635	-	489	494	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	24.9	9.8
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	267	570	1293	-	-	1019	-	-	763
HCM Lane V/C Ratio	0.463	0.079	0.009	-	-	0.022	-	-	0.015
HCM Control Delay (s)	29.6	11.9	7.8	0	-	8.6	0	-	9.8
HCM Lane LOS	D	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	2.3	0.3	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	120	210	100	150	200	50	50	430	60	20	650	60
Future Volume (veh/h)	120	210	100	150	200	50	50	430	60	20	650	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	223	106	160	213	53	53	457	64	21	691	64
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	256	271	129	195	279	69	91	724	101	59	730	68
Arrive On Green	0.14	0.22	0.22	0.11	0.19	0.19	0.05	0.44	0.44	0.03	0.43	0.43
Sat Flow, veh/h	1810	1214	577	1810	1465	365	1810	1630	228	1810	1712	159
Grp Volume(v), veh/h	128	0	329	160	0	266	53	0	521	21	0	755
Grp Sat Flow(s),veh/h/ln	1810	0	1791	1810	0	1830	1810	0	1858	1810	0	1871
Q Serve(g_s), s	5.5	0.0	14.6	7.2	0.0	11.5	2.4	0.0	18.1	0.9	0.0	32.4
Cycle Q Clear(g_c), s	5.5	0.0	14.6	7.2	0.0	11.5	2.4	0.0	18.1	0.9	0.0	32.4
Prop In Lane	1.00		0.32	1.00		0.20	1.00		0.12	1.00		0.08
Lane Grp Cap(c), veh/h	256	0	401	195	0	348	91	0	826	59	0	797
V/C Ratio(X)	0.50	0.00	0.82	0.82	0.00	0.76	0.58	0.00	0.63	0.36	0.00	0.95
Avail Cap(c_a), veh/h	256	0	558	195	0	570	152	0	826	152	0	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.1	0.0	30.8	36.4	0.0	32.0	38.7	0.0	17.9	39.5	0.0	23.0
Incr Delay (d2), s/veh	1.5	0.0	6.8	23.4	0.0	3.5	5.7	0.0	1.6	3.7	0.0	19.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	8.0	4.9	0.0	6.1	1.3	0.0	9.6	0.5	0.0	20.8
LnGrp Delay(d),s/veh	34.6	0.0	37.6	59.8	0.0	35.5	44.4	0.0	19.4	43.2	0.0	42.2
LnGrp LOS	C		D	E		D	D		B	D		D
Approach Vol, veh/h		457			426			574			776	
Approach Delay, s/veh		36.8			44.7			21.8			42.2	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	41.1	13.0	22.7	8.2	39.6	15.8	19.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	9.0	26.0	7.0	37.0	9.0	26.0
Max Q Clear Time (g_c+I1), s	2.9	20.1	9.2	16.6	4.4	34.4	7.5	13.5
Green Ext Time (p_c), s	0.0	2.7	0.0	1.2	0.1	1.2	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	29.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		✣			↰	↱		✣	
Traffic Vol, veh/h	100	10	20	10	10	10	80	270	10	10	390	160
Future Vol, veh/h	100	10	20	10	10	10	80	270	10	10	390	160
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	106	11	21	11	11	11	85	287	11	11	415	170
Number of Lanes	0	1	1	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	12.5	11.1	17.6	42.4
HCM LOS	B	B	C	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	23%	0%	91%	0%	33%	2%
Vol Thru, %	77%	0%	9%	0%	33%	70%
Vol Right, %	0%	100%	0%	100%	33%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	350	10	110	20	30	560
LT Vol	80	0	100	0	10	10
Through Vol	270	0	10	0	10	390
RT Vol	0	10	0	20	10	160
Lane Flow Rate	372	11	117	21	32	596
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.617	0.015	0.249	0.038	0.066	0.922
Departure Headway (Hd)	5.968	5.141	7.653	6.471	7.497	5.574
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	694	468	551	475	649
Service Time	3.714	2.887	5.419	4.236	5.587	3.614
HCM Lane V/C Ratio	0.617	0.016	0.25	0.038	0.067	0.918
HCM Control Delay	17.9	8	13	9.5	11.1	42.4
HCM Lane LOS	C	A	B	A	B	E
HCM 95th-tile Q	4.2	0	1	0.1	0.2	12.1

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰	↱		✣	
Traffic Volume (veh/h)	10	340	180	60	270	50	70	80	20	20	70	10
Future Volume (veh/h)	10	340	180	60	270	50	70	80	20	20	70	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	362	191	64	287	53	74	85	21	21	74	11
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	215	606	314	151	435	366	139	159	257	58	205	30
Arrive On Green	0.12	0.26	0.26	0.08	0.23	0.23	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1810	2296	1191	1810	1900	1597	864	993	1600	365	1288	191
Grp Volume(v), veh/h	11	283	270	64	287	53	159	0	21	106	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1682	1810	1900	1597	1857	0	1600	1844	0	0
Q Serve(g_s), s	0.3	6.6	6.8	1.6	6.6	1.3	3.8	0.0	0.5	2.5	0.0	0.0
Cycle Q Clear(g_c), s	0.3	6.6	6.8	1.6	6.6	1.3	3.8	0.0	0.5	2.5	0.0	0.0
Prop In Lane	1.00		0.71	1.00		1.00	0.47		1.00	0.20		0.10
Lane Grp Cap(c), veh/h	215	476	444	151	435	366	298	0	257	293	0	0
V/C Ratio(X)	0.05	0.59	0.61	0.42	0.66	0.14	0.53	0.00	0.08	0.36	0.00	0.00
Avail Cap(c_a), veh/h	264	1052	981	264	1108	931	1083	0	933	998	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.8	15.4	15.5	20.9	16.8	14.8	18.5	0.0	17.2	18.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.2	1.3	1.9	1.7	0.2	1.5	0.0	0.1	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.4	3.2	0.9	3.6	0.6	2.1	0.0	0.2	1.3	0.0	0.0
LnGrp Delay(d),s/veh	18.9	16.6	16.9	22.8	18.5	14.9	20.0	0.0	17.3	18.8	0.0	0.0
LnGrp LOS	B	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		564			404			180			106	
Approach Delay, s/veh		16.8			18.7			19.7			18.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		11.7	8.0	16.7		11.6	9.7	15.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		5.8	3.6	8.8		4.5	2.3	8.6
Green Ext Time (p_c), s		0.8	0.0	2.8		0.4	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	70	160	160	40	180	40	110	390	30	40	610	110
Future Volume (veh/h)	70	160	160	40	180	40	110	390	30	40	610	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	168	168	42	189	42	116	411	32	42	642	116
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	397	353	113	562	122	207	1174	623	113	1209	216
Arrive On Green	0.09	0.22	0.22	0.06	0.19	0.19	0.11	0.33	0.33	0.06	0.27	0.27
Sat Flow, veh/h	1810	1805	1604	1810	2943	639	1810	3610	1608	1810	4425	789
Grp Volume(v), veh/h	74	168	168	42	114	117	116	411	32	42	500	258
Grp Sat Flow(s),veh/h/ln	1810	1805	1604	1810	1805	1777	1810	1805	1608	1810	1729	1756
Q Serve(g_s), s	1.9	3.9	4.4	1.1	2.6	2.8	2.9	4.2	0.6	1.1	5.9	6.1
Cycle Q Clear(g_c), s	1.9	3.9	4.4	1.1	2.6	2.8	2.9	4.2	0.6	1.1	5.9	6.1
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	165	397	353	113	345	340	207	1174	623	113	945	480
V/C Ratio(X)	0.45	0.42	0.48	0.37	0.33	0.34	0.56	0.35	0.05	0.37	0.53	0.54
Avail Cap(c_a), veh/h	262	1528	1358	262	1528	1505	299	2162	1063	262	1999	1015
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	16.3	16.5	21.8	16.9	17.0	20.3	12.4	9.3	21.8	14.9	15.0
Incr Delay (d2), s/veh	1.9	0.7	1.0	2.0	0.6	0.6	2.4	0.2	0.0	2.0	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.0	2.1	0.6	1.4	1.4	1.6	2.1	0.3	0.6	2.8	3.1
LnGrp Delay(d),s/veh	22.8	17.0	17.5	23.8	17.5	17.6	22.7	12.6	9.3	23.8	15.4	15.9
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	B	B
Approach Vol, veh/h		410			273			559			800	
Approach Delay, s/veh		18.2			18.5			14.5			16.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	19.7	7.0	14.6	9.5	17.2	8.4	13.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	3.1	6.2	3.1	6.4	4.9	8.1	3.9	4.8
Green Ext Time (p_c), s	0.0	2.6	0.0	2.0	0.8	4.1	0.6	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.4
HCM 2010 LOS	B

HCM 2010 AWSC
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave/Street D

Intersection	
Intersection Delay, s/veh	22.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Vol, veh/h	120	80	30	280	140	120	50	160	160	80	320	90
Future Vol, veh/h	120	80	30	280	140	120	50	160	160	80	320	90
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	128	85	32	298	149	128	53	170	170	85	340	96
Number of Lanes	0	2	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	17.5	26.7	19.5	22.5
HCM LOS	C	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	38%	0%	75%	0%	100%	0%	33%	0%
Vol Thru, %	62%	33%	25%	57%	0%	54%	67%	64%
Vol Right, %	0%	67%	0%	43%	0%	46%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	240	160	70	280	260	240	250
LT Vol	50	0	120	0	280	0	80	0
Through Vol	80	80	40	40	0	140	160	160
RT Vol	0	160	0	30	0	120	0	90
Lane Flow Rate	138	255	170	74	298	277	255	266
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.339	0.578	0.443	0.179	0.72	0.603	0.599	0.592
Departure Headway (Hd)	8.836	8.152	9.378	8.675	8.804	7.952	8.56	8.126
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	409	444	386	416	414	456	424	447
Service Time	6.536	5.852	7.091	6.388	6.504	5.652	6.26	5.826
HCM Lane V/C Ratio	0.337	0.574	0.44	0.178	0.72	0.607	0.601	0.595
HCM Control Delay	16	21.4	19.3	13.3	31.1	22	23.2	21.9
HCM Lane LOS	C	C	C	B	D	C	C	C
HCM 95th-tile Q	1.5	3.6	2.2	0.6	5.6	3.9	3.8	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	30	10	230	70	70	20	360	260	140	500	130
Future Volume (veh/h)	60	30	10	230	70	70	20	360	260	140	500	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	31	10	240	73	73	21	375	271	146	521	135
Adj No. of Lanes	1	1	1	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	322	272	282	450	400	63	1489	713	198	1494	377
Arrive On Green	0.08	0.17	0.17	0.16	0.25	0.25	0.03	0.29	0.29	0.11	0.36	0.36
Sat Flow, veh/h	1810	1900	1601	1810	1806	1604	1810	5187	1607	1810	4127	1042
Grp Volume(v), veh/h	62	31	10	240	73	73	21	375	271	146	434	222
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1805	1605	1810	1729	1607	1810	1729	1711
Q Serve(g_s), s	1.9	0.8	0.3	7.4	1.8	2.1	0.7	3.2	6.5	4.5	5.3	5.5
Cycle Q Clear(g_c), s	1.9	0.8	0.3	7.4	1.8	2.1	0.7	3.2	6.5	4.5	5.3	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	138	322	272	282	450	400	63	1489	713	198	1252	620
V/C Ratio(X)	0.45	0.10	0.04	0.85	0.16	0.18	0.33	0.25	0.38	0.74	0.35	0.36
Avail Cap(c_a), veh/h	282	1450	1221	282	1377	1225	220	2609	1060	220	1739	860
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	20.2	20.0	23.7	16.9	17.0	27.2	15.8	10.8	24.9	13.4	13.5
Incr Delay (d2), s/veh	2.3	0.1	0.1	21.0	0.2	0.2	3.1	0.1	0.3	11.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.4	0.1	5.3	0.9	0.9	0.4	1.5	2.9	2.8	2.5	2.6
LnGrp Delay(d),s/veh	27.7	20.3	20.1	44.7	17.1	17.2	30.3	15.9	11.1	35.8	13.6	13.8
LnGrp LOS	C	C	C	D	B	B	C	B	B	D	B	B
Approach Vol, veh/h		103			386			667			802	
Approach Delay, s/veh		24.8			34.3			14.4			17.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	20.6	13.0	13.8	6.0	24.9	8.4	18.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	9.0	44.0	7.0	29.0	9.0	44.0
Max Q Clear Time (g_c+I1), s	6.5	8.5	9.4	2.8	2.7	7.5	3.9	4.1
Green Ext Time (p_c), s	0.0	7.0	0.0	1.0	0.0	7.1	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	240	410	110	110	360	50	160	620	170	90	520	220
Future Volume (veh/h)	240	410	110	110	360	50	160	620	170	90	520	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	250	427	115	115	375	52	167	646	177	94	542	229
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	930	543	145	712	98	145	1402	754	165	1443	828
Arrive On Green	0.11	0.26	0.26	0.08	0.22	0.22	0.08	0.39	0.39	0.09	0.40	0.40
Sat Flow, veh/h	1810	3610	1606	1810	3186	438	1810	3610	1609	1810	3610	1609
Grp Volume(v), veh/h	250	427	115	115	211	216	167	646	177	94	542	229
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1819	1810	1805	1609	1810	1805	1609
Q Serve(g_s), s	10.0	8.7	0.8	5.5	9.0	9.2	7.0	11.7	3.3	4.4	9.3	3.9
Cycle Q Clear(g_c), s	10.0	8.7	0.8	5.5	9.0	9.2	7.0	11.7	3.3	4.4	9.3	3.9
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	930	543	145	403	406	145	1402	754	165	1443	828
V/C Ratio(X)	1.21	0.46	0.21	0.79	0.52	0.53	1.15	0.46	0.23	0.57	0.38	0.28
Avail Cap(c_a), veh/h	207	1649	863	145	763	769	145	1402	754	165	1443	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	27.4	10.1	39.6	29.9	30.0	40.3	20.0	5.4	38.1	18.6	4.5
Incr Delay (d2), s/veh	130.6	0.4	0.2	25.6	1.1	1.1	122.3	1.1	0.7	4.5	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	4.4	1.3	3.8	4.6	4.7	8.4	6.0	1.8	2.4	4.7	2.2
LnGrp Delay(d),s/veh	169.4	27.7	10.3	65.2	31.0	31.0	162.6	21.0	6.2	42.7	19.3	5.3
LnGrp LOS	F	C	B	E	C	C	F	C	A	D	B	A
Approach Vol, veh/h		792			542			990			865	
Approach Delay, s/veh		69.9			38.3			42.3			18.1	
Approach LOS		E			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	38.0	11.0	26.6	11.0	39.0	14.0	23.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	34.0	7.0	40.0	7.0	35.0	10.0	37.0
Max Q Clear Time (g_c+I1), s	6.4	13.7	7.5	10.7	9.0	11.3	12.0	11.2
Green Ext Time (p_c), s	0.1	4.8	0.0	6.6	0.0	4.1	0.0	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	190	10	160	330	990	0	0	740	240
Future Volume (veh/h)	0	0	0	190	10	160	330	990	0	0	740	240
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				196	10	165	340	1021	0	0	763	247
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				281	14	261	362	2701	0	0	1351	437
Arrive On Green				0.16	0.16	0.16	0.20	0.75	0.00	0.00	0.50	0.50
Sat Flow, veh/h				1726	88	1600	1810	3705	0	0	2776	868
Grp Volume(v), veh/h				206	0	165	340	1021	0	0	514	496
Grp Sat Flow(s),veh/h/ln				1814	0	1600	1810	1805	0	0	1805	1744
Q Serve(g_s), s				9.7	0.0	8.7	16.7	8.9	0.0	0.0	17.8	17.8
Cycle Q Clear(g_c), s				9.7	0.0	8.7	16.7	8.9	0.0	0.0	17.8	17.8
Prop In Lane				0.95		1.00	1.00		0.00	0.00		0.50
Lane Grp Cap(c), veh/h				296	0	261	362	2701	0	0	909	878
V/C Ratio(X)				0.70	0.00	0.63	0.94	0.38	0.00	0.00	0.56	0.57
Avail Cap(c_a), veh/h				685	0	604	362	2701	0	0	909	878
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.75	0.75	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.6	0.0	35.2	35.5	4.0	0.0	0.0	15.5	15.5
Incr Delay (d2), s/veh				3.0	0.0	2.5	26.4	0.3	0.0	0.0	2.5	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.0	0.0	4.0	11.0	4.5	0.0	0.0	9.5	9.2
LnGrp Delay(d),s/veh				38.5	0.0	37.7	61.9	4.3	0.0	0.0	18.0	18.1
LnGrp LOS				D		D	E	A			B	B
Approach Vol, veh/h					371			1361			1010	
Approach Delay, s/veh					38.2			18.7			18.1	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		71.3			22.0	49.3		18.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		48.0			18.0	26.0		34.0
Max Q Clear Time (g_c+I1), s		10.9			18.7	19.8		11.7
Green Ext Time (p_c), s		19.9			0.0	5.2		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	410	10	280	0	0	0	0	910	250	180	770	0
Future Volume (veh/h)	410	10	280	0	0	0	0	910	250	180	770	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	430	0	289				0	938	258	186	794	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	925	0	410				0	1639	450	240	2190	0
Arrive On Green	0.26	0.00	0.26				0.00	0.41	0.41	0.13	0.61	0.00
Sat Flow, veh/h	3619	0	1606				0	4216	1109	1810	3705	0
Grp Volume(v), veh/h	430	0	289				0	801	395	186	794	0
Grp Sat Flow(s),veh/h/ln	1810	0	1606				0	1729	1696	1810	1805	0
Q Serve(g_s), s	5.8	0.0	9.5				0.0	10.4	10.5	5.8	6.4	0.0
Cycle Q Clear(g_c), s	5.8	0.0	9.5				0.0	10.4	10.5	5.8	6.4	0.0
Prop In Lane	1.00		1.00				0.00		0.65	1.00		0.00
Lane Grp Cap(c), veh/h	925	0	410				0	1402	687	240	2190	0
V/C Ratio(X)	0.46	0.00	0.70				0.00	0.57	0.57	0.78	0.36	0.00
Avail Cap(c_a), veh/h	2056	0	912				0	1667	818	530	3046	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.3	0.0	19.6				0.0	13.4	13.4	24.4	5.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.2				0.0	0.4	0.8	5.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	4.4				0.0	5.0	5.0	3.2	3.2	0.0
LnGrp Delay(d),s/veh	18.6	0.0	21.8				0.0	13.7	14.1	29.7	5.9	0.0
LnGrp LOS	B		C					B	B	C	A	
Approach Vol, veh/h		719						1196			980	
Approach Delay, s/veh		19.9						13.9			10.4	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.7	27.5		18.8		39.2		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	17.0	28.0		33.0		49.0		
Max Q Clear Time (g_c+I1), s	7.8	12.5		11.5		8.4		
Green Ext Time (p_c), s	0.3	11.1		2.6		20.3		

Intersection Summary		
HCM 2010 Ctrl Delay		14.2
HCM 2010 LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	460	540	520	50	100	420	130	810	100	360	720	160
Future Volume (veh/h)	460	540	520	50	100	420	130	810	100	360	720	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	474	557	536	52	103	433	134	835	103	371	742	165
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	557	1238	551	94	449	577	138	1552	190	425	1359	860
Arrive On Green	0.16	0.34	0.34	0.05	0.24	0.24	0.08	0.33	0.33	0.24	0.75	0.75
Sat Flow, veh/h	3510	3610	1608	1810	1900	1615	1810	4679	574	3510	3610	1604
Grp Volume(v), veh/h	474	557	536	52	103	433	134	616	322	371	742	165
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1810	1900	1615	1810	1729	1796	1755	1805	1604
Q Serve(g_s), s	13.8	12.6	34.5	2.9	4.6	24.7	7.8	15.2	15.3	10.7	9.0	2.5
Cycle Q Clear(g_c), s	13.8	12.6	34.5	2.9	4.6	24.7	7.8	15.2	15.3	10.7	9.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	557	1238	551	94	449	577	138	1147	595	425	1359	860
V/C Ratio(X)	0.85	0.45	0.97	0.55	0.23	0.75	0.97	0.54	0.54	0.87	0.55	0.19
Avail Cap(c_a), veh/h	702	1238	551	121	449	577	138	1147	595	435	1359	860
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.85	0.85	0.85
Uniform Delay (d), s/veh	43.0	26.8	34.0	48.6	32.4	29.6	48.4	28.5	28.6	39.0	9.2	4.7
Incr Delay (d2), s/veh	8.1	0.3	31.2	5.0	0.3	5.4	62.1	1.5	3.0	15.1	1.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.3	20.1	1.6	2.4	11.9	6.3	7.5	8.1	6.0	4.5	1.2
LnGrp Delay(d),s/veh	51.0	27.1	65.3	53.5	32.6	35.1	110.5	30.1	31.6	54.1	10.5	5.1
LnGrp LOS	D	C	E	D	C	D	F	C	C	D	B	A
Approach Vol, veh/h		1567			588			1072			1278	
Approach Delay, s/veh		47.4			36.3			40.6			22.5	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	38.8	9.5	40.0	12.0	43.5	20.7	28.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	21.0	22.0
Max Q Clear Time (g_c+I1), s	12.7	17.3	4.9	36.5	9.8	11.0	15.8	26.7
Green Ext Time (p_c), s	0.1	9.8	0.0	0.0	0.0	13.6	0.9	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	220	10	160	510	1200	0	0	1100	320
Future Volume (veh/h)	0	0	0	220	10	160	510	1200	0	0	1100	320
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				229	10	167	531	1250	0	0	1146	333
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				281	12	259	1305	2751	0	0	1828	567
Arrive On Green				0.16	0.16	0.16	0.74	1.00	0.00	0.00	0.35	0.35
Sat Flow, veh/h				1737	76	1600	3510	3705	0	0	5358	1608
Grp Volume(v), veh/h				239	0	167	531	1250	0	0	1146	333
Grp Sat Flow(s),veh/h/ln				1813	0	1600	1755	1805	0	0	1729	1608
Q Serve(g_s), s				13.4	0.0	10.3	5.8	0.0	0.0	0.0	19.3	17.8
Cycle Q Clear(g_c), s				13.4	0.0	10.3	5.8	0.0	0.0	0.0	19.3	17.8
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				293	0	259	1305	2751	0	0	1828	567
V/C Ratio(X)				0.82	0.00	0.65	0.41	0.45	0.00	0.00	0.63	0.59
Avail Cap(c_a), veh/h				484	0	427	1305	2751	0	0	1828	567
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.75	0.75	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.5	0.0	41.2	9.2	0.0	0.0	0.0	28.3	27.8
Incr Delay (d2), s/veh				5.5	0.0	2.7	0.2	0.4	0.0	0.0	1.6	4.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.2	0.0	4.7	2.8	0.2	0.0	0.0	9.5	8.6
LnGrp Delay(d),s/veh				48.0	0.0	43.9	9.4	0.4	0.0	0.0	29.9	32.2
LnGrp LOS				D		D	A	A			C	C
Approach Vol, veh/h					406			1781			1479	
Approach Delay, s/veh					46.3			3.1			30.4	
Approach LOS					D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		84.0			43.0	41.0		21.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		69.0			28.0	37.0		28.0
Max Q Clear Time (g_c+I1), s		2.0			7.8	21.3		15.4
Green Ext Time (p_c), s		16.7			11.0	8.4		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	70	150	80	50	120	90	40	910	40	90	1150	60
Future Volume (veh/h)	70	150	80	50	120	90	40	910	40	90	1150	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	155	82	52	124	93	41	938	41	93	1186	62
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	316	267	116	294	247	153	1630	725	153	1630	725
Arrive On Green	0.08	0.17	0.17	0.06	0.15	0.15	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1810	1900	1600	1810	1900	1599	1810	3610	1606	1810	3610	1606
Grp Volume(v), veh/h	72	155	82	52	124	93	41	938	41	93	1186	62
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1599	1810	1805	1606	1810	1805	1606
Q Serve(g_s), s	2.6	5.1	2.3	1.9	4.1	3.6	1.5	13.2	1.0	3.4	18.4	1.0
Cycle Q Clear(g_c), s	2.6	5.1	2.3	1.9	4.1	3.6	1.5	13.2	1.0	3.4	18.4	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	316	267	116	294	247	153	1630	725	153	1630	725
V/C Ratio(X)	0.52	0.49	0.31	0.45	0.42	0.38	0.27	0.58	0.06	0.61	0.73	0.09
Avail Cap(c_a), veh/h	237	941	793	185	886	746	185	1630	725	185	1630	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	26.0	14.5	31.0	26.2	26.0	29.4	13.9	10.6	30.3	15.4	4.5
Incr Delay (d2), s/veh	3.0	1.2	0.6	2.7	1.0	0.9	0.9	1.5	0.1	3.9	2.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.8	1.3	1.0	2.2	1.6	0.8	6.9	0.5	1.9	9.7	0.7
LnGrp Delay(d),s/veh	33.6	27.1	15.1	33.6	27.2	27.0	30.3	15.4	10.7	34.3	18.3	4.8
LnGrp LOS	C	C	B	C	C	C	C	B	B	C	B	A
Approach Vol, veh/h		309			269			1020			1341	
Approach Delay, s/veh		25.4			28.4			15.8			18.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	35.0	8.4	15.4	9.8	35.0	9.2	14.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	5.4	15.2	3.9	7.1	3.5	20.4	4.6	6.1
Green Ext Time (p_c), s	0.0	5.8	0.0	2.0	2.0	5.8	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	7.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰	↱
Traffic Vol, veh/h	10	10	180	10	0	190
Future Vol, veh/h	10	10	180	10	0	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	202	11	0	213

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	22	0	433	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	416	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1607	-	584	1068
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1607	-	510	1068
Mov Cap-2 Maneuver	-	-	-	-	510	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	586	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	1068	-	-	1607	-
HCM Lane V/C Ratio	-	0.2	-	-	0.126	-
HCM Control Delay (s)	0	9.2	-	-	7.6	0
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	-	0.7	-	-	0.4	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			✣			✣	
Traffic Volume (veh/h)	80	130	110	100	170	10	100	160	90	10	180	50
Future Volume (veh/h)	80	130	110	100	170	10	100	160	90	10	180	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	143	121	110	187	11	110	176	99	11	198	55
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	112	231	195	387	703	41	121	194	109	13	227	63
Arrive On Green	0.06	0.24	0.24	0.21	0.40	0.40	0.24	0.24	0.24	0.17	0.17	0.17
Sat Flow, veh/h	1810	947	802	1810	1776	104	511	817	460	76	1367	380
Grp Volume(v), veh/h	88	0	264	110	0	198	385	0	0	264	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1749	1810	0	1881	1788	0	0	1822	0	0
Q Serve(g_s), s	5.5	0.0	15.5	5.9	0.0	8.2	24.1	0.0	0.0	16.2	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	15.5	5.9	0.0	8.2	24.1	0.0	0.0	16.2	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.06	0.29		0.26	0.04		0.21
Lane Grp Cap(c), veh/h	112	0	426	387	0	744	424	0	0	302	0	0
V/C Ratio(X)	0.79	0.00	0.62	0.28	0.00	0.27	0.91	0.00	0.00	0.87	0.00	0.00
Avail Cap(c_a), veh/h	189	0	426	387	0	744	529	0	0	380	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.91	0.00	0.91	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	53.2	0.0	38.8	37.8	0.0	23.5	42.6	0.0	0.0	46.8	0.0	0.0
Incr Delay (d2), s/veh	11.4	0.0	6.6	0.4	0.0	0.8	16.9	0.0	0.0	16.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	8.3	3.0	0.0	4.4	13.9	0.0	0.0	9.6	0.0	0.0
LnGrp Delay(d),s/veh	64.6	0.0	45.4	38.2	0.0	24.3	59.5	0.0	0.0	63.3	0.0	0.0
LnGrp LOS	E		D	D		C	E			E		
Approach Vol, veh/h		352			308			385			264	
Approach Delay, s/veh		50.2			29.2			59.5			63.3	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		31.3	28.6	32.0		23.1	11.1	49.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	13.0	28.0		24.0	12.0	29.0
Max Q Clear Time (g_c+I1), s		26.1	7.9	17.5		18.2	7.5	10.2
Green Ext Time (p_c), s		1.2	0.5	0.9		0.6	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	50.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱		↰	
Traffic Volume (veh/h)	90	10	530	0	0	0	0	690	200	10	410	0
Future Volume (veh/h)	90	10	530	0	0	0	0	690	200	10	410	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	94	10	552				0	719	208	10	427	0
Adj No. of Lanes	0	1	1				0	1	1	0	1	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	511	54	498				0	654	552	9	391	0
Arrive On Green	0.31	0.31	0.31				0.00	0.34	0.34	0.21	0.21	0.00
Sat Flow, veh/h	1643	175	1602				0	1900	1603	43	1854	0
Grp Volume(v), veh/h	104	0	552				0	719	208	437	0	0
Grp Sat Flow(s),veh/h/ln	1818	0	1602				0	1900	1603	1898	0	0
Q Serve(g_s), s	3.8	0.0	28.0				0.0	31.0	8.8	19.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	28.0				0.0	31.0	8.8	19.0	0.0	0.0
Prop In Lane	0.90		1.00				0.00		1.00	0.02		0.00
Lane Grp Cap(c), veh/h	566	0	498				0	654	552	401	0	0
V/C Ratio(X)	0.18	0.00	1.11				0.00	1.10	0.38	1.09	0.00	0.00
Avail Cap(c_a), veh/h	566	0	498				0	654	552	401	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.7	0.0	31.0				0.0	29.5	22.2	35.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	73.0				0.0	65.2	0.4	71.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	22.4				0.0	28.0	3.9	17.9	0.0	0.0
LnGrp Delay(d),s/veh	22.8	0.0	104.0				0.0	94.7	22.6	107.1	0.0	0.0
LnGrp LOS	C		F					F	C	F		
Approach Vol, veh/h		656						927			437	
Approach Delay, s/veh		91.2						78.6			107.1	
Approach LOS		F						E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		32.0		35.0				23.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		31.0				19.0
Max Q Clear Time (g_c+I1), s		30.0		33.0				21.0
Green Ext Time (p_c), s		0.0		0.0				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	88.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	90	310	170	160	240	70	140	790	100	140	780	80
Future Volume (veh/h)	90	310	170	160	240	70	140	790	100	140	780	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	330	181	170	255	74	149	840	106	149	830	85
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	551	296	171	732	208	184	1408	628	150	1776	181
Arrive On Green	0.07	0.24	0.24	0.09	0.26	0.26	0.10	0.39	0.39	0.08	0.37	0.37
Sat Flow, veh/h	1810	2265	1216	1810	2773	787	1810	3610	1609	1810	4782	487
Grp Volume(v), veh/h	96	262	249	170	164	165	149	840	106	149	599	316
Grp Sat Flow(s),veh/h/ln	1810	1805	1676	1810	1805	1756	1810	1805	1609	1810	1729	1812
Q Serve(g_s), s	4.4	10.8	11.2	7.9	6.2	6.5	6.8	15.6	3.6	7.0	11.1	11.2
Cycle Q Clear(g_c), s	4.4	10.8	11.2	7.9	6.2	6.5	6.8	15.6	3.6	7.0	11.1	11.2
Prop In Lane	1.00		0.73	1.00		0.45	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	134	439	408	171	476	463	184	1408	628	150	1284	673
V/C Ratio(X)	0.72	0.60	0.61	0.99	0.34	0.36	0.81	0.60	0.17	0.99	0.47	0.47
Avail Cap(c_a), veh/h	150	768	714	171	790	768	214	1408	628	150	1284	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	28.3	28.4	38.3	25.2	25.3	37.2	20.5	16.8	38.8	20.2	20.2
Incr Delay (d2), s/veh	13.4	1.3	1.5	66.7	0.4	0.5	18.1	1.9	0.6	71.9	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	5.5	5.4	7.1	3.2	3.2	4.3	8.1	1.7	6.4	5.5	6.1
LnGrp Delay(d),s/veh	51.7	29.6	29.9	105.0	25.6	25.8	55.3	22.4	17.4	110.7	21.4	22.6
LnGrp LOS	D	C	C	F	C	C	E	C	B	F	C	C
Approach Vol, veh/h		607			499			1095			1064	
Approach Delay, s/veh		33.2			52.7			26.4			34.3	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.0	12.0	24.6	12.6	35.4	10.3	26.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0	8.0	36.0	10.0	30.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	9.0	17.6	9.9	13.2	8.8	13.2	6.4	8.5
Green Ext Time (p_c), s	0.0	9.8	0.0	5.4	0.0	10.4	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	30	340	120	200	240	90	190	700	330	150	580	10
Future Volume (veh/h)	30	340	120	200	240	90	190	700	330	150	580	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	362	128	213	255	96	202	745	351	160	617	11
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	610	213	154	707	259	154	2085	647	154	2109	38
Arrive On Green	0.04	0.23	0.23	0.09	0.27	0.27	0.09	0.40	0.40	0.09	0.40	0.40
Sat Flow, veh/h	1810	2623	914	1810	2584	948	1810	5187	1609	1810	5248	93
Grp Volume(v), veh/h	32	247	243	213	176	175	202	745	351	160	406	222
Grp Sat Flow(s),veh/h/ln	1810	1805	1732	1810	1805	1727	1810	1729	1609	1810	1729	1883
Q Serve(g_s), s	1.4	10.0	10.3	7.0	6.4	6.7	7.0	8.2	13.7	7.0	6.5	6.6
Cycle Q Clear(g_c), s	1.4	10.0	10.3	7.0	6.4	6.7	7.0	8.2	13.7	7.0	6.5	6.6
Prop In Lane	1.00		0.53	1.00		0.55	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	80	420	403	154	494	473	154	2085	647	154	1390	757
V/C Ratio(X)	0.40	0.59	0.60	1.38	0.36	0.37	1.31	0.36	0.54	1.04	0.29	0.29
Avail Cap(c_a), veh/h	154	813	780	154	813	778	154	2085	647	154	1390	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	28.0	28.1	37.6	24.0	24.1	37.6	17.1	18.8	37.6	16.6	16.6
Incr Delay (d2), s/veh	3.2	1.3	1.4	206.4	0.4	0.5	177.8	0.5	3.3	82.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.1	5.1	12.3	3.3	3.3	11.1	4.0	6.6	7.0	3.2	3.6
LnGrp Delay(d),s/veh	41.4	29.3	29.6	243.9	24.4	24.6	215.4	17.6	22.0	120.4	17.2	17.6
LnGrp LOS	D	C	C	F	C	C	F	B	C	F	B	B
Approach Vol, veh/h		522			564			1298			788	
Approach Delay, s/veh		30.2			107.4			49.6			38.3	
Approach LOS		C			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.0	11.0	23.1	11.0	37.0	7.6	26.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0	7.0	37.0	7.0	33.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	9.0	15.7	9.0	12.3	9.0	8.6	3.4	8.7
Green Ext Time (p_c), s	0.0	9.0	0.0	4.6	0.0	10.7	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	720	110	190	610	110	70	100	100	70	140	80
Future Volume (veh/h)	70	720	110	190	610	110	70	100	100	70	140	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	766	117	202	649	117	74	106	106	74	149	85
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	1137	174	247	1514	803	144	317	281	144	396	214
Arrive On Green	0.08	0.36	0.36	0.14	0.42	0.42	0.08	0.18	0.18	0.08	0.18	0.18
Sat Flow, veh/h	1810	3139	479	1810	3610	1609	1810	1805	1601	1810	2260	1218
Grp Volume(v), veh/h	74	440	443	202	649	117	74	106	106	74	117	117
Grp Sat Flow(s),veh/h/ln	1810	1805	1813	1810	1805	1609	1810	1805	1601	1810	1805	1673
Q Serve(g_s), s	2.5	13.4	13.4	7.0	8.3	2.6	2.5	3.3	3.8	2.5	3.7	4.0
Cycle Q Clear(g_c), s	2.5	13.4	13.4	7.0	8.3	2.6	2.5	3.3	3.8	2.5	3.7	4.0
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		0.73
Lane Grp Cap(c), veh/h	144	654	657	247	1514	803	144	317	281	144	317	293
V/C Ratio(X)	0.51	0.67	0.67	0.82	0.43	0.15	0.51	0.33	0.38	0.51	0.37	0.40
Avail Cap(c_a), veh/h	251	806	810	279	1668	872	251	1196	1061	195	1140	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	17.5	17.5	27.2	13.3	8.8	28.7	23.5	23.6	28.7	23.6	23.7
Incr Delay (d2), s/veh	2.8	1.6	1.6	15.6	0.2	0.1	2.8	0.6	0.8	2.8	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	6.9	6.9	4.6	4.1	1.1	1.4	1.7	1.7	1.4	1.9	1.9
LnGrp Delay(d),s/veh	31.5	19.1	19.1	42.9	13.5	8.9	31.5	24.1	24.5	31.5	24.3	24.6
LnGrp LOS	C	B	B	D	B	A	C	C	C	C	C	C
Approach Vol, veh/h		957			968			286			308	
Approach Delay, s/veh		20.0			19.1			26.1			26.2	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	15.4	12.9	27.5	9.2	15.4	9.2	31.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	29.0	9.0	41.0	9.0	30.0
Max Q Clear Time (g_c+I1), s	4.5	5.8	9.0	15.4	4.5	6.0	4.5	10.3
Green Ext Time (p_c), s	0.0	2.5	0.1	7.6	0.0	2.5	0.0	9.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	170	440	280	580	640	100	220	480	430	210	660	80
Future Volume (veh/h)	170	440	280	580	640	100	220	480	430	210	660	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	175	454	289	598	660	103	227	495	443	216	680	82
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	244	956	444	595	1705	263	296	1173	796	245	1007	121
Arrive On Green	0.07	0.28	0.28	0.17	0.38	0.38	0.08	0.32	0.32	0.07	0.31	0.31
Sat Flow, veh/h	3510	3458	1606	3510	4532	699	3510	3610	1608	3510	3243	391
Grp Volume(v), veh/h	175	454	289	598	502	261	227	495	443	216	378	384
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1773	1755	1805	1608	1755	1805	1829
Q Serve(g_s), s	4.9	11.0	15.9	17.0	10.6	10.8	6.4	10.8	19.3	6.1	18.3	18.4
Cycle Q Clear(g_c), s	4.9	11.0	15.9	17.0	10.6	10.8	6.4	10.8	19.3	6.1	18.3	18.4
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	244	956	444	595	1301	667	296	1173	796	245	560	568
V/C Ratio(X)	0.72	0.47	0.65	1.01	0.39	0.39	0.77	0.42	0.56	0.88	0.67	0.68
Avail Cap(c_a), veh/h	350	1240	576	595	1482	760	350	1583	978	245	737	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	30.2	32.0	41.7	22.8	22.9	45.0	26.5	17.7	46.3	30.2	30.2
Incr Delay (d2), s/veh	3.9	0.4	1.6	38.3	0.2	0.4	8.4	0.2	0.6	29.0	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.3	7.3	11.3	5.1	5.4	3.4	5.4	8.6	4.0	9.4	9.5
LnGrp Delay(d),s/veh	49.6	30.6	33.7	80.0	23.0	23.3	53.3	26.7	18.3	75.3	31.7	31.8
LnGrp LOS	D	C	C	F	C	C	D	C	B	E	C	C
Approach Vol, veh/h		918			1361			1165			978	
Approach Delay, s/veh		35.2			48.1			28.7			41.4	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	36.6	21.0	31.7	12.5	35.2	11.0	41.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	17.0	36.0	10.0	41.0	10.0	43.0
Max Q Clear Time (g_c+I1), s	8.1	21.3	19.0	17.9	8.4	20.4	6.9	12.8
Green Ext Time (p_c), s	0.0	9.6	0.0	8.6	0.1	9.2	0.1	10.7

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	270	740	10	30	810	140	10	40	10	110	50	370
Future Volume (veh/h)	270	740	10	30	810	140	10	40	10	110	50	370
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	278	763	10	31	835	144	10	41	10	113	52	381
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	465	1971	26	88	1503	468	33	238	58	196	478	620
Arrive On Green	0.13	0.37	0.37	0.05	0.29	0.29	0.02	0.16	0.16	0.11	0.25	0.25
Sat Flow, veh/h	3510	5277	69	1810	5187	1615	1810	1476	360	1810	1900	1615
Grp Volume(v), veh/h	278	500	273	31	835	144	10	0	51	113	52	381
Grp Sat Flow(s),veh/h/ln	1755	1729	1888	1810	1729	1615	1810	0	1836	1810	1900	1615
Q Serve(g_s), s	3.9	5.5	5.5	0.9	7.1	3.6	0.3	0.0	1.2	3.1	1.1	9.9
Cycle Q Clear(g_c), s	3.9	5.5	5.5	0.9	7.1	3.6	0.3	0.0	1.2	3.1	1.1	9.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	465	1292	705	88	1503	468	33	0	296	196	478	620
V/C Ratio(X)	0.60	0.39	0.39	0.35	0.56	0.31	0.31	0.00	0.17	0.58	0.11	0.61
Avail Cap(c_a), veh/h	676	1398	763	244	1798	560	244	0	637	279	695	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	11.9	11.9	23.9	15.6	14.4	25.2	0.0	18.8	22.0	15.0	12.9
Incr Delay (d2), s/veh	1.2	0.2	0.3	2.4	0.3	0.4	5.1	0.0	0.3	2.7	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.6	2.9	0.5	3.4	1.6	0.2	0.0	0.6	1.7	0.6	4.5
LnGrp Delay(d),s/veh	22.5	12.1	12.3	26.3	15.9	14.7	30.3	0.0	19.1	24.7	15.0	13.9
LnGrp LOS	C	B	B	C	B	B	C		B	C	B	B
Approach Vol, veh/h		1051			1010			61			546	
Approach Delay, s/veh		14.9			16.1			20.9			16.2	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	12.4	6.5	23.4	4.9	17.1	10.9	19.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	18.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.1	3.2	2.9	7.5	2.3	11.9	5.9	9.1
Green Ext Time (p_c), s	0.1	1.7	0.0	8.1	0.0	1.2	0.3	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	130	590	50	50	610	10	40	30	40	10	30	100
Future Volume (veh/h)	130	590	50	50	610	10	40	30	40	10	30	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	134	608	52	52	629	10	41	31	41	10	31	103
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	212	1661	141	130	1555	25	137	103	207	65	201	226
Arrive On Green	0.12	0.34	0.34	0.07	0.30	0.30	0.13	0.13	0.13	0.14	0.14	0.14
Sat Flow, veh/h	1810	4869	413	1810	5259	83	1052	795	1597	458	1419	1598
Grp Volume(v), veh/h	134	430	230	52	413	226	72	0	41	41	0	103
Grp Sat Flow(s),veh/h/ln	1810	1729	1824	1810	1729	1885	1847	0	1597	1877	0	1598
Q Serve(g_s), s	3.6	4.7	4.8	1.4	4.8	4.9	1.8	0.0	1.2	1.0	0.0	3.0
Cycle Q Clear(g_c), s	3.6	4.7	4.8	1.4	4.8	4.9	1.8	0.0	1.2	1.0	0.0	3.0
Prop In Lane	1.00		0.23	1.00		0.04	0.57		1.00	0.24		1.00
Lane Grp Cap(c), veh/h	212	1180	622	130	1022	557	240	0	207	266	0	226
V/C Ratio(X)	0.63	0.36	0.37	0.40	0.40	0.41	0.30	0.00	0.20	0.15	0.00	0.46
Avail Cap(c_a), veh/h	250	1707	900	286	1775	967	1240	0	1072	1371	0	1167
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	12.6	12.6	22.5	14.3	14.3	20.0	0.0	19.7	19.1	0.0	20.0
Incr Delay (d2), s/veh	3.9	0.2	0.4	2.0	0.3	0.5	0.7	0.0	0.5	0.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.3	2.5	0.8	2.3	2.6	0.9	0.0	0.5	0.5	0.0	1.4
LnGrp Delay(d),s/veh	25.2	12.7	12.9	24.5	14.5	14.7	20.7	0.0	20.1	19.4	0.0	21.4
LnGrp LOS	C	B	B	C	B	B	C		C	B		C
Approach Vol, veh/h		794			691			113			144	
Approach Delay, s/veh		14.9			15.3			20.5			20.8	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		10.6	7.6	21.3		11.2	9.9	19.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	8.0	25.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		3.8	3.4	6.8		5.0	5.6	6.9
Green Ext Time (p_c), s		0.5	0.0	7.1		0.5	0.0	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	30	590	30	40	640	10	30	10	30	10	10	20
Future Volume (veh/h)	30	590	30	40	640	10	30	10	30	10	10	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	641	33	43	696	11	33	11	33	11	11	22
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	1804	92	118	1943	31	96	363	411	36	89	178
Arrive On Green	0.05	0.36	0.36	0.07	0.37	0.37	0.05	0.19	0.19	0.02	0.16	0.16
Sat Flow, veh/h	1810	5052	259	1810	5260	83	1810	1900	1602	1810	563	1126
Grp Volume(v), veh/h	33	438	236	43	457	250	33	11	33	11	0	33
Grp Sat Flow(s),veh/h/ln	1810	1729	1853	1810	1729	1885	1810	1900	1602	1810	0	1689
Q Serve(g_s), s	0.8	4.1	4.1	1.0	4.2	4.2	0.8	0.2	0.7	0.3	0.0	0.7
Cycle Q Clear(g_c), s	0.8	4.1	4.1	1.0	4.2	4.2	0.8	0.2	0.7	0.3	0.0	0.7
Prop In Lane	1.00		0.14	1.00		0.04	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	96	1235	662	118	1277	696	96	363	411	36	0	267
V/C Ratio(X)	0.34	0.35	0.36	0.36	0.36	0.36	0.34	0.03	0.08	0.30	0.00	0.12
Avail Cap(c_a), veh/h	290	2378	1274	290	2378	1296	290	1960	1758	290	0	1742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	10.3	10.3	19.5	10.0	10.0	19.9	14.4	12.3	21.1	0.0	15.8
Incr Delay (d2), s/veh	2.1	0.2	0.3	1.9	0.2	0.3	2.1	0.0	0.1	4.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.0	2.2	0.6	2.0	2.2	0.4	0.1	0.3	0.2	0.0	0.4
LnGrp Delay(d),s/veh	22.1	10.5	10.7	21.4	10.2	10.3	22.1	14.4	12.4	25.7	0.0	16.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		707			750			77			44	
Approach Delay, s/veh		11.1			10.9			16.8			18.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	12.3	6.8	19.6	6.3	10.9	6.3	20.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	2.7	3.0	6.1	2.8	2.7	2.8	6.2
Green Ext Time (p_c), s	0.0	0.3	0.0	8.6	0.0	0.3	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	100	80	260	50	160	30	990	190	100	870	20
Future Volume (veh/h)	20	100	80	260	50	160	30	990	190	100	870	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	109	87	283	54	174	33	1076	207	109	946	22
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	36	181	184	361	69	379	82	1644	316	141	2135	50
Arrive On Green	0.12	0.12	0.12	0.24	0.24	0.24	0.05	0.38	0.38	0.08	0.41	0.41
Sat Flow, veh/h	316	1568	1594	1531	292	1605	1810	4367	839	1810	5215	121
Grp Volume(v), veh/h	131	0	87	337	0	174	33	852	431	109	627	341
Grp Sat Flow(s),veh/h/ln	1884	0	1594	1823	0	1605	1810	1729	1748	1810	1729	1878
Q Serve(g_s), s	5.4	0.0	4.2	14.3	0.0	7.7	1.5	16.8	16.8	4.9	10.8	10.8
Cycle Q Clear(g_c), s	5.4	0.0	4.2	14.3	0.0	7.7	1.5	16.8	16.8	4.9	10.8	10.8
Prop In Lane	0.17		1.00	0.84		1.00	1.00		0.48	1.00		0.06
Lane Grp Cap(c), veh/h	217	0	184	430	0	379	82	1302	658	141	1416	769
V/C Ratio(X)	0.60	0.00	0.47	0.78	0.00	0.46	0.40	0.65	0.66	0.77	0.44	0.44
Avail Cap(c_a), veh/h	664	0	561	709	0	624	154	1302	658	154	1416	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	34.1	29.5	0.0	27.0	38.2	21.2	21.2	37.2	17.5	17.5
Incr Delay (d2), s/veh	2.7	0.0	1.9	3.2	0.0	0.9	3.2	2.6	5.0	19.7	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	2.0	7.6	0.0	3.5	0.8	8.4	8.9	3.2	5.3	6.0
LnGrp Delay(d),s/veh	37.3	0.0	36.0	32.7	0.0	27.8	41.5	23.8	26.3	57.0	18.5	19.4
LnGrp LOS	D		D	C		C	D	C	C	E	B	B
Approach Vol, veh/h		218			511			1316			1077	
Approach Delay, s/veh		36.8			31.0			25.1			22.7	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	35.0		13.5	7.7	37.7		23.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	7.0	31.0		32.0
Max Q Clear Time (g_c+I1), s	6.9	18.8		7.4	3.5	12.8		16.3
Green Ext Time (p_c), s	0.0	9.3		0.9	0.0	12.6		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	100	240	30	20	240	70	30	60	30	110	70	210
Future Volume (veh/h)	100	240	30	20	240	70	30	60	30	110	70	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	105	253	32	21	253	74	32	63	32	116	74	221
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	1002	125	65	646	185	93	441	209	214	456	404
Arrive On Green	0.11	0.31	0.31	0.04	0.23	0.23	0.05	0.19	0.19	0.12	0.25	0.25
Sat Flow, veh/h	1810	3228	404	1810	2768	792	1810	2373	1123	1810	1805	1599
Grp Volume(v), veh/h	105	140	145	21	163	164	32	47	48	116	74	221
Grp Sat Flow(s),veh/h/ln	1810	1805	1826	1810	1805	1754	1810	1805	1691	1810	1805	1599
Q Serve(g_s), s	2.5	2.7	2.7	0.5	3.5	3.6	0.8	1.0	1.1	2.8	1.5	5.5
Cycle Q Clear(g_c), s	2.5	2.7	2.7	0.5	3.5	3.6	0.8	1.0	1.1	2.8	1.5	5.5
Prop In Lane	1.00		0.22	1.00		0.45	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	204	560	567	65	421	410	93	336	315	214	456	404
V/C Ratio(X)	0.51	0.25	0.26	0.32	0.39	0.40	0.35	0.14	0.15	0.54	0.16	0.55
Avail Cap(c_a), veh/h	317	1223	1238	277	1184	1151	277	1263	1183	356	1342	1189
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	11.8	11.8	21.5	14.8	14.8	21.0	15.6	15.6	19.0	13.3	14.8
Incr Delay (d2), s/veh	2.0	0.2	0.2	2.8	0.6	0.6	2.2	0.2	0.2	2.1	0.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.4	1.4	0.3	1.8	1.8	0.4	0.5	0.5	1.5	0.7	2.5
LnGrp Delay(d),s/veh	21.1	12.0	12.0	24.4	15.4	15.5	23.2	15.7	15.8	21.2	13.5	16.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		390			348			127			411	
Approach Delay, s/veh		14.5			15.9			17.6			17.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	12.5	5.6	18.2	6.3	15.6	9.2	14.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	7.0	31.0	7.0	34.0	8.0	30.0
Max Q Clear Time (g_c+I1), s	4.8	3.1	2.5	4.7	2.8	7.5	4.5	5.6
Green Ext Time (p_c), s	0.1	2.2	0.0	3.8	0.0	2.2	0.1	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	110	60	150	70	30	50	90	770	60	100	1030	70
Future Volume (veh/h)	110	60	150	70	30	50	90	770	60	100	1030	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	64	160	74	32	53	96	819	64	106	1096	74
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	318	301	267	139	276	247	154	1578	830	159	1509	102
Arrive On Green	0.09	0.17	0.17	0.08	0.15	0.15	0.09	0.44	0.44	0.09	0.44	0.44
Sat Flow, veh/h	3510	1805	1600	1810	1805	1615	1810	3610	1615	1810	3432	232
Grp Volume(v), veh/h	117	64	160	74	32	53	96	819	64	106	576	594
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1810	1805	1615	1810	1805	1615	1810	1805	1858
Q Serve(g_s), s	2.2	2.1	6.4	2.7	1.1	2.0	3.5	11.4	1.4	3.9	18.2	18.2
Cycle Q Clear(g_c), s	2.2	2.1	6.4	2.7	1.1	2.0	3.5	11.4	1.4	3.9	18.2	18.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	318	301	267	139	276	247	154	1578	830	159	794	817
V/C Ratio(X)	0.37	0.21	0.60	0.53	0.12	0.21	0.62	0.52	0.08	0.67	0.73	0.73
Avail Cap(c_a), veh/h	355	914	810	183	914	818	183	1619	848	288	914	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	24.9	26.7	30.7	25.3	25.6	30.5	14.2	8.5	30.5	15.9	15.9
Incr Delay (d2), s/veh	0.7	0.3	2.2	3.1	0.2	0.4	4.7	0.3	0.0	4.7	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	3.0	1.5	0.5	0.9	2.0	5.7	0.6	2.2	9.5	9.8
LnGrp Delay(d),s/veh	30.3	25.2	28.8	33.9	25.4	26.1	35.3	14.4	8.5	35.2	18.4	18.4
LnGrp LOS	C	C	C	C	C	C	D	B	A	D	B	B
Approach Vol, veh/h		341			159			979			1276	
Approach Delay, s/veh		28.7			29.6			16.1			19.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	34.2	9.3	15.5	9.9	34.4	10.3	14.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	7.0	35.0	7.0	35.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	5.9	13.4	4.7	8.4	5.5	20.2	4.2	4.0
Green Ext Time (p_c), s	0.1	11.3	0.0	1.9	0.0	10.0	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	140	660	170	20	470	50	120	190	20	50	210	120
Future Volume (veh/h)	140	660	170	20	470	50	120	190	20	50	210	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	702	181	21	500	53	128	202	21	53	223	128
Adj No. of Lanes	1	2	1	1	2	1	2	1	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	1671	887	60	1416	784	308	326	34	171	448	247
Arrive On Green	0.10	0.46	0.46	0.03	0.39	0.39	0.09	0.19	0.19	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	1610	1810	3610	1609	3510	1691	176	1810	2241	1235
Grp Volume(v), veh/h	149	702	181	21	500	53	128	0	223	53	178	173
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1609	1755	0	1867	1810	1805	1671
Q Serve(g_s), s	5.9	9.6	4.2	0.8	7.2	0.4	2.6	0.0	8.1	2.0	6.5	6.8
Cycle Q Clear(g_c), s	5.9	9.6	4.2	0.8	7.2	0.4	2.6	0.0	8.1	2.0	6.5	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.74
Lane Grp Cap(c), veh/h	188	1671	887	60	1416	784	308	0	360	171	361	334
V/C Ratio(X)	0.79	0.42	0.20	0.35	0.35	0.07	0.42	0.00	0.62	0.31	0.49	0.52
Avail Cap(c_a), veh/h	269	1671	887	171	1416	784	380	0	1036	441	1245	1153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	13.2	8.4	35.0	15.8	3.3	31.9	0.0	27.3	31.2	26.3	26.4
Incr Delay (d2), s/veh	10.0	0.8	0.5	3.4	0.7	0.2	0.9	0.0	1.7	1.0	1.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	5.0	2.0	0.5	3.7	0.3	1.3	0.0	4.3	1.0	3.3	3.2
LnGrp Delay(d),s/veh	42.4	14.0	8.9	38.4	16.5	3.5	32.8	0.0	29.1	32.2	27.3	27.7
LnGrp LOS	D	B	A	D	B	A	C		C	C	C	C
Approach Vol, veh/h		1032			574			351			404	
Approach Delay, s/veh		17.2			16.1			30.4			28.1	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	18.3	6.5	38.2	10.5	18.8	11.7	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	8.0	51.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	4.0	10.1	2.8	11.6	4.6	8.8	7.9	9.2
Green Ext Time (p_c), s	1.7	1.2	0.0	8.6	0.1	2.2	0.1	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	50	390	220	70	300	20	150	340	100	20	300	40
Future Volume (veh/h)	50	390	220	70	300	20	150	340	100	20	300	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	429	242	77	330	22	165	374	110	22	330	44
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	118	557	471	139	579	647	213	584	617	178	473	63
Arrive On Green	0.07	0.29	0.29	0.08	0.30	0.30	0.12	0.31	0.31	0.10	0.29	0.29
Sat Flow, veh/h	1810	1900	1607	1810	1900	1602	1810	1900	1602	1810	1640	219
Grp Volume(v), veh/h	55	429	242	77	330	22	165	374	110	22	0	374
Grp Sat Flow(s),veh/h/ln	1810	1900	1607	1810	1900	1602	1810	1900	1602	1810	0	1859
Q Serve(g_s), s	2.1	14.7	6.0	2.9	10.4	0.6	6.3	12.1	0.8	0.8	0.0	12.8
Cycle Q Clear(g_c), s	2.1	14.7	6.0	2.9	10.4	0.6	6.3	12.1	0.8	0.8	0.0	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	118	557	471	139	579	647	213	584	617	178	0	536
V/C Ratio(X)	0.47	0.77	0.51	0.55	0.57	0.03	0.78	0.64	0.18	0.12	0.00	0.70
Avail Cap(c_a), veh/h	203	879	744	178	853	877	254	986	955	178	0	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	23.0	9.6	31.7	20.9	12.9	30.5	21.3	5.6	29.3	0.0	22.6
Incr Delay (d2), s/veh	2.9	2.3	0.9	3.4	0.9	0.0	11.8	1.2	0.1	0.3	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.0	3.4	1.6	5.6	0.3	3.9	6.5	0.8	0.4	0.0	6.8
LnGrp Delay(d),s/veh	35.0	25.3	10.4	35.1	21.7	12.9	42.4	22.5	5.7	29.7	0.0	24.3
LnGrp LOS	C	C	B	D	C	B	D	C	A	C		C
Approach Vol, veh/h		726			429			649			396	
Approach Delay, s/veh		21.1			23.7			24.7			24.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	25.9	9.5	24.9	12.4	24.5	8.6	25.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	12.8	14.1	4.9	16.7	8.3	14.8	4.1	12.4
Green Ext Time (p_c), s	0.0	4.5	0.4	2.9	0.1	4.3	0.0	1.8

Intersection Summary			
HCM 2010 Ctrl Delay			23.3
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	70	410	320	40	40	60
Future Volume (veh/h)	70	410	320	40	40	60
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	461	360	45	45	67
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	199	1020	1096	486	391	527
Arrive On Green	0.11	0.54	0.30	0.30	0.22	0.22
Sat Flow, veh/h	1810	1900	3705	1602	1810	1615
Grp Volume(v), veh/h	79	461	360	45	45	67
Grp Sat Flow(s),veh/h/ln	1810	1900	1805	1602	1810	1615
Q Serve(g_s), s	1.3	4.8	2.5	0.7	0.6	0.9
Cycle Q Clear(g_c), s	1.3	4.8	2.5	0.7	0.6	0.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	199	1020	1096	486	391	527
V/C Ratio(X)	0.40	0.45	0.33	0.09	0.12	0.13
Avail Cap(c_a), veh/h	503	2405	3120	1384	2290	2221
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	4.6	8.7	8.1	10.2	7.7
Incr Delay (d2), s/veh	1.3	0.3	0.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.5	1.2	0.3	0.3	1.0
LnGrp Delay(d),s/veh	14.7	4.9	8.9	8.2	10.3	7.8
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		540	405		112	
Approach Delay, s/veh		6.3	8.8		8.8	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				21.4		11.0	7.6	13.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				6.8		2.9	3.3	4.5
Green Ext Time (p_c), s				5.3		0.3	0.1	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	130	310	70	30	210	100	80	690	110	110	580	80
Future Volume (veh/h)	130	310	70	30	210	100	80	690	110	110	580	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	141	337	76	33	228	109	87	750	120	120	630	87
Adj No. of Lanes	2	2	1	2	1	1	1	2	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	376	673	299	435	386	326	323	1139	506	183	1235	380
Arrive On Green	0.11	0.19	0.19	0.12	0.20	0.20	0.18	0.32	0.32	0.10	0.24	0.24
Sat Flow, veh/h	3510	3610	1602	3510	1900	1603	1810	3610	1602	1810	5187	1598
Grp Volume(v), veh/h	141	337	76	33	228	109	87	750	120	120	630	87
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1900	1603	1810	1805	1602	1810	1729	1598
Q Serve(g_s), s	2.2	4.9	2.4	0.5	6.4	3.4	2.4	10.5	3.2	3.7	6.2	2.6
Cycle Q Clear(g_c), s	2.2	4.9	2.4	0.5	6.4	3.4	2.4	10.5	3.2	3.7	6.2	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	376	673	299	435	386	326	323	1139	506	183	1235	380
V/C Ratio(X)	0.38	0.50	0.25	0.08	0.59	0.33	0.27	0.66	0.24	0.66	0.51	0.23
Avail Cap(c_a), veh/h	419	2218	984	435	1167	985	323	1910	848	309	2833	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	21.4	20.4	22.7	21.1	20.0	20.8	17.3	14.8	25.4	19.4	18.0
Incr Delay (d2), s/veh	0.6	0.6	0.4	0.1	1.4	0.6	0.4	0.7	0.2	4.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.5	1.1	0.2	3.4	1.6	1.2	5.3	1.5	2.1	3.0	1.2
LnGrp Delay(d),s/veh	25.0	22.0	20.8	22.8	22.6	20.5	21.2	18.0	15.1	29.3	19.7	18.3
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		554			370			957			837	
Approach Delay, s/veh		22.6			22.0			17.9			20.9	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	22.5	11.3	14.9	14.5	17.9	10.3	15.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	31.0	7.0	36.0	9.0	32.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	5.7	12.5	2.5	6.9	4.4	8.2	4.2	8.4
Green Ext Time (p_c), s	0.1	4.9	0.2	2.2	0.2	4.3	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	50	650	160	30	500	30	100	200	20	40	230	60
Future Volume (veh/h)	50	650	160	30	500	30	100	200	20	40	230	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	684	168	32	526	32	105	211	21	42	242	63
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	1249	307	84	1441	87	158	773	76	101	383	323
Arrive On Green	0.06	0.43	0.43	0.05	0.42	0.42	0.09	0.23	0.23	0.06	0.20	0.20
Sat Flow, veh/h	1810	2873	705	1810	3457	210	1810	3318	327	1810	1900	1603
Grp Volume(v), veh/h	53	430	422	32	274	284	105	114	118	42	242	63
Grp Sat Flow(s),veh/h/ln	1810	1805	1773	1810	1805	1862	1810	1805	1840	1810	1900	1603
Q Serve(g_s), s	2.0	12.3	12.3	1.2	7.3	7.3	3.9	3.6	3.7	1.6	8.1	2.3
Cycle Q Clear(g_c), s	2.0	12.3	12.3	1.2	7.3	7.3	3.9	3.6	3.7	1.6	8.1	2.3
Prop In Lane	1.00		0.40	1.00		0.11	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	117	785	771	84	752	776	158	421	429	101	383	323
V/C Ratio(X)	0.45	0.55	0.55	0.38	0.36	0.37	0.66	0.27	0.28	0.42	0.63	0.19
Avail Cap(c_a), veh/h	182	785	771	182	752	776	260	804	819	182	764	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	14.6	14.6	32.2	14.0	14.0	30.8	21.8	21.9	31.8	25.4	23.1
Incr Delay (d2), s/veh	2.7	2.7	2.8	2.8	1.4	1.3	4.7	0.3	0.3	2.7	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.7	6.6	0.7	3.9	4.0	2.2	1.8	1.9	0.9	4.4	1.0
LnGrp Delay(d),s/veh	34.1	17.3	17.4	35.0	15.3	15.3	35.5	22.2	22.2	34.5	27.1	23.4
LnGrp LOS	C	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		905			590			337			347	
Approach Delay, s/veh		18.3			16.4			26.3			27.3	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	20.2	7.2	34.3	10.1	18.0	8.5	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	29.0	10.0	28.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.6	5.7	3.2	14.3	5.9	10.1	4.0	9.3
Green Ext Time (p_c), s	0.0	2.7	0.0	6.8	0.1	2.5	0.0	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	60	360	190	240	390	80	100	410	190	40	540	30
Future Volume (veh/h)	60	360	190	240	390	80	100	410	190	40	540	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	375	198	250	406	83	104	427	0	42	562	31
Adj No. of Lanes	1	1	1	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	116	666	564	284	1601	714	140	890	398	95	770	42
Arrive On Green	0.06	0.35	0.35	0.16	0.44	0.44	0.08	0.25	0.00	0.05	0.22	0.22
Sat Flow, veh/h	1810	1900	1608	1810	3610	1610	1810	3610	1615	1810	3478	192
Grp Volume(v), veh/h	62	375	198	250	406	83	104	427	0	42	291	302
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1805	1610	1810	1805	1615	1810	1805	1865
Q Serve(g_s), s	2.7	13.2	7.5	11.2	5.8	2.5	4.7	8.4	0.0	1.9	12.4	12.4
Cycle Q Clear(g_c), s	2.7	13.2	7.5	11.2	5.8	2.5	4.7	8.4	0.0	1.9	12.4	12.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	116	666	564	284	1601	714	140	890	398	95	400	413
V/C Ratio(X)	0.53	0.56	0.35	0.88	0.25	0.12	0.74	0.48	0.00	0.44	0.73	0.73
Avail Cap(c_a), veh/h	175	666	564	284	1601	714	175	1309	586	153	633	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	21.7	19.9	34.1	14.4	13.5	37.3	26.6	0.0	38.0	29.9	29.9
Incr Delay (d2), s/veh	3.8	3.4	1.7	25.4	0.4	0.3	12.2	0.4	0.0	3.2	2.6	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.5	3.6	7.6	3.0	1.2	2.8	4.2	0.0	1.0	6.4	6.7
LnGrp Delay(d),s/veh	41.3	25.2	21.6	59.5	14.8	13.8	49.5	27.0	0.0	41.2	32.5	32.4
LnGrp LOS	D	C	C	E	B	B	D	C		D	C	C
Approach Vol, veh/h		635			739			531			635	
Approach Delay, s/veh		25.6			29.8			31.4			33.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	24.4	17.0	33.0	10.4	22.3	9.3	40.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	8.0	29.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	3.9	10.4	13.2	15.2	6.7	14.4	4.7	7.8
Green Ext Time (p_c), s	0.0	2.6	0.0	2.2	0.4	2.7	0.0	3.4

Intersection Summary			
HCM 2010 Ctrl Delay			29.9
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	140	380	90	30	260	60	60	330	30	110	450	130
Future Volume (veh/h)	140	380	90	30	260	60	60	330	30	110	450	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	400	95	32	274	63	63	347	32	116	474	137
Adj No. of Lanes	1	1	1	1	1	0	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	199	692	585	88	452	104	271	660	291	228	837	372
Arrive On Green	0.11	0.36	0.36	0.05	0.30	0.30	0.08	0.18	0.18	0.13	0.23	0.23
Sat Flow, veh/h	1810	1900	1608	1810	1494	343	3510	3610	1593	1810	3610	1605
Grp Volume(v), veh/h	147	400	95	32	0	337	63	347	32	116	474	137
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	0	1837	1755	1805	1593	1810	1805	1605
Q Serve(g_s), s	4.5	9.8	2.3	1.0	0.0	9.0	1.0	5.0	0.7	3.4	6.7	4.1
Cycle Q Clear(g_c), s	4.5	9.8	2.3	1.0	0.0	9.0	1.0	5.0	0.7	3.4	6.7	4.1
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	692	585	88	0	556	271	660	291	228	837	372
V/C Ratio(X)	0.74	0.58	0.16	0.36	0.00	0.61	0.23	0.53	0.11	0.51	0.57	0.37
Avail Cap(c_a), veh/h	283	1388	1175	220	0	1278	427	1758	776	228	1758	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	14.7	12.4	26.5	0.0	17.1	24.9	21.2	11.6	23.5	19.5	18.6
Incr Delay (d2), s/veh	6.0	0.8	0.1	2.5	0.0	1.1	0.4	0.7	0.2	1.8	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.3	1.0	0.5	0.0	4.8	0.5	2.5	0.4	1.8	3.4	1.9
LnGrp Delay(d),s/veh	30.7	15.5	12.5	29.0	0.0	18.2	25.4	21.9	11.8	25.3	20.1	19.2
LnGrp LOS	C	B	B	C		B	C	C	B	C	C	B
Approach Vol, veh/h		642			369			442			727	
Approach Delay, s/veh		18.5			19.1			21.7			20.8	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	14.5	6.8	24.9	8.4	17.3	10.3	21.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	9.0	40.0
Max Q Clear Time (g_c+I1), s	5.4	7.0	3.0	11.8	3.0	8.7	6.5	11.0
Green Ext Time (p_c), s	0.6	2.0	0.0	4.6	0.0	3.4	0.1	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1240	120	80	890	190	60	270	40	260	300	130
Future Volume (veh/h)	190	1240	120	80	890	190	60	270	40	260	300	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	192	1253	121	81	899	192	61	273	40	263	303	131
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	218	1745	778	129	1860	395	224	530	77	296	680	302
Arrive On Green	0.12	0.48	0.48	0.07	0.43	0.43	0.06	0.17	0.17	0.08	0.19	0.19
Sat Flow, veh/h	1810	3610	1610	1810	4283	911	3510	3162	458	3510	3610	1602
Grp Volume(v), veh/h	192	1253	121	81	725	366	61	154	159	263	303	131
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1736	1755	1805	1814	1755	1805	1602
Q Serve(g_s), s	8.7	22.8	3.5	3.6	12.4	12.5	1.4	6.5	6.6	6.1	6.2	4.4
Cycle Q Clear(g_c), s	8.7	22.8	3.5	3.6	12.4	12.5	1.4	6.5	6.6	6.1	6.2	4.4
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	218	1745	778	129	1502	754	224	303	304	296	680	302
V/C Ratio(X)	0.88	0.72	0.16	0.63	0.48	0.49	0.27	0.51	0.52	0.89	0.45	0.43
Avail Cap(c_a), veh/h	218	1745	778	153	1502	754	296	893	897	296	1785	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	16.9	12.0	37.4	16.8	16.8	37.0	31.4	31.5	37.6	29.8	16.0
Incr Delay (d2), s/veh	31.1	2.6	0.4	6.0	1.1	2.2	0.7	1.3	1.4	26.0	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	11.9	1.6	2.0	6.2	6.5	0.7	3.3	3.4	4.1	3.1	2.5
LnGrp Delay(d),s/veh	66.9	19.5	12.4	43.4	17.9	19.0	37.6	32.7	32.8	63.6	30.3	16.9
LnGrp LOS	E	B	B	D	B	B	D	C	C	E	C	B
Approach Vol, veh/h		1566			1172			374			697	
Approach Delay, s/veh		24.8			20.0			33.6			40.3	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	17.9	9.9	44.1	9.3	19.6	14.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	7.0	39.0	7.0	41.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	8.1	8.6	5.6	24.8	3.4	8.2	10.7	14.5
Green Ext Time (p_c), s	0.0	1.9	0.0	7.9	0.0	3.6	0.0	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	1260	160	160	910	160	140	230	70	130	150	80
Future Volume (veh/h)	80	1260	160	160	910	160	140	230	70	130	150	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	84	1326	0	168	958	168	147	242	74	137	158	84
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	1675	749	201	2060	360	214	458	137	168	329	166
Arrive On Green	0.11	0.46	0.00	0.11	0.46	0.46	0.12	0.17	0.17	0.09	0.14	0.14
Sat Flow, veh/h	1810	3610	1615	1810	4441	777	1810	2736	816	1810	2316	1168
Grp Volume(v), veh/h	84	1326	0	168	745	381	147	158	158	137	121	121
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1760	1810	1805	1747	1810	1805	1679
Q Serve(g_s), s	4.2	30.2	0.0	8.8	14.3	14.4	7.6	7.7	8.1	7.2	6.0	6.4
Cycle Q Clear(g_c), s	4.2	30.2	0.0	8.8	14.3	14.4	7.6	7.7	8.1	7.2	6.0	6.4
Prop In Lane	1.00		1.00	1.00		0.44	1.00		0.47	1.00		0.70
Lane Grp Cap(c), veh/h	201	1675	749	201	1604	816	214	302	293	168	257	239
V/C Ratio(X)	0.42	0.79	0.00	0.84	0.46	0.47	0.69	0.52	0.54	0.82	0.47	0.51
Avail Cap(c_a), veh/h	224	1675	749	224	1604	816	224	782	757	187	744	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	22.0	0.0	42.3	17.8	17.8	41.1	36.8	37.0	43.2	38.3	38.5
Incr Delay (d2), s/veh	1.4	3.9	0.0	21.7	1.0	1.9	8.1	1.4	1.6	21.9	1.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	15.8	0.0	5.6	7.0	7.4	4.3	4.0	4.0	4.6	3.1	3.1
LnGrp Delay(d),s/veh	41.6	26.0	0.0	63.9	18.7	19.7	49.2	38.2	38.5	65.1	39.6	40.1
LnGrp LOS	D	C		E	B	B	D	D	D	E	D	D
Approach Vol, veh/h		1410			1294			463			379	
Approach Delay, s/veh		26.9			24.9			41.8			49.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	20.2	14.8	49.0	15.5	17.8	14.8	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	42.0	12.0	45.0	12.0	40.0	12.0	45.0
Max Q Clear Time (g_c+I1), s	9.2	10.1	10.8	32.2	9.6	8.4	6.2	16.4
Green Ext Time (p_c), s	0.0	2.4	0.0	7.2	0.6	1.5	3.9	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	30.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	120	1130	150	50	870	120	180	400	80	210	450	120
Future Volume (veh/h)	120	1130	150	50	870	120	180	400	80	210	450	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	1165	155	52	897	124	186	412	82	216	464	124
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	2131	812	134	1836	253	169	687	136	158	804	497
Arrive On Green	0.09	0.41	0.41	0.07	0.40	0.40	0.09	0.23	0.23	0.09	0.22	0.22
Sat Flow, veh/h	1810	5187	1609	1810	4609	634	1810	3003	593	1810	3610	1604
Grp Volume(v), veh/h	124	1165	155	52	672	349	186	246	248	216	464	124
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1785	1810	1805	1791	1810	1805	1604
Q Serve(g_s), s	5.4	13.7	0.0	2.2	11.7	11.7	7.5	9.8	9.9	7.0	9.2	3.0
Cycle Q Clear(g_c), s	5.4	13.7	0.0	2.2	11.7	11.7	7.5	9.8	9.9	7.0	9.2	3.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	157	2131	812	134	1378	711	169	413	410	158	804	497
V/C Ratio(X)	0.79	0.55	0.19	0.39	0.49	0.49	1.10	0.60	0.60	1.37	0.58	0.25
Avail Cap(c_a), veh/h	180	2131	812	158	1378	711	169	944	936	158	1888	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	18.0	10.9	35.5	18.0	18.1	36.4	27.7	27.7	36.7	27.8	9.6
Incr Delay (d2), s/veh	18.7	1.0	0.5	1.8	1.2	2.4	99.7	1.4	1.4	201.3	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.7	2.0	1.2	5.7	6.2	8.4	5.0	5.1	12.3	4.6	1.5
LnGrp Delay(d),s/veh	54.7	19.0	11.5	37.3	19.3	20.5	136.1	29.0	29.2	238.0	28.5	9.9
LnGrp LOS	D	B	B	D	B	C	F	C	C	F	C	A
Approach Vol, veh/h		1444			1073			680			804	
Approach Delay, s/veh		21.2			20.5			58.4			81.9	
Approach LOS		C			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.4	9.9	37.0	11.5	21.9	10.9	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	9.0	11.9	4.2	15.7	9.5	11.2	7.4	13.7
Green Ext Time (p_c), s	0.0	3.6	1.6	7.6	0.0	3.8	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	980	140	120	790	70	100	300	80	160	310	70
Future Volume (veh/h)	140	980	140	120	790	70	100	300	80	160	310	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	1010	144	124	814	72	103	309	82	165	320	72
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	1777	253	187	1943	171	185	564	147	187	588	130
Arrive On Green	0.09	0.39	0.39	0.10	0.40	0.40	0.10	0.20	0.20	0.10	0.20	0.20
Sat Flow, veh/h	1810	4587	653	1810	4853	427	1810	2830	739	1810	2934	651
Grp Volume(v), veh/h	144	761	393	124	579	307	103	195	196	165	195	197
Grp Sat Flow(s),veh/h/ln	1810	1729	1782	1810	1729	1823	1810	1805	1763	1810	1805	1779
Q Serve(g_s), s	6.1	13.4	13.4	5.1	9.3	9.4	4.2	7.5	7.7	7.0	7.5	7.7
Cycle Q Clear(g_c), s	6.1	13.4	13.4	5.1	9.3	9.4	4.2	7.5	7.7	7.0	7.5	7.7
Prop In Lane	1.00		0.37	1.00		0.23	1.00		0.42	1.00		0.37
Lane Grp Cap(c), veh/h	164	1340	690	187	1384	730	185	360	352	187	362	357
V/C Ratio(X)	0.88	0.57	0.57	0.66	0.42	0.42	0.56	0.54	0.56	0.88	0.54	0.55
Avail Cap(c_a), veh/h	164	1340	690	187	1384	730	185	1002	979	187	1025	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	18.6	18.6	33.4	16.7	16.7	33.1	27.8	27.9	34.3	27.8	27.8
Incr Delay (d2), s/veh	38.4	1.8	3.4	8.5	0.9	1.8	3.6	1.3	1.4	35.4	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	6.7	7.2	3.0	4.6	5.1	2.3	3.9	3.9	5.3	3.9	3.9
LnGrp Delay(d),s/veh	73.2	20.4	22.0	41.9	17.7	18.5	36.7	29.1	29.3	69.7	29.0	29.2
LnGrp LOS	E	C	C	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		1298			1010			494			557	
Approach Delay, s/veh		26.7			20.9			30.8			41.1	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	19.4	12.0	34.0	11.9	19.5	11.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	43.0	8.0	30.0	7.0	44.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	9.0	9.7	7.1	15.4	6.2	9.7	8.1	11.4
Green Ext Time (p_c), s	0.0	2.5	0.5	6.1	0.1	2.5	0.0	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	230	700	250	160	600	90	230	660	130	140	760	190
Future Volume (veh/h)	230	700	250	160	600	90	230	660	130	140	760	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	737	263	168	632	95	242	695	137	147	800	200
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	313	1262	562	243	1503	223	235	961	428	280	1052	468
Arrive On Green	0.09	0.35	0.35	0.07	0.33	0.33	0.13	0.27	0.27	0.15	0.29	0.29
Sat Flow, veh/h	3510	3610	1608	3510	4558	677	1810	3610	1606	1810	3610	1607
Grp Volume(v), veh/h	242	737	263	168	478	249	242	695	137	147	800	200
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1777	1810	1805	1606	1810	1805	1607
Q Serve(g_s), s	6.8	16.7	8.6	4.7	10.8	11.0	13.0	17.5	5.5	7.5	20.2	10.1
Cycle Q Clear(g_c), s	6.8	16.7	8.6	4.7	10.8	11.0	13.0	17.5	5.5	7.5	20.2	10.1
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	1262	562	243	1140	586	235	961	428	280	1052	468
V/C Ratio(X)	0.77	0.58	0.47	0.69	0.42	0.43	1.03	0.72	0.32	0.52	0.76	0.43
Avail Cap(c_a), veh/h	316	1262	562	245	1140	586	235	1478	658	280	1406	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	26.6	11.6	45.5	26.1	26.2	43.6	33.4	18.7	38.9	32.3	28.7
Incr Delay (d2), s/veh	11.2	2.0	2.8	7.9	1.1	2.3	66.7	1.0	0.4	1.8	1.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	8.6	5.1	2.5	5.3	5.8	10.8	8.8	2.8	3.9	10.3	4.5
LnGrp Delay(d),s/veh	55.8	28.6	14.4	53.5	27.2	28.4	110.3	34.4	19.1	40.7	34.0	29.3
LnGrp LOS	E	C	B	D	C	C	F	C	B	D	C	C
Approach Vol, veh/h		1242			895			1074			1147	
Approach Delay, s/veh		30.9			32.5			49.6			34.1	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	30.7	10.9	39.0	17.0	33.2	12.9	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	9.5	19.5	6.7	18.7	15.0	22.2	8.8	13.0
Green Ext Time (p_c), s	0.2	5.0	0.0	5.9	0.0	5.5	0.2	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	36.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	100	2050	1100	180	350	120
Future Volume (veh/h)	100	2050	1100	180	350	120
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	105	2158	1158	189	368	126
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	283	3725	2592	1056	551	505
Arrive On Green	0.16	0.72	0.50	0.50	0.16	0.16
Sat Flow, veh/h	1810	5358	5358	1607	3510	1615
Grp Volume(v), veh/h	105	2158	1158	189	368	126
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1607	1755	1615
Q Serve(g_s), s	3.3	12.9	9.2	2.9	6.3	0.0
Cycle Q Clear(g_c), s	3.3	12.9	9.2	2.9	6.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	283	3725	2592	1056	551	505
V/C Ratio(X)	0.37	0.58	0.45	0.18	0.67	0.25
Avail Cap(c_a), veh/h	283	3725	2592	1056	1699	1034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	4.4	10.3	4.3	25.4	16.4
Incr Delay (d2), s/veh	0.8	0.7	0.6	0.4	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.2	4.5	2.0	3.2	0.0
LnGrp Delay(d),s/veh	25.0	5.0	10.9	4.7	26.8	16.6
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		2263	1347		494	
Approach Delay, s/veh		5.9	10.0		24.2	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		14.0	14.0	36.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	10.0	32.0
Max Q Clear Time (g_c+I1), s				14.9		8.3	5.3	11.2
Green Ext Time (p_c), s				20.3		1.7	4.1	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	120	1890	330	30	1010	80	180	80	20	140	100	80
Future Volume (veh/h)	120	1890	330	30	1010	80	180	80	20	140	100	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	1948	0	31	1041	82	186	82	21	144	103	82
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	2564	798	156	2424	191	316	365	90	161	456	341
Arrive On Green	0.09	0.49	0.00	0.09	0.49	0.49	0.09	0.13	0.13	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1615	1810	4903	386	3510	2863	707	1810	3610	1596
Grp Volume(v), veh/h	124	1948	0	31	734	389	186	51	52	144	103	82
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1831	1755	1805	1765	1810	1805	1596
Q Serve(g_s), s	5.3	24.0	0.0	1.3	10.7	10.8	4.0	2.0	2.1	6.2	2.0	0.0
Cycle Q Clear(g_c), s	5.3	24.0	0.0	1.3	10.7	10.8	4.0	2.0	2.1	6.2	2.0	0.0
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	156	2564	798	156	1710	905	316	230	225	161	456	341
V/C Ratio(X)	0.79	0.76	0.00	0.20	0.43	0.43	0.59	0.22	0.23	0.90	0.23	0.24
Avail Cap(c_a), veh/h	161	2564	798	161	1710	905	356	824	806	161	1602	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	16.1	0.0	33.5	12.8	12.8	34.5	30.9	30.9	35.6	31.0	25.8
Incr Delay (d2), s/veh	22.7	2.2	0.0	0.6	0.8	1.5	2.0	0.5	0.5	42.6	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	11.9	0.0	0.7	5.3	5.8	2.0	1.0	1.1	5.0	1.0	1.5
LnGrp Delay(d),s/veh	58.1	18.3	0.0	34.1	13.6	14.3	36.5	31.4	31.5	78.2	31.2	26.1
LnGrp LOS	E	B		C	B	B	D	C	C	E	C	C
Approach Vol, veh/h		2072			1154			289			329	
Approach Delay, s/veh		20.7			14.4			34.7			50.5	
Approach LOS		C			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	14.1	10.8	43.0	11.1	14.0	10.8	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	8.0	35.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	8.2	4.1	3.3	26.0	6.0	4.0	7.3	12.8
Green Ext Time (p_c), s	0.0	0.5	0.1	9.5	0.2	0.9	0.0	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	100	1080	860	10	590	90	460	420	20	110	440	40
Future Volume (veh/h)	100	1080	860	10	590	90	460	420	20	110	440	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	1200	956	11	656	100	511	467	22	122	489	44
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	1551	1008	33	1167	178	688	1108	52	152	682	61
Arrive On Green	0.08	0.43	0.43	0.02	0.37	0.37	0.20	0.32	0.32	0.08	0.20	0.20
Sat Flow, veh/h	1810	3610	1609	1810	3140	478	3510	3510	165	1810	3349	300
Grp Volume(v), veh/h	111	1200	956	11	377	379	511	240	249	122	263	270
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1813	1755	1805	1870	1810	1805	1844
Q Serve(g_s), s	6.3	29.8	25.0	0.6	17.4	17.5	14.4	11.0	11.1	7.0	14.2	14.3
Cycle Q Clear(g_c), s	6.3	29.8	25.0	0.6	17.4	17.5	14.4	11.0	11.1	7.0	14.2	14.3
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	138	1551	1008	33	671	674	688	570	590	152	368	376
V/C Ratio(X)	0.80	0.77	0.95	0.33	0.56	0.56	0.74	0.42	0.42	0.80	0.71	0.72
Avail Cap(c_a), veh/h	190	1551	1008	121	671	674	1003	825	855	276	585	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	25.6	9.5	50.9	26.2	26.2	39.7	28.4	28.4	47.2	39.0	39.0
Incr Delay (d2), s/veh	15.8	3.8	18.3	5.7	3.4	3.4	1.7	0.5	0.5	9.3	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	15.7	15.8	0.4	9.3	9.4	7.1	5.5	5.8	3.9	7.3	7.6
LnGrp Delay(d),s/veh	63.5	29.4	27.8	56.6	29.6	29.6	41.4	28.9	28.9	56.5	41.6	41.6
LnGrp LOS	E	C	C	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		2267			767			1000			655	
Approach Delay, s/veh		30.4			30.0			35.3			44.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	37.1	5.9	49.1	24.6	25.4	12.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	48.0	7.0	43.0	30.0	34.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	9.0	13.1	2.6	31.8	16.4	16.3	8.3	19.5
Green Ext Time (p_c), s	0.1	5.4	0.0	8.3	4.2	3.0	0.1	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	950	180	40	580	60	70	270	40	60	370	40
Future Volume (veh/h)	60	950	180	40	580	60	70	270	40	60	370	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	990	188	42	604	62	73	281	42	62	385	42
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	1346	255	101	1422	146	137	511	75	195	637	69
Arrive On Green	0.07	0.44	0.44	0.06	0.43	0.43	0.08	0.16	0.16	0.11	0.19	0.19
Sat Flow, veh/h	1810	3027	574	1810	3305	339	1810	3152	466	1810	3283	356
Grp Volume(v), veh/h	62	590	588	42	329	337	73	159	164	62	211	216
Grp Sat Flow(s),veh/h/ln	1810	1805	1796	1810	1805	1839	1810	1805	1813	1810	1805	1834
Q Serve(g_s), s	2.3	18.8	18.9	1.6	8.9	8.9	2.7	5.7	5.8	2.2	7.4	7.5
Cycle Q Clear(g_c), s	2.3	18.8	18.9	1.6	8.9	8.9	2.7	5.7	5.8	2.2	7.4	7.5
Prop In Lane	1.00		0.32	1.00		0.18	1.00		0.26	1.00		0.19
Lane Grp Cap(c), veh/h	127	802	799	101	777	791	137	293	294	195	350	356
V/C Ratio(X)	0.49	0.73	0.74	0.42	0.42	0.43	0.53	0.54	0.56	0.32	0.60	0.61
Avail Cap(c_a), veh/h	208	802	799	182	777	791	182	725	728	208	751	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	16.0	16.0	31.8	13.8	13.9	31.0	26.8	26.9	28.7	25.6	25.7
Incr Delay (d2), s/veh	2.9	5.9	6.0	2.7	1.7	1.7	3.2	1.6	1.6	0.9	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	10.7	10.6	0.9	4.8	4.9	1.5	3.0	3.0	1.2	3.8	4.0
LnGrp Delay(d),s/veh	34.1	21.9	22.0	34.5	15.5	15.5	34.2	28.4	28.5	29.6	27.3	27.3
LnGrp LOS	C	C	C	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1240			708			396			489	
Approach Delay, s/veh		22.6			16.7			29.5			27.6	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	15.3	7.9	35.0	9.3	17.5	8.9	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	7.0	31.0	7.0	29.0	8.0	30.0
Max Q Clear Time (g_c+I1), s	4.2	7.8	3.6	20.9	4.7	9.5	4.3	10.9
Green Ext Time (p_c), s	0.1	1.8	1.2	4.9	0.1	2.4	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	670	160	70	460	110	140	690	80	140	830	50
Future Volume (veh/h)	70	670	160	70	460	110	140	690	80	140	830	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	691	165	72	474	113	144	711	82	144	856	52
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1106	264	118	1043	247	143	1382	158	143	1464	89
Arrive On Green	0.09	0.38	0.38	0.07	0.36	0.36	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2890	690	1810	2895	686	1810	4719	540	1810	5000	303
Grp Volume(v), veh/h	72	431	425	72	294	293	144	519	274	144	591	317
Grp Sat Flow(s),veh/h/ln	1810	1805	1775	1810	1805	1776	1810	1729	1801	1810	1729	1845
Q Serve(g_s), s	3.4	17.2	17.2	3.4	11.1	11.2	7.0	11.1	11.2	7.0	13.0	13.0
Cycle Q Clear(g_c), s	3.4	17.2	17.2	3.4	11.1	11.2	7.0	11.1	11.2	7.0	13.0	13.0
Prop In Lane	1.00		0.39	1.00		0.39	1.00		0.30	1.00		0.16
Lane Grp Cap(c), veh/h	159	691	680	118	650	640	143	1012	527	143	1012	540
V/C Ratio(X)	0.45	0.62	0.62	0.61	0.45	0.46	1.01	0.51	0.52	1.01	0.58	0.59
Avail Cap(c_a), veh/h	183	691	680	143	650	640	143	1012	527	143	1012	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	22.2	22.2	40.4	21.7	21.8	40.9	26.1	26.2	40.9	26.8	26.8
Incr Delay (d2), s/veh	2.0	4.2	4.3	5.1	2.3	2.3	77.9	1.9	3.6	77.9	2.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	9.3	9.2	1.9	5.9	5.9	6.5	5.5	6.1	6.5	6.5	7.3
LnGrp Delay(d),s/veh	40.5	26.5	26.5	45.5	24.0	24.1	118.9	28.0	29.8	118.9	29.3	31.4
LnGrp LOS	D	C	C	D	C	C	F	C	C	F	C	C
Approach Vol, veh/h		928			659			937			1052	
Approach Delay, s/veh		27.6			26.4			42.5			42.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	9.8	38.0	11.0	30.0	11.8	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	9.0	13.2	5.4	19.2	9.0	15.0	5.4	13.2
Green Ext Time (p_c), s	0.0	3.9	0.0	4.4	0.0	4.2	1.7	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	120	1600	480	160	1440	140	300	230	180	140	450	210
Future Volume (veh/h)	120	1600	480	160	1440	140	300	230	180	140	450	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	1702	511	170	1532	149	319	245	191	149	479	223
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	2294	712	271	2288	710	276	810	854	269	803	357
Arrive On Green	0.08	0.44	0.44	0.08	0.44	0.44	0.08	0.22	0.22	0.08	0.22	0.22
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2823	3510	3610	1604
Grp Volume(v), veh/h	128	1702	511	170	1532	149	319	245	191	149	479	223
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1412	1755	1805	1604
Q Serve(g_s), s	6.3	24.3	16.2	4.2	20.9	5.1	7.0	5.0	4.5	3.7	10.6	8.8
Cycle Q Clear(g_c), s	6.3	24.3	16.2	4.2	20.9	5.1	7.0	5.0	4.5	3.7	10.6	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	2294	712	271	2288	710	276	810	854	269	803	357
V/C Ratio(X)	0.90	0.74	0.72	0.63	0.67	0.21	1.16	0.30	0.22	0.55	0.60	0.62
Avail Cap(c_a), veh/h	142	2327	722	276	2327	722	276	1741	1581	354	1822	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	20.6	9.9	39.9	19.8	15.4	41.1	28.8	23.3	39.7	31.1	19.2
Incr Delay (d2), s/veh	47.3	1.3	3.4	4.3	0.7	0.1	103.7	0.2	0.1	1.8	0.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	11.8	7.7	2.2	10.1	2.3	7.3	2.5	1.8	1.8	5.3	4.4
LnGrp Delay(d),s/veh	88.0	21.9	13.3	44.2	20.5	15.5	144.8	29.0	23.4	41.5	31.8	21.0
LnGrp LOS	F	C	B	D	C	B	F	C	C	D	C	C
Approach Vol, veh/h		2341			1851			755			851	
Approach Delay, s/veh		23.7			22.3			76.5			30.7	
Approach LOS		C			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	24.0	10.9	43.4	11.0	23.8	11.0	43.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	5.7	7.0	6.2	26.3	9.0	12.6	8.3	22.9
Green Ext Time (p_c), s	0.1	3.4	0.0	13.1	0.0	3.8	0.0	16.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✣	↱
Traffic Volume (veh/h)	0	1480	430	0	1310	0	0	0	0	300	0	430
Future Volume (veh/h)	0	1480	430	0	1310	0	0	0	0	300	0	430
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1526	443	0	1351	0				468	0	273
Adj No. of Lanes	0	3	0	0	3	0				2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2402	689	0	3111	0				848	0	378
Arrive On Green	0.00	0.60	0.60	0.00	0.60	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	4176	1150	0	5529	0				3619	0	1615
Grp Volume(v), veh/h	0	1315	654	0	1351	0				468	0	273
Grp Sat Flow(s),veh/h/ln	0	1729	1697	0	1729	0				1810	0	1615
Q Serve(g_s), s	0.0	11.8	12.1	0.0	6.8	0.0				5.5	0.0	7.5
Cycle Q Clear(g_c), s	0.0	11.8	12.1	0.0	6.8	0.0				5.5	0.0	7.5
Prop In Lane	0.00		0.68	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2074	1018	0	3111	0				848	0	378
V/C Ratio(X)	0.00	0.63	0.64	0.00	0.43	0.00				0.55	0.00	0.72
Avail Cap(c_a), veh/h	0	2152	1056	0	3228	0				1276	0	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.2	6.3	0.0	5.2	0.0				16.2	0.0	17.0
Incr Delay (d2), s/veh	0.0	0.6	1.3	0.0	0.1	0.0				0.6	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	5.8	0.0	3.2	0.0				2.8	0.0	3.6
LnGrp Delay(d),s/veh	0.0	6.8	7.6	0.0	5.3	0.0				16.8	0.0	19.6
LnGrp LOS		A	A		A					B		B
Approach Vol, veh/h		1969			1351						741	
Approach Delay, s/veh		7.1			5.3						17.8	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				32.9		15.3		32.9
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				30.0		17.0		30.0
Max Q Clear Time (g_c+I1), s				14.1		9.5		8.8
Green Ext Time (p_c), s				14.8		1.8		19.4

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	↰↑↱	↱			
Traffic Volume (veh/h)	340	1450	0	0	950	290	440	10	190	0	0	0
Future Volume (veh/h)	340	1450	0	0	950	290	440	10	190	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	347	1480	0	0	969	296	513	0	133			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	398	3410	0	0	1435	438	709	0	317			
Arrive On Green	0.22	0.66	0.00	0.00	0.36	0.36	0.20	0.00	0.20			
Sat Flow, veh/h	1810	5358	0	0	4110	1201	3619	0	1615			
Grp Volume(v), veh/h	347	1480	0	0	850	415	513	0	133			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1682	1810	0	1615			
Q Serve(g_s), s	10.1	7.5	0.0	0.0	11.3	11.3	7.2	0.0	3.9			
Cycle Q Clear(g_c), s	10.1	7.5	0.0	0.0	11.3	11.3	7.2	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		0.71	1.00		1.00			
Lane Grp Cap(c), veh/h	398	3410	0	0	1260	613	709	0	317			
V/C Ratio(X)	0.87	0.43	0.00	0.00	0.67	0.68	0.72	0.00	0.42			
Avail Cap(c_a), veh/h	398	3895	0	0	1583	770	1061	0	473			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.6	4.5	0.0	0.0	14.6	14.6	20.6	0.0	19.2			
Incr Delay (d2), s/veh	18.7	0.1	0.0	0.0	0.8	1.7	1.4	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.1	3.5	0.0	0.0	5.5	5.5	3.7	0.0	1.8			
LnGrp Delay(d),s/veh	39.3	4.6	0.0	0.0	15.4	16.3	22.0	0.0	20.1			
LnGrp LOS	D	A			B	B	C		C			
Approach Vol, veh/h		1827			1265			646				
Approach Delay, s/veh		11.2			15.7			21.6				
Approach LOS		B			B			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		14.7		39.9			16.0	23.9
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0		41.0			12.0	25.0
Max Q Clear Time (g_c+I1), s		9.2		9.5			12.1	13.3
Green Ext Time (p_c), s		1.5		14.6			0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	260	1340	50	10	1080	90	40	90	10	80	130	210
Future Volume (veh/h)	260	1340	50	10	1080	90	40	90	10	80	130	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	283	1457	54	11	1174	0	43	98	11	87	141	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	385	2175	80	34	1884	843	266	322	144	137	322	144
Arrive On Green	0.11	0.61	0.61	0.02	0.52	0.00	0.08	0.09	0.09	0.08	0.09	0.00
Sat Flow, veh/h	3510	3550	131	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	283	739	772	11	1174	0	43	98	11	87	141	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1876	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.1	21.1	21.3	0.5	18.1	0.0	0.9	2.0	0.4	3.7	2.9	0.0
Cycle Q Clear(g_c), s	6.1	21.1	21.3	0.5	18.1	0.0	0.9	2.0	0.4	3.7	2.9	0.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	1106	1149	34	1884	843	266	322	144	137	322	144
V/C Ratio(X)	0.73	0.67	0.67	0.32	0.62	0.00	0.16	0.30	0.08	0.63	0.44	0.00
Avail Cap(c_a), veh/h	581	1106	1149	161	1884	843	313	827	370	161	827	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.9	10.0	10.0	38.0	13.3	0.0	34.0	33.5	24.7	35.3	33.9	0.0
Incr Delay (d2), s/veh	2.7	3.2	3.1	5.2	1.6	0.0	0.3	0.5	0.2	6.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	11.3	11.9	0.3	9.4	0.0	0.4	1.0	0.2	2.1	1.5	0.0
LnGrp Delay(d),s/veh	36.6	13.2	13.2	43.3	14.9	0.0	34.3	34.0	24.9	41.4	34.9	0.0
LnGrp LOS	D	B	B	D	B		C	C	C	D	C	
Approach Vol, veh/h		1794			1185			152			228	
Approach Delay, s/veh		16.9			15.1			33.4			37.3	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	11.0	5.5	52.1	10.0	11.0	12.6	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	13.0	41.0
Max Q Clear Time (g_c+I1), s	5.7	4.0	2.5	23.3	2.9	4.9	8.1	20.1
Green Ext Time (p_c), s	0.0	0.4	0.0	12.2	0.1	0.6	0.5	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	150	1220	40	10	950	130	30	60	20	180	60	120
Future Volume (veh/h)	150	1220	40	10	950	130	30	60	20	180	60	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	1298	43	11	1011	138	32	64	21	191	64	128
Adj No. of Lanes	1	3	0	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	2458	81	147	1613	718	311	361	118	409	149	297
Arrive On Green	0.11	0.48	0.48	0.08	0.45	0.45	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	5156	171	1810	3610	1606	1206	1369	449	1327	564	1129
Grp Volume(v), veh/h	160	871	470	11	1011	138	32	0	85	191	0	192
Grp Sat Flow(s),veh/h/ln	1810	1729	1869	1810	1805	1606	1206	0	1818	1327	0	1693
Q Serve(g_s), s	5.8	11.8	11.8	0.4	14.4	3.5	1.5	0.0	2.4	8.7	0.0	6.3
Cycle Q Clear(g_c), s	5.8	11.8	11.8	0.4	14.4	3.5	7.8	0.0	2.4	11.1	0.0	6.3
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.25	1.00		0.67
Lane Grp Cap(c), veh/h	201	1648	891	147	1613	718	311	0	479	409	0	446
V/C Ratio(X)	0.80	0.53	0.53	0.07	0.63	0.19	0.10	0.00	0.18	0.47	0.00	0.43
Avail Cap(c_a), veh/h	243	1648	891	189	1613	718	784	0	1191	929	0	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.1	12.3	12.3	28.5	14.3	11.2	23.8	0.0	19.1	23.4	0.0	20.5
Incr Delay (d2), s/veh	14.2	1.2	2.2	0.2	1.9	0.6	0.1	0.0	0.2	0.8	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.8	6.6	0.2	7.6	1.7	0.5	0.0	1.2	3.3	0.0	3.0
LnGrp Delay(d),s/veh	43.4	13.5	14.5	28.7	16.1	11.8	23.9	0.0	19.3	24.2	0.0	21.2
LnGrp LOS	D	B	B	C	B	B	C		B	C		C
Approach Vol, veh/h		1501			1160			117			383	
Approach Delay, s/veh		17.0			15.7			20.6			22.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		21.7	9.4	36.0		21.7	11.4	34.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	9.0	30.0
Max Q Clear Time (g_c+I1), s		9.8	2.4	13.8		13.1	7.8	16.4
Green Ext Time (p_c), s		2.5	0.2	8.1		2.5	0.1	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
71: Elsworth St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	60	1300	80	80	890	70	130	200	150	70	120	50
Future Volume (veh/h)	60	1300	80	80	890	70	130	200	150	70	120	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	1383	85	85	947	74	138	213	160	74	128	53
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	148	2046	126	148	2010	157	175	374	316	140	337	284
Arrive On Green	0.08	0.41	0.41	0.08	0.41	0.41	0.10	0.20	0.20	0.08	0.18	0.18
Sat Flow, veh/h	1810	4995	307	1810	4905	382	1810	1900	1603	1810	1900	1601
Grp Volume(v), veh/h	64	957	511	85	667	354	138	213	160	74	128	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1844	1810	1729	1830	1810	1900	1603	1810	1900	1601
Q Serve(g_s), s	2.3	15.4	15.4	3.1	9.6	9.7	5.1	6.9	6.1	2.7	4.1	1.5
Cycle Q Clear(g_c), s	2.3	15.4	15.4	3.1	9.6	9.7	5.1	6.9	6.1	2.7	4.1	1.5
Prop In Lane	1.00		0.17	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	1417	756	148	1417	750	175	374	316	140	337	284
V/C Ratio(X)	0.43	0.68	0.68	0.57	0.47	0.47	0.79	0.57	0.51	0.53	0.38	0.19
Avail Cap(c_a), veh/h	185	1417	756	185	1417	750	212	1112	938	238	1140	961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	16.5	16.5	30.2	14.8	14.8	30.2	24.8	24.5	30.3	24.8	13.7
Incr Delay (d2), s/veh	2.0	2.6	4.8	3.4	1.1	2.1	15.1	1.4	1.3	3.1	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.8	8.8	1.7	4.8	5.3	3.3	3.8	2.8	1.5	2.2	0.8
LnGrp Delay(d),s/veh	31.8	19.1	21.3	33.7	15.9	16.9	45.2	26.2	25.7	33.4	25.5	14.0
LnGrp LOS	C	B	C	C	B	B	D	C	C	C	C	B
Approach Vol, veh/h		1532			1106			511			255	
Approach Delay, s/veh		20.3			17.6			31.2			25.4	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	17.5	9.6	32.0	10.6	16.1	9.6	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	40.0	7.0	28.0	8.0	41.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.7	8.9	5.1	17.4	7.1	6.1	4.3	11.7
Green Ext Time (p_c), s	0.4	1.8	0.1	6.3	0.0	1.1	0.1	5.7

Intersection Summary			
HCM 2010 Ctrl Delay			21.4
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↳	
Traffic Volume (veh/h)	0	640	190	570	530	0	0	0	0	0	0	170
Future Volume (veh/h)	0	640	190	570	530	0	0	0	0	0	0	170
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	688	204	613	570	0				0	0	183
Adj No. of Lanes	0	2	1	1	2	0				0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	866	384	1182	3417	0				0	0	0
Arrive On Green	0.00	0.24	0.24	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3705	1598	1810	3705	0					0	
Grp Volume(v), veh/h	0	688	204	613	570	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1805	1598	1810	1805	0						
Q Serve(g_s), s	0.0	13.4	8.3	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	13.4	8.3	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	866	384	1182	3417	0						
V/C Ratio(X)	0.00	0.79	0.53	0.52	0.17	0.00						
Avail Cap(c_a), veh/h	0	866	384	1182	3417	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.73	0.73	0.00						
Uniform Delay (d), s/veh	0.0	26.8	24.8	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	7.4	5.2	0.3	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	7.6	4.2	0.1	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	34.2	30.0	0.3	0.1	0.0						
LnGrp LOS		C	C	A	A							
Approach Vol, veh/h		892			1183							
Approach Delay, s/veh		33.2			0.2							
Approach LOS		C			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			53.0	22.0				75.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			27.0	18.0				49.0
Max Q Clear Time (g_c+I1), s			2.0	15.4				2.0
Green Ext Time (p_c), s			5.7	1.2				6.2

Intersection Summary			
HCM 2010 Ctrl Delay			14.4
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	30	1320	110	0	1500	130	40	70	20	130	10	120
Future Volume (veh/h)	30	1320	110	0	1500	130	40	70	20	130	10	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	1361	113	0	1546	134	41	72	21	134	10	124
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	2408	199	0	2399	206	232	255	74	276	22	272
Arrive On Green	1.00	1.00	1.00	0.00	0.71	0.71	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	299	3376	279	0	3458	289	1275	1415	413	1324	122	1511
Grp Volume(v), veh/h	31	725	749	0	824	856	41	0	93	134	0	134
Grp Sat Flow(s),veh/h/ln	299	1805	1851	0	1805	1848	1275	0	1827	1324	0	1633
Q Serve(g_s), s	3.2	0.0	0.0	0.0	18.1	18.6	2.2	0.0	3.3	7.3	0.0	5.5
Cycle Q Clear(g_c), s	21.7	0.0	0.0	0.0	18.1	18.6	7.7	0.0	3.3	10.6	0.0	5.5
Prop In Lane	1.00		0.15	0.00		0.16	1.00		0.23	1.00		0.93
Lane Grp Cap(c), veh/h	235	1287	1320	0	1287	1318	232	0	329	276	0	294
V/C Ratio(X)	0.13	0.56	0.57	0.00	0.64	0.65	0.18	0.00	0.28	0.49	0.00	0.46
Avail Cap(c_a), veh/h	235	1287	1320	0	1287	1318	309	0	439	356	0	392
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.8	0.0	0.0	0.0	5.7	5.7	30.9	0.0	26.6	31.1	0.0	27.5
Incr Delay (d2), s/veh	1.0	1.5	1.5	0.0	2.5	2.5	0.4	0.0	0.5	1.3	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.6	0.6	0.0	9.6	10.2	0.8	0.0	1.7	2.7	0.0	2.5
LnGrp Delay(d),s/veh	4.8	1.5	1.5	0.0	8.1	8.2	31.3	0.0	27.0	32.5	0.0	28.6
LnGrp LOS	A	A	A		A	A	C		C	C		C
Approach Vol, veh/h		1505			1680			134			268	
Approach Delay, s/veh		1.6			8.2			28.3			30.5	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		17.5		57.5		17.5		57.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		49.0		18.0		49.0
Max Q Clear Time (g_c+I1), s		9.7		23.7		12.6		20.6
Green Ext Time (p_c), s		1.2		21.9		0.9		24.3

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Traffic Volume (veh/h)	110	1710	30	20	1210	100	330	90	150	180	10	150
Future Volume (veh/h)	110	1710	30	20	1210	100	330	90	150	180	10	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	1839	0	22	1301	108	306	165	161	202	0	161
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	2421	754	58	2158	668	426	207	202	374	0	298
Arrive On Green	0.08	0.47	0.00	0.03	0.42	0.42	0.24	0.24	0.24	0.10	0.00	0.10
Sat Flow, veh/h	1810	5187	1615	1810	5187	1605	1810	882	860	3619	0	1592
Grp Volume(v), veh/h	118	1839	0	22	1301	108	306	0	326	202	0	161
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1605	1810	0	1742	1810	0	1592
Q Serve(g_s), s	6.3	28.9	0.0	1.2	19.3	4.2	15.3	0.0	17.4	5.2	0.0	0.7
Cycle Q Clear(g_c), s	6.3	28.9	0.0	1.2	19.3	4.2	15.3	0.0	17.4	5.2	0.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.49	1.00		1.00
Lane Grp Cap(c), veh/h	150	2421	754	58	2158	668	426	0	410	374	0	298
V/C Ratio(X)	0.79	0.76	0.00	0.38	0.60	0.16	0.72	0.00	0.80	0.54	0.00	0.54
Avail Cap(c_a), veh/h	220	2421	754	129	2158	668	679	0	654	1248	0	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.3	21.7	0.0	46.7	22.4	18.0	34.7	0.0	35.4	42.0	0.0	36.2
Incr Delay (d2), s/veh	10.8	2.3	0.0	4.0	1.3	0.5	2.3	0.0	3.5	1.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	14.1	0.0	0.7	9.4	1.9	7.9	0.0	8.7	2.7	0.0	4.0
LnGrp Delay(d),s/veh	55.2	24.0	0.0	50.7	23.7	18.5	37.0	0.0	39.0	43.2	0.0	37.8
LnGrp LOS	E	C		D	C	B	D		D	D		D
Approach Vol, veh/h		1957			1431			632			363	
Approach Delay, s/veh		25.9			23.7			38.0			40.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		27.2	7.2	50.0		14.2	12.2	45.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	7.0	46.0		34.0	12.0	41.0
Max Q Clear Time (g_c+I1), s		19.4	3.2	30.9		7.2	8.3	21.3
Green Ext Time (p_c), s		2.8	0.1	10.2		1.3	0.1	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1320	320	40	570	230	40
Future Volume (veh/h)	1320	320	40	570	230	40
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1404	340	43	606	245	43
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1725	407	104	2569	308	368
Arrive On Green	0.60	0.60	0.06	0.71	0.17	0.17
Sat Flow, veh/h	2992	684	1810	3705	1810	1615
Grp Volume(v), veh/h	861	883	43	606	245	43
Grp Sat Flow(s),veh/h/ln	1805	1776	1810	1805	1810	1615
Q Serve(g_s), s	25.0	27.1	1.6	3.9	8.8	0.0
Cycle Q Clear(g_c), s	25.0	27.1	1.6	3.9	8.8	0.0
Prop In Lane		0.38	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1075	1057	104	2569	308	368
V/C Ratio(X)	0.80	0.84	0.41	0.24	0.79	0.12
Avail Cap(c_a), veh/h	1278	1258	187	3143	881	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	11.0	30.8	3.4	27.0	20.8
Incr Delay (d2), s/veh	3.2	4.3	2.6	0.0	4.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	14.3	0.9	2.0	4.8	0.6
LnGrp Delay(d),s/veh	13.8	15.4	33.5	3.4	31.6	20.9
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	1744			649	288	
Approach Delay, s/veh	14.6			5.4	30.0	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		15.5	7.9	44.3				52.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		33.0	7.0	48.0				59.0
Max Q Clear Time (g_c+I1), s		10.8	3.6	29.1				5.9
Green Ext Time (p_c), s		0.8	1.2	11.2				4.0

Intersection Summary			
HCM 2010 Ctrl Delay			14.0
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	680	610	220	320	100	230	160	240	60	150	0
Future Volume (veh/h)	10	680	610	220	320	100	230	160	240	60	150	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	716	642	232	337	105	242	168	253	63	158	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	380	1567	485	398	557	171	292	464	392	137	572	256
Arrive On Green	0.21	0.30	0.30	0.11	0.21	0.21	0.16	0.24	0.24	0.08	0.16	0.00
Sat Flow, veh/h	1810	5187	1607	3510	2714	832	1810	1900	1605	1810	3610	1615
Grp Volume(v), veh/h	11	716	642	232	222	220	242	168	253	63	158	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1607	1755	1805	1741	1810	1900	1605	1810	1805	1615
Q Serve(g_s), s	0.3	6.8	10.6	3.8	6.7	6.9	7.8	4.4	5.8	2.0	2.3	0.0
Cycle Q Clear(g_c), s	0.3	6.8	10.6	3.8	6.7	6.9	7.8	4.4	5.8	2.0	2.3	0.0
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	1567	485	398	371	358	292	464	392	137	572	256
V/C Ratio(X)	0.03	0.46	1.32	0.58	0.60	0.61	0.83	0.36	0.65	0.46	0.28	0.00
Avail Cap(c_a), veh/h	380	2232	692	523	836	807	329	1258	1063	270	2270	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.0	17.1	7.1	25.4	21.8	21.8	24.5	18.9	9.3	26.7	22.4	0.0
Incr Delay (d2), s/veh	0.0	0.2	157.5	1.4	1.6	1.7	14.7	0.5	1.8	2.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.2	26.8	1.9	3.5	3.5	5.1	2.4	3.4	1.1	1.2	0.0
LnGrp Delay(d),s/veh	19.0	17.3	164.6	26.8	23.3	23.6	39.3	19.4	11.1	29.1	22.6	0.0
LnGrp LOS	B	B	F	C	C	C	D	B	B	C	C	
Approach Vol, veh/h		1369			674			663			221	
Approach Delay, s/veh		86.4			24.6			23.5			24.5	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	18.7	10.8	22.3	13.7	13.6	16.7	16.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	40.0	9.0	26.0	11.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.0	7.8	5.8	12.6	9.8	4.3	2.3	8.9
Green Ext Time (p_c), s	0.0	2.7	0.2	5.7	0.1	2.7	0.3	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	10	10	70	0	0	0	0	450	580	660	600	0
Future Volume (veh/h)	10	10	70	0	0	0	0	450	580	660	600	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	11	0	81				0	479	617	702	638	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	183	0	326				0	1300	581	1050	2668	0
Arrive On Green	0.10	0.00	0.10				0.00	0.36	0.36	0.30	0.74	0.00
Sat Flow, veh/h	1810	0	3230				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	11	0	81				0	479	617	702	638	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1755	1805	0
Q Serve(g_s), s	0.3	0.0	1.2				0.0	4.9	18.0	8.8	2.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	1.2				0.0	4.9	18.0	8.8	2.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	183	0	326				0	1300	581	1050	2668	0
V/C Ratio(X)	0.06	0.00	0.25				0.00	0.37	1.06	0.67	0.24	0.00
Avail Cap(c_a), veh/h	253	0	452				0	1300	581	1050	2668	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.89	0.89	0.89	0.89	0.00
Uniform Delay (d), s/veh	20.3	0.0	20.7				0.0	11.8	16.0	15.4	2.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.4				0.0	0.7	52.7	1.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.5				0.0	2.5	16.4	4.4	1.4	0.0
LnGrp Delay(d),s/veh	20.5	0.0	21.1				0.0	12.5	68.7	16.8	2.3	0.0
LnGrp LOS	C		C					B	F	B	A	
Approach Vol, veh/h		92						1096			1340	
Approach Delay, s/veh		21.0						44.1			9.9	
Approach LOS		C						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			19.0	22.0		9.0		41.0
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			13.0	18.0		7.0		35.0
Max Q Clear Time (g_c+I1), s			10.8	20.0		3.2		4.8
Green Ext Time (p_c), s			1.4	0.0		0.1		7.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	340	210	450	0	0	950
Future Volume (veh/h)	340	210	450	0	0	950
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	362	223	479	0	0	1011
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	682	314	2331	0	0	2331
Arrive On Green	0.19	0.19	1.00	0.00	0.00	0.65
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	362	223	479	0	0	1011
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	4.6	6.5	0.0	0.0	0.0	6.9
Cycle Q Clear(g_c), s	4.6	6.5	0.0	0.0	0.0	6.9
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	682	314	2331	0	0	2331
V/C Ratio(X)	0.53	0.71	0.21	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1053	484	2331	0	0	2331
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	18.8	0.0	0.0	0.0	4.4
Incr Delay (d2), s/veh	0.6	3.0	0.2	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.1	0.1	0.0	0.0	3.6
LnGrp Delay(d),s/veh	18.7	21.8	0.2	0.0	0.0	4.9
LnGrp LOS	B	C	A			A
Approach Vol, veh/h	585		479			1011
Approach Delay, s/veh	19.9		0.2			4.9
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		36.3				36.3		13.7
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		27.0				27.0		15.0
Max Q Clear Time (g_c+I1), s		2.0				8.9		8.5
Green Ext Time (p_c), s		11.5				9.7		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.1
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	2120	20	220	1680	860	30
Future Volume (veh/h)	2120	20	220	1680	860	30
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2163	20	224	1714	907	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2629	24	370	3438	1164	346
Arrive On Green	0.50	0.50	0.11	0.66	0.21	0.00
Sat Flow, veh/h	5471	49	3510	5358	5429	1615
Grp Volume(v), veh/h	1411	772	224	1714	907	0
Grp Sat Flow(s),veh/h/ln	1729	1891	1755	1729	1810	1615
Q Serve(g_s), s	22.6	22.7	4.0	10.8	10.3	0.0
Cycle Q Clear(g_c), s	22.6	22.7	4.0	10.8	10.3	0.0
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1715	938	370	3438	1164	346
V/C Ratio(X)	0.82	0.82	0.60	0.50	0.78	0.00
Avail Cap(c_a), veh/h	1803	986	377	3580	1416	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.0	14.0	27.9	5.5	24.2	0.0
Incr Delay (d2), s/veh	3.1	5.5	2.7	0.1	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	13.0	2.1	5.1	5.4	0.0
LnGrp Delay(d),s/veh	17.1	19.5	30.5	5.6	26.5	0.0
LnGrp LOS	B	B	C	A	C	
Approach Vol, veh/h	2183			1938	907	
Approach Delay, s/veh	17.9			8.5	26.5	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		18.0	10.9	36.3				47.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		17.0	7.0	34.0				45.0
Max Q Clear Time (g_c+I1), s		12.3	6.0	24.7				12.8
Green Ext Time (p_c), s		1.7	0.9	7.6				16.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	40	1930	140	260	1600	100	140	120	250	90	110	20
Future Volume (veh/h)	40	1930	140	260	1600	100	140	120	250	90	110	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	2032	147	274	1684	105	147	126	263	95	116	21
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	224	2375	737	319	2122	132	478	380	320	126	407	72
Arrive On Green	0.12	0.46	0.46	0.09	0.43	0.43	0.14	0.20	0.20	0.07	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	3510	4990	311	3510	1900	1603	1810	3061	541
Grp Volume(v), veh/h	42	2032	147	274	1166	623	147	126	263	95	67	70
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1843	1755	1900	1603	1810	1805	1797
Q Serve(g_s), s	1.8	30.7	2.8	6.8	25.7	25.8	3.3	5.0	10.7	4.5	3.0	3.1
Cycle Q Clear(g_c), s	1.8	30.7	2.8	6.8	25.7	25.8	3.3	5.0	10.7	4.5	3.0	3.1
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	224	2375	737	319	1470	784	478	380	320	126	240	239
V/C Ratio(X)	0.19	0.86	0.20	0.86	0.79	0.79	0.31	0.33	0.82	0.76	0.28	0.29
Avail Cap(c_a), veh/h	224	2478	769	319	1691	901	478	908	766	247	965	961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	21.2	4.8	39.4	21.9	21.9	34.2	30.1	20.1	40.2	34.3	34.4
Incr Delay (d2), s/veh	0.4	3.1	0.1	20.1	2.4	4.4	0.4	0.5	5.2	8.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	15.2	1.9	4.2	12.6	13.9	1.6	2.7	5.5	2.6	1.5	1.6
LnGrp Delay(d),s/veh	35.0	24.3	4.9	59.5	24.3	26.3	34.6	30.7	25.3	49.1	35.0	35.1
LnGrp LOS	C	C	A	E	C	C	C	C	C	D	C	D
Approach Vol, veh/h		2221			2063			536			232	
Approach Delay, s/veh		23.2			29.6			29.1			40.8	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	21.6	12.0	44.3	16.0	15.7	14.9	41.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	8.0	42.0	7.0	47.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	6.5	12.7	8.8	32.7	5.3	5.1	3.8	27.8
Green Ext Time (p_c), s	0.1	1.7	0.0	7.6	0.1	0.8	2.8	9.6

Intersection Summary	
HCM 2010 Ctrl Delay	27.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	170	990	730	200	590	180	220	390	80	200	730	190
Future Volume (veh/h)	170	990	730	200	590	180	220	390	80	200	730	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	1031	760	208	615	188	229	406	83	208	760	198
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	1287	711	204	1278	697	300	1091	667	276	1067	660
Arrive On Green	0.11	0.36	0.36	0.11	0.35	0.35	0.09	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	1810	3610	1608	1810	3610	1608	3510	3610	1607	3510	3610	1607
Grp Volume(v), veh/h	177	1031	760	208	615	188	229	406	83	208	760	198
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1608	1755	1805	1607	1755	1805	1607
Q Serve(g_s), s	10.2	27.4	38.0	12.0	14.1	8.0	6.8	9.4	3.4	6.2	20.0	8.8
Cycle Q Clear(g_c), s	10.2	27.4	38.0	12.0	14.1	8.0	6.8	9.4	3.4	6.2	20.0	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	1287	711	204	1278	697	300	1091	667	276	1067	660
V/C Ratio(X)	0.85	0.80	1.07	1.02	0.48	0.27	0.76	0.37	0.12	0.75	0.71	0.30
Avail Cap(c_a), veh/h	238	1287	711	204	1278	697	461	1422	815	395	1354	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	30.9	29.8	47.3	26.8	19.4	47.7	29.2	19.3	48.1	33.5	21.1
Incr Delay (d2), s/veh	22.4	3.7	53.5	68.7	0.3	0.2	4.0	0.2	0.1	4.9	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	14.3	31.4	9.8	7.1	3.6	3.5	4.7	1.5	3.2	10.1	3.9
LnGrp Delay(d),s/veh	68.7	34.6	83.3	116.2	27.1	19.6	51.7	29.5	19.3	53.0	34.8	21.4
LnGrp LOS	E	C	F	F	C	B	D	C	B	D	C	C
Approach Vol, veh/h		1968			1011			718			1166	
Approach Delay, s/veh		56.5			44.0			35.4			35.8	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	36.2	16.0	42.0	13.1	35.5	16.2	41.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	12.0	38.0	14.0	40.0	14.0	36.0
Max Q Clear Time (g_c+I1), s	8.2	11.4	14.0	40.0	8.8	22.0	12.2	16.1
Green Ext Time (p_c), s	0.2	10.0	0.0	0.0	0.3	8.1	0.1	14.3

Intersection Summary	
HCM 2010 Ctrl Delay	45.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	120	1200	720	400	580	220
Future Volume (veh/h)	120	1200	720	400	580	220
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	1277	766	426	617	234
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	198	2183	1524	1081	903	580
Arrive On Green	0.11	0.60	0.42	0.42	0.25	0.25
Sat Flow, veh/h	1810	3705	3705	1605	3619	1615
Grp Volume(v), veh/h	128	1277	766	426	617	234
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1605	1810	1615
Q Serve(g_s), s	3.7	11.9	8.5	6.5	8.5	6.0
Cycle Q Clear(g_c), s	3.7	11.9	8.5	6.5	8.5	6.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	198	2183	1524	1081	903	580
V/C Ratio(X)	0.65	0.59	0.50	0.39	0.68	0.40
Avail Cap(c_a), veh/h	231	2502	1778	1194	2245	1179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	6.6	11.6	4.0	18.6	13.2
Incr Delay (d2), s/veh	4.8	0.3	0.3	0.2	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.9	4.2	5.0	4.3	5.9
LnGrp Delay(d),s/veh	28.2	6.9	11.9	4.3	19.5	13.6
LnGrp LOS	C	A	B	A	B	B
Approach Vol, veh/h		1405	1192		851	
Approach Delay, s/veh		8.8	9.2		17.9	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				37.1		17.7	10.0	27.1
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				13.9		10.5	5.7	10.5
Green Ext Time (p_c), s				16.6		3.2	0.0	12.5

Intersection Summary		
HCM 2010 Ctrl Delay		11.2
HCM 2010 LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	920	760	270	310	90	410	240	310	170	320	190
Future Volume (veh/h)	140	920	760	270	310	90	410	240	310	170	320	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1022	844	300	344	100	456	267	344	189	356	211
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	995	1979	887	278	640	284	593	1012	450	275	685	762
Arrive On Green	0.28	0.38	0.38	0.08	0.18	0.18	0.17	0.28	0.28	0.08	0.19	0.19
Sat Flow, veh/h	3510	5187	1609	3510	3610	1601	3510	3610	1606	3510	3610	1602
Grp Volume(v), veh/h	156	1022	844	300	344	100	456	267	344	189	356	211
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1805	1601	1755	1805	1606	1755	1805	1602
Q Serve(g_s), s	2.9	13.4	20.0	7.0	7.7	3.9	11.0	5.1	17.4	4.6	7.8	0.0
Cycle Q Clear(g_c), s	2.9	13.4	20.0	7.0	7.7	3.9	11.0	5.1	17.4	4.6	7.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	995	1979	887	278	640	284	593	1012	450	275	685	762
V/C Ratio(X)	0.16	0.52	0.95	1.08	0.54	0.35	0.77	0.26	0.76	0.69	0.52	0.28
Avail Cap(c_a), veh/h	995	2578	1072	278	1794	796	593	1876	835	278	1876	1290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	21.1	8.4	40.8	33.1	20.2	35.1	24.8	29.2	39.7	32.2	14.1
Incr Delay (d2), s/veh	0.1	0.2	15.5	77.2	0.7	0.7	6.1	0.1	2.7	6.9	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	6.5	16.5	6.3	3.9	2.1	5.8	2.5	8.1	2.5	4.0	3.1
LnGrp Delay(d),s/veh	23.9	21.3	24.0	118.0	33.8	20.9	41.2	24.9	31.9	46.6	32.9	14.3
LnGrp LOS	C	C	C	F	C	C	D	C	C	D	C	B
Approach Vol, veh/h		2022			744			1067			756	
Approach Delay, s/veh		22.6			66.0			34.1			31.1	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	28.8	11.0	37.8	19.0	20.8	29.1	19.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	7.0	46.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	6.6	19.4	9.0	22.0	13.0	9.8	4.9	9.7
Green Ext Time (p_c), s	0.0	2.9	0.0	10.8	0.0	3.3	1.7	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	580	1040	10	340	0	0	0	0	10	10	270
Future Volume (veh/h)	0	580	1040	10	340	0	0	0	0	10	10	270
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	637	1143	11	374	0				11	11	297
Adj No. of Lanes	0	1	2	1	2	0				1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	966	1642	280	1835	0				469	15	406
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	1900	3230	271	3705	0				1810	58	1566
Grp Volume(v), veh/h	0	637	1143	11	374	0				11	0	308
Grp Sat Flow(s),veh/h/ln	0	1900	1615	271	1805	0				1810	0	1624
Q Serve(g_s), s	0.0	8.5	9.3	1.1	2.0	0.0				0.2	0.0	6.0
Cycle Q Clear(g_c), s	0.0	8.5	9.3	9.6	2.0	0.0				0.2	0.0	6.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.96
Lane Grp Cap(c), veh/h	0	966	1642	280	1835	0				469	0	421
V/C Ratio(X)	0.00	0.66	0.70	0.04	0.20	0.00				0.02	0.00	0.73
Avail Cap(c_a), veh/h	0	1048	1782	291	1992	0				946	0	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.3	6.4	9.8	4.6	0.0				9.5	0.0	11.7
Incr Delay (d2), s/veh	0.0	1.4	1.1	0.1	0.1	0.0				0.0	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.8	4.2	0.1	0.9	0.0				0.1	0.0	2.9
LnGrp Delay(d),s/veh	0.0	7.6	7.5	9.9	4.7	0.0				9.5	0.0	14.1
LnGrp LOS		A	A	A	A					A		B
Approach Vol, veh/h		1780			385						319	
Approach Delay, s/veh		7.6			4.8						14.0	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.5		12.9		21.5
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				19.0		18.0		19.0
Max Q Clear Time (g_c+I1), s				11.3		8.0		11.6
Green Ext Time (p_c), s				6.1		1.4		5.9

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	247.2
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1410	0	850	380	0	0
Future Vol, veh/h	1410	0	850	380	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1584	0	955	427	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	258.1	234.8
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	39%	100%	100%
Vol Thru, %	0%	61%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	604	627	705	705
LT Vol	604	247	705	705
Through Vol	0	380	0	0
RT Vol	0	0	0	0
Lane Flow Rate	678	704	792	792
Geometry Grp	7	7	7	7
Degree of Util (X)	1.447	1.443	1.691	1.317
Departure Headway (Hd)	8.308	8.001	8.237	6.519
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	441	458	452	562
Service Time	6.008	5.701	5.937	4.219
HCM Lane V/C Ratio	1.537	1.537	1.752	1.409
HCM Control Delay	236.2	233.4	340.9	175.2
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	31.6	32.4	44	30.8

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	30	30	550	30	240	40	360	770	680	860	10
Future Volume (veh/h)	20	30	30	550	30	240	40	360	770	680	860	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	32	32	591	32	258	43	387	828	731	925	11
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	97	97	519	433	366	91	1450	646	593	1879	837
Arrive On Green	0.03	0.11	0.11	0.15	0.23	0.23	0.05	0.40	0.40	0.17	0.52	0.52
Sat Flow, veh/h	1810	867	867	3510	1900	1604	1810	3610	1609	3510	3610	1607
Grp Volume(v), veh/h	22	0	64	591	32	258	43	387	828	731	925	11
Grp Sat Flow(s),veh/h/ln	1810	0	1733	1755	1900	1604	1810	1805	1609	1755	1805	1607
Q Serve(g_s), s	1.1	0.0	3.2	14.0	1.3	14.0	2.2	6.8	38.0	16.0	15.6	0.3
Cycle Q Clear(g_c), s	1.1	0.0	3.2	14.0	1.3	14.0	2.2	6.8	38.0	16.0	15.6	0.3
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	0	195	519	433	366	91	1450	646	593	1879	837
V/C Ratio(X)	0.37	0.00	0.33	1.14	0.07	0.71	0.47	0.27	1.28	1.23	0.49	0.01
Avail Cap(c_a), veh/h	134	0	659	519	863	729	134	1450	646	593	1879	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	0.0	38.7	40.3	28.7	33.6	43.7	19.0	28.3	39.3	14.6	11.0
Incr Delay (d2), s/veh	3.9	0.0	1.0	83.4	0.1	2.5	3.8	0.1	138.4	118.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.6	12.7	0.7	6.4	1.2	3.4	41.6	17.4	7.8	0.1
LnGrp Delay(d),s/veh	48.7	0.0	39.7	123.7	28.8	36.1	47.6	19.1	166.7	157.8	14.8	11.0
LnGrp LOS	D		D	F	C	D	D	B	F	F	B	B
Approach Vol, veh/h		86			881			1258			1667	
Approach Delay, s/veh		42.0			94.6			117.2			77.5	
Approach LOS		D			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	42.0	18.0	14.6	8.7	53.3	7.1	25.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	38.0	14.0	36.0	7.0	47.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	18.0	40.0	16.0	5.2	4.2	17.6	3.1	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	15.3	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	93.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥		↰	↱	
Traffic Volume (veh/h)	210	1140	80	40	620	60	30	30	20	90	60	180
Future Volume (veh/h)	210	1140	80	40	620	60	30	30	20	90	60	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1200	84	42	653	63	32	32	21	95	63	189
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	271	1575	110	110	1234	119	159	148	70	452	105	315
Arrive On Green	0.15	0.46	0.46	0.06	0.37	0.37	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	3422	239	1810	3325	320	260	587	278	1367	418	1253
Grp Volume(v), veh/h	221	632	652	42	354	362	85	0	0	95	0	252
Grp Sat Flow(s),veh/h/ln	1810	1805	1856	1810	1805	1841	1125	0	0	1367	0	1670
Q Serve(g_s), s	6.2	15.4	15.4	1.2	8.1	8.1	0.2	0.0	0.0	0.0	0.0	7.0
Cycle Q Clear(g_c), s	6.2	15.4	15.4	1.2	8.1	8.1	7.3	0.0	0.0	3.5	0.0	7.0
Prop In Lane	1.00		0.13	1.00		0.17	0.38		0.25	1.00		0.75
Lane Grp Cap(c), veh/h	271	831	854	110	670	683	377	0	0	452	0	420
V/C Ratio(X)	0.81	0.76	0.76	0.38	0.53	0.53	0.23	0.00	0.00	0.21	0.00	0.60
Avail Cap(c_a), veh/h	274	1095	1126	240	1060	1081	953	0	0	989	0	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	11.8	11.8	23.8	13.0	13.0	15.7	0.0	0.0	16.1	0.0	17.4
Incr Delay (d2), s/veh	16.8	2.3	2.3	2.1	0.6	0.6	0.3	0.0	0.0	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	8.1	8.3	0.6	4.2	4.2	1.0	0.0	0.0	1.2	0.0	3.4
LnGrp Delay(d),s/veh	38.5	14.1	14.1	26.0	13.6	13.6	16.0	0.0	0.0	16.3	0.0	18.8
LnGrp LOS	D	B	B	C	B	B	B			B		B
Approach Vol, veh/h		1505			758			85			347	
Approach Delay, s/veh		17.7			14.3			16.0			18.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.3	7.2	28.3		17.3	11.9	23.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		9.3	3.2	17.4		9.0	8.2	10.1
Green Ext Time (p_c), s		2.4	1.5	6.9		2.4	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	40	1060	140	140	630	170	130	400	150	430	680	90
Future Volume (veh/h)	40	1060	140	140	630	170	130	400	150	430	680	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	1093	144	144	649	175	134	412	155	443	701	93
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	1243	163	139	1497	951	139	668	420	617	910	121
Arrive On Green	0.05	0.39	0.39	0.08	0.41	0.41	0.08	0.19	0.19	0.18	0.28	0.28
Sat Flow, veh/h	1810	3207	422	1810	3610	1609	1810	3610	1602	3510	3203	425
Grp Volume(v), veh/h	41	614	623	144	649	175	134	412	155	443	395	399
Grp Sat Flow(s),veh/h/ln	1810	1805	1824	1810	1805	1609	1810	1805	1602	1755	1805	1822
Q Serve(g_s), s	2.0	28.9	29.0	7.0	11.7	1.0	6.8	9.6	4.2	10.9	18.3	18.4
Cycle Q Clear(g_c), s	2.0	28.9	29.0	7.0	11.7	1.0	6.8	9.6	4.2	10.9	18.3	18.4
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	90	700	707	139	1497	951	139	668	420	617	513	518
V/C Ratio(X)	0.46	0.88	0.88	1.04	0.43	0.18	0.97	0.62	0.37	0.72	0.77	0.77
Avail Cap(c_a), veh/h	139	731	738	139	1497	951	139	1422	755	617	750	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	26.0	26.0	42.2	19.1	3.1	42.1	34.3	11.8	35.5	30.0	30.0
Incr Delay (d2), s/veh	3.6	11.5	11.7	87.3	0.2	0.1	66.2	0.9	0.5	4.0	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	16.6	16.8	6.8	5.9	1.1	5.9	4.8	2.0	5.6	9.5	9.6
LnGrp Delay(d),s/veh	45.8	37.5	37.7	129.8	19.3	3.2	108.3	35.2	12.4	39.6	32.9	32.9
LnGrp LOS	D	D	D	F	B	A	F	D	B	D	C	C
Approach Vol, veh/h		1278			968			701			1237	
Approach Delay, s/veh		37.9			32.8			44.1			35.3	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	20.9	11.0	39.4	11.0	30.0	8.5	41.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	36.0	7.0	37.0	7.0	38.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	12.9	11.6	9.0	31.0	8.8	20.4	4.0	13.7
Green Ext Time (p_c), s	0.0	3.0	0.0	4.3	0.0	4.2	0.0	13.8

Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
	↙	↖	↑	↗	↘	↓
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	50	30	1160	90	80	1410
Future Volume (veh/h)	50	30	1160	90	80	1410
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	32	1247	97	86	1516
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	172	153	2109	939	172	2723
Arrive On Green	0.09	0.09	0.58	0.58	0.09	0.75
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	54	32	1247	97	86	1516
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	1.5	1.0	11.6	1.4	2.4	9.4
Cycle Q Clear(g_c), s	1.5	1.0	11.6	1.4	2.4	9.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	172	153	2109	939	172	2723
V/C Ratio(X)	0.31	0.21	0.59	0.10	0.50	0.56
Avail Cap(c_a), veh/h	239	213	2314	1031	239	3062
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	22.2	7.0	4.9	22.8	2.8
Incr Delay (d2), s/veh	1.0	0.7	0.3	0.0	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.5	5.8	0.6	1.3	4.5
LnGrp Delay(d),s/veh	23.4	22.8	7.3	4.9	25.1	2.9
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	86		1344			1602
Approach Delay, s/veh	23.2		7.2			4.1
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.0	35.0				44.0		9.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	4.4	13.6				11.4		3.5
Green Ext Time (p_c), s	0.0	17.4				26.3		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	6.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	60	1080	210	440	690	220	0	0	0	590	100	340
Future Volume (veh/h)	60	1080	210	440	690	220	0	0	0	590	100	340
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	61	1102	0	449	704	0				675	0	347
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	323	1516	678	801	1697	759				839	0	660
Arrive On Green	0.18	0.42	0.00	0.46	0.94	0.00				0.23	0.00	0.23
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1605
Grp Volume(v), veh/h	61	1102	0	449	704	0				675	0	347
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1605
Q Serve(g_s), s	2.9	25.5	0.0	9.3	1.9	0.0				17.6	0.0	0.0
Cycle Q Clear(g_c), s	2.9	25.5	0.0	9.3	1.9	0.0				17.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	323	1516	678	801	1697	759				839	0	660
V/C Ratio(X)	0.19	0.73	0.00	0.56	0.41	0.00				0.80	0.00	0.53
Avail Cap(c_a), veh/h	323	1516	678	801	1697	759				1086	0	769
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	34.9	24.2	0.0	23.5	1.6	0.0				36.3	0.0	22.2
Incr Delay (d2), s/veh	0.3	3.1	0.0	0.8	0.7	0.0				3.5	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	13.4	0.0	4.6	1.0	0.0				9.2	0.0	7.3
LnGrp Delay(d),s/veh	35.2	27.3	0.0	24.4	2.4	0.0				39.7	0.0	22.8
LnGrp LOS	D	C		C	A					D		C
Approach Vol, veh/h		1163			1153						1022	
Approach Delay, s/veh		27.7			10.9						34.0	
Approach LOS		C			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			26.8	46.0		27.2	21.8	51.0
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			16.0	42.0		30.0	11.0	47.0
Max Q Clear Time (g_c+I1), s			11.3	27.5		19.6	4.9	3.9
Green Ext Time (p_c), s			0.8	6.4		3.1	1.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1170	410	150	1130	250	210	0	830	0	0	0
Future Volume (veh/h)	0	1170	410	150	1130	250	210	0	830	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1219	427	156	1177	0	219	0	0			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1588	848	638	4319	1345	307	0	248			
Arrive On Green	0.00	0.88	0.88	0.71	1.00	0.00	0.09	0.00	0.00			
Sat Flow, veh/h	0	3705	1606	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1219	427	156	1177	0	219	0	0			
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	12.5	5.8	3.1	0.0	0.0	6.1	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	12.5	5.8	3.1	0.0	0.0	6.1	0.0	0.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1588	848	638	4319	1345	307	0	248			
V/C Ratio(X)	0.00	0.77	0.50	0.24	0.27	0.00	0.71	0.00	0.00			
Avail Cap(c_a), veh/h	0	1588	848	638	4319	1345	983	0	796			
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.67	0.67	0.94	0.94	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	4.1	2.7	10.0	0.0	0.0	44.4	0.0	0.0			
Incr Delay (d2), s/veh	0.0	2.4	1.4	0.2	0.1	0.0	3.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	6.0	2.9	1.5	0.1	0.0	3.1	0.0	0.0			
LnGrp Delay(d),s/veh	0.0	6.6	4.1	10.2	0.1	0.0	47.5	0.0	0.0			
LnGrp LOS		A	A	B	A		D					
Approach Vol, veh/h		1646			1333			219				
Approach Delay, s/veh		5.9			1.3			47.5				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		12.7	39.3	48.0				87.3
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		28.0	16.0	44.0				64.0
Max Q Clear Time (g_c+I1), s		8.1	5.1	14.5				2.0
Green Ext Time (p_c), s		0.7	5.9	12.4				11.4

Intersection Summary	
HCM 2010 Ctrl Delay	6.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	1590	300	80	1230	10	210	10	50	0	10	10
Future Volume (veh/h)	10	1590	300	80	1230	10	210	10	50	0	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	1656	312	83	1281	10	140	120	52	0	10	10
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	523	1843	345	523	2230	17	299	215	93	0	149	149
Arrive On Green	0.38	0.56	0.56	0.29	0.42	0.42	0.17	0.17	0.17	0.00	0.17	0.17
Sat Flow, veh/h	1810	4387	820	1810	5309	41	1403	1255	544	0	869	869
Grp Volume(v), veh/h	10	1303	665	83	834	457	140	0	172	0	0	20
Grp Sat Flow(s),veh/h/ln	1810	1729	1749	1810	1729	1893	1403	0	1798	0	0	1738
Q Serve(g_s), s	0.3	33.3	34.0	3.4	18.4	18.4	9.3	0.0	8.8	0.0	0.0	1.0
Cycle Q Clear(g_c), s	0.3	33.3	34.0	3.4	18.4	18.4	10.3	0.0	8.8	0.0	0.0	1.0
Prop In Lane	1.00		0.47	1.00		0.02	1.00		0.30	0.00		0.50
Lane Grp Cap(c), veh/h	523	1452	735	523	1452	795	299	0	308	0	0	297
V/C Ratio(X)	0.02	0.90	0.91	0.16	0.57	0.57	0.47	0.00	0.56	0.00	0.00	0.07
Avail Cap(c_a), veh/h	523	1452	735	523	1452	795	605	0	701	0	0	678
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	20.2	20.3	26.5	22.2	22.2	39.0	0.0	38.0	0.0	0.0	34.7
Incr Delay (d2), s/veh	0.0	5.7	11.1	0.1	1.7	3.0	1.1	0.0	1.6	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	16.8	18.3	1.7	9.1	10.3	3.7	0.0	4.5	0.0	0.0	0.5
LnGrp Delay(d),s/veh	22.0	25.9	31.4	26.6	23.8	25.2	40.2	0.0	39.6	0.0	0.0	34.8
LnGrp LOS	C	C	C	C	C	C	D		D			C
Approach Vol, veh/h		1978			1374			312			20	
Approach Delay, s/veh		27.7			24.4			39.8			34.8	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		21.1	32.9	46.0		21.1	32.9	46.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	42.0		39.0	7.0	42.0
Max Q Clear Time (g_c+I1), s		12.3	5.4	36.0		3.0	2.3	20.4
Green Ext Time (p_c), s		1.5	0.0	5.0		1.6	0.1	8.6

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	80	1430	80	20	1060	10	70	10	10	10	20	50
Future Volume (veh/h)	80	1430	80	20	1060	10	70	10	10	10	20	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	1490	83	21	1104	10	73	10	10	10	21	52
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	440	2789	155	288	2940	27	210	102	102	92	164	188
Arrive On Green	0.80	0.80	0.80	0.80	0.80	0.80	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	514	3477	193	331	3666	33	1333	867	867	373	1392	1594
Grp Volume(v), veh/h	83	771	802	21	544	570	73	0	20	31	0	52
Grp Sat Flow(s),veh/h/ln	514	1805	1865	331	1805	1894	1333	0	1734	1766	0	1594
Q Serve(g_s), s	5.5	14.8	14.9	2.4	8.5	8.5	5.2	0.0	1.0	0.0	0.0	3.0
Cycle Q Clear(g_c), s	14.0	14.8	14.9	17.3	8.5	8.5	6.7	0.0	1.0	1.5	0.0	3.0
Prop In Lane	1.00		0.10	1.00		0.02	1.00		0.50	0.32		1.00
Lane Grp Cap(c), veh/h	440	1448	1496	288	1448	1519	210	0	205	256	0	188
V/C Ratio(X)	0.19	0.53	0.54	0.07	0.38	0.38	0.35	0.00	0.10	0.12	0.00	0.28
Avail Cap(c_a), veh/h	440	1448	1496	288	1448	1519	493	0	572	617	0	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.81	0.81	0.81	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.8	3.4	3.4	6.4	2.8	2.8	42.5	0.0	39.3	39.5	0.0	40.2
Incr Delay (d2), s/veh	0.9	1.4	1.4	0.4	0.6	0.6	1.0	0.0	0.2	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.6	8.2	0.2	4.5	4.7	2.0	0.0	0.5	0.8	0.0	1.4
LnGrp Delay(d),s/veh	5.7	4.8	4.8	6.8	3.4	3.4	43.5	0.0	39.6	39.7	0.0	41.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		D
Approach Vol, veh/h		1656			1135			93			83	
Approach Delay, s/veh		4.9			3.5			42.7			40.5	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		15.8		84.2		15.8		84.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		59.0		33.0		59.0
Max Q Clear Time (g_c+I1), s		8.7		16.9		5.0		19.3
Green Ext Time (p_c), s		0.6		30.9		0.6		29.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	110	1270	20	350	980	30	20	190	520	130	250	100
Future Volume (veh/h)	110	1270	20	350	980	30	20	190	520	130	250	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	1323	21	365	1021	31	21	198	542	135	260	104
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	1406	22	373	1833	56	117	326	608	142	353	298
Arrive On Green	0.08	0.39	0.39	0.21	0.51	0.51	0.06	0.17	0.17	0.08	0.19	0.19
Sat Flow, veh/h	1810	3637	58	1810	3577	109	1810	1900	1601	1810	1900	1602
Grp Volume(v), veh/h	115	656	688	365	515	537	21	198	542	135	260	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1889	1810	1805	1880	1810	1900	1601	1810	1900	1602
Q Serve(g_s), s	6.4	35.7	35.8	20.4	19.8	19.8	1.1	9.8	7.1	7.6	13.2	4.6
Cycle Q Clear(g_c), s	6.4	35.7	35.8	20.4	19.8	19.8	1.1	9.8	7.1	7.6	13.2	4.6
Prop In Lane	1.00		0.03	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	698	730	373	925	964	117	326	608	142	353	298
V/C Ratio(X)	0.79	0.94	0.94	0.98	0.56	0.56	0.18	0.61	0.89	0.95	0.74	0.35
Avail Cap(c_a), veh/h	266	709	742	373	925	964	124	653	883	142	671	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	30.1	30.1	40.2	16.9	16.9	45.1	39.0	15.3	46.7	39.1	23.4
Incr Delay (d2), s/veh	9.4	20.5	20.0	40.8	0.7	0.7	0.7	1.8	8.2	60.3	3.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	21.7	22.6	14.4	10.1	10.5	0.6	5.3	13.9	6.1	7.2	2.4
LnGrp Delay(d),s/veh	55.4	50.6	50.1	81.0	17.7	17.7	45.8	40.8	23.5	107.1	42.1	24.1
LnGrp LOS	E	D	D	F	B	B	D	D	C	F	D	C
Approach Vol, veh/h		1459			1417			761			499	
Approach Delay, s/veh		50.7			34.0			28.6			55.9	
Approach LOS		D			C			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	21.5	25.0	43.4	10.6	22.9	12.2	56.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	35.0	21.0	40.0	7.0	36.0	15.0	46.0
Max Q Clear Time (g_c+I1), s	9.6	11.8	22.4	37.8	3.1	15.2	8.4	21.8
Green Ext Time (p_c), s	0.0	3.1	0.0	1.6	1.3	1.6	0.1	8.3

Intersection Summary			
HCM 2010 Ctrl Delay			41.6
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	40	700	1100	520	600	280	660	1190	200	440	1710	30
Future Volume (veh/h)	40	700	1100	520	600	280	660	1190	200	440	1710	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	714	1122	531	612	286	673	1214	204	449	1745	31
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	307	857	1189	497	756	562	640	1346	829	492	1735	31
Arrive On Green	0.17	0.24	0.24	0.14	0.21	0.21	0.18	0.37	0.37	0.14	0.33	0.33
Sat Flow, veh/h	1810	3610	2824	3510	3610	1603	3510	3610	1609	3510	5248	93
Grp Volume(v), veh/h	41	714	1122	531	612	286	673	1214	204	449	1150	626
Grp Sat Flow(s),veh/h/ln	1810	1805	1412	1755	1805	1603	1755	1805	1609	1755	1729	1883
Q Serve(g_s), s	2.9	27.9	24.1	21.0	23.9	12.9	27.0	47.1	10.4	18.7	49.0	49.0
Cycle Q Clear(g_c), s	2.9	27.9	24.1	21.0	23.9	12.9	27.0	47.1	10.4	18.7	49.0	49.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	307	857	1189	497	756	562	640	1346	829	492	1143	623
V/C Ratio(X)	0.13	0.83	0.94	1.07	0.81	0.51	1.05	0.90	0.25	0.91	1.01	1.01
Avail Cap(c_a), veh/h	307	901	1223	497	1218	767	640	1346	829	497	1143	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	53.7	22.4	63.6	55.7	17.9	60.6	43.9	20.0	62.8	49.6	49.6
Incr Delay (d2), s/veh	0.2	6.5	14.2	59.5	2.2	0.7	50.1	8.7	0.2	21.2	27.9	37.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	14.7	19.6	14.3	12.1	5.8	17.5	25.1	4.7	10.6	27.8	31.9
LnGrp Delay(d),s/veh	52.5	60.2	36.6	123.1	57.9	18.6	110.7	52.6	20.1	84.0	77.5	87.1
LnGrp LOS	D	E	D	F	E	B	F	D	C	F	F	F
Approach Vol, veh/h		1877			1429			2091			2225	
Approach Delay, s/veh		45.9			74.3			68.1			81.5	
Approach LOS		D			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	59.2	25.0	39.2	31.0	53.0	29.1	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	55.0	21.0	37.0	27.0	49.0	8.0	50.0
Max Q Clear Time (g_c+I1), s	20.7	49.1	23.0	29.9	29.0	51.0	4.9	25.9
Green Ext Time (p_c), s	0.1	4.7	0.0	4.9	0.0	0.0	2.5	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	67.7
HCM 2010 LOS	E

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	20	10	20	30	1920	20	50	3120	30
Future Volume (veh/h)	20	10	10	20	10	20	30	1920	20	50	3120	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	10	10	20	10	20	31	1959	20	51	3184	31
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	67	46	110	60	75	77	3645	37	104	3725	36
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.04	0.69	0.69	0.06	0.70	0.70
Sat Flow, veh/h	625	577	401	450	519	646	1810	5294	54	1810	5297	51
Grp Volume(v), veh/h	40	0	0	50	0	0	31	1279	700	51	2075	1140
Grp Sat Flow(s),veh/h/ln	1602	0	0	1614	0	0	1810	1729	1890	1810	1729	1891
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.4	15.8	15.8	2.4	38.5	38.9
Cycle Q Clear(g_c), s	1.7	0.0	0.0	2.2	0.0	0.0	1.4	15.8	15.8	2.4	38.5	38.9
Prop In Lane	0.50		0.25	0.40		0.40	1.00		0.03	1.00		0.03
Lane Grp Cap(c), veh/h	247	0	0	245	0	0	77	2381	1301	104	2431	1329
V/C Ratio(X)	0.16	0.00	0.00	0.20	0.00	0.00	0.40	0.54	0.54	0.49	0.85	0.86
Avail Cap(c_a), veh/h	765	0	0	768	0	0	147	2442	1335	168	2482	1357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	0.0	34.8	0.0	0.0	40.3	6.7	6.7	39.5	9.5	9.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.0	3.4	0.2	0.4	3.6	3.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.1	0.0	0.0	0.8	7.5	8.3	1.3	18.9	22.0
LnGrp Delay(d),s/veh	34.9	0.0	0.0	35.2	0.0	0.0	43.7	6.9	7.1	43.1	12.6	15.2
LnGrp LOS	C			D			D	A	A	D	B	B
Approach Vol, veh/h		40			50			2010			3266	
Approach Delay, s/veh		34.9			35.2			7.5			14.0	
Approach LOS		C			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.9	63.5		14.0	7.7	64.7		14.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	8.0	61.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	4.4	17.8		3.7	3.4	40.9		4.2
Green Ext Time (p_c), s	0.0	19.6		0.5	3.0	19.8		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	50	30	40	20	30	70	30	1920	20	110	2980	90
Future Volume (veh/h)	50	30	40	20	30	70	30	1920	20	110	2980	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	31	41	21	31	72	31	1979	21	113	3072	93
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	197	165	332	199	167	75	3012	32	143	3139	94
Arrive On Green	0.07	0.10	0.10	0.07	0.10	0.10	0.04	0.57	0.57	0.08	0.61	0.61
Sat Flow, veh/h	1810	1900	1592	1810	1900	1592	1810	5292	56	1810	5175	155
Grp Volume(v), veh/h	52	31	41	21	31	72	31	1293	707	113	2043	1122
Grp Sat Flow(s),veh/h/ln	1810	1900	1592	1810	1900	1592	1810	1729	1890	1810	1729	1872
Q Serve(g_s), s	2.2	1.4	1.9	0.9	1.4	3.9	1.5	23.8	23.8	5.7	52.4	54.4
Cycle Q Clear(g_c), s	2.2	1.4	1.9	0.9	1.4	3.9	1.5	23.8	23.8	5.7	52.4	54.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.08
Lane Grp Cap(c), veh/h	328	197	165	332	199	167	75	1968	1076	143	2097	1135
V/C Ratio(X)	0.16	0.16	0.25	0.06	0.16	0.43	0.41	0.66	0.66	0.79	0.97	0.99
Avail Cap(c_a), veh/h	332	597	500	333	597	500	137	1985	1085	196	2097	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	37.7	28.0	31.5	37.6	38.8	43.1	13.7	13.7	41.8	17.5	17.8
Incr Delay (d2), s/veh	0.2	0.4	0.8	0.1	0.4	1.8	3.6	0.8	1.4	14.0	14.0	23.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	1.0	0.5	0.7	1.8	0.8	11.3	12.6	3.4	28.8	35.3
LnGrp Delay(d),s/veh	32.4	38.1	28.7	31.6	38.0	40.5	46.7	14.5	15.1	55.7	31.5	41.7
LnGrp LOS	C	D	C	C	D	D	D	B	B	E	C	D
Approach Vol, veh/h		124			124			2031			3278	
Approach Delay, s/veh		32.6			38.4			15.2			35.8	
Approach LOS		C			D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	56.6	10.9	13.6	7.8	60.0	10.8	13.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	53.0	7.0	29.0	7.0	56.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	7.7	25.8	2.9	3.9	3.5	56.4	4.2	5.9
Green Ext Time (p_c), s	0.0	15.8	0.0	0.7	3.0	0.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↶	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	10	0	10	560	10	30	10	1930	530	60	2810	10
Future Volume (veh/h)	10	0	10	560	10	30	10	1930	530	60	2810	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	0	11	604	0	32	11	2053	564	64	2989	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	189	166	643	0	205	34	2689	1026	125	3033	11
Arrive On Green	0.09	0.00	0.10	0.12	0.00	0.13	0.02	0.52	0.52	0.07	0.57	0.57
Sat Flow, veh/h	1810	1805	1592	5429	0	1596	1810	5187	1610	1810	5335	20
Grp Volume(v), veh/h	11	0	11	604	0	32	11	2053	564	64	1936	1064
Grp Sat Flow(s),veh/h/ln	1810	1805	1592	1810	0	1596	1810	1729	1610	1810	1729	1896
Q Serve(g_s), s	0.5	0.0	0.5	9.3	0.0	1.5	0.5	26.6	6.9	2.9	46.3	46.5
Cycle Q Clear(g_c), s	0.5	0.0	0.5	9.3	0.0	1.5	0.5	26.6	6.9	2.9	46.3	46.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	171	189	166	643	0	205	34	2689	1026	125	1966	1078
V/C Ratio(X)	0.06	0.00	0.07	0.94	0.00	0.16	0.32	0.76	0.55	0.51	0.98	0.99
Avail Cap(c_a), veh/h	171	834	735	643	0	794	150	2949	1107	150	1966	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	0.0	34.1	36.9	0.0	32.7	40.9	16.2	2.4	37.9	17.9	17.9
Incr Delay (d2), s/veh	0.2	0.0	0.2	21.8	0.0	0.4	5.3	1.1	0.5	3.2	16.8	24.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	5.9	0.0	0.7	0.3	12.8	3.1	1.6	26.4	31.2
LnGrp Delay(d),s/veh	35.0	0.0	34.2	58.7	0.0	33.1	46.2	17.3	2.9	41.2	34.6	42.0
LnGrp LOS	C		C	E		C	D	B	A	D	C	D
Approach Vol, veh/h		22			636			2628			3064	
Approach Delay, s/veh		34.6			57.4			14.3			37.3	
Approach LOS		C			E			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	47.8	14.0	12.8	5.6	52.0	12.0	14.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	48.0	10.0	39.0	7.0	48.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	4.9	28.6	11.3	2.5	2.5	48.5	2.5	3.5
Green Ext Time (p_c), s	2.1	15.1	0.0	0.0	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	280	220	100	10	50	80	40	800	10	100	940	250
Future Volume (veh/h)	280	220	100	10	50	80	40	800	10	100	940	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	308	242	110	11	55	88	44	879	11	110	1033	275
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	1008	449	36	518	159	866	2684	833	167	1650	511
Arrive On Green	0.19	0.28	0.28	0.01	0.10	0.10	0.25	0.52	0.52	0.05	0.32	0.32
Sat Flow, veh/h	1810	3610	1606	3510	5187	1591	3510	5187	1610	3510	5187	1607
Grp Volume(v), veh/h	308	242	110	11	55	88	44	879	11	110	1033	275
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1755	1729	1591	1755	1729	1610	1755	1729	1607
Q Serve(g_s), s	18.3	5.7	3.2	0.3	1.1	5.8	1.1	10.8	0.4	3.4	18.7	9.5
Cycle Q Clear(g_c), s	18.3	5.7	3.2	0.3	1.1	5.8	1.1	10.8	0.4	3.4	18.7	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1008	449	36	518	159	866	2684	833	167	1650	511
V/C Ratio(X)	0.90	0.24	0.25	0.30	0.11	0.55	0.05	0.33	0.01	0.66	0.63	0.54
Avail Cap(c_a), veh/h	477	1477	657	128	943	289	866	2684	833	191	1650	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	30.6	9.5	54.0	45.0	47.2	31.6	15.4	12.9	51.5	31.9	11.7
Incr Delay (d2), s/veh	15.2	0.1	0.3	4.5	0.1	3.0	0.0	0.3	0.0	6.7	1.8	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	2.8	1.5	0.2	0.5	2.7	0.5	5.2	0.2	1.8	9.2	4.8
LnGrp Delay(d),s/veh	58.7	30.7	9.8	58.6	45.1	50.2	31.6	15.7	12.9	58.2	33.7	15.7
LnGrp LOS	E	C	A	E	D	D	C	B	B	E	C	B
Approach Vol, veh/h		660			154			934			1418	
Approach Delay, s/veh		40.3			49.0			16.5			32.1	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	60.9	5.1	34.7	31.1	39.0	24.9	15.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	39.0	4.0	45.0	10.0	35.0	29.0	20.0
Max Q Clear Time (g_c+I1), s	5.4	12.8	2.3	7.7	3.1	20.7	20.3	7.8
Green Ext Time (p_c), s	0.0	6.2	0.0	2.7	3.1	6.5	0.6	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	80	1300	120	40	1100	50	200	120	110	90	120	110
Future Volume (veh/h)	80	1300	120	40	1100	50	200	120	110	90	120	110
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	1413	130	43	1196	54	217	130	120	98	130	120
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2521	232	55	2546	790	247	384	325	124	504	223
Arrive On Green	0.06	0.52	0.52	0.06	0.98	0.98	0.14	0.21	0.21	0.07	0.14	0.14
Sat Flow, veh/h	1810	4833	445	1810	5187	1610	1810	1849	1566	1810	3610	1598
Grp Volume(v), veh/h	87	1011	532	43	1196	54	217	127	123	98	130	120
Grp Sat Flow(s),veh/h/ln	1810	1729	1820	1810	1729	1610	1810	1805	1610	1810	1805	1598
Q Serve(g_s), s	5.2	21.7	21.7	2.6	0.9	0.1	12.9	6.6	7.2	5.9	3.5	7.7
Cycle Q Clear(g_c), s	5.2	21.7	21.7	2.6	0.9	0.1	12.9	6.6	7.2	5.9	3.5	7.7
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.97	1.00		1.00
Lane Grp Cap(c), veh/h	111	1803	949	55	2546	790	247	375	335	124	504	223
V/C Ratio(X)	0.79	0.56	0.56	0.78	0.47	0.07	0.88	0.34	0.37	0.79	0.26	0.54
Avail Cap(c_a), veh/h	132	1803	949	66	2546	790	280	628	561	197	1083	479
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	17.8	17.8	51.3	0.5	0.5	46.6	37.1	37.4	50.5	42.2	44.0
Incr Delay (d2), s/veh	21.0	1.1	2.2	33.0	0.5	0.1	23.6	0.5	0.7	10.6	0.3	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	10.7	11.5	1.8	0.3	0.1	8.1	3.3	3.3	3.3	1.8	3.5
LnGrp Delay(d),s/veh	71.9	18.9	20.0	84.3	1.0	0.7	70.1	37.7	38.1	61.1	42.5	46.1
LnGrp LOS	E	B	B	F	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1630			1293			467			348	
Approach Delay, s/veh		22.1			3.8			52.9			49.0	
Approach LOS		C			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	63.4	19.0	20.2	10.7	60.0	11.5	27.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	4.0	37.1	17.0	33.0	8.0	33.1	12.0	* 38
Max Q Clear Time (g_c+I1), s	4.6	23.7	14.9	9.7	7.2	2.9	7.9	9.2
Green Ext Time (p_c), s	0.0	11.4	0.1	2.7	0.0	22.4	0.1	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	250	1070	260	120	820	140	280	410	100	260	530	230
Future Volume (veh/h)	250	1070	260	120	820	140	280	410	100	260	530	230
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	255	1092	265	122	837	143	286	418	102	265	541	235
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	317	2299	713	181	1806	307	356	847	377	333	824	366
Arrive On Green	0.18	0.89	0.89	0.05	0.40	0.40	0.10	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	3510	5187	1610	3510	4463	758	3510	3610	1605	3510	3610	1604
Grp Volume(v), veh/h	255	1092	265	122	647	333	286	418	102	265	541	235
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1763	1755	1805	1605	1755	1805	1604
Q Serve(g_s), s	7.7	4.5	3.1	3.8	15.1	15.2	8.8	11.0	5.7	8.1	15.0	14.6
Cycle Q Clear(g_c), s	7.7	4.5	3.1	3.8	15.1	15.2	8.8	11.0	5.7	8.1	15.0	14.6
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	2299	713	181	1400	714	356	847	377	333	824	366
V/C Ratio(X)	0.81	0.47	0.37	0.67	0.46	0.47	0.80	0.49	0.27	0.79	0.66	0.64
Avail Cap(c_a), veh/h	415	2299	713	255	1400	714	479	1119	497	447	1086	483
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	3.7	3.6	51.2	24.0	24.0	48.4	36.4	34.4	48.7	38.5	38.4
Incr Delay (d2), s/veh	7.0	0.6	1.2	3.4	0.9	1.7	7.1	0.4	0.4	7.0	0.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	2.1	1.5	1.9	7.4	7.7	4.6	5.6	2.6	4.3	7.5	6.6
LnGrp Delay(d),s/veh	51.1	4.3	4.8	54.6	24.8	25.7	55.4	36.9	34.8	55.8	39.4	40.3
LnGrp LOS	D	A	A	D	C	C	E	D	C	E	D	D
Approach Vol, veh/h		1612			1102			806			1041	
Approach Delay, s/veh		11.8			28.4			43.2			43.8	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	54.8	15.2	30.4	13.9	50.5	14.4	31.1
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	34.6	15.0	33.1	13.0	29.6	14.0	34.1
Max Q Clear Time (g_c+I1), s	5.8	6.5	10.8	17.0	9.7	17.2	10.1	13.0
Green Ext Time (p_c), s	0.1	17.1	0.4	6.8	0.3	9.5	0.3	7.7

Intersection Summary	
HCM 2010 Ctrl Delay	28.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑	↱	↰↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	340	920	350	20	580	200	220	350	20	260	440	280
Future Volume (veh/h)	340	920	350	20	580	200	220	350	20	260	440	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	362	979	0	21	617	213	234	372	21	277	468	298
Adj No. of Lanes	2	3	1	1	2	1	2	2	0	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	433	2156	671	31	1117	497	300	997	56	345	1083	482
Arrive On Green	0.12	0.42	0.00	0.02	0.31	0.31	0.09	0.29	0.29	0.10	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	3610	1607	3510	3474	195	3510	3610	1607
Grp Volume(v), veh/h	362	979	0	21	617	213	234	193	200	277	468	298
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1805	1607	1755	1805	1864	1755	1805	1607
Q Serve(g_s), s	11.1	15.0	0.0	1.3	15.7	11.6	7.2	9.4	9.4	8.5	11.5	17.5
Cycle Q Clear(g_c), s	11.1	15.0	0.0	1.3	15.7	11.6	7.2	9.4	9.4	8.5	11.5	17.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	433	2156	671	31	1117	497	300	518	535	345	1083	482
V/C Ratio(X)	0.84	0.45	0.00	0.67	0.55	0.43	0.78	0.37	0.37	0.80	0.43	0.62
Avail Cap(c_a), veh/h	543	2156	671	99	1117	497	383	518	535	447	1083	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	23.2	0.0	53.7	31.6	30.2	49.3	31.3	31.3	48.5	31.0	33.1
Incr Delay (d2), s/veh	7.7	0.6	0.0	22.4	2.0	2.7	7.7	2.0	2.0	7.9	1.3	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	7.3	0.0	0.8	8.1	5.5	3.8	5.0	5.1	4.5	5.9	8.6
LnGrp Delay(d),s/veh	54.9	23.7	0.0	76.1	33.6	32.9	57.0	33.3	33.3	56.4	32.2	38.9
LnGrp LOS	D	C		E	C	C	E	C	C	E	C	D
Approach Vol, veh/h		1341			851			627			1043	
Approach Delay, s/veh		32.1			34.5			42.2			40.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	51.7	13.4	39.0	17.6	40.0	14.8	37.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	39.0	12.0	33.0	17.0	28.0	14.0	31.0
Max Q Clear Time (g_c+I1), s	3.3	17.0	9.2	19.5	13.1	17.7	10.5	11.4
Green Ext Time (p_c), s	0.0	11.4	0.2	5.5	0.5	6.9	0.3	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	36.6
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	50	30	30	40	10	20	30	770	20	20	790	10
Future Volume (veh/h)	50	30	30	40	10	20	30	770	20	20	790	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	33	33	44	11	22	33	846	22	22	868	11
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	226	99	57	103	85	42	3791	98	32	2613	1167
Arrive On Green	0.04	0.06	0.06	0.03	0.05	0.05	0.02	0.49	0.49	0.02	0.72	0.72
Sat Flow, veh/h	1810	3610	1576	1810	1900	1570	1810	5199	135	1810	3610	1612
Grp Volume(v), veh/h	55	33	33	44	11	22	33	562	306	22	868	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1576	1810	1900	1570	1810	1729	1876	1810	1805	1612
Q Serve(g_s), s	3.3	1.0	2.2	2.7	0.6	1.5	2.0	10.3	10.3	1.3	9.6	0.2
Cycle Q Clear(g_c), s	3.3	1.0	2.2	2.7	0.6	1.5	2.0	10.3	10.3	1.3	9.6	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	72	226	99	57	103	85	42	2521	1368	32	2613	1167
V/C Ratio(X)	0.77	0.15	0.33	0.77	0.11	0.26	0.79	0.22	0.22	0.68	0.33	0.01
Avail Cap(c_a), veh/h	197	715	312	148	326	270	132	2521	1368	115	2613	1167
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	48.8	49.4	52.9	49.5	49.9	53.9	10.2	10.3	53.7	5.5	4.2
Incr Delay (d2), s/veh	15.6	0.3	2.0	19.6	0.4	1.6	26.0	0.2	0.4	22.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.5	1.0	1.6	0.3	0.7	1.3	4.9	5.4	0.9	4.8	0.1
LnGrp Delay(d),s/veh	67.9	49.1	51.3	72.5	49.9	51.5	79.8	10.4	10.6	76.2	5.9	4.2
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		121			77			901			901	
Approach Delay, s/veh		58.3			63.3			13.0			7.6	
Approach LOS		E			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	85.5	7.5	11.1	6.5	84.9	8.4	10.2
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	7.0	54.7	9.0	* 22	8.0	53.7	12.0	* 19
Max Q Clear Time (g_c+I1), s	3.3	12.3	4.7	4.2	4.0	11.6	5.3	3.5
Green Ext Time (p_c), s	0.0	16.9	0.0	0.3	0.0	16.8	0.0	0.3

Intersection Summary			
HCM 2010 Ctrl Delay			15.2
HCM 2010 LOS			B

Notes

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* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	10	40	70	20	50	60	420	100	70	580	40
Future Volume (veh/h)	40	10	40	70	20	50	60	420	100	70	580	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	12	47	82	24	59	71	494	118	82	682	47
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	61	162	135	106	209	175	92	1889	449	106	2383	1064
Arrive On Green	0.03	0.09	0.09	0.06	0.11	0.11	0.02	0.22	0.22	0.06	0.66	0.66
Sat Flow, veh/h	1810	1900	1587	1810	1900	1593	1810	2894	688	1810	3610	1611
Grp Volume(v), veh/h	47	12	47	82	24	59	71	307	305	82	682	47
Grp Sat Flow(s),veh/h/ln	1810	1900	1587	1810	1900	1593	1810	1805	1777	1810	1805	1611
Q Serve(g_s), s	2.8	0.6	3.1	4.9	1.3	3.8	4.3	15.6	15.7	4.9	8.7	1.1
Cycle Q Clear(g_c), s	2.8	0.6	3.1	4.9	1.3	3.8	4.3	15.6	15.7	4.9	8.7	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	61	162	135	106	209	175	92	1178	1160	106	2383	1064
V/C Ratio(X)	0.77	0.07	0.35	0.78	0.12	0.34	0.77	0.26	0.26	0.78	0.29	0.04
Avail Cap(c_a), veh/h	148	553	462	214	622	521	181	1178	1160	214	2383	1064
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	46.3	47.4	51.1	44.1	45.3	53.4	21.1	21.1	51.1	7.8	6.5
Incr Delay (d2), s/veh	18.4	0.2	1.5	11.5	0.2	1.1	11.1	0.5	0.5	11.5	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.3	1.4	2.8	0.7	1.7	2.4	7.9	7.9	2.8	4.4	0.5
LnGrp Delay(d),s/veh	71.1	46.5	49.0	62.6	44.4	46.4	64.5	21.6	21.6	62.6	8.1	6.6
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	A	A
Approach Vol, veh/h		106			165			683			811	
Approach Delay, s/veh		58.5			54.1			26.1			13.6	
Approach LOS		E			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	75.8	10.4	13.4	9.6	76.6	7.7	16.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	36.0	13.0	32.0	11.0	38.0	9.0	36.0
Max Q Clear Time (g_c+I1), s	6.9	17.7	6.9	5.1	6.3	10.7	4.8	5.8
Green Ext Time (p_c), s	0.1	8.4	0.1	0.5	0.0	10.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	290	80	160	110	180	30	560	170	110	720	40
Future Volume (veh/h)	50	290	80	160	110	180	30	560	170	110	720	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	302	83	167	115	188	31	583	177	115	750	42
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	341	999	444	278	999	444	40	1849	823	142	2948	916
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.01	0.17	0.17	0.16	1.00	1.00
Sat Flow, veh/h	1090	3610	1606	1012	3610	1606	1810	3610	1607	1810	5187	1611
Grp Volume(v), veh/h	52	302	83	167	115	188	31	583	177	115	750	42
Grp Sat Flow(s),veh/h/ln	1090	1805	1606	1012	1805	1606	1810	1805	1607	1810	1729	1611
Q Serve(g_s), s	4.1	7.3	4.3	17.2	2.6	10.5	1.9	15.6	10.4	6.7	0.0	0.0
Cycle Q Clear(g_c), s	6.7	7.3	4.3	24.4	2.6	10.5	1.9	15.6	10.4	6.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	341	999	444	278	999	444	40	1849	823	142	2948	916
V/C Ratio(X)	0.15	0.30	0.19	0.60	0.12	0.42	0.77	0.32	0.22	0.81	0.25	0.05
Avail Cap(c_a), veh/h	443	1336	594	373	1336	594	132	1849	823	296	2948	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	0.95	0.95	0.95
Uniform Delay (d), s/veh	32.2	31.4	30.4	41.1	29.7	32.6	54.3	28.8	26.6	45.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.2	2.1	0.1	0.6	24.4	0.4	0.6	9.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.6	2.0	4.9	1.3	4.8	1.2	7.9	4.8	3.8	0.1	0.0
LnGrp Delay(d),s/veh	32.5	31.6	30.6	43.1	29.8	33.2	78.7	29.2	27.2	55.4	0.2	0.1
LnGrp LOS	C	C	C	D	C	C	E	C	C	E	A	A
Approach Vol, veh/h		437			470			791			907	
Approach Delay, s/veh		31.5			35.9			30.7			7.2	
Approach LOS		C			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.6	61.6		35.7	6.4	67.8		35.7
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	18.0	36.7		40.7	8.0	46.7		40.7
Max Q Clear Time (g_c+I1), s	8.7	17.6		9.3	3.9	2.0		26.4
Green Ext Time (p_c), s	0.2	9.6		5.0	0.0	13.4		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	300	90	20	200	60	60	300	10	50	360	190
Future Volume (veh/h)	240	300	90	20	200	60	60	300	10	50	360	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	264	330	99	22	220	66	66	330	11	55	396	209
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	826	244	32	425	124	85	1771	59	71	1122	585
Arrive On Green	0.16	0.30	0.30	0.02	0.15	0.15	0.05	0.50	0.50	0.08	0.98	0.98
Sat Flow, veh/h	1810	2746	811	1810	2750	804	1810	3565	119	1810	2294	1195
Grp Volume(v), veh/h	264	215	214	22	142	144	66	167	174	55	310	295
Grp Sat Flow(s),veh/h/ln	1810	1805	1752	1810	1805	1749	1810	1805	1879	1810	1805	1685
Q Serve(g_s), s	15.7	10.4	10.7	1.3	8.0	8.3	4.0	5.6	5.7	3.3	0.6	0.7
Cycle Q Clear(g_c), s	15.7	10.4	10.7	1.3	8.0	8.3	4.0	5.6	5.7	3.3	0.6	0.7
Prop In Lane	1.00		0.46	1.00		0.46	1.00		0.06	1.00		0.71
Lane Grp Cap(c), veh/h	296	543	527	32	279	271	85	897	933	71	883	824
V/C Ratio(X)	0.89	0.40	0.41	0.68	0.51	0.53	0.77	0.19	0.19	0.78	0.35	0.36
Avail Cap(c_a), veh/h	362	771	749	99	509	493	115	897	933	132	883	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	45.0	30.5	30.6	53.7	42.7	42.8	51.8	15.3	15.3	50.2	0.6	0.6
Incr Delay (d2), s/veh	20.2	0.5	0.5	22.5	1.4	1.6	20.0	0.5	0.4	15.8	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	5.3	5.2	0.9	4.1	4.2	2.5	2.9	3.0	1.9	0.5	0.5
LnGrp Delay(d),s/veh	65.2	31.0	31.1	76.2	44.1	44.4	71.8	15.8	15.8	66.0	1.7	1.8
LnGrp LOS	E	C	C	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		693			308			407			660	
Approach Delay, s/veh		44.1			46.5			24.9			7.1	
Approach LOS		D			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	58.7	6.0	37.1	9.2	57.8	22.0	21.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	6.0	47.0	7.0	34.0	22.0	31.0
Max Q Clear Time (g_c+I1), s	5.3	7.7	3.3	12.7	6.0	2.7	17.7	10.3
Green Ext Time (p_c), s	0.0	6.1	0.0	4.8	0.0	6.4	0.3	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	90	20	50	20	70	10	680	70	130	860	10
Future Volume (veh/h)	20	90	20	50	20	70	10	680	70	130	860	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	94	21	52	21	73	10	708	73	135	896	10
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	31	130	29	67	202	170	17	2051	211	163	2564	29
Arrive On Green	0.02	0.09	0.09	0.04	0.11	0.11	0.01	0.83	0.83	0.18	1.00	1.00
Sat Flow, veh/h	1810	1499	335	1810	1900	1592	1810	3304	340	1810	3657	41
Grp Volume(v), veh/h	21	0	115	52	21	73	10	387	394	135	442	464
Grp Sat Flow(s),veh/h/ln	1810	0	1834	1810	1900	1592	1810	1805	1839	1810	1805	1893
Q Serve(g_s), s	1.3	0.0	6.7	3.1	1.1	4.7	0.6	5.7	5.8	7.9	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	6.7	3.1	1.1	4.7	0.6	5.7	5.8	7.9	0.0	0.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.19	1.00		0.02
Lane Grp Cap(c), veh/h	31	0	159	67	202	170	17	1120	1141	163	1266	1327
V/C Ratio(X)	0.67	0.00	0.73	0.77	0.10	0.43	0.58	0.35	0.35	0.83	0.35	0.35
Avail Cap(c_a), veh/h	82	0	418	132	485	407	66	1120	1141	280	1266	1327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.95	0.95	0.95
Uniform Delay (d), s/veh	53.7	0.0	49.0	52.5	44.4	46.0	54.1	4.1	4.1	44.3	0.0	0.0
Incr Delay (d2), s/veh	22.4	0.0	6.2	16.7	0.2	1.7	23.2	0.7	0.7	9.7	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.7	1.9	0.6	2.2	0.4	3.0	3.1	4.3	0.3	0.3
LnGrp Delay(d),s/veh	76.1	0.0	55.1	69.2	44.6	47.7	77.2	4.9	4.8	54.0	0.7	0.7
LnGrp LOS	E		E	E	D	D	E	A	A	D	A	A
Approach Vol, veh/h		136			146			791			1041	
Approach Delay, s/veh		58.4			54.9			5.8			7.6	
Approach LOS		E			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	73.6	8.1	14.4	5.1	82.4	5.9	16.6
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	17.0	41.7	8.0	25.1	4.0	54.7	5.0	28.1
Max Q Clear Time (g_c+I1), s	9.9	7.8	5.1	8.7	2.6	2.0	3.3	6.7
Green Ext Time (p_c), s	0.2	13.1	0.0	0.8	0.0	14.7	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

HCM 2010 TWSC
113: Evans Rd & Placentia Ave

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1090	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1090	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	41.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	110	180	80	50	100	60	100	260	70	90	290	110
Future Vol, veh/h	110	180	80	50	100	60	100	260	70	90	290	110
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	117	191	85	53	106	64	106	277	74	96	309	117
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	85.2	20.1	26.7	30.2
HCM LOS	F	C	D	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	30%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	49%	0%	62%	0%	100%	0%
Vol Right, %	0%	0%	100%	22%	0%	38%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	260	70	370	50	160	90	290	110
LT Vol	100	0	0	110	50	0	90	0	0
Through Vol	0	260	0	180	0	100	0	290	0
RT Vol	0	0	70	80	0	60	0	0	110
Lane Flow Rate	106	277	74	394	53	170	96	309	117
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.293	0.722	0.18	1.031	0.158	0.468	0.259	0.792	0.278
Departure Headway (Hd)	10.248	9.72	8.981	9.425	10.942	10.145	10.086	9.558	8.82
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	353	373	402	394	330	357	358	383	410
Service Time	7.948	7.42	6.681	7.032	8.642	7.845	7.786	7.258	6.52
HCM Lane V/C Ratio	0.3	0.743	0.184	1	0.161	0.476	0.268	0.807	0.285
HCM Control Delay	17.1	34	13.6	85.2	15.7	21.5	16.3	40.3	14.9
HCM Lane LOS	C	D	B	F	C	C	C	E	B
HCM 95th-tile Q	1.2	5.5	0.6	13	0.6	2.4	1	6.8	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑	↱	↰	↱
Traffic Volume (veh/h)	340	390	290	50	70	290
Future Volume (veh/h)	340	390	290	50	70	290
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	374	429	319	55	77	319
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	429	1059	500	421	594	530
Arrive On Green	0.24	0.56	0.26	0.26	0.33	0.33
Sat Flow, veh/h	1810	1900	1900	1600	1810	1615
Grp Volume(v), veh/h	374	429	319	55	77	319
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1600	1810	1615
Q Serve(g_s), s	13.9	9.0	10.4	1.8	2.1	11.6
Cycle Q Clear(g_c), s	13.9	9.0	10.4	1.8	2.1	11.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	429	1059	500	421	594	530
V/C Ratio(X)	0.87	0.41	0.64	0.13	0.13	0.60
Avail Cap(c_a), veh/h	594	1601	868	731	594	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	8.9	22.9	19.7	16.5	19.7
Incr Delay (d2), s/veh	10.2	0.2	1.4	0.1	0.5	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	4.7	5.6	0.8	1.1	0.7
LnGrp Delay(d),s/veh	35.8	9.1	24.2	19.8	16.9	24.7
LnGrp LOS	D	A	C	B	B	C
Approach Vol, veh/h		803	374		396	
Approach Delay, s/veh		21.6	23.6		23.2	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				43.0		27.0	20.6	22.4
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				59.0		23.0	23.0	32.0
Max Q Clear Time (g_c+I1), s				11.0		13.6	15.9	12.4
Green Ext Time (p_c), s				5.4		1.0	0.7	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑↱		↰	↱
Traffic Vol, veh/h	30	980	740	30	70	70
Future Vol, veh/h	30	980	740	30	70	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	35
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	1077	813	33	77	77

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	846	0	-	0	1973	830
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	1143	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	800	-	-	-	~ 69	373
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	307	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	800	-	-	-	~ 66	373
Mov Cap-2 Maneuver	-	-	-	-	~ 66	-
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	294	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	143.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	800	-	-	-	66	373
HCM Lane V/C Ratio	0.041	-	-	-	1.166	0.206
HCM Control Delay (s)	9.7	-	-	-	270	17.1
HCM Lane LOS	A	-	-	-	F	C
HCM 95th %tile Q(veh)	0.1	-	-	-	6.1	0.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↱	
Traffic Vol, veh/h	60	10	40	530	1050	100
Future Vol, veh/h	60	10	40	530	1050	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	63	11	42	558	1105	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1800	1158	1211	0	-	0
Stage 1	1158	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	89	241	583	-	-	-
Stage 1	302	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	83	241	583	-	-	-
Mov Cap-2 Maneuver	83	-	-	-	-	-
Stage 1	302	-	-	-	-	-
Stage 2	490	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	126.3	0.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	583	-	92	-	-
HCM Lane V/C Ratio	0.072	-	0.801	-	-
HCM Control Delay (s)	11.7	-	126.3	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.2	-	4.2	-	-

HCM 2010 TWSC
124: SR-79 NB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	25.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Vol, veh/h	10	690	0	0	300	240	240	0	20	0	0	0
Future Vol, veh/h	10	690	0	0	300	240	240	0	20	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	767	0	0	333	267	267	0	22	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	333	0	-	-	-	0	1122	1122	767
Stage 1	-	-	-	-	-	-	789	789	-
Stage 2	-	-	-	-	-	-	333	333	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1238	-	0	0	-	-	~ 230	208	405
Stage 1	-	-	0	0	-	-	451	405	-
Stage 2	-	-	0	0	-	-	731	647	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1238	-	-	-	-	-	~ 228	0	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 228	0	-
Stage 1	-	-	-	-	-	-	447	0	-
Stage 2	-	-	-	-	-	-	731	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	146.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	228	405	1238	-	-	-
HCM Lane V/C Ratio	1.17	0.055	0.009	-	-	-
HCM Control Delay (s)	157.8	14.4	7.9	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	12.7	0.2	0	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
125: SR-79 SB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	21.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑	↱
Traffic Vol, veh/h	0	470	580	10	520	0	0	0	0	250	10	40
Future Vol, veh/h	0	470	580	10	520	0	0	0	0	250	10	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	505	624	11	559	0	0	0	0	269	11	43

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	505	0	0	1086	1086	559
Stage 1	-	-	-	-	-	-	581	581	-
Stage 2	-	-	-	-	-	-	505	505	-
Critical Hdwy	-	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1070	-	0	~ 242	218	532
Stage 1	0	-	-	-	-	0	563	503	-
Stage 2	0	-	-	-	-	0	610	544	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1070	-	-	~ 240	0	532
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 240	0	-
Stage 1	-	-	-	-	-	-	557	0	-
Stage 2	-	-	-	-	-	-	610	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.2	134.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1070	-	240	532
HCM Lane V/C Ratio	-	-	0.01	-	1.165	0.081
HCM Control Delay (s)	-	-	8.4	-	153.2	12.4
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0	-	13	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM Signalized Intersection Capacity Analysis
126: SR-79(Sanderson Ave) & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (vph)	340	540	150	40	390	400	110	600	40	590	1050	380
Future Volume (vph)	340	540	150	40	390	400	110	600	40	590	1050	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3610	1596	3502	3610	1604	3502	3610	1596	3502	3610	1598
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3610	1596	3502	3610	1604	3502	3610	1596	3502	3610	1598
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	358	568	158	42	411	421	116	632	42	621	1105	400
RTOR Reduction (vph)	0	0	46	0	0	45	0	0	29	0	0	54
Lane Group Flow (vph)	358	568	112	42	411	376	116	632	13	621	1105	346
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.2	26.1	33.9	5.5	17.4	39.7	7.8	23.2	28.7	22.3	37.7	51.9
Effective Green, g (s)	14.2	26.1	33.9	5.5	17.4	39.7	7.8	23.2	28.7	22.3	37.7	51.9
Actuated g/C Ratio	0.15	0.28	0.36	0.06	0.19	0.43	0.08	0.25	0.31	0.24	0.40	0.56
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	534	1012	649	206	674	752	293	899	560	838	1461	959
v/s Ratio Prot	c0.10	c0.16	0.01	0.01	0.11	0.12	0.03	0.18	0.00	c0.18	c0.31	0.05
v/s Ratio Perm			0.06			0.11			0.01			0.16
v/c Ratio	0.67	0.56	0.17	0.20	0.61	0.50	0.40	0.70	0.02	0.74	0.76	0.36
Uniform Delay, d1	37.2	28.6	20.1	41.7	34.7	19.5	40.4	31.8	22.4	32.7	23.8	11.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.3	0.7	0.1	0.5	1.6	0.5	0.9	2.5	0.0	3.6	2.3	0.2
Delay (s)	40.5	29.3	20.2	42.2	36.3	20.0	41.3	34.3	22.5	36.3	26.0	11.6
Level of Service	D	C	C	D	D	B	D	C	C	D	C	B
Approach Delay (s)		31.7			28.7			34.7			26.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	93.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	20	430	170	50	310	20	360	90	80	50	60	10
Future Volume (veh/h)	20	430	170	50	310	20	360	90	80	50	60	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	453	179	53	326	21	379	95	84	53	63	11
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	35	508	428	67	542	393	423	403	357	67	375	65
Arrive On Green	0.02	0.27	0.27	0.04	0.29	0.29	0.23	0.43	0.43	0.04	0.24	0.24
Sat Flow, veh/h	1810	1900	1600	1810	1900	1377	1810	929	821	1810	1575	275
Grp Volume(v), veh/h	21	453	179	53	326	21	379	0	179	53	0	74
Grp Sat Flow(s),veh/h/ln	1810	1900	1600	1810	1900	1377	1810	0	1750	1810	0	1849
Q Serve(g_s), s	0.8	16.4	6.6	2.1	10.6	0.8	14.5	0.0	4.6	2.1	0.0	2.3
Cycle Q Clear(g_c), s	0.8	16.4	6.6	2.1	10.6	0.8	14.5	0.0	4.6	2.1	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.15
Lane Grp Cap(c), veh/h	35	508	428	67	542	393	423	0	760	67	0	440
V/C Ratio(X)	0.61	0.89	0.42	0.79	0.60	0.05	0.90	0.00	0.24	0.79	0.00	0.17
Avail Cap(c_a), veh/h	101	532	448	101	542	393	456	0	760	152	0	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.8	25.2	21.6	34.1	22.0	18.5	26.5	0.0	12.7	34.1	0.0	21.6
Incr Delay (d2), s/veh	16.0	16.7	0.7	20.8	1.9	0.1	19.1	0.0	0.7	17.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	10.9	3.0	1.4	5.8	0.3	9.5	0.0	2.4	1.4	0.0	1.3
LnGrp Delay(d),s/veh	50.8	41.9	22.3	54.9	23.9	18.6	45.6	0.0	13.5	52.0	0.0	22.4
LnGrp LOS	D	D	C	D	C	B	D		B	D		C
Approach Vol, veh/h		653			400			558			127	
Approach Delay, s/veh		36.8			27.7			35.3			34.8	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	35.0	6.7	23.1	20.7	21.0	5.4	24.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	29.0	4.0	20.0	18.0	17.0	4.0	20.0
Max Q Clear Time (g_c+I1), s	4.1	6.6	4.1	18.4	16.5	4.3	2.8	12.6
Green Ext Time (p_c), s	0.0	1.4	0.0	0.7	0.2	1.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	34.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	370	60	170	300	150	60	250	90	170	300	50
Future Volume (veh/h)	110	370	60	170	300	150	60	250	90	170	300	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	398	65	183	323	161	65	269	97	183	323	54
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	400	1260	204	437	770	739	148	617	217	232	875	145
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.08	0.24	0.24	0.13	0.28	0.28
Sat Flow, veh/h	924	3110	504	942	1900	1384	1810	2615	920	1810	3097	512
Grp Volume(v), veh/h	118	230	233	183	323	161	65	184	182	183	187	190
Grp Sat Flow(s),veh/h/ln	924	1805	1809	942	1900	1384	1810	1805	1731	1810	1805	1804
Q Serve(g_s), s	5.5	4.5	4.6	8.6	6.3	3.2	1.8	4.5	4.7	5.1	4.3	4.4
Cycle Q Clear(g_c), s	11.8	4.5	4.6	13.2	6.3	3.2	1.8	4.5	4.7	5.1	4.3	4.4
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.53	1.00		0.28
Lane Grp Cap(c), veh/h	400	731	733	437	770	739	148	426	408	232	510	510
V/C Ratio(X)	0.29	0.31	0.32	0.42	0.42	0.22	0.44	0.43	0.45	0.79	0.37	0.37
Avail Cap(c_a), veh/h	505	936	938	544	985	896	243	936	897	313	1005	1005
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	10.6	10.6	15.1	11.1	6.4	22.8	16.9	17.0	22.0	15.0	15.0
Incr Delay (d2), s/veh	0.4	0.2	0.2	0.6	0.4	0.1	2.0	0.7	0.8	9.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.3	2.3	2.3	3.4	1.3	1.0	2.3	2.3	3.1	2.2	2.2
LnGrp Delay(d),s/veh	15.7	10.8	10.8	15.7	11.5	6.6	24.8	17.6	17.8	31.2	15.4	15.4
LnGrp LOS	B	B	B	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		581			667			431			560	
Approach Delay, s/veh		11.8			11.4			18.8			20.6	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.7	16.3		25.1	8.3	18.7		25.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	7.1	6.7		13.8	3.8	6.4		15.2
Green Ext Time (p_c), s	0.1	4.5		5.9	0.0	4.6		5.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	20	1100	10	10	680	10
Future Volume (vph)	20	1100	10	10	680	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1529		1753	1615	1530
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	1800	1529		1797	1615	1530
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1196	11	11	739	11
RTOR Reduction (vph)	0	0	0	0	0	1
Lane Group Flow (vph)	22	1196	0	22	739	10
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Prot
Protected Phases	4	2		8	2	2
Permitted Phases		4	8			
Actuated Green, G (s)	2.3	47.8		2.3	45.5	45.5
Effective Green, g (s)	2.3	47.8		2.3	45.5	45.5
Actuated g/C Ratio	0.04	0.83		0.04	0.79	0.79
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	71	1529		71	1271	1204
v/s Ratio Prot	0.01	c0.62			0.46	0.01
v/s Ratio Perm		0.17		0.01		
v/c Ratio	0.31	0.78		0.31	0.58	0.01
Uniform Delay, d1	27.0	2.4		27.0	2.4	1.3
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.5	2.7		2.5	0.7	0.0
Delay (s)	29.5	5.1		29.5	3.1	1.3
Level of Service	C	A		C	A	A
Approach Delay (s)	5.6			29.5	3.1	
Approach LOS	A			C	A	

Intersection Summary			
HCM 2000 Control Delay	4.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	57.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	37
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			✣			✣			✣	
Traffic Vol, veh/h	30	490	0	0	330	280	0	0	0	190	0	20
Future Vol, veh/h	30	490	0	0	330	280	0	0	0	190	0	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	521	0	0	351	298	0	0	0	202	0	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	34.9	46.4	0	15.2
HCM LOS	D	E	-	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	6%	0%	90%
Vol Thru, %	100%	94%	54%	0%
Vol Right, %	0%	0%	46%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	520	610	210
LT Vol	0	30	0	190
Through Vol	0	490	330	0
RT Vol	0	0	280	20
Lane Flow Rate	0	553	649	223
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.868	0.951	0.43
Departure Headway (Hd)	7.934	5.648	5.274	6.924
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	636	681	516
Service Time	5.934	3.726	3.35	5.016
HCM Lane V/C Ratio	0	0.869	0.953	0.432
HCM Control Delay	10.9	34.9	46.4	15.2
HCM Lane LOS	N	D	E	C
HCM 95th-tile Q	0	10	13.6	2.1

Intersection	
Intersection Delay, s/veh	133
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	630	10	10	510	270	10	10	10	270	10	20
Future Vol, veh/h	10	630	10	10	510	270	10	10	10	270	10	20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	643	10	10	520	276	10	10	10	276	10	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	114.8	194	13.5	23.7
HCM LOS	F	F	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	2%	1%	90%
Vol Thru, %	33%	97%	65%	3%
Vol Right, %	33%	2%	34%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	650	790	300
LT Vol	10	10	10	270
Through Vol	10	630	510	10
RT Vol	10	10	270	20
Lane Flow Rate	31	663	806	306
Geometry Grp	1	1	1	1
Degree of Util (X)	0.072	1.158	1.363	0.623
Departure Headway (Hd)	9.756	6.832	6.389	8.146
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	369	537	572	447
Service Time	7.756	4.832	4.389	6.146
HCM Lane V/C Ratio	0.084	1.235	1.409	0.685
HCM Control Delay	13.5	114.8	194	23.7
HCM Lane LOS	B	F	F	C
HCM 95th-tile Q	0.2	21.2	34	4.1

Intersection	
Intersection Delay, s/veh	190.7
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	60	840	40	30	700	100
Future Vol, veh/h	60	840	40	30	700	100
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	61	857	41	31	714	102
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	197.5	13.1	198.6
HCM LOS	F	B	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	88%	0%	57%
Vol Thru, %	0%	7%	43%
Vol Right, %	12%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	800	900	70
LT Vol	700	0	40
Through Vol	0	60	30
RT Vol	100	840	0
Lane Flow Rate	816	918	71
Geometry Grp	1	1	1
Degree of Util (X)	1.37	1.373	0.141
Departure Headway (Hd)	6.827	6.226	8.668
Convergence, Y/N	Yes	Yes	Yes
Cap	539	588	416
Service Time	4.827	4.226	6.668
HCM Lane V/C Ratio	1.514	1.561	0.171
HCM Control Delay	198.6	197.5	13.1
HCM Lane LOS	F	F	B
HCM 95th-tile Q	32.7	35.4	0.5

Intersection	
Int Delay, s/veh	7.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	⋎	
Traffic Vol, veh/h	70	120	200	50	40	270
Future Vol, veh/h	70	120	200	50	40	270
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	78	133	222	56	44	300

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	211	0	644	144
Stage 1	-	-	-	-	144	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1372	-	440	909
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1372	-	367	909
Mov Cap-2 Maneuver	-	-	-	-	367	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	511	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.5	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	764	-	-	1372	-
HCM Lane V/C Ratio	0.451	-	-	0.162	-
HCM Control Delay (s)	13.5	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.4	-	-	0.6	-

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	10	10	10	10	10	10	270	20	20	250	10
Future Vol, veh/h	10	10	10	10	10	10	10	270	20	20	250	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	11	11	11	11	297	22	22	275	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.5	10.3	10.1
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	33%	7%
Vol Thru, %	90%	33%	33%	89%
Vol Right, %	7%	33%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	30	30	280
LT Vol	10	10	10	20
Through Vol	270	10	10	250
RT Vol	20	10	10	10
Lane Flow Rate	330	33	33	308
Geometry Grp	1	1	1	1
Degree of Util (X)	0.399	0.048	0.048	0.376
Departure Headway (Hd)	4.355	5.195	5.195	4.401
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	827	687	687	818
Service Time	2.383	3.243	3.243	2.429
HCM Lane V/C Ratio	0.399	0.048	0.048	0.377
HCM Control Delay	10.3	8.5	8.5	10.1
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.9	0.2	0.2	1.8

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	140	0	20	10	0	10	10	630	10	0	600	70
Future Volume (veh/h)	140	0	20	10	0	10	10	630	10	0	600	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	0	22	11	0	11	11	685	11	0	652	76
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	425	0	267	414	0	267	37	1170	994	5	923	785
Arrive On Green	0.17	0.00	0.17	0.17	0.00	0.17	0.02	0.62	0.62	0.00	0.49	0.49
Sat Flow, veh/h	1426	0	1615	1412	0	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	152	0	22	11	0	11	11	685	11	0	652	76
Grp Sat Flow(s),veh/h/ln	1426	0	1615	1412	0	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	3.7	0.0	0.4	0.2	0.0	0.2	0.2	7.9	0.1	0.0	9.8	0.9
Cycle Q Clear(g_c), s	3.9	0.0	0.4	0.7	0.0	0.2	0.2	7.9	0.1	0.0	9.8	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	425	0	267	414	0	267	37	1170	994	5	923	785
V/C Ratio(X)	0.36	0.00	0.08	0.03	0.00	0.04	0.30	0.59	0.01	0.00	0.71	0.10
Avail Cap(c_a), veh/h	891	0	796	876	0	796	347	1196	1017	347	1196	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	12.9	13.2	0.0	12.8	17.6	4.2	2.7	0.0	7.4	5.1
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.0	0.0	0.1	4.5	0.7	0.0	0.0	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.2	0.1	0.0	0.1	0.2	4.2	0.0	0.0	5.4	0.4
LnGrp Delay(d),s/veh	14.9	0.0	13.0	13.2	0.0	12.9	22.1	4.9	2.7	0.0	8.7	5.1
LnGrp LOS	B		B	B		B	C	A	A		A	A
Approach Vol, veh/h		174			22			707			728	
Approach Delay, s/veh		14.7			13.0			5.2			8.3	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	26.5		10.0	4.7	21.8		10.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	23.0		18.0	7.0	23.0		18.0
Max Q Clear Time (g_c+I1), s	0.0	9.9		5.9	2.2	11.8		2.7
Green Ext Time (p_c), s	0.0	6.6		0.4	0.0	5.9		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
18: Eucalyptus Ave & Redlands Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	0	0	10	0	60	10	370	100	380	260	50
Future Volume (veh/h)	20	0	0	10	0	60	10	370	100	380	260	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	0	0	11	0	65	11	402	109	413	283	54
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	64	117	0	35	87	494	35	604	164	471	1024	195
Arrive On Green	0.04	0.00	0.00	0.02	0.00	0.05	0.02	0.42	0.42	0.26	0.66	0.66
Sat Flow, veh/h	1810	1900	0	1810	1900	1615	1810	1440	391	1810	1552	296
Grp Volume(v), veh/h	22	0	0	11	0	65	11	0	511	413	0	337
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1810	1900	1615	1810	0	1831	1810	0	1848
Q Serve(g_s), s	0.8	0.0	0.0	0.4	0.0	1.9	0.4	0.0	15.0	14.6	0.0	5.1
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	0.0	1.9	0.4	0.0	15.0	14.6	0.0	5.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.21	1.00		0.16
Lane Grp Cap(c), veh/h	64	117	0	35	87	494	35	0	768	471	0	1220
V/C Ratio(X)	0.35	0.00	0.00	0.31	0.00	0.13	0.31	0.00	0.67	0.88	0.00	0.28
Avail Cap(c_a), veh/h	190	455	0	190	455	807	190	0	768	623	0	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	0.0	0.0	32.3	0.0	16.8	32.3	0.0	15.6	23.7	0.0	4.7
Incr Delay (d2), s/veh	3.2	0.0	0.0	5.0	0.0	0.1	5.0	0.0	4.5	10.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.2	0.0	0.9	0.2	0.0	8.5	8.6	0.0	2.6
LnGrp Delay(d),s/veh	34.7	0.0	0.0	37.3	0.0	16.9	37.3	0.0	20.1	34.5	0.0	4.8
LnGrp LOS	C			D		B	D		C	C		A
Approach Vol, veh/h		22			76			522			750	
Approach Delay, s/veh		34.7			19.8			20.5			21.2	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	32.0	5.3	8.1	5.3	48.1	6.3	7.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	23.0	28.0	7.0	16.0	7.0	44.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	16.6	17.0	2.4	0.0	2.4	7.1	2.8	3.9
Green Ext Time (p_c), s	0.8	4.1	0.0	0.0	0.0	6.5	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			↰	↱		✥	
Traffic Vol, veh/h	0	230	90	20	450	0	160	10	40	0	0	10
Future Vol, veh/h	0	230	90	20	450	0	160	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	288	113	25	563	0	200	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	563	0	0	400	0	0	963	957	344	963	1013	563
Stage 1	-	-	-	-	-	-	344	344	-	613	613	-
Stage 2	-	-	-	-	-	-	619	613	-	350	400	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1019	-	-	1170	-	-	237	260	703	237	241	530
Stage 1	-	-	-	-	-	-	676	640	-	483	486	-
Stage 2	-	-	-	-	-	-	480	486	-	671	605	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1019	-	-	1170	-	-	226	252	703	210	234	530
Mov Cap-2 Maneuver	-	-	-	-	-	-	399	412	-	398	398	-
Stage 1	-	-	-	-	-	-	676	640	-	483	471	-
Stage 2	-	-	-	-	-	-	454	471	-	611	605	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	21.2	12
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	400	703	1019	-	-	1170	-	-	530
HCM Lane V/C Ratio	0.531	0.071	-	-	-	0.021	-	-	0.024
HCM Control Delay (s)	23.7	10.5	0	-	-	8.1	0	-	12
HCM Lane LOS	C	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	3	0.2	0	-	-	0.1	-	-	0.1

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			↰	↱		✥	
Traffic Volume (veh/h)	100	170	60	160	130	10	80	100	160	10	130	80
Future Volume (veh/h)	100	170	60	160	130	10	80	100	160	10	130	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	224	79	211	171	13	105	132	211	13	171	105
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	167	381	134	220	546	42	146	184	283	16	210	129
Arrive On Green	0.09	0.28	0.28	0.12	0.31	0.31	0.18	0.18	0.18	0.20	0.20	0.20
Sat Flow, veh/h	1810	1339	472	1810	1743	132	824	1035	1592	80	1049	644
Grp Volume(v), veh/h	132	0	303	211	0	184	237	0	211	289	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1812	1810	0	1875	1859	0	1592	1773	0	0
Q Serve(g_s), s	5.3	0.0	10.6	8.6	0.0	5.5	8.9	0.0	9.3	11.5	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	10.6	8.6	0.0	5.5	8.9	0.0	9.3	11.5	0.0	0.0
Prop In Lane	1.00		0.26	1.00		0.07	0.44		1.00	0.04		0.36
Lane Grp Cap(c), veh/h	167	0	515	220	0	588	330	0	283	354	0	0
V/C Ratio(X)	0.79	0.00	0.59	0.96	0.00	0.31	0.72	0.00	0.75	0.82	0.00	0.00
Avail Cap(c_a), veh/h	220	0	515	220	0	588	553	0	474	528	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.8	0.0	22.7	32.3	0.0	19.3	28.6	0.0	28.8	28.3	0.0	0.0
Incr Delay (d2), s/veh	13.1	0.0	4.9	48.6	0.0	1.4	2.9	0.0	3.9	6.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	6.0	7.3	0.0	3.1	4.8	0.0	4.4	6.2	0.0	0.0
LnGrp Delay(d),s/veh	45.9	0.0	27.6	80.8	0.0	20.7	31.5	0.0	32.7	34.4	0.0	0.0
LnGrp LOS	D		C	F		C	C		C	C		
Approach Vol, veh/h		435			395			448			289	
Approach Delay, s/veh		33.2			52.8			32.1			34.4	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.1	13.0	25.0		18.8	10.8	27.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	9.0	21.0		22.0	9.0	21.0
Max Q Clear Time (g_c+I1), s		11.3	10.6	12.6		13.5	7.3	7.5
Green Ext Time (p_c), s		1.4	0.0	0.9		0.9	0.0	1.2

Intersection Summary			
HCM 2010 Ctrl Delay			38.0
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱	↰	↱	
Traffic Volume (veh/h)	70	10	370	0	0	0	0	600	160	10	370	0
Future Volume (veh/h)	70	10	370	0	0	0	0	600	160	10	370	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	11	416				0	674	180	11	416	0
Adj No. of Lanes	0	1	1				0	1	1	1	1	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	488	68	489				0	809	684	36	1005	0
Arrive On Green	0.31	0.31	0.31				0.00	0.43	0.43	0.02	0.53	0.00
Sat Flow, veh/h	1598	222	1602				0	1900	1606	1810	1900	0
Grp Volume(v), veh/h	90	0	416				0	674	180	11	416	0
Grp Sat Flow(s),veh/h/ln	1820	0	1602				0	1900	1606	1810	1900	0
Q Serve(g_s), s	1.7	0.0	11.8				0.0	15.2	3.5	0.3	6.4	0.0
Cycle Q Clear(g_c), s	1.7	0.0	11.8				0.0	15.2	3.5	0.3	6.4	0.0
Prop In Lane	0.88		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	556	0	489				0	809	684	36	1005	0
V/C Ratio(X)	0.16	0.00	0.85				0.00	0.83	0.26	0.31	0.41	0.00
Avail Cap(c_a), veh/h	679	0	597				0	905	765	262	1338	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	15.7				0.0	12.3	9.0	23.3	6.9	0.0
Incr Delay (d2), s/veh	0.1	0.0	9.6				0.0	6.1	0.2	4.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.4				0.0	9.2	1.6	0.2	3.3	0.0
LnGrp Delay(d),s/veh	12.4	0.0	25.3				0.0	18.5	9.2	28.0	7.1	0.0
LnGrp LOS	B		C					B	A	C	A	
Approach Vol, veh/h		506						854			427	
Approach Delay, s/veh		23.0						16.5			7.7	
Approach LOS		C						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		18.8	5.0	24.6				29.5
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	7.0	23.0				34.0
Max Q Clear Time (g_c+I1), s		13.8	2.3	17.2				8.4
Green Ext Time (p_c), s		0.9	0.0	3.3				8.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	170	450	200	170	590	180	880	410	930	20	60	40
Future Volume (veh/h)	170	450	200	170	590	180	880	410	930	20	60	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	193	511	227	193	670	205	1000	466	1057	23	68	45
Adj No. of Lanes	2	3	1	2	2	1	2	1	2	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	1530	878	327	1065	474	906	730	1236	38	522	381
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.25	0.38	0.38	0.01	0.14	0.14
Sat Flow, veh/h	3510	5187	1607	3510	3610	1607	3619	1900	3217	3510	3610	1598
Grp Volume(v), veh/h	193	511	227	193	670	205	1000	466	1057	23	68	45
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1607	1810	1900	1609	1755	1805	1598
Q Serve(g_s), s	3.9	5.7	1.8	3.9	11.9	7.6	18.5	14.8	15.0	0.5	1.2	0.0
Cycle Q Clear(g_c), s	3.9	5.7	1.8	3.9	11.9	7.6	18.5	14.8	15.0	0.5	1.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1530	878	327	1065	474	906	730	1236	38	522	381
V/C Ratio(X)	0.59	0.33	0.26	0.59	0.63	0.43	1.10	0.64	0.85	0.61	0.13	0.12
Avail Cap(c_a), veh/h	381	3093	1363	333	2104	936	906	1185	2006	333	2153	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	20.3	2.6	32.1	22.5	21.0	27.7	18.5	9.4	36.3	27.5	22.1
Incr Delay (d2), s/veh	1.8	0.1	0.2	2.7	0.6	0.6	62.4	0.9	2.1	14.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.7	1.2	2.0	6.0	3.4	16.9	7.8	6.9	0.3	0.6	0.7
LnGrp Delay(d),s/veh	33.9	20.5	2.8	34.8	23.1	21.6	90.1	19.5	11.6	51.2	27.6	22.2
LnGrp LOS	C	C	A	C	C	C	F	B	B	D	C	C
Approach Vol, veh/h		931			1068			2523			136	
Approach Delay, s/veh		18.9			24.9			44.1			29.8	
Approach LOS		B			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	32.4	10.9	25.8	22.5	14.7	10.9	25.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	2.5	17.0	5.9	7.7	20.5	3.2	5.9	13.9
Green Ext Time (p_c), s	0.0	9.5	0.1	4.9	0.0	0.6	1.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Volume (veh/h)	970	0	510	120	0	0
Future Volume (veh/h)	970	0	510	120	0	0
Number	7	14	5	2		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	0	1900	1900		
Adj Flow Rate, veh/h	1043	0	338	422		
Adj No. of Lanes	2	0	1	1		
Peak Hour Factor	0.93	0.93	0.93	0.93		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	0	0	1806	1209		
Arrive On Green	0.00	0.00	0.64	0.64		
Sat Flow, veh/h	0		1810	1900		
Grp Volume(v), veh/h	0.0		338	422		
Grp Sat Flow(s),veh/h/ln			1810	1900		
Q Serve(g_s), s			0.9	1.1		
Cycle Q Clear(g_c), s			0.9	1.1		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			1806	1209		
V/C Ratio(X)			0.19	0.35		
Avail Cap(c_a), veh/h			4603	4145		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			0.9	0.9		
Incr Delay (d2), s/veh			0.0	0.2		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.4	0.5		
LnGrp Delay(d),s/veh			0.9	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h				760		
Approach Delay, s/veh				1.0		
Approach LOS				A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						
Phs Duration (G+Y+Rc), s		11.0						
Change Period (Y+Rc), s		4.0						
Max Green Setting (Gmax), s		24.0						
Max Q Clear Time (g_c+I1), s		3.1						
Green Ext Time (p_c), s		3.6						

Intersection Summary	
HCM 2010 Ctrl Delay	1.0
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↱	↱	↰	↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	0	10	0	580	20	550	30	1170	420	130	350	0
Future Volume (veh/h)	0	10	0	580	20	550	30	1170	420	130	350	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	11	0	652	0	633	34	1315	472	146	393	0
Adj No. of Lanes	1	1	0	2	0	2	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	196	0	688	0	1093	83	1656	702	283	1699	760
Arrive On Green	0.00	0.10	0.00	0.19	0.00	0.34	0.05	0.44	0.44	0.08	0.47	0.00
Sat Flow, veh/h	1810	1900	0	3619	0	3206	1810	3800	1609	3510	3610	1615
Grp Volume(v), veh/h	0	11	0	652	0	633	34	1315	472	146	393	0
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1810	0	1603	1810	1900	1609	1755	1805	1615
Q Serve(g_s), s	0.0	0.4	0.0	15.0	0.0	13.6	1.5	25.1	19.7	3.4	5.4	0.0
Cycle Q Clear(g_c), s	0.0	0.4	0.0	15.0	0.0	13.6	1.5	25.1	19.7	3.4	5.4	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	196	0	688	0	1093	83	1656	702	283	1699	760
V/C Ratio(X)	0.00	0.06	0.00	0.95	0.00	0.58	0.41	0.79	0.67	0.52	0.23	0.00
Avail Cap(c_a), veh/h	151	813	0	688	0	1716	151	1807	765	292	1717	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	34.0	0.0	33.6	0.0	22.8	39.0	20.5	18.9	37.1	13.2	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	22.2	0.0	0.5	3.3	2.3	2.1	1.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	9.5	0.0	6.1	0.8	13.7	9.1	1.7	2.7	0.0
LnGrp Delay(d),s/veh	0.0	34.1	0.0	55.8	0.0	23.2	42.3	22.8	21.0	38.6	13.3	0.0
LnGrp LOS		C		E		C	D	C	C	D	B	
Approach Vol, veh/h		11			1285			1821			539	
Approach Delay, s/veh		34.1			39.8			22.7			20.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	40.7	20.0	12.7	7.8	43.6	0.0	32.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	40.0	16.0	36.0	7.0	40.0	7.0	45.0
Max Q Clear Time (g_c+I1), s	5.4	27.1	17.0	2.4	3.5	7.4	0.0	15.6
Green Ext Time (p_c), s	0.1	9.5	0.0	2.8	0.0	17.8	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	140	680	20	340	1370	190	20	360	420	140	340	110
Future Volume (veh/h)	140	680	20	340	1370	190	20	360	420	140	340	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	756	22	378	1522	211	22	400	467	156	378	122
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	943	27	451	1530	680	160	496	821	125	459	387
Arrive On Green	0.09	0.26	0.26	0.25	0.42	0.42	0.09	0.26	0.26	0.07	0.24	0.24
Sat Flow, veh/h	1810	3581	104	1810	3610	1605	1810	1900	1606	1810	1900	1605
Grp Volume(v), veh/h	156	381	397	378	1522	211	22	400	467	156	378	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1880	1810	1805	1605	1810	1900	1606	1810	1900	1605
Q Serve(g_s), s	8.7	20.0	20.0	20.1	42.6	8.8	1.1	20.0	4.5	7.0	19.1	4.9
Cycle Q Clear(g_c), s	8.7	20.0	20.0	20.1	42.6	8.8	1.1	20.0	4.5	7.0	19.1	4.9
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	160	475	495	451	1530	680	160	496	821	125	459	387
V/C Ratio(X)	0.97	0.80	0.80	0.84	0.99	0.31	0.14	0.81	0.57	1.25	0.82	0.31
Avail Cap(c_a), veh/h	160	605	630	451	1530	680	160	655	956	125	655	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	34.9	34.9	36.2	29.1	19.4	42.7	35.1	7.4	47.2	36.4	19.2
Incr Delay (d2), s/veh	62.5	6.0	5.8	13.1	21.8	0.3	0.4	5.5	0.6	162.4	5.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	10.7	11.2	11.7	25.8	3.9	0.6	11.2	5.6	9.1	10.7	2.6
LnGrp Delay(d),s/veh	108.6	40.9	40.7	49.2	50.9	19.7	43.1	40.7	8.0	209.6	42.2	19.6
LnGrp LOS	F	D	D	D	D	B	D	D	A	F	D	B
Approach Vol, veh/h		934			2111			889			656	
Approach Delay, s/veh		52.2			47.5			23.6			77.8	
Approach LOS		D			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.5	29.3	30.7	13.0	28.5	13.0	47.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	35.0	18.0	34.0	7.0	35.0	9.0	43.0
Max Q Clear Time (g_c+I1), s	9.0	22.0	22.1	22.0	3.1	21.1	10.7	44.6
Green Ext Time (p_c), s	0.0	3.3	0.0	3.6	1.6	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	120	230	110	60	200	100	210	370	150	160	290	130
Future Volume (veh/h)	120	230	110	60	200	100	210	370	150	160	290	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	179	343	164	90	299	149	313	552	224	239	433	194
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	285	131	320	609	303	263	518	436	197	449	378
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.15	0.27	0.27	0.11	0.24	0.24
Sat Flow, veh/h	259	559	257	906	1196	596	1810	1900	1600	1810	1900	1598
Grp Volume(v), veh/h	686	0	0	90	0	448	313	552	224	239	433	194
Grp Sat Flow(s),veh/h/ln	1075	0	0	906	0	1791	1810	1900	1600	1810	1900	1598
Q Serve(g_s), s	38.0	0.0	0.0	0.0	0.0	18.0	16.0	30.0	13.0	12.0	24.8	11.6
Cycle Q Clear(g_c), s	56.0	0.0	0.0	11.8	0.0	18.0	16.0	30.0	13.0	12.0	24.8	11.6
Prop In Lane	0.26		0.24	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	589	0	0	320	0	912	263	518	436	197	449	378
V/C Ratio(X)	1.17	0.00	0.00	0.28	0.00	0.49	1.19	1.07	0.51	1.21	0.96	0.51
Avail Cap(c_a), veh/h	589	0	0	320	0	912	263	518	436	197	449	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	0.0	16.2	0.0	17.7	47.0	40.0	33.8	49.0	41.5	36.5
Incr Delay (d2), s/veh	91.9	0.0	0.0	0.5	0.0	0.4	116.5	58.1	1.0	132.4	33.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.8	0.0	0.0	1.7	0.0	8.9	16.5	24.0	5.8	13.2	17.1	5.2
LnGrp Delay(d),s/veh	126.7	0.0	0.0	16.6	0.0	18.1	163.5	98.1	34.9	181.4	74.8	37.7
LnGrp LOS	F			B		B	F	F	C	F	E	D
Approach Vol, veh/h		686			538			1089			866	
Approach Delay, s/veh		126.7			17.8			103.9			95.9	
Approach LOS		F			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.0	34.0		60.0	20.0	30.0		60.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	12.0	30.0		56.0	16.0	26.0		56.0
Max Q Clear Time (g_c+I1), s	14.0	32.0		58.0	18.0	26.8		20.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		11.2

Intersection Summary		
HCM 2010 Ctrl Delay		92.1
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary
122: Ramona Expy & Bridge St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↑↱		↰	↱
Traffic Volume (veh/h)	90	540	880	80	40	30
Future Volume (veh/h)	90	540	880	80	40	30
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	587	957	87	43	33
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	293	1140	1030	94	241	215
Arrive On Green	0.60	0.60	0.60	0.60	0.13	0.13
Sat Flow, veh/h	549	1900	1716	156	1810	1615
Grp Volume(v), veh/h	98	587	0	1044	43	33
Grp Sat Flow(s),veh/h/ln	549	1900	0	1872	1810	1615
Q Serve(g_s), s	2.9	5.4	0.0	15.1	0.6	0.5
Cycle Q Clear(g_c), s	18.0	5.4	0.0	15.1	0.6	0.5
Prop In Lane	1.00			0.08	1.00	1.00
Lane Grp Cap(c), veh/h	293	1140	0	1123	241	215
V/C Ratio(X)	0.33	0.51	0.00	0.93	0.18	0.15
Avail Cap(c_a), veh/h	293	1140	0	1123	1086	969
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	3.5	0.0	5.4	11.5	11.5
Incr Delay (d2), s/veh	0.7	0.4	0.0	13.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.7	0.0	11.4	0.3	0.3
LnGrp Delay(d),s/veh	14.9	3.9	0.0	18.6	11.9	11.8
LnGrp LOS	B	A		B	B	B
Approach Vol, veh/h		685	1044		76	
Approach Delay, s/veh		5.5	18.6		11.9	
Approach LOS		A	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				22.0		8.0		22.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				20.0		2.6		17.1
Green Ext Time (p_c), s				0.0		0.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
123: Gilman Springs Rd & Bridge St

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↳	
Traffic Volume (veh/h)	100	50	10	820	470	50
Future Volume (veh/h)	100	50	10	820	470	50
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	55	11	901	516	55
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	147	73	603	1111	987	105
Arrive On Green	0.13	0.13	0.58	0.58	0.58	0.58
Sat Flow, veh/h	1153	577	854	1900	1688	180
Grp Volume(v), veh/h	166	0	11	901	0	571
Grp Sat Flow(s),veh/h/ln	1741	0	854	1900	0	1868
Q Serve(g_s), s	2.6	0.0	0.2	10.4	0.0	5.1
Cycle Q Clear(g_c), s	2.6	0.0	5.3	10.4	0.0	5.1
Prop In Lane	0.66	0.33	1.00			0.10
Lane Grp Cap(c), veh/h	221	0	603	1111	0	1092
V/C Ratio(X)	0.75	0.00	0.02	0.81	0.00	0.52
Avail Cap(c_a), veh/h	1129	0	657	1233	0	1212
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	5.0	4.6	0.0	3.4
Incr Delay (d2), s/veh	5.1	0.0	0.0	3.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.1	6.4	0.0	2.7
LnGrp Delay(d),s/veh	16.7	0.0	5.0	8.4	0.0	3.8
LnGrp LOS	B		A	A		A
Approach Vol, veh/h	166			912	571	
Approach Delay, s/veh	16.7			8.4	3.8	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		20.2		7.5		20.2		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		12.4		4.6		7.1		
Green Ext Time (p_c), s		3.8		0.3		6.4		

Intersection Summary	
HCM 2010 Ctrl Delay	7.6
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Volume (veh/h)	30	350	0	0	460	290	360	10	10	0	0	0
Future Volume (veh/h)	30	350	0	0	460	290	360	10	10	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	32	372	0	0	489	309	383	11	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	397	868	0	0	868	737	544	16	499			
Arrive On Green	0.46	0.46	0.00	0.00	0.46	0.46	0.31	0.31	0.00			
Sat Flow, veh/h	692	1900	0	0	1900	1615	1761	51	1615			
Grp Volume(v), veh/h	32	372	0	0	489	309	394	0	0			
Grp Sat Flow(s),veh/h/ln	692	1900	0	0	1900	1615	1812	0	1615			
Q Serve(g_s), s	1.2	4.5	0.0	0.0	6.4	4.4	6.5	0.0	0.0			
Cycle Q Clear(g_c), s	7.6	4.5	0.0	0.0	6.4	4.4	6.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	397	868	0	0	868	737	559	0	499			
V/C Ratio(X)	0.08	0.43	0.00	0.00	0.56	0.42	0.70	0.00	0.00			
Avail Cap(c_a), veh/h	629	1505	0	0	1505	1279	1329	0	1184			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.6	6.3	0.0	0.0	6.8	6.2	10.4	0.0	0.0			
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.0	0.6	0.4	1.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	2.4	0.0	0.0	3.4	2.0	3.4	0.0	0.0			
LnGrp Delay(d),s/veh	9.7	6.6	0.0	0.0	7.4	6.6	12.0	0.0	0.0			
LnGrp LOS	A	A			A	A	B					
Approach Vol, veh/h		404			798			394				
Approach Delay, s/veh		6.8			7.1			12.0				
Approach LOS		A			A			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		14.5		19.6				19.6
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		25.0		27.0				27.0
Max Q Clear Time (g_c+I1), s		8.5		9.6				8.4
Green Ext Time (p_c), s		2.0		5.9				6.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.2
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
125: SR-79 SB Ramps & Gilman Springs Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Volume (veh/h)	0	200	330	10	790	0	0	0	0	200	0	20
Future Volume (veh/h)	0	200	330	10	790	0	0	0	0	200	0	20
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	213	351	11	840	0				213	0	0
Adj No. of Lanes	0	1	1	1	1	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1018	865	646	1018	0				366	0	327
Arrive On Green	0.00	0.54	0.54	0.54	0.54	0.00				0.20	0.00	0.00
Sat Flow, veh/h	0	1900	1615	860	1900	0				1810	0	1615
Grp Volume(v), veh/h	0	213	351	11	840	0				213	0	0
Grp Sat Flow(s),veh/h/ln	0	1900	1615	860	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	1.8	3.9	0.2	11.2	0.0				3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.8	3.9	2.0	11.2	0.0				3.2	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1018	865	646	1018	0				366	0	327
V/C Ratio(X)	0.00	0.21	0.41	0.02	0.83	0.00				0.58	0.00	0.00
Avail Cap(c_a), veh/h	0	1121	953	693	1121	0				1068	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	3.7	4.2	4.2	5.9	0.0				11.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.3	0.0	4.8	0.0				1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	1.7	0.1	7.0	0.0				1.7	0.0	0.0
LnGrp Delay(d),s/veh	0.0	3.8	4.5	4.2	10.7	0.0				12.5	0.0	0.0
LnGrp LOS		A	A	A	B					B		
Approach Vol, veh/h		564			851						213	
Approach Delay, s/veh		4.2			10.6						12.5	
Approach LOS		A			B						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				20.3		10.2		20.3
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				5.9		5.2		13.2
Green Ext Time (p_c), s				6.2		0.9		3.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
132: San Timoteo Canyon Rd & Alessandro Rd

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Volume (veh/h)	20	240	650	180	220	50
Future Volume (veh/h)	20	240	650	180	220	50
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	21	247	670	186	227	0
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	112	919	806	224	307	0
Arrive On Green	0.59	0.59	0.59	0.59	0.18	0.00
Sat Flow, veh/h	41	1547	1357	377	1707	0
Grp Volume(v), veh/h	268	0	0	856	228	0
Grp Sat Flow(s),veh/h/ln	1588	0	0	1734	1715	0
Q Serve(g_s), s	0.4	0.0	0.0	17.5	5.6	0.0
Cycle Q Clear(g_c), s	17.9	0.0	0.0	17.5	5.6	0.0
Prop In Lane	0.08			0.22	1.00	0.00
Lane Grp Cap(c), veh/h	1032	0	0	1030	308	0
V/C Ratio(X)	0.26	0.00	0.00	0.83	0.74	0.00
Avail Cap(c_a), veh/h	1307	0	0	1332	620	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.3	0.0	0.0	7.2	17.2	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	3.6	3.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	9.1	2.9	0.0
LnGrp Delay(d),s/veh	4.5	0.0	0.0	10.8	20.6	0.0
LnGrp LOS	A			B	C	
Approach Vol, veh/h		268	856		228	
Approach Delay, s/veh		4.5	10.8		20.6	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				31.3		13.0		31.3
Change Period (Y+Rc), s				5.0		5.0		5.0
Max Green Setting (Gmax), s				34.0		16.0		34.0
Max Q Clear Time (g_c+I1), s				19.9		7.6		19.5
Green Ext Time (p_c), s				6.4		0.4		6.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
133: Live Oak Canyon & San Timoteo Canyon Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Volume (veh/h)	10	440	10	0	700	100	10	10	10	210	10	140
Future Volume (veh/h)	10	440	10	0	700	100	10	10	10	210	10	140
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	11	463	11	0	737	105	11	11	11	221	11	147
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	66	868	20	0	842	120	191	185	148	335	20	165
Arrive On Green	0.55	0.55	0.55	0.00	0.55	0.55	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	9	1589	37	0	1542	220	388	643	515	836	68	573
Grp Volume(v), veh/h	485	0	0	0	0	842	33	0	0	379	0	0
Grp Sat Flow(s),veh/h/ln	1635	0	0	0	0	1761	1546	0	0	1477	0	0
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	24.9	0.0	0.0	0.0	13.9	0.0	0.0
Cycle Q Clear(g_c), s	25.9	0.0	0.0	0.0	0.0	24.9	0.8	0.0	0.0	14.7	0.0	0.0
Prop In Lane	0.02		0.02	0.00		0.12	0.33		0.33	0.58		0.39
Lane Grp Cap(c), veh/h	954	0	0	0	0	962	524	0	0	519	0	0
V/C Ratio(X)	0.51	0.00	0.00	0.00	0.00	0.88	0.06	0.00	0.00	0.73	0.00	0.00
Avail Cap(c_a), veh/h	1048	0	0	0	0	1058	568	0	0	563	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	0.0	0.0	0.0	11.8	15.5	0.0	0.0	20.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0	4.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.0	0.0	0.0	14.0	0.4	0.0	0.0	6.6	0.0	0.0
LnGrp Delay(d),s/veh	9.0	0.0	0.0	0.0	0.0	19.7	15.6	0.0	0.0	24.8	0.0	0.0
LnGrp LOS	A					B	B			C		
Approach Vol, veh/h		485			842			33			379	
Approach Delay, s/veh		9.0			19.7			15.6			24.8	
Approach LOS		A			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		37.7		22.2		37.7		22.2
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.0		19.0		36.0		19.0
Max Q Clear Time (g_c+I1), s		26.9		2.8		27.9		16.7
Green Ext Time (p_c), s		5.2		2.0		4.8		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
134: Redlands Blvd & San Timoteo Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (veh/h)	20	620	80	90	720	30
Future Volume (veh/h)	20	620	80	90	720	30
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	21	639	82	93	742	31
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	486	1166	240	224	844	753
Arrive On Green	0.27	0.27	0.27	0.27	0.49	0.49
Sat Flow, veh/h	1800	1530	424	830	1714	1530
Grp Volume(v), veh/h	21	639	175	0	742	31
Grp Sat Flow(s),veh/h/ln	1800	1530	1254	0	1714	1530
Q Serve(g_s), s	0.4	7.2	1.9	0.0	16.3	0.4
Cycle Q Clear(g_c), s	0.4	7.2	4.1	0.0	16.3	0.4
Prop In Lane		1.00	0.47		1.00	1.00
Lane Grp Cap(c), veh/h	486	1166	465	0	844	753
V/C Ratio(X)	0.04	0.55	0.38	0.00	0.88	0.04
Avail Cap(c_a), veh/h	684	1335	588	0	1385	1236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	2.0	12.5	0.0	9.6	5.5
Incr Delay (d2), s/veh	0.0	0.4	0.5	0.0	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	7.4	1.7	0.0	8.3	0.2
LnGrp Delay(d),s/veh	11.4	2.4	13.0	0.0	13.5	5.6
LnGrp LOS	B	A	B		B	A
Approach Vol, veh/h	660			175	773	
Approach Delay, s/veh	2.7			13.0	13.2	
Approach LOS	A			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		25.7		16.4				16.4
Change Period (Y+Rc), s		5.0		5.0				5.0
Max Green Setting (Gmax), s		34.0		16.0				16.0
Max Q Clear Time (g_c+I1), s		18.3		9.2				6.1
Green Ext Time (p_c), s		2.4		2.2				2.8

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	140	5	20	20	10	10	20	780	10	5	840	150
Future Volume (veh/h)	140	5	20	20	10	10	20	780	10	5	840	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	5	21	21	10	10	21	812	10	5	875	156
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	333	47	199	326	130	130	64	1168	992	17	1119	951
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.04	0.61	0.61	0.01	0.59	0.59
Sat Flow, veh/h	1414	320	1343	1407	873	873	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	146	0	26	21	0	20	21	812	10	5	875	156
Grp Sat Flow(s),veh/h/ln	1414	0	1663	1407	0	1746	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	5.2	0.0	0.7	0.7	0.0	0.5	0.6	15.2	0.1	0.1	18.5	2.3
Cycle Q Clear(g_c), s	5.7	0.0	0.7	1.4	0.0	0.5	0.6	15.2	0.1	0.1	18.5	2.3
Prop In Lane	1.00		0.81	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	0	247	326	0	259	64	1168	992	17	1119	951
V/C Ratio(X)	0.44	0.00	0.11	0.06	0.00	0.08	0.33	0.70	0.01	0.29	0.78	0.16
Avail Cap(c_a), veh/h	606	0	568	598	0	596	240	1370	1164	240	1370	1164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	19.4	20.0	0.0	19.3	24.8	6.8	3.9	25.9	8.3	4.9
Incr Delay (d2), s/veh	0.9	0.0	0.2	0.1	0.0	0.1	3.0	1.3	0.0	9.3	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.3	0.3	0.0	0.3	0.4	8.1	0.1	0.1	10.2	1.0
LnGrp Delay(d),s/veh	22.7	0.0	19.6	20.1	0.0	19.5	27.8	8.1	3.9	35.2	10.7	5.0
LnGrp LOS	C		B	C		B	C	A	A	D	B	A
Approach Vol, veh/h		172			41			843			1036	
Approach Delay, s/veh		22.2			19.8			8.5			10.0	
Approach LOS		C			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	36.4		11.8	5.9	35.0		11.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	38.0		18.0	7.0	38.0		18.0
Max Q Clear Time (g_c+I1), s	2.1	17.2		7.7	2.6	20.5		3.4
Green Ext Time (p_c), s	0.0	11.7		0.4	0.0	10.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
18: Eucalyptus Ave & Redlands Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	20	0	10	130	0	580	0	200	10	80	320	10
Future Volume (veh/h)	20	0	10	130	0	580	0	200	10	80	320	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	0	10	134	0	598	0	206	10	82	330	10
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	0	341	198	543	607	3	546	26	163	853	26
Arrive On Green	0.03	0.00	0.21	0.11	0.00	0.29	0.00	0.30	0.30	0.09	0.47	0.47
Sat Flow, veh/h	1810	0	1615	1810	1900	1615	1810	1797	87	1810	1835	56
Grp Volume(v), veh/h	21	0	10	134	0	598	0	0	216	82	0	340
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1810	1900	1615	1810	0	1885	1810	0	1890
Q Serve(g_s), s	0.6	0.0	0.3	4.0	0.0	16.0	0.0	0.0	5.0	2.4	0.0	6.6
Cycle Q Clear(g_c), s	0.6	0.0	0.3	4.0	0.0	16.0	0.0	0.0	5.0	2.4	0.0	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	63	0	341	198	543	607	3	0	572	163	0	879
V/C Ratio(X)	0.33	0.00	0.03	0.68	0.00	0.99	0.00	0.00	0.38	0.50	0.00	0.39
Avail Cap(c_a), veh/h	226	0	461	226	543	607	226	0	572	291	0	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	17.5	24.0	0.0	17.3	0.0	0.0	15.3	24.3	0.0	9.8
Incr Delay (d2), s/veh	3.1	0.0	0.0	6.6	0.0	32.7	0.0	0.0	1.9	2.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	2.3	0.0	14.5	0.0	0.0	2.9	1.3	0.0	3.5
LnGrp Delay(d),s/veh	29.4	0.0	17.6	30.5	0.0	50.0	0.0	0.0	17.2	26.7	0.0	10.0
LnGrp LOS	C		B	C		D			B	C		B
Approach Vol, veh/h		31			732			216			422	
Approach Delay, s/veh		25.6			46.4			17.2			13.3	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	21.0	10.1	15.8	0.0	30.0	6.0	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	17.0	7.0	16.0	7.0	19.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	4.4	7.0	6.0	2.3	0.0	8.6	2.6	18.0
Green Ext Time (p_c), s	0.1	2.4	0.0	2.1	0.0	2.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			↰	↱		✥	
Traffic Vol, veh/h	10	400	100	20	250	0	110	0	40	0	0	10
Future Vol, veh/h	10	400	100	20	250	0	110	0	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	449	112	22	281	0	124	0	45	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	281	0	0	562	0	0	859	854	506	854	910	281
Stage 1	-	-	-	-	-	-	528	528	-	326	326	-
Stage 2	-	-	-	-	-	-	331	326	-	528	584	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1293	-	-	1019	-	-	279	298	570	281	277	763
Stage 1	-	-	-	-	-	-	538	531	-	691	652	-
Stage 2	-	-	-	-	-	-	687	652	-	538	501	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1293	-	-	1019	-	-	267	286	570	251	266	763
Mov Cap-2 Maneuver	-	-	-	-	-	-	449	446	-	414	415	-
Stage 1	-	-	-	-	-	-	531	524	-	682	635	-
Stage 2	-	-	-	-	-	-	659	635	-	489	494	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	14.9	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	449	570	1293	-	-	1019	-	-	763
HCM Lane V/C Ratio	0.275	0.079	0.009	-	-	0.022	-	-	0.015
HCM Control Delay (s)	16	11.9	7.8	0	-	8.6	0	-	9.8
HCM Lane LOS	C	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	1.1	0.3	0	-	-	0.1	-	-	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱			↰	↱		✢	
Traffic Volume (veh/h)	80	130	110	100	170	10	100	160	90	10	180	50
Future Volume (veh/h)	80	130	110	100	170	10	100	160	90	10	180	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	143	121	110	187	11	110	176	99	11	198	55
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	286	242	155	542	32	142	227	315	14	253	70
Arrive On Green	0.08	0.30	0.30	0.09	0.31	0.31	0.20	0.20	0.20	0.19	0.19	0.19
Sat Flow, veh/h	1810	948	802	1810	1776	104	717	1147	1595	76	1367	380
Grp Volume(v), veh/h	88	0	264	110	0	198	286	0	99	264	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1751	1810	0	1881	1864	0	1595	1823	0	0
Q Serve(g_s), s	3.3	0.0	8.6	4.1	0.0	5.7	10.1	0.0	3.7	9.6	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	8.6	4.1	0.0	5.7	10.1	0.0	3.7	9.6	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.06	0.38		1.00	0.04		0.21
Lane Grp Cap(c), veh/h	149	0	529	155	0	574	368	0	315	337	0	0
V/C Ratio(X)	0.59	0.00	0.50	0.71	0.00	0.35	0.78	0.00	0.31	0.78	0.00	0.00
Avail Cap(c_a), veh/h	234	0	529	234	0	574	590	0	504	577	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.8	0.0	20.0	31.0	0.0	18.8	26.5	0.0	23.9	27.0	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	3.3	5.9	0.0	1.6	3.6	0.0	0.6	4.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	4.7	2.3	0.0	3.2	5.5	0.0	1.7	5.2	0.0	0.0
LnGrp Delay(d),s/veh	34.5	0.0	23.3	36.9	0.0	20.4	30.0	0.0	24.4	31.0	0.0	0.0
LnGrp LOS	C		C	D		C	C		C	C		
Approach Vol, veh/h		352			308			385			264	
Approach Delay, s/veh		26.1			26.3			28.6			31.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.7	9.9	25.0		16.9	9.7	25.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	9.0	21.0		22.0	9.0	21.0
Max Q Clear Time (g_c+I1), s		12.1	6.1	10.6		11.6	5.3	7.7
Green Ext Time (p_c), s		1.2	0.1	0.9		0.9	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱	↰	↱	
Traffic Volume (veh/h)	90	10	530	0	0	0	0	690	200	10	410	0
Future Volume (veh/h)	90	10	530	0	0	0	0	690	200	10	410	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	94	10	552				0	719	208	10	427	0
Adj No. of Lanes	0	1	1				0	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	555	59	541				0	796	673	33	973	0
Arrive On Green	0.34	0.34	0.34				0.00	0.42	0.42	0.02	0.51	0.00
Sat Flow, veh/h	1643	175	1603				0	1900	1605	1810	1900	0
Grp Volume(v), veh/h	104	0	552				0	719	208	10	427	0
Grp Sat Flow(s),veh/h/ln	1818	0	1603				0	1900	1605	1810	1900	0
Q Serve(g_s), s	2.1	0.0	18.0				0.0	18.9	4.6	0.3	7.5	0.0
Cycle Q Clear(g_c), s	2.1	0.0	18.0				0.0	18.9	4.6	0.3	7.5	0.0
Prop In Lane	0.90		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	614	0	541				0	796	673	33	973	0
V/C Ratio(X)	0.17	0.00	1.02				0.00	0.90	0.31	0.31	0.44	0.00
Avail Cap(c_a), veh/h	614	0	541				0	820	693	238	1212	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.4	0.0	17.6				0.0	14.5	10.3	25.8	8.2	0.0
Incr Delay (d2), s/veh	0.1	0.0	43.7				0.0	13.1	0.3	5.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	14.4				0.0	12.7	2.1	0.2	4.0	0.0
LnGrp Delay(d),s/veh	12.5	0.0	61.4				0.0	27.5	10.6	31.0	8.5	0.0
LnGrp LOS	B		F					C	B	C	A	
Approach Vol, veh/h		656						927			437	
Approach Delay, s/veh		53.6						23.7			9.0	
Approach LOS		D						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		22.0	5.0	26.3				31.3
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	7.0	23.0				34.0
Max Q Clear Time (g_c+I1), s		20.0	2.3	20.9				9.5
Green Ext Time (p_c), s		0.0	0.0	1.5				8.5

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	920	760	270	310	90	410	240	310	170	320	190
Future Volume (veh/h)	140	920	760	270	310	90	410	240	310	170	320	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1022	844	300	344	100	456	267	344	189	356	211
Adj No. of Lanes	2	3	1	2	2	1	2	1	2	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1159	2218	871	286	646	287	410	426	720	283	692	840
Arrive On Green	0.33	0.43	0.43	0.08	0.18	0.18	0.11	0.22	0.22	0.08	0.19	0.19
Sat Flow, veh/h	3510	5187	1609	3510	3610	1601	3619	1900	3208	3510	3610	1602
Grp Volume(v), veh/h	156	1022	844	300	344	100	456	267	344	189	356	211
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1805	1601	1810	1900	1604	1755	1805	1602
Q Serve(g_s), s	2.7	12.1	24.9	7.0	7.4	3.7	9.8	10.9	8.0	4.5	7.6	0.0
Cycle Q Clear(g_c), s	2.7	12.1	24.9	7.0	7.4	3.7	9.8	10.9	8.0	4.5	7.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1159	2218	871	286	646	287	410	426	720	283	692	840
V/C Ratio(X)	0.13	0.46	0.97	1.05	0.53	0.35	1.11	0.63	0.48	0.67	0.51	0.25
Avail Cap(c_a), veh/h	1159	2653	1006	286	1847	819	410	1016	1716	286	1931	1390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	17.5	9.7	39.5	32.0	19.2	38.1	30.1	29.0	38.4	31.2	11.3
Incr Delay (d2), s/veh	0.1	0.1	19.8	67.0	0.7	0.7	78.1	1.5	0.5	5.8	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.8	15.5	6.0	3.8	1.7	9.3	5.9	3.6	2.4	3.9	2.7
LnGrp Delay(d),s/veh	20.3	17.7	29.5	106.5	32.7	20.0	116.2	31.6	29.5	44.2	31.8	11.5
LnGrp LOS	C	B	C	F	C	B	F	C	C	D	C	B
Approach Vol, veh/h		2022			744			1067			756	
Approach Delay, s/veh		22.8			60.8			67.1			29.2	
Approach LOS		C			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	23.3	11.0	40.8	13.8	20.5	32.4	19.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	7.0	46.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	6.5	12.9	9.0	26.9	11.8	9.6	4.7	9.4
Green Ext Time (p_c), s	0.0	3.2	0.0	9.3	0.0	3.3	1.9	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Volume (veh/h)	1410	0	850	380	0	0
Future Volume (veh/h)	1410	0	850	380	0	0
Number	7	14	5	2		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	0	1900	1900		
Adj Flow Rate, veh/h	1584	0	691	797		
Adj No. of Lanes	2	0	1	1		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	0	0	1807	1495		
Arrive On Green	0.00	0.00	0.79	0.79		
Sat Flow, veh/h	0		1810	1900		
Grp Volume(v), veh/h	0.0		691	797		
Grp Sat Flow(s),veh/h/ln			1810	1900		
Q Serve(g_s), s			2.5	2.9		
Cycle Q Clear(g_c), s			2.5	2.9		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			1807	1495		
V/C Ratio(X)			0.38	0.53		
Avail Cap(c_a), veh/h			3659	3439		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			0.7	0.7		
Incr Delay (d2), s/veh			0.1	0.3		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			1.0	1.5		
LnGrp Delay(d),s/veh			0.8	1.0		
LnGrp LOS			A	A		
Approach Vol, veh/h				1488		
Approach Delay, s/veh				0.9		
Approach LOS				A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						
Phs Duration (G+Y+Rc), s		18.8						
Change Period (Y+Rc), s		4.0						
Max Green Setting (Gmax), s		34.0						
Max Q Clear Time (g_c+I1), s		4.9						
Green Ext Time (p_c), s		9.9						

Intersection Summary			
HCM 2010 Ctrl Delay			0.9
HCM 2010 LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↱	↱	↰	↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	30	30	550	30	240	40	360	770	680	860	10
Future Volume (veh/h)	20	30	30	550	30	240	40	360	770	680	860	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	32	32	591	0	279	43	387	828	731	925	11
Adj No. of Lanes	1	1	0	2	0	2	1	1	2	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	62	116	116	591	0	842	259	585	986	621	1234	548
Arrive On Green	0.03	0.13	0.13	0.16	0.00	0.26	0.14	0.31	0.31	0.18	0.34	0.34
Sat Flow, veh/h	1810	868	868	3619	0	3199	1810	1900	3204	3510	3610	1603
Grp Volume(v), veh/h	22	0	64	591	0	279	43	387	828	731	925	11
Grp Sat Flow(s),veh/h/ln	1810	0	1735	1810	0	1600	1810	1900	1602	1755	1805	1603
Q Serve(g_s), s	0.9	0.0	2.4	12.0	0.0	3.2	1.5	13.0	10.8	13.0	16.7	0.3
Cycle Q Clear(g_c), s	0.9	0.0	2.4	12.0	0.0	3.2	1.5	13.0	10.8	13.0	16.7	0.3
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	62	0	233	591	0	842	259	585	986	621	1234	548
V/C Ratio(X)	0.35	0.00	0.27	1.00	0.00	0.33	0.17	0.66	0.84	1.18	0.75	0.02
Avail Cap(c_a), veh/h	172	0	850	591	0	1785	259	983	1657	621	2162	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	28.6	30.7	0.0	8.2	27.6	22.1	8.7	30.2	21.4	9.8
Incr Delay (d2), s/veh	3.4	0.0	0.6	37.0	0.0	0.2	0.3	1.3	2.0	95.7	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.2	8.9	0.0	2.1	0.8	7.0	6.0	14.5	8.4	0.1
LnGrp Delay(d),s/veh	38.0	0.0	29.2	67.8	0.0	8.4	27.9	23.4	10.7	126.0	22.3	9.8
LnGrp LOS	D		C	F		A	C	C	B	F	C	A
Approach Vol, veh/h		86			870			1258			1667	
Approach Delay, s/veh		31.5			48.7			15.2			67.7	
Approach LOS		C			D			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	26.6	16.0	13.9	14.5	29.1	6.5	23.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	38.0	12.0	36.0	7.0	44.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	15.0	15.0	14.0	4.4	3.5	18.7	2.9	5.2
Green Ext Time (p_c), s	0.0	6.0	0.0	1.5	1.1	6.5	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑ ↑↱		↰	↑↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	110	1270	20	350	980	30	20	190	520	130	250	100
Future Volume (veh/h)	110	1270	20	350	980	30	20	190	520	130	250	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	1323	21	365	1021	31	21	198	542	135	260	104
Adj No. of Lanes	1	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	254	1466	23	433	1894	843	216	330	585	202	356	300
Arrive On Green	0.07	0.40	0.40	0.19	0.52	0.52	0.06	0.17	0.17	0.07	0.19	0.19
Sat Flow, veh/h	1810	3637	58	1810	3610	1607	1810	1900	1601	1810	1900	1602
Grp Volume(v), veh/h	115	656	688	365	1021	31	21	198	542	135	260	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1889	1810	1805	1607	1810	1900	1601	1810	1900	1602
Q Serve(g_s), s	4.1	33.6	33.6	14.0	18.5	0.9	0.0	9.5	9.1	6.6	12.7	4.5
Cycle Q Clear(g_c), s	4.1	33.6	33.6	14.0	18.5	0.9	0.0	9.5	9.1	6.6	12.7	4.5
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	728	762	433	1894	843	216	330	585	202	356	300
V/C Ratio(X)	0.45	0.90	0.90	0.84	0.54	0.04	0.10	0.60	0.93	0.67	0.73	0.35
Avail Cap(c_a), veh/h	315	769	805	457	1905	848	241	675	875	202	675	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	27.6	27.6	36.2	15.5	11.3	41.1	37.5	16.7	37.4	37.7	23.2
Incr Delay (d2), s/veh	1.3	13.4	13.0	12.9	0.3	0.0	0.2	1.7	11.7	8.3	2.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	19.3	20.3	11.0	9.3	0.4	0.5	5.1	13.9	3.7	6.9	2.3
LnGrp Delay(d),s/veh	24.0	41.0	40.6	49.1	15.8	11.4	41.3	39.3	28.3	45.7	40.6	23.9
LnGrp LOS	C	D	D	D	B	B	D	D	C	D	D	C
Approach Vol, veh/h		1459			1417			761			499	
Approach Delay, s/veh		39.5			24.3			31.5			38.5	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.1	22.7	43.7	9.7	22.5	10.7	55.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	35.0	20.0	42.0	7.0	35.0	10.0	52.0
Max Q Clear Time (g_c+I1), s	8.6	11.5	16.0	35.6	2.0	14.7	6.1	20.5
Green Ext Time (p_c), s	0.0	3.1	2.7	4.1	1.5	1.6	0.1	9.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	110	180	80	50	100	60	100	260	70	90	290	110
Future Volume (veh/h)	110	180	80	50	100	60	100	260	70	90	290	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	191	85	53	106	64	106	277	74	96	309	117
Adj No. of Lanes	0	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	238	320	124	533	389	235	210	562	474	200	551	465
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.12	0.30	0.30	0.11	0.29	0.29
Sat Flow, veh/h	370	910	353	1118	1108	669	1810	1900	1601	1810	1900	1601
Grp Volume(v), veh/h	393	0	0	53	0	170	106	277	74	96	309	117
Grp Sat Flow(s),veh/h/ln	1633	0	0	1118	0	1776	1810	1900	1601	1810	1900	1601
Q Serve(g_s), s	5.4	0.0	0.0	0.0	0.0	3.0	2.4	5.2	1.5	2.2	6.0	2.4
Cycle Q Clear(g_c), s	8.6	0.0	0.0	1.6	0.0	3.0	2.4	5.2	1.5	2.2	6.0	2.4
Prop In Lane	0.30		0.22	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	682	0	0	533	0	625	210	562	474	200	551	465
V/C Ratio(X)	0.58	0.00	0.00	0.10	0.00	0.27	0.50	0.49	0.16	0.48	0.56	0.25
Avail Cap(c_a), veh/h	1855	0	0	1363	0	1943	646	1641	1383	604	1597	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	0.0	9.6	0.0	10.1	18.0	12.6	11.3	18.1	13.1	11.8
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.1	0.0	0.2	1.9	0.7	0.2	1.8	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.0	0.4	0.0	1.5	1.3	2.8	0.7	1.2	3.2	1.1
LnGrp Delay(d),s/veh	12.6	0.0	0.0	9.7	0.0	10.3	19.9	13.3	11.4	19.9	14.0	12.1
LnGrp LOS	B			A		B	B	B	B	B	B	B
Approach Vol, veh/h		393			223			457			522	
Approach Delay, s/veh		12.6			10.2			14.5			14.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	16.3		18.8	8.6	16.1		18.8
Change Period (Y+Rc), s	3.5	3.5		3.5	3.5	3.5		3.5
Max Green Setting (Gmax), s	14.5	37.5		47.5	15.5	36.5		47.5
Max Q Clear Time (g_c+I1), s	4.2	7.2		10.6	4.4	8.0		5.0
Green Ext Time (p_c), s	0.1	4.0		4.1	0.2	4.0		4.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
122: Ramona Expy & Bridge St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	30	980	740	30	70	70
Future Volume (veh/h)	30	980	740	30	70	70
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1077	813	33	77	77
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	422	1139	1087	44	241	216
Arrive On Green	0.60	0.60	0.60	0.60	0.13	0.13
Sat Flow, veh/h	661	1900	1813	74	1810	1615
Grp Volume(v), veh/h	33	1077	0	846	77	77
Grp Sat Flow(s),veh/h/ln	661	1900	0	1887	1810	1615
Q Serve(g_s), s	1.1	15.7	0.0	9.8	1.2	1.3
Cycle Q Clear(g_c), s	10.9	15.7	0.0	9.8	1.2	1.3
Prop In Lane	1.00			0.04	1.00	1.00
Lane Grp Cap(c), veh/h	422	1139	0	1132	241	216
V/C Ratio(X)	0.08	0.95	0.00	0.75	0.32	0.36
Avail Cap(c_a), veh/h	422	1141	0	1133	1087	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.3	5.5	0.0	4.4	11.8	11.8
Incr Delay (d2), s/veh	0.1	15.3	0.0	2.8	0.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	12.6	0.0	5.6	0.6	0.6
LnGrp Delay(d),s/veh	8.4	20.9	0.0	7.1	12.5	12.8
LnGrp LOS	A	C		A	B	B
Approach Vol, veh/h		1110	846		154	
Approach Delay, s/veh		20.5	7.1		12.7	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				22.0		8.0		22.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				17.7		3.3		11.8
Green Ext Time (p_c), s				0.3		0.3		5.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
123: Gilman Springs Rd & Bridge St

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↓↳	
Traffic Volume (veh/h)	60	10	40	530	1050	100
Future Volume (veh/h)	60	10	40	530	1050	100
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	11	42	558	1105	105
Adj No. of Lanes	0	0	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	95	17	262	1232	1108	105
Arrive On Green	0.06	0.06	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1495	261	469	1900	1709	162
Grp Volume(v), veh/h	75	0	42	558	0	1210
Grp Sat Flow(s),veh/h/ln	1779	0	469	1900	0	1871
Q Serve(g_s), s	1.1	0.0	0.1	4.1	0.0	17.9
Cycle Q Clear(g_c), s	1.1	0.0	18.0	4.1	0.0	17.9
Prop In Lane	0.84	0.15	1.00			0.09
Lane Grp Cap(c), veh/h	113	0	262	1232	0	1214
V/C Ratio(X)	0.67	0.00	0.16	0.45	0.00	1.00
Avail Cap(c_a), veh/h	1154	0	262	1232	0	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	13.9	2.4	0.0	4.9
Incr Delay (d2), s/veh	6.6	0.0	0.3	0.3	0.0	25.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.3	2.1	0.0	16.9
LnGrp Delay(d),s/veh	19.3	0.0	14.2	2.7	0.0	29.9
LnGrp LOS	B		B	A		C
Approach Vol, veh/h	75			600	1210	
Approach Delay, s/veh	19.3			3.5	29.9	
Approach LOS	B			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.0		5.8		22.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		20.0		3.1		19.9		
Green Ext Time (p_c), s		0.0		0.1		0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
124: SR-79 NB Ramps & Gilman Springs Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Volume (veh/h)	10	690	0	0	300	240	240	0	20	0	0	0
Future Volume (veh/h)	10	690	0	0	300	240	240	0	20	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	11	767	0	0	333	267	267	0	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	590	1078	0	0	1078	916	392	0	350			
Arrive On Green	0.57	0.57	0.00	0.00	0.57	0.57	0.22	0.00	0.00			
Sat Flow, veh/h	832	1900	0	0	1900	1615	1810	0	1615			
Grp Volume(v), veh/h	11	767	0	0	333	267	267	0	0			
Grp Sat Flow(s),veh/h/ln	832	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	0.3	10.8	0.0	0.0	3.4	3.2	5.0	0.0	0.0			
Cycle Q Clear(g_c), s	3.7	10.8	0.0	0.0	3.4	3.2	5.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	590	1078	0	0	1078	916	392	0	350			
V/C Ratio(X)	0.02	0.71	0.00	0.00	0.31	0.29	0.68	0.00	0.00			
Avail Cap(c_a), veh/h	882	1745	0	0	1745	1484	880	0	785			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	5.2	5.8	0.0	0.0	4.2	4.2	13.3	0.0	0.0			
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.2	0.2	2.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.1	5.8	0.0	0.0	1.8	1.5	2.7	0.0	0.0			
LnGrp Delay(d),s/veh	5.2	6.7	0.0	0.0	4.4	4.3	15.4	0.0	0.0			
LnGrp LOS	A	A			A	A	B					
Approach Vol, veh/h		778			600			267				
Approach Delay, s/veh		6.7			4.3			15.4				
Approach LOS		A			A			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		12.0		25.0				25.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		18.0		34.0				34.0
Max Q Clear Time (g_c+I1), s		7.0		12.8				5.4
Green Ext Time (p_c), s		1.0		8.2				9.1

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
125: SR-79 SB Ramps & Gilman Springs Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Volume (veh/h)	0	470	580	10	520	0	0	0	0	250	10	40
Future Volume (veh/h)	0	470	580	10	520	0	0	0	0	250	10	40
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	505	624	11	559	0				269	11	0
Adj No. of Lanes	0	1	1	1	1	0				0	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	961	817	393	961	0				420	17	389
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.24	0.24	0.00
Sat Flow, veh/h	0	1900	1615	507	1900	0				1742	71	1615
Grp Volume(v), veh/h	0	505	624	11	559	0				280	0	0
Grp Sat Flow(s),veh/h/ln	0	1900	1615	507	1900	0				1813	0	1615
Q Serve(g_s), s	0.0	5.7	9.8	0.5	6.5	0.0				4.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.7	9.8	6.1	6.5	0.0				4.4	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.96		1.00
Lane Grp Cap(c), veh/h	0	961	817	393	961	0				437	0	389
V/C Ratio(X)	0.00	0.53	0.76	0.03	0.58	0.00				0.64	0.00	0.00
Avail Cap(c_a), veh/h	0	1082	920	426	1082	0				1033	0	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.3	6.3	7.3	5.5	0.0				10.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	3.4	0.0	0.6	0.0				1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	4.9	0.1	3.4	0.0				2.4	0.0	0.0
LnGrp Delay(d),s/veh	0.0	5.7	9.7	7.3	6.1	0.0				12.3	0.0	0.0
LnGrp LOS		A	A	A	A					B		
Approach Vol, veh/h		1129			570						280	
Approach Delay, s/veh		7.9			6.1						12.3	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				20.0		11.6		20.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				11.8		6.4		8.5
Green Ext Time (p_c), s				4.2		1.2		5.8

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
132: San Timoteo Canyon Rd & Alessandro Rd

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	490	330	280	190	20
Future Volume (veh/h)	30	490	330	280	190	20
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	32	521	351	298	202	0
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	127	942	498	423	299	0
Arrive On Green	0.55	0.55	0.55	0.55	0.18	0.00
Sat Flow, veh/h	43	1702	901	765	1706	0
Grp Volume(v), veh/h	553	0	0	649	203	0
Grp Sat Flow(s),veh/h/ln	1745	0	0	1665	1715	0
Q Serve(g_s), s	0.0	0.0	0.0	10.5	4.1	0.0
Cycle Q Clear(g_c), s	7.3	0.0	0.0	10.5	4.1	0.0
Prop In Lane	0.06			0.46	1.00	0.00
Lane Grp Cap(c), veh/h	1069	0	0	921	301	0
V/C Ratio(X)	0.52	0.00	0.00	0.70	0.67	0.00
Avail Cap(c_a), veh/h	1642	0	0	1491	791	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	5.3	0.0	0.0	6.0	14.2	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.0	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.0	4.9	2.1	0.0
LnGrp Delay(d),s/veh	5.7	0.0	0.0	7.0	16.9	0.0
LnGrp LOS	A			A	B	
Approach Vol, veh/h		553	649		203	
Approach Delay, s/veh		5.7	7.0		16.9	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				25.4		11.5		25.4
Change Period (Y+Rc), s				5.0		5.0		5.0
Max Green Setting (Gmax), s				33.0		17.0		33.0
Max Q Clear Time (g_c+I1), s				9.3		6.1		12.5
Green Ext Time (p_c), s				8.4		0.4		7.9

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
133: Live Oak Canyon & San Timoteo Canyon Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (veh/h)	10	630	10	10	510	270	10	10	10	270	10	20
Future Volume (veh/h)	10	630	10	10	510	270	10	10	10	270	10	20
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	10	643	10	10	520	276	10	10	10	276	10	20
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	976	15	73	617	323	193	182	141	458	12	24
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	8	1749	27	6	1105	579	404	727	565	1305	47	95
Grp Volume(v), veh/h	663	0	0	806	0	0	30	0	0	306	0	0
Grp Sat Flow(s),veh/h/ln	1783	0	0	1690	0	0	1696	0	0	1447	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	9.7	0.0	0.0
Cycle Q Clear(g_c), s	13.5	0.0	0.0	20.8	0.0	0.0	0.7	0.0	0.0	10.5	0.0	0.0
Prop In Lane	0.02		0.02	0.01		0.34	0.33		0.33	0.90		0.07
Lane Grp Cap(c), veh/h	1065	0	0	1013	0	0	516	0	0	493	0	0
V/C Ratio(X)	0.62	0.00	0.00	0.80	0.00	0.00	0.06	0.00	0.00	0.62	0.00	0.00
Avail Cap(c_a), veh/h	1196	0	0	1138	0	0	635	0	0	602	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.1	0.0	0.0	9.7	0.0	0.0	14.9	0.0	0.0	18.5	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	0.0	10.6	0.0	0.0	0.3	0.0	0.0	4.4	0.0	0.0
LnGrp Delay(d),s/veh	8.9	0.0	0.0	13.3	0.0	0.0	15.0	0.0	0.0	19.9	0.0	0.0
LnGrp LOS	A			B			B			B		
Approach Vol, veh/h		663			806			30			306	
Approach Delay, s/veh		8.9			13.3			15.0			19.9	
Approach LOS		A			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.1		18.0		34.1		18.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		33.0		17.0		33.0		17.0
Max Q Clear Time (g_c+I1), s		22.8		2.7		15.5		12.5
Green Ext Time (p_c), s		6.3		1.4		9.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
134: Redlands Blvd & San Timoteo Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (veh/h)	60	840	40	30	700	100
Future Volume (veh/h)	60	840	40	30	700	100
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	61	857	41	31	714	102
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	578	1211	260	164	806	719
Arrive On Green	0.32	0.32	0.32	0.32	0.47	0.47
Sat Flow, veh/h	1800	1530	443	511	1714	1530
Grp Volume(v), veh/h	61	857	72	0	714	102
Grp Sat Flow(s),veh/h/ln	1800	1530	954	0	1714	1530
Q Serve(g_s), s	1.1	12.7	0.0	0.0	18.1	1.8
Cycle Q Clear(g_c), s	1.1	12.7	1.4	0.0	18.1	1.8
Prop In Lane		1.00	0.57		1.00	1.00
Lane Grp Cap(c), veh/h	578	1211	424	0	806	719
V/C Ratio(X)	0.11	0.71	0.17	0.00	0.89	0.14
Avail Cap(c_a), veh/h	601	1230	435	0	1216	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	2.4	11.5	0.0	11.5	7.2
Incr Delay (d2), s/veh	0.1	1.9	0.2	0.0	5.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.8	0.7	0.0	9.6	0.8
LnGrp Delay(d),s/veh	11.5	4.2	11.7	0.0	17.0	7.3
LnGrp LOS	B	A	B		B	A
Approach Vol, veh/h	918			72	816	
Approach Delay, s/veh	4.7			11.7	15.8	
Approach LOS	A			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		27.5		20.4				20.4
Change Period (Y+Rc), s		5.0		5.0				5.0
Max Green Setting (Gmax), s		34.0		16.0				16.0
Max Q Clear Time (g_c+I1), s		20.1		14.7				3.4
Green Ext Time (p_c), s		2.4		0.7				3.8

Intersection Summary			
HCM 2010 Ctrl Delay			10.0
HCM 2010 LOS			B

Traffic Impact Analysis Report
for the World Logistics Center

Appendix E

Intersection LOS Worksheets
for 2025 No-Project Conditions

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱		↰↑
Traffic Vol, veh/h	140	10	50	100	10	30
Future Vol, veh/h	140	10	50	100	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	167	12	60	119	12	36

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	120	60	0	0	60	0
Stage 1	60	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	880	1011	-	-	1556	-
Stage 1	968	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	873	1011	-	-	1556	-
Mov Cap-2 Maneuver	873	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	960	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	873	1011	1556	-
HCM Lane V/C Ratio	-	-	0.191	0.012	0.008	-
HCM Control Delay (s)	-	-	10.1	8.6	7.3	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	0	-

	↗	↘	↖	↑	↓	↙
Movement	**EBL**	**EBR**	**NBL**	**NBT**	**SBT**	**SBR**
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	0	100	140	910	460	0
Future Volume (veh/h)	0	100	140	910	460	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	106	149	968	489	0
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	230	205	351	3378	1797	559
Arrive On Green	0.00	0.13	0.19	0.65	0.35	0.00
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	0	106	149	968	489	0
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	0.0	2.2	2.6	2.9	2.5	0.0
Cycle Q Clear(g_c), s	0.0	2.2	2.6	2.9	2.5	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	230	205	351	3378	1797	559
V/C Ratio(X)	0.00	0.52	0.42	0.29	0.27	0.00
Avail Cap(c_a), veh/h	903	806	953	6326	3019	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	14.7	12.8	2.7	8.5	0.0
Incr Delay (d2), s/veh	0.0	2.0	0.8	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	1.4	1.4	1.1	0.0
LnGrp Delay(d),s/veh	0.0	16.7	13.6	2.7	8.6	0.0
LnGrp LOS		B	B	A	A	
Approach Vol, veh/h	106			1117	489	
Approach Delay, s/veh	16.7			4.2	8.6	
Approach LOS	B			A	A	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		27.5		8.6	11.0	16.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		44.0		18.0	19.0	21.0		
Max Q Clear Time (g_c+I1), s		4.9		4.2	4.6	4.5		
Green Ext Time (p_c), s		11.3		0.2	0.3	8.0		

Intersection Summary	
HCM 2010 Ctrl Delay	6.2
HCM 2010 LOS	A

HCM 2010 TWSC
10: Redlands Blvd & Locust Ave

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	20	5	20	10	5	10	20	910	10	5	1000	60
Future Vol, veh/h	20	5	20	10	5	10	20	910	10	5	1000	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	0	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	5	22	11	5	11	22	989	11	5	1087	65

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2139	2131	1087	2144	2131	989	1087	0	0	989	0	0
Stage 1	1098	1098	-	1033	1033	-	-	-	-	-	-	-
Stage 2	1041	1033	-	1111	1098	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	36	50	265	36	50	302	649	-	-	707	-	-
Stage 1	260	291	-	283	312	-	-	-	-	-	-	-
Stage 2	280	312	-	256	291	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	31	48	265	29	48	302	649	-	-	707	-	-
Mov Cap-2 Maneuver	31	48	-	29	48	-	-	-	-	-	-	-
Stage 1	251	289	-	273	301	-	-	-	-	-	-	-
Stage 2	256	301	-	229	289	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	209.3	133.6	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	649	-	-	55	52	707	-	-
HCM Lane V/C Ratio	0.033	-	-	0.889	0.523	0.008	-	-
HCM Control Delay (s)	10.7	-	-	209.3	133.6	10.1	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.9	2	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	10	50	10	20	10	50	820	10	10	930	120
Future Volume (veh/h)	110	10	50	10	20	10	50	820	10	10	930	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	10	51	10	20	10	51	837	10	10	949	122
Adj No. of Lanes	0	2	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	581	87	443	30	61	30	111	1385	17	32	1079	139
Arrive On Green	0.32	0.32	0.32	0.07	0.07	0.07	0.06	0.38	0.38	0.02	0.34	0.34
Sat Flow, veh/h	1810	270	1379	448	895	448	1810	3653	44	1810	3216	413
Grp Volume(v), veh/h	112	0	61	40	0	0	51	414	433	10	532	539
Grp Sat Flow(s),veh/h/ln	1810	0	1649	1790	0	0	1810	1805	1892	1810	1805	1825
Q Serve(g_s), s	3.3	0.0	1.9	1.6	0.0	0.0	2.0	13.8	13.8	0.4	20.8	20.8
Cycle Q Clear(g_c), s	3.3	0.0	1.9	1.6	0.0	0.0	2.0	13.8	13.8	0.4	20.8	20.8
Prop In Lane	1.00		0.84	0.25		0.25	1.00		0.02	1.00		0.23
Lane Grp Cap(c), veh/h	581	0	530	122	0	0	111	684	717	32	605	612
V/C Ratio(X)	0.19	0.00	0.12	0.33	0.00	0.00	0.46	0.60	0.60	0.31	0.88	0.88
Avail Cap(c_a), veh/h	581	0	530	623	0	0	170	684	717	170	652	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	17.9	33.2	0.0	0.0	33.9	18.7	18.7	36.3	23.4	23.4
Incr Delay (d2), s/veh	0.7	0.0	0.4	1.6	0.0	0.0	3.0	1.5	1.4	5.5	12.5	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.9	0.8	0.0	0.0	1.1	7.1	7.4	0.3	12.5	12.6
LnGrp Delay(d),s/veh	19.1	0.0	18.3	34.7	0.0	0.0	36.8	20.2	20.1	41.8	35.9	35.9
LnGrp LOS	B		B	C			D	C	C	D	D	D
Approach Vol, veh/h		173			40			898			1081	
Approach Delay, s/veh		18.8			34.7			21.1			36.0	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	32.3		28.0	8.6	29.1		9.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	27.0		24.0	7.0	27.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	15.8		5.3	4.0	22.8		3.6
Green Ext Time (p_c), s	0.0	7.4		0.7	0.0	2.3		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	10	70	10	20	60
Future Vol, veh/h	10	10	70	10	20	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	12	82	12	24	71

Major/Minor	Major1		Minor2		Major2	
Conflicting Flow All	0	0	12	59	12	-
Stage 1	-	-	0	47	-	-
Stage 2	-	-	12	12	-	-
Critical Hdwy	-	-	6.4	6.5	4.1	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	5.4	5.5	-	-
Follow-up Hdwy	-	-	3.5	4	2.2	-
Pot Cap-1 Maneuver	-	-	1013	836	1620	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	1016	890	-	-
Platoon blocked, %	-	-				-
Mov Cap-1 Maneuver	-	-	998	0	1620	-
Mov Cap-2 Maneuver	-	-	998	0	-	-
Stage 1	-	-	-	0	-	-
Stage 2	-	-	1016	0	-	-

Approach	EB		WB		NB	
HCM Control Delay, s	0		9		1.8	
HCM LOS			A			

Minor Lane/Major Mvmt	NBL	NBR	EBT	EBR	WBLn1
Capacity (veh/h)	1620	-	-	-	998
HCM Lane V/C Ratio	0.015	-	-	-	0.094
HCM Control Delay (s)	7.3	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣		↰	↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	10	10	90	0	140	20	730	150	570	400	10
Future Volume (veh/h)	10	10	10	90	0	140	20	730	150	570	400	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	92	0	143	20	745	153	582	408	10
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	26	26	222	0	198	58	886	595	654	2075	928
Arrive On Green	0.04	0.04	0.04	0.12	0.00	0.12	0.03	0.25	0.25	0.36	0.57	0.57
Sat Flow, veh/h	589	589	589	1810	0	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	30	0	0	92	0	143	20	745	153	582	408	10
Grp Sat Flow(s),veh/h/ln	1767	0	0	1810	0	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	1.2	0.0	0.0	3.3	0.0	6.0	0.8	13.9	4.7	21.4	3.8	0.2
Cycle Q Clear(g_c), s	1.2	0.0	0.0	3.3	0.0	6.0	0.8	13.9	4.7	21.4	3.8	0.2
Prop In Lane	0.33		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	0	0	222	0	198	58	886	595	654	2075	928
V/C Ratio(X)	0.39	0.00	0.00	0.41	0.00	0.72	0.34	0.84	0.26	0.89	0.20	0.01
Avail Cap(c_a), veh/h	449	0	0	460	0	411	179	970	632	742	2092	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	0.0	0.0	28.7	0.0	29.9	33.5	25.4	15.6	21.2	7.2	6.4
Incr Delay (d2), s/veh	3.1	0.0	0.0	1.2	0.0	4.9	3.5	6.3	0.2	11.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.7	0.0	3.0	0.4	7.7	2.5	12.8	1.9	0.1
LnGrp Delay(d),s/veh	36.0	0.0	0.0	29.9	0.0	34.7	37.0	31.7	15.8	33.1	7.3	6.4
LnGrp LOS	D			C		C	D	C	B	C	A	A
Approach Vol, veh/h		30			235			918			1000	
Approach Delay, s/veh		36.0			32.9			29.2			22.3	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	29.6	21.4		7.1	6.3	44.7		12.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	29.0	19.0		18.0	7.0	41.0		18.0
Max Q Clear Time (g_c+I1), s	23.4	15.9		3.2	2.8	5.8		8.0
Green Ext Time (p_c), s	2.2	1.5		0.1	0.0	4.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	360	270	90	500	500	40
Future Volume (veh/h)	360	270	90	500	500	40
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	278	93	515	515	41
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	512	457	211	2587	1415	898
Arrive On Green	0.28	0.28	0.12	0.50	0.27	0.27
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	371	278	93	515	515	41
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	6.8	5.5	1.8	2.0	2.9	0.4
Cycle Q Clear(g_c), s	6.8	5.5	1.8	2.0	2.9	0.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	512	457	211	2587	1415	898
V/C Ratio(X)	0.72	0.61	0.44	0.20	0.36	0.05
Avail Cap(c_a), veh/h	888	793	346	4103	2547	1250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.4	15.1	5.1	10.8	3.7
Incr Delay (d2), s/veh	2.0	1.3	1.4	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.0	1.0	1.0	1.4	0.3
LnGrp Delay(d),s/veh	13.8	12.7	16.5	5.2	10.9	3.7
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	649			608	556	
Approach Delay, s/veh	13.3			6.9	10.4	
Approach LOS	B			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		22.3		14.4	8.3	14.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		18.0	7.0	18.0		
Max Q Clear Time (g_c+I1), s		4.0		8.8	3.8	4.9		
Green Ext Time (p_c), s		6.6		1.6	0.0	5.1		

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱		↰	↑
Traffic Vol, veh/h	70	30	70	50	50	20
Future Vol, veh/h	70	30	70	50	50	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	79	34	79	56	56	22

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	242	107	0	0	135	0
Stage 1	107	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	751	953	-	-	1462	-
Stage 1	922	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	722	953	-	-	1462	-
Mov Cap-2 Maneuver	722	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	862	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s	10.4		0		5.4	
HCM LOS	B					

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	779	1462	-
HCM Lane V/C Ratio	-	-	0.144	0.038	-
HCM Control Delay (s)	-	-	10.4	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	70	120	20	70	30	50
Future Vol, veh/h	70	120	20	70	30	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	260	270	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	93	160	27	93	40	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	220	73	107	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	773	995	1497	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	759	995	1497	-	-	-
Mov Cap-2 Maneuver	759	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	869	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1497	-	759	995	-	-
HCM Lane V/C Ratio	0.018	-	0.123	0.161	-	-
HCM Control Delay (s)	7.4	-	10.4	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	0.6	-	-

HCM 2010 Signalized Intersection Summary
18: Redlands Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	10	20	10	0	20	50	560	60	170	420	140
Future Volume (veh/h)	60	10	20	10	0	20	50	560	60	170	420	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	11	22	11	0	22	54	609	65	185	457	152
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	185	370	35	0	439	120	944	101	229	925	305
Arrive On Green	0.07	0.33	0.33	0.02	0.00	0.27	0.07	0.29	0.29	0.13	0.35	0.35
Sat Flow, veh/h	1810	567	1133	1810	0	1615	1810	3292	351	1810	2669	881
Grp Volume(v), veh/h	65	0	33	11	0	22	54	333	341	185	308	301
Grp Sat Flow(s),veh/h/ln	1810	0	1700	1810	0	1615	1810	1805	1838	1810	1805	1745
Q Serve(g_s), s	2.3	0.0	0.9	0.4	0.0	0.7	1.9	10.7	10.7	6.6	8.9	9.0
Cycle Q Clear(g_c), s	2.3	0.0	0.9	0.4	0.0	0.7	1.9	10.7	10.7	6.6	8.9	9.0
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.19	1.00		0.50
Lane Grp Cap(c), veh/h	133	0	554	35	0	439	120	518	527	229	626	605
V/C Ratio(X)	0.49	0.00	0.06	0.31	0.00	0.05	0.45	0.64	0.65	0.81	0.49	0.50
Avail Cap(c_a), veh/h	191	0	554	191	0	439	191	518	527	273	626	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	15.3	32.1	0.0	17.8	29.8	20.7	20.7	28.2	17.1	17.1
Incr Delay (d2), s/veh	2.7	0.0	0.2	5.0	0.0	0.2	2.6	6.1	6.0	14.2	2.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.4	0.2	0.0	0.3	1.0	6.2	6.3	4.2	4.9	4.8
LnGrp Delay(d),s/veh	32.2	0.0	15.6	37.0	0.0	18.0	32.4	26.7	26.7	42.3	19.8	20.0
LnGrp LOS	C		B	D		B	C	C	C	D	B	C
Approach Vol, veh/h		98			33			728			794	
Approach Delay, s/veh		26.6			24.4			27.1			25.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	23.0	5.3	25.6	8.4	27.0	8.9	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	19.0	7.0	18.0	7.0	22.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	8.6	12.7	2.4	2.9	3.9	11.0	4.3	2.7
Green Ext Time (p_c), s	0.1	3.4	0.0	0.2	0.0	5.0	0.0	0.2

Intersection Summary			
HCM 2010 Ctrl Delay			26.1
HCM 2010 LOS			C

HCM 2010 TWSC
19: Theodore St & Fir Ave

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Vol, veh/h	40	40	50	30	20	130
Future Vol, veh/h	40	40	50	30	20	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	280	0	120	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	59	59	74	44	29	191

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	220	29	29	0	-	0
Stage 1	29	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	773	1052	1597	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	737	1052	1597	-	-	-
Mov Cap-2 Maneuver	737	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	4.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1597	-	737	1052	-	-
HCM Lane V/C Ratio	0.046	-	0.08	0.056	-	-
HCM Control Delay (s)	7.4	-	10.3	8.6	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.2	-	-

HCM 2010 TWSC
20: Oliver St/Pearl Ln & Alessandro Blvd

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑	↱		↰↑↱	
Traffic Vol, veh/h	0	200	70	20	480	0	180	10	40	0	0	10
Future Vol, veh/h	0	200	70	20	480	0	180	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	250	88	25	600	0	225	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	600	0	0	338	0	0	644	944	169	781	988	300
Stage 1	-	-	-	-	-	-	294	294	-	650	650	-
Stage 2	-	-	-	-	-	-	350	650	-	131	338	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	987	-	-	1232	-	-	362	264	852	288	249	702
Stage 1	-	-	-	-	-	-	695	673	-	429	468	-
Stage 2	-	-	-	-	-	-	645	468	-	865	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	987	-	-	1232	-	-	347	256	852	255	242	702
Mov Cap-2 Maneuver	-	-	-	-	-	-	347	256	-	255	242	-
Stage 1	-	-	-	-	-	-	695	673	-	429	454	-
Stage 2	-	-	-	-	-	-	615	454	-	799	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	31.9	10.2
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	341	852	987	-	-	1232	-	-	702
HCM Lane V/C Ratio	0.696	0.059	-	-	-	0.02	-	-	0.018
HCM Control Delay (s)	36.6	9.5	0	-	-	8	0.1	-	10.2
HCM Lane LOS	E	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	5	0.2	0	-	-	0.1	-	-	0.1

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	100	60	50	240	10	120	560	40	10	380	110
Future Volume (veh/h)	60	100	60	50	240	10	120	560	40	10	380	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	127	76	63	304	13	152	709	51	13	481	139
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	392	220	177	636	27	252	1768	126	42	972	272
Arrive On Green	0.09	0.18	0.18	0.10	0.18	0.18	0.14	0.36	0.36	0.02	0.24	0.24
Sat Flow, veh/h	1810	2221	1244	1810	3527	150	1810	4940	353	1810	4024	1127
Grp Volume(v), veh/h	76	102	101	63	155	162	152	495	265	13	411	209
Grp Sat Flow(s),veh/h/ln	1810	1805	1660	1810	1805	1872	1810	1729	1836	1810	1729	1693
Q Serve(g_s), s	1.8	2.3	2.5	1.5	3.6	3.6	3.7	5.0	5.0	0.3	4.8	5.0
Cycle Q Clear(g_c), s	1.8	2.3	2.5	1.5	3.6	3.6	3.7	5.0	5.0	0.3	4.8	5.0
Prop In Lane	1.00		0.75	1.00		0.08	1.00		0.19	1.00		0.67
Lane Grp Cap(c), veh/h	170	319	293	177	325	337	252	1237	657	42	836	409
V/C Ratio(X)	0.45	0.32	0.35	0.36	0.48	0.48	0.60	0.40	0.40	0.31	0.49	0.51
Avail Cap(c_a), veh/h	273	1010	929	273	1010	1048	390	2159	1146	273	1936	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	16.7	16.8	19.6	17.1	17.1	18.8	11.2	11.2	22.3	15.2	15.2
Incr Delay (d2), s/veh	1.8	0.6	0.7	1.2	1.1	1.1	2.3	0.2	0.4	4.1	0.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.2	1.2	0.8	1.9	1.9	2.0	2.4	2.6	0.2	2.3	2.4
LnGrp Delay(d),s/veh	21.7	17.2	17.5	20.8	18.2	18.1	21.1	11.4	11.6	26.4	15.6	16.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		279			380			912			633	
Approach Delay, s/veh		18.5			18.6			13.1			16.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	20.6	8.5	12.2	10.5	15.2	8.4	12.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	26.0	10.0	26.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.3	7.0	3.5	4.5	5.7	7.0	3.8	5.6
Green Ext Time (p_c), s	0.0	4.6	0.1	0.9	1.9	3.3	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	46.2
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			✣			↰	↱		↰↱	
Traffic Vol, veh/h	60	70	30	60	130	10	30	480	70	20	380	110
Future Vol, veh/h	60	70	30	60	130	10	30	480	70	20	380	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	65	76	33	65	141	11	33	522	76	22	413	120
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	13.8	19.5	88.1	19.1
HCM LOS	B	C	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	6%	0%	100%	0%	30%	10%	0%
Vol Thru, %	94%	0%	0%	70%	65%	90%	63%
Vol Right, %	0%	100%	0%	30%	5%	0%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	510	70	60	100	200	210	300
LT Vol	30	0	60	0	60	20	0
Through Vol	480	0	0	70	130	190	190
RT Vol	0	70	0	30	10	0	110
Lane Flow Rate	554	76	65	109	217	228	326
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1.108	0.136	0.159	0.243	0.49	0.454	0.621
Departure Headway (Hd)	7.193	6.444	9.218	8.48	8.541	7.503	7.189
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	510	560	391	426	424	484	505
Service Time	4.893	4.144	6.918	6.18	6.541	5.203	4.889
HCM Lane V/C Ratio	1.086	0.136	0.166	0.256	0.512	0.471	0.646
HCM Control Delay	98.8	10.2	13.7	13.9	19.5	16.3	21
HCM Lane LOS	F	B	B	B	C	C	C
HCM 95th-tile Q	18.2	0.5	0.6	0.9	2.6	2.3	4.2

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰	↱		✥	
Traffic Volume (veh/h)	20	230	180	20	300	30	280	130	40	10	70	20
Future Volume (veh/h)	20	230	180	20	300	30	280	130	40	10	70	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	299	234	26	390	39	364	169	52	13	91	26
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	454	345	121	492	415	423	197	543	22	153	44
Arrive On Green	0.04	0.23	0.23	0.07	0.26	0.26	0.34	0.34	0.34	0.12	0.12	0.12
Sat Flow, veh/h	1810	1949	1483	1810	1900	1599	1255	583	1608	182	1275	364
Grp Volume(v), veh/h	26	276	257	26	390	39	533	0	52	130	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1627	1810	1900	1599	1837	0	1608	1821	0	0
Q Serve(g_s), s	0.9	9.1	9.4	0.9	12.6	1.2	17.8	0.0	1.5	4.4	0.0	0.0
Cycle Q Clear(g_c), s	0.9	9.1	9.4	0.9	12.6	1.2	17.8	0.0	1.5	4.4	0.0	0.0
Prop In Lane	1.00		0.91	1.00		1.00	0.68		1.00	0.10		0.20
Lane Grp Cap(c), veh/h	73	420	379	121	492	415	620	0	543	218	0	0
V/C Ratio(X)	0.36	0.66	0.68	0.22	0.79	0.09	0.86	0.00	0.10	0.60	0.00	0.00
Avail Cap(c_a), veh/h	193	769	693	193	809	681	783	0	685	720	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.7	22.8	23.0	29.0	22.7	18.5	20.3	0.0	14.9	27.4	0.0	0.0
Incr Delay (d2), s/veh	2.9	1.8	2.1	0.9	2.9	0.1	7.9	0.0	0.1	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.7	4.4	0.5	7.0	0.5	10.4	0.0	0.7	2.4	0.0	0.0
LnGrp Delay(d),s/veh	33.7	24.6	25.1	29.9	25.6	18.6	28.2	0.0	15.0	30.0	0.0	0.0
LnGrp LOS	C	C	C	C	C	B	C		B	C		
Approach Vol, veh/h		559			455			585			130	
Approach Delay, s/veh		25.3			25.3			27.0			30.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.2	8.4	19.3		11.9	6.6	21.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		19.8	2.9	11.4		6.4	2.9	14.6
Green Ext Time (p_c), s		2.1	0.0	2.6		0.5	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	120	100	90	30	150	50	120	560	60	20	350	80
Future Volume (veh/h)	120	100	90	30	150	50	120	560	60	20	350	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	148	123	111	37	185	62	148	691	74	25	432	99
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	484	401	103	510	166	250	1133	596	75	920	204
Arrive On Green	0.12	0.26	0.26	0.06	0.19	0.19	0.14	0.31	0.31	0.04	0.22	0.22
Sat Flow, veh/h	1810	1872	1549	1810	2676	868	1810	3610	1607	1810	4241	943
Grp Volume(v), veh/h	148	118	116	37	123	124	148	691	74	25	350	181
Grp Sat Flow(s),veh/h/ln	1810	1805	1616	1810	1805	1739	1810	1805	1607	1810	1729	1726
Q Serve(g_s), s	3.8	2.5	2.8	1.0	2.9	3.0	3.7	7.9	1.5	0.7	4.3	4.5
Cycle Q Clear(g_c), s	3.8	2.5	2.8	1.0	2.9	3.0	3.7	7.9	1.5	0.7	4.3	4.5
Prop In Lane	1.00		0.96	1.00		0.50	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	225	467	418	103	344	331	250	1133	596	75	750	374
V/C Ratio(X)	0.66	0.25	0.28	0.36	0.36	0.37	0.59	0.61	0.12	0.33	0.47	0.48
Avail Cap(c_a), veh/h	261	1562	1398	261	1562	1505	261	2083	1019	261	1995	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	14.3	14.4	22.0	17.1	17.1	19.6	14.1	10.1	22.6	16.6	16.6
Incr Delay (d2), s/veh	4.8	0.3	0.4	2.1	0.6	0.7	3.3	0.5	0.1	2.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.3	1.3	0.5	1.5	1.5	2.1	4.0	0.7	0.4	2.1	2.2
LnGrp Delay(d),s/veh	25.0	14.6	14.7	24.2	17.7	17.8	22.9	14.7	10.2	25.2	17.0	17.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		382			284			913			556	
Approach Delay, s/veh		18.7			18.6			15.6			17.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	19.2	6.7	16.6	10.7	14.5	10.0	13.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	2.7	9.9	3.0	4.8	5.7	6.5	5.8	5.0
Green Ext Time (p_c), s	0.0	4.4	0.0	1.6	0.6	2.8	0.2	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		Y	
Traffic Volume (veh/h)	10	160	130	10	0	10
Future Volume (veh/h)	10	160	130	10	0	10
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	160	130	10	0	10
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	325	1287	1284	98	0	57
Arrive On Green	0.38	0.38	0.38	0.38	0.00	0.04
Sat Flow, veh/h	91	3492	3494	259	0	1484
Grp Volume(v), veh/h	93	77	68	72	0	11
Grp Sat Flow(s),veh/h/ln	1854	1643	1805	1853	0	1633
Q Serve(g_s), s	0.0	0.4	0.3	0.3	0.0	0.1
Cycle Q Clear(g_c), s	0.4	0.4	0.3	0.3	0.0	0.1
Prop In Lane	0.11			0.14	0.00	0.91
Lane Grp Cap(c), veh/h	992	621	682	700	0	63
V/C Ratio(X)	0.09	0.12	0.10	0.10	0.00	0.18
Avail Cap(c_a), veh/h	3203	2637	2897	2974	0	2979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.8	2.8	2.8	2.8	0.0	6.4
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.2	0.2	0.0	0.1
LnGrp Delay(d),s/veh	2.8	2.9	2.8	2.8	0.0	7.7
LnGrp LOS	A	A	A	A		A
Approach Vol, veh/h		170	140		11	
Approach Delay, s/veh		2.8	2.8		7.7	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				9.2		4.5		9.2
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				2.4		2.1		2.3
Green Ext Time (p_c), s				1.4		0.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	3.0
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↱			↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	130	10	70	10	20	30	30	430	0	10	360	90
Future Vol, veh/h	130	10	70	10	20	30	30	430	0	10	360	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	151	12	81	12	23	35	35	500	0	12	419	105
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	13.2	11.9	16.3	15.1
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	17%	0%	96%	0%	17%	5%	0%
Vol Thru, %	83%	100%	4%	7%	33%	95%	67%
Vol Right, %	0%	0%	0%	93%	50%	0%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	173	287	135	75	60	190	270
LT Vol	30	0	130	0	10	10	0
Through Vol	143	287	5	5	20	180	180
RT Vol	0	0	0	70	30	0	90
Lane Flow Rate	202	333	157	87	70	221	314
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.364	0.594	0.341	0.161	0.148	0.397	0.541
Departure Headway (Hd)	6.504	6.416	7.813	6.653	7.615	6.462	6.198
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	548	557	457	535	474	552	578
Service Time	4.296	4.208	5.61	4.449	5.615	4.253	3.989
HCM Lane V/C Ratio	0.369	0.598	0.344	0.163	0.148	0.4	0.543
HCM Control Delay	13	18.3	14.6	10.7	11.9	13.5	16.2
HCM Lane LOS	B	C	B	B	B	B	C
HCM 95th-tile Q	1.7	3.9	1.5	0.6	0.5	1.9	3.2

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	90	60	10	310	90	260	20	340	320	140	300	110
Future Volume (veh/h)	90	60	10	310	90	260	20	340	320	140	300	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	75	12	388	112	325	25	425	400	175	375	138
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	273	230	440	574	486	69	1450	842	215	1366	478
Arrive On Green	0.08	0.14	0.14	0.24	0.30	0.30	0.04	0.28	0.28	0.12	0.36	0.36
Sat Flow, veh/h	1810	1900	1598	1810	1900	1607	1810	5187	1606	1810	3788	1325
Grp Volume(v), veh/h	112	75	12	388	112	325	25	425	400	175	341	172
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1607	1810	1729	1606	1810	1729	1655
Q Serve(g_s), s	4.5	2.6	0.5	15.4	3.3	13.2	1.0	4.8	11.8	7.0	5.2	5.5
Cycle Q Clear(g_c), s	4.5	2.6	0.5	15.4	3.3	13.2	1.0	4.8	11.8	7.0	5.2	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	153	273	230	440	574	486	69	1450	842	215	1247	597
V/C Ratio(X)	0.73	0.27	0.05	0.88	0.20	0.67	0.36	0.29	0.48	0.81	0.27	0.29
Avail Cap(c_a), veh/h	364	1121	943	607	1376	1164	170	2018	1018	267	1531	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	28.5	27.5	27.2	19.3	22.8	35.0	21.1	11.3	32.0	16.9	17.0
Incr Delay (d2), s/veh	6.5	0.5	0.1	11.0	0.2	1.6	3.2	0.1	0.4	14.3	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.4	0.2	9.0	1.7	6.0	0.6	2.3	5.3	4.4	2.5	2.6
LnGrp Delay(d),s/veh	39.8	29.0	27.6	38.2	19.5	24.4	38.2	21.2	11.7	46.3	17.0	17.3
LnGrp LOS	D	C	C	D	B	C	D	C	B	D	B	B
Approach Vol, veh/h		199			825			850			688	
Approach Delay, s/veh		35.0			30.2			17.2			24.5	
Approach LOS		D			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	24.8	22.1	14.7	6.8	30.9	10.3	26.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	29.0	25.0	44.0	7.0	33.0	15.0	54.0
Max Q Clear Time (g_c+I1), s	9.0	13.8	17.4	4.6	3.0	7.5	6.5	15.2
Green Ext Time (p_c), s	0.1	6.1	0.7	2.1	0.0	7.5	0.1	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	280	150	150	550	60	250	420	100	50	570	300
Future Volume (veh/h)	100	280	150	150	550	60	250	420	100	50	570	300
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	108	301	161	161	591	65	269	452	108	54	613	323
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	893	656	163	860	94	291	1615	866	99	1232	671
Arrive On Green	0.08	0.25	0.25	0.09	0.26	0.26	0.16	0.45	0.45	0.05	0.34	0.34
Sat Flow, veh/h	1810	3610	1605	1810	3279	360	1810	3610	1610	1810	3610	1608
Grp Volume(v), veh/h	108	301	161	161	325	331	269	452	108	54	613	323
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1834	1810	1805	1610	1810	1805	1608
Q Serve(g_s), s	5.8	6.8	1.4	8.9	16.1	16.2	14.6	7.9	3.3	2.9	13.4	7.6
Cycle Q Clear(g_c), s	5.8	6.8	1.4	8.9	16.1	16.2	14.6	7.9	3.3	2.9	13.4	7.6
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	893	656	163	473	481	291	1615	866	99	1232	671
V/C Ratio(X)	0.79	0.34	0.25	0.99	0.69	0.69	0.93	0.28	0.12	0.55	0.50	0.48
Avail Cap(c_a), veh/h	218	1449	904	163	670	681	291	1615	866	145	1232	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	30.8	9.0	45.3	33.1	33.1	41.2	17.4	11.4	45.9	26.0	8.2
Incr Delay (d2), s/veh	9.7	0.2	0.2	65.8	1.8	1.8	33.9	0.4	0.3	4.7	1.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.4	1.9	7.4	8.3	8.4	10.1	4.0	1.5	1.6	6.9	3.8
LnGrp Delay(d),s/veh	55.0	31.0	9.2	111.0	34.9	34.9	75.1	17.8	11.7	50.6	27.5	10.7
LnGrp LOS	D	C	A	F	C	C	E	B	B	D	C	B
Approach Vol, veh/h		570			817			829			990	
Approach Delay, s/veh		29.4			49.9			35.6			23.3	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	48.6	13.0	28.6	20.0	38.0	11.5	30.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	42.0	9.0	40.0	16.0	34.0	12.0	37.0
Max Q Clear Time (g_c+I1), s	4.9	9.9	10.9	8.8	16.6	15.4	7.8	18.2
Green Ext Time (p_c), s	0.0	4.4	0.0	7.7	0.0	4.7	0.1	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	450	10	460	190	590	0	0	790	130
Future Volume (veh/h)	0	0	0	450	10	460	190	590	0	0	790	130
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				484	11	495	204	634	0	0	849	140
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				636	14	577	226	1953	0	0	1135	187
Arrive On Green				0.36	0.36	0.36	0.04	0.18	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1771	40	1608	1810	3705	0	0	3196	511
Grp Volume(v), veh/h				495	0	495	204	634	0	0	494	495
Grp Sat Flow(s),veh/h/ln				1811	0	1608	1810	1805	0	0	1805	1807
Q Serve(g_s), s				19.3	0.0	22.8	9.0	12.3	0.0	0.0	19.1	19.1
Cycle Q Clear(g_c), s				19.3	0.0	22.8	9.0	12.3	0.0	0.0	19.1	19.1
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				650	0	577	226	1953	0	0	661	662
V/C Ratio(X)				0.76	0.00	0.86	0.90	0.32	0.00	0.00	0.75	0.75
Avail Cap(c_a), veh/h				770	0	684	226	1953	0	0	661	662
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.6	0.0	23.7	37.9	20.1	0.0	0.0	22.1	22.1
Incr Delay (d2), s/veh				3.8	0.0	9.3	33.6	0.4	0.0	0.0	7.6	7.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.3	0.0	11.5	6.6	6.3	0.0	0.0	10.9	10.9
LnGrp Delay(d),s/veh				26.4	0.0	33.0	71.4	20.5	0.0	0.0	29.7	29.7
LnGrp LOS				C		C	E	C			C	C
Approach Vol, veh/h					990			838			989	
Approach Delay, s/veh					29.7			32.9			29.7	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		47.3			14.0	33.3		32.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		38.0			10.0	24.0		34.0
Max Q Clear Time (g_c+I1), s		14.3			11.0	21.1		24.8
Green Ext Time (p_c), s		11.8			0.0	2.3		3.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↰↑	↱					↑↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	210	10	320	0	0	0	0	540	160	220	1030	0
Future Volume (veh/h)	210	10	320	0	0	0	0	540	160	220	1030	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	221	0	327				0	551	163	224	1051	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	901	0	400				0	1806	521	270	2350	0
Arrive On Green	0.25	0.00	0.25				0.00	0.45	0.45	0.05	0.21	0.00
Sat Flow, veh/h	3619	0	1605				0	4166	1152	1810	3705	0
Grp Volume(v), veh/h	221	0	327				0	475	239	224	1051	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1689	1810	1805	0
Q Serve(g_s), s	3.9	0.0	15.4				0.0	7.0	7.2	9.8	20.2	0.0
Cycle Q Clear(g_c), s	3.9	0.0	15.4				0.0	7.0	7.2	9.8	20.2	0.0
Prop In Lane	1.00		1.00				0.00		0.68	1.00		0.00
Lane Grp Cap(c), veh/h	901	0	400				0	1563	764	270	2350	0
V/C Ratio(X)	0.25	0.00	0.82				0.00	0.30	0.31	0.83	0.45	0.00
Avail Cap(c_a), veh/h	1493	0	662				0	1563	764	339	2350	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.48	0.48	0.00
Uniform Delay (d), s/veh	24.0	0.0	28.3				0.0	13.9	14.0	37.0	18.9	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2				0.0	0.5	1.1	6.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	7.3				0.0	3.4	3.5	5.4	10.3	0.0
LnGrp Delay(d),s/veh	24.2	0.0	32.5				0.0	14.4	15.1	43.7	19.2	0.0
LnGrp LOS	C		C					B	B	D	B	
Approach Vol, veh/h		548						714			1275	
Approach Delay, s/veh		29.2						14.6			23.5	
Approach LOS		C						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.9	40.2		23.9		56.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	15.0	20.0		33.0		39.0		
Max Q Clear Time (g_c+I1), s	11.8	9.2		17.4		22.2		
Green Ext Time (p_c), s	0.2	7.7		1.8		10.7		

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	240	200	320	40	80	410	90	970	150	300	820	170
Future Volume (veh/h)	240	200	320	40	80	410	90	970	150	300	820	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	247	206	330	41	82	423	93	1000	155	309	845	175
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	316	926	412	84	405	716	118	1424	220	808	1731	917
Arrive On Green	0.09	0.26	0.26	0.05	0.21	0.21	0.07	0.31	0.31	0.46	0.96	0.96
Sat Flow, veh/h	3510	3610	1606	1810	1900	1615	1810	4530	701	3510	3610	1610
Grp Volume(v), veh/h	247	206	330	41	82	423	93	763	392	309	845	175
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1810	1900	1615	1810	1729	1772	1755	1805	1610
Q Serve(g_s), s	7.2	4.7	20.2	2.3	3.7	4.8	5.3	20.4	20.5	6.1	1.9	0.5
Cycle Q Clear(g_c), s	7.2	4.7	20.2	2.3	3.7	4.8	5.3	20.4	20.5	6.1	1.9	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	316	926	412	84	405	716	118	1087	557	808	1731	917
V/C Ratio(X)	0.78	0.22	0.80	0.49	0.20	0.59	0.79	0.70	0.70	0.38	0.49	0.19
Avail Cap(c_a), veh/h	401	1238	550	121	561	849	138	1087	557	808	1731	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	0.92	0.92	0.92
Uniform Delay (d), s/veh	46.8	30.8	36.5	48.8	34.0	10.0	48.4	31.7	31.7	23.4	1.2	0.8
Incr Delay (d2), s/veh	7.5	0.1	6.1	4.3	0.2	0.8	20.2	3.3	6.5	0.3	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.4	9.6	1.3	2.0	5.9	3.3	10.3	11.0	2.9	0.8	0.3
LnGrp Delay(d),s/veh	54.3	30.9	42.7	53.1	34.2	10.8	68.6	35.0	38.2	23.7	2.1	1.2
LnGrp LOS	D	C	D	D	C	B	E	D	D	C	A	A
Approach Vol, veh/h		783			546			1248			1329	
Approach Delay, s/veh		43.2			17.5			38.5			7.0	
Approach LOS		D			B			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.2	37.0	8.9	30.9	10.8	54.3	13.4	26.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	12.0	31.0
Max Q Clear Time (g_c+I1), s	8.1	22.5	4.3	22.2	7.3	3.9	9.2	6.8
Green Ext Time (p_c), s	3.0	5.2	0.0	4.0	0.0	8.7	0.2	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	250	10	270	410	1260	0	0	1040	300
Future Volume (veh/h)	0	0	0	250	10	270	410	1260	0	0	1040	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				258	10	278	423	1299	0	0	1072	309
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				360	14	330	500	2591	0	0	2787	865
Arrive On Green				0.21	0.21	0.21	0.28	1.00	0.00	0.00	0.54	0.54
Sat Flow, veh/h				1745	68	1603	3510	3705	0	0	5358	1610
Grp Volume(v), veh/h				268	0	278	423	1299	0	0	1072	309
Grp Sat Flow(s),veh/h/ln				1813	0	1603	1755	1805	0	0	1729	1610
Q Serve(g_s), s				14.5	0.0	17.5	11.9	0.0	0.0	0.0	12.7	11.5
Cycle Q Clear(g_c), s				14.5	0.0	17.5	11.9	0.0	0.0	0.0	12.7	11.5
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				373	0	330	500	2591	0	0	2787	865
V/C Ratio(X)				0.72	0.00	0.84	0.85	0.50	0.00	0.00	0.38	0.36
Avail Cap(c_a), veh/h				552	0	489	769	2591	0	0	2787	865
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.8	0.0	40.0	36.5	0.0	0.0	0.0	14.2	13.9
Incr Delay (d2), s/veh				2.6	0.0	8.4	4.3	0.6	0.0	0.0	0.4	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.5	0.0	8.5	6.0	0.2	0.0	0.0	6.2	5.3
LnGrp Delay(d),s/veh				41.4	0.0	48.4	40.8	0.6	0.0	0.0	14.6	15.1
LnGrp LOS				D		D	D	A			B	B
Approach Vol, veh/h					546			1722			1381	
Approach Delay, s/veh					45.0			10.4			14.7	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		79.4			19.0	60.4		25.6
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		65.0			23.0	38.0		32.0
Max Q Clear Time (g_c+I1), s		2.0			13.9	14.7		19.5
Green Ext Time (p_c), s		37.5			1.0	18.6		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	40	90	60	100	220	160	50	1060	40	60	1090	30
Future Volume (veh/h)	40	90	60	100	220	160	50	1060	40	60	1090	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	96	64	106	234	170	53	1128	43	64	1160	32
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	328	276	158	386	325	129	2263	86	129	2291	63
Arrive On Green	0.06	0.17	0.17	0.09	0.20	0.20	0.07	0.44	0.44	0.07	0.44	0.44
Sat Flow, veh/h	1810	1900	1601	1810	1900	1603	1810	5127	195	1810	5189	143
Grp Volume(v), veh/h	43	96	64	106	234	170	53	761	410	64	773	419
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1603	1810	1729	1864	1810	1729	1874
Q Serve(g_s), s	1.6	3.1	1.9	4.0	7.9	5.1	2.0	11.1	11.1	2.4	11.3	11.3
Cycle Q Clear(g_c), s	1.6	3.1	1.9	4.0	7.9	5.1	2.0	11.1	11.1	2.4	11.3	11.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.08
Lane Grp Cap(c), veh/h	102	328	276	158	386	325	129	1527	823	129	1527	827
V/C Ratio(X)	0.42	0.29	0.23	0.67	0.61	0.52	0.41	0.50	0.50	0.50	0.51	0.51
Avail Cap(c_a), veh/h	180	920	775	180	920	776	180	1527	823	180	1527	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	25.3	15.1	31.1	25.4	14.7	31.2	14.0	14.0	31.4	14.1	14.1
Incr Delay (d2), s/veh	2.7	0.5	0.4	7.9	1.5	1.3	2.1	1.2	2.2	3.0	1.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	1.0	2.3	4.3	2.7	1.1	5.5	6.2	1.3	5.6	6.3
LnGrp Delay(d),s/veh	34.7	25.8	15.5	39.0	27.0	16.0	33.3	15.2	16.2	34.4	15.3	16.3
LnGrp LOS	C	C	B	D	C	B	C	B	B	C	B	B
Approach Vol, veh/h		203			510			1224			1256	
Approach Delay, s/veh		24.5			25.8			16.3			16.6	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	35.0	10.1	16.1	9.0	35.0	8.0	18.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	4.4	13.1	6.0	5.1	4.0	13.3	3.6	9.9
Green Ext Time (p_c), s	0.1	7.1	0.0	2.6	0.1	7.2	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	10	140	10	10	30
Future Vol, veh/h	10	10	140	10	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	149	11	11	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	320	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1621	-	678	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1621	-	616	1076
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	680	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.9	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	616	1076	-	-	1621	-
HCM Lane V/C Ratio	0.017	0.03	-	-	0.092	-
HCM Control Delay (s)	10.9	8.4	-	-	7.4	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.3	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	50	170	60	200	150	10	70	30	130	10	130	90
Future Volume (veh/h)	50	170	60	200	150	10	70	30	130	10	130	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	224	79	263	197	13	92	39	171	13	171	118
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	845	289	249	1155	76	204	86	253	21	277	196
Arrive On Green	0.12	0.32	0.32	0.14	0.34	0.34	0.16	0.16	0.16	0.14	0.14	0.14
Sat Flow, veh/h	1810	2635	903	1810	3438	225	1289	546	1600	150	1979	1399
Grp Volume(v), veh/h	66	151	152	263	103	107	131	0	171	164	0	138
Grp Sat Flow(s),veh/h/ln	1810	1805	1732	1810	1805	1858	1836	0	1600	1893	0	1635
Q Serve(g_s), s	2.2	4.1	4.3	9.0	2.6	2.7	4.2	0.0	6.6	5.3	0.0	5.2
Cycle Q Clear(g_c), s	2.2	4.1	4.3	9.0	2.6	2.7	4.2	0.0	6.6	5.3	0.0	5.2
Prop In Lane	1.00		0.52	1.00		0.12	0.70		1.00	0.08		0.86
Lane Grp Cap(c), veh/h	221	579	555	249	606	624	290	0	253	265	0	229
V/C Ratio(X)	0.30	0.26	0.27	1.06	0.17	0.17	0.45	0.00	0.68	0.62	0.00	0.60
Avail Cap(c_a), veh/h	221	579	555	249	606	624	616	0	537	636	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	16.5	16.6	28.3	15.3	15.3	25.0	0.0	26.0	26.5	0.0	26.5
Incr Delay (d2), s/veh	0.7	1.1	1.2	73.1	0.6	0.6	1.1	0.0	3.2	2.4	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.2	2.2	9.5	1.4	1.5	2.2	0.0	3.1	3.0	0.0	2.5
LnGrp Delay(d),s/veh	26.9	17.6	17.8	101.4	15.9	15.9	26.1	0.0	29.2	28.9	0.0	29.0
LnGrp LOS	C	B	B	F	B	B	C		C	C		C
Approach Vol, veh/h		369			473			302			302	
Approach Delay, s/veh		19.3			63.4			27.8			29.0	
Approach LOS		B			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.3	13.0	25.0		13.2	12.0	26.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	9.0	21.0		22.0	8.0	22.0
Max Q Clear Time (g_c+I1), s		8.6	11.0	6.3		7.3	4.2	4.7
Green Ext Time (p_c), s		1.2	0.0	1.4		1.2	0.6	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	50	10	340	0	0	0	0	590	160	10	380	0
Future Volume (veh/h)	50	10	340	0	0	0	0	590	160	10	380	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	56	11	382				0	663	180	11	427	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	461	91	486				0	1217	325	266	762	0
Arrive On Green	0.30	0.30	0.30				0.00	0.30	0.30	0.15	0.15	0.00
Sat Flow, veh/h	1524	299	1607				0	4240	1087	1810	5358	0
Grp Volume(v), veh/h	67	0	382				0	562	281	11	427	0
Grp Sat Flow(s),veh/h/ln	1824	0	1607				0	1729	1697	1810	1729	0
Q Serve(g_s), s	1.3	0.0	10.4				0.0	6.5	6.6	0.2	3.6	0.0
Cycle Q Clear(g_c), s	1.3	0.0	10.4				0.0	6.5	6.6	0.2	3.6	0.0
Prop In Lane	0.84		1.00				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	551	0	486				0	1034	508	266	762	0
V/C Ratio(X)	0.12	0.00	0.79				0.00	0.54	0.55	0.04	0.56	0.00
Avail Cap(c_a), veh/h	1071	0	944				0	2394	1175	266	762	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	15.2				0.0	14.0	14.0	17.5	18.9	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.9				0.0	0.4	0.9	0.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.9				0.0	3.1	3.2	0.1	1.8	0.0
LnGrp Delay(d),s/veh	12.1	0.0	18.1				0.0	14.4	15.0	17.5	19.8	0.0
LnGrp LOS	B		B					B	B	B	B	
Approach Vol, veh/h		449						843			438	
Approach Delay, s/veh		17.2						14.6			19.8	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		18.4		18.3				11.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		33.0				7.0
Max Q Clear Time (g_c+I1), s		12.4		8.6				5.6
Green Ext Time (p_c), s		1.6		5.0				0.4

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	210	80	130	190	160	120	960	190	170	510	50
Future Volume (veh/h)	70	210	80	130	190	160	120	960	190	170	510	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	247	94	153	224	188	141	1129	224	200	600	59
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	538	199	157	423	339	224	1771	351	179	1842	179
Arrive On Green	0.07	0.21	0.21	0.09	0.22	0.22	0.12	0.41	0.41	0.10	0.38	0.38
Sat Flow, veh/h	1810	2575	953	1810	1902	1522	1810	4341	861	1810	4805	468
Grp Volume(v), veh/h	82	171	170	153	212	200	141	899	454	200	430	229
Grp Sat Flow(s),veh/h/ln	1810	1805	1724	1810	1805	1619	1810	1729	1744	1810	1729	1815
Q Serve(g_s), s	3.6	6.7	7.0	6.8	8.4	8.9	6.0	16.8	16.8	8.0	7.1	7.2
Cycle Q Clear(g_c), s	3.6	6.7	7.0	6.8	8.4	8.9	6.0	16.8	16.8	8.0	7.1	7.2
Prop In Lane	1.00		0.55	1.00		0.94	1.00		0.49	1.00		0.26
Lane Grp Cap(c), veh/h	132	377	360	157	402	360	224	1411	712	179	1325	696
V/C Ratio(X)	0.62	0.45	0.47	0.98	0.53	0.56	0.63	0.64	0.64	1.12	0.32	0.33
Avail Cap(c_a), veh/h	157	803	767	157	803	721	224	1411	712	179	1325	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	28.0	28.1	36.9	27.7	27.9	33.7	19.2	19.2	36.4	17.6	17.6
Incr Delay (d2), s/veh	5.5	0.9	1.0	64.8	1.1	1.3	5.6	2.2	4.3	102.3	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.4	3.4	6.2	4.3	4.1	3.3	8.4	8.9	9.0	3.5	3.8
LnGrp Delay(d),s/veh	41.9	28.8	29.1	101.7	28.8	29.2	39.3	21.4	23.5	138.8	18.2	18.9
LnGrp LOS	D	C	C	F	C	C	D	C	C	F	B	B
Approach Vol, veh/h		423			565			1494			859	
Approach Delay, s/veh		31.5			48.7			23.7			46.5	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	37.0	11.0	20.9	14.0	35.0	9.9	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	10.0	18.8	8.8	9.0	8.0	9.2	5.6	10.9
Green Ext Time (p_c), s	0.0	7.2	0.0	5.0	0.2	4.0	0.0	5.0

Intersection Summary			
HCM 2010 Ctrl Delay			34.8
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	300	120	380	540	100	210	750	370	100	500	70
Future Volume (veh/h)	60	300	120	380	540	100	210	750	370	100	500	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	341	136	432	614	114	239	852	420	114	568	80
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	479	188	456	763	141	253	1675	519	174	1285	178
Arrive On Green	0.19	0.19	0.19	0.25	0.25	0.25	0.14	0.32	0.32	0.10	0.28	0.28
Sat Flow, veh/h	1810	2530	991	1810	3039	563	1810	5187	1607	1810	4602	639
Grp Volume(v), veh/h	68	241	236	432	364	364	239	852	420	114	425	223
Grp Sat Flow(s),veh/h/ln	1810	1805	1716	1810	1805	1797	1810	1729	1607	1810	1729	1783
Q Serve(g_s), s	3.6	14.3	14.8	26.9	21.7	21.8	15.0	15.2	14.4	7.0	11.6	11.8
Cycle Q Clear(g_c), s	3.6	14.3	14.8	26.9	21.7	21.8	15.0	15.2	14.4	7.0	11.6	11.8
Prop In Lane	1.00		0.58	1.00		0.31	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	344	342	325	456	453	451	253	1675	519	174	966	498
V/C Ratio(X)	0.20	0.71	0.72	0.95	0.80	0.81	0.95	0.51	0.81	0.66	0.44	0.45
Avail Cap(c_a), veh/h	344	583	554	458	882	878	253	1675	519	174	966	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	43.5	43.6	42.1	40.2	40.3	48.9	31.4	9.8	50.0	33.9	34.0
Incr Delay (d2), s/veh	0.3	2.7	3.1	28.9	3.4	3.4	41.9	1.1	12.8	8.6	1.5	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	7.4	7.3	17.1	11.3	11.2	10.4	7.4	10.8	3.9	5.7	6.2
LnGrp Delay(d),s/veh	39.3	46.2	46.7	71.0	43.6	43.7	90.8	32.5	22.6	58.6	35.4	36.9
LnGrp LOS	D	D	D	E	D	D	F	C	C	E	D	D
Approach Vol, veh/h		545			1160			1511			762	
Approach Delay, s/veh		45.5			53.9			39.0			39.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	41.0	32.9	25.7	20.0	36.0	25.8	32.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	37.0	29.0	37.0	16.0	32.0	10.0	56.0
Max Q Clear Time (g_c+I1), s	9.0	17.2	28.9	16.8	17.0	13.8	5.6	23.8
Green Ext Time (p_c), s	0.9	6.8	0.0	2.3	0.0	3.9	1.1	4.3

Intersection Summary		
HCM 2010 Ctrl Delay		44.3
HCM 2010 LOS		D

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	570	110	170	740	80	170	200	140	50	200	150
Future Volume (veh/h)	70	570	110	170	740	80	170	200	140	50	200	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	606	117	181	787	85	181	213	149	53	213	160
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	961	185	222	1320	691	227	563	376	115	421	301
Arrive On Green	0.08	0.32	0.32	0.12	0.37	0.37	0.13	0.27	0.27	0.06	0.21	0.21
Sat Flow, veh/h	1810	3018	581	1810	3610	1608	1810	2070	1382	1810	2005	1434
Grp Volume(v), veh/h	74	362	361	181	787	85	181	184	178	53	191	182
Grp Sat Flow(s),veh/h/ln	1810	1805	1794	1810	1805	1608	1810	1805	1647	1810	1805	1635
Q Serve(g_s), s	2.8	12.2	12.3	7.0	12.7	2.3	7.0	5.9	6.3	2.0	6.7	7.1
Cycle Q Clear(g_c), s	2.8	12.2	12.3	7.0	12.7	2.3	7.0	5.9	6.3	2.0	6.7	7.1
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.84	1.00		0.88
Lane Grp Cap(c), veh/h	136	575	571	222	1320	691	227	491	448	115	379	343
V/C Ratio(X)	0.54	0.63	0.63	0.82	0.60	0.12	0.80	0.38	0.40	0.46	0.50	0.53
Avail Cap(c_a), veh/h	202	731	726	253	1562	799	455	1083	989	177	806	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	20.8	20.8	30.6	18.4	12.3	30.4	21.1	21.3	32.4	25.0	25.2
Incr Delay (d2), s/veh	3.3	1.1	1.2	16.6	0.4	0.1	6.2	0.5	0.6	2.8	1.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.2	6.2	4.5	6.3	1.0	3.9	3.0	2.9	1.1	3.4	3.3
LnGrp Delay(d),s/veh	35.3	22.0	22.0	47.2	18.9	12.4	36.7	21.6	21.8	35.2	26.0	26.4
LnGrp LOS	D	C	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		797			1053			543			426	
Approach Delay, s/veh		23.2			23.2			26.7			27.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	23.5	12.8	26.8	13.0	19.0	9.4	30.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	29.0	18.0	32.0	8.0	31.0
Max Q Clear Time (g_c+I1), s	4.0	8.3	9.0	14.3	9.0	9.1	4.8	14.7
Green Ext Time (p_c), s	0.0	4.4	0.0	7.8	0.3	4.1	0.0	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	490	240	540	700	90	300	530	490	110	410	100
Future Volume (veh/h)	150	490	240	540	700	90	300	530	490	110	410	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	527	258	581	753	97	323	570	527	118	441	108
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	236	923	429	579	1697	217	340	1255	825	230	910	221
Arrive On Green	0.07	0.27	0.27	0.16	0.36	0.36	0.10	0.35	0.35	0.07	0.32	0.32
Sat Flow, veh/h	3510	3458	1606	3510	4655	595	3510	3610	1608	3510	2878	699
Grp Volume(v), veh/h	161	527	258	581	558	292	323	570	527	118	275	274
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1792	1755	1805	1608	1755	1805	1773
Q Serve(g_s), s	4.6	13.6	14.5	17.0	12.6	12.8	9.4	12.6	24.5	3.4	12.7	12.9
Cycle Q Clear(g_c), s	4.6	13.6	14.5	17.0	12.6	12.8	9.4	12.6	24.5	3.4	12.7	12.9
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	236	923	429	579	1260	653	340	1255	825	230	571	561
V/C Ratio(X)	0.68	0.57	0.60	1.00	0.44	0.45	0.95	0.45	0.64	0.51	0.48	0.49
Avail Cap(c_a), veh/h	340	1207	561	579	1442	747	340	1540	952	238	718	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	32.7	33.0	43.1	24.8	24.9	46.3	26.1	18.2	46.6	28.5	28.5
Incr Delay (d2), s/veh	3.5	0.6	1.4	38.4	0.2	0.5	35.5	0.3	1.1	1.8	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	6.6	6.5	11.3	6.1	6.4	6.3	6.3	11.1	1.7	6.4	6.4
LnGrp Delay(d),s/veh	50.5	33.3	34.4	81.5	25.1	25.4	81.8	26.3	19.4	48.4	29.1	29.2
LnGrp LOS	D	C	C	F	C	C	F	C	B	D	C	C
Approach Vol, veh/h		946			1431			1420			667	
Approach Delay, s/veh		36.5			48.0			36.4			32.5	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	39.9	21.0	31.5	14.0	36.6	10.9	41.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	17.0	36.0	10.0	41.0	10.0	43.0
Max Q Clear Time (g_c+I1), s	5.4	26.5	19.0	16.5	11.4	14.9	6.6	14.8
Green Ext Time (p_c), s	0.0	8.1	0.0	9.7	0.0	9.6	0.1	11.6

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
42: Iris Ave & Nason St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	320	790	30	20	850	90	30	60	10	100	20	280
Future Volume (veh/h)	320	790	30	20	850	90	30	60	10	100	20	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	390	963	37	24	1037	110	37	73	12	122	24	341
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	518	2024	78	71	1485	462	99	275	45	193	427	601
Arrive On Green	0.15	0.39	0.39	0.04	0.29	0.29	0.05	0.17	0.17	0.11	0.22	0.22
Sat Flow, veh/h	3510	5127	197	1810	5187	1615	1810	1592	262	1810	1900	1615
Grp Volume(v), veh/h	390	649	351	24	1037	110	37	0	85	122	24	341
Grp Sat Flow(s),veh/h/ln	1755	1729	1865	1810	1729	1615	1810	0	1854	1810	1900	1615
Q Serve(g_s), s	5.9	7.8	7.8	0.7	9.9	2.9	1.1	0.0	2.2	3.6	0.6	9.4
Cycle Q Clear(g_c), s	5.9	7.8	7.8	0.7	9.9	2.9	1.1	0.0	2.2	3.6	0.6	9.4
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	518	1366	737	71	1485	462	99	0	320	193	427	601
V/C Ratio(X)	0.75	0.48	0.48	0.34	0.70	0.24	0.37	0.00	0.27	0.63	0.06	0.57
Avail Cap(c_a), veh/h	629	1366	737	227	1674	521	227	0	631	227	647	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	12.6	12.6	26.1	17.8	15.2	25.4	0.0	20.0	23.9	17.0	13.9
Incr Delay (d2), s/veh	4.1	0.3	0.5	2.8	1.1	0.3	2.3	0.0	0.4	4.3	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.7	4.1	0.4	4.9	1.3	0.6	0.0	1.2	2.0	0.3	4.3
LnGrp Delay(d),s/veh	26.9	12.8	13.1	28.9	18.9	15.5	27.8	0.0	20.4	28.2	17.0	14.8
LnGrp LOS	C	B	B	C	B	B	C		C	C	B	B
Approach Vol, veh/h		1390			1171			122			487	
Approach Delay, s/veh		16.8			18.8			22.7			18.3	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	13.6	6.2	26.0	7.1	16.5	12.2	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.6	4.2	2.7	9.8	3.1	11.4	7.9	11.9
Green Ext Time (p_c), s	0.0	1.6	0.0	8.3	0.0	1.1	0.3	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	150	570	20	30	600	10	80	50	40	10	30	240
Future Volume (veh/h)	150	570	20	30	600	10	80	50	40	10	30	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	722	25	38	759	13	101	63	51	13	38	304
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	187	1685	58	95	1455	25	164	102	231	115	335	385
Arrive On Green	0.10	0.33	0.33	0.05	0.28	0.28	0.14	0.14	0.14	0.24	0.24	0.24
Sat Flow, veh/h	1810	5147	178	1810	5252	90	1135	708	1598	478	1398	1605
Grp Volume(v), veh/h	190	484	263	38	499	273	164	0	51	51	0	304
Grp Sat Flow(s),veh/h/ln	1810	1729	1867	1810	1729	1884	1843	0	1598	1876	0	1605
Q Serve(g_s), s	7.0	7.4	7.5	1.4	8.3	8.3	5.7	0.0	1.9	1.4	0.0	12.1
Cycle Q Clear(g_c), s	7.0	7.4	7.5	1.4	8.3	8.3	5.7	0.0	1.9	1.4	0.0	12.1
Prop In Lane	1.00		0.10	1.00		0.05	0.62		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	187	1132	611	95	958	522	266	0	231	450	0	385
V/C Ratio(X)	1.02	0.43	0.43	0.40	0.52	0.52	0.62	0.00	0.22	0.11	0.00	0.79
Avail Cap(c_a), veh/h	187	1324	715	187	1324	721	923	0	800	1022	0	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	17.9	17.9	31.1	20.7	20.7	27.3	0.0	25.7	20.2	0.0	24.2
Incr Delay (d2), s/veh	70.8	0.3	0.5	2.7	0.4	0.8	2.3	0.0	0.5	0.1	0.0	3.7
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	3.5	3.9	0.8	4.0	4.4	3.0	0.0	0.9	0.8	0.0	5.7
LnGrp Delay(d),s/veh	101.4	18.1	18.3	33.8	21.2	21.6	29.6	0.0	26.2	20.3	0.0	27.9
LnGrp LOS	F	B	B	C	C	C	C		C	C		C
Approach Vol, veh/h		937			810			215			355	
Approach Delay, s/veh		35.1			21.9			28.8			26.8	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.8	7.6	26.2		20.3	11.0	22.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	26.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		7.7	3.4	9.5		14.1	9.0	10.3
Green Ext Time (p_c), s		1.1	0.0	8.0		1.2	0.0	7.8

Intersection Summary		
HCM 2010 Ctrl Delay		28.6
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	610	20	30	550	10	40	30	60	10	20	40
Future Volume (veh/h)	10	610	20	30	550	10	40	30	60	10	20	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	718	24	35	647	12	47	35	71	12	24	47
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	1806	60	99	2010	37	124	443	462	39	107	209
Arrive On Green	0.02	0.35	0.35	0.05	0.38	0.38	0.07	0.23	0.23	0.02	0.19	0.19
Sat Flow, veh/h	1810	5155	172	1810	5243	97	1810	1900	1605	1810	572	1120
Grp Volume(v), veh/h	12	481	261	35	426	233	47	35	71	12	0	71
Grp Sat Flow(s),veh/h/ln	1810	1729	1869	1810	1729	1882	1810	1900	1605	1810	0	1692
Q Serve(g_s), s	0.3	4.9	5.0	0.9	4.1	4.1	1.2	0.7	1.6	0.3	0.0	1.7
Cycle Q Clear(g_c), s	0.3	4.9	5.0	0.9	4.1	4.1	1.2	0.7	1.6	0.3	0.0	1.7
Prop In Lane	1.00		0.09	1.00		0.05	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	39	1212	655	99	1326	722	124	443	462	39	0	315
V/C Ratio(X)	0.31	0.40	0.40	0.35	0.32	0.32	0.38	0.08	0.15	0.31	0.00	0.23
Avail Cap(c_a), veh/h	269	2206	1192	269	2206	1201	269	1818	1624	269	0	1619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	11.5	11.5	21.4	10.2	10.2	21.0	14.1	12.5	22.7	0.0	16.2
Incr Delay (d2), s/veh	4.3	0.2	0.4	2.1	0.1	0.3	1.9	0.1	0.2	4.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.6	0.5	1.9	2.1	0.7	0.4	0.7	0.2	0.0	0.8
LnGrp Delay(d),s/veh	27.0	11.7	11.9	23.6	10.3	10.5	22.9	14.2	12.6	27.0	0.0	16.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		754			694			153			83	
Approach Delay, s/veh		12.0			11.0			16.1			18.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	15.0	6.6	20.5	7.2	12.8	5.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	3.6	2.9	7.0	3.2	3.7	2.3	6.1
Green Ext Time (p_c), s	0.0	0.9	0.0	8.6	0.0	0.9	0.0	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	30	180	90	200	140	300	90	940	180	120	790	10
Future Volume (veh/h)	30	180	90	200	140	300	90	940	180	120	790	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	198	99	220	154	330	99	1033	198	132	868	11
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	265	263	274	192	405	235	1464	280	137	1483	19
Arrive On Green	0.16	0.16	0.16	0.25	0.25	0.25	0.13	0.33	0.33	0.08	0.28	0.28
Sat Flow, veh/h	270	1617	1600	1086	760	1605	1810	4370	836	1810	5279	67
Grp Volume(v), veh/h	231	0	99	374	0	330	99	817	414	132	568	311
Grp Sat Flow(s),veh/h/ln	1887	0	1600	1846	0	1605	1810	1729	1748	1810	1729	1887
Q Serve(g_s), s	10.8	0.0	5.1	17.6	0.0	17.9	4.7	19.0	19.1	6.7	13.1	13.1
Cycle Q Clear(g_c), s	10.8	0.0	5.1	17.6	0.0	17.9	4.7	19.0	19.1	6.7	13.1	13.1
Prop In Lane	0.14		1.00	0.59		1.00	1.00		0.48	1.00		0.04
Lane Grp Cap(c), veh/h	310	0	263	466	0	405	235	1158	585	137	971	530
V/C Ratio(X)	0.75	0.00	0.38	0.80	0.00	0.81	0.42	0.71	0.71	0.96	0.59	0.59
Avail Cap(c_a), veh/h	591	0	501	638	0	555	235	1158	585	137	971	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	34.5	32.4	0.0	32.6	37.1	26.8	26.8	42.7	28.6	28.6
Incr Delay (d2), s/veh	3.6	0.0	0.9	5.2	0.0	6.6	1.2	3.6	7.0	65.9	2.6	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	2.3	9.6	0.0	8.6	2.4	9.7	10.3	5.8	6.6	7.5
LnGrp Delay(d),s/veh	40.4	0.0	35.4	37.6	0.0	39.1	38.3	30.4	33.9	108.5	31.2	33.3
LnGrp LOS	D		D	D		D	D	C	C	F	C	C
Approach Vol, veh/h		330			704			1330			1011	
Approach Delay, s/veh		38.9			38.3			32.1			42.0	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	35.0		19.2	16.0	30.0		27.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	12.0	26.0		32.0
Max Q Clear Time (g_c+I1), s	8.7	21.1		12.8	6.7	15.1		19.9
Green Ext Time (p_c), s	0.0	5.1		1.5	0.3	3.8		2.9

Intersection Summary			
HCM 2010 Ctrl Delay			37.0
HCM 2010 LOS			D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	260	130	80	370	170	100	180	60	160	210	130
Future Volume (veh/h)	70	260	130	80	370	170	100	180	60	160	210	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	299	149	92	425	195	115	207	69	184	241	149
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	728	354	168	759	345	183	525	170	232	485	289
Arrive On Green	0.09	0.31	0.31	0.09	0.31	0.31	0.10	0.20	0.20	0.13	0.22	0.22
Sat Flow, veh/h	1810	2353	1144	1810	2411	1095	1810	2678	866	1810	2173	1293
Grp Volume(v), veh/h	80	228	220	92	317	303	115	137	139	184	199	191
Grp Sat Flow(s),veh/h/ln	1810	1805	1692	1810	1805	1701	1810	1805	1739	1810	1805	1661
Q Serve(g_s), s	2.5	5.8	6.1	2.8	8.5	8.7	3.6	3.9	4.1	5.8	5.6	5.9
Cycle Q Clear(g_c), s	2.5	5.8	6.1	2.8	8.5	8.7	3.6	3.9	4.1	5.8	5.6	5.9
Prop In Lane	1.00		0.68	1.00		0.64	1.00		0.50	1.00		0.78
Lane Grp Cap(c), veh/h	158	558	523	168	569	536	183	354	341	232	403	371
V/C Ratio(X)	0.51	0.41	0.42	0.55	0.56	0.57	0.63	0.39	0.41	0.79	0.49	0.52
Avail Cap(c_a), veh/h	216	925	867	216	925	872	371	956	921	340	925	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	16.0	16.1	25.4	16.7	16.7	25.2	20.5	20.5	24.7	19.8	19.9
Incr Delay (d2), s/veh	2.5	0.5	0.5	2.8	0.9	0.9	3.5	0.7	0.8	7.6	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.0	2.9	1.5	4.4	4.2	2.0	2.0	2.0	3.4	2.9	2.8
LnGrp Delay(d),s/veh	28.0	16.5	16.6	28.1	17.5	17.6	28.8	21.2	21.3	32.4	20.8	21.1
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		528			712			391			574	
Approach Delay, s/veh		18.3			18.9			23.4			24.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	15.5	9.4	22.1	9.9	17.1	9.1	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	7.0	30.0	12.0	30.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	7.8	6.1	4.8	8.1	5.6	7.9	4.5	10.7
Green Ext Time (p_c), s	0.1	3.7	0.0	7.1	0.1	3.6	0.0	6.7

Intersection Summary			
HCM 2010 Ctrl Delay			21.0
HCM 2010 LOS			C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	300	210	140	120	160	110	140	880	170	90	480	80
Future Volume (veh/h)	300	210	140	120	160	110	140	880	170	90	480	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	319	223	149	128	170	117	149	936	181	96	511	85
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	427	441	282	168	379	246	187	1371	764	155	1122	186
Arrive On Green	0.12	0.21	0.21	0.09	0.18	0.18	0.10	0.38	0.38	0.09	0.36	0.36
Sat Flow, veh/h	3510	2108	1348	1810	2098	1366	1810	3610	1615	1810	3099	513
Grp Volume(v), veh/h	319	190	182	128	145	142	149	936	181	96	297	299
Grp Sat Flow(s),veh/h/ln	1755	1805	1651	1810	1805	1659	1810	1805	1615	1810	1805	1807
Q Serve(g_s), s	6.0	6.4	6.8	4.7	4.9	5.3	5.5	14.9	4.6	3.5	8.6	8.7
Cycle Q Clear(g_c), s	6.0	6.4	6.8	4.7	4.9	5.3	5.5	14.9	4.6	3.5	8.6	8.7
Prop In Lane	1.00		0.82	1.00		0.82	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	427	377	345	168	326	299	187	1371	764	155	653	654
V/C Ratio(X)	0.75	0.50	0.53	0.76	0.44	0.47	0.80	0.68	0.24	0.62	0.45	0.46
Avail Cap(c_a), veh/h	562	919	840	184	814	748	211	1785	949	211	892	893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	24.0	24.2	30.4	25.1	25.3	30.1	17.9	10.8	30.4	16.8	16.8
Incr Delay (d2), s/veh	3.9	1.0	1.3	15.5	1.0	1.2	17.2	0.7	0.2	4.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.3	3.2	3.1	2.5	2.5	3.7	7.5	2.1	1.9	4.4	4.4
LnGrp Delay(d),s/veh	33.1	25.1	25.4	46.0	26.1	26.4	47.3	18.6	10.9	34.4	17.2	17.3
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		691			415			1266			692	
Approach Delay, s/veh		28.9			32.3			20.9			19.6	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	30.1	10.4	18.4	11.1	28.9	12.4	16.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	34.0	7.0	35.0	8.0	34.0	11.0	31.0
Max Q Clear Time (g_c+I1), s	5.5	16.9	6.7	8.8	7.5	10.7	8.0	7.3
Green Ext Time (p_c), s	0.0	9.1	0.0	4.3	0.0	10.7	0.3	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	140	430	140	40	930	90	200	200	30	60	150	160
Future Volume (veh/h)	140	430	140	40	930	90	200	200	30	60	150	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	524	171	49	1134	110	244	244	37	73	183	195
Adj No. of Lanes	1	2	1	1	3	0	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	209	1457	836	141	1759	170	406	368	56	160	363	322
Arrive On Green	0.12	0.40	0.40	0.08	0.37	0.37	0.12	0.23	0.23	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	1609	1810	4807	466	3510	1611	244	1810	1805	1603
Grp Volume(v), veh/h	171	524	171	49	815	429	244	0	281	73	183	195
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1729	1816	1755	0	1855	1810	1805	1603
Q Serve(g_s), s	7.3	8.0	0.0	2.0	15.5	15.5	5.2	0.0	10.9	3.0	7.1	8.8
Cycle Q Clear(g_c), s	7.3	8.0	0.0	2.0	15.5	15.5	5.2	0.0	10.9	3.0	7.1	8.8
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	209	1457	836	141	1265	664	406	0	424	160	363	322
V/C Ratio(X)	0.82	0.36	0.20	0.35	0.64	0.65	0.60	0.00	0.66	0.46	0.50	0.61
Avail Cap(c_a), veh/h	251	1457	836	183	1265	664	576	0	959	411	1047	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	16.5	10.2	34.6	20.9	20.9	33.3	0.0	27.8	34.3	28.2	28.8
Incr Delay (d2), s/veh	16.1	0.7	0.6	1.5	2.5	4.8	1.4	0.0	1.8	2.0	1.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.1	2.1	1.1	7.8	8.6	2.6	0.0	5.8	1.6	3.7	4.1
LnGrp Delay(d),s/veh	50.3	17.2	10.8	36.1	23.4	25.6	34.7	0.0	29.6	36.4	29.2	30.6
LnGrp LOS	D	B	B	D	C	C	C		C	D	C	C
Approach Vol, veh/h		866			1293			525			451	
Approach Delay, s/veh		22.5			24.6			32.0			31.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.1	10.2	36.0	13.2	19.9	13.2	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	8.0	32.0	13.0	46.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	5.0	12.9	4.0	10.0	7.2	10.8	9.3	17.5
Green Ext Time (p_c), s	0.1	2.5	2.6	3.7	1.2	2.3	0.1	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	30	280	110	120	690	40	200	360	160	30	320	100
Future Volume (veh/h)	30	280	110	120	690	40	200	360	160	30	320	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	311	122	133	767	44	222	400	178	33	356	111
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	697	257	224	1310	75	276	753	331	210	740	227
Arrive On Green	0.05	0.19	0.19	0.12	0.26	0.26	0.15	0.31	0.31	0.12	0.27	0.27
Sat Flow, veh/h	1810	3730	1373	1810	5019	287	1810	2438	1071	1810	2717	835
Grp Volume(v), veh/h	33	287	146	133	528	283	222	295	283	33	235	232
Grp Sat Flow(s),veh/h/ln	1810	1729	1645	1810	1729	1847	1810	1805	1705	1810	1805	1747
Q Serve(g_s), s	1.1	4.4	4.8	4.2	8.0	8.1	7.2	8.2	8.3	1.0	6.6	6.7
Cycle Q Clear(g_c), s	1.1	4.4	4.8	4.2	8.0	8.1	7.2	8.2	8.3	1.0	6.6	6.7
Prop In Lane	1.00		0.83	1.00		0.16	1.00		0.63	1.00		0.48
Lane Grp Cap(c), veh/h	89	646	307	224	903	482	276	558	527	210	492	476
V/C Ratio(X)	0.37	0.44	0.48	0.59	0.58	0.59	0.80	0.53	0.54	0.16	0.48	0.49
Avail Cap(c_a), veh/h	210	1889	898	224	1889	1009	299	1105	1044	210	1016	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	21.8	21.9	25.0	19.5	19.5	24.7	17.2	17.3	24.1	18.4	18.4
Incr Delay (d2), s/veh	2.5	0.5	1.1	4.2	0.6	1.1	13.8	0.8	0.9	0.3	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	2.2	2.4	3.9	4.2	4.6	4.1	4.0	0.5	3.4	3.3
LnGrp Delay(d),s/veh	30.4	22.3	23.1	29.3	20.1	20.6	38.5	18.0	18.2	24.4	19.1	19.2
LnGrp LOS	C	C	C	C	C	C	D	B	B	C	B	B
Approach Vol, veh/h		466			944			800			500	
Approach Delay, s/veh		23.1			21.5			23.8			19.5	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.7	11.5	15.3	13.2	20.5	7.0	19.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	3.0	10.3	6.2	6.8	9.2	8.7	3.1	10.1
Green Ext Time (p_c), s	0.0	6.2	0.4	2.6	0.1	6.1	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↱		↰	↱
Traffic Volume (veh/h)	130	360	680	70	70	140
Future Volume (veh/h)	130	360	680	70	70	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	151	419	791	81	81	163
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	258	3233	1818	185	318	514
Arrive On Green	0.14	0.62	0.38	0.38	0.18	0.18
Sat Flow, veh/h	1810	5358	4952	487	1810	1615
Grp Volume(v), veh/h	151	419	571	301	81	163
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1810	1810	1615
Q Serve(g_s), s	3.1	1.3	4.9	4.9	1.5	3.0
Cycle Q Clear(g_c), s	3.1	1.3	4.9	4.9	1.5	3.0
Prop In Lane	1.00			0.27	1.00	1.00
Lane Grp Cap(c), veh/h	258	3233	1315	688	318	514
V/C Ratio(X)	0.58	0.13	0.43	0.44	0.25	0.32
Avail Cap(c_a), veh/h	409	5340	2431	1273	1863	1893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	3.1	9.2	9.2	14.2	10.3
Incr Delay (d2), s/veh	2.1	0.0	0.2	0.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.6	2.3	2.5	0.8	3.0
LnGrp Delay(d),s/veh	18.1	3.1	9.4	9.6	14.6	10.6
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		570	872		244	
Approach Delay, s/veh		7.1	9.5		11.9	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				28.8		11.0	9.7	19.1
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				3.3		5.0	5.1	6.9
Green Ext Time (p_c), s				9.3		0.7	0.1	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↱		↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	60	200	130	120	430	150	140	470	40	50	690	140
Future Volume (veh/h)	60	200	130	120	430	150	140	470	40	50	690	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	256	167	154	551	192	179	603	51	64	885	179
Adj No. of Lanes	2	2	1	2	2	0	1	2	1	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	264	651	289	671	778	270	221	907	403	272	1449	449
Arrive On Green	0.08	0.18	0.18	0.19	0.30	0.30	0.12	0.25	0.25	0.15	0.28	0.28
Sat Flow, veh/h	3510	3610	1602	3510	2626	912	1810	3610	1605	1810	5187	1606
Grp Volume(v), veh/h	77	256	167	154	378	365	179	603	51	64	885	179
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1734	1810	1805	1605	1810	1729	1606
Q Serve(g_s), s	1.5	4.4	6.7	2.6	13.1	13.2	6.8	10.6	1.7	2.2	10.4	6.4
Cycle Q Clear(g_c), s	1.5	4.4	6.7	2.6	13.1	13.2	6.8	10.6	1.7	2.2	10.4	6.4
Prop In Lane	1.00		1.00	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	651	289	671	535	514	221	907	403	272	1449	449
V/C Ratio(X)	0.29	0.39	0.58	0.23	0.71	0.71	0.81	0.67	0.13	0.24	0.61	0.40
Avail Cap(c_a), veh/h	349	1795	796	671	923	887	257	1641	730	272	2284	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	25.5	26.4	24.1	22.0	22.1	30.1	23.7	20.4	26.4	22.0	20.6
Incr Delay (d2), s/veh	0.6	0.4	1.8	0.2	1.7	1.8	15.5	0.8	0.1	0.4	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	3.1	1.3	6.8	6.5	4.3	5.4	0.8	1.1	5.1	2.9
LnGrp Delay(d),s/veh	31.4	25.8	28.2	24.3	23.8	23.9	45.7	24.5	20.5	26.8	22.5	21.1
LnGrp LOS	C	C	C	C	C	C	D	C	C	C	C	C
Approach Vol, veh/h		500			897			833			1128	
Approach Delay, s/veh		27.5			23.9			28.8			22.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	21.7	17.5	16.7	12.6	23.7	9.3	24.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	8.0	35.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	4.2	12.6	4.6	8.7	8.8	12.4	3.5	15.2
Green Ext Time (p_c), s	0.3	3.7	0.2	2.0	0.1	6.0	0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
52: Cactus Ave & Kitching St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	90	520	90	30	700	20	180	280	20	60	220	100
Future Volume (veh/h)	90	520	90	30	700	20	180	280	20	60	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	634	110	37	854	24	220	341	24	73	268	122
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	147	1200	208	89	1285	36	255	973	68	129	408	344
Arrive On Green	0.08	0.39	0.39	0.05	0.36	0.36	0.14	0.28	0.28	0.07	0.21	0.21
Sat Flow, veh/h	1810	3076	533	1810	3586	101	1810	3422	240	1810	1900	1604
Grp Volume(v), veh/h	110	372	372	37	430	448	220	179	186	73	268	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1804	1810	1805	1882	1810	1805	1856	1810	1900	1604
Q Serve(g_s), s	4.6	12.4	12.4	1.6	15.7	15.7	9.3	6.2	6.2	3.1	10.1	5.1
Cycle Q Clear(g_c), s	4.6	12.4	12.4	1.6	15.7	15.7	9.3	6.2	6.2	3.1	10.1	5.1
Prop In Lane	1.00		0.30	1.00		0.05	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	147	704	704	89	647	674	255	513	528	129	408	344
V/C Ratio(X)	0.75	0.53	0.53	0.41	0.66	0.66	0.86	0.35	0.35	0.57	0.66	0.35
Avail Cap(c_a), veh/h	162	704	704	162	647	674	255	693	713	208	681	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	18.3	18.3	36.0	21.1	21.1	32.8	22.2	22.2	35.1	28.0	26.1
Incr Delay (d2), s/veh	15.7	2.8	2.8	3.0	5.3	5.1	25.0	0.4	0.4	3.9	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.6	6.7	0.8	8.7	9.1	6.4	3.1	3.3	1.7	5.5	2.3
LnGrp Delay(d),s/veh	50.9	21.1	21.1	39.1	26.4	26.2	57.8	22.6	22.6	39.0	29.8	26.7
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		854			915			585			463	
Approach Delay, s/veh		25.0			26.9			35.9			30.5	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	26.2	7.9	34.5	15.0	20.8	10.4	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0	7.0	28.0	11.0	28.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	5.1	8.2	3.6	14.4	11.3	12.1	6.6	17.7
Green Ext Time (p_c), s	0.0	3.7	0.0	7.4	0.0	3.4	0.0	6.2

Intersection Summary		
HCM 2010 Ctrl Delay		28.7
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	70	370	140	160	470	70	130	580	180	80	420	80
Future Volume (veh/h)	70	370	140	160	470	70	130	580	180	80	420	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	420	159	182	534	80	148	659	0	91	477	91
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	154	944	354	218	1455	649	192	898	402	132	653	124
Arrive On Green	0.09	0.37	0.37	0.12	0.40	0.40	0.11	0.25	0.00	0.07	0.22	0.22
Sat Flow, veh/h	1810	2569	962	1810	3610	1609	1810	3610	1615	1810	3025	574
Grp Volume(v), veh/h	80	294	285	182	534	80	148	659	0	91	283	285
Grp Sat Flow(s),veh/h/ln	1810	1805	1726	1810	1805	1609	1810	1805	1615	1810	1805	1794
Q Serve(g_s), s	3.6	10.4	10.6	8.3	8.7	1.9	6.7	14.1	0.0	4.1	12.3	12.5
Cycle Q Clear(g_c), s	3.6	10.4	10.6	8.3	8.7	1.9	6.7	14.1	0.0	4.1	12.3	12.5
Prop In Lane	1.00		0.56	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	154	663	634	218	1455	649	192	898	402	132	390	387
V/C Ratio(X)	0.52	0.44	0.45	0.83	0.37	0.12	0.77	0.73	0.00	0.69	0.73	0.73
Avail Cap(c_a), veh/h	172	663	634	236	1455	649	193	1284	574	150	599	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	20.1	20.2	36.2	17.6	8.2	36.7	29.1	0.0	38.1	30.8	30.8
Incr Delay (d2), s/veh	2.7	2.1	2.3	20.7	0.7	0.4	17.1	1.3	0.0	10.6	2.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.5	5.4	5.4	4.4	1.2	4.3	7.2	0.0	2.5	6.4	6.5
LnGrp Delay(d),s/veh	39.6	22.3	22.5	56.9	18.3	8.6	53.8	30.4	0.0	48.8	33.4	33.5
LnGrp LOS	D	C	C	E	B	A	D	C		D	C	C
Approach Vol, veh/h		659			796			807			659	
Approach Delay, s/veh		24.5			26.2			34.7			35.6	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	25.0	14.2	35.0	12.9	22.2	11.2	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	11.0	31.0	9.0	28.0	8.0	34.0
Max Q Clear Time (g_c+I1), s	6.1	16.1	10.3	12.6	8.7	14.5	5.6	10.7
Green Ext Time (p_c), s	0.0	3.7	0.0	3.1	0.1	2.5	0.8	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	190	360	130	150	410	210	160	360	110	180	340	270
Future Volume (veh/h)	190	360	130	150	410	210	160	360	110	180	340	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	241	456	165	190	519	266	203	456	139	228	430	342
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	916	329	225	748	382	284	680	300	281	950	422
Arrive On Green	0.15	0.35	0.35	0.12	0.32	0.32	0.08	0.19	0.19	0.16	0.26	0.26
Sat Flow, veh/h	1810	2602	934	1810	2310	1180	3510	3610	1594	1810	3610	1606
Grp Volume(v), veh/h	241	315	306	190	405	380	203	456	139	228	430	342
Grp Sat Flow(s),veh/h/ln	1810	1805	1731	1810	1805	1685	1755	1805	1594	1810	1805	1606
Q Serve(g_s), s	11.6	12.2	12.4	9.1	17.4	17.5	5.0	10.4	5.1	10.8	8.9	17.8
Cycle Q Clear(g_c), s	11.6	12.2	12.4	9.1	17.4	17.5	5.0	10.4	5.1	10.8	8.9	17.8
Prop In Lane	1.00		0.54	1.00		0.70	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	635	609	225	584	546	284	680	300	281	950	422
V/C Ratio(X)	0.87	0.50	0.50	0.84	0.69	0.70	0.72	0.67	0.46	0.81	0.45	0.81
Avail Cap(c_a), veh/h	285	831	797	244	791	738	434	1135	501	281	1217	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	22.7	22.7	38.1	26.2	26.3	39.9	33.6	17.4	36.3	27.4	30.7
Incr Delay (d2), s/veh	24.0	0.6	0.6	21.5	1.6	1.8	3.4	1.2	1.1	16.1	0.3	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	6.1	6.0	5.9	8.9	8.4	2.6	5.3	2.3	6.6	4.5	8.7
LnGrp Delay(d),s/veh	60.8	23.3	23.4	59.6	27.9	28.1	43.3	34.7	18.5	52.5	27.8	37.8
LnGrp LOS	E	C	C	E	C	C	D	C	B	D	C	D
Approach Vol, veh/h		862			975			798			1000	
Approach Delay, s/veh		33.8			34.1			34.1			36.8	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	20.8	15.1	35.3	11.2	27.4	17.6	32.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	28.0	12.0	41.0	11.0	30.0	14.0	39.0
Max Q Clear Time (g_c+I1), s	12.8	12.4	11.1	14.4	7.0	19.8	13.6	19.5
Green Ext Time (p_c), s	0.1	2.8	0.0	9.0	0.2	3.1	0.0	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	140	450	50	70	1460	140	70	260	20	140	240	230
Future Volume (veh/h)	140	450	50	70	1460	140	70	260	20	140	240	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	154	495	55	77	1604	154	77	286	22	154	264	253
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	1514	675	189	2018	194	241	715	55	279	799	355
Arrive On Green	0.10	0.42	0.42	0.10	0.42	0.42	0.07	0.21	0.21	0.08	0.22	0.22
Sat Flow, veh/h	1810	3610	1609	1810	4813	461	3510	3397	260	3510	3610	1604
Grp Volume(v), veh/h	154	495	55	77	1152	606	77	151	157	154	264	253
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1729	1817	1755	1805	1852	1755	1805	1604
Q Serve(g_s), s	7.2	7.9	1.3	3.4	24.9	25.0	1.8	6.2	6.3	3.6	5.3	9.3
Cycle Q Clear(g_c), s	7.2	7.9	1.3	3.4	24.9	25.0	1.8	6.2	6.3	3.6	5.3	9.3
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	189	1514	675	189	1450	762	241	380	390	279	799	355
V/C Ratio(X)	0.81	0.33	0.08	0.41	0.79	0.80	0.32	0.40	0.40	0.55	0.33	0.71
Avail Cap(c_a), veh/h	211	1514	675	211	1450	762	286	862	884	286	1724	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	16.8	7.8	36.0	21.7	21.7	38.1	29.2	29.2	38.0	28.1	17.2
Incr Delay (d2), s/veh	19.5	0.6	0.2	1.4	4.6	8.4	0.8	0.7	0.7	2.2	0.2	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.0	0.8	1.8	12.8	14.2	0.9	3.1	3.3	1.8	2.7	4.8
LnGrp Delay(d),s/veh	57.2	17.4	8.0	37.4	26.3	30.2	38.8	29.9	29.9	40.2	28.3	19.9
LnGrp LOS	E	B	A	D	C	C	D	C	C	D	C	B
Approach Vol, veh/h		704			1835			385			671	
Approach Delay, s/veh		25.3			28.0			31.7			27.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	22.1	13.0	40.0	9.9	23.0	13.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	10.0	36.0	7.0	41.0	10.0	36.0
Max Q Clear Time (g_c+I1), s	5.6	8.3	5.4	9.9	3.8	11.3	9.2	27.0
Green Ext Time (p_c), s	0.1	4.9	0.3	3.2	0.0	4.8	0.1	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	40	520	60	100	1530	120	80	210	50	180	180	100
Future Volume (veh/h)	40	520	60	100	1530	120	80	210	50	180	180	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	565	0	109	1663	130	87	228	54	196	196	109
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	1441	645	206	2255	176	132	469	109	239	501	267
Arrive On Green	0.05	0.40	0.00	0.11	0.46	0.46	0.07	0.16	0.16	0.13	0.22	0.22
Sat Flow, veh/h	1810	3610	1615	1810	4906	383	1810	2905	674	1810	2273	1209
Grp Volume(v), veh/h	43	565	0	109	1172	621	87	140	142	196	154	151
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1831	1810	1805	1774	1810	1805	1677
Q Serve(g_s), s	1.9	9.2	0.0	4.7	22.9	23.0	3.9	5.8	6.0	8.7	6.0	6.4
Cycle Q Clear(g_c), s	1.9	9.2	0.0	4.7	22.9	23.0	3.9	5.8	6.0	8.7	6.0	6.4
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.38	1.00		0.72
Lane Grp Cap(c), veh/h	96	1441	645	206	1589	842	132	291	286	239	398	370
V/C Ratio(X)	0.45	0.39	0.00	0.53	0.74	0.74	0.66	0.48	0.50	0.82	0.39	0.41
Avail Cap(c_a), veh/h	153	1441	645	263	1589	842	263	917	901	263	917	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	17.7	0.0	34.6	18.3	18.3	37.3	31.5	31.6	34.9	27.5	27.6
Incr Delay (d2), s/veh	3.2	0.8	0.0	2.1	3.1	5.8	5.4	1.2	1.3	16.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.7	0.0	2.5	11.6	12.9	2.1	3.0	3.1	5.5	3.1	3.0
LnGrp Delay(d),s/veh	41.2	18.5	0.0	36.7	21.3	24.0	42.7	32.7	32.9	51.8	28.1	28.3
LnGrp LOS	D	B		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		608			1902			369			501	
Approach Delay, s/veh		20.1			23.1			35.2			37.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	17.3	13.4	37.0	10.1	22.2	8.4	42.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	12.0	33.0	12.0	42.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	10.7	8.0	6.7	11.2	5.9	8.4	3.9	25.0
Green Ext Time (p_c), s	0.3	1.7	0.2	3.4	0.1	2.5	0.1	8.8

Intersection Summary			
HCM 2010 Ctrl Delay			26.0
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	90	460	60	30	1390	140	170	480	40	140	350	220
Future Volume (veh/h)	90	460	60	30	1390	140	170	480	40	140	350	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	500	65	33	1511	152	185	522	43	152	380	239
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	2097	848	138	1937	195	221	802	66	155	725	445
Arrive On Green	0.08	0.40	0.40	0.08	0.40	0.40	0.12	0.24	0.24	0.09	0.20	0.20
Sat Flow, veh/h	1810	5187	1609	1810	4789	481	1810	3377	277	1810	3610	1603
Grp Volume(v), veh/h	98	500	65	33	1091	572	185	278	287	152	380	239
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1813	1810	1805	1849	1810	1805	1603
Q Serve(g_s), s	4.3	5.2	0.0	1.4	22.4	22.4	8.2	11.4	11.4	6.8	7.7	6.5
Cycle Q Clear(g_c), s	4.3	5.2	0.0	1.4	22.4	22.4	8.2	11.4	11.4	6.8	7.7	6.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	138	2097	848	138	1398	733	221	428	439	155	725	445
V/C Ratio(X)	0.71	0.24	0.08	0.24	0.78	0.78	0.84	0.65	0.65	0.98	0.52	0.54
Avail Cap(c_a), veh/h	155	2097	848	155	1398	733	221	929	951	155	1858	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	16.0	9.5	35.5	21.2	21.2	35.0	28.1	28.1	37.2	29.1	11.3
Incr Delay (d2), s/veh	12.2	0.3	0.2	0.9	4.4	8.1	23.3	1.7	1.6	65.8	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.5	0.8	0.7	11.5	12.8	5.5	5.8	6.0	6.2	3.9	3.0
LnGrp Delay(d),s/veh	49.0	16.3	9.7	36.3	25.5	29.2	58.3	29.7	29.7	103.1	29.7	12.3
LnGrp LOS	D	B	A	D	C	C	E	C	C	F	C	B
Approach Vol, veh/h		663			1696			750			771	
Approach Delay, s/veh		20.5			27.0			36.8			38.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	23.4	10.2	37.0	14.0	20.4	10.2	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	8.8	13.4	3.4	7.2	10.2	9.7	6.3	24.4
Green Ext Time (p_c), s	0.0	3.3	2.8	3.4	0.0	3.6	0.0	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	420	90	90	1260	40	130	280	80	80	220	100
Future Volume (veh/h)	60	420	90	90	1260	40	130	280	80	80	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	457	98	98	1370	43	141	304	87	87	239	109
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	1725	360	153	2145	67	178	568	160	160	473	209
Arrive On Green	0.07	0.40	0.40	0.08	0.42	0.42	0.10	0.20	0.20	0.09	0.19	0.19
Sat Flow, veh/h	1810	4298	897	1810	5167	162	1810	2779	781	1810	2432	1074
Grp Volume(v), veh/h	65	365	190	98	917	496	141	196	195	87	175	173
Grp Sat Flow(s),veh/h/ln	1810	1729	1738	1810	1729	1871	1810	1805	1755	1810	1805	1701
Q Serve(g_s), s	2.5	5.1	5.3	3.8	15.2	15.2	5.5	7.0	7.2	3.3	6.3	6.6
Cycle Q Clear(g_c), s	2.5	5.1	5.3	3.8	15.2	15.2	5.5	7.0	7.2	3.3	6.3	6.6
Prop In Lane	1.00		0.52	1.00		0.09	1.00		0.45	1.00		0.63
Lane Grp Cap(c), veh/h	128	1388	697	153	1436	777	178	369	359	160	351	331
V/C Ratio(X)	0.51	0.26	0.27	0.64	0.64	0.64	0.79	0.53	0.54	0.54	0.50	0.52
Avail Cap(c_a), veh/h	175	1388	697	200	1436	777	200	1099	1069	200	1099	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	14.5	14.5	32.0	16.8	16.8	31.9	25.6	25.7	31.5	26.0	26.1
Incr Delay (d2), s/veh	3.1	0.5	1.0	4.4	2.2	4.0	17.5	1.2	1.3	2.9	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.5	2.7	2.1	7.7	8.7	3.6	3.6	3.6	1.8	3.2	3.2
LnGrp Delay(d),s/veh	35.5	14.9	15.5	36.4	19.0	20.8	49.4	26.8	27.0	34.4	27.1	27.4
LnGrp LOS	D	B	B	D	B	C	D	C	C	C	C	C
Approach Vol, veh/h		620			1511			532			435	
Approach Delay, s/veh		17.3			20.7			32.9			28.7	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	18.8	10.1	33.0	11.1	18.1	9.1	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	44.0	8.0	29.0	8.0	44.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	5.3	9.2	5.8	7.3	7.5	8.6	4.5	17.2
Green Ext Time (p_c), s	0.2	2.5	0.1	3.2	0.0	2.3	0.1	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	330	90	150	1030	140	210	770	140	170	630	240
Future Volume (veh/h)	100	330	90	150	1030	140	210	770	140	170	630	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	371	101	169	1157	157	236	865	157	191	708	270
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	1263	563	243	1627	221	235	1122	500	199	1050	467
Arrive On Green	0.07	0.35	0.35	0.07	0.35	0.35	0.13	0.31	0.31	0.11	0.29	0.29
Sat Flow, veh/h	3510	3610	1608	3510	4618	626	1810	3610	1607	1810	3610	1607
Grp Volume(v), veh/h	112	371	101	169	866	448	236	865	157	191	708	270
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1786	1810	1805	1607	1810	1805	1607
Q Serve(g_s), s	3.1	7.4	4.4	4.7	21.7	21.7	13.0	21.7	5.8	10.5	17.3	14.3
Cycle Q Clear(g_c), s	3.1	7.4	4.4	4.7	21.7	21.7	13.0	21.7	5.8	10.5	17.3	14.3
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	1263	563	243	1219	629	235	1122	500	199	1050	467
V/C Ratio(X)	0.48	0.29	0.18	0.69	0.71	0.71	1.00	0.77	0.31	0.96	0.67	0.58
Avail Cap(c_a), veh/h	246	1263	563	246	1219	629	235	1480	659	199	1408	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	23.6	22.6	45.5	28.0	28.0	43.5	31.2	16.2	44.3	31.3	30.2
Incr Delay (d2), s/veh	1.5	0.6	0.7	8.1	3.5	6.7	59.6	1.8	0.4	52.1	0.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.8	2.0	2.6	10.9	11.9	10.4	11.1	2.6	8.1	8.8	6.5
LnGrp Delay(d),s/veh	46.5	24.1	23.3	53.6	31.5	34.7	103.1	33.1	16.5	96.4	32.1	31.4
LnGrp LOS	D	C	C	D	C	C	F	C	B	F	C	C
Approach Vol, veh/h		584			1483			1258			1169	
Approach Delay, s/veh		28.3			35.0			44.2			42.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	35.1	10.9	39.0	17.0	33.1	10.7	39.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	12.5	23.7	6.7	9.4	15.0	19.3	5.1	23.7
Green Ext Time (p_c), s	0.0	5.9	0.0	12.6	0.0	6.0	0.0	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	170	1140	2230	170	140	140
Future Volume (veh/h)	170	1140	2230	170	140	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	1213	2372	181	149	149
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	255	4091	3068	1111	346	387
Arrive On Green	0.14	0.79	0.59	0.59	0.10	0.10
Sat Flow, veh/h	1810	5358	5358	1608	3510	1615
Grp Volume(v), veh/h	181	1213	2372	181	149	149
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1608	1755	1615
Q Serve(g_s), s	6.8	4.6	24.4	2.8	2.8	0.0
Cycle Q Clear(g_c), s	6.8	4.6	24.4	2.8	2.8	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	255	4091	3068	1111	346	387
V/C Ratio(X)	0.71	0.30	0.77	0.16	0.43	0.39
Avail Cap(c_a), veh/h	255	4091	3068	1111	1533	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	2.1	10.9	3.8	30.1	22.6
Incr Delay (d2), s/veh	8.8	0.2	2.0	0.3	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	2.2	12.0	1.7	1.4	3.0
LnGrp Delay(d),s/veh	38.0	2.3	12.9	4.2	31.0	23.3
LnGrp LOS	D	A	B	A	C	C
Approach Vol, veh/h		1394	2553		298	
Approach Delay, s/veh		6.9	12.3		27.1	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				60.0		11.0	14.0	46.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				56.0		31.0	10.0	42.0
Max Q Clear Time (g_c+I1), s				6.6		4.8	8.8	26.4
Green Ext Time (p_c), s				10.8		1.0	0.9	13.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	1030	160	20	2040	100	180	60	10	110	70	100
Future Volume (veh/h)	110	1030	160	20	2040	100	180	60	10	110	70	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1084	168	21	2147	105	189	63	11	116	74	105
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	2817	875	126	2695	131	275	387	66	146	462	335
Arrive On Green	0.08	0.54	0.54	0.07	0.53	0.53	0.08	0.13	0.13	0.08	0.13	0.13
Sat Flow, veh/h	1810	5187	1611	1810	5067	247	3510	3081	524	1810	3610	1596
Grp Volume(v), veh/h	116	1084	168	21	1462	790	189	36	38	116	74	105
Grp Sat Flow(s),veh/h/ln	1810	1729	1611	1810	1729	1856	1755	1805	1800	1810	1805	1596
Q Serve(g_s), s	5.6	10.7	3.0	1.0	30.3	30.7	4.6	1.6	1.7	5.6	1.6	4.9
Cycle Q Clear(g_c), s	5.6	10.7	3.0	1.0	30.3	30.7	4.6	1.6	1.7	5.6	1.6	4.9
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	146	2817	875	126	1839	987	275	227	226	146	462	335
V/C Ratio(X)	0.79	0.38	0.19	0.17	0.79	0.80	0.69	0.16	0.17	0.79	0.16	0.31
Avail Cap(c_a), veh/h	164	2817	875	143	1839	987	358	735	733	164	1430	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	11.7	4.1	38.7	16.8	16.9	39.7	34.5	34.5	39.9	34.3	29.6
Incr Delay (d2), s/veh	21.0	0.4	0.5	0.6	3.6	6.8	3.6	0.3	0.3	21.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.1	1.9	0.5	15.1	17.4	2.4	0.8	0.8	3.6	0.8	2.2
LnGrp Delay(d),s/veh	60.9	12.1	4.6	39.3	20.4	23.7	43.3	34.8	34.9	60.9	34.5	30.2
LnGrp LOS	E	B	A	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		1368			2273			263			295	
Approach Delay, s/veh		15.3			21.7			40.9			43.3	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	15.1	10.1	52.0	10.9	15.3	11.1	51.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	7.0	48.0	9.0	35.0	8.0	47.0
Max Q Clear Time (g_c+I1), s	7.6	3.7	3.0	12.7	6.6	6.9	7.6	32.7
Green Ext Time (p_c), s	0.0	1.2	3.6	8.9	0.1	1.2	0.0	11.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	90	600	450	20	1220	110	770	530	10	60	300	100
Future Volume (veh/h)	90	600	450	20	1220	110	770	530	10	60	300	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	652	489	22	1326	120	837	576	11	65	326	109
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	2164	1076	91	1373	124	881	1345	26	84	444	146
Arrive On Green	0.06	0.42	0.42	0.05	0.41	0.41	0.25	0.37	0.37	0.05	0.17	0.17
Sat Flow, veh/h	1810	5187	1609	1810	3348	302	3510	3623	69	1810	2666	875
Grp Volume(v), veh/h	98	652	489	22	713	733	837	287	300	65	219	216
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1805	1845	1755	1805	1887	1810	1805	1736
Q Serve(g_s), s	7.5	11.7	0.0	1.6	53.5	54.1	32.6	16.5	16.5	4.9	16.0	16.5
Cycle Q Clear(g_c), s	7.5	11.7	0.0	1.6	53.5	54.1	32.6	16.5	16.5	4.9	16.0	16.5
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.04	1.00		0.50
Lane Grp Cap(c), veh/h	104	2164	1076	91	740	757	881	670	701	84	301	289
V/C Ratio(X)	0.94	0.30	0.45	0.24	0.96	0.97	0.95	0.43	0.43	0.78	0.73	0.75
Avail Cap(c_a), veh/h	104	2164	1076	91	740	757	884	753	787	143	441	425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	27.0	11.0	63.5	40.0	40.2	51.2	32.7	32.7	65.6	55.0	55.2
Incr Delay (d2), s/veh	69.4	0.4	1.4	1.4	25.2	26.1	19.2	0.4	0.4	14.2	3.4	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	5.6	9.2	0.8	31.7	33.0	18.2	8.3	8.7	2.8	8.2	8.3
LnGrp Delay(d),s/veh	134.7	27.4	12.4	64.8	65.2	66.3	70.5	33.1	33.1	79.8	58.3	59.3
LnGrp LOS	F	C	B	E	E	E	E	C	C	E	E	E
Approach Vol, veh/h		1239			1468			1424			500	
Approach Delay, s/veh		29.9			65.7			55.1			61.5	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	55.6	11.0	62.0	38.9	27.2	12.0	61.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	58.0	7.0	58.0	35.0	34.0	8.0	57.0
Max Q Clear Time (g_c+I1), s	6.9	18.5	3.6	13.7	34.6	18.5	9.5	56.1
Green Ext Time (p_c), s	0.0	8.5	0.1	6.6	0.3	2.3	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	52.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	40	510	110	60	1080	90	130	400	80	110	270	40
Future Volume (veh/h)	40	510	110	60	1080	90	130	400	80	110	270	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	46	586	126	69	1241	103	149	460	92	126	310	46
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1187	254	129	1400	116	261	675	134	160	534	78
Arrive On Green	0.06	0.40	0.40	0.07	0.41	0.41	0.14	0.23	0.23	0.09	0.17	0.17
Sat Flow, veh/h	1810	2956	634	1810	3375	280	1810	2999	596	1810	3155	463
Grp Volume(v), veh/h	46	357	355	69	663	681	149	276	276	126	176	180
Grp Sat Flow(s),veh/h/ln	1810	1805	1785	1810	1805	1849	1810	1805	1790	1810	1805	1813
Q Serve(g_s), s	1.8	11.0	11.1	2.8	25.4	25.5	5.7	10.4	10.6	5.1	6.7	6.8
Cycle Q Clear(g_c), s	1.8	11.0	11.1	2.8	25.4	25.5	5.7	10.4	10.6	5.1	6.7	6.8
Prop In Lane	1.00		0.36	1.00		0.15	1.00		0.33	1.00		0.26
Lane Grp Cap(c), veh/h	104	724	717	129	749	767	261	406	403	160	306	307
V/C Ratio(X)	0.44	0.49	0.50	0.54	0.88	0.89	0.57	0.68	0.69	0.79	0.58	0.59
Avail Cap(c_a), veh/h	169	724	717	194	749	767	261	676	671	194	700	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	16.7	16.7	33.5	20.2	20.3	29.8	26.5	26.5	33.4	28.6	28.6
Incr Delay (d2), s/veh	2.9	2.4	2.4	3.5	14.5	14.5	3.0	2.0	2.1	16.1	1.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.9	5.9	1.5	15.5	16.0	3.1	5.4	5.5	3.3	3.5	3.6
LnGrp Delay(d),s/veh	37.0	19.1	19.2	37.0	34.7	34.8	32.8	28.5	28.6	49.5	30.3	30.4
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		758			1413			701			482	
Approach Delay, s/veh		20.2			34.8			29.4			35.3	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	20.8	9.3	34.0	14.8	16.7	8.3	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	8.0	30.0	7.0	29.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	7.1	12.6	4.8	13.1	7.7	8.8	3.8	27.5
Green Ext Time (p_c), s	0.0	3.0	2.2	3.6	0.0	2.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	30.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	120	470	140	70	840	100	280	820	100	80	570	130
Future Volume (veh/h)	120	470	140	70	840	100	280	820	100	80	570	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	540	161	80	966	115	322	943	115	92	655	149
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	1055	313	122	1162	138	142	1399	170	127	1232	276
Arrive On Green	0.09	0.38	0.38	0.07	0.36	0.36	0.08	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	1810	2743	815	1810	3248	387	1810	4685	570	1810	4236	949
Grp Volume(v), veh/h	138	355	346	80	537	544	322	695	363	92	533	271
Grp Sat Flow(s),veh/h/ln	1810	1805	1753	1810	1805	1830	1810	1729	1796	1810	1729	1727
Q Serve(g_s), s	6.7	13.5	13.6	3.9	24.3	24.3	7.0	15.8	15.9	4.5	11.6	11.8
Cycle Q Clear(g_c), s	6.7	13.5	13.6	3.9	24.3	24.3	7.0	15.8	15.9	4.5	11.6	11.8
Prop In Lane	1.00		0.46	1.00		0.21	1.00		0.32	1.00		0.55
Lane Grp Cap(c), veh/h	170	694	674	122	646	655	142	1033	537	127	1005	502
V/C Ratio(X)	0.81	0.51	0.51	0.65	0.83	0.83	2.27	0.67	0.68	0.72	0.53	0.54
Avail Cap(c_a), veh/h	182	694	674	142	646	655	142	1033	537	142	1005	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	21.1	21.1	40.7	26.2	26.2	41.2	27.5	27.6	40.7	26.6	26.7
Incr Delay (d2), s/veh	22.1	2.7	2.8	8.4	11.8	11.7	594.8	3.5	6.7	14.9	2.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	7.2	7.1	2.2	14.2	14.4	26.9	8.0	8.9	2.7	5.8	6.2
LnGrp Delay(d),s/veh	61.8	23.8	23.9	49.1	38.1	38.0	636.0	31.0	34.2	55.6	28.6	30.8
LnGrp LOS	E	C	C	D	D	D	F	C	C	E	C	C
Approach Vol, veh/h		839			1161			1380			896	
Approach Delay, s/veh		30.1			38.8			173.0			32.0	
Approach LOS		C			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	30.7	10.0	38.4	11.0	30.0	12.4	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.5	17.9	5.9	15.6	9.0	13.8	8.7	26.3
Green Ext Time (p_c), s	0.0	4.6	0.0	4.0	0.0	3.9	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	79.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	150	1050	160	90	2300	430	720	620	80	110	80	130
Future Volume (veh/h)	150	1050	160	90	2300	430	720	620	80	110	80	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1094	167	94	2396	448	750	646	83	115	83	135
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	2324	721	245	2286	709	568	841	856	256	520	230
Arrive On Green	0.08	0.45	0.45	0.07	0.44	0.44	0.16	0.23	0.23	0.07	0.14	0.14
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2824	3510	3610	1598
Grp Volume(v), veh/h	156	1094	167	94	2396	448	750	646	83	115	83	135
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1412	1755	1805	1598
Q Serve(g_s), s	7.0	13.4	3.2	2.3	40.0	19.6	14.7	15.2	1.9	2.8	1.8	5.8
Cycle Q Clear(g_c), s	7.0	13.4	3.2	2.3	40.0	19.6	14.7	15.2	1.9	2.8	1.8	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	2324	721	245	2286	709	568	841	856	256	520	230
V/C Ratio(X)	1.12	0.47	0.23	0.38	1.05	0.63	1.32	0.77	0.10	0.45	0.16	0.59
Avail Cap(c_a), veh/h	140	2324	721	271	2286	709	568	1750	1568	309	1790	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	17.5	4.6	40.3	25.4	19.7	38.0	32.5	22.7	40.3	34.0	23.6
Incr Delay (d2), s/veh	111.2	0.1	0.2	1.0	32.9	1.8	156.2	1.5	0.0	1.2	0.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	6.4	2.3	1.2	25.8	9.0	19.3	7.7	0.7	1.4	0.9	3.0
LnGrp Delay(d),s/veh	153.1	17.7	4.8	41.3	58.2	21.5	194.2	34.0	22.8	41.6	34.2	26.0
LnGrp LOS	F	B	A	D	F	C	F	C	C	D	C	C
Approach Vol, veh/h		1417			2938			1479			333	
Approach Delay, s/veh		31.1			52.1			114.6			33.4	
Approach LOS		C			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	25.1	10.3	44.7	18.7	17.1	11.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	44.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	4.8	17.2	4.3	15.4	16.7	7.8	9.0	42.0
Green Ext Time (p_c), s	0.1	4.0	0.1	23.5	0.0	0.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.2
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	670	510	0	2550	0	0	0	0	180	0	300
Future Volume (veh/h)	0	670	510	0	2550	0	0	0	0	180	0	300
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	0.95
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	691	526	0	2629	0				124	0	375
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2572	1201	0	3857	0				283	0	480
Arrive On Green	0.00	0.74	0.74	0.00	1.00	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	3629	1615	0	5529	0				1810	0	3068
Grp Volume(v), veh/h	0	691	526	0	2629	0				124	0	375
Grp Sat Flow(s),veh/h/ln	0	1729	1615	0	1729	0				1810	0	1534
Q Serve(g_s), s	0.0	5.1	9.9	0.0	0.0	0.0				5.0	0.0	9.4
Cycle Q Clear(g_c), s	0.0	5.1	9.9	0.0	0.0	0.0				5.0	0.0	9.4
Prop In Lane	0.00		1.00	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2572	1201	0	3857	0				283	0	480
V/C Ratio(X)	0.00	0.27	0.44	0.00	0.68	0.00				0.44	0.00	0.78
Avail Cap(c_a), veh/h	0	2572	1201	0	3857	0				407	0	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.00	0.31	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.3	3.9	0.0	0.0	0.0				30.6	0.0	32.4
Incr Delay (d2), s/veh	0.0	0.2	1.0	0.0	0.3	0.0				1.1	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	4.7	0.0	0.1	0.0				2.6	0.0	4.2
LnGrp Delay(d),s/veh	0.0	3.5	4.9	0.0	0.3	0.0				31.6	0.0	36.1
LnGrp LOS		A	A		A					C		D
Approach Vol, veh/h		1217			2629						499	
Approach Delay, s/veh		4.1			0.3						35.0	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				63.5		16.5		63.5
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				54.0		18.0		54.0
Max Q Clear Time (g_c+I1), s				11.9		11.4		2.0
Green Ext Time (p_c), s				39.4		1.1		47.9

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	70	790	0	0	2000	170	890	10	200	0	0	0
Future Volume (veh/h)	70	790	0	0	2000	170	890	10	200	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	72	814	0	0	2062	175	986	0	141			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	181	3112	0	0	2193	185	1086	0	485			
Arrive On Green	0.20	1.00	0.00	0.00	0.45	0.45	0.30	0.00	0.30			
Sat Flow, veh/h	1810	5358	0	0	5045	410	3619	0	1615			
Grp Volume(v), veh/h	72	814	0	0	1458	779	986	0	141			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1826	1810	0	1615			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	32.1	32.7	21.0	0.0	5.4			
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.0	32.1	32.7	21.0	0.0	5.4			
Prop In Lane	1.00		0.00	0.00		0.22	1.00		1.00			
Lane Grp Cap(c), veh/h	181	3112	0	0	1556	822	1086	0	485			
V/C Ratio(X)	0.40	0.26	0.00	0.00	0.94	0.95	0.91	0.00	0.29			
Avail Cap(c_a), veh/h	181	3112	0	0	1556	822	1131	0	505			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	29.9	0.0	0.0	0.0	20.9	21.1	26.9	0.0	21.5			
Incr Delay (d2), s/veh	1.3	0.2	0.0	0.0	12.1	21.0	10.4	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.0	0.0	17.8	21.0	12.0	0.0	2.4			
LnGrp Delay(d),s/veh	31.3	0.2	0.0	0.0	33.0	42.1	37.4	0.0	21.8			
LnGrp LOS	C	A			C	D	D		C			
Approach Vol, veh/h		886			2237			1127				
Approach Delay, s/veh		2.7			36.2			35.4				
Approach LOS		A			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		28.0		52.0			12.0	40.0
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		25.0		47.0			7.0	36.0
Max Q Clear Time (g_c+I1), s		23.0		2.0			4.8	34.7
Green Ext Time (p_c), s		1.0		6.5			1.2	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	260	710	120	30	1730	130	250	490	20	20	60	200
Future Volume (veh/h)	260	710	120	30	1730	130	250	490	20	20	60	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	274	747	126	32	1821	0	263	516	21	21	63	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	320	1654	279	144	1891	846	432	631	282	51	288	129
Arrive On Green	0.09	0.54	0.54	0.08	0.52	0.00	0.12	0.17	0.17	0.03	0.08	0.00
Sat Flow, veh/h	3510	3090	521	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	274	436	437	32	1821	0	263	516	21	21	63	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1806	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.8	13.0	13.0	1.5	42.6	0.0	6.2	12.1	1.0	1.0	1.4	0.0
Cycle Q Clear(g_c), s	6.8	13.0	13.0	1.5	42.6	0.0	6.2	12.1	1.0	1.0	1.4	0.0
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	320	966	967	144	1891	846	432	631	282	51	288	129
V/C Ratio(X)	0.86	0.45	0.45	0.22	0.96	0.00	0.61	0.82	0.07	0.41	0.22	0.00
Avail Cap(c_a), veh/h	320	966	967	144	1891	846	432	740	331	144	740	331
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.3	12.5	12.5	37.9	20.1	0.0	36.5	34.9	30.3	42.0	37.8	0.0
Incr Delay (d2), s/veh	19.9	1.5	1.5	0.8	13.6	0.0	2.5	6.3	0.1	5.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	6.8	6.8	0.8	24.6	0.0	3.2	6.6	0.4	0.6	0.7	0.0
LnGrp Delay(d),s/veh	59.3	14.0	14.0	38.6	33.7	0.0	39.0	41.2	30.4	47.2	38.2	0.0
LnGrp LOS	E	B	B	D	C		D	D	C	D	D	
Approach Vol, veh/h		1147			1853			800			84	
Approach Delay, s/veh		24.8			33.8			40.2			40.5	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	19.3	11.0	51.0	14.8	11.0	12.0	50.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	8.0	46.0
Max Q Clear Time (g_c+I1), s	3.0	14.1	3.5	15.0	8.2	3.4	8.8	44.6
Green Ext Time (p_c), s	0.0	1.3	3.0	5.6	0.0	0.2	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	130	640	30	20	1580	130	40	80	20	60	20	130
Future Volume (veh/h)	130	640	30	20	1580	130	40	80	20	60	20	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	674	32	21	1663	137	42	84	21	63	21	137
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	2817	133	62	2386	196	286	325	81	341	48	315
Arrive On Green	0.10	0.56	0.56	0.03	0.49	0.49	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	5074	240	1810	4883	402	1242	1466	366	1303	218	1420
Grp Volume(v), veh/h	137	458	248	21	1177	623	42	0	105	63	0	158
Grp Sat Flow(s),veh/h/ln	1810	1729	1856	1810	1729	1827	1242	0	1832	1303	0	1638
Q Serve(g_s), s	4.7	4.3	4.3	0.7	16.7	16.8	1.9	0.0	3.0	2.7	0.0	5.3
Cycle Q Clear(g_c), s	4.7	4.3	4.3	0.7	16.7	16.8	7.2	0.0	3.0	5.7	0.0	5.3
Prop In Lane	1.00		0.13	1.00		0.22	1.00		0.20	1.00		0.87
Lane Grp Cap(c), veh/h	182	1919	1030	62	1690	893	286	0	406	341	0	363
V/C Ratio(X)	0.75	0.24	0.24	0.34	0.70	0.70	0.15	0.00	0.26	0.18	0.00	0.44
Avail Cap(c_a), veh/h	228	1919	1030	200	1690	893	872	0	1271	955	0	1136
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.8	7.2	7.2	29.9	12.6	12.6	24.4	0.0	20.4	22.7	0.0	21.3
Incr Delay (d2), s/veh	10.3	0.3	0.6	3.2	2.4	4.5	0.2	0.0	0.3	0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.1	2.4	0.4	8.4	9.4	0.7	0.0	1.6	1.0	0.0	2.5
LnGrp Delay(d),s/veh	38.1	7.5	7.8	33.1	15.0	17.1	24.6	0.0	20.7	23.0	0.0	22.1
LnGrp LOS	D	A	A	C	B	B	C		C	C		C
Approach Vol, veh/h		843			1821			147			221	
Approach Delay, s/veh		12.6			15.9			21.8			22.3	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		18.1	6.2	39.2		18.1	10.4	35.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		9.2	2.7	6.3		7.7	6.7	18.8
Green Ext Time (p_c), s		2.1	0.0	18.5		2.1	0.0	10.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	30	580	100	100	1520	60	110	120	50	40	150	60
Future Volume (veh/h)	30	580	100	100	1520	60	110	120	50	40	150	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	611	105	105	1600	63	116	126	53	42	158	63
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	1854	314	162	2202	87	166	383	323	102	316	266
Arrive On Green	0.07	0.42	0.42	0.09	0.43	0.43	0.09	0.20	0.20	0.06	0.17	0.17
Sat Flow, veh/h	1810	4465	756	1810	5120	202	1810	1900	1603	1810	1900	1600
Grp Volume(v), veh/h	32	471	245	105	1081	582	116	126	53	42	158	63
Grp Sat Flow(s),veh/h/ln	1810	1729	1763	1810	1729	1863	1810	1900	1603	1810	1900	1600
Q Serve(g_s), s	1.1	6.2	6.4	3.8	17.5	17.5	4.2	3.8	1.4	1.5	5.1	2.3
Cycle Q Clear(g_c), s	1.1	6.2	6.4	3.8	17.5	17.5	4.2	3.8	1.4	1.5	5.1	2.3
Prop In Lane	1.00		0.43	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	1436	732	162	1487	801	166	383	323	102	316	266
V/C Ratio(X)	0.24	0.33	0.33	0.65	0.73	0.73	0.70	0.33	0.16	0.41	0.50	0.24
Avail Cap(c_a), veh/h	188	1436	732	215	1487	801	188	1155	975	188	1155	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	13.4	13.4	29.7	15.9	15.9	29.7	23.0	12.2	30.7	25.6	24.4
Incr Delay (d2), s/veh	0.9	0.6	1.2	4.3	3.1	5.7	9.3	0.5	0.2	2.6	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.1	3.3	2.1	8.9	10.2	2.5	2.0	0.8	0.8	2.8	1.1
LnGrp Delay(d),s/veh	30.3	14.0	14.6	34.0	19.1	21.7	39.0	23.5	12.4	33.3	26.8	24.9
LnGrp LOS	C	B	B	C	B	C	D	C	B	C	C	C
Approach Vol, veh/h		748			1768			295			263	
Approach Delay, s/veh		14.9			20.8			27.6			27.4	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	17.6	10.0	32.0	10.2	15.2	9.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	8.0	28.0	7.0	41.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.5	5.8	5.8	8.4	6.2	7.1	3.1	19.5
Green Ext Time (p_c), s	0.0	1.2	0.1	4.1	0.1	1.1	0.1	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↳	
Traffic Volume (veh/h)	0	280	180	580	2030	0	0	0	0	0	0	240
Future Volume (veh/h)	0	280	180	580	2030	0	0	0	0	0	0	240
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	315	202	652	2281	0				0	0	270
Adj No. of Lanes	0	3	1	1	3	0				0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1167	359	1221	4928	0				0	0	0
Arrive On Green	0.00	0.22	0.22	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1597	1810	5358	0					0	
Grp Volume(v), veh/h	0	315	202	652	2281	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1597	1810	1729	0						
Q Serve(g_s), s	0.0	4.0	9.0	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	4.0	9.0	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1167	359	1221	4928	0						
V/C Ratio(X)	0.00	0.27	0.56	0.53	0.46	0.00						
Avail Cap(c_a), veh/h	0	1167	359	1221	4928	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	25.6	27.5	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	0.6	6.2	0.0	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	2.0	4.6	0.0	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	26.1	33.7	0.0	0.0	0.0						
LnGrp LOS		C	C	A	A							
Approach Vol, veh/h		517			2933							
Approach Delay, s/veh		29.1			0.0							
Approach LOS		C			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			58.0	22.0				80.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			32.0	18.0				54.0
Max Q Clear Time (g_c+I1), s			2.0	11.0				2.0
Green Ext Time (p_c), s			23.3	1.5				34.7

Intersection Summary			
HCM 2010 Ctrl Delay			4.4
HCM 2010 LOS			A

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	30	840	60	0	2020	360	510	350	10	60	0	190
Future Volume (veh/h)	30	840	60	0	2020	360	510	350	10	60	0	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	913	65	0	2196	391	554	380	11	65	0	207
Adj No. of Lanes	1	3	0	0	3	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	2349	167	0	2115	364	496	781	23	367	0	686
Arrive On Green	0.95	0.95	0.95	0.00	0.47	0.47	0.43	0.43	0.43	0.43	0.00	0.43
Sat Flow, veh/h	122	4945	351	0	4623	766	1194	1837	53	1009	0	1615
Grp Volume(v), veh/h	33	638	340	0	1688	899	554	0	391	65	0	207
Grp Sat Flow(s),veh/h/ln	122	1729	1838	0	1729	1760	1194	0	1891	1009	0	1615
Q Serve(g_s), s	0.0	1.2	1.2	0.0	38.0	38.0	27.2	0.0	12.0	4.0	0.0	6.8
Cycle Q Clear(g_c), s	38.0	1.2	1.2	0.0	38.0	38.0	34.0	0.0	12.0	16.0	0.0	6.8
Prop In Lane	1.00		0.19	0.00		0.44	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	90	1643	873	0	1643	836	496	0	804	367	0	686
V/C Ratio(X)	0.37	0.39	0.39	0.00	1.03	1.08	1.12	0.00	0.49	0.18	0.00	0.30
Avail Cap(c_a), veh/h	90	1643	873	0	1643	836	496	0	804	367	0	686
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	1.1	1.1	0.0	21.0	21.0	28.9	0.0	16.7	22.5	0.0	15.2
Incr Delay (d2), s/veh	11.0	0.7	1.3	0.0	29.6	53.3	76.2	0.0	0.5	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.5	0.7	0.0	24.8	30.7	21.4	0.0	6.3	1.1	0.0	3.0
LnGrp Delay(d),s/veh	32.0	1.8	2.4	0.0	50.6	74.3	105.0	0.0	17.1	22.7	0.0	15.4
LnGrp LOS	C	A	A		F	F	F		B	C		B
Approach Vol, veh/h		1011			2587			945			272	
Approach Delay, s/veh		3.0			58.8			68.7			17.2	
Approach LOS		A			E			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		42.0		38.0		42.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		34.0		38.0		34.0		38.0
Max Q Clear Time (g_c+I1), s		36.0		40.0		18.0		40.0
Green Ext Time (p_c), s		0.0		0.0		6.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Traffic Volume (veh/h)	160	1260	270	90	2070	140	70	30	60	100	70	160
Future Volume (veh/h)	160	1260	270	90	2070	140	70	30	60	100	70	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	172	1355	0	97	2226	151	75	32	65	92	98	172
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	192	2598	809	192	2598	805	183	56	114	250	262	391
Arrive On Green	0.11	0.50	0.00	0.11	0.50	0.50	0.10	0.10	0.10	0.14	0.14	0.14
Sat Flow, veh/h	1810	5187	1615	1810	5187	1607	1810	555	1127	1810	1900	1597
Grp Volume(v), veh/h	172	1355	0	97	2226	151	75	0	97	92	98	172
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1607	1810	0	1681	1810	1900	1597
Q Serve(g_s), s	9.7	18.3	0.0	5.3	39.0	5.4	4.0	0.0	5.7	4.8	4.9	9.5
Cycle Q Clear(g_c), s	9.7	18.3	0.0	5.3	39.0	5.4	4.0	0.0	5.7	4.8	4.9	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	192	2598	809	192	2598	805	183	0	170	250	262	391
V/C Ratio(X)	0.90	0.52	0.00	0.51	0.86	0.19	0.41	0.00	0.57	0.37	0.37	0.44
Avail Cap(c_a), veh/h	192	2598	809	192	2598	805	645	0	599	593	622	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	17.5	0.0	43.8	22.7	14.3	43.8	0.0	44.5	40.6	40.7	33.3
Incr Delay (d2), s/veh	37.8	0.8	0.0	2.1	3.9	0.5	1.5	0.0	3.0	0.9	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	8.8	0.0	2.8	19.5	2.5	2.1	0.0	2.8	2.5	2.6	4.3
LnGrp Delay(d),s/veh	83.7	18.3	0.0	46.0	26.6	14.8	45.2	0.0	47.5	41.6	41.6	34.0
LnGrp LOS	F	B		D	C	B	D		D	D	D	C
Approach Vol, veh/h		1527			2474			172			362	
Approach Delay, s/veh		25.6			26.6			46.5			38.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.5	15.0	56.0		18.3	15.0	56.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	11.0	52.0		34.0	11.0	52.0
Max Q Clear Time (g_c+I1), s		7.7	7.3	20.3		11.5	11.7	41.0
Green Ext Time (p_c), s		0.8	3.4	10.6		1.3	0.0	9.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	710	60	10	710	1010	400
Future Volume (veh/h)	710	60	10	710	1010	400
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	866	73	12	866	1232	488
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	827	70	115	1247	1053	1042
Arrive On Green	0.25	0.25	0.06	0.35	0.58	0.58
Sat Flow, veh/h	3463	284	1810	3705	1810	1615
Grp Volume(v), veh/h	464	475	12	866	1232	488
Grp Sat Flow(s),veh/h/ln	1805	1846	1810	1805	1810	1615
Q Serve(g_s), s	27.0	27.0	0.7	22.7	64.0	9.9
Cycle Q Clear(g_c), s	27.0	27.0	0.7	22.7	64.0	9.9
Prop In Lane		0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	443	453	115	1247	1053	1042
V/C Ratio(X)	1.05	1.05	0.10	0.69	1.17	0.47
Avail Cap(c_a), veh/h	443	453	115	1247	1053	1042
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	41.5	48.5	31.0	23.0	9.9
Incr Delay (d2), s/veh	55.8	55.3	0.4	3.2	86.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.3	20.7	0.4	11.9	57.0	4.4
LnGrp Delay(d),s/veh	97.3	96.8	48.9	34.2	109.9	10.2
LnGrp LOS	F	F	D	C	F	B
Approach Vol, veh/h	939			878	1720	
Approach Delay, s/veh	97.0			34.4	81.7	
Approach LOS	F			C	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		68.0	11.0	31.0				42.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		64.0	7.0	27.0				38.0
Max Q Clear Time (g_c+I1), s		66.0	2.7	29.0				24.7
Green Ext Time (p_c), s		0.0	2.0	0.0				4.3

Intersection Summary	
HCM 2010 Ctrl Delay	74.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	30	910	150	50	370	40	360	590	730	70	40	10
Future Volume (veh/h)	30	910	150	50	370	40	360	590	730	70	40	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	968	160	53	394	43	383	628	777	74	43	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	1320	409	568	1237	134	604	724	613	103	377	168
Arrive On Green	0.04	0.25	0.25	0.16	0.38	0.38	0.33	0.38	0.38	0.06	0.10	0.00
Sat Flow, veh/h	1810	5187	1605	3510	3283	356	1810	1900	1609	1810	3610	1615
Grp Volume(v), veh/h	32	968	160	53	216	221	383	628	777	74	43	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1605	1755	1805	1834	1810	1900	1609	1810	1805	1615
Q Serve(g_s), s	1.9	18.8	9.1	1.4	9.3	9.4	19.7	33.6	26.0	4.4	1.2	0.0
Cycle Q Clear(g_c), s	1.9	18.8	9.1	1.4	9.3	9.4	19.7	33.6	26.0	4.4	1.2	0.0
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	72	1320	409	568	680	691	604	724	613	103	377	168
V/C Ratio(X)	0.45	0.73	0.39	0.09	0.32	0.32	0.63	0.87	1.27	0.72	0.11	0.00
Avail Cap(c_a), veh/h	115	1320	409	568	680	691	604	898	760	115	1247	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.6	37.6	33.9	39.2	24.3	24.3	31.0	31.5	13.1	51.0	44.7	0.0
Incr Delay (d2), s/veh	4.3	3.6	2.8	0.1	1.2	1.2	2.2	7.6	132.9	17.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	9.4	4.3	0.7	4.8	5.0	10.2	19.1	34.1	2.7	0.6	0.0
LnGrp Delay(d),s/veh	55.9	41.2	36.8	39.3	25.5	25.5	33.1	39.1	146.0	68.2	44.8	0.0
LnGrp LOS	E	D	D	D	C	C	C	D	F	E	D	
Approach Vol, veh/h		1160			490			1788			117	
Approach Delay, s/veh		41.0			27.0			84.3			59.6	
Approach LOS		D			C			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	45.9	21.8	32.0	40.7	15.5	8.4	45.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	52.0	7.0	28.0	21.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	6.4	35.6	3.4	20.8	21.7	3.2	3.9	11.4
Green Ext Time (p_c), s	0.0	6.3	0.1	3.6	0.0	0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	61.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	120	0	60	0	0	0	0	1370	300	220	380	0
Future Volume (veh/h)	120	0	60	0	0	0	0	1370	300	220	380	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	132	0	66				0	1505	330	242	418	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	167	0	262				0	2199	984	665	3014	0
Arrive On Green	0.09	0.00	0.09				0.00	1.00	1.00	0.19	0.83	0.00
Sat Flow, veh/h	1810	0	2842				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	132	0	66				0	1505	330	242	418	0
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1805	1615	1755	1805	0
Q Serve(g_s), s	7.9	0.0	2.4				0.0	0.0	0.0	6.6	2.4	0.0
Cycle Q Clear(g_c), s	7.9	0.0	2.4				0.0	0.0	0.0	6.6	2.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	167	0	262				0	2199	984	665	3014	0
V/C Ratio(X)	0.79	0.00	0.25				0.00	0.68	0.34	0.36	0.14	0.00
Avail Cap(c_a), veh/h	280	0	439				0	2199	984	665	3014	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.62	0.62	0.99	0.99	0.00
Uniform Delay (d), s/veh	48.9	0.0	46.4				0.0	0.0	0.0	38.8	1.7	0.0
Incr Delay (d2), s/veh	8.1	0.0	0.5				0.0	1.1	0.6	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	1.0				0.0	0.3	0.2	3.2	1.2	0.0
LnGrp Delay(d),s/veh	56.9	0.0	46.9				0.0	1.1	0.6	39.1	1.8	0.0
LnGrp LOS	E		D					A	A	D	A	
Approach Vol, veh/h		198						1835			660	
Approach Delay, s/veh		53.6						1.0			15.5	
Approach LOS		D						A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			24.8	71.0		14.2		95.8
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			14.0	67.0		17.0		85.0
Max Q Clear Time (g_c+I1), s			8.6	2.0		9.9		4.4
Green Ext Time (p_c), s			1.6	17.7		0.3		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	200	520	1480	0	0	410
Future Volume (veh/h)	200	520	1480	0	0	410
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	222	578	1644	0	0	456
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1329	611	1981	0	0	1981
Arrive On Green	0.38	0.38	0.55	0.00	0.00	0.55
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	222	578	1644	0	0	456
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	4.6	38.1	41.5	0.0	0.0	7.2
Cycle Q Clear(g_c), s	4.6	38.1	41.5	0.0	0.0	7.2
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1329	611	1981	0	0	1981
V/C Ratio(X)	0.17	0.95	0.83	0.00	0.00	0.23
Avail Cap(c_a), veh/h	1436	661	1981	0	0	1981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.72	0.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	33.1	20.6	0.0	0.0	12.8
Incr Delay (d2), s/veh	0.1	21.8	3.1	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	20.6	21.4	0.0	0.0	3.6
LnGrp Delay(d),s/veh	22.7	54.9	23.6	0.0	0.0	13.1
LnGrp LOS	C	D	C			B
Approach Vol, veh/h	800		1644			456
Approach Delay, s/veh	46.0		23.6			13.1
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		64.4				64.4		45.6
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		57.0				57.0		45.0
Max Q Clear Time (g_c+I1), s		43.5				9.2		40.1
Green Ext Time (p_c), s		10.3				23.5		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↖↖	↑↑↑	↖↖Y	
Traffic Volume (veh/h)	1110	10	140	3000	1560	10
Future Volume (veh/h)	1110	10	140	3000	1560	10
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1156	10	146	3125	1634	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1577	14	926	3118	1730	515
Arrive On Green	0.30	0.30	0.26	0.60	0.32	0.00
Sat Flow, veh/h	5475	46	3510	5358	5429	1615
Grp Volume(v), veh/h	754	412	146	3125	1634	0
Grp Sat Flow(s),veh/h/ln	1729	1891	1755	1729	1810	1615
Q Serve(g_s), s	19.5	19.6	3.2	60.0	29.3	0.0
Cycle Q Clear(g_c), s	19.5	19.6	3.2	60.0	29.3	0.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1028	562	926	3118	1730	515
V/C Ratio(X)	0.73	0.73	0.16	1.00	0.94	0.00
Avail Cap(c_a), veh/h	1663	910	926	3118	1740	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.5	31.5	28.2	19.9	33.1	0.0
Incr Delay (d2), s/veh	1.0	1.9	0.1	16.6	11.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	10.5	1.6	33.1	16.3	0.0
LnGrp Delay(d),s/veh	32.5	33.4	28.3	36.5	44.2	0.0
LnGrp LOS	C	C	C	F	D	
Approach Vol, veh/h	1166			3271	1634	
Approach Delay, s/veh	32.8			36.2	44.2	
Approach LOS	C			D	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		35.8	30.3	33.7				64.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		32.0	8.0	48.0				60.0
Max Q Clear Time (g_c+I1), s		31.3	5.2	21.6				62.0
Green Ext Time (p_c), s		0.5	2.8	7.6				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	50	1040	50	230	2920	200	150	310	210	70	150	30
Future Volume (veh/h)	50	1040	50	230	2920	200	150	310	210	70	150	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	1118	54	247	3140	215	161	333	226	75	161	32
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	2108	654	336	2289	153	612	467	395	122	419	81
Arrive On Green	0.04	0.41	0.41	0.10	0.46	0.46	0.17	0.25	0.25	0.07	0.14	0.14
Sat Flow, veh/h	1810	5187	1609	3510	4965	332	3510	1900	1605	1810	3010	585
Grp Volume(v), veh/h	54	1118	54	247	2165	1190	161	333	226	75	95	98
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1755	1729	1839	1755	1900	1605	1810	1805	1789
Q Serve(g_s), s	2.6	14.2	1.0	5.9	40.0	40.0	3.4	13.9	10.7	3.5	4.2	4.3
Cycle Q Clear(g_c), s	2.6	14.2	1.0	5.9	40.0	40.0	3.4	13.9	10.7	3.5	4.2	4.3
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	74	2108	654	336	1594	848	612	467	395	122	251	249
V/C Ratio(X)	0.73	0.53	0.08	0.73	1.36	1.40	0.26	0.71	0.57	0.61	0.38	0.39
Avail Cap(c_a), veh/h	146	2108	654	566	1594	848	612	1073	907	167	1040	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	19.5	4.8	38.1	23.4	23.4	31.0	29.9	28.7	39.4	33.9	34.0
Incr Delay (d2), s/veh	12.6	0.3	0.1	3.1	165.3	188.5	0.2	2.0	1.3	4.9	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.8	0.8	3.0	55.4	64.4	1.7	7.6	4.9	1.9	2.1	2.2
LnGrp Delay(d),s/veh	53.7	19.7	4.9	41.3	188.7	211.8	31.2	31.9	30.0	44.3	34.9	35.0
LnGrp LOS	D	B	A	D	F	F	C	C	C	D	C	D
Approach Vol, veh/h		1226			3602			720			268	
Approach Delay, s/veh		20.6			186.2			31.2			37.6	
Approach LOS		C			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	25.3	12.3	39.3	19.1	16.1	7.6	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	49.0	14.0	33.0	7.0	50.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	5.5	15.9	7.9	16.2	5.4	6.3	4.6	42.0
Green Ext Time (p_c), s	0.0	2.8	0.4	6.8	0.6	1.2	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	125.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	660	210	70	570	160	740	1010	240	110	330	130
Future Volume (veh/h)	140	660	210	70	570	160	740	1010	240	110	330	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	776	247	82	671	188	871	1188	282	129	388	153
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	1051	786	117	910	518	692	1472	760	247	1014	619
Arrive On Green	0.10	0.29	0.29	0.06	0.25	0.25	0.20	0.41	0.41	0.07	0.28	0.28
Sat Flow, veh/h	1810	3610	1607	1810	3610	1605	3510	3610	1609	3510	3610	1606
Grp Volume(v), veh/h	165	776	247	82	671	188	871	1188	282	129	388	153
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1605	1755	1805	1609	1755	1805	1606
Q Serve(g_s), s	8.7	18.7	9.0	4.3	16.5	1.8	19.0	28.0	6.8	3.4	8.3	2.4
Cycle Q Clear(g_c), s	8.7	18.7	9.0	4.3	16.5	1.8	19.0	28.0	6.8	3.4	8.3	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	1051	786	117	910	518	692	1472	760	247	1014	619
V/C Ratio(X)	0.88	0.74	0.31	0.70	0.74	0.36	1.26	0.81	0.37	0.52	0.38	0.25
Avail Cap(c_a), veh/h	188	1424	952	131	1311	697	692	1911	956	291	1499	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	30.8	14.9	44.2	33.1	25.0	38.7	25.2	7.2	43.2	27.9	7.6
Incr Delay (d2), s/veh	34.5	1.4	0.2	13.5	1.3	0.4	127.8	2.0	0.3	1.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	9.5	4.0	2.6	8.4	3.7	21.4	14.3	3.0	1.7	4.2	1.3
LnGrp Delay(d),s/veh	77.0	32.2	15.1	57.7	34.4	25.5	166.4	27.2	7.5	44.9	28.1	7.8
LnGrp LOS	E	C	B	E	C	C	F	C	A	D	C	A
Approach Vol, veh/h		1188			941			2341			670	
Approach Delay, s/veh		34.9			34.6			76.6			26.7	
Approach LOS		C			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	43.3	10.2	32.1	23.0	31.1	14.0	28.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	51.0	7.0	38.0	19.0	40.0	10.0	35.0
Max Q Clear Time (g_c+I1), s	5.4	30.0	6.3	20.7	21.0	10.3	10.7	18.5
Green Ext Time (p_c), s	0.9	9.3	0.0	5.9	0.0	3.5	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	52.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	250	760	710	580	280	140
Future Volume (veh/h)	250	760	710	580	280	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	305	927	866	707	341	171
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	241	2483	1727	1027	579	474
Arrive On Green	0.13	0.69	0.48	0.48	0.16	0.16
Sat Flow, veh/h	1810	3705	3705	1607	3619	1615
Grp Volume(v), veh/h	305	927	866	707	341	171
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1607	1810	1615
Q Serve(g_s), s	7.0	5.7	8.7	14.9	4.6	4.4
Cycle Q Clear(g_c), s	7.0	5.7	8.7	14.9	4.6	4.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	241	2483	1727	1027	579	474
V/C Ratio(X)	1.27	0.37	0.50	0.69	0.59	0.36
Avail Cap(c_a), veh/h	241	2610	1854	1084	2341	1260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	3.4	9.4	6.1	20.5	14.7
Incr Delay (d2), s/veh	148.3	0.1	0.2	1.7	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	2.7	4.3	9.9	2.4	4.3
LnGrp Delay(d),s/veh	171.1	3.5	9.6	7.9	21.4	15.1
LnGrp LOS	F	A	A	A	C	B
Approach Vol, veh/h		1232	1573		512	
Approach Delay, s/veh		45.0	8.8		19.3	
Approach LOS		D	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				40.2		12.4	11.0	29.2
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				7.7		6.6	9.0	16.9
Green Ext Time (p_c), s				18.7		1.8	0.0	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	170	430	240	280	840	250	980	450	960	30	90	50
Future Volume (veh/h)	170	430	240	280	840	250	980	450	960	30	90	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	193	489	273	318	955	284	1114	511	1091	34	102	57
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	1791	1058	242	1221	544	1092	1460	651	84	425	310
Arrive On Green	0.08	0.35	0.35	0.07	0.34	0.34	0.31	0.40	0.40	0.02	0.12	0.12
Sat Flow, veh/h	3510	5187	1608	3510	3610	1608	3510	3610	1609	3510	3610	1594
Grp Volume(v), veh/h	193	489	273	318	955	284	1114	511	1091	34	102	57
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1805	1608	1755	1805	1609	1755	1805	1594
Q Serve(g_s), s	5.5	6.9	2.2	7.0	24.2	14.4	31.6	10.0	31.0	1.0	2.6	0.0
Cycle Q Clear(g_c), s	5.5	6.9	2.2	7.0	24.2	14.4	31.6	10.0	31.0	1.0	2.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	1791	1058	242	1221	544	1092	1460	651	84	425	310
V/C Ratio(X)	0.73	0.27	0.26	1.32	0.78	0.52	1.02	0.35	1.68	0.40	0.24	0.18
Avail Cap(c_a), veh/h	276	2243	1198	242	1526	680	1092	1632	727	242	1632	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	24.1	2.2	47.4	30.3	27.1	35.1	21.0	17.1	48.9	40.8	34.3
Incr Delay (d2), s/veh	8.8	0.1	0.1	168.7	2.1	0.8	32.5	0.1	311.0	3.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.3	1.4	9.0	12.4	6.5	20.1	5.0	69.9	0.5	1.3	1.4
LnGrp Delay(d),s/veh	54.8	24.2	2.4	216.0	32.4	27.8	67.5	21.2	328.1	52.0	41.0	34.6
LnGrp LOS	D	C	A	F	C	C	F	C	F	D	D	C
Approach Vol, veh/h		955			1557			2716			193	
Approach Delay, s/veh		24.1			69.1			163.5			41.1	
Approach LOS		C			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	45.2	11.0	39.1	35.6	16.0	11.7	38.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	7.0	46.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	3.0	33.0	9.0	8.9	33.6	4.6	7.5	26.2
Green Ext Time (p_c), s	0.1	7.4	0.0	4.9	0.0	0.8	0.3	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	107.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	980	460	0	540	0	0	0	0	10	10	670
Future Volume (veh/h)	0	980	460	0	540	0	0	0	0	10	10	670
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1089	511	0	600	0				11	11	744
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1496	636	146	1421	0				805	10	709
Arrive On Green	0.00	0.39	0.39	0.00	0.39	0.00				0.44	0.44	0.44
Sat Flow, veh/h	0	3800	1615	323	3705	0				1810	24	1595
Grp Volume(v), veh/h	0	1089	511	0	600	0				11	0	755
Grp Sat Flow(s),veh/h/ln	0	1900	1615	323	1805	0				1810	0	1619
Q Serve(g_s), s	0.0	12.1	13.9	0.0	6.0	0.0				0.2	0.0	22.0
Cycle Q Clear(g_c), s	0.0	12.1	13.9	0.0	6.0	0.0				0.2	0.0	22.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1496	636	146	1421	0				805	0	720
V/C Ratio(X)	0.00	0.73	0.80	0.00	0.42	0.00				0.01	0.00	1.05
Avail Cap(c_a), veh/h	0	1536	653	149	1459	0				805	0	720
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.7	13.3	0.0	10.9	0.0				7.7	0.0	13.7
Incr Delay (d2), s/veh	0.0	1.7	7.1	0.0	0.2	0.0				0.0	0.0	47.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.6	7.4	0.0	3.0	0.0				0.1	0.0	19.0
LnGrp Delay(d),s/veh	0.0	14.5	20.4	0.0	11.1	0.0				7.7	0.0	60.9
LnGrp LOS		B	C		B					A		F
Approach Vol, veh/h		1600			600						766	
Approach Delay, s/veh		16.4			11.1						60.1	
Approach LOS		B			B						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				23.5		26.0		23.5
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				20.0		22.0		20.0
Max Q Clear Time (g_c+I1), s				15.9		24.0		8.0
Green Ext Time (p_c), s				3.6		0.0		9.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	45.2
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	990	0	540	120	0	0
Future Vol, veh/h	990	0	540	120	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1065	0	581	129	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	56.6	28.1
HCM LOS	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	64%	100%	100%
Vol Thru, %	0%	36%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	329	331	495	495
LT Vol	329	211	495	495
Through Vol	0	120	0	0
RT Vol	0	0	0	0
Lane Flow Rate	354	355	532	532
Geometry Grp	7	7	7	7
Degree of Util (X)	0.738	0.722	1.066	0.811
Departure Headway (Hd)	7.67	7.486	7.208	5.486
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	475	487	506	660
Service Time	5.37	5.186	4.938	3.216
HCM Lane V/C Ratio	0.745	0.729	1.051	0.806
HCM Control Delay	29	27.3	85.6	27.5
HCM Lane LOS	D	D	F	D
HCM 95th-tile Q	6.1	5.8	16.3	8.4

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	10	10	10	1050	20	600	30	1240	440	110	450	10
Future Volume (veh/h)	10	10	10	1050	20	600	30	1240	440	110	450	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	11	1180	22	674	34	1393	494	124	506	11
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	246	246	543	796	674	74	1282	571	219	1358	604
Arrive On Green	0.02	0.28	0.28	0.15	0.42	0.42	0.04	0.36	0.36	0.06	0.38	0.38
Sat Flow, veh/h	1810	870	870	3510	1900	1609	1810	3610	1608	3510	3610	1604
Grp Volume(v), veh/h	11	0	22	1180	22	674	34	1393	494	124	506	11
Grp Sat Flow(s),veh/h/ln	1810	0	1741	1755	1900	1609	1810	1805	1608	1755	1805	1604
Q Serve(g_s), s	0.7	0.0	1.0	17.0	0.7	46.0	2.0	39.0	31.4	3.8	11.2	0.5
Cycle Q Clear(g_c), s	0.7	0.0	1.0	17.0	0.7	46.0	2.0	39.0	31.4	3.8	11.2	0.5
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	0	491	543	796	674	74	1282	571	219	1358	604
V/C Ratio(X)	0.33	0.00	0.04	2.17	0.03	1.00	0.46	1.09	0.87	0.57	0.37	0.02
Avail Cap(c_a), veh/h	115	0	571	543	796	674	115	1282	571	224	1358	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	0.0	28.7	46.4	18.8	31.9	51.5	35.4	33.0	50.1	24.9	21.5
Incr Delay (d2), s/veh	5.8	0.0	0.0	533.4	0.0	34.7	4.3	52.2	13.1	3.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	48.4	0.4	26.9	1.1	28.5	15.9	1.9	5.6	0.2
LnGrp Delay(d),s/veh	59.1	0.0	28.7	579.8	18.8	66.6	55.8	87.6	46.1	53.3	25.0	21.5
LnGrp LOS	E		C	F	B	F	E	F	D	D	C	C
Approach Vol, veh/h		33			1876			1921			641	
Approach Delay, s/veh		38.8			388.8			76.4			30.4	
Approach LOS		D			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	43.0	21.0	35.0	8.5	45.3	6.0	50.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	39.0	17.0	36.0	7.0	39.0	7.0	46.0
Max Q Clear Time (g_c+I1), s	5.8	41.0	19.0	3.0	4.0	13.2	2.7	48.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.0	17.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	200.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥		↰	↱	
Traffic Volume (veh/h)	140	440	20	10	1300	50	100	110	40	30	20	160
Future Volume (veh/h)	140	440	20	10	1300	50	100	110	40	30	20	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	463	21	11	1368	53	105	116	42	32	21	168
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	1817	82	35	1538	60	192	199	60	394	53	421
Arrive On Green	0.10	0.52	0.52	0.02	0.43	0.43	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	3517	159	1810	3543	137	410	686	208	1245	182	1453
Grp Volume(v), veh/h	147	237	247	11	696	725	263	0	0	32	0	189
Grp Sat Flow(s),veh/h/ln	1810	1805	1871	1810	1805	1875	1304	0	0	1245	0	1635
Q Serve(g_s), s	5.5	5.0	5.1	0.4	24.4	24.6	7.2	0.0	0.0	0.0	0.0	6.4
Cycle Q Clear(g_c), s	5.5	5.0	5.1	0.4	24.4	24.6	13.6	0.0	0.0	1.8	0.0	6.4
Prop In Lane	1.00		0.09	1.00		0.07	0.40		0.16	1.00		0.89
Lane Grp Cap(c), veh/h	184	932	966	35	784	814	451	0	0	394	0	474
V/C Ratio(X)	0.80	0.25	0.26	0.32	0.89	0.89	0.58	0.00	0.00	0.08	0.00	0.40
Avail Cap(c_a), veh/h	184	932	966	184	839	872	760	0	0	648	0	808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	9.3	9.3	33.3	17.9	18.0	22.5	0.0	0.0	18.0	0.0	19.6
Incr Delay (d2), s/veh	21.5	0.1	0.1	5.0	11.0	10.9	1.2	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.5	2.6	0.3	14.4	14.9	4.7	0.0	0.0	0.5	0.0	3.0
LnGrp Delay(d),s/veh	51.7	9.4	9.4	38.3	28.9	28.8	23.7	0.0	0.0	18.1	0.0	20.2
LnGrp LOS	D	A	A	D	C	C	C			B		C
Approach Vol, veh/h		631			1432			263			221	
Approach Delay, s/veh		19.3			28.9			23.7			19.9	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		23.9	5.3	39.6		23.9	11.0	33.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		15.6	2.4	7.1		8.4	7.5	26.6
Green Ext Time (p_c), s		2.9	0.0	13.6		3.2	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	30	400	90	170	1230	520	190	1230	220	130	390	60
Future Volume (veh/h)	30	400	90	170	1230	520	190	1230	220	130	390	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	417	94	177	1281	542	198	1281	229	135	406	62
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	981	219	124	1312	693	142	1344	710	236	1134	172
Arrive On Green	0.04	0.33	0.33	0.07	0.36	0.36	0.08	0.37	0.37	0.07	0.36	0.36
Sat Flow, veh/h	1810	2931	655	1810	3610	1608	1810	3610	1608	3510	3142	476
Grp Volume(v), veh/h	31	255	256	177	1281	542	198	1281	229	135	232	236
Grp Sat Flow(s),veh/h/ln	1810	1805	1781	1810	1805	1608	1810	1805	1608	1755	1805	1814
Q Serve(g_s), s	1.7	11.2	11.4	7.0	35.7	29.5	8.0	35.2	9.5	3.8	9.6	9.7
Cycle Q Clear(g_c), s	1.7	11.2	11.4	7.0	35.7	29.5	8.0	35.2	9.5	3.8	9.6	9.7
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	73	604	596	124	1312	693	142	1344	710	236	651	654
V/C Ratio(X)	0.43	0.42	0.43	1.42	0.98	0.78	1.39	0.95	0.32	0.57	0.36	0.36
Avail Cap(c_a), veh/h	124	656	647	124	1312	693	142	1347	711	241	656	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	26.2	26.3	47.4	32.0	24.9	46.9	31.1	18.6	46.1	23.9	23.9
Incr Delay (d2), s/veh	3.9	0.5	0.5	230.5	19.4	5.8	213.9	14.8	0.3	3.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.6	5.6	11.4	21.3	14.1	12.4	20.2	4.2	1.9	4.8	4.9
LnGrp Delay(d),s/veh	51.7	26.7	26.8	278.0	51.4	30.7	260.8	45.9	18.8	49.2	24.2	24.2
LnGrp LOS	D	C	C	F	D	C	F	D	B	D	C	C
Approach Vol, veh/h		542			2000			1708			603	
Approach Delay, s/veh		28.2			65.8			67.2			29.8	
Approach LOS		C			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	41.9	11.0	38.1	12.0	40.7	8.1	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	38.0	7.0	37.0	8.0	37.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	5.8	37.2	9.0	13.4	10.0	11.7	3.7	37.7
Green Ext Time (p_c), s	0.0	0.7	0.0	15.3	0.0	14.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.6
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	80	100	1660	40	30	1460
Future Volume (veh/h)	80	100	1660	40	30	1460
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	112	1865	45	34	1640
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	225	200	2166	965	94	2623
Arrive On Green	0.12	0.12	0.60	0.60	0.05	0.73
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	90	112	1865	45	34	1640
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	2.5	3.5	22.9	0.2	1.0	12.2
Cycle Q Clear(g_c), s	2.5	3.5	22.9	0.2	1.0	12.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	225	200	2166	965	94	2623
V/C Ratio(X)	0.40	0.56	0.86	0.05	0.36	0.63
Avail Cap(c_a), veh/h	236	211	2290	1020	236	3031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	22.1	8.9	0.4	24.6	3.7
Incr Delay (d2), s/veh	1.2	3.0	3.5	0.0	2.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.7	12.2	0.3	0.5	6.0
LnGrp Delay(d),s/veh	22.8	25.1	12.3	0.5	26.9	4.0
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	202		1910			1674
Approach Delay, s/veh	24.0		12.0			4.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.8	36.2				43.0		10.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	3.0	24.9				14.2		5.5
Green Ext Time (p_c), s	3.2	7.3				15.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.3
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰↑	↱
Traffic Volume (veh/h)	70	930	140	800	1400	270	0	0	0	590	60	540
Future Volume (veh/h)	70	930	140	800	1400	270	0	0	0	590	60	540
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	73	969	0	833	1458	0				659	0	562
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	176	1109	496	919	1702	761				1061	0	628
Arrive On Green	0.10	0.31	0.00	0.26	0.47	0.00				0.29	0.00	0.29
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1607
Grp Volume(v), veh/h	73	969	0	833	1458	0				659	0	562
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1607
Q Serve(g_s), s	3.3	22.1	0.0	20.0	31.1	0.0				13.7	0.0	20.0
Cycle Q Clear(g_c), s	3.3	22.1	0.0	20.0	31.1	0.0				13.7	0.0	20.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	176	1109	496	919	1702	761				1061	0	628
V/C Ratio(X)	0.41	0.87	0.00	0.91	0.86	0.00				0.62	0.00	0.89
Avail Cap(c_a), veh/h	176	1204	539	969	1868	836				1248	0	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	28.5	0.0	31.1	20.4	0.0				26.6	0.0	24.8
Incr Delay (d2), s/veh	1.5	6.9	0.0	11.6	3.9	0.0				0.7	0.0	12.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	12.1	0.0	11.1	16.3	0.0				6.9	0.0	11.0
LnGrp Delay(d),s/veh	38.5	35.5	0.0	42.7	24.3	0.0				27.3	0.0	37.6
LnGrp LOS	D	D		D	C					C		D
Approach Vol, veh/h		1042			2291						1221	
Approach Delay, s/veh		35.7			31.0						32.0	
Approach LOS		D			C						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			26.8	30.7		29.5	12.5	45.0
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			24.0	29.0		30.0	8.0	45.0
Max Q Clear Time (g_c+I1), s			22.0	24.1		22.0	5.3	33.1
Green Ext Time (p_c), s			0.8	2.6		3.2	1.1	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1110	400	170	2180	530	270	0	630	0	0	0
Future Volume (veh/h)	0	1110	400	170	2180	530	270	0	630	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1121	404	172	2202	0	273	0	636			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1765	1109	322	3689	1148	702	0	568			
Arrive On Green	0.00	0.49	0.49	0.24	0.95	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	3705	1607	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1121	404	172	2202	0	273	0	636			
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	20.7	9.4	7.5	4.8	0.0	6.1	0.0	18.0			
Cycle Q Clear(g_c), s	0.0	20.7	9.4	7.5	4.8	0.0	6.1	0.0	18.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1765	1109	322	3689	1148	702	0	568			
V/C Ratio(X)	0.00	0.64	0.36	0.53	0.60	0.00	0.39	0.00	1.12			
Avail Cap(c_a), veh/h	0	1765	1109	322	3689	1148	702	0	568			
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.47	0.47	0.30	0.30	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	17.1	5.8	31.1	0.8	0.0	31.2	0.0	36.0			
Incr Delay (d2), s/veh	0.0	0.8	0.4	0.5	0.2	0.0	0.4	0.0	74.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	10.5	7.0	3.8	1.9	0.0	3.0	0.0	12.9			
LnGrp Delay(d),s/veh	0.0	17.9	6.3	31.6	1.1	0.0	31.6	0.0	110.8			
LnGrp LOS		B	A	C	A		C		F			
Approach Vol, veh/h		1525			2374			909				
Approach Delay, s/veh		14.8			3.3			87.0				
Approach LOS		B			A			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		22.0	20.0	48.0				68.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	16.0	44.0				64.0
Max Q Clear Time (g_c+I1), s		20.0	9.5	22.7				6.8
Green Ext Time (p_c), s		0.0	5.8	9.6				32.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✣			✣	
Traffic Volume (veh/h)	10	1380	290	60	2510	10	480	0	170	10	0	10
Future Volume (veh/h)	10	1380	290	60	2510	10	480	0	170	10	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	1453	305	63	2642	11	342	228	179	11	0	11
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	286	1942	406	112	1896	8	494	348	273	157	19	116
Arrive On Green	0.21	0.60	0.60	0.06	0.36	0.36	0.35	0.35	0.35	0.35	0.00	0.35
Sat Flow, veh/h	1810	4295	899	1810	5332	22	1421	986	774	275	55	330
Grp Volume(v), veh/h	11	1169	589	63	1713	940	342	0	407	22	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1735	1810	1729	1896	1421	0	1760	660	0	0
Q Serve(g_s), s	0.4	22.0	22.2	3.0	32.0	32.0	7.9	0.0	17.5	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	22.0	22.2	3.0	32.0	32.0	25.8	0.0	17.5	17.8	0.0	0.0
Prop In Lane	1.00		0.52	1.00		0.01	1.00		0.44	0.50		0.50
Lane Grp Cap(c), veh/h	286	1563	785	112	1230	674	494	0	621	293	0	0
V/C Ratio(X)	0.04	0.75	0.75	0.56	1.39	1.39	0.69	0.00	0.66	0.08	0.00	0.00
Avail Cap(c_a), veh/h	286	1563	785	141	1230	674	608	0	762	392	0	0
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.1	14.2	14.3	41.0	29.0	29.0	28.2	0.0	24.5	20.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.5	4.9	4.4	181.9	186.7	2.5	0.0	1.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	10.8	11.4	1.7	46.3	51.6	8.2	0.0	8.7	0.4	0.0	0.0
LnGrp Delay(d),s/veh	30.1	16.7	19.2	45.5	210.9	215.7	30.7	0.0	26.0	20.6	0.0	0.0
LnGrp LOS	C	B	B	D	F	F	C		C	C		
Approach Vol, veh/h		1769			2716			749			22	
Approach Delay, s/veh		17.6			208.7			28.1			20.6	
Approach LOS		B			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		35.8	9.6	44.7		35.8	18.2	36.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	32.0		39.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		27.8	5.0	24.2		19.8	2.4	34.0
Green Ext Time (p_c), s		3.0	0.0	5.9		3.8	3.7	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.9
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	100	1210	190	60	2310	0	190	70	40	10	50	120
Future Volume (veh/h)	100	1210	190	60	2310	0	190	70	40	10	50	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	1287	202	64	2457	0	202	74	43	11	53	128
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	2105	328	238	2428	0	338	268	156	91	388	383
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.00	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	139	3129	487	359	3705	0	1216	1126	654	184	1628	1605
Grp Volume(v), veh/h	106	738	751	64	2457	0	202	0	117	64	0	128
Grp Sat Flow(s),veh/h/ln	139	1805	1812	359	1805	0	1216	0	1780	1813	0	1605
Q Serve(g_s), s	0.0	20.4	20.8	10.9	60.5	0.0	14.1	0.0	4.8	0.0	0.0	5.9
Cycle Q Clear(g_c), s	60.5	20.4	20.8	31.8	60.5	0.0	16.5	0.0	4.8	2.4	0.0	5.9
Prop In Lane	1.00		0.27	1.00		0.00	1.00		0.37	0.17		1.00
Lane Grp Cap(c), veh/h	80	1214	1219	238	2428	0	338	0	424	479	0	383
V/C Ratio(X)	1.32	0.61	0.62	0.27	1.01	0.00	0.60	0.00	0.28	0.13	0.00	0.33
Avail Cap(c_a), veh/h	80	1214	1219	238	2428	0	494	0	653	704	0	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.0	8.2	8.2	17.1	14.7	0.0	33.5	0.0	27.9	27.0	0.0	28.4
Incr Delay (d2), s/veh	210.1	2.3	2.3	0.2	8.8	0.0	1.7	0.0	0.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	10.8	11.0	1.1	32.6	0.0	4.9	0.0	2.4	1.3	0.0	2.7
LnGrp Delay(d),s/veh	255.1	10.4	10.6	17.4	23.5	0.0	35.2	0.0	28.3	27.1	0.0	28.9
LnGrp LOS	F	B	B	B	F		D		C	C		C
Approach Vol, veh/h		1595			2521			319			192	
Approach Delay, s/veh		26.8			23.4			32.7			28.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.5		64.5		25.5		64.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		49.0		33.0		49.0
Max Q Clear Time (g_c+I1), s		18.5		62.5		7.9		62.5
Green Ext Time (p_c), s		1.9		0.0		2.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	170	920	20	480	2100	230	20	360	480	150	340	110
Future Volume (veh/h)	170	920	20	480	2100	230	20	360	480	150	340	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	189	1022	22	533	2333	256	22	400	533	167	378	122
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	1177	25	374	1517	163	163	484	743	128	448	378
Arrive On Green	0.07	0.33	0.33	0.21	0.46	0.46	0.09	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	1810	3613	78	1810	3286	354	1810	1900	1605	1810	1900	1605
Grp Volume(v), veh/h	189	511	533	533	1261	1328	22	400	533	167	378	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1886	1810	1805	1835	1810	1900	1605	1810	1900	1605
Q Serve(g_s), s	8.0	30.0	30.0	23.3	52.0	52.0	1.3	22.4	6.0	8.0	21.4	5.8
Cycle Q Clear(g_c), s	8.0	30.0	30.0	23.3	52.0	52.0	1.3	22.4	6.0	8.0	21.4	5.8
Prop In Lane	1.00		0.04	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	588	614	374	833	847	163	484	743	128	448	378
V/C Ratio(X)	1.47	0.87	0.87	1.42	1.51	1.57	0.14	0.83	0.72	1.30	0.84	0.32
Avail Cap(c_a), veh/h	128	689	720	374	833	847	163	607	847	128	624	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	35.7	35.7	44.7	30.3	30.3	47.2	39.7	11.9	52.3	41.1	23.6
Incr Delay (d2), s/veh	249.2	10.2	9.9	206.1	237.6	261.2	0.4	7.6	2.5	180.4	7.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	16.6	17.2	33.0	80.7	87.6	0.6	12.8	9.3	10.4	12.2	2.9
LnGrp Delay(d),s/veh	301.6	46.0	45.6	250.8	267.9	291.5	47.6	47.2	14.5	232.7	48.6	24.1
LnGrp LOS	F	D	D	F	F	F	D	D	B	F	D	C
Approach Vol, veh/h		1233			3122			955			667	
Approach Delay, s/veh		85.0			275.0			28.9			90.2	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	32.7	27.3	40.7	14.1	30.6	12.0	56.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	17.0	43.0	7.0	37.0	8.0	52.0
Max Q Clear Time (g_c+I1), s	10.0	24.4	25.3	32.0	3.3	23.4	10.0	54.0
Green Ext Time (p_c), s	0.0	3.4	0.0	4.7	1.6	2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	175.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	70	600	860	180	1100	390	1660	1380	670	260	610	70
Future Volume (veh/h)	70	600	860	180	1100	390	1660	1380	670	260	610	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	638	915	191	1170	415	1766	1468	713	277	649	74
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	1147	1700	215	1168	647	989	1452	746	276	942	106
Arrive On Green	0.06	0.32	0.32	0.06	0.32	0.32	0.28	0.40	0.40	0.08	0.20	0.20
Sat Flow, veh/h	1810	3610	2829	3510	3610	1608	3510	3610	1609	3510	4725	534
Grp Volume(v), veh/h	74	638	915	191	1170	415	1766	1468	713	277	473	250
Grp Sat Flow(s),veh/h/ln	1810	1805	1414	1755	1805	1608	1755	1805	1609	1755	1729	1801
Q Serve(g_s), s	4.6	16.7	5.3	6.2	37.0	17.4	32.2	46.0	46.0	9.0	14.5	14.7
Cycle Q Clear(g_c), s	4.6	16.7	5.3	6.2	37.0	17.4	32.2	46.0	46.0	9.0	14.5	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	100	1147	1700	215	1168	647	989	1452	746	276	690	359
V/C Ratio(X)	0.74	0.56	0.54	0.89	1.00	0.64	1.79	1.01	0.96	1.00	0.69	0.70
Avail Cap(c_a), veh/h	111	1168	1716	215	1168	647	989	1452	746	276	1028	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	32.3	5.4	53.3	38.7	15.4	41.1	34.2	29.5	52.7	42.5	42.5
Incr Delay (d2), s/veh	20.7	0.6	0.3	33.2	26.7	2.1	357.8	26.3	22.6	54.7	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.4	4.9	4.0	22.7	8.1	64.7	28.1	26.1	6.4	7.0	7.6
LnGrp Delay(d),s/veh	73.9	32.9	5.7	86.5	65.4	17.5	398.9	60.4	52.2	107.4	43.7	45.0
LnGrp LOS	E	C	A	F	F	B	F	F	D	F	D	D
Approach Vol, veh/h		1627			1776			3947			1000	
Approach Delay, s/veh		19.5			56.4			210.4			61.7	
Approach LOS		B			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	50.0	11.0	40.3	36.2	26.8	10.3	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	46.0	7.0	37.0	21.0	34.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	11.0	48.0	8.2	18.7	34.2	16.7	6.6	39.0
Green Ext Time (p_c), s	0.0	0.0	0.0	8.3	0.0	4.1	0.3	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			122.6
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	40	30	20	50	20	100	30	3490	30	90	1550	20
Future Volume (veh/h)	40	30	20	50	20	100	30	3490	30	90	1550	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	32	21	53	21	106	32	3713	32	96	1649	21
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	94	51	101	46	155	402	2740	24	402	2727	35
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.22	0.52	0.52	0.22	0.52	0.52
Sat Flow, veh/h	541	584	315	386	286	963	1810	5304	46	1810	5279	67
Grp Volume(v), veh/h	96	0	0	180	0	0	32	2417	1328	96	1080	590
Grp Sat Flow(s),veh/h/ln	1439	0	0	1635	0	0	1810	1729	1892	1810	1729	1888
Q Serve(g_s), s	0.0	0.0	0.0	5.0	0.0	0.0	1.7	62.0	62.0	5.2	26.3	26.4
Cycle Q Clear(g_c), s	7.0	0.0	0.0	12.0	0.0	0.0	1.7	62.0	62.0	5.2	26.3	26.4
Prop In Lane	0.45		0.22	0.29		0.59	1.00		0.02	1.00		0.04
Lane Grp Cap(c), veh/h	276	0	0	303	0	0	402	1787	977	402	1787	975
V/C Ratio(X)	0.35	0.00	0.00	0.59	0.00	0.00	0.08	1.35	1.36	0.24	0.60	0.60
Avail Cap(c_a), veh/h	523	0	0	556	0	0	402	1787	977	402	1787	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	44.9	0.0	0.0	47.1	0.0	0.0	37.0	29.0	29.0	38.4	20.4	20.4
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.9	0.0	0.0	0.1	162.5	168.1	0.2	1.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	5.8	0.0	0.0	0.9	69.6	77.7	2.6	12.7	14.1
LnGrp Delay(d),s/veh	45.6	0.0	0.0	49.0	0.0	0.0	37.1	191.5	197.1	38.6	21.5	22.4
LnGrp LOS	D			D			D	F	F	D	C	C
Approach Vol, veh/h		96			180			3777			1766	
Approach Delay, s/veh		45.6			49.0			192.2			22.7	
Approach LOS		D			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.6	66.0		23.4	30.6	66.0		23.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	62.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	7.2	64.0		9.0	3.7	28.4		14.0
Green Ext Time (p_c), s	0.0	0.0		1.8	0.1	14.7		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	133.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	130	90	40	30	40	90	30	3410	20	40	1540	50
Future Volume (veh/h)	130	90	40	30	40	90	30	3410	20	40	1540	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	95	42	32	42	95	32	3589	21	42	1621	53
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	258	178	149	224	178	149	373	2705	16	373	2622	86
Arrive On Green	0.06	0.09	0.09	0.06	0.09	0.09	0.21	0.51	0.51	0.21	0.51	0.51
Sat Flow, veh/h	1810	1900	1589	1810	1900	1589	1810	5321	31	1810	5159	169
Grp Volume(v), veh/h	137	95	42	32	42	95	32	2330	1280	42	1086	588
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	1810	1900	1589	1810	1729	1894	1810	1729	1869
Q Serve(g_s), s	7.0	5.7	2.1	1.8	2.5	4.8	1.7	61.0	61.0	2.3	27.0	27.0
Cycle Q Clear(g_c), s	7.0	5.7	2.1	1.8	2.5	4.8	1.7	61.0	61.0	2.3	27.0	27.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.09
Lane Grp Cap(c), veh/h	258	178	149	224	178	149	373	1758	963	373	1758	950
V/C Ratio(X)	0.53	0.53	0.28	0.14	0.24	0.64	0.09	1.33	1.33	0.11	0.62	0.62
Avail Cap(c_a), veh/h	258	459	384	224	459	384	373	1758	963	373	1758	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	51.9	24.7	44.0	50.4	25.6	38.5	29.5	29.5	38.7	21.1	21.2
Incr Delay (d2), s/veh	2.1	2.5	1.0	0.3	0.7	4.4	0.0	146.8	148.9	0.1	1.6	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.1	1.0	0.9	1.3	2.3	0.9	64.7	71.4	1.1	13.2	14.7
LnGrp Delay(d),s/veh	49.2	54.3	25.7	44.3	51.0	30.0	38.5	176.3	178.4	38.8	22.8	24.2
LnGrp LOS	D	D	C	D	D	C	D	F	F	D	C	C
Approach Vol, veh/h		274			169			3642			1716	
Approach Delay, s/veh		47.4			38.0			175.8			23.7	
Approach LOS		D			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.7	65.0	11.0	15.3	28.7	65.0	11.0	15.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	61.0	7.0	29.0	7.0	61.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	4.3	63.0	3.8	7.7	3.7	29.0	9.0	6.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	13.4	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	120.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	520	10	70	10	3360	1070	60	1540	10
Future Volume (veh/h)	20	10	10	520	10	70	10	3360	1070	60	1540	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	11	11	555	0	74	11	3537	1126	63	1621	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	181	154	452	0	163	515	3287	1156	93	2126	14
Arrive On Green	0.08	0.10	0.10	0.08	0.00	0.10	0.28	0.63	0.63	0.05	0.40	0.40
Sat Flow, veh/h	1810	1838	1563	5429	0	1591	1810	5187	1611	1810	5315	36
Grp Volume(v), veh/h	21	11	11	555	0	74	11	3537	1126	63	1055	577
Grp Sat Flow(s),veh/h/ln	1810	1805	1596	1810	0	1591	1810	1729	1611	1810	1729	1893
Q Serve(g_s), s	1.3	0.6	0.8	10.0	0.0	4.6	0.5	76.0	76.0	4.1	31.6	31.6
Cycle Q Clear(g_c), s	1.3	0.6	0.8	10.0	0.0	4.6	0.5	76.0	76.0	4.1	31.6	31.6
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	143	178	157	452	0	163	515	3287	1156	93	1383	757
V/C Ratio(X)	0.15	0.06	0.07	1.23	0.00	0.45	0.02	1.08	0.97	0.68	0.76	0.76
Avail Cap(c_a), veh/h	143	587	519	452	0	557	515	3287	1156	106	1383	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	51.5	49.1	49.1	55.0	0.0	38.2	30.9	22.0	16.0	56.0	31.1	31.1
Incr Delay (d2), s/veh	0.5	0.1	0.2	120.3	0.0	2.0	0.0	40.8	21.0	12.5	3.6	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.3	0.3	10.0	0.0	2.1	0.3	48.3	41.1	2.4	15.8	17.9
LnGrp Delay(d),s/veh	51.9	49.2	49.3	175.3	0.0	40.2	30.9	62.7	37.0	68.4	34.7	37.5
LnGrp LOS	D	D	D	F		D	C	F	D	E	C	D
Approach Vol, veh/h		43			629			4674			1695	
Approach Delay, s/veh		50.6			159.4			56.5			36.9	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	80.0	14.0	15.8	38.2	52.0	13.5	16.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	48.0	10.0	39.0	7.0	48.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	6.1	78.0	12.0	2.8	2.5	33.6	3.3	6.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	4.5	8.4	0.0	0.2

Intersection Summary			
HCM 2010 Ctrl Delay			60.9
HCM 2010 LOS			E

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	70	100	70	190	240	250	1260	40	60	640	420
Future Volume (veh/h)	320	70	100	70	190	240	250	1260	40	60	640	420
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	72	103	72	196	247	258	1299	41	62	660	433
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	363	1302	580	120	1009	312	656	2224	690	108	1415	438
Arrive On Green	0.20	0.36	0.36	0.03	0.19	0.19	0.19	0.43	0.43	0.03	0.27	0.27
Sat Flow, veh/h	1810	3610	1608	3510	5187	1603	3510	5187	1609	3510	5187	1606
Grp Volume(v), veh/h	330	72	103	72	196	247	258	1299	41	62	660	433
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1729	1603	1755	1729	1609	1755	1729	1606
Q Serve(g_s), s	19.6	1.4	2.9	2.2	3.5	16.1	7.1	21.0	1.6	1.9	11.7	18.4
Cycle Q Clear(g_c), s	19.6	1.4	2.9	2.2	3.5	16.1	7.1	21.0	1.6	1.9	11.7	18.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	1302	580	120	1009	312	656	2224	690	108	1415	438
V/C Ratio(X)	0.91	0.06	0.18	0.60	0.19	0.79	0.39	0.58	0.06	0.57	0.47	0.99
Avail Cap(c_a), veh/h	428	1608	716	160	1320	408	656	2224	690	128	1415	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	22.9	8.5	52.4	37.1	42.2	39.2	23.9	18.4	52.6	33.3	15.5
Incr Delay (d2), s/veh	21.2	0.0	0.1	4.7	0.1	7.8	0.4	1.1	0.2	4.7	1.1	40.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.7	1.3	1.2	1.7	7.8	3.5	10.2	0.8	1.0	5.7	13.1
LnGrp Delay(d),s/veh	64.2	23.0	8.6	57.1	37.2	49.9	39.6	25.1	18.6	57.3	34.4	55.8
LnGrp LOS	E	C	A	E	D	D	D	C	B	E	C	E
Approach Vol, veh/h		505			515			1598			1155	
Approach Delay, s/veh		47.0			46.1			27.3			43.7	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	51.2	7.8	43.7	24.6	34.0	26.0	25.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	36.0	5.0	49.0	10.0	30.0	26.0	28.0
Max Q Clear Time (g_c+I1), s	3.9	23.0	4.2	4.9	9.1	20.4	21.6	18.1
Green Ext Time (p_c), s	0.0	7.5	0.0	3.2	0.4	4.0	0.4	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	240	1000	80	80	1510	370	160	160	140	80	50	100
Future Volume (veh/h)	240	1000	80	80	1510	370	160	160	140	80	50	100
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	250	1042	83	83	1573	385	167	167	146	83	52	104
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	247	2686	214	105	2439	757	165	307	250	106	472	209
Arrive On Green	0.14	0.55	0.55	0.12	0.94	0.94	0.09	0.16	0.16	0.06	0.13	0.13
Sat Flow, veh/h	1810	4898	390	1810	5187	1610	1810	1882	1535	1810	3610	1596
Grp Volume(v), veh/h	250	735	390	83	1573	385	167	160	153	83	52	104
Grp Sat Flow(s),veh/h/ln	1810	1729	1830	1810	1729	1610	1810	1805	1612	1810	1805	1596
Q Serve(g_s), s	15.0	13.4	13.4	4.9	5.1	3.0	10.0	8.9	9.7	5.0	1.4	6.7
Cycle Q Clear(g_c), s	15.0	13.4	13.4	4.9	5.1	3.0	10.0	8.9	9.7	5.0	1.4	6.7
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.95	1.00		1.00
Lane Grp Cap(c), veh/h	247	1896	1003	105	2439	757	165	294	263	106	472	209
V/C Ratio(X)	1.01	0.39	0.39	0.79	0.64	0.51	1.02	0.54	0.58	0.78	0.11	0.50
Avail Cap(c_a), veh/h	247	1896	1003	181	2439	757	165	579	517	132	1083	479
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.15	0.15	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	14.3	14.3	47.9	1.9	1.8	50.0	42.3	42.6	51.1	42.2	44.5
Incr Delay (d2), s/veh	58.4	0.6	1.0	2.0	0.2	0.4	74.2	1.6	2.0	21.3	0.1	1.8
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	6.5	7.0	2.5	1.8	1.2	8.4	4.6	4.5	3.1	0.7	3.0
LnGrp Delay(d),s/veh	106.0	14.8	15.3	49.9	2.1	2.2	124.3	43.8	44.6	72.4	42.3	46.3
LnGrp LOS	F	B	B	D	A	A	F	D	D	E	D	D
Approach Vol, veh/h		1375			2041			480			239	
Approach Delay, s/veh		31.5			4.1			72.1			54.5	
Approach LOS		C			A			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	66.3	14.0	19.3	19.0	57.7	10.4	22.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	11.0	37.1	10.0	33.0	15.0	33.1	8.0	* 35
Max Q Clear Time (g_c+I1), s	6.9	15.4	12.0	8.7	17.0	7.1	7.0	11.7
Green Ext Time (p_c), s	0.0	18.0	0.0	2.6	0.0	21.0	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C

Notes

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* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	370	580	190	140	1290	170	540	1100	120	120	400	200
Future Volume (veh/h)	370	580	190	140	1290	170	540	1100	120	120	400	200
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	381	598	196	144	1330	175	557	1134	124	124	412	206
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	351	1960	608	205	1558	205	511	1744	541	183	1261	390
Arrive On Green	0.20	0.76	0.76	0.06	0.34	0.34	0.15	0.34	0.34	0.05	0.24	0.24
Sat Flow, veh/h	3510	5187	1609	3510	4637	610	3510	5187	1608	3510	5187	1605
Grp Volume(v), veh/h	381	598	196	144	992	513	557	1134	124	124	412	206
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1789	1755	1729	1608	1755	1729	1605
Q Serve(g_s), s	11.0	4.0	4.3	4.4	29.4	29.4	16.0	20.4	6.1	3.8	7.2	12.3
Cycle Q Clear(g_c), s	11.0	4.0	4.3	4.4	29.4	29.4	16.0	20.4	6.1	3.8	7.2	12.3
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	1960	608	205	1162	601	511	1744	541	183	1261	390
V/C Ratio(X)	1.09	0.31	0.32	0.70	0.85	0.85	1.09	0.65	0.23	0.68	0.33	0.53
Avail Cap(c_a), veh/h	351	1960	608	255	1162	601	511	1933	599	255	1556	482
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.35	0.35	0.35	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	8.9	8.9	50.9	34.0	34.0	47.0	31.0	26.3	51.2	34.2	36.2
Incr Delay (d2), s/veh	71.0	0.4	1.3	2.3	3.0	5.6	66.8	0.7	0.2	4.3	0.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	1.9	2.1	2.2	14.5	15.5	12.5	9.9	2.8	2.0	3.5	5.6
LnGrp Delay(d),s/veh	115.0	9.2	10.2	53.1	37.0	39.6	113.8	31.7	26.5	55.5	34.4	37.3
LnGrp LOS	F	A	B	D	D	D	F	C	C	E	C	D
Approach Vol, veh/h		1175			1649			1815			742	
Approach Delay, s/veh		43.7			39.2			56.5			38.7	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	47.6	20.0	32.0	15.0	43.0	9.7	42.3
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	33.7	16.0	33.0	11.0	30.7	8.0	41.0
Max Q Clear Time (g_c+I1), s	6.4	6.3	18.0	14.3	13.0	31.4	5.8	22.4
Green Ext Time (p_c), s	0.1	16.8	0.0	11.4	0.0	0.0	0.1	11.4

Intersection Summary			
HCM 2010 Ctrl Delay			46.0
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
103: Evans Road & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	450	360	160	30	1050	380	400	560	30	210	380	470
Future Volume (veh/h)	450	360	160	30	1050	380	400	560	30	210	380	470
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	489	391	0	33	1141	413	435	609	33	228	413	511
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	511	1908	594	42	1273	394	447	1196	65	294	1083	482
Arrive On Green	0.15	0.37	0.00	0.02	0.25	0.25	0.13	0.34	0.34	0.08	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	5187	1605	3510	3482	188	3510	3610	1607
Grp Volume(v), veh/h	489	391	0	33	1141	413	435	315	327	228	413	511
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1605	1755	1805	1866	1755	1805	1607
Q Serve(g_s), s	15.2	5.7	0.0	2.0	23.4	27.0	13.6	15.3	15.3	7.0	9.9	33.0
Cycle Q Clear(g_c), s	15.2	5.7	0.0	2.0	23.4	27.0	13.6	15.3	15.3	7.0	9.9	33.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	511	1908	594	42	1273	394	447	620	641	294	1083	482
V/C Ratio(X)	0.96	0.20	0.00	0.79	0.90	1.05	0.97	0.51	0.51	0.78	0.38	1.06
Avail Cap(c_a), veh/h	511	1908	594	99	1273	394	447	620	641	383	1083	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	23.8	0.0	53.5	40.1	41.5	47.8	28.7	28.7	49.4	30.4	38.5
Incr Delay (d2), s/veh	28.5	0.2	0.0	27.1	10.0	58.5	35.6	3.0	2.9	7.2	1.0	57.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	2.8	0.0	1.3	12.4	18.3	8.8	8.1	8.4	3.7	5.1	22.3
LnGrp Delay(d),s/veh	75.1	24.0	0.0	80.6	50.2	100.0	83.4	31.7	31.6	56.6	31.5	96.3
LnGrp LOS	E	C		F	D	F	F	C	C	E	C	F
Approach Vol, veh/h		880			1587			1077			1152	
Approach Delay, s/veh		52.4			63.8			52.6			65.2	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	46.5	18.0	39.0	20.0	33.0	13.2	43.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	37.0	14.0	33.0	16.0	27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s	4.0	7.7	15.6	35.0	17.2	29.0	9.0	17.3
Green Ext Time (p_c), s	0.0	13.9	0.0	0.0	0.0	0.0	0.2	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	59.4
HCM 2010 LOS	E

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	40	30	40	20	20	10	60	1730	30	0	640	80
Future Volume (veh/h)	40	30	40	20	20	10	60	1730	30	0	640	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	32	43	21	21	11	64	1840	32	0	681	85
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	249	109	31	106	87	83	4154	72	2	3678	1143
Arrive On Green	0.03	0.07	0.07	0.02	0.06	0.06	0.09	1.00	1.00	0.00	0.71	0.71
Sat Flow, veh/h	1810	3610	1580	1810	1900	1571	1810	5250	91	1810	5187	1612
Grp Volume(v), veh/h	43	32	43	21	21	11	64	1212	660	0	681	85
Grp Sat Flow(s),veh/h/ln	1810	1805	1580	1810	1900	1571	1810	1729	1884	1810	1729	1612
Q Serve(g_s), s	2.6	0.9	2.9	1.3	1.2	0.7	3.8	0.0	0.0	0.0	4.8	1.8
Cycle Q Clear(g_c), s	2.6	0.9	2.9	1.3	1.2	0.7	3.8	0.0	0.0	0.0	4.8	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	55	249	109	31	106	87	83	2736	1490	2	3678	1143
V/C Ratio(X)	0.78	0.13	0.39	0.67	0.20	0.13	0.78	0.44	0.44	0.00	0.19	0.07
Avail Cap(c_a), veh/h	115	748	327	82	361	299	181	2736	1490	66	3678	1143
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	0.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	48.1	49.0	53.7	49.6	49.4	49.4	0.0	0.0	0.0	5.4	4.9
Incr Delay (d2), s/veh	20.2	0.2	2.3	22.4	0.9	0.6	12.4	0.4	0.8	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.5	1.3	0.8	0.6	0.3	2.2	0.2	0.3	0.0	2.3	0.8
LnGrp Delay(d),s/veh	73.2	48.3	51.3	76.1	50.5	50.0	61.8	0.4	0.8	0.0	5.5	5.0
LnGrp LOS	E	D	D	E	D	D	E	A	A		A	A
Approach Vol, veh/h		118			53			1936			766	
Approach Delay, s/veh		58.5			60.6			2.6			5.4	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	92.3	5.9	11.8	9.0	83.3	7.4	10.3
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	4.0	60.7	5.0	* 23	11.0	53.7	7.0	* 21
Max Q Clear Time (g_c+I1), s	0.0	2.0	3.3	4.9	5.8	6.8	4.6	3.2
Green Ext Time (p_c), s	0.0	36.1	0.0	0.3	0.0	31.4	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

Notes

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* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	40	140	110	100	80	160	620	70	30	450	100
Future Volume (veh/h)	110	40	140	110	100	80	160	620	70	30	450	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	121	44	154	121	110	88	176	681	77	33	495	110
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	280	235	150	280	235	208	1966	222	42	1840	821
Arrive On Green	0.08	0.15	0.15	0.08	0.15	0.15	0.11	0.60	0.60	0.02	0.51	0.51
Sat Flow, veh/h	1810	1900	1599	1810	1900	1599	1810	3269	369	1810	3610	1610
Grp Volume(v), veh/h	121	44	154	121	110	88	176	376	382	33	495	110
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1599	1810	1805	1834	1810	1805	1610
Q Serve(g_s), s	7.2	2.2	10.0	7.2	5.8	5.5	10.5	11.5	11.5	2.0	8.6	4.0
Cycle Q Clear(g_c), s	7.2	2.2	10.0	7.2	5.8	5.5	10.5	11.5	11.5	2.0	8.6	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	150	280	235	150	280	235	208	1086	1103	42	1840	821
V/C Ratio(X)	0.81	0.16	0.65	0.81	0.39	0.37	0.85	0.35	0.35	0.79	0.27	0.13
Avail Cap(c_a), veh/h	230	553	465	230	553	465	296	1086	1103	99	1840	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	40.9	44.3	49.6	42.5	42.3	47.7	11.0	11.0	53.5	15.3	14.2
Incr Delay (d2), s/veh	11.4	0.3	3.1	11.4	0.9	1.0	11.1	0.6	0.6	27.1	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	1.2	4.6	4.1	3.1	2.5	5.9	5.9	6.0	1.3	4.4	1.8
LnGrp Delay(d),s/veh	61.0	41.2	47.3	61.0	43.3	43.3	58.8	11.7	11.7	80.5	15.7	14.5
LnGrp LOS	E	D	D	E	D	D	E	B	B	F	B	B
Approach Vol, veh/h		319			319			934			638	
Approach Delay, s/veh		51.7			50.0			20.6			18.8	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	70.2	13.1	20.2	16.6	60.1	13.1	20.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	42.0	14.0	32.0	18.0	30.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	4.0	13.5	9.2	12.0	12.5	10.6	9.2	7.8
Green Ext Time (p_c), s	0.0	9.9	0.1	1.5	0.2	8.4	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	60	180	60	160	310	250	110	1530	110	70	530	110
Future Volume (veh/h)	60	180	60	160	310	250	110	1530	110	70	530	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	186	62	165	320	258	113	1577	113	72	546	113
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	199	837	372	283	837	372	141	3028	939	94	2891	898
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.08	0.58	0.58	0.02	0.18	0.18
Sat Flow, veh/h	847	3610	1605	1145	3610	1605	1810	5187	1608	1810	5187	1611
Grp Volume(v), veh/h	62	186	62	165	320	258	113	1577	113	72	546	113
Grp Sat Flow(s),veh/h/ln	847	1805	1605	1145	1805	1605	1810	1729	1608	1810	1729	1611
Q Serve(g_s), s	7.3	4.6	3.4	15.0	8.2	16.2	6.8	20.0	3.5	4.4	9.8	6.4
Cycle Q Clear(g_c), s	15.5	4.6	3.4	19.6	8.2	16.2	6.8	20.0	3.5	4.4	9.8	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	837	372	283	837	372	141	3028	939	94	2891	898
V/C Ratio(X)	0.31	0.22	0.17	0.58	0.38	0.69	0.80	0.52	0.12	0.77	0.19	0.13
Avail Cap(c_a), veh/h	246	1040	462	348	1040	462	247	3028	939	181	2891	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	42.2	34.2	33.8	42.2	35.6	38.7	49.9	13.7	10.3	53.4	23.9	22.5
Incr Delay (d2), s/veh	0.9	0.1	0.2	1.9	0.3	3.3	9.9	0.6	0.3	12.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.3	1.5	4.9	4.1	7.5	3.8	9.7	1.6	2.5	4.7	3.0
LnGrp Delay(d),s/veh	43.1	34.4	34.0	44.1	35.9	42.0	59.7	14.3	10.5	65.6	24.0	22.8
LnGrp LOS	D	C	C	D	D	D	E	B	B	E	C	C
Approach Vol, veh/h		310			743			1803			731	
Approach Delay, s/veh		36.0			39.8			16.9			27.9	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	69.5		30.8	12.6	66.6		30.8
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	11.0	52.7		31.7	15.0	48.7		31.7
Max Q Clear Time (g_c+I1), s	6.4	22.0		17.5	8.8	11.8		21.6
Green Ext Time (p_c), s	0.0	20.7		4.7	0.1	23.3		3.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	370	70	30	490	140	150	430	50	110	380	260
Future Volume (veh/h)	240	370	70	30	490	140	150	430	50	110	380	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	425	80	34	563	161	172	494	57	126	437	299
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	1193	223	43	702	200	181	1151	132	153	694	471
Arrive On Green	0.16	0.39	0.39	0.02	0.25	0.25	0.10	0.35	0.35	0.17	0.68	0.68
Sat Flow, veh/h	1810	3035	567	1810	2770	790	1810	3262	375	1810	2055	1396
Grp Volume(v), veh/h	276	251	254	34	366	358	172	273	278	126	383	353
Grp Sat Flow(s),veh/h/ln	1810	1805	1797	1810	1805	1755	1810	1805	1832	1810	1805	1646
Q Serve(g_s), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.7	12.8	7.4	13.2	13.4
Cycle Q Clear(g_c), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.7	12.8	7.4	13.2	13.4
Prop In Lane	1.00		0.32	1.00		0.45	1.00		0.20	1.00		0.85
Lane Grp Cap(c), veh/h	296	710	707	43	457	445	181	637	646	153	609	556
V/C Ratio(X)	0.93	0.35	0.36	0.79	0.80	0.80	0.95	0.43	0.43	0.82	0.63	0.63
Avail Cap(c_a), veh/h	296	710	707	99	509	495	181	637	646	247	609	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	45.4	23.5	23.6	53.4	38.5	38.5	49.2	27.1	27.2	44.9	14.0	14.0
Incr Delay (d2), s/veh	34.8	0.3	0.3	26.2	8.1	8.6	52.5	2.1	2.1	10.4	4.6	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	5.4	5.5	1.3	11.4	11.2	7.8	6.7	6.8	4.1	7.2	6.7
LnGrp Delay(d),s/veh	80.2	23.8	23.9	79.6	46.6	47.1	101.7	29.2	29.2	55.3	18.5	19.1
LnGrp LOS	F	C	C	E	D	D	F	C	C	E	B	B
Approach Vol, veh/h		781			758			723			862	
Approach Delay, s/veh		43.8			48.3			46.5			24.1	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	42.8	6.6	47.2	15.0	41.1	22.0	31.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	30.0	6.0	43.0	11.0	34.0	18.0	31.0
Max Q Clear Time (g_c+I1), s	9.4	14.8	4.1	13.0	12.4	15.4	18.6	23.0
Green Ext Time (p_c), s	0.1	7.0	0.0	9.2	0.0	7.8	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	40.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
108: Perris Blvd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↱	↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	210	80	1400	110	1810	0	0	590	230
Future Volume (veh/h)	0	0	0	210	80	1400	110	1810	0	0	590	230
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				228	0	1580	120	1967	0	0	641	250
Adj No. of Lanes				1	0	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				932	0	1659	149	2138	0	0	1521	470
Arrive On Green				0.52	0.00	0.52	0.06	0.28	0.00	0.00	0.29	0.29
Sat Flow, veh/h				1810	0	3221	1810	5358	0	0	5358	1601
Grp Volume(v), veh/h				228	0	1580	120	1967	0	0	641	250
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1601
Q Serve(g_s), s				7.7	0.0	51.4	7.2	40.5	0.0	0.0	11.0	14.4
Cycle Q Clear(g_c), s				7.7	0.0	51.4	7.2	40.5	0.0	0.0	11.0	14.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				932	0	1659	149	2138	0	0	1521	470
V/C Ratio(X)				0.24	0.00	0.95	0.80	0.92	0.00	0.00	0.42	0.53
Avail Cap(c_a), veh/h				954	0	1698	230	2138	0	0	1521	470
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				14.8	0.0	25.4	51.1	38.1	0.0	0.0	31.3	32.6
Incr Delay (d2), s/veh				0.1	0.0	12.3	8.7	6.4	0.0	0.0	0.9	4.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.8	0.0	25.4	4.0	20.6	0.0	0.0	5.3	6.9
LnGrp Delay(d),s/veh				14.9	0.0	37.7	59.8	44.4	0.0	0.0	32.2	36.8
LnGrp LOS				B		D	E	D			C	D
Approach Vol, veh/h					1808			2087			891	
Approach Delay, s/veh					34.8			45.3			33.5	
Approach LOS					C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		49.3			13.1	36.3		60.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		44.0			14.0	26.0		58.0
Max Q Clear Time (g_c+I1), s		42.5			9.2	16.4		53.4
Green Ext Time (p_c), s		1.5			0.1	8.8		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	39.1
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	220	40	180	0	0	0	0	1690	310	150	650	0
Future Volume (veh/h)	220	40	180	0	0	0	0	1690	310	150	650	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	239	43	196				0	1837	337	163	707	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	324	53	242				0	3304	598	203	3882	0
Arrive On Green	0.18	0.18	0.18				0.00	1.00	1.00	0.25	0.25	0.00
Sat Flow, veh/h	1810	297	1352				0	4586	798	184	5358	0
Grp Volume(v), veh/h	239	0	239				0	1433	741	163	707	0
Grp Sat Flow(s),veh/h/ln	1810	0	1648				0	1729	1756	184	1729	0
Q Serve(g_s), s	13.7	0.0	15.3				0.0	0.0	0.0	82.3	11.8	0.0
Cycle Q Clear(g_c), s	13.7	0.0	15.3				0.0	0.0	0.0	82.3	11.8	0.0
Prop In Lane	1.00		0.82				0.00		0.45	1.00		0.00
Lane Grp Cap(c), veh/h	324	0	295				0	2588	1314	203	3882	0
V/C Ratio(X)	0.74	0.00	0.81				0.00	0.55	0.56	0.80	0.18	0.00
Avail Cap(c_a), veh/h	461	0	420				0	2588	1314	203	3882	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.64	0.64	0.91	0.91	0.00
Uniform Delay (d), s/veh	42.7	0.0	43.4				0.0	0.0	0.0	47.8	14.9	0.0
Incr Delay (d2), s/veh	3.7	0.0	7.8				0.0	0.6	1.1	25.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	7.6				0.0	0.2	0.4	6.4	5.7	0.0
LnGrp Delay(d),s/veh	46.5	0.0	51.2				0.0	0.6	1.1	73.1	15.0	0.0
LnGrp LOS	D		D					A	A	E	B	
Approach Vol, veh/h		478						2174			870	
Approach Delay, s/veh		48.8						0.7			25.9	
Approach LOS		D						A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		86.3		23.7		86.3		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		74.0		28.0		74.0		
Max Q Clear Time (g_c+I1), s		2.0		17.3		84.3		
Green Ext Time (p_c), s		60.9		1.7		0.0		

Intersection Summary		
HCM 2010 Ctrl Delay		13.5
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	130	100	70	300	220	0	0	120	90
Future Volume (veh/h)	0	0	0	130	100	70	300	220	0	0	120	90
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				141	109	76	326	239	0	0	130	98
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				162	125	87	359	2590	0	0	1743	776
Arrive On Green				0.21	0.21	0.21	0.33	1.00	0.00	0.00	0.48	0.48
Sat Flow, veh/h				772	597	416	1810	3705	0	0	3705	1607
Grp Volume(v), veh/h				326	0	0	326	239	0	0	130	98
Grp Sat Flow(s),veh/h/ln				1784	0	0	1810	1805	0	0	1805	1607
Q Serve(g_s), s				19.4	0.0	0.0	19.0	0.0	0.0	0.0	2.1	3.7
Cycle Q Clear(g_c), s				19.4	0.0	0.0	19.0	0.0	0.0	0.0	2.1	3.7
Prop In Lane				0.43		0.23	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				374	0	0	359	2590	0	0	1743	776
V/C Ratio(X)				0.87	0.00	0.00	0.91	0.09	0.00	0.00	0.07	0.13
Avail Cap(c_a), veh/h				568	0	0	592	2590	0	0	1743	776
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.0	0.0	0.0	35.8	0.0	0.0	0.0	15.3	15.7
Incr Delay (d2), s/veh				9.3	0.0	0.0	11.4	0.1	0.0	0.0	0.1	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.6	0.0	0.0	10.5	0.0	0.0	0.0	1.1	1.7
LnGrp Delay(d),s/veh				51.3	0.0	0.0	47.3	0.1	0.0	0.0	15.3	16.0
LnGrp LOS				D			D	A			B	B
Approach Vol, veh/h					326			565			228	
Approach Delay, s/veh					51.3			27.3			15.6	
Approach LOS					D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		82.9			25.8	57.1		27.1
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		67.0			36.0	27.0		35.0
Max Q Clear Time (g_c+I1), s		2.0			21.0	5.7		21.4
Green Ext Time (p_c), s		2.9			0.8	2.6		1.6

Intersection Summary			
HCM 2010 Ctrl Delay			31.9
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	20	10	180	0	0	0	0	510	310	10	240	0
Future Volume (veh/h)	20	10	180	0	0	0	0	510	310	10	240	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	22	11	196				0	554	337	11	261	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	186	93	243				0	2602	1160	33	2799	0
Arrive On Green	0.15	0.15	0.15				0.00	0.72	0.72	0.01	0.26	0.00
Sat Flow, veh/h	1226	613	1599				0	3705	1609	1810	3705	0
Grp Volume(v), veh/h	33	0	196				0	554	337	11	261	0
Grp Sat Flow(s),veh/h/ln	1839	0	1599				0	1805	1609	1810	1805	0
Q Serve(g_s), s	1.7	0.0	13.0				0.0	5.6	8.1	0.7	6.1	0.0
Cycle Q Clear(g_c), s	1.7	0.0	13.0				0.0	5.6	8.1	0.7	6.1	0.0
Prop In Lane	0.67		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	280	0	243				0	2602	1160	33	2799	0
V/C Ratio(X)	0.12	0.00	0.81				0.00	0.21	0.29	0.33	0.09	0.00
Avail Cap(c_a), veh/h	635	0	552				0	2602	1160	148	2799	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.3	0.0	45.1				0.0	5.1	5.4	54.0	11.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	6.2				0.0	0.2	0.6	5.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.2				0.0	2.8	3.8	0.4	3.1	0.0
LnGrp Delay(d),s/veh	40.5	0.0	51.3				0.0	5.3	6.1	59.8	11.5	0.0
LnGrp LOS	D		D					A	A	E	B	
Approach Vol, veh/h		229						891			272	
Approach Delay, s/veh		49.7						5.6			13.5	
Approach LOS		D						A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.0	83.3		20.7		89.3		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	9.0	51.0		38.0		64.0		
Max Q Clear Time (g_c+I1), s	2.7	10.1		15.0		8.1		
Green Ext Time (p_c), s	0.0	7.9		0.8		8.1		

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	10	70	70	170	130	170	270	1660	150	40	660	30
Future Volume (veh/h)	10	70	70	170	130	170	270	1660	150	40	660	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	80	80	193	148	193	307	1886	170	45	750	34
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	142	124	226	348	309	347	2903	260	58	2234	101
Arrive On Green	0.01	0.08	0.08	0.12	0.19	0.19	0.06	0.20	0.20	0.01	0.14	0.14
Sat Flow, veh/h	1810	1805	1584	1810	1805	1602	1810	4845	435	1810	5087	230
Grp Volume(v), veh/h	11	80	80	193	148	193	307	1343	713	45	509	275
Grp Sat Flow(s),veh/h/ln	1810	1805	1584	1810	1805	1602	1810	1729	1822	1810	1729	1859
Q Serve(g_s), s	0.7	4.7	5.4	11.5	7.9	12.2	18.5	39.3	39.6	2.7	14.6	14.6
Cycle Q Clear(g_c), s	0.7	4.7	5.4	11.5	7.9	12.2	18.5	39.3	39.6	2.7	14.6	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.12
Lane Grp Cap(c), veh/h	19	142	124	226	348	309	347	2072	1092	58	1519	816
V/C Ratio(X)	0.59	0.56	0.64	0.85	0.42	0.62	0.88	0.65	0.65	0.77	0.34	0.34
Avail Cap(c_a), veh/h	66	199	174	329	461	409	477	2072	1092	82	1519	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.99	0.99	0.99
Uniform Delay (d), s/veh	54.2	48.9	49.2	47.2	39.0	40.7	50.3	33.5	33.6	54.0	32.6	32.6
Incr Delay (d2), s/veh	25.7	3.5	5.4	13.7	0.8	2.1	12.9	1.5	2.8	24.5	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.5	2.5	6.6	4.0	5.5	10.5	19.3	20.9	1.8	7.1	7.8
LnGrp Delay(d),s/veh	79.9	52.3	54.6	60.8	39.8	42.8	63.2	34.9	36.4	78.5	33.2	33.7
LnGrp LOS	E	D	D	E	D	D	E	C	D	E	C	C
Approach Vol, veh/h		171			534			2363			829	
Approach Delay, s/veh		55.2			48.5			39.0			35.8	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	71.2	17.7	13.5	25.1	53.6	5.1	26.1
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	5.0	54.7	20.0	12.1	29.0	30.7	4.0	28.1
Max Q Clear Time (g_c+I1), s	4.7	41.6	13.5	7.4	20.5	16.6	2.7	14.2
Green Ext Time (p_c), s	0.0	11.7	0.3	1.3	0.6	12.5	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↑↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1089	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1089	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	494.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	130	230	110	70	210	130	230	610	170	170	390	130
Future Vol, veh/h	130	230	110	70	210	130	230	610	170	170	390	130
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	194	343	164	104	313	194	343	910	254	254	582	194
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	725.4	339.8	593.5	284.2
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	28%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	49%	0%	62%	0%	100%	0%
Vol Right, %	0%	0%	100%	23%	0%	38%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	610	170	470	70	340	170	390	130
LT Vol	230	0	0	130	70	0	170	0	0
Through Vol	0	610	0	230	0	210	0	390	0
RT Vol	0	0	170	110	0	130	0	0	130
Lane Flow Rate	343	910	254	701	104	507	254	582	194
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1.15	2.924	0.766	2.529	0.389	1.783	0.871	1.917	0.601
Departure Headway (Hd)	17.015	16.449	15.658	13.292	16.62	15.768	15.454	14.891	14.104
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	216	237	233	281	218	233	236	250	258
Service Time	14.715	14.149	13.358	10.992	14.32	13.468	13.154	12.591	11.804
HCM Lane V/C Ratio	1.588	3.84	1.09	2.495	0.477	2.176	1.076	2.328	0.752
HCM Control Delay	153.2	909.3	56.1	725.4	29.5	403.7	72.2	459.3	36
HCM Lane LOS	F	F	F	F	D	F	F	F	E
HCM 95th-tile Q	11.7	56.9	5.4	56.3	1.7	27.8	7	33	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	330	300	130	90	420	200	160	100	60	130	90	400
Future Volume (veh/h)	330	300	130	90	420	200	160	100	60	130	90	400
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	407	370	141	98	519	247	174	109	65	160	98	494
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.81	0.81	0.92	0.92	0.81	0.81	0.92	0.92	0.92	0.81	0.92	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	490	1249	556	163	913	406	218	1253	561	218	1253	558
Arrive On Green	0.14	0.35	0.35	0.05	0.25	0.25	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	3510	3610	1608	3510	3610	1605	3510	3610	1615	3510	3610	1608
Grp Volume(v), veh/h	407	370	141	98	519	247	174	109	65	160	98	494
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1805	1605	1755	1805	1615	1755	1805	1608
Q Serve(g_s), s	9.1	6.0	5.1	2.2	10.1	11.0	3.9	1.6	2.2	3.6	1.5	23.4
Cycle Q Clear(g_c), s	9.1	6.0	5.1	2.2	10.1	11.0	3.9	1.6	2.2	3.6	1.5	23.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	490	1249	556	163	913	406	218	1253	561	218	1253	558
V/C Ratio(X)	0.83	0.30	0.25	0.60	0.57	0.61	0.80	0.09	0.12	0.74	0.08	0.89
Avail Cap(c_a), veh/h	522	1611	718	218	1298	577	218	1253	561	218	1253	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	19.2	18.9	37.7	26.3	26.6	37.3	17.7	17.9	37.2	17.7	24.8
Incr Delay (d2), s/veh	10.4	0.1	0.2	3.5	0.6	1.5	18.8	0.1	0.4	12.2	0.1	18.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	3.0	2.3	1.2	5.1	5.0	2.5	0.8	1.1	2.1	0.8	13.1
LnGrp Delay(d),s/veh	44.2	19.4	19.1	41.2	26.8	28.1	56.1	17.9	18.3	49.4	17.8	43.2
LnGrp LOS	D	B	B	D	C	C	E	B	B	D	B	D
Approach Vol, veh/h		918			864			348			752	
Approach Delay, s/veh		30.3			28.8			37.1			41.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	32.0	7.8	31.9	9.0	32.0	15.3	24.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	28.0	5.0	36.0	5.0	28.0	12.0	29.0
Max Q Clear Time (g_c+I1), s	5.6	4.2	4.2	8.0	5.9	25.4	11.1	13.0
Green Ext Time (p_c), s	0.0	3.5	0.0	8.1	0.0	1.0	0.2	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥			↰			↱	
Traffic Vol, veh/h	0	0	0	10	20	60	40	150	0	0	80	130
Future Vol, veh/h	0	0	0	10	20	60	40	150	0	0	80	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	10	20	60	40	150	0	0	80	130

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	375	440	150	210	0	-	-	-	0
Stage 1	230	230	-	-	-	-	-	-	-
Stage 2	145	210	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	630	514	902	1373	-	0	0	-	-
Stage 1	813	718	-	-	-	0	0	-	-
Stage 2	887	732	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	610	0	902	1373	-	-	-	-	-
Mov Cap-2 Maneuver	610	0	-	-	-	-	-	-	-
Stage 1	787	0	-	-	-	-	-	-	-
Stage 2	887	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	1373	-	844	-	-
HCM Lane V/C Ratio	0.029	-	0.107	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↱			↰	
Traffic Vol, veh/h	130	0	10	0	0	0	0	70	0	20	80	0
Future Vol, veh/h	130	0	10	0	0	0	0	70	0	20	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	130	0	10	0	0	0	0	70	0	20	80	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	190	190	80	-	0	0	70	0	0
Stage 1	120	120	-	-	-	-	-	-	-
Stage 2	70	70	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	804	708	986	0	-	-	1544	-	0
Stage 1	910	800	-	0	-	-	-	-	0
Stage 2	958	841	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	793	0	986	-	-	-	1544	-	-
Mov Cap-2 Maneuver	793	0	-	-	-	-	-	-	-
Stage 1	897	0	-	-	-	-	-	-	-
Stage 2	958	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	793	986	1544	-
HCM Lane V/C Ratio	-	-	0.164	0.01	0.013	-
HCM Control Delay (s)	-	-	10.4	8.7	7.4	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	0	-

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	48.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↑↱	
Traffic Vol, veh/h	190	40	10	820	470	40
Future Vol, veh/h	190	40	10	820	470	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	209	44	11	901	516	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1461	538	560	0	-	0
Stage 1	538	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 143	547	1021	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 141	547	1021	-	-	-
Mov Cap-2 Maneuver	~ 141	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	386	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 330.7	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1021	-	162	-	-
HCM Lane V/C Ratio	0.011	-	1.56	-	-
HCM Control Delay (s)	8.6	-	$ 330.7	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0	-	16.9	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	97.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Vol, veh/h	20	460	0	0	610	290	360	10	10	0	0	0
Future Vol, veh/h	20	460	0	0	610	290	360	10	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	489	0	0	649	309	383	11	11	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	649	0	-	-	-	0	1181	1181	489
Stage 1	-	-	-	-	-	-	532	532	-
Stage 2	-	-	-	-	-	-	649	649	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	947	-	0	0	-	-	~ 212	192	583
Stage 1	-	-	0	0	-	-	593	529	-
Stage 2	-	-	0	0	-	-	524	469	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	947	-	-	-	-	-	~ 207	0	583
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 207	0	-
Stage 1	-	-	-	-	-	-	580	0	-
Stage 2	-	-	-	-	-	-	524	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0	$ 450
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	207	583	947	-	-	-
HCM Lane V/C Ratio	1.902	0.018	0.022	-	-	-
HCM Control Delay (s)	$ 461.9	11.3	8.9	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	28.5	0.1	0.1	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
125: SR-79 SB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	97.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑	↱
Traffic Vol, veh/h	0	200	410	30	790	0	0	0	0	400	0	30
Future Vol, veh/h	0	200	410	30	790	0	0	0	0	400	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	213	436	32	840	0	0	0	0	426	0	32

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	213	0	0	1117	1117	840
Stage 1	-	-	-	-	-	-	904	904	-
Stage 2	-	-	-	-	-	-	213	213	-
Critical Hdwy	-	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1369	-	0	~ 231	209	368
Stage 1	0	-	-	-	-	0	~ 398	358	-
Stage 2	0	-	-	-	-	0	827	730	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1369	-	-	~ 226	0	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 226	0	-
Stage 1	-	-	-	-	-	-	~ 389	0	-
Stage 2	-	-	-	-	-	-	827	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.3	$ 419.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1369	-	226	368
HCM Lane V/C Ratio	-	-	0.023	-	1.883	0.087
HCM Control Delay (s)	-	-	7.7	-	$ 449.7	15.7
HCM Lane LOS	-	-	A	-	F	C
HCM 95th %tile Q(veh)	-	-	0.1	-	30.2	0.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

HCM 2010 Signalized Intersection Summary
127: Potrero Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	40	60	240	150	590	0	0	430	620
Future Volume (veh/h)	0	0	0	40	60	240	150	590	0	0	430	620
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				40	60	0	150	590	0	0	430	620
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				88	131	190	257	2462	0	0	1587	710
Arrive On Green				0.12	0.12	0.00	0.14	0.68	0.00	0.00	0.44	0.44
Sat Flow, veh/h				745	1118	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				100	0	0	150	590	0	0	430	620
Grp Sat Flow(s),veh/h/ln				1863	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				2.0	0.0	0.0	3.1	2.5	0.0	0.0	3.0	13.9
Cycle Q Clear(g_c), s				2.0	0.0	0.0	3.1	2.5	0.0	0.0	3.0	13.9
Prop In Lane				0.40		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				219	0	190	257	2462	0	0	1587	710
V/C Ratio(X)				0.46	0.00	0.00	0.58	0.24	0.00	0.00	0.27	0.87
Avail Cap(c_a), veh/h				1680	0	1457	408	2804	0	0	1628	728
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.4	0.0	0.0	16.0	2.4	0.0	0.0	7.1	10.2
Incr Delay (d2), s/veh				1.5	0.0	0.0	2.1	0.0	0.0	0.0	0.1	11.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.1	0.0	0.0	1.7	1.2	0.0	0.0	1.5	8.2
LnGrp Delay(d),s/veh				17.9	0.0	0.0	18.1	2.5	0.0	0.0	7.2	21.4
LnGrp LOS				B			B	A			A	C
Approach Vol, veh/h					100			740			1050	
Approach Delay, s/veh					17.9			5.6			15.6	
Approach LOS					B			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		31.2			9.7	21.5		8.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		31.0			9.0	18.0		36.0
Max Q Clear Time (g_c+I1), s		4.5			5.1	15.9		4.0
Green Ext Time (p_c), s		11.2			0.1	1.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
128: Potrero Blvd & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	410	50	30	0	0	0	0	330	40	310	170	0
Future Volume (veh/h)	410	50	30	0	0	0	0	330	40	310	170	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	446	0	0				0	330	40	310	170	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	772	0	345				0	782	350	402	2002	0
Arrive On Green	0.21	0.00	0.00				0.00	0.22	0.22	0.22	0.55	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	446	0	0				0	330	40	310	170	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	3.8	0.0	0.0				0.0	2.7	0.7	5.5	0.8	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0				0.0	2.7	0.7	5.5	0.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	772	0	345				0	782	350	402	2002	0
V/C Ratio(X)	0.58	0.00	0.00				0.00	0.42	0.11	0.77	0.08	0.00
Avail Cap(c_a), veh/h	3779	0	1686				0	1885	843	735	3769	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	0.0				0.0	11.6	10.8	12.6	3.6	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0				0.0	0.4	0.1	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0				0.0	1.4	0.3	3.1	0.4	0.0
LnGrp Delay(d),s/veh	12.9	0.0	0.0				0.0	12.0	11.0	15.8	3.6	0.0
LnGrp LOS	B							B	B	B	A	
Approach Vol, veh/h		446						370			480	
Approach Delay, s/veh		12.9						11.9			11.5	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.7	11.5		11.4		23.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	18.0		36.0		36.0		
Max Q Clear Time (g_c+I1), s	7.5	4.7		5.8		2.8		
Green Ext Time (p_c), s	0.5	2.8		1.7		3.7		

Intersection Summary		
HCM 2010 Ctrl Delay		12.1
HCM 2010 LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	10	220	230	40	310	20	390	90	50	60	220	10
Future Volume (veh/h)	10	220	230	40	310	20	390	90	50	60	220	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	224	235	41	316	20	398	92	51	61	224	10
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	427	359	62	472	342	449	449	249	81	339	15
Arrive On Green	0.01	0.22	0.22	0.03	0.25	0.25	0.25	0.39	0.39	0.04	0.19	0.19
Sat Flow, veh/h	1810	1900	1597	1810	1900	1375	1810	1147	636	1810	1804	81
Grp Volume(v), veh/h	10	224	235	41	316	20	398	0	143	61	0	234
Grp Sat Flow(s),veh/h/ln	1810	1900	1597	1810	1900	1375	1810	0	1783	1810	0	1885
Q Serve(g_s), s	0.3	5.4	7.0	1.2	7.9	0.6	11.1	0.0	2.8	1.7	0.0	6.0
Cycle Q Clear(g_c), s	0.3	5.4	7.0	1.2	7.9	0.6	11.1	0.0	2.8	1.7	0.0	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.04
Lane Grp Cap(c), veh/h	19	427	359	62	472	342	449	0	697	81	0	354
V/C Ratio(X)	0.53	0.53	0.66	0.66	0.67	0.06	0.89	0.00	0.21	0.75	0.00	0.66
Avail Cap(c_a), veh/h	138	580	488	138	580	420	449	0	782	207	0	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	17.9	18.5	25.0	17.8	15.0	19.0	0.0	10.6	24.7	0.0	19.7
Incr Delay (d2), s/veh	21.6	1.0	2.0	11.3	2.2	0.1	18.9	0.0	0.1	12.9	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.0	3.2	0.8	4.4	0.2	7.9	0.0	1.4	1.2	0.0	3.3
LnGrp Delay(d),s/veh	47.4	18.9	20.5	36.4	19.9	15.1	37.9	0.0	10.7	37.6	0.0	21.8
LnGrp LOS	D	B	C	D	B	B	D		B	D		C
Approach Vol, veh/h		469			377			541			295	
Approach Delay, s/veh		20.3			21.5			30.7			25.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	24.5	5.8	15.8	17.0	13.8	4.5	17.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	23.0	4.0	16.0	13.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	3.7	4.8	3.2	9.0	13.1	8.0	2.3	9.9
Green Ext Time (p_c), s	0.0	2.1	0.0	2.4	0.0	1.3	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	270	80	250	280	100	60	210	110	140	460	70
Future Volume (veh/h)	60	270	80	250	280	100	60	210	110	140	460	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	281	83	260	292	104	62	219	115	146	479	73
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	439	1135	329	488	781	595	142	577	292	210	898	136
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.08	0.25	0.25	0.12	0.29	0.29
Sat Flow, veh/h	1002	2761	800	1032	1900	1448	1810	2319	1171	1810	3140	476
Grp Volume(v), veh/h	62	182	182	260	292	104	62	169	165	146	274	278
Grp Sat Flow(s),veh/h/ln	1002	1805	1755	1032	1900	1448	1810	1805	1685	1810	1805	1811
Q Serve(g_s), s	2.5	3.5	3.7	11.9	5.7	2.4	1.7	4.1	4.4	4.2	6.8	6.9
Cycle Q Clear(g_c), s	8.2	3.5	3.7	15.5	5.7	2.4	1.7	4.1	4.4	4.2	6.8	6.9
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.70	1.00		0.26
Lane Grp Cap(c), veh/h	439	742	722	488	781	595	142	449	420	210	516	518
V/C Ratio(X)	0.14	0.25	0.25	0.53	0.37	0.17	0.44	0.38	0.39	0.70	0.53	0.54
Avail Cap(c_a), veh/h	533	910	885	584	958	730	237	910	850	304	978	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	10.3	10.4	15.5	11.0	10.0	23.5	16.7	16.7	22.8	16.1	16.1
Incr Delay (d2), s/veh	0.1	0.2	0.2	0.9	0.3	0.1	2.1	0.5	0.6	4.1	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.8	1.8	3.4	3.1	1.0	1.0	2.1	2.1	2.3	3.5	3.6
LnGrp Delay(d),s/veh	14.0	10.5	10.5	16.4	11.3	10.1	25.6	17.2	17.3	26.9	16.9	17.0
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		426			656			396			698	
Approach Delay, s/veh		11.0			13.1			18.6			19.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.2	17.3		26.0	8.2	19.3		26.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	6.2	6.4		10.2	3.7	8.9		17.5
Green Ext Time (p_c), s	0.1	5.5		5.6	0.0	5.5		4.1

Intersection Summary		
HCM 2010 Ctrl Delay		15.6
HCM 2010 LOS		B

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰↑	↰	↱
Traffic Volume (vph)	10	350	10	20	1190	10
Future Volume (vph)	10	350	10	20	1190	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1528		1767	1615	1485
Flt Permitted	1.00	1.00		0.88	0.95	1.00
Satd. Flow (perm)	1800	1528		1589	1615	1485
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	12	412	12	24	1400	12
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	12	412	0	36	1400	12
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm
Protected Phases	4	2		8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	7.3	81.4		7.3	74.1	74.1
Effective Green, g (s)	7.3	81.4		7.3	74.1	74.1
Actuated g/C Ratio	0.08	0.89		0.08	0.81	0.81
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	143	1528		126	1309	1203
v/s Ratio Prot	0.01	c0.22			c0.87	
v/s Ratio Perm		0.05		0.02		0.01
v/c Ratio	0.08	0.27		0.29	1.07	0.01
Uniform Delay, d1	39.0	0.7		39.6	8.7	1.7
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1		1.3	45.7	0.0
Delay (s)	39.2	0.8		40.8	54.4	1.7
Level of Service	D	A		D	D	A
Approach Delay (s)	1.9			40.8	54.0	
Approach LOS	A			D	D	

Intersection Summary			
HCM 2000 Control Delay	41.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	91.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	286.8
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⅄	
Traffic Vol, veh/h	20	370	940	250	270	50
Future Vol, veh/h	20	370	940	250	270	50
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	381	969	258	278	52
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	23.9	444	22.9
HCM LOS	C	F	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	0%	84%
Vol Thru, %	95%	79%	0%
Vol Right, %	0%	21%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	390	1190	320
LT Vol	20	0	270
Through Vol	370	940	0
RT Vol	0	250	50
Lane Flow Rate	402	1227	330
Geometry Grp	1	1	1
Degree of Util (X)	0.675	1.942	0.604
Departure Headway (Hd)	7.219	5.699	8.193
Convergence, Y/N	Yes	Yes	Yes
Cap	507	650	445
Service Time	5.219	3.699	6.193
HCM Lane V/C Ratio	0.793	1.888	0.742
HCM Control Delay	23.9	444	22.9
HCM Lane LOS	C	F	C
HCM 95th-tile Q	5	80.1	3.9

HCM 2010 AWSC
133: Live Oak Canyon & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	359.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	610	20	0	1060	100	20	10	10	210	10	140
Future Vol, veh/h	10	610	20	0	1060	100	20	10	10	210	10	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	642	21	0	1116	105	21	11	11	221	11	147
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	155.2	584.1	17	34.9
HCM LOS	F	F	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	2%	0%	58%
Vol Thru, %	25%	95%	91%	3%
Vol Right, %	25%	3%	9%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	640	1160	360
LT Vol	20	10	0	210
Through Vol	10	610	1060	10
RT Vol	10	20	100	140
Lane Flow Rate	42	674	1221	379
Geometry Grp	1	1	1	1
Degree of Util (X)	0.104	1.247	2.248	0.747
Departure Headway (Hd)	12.524	8.373	7.056	9.217
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	288	438	525	398
Service Time	10.524	6.373	5.056	7.217
HCM Lane V/C Ratio	0.146	1.539	2.326	0.952
HCM Control Delay	17	155.2	584.1	34.9
HCM Lane LOS	C	F	F	D
HCM 95th-tile Q	0.3	22.3	84.7	6

HCM 2010 AWSC
134: Redlands Blvd & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	557
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	340	540	630	590	650	470
Future Vol, veh/h	340	540	630	590	650	470
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	351	557	649	608	670	485
Number of Lanes	1	0	0	1	1	0

Approach	EB		WB		NB	
Opposing Approach	WB		EB			
Opposing Lanes	1		1		0	
Conflicting Approach Left			NB		EB	
Conflicting Lanes Left	0		1		1	
Conflicting Approach Right	NB				WB	
Conflicting Lanes Right	1		0		1	
HCM Control Delay	345.1		699.2		568.6	
HCM LOS	F		F		F	

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	58%	0%	52%
Vol Thru, %	0%	39%	48%
Vol Right, %	42%	61%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1120	880	1220
LT Vol	650	0	630
Through Vol	0	340	590
RT Vol	470	540	0
Lane Flow Rate	1155	907	1258
Geometry Grp	1	1	1
Degree of Util (X)	2.201	1.671	2.481
Departure Headway (Hd)	9.03	12.236	11.314
Convergence, Y/N	Yes	Yes	Yes
Cap	416	308	340
Service Time	7.03	10.236	9.314
HCM Lane V/C Ratio	2.776	2.945	3.7
HCM Control Delay	568.6	345.1	699.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	64.9	30.7	63.6

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	10.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	⋎	
Traffic Vol, veh/h	40	80	210	130	130	240
Future Vol, veh/h	40	80	210	130	130	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	82	216	134	134	247

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	649	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	567	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1475	-	438	983
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1475	-	369	983
Mov Cap-2 Maneuver	-	-	-	-	369	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	482	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	19.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	620	-	-	1475	-
HCM Lane V/C Ratio	0.615	-	-	0.147	-
HCM Control Delay (s)	19.6	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.2	-	-	0.5	-

HCM 2010 AWSC
136: Alessandro Rd & Sunset Dr

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	10	10	30	10	30	0	310	10	10	270	10
Future Vol, veh/h	10	10	10	30	10	30	0	310	10	10	270	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	34	11	34	0	348	11	11	303	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9.1	11.3	10.8
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	33%	43%	3%
Vol Thru, %	97%	33%	14%	93%
Vol Right, %	3%	33%	43%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	30	70	290
LT Vol	0	10	30	10
Through Vol	310	10	10	270
RT Vol	10	10	30	10
Lane Flow Rate	360	34	79	326
Geometry Grp	1	1	1	1
Degree of Util (X)	0.453	0.051	0.116	0.414
Departure Headway (Hd)	4.537	5.413	5.293	4.575
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	791	656	672	785
Service Time	2.582	3.496	3.367	2.622
HCM Lane V/C Ratio	0.455	0.052	0.118	0.415
HCM Control Delay	11.3	8.8	9.1	10.8
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.4	0.2	0.4	2

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱		↰
Traffic Vol, veh/h	150	10	30	170	20	50
Future Vol, veh/h	150	10	30	170	20	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	179	12	36	202	24	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	143	36	0	0	36	0
Stage 1	36	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	854	1042	-	-	1588	-
Stage 1	992	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	840	1042	-	-	1588	-
Mov Cap-2 Maneuver	840	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	840	1042	1588	-
HCM Lane V/C Ratio	-	-	0.213	0.011	0.015	-
HCM Control Delay (s)	-	-	10.4	8.5	7.3	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	0	-

	↗	↘	↖	↑	↓	↙
Movement	**EBL**	**EBR**	**NBL**	**NBT**	**SBT**	**SBR**
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	0	160	100	550	1320	10
Future Volume (veh/h)	0	160	100	550	1320	10
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	170	106	585	1404	11
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	251	224	286	3532	2244	699
Arrive On Green	0.00	0.14	0.16	0.68	0.43	0.43
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	0	170	106	585	1404	11
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	0.0	4.5	2.3	1.8	9.3	0.2
Cycle Q Clear(g_c), s	0.0	4.5	2.3	1.8	9.3	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	251	224	286	3532	2244	699
V/C Ratio(X)	0.00	0.76	0.37	0.17	0.63	0.02
Avail Cap(c_a), veh/h	735	656	735	5153	2576	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.4	16.7	2.5	9.8	7.2
Incr Delay (d2), s/veh	0.0	5.2	0.8	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	1.2	0.8	4.5	0.1
LnGrp Delay(d),s/veh	0.0	23.6	17.5	2.6	10.2	7.2
LnGrp LOS		C	B	A	B	A
Approach Vol, veh/h	170			691	1415	
Approach Delay, s/veh	23.6			4.9	10.1	
Approach LOS	C			A	B	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		34.2		10.1	11.0	23.2		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		44.0		18.0	18.0	22.0		
Max Q Clear Time (g_c+I1), s		3.8		6.5	4.3	11.3		
Green Ext Time (p_c), s		18.1		0.3	0.2	7.8		

Intersection Summary			
HCM 2010 Ctrl Delay			9.5
HCM 2010 LOS			A

Intersection	
Int Delay, s/veh	35.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	20	5	20	20	15	10	20	1100	10	5	1130	30
Future Vol, veh/h	20	5	20	20	15	10	20	1100	10	5	1130	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	0	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	5	22	22	16	11	22	1196	11	5	1228	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2492	2478	1228	2492	2478	1196	1228	0	0	1196	0	0
Stage 1	1239	1239	-	1239	1239	-	-	-	-	-	-	-
Stage 2	1253	1239	-	1253	1239	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 20	30	219	~ 20	30	229	575	-	-	591	-	-
Stage 1	217	250	-	217	250	-	-	-	-	-	-	-
Stage 2	213	250	-	213	250	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 10	29	219	~ 15	29	229	575	-	-	591	-	-
Mov Cap-2 Maneuver	~ 10	29	-	~ 15	29	-	-	-	-	-	-	-
Stage 1	209	248	-	209	240	-	-	-	-	-	-	-
Stage 2	182	240	-	186	248	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay,	$ 1061.5	$ 826.9	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	575	-	-	20	24	591	-	-
HCM Lane V/C Ratio	0.038	-	-	2.446	2.038	0.009	-	-
HCM Control Delay (s)	11.5	-	-	$ 1061.5	$ 826.9	11.1	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	6.5	6.1	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			✥		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	120	20	40	10	20	10	20	1060	10	10	1050	180
Future Volume (veh/h)	120	20	40	10	20	10	20	1060	10	10	1050	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	20	41	10	20	10	20	1082	10	10	1071	184
Adj No. of Lanes	0	2	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	522	160	328	29	59	29	56	1598	15	31	1301	223
Arrive On Green	0.29	0.29	0.29	0.07	0.07	0.07	0.03	0.44	0.44	0.02	0.42	0.42
Sat Flow, veh/h	1810	555	1137	447	895	447	1810	3665	34	1810	3081	528
Grp Volume(v), veh/h	122	0	61	40	0	0	20	533	559	10	626	629
Grp Sat Flow(s),veh/h/ln	1810	0	1692	1789	0	0	1810	1805	1894	1810	1805	1805
Q Serve(g_s), s	4.3	0.0	2.2	1.8	0.0	0.0	0.9	19.7	19.7	0.5	25.5	25.7
Cycle Q Clear(g_c), s	4.3	0.0	2.2	1.8	0.0	0.0	0.9	19.7	19.7	0.5	25.5	25.7
Prop In Lane	1.00		0.67	0.25		0.25	1.00		0.02	1.00		0.29
Lane Grp Cap(c), veh/h	522	0	488	118	0	0	56	787	826	31	762	762
V/C Ratio(X)	0.23	0.00	0.12	0.34	0.00	0.00	0.35	0.68	0.68	0.32	0.82	0.83
Avail Cap(c_a), veh/h	522	0	488	559	0	0	152	803	842	152	803	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	21.8	37.1	0.0	0.0	39.5	18.8	18.8	40.4	21.3	21.3
Incr Delay (d2), s/veh	1.0	0.0	0.5	1.7	0.0	0.0	3.7	2.2	2.1	5.7	6.6	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	1.1	0.9	0.0	0.0	0.5	10.3	10.7	0.3	14.1	14.2
LnGrp Delay(d),s/veh	23.6	0.0	22.4	38.8	0.0	0.0	43.2	21.0	20.9	46.1	27.8	28.1
LnGrp LOS	C		C	D			D	C	C	D	C	C
Approach Vol, veh/h		183			40			1112			1265	
Approach Delay, s/veh		23.2			38.8			21.3			28.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.4	40.3		28.0	6.6	39.1		9.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	37.0		24.0	7.0	37.0		26.0
Max Q Clear Time (g_c+I1), s	2.5	21.7		6.3	2.9	27.7		3.8
Green Ext Time (p_c), s	0.0	11.2		0.7	0.0	7.4		0.1

Intersection Summary			
HCM 2010 Ctrl Delay			25.0
HCM 2010 LOS			C

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	30	30	10	30	10
Future Vol, veh/h	10	30	30	10	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	35	35	12	35	12

Major/Minor	Major1		Minor2		Major2	
Conflicting Flow All	0	0	12	83	12	-
Stage 1	-	-	0	71	-	-
Stage 2	-	-	12	12	-	-
Critical Hdwy	-	-	6.4	6.5	4.1	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	5.4	5.5	-	-
Follow-up Hdwy	-	-	3.5	4	2.2	-
Pot Cap-1 Maneuver	-	-	1013	811	1620	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	1016	890	-	-
Platoon blocked, %	-	-				-
Mov Cap-1 Maneuver	-	-	991	0	1620	-
Mov Cap-2 Maneuver	-	-	991	0	-	-
Stage 1	-	-	-	0	-	-
Stage 2	-	-	1016	0	-	-

Approach	EB		WB		NB
HCM Control Delay, s	0		8.8		5.5
HCM LOS			A		

Minor Lane/Major Mvmt	NBL	NBR	EBT	EBR	WBLn1
Capacity (veh/h)	1620	-	-	-	991
HCM Lane V/C Ratio	0.022	-	-	-	0.047
HCM Control Delay (s)	7.3	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	10	10	100	0	60	10	1040	160	470	620	10
Future Volume (veh/h)	10	10	10	100	0	60	10	1040	160	470	620	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	102	0	61	10	1061	163	480	633	10
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	25	25	159	0	142	32	1269	710	560	2323	1039
Arrive On Green	0.04	0.04	0.04	0.09	0.00	0.09	0.02	0.35	0.35	0.31	0.64	0.64
Sat Flow, veh/h	589	589	589	1810	0	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	30	0	0	102	0	61	10	1061	163	480	633	10
Grp Sat Flow(s),veh/h/ln	1767	0	0	1810	0	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	1.3	0.0	0.0	4.2	0.0	2.8	0.4	20.8	4.8	19.2	5.8	0.2
Cycle Q Clear(g_c), s	1.3	0.0	0.0	4.2	0.0	2.8	0.4	20.8	4.8	19.2	5.8	0.2
Prop In Lane	0.33		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	0	0	159	0	142	32	1269	710	560	2323	1039
V/C Ratio(X)	0.39	0.00	0.00	0.64	0.00	0.43	0.32	0.84	0.23	0.86	0.27	0.01
Avail Cap(c_a), veh/h	413	0	0	423	0	377	164	1453	792	634	2391	1069
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	0.0	0.0	33.9	0.0	33.3	37.4	22.9	13.5	25.0	5.9	4.9
Incr Delay (d2), s/veh	3.3	0.0	0.0	4.2	0.0	2.0	5.6	4.0	0.2	10.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	2.3	0.0	1.3	0.3	11.0	2.5	11.2	2.9	0.1
LnGrp Delay(d),s/veh	39.2	0.0	0.0	38.2	0.0	35.3	42.9	26.9	13.6	35.2	6.0	4.9
LnGrp LOS	D			D		D	D	C	B	D	A	A
Approach Vol, veh/h		30			163			1234			1123	
Approach Delay, s/veh		39.2			37.1			25.3			18.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.8	31.1		7.3	5.3	53.6		10.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	27.0	31.0		18.0	7.0	51.0		18.0
Max Q Clear Time (g_c+I1), s	21.2	22.8		3.3	2.4	7.8		6.2
Green Ext Time (p_c), s	2.6	4.3		0.1	0.0	5.8		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	690	220	180	510	590	150
Future Volume (veh/h)	690	220	180	510	590	150
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	711	227	186	526	608	155
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	793	707	231	2202	1183	1076
Arrive On Green	0.44	0.44	0.13	0.42	0.23	0.23
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	711	227	186	526	608	155
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	21.2	5.3	5.8	3.8	6.0	2.1
Cycle Q Clear(g_c), s	21.2	5.3	5.8	3.8	6.0	2.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	793	707	231	2202	1183	1076
V/C Ratio(X)	0.90	0.32	0.80	0.24	0.51	0.14
Avail Cap(c_a), veh/h	964	860	249	2762	1693	1235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	10.7	24.7	10.7	19.6	3.6
Incr Delay (d2), s/veh	9.6	0.3	16.3	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	5.8	3.9	1.8	2.9	2.1
LnGrp Delay(d),s/veh	24.8	11.0	41.0	10.8	20.0	3.7
LnGrp LOS	C	B	D	B	B	A
Approach Vol, veh/h	938			712	763	
Approach Delay, s/veh	21.4			18.7	16.7	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.7		29.5	11.4	17.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		31.0		31.0	8.0	19.0		
Max Q Clear Time (g_c+I1), s		5.8		23.2	7.8	8.0		
Green Ext Time (p_c), s		7.9		2.3	0.0	5.3		

Intersection Summary			
HCM 2010 Ctrl Delay			19.1
HCM 2010 LOS			B

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↑↱		↰	↑
Traffic Vol, veh/h	30	10	20	40	30	30
Future Vol, veh/h	30	10	20	40	30	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	34	11	22	45	34	34

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	146	45	0	0	67	0
Stage 1	45	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	851	1031	-	-	1547	-
Stage 1	983	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	832	1031	-	-	1547	-
Mov Cap-2 Maneuver	832	-	-	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	908	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	874	1547	-
HCM Lane V/C Ratio	-	-	0.051	0.022	-
HCM Control Delay (s)	-	-	9.3	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

HCM 2010 TWSC
16: Theodore St & SR-60 EB Ramps

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	20	50	70	50	40	40
Future Vol, veh/h	20	50	70	50	40	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	260	270	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	67	93	67	53	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	333	80	107	0	-	0
Stage 1	80	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	666	986	1497	-	-	-
Stage 1	948	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	625	986	1497	-	-	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	948	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	4.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1497	-	625	986	-	-
HCM Lane V/C Ratio	0.062	-	0.043	0.068	-	-
HCM Control Delay (s)	7.6	-	11	8.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	0	30	10	0	50	20	530	20	80	640	80
Future Volume (veh/h)	140	0	30	10	0	50	20	530	20	80	640	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	0	33	11	0	54	22	576	22	87	696	87
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	193	0	584	35	0	443	64	1028	39	154	1097	137
Arrive On Green	0.11	0.00	0.36	0.02	0.00	0.27	0.04	0.29	0.29	0.08	0.34	0.34
Sat Flow, veh/h	1810	0	1615	1810	0	1615	1810	3546	135	1810	3230	403
Grp Volume(v), veh/h	152	0	33	11	0	54	22	293	305	87	389	394
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1810	0	1615	1810	1805	1876	1810	1805	1829
Q Serve(g_s), s	5.4	0.0	0.9	0.4	0.0	1.6	0.8	9.0	9.0	3.0	11.9	11.9
Cycle Q Clear(g_c), s	5.4	0.0	0.9	0.4	0.0	1.6	0.8	9.0	9.0	3.0	11.9	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.22
Lane Grp Cap(c), veh/h	193	0	584	35	0	443	64	523	544	154	613	621
V/C Ratio(X)	0.79	0.00	0.06	0.31	0.00	0.12	0.34	0.56	0.56	0.57	0.63	0.64
Avail Cap(c_a), veh/h	276	0	584	193	0	443	193	523	544	193	613	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	13.6	31.7	0.0	17.8	30.9	19.7	19.7	28.8	18.2	18.2
Incr Delay (d2), s/veh	9.3	0.0	0.2	5.0	0.0	0.6	3.2	4.3	4.1	3.3	4.9	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.4	0.2	0.0	0.8	0.4	5.1	5.3	1.6	6.8	6.9
LnGrp Delay(d),s/veh	37.9	0.0	13.8	36.7	0.0	18.4	34.1	24.0	23.9	32.1	23.2	23.1
LnGrp LOS	D		B	D		B	C	C	C	C	C	C
Approach Vol, veh/h		185			65			620			870	
Approach Delay, s/veh		33.6			21.5			24.3			24.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	23.0	5.3	27.7	6.3	26.3	11.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.0	11.0	2.4	2.9	2.8	13.9	7.4	3.6
Green Ext Time (p_c), s	0.0	4.3	0.0	0.4	0.0	3.1	0.1	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Vol, veh/h	90	30	10	30	30	40
Future Vol, veh/h	90	30	10	30	30	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	280	0	120	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	132	44	15	44	44	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	118	44	44	0	-	0
Stage 1	44	-	-	-	-	-
Stage 2	74	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	883	1032	1577	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	875	1032	1577	-	-	-
Mov Cap-2 Maneuver	875	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	EB		NB		SB	
HCM Control Delay, s	9.5		1.8		0	
HCM LOS	A					

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1577	-	875	1032	-	-
HCM Lane V/C Ratio	0.009	-	0.151	0.043	-	-
HCM Control Delay (s)	7.3	-	9.8	8.6	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	0.1	-	-

HCM 2010 TWSC
20: Oliver St/Pearl Ln & Alessandro Blvd

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑	↱		↰↑↱	
Traffic Vol, veh/h	10	460	130	20	260	0	80	0	30	0	0	10
Future Vol, veh/h	10	460	130	20	260	0	80	0	30	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	575	163	25	325	0	100	0	38	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	325	0	0	738	0	0	894	1056	369	688	1138	163
Stage 1	-	-	-	-	-	-	681	681	-	375	375	-
Stage 2	-	-	-	-	-	-	213	375	-	313	763	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1246	-	-	877	-	-	239	227	634	336	203	859
Stage 1	-	-	-	-	-	-	411	453	-	624	621	-
Stage 2	-	-	-	-	-	-	775	621	-	678	416	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1246	-	-	877	-	-	226	215	634	303	192	859
Mov Cap-2 Maneuver	-	-	-	-	-	-	226	215	-	303	192	-
Stage 1	-	-	-	-	-	-	404	445	-	613	599	-
Stage 2	-	-	-	-	-	-	737	599	-	626	409	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.8	27	9.3
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	634	1246	-	-	877	-	-	859
HCM Lane V/C Ratio	0.442	0.059	0.01	-	-	0.029	-	-	0.015
HCM Control Delay (s)	33	11	7.9	0.1	-	9.2	0.1	-	9.3
HCM Lane LOS	D	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	2.1	0.2	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	130	210	130	60	120	30	60	460	60	20	780	60
Future Volume (veh/h)	130	210	130	60	120	30	60	460	60	20	780	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	266	165	76	152	38	76	582	76	25	987	76
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	458	275	159	444	108	159	1701	219	73	1564	120
Arrive On Green	0.15	0.21	0.21	0.09	0.15	0.15	0.09	0.37	0.37	0.04	0.32	0.32
Sat Flow, veh/h	1810	2162	1296	1810	2875	699	1810	4650	599	1810	4912	378
Grp Volume(v), veh/h	165	221	210	76	94	96	76	431	227	25	694	369
Grp Sat Flow(s),veh/h/ln	1810	1805	1653	1810	1805	1769	1810	1729	1791	1810	1729	1831
Q Serve(g_s), s	4.7	6.0	6.3	2.2	2.5	2.6	2.2	4.9	5.0	0.7	9.3	9.4
Cycle Q Clear(g_c), s	4.7	6.0	6.3	2.2	2.5	2.6	2.2	4.9	5.0	0.7	9.3	9.4
Prop In Lane	1.00		0.78	1.00		0.39	1.00		0.33	1.00		0.21
Lane Grp Cap(c), veh/h	263	383	350	159	279	273	159	1265	655	73	1101	583
V/C Ratio(X)	0.63	0.58	0.60	0.48	0.34	0.35	0.48	0.34	0.35	0.34	0.63	0.63
Avail Cap(c_a), veh/h	332	895	820	299	862	845	233	1652	856	233	1652	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	19.3	19.4	23.6	20.5	20.6	23.6	12.5	12.5	25.4	15.8	15.8
Incr Delay (d2), s/veh	2.5	1.4	1.7	2.2	0.7	0.8	2.2	0.2	0.3	2.7	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.1	3.0	1.2	1.3	1.3	1.2	2.4	2.5	0.4	4.5	4.9
LnGrp Delay(d),s/veh	24.3	20.6	21.0	25.9	21.2	21.3	25.9	12.7	12.9	28.1	16.4	17.0
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		596			266			734			1088	
Approach Delay, s/veh		21.8			22.6			14.1			16.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	23.9	8.8	15.5	8.8	21.3	11.9	12.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	9.0	27.0	7.0	26.0	10.0	26.0
Max Q Clear Time (g_c+I1), s	2.7	7.0	4.2	8.3	4.2	11.4	6.7	4.6
Green Ext Time (p_c), s	0.0	3.6	0.3	2.1	1.1	5.3	0.2	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

HCM 2010 AWSC
23: Redlands Blvd & Alessandro Blvd

Intersection	
Intersection Delay, s/veh	36.2
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↰↑↱			↰↑	↱		↰↑↑↱	
Traffic Vol, veh/h	130	120	30	60	70	40	20	390	60	30	500	100
Future Vol, veh/h	130	120	30	60	70	40	20	390	60	30	500	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	141	130	33	65	76	43	22	424	65	33	543	109
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	16.9	19.9	60.9	30.8
HCM LOS	C	C	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	5%	0%	100%	0%	35%	11%	0%
Vol Thru, %	95%	0%	0%	80%	41%	89%	71%
Vol Right, %	0%	100%	0%	20%	24%	0%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	410	60	130	150	170	280	350
LT Vol	20	0	130	0	60	30	0
Through Vol	390	0	0	120	70	250	250
RT Vol	0	60	0	30	40	0	100
Lane Flow Rate	446	65	141	163	185	304	380
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.99	0.131	0.362	0.388	0.467	0.667	0.808
Departure Headway (Hd)	8	7.251	9.232	8.567	9.091	7.885	7.65
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	497	390	421	395	460	476
Service Time	5.71	4.961	6.979	6.315	7.147	5.632	5.369
HCM Lane V/C Ratio	0.98	0.131	0.362	0.387	0.468	0.661	0.798
HCM Control Delay	68.2	11.1	17.2	16.7	19.9	25.1	35.4
HCM Lane LOS	F	B	C	C	C	D	E
HCM 95th-tile Q	12.6	0.4	1.6	1.8	2.4	4.8	7.6

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰↑	↱		✥	
Traffic Volume (veh/h)	10	320	260	50	250	20	70	70	20	20	70	10
Future Volume (veh/h)	10	320	260	50	250	20	70	70	20	20	70	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	416	338	65	325	26	91	91	26	26	91	13
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	288	603	487	146	455	383	148	148	256	53	186	27
Arrive On Green	0.16	0.32	0.32	0.08	0.24	0.24	0.16	0.16	0.16	0.14	0.14	0.14
Sat Flow, veh/h	1810	1896	1530	1810	1900	1598	927	927	1600	369	1293	185
Grp Volume(v), veh/h	13	396	358	65	325	26	182	0	26	130	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1621	1810	1900	1598	1854	0	1600	1847	0	0
Q Serve(g_s), s	0.3	10.3	10.4	1.8	8.4	0.7	4.9	0.0	0.7	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.3	10.3	10.4	1.8	8.4	0.7	4.9	0.0	0.7	3.5	0.0	0.0
Prop In Lane	1.00		0.94	1.00		1.00	0.50		1.00	0.20		0.10
Lane Grp Cap(c), veh/h	288	574	516	146	455	383	296	0	256	265	0	0
V/C Ratio(X)	0.05	0.69	0.69	0.44	0.71	0.07	0.61	0.00	0.10	0.49	0.00	0.00
Avail Cap(c_a), veh/h	288	941	845	236	990	833	966	0	834	894	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.1	16.0	16.0	23.5	18.7	15.8	21.0	0.0	19.3	21.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.5	1.7	2.1	2.1	0.1	2.1	0.0	0.2	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.3	4.8	1.0	4.7	0.3	2.7	0.0	0.3	1.9	0.0	0.0
LnGrp Delay(d),s/veh	19.2	17.5	17.7	25.7	20.8	15.9	23.1	0.0	19.5	22.6	0.0	0.0
LnGrp LOS	B	B	B	C	C	B	C		B	C		
Approach Vol, veh/h		767			416			208			130	
Approach Delay, s/veh		17.6			21.3			22.6			22.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.6	8.3	21.1		11.7	12.6	16.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		6.9	3.8	12.4		5.5	2.3	10.4
Green Ext Time (p_c), s		0.9	0.0	3.8		0.5	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	70	150	140	20	90	30	110	420	30	70	630	150
Future Volume (veh/h)	70	150	140	20	90	30	110	420	30	70	630	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	185	173	25	111	37	136	519	37	86	778	185
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	422	370	74	479	153	206	1194	598	171	1306	308
Arrive On Green	0.09	0.23	0.23	0.04	0.18	0.18	0.11	0.33	0.33	0.09	0.31	0.31
Sat Flow, veh/h	1810	1817	1595	1810	2686	859	1810	3610	1608	1810	4191	987
Grp Volume(v), veh/h	86	184	174	25	73	75	136	519	37	86	641	322
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1740	1810	1805	1608	1810	1729	1720
Q Serve(g_s), s	2.4	4.6	5.0	0.7	1.8	2.0	3.8	6.0	0.8	2.4	8.3	8.4
Cycle Q Clear(g_c), s	2.4	4.6	5.0	0.7	1.8	2.0	3.8	6.0	0.8	2.4	8.3	8.4
Prop In Lane	1.00		0.99	1.00		0.49	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	171	419	373	74	322	310	206	1194	598	171	1077	536
V/C Ratio(X)	0.50	0.44	0.47	0.34	0.23	0.24	0.66	0.43	0.06	0.50	0.59	0.60
Avail Cap(c_a), veh/h	239	1394	1241	239	1394	1344	273	1972	944	239	1824	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	17.4	17.5	24.8	18.7	18.7	22.5	13.9	10.7	22.8	15.4	15.5
Incr Delay (d2), s/veh	2.3	0.7	0.9	2.7	0.4	0.4	3.6	0.2	0.0	2.3	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.4	2.3	0.4	0.9	1.0	2.1	3.0	0.4	1.3	4.0	4.1
LnGrp Delay(d),s/veh	25.1	18.1	18.5	27.5	19.0	19.1	26.1	14.1	10.8	25.1	16.0	16.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		444			173			692			1049	
Approach Delay, s/veh		19.6			20.3			16.3			16.9	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	21.6	6.2	16.3	10.1	20.5	9.0	13.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	4.4	8.0	2.7	7.0	5.8	10.4	4.4	4.0
Green Ext Time (p_c), s	0.0	3.3	0.0	2.2	0.8	5.2	0.6	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
26: Cactus Ave & Quincy St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↲↳	
Traffic Volume (veh/h)	10	180	120	0	0	20
Future Volume (veh/h)	10	180	120	0	0	20
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	180	120	0	0	20
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	312	1279	1349	0	0	87
Arrive On Green	0.37	0.37	0.37	0.00	0.00	0.06
Sat Flow, veh/h	81	3508	3800	0	0	1545
Grp Volume(v), veh/h	103	87	120	0	0	21
Grp Sat Flow(s),veh/h/ln	1861	1643	1805	0	0	1622
Q Serve(g_s), s	0.0	0.5	0.3	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.5	0.5	0.3	0.0	0.0	0.2
Prop In Lane	0.10			0.00	0.00	0.95
Lane Grp Cap(c), veh/h	977	614	1349	0	0	92
V/C Ratio(X)	0.11	0.14	0.09	0.00	0.00	0.23
Avail Cap(c_a), veh/h	3144	2574	5657	0	0	2888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	2.9	2.9	2.8	0.0	0.0	6.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.2	0.0	0.0	0.1
LnGrp Delay(d),s/veh	3.0	3.0	2.9	0.0	0.0	7.6
LnGrp LOS	A	A	A			A
Approach Vol, veh/h		190	120		21	
Approach Delay, s/veh		3.0	2.9		7.6	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				9.2		4.8		9.2
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				2.5		2.2		2.3
Green Ext Time (p_c), s				1.4		0.0		1.4

Intersection Summary			
HCM 2010 Ctrl Delay			3.2
HCM 2010 LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↱			↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	140	20	40	10	10	10	20	300	10	30	430	100
Future Vol, veh/h	140	20	40	10	10	10	20	300	10	30	430	100
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	163	23	47	12	12	12	23	349	12	35	500	116
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	13.5	11.1	12.4	15.7
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	0%	93%	0%	33%	12%	0%
Vol Thru, %	88%	94%	7%	20%	33%	88%	68%
Vol Right, %	0%	6%	0%	80%	33%	0%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	160	150	50	30	245	315
LT Vol	20	0	140	0	10	30	0
Through Vol	150	150	10	10	10	215	215
RT Vol	0	10	0	40	10	0	100
Lane Flow Rate	198	186	174	58	35	285	366
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.352	0.326	0.365	0.105	0.072	0.482	0.591
Departure Headway (Hd)	6.411	6.306	7.539	6.493	7.415	6.092	5.804
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	559	567	476	550	480	590	619
Service Time	4.175	4.07	5.304	4.258	5.501	3.847	3.559
HCM Lane V/C Ratio	0.354	0.328	0.366	0.105	0.073	0.483	0.591
HCM Control Delay	12.7	12.1	14.6	10	11.1	14.4	16.7
HCM Lane LOS	B	B	B	A	B	B	C
HCM 95th-tile Q	1.6	1.4	1.7	0.3	0.2	2.6	3.9

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	30	10	330	90	70	30	370	300	130	440	130
Future Volume (veh/h)	60	30	10	330	90	70	30	370	300	130	440	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	75	38	12	412	112	88	38	462	375	162	550	162
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	270	227	463	617	522	92	1449	862	200	1356	389
Arrive On Green	0.07	0.14	0.14	0.26	0.32	0.32	0.05	0.28	0.28	0.11	0.34	0.34
Sat Flow, veh/h	1810	1900	1598	1810	1900	1608	1810	5187	1606	1810	3998	1148
Grp Volume(v), veh/h	75	38	12	412	112	88	38	462	375	162	474	238
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1608	1810	1729	1606	1810	1729	1687
Q Serve(g_s), s	3.0	1.3	0.5	16.6	3.2	3.0	1.5	5.3	10.7	6.6	7.9	8.2
Cycle Q Clear(g_c), s	3.0	1.3	0.5	16.6	3.2	3.0	1.5	5.3	10.7	6.6	7.9	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	133	270	227	463	617	522	92	1449	862	200	1173	573
V/C Ratio(X)	0.56	0.14	0.05	0.89	0.18	0.17	0.41	0.32	0.43	0.81	0.40	0.42
Avail Cap(c_a), veh/h	263	1105	930	622	1482	1254	167	1989	1030	239	1463	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	28.4	28.0	27.1	18.3	18.2	34.8	21.6	10.6	32.8	19.1	19.2
Incr Delay (d2), s/veh	3.7	0.2	0.1	11.8	0.1	0.2	2.9	0.1	0.3	15.8	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.7	0.2	9.8	1.7	1.3	0.8	2.5	4.8	4.2	3.8	3.9
LnGrp Delay(d),s/veh	37.6	28.6	28.1	38.9	18.5	18.4	37.7	21.7	11.0	48.6	19.4	19.7
LnGrp LOS	D	C	C	D	B	B	D	C	B	D	B	B
Approach Vol, veh/h		125			612			875			874	
Approach Delay, s/veh		34.0			32.2			17.8			24.9	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	25.1	23.4	14.8	7.8	29.7	9.6	28.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	29.0	26.0	44.0	7.0	32.0	11.0	59.0
Max Q Clear Time (g_c+I1), s	8.6	12.7	18.6	3.3	3.5	10.2	5.0	5.2
Green Ext Time (p_c), s	0.1	7.5	0.8	1.1	0.0	8.7	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	240	440	110	110	320	50	160	620	170	80	520	200
Future Volume (veh/h)	240	440	110	110	320	50	160	620	170	80	520	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	473	118	118	344	54	172	667	183	86	559	215
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	885	525	147	694	108	147	1505	802	128	1467	823
Arrive On Green	0.10	0.25	0.25	0.08	0.22	0.22	0.08	0.42	0.42	0.07	0.41	0.41
Sat Flow, veh/h	1810	3610	1605	1810	3129	486	1810	3610	1609	1810	3610	1609
Grp Volume(v), veh/h	258	473	118	118	197	201	172	667	183	86	559	215
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1810	1810	1805	1609	1810	1805	1609
Q Serve(g_s), s	9.0	9.8	0.9	5.5	8.2	8.4	7.0	11.4	5.5	4.0	9.4	3.6
Cycle Q Clear(g_c), s	9.0	9.8	0.9	5.5	8.2	8.4	7.0	11.4	5.5	4.0	9.4	3.6
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	885	525	147	400	402	147	1505	802	128	1467	823
V/C Ratio(X)	1.36	0.53	0.22	0.80	0.49	0.50	1.17	0.44	0.23	0.67	0.38	0.26
Avail Cap(c_a), veh/h	189	1677	877	147	797	799	147	1505	802	168	1467	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	28.2	10.3	38.9	29.3	29.3	39.6	18.0	12.2	39.0	17.9	4.4
Incr Delay (d2), s/veh	193.9	0.5	0.2	26.4	0.9	1.0	126.9	0.9	0.7	6.4	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	4.9	1.4	3.8	4.2	4.3	8.7	5.8	2.6	2.2	4.8	2.0
LnGrp Delay(d),s/veh	232.5	28.7	10.5	65.3	30.2	30.3	166.4	18.9	12.9	45.4	18.7	5.2
LnGrp LOS	F	C	B	E	C	C	F	B	B	D	B	A
Approach Vol, veh/h		849			516			1022			860	
Approach Delay, s/veh		88.1			38.3			42.7			18.0	
Approach LOS		F			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	39.9	11.0	25.1	11.0	39.0	13.0	23.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	34.0	7.0	40.0	7.0	35.0	9.0	38.0
Max Q Clear Time (g_c+I1), s	6.0	13.4	7.5	11.8	9.0	11.4	11.0	10.4
Green Ext Time (p_c), s	0.0	5.6	0.0	6.7	0.0	4.2	0.0	6.7

Intersection Summary			
HCM 2010 Ctrl Delay			47.3
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	230	10	170	330	990	0	0	740	240
Future Volume (veh/h)	0	0	0	230	10	170	330	990	0	0	740	240
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				247	11	183	355	1065	0	0	796	258
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				333	15	307	362	2597	0	0	1273	412
Arrive On Green				0.19	0.19	0.19	0.40	1.00	0.00	0.00	0.47	0.47
Sat Flow, veh/h				1736	77	1602	1810	3705	0	0	2775	868
Grp Volume(v), veh/h				258	0	183	355	1065	0	0	536	518
Grp Sat Flow(s),veh/h/ln				1813	0	1602	1810	1805	0	0	1805	1744
Q Serve(g_s), s				12.1	0.0	9.4	17.4	0.0	0.0	0.0	20.0	20.0
Cycle Q Clear(g_c), s				12.1	0.0	9.4	17.4	0.0	0.0	0.0	20.0	20.0
Prop In Lane				0.96		1.00	1.00		0.00	0.00		0.50
Lane Grp Cap(c), veh/h				348	0	307	362	2597	0	0	857	828
V/C Ratio(X)				0.74	0.00	0.60	0.98	0.41	0.00	0.00	0.63	0.63
Avail Cap(c_a), veh/h				685	0	605	362	2597	0	0	857	828
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.84	0.84	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				34.3	0.0	33.2	26.8	0.0	0.0	0.0	17.7	17.7
Incr Delay (d2), s/veh				3.1	0.0	1.8	38.3	0.4	0.0	0.0	3.4	3.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.3	0.0	4.3	12.3	0.1	0.0	0.0	10.6	10.3
LnGrp Delay(d),s/veh				37.4	0.0	35.0	65.1	0.4	0.0	0.0	21.1	21.2
LnGrp LOS				D		D	E	A			C	C
Approach Vol, veh/h					441			1420			1054	
Approach Delay, s/veh					36.4			16.6			21.2	
Approach LOS					D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		68.7			22.0	46.7		21.3
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		48.0			18.0	26.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			19.4	22.0		14.1
Green Ext Time (p_c), s		23.6			0.0	3.5		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↰↑	↱					↑↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	410	10	280	0	0	0	0	910	290	220	780	0
Future Volume (veh/h)	410	10	280	0	0	0	0	910	290	220	780	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	425	0	286				0	929	296	224	796	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	818	0	362				0	1921	610	267	2473	0
Arrive On Green	0.23	0.00	0.23				0.00	0.49	0.49	0.05	0.23	0.00
Sat Flow, veh/h	3619	0	1604				0	4066	1238	1810	3705	0
Grp Volume(v), veh/h	425	0	286				0	825	400	224	796	0
Grp Sat Flow(s),veh/h/ln	1810	0	1604				0	1729	1674	1810	1805	0
Q Serve(g_s), s	9.3	0.0	15.1				0.0	14.3	14.3	11.1	16.6	0.0
Cycle Q Clear(g_c), s	9.3	0.0	15.1				0.0	14.3	14.3	11.1	16.6	0.0
Prop In Lane	1.00		1.00				0.00		0.74	1.00		0.00
Lane Grp Cap(c), veh/h	818	0	362				0	1706	826	267	2473	0
V/C Ratio(X)	0.52	0.00	0.79				0.00	0.48	0.48	0.84	0.32	0.00
Avail Cap(c_a), veh/h	1327	0	588				0	1706	826	362	2473	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.54	0.54	0.00
Uniform Delay (d), s/veh	30.5	0.0	32.8				0.0	15.2	15.2	41.8	17.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.9				0.0	1.0	2.0	7.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	7.1				0.0	7.0	7.0	6.1	8.4	0.0
LnGrp Delay(d),s/veh	31.1	0.0	36.7				0.0	16.2	17.2	48.7	17.6	0.0
LnGrp LOS	C		D					B	B	D	B	
Approach Vol, veh/h		711						1225			1020	
Approach Delay, s/veh		33.3						16.5			24.4	
Approach LOS		C						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	17.3	48.4		24.3		65.7		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	18.0	27.0		33.0		49.0		
Max Q Clear Time (g_c+I1), s	13.1	16.3		17.1		18.6		
Green Ext Time (p_c), s	0.3	8.3		2.4		17.8		

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	520	530	50	90	420	130	870	110	380	840	160
Future Volume (veh/h)	460	520	530	50	90	420	130	870	110	380	840	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	474	536	546	52	93	433	134	897	113	392	866	165
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	557	1238	551	94	449	605	138	1466	184	486	1359	862
Arrive On Green	0.16	0.34	0.34	0.05	0.24	0.24	0.08	0.31	0.31	0.05	0.12	0.12
Sat Flow, veh/h	3510	3610	1608	1810	1900	1615	1810	4666	585	3510	3610	1609
Grp Volume(v), veh/h	474	536	546	52	93	433	134	664	346	392	866	165
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1810	1900	1615	1810	1729	1793	1755	1805	1609
Q Serve(g_s), s	13.8	12.0	35.5	2.9	4.1	7.6	7.8	17.1	17.2	11.6	24.0	7.3
Cycle Q Clear(g_c), s	13.8	12.0	35.5	2.9	4.1	7.6	7.8	17.1	17.2	11.6	24.0	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	557	1238	551	94	449	605	138	1087	564	486	1359	862
V/C Ratio(X)	0.85	0.43	0.99	0.55	0.21	0.72	0.97	0.61	0.61	0.81	0.64	0.19
Avail Cap(c_a), veh/h	702	1238	551	121	449	605	138	1087	564	486	1359	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	0.87	0.87	0.87
Uniform Delay (d), s/veh	43.0	26.6	34.3	48.6	32.2	11.7	48.4	30.6	30.6	48.7	39.2	18.3
Incr Delay (d2), s/veh	8.1	0.2	35.8	5.0	0.2	4.0	63.5	2.3	4.4	8.5	2.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.0	21.1	1.6	2.2	6.7	6.3	8.5	9.1	6.2	12.4	3.4
LnGrp Delay(d),s/veh	51.0	26.9	70.1	53.5	32.4	15.7	111.8	32.8	35.0	57.2	41.1	18.7
LnGrp LOS	D	C	E	D	C	B	F	C	C	E	D	B
Approach Vol, veh/h		1556			578			1144			1423	
Approach Delay, s/veh		49.4			21.8			42.7			43.0	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	37.0	9.5	40.0	12.0	43.5	20.7	28.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	21.0	22.0
Max Q Clear Time (g_c+I1), s	13.6	19.2	4.9	37.5	9.8	26.0	15.8	9.6
Green Ext Time (p_c), s	0.0	5.3	0.0	0.0	0.0	6.0	0.9	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	220	10	170	510	1250	0	0	1240	320
Future Volume (veh/h)	0	0	0	220	10	170	510	1250	0	0	1240	320
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				227	10	175	526	1289	0	0	1278	330
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				278	12	256	623	2756	0	0	2843	883
Arrive On Green				0.16	0.16	0.16	0.18	0.76	0.00	0.00	0.55	0.55
Sat Flow, veh/h				1737	77	1600	3510	3705	0	0	5358	1611
Grp Volume(v), veh/h				237	0	175	526	1289	0	0	1278	330
Grp Sat Flow(s),veh/h/ln				1813	0	1600	1755	1805	0	0	1729	1611
Q Serve(g_s), s				13.3	0.0	10.8	15.2	13.8	0.0	0.0	15.5	12.2
Cycle Q Clear(g_c), s				13.3	0.0	10.8	15.2	13.8	0.0	0.0	15.5	12.2
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				291	0	256	623	2756	0	0	2843	883
V/C Ratio(X)				0.82	0.00	0.68	0.84	0.47	0.00	0.00	0.45	0.37
Avail Cap(c_a), veh/h				466	0	411	903	2756	0	0	2843	883
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.6	0.0	41.6	41.8	4.6	0.0	0.0	14.2	13.5
Incr Delay (d2), s/veh				5.9	0.0	3.2	3.8	0.4	0.0	0.0	0.5	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.1	0.0	5.0	7.7	7.0	0.0	0.0	7.5	5.7
LnGrp Delay(d),s/veh				48.5	0.0	44.8	45.6	5.0	0.0	0.0	14.7	14.7
LnGrp LOS				D		D	D	A			B	B
Approach Vol, veh/h					412			1815			1608	
Approach Delay, s/veh					46.9			16.8			14.7	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		84.2			22.6	61.6		20.8
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		70.0			27.0	39.0		27.0
Max Q Clear Time (g_c+I1), s		15.8			17.2	17.5		15.3
Green Ext Time (p_c), s		37.9			1.4	18.3		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	70	150	80	50	110	90	40	1000	50	120	1270	60
Future Volume (veh/h)	70	150	80	50	110	90	40	1000	50	120	1270	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	160	85	53	117	96	43	1064	53	128	1351	64
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	319	269	117	296	249	167	2254	112	167	2260	107
Arrive On Green	0.08	0.17	0.17	0.06	0.16	0.16	0.09	0.45	0.45	0.09	0.45	0.45
Sat Flow, veh/h	1810	1900	1601	1810	1900	1599	1810	5060	252	1810	5074	240
Grp Volume(v), veh/h	74	160	85	53	117	96	43	727	390	128	921	494
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1599	1810	1729	1854	1810	1729	1856
Q Serve(g_s), s	2.7	5.3	2.4	2.0	3.9	2.8	1.5	10.3	10.3	4.8	14.0	14.0
Cycle Q Clear(g_c), s	2.7	5.3	2.4	2.0	3.9	2.8	1.5	10.3	10.3	4.8	14.0	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.13
Lane Grp Cap(c), veh/h	138	319	269	117	296	249	167	1541	826	167	1541	827
V/C Ratio(X)	0.53	0.50	0.32	0.45	0.39	0.38	0.26	0.47	0.47	0.77	0.60	0.60
Avail Cap(c_a), veh/h	234	928	782	182	874	736	182	1541	826	182	1541	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	26.3	14.4	31.4	26.4	15.0	29.4	13.5	13.5	30.9	14.6	14.6
Incr Delay (d2), s/veh	3.2	1.2	0.7	2.7	0.9	1.0	0.8	1.0	1.9	16.5	1.7	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.9	1.4	1.1	2.1	1.6	0.8	5.1	5.6	3.1	7.0	7.9
LnGrp Delay(d),s/veh	34.1	27.5	15.0	34.1	27.3	16.0	30.2	14.6	15.5	47.4	16.3	17.8
LnGrp LOS	C	C	B	C	C	B	C	B	B	D	B	B
Approach Vol, veh/h		319			266			1160			1543	
Approach Delay, s/veh		25.7			24.6			15.5			19.3	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	35.0	8.5	15.7	10.4	35.0	9.3	14.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.8	12.3	4.0	7.3	3.5	16.0	4.7	5.9
Green Ext Time (p_c), s	0.0	6.9	0.0	2.1	0.1	7.9	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	10	50	10	0	70
Future Vol, veh/h	10	10	50	10	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	53	11	0	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	128	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	117	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1621	-	871	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1621	-	842	1076
Mov Cap-2 Maneuver	-	-	-	-	842	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	883	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	1076	-	-	1621	-
HCM Lane V/C Ratio	-	0.069	-	-	0.033	-
HCM Control Delay (s)	0	8.6	-	-	7.3	0
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	-	0.2	-	-	0.1	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	50	170	110	90	190	10	100	80	100	10	70	30
Future Volume (veh/h)	50	170	110	90	190	10	100	80	100	10	70	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	224	145	118	250	13	132	105	132	13	92	39
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	745	462	181	1276	66	205	166	217	37	267	115
Arrive On Green	0.08	0.35	0.35	0.10	0.37	0.37	0.17	0.17	0.17	0.12	0.12	0.12
Sat Flow, veh/h	1810	2136	1324	1810	3491	181	1219	990	1290	321	2287	987
Grp Volume(v), veh/h	66	188	181	118	129	134	199	0	170	76	0	68
Grp Sat Flow(s),veh/h/ln	1810	1805	1655	1810	1805	1867	1839	0	1659	1884	0	1711
Q Serve(g_s), s	2.1	4.5	4.8	3.8	2.9	3.0	6.1	0.0	5.7	2.2	0.0	2.2
Cycle Q Clear(g_c), s	2.1	4.5	4.8	3.8	2.9	3.0	6.1	0.0	5.7	2.2	0.0	2.2
Prop In Lane	1.00		0.80	1.00		0.10	0.66		0.78	0.17		0.58
Lane Grp Cap(c), veh/h	151	630	578	181	660	683	309	0	279	220	0	200
V/C Ratio(X)	0.44	0.30	0.31	0.65	0.19	0.20	0.64	0.00	0.61	0.35	0.00	0.34
Avail Cap(c_a), veh/h	241	630	578	271	660	683	672	0	607	689	0	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	14.2	14.3	26.1	13.0	13.0	23.3	0.0	23.2	24.5	0.0	24.4
Incr Delay (d2), s/veh	2.0	1.2	1.4	3.9	0.7	0.6	2.2	0.0	2.1	0.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.5	2.4	2.1	1.6	1.7	3.3	0.0	2.8	1.2	0.0	1.1
LnGrp Delay(d),s/veh	28.2	15.4	15.7	30.0	13.7	13.7	25.6	0.0	25.3	25.4	0.0	25.4
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		435			381			369			144	
Approach Delay, s/veh		17.5			18.7			25.5			25.4	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.1	10.0	25.0		11.0	9.0	26.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	9.0	21.0		22.0	8.0	22.0
Max Q Clear Time (g_c+I1), s		8.1	5.8	6.8		4.2	4.1	5.0
Green Ext Time (p_c), s		1.5	0.1	1.7		0.5	0.8	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	90	10	530	0	0	0	0	600	210	10	370	0
Future Volume (veh/h)	90	10	530	0	0	0	0	600	210	10	370	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	101	11	596				0	674	236	11	416	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	666	72	653				0	1089	375	205	588	0
Arrive On Green	0.41	0.41	0.41				0.00	0.29	0.29	0.11	0.11	0.00
Sat Flow, veh/h	1639	179	1609				0	3975	1310	1810	5358	0
Grp Volume(v), veh/h	112	0	596				0	612	298	11	416	0
Grp Sat Flow(s),veh/h/ln	1818	0	1609				0	1729	1655	1810	1729	0
Q Serve(g_s), s	2.4	0.0	21.6				0.0	9.5	9.7	0.3	4.8	0.0
Cycle Q Clear(g_c), s	2.4	0.0	21.6				0.0	9.5	9.7	0.3	4.8	0.0
Prop In Lane	0.90		1.00				0.00		0.79	1.00		0.00
Lane Grp Cap(c), veh/h	738	0	653				0	990	474	205	588	0
V/C Ratio(X)	0.15	0.00	0.91				0.00	0.62	0.63	0.05	0.71	0.00
Avail Cap(c_a), veh/h	825	0	730				0	1849	885	205	588	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	17.3				0.0	19.1	19.2	24.4	26.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	14.9				0.0	0.6	1.4	0.1	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	12.1				0.0	4.6	4.6	0.2	2.5	0.0
LnGrp Delay(d),s/veh	11.7	0.0	32.2				0.0	19.7	20.6	24.5	30.2	0.0
LnGrp LOS	B		C					B	C	C	C	
Approach Vol, veh/h		708						910			427	
Approach Delay, s/veh		28.9						20.0			30.1	
Approach LOS		C						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		29.1		21.7				11.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		33.0				7.0
Max Q Clear Time (g_c+I1), s		23.6		11.7				6.8
Green Ext Time (p_c), s		1.4		5.3				0.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	90	310	170	160	200	60	140	830	120	180	780	80
Future Volume (veh/h)	90	310	170	160	200	60	140	830	120	180	780	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	365	200	188	235	71	165	976	141	212	918	94
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	578	311	147	719	212	211	1811	261	147	1724	176
Arrive On Green	0.07	0.26	0.26	0.08	0.26	0.26	0.12	0.40	0.40	0.08	0.36	0.36
Sat Flow, veh/h	1810	2262	1219	1810	2747	810	1810	4579	660	1810	4781	488
Grp Volume(v), veh/h	106	290	275	188	152	154	165	736	381	212	663	349
Grp Sat Flow(s),veh/h/ln	1810	1805	1676	1810	1805	1752	1810	1729	1781	1810	1729	1811
Q Serve(g_s), s	4.9	12.3	12.6	7.0	5.9	6.1	7.6	14.1	14.1	7.0	13.0	13.1
Cycle Q Clear(g_c), s	4.9	12.3	12.6	7.0	5.9	6.1	7.6	14.1	14.1	7.0	13.0	13.1
Prop In Lane	1.00		0.73	1.00		0.46	1.00		0.37	1.00		0.27
Lane Grp Cap(c), veh/h	136	461	428	147	473	459	211	1368	704	147	1247	653
V/C Ratio(X)	0.78	0.63	0.64	1.28	0.32	0.33	0.78	0.54	0.54	1.44	0.53	0.53
Avail Cap(c_a), veh/h	147	756	702	147	756	734	211	1368	704	147	1247	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	28.4	28.5	39.5	25.6	25.7	36.9	20.0	20.0	39.5	21.7	21.8
Incr Delay (d2), s/veh	21.8	1.4	1.6	166.3	0.4	0.4	17.4	1.5	3.0	231.5	1.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	6.3	6.0	10.3	3.0	3.0	4.8	6.9	7.5	13.0	6.5	7.1
LnGrp Delay(d),s/veh	60.8	29.8	30.1	205.7	26.0	26.1	54.3	21.5	22.9	271.0	23.4	24.9
LnGrp LOS	E	C	C	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		671			494			1282			1224	
Approach Delay, s/veh		34.8			94.4			26.1			66.7	
Approach LOS		C			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	38.0	11.0	26.0	14.0	35.0	10.4	26.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	34.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	9.0	16.1	9.0	14.6	9.6	15.1	6.9	8.1
Green Ext Time (p_c), s	0.0	6.6	0.0	5.6	0.1	5.7	0.0	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	50.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	40	360	140	230	290	120	190	770	450	190	660	20
Future Volume (veh/h)	40	360	140	230	290	120	190	770	450	190	660	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	409	159	261	330	136	216	875	511	216	750	23
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	324	574	221	269	489	198	230	1761	546	211	1701	52
Arrive On Green	0.18	0.23	0.23	0.15	0.20	0.20	0.13	0.34	0.34	0.12	0.33	0.33
Sat Flow, veh/h	1810	2546	978	1810	2505	1012	1810	5187	1608	1810	5171	158
Grp Volume(v), veh/h	45	289	279	261	236	230	216	875	511	216	501	272
Grp Sat Flow(s),veh/h/ln	1810	1805	1720	1810	1805	1712	1810	1729	1608	1810	1729	1871
Q Serve(g_s), s	2.0	13.9	14.2	13.5	11.4	11.8	11.1	12.6	18.8	11.0	10.7	10.8
Cycle Q Clear(g_c), s	2.0	13.9	14.2	13.5	11.4	11.8	11.1	12.6	18.8	11.0	10.7	10.8
Prop In Lane	1.00		0.57	1.00		0.59	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	324	407	388	269	352	334	230	1761	546	211	1137	615
V/C Ratio(X)	0.14	0.71	0.72	0.97	0.67	0.69	0.94	0.50	0.94	1.02	0.44	0.44
Avail Cap(c_a), veh/h	324	709	675	269	843	799	230	1761	546	211	1137	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	33.6	33.8	39.9	35.1	35.3	40.8	24.7	12.6	41.6	24.8	24.8
Incr Delay (d2), s/veh	0.2	2.3	2.5	46.7	2.2	2.5	42.3	1.0	25.6	68.0	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.2	6.9	10.2	5.9	5.8	8.3	6.2	12.5	9.4	5.3	5.9
LnGrp Delay(d),s/veh	32.8	35.9	36.3	86.7	37.3	37.8	83.0	25.7	38.2	109.8	26.1	27.1
LnGrp LOS	C	D	D	F	D	D	F	C	D	F	C	C
Approach Vol, veh/h		613			727			1602			989	
Approach Delay, s/veh		35.9			55.2			37.4			44.6	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	36.0	18.0	25.3	16.0	35.0	20.9	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	32.0	14.0	37.0	12.0	31.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	13.0	20.8	15.5	16.2	13.1	12.8	4.0	13.8
Green Ext Time (p_c), s	0.0	5.5	0.0	2.9	0.0	4.9	1.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	800	110	120	610	90	110	130	190	80	130	80
Future Volume (veh/h)	70	800	110	120	610	90	110	130	190	80	130	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	851	117	128	649	96	117	138	202	85	138	85
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	1175	162	167	1387	749	163	412	366	147	482	279
Arrive On Green	0.08	0.37	0.37	0.09	0.38	0.38	0.09	0.23	0.23	0.08	0.22	0.22
Sat Flow, veh/h	1810	3187	438	1810	3610	1609	1810	1805	1604	1810	2198	1272
Grp Volume(v), veh/h	74	482	486	128	649	96	117	138	202	85	112	111
Grp Sat Flow(s),veh/h/ln	1810	1805	1821	1810	1805	1609	1810	1805	1604	1810	1805	1665
Q Serve(g_s), s	2.7	16.0	16.0	4.8	9.4	2.4	4.4	4.4	7.7	3.2	3.6	3.9
Cycle Q Clear(g_c), s	2.7	16.0	16.0	4.8	9.4	2.4	4.4	4.4	7.7	3.2	3.6	3.9
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	139	665	671	167	1387	749	163	412	366	147	395	365
V/C Ratio(X)	0.53	0.72	0.72	0.77	0.47	0.13	0.72	0.34	0.55	0.58	0.28	0.30
Avail Cap(c_a), veh/h	234	778	785	208	1505	802	338	1142	1015	182	986	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	18.9	18.9	30.8	16.1	10.6	30.8	22.4	23.7	30.8	22.6	22.7
Incr Delay (d2), s/veh	3.2	2.8	2.8	12.6	0.2	0.1	5.8	0.5	1.3	3.6	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	8.4	8.5	3.0	4.7	1.1	2.4	2.3	3.6	1.7	1.8	1.8
LnGrp Delay(d),s/veh	34.1	21.7	21.7	43.5	16.3	10.6	36.6	22.9	25.0	34.4	23.0	23.2
LnGrp LOS	C	C	C	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1042			873			457			308	
Approach Delay, s/veh		22.6			19.7			27.3			26.2	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	19.9	10.4	29.6	10.3	19.2	9.3	30.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	8.0	30.0	13.0	38.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	5.2	9.7	6.8	18.0	6.4	5.9	4.7	11.4
Green Ext Time (p_c), s	0.0	3.3	0.0	7.3	0.1	3.3	0.0	9.3

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	180	540	360	760	550	110	210	480	500	230	710	80
Future Volume (veh/h)	180	540	360	760	550	110	210	480	500	230	710	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	194	581	387	817	591	118	226	516	538	247	763	86
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	253	955	443	744	1810	355	280	1172	864	200	987	111
Arrive On Green	0.07	0.28	0.28	0.21	0.42	0.42	0.08	0.32	0.32	0.06	0.30	0.30
Sat Flow, veh/h	3510	3458	1606	3510	4350	854	3510	3610	1608	3510	3269	368
Grp Volume(v), veh/h	194	581	387	817	468	241	226	516	538	247	421	428
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1746	1755	1805	1608	1755	1805	1833
Q Serve(g_s), s	6.7	17.9	28.2	26.0	11.2	11.5	7.8	13.8	28.6	7.0	26.1	26.1
Cycle Q Clear(g_c), s	6.7	17.9	28.2	26.0	11.2	11.5	7.8	13.8	28.6	7.0	26.1	26.1
Prop In Lane	1.00		1.00	1.00		0.49	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	253	955	443	744	1439	726	280	1172	864	200	545	553
V/C Ratio(X)	0.77	0.61	0.87	1.10	0.33	0.33	0.81	0.44	0.62	1.23	0.77	0.77
Avail Cap(c_a), veh/h	343	1014	471	744	1439	726	286	1324	932	200	618	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	38.6	42.4	48.4	24.2	24.3	55.5	32.7	19.8	57.9	39.0	39.0
Incr Delay (d2), s/veh	7.0	1.0	15.7	63.2	0.1	0.3	15.4	0.3	1.2	140.5	5.3	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	8.7	14.4	19.0	5.4	5.6	4.4	6.9	13.0	7.3	13.8	14.0
LnGrp Delay(d),s/veh	63.0	39.6	58.1	111.6	24.3	24.5	70.9	32.9	21.0	198.4	44.3	44.3
LnGrp LOS	E	D	E	F	C	C	E	C	C	F	D	D
Approach Vol, veh/h		1162			1526			1280			1096	
Approach Delay, s/veh		49.7			71.1			34.6			79.0	
Approach LOS		D			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	43.8	30.0	37.9	13.8	41.1	12.8	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	26.0	36.0	10.0	42.0	12.0	50.0
Max Q Clear Time (g_c+I1), s	9.0	30.6	28.0	30.2	9.8	28.1	8.7	13.5
Green Ext Time (p_c), s	0.0	8.4	0.0	3.4	0.0	8.2	0.2	13.3

Intersection Summary	
HCM 2010 Ctrl Delay	58.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
42: Iris Ave & Nason St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	330	870	10	30	860	140	10	40	10	110	50	370
Future Volume (veh/h)	330	870	10	30	860	140	10	40	10	110	50	370
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	402	1061	12	37	1049	171	12	49	12	134	61	451
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	521	1986	22	98	1458	454	38	279	68	193	522	683
Arrive On Green	0.15	0.38	0.38	0.05	0.28	0.28	0.02	0.19	0.19	0.11	0.27	0.27
Sat Flow, veh/h	3510	5288	60	1810	5187	1615	1810	1475	361	1810	1900	1615
Grp Volume(v), veh/h	402	694	379	37	1049	171	12	0	61	134	61	451
Grp Sat Flow(s),veh/h/ln	1755	1729	1889	1810	1729	1615	1810	0	1836	1810	1900	1615
Q Serve(g_s), s	6.4	9.1	9.1	1.2	10.6	5.0	0.4	0.0	1.6	4.2	1.4	13.0
Cycle Q Clear(g_c), s	6.4	9.1	9.1	1.2	10.6	5.0	0.4	0.0	1.6	4.2	1.4	13.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	521	1299	710	98	1458	454	38	0	348	193	522	683
V/C Ratio(X)	0.77	0.53	0.53	0.38	0.72	0.38	0.31	0.00	0.18	0.70	0.12	0.66
Avail Cap(c_a), veh/h	602	1299	710	217	1602	499	217	0	599	217	620	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	14.2	14.2	26.6	18.9	16.8	28.1	0.0	19.8	25.1	15.8	13.5
Incr Delay (d2), s/veh	5.3	0.4	0.8	2.4	1.4	0.5	4.5	0.0	0.2	8.1	0.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.4	4.9	0.6	5.2	2.2	0.2	0.0	0.8	2.5	0.7	6.1
LnGrp Delay(d),s/veh	29.1	14.6	15.0	29.0	20.3	17.4	32.6	0.0	20.0	33.2	15.9	15.2
LnGrp LOS	C	B	B	C	C	B	C		C	C	B	B
Approach Vol, veh/h		1475			1257			73			646	
Approach Delay, s/veh		18.7			20.2			22.1			19.0	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	15.0	7.2	25.9	5.2	20.0	12.7	20.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	6.2	3.6	3.2	11.1	2.4	15.0	8.4	12.6
Green Ext Time (p_c), s	0.0	2.1	0.0	7.8	0.0	1.0	0.3	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	180	620	40	50	650	10	40	30	40	10	30	130
Future Volume (veh/h)	180	620	40	50	650	10	40	30	40	10	30	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	228	785	51	63	823	13	51	38	51	13	38	165
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	216	1815	117	139	1694	27	134	100	202	76	223	255
Arrive On Green	0.12	0.36	0.36	0.08	0.32	0.32	0.13	0.13	0.13	0.16	0.16	0.16
Sat Flow, veh/h	1810	4977	322	1810	5260	83	1058	789	1596	478	1398	1600
Grp Volume(v), veh/h	228	545	291	63	541	295	89	0	51	51	0	165
Grp Sat Flow(s),veh/h/ln	1810	1729	1841	1810	1729	1885	1847	0	1596	1876	0	1600
Q Serve(g_s), s	7.0	7.0	7.0	2.0	7.4	7.4	2.6	0.0	1.7	1.4	0.0	5.7
Cycle Q Clear(g_c), s	7.0	7.0	7.0	2.0	7.4	7.4	2.6	0.0	1.7	1.4	0.0	5.7
Prop In Lane	1.00		0.17	1.00		0.04	0.57		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	216	1261	671	139	1114	607	233	0	202	299	0	255
V/C Ratio(X)	1.06	0.43	0.43	0.45	0.49	0.49	0.38	0.00	0.25	0.17	0.00	0.65
Avail Cap(c_a), veh/h	216	1474	785	247	1533	836	1071	0	925	1184	0	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	14.0	14.1	25.9	16.0	16.0	23.5	0.0	23.1	21.3	0.0	23.1
Incr Delay (d2), s/veh	76.7	0.2	0.4	2.3	0.3	0.6	1.0	0.0	0.7	0.3	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	3.4	3.6	1.1	3.5	4.0	1.4	0.0	0.8	0.7	0.0	2.7
LnGrp Delay(d),s/veh	102.5	14.3	14.5	28.2	16.3	16.6	24.5	0.0	23.8	21.6	0.0	25.9
LnGrp LOS	F	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		1064			899			140			216	
Approach Delay, s/veh		33.2			17.2			24.3			24.8	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		11.4	8.5	25.4		13.3	11.0	22.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	8.0	25.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		4.6	4.0	9.0		7.7	9.0	9.4
Green Ext Time (p_c), s		0.6	0.0	8.7		0.8	0.0	8.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	30	640	30	40	680	10	30	10	30	10	10	20
Future Volume (veh/h)	30	640	30	40	680	10	30	10	30	10	10	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	753	35	47	800	12	35	12	35	12	12	24
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	1933	90	123	2075	31	99	362	416	39	89	178
Arrive On Green	0.05	0.38	0.38	0.07	0.39	0.39	0.05	0.19	0.19	0.02	0.16	0.16
Sat Flow, veh/h	1810	5080	235	1810	5265	79	1810	1900	1602	1810	563	1126
Grp Volume(v), veh/h	35	512	276	47	525	287	35	12	35	12	0	36
Grp Sat Flow(s),veh/h/ln	1810	1729	1857	1810	1729	1885	1810	1900	1602	1810	0	1689
Q Serve(g_s), s	0.9	5.1	5.1	1.2	5.1	5.1	0.9	0.2	0.8	0.3	0.0	0.9
Cycle Q Clear(g_c), s	0.9	5.1	5.1	1.2	5.1	5.1	0.9	0.2	0.8	0.3	0.0	0.9
Prop In Lane	1.00		0.13	1.00		0.04	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	99	1316	707	123	1363	743	99	362	416	39	0	266
V/C Ratio(X)	0.35	0.39	0.39	0.38	0.39	0.39	0.35	0.03	0.08	0.31	0.00	0.14
Avail Cap(c_a), veh/h	268	2198	1180	268	2198	1198	268	1811	1638	268	0	1610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	10.6	10.6	21.0	10.2	10.2	21.5	15.6	13.3	22.7	0.0	17.1
Incr Delay (d2), s/veh	2.1	0.2	0.4	1.9	0.2	0.3	2.1	0.0	0.1	4.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.5	2.7	0.7	2.4	2.7	0.5	0.1	0.4	0.2	0.0	0.4
LnGrp Delay(d),s/veh	23.7	10.8	11.0	23.0	10.4	10.5	23.7	15.6	13.3	27.1	0.0	17.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		823			859			82			48	
Approach Delay, s/veh		11.4			11.1			18.1			19.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	13.0	7.2	22.0	6.6	11.4	6.6	22.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	2.8	3.2	7.1	2.9	2.9	2.9	7.1
Green Ext Time (p_c), s	0.0	0.4	0.0	10.0	0.0	0.4	0.0	10.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	100	80	160	90	190	30	1150	160	310	870	50
Future Volume (veh/h)	20	100	80	160	90	190	30	1150	160	310	870	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	110	88	176	99	209	33	1264	176	341	956	55
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	34	171	173	226	127	307	75	1536	214	378	2513	144
Arrive On Green	0.11	0.11	0.11	0.19	0.19	0.19	0.04	0.33	0.33	0.21	0.50	0.50
Sat Flow, veh/h	314	1570	1593	1178	663	1602	1810	4601	641	1810	5017	288
Grp Volume(v), veh/h	132	0	88	275	0	209	33	950	490	341	658	353
Grp Sat Flow(s),veh/h/ln	1884	0	1593	1841	0	1602	1810	1729	1784	1810	1729	1847
Q Serve(g_s), s	6.8	0.0	5.3	14.5	0.0	12.3	1.8	25.7	25.7	18.7	12.0	12.0
Cycle Q Clear(g_c), s	6.8	0.0	5.3	14.5	0.0	12.3	1.8	25.7	25.7	18.7	12.0	12.0
Prop In Lane	0.17		1.00	0.64		1.00	1.00		0.36	1.00		0.16
Lane Grp Cap(c), veh/h	205	0	173	353	0	307	75	1154	595	378	1732	925
V/C Ratio(X)	0.64	0.00	0.51	0.78	0.00	0.68	0.44	0.82	0.82	0.90	0.38	0.38
Avail Cap(c_a), veh/h	537	0	454	578	0	503	124	1154	595	426	1732	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	0.0	42.8	39.1	0.0	38.3	47.6	31.2	31.2	39.3	15.7	15.7
Incr Delay (d2), s/veh	3.4	0.0	2.3	3.8	0.0	2.7	3.9	6.7	12.2	20.7	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	2.5	7.7	0.0	5.7	1.0	13.3	14.7	11.5	5.8	6.4
LnGrp Delay(d),s/veh	46.8	0.0	45.1	42.9	0.0	40.9	51.6	37.8	43.3	60.0	16.3	16.9
LnGrp LOS	D		D	D		D	D	D	D	E	B	B
Approach Vol, veh/h		220			484			1473			1352	
Approach Delay, s/veh		46.1			42.0			40.0			27.5	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.2	38.0		15.1	8.2	55.0		23.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	24.0	34.0		29.0	7.0	51.0		32.0
Max Q Clear Time (g_c+I1), s	20.7	27.7		8.8	3.8	14.0		16.5
Green Ext Time (p_c), s	0.4	4.1		0.9	0.4	6.8		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	200	260	40	20	210	120	20	70	30	110	70	100
Future Volume (veh/h)	200	260	40	20	210	120	20	70	30	110	70	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	230	299	46	23	241	138	23	80	34	126	80	115
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	1155	176	69	554	306	69	424	170	206	441	392
Arrive On Green	0.16	0.37	0.37	0.04	0.25	0.25	0.04	0.17	0.17	0.11	0.24	0.24
Sat Flow, veh/h	1810	3140	478	1810	2241	1237	1810	2509	1007	1810	1805	1605
Grp Volume(v), veh/h	230	170	175	23	192	187	23	56	58	126	80	115
Grp Sat Flow(s),veh/h/ln	1810	1805	1813	1810	1805	1673	1810	1805	1712	1810	1805	1605
Q Serve(g_s), s	6.3	3.4	3.5	0.6	4.6	4.9	0.6	1.4	1.5	3.4	1.8	3.0
Cycle Q Clear(g_c), s	6.3	3.4	3.5	0.6	4.6	4.9	0.6	1.4	1.5	3.4	1.8	3.0
Prop In Lane	1.00		0.26	1.00		0.74	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	287	664	667	69	447	414	69	305	289	206	441	392
V/C Ratio(X)	0.80	0.26	0.26	0.33	0.43	0.45	0.33	0.18	0.20	0.61	0.18	0.29
Avail Cap(c_a), veh/h	387	1194	1200	246	1054	976	246	1089	1032	246	1089	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	11.3	11.4	24.1	16.3	16.4	24.1	18.3	18.4	21.7	15.3	15.8
Incr Delay (d2), s/veh	8.4	0.2	0.2	2.8	0.7	0.8	2.8	0.3	0.3	3.2	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	1.7	1.7	0.4	2.4	2.3	0.4	0.7	0.7	1.9	0.9	1.4
LnGrp Delay(d),s/veh	29.2	11.5	11.6	26.9	16.9	17.2	26.9	18.6	18.7	24.9	15.5	16.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		575			402			137			321	
Approach Delay, s/veh		18.6			17.6			20.0			19.4	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	12.7	6.0	22.9	6.0	16.6	12.2	16.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	11.0	30.0
Max Q Clear Time (g_c+I1), s	5.4	3.5	2.6	5.5	2.6	5.0	8.3	6.9
Green Ext Time (p_c), s	0.0	1.7	0.0	4.8	0.0	1.6	0.2	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	120	60	150	70	30	50	90	820	60	110	1300	70
Future Volume (veh/h)	120	60	150	70	30	50	90	820	60	110	1300	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	64	160	74	32	53	96	872	64	117	1383	74
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	295	262	135	270	241	149	1648	858	157	1608	86
Arrive On Green	0.09	0.16	0.16	0.07	0.15	0.15	0.08	0.46	0.46	0.09	0.46	0.46
Sat Flow, veh/h	3510	1805	1600	1810	1805	1615	1810	3610	1615	1810	3485	186
Grp Volume(v), veh/h	128	64	160	74	32	53	96	872	64	117	715	742
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1810	1805	1615	1810	1805	1615	1810	1805	1866
Q Serve(g_s), s	2.5	2.3	6.8	2.9	1.1	2.1	3.8	12.7	1.4	4.6	25.8	26.0
Cycle Q Clear(g_c), s	2.5	2.3	6.8	2.9	1.1	2.1	3.8	12.7	1.4	4.6	25.8	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	311	295	262	135	270	241	149	1648	858	157	833	861
V/C Ratio(X)	0.41	0.22	0.61	0.55	0.12	0.22	0.65	0.53	0.07	0.74	0.86	0.86
Avail Cap(c_a), veh/h	336	863	765	173	863	772	173	1648	858	223	863	893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	26.5	28.4	32.7	27.0	27.4	32.6	14.2	8.4	32.6	17.6	17.6
Incr Delay (d2), s/veh	0.9	0.4	2.3	3.5	0.2	0.5	6.4	0.3	0.0	8.0	8.4	8.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.1	3.1	1.6	0.6	1.0	2.1	6.4	0.6	2.7	14.7	15.2
LnGrp Delay(d),s/veh	32.4	26.9	30.8	36.1	27.1	27.8	39.0	14.6	8.4	40.6	26.0	26.1
LnGrp LOS	C	C	C	D	C	C	D	B	A	D	C	C
Approach Vol, veh/h		352			159			1032			1574	
Approach Delay, s/veh		30.7			31.6			16.5			27.1	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	37.4	9.4	16.0	10.0	37.8	10.5	14.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	33.0	7.0	35.0	7.0	35.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	6.6	14.7	4.9	8.8	5.8	28.0	4.5	4.1
Green Ext Time (p_c), s	0.1	13.6	0.0	1.9	0.0	5.7	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	140	950	180	20	580	50	120	190	30	50	210	110
Future Volume (veh/h)	140	950	180	20	580	50	120	190	30	50	210	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	1159	220	24	707	61	146	232	37	61	256	134
Adj No. of Lanes	1	2	1	1	3	0	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	1522	861	117	1803	155	396	351	56	162	454	230
Arrive On Green	0.12	0.42	0.42	0.06	0.37	0.37	0.11	0.22	0.22	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	1609	1810	4865	417	3510	1598	255	1810	2315	1173
Grp Volume(v), veh/h	171	1159	220	24	501	267	146	0	269	61	198	192
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1729	1824	1755	0	1853	1810	1805	1682
Q Serve(g_s), s	7.2	21.4	0.0	1.0	8.3	8.4	3.0	0.0	10.4	2.5	7.7	8.1
Cycle Q Clear(g_c), s	7.2	21.4	0.0	1.0	8.3	8.4	3.0	0.0	10.4	2.5	7.7	8.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		0.14	1.00		0.70
Lane Grp Cap(c), veh/h	210	1522	861	117	1282	676	396	0	407	162	354	330
V/C Ratio(X)	0.82	0.76	0.26	0.20	0.39	0.39	0.37	0.00	0.66	0.38	0.56	0.58
Avail Cap(c_a), veh/h	254	1522	861	162	1282	676	404	0	971	416	1153	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	19.3	9.8	34.7	18.1	18.2	32.1	0.0	27.9	33.6	28.4	28.5
Incr Delay (d2), s/veh	15.5	3.6	0.7	0.9	0.9	1.7	0.6	0.0	1.8	1.4	1.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	11.4	2.7	0.5	4.1	4.5	1.5	0.0	5.5	1.3	4.0	3.9
LnGrp Delay(d),s/veh	49.3	22.9	10.5	35.5	19.0	19.9	32.7	0.0	29.7	35.0	29.8	30.2
LnGrp LOS	D	C	B	D	B	B	C		C	D	C	C
Approach Vol, veh/h		1550			792			415			451	
Approach Delay, s/veh		24.1			19.8			30.8			30.6	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.2	9.1	37.0	12.8	19.4	13.1	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	9.0	50.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	4.5	12.4	3.0	23.4	5.0	10.1	9.2	10.4
Green Ext Time (p_c), s	0.1	2.0	1.7	5.5	0.7	2.3	0.1	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	600	220	80	390	30	150	380	110	30	340	50
Future Volume (veh/h)	60	600	220	80	390	30	150	380	110	30	340	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	667	244	89	433	33	167	422	122	33	378	56
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	1099	395	155	1489	112	219	754	216	193	814	120
Arrive On Green	0.08	0.29	0.29	0.09	0.30	0.30	0.12	0.27	0.27	0.11	0.26	0.26
Sat Flow, veh/h	1810	3759	1352	1810	4920	371	1810	2768	792	1810	3156	464
Grp Volume(v), veh/h	67	613	298	89	303	163	167	274	270	33	215	219
Grp Sat Flow(s),veh/h/ln	1810	1729	1653	1810	1729	1832	1810	1805	1755	1810	1805	1815
Q Serve(g_s), s	2.3	10.0	10.2	3.1	4.4	4.5	5.9	8.6	8.7	1.1	6.6	6.7
Cycle Q Clear(g_c), s	2.3	10.0	10.2	3.1	4.4	4.5	5.9	8.6	8.7	1.1	6.6	6.7
Prop In Lane	1.00		0.82	1.00		0.20	1.00		0.45	1.00		0.26
Lane Grp Cap(c), veh/h	136	1011	483	155	1046	554	219	492	478	193	466	468
V/C Ratio(X)	0.49	0.61	0.62	0.58	0.29	0.29	0.76	0.56	0.57	0.17	0.46	0.47
Avail Cap(c_a), veh/h	248	1735	830	193	1630	864	275	1016	988	193	933	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	20.0	20.1	28.9	17.5	17.6	28.0	20.5	20.6	26.7	20.6	20.6
Incr Delay (d2), s/veh	2.7	0.6	1.3	3.3	0.2	0.3	9.3	1.0	1.1	0.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.8	4.8	1.7	2.1	2.3	3.5	4.4	4.3	0.6	3.4	3.4
LnGrp Delay(d),s/veh	31.9	20.6	21.4	32.3	17.7	17.8	37.3	21.5	21.6	27.2	21.3	21.3
LnGrp LOS	C	C	C	C	B	B	D	C	C	C	C	C
Approach Vol, veh/h		978			555			711			467	
Approach Delay, s/veh		21.6			20.1			25.3			21.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.9	9.6	23.2	12.0	21.0	8.9	23.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	9.0	31.0
Max Q Clear Time (g_c+I1), s	3.1	10.7	5.1	12.2	7.9	8.7	4.3	6.5
Green Ext Time (p_c), s	0.0	5.6	0.6	5.6	0.1	5.6	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↱		↰	↱
Traffic Volume (veh/h)	70	650	460	40	40	60
Future Volume (veh/h)	70	650	460	40	40	60
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	81	756	535	47	47	70
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	194	3069	1825	159	345	481
Arrive On Green	0.11	0.59	0.38	0.38	0.19	0.19
Sat Flow, veh/h	1810	5358	5029	422	1810	1615
Grp Volume(v), veh/h	81	756	379	203	47	70
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1822	1810	1615
Q Serve(g_s), s	1.5	2.6	2.8	2.9	0.8	1.2
Cycle Q Clear(g_c), s	1.5	2.6	2.8	2.9	0.8	1.2
Prop In Lane	1.00			0.23	1.00	1.00
Lane Grp Cap(c), veh/h	194	3069	1299	685	345	481
V/C Ratio(X)	0.42	0.25	0.29	0.30	0.14	0.15
Avail Cap(c_a), veh/h	443	5788	2635	1389	2019	1975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	3.6	8.0	8.1	12.4	9.5
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	1.3	1.5	0.4	1.2
LnGrp Delay(d),s/veh	16.8	3.6	8.2	8.3	12.5	9.6
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		837	582		117	
Approach Delay, s/veh		4.9	8.2		10.8	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				25.7		11.0	7.9	17.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				4.6		3.2	3.5	4.9
Green Ext Time (p_c), s				9.8		0.3	0.1	8.6

Intersection Summary			
HCM 2010 Ctrl Delay			6.6
HCM 2010 LOS			A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↱		↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	170	410	120	30	280	80	140	720	110	90	580	100
Future Volume (veh/h)	170	410	120	30	280	80	140	720	110	90	580	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	218	526	154	38	359	103	179	923	141	115	744	128
Adj No. of Lanes	2	2	1	2	2	0	1	2	1	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	362	862	383	285	602	170	339	1262	562	163	1309	405
Arrive On Green	0.10	0.24	0.24	0.08	0.22	0.22	0.19	0.35	0.35	0.09	0.25	0.25
Sat Flow, veh/h	3510	3610	1605	3510	2775	785	1810	3610	1608	1810	5187	1605
Grp Volume(v), veh/h	218	526	154	38	232	230	179	923	141	115	744	128
Grp Sat Flow(s),veh/h/ln	1755	1805	1605	1755	1805	1755	1810	1805	1608	1810	1729	1605
Q Serve(g_s), s	4.0	8.7	5.4	0.7	7.7	7.9	5.9	14.9	4.2	4.1	8.3	4.3
Cycle Q Clear(g_c), s	4.0	8.7	5.4	0.7	7.7	7.9	5.9	14.9	4.2	4.1	8.3	4.3
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	862	383	285	391	380	339	1262	562	163	1309	405
V/C Ratio(X)	0.60	0.61	0.40	0.13	0.59	0.61	0.53	0.73	0.25	0.70	0.57	0.32
Avail Cap(c_a), veh/h	369	1950	867	369	975	948	339	1733	772	244	2413	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	22.6	21.4	28.4	23.5	23.5	24.4	18.9	15.4	29.4	21.7	20.2
Incr Delay (d2), s/veh	2.7	0.7	0.7	0.2	1.4	1.6	1.5	1.0	0.2	5.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.4	2.5	0.3	4.0	3.9	3.1	7.5	1.9	2.3	4.0	2.0
LnGrp Delay(d),s/veh	31.2	23.3	22.0	28.6	24.9	25.1	25.9	20.0	15.7	34.9	22.1	20.7
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	C
Approach Vol, veh/h		898			500			1243			987	
Approach Delay, s/veh		25.0			25.3			20.3			23.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	27.3	9.4	19.9	16.5	20.8	10.9	18.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	6.1	16.9	2.7	10.7	7.9	10.3	6.0	9.9
Green Ext Time (p_c), s	0.1	5.6	0.3	3.7	0.2	5.1	0.1	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑	↱
Traffic Volume (veh/h)	50	660	160	30	460	30	110	220	20	40	240	60
Future Volume (veh/h)	50	660	160	30	460	30	110	220	20	40	240	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	805	195	37	561	37	134	268	24	49	293	73
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	1204	292	91	1378	91	169	866	77	108	426	360
Arrive On Green	0.07	0.42	0.42	0.05	0.40	0.40	0.09	0.26	0.26	0.06	0.22	0.22
Sat Flow, veh/h	1810	2881	698	1810	3438	226	1810	3352	298	1810	1900	1604
Grp Volume(v), veh/h	61	504	496	37	294	304	134	143	149	49	293	73
Grp Sat Flow(s),veh/h/ln	1810	1805	1774	1810	1805	1859	1810	1805	1845	1810	1900	1604
Q Serve(g_s), s	2.4	16.9	16.9	1.5	8.7	8.8	5.4	4.8	4.9	2.0	10.6	2.8
Cycle Q Clear(g_c), s	2.4	16.9	16.9	1.5	8.7	8.8	5.4	4.8	4.9	2.0	10.6	2.8
Prop In Lane	1.00		0.39	1.00		0.12	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	122	754	741	91	724	745	169	466	477	108	426	360
V/C Ratio(X)	0.50	0.67	0.67	0.41	0.41	0.41	0.79	0.31	0.31	0.45	0.69	0.20
Avail Cap(c_a), veh/h	169	754	741	169	724	745	218	724	740	169	711	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	17.6	17.6	34.5	16.0	16.1	33.2	22.4	22.4	34.0	26.6	23.6
Incr Delay (d2), s/veh	3.2	4.7	4.7	2.9	1.7	1.7	13.9	0.4	0.4	2.9	2.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	9.4	9.2	0.8	4.7	4.8	3.4	2.4	2.5	1.1	5.8	1.2
LnGrp Delay(d),s/veh	36.9	22.3	22.3	37.4	17.7	17.7	47.1	22.7	22.8	36.9	28.6	23.9
LnGrp LOS	D	C	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		1061			635			426			415	
Approach Delay, s/veh		23.1			18.9			30.4			28.7	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	23.3	7.8	35.3	11.0	20.8	9.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	7.0	30.0	9.0	28.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	4.0	6.9	3.5	18.9	7.4	12.6	4.4	10.8
Green Ext Time (p_c), s	0.0	3.3	0.0	6.5	0.0	3.0	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	360	250	230	340	80	130	450	190	40	610	30
Future Volume (veh/h)	60	360	250	230	340	80	130	450	190	40	610	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	409	284	261	386	91	148	511	0	45	693	34
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	674	463	267	1354	603	164	1039	465	96	876	43
Arrive On Green	0.10	0.33	0.33	0.15	0.37	0.37	0.09	0.29	0.00	0.05	0.25	0.25
Sat Flow, veh/h	1810	2044	1405	1810	3610	1609	1810	3610	1615	1810	3502	172
Grp Volume(v), veh/h	68	361	332	261	386	91	148	511	0	45	357	370
Grp Sat Flow(s),veh/h/ln	1810	1805	1644	1810	1805	1609	1810	1805	1615	1810	1805	1868
Q Serve(g_s), s	3.1	14.7	14.9	12.6	6.6	2.5	7.1	10.3	0.0	2.1	16.3	16.3
Cycle Q Clear(g_c), s	3.1	14.7	14.9	12.6	6.6	2.5	7.1	10.3	0.0	2.1	16.3	16.3
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	185	595	542	267	1354	603	164	1039	465	96	451	467
V/C Ratio(X)	0.37	0.61	0.61	0.98	0.29	0.15	0.90	0.49	0.00	0.47	0.79	0.79
Avail Cap(c_a), veh/h	185	595	542	267	1354	603	164	1231	551	144	595	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	24.7	24.8	37.4	19.2	10.8	39.6	26.0	0.0	40.5	30.8	30.9
Incr Delay (d2), s/veh	1.2	4.5	5.1	48.4	0.5	0.5	42.6	0.4	0.0	3.5	5.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	8.1	7.5	9.9	3.4	1.2	5.5	5.2	0.0	1.2	8.8	9.1
LnGrp Delay(d),s/veh	38.1	29.3	29.9	85.7	19.8	11.3	82.2	26.4	0.0	44.0	36.2	36.1
LnGrp LOS	D	C	C	F	B	B	F	C		D	D	D
Approach Vol, veh/h		761			738			659			772	
Approach Delay, s/veh		30.3			42.1			38.9			36.6	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	29.3	17.0	33.0	12.0	26.0	13.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	8.0	29.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	4.1	12.3	14.6	16.9	9.1	18.3	5.1	8.6
Green Ext Time (p_c), s	0.0	3.1	0.0	3.2	0.0	2.9	1.5	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.9
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	210	380	160	110	260	150	110	330	170	250	450	170
Future Volume (veh/h)	210	380	160	110	260	150	110	330	170	250	450	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	481	203	139	329	190	139	418	215	316	570	215
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	302	825	346	173	581	328	269	654	288	378	1130	503
Arrive On Green	0.17	0.33	0.33	0.10	0.26	0.26	0.08	0.18	0.18	0.21	0.31	0.31
Sat Flow, veh/h	1810	2477	1039	1810	2220	1255	3510	3610	1593	1810	3610	1607
Grp Volume(v), veh/h	266	350	334	139	266	253	139	418	215	316	570	215
Grp Sat Flow(s),veh/h/ln	1810	1805	1711	1810	1805	1670	1755	1805	1593	1810	1805	1607
Q Serve(g_s), s	12.7	14.1	14.3	6.6	11.3	11.6	3.4	9.5	8.7	14.8	11.4	9.4
Cycle Q Clear(g_c), s	12.7	14.1	14.3	6.6	11.3	11.6	3.4	9.5	8.7	14.8	11.4	9.4
Prop In Lane	1.00		0.61	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	601	570	173	472	437	269	654	288	378	1130	503
V/C Ratio(X)	0.88	0.58	0.59	0.80	0.56	0.58	0.52	0.64	0.75	0.84	0.50	0.43
Avail Cap(c_a), veh/h	328	900	853	246	818	757	358	1146	505	410	1596	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	24.3	24.4	39.1	28.2	28.3	39.2	33.5	20.4	33.5	24.7	24.0
Incr Delay (d2), s/veh	21.8	0.9	1.0	11.9	1.1	1.2	1.5	1.0	3.8	13.2	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	7.1	6.8	3.9	5.8	5.5	1.7	4.8	4.5	8.8	5.7	4.2
LnGrp Delay(d),s/veh	57.6	25.2	25.3	50.9	29.3	29.6	40.7	34.5	24.2	46.7	25.1	24.6
LnGrp LOS	E	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		950			658			772			1101	
Approach Delay, s/veh		34.3			34.0			32.8			31.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	20.0	12.4	33.4	10.8	31.6	18.7	27.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	28.0	12.0	44.0	9.0	39.0	16.0	40.0
Max Q Clear Time (g_c+I1), s	16.8	11.5	8.6	16.3	5.4	13.4	14.7	13.6
Green Ext Time (p_c), s	1.7	2.9	0.1	7.4	0.1	5.4	0.1	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1520	120	80	730	230	60	270	50	380	300	130
Future Volume (veh/h)	190	1520	120	80	730	230	60	270	50	380	300	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	1670	132	88	802	253	66	297	55	418	330	143
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	372	1870	834	96	1430	448	170	528	97	468	932	415
Arrive On Green	0.21	0.52	0.52	0.05	0.37	0.37	0.05	0.17	0.17	0.13	0.26	0.26
Sat Flow, veh/h	1810	3610	1610	1810	3912	1224	3510	3045	556	3510	3610	1606
Grp Volume(v), veh/h	209	1670	132	88	708	347	66	174	178	418	330	143
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1678	1755	1805	1796	1755	1805	1606
Q Serve(g_s), s	13.6	54.5	4.4	6.4	21.4	21.7	2.4	11.6	11.9	15.4	9.8	6.1
Cycle Q Clear(g_c), s	13.6	54.5	4.4	6.4	21.4	21.7	2.4	11.6	11.9	15.4	9.8	6.1
Prop In Lane	1.00		1.00	1.00		0.73	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	372	1870	834	96	1264	614	170	313	312	468	932	415
V/C Ratio(X)	0.56	0.89	0.16	0.91	0.56	0.57	0.39	0.56	0.57	0.89	0.35	0.34
Avail Cap(c_a), veh/h	372	1870	834	96	1264	614	187	564	561	481	1430	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	28.4	9.9	61.8	33.2	33.3	60.6	49.6	49.8	56.0	39.7	16.3
Incr Delay (d2), s/veh	1.9	7.0	0.4	63.8	1.8	3.7	1.4	1.5	1.6	18.5	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	28.7	2.4	4.9	10.5	10.7	1.2	5.9	6.1	8.7	4.9	3.9
LnGrp Delay(d),s/veh	48.7	35.4	10.3	125.7	35.0	37.0	62.0	51.2	51.4	74.5	40.0	16.8
LnGrp LOS	D	D	B	F	D	D	E	D	D	E	D	B
Approach Vol, veh/h		2011			1143			418			891	
Approach Delay, s/veh		35.1			42.6			53.0			52.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	26.8	11.0	72.0	10.4	37.9	31.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	68.0	7.0	52.0	27.0	48.0
Max Q Clear Time (g_c+I1), s	17.4	13.9	8.4	56.5	4.4	11.8	15.6	23.7
Green Ext Time (p_c), s	0.1	5.2	0.0	8.3	0.0	5.5	0.6	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	1690	160	180	800	170	90	230	110	150	150	70
Future Volume (veh/h)	80	1690	160	180	800	170	90	230	110	150	150	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	1837	0	196	870	185	98	250	120	163	163	76
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	1865	834	190	2181	461	122	402	187	146	440	196
Arrive On Green	0.11	0.52	0.00	0.10	0.51	0.51	0.07	0.17	0.17	0.08	0.18	0.18
Sat Flow, veh/h	1810	3610	1615	1810	4288	907	1810	2388	1110	1810	2424	1080
Grp Volume(v), veh/h	87	1837	0	196	701	354	98	187	183	163	119	120
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1737	1810	1805	1692	1810	1805	1699
Q Serve(g_s), s	5.5	62.0	0.0	13.0	15.5	15.6	6.6	11.9	12.5	10.0	7.2	7.7
Cycle Q Clear(g_c), s	5.5	62.0	0.0	13.0	15.5	15.6	6.6	11.9	12.5	10.0	7.2	7.7
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.66	1.00		0.64
Lane Grp Cap(c), veh/h	205	1865	834	190	1759	883	122	304	285	146	328	309
V/C Ratio(X)	0.43	0.98	0.00	1.03	0.40	0.40	0.80	0.62	0.64	1.12	0.36	0.39
Avail Cap(c_a), veh/h	205	1865	834	190	1759	883	161	612	574	146	597	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	29.5	0.0	55.4	18.8	18.8	56.9	47.8	48.0	56.9	44.4	44.6
Incr Delay (d2), s/veh	1.4	17.5	0.0	73.9	0.7	1.4	19.1	2.0	2.4	108.9	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	35.2	0.0	10.3	7.6	7.8	4.0	6.1	6.0	9.4	3.6	3.7
LnGrp Delay(d),s/veh	52.6	47.0	0.0	129.5	19.4	20.1	76.1	49.8	50.4	165.8	45.1	45.4
LnGrp LOS	D	D		F	B	C	E	D	D	F	D	D
Approach Vol, veh/h		1924			1251			468			402	
Approach Delay, s/veh		47.3			36.9			55.5			94.1	
Approach LOS		D			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	24.9	17.0	68.0	12.4	26.5	18.0	67.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	42.0	13.0	64.0	11.0	41.0	14.0	63.0
Max Q Clear Time (g_c+I1), s	12.0	14.5	15.0	64.0	8.6	9.7	7.5	17.6
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	1.9	0.4	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	49.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	200	1410	280	50	770	120	180	400	80	210	520	140
Future Volume (veh/h)	200	1410	280	50	770	120	180	400	80	210	520	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	217	1533	304	54	837	130	196	435	87	228	565	152
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	229	2025	832	134	1530	236	229	689	137	248	868	590
Arrive On Green	0.13	0.39	0.39	0.07	0.34	0.34	0.13	0.23	0.23	0.14	0.24	0.24
Sat Flow, veh/h	1810	5187	1609	1810	4531	700	1810	3000	595	1810	3610	1605
Grp Volume(v), veh/h	217	1533	304	54	638	329	196	260	262	228	565	152
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1773	1810	1805	1790	1810	1805	1605
Q Serve(g_s), s	11.3	24.2	0.0	2.7	14.2	14.3	10.1	12.3	12.5	11.8	13.4	3.8
Cycle Q Clear(g_c), s	11.3	24.2	0.0	2.7	14.2	14.3	10.1	12.3	12.5	11.8	13.4	3.8
Prop In Lane	1.00		1.00	1.00		0.39	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	229	2025	832	134	1168	599	229	415	411	248	868	590
V/C Ratio(X)	0.95	0.76	0.37	0.40	0.55	0.55	0.86	0.63	0.64	0.92	0.65	0.26
Avail Cap(c_a), veh/h	229	2025	832	134	1168	599	229	800	793	248	1638	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	25.0	13.6	41.9	25.5	25.5	40.6	32.9	32.9	40.4	32.4	9.0
Incr Delay (d2), s/veh	44.8	2.7	1.2	2.0	1.8	3.6	25.9	1.6	1.6	36.0	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	12.0	5.0	1.4	7.0	7.6	6.7	6.3	6.4	8.4	6.8	1.9
LnGrp Delay(d),s/veh	85.9	27.7	14.9	43.9	27.3	29.2	66.4	34.4	34.6	76.4	33.2	9.3
LnGrp LOS	F	C	B	D	C	C	E	C	C	E	C	A
Approach Vol, veh/h		2054			1021			718			945	
Approach Delay, s/veh		31.9			28.8			43.2			39.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	25.8	11.0	41.0	16.0	26.8	16.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	42.0	7.0	37.0	12.0	43.0	12.0	32.0
Max Q Clear Time (g_c+I1), s	13.8	14.5	4.7	26.2	12.1	15.4	13.3	16.3
Green Ext Time (p_c), s	0.0	4.0	1.3	7.5	0.0	4.7	0.0	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	1130	140	120	710	70	90	300	100	170	310	70
Future Volume (veh/h)	140	1130	140	120	710	70	90	300	100	170	310	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	1228	152	130	772	76	98	326	109	185	337	76
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	1781	220	184	1891	185	197	567	186	184	603	134
Arrive On Green	0.09	0.38	0.38	0.10	0.39	0.39	0.11	0.21	0.21	0.10	0.21	0.21
Sat Flow, veh/h	1810	4675	579	1810	4803	470	1810	2667	876	1810	2932	653
Grp Volume(v), veh/h	152	908	472	130	555	293	98	219	216	185	206	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1795	1810	1729	1815	1810	1805	1738	1810	1805	1779
Q Serve(g_s), s	6.6	17.4	17.4	5.5	9.1	9.2	4.0	8.5	8.8	8.0	8.0	8.2
Cycle Q Clear(g_c), s	6.6	17.4	17.4	5.5	9.1	9.2	4.0	8.5	8.8	8.0	8.0	8.2
Prop In Lane	1.00		0.32	1.00		0.26	1.00		0.50	1.00		0.37
Lane Grp Cap(c), veh/h	161	1317	684	184	1361	715	197	384	370	184	371	366
V/C Ratio(X)	0.94	0.69	0.69	0.71	0.41	0.41	0.50	0.57	0.59	1.01	0.55	0.57
Avail Cap(c_a), veh/h	161	1317	684	184	1361	715	197	986	949	184	1009	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	20.5	20.5	34.2	17.2	17.3	33.1	27.8	27.9	35.4	28.0	28.1
Incr Delay (d2), s/veh	54.7	3.0	5.6	11.7	0.9	1.7	2.0	1.3	1.5	68.0	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	8.7	9.6	3.3	4.5	4.9	2.1	4.4	4.4	7.4	4.1	4.2
LnGrp Delay(d),s/veh	90.4	23.4	26.1	46.0	18.1	19.0	35.0	29.1	29.4	103.4	29.3	29.5
LnGrp LOS	F	C	C	D	B	B	D	C	C	F	C	C
Approach Vol, veh/h		1532			978			533			598	
Approach Delay, s/veh		30.9			22.1			30.3			52.3	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	20.7	12.0	34.0	12.6	20.2	11.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	43.0	8.0	30.0	7.0	44.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	10.0	10.8	7.5	19.4	6.0	10.2	8.6	11.2
Green Ext Time (p_c), s	0.0	2.8	0.0	6.0	0.1	2.7	0.0	5.0

Intersection Summary			
HCM 2010 Ctrl Delay			32.0
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	240	880	250	180	600	110	210	690	150	180	760	180
Future Volume (veh/h)	240	880	250	180	600	110	210	690	150	180	760	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	270	989	281	202	674	124	236	775	169	202	854	202
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	1243	554	242	1432	260	231	1035	461	258	1089	485
Arrive On Green	0.09	0.34	0.34	0.07	0.32	0.32	0.13	0.29	0.29	0.14	0.30	0.30
Sat Flow, veh/h	3510	3610	1608	3510	4411	801	1810	3610	1607	1810	3610	1607
Grp Volume(v), veh/h	270	989	281	202	527	271	236	775	169	202	854	202
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1754	1810	1805	1607	1810	1805	1607
Q Serve(g_s), s	7.7	25.2	14.1	5.8	12.3	12.6	13.0	19.8	6.8	11.0	22.0	10.2
Cycle Q Clear(g_c), s	7.7	25.2	14.1	5.8	12.3	12.6	13.0	19.8	6.8	11.0	22.0	10.2
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	1243	554	242	1123	569	231	1035	461	258	1089	485
V/C Ratio(X)	0.87	0.80	0.51	0.84	0.47	0.48	1.02	0.75	0.37	0.78	0.78	0.42
Avail Cap(c_a), veh/h	311	1243	554	242	1123	569	231	1456	648	258	1385	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	30.1	26.5	46.8	27.3	27.4	44.3	32.9	18.2	42.0	32.5	28.4
Incr Delay (d2), s/veh	22.1	5.3	3.3	21.7	1.4	2.8	64.4	1.4	0.5	14.4	2.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	13.4	6.7	3.5	6.1	6.6	10.6	10.1	3.4	6.5	11.3	4.6
LnGrp Delay(d),s/veh	67.9	35.4	29.8	68.5	28.8	30.3	108.8	34.3	18.7	56.4	34.8	28.9
LnGrp LOS	E	D	C	E	C	C	F	C	B	E	C	C
Approach Vol, veh/h		1540			1000			1180			1258	
Approach Delay, s/veh		40.1			37.2			47.0			37.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	33.1	11.0	39.0	17.0	34.7	13.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	13.0	21.8	7.8	27.2	15.0	24.0	9.7	14.6
Green Ext Time (p_c), s	0.0	5.5	0.0	6.1	0.0	5.5	0.0	11.8

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	150	2300	1080	180	350	170
Future Volume (veh/h)	150	2300	1080	180	350	170
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	2447	1149	191	372	181
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	309	3708	2499	1034	564	536
Arrive On Green	0.17	0.71	0.48	0.48	0.16	0.16
Sat Flow, veh/h	1810	5358	5358	1607	3510	1615
Grp Volume(v), veh/h	160	2447	1149	191	372	181
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1607	1755	1615
Q Serve(g_s), s	5.2	16.4	9.5	3.1	6.4	0.0
Cycle Q Clear(g_c), s	5.2	16.4	9.5	3.1	6.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	309	3708	2499	1034	564	536
V/C Ratio(X)	0.52	0.66	0.46	0.18	0.66	0.34
Avail Cap(c_a), veh/h	309	3708	2499	1034	1691	1054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	4.9	11.1	4.7	25.3	16.2
Incr Delay (d2), s/veh	1.5	0.9	0.6	0.4	1.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.8	4.6	2.1	3.2	3.3
LnGrp Delay(d),s/veh	25.8	5.9	11.7	5.1	26.7	16.6
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		2607	1340		553	
Approach Delay, s/veh		7.1	10.8		23.4	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		14.3	15.0	35.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	11.0	31.0
Max Q Clear Time (g_c+I1), s				18.4		8.4	7.2	11.5
Green Ext Time (p_c), s				21.4		1.9	3.6	7.9

Intersection Summary			
HCM 2010 Ctrl Delay			10.2
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	130	1980	350	30	960	110	170	110	30	150	110	80
Future Volume (veh/h)	130	1980	350	30	960	110	170	110	30	150	110	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	2084	368	32	1011	116	179	116	32	158	116	84
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	2555	793	160	2325	266	304	361	96	160	470	351
Arrive On Green	0.09	0.49	0.49	0.09	0.49	0.49	0.09	0.13	0.13	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	1810	4720	541	3510	2813	749	1810	3610	1596
Grp Volume(v), veh/h	137	2084	368	32	740	387	179	73	75	158	116	84
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1803	1755	1805	1757	1810	1805	1596
Q Serve(g_s), s	5.9	27.0	7.5	1.3	10.9	11.0	3.9	2.9	3.1	6.9	2.3	3.4
Cycle Q Clear(g_c), s	5.9	27.0	7.5	1.3	10.9	11.0	3.9	2.9	3.1	6.9	2.3	3.4
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	160	2555	793	160	1704	888	304	232	226	160	470	351
V/C Ratio(X)	0.86	0.82	0.46	0.20	0.43	0.44	0.59	0.31	0.33	0.99	0.25	0.24
Avail Cap(c_a), veh/h	160	2555	793	160	1704	888	310	821	799	160	1642	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	17.0	5.2	33.5	13.0	13.0	34.8	31.3	31.4	36.0	30.9	25.5
Incr Delay (d2), s/veh	34.0	3.0	1.9	0.6	0.8	1.6	2.8	0.8	0.9	67.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	13.4	4.4	0.7	5.3	5.8	2.0	1.5	1.6	6.4	1.2	1.5
LnGrp Delay(d),s/veh	69.6	20.0	7.2	34.1	13.8	14.5	37.6	32.1	32.3	103.3	31.2	25.9
LnGrp LOS	E	C	A	C	B	B	D	C	C	F	C	C
Approach Vol, veh/h		2589			1159			327			358	
Approach Delay, s/veh		20.8			14.6			35.1			61.8	
Approach LOS		C			B			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	14.2	11.0	43.0	10.9	14.3	11.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	7.0	36.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	8.9	5.1	3.3	29.0	5.9	5.4	7.9	13.0
Green Ext Time (p_c), s	0.0	1.9	2.2	8.5	0.1	1.9	0.0	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	100	1160	920	10	590	90	430	410	20	140	590	50
Future Volume (veh/h)	100	1160	920	10	590	90	430	410	20	140	590	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	109	1261	1000	11	641	98	467	446	22	152	641	54
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	1738	841	118	1020	156	658	1169	58	187	841	71
Arrive On Green	0.08	0.34	0.34	0.07	0.32	0.32	0.19	0.33	0.33	0.10	0.25	0.25
Sat Flow, veh/h	1810	5187	1608	1810	3139	479	3510	3501	172	1810	3369	284
Grp Volume(v), veh/h	109	1261	1000	11	368	371	467	229	239	152	343	352
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1810	1805	1813	1755	1805	1869	1810	1805	1848
Q Serve(g_s), s	5.8	21.0	33.0	0.6	17.0	17.1	12.3	9.6	9.6	8.1	17.3	17.4
Cycle Q Clear(g_c), s	5.8	21.0	33.0	0.6	17.0	17.1	12.3	9.6	9.6	8.1	17.3	17.4
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.09	1.00		0.15
Lane Grp Cap(c), veh/h	137	1738	841	118	587	589	658	603	624	187	451	461
V/C Ratio(X)	0.80	0.73	1.19	0.09	0.63	0.63	0.71	0.38	0.38	0.81	0.76	0.76
Avail Cap(c_a), veh/h	147	1738	841	129	587	589	1069	843	873	331	623	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	28.8	23.5	43.3	28.2	28.2	37.5	25.0	25.0	43.2	34.2	34.2
Incr Delay (d2), s/veh	24.3	2.7	96.6	0.3	5.0	5.0	1.4	0.4	0.4	8.3	3.6	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	10.5	37.8	0.3	9.3	9.4	6.1	4.8	5.0	4.5	9.1	9.4
LnGrp Delay(d),s/veh	69.1	31.4	120.1	43.6	33.2	33.2	38.9	25.4	25.4	51.5	37.9	37.9
LnGrp LOS	E	C	F	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		2370			750			935			847	
Approach Delay, s/veh		70.6			33.4			32.2			40.3	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	36.9	10.4	37.0	22.5	28.6	11.4	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	46.0	7.0	33.0	30.0	34.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	10.1	11.6	2.6	35.0	14.3	19.4	7.8	19.1
Green Ext Time (p_c), s	0.2	5.0	0.1	0.0	4.2	3.8	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	970	260	40	570	60	80	270	40	60	390	40
Future Volume (veh/h)	60	970	260	40	570	60	80	270	40	60	390	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	1115	299	46	655	69	92	310	46	69	448	46
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	1208	321	106	1366	144	147	536	79	221	697	71
Arrive On Green	0.07	0.43	0.43	0.06	0.41	0.41	0.08	0.17	0.17	0.12	0.21	0.21
Sat Flow, veh/h	1810	2820	749	1810	3296	347	1810	3155	463	1810	3305	338
Grp Volume(v), veh/h	69	710	704	46	358	366	92	176	180	69	244	250
Grp Sat Flow(s),veh/h/ln	1810	1805	1765	1810	1805	1837	1810	1805	1813	1810	1805	1838
Q Serve(g_s), s	2.7	26.8	27.5	1.8	10.5	10.5	3.6	6.5	6.6	2.5	8.9	9.0
Cycle Q Clear(g_c), s	2.7	26.8	27.5	1.8	10.5	10.5	3.6	6.5	6.6	2.5	8.9	9.0
Prop In Lane	1.00		0.42	1.00		0.19	1.00		0.26	1.00		0.18
Lane Grp Cap(c), veh/h	131	773	756	106	748	761	147	306	308	221	381	388
V/C Ratio(X)	0.53	0.92	0.93	0.43	0.48	0.48	0.63	0.57	0.59	0.31	0.64	0.65
Avail Cap(c_a), veh/h	200	773	756	175	748	761	175	698	701	221	723	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	19.5	19.7	32.9	15.5	15.5	32.2	27.6	27.7	29.0	26.1	26.1
Incr Delay (d2), s/veh	3.2	17.7	19.8	2.8	2.2	2.2	5.1	1.7	1.8	0.8	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	17.0	17.5	1.0	5.6	5.7	2.0	3.4	3.5	1.3	4.6	4.8
LnGrp Delay(d),s/veh	35.6	37.2	39.5	35.7	17.7	17.7	37.3	29.3	29.5	29.8	27.9	27.9
LnGrp LOS	D	D	D	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1483			770			448			563	
Approach Delay, s/veh		38.2			18.7			31.0			28.1	
Approach LOS		D			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	16.3	8.3	35.0	9.9	19.3	9.3	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	7.0	31.0	7.0	29.0	8.0	30.0
Max Q Clear Time (g_c+I1), s	4.5	8.6	3.8	29.5	5.6	11.0	4.7	12.5
Green Ext Time (p_c), s	0.1	2.0	1.3	1.1	0.0	2.8	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	30.9
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	80	710	200	70	440	90	160	680	80	120	870	50
Future Volume (veh/h)	80	710	200	70	440	90	160	680	80	120	870	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	816	230	80	506	103	184	782	92	138	1000	57
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	163	1062	299	123	1075	218	142	1375	161	142	1466	83
Arrive On Green	0.09	0.38	0.38	0.07	0.36	0.36	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2780	783	1810	2990	606	1810	4707	550	1810	5020	286
Grp Volume(v), veh/h	92	530	516	80	305	304	184	573	301	138	688	369
Grp Sat Flow(s),veh/h/ln	1810	1805	1758	1810	1805	1790	1810	1729	1800	1810	1729	1848
Q Serve(g_s), s	4.3	22.9	22.9	3.8	11.6	11.7	7.0	12.5	12.7	6.8	15.7	15.7
Cycle Q Clear(g_c), s	4.3	22.9	22.9	3.8	11.6	11.7	7.0	12.5	12.7	6.8	15.7	15.7
Prop In Lane	1.00		0.45	1.00		0.34	1.00		0.31	1.00		0.15
Lane Grp Cap(c), veh/h	163	689	671	123	649	643	142	1010	526	142	1010	540
V/C Ratio(X)	0.56	0.77	0.77	0.65	0.47	0.47	1.29	0.57	0.57	0.97	0.68	0.68
Avail Cap(c_a), veh/h	183	689	671	142	649	643	142	1010	526	142	1010	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	24.1	24.1	40.5	22.0	22.0	41.0	26.7	26.8	40.9	27.9	27.9
Incr Delay (d2), s/veh	3.1	8.0	8.3	8.2	2.4	2.5	174.2	2.3	4.5	66.1	3.7	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	12.9	12.6	2.2	6.2	6.2	10.4	6.3	6.9	6.0	8.0	9.0
LnGrp Delay(d),s/veh	41.9	32.1	32.3	48.7	24.4	24.5	215.3	29.1	31.3	107.0	31.6	34.7
LnGrp LOS	D	C	C	D	C	C	F	C	C	F	C	C
Approach Vol, veh/h		1138			689			1058			1195	
Approach Delay, s/veh		33.0			27.3			62.1			41.3	
Approach LOS		C			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	10.0	38.0	11.0	30.0	12.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	8.8	14.7	5.8	24.9	9.0	17.7	6.3	13.7
Green Ext Time (p_c), s	0.0	4.5	0.0	4.2	0.0	4.0	1.6	3.0

Intersection Summary			
HCM 2010 Ctrl Delay			42.0
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	2210	550	150	1540	150	310	230	200	150	450	220
Future Volume (veh/h)	140	2210	550	150	1540	150	310	230	200	150	450	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	2351	585	160	1638	160	330	245	213	160	479	234
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	2309	717	268	2302	714	274	808	849	268	803	357
Arrive On Green	0.08	0.45	0.45	0.08	0.44	0.44	0.08	0.22	0.22	0.08	0.22	0.22
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2823	3510	3610	1604
Grp Volume(v), veh/h	149	2351	585	160	1638	160	330	245	213	160	479	234
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1412	1755	1805	1604
Q Serve(g_s), s	7.0	40.0	19.9	4.0	23.1	5.5	7.0	5.1	5.1	4.0	10.7	9.4
Cycle Q Clear(g_c), s	7.0	40.0	19.9	4.0	23.1	5.5	7.0	5.1	5.1	4.0	10.7	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	2309	717	268	2302	714	274	808	849	268	803	357
V/C Ratio(X)	1.06	1.02	0.82	0.60	0.71	0.22	1.21	0.30	0.25	0.60	0.60	0.66
Avail Cap(c_a), veh/h	141	2309	717	274	2309	717	274	1728	1569	352	1808	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	24.9	10.6	40.1	20.3	15.4	41.4	29.0	23.8	40.1	31.3	19.6
Incr Delay (d2), s/veh	91.8	23.4	7.3	3.4	1.0	0.2	122.2	0.2	0.2	2.1	0.7	2.1
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	24.0	10.2	2.0	11.1	2.5	8.0	2.5	2.0	2.0	5.4	4.7
LnGrp Delay(d),s/veh	133.3	48.3	17.9	43.5	21.4	15.6	163.6	29.2	23.9	42.3	32.0	21.7
LnGrp LOS	F	F	B	D	C	B	F	C	C	D	C	C
Approach Vol, veh/h		3085			1958			788			873	
Approach Delay, s/veh		46.7			22.7			84.1			31.1	
Approach LOS		D			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	24.1	10.9	44.0	11.0	24.0	11.0	43.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	6.0	7.1	6.0	42.0	9.0	12.7	9.0	25.1
Green Ext Time (p_c), s	0.1	3.6	0.0	0.0	0.0	3.9	0.0	14.7

Intersection Summary	
HCM 2010 Ctrl Delay	42.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✣	↱
Traffic Volume (veh/h)	0	1740	820	0	1380	0	0	0	0	300	0	470
Future Volume (veh/h)	0	1740	820	0	1380	0	0	0	0	300	0	470
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1794	845	0	1423	0				206	0	595
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2363	1013	0	3442	0				402	0	718
Arrive On Green	0.00	0.66	0.66	0.00	1.00	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	3733	1527	0	5529	0				1810	0	3230
Grp Volume(v), veh/h	0	1737	902	0	1423	0				206	0	595
Grp Sat Flow(s),veh/h/ln	0	1729	1631	0	1729	0				1810	0	1615
Q Serve(g_s), s	0.0	23.8	29.2	0.0	0.0	0.0				7.0	0.0	12.3
Cycle Q Clear(g_c), s	0.0	23.8	29.2	0.0	0.0	0.0				7.0	0.0	12.3
Prop In Lane	0.00		0.94	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2295	1082	0	3442	0				402	0	718
V/C Ratio(X)	0.00	0.76	0.83	0.00	0.41	0.00				0.51	0.00	0.83
Avail Cap(c_a), veh/h	0	2295	1082	0	3442	0				465	0	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.30	0.30	0.00	0.71	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.0	8.9	0.0	0.0	0.0				23.9	0.0	26.0
Incr Delay (d2), s/veh	0.0	0.7	2.4	0.0	0.3	0.0				1.0	0.0	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.3	13.5	0.0	0.1	0.0				3.6	0.0	6.1
LnGrp Delay(d),s/veh	0.0	8.7	11.3	0.0	0.3	0.0				24.9	0.0	32.2
LnGrp LOS		A	B		A					C		C
Approach Vol, veh/h		2639			1423						801	
Approach Delay, s/veh		9.6			0.3						30.3	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				50.4		19.6		50.4
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				44.0		18.0		44.0
Max Q Clear Time (g_c+I1), s				31.2		14.3		2.0
Green Ext Time (p_c), s				12.6		1.3		39.8

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	420	1610	0	0	920	240	550	10	190	0	0	0
Future Volume (veh/h)	420	1610	0	0	920	240	550	10	190	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	429	1643	0	0	939	245	625	0	133			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	481	3527	0	0	1464	381	745	0	332			
Arrive On Green	0.53	1.00	0.00	0.00	0.36	0.36	0.21	0.00	0.21			
Sat Flow, veh/h	1810	5358	0	0	4269	1066	3619	0	1615			
Grp Volume(v), veh/h	429	1643	0	0	792	392	625	0	133			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1707	1810	0	1615			
Q Serve(g_s), s	14.8	0.0	0.0	0.0	13.4	13.4	11.6	0.0	5.0			
Cycle Q Clear(g_c), s	14.8	0.0	0.0	0.0	13.4	13.4	11.6	0.0	5.0			
Prop In Lane	1.00		0.00	0.00		0.62	1.00		1.00			
Lane Grp Cap(c), veh/h	481	3527	0	0	1235	609	745	0	332			
V/C Ratio(X)	0.89	0.47	0.00	0.00	0.64	0.64	0.84	0.00	0.40			
Avail Cap(c_a), veh/h	481	3527	0	0	1235	609	827	0	369			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.54	0.54	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	15.5	0.0	0.0	0.0	18.8	18.8	26.7	0.0	24.1			
Incr Delay (d2), s/veh	11.3	0.2	0.0	0.0	2.6	5.2	7.1	0.0	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.6	0.1	0.0	0.0	6.8	7.2	6.5	0.0	2.3			
LnGrp Delay(d),s/veh	26.8	0.2	0.0	0.0	21.3	23.9	33.8	0.0	24.8			
LnGrp LOS	C	A			C	C	C		C			
Approach Vol, veh/h		2072			1184			758				
Approach Delay, s/veh		5.7			22.2			32.2				
Approach LOS		A			C			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		18.4		51.6			22.6	29.0				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		16.0		46.0			17.0	25.0				
Max Q Clear Time (g_c+I1), s		13.6		2.0			16.8	15.4				
Green Ext Time (p_c), s		0.8		20.0			0.2	5.0				
Intersection Summary												
HCM 2010 Ctrl Delay			15.6									
HCM 2010 LOS			B									
Notes												

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	260	1580	50	10	850	90	180	220	30	80	130	270
Future Volume (veh/h)	260	1580	50	10	850	90	180	220	30	80	130	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	274	1663	53	11	895	0	189	232	32	84	137	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	367	2088	66	77	1886	844	305	362	162	133	314	141
Arrive On Green	0.10	0.58	0.58	0.04	0.52	0.00	0.09	0.10	0.10	0.07	0.09	0.00
Sat Flow, veh/h	3510	3571	113	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	274	838	878	11	895	0	189	232	32	84	137	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1880	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.1	28.9	29.3	0.5	12.7	0.0	4.2	5.0	1.5	3.6	2.9	0.0
Cycle Q Clear(g_c), s	6.1	28.9	29.3	0.5	12.7	0.0	4.2	5.0	1.5	3.6	2.9	0.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	1055	1099	77	1886	844	305	362	162	133	314	141
V/C Ratio(X)	0.75	0.79	0.80	0.14	0.47	0.00	0.62	0.64	0.20	0.63	0.44	0.00
Avail Cap(c_a), veh/h	524	1055	1099	158	1886	844	306	808	362	158	808	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.0	12.9	13.0	37.1	12.2	0.0	35.4	34.8	33.2	36.2	34.8	0.0
Incr Delay (d2), s/veh	3.5	6.2	6.1	0.8	0.9	0.0	3.8	1.9	0.6	5.9	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	16.0	16.7	0.3	6.4	0.0	2.2	2.6	0.7	2.0	1.5	0.0
LnGrp Delay(d),s/veh	38.5	19.1	19.1	37.9	13.0	0.0	39.2	36.7	33.8	42.1	35.8	0.0
LnGrp LOS	D	B	B	D	B		D	D	C	D	D	
Approach Vol, veh/h		1990			906			453			221	
Approach Delay, s/veh		21.8			13.4			37.5			38.2	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	12.1	7.4	51.0	11.0	11.0	12.4	46.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	12.0	42.0
Max Q Clear Time (g_c+I1), s	5.6	7.0	2.5	31.3	6.2	4.9	8.1	14.7
Green Ext Time (p_c), s	0.1	1.1	2.2	10.1	0.1	0.6	0.3	6.3

Intersection Summary		
HCM 2010 Ctrl Delay		22.7
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	180	1440	40	10	760	130	20	60	20	180	60	90
Future Volume (veh/h)	180	1440	40	10	760	130	20	60	20	180	60	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	189	1516	42	11	800	137	21	63	21	189	63	95
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	2731	76	35	1849	314	348	358	119	417	179	271
Arrive On Green	0.13	0.53	0.53	0.02	0.41	0.41	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	5188	144	1810	4460	758	1243	1363	454	1328	682	1029
Grp Volume(v), veh/h	189	1010	548	11	619	318	21	0	84	189	0	158
Grp Sat Flow(s),veh/h/ln	1810	1729	1874	1810	1729	1761	1243	0	1817	1328	0	1711
Q Serve(g_s), s	6.4	12.3	12.3	0.4	8.0	8.1	0.9	0.0	2.2	8.0	0.0	4.7
Cycle Q Clear(g_c), s	6.4	12.3	12.3	0.4	8.0	8.1	5.6	0.0	2.2	10.3	0.0	4.7
Prop In Lane	1.00		0.08	1.00		0.43	1.00		0.25	1.00		0.60
Lane Grp Cap(c), veh/h	237	1820	986	35	1433	730	348	0	478	417	0	450
V/C Ratio(X)	0.80	0.56	0.56	0.31	0.43	0.44	0.06	0.00	0.18	0.45	0.00	0.35
Avail Cap(c_a), veh/h	375	1820	986	202	1433	730	894	0	1275	999	0	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	9.9	9.9	30.3	13.1	13.1	21.0	0.0	17.9	21.8	0.0	18.8
Incr Delay (d2), s/veh	6.2	1.2	2.3	4.9	1.0	1.9	0.1	0.0	0.2	0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	6.1	6.9	0.2	4.0	4.3	0.3	0.0	1.1	3.0	0.0	2.3
LnGrp Delay(d),s/veh	32.6	11.2	12.2	35.3	14.0	15.0	21.1	0.0	18.0	22.6	0.0	19.2
LnGrp LOS	C	B	B	D	B	B	C		B	C		B
Approach Vol, veh/h		1747			948			105			347	
Approach Delay, s/veh		13.8			14.6			18.7			21.1	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.5	5.2	37.0		20.5	12.2	30.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	13.0	26.0
Max Q Clear Time (g_c+I1), s		7.6	2.4	14.3		12.3	8.4	10.1
Green Ext Time (p_c), s		2.2	0.0	13.7		2.2	0.2	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
71: Elsworth St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	60	1510	80	70	730	70	130	220	180	70	120	50
Future Volume (veh/h)	60	1510	80	70	730	70	130	220	180	70	120	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	1589	84	74	768	74	137	232	189	74	126	53
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	2092	111	138	1927	185	240	387	327	138	280	236
Arrive On Green	0.09	0.41	0.41	0.08	0.40	0.40	0.13	0.20	0.20	0.08	0.15	0.15
Sat Flow, veh/h	1810	5043	267	1810	4812	461	1810	1900	1603	1810	1900	1599
Grp Volume(v), veh/h	63	1089	584	74	551	291	137	232	189	74	126	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1852	1810	1729	1815	1810	1900	1603	1810	1900	1599
Q Serve(g_s), s	2.3	18.8	18.8	2.8	7.9	8.0	5.0	7.7	5.7	2.8	4.2	2.0
Cycle Q Clear(g_c), s	2.3	18.8	18.8	2.8	7.9	8.0	5.0	7.7	5.7	2.8	4.2	2.0
Prop In Lane	1.00		0.14	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1434	768	138	1385	727	240	387	327	138	280	236
V/C Ratio(X)	0.38	0.76	0.76	0.54	0.40	0.40	0.57	0.60	0.58	0.54	0.45	0.22
Avail Cap(c_a), veh/h	207	1434	768	181	1385	727	240	1087	917	207	1114	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	17.5	17.5	31.1	14.9	15.0	28.5	25.2	14.5	31.1	27.2	26.3
Incr Delay (d2), s/veh	1.5	3.8	7.0	3.2	0.9	1.6	3.2	1.5	1.6	3.2	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	9.7	11.1	1.5	3.9	4.3	2.7	4.2	3.0	1.5	2.3	0.9
LnGrp Delay(d),s/veh	31.4	21.3	24.5	34.3	15.8	16.6	31.7	26.7	16.2	34.3	28.3	26.8
LnGrp LOS	C	C	C	C	B	B	C	C	B	C	C	C
Approach Vol, veh/h		1736			916			558			253	
Approach Delay, s/veh		22.7			17.6			24.4			29.7	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	18.2	9.3	33.0	13.3	14.3	10.3	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	40.0	7.0	29.0	7.0	41.0	8.0	28.0
Max Q Clear Time (g_c+I1), s	4.8	9.7	4.8	20.8	7.0	6.2	4.3	10.0
Green Ext Time (p_c), s	0.0	1.9	0.1	5.8	0.0	0.9	0.1	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↱	
Traffic Volume (veh/h)	0	1070	230	550	660	0	0	0	0	0	0	170
Future Volume (veh/h)	0	1070	230	550	660	0	0	0	0	0	0	170
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	1202	258	618	742	0				0	0	191
Adj No. of Lanes	0	3	1	1	3	0				0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1630	504	1137	5039	0				0	0	0
Arrive On Green	0.00	0.31	0.31	0.84	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1602	1810	5358	0					0	
Grp Volume(v), veh/h	0	1202	258	618	742	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1602	1810	1729	0						
Q Serve(g_s), s	0.0	29.0	18.4	14.4	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	29.0	18.4	14.4	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1630	504	1137	5039	0						
V/C Ratio(X)	0.00	0.74	0.51	0.54	0.15	0.00						
Avail Cap(c_a), veh/h	0	1630	504	1137	5039	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.89	0.89	0.00						
Uniform Delay (d), s/veh	0.0	42.8	39.2	5.4	0.0	0.0						
Incr Delay (d2), s/veh	0.0	3.0	3.7	0.5	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	14.3	8.7	7.1	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	45.9	42.9	5.9	0.1	0.0						
LnGrp LOS		D	D	A	A							
Approach Vol, veh/h		1460			1360							
Approach Delay, s/veh		45.3			2.7							
Approach LOS		D			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			92.0	48.0				140.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			66.0	44.0				114.0
Max Q Clear Time (g_c+I1), s			16.4	31.0				2.0
Green Ext Time (p_c), s			8.0	6.8				8.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	200	1740	70	0	1450	220	40	70	20	130	10	180
Future Volume (veh/h)	200	1740	70	0	1450	220	40	70	20	130	10	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	217	1891	76	0	1576	239	43	76	22	141	11	196
Adj No. of Lanes	1	3	0	0	3	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	230	4057	163	0	3605	545	83	213	62	186	13	231
Arrive On Green	1.00	1.00	1.00	0.00	0.79	0.79	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	262	5116	205	0	4718	687	1194	1417	410	1318	87	1541
Grp Volume(v), veh/h	217	1277	690	0	1198	617	43	0	98	141	0	207
Grp Sat Flow(s),veh/h/ln	262	1729	1864	0	1729	1776	1194	0	1828	1318	0	1628
Q Serve(g_s), s	95.5	0.0	0.0	0.0	15.4	15.5	3.7	0.0	6.7	14.3	0.0	17.3
Cycle Q Clear(g_c), s	111.0	0.0	0.0	0.0	15.4	15.5	21.0	0.0	6.7	21.0	0.0	17.3
Prop In Lane	1.00		0.11	0.00		0.39	1.00		0.22	1.00		0.95
Lane Grp Cap(c), veh/h	230	2742	1478	0	2742	1408	83	0	274	186	0	244
V/C Ratio(X)	0.94	0.47	0.47	0.00	0.44	0.44	0.52	0.00	0.36	0.76	0.00	0.85
Avail Cap(c_a), veh/h	230	2742	1478	0	2742	1408	83	0	274	186	0	244
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	0.0	0.0	4.6	4.6	68.7	0.0	53.4	63.2	0.0	57.9
Incr Delay (d2), s/veh	39.5	0.4	0.8	0.0	0.5	1.0	5.7	0.0	0.8	16.6	0.0	23.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	0.2	0.3	0.0	7.3	7.8	1.8	0.0	3.5	6.3	0.0	9.4
LnGrp Delay(d),s/veh	55.6	0.4	0.8	0.0	5.1	5.6	74.4	0.0	54.2	79.8	0.0	81.2
LnGrp LOS	E	A	A		A	A	E		D	E		F
Approach Vol, veh/h		2184			1815			141			348	
Approach Delay, s/veh		6.0			5.3			60.4			80.6	
Approach LOS		A			A			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		25.0		115.0		25.0		115.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		21.0		111.0		21.0		111.0
Max Q Clear Time (g_c+I1), s		23.0		113.0		23.0		17.5
Green Ext Time (p_c), s		0.0		0.0		0.0		83.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Traffic Volume (veh/h)	130	1990	40	20	1230	110	310	90	150	210	10	170
Future Volume (veh/h)	130	1990	40	20	1230	110	310	90	150	210	10	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	2140	0	22	1323	118	296	149	161	234	0	183
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	169	2487	774	45	2132	660	394	182	196	510	0	376
Arrive On Green	0.09	0.48	0.00	0.02	0.41	0.41	0.22	0.22	0.22	0.14	0.00	0.14
Sat Flow, veh/h	1810	5187	1615	1810	5187	1605	1810	833	900	3619	0	1598
Grp Volume(v), veh/h	140	2140	0	22	1323	118	296	0	310	234	0	183
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1605	1810	0	1734	1810	0	1598
Q Serve(g_s), s	8.9	42.7	0.0	1.4	23.6	5.5	17.9	0.0	19.9	6.9	0.0	11.6
Cycle Q Clear(g_c), s	8.9	42.7	0.0	1.4	23.6	5.5	17.9	0.0	19.9	6.9	0.0	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	169	2487	774	45	2132	660	394	0	378	510	0	376
V/C Ratio(X)	0.83	0.86	0.00	0.49	0.62	0.18	0.75	0.00	0.82	0.46	0.00	0.49
Avail Cap(c_a), veh/h	232	2487	774	108	2132	660	573	0	549	1053	0	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.1	26.9	0.0	56.2	27.2	21.9	42.7	0.0	43.5	46.1	0.0	38.7
Incr Delay (d2), s/veh	16.3	4.2	0.0	8.1	1.4	0.6	3.2	0.0	6.4	0.6	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	21.2	0.0	0.8	11.5	2.5	9.3	0.0	10.2	3.5	0.0	5.2
LnGrp Delay(d),s/veh	68.4	31.1	0.0	64.4	28.6	22.5	45.9	0.0	49.9	46.7	0.0	39.7
LnGrp LOS	E	C		E	C	C	D		D	D		D
Approach Vol, veh/h		2280			1463			606			417	
Approach Delay, s/veh		33.4			28.6			48.0			43.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.5	6.9	60.0		20.5	14.9	52.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	7.0	56.0		34.0	15.0	48.0
Max Q Clear Time (g_c+I1), s		21.9	3.4	44.7		13.6	10.9	25.6
Green Ext Time (p_c), s		2.6	1.9	9.1		1.4	0.1	9.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1320	760	60	640	210	40
Future Volume (veh/h)	1320	760	60	640	210	40
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1404	809	64	681	223	43
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1297	680	345	2854	258	538
Arrive On Green	0.57	0.57	0.19	0.79	0.14	0.14
Sat Flow, veh/h	2383	1199	1810	3705	1810	1615
Grp Volume(v), veh/h	1078	1135	64	681	223	43
Grp Sat Flow(s),veh/h/ln	1805	1682	1810	1805	1810	1615
Q Serve(g_s), s	68.0	68.0	3.6	5.8	14.5	0.0
Cycle Q Clear(g_c), s	68.0	68.0	3.6	5.8	14.5	0.0
Prop In Lane		0.71	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1023	953	345	2854	258	538
V/C Ratio(X)	1.05	1.19	0.19	0.24	0.86	0.08
Avail Cap(c_a), veh/h	1023	953	345	2854	498	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	26.0	40.7	3.2	50.3	27.4
Incr Delay (d2), s/veh	43.5	96.3	0.3	0.2	8.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	45.9	56.7	1.8	2.9	7.8	1.0
LnGrp Delay(d),s/veh	69.5	122.3	41.0	3.4	58.7	27.5
LnGrp LOS	F	F	D	A	E	C
Approach Vol, veh/h	2213			745	266	
Approach Delay, s/veh	96.6			6.7	53.6	
Approach LOS	F			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		21.1	26.9	72.0				98.9
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		33.0	7.0	68.0				79.0
Max Q Clear Time (g_c+I1), s		16.5	5.6	70.0				7.8
Green Ext Time (p_c), s		0.7	0.6	0.0				4.6

Intersection Summary	
HCM 2010 Ctrl Delay	72.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	700	600	250	430	70	300	100	280	220	520	20
Future Volume (veh/h)	10	700	600	250	430	70	300	100	280	220	520	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	737	632	263	453	74	316	105	295	232	547	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	322	1297	401	742	880	143	344	494	417	263	777	348
Arrive On Green	0.18	0.25	0.25	0.42	0.57	0.57	0.19	0.26	0.26	0.15	0.22	0.00
Sat Flow, veh/h	1810	5187	1605	3510	3106	504	1810	1900	1606	1810	3610	1615
Grp Volume(v), veh/h	11	737	632	263	262	265	316	105	295	232	547	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1605	1755	1805	1806	1810	1900	1606	1810	1805	1615
Q Serve(g_s), s	0.6	14.9	19.7	6.1	10.6	10.8	20.6	5.2	12.5	15.1	16.8	0.0
Cycle Q Clear(g_c), s	0.6	14.9	19.7	6.1	10.6	10.8	20.6	5.2	12.5	15.1	16.8	0.0
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	1297	401	742	511	512	344	494	417	263	777	348
V/C Ratio(X)	0.03	0.57	1.57	0.35	0.51	0.52	0.92	0.21	0.71	0.88	0.70	0.00
Avail Cap(c_a), veh/h	322	1297	401	742	511	512	377	602	508	377	1143	511
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.8	39.3	19.5	29.1	20.9	21.0	47.7	34.8	15.7	50.3	43.5	0.0
Incr Delay (d2), s/veh	0.0	1.8	270.4	0.3	3.6	3.6	25.9	0.2	3.5	15.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.3	38.9	2.9	5.7	5.8	12.7	2.8	5.9	8.7	8.5	0.0
LnGrp Delay(d),s/veh	40.8	41.2	289.9	29.4	24.5	24.6	73.6	35.0	19.2	65.9	44.7	0.0
LnGrp LOS	D	D	F	C	C	C	E	D	B	E	D	
Approach Vol, veh/h		1380			790			716			779	
Approach Delay, s/veh		155.1			26.2			45.5			51.0	
Approach LOS		F			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	35.2	29.4	34.0	26.8	29.8	25.4	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	38.0	11.0	30.0	25.0	38.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	17.1	14.5	8.1	21.7	22.6	18.8	2.6	12.8
Green Ext Time (p_c), s	0.4	5.1	0.2	4.3	0.2	4.8	0.4	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	83.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	10	10	70	0	0	0	0	460	730	690	690	0
Future Volume (veh/h)	10	10	70	0	0	0	0	460	730	690	690	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	11	0	81				0	489	777	734	734	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	166	0	296				0	1715	767	819	2798	0
Arrive On Green	0.09	0.00	0.09				0.00	0.63	0.63	0.23	0.78	0.00
Sat Flow, veh/h	1810	0	3230				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	11	0	81				0	489	777	734	734	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1755	1805	0
Q Serve(g_s), s	0.3	0.0	1.4				0.0	3.6	28.5	12.2	3.4	0.0
Cycle Q Clear(g_c), s	0.3	0.0	1.4				0.0	3.6	28.5	12.2	3.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	166	0	296				0	1715	767	819	2798	0
V/C Ratio(X)	0.07	0.00	0.27				0.00	0.29	1.01	0.90	0.26	0.00
Avail Cap(c_a), veh/h	211	0	377				0	1715	767	819	2798	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.87	0.87	0.87	0.87	0.00
Uniform Delay (d), s/veh	24.9	0.0	25.4				0.0	6.5	11.0	22.3	1.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.5				0.0	0.4	33.4	11.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.6				0.0	1.8	19.3	7.1	1.7	0.0
LnGrp Delay(d),s/veh	25.1	0.0	25.9				0.0	6.8	44.4	33.4	2.1	0.0
LnGrp LOS	C		C					A	F	C	A	
Approach Vol, veh/h		92						1266			1468	
Approach Delay, s/veh		25.8						29.9			17.8	
Approach LOS		C						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			18.0	32.5		9.5		50.5
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			14.0	27.0		7.0		45.0
Max Q Clear Time (g_c+I1), s			14.2	30.5		3.4		5.4
Green Ext Time (p_c), s			0.0	0.0		0.1		14.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	330	210	460	0	0	1080
Future Volume (veh/h)	330	210	460	0	0	1080
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	351	223	489	0	0	1149
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	645	297	2465	0	0	2465
Arrive On Green	0.18	0.18	1.00	0.00	0.00	0.68
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	351	223	489	0	0	1149
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	5.4	7.8	0.0	0.0	0.0	8.9
Cycle Q Clear(g_c), s	5.4	7.8	0.0	0.0	0.0	8.9
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	645	297	2465	0	0	2465
V/C Ratio(X)	0.54	0.75	0.20	0.00	0.00	0.47
Avail Cap(c_a), veh/h	936	431	2465	0	0	2465
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	23.2	0.0	0.0	0.0	4.4
Incr Delay (d2), s/veh	0.7	4.3	0.2	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.8	0.1	0.0	0.0	4.5
LnGrp Delay(d),s/veh	22.9	27.5	0.2	0.0	0.0	5.1
LnGrp LOS	C	C	A			A
Approach Vol, veh/h	574		489			1149
Approach Delay, s/veh	24.7		0.2			5.1
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		45.0				45.0		15.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		36.0				36.0		16.0
Max Q Clear Time (g_c+I1), s		2.0				10.9		9.8
Green Ext Time (p_c), s		15.1				13.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	2550	20	220	1910	860	80
Future Volume (veh/h)	2550	20	220	1910	860	80
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2602	20	224	1949	955	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2713	21	354	3476	1156	344
Arrive On Green	0.51	0.51	0.10	0.67	0.21	0.00
Sat Flow, veh/h	5481	41	3510	5358	5429	1615
Grp Volume(v), veh/h	1693	929	224	1949	955	0
Grp Sat Flow(s),veh/h/ln	1729	1893	1755	1729	1810	1615
Q Serve(g_s), s	32.1	32.3	4.2	13.6	11.5	0.0
Cycle Q Clear(g_c), s	32.1	32.3	4.2	13.6	11.5	0.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1767	967	354	3476	1156	344
V/C Ratio(X)	0.96	0.96	0.63	0.56	0.83	0.00
Avail Cap(c_a), veh/h	1768	968	359	3486	1269	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.0	16.1	29.6	6.0	25.7	0.0
Incr Delay (d2), s/veh	12.9	20.0	3.5	0.2	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	21.9	2.2	6.4	6.2	0.0
LnGrp Delay(d),s/veh	29.0	36.1	33.1	6.2	30.0	0.0
LnGrp LOS	C	D	C	A	C	
Approach Vol, veh/h	2622			2173	955	
Approach Delay, s/veh	31.5			8.9	30.0	
Approach LOS	C			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		18.6	10.9	39.0				49.9
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		16.0	7.0	35.0				46.0
Max Q Clear Time (g_c+I1), s		13.5	6.2	34.3				15.6
Green Ext Time (p_c), s		1.1	0.7	0.7				18.3

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	50	2510	150	240	1740	140	140	150	310	190	160	40
Future Volume (veh/h)	50	2510	150	240	1740	140	140	150	310	190	160	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	2642	158	253	1832	147	147	158	326	200	168	42
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	2207	685	243	2035	163	733	433	366	215	396	96
Arrive On Green	0.08	0.43	0.43	0.07	0.42	0.42	0.21	0.23	0.23	0.12	0.14	0.14
Sat Flow, veh/h	1810	5187	1609	3510	4895	391	3510	1900	1604	1810	2874	699
Grp Volume(v), veh/h	53	2642	158	253	1292	687	147	158	326	200	104	106
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1755	1729	1828	1755	1900	1604	1810	1805	1768
Q Serve(g_s), s	2.8	43.0	3.2	7.0	35.2	35.5	3.5	7.1	16.1	11.1	5.3	5.6
Cycle Q Clear(g_c), s	2.8	43.0	3.2	7.0	35.2	35.5	3.5	7.1	16.1	11.1	5.3	5.6
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	143	2207	685	243	1438	760	733	433	366	215	249	244
V/C Ratio(X)	0.37	1.20	0.23	1.04	0.90	0.90	0.20	0.36	0.89	0.93	0.42	0.44
Avail Cap(c_a), veh/h	143	2207	685	243	1472	778	733	790	667	215	840	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	29.0	4.6	47.0	27.5	27.6	33.0	32.8	24.6	44.1	39.8	39.9
Incr Delay (d2), s/veh	1.6	93.3	0.2	68.6	7.7	13.7	0.1	0.5	7.5	42.5	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	39.5	1.4	5.7	18.2	20.8	1.7	3.8	7.8	8.1	2.7	2.8
LnGrp Delay(d),s/veh	45.7	122.3	4.8	115.7	35.2	41.3	33.1	33.4	32.2	86.6	40.9	41.2
LnGrp LOS	D	F	A	F	D	D	C	C	C	F	D	D
Approach Vol, veh/h		2853			2232			631			410	
Approach Delay, s/veh		114.4			46.2			32.7			63.3	
Approach LOS		F			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	27.0	11.0	47.0	25.1	17.9	12.0	46.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	7.0	43.0	7.0	47.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	13.1	18.1	9.0	45.0	5.5	7.6	4.8	37.5
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.2	1.3	2.1	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	77.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1180	770	200	570	190	220	410	100	270	870	210
Future Volume (veh/h)	190	1180	770	200	570	190	220	410	100	270	870	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	1229	802	208	594	198	229	427	104	281	906	219
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1236	687	196	1173	683	297	1102	665	350	1157	718
Arrive On Green	0.13	0.34	0.34	0.11	0.32	0.32	0.08	0.31	0.31	0.10	0.32	0.32
Sat Flow, veh/h	1810	3610	1608	1810	3610	1608	3510	3610	1607	3510	3610	1607
Grp Volume(v), veh/h	198	1229	802	208	594	198	229	427	104	281	906	219
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1608	1755	1805	1607	1755	1805	1607
Q Serve(g_s), s	11.9	37.7	38.0	12.0	14.7	9.0	7.1	10.3	4.5	8.7	25.3	9.7
Cycle Q Clear(g_c), s	11.9	37.7	38.0	12.0	14.7	9.0	7.1	10.3	4.5	8.7	25.3	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	1236	687	196	1173	683	297	1102	665	350	1157	718
V/C Ratio(X)	0.87	0.99	1.17	1.06	0.51	0.29	0.77	0.39	0.16	0.80	0.78	0.30
Avail Cap(c_a), veh/h	245	1236	687	196	1173	683	443	1269	740	475	1302	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	36.4	31.8	49.5	30.3	20.9	49.7	30.4	20.4	48.9	34.2	19.7
Incr Delay (d2), s/veh	25.9	24.1	90.3	81.9	0.4	0.2	4.7	0.2	0.1	7.0	2.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	22.9	38.2	10.4	7.4	4.0	3.6	5.2	2.0	4.6	13.0	4.3
LnGrp Delay(d),s/veh	73.5	60.4	122.1	131.4	30.6	21.2	54.5	30.6	20.5	55.9	37.1	19.9
LnGrp LOS	E	E	F	F	C	C	D	C	C	E	D	B
Approach Vol, veh/h		2229			1000			760			1406	
Approach Delay, s/veh		83.8			49.7			36.4			38.1	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	37.9	16.0	42.0	13.4	39.6	17.9	40.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	39.0	12.0	38.0	14.0	40.0	15.0	35.0
Max Q Clear Time (g_c+I1), s	10.7	12.3	14.0	40.0	9.1	27.3	13.9	16.7
Green Ext Time (p_c), s	0.4	11.4	0.0	0.0	0.3	7.5	0.1	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	58.9
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	150	1440	690	490	710	220
Future Volume (veh/h)	150	1440	690	490	710	220
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	1532	734	521	755	234
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	201	2103	1462	1110	1030	639
Arrive On Green	0.11	0.58	0.41	0.41	0.28	0.28
Sat Flow, veh/h	1810	3705	3705	1605	3619	1615
Grp Volume(v), veh/h	160	1532	734	521	755	234
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1605	1810	1615
Q Serve(g_s), s	5.2	18.5	9.1	9.0	11.4	6.2
Cycle Q Clear(g_c), s	5.2	18.5	9.1	9.0	11.4	6.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	201	2103	1462	1110	1030	639
V/C Ratio(X)	0.80	0.73	0.50	0.47	0.73	0.37
Avail Cap(c_a), veh/h	210	2277	1618	1179	2042	1091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	9.1	13.4	4.3	19.5	12.9
Incr Delay (d2), s/veh	18.1	1.1	0.3	0.3	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.5	4.5	7.6	5.8	6.3
LnGrp Delay(d),s/veh	44.3	10.2	13.7	4.6	20.5	13.2
LnGrp LOS	D	B	B	A	C	B
Approach Vol, veh/h		1692	1255		989	
Approach Delay, s/veh		13.4	9.9		18.8	
Approach LOS		B	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				39.1		21.1	10.7	28.4
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				20.5		13.4	7.2	11.1
Green Ext Time (p_c), s				14.3		3.8	0.0	13.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1210	930	260	270	80	480	330	420	250	420	230
Future Volume (veh/h)	190	1210	930	260	270	80	480	330	420	250	420	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	211	1344	1033	289	300	89	533	367	467	278	467	256
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1037	1990	927	230	555	246	672	1212	540	230	757	813
Arrive On Green	0.30	0.38	0.38	0.07	0.15	0.15	0.19	0.34	0.34	0.07	0.21	0.21
Sat Flow, veh/h	3510	5187	1609	3510	3610	1599	3510	3610	1608	3510	3610	1603
Grp Volume(v), veh/h	211	1344	1033	289	300	89	533	367	467	278	467	256
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1805	1599	1755	1805	1608	1755	1805	1603
Q Serve(g_s), s	4.8	23.0	30.1	7.0	8.2	4.4	15.5	8.0	29.1	7.0	12.6	0.0
Cycle Q Clear(g_c), s	4.8	23.0	30.1	7.0	8.2	4.4	15.5	8.0	29.1	7.0	12.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1037	1990	927	230	555	246	672	1212	540	230	757	813
V/C Ratio(X)	0.20	0.68	1.11	1.26	0.54	0.36	0.79	0.30	0.87	1.21	0.62	0.31
Avail Cap(c_a), veh/h	1037	2135	971	230	1452	643	672	1553	692	230	1486	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	27.4	11.7	50.0	41.8	28.2	41.2	26.3	33.2	50.0	38.4	15.6
Incr Delay (d2), s/veh	0.1	0.8	66.4	146.1	0.8	0.9	6.5	0.1	9.1	127.6	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	11.1	33.6	8.0	4.1	2.3	8.1	4.1	14.2	7.4	6.3	4.5
LnGrp Delay(d),s/veh	28.3	28.2	78.1	196.0	42.6	29.1	47.6	26.4	42.4	177.6	39.2	15.8
LnGrp LOS	C	C	F	F	D	C	D	C	D	F	D	B
Approach Vol, veh/h		2588			678			1367			1001	
Approach Delay, s/veh		48.1			106.2			40.1			71.6	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	39.9	11.0	45.0	24.5	26.4	35.6	20.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	9.0	31.1	9.0	32.1	17.5	14.6	6.8	10.2
Green Ext Time (p_c), s	0.0	3.5	0.0	8.8	0.0	4.3	1.1	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	57.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	580	1030	10	370	0	0	0	0	10	10	270
Future Volume (veh/h)	0	580	1030	10	370	0	0	0	0	10	10	270
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	637	1132	11	407	0				11	11	297
Adj No. of Lanes	0	1	2	1	2	0				1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	966	1643	280	1836	0				469	15	406
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	1900	3230	274	3705	0				1810	58	1566
Grp Volume(v), veh/h	0	637	1132	11	407	0				11	0	308
Grp Sat Flow(s),veh/h/ln	0	1900	1615	274	1805	0				1810	0	1624
Q Serve(g_s), s	0.0	8.5	9.1	1.1	2.2	0.0				0.2	0.0	6.0
Cycle Q Clear(g_c), s	0.0	8.5	9.1	9.6	2.2	0.0				0.2	0.0	6.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.96
Lane Grp Cap(c), veh/h	0	966	1643	280	1836	0				469	0	421
V/C Ratio(X)	0.00	0.66	0.69	0.04	0.22	0.00				0.02	0.00	0.73
Avail Cap(c_a), veh/h	0	1047	1780	292	1989	0				945	0	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.3	6.4	9.8	4.7	0.0				9.5	0.0	11.7
Incr Delay (d2), s/veh	0.0	1.4	1.0	0.1	0.1	0.0				0.0	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.8	4.2	0.1	1.1	0.0				0.1	0.0	2.9
LnGrp Delay(d),s/veh	0.0	7.6	7.4	9.9	4.8	0.0				9.5	0.0	14.1
LnGrp LOS		A	A	A	A					A		B
Approach Vol, veh/h		1769			418						319	
Approach Delay, s/veh		7.5			4.9						14.0	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.5		12.9		21.5
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				19.0		18.0		19.0
Max Q Clear Time (g_c+I1), s				11.1		8.0		11.6
Green Ext Time (p_c), s				6.3		1.4		5.9

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	266.5
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1450	0	880	390	0	0
Future Vol, veh/h	1450	0	880	390	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1629	0	989	438	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	276.5	255
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	40%	100%	100%
Vol Thru, %	0%	60%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	625	645	725	725
LT Vol	625	255	725	725
Through Vol	0	390	0	0
RT Vol	0	0	0	0
Lane Flow Rate	702	725	815	815
Geometry Grp	7	7	7	7
Degree of Util (X)	1.498	1.487	1.739	1.355
Departure Headway (Hd)	8.326	8.021	8.262	6.545
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	442	457	448	562
Service Time	6.026	5.721	5.962	4.245
HCM Lane V/C Ratio	1.588	1.586	1.819	1.45
HCM Control Delay	257.9	252.1	361.9	191
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	34	34.6	46.4	32.9

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	40	30	670	30	220	40	430	1230	740	930	10
Future Volume (veh/h)	20	40	30	670	30	220	40	430	1230	740	930	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	43	32	720	32	237	43	462	1323	796	1000	11
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	61	125	93	469	425	359	350	1452	647	512	1281	569
Arrive On Green	0.03	0.12	0.12	0.13	0.22	0.22	0.19	0.40	0.40	0.15	0.35	0.35
Sat Flow, veh/h	1810	1007	750	3510	1900	1604	1810	3610	1609	3510	3610	1604
Grp Volume(v), veh/h	22	0	75	720	32	237	43	462	1323	796	1000	11
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1755	1900	1604	1810	1805	1609	1755	1805	1604
Q Serve(g_s), s	1.0	0.0	3.2	11.0	1.1	7.6	1.6	7.2	20.3	12.0	20.3	0.3
Cycle Q Clear(g_c), s	1.0	0.0	3.2	11.0	1.1	7.6	1.6	7.2	20.3	12.0	20.3	0.3
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	0	218	469	425	359	350	1452	647	512	1281	569
V/C Ratio(X)	0.36	0.00	0.34	1.53	0.08	0.66	0.12	0.32	2.04	1.56	0.78	0.02
Avail Cap(c_a), veh/h	154	0	769	469	924	780	350	1755	782	512	1974	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	33.0	35.6	25.2	13.7	27.4	16.9	9.3	35.1	23.7	11.0
Incr Delay (d2), s/veh	3.6	0.0	0.9	251.0	0.1	2.1	0.2	0.1	475.2	259.3	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.6	21.6	0.6	4.3	0.8	3.6	94.3	24.2	10.3	0.2
LnGrp Delay(d),s/veh	42.5	0.0	33.9	286.7	25.3	15.8	27.6	17.0	484.5	294.4	24.8	11.0
LnGrp LOS	D		C	F	C	B	C	B	F	F	C	B
Approach Vol, veh/h		97			989			1828			1807	
Approach Delay, s/veh		35.9			213.3			355.6			143.5	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	37.1	15.0	14.2	19.9	33.2	6.8	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	40.0	11.0	36.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	14.0	22.3	13.0	5.2	3.6	22.3	3.0	9.6
Green Ext Time (p_c), s	0.0	10.3	0.0	1.4	1.2	6.9	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	238.0
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥		↰	↱	
Traffic Volume (veh/h)	220	1590	90	40	710	60	30	30	30	90	60	180
Future Volume (veh/h)	220	1590	90	40	710	60	30	30	30	90	60	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	1674	95	42	747	63	32	32	32	95	63	189
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	206	1753	99	106	1512	127	131	127	90	397	101	302
Arrive On Green	0.11	0.50	0.50	0.06	0.45	0.45	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	3473	196	1810	3369	284	218	524	371	1354	417	1252
Grp Volume(v), veh/h	232	865	904	42	400	410	96	0	0	95	0	252
Grp Sat Flow(s),veh/h/ln	1810	1805	1864	1810	1805	1848	1114	0	0	1354	0	1670
Q Serve(g_s), s	7.0	27.9	28.6	1.4	9.6	9.6	0.3	0.0	0.0	0.0	0.0	8.3
Cycle Q Clear(g_c), s	7.0	27.9	28.6	1.4	9.6	9.6	8.6	0.0	0.0	4.8	0.0	8.3
Prop In Lane	1.00		0.11	1.00		0.15	0.33		0.33	1.00		0.75
Lane Grp Cap(c), veh/h	206	911	941	106	810	829	347	0	0	397	0	403
V/C Ratio(X)	1.12	0.95	0.96	0.40	0.49	0.49	0.28	0.00	0.00	0.24	0.00	0.62
Avail Cap(c_a), veh/h	206	912	942	206	912	934	835	0	0	843	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	14.5	14.6	27.8	12.0	12.0	18.8	0.0	0.0	19.5	0.0	20.8
Incr Delay (d2), s/veh	99.8	18.7	20.5	2.4	0.5	0.5	0.4	0.0	0.0	0.3	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	18.4	19.9	0.8	4.9	5.0	1.3	0.0	0.0	1.4	0.0	4.0
LnGrp Delay(d),s/veh	127.0	33.1	35.1	30.3	12.4	12.4	19.2	0.0	0.0	19.8	0.0	22.4
LnGrp LOS	F	C	D	C	B	B	B			B		C
Approach Vol, veh/h		2001			852			96			347	
Approach Delay, s/veh		44.9			13.3			19.2			21.7	
Approach LOS		D			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		18.8	7.6	35.0		18.8	11.0	31.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		35.0	7.0	31.0		35.0	7.0	31.0
Max Q Clear Time (g_c+I1), s		10.6	3.4	30.6		10.3	9.0	11.6
Green Ext Time (p_c), s		2.5	1.6	0.3		2.5	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	33.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	60	1490	190	150	690	230	170	600	200	480	720	90
Future Volume (veh/h)	60	1490	190	150	690	230	170	600	200	480	720	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	1536	196	155	711	237	175	619	206	495	742	93
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	107	1281	161	132	1484	780	132	1045	583	257	934	117
Arrive On Green	0.06	0.40	0.40	0.07	0.41	0.41	0.07	0.29	0.29	0.07	0.29	0.29
Sat Flow, veh/h	1810	3225	406	1810	3610	1609	1810	3610	1607	3510	3227	404
Grp Volume(v), veh/h	62	851	881	155	711	237	175	619	206	495	415	420
Grp Sat Flow(s),veh/h/ln	1810	1805	1827	1810	1805	1609	1810	1805	1607	1755	1805	1826
Q Serve(g_s), s	3.2	38.0	38.0	7.0	13.8	8.5	7.0	14.1	9.0	7.0	20.3	20.3
Cycle Q Clear(g_c), s	3.2	38.0	38.0	7.0	13.8	8.5	7.0	14.1	9.0	7.0	20.3	20.3
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	107	717	725	132	1484	780	132	1045	583	257	522	529
V/C Ratio(X)	0.58	1.19	1.22	1.17	0.48	0.30	1.32	0.59	0.35	1.93	0.79	0.79
Avail Cap(c_a), veh/h	151	717	725	132	1484	780	132	1396	739	257	698	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	28.8	28.8	44.3	20.7	14.9	44.3	29.2	22.3	44.3	31.4	31.4
Incr Delay (d2), s/veh	4.9	97.7	109.3	131.5	0.2	0.2	188.0	0.5	0.4	431.5	4.6	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	38.2	41.0	8.3	6.9	3.8	10.4	7.0	4.0	18.7	10.7	10.9
LnGrp Delay(d),s/veh	48.8	126.6	138.1	175.8	20.9	15.1	232.3	29.7	22.7	475.9	36.0	36.0
LnGrp LOS	D	F	F	F	C	B	F	C	C	F	D	D
Approach Vol, veh/h		1794			1103			1000			1330	
Approach Delay, s/veh		129.6			41.4			63.7			199.7	
Approach LOS		F			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	31.7	11.0	42.0	11.0	31.7	9.7	43.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	38.0	7.0	37.0	8.0	37.0
Max Q Clear Time (g_c+I1), s	9.0	16.1	9.0	40.0	9.0	22.3	5.2	15.8
Green Ext Time (p_c), s	0.0	5.0	0.0	0.0	0.0	4.2	0.0	16.9

Intersection Summary	
HCM 2010 Ctrl Delay	116.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	50	50	1670	120	130	1530
Future Volume (veh/h)	50	50	1670	120	130	1530
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	54	1796	129	140	1645
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	180	161	2109	940	196	2750
Arrive On Green	0.10	0.10	0.58	0.58	0.11	0.76
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	54	54	1796	129	140	1645
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	1.6	1.8	23.8	2.1	4.3	11.5
Cycle Q Clear(g_c), s	1.6	1.8	23.8	2.1	4.3	11.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	180	161	2109	940	196	2750
V/C Ratio(X)	0.30	0.34	0.85	0.14	0.71	0.60
Avail Cap(c_a), veh/h	219	196	2124	946	219	2811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	24.2	9.9	5.4	24.9	3.0
Incr Delay (d2), s/veh	0.9	1.2	3.5	0.1	9.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	12.5	0.9	2.6	5.6
LnGrp Delay(d),s/veh	25.1	25.4	13.5	5.5	34.2	3.4
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	108		1925			1785
Approach Delay, s/veh	25.2		12.9			5.8
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.3	37.8				48.0		9.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	6.3	25.8				13.5		3.8
Green Ext Time (p_c), s	0.0	8.0				28.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	60	1660	210	560	1000	250	0	0	0	700	100	330
Future Volume (veh/h)	60	1660	210	560	1000	250	0	0	0	700	100	330
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	61	1694	0	571	1020	0				787	0	337
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	103	1552	694	676	2041	913				932	0	506
Arrive On Green	0.06	0.43	0.00	0.39	1.00	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1606
Grp Volume(v), veh/h	61	1694	0	571	1020	0				787	0	337
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1606
Q Serve(g_s), s	3.3	43.0	0.0	14.8	0.0	0.0				20.6	0.0	18.2
Cycle Q Clear(g_c), s	3.3	43.0	0.0	14.8	0.0	0.0				20.6	0.0	18.2
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	103	1552	694	676	2041	913				932	0	506
V/C Ratio(X)	0.59	1.09	0.00	0.84	0.50	0.00				0.84	0.00	0.67
Avail Cap(c_a), veh/h	235	1552	694	676	2041	913				1086	0	574
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.89	0.89	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	46.0	28.5	0.0	29.4	0.0	0.0				35.2	0.0	29.7
Incr Delay (d2), s/veh	5.3	52.0	0.0	8.6	0.8	0.0				5.5	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	32.6	0.0	7.9	0.2	0.0				11.0	0.0	8.4
LnGrp Delay(d),s/veh	51.3	80.5	0.0	38.0	0.8	0.0				40.8	0.0	32.2
LnGrp LOS	D	F		D	A					D		C
Approach Vol, veh/h		1755			1591						1124	
Approach Delay, s/veh		79.5			14.1						38.2	
Approach LOS		E			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			23.3	47.0		29.7	9.7	60.5
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			15.0	43.0		30.0	13.0	45.0
Max Q Clear Time (g_c+I1), s			16.8	45.0		22.6	5.3	2.0
Green Ext Time (p_c), s			0.0	0.0		2.8	0.1	12.1

Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1810	460	180	1580	270	230	0	1080	0	0	0
Future Volume (veh/h)	0	1810	460	180	1580	270	230	0	1080	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1885	479	188	1646	0	240	0	0			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1805	955	518	4286	1334	329	0	267			
Arrive On Green	0.00	0.67	0.67	0.57	1.00	0.00	0.09	0.00	0.00			
Sat Flow, veh/h	0	3705	1607	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1885	479	188	1646	0	240	0	0			
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	50.0	13.4	5.6	0.0	0.0	6.7	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	50.0	13.4	5.6	0.0	0.0	6.7	0.0	0.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1805	955	518	4286	1334	329	0	267			
V/C Ratio(X)	0.00	1.04	0.50	0.36	0.38	0.00	0.73	0.00	0.00			
Avail Cap(c_a), veh/h	0	1805	955	518	4286	1334	948	0	767			
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.09	0.09	0.86	0.86	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	16.8	7.4	16.5	0.0	0.0	44.1	0.0	0.0			
Incr Delay (d2), s/veh	0.0	21.9	0.2	0.4	0.2	0.0	3.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	29.9	7.2	2.8	0.1	0.0	3.4	0.0	0.0			
LnGrp Delay(d),s/veh	0.0	38.6	7.5	16.8	0.2	0.0	47.2	0.0	0.0			
LnGrp LOS		F	A	B	A		D					
Approach Vol, veh/h		2364			1834			240				
Approach Delay, s/veh		32.3			1.9			47.2				
Approach LOS		C			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		13.4	32.6	54.0				86.6
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		27.0	11.0	50.0				65.0
Max Q Clear Time (g_c+I1), s		8.7	7.6	52.0				2.0
Green Ext Time (p_c), s		0.7	2.8	0.0				20.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	2490	300	90	1720	10	240	10	60	0	10	10
Future Volume (veh/h)	10	2490	300	90	1720	10	240	10	60	0	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	2594	312	94	1792	10	161	135	62	0	10	10
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	498	1979	229	498	2236	12	318	228	105	0	161	161
Arrive On Green	0.55	0.84	0.84	0.28	0.42	0.42	0.18	0.18	0.18	0.00	0.18	0.18
Sat Flow, veh/h	1810	4713	545	1810	5323	30	1403	1230	565	0	869	869
Grp Volume(v), veh/h	10	1876	1030	94	1164	638	161	0	197	0	0	20
Grp Sat Flow(s),veh/h/ln	1810	1729	1800	1810	1729	1895	1403	0	1795	0	0	1738
Q Serve(g_s), s	0.3	42.0	42.0	4.0	29.4	29.4	10.7	0.0	10.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.3	42.0	42.0	4.0	29.4	29.4	11.6	0.0	10.0	0.0	0.0	0.9
Prop In Lane	1.00		0.30	1.00		0.02	1.00		0.31	0.00		0.50
Lane Grp Cap(c), veh/h	498	1452	756	498	1452	796	318	0	332	0	0	322
V/C Ratio(X)	0.02	1.29	1.36	0.19	0.80	0.80	0.51	0.00	0.59	0.00	0.00	0.06
Avail Cap(c_a), veh/h	498	1452	756	498	1452	796	606	0	700	0	0	678
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	8.0	8.0	27.7	25.4	25.4	38.4	0.0	37.3	0.0	0.0	33.6
Incr Delay (d2), s/veh	0.0	131.8	163.8	0.2	4.8	8.4	1.2	0.0	1.7	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	44.3	52.9	2.0	14.9	17.1	4.3	0.0	5.1	0.0	0.0	0.5
LnGrp Delay(d),s/veh	16.4	139.8	171.8	27.9	30.1	33.7	39.6	0.0	39.0	0.0	0.0	33.7
LnGrp LOS	B	F	F	C	C	C	D		D			C
Approach Vol, veh/h		2916			1896			358			20	
Approach Delay, s/veh		150.7			31.2			39.3			33.7	
Approach LOS		F			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.5	31.5	46.0		22.5	31.5	46.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	42.0		39.0	7.0	42.0
Max Q Clear Time (g_c+I1), s		13.6	6.0	44.0		2.9	2.3	31.4
Green Ext Time (p_c), s		1.7	0.0	0.0		1.8	0.1	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	98.9
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	110	2300	90	20	1500	10	80	10	10	10	20	90
Future Volume (veh/h)	110	2300	90	20	1500	10	80	10	10	10	20	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	2396	94	21	1562	10	83	10	10	10	21	94
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	284	2805	109	119	2912	19	218	111	111	97	176	204
Arrive On Green	0.79	0.79	0.79	0.79	0.79	0.79	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	332	3542	138	135	3677	24	1285	867	867	384	1378	1596
Grp Volume(v), veh/h	115	1213	1277	21	766	806	83	0	20	31	0	94
Grp Sat Flow(s),veh/h/ln	332	1805	1875	135	1805	1896	1285	0	1735	1762	0	1596
Q Serve(g_s), s	19.2	42.6	44.4	12.0	15.3	15.4	6.1	0.0	1.0	0.0	0.0	5.5
Cycle Q Clear(g_c), s	34.6	42.6	44.4	56.4	15.3	15.4	7.6	0.0	1.0	1.4	0.0	5.5
Prop In Lane	1.00		0.07	1.00		0.01	1.00		0.50	0.32		1.00
Lane Grp Cap(c), veh/h	284	1430	1485	119	1430	1501	218	0	222	273	0	204
V/C Ratio(X)	0.41	0.85	0.86	0.18	0.54	0.54	0.38	0.00	0.09	0.11	0.00	0.46
Avail Cap(c_a), veh/h	284	1430	1485	119	1430	1501	478	0	572	617	0	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.47	0.47	0.47	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	6.6	6.8	25.2	3.8	3.8	42.0	0.0	38.5	38.7	0.0	40.4
Incr Delay (d2), s/veh	4.3	6.4	6.7	1.5	0.7	0.6	1.1	0.0	0.2	0.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	23.1	25.1	0.5	7.7	8.1	2.2	0.0	0.5	0.8	0.0	2.5
LnGrp Delay(d),s/veh	14.3	13.0	13.5	26.7	4.4	4.4	43.1	0.0	38.6	38.8	0.0	42.0
LnGrp LOS	B	B	B	C	A	A	D		D	D		D
Approach Vol, veh/h		2605			1593			103			125	
Approach Delay, s/veh		13.3			4.7			42.2			41.2	
Approach LOS		B			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		16.8		83.2		16.8		83.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		59.0		33.0		59.0
Max Q Clear Time (g_c+I1), s		9.6		46.4		7.5		58.4
Green Ext Time (p_c), s		0.8		12.5		0.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	150	2130	20	430	1410	40	20	190	640	190	270	110
Future Volume (veh/h)	150	2130	20	430	1410	40	20	190	640	190	270	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	2219	21	448	1469	42	21	198	667	198	281	115
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	1471	14	221	1533	44	265	507	626	126	361	305
Arrive On Green	0.10	0.40	0.40	0.12	0.43	0.43	0.15	0.27	0.27	0.07	0.19	0.19
Sat Flow, veh/h	1810	3664	35	1810	3584	102	1810	1900	1606	1810	1900	1602
Grp Volume(v), veh/h	156	1091	1149	448	739	772	21	198	667	198	281	115
Grp Sat Flow(s),veh/h/ln	1810	1805	1894	1810	1805	1881	1810	1900	1606	1810	1900	1602
Q Serve(g_s), s	9.8	46.0	46.0	14.0	45.4	45.7	1.1	9.8	25.5	8.0	16.1	5.7
Cycle Q Clear(g_c), s	9.8	46.0	46.0	14.0	45.4	45.7	1.1	9.8	25.5	8.0	16.1	5.7
Prop In Lane	1.00		0.02	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	725	760	221	772	804	265	507	626	126	361	305
V/C Ratio(X)	0.90	1.51	1.51	2.03	0.96	0.96	0.08	0.39	1.07	1.57	0.78	0.38
Avail Cap(c_a), veh/h	174	725	760	221	772	804	265	597	702	126	613	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	34.3	34.3	50.3	31.8	31.8	42.2	34.4	23.6	53.3	44.1	25.6
Incr Delay (d2), s/veh	40.7	234.9	236.8	477.4	22.4	22.4	0.1	0.5	53.3	289.9	3.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	70.0	73.9	36.3	27.4	28.6	0.6	5.2	23.7	14.1	8.8	3.0
LnGrp Delay(d),s/veh	91.9	269.2	271.1	527.7	54.2	54.3	42.3	34.9	77.0	343.2	47.7	26.4
LnGrp LOS	F	F	F	F	D	D	D	C	F	F	D	C
Approach Vol, veh/h		2396			1959			886			594	
Approach Delay, s/veh		258.6			162.5			66.7			142.1	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	34.6	18.0	50.0	20.8	25.8	15.0	53.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	14.0	46.0	7.0	37.0	11.0	49.0
Max Q Clear Time (g_c+I1), s	10.0	27.5	16.0	48.0	3.1	18.1	11.8	47.7
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	1.5	1.7	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	185.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	60	1170	1660	520	810	270	950	1130	200	480	1710	50
Future Volume (veh/h)	60	1170	1660	520	810	270	950	1130	200	480	1710	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	1194	1694	531	827	276	969	1153	204	490	1745	51
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	243	1161	1306	305	990	651	488	1161	658	458	1621	47
Arrive On Green	0.13	0.32	0.32	0.09	0.27	0.27	0.14	0.32	0.32	0.13	0.31	0.31
Sat Flow, veh/h	1810	3610	2829	3510	3610	1606	3510	3610	1607	3510	5179	151
Grp Volume(v), veh/h	61	1194	1694	531	827	276	969	1153	204	490	1165	631
Grp Sat Flow(s),veh/h/ln	1810	1805	1415	1755	1805	1606	1755	1805	1607	1755	1729	1872
Q Serve(g_s), s	3.5	37.0	30.1	10.0	24.8	8.5	16.0	36.6	9.9	15.0	36.0	36.0
Cycle Q Clear(g_c), s	3.5	37.0	30.1	10.0	24.8	8.5	16.0	36.6	9.9	15.0	36.0	36.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	243	1161	1306	305	990	651	488	1161	658	458	1083	586
V/C Ratio(X)	0.25	1.03	1.30	1.74	0.83	0.42	1.98	0.99	0.31	1.07	1.08	1.08
Avail Cap(c_a), veh/h	243	1161	1306	305	1193	741	488	1161	658	458	1083	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	39.0	19.3	52.5	39.3	10.8	49.5	38.9	23.0	50.0	39.5	39.5
Incr Delay (d2), s/veh	0.5	33.8	139.6	346.1	4.5	0.4	450.1	24.6	0.3	62.1	50.2	59.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	23.8	37.0	19.5	13.0	3.8	38.3	22.2	4.4	11.2	24.7	28.3
LnGrp Delay(d),s/veh	45.1	72.8	158.8	398.6	43.8	11.2	499.6	63.4	23.3	112.1	89.7	99.1
LnGrp LOS	D	F	F	F	D	B	F	E	C	F	F	F
Approach Vol, veh/h		2949			1634			2326			2286	
Approach Delay, s/veh		121.7			153.6			241.6			97.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	41.0	14.0	41.0	20.0	40.0	19.4	35.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	37.0	10.0	37.0	16.0	36.0	9.0	38.0
Max Q Clear Time (g_c+I1), s	17.0	38.6	12.0	39.0	18.0	38.0	5.5	26.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	3.3	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	151.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	20	10	20	40	2200	30	70	3560	40
Future Volume (veh/h)	20	10	10	20	10	20	40	2200	30	70	3560	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	10	10	20	10	20	41	2245	31	71	3633	41
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	65	45	107	58	73	90	1874	26	720	3721	42
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.05	0.36	0.36	0.40	0.70	0.70
Sat Flow, veh/h	629	574	401	453	515	645	1810	5272	73	1810	5288	59
Grp Volume(v), veh/h	40	0	0	50	0	0	41	1471	805	71	2371	1303
Grp Sat Flow(s),veh/h/ln	1604	0	0	1613	0	0	1810	1729	1887	1810	1729	1889
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	32.0	32.0	2.2	58.2	59.3
Cycle Q Clear(g_c), s	1.8	0.0	0.0	2.3	0.0	0.0	2.0	32.0	32.0	2.2	58.2	59.3
Prop In Lane	0.50		0.25	0.40		0.40	1.00		0.04	1.00		0.03
Lane Grp Cap(c), veh/h	241	0	0	238	0	0	90	1230	671	720	2433	1329
V/C Ratio(X)	0.17	0.00	0.00	0.21	0.00	0.00	0.45	1.20	1.20	0.10	0.97	0.98
Avail Cap(c_a), veh/h	735	0	0	737	0	0	141	1230	671	720	2433	1329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	36.2	0.0	0.0	36.4	0.0	0.0	41.6	29.0	29.0	17.0	12.6	12.7
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.0	3.5	96.7	103.7	0.0	2.1	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.2	0.0	0.0	1.1	31.7	35.9	1.1	27.7	31.6
LnGrp Delay(d),s/veh	36.5	0.0	0.0	36.9	0.0	0.0	45.1	125.7	132.7	17.0	14.7	16.8
LnGrp LOS	D			D			D	F	F	B	B	B
Approach Vol, veh/h		40			50			2317			3745	
Approach Delay, s/veh		36.5			36.9			126.7			15.5	
Approach LOS		D			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.8	36.0		14.2	8.5	67.3		14.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	32.0		39.0	7.0	32.0		39.0
Max Q Clear Time (g_c+I1), s	4.2	34.0		3.8	4.0	61.3		4.3
Green Ext Time (p_c), s	1.5	0.0		0.5	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	57.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	50	30	40	30	30	70	40	2240	40	130	3420	90
Future Volume (veh/h)	50	30	40	30	30	70	40	2240	40	130	3420	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	31	41	31	31	72	41	2309	41	134	3526	93
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	201	168	341	203	170	534	2948	52	141	1790	47
Arrive On Green	0.08	0.11	0.11	0.08	0.11	0.11	0.29	0.56	0.56	0.08	0.34	0.34
Sat Flow, veh/h	1810	1900	1592	1810	1900	1592	1810	5248	93	1810	5197	136
Grp Volume(v), veh/h	52	31	41	31	31	72	41	1520	830	134	2336	1283
Grp Sat Flow(s),veh/h/ln	1810	1900	1592	1810	1900	1592	1810	1729	1883	1810	1729	1875
Q Serve(g_s), s	2.2	1.3	1.2	1.3	1.3	3.8	1.5	30.9	31.1	6.6	31.0	31.0
Cycle Q Clear(g_c), s	2.2	1.3	1.2	1.3	1.3	3.8	1.5	30.9	31.1	6.6	31.0	31.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	337	201	168	341	203	170	534	1942	1058	141	1191	646
V/C Ratio(X)	0.15	0.15	0.24	0.09	0.15	0.42	0.08	0.78	0.79	0.95	1.96	1.99
Avail Cap(c_a), veh/h	340	612	513	342	612	513	534	1942	1058	141	1191	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	36.6	12.0	30.6	36.5	37.6	22.9	15.4	15.5	41.3	29.5	29.5
Incr Delay (d2), s/veh	0.2	0.4	0.7	0.1	0.3	1.7	0.0	0.3	0.6	61.2	435.5	449.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	0.6	0.6	0.7	1.7	0.7	14.6	16.1	5.7	86.8	96.7
LnGrp Delay(d),s/veh	31.2	36.9	12.8	30.7	36.9	39.3	22.9	15.7	16.0	102.6	465.0	479.3
LnGrp LOS	C	D	B	C	D	D	C	B	B	F	F	F
Approach Vol, veh/h		124			134			2391			3753	
Approach Delay, s/veh		26.6			36.7			16.0			456.9	
Approach LOS		C			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	54.5	10.9	13.5	30.5	35.0	10.9	13.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	29.0	7.0	31.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	8.6	33.1	3.3	3.3	3.5	33.0	4.2	5.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	3.2	0.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	275.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	640	10	40	10	2280	610	90	3370	10
Future Volume (veh/h)	20	10	10	640	10	40	10	2280	610	90	3370	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	11	11	689	0	43	11	2426	649	96	3585	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	215	183	525	0	208	34	2727	1003	122	3066	9
Arrive On Green	0.08	0.12	0.12	0.10	0.00	0.13	0.02	0.53	0.53	0.07	0.57	0.57
Sat Flow, veh/h	1810	1838	1566	5429	0	1596	1810	5187	1610	1810	5339	16
Grp Volume(v), veh/h	21	11	11	689	0	43	11	2426	649	96	2321	1275
Grp Sat Flow(s),veh/h/ln	1810	1805	1600	1810	0	1596	1810	1729	1610	1810	1729	1897
Q Serve(g_s), s	0.9	0.4	0.5	8.0	0.0	2.0	0.5	34.5	9.2	4.3	47.5	47.5
Cycle Q Clear(g_c), s	0.9	0.4	0.5	8.0	0.0	2.0	0.5	34.5	9.2	4.3	47.5	47.5
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	151	211	187	525	0	208	34	2727	1003	122	1986	1089
V/C Ratio(X)	0.14	0.05	0.06	1.31	0.00	0.21	0.32	0.89	0.65	0.79	1.17	1.17
Avail Cap(c_a), veh/h	153	872	773	525	0	791	153	2757	1012	153	1986	1089
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	32.5	32.5	37.4	0.0	32.2	40.1	17.5	2.8	38.0	17.6	17.6
Incr Delay (d2), s/veh	0.4	0.1	0.1	154.1	0.0	0.5	5.3	4.0	1.4	19.0	81.8	86.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.2	11.4	0.0	0.9	0.3	17.2	4.3	2.8	44.9	50.8
LnGrp Delay(d),s/veh	35.6	32.6	32.6	191.5	0.0	32.7	45.4	21.5	4.2	57.1	99.4	104.4
LnGrp LOS	D	C	C	F		C	D	C	A	E	F	F
Approach Vol, veh/h		43			732			3086			3692	
Approach Delay, s/veh		34.1			182.2			17.9			100.0	
Approach LOS		C			F			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	47.5	12.0	13.7	5.6	51.5	10.9	14.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	8.0	40.0	7.0	44.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	6.3	36.5	10.0	2.5	2.5	49.5	2.9	4.0
Green Ext Time (p_c), s	0.0	7.0	0.0	0.1	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	74.1
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	380	200	160	30	50	80	80	840	80	210	940	230
Future Volume (veh/h)	380	200	160	30	50	80	80	840	80	210	940	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	392	206	165	31	52	82	82	866	82	216	969	237
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	395	1111	495	78	580	178	693	2391	742	223	1698	526
Arrive On Green	0.22	0.31	0.31	0.02	0.11	0.11	0.20	0.46	0.46	0.06	0.33	0.33
Sat Flow, veh/h	1810	3610	1607	3510	5187	1593	3510	5187	1610	3510	5187	1608
Grp Volume(v), veh/h	392	206	165	31	52	82	82	866	82	216	969	237
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1729	1593	1755	1729	1610	1755	1729	1608
Q Serve(g_s), s	23.8	4.6	5.3	1.0	1.0	5.3	2.1	11.9	3.2	6.8	17.0	7.3
Cycle Q Clear(g_c), s	23.8	4.6	5.3	1.0	1.0	5.3	2.1	11.9	3.2	6.8	17.0	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	1111	495	78	580	178	693	2391	742	223	1698	526
V/C Ratio(X)	0.99	0.19	0.33	0.40	0.09	0.46	0.12	0.36	0.11	0.97	0.57	0.45
Avail Cap(c_a), veh/h	395	1575	701	128	1320	406	693	2391	742	223	1698	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	28.0	10.9	53.0	43.8	45.7	36.3	19.2	16.8	51.4	30.6	9.4
Incr Delay (d2), s/veh	43.3	0.1	0.4	3.2	0.1	1.8	0.1	0.4	0.3	50.7	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	2.3	2.4	0.5	0.5	2.4	1.0	5.8	1.5	4.8	8.3	3.6
LnGrp Delay(d),s/veh	86.2	28.0	11.3	56.3	43.9	47.6	36.4	19.6	17.1	102.1	32.0	12.2
LnGrp LOS	F	C	B	E	D	D	D	B	B	F	C	B
Approach Vol, veh/h		763			165			1030			1422	
Approach Delay, s/veh		54.3			48.1			20.8			39.3	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	54.7	6.4	37.9	25.7	40.0	28.0	16.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	35.0	4.0	48.0	6.0	36.0	24.0	28.0
Max Q Clear Time (g_c+I1), s	8.8	13.9	3.0	7.3	4.1	19.0	25.8	7.3
Green Ext Time (p_c), s	0.0	6.1	0.0	2.6	1.1	6.6	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	140	1300	110	110	1080	140	180	120	280	490	110	240
Future Volume (veh/h)	140	1300	110	110	1080	140	180	120	280	490	110	240
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	1354	115	115	1125	146	188	125	292	510	115	250
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	1611	137	82	1574	488	221	422	375	395	1191	530
Arrive On Green	0.07	0.33	0.33	0.09	0.61	0.61	0.12	0.23	0.23	0.22	0.33	0.33
Sat Flow, veh/h	1810	4869	414	1810	5187	1607	1810	1805	1605	1810	3610	1608
Grp Volume(v), veh/h	146	962	507	115	1125	146	188	125	292	510	115	250
Grp Sat Flow(s),veh/h/ln	1810	1729	1825	1810	1729	1607	1810	1805	1605	1810	1805	1608
Q Serve(g_s), s	8.0	28.4	28.4	5.0	16.6	4.8	11.2	6.3	18.7	24.0	2.4	13.6
Cycle Q Clear(g_c), s	8.0	28.4	28.4	5.0	16.6	4.8	11.2	6.3	18.7	24.0	2.4	13.6
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	132	1144	604	82	1574	488	221	422	375	395	1191	530
V/C Ratio(X)	1.11	0.84	0.84	1.40	0.71	0.30	0.85	0.30	0.78	1.29	0.10	0.47
Avail Cap(c_a), veh/h	132	1144	604	82	1574	488	329	558	496	395	1237	551
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	34.1	34.1	50.0	18.3	16.0	47.3	34.7	39.5	43.0	25.5	29.2
Incr Delay (d2), s/veh	107.6	7.0	12.4	228.7	2.3	1.3	12.8	0.4	5.7	149.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	14.6	16.3	7.7	8.0	2.3	6.4	3.2	8.9	28.3	1.2	6.1
LnGrp Delay(d),s/veh	158.6	41.1	46.5	278.7	20.6	17.3	60.1	35.1	45.1	192.1	25.5	29.9
LnGrp LOS	F	D	D	F	C	B	E	D	D	F	C	C
Approach Vol, veh/h		1615			1386			605			875	
Approach Delay, s/veh		53.4			41.7			47.7			123.9	
Approach LOS		D			D			D			F	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	42.4	17.4	41.2	12.0	39.4	28.0	30.6
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	5.0	28.4	20.0	37.7	8.0	25.4	24.0	* 34
Max Q Clear Time (g_c+I1), s	7.0	30.4	13.2	15.6	10.0	18.6	26.0	20.7
Green Ext Time (p_c), s	0.0	0.0	0.3	4.3	0.0	6.1	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	62.8
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	1360	430	150	820	140	260	520	120	260	630	230
Future Volume (veh/h)	320	1360	430	150	820	140	260	520	120	260	630	230
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	1402	443	155	845	144	268	536	124	268	649	237
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	391	2237	694	214	1701	288	332	1226	379	336	1232	381
Arrive On Green	0.22	0.86	0.86	0.06	0.38	0.38	0.09	0.24	0.24	0.10	0.24	0.24
Sat Flow, veh/h	3510	5187	1609	3510	4465	756	3510	5187	1605	3510	5187	1605
Grp Volume(v), veh/h	330	1402	443	155	653	336	268	536	124	268	649	237
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1763	1755	1729	1605	1755	1729	1605
Q Serve(g_s), s	9.9	8.9	9.3	4.8	15.9	16.0	8.2	9.7	7.0	8.2	12.0	14.5
Cycle Q Clear(g_c), s	9.9	8.9	9.3	4.8	15.9	16.0	8.2	9.7	7.0	8.2	12.0	14.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	391	2237	694	214	1318	672	332	1226	379	336	1232	381
V/C Ratio(X)	0.84	0.63	0.64	0.72	0.50	0.50	0.81	0.44	0.33	0.80	0.53	0.62
Avail Cap(c_a), veh/h	479	2237	694	223	1318	672	383	1462	452	447	1556	481
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.56	0.56	0.56	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	4.9	4.9	50.7	26.0	26.0	48.8	35.8	34.8	48.7	36.5	37.5
Incr Delay (d2), s/veh	1.1	0.1	0.4	6.1	0.8	1.5	10.7	0.2	0.5	7.2	0.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	3.9	3.9	2.5	7.7	8.0	4.5	4.6	3.2	4.3	5.7	6.6
LnGrp Delay(d),s/veh	43.0	5.0	5.3	56.8	26.7	27.5	59.5	36.0	35.3	55.9	36.9	39.2
LnGrp LOS	D	A	A	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		2175			1144			928			1154	
Approach Delay, s/veh		10.8			31.0			42.7			41.8	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	53.4	14.4	31.4	16.2	47.9	14.5	31.3
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	7.0	38.7	12.0	33.0	15.0	30.7	14.0	31.0
Max Q Clear Time (g_c+I1), s	6.8	11.3	10.2	16.5	11.9	18.0	10.2	11.7
Green Ext Time (p_c), s	0.0	20.2	0.2	8.4	0.3	10.8	0.3	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	530	1310	350	20	580	180	240	340	20	360	440	640
Future Volume (veh/h)	530	1310	350	20	580	180	240	340	20	360	440	640
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	576	1424	0	22	630	196	261	370	22	391	478	696
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	606	2124	661	32	1320	409	287	913	54	447	1116	497
Arrive On Green	0.17	0.41	0.00	0.02	0.25	0.25	0.08	0.26	0.26	0.13	0.31	0.31
Sat Flow, veh/h	3510	5187	1615	1810	5187	1605	3510	3462	205	3510	3610	1607
Grp Volume(v), veh/h	576	1424	0	22	630	196	261	192	200	391	478	696
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1605	1755	1805	1862	1755	1805	1607
Q Serve(g_s), s	17.9	24.6	0.0	1.3	11.3	11.4	8.1	9.7	9.7	12.0	11.6	34.0
Cycle Q Clear(g_c), s	17.9	24.6	0.0	1.3	11.3	11.4	8.1	9.7	9.7	12.0	11.6	34.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	606	2124	661	32	1320	409	287	476	491	447	1116	497
V/C Ratio(X)	0.95	0.67	0.00	0.68	0.48	0.48	0.91	0.40	0.41	0.88	0.43	1.40
Avail Cap(c_a), veh/h	606	2124	661	99	1320	409	287	476	491	447	1116	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	26.4	0.0	53.7	34.8	34.8	50.1	33.4	33.4	47.1	30.3	38.0
Incr Delay (d2), s/veh	20.5	1.3	0.0	22.5	1.2	4.0	30.6	2.5	2.5	17.4	1.2	192.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	12.0	0.0	0.9	5.6	5.5	5.2	5.1	5.3	6.9	6.0	41.6
LnGrp Delay(d),s/veh	65.6	27.7	0.0	76.2	36.0	38.8	80.7	35.9	35.9	64.5	31.5	230.4
LnGrp LOS	E	C		E	D	D	F	D	D	E	C	F
Approach Vol, veh/h		2000			848			653			1565	
Approach Delay, s/veh		38.6			37.7			53.8			128.2	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	51.0	13.0	40.0	23.0	34.0	18.0	35.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	41.0	9.0	34.0	19.0	28.0	14.0	29.0
Max Q Clear Time (g_c+I1), s	3.3	26.6	10.1	36.0	19.9	13.4	14.0	11.7
Green Ext Time (p_c), s	0.0	10.7	0.0	0.0	0.0	10.8	0.0	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	68.1
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	50	30	110	50	10	20	50	860	20	20	1110	10
Future Volume (veh/h)	50	30	110	50	10	20	50	860	20	20	1110	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	32	117	53	11	21	53	915	21	21	1181	11
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	69	393	174	69	207	174	69	3530	81	31	3402	1057
Arrive On Green	0.04	0.11	0.11	0.04	0.11	0.11	0.04	0.68	0.68	0.02	0.66	0.66
Sat Flow, veh/h	1810	3610	1593	1810	1900	1593	1810	5217	120	1810	5187	1611
Grp Volume(v), veh/h	53	32	117	53	11	21	53	606	330	21	1181	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1593	1810	1900	1593	1810	1729	1879	1810	1729	1611
Q Serve(g_s), s	3.2	0.9	7.8	3.2	0.6	1.3	3.2	7.6	7.6	1.3	11.2	0.3
Cycle Q Clear(g_c), s	3.2	0.9	7.8	3.2	0.6	1.3	3.2	7.6	7.6	1.3	11.2	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	69	393	174	69	207	174	69	2340	1271	31	3402	1057
V/C Ratio(X)	0.77	0.08	0.67	0.77	0.05	0.12	0.77	0.26	0.26	0.67	0.35	0.01
Avail Cap(c_a), veh/h	165	814	359	165	430	361	165	2340	1271	115	3402	1057
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	44.1	47.1	52.4	43.9	44.3	52.4	7.0	7.0	53.7	8.4	6.6
Incr Delay (d2), s/veh	16.3	0.1	4.5	16.3	0.1	0.3	15.8	0.3	0.5	22.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	3.6	1.9	0.3	0.6	1.9	3.6	4.0	0.8	5.3	0.1
LnGrp Delay(d),s/veh	68.7	44.1	51.6	68.7	44.0	44.6	68.2	7.2	7.5	76.1	8.7	6.6
LnGrp LOS	E	D	D	E	D	D	E	A	A	E	A	A
Approach Vol, veh/h		202			85			989			1213	
Approach Delay, s/veh		54.9			59.5			10.6			9.9	
Approach LOS		D			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	79.7	8.2	16.2	8.2	77.4	8.2	16.2
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	7.0	50.7	10.0	* 25	10.0	47.7	10.0	* 25
Max Q Clear Time (g_c+I1), s	3.3	9.6	5.2	9.8	5.2	13.2	5.2	3.3
Green Ext Time (p_c), s	0.0	22.1	0.0	0.5	0.0	20.1	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	10	40	70	20	60	60	420	110	70	580	40
Future Volume (veh/h)	40	10	40	70	20	60	60	420	110	70	580	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	11	44	77	22	66	66	462	121	77	637	44
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	159	132	100	204	171	86	1874	487	100	2413	1077
Arrive On Green	0.03	0.08	0.08	0.06	0.11	0.11	0.02	0.22	0.22	0.06	0.67	0.67
Sat Flow, veh/h	1810	1900	1586	1810	1900	1592	1810	2836	737	1810	3610	1611
Grp Volume(v), veh/h	44	11	44	77	22	66	66	293	290	77	637	44
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1900	1592	1810	1805	1768	1810	1805	1611
Q Serve(g_s), s	2.7	0.6	2.9	4.6	1.2	4.2	4.0	14.7	14.9	4.6	7.8	1.0
Cycle Q Clear(g_c), s	2.7	0.6	2.9	4.6	1.2	4.2	4.0	14.7	14.9	4.6	7.8	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	57	159	132	100	204	171	86	1193	1169	100	2413	1077
V/C Ratio(X)	0.77	0.07	0.33	0.77	0.11	0.39	0.77	0.25	0.25	0.77	0.26	0.04
Avail Cap(c_a), veh/h	132	553	461	214	639	536	197	1193	1169	214	2413	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	46.5	47.5	51.3	44.4	45.7	53.5	20.3	20.4	51.3	7.3	6.2
Incr Delay (d2), s/veh	19.7	0.2	1.5	11.9	0.2	1.4	11.6	0.4	0.4	11.9	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.3	1.3	2.6	0.6	1.9	2.3	7.5	7.5	2.6	4.0	0.5
LnGrp Delay(d),s/veh	72.6	46.6	49.0	63.2	44.6	47.2	65.1	20.8	20.9	63.2	7.6	6.3
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	A	A
Approach Vol, veh/h		99			165			649			758	
Approach Delay, s/veh		59.2			54.3			25.3			13.2	
Approach LOS		E			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	76.7	10.1	13.2	9.2	77.5	7.5	15.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	36.0	13.0	32.0	12.0	37.0	8.0	37.0
Max Q Clear Time (g_c+I1), s	6.6	16.9	6.6	4.9	6.0	9.8	4.7	6.2
Green Ext Time (p_c), s	0.1	8.0	0.1	0.5	0.1	9.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	70	270	300	220	100	150	40	750	170	100	1200	30
Future Volume (veh/h)	70	270	300	220	100	150	40	750	170	100	1200	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	278	309	227	103	155	41	773	175	103	1237	31
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	455	1307	582	325	1307	582	53	2253	697	128	2470	767
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.03	0.43	0.43	0.14	0.95	0.95
Sat Flow, veh/h	1136	3610	1608	841	3610	1608	1810	5187	1606	1810	5187	1610
Grp Volume(v), veh/h	72	278	309	227	103	155	41	773	175	103	1237	31
Grp Sat Flow(s),veh/h/ln	1136	1805	1608	841	1805	1608	1810	1729	1606	1810	1729	1610
Q Serve(g_s), s	4.9	5.9	16.7	28.1	2.1	7.5	2.5	10.9	7.6	6.1	2.4	0.1
Cycle Q Clear(g_c), s	6.9	5.9	16.7	34.0	2.1	7.5	2.5	10.9	7.6	6.1	2.4	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	455	1307	582	325	1307	582	53	2253	697	128	2470	767
V/C Ratio(X)	0.16	0.21	0.53	0.70	0.08	0.27	0.78	0.34	0.25	0.80	0.50	0.04
Avail Cap(c_a), veh/h	506	1467	654	362	1467	654	115	2253	697	230	2470	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	25.3	24.3	27.7	36.0	23.0	24.8	53.0	20.7	19.8	46.4	1.4	1.4
Incr Delay (d2), s/veh	0.2	0.1	0.8	5.1	0.0	0.2	21.3	0.4	0.9	10.3	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.9	7.5	7.0	1.0	3.4	1.6	5.3	3.5	3.4	1.1	0.1
LnGrp Delay(d),s/veh	25.5	24.3	28.5	41.1	23.1	25.0	74.3	21.1	20.6	56.7	2.1	1.5
LnGrp LOS	C	C	C	D	C	C	E	C	C	E	A	A
Approach Vol, veh/h		659			485			989			1371	
Approach Delay, s/veh		26.4			32.1			23.2			6.2	
Approach LOS		C			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.8	53.1		45.1	7.2	57.7		45.1
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	14.0	36.7		44.7	7.0	43.7		44.7
Max Q Clear Time (g_c+I1), s	8.1	12.9		18.7	4.5	4.4		36.0
Green Ext Time (p_c), s	0.1	16.2		6.3	0.0	22.2		3.8

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	300	90	40	200	90	60	300	10	50	360	190
Future Volume (veh/h)	240	300	90	40	200	90	60	300	10	50	360	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	345	103	46	230	103	69	345	11	57	414	218
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	308	843	248	59	414	179	89	1695	54	73	1069	557
Arrive On Green	0.17	0.31	0.31	0.03	0.17	0.17	0.05	0.47	0.47	0.08	0.93	0.93
Sat Flow, veh/h	1810	2749	809	1810	2447	1060	1810	3571	114	1810	2295	1195
Grp Volume(v), veh/h	276	225	223	46	168	165	69	174	182	57	325	307
Grp Sat Flow(s),veh/h/ln	1810	1805	1753	1810	1805	1702	1810	1805	1880	1810	1805	1685
Q Serve(g_s), s	16.4	10.8	11.1	2.8	9.4	9.8	4.1	6.2	6.2	3.4	2.1	2.1
Cycle Q Clear(g_c), s	16.4	10.8	11.1	2.8	9.4	9.8	4.1	6.2	6.2	3.4	2.1	2.1
Prop In Lane	1.00		0.46	1.00		0.62	1.00		0.06	1.00		0.71
Lane Grp Cap(c), veh/h	308	553	537	59	305	288	89	857	892	73	841	785
V/C Ratio(X)	0.90	0.41	0.42	0.77	0.55	0.57	0.78	0.20	0.20	0.78	0.39	0.39
Avail Cap(c_a), veh/h	362	755	733	115	509	480	115	857	892	132	841	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	44.7	30.2	30.3	52.8	41.8	42.0	51.7	16.8	16.8	50.0	2.1	2.1
Incr Delay (d2), s/veh	21.7	0.5	0.5	18.9	1.5	1.8	21.4	0.5	0.5	15.4	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	5.5	5.5	1.7	4.8	4.8	2.6	3.2	3.3	2.0	1.2	1.2
LnGrp Delay(d),s/veh	66.4	30.7	30.8	71.7	43.4	43.9	73.1	17.3	17.3	65.4	3.4	3.5
LnGrp LOS	E	C	C	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		724			379			425			689	
Approach Delay, s/veh		44.4			47.0			26.4			8.6	
Approach LOS		D			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	56.2	7.6	37.7	9.4	55.3	22.7	22.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	7.0	46.0	7.0	34.0	22.0	31.0
Max Q Clear Time (g_c+I1), s	5.4	8.2	4.8	13.1	6.1	4.1	18.4	11.8
Green Ext Time (p_c), s	0.0	6.4	0.0	5.4	0.0	6.7	0.3	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
108: Perris Blvd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↱	↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	190	40	290	110	920	0	0	2740	510
Future Volume (veh/h)	0	0	0	190	40	290	110	920	0	0	2740	510
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				207	0	344	120	1000	0	0	2978	554
Adj No. of Lanes				1	0	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				275	0	486	115	4021	0	0	3502	1086
Arrive On Green				0.15	0.00	0.15	0.13	1.00	0.00	0.00	0.68	0.68
Sat Flow, veh/h				1810	0	3198	1810	5358	0	0	5358	1609
Grp Volume(v), veh/h				207	0	344	120	1000	0	0	2978	554
Grp Sat Flow(s),veh/h/ln				1810	0	1599	1810	1729	0	0	1729	1609
Q Serve(g_s), s				12.0	0.0	11.2	7.0	0.0	0.0	0.0	48.2	18.8
Cycle Q Clear(g_c), s				12.0	0.0	11.2	7.0	0.0	0.0	0.0	48.2	18.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				275	0	486	115	4021	0	0	3502	1086
V/C Ratio(X)				0.75	0.00	0.71	1.04	0.25	0.00	0.00	0.85	0.51
Avail Cap(c_a), veh/h				461	0	814	115	4021	0	0	3502	1086
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.94	0.94	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				44.6	0.0	44.3	48.0	0.0	0.0	0.0	13.6	8.9
Incr Delay (d2), s/veh				4.1	0.0	1.9	93.2	0.1	0.0	0.0	2.8	1.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.4	0.0	5.1	6.4	0.1	0.0	0.0	23.5	8.8
LnGrp Delay(d),s/veh				48.8	0.0	46.2	141.8	0.1	0.0	0.0	16.4	10.6
LnGrp LOS				D		D	F	A			B	B
Approach Vol, veh/h					551			1120			3532	
Approach Delay, s/veh					47.2			15.3			15.5	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		89.3			11.0	78.3		20.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		74.0			7.0	63.0		28.0
Max Q Clear Time (g_c+I1), s		2.0			9.0	50.2		14.0
Green Ext Time (p_c), s		69.1			0.0	12.7		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	30	10	40	0	0	0	0	1000	410	720	2220	0
Future Volume (veh/h)	30	10	40	0	0	0	0	1000	410	720	2220	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	33	11	43				0	1087	446	783	2413	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	134	25	96				0	3081	1264	359	4427	0
Arrive On Green	0.07	0.07	0.07				0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1810	334	1304				0	3782	1481	344	5358	0
Grp Volume(v), veh/h	33	0	54				0	1041	492	783	2413	0
Grp Sat Flow(s),veh/h/ln	1810	0	1638				0	1729	1634	344	1729	0
Q Serve(g_s), s	1.9	0.0	3.5				0.0	0.0	0.0	93.9	0.0	0.0
Cycle Q Clear(g_c), s	1.9	0.0	3.5				0.0	0.0	0.0	93.9	0.0	0.0
Prop In Lane	1.00		0.80				0.00		0.91	1.00		0.00
Lane Grp Cap(c), veh/h	134	0	121				0	2951	1394	359	4427	0
V/C Ratio(X)	0.25	0.00	0.45				0.00	0.35	0.35	2.18	0.55	0.00
Avail Cap(c_a), veh/h	461	0	417				0	2951	1394	359	4427	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.88	0.88	0.23	0.23	0.00
Uniform Delay (d), s/veh	48.1	0.0	48.8				0.0	0.0	0.0	8.6	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	2.6				0.0	0.3	0.6	533.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.7				0.0	0.1	0.2	63.5	0.0	0.0
LnGrp Delay(d),s/veh	49.0	0.0	51.4				0.0	0.3	0.6	541.5	0.1	0.0
LnGrp LOS	D		D					A	A	F	A	
Approach Vol, veh/h		87						1533			3196	
Approach Delay, s/veh		50.5						0.4			132.8	
Approach LOS		D						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		97.9		12.1		97.9		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		74.0		28.0		74.0		
Max Q Clear Time (g_c+I1), s		2.0		5.5		95.9		
Green Ext Time (p_c), s		71.5		0.3		0.0		

Intersection Summary			
HCM 2010 Ctrl Delay			89.1
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	340	20	20	190	140	0	0	330	20
Future Volume (veh/h)	0	0	0	340	20	20	190	140	0	0	330	20
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				370	22	22	207	152	0	0	359	22
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				420	25	25	239	2405	0	0	1797	800
Arrive On Green				0.26	0.26	0.26	0.22	1.00	0.00	0.00	0.50	0.50
Sat Flow, veh/h				1610	96	96	1810	3705	0	0	3705	1607
Grp Volume(v), veh/h				414	0	0	207	152	0	0	359	22
Grp Sat Flow(s),veh/h/ln				1802	0	0	1810	1805	0	0	1805	1607
Q Serve(g_s), s				24.2	0.0	0.0	12.1	0.0	0.0	0.0	6.1	0.8
Cycle Q Clear(g_c), s				24.2	0.0	0.0	12.1	0.0	0.0	0.0	6.1	0.8
Prop In Lane				0.89		0.05	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				470	0	0	239	2405	0	0	1797	800
V/C Ratio(X)				0.88	0.00	0.00	0.87	0.06	0.00	0.00	0.20	0.03
Avail Cap(c_a), veh/h				721	0	0	411	2405	0	0	1797	800
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				39.0	0.0	0.0	42.0	0.0	0.0	0.0	15.4	14.1
Incr Delay (d2), s/veh				8.1	0.0	0.0	9.4	0.1	0.0	0.0	0.2	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.1	0.0	0.0	6.7	0.0	0.0	0.0	3.1	0.4
LnGrp Delay(d),s/veh				47.1	0.0	0.0	51.3	0.1	0.0	0.0	15.6	14.1
LnGrp LOS				D			D	A			B	B
Approach Vol, veh/h					414			359			381	
Approach Delay, s/veh					47.1			29.6			15.6	
Approach LOS					D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		77.3			18.5	58.8		32.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		58.0			25.0	29.0		44.0
Max Q Clear Time (g_c+I1), s		2.0			14.1	8.1		26.2
Green Ext Time (p_c), s		3.8			0.4	3.3		2.5

Intersection Summary			
HCM 2010 Ctrl Delay			31.2
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	40	30	290	0	0	0	0	290	240	70	610	0
Future Volume (veh/h)	40	30	290	0	0	0	0	290	240	70	610	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	43	33	315				0	315	261	76	663	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	234	180	359				0	2201	981	104	2539	0
Arrive On Green	0.22	0.22	0.22				0.00	0.61	0.61	0.11	1.00	0.00
Sat Flow, veh/h	1045	802	1604				0	3705	1608	1810	3705	0
Grp Volume(v), veh/h	76	0	315				0	315	261	76	663	0
Grp Sat Flow(s),veh/h/ln	1848	0	1604				0	1805	1608	1810	1805	0
Q Serve(g_s), s	3.7	0.0	20.9				0.0	4.1	8.3	4.5	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	20.9				0.0	4.1	8.3	4.5	0.0	0.0
Prop In Lane	0.57		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	414	0	359				0	2201	981	104	2539	0
V/C Ratio(X)	0.18	0.00	0.88				0.00	0.14	0.27	0.73	0.26	0.00
Avail Cap(c_a), veh/h	739	0	642				0	2201	981	263	2539	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	34.6	0.0	41.2				0.0	9.2	10.0	47.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	6.9				0.0	0.1	0.7	9.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	10.0				0.0	2.1	3.9	2.5	0.1	0.0
LnGrp Delay(d),s/veh	34.8	0.0	48.1				0.0	9.3	10.7	57.2	0.2	0.0
LnGrp LOS	C		D					A	B	E	A	
Approach Vol, veh/h		391						576			739	
Approach Delay, s/veh		45.5						9.9			6.1	
Approach LOS		D						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.3	71.1		28.6		81.4		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	16.0	38.0		44.0		58.0		
Max Q Clear Time (g_c+I1), s	6.5	10.3		22.9		2.0		
Green Ext Time (p_c), s	0.1	8.6		1.5		9.8		

Intersection Summary	
HCM 2010 Ctrl Delay	16.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	140	260	150	20	70	40	840	110	130	1740	10
Future Volume (veh/h)	20	140	260	150	20	70	40	840	110	130	1740	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	159	295	170	23	80	45	955	125	148	1977	11
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	281	249	201	448	398	58	2178	284	179	2853	16
Arrive On Green	0.02	0.16	0.16	0.11	0.25	0.25	0.04	0.62	0.62	0.10	0.54	0.54
Sat Flow, veh/h	1810	1805	1599	1810	1805	1605	1810	4643	606	1810	5323	30
Grp Volume(v), veh/h	23	159	295	170	23	80	45	711	369	148	1284	704
Grp Sat Flow(s),veh/h/ln	1810	1805	1599	1810	1805	1605	1810	1729	1791	1810	1729	1895
Q Serve(g_s), s	1.4	9.0	17.1	10.1	1.1	4.3	2.7	11.7	11.8	8.8	30.1	30.2
Cycle Q Clear(g_c), s	1.4	9.0	17.1	10.1	1.1	4.3	2.7	11.7	11.8	8.8	30.1	30.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		0.02
Lane Grp Cap(c), veh/h	33	281	249	201	448	398	58	1622	840	179	1854	1016
V/C Ratio(X)	0.69	0.57	1.19	0.85	0.05	0.20	0.78	0.44	0.44	0.83	0.69	0.69
Avail Cap(c_a), veh/h	66	281	249	263	478	425	82	1622	840	280	1854	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.83	0.83	0.83
Uniform Delay (d), s/veh	53.7	43.0	46.5	48.0	31.5	32.7	52.3	13.2	13.2	48.6	18.8	18.8
Incr Delay (d2), s/veh	22.7	2.7	117.0	17.5	0.0	0.2	23.5	0.8	1.5	9.4	1.8	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.7	15.6	6.0	0.5	2.0	1.7	5.7	6.1	4.9	14.7	16.6
LnGrp Delay(d),s/veh	76.3	45.7	163.4	65.4	31.5	33.0	75.8	14.0	14.7	58.0	20.6	22.1
LnGrp LOS	E	D	F	E	C	C	E	B	B	E	C	C
Approach Vol, veh/h		477			273			1125			2136	
Approach Delay, s/veh		120.0			53.1			16.7			23.7	
Approach LOS		F			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	56.9	16.2	22.0	7.5	64.3	6.0	32.2
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	17.0	41.7	16.0	17.1	5.0	53.7	4.0	29.1
Max Q Clear Time (g_c+I1), s	10.8	13.8	12.1	19.1	4.7	32.2	3.4	6.3
Green Ext Time (p_c), s	0.2	23.4	0.1	0.0	0.0	18.7	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

HCM 2010 TWSC
113: Evans Rd & Placentia Ave

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↑↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1089	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1089	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

HCM 2010 AWSC
114: Evans Rd & Orange Ave

Intersection	
Intersection Delay, s/veh	405.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	120	190	130	100	120	70	110	430	90	80	530	110
Future Vol, veh/h	120	190	130	100	120	70	110	430	90	80	530	110
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	179	284	194	149	179	104	164	642	134	119	791	164
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	550.3	64.5	339	511.4
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	27%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	43%	0%	63%	0%	100%	0%
Vol Right, %	0%	0%	100%	30%	0%	37%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	430	90	440	100	190	80	530	110
LT Vol	110	0	0	120	100	0	80	0	0
Through Vol	0	430	0	190	0	120	0	530	0
RT Vol	0	0	90	130	0	70	0	0	110
Lane Flow Rate	164	642	134	657	149	284	119	791	164
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.525	1.962	0.385	2.125	0.495	0.881	0.383	2.426	0.472
Departure Headway (Hd)	16.449	15.886	15.097	14.793	17.812	16.951	15.73	15.171	14.388
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	222	237	240	256	204	216	230	245	253
Service Time	14.149	13.586	12.797	12.493	15.512	14.651	13.43	12.871	12.088
HCM Lane V/C Ratio	0.739	2.709	0.558	2.566	0.73	1.315	0.517	3.229	0.648
HCM Control Delay	36	481.8	26.9	550.3	36.8	79.1	27.9	684.4	29.3
HCM Lane LOS	E	F	D	F	E	F	D	F	D
HCM 95th-tile Q	2.7	32.4	1.7	39.2	2.5	6.9	1.7	46.9	2.3

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	360	390	240	110	310	140	160	170	100	180	240	290
Future Volume (veh/h)	360	390	240	110	310	140	160	170	100	180	240	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	444	481	261	120	383	173	174	185	109	222	261	358
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.81	0.81	0.92	0.92	0.81	0.81	0.92	0.92	0.92	0.81	0.92	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	523	1143	509	193	803	357	253	1271	568	265	1283	572
Arrive On Green	0.15	0.32	0.32	0.05	0.22	0.22	0.07	0.35	0.35	0.08	0.36	0.36
Sat Flow, veh/h	3510	3610	1607	3510	3610	1604	3510	3610	1615	3510	3610	1608
Grp Volume(v), veh/h	444	481	261	120	383	173	174	185	109	222	261	358
Grp Sat Flow(s),veh/h/ln	1755	1805	1607	1755	1805	1604	1755	1805	1615	1755	1805	1608
Q Serve(g_s), s	9.8	8.4	10.5	2.7	7.3	7.5	3.8	2.8	3.7	5.0	4.0	14.7
Cycle Q Clear(g_c), s	9.8	8.4	10.5	2.7	7.3	7.5	3.8	2.8	3.7	5.0	4.0	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	523	1143	509	193	803	357	253	1271	568	265	1283	572
V/C Ratio(X)	0.85	0.42	0.51	0.62	0.48	0.48	0.69	0.15	0.19	0.84	0.20	0.63
Avail Cap(c_a), veh/h	530	1543	687	265	1271	565	265	1271	568	265	1283	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	21.4	22.2	36.8	26.9	26.9	36.0	17.6	17.9	36.3	17.8	21.3
Incr Delay (d2), s/veh	12.3	0.2	0.8	3.3	0.4	1.0	6.9	0.2	0.7	20.5	0.4	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	4.2	4.8	1.4	3.7	3.4	2.1	1.4	1.8	3.2	2.1	7.3
LnGrp Delay(d),s/veh	45.3	21.7	23.0	40.0	27.3	28.0	42.9	17.8	18.7	56.8	18.2	26.4
LnGrp LOS	D	C	C	D	C	C	D	B	B	E	B	C
Approach Vol, veh/h		1186			676			468			841	
Approach Delay, s/veh		30.8			29.8			27.4			31.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	32.0	8.4	29.2	9.7	32.3	15.8	21.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	28.0	6.0	34.0	6.0	28.0	12.0	28.0
Max Q Clear Time (g_c+I1), s	7.0	5.7	4.7	12.5	5.8	16.7	11.8	9.5
Green Ext Time (p_c), s	0.0	4.7	0.0	7.4	0.0	3.6	0.0	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥			↰			↱	
Traffic Vol, veh/h	0	0	0	10	10	20	70	220	0	0	240	180
Future Vol, veh/h	0	0	0	10	10	20	70	220	0	0	240	180
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	10	10	20	70	220	0	0	240	180

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	690	780	220	420	0	-	-	-	0
Stage 1	360	360	-	-	-	-	-	-	-
Stage 2	330	420	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	414	329	825	1150	-	0	0	-	-
Stage 1	710	630	-	-	-	0	0	-	-
Stage 2	733	593	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	385	0	825	1150	-	-	-	-	-
Mov Cap-2 Maneuver	385	0	-	-	-	-	-	-	-
Stage 1	661	0	-	-	-	-	-	-	-
Stage 2	733	0	-	-	-	-	-	-	-

Approach	WB			NB			SB
HCM Control Delay, s	11.5			2			0
HCM LOS	B						

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	1150	-	597	-	-
HCM Lane V/C Ratio	0.061	-	0.067	-	-
HCM Control Delay (s)	8.3	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

HCM 2010 TWSC
121: Park Center Blvd & Ramona Expy EB Ramps

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↱			↰	
Traffic Vol, veh/h	130	40	40	0	0	0	0	140	50	140	110	0
Future Vol, veh/h	130	40	40	0	0	0	0	140	50	140	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	130	40	40	0	0	0	0	140	50	140	110	0

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	555	580	110				-	0	0	190	0	0
Stage 1	390	390	-				-	-	-	-	-	-
Stage 2	165	190	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				-	-	-	2.2	-	-
Pot Cap-1 Maneuver	496	428	949				0	-	-	1396	-	0
Stage 1	689	611	-				0	-	-	-	-	0
Stage 2	869	747	-				0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	443	0	949				-	-	-	1396	-	-
Mov Cap-2 Maneuver	443	0	-				-	-	-	-	-	-
Stage 1	615	0	-				-	-	-	-	-	-
Stage 2	869	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0	4.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	443	949	1396	-
HCM Lane V/C Ratio	-	-	0.293	0.084	0.1	-
HCM Control Delay (s)	-	-	16.5	9.1	7.9	0
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.3	0.3	-

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	19.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↱	
Traffic Vol, veh/h	90	10	40	590	1080	240
Future Vol, veh/h	90	10	40	590	1080	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	95	11	42	621	1137	253

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1968	1263	1389	0	-	0
Stage 1	1263	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 70	209	499	-	-	-
Stage 1	269	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 64	209	499	-	-	-
Mov Cap-2 Maneuver	~ 64	-	-	-	-	-
Stage 1	269	-	-	-	-	-
Stage 2	452	-	-	-	-	-

Approach	EB		NB		SB
HCM Control Delay, s	$ 398.6		0.8		0
HCM LOS	F				

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	499	-	69	-	-
HCM Lane V/C Ratio	0.084	-	1.526	-	-
HCM Control Delay (s)	12.9	-	$ 398.6	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	8.9	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	110

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Vol, veh/h	10	690	0	0	300	510	420	0	70	0	0	0
Future Vol, veh/h	10	690	0	0	300	510	420	0	70	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	767	0	0	333	567	467	0	78	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	333	0	-	-	-	0	1122	1122	767
Stage 1	-	-	-	-	-	-	789	789	-
Stage 2	-	-	-	-	-	-	333	333	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1238	-	0	0	-	-	~ 230	208	405
Stage 1	-	-	0	0	-	-	~ 451	405	-
Stage 2	-	-	0	0	-	-	731	647	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1238	-	-	-	-	-	~ 228	0	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 228	0	-
Stage 1	-	-	-	-	-	-	~ 447	0	-
Stage 2	-	-	-	-	-	-	731	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	$ 448.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	228	405	1238	-	-	-
HCM Lane V/C Ratio	2.047	0.192	0.009	-	-	-
HCM Control Delay (s)	$ 520.9	16	7.9	-	-	-
HCM Lane LOS	F	C	A	-	-	-
HCM 95th %tile Q(veh)	34.9	0.7	0	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

Intersection	
Int Delay, s/veh	38.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑	↱
Traffic Vol, veh/h	0	470	630	50	540	0	0	0	0	260	10	30
Future Vol, veh/h	0	470	630	50	540	0	0	0	0	260	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	505	677	54	581	0	0	0	0	280	11	32

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	505	0	0	1193	1193	581
Stage 1	-	-	-	-	-	-	688	688	-
Stage 2	-	-	-	-	-	-	505	505	-
Critical Hdwy	-	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1070	-	0	~ 208	188	517
Stage 1	0	-	-	-	-	0	503	450	-
Stage 2	0	-	-	-	-	0	610	544	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1070	-	-	~ 198	0	517
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 198	0	-
Stage 1	-	-	-	-	-	-	478	0	-
Stage 2	-	-	-	-	-	-	610	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.7	253.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1070	-	198	517
HCM Lane V/C Ratio	-	-	0.05	-	1.466	0.062
HCM Control Delay (s)	-	-	8.5	-	279.8	12.4
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0.2	-	17.7	0.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↑	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	30	20	280	100	1170	0	0	570	550
Future Volume (veh/h)	0	0	0	30	20	280	100	1170	0	0	570	550
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				30	20	0	100	1170	0	0	570	550
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				83	56	122	217	2582	0	0	1772	793
Arrive On Green				0.08	0.08	0.00	0.12	0.72	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1107	738	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				50	0	0	100	1170	0	0	570	550
Grp Sat Flow(s),veh/h/ln				1845	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				1.0	0.0	0.0	2.0	5.2	0.0	0.0	3.6	10.1
Cycle Q Clear(g_c), s				1.0	0.0	0.0	2.0	5.2	0.0	0.0	3.6	10.1
Prop In Lane				0.60		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				139	0	122	217	2582	0	0	1772	793
V/C Ratio(X)				0.36	0.00	0.00	0.46	0.45	0.00	0.00	0.32	0.69
Avail Cap(c_a), veh/h				1738	0	1521	331	2928	0	0	1889	845
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.8	0.0	0.0	15.7	2.3	0.0	0.0	5.9	7.5
Incr Delay (d2), s/veh				1.6	0.0	0.0	1.5	0.1	0.0	0.0	0.1	2.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.0	1.1	2.5	0.0	0.0	1.8	4.9
LnGrp Delay(d),s/veh				18.3	0.0	0.0	17.2	2.4	0.0	0.0	6.0	9.8
LnGrp LOS				B			B	A			A	A
Approach Vol, veh/h					50			1270			1120	
Approach Delay, s/veh					18.3			3.6			7.9	
Approach LOS					B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		31.3			8.6	22.8		6.9
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		31.0			7.0	20.0		36.0
Max Q Clear Time (g_c+I1), s		7.2			4.0	12.1		3.0
Green Ext Time (p_c), s		16.4			0.1	6.7		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	5.8
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
128: Potrero Blvd & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	960	100	210	0	0	0	0	310	30	190	400	0
Future Volume (veh/h)	960	100	210	0	0	0	0	310	30	190	400	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	1031	0	0				0	310	30	190	400	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1396	0	623				0	742	332	256	1574	0
Arrive On Green	0.39	0.00	0.00				0.00	0.21	0.21	0.14	0.44	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	1031	0	0				0	310	30	190	400	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	11.0	0.0	0.0				0.0	3.4	0.7	4.5	3.2	0.0
Cycle Q Clear(g_c), s	11.0	0.0	0.0				0.0	3.4	0.7	4.5	3.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1396	0	623				0	742	332	256	1574	0
V/C Ratio(X)	0.74	0.00	0.00				0.00	0.42	0.09	0.74	0.25	0.00
Avail Cap(c_a), veh/h	2902	0	1295				0	1447	647	363	2493	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	0.0				0.0	15.5	14.4	18.5	8.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0				0.0	0.4	0.1	4.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	0.0				0.0	1.7	0.3	2.6	1.6	0.0
LnGrp Delay(d),s/veh	12.6	0.0	0.0				0.0	15.9	14.6	23.4	8.1	0.0
LnGrp LOS	B							B	B	C	A	
Approach Vol, veh/h		1031						340			590	
Approach Delay, s/veh		12.6						15.8			13.0	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.3	13.2		21.3		23.6		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	9.0	18.0		36.0		31.0		
Max Q Clear Time (g_c+I1), s	6.5	5.4		13.0		5.2		
Green Ext Time (p_c), s	0.1	3.9		4.3		5.2		

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	560	170	50	370	30	380	150	90	30	40	10
Future Volume (veh/h)	20	560	170	50	370	30	380	150	90	30	40	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	589	179	53	389	32	400	158	95	32	42	11
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	648	547	68	685	497	436	457	275	45	284	74
Arrive On Green	0.02	0.34	0.34	0.04	0.36	0.36	0.24	0.41	0.41	0.02	0.20	0.20
Sat Flow, veh/h	1810	1900	1603	1810	1900	1379	1810	1110	667	1810	1450	380
Grp Volume(v), veh/h	21	589	179	53	389	32	400	0	253	32	0	53
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1379	1810	0	1777	1810	0	1830
Q Serve(g_s), s	1.0	25.7	7.2	2.5	14.3	1.3	18.7	0.0	8.5	1.5	0.0	2.1
Cycle Q Clear(g_c), s	1.0	25.7	7.2	2.5	14.3	1.3	18.7	0.0	8.5	1.5	0.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.21
Lane Grp Cap(c), veh/h	33	648	547	68	685	497	436	0	732	45	0	358
V/C Ratio(X)	0.63	0.91	0.33	0.78	0.57	0.06	0.92	0.00	0.35	0.71	0.00	0.15
Avail Cap(c_a), veh/h	83	679	573	83	685	497	459	0	732	104	0	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.3	27.3	21.2	41.4	22.3	18.2	32.1	0.0	17.5	42.0	0.0	28.9
Incr Delay (d2), s/veh	18.3	15.8	0.3	30.6	1.1	0.1	22.8	0.0	1.3	18.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	16.3	3.2	1.8	7.7	0.5	12.1	0.0	4.4	1.0	0.0	1.1
LnGrp Delay(d),s/veh	60.6	43.1	21.5	72.0	23.4	18.2	54.9	0.0	18.8	60.8	0.0	29.8
LnGrp LOS	E	D	C	E	C	B	D		B	E		C
Approach Vol, veh/h		789			474			653			85	
Approach Delay, s/veh		38.6			28.5			40.9			41.5	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	39.7	7.3	33.6	24.9	21.0	5.6	35.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	34.0	4.0	31.0	22.0	17.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	3.5	10.5	4.5	27.7	20.7	4.1	3.0	16.3
Green Ext Time (p_c), s	0.0	1.8	0.0	1.9	0.2	1.4	0.0	6.3

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	110	530	60	140	310	140	90	330	190	210	270	50
Future Volume (veh/h)	110	530	60	140	310	140	90	330	190	210	270	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	570	65	151	333	151	97	355	204	226	290	54
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	361	1292	147	330	751	746	164	601	339	259	982	180
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.09	0.27	0.27	0.14	0.32	0.32
Sat Flow, veh/h	924	3266	372	804	1900	1384	1810	2222	1254	1810	3042	559
Grp Volume(v), veh/h	118	314	321	151	333	151	97	287	272	226	170	174
Grp Sat Flow(s),veh/h/ln	924	1805	1833	804	1900	1384	1810	1805	1670	1810	1805	1796
Q Serve(g_s), s	6.7	8.0	8.1	10.6	8.1	3.6	3.2	8.7	8.9	7.7	4.4	4.6
Cycle Q Clear(g_c), s	14.8	8.0	8.1	18.7	8.1	3.6	3.2	8.7	8.9	7.7	4.4	4.6
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.75	1.00		0.31
Lane Grp Cap(c), veh/h	361	714	725	330	751	746	164	488	452	259	582	580
V/C Ratio(X)	0.33	0.44	0.44	0.46	0.44	0.20	0.59	0.59	0.60	0.87	0.29	0.30
Avail Cap(c_a), veh/h	393	776	787	357	816	793	259	776	718	259	776	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	13.9	13.9	20.8	13.9	7.5	27.4	19.9	20.0	26.4	15.9	16.0
Incr Delay (d2), s/veh	0.5	0.4	0.4	1.0	0.4	0.1	3.3	1.1	1.3	26.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.0	4.1	2.4	4.2	1.4	1.8	4.5	4.2	5.7	2.2	2.3
LnGrp Delay(d),s/veh	19.9	14.3	14.3	21.8	14.3	7.6	30.8	21.0	21.3	52.4	16.2	16.2
LnGrp LOS	B	B	B	C	B	A	C	C	C	D	B	B
Approach Vol, veh/h		753			635			656			570	
Approach Delay, s/veh		15.2			14.5			22.6			30.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	21.0		28.9	9.7	24.3		28.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	9.0	27.0		27.0
Max Q Clear Time (g_c+I1), s	9.7	10.9		16.8	5.2	6.6		20.7
Green Ext Time (p_c), s	0.0	5.2		5.7	0.1	5.7		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	20	1160	10	10	720	10
Future Volume (vph)	20	1160	10	10	720	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1529		1753	1615	1489
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	1800	1529		1797	1615	1489
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1261	11	11	783	11
RTOR Reduction (vph)	0	0	0	0	0	1
Lane Group Flow (vph)	22	1261	0	22	783	10
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm
Protected Phases	4	2		8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	2.5	53.5		2.5	51.0	51.0
Effective Green, g (s)	2.5	53.5		2.5	51.0	51.0
Actuated g/C Ratio	0.04	0.84		0.04	0.80	0.80
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	70	1529		70	1297	1195
v/s Ratio Prot	0.01	c0.66			0.48	
v/s Ratio Perm		0.16		0.01		0.01
v/c Ratio	0.31	0.82		0.31	0.60	0.01
Uniform Delay, d1	29.7	2.6		29.7	2.4	1.2
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.6	3.8		2.6	0.8	0.0
Delay (s)	32.2	6.3		32.2	3.2	1.2
Level of Service	C	A		C	A	A
Approach Delay (s)	6.8			32.2	3.2	
Approach LOS	A			C	A	

Intersection Summary			
HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	63.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	171.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			✣			✣			✣	
Traffic Vol, veh/h	30	740	0	0	510	350	0	0	0	220	0	20
Future Vol, veh/h	30	740	0	0	510	350	0	0	0	220	0	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	787	0	0	543	372	0	0	0	234	0	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	175.3	211.5	0	19.1
HCM LOS	F	F	-	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	4%	0%	92%
Vol Thru, %	100%	96%	59%	0%
Vol Right, %	0%	0%	41%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	770	860	240
LT Vol	0	30	0	220
Through Vol	0	740	510	0
RT Vol	0	0	350	20
Lane Flow Rate	0	819	915	255
Geometry Grp	1	1	1	1
Degree of Util (X)	0	1.318	1.408	0.506
Departure Headway (Hd)	9.883	6.382	6.03	8.094
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	573	613	449
Service Time	7.883	4.382	4.03	6.094
HCM Lane V/C Ratio	0	1.429	1.493	0.568
HCM Control Delay	12.9	175.3	211.5	19.1
HCM Lane LOS	N	F	F	C
HCM 95th-tile Q	0	31.3	38.6	2.8

Intersection	
Intersection Delay, s/veh	335.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	930	10	10	790	270	30	10	10	270	10	20
Future Vol, veh/h	10	930	10	10	790	270	30	10	10	270	10	20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	949	10	10	806	276	31	10	10	276	10	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	349.8	424.4	16.9	27.5
HCM LOS	F	F	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	60%	1%	1%	90%
Vol Thru, %	20%	98%	74%	3%
Vol Right, %	20%	1%	25%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	950	1070	300
LT Vol	30	10	10	270
Through Vol	10	930	790	10
RT Vol	10	10	270	20
Lane Flow Rate	51	969	1092	306
Geometry Grp	1	1	1	1
Degree of Util (X)	0.122	1.715	1.887	0.631
Departure Headway (Hd)	12.194	7.65	7.287	9.546
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	296	485	513	383
Service Time	10.194	5.65	5.287	7.546
HCM Lane V/C Ratio	0.172	1.998	2.129	0.799
HCM Control Delay	16.9	349.8	424.4	27.5
HCM Lane LOS	C	F	F	D
HCM 95th-tile Q	0.4	48.3	60.5	4.1

Intersection	
Intersection Delay, s/veh	673.6
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	550	820	540	470	700	660
Future Vol, veh/h	550	820	540	470	700	660
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	561	837	551	480	714	673
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	728.7	508.5	740.8
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	51%	0%	53%
Vol Thru, %	0%	40%	47%
Vol Right, %	49%	60%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1360	1370	1010
LT Vol	700	0	540
Through Vol	0	550	470
RT Vol	660	820	0
Lane Flow Rate	1388	1398	1031
Geometry Grp	1	1	1
Degree of Util (X)	2.587	2.54	2.034
Departure Headway (Hd)	9.099	12.549	14.041
Convergence, Y/N	Yes	Yes	Yes
Cap	416	308	268
Service Time	7.099	10.549	12.041
HCM Lane V/C Ratio	3.337	4.539	3.847
HCM Control Delay	740.8	728.7	508.5
HCM Lane LOS	F	F	F
HCM 95th-tile Q	83.1	59.8	38.3

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	10.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	70	170	200	60	90	280
Future Vol, veh/h	70	170	200	60	90	280
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	78	189	222	67	100	311

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	267	0	683	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	511	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1308	-	418	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	606	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1308	-	344	877
Mov Cap-2 Maneuver	-	-	-	-	344	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	499	-

Approach	EB		WB		NB
HCM Control Delay, s	0		6.4		20.3
HCM LOS					C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	637	-	-	1308	-
HCM Lane V/C Ratio	0.645	-	-	0.17	-
HCM Control Delay (s)	20.3	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.7	-	-	0.6	-

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	10	10	10	10	10	10	330	30	20	280	10
Future Vol, veh/h	10	10	10	10	10	10	10	330	30	20	280	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	11	11	11	11	363	33	22	308	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.8	11.7	10.8
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	33%	6%
Vol Thru, %	89%	33%	33%	90%
Vol Right, %	8%	33%	33%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	30	30	310
LT Vol	10	10	10	20
Through Vol	330	10	10	280
RT Vol	30	10	10	10
Lane Flow Rate	407	33	33	341
Geometry Grp	1	1	1	1
Degree of Util (X)	0.496	0.05	0.05	0.425
Departure Headway (Hd)	4.393	5.433	5.433	4.49
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	655	655	801
Service Time	2.424	3.496	3.496	2.523
HCM Lane V/C Ratio	0.496	0.05	0.05	0.426
HCM Control Delay	11.7	8.8	8.8	10.8
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.8	0.2	0.2	2.1

Traffic Impact Analysis Report

for the World Logistics Center

Appendix F

Intersection LOS Worksheets for 2025 Plus Phase 1 Conditions

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2025 AM-Ph1]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A

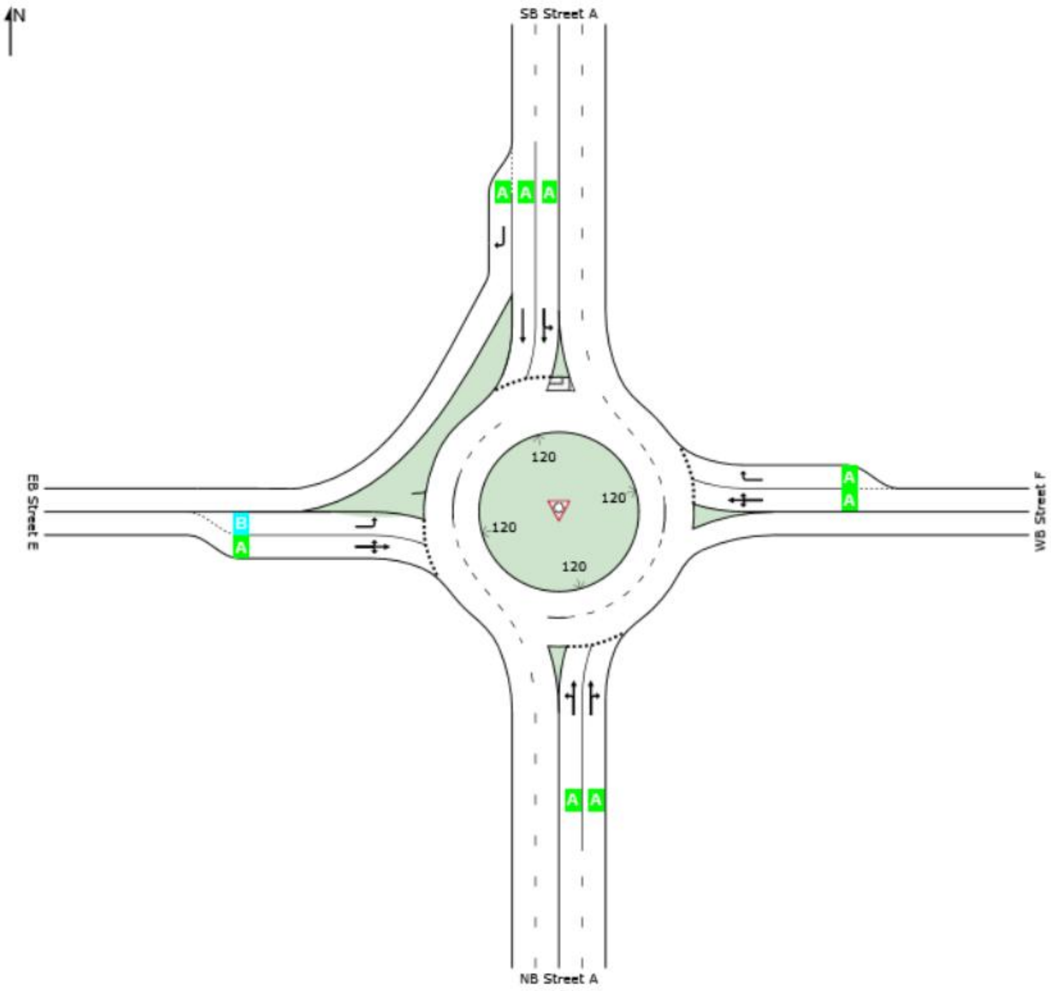

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 1.sip7

LANE SUMMARY

Site: 1 [Int1_2025 AM-Ph1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Street A													
Lane 1	493	0.0	1190	0.414	100	6.1	LOS A	2.0	49.6	Full	1600	0.0	0.0
Lane 2[d]	497	0.0	1199	0.414	100	5.5	LOS A	2.0	49.7	Full	1600	0.0	0.0
Approach	990	0.0		0.414		5.8	LOS A	2.0	49.7				
East: WB Street F													
Lane 1[d]	80	0.0	803	0.100	100	9.1	LOS A	0.4	8.9	Full	1600	0.0	0.0
Lane 2	20	0.0	440	0.045	46[5]	8.5	LOS A	0.1	3.5	Short	200	0.0	NA
Approach	100	0.0		0.100		9.0	LOS A	0.4	8.9				
North: SB Street A													
Lane 1	354	0.0	1279	0.277	100	5.4	LOS A	1.5	38.4	Full	1600	0.0	0.0
Lane 2[d]	386	0.0	1393	0.277	100	4.1	LOS A	1.6	38.9	Full	1600	0.0	0.0
Lane 3	40	0.0	1675	0.024	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	780	0.0		0.277		4.7	LOS A	1.6	38.9				
West: EB Street E													
Lane 1	88	0.0	864	0.102	100	11.9	LOS B	0.3	8.5	Short	200	0.0	NA
Lane 2[d]	92	0.0	903	0.102	100	6.3	LOS A	0.3	8.6	Full	1600	0.0	0.0
Approach	180	0.0		0.102		9.1	LOS A	0.3	8.6				
Intersection	2050	0.0		0.414		5.8	LOS A	2.0	49.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Vol, veh/h	10	130	220	10	130	210
Future Vol, veh/h	10	130	220	10	130	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	141	239	11	141	228
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.1	12.8	10.2
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	210	10	130	220	10
LT Vol	130	0	0	0	220	0
Through Vol	0	0	10	0	0	10
RT Vol	0	210	0	130	0	0
Lane Flow Rate	141	228	11	141	239	11
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.238	0.309	0.017	0.198	0.404	0.017
Departure Headway (Hd)	6.076	4.869	5.749	5.04	6.089	5.583
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	733	616	702	586	635
Service Time	3.851	2.644	3.547	2.837	3.879	3.373
HCM Lane V/C Ratio	0.24	0.311	0.018	0.201	0.408	0.017
HCM Control Delay	10.8	9.8	8.6	9.1	13	8.5
HCM Lane LOS	B	A	A	A	B	A
HCM 95th-tile Q	0.9	1.3	0.1	0.7	1.9	0.1

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2025 AM Ph1]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	B	A	A

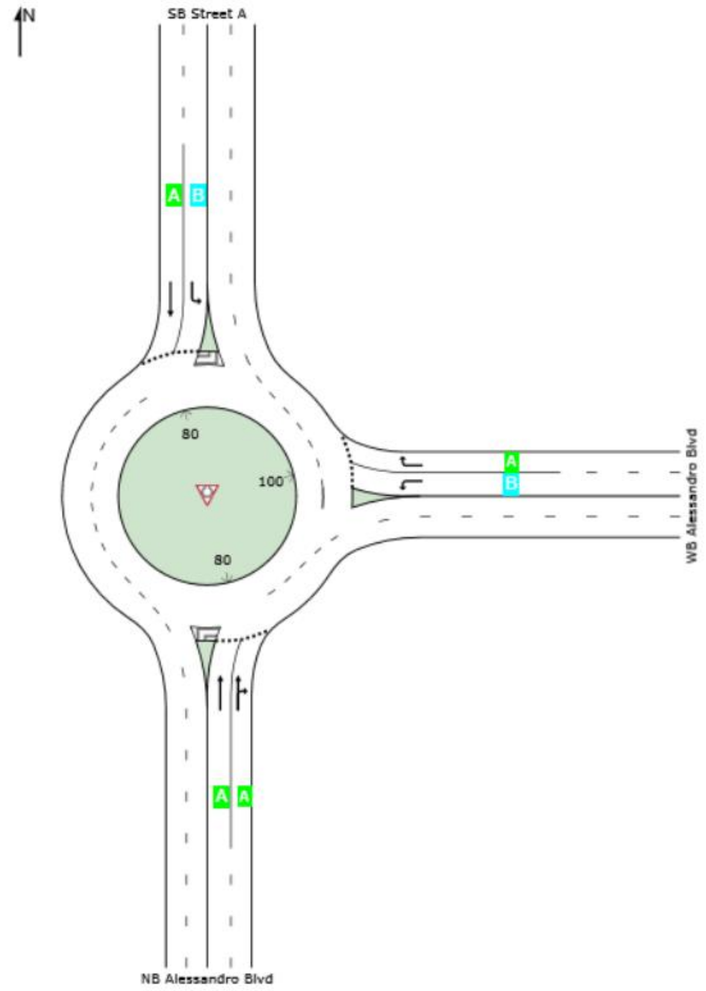

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 3.sip7

LANE SUMMARY

Site: 1 [Int3_2025 AM Ph1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	123	0.0	1363	0.090	100	5.2	LOS A	0.4	11.2	Full	1600	0.0	0.0
Lane 2[d]	127	0.0	1419	0.090	100	5.2	LOS A	0.4	11.2	Full	1600	0.0	0.0
Approach	250	0.0		0.090		5.2	LOS A	0.4	11.2				
East: WB Alessandro Blvd													
Lane 1[d]	140	0.0	1130	0.124	100	11.2	LOS B	0.5	11.7	Full	1600	0.0	0.0
Lane 2	40	0.0	725	0.055	100	6.0	LOS A	0.2	4.8	Full	1600	0.0	0.0
Approach	180	0.0		0.124		10.0	LOS B	0.5	11.7				
North: SB Street A													
Lane 1	33	0.0	752	0.043	100	11.5	LOS B	0.2	4.5	Full	1600	0.0	0.0
Lane 2[d]	141	0.0	1224	0.115	100	5.7	LOS A	0.5	13.4	Full	1600	0.0	0.0
Approach	174	0.0		0.115		6.8	LOS A	0.5	13.4				
Intersection	604	0.0		0.124		7.1	LOS A	0.5	13.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[d] Dominant lane on roundabout approach

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	0	120	130	110	90	0
Future Vol, veh/h	0	120	130	110	90	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	130	141	120	98	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	261	0	-	0	331	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	130	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1315	-	-	-	668	845
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	901	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1315	-	-	-	668	845
Mov Cap-2 Maneuver	-	-	-	-	668	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	901	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1315	-	-	-	668
HCM Lane V/C Ratio	-	-	-	-	0.146
HCM Control Delay (s)	0	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

HCM 2010 Signalized Intersection Summary
6: Gilman Springs Rd & Alessandro Blvd

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	0	180	220	780	460	0
Future Volume (veh/h)	0	180	220	780	460	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	191	234	830	489	0
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	295	263	344	3214	1664	518
Arrive On Green	0.00	0.16	0.19	0.62	0.32	0.00
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	0	191	234	830	489	0
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	0.0	4.1	4.4	2.7	2.6	0.0
Cycle Q Clear(g_c), s	0.0	4.1	4.4	2.7	2.6	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	295	263	344	3214	1664	518
V/C Ratio(X)	0.00	0.72	0.68	0.26	0.29	0.00
Avail Cap(c_a), veh/h	885	789	934	6198	2958	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	14.6	13.9	3.2	9.4	0.0
Incr Delay (d2), s/veh	0.0	3.8	2.4	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	2.4	1.2	1.2	0.0
LnGrp Delay(d),s/veh	0.0	18.4	16.2	3.2	9.5	0.0
LnGrp LOS		B	B	A	A	
Approach Vol, veh/h	191			1064	489	
Approach Delay, s/veh	18.4			6.1	9.5	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		26.8		10.0	11.0	15.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		44.0		18.0	19.0	21.0		
Max Q Clear Time (g_c+I1), s		4.7		6.1	6.4	4.6		
Green Ext Time (p_c), s		9.8		0.4	0.5	7.2		

Intersection Summary			
HCM 2010 Ctrl Delay			8.4
HCM 2010 LOS			A

Intersection	
Int Delay, s/veh	12

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	30	5	20	10	5	10	20	950	10	5	1000	50
Future Vol, veh/h	30	5	20	10	5	10	20	950	10	5	1000	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	0	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	33	5	22	11	5	11	22	1033	11	5	1087	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2182	2174	1087	2187	2174	1033	1087	0	0	1033	0	0
Stage 1	1098	1098	-	1076	1076	-	-	-	-	-	-	-
Stage 2	1084	1076	-	1111	1098	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	34	47	265	33	47	285	649	-	-	681	-	-
Stage 1	260	291	-	268	298	-	-	-	-	-	-	-
Stage 2	265	298	-	256	291	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 29	45	265	27	45	285	649	-	-	681	-	-
Mov Cap-2 Maneuver	~ 29	45	-	27	45	-	-	-	-	-	-	-
Stage 1	251	289	-	259	288	-	-	-	-	-	-	-
Stage 2	242	288	-	229	289	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 389.8	151.6	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	649	-	-	45	48	681	-	-
HCM Lane V/C Ratio	0.033	-	-	1.329	0.566	0.008	-	-
HCM Control Delay (s)	10.7	-	-	$ 389.8	151.6	10.3	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	5.7	2.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			✥		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	20	30	10	20	10	40	850	30	10	920	130
Future Volume (veh/h)	110	20	30	10	20	10	40	850	30	10	920	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	20	31	10	20	10	41	867	31	10	939	133
Adj No. of Lanes	0	2	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	584	217	336	31	61	31	97	1337	48	32	1079	153
Arrive On Green	0.32	0.32	0.32	0.07	0.07	0.07	0.05	0.38	0.38	0.02	0.34	0.34
Sat Flow, veh/h	1810	671	1040	448	895	448	1810	3554	127	1810	3174	449
Grp Volume(v), veh/h	112	0	51	40	0	0	41	440	458	10	534	538
Grp Sat Flow(s),veh/h/ln	1810	0	1711	1790	0	0	1810	1805	1877	1810	1805	1818
Q Serve(g_s), s	3.3	0.0	1.5	1.6	0.0	0.0	1.6	15.0	15.0	0.4	20.6	20.6
Cycle Q Clear(g_c), s	3.3	0.0	1.5	1.6	0.0	0.0	1.6	15.0	15.0	0.4	20.6	20.6
Prop In Lane	1.00		0.61	0.25		0.25	1.00		0.07	1.00		0.25
Lane Grp Cap(c), veh/h	584	0	552	122	0	0	97	679	706	32	614	618
V/C Ratio(X)	0.19	0.00	0.09	0.33	0.00	0.00	0.42	0.65	0.65	0.31	0.87	0.87
Avail Cap(c_a), veh/h	584	0	552	626	0	0	170	679	706	170	655	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	17.6	33.0	0.0	0.0	34.1	19.1	19.1	36.1	23.0	23.0
Incr Delay (d2), s/veh	0.7	0.0	0.3	1.5	0.0	0.0	2.9	2.2	2.1	5.5	11.6	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.8	0.8	0.0	0.0	0.9	7.9	8.2	0.3	12.2	12.3
LnGrp Delay(d),s/veh	18.9	0.0	17.9	34.6	0.0	0.0	36.9	21.3	21.2	41.6	34.6	34.6
LnGrp LOS	B		B	C			D	C	C	D	C	C
Approach Vol, veh/h		163			40			939			1082	
Approach Delay, s/veh		18.6			34.6			21.9			34.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	32.0		28.0	8.0	29.3		9.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	27.0		24.0	7.0	27.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	17.0		5.3	3.6	22.6		3.6
Green Ext Time (p_c), s	0.0	7.0		0.6	0.0	2.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰↑	↰	↱
Traffic Vol, veh/h	20	40	70	10	20	60
Future Vol, veh/h	20	40	70	10	20	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	47	82	12	24	71

Major/Minor	Major1		Minor2		Major2	
Conflicting Flow All	0	0	24	71	24	-
Stage 1	-	-	0	47	-	-
Stage 2	-	-	24	24	-	-
Critical Hdwy	-	-	6.4	6.5	4.1	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	5.4	5.5	-	-
Follow-up Hdwy	-	-	3.5	4	2.2	-
Pot Cap-1 Maneuver	-	-	997	823	1604	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	1004	879	-	-
Platoon blocked, %	-	-				-
Mov Cap-1 Maneuver	-	-	982	0	1604	-
Mov Cap-2 Maneuver	-	-	982	0	-	-
Stage 1	-	-	-	0	-	-
Stage 2	-	-	1004	0	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	9.1	1.8
HCM LOS		A	

Minor Lane/Major Mvmt	NBL	NBR	EBT	EBR	WBLn1
Capacity (veh/h)	1604	-	-	-	982
HCM Lane V/C Ratio	0.015	-	-	-	0.096
HCM Control Delay (s)	7.3	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣		↰	↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	10	10	160	0	220	20	690	140	520	420	10
Future Volume (veh/h)	10	10	10	160	0	220	20	690	140	520	420	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	163	0	224	20	704	143	531	429	10
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	26	26	313	0	280	58	852	661	601	1936	866
Arrive On Green	0.04	0.04	0.04	0.17	0.00	0.17	0.03	0.24	0.24	0.33	0.54	0.54
Sat Flow, veh/h	589	589	589	1810	0	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	30	0	0	163	0	224	20	704	143	531	429	10
Grp Sat Flow(s),veh/h/ln	1767	0	0	1810	0	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	1.2	0.0	0.0	6.1	0.0	9.9	0.8	13.8	4.3	20.6	4.7	0.2
Cycle Q Clear(g_c), s	1.2	0.0	0.0	6.1	0.0	9.9	0.8	13.8	4.3	20.6	4.7	0.2
Prop In Lane	0.33		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	0	0	313	0	280	58	852	661	601	1936	866
V/C Ratio(X)	0.39	0.00	0.00	0.52	0.00	0.80	0.35	0.83	0.22	0.88	0.22	0.01
Avail Cap(c_a), veh/h	428	0	0	438	0	391	170	971	714	681	1990	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	0.0	27.9	0.0	29.5	35.2	27.0	14.2	23.5	9.1	8.0
Incr Delay (d2), s/veh	3.2	0.0	0.0	1.3	0.0	7.9	3.5	5.3	0.2	12.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	3.1	0.0	5.0	0.5	7.5	2.5	12.2	2.3	0.1
LnGrp Delay(d),s/veh	37.8	0.0	0.0	29.3	0.0	37.4	38.8	32.3	14.4	35.6	9.1	8.1
LnGrp LOS	D			C		D	D	C	B	D	A	A
Approach Vol, veh/h		30			387			867			970	
Approach Delay, s/veh		37.8			34.0			29.5			23.6	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	28.7	21.6		7.2	6.4	43.9		16.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	28.0	20.0		18.0	7.0	41.0		18.0
Max Q Clear Time (g_c+I1), s	22.6	15.8		3.2	2.8	6.7		11.9
Green Ext Time (p_c), s	2.1	1.8		0.1	0.0	4.4		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	390	260	100	430	560	50
Future Volume (veh/h)	390	260	100	430	560	50
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	402	268	103	443	577	52
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	533	476	220	2579	1408	914
Arrive On Green	0.29	0.29	0.12	0.50	0.27	0.27
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	402	268	103	443	577	52
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	7.7	5.4	2.0	1.8	3.5	0.6
Cycle Q Clear(g_c), s	7.7	5.4	2.0	1.8	3.5	0.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	533	476	220	2579	1408	914
V/C Ratio(X)	0.75	0.56	0.47	0.17	0.41	0.06
Avail Cap(c_a), veh/h	848	757	330	3917	2431	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	11.5	15.7	5.3	11.5	3.7
Incr Delay (d2), s/veh	2.2	1.1	1.5	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	5.0	1.1	0.9	1.7	0.4
LnGrp Delay(d),s/veh	14.5	12.5	17.3	5.3	11.7	3.8
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	670			546	629	
Approach Delay, s/veh	13.7			7.6	11.0	
Approach LOS	B			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		23.1		15.3	8.7	14.4		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		18.0	7.0	18.0		
Max Q Clear Time (g_c+I1), s		3.8		9.7	4.0	5.5		
Green Ext Time (p_c), s		6.6		1.6	0.1	4.9		

Intersection Summary		
HCM 2010 Ctrl Delay		11.0
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary
15: Theodore St & SR-60 WB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	20	190	990	80	30	60
Future Volume (veh/h)	20	190	990	80	30	60
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	213	1112	90	34	67
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	313	280	1376	3339	831	259
Arrive On Green	0.17	0.17	0.39	0.64	0.16	0.16
Sat Flow, veh/h	1810	1615	3510	5358	5358	1615
Grp Volume(v), veh/h	22	213	1112	90	34	67
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1615
Q Serve(g_s), s	0.4	5.5	12.3	0.3	0.2	1.6
Cycle Q Clear(g_c), s	0.4	5.5	12.3	0.3	0.2	1.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	313	280	1376	3339	831	259
V/C Ratio(X)	0.07	0.76	0.81	0.03	0.04	0.26
Avail Cap(c_a), veh/h	746	666	1768	5225	2138	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	17.2	11.8	2.8	15.5	16.1
Incr Delay (d2), s/veh	0.1	4.3	2.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.0	6.3	0.1	0.1	0.7
LnGrp Delay(d),s/veh	15.2	21.5	14.1	2.8	15.5	16.6
LnGrp LOS	B	C	B	A	B	B
Approach Vol, veh/h	235			1202	101	
Approach Delay, s/veh	20.9			13.2	16.2	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		32.1		11.6	21.1	11.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		44.0		18.0	22.0	18.0		
Max Q Clear Time (g_c+I1), s		2.3		7.5	14.3	3.6		
Green Ext Time (p_c), s		0.9		0.5	2.8	0.7		

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
16: Theodore St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	80	0	730	0	0	0	0	1000	210	0	210	20
Future Volume (veh/h)	80	0	730	0	0	0	0	1000	210	0	210	20
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	107	0	0				0	1333	280	0	280	27
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.75	0.75	0.75				0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	261	0	410				0	2860	890	0	2860	890
Arrive On Green	0.14	0.00	0.00				0.00	0.55	0.55	0.00	0.55	0.55
Sat Flow, veh/h	1810	0	2842				0	5358	1615	0	5358	1615
Grp Volume(v), veh/h	107	0	0				0	1333	280	0	280	27
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1615	0	1729	1615
Q Serve(g_s), s	1.4	0.0	0.0				0.0	4.1	2.5	0.0	0.7	0.2
Cycle Q Clear(g_c), s	1.4	0.0	0.0				0.0	4.1	2.5	0.0	0.7	0.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	261	0	410				0	2860	890	0	2860	890
V/C Ratio(X)	0.41	0.00	0.00				0.00	0.47	0.31	0.00	0.10	0.03
Avail Cap(c_a), veh/h	1239	0	1946				0	3748	1167	0	3748	1167
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0				0.0	3.6	3.2	0.0	2.8	2.7
Incr Delay (d2), s/veh	1.0	0.0	0.0				0.0	0.1	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0				0.0	1.9	1.1	0.0	0.3	0.1
LnGrp Delay(d),s/veh	11.3	0.0	0.0				0.0	3.7	3.4	0.0	2.8	2.7
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		107						1613			307	
Approach Delay, s/veh		11.3						3.6			2.8	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		18.5		7.8		18.5		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		19.0		18.0		19.0		
Max Q Clear Time (g_c+I1), s		6.1		3.4		2.7		
Green Ext Time (p_c), s		8.4		0.2		9.9		

Intersection Summary	
HCM 2010 Ctrl Delay	3.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
18: Redlands Blvd & Eucalyptus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	10	20	10	0	30	50	490	80	230	400	150
Future Volume (veh/h)	60	10	20	10	0	30	50	490	80	230	400	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	11	22	11	0	33	54	533	87	250	435	163
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	575	514	35	478	428	119	824	134	293	931	346
Arrive On Green	0.07	0.32	0.32	0.02	0.00	0.26	0.07	0.26	0.26	0.16	0.36	0.36
Sat Flow, veh/h	1810	1805	1615	1810	1805	1615	1810	3110	506	1810	2579	957
Grp Volume(v), veh/h	65	11	22	11	0	33	54	309	311	250	303	295
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1810	1805	1811	1810	1805	1731
Q Serve(g_s), s	2.3	0.3	0.6	0.4	0.0	1.0	2.0	10.3	10.4	9.1	8.8	8.9
Cycle Q Clear(g_c), s	2.3	0.3	0.6	0.4	0.0	1.0	2.0	10.3	10.4	9.1	8.8	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.55
Lane Grp Cap(c), veh/h	132	575	514	35	478	428	119	478	480	293	652	625
V/C Ratio(X)	0.49	0.02	0.04	0.31	0.00	0.08	0.45	0.65	0.65	0.85	0.47	0.47
Avail Cap(c_a), veh/h	186	575	514	186	478	428	186	478	480	293	652	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	15.9	16.0	32.9	0.0	18.7	30.6	22.1	22.2	27.7	16.7	16.7
Incr Delay (d2), s/veh	2.8	0.1	0.2	5.0	0.0	0.4	2.7	6.6	6.7	20.9	2.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	0.3	0.3	0.0	0.5	1.1	6.0	6.1	6.2	4.8	4.7
LnGrp Delay(d),s/veh	33.1	15.9	16.2	37.9	0.0	19.1	33.2	28.7	28.8	48.6	19.1	19.3
LnGrp LOS	C	B	B	D		B	C	C	C	D	B	B
Approach Vol, veh/h		98			44			674			848	
Approach Delay, s/veh		27.4			23.8			29.1			27.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	22.0	5.3	25.6	8.5	28.5	8.9	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	18.0	7.0	18.0	7.0	22.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	11.1	12.4	2.4	2.6	4.0	10.9	4.3	3.0
Green Ext Time (p_c), s	0.0	3.0	0.0	0.2	0.0	4.8	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
19: Fir Ave & Theodore St

	↗	↘	↖	↑	↓	↙		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱		
Traffic Volume (veh/h)	60	90	50	1130	990	130		
Future Volume (veh/h)	60	90	50	1130	990	130		
Number	7	14	5	2	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	88	132	74	1662	1456	191		
Adj No. of Lanes	1	1	2	3	3	1		
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	271	242	334	3457	2487	774		
Arrive On Green	0.15	0.15	0.10	0.67	0.48	0.48		
Sat Flow, veh/h	1810	1615	3510	5358	5358	1615		
Grp Volume(v), veh/h	88	132	74	1662	1456	191		
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1615		
Q Serve(g_s), s	1.9	3.3	0.8	6.8	8.8	3.0		
Cycle Q Clear(g_c), s	1.9	3.3	0.8	6.8	8.8	3.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	271	242	334	3457	2487	774		
V/C Ratio(X)	0.33	0.55	0.22	0.48	0.59	0.25		
Avail Cap(c_a), veh/h	749	668	565	3457	2487	774		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	16.5	17.1	18.2	3.6	8.2	6.7		
Incr Delay (d2), s/veh	0.7	1.9	0.3	0.5	1.0	0.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.0	3.1	0.4	3.4	4.4	1.5		
LnGrp Delay(d),s/veh	17.2	19.1	18.5	4.0	9.2	7.4		
LnGrp LOS	B	B	B	A	A	A		
Approach Vol, veh/h	220			1736	1647			
Approach Delay, s/veh	18.3			4.7	9.0			
Approach LOS	B			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		33.0		10.5	8.1	24.9		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		29.0		18.0	7.0	18.0		
Max Q Clear Time (g_c+I1), s		8.8		5.3	2.8	10.8		
Green Ext Time (p_c), s		18.3		0.5	0.1	6.9		

Intersection Summary		
HCM 2010 Ctrl Delay		7.5
HCM 2010 LOS		A

Intersection	
Int Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰	↱		✥	
Traffic Vol, veh/h	0	210	60	20	460	0	190	10	40	0	0	10
Future Vol, veh/h	0	210	60	20	460	0	190	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	263	75	25	575	0	238	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	575	0	0	338	0	0	638	925	169	763	963	288
Stage 1	-	-	-	-	-	-	300	300	-	625	625	-
Stage 2	-	-	-	-	-	-	338	625	-	138	338	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1008	-	-	1232	-	-	365	271	852	297	258	715
Stage 1	-	-	-	-	-	-	690	669	-	444	480	-
Stage 2	-	-	-	-	-	-	656	480	-	857	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1008	-	-	1232	-	-	350	263	852	263	250	715
Mov Cap-2 Maneuver	-	-	-	-	-	-	350	263	-	263	250	-
Stage 1	-	-	-	-	-	-	690	669	-	444	466	-
Stage 2	-	-	-	-	-	-	625	466	-	792	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	34	10.1
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	344	852	1008	-	-	1232	-	-	715
HCM Lane V/C Ratio	0.727	0.059	-	-	-	0.02	-	-	0.017
HCM Control Delay (s)	38.9	9.5	0	-	-	8	0.1	-	10.1
HCM Lane LOS	E	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	5.5	0.2	0	-	-	0.1	-	-	0.1

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	150	60	50	230	10	150	570	140	20	370	110
Future Volume (veh/h)	60	150	60	50	230	10	150	570	140	20	370	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	190	76	63	291	13	190	722	177	25	468	139
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	438	169	171	612	27	295	1487	360	75	941	270
Arrive On Green	0.09	0.17	0.17	0.09	0.17	0.17	0.16	0.36	0.36	0.04	0.24	0.24
Sat Flow, veh/h	1810	2538	977	1810	3518	157	1810	4166	1009	1810	3998	1149
Grp Volume(v), veh/h	76	133	133	63	149	155	190	598	301	25	403	204
Grp Sat Flow(s),veh/h/ln	1810	1805	1711	1810	1805	1870	1810	1729	1717	1810	1729	1689
Q Serve(g_s), s	1.9	3.1	3.3	1.6	3.5	3.6	4.7	6.4	6.5	0.6	4.8	5.0
Cycle Q Clear(g_c), s	1.9	3.1	3.3	1.6	3.5	3.6	4.7	6.4	6.5	0.6	4.8	5.0
Prop In Lane	1.00		0.57	1.00		0.08	1.00		0.59	1.00		0.68
Lane Grp Cap(c), veh/h	168	311	295	171	314	325	295	1234	613	75	814	397
V/C Ratio(X)	0.45	0.43	0.45	0.37	0.47	0.48	0.64	0.48	0.49	0.33	0.49	0.51
Avail Cap(c_a), veh/h	265	982	930	265	982	1017	379	2098	1042	265	1881	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	17.7	17.7	20.3	17.8	17.8	18.7	11.9	12.0	22.3	15.8	15.9
Incr Delay (d2), s/veh	1.9	0.9	1.1	1.3	1.1	1.1	2.4	0.3	0.6	2.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	1.6	0.8	1.8	1.9	2.5	3.1	3.2	0.4	2.3	2.4
LnGrp Delay(d),s/veh	22.4	18.6	18.8	21.6	18.9	18.9	21.1	12.2	12.6	24.9	16.3	16.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		342			367			1089			632	
Approach Delay, s/veh		19.5			19.4			13.9			16.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	21.1	8.5	12.2	11.8	15.3	8.4	12.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	7.0	26.0	10.0	26.0	7.0	26.0
Max Q Clear Time (g_c+I1), s	2.6	8.5	3.6	5.3	6.7	7.0	3.9	5.6
Green Ext Time (p_c), s	0.0	5.7	0.1	1.2	1.8	3.2	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			✥			↰	↱		↰↱	
Traffic Vol, veh/h	50	10	40	10	10	10	30	310	10	10	300	90
Future Vol, veh/h	50	10	40	10	10	10	30	310	10	10	300	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	54	11	43	11	11	11	33	337	11	11	326	98
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	10	10	14.6	10.4
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	9%	0%	100%	0%	33%	6%	0%
Vol Thru, %	91%	0%	0%	20%	33%	94%	62%
Vol Right, %	0%	100%	0%	80%	33%	0%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	340	10	50	50	30	160	240
LT Vol	30	0	50	0	10	10	0
Through Vol	310	0	0	10	10	150	150
RT Vol	0	10	0	40	10	0	90
Lane Flow Rate	370	11	54	54	33	174	261
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.554	0.014	0.106	0.09	0.06	0.257	0.364
Departure Headway (Hd)	5.397	4.647	7.039	5.964	6.571	5.326	5.03
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	662	759	512	604	548	668	707
Service Time	3.191	2.441	4.742	3.667	4.577	3.118	2.822
HCM Lane V/C Ratio	0.559	0.014	0.105	0.089	0.06	0.26	0.369
HCM Control Delay	14.8	7.5	10.6	9.3	10	10	10.7
HCM Lane LOS	B	A	B	A	A	A	B
HCM 95th-tile Q	3.4	0	0.4	0.3	0.2	1	1.7

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰↑	↱		✥	
Traffic Volume (veh/h)	20	240	180	20	330	30	280	120	40	10	70	20
Future Volume (veh/h)	20	240	180	20	330	30	280	120	40	10	70	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	312	234	26	429	39	364	156	52	13	91	26
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	465	340	149	525	442	423	181	529	22	151	43
Arrive On Green	0.04	0.23	0.23	0.08	0.28	0.28	0.33	0.33	0.33	0.12	0.12	0.12
Sat Flow, veh/h	1810	1985	1452	1810	1900	1600	1285	551	1608	182	1275	364
Grp Volume(v), veh/h	26	283	263	26	429	39	520	0	52	130	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1633	1810	1900	1600	1836	0	1608	1821	0	0
Q Serve(g_s), s	0.9	9.6	9.9	0.9	14.3	1.2	17.9	0.0	1.5	4.6	0.0	0.0
Cycle Q Clear(g_c), s	0.9	9.6	9.9	0.9	14.3	1.2	17.9	0.0	1.5	4.6	0.0	0.0
Prop In Lane	1.00		0.89	1.00		1.00	0.70		1.00	0.10		0.20
Lane Grp Cap(c), veh/h	72	422	382	149	525	442	604	0	529	215	0	0
V/C Ratio(X)	0.36	0.67	0.69	0.17	0.82	0.09	0.86	0.00	0.10	0.60	0.00	0.00
Avail Cap(c_a), veh/h	187	747	676	187	787	663	760	0	666	700	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.6	23.5	23.6	28.9	22.9	18.2	21.2	0.0	15.7	28.3	0.0	0.0
Incr Delay (d2), s/veh	3.0	1.8	2.2	0.6	4.2	0.1	8.2	0.0	0.1	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.0	4.7	0.5	8.0	0.6	10.3	0.0	0.7	2.5	0.0	0.0
LnGrp Delay(d),s/veh	34.6	25.4	25.9	29.5	27.1	18.2	29.5	0.0	15.8	31.0	0.0	0.0
LnGrp LOS	C	C	C	C	C	B	C		B	C		
Approach Vol, veh/h		572			494			572			130	
Approach Delay, s/veh		26.0			26.5			28.2			31.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.3	9.6	19.8		12.0	6.7	22.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		19.9	2.9	11.9		6.6	2.9	16.3
Green Ext Time (p_c), s		2.0	0.0	2.7		0.5	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑	↱	↰	↑↑↑↱	
Traffic Volume (veh/h)	130	120	90	30	160	50	120	690	70	20	340	70
Future Volume (veh/h)	130	120	90	30	160	50	120	690	70	20	340	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	148	111	37	198	62	148	852	86	25	420	86
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	501	351	101	494	150	334	1254	649	74	884	176
Arrive On Green	0.12	0.25	0.25	0.06	0.18	0.18	0.18	0.35	0.35	0.04	0.20	0.20
Sat Flow, veh/h	1810	2025	1419	1810	2723	828	1810	3610	1608	1810	4336	862
Grp Volume(v), veh/h	160	131	128	37	129	131	148	852	86	25	332	174
Grp Sat Flow(s),veh/h/ln	1810	1805	1639	1810	1805	1746	1810	1805	1608	1810	1729	1740
Q Serve(g_s), s	4.4	3.0	3.3	1.0	3.3	3.4	3.8	10.4	1.7	0.7	4.4	4.6
Cycle Q Clear(g_c), s	4.4	3.0	3.3	1.0	3.3	3.4	3.8	10.4	1.7	0.7	4.4	4.6
Prop In Lane	1.00		0.87	1.00		0.47	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	220	446	405	101	328	317	334	1254	649	74	705	355
V/C Ratio(X)	0.73	0.29	0.32	0.37	0.39	0.41	0.44	0.68	0.13	0.34	0.47	0.49
Avail Cap(c_a), veh/h	279	1463	1329	244	1428	1381	334	1951	959	244	1869	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	15.8	15.9	23.6	18.7	18.8	18.8	14.4	9.8	24.2	18.2	18.2
Incr Delay (d2), s/veh	6.8	0.4	0.4	2.2	0.8	0.9	0.9	0.7	0.1	2.7	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.6	1.5	0.6	1.7	1.7	1.9	5.3	0.8	0.4	2.1	2.3
LnGrp Delay(d),s/veh	28.7	16.2	16.4	25.8	19.5	19.6	19.7	15.1	9.8	26.8	18.7	19.3
LnGrp LOS	C	B	B	C	B	B	B	B	A	C	B	B
Approach Vol, veh/h		419			297			1086			531	
Approach Delay, s/veh		21.0			20.3			15.3			19.3	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	22.0	6.9	16.8	13.6	14.6	10.3	13.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	8.0	41.0
Max Q Clear Time (g_c+I1), s	2.7	12.4	3.0	5.3	5.8	6.6	6.4	5.4
Green Ext Time (p_c), s	0.0	4.8	0.0	1.8	0.7	2.7	0.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
	↗	→	←	↖	↘	↙
Lane Configurations		↰↑	↑↱		Y	
Traffic Volume (veh/h)	10	190	190	10	0	10
Future Volume (veh/h)	10	190	190	10	0	10
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	190	190	10	0	10
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	300	1405	1429	75	0	57
Arrive On Green	0.41	0.41	0.41	0.41	0.00	0.04
Sat Flow, veh/h	70	3518	3584	183	0	1484
Grp Volume(v), veh/h	108	92	98	102	0	11
Grp Sat Flow(s),veh/h/ln	1859	1643	1805	1867	0	1633
Q Serve(g_s), s	0.0	0.5	0.5	0.5	0.0	0.1
Cycle Q Clear(g_c), s	0.5	0.5	0.5	0.5	0.0	0.1
Prop In Lane	0.09			0.10	0.00	0.91
Lane Grp Cap(c), veh/h	1033	673	739	764	0	63
V/C Ratio(X)	0.11	0.14	0.13	0.13	0.00	0.18
Avail Cap(c_a), veh/h	3031	2494	2741	2834	0	2817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.7	2.7	2.7	2.7	0.0	6.7
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.3	0.3	0.0	0.1
LnGrp Delay(d),s/veh	2.7	2.8	2.8	2.8	0.0	8.1
LnGrp LOS	A	A	A	A		A
Approach Vol, veh/h		200	200		11	
Approach Delay, s/veh		2.7	2.8		8.1	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				9.9		4.6		9.9
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				2.5		2.1		2.5
Green Ext Time (p_c), s				1.8		0.0		1.8

Intersection Summary			
HCM 2010 Ctrl Delay			2.9
HCM 2010 LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave

Intersection	
Intersection Delay, s/veh	23.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			✣			↰↑↱			↰↑↱	
Traffic Vol, veh/h	100	40	60	210	50	80	60	120	70	100	270	90
Future Vol, veh/h	100	40	60	210	50	80	60	120	70	100	270	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	116	47	70	244	58	93	70	140	81	116	314	105
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	14.3	39	14.6	19.9
HCM LOS	B	E	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	50%	0%	83%	0%	62%	43%	0%
Vol Thru, %	50%	46%	17%	25%	15%	57%	60%
Vol Right, %	0%	54%	0%	75%	24%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	130	120	80	340	235	225
LT Vol	60	0	100	0	210	100	0
Through Vol	60	60	20	20	50	135	135
RT Vol	0	70	0	60	80	0	90
Lane Flow Rate	140	151	140	93	395	273	262
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.323	0.322	0.334	0.197	0.836	0.594	0.531
Departure Headway (Hd)	8.323	7.674	8.606	7.633	7.61	7.82	7.312
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	430	466	416	468	474	459	492
Service Time	6.113	5.462	6.396	5.422	5.682	5.602	5.093
HCM Lane V/C Ratio	0.326	0.324	0.337	0.199	0.833	0.595	0.533
HCM Control Delay	15.1	14.1	15.7	12.3	39	21.5	18.2
HCM Lane LOS	C	B	C	B	E	C	C
HCM 95th-tile Q	1.4	1.4	1.4	0.7	8.2	3.8	3.1

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	100	50	20	370	100	290	30	450	310	130	330	110
Future Volume (veh/h)	100	50	20	370	100	290	30	450	310	130	330	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	62	25	462	125	362	38	562	388	162	412	138
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	261	220	507	625	528	90	1409	889	198	1286	413
Arrive On Green	0.09	0.14	0.14	0.28	0.33	0.33	0.05	0.27	0.27	0.11	0.33	0.33
Sat Flow, veh/h	1810	1900	1597	1810	1900	1608	1810	5187	1606	1810	3882	1245
Grp Volume(v), veh/h	125	62	25	462	125	362	38	562	388	162	365	185
Grp Sat Flow(s),veh/h/ln	1810	1900	1597	1810	1900	1608	1810	1729	1606	1810	1729	1669
Q Serve(g_s), s	5.4	2.3	1.1	19.6	3.8	15.5	1.6	7.0	11.4	7.0	6.3	6.6
Cycle Q Clear(g_c), s	5.4	2.3	1.1	19.6	3.8	15.5	1.6	7.0	11.4	7.0	6.3	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.75
Lane Grp Cap(c), veh/h	161	261	220	507	625	528	90	1409	889	198	1145	553
V/C Ratio(X)	0.78	0.24	0.11	0.91	0.20	0.68	0.42	0.40	0.44	0.82	0.32	0.33
Avail Cap(c_a), veh/h	364	1051	884	591	1290	1091	159	1956	1058	205	1391	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	30.6	30.1	27.7	19.2	23.1	36.7	23.7	10.5	34.6	19.9	20.0
Incr Delay (d2), s/veh	7.8	0.5	0.2	16.9	0.2	1.6	3.1	0.2	0.3	21.6	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.2	0.5	12.1	2.0	7.1	0.9	3.4	5.1	4.7	3.0	3.1
LnGrp Delay(d),s/veh	43.3	31.0	30.3	44.6	19.3	24.7	39.7	23.8	10.9	56.2	20.0	20.4
LnGrp LOS	D	C	C	D	B	C	D	C	B	E	C	C
Approach Vol, veh/h		212			949			988			712	
Approach Delay, s/veh		38.2			33.7			19.4			28.4	
Approach LOS		D			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	25.6	26.3	14.9	8.0	30.3	11.1	30.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0	26.0	44.0	7.0	32.0	16.0	54.0
Max Q Clear Time (g_c+I1), s	9.0	13.4	21.6	4.3	3.6	8.6	7.4	17.5
Green Ext Time (p_c), s	0.0	7.4	0.6	2.3	0.0	8.6	0.2	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	110	280	150	150	550	60	240	420	100	50	570	280
Future Volume (veh/h)	110	280	150	150	550	60	240	420	100	50	570	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	301	161	161	591	65	258	452	108	54	613	301
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	876	634	183	858	94	274	1589	871	99	1239	685
Arrive On Green	0.08	0.24	0.24	0.10	0.26	0.26	0.15	0.44	0.44	0.05	0.34	0.34
Sat Flow, veh/h	1810	3610	1605	1810	3279	360	1810	3610	1609	1810	3610	1608
Grp Volume(v), veh/h	118	301	161	161	325	331	258	452	108	54	613	301
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1834	1810	1805	1609	1810	1805	1608
Q Serve(g_s), s	6.3	6.8	1.6	8.7	16.0	16.1	14.0	7.9	3.3	2.9	13.3	6.9
Cycle Q Clear(g_c), s	6.3	6.8	1.6	8.7	16.0	16.1	14.0	7.9	3.3	2.9	13.3	6.9
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	876	634	183	472	480	274	1589	871	99	1239	685
V/C Ratio(X)	0.79	0.34	0.25	0.88	0.69	0.69	0.94	0.28	0.12	0.55	0.49	0.44
Avail Cap(c_a), veh/h	256	1458	893	183	656	667	274	1589	871	146	1239	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	31.0	9.2	43.9	32.9	33.0	41.6	17.8	11.2	45.6	25.7	7.8
Incr Delay (d2), s/veh	9.2	0.2	0.2	35.7	1.8	1.8	38.8	0.5	0.3	4.6	1.4	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.4	1.9	6.1	8.3	8.4	9.9	4.1	1.5	1.6	6.9	3.4
LnGrp Delay(d),s/veh	53.8	31.2	9.4	79.6	34.7	34.7	80.4	18.2	11.5	50.2	27.1	9.8
LnGrp LOS	D	C	A	E	C	C	F	B	B	D	C	A
Approach Vol, veh/h		580			817			818			968	
Approach Delay, s/veh		29.8			43.6			36.9			23.1	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	47.6	14.0	28.0	19.0	38.0	12.1	29.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	41.0	10.0	40.0	15.0	34.0	14.0	36.0
Max Q Clear Time (g_c+I1), s	4.9	9.9	10.7	8.8	16.0	15.3	8.3	18.1
Green Ext Time (p_c), s	0.0	4.3	0.0	7.7	0.0	4.6	0.1	6.4

Intersection Summary		
HCM 2010 Ctrl Delay		33.1
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	470	10	480	190	590	0	0	790	130
Future Volume (veh/h)	0	0	0	470	10	480	190	590	0	0	790	130
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				505	11	516	204	634	0	0	849	140
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				655	14	595	226	1914	0	0	1102	182
Arrive On Green				0.37	0.37	0.37	0.04	0.18	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1773	39	1608	1810	3705	0	0	3196	511
Grp Volume(v), veh/h				516	0	516	204	634	0	0	494	495
Grp Sat Flow(s),veh/h/ln				1811	0	1608	1810	1805	0	0	1805	1807
Q Serve(g_s), s				20.1	0.0	23.8	9.0	12.3	0.0	0.0	19.4	19.4
Cycle Q Clear(g_c), s				20.1	0.0	23.8	9.0	12.3	0.0	0.0	19.4	19.4
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				670	0	595	226	1914	0	0	641	642
V/C Ratio(X)				0.77	0.00	0.87	0.90	0.33	0.00	0.00	0.77	0.77
Avail Cap(c_a), veh/h				770	0	684	226	1914	0	0	641	642
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.2	0.0	23.4	37.9	20.6	0.0	0.0	22.9	22.9
Incr Delay (d2), s/veh				4.2	0.0	10.4	33.5	0.4	0.0	0.0	8.7	8.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.8	0.0	12.2	6.6	6.3	0.0	0.0	11.2	11.2
LnGrp Delay(d),s/veh				26.4	0.0	33.8	71.3	21.0	0.0	0.0	31.6	31.6
LnGrp LOS				C		C	E	C			C	C
Approach Vol, veh/h					1032			838			989	
Approach Delay, s/veh					30.1			33.3			31.6	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		46.4			14.0	32.4		33.6
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		38.0			10.0	24.0		34.0
Max Q Clear Time (g_c+I1), s		14.3			11.0	21.4		25.8
Green Ext Time (p_c), s		11.8			0.0	2.0		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

	⤴	→	⤵	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↰	↗					↑↑↱		↖	↑↑	
Traffic Volume (veh/h)	210	10	320	0	0	0	0	540	170	240	1020	0
Future Volume (veh/h)	210	10	320	0	0	0	0	540	170	240	1020	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	221	0	327				0	551	173	245	1041	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	901	0	400				0	1733	530	290	2350	0
Arrive On Green	0.25	0.00	0.25				0.00	0.44	0.44	0.05	0.21	0.00
Sat Flow, veh/h	3619	0	1605				0	4105	1203	1810	3705	0
Grp Volume(v), veh/h	221	0	327				0	483	241	245	1041	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1680	1810	1805	0
Q Serve(g_s), s	3.9	0.0	15.4				0.0	7.3	7.5	10.7	20.0	0.0
Cycle Q Clear(g_c), s	3.9	0.0	15.4				0.0	7.3	7.5	10.7	20.0	0.0
Prop In Lane	1.00		1.00				0.00		0.72	1.00		0.00
Lane Grp Cap(c), veh/h	901	0	400				0	1524	740	290	2350	0
V/C Ratio(X)	0.25	0.00	0.82				0.00	0.32	0.33	0.84	0.44	0.00
Avail Cap(c_a), veh/h	1493	0	662				0	1524	740	339	2350	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.45	0.45	0.00
Uniform Delay (d), s/veh	24.0	0.0	28.3				0.0	14.5	14.6	36.9	18.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2				0.0	0.5	1.2	7.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	7.3				0.0	3.5	3.7	6.0	10.1	0.0
LnGrp Delay(d),s/veh	24.2	0.0	32.5				0.0	15.1	15.8	44.6	19.1	0.0
LnGrp LOS	C		C					B	B	D	B	
Approach Vol, veh/h		548						724			1286	
Approach Delay, s/veh		29.2						15.3			23.9	
Approach LOS		C						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	16.8	39.2		23.9		56.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	15.0	20.0		33.0		39.0		
Max Q Clear Time (g_c+I1), s	12.7	9.5		17.4		22.0		
Green Ext Time (p_c), s	0.2	7.5		1.8		10.8		

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	240	200	320	40	80	410	90	970	150	320	850	180
Future Volume (veh/h)	240	200	320	40	80	410	90	970	150	320	850	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	247	206	330	41	82	423	93	1000	155	330	876	186
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	316	926	412	84	405	716	118	1424	220	808	1731	916
Arrive On Green	0.09	0.26	0.26	0.05	0.21	0.21	0.07	0.31	0.31	0.46	0.96	0.96
Sat Flow, veh/h	3510	3610	1606	1810	1900	1615	1810	4530	701	3510	3610	1607
Grp Volume(v), veh/h	247	206	330	41	82	423	93	763	392	330	876	186
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1810	1900	1615	1810	1729	1772	1755	1805	1607
Q Serve(g_s), s	7.2	4.7	20.2	2.3	3.7	4.8	5.3	20.4	20.5	6.6	2.0	0.5
Cycle Q Clear(g_c), s	7.2	4.7	20.2	2.3	3.7	4.8	5.3	20.4	20.5	6.6	2.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	316	926	412	84	405	716	118	1087	557	808	1731	916
V/C Ratio(X)	0.78	0.22	0.80	0.49	0.20	0.59	0.79	0.70	0.70	0.41	0.51	0.20
Avail Cap(c_a), veh/h	401	1238	550	121	561	849	138	1087	557	808	1731	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	0.90	0.90	0.90
Uniform Delay (d), s/veh	46.8	30.8	36.5	48.8	34.0	10.0	48.4	31.7	31.7	23.6	1.2	0.8
Incr Delay (d2), s/veh	7.5	0.1	6.1	4.3	0.2	0.8	20.3	3.4	6.5	0.3	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.4	9.6	1.3	2.0	5.9	3.3	10.3	11.0	3.2	0.8	0.3
LnGrp Delay(d),s/veh	54.3	30.9	42.7	53.1	34.2	10.8	68.7	35.0	38.2	23.9	2.1	1.2
LnGrp LOS	D	C	D	D	C	B	E	D	D	C	A	A
Approach Vol, veh/h		783			546			1248			1392	
Approach Delay, s/veh		43.2			17.5			38.5			7.2	
Approach LOS		D			B			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.2	37.0	8.9	30.9	10.8	54.3	13.4	26.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	12.0	31.0
Max Q Clear Time (g_c+I1), s	8.6	22.5	4.3	22.2	7.3	4.0	9.2	6.8
Green Ext Time (p_c), s	2.8	5.2	0.0	4.0	0.0	9.2	0.2	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	300	10	280	410	1250	0	0	1060	300
Future Volume (veh/h)	0	0	0	300	10	280	410	1250	0	0	1060	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				309	10	289	423	1289	0	0	1093	309
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				379	12	347	500	2555	0	0	2735	849
Arrive On Green				0.22	0.22	0.22	0.28	1.00	0.00	0.00	0.53	0.53
Sat Flow, veh/h				1755	57	1604	3510	3705	0	0	5358	1610
Grp Volume(v), veh/h				319	0	289	423	1289	0	0	1093	309
Grp Sat Flow(s),veh/h/ln				1812	0	1604	1755	1805	0	0	1729	1610
Q Serve(g_s), s				17.6	0.0	18.1	11.9	0.0	0.0	0.0	13.3	11.8
Cycle Q Clear(g_c), s				17.6	0.0	18.1	11.9	0.0	0.0	0.0	13.3	11.8
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				392	0	347	500	2555	0	0	2735	849
V/C Ratio(X)				0.81	0.00	0.83	0.85	0.50	0.00	0.00	0.40	0.36
Avail Cap(c_a), veh/h				587	0	519	769	2555	0	0	2735	849
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				39.2	0.0	39.4	36.5	0.0	0.0	0.0	14.9	14.5
Incr Delay (d2), s/veh				5.4	0.0	7.2	4.3	0.6	0.0	0.0	0.4	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.4	0.0	8.7	6.0	0.2	0.0	0.0	6.4	5.5
LnGrp Delay(d),s/veh				44.6	0.0	46.6	40.8	0.6	0.0	0.0	15.3	15.7
LnGrp LOS				D		D	D	A			B	B
Approach Vol, veh/h					608			1712			1402	
Approach Delay, s/veh					45.5			10.5			15.4	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		78.3			19.0	59.4		26.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		63.0			23.0	36.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			13.9	15.3		20.1
Green Ext Time (p_c), s		37.0			1.0	17.0		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	40	90	60	90	220	160	50	1050	40	70	1100	30
Future Volume (veh/h)	40	90	60	90	220	160	50	1050	40	70	1100	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	96	64	96	234	170	53	1117	43	74	1170	32
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	333	280	152	385	325	137	2248	86	137	2277	62
Arrive On Green	0.06	0.18	0.18	0.08	0.20	0.20	0.08	0.44	0.44	0.08	0.44	0.44
Sat Flow, veh/h	1810	1900	1601	1810	1900	1603	1810	5125	197	1810	5190	142
Grp Volume(v), veh/h	43	96	64	96	234	170	53	754	406	74	779	423
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1603	1810	1729	1864	1810	1729	1874
Q Serve(g_s), s	1.6	3.1	1.9	3.6	7.9	5.1	2.0	11.1	11.1	2.8	11.5	11.5
Cycle Q Clear(g_c), s	1.6	3.1	1.9	3.6	7.9	5.1	2.0	11.1	11.1	2.8	11.5	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.08
Lane Grp Cap(c), veh/h	102	333	280	152	385	325	137	1517	818	137	1517	822
V/C Ratio(X)	0.42	0.29	0.23	0.63	0.61	0.52	0.39	0.50	0.50	0.54	0.51	0.51
Avail Cap(c_a), veh/h	179	914	770	179	914	771	179	1517	818	179	1517	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	25.3	14.9	31.3	25.6	14.6	31.1	14.2	14.2	31.5	14.4	14.4
Incr Delay (d2), s/veh	2.7	0.5	0.4	5.3	1.6	1.3	1.8	1.2	2.2	3.3	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	1.0	2.0	4.3	2.7	1.1	5.5	6.1	1.5	5.7	6.4
LnGrp Delay(d),s/veh	35.0	25.8	15.3	36.7	27.2	15.9	32.9	15.4	16.4	34.7	15.6	16.7
LnGrp LOS	C	C	B	D	C	B	C	B	B	C	B	B
Approach Vol, veh/h		203			500			1213			1276	
Approach Delay, s/veh		24.4			25.2			16.5			17.1	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	35.0	9.9	16.4	9.4	35.0	8.0	18.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	4.8	13.1	5.6	5.1	4.0	13.5	3.6	9.9
Green Ext Time (p_c), s	0.1	7.0	0.0	2.6	0.1	7.2	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	10	130	10	10	30
Future Vol, veh/h	10	10	130	10	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	138	11	11	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	298	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1621	-	698	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1621	-	638	1076
Mov Cap-2 Maneuver	-	-	-	-	638	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	700	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.9	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	638	1076	-	-	1621	-
HCM Lane V/C Ratio	0.017	0.03	-	-	0.085	-
HCM Control Delay (s)	10.7	8.4	-	-	7.4	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.3	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	50	170	60	190	150	10	70	30	130	10	120	90
Future Volume (veh/h)	50	170	60	190	150	10	70	30	130	10	120	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	224	79	250	197	13	92	39	171	13	158	118
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	222	849	291	250	1161	76	204	86	253	21	259	198
Arrive On Green	0.12	0.32	0.32	0.14	0.34	0.34	0.16	0.16	0.16	0.14	0.14	0.14
Sat Flow, veh/h	1810	2635	903	1810	3438	225	1289	546	1600	157	1907	1453
Grp Volume(v), veh/h	66	151	152	250	103	107	131	0	171	157	0	132
Grp Sat Flow(s),veh/h/ln	1810	1805	1732	1810	1805	1858	1836	0	1600	1892	0	1625
Q Serve(g_s), s	2.2	4.0	4.2	9.0	2.6	2.6	4.2	0.0	6.6	5.1	0.0	5.0
Cycle Q Clear(g_c), s	2.2	4.0	4.2	9.0	2.6	2.6	4.2	0.0	6.6	5.1	0.0	5.0
Prop In Lane	1.00		0.52	1.00		0.12	0.70		1.00	0.08		0.89
Lane Grp Cap(c), veh/h	222	582	558	250	609	627	290	0	253	257	0	221
V/C Ratio(X)	0.30	0.26	0.27	1.00	0.17	0.17	0.45	0.00	0.68	0.61	0.00	0.60
Avail Cap(c_a), veh/h	222	582	558	250	609	627	620	0	540	639	0	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	16.3	16.4	28.1	15.2	15.2	24.9	0.0	25.9	26.5	0.0	26.5
Incr Delay (d2), s/veh	0.7	1.1	1.2	57.0	0.6	0.6	1.1	0.0	3.1	2.3	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.2	2.2	8.4	1.4	1.4	2.2	0.0	3.1	2.8	0.0	2.4
LnGrp Delay(d),s/veh	26.8	17.4	17.6	85.1	15.8	15.8	26.0	0.0	29.0	28.9	0.0	29.1
LnGrp LOS	C	B	B	F	B	B	C		C	C		C
Approach Vol, veh/h		369			460			302			289	
Approach Delay, s/veh		19.2			53.4			27.7			29.0	
Approach LOS		B			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.3	13.0	25.0		12.9	12.0	26.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	9.0	21.0		22.0	8.0	22.0
Max Q Clear Time (g_c+I1), s		8.6	11.0	6.2		7.1	4.2	4.6
Green Ext Time (p_c), s		1.2	0.0	1.4		1.2	0.6	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	34.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps & Moreno Beach Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑	↱					↑↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	50	10	340	0	0	0	0	560	170	10	400	0
Future Volume (veh/h)	50	10	340	0	0	0	0	560	170	10	400	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	56	11	382				0	629	191	11	449	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	462	91	487				0	1168	348	268	768	0
Arrive On Green	0.30	0.30	0.30				0.00	0.29	0.29	0.15	0.15	0.00
Sat Flow, veh/h	1524	299	1607				0	4130	1179	1810	5358	0
Grp Volume(v), veh/h	67	0	382				0	548	272	11	449	0
Grp Sat Flow(s),veh/h/ln	1824	0	1607				0	1729	1680	1810	1729	0
Q Serve(g_s), s	1.3	0.0	10.3				0.0	6.3	6.4	0.2	3.8	0.0
Cycle Q Clear(g_c), s	1.3	0.0	10.3				0.0	6.3	6.4	0.2	3.8	0.0
Prop In Lane	0.84		1.00				0.00		0.70	1.00		0.00
Lane Grp Cap(c), veh/h	553	0	487				0	1020	495	268	768	0
V/C Ratio(X)	0.12	0.00	0.78				0.00	0.54	0.55	0.04	0.58	0.00
Avail Cap(c_a), veh/h	1081	0	952				0	2415	1173	268	768	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.9	0.0	15.1				0.0	14.0	14.0	17.2	18.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.8				0.0	0.4	1.0	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.8				0.0	3.0	3.1	0.1	1.9	0.0
LnGrp Delay(d),s/veh	12.0	0.0	17.9				0.0	14.4	15.0	17.3	19.9	0.0
LnGrp LOS	B		B					B	B	B	B	
Approach Vol, veh/h		449						820			460	
Approach Delay, s/veh		17.0						14.6			19.8	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		18.3		17.9				11.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		33.0				7.0
Max Q Clear Time (g_c+I1), s		12.3		8.4				5.8
Green Ext Time (p_c), s		1.6		4.8				0.4

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	210	80	140	190	170	120	960	190	170	510	50
Future Volume (veh/h)	70	210	80	140	190	170	120	960	190	170	510	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	247	94	165	224	200	141	1129	224	200	600	59
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	547	203	156	417	355	178	1816	360	156	1951	190
Arrive On Green	0.07	0.21	0.21	0.09	0.23	0.23	0.10	0.42	0.42	0.09	0.41	0.41
Sat Flow, veh/h	1810	2576	953	1810	1846	1570	1810	4341	861	1810	4805	468
Grp Volume(v), veh/h	82	171	170	165	219	205	141	899	454	200	430	229
Grp Sat Flow(s),veh/h/ln	1810	1805	1724	1810	1805	1611	1810	1729	1744	1810	1729	1815
Q Serve(g_s), s	3.6	6.7	7.0	7.0	8.7	9.2	6.2	16.6	16.6	7.0	6.9	7.0
Cycle Q Clear(g_c), s	3.6	6.7	7.0	7.0	8.7	9.2	6.2	16.6	16.6	7.0	6.9	7.0
Prop In Lane	1.00		0.55	1.00		0.97	1.00		0.49	1.00		0.26
Lane Grp Cap(c), veh/h	131	384	366	156	408	364	178	1447	730	156	1404	737
V/C Ratio(X)	0.62	0.45	0.46	1.06	0.54	0.56	0.79	0.62	0.62	1.28	0.31	0.31
Avail Cap(c_a), veh/h	156	800	764	156	800	713	178	1447	730	156	1404	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	27.8	28.0	37.1	27.7	27.9	35.8	18.6	18.6	37.1	16.4	16.4
Incr Delay (d2), s/veh	5.7	0.8	0.9	88.5	1.1	1.4	21.1	2.0	4.0	167.3	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.4	3.4	7.3	4.4	4.2	4.1	8.3	8.7	10.7	3.4	3.7
LnGrp Delay(d),s/veh	42.3	28.7	28.9	125.7	28.8	29.3	56.9	20.6	22.5	204.4	16.9	17.5
LnGrp LOS	D	C	C	F	C	C	E	C	C	F	B	B
Approach Vol, veh/h		423			589			1494			859	
Approach Delay, s/veh		31.4			56.1			24.6			60.7	
Approach LOS		C			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	38.0	11.0	21.3	12.0	37.0	9.9	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	34.0	7.0	36.0	8.0	33.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	9.0	18.6	9.0	9.0	8.2	9.0	5.6	11.2
Green Ext Time (p_c), s	0.0	7.5	0.0	5.1	0.0	4.1	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	40	300	150	470	470	80	180	590	390	80	530	40
Future Volume (veh/h)	40	300	150	470	470	80	180	590	390	80	530	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	341	170	534	534	91	205	670	443	91	602	45
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	515	455	223	557	671	114	229	1353	419	200	1207	90
Arrive On Green	0.28	0.19	0.19	0.31	0.22	0.22	0.13	0.26	0.26	0.11	0.25	0.25
Sat Flow, veh/h	1810	2346	1147	1810	3085	524	1810	5187	1606	1810	4926	365
Grp Volume(v), veh/h	45	261	250	534	312	313	205	670	443	91	421	226
Grp Sat Flow(s),veh/h/ln	1810	1805	1687	1810	1805	1803	1810	1729	1606	1810	1729	1833
Q Serve(g_s), s	2.3	17.2	17.7	36.7	20.7	20.8	14.1	13.9	16.4	6.0	13.2	13.4
Cycle Q Clear(g_c), s	2.3	17.2	17.7	36.7	20.7	20.8	14.1	13.9	16.4	6.0	13.2	13.4
Prop In Lane	1.00		0.68	1.00		0.29	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	515	350	328	557	393	392	229	1353	419	200	847	449
V/C Ratio(X)	0.09	0.74	0.76	0.96	0.79	0.80	0.90	0.50	1.06	0.45	0.50	0.50
Avail Cap(c_a), veh/h	515	528	493	572	970	969	229	1353	419	200	847	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	48.0	48.2	43.0	46.8	46.9	54.4	39.7	11.6	52.7	41.0	41.1
Incr Delay (d2), s/veh	0.1	3.1	3.9	27.2	3.7	3.8	33.1	1.3	60.0	1.6	2.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.9	8.6	22.5	10.7	10.8	9.2	6.8	17.8	3.1	6.6	7.3
LnGrp Delay(d),s/veh	33.3	51.2	52.1	70.2	50.5	50.7	87.6	41.0	71.6	54.3	43.1	45.1
LnGrp LOS	C	D	D	E	D	D	F	D	F	D	D	D
Approach Vol, veh/h		556			1159			1318			738	
Approach Delay, s/veh		50.1			59.6			58.5			45.1	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	37.0	42.9	28.6	20.0	35.0	40.0	31.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	33.0	40.0	37.0	16.0	31.0	9.0	68.0
Max Q Clear Time (g_c+I1), s	8.0	18.4	38.7	19.7	16.1	15.4	4.3	22.8
Green Ext Time (p_c), s	2.1	5.0	0.3	2.4	0.0	3.6	1.2	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	55.0
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	620	100	160	790	90	170	200	140	60	190	150
Future Volume (veh/h)	60	620	100	160	790	90	170	200	140	60	190	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	660	106	170	840	96	181	213	149	64	202	160
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	1025	164	210	1353	717	227	543	362	127	405	304
Arrive On Green	0.07	0.33	0.33	0.12	0.37	0.37	0.13	0.26	0.26	0.07	0.21	0.21
Sat Flow, veh/h	1810	3115	500	1810	3610	1609	1810	2070	1382	1810	1961	1472
Grp Volume(v), veh/h	64	382	384	170	840	96	181	184	178	64	185	177
Grp Sat Flow(s),veh/h/ln	1810	1805	1809	1810	1805	1609	1810	1805	1647	1810	1805	1628
Q Serve(g_s), s	2.5	13.0	13.0	6.6	13.6	2.5	7.0	6.0	6.4	2.5	6.5	7.0
Cycle Q Clear(g_c), s	2.5	13.0	13.0	6.6	13.6	2.5	7.0	6.0	6.4	2.5	6.5	7.0
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.84	1.00		0.90
Lane Grp Cap(c), veh/h	127	594	595	210	1353	717	227	473	432	127	373	336
V/C Ratio(X)	0.50	0.64	0.65	0.81	0.62	0.13	0.80	0.39	0.41	0.50	0.50	0.53
Avail Cap(c_a), veh/h	176	728	730	252	1607	829	453	1079	985	176	803	724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	20.5	20.5	31.0	18.3	11.8	30.5	21.8	21.9	32.2	25.2	25.4
Incr Delay (d2), s/veh	3.1	1.4	1.4	15.1	0.5	0.1	6.3	0.5	0.6	3.1	1.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	6.7	6.7	4.2	6.9	1.1	3.9	3.1	3.0	1.3	3.3	3.2
LnGrp Delay(d),s/veh	35.3	21.9	21.9	46.1	18.9	11.9	36.8	22.3	22.6	35.3	26.2	26.7
LnGrp LOS	D	C	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		830			1106			543			426	
Approach Delay, s/veh		23.0			22.4			27.2			27.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	22.8	12.4	27.7	13.0	18.9	9.1	31.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	29.0	18.0	32.0	7.0	32.0
Max Q Clear Time (g_c+I1), s	4.5	8.4	8.6	15.0	9.0	9.0	4.5	15.6
Green Ext Time (p_c), s	0.0	4.4	0.1	8.1	0.3	4.1	0.0	8.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	560	240	560	750	90	300	500	510	120	410	100
Future Volume (veh/h)	150	560	240	560	750	90	300	500	510	120	410	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	602	258	602	806	97	323	538	548	129	441	108
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	229	983	411	561	1731	207	330	1267	823	226	925	225
Arrive On Green	0.07	0.27	0.27	0.16	0.37	0.37	0.09	0.35	0.35	0.06	0.32	0.32
Sat Flow, veh/h	3510	3584	1500	3510	4694	562	3510	3610	1608	3510	2878	699
Grp Volume(v), veh/h	161	580	280	602	592	311	323	538	548	129	275	274
Grp Sat Flow(s),veh/h/ln	1755	1729	1626	1755	1729	1798	1755	1805	1608	1755	1805	1773
Q Serve(g_s), s	4.8	15.6	16.0	17.0	13.9	14.0	9.8	12.1	26.9	3.8	13.0	13.2
Cycle Q Clear(g_c), s	4.8	15.6	16.0	17.0	13.9	14.0	9.8	12.1	26.9	3.8	13.0	13.2
Prop In Lane	1.00		0.92	1.00		0.31	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	229	948	446	561	1275	663	330	1267	823	226	580	570
V/C Ratio(X)	0.70	0.61	0.63	1.07	0.46	0.47	0.98	0.42	0.67	0.57	0.47	0.48
Avail Cap(c_a), veh/h	330	1171	550	561	1399	727	330	1494	924	231	696	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	33.7	33.8	44.7	25.6	25.6	48.1	26.3	19.3	48.3	28.9	29.0
Incr Delay (d2), s/veh	3.9	0.6	1.5	58.9	0.3	0.5	43.5	0.2	1.6	3.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.5	7.4	12.8	6.6	7.1	6.7	6.0	12.2	1.9	6.6	6.6
LnGrp Delay(d),s/veh	52.6	34.3	35.4	103.6	25.8	26.1	91.6	26.5	20.9	51.5	29.5	29.6
LnGrp LOS	D	C	D	F	C	C	F	C	C	D	C	C
Approach Vol, veh/h		1021			1505			1409			678	
Approach Delay, s/veh		37.5			57.0			39.2			33.7	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	41.3	21.0	33.2	14.0	38.2	10.9	43.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	17.0	36.0	10.0	41.0	10.0	43.0
Max Q Clear Time (g_c+I1), s	5.8	28.9	19.0	18.0	11.8	15.2	6.8	16.0
Green Ext Time (p_c), s	0.0	7.4	0.0	10.0	0.0	9.4	0.1	12.5

Intersection Summary	
HCM 2010 Ctrl Delay	43.8
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	320	890	30	20	930	90	40	60	10	90	20	270
Future Volume (veh/h)	320	890	30	20	930	90	40	60	10	90	20	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	390	1085	37	24	1134	110	49	73	12	110	24	329
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	515	2030	69	70	1484	462	120	291	48	184	414	589
Arrive On Green	0.15	0.39	0.39	0.04	0.29	0.29	0.07	0.18	0.18	0.10	0.22	0.22
Sat Flow, veh/h	3510	5151	176	1810	5187	1615	1810	1592	262	1810	1900	1615
Grp Volume(v), veh/h	390	728	394	24	1134	110	49	0	85	110	24	329
Grp Sat Flow(s),veh/h/ln	1755	1729	1869	1810	1729	1615	1810	0	1854	1810	1900	1615
Q Serve(g_s), s	6.0	9.1	9.2	0.7	11.3	3.0	1.5	0.0	2.2	3.3	0.6	9.2
Cycle Q Clear(g_c), s	6.0	9.1	9.2	0.7	11.3	3.0	1.5	0.0	2.2	3.3	0.6	9.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	515	1363	737	70	1484	462	120	0	338	184	414	589
V/C Ratio(X)	0.76	0.53	0.53	0.34	0.76	0.24	0.41	0.00	0.25	0.60	0.06	0.56
Avail Cap(c_a), veh/h	620	1363	737	224	1650	514	224	0	622	224	638	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	13.2	13.2	26.5	18.5	15.5	25.3	0.0	19.8	24.3	17.5	14.3
Incr Delay (d2), s/veh	4.4	0.4	0.8	2.8	2.0	0.3	2.2	0.0	0.4	3.1	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.4	4.9	0.4	5.6	1.3	0.8	0.0	1.2	1.8	0.3	4.2
LnGrp Delay(d),s/veh	27.5	13.6	13.9	29.3	20.4	15.7	27.6	0.0	20.2	27.4	17.6	15.2
LnGrp LOS	C	B	B	C	C	B	C		C	C	B	B
Approach Vol, veh/h		1512			1268			134			463	
Approach Delay, s/veh		17.3			20.2			22.9			18.2	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	14.3	6.2	26.3	7.8	16.3	12.3	20.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.3	4.2	2.7	11.2	3.5	11.2	8.0	13.3
Green Ext Time (p_c), s	0.0	1.5	0.0	8.0	0.0	1.1	0.3	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	150	660	20	30	690	20	80	50	50	20	30	240
Future Volume (veh/h)	150	660	20	30	690	20	80	50	50	20	30	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	835	25	38	873	25	101	63	63	25	38	304
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	178	1766	53	94	1529	44	163	102	229	176	268	383
Arrive On Green	0.10	0.34	0.34	0.05	0.29	0.29	0.14	0.14	0.14	0.24	0.24	0.24
Sat Flow, veh/h	1810	5175	155	1810	5183	148	1135	708	1598	739	1124	1605
Grp Volume(v), veh/h	190	558	302	38	582	316	164	0	63	63	0	304
Grp Sat Flow(s),veh/h/ln	1810	1729	1871	1810	1729	1873	1843	0	1598	1863	0	1605
Q Serve(g_s), s	7.0	9.0	9.0	1.4	10.2	10.2	6.0	0.0	2.5	1.9	0.0	12.7
Cycle Q Clear(g_c), s	7.0	9.0	9.0	1.4	10.2	10.2	6.0	0.0	2.5	1.9	0.0	12.7
Prop In Lane	1.00		0.08	1.00		0.08	0.62		1.00	0.40		1.00
Lane Grp Cap(c), veh/h	178	1180	639	94	1020	552	264	0	229	444	0	383
V/C Ratio(X)	1.07	0.47	0.47	0.40	0.57	0.57	0.62	0.00	0.27	0.14	0.00	0.79
Avail Cap(c_a), veh/h	178	1263	684	178	1263	684	881	0	763	969	0	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	18.4	18.4	32.7	21.3	21.3	28.7	0.0	27.2	21.4	0.0	25.5
Incr Delay (d2), s/veh	86.5	0.3	0.5	2.8	0.5	0.9	2.4	0.0	0.6	0.1	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	4.3	4.7	0.8	4.9	5.4	3.2	0.0	1.1	1.0	0.0	6.0
LnGrp Delay(d),s/veh	118.6	18.7	19.0	35.4	21.8	22.2	31.0	0.0	27.8	21.5	0.0	29.2
LnGrp LOS	F	B	B	D	C	C	C		C	C		C
Approach Vol, veh/h		1050			936			227			367	
Approach Delay, s/veh		36.9			22.5			30.1			27.9	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.2	7.7	28.3		21.0	11.0	25.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	26.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		8.0	3.4	11.0		14.7	9.0	12.2
Green Ext Time (p_c), s		1.1	0.0	8.7		1.3	0.0	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	710	20	30	650	10	40	30	60	10	20	40
Future Volume (veh/h)	10	710	20	30	650	10	40	30	60	10	20	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	835	24	35	765	12	47	35	71	12	24	47
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	1960	56	98	2161	34	122	429	449	39	103	202
Arrive On Green	0.02	0.38	0.38	0.05	0.41	0.41	0.07	0.23	0.23	0.02	0.18	0.18
Sat Flow, veh/h	1810	5182	149	1810	5260	82	1810	1900	1604	1810	572	1120
Grp Volume(v), veh/h	12	557	302	35	503	274	47	35	71	12	0	71
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1885	1810	1900	1604	1810	0	1691
Q Serve(g_s), s	0.3	6.0	6.0	0.9	5.0	5.0	1.2	0.7	1.7	0.3	0.0	1.8
Cycle Q Clear(g_c), s	0.3	6.0	6.0	0.9	5.0	5.0	1.2	0.7	1.7	0.3	0.0	1.8
Prop In Lane	1.00		0.08	1.00		0.04	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	39	1308	709	98	1420	774	122	429	449	39	0	304
V/C Ratio(X)	0.31	0.43	0.43	0.36	0.35	0.35	0.39	0.08	0.16	0.31	0.00	0.23
Avail Cap(c_a), veh/h	254	2079	1126	254	2079	1133	254	1713	1534	254	0	1525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	11.5	11.5	22.8	10.1	10.1	22.3	15.2	13.5	24.0	0.0	17.5
Incr Delay (d2), s/veh	4.4	0.2	0.4	2.2	0.1	0.3	2.0	0.1	0.2	4.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.8	3.1	0.5	2.4	2.7	0.7	0.4	0.7	0.2	0.0	0.9
LnGrp Delay(d),s/veh	28.4	11.7	11.9	25.0	10.3	10.4	24.3	15.3	13.7	28.4	0.0	17.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		871			812			153			83	
Approach Delay, s/veh		12.0			11.0			17.3			19.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	15.3	6.7	22.9	7.4	13.0	5.1	24.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	3.7	2.9	8.0	3.2	3.8	2.3	7.0
Green Ext Time (p_c), s	0.0	0.9	0.0	10.1	0.0	0.9	0.0	10.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	30	190	90	190	140	290	90	940	180	180	870	10
Future Volume (veh/h)	30	190	90	190	140	290	90	940	180	180	870	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	209	99	209	154	319	99	1033	198	198	956	11
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	277	272	262	193	395	176	1465	280	137	1658	19
Arrive On Green	0.17	0.17	0.17	0.25	0.25	0.25	0.10	0.34	0.34	0.08	0.31	0.31
Sat Flow, veh/h	257	1630	1601	1063	784	1605	1810	4370	836	1810	5286	61
Grp Volume(v), veh/h	242	0	99	363	0	319	99	817	414	198	625	342
Grp Sat Flow(s),veh/h/ln	1887	0	1601	1847	0	1605	1810	1729	1748	1810	1729	1889
Q Serve(g_s), s	11.3	0.0	5.1	17.1	0.0	17.3	4.8	19.0	19.1	7.0	14.0	14.0
Cycle Q Clear(g_c), s	11.3	0.0	5.1	17.1	0.0	17.3	4.8	19.0	19.1	7.0	14.0	14.0
Prop In Lane	0.14		1.00	0.58		1.00	1.00		0.48	1.00		0.03
Lane Grp Cap(c), veh/h	320	0	272	455	0	395	176	1160	586	137	1085	592
V/C Ratio(X)	0.76	0.00	0.36	0.80	0.00	0.81	0.56	0.70	0.71	1.45	0.58	0.58
Avail Cap(c_a), veh/h	592	0	502	639	0	556	176	1160	586	137	1085	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	34.0	32.7	0.0	32.8	39.8	26.7	26.8	42.7	26.6	26.6
Incr Delay (d2), s/veh	3.6	0.0	0.8	4.8	0.0	5.9	4.0	3.6	7.0	236.4	2.2	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	2.3	9.3	0.0	8.3	2.6	9.7	10.3	12.5	7.0	8.0
LnGrp Delay(d),s/veh	40.2	0.0	34.8	37.5	0.0	38.7	43.9	30.3	33.8	279.2	28.8	30.6
LnGrp LOS	D		C	D		D	D	C	C	F	C	C
Approach Vol, veh/h		341			682			1330			1165	
Approach Delay, s/veh		38.6			38.1			32.4			71.9	
Approach LOS		D			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	35.0		19.7	13.0	33.0		26.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	31.0		29.0	9.0	29.0		32.0
Max Q Clear Time (g_c+I1), s	9.0	21.1		13.3	6.8	16.0		19.3
Green Ext Time (p_c), s	0.0	5.1		1.5	0.2	4.6		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	47.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	270	140	80	330	170	100	180	60	150	200	120
Future Volume (veh/h)	70	270	140	80	330	170	100	180	60	150	200	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	310	161	92	379	195	115	207	69	172	230	138
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	702	356	171	716	363	187	535	173	220	480	277
Arrive On Green	0.09	0.30	0.30	0.09	0.31	0.31	0.10	0.20	0.20	0.12	0.22	0.22
Sat Flow, veh/h	1810	2316	1175	1810	2317	1174	1810	2678	867	1810	2201	1269
Grp Volume(v), veh/h	80	240	231	92	294	280	115	137	139	172	187	181
Grp Sat Flow(s),veh/h/ln	1810	1805	1686	1810	1805	1686	1810	1805	1739	1810	1805	1666
Q Serve(g_s), s	2.4	6.1	6.3	2.8	7.6	7.8	3.5	3.8	3.9	5.2	5.1	5.4
Cycle Q Clear(g_c), s	2.4	6.1	6.3	2.8	7.6	7.8	3.5	3.8	3.9	5.2	5.1	5.4
Prop In Lane	1.00		0.70	1.00		0.70	1.00		0.50	1.00		0.76
Lane Grp Cap(c), veh/h	160	547	511	171	558	521	187	361	347	220	394	363
V/C Ratio(X)	0.50	0.44	0.45	0.54	0.53	0.54	0.62	0.38	0.40	0.78	0.47	0.50
Avail Cap(c_a), veh/h	223	953	890	223	953	890	382	984	949	350	953	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	15.9	16.0	24.6	16.2	16.3	24.4	19.7	19.8	24.2	19.4	19.5
Incr Delay (d2), s/veh	2.4	0.6	0.6	2.6	0.8	0.9	3.3	0.7	0.7	6.0	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.1	3.0	1.5	3.9	3.7	1.9	1.9	2.0	3.0	2.6	2.6
LnGrp Delay(d),s/veh	27.1	16.5	16.6	27.2	17.0	17.1	27.7	20.4	20.5	30.3	20.3	20.6
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		551			666			391			540	
Approach Delay, s/veh		18.1			18.5			22.6			23.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	15.4	9.4	21.2	9.9	16.4	9.0	21.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	31.0	7.0	30.0	12.0	30.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	7.2	5.9	4.8	8.3	5.5	7.4	4.4	9.8
Green Ext Time (p_c), s	0.1	3.6	0.0	6.9	0.1	3.5	0.0	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	290	210	140	120	160	110	140	870	170	90	490	80
Future Volume (veh/h)	290	210	140	120	160	110	140	870	170	90	490	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	309	223	149	128	170	117	149	926	181	96	521	85
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	418	436	279	169	380	247	187	1370	764	156	1125	183
Arrive On Green	0.12	0.21	0.21	0.09	0.18	0.18	0.10	0.38	0.38	0.09	0.36	0.36
Sat Flow, veh/h	3510	2108	1348	1810	2098	1366	1810	3610	1615	1810	3108	505
Grp Volume(v), veh/h	309	190	182	128	145	142	149	926	181	96	302	304
Grp Sat Flow(s),veh/h/ln	1755	1805	1651	1810	1805	1659	1810	1805	1615	1810	1805	1808
Q Serve(g_s), s	5.8	6.4	6.7	4.7	4.9	5.2	5.5	14.6	4.5	3.5	8.7	8.8
Cycle Q Clear(g_c), s	5.8	6.4	6.7	4.7	4.9	5.2	5.5	14.6	4.5	3.5	8.7	8.8
Prop In Lane	1.00		0.82	1.00		0.82	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	418	373	341	169	327	300	187	1370	764	156	653	655
V/C Ratio(X)	0.74	0.51	0.53	0.76	0.44	0.47	0.80	0.68	0.24	0.62	0.46	0.46
Avail Cap(c_a), veh/h	566	926	846	186	820	753	212	1798	955	212	899	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	24.0	24.1	30.2	24.9	25.0	29.9	17.7	10.7	30.1	16.7	16.7
Incr Delay (d2), s/veh	3.4	1.1	1.3	14.9	0.9	1.2	16.9	0.7	0.2	3.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.3	3.2	3.0	2.5	2.5	3.6	7.3	2.0	1.9	4.4	4.5
LnGrp Delay(d),s/veh	32.5	25.1	25.5	45.1	25.8	26.2	46.8	18.3	10.8	34.1	17.2	17.2
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		681			415			1256			702	
Approach Delay, s/veh		28.5			31.9			20.6			19.5	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	29.9	10.4	18.1	11.1	28.7	12.1	16.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	34.0	7.0	35.0	8.0	34.0	11.0	31.0
Max Q Clear Time (g_c+I1), s	5.5	16.6	6.7	8.7	7.5	10.8	7.8	7.2
Green Ext Time (p_c), s	0.0	9.2	0.0	4.3	0.0	10.7	0.3	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	140	460	150	40	870	80	200	200	30	60	150	160
Future Volume (veh/h)	140	460	150	40	870	80	200	200	30	60	150	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	561	183	49	1061	98	244	244	37	73	183	195
Adj No. of Lanes	1	2	1	1	3	0	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	209	1457	836	141	1768	163	406	368	56	160	363	322
Arrive On Green	0.12	0.40	0.40	0.08	0.37	0.37	0.12	0.23	0.23	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	1609	1810	4832	446	3510	1611	244	1810	1805	1603
Grp Volume(v), veh/h	171	561	183	49	759	400	244	0	281	73	183	195
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1729	1819	1755	0	1855	1810	1805	1603
Q Serve(g_s), s	7.3	8.7	0.0	2.0	14.1	14.2	5.2	0.0	10.9	3.0	7.1	8.8
Cycle Q Clear(g_c), s	7.3	8.7	0.0	2.0	14.1	14.2	5.2	0.0	10.9	3.0	7.1	8.8
Prop In Lane	1.00		1.00	1.00		0.24	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	209	1457	836	141	1265	666	406	0	424	160	363	322
V/C Ratio(X)	0.82	0.38	0.22	0.35	0.60	0.60	0.60	0.00	0.66	0.46	0.50	0.61
Avail Cap(c_a), veh/h	251	1457	836	183	1265	666	576	0	959	411	1047	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	16.7	10.3	34.6	20.4	20.4	33.3	0.0	27.8	34.3	28.2	28.8
Incr Delay (d2), s/veh	16.1	0.8	0.6	1.5	2.1	4.0	1.4	0.0	1.8	2.0	1.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.4	2.3	1.1	7.1	7.8	2.6	0.0	5.8	1.6	3.7	4.1
LnGrp Delay(d),s/veh	50.3	17.5	10.9	36.1	22.5	24.4	34.7	0.0	29.6	36.4	29.2	30.6
LnGrp LOS	D	B	B	D	C	C	C		C	D	C	C
Approach Vol, veh/h		915			1208			525			451	
Approach Delay, s/veh		22.3			23.7			32.0			31.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.1	10.2	36.0	13.2	19.9	13.2	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	8.0	32.0	13.0	46.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	5.0	12.9	4.0	10.7	7.2	10.8	9.3	16.2
Green Ext Time (p_c), s	0.1	2.5	2.4	4.0	1.2	2.3	0.1	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	30	300	110	120	650	40	190	360	160	30	320	90
Future Volume (veh/h)	30	300	110	120	650	40	190	360	160	30	320	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	333	122	133	722	44	211	400	178	33	356	100
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	739	256	200	1276	77	268	737	324	216	764	212
Arrive On Green	0.05	0.19	0.19	0.11	0.26	0.26	0.15	0.30	0.30	0.12	0.27	0.27
Sat Flow, veh/h	1810	3799	1315	1810	4999	303	1810	2438	1071	1810	2790	773
Grp Volume(v), veh/h	33	301	154	133	498	268	211	295	283	33	229	227
Grp Sat Flow(s),veh/h/ln	1810	1729	1656	1810	1729	1844	1810	1805	1705	1810	1805	1759
Q Serve(g_s), s	1.0	4.5	4.8	4.1	7.3	7.4	6.6	8.0	8.1	1.0	6.2	6.3
Cycle Q Clear(g_c), s	1.0	4.5	4.8	4.1	7.3	7.4	6.6	8.0	8.1	1.0	6.2	6.3
Prop In Lane	1.00		0.79	1.00		0.16	1.00		0.63	1.00		0.44
Lane Grp Cap(c), veh/h	90	673	322	200	883	471	268	546	515	216	494	482
V/C Ratio(X)	0.37	0.45	0.48	0.67	0.56	0.57	0.79	0.54	0.55	0.15	0.46	0.47
Avail Cap(c_a), veh/h	216	1949	933	216	1949	1039	309	1141	1077	216	1048	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	20.8	20.9	25.0	19.0	19.0	24.1	17.0	17.1	23.1	17.7	17.7
Incr Delay (d2), s/veh	2.5	0.5	1.1	6.8	0.6	1.1	11.2	0.8	0.9	0.3	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	2.3	2.4	3.5	3.9	4.1	4.1	3.9	0.5	3.1	3.1
LnGrp Delay(d),s/veh	29.4	21.3	22.0	31.8	19.5	20.1	35.3	17.9	18.0	23.4	18.3	18.5
LnGrp LOS	C	C	C	C	B	C	D	B	B	C	B	B
Approach Vol, veh/h		488			899			789			489	
Approach Delay, s/veh		22.1			21.5			22.6			18.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.7	10.5	15.4	12.7	20.0	6.9	18.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	3.0	10.1	6.1	6.8	8.6	8.3	3.0	9.4
Green Ext Time (p_c), s	0.0	6.2	0.4	2.7	0.1	6.1	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↱		↰	↱
Traffic Volume (veh/h)	130	380	660	70	70	140
Future Volume (veh/h)	130	380	660	70	70	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	151	442	767	81	81	163
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	259	3226	1802	189	319	516
Arrive On Green	0.14	0.62	0.38	0.38	0.18	0.18
Sat Flow, veh/h	1810	5358	4937	500	1810	1615
Grp Volume(v), veh/h	151	442	555	293	81	163
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1808	1810	1615
Q Serve(g_s), s	3.1	1.4	4.7	4.8	1.5	3.0
Cycle Q Clear(g_c), s	3.1	1.4	4.7	4.8	1.5	3.0
Prop In Lane	1.00			0.28	1.00	1.00
Lane Grp Cap(c), veh/h	259	3226	1308	684	319	516
V/C Ratio(X)	0.58	0.14	0.42	0.43	0.25	0.32
Avail Cap(c_a), veh/h	410	5360	2440	1276	1870	1900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	3.1	9.1	9.2	14.1	10.2
Incr Delay (d2), s/veh	2.1	0.0	0.2	0.4	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.7	2.3	2.4	0.8	3.0
LnGrp Delay(d),s/veh	18.0	3.1	9.4	9.6	14.5	10.6
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		593	848		244	
Approach Delay, s/veh		6.9	9.4		11.9	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				28.7		11.0	9.7	19.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				3.4		5.0	5.1	6.8
Green Ext Time (p_c), s				9.3		0.7	0.1	7.9

Intersection Summary			
HCM 2010 Ctrl Delay			8.9
HCM 2010 LOS			A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↱		↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	70	210	140	120	410	150	140	470	40	50	680	140
Future Volume (veh/h)	70	210	140	120	410	150	140	470	40	50	680	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	269	179	154	526	192	179	603	51	64	872	179
Adj No. of Lanes	2	2	1	2	2	0	1	2	1	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	283	680	302	640	752	273	221	910	404	267	1440	446
Arrive On Green	0.08	0.19	0.19	0.18	0.29	0.29	0.12	0.25	0.25	0.15	0.28	0.28
Sat Flow, veh/h	3510	3610	1602	3510	2591	942	1810	3610	1605	1810	5187	1606
Grp Volume(v), veh/h	90	269	179	154	366	352	179	603	51	64	872	179
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1728	1810	1805	1605	1810	1729	1606
Q Serve(g_s), s	1.7	4.6	7.1	2.6	12.6	12.7	6.7	10.5	1.7	2.2	10.2	6.3
Cycle Q Clear(g_c), s	1.7	4.6	7.1	2.6	12.6	12.7	6.7	10.5	1.7	2.2	10.2	6.3
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	680	302	640	524	502	221	910	404	267	1440	446
V/C Ratio(X)	0.32	0.40	0.59	0.24	0.70	0.70	0.81	0.66	0.13	0.24	0.61	0.40
Avail Cap(c_a), veh/h	352	1811	804	640	932	892	259	1656	736	267	2305	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	24.8	25.9	24.4	22.0	22.1	29.8	23.4	20.2	26.3	21.9	20.5
Incr Delay (d2), s/veh	0.6	0.4	1.9	0.2	1.7	1.8	15.2	0.8	0.1	0.5	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.3	3.3	1.3	6.4	6.3	4.3	5.3	0.8	1.1	4.9	2.9
LnGrp Delay(d),s/veh	30.9	25.2	27.7	24.6	23.7	23.9	45.0	24.3	20.3	26.7	22.3	21.1
LnGrp LOS	C	C	C	C	C	C	D	C	C	C	C	C
Approach Vol, veh/h		538			872			833			1115	
Approach Delay, s/veh		27.0			23.9			28.5			22.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	21.6	16.7	17.1	12.5	23.4	9.6	24.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	8.0	35.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	4.2	12.5	4.6	9.1	8.7	12.2	3.7	14.7
Green Ext Time (p_c), s	0.3	3.7	0.2	2.1	0.1	6.0	0.1	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	90	520	90	30	710	20	180	290	20	60	220	100
Future Volume (veh/h)	90	520	90	30	710	20	180	290	20	60	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	634	110	37	866	24	220	354	24	73	268	122
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	147	1199	208	89	1284	36	255	977	66	129	409	345
Arrive On Green	0.08	0.39	0.39	0.05	0.36	0.36	0.14	0.28	0.28	0.07	0.22	0.22
Sat Flow, veh/h	1810	3076	533	1810	3588	99	1810	3431	232	1810	1900	1604
Grp Volume(v), veh/h	110	372	372	37	436	454	220	185	193	73	268	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1804	1810	1805	1882	1810	1805	1858	1810	1900	1604
Q Serve(g_s), s	4.7	12.4	12.4	1.6	16.0	16.0	9.3	6.4	6.5	3.1	10.1	5.1
Cycle Q Clear(g_c), s	4.7	12.4	12.4	1.6	16.0	16.0	9.3	6.4	6.5	3.1	10.1	5.1
Prop In Lane	1.00		0.30	1.00		0.05	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	147	704	703	89	646	674	255	514	529	129	409	345
V/C Ratio(X)	0.75	0.53	0.53	0.41	0.67	0.67	0.86	0.36	0.36	0.57	0.65	0.35
Avail Cap(c_a), veh/h	162	704	703	162	646	674	255	692	713	208	680	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	18.3	18.3	36.1	21.2	21.2	32.9	22.3	22.3	35.2	28.0	26.1
Incr Delay (d2), s/veh	15.8	2.8	2.8	3.0	5.6	5.3	25.1	0.4	0.4	3.9	1.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.6	6.7	0.8	8.9	9.2	6.4	3.3	3.4	1.7	5.5	2.3
LnGrp Delay(d),s/veh	51.0	21.2	21.2	39.1	26.8	26.6	58.0	22.7	22.7	39.0	29.8	26.7
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		854			927			598			463	
Approach Delay, s/veh		25.0			27.2			35.7			30.4	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	26.3	7.9	34.5	15.0	20.8	10.4	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0	7.0	28.0	11.0	28.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	5.1	8.5	3.6	14.4	11.3	12.1	6.7	18.0
Green Ext Time (p_c), s	0.0	3.8	0.0	7.5	0.0	3.5	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	70	370	140	170	480	70	130	560	190	80	420	80
Future Volume (veh/h)	70	370	140	170	480	70	130	560	190	80	420	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	420	159	193	545	80	148	636	0	91	477	91
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	905	339	231	1403	625	195	907	406	135	658	125
Arrive On Green	0.09	0.35	0.35	0.13	0.39	0.39	0.11	0.25	0.00	0.07	0.22	0.22
Sat Flow, veh/h	1810	2568	962	1810	3610	1609	1810	3610	1615	1810	3025	574
Grp Volume(v), veh/h	80	294	285	193	545	80	148	636	0	91	283	285
Grp Sat Flow(s),veh/h/ln	1810	1805	1725	1810	1805	1609	1810	1805	1615	1810	1805	1794
Q Serve(g_s), s	3.5	10.4	10.6	8.6	8.9	1.9	6.5	13.2	0.0	4.0	12.0	12.1
Cycle Q Clear(g_c), s	3.5	10.4	10.6	8.6	8.9	1.9	6.5	13.2	0.0	4.0	12.0	12.1
Prop In Lane	1.00		0.56	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	165	636	608	231	1403	625	195	907	406	135	393	390
V/C Ratio(X)	0.48	0.46	0.47	0.84	0.39	0.13	0.76	0.70	0.00	0.68	0.72	0.73
Avail Cap(c_a), veh/h	198	636	608	264	1403	625	220	1360	608	154	614	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	20.6	20.7	35.1	18.1	8.4	35.7	28.0	0.0	37.1	29.9	29.9
Incr Delay (d2), s/veh	2.2	2.4	2.6	18.3	0.8	0.4	12.6	1.0	0.0	9.4	2.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.6	5.4	5.5	4.6	1.2	3.9	6.7	0.0	2.4	6.3	6.3
LnGrp Delay(d),s/veh	37.7	23.0	23.3	53.4	18.9	8.8	48.3	29.0	0.0	46.5	32.4	32.6
LnGrp LOS	D	C	C	D	B	A	D	C		D	C	C
Approach Vol, veh/h		659			818			784			659	
Approach Delay, s/veh		24.9			26.1			32.6			34.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	24.7	14.5	33.0	12.9	21.9	11.5	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	12.0	29.0	10.0	28.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.0	15.2	10.6	12.6	8.5	14.1	5.5	10.9
Green Ext Time (p_c), s	0.0	3.8	0.1	3.0	0.7	2.5	1.2	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	190	360	130	150	410	210	160	360	110	190	340	270
Future Volume (veh/h)	190	360	130	150	410	210	160	360	110	190	340	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	241	456	165	190	519	266	203	456	139	241	430	342
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	908	326	226	754	385	284	682	301	283	953	424
Arrive On Green	0.15	0.35	0.35	0.12	0.33	0.33	0.08	0.19	0.19	0.16	0.26	0.26
Sat Flow, veh/h	1810	2602	934	1810	2310	1180	3510	3610	1594	1810	3610	1606
Grp Volume(v), veh/h	241	315	306	190	405	380	203	456	139	241	430	342
Grp Sat Flow(s),veh/h/ln	1810	1805	1730	1810	1805	1685	1755	1805	1594	1810	1805	1606
Q Serve(g_s), s	11.6	12.2	12.3	9.1	17.2	17.3	5.0	10.4	5.0	11.4	8.8	17.6
Cycle Q Clear(g_c), s	11.6	12.2	12.3	9.1	17.2	17.3	5.0	10.4	5.0	11.4	8.8	17.6
Prop In Lane	1.00		0.54	1.00		0.70	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	630	604	226	589	550	284	682	301	283	953	424
V/C Ratio(X)	0.90	0.50	0.51	0.84	0.69	0.69	0.71	0.67	0.46	0.85	0.45	0.81
Avail Cap(c_a), veh/h	266	838	804	246	818	764	437	1145	505	283	1227	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	22.7	22.7	37.8	25.8	25.9	39.6	33.2	17.2	36.3	27.1	30.4
Incr Delay (d2), s/veh	31.4	0.6	0.7	21.1	1.4	1.6	3.3	1.1	1.1	21.4	0.3	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	6.1	6.0	5.9	8.8	8.3	2.6	5.2	2.8	7.4	4.4	8.6
LnGrp Delay(d),s/veh	68.5	23.3	23.4	58.9	27.3	27.4	42.9	34.4	18.3	57.7	27.5	37.2
LnGrp LOS	E	C	C	E	C	C	D	C	B	E	C	D
Approach Vol, veh/h		862			975			798			1013	
Approach Delay, s/veh		36.0			33.5			33.7			37.9	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	20.7	15.0	34.8	11.2	27.3	17.0	32.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	28.0	12.0	41.0	11.0	30.0	13.0	40.0
Max Q Clear Time (g_c+I1), s	13.4	12.4	11.1	14.3	7.0	19.6	13.6	19.3
Green Ext Time (p_c), s	0.0	2.8	0.0	9.0	0.2	3.1	0.0	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	140	490	50	70	1400	130	70	260	20	150	240	230
Future Volume (veh/h)	140	490	50	70	1400	130	70	260	20	150	240	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	154	538	55	77	1538	143	77	286	22	165	264	253
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	1514	675	189	2024	188	241	713	55	281	799	355
Arrive On Green	0.10	0.42	0.42	0.10	0.42	0.42	0.07	0.21	0.21	0.08	0.22	0.22
Sat Flow, veh/h	1810	3610	1609	1810	4828	449	3510	3397	260	3510	3610	1604
Grp Volume(v), veh/h	154	538	55	77	1101	580	77	151	157	165	264	253
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1729	1819	1755	1805	1852	1755	1805	1604
Q Serve(g_s), s	7.2	8.7	1.3	3.4	23.3	23.3	1.8	6.2	6.3	3.9	5.3	9.3
Cycle Q Clear(g_c), s	7.2	8.7	1.3	3.4	23.3	23.3	1.8	6.2	6.3	3.9	5.3	9.3
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	189	1514	675	189	1450	763	241	379	389	281	799	355
V/C Ratio(X)	0.81	0.36	0.08	0.41	0.76	0.76	0.32	0.40	0.40	0.59	0.33	0.71
Avail Cap(c_a), veh/h	211	1514	675	211	1450	763	286	862	884	286	1724	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	17.0	7.8	36.0	21.2	21.3	38.1	29.2	29.3	38.1	28.1	17.2
Incr Delay (d2), s/veh	19.5	0.7	0.2	1.4	3.8	7.0	0.8	0.7	0.7	3.0	0.2	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.5	0.8	1.8	11.8	13.1	0.9	3.2	3.3	2.0	2.7	4.8
LnGrp Delay(d),s/veh	57.2	17.7	8.0	37.4	25.0	28.3	38.8	29.9	30.0	41.2	28.3	19.9
LnGrp LOS	E	B	A	D	C	C	D	C	C	D	C	B
Approach Vol, veh/h		747			1758			385			682	
Approach Delay, s/veh		25.1			26.6			31.7			28.3	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	22.0	13.0	40.0	9.9	23.0	13.0	40.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	41.0	10.0	36.0	7.0	41.0	10.0	36.0				
Max Q Clear Time (g_c+I1), s	5.9	8.3	5.4	10.7	3.8	11.3	9.2	25.3				
Green Ext Time (p_c), s	0.1	4.9	0.3	3.5	0.0	4.8	0.1	7.2				
Intersection Summary												
HCM 2010 Ctrl Delay			27.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	40	570	60	90	1460	120	80	210	50	180	180	100
Future Volume (veh/h)	40	570	60	90	1460	120	80	210	50	180	180	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	620	0	98	1587	130	87	228	54	196	196	109
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	1459	653	185	2214	181	134	471	109	245	509	270
Arrive On Green	0.05	0.40	0.00	0.10	0.45	0.45	0.07	0.16	0.16	0.14	0.22	0.22
Sat Flow, veh/h	1810	3610	1615	1810	4886	400	1810	2905	674	1810	2273	1209
Grp Volume(v), veh/h	43	620	0	98	1123	594	87	140	142	196	154	151
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1828	1810	1805	1774	1810	1805	1677
Q Serve(g_s), s	1.9	10.1	0.0	4.2	21.5	21.5	3.8	5.7	6.0	8.6	5.9	6.3
Cycle Q Clear(g_c), s	1.9	10.1	0.0	4.2	21.5	21.5	3.8	5.7	6.0	8.6	5.9	6.3
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.38	1.00		0.72
Lane Grp Cap(c), veh/h	97	1459	653	185	1567	828	134	293	287	245	404	375
V/C Ratio(X)	0.44	0.42	0.00	0.53	0.72	0.72	0.65	0.48	0.49	0.80	0.38	0.40
Avail Cap(c_a), veh/h	155	1459	653	244	1567	828	266	928	912	288	951	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	17.5	0.0	34.8	18.1	18.1	36.8	31.1	31.2	34.2	26.9	27.0
Incr Delay (d2), s/veh	3.2	0.9	0.0	2.3	2.8	5.3	5.3	1.2	1.3	12.8	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.2	0.0	2.2	10.8	11.9	2.1	3.0	3.0	5.2	3.0	3.0
LnGrp Delay(d),s/veh	40.7	18.4	0.0	37.1	20.9	23.4	42.1	32.3	32.5	47.0	27.5	27.7
LnGrp LOS	D	B		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		663			1815			369			501	
Approach Delay, s/veh		19.9			22.6			34.7			35.2	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	17.2	12.4	37.0	10.0	22.3	8.4	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	42.0	11.0	33.0	12.0	43.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	10.6	8.0	6.2	12.1	5.8	8.3	3.9	23.5
Green Ext Time (p_c), s	0.6	1.7	0.1	3.7	0.1	2.5	0.1	8.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	100	490	60	30	1320	140	170	480	40	140	350	220
Future Volume (veh/h)	100	490	60	30	1320	140	170	480	40	140	350	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	109	533	65	33	1435	152	185	522	43	152	380	239
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	2092	846	142	1921	203	221	801	66	155	724	448
Arrive On Green	0.08	0.40	0.40	0.08	0.40	0.40	0.12	0.24	0.24	0.09	0.20	0.20
Sat Flow, veh/h	1810	5187	1609	1810	4762	504	1810	3377	277	1810	3610	1603
Grp Volume(v), veh/h	109	533	65	33	1042	545	185	278	287	152	380	239
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1809	1810	1805	1849	1810	1805	1603
Q Serve(g_s), s	4.8	5.6	0.0	1.4	21.1	21.1	8.2	11.4	11.4	6.9	7.7	6.5
Cycle Q Clear(g_c), s	4.8	5.6	0.0	1.4	21.1	21.1	8.2	11.4	11.4	6.9	7.7	6.5
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	142	2092	846	142	1395	730	221	428	439	155	724	448
V/C Ratio(X)	0.77	0.25	0.08	0.23	0.75	0.75	0.84	0.65	0.65	0.98	0.52	0.53
Avail Cap(c_a), veh/h	155	2092	846	155	1395	730	221	927	949	155	1853	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	16.2	9.6	35.4	20.8	20.8	35.1	28.1	28.2	37.3	29.2	11.2
Incr Delay (d2), s/veh	19.1	0.3	0.2	0.8	3.7	6.9	23.6	1.7	1.7	66.7	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.7	0.8	0.7	10.7	11.8	5.5	5.8	6.0	6.2	3.9	3.0
LnGrp Delay(d),s/veh	56.1	16.5	9.8	36.2	24.5	27.7	58.7	29.8	29.8	104.0	29.8	12.2
LnGrp LOS	E	B	A	D	C	C	E	C	C	F	C	B
Approach Vol, veh/h		707			1620			750			771	
Approach Delay, s/veh		22.0			25.8			36.9			39.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	23.4	10.4	37.0	14.0	20.4	10.4	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	7.0	33.0	7.0	42.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	8.9	13.4	3.4	7.6	10.2	9.7	6.8	23.1
Green Ext Time (p_c), s	0.0	3.3	2.8	3.6	0.0	3.6	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	440	90	80	1190	40	130	280	80	80	220	100
Future Volume (veh/h)	60	440	90	80	1190	40	130	280	80	80	220	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	478	98	87	1293	43	141	304	87	87	239	109
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	1740	348	153	2141	71	178	568	160	160	473	209
Arrive On Green	0.07	0.40	0.40	0.08	0.42	0.42	0.10	0.20	0.20	0.09	0.19	0.19
Sat Flow, veh/h	1810	4334	867	1810	5156	171	1810	2779	781	1810	2432	1074
Grp Volume(v), veh/h	65	379	197	87	867	469	141	196	195	87	175	173
Grp Sat Flow(s),veh/h/ln	1810	1729	1743	1810	1729	1869	1810	1805	1755	1810	1805	1701
Q Serve(g_s), s	2.5	5.3	5.5	3.3	14.1	14.1	5.5	7.0	7.2	3.3	6.3	6.6
Cycle Q Clear(g_c), s	2.5	5.3	5.5	3.3	14.1	14.1	5.5	7.0	7.2	3.3	6.3	6.6
Prop In Lane	1.00		0.50	1.00		0.09	1.00		0.45	1.00		0.63
Lane Grp Cap(c), veh/h	128	1388	700	153	1436	776	178	369	359	160	351	331
V/C Ratio(X)	0.51	0.27	0.28	0.57	0.60	0.60	0.79	0.53	0.54	0.54	0.50	0.52
Avail Cap(c_a), veh/h	175	1388	700	200	1436	776	200	1099	1069	200	1099	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	14.5	14.6	31.8	16.5	16.5	31.9	25.6	25.7	31.5	26.0	26.1
Incr Delay (d2), s/veh	3.1	0.5	1.0	3.3	1.9	3.5	17.5	1.2	1.3	2.9	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.6	2.8	1.8	7.1	8.0	3.6	3.6	3.6	1.8	3.2	3.2
LnGrp Delay(d),s/veh	35.5	15.0	15.6	35.1	18.4	20.0	49.4	26.8	27.0	34.4	27.1	27.4
LnGrp LOS	D	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		641			1423			532			435	
Approach Delay, s/veh		17.3			19.9			32.9			28.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	18.8	10.1	33.0	11.1	18.1	9.1	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	44.0	8.0	29.0	8.0	44.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	5.3	9.2	5.3	7.5	7.5	8.6	4.5	16.1
Green Ext Time (p_c), s	0.2	2.5	0.1	3.3	0.0	2.3	0.1	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	100	350	90	140	960	130	210	770	140	170	630	240
Future Volume (veh/h)	100	350	90	140	960	130	210	770	140	170	630	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	393	101	157	1079	146	236	865	157	191	708	270
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	1264	563	243	1627	220	235	1122	500	199	1050	467
Arrive On Green	0.07	0.35	0.35	0.07	0.35	0.35	0.13	0.31	0.31	0.11	0.29	0.29
Sat Flow, veh/h	3510	3610	1608	3510	4620	624	1810	3610	1607	1810	3610	1607
Grp Volume(v), veh/h	112	393	101	157	807	418	236	865	157	191	708	270
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1787	1810	1805	1607	1810	1805	1607
Q Serve(g_s), s	3.1	7.9	4.4	4.4	19.7	19.8	13.0	21.7	5.8	10.5	17.3	14.3
Cycle Q Clear(g_c), s	3.1	7.9	4.4	4.4	19.7	19.8	13.0	21.7	5.8	10.5	17.3	14.3
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	1264	563	243	1218	629	235	1122	500	199	1050	467
V/C Ratio(X)	0.48	0.31	0.18	0.65	0.66	0.66	1.00	0.77	0.31	0.96	0.67	0.58
Avail Cap(c_a), veh/h	246	1264	563	246	1218	629	235	1480	659	199	1408	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	23.7	22.5	45.4	27.4	27.4	43.5	31.2	16.2	44.3	31.3	30.2
Incr Delay (d2), s/veh	1.5	0.6	0.7	5.7	2.9	5.5	59.5	1.8	0.4	52.0	0.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.0	2.0	2.3	9.9	10.7	10.4	11.1	2.6	8.1	8.8	6.5
LnGrp Delay(d),s/veh	46.5	24.3	23.2	51.1	30.2	32.8	103.0	33.1	16.5	96.3	32.1	31.4
LnGrp LOS	D	C	C	D	C	C	F	C	B	F	C	C
Approach Vol, veh/h		606			1382			1258			1169	
Approach Delay, s/veh		28.2			33.4			44.1			42.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	35.1	10.9	39.0	17.0	33.1	10.7	39.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	12.5	23.7	6.4	9.9	15.0	19.3	5.1	21.8
Green Ext Time (p_c), s	0.0	5.9	0.0	11.9	0.0	6.0	0.0	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	170	1140	2190	170	140	140
Future Volume (veh/h)	170	1140	2190	170	140	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	1213	2330	181	149	149
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	208	3912	2976	1108	403	371
Arrive On Green	0.11	0.75	0.57	0.57	0.11	0.11
Sat Flow, veh/h	1810	5358	5358	1608	3510	1615
Grp Volume(v), veh/h	181	1213	2330	181	149	149
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1608	1755	1615
Q Serve(g_s), s	6.0	4.6	21.2	2.4	2.4	0.0
Cycle Q Clear(g_c), s	6.0	4.6	21.2	2.4	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	208	3912	2976	1108	403	371
V/C Ratio(X)	0.87	0.31	0.78	0.16	0.37	0.40
Avail Cap(c_a), veh/h	208	3912	2976	1108	1784	1006
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	2.4	10.1	3.3	25.0	19.9
Incr Delay (d2), s/veh	30.7	0.2	2.1	0.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.2	10.5	1.6	1.2	2.6
LnGrp Delay(d),s/veh	57.3	2.6	12.2	3.7	25.5	20.7
LnGrp LOS	E	A	B	A	C	C
Approach Vol, veh/h		1394	2511		298	
Approach Delay, s/veh		9.7	11.6		23.1	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		11.0	11.0	39.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	7.0	35.0
Max Q Clear Time (g_c+I1), s				6.6		4.4	8.0	23.2
Green Ext Time (p_c), s				10.4		1.0	0.0	10.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	1030	160	20	1990	100	180	60	10	110	70	100
Future Volume (veh/h)	110	1030	160	20	1990	100	180	60	10	110	70	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1084	168	21	2095	105	189	63	11	116	74	105
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	2817	875	126	2691	134	275	387	66	146	462	335
Arrive On Green	0.08	0.54	0.54	0.07	0.53	0.53	0.08	0.13	0.13	0.08	0.13	0.13
Sat Flow, veh/h	1810	5187	1611	1810	5060	253	3510	3081	524	1810	3610	1596
Grp Volume(v), veh/h	116	1084	168	21	1429	771	189	36	38	116	74	105
Grp Sat Flow(s),veh/h/ln	1810	1729	1611	1810	1729	1855	1755	1805	1800	1810	1805	1596
Q Serve(g_s), s	5.6	10.7	3.0	1.0	29.1	29.4	4.6	1.6	1.7	5.6	1.6	4.9
Cycle Q Clear(g_c), s	5.6	10.7	3.0	1.0	29.1	29.4	4.6	1.6	1.7	5.6	1.6	4.9
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	146	2817	875	126	1839	986	275	227	226	146	462	335
V/C Ratio(X)	0.79	0.38	0.19	0.17	0.78	0.78	0.69	0.16	0.17	0.79	0.16	0.31
Avail Cap(c_a), veh/h	164	2817	875	143	1839	986	358	735	733	164	1430	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	11.7	4.1	38.7	16.5	16.6	39.7	34.5	34.5	39.9	34.3	29.6
Incr Delay (d2), s/veh	21.0	0.4	0.5	0.6	3.3	6.2	3.6	0.3	0.3	21.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.1	1.9	0.5	14.5	16.7	2.4	0.8	0.8	3.6	0.8	2.2
LnGrp Delay(d),s/veh	60.9	12.1	4.6	39.3	19.8	22.7	43.3	34.8	34.9	60.9	34.5	30.2
LnGrp LOS	E	B	A	D	B	C	D	C	C	E	C	C
Approach Vol, veh/h		1368			2221			263			295	
Approach Delay, s/veh		15.3			21.0			40.9			43.3	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	15.1	10.1	52.0	10.9	15.3	11.1	51.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	7.0	48.0	9.0	35.0	8.0	47.0
Max Q Clear Time (g_c+I1), s	7.6	3.7	3.0	12.7	6.6	6.9	7.6	31.4
Green Ext Time (p_c), s	0.0	1.2	3.6	8.9	0.1	1.2	0.0	11.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	90	600	450	20	1200	110	750	510	10	60	300	100
Future Volume (veh/h)	90	600	450	20	1200	110	750	510	10	60	300	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	652	489	22	1304	120	815	554	11	65	326	109
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	2200	1077	91	1394	128	857	1319	26	84	444	146
Arrive On Green	0.06	0.42	0.42	0.05	0.42	0.42	0.24	0.36	0.36	0.05	0.17	0.17
Sat Flow, veh/h	1810	5187	1609	1810	3343	307	3510	3620	72	1810	2666	875
Grp Volume(v), veh/h	98	652	489	22	702	722	815	276	289	65	219	216
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1805	1845	1755	1805	1887	1810	1805	1736
Q Serve(g_s), s	7.5	11.5	0.0	1.6	51.6	52.2	31.8	16.0	16.0	4.9	16.0	16.5
Cycle Q Clear(g_c), s	7.5	11.5	0.0	1.6	51.6	52.2	31.8	16.0	16.0	4.9	16.0	16.5
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.04	1.00		0.50
Lane Grp Cap(c), veh/h	104	2200	1077	91	753	769	857	658	687	84	301	289
V/C Ratio(X)	0.94	0.30	0.45	0.24	0.93	0.94	0.95	0.42	0.42	0.78	0.73	0.75
Avail Cap(c_a), veh/h	104	2200	1077	91	753	769	858	740	773	143	441	424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	26.4	11.0	63.5	38.7	38.8	51.8	33.2	33.2	65.6	55.0	55.2
Incr Delay (d2), s/veh	69.5	0.3	1.4	1.4	20.0	20.5	19.9	0.4	0.4	14.2	3.4	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	5.6	9.2	0.8	29.9	30.9	17.8	8.1	8.4	2.8	8.2	8.3
LnGrp Delay(d),s/veh	134.9	26.7	12.4	64.9	58.7	59.4	71.6	33.6	33.6	79.8	58.4	59.3
LnGrp LOS	F	C	B	E	E	E	E	C	C	E	E	E
Approach Vol, veh/h		1239			1446			1380			500	
Approach Delay, s/veh		29.6			59.1			56.1			61.6	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	54.7	11.0	63.0	37.9	27.2	12.0	62.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	57.0	7.0	59.0	34.0	34.0	8.0	58.0
Max Q Clear Time (g_c+I1), s	6.9	18.0	3.6	13.5	33.8	18.5	9.5	54.2
Green Ext Time (p_c), s	0.0	8.1	0.1	6.7	0.1	2.3	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	50.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	40	510	110	60	1060	90	130	400	80	110	270	40
Future Volume (veh/h)	40	510	110	60	1060	90	130	400	80	110	270	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	46	586	126	69	1218	103	149	460	92	126	310	46
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1187	254	128	1397	118	261	675	134	160	534	78
Arrive On Green	0.06	0.40	0.40	0.07	0.41	0.41	0.14	0.23	0.23	0.09	0.17	0.17
Sat Flow, veh/h	1810	2956	634	1810	3369	284	1810	2999	596	1810	3155	463
Grp Volume(v), veh/h	46	357	355	69	651	670	149	276	276	126	176	180
Grp Sat Flow(s),veh/h/ln	1810	1805	1785	1810	1805	1849	1810	1805	1790	1810	1805	1813
Q Serve(g_s), s	1.8	11.0	11.1	2.8	24.7	24.8	5.7	10.4	10.6	5.1	6.7	6.8
Cycle Q Clear(g_c), s	1.8	11.0	11.1	2.8	24.7	24.8	5.7	10.4	10.6	5.1	6.7	6.8
Prop In Lane	1.00		0.36	1.00		0.15	1.00		0.33	1.00		0.26
Lane Grp Cap(c), veh/h	104	724	717	128	749	767	261	406	403	160	306	307
V/C Ratio(X)	0.44	0.49	0.50	0.54	0.87	0.87	0.57	0.68	0.69	0.79	0.58	0.59
Avail Cap(c_a), veh/h	169	724	717	194	749	767	261	676	671	194	700	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	16.7	16.7	33.5	20.0	20.1	29.8	26.5	26.5	33.4	28.6	28.6
Incr Delay (d2), s/veh	2.9	2.4	2.4	3.5	13.2	13.1	3.0	2.0	2.1	16.1	1.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.9	5.9	1.5	14.9	15.4	3.1	5.4	5.5	3.3	3.5	3.6
LnGrp Delay(d),s/veh	37.0	19.1	19.2	37.0	33.2	33.2	32.8	28.5	28.6	49.5	30.3	30.4
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		758			1390			701			482	
Approach Delay, s/veh		20.2			33.4			29.4			35.3	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	20.8	9.3	34.0	14.8	16.7	8.3	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	8.0	30.0	7.0	29.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	7.1	12.6	4.8	13.1	7.7	8.8	3.8	26.8
Green Ext Time (p_c), s	0.0	3.0	2.2	3.6	0.0	2.0	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	100	470	140	70	830	100	270	780	100	80	570	130
Future Volume (veh/h)	100	470	140	70	830	100	270	780	100	80	570	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	540	161	80	954	115	310	897	115	92	655	149
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	1050	312	122	1201	145	142	1395	178	128	1235	277
Arrive On Green	0.08	0.38	0.38	0.07	0.37	0.37	0.08	0.30	0.30	0.07	0.29	0.29
Sat Flow, veh/h	1810	2743	815	1810	3243	391	1810	4655	594	1810	4236	949
Grp Volume(v), veh/h	115	355	346	80	531	538	310	665	347	92	533	271
Grp Sat Flow(s),veh/h/ln	1810	1805	1752	1810	1805	1829	1810	1729	1792	1810	1729	1727
Q Serve(g_s), s	5.6	13.5	13.6	3.8	23.4	23.4	7.0	14.9	15.0	4.4	11.5	11.8
Cycle Q Clear(g_c), s	5.6	13.5	13.6	3.8	23.4	23.4	7.0	14.9	15.0	4.4	11.5	11.8
Prop In Lane	1.00		0.46	1.00		0.21	1.00		0.33	1.00		0.55
Lane Grp Cap(c), veh/h	145	691	671	122	668	677	142	1036	537	128	1009	504
V/C Ratio(X)	0.79	0.51	0.52	0.65	0.79	0.79	2.18	0.64	0.65	0.72	0.53	0.54
Avail Cap(c_a), veh/h	162	691	671	142	668	677	142	1036	537	142	1009	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	21.1	21.2	40.5	25.0	25.0	41.1	27.1	27.1	40.6	26.4	26.5
Incr Delay (d2), s/veh	21.1	2.7	2.8	8.3	9.4	9.3	554.2	3.1	5.9	14.6	2.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	7.2	7.1	2.2	13.4	13.6	25.3	7.6	8.3	2.7	5.8	6.1
LnGrp Delay(d),s/veh	61.3	23.9	24.0	48.8	34.5	34.4	595.3	30.1	33.0	55.2	28.4	30.6
LnGrp LOS	E	C	C	D	C	C	F	C	C	E	C	C
Approach Vol, veh/h		816			1149			1322			896	
Approach Delay, s/veh		29.2			35.4			163.4			31.8	
Approach LOS		C			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	30.7	10.0	38.1	11.0	30.0	11.1	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	8.0	33.0
Max Q Clear Time (g_c+I1), s	6.4	17.0	5.8	15.6	9.0	13.8	7.6	25.4
Green Ext Time (p_c), s	0.0	4.7	0.0	4.0	0.0	4.0	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	73.9
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	150	1140	160	90	2280	430	680	590	80	110	80	130
Future Volume (veh/h)	150	1140	160	90	2280	430	680	590	80	110	80	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1188	167	94	2375	448	708	615	83	115	83	135
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	2353	730	248	2314	718	537	808	832	258	521	231
Arrive On Green	0.08	0.45	0.45	0.07	0.45	0.45	0.15	0.22	0.22	0.07	0.14	0.14
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2823	3510	3610	1598
Grp Volume(v), veh/h	156	1188	167	94	2375	448	708	615	83	115	83	135
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1412	1755	1805	1598
Q Serve(g_s), s	7.0	14.6	3.2	2.3	40.0	19.2	13.7	14.3	1.9	2.8	1.8	5.7
Cycle Q Clear(g_c), s	7.0	14.6	3.2	2.3	40.0	19.2	13.7	14.3	1.9	2.8	1.8	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	2353	730	248	2314	718	537	808	832	258	521	231
V/C Ratio(X)	1.10	0.50	0.23	0.38	1.03	0.62	1.32	0.76	0.10	0.44	0.16	0.59
Avail Cap(c_a), veh/h	141	2353	730	274	2314	718	537	1772	1586	313	1812	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	17.4	4.6	39.8	24.8	19.1	38.0	32.6	23.0	39.8	33.6	23.2
Incr Delay (d2), s/veh	106.4	0.2	0.2	1.0	25.8	1.7	155.7	1.5	0.1	1.2	0.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	7.0	2.3	1.1	24.4	8.8	18.2	7.3	0.7	1.4	0.9	3.0
LnGrp Delay(d),s/veh	147.7	17.5	4.8	40.7	50.6	20.7	193.7	34.1	23.1	41.0	33.7	25.6
LnGrp LOS	F	B	A	D	F	C	F	C	C	D	C	C
Approach Vol, veh/h		1511			2917			1406			333	
Approach Delay, s/veh		29.6			45.7			113.8			32.9	
Approach LOS		C			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	24.1	10.3	44.7	17.7	16.9	11.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	44.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	4.8	16.3	4.3	16.6	15.7	7.7	9.0	42.0
Green Ext Time (p_c), s	0.1	3.8	0.1	22.5	0.0	0.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	56.6
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	740	530	0	2530	0	0	0	0	190	0	300
Future Volume (veh/h)	0	740	530	0	2530	0	0	0	0	190	0	300
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	0.95
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	763	546	0	2608	0				131	0	379
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2322	1084	0	3483	0				321	0	545
Arrive On Green	0.00	0.67	0.67	0.00	0.67	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	3629	1615	0	5529	0				1810	0	3068
Grp Volume(v), veh/h	0	763	546	0	2608	0				131	0	379
Grp Sat Flow(s),veh/h/ln	0	1729	1615	0	1729	0				1810	0	1534
Q Serve(g_s), s	0.0	4.9	8.9	0.0	17.6	0.0				3.4	0.0	6.1
Cycle Q Clear(g_c), s	0.0	4.9	8.9	0.0	17.6	0.0				3.4	0.0	6.1
Prop In Lane	0.00		1.00	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2322	1084	0	3483	0				321	0	545
V/C Ratio(X)	0.00	0.33	0.50	0.00	0.75	0.00				0.41	0.00	0.70
Avail Cap(c_a), veh/h	0	2350	1098	0	3525	0				547	0	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.7	4.3	0.0	5.7	0.0				19.3	0.0	20.4
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.0	0.9	0.0				0.8	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	3.9	0.0	8.5	0.0				1.7	0.0	2.7
LnGrp Delay(d),s/veh	0.0	3.7	4.7	0.0	6.7	0.0				20.1	0.0	22.1
LnGrp LOS		A	A		A					C		C
Approach Vol, veh/h		1309			2608						510	
Approach Delay, s/veh		4.1			6.7						21.6	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				39.6		13.4		39.6
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s				10.9		8.1		19.6
Green Ext Time (p_c), s				24.2		1.3		16.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.6
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✣	↱			
Traffic Volume (veh/h)	70	870	0	0	1980	160	880	10	190	0	0	0
Future Volume (veh/h)	70	870	0	0	1980	160	880	10	190	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	72	897	0	0	2041	165	972	0	134			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	123	3084	0	0	2343	188	1120	0	500			
Arrive On Green	0.07	0.59	0.00	0.00	0.48	0.48	0.31	0.00	0.31			
Sat Flow, veh/h	1810	5358	0	0	5065	393	3619	0	1615			
Grp Volume(v), veh/h	72	897	0	0	1438	768	972	0	134			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1829	1810	0	1615			
Q Serve(g_s), s	3.2	7.1	0.0	0.0	31.0	31.5	21.2	0.0	5.2			
Cycle Q Clear(g_c), s	3.2	7.1	0.0	0.0	31.0	31.5	21.2	0.0	5.2			
Prop In Lane	1.00		0.00	0.00		0.21	1.00		1.00			
Lane Grp Cap(c), veh/h	123	3084	0	0	1655	876	1120	0	500			
V/C Ratio(X)	0.58	0.29	0.00	0.00	0.87	0.88	0.87	0.00	0.27			
Avail Cap(c_a), veh/h	152	3231	0	0	1698	898	1301	0	580			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	37.8	8.3	0.0	0.0	19.4	19.6	27.2	0.0	21.7			
Incr Delay (d2), s/veh	4.3	0.1	0.0	0.0	5.0	9.7	5.8	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.8	3.3	0.0	0.0	15.7	18.1	11.4	0.0	2.3			
LnGrp Delay(d),s/veh	42.1	8.3	0.0	0.0	24.5	29.2	33.0	0.0	22.0			
LnGrp LOS	D	A			C	C	C		C			
Approach Vol, veh/h		969			2206			1106				
Approach Delay, s/veh		10.9			26.1			31.7				
Approach LOS		B			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		29.8		53.6			9.7	44.0
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		30.0		52.0			7.0	41.0
Max Q Clear Time (g_c+I1), s		23.2		9.1			5.2	33.5
Green Ext Time (p_c), s		2.7		7.3			1.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	250	760	120	30	1680	130	270	490	20	20	60	200
Future Volume (veh/h)	250	760	120	30	1680	130	270	490	20	20	60	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	263	800	126	32	1768	0	284	516	21	21	63	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	283	1655	261	146	1912	855	439	642	287	50	291	130
Arrive On Green	0.08	0.53	0.53	0.08	0.53	0.00	0.13	0.18	0.18	0.03	0.08	0.00
Sat Flow, veh/h	3510	3124	492	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	263	462	464	32	1768	0	284	516	21	21	63	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1812	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.5	14.1	14.1	1.4	39.2	0.0	6.7	11.9	0.9	1.0	1.4	0.0
Cycle Q Clear(g_c), s	6.5	14.1	14.1	1.4	39.2	0.0	6.7	11.9	0.9	1.0	1.4	0.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	956	959	146	1912	855	439	642	287	50	291	130
V/C Ratio(X)	0.93	0.48	0.48	0.22	0.92	0.00	0.65	0.80	0.07	0.42	0.22	0.00
Avail Cap(c_a), veh/h	283	956	959	146	1912	855	439	790	353	146	748	335
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.7	12.9	12.9	37.4	18.8	0.0	36.2	34.2	29.7	41.5	37.4	0.0
Incr Delay (d2), s/veh	35.4	1.7	1.7	0.7	9.1	0.0	3.3	4.9	0.1	5.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	7.4	7.4	0.8	21.8	0.0	3.4	6.4	0.4	0.6	0.7	0.0
LnGrp Delay(d),s/veh	75.0	14.7	14.7	38.1	28.0	0.0	39.5	39.2	29.8	47.0	37.7	0.0
LnGrp LOS	E	B	B	D	C		D	D	C	D	D	
Approach Vol, veh/h		1189			1800			821			84	
Approach Delay, s/veh		28.0			28.1			39.0			40.1	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	19.5	11.0	50.0	14.9	11.0	11.0	50.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	46.0	8.0	18.0	7.0	46.0
Max Q Clear Time (g_c+I1), s	3.0	13.9	3.4	16.1	8.7	3.4	8.5	41.2
Green Ext Time (p_c), s	0.0	1.5	3.0	6.0	0.0	0.2	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	30.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	140	660	30	20	1520	130	40	80	20	60	20	130
Future Volume (veh/h)	140	660	30	20	1520	130	40	80	20	60	20	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	695	32	21	1600	137	42	84	21	63	21	137
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	186	2826	130	62	2370	203	285	325	81	340	48	314
Arrive On Green	0.10	0.56	0.56	0.03	0.49	0.49	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	5083	233	1810	4866	416	1242	1466	366	1303	218	1420
Grp Volume(v), veh/h	147	472	255	21	1137	600	42	0	105	63	0	158
Grp Sat Flow(s),veh/h/ln	1810	1729	1858	1810	1729	1824	1242	0	1832	1303	0	1638
Q Serve(g_s), s	5.0	4.5	4.5	0.7	16.0	16.0	1.9	0.0	3.0	2.7	0.0	5.3
Cycle Q Clear(g_c), s	5.0	4.5	4.5	0.7	16.0	16.0	7.2	0.0	3.0	5.7	0.0	5.3
Prop In Lane	1.00		0.13	1.00		0.23	1.00		0.20	1.00		0.87
Lane Grp Cap(c), veh/h	186	1922	1033	62	1684	888	285	0	406	340	0	363
V/C Ratio(X)	0.79	0.25	0.25	0.34	0.67	0.68	0.15	0.00	0.26	0.19	0.00	0.44
Avail Cap(c_a), veh/h	227	1922	1033	199	1684	888	869	0	1267	952	0	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.9	7.3	7.3	30.0	12.5	12.5	24.5	0.0	20.5	22.8	0.0	21.4
Incr Delay (d2), s/veh	14.0	0.3	0.6	3.2	2.2	4.1	0.2	0.0	0.3	0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	2.2	2.4	0.4	8.1	9.0	0.7	0.0	1.6	1.0	0.0	2.5
LnGrp Delay(d),s/veh	41.9	7.6	7.8	33.3	14.7	16.6	24.7	0.0	20.8	23.1	0.0	22.2
LnGrp LOS	D	A	A	C	B	B	C		C	C		C
Approach Vol, veh/h		874			1758			147			221	
Approach Delay, s/veh		13.4			15.5			21.9			22.4	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		18.1	6.2	39.4		18.1	10.6	35.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	8.0	31.0
Max Q Clear Time (g_c+I1), s		9.2	2.7	6.5		7.7	7.0	18.0
Green Ext Time (p_c), s		2.1	0.0	18.1		2.1	0.0	10.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	30	600	100	100	1450	60	120	120	50	40	150	60
Future Volume (veh/h)	30	600	100	100	1450	60	120	120	50	40	150	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	632	105	105	1526	63	126	126	53	42	158	63
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	1859	305	161	2191	90	170	387	326	102	316	266
Arrive On Green	0.07	0.41	0.41	0.09	0.43	0.43	0.09	0.20	0.20	0.06	0.17	0.17
Sat Flow, veh/h	1810	4489	736	1810	5108	211	1810	1900	1603	1810	1900	1600
Grp Volume(v), veh/h	32	485	252	105	1033	556	126	126	53	42	158	63
Grp Sat Flow(s),veh/h/ln	1810	1729	1767	1810	1729	1861	1810	1900	1603	1810	1900	1600
Q Serve(g_s), s	1.1	6.5	6.6	3.8	16.4	16.4	4.6	3.8	1.4	1.5	5.1	2.3
Cycle Q Clear(g_c), s	1.1	6.5	6.6	3.8	16.4	16.4	4.6	3.8	1.4	1.5	5.1	2.3
Prop In Lane	1.00		0.42	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	1432	732	161	1483	798	170	387	326	102	316	266
V/C Ratio(X)	0.24	0.34	0.34	0.65	0.70	0.70	0.74	0.33	0.16	0.41	0.50	0.24
Avail Cap(c_a), veh/h	187	1432	732	214	1483	798	187	1152	972	187	1152	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	13.5	13.5	29.8	15.7	15.7	29.8	23.0	12.1	30.8	25.6	24.5
Incr Delay (d2), s/veh	0.9	0.6	1.3	4.4	2.7	5.0	13.3	0.5	0.2	2.6	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.2	3.5	2.1	8.3	9.4	2.9	2.0	0.8	0.8	2.8	1.1
LnGrp Delay(d),s/veh	30.4	14.1	14.8	34.1	18.4	20.7	43.1	23.5	12.4	33.4	26.9	24.9
LnGrp LOS	C	B	B	C	B	C	D	C	B	C	C	C
Approach Vol, veh/h		769			1694			305			263	
Approach Delay, s/veh		15.0			20.2			29.7			27.4	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	17.8	10.0	32.0	10.3	15.2	9.0	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	8.0	28.0	7.0	41.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	3.5	5.8	5.8	8.6	6.6	7.1	3.1	18.4
Green Ext Time (p_c), s	0.0	1.3	0.1	4.2	0.1	1.1	0.1	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↱	
Traffic Volume (veh/h)	0	280	210	580	1970	0	0	0	0	0	0	240
Future Volume (veh/h)	0	280	210	580	1970	0	0	0	0	0	0	240
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	315	236	652	2213	0				0	0	270
Adj No. of Lanes	0	3	1	1	3	0				0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1167	359	1221	4928	0				0	0	0
Arrive On Green	0.00	0.22	0.22	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1597	1810	5358	0					0	
Grp Volume(v), veh/h	0	315	236	652	2213	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1597	1810	1729	0						
Q Serve(g_s), s	0.0	4.0	10.8	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	4.0	10.8	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1167	359	1221	4928	0						
V/C Ratio(X)	0.00	0.27	0.66	0.53	0.45	0.00						
Avail Cap(c_a), veh/h	0	1167	359	1221	4928	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	25.6	28.2	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	0.6	9.1	0.0	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	2.0	5.6	0.0	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	26.1	37.2	0.0	0.0	0.0						
LnGrp LOS		C	D	A	A							
Approach Vol, veh/h		551			2865							
Approach Delay, s/veh		30.9			0.0							
Approach LOS		C			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			58.0	22.0				80.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			32.0	18.0				54.0
Max Q Clear Time (g_c+I1), s			2.0	12.8				2.0
Green Ext Time (p_c), s			22.7	1.3				33.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	30	860	40	0	1920	370	500	380	10	70	0	180
Future Volume (veh/h)	30	860	40	0	1920	370	500	380	10	70	0	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	935	43	0	2087	402	543	413	11	76	0	196
Adj No. of Lanes	1	3	0	0	3	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	2415	111	0	2085	389	507	783	21	343	0	686
Arrive On Green	0.95	0.95	0.95	0.00	0.47	0.47	0.43	0.43	0.43	0.43	0.00	0.43
Sat Flow, veh/h	135	5083	233	0	4560	819	1206	1842	49	978	0	1615
Grp Volume(v), veh/h	33	636	342	0	1630	859	543	0	424	76	0	196
Grp Sat Flow(s),veh/h/ln	135	1729	1859	0	1729	1750	1206	0	1891	978	0	1615
Q Serve(g_s), s	0.0	1.2	1.2	0.0	37.5	38.0	27.6	0.0	13.3	5.0	0.0	6.4
Cycle Q Clear(g_c), s	38.0	1.2	1.2	0.0	37.5	38.0	34.0	0.0	13.3	18.3	0.0	6.4
Prop In Lane	1.00		0.13	0.00		0.47	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	90	1643	883	0	1643	831	507	0	804	343	0	686
V/C Ratio(X)	0.37	0.39	0.39	0.00	0.99	1.03	1.07	0.00	0.53	0.22	0.00	0.29
Avail Cap(c_a), veh/h	90	1643	883	0	1643	831	507	0	804	343	0	686
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	1.1	1.1	0.0	20.9	21.0	28.6	0.0	17.0	23.8	0.0	15.1
Incr Delay (d2), s/veh	11.0	0.7	1.3	0.0	20.5	40.0	60.6	0.0	0.6	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.5	0.7	0.0	22.3	27.5	19.6	0.0	7.1	1.4	0.0	2.9
LnGrp Delay(d),s/veh	32.0	1.8	2.3	0.0	41.4	61.0	89.2	0.0	17.7	24.1	0.0	15.3
LnGrp LOS	C	A	A		D	F	F		B	C		B
Approach Vol, veh/h		1011			2489			967			272	
Approach Delay, s/veh		2.9			48.1			57.9			17.8	
Approach LOS		A			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		42.0		38.0		42.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		34.0		38.0		34.0		38.0
Max Q Clear Time (g_c+I1), s		36.0		40.0		20.3		40.0
Green Ext Time (p_c), s		0.0		0.0		5.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✣		↰	↰↑	↱
Traffic Volume (veh/h)	170	1260	290	90	2010	140	50	30	50	100	70	150
Future Volume (veh/h)	170	1260	290	90	2010	140	50	30	50	100	70	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	183	1355	0	97	2161	151	54	32	54	92	98	161
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	213	2642	823	195	2591	803	171	59	100	238	250	400
Arrive On Green	0.12	0.51	0.00	0.11	0.50	0.50	0.09	0.09	0.09	0.13	0.13	0.13
Sat Flow, veh/h	1810	5187	1615	1810	5187	1607	1810	630	1063	1810	1900	1597
Grp Volume(v), veh/h	183	1355	0	97	2161	151	54	0	86	92	98	161
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1607	1810	0	1692	1810	1900	1597
Q Serve(g_s), s	10.1	17.7	0.0	5.2	36.5	5.3	2.8	0.0	4.9	4.7	4.8	8.6
Cycle Q Clear(g_c), s	10.1	17.7	0.0	5.2	36.5	5.3	2.8	0.0	4.9	4.7	4.8	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	213	2642	823	195	2591	803	171	0	160	238	250	400
V/C Ratio(X)	0.86	0.51	0.00	0.50	0.83	0.19	0.32	0.00	0.54	0.39	0.39	0.40
Avail Cap(c_a), veh/h	213	2642	823	195	2591	803	656	0	613	603	633	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	16.6	0.0	42.9	21.9	14.1	43.2	0.0	44.1	40.5	40.6	32.0
Incr Delay (d2), s/veh	28.1	0.7	0.0	2.0	3.3	0.5	1.0	0.0	2.8	1.0	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	8.6	0.0	2.7	18.0	2.5	1.5	0.0	2.4	2.4	2.6	3.9
LnGrp Delay(d),s/veh	72.3	17.3	0.0	44.9	25.2	14.6	44.2	0.0	46.9	41.6	41.6	32.6
LnGrp LOS	E	B		D	C	B	D		D	D	D	C
Approach Vol, veh/h		1538			2409			140			351	
Approach Delay, s/veh		23.9			25.4			45.9			37.5	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.6	15.0	56.0		17.5	16.0	55.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	11.0	52.0		34.0	12.0	51.0
Max Q Clear Time (g_c+I1), s		6.9	7.2	19.7		10.6	12.1	38.5
Green Ext Time (p_c), s		0.6	3.5	10.7		1.3	0.0	10.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	770	60	10	760	970	380
Future Volume (veh/h)	770	60	10	760	970	380
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	939	73	12	927	1183	463
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	912	71	35	1166	1099	1012
Arrive On Green	0.27	0.27	0.02	0.32	0.61	0.61
Sat Flow, veh/h	3487	264	1810	3705	1810	1615
Grp Volume(v), veh/h	500	512	12	927	1183	463
Grp Sat Flow(s),veh/h/ln	1805	1851	1810	1805	1810	1615
Q Serve(g_s), s	31.0	31.0	0.8	26.9	70.0	15.0
Cycle Q Clear(g_c), s	31.0	31.0	0.8	26.9	70.0	15.0
Prop In Lane		0.14	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	486	498	35	1166	1099	1012
V/C Ratio(X)	1.03	1.03	0.34	0.79	1.08	0.46
Avail Cap(c_a), veh/h	486	498	110	1316	1099	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	42.1	55.8	35.5	22.6	11.2
Incr Delay (d2), s/veh	48.5	48.0	5.7	3.1	50.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	22.4	0.4	13.9	49.8	6.7
LnGrp Delay(d),s/veh	90.6	90.1	61.4	38.6	72.7	11.6
LnGrp LOS	F	F	E	D	F	B
Approach Vol, veh/h	1012			939	1646	
Approach Delay, s/veh	90.3			38.9	55.5	
Approach LOS	F			D	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		74.0	6.2	35.0				41.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		70.0	7.0	31.0				42.0
Max Q Clear Time (g_c+I1), s		72.0	2.8	33.0				28.9
Green Ext Time (p_c), s		0.0	2.1	0.0				4.6

Intersection Summary	
HCM 2010 Ctrl Delay	61.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	30	940	160	30	360	30	400	560	720	60	30	10
Future Volume (veh/h)	30	940	160	30	360	30	400	560	720	60	30	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	1000	170	32	383	32	426	596	766	64	32	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	1354	419	155	880	73	680	829	702	118	455	203
Arrive On Green	0.04	0.26	0.26	0.04	0.26	0.26	0.38	0.44	0.44	0.07	0.13	0.00
Sat Flow, veh/h	1810	5187	1606	3510	3372	280	1810	1900	1609	1810	3610	1615
Grp Volume(v), veh/h	32	1000	170	32	204	211	426	596	766	64	32	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1606	1755	1805	1847	1810	1900	1609	1810	1805	1615
Q Serve(g_s), s	1.4	14.6	7.2	0.7	7.8	7.9	15.9	21.3	27.1	2.8	0.6	0.0
Cycle Q Clear(g_c), s	1.4	14.6	7.2	0.7	7.8	7.9	15.9	21.3	27.1	2.8	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	1354	419	155	471	482	680	829	702	118	455	203
V/C Ratio(X)	0.40	0.74	0.41	0.21	0.43	0.44	0.63	0.72	1.09	0.54	0.07	0.00
Avail Cap(c_a), veh/h	153	1754	543	297	610	625	680	1193	1011	153	1657	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.5	28.0	25.3	38.2	25.5	25.5	21.1	19.2	13.1	37.5	31.9	0.0
Incr Delay (d2), s/veh	3.2	1.2	0.6	0.7	0.6	0.6	1.8	1.2	54.9	3.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	7.1	3.3	0.4	3.9	4.1	8.3	11.4	22.6	1.5	0.3	0.0
LnGrp Delay(d),s/veh	41.8	29.2	25.9	38.8	26.1	26.1	22.9	20.3	68.0	41.4	32.0	0.0
LnGrp LOS	D	C	C	D	C	C	C	C	F	D	C	
Approach Vol, veh/h		1202			447			1788			96	
Approach Delay, s/veh		29.1			27.0			41.4			38.2	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	40.1	7.6	25.6	35.1	14.4	7.6	25.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	52.0	7.0	28.0	21.0	38.0	7.0	28.0				
Max Q Clear Time (g_c+I1), s	4.8	29.1	2.7	16.6	17.9	2.6	3.4	9.9				
Green Ext Time (p_c), s	0.0	7.0	0.9	5.0	2.2	0.1	0.0	2.0				

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	120	0	60	0	0	0	0	1350	350	260	370	0
Future Volume (veh/h)	120	0	60	0	0	0	0	1350	350	260	370	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	132	0	66				0	1484	385	286	407	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	203	0	319				0	1925	861	542	2723	0
Arrive On Green	0.11	0.00	0.11				0.00	0.53	0.53	0.15	0.75	0.00
Sat Flow, veh/h	1810	0	2842				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	132	0	66				0	1484	385	286	407	0
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1805	1615	1755	1805	0
Q Serve(g_s), s	4.2	0.0	1.3				0.0	19.5	8.8	4.5	1.9	0.0
Cycle Q Clear(g_c), s	4.2	0.0	1.3				0.0	19.5	8.8	4.5	1.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	203	0	319				0	1925	861	542	2723	0
V/C Ratio(X)	0.65	0.00	0.21				0.00	0.77	0.45	0.53	0.15	0.00
Avail Cap(c_a), veh/h	241	0	379				0	1925	861	542	2723	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.57	0.57	0.98	0.98	0.00
Uniform Delay (d), s/veh	25.5	0.0	24.2				0.0	11.1	8.6	23.4	2.0	0.0
Incr Delay (d2), s/veh	4.6	0.0	0.3				0.0	1.8	1.0	0.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.5				0.0	10.0	4.1	2.3	0.9	0.0
LnGrp Delay(d),s/veh	30.1	0.0	24.5				0.0	12.9	9.5	24.3	2.2	0.0
LnGrp LOS	C		C					B	A	C	A	
Approach Vol, veh/h		198						1869			693	
Approach Delay, s/veh		28.2						12.2			11.3	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			13.3	36.0		10.7		49.3
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			8.0	32.0		8.0		44.0
Max Q Clear Time (g_c+I1), s			6.5	21.5		6.2		3.9
Green Ext Time (p_c), s			0.6	7.2		0.1		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	190	510	1470	0	0	450
Future Volume (veh/h)	190	510	1470	0	0	450
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	211	567	1633	0	0	500
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1287	592	1805	0	0	1805
Arrive On Green	0.37	0.37	1.00	0.00	0.00	0.50
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	211	567	1633	0	0	500
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	2.4	20.6	0.0	0.0	0.0	4.8
Cycle Q Clear(g_c), s	2.4	20.6	0.0	0.0	0.0	4.8
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1287	592	1805	0	0	1805
V/C Ratio(X)	0.16	0.96	0.90	0.00	0.00	0.28
Avail Cap(c_a), veh/h	1287	592	1805	0	0	1805
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.64	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	18.5	0.0	0.0	0.0	8.7
Incr Delay (d2), s/veh	0.1	26.7	5.4	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	13.5	1.4	0.0	0.0	2.5
LnGrp Delay(d),s/veh	12.9	45.2	5.4	0.0	0.0	9.1
LnGrp LOS	B	D	A			A
Approach Vol, veh/h	778		1633			500
Approach Delay, s/veh	36.5		5.4			9.1
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		34.0				34.0		26.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		30.0				30.0		22.0
Max Q Clear Time (g_c+I1), s		2.0				6.8		22.6
Green Ext Time (p_c), s		17.8				15.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	**EBT**	**EBR**	**WBL**	**WBT**	**NBL**	**NBR**
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	1190	10	140	2930	1550	10
Future Volume (veh/h)	1190	10	140	2930	1550	10
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1240	10	146	3052	1624	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1760	14	708	3043	1665	495
Arrive On Green	0.33	0.33	0.20	0.59	0.31	0.00
Sat Flow, veh/h	5478	43	3510	5358	5429	1615
Grp Volume(v), veh/h	808	442	146	3052	1624	0
Grp Sat Flow(s),veh/h/ln	1729	1892	1755	1729	1810	1615
Q Serve(g_s), s	15.3	15.3	2.6	44.0	22.2	0.0
Cycle Q Clear(g_c), s	15.3	15.3	2.6	44.0	22.2	0.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1147	628	708	3043	1665	495
V/C Ratio(X)	0.70	0.70	0.21	1.00	0.98	0.00
Avail Cap(c_a), veh/h	1522	833	708	3043	1665	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.9	21.9	24.9	15.5	25.7	0.0
Incr Delay (d2), s/veh	1.0	1.8	0.1	17.0	16.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	8.3	1.3	25.4	13.5	0.0
LnGrp Delay(d),s/veh	22.8	23.6	25.1	32.5	42.3	0.0
LnGrp LOS	C	C	C	F	D	
Approach Vol, veh/h	1250			3198	1624	
Approach Delay, s/veh	23.1			32.2	42.3	
Approach LOS	C			C	D	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		27.0	19.1	28.9				48.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		23.0	7.0	33.0				44.0
Max Q Clear Time (g_c+I1), s		24.2	4.6	17.3				46.0
Green Ext Time (p_c), s		0.0	2.4	6.7				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	50	1120	50	230	2850	200	120	310	220	80	150	30
Future Volume (veh/h)	50	1120	50	230	2850	200	120	310	220	80	150	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	1204	54	247	3065	215	129	333	237	86	161	32
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	2630	816	303	2715	186	183	432	365	108	707	137
Arrive On Green	0.05	0.51	0.51	0.09	0.55	0.55	0.05	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1810	5187	1610	3510	4956	340	3510	1900	1604	1810	3012	586
Grp Volume(v), veh/h	54	1204	54	247	2117	1163	129	333	237	86	95	98
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1838	1755	1900	1604	1810	1805	1792
Q Serve(g_s), s	3.9	19.9	2.3	9.2	73.0	73.0	4.8	21.9	17.9	6.3	5.7	5.9
Cycle Q Clear(g_c), s	3.9	19.9	2.3	9.2	73.0	73.0	4.8	21.9	17.9	6.3	5.7	5.9
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	82	2630	816	303	1894	1007	183	432	365	108	424	421
V/C Ratio(X)	0.66	0.46	0.07	0.82	1.12	1.16	0.71	0.77	0.65	0.80	0.22	0.23
Avail Cap(c_a), veh/h	95	2630	816	395	1894	1007	184	627	530	136	637	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.6	21.1	16.8	59.8	30.1	30.1	62.2	48.3	46.7	61.9	41.2	41.3
Incr Delay (d2), s/veh	12.5	0.1	0.0	9.7	60.8	81.2	11.5	3.6	2.0	22.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	9.5	1.0	4.9	50.7	59.6	2.6	11.9	8.1	3.8	2.9	2.9
LnGrp Delay(d),s/veh	75.1	21.2	16.8	69.6	90.9	111.4	73.6	51.8	48.6	84.4	41.5	41.6
LnGrp LOS	E	C	B	E	F	F	E	D	D	F	D	D
Approach Vol, veh/h		1312			3527			699			279	
Approach Delay, s/veh		23.3			96.2			54.8			54.7	
Approach LOS		C			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	34.3	15.5	71.6	10.9	35.3	10.1	77.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	44.0	15.0	65.0	7.0	47.0	7.0	73.0
Max Q Clear Time (g_c+I1), s	8.3	23.9	11.2	21.9	6.8	7.9	5.9	75.0
Green Ext Time (p_c), s	0.0	4.0	0.3	41.8	0.0	4.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	72.8
HCM 2010 LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	760	220	80	600	160	750	950	250	120	340	140
Future Volume (veh/h)	140	760	220	80	600	160	750	950	250	120	340	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	894	259	94	706	188	882	1118	294	141	400	165
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	1120	954	120	918	531	990	1420	740	266	676	497
Arrive On Green	0.12	0.31	0.31	0.07	0.25	0.25	0.28	0.39	0.39	0.08	0.19	0.19
Sat Flow, veh/h	1810	3610	1607	1810	3610	1605	3510	3610	1609	3510	3610	1602
Grp Volume(v), veh/h	165	894	259	94	706	188	882	1118	294	141	400	165
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1605	1755	1805	1609	1755	1805	1602
Q Serve(g_s), s	9.1	23.5	8.1	5.3	18.8	1.3	25.0	28.2	8.1	4.0	10.5	3.8
Cycle Q Clear(g_c), s	9.1	23.5	8.1	5.3	18.8	1.3	25.0	28.2	8.1	4.0	10.5	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	1120	954	120	918	531	990	1420	740	266	676	497
V/C Ratio(X)	0.75	0.80	0.27	0.79	0.77	0.35	0.89	0.79	0.40	0.53	0.59	0.33
Avail Cap(c_a), veh/h	227	1324	1045	175	1220	665	1186	2300	1132	339	1429	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	32.8	10.3	47.6	35.8	26.3	35.7	27.6	8.5	46.1	38.5	10.9
Incr Delay (d2), s/veh	12.5	3.0	0.2	13.3	2.2	0.4	7.7	1.0	0.3	1.6	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	12.1	3.6	3.1	9.6	4.0	13.2	14.2	3.6	2.0	5.3	1.9
LnGrp Delay(d),s/veh	56.4	35.8	10.4	61.0	38.0	26.7	43.3	28.6	8.9	47.7	39.3	11.3
LnGrp LOS	E	D	B	E	D	C	D	C	A	D	D	B
Approach Vol, veh/h		1318			988			2294			706	
Approach Delay, s/veh		33.4			38.0			31.7			34.4	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	44.8	10.9	36.1	33.2	23.4	16.6	30.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	66.0	10.0	38.0	35.0	41.0	13.0	35.0
Max Q Clear Time (g_c+I1), s	6.0	30.2	7.3	25.5	27.0	12.5	11.1	20.8
Green Ext Time (p_c), s	1.4	10.6	0.0	5.7	2.3	3.6	1.3	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	260	870	730	530	280	140
Future Volume (veh/h)	260	870	730	530	280	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	317	1061	890	646	341	171
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	243	2476	1714	1022	581	476
Arrive On Green	0.13	0.69	0.47	0.47	0.16	0.16
Sat Flow, veh/h	1810	3705	3705	1606	3619	1615
Grp Volume(v), veh/h	317	1061	890	646	341	171
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1606	1810	1615
Q Serve(g_s), s	7.0	6.8	9.0	12.8	4.6	4.4
Cycle Q Clear(g_c), s	7.0	6.8	9.0	12.8	4.6	4.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	243	2476	1714	1022	581	476
V/C Ratio(X)	1.30	0.43	0.52	0.63	0.59	0.36
Avail Cap(c_a), veh/h	243	2632	1870	1092	2361	1270
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	3.6	9.5	5.8	20.3	14.5
Incr Delay (d2), s/veh	163.6	0.1	0.2	1.1	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	3.3	4.5	8.4	2.3	4.3
LnGrp Delay(d),s/veh	186.1	3.8	9.8	6.9	21.2	14.9
LnGrp LOS	F	A	A	A	C	B
Approach Vol, veh/h		1378	1536		512	
Approach Delay, s/veh		45.7	8.6		19.1	
Approach LOS		D	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				39.8		12.4	11.0	28.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				8.8		6.6	9.0	14.8
Green Ext Time (p_c), s				19.3		1.8	0.0	9.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	180	520	240	250	840	250	940	420	990	40	100	60
Future Volume (veh/h)	180	520	240	250	840	250	940	420	990	40	100	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	205	591	273	284	955	284	1068	477	1125	45	114	68
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	1777	1069	236	1204	536	1125	1457	649	115	419	308
Arrive On Green	0.08	0.34	0.34	0.07	0.33	0.33	0.32	0.40	0.40	0.03	0.12	0.12
Sat Flow, veh/h	3510	5187	1608	3510	3610	1608	3510	3610	1609	3510	3610	1594
Grp Volume(v), veh/h	205	591	273	284	955	284	1068	477	1125	45	114	68
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1805	1608	1755	1805	1609	1755	1805	1594
Q Serve(g_s), s	6.0	8.8	2.2	7.0	25.0	14.9	30.9	9.5	31.9	1.3	3.0	0.0
Cycle Q Clear(g_c), s	6.0	8.8	2.2	7.0	25.0	14.9	30.9	9.5	31.9	1.3	3.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	1777	1069	236	1204	536	1125	1457	649	115	419	308
V/C Ratio(X)	0.76	0.33	0.26	1.20	0.79	0.53	0.95	0.33	1.73	0.39	0.27	0.22
Avail Cap(c_a), veh/h	270	2142	1182	236	1456	648	1125	1629	726	236	1629	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	25.4	2.2	48.6	31.5	28.1	34.5	21.3	17.9	49.3	42.0	35.4
Incr Delay (d2), s/veh	12.1	0.1	0.1	124.7	2.6	0.8	16.1	0.1	335.9	2.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	4.2	1.4	7.5	12.9	6.7	17.5	4.7	74.7	0.7	1.5	1.7
LnGrp Delay(d),s/veh	59.3	25.5	2.3	173.3	34.0	28.9	50.7	21.5	353.8	51.5	42.4	35.8
LnGrp LOS	E	C	A	F	C	C	D	C	F	D	D	D
Approach Vol, veh/h		1069			1523			2670			227	
Approach Delay, s/veh		26.1			59.0			173.2			42.2	
Approach LOS		C			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	46.0	11.0	39.7	37.4	16.1	12.0	38.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	47.0	7.0	43.0	7.0	47.0	8.0	42.0
Max Q Clear Time (g_c+I1), s	3.3	33.9	9.0	10.8	32.9	5.0	8.0	27.0
Green Ext Time (p_c), s	0.1	7.5	0.0	5.7	0.0	1.0	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	107.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	980	590	0	560	0	0	0	0	10	10	620
Future Volume (veh/h)	0	980	590	0	560	0	0	0	0	10	10	620
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1200	582	0	622	0				11	11	689
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1573	669	121	1495	0				818	11	720
Arrive On Green	0.00	0.41	0.41	0.00	0.41	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	3800	1615	271	3705	0				1810	25	1593
Grp Volume(v), veh/h	0	1200	582	0	622	0				11	0	700
Grp Sat Flow(s),veh/h/ln	0	1900	1615	271	1805	0				1810	0	1619
Q Serve(g_s), s	0.0	16.1	19.7	0.0	7.3	0.0				0.2	0.0	24.9
Cycle Q Clear(g_c), s	0.0	16.1	19.7	0.0	7.3	0.0				0.2	0.0	24.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	1573	669	121	1495	0				818	0	732
V/C Ratio(X)	0.00	0.76	0.87	0.00	0.42	0.00				0.01	0.00	0.96
Avail Cap(c_a), veh/h	0	1592	677	122	1513	0				819	0	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.0	16.0	0.0	12.4	0.0				9.0	0.0	15.8
Incr Delay (d2), s/veh	0.0	2.2	11.7	0.0	0.2	0.0				0.0	0.0	23.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.8	10.9	0.0	3.7	0.0				0.1	0.0	15.8
LnGrp Delay(d),s/veh	0.0	17.2	27.8	0.0	12.6	0.0				9.0	0.0	39.0
LnGrp LOS		B	C		B					A		D
Approach Vol, veh/h		1782			622						711	
Approach Delay, s/veh		20.6			12.6						38.5	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				28.7		31.0		28.7
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				25.0		27.0		25.0
Max Q Clear Time (g_c+I1), s				21.7		26.9		9.3
Green Ext Time (p_c), s				3.0		0.0		12.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	46.8
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	990	0	560	120	0	0
Future Vol, veh/h	990	0	560	120	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1065	0	602	129	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	58.3	30
HCM LOS	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	65%	100%	100%
Vol Thru, %	0%	35%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	336	344	495	495
LT Vol	336	224	495	495
Through Vol	0	120	0	0
RT Vol	0	0	0	0
Lane Flow Rate	361	370	532	532
Geometry Grp	7	7	7	7
Degree of Util (X)	0.753	0.753	1.073	0.819
Departure Headway (Hd)	7.683	7.506	7.259	5.537
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	473	485	500	655
Service Time	5.383	5.206	4.988	3.267
HCM Lane V/C Ratio	0.763	0.763	1.064	0.812
HCM Control Delay	30.3	29.7	88	28.5
HCM Lane LOS	D	D	F	D
HCM 95th-tile Q	6.4	6.4	16.5	8.6

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	0	10	10	1030	20	590	30	1220	480	110	470	0
Future Volume (veh/h)	0	10	10	1030	20	590	30	1220	480	110	470	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	11	11	1157	22	663	34	1371	539	124	528	0
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	194	194	589	817	692	77	1389	619	235	1477	661
Arrive On Green	0.00	0.22	0.22	0.17	0.43	0.43	0.04	0.38	0.38	0.07	0.41	0.00
Sat Flow, veh/h	1810	870	870	3510	1900	1609	1810	3610	1609	3510	3610	1615
Grp Volume(v), veh/h	0	0	22	1157	22	663	34	1371	539	124	528	0
Grp Sat Flow(s),veh/h/ln	1810	0	1740	1755	1900	1609	1810	1805	1609	1755	1805	1615
Q Serve(g_s), s	0.0	0.0	1.0	17.0	0.7	40.5	1.9	38.2	31.4	3.5	10.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	17.0	0.7	40.5	1.9	38.2	31.4	3.5	10.3	0.0
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	0	387	589	817	692	77	1389	619	235	1477	661
V/C Ratio(X)	0.00	0.00	0.06	1.96	0.03	0.96	0.44	0.99	0.87	0.53	0.36	0.00
Avail Cap(c_a), veh/h	125	0	618	589	862	731	125	1389	619	242	1477	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	31.0	42.2	16.7	28.0	47.3	30.9	28.8	45.7	20.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	440.3	0.0	23.0	3.9	21.0	12.8	2.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	44.2	0.4	22.2	1.0	22.9	16.0	1.8	5.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	31.1	482.4	16.7	51.0	51.3	51.9	41.6	47.7	20.9	0.0
LnGrp LOS			C	F	B	D	D	D	D	D	C	
Approach Vol, veh/h		22			1842			1944			652	
Approach Delay, s/veh		31.1			321.6			49.0			26.0	
Approach LOS		C			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	43.0	21.0	26.6	8.3	45.5	0.0	47.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	39.0	17.0	36.0	7.0	39.0	7.0	46.0
Max Q Clear Time (g_c+I1), s	5.5	40.2	19.0	3.0	3.9	12.3	0.0	42.5
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	17.9	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	158.1
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✢		↰	↱	
Traffic Volume (veh/h)	140	480	20	10	1280	50	100	110	40	30	20	160
Future Volume (veh/h)	140	480	20	10	1280	50	100	110	40	30	20	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	505	21	11	1347	53	105	116	42	32	21	168
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	1820	76	35	1532	60	193	199	60	396	53	421
Arrive On Green	0.10	0.52	0.52	0.02	0.43	0.43	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	3532	147	1810	3540	139	410	687	209	1245	182	1453
Grp Volume(v), veh/h	147	258	268	11	686	714	263	0	0	32	0	189
Grp Sat Flow(s),veh/h/ln	1810	1805	1873	1810	1805	1874	1306	0	0	1245	0	1635
Q Serve(g_s), s	5.4	5.5	5.5	0.4	23.8	23.9	7.2	0.0	0.0	0.0	0.0	6.4
Cycle Q Clear(g_c), s	5.4	5.5	5.5	0.4	23.8	23.9	13.5	0.0	0.0	1.8	0.0	6.4
Prop In Lane	1.00		0.08	1.00		0.07	0.40		0.16	1.00		0.89
Lane Grp Cap(c), veh/h	185	930	965	35	781	811	452	0	0	396	0	474
V/C Ratio(X)	0.80	0.28	0.28	0.31	0.88	0.88	0.58	0.00	0.00	0.08	0.00	0.40
Avail Cap(c_a), veh/h	185	930	965	185	844	876	765	0	0	653	0	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	9.4	9.4	33.1	17.8	17.8	22.3	0.0	0.0	17.9	0.0	19.5
Incr Delay (d2), s/veh	21.0	0.2	0.2	5.0	9.9	9.8	1.2	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.8	2.9	0.3	14.0	14.5	4.6	0.0	0.0	0.5	0.0	2.9
LnGrp Delay(d),s/veh	51.1	9.5	9.5	38.2	27.7	27.6	23.5	0.0	0.0	18.0	0.0	20.0
LnGrp LOS	D	A	A	D	C	C	C			B		C
Approach Vol, veh/h		673			1411			263			221	
Approach Delay, s/veh		18.6			27.7			23.5			19.7	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		23.9	5.3	39.3		23.9	11.0	33.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	32.0		34.0	7.0	32.0
Max Q Clear Time (g_c+I1), s		15.5	2.4	7.5		8.4	7.4	25.9
Green Ext Time (p_c), s		2.9	0.0	13.5		3.2	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	30	440	100	180	1230	530	180	1210	230	140	380	60
Future Volume (veh/h)	30	440	100	180	1230	530	180	1210	230	140	380	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	458	104	188	1281	552	188	1260	240	146	396	62
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	68	890	201	216	1393	715	218	1391	812	205	1011	157
Arrive On Green	0.04	0.30	0.30	0.12	0.39	0.39	0.12	0.39	0.39	0.06	0.32	0.32
Sat Flow, veh/h	1810	2925	660	1810	3610	1609	1810	3610	1609	3510	3130	486
Grp Volume(v), veh/h	31	281	281	188	1281	552	188	1260	240	146	227	231
Grp Sat Flow(s),veh/h/ln	1810	1805	1780	1810	1805	1609	1810	1805	1609	1755	1805	1811
Q Serve(g_s), s	2.0	15.5	15.7	12.3	40.7	34.9	12.3	39.7	10.5	4.9	11.7	11.9
Cycle Q Clear(g_c), s	2.0	15.5	15.7	12.3	40.7	34.9	12.3	39.7	10.5	4.9	11.7	11.9
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	68	549	541	216	1393	715	218	1391	812	205	583	585
V/C Ratio(X)	0.46	0.51	0.52	0.87	0.92	0.77	0.86	0.91	0.30	0.71	0.39	0.39
Avail Cap(c_a), veh/h	105	570	562	241	1410	723	331	1440	834	350	583	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	34.5	34.6	52.1	35.2	28.3	51.9	34.9	17.4	55.7	31.6	31.6
Incr Delay (d2), s/veh	4.7	0.7	0.8	25.8	9.9	5.1	13.6	8.4	0.2	4.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.9	7.8	7.7	22.2	16.5	7.0	21.4	4.7	2.5	5.9	6.0
LnGrp Delay(d),s/veh	61.4	35.3	35.4	77.9	45.1	33.4	65.5	43.3	17.6	60.2	32.0	32.1
LnGrp LOS	E	D	D	E	D	C	E	D	B	E	C	C
Approach Vol, veh/h		593			2021			1688			604	
Approach Delay, s/veh		36.7			45.0			42.1			38.8	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	50.4	18.3	40.6	18.5	42.9	8.5	50.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	48.0	16.0	38.0	22.0	38.0	7.0	47.0
Max Q Clear Time (g_c+I1), s	6.9	41.7	14.3	17.7	14.3	13.9	4.0	42.7
Green Ext Time (p_c), s	0.2	4.7	0.1	14.1	0.3	13.5	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	80	100	1670	40	30	1460
Future Volume (veh/h)	80	100	1670	40	30	1460
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	112	1876	45	34	1640
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	224	200	2169	966	94	2625
Arrive On Green	0.12	0.12	0.60	0.60	0.05	0.73
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	90	112	1876	45	34	1640
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	2.5	3.5	23.2	0.2	1.0	12.2
Cycle Q Clear(g_c), s	2.5	3.5	23.2	0.2	1.0	12.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	224	200	2169	966	94	2625
V/C Ratio(X)	0.40	0.56	0.86	0.05	0.36	0.62
Avail Cap(c_a), veh/h	236	210	2285	1018	236	3024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	22.2	8.9	0.4	24.6	3.7
Incr Delay (d2), s/veh	1.2	3.0	3.6	0.0	2.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.7	12.3	0.3	0.5	6.0
LnGrp Delay(d),s/veh	22.9	25.2	12.5	0.5	26.9	4.0
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	202		1921			1674
Approach Delay, s/veh	24.1		12.2			4.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.8	36.3				43.1		10.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	3.0	25.2				14.2		5.5
Green Ext Time (p_c), s	3.2	7.1				15.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰↑	↱
Traffic Volume (veh/h)	70	980	140	770	1380	270	0	0	0	600	60	540
Future Volume (veh/h)	70	980	140	770	1380	270	0	0	0	600	60	540
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	73	1021	0	802	1438	0				669	0	562
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	390	1203	538	1124	1582	708				840	0	720
Arrive On Green	0.22	0.33	0.00	0.64	0.88	0.00				0.23	0.00	0.23
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1605
Grp Volume(v), veh/h	73	1021	0	802	1438	0				669	0	562
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1605
Q Serve(g_s), s	3.5	27.6	0.0	15.9	25.5	0.0				18.3	0.0	8.4
Cycle Q Clear(g_c), s	3.5	27.6	0.0	15.9	25.5	0.0				18.3	0.0	8.4
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	390	1203	538	1124	1582	708				840	0	720
V/C Ratio(X)	0.19	0.85	0.00	0.71	0.91	0.00				0.80	0.00	0.78
Avail Cap(c_a), veh/h	390	1203	538	1124	1582	708				1034	0	807
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.83	0.83	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	33.7	32.5	0.0	15.7	5.2	0.0				38.0	0.0	24.6
Incr Delay (d2), s/veh	0.2	7.5	0.0	1.8	7.9	0.0				3.6	0.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	15.0	0.0	7.7	12.7	0.0				9.5	0.0	4.4
LnGrp Delay(d),s/veh	33.9	40.1	0.0	17.5	13.1	0.0				41.6	0.0	29.0
LnGrp LOS	C	D		B	B					D		C
Approach Vol, veh/h		1094			2240						1231	
Approach Delay, s/veh		39.7			14.7						35.9	
Approach LOS		D			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			37.6	39.0		28.4	26.6	50.0
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			28.0	35.0		30.0	17.0	46.0
Max Q Clear Time (g_c+I1), s			17.9	29.6		20.3	5.5	27.5
Green Ext Time (p_c), s			2.5	3.0		3.6	2.7	10.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1150	410	170	2150	520	260	0	610	0	0	0
Future Volume (veh/h)	0	1150	410	170	2150	520	260	0	610	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1162	414	172	2172	0	263	0	616			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1788	1134	327	3705	1154	736	0	596			
Arrive On Green	0.00	0.99	0.99	0.36	1.00	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	0	3705	1607	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1162	414	172	2172	0	263	0	616			
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	0.9	0.3	7.9	0.0	0.0	6.7	0.0	22.0			
Cycle Q Clear(g_c), s	0.0	0.9	0.3	7.9	0.0	0.0	6.7	0.0	22.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1788	1134	327	3705	1154	736	0	596			
V/C Ratio(X)	0.00	0.65	0.37	0.53	0.59	0.00	0.36	0.00	1.03			
Avail Cap(c_a), veh/h	0	1788	1134	327	3705	1154	736	0	596			
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.54	0.54	0.43	0.43	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.3	0.1	29.9	0.0	0.0	35.5	0.0	41.5			
Incr Delay (d2), s/veh	0.0	1.0	0.5	0.7	0.3	0.0	0.3	0.0	46.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.3	3.9	0.1	0.0	3.3	0.0	12.4			
LnGrp Delay(d),s/veh	0.0	1.3	0.6	30.6	0.3	0.0	35.8	0.0	87.5			
LnGrp LOS		A	A	C	A		D		F			
Approach Vol, veh/h		1576			2344			879				
Approach Delay, s/veh		1.1			2.5			72.0				
Approach LOS		A			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		26.0	23.0	56.0				79.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		22.0	19.0	52.0				75.0
Max Q Clear Time (g_c+I1), s		24.0	9.9	2.9				2.0
Green Ext Time (p_c), s		0.0	7.9	13.4				35.5

Intersection Summary		
HCM 2010 Ctrl Delay		14.8
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	1400	290	50	2450	10	480	0	170	10	0	10
Future Volume (veh/h)	10	1400	290	50	2450	10	480	0	170	10	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	1474	305	53	2579	11	342	228	179	11	0	11
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	2129	439	95	2386	10	458	334	262	137	17	103
Arrive On Green	0.20	0.99	0.99	0.05	0.45	0.45	0.34	0.34	0.34	0.34	0.00	0.34
Sat Flow, veh/h	1810	4308	888	1810	5331	23	1421	986	774	254	49	302
Grp Volume(v), veh/h	11	1182	597	53	1672	918	342	0	407	22	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1738	1810	1729	1896	1421	0	1759	605	0	0
Q Serve(g_s), s	0.5	1.3	1.3	3.0	47.0	47.0	9.8	0.0	20.9	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.5	1.3	1.3	3.0	47.0	47.0	31.0	0.0	20.9	21.2	0.0	0.0
Prop In Lane	1.00		0.51	1.00		0.01	1.00		0.44	0.50		0.50
Lane Grp Cap(c), veh/h	179	1709	859	95	1548	849	458	0	596	257	0	0
V/C Ratio(X)	0.06	0.69	0.69	0.56	1.08	1.08	0.75	0.00	0.68	0.09	0.00	0.00
Avail Cap(c_a), veh/h	179	1709	859	138	1548	849	504	0	653	296	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.1	0.3	0.3	48.6	29.0	29.0	34.5	0.0	29.8	25.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.8	3.5	5.1	47.9	55.4	5.5	0.0	2.6	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.6	1.0	1.6	32.7	37.6	10.2	0.0	10.6	0.4	0.0	0.0
LnGrp Delay(d),s/veh	38.2	2.1	3.8	53.6	76.9	84.4	40.0	0.0	32.4	25.1	0.0	0.0
LnGrp LOS	D	A	A	D	F	F	D		C	C		
Approach Vol, veh/h		1790			2643			749			22	
Approach Delay, s/veh		2.9			79.0			35.9			25.1	
Approach LOS		A			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		39.6	9.5	55.9		39.6	14.4	51.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	8.0	46.0		39.0	7.0	47.0
Max Q Clear Time (g_c+I1), s		33.0	5.0	3.3		23.2	2.5	49.0
Green Ext Time (p_c), s		2.0	0.0	18.2		3.5	3.6	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	100	1230	190	60	2260	0	190	70	40	10	50	120
Future Volume (veh/h)	100	1230	190	60	2260	0	190	70	40	10	50	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	1309	202	64	2404	0	202	74	43	11	53	128
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	2180	334	235	2508	0	314	258	150	84	370	367
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.00	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	147	3138	480	352	3705	0	1216	1126	654	193	1615	1604
Grp Volume(v), veh/h	106	748	763	64	2404	0	202	0	117	64	0	128
Grp Sat Flow(s),veh/h/ln	147	1805	1813	352	1805	0	1216	0	1780	1808	0	1604
Q Serve(g_s), s	9.1	22.7	23.3	12.3	63.9	0.0	16.7	0.0	5.7	0.0	0.0	7.0
Cycle Q Clear(g_c), s	73.0	22.7	23.3	35.6	63.9	0.0	19.5	0.0	5.7	2.8	0.0	7.0
Prop In Lane	1.00		0.26	1.00		0.00	1.00		0.37	0.17		1.00
Lane Grp Cap(c), veh/h	81	1254	1260	235	2508	0	314	0	408	454	0	367
V/C Ratio(X)	1.30	0.60	0.61	0.27	0.96	0.00	0.64	0.00	0.29	0.14	0.00	0.35
Avail Cap(c_a), veh/h	81	1254	1260	235	2508	0	418	0	559	604	0	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	8.4	8.4	17.8	14.6	0.0	40.1	0.0	33.4	32.3	0.0	33.9
Incr Delay (d2), s/veh	201.6	2.1	2.2	0.3	1.4	0.0	2.2	0.0	0.4	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	12.0	12.2	1.2	31.9	0.0	5.8	0.0	2.8	1.5	0.0	3.2
LnGrp Delay(d),s/veh	253.4	10.5	10.6	18.1	16.0	0.0	42.3	0.0	33.8	32.4	0.0	34.5
LnGrp LOS	F	B	B	B	B		D		C	C		C
Approach Vol, veh/h		1617			2468			319			192	
Approach Delay, s/veh		26.4			16.1			39.2			33.8	
Approach LOS		C			B			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		28.0		77.0		28.0		77.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		64.0		33.0		64.0
Max Q Clear Time (g_c+I1), s		21.5		75.0		9.0		65.9
Green Ext Time (p_c), s		1.7		0.0		2.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	160	950	20	470	2050	220	20	360	500	150	340	110
Future Volume (veh/h)	160	950	20	470	2050	220	20	360	500	150	340	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	178	1056	22	522	2278	244	22	400	556	167	378	122
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	1206	25	359	1520	160	164	485	730	128	448	378
Arrive On Green	0.07	0.33	0.33	0.20	0.46	0.46	0.09	0.26	0.26	0.07	0.24	0.24
Sat Flow, veh/h	1810	3616	75	1810	3295	346	1810	1900	1606	1810	1900	1605
Grp Volume(v), veh/h	178	527	551	522	1229	1293	22	400	556	167	378	122
Grp Sat Flow(s),veh/h/ln	1810	1805	1886	1810	1805	1837	1810	1900	1606	1810	1900	1605
Q Serve(g_s), s	8.0	31.0	31.0	22.4	52.0	52.0	1.3	22.4	6.4	8.0	21.4	5.8
Cycle Q Clear(g_c), s	8.0	31.0	31.0	22.4	52.0	52.0	1.3	22.4	6.4	8.0	21.4	5.8
Prop In Lane	1.00		0.04	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	128	602	629	359	832	847	164	485	730	128	448	378
V/C Ratio(X)	1.39	0.88	0.88	1.45	1.48	1.53	0.13	0.83	0.76	1.30	0.84	0.32
Avail Cap(c_a), veh/h	128	688	719	359	832	847	164	607	833	128	623	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	35.4	35.4	45.2	30.4	30.4	47.2	39.6	12.7	52.4	41.1	23.6
Incr Delay (d2), s/veh	214.7	11.1	10.7	218.6	220.7	243.1	0.4	7.5	3.6	180.8	7.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	17.2	17.9	32.9	76.7	83.3	0.6	12.8	10.3	10.4	12.2	2.9
LnGrp Delay(d),s/veh	267.0	46.5	46.1	263.8	251.1	273.5	47.6	47.1	16.3	233.1	48.7	24.1
LnGrp LOS	F	D	D	F	F	F	D	D	B	F	D	C
Approach Vol, veh/h		1256			3044			978			667	
Approach Delay, s/veh		77.6			262.8			29.6			90.4	
Approach LOS		E			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	32.8	26.4	41.6	14.2	30.6	12.0	56.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	17.0	43.0	7.0	37.0	8.0	52.0
Max Q Clear Time (g_c+I1), s	10.0	24.4	24.4	33.0	3.3	23.4	10.0	54.0
Green Ext Time (p_c), s	0.0	3.5	0.0	4.6	1.7	2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	166.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	70	610	900	190	1090	390	1610	1380	670	260	670	80
Future Volume (veh/h)	70	610	900	190	1090	390	1610	1380	670	260	670	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	649	957	202	1160	415	1713	1468	713	277	713	85
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	1147	1661	215	1168	647	941	1452	746	276	1001	118
Arrive On Green	0.06	0.32	0.32	0.06	0.32	0.32	0.27	0.40	0.40	0.08	0.21	0.21
Sat Flow, veh/h	1810	3610	2829	3510	3610	1608	3510	3610	1609	3510	4700	556
Grp Volume(v), veh/h	74	649	957	202	1160	415	1713	1468	713	277	523	275
Grp Sat Flow(s),veh/h/ln	1810	1805	1414	1755	1805	1608	1755	1805	1609	1755	1729	1797
Q Serve(g_s), s	4.6	17.1	5.6	6.6	36.6	17.4	30.7	46.0	46.0	9.0	16.0	16.3
Cycle Q Clear(g_c), s	4.6	17.1	5.6	6.6	36.6	17.4	30.7	46.0	46.0	9.0	16.0	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	100	1147	1661	215	1168	647	941	1452	746	276	736	383
V/C Ratio(X)	0.74	0.57	0.58	0.94	0.99	0.64	1.82	1.01	0.96	1.00	0.71	0.72
Avail Cap(c_a), veh/h	111	1168	1678	215	1168	647	941	1452	746	276	1028	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	32.4	6.1	53.5	38.5	15.4	41.8	34.2	29.5	52.7	41.7	41.8
Incr Delay (d2), s/veh	20.7	0.6	0.5	44.7	24.6	2.1	373.2	26.3	22.6	54.7	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.6	5.6	4.5	22.2	8.1	63.6	28.1	26.1	6.4	7.8	8.4
LnGrp Delay(d),s/veh	73.9	33.1	6.6	98.2	63.1	17.5	415.0	60.4	52.2	107.4	43.1	44.6
LnGrp LOS	E	C	A	F	E	B	F	F	D	F	D	D
Approach Vol, veh/h		1680			1777			3894			1075	
Approach Delay, s/veh		19.8			56.4			214.9			60.1	
Approach LOS		B			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	50.0	11.0	40.3	34.7	28.3	10.3	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	46.0	7.0	37.0	21.0	34.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	11.0	48.0	8.6	19.1	32.7	18.3	6.6	38.6
Green Ext Time (p_c), s	0.0	0.0	0.0	8.5	0.0	4.4	0.3	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	122.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Lane Configurations		✣			✣		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	40	30	20	50	20	100	30	3390	30	90	1650	20
Future Volume (veh/h)	40	30	20	50	20	100	30	3390	30	90	1650	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	32	21	53	21	106	32	3606	32	96	1755	21
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	94	51	101	46	155	402	3607	32	106	2730	33
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.22	0.68	0.68	0.06	0.52	0.52
Sat Flow, veh/h	541	584	315	386	286	963	1810	5303	47	1810	5283	63
Grp Volume(v), veh/h	96	0	0	180	0	0	32	2348	1290	96	1149	627
Grp Sat Flow(s),veh/h/ln	1439	0	0	1635	0	0	1810	1729	1892	1810	1729	1888
Q Serve(g_s), s	0.0	0.0	0.0	5.0	0.0	0.0	1.7	81.2	81.6	6.3	28.8	28.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	12.0	0.0	0.0	1.7	81.2	81.6	6.3	28.8	28.9
Prop In Lane	0.45		0.22	0.29		0.59	1.00		0.02	1.00		0.03
Lane Grp Cap(c), veh/h	276	0	0	303	0	0	402	2352	1287	106	1787	976
V/C Ratio(X)	0.35	0.00	0.00	0.59	0.00	0.00	0.08	1.00	1.00	0.91	0.64	0.64
Avail Cap(c_a), veh/h	523	0	0	556	0	0	402	2352	1287	106	1787	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	44.9	0.0	0.0	47.1	0.0	0.0	37.0	19.1	19.2	56.2	21.0	21.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.9	0.0	0.0	0.1	18.1	25.7	47.0	1.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	5.8	0.0	0.0	0.9	44.1	51.0	4.6	14.0	15.6
LnGrp Delay(d),s/veh	45.6	0.0	0.0	49.0	0.0	0.0	37.1	37.2	44.9	103.2	22.2	23.3
LnGrp LOS	D			D			D	D	F	F	C	C
Approach Vol, veh/h		96			180			3670			1872	
Approach Delay, s/veh		45.6			49.0			39.9			26.7	
Approach LOS		D			D			D			C	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	85.6		23.4	30.6	66.0		23.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	62.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	8.3	83.6		9.0	3.7	30.9		14.0
Green Ext Time (p_c), s	0.0	0.0		1.8	3.3	15.4		1.7

Intersection Summary			
HCM 2010 Ctrl Delay			36.0
HCM 2010 LOS			D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	130	90	40	30	40	90	30	3310	20	40	1650	50
Future Volume (veh/h)	130	90	40	30	40	90	30	3310	20	40	1650	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	95	42	32	42	95	32	3484	21	42	1737	53
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	204	171	242	204	171	348	3495	21	80	2629	80
Arrive On Green	0.06	0.11	0.11	0.06	0.11	0.11	0.19	0.66	0.66	0.04	0.51	0.51
Sat Flow, veh/h	1810	1900	1592	1810	1900	1592	1810	5320	32	1810	5172	158
Grp Volume(v), veh/h	137	95	42	32	42	95	32	2262	1243	42	1161	629
Grp Sat Flow(s),veh/h/ln	1810	1900	1592	1810	1900	1592	1810	1729	1894	1810	1729	1871
Q Serve(g_s), s	7.0	5.6	2.1	1.8	2.4	6.8	1.7	77.9	78.6	2.7	29.8	29.9
Cycle Q Clear(g_c), s	7.0	5.6	2.1	1.8	2.4	6.8	1.7	77.9	78.6	2.7	29.8	29.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	275	204	171	242	204	171	348	2272	1244	80	1758	951
V/C Ratio(X)	0.50	0.47	0.25	0.13	0.21	0.56	0.09	1.00	1.00	0.53	0.66	0.66
Avail Cap(c_a), veh/h	275	459	385	242	459	385	348	2272	1244	106	1758	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	50.3	24.7	42.6	48.9	50.8	39.8	20.4	20.5	56.1	21.8	21.8
Incr Delay (d2), s/veh	1.4	1.6	0.7	0.2	0.5	2.8	0.0	4.8	7.4	5.3	2.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.0	0.9	0.9	1.3	3.1	0.9	38.3	43.0	1.5	14.7	16.3
LnGrp Delay(d),s/veh	47.0	52.0	25.5	42.9	49.4	53.6	39.8	25.2	27.9	61.5	23.8	25.5
LnGrp LOS	D	D	C	D	D	D	D	C	C	E	C	C
Approach Vol, veh/h		274			169			3537			1832	
Approach Delay, s/veh		45.4			50.5			26.3			25.2	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	82.8	11.0	16.9	27.1	65.0	11.0	16.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	61.0	7.0	29.0	7.0	61.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	4.7	80.6	3.8	7.6	3.7	31.9	9.0	8.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	3.2	14.1	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	0	520	10	70	0	3260	1050	60	1640	10
Future Volume (veh/h)	20	10	0	520	10	70	0	3260	1050	60	1640	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	11	0	555	0	74	0	3432	1105	63	1726	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	354	0	452	0	163	516	3289	1156	93	2127	14
Arrive On Green	0.08	0.10	0.00	0.08	0.00	0.10	0.00	0.63	0.63	0.05	0.40	0.40
Sat Flow, veh/h	1810	3705	0	5429	0	1591	1810	5187	1611	1810	5318	34
Grp Volume(v), veh/h	21	11	0	555	0	74	0	3432	1105	63	1122	615
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1810	0	1591	1810	1729	1611	1810	1729	1894
Q Serve(g_s), s	1.3	0.3	0.0	10.0	0.0	4.6	0.0	76.1	74.0	4.1	34.6	34.6
Cycle Q Clear(g_c), s	1.3	0.3	0.0	10.0	0.0	4.6	0.0	76.1	74.0	4.1	34.6	34.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	143	354	0	452	0	163	516	3289	1156	93	1383	758
V/C Ratio(X)	0.15	0.03	0.00	1.23	0.00	0.45	0.00	1.04	0.96	0.68	0.81	0.81
Avail Cap(c_a), veh/h	143	1173	0	452	0	557	516	3289	1156	106	1383	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	51.5	49.0	0.0	55.0	0.0	38.2	0.0	22.0	15.3	56.0	32.0	32.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	120.3	0.0	2.0	0.0	28.6	17.8	12.2	4.6	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.0	10.0	0.0	2.1	0.0	44.6	37.9	2.4	17.4	19.8
LnGrp Delay(d),s/veh	52.0	49.0	0.0	175.3	0.0	40.2	0.0	50.6	33.0	68.2	36.6	40.1
LnGrp LOS	D	D		F		D		F	C	E	D	D
Approach Vol, veh/h		32			629			4537			1800	
Approach Delay, s/veh		51.0			159.4			46.3			38.9	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	80.1	14.0	15.8	38.2	52.0	13.5	16.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	48.0	10.0	39.0	7.0	48.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	6.1	78.1	12.0	2.3	0.0	36.6	3.3	6.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	54.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	70	100	80	190	250	250	1210	40	60	690	430
Future Volume (veh/h)	320	70	100	80	190	250	250	1210	40	60	690	430
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	72	103	82	196	258	258	1247	41	62	711	443
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	363	1308	583	133	1037	320	637	2196	681	108	1415	438
Arrive On Green	0.20	0.36	0.36	0.04	0.20	0.20	0.18	0.42	0.42	0.03	0.27	0.27
Sat Flow, veh/h	1810	3610	1608	3510	5187	1603	3510	5187	1609	3510	5187	1606
Grp Volume(v), veh/h	330	72	103	82	196	258	258	1247	41	62	711	443
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1729	1603	1755	1729	1609	1755	1729	1606
Q Serve(g_s), s	19.6	1.4	2.9	2.5	3.5	16.9	7.1	20.1	1.7	1.9	12.7	18.7
Cycle Q Clear(g_c), s	19.6	1.4	2.9	2.5	3.5	16.9	7.1	20.1	1.7	1.9	12.7	18.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	1308	583	133	1037	320	637	2196	681	108	1415	438
V/C Ratio(X)	0.91	0.06	0.18	0.61	0.19	0.81	0.40	0.57	0.06	0.57	0.50	1.01
Avail Cap(c_a), veh/h	428	1575	702	191	1320	408	637	2196	681	128	1415	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	22.8	8.6	52.1	36.6	42.0	39.8	24.1	18.8	52.6	33.7	15.6
Incr Delay (d2), s/veh	21.2	0.0	0.1	4.5	0.1	8.9	0.4	1.1	0.2	4.7	1.3	45.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.7	1.3	1.3	1.7	8.2	3.5	9.8	0.8	1.0	6.2	13.9
LnGrp Delay(d),s/veh	64.2	22.8	8.8	56.6	36.7	50.9	40.2	25.1	18.9	57.3	35.0	61.5
LnGrp LOS	E	C	A	E	D	D	D	C	B	E	C	F
Approach Vol, veh/h		505			536			1546			1216	
Approach Delay, s/veh		47.0			46.6			27.5			45.8	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	50.6	8.2	43.8	24.0	34.0	26.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	36.0	6.0	48.0	10.0	30.0	26.0	28.0
Max Q Clear Time (g_c+I1), s	3.9	22.1	4.5	4.9	9.1	20.7	21.6	18.9
Green Ext Time (p_c), s	0.0	7.6	0.0	3.2	0.3	4.1	0.4	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	240	1000	80	70	1510	400	170	160	150	90	50	90
Future Volume (veh/h)	240	1000	80	70	1510	400	170	160	150	90	50	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	250	1042	83	73	1573	417	177	167	156	94	52	94
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	247	2696	214	93	2416	750	181	293	255	119	455	201
Arrive On Green	0.14	0.55	0.55	0.10	0.93	0.93	0.10	0.16	0.16	0.07	0.13	0.13
Sat Flow, veh/h	1810	4898	390	1810	5187	1610	1810	1823	1585	1810	3610	1596
Grp Volume(v), veh/h	250	735	390	73	1573	417	177	165	158	94	52	94
Grp Sat Flow(s),veh/h/ln	1810	1729	1830	1810	1729	1610	1810	1805	1603	1810	1805	1596
Q Serve(g_s), s	15.0	13.4	13.4	4.3	5.8	4.1	10.7	9.3	10.1	5.6	1.4	6.0
Cycle Q Clear(g_c), s	15.0	13.4	13.4	4.3	5.8	4.1	10.7	9.3	10.1	5.6	1.4	6.0
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.99	1.00		1.00
Lane Grp Cap(c), veh/h	247	1904	1007	93	2416	750	181	290	257	119	455	201
V/C Ratio(X)	1.01	0.39	0.39	0.78	0.65	0.56	0.98	0.57	0.61	0.79	0.11	0.47
Avail Cap(c_a), veh/h	247	1904	1007	148	2416	750	181	596	529	132	1083	479
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.20	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	14.1	14.1	48.7	2.2	2.2	49.4	42.7	43.0	50.7	42.6	44.6
Incr Delay (d2), s/veh	58.4	0.5	1.0	2.9	0.3	0.6	60.3	1.8	2.4	25.3	0.1	1.7
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	6.5	7.0	2.2	2.4	1.5	8.4	4.8	4.6	3.7	0.7	2.7
LnGrp Delay(d),s/veh	106.0	14.7	15.2	51.6	2.5	2.7	109.7	44.4	45.3	75.9	42.7	46.3
LnGrp LOS	F	B	B	D	A	A	F	D	D	E	D	D
Approach Vol, veh/h		1375			2063			500			240	
Approach Delay, s/veh		31.4			4.3			67.8			57.1	
Approach LOS		C			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	66.6	15.0	18.8	19.0	57.2	11.2	22.6
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	9.0	38.1	11.0	33.0	15.0	32.1	8.0	* 36
Max Q Clear Time (g_c+I1), s	6.3	15.4	12.7	8.0	17.0	7.8	7.6	12.1
Green Ext Time (p_c), s	0.0	18.8	0.0	2.6	0.0	19.9	0.0	2.6

Intersection Summary			
HCM 2010 Ctrl Delay			23.8
HCM 2010 LOS			C

Notes

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* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	370	580	190	140	1290	170	520	1050	110	120	430	200
Future Volume (veh/h)	370	580	190	140	1290	170	520	1050	110	120	430	200
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	381	598	196	144	1330	175	536	1082	113	124	443	206
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	351	1967	610	205	1565	206	511	1737	538	183	1254	388
Arrive On Green	0.20	0.76	0.76	0.06	0.34	0.34	0.15	0.33	0.33	0.05	0.24	0.24
Sat Flow, veh/h	3510	5187	1609	3510	4637	610	3510	5187	1608	3510	5187	1605
Grp Volume(v), veh/h	381	598	196	144	992	513	536	1082	113	124	443	206
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1789	1755	1729	1608	1755	1729	1605
Q Serve(g_s), s	11.0	4.0	4.3	4.4	29.3	29.3	16.0	19.3	5.5	3.8	7.8	12.3
Cycle Q Clear(g_c), s	11.0	4.0	4.3	4.4	29.3	29.3	16.0	19.3	5.5	3.8	7.8	12.3
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	1967	610	205	1167	604	511	1737	538	183	1254	388
V/C Ratio(X)	1.09	0.30	0.32	0.70	0.85	0.85	1.05	0.62	0.21	0.68	0.35	0.53
Avail Cap(c_a), veh/h	351	1967	610	255	1167	604	511	1933	599	255	1556	481
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.35	0.35	0.35	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	8.7	8.8	50.9	33.9	33.9	47.0	30.7	26.2	51.2	34.6	36.3
Incr Delay (d2), s/veh	70.9	0.4	1.3	2.3	2.9	5.4	53.5	0.5	0.2	4.3	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	1.8	2.0	2.2	14.4	15.3	11.5	9.3	2.5	2.0	3.8	5.6
LnGrp Delay(d),s/veh	114.9	9.1	10.1	53.1	36.8	39.3	100.5	31.3	26.4	55.5	34.8	37.4
LnGrp LOS	F	A	B	D	D	D	F	C	C	E	C	D
Approach Vol, veh/h		1175			1649			1731			773	
Approach Delay, s/veh		43.6			39.0			52.4			38.8	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	47.7	20.0	31.9	15.0	43.1	9.7	42.1
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	33.7	16.0	33.0	11.0	30.7	8.0	41.0
Max Q Clear Time (g_c+I1), s	6.4	6.3	18.0	14.3	13.0	31.3	5.8	21.3
Green Ext Time (p_c), s	0.1	16.9	0.0	11.2	0.0	0.0	0.1	11.6

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	430	360	160	30	1050	380	400	560	30	210	380	470
Future Volume (veh/h)	430	360	160	30	1050	380	400	560	30	210	380	470
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	467	391	0	33	1141	413	435	609	33	228	413	511
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	511	1908	594	42	1273	394	447	1196	65	294	1083	482
Arrive On Green	0.15	0.37	0.00	0.02	0.25	0.25	0.13	0.34	0.34	0.08	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	5187	1605	3510	3482	188	3510	3610	1607
Grp Volume(v), veh/h	467	391	0	33	1141	413	435	315	327	228	413	511
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1605	1755	1805	1866	1755	1805	1607
Q Serve(g_s), s	14.4	5.7	0.0	2.0	23.4	27.0	13.6	15.3	15.3	7.0	9.9	33.0
Cycle Q Clear(g_c), s	14.4	5.7	0.0	2.0	23.4	27.0	13.6	15.3	15.3	7.0	9.9	33.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	511	1908	594	42	1273	394	447	620	641	294	1083	482
V/C Ratio(X)	0.91	0.20	0.00	0.79	0.90	1.05	0.97	0.51	0.51	0.78	0.38	1.06
Avail Cap(c_a), veh/h	511	1908	594	99	1273	394	447	620	641	383	1083	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	23.8	0.0	53.5	40.1	41.5	47.8	28.7	28.7	49.4	30.4	38.5
Incr Delay (d2), s/veh	20.4	0.2	0.0	27.1	10.0	58.5	35.6	3.0	2.9	7.2	1.0	57.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	2.8	0.0	1.3	12.4	18.3	8.8	8.1	8.4	3.7	5.1	22.3
LnGrp Delay(d),s/veh	66.7	24.0	0.0	80.6	50.2	100.0	83.4	31.7	31.6	56.6	31.5	96.3
LnGrp LOS	E	C		F	D	F	F	C	C	E	C	F
Approach Vol, veh/h		858			1587			1077			1152	
Approach Delay, s/veh		47.3			63.8			52.6			65.2	
Approach LOS		D			E			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	46.5	18.0	39.0	20.0	33.0	13.2	43.8				
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0				
Max Green Setting (Gmax), s	6.0	37.0	14.0	33.0	16.0	27.0	12.0	35.0				
Max Q Clear Time (g_c+I1), s	4.0	7.7	15.6	35.0	16.4	29.0	9.0	17.3				
Green Ext Time (p_c), s	0.0	13.9	0.0	0.0	0.0	0.0	0.2	8.5				
Intersection Summary												
HCM 2010 Ctrl Delay			58.5									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	50	30	30	20	20	10	40	1650	30	0	670	80
Future Volume (veh/h)	50	30	30	20	20	10	40	1650	30	0	670	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	32	32	21	21	11	43	1755	32	0	713	85
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	69	270	118	31	102	85	55	4119	75	2	3727	1158
Arrive On Green	0.04	0.07	0.07	0.02	0.05	0.05	0.06	1.00	1.00	0.00	0.72	0.72
Sat Flow, veh/h	1810	3610	1583	1810	1900	1570	1810	5245	96	1810	5187	1612
Grp Volume(v), veh/h	53	32	32	21	21	11	43	1157	630	0	713	85
Grp Sat Flow(s),veh/h/ln	1810	1805	1583	1810	1900	1570	1810	1729	1883	1810	1729	1612
Q Serve(g_s), s	3.2	0.9	2.1	1.3	1.2	0.7	2.6	0.0	0.0	0.0	4.9	1.7
Cycle Q Clear(g_c), s	3.2	0.9	2.1	1.3	1.2	0.7	2.6	0.0	0.0	0.0	4.9	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	69	270	118	31	102	85	55	2716	1479	2	3727	1158
V/C Ratio(X)	0.77	0.12	0.27	0.67	0.21	0.13	0.78	0.43	0.43	0.00	0.19	0.07
Avail Cap(c_a), veh/h	165	748	328	99	326	270	132	2716	1479	66	3727	1158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	0.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	47.5	48.1	53.7	49.8	49.6	51.3	0.0	0.0	0.0	5.1	4.6
Incr Delay (d2), s/veh	16.3	0.2	1.2	22.4	1.0	0.7	18.4	0.4	0.8	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.5	1.0	0.8	0.6	0.3	1.6	0.2	0.3	0.0	2.4	0.8
LnGrp Delay(d),s/veh	68.7	47.7	49.3	76.1	50.8	50.3	69.7	0.4	0.8	0.0	5.2	4.7
LnGrp LOS	E	D	D	E	D	D	E	A	A		A	A
Approach Vol, veh/h		117			53			1830			798	
Approach Delay, s/veh		57.6			60.7			2.2			5.1	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	91.7	5.9	12.4	7.4	84.3	8.2	10.1
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	4.0	59.7	6.0	* 23	8.0	55.7	10.0	* 19
Max Q Clear Time (g_c+I1), s	0.0	2.0	3.3	4.1	4.6	6.9	5.2	3.2
Green Ext Time (p_c), s	0.0	34.5	0.0	0.3	0.0	31.2	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	40	140	110	100	80	160	620	70	30	450	100
Future Volume (veh/h)	110	40	140	110	100	80	160	620	70	30	450	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	121	44	154	121	110	88	176	681	77	33	495	110
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	280	235	150	280	235	208	1966	222	42	1840	821
Arrive On Green	0.08	0.15	0.15	0.08	0.15	0.15	0.11	0.60	0.60	0.02	0.51	0.51
Sat Flow, veh/h	1810	1900	1599	1810	1900	1599	1810	3269	369	1810	3610	1610
Grp Volume(v), veh/h	121	44	154	121	110	88	176	376	382	33	495	110
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1599	1810	1805	1834	1810	1805	1610
Q Serve(g_s), s	7.2	2.2	10.0	7.2	5.8	5.5	10.5	11.5	11.5	2.0	8.6	4.0
Cycle Q Clear(g_c), s	7.2	2.2	10.0	7.2	5.8	5.5	10.5	11.5	11.5	2.0	8.6	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	150	280	235	150	280	235	208	1086	1103	42	1840	821
V/C Ratio(X)	0.81	0.16	0.65	0.81	0.39	0.37	0.85	0.35	0.35	0.79	0.27	0.13
Avail Cap(c_a), veh/h	230	553	465	230	553	465	296	1086	1103	99	1840	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	40.9	44.3	49.6	42.5	42.3	47.7	11.0	11.0	53.5	15.3	14.2
Incr Delay (d2), s/veh	11.4	0.3	3.1	11.4	0.9	1.0	11.1	0.7	0.6	27.1	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	1.2	4.6	4.1	3.1	2.5	5.9	5.9	6.0	1.3	4.4	1.8
LnGrp Delay(d),s/veh	61.0	41.2	47.3	61.0	43.3	43.3	58.9	11.7	11.7	80.5	15.7	14.5
LnGrp LOS	E	D	D	E	D	D	E	B	B	F	B	B
Approach Vol, veh/h		319			319			934			638	
Approach Delay, s/veh		51.7			50.0			20.6			18.8	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	70.2	13.1	20.2	16.6	60.1	13.1	20.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	42.0	14.0	32.0	18.0	30.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	4.0	13.5	9.2	12.0	12.5	10.6	9.2	7.8
Green Ext Time (p_c), s	0.0	9.9	0.1	1.5	0.2	8.4	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	60	180	50	160	310	250	90	1400	100	70	550	110
Future Volume (veh/h)	60	180	50	160	310	250	90	1400	100	70	550	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	186	52	165	320	258	93	1443	103	72	567	113
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	199	838	373	286	838	373	119	3025	938	94	2954	917
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.07	0.58	0.58	0.02	0.19	0.19
Sat Flow, veh/h	847	3610	1605	1155	3610	1605	1810	5187	1608	1810	5187	1611
Grp Volume(v), veh/h	62	186	52	165	320	258	93	1443	103	72	567	113
Grp Sat Flow(s),veh/h/ln	847	1805	1605	1155	1805	1605	1810	1729	1608	1810	1729	1611
Q Serve(g_s), s	7.3	4.6	2.8	14.8	8.2	16.2	5.6	17.7	3.1	4.4	10.1	6.4
Cycle Q Clear(g_c), s	15.5	4.6	2.8	19.4	8.2	16.2	5.6	17.7	3.1	4.4	10.1	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	838	373	286	838	373	119	3025	938	94	2954	917
V/C Ratio(X)	0.31	0.22	0.14	0.58	0.38	0.69	0.78	0.48	0.11	0.77	0.19	0.12
Avail Cap(c_a), veh/h	254	1073	477	361	1073	477	230	3025	938	181	2954	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	42.1	34.2	33.5	42.0	35.6	38.6	50.6	13.2	10.2	53.4	23.3	21.8
Incr Delay (d2), s/veh	0.9	0.1	0.2	1.8	0.3	3.0	10.7	0.5	0.2	12.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.3	1.3	4.9	4.1	7.4	3.1	8.6	1.4	2.5	4.9	2.9
LnGrp Delay(d),s/veh	43.0	34.3	33.7	43.9	35.9	41.6	61.3	13.8	10.4	65.6	23.5	22.1
LnGrp LOS	D	C	C	D	D	D	E	B	B	E	C	C
Approach Vol, veh/h		300			743			1639			752	
Approach Delay, s/veh		36.0			39.6			16.3			27.3	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	69.5		30.8	11.2	67.9		30.8
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	11.0	51.7		32.7	14.0	48.7		32.7
Max Q Clear Time (g_c+I1), s	6.4	19.7		17.5	7.6	12.1		21.4
Green Ext Time (p_c), s	0.0	19.9		4.8	0.1	21.6		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	370	70	30	490	140	150	430	40	110	380	260
Future Volume (veh/h)	240	370	70	30	490	140	150	430	40	110	380	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	425	80	34	563	161	172	494	46	126	437	299
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	1193	223	43	702	200	181	1178	109	153	694	471
Arrive On Green	0.16	0.39	0.39	0.02	0.25	0.25	0.10	0.35	0.35	0.17	0.68	0.68
Sat Flow, veh/h	1810	3035	567	1810	2770	790	1810	3339	310	1810	2055	1396
Grp Volume(v), veh/h	276	251	254	34	366	358	172	266	274	126	383	353
Grp Sat Flow(s),veh/h/ln	1810	1805	1797	1810	1805	1755	1810	1805	1844	1810	1805	1646
Q Serve(g_s), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.3	12.4	7.4	13.2	13.4
Cycle Q Clear(g_c), s	16.6	10.8	11.0	2.1	20.9	21.0	10.4	12.3	12.4	7.4	13.2	13.4
Prop In Lane	1.00		0.32	1.00		0.45	1.00		0.17	1.00		0.85
Lane Grp Cap(c), veh/h	296	710	707	43	457	445	181	637	651	153	609	556
V/C Ratio(X)	0.93	0.35	0.36	0.79	0.80	0.80	0.95	0.42	0.42	0.82	0.63	0.63
Avail Cap(c_a), veh/h	296	710	707	99	509	495	181	637	651	247	609	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	45.4	23.5	23.6	53.4	38.5	38.5	49.2	27.0	27.0	44.9	14.0	14.0
Incr Delay (d2), s/veh	34.8	0.3	0.3	26.2	8.1	8.6	52.5	2.0	2.0	10.4	4.6	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	5.4	5.5	1.3	11.4	11.2	7.8	6.5	6.7	4.1	7.2	6.7
LnGrp Delay(d),s/veh	80.2	23.8	23.9	79.6	46.6	47.1	101.7	29.0	29.0	55.3	18.5	19.1
LnGrp LOS	F	C	C	E	D	D	F	C	C	E	B	B
Approach Vol, veh/h		781			758			712			862	
Approach Delay, s/veh		43.8			48.3			46.6			24.1	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	42.8	6.6	47.2	15.0	41.1	22.0	31.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	30.0	6.0	43.0	11.0	34.0	18.0	31.0
Max Q Clear Time (g_c+I1), s	9.4	14.4	4.1	13.0	12.4	15.4	18.6	23.0
Green Ext Time (p_c), s	0.1	7.0	0.0	9.2	0.0	7.7	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	40.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
108: Perris Blvd & Mid County Pkwy WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↗	↰	↑↑↑			↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	210	80	1330	110	1770	0	0	600	230
Future Volume (veh/h)	0	0	0	210	80	1330	110	1770	0	0	600	230
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				228	0	1504	120	1924	0	0	652	250
Adj No. of Lanes				1	0	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				900	0	1601	149	2231	0	0	1614	499
Arrive On Green				0.50	0.00	0.50	0.06	0.29	0.00	0.00	0.31	0.31
Sat Flow, veh/h				1810	0	3220	1810	5358	0	0	5358	1602
Grp Volume(v), veh/h				228	0	1504	120	1924	0	0	652	250
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1602
Q Serve(g_s), s				8.0	0.0	48.5	7.2	38.6	0.0	0.0	10.9	14.0
Cycle Q Clear(g_c), s				8.0	0.0	48.5	7.2	38.6	0.0	0.0	10.9	14.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				900	0	1601	149	2231	0	0	1614	499
V/C Ratio(X)				0.25	0.00	0.94	0.80	0.86	0.00	0.00	0.40	0.50
Avail Cap(c_a), veh/h				938	0	1669	230	2231	0	0	1614	499
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				15.9	0.0	26.1	51.1	36.1	0.0	0.0	29.8	30.9
Incr Delay (d2), s/veh				0.1	0.0	10.6	8.7	3.7	0.0	0.0	0.8	3.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.0	23.9	4.0	19.3	0.0	0.0	5.3	6.7
LnGrp Delay(d),s/veh				16.1	0.0	36.7	59.8	39.8	0.0	0.0	30.6	34.5
LnGrp LOS				B		D	E	D			C	C
Approach Vol, veh/h					1732			2044			902	
Approach Delay, s/veh					34.0			40.9			31.7	
Approach LOS					C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		51.3			13.1	38.2		58.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		45.0			14.0	27.0		57.0
Max Q Clear Time (g_c+I1), s		40.6			9.2	16.0		50.5
Green Ext Time (p_c), s		4.1			0.1	10.0		4.2

Intersection Summary	
HCM 2010 Ctrl Delay	36.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	250	50	190	0	0	0	0	1630	300	160	650	0
Future Volume (veh/h)	250	50	190	0	0	0	0	1630	300	160	650	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	272	54	207				0	1772	326	174	707	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	345	65	251				0	3248	591	212	3820	0
Arrive On Green	0.19	0.19	0.19				0.00	1.00	1.00	0.24	0.24	0.00
Sat Flow, veh/h	1810	343	1313				0	4582	802	199	5358	0
Grp Volume(v), veh/h	272	0	261				0	1385	713	174	707	0
Grp Sat Flow(s),veh/h/ln	1810	0	1656				0	1729	1755	199	1729	0
Q Serve(g_s), s	15.7	0.0	16.7				0.0	0.0	0.0	81.0	11.9	0.0
Cycle Q Clear(g_c), s	15.7	0.0	16.7				0.0	0.0	0.0	81.0	11.9	0.0
Prop In Lane	1.00		0.79				0.00		0.46	1.00		0.00
Lane Grp Cap(c), veh/h	345	0	316				0	2547	1293	212	3820	0
V/C Ratio(X)	0.79	0.00	0.83				0.00	0.54	0.55	0.82	0.19	0.00
Avail Cap(c_a), veh/h	461	0	422				0	2547	1293	212	3820	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.70	0.70	0.91	0.91	0.00
Uniform Delay (d), s/veh	42.4	0.0	42.8				0.0	0.0	0.0	48.1	15.5	0.0
Incr Delay (d2), s/veh	6.5	0.0	9.7				0.0	0.6	1.2	26.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	8.5				0.0	0.2	0.4	6.9	5.7	0.0
LnGrp Delay(d),s/veh	48.9	0.0	52.4				0.0	0.6	1.2	75.0	15.6	0.0
LnGrp LOS	D		D					A	A	E	B	
Approach Vol, veh/h		533						2098			881	
Approach Delay, s/veh		50.6						0.8			27.3	
Approach LOS		D						A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		85.0		25.0		85.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		74.0		28.0		74.0		
Max Q Clear Time (g_c+I1), s		2.0		18.7		83.0		
Green Ext Time (p_c), s		59.7		1.8		0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↑↱		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	130	90	70	290	220	0	0	120	90
Future Volume (veh/h)	0	0	0	130	90	70	290	220	0	0	120	90
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				141	98	76	315	239	0	0	130	98
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				162	113	87	348	2613	0	0	1788	796
Arrive On Green				0.20	0.20	0.20	0.32	1.00	0.00	0.00	0.50	0.50
Sat Flow, veh/h				797	554	430	1810	3705	0	0	3705	1607
Grp Volume(v), veh/h				315	0	0	315	239	0	0	130	98
Grp Sat Flow(s),veh/h/ln				1781	0	0	1810	1805	0	0	1805	1607
Q Serve(g_s), s				18.8	0.0	0.0	18.3	0.0	0.0	0.0	2.1	3.6
Cycle Q Clear(g_c), s				18.8	0.0	0.0	18.3	0.0	0.0	0.0	2.1	3.6
Prop In Lane				0.45		0.24	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				362	0	0	348	2613	0	0	1788	796
V/C Ratio(X)				0.87	0.00	0.00	0.91	0.09	0.00	0.00	0.07	0.12
Avail Cap(c_a), veh/h				550	0	0	592	2613	0	0	1788	796
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.4	0.0	0.0	36.4	0.0	0.0	0.0	14.5	14.9
Incr Delay (d2), s/veh				9.4	0.0	0.0	10.5	0.1	0.0	0.0	0.1	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.2	0.0	0.0	10.1	0.0	0.0	0.0	1.0	1.7
LnGrp Delay(d),s/veh				51.8	0.0	0.0	46.9	0.1	0.0	0.0	14.6	15.2
LnGrp LOS				D			D	A			B	B
Approach Vol, veh/h					315			554			228	
Approach Delay, s/veh					51.8			26.7			14.9	
Approach LOS					D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		83.6			25.1	58.5		26.4
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		68.0			36.0	28.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			20.3	5.6		20.8
Green Ext Time (p_c), s		2.9			0.8	2.6		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	31.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	20	10	180	0	0	0	0	490	320	20	240	0
Future Volume (veh/h)	20	10	180	0	0	0	0	490	320	20	240	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	22	11	196				0	533	348	22	261	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	186	93	243				0	2555	1139	56	2799	0
Arrive On Green	0.15	0.15	0.15				0.00	0.71	0.71	0.01	0.26	0.00
Sat Flow, veh/h	1226	613	1599				0	3705	1609	1810	3705	0
Grp Volume(v), veh/h	33	0	196				0	533	348	22	261	0
Grp Sat Flow(s),veh/h/ln	1839	0	1599				0	1805	1609	1810	1805	0
Q Serve(g_s), s	1.7	0.0	13.0				0.0	5.6	8.9	1.3	6.1	0.0
Cycle Q Clear(g_c), s	1.7	0.0	13.0				0.0	5.6	8.9	1.3	6.1	0.0
Prop In Lane	0.67		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	280	0	243				0	2555	1139	56	2799	0
V/C Ratio(X)	0.12	0.00	0.81				0.00	0.21	0.31	0.39	0.09	0.00
Avail Cap(c_a), veh/h	635	0	552				0	2555	1139	181	2799	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.3	0.0	45.1				0.0	5.5	6.0	53.4	11.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	6.2				0.0	0.2	0.7	4.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.2				0.0	2.8	4.1	0.7	3.1	0.0
LnGrp Delay(d),s/veh	40.5	0.0	51.3				0.0	5.7	6.7	57.7	11.5	0.0
LnGrp LOS	D		D					A	A	E	B	
Approach Vol, veh/h		229						881			283	
Approach Delay, s/veh		49.7						6.1			15.1	
Approach LOS		D						A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	7.4	81.8		20.7		89.3		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	11.0	49.0		38.0		64.0		
Max Q Clear Time (g_c+I1), s	3.3	10.9		15.0		8.1		
Green Ext Time (p_c), s	0.0	7.7		0.8		7.9		

Intersection Summary		
HCM 2010 Ctrl Delay		15.1
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	10	70	70	170	130	170	310	1520	150	40	680	30
Future Volume (veh/h)	10	70	70	170	130	170	310	1520	150	40	680	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	80	80	193	148	193	352	1727	170	45	773	34
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	142	124	226	348	309	395	2877	282	58	2104	92
Arrive On Green	0.01	0.08	0.08	0.12	0.19	0.19	0.07	0.20	0.20	0.01	0.14	0.14
Sat Flow, veh/h	1810	1805	1584	1810	1805	1602	1810	4802	471	1810	5094	223
Grp Volume(v), veh/h	11	80	80	193	148	193	352	1242	655	45	524	283
Grp Sat Flow(s),veh/h/ln	1810	1805	1584	1810	1805	1602	1810	1729	1815	1810	1729	1860
Q Serve(g_s), s	0.7	4.7	5.4	11.5	7.9	12.2	21.2	36.0	36.1	2.7	15.2	15.2
Cycle Q Clear(g_c), s	0.7	4.7	5.4	11.5	7.9	12.2	21.2	36.0	36.1	2.7	15.2	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.12
Lane Grp Cap(c), veh/h	19	142	124	226	348	309	395	2071	1087	58	1429	768
V/C Ratio(X)	0.59	0.56	0.64	0.85	0.42	0.62	0.89	0.60	0.60	0.77	0.37	0.37
Avail Cap(c_a), veh/h	66	199	174	329	461	409	543	2071	1087	115	1429	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.99	0.99	0.99
Uniform Delay (d), s/veh	54.2	48.9	49.2	47.2	39.0	40.7	49.8	32.1	32.2	54.0	34.4	34.5
Incr Delay (d2), s/veh	25.7	3.5	5.4	13.7	0.8	2.1	12.4	1.2	2.3	18.9	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.5	2.5	6.6	4.0	5.5	12.0	17.6	18.9	1.7	7.4	8.1
LnGrp Delay(d),s/veh	79.9	52.3	54.6	60.8	39.8	42.8	62.2	33.3	34.5	72.9	35.1	35.8
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		171			534			2249			852	
Approach Delay, s/veh		55.2			48.5			38.2			37.4	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	71.2	17.7	13.5	28.0	50.7	5.1	26.1
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	7.0	52.7	20.0	12.1	33.0	26.7	4.0	28.1
Max Q Clear Time (g_c+I1), s	4.7	38.1	13.5	7.4	23.2	17.2	2.7	14.2
Green Ext Time (p_c), s	0.0	12.6	0.3	1.3	0.8	8.5	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	40.2
HCM 2010 LOS	D

HCM 2010 TWSC
113: Evans Rd & Placentia Ave

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↑↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1089	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1089	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	447.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	130	160	100	70	180	130	230	610	170	160	390	130
Future Vol, veh/h	130	160	100	70	180	130	230	610	170	160	390	130
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	194	239	149	104	269	194	343	910	254	239	582	194
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	533.2	275.7	587.5	285.2
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	33%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	41%	0%	58%	0%	100%	0%
Vol Right, %	0%	0%	100%	26%	0%	42%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	610	170	390	70	310	160	390	130
LT Vol	230	0	0	130	70	0	160	0	0
Through Vol	0	610	0	160	0	180	0	390	0
RT Vol	0	0	170	100	0	130	0	0	130
Lane Flow Rate	343	910	254	582	104	463	239	582	194
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1.145	2.911	0.762	2.094	0.388	1.615	0.819	1.915	0.601
Departure Headway (Hd)	16.267	15.708	14.926	13.542	16.467	15.599	15.645	15.089	14.311
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	227	246	246	274	220	236	234	244	254
Service Time	13.967	13.408	12.626	11.242	14.167	13.299	13.345	12.789	12.011
HCM Lane V/C Ratio	1.511	3.699	1.033	2.124	0.473	1.962	1.021	2.385	0.764
HCM Control Delay	148.8	901.7	53.4	533.2	29.2	331.3	63.8	459	36.5
HCM Lane LOS	F	F	F	F	D	F	F	F	E
HCM 95th-tile Q	12	59	5.5	41.4	1.7	23.7	6.2	32.6	3.5

HCM 2010 Signalized Intersection Summary
115: Nuevo Rd & Evans Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	320	190	130	90	320	200	170	110	60	130	90	350
Future Volume (veh/h)	320	190	130	90	320	200	170	110	60	130	90	350
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	395	235	141	98	395	247	185	120	65	160	98	432
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.81	0.81	0.92	0.92	0.81	0.81	0.92	0.92	0.92	0.81	0.92	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	481	1182	526	164	856	380	264	1285	575	245	1265	564
Arrive On Green	0.14	0.33	0.33	0.05	0.24	0.24	0.08	0.36	0.36	0.07	0.35	0.35
Sat Flow, veh/h	3510	3610	1608	3510	3610	1605	3510	3610	1615	3510	3610	1608
Grp Volume(v), veh/h	395	235	141	98	395	247	185	120	65	160	98	432
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1805	1605	1755	1805	1615	1755	1805	1608
Q Serve(g_s), s	8.7	3.7	5.2	2.2	7.5	11.1	4.1	1.8	2.2	3.5	1.4	19.1
Cycle Q Clear(g_c), s	8.7	3.7	5.2	2.2	7.5	11.1	4.1	1.8	2.2	3.5	1.4	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	481	1182	526	164	856	380	264	1285	575	245	1265	564
V/C Ratio(X)	0.82	0.20	0.27	0.60	0.46	0.65	0.70	0.09	0.11	0.65	0.08	0.77
Avail Cap(c_a), veh/h	527	1582	704	220	1265	563	264	1285	575	264	1265	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	19.3	19.8	37.3	26.1	27.5	36.1	17.1	17.3	36.2	17.3	23.0
Incr Delay (d2), s/veh	9.3	0.1	0.3	3.5	0.4	1.9	8.1	0.1	0.4	5.2	0.1	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	1.9	2.3	1.1	3.8	5.1	2.3	0.9	1.0	1.9	0.7	9.9
LnGrp Delay(d),s/veh	42.9	19.4	20.1	40.8	26.5	29.3	44.1	17.3	17.7	41.4	17.4	32.6
LnGrp LOS	D	B	C	D	C	C	D	B	B	D	B	C
Approach Vol, veh/h		771			740			370			690	
Approach Delay, s/veh		31.5			29.3			30.8			32.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	32.4	7.7	30.2	10.0	32.0	14.9	22.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	28.0	5.0	35.0	6.0	28.0	12.0	28.0
Max Q Clear Time (g_c+I1), s	5.5	4.2	4.2	7.2	6.1	21.1	10.7	13.1
Green Ext Time (p_c), s	0.0	3.3	0.0	5.8	0.0	1.9	0.2	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	71

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↱	
Traffic Vol, veh/h	220	40	10	820	470	60
Future Vol, veh/h	220	40	10	820	470	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	242	44	11	901	516	66

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1472	549	582	0	-	0
Stage 1	549	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 141	539	1002	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 139	539	1002	-	-	-
Mov Cap-2 Maneuver	~ 139	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	386	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 442.2	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1002	-	157	-	-
HCM Lane V/C Ratio	0.011	-	1.82	-	-
HCM Control Delay (s)	8.6	-	$ 442.2	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0	-	21.2	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
124: SR-79 NB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	69.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Vol, veh/h	20	480	0	0	460	290	360	10	10	0	0	0
Future Vol, veh/h	20	480	0	0	460	290	360	10	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	511	0	0	489	309	383	11	11	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	489	0	-	-	-	0	1042	1042	511
Stage 1	-	-	-	-	-	-	553	553	-
Stage 2	-	-	-	-	-	-	489	489	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1085	-	0	0	-	-	~ 257	232	567
Stage 1	-	-	0	0	-	-	580	518	-
Stage 2	-	-	0	0	-	-	621	553	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1085	-	-	-	-	-	~ 252	0	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 252	0	-
Stage 1	-	-	-	-	-	-	569	0	-
Stage 2	-	-	-	-	-	-	621	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	299.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	252	567	1085	-	-	-
HCM Lane V/C Ratio	1.562	0.019	0.02	-	-	-
HCM Control Delay (s)	$ 307.1	11.5	8.4	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	23.9	0.1	0.1	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	97

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Vol, veh/h	0	200	420	30	790	0	0	0	0	400	0	20
Future Vol, veh/h	0	200	420	30	790	0	0	0	0	400	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	213	447	32	840	0	0	0	0	426	0	21

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	213	0	0				1117	1117	840
Stage 1	-	-	-	-	-	-				904	904	-
Stage 2	-	-	-	-	-	-				213	213	-
Critical Hdwy	-	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1369	-	0				~ 231	209	368
Stage 1	0	-	-	-	-	0				~ 398	358	-
Stage 2	0	-	-	-	-	0				827	730	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1369	-	-				~ 226	0	368
Mov Cap-2 Maneuver	-	-	-	-	-	-				~ 226	0	-
Stage 1	-	-	-	-	-	-				~ 389	0	-
Stage 2	-	-	-	-	-	-				827	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.3	$ 429
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1369	-	226	368
HCM Lane V/C Ratio	-	-	0.023	-	1.883	0.058
HCM Control Delay (s)	-	-	7.7	-	$ 449.7	15.4
HCM Lane LOS	-	-	A	-	F	C
HCM 95th %tile Q(veh)	-	-	0.1	-	30.2	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

HCM 2010 Signalized Intersection Summary
127: Potrero Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	50	60	240	160	600	0	0	420	570
Future Volume (veh/h)	0	0	0	50	60	240	160	600	0	0	420	570
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				50	60	0	160	600	0	0	420	570
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				105	125	200	264	2437	0	0	1547	692
Arrive On Green				0.12	0.12	0.00	0.15	0.68	0.00	0.00	0.43	0.43
Sat Flow, veh/h				844	1013	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				110	0	0	160	600	0	0	420	570
Grp Sat Flow(s),veh/h/ln				1858	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				2.2	0.0	0.0	3.3	2.6	0.0	0.0	3.0	12.4
Cycle Q Clear(g_c), s				2.2	0.0	0.0	3.3	2.6	0.0	0.0	3.0	12.4
Prop In Lane				0.45		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				230	0	200	264	2437	0	0	1547	692
V/C Ratio(X)				0.48	0.00	0.00	0.61	0.25	0.00	0.00	0.27	0.82
Avail Cap(c_a), veh/h				1682	0	1462	410	2814	0	0	1634	731
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.2	0.0	0.0	15.9	2.5	0.0	0.0	7.3	10.0
Incr Delay (d2), s/veh				1.5	0.0	0.0	2.2	0.1	0.0	0.0	0.1	7.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.2	0.0	0.0	1.8	1.3	0.0	0.0	1.5	6.8
LnGrp Delay(d),s/veh				17.8	0.0	0.0	18.1	2.6	0.0	0.0	7.4	17.3
LnGrp LOS				B			B	A			A	B
Approach Vol, veh/h					110			760			990	
Approach Delay, s/veh					17.8			5.8			13.1	
Approach LOS					B			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		30.8			9.8	21.0		8.9
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		31.0			9.0	18.0		36.0
Max Q Clear Time (g_c+I1), s		4.6			5.3	14.4		4.2
Green Ext Time (p_c), s		10.8			0.1	2.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
128: Potrero Blvd & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↰↑	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	420	50	30	0	0	0	0	340	40	300	170	0
Future Volume (veh/h)	420	50	30	0	0	0	0	340	40	300	170	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	456	0	0				0	340	40	300	170	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	785	0	350				0	795	356	390	1991	0
Arrive On Green	0.22	0.00	0.00				0.00	0.22	0.22	0.22	0.55	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	456	0	0				0	340	40	300	170	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	3.9	0.0	0.0				0.0	2.8	0.7	5.4	0.8	0.0
Cycle Q Clear(g_c), s	3.9	0.0	0.0				0.0	2.8	0.7	5.4	0.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	785	0	350				0	795	356	390	1991	0
V/C Ratio(X)	0.58	0.00	0.00				0.00	0.43	0.11	0.77	0.09	0.00
Avail Cap(c_a), veh/h	3771	0	1683				0	1881	841	733	3761	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.1	0.0	0.0				0.0	11.6	10.8	12.7	3.6	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0				0.0	0.4	0.1	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0				0.0	1.4	0.3	3.0	0.4	0.0
LnGrp Delay(d),s/veh	12.8	0.0	0.0				0.0	12.0	10.9	16.0	3.7	0.0
LnGrp LOS	B							B	B	B	A	
Approach Vol, veh/h		456						380			470	
Approach Delay, s/veh		12.8						11.9			11.5	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.4	11.6		11.5		23.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	18.0		36.0		36.0		
Max Q Clear Time (g_c+I1), s	7.4	4.8		5.9		2.8		
Green Ext Time (p_c), s	0.5	2.8		1.7		3.8		

Intersection Summary			
HCM 2010 Ctrl Delay			12.1
HCM 2010 LOS			B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	10	230	250	50	290	20	390	90	50	50	190	10
Future Volume (veh/h)	10	230	250	50	290	20	390	90	50	50	190	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	235	255	51	296	20	398	92	51	51	194	10
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	443	372	72	499	361	449	438	243	72	310	16
Arrive On Green	0.01	0.23	0.23	0.04	0.26	0.26	0.25	0.38	0.38	0.04	0.17	0.17
Sat Flow, veh/h	1810	1900	1598	1810	1900	1376	1810	1147	636	1810	1790	92
Grp Volume(v), veh/h	10	235	255	51	296	20	398	0	143	51	0	204
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1376	1810	0	1783	1810	0	1883
Q Serve(g_s), s	0.3	5.7	7.6	1.5	7.1	0.6	11.1	0.0	2.8	1.5	0.0	5.3
Cycle Q Clear(g_c), s	0.3	5.7	7.6	1.5	7.1	0.6	11.1	0.0	2.8	1.5	0.0	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.05
Lane Grp Cap(c), veh/h	19	443	372	72	499	361	449	0	680	72	0	326
V/C Ratio(X)	0.53	0.53	0.68	0.70	0.59	0.06	0.89	0.00	0.21	0.70	0.00	0.62
Avail Cap(c_a), veh/h	138	580	488	138	580	420	449	0	783	207	0	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	17.6	18.3	24.8	16.9	14.4	19.0	0.0	10.9	24.8	0.0	20.1
Incr Delay (d2), s/veh	21.6	1.0	2.6	11.8	1.2	0.1	18.8	0.0	0.2	11.8	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.1	3.6	1.0	3.9	0.2	7.9	0.0	1.4	1.0	0.0	2.9
LnGrp Delay(d),s/veh	47.4	18.6	20.9	36.6	18.1	14.5	37.8	0.0	11.0	36.6	0.0	22.0
LnGrp LOS	D	B	C	D	B	B	D		B	D		C
Approach Vol, veh/h		500			367			541			255	
Approach Delay, s/veh		20.4			20.5			30.7			25.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	24.0	6.1	16.2	17.0	13.1	4.5	17.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	23.0	4.0	16.0	13.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	3.5	4.8	3.5	9.6	13.1	7.3	2.3	9.1
Green Ext Time (p_c), s	0.0	1.9	0.0	2.3	0.0	1.3	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	270	80	230	280	100	60	200	100	150	480	70
Future Volume (veh/h)	60	270	80	230	280	100	60	200	100	150	480	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	281	83	240	292	104	62	208	104	156	500	73
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	429	1107	321	479	762	580	143	596	286	216	924	134
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.08	0.25	0.25	0.12	0.29	0.29
Sat Flow, veh/h	1002	2761	800	1032	1900	1448	1810	2362	1135	1810	3160	459
Grp Volume(v), veh/h	62	182	182	240	292	104	62	157	155	156	285	288
Grp Sat Flow(s),veh/h/ln	1002	1805	1755	1032	1900	1448	1810	1805	1692	1810	1805	1814
Q Serve(g_s), s	2.5	3.5	3.7	10.7	5.7	2.4	1.7	3.8	4.0	4.4	7.0	7.0
Cycle Q Clear(g_c), s	8.2	3.5	3.7	14.3	5.7	2.4	1.7	3.8	4.0	4.4	7.0	7.0
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.67	1.00		0.25
Lane Grp Cap(c), veh/h	429	724	704	479	762	580	143	455	427	216	528	530
V/C Ratio(X)	0.14	0.25	0.26	0.50	0.38	0.18	0.43	0.34	0.36	0.72	0.54	0.54
Avail Cap(c_a), veh/h	541	925	899	593	973	742	240	925	866	309	993	998
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	10.5	10.6	15.3	11.2	10.2	23.1	16.1	16.2	22.4	15.7	15.7
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.8	0.3	0.1	2.1	0.4	0.5	4.7	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.8	1.8	3.1	3.1	1.0	0.9	1.9	1.9	2.4	3.6	3.7
LnGrp Delay(d),s/veh	14.2	10.7	10.7	16.2	11.5	10.3	25.2	16.6	16.7	27.1	16.5	16.6
LnGrp LOS	B	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		426			636			374			729	
Approach Delay, s/veh		11.2			13.1			18.1			18.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.3	17.3		25.1	8.2	19.4		25.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	7.0	29.0		27.0
Max Q Clear Time (g_c+I1), s	6.4	6.0		10.2	3.7	9.0		16.3
Green Ext Time (p_c), s	0.1	5.6		5.5	0.0	5.5		4.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	10	390	10	20	1160	10
Future Volume (vph)	10	390	10	20	1160	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1528		1767	1615	1483
Flt Permitted	1.00	1.00		0.88	0.95	1.00
Satd. Flow (perm)	1800	1528		1589	1615	1483
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	12	459	12	24	1365	12
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	12	459	0	36	1365	12
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm
Protected Phases	4	2		8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	7.5	91.5		7.5	84.0	84.0
Effective Green, g (s)	7.5	91.5		7.5	84.0	84.0
Actuated g/C Ratio	0.07	0.90		0.07	0.83	0.83
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	133	1528		117	1336	1227
v/s Ratio Prot	0.01	c0.25			c0.85	
v/s Ratio Perm		0.05		0.02		0.01
v/c Ratio	0.09	0.30		0.31	1.02	0.01
Uniform Delay, d1	43.8	0.7		44.5	8.8	1.5
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1		1.5	30.2	0.0
Delay (s)	44.1	0.8		46.0	39.0	1.5
Level of Service	D	A		D	D	A
Approach Delay (s)	1.9			46.0	38.7	
Approach LOS	A			D	D	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	101.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	301.4
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰↱	
Traffic Vol, veh/h	20	410	960	240	280	50
Future Vol, veh/h	20	410	960	240	280	50
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	423	990	247	289	52
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	29.4	474.8	25
HCM LOS	D	F	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	0%	85%
Vol Thru, %	95%	80%	0%
Vol Right, %	0%	20%	15%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	430	1200	330
LT Vol	20	0	280
Through Vol	410	960	0
RT Vol	0	240	50
Lane Flow Rate	443	1237	340
Geometry Grp	1	1	1
Degree of Util (X)	0.75	2.01	0.64
Departure Headway (Hd)	7.394	5.848	8.342
Convergence, Y/N	Yes	Yes	Yes
Cap	492	631	435
Service Time	5.394	3.869	6.342
HCM Lane V/C Ratio	0.9	1.96	0.782
HCM Control Delay	29.4	474.8	25
HCM Lane LOS	D	F	C
HCM 95th-tile Q	6.3	83	4.4

Intersection	
Intersection Delay, s/veh	376.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	650	20	0	1080	100	20	10	10	210	10	140
Future Vol, veh/h	10	650	20	0	1080	100	20	10	10	210	10	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	684	21	0	1137	105	21	11	11	221	11	147
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	186.4	602.2	17.3	35.2
HCM LOS	F	F	C	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	1%	0%	58%
Vol Thru, %	25%	96%	92%	3%
Vol Right, %	25%	3%	8%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	680	1180	360
LT Vol	20	10	0	210
Through Vol	10	650	1080	10
RT Vol	10	20	100	140
Lane Flow Rate	42	716	1242	379
Geometry Grp	1	1	1	1
Degree of Util (X)	0.104	1.325	2.288	0.747
Departure Headway (Hd)	12.799	8.425	7.156	9.318
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	282	437	522	390
Service Time	10.799	6.425	5.156	7.318
HCM Lane V/C Ratio	0.149	1.638	2.379	0.972
HCM Control Delay	17.3	186.4	602.2	35.2
HCM Lane LOS	C	F	F	E
HCM 95th-tile Q	0.3	25.6	86	6

HCM 2010 AWSC
134: Redlands Blvd & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	546.3
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	350	540	600	580	650	480
Future Vol, veh/h	350	540	600	580	650	480
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	361	557	619	598	670	495
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	353.4	662.9	576.4
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	58%	0%	51%
Vol Thru, %	0%	39%	49%
Vol Right, %	42%	61%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1130	890	1180
LT Vol	650	0	600
Through Vol	0	350	580
RT Vol	480	540	0
Lane Flow Rate	1165	918	1216
Geometry Grp	1	1	1
Degree of Util (X)	2.219	1.691	2.399
Departure Headway (Hd)	8.966	12.15	11.396
Convergence, Y/N	Yes	Yes	Yes
Cap	419	312	328
Service Time	6.966	10.15	9.396
HCM Lane V/C Ratio	2.78	2.942	3.707
HCM Control Delay	576.4	353.4	662.9
HCM Lane LOS	F	F	F
HCM 95th-tile Q	66.2	31.5	60

Intersection	
Int Delay, s/veh	11.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↔	
Traffic Vol, veh/h	40	80	220	130	130	240
Future Vol, veh/h	40	80	220	130	130	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	82	227	134	134	247

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	670	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1475	-	425	983
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1475	-	354	983
Mov Cap-2 Maneuver	-	-	-	-	354	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	466	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5	20.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	605	-	-	1475	-
HCM Lane V/C Ratio	0.63	-	-	0.154	-
HCM Control Delay (s)	20.5	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.4	-	-	0.5	-

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	10	10	30	10	20	0	300	10	10	280	10
Future Vol, veh/h	10	10	10	30	10	20	0	300	10	10	280	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	34	11	22	0	337	11	11	315	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9	11	10.9
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	33%	50%	3%
Vol Thru, %	97%	33%	17%	93%
Vol Right, %	3%	33%	33%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	310	30	60	300
LT Vol	0	10	30	10
Through Vol	300	10	10	280
RT Vol	10	10	20	10
Lane Flow Rate	348	34	67	337
Geometry Grp	1	1	1	1
Degree of Util (X)	0.437	0.05	0.1	0.424
Departure Headway (Hd)	4.516	5.389	5.36	4.533
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	794	659	664	792
Service Time	2.554	3.463	3.427	2.572
HCM Lane V/C Ratio	0.438	0.052	0.101	0.426
HCM Control Delay	11	8.8	9	10.9
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.2	0.2	0.3	2.1

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2025 PM-Ph1]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	A	A

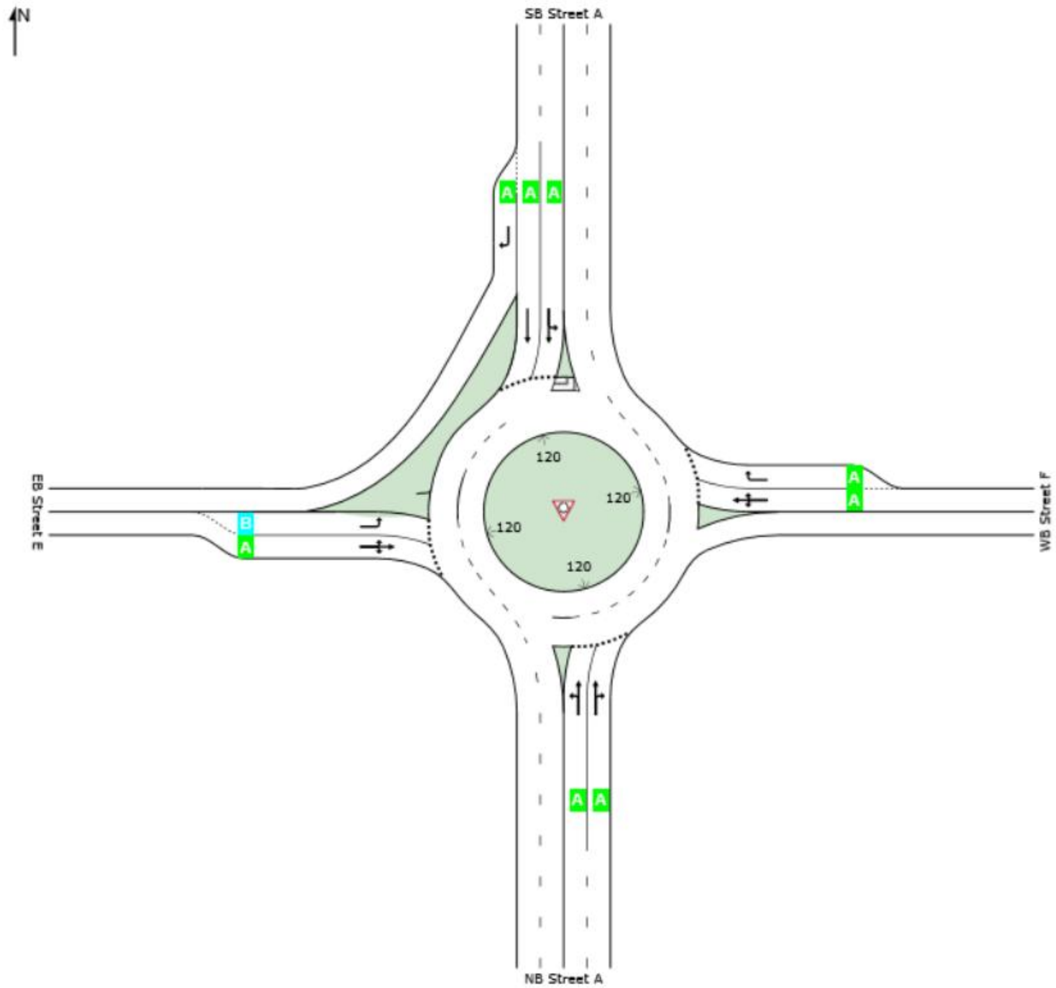

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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LANE SUMMARY

Site: 1 [Int1_2025 PM-Ph1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Street A													
Lane 1	438	0.0	1211	0.362	100	6.1	LOS A	1.7	41.9	Full	1600	0.0	0.0
Lane 2[d]	442	0.0	1219	0.362	100	5.3	LOS A	1.7	41.9	Full	1600	0.0	0.0
Approach	880	0.0		0.362		5.7	LOS A	1.7	41.9				
East: WB Street F													
Lane 1[d]	60	0.0	846	0.071	100	8.9	LOS A	0.2	6.1	Full	1600	0.0	0.0
Lane 2	30	0.0	658	0.046	64[5]	6.6	LOS A	0.1	3.7	Short	200	0.0	NA
Approach	90	0.0		0.071		8.1	LOS A	0.2	6.1				
North: SB Street A													
Lane 1	363	0.0	1309	0.278	100	4.8	LOS A	1.5	38.1	Full	1600	0.0	0.0
Lane 2[d]	397	0.0	1428	0.278	100	4.0	LOS A	1.5	38.5	Full	1600	0.0	0.0
Lane 3	70	0.0	1675	0.042	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	830	0.0		0.278		4.3	LOS A	1.5	38.5				
West: EB Street E													
Lane 1	88	0.0	865	0.102	100	11.9	LOS B	0.3	8.4	Short	200	0.0	NA
Lane 2[d]	92	0.0	906	0.102	100	5.7	LOS A	0.3	8.5	Full	1600	0.0	0.0
Approach	180	0.0		0.102		8.7	LOS A	0.3	8.5				
Intersection	1980	0.0		0.362		5.5	LOS A	1.7	41.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Vol, veh/h	10	140	230	10	140	220
Future Vol, veh/h	10	140	230	10	140	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	152	250	11	152	239
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.4	13.5	10.7
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	220	10	140	230	10
LT Vol	140	0	0	0	230	0
Through Vol	0	0	10	0	0	10
RT Vol	0	220	0	140	0	0
Lane Flow Rate	152	239	11	152	250	11
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.264	0.335	0.018	0.221	0.435	0.017
Departure Headway (Hd)	6.245	5.037	5.937	5.227	6.262	5.756
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	578	717	603	688	575	623
Service Time	3.945	2.737	3.667	2.956	3.989	3.483
HCM Lane V/C Ratio	0.263	0.333	0.018	0.221	0.435	0.018
HCM Control Delay	11.2	10.3	8.8	9.4	13.7	8.6
HCM Lane LOS	B	B	A	A	B	A
HCM 95th-tile Q	1.1	1.5	0.1	0.8	2.2	0.1

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2025 PM Ph1]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	B	A	A

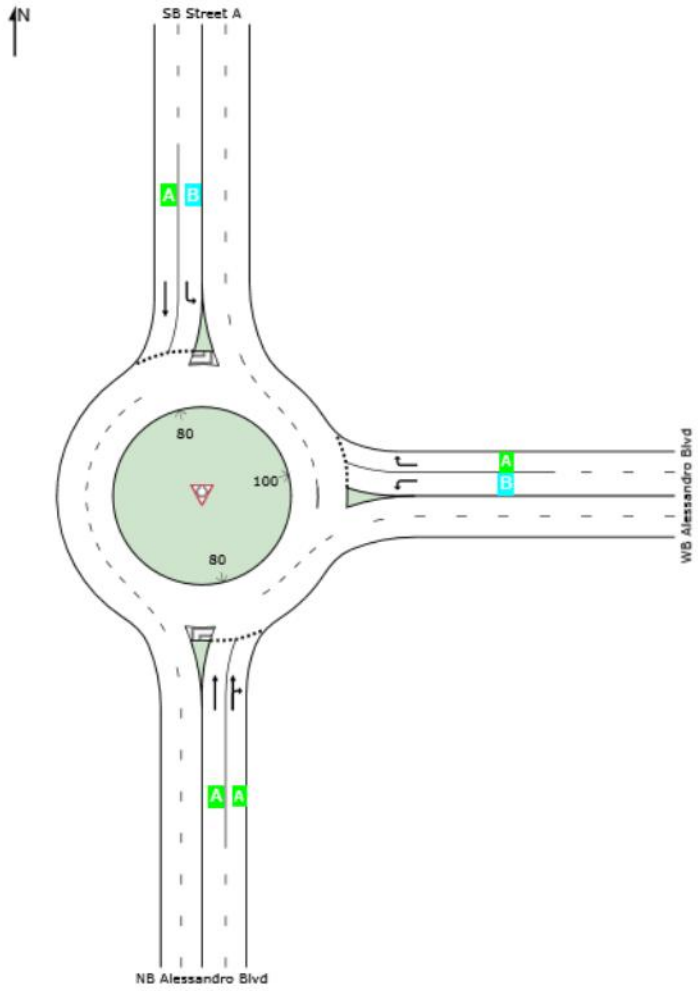

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Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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LANE SUMMARY

Site: 1 [Int3_2025 PM Ph1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	163	0.0	1386	0.118	95[5]	5.2	LOS A	0.6	14.8	Full	1600	0.0	0.0
Lane 2[d]	185	0.0	1497	0.123	100	5.1	LOS A	0.6	15.7	Full	1600	0.0	0.0
Approach	348	0.0		0.123		5.1	LOS A	0.6	15.7				
East: WB Alessandro Blvd													
Lane 1[d]	100	0.0	1120	0.089	100	11.3	LOS B	0.3	8.5	Full	1600	0.0	0.0
Lane 2	20	0.0	664	0.030	100	6.2	LOS A	0.1	2.6	Full	1600	0.0	0.0
Approach	120	0.0		0.089		10.4	LOS B	0.3	8.5				
North: SB Street A													
Lane 1	22	0.0	785	0.028	100	11.2	LOS B	0.1	2.8	Full	1600	0.0	0.0
Lane 2[d]	163	0.0	1285	0.127	100	5.5	LOS A	0.6	14.9	Full	1600	0.0	0.0
Approach	185	0.0		0.127		6.2	LOS A	0.6	14.9				
Intersection	653	0.0		0.127		6.4	LOS A	0.6	15.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
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Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int4_2025 PM Ph 1]

New Site
Roundabout

All Movement Classes

	East	North	West	Intersection
LOS	A	B	A	A

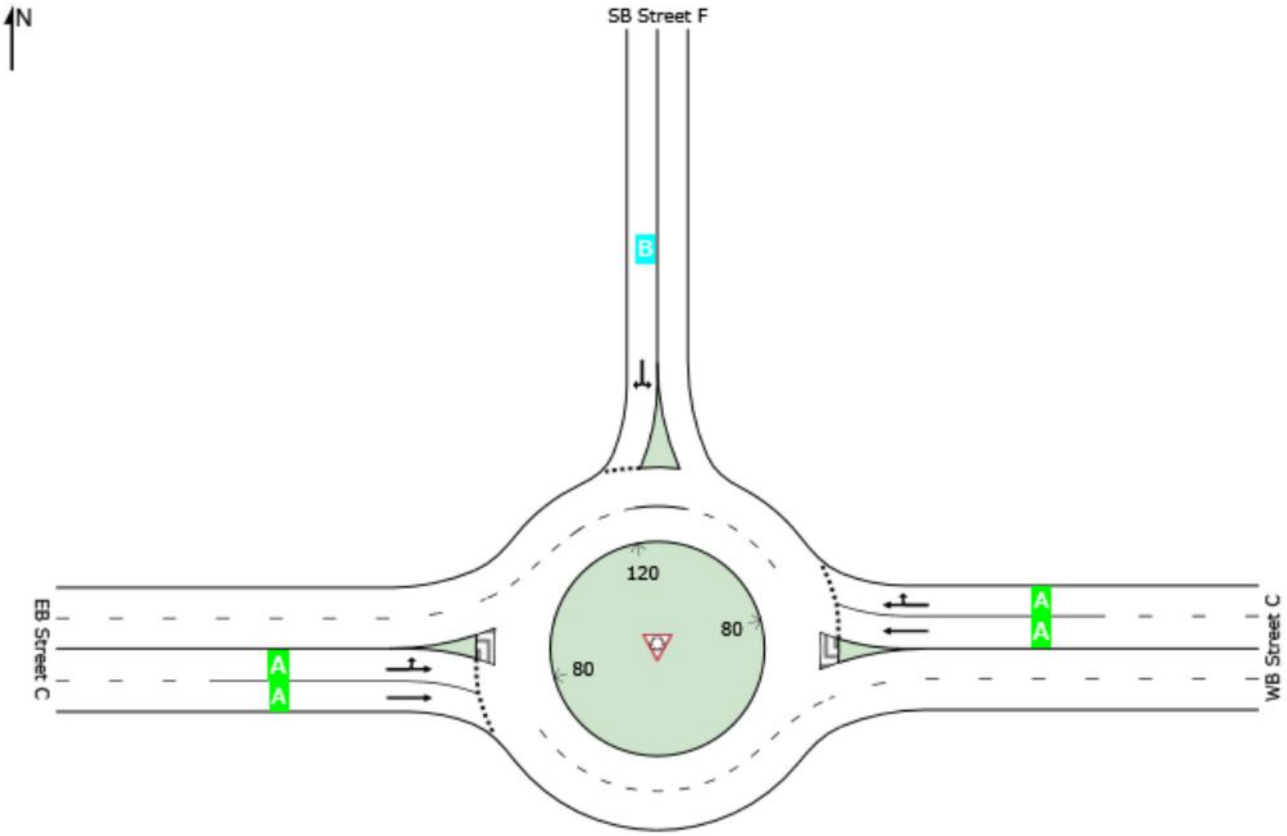

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int4_2025 PM Ph 1]

New Site
Roundabout

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total veh/h	HV %	veh/h	v/c	%	sec		Veh	Dist ft		ft	%	%
East: WB Street C													
Lane 1	89	0.0	1505	0.059	100	3.9	LOS A	0.3	6.3	Full	1600	0.0	0.0
Lane 2[d]	101	0.0	1700	0.059	100	4.3	LOS A	0.3	6.4	Full	1600	0.0	0.0
Approach	190	0.0		0.059		4.1	LOS A	0.3	6.4				
North: SB Street F													
Lane 1[d]	121	0.0	1033	0.117	100	10.2	LOS B	0.4	9.6	Full	1600	0.0	0.0
Approach	121	0.0		0.117		10.2	LOS B	0.4	9.6				
West: EB Street C													
Lane 1	45	0.0	1238	0.037	100	4.7	LOS A	0.2	3.8	Full	1600	0.0	0.0
Lane 2[d]	46	0.0	1249	0.037	100	4.6	LOS A	0.2	3.8	Full	1600	0.0	0.0
Approach	91	0.0		0.037		4.7	LOS A	0.2	3.8				
Intersection	402	0.0		0.117		6.1	LOS A	0.4	9.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
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Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d   Dominant lane on roundabout approach

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⇅	
Traffic Vol, veh/h	0	90	110	80	120	0
Future Vol, veh/h	0	90	110	80	120	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	98	120	87	130	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	207	0	-	0	261	163
Stage 1	-	-	-	-	163	-
Stage 2	-	-	-	-	98	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1376	-	-	-	732	887
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	931	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1376	-	-	-	732	887
Mov Cap-2 Maneuver	-	-	-	-	732	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	931	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1376	-	-	-	732
HCM Lane V/C Ratio	-	-	-	-	0.178
HCM Control Delay (s)	0	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

HCM 2010 Signalized Intersection Summary
6: Gilman Springs Rd & Alessandro Blvd

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	10	160	180	500	1050	10
Future Volume (veh/h)	10	160	180	500	1050	10
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	170	191	532	1117	11
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	266	237	302	3436	2074	646
Arrive On Green	0.15	0.15	0.17	0.66	0.40	0.40
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	11	170	191	532	1117	11
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	0.2	4.2	4.1	1.6	6.9	0.2
Cycle Q Clear(g_c), s	0.2	4.2	4.1	1.6	6.9	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	266	237	302	3436	2074	646
V/C Ratio(X)	0.04	0.72	0.63	0.15	0.54	0.02
Avail Cap(c_a), veh/h	777	694	777	5447	2723	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	17.0	16.3	2.7	9.6	7.6
Incr Delay (d2), s/veh	0.1	4.0	2.2	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	2.3	0.7	3.2	0.1
LnGrp Delay(d),s/veh	15.4	21.1	18.4	2.7	9.8	7.6
LnGrp LOS	B	C	B	A	A	A
Approach Vol, veh/h	181			723	1128	
Approach Delay, s/veh	20.7			6.8	9.8	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		31.8		10.1	11.0	20.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		44.0		18.0	18.0	22.0		
Max Q Clear Time (g_c+I1), s		3.6		6.2	6.1	8.9		
Green Ext Time (p_c), s		13.7		0.4	0.4	7.9		

Intersection Summary			
HCM 2010 Ctrl Delay			9.7
HCM 2010 LOS			A

10: Redlands Blvd & Locust Ave

Intersection	
Int Delay, s/veh	35.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	20	5	20	20	15	10	20	1080	10	5	1150	30
Future Vol, veh/h	20	5	20	20	15	10	20	1080	10	5	1150	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	0	60	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	5	22	22	16	11	22	1174	11	5	1250	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2492	2478	1250	2491	2478	1174	1250	0	0	1174	0	0
Stage 1	1261	1261	-	1217	1217	-	-	-	-	-	-	-
Stage 2	1231	1217	-	1274	1261	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 20	30	213	~ 20	30	236	564	-	-	602	-	-
Stage 1	211	244	-	223	256	-	-	-	-	-	-	-
Stage 2	219	256	-	207	244	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 10	29	213	~ 15	29	236	564	-	-	602	-	-
Mov Cap-2 Maneuver	~ 10	29	-	~ 15	29	-	-	-	-	-	-	-
Stage 1	203	242	-	214	246	-	-	-	-	-	-	-
Stage 2	187	246	-	180	242	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay,	$1061.5	$ 826.9	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	564	-	-	20	24	602	-	-
HCM Lane V/C Ratio	0.039	-	-	2.446	2.038	0.009	-	-
HCM Control Delay (s)	11.6	-	-	$ 1061.5	$ 826.9	11	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	6.5	6.1	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			✥		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	130	40	20	20	30	30	10	1010	20	30	1020	180
Future Volume (veh/h)	130	40	20	20	30	30	10	1010	20	30	1020	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	41	20	20	31	31	10	1031	20	31	1041	184
Adj No. of Lanes	0	2	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	520	346	169	36	56	56	31	1422	28	78	1283	226
Arrive On Green	0.29	0.29	0.29	0.09	0.09	0.09	0.02	0.39	0.39	0.04	0.42	0.42
Sat Flow, veh/h	1810	1205	588	426	661	661	1810	3622	70	1810	3066	541
Grp Volume(v), veh/h	133	0	61	82	0	0	10	514	537	31	612	613
Grp Sat Flow(s),veh/h/ln	1810	0	1793	1748	0	0	1810	1805	1887	1810	1805	1802
Q Serve(g_s), s	4.7	0.0	2.1	3.8	0.0	0.0	0.5	20.2	20.2	1.4	24.9	25.0
Cycle Q Clear(g_c), s	4.7	0.0	2.1	3.8	0.0	0.0	0.5	20.2	20.2	1.4	24.9	25.0
Prop In Lane	1.00		0.33	0.24		0.38	1.00		0.04	1.00		0.30
Lane Grp Cap(c), veh/h	520	0	515	149	0	0	31	709	741	78	755	754
V/C Ratio(X)	0.26	0.00	0.12	0.55	0.00	0.00	0.32	0.72	0.72	0.40	0.81	0.81
Avail Cap(c_a), veh/h	520	0	515	544	0	0	152	800	836	152	800	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	21.9	36.7	0.0	0.0	40.5	21.5	21.5	38.9	21.4	21.4
Incr Delay (d2), s/veh	1.2	0.0	0.5	3.2	0.0	0.0	5.7	2.9	2.7	3.3	6.0	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	1.1	2.0	0.0	0.0	0.3	10.6	11.0	0.8	13.7	13.7
LnGrp Delay(d),s/veh	24.1	0.0	22.4	39.8	0.0	0.0	46.2	24.4	24.3	42.2	27.4	27.6
LnGrp LOS	C		C	D			D	C	C	D	C	C
Approach Vol, veh/h		194			82			1061			1256	
Approach Delay, s/veh		23.5			39.8			24.5			27.8	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	36.8		28.0	5.4	38.9		11.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	37.0		24.0	7.0	37.0		26.0
Max Q Clear Time (g_c+I1), s	3.4	22.2		6.7	2.5	27.0		5.8
Green Ext Time (p_c), s	0.0	10.6		0.8	0.0	7.7		0.3

Intersection Summary			
HCM 2010 Ctrl Delay			26.5
HCM 2010 LOS			C

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	90	30	10	80	10
Future Vol, veh/h	10	90	30	10	80	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	106	35	12	94	12

Major/Minor	Major1		Minor2		Major2	
Conflicting Flow All	0	0	12	200	12	-
Stage 1	-	-	0	188	-	-
Stage 2	-	-	12	12	-	-
Critical Hdwy	-	-	6.4	6.5	4.1	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	5.4	5.5	-	-
Follow-up Hdwy	-	-	3.5	4	2.2	-
Pot Cap-1 Maneuver	-	-	1013	699	1620	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	1016	890	-	-
Platoon blocked, %	-	-				-
Mov Cap-1 Maneuver	-	-	954	0	1620	-
Mov Cap-2 Maneuver	-	-	954	0	-	-
Stage 1	-	-	-	0	-	-
Stage 2	-	-	1016	0	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	9	6.5
HCM LOS		A	

Minor Lane/Major Mvmt	NBL	NBR	EBT	EBR	WBLn1
Capacity (veh/h)	1620	-	-	-	954
HCM Lane V/C Ratio	0.058	-	-	-	0.049
HCM Control Delay (s)	7.4	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & Spruce Ave/SR-60 WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣		↰	↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	10	10	110	0	50	10	980	180	440	610	10
Future Volume (veh/h)	10	10	10	110	0	50	10	980	180	440	610	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	10	112	0	51	10	1000	184	449	622	10
Adj No. of Lanes	0	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	26	26	177	0	158	32	1193	692	529	2184	977
Arrive On Green	0.04	0.04	0.04	0.10	0.00	0.10	0.02	0.33	0.33	0.29	0.61	0.61
Sat Flow, veh/h	589	589	589	1810	0	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	30	0	0	112	0	51	10	1000	184	449	622	10
Grp Sat Flow(s),veh/h/ln	1767	0	0	1810	0	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	1.1	0.0	0.0	4.1	0.0	2.0	0.4	17.5	5.0	15.9	5.6	0.2
Cycle Q Clear(g_c), s	1.1	0.0	0.0	4.1	0.0	2.0	0.4	17.5	5.0	15.9	5.6	0.2
Prop In Lane	0.33		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	0	0	177	0	158	32	1193	692	529	2184	977
V/C Ratio(X)	0.38	0.00	0.00	0.63	0.00	0.32	0.31	0.84	0.27	0.85	0.28	0.01
Avail Cap(c_a), veh/h	467	0	0	478	0	426	186	1324	751	611	2184	977
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	0.0	29.6	0.0	28.6	33.1	21.1	12.6	22.7	6.4	5.3
Incr Delay (d2), s/veh	3.0	0.0	0.0	3.7	0.0	1.2	5.4	4.5	0.2	9.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.2	0.0	0.9	0.2	9.4	2.6	9.3	2.8	0.1
LnGrp Delay(d),s/veh	34.7	0.0	0.0	33.2	0.0	29.8	38.5	25.7	12.8	32.5	6.5	5.4
LnGrp LOS	C			C		C	D	C	B	C	A	A
Approach Vol, veh/h		30			163			1194			1081	
Approach Delay, s/veh		34.7			32.2			23.8			17.3	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.9	26.5		7.0	5.2	45.2		10.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	23.0	25.0		18.0	7.0	41.0		18.0
Max Q Clear Time (g_c+I1), s	17.9	19.5		3.1	2.4	7.6		6.1
Green Ext Time (p_c), s	2.0	3.0		0.1	0.0	5.5		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	660	190	190	510	570	160
Future Volume (veh/h)	660	190	190	510	570	160
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	680	196	196	526	588	165
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	752	671	243	2280	1206	1046
Arrive On Green	0.42	0.42	0.13	0.44	0.23	0.23
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	680	196	196	526	588	165
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	19.4	4.5	5.8	3.5	5.4	2.2
Cycle Q Clear(g_c), s	19.4	4.5	5.8	3.5	5.4	2.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	752	671	243	2280	1206	1046
V/C Ratio(X)	0.90	0.29	0.81	0.23	0.49	0.16
Avail Cap(c_a), veh/h	853	761	262	2914	1786	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	10.7	23.2	9.6	18.3	3.8
Incr Delay (d2), s/veh	12.1	0.2	15.6	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	4.8	3.9	1.7	2.6	2.2
LnGrp Delay(d),s/veh	27.2	11.0	38.8	9.7	18.6	3.9
LnGrp LOS	C	B	D	A	B	A
Approach Vol, veh/h	876			722	753	
Approach Delay, s/veh	23.5			17.6	15.4	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.2		26.9	11.4	16.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		31.0		26.0	8.0	19.0		
Max Q Clear Time (g_c+I1), s		5.5		21.4	7.8	7.4		
Green Ext Time (p_c), s		7.8		1.5	0.0	5.4		

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
15: Theodore St & SR-60 WB Ramps

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	10	210	740	70	80	30
Future Volume (veh/h)	10	210	740	70	80	30
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	236	831	79	90	34
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	347	310	1028	3066	985	307
Arrive On Green	0.19	0.19	0.29	0.59	0.19	0.19
Sat Flow, veh/h	1810	1615	3510	5358	5358	1615
Grp Volume(v), veh/h	11	236	831	79	90	34
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1615
Q Serve(g_s), s	0.2	5.1	8.1	0.2	0.5	0.6
Cycle Q Clear(g_c), s	0.2	5.1	8.1	0.2	0.5	0.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	347	310	1028	3066	985	307
V/C Ratio(X)	0.03	0.76	0.81	0.03	0.09	0.11
Avail Cap(c_a), veh/h	883	788	1143	4784	2532	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	14.1	12.1	3.1	12.3	12.4
Incr Delay (d2), s/veh	0.0	3.9	4.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.6	4.4	0.1	0.3	0.3
LnGrp Delay(d),s/veh	12.1	18.0	16.1	3.1	12.4	12.5
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	247			910	124	
Approach Delay, s/veh	17.7			15.0	12.4	
Approach LOS	B			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		25.8		11.1	14.8	11.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		34.0		18.0	12.0	18.0		
Max Q Clear Time (g_c+I1), s		2.2		7.1	10.1	2.6		
Green Ext Time (p_c), s		1.0		0.6	0.7	0.8		

Intersection Summary			
HCM 2010 Ctrl Delay			15.3
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
16: Theodore St & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	20	0	820	0	0	0	0	810	270	0	280	20
Future Volume (veh/h)	20	0	820	0	0	0	0	810	270	0	280	20
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	27	0	0				0	1080	360	0	373	27
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.75	0.75	0.75				0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	88	0	138				0	3030	943	0	3030	943
Arrive On Green	0.05	0.00	0.00				0.00	0.58	0.58	0.00	0.58	0.58
Sat Flow, veh/h	1810	0	2842				0	5358	1615	0	5358	1615
Grp Volume(v), veh/h	27	0	0				0	1080	360	0	373	27
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1615	0	1729	1615
Q Serve(g_s), s	0.3	0.0	0.0				0.0	2.4	2.6	0.0	0.7	0.2
Cycle Q Clear(g_c), s	0.3	0.0	0.0				0.0	2.4	2.6	0.0	0.7	0.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	88	0	138				0	3030	943	0	3030	943
V/C Ratio(X)	0.31	0.00	0.00				0.00	0.36	0.38	0.00	0.12	0.03
Avail Cap(c_a), veh/h	1579	0	2480				0	4288	1335	0	4288	1335
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.0	0.0	0.0				0.0	2.4	2.4	0.0	2.0	1.9
Incr Delay (d2), s/veh	2.0	0.0	0.0				0.0	0.1	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0				0.0	1.1	1.2	0.0	0.3	0.1
LnGrp Delay(d),s/veh	12.0	0.0	0.0				0.0	2.4	2.7	0.0	2.0	1.9
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		27						1440			400	
Approach Delay, s/veh		12.0						2.5			2.0	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		16.7		5.1		16.7		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		18.0		19.0		18.0		
Max Q Clear Time (g_c+I1), s		4.6		2.3		2.7		
Green Ext Time (p_c), s		8.1		0.0		8.9		

Intersection Summary	
HCM 2010 Ctrl Delay	2.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	10	40	30	0	90	20	470	20	80	590	80
Future Volume (veh/h)	140	10	40	30	0	90	20	470	20	80	590	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	11	43	33	0	98	22	511	22	87	641	87
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	193	601	538	87	496	443	64	1022	44	154	1085	147
Arrive On Green	0.11	0.33	0.33	0.05	0.00	0.27	0.04	0.29	0.29	0.08	0.34	0.34
Sat Flow, veh/h	1810	1805	1615	1810	1805	1615	1810	3527	152	1810	3195	433
Grp Volume(v), veh/h	152	11	43	33	0	98	22	261	272	87	362	366
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1810	1805	1873	1810	1805	1824
Q Serve(g_s), s	5.4	0.3	1.2	1.2	0.0	3.1	0.8	7.9	7.9	3.0	10.9	10.9
Cycle Q Clear(g_c), s	5.4	0.3	1.2	1.2	0.0	3.1	0.8	7.9	7.9	3.0	10.9	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		0.24
Lane Grp Cap(c), veh/h	193	601	538	87	496	443	64	523	543	154	613	619
V/C Ratio(X)	0.79	0.02	0.08	0.38	0.00	0.22	0.34	0.50	0.50	0.57	0.59	0.59
Avail Cap(c_a), veh/h	276	601	538	193	496	443	193	523	543	193	613	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	14.7	15.0	30.2	0.0	18.4	30.9	19.3	19.3	28.8	17.9	17.9
Incr Delay (d2), s/veh	9.3	0.1	0.3	2.7	0.0	1.1	3.2	3.4	3.3	3.3	4.1	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.1	0.6	0.6	0.0	1.5	0.4	4.4	4.6	1.6	6.1	6.2
LnGrp Delay(d),s/veh	37.9	14.7	15.3	32.9	0.0	19.5	34.1	22.7	22.6	32.1	22.0	22.0
LnGrp LOS	D	B	B	C		B	C	C	C	C	C	C
Approach Vol, veh/h		206			131			555			815	
Approach Delay, s/veh		31.9			22.9			23.1			23.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	23.0	7.2	25.8	6.3	26.3	11.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	5.0	9.9	3.2	3.2	2.8	12.9	7.4	5.1
Green Ext Time (p_c), s	0.0	4.4	0.0	0.8	0.0	3.3	0.1	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
19: Fir Ave & Theodore St

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	50	110	110	1050	1070	50
Future Volume (veh/h)	50	110	110	1050	1070	50
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	162	162	1544	1574	74
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	256	229	447	3604	2520	785
Arrive On Green	0.14	0.14	0.13	0.69	0.49	0.49
Sat Flow, veh/h	1810	1615	3510	5358	5358	1615
Grp Volume(v), veh/h	74	162	162	1544	1574	74
Grp Sat Flow(s),veh/h/ln	1810	1615	1755	1729	1729	1615
Q Serve(g_s), s	1.8	4.7	2.1	6.3	11.0	1.2
Cycle Q Clear(g_c), s	1.8	4.7	2.1	6.3	11.0	1.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	256	229	447	3604	2520	785
V/C Ratio(X)	0.29	0.71	0.36	0.43	0.62	0.09
Avail Cap(c_a), veh/h	666	594	502	3604	2520	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	20.0	19.5	3.2	9.3	6.8
Incr Delay (d2), s/veh	0.6	4.0	0.5	0.4	1.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.3	1.0	3.0	5.4	0.6
LnGrp Delay(d),s/veh	19.4	24.0	20.0	3.6	10.5	7.0
LnGrp LOS	B	C	C	A	B	A
Approach Vol, veh/h	236			1706	1648	
Approach Delay, s/veh	22.6			5.2	10.3	
Approach LOS	C			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		38.0		10.9	10.2	27.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		34.0		18.0	7.0	23.0		
Max Q Clear Time (g_c+I1), s		8.3		6.7	4.1	13.0		
Green Ext Time (p_c), s		22.5		0.5	0.1	9.4		

Intersection Summary			
HCM 2010 Ctrl Delay			8.7
HCM 2010 LOS			A

HCM 2010 TWSC
20: Oliver St/Pearl Ln & Alessandro Blvd

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↱			↰↱			↰	↱		↰↑↱	
Traffic Vol, veh/h	10	450	140	20	300	0	90	0	30	0	0	10
Future Vol, veh/h	10	450	140	20	300	0	90	0	30	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	563	175	25	375	0	113	0	38	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	375	0	0	738	0	0	913	1100	369	731	1188	188
Stage 1	-	-	-	-	-	-	675	675	-	425	425	-
Stage 2	-	-	-	-	-	-	238	425	-	306	763	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1195	-	-	877	-	-	232	214	634	313	190	828
Stage 1	-	-	-	-	-	-	415	456	-	583	590	-
Stage 2	-	-	-	-	-	-	750	590	-	684	416	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	877	-	-	219	202	634	282	180	828
Mov Cap-2 Maneuver	-	-	-	-	-	-	219	202	-	282	180	-
Stage 1	-	-	-	-	-	-	407	447	-	572	569	-
Stage 2	-	-	-	-	-	-	712	569	-	631	408	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	31	9.4
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	219	634	1195	-	-	877	-	-	828
HCM Lane V/C Ratio	0.514	0.059	0.01	-	-	0.029	-	-	0.015
HCM Control Delay (s)	37.6	11	8	0.1	-	9.2	0.1	-	9.4
HCM Lane LOS	E	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	2.6	0.2	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	120	210	170	250	200	40	50	470	70	20	750	60
Future Volume (veh/h)	120	210	170	250	200	40	50	470	70	20	750	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	266	215	316	253	51	63	595	89	25	949	76
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	397	419	327	289	476	94	135	1491	220	71	1428	114
Arrive On Green	0.22	0.22	0.22	0.16	0.16	0.16	0.07	0.33	0.33	0.04	0.29	0.29
Sat Flow, veh/h	1810	1922	1498	1810	2996	593	1810	4563	673	1810	4895	391
Grp Volume(v), veh/h	152	249	232	316	151	153	63	449	235	25	670	355
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1784	1810	1729	1778	1810	1729	1829
Q Serve(g_s), s	4.5	7.8	8.2	10.0	4.8	4.9	2.1	6.3	6.4	0.8	10.6	10.7
Cycle Q Clear(g_c), s	4.5	7.8	8.2	10.0	4.8	4.9	2.1	6.3	6.4	0.8	10.6	10.7
Prop In Lane	1.00		0.93	1.00		0.33	1.00		0.38	1.00		0.21
Lane Grp Cap(c), veh/h	397	393	352	289	287	283	135	1130	581	71	1009	533
V/C Ratio(X)	0.38	0.63	0.66	1.09	0.53	0.54	0.47	0.40	0.40	0.35	0.66	0.67
Avail Cap(c_a), veh/h	397	751	672	289	751	742	203	1438	739	203	1438	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	22.2	22.3	26.3	24.1	24.2	27.7	16.3	16.3	29.3	19.5	19.5
Incr Delay (d2), s/veh	0.6	1.7	2.1	79.7	1.5	1.6	2.5	0.2	0.5	2.9	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.1	3.8	11.3	2.5	2.6	1.1	3.0	3.2	0.5	5.1	5.5
LnGrp Delay(d),s/veh	21.4	23.9	24.4	106.0	25.6	25.8	30.3	16.5	16.8	32.2	20.2	20.9
LnGrp LOS	C	C	C	F	C	C	C	B	B	C	C	C
Approach Vol, veh/h		633			620			747			1050	
Approach Delay, s/veh		23.5			66.6			17.8			20.7	
Approach LOS		C			E			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	24.4	14.0	17.6	8.7	22.2	17.7	13.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	10.0	26.0	7.0	26.0	10.0	26.0
Max Q Clear Time (g_c+I1), s	2.8	8.4	12.0	10.2	4.1	12.7	6.5	6.9
Green Ext Time (p_c), s	0.0	3.7	0.0	2.3	1.2	4.8	0.5	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			✥			↰	↱		↰↱	
Traffic Vol, veh/h	100	10	20	10	10	10	50	300	10	10	390	150
Future Vol, veh/h	100	10	20	10	10	10	50	300	10	10	390	150
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	109	11	22	11	11	11	54	326	11	11	424	163
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	11.8	10.7	17.7	13.3
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	0%	100%	0%	33%	5%	0%
Vol Thru, %	86%	0%	0%	33%	33%	95%	57%
Vol Right, %	0%	100%	0%	67%	33%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	350	10	100	30	30	205	345
LT Vol	50	0	100	0	10	10	0
Through Vol	300	0	0	10	10	195	195
RT Vol	0	10	0	20	10	0	150
Lane Flow Rate	380	11	109	33	33	223	375
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.624	0.015	0.225	0.058	0.064	0.349	0.553
Departure Headway (Hd)	5.909	5.129	7.443	6.458	7.109	5.641	5.309
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	613	697	483	554	503	637	679
Service Time	3.646	2.865	5.19	4.205	5.17	3.373	3.041
HCM Lane V/C Ratio	0.62	0.016	0.226	0.06	0.066	0.35	0.552
HCM Control Delay	18	7.9	12.4	9.6	10.7	11.4	14.4
HCM Lane LOS	C	A	B	A	B	B	B
HCM 95th-tile Q	4.3	0	0.9	0.2	0.2	1.6	3.4

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱		↰↑	↱		✥	
Traffic Volume (veh/h)	10	330	240	50	270	30	70	70	20	20	70	10
Future Volume (veh/h)	10	330	240	50	270	30	70	70	20	20	70	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	429	312	65	351	39	91	91	26	26	91	13
Adj No. of Lanes	1	2	0	1	1	1	0	1	1	0	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	255	628	453	147	483	407	148	148	256	53	187	27
Arrive On Green	0.14	0.31	0.31	0.08	0.25	0.25	0.16	0.16	0.16	0.14	0.14	0.14
Sat Flow, veh/h	1810	1999	1443	1810	1900	1599	927	927	1600	369	1293	185
Grp Volume(v), veh/h	13	387	354	65	351	39	182	0	26	130	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1637	1810	1900	1599	1854	0	1600	1847	0	0
Q Serve(g_s), s	0.3	10.0	10.1	1.8	9.0	1.0	4.9	0.0	0.7	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.3	10.0	10.1	1.8	9.0	1.0	4.9	0.0	0.7	3.5	0.0	0.0
Prop In Lane	1.00		0.88	1.00		1.00	0.50		1.00	0.20		0.10
Lane Grp Cap(c), veh/h	255	567	514	147	483	407	297	0	256	267	0	0
V/C Ratio(X)	0.05	0.68	0.69	0.44	0.73	0.10	0.61	0.00	0.10	0.49	0.00	0.00
Avail Cap(c_a), veh/h	255	948	860	238	998	840	974	0	840	901	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.8	16.0	16.0	23.3	18.2	15.2	20.8	0.0	19.1	21.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.5	1.6	2.1	2.1	0.1	2.1	0.0	0.2	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.2	4.8	1.0	5.0	0.4	2.6	0.0	0.3	1.9	0.0	0.0
LnGrp Delay(d),s/veh	19.9	17.4	17.6	25.4	20.3	15.3	22.9	0.0	19.3	22.4	0.0	0.0
LnGrp LOS	B	B	B	C	C	B	C		B	C		
Approach Vol, veh/h		754			455			208			130	
Approach Delay, s/veh		17.6			20.6			22.4			22.4	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.5	8.3	20.7		11.7	11.5	17.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		28.0	7.0	28.0		26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s		6.9	3.8	12.1		5.5	2.3	11.0
Green Ext Time (p_c), s		0.9	0.0	3.8		0.5	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	70	160	140	30	130	50	110	420	30	80	840	140
Future Volume (veh/h)	70	160	140	30	130	50	110	420	30	80	840	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	198	173	37	160	62	136	519	37	99	1037	173
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	402	332	98	429	160	194	1297	666	174	1560	260
Arrive On Green	0.10	0.21	0.21	0.05	0.17	0.17	0.11	0.36	0.36	0.10	0.35	0.35
Sat Flow, veh/h	1810	1873	1546	1810	2570	956	1810	3610	1608	1810	4477	746
Grp Volume(v), veh/h	86	190	181	37	110	112	136	519	37	99	801	409
Grp Sat Flow(s),veh/h/ln	1810	1805	1614	1810	1805	1721	1810	1805	1608	1810	1729	1765
Q Serve(g_s), s	2.6	5.4	5.7	1.1	3.2	3.4	4.2	6.2	0.8	3.0	11.4	11.4
Cycle Q Clear(g_c), s	2.6	5.4	5.7	1.1	3.2	3.4	4.2	6.2	0.8	3.0	11.4	11.4
Prop In Lane	1.00		0.96	1.00		0.56	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	184	387	346	98	301	287	194	1297	666	174	1205	615
V/C Ratio(X)	0.47	0.49	0.52	0.38	0.37	0.39	0.70	0.40	0.06	0.57	0.66	0.67
Avail Cap(c_a), veh/h	218	1275	1140	218	1275	1216	249	1741	863	249	1668	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	20.0	20.2	26.5	21.5	21.5	25.0	13.9	10.2	25.1	16.0	16.0
Incr Delay (d2), s/veh	1.8	1.0	1.2	2.4	0.7	0.9	6.0	0.2	0.0	2.9	0.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.7	2.7	0.6	1.6	1.6	2.4	3.1	0.4	1.7	5.6	5.8
LnGrp Delay(d),s/veh	26.4	21.0	21.4	28.9	22.2	22.4	31.0	14.1	10.2	28.0	16.7	17.3
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		457			259			692			1309	
Approach Delay, s/veh		22.2			23.2			17.2			17.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	24.9	7.1	16.5	10.2	24.2	9.9	13.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	5.0	8.2	3.1	7.7	6.2	13.4	4.6	5.4
Green Ext Time (p_c), s	0.0	3.3	0.0	2.3	0.7	6.1	0.5	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
26: Cactus Ave & Quincy St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↲↳	
Traffic Volume (veh/h)	10	190	200	10	10	10
Future Volume (veh/h)	10	190	200	10	10	10
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	190	200	10	10	10
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	292	1395	1423	71	46	46
Arrive On Green	0.41	0.41	0.41	0.41	0.06	0.06
Sat Flow, veh/h	69	3518	3594	174	815	815
Grp Volume(v), veh/h	108	92	103	107	21	0
Grp Sat Flow(s),veh/h/ln	1858	1643	1805	1868	1712	0
Q Serve(g_s), s	0.0	0.5	0.5	0.5	0.2	0.0
Cycle Q Clear(g_c), s	0.5	0.5	0.5	0.5	0.2	0.0
Prop In Lane	0.09			0.09	0.48	0.48
Lane Grp Cap(c), veh/h	1020	668	734	760	96	0
V/C Ratio(X)	0.11	0.14	0.14	0.14	0.22	0.00
Avail Cap(c_a), veh/h	2946	2426	2666	2759	2874	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	2.8	2.8	2.8	2.8	6.7	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.3	0.3	0.1	0.0
LnGrp Delay(d),s/veh	2.8	2.9	2.9	2.9	7.8	0.0
LnGrp LOS	A	A	A	A	A	
Approach Vol, veh/h		200	210		21	
Approach Delay, s/veh		2.8	2.9		7.8	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				10.1		4.8		10.1
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				2.5		2.2		2.5
Green Ext Time (p_c), s				1.9		0.0		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	3.1
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	36.4
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑ ↑↱			↰↑↱			↰↑ ↑↱			↰↑ ↑↱	
Traffic Vol, veh/h	120	40	40	160	50	130	80	170	230	90	320	90
Future Vol, veh/h	120	40	40	160	50	130	80	170	230	90	320	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	140	47	47	186	58	151	93	198	267	105	372	105
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	18.4	62.2	33	29.3
HCM LOS	C	F	D	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	48%	0%	86%	0%	47%	36%	0%
Vol Thru, %	52%	27%	14%	33%	15%	64%	64%
Vol Right, %	0%	73%	0%	67%	38%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	165	315	140	60	340	250	250
LT Vol	80	0	120	0	160	90	0
Through Vol	85	85	20	20	50	160	160
RT Vol	0	230	0	40	130	0	90
Lane Flow Rate	192	366	163	70	395	291	291
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.477	0.83	0.448	0.174	0.949	0.716	0.68
Departure Headway (Hd)	8.946	8.16	9.916	8.98	8.64	8.868	8.418
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	403	443	363	399	419	407	430
Service Time	6.701	5.914	7.675	6.738	6.687	6.626	6.175
HCM Lane V/C Ratio	0.476	0.826	0.449	0.175	0.943	0.715	0.677
HCM Control Delay	19.6	40	20.5	13.6	62.2	31.1	27.4
HCM Lane LOS	C	E	C	B	F	D	D
HCM 95th-tile Q	2.5	7.9	2.2	0.6	10.9	5.5	4.9

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	30	20	230	70	70	30	400	350	170	620	170
Future Volume (veh/h)	60	30	20	230	70	70	30	400	350	170	620	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	75	38	25	288	88	88	38	500	438	212	775	212
Adj No. of Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	269	226	328	474	400	92	1703	820	252	1690	458
Arrive On Green	0.07	0.14	0.14	0.18	0.25	0.25	0.05	0.33	0.33	0.14	0.42	0.42
Sat Flow, veh/h	1810	1900	1598	1810	1900	1605	1810	5187	1608	1810	4057	1099
Grp Volume(v), veh/h	75	38	25	288	88	88	38	500	438	212	659	328
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1605	1810	1729	1608	1810	1729	1698
Q Serve(g_s), s	3.1	1.3	1.0	11.8	2.8	3.3	1.6	5.5	14.0	8.7	10.5	10.6
Cycle Q Clear(g_c), s	3.1	1.3	1.0	11.8	2.8	3.3	1.6	5.5	14.0	8.7	10.5	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	132	269	226	328	474	400	92	1703	820	252	1441	708
V/C Ratio(X)	0.57	0.14	0.11	0.88	0.19	0.22	0.41	0.29	0.53	0.84	0.46	0.46
Avail Cap(c_a), veh/h	238	1097	923	333	1197	1011	166	2042	926	261	1543	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	28.7	28.5	30.4	22.5	22.7	35.1	19.0	12.6	32.0	16.0	16.1
Incr Delay (d2), s/veh	3.8	0.2	0.2	22.3	0.2	0.3	3.0	0.1	0.5	20.8	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.7	0.5	8.0	1.5	1.5	0.8	2.6	6.3	5.8	5.0	5.0
LnGrp Delay(d),s/veh	37.9	28.9	28.7	52.7	22.7	23.0	38.0	19.1	13.1	52.7	16.2	16.5
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		138			464			976			1199	
Approach Delay, s/veh		33.8			41.4			17.2			22.8	
Approach LOS		C			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	29.0	17.8	14.8	7.9	35.7	9.6	23.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	30.0	14.0	44.0	7.0	34.0	10.0	48.0
Max Q Clear Time (g_c+I1), s	10.7	16.0	13.8	3.3	3.6	12.6	5.1	5.3
Green Ext Time (p_c), s	0.0	8.6	0.0	1.0	0.0	11.1	0.1	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	240	430	110	110	330	50	160	620	180	90	520	210
Future Volume (veh/h)	240	430	110	110	330	50	160	620	180	90	520	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	462	118	118	355	54	172	667	194	97	559	226
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	891	527	147	703	106	147	1493	796	132	1464	821
Arrive On Green	0.10	0.25	0.25	0.08	0.22	0.22	0.08	0.41	0.41	0.07	0.41	0.41
Sat Flow, veh/h	1810	3610	1605	1810	3144	474	1810	3610	1609	1810	3610	1609
Grp Volume(v), veh/h	258	462	118	118	202	207	172	667	194	97	559	226
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1813	1810	1805	1609	1810	1805	1609
Q Serve(g_s), s	9.0	9.5	0.9	5.5	8.5	8.6	7.0	11.5	6.0	4.5	9.4	3.8
Cycle Q Clear(g_c), s	9.0	9.5	0.9	5.5	8.5	8.6	7.0	11.5	6.0	4.5	9.4	3.8
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	891	527	147	404	405	147	1493	796	132	1464	821
V/C Ratio(X)	1.37	0.52	0.22	0.80	0.50	0.51	1.17	0.45	0.24	0.73	0.38	0.28
Avail Cap(c_a), veh/h	189	1673	875	147	795	798	147	1493	796	168	1464	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	28.1	10.3	39.0	29.3	29.4	39.7	18.2	12.5	39.2	18.0	4.5
Incr Delay (d2), s/veh	195.3	0.5	0.2	26.7	1.0	1.0	127.9	1.0	0.7	11.5	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	4.8	1.4	3.8	4.3	4.4	8.7	5.9	2.8	2.7	4.8	2.1
LnGrp Delay(d),s/veh	234.0	28.5	10.5	65.7	30.3	30.3	167.6	19.2	13.3	50.7	18.8	5.3
LnGrp LOS	F	C	B	E	C	C	F	B	B	D	B	A
Approach Vol, veh/h		838			527			1033			882	
Approach Delay, s/veh		89.2			38.2			42.8			18.8	
Approach LOS		F			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	39.7	11.0	25.3	11.0	39.0	13.0	23.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	34.0	7.0	40.0	7.0	35.0	9.0	38.0
Max Q Clear Time (g_c+I1), s	6.5	13.5	7.5	11.5	9.0	11.4	11.0	10.6
Green Ext Time (p_c), s	0.0	5.6	0.0	6.7	0.0	4.2	0.0	6.6

Intersection Summary		
HCM 2010 Ctrl Delay		47.5
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	220	10	160	330	990	0	0	750	240
Future Volume (veh/h)	0	0	0	220	10	160	330	990	0	0	750	240
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				237	11	172	355	1065	0	0	806	258
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				322	15	298	362	2618	0	0	1293	414
Arrive On Green				0.19	0.19	0.19	0.40	1.00	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1733	80	1602	1810	3705	0	0	2784	860
Grp Volume(v), veh/h				248	0	172	355	1065	0	0	541	523
Grp Sat Flow(s),veh/h/ln				1813	0	1602	1810	1805	0	0	1805	1745
Q Serve(g_s), s				11.6	0.0	8.8	17.4	0.0	0.0	0.0	20.0	20.0
Cycle Q Clear(g_c), s				11.6	0.0	8.8	17.4	0.0	0.0	0.0	20.0	20.0
Prop In Lane				0.96		1.00	1.00		0.00	0.00		0.49
Lane Grp Cap(c), veh/h				337	0	298	362	2618	0	0	868	839
V/C Ratio(X)				0.74	0.00	0.58	0.98	0.41	0.00	0.00	0.62	0.62
Avail Cap(c_a), veh/h				685	0	605	362	2618	0	0	868	839
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.84	0.84	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				34.5	0.0	33.4	26.8	0.0	0.0	0.0	17.3	17.3
Incr Delay (d2), s/veh				3.1	0.0	1.8	38.2	0.4	0.0	0.0	3.4	3.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.1	0.0	4.0	12.3	0.1	0.0	0.0	10.7	10.4
LnGrp Delay(d),s/veh				37.7	0.0	35.2	65.0	0.4	0.0	0.0	20.7	20.8
LnGrp LOS				D		D	E	A			C	C
Approach Vol, veh/h					420			1420			1064	
Approach Delay, s/veh					36.6			16.6			20.8	
Approach LOS					D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.3			22.0	47.3		20.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		48.0			18.0	26.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			19.4	22.0		13.6
Green Ext Time (p_c), s		23.8			0.0	3.5		2.0

Intersection Summary			
HCM 2010 Ctrl Delay			21.0
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	410	10	280	0	0	0	0	910	290	230	770	0
Future Volume (veh/h)	410	10	280	0	0	0	0	910	290	230	770	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	425	0	286				0	929	296	235	786	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	818	0	362				0	1897	603	278	2473	0
Arrive On Green	0.23	0.00	0.23				0.00	0.49	0.49	0.05	0.23	0.00
Sat Flow, veh/h	3619	0	1604				0	4066	1238	1810	3705	0
Grp Volume(v), veh/h	425	0	286				0	825	400	235	786	0
Grp Sat Flow(s),veh/h/ln	1810	0	1604				0	1729	1674	1810	1805	0
Q Serve(g_s), s	9.3	0.0	15.1				0.0	14.5	14.5	11.6	16.3	0.0
Cycle Q Clear(g_c), s	9.3	0.0	15.1				0.0	14.5	14.5	11.6	16.3	0.0
Prop In Lane	1.00		1.00				0.00		0.74	1.00		0.00
Lane Grp Cap(c), veh/h	818	0	362				0	1685	816	278	2473	0
V/C Ratio(X)	0.52	0.00	0.79				0.00	0.49	0.49	0.85	0.32	0.00
Avail Cap(c_a), veh/h	1327	0	588				0	1685	816	362	2473	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.54	0.54	0.00
Uniform Delay (d), s/veh	30.5	0.0	32.8				0.0	15.5	15.6	41.7	17.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.9				0.0	1.0	2.1	7.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	7.1				0.0	7.1	7.2	6.4	8.2	0.0
LnGrp Delay(d),s/veh	31.1	0.0	36.7				0.0	16.6	17.7	49.5	17.5	0.0
LnGrp LOS	C		D					B	B	D	B	
Approach Vol, veh/h		711						1225			1021	
Approach Delay, s/veh		33.3						16.9			24.8	
Approach LOS		C						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	17.8	47.8		24.3		65.7		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	18.0	27.0		33.0		49.0		
Max Q Clear Time (g_c+I1), s	13.6	16.5		17.1		18.3		
Green Ext Time (p_c), s	0.3	8.1		2.4		17.8		

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	460	520	530	60	90	420	130	860	130	400	840	160
Future Volume (veh/h)	460	520	530	60	90	420	130	860	130	400	840	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	474	536	546	62	93	433	134	887	134	412	866	165
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	557	1238	551	101	456	605	138	1430	215	473	1346	854
Arrive On Green	0.16	0.34	0.34	0.06	0.24	0.24	0.08	0.31	0.31	0.04	0.12	0.12
Sat Flow, veh/h	3510	3610	1608	1810	1900	1615	1810	4549	684	3510	3610	1604
Grp Volume(v), veh/h	474	536	546	62	93	433	134	673	348	412	866	165
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1810	1900	1615	1810	1729	1775	1755	1805	1604
Q Serve(g_s), s	13.8	12.0	35.5	3.5	4.1	7.6	7.8	17.4	17.5	12.2	24.0	7.3
Cycle Q Clear(g_c), s	13.8	12.0	35.5	3.5	4.1	7.6	7.8	17.4	17.5	12.2	24.0	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	557	1238	551	101	456	605	138	1087	558	473	1346	854
V/C Ratio(X)	0.85	0.43	0.99	0.61	0.20	0.72	0.97	0.62	0.62	0.87	0.64	0.19
Avail Cap(c_a), veh/h	702	1238	551	121	456	605	138	1087	558	473	1346	854
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	0.86	0.86	0.86
Uniform Delay (d), s/veh	43.0	26.6	34.3	48.5	31.9	11.7	48.4	30.7	30.7	49.3	39.4	18.5
Incr Delay (d2), s/veh	8.1	0.2	35.8	6.5	0.2	4.0	63.5	2.4	4.6	14.2	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.0	21.1	1.9	2.2	6.6	6.3	8.7	9.3	6.9	12.4	3.4
LnGrp Delay(d),s/veh	51.0	26.9	70.1	55.0	32.1	15.7	111.8	33.0	35.3	63.5	41.4	18.9
LnGrp LOS	D	C	E	E	C	B	F	C	D	E	D	B
Approach Vol, veh/h		1556			588			1155			1443	
Approach Delay, s/veh		49.4			22.4			42.8			45.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	37.0	9.9	40.0	12.0	43.1	20.7	29.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	33.0	7.0	36.0	8.0	38.0	21.0	22.0
Max Q Clear Time (g_c+I1), s	14.2	19.5	5.5	37.5	9.8	26.0	15.8	9.6
Green Ext Time (p_c), s	0.0	5.3	0.0	0.0	0.0	6.0	0.9	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	43.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰↰	↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	220	10	170	510	1250	0	0	1250	320
Future Volume (veh/h)	0	0	0	220	10	170	510	1250	0	0	1250	320
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				227	10	175	526	1289	0	0	1289	330
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				277	12	255	620	2759	0	0	2849	885
Arrive On Green				0.16	0.16	0.16	0.18	0.76	0.00	0.00	0.55	0.55
Sat Flow, veh/h				1737	77	1600	3510	3705	0	0	5358	1611
Grp Volume(v), veh/h				237	0	175	526	1289	0	0	1289	330
Grp Sat Flow(s),veh/h/ln				1813	0	1600	1755	1805	0	0	1729	1611
Q Serve(g_s), s				13.3	0.0	10.8	15.2	13.8	0.0	0.0	15.6	12.2
Cycle Q Clear(g_c), s				13.3	0.0	10.8	15.2	13.8	0.0	0.0	15.6	12.2
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				289	0	255	620	2759	0	0	2849	885
V/C Ratio(X)				0.82	0.00	0.69	0.85	0.47	0.00	0.00	0.45	0.37
Avail Cap(c_a), veh/h				449	0	396	869	2759	0	0	2849	885
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.6	0.0	41.6	41.9	4.5	0.0	0.0	14.2	13.4
Incr Delay (d2), s/veh				6.7	0.0	3.2	4.3	0.4	0.0	0.0	0.5	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.2	0.0	5.0	7.7	7.0	0.0	0.0	7.5	5.7
LnGrp Delay(d),s/veh				49.4	0.0	44.9	46.1	5.0	0.0	0.0	14.7	14.6
LnGrp LOS				D		D	D	A			B	B
Approach Vol, veh/h					412			1815			1619	
Approach Delay, s/veh					47.5			16.9			14.7	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		84.2			22.6	61.7		20.8
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		71.0			26.0	41.0		26.0
Max Q Clear Time (g_c+I1), s		15.8			17.2	17.6		15.3
Green Ext Time (p_c), s		38.6			1.3	19.7		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	150	80	50	110	90	40	1000	50	110	1280	60
Future Volume (veh/h)	70	150	80	50	110	90	40	1000	50	110	1280	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	160	85	53	117	96	43	1064	53	117	1362	64
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	319	269	117	296	250	163	2260	112	163	2267	107
Arrive On Green	0.08	0.17	0.17	0.06	0.16	0.16	0.09	0.45	0.45	0.09	0.45	0.45
Sat Flow, veh/h	1810	1900	1601	1810	1900	1599	1810	5060	252	1810	5076	239
Grp Volume(v), veh/h	74	160	85	53	117	96	43	727	390	117	928	498
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1810	1900	1599	1810	1729	1854	1810	1729	1856
Q Serve(g_s), s	2.7	5.3	2.4	2.0	3.8	2.8	1.5	10.2	10.2	4.4	14.1	14.1
Cycle Q Clear(g_c), s	2.7	5.3	2.4	2.0	3.8	2.8	1.5	10.2	10.2	4.4	14.1	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.13
Lane Grp Cap(c), veh/h	139	319	269	117	296	250	163	1544	828	163	1544	829
V/C Ratio(X)	0.53	0.50	0.32	0.45	0.39	0.38	0.26	0.47	0.47	0.72	0.60	0.60
Avail Cap(c_a), veh/h	235	931	784	182	876	737	182	1544	828	182	1544	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	26.2	14.4	31.3	26.3	15.1	29.4	13.5	13.5	30.7	14.5	14.5
Incr Delay (d2), s/veh	3.2	1.2	0.7	2.7	0.9	1.0	0.8	1.0	1.9	11.2	1.7	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.9	1.4	1.1	2.1	1.6	0.8	5.1	5.6	2.7	7.1	7.9
LnGrp Delay(d),s/veh	34.0	27.4	15.0	34.0	27.2	16.0	30.3	14.5	15.4	41.9	16.3	17.7
LnGrp LOS	C	C	B	C	C	B	C	B	B	D	B	B
Approach Vol, veh/h		319			266			1160			1543	
Approach Delay, s/veh		25.7			24.5			15.4			18.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	35.0	8.5	15.7	10.3	35.0	9.3	14.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.4	12.2	4.0	7.3	3.5	16.1	4.7	5.8
Green Ext Time (p_c), s	0.0	6.9	0.0	2.1	0.1	7.9	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	10	50	10	0	70
Future Vol, veh/h	10	10	50	10	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	53	11	0	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	128	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	117	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1621	-	871	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1621	-	842	1076
Mov Cap-2 Maneuver	-	-	-	-	842	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	883	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	1076	-	-	1621	-
HCM Lane V/C Ratio	-	0.069	-	-	0.033	-
HCM Control Delay (s)	0	8.6	-	-	7.3	0
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	-	0.2	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	50	170	110	90	200	10	110	80	100	10	70	30
Future Volume (veh/h)	50	170	110	90	200	10	110	80	100	10	70	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	224	145	118	263	13	145	105	132	13	92	39
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	742	460	181	1273	63	222	165	215	37	266	115
Arrive On Green	0.08	0.35	0.35	0.10	0.36	0.36	0.17	0.17	0.17	0.12	0.12	0.12
Sat Flow, veh/h	1810	2136	1324	1810	3501	172	1292	960	1250	321	2287	987
Grp Volume(v), veh/h	66	188	181	118	135	141	206	0	176	76	0	68
Grp Sat Flow(s),veh/h/ln	1810	1805	1655	1810	1805	1868	1835	0	1667	1884	0	1711
Q Serve(g_s), s	2.1	4.6	4.9	3.8	3.1	3.1	6.3	0.0	5.9	2.3	0.0	2.2
Cycle Q Clear(g_c), s	2.1	4.6	4.9	3.8	3.1	3.1	6.3	0.0	5.9	2.3	0.0	2.2
Prop In Lane	1.00		0.80	1.00		0.09	0.70		0.75	0.17		0.58
Lane Grp Cap(c), veh/h	151	627	575	181	657	680	316	0	287	219	0	199
V/C Ratio(X)	0.44	0.30	0.32	0.65	0.21	0.21	0.65	0.00	0.61	0.35	0.00	0.34
Avail Cap(c_a), veh/h	239	627	575	269	657	680	668	0	606	685	0	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	14.4	14.5	26.2	13.2	13.2	23.3	0.0	23.2	24.6	0.0	24.6
Incr Delay (d2), s/veh	2.0	1.2	1.4	4.0	0.7	0.7	2.3	0.0	2.1	0.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.5	2.4	2.1	1.7	1.7	3.4	0.0	2.9	1.2	0.0	1.1
LnGrp Delay(d),s/veh	28.4	15.6	15.9	30.2	13.9	13.9	25.6	0.0	25.3	25.6	0.0	25.6
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		435			394			382			144	
Approach Delay, s/veh		17.7			18.8			25.5			25.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.4	10.0	25.0		11.0	9.0	26.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	9.0	21.0		22.0	8.0	22.0
Max Q Clear Time (g_c+I1), s		8.3	5.8	6.9		4.3	4.1	5.1
Green Ext Time (p_c), s		1.6	0.1	1.7		0.5	0.8	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	80	10	530	0	0	0	0	590	250	20	420	0
Future Volume (veh/h)	80	10	530	0	0	0	0	590	250	20	420	0
Number	5	2	12				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	90	11	596				0	663	281	22	472	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	655	80	650				0	1054	439	202	578	0
Arrive On Green	0.40	0.40	0.40				0.00	0.29	0.29	0.11	0.11	0.00
Sat Flow, veh/h	1621	198	1609				0	3757	1493	1810	5358	0
Grp Volume(v), veh/h	101	0	596				0	639	305	22	472	0
Grp Sat Flow(s),veh/h/ln	1819	0	1609				0	1729	1621	1810	1729	0
Q Serve(g_s), s	2.2	0.0	22.0				0.0	10.1	10.3	0.7	5.6	0.0
Cycle Q Clear(g_c), s	2.2	0.0	22.0				0.0	10.1	10.3	0.7	5.6	0.0
Prop In Lane	0.89		1.00				0.00		0.92	1.00		0.00
Lane Grp Cap(c), veh/h	735	0	650				0	1016	476	202	578	0
V/C Ratio(X)	0.14	0.00	0.92				0.00	0.63	0.64	0.11	0.82	0.00
Avail Cap(c_a), veh/h	811	0	717				0	1816	852	202	578	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	17.7				0.0	19.2	19.3	25.1	27.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	15.8				0.0	0.6	1.4	0.2	8.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	12.5				0.0	4.9	4.8	0.4	3.1	0.0
LnGrp Delay(d),s/veh	11.9	0.0	33.6				0.0	19.9	20.7	25.3	36.2	0.0
LnGrp LOS	B		C					B	C	C	D	
Approach Vol, veh/h		697						944			494	
Approach Delay, s/veh		30.4						20.1			35.7	
Approach LOS		C						C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		29.4		22.5				11.0
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		28.0		33.0				7.0
Max Q Clear Time (g_c+I1), s		24.0		12.3				7.6
Green Ext Time (p_c), s		1.2		5.5				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	90	310	170	160	200	70	140	850	130	180	780	80
Future Volume (veh/h)	90	310	170	160	200	70	140	850	130	180	780	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	365	200	188	235	82	165	1000	153	212	918	94
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	579	312	147	694	236	210	1794	274	147	1723	176
Arrive On Green	0.07	0.26	0.26	0.08	0.26	0.26	0.12	0.40	0.40	0.08	0.36	0.36
Sat Flow, veh/h	1810	2262	1219	1810	2643	897	1810	4540	693	1810	4781	488
Grp Volume(v), veh/h	106	290	275	188	158	159	165	761	392	212	663	349
Grp Sat Flow(s),veh/h/ln	1810	1805	1676	1810	1805	1736	1810	1729	1775	1810	1729	1811
Q Serve(g_s), s	5.0	12.3	12.6	7.0	6.1	6.4	7.6	14.7	14.7	7.0	13.1	13.1
Cycle Q Clear(g_c), s	5.0	12.3	12.6	7.0	6.1	6.4	7.6	14.7	14.7	7.0	13.1	13.1
Prop In Lane	1.00		0.73	1.00		0.52	1.00		0.39	1.00		0.27
Lane Grp Cap(c), veh/h	136	462	429	147	474	456	210	1367	701	147	1246	653
V/C Ratio(X)	0.78	0.63	0.64	1.28	0.33	0.35	0.78	0.56	0.56	1.44	0.53	0.53
Avail Cap(c_a), veh/h	147	755	702	147	755	726	210	1367	701	147	1246	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	28.4	28.5	39.5	25.6	25.7	37.0	20.2	20.2	39.5	21.8	21.8
Incr Delay (d2), s/veh	21.9	1.4	1.6	166.7	0.4	0.5	17.5	1.6	3.2	232.1	1.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	6.3	6.0	10.3	3.1	3.1	4.8	7.3	7.8	13.0	6.5	7.2
LnGrp Delay(d),s/veh	61.0	29.8	30.1	206.2	26.1	26.2	54.4	21.8	23.4	271.6	23.4	24.9
LnGrp LOS	E	C	C	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		671			505			1318			1224	
Approach Delay, s/veh		34.8			93.2			26.4			66.8	
Approach LOS		C			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	38.0	11.0	26.0	14.0	35.0	10.4	26.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	34.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	9.0	16.7	9.0	14.6	9.6	15.1	7.0	8.4
Green Ext Time (p_c), s	0.0	6.7	0.0	5.7	0.1	5.7	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	50.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	10	240	60	240	290	120	210	810	490	170	470	10
Future Volume (veh/h)	10	240	60	240	290	120	210	810	490	170	470	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	273	68	273	330	136	239	920	557	193	534	11
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	476	116	269	500	202	248	1956	607	227	1913	39
Arrive On Green	0.11	0.17	0.17	0.15	0.20	0.20	0.14	0.38	0.38	0.13	0.37	0.37
Sat Flow, veh/h	1810	2871	702	1810	2505	1012	1810	5187	1609	1810	5231	107
Grp Volume(v), veh/h	11	170	171	273	236	230	239	920	557	193	353	192
Grp Sat Flow(s),veh/h/ln	1810	1805	1769	1810	1805	1712	1810	1729	1609	1810	1729	1881
Q Serve(g_s), s	0.5	7.6	7.8	13.0	10.5	10.9	11.5	11.7	17.7	9.1	6.3	6.3
Cycle Q Clear(g_c), s	0.5	7.6	7.8	13.0	10.5	10.9	11.5	11.7	17.7	9.1	6.3	6.3
Prop In Lane	1.00		0.40	1.00		0.59	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	208	299	293	269	360	342	248	1956	607	227	1265	688
V/C Ratio(X)	0.05	0.57	0.58	1.02	0.66	0.67	0.96	0.47	0.92	0.85	0.28	0.28
Avail Cap(c_a), veh/h	208	763	748	269	887	842	248	1956	607	227	1265	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	33.6	33.7	37.2	32.2	32.4	37.5	20.6	9.8	37.4	19.6	19.6
Incr Delay (d2), s/veh	0.1	1.7	1.8	58.9	2.0	2.3	46.7	0.8	21.1	24.8	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.9	4.0	10.8	5.4	5.3	8.9	5.8	11.9	6.1	3.1	3.5
LnGrp Delay(d),s/veh	34.6	35.3	35.6	96.2	34.3	34.7	84.3	21.4	30.9	62.2	20.1	20.6
LnGrp LOS	C	D	D	F	C	C	F	C	C	E	C	C
Approach Vol, veh/h		352			739			1716			738	
Approach Delay, s/veh		35.4			57.3			33.3			31.3	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	37.0	17.0	18.5	16.0	36.0	14.0	21.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	33.0	13.0	37.0	12.0	32.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	11.1	19.7	15.0	9.8	13.5	8.3	2.5	12.9
Green Ext Time (p_c), s	0.0	6.4	0.0	1.7	0.0	3.7	0.7	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	800	110	120	620	90	80	120	200	90	130	80
Future Volume (veh/h)	70	800	110	120	620	90	80	120	200	90	130	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	851	117	128	660	96	85	128	213	96	138	85
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	1166	160	165	1376	749	145	420	373	152	519	301
Arrive On Green	0.08	0.37	0.37	0.09	0.38	0.38	0.08	0.23	0.23	0.08	0.24	0.24
Sat Flow, veh/h	1810	3187	438	1810	3610	1609	1810	1805	1605	1810	2198	1273
Grp Volume(v), veh/h	74	482	486	128	660	96	85	128	213	96	112	111
Grp Sat Flow(s),veh/h/ln	1810	1805	1821	1810	1805	1609	1810	1805	1605	1810	1805	1666
Q Serve(g_s), s	2.8	16.3	16.3	4.9	9.8	2.4	3.2	4.1	8.3	3.6	3.6	3.9
Cycle Q Clear(g_c), s	2.8	16.3	16.3	4.9	9.8	2.4	3.2	4.1	8.3	3.6	3.6	3.9
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	137	660	666	165	1376	749	145	420	373	152	426	393
V/C Ratio(X)	0.54	0.73	0.73	0.78	0.48	0.13	0.58	0.30	0.57	0.63	0.26	0.28
Avail Cap(c_a), veh/h	231	767	773	205	1482	796	256	1124	999	179	1048	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	19.4	19.4	31.4	16.6	10.7	31.3	22.4	24.0	31.3	22.0	22.1
Incr Delay (d2), s/veh	3.3	3.0	3.0	13.8	0.3	0.1	3.7	0.4	1.4	5.3	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	8.6	8.7	3.1	4.9	1.1	1.8	2.1	3.8	2.0	1.8	1.8
LnGrp Delay(d),s/veh	34.7	22.4	22.4	45.2	16.8	10.8	35.0	22.8	25.4	36.6	22.3	22.5
LnGrp LOS	C	C	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		1042			884			426			319	
Approach Delay, s/veh		23.2			20.3			26.5			26.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	20.4	10.4	29.8	9.7	20.7	9.4	30.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	8.0	30.0	10.0	41.0	9.0	29.0
Max Q Clear Time (g_c+I1), s	5.6	10.3	6.9	18.3	5.2	5.9	4.8	11.8
Green Ext Time (p_c), s	0.0	3.3	0.0	7.2	0.1	3.3	0.0	9.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	180	560	340	730	610	110	210	480	510	230	660	80
Future Volume (veh/h)	180	560	340	730	610	110	210	480	510	230	660	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	194	602	366	785	656	118	226	516	548	247	710	86
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	940	437	739	1819	323	281	1167	860	227	998	121
Arrive On Green	0.07	0.27	0.27	0.21	0.41	0.41	0.08	0.32	0.32	0.06	0.31	0.31
Sat Flow, veh/h	3510	3458	1606	3510	4429	786	3510	3610	1608	3510	3241	392
Grp Volume(v), veh/h	194	602	366	785	510	264	226	516	548	247	395	401
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1758	1755	1805	1608	1755	1805	1829
Q Serve(g_s), s	6.7	19.0	26.5	26.0	12.6	12.8	7.8	13.9	29.8	8.0	24.0	24.0
Cycle Q Clear(g_c), s	6.7	19.0	26.5	26.0	12.6	12.8	7.8	13.9	29.8	8.0	24.0	24.0
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	252	940	437	739	1420	722	281	1167	860	227	556	563
V/C Ratio(X)	0.77	0.64	0.84	1.06	0.36	0.37	0.80	0.44	0.64	1.09	0.71	0.71
Avail Cap(c_a), veh/h	341	1008	468	739	1420	722	313	1286	913	227	599	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	39.6	42.4	48.8	25.2	25.2	55.8	33.0	20.4	57.8	37.9	37.9
Incr Delay (d2), s/veh	7.2	1.2	12.0	50.9	0.2	0.3	12.9	0.3	1.4	84.6	3.6	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	9.2	13.3	17.7	6.1	6.3	4.3	7.0	13.5	6.5	12.5	12.7
LnGrp Delay(d),s/veh	63.5	40.9	54.4	99.6	25.3	25.5	68.7	33.3	21.7	142.3	41.5	41.5
LnGrp LOS	E	D	D	F	C	C	E	C	C	F	D	D
Approach Vol, veh/h		1162			1559			1290			1043	
Approach Delay, s/veh		48.9			62.8			34.6			65.4	
Approach LOS		D			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	43.9	30.0	37.6	13.9	42.0	12.9	54.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	44.0	26.0	36.0	11.0	41.0	12.0	50.0
Max Q Clear Time (g_c+I1), s	10.0	31.8	28.0	28.5	9.8	26.0	8.7	14.8
Green Ext Time (p_c), s	0.0	7.3	0.0	4.7	0.1	8.4	0.2	13.8

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	300	930	10	30	930	130	10	40	10	110	50	370
Future Volume (veh/h)	300	930	10	30	930	130	10	40	10	110	50	370
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	366	1134	12	37	1134	159	12	49	12	134	61	451
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	489	1976	21	98	1495	466	38	283	69	193	526	672
Arrive On Green	0.14	0.37	0.37	0.05	0.29	0.29	0.02	0.19	0.19	0.11	0.28	0.28
Sat Flow, veh/h	3510	5292	56	1810	5187	1615	1810	1475	361	1810	1900	1615
Grp Volume(v), veh/h	366	741	405	37	1134	159	12	0	61	134	61	451
Grp Sat Flow(s),veh/h/ln	1755	1729	1890	1810	1729	1615	1810	0	1836	1810	1900	1615
Q Serve(g_s), s	5.8	10.0	10.0	1.2	11.6	4.5	0.4	0.0	1.6	4.2	1.4	13.2
Cycle Q Clear(g_c), s	5.8	10.0	10.0	1.2	11.6	4.5	0.4	0.0	1.6	4.2	1.4	13.2
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	489	1291	706	98	1495	466	38	0	352	193	526	672
V/C Ratio(X)	0.75	0.57	0.57	0.38	0.76	0.34	0.31	0.00	0.17	0.70	0.12	0.67
Avail Cap(c_a), veh/h	602	1291	706	217	1602	499	217	0	599	217	620	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	14.6	14.6	26.6	18.9	16.4	28.1	0.0	19.7	25.1	15.7	13.8
Incr Delay (d2), s/veh	4.1	0.6	1.1	2.4	2.0	0.4	4.5	0.0	0.2	8.1	0.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	4.8	5.4	0.6	5.7	2.1	0.2	0.0	0.8	2.5	0.7	6.1
LnGrp Delay(d),s/veh	28.2	15.2	15.7	29.0	20.9	16.8	32.6	0.0	19.9	33.2	15.8	15.8
LnGrp LOS	C	B	B	C	C	B	C		B	C	B	B
Approach Vol, veh/h		1512			1330			73			646	
Approach Delay, s/veh		18.5			20.6			22.0			19.4	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	15.2	7.2	25.8	5.2	20.1	12.1	20.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	19.0	7.0	21.0	7.0	19.0	10.0	18.0
Max Q Clear Time (g_c+I1), s	6.2	3.6	3.2	12.0	2.4	15.2	7.8	13.6
Green Ext Time (p_c), s	0.0	2.1	0.0	7.5	0.0	0.9	0.3	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	180	700	40	50	710	10	40	30	40	10	30	130
Future Volume (veh/h)	180	700	40	50	710	10	40	30	40	10	30	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	228	886	51	63	899	13	51	38	51	13	38	165
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	1887	108	137	1768	26	131	98	198	76	222	254
Arrive On Green	0.12	0.38	0.38	0.08	0.34	0.34	0.12	0.12	0.12	0.16	0.16	0.16
Sat Flow, veh/h	1810	5017	288	1810	5268	76	1058	789	1595	478	1398	1600
Grp Volume(v), veh/h	228	610	327	63	590	322	89	0	51	51	0	165
Grp Sat Flow(s),veh/h/ln	1810	1729	1847	1810	1729	1886	1847	0	1595	1876	0	1600
Q Serve(g_s), s	7.0	8.1	8.1	2.0	8.2	8.2	2.7	0.0	1.7	1.4	0.0	5.8
Cycle Q Clear(g_c), s	7.0	8.1	8.1	2.0	8.2	8.2	2.7	0.0	1.7	1.4	0.0	5.8
Prop In Lane	1.00		0.16	1.00		0.04	0.57		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	210	1301	695	137	1161	633	229	0	198	297	0	254
V/C Ratio(X)	1.08	0.47	0.47	0.46	0.51	0.51	0.39	0.00	0.26	0.17	0.00	0.65
Avail Cap(c_a), veh/h	210	1492	797	210	1492	814	1042	0	900	1152	0	982
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	14.2	14.3	26.7	16.0	16.0	24.3	0.0	23.9	21.9	0.0	23.8
Incr Delay (d2), s/veh	86.5	0.3	0.5	2.4	0.3	0.6	1.1	0.0	0.7	0.3	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	3.9	4.2	1.1	4.0	4.4	1.4	0.0	0.8	0.8	0.0	2.8
LnGrp Delay(d),s/veh	113.2	14.5	14.7	29.1	16.4	16.7	25.4	0.0	24.6	22.2	0.0	26.6
LnGrp LOS	F	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		1165			975			140			216	
Approach Delay, s/veh		33.9			17.3			25.1			25.6	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		11.5	8.6	26.7		13.6	11.0	24.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	26.0		37.0	7.0	26.0
Max Q Clear Time (g_c+I1), s		4.7	4.0	10.1		7.8	9.0	10.2
Green Ext Time (p_c), s		0.6	0.0	9.5		0.8	0.0	9.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	30	720	30	40	740	10	30	10	30	10	10	20
Future Volume (veh/h)	30	720	30	40	740	10	30	10	30	10	10	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	847	35	47	871	12	35	12	35	12	12	24
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	98	2039	84	122	2174	30	98	357	410	39	87	175
Arrive On Green	0.05	0.40	0.40	0.07	0.41	0.41	0.05	0.19	0.19	0.02	0.16	0.16
Sat Flow, veh/h	1810	5109	211	1810	5272	73	1810	1900	1602	1810	563	1126
Grp Volume(v), veh/h	35	573	309	47	571	312	35	12	35	12	0	36
Grp Sat Flow(s),veh/h/ln	1810	1729	1862	1810	1729	1887	1810	1900	1602	1810	0	1688
Q Serve(g_s), s	0.9	5.9	5.9	1.2	5.7	5.7	0.9	0.3	0.8	0.3	0.0	0.9
Cycle Q Clear(g_c), s	0.9	5.9	5.9	1.2	5.7	5.7	0.9	0.3	0.8	0.3	0.0	0.9
Prop In Lane	1.00		0.11	1.00		0.04	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	98	1380	743	122	1426	778	98	357	410	39	0	262
V/C Ratio(X)	0.36	0.42	0.42	0.39	0.40	0.40	0.36	0.03	0.09	0.31	0.00	0.14
Avail Cap(c_a), veh/h	257	2103	1132	257	2103	1147	257	1733	1570	257	0	1540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.5	10.7	10.7	22.0	10.2	10.2	22.5	16.4	14.0	23.8	0.0	18.0
Incr Delay (d2), s/veh	2.2	0.2	0.4	2.0	0.2	0.3	2.2	0.0	0.1	4.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.8	3.1	0.7	2.7	3.0	0.5	0.1	0.4	0.2	0.0	0.4
LnGrp Delay(d),s/veh	24.7	10.9	11.1	24.0	10.4	10.5	24.7	16.4	14.1	28.2	0.0	18.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		B
Approach Vol, veh/h		917			930			82			48	
Approach Delay, s/veh		11.5			11.1			19.0			20.7	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	13.3	7.3	23.7	6.7	11.7	6.7	24.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	30.0	7.0	45.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	2.8	3.2	7.9	2.9	2.9	2.9	7.7
Green Ext Time (p_c), s	0.0	0.4	0.0	11.0	0.0	0.4	0.0	11.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations		↰	↱		↰	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	100	80	160	80	260	30	1170	190	260	870	20
Future Volume (veh/h)	20	100	80	160	80	260	30	1170	190	260	870	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	110	88	176	88	286	33	1286	209	286	956	22
Adj No. of Lanes	0	1	1	0	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	34	169	171	264	132	346	79	1571	255	318	2513	58
Arrive On Green	0.11	0.11	0.11	0.22	0.22	0.22	0.04	0.35	0.35	0.18	0.48	0.48
Sat Flow, veh/h	314	1570	1592	1226	613	1604	1810	4495	730	1810	5216	120
Grp Volume(v), veh/h	132	0	88	264	0	286	33	989	506	286	634	344
Grp Sat Flow(s),veh/h/ln	1884	0	1592	1839	0	1604	1810	1729	1767	1810	1729	1878
Q Serve(g_s), s	7.1	0.0	5.5	13.9	0.0	18.0	1.9	27.6	27.6	16.4	12.3	12.3
Cycle Q Clear(g_c), s	7.1	0.0	5.5	13.9	0.0	18.0	1.9	27.6	27.6	16.4	12.3	12.3
Prop In Lane	0.17		1.00	0.67		1.00	1.00		0.41	1.00		0.06
Lane Grp Cap(c), veh/h	203	0	171	397	0	346	79	1209	618	318	1666	905
V/C Ratio(X)	0.65	0.00	0.51	0.67	0.00	0.83	0.42	0.82	0.82	0.90	0.38	0.38
Avail Cap(c_a), veh/h	516	0	436	556	0	485	120	1209	618	359	1666	905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	0.0	44.6	38.0	0.0	39.6	49.3	31.4	31.4	42.7	17.4	17.4
Incr Delay (d2), s/veh	3.5	0.0	2.4	1.9	0.0	8.0	3.5	6.2	11.5	22.7	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	2.5	7.3	0.0	8.7	1.0	14.2	15.5	10.2	6.0	6.7
LnGrp Delay(d),s/veh	48.8	0.0	47.0	39.9	0.0	47.7	52.8	37.6	42.9	65.4	18.1	18.6
LnGrp LOS	D		D	D		D	D	D	D	E	B	B
Approach Vol, veh/h		220			550			1528			1264	
Approach Delay, s/veh		48.1			44.0			39.7			28.9	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.6	41.0		15.4	8.6	55.0		26.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	21.0	37.0		29.0	7.0	51.0		32.0
Max Q Clear Time (g_c+I1), s	18.4	29.6		9.1	3.9	14.3		20.0
Green Ext Time (p_c), s	0.3	4.8		0.9	0.3	6.5		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	220	240	40	20	210	80	20	70	30	110	70	120
Future Volume (veh/h)	220	240	40	20	210	80	20	70	30	110	70	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	253	276	46	23	241	92	23	80	34	126	80	138
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	1124	185	69	588	218	69	428	172	207	445	396
Arrive On Green	0.17	0.36	0.36	0.04	0.23	0.23	0.04	0.17	0.17	0.11	0.25	0.25
Sat Flow, veh/h	1810	3102	510	1810	2574	955	1810	2509	1007	1810	1805	1605
Grp Volume(v), veh/h	253	159	163	23	167	166	23	56	58	126	80	138
Grp Sat Flow(s),veh/h/ln	1810	1805	1807	1810	1805	1724	1810	1805	1712	1810	1805	1605
Q Serve(g_s), s	6.8	3.1	3.2	0.6	4.0	4.2	0.6	1.4	1.5	3.4	1.8	3.6
Cycle Q Clear(g_c), s	6.8	3.1	3.2	0.6	4.0	4.2	0.6	1.4	1.5	3.4	1.8	3.6
Prop In Lane	1.00		0.28	1.00		0.55	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	311	654	655	69	412	394	69	308	292	207	445	396
V/C Ratio(X)	0.81	0.24	0.25	0.33	0.40	0.42	0.33	0.18	0.20	0.61	0.18	0.35
Avail Cap(c_a), veh/h	391	1206	1208	249	1064	1017	249	1100	1043	249	1100	978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	11.3	11.4	23.8	16.7	16.8	23.8	18.1	18.1	21.4	15.1	15.8
Incr Delay (d2), s/veh	10.0	0.2	0.2	2.8	0.6	0.7	2.8	0.3	0.3	3.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	1.6	1.6	0.4	2.1	2.1	0.4	0.7	0.7	1.9	0.9	1.6
LnGrp Delay(d),s/veh	30.2	11.5	11.6	26.6	17.3	17.5	26.6	18.4	18.4	24.4	15.3	16.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		575			356			137			344	
Approach Delay, s/veh		19.8			18.0			19.8			19.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	12.7	5.9	22.4	5.9	16.5	12.8	15.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	11.0	30.0
Max Q Clear Time (g_c+I1), s	5.4	3.5	2.6	5.2	2.6	5.6	8.8	6.2
Green Ext Time (p_c), s	0.0	1.8	0.0	4.2	0.0	1.8	0.2	4.1

Intersection Summary			
HCM 2010 Ctrl Delay			19.1
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	120	60	150	70	30	60	90	830	60	110	1220	70
Future Volume (veh/h)	120	60	150	70	30	60	90	830	60	110	1220	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	64	160	74	32	64	96	883	64	117	1298	74
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	313	297	264	135	272	243	149	1636	852	158	1590	90
Arrive On Green	0.09	0.16	0.16	0.07	0.15	0.15	0.08	0.45	0.45	0.09	0.46	0.46
Sat Flow, veh/h	3510	1805	1600	1810	1805	1615	1810	3610	1615	1810	3472	198
Grp Volume(v), veh/h	128	64	160	74	32	64	96	883	64	117	674	698
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1810	1805	1615	1810	1805	1615	1810	1805	1864
Q Serve(g_s), s	2.5	2.2	6.7	2.9	1.1	2.5	3.7	12.9	1.4	4.6	23.5	23.6
Cycle Q Clear(g_c), s	2.5	2.2	6.7	2.9	1.1	2.5	3.7	12.9	1.4	4.6	23.5	23.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	313	297	264	135	272	243	149	1636	852	158	826	854
V/C Ratio(X)	0.41	0.22	0.61	0.55	0.12	0.26	0.64	0.54	0.08	0.74	0.82	0.82
Avail Cap(c_a), veh/h	338	869	771	174	869	778	174	1639	854	224	869	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	26.3	28.2	32.4	26.7	27.3	32.3	14.4	8.4	32.4	17.0	17.1
Incr Delay (d2), s/veh	0.9	0.4	2.2	3.4	0.2	0.6	6.2	0.4	0.0	7.7	5.8	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.1	3.1	1.6	0.6	1.2	2.1	6.5	0.6	2.6	12.9	13.4
LnGrp Delay(d),s/veh	32.2	26.6	30.4	35.9	26.9	27.9	38.5	14.7	8.5	40.0	22.9	22.8
LnGrp LOS	C	C	C	D	C	C	D	B	A	D	C	C
Approach Vol, veh/h		352			170			1043			1489	
Approach Delay, s/veh		30.4			31.2			16.5			24.2	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	36.9	9.4	16.0	10.0	37.3	10.5	14.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	33.0	7.0	35.0	7.0	35.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	6.6	14.9	4.9	8.7	5.7	25.6	4.5	4.5
Green Ext Time (p_c), s	0.1	13.0	0.0	2.0	0.0	7.6	0.1	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	140	920	180	20	630	50	130	190	30	50	210	110
Future Volume (veh/h)	140	920	180	20	630	50	130	190	30	50	210	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	1122	220	24	768	61	159	232	37	61	256	134
Adj No. of Lanes	1	2	1	1	3	0	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	1521	861	117	1815	143	398	352	56	162	454	230
Arrive On Green	0.12	0.42	0.42	0.06	0.37	0.37	0.11	0.22	0.22	0.09	0.20	0.20
Sat Flow, veh/h	1810	3610	1609	1810	4900	387	3510	1598	255	1810	2315	1173
Grp Volume(v), veh/h	171	1122	220	24	541	288	159	0	269	61	198	192
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1729	1830	1755	0	1853	1810	1805	1682
Q Serve(g_s), s	7.2	20.4	0.0	1.0	9.1	9.2	3.3	0.0	10.4	2.5	7.7	8.1
Cycle Q Clear(g_c), s	7.2	20.4	0.0	1.0	9.1	9.2	3.3	0.0	10.4	2.5	7.7	8.1
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.14	1.00		0.70
Lane Grp Cap(c), veh/h	210	1521	861	117	1281	678	398	0	408	162	354	330
V/C Ratio(X)	0.82	0.74	0.26	0.20	0.42	0.43	0.40	0.00	0.66	0.38	0.56	0.58
Avail Cap(c_a), veh/h	254	1521	861	162	1281	678	404	0	970	416	1153	1074
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	19.0	9.8	34.7	18.4	18.4	32.2	0.0	27.9	33.6	28.4	28.6
Incr Delay (d2), s/veh	15.6	3.2	0.7	0.9	1.0	2.0	0.7	0.0	1.8	1.4	1.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	10.8	2.7	0.5	4.5	5.0	1.6	0.0	5.5	1.3	4.0	3.9
LnGrp Delay(d),s/veh	49.4	22.2	10.5	35.6	19.4	20.4	32.9	0.0	29.7	35.0	29.8	30.2
LnGrp LOS	D	C	B	D	B	C	C		C	D	C	C
Approach Vol, veh/h		1513			853			428			451	
Approach Delay, s/veh		23.6			20.2			30.9			30.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.2	9.1	37.0	12.9	19.4	13.1	33.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	7.0	33.0	9.0	50.0	11.0	29.0
Max Q Clear Time (g_c+I1), s	4.5	12.4	3.0	22.4	5.3	10.1	9.2	11.2
Green Ext Time (p_c), s	0.1	2.1	1.8	5.7	0.7	2.3	0.1	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	570	220	80	430	30	150	380	110	30	340	50
Future Volume (veh/h)	60	570	220	80	430	30	150	380	110	30	340	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	633	244	89	478	33	167	422	122	33	378	56
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	1060	401	156	1471	101	220	758	217	195	821	121
Arrive On Green	0.08	0.29	0.29	0.09	0.30	0.30	0.12	0.27	0.27	0.11	0.26	0.26
Sat Flow, veh/h	1810	3703	1399	1810	4957	339	1810	2768	792	1810	3156	464
Grp Volume(v), veh/h	67	590	287	89	332	179	167	274	270	33	215	219
Grp Sat Flow(s),veh/h/ln	1810	1729	1644	1810	1729	1838	1810	1805	1755	1810	1805	1815
Q Serve(g_s), s	2.3	9.5	9.8	3.1	4.9	4.9	5.8	8.4	8.6	1.1	6.5	6.6
Cycle Q Clear(g_c), s	2.3	9.5	9.8	3.1	4.9	4.9	5.8	8.4	8.6	1.1	6.5	6.6
Prop In Lane	1.00		0.85	1.00		0.18	1.00		0.45	1.00		0.26
Lane Grp Cap(c), veh/h	137	990	471	156	1026	546	220	494	481	195	469	472
V/C Ratio(X)	0.49	0.60	0.61	0.57	0.32	0.33	0.76	0.55	0.56	0.17	0.46	0.46
Avail Cap(c_a), veh/h	251	1755	835	195	1649	877	278	1027	999	195	944	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	20.0	20.1	28.6	17.8	17.8	27.6	20.2	20.3	26.4	20.2	20.2
Incr Delay (d2), s/veh	2.7	0.6	1.3	3.3	0.2	0.3	8.9	1.0	1.0	0.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.6	4.5	1.7	2.3	2.5	3.4	4.3	4.3	0.6	3.3	3.4
LnGrp Delay(d),s/veh	31.5	20.5	21.3	31.8	18.0	18.2	36.6	21.2	21.3	26.8	20.9	20.9
LnGrp LOS	C	C	C	C	B	B	D	C	C	C	C	C
Approach Vol, veh/h		944			600			711			467	
Approach Delay, s/veh		21.6			20.1			24.8			21.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.8	9.6	22.6	11.9	20.9	8.9	23.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	37.0	7.0	33.0	10.0	34.0	9.0	31.0
Max Q Clear Time (g_c+I1), s	3.1	10.6	5.1	11.8	7.8	8.6	4.3	6.9
Green Ext Time (p_c), s	0.0	5.6	0.6	5.4	0.1	5.6	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Alessandro Blvd & Morrison St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↱		↰	↱
Traffic Volume (veh/h)	70	620	500	40	40	60
Future Volume (veh/h)	70	620	500	40	40	60
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	81	721	581	47	47	70
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	193	3086	1859	149	342	478
Arrive On Green	0.11	0.59	0.38	0.38	0.19	0.19
Sat Flow, veh/h	1810	5358	5064	392	1810	1615
Grp Volume(v), veh/h	81	721	409	219	47	70
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1828	1810	1615
Q Serve(g_s), s	1.5	2.4	3.1	3.1	0.8	1.2
Cycle Q Clear(g_c), s	1.5	2.4	3.1	3.1	0.8	1.2
Prop In Lane	1.00			0.21	1.00	1.00
Lane Grp Cap(c), veh/h	193	3086	1314	694	342	478
V/C Ratio(X)	0.42	0.23	0.31	0.32	0.14	0.15
Avail Cap(c_a), veh/h	440	5744	2615	1382	2004	1961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	3.5	8.1	8.1	12.5	9.6
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.1	1.4	1.6	0.4	0.0
LnGrp Delay(d),s/veh	16.9	3.6	8.2	8.3	12.7	9.7
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h		802	628		117	
Approach Delay, s/veh		4.9	8.3		10.9	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				26.0		11.0	8.0	18.1
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				41.0		41.0	9.0	28.0
Max Q Clear Time (g_c+I1), s				4.4		3.2	3.5	5.1
Green Ext Time (p_c), s				9.9		0.3	0.1	8.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↱		↰	↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	160	410	110	30	320	80	130	680	110	90	580	110
Future Volume (veh/h)	160	410	110	30	320	80	130	680	110	90	580	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	205	526	141	38	410	103	167	872	141	115	744	141
Adj No. of Lanes	2	2	1	2	2	0	1	2	1	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	360	859	382	336	662	165	314	1213	540	164	1312	406
Arrive On Green	0.10	0.24	0.24	0.10	0.23	0.23	0.17	0.34	0.34	0.09	0.25	0.25
Sat Flow, veh/h	3510	3610	1605	3510	2862	712	1810	3610	1608	1810	5187	1605
Grp Volume(v), veh/h	205	526	141	38	257	256	167	872	141	115	744	141
Grp Sat Flow(s),veh/h/ln	1755	1805	1605	1755	1805	1769	1810	1805	1608	1810	1729	1605
Q Serve(g_s), s	3.7	8.7	4.9	0.7	8.5	8.7	5.6	14.1	4.3	4.1	8.3	4.8
Cycle Q Clear(g_c), s	3.7	8.7	4.9	0.7	8.5	8.7	5.6	14.1	4.3	4.1	8.3	4.8
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	360	859	382	336	418	409	314	1213	540	164	1312	406
V/C Ratio(X)	0.57	0.61	0.37	0.11	0.62	0.63	0.53	0.72	0.26	0.70	0.57	0.35
Avail Cap(c_a), veh/h	368	1947	866	368	974	954	314	1731	771	244	2410	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	22.7	21.2	27.6	23.0	23.1	25.1	19.4	16.1	29.5	21.7	20.4
Incr Delay (d2), s/veh	2.0	0.7	0.6	0.1	1.5	1.6	1.7	0.8	0.3	5.4	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.4	2.2	0.3	4.4	4.4	2.9	7.2	1.9	2.3	4.0	2.2
LnGrp Delay(d),s/veh	30.5	23.4	21.8	27.7	24.5	24.6	26.8	20.2	16.4	34.9	22.1	20.9
LnGrp LOS	C	C	C	C	C	C	C	C	B	C	C	C
Approach Vol, veh/h		872			551			1180			1000	
Approach Delay, s/veh		24.8			24.8			20.7			23.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	26.4	10.4	19.9	15.6	20.9	10.8	19.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	7.0	36.0	10.0	31.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	6.1	16.1	2.7	10.7	7.6	10.3	5.7	10.7
Green Ext Time (p_c), s	0.1	5.5	0.3	3.6	0.2	5.1	0.1	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
52: Cactus Ave & Kitching St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	50	670	160	40	470	30	110	220	20	40	230	60
Future Volume (veh/h)	50	670	160	40	470	30	110	220	20	40	230	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	817	195	49	573	37	134	268	24	49	280	73
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	1190	284	109	1392	90	170	847	75	109	416	351
Arrive On Green	0.07	0.41	0.41	0.06	0.40	0.40	0.09	0.25	0.25	0.06	0.22	0.22
Sat Flow, veh/h	1810	2890	690	1810	3443	222	1810	3352	298	1810	1900	1604
Grp Volume(v), veh/h	61	510	502	49	300	310	134	143	149	49	280	73
Grp Sat Flow(s),veh/h/ln	1810	1805	1775	1810	1805	1860	1810	1805	1845	1810	1900	1604
Q Serve(g_s), s	2.4	17.2	17.2	1.9	8.8	8.8	5.4	4.8	4.9	1.9	10.0	2.8
Cycle Q Clear(g_c), s	2.4	17.2	17.2	1.9	8.8	8.8	5.4	4.8	4.9	1.9	10.0	2.8
Prop In Lane	1.00		0.39	1.00		0.12	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	122	743	731	109	730	752	170	456	466	109	416	351
V/C Ratio(X)	0.50	0.69	0.69	0.45	0.41	0.41	0.79	0.31	0.32	0.45	0.67	0.21
Avail Cap(c_a), veh/h	171	743	731	171	730	752	219	730	746	171	717	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	17.9	17.9	33.7	15.8	15.8	32.9	22.5	22.5	33.7	26.6	23.7
Incr Delay (d2), s/veh	3.1	5.1	5.2	2.9	1.7	1.7	13.6	0.4	0.4	2.9	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	9.6	9.4	1.1	4.7	4.8	3.3	2.4	2.5	1.1	5.4	1.2
LnGrp Delay(d),s/veh	36.5	23.0	23.1	36.6	17.5	17.5	46.5	22.9	22.9	36.6	28.5	24.0
LnGrp LOS	D	C	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		1073			659			426			402	
Approach Delay, s/veh		23.8			18.9			30.3			28.6	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	22.8	8.5	34.6	11.0	20.2	9.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	7.0	30.0	9.0	28.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	3.9	6.9	3.9	19.2	7.4	12.0	4.4	10.8
Green Ext Time (p_c), s	0.0	3.3	0.0	6.4	0.0	2.9	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	360	240	230	340	80	130	450	190	40	610	30
Future Volume (veh/h)	60	360	240	230	340	80	130	450	190	40	610	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	409	273	261	386	91	148	511	0	45	693	34
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	686	453	267	1354	603	164	1039	465	96	876	43
Arrive On Green	0.10	0.33	0.33	0.15	0.37	0.37	0.09	0.29	0.00	0.05	0.25	0.25
Sat Flow, veh/h	1810	2081	1375	1810	3610	1609	1810	3610	1615	1810	3502	172
Grp Volume(v), veh/h	68	354	328	261	386	91	148	511	0	45	357	370
Grp Sat Flow(s),veh/h/ln	1810	1805	1650	1810	1805	1609	1810	1805	1615	1810	1805	1868
Q Serve(g_s), s	3.1	14.4	14.6	12.6	6.6	2.5	7.1	10.3	0.0	2.1	16.3	16.3
Cycle Q Clear(g_c), s	3.1	14.4	14.6	12.6	6.6	2.5	7.1	10.3	0.0	2.1	16.3	16.3
Prop In Lane	1.00		0.83	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	185	595	544	267	1354	603	164	1039	465	96	451	467
V/C Ratio(X)	0.37	0.60	0.60	0.98	0.29	0.15	0.90	0.49	0.00	0.47	0.79	0.79
Avail Cap(c_a), veh/h	185	595	544	267	1354	603	164	1231	551	144	595	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	24.6	24.7	37.4	19.2	10.8	39.6	26.0	0.0	40.5	30.8	30.9
Incr Delay (d2), s/veh	1.2	4.4	4.9	48.4	0.5	0.5	42.6	0.4	0.0	3.5	5.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.9	7.4	9.9	3.4	1.2	5.5	5.2	0.0	1.2	8.8	9.1
LnGrp Delay(d),s/veh	38.1	29.0	29.6	85.7	19.8	11.3	82.2	26.4	0.0	44.0	36.2	36.1
LnGrp LOS	D	C	C	F	B	B	F	C		D	D	D
Approach Vol, veh/h		750			738			659			772	
Approach Delay, s/veh		30.1			42.1			38.9			36.6	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	29.3	17.0	33.0	12.0	26.0	13.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	8.0	29.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	4.1	12.3	14.6	16.6	9.1	18.3	5.1	8.6
Green Ext Time (p_c), s	0.0	3.1	0.0	3.2	0.0	2.9	1.5	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.8
HCM 2010 LOS	D

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	210	380	160	110	260	150	110	330	160	250	450	180
Future Volume (veh/h)	210	380	160	110	260	150	110	330	160	250	450	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	481	203	139	329	190	139	418	203	316	570	228
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	303	826	346	173	581	328	269	652	288	378	1130	503
Arrive On Green	0.17	0.33	0.33	0.10	0.26	0.26	0.08	0.18	0.18	0.21	0.31	0.31
Sat Flow, veh/h	1810	2477	1039	1810	2220	1255	3510	3610	1593	1810	3610	1607
Grp Volume(v), veh/h	266	350	334	139	266	253	139	418	203	316	570	228
Grp Sat Flow(s),veh/h/ln	1810	1805	1711	1810	1805	1670	1755	1805	1593	1810	1805	1607
Q Serve(g_s), s	12.7	14.1	14.3	6.6	11.3	11.6	3.4	9.5	8.2	14.8	11.4	10.0
Cycle Q Clear(g_c), s	12.7	14.1	14.3	6.6	11.3	11.6	3.4	9.5	8.2	14.8	11.4	10.0
Prop In Lane	1.00		0.61	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	303	601	570	173	472	437	269	652	288	378	1130	503
V/C Ratio(X)	0.88	0.58	0.59	0.80	0.56	0.58	0.52	0.64	0.71	0.84	0.50	0.45
Avail Cap(c_a), veh/h	328	901	854	246	819	758	358	1146	506	410	1597	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	24.3	24.4	39.1	28.2	28.3	39.1	33.5	20.2	33.4	24.7	24.3
Incr Delay (d2), s/veh	21.7	0.9	1.0	11.8	1.1	1.2	1.5	1.1	3.2	13.2	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	7.1	6.8	3.9	5.8	5.5	1.7	4.8	4.3	8.8	5.7	4.5
LnGrp Delay(d),s/veh	57.6	25.2	25.3	50.9	29.2	29.5	40.7	34.5	23.4	46.6	25.1	24.9
LnGrp LOS	E	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		950			658			760			1114	
Approach Delay, s/veh		34.3			33.9			32.7			31.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	19.9	12.4	33.4	10.8	31.6	18.7	27.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	28.0	12.0	44.0	9.0	39.0	16.0	40.0
Max Q Clear Time (g_c+I1), s	16.8	11.5	8.6	16.3	5.4	13.4	14.7	13.6
Green Ext Time (p_c), s	1.7	2.9	0.1	7.4	0.1	5.5	0.1	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1480	120	80	760	240	60	270	50	370	300	130
Future Volume (veh/h)	190	1480	120	80	760	240	60	270	50	370	300	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	1626	132	88	835	264	66	297	55	407	330	143
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	391	1799	802	105	1331	418	182	547	100	460	935	416
Arrive On Green	0.22	0.50	0.50	0.06	0.34	0.34	0.05	0.18	0.18	0.13	0.26	0.26
Sat Flow, veh/h	1810	3610	1610	1810	3907	1228	3510	3045	556	3510	3610	1606
Grp Volume(v), veh/h	209	1626	132	88	738	361	66	174	178	407	330	143
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1677	1755	1805	1796	1755	1805	1606
Q Serve(g_s), s	12.3	49.5	4.1	5.8	21.6	21.8	2.2	10.6	10.8	13.7	9.0	5.4
Cycle Q Clear(g_c), s	12.3	49.5	4.1	5.8	21.6	21.8	2.2	10.6	10.8	13.7	9.0	5.4
Prop In Lane	1.00		1.00	1.00		0.73	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	391	1799	802	105	1178	571	182	324	323	460	935	416
V/C Ratio(X)	0.53	0.90	0.16	0.84	0.63	0.63	0.36	0.54	0.55	0.89	0.35	0.34
Avail Cap(c_a), veh/h	391	1799	802	105	1178	571	204	615	612	466	1499	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	27.6	9.6	56.1	33.3	33.4	55.2	44.8	45.0	51.4	36.4	13.9
Incr Delay (d2), s/veh	1.4	7.9	0.4	41.6	2.5	5.2	1.2	1.4	1.5	17.9	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	26.6	2.3	4.1	10.7	10.9	1.1	5.4	5.5	7.8	4.5	3.5
LnGrp Delay(d),s/veh	43.3	35.5	10.1	97.7	35.8	38.6	56.4	46.2	46.4	69.3	36.6	14.4
LnGrp LOS	D	D	B	F	D	D	E	D	D	E	D	B
Approach Vol, veh/h		1967			1187			418			880	
Approach Delay, s/veh		34.6			41.3			47.9			48.1	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	25.6	11.0	64.0	10.2	35.2	30.0	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	41.0	7.0	60.0	7.0	50.0	26.0	41.0
Max Q Clear Time (g_c+I1), s	15.7	12.8	7.8	51.5	4.2	11.0	14.3	23.8
Green Ext Time (p_c), s	0.1	5.2	0.0	6.3	0.0	5.4	0.6	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	1640	160	180	900	170	100	220	100	150	150	70
Future Volume (veh/h)	80	1640	160	180	900	170	100	220	100	150	150	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	1783	0	196	978	185	109	239	109	163	163	76
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	206	1878	840	191	2244	423	134	395	175	147	411	183
Arrive On Green	0.11	0.52	0.00	0.11	0.51	0.51	0.07	0.16	0.16	0.08	0.17	0.17
Sat Flow, veh/h	1810	3610	1615	1810	4382	827	1810	2431	1073	1810	2424	1079
Grp Volume(v), veh/h	87	1783	0	196	771	392	109	175	173	163	119	120
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1751	1810	1805	1699	1810	1805	1698
Q Serve(g_s), s	5.5	57.6	0.0	13.0	17.2	17.3	7.3	11.1	11.6	10.0	7.2	7.7
Cycle Q Clear(g_c), s	5.5	57.6	0.0	13.0	17.2	17.3	7.3	11.1	11.6	10.0	7.2	7.7
Prop In Lane	1.00		1.00	1.00		0.47	1.00		0.63	1.00		0.64
Lane Grp Cap(c), veh/h	206	1878	840	191	1771	897	134	294	276	147	306	288
V/C Ratio(X)	0.42	0.95	0.00	1.02	0.44	0.44	0.81	0.60	0.62	1.11	0.39	0.41
Avail Cap(c_a), veh/h	206	1878	840	191	1771	897	177	616	580	147	587	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	28.0	0.0	55.0	18.8	18.9	56.1	47.8	48.0	56.5	45.4	45.6
Incr Delay (d2), s/veh	1.4	11.8	0.0	71.7	0.8	1.5	18.9	1.9	2.3	106.1	0.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	31.6	0.0	10.3	8.4	8.8	4.4	5.7	5.6	9.3	3.7	3.7
LnGrp Delay(d),s/veh	52.1	39.8	0.0	126.9	19.6	20.4	75.0	49.7	50.3	162.6	46.2	46.6
LnGrp LOS	D	D		F	B	C	E	D	D	F	D	D
Approach Vol, veh/h		1870			1359			457			402	
Approach Delay, s/veh		40.4			35.3			56.0			93.5	
Approach LOS		D			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	24.0	17.0	68.0	13.1	24.9	18.0	67.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	42.0	13.0	64.0	12.0	40.0	14.0	63.0
Max Q Clear Time (g_c+I1), s	12.0	13.6	15.0	59.6	9.3	9.7	7.5	19.3
Green Ext Time (p_c), s	0.0	2.2	0.0	3.7	0.1	1.9	0.4	9.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	200	1360	270	50	850	120	190	400	80	210	510	150
Future Volume (veh/h)	200	1360	270	50	850	120	190	400	80	210	510	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	217	1478	293	54	924	130	207	435	87	228	554	163
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	228	2013	840	133	1543	216	242	703	140	247	855	583
Arrive On Green	0.13	0.39	0.39	0.07	0.34	0.34	0.13	0.23	0.23	0.14	0.24	0.24
Sat Flow, veh/h	1810	5187	1609	1810	4597	644	1810	3000	596	1810	3610	1605
Grp Volume(v), veh/h	217	1478	293	54	694	360	207	260	262	228	554	163
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1783	1810	1805	1790	1810	1805	1605
Q Serve(g_s), s	11.4	23.3	0.0	2.7	15.9	16.0	10.7	12.3	12.5	11.9	13.2	4.1
Cycle Q Clear(g_c), s	11.4	23.3	0.0	2.7	15.9	16.0	10.7	12.3	12.5	11.9	13.2	4.1
Prop In Lane	1.00		1.00	1.00		0.36	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	228	2013	840	133	1160	598	242	423	420	247	855	583
V/C Ratio(X)	0.95	0.73	0.35	0.41	0.60	0.60	0.85	0.62	0.62	0.92	0.65	0.28
Avail Cap(c_a), veh/h	228	2013	840	133	1160	598	247	795	789	247	1590	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	25.0	13.3	42.2	26.3	26.4	40.4	32.7	32.7	40.7	32.8	9.2
Incr Delay (d2), s/veh	46.4	2.4	1.1	2.0	2.3	4.4	23.9	1.5	1.5	37.4	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	11.5	4.7	1.4	8.0	8.6	7.0	6.3	6.4	8.5	6.6	1.9
LnGrp Delay(d),s/veh	87.8	27.4	14.5	44.2	28.6	30.8	64.3	34.1	34.2	78.1	33.6	9.5
LnGrp LOS	F	C	B	D	C	C	E	C	C	E	C	A
Approach Vol, veh/h		1988			1108			729			945	
Approach Delay, s/veh		32.1			30.1			42.7			40.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	26.4	11.0	41.0	16.8	26.6	16.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	42.0	7.0	37.0	13.0	42.0	12.0	32.0
Max Q Clear Time (g_c+I1), s	13.9	14.5	4.7	25.3	12.7	15.2	13.4	18.0
Green Ext Time (p_c), s	0.0	4.0	1.4	7.8	0.1	4.6	0.0	5.6

Intersection Summary			
HCM 2010 Ctrl Delay			34.9
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	1090	140	120	770	70	100	300	90	160	310	70
Future Volume (veh/h)	140	1090	140	120	770	70	100	300	90	160	310	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	1185	152	130	837	76	109	326	98	174	337	76
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	162	1781	228	185	1914	173	190	574	170	185	604	134
Arrive On Green	0.09	0.38	0.38	0.10	0.40	0.40	0.11	0.21	0.21	0.10	0.21	0.21
Sat Flow, veh/h	1810	4653	597	1810	4841	438	1810	2744	811	1810	2932	653
Grp Volume(v), veh/h	152	881	456	130	597	316	109	213	211	174	206	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1792	1810	1729	1821	1810	1805	1750	1810	1805	1779
Q Serve(g_s), s	6.5	16.5	16.5	5.4	9.9	10.0	4.5	8.3	8.5	7.5	8.0	8.2
Cycle Q Clear(g_c), s	6.5	16.5	16.5	5.4	9.9	10.0	4.5	8.3	8.5	7.5	8.0	8.2
Prop In Lane	1.00		0.33	1.00		0.24	1.00		0.46	1.00		0.37
Lane Grp Cap(c), veh/h	162	1323	686	185	1367	720	190	377	366	185	372	366
V/C Ratio(X)	0.94	0.67	0.67	0.70	0.44	0.44	0.57	0.56	0.58	0.94	0.55	0.57
Avail Cap(c_a), veh/h	162	1323	686	185	1367	720	190	990	960	185	1013	999
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	20.0	20.0	34.1	17.3	17.3	33.4	27.8	27.9	35.0	27.9	28.0
Incr Delay (d2), s/veh	53.4	2.7	5.1	11.4	1.0	1.9	4.1	1.3	1.4	49.7	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	8.3	9.1	3.3	4.9	5.4	2.5	4.3	4.3	6.3	4.1	4.2
LnGrp Delay(d),s/veh	88.9	22.7	25.1	45.5	18.3	19.3	37.5	29.1	29.3	84.6	29.2	29.3
LnGrp LOS	F	C	C	D	B	B	D	C	C	F	C	C
Approach Vol, veh/h		1489			1043			533			587	
Approach Delay, s/veh		30.2			22.0			30.9			45.7	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	20.4	12.0	34.0	12.3	20.1	11.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	43.0	8.0	30.0	7.0	44.0	7.0	31.0
Max Q Clear Time (g_c+I1), s	9.5	10.5	7.4	18.5	6.5	10.2	8.5	12.0
Green Ext Time (p_c), s	0.0	2.7	0.0	6.2	0.0	2.7	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	240	850	250	190	650	120	210	690	150	180	770	180
Future Volume (veh/h)	240	850	250	190	650	120	210	690	150	180	770	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	270	955	281	213	730	135	236	775	169	202	865	202
Adj No. of Lanes	2	2	1	2	3	0	1	2	1	1	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	310	1240	552	241	1426	261	231	1034	460	262	1096	488
Arrive On Green	0.09	0.34	0.34	0.07	0.32	0.32	0.13	0.29	0.29	0.14	0.30	0.30
Sat Flow, veh/h	3510	3610	1608	3510	4405	806	1810	3610	1607	1810	3610	1607
Grp Volume(v), veh/h	270	955	281	213	571	294	236	775	169	202	865	202
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1753	1810	1805	1607	1810	1805	1607
Q Serve(g_s), s	7.7	24.1	14.2	6.1	13.6	13.9	13.0	19.9	6.8	11.0	22.4	10.2
Cycle Q Clear(g_c), s	7.7	24.1	14.2	6.1	13.6	13.9	13.0	19.9	6.8	11.0	22.4	10.2
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	1240	552	241	1119	568	231	1034	460	262	1096	488
V/C Ratio(X)	0.87	0.77	0.51	0.88	0.51	0.52	1.02	0.75	0.37	0.77	0.79	0.41
Avail Cap(c_a), veh/h	310	1240	552	241	1119	568	231	1452	646	262	1381	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	29.9	26.6	47.1	27.9	28.0	44.5	33.0	18.3	42.0	32.5	28.3
Incr Delay (d2), s/veh	22.5	4.7	3.3	29.6	1.7	3.3	65.2	1.4	0.5	13.3	2.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	12.7	6.7	4.0	6.8	7.2	10.7	10.1	3.4	6.5	11.6	4.6
LnGrp Delay(d),s/veh	68.4	34.5	30.0	76.7	29.6	31.3	109.8	34.4	18.8	55.3	35.0	28.8
LnGrp LOS	E	C	C	E	C	C	F	C	B	E	D	C
Approach Vol, veh/h		1506			1078			1180			1269	
Approach Delay, s/veh		39.8			39.4			47.3			37.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	33.2	11.0	39.0	17.0	34.9	13.0	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	35.0	13.0	39.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	13.0	21.9	8.1	26.1	15.0	24.4	9.7	15.9
Green Ext Time (p_c), s	0.0	5.5	0.0	6.8	0.0	5.4	0.0	11.3

Intersection Summary	
HCM 2010 Ctrl Delay	40.8
HCM 2010 LOS	D

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	130	2240	1120	180	350	170
Future Volume (veh/h)	130	2240	1120	180	350	170
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	2383	1191	191	372	181
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	309	3708	2499	1034	564	536
Arrive On Green	0.17	0.71	0.48	0.48	0.16	0.16
Sat Flow, veh/h	1810	5358	5358	1607	3510	1615
Grp Volume(v), veh/h	138	2383	1191	191	372	181
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1607	1755	1615
Q Serve(g_s), s	4.4	15.6	9.9	3.1	6.4	0.0
Cycle Q Clear(g_c), s	4.4	15.6	9.9	3.1	6.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	309	3708	2499	1034	564	536
V/C Ratio(X)	0.45	0.64	0.48	0.18	0.66	0.34
Avail Cap(c_a), veh/h	309	3708	2499	1034	1691	1054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	4.8	11.2	4.7	25.3	16.2
Incr Delay (d2), s/veh	1.0	0.9	0.7	0.4	1.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	7.6	4.9	2.1	3.2	3.3
LnGrp Delay(d),s/veh	24.9	5.7	11.9	5.1	26.7	16.6
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		2521	1382		553	
Approach Delay, s/veh		6.8	10.9		23.4	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		14.3	15.0	35.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	11.0	31.0
Max Q Clear Time (g_c+I1), s				17.6		8.4	6.4	11.9
Green Ext Time (p_c), s				21.3		1.9	4.2	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	130	1930	330	30	970	110	180	110	30	150	110	80
Future Volume (veh/h)	130	1930	330	30	970	110	180	110	30	150	110	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	2032	347	32	1021	116	189	116	32	158	116	84
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	2555	793	160	2327	264	305	362	96	160	469	350
Arrive On Green	0.09	0.49	0.49	0.09	0.49	0.49	0.09	0.13	0.13	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	1810	4726	536	3510	2813	749	1810	3610	1596
Grp Volume(v), veh/h	137	2032	347	32	747	390	189	73	75	158	116	84
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1803	1755	1805	1757	1810	1805	1596
Q Serve(g_s), s	5.9	25.9	6.9	1.3	11.1	11.1	4.1	2.9	3.1	6.9	2.3	3.4
Cycle Q Clear(g_c), s	5.9	25.9	6.9	1.3	11.1	11.1	4.1	2.9	3.1	6.9	2.3	3.4
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	160	2555	793	160	1703	888	305	232	226	160	469	350
V/C Ratio(X)	0.86	0.80	0.44	0.20	0.44	0.44	0.62	0.31	0.33	0.99	0.25	0.24
Avail Cap(c_a), veh/h	160	2555	793	160	1703	888	355	821	799	160	1596	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	16.8	5.1	33.5	13.0	13.0	34.9	31.3	31.4	36.0	31.0	25.5
Incr Delay (d2), s/veh	34.1	2.7	1.8	0.6	0.8	1.6	2.5	0.8	0.9	67.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	12.9	4.1	0.7	5.4	5.9	2.1	1.5	1.6	6.4	1.2	1.5
LnGrp Delay(d),s/veh	69.7	19.4	6.9	34.1	13.8	14.6	37.4	32.1	32.3	103.4	31.2	25.9
LnGrp LOS	E	B	A	C	B	B	D	C	C	F	C	C
Approach Vol, veh/h		2516			1169			337			358	
Approach Delay, s/veh		20.4			14.6			35.1			61.8	
Approach LOS		C			B			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	14.2	11.0	43.0	10.9	14.3	11.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	36.0	7.0	39.0	8.0	35.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	8.9	5.1	3.3	27.9	6.1	5.4	7.9	13.1
Green Ext Time (p_c), s	0.0	1.9	2.2	9.1	0.1	1.9	0.0	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	1110	910	10	600	90	440	420	20	130	570	50
Future Volume (veh/h)	110	1110	910	10	600	90	440	420	20	130	570	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	120	1207	989	11	652	98	478	457	22	141	620	54
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	1728	844	128	1017	153	669	1185	57	175	819	71
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.19	0.34	0.34	0.10	0.24	0.24
Sat Flow, veh/h	1810	5187	1608	1810	3147	472	3510	3506	168	1810	3359	292
Grp Volume(v), veh/h	120	1207	989	11	374	376	478	235	244	141	333	341
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1810	1805	1814	1755	1805	1869	1810	1805	1846
Q Serve(g_s), s	6.5	20.0	33.0	0.6	17.5	17.6	12.6	9.8	9.8	7.6	16.9	17.0
Cycle Q Clear(g_c), s	6.5	20.0	33.0	0.6	17.5	17.6	12.6	9.8	9.8	7.6	16.9	17.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	146	1728	844	128	583	586	669	610	632	175	440	450
V/C Ratio(X)	0.82	0.70	1.17	0.09	0.64	0.64	0.71	0.38	0.39	0.81	0.76	0.76
Avail Cap(c_a), veh/h	146	1728	844	128	583	586	1063	857	887	311	620	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	28.7	23.6	43.0	28.6	28.6	37.6	24.9	25.0	43.8	34.7	34.7
Incr Delay (d2), s/veh	29.7	2.4	90.1	0.3	5.3	5.3	1.4	0.4	0.4	8.5	3.4	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	9.9	35.4	0.3	9.6	9.7	6.2	5.0	5.2	4.2	8.8	9.0
LnGrp Delay(d),s/veh	74.5	31.1	113.6	43.3	33.9	34.0	39.0	25.3	25.3	52.4	38.1	38.1
LnGrp LOS	E	C	F	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		2316			761			957			815	
Approach Delay, s/veh		68.6			34.1			32.2			40.5	
Approach LOS		E			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	37.5	11.0	37.0	22.9	28.2	12.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	47.0	7.0	33.0	30.0	34.0	8.0	32.0
Max Q Clear Time (g_c+I1), s	9.6	11.8	2.6	35.0	14.6	19.0	8.5	19.6
Green Ext Time (p_c), s	0.2	5.2	0.1	0.0	4.2	3.7	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	51.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	950	240	40	580	60	70	270	40	60	380	40
Future Volume (veh/h)	60	950	240	40	580	60	70	270	40	60	380	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	1092	276	46	667	69	80	310	46	69	437	46
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	1235	310	107	1381	143	140	537	79	209	687	72
Arrive On Green	0.07	0.43	0.43	0.06	0.42	0.42	0.08	0.17	0.17	0.12	0.21	0.21
Sat Flow, veh/h	1810	2858	717	1810	3302	341	1810	3155	463	1810	3296	345
Grp Volume(v), veh/h	69	687	681	46	364	372	80	176	180	69	238	245
Grp Sat Flow(s),veh/h/ln	1810	1805	1770	1810	1805	1838	1810	1805	1813	1810	1805	1836
Q Serve(g_s), s	2.6	25.0	25.5	1.8	10.6	10.6	3.1	6.4	6.6	2.5	8.6	8.7
Cycle Q Clear(g_c), s	2.6	25.0	25.5	1.8	10.6	10.6	3.1	6.4	6.6	2.5	8.6	8.7
Prop In Lane	1.00		0.41	1.00		0.19	1.00		0.26	1.00		0.19
Lane Grp Cap(c), veh/h	132	780	765	107	755	769	140	307	309	209	376	383
V/C Ratio(X)	0.52	0.88	0.89	0.43	0.48	0.48	0.57	0.57	0.58	0.33	0.63	0.64
Avail Cap(c_a), veh/h	202	780	765	177	755	769	177	705	708	209	730	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	18.7	18.8	32.6	15.2	15.2	31.9	27.4	27.4	29.2	25.9	25.9
Incr Delay (d2), s/veh	3.2	13.6	14.7	2.7	2.2	2.2	3.6	1.7	1.7	0.9	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	15.3	15.4	1.0	5.7	5.8	1.7	3.3	3.5	1.3	4.5	4.6
LnGrp Delay(d),s/veh	35.2	32.2	33.5	35.3	17.4	17.4	35.6	29.0	29.2	30.1	27.7	27.7
LnGrp LOS	D	C	C	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1437			782			436			552	
Approach Delay, s/veh		33.0			18.5			30.3			28.0	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	16.2	8.2	35.0	9.5	19.0	9.2	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	7.0	31.0	7.0	29.0	8.0	30.0
Max Q Clear Time (g_c+I1), s	4.5	8.6	3.8	27.5	5.1	10.7	4.6	12.6
Green Ext Time (p_c), s	0.1	2.0	1.3	2.4	0.0	2.7	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	690	190	70	450	100	150	700	80	120	870	50
Future Volume (veh/h)	70	690	190	70	450	100	150	700	80	120	870	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	793	218	80	517	115	172	805	92	138	1000	57
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	163	1068	294	123	1056	234	142	1379	157	142	1466	83
Arrive On Green	0.09	0.38	0.38	0.07	0.36	0.36	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2797	769	1810	2937	650	1810	4723	537	1810	5020	286
Grp Volume(v), veh/h	80	512	499	80	317	315	172	588	309	138	688	369
Grp Sat Flow(s),veh/h/ln	1810	1805	1761	1810	1805	1782	1810	1729	1802	1810	1729	1848
Q Serve(g_s), s	3.7	21.8	21.8	3.8	12.1	12.3	7.0	12.9	13.0	6.8	15.7	15.7
Cycle Q Clear(g_c), s	3.7	21.8	21.8	3.8	12.1	12.3	7.0	12.9	13.0	6.8	15.7	15.7
Prop In Lane	1.00		0.44	1.00		0.36	1.00		0.30	1.00		0.15
Lane Grp Cap(c), veh/h	163	689	672	123	649	641	142	1010	526	142	1010	540
V/C Ratio(X)	0.49	0.74	0.74	0.65	0.49	0.49	1.21	0.58	0.59	0.97	0.68	0.68
Avail Cap(c_a), veh/h	183	689	672	142	649	641	142	1010	526	142	1010	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	23.7	23.7	40.5	22.2	22.2	41.0	26.9	26.9	40.9	27.9	27.9
Incr Delay (d2), s/veh	2.3	7.1	7.3	8.2	2.6	2.7	142.4	2.5	4.7	66.1	3.7	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	12.2	11.9	2.2	6.5	6.5	9.1	6.5	7.1	6.0	8.0	9.0
LnGrp Delay(d),s/veh	40.8	30.8	31.0	48.7	24.8	24.9	183.4	29.3	31.7	107.0	31.6	34.7
LnGrp LOS	D	C	C	D	C	C	F	C	C	F	C	C
Approach Vol, veh/h		1091			712			1069			1195	
Approach Delay, s/veh		31.6			27.5			54.8			41.3	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	10.0	38.0	11.0	30.0	12.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	8.8	15.0	5.8	23.8	9.0	17.7	5.7	14.3
Green Ext Time (p_c), s	0.0	4.5	0.0	4.4	0.0	4.0	1.8	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	39.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	130	2140	550	150	1590	140	360	230	210	140	450	220
Future Volume (veh/h)	130	2140	550	150	1590	140	360	230	210	140	450	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	2277	585	160	1691	149	383	245	223	149	479	234
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	2309	717	268	2302	714	274	809	850	267	803	357
Arrive On Green	0.08	0.45	0.45	0.08	0.44	0.44	0.08	0.22	0.22	0.08	0.22	0.22
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2823	3510	3610	1604
Grp Volume(v), veh/h	138	2277	585	160	1691	149	383	245	223	149	479	234
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1412	1755	1805	1604
Q Serve(g_s), s	6.8	39.0	19.9	4.0	24.2	5.1	7.0	5.1	5.4	3.7	10.7	9.4
Cycle Q Clear(g_c), s	6.8	39.0	19.9	4.0	24.2	5.1	7.0	5.1	5.4	3.7	10.7	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	2309	717	268	2302	714	274	809	850	267	803	357
V/C Ratio(X)	0.98	0.99	0.82	0.60	0.73	0.21	1.40	0.30	0.26	0.56	0.60	0.66
Avail Cap(c_a), veh/h	141	2309	717	274	2309	717	274	1728	1569	352	1808	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	24.6	10.6	40.1	20.6	15.3	41.4	29.0	23.9	40.1	31.3	19.6
Incr Delay (d2), s/veh	69.1	15.5	7.3	3.4	1.2	0.1	200.8	0.2	0.2	1.8	0.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	21.9	10.2	2.0	11.7	2.3	11.0	2.5	2.1	1.8	5.4	4.7
LnGrp Delay(d),s/veh	110.5	40.2	17.9	43.5	21.9	15.5	242.2	29.2	24.0	41.9	32.0	21.7
LnGrp LOS	F	D	B	D	C	B	F	C	C	D	C	C
Approach Vol, veh/h		3000			2000			851			862	
Approach Delay, s/veh		39.1			23.1			123.7			30.9	
Approach LOS		D			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	24.1	10.9	44.0	11.0	24.0	11.0	43.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	5.7	7.4	6.0	41.0	9.0	12.7	8.8	26.2
Green Ext Time (p_c), s	0.1	3.9	0.0	0.0	0.0	3.9	0.0	13.6

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✣	↱
Traffic Volume (veh/h)	0	1680	810	0	1420	0	0	0	0	310	0	460
Future Volume (veh/h)	0	1680	810	0	1420	0	0	0	0	310	0	460
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1732	835	0	1464	0				213	0	588
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2216	981	0	3262	0				417	0	745
Arrive On Green	0.00	0.63	0.63	0.00	0.63	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	3694	1560	0	5529	0				1810	0	3230
Grp Volume(v), veh/h	0	1697	870	0	1464	0				213	0	588
Grp Sat Flow(s),veh/h/ln	0	1729	1625	0	1729	0				1810	0	1615
Q Serve(g_s), s	0.0	20.4	24.4	0.0	8.3	0.0				5.9	0.0	9.8
Cycle Q Clear(g_c), s	0.0	20.4	24.4	0.0	8.3	0.0				5.9	0.0	9.8
Prop In Lane	0.00		0.96	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2175	1022	0	3262	0				417	0	745
V/C Ratio(X)	0.00	0.78	0.85	0.00	0.45	0.00				0.51	0.00	0.79
Avail Cap(c_a), veh/h	0	2184	1026	0	3276	0				508	0	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.7	8.4	0.0	5.5	0.0				19.1	0.0	20.6
Incr Delay (d2), s/veh	0.0	1.9	7.0	0.0	0.1	0.0				1.0	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.0	12.6	0.0	4.0	0.0				3.0	0.0	4.7
LnGrp Delay(d),s/veh	0.0	9.6	15.4	0.0	5.6	0.0				20.1	0.0	24.5
LnGrp LOS		A	B		A					C		C
Approach Vol, veh/h		2567			1464						801	
Approach Delay, s/veh		11.6			5.6						23.3	
Approach LOS		B			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				39.8		17.1		39.8
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s				26.4		11.8		10.3
Green Ext Time (p_c), s				9.5		1.4		24.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	430	1570	0	0	980	280	540	10	200	0	0	0
Future Volume (veh/h)	430	1570	0	0	980	280	540	10	200	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	439	1602	0	0	1000	286	618	0	139			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	480	3446	0	0	1350	386	764	0	341			
Arrive On Green	0.27	0.66	0.00	0.00	0.34	0.34	0.21	0.00	0.21			
Sat Flow, veh/h	1810	5358	0	0	4177	1144	3619	0	1615			
Grp Volume(v), veh/h	439	1602	0	0	863	423	618	0	139			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1692	1810	0	1615			
Q Serve(g_s), s	15.1	9.6	0.0	0.0	14.1	14.2	10.4	0.0	4.8			
Cycle Q Clear(g_c), s	15.1	9.6	0.0	0.0	14.1	14.2	10.4	0.0	4.8			
Prop In Lane	1.00		0.00	0.00		0.68	1.00		1.00			
Lane Grp Cap(c), veh/h	480	3446	0	0	1165	570	764	0	341			
V/C Ratio(X)	0.92	0.46	0.00	0.00	0.74	0.74	0.81	0.00	0.41			
Avail Cap(c_a), veh/h	480	3720	0	0	1348	659	903	0	403			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.9	5.2	0.0	0.0	18.8	18.8	24.1	0.0	21.8			
Incr Delay (d2), s/veh	22.2	0.1	0.0	0.0	1.9	3.8	4.8	0.0	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.4	4.5	0.0	0.0	7.0	7.2	5.7	0.0	2.2			
LnGrp Delay(d),s/veh	45.1	5.3	0.0	0.0	20.7	22.6	28.9	0.0	22.6			
LnGrp LOS	D	A			C	C	C		C			
Approach Vol, veh/h		2041			1286			757				
Approach Delay, s/veh		13.9			21.3			27.7				
Approach LOS		B			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		17.5		46.6			21.0	25.6
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0		46.0			17.0	25.0
Max Q Clear Time (g_c+I1), s		12.4		11.6			17.1	16.2
Green Ext Time (p_c), s		1.1		17.4			0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	260	1540	50	10	920	90	160	200	20	80	130	260
Future Volume (veh/h)	260	1540	50	10	920	90	160	200	20	80	130	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	274	1621	53	11	968	0	168	211	21	84	137	0
Adj No. of Lanes	2	2	0	1	2	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	367	2090	68	77	1890	845	299	337	151	143	315	141
Arrive On Green	0.10	0.59	0.59	0.04	0.52	0.00	0.09	0.09	0.09	0.08	0.09	0.00
Sat Flow, veh/h	3510	3568	116	1810	3610	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	274	818	856	11	968	0	168	211	21	84	137	0
Grp Sat Flow(s),veh/h/ln	1755	1805	1879	1810	1805	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.1	27.5	27.8	0.5	14.0	0.0	3.7	4.5	1.0	3.6	2.9	0.0
Cycle Q Clear(g_c), s	6.1	27.5	27.8	0.5	14.0	0.0	3.7	4.5	1.0	3.6	2.9	0.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	1057	1101	77	1890	845	299	337	151	143	315	141
V/C Ratio(X)	0.75	0.77	0.78	0.14	0.51	0.00	0.56	0.63	0.14	0.59	0.43	0.00
Avail Cap(c_a), veh/h	525	1057	1101	158	1890	845	306	810	362	158	810	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.9	12.6	12.6	37.0	12.4	0.0	35.3	35.0	33.4	35.7	34.7	0.0
Incr Delay (d2), s/veh	3.5	5.5	5.4	0.9	1.0	0.0	2.2	1.9	0.4	4.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	15.2	15.9	0.3	7.1	0.0	1.9	2.3	0.4	2.0	1.5	0.0
LnGrp Delay(d),s/veh	38.4	18.1	18.1	37.9	13.4	0.0	37.5	36.9	33.8	40.3	35.7	0.0
LnGrp LOS	D	B	B	D	B		D	D	C	D	D	
Approach Vol, veh/h		1948			979			400			221	
Approach Delay, s/veh		20.9			13.7			37.0			37.4	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	11.5	7.4	51.0	10.8	11.0	12.4	46.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	12.0	42.0
Max Q Clear Time (g_c+I1), s	5.6	6.5	2.5	29.8	5.7	4.9	8.1	16.0
Green Ext Time (p_c), s	0.1	1.0	2.4	10.4	0.1	0.6	0.3	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	180	1390	40	10	770	130	20	60	20	180	60	100
Future Volume (veh/h)	180	1390	40	10	770	130	20	60	20	180	60	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	189	1463	42	11	811	137	21	63	21	189	63	105
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	2724	78	35	1851	310	340	359	120	418	169	281
Arrive On Green	0.13	0.53	0.53	0.02	0.41	0.41	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	5182	149	1810	4470	750	1232	1363	454	1328	639	1065
Grp Volume(v), veh/h	189	976	529	11	626	322	21	0	84	189	0	168
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1762	1232	0	1817	1328	0	1705
Q Serve(g_s), s	6.4	11.7	11.7	0.4	8.1	8.2	0.9	0.0	2.2	8.0	0.0	5.1
Cycle Q Clear(g_c), s	6.4	11.7	11.7	0.4	8.1	8.2	5.9	0.0	2.2	10.3	0.0	5.1
Prop In Lane	1.00		0.08	1.00		0.43	1.00		0.25	1.00		0.63
Lane Grp Cap(c), veh/h	237	1818	985	35	1432	730	340	0	479	418	0	450
V/C Ratio(X)	0.80	0.54	0.54	0.31	0.44	0.44	0.06	0.00	0.18	0.45	0.00	0.37
Avail Cap(c_a), veh/h	375	1818	985	202	1432	730	879	0	1273	998	0	1194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	9.8	9.8	30.4	13.2	13.2	21.3	0.0	17.8	21.8	0.0	18.9
Incr Delay (d2), s/veh	6.2	1.1	2.1	4.9	1.0	1.9	0.1	0.0	0.2	0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.8	6.6	0.2	4.0	4.3	0.3	0.0	1.1	3.0	0.0	2.4
LnGrp Delay(d),s/veh	32.7	11.0	11.9	35.3	14.1	15.1	21.4	0.0	18.0	22.6	0.0	19.4
LnGrp LOS	C	B	B	D	B	B	C		B	C		B
Approach Vol, veh/h		1694			959			105			357	
Approach Delay, s/veh		13.7			14.7			18.7			21.1	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.6	5.2	37.0		20.6	12.2	30.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		44.0	7.0	32.0		44.0	13.0	26.0
Max Q Clear Time (g_c+I1), s		7.9	2.4	13.7		12.3	8.4	10.2
Green Ext Time (p_c), s		2.3	0.0	13.9		2.3	0.2	12.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	60	1450	80	70	730	70	130	210	170	70	120	50
Future Volume (veh/h)	60	1450	80	70	730	70	130	210	170	70	120	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	1526	84	74	768	74	137	221	179	74	126	53
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	2103	116	139	1942	186	230	376	318	139	281	236
Arrive On Green	0.09	0.42	0.42	0.08	0.40	0.40	0.13	0.20	0.20	0.08	0.15	0.15
Sat Flow, veh/h	1810	5031	277	1810	4812	461	1810	1900	1603	1810	1900	1599
Grp Volume(v), veh/h	63	1049	561	74	551	291	137	221	179	74	126	53
Grp Sat Flow(s),veh/h/ln	1810	1729	1850	1810	1729	1815	1810	1900	1603	1810	1900	1599
Q Serve(g_s), s	2.3	17.6	17.6	2.7	7.8	7.9	5.0	7.3	5.3	2.7	4.2	2.0
Cycle Q Clear(g_c), s	2.3	17.6	17.6	2.7	7.8	7.9	5.0	7.3	5.3	2.7	4.2	2.0
Prop In Lane	1.00		0.15	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	1445	773	139	1395	733	230	376	318	139	281	236
V/C Ratio(X)	0.38	0.73	0.73	0.53	0.39	0.40	0.60	0.59	0.56	0.53	0.45	0.22
Avail Cap(c_a), veh/h	209	1445	773	183	1395	733	230	1095	924	209	1123	945
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	16.9	16.9	30.8	14.7	14.7	28.6	25.2	14.5	30.8	27.0	26.1
Incr Delay (d2), s/veh	1.5	3.2	5.9	3.2	0.8	1.6	4.2	1.5	1.6	3.2	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.9	10.1	1.5	3.9	4.3	2.7	4.0	2.8	1.5	2.3	0.9
LnGrp Delay(d),s/veh	31.1	20.1	22.8	34.0	15.5	16.3	32.8	26.7	16.1	34.0	28.1	26.5
LnGrp LOS	C	C	C	C	B	B	C	C	B	C	C	C
Approach Vol, veh/h		1673			916			537			253	
Approach Delay, s/veh		21.4			17.3			24.7			29.5	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	17.7	9.3	33.0	12.8	14.3	10.3	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	40.0	7.0	29.0	7.0	41.0	8.0	28.0
Max Q Clear Time (g_c+I1), s	4.7	9.3	4.7	19.6	7.0	6.2	4.3	9.9
Green Ext Time (p_c), s	0.0	1.8	0.1	6.3	0.0	0.9	0.1	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↱	
Traffic Volume (veh/h)	0	1010	250	550	770	0	0	0	0	0	0	170
Future Volume (veh/h)	0	1010	250	550	770	0	0	0	0	0	0	170
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	1135	281	618	865	0				0	0	191
Adj No. of Lanes	0	3	1	1	3	0				0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1470	454	1176	5014	0				0	0	0
Arrive On Green	0.00	0.28	0.28	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1601	1810	5358	0					0	
Grp Volume(v), veh/h	0	1135	281	618	865	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1601	1810	1729	0						
Q Serve(g_s), s	0.0	24.1	18.3	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	24.1	18.3	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1470	454	1176	5014	0						
V/C Ratio(X)	0.00	0.77	0.62	0.53	0.17	0.00						
Avail Cap(c_a), veh/h	0	1470	454	1176	5014	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.88	0.88	0.00						
Uniform Delay (d), s/veh	0.0	39.4	37.4	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	4.0	6.2	0.4	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	12.0	8.9	0.1	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	43.4	43.6	0.4	0.1	0.0						
LnGrp LOS		D	D	A	A							
Approach Vol, veh/h		1416			1483							
Approach Delay, s/veh		43.5			0.2							
Approach LOS		D			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			82.0	38.0				120.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			56.0	34.0				94.0
Max Q Clear Time (g_c+I1), s			2.0	26.1				2.0
Green Ext Time (p_c), s			9.4	4.7				9.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	160	1680	70	0	1540	200	40	90	20	130	10	180
Future Volume (veh/h)	160	1680	70	0	1540	200	40	90	20	130	10	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	1826	76	0	1674	217	43	98	22	141	11	196
Adj No. of Lanes	1	3	0	0	3	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	218	3959	165	0	3603	465	103	238	53	189	14	244
Arrive On Green	1.00	1.00	1.00	0.00	0.77	0.77	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	243	5108	212	0	4820	600	1194	1503	337	1292	87	1541
Grp Volume(v), veh/h	174	1235	667	0	1243	648	43	0	120	141	0	207
Grp Sat Flow(s),veh/h/ln	243	1729	1863	0	1729	1792	1194	0	1840	1292	0	1628
Q Serve(g_s), s	77.7	0.0	0.0	0.0	15.2	15.3	4.3	0.0	7.0	12.0	0.0	14.7
Cycle Q Clear(g_c), s	93.0	0.0	0.0	0.0	15.2	15.3	19.0	0.0	7.0	19.0	0.0	14.7
Prop In Lane	1.00		0.11	0.00		0.34	1.00		0.18	1.00		0.95
Lane Grp Cap(c), veh/h	218	2680	1443	0	2680	1389	103	0	291	189	0	258
V/C Ratio(X)	0.80	0.46	0.46	0.00	0.46	0.47	0.42	0.00	0.41	0.75	0.00	0.80
Avail Cap(c_a), veh/h	218	2680	1443	0	2680	1389	103	0	291	189	0	258
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.3	0.0	0.0	0.0	4.7	4.8	57.9	0.0	45.5	54.5	0.0	48.7
Incr Delay (d2), s/veh	21.0	0.4	0.8	0.0	0.6	1.1	2.7	0.0	0.9	15.0	0.0	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.2	0.3	0.0	7.3	7.8	1.5	0.0	3.6	5.4	0.0	7.8
LnGrp Delay(d),s/veh	32.3	0.4	0.8	0.0	5.3	5.9	60.6	0.0	46.4	69.6	0.0	65.3
LnGrp LOS	C	A	A		A	A	E		D	E		E
Approach Vol, veh/h		2076			1891			163			348	
Approach Delay, s/veh		3.2			5.5			50.1			67.0	
Approach LOS		A			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		23.0		97.0		23.0		97.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		19.0		93.0		19.0		93.0
Max Q Clear Time (g_c+I1), s		21.0		95.0		21.0		17.3
Green Ext Time (p_c), s		0.0		0.0		0.0		68.1

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰	↱
Traffic Volume (veh/h)	130	1930	40	20	1270	110	330	90	150	200	10	180
Future Volume (veh/h)	130	1930	40	20	1270	110	330	90	150	200	10	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	2075	0	22	1366	118	306	165	161	223	0	194
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	2436	758	47	2088	646	407	198	193	528	0	383
Arrive On Green	0.09	0.47	0.00	0.03	0.40	0.40	0.22	0.22	0.22	0.15	0.00	0.15
Sat Flow, veh/h	1810	5187	1615	1810	5187	1605	1810	881	860	3619	0	1598
Grp Volume(v), veh/h	140	2075	0	22	1366	118	306	0	326	223	0	194
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1605	1810	0	1741	1810	0	1598
Q Serve(g_s), s	9.1	42.2	0.0	1.4	25.5	5.7	18.8	0.0	21.3	6.7	0.0	12.5
Cycle Q Clear(g_c), s	9.1	42.2	0.0	1.4	25.5	5.7	18.8	0.0	21.3	6.7	0.0	12.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.49	1.00		1.00
Lane Grp Cap(c), veh/h	168	2436	758	47	2088	646	407	0	391	528	0	383
V/C Ratio(X)	0.83	0.85	0.00	0.47	0.65	0.18	0.75	0.00	0.83	0.42	0.00	0.51
Avail Cap(c_a), veh/h	228	2436	758	106	2088	646	561	0	540	1032	0	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.2	28.0	0.0	57.3	28.9	23.0	43.1	0.0	44.1	46.4	0.0	39.3
Incr Delay (d2), s/veh	17.3	4.0	0.0	7.2	1.6	0.6	3.7	0.0	7.9	0.5	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	20.9	0.0	0.8	12.5	2.6	9.9	0.0	11.1	3.4	0.0	5.7
LnGrp Delay(d),s/veh	70.5	32.0	0.0	64.5	30.5	23.6	46.9	0.0	52.0	46.9	0.0	40.4
LnGrp LOS	E	C		E	C	C	D		D	D		D
Approach Vol, veh/h		2215			1506			632			417	
Approach Delay, s/veh		34.4			30.5			49.5			43.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		30.8	7.1	60.0		21.4	15.1	52.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	7.0	56.0		34.0	15.0	48.0
Max Q Clear Time (g_c+I1), s		23.3	3.4	44.2		14.5	11.1	27.5
Green Ext Time (p_c), s		2.6	2.0	9.2		1.4	0.1	9.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1310	760	50	570	350	60
Future Volume (veh/h)	1310	760	50	570	350	60
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1394	809	53	606	372	64
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1402	740	92	2531	410	448
Arrive On Green	0.61	0.61	0.05	0.70	0.23	0.23
Sat Flow, veh/h	2377	1204	1810	3705	1810	1615
Grp Volume(v), veh/h	1073	1130	53	606	372	64
Grp Sat Flow(s),veh/h/ln	1805	1682	1810	1805	1810	1615
Q Serve(g_s), s	62.7	68.0	3.2	6.7	22.2	3.3
Cycle Q Clear(g_c), s	62.7	68.0	3.2	6.7	22.2	3.3
Prop In Lane		0.72	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1109	1033	92	2531	410	448
V/C Ratio(X)	0.97	1.09	0.58	0.24	0.91	0.14
Avail Cap(c_a), veh/h	1109	1033	114	2576	539	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	21.4	51.4	5.9	41.7	30.1
Incr Delay (d2), s/veh	19.7	57.2	5.6	0.0	15.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.1	47.7	1.7	3.3	12.9	1.5
LnGrp Delay(d),s/veh	40.1	78.6	57.0	6.0	57.6	30.2
LnGrp LOS	D	F	E	A	E	C
Approach Vol, veh/h	2203			659	436	
Approach Delay, s/veh	59.8			10.1	53.6	
Approach LOS	E			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		29.1	9.6	72.0				81.6
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		33.0	7.0	68.0				79.0
Max Q Clear Time (g_c+I1), s		24.2	5.2	70.0				8.7
Green Ext Time (p_c), s		0.9	0.0	0.0				47.0

Intersection Summary			
HCM 2010 Ctrl Delay			49.1
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	770	540	310	390	110	230	160	350	220	430	10
Future Volume (veh/h)	10	770	540	310	390	110	230	160	350	220	430	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	811	568	326	411	116	242	168	368	232	453	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	321	1430	443	426	610	170	285	367	310	325	779	348
Arrive On Green	0.18	0.28	0.28	0.12	0.22	0.22	0.16	0.19	0.19	0.18	0.22	0.00
Sat Flow, veh/h	1810	5187	1606	3510	2781	777	1810	1900	1602	1810	3610	1615
Grp Volume(v), veh/h	11	811	568	326	265	262	242	168	368	232	453	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1606	1755	1805	1752	1810	1900	1602	1810	1805	1615
Q Serve(g_s), s	0.4	9.3	12.0	6.3	9.4	9.5	9.1	5.4	9.5	8.4	7.8	0.0
Cycle Q Clear(g_c), s	0.4	9.3	12.0	6.3	9.4	9.5	9.1	5.4	9.5	8.4	7.8	0.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	1430	443	426	396	385	285	367	310	325	779	348
V/C Ratio(X)	0.03	0.57	1.28	0.76	0.67	0.68	0.85	0.46	1.19	0.71	0.58	0.00
Avail Cap(c_a), veh/h	321	1863	577	504	726	705	286	764	645	546	1971	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.7	21.6	9.8	29.6	24.9	24.9	28.5	24.9	14.0	26.9	24.5	0.0
Incr Delay (d2), s/veh	0.0	0.4	143.3	5.8	2.0	2.1	20.8	0.9	95.5	2.9	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.5	23.6	3.4	4.9	4.8	6.1	2.9	12.9	4.5	4.0	0.0
LnGrp Delay(d),s/veh	23.7	22.0	153.1	35.4	26.8	27.0	49.3	25.7	109.5	29.8	25.2	0.0
LnGrp LOS	C	C	F	D	C	C	D	C	F	C	C	
Approach Vol, veh/h		1390			853			778			685	
Approach Delay, s/veh		75.6			30.2			72.7			26.7	
Approach LOS		E			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	17.4	12.5	23.2	15.0	19.0	16.4	19.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	28.0	10.0	25.0	11.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	10.4	11.5	8.3	14.0	11.1	9.8	2.4	11.5
Green Ext Time (p_c), s	1.1	1.9	0.2	5.2	0.0	2.8	2.8	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	55.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↗					↑↑	↗	↰↰	↑↑	
Traffic Volume (veh/h)	10	10	70	0	0	0	0	540	790	640	760	0
Future Volume (veh/h)	10	10	70	0	0	0	0	540	790	640	760	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	11	0	81				0	574	840	681	809	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	151	0	269				0	1805	807	861	2897	0
Arrive On Green	0.08	0.00	0.08				0.00	0.50	0.50	0.25	0.80	0.00
Sat Flow, veh/h	1810	0	3230				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	11	0	81				0	574	840	681	809	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1755	1805	0
Q Serve(g_s), s	0.4	0.0	1.7				0.0	6.6	35.0	12.7	4.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	1.7				0.0	6.6	35.0	12.7	4.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	151	0	269				0	1805	807	861	2897	0
V/C Ratio(X)	0.07	0.00	0.30				0.00	0.32	1.04	0.79	0.28	0.00
Avail Cap(c_a), veh/h	181	0	323				0	1805	807	861	2897	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.76	0.76	0.87	0.87	0.00
Uniform Delay (d), s/veh	29.6	0.0	30.2				0.0	10.4	17.5	24.7	1.8	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.6				0.0	0.4	38.7	4.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8				0.0	3.4	23.9	6.7	2.0	0.0
LnGrp Delay(d),s/veh	29.8	0.0	30.8				0.0	10.8	56.2	29.2	2.0	0.0
LnGrp LOS	C		C					B	F	C	A	
Approach Vol, veh/h		92						1414			1490	
Approach Delay, s/veh		30.7						37.8			14.4	
Approach LOS		C						D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			21.2	39.0		9.8		60.2
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			16.0	35.0		7.0		55.0
Max Q Clear Time (g_c+I1), s			14.7	37.0		3.7		6.0
Green Ext Time (p_c), s			0.9	0.0		0.1		9.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	340	210	530	0	0	1080
Future Volume (veh/h)	340	210	530	0	0	1080
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	362	223	564	0	0	1149
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	632	291	2548	0	0	2548
Arrive On Green	0.18	0.18	1.00	0.00	0.00	0.71
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	362	223	564	0	0	1149
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	6.6	9.2	0.0	0.0	0.0	9.6
Cycle Q Clear(g_c), s	6.6	9.2	0.0	0.0	0.0	9.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	632	291	2548	0	0	2548
V/C Ratio(X)	0.57	0.77	0.22	0.00	0.00	0.45
Avail Cap(c_a), veh/h	953	438	2548	0	0	2548
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	27.3	0.0	0.0	0.0	4.4
Incr Delay (d2), s/veh	0.8	4.5	0.2	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.5	0.1	0.0	0.0	4.8
LnGrp Delay(d),s/veh	27.1	31.8	0.2	0.0	0.0	5.0
LnGrp LOS	C	C	A			A
Approach Vol, veh/h	585		564			1149
Approach Delay, s/veh	28.9		0.2			5.0
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		53.4				53.4		16.6
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		43.0				43.0		19.0
Max Q Clear Time (g_c+I1), s		2.0				11.6		11.2
Green Ext Time (p_c), s		17.1				15.2		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	2460	20	220	2060	860	130
Future Volume (veh/h)	2460	20	220	2060	860	130
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2510	20	224	2102	674	352
Adj No. of Lanes	3	0	2	3	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2654	21	347	3404	829	370
Arrive On Green	0.50	0.50	0.10	0.66	0.23	0.23
Sat Flow, veh/h	5479	42	3510	5358	3619	1615
Grp Volume(v), veh/h	1634	896	224	2102	674	352
Grp Sat Flow(s),veh/h/ln	1729	1892	1755	1729	1810	1615
Q Serve(g_s), s	31.3	31.4	4.3	16.4	12.3	15.0
Cycle Q Clear(g_c), s	31.3	31.4	4.3	16.4	12.3	15.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1729	946	347	3404	829	370
V/C Ratio(X)	0.94	0.95	0.64	0.62	0.81	0.95
Avail Cap(c_a), veh/h	1733	949	352	3417	829	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	16.6	30.3	6.9	25.5	26.5
Incr Delay (d2), s/veh	11.2	17.8	3.9	0.3	6.2	34.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.4	20.9	2.3	7.7	6.9	10.1
LnGrp Delay(d),s/veh	27.7	34.4	34.2	7.3	31.7	60.7
LnGrp LOS	C	C	C	A	C	E
Approach Vol, veh/h	2530			2326	1026	
Approach Delay, s/veh	30.1			9.9	41.7	
Approach LOS	C			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		20.0	10.9	38.9				49.8
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		16.0	7.0	35.0				46.0
Max Q Clear Time (g_c+I1), s		17.0	6.3	33.4				18.4
Green Ext Time (p_c), s		0.0	0.7	1.5				18.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	50	2470	130	240	1840	140	150	150	300	180	160	40
Future Volume (veh/h)	50	2470	130	240	1840	140	150	150	300	180	160	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	2600	137	253	1937	147	158	158	316	189	168	42
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	2544	790	215	2262	171	614	419	353	159	383	93
Arrive On Green	0.09	0.49	0.49	0.06	0.46	0.46	0.17	0.22	0.22	0.09	0.13	0.13
Sat Flow, veh/h	1810	5187	1610	3510	4918	372	3510	1900	1604	1810	2873	699
Grp Volume(v), veh/h	53	2600	137	253	1359	725	158	158	316	189	104	106
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1832	1755	1900	1604	1810	1805	1767
Q Serve(g_s), s	3.1	56.0	2.8	7.0	39.9	40.4	4.4	8.1	18.2	10.0	6.0	6.3
Cycle Q Clear(g_c), s	3.1	56.0	2.8	7.0	39.9	40.4	4.4	8.1	18.2	10.0	6.0	6.3
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	166	2544	790	215	1590	843	614	419	353	159	240	235
V/C Ratio(X)	0.32	1.02	0.17	1.18	0.85	0.86	0.26	0.38	0.89	1.19	0.43	0.45
Avail Cap(c_a), veh/h	166	2544	790	215	1696	899	614	766	646	159	775	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	29.1	4.4	53.6	27.4	27.6	40.7	37.8	29.9	52.1	45.5	45.6
Incr Delay (d2), s/veh	1.1	23.6	0.1	116.8	4.3	8.1	0.2	0.6	8.0	132.5	1.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	32.2	2.2	6.9	20.0	22.2	2.2	4.3	8.8	10.8	3.1	3.2
LnGrp Delay(d),s/veh	49.6	52.7	4.5	170.4	31.7	35.7	40.9	38.4	37.8	184.6	46.7	47.0
LnGrp LOS	D	F	A	F	C	D	D	D	D	F	D	D
Approach Vol, veh/h		2790			2337			632			399	
Approach Delay, s/veh		50.3			48.0			38.7			112.1	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	29.2	11.0	60.0	24.0	19.2	14.5	56.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	46.0	7.0	56.0	7.0	49.0	7.0	56.0
Max Q Clear Time (g_c+I1), s	12.0	20.2	9.0	58.0	6.4	8.3	5.1	42.4
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.1	1.3	1.8	10.1

Intersection Summary	
HCM 2010 Ctrl Delay	52.2
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	180	1130	740	210	640	200	240	430	100	250	830	220
Future Volume (veh/h)	180	1130	740	210	640	200	240	430	100	250	830	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	188	1177	771	219	667	208	250	448	104	260	865	229
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	217	1316	732	239	1359	753	317	1040	676	321	1044	658
Arrive On Green	0.12	0.36	0.36	0.13	0.38	0.38	0.09	0.29	0.29	0.09	0.29	0.29
Sat Flow, veh/h	1810	3610	1608	1810	3610	1609	3510	3610	1607	3510	3610	1607
Grp Volume(v), veh/h	188	1177	771	219	667	208	250	448	104	260	865	229
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1609	1755	1805	1607	1755	1805	1607
Q Serve(g_s), s	13.2	39.6	47.0	15.4	18.2	10.2	9.0	13.0	5.2	9.4	28.9	12.7
Cycle Q Clear(g_c), s	13.2	39.6	47.0	15.4	18.2	10.2	9.0	13.0	5.2	9.4	28.9	12.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	1316	732	239	1359	753	317	1040	676	321	1044	658
V/C Ratio(X)	0.87	0.89	1.05	0.92	0.49	0.28	0.79	0.43	0.15	0.81	0.83	0.35
Avail Cap(c_a), veh/h	337	1316	732	239	1359	753	681	1344	811	463	1120	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	38.6	35.2	55.3	30.7	21.0	57.4	37.3	23.2	57.5	42.8	26.3
Incr Delay (d2), s/veh	13.6	8.2	48.1	36.8	0.3	0.2	4.4	0.3	0.1	6.9	5.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	21.3	35.7	10.2	9.1	4.6	4.6	6.5	2.3	4.9	15.1	5.7
LnGrp Delay(d),s/veh	69.3	46.9	83.2	92.1	31.0	21.2	61.8	37.6	23.3	64.4	47.9	26.6
LnGrp LOS	E	D	F	F	C	C	E	D	C	E	D	C
Approach Vol, veh/h		2136			1094			802			1354	
Approach Delay, s/veh		62.0			41.4			43.3			47.4	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	41.2	21.0	51.0	15.7	41.3	19.4	52.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	48.0	17.0	47.0	25.0	40.0	24.0	40.0
Max Q Clear Time (g_c+I1), s	11.4	15.0	17.4	49.0	11.0	30.9	15.2	20.2
Green Ext Time (p_c), s	0.4	12.2	0.0	0.0	0.7	5.9	0.3	15.3

Intersection Summary	
HCM 2010 Ctrl Delay	51.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	140	1370	770	510	680	230
Future Volume (veh/h)	140	1370	770	510	680	230
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	1457	819	543	723	245
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	194	2128	1498	1112	1000	620
Arrive On Green	0.11	0.59	0.41	0.41	0.28	0.28
Sat Flow, veh/h	1810	3705	3705	1605	3619	1615
Grp Volume(v), veh/h	149	1457	819	543	723	245
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1605	1810	1615
Q Serve(g_s), s	4.8	16.6	10.2	9.4	10.8	6.6
Cycle Q Clear(g_c), s	4.8	16.6	10.2	9.4	10.8	6.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	194	2128	1498	1112	1000	620
V/C Ratio(X)	0.77	0.68	0.55	0.49	0.72	0.40
Avail Cap(c_a), veh/h	213	2301	1635	1173	2064	1095
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	8.4	13.2	4.3	19.5	13.3
Incr Delay (d2), s/veh	14.2	0.8	0.3	0.3	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	8.3	5.1	7.9	5.5	6.6
LnGrp Delay(d),s/veh	40.1	9.2	13.5	4.6	20.5	13.8
LnGrp LOS	D	A	B	A	C	B
Approach Vol, veh/h		1606	1362		968	
Approach Delay, s/veh		12.1	10.0		18.8	
Approach LOS		B	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				39.1		20.5	10.4	28.7
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				38.0		34.0	7.0	27.0
Max Q Clear Time (g_c+I1), s				18.6		12.8	6.8	12.2
Green Ext Time (p_c), s				15.7		3.7	0.0	12.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	200	1140	900	250	310	100	500	340	390	230	410	250
Future Volume (veh/h)	200	1140	900	250	310	100	500	340	390	230	410	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	222	1267	1000	278	344	111	556	378	433	256	456	278
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1019	2028	918	236	607	269	628	1158	516	236	755	804
Arrive On Green	0.29	0.39	0.39	0.07	0.17	0.17	0.18	0.32	0.32	0.07	0.21	0.21
Sat Flow, veh/h	3510	5187	1609	3510	3610	1601	3510	3610	1607	3510	3610	1603
Grp Volume(v), veh/h	222	1267	1000	278	344	111	556	378	433	256	456	278
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1805	1601	1755	1805	1607	1755	1805	1603
Q Serve(g_s), s	5.0	20.5	30.1	7.0	9.1	5.3	16.1	8.3	26.1	7.0	11.9	0.0
Cycle Q Clear(g_c), s	5.0	20.5	30.1	7.0	9.1	5.3	16.1	8.3	26.1	7.0	11.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1019	2028	918	236	607	269	628	1158	516	236	755	804
V/C Ratio(X)	0.22	0.62	1.09	1.18	0.57	0.41	0.89	0.33	0.84	1.08	0.60	0.35
Avail Cap(c_a), veh/h	1019	2193	969	236	1526	677	628	1596	710	236	1526	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	25.5	11.6	48.5	39.8	26.5	41.7	26.8	32.9	48.5	37.2	15.7
Incr Delay (d2), s/veh	0.1	0.5	57.1	115.0	0.8	1.0	14.3	0.2	6.5	82.8	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	9.8	30.4	7.1	4.6	2.7	9.0	4.1	12.4	6.1	6.0	4.8
LnGrp Delay(d),s/veh	28.1	26.0	68.8	163.5	40.6	27.5	56.0	27.0	39.4	131.3	38.0	16.0
LnGrp LOS	C	C	F	F	D	C	E	C	D	F	D	B
Approach Vol, veh/h		2489			733			1367			990	
Approach Delay, s/veh		43.4			85.2			42.7			56.0	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.4	11.0	44.7	22.6	25.8	34.2	21.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	9.0	44.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	9.0	28.1	9.0	32.1	18.1	13.9	7.0	11.1
Green Ext Time (p_c), s	0.0	3.7	0.0	8.5	0.0	4.3	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	51.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	580	1050	10	340	0	0	0	0	10	10	270
Future Volume (veh/h)	0	580	1050	10	340	0	0	0	0	10	10	270
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	637	1154	11	374	0				11	11	297
Adj No. of Lanes	0	1	2	1	2	0				1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	966	1642	279	1835	0				469	15	406
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	1900	3230	268	3705	0				1810	58	1566
Grp Volume(v), veh/h	0	637	1154	11	374	0				11	0	308
Grp Sat Flow(s),veh/h/ln	0	1900	1615	268	1805	0				1810	0	1624
Q Serve(g_s), s	0.0	8.5	9.4	1.1	2.0	0.0				0.2	0.0	6.0
Cycle Q Clear(g_c), s	0.0	8.5	9.4	9.6	2.0	0.0				0.2	0.0	6.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.96
Lane Grp Cap(c), veh/h	0	966	1642	279	1835	0				469	0	421
V/C Ratio(X)	0.00	0.66	0.70	0.04	0.20	0.00				0.02	0.00	0.73
Avail Cap(c_a), veh/h	0	1048	1781	290	1991	0				945	0	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.3	6.5	9.8	4.6	0.0				9.5	0.0	11.7
Incr Delay (d2), s/veh	0.0	1.4	1.2	0.1	0.1	0.0				0.0	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.8	4.3	0.1	0.9	0.0				0.1	0.0	2.9
LnGrp Delay(d),s/veh	0.0	7.6	7.6	9.9	4.7	0.0				9.5	0.0	14.1
LnGrp LOS		A	A	A	A					A		B
Approach Vol, veh/h		1791			385						319	
Approach Delay, s/veh		7.6			4.8						14.0	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.5		12.9		21.5
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				19.0		18.0		19.0
Max Q Clear Time (g_c+I1), s				11.4		8.0		11.6
Green Ext Time (p_c), s				6.0		1.4		5.9

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	260.8
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1390	0	850	460	0	0
Future Vol, veh/h	1390	0	850	460	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1562	0	955	517	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	249.3	272.9
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	31%	100%	100%
Vol Thru, %	0%	69%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	646	664	695	695
LT Vol	646	204	695	695
Through Vol	0	460	0	0
RT Vol	0	0	0	0
Lane Flow Rate	726	746	781	781
Geometry Grp	7	7	7	7
Degree of Util (X)	1.549	1.521	1.667	1.299
Departure Headway (Hd)	8.297	7.946	8.28	6.563
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	443	463	445	562
Service Time	5.997	5.646	5.98	4.263
HCM Lane V/C Ratio	1.639	1.611	1.755	1.39
HCM Control Delay	279.6	266.4	330.6	168
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	36.7	36.6	42.6	29.5

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	40	30	690	30	240	40	440	1250	730	900	0
Future Volume (veh/h)	20	40	30	690	30	240	40	440	1250	730	900	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	43	32	742	32	258	43	473	1344	785	968	0
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	61	125	93	471	427	361	364	1488	663	471	1246	557
Arrive On Green	0.03	0.12	0.12	0.13	0.22	0.22	0.20	0.41	0.41	0.13	0.35	0.00
Sat Flow, veh/h	1810	1007	750	3510	1900	1604	1810	3610	1609	3510	3610	1615
Grp Volume(v), veh/h	22	0	75	742	32	258	43	473	1344	785	968	0
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1755	1900	1604	1810	1805	1609	1755	1805	1615
Q Serve(g_s), s	1.0	0.0	3.2	11.0	1.1	8.5	1.6	7.3	20.5	11.0	19.7	0.0
Cycle Q Clear(g_c), s	1.0	0.0	3.2	11.0	1.1	8.5	1.6	7.3	20.5	11.0	19.7	0.0
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	0	218	471	427	361	364	1488	663	471	1246	557
V/C Ratio(X)	0.36	0.00	0.34	1.57	0.07	0.72	0.12	0.32	2.03	1.67	0.78	0.00
Avail Cap(c_a), veh/h	155	0	772	471	927	783	364	1806	805	471	1982	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.7	0.0	32.8	35.5	25.0	14.4	26.8	16.3	8.8	35.5	24.0	0.0
Incr Delay (d2), s/veh	3.6	0.0	0.9	268.7	0.1	2.7	0.1	0.1	467.4	308.9	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.6	22.9	0.6	4.7	0.8	3.6	95.0	25.5	10.0	0.0
LnGrp Delay(d),s/veh	42.3	0.0	33.8	304.1	25.1	17.1	26.9	16.4	476.2	344.4	25.1	0.0
LnGrp LOS	D		C	F	C	B	C	B	F	F	C	
Approach Vol, veh/h		97			1032			1860			1753	
Approach Delay, s/veh		35.7			223.7			348.9			168.1	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	37.8	15.0	14.2	20.5	32.3	6.8	22.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	11.0	36.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	13.0	22.5	13.0	5.2	3.6	21.7	3.0	10.5
Green Ext Time (p_c), s	0.0	10.9	0.0	1.5	1.2	6.6	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	248.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥		↰	↱	
Traffic Volume (veh/h)	230	1580	90	40	750	60	30	30	30	90	60	180
Future Volume (veh/h)	230	1580	90	40	750	60	30	30	30	90	60	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	1663	95	42	789	63	32	32	32	95	63	189
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	290	1902	108	100	1500	120	113	110	78	350	96	288
Arrive On Green	0.16	0.55	0.55	0.06	0.44	0.44	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	3472	197	1810	3385	270	200	478	339	1353	417	1252
Grp Volume(v), veh/h	242	859	899	42	421	431	96	0	0	95	0	252
Grp Sat Flow(s),veh/h/ln	1810	1805	1864	1810	1805	1851	1018	0	0	1353	0	1669
Q Serve(g_s), s	9.3	29.6	30.3	1.6	12.2	12.2	0.4	0.0	0.0	0.0	0.0	9.8
Cycle Q Clear(g_c), s	9.3	29.6	30.3	1.6	12.2	12.2	10.3	0.0	0.0	6.4	0.0	9.8
Prop In Lane	1.00		0.11	1.00		0.15	0.33		0.33	1.00		0.75
Lane Grp Cap(c), veh/h	290	989	1021	100	800	820	301	0	0	350	0	384
V/C Ratio(X)	0.84	0.87	0.88	0.42	0.53	0.53	0.32	0.00	0.00	0.27	0.00	0.66
Avail Cap(c_a), veh/h	402	1053	1088	176	828	849	660	0	0	678	0	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	14.0	14.2	32.9	14.6	14.6	22.8	0.0	0.0	23.8	0.0	25.1
Incr Delay (d2), s/veh	10.4	7.6	8.2	2.8	0.6	0.6	0.6	0.0	0.0	0.4	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	16.7	17.8	0.9	6.1	6.2	1.6	0.0	0.0	1.6	0.0	4.8
LnGrp Delay(d),s/veh	39.7	21.7	22.4	35.7	15.1	15.1	23.4	0.0	0.0	24.2	0.0	27.0
LnGrp LOS	D	C	C	D	B	B	C			C		C
Approach Vol, veh/h		2000			894			96			347	
Approach Delay, s/veh		24.2			16.1			23.4			26.2	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.6	8.0	43.4		20.6	15.5	35.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	42.0		34.0	16.0	33.0
Max Q Clear Time (g_c+I1), s		12.3	3.6	32.3		11.8	11.3	14.2
Green Ext Time (p_c), s		2.4	1.6	7.1		2.4	0.3	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	60	1480	180	150	720	230	170	600	200	480	720	90
Future Volume (veh/h)	60	1480	180	150	720	230	170	600	200	480	720	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	1526	186	155	742	237	175	619	206	495	742	93
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	1465	176	149	1768	1010	186	794	485	480	820	103
Arrive On Green	0.04	0.45	0.45	0.08	0.49	0.49	0.10	0.22	0.22	0.14	0.25	0.25
Sat Flow, veh/h	1810	3244	391	1810	3610	1610	1810	3610	1604	3510	3227	404
Grp Volume(v), veh/h	62	841	871	155	742	237	175	619	206	495	415	420
Grp Sat Flow(s),veh/h/ln	1810	1805	1830	1810	1805	1610	1810	1805	1604	1755	1805	1826
Q Serve(g_s), s	5.0	66.0	66.0	12.0	19.3	9.4	14.0	23.6	15.0	20.0	32.5	32.6
Cycle Q Clear(g_c), s	5.0	66.0	66.0	12.0	19.3	9.4	14.0	23.6	15.0	20.0	32.5	32.6
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	80	815	826	149	1768	1010	186	794	485	480	459	464
V/C Ratio(X)	0.78	1.03	1.05	1.04	0.42	0.23	0.94	0.78	0.42	1.03	0.90	0.91
Avail Cap(c_a), veh/h	136	815	826	149	1768	1010	186	889	528	480	506	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	40.1	40.1	67.1	23.9	11.9	65.1	53.7	40.8	63.1	52.8	52.8
Incr Delay (d2), s/veh	14.9	39.9	46.5	85.7	0.2	0.1	49.5	4.0	0.6	49.0	18.7	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	41.9	44.0	9.5	9.6	4.2	9.6	12.2	6.7	12.9	18.6	18.8
LnGrp Delay(d),s/veh	84.0	79.9	86.6	153.0	24.1	12.1	114.6	57.7	41.4	112.1	71.4	71.4
LnGrp LOS	F	F	F	F	C	B	F	E	D	F	E	E
Approach Vol, veh/h		1774			1134			1000			1330	
Approach Delay, s/veh		83.3			39.2			64.3			86.6	
Approach LOS		F			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	36.1	16.0	70.0	19.0	41.1	10.4	75.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	36.0	12.0	66.0	15.0	41.0	11.0	67.0
Max Q Clear Time (g_c+I1), s	22.0	25.6	14.0	68.0	16.0	34.6	7.0	21.3
Green Ext Time (p_c), s	0.0	3.7	0.0	0.0	0.0	2.5	0.0	29.8

Intersection Summary	
HCM 2010 Ctrl Delay	71.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	50	50	1690	110	120	1530
Future Volume (veh/h)	50	50	1690	110	120	1530
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	54	1817	118	129	1645
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	181	161	2115	942	192	2749
Arrive On Green	0.10	0.10	0.59	0.59	0.11	0.76
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	54	54	1817	118	129	1645
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	1.6	1.8	24.2	1.9	4.0	11.5
Cycle Q Clear(g_c), s	1.6	1.8	24.2	1.9	4.0	11.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	181	161	2115	942	192	2749
V/C Ratio(X)	0.30	0.33	0.86	0.13	0.67	0.60
Avail Cap(c_a), veh/h	220	196	2129	948	220	2817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	24.2	9.9	5.3	24.8	3.0
Incr Delay (d2), s/veh	0.9	1.2	3.8	0.1	6.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	13.0	0.8	2.3	5.6
LnGrp Delay(d),s/veh	25.0	25.4	13.7	5.4	31.3	3.4
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	108		1935			1774
Approach Delay, s/veh	25.2		13.2			5.4
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.1	37.8				47.9		9.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	34.0				45.0		7.0
Max Q Clear Time (g_c+I1), s	6.0	26.2				13.5		3.8
Green Ext Time (p_c), s	0.0	7.6				28.9		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	60	1640	210	590	1040	250	0	0	0	680	100	330
Future Volume (veh/h)	60	1640	210	590	1040	250	0	0	0	680	100	330
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	61	1673	0	602	1061	0				767	0	337
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	97	1608	719	705	2139	957				885	0	479
Arrive On Green	0.05	0.45	0.00	0.20	0.59	0.00				0.24	0.00	0.24
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1605
Grp Volume(v), veh/h	61	1673	0	602	1061	0				767	0	337
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1605
Q Serve(g_s), s	3.6	49.0	0.0	18.2	18.7	0.0				22.3	0.0	20.5
Cycle Q Clear(g_c), s	3.6	49.0	0.0	18.2	18.7	0.0				22.3	0.0	20.5
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	97	1608	719	705	2139	957				885	0	479
V/C Ratio(X)	0.63	1.04	0.00	0.85	0.50	0.00				0.87	0.00	0.70
Avail Cap(c_a), veh/h	247	1608	719	705	2139	957				987	0	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.88	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	51.0	30.5	0.0	42.4	12.9	0.0				39.8	0.0	34.3
Incr Delay (d2), s/veh	6.5	33.7	0.0	8.9	0.7	0.0				7.6	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	31.9	0.0	9.6	9.5	0.0				12.1	0.0	9.6
LnGrp Delay(d),s/veh	57.4	64.2	0.0	51.3	13.7	0.0				47.5	0.0	38.1
LnGrp LOS	E	F		D	B					D		D
Approach Vol, veh/h		1734			1663						1104	
Approach Delay, s/veh		64.0			27.3						44.6	
Approach LOS		E			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			26.1	53.0		30.9	9.9	69.2
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			19.0	49.0		30.0	15.0	53.0
Max Q Clear Time (g_c+I1), s			20.2	51.0		24.3	5.6	20.7
Green Ext Time (p_c), s			0.0	0.0		2.3	0.1	11.9

Intersection Summary		
HCM 2010 Ctrl Delay		45.7
HCM 2010 LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1780	460	180	1630	280	230	0	1060	0	0	0
Future Volume (veh/h)	0	1780	460	180	1630	280	230	0	1060	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1854	479	188	1698	0	240	0	0			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1838	966	525	4334	1349	322	0	261			
Arrive On Green	0.00	0.34	0.34	0.58	1.00	0.00	0.09	0.00	0.00			
Sat Flow, veh/h	0	3705	1607	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1854	479	188	1698	0	240	0	0			
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	56.0	21.9	6.1	0.0	0.0	7.3	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	56.0	21.9	6.1	0.0	0.0	7.3	0.0	0.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1838	966	525	4334	1349	322	0	261			
V/C Ratio(X)	0.00	1.01	0.50	0.36	0.39	0.00	0.75	0.00	0.00			
Avail Cap(c_a), veh/h	0	1838	966	525	4334	1349	957	0	775			
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.12	0.12	0.48	0.48	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	36.2	17.6	17.7	0.0	0.0	48.7	0.0	0.0			
Incr Delay (d2), s/veh	0.0	9.5	0.2	0.2	0.1	0.0	3.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	30.3	12.0	3.0	0.1	0.0	3.7	0.0	0.0			
LnGrp Delay(d),s/veh	0.0	45.7	17.9	17.9	0.1	0.0	52.1	0.0	0.0			
LnGrp LOS		F	B	B	A		D					
Approach Vol, veh/h		2333			1886			240				
Approach Delay, s/veh		40.0			1.9			52.1				
Approach LOS		D			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		14.1	35.9	60.0				95.9
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		30.0	12.0	56.0				72.0
Max Q Clear Time (g_c+I1), s		9.3	8.1	58.0				2.0
Green Ext Time (p_c), s		0.8	3.3	0.0				21.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✣			✣	
Traffic Volume (veh/h)	10	1400	290	50	2450	0	460	0	170	0	0	10
Future Volume (veh/h)	10	1400	290	50	2450	0	460	0	170	0	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	1458	302	52	2552	0	328	211	177	0	0	10
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	250	1996	412	267	2452	0	456	267	224	0	0	450
Arrive On Green	0.28	0.93	0.93	0.15	0.47	0.00	0.28	0.28	0.28	0.00	0.00	0.28
Sat Flow, veh/h	1810	4306	889	1810	5358	0	1420	954	800	0	0	1606
Grp Volume(v), veh/h	10	1170	590	52	2552	0	328	0	388	0	0	10
Grp Sat Flow(s),veh/h/ln	1810	1729	1737	1810	1729	0	1420	0	1754	0	0	1606
Q Serve(g_s), s	0.4	8.4	8.5	2.8	52.0	0.0	24.0	0.0	22.5	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.4	8.4	8.5	2.8	52.0	0.0	24.4	0.0	22.5	0.0	0.0	0.5
Prop In Lane	1.00		0.51	1.00		0.00	1.00		0.46	0.00		1.00
Lane Grp Cap(c), veh/h	250	1603	806	267	2452	0	456	0	491	0	0	450
V/C Ratio(X)	0.04	0.73	0.73	0.19	1.04	0.00	0.72	0.00	0.79	0.00	0.00	0.02
Avail Cap(c_a), veh/h	250	1603	806	267	2452	0	562	0	622	0	0	570
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	34.4	2.4	2.5	41.2	29.0	0.0	37.6	0.0	36.6	0.0	0.0	28.7
Incr Delay (d2), s/veh	0.0	0.3	0.5	0.4	29.9	0.0	3.4	0.0	5.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.3	3.4	1.4	31.5	0.0	9.8	0.0	11.6	0.0	0.0	0.2
LnGrp Delay(d),s/veh	34.5	2.7	3.0	41.5	58.9	0.0	41.0	0.0	42.0	0.0	0.0	28.7
LnGrp LOS	C	A	A	D	F		D		D			C
Approach Vol, veh/h		1770			2604			716			10	
Approach Delay, s/veh		3.0			58.5			41.5			28.7	
Approach LOS		A			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.8	20.2	55.0		34.8	19.2	56.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	8.0	51.0		39.0	7.0	52.0
Max Q Clear Time (g_c+I1), s		26.4	4.8	10.5		2.5	2.4	54.0
Green Ext Time (p_c), s		3.0	0.0	17.5		3.9	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			36.8
HCM 2010 LOS			D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱			↰↑	↱
Traffic Volume (veh/h)	100	2250	90	20	1580	10	80	10	10	10	20	90
Future Volume (veh/h)	100	2250	90	20	1580	10	80	10	10	10	20	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	104	2344	94	21	1646	10	83	10	10	10	21	94
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	262	2840	113	123	2953	18	207	108	108	92	170	199
Arrive On Green	0.80	0.80	0.80	0.80	0.80	0.80	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	306	3539	141	142	3679	22	1285	867	867	393	1366	1596
Grp Volume(v), veh/h	104	1188	1250	21	807	849	83	0	20	31	0	94
Grp Sat Flow(s),veh/h/ln	306	1805	1875	142	1805	1896	1285	0	1735	1759	0	1596
Q Serve(g_s), s	20.3	41.8	43.5	11.3	17.6	17.6	6.8	0.0	1.1	0.0	0.0	6.0
Cycle Q Clear(g_c), s	37.8	41.8	43.5	54.8	17.6	17.6	8.4	0.0	1.1	1.6	0.0	6.0
Prop In Lane	1.00		0.08	1.00		0.01	1.00		0.50	0.32		1.00
Lane Grp Cap(c), veh/h	262	1449	1505	123	1449	1522	207	0	216	262	0	199
V/C Ratio(X)	0.40	0.82	0.83	0.17	0.56	0.56	0.40	0.00	0.09	0.12	0.00	0.47
Avail Cap(c_a), veh/h	262	1449	1505	123	1449	1522	432	0	520	561	0	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.43	0.43	0.43	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.6	6.3	6.4	22.7	3.9	3.9	46.6	0.0	42.6	42.8	0.0	44.8
Incr Delay (d2), s/veh	4.4	5.3	5.5	1.3	0.7	0.6	1.3	0.0	0.2	0.2	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	22.3	24.2	0.5	8.8	9.2	2.5	0.0	0.5	0.8	0.0	2.8
LnGrp Delay(d),s/veh	15.1	11.6	11.9	23.9	4.5	4.5	47.8	0.0	42.8	43.0	0.0	46.5
LnGrp LOS	B	B	B	C	A	A	D		D	D		D
Approach Vol, veh/h		2542			1677			103			125	
Approach Delay, s/veh		11.9			4.8			46.9			45.7	
Approach LOS		B			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		17.7		92.3		17.7		92.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		69.0		33.0		69.0
Max Q Clear Time (g_c+I1), s		10.4		45.5		8.0		56.8
Green Ext Time (p_c), s		0.8		23.2		0.8		12.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	140	2090	20	430	1480	40	20	190	630	190	270	120
Future Volume (veh/h)	140	2090	20	430	1480	40	20	190	630	190	270	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	2177	21	448	1542	42	21	198	656	198	281	125
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	1472	14	221	1567	43	264	506	625	126	362	305
Arrive On Green	0.09	0.40	0.40	0.12	0.44	0.44	0.15	0.27	0.27	0.07	0.19	0.19
Sat Flow, veh/h	1810	3663	35	1810	3590	98	1810	1900	1606	1810	1900	1602
Grp Volume(v), veh/h	146	1071	1127	448	774	810	21	198	656	198	281	125
Grp Sat Flow(s),veh/h/ln	1810	1805	1894	1810	1805	1882	1810	1900	1606	1810	1900	1602
Q Serve(g_s), s	9.2	46.0	46.0	14.0	48.4	48.7	1.1	9.8	25.4	8.0	16.1	6.3
Cycle Q Clear(g_c), s	9.2	46.0	46.0	14.0	48.4	48.7	1.1	9.8	25.4	8.0	16.1	6.3
Prop In Lane	1.00		0.02	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	725	761	221	788	822	264	506	625	126	362	305
V/C Ratio(X)	0.92	1.48	1.48	2.02	0.98	0.99	0.08	0.39	1.05	1.57	0.78	0.41
Avail Cap(c_a), veh/h	158	725	761	221	788	822	264	597	702	126	614	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	34.3	34.3	50.3	31.8	31.9	42.3	34.4	23.6	53.3	44.0	26.4
Incr Delay (d2), s/veh	49.7	221.9	223.8	476.7	27.5	27.7	0.1	0.5	47.7	289.4	3.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	67.5	71.2	36.2	30.1	31.5	0.6	5.2	22.7	14.1	8.8	3.3
LnGrp Delay(d),s/veh	101.5	256.2	258.1	527.0	59.3	59.6	42.4	34.9	71.3	342.7	47.6	27.3
LnGrp LOS	F	F	F	F	E	E	D	C	F	F	D	C
Approach Vol, veh/h		2344			2032			875			604	
Approach Delay, s/veh		247.5			162.5			62.4			140.1	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	34.5	18.0	50.0	20.7	25.8	14.0	54.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	36.0	14.0	46.0	7.0	37.0	10.0	50.0
Max Q Clear Time (g_c+I1), s	10.0	27.4	16.0	48.0	3.1	18.1	11.2	50.7
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	1.5	1.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	179.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	60	1170	1620	520	830	270	1010	1180	210	480	1710	50
Future Volume (veh/h)	60	1170	1620	520	830	270	1010	1180	210	480	1710	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	1194	1653	531	847	276	1031	1204	214	490	1745	51
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	1161	1306	305	1006	658	488	1161	658	458	1621	47
Arrive On Green	0.13	0.32	0.32	0.09	0.28	0.28	0.14	0.32	0.32	0.13	0.31	0.31
Sat Flow, veh/h	1810	3610	2829	3510	3610	1606	3510	3610	1607	3510	5179	151
Grp Volume(v), veh/h	61	1194	1653	531	847	276	1031	1204	214	490	1165	631
Grp Sat Flow(s),veh/h/ln	1810	1805	1415	1755	1805	1606	1755	1805	1607	1755	1729	1872
Q Serve(g_s), s	3.5	37.0	30.1	10.0	25.4	8.5	16.0	37.0	10.4	15.0	36.0	36.0
Cycle Q Clear(g_c), s	3.5	37.0	30.1	10.0	25.4	8.5	16.0	37.0	10.4	15.0	36.0	36.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	235	1161	1306	305	1006	658	488	1161	658	458	1083	586
V/C Ratio(X)	0.26	1.03	1.27	1.74	0.84	0.42	2.11	1.04	0.33	1.07	1.08	1.08
Avail Cap(c_a), veh/h	235	1161	1306	305	1193	741	488	1161	658	458	1083	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	39.0	19.3	52.5	39.1	10.7	49.5	39.0	23.2	50.0	39.5	39.5
Incr Delay (d2), s/veh	0.6	33.8	125.9	346.1	4.9	0.4	506.8	36.4	0.3	62.1	50.2	59.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	23.8	34.5	19.5	13.4	3.8	42.1	24.3	4.7	11.2	24.7	28.3
LnGrp Delay(d),s/veh	45.6	72.8	145.2	398.6	44.0	11.1	556.3	75.4	23.5	112.1	89.7	99.1
LnGrp LOS	D	F	F	F	D	B	F	F	C	F	F	F
Approach Vol, veh/h		2908			1654			2449			2286	
Approach Delay, s/veh		113.4			152.3			273.3			97.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	41.0	14.0	41.0	20.0	40.0	19.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	37.0	10.0	37.0	16.0	36.0	9.0	38.0
Max Q Clear Time (g_c+I1), s	17.0	39.0	12.0	39.0	18.0	38.0	5.5	27.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	3.3	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	158.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	20	10	20	40	2310	30	80	3460	40
Future Volume (veh/h)	20	10	10	20	10	20	40	2310	30	80	3460	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	10	10	20	10	20	41	2357	31	82	3531	41
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	47	35	76	41	56	69	3025	40	471	4203	49
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.57	0.57	0.26	0.80	0.80
Sat Flow, veh/h	676	545	407	484	477	641	1810	5276	69	1810	5286	61
Grp Volume(v), veh/h	40	0	0	50	0	0	41	1543	845	82	2305	1267
Grp Sat Flow(s),veh/h/ln	1628	0	0	1603	0	0	1810	1729	1887	1810	1729	1889
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	0.0	3.3	51.6	51.8	5.3	61.4	62.5
Cycle Q Clear(g_c), s	3.1	0.0	0.0	4.1	0.0	0.0	3.3	51.6	51.8	5.3	61.4	62.5
Prop In Lane	0.50		0.25	0.40		0.40	1.00		0.04	1.00		0.03
Lane Grp Cap(c), veh/h	177	0	0	172	0	0	69	1983	1082	471	2750	1502
V/C Ratio(X)	0.23	0.00	0.00	0.29	0.00	0.00	0.59	0.78	0.78	0.17	0.84	0.84
Avail Cap(c_a), veh/h	443	0	0	441	0	0	84	1983	1082	471	2750	1502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	64.0	0.0	0.0	64.4	0.0	0.0	71.0	24.7	24.7	43.0	9.4	9.6
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.9	0.0	0.0	7.9	3.1	5.6	0.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	2.0	0.0	0.0	1.8	25.3	28.7	2.6	28.9	32.3
LnGrp Delay(d),s/veh	64.6	0.0	0.0	65.3	0.0	0.0	78.8	27.8	30.3	43.0	9.7	10.1
LnGrp LOS	E			E			E	C	C	D	A	B
Approach Vol, veh/h		40			50			2429			3654	
Approach Delay, s/veh		64.6			65.3			29.5			10.6	
Approach LOS		E			E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	43.0	90.0		17.0	9.7	123.3		17.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	13.0	86.0		39.0	7.0	92.0		39.0
Max Q Clear Time (g_c+I1), s	7.3	53.8		5.1	5.3	64.5		6.1
Green Ext Time (p_c), s	4.9	21.8		0.5	0.0	26.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	50	30	40	30	30	70	40	2350	50	130	3330	90
Future Volume (veh/h)	50	30	40	30	30	70	40	2350	50	130	3330	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	31	41	31	31	72	41	2423	52	134	3433	93
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	224	164	137	227	164	137	278	3523	75	156	3151	85
Arrive On Green	0.05	0.09	0.09	0.05	0.09	0.09	0.15	0.67	0.67	0.09	0.61	0.61
Sat Flow, veh/h	1810	1900	1587	1810	1900	1587	1810	5226	112	1810	5193	139
Grp Volume(v), veh/h	52	31	41	31	31	72	41	1600	875	134	2276	1250
Grp Sat Flow(s),veh/h/ln	1810	1900	1587	1810	1900	1587	1810	1729	1880	1810	1729	1875
Q Serve(g_s), s	3.8	2.3	2.8	2.3	2.3	6.5	2.9	42.1	42.5	11.0	91.0	91.0
Cycle Q Clear(g_c), s	3.8	2.3	2.8	2.3	2.3	6.5	2.9	42.1	42.5	11.0	91.0	91.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.07
Lane Grp Cap(c), veh/h	224	164	137	227	164	137	278	2331	1267	156	2098	1137
V/C Ratio(X)	0.23	0.19	0.30	0.14	0.19	0.53	0.15	0.69	0.69	0.86	1.08	1.10
Avail Cap(c_a), veh/h	224	367	307	227	367	307	278	2331	1267	181	2098	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.25	0.25	0.25	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.1	63.7	38.4	57.4	63.7	65.6	54.9	14.8	14.9	67.6	29.5	29.5
Incr Delay (d2), s/veh	0.5	0.6	1.2	0.3	0.6	3.1	0.1	0.4	0.8	28.3	47.0	58.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.2	1.3	1.1	1.2	3.0	1.5	20.1	22.1	6.7	56.8	65.1
LnGrp Delay(d),s/veh	58.6	64.2	39.7	57.7	64.2	68.7	55.0	15.3	15.7	95.9	76.5	87.7
LnGrp LOS	E	E	D	E	E	E	E	B	B	F	F	F
Approach Vol, veh/h		124			134			2516			3660	
Approach Delay, s/veh		53.8			65.1			16.1			81.1	
Approach LOS		D			E			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	105.1	11.0	16.9	27.1	95.0	11.0	16.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	83.0	7.0	29.0	7.0	91.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	13.0	44.5	4.3	4.8	4.9	93.0	5.8	8.5
Green Ext Time (p_c), s	0.1	25.9	0.0	0.7	1.2	0.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	54.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	660	10	40	10	2390	620	80	3280	10
Future Volume (veh/h)	20	10	10	660	10	40	10	2390	620	80	3280	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	11	11	710	0	43	11	2543	660	85	3489	11
Adj No. of Lanes	1	2	0	3	0	1	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	174	158	134	543	0	143	31	2524	945	399	3684	12
Arrive On Green	0.10	0.09	0.09	0.10	0.00	0.09	0.02	0.49	0.49	0.22	0.69	0.69
Sat Flow, veh/h	1810	1838	1559	5429	0	1588	1810	5187	1610	1810	5338	17
Grp Volume(v), veh/h	21	11	11	710	0	43	11	2543	660	85	2259	1241
Grp Sat Flow(s),veh/h/ln	1810	1805	1592	1810	0	1588	1810	1729	1610	1810	1729	1897
Q Serve(g_s), s	1.6	0.8	1.0	15.0	0.0	3.8	0.9	73.0	22.4	5.8	87.6	88.0
Cycle Q Clear(g_c), s	1.6	0.8	1.0	15.0	0.0	3.8	0.9	73.0	22.4	5.8	87.6	88.0
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	174	155	137	543	0	143	31	2524	945	399	2387	1309
V/C Ratio(X)	0.12	0.07	0.08	1.31	0.00	0.30	0.35	1.01	0.70	0.21	0.95	0.95
Avail Cap(c_a), veh/h	174	469	414	543	0	498	84	2524	945	399	2387	1309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.38	0.38	0.38
Uniform Delay (d), s/veh	62.0	63.0	63.1	67.5	0.0	63.8	72.9	38.5	12.3	47.8	20.8	20.8
Incr Delay (d2), s/veh	0.3	0.2	0.3	151.4	0.0	1.2	6.7	19.7	4.3	0.1	4.3	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	0.4	15.1	0.0	1.7	0.5	39.4	10.9	2.9	42.8	48.1
LnGrp Delay(d),s/veh	62.3	63.2	63.4	218.9	0.0	65.0	79.6	58.2	16.6	47.9	25.0	28.0
LnGrp LOS	E	E	E	F		E	E	F	B	D	C	C
Approach Vol, veh/h		43			753			3214			3585	
Approach Delay, s/veh		62.8			210.1			49.7			26.6	
Approach LOS		E			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.1	77.0	19.0	16.9	6.6	107.5	18.4	17.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	73.0	15.0	39.0	7.0	73.0	7.0	47.0
Max Q Clear Time (g_c+I1), s	7.8	75.0	17.0	3.0	2.9	90.0	3.6	5.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	54.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	390	200	150	30	50	90	80	870	90	240	940	230
Future Volume (veh/h)	390	200	150	30	50	90	80	870	90	240	940	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	402	206	155	31	52	93	82	897	93	247	969	237
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	378	1098	489	78	608	187	673	2363	733	255	1745	541
Arrive On Green	0.21	0.30	0.30	0.02	0.12	0.12	0.19	0.46	0.46	0.07	0.34	0.34
Sat Flow, veh/h	1810	3610	1607	3510	5187	1594	3510	5187	1610	3510	5187	1608
Grp Volume(v), veh/h	402	206	155	31	52	93	82	897	93	247	969	237
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1729	1594	1755	1729	1610	1755	1729	1608
Q Serve(g_s), s	23.0	4.6	5.1	1.0	1.0	6.0	2.1	12.5	3.7	7.7	16.8	7.3
Cycle Q Clear(g_c), s	23.0	4.6	5.1	1.0	1.0	6.0	2.1	12.5	3.7	7.7	16.8	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	378	1098	489	78	608	187	673	2363	733	255	1745	541
V/C Ratio(X)	1.06	0.19	0.32	0.40	0.09	0.50	0.12	0.38	0.13	0.97	0.56	0.44
Avail Cap(c_a), veh/h	378	1542	687	128	1320	406	673	2363	733	255	1745	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	28.2	11.3	53.0	43.3	45.5	36.8	19.7	17.3	50.9	29.8	9.4
Incr Delay (d2), s/veh	63.8	0.1	0.4	3.2	0.1	2.0	0.1	0.5	0.4	47.1	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	2.3	2.3	0.5	0.5	2.7	1.0	6.1	1.7	5.4	8.2	3.6
LnGrp Delay(d),s/veh	107.3	28.3	11.7	56.3	43.4	47.6	36.9	20.2	17.7	98.0	31.1	12.0
LnGrp LOS	F	C	B	E	D	D	D	C	B	F	C	B
Approach Vol, veh/h		763			176			1072			1453	
Approach Delay, s/veh		66.5			47.9			21.2			39.3	
Approach LOS		E			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	54.1	6.4	37.4	25.1	41.0	27.0	16.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	35.0	4.0	47.0	6.0	37.0	23.0	28.0
Max Q Clear Time (g_c+I1), s	9.7	14.5	3.0	7.1	4.1	18.8	25.0	8.0
Green Ext Time (p_c), s	0.0	6.3	0.0	2.6	1.1	6.8	0.0	2.3

Intersection Summary			
HCM 2010 Ctrl Delay			40.2
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	130	1300	110	120	1080	150	180	120	280	530	110	250
Future Volume (veh/h)	130	1300	110	120	1080	150	180	120	280	530	110	250
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	1354	115	125	1125	156	188	125	292	552	115	260
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	115	1610	137	99	1667	517	221	422	375	378	1159	516
Arrive On Green	0.06	0.33	0.33	0.11	0.64	0.64	0.12	0.23	0.23	0.21	0.32	0.32
Sat Flow, veh/h	1810	4869	414	1810	5187	1607	1810	1805	1605	1810	3610	1607
Grp Volume(v), veh/h	135	962	507	125	1125	156	188	125	292	552	115	260
Grp Sat Flow(s),veh/h/ln	1810	1729	1825	1810	1729	1607	1810	1805	1605	1810	1805	1607
Q Serve(g_s), s	7.0	28.4	28.4	6.0	15.0	4.7	11.2	6.3	18.7	23.0	2.5	14.4
Cycle Q Clear(g_c), s	7.0	28.4	28.4	6.0	15.0	4.7	11.2	6.3	18.7	23.0	2.5	14.4
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	1143	603	99	1667	517	221	422	375	378	1159	516
V/C Ratio(X)	1.17	0.84	0.84	1.27	0.67	0.30	0.85	0.30	0.78	1.46	0.10	0.50
Avail Cap(c_a), veh/h	115	1143	603	99	1667	517	329	558	496	378	1204	536
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	34.1	34.1	49.0	16.0	14.2	47.3	34.7	39.5	43.5	26.2	30.2
Incr Delay (d2), s/veh	134.2	7.0	12.4	170.1	1.8	1.2	12.8	0.4	5.6	220.7	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	14.6	16.3	7.6	7.1	2.2	6.4	3.2	8.9	34.6	1.2	6.5
LnGrp Delay(d),s/veh	185.7	41.1	46.5	219.1	17.8	15.4	60.1	35.1	45.1	264.2	26.2	31.0
LnGrp LOS	F	D	D	F	B	B	E	D	D	F	C	C
Approach Vol, veh/h		1604			1406			605			927	
Approach Delay, s/veh		55.0			35.5			47.7			169.3	
Approach LOS		E			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	42.4	17.4	40.2	11.0	41.4	27.0	30.6
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	6.0	28.4	20.0	36.7	7.0	27.4	23.0	* 34
Max Q Clear Time (g_c+I1), s	8.0	30.4	13.2	16.4	9.0	17.0	25.0	20.7
Green Ext Time (p_c), s	0.0	0.0	0.3	4.2	0.0	9.0	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	71.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	340	1360	440	140	820	140	270	530	120	260	570	230
Future Volume (veh/h)	340	1360	440	140	820	140	270	530	120	260	570	230
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	351	1402	454	144	845	144	278	546	124	268	588	237
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	410	2269	704	191	1675	284	341	1228	380	336	1221	378
Arrive On Green	0.23	0.87	0.87	0.05	0.38	0.38	0.10	0.24	0.24	0.10	0.24	0.24
Sat Flow, veh/h	3510	5187	1609	3510	4465	756	3510	5187	1605	3510	5187	1605
Grp Volume(v), veh/h	351	1402	454	144	653	336	278	546	124	268	588	237
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1763	1755	1729	1605	1755	1729	1605
Q Serve(g_s), s	10.5	8.1	8.9	4.4	16.0	16.2	8.5	9.9	7.0	8.2	10.8	14.6
Cycle Q Clear(g_c), s	10.5	8.1	8.9	4.4	16.0	16.2	8.5	9.9	7.0	8.2	10.8	14.6
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	410	2269	704	191	1297	661	341	1228	380	336	1221	378
V/C Ratio(X)	0.86	0.62	0.64	0.75	0.50	0.51	0.82	0.44	0.33	0.80	0.48	0.63
Avail Cap(c_a), veh/h	479	2269	704	191	1297	661	383	1462	452	447	1556	481
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	4.4	4.4	51.3	26.5	26.5	48.7	35.8	34.7	48.7	36.3	37.7
Incr Delay (d2), s/veh	1.3	0.1	0.4	10.7	0.9	1.9	11.6	0.3	0.5	7.2	0.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	3.4	3.6	2.4	7.8	8.2	4.7	4.7	3.2	4.3	5.2	6.6
LnGrp Delay(d),s/veh	42.6	4.5	4.8	62.0	27.4	28.4	60.3	36.1	35.2	55.9	36.6	39.4
LnGrp LOS	D	A	A	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		2207			1133			948			1093	
Approach Delay, s/veh		10.6			32.1			43.1			41.9	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	54.1	14.7	31.2	16.8	47.3	14.5	31.3
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	6.0	39.7	12.0	33.0	15.0	30.7	14.0	31.0
Max Q Clear Time (g_c+I1), s	6.4	10.9	10.5	16.6	12.5	18.2	10.2	11.9
Green Ext Time (p_c), s	0.0	21.0	0.1	8.1	0.3	10.7	0.3	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	520	1340	350	20	570	180	230	340	20	350	440	560
Future Volume (veh/h)	520	1340	350	20	570	180	230	340	20	350	440	560
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	565	1457	0	22	620	196	250	370	22	380	478	609
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	623	2136	665	32	1308	405	310	913	54	438	1084	482
Arrive On Green	0.18	0.41	0.00	0.02	0.25	0.25	0.09	0.26	0.26	0.12	0.30	0.30
Sat Flow, veh/h	3510	5187	1615	1810	5187	1605	3510	3462	205	3510	3610	1607
Grp Volume(v), veh/h	565	1457	0	22	620	196	250	192	200	380	478	609
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1605	1755	1805	1862	1755	1805	1607
Q Serve(g_s), s	17.4	25.3	0.0	1.3	11.2	11.4	7.7	9.7	9.7	11.7	11.7	33.0
Cycle Q Clear(g_c), s	17.4	25.3	0.0	1.3	11.2	11.4	7.7	9.7	9.7	11.7	11.7	33.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	623	2136	665	32	1308	405	310	476	491	438	1084	482
V/C Ratio(X)	0.91	0.68	0.00	0.68	0.47	0.48	0.81	0.40	0.41	0.87	0.44	1.26
Avail Cap(c_a), veh/h	638	2136	665	99	1308	405	319	476	491	447	1084	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	26.5	0.0	53.7	34.9	35.0	49.2	33.4	33.4	47.2	31.0	38.5
Incr Delay (d2), s/veh	13.5	1.4	0.0	22.5	1.2	4.1	13.8	2.5	2.5	16.1	1.3	133.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	12.3	0.0	0.9	5.5	5.5	4.3	5.1	5.3	6.6	6.0	32.5
LnGrp Delay(d),s/veh	57.8	27.8	0.0	76.2	36.2	39.1	63.0	35.9	35.9	63.3	32.3	172.4
LnGrp LOS	E	C		E	D	D	E	D	D	E	C	F
Approach Vol, veh/h		2022			838			642			1467	
Approach Delay, s/veh		36.2			37.9			46.5			98.5	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	51.3	13.7	39.0	23.5	33.7	17.7	35.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	41.0	10.0	33.0	20.0	27.0	14.0	29.0
Max Q Clear Time (g_c+I1), s	13.3	27.3	9.7	35.0	19.4	13.4	13.7	11.7
Green Ext Time (p_c), s	0.0	10.4	0.0	0.0	0.2	10.3	0.1	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	56.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	50	30	90	50	10	20	50	900	20	20	1050	10
Future Volume (veh/h)	50	30	90	50	10	20	50	900	20	20	1050	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	32	96	53	11	21	53	957	21	21	1117	11
Adj No. of Lanes	1	2	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	69	353	155	69	186	155	69	3593	79	31	3460	1075
Arrive On Green	0.04	0.10	0.10	0.04	0.10	0.10	0.05	0.91	0.91	0.02	0.67	0.67
Sat Flow, veh/h	1810	3610	1590	1810	1900	1590	1810	5223	115	1810	5187	1611
Grp Volume(v), veh/h	53	32	96	53	11	21	53	633	345	21	1117	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1590	1810	1900	1590	1810	1729	1879	1810	1729	1611
Q Serve(g_s), s	3.2	0.9	6.4	3.2	0.6	1.3	3.2	2.3	2.3	1.3	10.1	0.3
Cycle Q Clear(g_c), s	3.2	0.9	6.4	3.2	0.6	1.3	3.2	2.3	2.3	1.3	10.1	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	69	353	155	69	186	155	69	2379	1293	31	3460	1075
V/C Ratio(X)	0.77	0.09	0.62	0.77	0.06	0.14	0.77	0.27	0.27	0.67	0.32	0.01
Avail Cap(c_a), veh/h	181	814	359	181	430	360	181	2379	1293	115	3460	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	45.2	47.7	52.4	45.0	45.4	51.7	1.6	1.6	53.7	7.8	6.1
Incr Delay (d2), s/veh	16.2	0.1	4.0	16.2	0.1	0.4	15.8	0.3	0.5	22.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	3.0	1.9	0.3	0.6	1.9	1.1	1.3	0.8	4.8	0.1
LnGrp Delay(d),s/veh	68.6	45.3	51.6	68.6	45.2	45.8	67.6	1.8	2.0	76.1	8.0	6.2
LnGrp LOS	E	D	D	E	D	D	E	A	A	E	A	A
Approach Vol, veh/h		181			85			1031			1149	
Approach Delay, s/veh		55.5			59.9			5.3			9.2	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	81.0	8.2	14.9	8.2	78.7	8.2	14.9
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	7.0	49.7	11.0	* 25	11.0	45.7	11.0	* 25
Max Q Clear Time (g_c+I1), s	3.3	4.3	5.2	8.4	5.2	12.1	5.2	3.3
Green Ext Time (p_c), s	0.0	22.8	0.0	0.5	0.0	19.5	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	10	40	70	20	50	60	420	110	70	580	40
Future Volume (veh/h)	40	10	40	70	20	50	60	420	110	70	580	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	11	44	77	22	55	66	462	121	77	637	44
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	158	132	100	203	170	86	1875	488	100	2414	1078
Arrive On Green	0.03	0.08	0.08	0.06	0.11	0.11	0.02	0.22	0.22	0.06	0.67	0.67
Sat Flow, veh/h	1810	1900	1586	1810	1900	1592	1810	2836	737	1810	3610	1611
Grp Volume(v), veh/h	44	11	44	77	22	55	66	293	290	77	637	44
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1900	1592	1810	1805	1768	1810	1805	1611
Q Serve(g_s), s	2.7	0.6	2.9	4.6	1.2	3.5	4.0	14.7	14.9	4.6	7.8	1.0
Cycle Q Clear(g_c), s	2.7	0.6	2.9	4.6	1.2	3.5	4.0	14.7	14.9	4.6	7.8	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	57	158	132	100	203	170	86	1194	1169	100	2414	1078
V/C Ratio(X)	0.77	0.07	0.33	0.77	0.11	0.32	0.77	0.25	0.25	0.77	0.26	0.04
Avail Cap(c_a), veh/h	132	553	461	214	639	536	197	1194	1169	214	2414	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	46.5	47.5	51.3	44.4	45.4	53.5	20.3	20.4	51.3	7.3	6.2
Incr Delay (d2), s/veh	19.7	0.2	1.5	11.9	0.2	1.1	11.5	0.4	0.4	11.9	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.3	1.3	2.6	0.6	1.6	2.3	7.5	7.5	2.6	4.0	0.5
LnGrp Delay(d),s/veh	72.6	46.7	49.0	63.2	44.6	46.5	65.1	20.8	20.8	63.2	7.6	6.3
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	A	A
Approach Vol, veh/h		99			154			649			758	
Approach Delay, s/veh		59.2			54.6			25.3			13.2	
Approach LOS		E			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	76.7	10.1	13.2	9.2	77.6	7.5	15.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	36.0	13.0	32.0	12.0	37.0	8.0	37.0
Max Q Clear Time (g_c+I1), s	6.6	16.9	6.6	4.9	6.0	9.8	4.7	5.5
Green Ext Time (p_c), s	0.1	8.0	0.1	0.4	0.1	9.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	80	270	290	210	100	150	40	780	170	100	1120	30
Future Volume (veh/h)	80	270	290	210	100	150	40	780	170	100	1120	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	278	299	216	103	155	41	804	175	103	1155	31
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	442	1266	564	317	1266	564	53	2311	715	128	2528	785
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.03	0.45	0.45	0.14	0.97	0.97
Sat Flow, veh/h	1136	3610	1608	848	3610	1608	1810	5187	1606	1810	5187	1610
Grp Volume(v), veh/h	82	278	299	216	103	155	41	804	175	103	1155	31
Grp Sat Flow(s),veh/h/ln	1136	1805	1608	848	1805	1608	1810	1729	1606	1810	1729	1610
Q Serve(g_s), s	5.7	6.0	16.3	26.4	2.1	7.6	2.5	11.2	7.5	6.1	1.1	0.1
Cycle Q Clear(g_c), s	7.8	6.0	16.3	32.4	2.1	7.6	2.5	11.2	7.5	6.1	1.1	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	1266	564	317	1266	564	53	2311	715	128	2528	785
V/C Ratio(X)	0.19	0.22	0.53	0.68	0.08	0.27	0.78	0.35	0.24	0.80	0.46	0.04
Avail Cap(c_a), veh/h	506	1467	653	364	1467	653	132	2311	715	230	2528	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	26.5	25.1	28.5	36.5	23.9	25.7	53.0	20.0	19.0	46.4	0.7	0.7
Incr Delay (d2), s/veh	0.2	0.1	0.8	4.3	0.0	0.3	21.2	0.4	0.8	10.4	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.0	7.4	6.6	1.0	3.4	1.6	5.4	3.5	3.4	0.6	0.0
LnGrp Delay(d),s/veh	26.7	25.2	29.3	40.8	23.9	25.9	74.3	20.4	19.8	56.8	1.3	0.8
LnGrp LOS	C	C	C	D	C	C	E	C	B	E	A	A
Approach Vol, veh/h		659			474			1020			1289	
Approach Delay, s/veh		27.2			32.2			22.5			5.7	
Approach LOS		C			C			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.8	54.3		43.9	7.2	58.9		43.9
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	14.0	36.7		44.7	8.0	42.7		44.7
Max Q Clear Time (g_c+I1), s	8.1	13.2		18.3	4.5	3.1		34.4
Green Ext Time (p_c), s	0.1	15.7		6.2	0.0	21.5		4.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	300	90	40	200	100	60	300	10	50	360	190
Future Volume (veh/h)	240	300	90	40	200	100	60	300	10	50	360	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	276	345	103	46	230	115	69	345	11	57	414	218
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	308	852	251	59	407	196	89	1682	54	73	1061	553
Arrive On Green	0.17	0.31	0.31	0.03	0.17	0.17	0.05	0.47	0.47	0.08	0.93	0.93
Sat Flow, veh/h	1810	2749	809	1810	2357	1136	1810	3571	114	1810	2295	1195
Grp Volume(v), veh/h	276	225	223	46	174	171	69	174	182	57	325	307
Grp Sat Flow(s),veh/h/ln	1810	1805	1753	1810	1805	1688	1810	1805	1880	1810	1805	1685
Q Serve(g_s), s	16.4	10.8	11.1	2.8	9.7	10.2	4.1	6.2	6.2	3.4	2.3	2.4
Cycle Q Clear(g_c), s	16.4	10.8	11.1	2.8	9.7	10.2	4.1	6.2	6.2	3.4	2.3	2.4
Prop In Lane	1.00		0.46	1.00		0.67	1.00		0.06	1.00		0.71
Lane Grp Cap(c), veh/h	308	560	543	59	312	292	89	850	885	73	835	779
V/C Ratio(X)	0.90	0.40	0.41	0.77	0.56	0.59	0.78	0.20	0.21	0.78	0.39	0.39
Avail Cap(c_a), veh/h	362	755	733	115	509	476	115	850	885	132	835	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	44.7	29.9	30.0	52.8	41.7	41.9	51.7	17.0	17.0	50.0	2.3	2.3
Incr Delay (d2), s/veh	21.7	0.5	0.5	18.9	1.6	1.9	21.4	0.5	0.5	15.4	1.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	5.4	5.4	1.7	5.0	4.9	2.6	3.2	3.4	2.0	1.2	1.2
LnGrp Delay(d),s/veh	66.4	30.4	30.5	71.7	43.2	43.7	73.1	17.6	17.6	65.4	3.6	3.8
LnGrp LOS	E	C	C	E	D	D	E	B	B	E	A	A
Approach Vol, veh/h		724			391			425			689	
Approach Delay, s/veh		44.2			46.8			26.6			8.8	
Approach LOS		D			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	55.8	7.6	38.1	9.4	54.9	22.7	23.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	7.0	46.0	7.0	34.0	22.0	31.0
Max Q Clear Time (g_c+I1), s	5.4	8.2	4.8	13.1	6.1	4.4	18.4	12.2
Green Ext Time (p_c), s	0.0	6.4	0.0	5.5	0.0	6.7	0.3	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
108: Perris Blvd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↱	↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	190	40	300	120	930	0	0	2650	540
Future Volume (veh/h)	0	0	0	190	40	300	120	930	0	0	2650	540
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				207	0	355	130	1011	0	0	2880	587
Adj No. of Lanes				1	0	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				276	0	488	132	4019	0	0	3453	1071
Arrive On Green				0.15	0.00	0.15	0.15	1.00	0.00	0.00	0.67	0.67
Sat Flow, veh/h				1810	0	3198	1810	5358	0	0	5358	1609
Grp Volume(v), veh/h				207	0	355	130	1011	0	0	2880	587
Grp Sat Flow(s),veh/h/ln				1810	0	1599	1810	1729	0	0	1729	1609
Q Serve(g_s), s				12.0	0.0	11.6	7.9	0.0	0.0	0.0	45.9	21.1
Cycle Q Clear(g_c), s				12.0	0.0	11.6	7.9	0.0	0.0	0.0	45.9	21.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				276	0	488	132	4019	0	0	3453	1071
V/C Ratio(X)				0.75	0.00	0.73	0.99	0.25	0.00	0.00	0.83	0.55
Avail Cap(c_a), veh/h				461	0	814	132	4019	0	0	3453	1071
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.94	0.94	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				44.6	0.0	44.4	47.0	0.0	0.0	0.0	13.8	9.7
Incr Delay (d2), s/veh				4.1	0.0	2.1	72.2	0.1	0.0	0.0	2.5	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.4	0.0	5.3	6.5	0.1	0.0	0.0	22.4	9.9
LnGrp Delay(d),s/veh				48.7	0.0	46.5	119.1	0.1	0.0	0.0	16.3	11.7
LnGrp LOS				D		D	F	A			B	B
Approach Vol, veh/h					562			1141			3467	
Approach Delay, s/veh					47.3			13.7			15.6	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		89.2			12.0	77.2		20.8
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		74.0			8.0	62.0		28.0
Max Q Clear Time (g_c+I1), s		2.0			9.9	47.9		14.0
Green Ext Time (p_c), s		68.6			0.0	13.9		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	30	10	40	0	0	0	0	1020	430	640	2200	0
Future Volume (veh/h)	30	10	40	0	0	0	0	1020	430	640	2200	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	33	11	43				0	1109	467	696	2391	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	134	25	96				0	3056	1286	347	4427	0
Arrive On Green	0.07	0.07	0.07				0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1810	334	1304				0	3752	1506	330	5358	0
Grp Volume(v), veh/h	33	0	54				0	1071	505	696	2391	0
Grp Sat Flow(s),veh/h/ln	1810	0	1638				0	1729	1629	330	1729	0
Q Serve(g_s), s	1.9	0.0	3.5				0.0	0.0	0.0	93.9	0.0	0.0
Cycle Q Clear(g_c), s	1.9	0.0	3.5				0.0	0.0	0.0	93.9	0.0	0.0
Prop In Lane	1.00		0.80				0.00		0.92	1.00		0.00
Lane Grp Cap(c), veh/h	134	0	121				0	2951	1390	347	4427	0
V/C Ratio(X)	0.25	0.00	0.45				0.00	0.36	0.36	2.00	0.54	0.00
Avail Cap(c_a), veh/h	461	0	417				0	2951	1390	347	4427	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.86	0.86	0.29	0.29	0.00
Uniform Delay (d), s/veh	48.1	0.0	48.8				0.0	0.0	0.0	8.8	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	2.6				0.0	0.3	0.6	454.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.7				0.0	0.1	0.2	53.8	0.1	0.0
LnGrp Delay(d),s/veh	49.0	0.0	51.4				0.0	0.3	0.6	463.6	0.1	0.0
LnGrp LOS	D		D					A	A	F	A	
Approach Vol, veh/h		87						1576			3087	
Approach Delay, s/veh		50.5						0.4			104.6	
Approach LOS		D						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		97.9		12.1		97.9		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		74.0		28.0		74.0		
Max Q Clear Time (g_c+I1), s		2.0		5.5		95.9		
Green Ext Time (p_c), s		71.4		0.3		0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	69.1
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	360	20	20	190	140	0	0	320	20
Future Volume (veh/h)	0	0	0	360	20	20	190	140	0	0	320	20
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				391	22	22	207	152	0	0	348	22
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				442	25	25	239	2363	0	0	1755	781
Arrive On Green				0.27	0.27	0.27	0.22	1.00	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1620	91	91	1810	3705	0	0	3705	1607
Grp Volume(v), veh/h				435	0	0	207	152	0	0	348	22
Grp Sat Flow(s),veh/h/ln				1802	0	0	1810	1805	0	0	1805	1607
Q Serve(g_s), s				25.4	0.0	0.0	12.1	0.0	0.0	0.0	6.0	0.8
Cycle Q Clear(g_c), s				25.4	0.0	0.0	12.1	0.0	0.0	0.0	6.0	0.8
Prop In Lane				0.90		0.05	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				492	0	0	239	2363	0	0	1755	781
V/C Ratio(X)				0.88	0.00	0.00	0.87	0.06	0.00	0.00	0.20	0.03
Avail Cap(c_a), veh/h				721	0	0	411	2363	0	0	1755	781
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.3	0.0	0.0	42.0	0.0	0.0	0.0	16.1	14.7
Incr Delay (d2), s/veh				9.0	0.0	0.0	9.4	0.1	0.0	0.0	0.3	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.9	0.0	0.0	6.7	0.0	0.0	0.0	3.1	0.4
LnGrp Delay(d),s/veh				47.4	0.0	0.0	51.3	0.1	0.0	0.0	16.3	14.8
LnGrp LOS				D			D	A			B	B
Approach Vol, veh/h					435			359			370	
Approach Delay, s/veh					47.4			29.6			16.2	
Approach LOS					D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		76.0			18.5	57.5		34.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		58.0			25.0	29.0		44.0
Max Q Clear Time (g_c+I1), s		2.0			14.1	8.0		27.4
Green Ext Time (p_c), s		3.7			0.4	3.3		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	40	30	300	0	0	0	0	290	240	70	610	0
Future Volume (veh/h)	40	30	300	0	0	0	0	290	240	70	610	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	43	33	326				0	315	261	76	663	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	241	185	370				0	2177	970	104	2516	0
Arrive On Green	0.23	0.23	0.23				0.00	0.60	0.60	0.11	1.00	0.00
Sat Flow, veh/h	1045	802	1604				0	3705	1608	1810	3705	0
Grp Volume(v), veh/h	76	0	326				0	315	261	76	663	0
Grp Sat Flow(s),veh/h/ln	1848	0	1604				0	1805	1608	1810	1805	0
Q Serve(g_s), s	3.6	0.0	21.6				0.0	4.2	8.5	4.5	0.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	21.6				0.0	4.2	8.5	4.5	0.0	0.0
Prop In Lane	0.57		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	426	0	370				0	2177	970	104	2516	0
V/C Ratio(X)	0.18	0.00	0.88				0.00	0.14	0.27	0.73	0.26	0.00
Avail Cap(c_a), veh/h	756	0	656				0	2177	970	263	2516	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	34.0	0.0	40.9				0.0	9.5	10.3	47.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	7.0				0.0	0.1	0.7	9.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	10.3				0.0	2.1	3.9	2.5	0.1	0.0
LnGrp Delay(d),s/veh	34.2	0.0	47.8				0.0	9.6	11.0	57.2	0.3	0.0
LnGrp LOS	C		D					A	B	E	A	
Approach Vol, veh/h		402						576			739	
Approach Delay, s/veh		45.3						10.3			6.1	
Approach LOS		D						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.3	70.3		29.3		80.7		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	16.0	37.0		45.0		57.0		
Max Q Clear Time (g_c+I1), s	6.5	10.5		23.6		2.0		
Green Ext Time (p_c), s	0.1	8.5		1.5		9.8		

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	20	140	300	150	20	70	40	860	110	130	1640	10
Future Volume (veh/h)	20	140	300	150	20	70	40	860	110	130	1640	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	159	341	170	23	80	45	977	125	148	1864	11
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	313	278	201	481	428	58	2100	268	179	2755	16
Arrive On Green	0.02	0.17	0.17	0.11	0.27	0.27	0.04	0.60	0.60	0.10	0.52	0.52
Sat Flow, veh/h	1810	1805	1601	1810	1805	1606	1810	4657	594	1810	5321	31
Grp Volume(v), veh/h	23	159	341	170	23	80	45	725	377	148	1211	664
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1606	1810	1729	1793	1810	1729	1894
Q Serve(g_s), s	1.4	8.8	19.1	10.1	1.0	4.2	2.7	12.8	12.9	8.8	28.6	28.6
Cycle Q Clear(g_c), s	1.4	8.8	19.1	10.1	1.0	4.2	2.7	12.8	12.9	8.8	28.6	28.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.02
Lane Grp Cap(c), veh/h	33	313	278	201	481	428	58	1559	808	179	1791	981
V/C Ratio(X)	0.69	0.51	1.23	0.85	0.05	0.19	0.78	0.46	0.47	0.83	0.68	0.68
Avail Cap(c_a), veh/h	82	313	278	263	494	439	82	1559	808	280	1791	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.84	0.84	0.84
Uniform Delay (d), s/veh	53.7	41.2	45.5	48.0	30.0	31.2	52.3	14.6	14.7	48.6	19.7	19.7
Incr Delay (d2), s/veh	22.7	1.3	129.6	17.5	0.0	0.2	23.5	0.9	1.8	9.4	1.7	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.5	18.4	6.0	0.5	1.9	1.7	6.2	6.6	4.9	14.1	15.8
LnGrp Delay(d),s/veh	76.3	42.5	175.0	65.4	30.0	31.4	75.8	15.6	16.4	58.0	21.4	22.8
LnGrp LOS	E	D	F	E	C	C	E	B	B	E	C	C
Approach Vol, veh/h		523			273			1147			2023	
Approach Delay, s/veh		130.4			52.5			18.2			24.6	
Approach LOS		F			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	54.9	16.2	24.0	7.5	62.3	6.0	34.2
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	17.0	39.7	16.0	19.1	5.0	51.7	5.0	30.1
Max Q Clear Time (g_c+I1), s	10.8	14.9	12.1	21.1	4.7	30.6	3.4	6.2
Green Ext Time (p_c), s	0.2	20.8	0.1	0.0	0.0	18.0	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↱		↰	↑↱	
Traffic Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	0	0	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1	1	1	1	1	0	1	0	0	0	0	0
Stage 1	1	1	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	1	1	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.3	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1027	899	1089	1027	899	-	1635	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	899	1089	1027	899	-	1635	-	-	-	-	-
Mov Cap-2 Maneuver	-	899	-	1027	899	-	-	-	-	-	-	-
Stage 1	1027	899	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	1027	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	356.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥		↰	↱		↰	↑	↱	↰	↑	↱
Traffic Vol, veh/h	110	140	130	100	70	70	100	420	90	70	540	70
Future Vol, veh/h	110	140	130	100	70	70	100	420	90	70	540	70
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	164	209	194	149	104	104	149	627	134	104	806	104
Number of Lanes	0	1	0	1	1	0	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	374.2	39.9	289.4	518.5
HCM LOS	F	E	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	29%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	37%	0%	50%	0%	100%	0%
Vol Right, %	0%	0%	100%	34%	0%	50%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	420	90	380	100	140	70	540	70
LT Vol	100	0	0	110	100	0	70	0	0
Through Vol	0	420	0	140	0	70	0	540	0
RT Vol	0	0	90	130	0	70	0	0	70
Lane Flow Rate	149	627	134	567	149	209	104	806	104
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.45	1.801	0.36	1.726	0.484	0.628	0.319	2.351	0.285
Departure Headway (Hd)	15.186	14.629	13.848	14.103	17.328	16.369	14.211	13.66	12.89
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	239	257	262	267	210	224	255	274	281
Service Time	12.886	12.329	11.548	11.803	15.028	14.069	11.911	11.36	10.59
HCM Lane V/C Ratio	0.623	2.44	0.511	2.124	0.71	0.933	0.408	2.942	0.37
HCM Control Delay	29.7	408.1	24.1	374.2	35.3	43.2	23.4	647.2	20.6
HCM Lane LOS	D	F	C	F	E	E	C	F	C
HCM 95th-tile Q	2.2	30.2	1.6	28.9	2.4	3.7	1.3	49.2	1.1

HCM 2010 Signalized Intersection Summary
115: Nuevo Rd & Evans Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	310	190	240	110	140	150	160	170	100	180	240	290
Future Volume (veh/h)	310	190	240	110	140	150	160	170	100	180	240	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	383	235	261	120	173	185	174	185	109	222	261	358
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.81	0.81	0.92	0.92	0.81	0.81	0.92	0.92	0.92	0.81	0.92	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	471	1009	449	195	725	322	258	1326	593	309	1378	614
Arrive On Green	0.13	0.28	0.28	0.06	0.20	0.20	0.07	0.37	0.37	0.09	0.38	0.38
Sat Flow, veh/h	3510	3610	1606	3510	3610	1603	3510	3610	1615	3510	3610	1609
Grp Volume(v), veh/h	383	235	261	120	173	185	174	185	109	222	261	358
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1755	1805	1603	1755	1805	1615	1755	1805	1609
Q Serve(g_s), s	8.1	3.8	10.7	2.5	3.1	8.0	3.7	2.6	3.5	4.7	3.7	13.5
Cycle Q Clear(g_c), s	8.1	3.8	10.7	2.5	3.1	8.0	3.7	2.6	3.5	4.7	3.7	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	471	1009	449	195	725	322	258	1326	593	309	1378	614
V/C Ratio(X)	0.81	0.23	0.58	0.62	0.24	0.58	0.67	0.14	0.18	0.72	0.19	0.58
Avail Cap(c_a), veh/h	506	1562	695	276	1326	589	322	1326	593	322	1378	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	21.2	23.6	35.2	25.6	27.5	34.4	16.1	16.4	33.8	15.7	18.7
Incr Delay (d2), s/veh	9.3	0.1	1.2	3.1	0.2	1.6	3.9	0.2	0.7	7.2	0.3	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	1.9	4.9	1.3	1.6	3.6	1.9	1.3	1.7	2.6	1.9	6.7
LnGrp Delay(d),s/veh	41.3	21.3	24.8	38.4	25.8	29.2	38.3	16.3	17.1	41.0	16.0	22.8
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	C
Approach Vol, veh/h		879			478			468			841	
Approach Delay, s/veh		31.1			30.2			24.7			25.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	32.0	8.2	25.3	9.6	33.1	14.2	19.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	6.0	33.0	7.0	28.0	11.0	28.0
Max Q Clear Time (g_c+I1), s	6.7	5.5	4.5	12.7	5.7	15.5	10.1	10.0
Green Ext Time (p_c), s	0.0	4.7	0.0	4.0	0.1	3.8	0.1	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥			↰			↱	
Traffic Vol, veh/h	0	0	0	10	10	20	60	250	0	0	240	200
Future Vol, veh/h	0	0	0	10	10	20	60	250	0	0	240	200
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	10	10	20	60	250	0	0	240	200

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	710	810	250	440	0	-	-	-	0
Stage 1	370	370	-	-	-	-	-	-	-
Stage 2	340	440	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	403	316	794	1131	-	0	0	-	-
Stage 1	703	624	-	-	-	0	0	-	-
Stage 2	725	581	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	378	0	794	1131	-	-	-	-	-
Mov Cap-2 Maneuver	378	0	-	-	-	-	-	-	-
Stage 1	659	0	-	-	-	-	-	-	-
Stage 2	725	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	1131	-	581	-	-
HCM Lane V/C Ratio	0.053	-	0.069	-	-
HCM Control Delay (s)	8.4	0	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↱			↰	
Traffic Vol, veh/h	150	50	40	0	0	0	0	150	50	150	110	0
Future Vol, veh/h	150	50	40	0	0	0	0	150	50	150	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	150	50	40	0	0	0	0	150	50	150	110	0

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	585	610	110				-	0	0	200	0	0
Stage 1	410	410	-				-	-	-	-	-	-
Stage 2	175	200	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				-	-	-	2.2	-	-
Pot Cap-1 Maneuver	477	412	949				0	-	-	1384	-	0
Stage 1	674	599	-				0	-	-	-	-	0
Stage 2	860	739	-				0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	422	0	949				-	-	-	1384	-	-
Mov Cap-2 Maneuver	422	0	-				-	-	-	-	-	-
Stage 1	596	0	-				-	-	-	-	-	-
Stage 2	860	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0	4.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	422	949	1384	-
HCM Lane V/C Ratio	-	-	0.355	0.095	0.108	-
HCM Control Delay (s)	-	-	18.2	9.2	7.9	0
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0.3	0.4	-

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	26.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↱	
Traffic Vol, veh/h	100	10	50	590	1050	260
Future Vol, veh/h	100	10	50	590	1050	260
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	105	11	53	621	1105	274

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1968	1242	1379	0	-	0
Stage 1	1242	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 70	215	504	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 63	215	504	-	-	-
Mov Cap-2 Maneuver	~ 63	-	-	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	432	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 484.6	1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	504	-	67	-	-
HCM Lane V/C Ratio	0.104	-	1.728	-	-
HCM Control Delay (s)	13	-	$ 484.6	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	10.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
124: SR-79 NB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	110.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰↑	↱			
Traffic Vol, veh/h	10	690	0	0	300	520	420	0	40	0	0	0
Future Vol, veh/h	10	690	0	0	300	520	420	0	40	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	767	0	0	333	578	467	0	44	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	333	0	-	-	-	0	1122	1122	767
Stage 1	-	-	-	-	-	-	789	789	-
Stage 2	-	-	-	-	-	-	333	333	-
Critical Hdwy	4.1	-	-	-	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1238	-	0	0	-	-	~ 230	208	405
Stage 1	-	-	0	0	-	-	~ 451	405	-
Stage 2	-	-	0	0	-	-	731	647	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1238	-	-	-	-	-	~ 228	0	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 228	0	-
Stage 1	-	-	-	-	-	-	~ 447	0	-
Stage 2	-	-	-	-	-	-	731	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	$ 476.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	228	405	1238	-	-	-
HCM Lane V/C Ratio	2.047	0.11	0.009	-	-	-
HCM Control Delay (s)	$ 520.9	15	7.9	-	-	-
HCM Lane LOS	F	C	A	-	-	-
HCM 95th %tile Q(veh)	34.9	0.4	0	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	36.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰↑	↱
Traffic Vol, veh/h	0	470	580	50	550	0	0	0	0	250	10	30
Future Vol, veh/h	0	470	580	50	550	0	0	0	0	250	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	505	624	54	591	0	0	0	0	269	11	32

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	505	0	0				1204	1204	591
Stage 1	-	-	-	-	-	-				699	699	-
Stage 2	-	-	-	-	-	-				505	505	-
Critical Hdwy	-	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1070	-	0				~ 205	186	511
Stage 1	0	-	-	-	-	0				497	445	-
Stage 2	0	-	-	-	-	0				610	544	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1070	-	-				~ 195	0	511
Mov Cap-2 Maneuver	-	-	-	-	-	-				~ 195	0	-
Stage 1	-	-	-	-	-	-				472	0	-
Stage 2	-	-	-	-	-	-				610	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.7	241
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1070	-	195	511
HCM Lane V/C Ratio	-	-	0.05	-	1.434	0.063
HCM Control Delay (s)	-	-	8.5	-	267.4	12.5
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0.2	-	16.8	0.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

HCM 2010 Signalized Intersection Summary
127: Potrero Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	30	30	280	100	1090	0	0	590	540
Future Volume (veh/h)	0	0	0	30	30	280	100	1090	0	0	590	540
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				30	30	0	100	1090	0	0	590	540
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				82	82	143	225	2468	0	0	1608	719
Arrive On Green				0.09	0.09	0.00	0.12	0.68	0.00	0.00	0.45	0.45
Sat Flow, veh/h				927	927	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				60	0	0	100	1090	0	0	590	540
Grp Sat Flow(s),veh/h/ln				1854	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				1.1	0.0	0.0	1.8	4.8	0.0	0.0	3.8	9.8
Cycle Q Clear(g_c), s				1.1	0.0	0.0	1.8	4.8	0.0	0.0	3.8	9.8
Prop In Lane				0.50		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				164	0	143	225	2468	0	0	1608	719
V/C Ratio(X)				0.37	0.00	0.00	0.44	0.44	0.00	0.00	0.37	0.75
Avail Cap(c_a), veh/h				1902	0	1657	361	3189	0	0	2058	920
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				15.1	0.0	0.0	14.2	2.5	0.0	0.0	6.4	8.1
Incr Delay (d2), s/veh				1.4	0.0	0.0	1.4	0.1	0.0	0.0	0.1	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.0	1.0	2.3	0.0	0.0	1.9	4.7
LnGrp Delay(d),s/veh				16.4	0.0	0.0	15.6	2.6	0.0	0.0	6.6	10.7
LnGrp LOS				B			B	A			A	B
Approach Vol, veh/h					60			1190			1130	
Approach Delay, s/veh					16.4			3.7			8.6	
Approach LOS					B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		28.0			8.4	19.6		7.1
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		31.0			7.0	20.0		36.0
Max Q Clear Time (g_c+I1), s		6.8			3.8	11.8		3.1
Green Ext Time (p_c), s		9.1			2.2	3.9		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
128: Potrero Blvd & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	880	90	190	0	0	0	0	310	30	200	420	0
Future Volume (veh/h)	880	90	190	0	0	0	0	310	30	200	420	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	944	0	0				0	310	30	200	420	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1338	0	597				0	627	281	287	1559	0
Arrive On Green	0.37	0.00	0.00				0.00	0.17	0.17	0.16	0.43	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	944	0	0				0	310	30	200	420	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	9.0	0.0	0.0				0.0	3.1	0.6	4.2	3.0	0.0
Cycle Q Clear(g_c), s	9.0	0.0	0.0				0.0	3.1	0.6	4.2	3.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1338	0	597				0	627	281	287	1559	0
V/C Ratio(X)	0.71	0.00	0.00				0.00	0.49	0.11	0.70	0.27	0.00
Avail Cap(c_a), veh/h	3234	0	1443				0	1613	722	404	2778	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.8	0.0	0.0				0.0	15.0	14.0	16.0	7.4	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0				0.0	0.6	0.2	3.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.0				0.0	1.6	0.3	2.3	1.5	0.0
LnGrp Delay(d),s/veh	11.5	0.0	0.0				0.0	15.6	14.2	19.1	7.5	0.0
LnGrp LOS	B							B	B	B	A	
Approach Vol, veh/h		944						340			620	
Approach Delay, s/veh		11.5						15.5			11.2	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.4	11.0		18.9		21.4		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	9.0	18.0		36.0		31.0		
Max Q Clear Time (g_c+I1), s	6.2	5.1		11.0		5.0		
Green Ext Time (p_c), s	0.9	1.6		3.9		3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	550	170	50	370	30	410	170	80	30	40	10
Future Volume (veh/h)	20	550	170	50	370	30	410	170	80	30	40	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	579	179	53	389	32	432	179	84	32	42	11
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	633	534	68	669	486	469	512	240	45	268	70
Arrive On Green	0.02	0.33	0.33	0.04	0.35	0.35	0.26	0.42	0.42	0.02	0.19	0.19
Sat Flow, veh/h	1810	1900	1603	1810	1900	1379	1810	1222	573	1810	1450	380
Grp Volume(v), veh/h	21	579	179	53	389	32	432	0	263	32	0	53
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1379	1810	0	1795	1810	0	1829
Q Serve(g_s), s	1.0	25.3	7.2	2.5	14.4	1.3	20.1	0.0	8.6	1.5	0.0	2.1
Cycle Q Clear(g_c), s	1.0	25.3	7.2	2.5	14.4	1.3	20.1	0.0	8.6	1.5	0.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.21
Lane Grp Cap(c), veh/h	33	633	534	68	669	486	469	0	753	45	0	339
V/C Ratio(X)	0.63	0.92	0.34	0.78	0.58	0.07	0.92	0.00	0.35	0.71	0.00	0.16
Avail Cap(c_a), veh/h	84	660	557	84	669	486	503	0	753	105	0	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	27.6	21.6	41.2	22.8	18.6	31.1	0.0	17.1	41.8	0.0	29.5
Incr Delay (d2), s/veh	18.2	17.1	0.4	30.4	1.3	0.1	21.7	0.0	1.3	18.8	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	16.2	3.3	1.8	7.8	0.5	12.8	0.0	4.5	1.0	0.0	1.2
LnGrp Delay(d),s/veh	60.4	44.8	22.0	71.7	24.1	18.6	52.9	0.0	18.3	60.6	0.0	30.5
LnGrp LOS	E	D	C	E	C	B	D		B	E		C
Approach Vol, veh/h		779			474			695			85	
Approach Delay, s/veh		40.0			29.0			39.8			41.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	40.2	7.2	32.8	26.4	20.0	5.6	34.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	35.0	4.0	30.0	24.0	16.0	4.0	30.0
Max Q Clear Time (g_c+I1), s	3.5	10.6	4.5	27.3	22.1	4.1	3.0	16.4
Green Ext Time (p_c), s	0.0	1.9	0.0	1.5	0.3	1.4	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	37.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	520	60	150	310	140	100	350	210	210	270	50
Future Volume (veh/h)	110	520	60	150	310	140	100	350	210	210	270	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	559	65	161	333	151	108	376	226	226	290	54
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	357	1283	149	329	748	739	168	609	361	253	994	183
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.09	0.28	0.28	0.14	0.33	0.33
Sat Flow, veh/h	924	3259	378	812	1900	1384	1810	2179	1290	1810	3042	559
Grp Volume(v), veh/h	118	309	315	161	333	151	108	310	292	226	170	174
Grp Sat Flow(s),veh/h/ln	924	1805	1832	812	1900	1384	1810	1805	1664	1810	1805	1796
Q Serve(g_s), s	6.9	8.0	8.1	11.6	8.3	3.7	3.7	9.6	9.8	7.9	4.5	4.6
Cycle Q Clear(g_c), s	15.2	8.0	8.1	19.7	8.3	3.7	3.7	9.6	9.8	7.9	4.5	4.6
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.78	1.00		0.31
Lane Grp Cap(c), veh/h	357	711	721	329	748	739	168	505	465	253	589	587
V/C Ratio(X)	0.33	0.43	0.44	0.49	0.45	0.20	0.64	0.62	0.63	0.89	0.29	0.30
Avail Cap(c_a), veh/h	381	758	769	351	798	776	253	758	699	253	758	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	14.3	14.3	21.5	14.3	7.8	28.1	20.1	20.2	27.2	16.1	16.1
Incr Delay (d2), s/veh	0.5	0.4	0.4	1.1	0.4	0.1	4.0	1.2	1.4	30.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.0	4.1	2.7	4.4	1.4	2.0	4.9	4.7	6.1	2.3	2.3
LnGrp Delay(d),s/veh	20.5	14.7	14.7	22.6	14.7	8.0	32.1	21.4	21.6	57.3	16.4	16.4
LnGrp LOS	C	B	B	C	B	A	C	C	C	E	B	B
Approach Vol, veh/h		742			645			710			570	
Approach Delay, s/veh		15.6			15.1			23.1			32.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	22.0		29.3	10.0	25.0		29.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	27.0		27.0	9.0	27.0		27.0
Max Q Clear Time (g_c+I1), s	9.9	11.8		17.2	5.7	6.6		21.7
Green Ext Time (p_c), s	0.0	5.3		5.5	0.1	6.0		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Volume (vph)	20	1150	10	10	760	10
Future Volume (vph)	20	1150	10	10	760	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1700	1800
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		0.98	0.95	1.00
Satd. Flow (prot)	1800	1529		1753	1615	1489
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	1800	1529		1797	1615	1489
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1250	11	11	826	11
RTOR Reduction (vph)	0	0	0	0	0	1
Lane Group Flow (vph)	22	1250	0	22	826	10
Confl. Peds. (#/hr)		5	5			5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm
Protected Phases	4	2		8	2	
Permitted Phases		4	8			2
Actuated Green, G (s)	2.5	52.7		2.5	50.2	50.2
Effective Green, g (s)	2.5	52.7		2.5	50.2	50.2
Actuated g/C Ratio	0.04	0.84		0.04	0.80	0.80
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	71	1529		71	1293	1192
v/s Ratio Prot	0.01	c0.65			0.51	
v/s Ratio Perm		0.16		0.01		0.01
v/c Ratio	0.31	0.82		0.31	0.64	0.01
Uniform Delay, d1	29.3	2.5		29.3	2.6	1.3
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.5	3.5		2.5	1.0	0.0
Delay (s)	31.7	6.1		31.7	3.6	1.3
Level of Service	C	A		C	A	A
Approach Delay (s)	6.5			31.7	3.6	
Approach LOS	A			C	A	

Intersection Summary			
HCM 2000 Control Delay	5.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	62.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	175.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			✥			✥			✥	
Traffic Vol, veh/h	30	750	0	0	530	330	0	0	0	220	0	20
Future Vol, veh/h	30	750	0	0	530	330	0	0	0	220	0	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	798	0	0	564	351	0	0	0	234	0	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	182.7	213.3	0	19.1
HCM LOS	F	F	-	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	4%	0%	92%
Vol Thru, %	100%	96%	62%	0%
Vol Right, %	0%	0%	38%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	780	860	240
LT Vol	0	30	0	220
Through Vol	0	750	530	0
RT Vol	0	0	330	20
Lane Flow Rate	0	830	915	255
Geometry Grp	1	1	1	1
Degree of Util (X)	0	1.336	1.412	0.506
Departure Headway (Hd)	9.925	6.386	6.063	8.116
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	573	604	447
Service Time	7.925	4.386	4.063	6.116
HCM Lane V/C Ratio	0	1.449	1.515	0.57
HCM Control Delay	12.9	182.7	213.3	19.1
HCM Lane LOS	N	F	F	C
HCM 95th-tile Q	0	32.4	38.7	2.8

Intersection	
Intersection Delay, s/veh	340.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	930	10	10	800	270	30	10	10	270	10	20
Future Vol, veh/h	10	930	10	10	800	270	30	10	10	270	10	20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	949	10	10	816	276	31	10	10	276	10	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	350.3	433.2	16.9	27.6
HCM LOS	F	F	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	60%	1%	1%	90%
Vol Thru, %	20%	98%	74%	3%
Vol Right, %	20%	1%	25%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	950	1080	300
LT Vol	30	10	10	270
Through Vol	10	930	800	10
RT Vol	10	10	270	20
Lane Flow Rate	51	969	1102	306
Geometry Grp	1	1	1	1
Degree of Util (X)	0.122	1.716	1.907	0.631
Departure Headway (Hd)	12.238	7.674	7.289	9.568
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	295	485	507	380
Service Time	10.238	5.674	5.289	7.568
HCM Lane V/C Ratio	0.173	1.998	2.174	0.805
HCM Control Delay	16.9	350.3	433.2	27.6
HCM Lane LOS	C	F	F	D
HCM 95th-tile Q	0.4	48.2	61.7	4.1

Intersection	
Intersection Delay, s/veh	670.6
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱			↰↑	↰↱	
Traffic Vol, veh/h	550	820	550	470	700	640
Future Vol, veh/h	550	820	550	470	700	640
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	561	837	561	480	714	653
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	730.3	517	726.5
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	52%	0%	54%
Vol Thru, %	0%	40%	46%
Vol Right, %	48%	60%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1340	1370	1020
LT Vol	700	0	550
Through Vol	0	550	470
RT Vol	640	820	0
Lane Flow Rate	1367	1398	1041
Geometry Grp	1	1	1
Degree of Util (X)	2.555	2.544	2.054
Departure Headway (Hd)	9.112	12.497	13.952
Convergence, Y/N	Yes	Yes	Yes
Cap	410	308	271
Service Time	7.112	10.497	11.952
HCM Lane V/C Ratio	3.334	4.539	3.841
HCM Control Delay	726.5	730.3	517
HCM Lane LOS	F	F	F
HCM 95th-tile Q	81.4	60.2	39.1

Intersection	
Int Delay, s/veh	10.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	70	170	200	60	90	270
Future Vol, veh/h	70	170	200	60	90	270
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	78	189	222	67	100	300

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	267	0	683	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	511	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1308	-	418	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	606	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1308	-	344	877
Mov Cap-2 Maneuver	-	-	-	-	344	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	499	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	20
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	632	-	-	1308	-
HCM Lane V/C Ratio	0.633	-	-	0.17	-
HCM Control Delay (s)	20	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.5	-	-	0.6	-

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	10	10	10	10	10	10	320	20	20	280	10
Future Vol, veh/h	10	10	10	10	10	10	10	320	20	20	280	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	11	11	11	11	352	22	22	308	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.7	11.3	10.8
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	33%	6%
Vol Thru, %	91%	33%	33%	90%
Vol Right, %	6%	33%	33%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	350	30	30	310
LT Vol	10	10	10	20
Through Vol	320	10	10	280
RT Vol	20	10	10	10
Lane Flow Rate	385	33	33	341
Geometry Grp	1	1	1	1
Degree of Util (X)	0.471	0.049	0.049	0.423
Departure Headway (Hd)	4.406	5.388	5.388	4.469
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	661	661	804
Service Time	2.433	3.449	3.449	2.497
HCM Lane V/C Ratio	0.47	0.05	0.05	0.424
HCM Control Delay	11.3	8.7	8.7	10.8
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.5	0.2	0.2	2.1

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	30	5	20	10	5	10	20	950	10	5	1000	50
Future Volume (veh/h)	30	5	20	10	5	10	20	950	10	5	1000	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	5	22	11	5	11	22	1033	11	5	1087	54
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	236	28	121	226	47	104	65	1329	1130	17	2429	1087
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.70	0.70	0.01	0.67	0.67
Sat Flow, veh/h	1419	308	1354	1405	530	1165	1810	1900	1615	1810	3610	1615
Grp Volume(v), veh/h	33	0	27	11	0	16	22	1033	11	5	1087	54
Grp Sat Flow(s),veh/h/ln	1419	0	1661	1405	0	1694	1810	1900	1615	1810	1805	1615
Q Serve(g_s), s	1.3	0.0	0.9	0.4	0.0	0.5	0.7	21.3	0.1	0.2	8.4	0.7
Cycle Q Clear(g_c), s	1.8	0.0	0.9	1.3	0.0	0.5	0.7	21.3	0.1	0.2	8.4	0.7
Prop In Lane	1.00		0.81	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	0	149	226	0	152	65	1329	1130	17	2429	1087
V/C Ratio(X)	0.14	0.00	0.18	0.05	0.00	0.11	0.34	0.78	0.01	0.30	0.45	0.05
Avail Cap(c_a), veh/h	538	0	502	525	0	512	213	1692	1438	213	3214	1438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	25.1	25.7	0.0	24.9	28.0	5.9	2.7	29.3	4.6	3.3
Incr Delay (d2), s/veh	0.3	0.0	0.6	0.1	0.0	0.3	3.0	1.8	0.0	9.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	0.2	0.0	0.3	0.4	11.6	0.1	0.1	4.1	0.3
LnGrp Delay(d),s/veh	26.0	0.0	25.6	25.8	0.0	25.2	31.1	7.7	2.7	38.7	4.7	3.3
LnGrp LOS	C		C	C		C	C	A	A	D	A	A
Approach Vol, veh/h		60			27			1066			1146	
Approach Delay, s/veh		25.8			25.4			8.1			4.8	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	45.6		9.3	6.1	44.1		9.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	53.0		18.0	7.0	53.0		18.0
Max Q Clear Time (g_c+I1), s	2.2	23.3		3.8	2.7	10.4		3.3
Green Ext Time (p_c), s	0.0	18.3		0.2	0.0	22.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.1
HCM 2010 LOS	A

HCM 2010 TWSC
20: Oliver St/Pearl Ln & Alessandro Blvd

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑	↱		↰↑↱	
Traffic Vol, veh/h	0	210	60	20	460	0	190	10	40	0	0	10
Future Vol, veh/h	0	210	60	20	460	0	190	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	263	75	25	575	0	238	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	575	0	0	338	0	0	638	925	169	763	963	288
Stage 1	-	-	-	-	-	-	300	300	-	625	625	-
Stage 2	-	-	-	-	-	-	338	625	-	138	338	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1008	-	-	1232	-	-	365	271	852	297	258	715
Stage 1	-	-	-	-	-	-	690	669	-	444	480	-
Stage 2	-	-	-	-	-	-	656	480	-	857	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1008	-	-	1232	-	-	350	263	852	267	250	715
Mov Cap-2 Maneuver	-	-	-	-	-	-	524	415	-	407	406	-
Stage 1	-	-	-	-	-	-	690	669	-	444	466	-
Stage 2	-	-	-	-	-	-	625	466	-	792	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	16.8	10.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	517	852	1008	-	-	1232	-	-	715
HCM Lane V/C Ratio	0.484	0.059	-	-	-	0.02	-	-	0.017
HCM Control Delay (s)	18.3	9.5	0	-	-	8	0.1	-	10.1
HCM Lane LOS	C	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	2.6	0.2	0	-	-	0.1	-	-	0.1

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↱			↰↱			↰↱	
Traffic Volume (veh/h)	100	40	60	210	50	80	60	120	70	100	270	90
Future Volume (veh/h)	100	40	60	210	50	80	60	120	70	100	270	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	47	70	244	58	93	70	140	81	116	314	105
Adj No. of Lanes	1	2	0	1	1	0	0	2	0	0	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	358	318	316	159	255	254	441	269	283	612	205
Arrive On Green	0.13	0.20	0.20	0.17	0.24	0.24	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1805	1603	1810	656	1051	363	1434	874	480	1988	665
Grp Volume(v), veh/h	116	47	70	244	0	151	146	0	145	281	0	254
Grp Sat Flow(s),veh/h/ln	1810	1805	1603	1810	0	1707	1105	0	1566	1528	0	1605
Q Serve(g_s), s	2.2	0.8	1.4	4.8	0.0	2.8	0.4	0.0	2.7	3.1	0.0	4.9
Cycle Q Clear(g_c), s	2.2	0.8	1.4	4.8	0.0	2.8	5.3	0.0	2.7	5.8	0.0	4.9
Prop In Lane	1.00		1.00	1.00		0.62	0.48		0.56	0.41		0.41
Lane Grp Cap(c), veh/h	237	358	318	316	0	414	482	0	482	606	0	494
V/C Ratio(X)	0.49	0.13	0.22	0.77	0.00	0.37	0.30	0.00	0.30	0.46	0.00	0.51
Avail Cap(c_a), veh/h	433	864	767	577	0	953	705	0	750	864	0	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	12.4	12.6	14.8	0.0	11.8	9.9	0.0	9.9	10.9	0.0	10.7
Incr Delay (d2), s/veh	1.6	0.2	0.3	4.0	0.0	0.5	0.3	0.0	0.3	0.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.4	0.6	2.7	0.0	1.4	1.3	0.0	1.2	2.5	0.0	2.2
LnGrp Delay(d),s/veh	16.8	12.6	13.0	18.8	0.0	12.4	10.3	0.0	10.3	11.5	0.0	11.5
LnGrp LOS	B	B	B	B		B	B		B	B		B
Approach Vol, veh/h		233			395			291			535	
Approach Delay, s/veh		14.8			16.3			10.3			11.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.6	10.6	11.5		15.6	8.9	13.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		18.0	12.0	18.0		18.0	9.0	21.0
Max Q Clear Time (g_c+I1), s		7.3	6.8	3.4		7.8	4.2	4.8
Green Ext Time (p_c), s		3.5	0.3	1.1		3.4	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	50	1120	50	230	2850	200	120	310	220	80	150	30
Future Volume (veh/h)	50	1120	50	230	2850	200	120	310	220	80	150	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	1204	54	247	3065	215	129	333	237	86	161	32
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	163	2691	835	307	2902	901	189	757	336	108	650	126
Arrive On Green	0.05	0.52	0.52	0.09	0.56	0.56	0.05	0.21	0.21	0.06	0.22	0.22
Sat Flow, veh/h	3510	5187	1610	3510	5187	1611	3510	3610	1603	1810	3011	585
Grp Volume(v), veh/h	54	1204	54	247	3065	215	129	333	237	86	95	98
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1611	1755	1805	1603	1810	1805	1792
Q Serve(g_s), s	1.9	18.7	2.1	8.9	72.0	8.7	4.6	10.3	17.6	6.0	5.6	5.8
Cycle Q Clear(g_c), s	1.9	18.7	2.1	8.9	72.0	8.7	4.6	10.3	17.6	6.0	5.6	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	163	2691	835	307	2903	901	189	757	336	108	389	387
V/C Ratio(X)	0.33	0.45	0.06	0.81	1.06	0.24	0.68	0.44	0.70	0.79	0.24	0.25
Avail Cap(c_a), veh/h	191	2691	835	437	2903	901	191	1263	561	141	673	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	19.4	15.4	57.6	28.3	14.4	59.8	44.3	47.1	59.7	41.8	41.9
Incr Delay (d2), s/veh	1.2	0.1	0.0	7.2	33.9	0.1	9.4	0.4	2.7	20.6	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	8.9	1.0	4.6	43.2	3.9	2.5	5.2	8.1	3.6	2.8	2.9
LnGrp Delay(d),s/veh	60.6	19.5	15.4	64.8	62.2	14.5	69.2	44.7	49.8	80.3	42.1	42.2
LnGrp LOS	E	B	B	E	F	B	E	D	D	F	D	D
Approach Vol, veh/h		1312			3527			699			279	
Approach Delay, s/veh		21.0			59.5			50.9			53.9	
Approach LOS		C			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	31.0	15.2	70.7	10.9	31.8	10.0	76.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	45.0	16.0	63.0	7.0	48.0	7.0	72.0
Max Q Clear Time (g_c+I1), s	8.0	19.6	10.9	20.7	6.6	7.8	3.9	74.0
Green Ext Time (p_c), s	0.0	4.4	0.3	41.0	0.0	4.6	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		49.5
HCM 2010 LOS		D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

	↗	↘	↖	↑	↓	↙
Movement	**EBL**	**EBR**	**NBL**	**NBT**	**SBT**	**SBR**
Lane Configurations	↰↰		↰	↰↑		
Traffic Volume (veh/h)	990	0	560	120	0	0
Future Volume (veh/h)	990	0	560	120	0	0
Number	7	14	5	2		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	0	1900	1900		
Adj Flow Rate, veh/h	1065	0	694	0		
Adj No. of Lanes	2	0	2	1		
Peak Hour Factor	0.93	0.93	0.93	0.93		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	0	0	3612	1209		
Arrive On Green	0.00	0.00	0.64	0.00		
Sat Flow, veh/h	0		3619	1900		
Grp Volume(v), veh/h	0.0		694	0		
Grp Sat Flow(s),veh/h/ln			1810	1900		
Q Serve(g_s), s			0.9	0.0		
Cycle Q Clear(g_c), s			0.9	0.0		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			3612	1209		
V/C Ratio(X)			0.19	0.00		
Avail Cap(c_a), veh/h			9205	4145		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	0.00		
Uniform Delay (d), s/veh			0.9	0.0		
Incr Delay (d2), s/veh			0.0	0.0		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.4	0.0		
LnGrp Delay(d),s/veh			0.9	0.0		
LnGrp LOS			A			
Approach Vol, veh/h				694		
Approach Delay, s/veh				0.9		
Approach LOS				A		

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2						
Phs Duration (G+Y+Rc), s		11.0						
Change Period (Y+Rc), s		4.0						
Max Green Setting (Gmax), s		24.0						
Max Q Clear Time (g_c+I1), s		2.9						
Green Ext Time (p_c), s		2.5						

Intersection Summary	
HCM 2010 Ctrl Delay	0.9
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑↱	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	0	10	10	1030	20	590	30	1220	480	110	470	0
Future Volume (veh/h)	0	10	10	1030	20	590	30	1220	480	110	470	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	11	11	1157	22	663	34	1371	539	124	528	0
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1	81	81	1103	837	709	70	1547	655	195	1530	684
Arrive On Green	0.00	0.09	0.09	0.31	0.44	0.44	0.04	0.41	0.41	0.06	0.42	0.00
Sat Flow, veh/h	1810	865	865	3510	1900	1610	1810	3800	1609	3510	3610	1615
Grp Volume(v), veh/h	0	0	22	1157	22	663	34	1371	539	124	528	0
Grp Sat Flow(s),veh/h/ln	1810	0	1731	1755	1900	1610	1810	1900	1609	1755	1805	1615
Q Serve(g_s), s	0.0	0.0	1.4	39.0	0.8	48.6	2.3	41.5	37.1	4.3	12.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	39.0	0.8	48.6	2.3	41.5	37.1	4.3	12.3	0.0
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1	0	163	1103	837	709	70	1547	655	195	1530	684
V/C Ratio(X)	0.00	0.00	0.14	1.05	0.03	0.93	0.48	0.89	0.82	0.63	0.35	0.00
Avail Cap(c_a), veh/h	102	0	502	1103	1041	882	102	1593	674	198	1530	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	51.6	42.5	19.6	33.0	58.4	34.1	32.8	57.4	24.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	40.7	0.0	14.8	5.0	6.3	8.0	6.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	25.1	0.4	24.3	1.2	23.1	17.9	2.3	6.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	51.9	83.3	19.6	47.8	63.4	40.5	40.8	63.7	24.3	0.0
LnGrp LOS			D	F	B	D	E	D	D	E	C	
Approach Vol, veh/h		22			1842			1944			652	
Approach Delay, s/veh		51.9			69.7			40.9			31.8	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	54.5	43.0	15.7	8.8	56.6	0.0	58.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	52.0	39.0	36.0	7.0	52.0	7.0	68.0
Max Q Clear Time (g_c+I1), s	6.3	43.5	41.0	3.4	4.3	14.3	0.0	50.6
Green Ext Time (p_c), s	0.0	7.0	0.0	2.9	0.0	22.2	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	70	610	900	190	1090	390	1610	1380	670	260	670	80
Future Volume (veh/h)	70	610	900	190	1090	390	1610	1380	670	260	670	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	649	957	202	1160	415	1713	1468	713	277	713	85
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	929	1795	244	1004	597	1319	1693	867	326	965	298
Arrive On Green	0.05	0.26	0.26	0.07	0.28	0.28	0.38	0.47	0.47	0.09	0.19	0.19
Sat Flow, veh/h	1810	3610	2826	3510	3610	1606	3510	3610	1610	3510	5187	1602
Grp Volume(v), veh/h	74	649	957	202	1160	415	1713	1468	713	277	713	85
Grp Sat Flow(s),veh/h/ln	1810	1805	1413	1755	1805	1606	1755	1805	1610	1755	1729	1602
Q Serve(g_s), s	5.8	23.4	7.2	8.2	40.0	24.9	54.0	52.3	52.7	11.2	18.6	6.6
Cycle Q Clear(g_c), s	5.8	23.4	7.2	8.2	40.0	24.9	54.0	52.3	52.7	11.2	18.6	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	929	1795	244	1004	597	1319	1693	867	326	965	298
V/C Ratio(X)	0.84	0.70	0.53	0.83	1.15	0.70	1.30	0.87	0.82	0.85	0.74	0.29
Avail Cap(c_a), veh/h	88	929	1795	244	1004	597	1319	1808	919	366	1335	412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.8	48.3	6.0	66.0	51.9	24.5	44.9	34.2	27.5	64.2	55.2	50.3
Incr Delay (d2), s/veh	48.1	2.3	0.3	20.4	81.2	3.5	140.1	4.5	5.8	15.7	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	11.9	6.1	4.6	31.1	11.6	51.7	27.2	24.6	6.1	9.0	2.9
LnGrp Delay(d),s/veh	116.0	50.7	6.3	86.4	133.1	28.0	185.0	38.7	33.3	79.9	56.6	50.8
LnGrp LOS	F	D	A	F	F	C	F	D	C	E	E	D
Approach Vol, veh/h		1680			1777			3894			1075	
Approach Delay, s/veh		28.3			103.2			102.1			62.2	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	71.4	14.0	41.0	58.0	30.7	11.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	72.0	10.0	37.0	50.0	37.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	13.2	54.7	10.2	25.4	56.0	20.6	7.8	42.0
Green Ext Time (p_c), s	0.2	12.7	0.0	6.6	0.0	4.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	82.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
123: Gilman Springs Rd & Bridge St

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Volume (veh/h)	220	40	10	820	470	60
Future Volume (veh/h)	220	40	10	820	470	60
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	44	11	901	516	66
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	331	295	555	1174	1021	131
Arrive On Green	0.18	0.18	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1810	1615	846	1900	1651	211
Grp Volume(v), veh/h	242	44	11	901	0	582
Grp Sat Flow(s),veh/h/ln	1810	1615	846	1900	0	1863
Q Serve(g_s), s	5.1	0.9	0.3	13.8	0.0	7.0
Cycle Q Clear(g_c), s	5.1	0.9	7.3	13.8	0.0	7.0
Prop In Lane	1.00	1.00	1.00			0.11
Lane Grp Cap(c), veh/h	331	295	555	1174	0	1151
V/C Ratio(X)	0.73	0.15	0.02	0.77	0.00	0.51
Avail Cap(c_a), veh/h	811	724	749	1609	0	1578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	13.8	6.3	5.6	0.0	4.3
Incr Delay (d2), s/veh	3.1	0.2	0.0	1.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.4	0.1	7.5	0.0	3.5
LnGrp Delay(d),s/veh	18.6	14.0	6.3	7.1	0.0	4.6
LnGrp LOS	B	B	A	A		A
Approach Vol, veh/h	286			912	582	
Approach Delay, s/veh	17.9			7.1	4.6	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		28.8		11.3		28.8		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		34.0		18.0		34.0		
Max Q Clear Time (g_c+I1), s		15.8		7.1		9.0		
Green Ext Time (p_c), s		9.0		0.6		10.5		

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
124: SR-79 NB Ramps & Gilman Springs Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Volume (veh/h)	20	480	0	0	460	290	360	10	10	0	0	0
Future Volume (veh/h)	20	480	0	0	460	290	360	10	10	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	21	511	0	0	489	309	383	11	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	400	884	0	0	884	752	538	15	493			
Arrive On Green	0.47	0.47	0.00	0.00	0.47	0.47	0.31	0.31	0.00			
Sat Flow, veh/h	692	1900	0	0	1900	1615	1761	51	1615			
Grp Volume(v), veh/h	21	511	0	0	489	309	394	0	0			
Grp Sat Flow(s),veh/h/ln	692	1900	0	0	1900	1615	1812	0	1615			
Q Serve(g_s), s	0.8	6.9	0.0	0.0	6.5	4.4	6.7	0.0	0.0			
Cycle Q Clear(g_c), s	7.3	6.9	0.0	0.0	6.5	4.4	6.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.97		1.00			
Lane Grp Cap(c), veh/h	400	884	0	0	884	752	553	0	493			
V/C Ratio(X)	0.05	0.58	0.00	0.00	0.55	0.41	0.71	0.00	0.00			
Avail Cap(c_a), veh/h	633	1525	0	0	1525	1296	1246	0	1111			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	9.3	6.8	0.0	0.0	6.7	6.2	10.8	0.0	0.0			
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.0	0.5	0.4	1.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	3.7	0.0	0.0	3.4	2.0	3.5	0.0	0.0			
LnGrp Delay(d),s/veh	9.4	7.4	0.0	0.0	7.3	6.5	12.5	0.0	0.0			
LnGrp LOS	A	A			A	A	B					
Approach Vol, veh/h		532			798			394				
Approach Delay, s/veh		7.5			7.0			12.5				
Approach LOS		A			A			B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		14.7		20.2				20.2
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		24.0		28.0				28.0
Max Q Clear Time (g_c+I1), s		8.7		9.3				8.5
Green Ext Time (p_c), s		1.9		7.0				7.1

Intersection Summary			
HCM 2010 Ctrl Delay			8.4
HCM 2010 LOS			A

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Volume (veh/h)	0	200	420	30	790	0	0	0	0	400	0	20
Future Volume (veh/h)	0	200	420	30	790	0	0	0	0	400	0	20
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	213	447	32	840	0				426	0	0
Adj No. of Lanes	0	1	1	1	1	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	906	770	515	906	0				561	0	501
Arrive On Green	0.00	0.48	0.48	0.48	0.48	0.00				0.31	0.00	0.00
Sat Flow, veh/h	0	1900	1615	787	1900	0				1810	0	1615
Grp Volume(v), veh/h	0	213	447	32	840	0				426	0	0
Grp Sat Flow(s),veh/h/ln	0	1900	1615	787	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	2.5	7.5	0.9	15.6	0.0				8.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.5	7.5	3.4	15.6	0.0				8.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	906	770	515	906	0				561	0	501
V/C Ratio(X)	0.00	0.24	0.58	0.06	0.93	0.00				0.76	0.00	0.00
Avail Cap(c_a), veh/h	0	911	774	517	911	0				867	0	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.8	7.1	6.8	9.2	0.0				11.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1	0.1	15.2	0.0				2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	3.5	0.2	11.8	0.0				4.2	0.0	0.0
LnGrp Delay(d),s/veh	0.0	5.9	8.2	6.8	24.4	0.0				13.8	0.0	0.0
LnGrp LOS		A	A	A	C					B		
Approach Vol, veh/h		660			872						426	
Approach Delay, s/veh		7.5			23.7						13.8	
Approach LOS		A			C						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				21.9		15.6		21.9
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				9.5		10.0		17.6
Green Ext Time (p_c), s				5.2		1.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	10	230	250	50	290	20	390	90	50	50	190	10
Future Volume (veh/h)	10	230	250	50	290	20	390	90	50	50	190	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	235	255	51	296	20	398	92	51	51	194	10
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	439	369	72	495	358	466	447	248	72	308	16
Arrive On Green	0.01	0.23	0.23	0.04	0.26	0.26	0.26	0.39	0.39	0.04	0.17	0.17
Sat Flow, veh/h	1810	1900	1598	1810	1900	1376	1810	1147	636	1810	1790	92
Grp Volume(v), veh/h	10	235	255	51	296	20	398	0	143	51	0	204
Grp Sat Flow(s),veh/h/ln	1810	1900	1598	1810	1900	1376	1810	0	1783	1810	0	1883
Q Serve(g_s), s	0.3	5.8	7.8	1.5	7.3	0.6	11.2	0.0	2.8	1.5	0.0	5.4
Cycle Q Clear(g_c), s	0.3	5.8	7.8	1.5	7.3	0.6	11.2	0.0	2.8	1.5	0.0	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.05
Lane Grp Cap(c), veh/h	19	439	369	72	495	358	466	0	695	72	0	324
V/C Ratio(X)	0.54	0.54	0.69	0.71	0.60	0.06	0.85	0.00	0.21	0.71	0.00	0.63
Avail Cap(c_a), veh/h	136	570	479	136	570	412	610	0	935	203	0	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	18.0	18.8	25.3	17.3	14.8	18.9	0.0	10.8	25.3	0.0	20.5
Incr Delay (d2), s/veh	21.7	1.0	2.9	12.1	1.3	0.1	9.1	0.0	0.1	12.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.1	3.7	1.0	4.0	0.2	6.7	0.0	1.4	1.0	0.0	3.0
LnGrp Delay(d),s/veh	48.0	19.0	21.6	37.4	18.6	14.9	27.9	0.0	11.0	37.4	0.0	22.5
LnGrp LOS	D	B	C	D	B	B	C		B	D		C
Approach Vol, veh/h		500			367			541			255	
Approach Delay, s/veh		20.9			21.0			23.5			25.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	24.8	6.1	16.3	17.7	13.2	4.6	17.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	28.0	4.0	16.0	18.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	3.5	4.8	3.5	9.8	13.2	7.4	2.3	9.3
Green Ext Time (p_c), s	0.0	2.0	0.0	2.2	0.6	1.3	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋎	
Traffic Volume (veh/h)	20	410	960	240	280	50
Future Volume (veh/h)	20	410	960	240	280	50
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	21	423	990	247	289	0
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	42	631	975	243	321	0
Arrive On Green	0.70	0.70	0.70	0.70	0.19	0.00
Sat Flow, veh/h	0	901	1392	347	1709	0
Grp Volume(v), veh/h	444	0	0	1237	290	0
Grp Sat Flow(s),veh/h/ln	901	0	0	1739	1715	0
Q Serve(g_s), s	0.0	0.0	0.0	63.0	14.9	0.0
Cycle Q Clear(g_c), s	63.0	0.0	0.0	63.0	14.9	0.0
Prop In Lane	0.05			0.20	1.00	0.00
Lane Grp Cap(c), veh/h	673	0	0	1219	322	0
V/C Ratio(X)	0.66	0.00	0.00	1.01	0.90	0.00
Avail Cap(c_a), veh/h	673	0	0	1219	324	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.9	0.0	0.0	13.4	35.7	0.0
Incr Delay (d2), s/veh	2.4	0.0	0.0	29.5	26.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	0.0	39.5	9.4	0.0
LnGrp Delay(d),s/veh	23.3	0.0	0.0	43.0	62.2	0.0
LnGrp LOS	C			F	E	
Approach Vol, veh/h		444	1237		290	
Approach Delay, s/veh		23.3	43.0		62.2	
Approach LOS		C	D		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				68.0		21.9		68.0
Change Period (Y+Rc), s				5.0		5.0		5.0
Max Green Setting (Gmax), s				63.0		17.0		63.0
Max Q Clear Time (g_c+I1), s				65.0		16.9		65.0
Green Ext Time (p_c), s				0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
133: Live Oak Canyon & San Timoteo Canyon Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		✥			✥	
Traffic Volume (veh/h)	10	650	20	0	1080	100	20	10	10	210	10	140
Future Volume (veh/h)	10	650	20	0	1080	100	20	10	10	210	10	140
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	11	684	21	0	1137	105	21	11	11	221	11	147
Adj No. of Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	837	986	0	1160	986	204	106	86	275	11	141
Arrive On Green	0.64	0.64	0.64	0.00	0.64	0.64	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1	1298	1530	0	1800	1530	592	432	352	867	43	577
Grp Volume(v), veh/h	695	0	21	0	1137	105	43	0	0	379	0	0
Grp Sat Flow(s),veh/h/ln	1300	0	1530	0	1800	1530	1377	0	0	1487	0	0
Q Serve(g_s), s	3.1	0.0	0.4	0.0	54.9	2.4	0.0	0.0	0.0	20.3	0.0	0.0
Cycle Q Clear(g_c), s	58.0	0.0	0.4	0.0	54.9	2.4	1.7	0.0	0.0	22.0	0.0	0.0
Prop In Lane	0.02		1.00	0.00		1.00	0.49		0.26	0.58		0.39
Lane Grp Cap(c), veh/h	878	0	986	0	1160	986	396	0	0	427	0	0
V/C Ratio(X)	0.79	0.00	0.02	0.00	0.98	0.11	0.11	0.00	0.00	0.89	0.00	0.00
Avail Cap(c_a), veh/h	878	0	986	0	1160	986	396	0	0	427	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.7	0.0	5.8	0.0	15.4	6.1	26.3	0.0	0.0	34.3	0.0	0.0
Incr Delay (d2), s/veh	5.0	0.0	0.0	0.0	21.7	0.0	0.1	0.0	0.0	19.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	0.0	0.2	0.0	33.8	1.0	0.8	0.0	0.0	11.7	0.0	0.0
LnGrp Delay(d),s/veh	19.7	0.0	5.8	0.0	37.1	6.2	26.5	0.0	0.0	54.1	0.0	0.0
LnGrp LOS	B		A		D	A	C			D		
Approach Vol, veh/h		716			1242			43			379	
Approach Delay, s/veh		19.3			34.5			26.5			54.1	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		63.0		27.0		63.0		27.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		58.0		22.0		58.0		22.0
Max Q Clear Time (g_c+I1), s		56.9		3.7		60.0		24.0
Green Ext Time (p_c), s		1.0		2.2		0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			32.9
HCM 2010 LOS			C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	20	5	20	20	15	10	20	1080	10	5	1150	30
Future Volume (veh/h)	20	5	20	20	15	10	20	1080	10	5	1150	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	5	22	22	16	11	22	1174	11	5	1250	33
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	27	119	209	92	63	64	1376	1169	17	2520	1128
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.72	0.72	0.01	0.70	0.70
Sat Flow, veh/h	1405	308	1354	1405	1050	722	1810	1900	1615	1810	3610	1615
Grp Volume(v), veh/h	22	0	27	22	0	27	22	1174	11	5	1250	33
Grp Sat Flow(s),veh/h/ln	1405	0	1661	1405	0	1773	1810	1900	1615	1810	1805	1615
Q Serve(g_s), s	1.0	0.0	1.0	1.0	0.0	0.9	0.8	29.9	0.1	0.2	10.7	0.4
Cycle Q Clear(g_c), s	1.9	0.0	1.0	2.0	0.0	0.9	0.8	29.9	0.1	0.2	10.7	0.4
Prop In Lane	1.00		0.81	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	0	146	209	0	155	64	1376	1169	17	2520	1128
V/C Ratio(X)	0.10	0.00	0.19	0.11	0.00	0.17	0.35	0.85	0.01	0.30	0.50	0.03
Avail Cap(c_a), veh/h	465	0	446	464	0	476	189	1503	1278	189	2856	1278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	0.0	28.3	29.3	0.0	28.3	31.6	6.7	2.6	33.0	4.7	3.1
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.2	0.0	0.5	3.2	4.7	0.0	9.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	0.4	0.0	0.5	0.5	16.8	0.1	0.1	5.3	0.2
LnGrp Delay(d),s/veh	29.4	0.0	29.0	29.5	0.0	28.8	34.8	11.4	2.6	42.5	4.8	3.1
LnGrp LOS	C		C	C		C	C	B	A	D	A	A
Approach Vol, veh/h		49			49			1207			1288	
Approach Delay, s/veh		29.2			29.1			11.7			4.9	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.6	52.5		9.9	6.4	50.8		9.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	53.0		18.0	7.0	53.0		18.0
Max Q Clear Time (g_c+I1), s	2.2	31.9		3.9	2.8	12.7		4.0
Green Ext Time (p_c), s	0.0	16.6		0.2	0.0	26.8		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰	↱		↰↑↱	
Traffic Vol, veh/h	10	450	140	20	300	0	90	0	30	0	0	10
Future Vol, veh/h	10	450	140	20	300	0	90	0	30	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	320	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	563	175	25	375	0	113	0	38	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	375	0	0	738	0	0	913	1100	369	731	1188	188
Stage 1	-	-	-	-	-	-	675	675	-	425	425	-
Stage 2	-	-	-	-	-	-	238	425	-	306	763	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1195	-	-	877	-	-	232	214	634	313	190	828
Stage 1	-	-	-	-	-	-	415	456	-	583	590	-
Stage 2	-	-	-	-	-	-	750	590	-	684	416	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	877	-	-	219	202	634	282	180	828
Mov Cap-2 Maneuver	-	-	-	-	-	-	369	373	-	461	334	-
Stage 1	-	-	-	-	-	-	407	447	-	572	569	-
Stage 2	-	-	-	-	-	-	712	569	-	631	408	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	17	9.4
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	369	634	1195	-	-	877	-	-	828
HCM Lane V/C Ratio	0.305	0.059	0.01	-	-	0.029	-	-	0.015
HCM Control Delay (s)	19	11	8	0.1	-	9.2	0.1	-	9.4
HCM Lane LOS	C	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	1.3	0.2	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	120	40	40	160	50	130	80	170	230	90	320	90
Future Volume (veh/h)	120	40	40	160	50	130	80	170	230	90	320	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	47	47	186	58	151	93	198	267	105	372	105
Adj No. of Lanes	1	2	0	1	1	0	0	2	0	0	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	246	345	302	271	95	247	220	409	538	233	742	215
Arrive On Green	0.14	0.19	0.19	0.15	0.20	0.20	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1810	1819	1590	1810	465	1211	284	1110	1460	309	2011	584
Grp Volume(v), veh/h	140	47	47	186	0	209	291	0	267	290	0	292
Grp Sat Flow(s),veh/h/ln	1810	1805	1604	1810	0	1676	1394	0	1460	1283	0	1621
Q Serve(g_s), s	3.0	0.9	1.0	4.0	0.0	4.7	1.4	0.0	5.8	2.5	0.0	5.7
Cycle Q Clear(g_c), s	3.0	0.9	1.0	4.0	0.0	4.7	7.1	0.0	5.8	8.3	0.0	5.7
Prop In Lane	1.00		0.99	1.00		0.72	0.32		1.00	0.36		0.36
Lane Grp Cap(c), veh/h	246	342	304	271	0	341	630	0	538	592	0	598
V/C Ratio(X)	0.57	0.14	0.16	0.69	0.00	0.61	0.46	0.00	0.50	0.49	0.00	0.49
Avail Cap(c_a), veh/h	440	790	702	440	0	733	797	0	710	755	0	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	13.9	13.9	16.6	0.0	14.9	9.9	0.0	10.0	10.3	0.0	10.0
Incr Delay (d2), s/veh	2.1	0.2	0.2	3.1	0.0	1.8	0.5	0.0	0.7	0.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.5	0.5	2.2	0.0	2.3	2.7	0.0	2.4	2.8	0.0	2.6
LnGrp Delay(d),s/veh	18.7	14.0	14.2	19.6	0.0	16.7	10.5	0.0	10.7	11.0	0.0	10.6
LnGrp LOS	B	B	B	B		B	B		B	B		B
Approach Vol, veh/h		234			395			558			582	
Approach Delay, s/veh		16.9			18.1			10.6			10.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		19.2	10.2	11.8		19.2	9.6	12.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		20.0	10.0	18.0		20.0	10.0	18.0
Max Q Clear Time (g_c+I1), s		9.1	6.0	3.0		10.3	5.0	6.7
Green Ext Time (p_c), s		5.1	0.2	1.3		4.7	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	50	2470	130	240	1840	140	150	150	300	180	160	40
Future Volume (veh/h)	50	2470	130	240	1840	140	150	150	300	180	160	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	2600	137	253	1937	147	158	158	316	189	168	42
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	361	2543	789	215	2327	722	616	798	354	158	383	93
Arrive On Green	0.10	0.49	0.49	0.06	0.45	0.45	0.18	0.22	0.22	0.09	0.13	0.13
Sat Flow, veh/h	3510	5187	1610	3510	5187	1610	3510	3610	1604	1810	2873	699
Grp Volume(v), veh/h	53	2600	137	253	1937	147	158	158	316	189	104	106
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1610	1755	1805	1604	1810	1805	1767
Q Serve(g_s), s	1.6	56.0	2.8	7.0	37.5	6.3	4.4	4.1	18.2	10.0	6.0	6.3
Cycle Q Clear(g_c), s	1.6	56.0	2.8	7.0	37.5	6.3	4.4	4.1	18.2	10.0	6.0	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	361	2543	789	215	2327	722	616	798	354	158	240	235
V/C Ratio(X)	0.15	1.02	0.17	1.18	0.83	0.20	0.26	0.20	0.89	1.19	0.43	0.45
Avail Cap(c_a), veh/h	361	2543	789	215	2543	789	616	1454	646	158	774	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	29.1	4.4	53.6	27.7	19.1	40.7	36.3	29.8	52.1	45.5	45.7
Incr Delay (d2), s/veh	0.2	23.8	0.1	117.1	2.3	0.1	0.2	0.1	7.8	132.9	1.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	32.2	2.2	6.9	18.3	2.8	2.2	2.1	8.8	10.8	3.1	3.2
LnGrp Delay(d),s/veh	46.9	53.0	4.5	170.7	30.0	19.2	40.9	36.4	37.6	185.0	46.8	47.0
LnGrp LOS	D	F	A	F	C	B	D	D	D	F	D	D
Approach Vol, veh/h		2790			2337			632			399	
Approach Delay, s/veh		50.5			44.6			38.1			112.3	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	29.2	11.0	60.0	24.0	19.2	15.7	55.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	46.0	7.0	56.0	7.0	49.0	7.0	56.0
Max Q Clear Time (g_c+I1), s	12.0	20.2	9.0	58.0	6.4	8.3	3.6	39.5
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.1	1.3	3.3	11.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.0
HCM 2010 LOS	D

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	60	1170	1620	520	830	270	1010	1180	210	480	1710	50
Future Volume (veh/h)	60	1170	1620	520	830	270	1010	1180	210	480	1710	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	1194	1653	531	847	276	1031	1204	214	490	1745	51
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	222	1011	1379	398	977	672	725	1276	751	515	1522	471
Arrive On Green	0.12	0.28	0.28	0.11	0.27	0.27	0.21	0.35	0.35	0.15	0.29	0.29
Sat Flow, veh/h	1810	3610	2827	3510	3610	1606	3510	3610	1608	3510	5187	1607
Grp Volume(v), veh/h	61	1194	1653	531	847	276	1031	1204	214	490	1745	51
Grp Sat Flow(s),veh/h/ln	1810	1805	1414	1755	1805	1606	1755	1805	1608	1755	1729	1607
Q Serve(g_s), s	4.6	42.0	34.4	17.0	33.5	11.8	31.0	48.5	12.3	20.8	44.0	3.5
Cycle Q Clear(g_c), s	4.6	42.0	34.4	17.0	33.5	11.8	31.0	48.5	12.3	20.8	44.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	1011	1379	398	977	672	725	1276	751	515	1522	471
V/C Ratio(X)	0.28	1.18	1.20	1.33	0.87	0.41	1.42	0.94	0.28	0.95	1.15	0.11
Avail Cap(c_a), veh/h	222	1011	1379	398	1155	751	725	1276	751	515	1522	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	54.0	21.9	66.5	52.1	15.1	59.5	47.1	24.6	63.5	53.0	38.7
Incr Delay (d2), s/veh	0.7	91.9	96.7	166.9	6.3	0.4	197.5	14.0	0.2	27.9	74.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	33.8	31.8	17.5	17.6	5.3	34.9	26.7	5.5	12.1	31.5	1.6
LnGrp Delay(d),s/veh	60.4	145.9	118.6	233.4	58.4	15.5	257.0	61.0	24.8	91.4	127.3	38.8
LnGrp LOS	E	F	F	F	E	B	F	E	C	F	F	D
Approach Vol, veh/h		2908			1654			2449			2286	
Approach Delay, s/veh		128.6			107.4			140.4			117.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	57.0	21.0	46.0	35.0	48.0	22.4	44.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	53.0	17.0	42.0	31.0	44.0	11.0	48.0
Max Q Clear Time (g_c+I1), s	22.8	50.5	19.0	44.0	33.0	46.0	6.6	35.5
Green Ext Time (p_c), s	0.0	2.2	0.0	0.0	0.0	0.0	4.1	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	125.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
123: Gilman Springs Rd & Bridge St

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Volume (veh/h)	100	10	50	590	1050	260
Future Volume (veh/h)	100	10	50	590	1050	260
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	105	11	53	621	1105	274
Adj No. of Lanes	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	141	126	200	1552	1202	298
Arrive On Green	0.08	0.08	0.82	0.82	0.82	0.82
Sat Flow, veh/h	1810	1615	399	1900	1471	365
Grp Volume(v), veh/h	105	11	53	621	0	1379
Grp Sat Flow(s),veh/h/ln	1810	1615	399	1900	0	1836
Q Serve(g_s), s	4.3	0.5	8.6	6.8	0.0	42.1
Cycle Q Clear(g_c), s	4.3	0.5	50.7	6.8	0.0	42.1
Prop In Lane	1.00	1.00	1.00			0.20
Lane Grp Cap(c), veh/h	141	126	200	1552	0	1500
V/C Ratio(X)	0.74	0.09	0.27	0.40	0.00	0.92
Avail Cap(c_a), veh/h	427	381	209	1594	0	1540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.4	32.6	23.8	1.9	0.0	5.1
Incr Delay (d2), s/veh	7.5	0.3	0.7	0.2	0.0	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.2	1.0	3.5	0.0	24.1
LnGrp Delay(d),s/veh	41.9	32.9	24.5	2.1	0.0	14.3
LnGrp LOS	D	C	C	A		B
Approach Vol, veh/h	116			674	1379	
Approach Delay, s/veh	41.0			3.8	14.3	
Approach LOS	D			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		66.3		10.0		66.3		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		64.0		18.0		64.0		
Max Q Clear Time (g_c+I1), s		52.7		6.3		44.1		
Green Ext Time (p_c), s		9.6		0.2		15.6		

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
124: SR-79 NB Ramps & Gilman Springs Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↑	↱		↰	↱			
Traffic Volume (veh/h)	10	690	0	0	300	520	420	0	40	0	0	0
Future Volume (veh/h)	10	690	0	0	300	520	420	0	40	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	11	767	0	0	333	578	467	0	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	410	989	0	0	989	841	567	0	506			
Arrive On Green	0.52	0.52	0.00	0.00	0.52	0.52	0.31	0.00	0.00			
Sat Flow, veh/h	622	1900	0	0	1900	1615	1810	0	1615			
Grp Volume(v), veh/h	11	767	0	0	333	578	467	0	0			
Grp Sat Flow(s),veh/h/ln	622	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	0.5	15.7	0.0	0.0	4.9	12.9	11.5	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	15.7	0.0	0.0	4.9	12.9	11.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	410	989	0	0	989	841	567	0	506			
V/C Ratio(X)	0.03	0.78	0.00	0.00	0.34	0.69	0.82	0.00	0.00			
Avail Cap(c_a), veh/h	486	1220	0	0	1220	1037	787	0	703			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	8.3	9.3	0.0	0.0	6.7	8.6	15.3	0.0	0.0			
Incr Delay (d2), s/veh	0.0	2.6	0.0	0.0	0.2	1.4	5.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.1	8.8	0.0	0.0	2.6	6.0	6.5	0.0	0.0			
LnGrp Delay(d),s/veh	8.3	11.8	0.0	0.0	6.9	10.1	20.4	0.0	0.0			
LnGrp LOS	A	B			A	B	C					
Approach Vol, veh/h		778			911			467				
Approach Delay, s/veh		11.8			8.9			20.4				
Approach LOS		B			A			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		19.1		29.1				29.1
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		21.0		31.0				31.0
Max Q Clear Time (g_c+I1), s		13.5		17.7				14.9
Green Ext Time (p_c), s		1.6		7.5				8.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱	↰	↑						↰	↱
Traffic Volume (veh/h)	0	470	580	50	550	0	0	0	0	250	10	30
Future Volume (veh/h)	0	470	580	50	550	0	0	0	0	250	10	30
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	505	624	54	591	0				269	11	0
Adj No. of Lanes	0	1	1	1	1	0				0	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	966	821	394	966	0				419	17	388
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00				0.24	0.24	0.00
Sat Flow, veh/h	0	1900	1615	507	1900	0				1742	71	1615
Grp Volume(v), veh/h	0	505	624	54	591	0				280	0	0
Grp Sat Flow(s),veh/h/ln	0	1900	1615	507	1900	0				1813	0	1615
Q Serve(g_s), s	0.0	5.7	9.9	2.5	7.1	0.0				4.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.7	9.9	8.2	7.1	0.0				4.4	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.96		1.00
Lane Grp Cap(c), veh/h	0	966	821	394	966	0				436	0	388
V/C Ratio(X)	0.00	0.52	0.76	0.14	0.61	0.00				0.64	0.00	0.00
Avail Cap(c_a), veh/h	0	1074	913	422	1074	0				1025	0	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.2	6.3	8.0	5.6	0.0				10.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	3.4	0.2	0.9	0.0				1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	4.9	0.4	3.8	0.0				2.4	0.0	0.0
LnGrp Delay(d),s/veh	0.0	5.7	9.7	8.1	6.4	0.0				12.5	0.0	0.0
LnGrp LOS		A	A	A	A					B		
Approach Vol, veh/h		1129			645						280	
Approach Delay, s/veh		7.9			6.6						12.5	
Approach LOS		A			A						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				20.2		11.7		20.2
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s				11.9		6.4		10.2
Green Ext Time (p_c), s				4.3		1.2		5.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.1
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	550	170	50	370	30	410	170	80	30	40	10
Future Volume (veh/h)	20	550	170	50	370	30	410	170	80	30	40	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	579	179	53	389	32	432	179	84	32	42	11
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	658	555	68	695	505	471	513	241	44	266	70
Arrive On Green	0.02	0.35	0.35	0.04	0.37	0.37	0.26	0.42	0.42	0.02	0.18	0.18
Sat Flow, veh/h	1810	1900	1603	1810	1900	1379	1810	1222	573	1810	1450	380
Grp Volume(v), veh/h	21	579	179	53	389	32	432	0	263	32	0	53
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1379	1810	0	1795	1810	0	1829
Q Serve(g_s), s	1.1	26.6	7.6	2.7	15.2	1.4	21.6	0.0	9.3	1.6	0.0	2.3
Cycle Q Clear(g_c), s	1.1	26.6	7.6	2.7	15.2	1.4	21.6	0.0	9.3	1.6	0.0	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.21
Lane Grp Cap(c), veh/h	33	658	555	68	695	505	471	0	753	44	0	336
V/C Ratio(X)	0.64	0.88	0.32	0.78	0.56	0.06	0.92	0.00	0.35	0.73	0.00	0.16
Avail Cap(c_a), veh/h	78	716	604	78	716	520	545	0	753	117	0	336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.3	28.6	22.4	44.3	23.5	19.1	33.4	0.0	18.3	45.0	0.0	31.9
Incr Delay (d2), s/veh	19.3	11.6	0.3	34.2	0.9	0.1	19.0	0.0	1.3	20.6	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	16.1	3.4	2.0	8.1	0.5	13.3	0.0	4.9	1.1	0.0	1.2
LnGrp Delay(d),s/veh	64.6	40.1	22.7	78.6	24.4	19.2	52.4	0.0	19.6	65.6	0.0	32.9
LnGrp LOS	E	D	C	E	C	B	D		B	E		C
Approach Vol, veh/h		779			474			695			85	
Approach Delay, s/veh		36.8			30.1			40.0			45.2	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	43.0	7.5	36.2	28.2	21.1	5.7	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	39.0	4.0	35.0	28.0	17.0	4.0	35.0
Max Q Clear Time (g_c+I1), s	3.6	11.3	4.7	28.6	23.6	4.3	3.1	17.2
Green Ext Time (p_c), s	0.0	2.0	0.0	3.5	0.6	1.5	0.0	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
132: San Timoteo Canyon Rd & Alessandro Rd

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Volume (veh/h)	30	750	530	330	220	20
Future Volume (veh/h)	30	750	530	330	220	20
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	32	798	564	351	234	0
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	81	985	676	420	295	0
Arrive On Green	0.65	0.65	0.65	0.65	0.17	0.00
Sat Flow, veh/h	23	1515	1039	647	1707	0
Grp Volume(v), veh/h	830	0	0	915	235	0
Grp Sat Flow(s),veh/h/ln	1538	0	0	1686	1715	0
Q Serve(g_s), s	4.3	0.0	0.0	23.5	7.4	0.0
Cycle Q Clear(g_c), s	27.8	0.0	0.0	23.5	7.4	0.0
Prop In Lane	0.04			0.38	1.00	0.00
Lane Grp Cap(c), veh/h	1066	0	0	1096	296	0
V/C Ratio(X)	0.78	0.00	0.00	0.83	0.79	0.00
Avail Cap(c_a), veh/h	1134	0	0	1164	486	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.8	0.0	0.0	7.6	22.4	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	5.2	4.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	0.0	0.0	12.2	3.9	0.0
LnGrp Delay(d),s/veh	10.1	0.0	0.0	12.7	27.2	0.0
LnGrp LOS	B			B	C	
Approach Vol, veh/h		830	915		235	
Approach Delay, s/veh		10.1	12.7		27.2	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				41.7		14.8		41.7
Change Period (Y+Rc), s				5.0		5.0		5.0
Max Green Setting (Gmax), s				39.0		16.0		39.0
Max Q Clear Time (g_c+I1), s				29.8		9.4		25.5
Green Ext Time (p_c), s				6.9		0.3		9.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
133: Live Oak Canyon & San Timoteo Canyon Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		✣			✣	
Traffic Volume (veh/h)	10	930	10	10	800	270	30	10	10	270	10	20
Future Volume (veh/h)	10	930	10	10	800	270	30	10	10	270	10	20
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	10	949	10	10	816	276	31	10	10	276	10	20
Adj No. of Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	807	972	47	807	972	295	94	77	399	11	22
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	0	1270	1530	0	1270	1530	936	401	326	1317	48	95
Grp Volume(v), veh/h	959	0	10	826	0	276	51	0	0	306	0	0
Grp Sat Flow(s),veh/h/ln	1270	0	1530	1270	0	1530	1664	0	0	1460	0	0
Q Serve(g_s), s	0.0	0.0	0.2	0.0	0.0	6.2	0.0	0.0	0.0	13.8	0.0	0.0
Cycle Q Clear(g_c), s	49.0	0.0	0.2	49.0	0.0	6.2	1.8	0.0	0.0	15.6	0.0	0.0
Prop In Lane	0.01		1.00	0.01		1.00	0.61		0.20	0.90		0.07
Lane Grp Cap(c), veh/h	854	0	972	854	0	972	467	0	0	432	0	0
V/C Ratio(X)	1.12	0.00	0.01	0.97	0.00	0.28	0.11	0.00	0.00	0.71	0.00	0.00
Avail Cap(c_a), veh/h	854	0	972	854	0	972	522	0	0	485	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.8	0.0	5.2	18.1	0.0	6.3	23.2	0.0	0.0	28.4	0.0	0.0
Incr Delay (d2), s/veh	70.5	0.0	0.0	23.1	0.0	0.2	0.1	0.0	0.0	4.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.6	0.0	0.1	21.3	0.0	2.6	0.9	0.0	0.0	6.8	0.0	0.0
LnGrp Delay(d),s/veh	89.3	0.0	5.2	41.2	0.0	6.4	23.3	0.0	0.0	32.5	0.0	0.0
LnGrp LOS	F		A	D		A	C			C		
Approach Vol, veh/h		969			1102			51			306	
Approach Delay, s/veh		88.5			32.5			23.3			32.5	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		54.0		23.2		54.0		23.2
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		49.0		21.0		49.0		21.0
Max Q Clear Time (g_c+I1), s		51.0		3.8		51.0		17.6
Green Ext Time (p_c), s		0.0		1.7		0.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	54.6
HCM 2010 LOS	D

Traffic Impact Analysis Report
for the World Logistics Center

Appendix G

Intersection LOS Worksheets
for 2040 No-Project Conditions

Intersection	
Int Delay, s/veh	20

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱		↰↑
Traffic Vol, veh/h	610	10	50	200	10	60
Future Vol, veh/h	610	10	50	200	10	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	726	12	60	238	12	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	155	60	0	0	60	0
Stage 1	60	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	841	1011	-	-	1556	-
Stage 1	968	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	834	1011	-	-	1556	-
Mov Cap-2 Maneuver	834	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	927	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.2	0	1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	834	1011	1556	-
HCM Lane V/C Ratio	-	-	0.871	0.012	0.008	-
HCM Control Delay (s)	-	-	30.6	8.6	7.3	0
HCM Lane LOS	-	-	D	A	A	A
HCM 95th %tile Q(veh)	-	-	11.1	0	0	-

HCM 2010 Signalized Intersection Summary
6: Gilman Springs Rd & Alessandro Blvd

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	0	210	560	2000	1340	0
Future Volume (veh/h)	0	210	560	2000	1340	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	223	596	2128	1426	0
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	297	265	637	3832	1754	546
Arrive On Green	0.00	0.16	0.35	0.74	0.34	0.00
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	0	223	596	2128	1426	0
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	0.0	11.0	26.2	15.0	20.7	0.0
Cycle Q Clear(g_c), s	0.0	11.0	26.2	15.0	20.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	297	265	637	3832	1754	546
V/C Ratio(X)	0.00	0.84	0.94	0.56	0.81	0.00
Avail Cap(c_a), veh/h	615	549	703	4031	1764	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.4	25.8	4.8	24.9	0.0
Incr Delay (d2), s/veh	0.0	7.1	18.9	0.2	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.9	16.4	7.0	10.3	0.0
LnGrp Delay(d),s/veh	0.0	40.5	44.7	4.9	27.9	0.0
LnGrp LOS		D	D	A	C	
Approach Vol, veh/h	223			2724	1426	
Approach Delay, s/veh	40.5			13.6	27.9	
Approach LOS	D			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		64.8		17.5	33.0	31.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		64.0		28.0	32.0	28.0		
Max Q Clear Time (g_c+I1), s		17.0		13.0	28.2	22.7		
Green Ext Time (p_c), s		39.8		0.6	0.8	5.2		

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	40	5	20	10	5	10	40	700	10	5	850	220
Future Volume (veh/h)	40	5	20	10	5	10	40	700	10	5	850	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	5	22	11	5	11	43	761	11	5	924	239
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	247	48	68	180	82	93	346	1253	1061	487	1253	1061
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	720	342	487	378	590	666	490	1900	1609	708	1900	1609
Grp Volume(v), veh/h	70	0	0	27	0	0	43	761	11	5	924	239
Grp Sat Flow(s),veh/h/ln	1549	0	0	1634	0	0	490	1900	1609	708	1900	1609
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	2.5	9.1	0.1	0.2	12.8	2.4
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.5	0.0	0.0	15.4	9.1	0.1	9.2	12.8	2.4
Prop In Lane	0.61		0.31	0.41		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	0	0	355	0	0	346	1253	1061	487	1253	1061
V/C Ratio(X)	0.19	0.00	0.00	0.08	0.00	0.00	0.12	0.61	0.01	0.01	0.74	0.23
Avail Cap(c_a), veh/h	975	0	0	995	0	0	392	1432	1213	554	1432	1213
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	0.0	15.0	0.0	0.0	9.6	3.9	2.3	6.5	4.5	2.7
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	0.2	0.6	0.0	0.0	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.3	0.0	0.0	0.3	4.9	0.0	0.0	7.0	1.0
LnGrp Delay(d),s/veh	15.6	0.0	0.0	15.0	0.0	0.0	9.8	4.4	2.3	6.5	6.3	2.8
LnGrp LOS	B			B			A	A	A	A	A	A
Approach Vol, veh/h		70			27			815			1168	
Approach Delay, s/veh		15.6			15.0			4.7			5.6	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.2		9.6		30.2		9.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		17.4		3.4		14.8		2.5
Green Ext Time (p_c), s		8.9		0.4		10.2		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations		↰↑↱			↰↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	120	20	60	30	110	30	60	590	30	10	750	140
Future Volume (veh/h)	120	20	60	30	110	30	60	590	30	10	750	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	20	61	31	112	31	61	602	31	10	765	143
Adj No. of Lanes	0	2	0	0	2	0	1	2	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	249	57	173	85	316	90	141	1426	73	33	1257	560
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.08	0.41	0.41	0.02	0.35	0.35
Sat Flow, veh/h	1810	411	1252	631	2342	669	1810	3492	180	1810	3610	1608
Grp Volume(v), veh/h	122	0	81	92	0	82	61	311	322	10	765	143
Grp Sat Flow(s),veh/h/ln	1810	0	1663	1868	0	1773	1810	1805	1867	1810	1805	1608
Q Serve(g_s), s	3.3	0.0	2.3	2.4	0.0	2.2	1.7	6.5	6.6	0.3	9.3	3.4
Cycle Q Clear(g_c), s	3.3	0.0	2.3	2.4	0.0	2.2	1.7	6.5	6.6	0.3	9.3	3.4
Prop In Lane	1.00		0.75	0.34		0.38	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	249	0	229	252	0	240	141	737	762	33	1257	560
V/C Ratio(X)	0.49	0.00	0.35	0.36	0.00	0.34	0.43	0.42	0.42	0.31	0.61	0.26
Avail Cap(c_a), veh/h	884	0	813	913	0	866	238	848	877	238	1696	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	20.8	20.9	0.0	20.9	23.4	11.2	11.3	25.8	14.3	12.4
Incr Delay (d2), s/veh	1.5	0.0	0.9	0.9	0.0	0.8	2.1	0.4	0.4	5.2	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.1	1.3	0.0	1.2	0.9	3.3	3.4	0.2	4.7	1.5
LnGrp Delay(d),s/veh	22.7	0.0	21.7	21.8	0.0	21.7	25.5	11.6	11.6	30.9	14.8	12.6
LnGrp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		203			174			694			918	
Approach Delay, s/veh		22.3			21.8			12.8			14.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	25.7		11.3	8.2	22.5		11.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	25.0		26.0	7.0	25.0		26.0
Max Q Clear Time (g_c+I1), s	2.3	8.6		5.3	3.7	11.3		4.4
Green Ext Time (p_c), s	0.0	7.7		0.9	0.0	6.9		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	13.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑	↱	↰	↑
Traffic Vol, veh/h	450	90	80	390	40	10
Future Vol, veh/h	450	90	80	390	40	10
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	529	106	94	459	47	12

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	205	104	0	0	99	0
Stage 1	99	-	-	-	-	-
Stage 2	106	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	788	956	-	-	1507	-
Stage 1	930	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	760	948	-	-	1501	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.8	0	6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	786	1501	-
HCM Lane V/C Ratio	-	-	0.808	0.031	-
HCM Control Delay (s)	-	-	25.8	7.5	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	8.7	0.1	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & SR 60 WB Ramps/SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑	↱		↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	0	0	0	690	0	190	0	530	130	0	630	290
Future Volume (veh/h)	0	0	0	690	0	190	0	530	130	0	630	290
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				704	0	194	0	541	0	0	643	296
Adj No. of Lanes				1	1	1	0	2	1	0	2	1
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				832	874	740	0	1282	573	0	1282	571
Arrive On Green				0.46	0.00	0.46	0.00	0.36	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1810	1900	1610	0	3705	1615	0	3705	1608
Grp Volume(v), veh/h				704	0	194	0	541	0	0	643	296
Grp Sat Flow(s),veh/h/ln				1810	1900	1610	0	1805	1615	0	1805	1608
Q Serve(g_s), s				14.9	0.0	3.2	0.0	4.9	0.0	0.0	6.0	6.3
Cycle Q Clear(g_c), s				14.9	0.0	3.2	0.0	4.9	0.0	0.0	6.0	6.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				832	874	740	0	1282	573	0	1282	571
V/C Ratio(X)				0.85	0.00	0.26	0.00	0.42	0.00	0.00	0.50	0.52
Avail Cap(c_a), veh/h				1256	1319	1117	0	1838	822	0	1838	819
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.3	0.0	7.2	0.0	10.6	0.0	0.0	10.9	11.0
Incr Delay (d2), s/veh				3.5	0.0	0.2	0.0	0.2	0.0	0.0	0.3	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.0	0.0	1.4	0.0	2.4	0.0	0.0	3.0	2.8
LnGrp Delay(d),s/veh				13.8	0.0	7.4	0.0	10.8	0.0	0.0	11.2	11.7
LnGrp LOS				B		A		B			B	B
Approach Vol, veh/h					898			541			939	
Approach Delay, s/veh					12.4			10.8			11.4	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		19.3				19.3		23.9
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		22.0				22.0		30.0
Max Q Clear Time (g_c+I1), s		6.9				8.3		16.9
Green Ext Time (p_c), s		7.0				6.6		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps/SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱					↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	270	0	240	0	0	0	0	410	120	0	1250	110
Future Volume (veh/h)	270	0	240	0	0	0	0	410	120	0	1250	110
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	278	0	247				0	423	124	0	1289	0
Adj No. of Lanes	1	1	1				0	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	422	444	377				0	2004	896	0	2004	896
Arrive On Green	0.23	0.00	0.23				0.00	0.56	0.56	0.00	0.56	0.00
Sat Flow, veh/h	1810	1900	1615				0	3705	1615	0	3705	1615
Grp Volume(v), veh/h	278	0	247				0	423	124	0	1289	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1805	1615	0	1805	1615
Q Serve(g_s), s	5.3	0.0	5.2				0.0	2.2	1.4	0.0	9.3	0.0
Cycle Q Clear(g_c), s	5.3	0.0	5.2				0.0	2.2	1.4	0.0	9.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	422	444	377				0	2004	896	0	2004	896
V/C Ratio(X)	0.66	0.00	0.66				0.00	0.21	0.14	0.00	0.64	0.00
Avail Cap(c_a), veh/h	1196	1256	1068				0	2577	1153	0	2577	1153
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	13.1				0.0	4.2	4.1	0.0	5.8	0.0
Incr Delay (d2), s/veh	1.8	0.0	1.9				0.0	0.1	0.1	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.5				0.0	1.1	0.6	0.0	4.6	0.0
LnGrp Delay(d),s/veh	14.9	0.0	15.1				0.0	4.3	4.1	0.0	6.2	0.0
LnGrp LOS	B		B					A	A		A	
Approach Vol, veh/h		525						547			1289	
Approach Delay, s/veh		15.0						4.3			6.2	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		25.0		12.8		25.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		27.0		25.0		27.0		
Max Q Clear Time (g_c+I1), s		4.2		7.3		11.3		
Green Ext Time (p_c), s		12.2		1.6		9.6		

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

HCM 2010 TWSC
15: Theodore St & SR-60 WB Ramps

Intersection	
Int Delay, s/veh	44.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Traffic Vol, veh/h	200	230	250	60	300	150
Future Vol, veh/h	200	230	250	60	300	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	225	258	281	67	337	169

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1124	281	0	0	281	0
Stage 1	281	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	229	763	-	-	1293	-
Stage 1	771	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 169	763	-	-	1293	-
Mov Cap-2 Maneuver	~ 169	-	-	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	315	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	116.1	0	5.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	169	763	1293	-
HCM Lane V/C Ratio	-	-	1.33	0.339	0.261	-
HCM Control Delay (s)	-	-	235.6	12.1	8.8	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	13.3	1.5	1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	180	120	20	110	130	130
Future Vol, veh/h	180	120	20	110	130	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	270	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	240	160	27	147	173	173

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	460	260	347	0	-	0
Stage 1	260	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	563	784	1223	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	551	784	1223	-	-	-
Mov Cap-2 Maneuver	551	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1223	-	551	784	-	-
HCM Lane V/C Ratio	0.022	-	0.436	0.204	-	-
HCM Control Delay (s)	8	-	16.5	10.8	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	2.2	0.8	-	-

HCM 2010 Signalized Intersection Summary
18: Redlands Blvd & Fir Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	10	30	40	30	80	100	490	50	240	730	480
Future Volume (veh/h)	60	10	30	40	30	80	100	490	50	240	730	480
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	11	33	43	33	87	109	533	54	261	793	522
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	63	190	104	52	137	163	1262	128	314	975	633
Arrive On Green	0.10	0.15	0.15	0.06	0.11	0.11	0.09	0.38	0.38	0.17	0.46	0.46
Sat Flow, veh/h	1810	416	1249	1810	463	1221	1810	3311	335	1810	2098	1362
Grp Volume(v), veh/h	65	0	44	43	0	120	109	290	297	261	681	634
Grp Sat Flow(s),veh/h/ln	1810	0	1665	1810	0	1684	1810	1805	1841	1810	1805	1654
Q Serve(g_s), s	2.3	0.0	1.6	1.6	0.0	4.6	4.0	8.0	8.1	9.5	22.0	22.6
Cycle Q Clear(g_c), s	2.3	0.0	1.6	1.6	0.0	4.6	4.0	8.0	8.1	9.5	22.0	22.6
Prop In Lane	1.00		0.75	1.00		0.73	1.00		0.18	1.00		0.82
Lane Grp Cap(c), veh/h	176	0	253	104	0	189	163	688	702	314	839	769
V/C Ratio(X)	0.37	0.00	0.17	0.41	0.00	0.63	0.67	0.42	0.42	0.83	0.81	0.82
Avail Cap(c_a), veh/h	746	0	956	187	0	447	187	688	702	506	957	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	25.1	30.9	0.0	28.8	29.9	15.5	15.5	27.1	15.6	15.8
Incr Delay (d2), s/veh	1.3	0.0	0.3	2.6	0.0	3.5	7.4	0.4	0.4	6.2	4.8	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.7	0.9	0.0	2.3	2.3	4.0	4.2	5.3	11.9	11.5
LnGrp Delay(d),s/veh	30.0	0.0	25.4	33.5	0.0	32.3	37.4	15.9	15.9	33.3	20.4	21.5
LnGrp LOS	C		C	C		C	D	B	B	C	C	C
Approach Vol, veh/h		109			163			696			1576	
Approach Delay, s/veh		28.1			32.6			19.3			23.0	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	29.9	7.9	14.3	10.1	35.6	10.6	11.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	24.0	7.0	39.0	7.0	36.0	28.0	18.0
Max Q Clear Time (g_c+I1), s	11.5	10.1	3.6	3.6	6.0	24.6	4.3	6.6
Green Ext Time (p_c), s	0.4	9.0	0.0	1.0	0.0	7.0	0.1	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Vol, veh/h	50	40	50	40	60	130
Future Vol, veh/h	50	40	50	40	60	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	280	0	120	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	74	59	74	59	88	191

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	294	88	88	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	206	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	701	976	1520	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	667	976	1520	-	-	-
Mov Cap-2 Maneuver	667	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	792	-	-	-	-	-

Approach	EB		NB		SB	
HCM Control Delay, s	10.1		4.2		0	
HCM LOS	B					

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1520	-	667	976	-	-
HCM Lane V/C Ratio	0.048	-	0.11	0.06	-	-
HCM Control Delay (s)	7.5	-	11.1	8.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.2	-	-

Intersection	
Int Delay, s/veh	23.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰	↱		✥	
Traffic Vol, veh/h	0	310	60	20	890	0	160	10	40	0	0	10
Future Vol, veh/h	0	310	60	20	890	0	160	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	388	75	25	1113	0	200	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1113	0	0	463	0	0	1031	1588	231	1363	1626	556
Stage 1	-	-	-	-	-	-	425	425	-	1163	1163	-
Stage 2	-	-	-	-	-	-	606	1163	-	200	463	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	635	-	-	1109	-	-	~ 190	109	777	109	103	480
Stage 1	-	-	-	-	-	-	583	590	-	210	271	-
Stage 2	-	-	-	-	-	-	456	271	-	789	568	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	635	-	-	1109	-	-	~ 177	103	777	88	97	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 177	103	-	88	97	-
Stage 1	-	-	-	-	-	-	583	590	-	210	255	-
Stage 2	-	-	-	-	-	-	418	255	-	723	568	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	168	12.7
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	170	777	635	-	-	1109	-	-	480
HCM Lane V/C Ratio	1.25	0.064	-	-	-	0.023	-	-	0.026
HCM Control Delay (s)	205.2	10	0	-	-	8.3	0.2	-	12.7
HCM Lane LOS	F	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	12	0.2	0	-	-	0.1	-	-	0.1

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	190	90	210	580	20	140	640	100	30	800	150
Future Volume (veh/h)	60	190	90	210	580	20	140	640	100	30	800	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	241	114	266	734	25	177	810	127	38	1013	190
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	404	185	323	978	33	179	1701	265	94	1444	270
Arrive On Green	0.07	0.17	0.17	0.18	0.27	0.27	0.10	0.38	0.38	0.05	0.33	0.33
Sat Flow, veh/h	1810	2401	1099	1810	3562	121	1810	4525	705	1810	4387	821
Grp Volume(v), veh/h	76	179	176	266	372	387	177	618	319	38	798	405
Grp Sat Flow(s),veh/h/ln	1810	1805	1695	1810	1805	1878	1810	1729	1772	1810	1729	1751
Q Serve(g_s), s	2.9	6.5	6.8	10.0	13.4	13.4	6.9	9.6	9.7	1.4	14.3	14.3
Cycle Q Clear(g_c), s	2.9	6.5	6.8	10.0	13.4	13.4	6.9	9.6	9.7	1.4	14.3	14.3
Prop In Lane	1.00		0.65	1.00		0.06	1.00		0.40	1.00		0.47
Lane Grp Cap(c), veh/h	131	304	285	323	495	515	179	1300	666	94	1138	576
V/C Ratio(X)	0.58	0.59	0.62	0.82	0.75	0.75	0.99	0.48	0.48	0.40	0.70	0.70
Avail Cap(c_a), veh/h	230	661	621	323	687	715	179	1300	666	179	1267	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	27.2	27.4	28.1	23.5	23.5	31.9	16.8	16.9	32.6	20.8	20.8
Incr Delay (d2), s/veh	4.1	1.8	2.2	15.8	3.0	2.9	64.8	0.3	0.5	2.8	1.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.4	3.3	6.4	7.0	7.3	6.7	4.6	4.8	0.8	7.0	7.3
LnGrp Delay(d),s/veh	35.9	29.1	29.5	43.9	26.5	26.4	96.7	17.1	17.4	35.3	22.3	23.8
LnGrp LOS	D	C	C	D	C	C	F	B	B	D	C	C
Approach Vol, veh/h		431			1025			1114			1241	
Approach Delay, s/veh		30.5			31.0			29.8			23.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	30.7	16.7	15.9	11.0	27.4	9.1	23.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	10.0	26.0	7.0	26.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	3.4	11.7	12.0	8.8	8.9	16.3	4.9	15.4
Green Ext Time (p_c), s	0.0	9.9	0.0	1.6	0.0	6.8	0.1	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
22: Quincy St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	80	220	10	0	660	20	10	0	0	10	0	110
Future Volume (veh/h)	80	220	10	0	660	20	10	0	0	10	0	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	220	10	0	660	20	10	0	0	10	0	110
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	574	1748	79	279	1778	54	452	367	0	555	0	310
Arrive On Green	0.50	0.50	0.50	0.00	0.50	0.50	0.19	0.00	0.00	0.19	0.00	0.19
Sat Flow, veh/h	771	3517	159	1169	3577	108	1296	1900	0	1429	0	1606
Grp Volume(v), veh/h	80	112	118	0	333	347	10	0	0	10	0	110
Grp Sat Flow(s),veh/h/ln	771	1805	1871	1169	1805	1880	1296	1900	0	1429	0	1606
Q Serve(g_s), s	1.8	0.9	0.9	0.0	2.9	2.9	0.2	0.0	0.0	0.1	0.0	1.5
Cycle Q Clear(g_c), s	4.8	0.9	0.9	0.0	2.9	2.9	1.7	0.0	0.0	0.1	0.0	1.5
Prop In Lane	1.00		0.09	1.00		0.06	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	574	897	930	279	897	935	452	367	0	555	0	310
V/C Ratio(X)	0.14	0.13	0.13	0.00	0.37	0.37	0.02	0.00	0.00	0.02	0.00	0.35
Avail Cap(c_a), veh/h	967	1816	1883	874	1816	1892	1506	1912	0	1717	0	1616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	3.5	3.5	0.0	4.0	4.0	9.8	0.0	0.0	8.5	0.0	9.0
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.4	0.0	1.5	1.5	0.1	0.0	0.0	0.1	0.0	0.7
LnGrp Delay(d),s/veh	5.6	3.5	3.5	0.0	4.3	4.3	9.8	0.0	0.0	8.5	0.0	9.7
LnGrp LOS	A	A	A		A	A	A			A		A
Approach Vol, veh/h		310			680			10			120	
Approach Delay, s/veh		4.1			4.3			9.8			9.6	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.0		16.8		9.0		16.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0
Max Q Clear Time (g_c+I1), s		3.7		6.8		3.5		4.9
Green Ext Time (p_c), s		0.6		5.6		0.6		5.8

Intersection Summary			
HCM 2010 Ctrl Delay			4.8
HCM 2010 LOS			A

Intersection	
Intersection Delay, s/veh	198.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			✥			↰	↱		↰↱	
Traffic Vol, veh/h	60	120	50	220	470	20	30	350	100	40	560	150
Future Vol, veh/h	60	120	50	220	470	20	30	350	100	40	560	150
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	65	130	54	239	511	22	33	380	109	43	609	163
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	23	453.6	74.2	89.3
HCM LOS	C	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	8%	0%	100%	0%	31%	12%	0%
Vol Thru, %	92%	0%	0%	71%	66%	88%	65%
Vol Right, %	0%	100%	0%	29%	3%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	380	100	60	170	710	320	430
LT Vol	30	0	60	0	220	40	0
Through Vol	350	0	0	120	470	280	280
RT Vol	0	100	0	50	20	0	150
Lane Flow Rate	413	109	65	185	772	348	467
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1.021	0.246	0.185	0.488	1.939	0.853	1.106
Departure Headway (Hd)	10.97	10.177	12.342	11.586	9.419	11.307	10.978
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	335	355	293	314	394	323	337
Service Time	8.67	7.877	10.042	9.286	7.419	9.007	8.678
HCM Lane V/C Ratio	1.233	0.307	0.222	0.589	1.959	1.077	1.386
HCM Control Delay	89.5	16.2	17.8	24.8	453.6	54.6	115.2
HCM Lane LOS	F	C	C	C	F	F	F
HCM 95th-tile Q	11.6	1	0.7	2.5	50.4	7.6	14

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	240	180	270	330	30	200	120	200	10	50	20
Future Volume (veh/h)	20	240	180	270	330	30	200	120	200	10	50	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	312	234	351	429	39	260	156	260	13	65	26
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	71	496	363	392	1431	130	314	408	362	169	373	141
Arrive On Green	0.04	0.25	0.25	0.22	0.43	0.43	0.17	0.23	0.23	0.09	0.15	0.15
Sat Flow, veh/h	1810	1986	1453	1810	3347	303	1810	1805	1604	1810	2557	966
Grp Volume(v), veh/h	26	283	263	351	231	237	260	156	260	13	45	46
Grp Sat Flow(s),veh/h/ln	1810	1805	1633	1810	1805	1844	1810	1805	1604	1810	1805	1718
Q Serve(g_s), s	1.0	10.4	10.8	14.1	6.3	6.3	10.4	5.5	11.2	0.5	1.6	1.8
Cycle Q Clear(g_c), s	1.0	10.4	10.8	14.1	6.3	6.3	10.4	5.5	11.2	0.5	1.6	1.8
Prop In Lane	1.00		0.89	1.00		0.16	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	71	451	408	392	772	788	314	408	362	169	263	250
V/C Ratio(X)	0.37	0.63	0.64	0.90	0.30	0.30	0.83	0.38	0.72	0.08	0.17	0.18
Avail Cap(c_a), veh/h	169	676	612	411	917	937	678	676	601	629	628	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	24.9	25.1	28.5	14.0	14.1	29.8	24.5	26.7	30.9	28.0	28.0
Incr Delay (d2), s/veh	3.2	1.4	1.7	21.0	0.2	0.2	5.5	0.6	2.7	0.2	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.4	5.0	9.3	3.2	3.3	5.7	2.8	5.2	0.3	0.8	0.9
LnGrp Delay(d),s/veh	38.2	26.4	26.8	49.4	14.3	14.3	35.3	25.1	29.4	31.1	28.3	28.4
LnGrp LOS	D	C	C	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h		572			819			676			104	
Approach Delay, s/veh		27.1			29.3			30.7			28.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	20.9	20.2	22.7	17.0	14.9	6.9	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	28.0	17.0	28.0	28.0	26.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	2.5	13.2	16.1	12.8	12.4	3.8	3.0	8.3
Green Ext Time (p_c), s	0.0	2.4	0.1	4.9	0.6	2.8	0.0	6.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	230	160	90	30	220	70	120	590	60	50	720	290
Future Volume (veh/h)	230	160	90	30	220	70	120	590	60	50	720	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	284	198	111	37	272	86	148	728	74	62	889	358
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	324	746	400	88	539	167	183	1300	658	118	1177	472
Arrive On Green	0.18	0.33	0.33	0.05	0.20	0.20	0.10	0.36	0.36	0.06	0.32	0.32
Sat Flow, veh/h	1810	2267	1216	1810	2711	839	1810	3610	1608	1810	3633	1459
Grp Volume(v), veh/h	284	156	153	37	179	179	148	728	74	62	846	401
Grp Sat Flow(s),veh/h/ln	1810	1805	1679	1810	1805	1745	1810	1805	1608	1810	1729	1635
Q Serve(g_s), s	12.4	5.1	5.5	1.6	7.2	7.4	6.5	13.1	2.3	2.7	17.8	17.8
Cycle Q Clear(g_c), s	12.4	5.1	5.5	1.6	7.2	7.4	6.5	13.1	2.3	2.7	17.8	17.8
Prop In Lane	1.00		0.72	1.00		0.48	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	324	594	552	88	359	347	183	1300	658	118	1120	529
V/C Ratio(X)	0.88	0.26	0.28	0.42	0.50	0.52	0.81	0.56	0.11	0.53	0.76	0.76
Avail Cap(c_a), veh/h	357	1112	1034	156	912	881	201	1334	673	156	1193	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	20.0	20.1	37.5	28.9	29.0	35.7	20.8	14.9	36.7	24.6	24.6
Incr Delay (d2), s/veh	19.9	0.2	0.3	3.1	1.1	1.2	19.8	0.5	0.1	3.6	2.6	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	2.6	2.6	0.9	3.7	3.7	4.3	6.6	1.0	1.5	8.9	8.8
LnGrp Delay(d),s/veh	52.3	20.2	20.4	40.6	30.0	30.2	55.5	21.3	14.9	40.4	27.2	30.1
LnGrp LOS	D	C	C	D	C	C	E	C	B	D	C	C
Approach Vol, veh/h		593			395			950			1309	
Approach Delay, s/veh		35.6			31.1			26.2			28.7	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	33.2	8.0	30.7	12.2	30.3	18.5	20.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	7.0	50.0	9.0	28.0	16.0	41.0
Max Q Clear Time (g_c+I1), s	4.7	15.1	3.6	7.5	8.5	19.8	14.4	9.4
Green Ext Time (p_c), s	0.0	10.0	0.0	3.8	0.0	6.2	0.1	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		Y	
Traffic Volume (veh/h)	10	170	180	10	0	10
Future Volume (veh/h)	10	170	180	10	0	10
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	170	180	10	0	10
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	310	1370	1394	77	0	57
Arrive On Green	0.40	0.40	0.40	0.40	0.00	0.04
Sat Flow, veh/h	79	3504	3573	192	0	1484
Grp Volume(v), veh/h	98	82	93	97	0	11
Grp Sat Flow(s),veh/h/ln	1854	1643	1805	1865	0	1633
Q Serve(g_s), s	0.0	0.5	0.5	0.5	0.0	0.1
Cycle Q Clear(g_c), s	0.5	0.5	0.5	0.5	0.0	0.1
Prop In Lane	0.10			0.10	0.00	0.91
Lane Grp Cap(c), veh/h	1021	658	723	747	0	63
V/C Ratio(X)	0.10	0.12	0.13	0.13	0.00	0.18
Avail Cap(c_a), veh/h	3070	2534	2784	2877	0	2862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.7	2.7	2.7	2.7	0.0	6.6
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.2	0.3	0.0	0.1
LnGrp Delay(d),s/veh	2.7	2.8	2.8	2.8	0.0	8.0
LnGrp LOS	A	A	A	A		A
Approach Vol, veh/h		180	190		11	
Approach Delay, s/veh		2.8	2.8		8.0	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				9.7		4.5		9.7
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				2.5		2.1		2.5
Green Ext Time (p_c), s				1.7		0.0		1.7

Intersection Summary			
HCM 2010 Ctrl Delay			2.9
HCM 2010 LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	32.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↱			↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	130	10	80	10	30	40	30	310	0	10	690	130
Future Vol, veh/h	130	10	80	10	30	40	30	310	0	10	690	130
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	151	12	93	12	35	47	35	360	0	12	802	151
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	14.5	13.2	15.7	45.7
HCM LOS	B	B	C	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	23%	0%	96%	0%	12%	3%	0%
Vol Thru, %	78%	100%	4%	6%	38%	97%	73%
Vol Right, %	0%	0%	0%	94%	50%	0%	27%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	133	207	135	85	80	355	475
LT Vol	30	0	130	0	10	10	0
Through Vol	103	207	5	5	30	345	345
RT Vol	0	0	0	80	40	0	130
Lane Flow Rate	155	240	157	99	93	413	552
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.321	0.49	0.371	0.201	0.208	0.76	0.985
Departure Headway (Hd)	7.459	7.344	8.5	7.329	8.051	6.629	6.419
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	482	490	424	490	447	545	569
Service Time	5.198	5.083	6.236	5.064	6.089	4.36	4.15
HCM Lane V/C Ratio	0.322	0.49	0.37	0.202	0.208	0.758	0.97
HCM Control Delay	13.7	17	16.2	11.9	13.2	27.4	59.4
HCM Lane LOS	B	C	C	B	B	D	F
HCM 95th-tile Q	1.4	2.7	1.7	0.7	0.8	6.7	13.8

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	80	50	10	690	80	300	20	380	320	150	710	110
Future Volume (veh/h)	80	50	10	690	80	300	20	380	320	150	710	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	62	12	862	100	375	25	475	400	188	888	138
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	357	67	734	818	730	62	1181	1020	183	1336	207
Arrive On Green	0.07	0.12	0.12	0.41	0.45	0.45	0.03	0.23	0.23	0.10	0.29	0.29
Sat Flow, veh/h	1810	3027	569	1810	1805	1610	1810	5187	1604	1810	4529	701
Grp Volume(v), veh/h	100	36	38	862	100	375	25	475	400	188	677	349
Grp Sat Flow(s),veh/h/ln	1810	1805	1791	1810	1805	1610	1810	1729	1604	1810	1729	1772
Q Serve(g_s), s	5.9	2.0	2.1	44.0	3.5	18.0	1.5	8.4	13.2	11.0	18.6	18.8
Cycle Q Clear(g_c), s	5.9	2.0	2.1	44.0	3.5	18.0	1.5	8.4	13.2	11.0	18.6	18.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	127	213	211	734	818	730	62	1181	1020	183	1020	523
V/C Ratio(X)	0.79	0.17	0.18	1.17	0.12	0.51	0.40	0.40	0.39	1.02	0.66	0.67
Avail Cap(c_a), veh/h	250	732	726	734	1215	1083	117	1434	1099	183	1084	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	43.1	43.1	32.2	17.2	21.1	51.3	35.6	9.7	48.7	33.5	33.6
Incr Delay (d2), s/veh	10.3	0.4	0.4	92.6	0.1	0.6	4.2	0.2	0.2	73.0	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.0	1.0	40.7	1.7	8.1	0.8	4.1	5.8	9.2	9.0	9.6
LnGrp Delay(d),s/veh	59.9	43.5	43.5	124.8	17.2	21.7	55.5	35.8	10.0	122.0	34.9	36.4
LnGrp LOS	E	D	D	F	B	C	E	D	A	F	C	D
Approach Vol, veh/h		174			1337			900			1214	
Approach Delay, s/veh		52.9			87.9			24.9			48.9	
Approach LOS		D			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	28.7	48.0	16.8	7.7	36.0	11.6	53.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	30.0	44.0	44.0	7.0	34.0	15.0	73.0
Max Q Clear Time (g_c+I1), s	13.0	15.2	46.0	4.1	3.5	20.8	7.9	20.0
Green Ext Time (p_c), s	0.0	8.8	0.0	3.5	0.0	8.2	0.1	3.6

Intersection Summary		
HCM 2010 Ctrl Delay		57.5
HCM 2010 LOS		E

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	120	410	160	180	820	80	300	460	120	80	650	380
Future Volume (veh/h)	120	410	160	180	820	80	300	460	120	80	650	380
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	441	172	194	882	86	323	495	129	86	699	409
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	1164	734	173	1098	107	242	1328	746	111	1067	616
Arrive On Green	0.09	0.32	0.32	0.10	0.33	0.33	0.13	0.37	0.37	0.06	0.30	0.30
Sat Flow, veh/h	1810	3610	1607	1810	3322	324	1810	3610	1608	1810	3610	1607
Grp Volume(v), veh/h	129	441	172	194	479	489	323	495	129	86	699	409
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1841	1810	1805	1608	1810	1805	1607
Q Serve(g_s), s	7.3	9.9	6.8	10.0	25.3	25.3	14.0	10.5	4.9	4.9	17.7	22.1
Cycle Q Clear(g_c), s	7.3	9.9	6.8	10.0	25.3	25.3	14.0	10.5	4.9	4.9	17.7	22.1
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	1164	734	173	597	609	242	1328	746	111	1067	616
V/C Ratio(X)	0.81	0.38	0.23	1.12	0.80	0.80	1.34	0.37	0.17	0.77	0.66	0.66
Avail Cap(c_a), veh/h	190	1379	830	173	672	686	242	1328	746	190	1206	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	27.4	17.3	47.4	32.0	32.0	45.4	24.3	16.4	48.4	32.2	26.7
Incr Delay (d2), s/veh	20.0	0.2	0.2	105.3	6.3	6.2	176.3	0.2	0.1	10.9	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.9	3.0	10.0	13.7	13.9	18.8	5.3	2.2	2.8	9.0	10.1
LnGrp Delay(d),s/veh	67.0	27.6	17.5	152.7	38.3	38.2	221.6	24.4	16.5	59.3	33.3	28.9
LnGrp LOS	E	C	B	F	D	D	F	C	B	E	C	C
Approach Vol, veh/h		742			1162			947			1194	
Approach Delay, s/veh		32.1			57.3			90.6			33.7	
Approach LOS		C			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	42.5	14.0	37.8	18.0	35.0	13.2	38.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	38.0	10.0	40.0	14.0	35.0	11.0	39.0
Max Q Clear Time (g_c+I1), s	6.9	12.5	12.0	11.9	16.0	24.1	9.3	27.3
Green Ext Time (p_c), s	0.1	11.1	0.0	12.1	0.0	6.4	0.0	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	53.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	630	10	470	190	720	0	0	1010	130
Future Volume (veh/h)	0	0	0	630	10	470	190	720	0	0	1010	130
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				677	11	505	204	774	0	0	1086	140
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				693	11	626	221	1885	0	0	1143	147
Arrive On Green				0.39	0.39	0.39	0.24	1.00	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1782	29	1609	1810	3705	0	0	3311	414
Grp Volume(v), veh/h				688	0	505	204	774	0	0	609	617
Grp Sat Flow(s),veh/h/ln				1811	0	1609	1810	1805	0	0	1805	1825
Q Serve(g_s), s				33.7	0.0	25.2	9.9	0.0	0.0	0.0	29.5	29.6
Cycle Q Clear(g_c), s				33.7	0.0	25.2	9.9	0.0	0.0	0.0	29.5	29.6
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.23
Lane Grp Cap(c), veh/h				704	0	626	221	1885	0	0	642	649
V/C Ratio(X)				0.98	0.00	0.81	0.92	0.41	0.00	0.00	0.95	0.95
Avail Cap(c_a), veh/h				704	0	626	221	1885	0	0	642	649
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.93	0.93	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.1	0.0	24.5	33.6	0.0	0.0	0.0	28.2	28.2
Incr Delay (d2), s/veh				28.1	0.0	7.7	38.0	0.6	0.0	0.0	24.9	25.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				22.3	0.0	12.4	7.2	0.2	0.0	0.0	19.2	19.5
LnGrp Delay(d),s/veh				55.2	0.0	32.2	71.6	0.6	0.0	0.0	53.1	53.4
LnGrp LOS				E		C	E	A			D	D
Approach Vol, veh/h					1193			978			1226	
Approach Delay, s/veh					45.5			15.4			53.3	
Approach LOS					D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		51.0			15.0	36.0		39.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		47.0			11.0	32.0		35.0
Max Q Clear Time (g_c+I1), s		2.0			11.9	31.6		35.7
Green Ext Time (p_c), s		21.3			0.0	0.3		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			39.6
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↰↑	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	230	10	320	0	0	0	0	590	170	320	1330	0
Future Volume (veh/h)	230	10	320	0	0	0	0	590	170	320	1330	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	242	0	327				0	602	173	327	1357	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	881	0	391				0	1704	480	360	2410	0
Arrive On Green	0.24	0.00	0.24				0.00	0.42	0.42	0.40	1.00	0.00
Sat Flow, veh/h	3619	0	1605				0	4190	1131	1810	3705	0
Grp Volume(v), veh/h	242	0	327				0	516	259	327	1357	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1692	1810	1805	0
Q Serve(g_s), s	4.9	0.0	17.4				0.0	9.1	9.4	15.3	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.0	17.4				0.0	9.1	9.4	15.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.67	1.00		0.00
Lane Grp Cap(c), veh/h	881	0	391				0	1466	717	360	2410	0
V/C Ratio(X)	0.27	0.00	0.84				0.00	0.35	0.36	0.91	0.56	0.00
Avail Cap(c_a), veh/h	1327	0	589				0	1466	717	503	2410	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.17	0.17	0.00
Uniform Delay (d), s/veh	27.6	0.0	32.3				0.0	17.6	17.6	26.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	6.6				0.0	0.7	1.4	3.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	8.4				0.0	4.4	4.7	7.8	0.1	0.0
LnGrp Delay(d),s/veh	27.8	0.0	38.9				0.0	18.2	19.0	29.8	0.2	0.0
LnGrp LOS	C		D					B	B	C	A	
Approach Vol, veh/h		569						775			1684	
Approach Delay, s/veh		34.2						18.5			5.9	
Approach LOS		C						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	21.9	42.2		25.9		64.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	25.0	20.0		33.0		49.0		
Max Q Clear Time (g_c+I1), s	17.3	11.4		19.4		2.0		
Green Ext Time (p_c), s	0.6	7.2		1.8		25.0		

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	360	260	320	40	160	830	100	1020	150	670	1250	440
Future Volume (veh/h)	360	260	320	40	160	830	100	1020	150	670	1250	440
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	371	268	330	41	165	856	103	1052	155	691	1289	454
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	437	960	427	77	350	644	127	1591	234	754	1781	994
Arrive On Green	0.12	0.27	0.27	0.04	0.18	0.18	0.07	0.35	0.35	0.43	0.99	0.99
Sat Flow, veh/h	3510	3610	1606	1810	1900	1615	1810	4565	672	3510	3610	1607
Grp Volume(v), veh/h	371	268	330	41	165	856	103	797	410	691	1289	454
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1810	1900	1615	1810	1729	1778	1755	1805	1607
Q Serve(g_s), s	12.9	7.4	23.7	2.8	9.7	23.0	7.0	24.4	24.4	23.1	2.1	0.8
Cycle Q Clear(g_c), s	12.9	7.4	23.7	2.8	9.7	23.0	7.0	24.4	24.4	23.1	2.1	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	437	960	427	77	350	644	127	1206	620	754	1781	994
V/C Ratio(X)	0.85	0.28	0.77	0.53	0.47	1.33	0.81	0.66	0.66	0.92	0.72	0.46
Avail Cap(c_a), veh/h	562	1040	462	101	350	644	145	1206	620	927	1781	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	0.53	0.53	0.53
Uniform Delay (d), s/veh	53.6	36.4	42.4	58.6	45.6	37.6	57.3	34.5	34.5	34.6	0.4	0.2
Incr Delay (d2), s/veh	9.5	0.2	7.4	5.6	1.0	158.5	23.0	2.5	4.8	7.0	1.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	3.7	11.4	1.5	5.2	50.6	4.3	12.0	12.8	11.8	0.6	0.4
LnGrp Delay(d),s/veh	63.1	36.5	49.7	64.2	46.6	196.1	80.2	37.0	39.3	41.6	1.8	1.1
LnGrp LOS	E	D	D	E	D	F	F	D	D	D	A	A
Approach Vol, veh/h		969			1062			1310			2434	
Approach Delay, s/veh		51.2			167.8			41.1			13.0	
Approach LOS		D			F			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.9	47.6	9.3	37.2	12.8	65.7	19.6	27.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	33.0	33.0	7.0	36.0	10.0	56.0	20.0	23.0
Max Q Clear Time (g_c+I1), s	25.1	26.4	4.8	25.7	9.0	4.1	14.9	25.0
Green Ext Time (p_c), s	1.7	6.1	0.0	5.7	0.0	35.0	0.6	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↱		↰↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	260	10	230	410	1920	0	0	2130	300
Future Volume (veh/h)	0	0	0	260	10	230	410	1920	0	0	2130	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				268	10	237	423	1979	0	0	2196	309
Adj No. of Lanes				0	2	0	2	3	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				310	12	284	726	3936	0	0	2697	837
Arrive On Green				0.18	0.18	0.18	0.41	1.00	0.00	0.00	0.52	0.52
Sat Flow, veh/h				1747	65	1601	3510	5358	0	0	5358	1610
Grp Volume(v), veh/h				278	0	237	423	1979	0	0	2196	309
Grp Sat Flow(s),veh/h/ln				1813	0	1601	1755	1729	0	0	1729	1610
Q Serve(g_s), s				18.6	0.0	17.9	11.6	0.0	0.0	0.0	44.1	14.2
Cycle Q Clear(g_c), s				18.6	0.0	17.9	11.6	0.0	0.0	0.0	44.1	14.2
Prop In Lane				0.96		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				321	0	284	726	3936	0	0	2697	837
V/C Ratio(X)				0.87	0.00	0.84	0.58	0.50	0.00	0.00	0.81	0.37
Avail Cap(c_a), veh/h				377	0	333	726	3936	0	0	2697	837
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.29	0.29	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				50.0	0.0	49.7	32.5	0.0	0.0	0.0	25.0	17.8
Incr Delay (d2), s/veh				16.6	0.0	14.7	0.3	0.1	0.0	0.0	2.8	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.8	0.0	9.1	5.6	0.0	0.0	0.0	21.6	6.6
LnGrp Delay(d),s/veh				66.6	0.0	64.4	32.8	0.1	0.0	0.0	27.8	19.1
LnGrp LOS				E		E	C	A			C	B
Approach Vol, veh/h					515			2402			2505	
Approach Delay, s/veh					65.6			5.9			26.7	
Approach LOS					E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		98.8			29.8	69.0		26.2
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		91.0			22.0	65.0		26.0
Max Q Clear Time (g_c+I1), s		2.0			13.6	46.1		20.6
Green Ext Time (p_c), s		35.7			7.2	15.9		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	40	120	120	170	380	160	120	1110	60	60	1540	40
Future Volume (veh/h)	40	120	120	170	380	160	120	1110	60	60	1540	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	128	128	181	404	170	128	1181	64	64	1638	43
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	98	393	349	163	628	261	161	2177	675	122	2065	640
Arrive On Green	0.05	0.22	0.22	0.09	0.25	0.25	0.09	0.42	0.42	0.07	0.40	0.40
Sat Flow, veh/h	1810	1805	1604	1810	2483	1032	1810	5187	1609	1810	5187	1609
Grp Volume(v), veh/h	43	128	128	181	292	282	128	1181	64	64	1638	43
Grp Sat Flow(s),veh/h/ln	1810	1805	1604	1810	1805	1711	1810	1729	1609	1810	1729	1609
Q Serve(g_s), s	1.8	4.7	5.3	7.0	11.2	11.5	5.4	13.3	1.9	2.7	21.6	1.3
Cycle Q Clear(g_c), s	1.8	4.7	5.3	7.0	11.2	11.5	5.4	13.3	1.9	2.7	21.6	1.3
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	393	349	163	457	433	161	2177	675	122	2065	640
V/C Ratio(X)	0.44	0.33	0.37	1.11	0.64	0.65	0.79	0.54	0.09	0.52	0.79	0.07
Avail Cap(c_a), veh/h	163	788	700	163	788	747	163	2177	675	163	2065	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	25.7	25.9	35.4	25.9	26.0	34.8	17.0	13.7	35.1	20.6	14.5
Incr Delay (d2), s/veh	3.0	0.5	0.6	104.0	1.5	1.7	23.0	1.0	0.3	3.5	3.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.4	2.4	8.1	5.8	5.6	3.7	6.5	0.9	1.5	10.9	0.6
LnGrp Delay(d),s/veh	38.7	26.1	26.6	139.5	27.4	27.7	57.8	18.0	13.9	38.6	23.9	14.7
LnGrp LOS	D	C	C	F	C	C	E	B	B	D	C	B
Approach Vol, veh/h		299			755			1373			1745	
Approach Delay, s/veh		28.1			54.4			21.5			24.2	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	36.7	11.0	20.9	10.9	35.0	8.2	23.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	4.7	15.3	9.0	7.3	7.4	23.6	3.8	13.5
Green Ext Time (p_c), s	0.0	13.9	0.0	5.1	0.0	6.9	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	51.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰↑	↰	↱
Traffic Vol, veh/h	10	220	330	30	330	50
Future Vol, veh/h	10	220	330	30	330	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	234	351	32	351	53

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	745	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	734	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1621	-	384	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	478	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1621	-	~ 300	1076
Mov Cap-2 Maneuver	-	-	-	-	~ 300	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	373	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.2	125.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	300	1076	-	-	1621	-
HCM Lane V/C Ratio	1.17	0.049	-	-	0.217	-
HCM Control Delay (s)	143.5	8.5	-	-	7.8	0
HCM Lane LOS	F	A	-	-	A	A
HCM 95th %tile Q(veh)	15.1	0.2	-	-	0.8	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	130	170	60	400	180	20	120	270	300	20	430	190
Future Volume (veh/h)	130	170	60	400	180	20	120	270	300	20	430	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	224	79	526	237	26	158	355	395	26	566	250
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	198	304	104	529	980	106	139	313	382	25	549	260
Arrive On Green	0.11	0.12	0.12	0.29	0.30	0.30	0.24	0.24	0.24	0.23	0.23	0.23
Sat Flow, veh/h	1810	2632	901	1810	3283	357	580	1305	1593	106	2362	1120
Grp Volume(v), veh/h	171	152	151	526	129	134	510	0	398	464	0	378
Grp Sat Flow(s),veh/h/ln	1810	1805	1727	1810	1805	1835	1871	0	1607	1895	0	1694
Q Serve(g_s), s	12.4	10.8	11.3	38.7	7.2	7.4	32.0	0.0	32.0	31.0	0.0	29.4
Cycle Q Clear(g_c), s	12.4	10.8	11.3	38.7	7.2	7.4	32.0	0.0	32.0	31.0	0.0	29.4
Prop In Lane	1.00		0.52	1.00		0.19	0.31		0.99	0.06		0.66
Lane Grp Cap(c), veh/h	198	209	200	529	539	548	449	0	385	440	0	394
V/C Ratio(X)	0.86	0.73	0.76	0.99	0.24	0.24	1.14	0.00	1.03	1.05	0.00	0.96
Avail Cap(c_a), veh/h	298	298	285	529	539	548	449	0	385	440	0	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.4	57.0	57.2	47.1	35.4	35.4	50.7	0.0	50.7	51.2	0.0	50.6
Incr Delay (d2), s/veh	15.2	5.1	7.1	37.6	0.2	0.2	85.0	0.0	54.9	57.8	0.0	35.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	5.7	5.8	24.8	3.6	3.8	27.1	0.0	20.0	23.2	0.0	17.6
LnGrp Delay(d),s/veh	73.6	62.0	64.3	84.7	35.6	35.7	135.7	0.0	105.6	109.0	0.0	85.8
LnGrp LOS	E	E	E	F	D	D	F		F	F		F
Approach Vol, veh/h		474			789			908			842	
Approach Delay, s/veh		66.9			68.4			122.5			98.5	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		36.0	43.0	19.4		35.0	18.6	43.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		32.0	39.0	22.0		31.0	22.0	39.0
Max Q Clear Time (g_c+I1), s		34.0	40.7	13.3		33.0	14.4	9.4
Green Ext Time (p_c), s		0.0	0.0	0.9		0.0	0.2	3.0

Intersection Summary			
HCM 2010 Ctrl Delay			92.9
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑	↱					↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	150	10	490	0	0	0	0	820	300	80	1220	0
Future Volume (veh/h)	150	10	490	0	0	0	0	820	300	80	1220	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	177	0	551				0	921	337	90	1371	0
Adj No. of Lanes	2	0	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1378	0	612				0	1389	507	147	2635	0
Arrive On Green	0.38	0.00	0.38				0.00	0.37	0.37	0.08	0.51	0.00
Sat Flow, veh/h	3619	0	1609				0	3915	1367	1810	5358	0
Grp Volume(v), veh/h	177	0	551				0	851	407	90	1371	0
Grp Sat Flow(s),veh/h/ln	1810	0	1609				0	1729	1652	1810	1729	0
Q Serve(g_s), s	2.3	0.0	23.2				0.0	14.7	14.8	3.5	12.7	0.0
Cycle Q Clear(g_c), s	2.3	0.0	23.2				0.0	14.7	14.8	3.5	12.7	0.0
Prop In Lane	1.00		1.00				0.00		0.83	1.00		0.00
Lane Grp Cap(c), veh/h	1378	0	612				0	1283	613	147	2635	0
V/C Ratio(X)	0.13	0.00	0.90				0.00	0.66	0.66	0.61	0.52	0.00
Avail Cap(c_a), veh/h	1662	0	739				0	1348	644	176	2816	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.5	0.0	21.0				0.0	18.8	18.9	31.9	11.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	12.4				0.0	1.2	2.4	4.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	12.4				0.0	7.2	7.1	1.9	6.0	0.0
LnGrp Delay(d),s/veh	14.5	0.0	33.4				0.0	20.0	21.3	36.3	12.0	0.0
LnGrp LOS	B		C					C	C	D	B	
Approach Vol, veh/h		728						1258			1461	
Approach Delay, s/veh		28.8						20.4			13.5	
Approach LOS		C						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.8	30.7		31.3		40.5		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	7.0	28.0		33.0		39.0		
Max Q Clear Time (g_c+I1), s	5.5	16.8		25.2		14.7		
Green Ext Time (p_c), s	0.0	9.8		1.9		19.0		

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	80	210	140	170	220	120	180	1220	190	140	1020	90
Future Volume (veh/h)	80	210	140	170	220	120	180	1220	190	140	1020	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	94	247	165	200	259	141	212	1435	224	165	1200	106
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	473	304	155	537	283	155	1842	287	155	2111	655
Arrive On Green	0.08	0.23	0.23	0.09	0.24	0.24	0.09	0.41	0.41	0.09	0.41	0.41
Sat Flow, veh/h	1810	2103	1352	1810	2281	1202	1810	4525	706	1810	5187	1609
Grp Volume(v), veh/h	94	211	201	200	203	197	212	1096	563	165	1200	106
Grp Sat Flow(s),veh/h/ln	1810	1805	1651	1810	1805	1679	1810	1729	1772	1810	1729	1609
Q Serve(g_s), s	4.1	8.3	8.8	7.0	7.9	8.3	7.0	22.4	22.5	7.0	14.6	3.4
Cycle Q Clear(g_c), s	4.1	8.3	8.8	7.0	7.9	8.3	7.0	22.4	22.5	7.0	14.6	3.4
Prop In Lane	1.00		0.82	1.00		0.72	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	137	406	371	155	425	395	155	1408	721	155	2111	655
V/C Ratio(X)	0.69	0.52	0.54	1.29	0.48	0.50	1.36	0.78	0.78	1.06	0.57	0.16
Avail Cap(c_a), veh/h	155	797	729	155	797	741	155	1442	739	155	2163	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	27.7	27.9	37.3	26.9	27.0	37.3	21.0	21.0	37.3	18.6	15.3
Incr Delay (d2), s/veh	10.2	1.0	1.2	169.1	0.8	1.0	199.8	2.7	5.3	89.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.3	4.1	10.7	4.0	3.9	12.1	11.2	12.0	7.3	7.0	1.5
LnGrp Delay(d),s/veh	47.0	28.7	29.1	206.4	27.7	28.0	237.0	23.7	26.3	127.0	19.0	15.5
LnGrp LOS	D	C	C	F	C	C	F	C	C	F	B	B
Approach Vol, veh/h		506			600			1871			1471	
Approach Delay, s/veh		32.3			87.4			48.7			30.8	
Approach LOS		C			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.2	11.0	22.3	11.0	37.2	10.2	23.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	34.0	7.0	36.0	7.0	34.0	7.0	36.0
Max Q Clear Time (g_c+I1), s	9.0	24.5	9.0	10.8	9.0	16.6	6.1	10.3
Green Ext Time (p_c), s	0.0	8.7	0.0	5.4	0.0	15.2	0.0	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	46.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	70	300	210	400	540	100	250	920	320	100	1140	90
Future Volume (veh/h)	70	300	210	400	540	100	250	920	320	100	1140	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	341	239	455	614	114	284	1045	364	114	1295	102
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	450	309	449	1256	233	275	1789	555	137	1319	104
Arrive On Green	0.06	0.22	0.22	0.25	0.41	0.41	0.15	0.34	0.34	0.08	0.27	0.27
Sat Flow, veh/h	1810	2043	1403	1810	3040	563	1810	5187	1608	1810	4901	386
Grp Volume(v), veh/h	80	301	279	455	364	364	284	1045	364	114	914	483
Grp Sat Flow(s),veh/h/ln	1810	1805	1641	1810	1805	1798	1810	1729	1608	1810	1729	1829
Q Serve(g_s), s	6.3	22.6	23.2	36.0	21.5	21.6	22.0	24.0	27.8	9.0	38.0	38.0
Cycle Q Clear(g_c), s	6.3	22.6	23.2	36.0	21.5	21.6	22.0	24.0	27.8	9.0	38.0	38.0
Prop In Lane	1.00		0.86	1.00		0.31	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	100	398	362	449	746	743	275	1789	555	137	930	492
V/C Ratio(X)	0.80	0.76	0.77	1.01	0.49	0.49	1.03	0.58	0.66	0.83	0.98	0.98
Avail Cap(c_a), veh/h	162	461	419	449	747	744	275	1789	555	212	930	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	52.9	53.1	54.5	31.3	31.3	61.5	38.9	40.2	66.0	52.6	52.6
Incr Delay (d2), s/veh	13.2	6.0	7.5	45.6	0.5	0.5	63.4	0.5	2.8	14.7	25.0	35.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	11.9	11.2	23.7	10.8	10.8	15.8	11.5	12.8	5.1	21.4	24.1
LnGrp Delay(d),s/veh	80.8	58.9	60.6	100.1	31.8	31.8	124.9	39.4	43.0	80.7	77.6	88.4
LnGrp LOS	F	E	E	F	C	C	F	D	D	F	E	F
Approach Vol, veh/h		660			1183			1693			1511	
Approach Delay, s/veh		62.3			58.0			54.5			81.3	
Approach LOS		E			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	54.0	40.0	35.9	26.0	43.0	12.0	63.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	44.0	36.0	37.0	22.0	39.0	13.0	60.0
Max Q Clear Time (g_c+I1), s	11.0	29.8	38.0	25.2	24.0	40.0	8.3	23.6
Green Ext Time (p_c), s	0.1	11.9	0.0	5.6	0.0	0.0	0.1	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	64.4
HCM 2010 LOS	E

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	560	100	760	860	120	170	220	450	80	310	150
Future Volume (veh/h)	60	560	100	760	860	120	170	220	450	80	310	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	596	106	809	915	128	181	234	479	85	330	160
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	612	109	624	1803	882	204	535	477	87	550	261
Arrive On Green	0.05	0.20	0.20	0.34	0.50	0.50	0.11	0.30	0.30	0.05	0.23	0.23
Sat Flow, veh/h	1810	3061	543	1810	3610	1610	1810	1805	1607	1810	2371	1126
Grp Volume(v), veh/h	64	351	351	809	915	128	181	234	479	85	250	240
Grp Sat Flow(s),veh/h/ln	1810	1805	1799	1810	1805	1610	1810	1805	1607	1810	1805	1693
Q Serve(g_s), s	5.1	28.0	28.1	50.0	24.6	5.7	14.3	15.2	43.0	6.8	17.9	18.4
Cycle Q Clear(g_c), s	5.1	28.0	28.1	50.0	24.6	5.7	14.3	15.2	43.0	6.8	17.9	18.4
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	82	361	360	624	1803	882	204	535	477	87	419	393
V/C Ratio(X)	0.78	0.97	0.98	1.30	0.51	0.15	0.89	0.44	1.01	0.97	0.60	0.61
Avail Cap(c_a), veh/h	137	361	360	624	1803	882	225	535	477	87	419	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	57.6	57.7	47.5	24.3	16.1	63.4	41.2	51.0	68.9	49.6	49.8
Incr Delay (d2), s/veh	14.7	39.8	40.9	145.0	0.2	0.1	30.1	0.6	42.5	87.1	2.3	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	17.9	18.0	50.1	12.3	2.5	8.8	7.7	24.7	5.5	9.2	8.9
LnGrp Delay(d),s/veh	83.2	97.3	98.5	192.5	24.6	16.2	93.5	41.8	93.5	156.0	51.9	52.6
LnGrp LOS	F	F	F	F	C	B	F	D	F	F	D	D
Approach Vol, veh/h		766			1852			894			575	
Approach Delay, s/veh		96.7			97.4			80.0			67.6	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	47.0	54.0	33.0	20.4	37.6	10.6	76.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	50.0	29.0	18.0	32.0	11.0	68.0
Max Q Clear Time (g_c+I1), s	8.8	45.0	52.0	30.1	16.3	20.4	7.1	26.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	5.4	0.0	13.8

Intersection Summary	
HCM 2010 Ctrl Delay	89.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	800	240	880	1330	130	390	550	850	200	450	130
Future Volume (veh/h)	150	800	240	880	1330	130	390	550	850	200	450	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	860	258	946	1430	140	419	591	914	215	484	140
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	209	927	277	928	2108	206	405	1150	939	261	768	221
Arrive On Green	0.06	0.23	0.23	0.26	0.44	0.44	0.12	0.32	0.32	0.07	0.28	0.28
Sat Flow, veh/h	3510	3959	1181	3510	4803	470	3510	3610	1607	3510	2765	795
Grp Volume(v), veh/h	161	751	367	946	1029	541	419	591	914	215	315	309
Grp Sat Flow(s),veh/h/ln	1755	1729	1683	1755	1729	1815	1755	1805	1607	1755	1805	1755
Q Serve(g_s), s	6.7	31.3	31.6	39.0	35.1	35.1	17.0	19.7	47.0	8.9	22.5	22.8
Cycle Q Clear(g_c), s	6.7	31.3	31.6	39.0	35.1	35.1	17.0	19.7	47.0	8.9	22.5	22.8
Prop In Lane	1.00		0.70	1.00		0.26	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	209	809	394	928	1518	797	405	1150	939	261	501	487
V/C Ratio(X)	0.77	0.93	0.93	1.02	0.68	0.68	1.04	0.51	0.97	0.82	0.63	0.63
Avail Cap(c_a), veh/h	286	844	411	928	1518	797	405	1150	939	286	514	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	55.3	55.4	54.3	33.1	33.1	65.3	40.9	29.7	67.3	46.6	46.7
Incr Delay (d2), s/veh	8.4	15.8	27.7	34.5	1.2	2.3	54.3	0.4	23.0	16.3	2.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	16.8	17.7	23.3	17.0	18.1	11.3	9.9	41.7	4.9	11.5	11.4
LnGrp Delay(d),s/veh	76.8	71.1	83.1	88.7	34.3	35.4	119.5	41.3	52.7	83.6	48.9	49.2
LnGrp LOS	E	E	F	F	C	D	F	D	D	F	D	D
Approach Vol, veh/h		1279			2516			1924			839	
Approach Delay, s/veh		75.2			55.0			63.7			57.9	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	51.0	43.0	38.5	21.0	45.0	12.8	68.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	47.0	39.0	36.0	17.0	42.0	12.0	63.0
Max Q Clear Time (g_c+I1), s	10.9	49.0	41.0	33.6	19.0	24.8	8.7	37.1
Green Ext Time (p_c), s	0.1	0.0	0.0	0.9	0.0	10.5	0.1	19.3

Intersection Summary		
HCM 2010 Ctrl Delay		61.9
HCM 2010 LOS		E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	830	960	30	20	1530	160	30	60	10	110	20	770
Future Volume (veh/h)	830	960	30	20	1530	160	30	60	10	110	20	770
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1012	1171	37	24	1866	195	37	73	12	134	24	939
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	952	2964	94	54	1724	534	67	318	52	160	477	841
Arrive On Green	0.27	0.57	0.57	0.03	0.33	0.33	0.04	0.20	0.20	0.09	0.25	0.25
Sat Flow, veh/h	3510	5166	163	1810	5187	1608	1810	1592	262	1810	1900	1605
Grp Volume(v), veh/h	1012	784	424	24	1866	195	37	0	85	134	24	939
Grp Sat Flow(s),veh/h/ln	1755	1729	1871	1810	1729	1608	1810	0	1854	1810	1900	1605
Q Serve(g_s), s	40.0	18.4	18.4	1.9	49.0	13.6	3.0	0.0	5.7	10.8	1.4	37.0
Cycle Q Clear(g_c), s	40.0	18.4	18.4	1.9	49.0	13.6	3.0	0.0	5.7	10.8	1.4	37.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	952	1984	1074	54	1724	534	67	0	370	160	477	841
V/C Ratio(X)	1.06	0.39	0.40	0.45	1.08	0.37	0.55	0.00	0.23	0.84	0.05	1.12
Avail Cap(c_a), veh/h	952	1984	1074	86	1724	534	98	0	370	331	477	841
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	17.3	17.3	70.3	49.2	37.4	69.8	0.0	49.5	66.2	41.9	35.3
Incr Delay (d2), s/veh	47.3	0.1	0.2	5.7	47.8	0.4	6.9	0.0	1.4	11.0	0.0	68.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.6	8.9	9.6	1.1	30.9	6.1	1.6	0.0	3.1	5.9	0.7	49.9
LnGrp Delay(d),s/veh	101.1	17.4	17.6	76.1	97.1	37.8	76.7	0.0	50.9	77.2	41.9	103.6
LnGrp LOS	F	B	B	E	F	D	E		D	E	D	F
Approach Vol, veh/h		2220			2085			122			1097	
Approach Delay, s/veh		55.6			91.3			58.8			99.0	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	33.4	8.4	88.6	9.5	41.0	44.0	53.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	18.0	7.0	82.0	8.0	37.0	40.0	49.0
Max Q Clear Time (g_c+I1), s	12.8	7.7	3.9	20.4	5.0	39.0	42.0	51.0
Green Ext Time (p_c), s	0.3	3.9	0.0	44.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱			↰↑	↱		↰↑	↱
Traffic Volume (veh/h)	140	550	20	50	1190	110	80	60	80	70	30	210
Future Volume (veh/h)	140	550	20	50	1190	110	80	60	80	70	30	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	696	25	63	1506	139	101	76	101	89	38	266
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	209	2250	81	105	1836	169	147	110	222	263	112	328
Arrive On Green	0.12	0.44	0.44	0.06	0.38	0.38	0.14	0.14	0.14	0.20	0.20	0.20
Sat Flow, veh/h	1810	5140	184	1810	4832	446	1054	793	1598	1286	549	1603
Grp Volume(v), veh/h	177	468	253	63	1078	567	177	0	101	127	0	266
Grp Sat Flow(s),veh/h/ln	1810	1729	1866	1810	1729	1819	1847	0	1598	1836	0	1603
Q Serve(g_s), s	9.6	8.8	8.8	3.4	28.0	28.0	9.1	0.0	5.8	5.9	0.0	15.8
Cycle Q Clear(g_c), s	9.6	8.8	8.8	3.4	28.0	28.0	9.1	0.0	5.8	5.9	0.0	15.8
Prop In Lane	1.00		0.10	1.00		0.25	0.57		1.00	0.70		1.00
Lane Grp Cap(c), veh/h	209	1514	817	105	1314	691	257	0	222	376	0	328
V/C Ratio(X)	0.85	0.31	0.31	0.60	0.82	0.82	0.69	0.00	0.45	0.34	0.00	0.81
Avail Cap(c_a), veh/h	236	1514	817	182	1387	730	630	0	545	681	0	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.2	18.2	18.2	45.8	27.8	27.9	40.9	0.0	39.4	33.9	0.0	37.8
Incr Delay (d2), s/veh	21.8	0.1	0.2	5.4	3.9	7.1	3.3	0.0	1.4	0.5	0.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	4.2	4.6	1.9	14.0	15.4	4.9	0.0	2.6	3.1	0.0	7.4
LnGrp Delay(d),s/veh	65.0	18.3	18.5	51.3	31.7	35.0	44.1	0.0	40.9	34.4	0.0	42.6
LnGrp LOS	E	B	B	D	C	C	D		D	C		D
Approach Vol, veh/h		898			1708			278			393	
Approach Delay, s/veh		27.6			33.5			43.0			39.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.9	9.8	47.6		24.4	15.5	41.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	10.0	43.0		37.0	13.0	40.0
Max Q Clear Time (g_c+I1), s		11.1	5.4	10.8		17.8	11.6	30.0
Green Ext Time (p_c), s		1.3	0.0	19.7		1.4	0.1	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	650	50	130	1230	10	50	30	60	10	20	40
Future Volume (veh/h)	10	650	50	130	1230	10	50	30	60	10	20	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	765	59	153	1447	12	59	35	71	12	24	47
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	38	1927	148	195	2541	21	132	404	515	38	92	180
Arrive On Green	0.02	0.39	0.39	0.11	0.48	0.48	0.07	0.21	0.21	0.02	0.16	0.16
Sat Flow, veh/h	1810	4913	377	1810	5306	44	1810	1900	1604	1810	571	1119
Grp Volume(v), veh/h	12	537	287	153	943	516	59	35	71	12	0	71
Grp Sat Flow(s),veh/h/ln	1810	1729	1832	1810	1729	1892	1810	1900	1604	1810	0	1690
Q Serve(g_s), s	0.4	6.7	6.8	5.0	11.7	11.7	1.9	0.9	1.9	0.4	0.0	2.2
Cycle Q Clear(g_c), s	0.4	6.7	6.8	5.0	11.7	11.7	1.9	0.9	1.9	0.4	0.0	2.2
Prop In Lane	1.00		0.21	1.00		0.02	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	38	1357	719	195	1656	906	132	404	515	38	0	272
V/C Ratio(X)	0.31	0.40	0.40	0.78	0.57	0.57	0.45	0.09	0.14	0.31	0.00	0.26
Avail Cap(c_a), veh/h	211	1726	914	271	1841	1007	211	1359	1321	211	0	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	13.1	13.2	26.1	11.2	11.2	26.7	19.0	14.5	29.0	0.0	22.1
Incr Delay (d2), s/veh	4.6	0.2	0.4	9.7	0.3	0.6	2.4	0.1	0.1	4.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.2	3.5	3.0	5.6	6.2	1.0	0.5	0.8	0.2	0.0	1.1
LnGrp Delay(d),s/veh	33.6	13.3	13.5	35.8	11.6	11.8	29.1	19.1	14.6	33.6	0.0	22.6
LnGrp LOS	C	B	B	D	B	B	C	B	B	C		C
Approach Vol, veh/h		836			1612			165			83	
Approach Delay, s/veh		13.7			14.0			20.7			24.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	16.8	10.5	27.6	8.4	13.7	5.3	32.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	9.0	30.0	7.0	43.0	7.0	32.0
Max Q Clear Time (g_c+I1), s	2.4	3.9	7.0	8.8	3.9	4.2	2.4	13.7
Green Ext Time (p_c), s	0.0	0.9	0.1	14.2	0.0	0.9	0.0	12.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	30	170	160	420	280	240	110	1000	180	90	1560	10
Future Volume (veh/h)	30	170	160	420	280	240	110	1000	180	90	1560	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	187	176	462	308	264	121	1099	198	99	1714	11
Adj No. of Lanes	1	2	0	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	293	259	502	684	572	246	1681	521	126	1677	520
Arrive On Green	0.07	0.16	0.16	0.28	0.37	0.37	0.07	0.32	0.32	0.07	0.32	0.32
Sat Flow, veh/h	1810	1809	1597	1810	1864	1559	3510	5187	1608	1810	5187	1608
Grp Volume(v), veh/h	33	187	176	462	298	274	121	1099	198	99	1714	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1617	1755	1729	1608	1810	1729	1608
Q Serve(g_s), s	1.7	9.3	10.0	23.8	12.0	12.4	3.2	17.4	9.1	5.2	31.0	0.4
Cycle Q Clear(g_c), s	1.7	9.3	10.0	23.8	12.0	12.4	3.2	17.4	9.1	5.2	31.0	0.4
Prop In Lane	1.00		1.00	1.00		0.96	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	132	293	260	502	662	593	246	1681	521	126	1677	520
V/C Ratio(X)	0.25	0.64	0.68	0.92	0.45	0.46	0.49	0.65	0.38	0.79	1.02	0.02
Avail Cap(c_a), veh/h	547	546	484	604	662	593	256	1681	521	132	1677	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	37.5	37.8	33.6	23.0	23.1	42.9	27.8	25.0	43.9	32.4	22.1
Incr Delay (d2), s/veh	1.0	2.3	3.1	17.5	0.5	0.6	1.5	0.9	0.5	25.6	27.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.8	4.6	14.2	6.0	5.6	1.6	8.5	4.1	3.5	18.9	0.2
LnGrp Delay(d),s/veh	42.9	39.8	40.9	51.1	23.5	23.7	44.5	28.7	25.4	69.5	60.2	22.1
LnGrp LOS	D	D	D	D	C	C	D	C	C	E	F	C
Approach Vol, veh/h		396			1034			1418			1824	
Approach Delay, s/veh		40.6			35.9			29.6			60.5	
Approach LOS		D			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	35.1	30.6	19.6	10.7	35.0	11.0	39.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	32.0	29.0	7.0	31.0	29.0	32.0
Max Q Clear Time (g_c+I1), s	7.2	19.4	25.8	12.0	5.2	33.0	3.7	14.4
Green Ext Time (p_c), s	0.0	10.4	0.9	2.1	0.1	0.0	0.1	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	440	260	150	80	310	170	120	190	60	150	230	840
Future Volume (veh/h)	440	260	150	80	310	170	120	190	60	150	230	840
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	506	299	172	92	356	195	138	218	69	172	264	966
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	921	516	117	501	270	149	796	245	149	529	471
Arrive On Green	0.26	0.41	0.41	0.06	0.22	0.22	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2229	1250	1810	2263	1218	1810	2716	837	1810	1805	1607
Grp Volume(v), veh/h	506	241	230	92	283	268	138	143	144	172	264	966
Grp Sat Flow(s),veh/h/ln	1810	1805	1674	1810	1805	1675	1810	1805	1747	1810	1805	1607
Q Serve(g_s), s	28.0	9.9	10.2	5.5	15.8	16.2	8.3	6.6	6.9	9.0	13.2	32.0
Cycle Q Clear(g_c), s	28.0	9.9	10.2	5.5	15.8	16.2	8.3	6.6	6.9	9.0	13.2	32.0
Prop In Lane	1.00		0.75	1.00		0.73	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	464	746	692	117	400	371	149	529	512	149	529	471
V/C Ratio(X)	1.09	0.32	0.33	0.78	0.71	0.72	0.93	0.27	0.28	1.15	0.50	2.05
Avail Cap(c_a), veh/h	464	761	705	199	496	460	149	529	512	149	529	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	21.7	21.8	50.3	39.2	39.4	49.8	29.6	29.7	50.1	32.0	38.6
Incr Delay (d2), s/veh	68.4	0.2	0.3	10.9	3.5	4.2	51.8	0.3	0.3	120.7	0.7	480.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.7	4.9	4.8	3.1	8.2	8.0	6.3	3.3	3.4	9.5	6.7	77.0
LnGrp Delay(d),s/veh	109.0	21.9	22.1	61.2	42.7	43.6	101.6	29.9	30.0	170.8	32.7	519.0
LnGrp LOS	F	C	C	E	D	D	F	C	C	F	C	F
Approach Vol, veh/h		977			643			425			1402	
Approach Delay, s/veh		67.1			45.7			53.2			384.7	
Approach LOS		E			D			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	36.0	11.1	49.1	13.0	36.0	32.0	28.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	9.0	32.0	12.0	46.0	9.0	32.0	28.0	30.0				
Max Q Clear Time (g_c+I1), s	11.0	8.9	7.5	12.2	10.3	34.0	30.0	18.2				
Green Ext Time (p_c), s	0.0	11.9	0.1	7.6	0.0	0.0	0.0	5.0				

Intersection Summary	
HCM 2010 Ctrl Delay	190.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	360	210	140	130	160	130	170	1650	180	130	1070	120
Future Volume (veh/h)	360	210	140	130	160	130	170	1650	180	130	1070	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	383	223	149	138	170	138	181	1755	191	138	1138	128
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	420	372	238	159	282	216	209	1879	982	159	1613	181
Arrive On Green	0.12	0.18	0.18	0.09	0.14	0.14	0.12	0.52	0.52	0.09	0.49	0.49
Sat Flow, veh/h	3510	2107	1347	1810	1952	1490	1810	3610	1615	1810	3272	367
Grp Volume(v), veh/h	383	190	182	138	156	152	181	1755	191	138	627	639
Grp Sat Flow(s),veh/h/ln	1755	1805	1649	1810	1805	1637	1810	1805	1615	1810	1805	1834
Q Serve(g_s), s	13.5	12.1	12.9	9.4	10.2	11.0	12.3	56.9	6.6	9.4	33.9	34.0
Cycle Q Clear(g_c), s	13.5	12.1	12.9	9.4	10.2	11.0	12.3	56.9	6.6	9.4	33.9	34.0
Prop In Lane	1.00		0.82	1.00		0.91	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	420	319	291	159	261	237	209	1879	982	159	890	904
V/C Ratio(X)	0.91	0.60	0.63	0.87	0.60	0.64	0.87	0.93	0.19	0.87	0.70	0.71
Avail Cap(c_a), veh/h	420	504	460	159	446	404	260	1928	1004	159	890	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	47.5	47.8	56.5	50.2	50.6	54.6	28.1	10.9	56.5	24.7	24.7
Incr Delay (d2), s/veh	24.0	1.8	2.2	37.0	2.2	2.9	21.8	8.9	0.1	37.0	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	6.2	6.1	6.3	5.2	5.2	7.4	30.6	3.0	6.3	17.5	17.9
LnGrp Delay(d),s/veh	78.6	49.3	50.0	93.5	52.4	53.5	76.4	37.0	11.0	93.5	27.2	27.3
LnGrp LOS	E	D	D	F	D	D	E	D	B	F	C	C
Approach Vol, veh/h		755			446			2127			1404	
Approach Delay, s/veh		64.3			65.5			38.0			33.8	
Approach LOS		E			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	69.3	15.0	26.1	18.5	65.9	19.0	22.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	67.0	11.0	35.0	18.0	60.0	15.0	31.0
Max Q Clear Time (g_c+I1), s	11.4	58.9	11.4	14.9	14.3	36.0	15.5	13.0
Green Ext Time (p_c), s	0.0	6.4	0.0	4.2	0.1	20.8	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	140	970	130	100	1670	310	190	290	100	220	220	160
Future Volume (veh/h)	140	970	130	100	1670	310	190	290	100	220	220	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	1183	159	122	2037	378	232	354	122	268	268	195
Adj No. of Lanes	1	3	0	1	3	1	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	1814	244	146	1984	840	283	374	129	252	678	477
Arrive On Green	0.09	0.39	0.39	0.08	0.38	0.38	0.08	0.28	0.28	0.14	0.34	0.34
Sat Flow, veh/h	1810	4624	621	1810	5187	1609	3510	1350	465	1810	2023	1423
Grp Volume(v), veh/h	171	885	457	122	2037	378	232	0	476	268	238	225
Grp Sat Flow(s),veh/h/ln	1810	1729	1788	1810	1729	1609	1755	0	1815	1810	1805	1641
Q Serve(g_s), s	13.0	30.0	30.1	9.6	55.0	5.2	9.4	0.0	37.0	20.0	14.5	15.2
Cycle Q Clear(g_c), s	13.0	30.0	30.1	9.6	55.0	5.2	9.4	0.0	37.0	20.0	14.5	15.2
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.26	1.00		0.87
Lane Grp Cap(c), veh/h	164	1356	701	146	1984	840	283	0	503	252	605	550
V/C Ratio(X)	1.05	0.65	0.65	0.84	1.03	0.45	0.82	0.00	0.95	1.07	0.39	0.41
Avail Cap(c_a), veh/h	164	1356	701	214	1984	840	366	0	517	252	605	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	35.7	35.7	65.2	44.4	10.0	65.1	0.0	51.0	61.9	36.6	36.8
Incr Delay (d2), s/veh	82.9	1.1	2.2	16.8	27.4	0.4	10.8	0.0	26.5	75.0	0.4	0.5
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	14.6	15.3	5.5	31.1	6.1	5.0	0.0	22.2	15.2	7.3	6.9
LnGrp Delay(d),s/veh	148.4	36.8	37.9	82.0	71.8	10.4	75.9	0.0	77.5	136.9	37.0	37.3
LnGrp LOS	F	D	D	F	F	B	E		E	F	D	D
Approach Vol, veh/h		1513			2537			708			731	
Approach Delay, s/veh		49.7			63.2			77.0			73.7	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	43.8	15.6	60.4	15.6	52.2	17.0	59.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	41.0	17.0	51.0	15.0	46.0	13.0	55.0
Max Q Clear Time (g_c+I1), s	22.0	39.0	11.6	32.1	11.4	17.2	15.0	57.0
Green Ext Time (p_c), s	0.0	0.6	0.1	17.8	0.3	3.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	90	960	110	120	1690	110	190	340	160	60	290	140
Future Volume (veh/h)	90	960	110	120	1690	110	190	340	160	60	290	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	1067	122	133	1878	122	211	378	178	67	322	156
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	1947	604	147	1985	747	210	525	575	147	573	272
Arrive On Green	0.07	0.38	0.38	0.08	0.38	0.38	0.12	0.28	0.28	0.08	0.24	0.24
Sat Flow, veh/h	1810	5187	1609	1810	5187	1609	1810	1900	1606	1810	2373	1125
Grp Volume(v), veh/h	100	1067	122	133	1878	122	211	378	178	67	243	235
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1609	1810	1900	1606	1810	1805	1693
Q Serve(g_s), s	4.7	13.9	4.4	6.3	30.2	3.8	10.0	15.5	6.9	3.0	10.2	10.5
Cycle Q Clear(g_c), s	4.7	13.9	4.4	6.3	30.2	3.8	10.0	15.5	6.9	3.0	10.2	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	134	1947	604	147	1985	747	210	525	575	147	436	409
V/C Ratio(X)	0.75	0.55	0.20	0.90	0.95	0.16	1.00	0.72	0.31	0.46	0.56	0.57
Avail Cap(c_a), veh/h	147	1987	616	147	1987	747	210	772	784	189	712	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	21.2	18.2	39.3	25.7	13.4	38.1	28.2	20.0	37.8	28.6	28.8
Incr Delay (d2), s/veh	17.3	0.3	0.2	47.1	10.2	0.1	63.3	1.9	0.3	2.2	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.7	2.0	5.1	16.1	1.7	8.7	8.4	3.1	1.6	5.2	5.0
LnGrp Delay(d),s/veh	56.5	21.5	18.4	86.4	35.9	13.5	101.4	30.0	20.3	40.0	29.8	30.0
LnGrp LOS	E	C	B	F	D	B	F	C	C	D	C	C
Approach Vol, veh/h		1289			2133			767			545	
Approach Delay, s/veh		23.9			37.8			47.4			31.1	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	27.8	11.0	36.3	14.0	24.8	10.4	37.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	35.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	5.0	17.5	8.3	15.9	12.0	12.5	6.7	32.2
Green Ext Time (p_c), s	0.0	5.0	0.0	15.2	0.0	5.4	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Morrison St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	300	540	300	160	1130	160	420	60	110	90	50	350
Future Volume (veh/h)	300	540	300	160	1130	160	420	60	110	90	50	350
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	349	628	349	186	1314	186	488	70	128	105	58	407
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	280	1040	486	210	1204	170	377	730	653	129	482	429
Arrive On Green	0.15	0.30	0.30	0.12	0.26	0.26	0.21	0.40	0.40	0.07	0.27	0.27
Sat Flow, veh/h	1810	3458	1615	1810	4589	650	1810	1805	1615	1810	1805	1606
Grp Volume(v), veh/h	349	628	349	186	990	510	488	70	128	105	58	407
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1781	1810	1805	1615	1810	1805	1606
Q Serve(g_s), s	23.0	23.1	28.7	15.1	39.0	39.0	31.0	3.6	7.6	8.5	3.6	37.0
Cycle Q Clear(g_c), s	23.0	23.1	28.7	15.1	39.0	39.0	31.0	3.6	7.6	8.5	3.6	37.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	280	1040	486	210	907	467	377	730	653	129	482	429
V/C Ratio(X)	1.25	0.60	0.72	0.88	1.09	1.09	1.29	0.10	0.20	0.81	0.12	0.95
Avail Cap(c_a), veh/h	280	1040	486	280	907	467	377	730	653	195	498	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.9	44.4	46.4	64.7	54.9	54.9	58.9	27.5	28.7	68.1	41.3	53.5
Incr Delay (d2), s/veh	137.4	1.0	5.1	21.9	58.1	68.8	150.6	0.1	0.1	14.5	0.1	29.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.1	11.1	13.5	8.8	25.8	28.0	31.2	1.8	3.4	4.8	1.8	19.9
LnGrp Delay(d),s/veh	200.3	45.4	51.5	86.7	112.9	123.7	209.5	27.5	28.8	82.5	41.4	83.3
LnGrp LOS	F	D	D	F	F	F	F	C	C	F	D	F
Approach Vol, veh/h		1326			1686			686			570	
Approach Delay, s/veh		87.8			113.3			157.2			78.9	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	64.1	21.3	48.7	35.0	43.7	27.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	56.0	23.0	39.0	31.0	41.0	23.0	39.0
Max Q Clear Time (g_c+I1), s	10.5	9.6	17.1	30.7	33.0	39.0	25.0	41.0
Green Ext Time (p_c), s	0.1	4.7	0.2	7.1	0.0	0.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	107.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	120	230	370	160	680	150	470	980	50	50	1310	260
Future Volume (veh/h)	120	230	370	160	680	150	470	980	50	50	1310	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	154	295	474	205	872	192	603	1256	64	64	1679	333
Adj No. of Lanes	2	3	1	2	2	1	1	3	0	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	1153	357	250	890	396	555	2804	143	82	1522	471
Arrive On Green	0.05	0.22	0.22	0.07	0.25	0.25	0.31	0.55	0.55	0.05	0.29	0.29
Sat Flow, veh/h	3510	5187	1604	3510	3610	1605	1810	5054	258	1810	5187	1607
Grp Volume(v), veh/h	154	295	474	205	872	192	603	859	461	64	1679	333
Grp Sat Flow(s),veh/h/ln	1755	1729	1604	1755	1805	1605	1810	1729	1854	1810	1729	1607
Q Serve(g_s), s	6.6	7.0	33.3	8.6	36.0	15.4	46.0	22.1	22.1	5.3	44.0	27.7
Cycle Q Clear(g_c), s	6.6	7.0	33.3	8.6	36.0	15.4	46.0	22.1	22.1	5.3	44.0	27.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	164	1153	357	250	890	396	555	1919	1029	82	1522	471
V/C Ratio(X)	0.94	0.26	1.33	0.82	0.98	0.48	1.09	0.45	0.45	0.78	1.10	0.71
Avail Cap(c_a), veh/h	164	1153	357	257	890	396	555	1919	1029	133	1522	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.3	48.1	58.3	68.7	56.1	48.3	52.0	19.8	19.8	70.9	53.0	47.2
Incr Delay (d2), s/veh	52.8	0.1	166.5	18.4	25.1	0.9	63.8	0.2	0.3	14.9	56.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.4	31.3	4.8	21.0	6.9	32.8	10.5	11.4	3.0	29.0	12.9
LnGrp Delay(d),s/veh	124.1	48.2	224.8	87.1	81.2	49.3	115.8	19.9	20.1	85.8	109.9	52.0
LnGrp LOS	F	D	F	F	F	D	F	B	C	F	F	D
Approach Vol, veh/h		923			1269			1923			2076	
Approach Delay, s/veh		151.6			77.3			50.0			99.9	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	87.2	14.7	37.3	50.0	48.0	11.0	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	79.0	11.0	33.0	46.0	44.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	7.3	24.1	10.6	35.3	48.0	46.0	8.6	38.0
Green Ext Time (p_c), s	0.0	41.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	87.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑	↱
Traffic Volume (veh/h)	100	580	90	40	930	40	190	440	30	90	390	120
Future Volume (veh/h)	100	580	90	40	930	40	190	440	30	90	390	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	707	110	49	1134	49	232	537	37	110	476	146
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	1150	179	95	1228	53	260	1162	80	139	518	438
Arrive On Green	0.07	0.37	0.37	0.05	0.35	0.35	0.14	0.34	0.34	0.08	0.27	0.27
Sat Flow, veh/h	1810	3130	487	1810	3525	152	1810	3427	236	1810	1900	1606
Grp Volume(v), veh/h	122	407	410	49	580	603	232	282	292	110	476	146
Grp Sat Flow(s),veh/h/ln	1810	1805	1812	1810	1805	1872	1810	1805	1857	1810	1900	1606
Q Serve(g_s), s	6.5	18.0	18.0	2.6	30.1	30.2	12.3	12.0	12.0	5.8	23.7	7.1
Cycle Q Clear(g_c), s	6.5	18.0	18.0	2.6	30.1	30.2	12.3	12.0	12.0	5.8	23.7	7.1
Prop In Lane	1.00		0.27	1.00		0.08	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	130	663	666	95	629	652	260	612	630	139	518	438
V/C Ratio(X)	0.94	0.61	0.62	0.51	0.92	0.92	0.89	0.46	0.46	0.79	0.92	0.33
Avail Cap(c_a), veh/h	130	663	666	130	648	672	260	612	630	223	545	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	25.2	25.2	45.0	30.5	30.5	41.0	25.3	25.3	44.3	34.5	28.4
Incr Delay (d2), s/veh	60.5	1.7	1.7	4.2	18.7	18.3	29.8	0.5	0.5	9.5	20.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	9.3	9.3	1.4	18.3	18.9	8.3	6.1	6.2	3.3	15.4	3.2
LnGrp Delay(d),s/veh	105.6	26.9	26.9	49.2	49.2	48.8	70.9	25.8	25.8	53.8	54.8	28.8
LnGrp LOS	F	C	C	D	D	D	E	C	C	D	D	C
Approach Vol, veh/h		939			1232			806			732	
Approach Delay, s/veh		37.1			49.0			38.8			49.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	37.1	9.1	39.8	18.0	30.6	11.0	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	30.0	7.0	35.0	14.0	28.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	7.8	14.0	4.6	20.0	14.3	25.7	8.5	32.2
Green Ext Time (p_c), s	0.1	5.9	0.0	9.7	0.0	0.7	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	43.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	70	390	200	240	750	70	130	530	180	80	380	80
Future Volume (veh/h)	70	390	200	240	750	70	130	530	180	80	380	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	443	227	273	852	80	148	602	0	91	432	91
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	612	311	324	1319	588	206	898	402	149	644	135
Arrive On Green	0.08	0.26	0.26	0.18	0.37	0.37	0.11	0.25	0.00	0.08	0.22	0.22
Sat Flow, veh/h	1810	2314	1176	1810	3610	1608	1810	3610	1615	1810	2970	621
Grp Volume(v), veh/h	80	345	325	273	852	80	148	602	0	91	261	262
Grp Sat Flow(s),veh/h/ln	1810	1805	1685	1810	1805	1608	1810	1805	1615	1810	1805	1785
Q Serve(g_s), s	3.0	12.3	12.5	10.3	13.9	2.4	5.6	10.7	0.0	3.4	9.4	9.5
Cycle Q Clear(g_c), s	3.0	12.3	12.5	10.3	13.9	2.4	5.6	10.7	0.0	3.4	9.4	9.5
Prop In Lane	1.00		0.70	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	142	477	446	324	1319	588	206	898	402	149	392	387
V/C Ratio(X)	0.56	0.72	0.73	0.84	0.65	0.14	0.72	0.67	0.00	0.61	0.67	0.68
Avail Cap(c_a), veh/h	229	738	688	331	1679	748	206	1526	683	178	738	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	23.7	23.8	28.2	18.7	15.0	30.3	24.0	0.0	31.5	25.4	25.5
Incr Delay (d2), s/veh	3.5	2.1	2.3	17.2	0.6	0.1	11.4	0.9	0.0	4.3	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.4	6.1	6.7	7.0	1.1	3.4	5.4	0.0	1.9	4.9	4.9
LnGrp Delay(d),s/veh	35.0	25.8	26.1	45.4	19.3	15.1	41.7	24.9	0.0	35.8	27.4	27.6
LnGrp LOS	D	C	C	D	B	B	D	C		D	C	C
Approach Vol, veh/h		750			1205			750			614	
Approach Delay, s/veh		26.9			24.9			28.2			28.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	21.6	16.7	22.8	12.1	19.4	9.6	29.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	8.0	29.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	5.4	12.7	12.3	14.5	7.6	11.5	5.0	15.9
Green Ext Time (p_c), s	0.0	3.7	0.4	3.2	0.2	2.5	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
54: Morriaon St/Morrison St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	400	60	220	800	430	100	50	190	310	40	160
Future Volume (veh/h)	110	400	60	220	800	430	100	50	190	310	40	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	400	60	220	800	430	100	50	190	310	40	160
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	1098	163	256	940	502	127	297	264	347	516	459
Arrive On Green	0.08	0.35	0.35	0.14	0.41	0.41	0.07	0.16	0.16	0.19	0.29	0.29
Sat Flow, veh/h	1810	3151	469	1810	2272	1213	1810	1805	1600	1810	1805	1607
Grp Volume(v), veh/h	110	228	232	220	634	596	100	50	190	310	40	160
Grp Sat Flow(s),veh/h/ln	1810	1805	1815	1810	1805	1681	1810	1805	1600	1810	1805	1607
Q Serve(g_s), s	6.2	9.8	10.0	12.4	33.1	33.5	5.7	2.5	11.7	17.4	1.7	8.2
Cycle Q Clear(g_c), s	6.2	9.8	10.0	12.4	33.1	33.5	5.7	2.5	11.7	17.4	1.7	8.2
Prop In Lane	1.00		0.26	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	629	632	256	747	696	127	297	264	347	516	459
V/C Ratio(X)	0.80	0.36	0.37	0.86	0.85	0.86	0.78	0.17	0.72	0.89	0.08	0.35
Avail Cap(c_a), veh/h	191	629	632	434	849	790	243	468	415	469	693	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	25.3	25.4	43.7	27.6	27.7	47.7	37.4	41.2	41.1	27.2	29.5
Incr Delay (d2), s/veh	14.8	0.4	0.4	8.5	7.4	8.4	10.1	0.3	3.7	15.5	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	4.9	5.0	6.8	17.9	17.2	3.2	1.3	5.4	10.2	0.9	3.7
LnGrp Delay(d),s/veh	62.2	25.7	25.7	52.2	35.0	36.1	57.7	37.6	44.9	56.6	27.2	30.0
LnGrp LOS	E	C	C	D	D	D	E	D	D	E	C	C
Approach Vol, veh/h		570			1450			340			510	
Approach Delay, s/veh		32.7			38.1			47.6			45.9	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	21.2	18.8	40.3	11.3	33.8	11.9	47.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	27.0	25.0	35.0	14.0	40.0	11.0	49.0
Max Q Clear Time (g_c+I1), s	19.4	13.7	14.4	12.0	7.7	10.2	8.2	35.5
Green Ext Time (p_c), s	0.6	2.2	0.4	11.1	0.1	2.9	0.1	7.6

Intersection Summary			
HCM 2010 Ctrl Delay			39.5
HCM 2010 LOS			D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↱		↰↰	↑↑↱	
Traffic Volume (veh/h)	540	360	280	240	410	460	340	450	270	490	420	630
Future Volume (veh/h)	540	360	280	240	410	460	340	450	270	490	420	630
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	684	456	354	304	519	582	430	570	342	620	532	797
Adj No. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	478	710	549	332	516	459	401	692	321	476	766	355
Arrive On Green	0.26	0.37	0.37	0.18	0.29	0.29	0.11	0.20	0.20	0.14	0.22	0.22
Sat Flow, veh/h	1810	1936	1497	1810	1805	1607	3510	3458	1603	3510	3458	1604
Grp Volume(v), veh/h	684	425	385	304	519	582	430	570	342	620	532	797
Grp Sat Flow(s),veh/h/ln	1810	1805	1629	1810	1805	1607	1755	1729	1603	1755	1729	1604
Q Serve(g_s), s	37.0	27.3	27.5	23.1	40.0	40.0	16.0	22.1	28.0	19.0	19.8	31.0
Cycle Q Clear(g_c), s	37.0	27.3	27.5	23.1	40.0	40.0	16.0	22.1	28.0	19.0	19.8	31.0
Prop In Lane	1.00		0.92	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	478	662	597	332	516	459	401	692	321	476	766	355
V/C Ratio(X)	1.43	0.64	0.65	0.92	1.01	1.27	1.07	0.82	1.07	1.30	0.69	2.24
Avail Cap(c_a), veh/h	478	662	597	452	516	459	401	692	321	476	766	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	36.7	36.8	56.1	50.0	50.0	62.0	53.6	56.0	60.5	50.1	54.5
Incr Delay (d2), s/veh	205.4	2.1	2.4	19.0	41.2	136.9	65.4	8.0	69.1	150.3	2.7	568.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	45.8	14.0	12.7	13.3	25.8	35.2	11.4	11.3	18.5	19.1	9.7	69.8
LnGrp Delay(d),s/veh	256.9	38.9	39.2	75.1	91.2	186.9	127.4	61.7	125.1	210.8	52.9	623.3
LnGrp LOS	F	D	D	E	F	F	F	E	F	F	D	F
Approach Vol, veh/h		1494			1405			1342			1949	
Approach Delay, s/veh		138.8			127.4			98.9			336.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	32.0	29.7	55.3	20.0	35.0	41.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	28.0	35.0	42.0	16.0	31.0	37.0	40.0
Max Q Clear Time (g_c+I1), s	21.0	30.0	25.1	29.5	18.0	33.0	39.0	42.0
Green Ext Time (p_c), s	0.0	0.0	0.6	8.5	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	189.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	220	950	130	170	1800	170	70	260	20	160	420	220
Future Volume (veh/h)	220	950	130	170	1800	170	70	260	20	160	420	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	1044	143	187	1978	187	77	286	22	176	462	242
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	264	1712	764	217	2162	203	185	746	57	199	807	359
Arrive On Green	0.15	0.47	0.47	0.12	0.45	0.45	0.05	0.22	0.22	0.06	0.22	0.22
Sat Flow, veh/h	1810	3610	1610	1810	4824	453	3510	3397	260	3510	3610	1604
Grp Volume(v), veh/h	242	1044	143	187	1414	751	77	151	157	176	462	242
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1818	1755	1805	1852	1755	1805	1604
Q Serve(g_s), s	16.3	26.4	6.3	12.5	47.1	47.9	2.6	8.8	8.9	6.1	14.1	17.0
Cycle Q Clear(g_c), s	16.3	26.4	6.3	12.5	47.1	47.9	2.6	8.8	8.9	6.1	14.1	17.0
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	264	1712	764	217	1550	815	185	396	407	199	807	359
V/C Ratio(X)	0.92	0.61	0.19	0.86	0.91	0.92	0.42	0.38	0.39	0.88	0.57	0.67
Avail Cap(c_a), veh/h	264	1712	764	323	1625	855	199	600	615	199	1200	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	24.0	18.7	53.3	31.8	32.0	56.6	41.0	41.1	57.8	42.6	43.8
Incr Delay (d2), s/veh	34.2	0.6	0.1	14.5	8.0	14.8	1.5	0.6	0.6	34.0	0.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	13.2	2.8	7.2	24.1	27.3	1.3	4.5	4.6	3.9	7.1	7.7
LnGrp Delay(d),s/veh	86.1	24.6	18.8	67.8	39.8	46.8	58.1	41.6	41.7	91.8	43.3	46.0
LnGrp LOS	F	C	B	E	D	D	E	D	D	F	D	D
Approach Vol, veh/h		1429			2352			385			880	
Approach Delay, s/veh		34.5			44.3			44.9			53.7	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	31.1	18.8	62.5	10.5	31.6	22.0	59.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	41.0	22.0	54.0	7.0	41.0	18.0	58.0
Max Q Clear Time (g_c+I1), s	8.1	10.9	14.5	28.4	4.6	19.0	18.3	49.9
Green Ext Time (p_c), s	0.0	6.5	0.3	22.7	0.0	6.0	0.0	5.4

Intersection Summary			
HCM 2010 Ctrl Delay			43.2
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	50	880	240	340	1840	130	160	390	80	210	660	120
Future Volume (veh/h)	50	880	240	340	1840	130	160	390	80	210	660	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	957	0	370	2000	141	174	424	87	228	717	130
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	987	441	367	2126	149	201	817	166	226	878	159
Arrive On Green	0.05	0.27	0.00	0.20	0.43	0.43	0.11	0.27	0.27	0.12	0.29	0.29
Sat Flow, veh/h	1810	3610	1615	1810	4948	347	1810	2986	608	1810	3051	553
Grp Volume(v), veh/h	54	957	0	370	1395	746	174	255	256	228	424	423
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1837	1810	1805	1789	1810	1805	1799
Q Serve(g_s), s	3.8	33.6	0.0	26.0	49.4	50.0	12.1	15.3	15.5	16.0	28.0	28.0
Cycle Q Clear(g_c), s	3.8	33.6	0.0	26.0	49.4	50.0	12.1	15.3	15.5	16.0	28.0	28.0
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.34	1.00		0.31
Lane Grp Cap(c), veh/h	84	987	441	367	1486	790	201	494	490	226	519	518
V/C Ratio(X)	0.64	0.97	0.00	1.01	0.94	0.95	0.87	0.52	0.52	1.01	0.82	0.82
Avail Cap(c_a), veh/h	99	987	441	367	1486	790	240	592	587	226	578	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	46.0	0.0	51.0	34.9	35.1	56.0	39.3	39.4	56.0	42.5	42.5
Incr Delay (d2), s/veh	10.2	21.6	0.0	48.7	11.7	19.9	23.7	0.8	0.9	62.0	8.2	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	19.7	0.0	17.9	25.9	29.7	7.4	7.8	7.8	11.9	15.2	15.2
LnGrp Delay(d),s/veh	70.2	67.6	0.0	99.8	46.6	55.0	79.7	40.2	40.3	118.1	50.6	50.7
LnGrp LOS	E	E		F	D	D	E	D	D	F	D	D
Approach Vol, veh/h		1011			2511			685			1075	
Approach Delay, s/veh		67.7			56.9			50.3			65.0	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	39.0	30.0	39.0	18.2	40.8	10.0	59.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	42.0	26.0	35.0	17.0	41.0	7.0	54.0
Max Q Clear Time (g_c+I1), s	18.0	17.5	28.0	35.6	14.1	30.0	5.8	52.0
Green Ext Time (p_c), s	0.0	9.7	0.0	0.0	0.1	6.2	0.0	2.0

Intersection Summary			
HCM 2010 Ctrl Delay			59.8
HCM 2010 LOS			E

58: Heacock St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	130	880	100	100	2180	380	160	480	40	180	470	190
Future Volume (veh/h)	130	880	100	100	2180	380	160	480	40	180	470	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	141	957	109	109	2370	413	174	522	43	196	511	207
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	2478	926	133	2169	361	175	785	64	175	839	481
Arrive On Green	0.07	0.48	0.48	0.07	0.48	0.48	0.10	0.23	0.23	0.10	0.23	0.23
Sat Flow, veh/h	1810	5187	1610	1810	4478	745	1810	3376	277	1810	3610	1605
Grp Volume(v), veh/h	141	957	109	109	1805	978	174	278	287	196	511	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1766	1810	1805	1849	1810	1805	1605
Q Serve(g_s), s	9.0	15.9	4.1	8.0	65.0	65.0	12.9	18.8	18.9	13.0	17.0	13.9
Cycle Q Clear(g_c), s	9.0	15.9	4.1	8.0	65.0	65.0	12.9	18.8	18.9	13.0	17.0	13.9
Prop In Lane	1.00		1.00	1.00		0.42	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	121	2478	926	133	1675	855	175	419	430	175	839	481
V/C Ratio(X)	1.16	0.39	0.12	0.82	1.08	1.14	0.99	0.66	0.67	1.12	0.61	0.43
Avail Cap(c_a), veh/h	121	2478	926	216	1675	855	175	565	579	175	1130	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.6	22.4	13.0	61.2	34.6	34.6	60.5	46.7	46.8	60.6	46.0	37.8
Incr Delay (d2), s/veh	131.7	0.1	0.1	11.8	46.1	78.5	65.7	1.8	1.8	103.2	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	7.6	1.9	4.4	41.7	50.3	9.6	9.6	9.8	11.5	8.5	6.2
LnGrp Delay(d),s/veh	194.3	22.5	13.1	73.0	80.7	113.1	126.2	48.6	48.6	163.8	46.8	38.4
LnGrp LOS	F	C	B	E	F	F	F	D	D	F	D	D
Approach Vol, veh/h		1207			2892			739			914	
Approach Delay, s/veh		41.7			91.4			66.8			70.0	
Approach LOS		D			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	35.2	13.9	68.1	17.0	35.2	13.0	69.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	42.0	16.0	58.0	13.0	42.0	9.0	65.0
Max Q Clear Time (g_c+I1), s	15.0	20.9	10.0	17.9	14.9	19.0	11.0	67.0
Green Ext Time (p_c), s	0.0	8.0	0.1	37.1	0.0	8.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.4
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	90	760	160	160	2280	60	250	430	140	130	410	170
Future Volume (veh/h)	90	760	160	160	2280	60	250	430	140	130	410	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	826	174	174	2478	65	272	467	152	141	446	185
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	1649	345	201	2304	60	241	790	255	167	633	260
Arrive On Green	0.05	0.38	0.38	0.11	0.44	0.44	0.13	0.29	0.29	0.09	0.25	0.25
Sat Flow, veh/h	1810	4296	899	1810	5198	136	1810	2681	866	1810	2492	1025
Grp Volume(v), veh/h	98	664	336	174	1645	898	272	313	306	141	322	309
Grp Sat Flow(s),veh/h/ln	1810	1729	1737	1810	1729	1876	1810	1805	1742	1810	1805	1712
Q Serve(g_s), s	7.0	19.8	20.0	12.8	60.0	60.0	18.0	20.1	20.3	10.4	21.9	22.3
Cycle Q Clear(g_c), s	7.0	19.8	20.0	12.8	60.0	60.0	18.0	20.1	20.3	10.4	21.9	22.3
Prop In Lane	1.00		0.52	1.00		0.07	1.00		0.50	1.00		0.60
Lane Grp Cap(c), veh/h	94	1327	667	201	1533	831	241	532	513	167	458	435
V/C Ratio(X)	1.05	0.50	0.50	0.87	1.07	1.08	1.13	0.59	0.60	0.84	0.70	0.71
Avail Cap(c_a), veh/h	94	1327	667	307	1533	831	241	573	553	254	587	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.2	31.8	31.9	59.2	37.7	37.7	58.7	40.8	40.9	60.5	45.9	46.0
Incr Delay (d2), s/veh	106.4	0.3	0.6	14.8	45.3	55.3	97.7	1.4	1.5	14.6	2.7	3.0
Initial Q Delay(d3),s/veh	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	9.5	9.7	7.3	38.2	43.7	15.5	10.2	10.0	5.9	11.2	10.9
LnGrp Delay(d),s/veh	171.5	32.1	32.5	73.9	83.0	93.0	156.3	42.2	42.4	75.1	48.5	49.0
LnGrp LOS	F	C	C	E	F	F	F	D	D	E	D	D
Approach Vol, veh/h		1098			2717			891			772	
Approach Delay, s/veh		44.6			85.8			77.1			53.6	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	43.9	19.0	56.0	22.0	38.4	11.0	64.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	43.0	23.0	44.0	18.0	44.0	7.0	60.0
Max Q Clear Time (g_c+I1), s	12.4	22.3	14.8	22.0	20.0	24.3	9.0	62.0
Green Ext Time (p_c), s	0.2	8.2	0.3	20.4	0.0	8.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	71.6
HCM 2010 LOS	E

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	120	660	180	250	1780	130	400	820	240	230	980	380
Future Volume (veh/h)	120	660	180	250	1780	130	400	820	240	230	980	380
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	742	202	281	2000	146	449	921	270	258	1101	427
Adj No. of Lanes	2	2	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	1306	582	338	1994	145	436	1702	528	314	1522	471
Arrive On Green	0.05	0.36	0.36	0.10	0.40	0.40	0.12	0.33	0.33	0.09	0.29	0.29
Sat Flow, veh/h	3510	3610	1608	3510	4935	358	3510	5187	1608	3510	5187	1607
Grp Volume(v), veh/h	135	742	202	281	1398	748	449	921	270	258	1101	427
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1835	1755	1729	1608	1755	1729	1607
Q Serve(g_s), s	4.9	21.3	11.8	10.1	52.0	52.0	16.0	18.7	17.5	9.3	24.5	32.9
Cycle Q Clear(g_c), s	4.9	21.3	11.8	10.1	52.0	52.0	16.0	18.7	17.5	9.3	24.5	32.9
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	1306	582	338	1397	741	436	1702	528	314	1522	471
V/C Ratio(X)	0.71	0.57	0.35	0.83	1.00	1.01	1.03	0.54	0.51	0.82	0.72	0.91
Avail Cap(c_a), veh/h	191	1306	582	409	1397	741	436	1702	528	382	1572	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.9	33.0	30.0	57.1	38.4	38.4	56.4	35.3	34.9	57.6	40.8	43.8
Incr Delay (d2), s/veh	11.7	0.6	0.4	11.6	24.3	35.1	50.7	0.3	0.8	11.3	1.6	20.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	10.7	5.3	5.5	29.4	33.4	10.8	8.9	7.9	5.0	12.0	17.2
LnGrp Delay(d),s/veh	71.6	33.6	30.3	68.8	62.6	73.5	107.0	35.7	35.7	68.9	42.4	63.9
LnGrp LOS	E	C	C	E	F	F	F	D	D	E	D	E
Approach Vol, veh/h		1079			2427			1640			1786	
Approach Delay, s/veh		37.7			66.7			55.2			51.4	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	46.2	16.4	50.6	20.0	41.8	10.9	56.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	41.0	15.0	44.0	16.0	39.0	7.0	52.0
Max Q Clear Time (g_c+I1), s	11.3	20.7	12.1	23.3	18.0	34.9	6.9	54.0
Green Ext Time (p_c), s	0.2	15.7	0.3	18.0	0.0	2.8	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			55.5
HCM 2010 LOS			E

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	170	1450	2510	180	350	140
Future Volume (veh/h)	170	1450	2510	180	350	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	1543	2670	191	372	149
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	210	3953	3112	1199	510	422
Arrive On Green	0.12	0.76	0.60	0.60	0.15	0.15
Sat Flow, veh/h	1810	5358	5358	1608	3510	1615
Grp Volume(v), veh/h	181	1543	2670	191	372	149
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1608	1755	1615
Q Serve(g_s), s	8.5	8.7	36.6	3.0	8.7	6.5
Cycle Q Clear(g_c), s	8.5	8.7	36.6	3.0	8.7	6.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	210	3953	3112	1199	510	422
V/C Ratio(X)	0.86	0.39	0.86	0.16	0.73	0.35
Avail Cap(c_a), veh/h	210	3966	3125	1203	1261	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	3.5	14.2	3.2	35.3	26.0
Incr Delay (d2), s/veh	29.0	0.1	2.6	0.1	2.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	4.0	18.1	2.1	4.4	6.3
LnGrp Delay(d),s/veh	66.5	3.5	16.8	3.2	37.3	26.5
LnGrp LOS	E	A	B	A	D	C
Approach Vol, veh/h		1724	2861		521	
Approach Delay, s/veh		10.1	15.9		34.2	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				69.8		16.5	14.0	55.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				66.0		31.0	10.0	52.0
Max Q Clear Time (g_c+I1), s				10.7		10.7	10.5	38.6
Green Ext Time (p_c), s				52.2		1.8	0.0	13.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	110	1120	630	420	2430	260	200	150	20	230	660	90
Future Volume (veh/h)	110	1120	630	420	2430	260	200	150	20	230	660	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1179	663	442	2558	274	211	158	21	242	695	95
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	1688	523	442	2472	257	266	621	81	214	853	463
Arrive On Green	0.05	0.33	0.33	0.24	0.52	0.52	0.08	0.19	0.19	0.12	0.24	0.24
Sat Flow, veh/h	1810	5187	1608	1810	4773	496	3510	3207	420	1810	3610	1605
Grp Volume(v), veh/h	116	1179	663	442	1831	1001	211	88	91	242	695	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1810	1729	1811	1755	1805	1822	1810	1805	1605
Q Serve(g_s), s	7.0	26.8	44.0	33.0	70.0	70.0	8.0	5.6	5.7	16.0	24.6	6.1
Cycle Q Clear(g_c), s	7.0	26.8	44.0	33.0	70.0	70.0	8.0	5.6	5.7	16.0	24.6	6.1
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	94	1688	523	442	1791	938	266	349	353	214	853	463
V/C Ratio(X)	1.24	0.70	1.27	1.00	1.02	1.07	0.79	0.25	0.26	1.13	0.81	0.21
Avail Cap(c_a), veh/h	94	1688	523	442	1791	938	364	481	485	214	1015	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.1	39.8	45.6	51.1	32.6	32.6	61.4	46.2	46.3	59.6	48.8	36.4
Incr Delay (d2), s/veh	170.0	1.3	134.7	43.0	27.2	49.0	8.2	0.4	0.4	100.8	4.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	13.0	39.1	21.7	40.1	47.7	4.2	2.8	2.9	14.0	12.8	2.7
LnGrp Delay(d),s/veh	234.1	41.1	180.3	94.0	59.8	81.6	69.6	46.6	46.6	160.4	53.3	36.6
LnGrp LOS	F	D	F	F	F	F	E	D	D	F	D	D
Approach Vol, veh/h		1958			3274			390			1032	
Approach Delay, s/veh		99.7			71.1			59.1			76.9	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	30.2	37.0	48.0	14.2	35.9	11.0	74.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	36.0	33.0	44.0	14.0	38.0	7.0	70.0
Max Q Clear Time (g_c+I1), s	18.0	7.7	35.0	46.0	10.0	26.6	9.0	72.0
Green Ext Time (p_c), s	0.0	7.0	0.0	0.0	0.2	4.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	79.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	180	730	430	20	1630	110	930	490	10	60	270	420
Future Volume (veh/h)	180	730	430	20	1630	110	930	490	10	60	270	420
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	196	793	467	22	1772	120	1011	533	11	65	293	457
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	2344	1029	51	1396	94	655	1329	27	83	409	364
Arrive On Green	0.07	0.45	0.45	0.03	0.41	0.41	0.19	0.37	0.37	0.05	0.23	0.23
Sat Flow, veh/h	1810	5187	1610	1810	3433	230	3510	3617	75	1810	1805	1604
Grp Volume(v), veh/h	196	793	467	22	923	969	1011	266	278	65	293	457
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1805	1858	1755	1805	1886	1810	1805	1604
Q Serve(g_s), s	11.0	14.8	3.4	1.8	61.0	61.0	28.0	16.4	16.4	5.3	22.5	34.0
Cycle Q Clear(g_c), s	11.0	14.8	3.4	1.8	61.0	61.0	28.0	16.4	16.4	5.3	22.5	34.0
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	133	2344	1029	51	734	756	655	663	693	83	409	364
V/C Ratio(X)	1.48	0.34	0.45	0.43	1.26	1.28	1.54	0.40	0.40	0.78	0.72	1.26
Avail Cap(c_a), veh/h	133	2344	1029	84	734	756	655	663	693	133	409	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	26.6	7.1	71.7	44.5	44.5	61.0	35.2	35.2	70.8	53.5	58.0
Incr Delay (d2), s/veh	250.6	0.1	0.3	5.8	126.7	137.1	251.8	0.4	0.4	14.8	5.9	136.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	7.1	6.8	1.0	56.2	60.1	36.5	8.3	8.6	3.0	11.9	28.8
LnGrp Delay(d),s/veh	320.1	26.7	7.4	77.5	171.2	181.6	312.8	35.6	35.6	85.6	59.4	194.1
LnGrp LOS	F	C	A	E	F	F	F	D	D	F	E	F
Approach Vol, veh/h		1456			1914			1555			815	
Approach Delay, s/veh		60.0			175.4			215.8			137.0	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	59.1	8.2	71.8	32.0	38.0	15.0	65.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	51.0	7.0	65.0	28.0	34.0	11.0	61.0
Max Q Clear Time (g_c+I1), s	7.3	18.4	3.8	16.8	30.0	36.0	13.0	63.0
Green Ext Time (p_c), s	0.0	9.1	0.0	35.7	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	151.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	600	210	60	1260	90	210	600	80	120	520	70
Future Volume (veh/h)	70	600	210	60	1260	90	210	600	80	120	520	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	690	241	69	1448	103	241	690	92	138	598	80
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	1159	405	97	1500	106	247	888	118	165	744	99
Arrive On Green	0.06	0.44	0.44	0.05	0.44	0.44	0.14	0.28	0.28	0.09	0.23	0.23
Sat Flow, veh/h	1810	2623	916	1810	3419	242	1810	3201	426	1810	3199	427
Grp Volume(v), veh/h	80	475	456	69	761	790	241	389	393	138	337	341
Grp Sat Flow(s),veh/h/ln	1810	1805	1735	1810	1805	1856	1810	1805	1822	1810	1805	1821
Q Serve(g_s), s	5.1	23.4	23.4	4.4	48.1	48.8	15.6	23.3	23.3	8.8	20.7	20.8
Cycle Q Clear(g_c), s	5.1	23.4	23.4	4.4	48.1	48.8	15.6	23.3	23.3	8.8	20.7	20.8
Prop In Lane	1.00		0.53	1.00		0.13	1.00		0.23	1.00		0.23
Lane Grp Cap(c), veh/h	102	797	766	97	792	814	247	501	505	165	420	423
V/C Ratio(X)	0.79	0.60	0.60	0.71	0.96	0.97	0.98	0.78	0.78	0.83	0.80	0.81
Avail Cap(c_a), veh/h	108	797	766	154	799	822	247	507	512	185	446	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	24.8	24.8	54.7	32.0	32.2	50.5	39.1	39.1	52.5	42.5	42.6
Incr Delay (d2), s/veh	29.6	1.2	1.3	9.4	22.7	24.0	50.8	7.4	7.4	24.8	9.7	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	11.9	11.4	2.5	28.9	30.2	11.2	12.6	12.7	5.5	11.4	11.6
LnGrp Delay(d),s/veh	84.3	26.0	26.1	64.1	54.7	56.1	101.3	46.4	46.5	77.3	52.2	52.4
LnGrp LOS	F	C	C	E	D	E	F	D	D	E	D	D
Approach Vol, veh/h		1011			1620			1023			816	
Approach Delay, s/veh		30.7			55.8			59.4			56.5	
Approach LOS		C			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	36.6	10.3	55.8	20.0	31.3	10.6	55.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	33.0	10.0	49.0	16.0	29.0	7.0	52.0
Max Q Clear Time (g_c+I1), s	10.8	25.3	6.4	25.4	17.6	22.8	7.1	50.8
Green Ext Time (p_c), s	0.0	5.0	0.0	16.9	0.0	4.2	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	120	520	170	130	1020	170	260	1050	130	120	980	150
Future Volume (veh/h)	120	520	170	130	1020	170	260	1050	130	120	980	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	598	195	149	1172	195	299	1207	149	138	1126	172
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	148	952	310	179	1155	191	296	1556	482	181	1073	164
Arrive On Green	0.08	0.36	0.36	0.10	0.37	0.37	0.16	0.30	0.30	0.10	0.24	0.24
Sat Flow, veh/h	1810	2676	871	1810	3099	513	1810	5187	1607	1810	4538	693
Grp Volume(v), veh/h	138	403	390	149	680	687	299	1207	149	138	858	440
Grp Sat Flow(s),veh/h/ln	1810	1805	1742	1810	1805	1807	1810	1729	1607	1810	1729	1773
Q Serve(g_s), s	8.3	20.4	20.4	8.9	41.0	41.0	18.0	23.4	5.9	8.2	26.0	26.0
Cycle Q Clear(g_c), s	8.3	20.4	20.4	8.9	41.0	41.0	18.0	23.4	5.9	8.2	26.0	26.0
Prop In Lane	1.00		0.50	1.00		0.28	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	148	642	620	179	673	674	296	1556	482	181	817	419
V/C Ratio(X)	0.93	0.63	0.63	0.83	1.01	1.02	1.01	0.78	0.31	0.76	1.05	1.05
Avail Cap(c_a), veh/h	148	642	620	230	673	674	296	1556	482	181	817	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	29.4	29.4	48.7	34.5	34.5	46.0	35.1	16.9	48.2	42.0	42.0
Incr Delay (d2), s/veh	53.9	1.9	2.0	18.1	37.5	39.7	54.8	3.9	1.7	17.3	45.3	57.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	10.4	10.2	5.4	27.4	27.8	13.5	11.7	2.8	5.0	17.5	19.4
LnGrp Delay(d),s/veh	104.1	31.3	31.5	66.7	72.0	74.2	100.9	39.0	18.6	65.5	87.3	99.8
LnGrp LOS	F	C	C	E	F	F	F	D	B	E	F	F
Approach Vol, veh/h		931			1516			1655			1436	
Approach Delay, s/veh		42.2			72.5			48.3			89.0	
Approach LOS		D			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	37.0	14.9	43.1	22.0	30.0	13.0	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	33.0	14.0	36.0	18.0	26.0	9.0	41.0
Max Q Clear Time (g_c+I1), s	10.2	25.4	10.9	22.4	20.0	28.0	10.3	43.0
Green Ext Time (p_c), s	0.1	4.7	0.1	9.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	210	1740	260	120	2970	480	720	610	90	190	130	220
Future Volume (veh/h)	210	1740	260	120	2970	480	720	610	90	190	130	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	219	1812	271	125	3094	500	750	635	94	198	135	229
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	2298	713	259	2281	708	417	825	855	277	681	302
Arrive On Green	0.08	0.44	0.44	0.07	0.44	0.44	0.12	0.23	0.23	0.08	0.19	0.19
Sat Flow, veh/h	1810	5187	1610	3510	5187	1609	3510	3610	2824	3510	3610	1602
Grp Volume(v), veh/h	219	1812	271	125	3094	500	750	635	94	198	135	229
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1609	1755	1805	1412	1755	1805	1602
Q Serve(g_s), s	7.0	27.2	6.5	3.1	40.0	23.0	10.8	15.0	2.2	5.0	2.9	9.8
Cycle Q Clear(g_c), s	7.0	27.2	6.5	3.1	40.0	23.0	10.8	15.0	2.2	5.0	2.9	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	2298	713	259	2281	708	417	825	855	277	681	302
V/C Ratio(X)	1.57	0.79	0.38	0.48	1.36	0.71	1.80	0.77	0.11	0.72	0.20	0.76
Avail Cap(c_a), veh/h	139	2298	713	270	2281	708	417	1627	1482	424	1786	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	21.7	6.7	40.5	25.5	20.7	40.1	32.8	22.9	40.9	31.1	22.2
Incr Delay (d2), s/veh	289.4	1.9	0.3	1.4	163.4	3.2	369.1	1.5	0.1	3.4	0.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	13.3	2.9	1.6	53.5	10.8	26.6	7.6	0.9	2.6	1.4	4.6
LnGrp Delay(d),s/veh	331.4	23.6	7.0	41.9	188.9	23.9	409.2	34.4	23.0	44.3	31.2	26.1
LnGrp LOS	F	C	A	D	F	C	F	C	C	D	C	C
Approach Vol, veh/h		2302			3719			1479			562	
Approach Delay, s/veh		50.9			161.8			223.7			33.7	
Approach LOS		D			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	24.8	10.7	44.3	14.8	21.2	11.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	7.0	17.0	5.1	29.2	12.8	11.8	9.0	42.0
Green Ext Time (p_c), s	0.2	3.8	0.1	10.8	0.0	1.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	132.6
HCM 2010 LOS	F

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	1360	600	0	3230	0	0	0	0	180	0	430
Future Volume (veh/h)	0	1360	600	0	3230	0	0	0	0	180	0	430
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	0.95
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1402	619	0	3330	0				124	0	509
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2416	1045	0	3528	0				365	0	618
Arrive On Green	0.00	0.68	0.68	0.00	0.68	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	3722	1536	0	5529	0				1810	0	3068
Grp Volume(v), veh/h	0	1364	657	0	3330	0				124	0	509
Grp Sat Flow(s),veh/h/ln	0	1729	1629	0	1729	0				1810	0	1534
Q Serve(g_s), s	0.0	14.1	14.6	0.0	38.8	0.0				4.0	0.0	10.7
Cycle Q Clear(g_c), s	0.0	14.1	14.6	0.0	38.8	0.0				4.0	0.0	10.7
Prop In Lane	0.00		0.94	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2352	1108	0	3528	0				365	0	618
V/C Ratio(X)	0.00	0.58	0.59	0.00	0.94	0.00				0.34	0.00	0.82
Avail Cap(c_a), veh/h	0	2352	1108	0	3528	0				428	0	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.7	5.8	0.0	9.7	0.0				23.1	0.0	25.8
Incr Delay (d2), s/veh	0.0	0.4	0.8	0.0	6.3	0.0				0.5	0.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.8	6.6	0.0	19.9	0.0				2.0	0.0	5.1
LnGrp Delay(d),s/veh	0.0	6.1	6.6	0.0	15.9	0.0				23.7	0.0	32.5
LnGrp LOS		A	A		B					C		C
Approach Vol, veh/h		2021			3330						633	
Approach Delay, s/veh		6.3			15.9						30.8	
Approach LOS		A			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				50.0		17.6		50.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				46.0		16.0		46.0
Max Q Clear Time (g_c+I1), s				16.6		12.7		40.8
Green Ext Time (p_c), s				29.3		0.9		5.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	60	1440	0	0	2330	120	1180	10	290	0	0	0
Future Volume (veh/h)	60	1440	0	0	2330	120	1180	10	290	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	62	1485	0	0	2402	124	1313	0	203			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	93	2885	0	0	2381	122	1363	0	608			
Arrive On Green	0.05	0.56	0.00	0.00	0.47	0.47	0.38	0.00	0.38			
Sat Flow, veh/h	1810	5358	0	0	5224	259	3619	0	1615			
Grp Volume(v), veh/h	62	1485	0	0	1637	889	1313	0	203			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1853	1810	0	1615			
Q Serve(g_s), s	4.0	21.2	0.0	0.0	56.0	56.0	42.2	0.0	10.7			
Cycle Q Clear(g_c), s	4.0	21.2	0.0	0.0	56.0	56.0	42.2	0.0	10.7			
Prop In Lane	1.00		0.00	0.00		0.14	1.00		1.00			
Lane Grp Cap(c), veh/h	93	2885	0	0	1629	873	1363	0	608			
V/C Ratio(X)	0.67	0.51	0.00	0.00	1.00	1.02	0.96	0.00	0.33			
Avail Cap(c_a), veh/h	107	2924	0	0	1629	873	1370	0	611			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	55.4	16.4	0.0	0.0	31.4	31.4	36.2	0.0	26.4			
Incr Delay (d2), s/veh	12.4	0.2	0.0	0.0	23.4	35.0	16.3	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.3	10.1	0.0	0.0	31.8	36.9	24.1	0.0	4.8			
LnGrp Delay(d),s/veh	67.8	16.6	0.0	0.0	54.8	66.5	52.6	0.0	26.7			
LnGrp LOS	E	B			F	F	D		C			
Approach Vol, veh/h		1547			2526			1516				
Approach Delay, s/veh		18.6			58.9			49.1				
Approach LOS		B			E			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		48.8		70.1			10.1	60.0
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		45.0		67.0			7.0	56.0
Max Q Clear Time (g_c+I1), s		44.2		23.2			6.0	58.0
Green Ext Time (p_c), s		0.6		14.8			0.8	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.1
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	440	1060	220	70	2090	230	160	560	20	20	140	200
Future Volume (veh/h)	440	1060	220	70	2090	230	160	560	20	20	140	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	463	1116	232	74	2200	0	168	589	21	21	147	0
Adj No. of Lanes	2	3	0	1	3	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	513	2287	475	119	2341	729	272	689	308	58	525	235
Arrive On Green	0.15	0.53	0.53	0.07	0.45	0.00	0.08	0.19	0.19	0.03	0.15	0.00
Sat Flow, veh/h	3510	4303	894	1810	5187	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	463	897	451	74	2200	0	168	589	21	21	147	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1739	1810	1729	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	11.5	14.6	14.6	3.5	36.0	0.0	4.1	14.0	0.9	1.0	3.2	0.0
Cycle Q Clear(g_c), s	11.5	14.6	14.6	3.5	36.0	0.0	4.1	14.0	0.9	1.0	3.2	0.0
Prop In Lane	1.00		0.51	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	513	1838	924	119	2341	729	272	689	308	58	525	235
V/C Ratio(X)	0.90	0.49	0.49	0.62	0.94	0.00	0.62	0.85	0.07	0.36	0.28	0.00
Avail Cap(c_a), veh/h	513	1838	924	163	2389	744	276	730	327	142	730	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.4	13.2	13.2	40.5	23.3	0.0	39.8	34.8	29.5	42.2	33.9	0.0
Incr Delay (d2), s/veh	19.2	0.2	0.4	5.1	8.1	0.0	4.0	9.4	0.1	3.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	7.0	7.1	1.9	18.9	0.0	2.2	7.8	0.4	0.6	1.6	0.0
LnGrp Delay(d),s/veh	56.6	13.4	13.6	45.6	31.3	0.0	43.8	44.2	29.6	46.0	34.2	0.0
LnGrp LOS	E	B	B	D	C		D	D	C	D	C	
Approach Vol, veh/h		1811			2274			778			168	
Approach Delay, s/veh		24.5			31.8			43.7			35.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	21.0	9.9	51.3	10.9	16.9	17.0	44.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	8.0	46.0	7.0	18.0	13.0	41.0
Max Q Clear Time (g_c+I1), s	3.0	16.0	5.5	16.6	6.1	5.2	13.5	38.0
Green Ext Time (p_c), s	0.0	1.0	0.0	26.7	0.0	4.1	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	170	940	40	60	1880	380	90	410	80	460	140	330
Future Volume (veh/h)	170	940	40	60	1880	380	90	410	80	460	140	330
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	179	989	42	63	1979	400	95	432	84	484	147	347
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	2042	87	89	1881	583	119	615	119	399	647	577
Arrive On Green	0.09	0.40	0.40	0.05	0.36	0.36	0.07	0.20	0.20	0.22	0.36	0.36
Sat Flow, veh/h	1810	5102	216	1810	5187	1608	1810	3015	582	1810	1805	1608
Grp Volume(v), veh/h	179	670	361	63	1979	400	95	257	259	484	147	347
Grp Sat Flow(s),veh/h/ln	1810	1729	1861	1810	1729	1608	1810	1805	1792	1810	1805	1608
Q Serve(g_s), s	11.0	18.3	18.3	4.4	46.0	14.9	6.6	16.8	17.0	28.0	7.2	22.4
Cycle Q Clear(g_c), s	11.0	18.3	18.3	4.4	46.0	14.9	6.6	16.8	17.0	28.0	7.2	22.4
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	157	1384	745	89	1881	583	119	368	365	399	647	577
V/C Ratio(X)	1.14	0.48	0.49	0.71	1.05	0.69	0.80	0.70	0.71	1.21	0.23	0.60
Avail Cap(c_a), veh/h	157	1384	745	157	1881	583	214	626	622	399	811	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	28.3	28.3	59.4	40.4	10.6	58.4	46.9	47.0	49.4	28.4	33.3
Incr Delay (d2), s/veh	114.7	0.3	0.5	9.8	36.1	3.3	11.4	2.4	2.5	116.4	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	8.8	9.5	2.4	28.0	7.1	3.7	8.6	8.7	26.8	3.6	10.1
LnGrp Delay(d),s/veh	172.6	28.6	28.8	69.3	76.5	13.9	69.8	49.3	49.5	165.9	28.6	34.3
LnGrp LOS	F	C	C	E	F	B	E	D	D	F	C	C
Approach Vol, veh/h		1210			2442			611			978	
Approach Delay, s/veh		50.0			66.1			52.6			98.5	
Approach LOS		D			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	29.9	10.2	54.8	12.4	49.5	15.0	50.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	44.0	11.0	46.0	15.0	57.0	11.0	46.0
Max Q Clear Time (g_c+I1), s	30.0	19.0	6.4	20.3	8.6	24.4	13.0	48.0
Green Ext Time (p_c), s	0.0	3.3	0.0	22.6	0.1	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	66.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
71: Elsworth St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	30	1100	340	190	1900	60	330	200	110	50	350	90
Future Volume (veh/h)	30	1100	340	190	1900	60	330	200	110	50	350	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	1158	358	200	2000	63	347	211	116	53	368	95
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	67	1441	445	226	2349	74	372	769	406	84	641	284
Arrive On Green	0.04	0.37	0.37	0.12	0.45	0.45	0.21	0.34	0.34	0.05	0.18	0.18
Sat Flow, veh/h	1810	3925	1213	1810	5166	162	1810	2282	1204	1810	3610	1601
Grp Volume(v), veh/h	32	1020	496	200	1338	725	347	165	162	53	368	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1680	1810	1729	1871	1810	1805	1681	1810	1805	1601
Q Serve(g_s), s	2.2	33.9	33.9	13.9	44.1	44.3	24.1	8.6	9.1	3.7	12.0	6.6
Cycle Q Clear(g_c), s	2.2	33.9	33.9	13.9	44.1	44.3	24.1	8.6	9.1	3.7	12.0	6.6
Prop In Lane	1.00		0.72	1.00		0.09	1.00		0.72	1.00		1.00
Lane Grp Cap(c), veh/h	67	1270	617	226	1572	851	372	608	566	84	641	284
V/C Ratio(X)	0.48	0.80	0.80	0.89	0.85	0.85	0.93	0.27	0.29	0.63	0.57	0.33
Avail Cap(c_a), veh/h	99	1295	629	240	1572	851	395	845	787	127	1155	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.5	36.4	36.4	55.2	31.1	31.1	50.0	31.0	31.2	60.0	48.3	46.1
Incr Delay (d2), s/veh	5.1	3.7	7.4	29.2	4.7	8.4	27.9	0.2	0.3	7.6	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	16.8	17.0	8.8	22.0	24.8	14.9	4.3	4.2	2.0	6.1	3.0
LnGrp Delay(d),s/veh	65.6	40.1	43.8	84.4	35.7	39.5	77.9	31.2	31.4	67.6	49.1	46.8
LnGrp LOS	E	D	D	F	D	D	E	C	C	E	D	D
Approach Vol, veh/h		1548			2263			674			516	
Approach Delay, s/veh		41.8			41.2			55.3			50.6	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	47.2	20.0	51.0	30.4	26.7	8.8	62.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	60.0	17.0	48.0	28.0	41.0	7.0	58.0
Max Q Clear Time (g_c+I1), s	5.7	11.1	15.9	35.9	26.1	14.0	4.2	46.3
Green Ext Time (p_c), s	0.0	5.5	0.1	11.1	0.2	5.1	0.0	11.2

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↱	↱
Traffic Volume (veh/h)	0	960	210	810	2440	0	0	0	0	0	0	680
Future Volume (veh/h)	0	960	210	810	2440	0	0	0	0	0	0	680
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	1079	236	910	2742	0				0	0	764
Adj No. of Lanes	0	3	1	1	3	0				0	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1037	319	1316	4998	0				0	0	0
Arrive On Green	0.00	0.20	0.20	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1595	1810	5358	0					0	
Grp Volume(v), veh/h	0	1079	236	910	2742	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1595	1810	1729	0						
Q Serve(g_s), s	0.0	22.0	15.3	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	22.0	15.3	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1037	319	1316	4998	0						
V/C Ratio(X)	0.00	1.04	0.74	0.69	0.55	0.00						
Avail Cap(c_a), veh/h	0	1037	319	1316	4998	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	44.0	41.3	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	38.9	14.3	0.1	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	14.2	8.0	0.1	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	82.9	55.6	0.1	0.0	0.0						
LnGrp LOS		F	E	A	A							
Approach Vol, veh/h		1315			3652							
Approach Delay, s/veh		78.0			0.1							
Approach LOS		E			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			84.0	26.0				110.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			53.0	22.0				79.0
Max Q Clear Time (g_c+I1), s			2.0	24.0				2.0
Green Ext Time (p_c), s			43.6	0.0				61.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	50	1960	160	0	2530	620	730	710	10	430	0	670
Future Volume (veh/h)	50	1960	160	0	2530	620	730	710	10	430	0	670
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	2130	174	0	2750	674	793	772	11	467	0	728
Adj No. of Lanes	1	3	0	0	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	2224	180	0	1921	436	95	1723	25	298	853	763
Arrive On Green	0.91	0.91	0.91	0.00	0.45	0.45	0.47	0.47	0.47	0.47	0.00	0.47
Sat Flow, veh/h	52	4892	396	0	4397	959	738	3644	52	702	1805	1615
Grp Volume(v), veh/h	54	1500	804	0	2210	1214	793	382	401	467	0	728
Grp Sat Flow(s),veh/h/ln	52	1729	1830	0	1729	1727	738	1805	1891	702	1805	1615
Q Serve(g_s), s	0.0	32.8	36.1	0.0	50.0	50.0	4.4	15.6	15.6	36.4	0.0	47.6
Cycle Q Clear(g_c), s	50.0	32.8	36.1	0.0	50.0	50.0	52.0	15.6	15.6	52.0	0.0	47.6
Prop In Lane	1.00		0.22	0.00		0.56	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	65	1572	832	0	1572	785	95	853	894	298	853	763
V/C Ratio(X)	0.82	0.95	0.97	0.00	1.41	1.55	8.35	0.45	0.45	1.57	0.00	0.95
Avail Cap(c_a), veh/h	65	1572	832	0	1572	785	95	853	894	298	853	763
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	4.2	4.4	0.0	30.0	30.0	54.3	19.4	19.4	40.8	0.0	27.8
Incr Delay (d2), s/veh	10.3	2.0	4.3	0.0	186.5	252.3	3328.8	0.4	0.4	271.8	0.0	21.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	13.3	15.7	0.0	64.5	78.8	90.7	7.8	8.2	31.5	0.0	25.7
LnGrp Delay(d),s/veh	40.3	6.2	8.7	0.0	216.5	282.3	3383.2	19.8	19.8	312.6	0.0	49.8
LnGrp LOS	D	A	A		F	F	F	B	B	F		D
Approach Vol, veh/h		2358			3424			1576			1195	
Approach Delay, s/veh		7.8			239.9			1712.1			152.5	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		56.0		54.0		56.0		54.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		52.0		50.0		52.0		50.0
Max Q Clear Time (g_c+I1), s		54.0		52.0		54.0		52.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	435.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Traffic Volume (veh/h)	220	1400	1160	130	2350	140	390	90	160	100	190	290
Future Volume (veh/h)	220	1400	1160	130	2350	140	390	90	160	100	190	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	237	1505	0	140	2527	151	419	97	172	108	204	312
Adj No. of Lanes	1	3	1	1	3	1	2	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	2125	662	124	1968	610	712	120	214	369	387	486
Arrive On Green	0.10	0.41	0.00	0.07	0.38	0.38	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1810	5187	1615	1810	5187	1609	3619	612	1086	1810	1900	1603
Grp Volume(v), veh/h	237	1505	0	140	2527	151	419	0	269	108	204	312
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1609	1810	0	1699	1810	1900	1603
Q Serve(g_s), s	13.0	31.8	0.0	9.0	50.0	8.5	13.9	0.0	19.9	6.7	12.6	22.2
Cycle Q Clear(g_c), s	13.0	31.8	0.0	9.0	50.0	8.5	13.9	0.0	19.9	6.7	12.6	22.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	179	2125	662	124	1968	610	712	0	334	369	387	486
V/C Ratio(X)	1.33	0.71	0.00	1.13	1.28	0.25	0.59	0.00	0.81	0.29	0.53	0.64
Avail Cap(c_a), veh/h	179	2125	662	124	1968	610	1016	0	477	467	490	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	32.3	0.0	61.4	40.9	28.0	48.1	0.0	50.5	44.4	46.8	39.8
Incr Delay (d2), s/veh	180.8	1.1	0.0	121.1	131.8	0.2	0.8	0.0	6.6	0.4	1.1	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.4	15.4	0.0	8.6	47.7	3.8	7.0	0.0	9.9	3.4	6.7	10.0
LnGrp Delay(d),s/veh	240.2	33.4	0.0	182.5	172.7	28.2	48.9	0.0	57.1	44.9	47.9	41.7
LnGrp LOS	F	C		F	F	C	D		E	D	D	D
Approach Vol, veh/h		1742			2818			688			624	
Approach Delay, s/veh		61.6			165.5			52.1			44.3	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.9	13.0	58.0		30.9	17.0	54.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	9.0	54.0		34.0	13.0	50.0
Max Q Clear Time (g_c+I1), s		21.9	11.0	33.8		24.2	15.0	52.0
Green Ext Time (p_c), s		2.9	0.0	19.6		1.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	108.5
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1280	80	10	970	1150	250
Future Volume (veh/h)	1280	80	10	970	1150	250
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1561	98	12	1183	1402	305
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1189	74	35	1439	964	892
Arrive On Green	0.34	0.34	0.02	0.40	0.53	0.53
Sat Flow, veh/h	3545	215	1810	3705	1810	1615
Grp Volume(v), veh/h	813	846	12	1183	1402	305
Grp Sat Flow(s),veh/h/ln	1805	1860	1810	1805	1810	1615
Q Serve(g_s), s	40.1	40.1	0.8	34.1	62.0	12.1
Cycle Q Clear(g_c), s	40.1	40.1	0.8	34.1	62.0	12.1
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	622	641	35	1439	964	892
V/C Ratio(X)	1.31	1.32	0.34	0.82	1.45	0.34
Avail Cap(c_a), veh/h	622	641	109	1551	964	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	38.1	56.3	31.3	27.2	14.4
Incr Delay (d2), s/veh	149.0	154.6	5.7	3.5	210.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	45.6	48.0	0.4	17.6	87.1	5.4
LnGrp Delay(d),s/veh	187.2	192.7	62.0	34.8	237.4	14.6
LnGrp LOS	F	F	E	C	F	B
Approach Vol, veh/h	1659			1195	1707	
Approach Delay, s/veh	190.0			35.1	197.6	
Approach LOS	F			D	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		66.0	6.3	44.1				50.4
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		62.0	7.0	39.0				50.0
Max Q Clear Time (g_c+I1), s		64.0	2.8	42.1				36.1
Green Ext Time (p_c), s		0.0	0.0	0.0				10.3

Intersection Summary	
HCM 2010 Ctrl Delay	152.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	20	1000	510	90	390	30	590	420	880	70	50	10
Future Volume (veh/h)	20	1000	510	90	390	30	590	420	880	70	50	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	1064	543	96	415	32	628	447	936	74	53	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	239	1234	382	207	559	43	830	960	814	101	371	166
Arrive On Green	0.13	0.24	0.24	0.06	0.16	0.16	0.46	0.51	0.51	0.06	0.10	0.00
Sat Flow, veh/h	1810	5187	1605	3510	3394	261	1810	1900	1610	1810	3610	1615
Grp Volume(v), veh/h	21	1064	543	96	220	227	628	447	936	74	53	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1605	1755	1805	1849	1810	1900	1610	1810	1805	1615
Q Serve(g_s), s	1.1	22.2	8.2	3.0	13.1	13.2	32.5	17.2	57.0	4.5	1.5	0.0
Cycle Q Clear(g_c), s	1.1	22.2	8.2	3.0	13.1	13.2	32.5	17.2	57.0	4.5	1.5	0.0
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	1234	382	207	297	305	830	960	814	101	371	166
V/C Ratio(X)	0.09	0.86	1.42	0.46	0.74	0.75	0.76	0.47	1.15	0.73	0.14	0.00
Avail Cap(c_a), veh/h	239	1287	398	218	448	459	830	960	814	112	1216	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.0	41.2	4.0	51.4	44.8	44.9	25.3	18.1	27.9	52.4	46.1	0.0
Incr Delay (d2), s/veh	0.2	6.0	204.6	1.6	3.6	3.6	4.0	0.4	81.7	19.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.2	30.7	1.5	6.8	7.1	17.2	9.0	43.5	2.8	0.8	0.0
LnGrp Delay(d),s/veh	43.1	47.3	208.6	53.0	48.4	48.5	29.3	18.4	109.6	71.8	46.3	0.0
LnGrp LOS	D	D	F	D	D	D	C	B	F	E	D	
Approach Vol, veh/h		1628			543			2011			127	
Approach Delay, s/veh		101.0			49.2			64.3			61.1	
Approach LOS		F			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	61.0	10.7	30.8	55.7	15.6	18.9	22.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	57.0	7.0	28.0	26.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	10.5	59.0	5.0	24.2	34.5	3.5	3.1	15.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.7	0.0	0.2	2.7	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	76.2
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	170	0	150	0	0	0	0	1240	740	350	330	0
Future Volume (veh/h)	170	0	150	0	0	0	0	1240	740	350	330	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	187	0	165				0	1363	813	385	363	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	242	0	380				0	1805	807	684	2715	0
Arrive On Green	0.13	0.00	0.13				0.00	0.50	0.50	0.19	0.75	0.00
Sat Flow, veh/h	1810	0	2842				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	187	0	165				0	1363	813	385	363	0
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1805	1615	1755	1805	0
Q Serve(g_s), s	7.0	0.0	3.7				0.0	21.2	35.0	6.9	1.9	0.0
Cycle Q Clear(g_c), s	7.0	0.0	3.7				0.0	21.2	35.0	6.9	1.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	242	0	380				0	1805	807	684	2715	0
V/C Ratio(X)	0.77	0.00	0.43				0.00	0.76	1.01	0.56	0.13	0.00
Avail Cap(c_a), veh/h	310	0	487				0	1805	807	684	2715	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.31	0.31	0.94	0.94	0.00
Uniform Delay (d), s/veh	29.3	0.0	27.9				0.0	14.1	17.5	25.5	2.4	0.0
Incr Delay (d2), s/veh	8.8	0.0	0.8				0.0	0.9	19.2	1.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	1.5				0.0	10.6	19.5	3.5	1.0	0.0
LnGrp Delay(d),s/veh	38.1	0.0	28.7				0.0	15.0	36.7	26.5	2.5	0.0
LnGrp LOS	D		C					B	F	C	A	
Approach Vol, veh/h		352						2176			748	
Approach Delay, s/veh		33.7						23.1			14.8	
Approach LOS		C						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			17.6	39.0		13.4		56.6
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			11.0	35.0		12.0		50.0
Max Q Clear Time (g_c+I1), s			8.9	37.0		9.0		3.9
Green Ext Time (p_c), s			0.8	0.0		0.4		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	120	650	1440	0	0	600
Future Volume (veh/h)	120	650	1440	0	0	600
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	133	722	1600	0	0	667
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1504	692	1650	0	0	1650
Arrive On Green	0.43	0.43	0.61	0.00	0.00	0.46
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	133	722	1600	0	0	667
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	1.6	30.0	29.6	0.0	0.0	8.6
Cycle Q Clear(g_c), s	1.6	30.0	29.6	0.0	0.0	8.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1504	692	1650	0	0	1650
V/C Ratio(X)	0.09	1.04	0.97	0.00	0.00	0.40
Avail Cap(c_a), veh/h	1504	692	1650	0	0	1650
HCM Platoon Ratio	1.00	1.00	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.62	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.9	20.0	13.3	0.0	0.0	12.7
Incr Delay (d2), s/veh	0.0	46.0	11.6	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	22.1	17.0	0.0	0.0	4.4
LnGrp Delay(d),s/veh	11.9	66.0	24.9	0.0	0.0	13.4
LnGrp LOS	B	F	C			B
Approach Vol, veh/h	855		1600			667
Approach Delay, s/veh	57.6		24.9			13.4
Approach LOS	E		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		36.0				36.0		34.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		32.0				32.0		30.0
Max Q Clear Time (g_c+I1), s		31.6				10.6		32.0
Green Ext Time (p_c), s		0.4				15.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		31.4
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	1840	10	140	3150	1550	10
Future Volume (veh/h)	1840	10	140	3150	1550	10
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1917	10	146	3281	1624	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2339	12	459	3164	1683	501
Arrive On Green	0.44	0.44	0.13	0.61	0.31	0.00
Sat Flow, veh/h	5496	28	3510	5358	5429	1615
Grp Volume(v), veh/h	1245	682	146	3281	1624	0
Grp Sat Flow(s),veh/h/ln	1729	1895	1755	1729	1810	1615
Q Serve(g_s), s	31.5	31.6	3.8	61.0	29.5	0.0
Cycle Q Clear(g_c), s	31.5	31.6	3.8	61.0	29.5	0.0
Prop In Lane		0.01	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1519	832	459	3164	1683	501
V/C Ratio(X)	0.82	0.82	0.32	1.04	0.97	0.00
Avail Cap(c_a), veh/h	1694	929	459	3164	1683	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.6	24.6	39.4	19.5	34.0	0.0
Incr Delay (d2), s/veh	3.0	5.4	0.4	26.6	14.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	17.7	1.9	36.5	17.0	0.0
LnGrp Delay(d),s/veh	27.6	30.0	39.8	46.1	48.5	0.0
LnGrp LOS	C	C	D	F	D	
Approach Vol, veh/h	1927			3427	1624	
Approach Delay, s/veh	28.4			45.8	48.5	
Approach LOS	C			D	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		35.0	17.1	47.9				65.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		31.0	8.0	49.0				61.0
Max Q Clear Time (g_c+I1), s		31.5	5.8	33.6				63.0
Green Ext Time (p_c), s		0.0	2.2	10.4				0.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	180	1640	60	220	3060	630	150	870	240	150	220	50
Future Volume (veh/h)	180	1640	60	220	3060	630	150	870	240	150	220	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	194	1763	65	237	3290	677	161	935	258	161	237	54
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	1686	522	234	1418	273	1132	776	657	121	446	100
Arrive On Green	0.07	0.32	0.32	0.07	0.32	0.32	0.32	0.41	0.41	0.07	0.15	0.15
Sat Flow, veh/h	1810	5187	1608	3510	4363	839	3510	1900	1609	1810	2928	654
Grp Volume(v), veh/h	194	1763	65	237	2560	1407	161	935	258	161	144	147
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1755	1729	1744	1755	1900	1609	1810	1805	1777
Q Serve(g_s), s	8.0	39.0	1.4	8.0	39.0	39.0	3.9	49.0	13.6	8.0	8.8	9.2
Cycle Q Clear(g_c), s	8.0	39.0	1.4	8.0	39.0	39.0	3.9	49.0	13.6	8.0	8.8	9.2
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	121	1686	522	234	1124	567	1132	776	657	121	275	271
V/C Ratio(X)	1.61	1.05	0.12	1.01	2.28	2.48	0.14	1.21	0.39	1.33	0.52	0.54
Avail Cap(c_a), veh/h	121	1686	522	234	1124	567	1132	776	657	121	737	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	40.5	5.1	56.0	40.5	40.5	28.9	35.5	25.0	56.0	46.8	47.0
Incr Delay (d2), s/veh	308.7	35.0	0.1	62.1	578.0	672.0	0.1	104.4	0.4	196.2	1.5	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	24.0	0.7	5.9	108.8	124.6	1.9	48.1	6.1	10.6	4.5	4.6
LnGrp Delay(d),s/veh	364.7	75.5	5.2	118.2	618.5	712.5	28.9	139.9	25.4	252.2	48.4	48.7
LnGrp LOS	F	F	A	F	F	F	C	F	C	F	D	D
Approach Vol, veh/h		2022			4204			1354			452	
Approach Delay, s/veh		101.0			621.7			104.9			121.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	53.0	12.0	43.0	42.7	22.3	12.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	49.0	8.0	39.0	8.0	49.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	10.0	51.0	10.0	41.0	5.9	11.2	10.0	41.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	1.5	1.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	375.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	810	310	90	500	150	740	1060	290	190	720	190
Future Volume (veh/h)	140	810	310	90	500	150	740	1060	290	190	720	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	953	365	106	588	176	871	1247	341	224	847	224
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	1115	772	114	791	491	598	1437	742	304	1135	752
Arrive On Green	0.15	0.31	0.31	0.06	0.22	0.22	0.17	0.40	0.40	0.09	0.31	0.31
Sat Flow, veh/h	1810	3610	1607	1810	3610	1604	3510	3610	1609	3510	3610	1607
Grp Volume(v), veh/h	165	953	365	106	588	176	871	1247	341	224	847	224
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1604	1755	1805	1609	1755	1805	1607
Q Serve(g_s), s	9.5	27.6	17.1	6.5	16.9	0.0	19.0	35.4	10.3	6.9	23.4	3.7
Cycle Q Clear(g_c), s	9.5	27.6	17.1	6.5	16.9	0.0	19.0	35.4	10.3	6.9	23.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	1115	772	114	791	491	598	1437	742	304	1135	752
V/C Ratio(X)	0.60	0.85	0.47	0.93	0.74	0.36	1.46	0.87	0.46	0.74	0.75	0.30
Avail Cap(c_a), veh/h	276	1230	823	114	1133	643	598	1586	808	315	1295	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	36.2	19.6	52.0	40.6	30.2	46.3	30.9	9.5	49.7	34.2	7.0
Incr Delay (d2), s/veh	3.5	5.6	0.5	63.6	1.6	0.4	214.4	5.0	0.4	8.5	2.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	14.6	7.6	5.2	8.6	4.2	27.0	18.7	4.7	3.7	12.0	2.0
LnGrp Delay(d),s/veh	47.5	41.8	20.0	115.6	42.2	30.6	260.7	35.9	9.9	58.1	36.3	7.2
LnGrp LOS	D	D	C	F	D	C	F	D	A	E	D	A
Approach Vol, veh/h		1483			870			2459			1295	
Approach Delay, s/veh		37.1			48.8			111.9			35.1	
Approach LOS		D			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	48.4	11.0	38.5	23.0	39.1	21.0	28.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	49.0	7.0	38.0	19.0	40.0	10.0	35.0
Max Q Clear Time (g_c+I1), s	8.9	37.4	8.5	29.6	21.0	25.4	11.5	18.9
Green Ext Time (p_c), s	0.7	7.0	0.0	4.3	0.0	6.2	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	68.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	310	940	600	720	560	180
Future Volume (veh/h)	310	940	600	720	560	180
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	378	1146	732	878	683	220
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	414	2331	1311	981	893	768
Arrive On Green	0.23	0.65	0.36	0.36	0.25	0.25
Sat Flow, veh/h	1810	3705	3705	1604	3619	1615
Grp Volume(v), veh/h	378	1146	732	878	683	220
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1604	1810	1615
Q Serve(g_s), s	15.1	12.3	12.0	27.0	13.0	6.2
Cycle Q Clear(g_c), s	15.1	12.3	12.0	27.0	13.0	6.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	414	2331	1311	981	893	768
V/C Ratio(X)	0.91	0.49	0.56	0.89	0.76	0.29
Avail Cap(c_a), veh/h	414	2331	1311	981	1655	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	6.8	18.9	10.9	26.0	11.8
Incr Delay (d2), s/veh	24.4	0.2	0.5	10.7	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	6.1	6.1	20.7	6.6	6.9
LnGrp Delay(d),s/veh	52.4	7.0	19.4	21.6	27.4	12.0
LnGrp LOS	D	A	B	C	C	B
Approach Vol, veh/h		1524	1610		903	
Approach Delay, s/veh		18.3	20.6		23.7	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				52.0		22.4	21.0	31.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				48.0		34.0	17.0	27.0
Max Q Clear Time (g_c+I1), s				14.3		15.0	17.1	29.0
Green Ext Time (p_c), s				22.5		3.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	240	530	510	430	730	250	1130	580	1100	60	320	100
Future Volume (veh/h)	240	530	510	430	730	250	1130	580	1100	60	320	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	273	602	580	489	830	284	1284	659	1250	68	364	114
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	271	1630	965	237	1099	489	1000	1524	679	146	646	411
Arrive On Green	0.08	0.31	0.31	0.07	0.30	0.30	0.28	0.42	0.42	0.04	0.18	0.18
Sat Flow, veh/h	3510	5187	1607	3510	3610	1607	3510	3610	1609	3510	3610	1601
Grp Volume(v), veh/h	273	602	580	489	830	284	1284	659	1250	68	364	114
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1607	1755	1805	1609	1755	1805	1601
Q Serve(g_s), s	8.0	9.3	6.2	7.0	21.5	15.5	29.5	13.4	32.8	2.0	9.5	0.0
Cycle Q Clear(g_c), s	8.0	9.3	6.2	7.0	21.5	15.5	29.5	13.4	32.8	2.0	9.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	271	1630	965	237	1099	489	1000	1524	679	146	646	411
V/C Ratio(X)	1.01	0.37	0.60	2.06	0.75	0.58	1.28	0.43	1.84	0.46	0.56	0.28
Avail Cap(c_a), veh/h	271	2151	1127	237	1463	651	1000	1637	730	237	1637	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	27.6	4.7	48.3	32.6	30.5	37.1	21.2	16.8	48.5	38.9	30.9
Incr Delay (d2), s/veh	56.7	0.1	0.7	492.7	1.6	1.1	135.3	0.2	383.6	2.3	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	4.5	5.7	19.6	11.0	7.0	33.0	6.7	86.9	1.0	4.8	2.6
LnGrp Delay(d),s/veh	104.5	27.7	5.4	541.0	34.2	31.5	172.3	21.4	400.4	50.8	39.6	31.2
LnGrp LOS	F	C	A	F	C	C	F	C	F	D	D	C
Approach Vol, veh/h		1455			1603			3193			546	
Approach Delay, s/veh		33.2			188.3			230.5			39.3	
Approach LOS		C			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	47.8	11.0	36.6	33.5	22.6	12.0	35.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	47.0	7.0	43.0	7.0	47.0	8.0	42.0
Max Q Clear Time (g_c+I1), s	4.0	34.8	9.0	11.3	31.5	11.5	10.0	23.5
Green Ext Time (p_c), s	0.1	8.6	0.0	7.9	0.0	3.0	0.0	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	162.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	1090	570	0	810	0	0	0	0	10	10	870
Future Volume (veh/h)	0	1090	570	0	810	0	0	0	0	10	10	870
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1238	615	0	900	0				11	11	967
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1378	585	90	1309	0				973	10	860
Arrive On Green	0.00	0.36	0.36	0.00	0.36	0.00				0.54	0.54	0.54
Sat Flow, veh/h	0	3800	1615	253	3705	0				1810	18	1600
Grp Volume(v), veh/h	0	1238	615	0	900	0				11	0	978
Grp Sat Flow(s),veh/h/ln	0	1900	1615	253	1805	0				1810	0	1618
Q Serve(g_s), s	0.0	24.6	29.0	0.0	16.9	0.0				0.2	0.0	43.0
Cycle Q Clear(g_c), s	0.0	24.6	29.0	0.0	16.9	0.0				0.2	0.0	43.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1378	585	90	1309	0				973	0	870
V/C Ratio(X)	0.00	0.90	1.05	0.00	0.69	0.00				0.01	0.00	1.12
Avail Cap(c_a), veh/h	0	1378	585	90	1309	0				973	0	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.1	25.5	0.0	21.7	0.0				8.6	0.0	18.5
Incr Delay (d2), s/veh	0.0	8.3	51.1	0.0	1.5	0.0				0.0	0.0	70.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.5	21.2	0.0	8.7	0.0				0.1	0.0	36.0
LnGrp Delay(d),s/veh	0.0	32.4	76.6	0.0	23.2	0.0				8.6	0.0	89.4
LnGrp LOS		C	F		C					A		F
Approach Vol, veh/h		1853			900						989	
Approach Delay, s/veh		47.1			23.2						88.5	
Approach LOS		D			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				33.0		47.0		33.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				29.0		43.0		29.0
Max Q Clear Time (g_c+I1), s				31.0		45.0		18.9
Green Ext Time (p_c), s				0.0		0.0		9.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	91.5
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1090	0	800	120	0	0
Future Vol, veh/h	1090	0	800	120	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1172	0	860	129	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	100.5	80.8
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	74%	100%	100%
Vol Thru, %	0%	26%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	456	464	545	545
LT Vol	456	344	545	545
Through Vol	0	120	0	0
RT Vol	0	0	0	0
Lane Flow Rate	490	499	586	586
Geometry Grp	7	7	7	7
Degree of Util (X)	1.04	1.04	1.239	0.958
Departure Headway (Hd)	7.923	7.792	7.816	6.093
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	461	469	469	598
Service Time	5.623	5.492	5.516	3.793
HCM Lane V/C Ratio	1.063	1.064	1.249	0.98
HCM Control Delay	81.2	80.5	149.4	51.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	14.5	14.6	23	13.1

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	10	10	10	1240	20	580	30	1390	800	220	790	10
Future Volume (veh/h)	10	10	10	1240	20	580	30	1390	800	220	790	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	11	1393	22	652	34	1562	899	247	888	11
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	245	245	511	777	658	74	1313	585	223	1394	620
Arrive On Green	0.02	0.28	0.28	0.15	0.41	0.41	0.04	0.36	0.36	0.06	0.39	0.39
Sat Flow, veh/h	1810	870	870	3510	1900	1609	1810	3610	1608	3510	3610	1605
Grp Volume(v), veh/h	11	0	22	1393	22	652	34	1562	899	247	888	11
Grp Sat Flow(s),veh/h/ln	1810	0	1741	1755	1900	1609	1810	1805	1608	1755	1805	1605
Q Serve(g_s), s	0.7	0.0	1.0	16.0	0.8	44.3	2.0	40.0	40.0	7.0	22.0	0.5
Cycle Q Clear(g_c), s	0.7	0.0	1.0	16.0	0.8	44.3	2.0	40.0	40.0	7.0	22.0	0.5
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	0	491	511	777	658	74	1313	585	223	1394	620
V/C Ratio(X)	0.33	0.00	0.04	2.73	0.03	0.99	0.46	1.19	1.54	1.11	0.64	0.02
Avail Cap(c_a), veh/h	115	0	570	511	777	658	115	1313	585	223	1394	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	0.0	28.7	47.0	19.4	32.3	51.5	35.0	35.0	51.5	27.5	20.9
Incr Delay (d2), s/veh	5.8	0.0	0.0	783.1	0.0	32.6	4.3	93.3	250.2	91.4	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	63.3	0.4	25.5	1.1	36.9	58.4	6.2	11.2	0.2
LnGrp Delay(d),s/veh	59.2	0.0	28.8	830.1	19.4	64.9	55.9	128.3	285.2	142.9	28.5	20.9
LnGrp LOS	E		C	F	B	E	E	F	F	F	C	C
Approach Vol, veh/h		33			2067			2495			1146	
Approach Delay, s/veh		38.9			580.1			183.9			53.0	
Approach LOS		D			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	44.0	20.0	35.0	8.5	46.5	6.0	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	40.0	16.0	36.0	7.0	40.0	7.0	45.0
Max Q Clear Time (g_c+I1), s	9.0	42.0	18.0	3.0	4.0	24.0	2.7	46.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	14.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	299.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✥		↰	↱	
Traffic Volume (veh/h)	160	950	50	10	1560	50	120	110	50	40	20	170
Future Volume (veh/h)	160	950	50	10	1560	50	120	110	50	40	20	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	1000	53	11	1642	53	126	116	53	42	21	179
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	1875	99	34	1621	52	192	169	66	364	53	449
Arrive On Green	0.10	0.54	0.54	0.02	0.45	0.45	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	3487	185	1810	3569	115	433	549	215	1233	172	1462
Grp Volume(v), veh/h	168	518	535	11	828	867	295	0	0	42	0	200
Grp Sat Flow(s),veh/h/ln	1810	1805	1866	1810	1805	1879	1197	0	0	1233	0	1634
Q Serve(g_s), s	8.1	16.4	16.4	0.5	40.0	40.0	13.1	0.0	0.0	0.0	0.0	8.5
Cycle Q Clear(g_c), s	8.1	16.4	16.4	0.5	40.0	40.0	21.6	0.0	0.0	3.2	0.0	8.5
Prop In Lane	1.00		0.10	1.00		0.06	0.43		0.18	1.00		0.89
Lane Grp Cap(c), veh/h	185	971	1004	34	820	854	426	0	0	364	0	502
V/C Ratio(X)	0.91	0.53	0.53	0.32	1.01	1.02	0.69	0.00	0.00	0.12	0.00	0.40
Avail Cap(c_a), veh/h	185	971	1004	144	820	854	543	0	0	461	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.1	13.2	13.2	42.6	24.0	24.0	30.0	0.0	0.0	22.2	0.0	24.1
Incr Delay (d2), s/veh	41.3	0.6	0.5	5.4	33.8	34.8	2.6	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	8.2	8.5	0.3	27.5	28.9	7.0	0.0	0.0	0.8	0.0	3.9
LnGrp Delay(d),s/veh	80.4	13.8	13.7	48.1	57.9	58.8	32.7	0.0	0.0	22.4	0.0	24.6
LnGrp LOS	F	B	B	D	F	F	C			C		C
Approach Vol, veh/h		1221			1706			295			242	
Approach Delay, s/veh		22.9			58.3			32.7			24.2	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		31.1	5.7	51.3		31.1	13.0	44.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	42.0		34.0	9.0	40.0
Max Q Clear Time (g_c+I1), s		23.6	2.5	18.4		10.5	10.1	42.0
Green Ext Time (p_c), s		2.5	0.0	18.8		3.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	40	780	240	320	1410	600	240	1590	340	240	930	90
Future Volume (veh/h)	40	780	240	320	1410	600	240	1590	340	240	930	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	812	250	333	1469	625	250	1656	354	250	969	94
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	855	263	207	1386	717	159	1332	778	216	1139	110
Arrive On Green	0.05	0.31	0.31	0.11	0.38	0.38	0.09	0.37	0.37	0.06	0.34	0.34
Sat Flow, veh/h	1810	2717	836	1810	3610	1609	1810	3610	1608	3510	3324	322
Grp Volume(v), veh/h	42	539	523	333	1469	625	250	1656	354	250	526	537
Grp Sat Flow(s),veh/h/ln	1810	1805	1748	1810	1805	1609	1810	1805	1608	1755	1805	1841
Q Serve(g_s), s	2.6	33.2	33.3	13.0	43.7	40.1	10.0	42.0	16.6	7.0	30.8	30.8
Cycle Q Clear(g_c), s	2.6	33.2	33.3	13.0	43.7	40.1	10.0	42.0	16.6	7.0	30.8	30.8
Prop In Lane	1.00		0.48	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	82	568	550	207	1386	717	159	1332	778	216	618	631
V/C Ratio(X)	0.51	0.95	0.95	1.61	1.06	0.87	1.57	1.24	0.46	1.16	0.85	0.85
Avail Cap(c_a), veh/h	111	587	568	207	1386	717	159	1332	778	216	618	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	38.1	38.1	50.4	35.1	28.6	51.9	35.9	19.5	53.4	34.7	34.7
Incr Delay (d2), s/veh	4.9	24.8	25.5	296.5	41.9	11.4	285.8	116.0	0.4	110.5	10.9	10.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	20.4	19.9	23.4	29.6	20.0	17.6	42.2	7.4	6.7	17.2	17.5
LnGrp Delay(d),s/veh	58.0	62.9	63.6	346.9	77.0	40.1	337.7	151.9	19.9	163.9	45.7	45.5
LnGrp LOS	E	E	E	F	F	D	F	F	B	F	D	D
Approach Vol, veh/h		1104			2427			2260			1313	
Approach Delay, s/veh		63.0			104.5			151.8			68.1	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	46.0	17.0	39.8	14.0	43.0	9.1	47.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	13.0	37.0	10.0	39.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	9.0	44.0	15.0	35.3	12.0	32.8	4.6	45.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	5.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	106.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	80	190	2070	130	160	1860
Future Volume (veh/h)	80	190	2070	130	160	1860
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	213	2326	146	180	2090
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	142	126	2440	1088	202	3005
Arrive On Green	0.08	0.08	0.68	0.68	0.11	0.83
Sat Flow, veh/h	1810	1615	3705	1609	1810	3705
Grp Volume(v), veh/h	90	213	2326	146	180	2090
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1609	1810	1805
Q Serve(g_s), s	4.3	7.0	52.5	1.4	8.8	20.6
Cycle Q Clear(g_c), s	4.3	7.0	52.5	1.4	8.8	20.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	142	126	2440	1088	202	3005
V/C Ratio(X)	0.64	1.69	0.95	0.13	0.89	0.70
Avail Cap(c_a), veh/h	142	126	2460	1096	202	3025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	41.3	13.2	1.2	39.2	3.0
Incr Delay (d2), s/veh	9.0	340.7	9.5	0.1	35.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	15.1	28.7	1.2	6.4	10.2
LnGrp Delay(d),s/veh	49.1	382.0	22.7	1.3	74.3	3.7
LnGrp LOS	D	F	C	A	E	A
Approach Vol, veh/h	303		2472			2270
Approach Delay, s/veh	283.1		21.4			9.3
Approach LOS	F		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.0	64.5				78.5		11.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	10.0	61.0				75.0		7.0
Max Q Clear Time (g_c+I1), s	10.8	54.5				22.6		9.0
Green Ext Time (p_c), s	0.0	6.0				30.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰↑	↱
Traffic Volume (veh/h)	80	1490	140	680	1630	300	0	0	0	750	60	630
Future Volume (veh/h)	80	1490	140	680	1630	300	0	0	0	750	60	630
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	83	1552	0	708	1698	0				825	0	656
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	107	1570	702	702	2078	930				944	0	514
Arrive On Green	0.06	0.43	0.00	0.20	0.58	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1606
Grp Volume(v), veh/h	83	1552	0	708	1698	0				825	0	656
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1606
Q Serve(g_s), s	5.2	49.0	0.0	23.0	43.3	0.0				25.1	0.0	30.0
Cycle Q Clear(g_c), s	5.2	49.0	0.0	23.0	43.3	0.0				25.1	0.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	107	1570	702	702	2078	930				944	0	514
V/C Ratio(X)	0.78	0.99	0.00	1.01	0.82	0.00				0.87	0.00	1.28
Avail Cap(c_a), veh/h	283	1570	702	702	2078	930				944	0	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.78	0.78	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	53.4	32.2	0.0	46.0	19.5	0.0				40.7	0.0	39.1
Incr Delay (d2), s/veh	11.3	20.2	0.0	32.1	2.9	0.0				9.1	0.0	138.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	28.8	0.0	14.2	22.3	0.0				13.7	0.0	36.1
LnGrp Delay(d),s/veh	64.7	52.4	0.0	78.1	22.5	0.0				49.8	0.0	177.6
LnGrp LOS	E	D		F	C					D		F
Approach Vol, veh/h		1635			2406						1481	
Approach Delay, s/veh		53.1			38.8						106.4	
Approach LOS		D			D						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			27.0	54.0		34.0	10.8	70.2
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			23.0	50.0		30.0	18.0	55.0
Max Q Clear Time (g_c+I1), s			25.0	51.0		32.0	7.2	45.3
Green Ext Time (p_c), s			0.0	0.0		0.0	0.1	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	61.2
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1680	550	300	2430	470	200	0	680	0	0	0
Future Volume (veh/h)	0	1680	550	300	2430	470	200	0	680	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1697	556	303	2455	0	202	0	687			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1946	1119	362	4014	1250	549	0	445			
Arrive On Green	0.00	0.36	0.36	0.40	1.00	0.00	0.16	0.00	0.16			
Sat Flow, veh/h	0	3705	1608	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1697	556	303	2455	0	202	0	687			
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	50.4	21.8	17.4	0.0	0.0	5.9	0.0	18.0			
Cycle Q Clear(g_c), s	0.0	50.4	21.8	17.4	0.0	0.0	5.9	0.0	18.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1946	1119	362	4014	1250	549	0	445			
V/C Ratio(X)	0.00	0.87	0.50	0.84	0.61	0.00	0.37	0.00	1.54			
Avail Cap(c_a), veh/h	0	1946	1119	362	4014	1250	549	0	445			
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.13	0.13	0.26	0.26	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	33.0	12.0	32.8	0.0	0.0	43.4	0.0	48.5			
Incr Delay (d2), s/veh	0.0	0.8	0.2	4.6	0.2	0.0	0.4	0.0	255.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	25.3	14.7	9.0	0.1	0.0	2.9	0.0	22.9			
LnGrp Delay(d),s/veh	0.0	33.8	12.2	37.4	0.2	0.0	43.8	0.0	304.4			
LnGrp LOS		C	B	D	A		D		F			
Approach Vol, veh/h		2253			2758			889				
Approach Delay, s/veh		28.5			4.3			245.2				
Approach LOS		C			A			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		22.0	27.0	66.0				93.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	23.0	62.0				89.0
Max Q Clear Time (g_c+I1), s		20.0	19.4	52.4				2.0
Green Ext Time (p_c), s		0.0	3.5	7.9				50.9

Intersection Summary	
HCM 2010 Ctrl Delay	49.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	2040	280	80	2770	10	480	0	280	10	0	10
Future Volume (veh/h)	10	2040	280	80	2770	10	480	0	280	10	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	2147	295	84	2916	11	400	147	295	11	0	11
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	110	2300	310	107	2644	10	433	191	384	111	15	79
Arrive On Green	0.12	1.00	1.00	0.06	0.50	0.50	0.34	0.34	0.34	0.34	0.00	0.34
Sat Flow, veh/h	1810	4622	622	1810	5334	20	1422	564	1131	188	45	233
Grp Volume(v), veh/h	11	1595	847	84	1889	1038	400	0	442	22	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1786	1810	1729	1896	1422	0	1695	465	0	0
Q Serve(g_s), s	0.6	3.2	5.0	5.3	57.0	57.0	11.7	0.0	26.8	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.6	3.2	5.0	5.3	57.0	57.0	39.0	0.0	26.8	27.3	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.01	1.00		0.67	0.50		0.50
Lane Grp Cap(c), veh/h	110	1721	889	107	1714	940	433	0	575	205	0	0
V/C Ratio(X)	0.10	0.93	0.95	0.79	1.10	1.10	0.92	0.00	0.77	0.11	0.00	0.00
Avail Cap(c_a), veh/h	110	1721	889	110	1714	940	433	0	575	205	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	47.7	0.1	0.1	53.4	29.0	29.0	41.1	0.0	34.0	28.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	5.0	11.5	30.0	55.4	62.2	25.3	0.0	6.3	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	3.1	3.5	40.3	46.0	15.7	0.0	13.5	0.5	0.0	0.0
LnGrp Delay(d),s/veh	47.9	5.2	11.7	83.4	84.4	91.2	66.3	0.0	40.3	28.4	0.0	0.0
LnGrp LOS	D	A	B	F	F	F	E		D	C		
Approach Vol, veh/h		2453			3011			842			22	
Approach Delay, s/veh		7.6			86.7			52.7			28.4	
Approach LOS		A			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		43.0	10.8	61.2		43.0	11.0	61.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	57.0		39.0	7.0	57.0
Max Q Clear Time (g_c+I1), s		41.0	7.3	7.0		29.3	2.6	59.0
Green Ext Time (p_c), s		0.0	0.0	32.2		3.2	4.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.3
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	170	1830	270	60	2540	0	230	90	40	10	50	170
Future Volume (veh/h)	170	1830	270	60	2540	0	230	90	40	10	50	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	1947	287	64	2702	0	245	96	43	11	53	181
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	2126	306	82	2423	0	333	322	144	91	411	416
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.00	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	109	3167	455	174	3705	0	1160	1242	556	209	1586	1606
Grp Volume(v), veh/h	181	1088	1146	64	2702	0	245	0	139	64	0	181
Grp Sat Flow(s),veh/h/ln	109	1805	1818	174	1805	0	1160	0	1798	1795	0	1606
Q Serve(g_s), s	0.0	57.4	64.4	12.8	77.2	0.0	23.6	0.0	7.1	0.0	0.0	10.8
Cycle Q Clear(g_c), s	77.2	57.4	64.4	77.2	77.2	0.0	26.6	0.0	7.1	3.0	0.0	10.8
Prop In Lane	1.00		0.25	1.00		0.00	1.00		0.31	0.17		1.00
Lane Grp Cap(c), veh/h	63	1212	1220	82	2423	0	333	0	466	502	0	416
V/C Ratio(X)	2.89	0.90	0.94	0.78	1.11	0.00	0.74	0.00	0.30	0.13	0.00	0.44
Avail Cap(c_a), veh/h	63	1212	1220	82	2423	0	365	0	516	550	0	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.5	15.6	16.8	55.6	18.9	0.0	42.9	0.0	34.2	32.7	0.0	35.6
Incr Delay (d2), s/veh	892.8	10.6	14.8	6.6	52.4	0.0	6.9	0.0	0.4	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	31.7	36.8	2.2	55.7	0.0	8.2	0.0	3.6	1.6	0.0	4.9
LnGrp Delay(d),s/veh	950.3	26.3	31.6	62.2	71.3	0.0	49.7	0.0	34.6	32.8	0.0	36.3
LnGrp LOS	F	C	C	E	F		D		C	C		D
Approach Vol, veh/h		2415			2766			384			245	
Approach Delay, s/veh		98.0			71.1			44.2			35.4	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.8		81.2		33.8		81.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		74.0		33.0		74.0
Max Q Clear Time (g_c+I1), s		28.6		79.2		12.8		79.2
Green Ext Time (p_c), s		1.2		0.0		2.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	79.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	280	1450	20	340	2250	240	20	360	400	230	340	200
Future Volume (veh/h)	280	1450	20	340	2250	240	20	360	400	230	340	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	311	1611	22	378	2500	267	22	400	444	256	378	222
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	1557	21	177	1437	151	171	480	564	145	453	382
Arrive On Green	0.09	0.43	0.43	0.10	0.44	0.44	0.09	0.25	0.25	0.08	0.24	0.24
Sat Flow, veh/h	1810	3646	50	1810	3296	346	1810	1900	1605	1810	1900	1605
Grp Volume(v), veh/h	311	797	836	378	1348	1419	22	400	444	256	378	222
Grp Sat Flow(s),veh/h/ln	1810	1805	1891	1810	1805	1837	1810	1900	1605	1810	1900	1605
Q Serve(g_s), s	10.0	48.0	48.0	11.0	49.0	49.0	1.3	22.4	13.8	9.0	21.3	10.9
Cycle Q Clear(g_c), s	10.0	48.0	48.0	11.0	49.0	49.0	1.3	22.4	13.8	9.0	21.3	10.9
Prop In Lane	1.00		0.03	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	771	808	177	787	801	171	480	564	145	453	382
V/C Ratio(X)	1.93	1.03	1.04	2.13	1.71	1.77	0.13	0.83	0.79	1.77	0.83	0.58
Avail Cap(c_a), veh/h	161	771	808	177	787	801	171	609	672	145	642	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	32.2	32.2	50.7	31.7	31.7	46.7	39.8	21.3	51.7	40.7	23.6
Incr Delay (d2), s/veh	441.3	41.3	41.3	529.0	326.3	352.6	0.3	7.9	5.3	371.6	6.6	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.7	32.6	34.2	31.5	95.6	103.1	0.6	12.8	10.9	19.4	12.0	5.3
LnGrp Delay(d),s/veh	492.5	73.5	73.5	579.7	358.0	384.3	47.0	47.6	26.6	423.3	47.3	25.0
LnGrp LOS	F	F	F	F	F	F	D	D	C	F	D	C
Approach Vol, veh/h		1944			3145			866			856	
Approach Delay, s/veh		140.5			396.5			36.8			154.0	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	32.4	15.0	52.0	14.6	30.8	14.0	53.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	36.0	11.0	48.0	7.0	38.0	10.0	49.0
Max Q Clear Time (g_c+I1), s	11.0	24.4	13.0	50.0	3.3	23.3	12.0	51.0
Green Ext Time (p_c), s	0.0	3.0	0.0	0.0	1.5	2.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	247.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	80	870	1130	270	1270	490	1340	1380	720	380	960	90
Future Volume (veh/h)	80	870	1130	270	1270	490	1340	1380	720	380	960	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	926	1202	287	1351	521	1426	1468	766	404	1021	96
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	1158	1518	214	1163	644	754	1446	743	275	1273	120
Arrive On Green	0.06	0.32	0.32	0.06	0.32	0.32	0.21	0.40	0.40	0.08	0.26	0.26
Sat Flow, veh/h	1810	3610	2829	3510	3610	1607	3510	3610	1609	3510	4822	453
Grp Volume(v), veh/h	85	926	1202	287	1351	521	1426	1468	766	404	732	385
Grp Sat Flow(s),veh/h/ln	1810	1805	1415	1755	1805	1607	1755	1805	1609	1755	1729	1817
Q Serve(g_s), s	5.3	26.9	8.6	7.0	37.0	24.0	24.7	46.0	46.0	9.0	22.7	22.7
Cycle Q Clear(g_c), s	5.3	26.9	8.6	7.0	37.0	24.0	24.7	46.0	46.0	9.0	22.7	22.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	108	1158	1518	214	1163	644	754	1446	743	275	913	480
V/C Ratio(X)	0.79	0.80	0.79	1.34	1.16	0.81	1.89	1.02	1.03	1.47	0.80	0.80
Avail Cap(c_a), veh/h	110	1163	1522	214	1163	644	754	1446	743	275	1054	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	35.6	9.9	53.9	38.9	16.9	45.1	34.4	30.9	52.9	39.4	39.5
Incr Delay (d2), s/veh	30.3	4.0	2.9	181.5	82.5	7.6	405.7	27.5	41.2	229.6	4.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	14.0	10.3	8.8	31.6	11.9	54.3	28.2	32.0	13.1	11.4	12.4
LnGrp Delay(d),s/veh	83.6	39.7	12.8	235.4	121.4	24.4	450.8	61.9	72.2	282.5	43.4	46.9
LnGrp LOS	F	D	B	F	F	C	F	F	F	F	D	D
Approach Vol, veh/h		2213			2159			3660			1521	
Approach Delay, s/veh		26.8			113.2			215.6			107.8	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	50.0	11.0	40.8	28.7	34.3	10.8	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	46.0	7.0	37.0	20.0	35.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	11.0	48.0	9.0	28.9	26.7	24.7	7.3	39.0
Green Ext Time (p_c), s	0.0	0.0	0.0	6.2	0.0	4.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	131.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	50	40	20	70	30	150	30	3080	30	160	2180	30
Future Volume (veh/h)	50	40	20	70	30	150	30	3080	30	160	2180	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	43	21	74	32	160	32	3277	32	170	2319	32
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	124	51	126	59	213	219	3074	30	157	2881	40
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.12	0.58	0.58	0.09	0.55	0.55
Sat Flow, veh/h	506	573	236	377	273	982	1810	5297	52	1810	5272	73
Grp Volume(v), veh/h	117	0	0	266	0	0	32	2136	1173	170	1520	831
Grp Sat Flow(s),veh/h/ln	1315	0	0	1632	0	0	1810	1729	1891	1810	1729	1887
Q Serve(g_s), s	0.0	0.0	0.0	7.7	0.0	0.0	1.6	60.0	60.0	9.0	36.8	36.9
Cycle Q Clear(g_c), s	7.6	0.0	0.0	15.4	0.0	0.0	1.6	60.0	60.0	9.0	36.8	36.9
Prop In Lane	0.45		0.18	0.28		0.60	1.00		0.03	1.00		0.04
Lane Grp Cap(c), veh/h	336	0	0	398	0	0	219	2007	1097	157	1890	1031
V/C Ratio(X)	0.35	0.00	0.00	0.67	0.00	0.00	0.15	1.06	1.07	1.08	0.80	0.81
Avail Cap(c_a), veh/h	571	0	0	647	0	0	219	2007	1097	157	2073	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	0.0	37.5	0.0	0.0	40.7	21.7	21.7	47.2	19.0	19.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.9	0.0	0.0	0.3	39.8	47.8	94.5	2.2	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	7.3	0.0	0.0	0.8	39.5	45.7	8.6	17.9	20.3
LnGrp Delay(d),s/veh	35.0	0.0	0.0	39.5	0.0	0.0	41.0	61.5	69.5	141.7	21.2	23.1
LnGrp LOS	C			D			D	F	F	F	C	C
Approach Vol, veh/h		117			266			3341			2521	
Approach Delay, s/veh		35.0			39.5			64.1			29.9	
Approach LOS		C			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	64.0		26.4	16.5	60.5		26.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	60.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	11.0	62.0		9.6	3.6	38.9		17.4
Green Ext Time (p_c), s	0.0	0.0		2.6	3.3	17.6		2.4

Intersection Summary			
HCM 2010 Ctrl Delay			48.7
HCM 2010 LOS			D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	150	120	60	50	50	110	30	3000	20	50	2170	60
Future Volume (veh/h)	150	120	60	50	50	110	30	3000	20	50	2170	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	158	126	63	53	53	116	32	3158	21	53	2284	63
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	329	233	196	283	233	196	76	3147	21	77	3073	84
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.04	0.59	0.59	0.04	0.59	0.59
Sat Flow, veh/h	1810	1900	1595	1810	1900	1595	1810	5316	35	1810	5189	143
Grp Volume(v), veh/h	158	126	63	53	53	116	32	2052	1127	53	1519	828
Grp Sat Flow(s),veh/h/ln	1810	1900	1595	1810	1900	1595	1810	1729	1894	1810	1729	1874
Q Serve(g_s), s	7.0	5.9	3.4	2.3	2.4	5.6	1.6	56.0	56.0	2.7	30.2	30.5
Cycle Q Clear(g_c), s	7.0	5.9	3.4	2.3	2.4	5.6	1.6	56.0	56.0	2.7	30.2	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	329	233	196	283	233	196	76	2047	1121	77	2048	1110
V/C Ratio(X)	0.48	0.54	0.32	0.19	0.23	0.59	0.42	1.00	1.01	0.69	0.74	0.75
Avail Cap(c_a), veh/h	329	582	489	283	582	489	134	2047	1121	134	2048	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	39.0	37.9	31.6	37.5	28.7	44.2	19.3	19.3	44.7	14.0	14.1
Incr Delay (d2), s/veh	1.1	1.9	0.9	0.3	0.5	2.9	3.7	20.4	28.3	10.6	1.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.2	1.6	1.2	1.3	2.8	0.9	32.3	37.8	1.6	14.8	16.5
LnGrp Delay(d),s/veh	34.7	40.9	38.9	32.0	38.0	31.6	47.8	39.7	47.6	55.3	15.5	16.9
LnGrp LOS	C	D	D	C	D	C	D	F	F	E	B	B
Approach Vol, veh/h		347			222			3211			2400	
Approach Delay, s/veh		37.7			33.2			42.6			16.9	
Approach LOS		D			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	60.0	11.0	15.6	8.0	60.0	11.0	15.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	56.0	7.0	29.0	7.0	56.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	4.7	58.0	4.3	7.9	3.6	32.5	9.0	7.6
Green Ext Time (p_c), s	0.8	0.0	0.0	1.5	0.0	17.2	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰↑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	270	210	320	600	150	70	390	2950	1840	60	2040	210
Future Volume (veh/h)	270	210	320	600	150	70	390	2950	1840	60	2040	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	284	221	337	579	232	74	411	3105	1937	63	2147	221
Adj No. of Lanes	1	2	0	2	1	1	1	3	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	316	467	415	353	345	290	176	2234	851	103	1866	190
Arrive On Green	0.17	0.26	0.26	0.10	0.18	0.18	0.10	0.43	0.43	0.06	0.39	0.39
Sat Flow, veh/h	1810	1805	1606	3619	1900	1602	1810	5187	1609	1810	4783	486
Grp Volume(v), veh/h	284	221	337	579	232	74	411	3105	1937	63	1544	824
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1602	1810	1729	1609	1810	1729	1811
Q Serve(g_s), s	15.7	10.6	20.2	10.0	11.7	3.4	10.0	44.2	44.2	3.5	40.0	40.0
Cycle Q Clear(g_c), s	15.7	10.6	20.2	10.0	11.7	3.4	10.0	44.2	44.2	3.5	40.0	40.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	316	467	415	353	345	290	176	2234	851	103	1349	706
V/C Ratio(X)	0.90	0.47	0.81	1.64	0.67	0.25	2.33	1.39	2.28	0.61	1.14	1.17
Avail Cap(c_a), veh/h	316	687	611	353	760	641	176	2234	851	124	1349	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	32.1	35.7	46.3	39.1	25.1	46.3	29.2	24.2	47.2	31.3	31.3
Incr Delay (d2), s/veh	26.5	0.7	5.2	300.6	2.3	0.5	615.3	178.2	578.3	6.2	74.4	89.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	5.4	9.5	19.7	6.3	1.7	35.1	57.8	160.6	1.9	32.9	37.4
LnGrp Delay(d),s/veh	67.9	32.8	40.9	346.9	41.4	25.6	661.5	207.4	602.5	53.4	105.6	120.9
LnGrp LOS	E	C	D	F	D	C	F	F	F	D	F	F
Approach Vol, veh/h		842			885			5453			2431	
Approach Delay, s/veh		47.9			240.0			381.9			109.4	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	48.2	14.0	30.5	14.0	44.0	21.9	22.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	39.0	10.0	40.0	8.0	41.0
Max Q Clear Time (g_c+I1), s	5.5	46.2	12.0	22.2	12.0	42.0	17.7	13.7
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	270.7
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	470	70	190	180	190	440	330	1190	120	260	1060	720
Future Volume (veh/h)	470	70	190	180	190	440	330	1190	120	260	1060	720
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	470	76	190	196	207	478	330	1190	130	283	1060	720
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	0.92	1.00	0.92	0.92	0.92	1.00	1.00	0.92	0.92	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	384	1596	898	1067	2294	880	406	1820	564	361	1754	544
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.12	0.35	0.35	0.10	0.34	0.34
Sat Flow, veh/h	769	3610	1610	2189	5187	1615	3510	5187	1608	3510	5187	1608
Grp Volume(v), veh/h	470	76	190	196	207	478	330	1190	130	283	1060	720
Grp Sat Flow(s),veh/h/ln	769	1805	1610	1095	1729	1615	1755	1729	1608	1755	1729	1608
Q Serve(g_s), s	48.3	1.4	0.0	6.5	2.7	22.1	10.6	22.3	6.6	9.1	19.6	39.0
Cycle Q Clear(g_c), s	51.0	1.4	0.0	7.8	2.7	22.1	10.6	22.3	6.6	9.1	19.6	39.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	384	1596	898	1067	2294	880	406	1820	564	361	1754	544
V/C Ratio(X)	1.22	0.05	0.21	0.18	0.09	0.54	0.81	0.65	0.23	0.78	0.60	1.32
Avail Cap(c_a), veh/h	384	1596	898	1067	2294	880	548	1820	564	791	1754	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	18.3	12.8	20.6	18.7	17.0	49.8	31.5	26.4	50.5	31.7	38.2
Incr Delay (d2), s/veh	121.3	0.0	0.1	0.1	0.0	0.7	6.7	1.8	1.0	3.8	1.6	158.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.1	0.7	3.0	2.0	1.3	9.9	5.5	10.9	3.1	4.6	9.6	41.1
LnGrp Delay(d),s/veh	158.7	18.3	12.9	20.6	18.7	17.6	56.5	33.4	27.4	54.2	33.3	196.5
LnGrp LOS	F	B	B	C	B	B	E	C	C	D	C	F
Approach Vol, veh/h		736			881			1650			2063	
Approach Delay, s/veh		106.6			18.6			37.5			93.1	
Approach LOS		F			B			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.9	44.5		55.0	17.3	43.0		55.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	26.0	31.0		51.0	18.0	39.0		51.0
Max Q Clear Time (g_c+I1), s	11.1	24.3		53.0	12.6	41.0		24.1
Green Ext Time (p_c), s	0.8	4.5		0.0	0.7	0.0		10.7

Intersection Summary	
HCM 2010 Ctrl Delay	65.5
HCM 2010 LOS	E

Notes

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	0	60	40	0	40	160	1260	100	60	790	90
Future Volume (veh/h)	60	0	60	40	0	40	160	1260	100	60	790	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	60	0	60	40	0	40	160	1260	100	60	790	90
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	0	145	140	0	145	192	2569	203	78	2271	259
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.11	0.76	0.76	0.04	0.70	0.70
Sat Flow, veh/h	1389	0	1615	1364	0	1615	1810	3389	268	1810	3267	372
Grp Volume(v), veh/h	60	0	60	40	0	40	160	670	690	60	436	444
Grp Sat Flow(s),veh/h/ln	1389	0	1615	1364	0	1615	1810	1805	1853	1810	1805	1834
Q Serve(g_s), s	4.6	0.0	3.9	3.1	0.0	2.5	9.5	15.7	15.8	3.6	10.7	10.7
Cycle Q Clear(g_c), s	7.2	0.0	3.9	7.0	0.0	2.5	9.5	15.7	15.8	3.6	10.7	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.20
Lane Grp Cap(c), veh/h	158	0	145	140	0	145	192	1368	1405	78	1255	1275
V/C Ratio(X)	0.38	0.00	0.41	0.29	0.00	0.28	0.83	0.49	0.49	0.77	0.35	0.35
Avail Cap(c_a), veh/h	349	0	367	328	0	367	313	1368	1405	148	1255	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	0.0	47.3	50.6	0.0	46.7	48.2	5.1	5.1	52.1	6.7	6.7
Incr Delay (d2), s/veh	1.5	0.0	1.9	1.1	0.0	1.0	1.0	0.1	0.1	14.7	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.8	1.2	0.0	1.2	4.8	7.7	7.9	2.1	5.5	5.6
LnGrp Delay(d),s/veh	51.6	0.0	49.2	51.8	0.0	47.8	49.2	5.2	5.2	66.8	7.5	7.5
LnGrp LOS	D		D	D		D	D	A	A	E	A	A
Approach Vol, veh/h		120			80			1520			940	
Approach Delay, s/veh		50.4			49.8			9.9			11.3	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.7	87.4		13.9	15.7	80.5		13.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	64.0		25.0	19.0	54.0		25.0
Max Q Clear Time (g_c+I1), s	5.6	17.8		9.2	11.5	12.7		9.0
Green Ext Time (p_c), s	0.0	25.9		0.7	0.2	24.3		0.7

Intersection Summary			
HCM 2010 Ctrl Delay			13.4
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	770	1000	330	190	1510	440	340	160	130	120	60	300
Future Volume (veh/h)	770	1000	330	190	1510	440	340	160	130	120	60	300
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	770	1000	330	190	1510	440	340	160	130	120	60	300
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	362	1462	482	216	1548	479	181	484	368	147	830	369
Arrive On Green	0.20	0.38	0.38	0.24	0.60	0.60	0.10	0.25	0.25	0.08	0.23	0.23
Sat Flow, veh/h	1810	3856	1271	1810	5187	1607	1810	1951	1482	1810	3610	1604
Grp Volume(v), veh/h	770	897	433	190	1510	440	340	147	143	120	60	300
Grp Sat Flow(s),veh/h/ln	1810	1729	1670	1810	1729	1607	1810	1805	1628	1810	1805	1604
Q Serve(g_s), s	22.0	23.9	23.9	11.1	30.9	26.8	11.0	7.3	8.0	7.2	1.4	19.5
Cycle Q Clear(g_c), s	22.0	23.9	23.9	11.1	30.9	26.8	11.0	7.3	8.0	7.2	1.4	19.5
Prop In Lane	1.00		0.76	1.00		1.00	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	362	1311	633	216	1548	479	181	448	404	147	830	369
V/C Ratio(X)	2.13	0.68	0.68	0.88	0.98	0.92	1.88	0.33	0.35	0.81	0.07	0.81
Avail Cap(c_a), veh/h	362	1311	633	230	1548	479	181	563	508	165	1083	481
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.34	0.34	0.34	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	28.6	28.6	41.1	21.8	21.0	49.5	33.8	34.1	49.7	33.2	40.1
Incr Delay (d2), s/veh	515.9	2.7	5.5	12.1	8.7	10.9	415.8	0.4	0.5	23.9	0.0	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	62.8	11.8	12.0	6.2	15.5	13.0	26.4	3.7	3.6	4.6	0.7	9.5
LnGrp Delay(d),s/veh	559.9	31.3	34.1	53.2	30.5	31.8	465.3	34.3	34.6	73.6	33.2	48.1
LnGrp LOS	F	C	C	D	C	C	F	C	C	E	C	D
Approach Vol, veh/h		2100			2140			630			480	
Approach Delay, s/veh		225.7			32.8			266.9			52.6	
Approach LOS		F			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	47.7	15.0	30.2	26.0	38.8	13.0	32.2
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	14.0	33.1	11.0	33.0	22.0	25.1	10.0	* 34
Max Q Clear Time (g_c+I1), s	13.1	25.9	13.0	21.5	24.0	32.9	9.2	10.0
Green Ext Time (p_c), s	0.0	6.7	0.0	2.5	0.0	0.0	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	137.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	370	580	210	200	1290	230	300	960	70	140	780	270
Future Volume (veh/h)	370	580	210	200	1290	230	300	960	70	140	780	270
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	370	580	210	200	1290	230	300	960	70	140	780	270
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	2076	644	255	1732	309	223	1540	477	191	1493	462
Arrive On Green	0.14	0.67	0.67	0.07	0.39	0.39	0.06	0.30	0.30	0.05	0.29	0.29
Sat Flow, veh/h	3510	5187	1609	3510	4426	789	3510	5187	1607	3510	5187	1607
Grp Volume(v), veh/h	370	580	210	200	1008	512	300	960	70	140	780	270
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1757	1755	1729	1607	1755	1729	1607
Q Serve(g_s), s	9.0	5.0	6.1	6.2	27.5	27.5	7.0	17.6	3.5	4.3	13.9	15.8
Cycle Q Clear(g_c), s	9.0	5.0	6.1	6.2	27.5	27.5	7.0	17.6	3.5	4.3	13.9	15.8
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	287	2076	644	255	1353	687	223	1540	477	191	1493	462
V/C Ratio(X)	1.29	0.28	0.33	0.78	0.74	0.75	1.34	0.62	0.15	0.73	0.52	0.58
Avail Cap(c_a), veh/h	287	2076	644	255	1353	687	223	1792	555	191	1745	540
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	11.8	11.9	50.1	28.8	28.8	51.5	33.4	28.4	51.2	32.8	33.5
Incr Delay (d2), s/veh	149.1	0.3	1.1	7.5	1.8	3.6	181.2	0.5	0.1	13.3	0.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	2.4	2.8	3.3	13.5	14.1	9.0	8.4	1.6	2.5	6.7	7.2
LnGrp Delay(d),s/veh	196.6	12.0	13.0	57.7	30.6	32.3	232.7	33.9	28.6	64.5	33.1	34.7
LnGrp LOS	F	B	B	E	C	C	F	C	C	E	C	C
Approach Vol, veh/h		1160			1720			1330			1190	
Approach Delay, s/veh		71.1			34.3			78.4			37.2	
Approach LOS		E			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	50.0	11.0	37.0	13.0	49.0	10.0	38.0
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	38.7	7.0	37.0	9.0	37.7	6.0	38.0
Max Q Clear Time (g_c+I1), s	8.2	8.1	9.0	17.8	11.0	29.5	6.3	19.6
Green Ext Time (p_c), s	0.0	18.1	0.0	12.7	0.0	6.7	0.0	12.4

Intersection Summary	
HCM 2010 Ctrl Delay	53.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
103: Evans Road & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	370	360	160	40	1060	670	420	1180	30	300	730	490
Future Volume (veh/h)	370	360	160	40	1060	670	420	1180	30	300	730	490
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	370	360	0	40	1060	670	420	1180	30	300	730	490
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	351	1881	586	51	1509	467	383	1210	31	319	1149	511
Arrive On Green	0.10	0.36	0.00	0.03	0.29	0.29	0.11	0.34	0.34	0.09	0.32	0.32
Sat Flow, veh/h	3510	5187	1615	1810	5187	1607	3510	3597	91	3510	3610	1607
Grp Volume(v), veh/h	370	360	0	40	1060	670	420	592	618	300	730	490
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1607	1755	1805	1883	1755	1805	1607
Q Serve(g_s), s	11.0	5.2	0.0	2.4	20.0	32.0	12.0	35.6	35.7	9.3	19.0	32.9
Cycle Q Clear(g_c), s	11.0	5.2	0.0	2.4	20.0	32.0	12.0	35.6	35.7	9.3	19.0	32.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	351	1881	586	51	1509	467	383	607	634	319	1149	511
V/C Ratio(X)	1.05	0.19	0.00	0.78	0.70	1.43	1.10	0.98	0.98	0.94	0.64	0.96
Avail Cap(c_a), veh/h	351	1881	586	99	1509	467	383	607	634	319	1149	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	49.5	24.0	0.0	53.1	34.8	39.0	49.0	36.0	36.1	49.7	32.0	36.8
Incr Delay (d2), s/veh	61.7	0.2	0.0	21.9	2.8	207.1	74.6	30.9	30.2	33.6	2.5	29.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	2.5	0.0	1.5	9.9	41.0	9.8	23.0	23.9	6.0	9.8	18.8
LnGrp Delay(d),s/veh	111.2	24.2	0.0	75.0	37.5	246.1	123.6	66.9	66.3	83.3	34.6	66.3
LnGrp LOS	F	C		E	D	F	F	E	E	F	C	E
Approach Vol, veh/h		730			1770			1630			1520	
Approach Delay, s/veh		68.3			117.3			81.3			54.4	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	45.9	16.0	41.0	15.0	38.0	14.0	43.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	37.0	12.0	35.0	11.0	32.0	10.0	37.0
Max Q Clear Time (g_c+I1), s	4.4	7.2	14.0	34.9	13.0	34.0	11.3	37.7
Green Ext Time (p_c), s	0.0	14.7	0.0	0.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	83.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	40	30	30	50	20	10	40	1250	30	0	1050	80
Future Volume (veh/h)	40	30	30	50	20	10	40	1250	30	0	1050	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	30	30	50	20	10	40	1250	30	0	1050	80
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	51	266	117	65	194	89	51	4000	96	2	3646	1133
Arrive On Green	0.03	0.07	0.07	0.04	0.08	0.08	0.06	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h	1810	3610	1582	1810	2390	1098	1810	5211	125	1810	5187	1612
Grp Volume(v), veh/h	40	30	30	50	15	15	40	830	450	0	1050	80
Grp Sat Flow(s),veh/h/ln	1810	1805	1582	1810	1805	1682	1810	1729	1878	1810	1729	1612
Q Serve(g_s), s	2.4	0.9	2.0	3.0	0.8	0.9	2.4	0.0	0.0	0.0	8.3	1.7
Cycle Q Clear(g_c), s	2.4	0.9	2.0	3.0	0.8	0.9	2.4	0.0	0.0	0.0	8.3	1.7
Prop In Lane	1.00		1.00	1.00		0.65	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	51	266	117	65	147	137	51	2654	1441	2	3646	1133
V/C Ratio(X)	0.78	0.11	0.26	0.77	0.10	0.11	0.78	0.31	0.31	0.00	0.29	0.07
Avail Cap(c_a), veh/h	132	1017	446	165	543	506	132	2654	1441	66	3646	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	47.6	48.1	52.6	46.8	46.9	51.5	0.0	0.0	0.0	6.1	5.1
Incr Delay (d2), s/veh	21.8	0.2	1.1	17.2	0.3	0.4	21.1	0.3	0.5	0.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.4	0.9	1.8	0.4	0.4	1.5	0.1	0.2	0.0	4.0	0.8
LnGrp Delay(d),s/veh	74.9	47.8	49.2	69.8	47.1	47.2	72.7	0.3	0.5	0.0	6.3	5.2
LnGrp LOS	E	D	D	E	D	D	E	A	A		A	A
Approach Vol, veh/h		100			80			1320			1130	
Approach Delay, s/veh		59.1			61.3			2.6			6.2	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	89.7	7.9	12.3	7.1	82.6	7.1	13.1
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	4.0	47.5	10.0	* 31	8.0	43.5	8.0	* 33
Max Q Clear Time (g_c+I1), s	0.0	2.0	5.0	4.0	4.4	10.3	4.4	2.9
Green Ext Time (p_c), s	0.0	26.9	0.0	0.4	0.0	22.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	8.1
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	160	40	130	110	90	120	170	1310	70	30	450	110
Future Volume (veh/h)	160	40	130	110	90	120	170	1310	70	30	450	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	40	130	110	90	120	170	1310	70	30	450	110
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	555	246	137	452	200	198	2102	112	39	1860	830
Arrive On Green	0.10	0.15	0.15	0.08	0.13	0.13	0.22	1.00	1.00	0.02	0.52	0.52
Sat Flow, veh/h	1810	3610	1599	1810	3610	1596	1810	3486	186	1810	3610	1610
Grp Volume(v), veh/h	160	40	130	110	90	120	170	677	703	30	450	110
Grp Sat Flow(s),veh/h/ln	1810	1805	1599	1810	1805	1596	1810	1805	1867	1810	1805	1610
Q Serve(g_s), s	9.6	1.0	8.2	6.6	2.5	7.8	9.9	0.0	0.0	1.8	7.6	3.9
Cycle Q Clear(g_c), s	9.6	1.0	8.2	6.6	2.5	7.8	9.9	0.0	0.0	1.8	7.6	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	189	555	246	137	452	200	198	1089	1126	39	1860	830
V/C Ratio(X)	0.85	0.07	0.53	0.80	0.20	0.60	0.86	0.62	0.62	0.76	0.24	0.13
Avail Cap(c_a), veh/h	197	1050	465	197	1050	464	280	1089	1126	66	1860	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.52	0.52	0.52	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	39.8	42.9	50.0	43.2	45.5	42.1	0.0	0.0	53.5	14.8	13.9
Incr Delay (d2), s/veh	26.7	0.1	1.8	14.0	0.2	2.9	9.5	1.4	1.4	25.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.5	3.8	3.8	1.2	3.6	5.4	0.4	0.4	1.2	3.8	1.8
LnGrp Delay(d),s/veh	75.1	39.9	44.6	64.0	43.4	48.4	51.6	1.4	1.4	78.8	15.1	14.2
LnGrp LOS	E	D	D	E	D	D	D	A	A	E	B	B
Approach Vol, veh/h		330			320			1550			590	
Approach Delay, s/veh		58.8			52.3			6.9			18.1	
Approach LOS		E			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	70.3	12.3	20.9	16.1	60.7	15.5	17.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	46.0	12.0	32.0	17.0	33.0	12.0	32.0
Max Q Clear Time (g_c+I1), s	3.8	2.0	8.6	10.2	11.9	9.6	11.6	9.8
Green Ext Time (p_c), s	0.0	19.9	0.1	1.5	0.2	14.3	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	180	140	160	310	250	260	970	80	70	850	160
Future Volume (veh/h)	50	180	140	160	310	250	260	970	80	70	850	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	180	140	160	310	250	260	970	80	70	850	160
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	214	880	391	284	880	391	290	2974	923	91	2404	746
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.32	1.00	1.00	0.02	0.15	0.15
Sat Flow, veh/h	861	3610	1605	1073	3610	1605	1810	5187	1611	1810	5187	1610
Grp Volume(v), veh/h	50	180	140	160	310	250	260	970	80	70	850	160
Grp Sat Flow(s),veh/h/ln	861	1805	1605	1073	1805	1605	1810	1729	1611	1810	1729	1610
Q Serve(g_s), s	5.6	4.4	7.9	15.4	7.8	15.3	15.1	0.0	0.0	4.2	16.1	9.6
Cycle Q Clear(g_c), s	13.4	4.4	7.9	19.7	7.8	15.3	15.1	0.0	0.0	4.2	16.1	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	880	391	284	880	391	290	2974	923	91	2404	746
V/C Ratio(X)	0.23	0.20	0.36	0.56	0.35	0.64	0.90	0.33	0.09	0.77	0.35	0.21
Avail Cap(c_a), veh/h	268	1106	492	351	1106	492	461	2974	923	148	2404	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44	0.97	0.97	0.97
Uniform Delay (d), s/veh	40.0	33.1	34.5	41.0	34.4	37.3	36.5	0.0	0.0	53.5	31.8	29.1
Incr Delay (d2), s/veh	0.6	0.1	0.6	1.7	0.2	1.8	6.6	0.1	0.1	12.4	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.2	3.6	4.7	3.9	7.0	8.0	0.0	0.0	2.4	7.8	4.4
LnGrp Delay(d),s/veh	40.5	33.2	35.0	42.7	34.7	39.1	43.1	0.1	0.1	65.8	32.2	29.7
LnGrp LOS	D	C	D	D	C	D	D	A	A	E	C	C
Approach Vol, veh/h		370			720			1310			1080	
Approach Delay, s/veh		34.9			38.0			8.7			34.0	
Approach LOS		C			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	68.4		32.1	21.6	56.3		32.1
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	9.0	52.7		33.7	28.0	33.7		33.7
Max Q Clear Time (g_c+I1), s	6.2	2.0		15.4	17.1	18.1		21.7
Green Ext Time (p_c), s	0.0	22.0		5.3	0.6	11.0		4.4

Intersection Summary			
HCM 2010 Ctrl Delay			25.4
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	240	370	270	100	490	140	380	950	100	100	850	260
Future Volume (veh/h)	240	370	270	100	490	140	380	950	100	100	850	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	370	270	100	490	140	380	950	100	100	850	260
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	563	405	126	671	191	280	1429	150	126	950	290
Arrive On Green	0.11	0.28	0.28	0.07	0.24	0.24	0.15	0.43	0.43	0.05	0.23	0.23
Sat Flow, veh/h	1810	2002	1440	1810	2773	787	1810	3296	347	1810	2722	832
Grp Volume(v), veh/h	240	333	307	100	318	312	380	520	530	100	563	547
Grp Sat Flow(s),veh/h/ln	1810	1805	1637	1810	1805	1755	1810	1805	1837	1810	1805	1749
Q Serve(g_s), s	12.0	17.9	18.2	6.0	17.8	18.0	17.0	25.2	25.2	6.0	33.3	33.3
Cycle Q Clear(g_c), s	12.0	17.9	18.2	6.0	17.8	18.0	17.0	25.2	25.2	6.0	33.3	33.3
Prop In Lane	1.00		0.88	1.00		0.45	1.00		0.19	1.00		0.48
Lane Grp Cap(c), veh/h	197	508	461	126	437	425	280	783	797	126	630	610
V/C Ratio(X)	1.22	0.66	0.67	0.79	0.73	0.73	1.36	0.66	0.66	0.79	0.89	0.90
Avail Cap(c_a), veh/h	197	509	461	197	509	495	280	783	797	148	630	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	49.0	34.8	35.0	50.4	38.3	38.4	46.5	24.8	24.8	51.7	40.2	40.2
Incr Delay (d2), s/veh	134.3	3.0	3.6	11.0	4.4	4.7	183.0	4.4	4.4	20.9	16.9	17.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	9.3	8.7	3.4	9.5	9.3	22.7	13.5	13.8	3.7	19.5	19.1
LnGrp Delay(d),s/veh	183.3	37.9	38.6	61.4	42.7	43.2	229.5	29.2	29.1	72.5	57.1	57.7
LnGrp LOS	F	D	D	E	D	D	F	C	C	E	E	E
Approach Vol, veh/h		880			730			1430			1210	
Approach Delay, s/veh		77.8			45.5			82.4			58.6	
Approach LOS		E			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	51.7	11.7	35.0	21.0	42.4	16.0	30.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	42.0	12.0	31.0	17.0	34.0	12.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	27.2	8.0	20.2	19.0	35.3	14.0	20.0
Green Ext Time (p_c), s	0.0	11.1	0.1	5.8	0.0	0.0	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	68.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
108: Perris Blvd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑→	↱	↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	430	220	1210	350	1890	0	0	820	420
Future Volume (veh/h)	0	0	0	430	220	1210	350	1890	0	0	820	420
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				430	0	1357	350	1890	0	0	820	420
Adj No. of Lanes				1	0	2	1	3	0	0	3	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				813	0	1447	362	2479	0	0	1253	386
Arrive On Green				0.45	0.00	0.45	0.40	0.96	0.00	0.00	0.08	0.08
Sat Flow, veh/h				1810	0	3219	1810	5358	0	0	5358	1598
Grp Volume(v), veh/h				430	0	1357	350	1890	0	0	820	420
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1598
Q Serve(g_s), s				18.9	0.0	44.1	20.8	6.5	0.0	0.0	16.9	26.6
Cycle Q Clear(g_c), s				18.9	0.0	44.1	20.8	6.5	0.0	0.0	16.9	26.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				813	0	1447	362	2479	0	0	1253	386
V/C Ratio(X)				0.53	0.00	0.94	0.97	0.76	0.00	0.00	0.65	1.09
Avail Cap(c_a), veh/h				839	0	1493	362	2479	0	0	1253	386
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.54	0.54	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh				21.9	0.0	28.8	32.6	1.4	0.0	0.0	46.2	50.6
Incr Delay (d2), s/veh				0.6	0.0	11.4	26.7	1.2	0.0	0.0	2.5	69.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.6	0.0	21.9	13.0	2.4	0.0	0.0	8.4	19.3
LnGrp Delay(d),s/veh				22.5	0.0	40.3	59.4	2.7	0.0	0.0	48.7	120.6
LnGrp LOS				C		D	E	A			D	F
Approach Vol, veh/h					1787			2240			1240	
Approach Delay, s/veh					36.0			11.5			73.0	
Approach LOS					D			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.6			26.0	30.6		53.4
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		51.0			22.0	25.0		51.0
Max Q Clear Time (g_c+I1), s		8.5			22.8	28.6		46.1
Green Ext Time (p_c), s		34.0			0.0	0.0		3.3

Intersection Summary		
HCM 2010 Ctrl Delay		34.3
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	310	40	350	0	0	0	0	1930	260	130	1120	0
Future Volume (veh/h)	310	40	350	0	0	0	0	1930	260	130	1120	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	310	40	350				0	1930	260	130	1120	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	479	44	388				0	2498	333	157	3436	0
Arrive On Green	0.26	0.26	0.26				0.00	0.54	0.54	0.17	1.00	0.00
Sat Flow, veh/h	1810	167	1464				0	4800	617	1810	5358	0
Grp Volume(v), veh/h	310	0	390				0	1436	754	130	1120	0
Grp Sat Flow(s),veh/h/ln	1810	0	1632				0	1729	1788	1810	1729	0
Q Serve(g_s), s	16.7	0.0	25.4				0.0	36.0	36.9	7.6	0.0	0.0
Cycle Q Clear(g_c), s	16.7	0.0	25.4				0.0	36.0	36.9	7.6	0.0	0.0
Prop In Lane	1.00		0.90				0.00		0.34	1.00		0.00
Lane Grp Cap(c), veh/h	479	0	432				0	1866	965	157	3436	0
V/C Ratio(X)	0.65	0.00	0.90				0.00	0.77	0.78	0.83	0.33	0.00
Avail Cap(c_a), veh/h	526	0	475				0	1866	965	197	3436	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.94	0.94	0.73	0.73	0.00
Uniform Delay (d), s/veh	35.9	0.0	39.1				0.0	19.9	20.2	44.7	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.0	19.3				0.0	3.0	5.9	15.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	13.7				0.0	17.9	19.6	4.4	0.1	0.0
LnGrp Delay(d),s/veh	38.3	0.0	58.4				0.0	22.9	26.1	60.6	0.2	0.0
LnGrp LOS	D		E					C	C	E	A	
Approach Vol, veh/h		700						2190			1250	
Approach Delay, s/veh		49.5						24.0			6.5	
Approach LOS		D						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	13.5	63.4		33.1		76.9		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	12.0	54.0		32.0		70.0		
Max Q Clear Time (g_c+I1), s	9.6	38.9		27.4		2.0		
Green Ext Time (p_c), s	0.1	14.2		1.6		54.1		

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	160	70	150	430	990	0	0	650	270
Future Volume (veh/h)	0	0	0	160	70	150	430	990	0	0	650	270
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				160	70	150	430	990	0	0	650	270
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				178	78	167	456	2467	0	0	1427	634
Arrive On Green				0.24	0.24	0.24	0.50	1.00	0.00	0.00	0.40	0.40
Sat Flow, veh/h				732	320	686	1810	3705	0	0	3705	1605
Grp Volume(v), veh/h				380	0	0	430	990	0	0	650	270
Grp Sat Flow(s),veh/h/ln				1737	0	0	1810	1805	0	0	1805	1605
Q Serve(g_s), s				23.3	0.0	0.0	24.7	0.0	0.0	0.0	14.6	13.5
Cycle Q Clear(g_c), s				23.3	0.0	0.0	24.7	0.0	0.0	0.0	14.6	13.5
Prop In Lane				0.42		0.39	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				424	0	0	456	2467	0	0	1427	634
V/C Ratio(X)				0.90	0.00	0.00	0.94	0.40	0.00	0.00	0.46	0.43
Avail Cap(c_a), veh/h				521	0	0	592	2467	0	0	1427	634
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.82	0.82	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.2	0.0	0.0	26.6	0.0	0.0	0.0	24.5	24.2
Incr Delay (d2), s/veh				15.8	0.0	0.0	18.0	0.4	0.0	0.0	1.1	2.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.1	0.0	0.0	14.4	0.1	0.0	0.0	7.5	6.3
LnGrp Delay(d),s/veh				56.1	0.0	0.0	44.6	0.4	0.0	0.0	25.6	26.3
LnGrp LOS				E			D	A			C	C
Approach Vol, veh/h					380			1420			920	
Approach Delay, s/veh					56.1			13.8			25.8	
Approach LOS					E			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		79.2			31.7	47.5		30.8
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		69.0			36.0	29.0		33.0
Max Q Clear Time (g_c+I1), s		2.0			26.7	16.6		25.3
Green Ext Time (p_c), s		21.4			1.0	8.8		1.4

Intersection Summary			
HCM 2010 Ctrl Delay			23.8
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	140	30	190	0	0	0	0	1280	220	100	720	0
Future Volume (veh/h)	140	30	190	0	0	0	0	1280	220	100	720	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	140	30	190				0	1280	220	100	720	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	230	49	245				0	2412	1075	126	2795	0
Arrive On Green	0.15	0.15	0.15				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1503	322	1599				0	3705	1609	1810	3705	0
Grp Volume(v), veh/h	170	0	190				0	1280	220	100	720	0
Grp Sat Flow(s),veh/h/ln	1825	0	1599				0	1805	1609	1810	1805	0
Q Serve(g_s), s	9.6	0.0	12.6				0.0	0.0	0.0	6.0	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	12.6				0.0	0.0	0.0	6.0	0.0	0.0
Prop In Lane	0.82		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	279	0	245				0	2412	1075	126	2795	0
V/C Ratio(X)	0.61	0.00	0.78				0.00	0.53	0.20	0.79	0.26	0.00
Avail Cap(c_a), veh/h	481	0	422				0	2412	1075	197	2795	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.88	0.88	0.87	0.87	0.00
Uniform Delay (d), s/veh	43.5	0.0	44.8				0.0	0.0	0.0	49.1	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	5.2				0.0	0.7	0.4	9.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	5.9				0.0	0.2	0.1	3.3	0.1	0.0
LnGrp Delay(d),s/veh	45.6	0.0	50.0				0.0	0.7	0.4	59.0	0.2	0.0
LnGrp LOS	D		D					A	A	E	A	
Approach Vol, veh/h		360						1500			820	
Approach Delay, s/veh		47.9						0.7			7.4	
Approach LOS		D						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.6	77.5		20.8		89.2		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	12.0	57.0		29.0		73.0		
Max Q Clear Time (g_c+I1), s	8.0	2.0		14.6		2.0		
Green Ext Time (p_c), s	0.1	27.3		1.4		30.2		

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	10	120	130	200	530	170	600	1150	160	40	970	30
Future Volume (veh/h)	10	120	130	200	530	170	600	1150	160	40	970	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	120	130	200	530	170	600	1150	160	40	970	30
Adj No. of Lanes	2	2	2	2	2	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	34	493	946	265	731	325	694	3096	1083	90	2196	68
Arrive On Green	0.01	0.14	0.14	0.08	0.20	0.20	0.13	0.40	0.40	0.01	0.14	0.14
Sat Flow, veh/h	3510	3610	2811	3510	3610	1603	3510	5187	1611	3510	5169	160
Grp Volume(v), veh/h	10	120	130	200	530	170	600	1150	160	40	649	351
Grp Sat Flow(s),veh/h/ln	1755	1805	1406	1755	1805	1603	1755	1729	1611	1755	1729	1871
Q Serve(g_s), s	0.3	3.3	3.6	6.1	15.1	10.4	18.4	17.2	5.7	1.2	18.9	18.9
Cycle Q Clear(g_c), s	0.3	3.3	3.6	6.1	15.1	10.4	18.4	17.2	5.7	1.2	18.9	18.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	34	493	946	265	731	325	694	3096	1083	90	1469	795
V/C Ratio(X)	0.30	0.24	0.14	0.76	0.73	0.52	0.86	0.37	0.15	0.44	0.44	0.44
Avail Cap(c_a), veh/h	128	725	1127	351	955	424	862	3096	1083	128	1469	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.96	0.96	0.96
Uniform Delay (d), s/veh	54.1	42.4	25.5	49.9	41.0	39.1	46.3	18.5	10.2	53.8	35.3	35.3
Incr Delay (d2), s/veh	4.8	0.3	0.1	6.5	1.9	1.3	7.2	0.3	0.3	3.3	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	1.4	3.2	7.7	4.7	9.6	8.3	2.6	0.6	9.3	10.2
LnGrp Delay(d),s/veh	58.9	42.7	25.6	56.3	42.9	40.4	53.4	18.8	10.5	57.0	36.3	37.1
LnGrp LOS	E	D	C	E	D	D	D	B	B	E	D	D
Approach Vol, veh/h		260			900			1910			1040	
Approach Delay, s/veh		34.8			45.4			29.0			37.3	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	71.0	12.3	19.9	25.7	52.0	5.1	27.2
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	4.0	54.7	11.0	22.1	27.0	31.7	4.0	29.1
Max Q Clear Time (g_c+I1), s	3.2	19.2	8.1	5.6	20.4	20.9	2.3	17.1
Green Ext Time (p_c), s	0.0	21.7	0.2	4.9	1.3	8.8	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	35.1
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

HCM 2010 Signalized Intersection Summary
113: Evans Rd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	0	10	10	0	80	20	1310	0	20	780	110
Future Volume (veh/h)	110	0	10	10	0	80	20	1310	0	20	780	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	0	10	10	0	80	20	1310	0	20	780	110
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	0	240	270	0	240	560	2812	0	398	2475	349
Arrive On Green	0.15	0.00	0.15	0.15	0.00	0.15	1.00	1.00	0.00	1.00	1.00	1.00
Sat Flow, veh/h	1339	0	1615	1427	0	1615	635	3705	0	426	3178	448
Grp Volume(v), veh/h	110	0	10	10	0	80	20	1310	0	20	443	447
Grp Sat Flow(s),veh/h/ln	1339	0	1615	1427	0	1615	635	1805	0	426	1805	1821
Q Serve(g_s), s	8.8	0.0	0.6	0.7	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.7	0.0	0.6	1.2	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.25
Lane Grp Cap(c), veh/h	205	0	240	270	0	240	560	2812	0	398	1406	1418
V/C Ratio(X)	0.54	0.00	0.04	0.04	0.00	0.33	0.04	0.47	0.00	0.05	0.32	0.32
Avail Cap(c_a), veh/h	359	0	426	434	0	426	560	2812	0	398	1406	1418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.21	0.21	0.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	48.1	0.0	40.1	40.7	0.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.1	0.1	0.0	0.8	0.0	0.1	0.0	0.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.3	0.3	0.0	2.2	0.0	0.0	0.0	0.0	0.2	0.2
LnGrp Delay(d),s/veh	50.3	0.0	40.2	40.7	0.0	42.8	0.0	0.1	0.0	0.2	0.6	0.6
LnGrp LOS	D		D	D		D	A	A		A	A	A
Approach Vol, veh/h		120			90			1330			910	
Approach Delay, s/veh		49.4			42.5			0.1			0.6	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		89.7		20.3		89.7		20.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		73.0		29.0		73.0		29.0
Max Q Clear Time (g_c+I1), s		2.0		15.7		2.0		6.9
Green Ext Time (p_c), s		32.6		0.7		32.6		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	4.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	180	230	110	110	210	300	220	1350	190	280	930	130
Future Volume (veh/h)	180	230	110	110	210	300	220	1350	190	280	930	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	180	230	110	110	210	300	220	1350	190	280	930	130
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	561	259	136	394	352	250	1444	646	263	1470	658
Arrive On Green	0.09	0.23	0.23	0.08	0.22	0.22	0.14	0.40	0.40	0.10	0.27	0.27
Sat Flow, veh/h	1810	2399	1110	1810	1805	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	180	171	169	110	210	300	220	1350	190	280	930	130
Grp Sat Flow(s),veh/h/ln	1810	1805	1704	1810	1805	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	10.0	8.8	9.3	6.6	11.3	19.6	13.1	39.4	8.8	16.0	24.9	6.8
Cycle Q Clear(g_c), s	10.0	8.8	9.3	6.6	11.3	19.6	13.1	39.4	8.8	16.0	24.9	6.8
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	422	398	136	394	352	250	1444	646	263	1470	658
V/C Ratio(X)	1.09	0.41	0.42	0.81	0.53	0.85	0.88	0.93	0.29	1.06	0.63	0.20
Avail Cap(c_a), veh/h	165	459	434	148	443	396	280	1444	646	263	1470	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	50.0	35.7	35.9	50.1	38.0	41.3	46.5	31.6	22.4	49.6	32.8	26.2
Incr Delay (d2), s/veh	97.6	0.6	0.7	25.4	1.1	14.8	24.1	12.5	1.2	72.2	2.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	4.5	4.4	4.3	5.8	10.2	8.2	22.0	4.1	13.3	12.9	3.2
LnGrp Delay(d),s/veh	147.6	36.3	36.6	75.4	39.2	56.1	70.6	44.2	23.6	121.9	34.8	26.8
LnGrp LOS	F	D	D	E	D	E	E	D	C	F	C	C
Approach Vol, veh/h		520			620			1760			1340	
Approach Delay, s/veh		74.9			53.8			45.2			52.2	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	48.0	12.3	29.7	19.2	48.8	14.0	28.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	41.0	9.0	28.0	17.0	40.0	10.0	27.0
Max Q Clear Time (g_c+I1), s	18.0	41.4	8.6	11.3	15.1	26.9	12.0	21.6
Green Ext Time (p_c), s	0.0	0.0	0.0	4.8	0.1	11.2	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	330	300	140	240	420	470	290	430	130	240	400	530
Future Volume (veh/h)	330	300	140	240	420	470	290	430	130	240	400	530
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	300	140	240	420	470	290	430	130	240	400	530
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	399	1603	497	315	1479	458	359	1259	563	315	1213	540
Arrive On Green	0.11	0.31	0.31	0.09	0.29	0.29	0.10	0.35	0.35	0.09	0.34	0.34
Sat Flow, veh/h	3510	5187	1607	3510	5187	1607	3510	3610	1615	3510	3610	1608
Grp Volume(v), veh/h	330	300	140	240	420	470	290	430	130	240	400	530
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1729	1607	1755	1805	1615	1755	1805	1608
Q Serve(g_s), s	9.0	4.2	6.5	6.6	6.2	28.0	7.9	8.6	5.6	6.6	8.1	32.1
Cycle Q Clear(g_c), s	9.0	4.2	6.5	6.6	6.2	28.0	7.9	8.6	5.6	6.6	8.1	32.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	1603	497	315	1479	458	359	1259	563	315	1213	540
V/C Ratio(X)	0.83	0.19	0.28	0.76	0.28	1.03	0.81	0.34	0.23	0.76	0.33	0.98
Avail Cap(c_a), veh/h	429	1603	497	429	1479	458	393	1259	563	429	1213	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	24.9	25.7	43.7	27.3	35.1	43.1	23.6	22.7	43.7	24.3	32.3
Incr Delay (d2), s/veh	12.0	0.1	0.3	5.4	0.1	48.9	11.0	0.7	1.0	5.4	0.7	34.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	2.0	2.9	3.4	3.0	18.6	4.4	4.4	2.6	3.4	4.2	19.3
LnGrp Delay(d),s/veh	54.6	24.9	26.0	49.1	27.4	84.0	54.1	24.4	23.6	49.1	25.1	66.6
LnGrp LOS	D	C	C	D	C	F	D	C	C	D	C	E
Approach Vol, veh/h		770			1130			850			1170	
Approach Delay, s/veh		37.8			55.6			34.4			48.8	
Approach LOS		D			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	38.2	12.8	34.4	14.1	37.0	15.2	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	32.0	12.0	28.0	11.0	33.0	12.0	28.0
Max Q Clear Time (g_c+I1), s	13.6	10.6	8.6	8.5	9.9	34.1	11.0	30.0
Green Ext Time (p_c), s	0.3	8.6	0.3	7.1	0.1	0.0	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
116: Ellis Ave & Evans Rd

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	310	170	110	350	400	240
Future Volume (veh/h)	310	170	110	350	400	240
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	310	170	110	350	400	240
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	411	1413	1413	1498	970	866
Arrive On Green	0.39	0.39	0.13	0.13	0.54	0.54
Sat Flow, veh/h	947	3705	3705	1615	1810	1615
Grp Volume(v), veh/h	310	170	110	350	400	240
Grp Sat Flow(s),veh/h/ln	947	1805	1805	1615	1810	1615
Q Serve(g_s), s	34.0	3.3	2.9	2.7	14.5	8.9
Cycle Q Clear(g_c), s	37.0	3.3	2.9	2.7	14.5	8.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	411	1413	1413	1498	970	866
V/C Ratio(X)	0.76	0.12	0.08	0.23	0.41	0.28
Avail Cap(c_a), veh/h	488	1707	1707	1629	970	866
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	33.0	21.4	30.4	0.6	15.2	13.9
Incr Delay (d2), s/veh	5.5	0.0	0.0	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	1.7	1.5	11.7	7.3	4.0
LnGrp Delay(d),s/veh	38.6	21.4	30.5	0.6	15.5	14.1
LnGrp LOS	D	C	C	A	B	B
Approach Vol, veh/h		480	460		640	
Approach Delay, s/veh		32.5	7.8		15.0	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				47.0		63.0		47.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				52.0		50.0		52.0
Max Q Clear Time (g_c+I1), s				39.0		16.5		4.9
Green Ext Time (p_c), s				4.1		2.2		5.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
117: I-215 SB Ramps & Ellis Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	180	380	190	360	0	0	0	0	30	50	100
Future Volume (veh/h)	0	180	380	190	360	0	0	0	0	30	50	100
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	180	0	190	360	0				30	50	100
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	346	155	222	920	0				470	784	1086
Arrive On Green	0.00	0.10	0.00	0.25	0.51	0.00				0.67	0.67	0.67
Sat Flow, veh/h	0	3705	1615	1810	3705	0				699	1166	1615
Grp Volume(v), veh/h	0	180	0	190	360	0				80	0	100
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1865	0	1615
Q Serve(g_s), s	0.0	5.2	0.0	11.0	6.7	0.0				1.6	0.0	2.4
Cycle Q Clear(g_c), s	0.0	5.2	0.0	11.0	6.7	0.0				1.6	0.0	2.4
Prop In Lane	0.00		1.00	1.00		0.00				0.37		1.00
Lane Grp Cap(c), veh/h	0	346	155	222	920	0				1254	0	1086
V/C Ratio(X)	0.00	0.52	0.00	0.86	0.39	0.00				0.06	0.00	0.09
Avail Cap(c_a), veh/h	0	820	367	592	2133	0				1254	0	1086
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.00	0.89	0.89	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	47.3	0.0	40.6	21.7	0.0				6.2	0.0	6.3
Incr Delay (d2), s/veh	0.0	1.2	0.0	8.2	0.2	0.0				0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	0.0	6.0	3.3	0.0				0.9	0.0	1.1
LnGrp Delay(d),s/veh	0.0	48.5	0.0	48.8	22.0	0.0				6.3	0.0	6.5
LnGrp LOS		D		D	C					A		A
Approach Vol, veh/h		180			550						180	
Approach Delay, s/veh		48.5			31.2						6.4	
Approach LOS		D			C						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			17.5	14.5		78.0		32.0
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			36.0	25.0		37.0		65.0
Max Q Clear Time (g_c+I1), s			13.0	7.2		4.4		8.7
Green Ext Time (p_c), s			0.5	3.3		0.8		4.1

Intersection Summary		
HCM 2010 Ctrl Delay		29.7
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
118: I-215 NB Ramps & Ellis Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱	↰	↑	↱			
Traffic Volume (veh/h)	60	150	0	0	340	220	210	140	360	0	0	0
Future Volume (veh/h)	60	150	0	0	340	220	210	140	360	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	60	150	0	0	340	220	210	140	360			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	78	937	0	0	650	291	1208	1269	1079			
Arrive On Green	0.09	0.52	0.00	0.00	0.18	0.18	0.67	0.67	0.67			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1810	1900	1615			
Grp Volume(v), veh/h	60	150	0	0	340	220	210	140	360			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1810	1900	1615			
Q Serve(g_s), s	3.6	2.4	0.0	0.0	9.4	14.2	4.8	2.9	10.5			
Cycle Q Clear(g_c), s	3.6	2.4	0.0	0.0	9.4	14.2	4.8	2.9	10.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	78	937	0	0	650	291	1208	1269	1079			
V/C Ratio(X)	0.77	0.16	0.00	0.00	0.52	0.76	0.17	0.11	0.33			
Avail Cap(c_a), veh/h	247	1674	0	0	1050	470	1208	1269	1079			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	49.7	20.2	0.0	0.0	40.8	42.8	6.9	6.6	7.8			
Incr Delay (d2), s/veh	12.7	0.1	0.0	0.0	0.7	4.0	0.3	0.2	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	1.2	0.0	0.0	4.7	6.7	2.5	1.6	4.8			
LnGrp Delay(d),s/veh	62.5	20.2	0.0	0.0	41.5	46.8	7.2	6.7	8.6			
LnGrp LOS	E	C			D	D	A	A	A			
Approach Vol, veh/h		210			560			710				
Approach Delay, s/veh		32.3			43.6			7.8				
Approach LOS		C			D			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		77.5		32.5			8.7	23.8
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		51.0		51.0			15.0	32.0
Max Q Clear Time (g_c+I1), s		12.5		4.4			5.6	16.2
Green Ext Time (p_c), s		2.9		4.4			0.1	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
119: Evans Rd & San Jacinto Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	10	40	90	50	260	60	320	30	100	410	210
Future Volume (veh/h)	110	10	40	90	50	260	60	320	30	100	410	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	10	40	90	50	260	60	320	30	100	410	210
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	692	323	115	649	303	78	1738	162	127	1271	644
Arrive On Green	0.08	0.20	0.20	0.06	0.19	0.19	0.04	0.52	0.52	0.07	0.55	0.55
Sat Flow, veh/h	1810	3458	1615	1810	3458	1615	1810	3339	311	1810	2322	1176
Grp Volume(v), veh/h	110	10	40	90	50	260	60	172	178	100	318	302
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1810	1805	1845	1810	1805	1692
Q Serve(g_s), s	6.6	0.3	2.2	5.4	1.3	17.1	3.6	5.6	5.6	6.0	10.6	10.8
Cycle Q Clear(g_c), s	6.6	0.3	2.2	5.4	1.3	17.1	3.6	5.6	5.6	6.0	10.6	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.69
Lane Grp Cap(c), veh/h	138	692	323	115	649	303	78	940	961	127	988	927
V/C Ratio(X)	0.80	0.01	0.12	0.78	0.08	0.86	0.77	0.18	0.19	0.79	0.32	0.33
Avail Cap(c_a), veh/h	247	912	426	230	880	411	148	940	961	230	988	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	50.0	35.3	36.1	50.7	36.8	43.3	52.1	14.0	14.0	50.4	13.7	13.7
Incr Delay (d2), s/veh	9.9	0.0	0.2	10.9	0.1	12.7	14.7	0.4	0.4	9.7	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.1	1.0	3.0	0.6	8.7	2.1	2.9	3.0	3.3	5.5	5.3
LnGrp Delay(d),s/veh	59.9	35.3	36.2	61.6	36.9	56.0	66.8	14.4	14.4	60.0	14.5	14.6
LnGrp LOS	E	D	D	E	D	E	E	B	B	E	B	B
Approach Vol, veh/h		160			400			410			720	
Approach Delay, s/veh		52.5			54.8			22.1			20.8	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	61.3	11.0	26.0	8.7	64.2	12.4	24.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	37.0	14.0	29.0	9.0	42.0	15.0	28.0
Max Q Clear Time (g_c+I1), s	8.0	7.6	7.4	4.2	5.6	12.8	8.6	19.1
Green Ext Time (p_c), s	0.1	6.9	0.1	2.4	0.0	6.9	0.1	1.5

Intersection Summary			
HCM 2010 Ctrl Delay			32.2
HCM 2010 LOS			C

HCM 2010 TWSC
120: Park Center Blvd & Ramona Expy WB Ramps

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥			↰			↱	
Traffic Vol, veh/h	0	0	0	10	10	80	50	270	0	0	100	240
Future Vol, veh/h	0	0	0	10	10	80	50	270	0	0	100	240
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	10	10	80	50	270	0	0	100	240

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	590	710	270	340	0	-	-	-	0
Stage 1	370	370	-	-	-	-	-	-	-
Stage 2	220	340	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	474	361	774	1230	-	0	0	-	-
Stage 1	703	624	-	-	-	0	0	-	-
Stage 2	821	643	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	451	0	774	1230	-	-	-	-	-
Mov Cap-2 Maneuver	451	0	-	-	-	-	-	-	-
Stage 1	669	0	-	-	-	-	-	-	-
Stage 2	821	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	1230	-	717	-	-
HCM Lane V/C Ratio	0.041	-	0.139	-	-
HCM Control Delay (s)	8.1	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

HCM 2010 TWSC
121: Park Center Blvd & Ramona Expy EB Ramps

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↱			↰	
Traffic Vol, veh/h	240	0	10	0	0	0	0	80	0	20	80	0
Future Vol, veh/h	240	0	10	0	0	0	0	80	0	20	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	240	0	10	0	0	0	0	80	0	20	80	0

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	200	200	80				-	0	0	80	0	0
Stage 1	120	120	-				-	-	-	-	-	-
Stage 2	80	80	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				-	-	-	2.2	-	-
Pot Cap-1 Maneuver	793	699	986				0	-	-	1531	-	0
Stage 1	910	800	-				0	-	-	-	-	0
Stage 2	948	832	-				0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	782	0	986				-	-	-	1531	-	-
Mov Cap-2 Maneuver	782	0	-				-	-	-	-	-	-
Stage 1	897	0	-				-	-	-	-	-	-
Stage 2	948	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	782	986	1531	-
HCM Lane V/C Ratio	-	-	0.307	0.01	0.013	-
HCM Control Delay (s)	-	-	11.6	8.7	7.4	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0	0	-

Intersection	
Int Delay, s/veh	577.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗		↰	↑	↱	
Traffic Vol, veh/h	270	80	30	1200	900	290
Future Vol, veh/h	270	80	30	1200	900	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	297	88	33	1319	989	319

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2533	1148	1308	0	-	0
Stage 1	1148	-	-	-	-	-
Stage 2	1385	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 31	244	536	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	~ 234	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 29	244	536	-	-	-
Mov Cap-2 Maneuver	~ 29	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	~ 220	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$4570.4	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	536	-	36	-	-
HCM Lane V/C Ratio	0.062	-	10.684	-	-
HCM Control Delay (s)	12.2	$	4570.4	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.2	-	46.7	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
124: SR-79 NB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	157.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Traffic Vol, veh/h	30	520	0	0	900	420	480	10	10	0	0	0
Future Vol, veh/h	30	520	0	0	900	420	480	10	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	553	0	0	957	447	511	11	11	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	957	0	-	-	-	0	1096	1574	277
Stage 1	-	-	-	-	-	-	617	617	-
Stage 2	-	-	-	-	-	-	479	957	-
Critical Hdwy	4.1	-	-	-	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	727	-	0	0	-	-	~ 211	111	726
Stage 1	-	-	0	0	-	-	~ 506	484	-
Stage 2	-	-	0	0	-	-	595	339	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	727	-	-	-	-	-	~ 202	0	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 202	0	-
Stage 1	-	-	-	-	-	-	~ 484	0	-
Stage 2	-	-	-	-	-	-	595	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.6	0	$ 747.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	202	726	727	-	-	-
HCM Lane V/C Ratio	2.581	0.015	0.044	-	-	-
HCM Control Delay (s)	$ 762.1	10	10.2	-	-	-
HCM Lane LOS	F	B	B	-	-	-
HCM 95th %tile Q(veh)	44.3	0	0.1	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	184.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Traffic Vol, veh/h	0	200	980	30	1320	0	0	0	0	380	0	60
Future Vol, veh/h	0	200	980	30	1320	0	0	0	0	380	0	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	213	1043	32	1404	0	0	0	0	404	0	64

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	213	0	0				1574	1681	702
Stage 1	-	-	-	-	-	-				1468	1468	-
Stage 2	-	-	-	-	-	-				106	213	-
Critical Hdwy	-	-	-	4.1	-	-				6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-				5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.8	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1369	-	0				~ 103	96	385
Stage 1	0	-	-	-	-	0				~ 181	194	-
Stage 2	0	-	-	-	-	0				913	730	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1369	-	-				~ 101	0	385
Mov Cap-2 Maneuver	-	-	-	-	-	-				~ 101	0	-
Stage 1	-	-	-	-	-	-				~ 177	0	-
Stage 2	-	-	-	-	-	-				913	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.2	$ 1243.9
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1369	-	101	385
HCM Lane V/C Ratio	-	-	0.023	-	4.003	0.166
HCM Control Delay (s)	-	-	7.7	$ 1437.7		16.2
HCM Lane LOS	-	-	A	-	F	C
HCM 95th %tile Q(veh)	-	-	0.1	-	41.6	0.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

HCM 2010 Signalized Intersection Summary
127: Potrero Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	10	20	60	490	1360	0	0	730	1480
Future Volume (veh/h)	0	0	0	10	20	60	490	1360	0	0	730	1480
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				10	20	0	490	1360	0	0	730	1480
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				26	52	67	454	3131	0	0	2060	922
Arrive On Green				0.04	0.04	0.00	0.25	0.87	0.00	0.00	0.57	0.57
Sat Flow, veh/h				623	1246	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				30	0	0	490	1360	0	0	730	1480
Grp Sat Flow(s),veh/h/ln				1869	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				1.4	0.0	0.0	22.0	7.0	0.0	0.0	9.5	50.0
Cycle Q Clear(g_c), s				1.4	0.0	0.0	22.0	7.0	0.0	0.0	9.5	50.0
Prop In Lane				0.33		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				77	0	67	454	3131	0	0	2060	922
V/C Ratio(X)				0.39	0.00	0.00	1.08	0.43	0.00	0.00	0.35	1.61
Avail Cap(c_a), veh/h				768	0	663	454	3131	0	0	2060	922
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.9	0.0	0.0	32.8	1.2	0.0	0.0	10.1	18.8
Incr Delay (d2), s/veh				3.1	0.0	0.0	65.0	0.1	0.0	0.0	0.1	277.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	0.0	19.1	3.4	0.0	0.0	4.8	93.1
LnGrp Delay(d),s/veh				44.1	0.0	0.0	97.8	1.3	0.0	0.0	10.2	296.6
LnGrp LOS				D			F	A			B	F
Approach Vol, veh/h					30			1850			2210	
Approach Delay, s/veh					44.1			26.9			202.0	
Approach LOS					D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		80.0			26.0	54.0		7.6
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		76.0			22.0	50.0		36.0
Max Q Clear Time (g_c+I1), s		9.0			24.0	52.0		3.4
Green Ext Time (p_c), s		57.6			0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	121.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	730	100	210	0	0	0	0	1120	150	230	500	0
Future Volume (veh/h)	730	100	210	0	0	0	0	1120	150	230	500	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	801	0	0				0	1120	150	230	500	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1006	0	449				0	1435	642	275	2191	0
Arrive On Green	0.28	0.00	0.00				0.00	0.40	0.40	0.15	0.61	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	801	0	0				0	1120	150	230	500	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	14.3	0.0	0.0				0.0	18.8	4.3	8.6	4.4	0.0
Cycle Q Clear(g_c), s	14.3	0.0	0.0				0.0	18.8	4.3	8.6	4.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1006	0	449				0	1435	642	275	2191	0
V/C Ratio(X)	0.80	0.00	0.00				0.00	0.78	0.23	0.84	0.23	0.00
Avail Cap(c_a), veh/h	1874	0	836				0	1558	697	312	2389	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.3	0.0	0.0				0.0	18.3	13.9	28.6	6.2	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.0				0.0	2.4	0.2	16.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	0.0				0.0	9.8	1.9	5.5	2.2	0.0
LnGrp Delay(d),s/veh	24.8	0.0	0.0				0.0	20.7	14.1	44.8	6.3	0.0
LnGrp LOS	C							C	B	D	A	
Approach Vol, veh/h		801						1270			730	
Approach Delay, s/veh		24.8						19.9			18.4	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.6	31.6		23.3		46.2		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	12.0	30.0		36.0		46.0		
Max Q Clear Time (g_c+I1), s	10.6	20.8		16.3		6.4		
Green Ext Time (p_c), s	0.1	6.8		3.1		17.6		

Intersection Summary		
HCM 2010 Ctrl Delay		20.9
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	10	540	260	320	880	20	390	90	70	50	90	10
Future Volume (veh/h)	10	540	260	320	880	20	390	90	70	50	90	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	551	265	327	898	20	398	92	71	51	92	10
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	17	669	565	355	1023	745	394	268	207	66	149	16
Arrive On Green	0.01	0.35	0.35	0.20	0.54	0.54	0.22	0.27	0.27	0.04	0.09	0.09
Sat Flow, veh/h	1810	1900	1604	1810	1900	1382	1810	991	765	1810	1681	183
Grp Volume(v), veh/h	10	551	265	327	898	20	398	0	163	51	0	102
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	1900	1382	1810	0	1757	1810	0	1864
Q Serve(g_s), s	0.6	29.1	14.1	19.5	45.5	0.7	24.0	0.0	8.2	3.1	0.0	5.8
Cycle Q Clear(g_c), s	0.6	29.1	14.1	19.5	45.5	0.7	24.0	0.0	8.2	3.1	0.0	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.44	1.00		0.10
Lane Grp Cap(c), veh/h	17	669	565	355	1023	745	394	0	474	66	0	165
V/C Ratio(X)	0.58	0.82	0.47	0.92	0.88	0.03	1.01	0.00	0.34	0.77	0.00	0.62
Avail Cap(c_a), veh/h	66	725	612	361	1035	753	394	0	510	131	0	271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.3	32.6	27.7	43.4	22.2	11.9	43.1	0.0	32.3	52.6	0.0	48.4
Incr Delay (d2), s/veh	26.9	7.2	0.6	28.3	8.6	0.0	47.7	0.0	0.4	17.0	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	16.6	6.3	12.5	26.2	0.3	17.2	0.0	4.0	1.9	0.0	3.2
LnGrp Delay(d),s/veh	81.2	39.7	28.3	71.7	30.9	11.9	90.8	0.0	32.8	69.6	0.0	52.1
LnGrp LOS	F	D	C	E	C	B	F		C	E		D
Approach Vol, veh/h		826			1245			561			153	
Approach Delay, s/veh		36.6			41.3			73.9			57.9	
Approach LOS		D			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	33.7	25.6	42.8	28.0	13.8	5.1	63.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	32.0	22.0	42.0	24.0	16.0	4.0	60.0
Max Q Clear Time (g_c+I1), s	5.1	10.2	21.5	31.1	26.0	7.8	2.6	47.5
Green Ext Time (p_c), s	0.0	1.5	0.1	7.6	0.0	0.9	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	47.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	530	80	240	880	200	150	350	180	400	630	200
Future Volume (veh/h)	80	530	80	240	880	200	150	350	180	400	630	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	552	83	250	917	208	156	365	188	417	656	208
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	1558	234	373	940	717	184	498	252	340	810	257
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.10	0.22	0.22	0.19	0.30	0.30
Sat Flow, veh/h	509	3148	472	805	1900	1449	1810	2315	1173	1810	2693	853
Grp Volume(v), veh/h	83	316	319	250	917	208	156	283	270	417	440	424
Grp Sat Flow(s),veh/h/ln	509	1805	1815	805	1900	1449	1810	1805	1683	1810	1805	1741
Q Serve(g_s), s	2.8	12.6	12.6	32.4	55.2	9.9	9.9	17.1	17.6	22.0	26.4	26.4
Cycle Q Clear(g_c), s	58.0	12.6	12.6	45.0	55.2	9.9	9.9	17.1	17.6	22.0	26.4	26.4
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.70	1.00		0.49
Lane Grp Cap(c), veh/h	73	893	898	373	940	717	184	388	362	340	543	524
V/C Ratio(X)	1.13	0.35	0.36	0.67	0.98	0.29	0.85	0.73	0.75	1.23	0.81	0.81
Avail Cap(c_a), veh/h	73	893	898	373	940	717	216	431	402	340	554	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	18.1	18.1	31.9	28.9	17.5	51.7	42.8	43.0	47.6	37.9	37.9
Incr Delay (d2), s/veh	144.9	0.2	0.2	4.6	23.4	0.2	22.9	5.5	6.7	125.8	8.6	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	6.3	6.4	7.6	34.9	4.0	6.2	9.1	8.8	22.8	14.5	14.0
LnGrp Delay(d),s/veh	203.3	18.4	18.4	36.6	52.3	17.7	74.6	48.3	49.7	173.4	46.5	46.8
LnGrp LOS	F	B	B	D	D	B	E	D	D	F	D	D
Approach Vol, veh/h		718			1375			709			1281	
Approach Delay, s/veh		39.8			44.2			54.6			87.9	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.0	29.2		62.0	15.9	39.3		62.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	22.0	28.0		58.0	14.0	36.0		58.0
Max Q Clear Time (g_c+I1), s	24.0	19.6		60.0	11.9	28.4		57.2
Green Ext Time (p_c), s	0.0	5.3		0.0	0.1	4.9		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	58.9
HCM 2010 LOS	E

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱			↰↑	↰	↱
Traffic Volume (vph)	230	840	20	390	1310	10
Future Volume (vph)	230	840	20	390	1310	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	0.98
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.88			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3140			3601	1710	1587
Flt Permitted	1.00			0.60	0.95	1.00
Satd. Flow (perm)	3140			2180	1710	1587
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	271	988	24	459	1541	12
RTOR Reduction (vph)	551	0	0	0	0	3
Lane Group Flow (vph)	708	0	0	483	1541	9
Confl. Peds. (#/hr)		5	5			5
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases			8			2
Actuated Green, G (s)	28.6			28.6	81.0	81.0
Effective Green, g (s)	28.6			28.6	81.0	81.0
Actuated g/C Ratio	0.24			0.24	0.68	0.68
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	750			521	1158	1074
v/s Ratio Prot	c0.23				c0.90	
v/s Ratio Perm				0.22		0.01
v/c Ratio	1.05dr			0.93	1.33	0.01
Uniform Delay, d1	44.7			44.5	19.3	6.3
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	20.3			22.7	154.8	0.0
Delay (s)	65.0			67.1	174.1	6.3
Level of Service	E			E	F	A
Approach Delay (s)	65.0			67.1	172.8	
Approach LOS	E			E	F	

Intersection Summary			
HCM 2000 Control Delay	116.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	119.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	118.9%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM 2010 AWSC
132: San Timoteo Canyon Rd & Alessandro Rd

Intersection	
Intersection Delay, s/veh	83.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑↱			↰↑↱	
Traffic Vol, veh/h	20	480	0	0	1040	180	0	0	0	280	0	50
Future Vol, veh/h	20	480	0	0	1040	180	0	0	0	280	0	50
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	495	0	0	1072	186	0	0	0	289	0	52
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	20.3	125.7	0	21.6
HCM LOS	C	F	-	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	11%	0%	0%	0%	85%
Vol Thru, %	100%	89%	100%	100%	66%	0%
Vol Right, %	0%	0%	0%	0%	34%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	180	320	693	527	330
LT Vol	0	20	0	0	0	280
Through Vol	0	160	320	693	347	0
RT Vol	0	0	0	0	180	50
Lane Flow Rate	0	186	330	715	543	340
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0	0.373	0.658	1.324	0.969	0.643
Departure Headway (Hd)	8.396	7.575	7.518	6.667	6.422	6.93
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	479	485	550	565	524
Service Time	6.396	5.275	5.218	4.414	4.169	4.93
HCM Lane V/C Ratio	0	0.388	0.68	1.3	0.961	0.649
HCM Control Delay	11.4	14.7	23.5	178.8	55.8	21.6
HCM Lane LOS	N	B	C	F	F	C
HCM 95th-tile Q	0	1.7	4.7	30.5	13.2	4.5

Intersection	
Intersection Delay, s/veh	345.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥		↰	↱	
Traffic Vol, veh/h	10	700	30	0	1030	100	20	10	10	240	10	150
Future Vol, veh/h	10	700	30	0	1030	100	20	10	10	240	10	150
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	737	32	0	1084	105	21	11	11	253	11	158
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	227.7	549.3	17.2	22.4
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	50%	1%	0%	100%	0%
Vol Thru, %	25%	95%	91%	0%	6%
Vol Right, %	25%	4%	9%	0%	94%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	740	1130	240	160
LT Vol	20	10	0	240	0
Through Vol	10	700	1030	0	10
RT Vol	10	30	100	0	150
Lane Flow Rate	42	779	1189	253	168
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.103	1.427	2.169	0.581	0.333
Departure Headway (Hd)	12.778	8.199	7.217	10.353	9.129
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	283	452	511	351	397
Service Time	10.778	6.199	5.217	8.053	6.829
HCM Lane V/C Ratio	0.148	1.723	2.327	0.721	0.423
HCM Control Delay	17.2	227.7	549.3	26.5	16.3
HCM Lane LOS	C	F	F	D	C
HCM 95th-tile Q	0.3	31	78.1	3.5	1.4

HCM 2010 AWSC
134: Redlands Blvd & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	529.4
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	430	540	550	650	650	330
Future Vol, veh/h	430	540	550	650	650	330
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	443	557	567	670	670	340
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	420.8	678.1	454.9
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	66%	0%	46%
Vol Thru, %	0%	44%	54%
Vol Right, %	34%	56%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	980	970	1200
LT Vol	650	0	550
Through Vol	0	430	650
RT Vol	330	540	0
Lane Flow Rate	1010	1000	1237
Geometry Grp	1	1	1
Degree of Util (X)	1.944	1.851	2.436
Departure Headway (Hd)	9.116	11.422	10.91
Convergence, Y/N	Yes	Yes	Yes
Cap	414	330	346
Service Time	7.116	9.422	8.91
HCM Lane V/C Ratio	2.44	3.03	3.575
HCM Control Delay	454.9	420.8	678.1
HCM Lane LOS	F	F	F
HCM 95th-tile Q	52.1	39.1	63.9

Intersection	
Int Delay, s/veh	9.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	40	80	210	130	110	230
Future Vol, veh/h	40	80	210	130	110	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	82	216	134	113	237

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	649	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	567	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1475	-	438	983
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1475	-	369	983
Mov Cap-2 Maneuver	-	-	-	-	369	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	482	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	639	-	-	1475	-
HCM Lane V/C Ratio	0.549	-	-	0.147	-
HCM Control Delay (s)	17.3	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.3	-	-	0.5	-

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	10	10	30	10	20	0	230	10	10	260	10
Future Vol, veh/h	10	10	10	30	10	20	0	230	10	10	260	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	34	11	22	0	258	11	11	292	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.7	9.8	10.3
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	33%	50%	4%
Vol Thru, %	96%	33%	17%	93%
Vol Right, %	4%	33%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	30	60	280
LT Vol	0	10	30	10
Through Vol	230	10	10	260
RT Vol	10	10	20	10
Lane Flow Rate	270	34	67	315
Geometry Grp	1	1	1	1
Degree of Util (X)	0.335	0.048	0.096	0.388
Departure Headway (Hd)	4.471	5.157	5.134	4.436
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	804	691	695	812
Service Time	2.503	3.214	3.187	2.466
HCM Lane V/C Ratio	0.336	0.049	0.096	0.388
HCM Control Delay	9.8	8.5	8.7	10.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.5	0.2	0.3	1.8

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱		↰↑
Traffic Vol, veh/h	320	20	60	540	20	50
Future Vol, veh/h	320	20	60	540	20	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	381	24	71	643	24	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	178	71	0	0	71	0
Stage 1	71	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	816	997	-	-	1542	-
Stage 1	957	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	803	997	-	-	1542	-
Mov Cap-2 Maneuver	803	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	803	997	1542	-
HCM Lane V/C Ratio	-	-	0.474	0.024	0.015	-
HCM Control Delay (s)	-	-	13.5	8.7	7.4	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	2.6	0.1	0	-

HCM 2010 Signalized Intersection Summary
6: Gilman Springs Rd & Alessandro Blvd

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	0	500	290	1700	2830	0
Future Volume (veh/h)	0	500	290	1700	2830	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	532	309	1809	3011	0
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	338	301	302	3942	2939	915
Arrive On Green	0.00	0.19	0.17	0.76	0.57	0.00
Sat Flow, veh/h	1810	1615	1810	5358	5358	1615
Grp Volume(v), veh/h	0	532	309	1809	3011	0
Grp Sat Flow(s),veh/h/ln	1810	1615	1810	1729	1729	1615
Q Serve(g_s), s	0.0	28.0	25.0	19.3	85.0	0.0
Cycle Q Clear(g_c), s	0.0	28.0	25.0	19.3	85.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	338	301	302	3942	2939	915
V/C Ratio(X)	0.00	1.76	1.02	0.46	1.02	0.00
Avail Cap(c_a), veh/h	338	301	302	3942	2939	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	61.0	62.5	6.6	32.5	0.0
Incr Delay (d2), s/veh	0.0	357.4	58.3	0.1	23.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	52.6	17.4	9.1	46.6	0.0
LnGrp Delay(d),s/veh	0.0	418.4	120.8	6.7	55.7	0.0
LnGrp LOS		F	F	A	F	
Approach Vol, veh/h	532			2118	3011	
Approach Delay, s/veh	418.4			23.4	55.7	
Approach LOS	F			C	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		118.0		32.0	29.0	89.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		114.0		28.0	25.0	85.0		
Max Q Clear Time (g_c+I1), s		21.3		30.0	27.0	87.0		
Green Ext Time (p_c), s		88.4		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	77.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	160	5	60	20	15	10	20	910	10	5	940	30
Future Volume (veh/h)	160	5	60	20	15	10	20	910	10	5	940	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	5	65	22	16	11	22	989	11	5	1022	33
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	354	21	90	242	167	87	230	1154	977	252	1154	977
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	995	94	396	593	733	384	543	1900	1608	572	1900	1608
Grp Volume(v), veh/h	244	0	0	49	0	0	22	989	11	5	1022	33
Grp Sat Flow(s),veh/h/ln	1485	0	0	1709	0	0	543	1900	1608	572	1900	1608
Q Serve(g_s), s	6.2	0.0	0.0	0.0	0.0	0.0	1.7	20.7	0.1	0.4	22.2	0.4
Cycle Q Clear(g_c), s	7.3	0.0	0.0	1.0	0.0	0.0	23.9	20.7	0.1	21.0	22.2	0.4
Prop In Lane	0.71		0.27	0.45		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	0	0	497	0	0	230	1154	977	252	1154	977
V/C Ratio(X)	0.52	0.00	0.00	0.10	0.00	0.00	0.10	0.86	0.01	0.02	0.89	0.03
Avail Cap(c_a), veh/h	792	0	0	846	0	0	236	1174	994	258	1174	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	0.0	14.9	0.0	0.0	18.3	7.8	3.8	16.4	8.1	3.8
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.1	0.0	0.0	0.2	6.4	0.0	0.0	8.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	0.5	0.0	0.0	0.3	12.5	0.1	0.1	14.0	0.2
LnGrp Delay(d),s/veh	18.1	0.0	0.0	15.0	0.0	0.0	18.4	14.2	3.8	16.5	16.4	3.8
LnGrp LOS	B			B			B	B	A	B	B	A
Approach Vol, veh/h		244			49			1022			1060	
Approach Delay, s/veh		18.1			15.0			14.2			16.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.5		15.1		33.5		15.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		25.9		9.3		24.2		3.0
Green Ext Time (p_c), s		3.6		1.2		4.9		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

	⤴	→	⤵	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	160	110	110	30	60	10	40	760	30	10	840	200
Future Volume (veh/h)	160	110	110	30	60	10	40	760	30	10	840	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	163	112	112	31	61	10	41	776	31	10	857	204
Adj No. of Lanes	0	2	0	0	2	0	1	2	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	260	186	191	120	250	42	106	1452	58	33	1335	595
Arrive On Green	0.18	0.18	0.18	0.11	0.11	0.11	0.06	0.41	0.41	0.02	0.37	0.37
Sat Flow, veh/h	1439	1032	1060	1071	2227	377	1810	3538	141	1810	3610	1608
Grp Volume(v), veh/h	207	0	180	53	0	49	41	396	411	10	857	204
Grp Sat Flow(s),veh/h/ln	1828	0	1702	1846	0	1828	1810	1805	1874	1810	1805	1608
Q Serve(g_s), s	6.0	0.0	5.6	1.5	0.0	1.4	1.3	9.5	9.5	0.3	11.2	5.2
Cycle Q Clear(g_c), s	6.0	0.0	5.6	1.5	0.0	1.4	1.3	9.5	9.5	0.3	11.2	5.2
Prop In Lane	0.79		0.62	0.58		0.21	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	330	0	307	207	0	205	106	741	769	33	1335	595
V/C Ratio(X)	0.63	0.00	0.59	0.26	0.00	0.24	0.39	0.53	0.53	0.31	0.64	0.34
Avail Cap(c_a), veh/h	797	0	742	837	0	829	221	818	850	221	1637	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	21.5	23.3	0.0	23.2	26.0	12.8	12.8	27.8	14.9	13.0
Incr Delay (d2), s/veh	2.0	0.0	1.8	0.7	0.0	0.6	2.3	0.6	0.6	5.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	2.7	0.8	0.0	0.7	0.7	4.9	5.0	0.2	5.7	2.4
LnGrp Delay(d),s/veh	23.7	0.0	23.3	23.9	0.0	23.8	28.3	13.4	13.3	33.0	15.5	13.4
LnGrp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		387			102			848			1071	
Approach Delay, s/veh		23.5			23.9			14.1			15.3	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	27.5		14.3	7.4	25.2		10.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	26.0		25.0	7.0	26.0		26.0
Max Q Clear Time (g_c+I1), s	2.3	11.5		8.0	3.3	13.2		3.5
Green Ext Time (p_c), s	0.0	8.6		1.8	0.0	7.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	23.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↑	↱	↰	↑
Traffic Vol, veh/h	420	80	30	390	120	30
Future Vol, veh/h	420	80	30	390	120	30
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	494	94	35	459	141	35

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	358	45	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	644	1031	-	-	1583	-
Stage 1	988	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	584	1022	-	-	1576	-
Mov Cap-2 Maneuver	584	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	676	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	48	0	6
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	627	1576	-
HCM Lane V/C Ratio	-	-	0.938	0.09	-
HCM Control Delay (s)	-	-	48	7.5	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	12.6	0.3	-

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & SR 60 WB Ramps/SR-60 WB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑	↱		↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	0	0	0	440	0	180	0	700	140	0	690	330
Future Volume (veh/h)	0	0	0	440	0	180	0	700	140	0	690	330
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				449	0	184	0	714	0	0	704	337
Adj No. of Lanes				1	1	1	0	2	1	0	2	1
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				609	639	541	0	1593	712	0	1593	710
Arrive On Green				0.34	0.00	0.34	0.00	0.44	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1810	1900	1608	0	3705	1615	0	3705	1610
Grp Volume(v), veh/h				449	0	184	0	714	0	0	704	337
Grp Sat Flow(s),veh/h/ln				1810	1900	1608	0	1805	1615	0	1805	1610
Q Serve(g_s), s				7.9	0.0	3.1	0.0	5.0	0.0	0.0	4.9	5.3
Cycle Q Clear(g_c), s				7.9	0.0	3.1	0.0	5.0	0.0	0.0	4.9	5.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				609	639	541	0	1593	712	0	1593	710
V/C Ratio(X)				0.74	0.00	0.34	0.00	0.45	0.00	0.00	0.44	0.47
Avail Cap(c_a), veh/h				1259	1321	1118	0	2209	988	0	2209	985
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.5	0.0	8.9	0.0	7.0	0.0	0.0	7.0	7.1
Incr Delay (d2), s/veh				1.8	0.0	0.4	0.0	0.2	0.0	0.0	0.2	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.2	0.0	1.4	0.0	2.4	0.0	0.0	2.4	2.4
LnGrp Delay(d),s/veh				12.3	0.0	9.3	0.0	7.2	0.0	0.0	7.2	7.6
LnGrp LOS				B		A		A			A	A
Approach Vol, veh/h					633			714			1041	
Approach Delay, s/veh					11.4			7.2			7.3	
Approach LOS					B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		19.9				19.9		16.1
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		22.0				22.0		25.0
Max Q Clear Time (g_c+I1), s		7.0				7.3		9.9
Green Ext Time (p_c), s		8.3				8.2		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps/SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱					↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	440	0	130	0	0	0	0	520	970	0	850	270
Future Volume (veh/h)	440	0	130	0	0	0	0	520	970	0	850	270
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	454	0	134				0	536	1000	0	876	0
Adj No. of Lanes	1	1	1				0	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	550	578	491				0	1938	867	0	1938	867
Arrive On Green	0.30	0.00	0.30				0.00	0.54	0.54	0.00	0.54	0.00
Sat Flow, veh/h	1810	1900	1615				0	3705	1615	0	3705	1615
Grp Volume(v), veh/h	454	0	134				0	536	1000	0	876	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1805	1615	0	1805	1615
Q Serve(g_s), s	11.7	0.0	3.2				0.0	4.1	27.0	0.0	7.5	0.0
Cycle Q Clear(g_c), s	11.7	0.0	3.2				0.0	4.1	27.0	0.0	7.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	550	578	491				0	1938	867	0	1938	867
V/C Ratio(X)	0.83	0.00	0.27				0.00	0.28	1.15	0.00	0.45	0.00
Avail Cap(c_a), veh/h	900	945	803				0	1938	867	0	1938	867
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	13.3				0.0	6.3	11.6	0.0	7.1	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.3				0.0	0.1	82.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	1.5				0.0	2.0	31.6	0.0	3.7	0.0
LnGrp Delay(d),s/veh	19.6	0.0	13.6				0.0	6.4	93.8	0.0	7.3	0.0
LnGrp LOS	B		B					A	F		A	
Approach Vol, veh/h		588						1536			876	
Approach Delay, s/veh		18.2						63.3			7.3	
Approach LOS		B						E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		31.0		19.3		31.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		27.0		25.0		27.0		
Max Q Clear Time (g_c+I1), s		29.0		13.7		9.5		
Green Ext Time (p_c), s		0.0		1.6		12.2		

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Traffic Vol, veh/h	30	140	280	50	220	220
Future Vol, veh/h	30	140	280	50	220	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	34	157	315	56	247	247

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1057	315	0	0	315	0
Stage 1	315	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	251	730	-	-	1257	-
Stage 1	744	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	202	730	-	-	1257	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	381	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	4.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	202	730	1257	-
HCM Lane V/C Ratio	-	-	0.167	0.215	0.197	-
HCM Control Delay (s)	-	-	26.4	11.3	8.6	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.8	0.7	-

HCM 2010 TWSC
16: Theodore St & SR-60 EB Ramps

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↱	
Traffic Vol, veh/h	40	50	90	250	40	220
Future Vol, veh/h	40	50	90	250	40	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	270	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	67	120	333	53	293

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	773	200	347	0	-	0
Stage 1	200	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	370	846	1223	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	334	846	1223	-	-	-
Mov Cap-2 Maneuver	334	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	512	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1223	-	334	846	-	-
HCM Lane V/C Ratio	0.098	-	0.16	0.079	-	-
HCM Control Delay (s)	8.3	-	17.8	9.6	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	0.3	-	-

HCM 2010 Signalized Intersection Summary
18: Redlands Blvd & Fir Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	720	40	110	10	10	80	60	710	40	180	520	260
Future Volume (veh/h)	720	40	110	10	10	80	60	710	40	180	520	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	783	43	120	11	11	87	65	772	43	196	565	283
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	791	224	625	32	16	126	89	815	45	212	703	352
Arrive On Green	0.44	0.51	0.51	0.02	0.09	0.09	0.05	0.23	0.23	0.12	0.30	0.30
Sat Flow, veh/h	1810	443	1235	1810	184	1458	1810	3477	194	1810	2328	1164
Grp Volume(v), veh/h	783	0	163	11	0	98	65	401	414	196	438	410
Grp Sat Flow(s),veh/h/ln	1810	0	1678	1810	0	1643	1810	1805	1866	1810	1805	1688
Q Serve(g_s), s	54.9	0.0	6.8	0.8	0.0	7.4	4.5	28.0	28.0	13.7	28.6	28.7
Cycle Q Clear(g_c), s	54.9	0.0	6.8	0.8	0.0	7.4	4.5	28.0	28.0	13.7	28.6	28.7
Prop In Lane	1.00		0.74	1.00		0.89	1.00		0.10	1.00		0.69
Lane Grp Cap(c), veh/h	791	0	849	32	0	142	89	423	437	212	545	510
V/C Ratio(X)	0.99	0.00	0.19	0.34	0.00	0.69	0.73	0.95	0.95	0.92	0.80	0.80
Avail Cap(c_a), veh/h	791	0	878	99	0	231	99	423	437	212	545	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	0.0	17.3	62.1	0.0	56.8	60.0	48.2	48.3	56.0	41.2	41.2
Incr Delay (d2), s/veh	29.2	0.0	0.1	6.2	0.0	5.9	21.4	30.7	30.1	41.4	8.5	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.8	0.0	3.2	0.4	0.0	3.6	2.8	17.5	18.0	9.3	15.5	14.6
LnGrp Delay(d),s/veh	65.0	0.0	17.4	68.4	0.0	62.8	81.4	78.9	78.4	97.3	49.6	50.3
LnGrp LOS	E		B	E		E	F	E	E	F	D	D
Approach Vol, veh/h		946			109			880			1044	
Approach Delay, s/veh		56.8			63.3			78.9			58.8	
Approach LOS		E			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	34.0	6.3	68.8	10.3	42.7	60.0	15.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	30.0	7.0	67.0	7.0	38.0	56.0	18.0
Max Q Clear Time (g_c+I1), s	15.7	30.0	2.8	8.8	6.5	30.7	56.9	9.4
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	0.0	4.8	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.3
HCM 2010 LOS	E

HCM 2010 TWSC
19: Theodore St & Fir Ave

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑	↑	↱
Traffic Vol, veh/h	260	30	10	70	30	40
Future Vol, veh/h	260	30	10	70	30	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	280	0	120	-	-	120
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	382	44	15	103	44	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	176	44	44	0	-	0
Stage 1	44	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	818	1032	1577	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	810	1032	1577	-	-	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	EB		NB		SB
HCM Control Delay, s	12.9		0.9		0
HCM LOS	B				

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1577	-	810	1032	-	-
HCM Lane V/C Ratio	0.009	-	0.472	0.043	-	-
HCM Control Delay (s)	7.3	-	13.4	8.6	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	2.6	0.1	-	-

Intersection	
Int Delay, s/veh	18.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰	↱		↰↑↱	
Traffic Vol, veh/h	10	900	100	20	480	0	80	0	30	0	0	10
Future Vol, veh/h	10	900	100	20	480	0	80	0	30	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	1125	125	25	600	0	100	0	38	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	600	0	0	1250	0	0	1563	1863	625	1238	1925	300
Stage 1	-	-	-	-	-	-	1213	1213	-	650	650	-
Stage 2	-	-	-	-	-	-	350	650	-	588	1275	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	987	-	-	564	-	-	~ 77	74	433	134	68	702
Stage 1	-	-	-	-	-	-	196	257	-	429	468	-
Stage 2	-	-	-	-	-	-	645	468	-	467	240	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	987	-	-	564	-	-	~ 69	66	433	112	61	702
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 69	66	-	112	61	-
Stage 1	-	-	-	-	-	-	187	245	-	410	437	-
Stage 2	-	-	-	-	-	-	592	437	-	407	229	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.9	271.9	10.2
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	69	433	987	-	-	564	-	-	702
HCM Lane V/C Ratio	1.449	0.087	0.013	-	-	0.044	-	-	0.018
HCM Control Delay (s)	$ 368.6	14.1	8.7	0.2	-	11.7	0.4	-	10.2
HCM Lane LOS	F	B	A	A	-	B	A	-	B
HCM 95th %tile Q(veh)	8.4	0.3	0	-	-	0.1	-	-	0.1

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	170	590	130	140	290	60	100	960	250	50	1020	80
Future Volume (veh/h)	170	590	130	140	290	60	100	960	250	50	1020	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	215	747	165	177	367	76	127	1215	316	63	1291	101
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	414	862	190	214	545	112	155	1341	349	118	1504	118
Arrive On Green	0.23	0.29	0.29	0.12	0.18	0.18	0.09	0.33	0.33	0.07	0.31	0.31
Sat Flow, veh/h	1810	2938	649	1810	2981	611	1810	4098	1066	1810	4904	384
Grp Volume(v), veh/h	215	459	453	177	221	222	127	1025	506	63	910	482
Grp Sat Flow(s),veh/h/ln	1810	1805	1782	1810	1805	1786	1810	1729	1706	1810	1729	1830
Q Serve(g_s), s	8.5	19.7	19.7	7.8	9.3	9.5	5.6	23.1	23.1	2.8	20.2	20.2
Cycle Q Clear(g_c), s	8.5	19.7	19.7	7.8	9.3	9.5	5.6	23.1	23.1	2.8	20.2	20.2
Prop In Lane	1.00		0.36	1.00		0.34	1.00		0.62	1.00		0.21
Lane Grp Cap(c), veh/h	414	530	523	214	330	327	155	1131	558	118	1060	561
V/C Ratio(X)	0.52	0.87	0.87	0.83	0.67	0.68	0.82	0.91	0.91	0.53	0.86	0.86
Avail Cap(c_a), veh/h	414	575	568	222	575	569	155	1131	558	155	1102	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	27.3	27.3	35.2	31.0	31.1	36.7	26.2	26.3	36.9	26.6	26.6
Incr Delay (d2), s/veh	1.2	12.5	12.6	21.7	2.3	2.5	27.8	10.5	18.5	3.7	6.8	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	11.7	11.5	5.2	4.8	4.9	4.0	12.6	13.7	1.5	10.6	12.0
LnGrp Delay(d),s/veh	28.7	39.8	40.0	56.8	33.4	33.6	64.5	36.7	44.7	40.6	33.4	38.6
LnGrp LOS	C	D	D	E	C	C	E	D	D	D	C	D
Approach Vol, veh/h		1127			620			1658			1455	
Approach Delay, s/veh		37.7			40.2			41.3			35.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	30.7	13.6	27.9	11.0	29.0	22.7	18.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	10.0	26.0	7.0	26.0	10.0	26.0
Max Q Clear Time (g_c+I1), s	4.8	25.1	9.8	21.7	7.6	22.2	10.5	11.5
Green Ext Time (p_c), s	0.0	0.8	0.0	2.0	0.0	2.8	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.6
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	150	700	20	0	330	10	10	0	0	20	0	130
Future Volume (veh/h)	150	700	20	0	330	10	10	0	0	20	0	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	700	20	0	330	10	10	0	0	20	0	130
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	732	1760	50	269	1757	53	448	399	0	569	0	337
Arrive On Green	0.49	0.49	0.49	0.00	0.49	0.49	0.21	0.00	0.00	0.21	0.00	0.21
Sat Flow, veh/h	1054	3584	102	744	3577	108	1274	1900	0	1430	0	1606
Grp Volume(v), veh/h	150	352	368	0	166	174	10	0	0	20	0	130
Grp Sat Flow(s),veh/h/ln	1054	1805	1881	744	1805	1880	1274	1900	0	1430	0	1606
Q Serve(g_s), s	2.5	3.3	3.3	0.0	1.4	1.4	0.2	0.0	0.0	0.3	0.0	1.9
Cycle Q Clear(g_c), s	3.9	3.3	3.3	0.0	1.4	1.4	2.0	0.0	0.0	0.3	0.0	1.9
Prop In Lane	1.00		0.05	1.00		0.06	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	732	886	924	269	886	923	448	399	0	569	0	337
V/C Ratio(X)	0.20	0.40	0.40	0.00	0.19	0.19	0.02	0.00	0.00	0.04	0.00	0.39
Avail Cap(c_a), veh/h	1238	1754	1828	627	1754	1827	1418	1846	0	1658	0	1560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.9	4.3	4.3	0.0	3.8	3.8	10.0	0.0	0.0	8.5	0.0	9.1
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	1.7	0.0	0.7	0.7	0.1	0.0	0.0	0.1	0.0	0.9
LnGrp Delay(d),s/veh	5.0	4.6	4.6	0.0	3.9	3.9	10.0	0.0	0.0	8.5	0.0	9.8
LnGrp LOS	A	A	A		A	A	A			A		A
Approach Vol, veh/h		870			340			10			150	
Approach Delay, s/veh		4.7			3.9			10.0			9.6	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.6		17.1		9.6		17.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0
Max Q Clear Time (g_c+I1), s		4.0		5.9		3.9		3.4
Green Ext Time (p_c), s		0.8		6.8		0.8		7.1

Intersection Summary	
HCM 2010 Ctrl Delay	5.1
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	174.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			✥			↰	↗		↰↱	
Traffic Vol, veh/h	190	470	50	130	190	40	30	540	260	40	450	110
Future Vol, veh/h	190	470	50	130	190	40	30	540	260	40	450	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	207	511	54	141	207	43	33	587	283	43	489	120
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	211.5	116.5	248.7	63
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	5%	0%	100%	0%	36%	15%	0%
Vol Thru, %	95%	0%	0%	90%	53%	85%	67%
Vol Right, %	0%	100%	0%	10%	11%	0%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	570	260	190	520	360	265	335
LT Vol	30	0	190	0	130	40	0
Through Vol	540	0	0	470	190	225	225
RT Vol	0	260	0	50	40	0	110
Lane Flow Rate	620	283	207	565	391	288	364
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1.686	0.712	0.59	1.527	1.101	0.79	0.968
Departure Headway (Hd)	10.778	10.006	11.281	10.681	11.604	11.384	11.058
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	341	365	322	345	317	320	331
Service Time	8.478	7.706	8.981	8.381	9.604	9.084	8.758
HCM Lane V/C Ratio	1.818	0.775	0.643	1.638	1.233	0.9	1.1
HCM Control Delay	346.7	34	29	278.2	116.5	46.1	76.3
HCM Lane LOS	F	D	D	F	F	E	F
HCM 95th-tile Q	34.7	5.3	3.5	28.9	13.4	6.4	10.2

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	10	450	180	210	250	40	70	60	220	50	70	10
Future Volume (veh/h)	10	450	180	210	250	40	70	60	220	50	70	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	584	234	273	325	52	91	78	286	65	91	13
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	804	321	185	1245	197	185	439	390	185	773	108
Arrive On Green	0.02	0.32	0.32	0.10	0.40	0.40	0.10	0.24	0.24	0.10	0.24	0.24
Sat Flow, veh/h	1810	2516	1006	1810	3120	494	1810	1805	1605	1810	3178	445
Grp Volume(v), veh/h	13	419	399	273	187	190	91	78	286	65	51	53
Grp Sat Flow(s),veh/h/ln	1810	1805	1717	1810	1805	1809	1810	1805	1605	1810	1805	1818
Q Serve(g_s), s	0.5	14.1	14.1	7.0	4.8	4.8	3.3	2.3	11.3	2.3	1.5	1.6
Cycle Q Clear(g_c), s	0.5	14.1	14.1	7.0	4.8	4.8	3.3	2.3	11.3	2.3	1.5	1.6
Prop In Lane	1.00		0.59	1.00		0.27	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	41	577	549	185	720	722	185	439	390	185	439	442
V/C Ratio(X)	0.32	0.73	0.73	1.48	0.26	0.26	0.49	0.18	0.73	0.35	0.12	0.12
Avail Cap(c_a), veh/h	185	737	701	185	737	738	739	737	655	686	684	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	20.7	20.7	30.8	13.8	13.8	29.1	20.5	23.9	28.7	20.2	20.2
Incr Delay (d2), s/veh	4.5	2.6	2.8	242.1	0.2	0.2	2.0	0.2	2.7	1.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.4	7.1	15.9	2.4	2.5	1.7	1.2	5.3	1.2	0.8	0.8
LnGrp Delay(d),s/veh	37.5	23.3	23.5	272.9	14.0	14.0	31.2	20.7	26.6	29.8	20.3	20.4
LnGrp LOS	D	C	C	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		831			650			455			169	
Approach Delay, s/veh		23.6			122.8			26.5			24.0	
Approach LOS		C			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	20.7	11.0	25.9	11.0	20.7	5.5	31.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	28.0	7.0	28.0	28.0	26.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	4.3	13.3	9.0	16.1	5.3	3.6	2.5	6.8
Green Ext Time (p_c), s	0.1	2.3	0.0	5.1	0.2	2.6	0.0	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	54.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑	↱	↰	↑↑↑↱	
Traffic Volume (veh/h)	290	260	140	20	150	90	110	860	30	110	740	330
Future Volume (veh/h)	290	260	140	20	150	90	110	860	30	110	740	330
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	358	321	173	25	185	111	136	1062	37	136	914	407
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	393	836	441	65	408	233	168	1208	596	167	1174	522
Arrive On Green	0.22	0.37	0.37	0.04	0.18	0.18	0.09	0.33	0.33	0.09	0.33	0.33
Sat Flow, veh/h	1810	2283	1203	1810	2209	1261	1810	3610	1608	1810	3512	1562
Grp Volume(v), veh/h	358	252	242	25	149	147	136	1062	37	136	900	421
Grp Sat Flow(s),veh/h/ln	1810	1805	1682	1810	1805	1665	1810	1805	1608	1810	1729	1616
Q Serve(g_s), s	18.0	9.6	9.9	1.3	6.9	7.4	6.9	25.9	1.4	6.9	21.9	21.9
Cycle Q Clear(g_c), s	18.0	9.6	9.9	1.3	6.9	7.4	6.9	25.9	1.4	6.9	21.9	21.9
Prop In Lane	1.00		0.72	1.00		0.76	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	393	661	616	65	334	308	168	1208	596	167	1156	540
V/C Ratio(X)	0.91	0.38	0.39	0.39	0.45	0.48	0.81	0.88	0.06	0.81	0.78	0.78
Avail Cap(c_a), veh/h	426	1082	1008	136	792	731	194	1236	608	174	1156	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	21.8	21.9	44.1	33.9	34.0	41.6	29.3	19.0	41.6	28.0	28.0
Incr Delay (d2), s/veh	22.6	0.4	0.4	3.7	0.9	1.1	19.9	7.4	0.0	23.9	3.5	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	4.8	4.7	0.7	3.5	3.5	4.4	14.1	0.6	4.5	10.9	10.8
LnGrp Delay(d),s/veh	58.3	22.2	22.3	47.8	34.8	35.2	61.5	36.8	19.0	65.6	31.4	35.2
LnGrp LOS	E	C	C	D	C	D	E	D	B	E	C	D
Approach Vol, veh/h		852			321			1235			1457	
Approach Delay, s/veh		37.4			36.0			38.9			35.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	35.3	7.3	38.2	12.7	35.2	24.3	21.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	7.0	56.0	10.0	31.0	22.0	41.0
Max Q Clear Time (g_c+I1), s	8.9	27.9	3.3	11.9	8.9	23.9	20.0	9.4
Green Ext Time (p_c), s	0.0	3.3	0.0	4.7	0.0	6.1	0.2	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
26: Cactus Ave & Quincy St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
	↗	→	←	↖	↘	↙
Lane Configurations		↰↑	↑↱		Y	
Traffic Volume (veh/h)	10	210	130	0	0	20
Future Volume (veh/h)	10	210	130	0	0	20
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	210	130	0	0	20
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	297	1340	1405	0	0	87
Arrive On Green	0.39	0.39	0.39	0.00	0.00	0.06
Sat Flow, veh/h	67	3529	3800	0	0	1545
Grp Volume(v), veh/h	119	101	130	0	0	21
Grp Sat Flow(s),veh/h/ln	1867	1643	1805	0	0	1622
Q Serve(g_s), s	0.0	0.6	0.3	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.6	0.6	0.3	0.0	0.0	0.2
Prop In Lane	0.08			0.00	0.00	0.95
Lane Grp Cap(c), veh/h	997	639	1405	0	0	91
V/C Ratio(X)	0.12	0.16	0.09	0.00	0.00	0.23
Avail Cap(c_a), veh/h	3069	2504	5503	0	0	2810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	2.9	2.9	2.8	0.0	0.0	6.5
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	0.2	0.0	0.0	0.1
LnGrp Delay(d),s/veh	2.9	3.0	2.8	0.0	0.0	7.8
LnGrp LOS	A	A	A			A
Approach Vol, veh/h		220	130		21	
Approach Delay, s/veh		3.0	2.8		7.8	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				9.6		4.8		9.6
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				2.6		2.2		2.3
Green Ext Time (p_c), s				1.7		0.0		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	3.2
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
27: John F Kennedy Dr/Redlands Blvd & Cactus Ave

Intersection	
Intersection Delay, s/veh	26.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰↑↱			↰↑↱	
Traffic Vol, veh/h	170	20	40	10	10	20	30	640	20	30	480	100
Future Vol, veh/h	170	20	40	10	10	20	30	640	20	30	480	100
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	198	23	47	12	12	23	35	744	23	35	558	116
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	18.3	12.8	30.9	25.6
HCM LOS	C	B	D	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	9%	0%	94%	0%	25%	11%	0%
Vol Thru, %	91%	94%	6%	20%	25%	89%	71%
Vol Right, %	0%	6%	0%	80%	50%	0%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	350	340	180	50	40	270	340
LT Vol	30	0	170	0	10	30	0
Through Vol	320	320	10	10	10	240	240
RT Vol	0	20	0	40	20	0	100
Lane Flow Rate	407	395	209	58	47	314	395
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.8	0.767	0.508	0.124	0.112	0.629	0.763
Departure Headway (Hd)	7.073	6.987	8.73	7.667	8.673	7.211	6.944
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	513	518	412	467	413	502	522
Service Time	4.815	4.729	6.479	5.416	6.724	4.955	4.687
HCM Lane V/C Ratio	0.793	0.763	0.507	0.124	0.114	0.625	0.757
HCM Control Delay	32.5	29.2	20.2	11.5	12.8	21.5	28.8
HCM Lane LOS	D	D	C	B	B	C	D
HCM 95th-tile Q	7.5	6.8	2.8	0.4	0.4	4.3	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	20	10	500	70	90	20	840	700	170	620	130
Future Volume (veh/h)	60	20	10	500	70	90	20	840	700	170	620	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	75	25	12	625	88	112	25	1050	875	212	775	162
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	268	119	648	745	664	61	1378	1005	224	1532	317
Arrive On Green	0.06	0.11	0.11	0.36	0.41	0.41	0.03	0.27	0.27	0.12	0.36	0.36
Sat Flow, veh/h	1810	2422	1075	1810	1805	1609	1810	5187	1606	1810	4304	892
Grp Volume(v), veh/h	75	18	19	625	88	112	25	1050	875	212	621	316
Grp Sat Flow(s),veh/h/ln	1810	1805	1693	1810	1805	1609	1810	1729	1606	1810	1729	1738
Q Serve(g_s), s	4.6	1.0	1.1	38.2	3.4	5.0	1.5	21.0	30.0	13.1	15.9	16.1
Cycle Q Clear(g_c), s	4.6	1.0	1.1	38.2	3.4	5.0	1.5	21.0	30.0	13.1	15.9	16.1
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	102	199	187	648	745	664	61	1378	1005	224	1231	619
V/C Ratio(X)	0.74	0.09	0.10	0.96	0.12	0.17	0.41	0.76	0.87	0.94	0.50	0.51
Avail Cap(c_a), veh/h	192	703	660	657	1167	1040	112	1378	1005	224	1231	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	45.1	45.2	35.5	20.5	20.9	53.5	38.2	17.5	49.1	28.5	28.6
Incr Delay (d2), s/veh	10.0	0.2	0.2	26.3	0.1	0.1	4.4	2.6	8.4	44.8	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.5	0.5	23.8	1.7	2.2	0.8	10.3	24.6	9.4	7.7	7.8
LnGrp Delay(d),s/veh	62.5	45.3	45.4	61.8	20.6	21.1	57.8	40.7	25.9	93.9	28.9	29.3
LnGrp LOS	E	D	D	E	C	C	E	D	C	F	C	C
Approach Vol, veh/h		112			825			1950			1149	
Approach Delay, s/veh		56.8			51.9			34.3			41.0	
Approach LOS		E			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	34.0	44.4	16.5	7.8	44.2	10.3	50.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	30.0	41.0	44.0	7.0	37.0	12.0	73.0
Max Q Clear Time (g_c+I1), s	15.1	32.0	40.2	3.1	3.5	18.1	6.6	7.0
Green Ext Time (p_c), s	0.0	0.0	0.2	1.3	0.0	14.8	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	330	720	160	150	490	70	220	810	270	110	600	240
Future Volume (veh/h)	330	720	160	150	490	70	220	810	270	110	600	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	355	774	172	161	527	75	237	871	290	118	645	258
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	302	1197	708	192	858	122	196	1170	692	147	1072	747
Arrive On Green	0.17	0.33	0.33	0.11	0.27	0.27	0.11	0.32	0.32	0.08	0.30	0.30
Sat Flow, veh/h	1810	3610	1608	1810	3173	450	1810	3610	1608	1810	3610	1607
Grp Volume(v), veh/h	355	774	172	161	299	303	237	871	290	118	645	258
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1818	1810	1805	1608	1810	1805	1607
Q Serve(g_s), s	17.0	18.6	6.8	8.9	14.7	14.8	11.0	21.9	12.8	6.5	15.6	10.4
Cycle Q Clear(g_c), s	17.0	18.6	6.8	8.9	14.7	14.8	11.0	21.9	12.8	6.5	15.6	10.4
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	1197	708	192	488	491	196	1170	692	147	1072	747
V/C Ratio(X)	1.17	0.65	0.24	0.84	0.61	0.62	1.21	0.74	0.42	0.80	0.60	0.35
Avail Cap(c_a), veh/h	302	1455	823	196	621	626	196	1313	756	178	1278	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	28.9	17.9	44.6	32.4	32.5	45.3	30.6	20.2	45.9	30.6	17.4
Incr Delay (d2), s/veh	107.4	0.7	0.2	26.1	1.3	1.3	132.7	2.1	0.4	19.5	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.4	9.4	3.0	5.8	7.5	7.6	12.7	11.2	5.7	4.0	7.8	4.7
LnGrp Delay(d),s/veh	149.7	29.6	18.0	70.8	33.7	33.7	178.0	32.7	20.6	65.4	31.2	17.7
LnGrp LOS	F	C	B	E	C	C	F	C	C	E	C	B
Approach Vol, veh/h		1301			763			1398			1021	
Approach Delay, s/veh		60.9			41.5			54.8			31.7	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	37.0	14.8	37.7	15.0	34.2	21.0	31.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	37.0	11.0	41.0	11.0	36.0	17.0	35.0
Max Q Clear Time (g_c+I1), s	8.5	23.9	10.9	20.6	13.0	17.6	19.0	16.8
Green Ext Time (p_c), s	0.0	9.1	0.0	10.2	0.0	11.6	0.0	9.5

Intersection Summary	
HCM 2010 Ctrl Delay	49.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↑	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	230	10	200	340	1190	0	0	930	270
Future Volume (veh/h)	0	0	0	230	10	200	340	1190	0	0	930	270
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				247	11	215	366	1280	0	0	1000	290
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				326	15	301	362	2644	0	0	1361	393
Arrive On Green				0.19	0.19	0.19	0.27	0.97	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1736	77	1602	1810	3705	0	0	2859	797
Grp Volume(v), veh/h				258	0	215	366	1280	0	0	651	639
Grp Sat Flow(s),veh/h/ln				1813	0	1602	1810	1805	0	0	1805	1756
Q Serve(g_s), s				13.5	0.0	12.6	20.0	1.7	0.0	0.0	28.7	29.0
Cycle Q Clear(g_c), s				13.5	0.0	12.6	20.0	1.7	0.0	0.0	28.7	29.0
Prop In Lane				0.96		1.00	1.00		0.00	0.00		0.45
Lane Grp Cap(c), veh/h				340	0	301	362	2644	0	0	889	865
V/C Ratio(X)				0.76	0.00	0.72	1.01	0.48	0.00	0.00	0.73	0.74
Avail Cap(c_a), veh/h				616	0	545	362	2644	0	0	889	865
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.46	0.46	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.5	0.0	38.1	36.7	0.4	0.0	0.0	20.2	20.3
Incr Delay (d2), s/veh				3.5	0.0	3.2	34.8	0.3	0.0	0.0	5.3	5.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.1	0.0	5.8	13.4	0.6	0.0	0.0	15.4	15.4
LnGrp Delay(d),s/veh				41.9	0.0	41.3	71.6	0.7	0.0	0.0	25.5	25.9
LnGrp LOS				D		D	F	A			C	C
Approach Vol, veh/h					473			1646			1290	
Approach Delay, s/veh					41.6			16.4			25.7	
Approach LOS					D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		77.2			24.0	53.2		22.8
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		58.0			20.0	34.0		34.0
Max Q Clear Time (g_c+I1), s		3.7			22.0	31.0		15.5
Green Ext Time (p_c), s		34.5			0.0	2.8		2.2

Intersection Summary			
HCM 2010 Ctrl Delay			23.4
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

	↰	→	↴	↙	←	↖	↰	↑	↱	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	410	10	280	0	0	0	0	1170	350	450	770	0
Future Volume (veh/h)	410	10	280	0	0	0	0	1170	350	450	770	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	425	0	286				0	1194	357	459	786	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	797	0	353				0	1622	485	452	2526	0
Arrive On Green	0.22	0.00	0.22				0.00	0.41	0.41	0.33	0.93	0.00
Sat Flow, veh/h	3619	0	1604				0	4129	1183	1810	3705	0
Grp Volume(v), veh/h	425	0	286				0	1043	508	459	786	0
Grp Sat Flow(s),veh/h/ln	1810	0	1604				0	1729	1683	1810	1805	0
Q Serve(g_s), s	10.4	0.0	16.9				0.0	25.5	25.5	25.0	2.1	0.0
Cycle Q Clear(g_c), s	10.4	0.0	16.9				0.0	25.5	25.5	25.0	2.1	0.0
Prop In Lane	1.00		1.00				0.00		0.70	1.00		0.00
Lane Grp Cap(c), veh/h	797	0	353				0	1417	689	452	2526	0
V/C Ratio(X)	0.53	0.00	0.81				0.00	0.74	0.74	1.01	0.31	0.00
Avail Cap(c_a), veh/h	1194	0	529				0	1417	689	452	2526	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.29	0.29	0.00
Uniform Delay (d), s/veh	34.4	0.0	37.0				0.0	24.9	24.9	33.4	1.1	0.0
Incr Delay (d2), s/veh	0.6	0.0	5.7				0.0	3.4	6.9	26.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	8.0				0.0	12.8	13.2	15.7	0.9	0.0
LnGrp Delay(d),s/veh	35.0	0.0	42.7				0.0	28.4	31.8	60.0	1.2	0.0
LnGrp LOS	D		D					C	C	F	A	
Approach Vol, veh/h		711						1551			1245	
Approach Delay, s/veh		38.1						29.5			22.9	
Approach LOS		D						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	29.0	45.0		26.0		74.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	25.0	30.0		33.0		59.0		
Max Q Clear Time (g_c+I1), s	27.0	27.5		18.9		4.1		
Green Ext Time (p_c), s	0.0	2.3		2.3		30.0		

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	660	700	520	60	160	950	170	1380	160	780	1000	280
Future Volume (veh/h)	660	700	520	60	160	950	170	1380	160	780	1000	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	680	722	536	62	165	979	175	1423	165	804	1031	289
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	650	981	436	85	253	614	202	1491	173	865	1629	1024
Arrive On Green	0.19	0.27	0.27	0.05	0.13	0.13	0.11	0.32	0.32	0.41	0.75	0.75
Sat Flow, veh/h	3510	3610	1606	1810	1900	1615	1810	4712	546	3510	3610	1606
Grp Volume(v), veh/h	680	722	536	62	165	979	175	1044	544	804	1031	289
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1810	1900	1615	1810	1729	1801	1755	1805	1606
Q Serve(g_s), s	25.0	24.6	36.7	4.6	11.1	18.0	12.8	39.9	39.9	29.5	18.1	5.7
Cycle Q Clear(g_c), s	25.0	24.6	36.7	4.6	11.1	18.0	12.8	39.9	39.9	29.5	18.1	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	650	981	436	85	253	614	202	1094	570	865	1629	1024
V/C Ratio(X)	1.05	0.74	1.23	0.73	0.65	1.60	0.87	0.95	0.95	0.93	0.63	0.28
Avail Cap(c_a), veh/h	650	981	436	94	253	614	295	1094	570	988	1629	1024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.54	0.54	0.54	0.59	0.59	0.59
Uniform Delay (d), s/veh	55.0	44.7	49.2	63.5	55.5	41.9	59.0	45.2	45.2	38.6	11.4	4.5
Incr Delay (d2), s/veh	47.9	2.9	121.4	22.9	5.8	275.7	9.7	11.7	18.6	8.9	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	12.6	31.0	2.8	6.3	69.8	7.0	20.8	22.7	15.2	9.1	2.6
LnGrp Delay(d),s/veh	102.9	47.7	170.6	86.4	61.3	317.6	68.7	56.9	63.8	47.5	12.5	4.9
LnGrp LOS	F	D	F	F	E	F	E	E	E	D	B	A
Approach Vol, veh/h		1938			1206			1763			2124	
Approach Delay, s/veh		101.1			270.6			60.2			24.7	
Approach LOS		F			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.3	46.7	10.3	40.7	19.1	64.9	29.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	38.0	38.0	7.0	36.0	22.0	54.0	25.0	18.0
Max Q Clear Time (g_c+I1), s	31.5	41.9	6.6	38.7	14.8	20.1	27.0	20.0
Green Ext Time (p_c), s	1.8	0.0	0.0	0.0	0.2	25.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↱		↰↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	220	10	160	520	2470	0	0	2010	390
Future Volume (veh/h)	0	0	0	220	10	160	520	2470	0	0	2010	390
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				227	10	165	536	2546	0	0	2072	402
Adj No. of Lanes				0	2	0	2	3	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				262	13	220	870	4129	0	0	2690	835
Arrive On Green				0.14	0.14	0.14	0.50	1.00	0.00	0.00	0.52	0.52
Sat Flow, veh/h				1810	92	1521	3510	5358	0	0	5358	1610
Grp Volume(v), veh/h				227	0	175	536	2546	0	0	2072	402
Grp Sat Flow(s),veh/h/ln				1810	0	1613	1755	1729	0	0	1729	1610
Q Serve(g_s), s				16.6	0.0	14.1	15.0	0.0	0.0	0.0	43.2	21.6
Cycle Q Clear(g_c), s				16.6	0.0	14.1	15.0	0.0	0.0	0.0	43.2	21.6
Prop In Lane				1.00		0.94	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				262	0	233	870	4129	0	0	2690	835
V/C Ratio(X)				0.87	0.00	0.75	0.62	0.62	0.00	0.00	0.77	0.48
Avail Cap(c_a), veh/h				308	0	275	870	4129	0	0	2690	835
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				56.5	0.0	55.4	29.4	0.0	0.0	0.0	26.1	20.9
Incr Delay (d2), s/veh				19.7	0.0	9.2	0.1	0.1	0.0	0.0	2.2	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.7	0.0	6.9	7.2	0.0	0.0	0.0	21.1	10.1
LnGrp Delay(d),s/veh				76.2	0.0	64.6	29.5	0.1	0.0	0.0	28.3	22.8
LnGrp LOS				E		E	C	A			C	C
Approach Vol, veh/h					402			3082			2474	
Approach Delay, s/veh					71.1			5.2			27.4	
Approach LOS					E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		111.5			37.5	74.0		23.5
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		104.0			30.0	70.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			17.0	45.2		18.6
Green Ext Time (p_c), s		64.8			12.1	19.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	80	350	310	120	170	80	120	1610	140	90	1410	60
Future Volume (veh/h)	80	350	310	120	170	80	120	1610	140	90	1410	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	372	330	128	181	85	128	1713	149	96	1500	64
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	520	456	148	718	323	148	1926	597	133	1882	584
Arrive On Green	0.07	0.29	0.29	0.08	0.30	0.30	0.08	0.37	0.37	0.07	0.36	0.36
Sat Flow, veh/h	1810	1819	1595	1810	2418	1089	1810	5187	1608	1810	5187	1608
Grp Volume(v), veh/h	85	369	333	128	133	133	128	1713	149	96	1500	64
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1701	1810	1729	1608	1810	1729	1608
Q Serve(g_s), s	3.9	15.7	15.9	6.0	4.8	5.1	6.0	26.5	5.5	4.4	22.1	2.3
Cycle Q Clear(g_c), s	3.9	15.7	15.9	6.0	4.8	5.1	6.0	26.5	5.5	4.4	22.1	2.3
Prop In Lane	1.00		0.99	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	516	460	148	536	505	148	1926	597	133	1882	584
V/C Ratio(X)	0.66	0.72	0.72	0.86	0.25	0.26	0.86	0.89	0.25	0.72	0.80	0.11
Avail Cap(c_a), veh/h	191	718	640	148	676	637	148	1926	597	148	1882	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	27.4	27.5	38.7	22.8	22.9	38.7	25.2	18.6	38.7	24.4	18.1
Incr Delay (d2), s/veh	5.7	2.0	2.5	37.4	0.2	0.3	37.4	6.6	1.0	14.1	3.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	8.1	7.3	4.5	2.4	2.4	4.5	13.7	2.6	2.7	11.2	1.1
LnGrp Delay(d),s/veh	44.4	29.4	30.0	76.2	23.0	23.2	76.2	31.8	19.6	52.8	28.0	18.4
LnGrp LOS	D	C	C	E	C	C	E	C	B	D	C	B
Approach Vol, veh/h		787			394			1990			1660	
Approach Delay, s/veh		31.3			40.3			33.8			29.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	35.7	11.0	28.4	11.0	35.0	10.1	29.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.4	28.5	8.0	17.9	8.0	24.1	5.9	7.1
Green Ext Time (p_c), s	0.0	2.5	0.0	5.3	0.0	6.6	0.0	6.2

Intersection Summary			
HCM 2010 Ctrl Delay			32.3
HCM 2010 LOS			C

Intersection	
Int Delay, s/veh	9.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	70	560	50	10	520	260
Future Vol, veh/h	70	560	50	10	520	260
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	74	596	53	11	553	277

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	74	0	191	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	117	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1538	-	803	993
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1538	-	775	993
Mov Cap-2 Maneuver	-	-	-	-	775	-
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	881	-

Approach	EB		WB		NB	
HCM Control Delay, s	0		6.2		16.9	
HCM LOS					C	

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	775	993	-	-	1538	-
HCM Lane V/C Ratio	0.714	0.279	-	-	0.035	-
HCM Control Delay (s)	20.3	10	-	-	7.4	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	6.1	1.1	-	-	0.1	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	140	200	120	260	210	40	120	670	390	10	550	70
Future Volume (veh/h)	140	200	120	260	210	40	120	670	390	10	550	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	263	158	342	276	53	158	882	513	13	724	92
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	310	180	308	597	113	135	762	463	11	638	86
Arrive On Green	0.11	0.14	0.14	0.17	0.20	0.20	0.38	0.38	0.38	0.20	0.20	0.20
Sat Flow, veh/h	1810	2192	1273	1810	3026	573	353	1997	1212	56	3228	433
Grp Volume(v), veh/h	184	215	206	342	163	166	842	0	711	442	0	387
Grp Sat Flow(s),veh/h/ln	1810	1805	1659	1810	1805	1794	1882	0	1680	1897	0	1820
Q Serve(g_s), s	14.7	17.0	17.9	25.0	11.7	12.0	56.0	0.0	56.0	29.0	0.0	29.0
Cycle Q Clear(g_c), s	14.7	17.0	17.9	25.0	11.7	12.0	56.0	0.0	56.0	29.0	0.0	29.0
Prop In Lane	1.00		0.77	1.00		0.32	0.19		0.72	0.03		0.24
Lane Grp Cap(c), veh/h	207	255	235	308	356	354	718	0	641	375	0	360
V/C Ratio(X)	0.89	0.84	0.88	1.11	0.46	0.47	1.17	0.00	1.11	1.18	0.00	1.07
Avail Cap(c_a), veh/h	234	295	271	308	369	367	718	0	641	375	0	360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.0	61.4	61.8	60.9	52.0	52.1	45.4	0.0	45.4	58.9	0.0	58.9
Incr Delay (d2), s/veh	29.0	17.4	24.0	83.9	0.9	1.0	91.9	0.0	69.2	105.3	0.0	68.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	9.7	9.7	19.6	5.9	6.0	47.3	0.0	38.1	26.1	0.0	21.4
LnGrp Delay(d),s/veh	93.1	78.8	85.7	144.8	52.9	53.1	137.2	0.0	114.5	164.1	0.0	127.7
LnGrp LOS	F	E	F	F	D	D	F		F	F		F
Approach Vol, veh/h		605			671			1553			829	
Approach Delay, s/veh		85.5			99.8			126.8			147.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		60.0	29.0	24.7		33.0	20.8	32.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		56.0	25.0	24.0		29.0	19.0	30.0
Max Q Clear Time (g_c+I1), s		58.0	27.0	19.9		31.0	16.7	14.0
Green Ext Time (p_c), s		0.0	0.0	0.8		0.0	0.1	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	119.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	370	20	580	0	0	0	0	1170	420	170	1260	0
Future Volume (veh/h)	370	20	580	0	0	0	0	1170	420	170	1260	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	432	0	652				0	1315	472	191	1416	0
Adj No. of Lanes	2	0	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1368	0	608				0	1423	508	201	2765	0
Arrive On Green	0.38	0.00	0.38				0.00	0.38	0.38	0.11	0.53	0.00
Sat Flow, veh/h	3619	0	1609				0	3940	1345	1810	5358	0
Grp Volume(v), veh/h	432	0	652				0	1206	581	191	1416	0
Grp Sat Flow(s),veh/h/ln	1810	0	1609				0	1729	1656	1810	1729	0
Q Serve(g_s), s	7.6	0.0	34.0				0.0	30.0	30.3	9.4	15.8	0.0
Cycle Q Clear(g_c), s	7.6	0.0	34.0				0.0	30.0	30.3	9.4	15.8	0.0
Prop In Lane	1.00		1.00				0.00		0.81	1.00		0.00
Lane Grp Cap(c), veh/h	1368	0	608				0	1305	625	201	2765	0
V/C Ratio(X)	0.32	0.00	1.07				0.00	0.92	0.93	0.95	0.51	0.00
Avail Cap(c_a), veh/h	1368	0	608				0	1307	626	201	2768	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	0.0	28.0				0.0	26.8	26.9	39.7	13.5	0.0
Incr Delay (d2), s/veh	0.1	0.0	57.5				0.0	11.1	20.5	49.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	24.7				0.0	16.2	17.3	7.5	7.5	0.0
LnGrp Delay(d),s/veh	19.9	0.0	85.4				0.0	37.8	47.4	88.8	13.6	0.0
LnGrp LOS	B		F					D	D	F	B	
Approach Vol, veh/h		1084						1787			1607	
Approach Delay, s/veh		59.3						40.9			22.6	
Approach LOS		E						D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.0	38.0		38.0		52.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	10.0	34.0		34.0		48.0		
Max Q Clear Time (g_c+I1), s	11.4	32.3		36.0		17.8		
Green Ext Time (p_c), s	0.0	1.7		0.0		26.0		

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
38: Perris Blvd & John Kennedy Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	130	340	250	160	200	60	230	1550	140	130	1110	90
Future Volume (veh/h)	130	340	250	160	200	60	230	1550	140	130	1110	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	400	294	188	235	71	271	1824	165	153	1306	106
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	521	379	208	758	224	300	1906	172	160	1641	508
Arrive On Green	0.10	0.26	0.26	0.12	0.28	0.28	0.17	0.39	0.39	0.09	0.32	0.32
Sat Flow, veh/h	1810	1991	1448	1810	2747	810	1810	4843	436	1810	5187	1607
Grp Volume(v), veh/h	153	362	332	188	152	154	271	1300	689	153	1306	106
Grp Sat Flow(s),veh/h/ln	1810	1805	1635	1810	1805	1752	1810	1729	1821	1810	1729	1607
Q Serve(g_s), s	9.4	21.0	21.3	11.6	7.5	7.9	16.6	41.3	41.7	9.5	26.0	5.5
Cycle Q Clear(g_c), s	9.4	21.0	21.3	11.6	7.5	7.9	16.6	41.3	41.7	9.5	26.0	5.5
Prop In Lane	1.00		0.89	1.00		0.46	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	182	472	427	208	498	483	300	1361	717	160	1641	508
V/C Ratio(X)	0.84	0.77	0.78	0.90	0.31	0.32	0.90	0.96	0.96	0.96	0.80	0.21
Avail Cap(c_a), veh/h	208	575	521	208	575	558	320	1377	725	160	1641	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	38.6	38.7	49.4	32.4	32.5	46.3	33.3	33.4	51.3	35.3	28.3
Incr Delay (d2), s/veh	23.2	5.0	6.0	37.0	0.3	0.4	26.6	14.9	24.0	57.8	2.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	11.1	10.3	7.9	3.8	3.8	10.5	22.5	25.6	7.3	12.8	2.5
LnGrp Delay(d),s/veh	73.2	43.6	44.6	86.4	32.7	32.8	72.9	48.2	57.5	109.1	38.1	28.5
LnGrp LOS	E	D	D	F	C	C	E	D	E	F	D	C
Approach Vol, veh/h		847			494			2260			1565	
Approach Delay, s/veh		49.4			53.2			54.0			44.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	48.5	17.0	33.5	22.7	39.8	15.4	35.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	45.0	13.0	36.0	20.0	35.0	13.0	36.0
Max Q Clear Time (g_c+I1), s	11.5	43.7	13.6	23.3	18.6	28.0	11.4	9.9
Green Ext Time (p_c), s	0.0	0.8	0.0	5.2	0.1	6.7	0.1	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	50.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	40	360	140	220	270	120	310	1560	390	220	950	20
Future Volume (veh/h)	40	360	140	220	270	120	310	1560	390	220	950	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	409	159	250	307	136	352	1773	443	250	1080	23
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	574	220	257	789	342	382	1850	573	257	1504	32
Arrive On Green	0.05	0.23	0.23	0.14	0.32	0.32	0.21	0.36	0.36	0.14	0.29	0.29
Sat Flow, veh/h	1810	2546	978	1810	2450	1061	1810	5187	1608	1810	5226	111
Grp Volume(v), veh/h	45	289	279	250	224	219	352	1773	443	250	714	389
Grp Sat Flow(s),veh/h/ln	1810	1805	1720	1810	1805	1707	1810	1729	1608	1810	1729	1880
Q Serve(g_s), s	2.9	17.6	18.0	16.4	11.5	11.9	22.8	40.0	29.3	16.4	22.2	22.2
Cycle Q Clear(g_c), s	2.9	17.6	18.0	16.4	11.5	11.9	22.8	40.0	29.3	16.4	22.2	22.2
Prop In Lane	1.00		0.57	1.00		0.62	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	82	407	388	257	581	550	382	1850	573	257	995	541
V/C Ratio(X)	0.55	0.71	0.72	0.97	0.39	0.40	0.92	0.96	0.77	0.97	0.72	0.72
Avail Cap(c_a), veh/h	121	558	532	257	694	657	439	1865	578	257	995	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	42.7	42.8	51.1	31.4	31.5	46.2	37.6	34.2	51.1	38.2	38.2
Incr Delay (d2), s/veh	5.6	2.6	3.0	48.1	0.4	0.5	23.2	12.5	6.4	48.1	2.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.1	8.9	11.6	5.8	5.7	13.8	21.2	13.9	11.6	11.0	12.2
LnGrp Delay(d),s/veh	61.5	45.3	45.8	99.2	31.8	32.0	69.5	50.1	40.5	99.2	40.7	42.8
LnGrp LOS	E	D	D	F	C	C	E	D	D	F	D	D
Approach Vol, veh/h		613			693			2568			1353	
Approach Delay, s/veh		46.7			56.2			51.1			52.1	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	46.6	21.0	31.0	29.2	38.4	9.4	42.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	43.0	17.0	37.0	29.0	31.0	8.0	46.0
Max Q Clear Time (g_c+I1), s	18.4	42.0	18.4	20.0	24.8	24.2	4.9	13.9
Green Ext Time (p_c), s	0.0	0.7	0.0	5.1	0.4	6.4	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	870	110	570	610	130	100	260	850	130	240	80
Future Volume (veh/h)	70	870	110	570	610	130	100	260	850	130	240	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	926	117	606	649	138	106	277	904	138	255	85
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	800	101	474	1656	838	129	573	510	112	825	268
Arrive On Green	0.05	0.25	0.25	0.26	0.46	0.46	0.07	0.32	0.32	0.06	0.31	0.31
Sat Flow, veh/h	1810	3223	407	1810	3610	1610	1810	1805	1607	1810	2676	871
Grp Volume(v), veh/h	74	519	524	606	649	138	106	277	904	138	170	170
Grp Sat Flow(s),veh/h/ln	1810	1805	1825	1810	1805	1610	1810	1805	1607	1810	1805	1741
Q Serve(g_s), s	5.9	36.0	36.0	38.0	17.2	6.5	8.4	17.9	46.0	9.0	10.4	10.9
Cycle Q Clear(g_c), s	5.9	36.0	36.0	38.0	17.2	6.5	8.4	17.9	46.0	9.0	10.4	10.9
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	94	448	453	474	1656	838	129	573	510	112	556	537
V/C Ratio(X)	0.79	1.16	1.16	1.28	0.39	0.16	0.82	0.48	1.77	1.23	0.31	0.32
Avail Cap(c_a), veh/h	150	448	453	474	1656	838	187	573	510	112	556	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.0	54.5	54.5	53.5	25.9	18.2	66.4	39.9	49.5	68.0	38.3	38.5
Incr Delay (d2), s/veh	13.7	93.1	93.0	140.6	0.2	0.1	17.2	0.6	355.7	158.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	29.5	29.8	37.5	8.6	2.9	4.8	9.0	70.8	9.4	5.2	5.3
LnGrp Delay(d),s/veh	81.6	147.6	147.5	194.1	26.1	18.3	83.6	40.6	405.2	226.7	38.6	38.8
LnGrp LOS	F	F	F	F	C	B	F	D	F	F	D	D
Approach Vol, veh/h		1117			1393			1287			478	
Approach Delay, s/veh		143.2			98.4			300.2			93.0	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	50.0	42.0	40.0	14.3	48.7	11.5	70.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	46.0	38.0	36.0	15.0	40.0	12.0	62.0
Max Q Clear Time (g_c+I1), s	11.0	48.0	40.0	38.0	10.4	12.9	7.9	19.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	12.5	0.0	14.8

Intersection Summary	
HCM 2010 Ctrl Delay	170.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	240	1130	480	1160	990	170	250	560	950	400	770	80
Future Volume (veh/h)	240	1130	480	1160	990	170	250	560	950	400	770	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	1215	516	1247	1065	183	269	602	1022	430	828	86
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	308	976	413	819	1866	320	304	1083	859	304	990	103
Arrive On Green	0.09	0.27	0.27	0.23	0.42	0.42	0.09	0.30	0.30	0.09	0.30	0.30
Sat Flow, veh/h	3510	3572	1510	3510	4455	765	3510	3610	1607	3510	3300	343
Grp Volume(v), veh/h	258	1176	555	1247	826	422	269	602	1022	430	453	461
Grp Sat Flow(s),veh/h/ln	1755	1729	1624	1755	1729	1762	1755	1805	1607	1755	1805	1837
Q Serve(g_s), s	10.9	41.0	41.0	35.0	27.4	27.4	11.4	21.0	45.0	13.0	35.2	35.2
Cycle Q Clear(g_c), s	10.9	41.0	41.0	35.0	27.4	27.4	11.4	21.0	45.0	13.0	35.2	35.2
Prop In Lane	1.00		0.93	1.00		0.43	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	308	945	444	819	1448	738	304	1083	859	304	542	551
V/C Ratio(X)	0.84	1.24	1.25	1.52	0.57	0.57	0.88	0.56	1.19	1.41	0.84	0.84
Avail Cap(c_a), veh/h	398	945	444	819	1448	738	304	1083	859	304	542	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.4	54.5	54.5	57.5	33.3	33.3	67.8	44.1	35.0	68.5	49.1	49.1
Incr Delay (d2), s/veh	11.6	118.9	130.2	241.3	0.5	1.1	25.0	0.6	97.0	204.4	11.0	10.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	35.2	34.4	44.4	13.2	13.6	6.6	10.5	58.5	14.9	19.1	19.5
LnGrp Delay(d),s/veh	79.0	173.4	184.7	298.8	33.8	34.4	92.7	44.7	132.1	272.9	60.1	59.9
LnGrp LOS	E	F	F	F	C	C	F	D	F	F	E	E
Approach Vol, veh/h		1989			2495			1893			1344	
Approach Delay, s/veh		164.3			166.4			98.7			128.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	49.0	39.0	45.0	17.0	49.0	17.2	66.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	45.0	35.0	41.0	13.0	45.0	17.0	59.0
Max Q Clear Time (g_c+I1), s	15.0	47.0	37.0	43.0	13.4	37.2	12.9	29.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	6.5	0.3	23.5

Intersection Summary	
HCM 2010 Ctrl Delay	142.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
42: Iris Ave & Nason St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	670	1750	20	30	1360	180	10	40	10	160	50	810
Future Volume (veh/h)	670	1750	20	30	1360	180	10	40	10	160	50	810
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	817	2134	24	37	1659	220	12	49	12	195	61	988
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	899	2900	33	69	1714	531	34	259	63	222	532	863
Arrive On Green	0.26	0.55	0.55	0.04	0.33	0.33	0.02	0.18	0.18	0.12	0.28	0.28
Sat Flow, veh/h	3510	5288	59	1810	5187	1608	1810	1475	361	1810	1900	1606
Grp Volume(v), veh/h	817	1395	763	37	1659	220	12	0	61	195	61	988
Grp Sat Flow(s),veh/h/ln	1755	1729	1890	1810	1729	1608	1810	0	1836	1810	1900	1606
Q Serve(g_s), s	31.4	42.5	42.6	2.8	43.9	14.8	0.9	0.0	3.9	14.8	3.3	39.0
Cycle Q Clear(g_c), s	31.4	42.5	42.6	2.8	43.9	14.8	0.9	0.0	3.9	14.8	3.3	39.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	899	1896	1036	69	1714	531	34	0	323	222	532	863
V/C Ratio(X)	0.91	0.74	0.74	0.53	0.97	0.41	0.36	0.00	0.19	0.88	0.11	1.14
Avail Cap(c_a), veh/h	1083	1986	1085	104	1714	531	91	0	323	351	532	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	23.8	23.8	65.8	45.9	36.2	67.5	0.0	49.0	60.1	37.3	32.4
Incr Delay (d2), s/veh	9.9	1.4	2.5	6.3	14.9	0.5	6.2	0.0	1.3	13.9	0.1	78.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	20.5	23.0	1.5	23.2	6.6	0.5	0.0	2.1	8.2	1.8	51.9
LnGrp Delay(d),s/veh	60.1	25.2	26.4	72.0	60.8	36.7	73.7	0.0	50.3	74.0	37.4	111.0
LnGrp LOS	E	C	C	E	E	D	E		D	E	D	F
Approach Vol, veh/h		2975			1916			73			1244	
Approach Delay, s/veh		35.1			58.2			54.1			101.6	
Approach LOS		D			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.1	28.5	9.3	80.4	6.6	43.0	39.7	50.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	19.0	8.0	80.0	7.0	39.0	43.0	45.0
Max Q Clear Time (g_c+I1), s	16.8	5.9	4.8	44.6	2.9	41.0	33.4	45.9
Green Ext Time (p_c), s	0.4	4.7	0.0	31.8	0.0	0.0	2.3	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰↑	↱		↰↑	↱
Traffic Volume (veh/h)	130	1370	40	80	750	170	40	30	70	150	30	90
Future Volume (veh/h)	130	1370	40	80	750	170	40	30	70	150	30	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	1734	51	101	949	215	51	38	89	190	38	114
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	203	2431	71	132	1820	411	108	80	162	265	53	279
Arrive On Green	0.11	0.47	0.47	0.07	0.43	0.43	0.10	0.10	0.10	0.17	0.17	0.17
Sat Flow, veh/h	1810	5178	152	1810	4230	955	1058	789	1591	1520	304	1601
Grp Volume(v), veh/h	165	1158	627	101	775	389	89	0	89	228	0	114
Grp Sat Flow(s),veh/h/ln	1810	1729	1872	1810	1729	1727	1847	0	1591	1824	0	1601
Q Serve(g_s), s	7.8	23.5	23.5	4.8	14.5	14.6	4.0	0.0	4.7	10.4	0.0	5.6
Cycle Q Clear(g_c), s	7.8	23.5	23.5	4.8	14.5	14.6	4.0	0.0	4.7	10.4	0.0	5.6
Prop In Lane	1.00		0.08	1.00		0.55	0.57		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	203	1624	879	132	1488	743	188	0	162	317	0	279
V/C Ratio(X)	0.81	0.71	0.71	0.77	0.52	0.52	0.47	0.00	0.55	0.72	0.00	0.41
Avail Cap(c_a), veh/h	329	1768	957	165	1488	743	714	0	615	767	0	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.2	18.6	18.6	40.1	18.4	18.4	37.3	0.0	37.6	34.3	0.0	32.3
Incr Delay (d2), s/veh	7.8	1.3	2.3	15.4	0.3	0.7	1.8	0.0	2.9	3.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	11.4	12.6	3.0	7.0	7.0	2.1	0.0	2.2	5.5	0.0	2.5
LnGrp Delay(d),s/veh	45.9	19.9	20.9	55.5	18.7	19.1	39.1	0.0	40.5	37.4	0.0	33.3
LnGrp LOS	D	B	C	E	B	B	D		D	D		C
Approach Vol, veh/h		1950			1265			178			342	
Approach Delay, s/veh		22.4			21.8			39.8			36.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.0	10.4	45.3		19.3	13.9	41.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	8.0	45.0		37.0	16.0	37.0
Max Q Clear Time (g_c+I1), s		6.7	6.8	25.5		12.4	9.8	16.6
Green Ext Time (p_c), s		0.8	0.0	15.8		1.5	0.2	17.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	30	1480	50	40	1000	10	70	10	70	10	10	20
Future Volume (veh/h)	30	1480	50	40	1000	10	70	10	70	10	10	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	1741	59	47	1176	12	82	12	82	12	12	24
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	2399	81	111	2523	26	149	398	435	38	83	166
Arrive On Green	0.05	0.47	0.47	0.06	0.48	0.48	0.08	0.21	0.21	0.02	0.15	0.15
Sat Flow, veh/h	1810	5152	174	1810	5294	54	1810	1900	1603	1810	563	1125
Grp Volume(v), veh/h	35	1168	632	47	768	420	82	12	82	12	0	36
Grp Sat Flow(s),veh/h/ln	1810	1729	1869	1810	1729	1890	1810	1900	1603	1810	0	1688
Q Serve(g_s), s	1.2	18.0	18.0	1.6	9.8	9.8	2.9	0.3	2.6	0.4	0.0	1.2
Cycle Q Clear(g_c), s	1.2	18.0	18.0	1.6	9.8	9.8	2.9	0.3	2.6	0.4	0.0	1.2
Prop In Lane	1.00		0.09	1.00		0.03	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	91	1610	870	111	1648	901	149	398	435	38	0	249
V/C Ratio(X)	0.38	0.73	0.73	0.42	0.47	0.47	0.55	0.03	0.19	0.32	0.00	0.14
Avail Cap(c_a), veh/h	192	1680	908	192	1680	918	192	1240	1146	192	0	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	14.2	14.2	29.8	11.6	11.6	29.0	20.7	18.5	31.8	0.0	24.4
Incr Delay (d2), s/veh	2.7	1.5	2.8	2.6	0.2	0.4	3.1	0.0	0.2	4.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	8.8	9.8	0.9	4.7	5.2	1.6	0.2	1.2	0.3	0.0	0.6
LnGrp Delay(d),s/veh	33.0	15.7	17.0	32.4	11.8	12.0	32.2	20.8	18.7	36.5	0.0	24.7
LnGrp LOS	C	B	B	C	B	B	C	C	B	D		C
Approach Vol, veh/h		1835			1235			176			48	
Approach Delay, s/veh		16.5			12.6			25.1			27.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	17.8	8.0	34.7	9.4	13.7	7.3	35.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	7.0	32.0	7.0	43.0	7.0	32.0
Max Q Clear Time (g_c+I1), s	2.4	4.6	3.6	20.0	4.9	3.2	3.2	11.8
Green Ext Time (p_c), s	0.0	0.5	0.0	10.7	0.0	0.5	0.0	16.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	320	250	190	100	100	130	2050	340	100	1050	30
Future Volume (veh/h)	50	320	250	190	100	100	130	2050	340	100	1050	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	352	275	209	110	110	143	2253	374	110	1154	33
Adj No. of Lanes	1	2	0	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	407	313	241	519	462	198	2383	739	129	2460	763
Arrive On Green	0.06	0.21	0.21	0.13	0.29	0.29	0.06	0.46	0.46	0.07	0.47	0.47
Sat Flow, veh/h	1810	1940	1490	1810	1805	1607	3510	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	55	327	300	209	110	110	143	2253	374	110	1154	33
Grp Sat Flow(s),veh/h/ln	1810	1805	1625	1810	1805	1607	1755	1729	1610	1810	1729	1610
Q Serve(g_s), s	3.7	22.1	22.6	14.3	5.8	6.6	5.1	52.5	20.7	7.6	19.0	1.4
Cycle Q Clear(g_c), s	3.7	22.1	22.6	14.3	5.8	6.6	5.1	52.5	20.7	7.6	19.0	1.4
Prop In Lane	1.00		0.92	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	379	341	241	519	462	198	2383	739	129	2460	763
V/C Ratio(X)	0.55	0.86	0.88	0.87	0.21	0.24	0.72	0.95	0.51	0.85	0.47	0.04
Avail Cap(c_a), veh/h	415	414	373	458	519	462	278	2420	751	129	2460	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	48.2	48.4	53.7	34.2	34.4	58.7	32.7	24.1	58.1	22.5	17.8
Incr Delay (d2), s/veh	4.6	16.0	19.6	9.2	0.2	0.3	5.5	8.7	0.5	39.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	12.7	12.0	7.8	2.9	3.0	2.6	26.9	9.3	5.2	9.1	0.6
LnGrp Delay(d),s/veh	62.8	64.2	68.0	63.0	34.4	34.7	64.2	41.3	24.6	97.5	22.6	17.9
LnGrp LOS	E	E	E	E	C	C	E	D	C	F	C	B
Approach Vol, veh/h		682			429			2770			1297	
Approach Delay, s/veh		65.7			48.4			40.3			28.9	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	62.1	20.8	30.6	11.1	64.0	11.0	40.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	59.0	32.0	29.0	10.0	58.0	29.0	32.0
Max Q Clear Time (g_c+I1), s	9.6	54.5	16.3	24.6	7.1	21.0	5.7	8.6
Green Ext Time (p_c), s	0.0	3.6	0.5	1.6	0.1	33.2	0.1	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	1000	230	20	20	210	110	20	80	30	110	90	690
Future Volume (veh/h)	1000	230	20	20	210	110	20	80	30	110	90	690
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1149	264	23	23	241	126	23	92	34	126	103	793
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	804	1919	166	55	364	183	55	571	201	109	448	399
Arrive On Green	0.44	0.57	0.57	0.03	0.16	0.16	0.03	0.22	0.22	0.06	0.25	0.25
Sat Flow, veh/h	1810	3362	291	1810	2317	1169	1810	2614	921	1810	1805	1605
Grp Volume(v), veh/h	1149	141	146	23	186	181	23	62	64	126	103	793
Grp Sat Flow(s),veh/h/ln	1810	1805	1848	1810	1805	1680	1810	1805	1730	1810	1805	1605
Q Serve(g_s), s	59.0	4.8	4.9	1.7	12.9	13.5	1.7	3.7	4.0	8.0	6.0	33.0
Cycle Q Clear(g_c), s	59.0	4.8	4.9	1.7	12.9	13.5	1.7	3.7	4.0	8.0	6.0	33.0
Prop In Lane	1.00		0.16	1.00		0.70	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	804	1030	1055	55	283	264	55	394	378	109	448	399
V/C Ratio(X)	1.43	0.14	0.14	0.42	0.66	0.69	0.42	0.16	0.17	1.16	0.23	1.99
Avail Cap(c_a), veh/h	804	1114	1141	95	408	379	95	435	417	109	448	399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	13.3	13.3	63.3	52.6	52.9	63.3	42.0	42.1	62.4	39.8	49.9
Incr Delay (d2), s/veh	200.6	0.1	0.1	5.1	2.6	3.2	5.1	0.2	0.2	134.3	0.3	453.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	74.0	2.4	2.5	0.9	6.6	6.5	0.9	1.9	1.9	8.0	3.0	64.8
LnGrp Delay(d),s/veh	237.5	13.3	13.3	68.4	55.2	56.1	68.4	42.2	42.4	196.8	40.1	503.8
LnGrp LOS	F	B	B	E	E	E	E	D	D	F	D	F
Approach Vol, veh/h		1436			390			149			1022	
Approach Delay, s/veh		192.7			56.4			46.3			419.2	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	33.0	8.0	79.8	8.0	37.0	63.0	24.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	32.0	7.0	82.0	7.0	33.0	59.0	30.0
Max Q Clear Time (g_c+I1), s	10.0	6.0	3.7	6.9	3.7	35.0	61.0	15.5
Green Ext Time (p_c), s	0.0	7.9	0.0	4.5	0.0	0.0	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	244.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	210	60	150	70	30	70	90	1650	60	130	2140	120
Future Volume (veh/h)	210	60	150	70	30	70	90	1650	60	130	2140	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	223	64	160	74	32	74	96	1755	64	138	2277	128
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	274	249	220	94	202	181	95	2167	1053	163	2217	123
Arrive On Green	0.08	0.14	0.14	0.05	0.11	0.11	0.05	0.60	0.60	0.09	0.64	0.64
Sat Flow, veh/h	3510	1805	1597	1810	1805	1615	1810	3610	1615	1810	3477	194
Grp Volume(v), veh/h	223	64	160	74	32	74	96	1755	64	138	1172	1233
Grp Sat Flow(s),veh/h/ln	1755	1805	1597	1810	1805	1615	1810	1805	1615	1810	1805	1865
Q Serve(g_s), s	8.3	4.2	12.8	5.4	2.1	5.7	7.0	50.4	1.9	10.0	85.0	85.0
Cycle Q Clear(g_c), s	8.3	4.2	12.8	5.4	2.1	5.7	7.0	50.4	1.9	10.0	85.0	85.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	274	249	220	94	202	181	95	2167	1053	163	1151	1190
V/C Ratio(X)	0.82	0.26	0.73	0.79	0.16	0.41	1.01	0.81	0.06	0.85	1.02	1.04
Avail Cap(c_a), veh/h	290	474	419	95	420	376	95	2167	1053	176	1151	1190
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.5	51.4	55.0	62.5	53.5	55.1	63.1	20.7	8.4	59.8	24.1	24.1
Incr Delay (d2), s/veh	15.6	0.5	4.5	34.3	0.4	1.5	95.1	2.4	0.0	28.8	31.1	36.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.2	5.9	3.6	1.1	2.6	6.0	25.6	0.8	6.3	51.8	55.2
LnGrp Delay(d),s/veh	76.1	51.9	59.6	96.8	53.9	56.6	158.3	23.1	8.4	88.6	55.2	60.3
LnGrp LOS	E	D	E	F	D	E	F	C	A	F	F	F
Approach Vol, veh/h		447			180			1915			2543	
Approach Delay, s/veh		66.7			72.6			29.4			59.5	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	84.0	10.9	22.4	11.0	89.0	14.4	18.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	79.0	7.0	35.0	7.0	85.0	11.0	31.0
Max Q Clear Time (g_c+I1), s	12.0	52.4	7.4	14.8	9.0	87.0	10.3	7.7
Green Ext Time (p_c), s	0.0	26.0	0.0	1.9	0.0	0.0	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	49.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	140	1850	250	140	1250	220	120	400	120	170	430	110
Future Volume (veh/h)	140	1850	250	140	1250	220	120	400	120	170	430	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	2256	305	171	1524	268	146	488	146	207	524	134
Adj No. of Lanes	1	3	0	1	3	1	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	194	1885	249	133	1935	794	193	412	123	217	1021	260
Arrive On Green	0.11	0.41	0.41	0.07	0.37	0.37	0.05	0.29	0.29	0.12	0.36	0.36
Sat Flow, veh/h	1810	4636	611	1810	5187	1609	3510	1403	420	1810	2848	725
Grp Volume(v), veh/h	171	1668	893	171	1524	268	146	0	634	207	331	327
Grp Sat Flow(s),veh/h/ln	1810	1729	1789	1810	1729	1609	1755	0	1823	1810	1805	1768
Q Serve(g_s), s	14.0	61.0	61.0	11.0	39.1	4.0	6.2	0.0	44.0	17.1	21.6	21.8
Cycle Q Clear(g_c), s	14.0	61.0	61.0	11.0	39.1	4.0	6.2	0.0	44.0	17.1	21.6	21.8
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.23	1.00		0.41
Lane Grp Cap(c), veh/h	194	1406	728	133	1935	794	193	0	535	217	647	634
V/C Ratio(X)	0.88	1.19	1.23	1.29	0.79	0.34	0.76	0.00	1.19	0.95	0.51	0.52
Avail Cap(c_a), veh/h	217	1406	728	133	1935	794	257	0	535	217	647	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.1	44.5	44.5	69.5	41.8	10.8	69.9	0.0	53.0	65.6	37.8	37.9
Incr Delay (d2), s/veh	29.9	91.3	114.1	174.9	2.2	0.2	8.7	0.0	101.2	47.9	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	46.9	53.2	11.9	19.0	4.3	3.2	0.0	37.2	11.4	10.9	10.7
LnGrp Delay(d),s/veh	95.9	135.8	158.6	244.4	44.0	11.1	78.6	0.0	154.2	113.4	38.5	38.6
LnGrp LOS	F	F	F	F	D	B	E		F	F	D	D
Approach Vol, veh/h		2732			1963			780			865	
Approach Delay, s/veh		140.7			57.0			140.0			56.5	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	48.0	15.0	65.0	12.2	57.8	20.0	60.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	44.0	11.0	61.0	11.0	51.0	18.0	54.0
Max Q Clear Time (g_c+I1), s	19.1	46.0	13.0	63.0	8.2	23.8	16.0	41.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	4.7	0.1	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	103.2
HCM 2010 LOS	F

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	100	1740	220	90	1280	130	150	340	180	140	290	100
Future Volume (veh/h)	100	1740	220	90	1280	130	150	340	180	140	290	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	1933	244	100	1422	144	167	378	200	156	322	111
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	1968	610	130	1937	763	182	513	549	182	714	242
Arrive On Green	0.08	0.38	0.38	0.07	0.37	0.37	0.10	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1810	5187	1609	1810	5187	1609	1810	1900	1606	1810	2646	895
Grp Volume(v), veh/h	111	1933	244	100	1422	144	167	378	200	156	218	215
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1609	1810	1900	1606	1810	1805	1736
Q Serve(g_s), s	5.4	33.0	9.9	4.9	21.2	4.6	8.2	16.2	8.4	7.6	9.0	9.3
Cycle Q Clear(g_c), s	5.4	33.0	9.9	4.9	21.2	4.6	8.2	16.2	8.4	7.6	9.0	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	141	1968	610	130	1937	763	182	513	549	182	487	469
V/C Ratio(X)	0.79	0.98	0.40	0.77	0.73	0.19	0.92	0.74	0.36	0.86	0.45	0.46
Avail Cap(c_a), veh/h	182	1968	610	141	1937	763	182	721	725	182	685	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	27.5	20.3	40.9	24.2	13.6	39.9	29.8	22.2	39.7	27.2	27.3
Incr Delay (d2), s/veh	16.0	16.2	0.4	21.1	1.5	0.1	44.3	2.4	0.4	31.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	18.7	4.5	3.2	10.4	2.1	6.3	8.9	3.8	5.4	4.6	4.5
LnGrp Delay(d),s/veh	56.6	43.7	20.8	61.9	25.7	13.7	84.2	32.3	22.6	71.0	27.8	28.0
LnGrp LOS	E	D	C	E	C	B	F	C	C	E	C	C
Approach Vol, veh/h		2288			1666			745			589	
Approach Delay, s/veh		41.9			26.9			41.3			39.3	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	28.2	10.4	38.0	13.0	28.2	11.0	37.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	34.0	7.0	34.0	9.0	34.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	9.6	18.2	6.9	35.0	10.2	11.3	7.4	23.2
Green Ext Time (p_c), s	0.0	4.6	0.0	0.0	0.0	5.2	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
50: Morrison St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	350	1160	510	170	720	120	390	60	210	200	90	380
Future Volume (veh/h)	350	1160	510	170	720	120	390	60	210	200	90	380
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	407	1349	593	198	837	140	453	70	244	233	105	442
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	386	1160	502	157	895	149	374	609	545	258	493	439
Arrive On Green	0.21	0.33	0.33	0.09	0.20	0.20	0.21	0.34	0.34	0.14	0.27	0.27
Sat Flow, veh/h	1810	3550	1537	1810	4476	744	1810	1805	1615	1810	1805	1606
Grp Volume(v), veh/h	407	1314	628	198	645	332	453	70	244	233	105	442
Grp Sat Flow(s),veh/h/ln	1810	1729	1629	1810	1729	1762	1810	1805	1615	1810	1805	1606
Q Serve(g_s), s	32.0	49.0	49.0	13.0	27.5	27.8	31.0	4.0	17.7	19.0	6.7	41.0
Cycle Q Clear(g_c), s	32.0	49.0	49.0	13.0	27.5	27.8	31.0	4.0	17.7	19.0	6.7	41.0
Prop In Lane	1.00		0.94	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	1130	532	157	692	352	374	609	545	258	493	439
V/C Ratio(X)	1.05	1.16	1.18	1.26	0.93	0.94	1.21	0.12	0.45	0.90	0.21	1.01
Avail Cap(c_a), veh/h	386	1130	532	157	692	352	374	609	545	362	493	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	50.5	50.5	68.5	59.0	59.1	59.5	34.3	38.8	63.3	42.0	54.5
Incr Delay (d2), s/veh	60.8	83.3	99.6	159.1	19.7	32.9	117.4	0.1	0.6	19.5	0.2	44.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.5	36.4	36.7	13.4	15.1	16.8	27.7	2.0	8.0	10.9	3.4	23.6
LnGrp Delay(d),s/veh	119.8	133.8	150.1	227.6	78.7	92.0	176.9	34.4	39.4	82.8	42.3	99.2
LnGrp LOS	F	F	F	F	E	F	F	C	D	F	D	F
Approach Vol, veh/h		2349			1175			767			780	
Approach Delay, s/veh		135.7			107.6			120.2			86.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.4	54.6	17.0	53.0	35.0	45.0	36.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	30.0	42.0	13.0	49.0	31.0	41.0	32.0	30.0
Max Q Clear Time (g_c+I1), s	21.0	19.7	15.0	51.0	33.0	43.0	34.0	29.8
Green Ext Time (p_c), s	0.4	5.6	0.0	0.0	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	119.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	320	720	570	50	430	80	430	1210	140	90	1120	160
Future Volume (veh/h)	320	720	570	50	430	80	430	1210	140	90	1120	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	410	923	731	64	551	103	551	1551	179	115	1436	205
Adj No. of Lanes	2	3	1	2	2	1	1	3	0	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	376	1631	505	153	906	403	508	2164	249	138	1318	408
Arrive On Green	0.11	0.31	0.31	0.04	0.25	0.25	0.28	0.46	0.46	0.08	0.25	0.25
Sat Flow, veh/h	3510	5187	1607	3510	3610	1605	1810	4716	544	1810	5187	1605
Grp Volume(v), veh/h	410	923	731	64	551	103	551	1137	593	115	1436	205
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1605	1810	1729	1802	1810	1729	1605
Q Serve(g_s), s	16.0	22.2	47.0	2.7	20.2	7.7	42.0	39.6	39.7	9.4	38.0	16.3
Cycle Q Clear(g_c), s	16.0	22.2	47.0	2.7	20.2	7.7	42.0	39.6	39.7	9.4	38.0	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	376	1631	505	153	906	403	508	1587	827	138	1318	408
V/C Ratio(X)	1.09	0.57	1.45	0.42	0.61	0.26	1.08	0.72	0.72	0.83	1.09	0.50
Avail Cap(c_a), veh/h	376	1631	505	164	918	408	508	1587	827	206	1318	408
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.8	42.7	51.3	69.7	49.5	44.8	53.8	32.6	32.6	68.1	55.8	47.7
Incr Delay (d2), s/veh	73.2	0.5	212.0	1.8	1.1	0.3	64.5	1.6	3.0	16.6	52.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	10.7	50.6	1.3	10.2	3.4	30.0	19.3	20.5	5.3	24.5	7.4
LnGrp Delay(d),s/veh	140.0	43.2	263.2	71.5	50.7	45.2	118.3	34.2	35.6	84.7	108.6	48.6
LnGrp LOS	F	D	F	E	D	D	F	C	D	F	F	D
Approach Vol, veh/h		2064			718			2281			1756	
Approach Delay, s/veh		140.4			51.7			54.9			100.0	
Approach LOS		F			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	72.6	10.5	51.0	46.0	42.0	20.0	41.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	63.0	7.0	47.0	42.0	38.0	16.0	38.0
Max Q Clear Time (g_c+I1), s	11.4	41.7	4.7	49.0	44.0	40.0	18.0	22.2
Green Ext Time (p_c), s	0.1	19.1	0.0	0.0	0.0	0.0	0.0	10.8

Intersection Summary	
HCM 2010 Ctrl Delay	92.0
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑	↱
Traffic Volume (veh/h)	80	900	210	60	590	60	120	580	30	100	630	80
Future Volume (veh/h)	80	900	210	60	590	60	120	580	30	100	630	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	1098	256	73	720	73	146	707	37	122	768	98
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	1080	250	90	1174	119	142	1338	70	146	733	621
Arrive On Green	0.07	0.37	0.37	0.05	0.35	0.35	0.08	0.38	0.38	0.08	0.39	0.39
Sat Flow, veh/h	1810	2909	674	1810	3309	335	1810	3489	183	1810	1900	1609
Grp Volume(v), veh/h	98	679	675	73	393	400	146	366	378	122	768	98
Grp Sat Flow(s),veh/h/ln	1810	1805	1778	1810	1805	1839	1810	1805	1867	1810	1900	1609
Q Serve(g_s), s	7.5	52.0	52.0	5.6	25.1	25.1	11.0	21.9	21.9	9.3	54.0	5.6
Cycle Q Clear(g_c), s	7.5	52.0	52.0	5.6	25.1	25.1	11.0	21.9	21.9	9.3	54.0	5.6
Prop In Lane	1.00		0.38	1.00		0.18	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	121	670	660	90	640	652	142	692	716	146	733	621
V/C Ratio(X)	0.81	1.01	1.02	0.81	0.61	0.61	1.03	0.53	0.53	0.83	1.05	0.16
Avail Cap(c_a), veh/h	181	670	660	90	640	652	142	692	716	220	733	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.5	44.0	44.0	65.8	37.2	37.3	64.5	33.4	33.4	63.4	43.0	28.1
Incr Delay (d2), s/veh	15.3	37.9	40.8	39.8	1.7	1.7	82.8	0.8	0.7	15.5	46.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	32.9	33.0	3.8	12.8	13.1	8.8	11.1	11.5	5.3	37.8	2.5
LnGrp Delay(d),s/veh	79.8	81.9	84.8	105.6	39.0	39.0	147.6	34.1	34.1	78.9	89.5	28.2
LnGrp LOS	E	F	F	F	D	D	F	C	C	E	F	C
Approach Vol, veh/h		1452			866			890			988	
Approach Delay, s/veh		83.1			44.6			52.7			82.1	
Approach LOS		F			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	57.7	11.0	56.0	15.0	58.0	13.3	53.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	48.0	7.0	52.0	11.0	54.0	14.0	45.0
Max Q Clear Time (g_c+I1), s	11.3	23.9	7.6	54.0	13.0	56.0	9.5	27.1
Green Ext Time (p_c), s	0.1	10.7	0.0	0.0	0.0	0.0	0.1	12.0

Intersection Summary			
HCM 2010 Ctrl Delay			68.5
HCM 2010 LOS			E

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	570	320	350	490	80	160	450	320	40	540	30
Future Volume (veh/h)	60	570	320	350	490	80	160	450	320	40	540	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	648	364	398	557	91	182	511	0	45	614	34
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	653	367	403	1646	734	183	982	439	91	769	43
Arrive On Green	0.06	0.29	0.29	0.22	0.46	0.46	0.10	0.27	0.00	0.05	0.22	0.22
Sat Flow, veh/h	1810	2226	1250	1810	3610	1610	1810	3610	1615	1810	3477	192
Grp Volume(v), veh/h	68	525	487	398	557	91	182	511	0	45	318	330
Grp Sat Flow(s),veh/h/ln	1810	1805	1672	1810	1805	1610	1810	1805	1615	1810	1805	1865
Q Serve(g_s), s	3.6	28.7	28.7	21.7	9.8	3.2	9.9	11.9	0.0	2.4	16.5	16.5
Cycle Q Clear(g_c), s	3.6	28.7	28.7	21.7	9.8	3.2	9.9	11.9	0.0	2.4	16.5	16.5
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	108	530	490	403	1646	734	183	982	439	91	399	412
V/C Ratio(X)	0.63	0.99	0.99	0.99	0.34	0.12	0.99	0.52	0.00	0.50	0.80	0.80
Avail Cap(c_a), veh/h	165	530	490	403	1646	734	183	1132	506	128	511	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	34.8	34.8	38.3	17.3	15.5	44.4	30.5	0.0	45.7	36.4	36.4
Incr Delay (d2), s/veh	5.8	37.0	38.5	41.6	0.1	0.1	64.7	0.4	0.0	4.1	6.8	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	19.6	18.4	15.4	4.9	1.5	8.2	5.9	0.0	1.3	9.0	9.3
LnGrp Delay(d),s/veh	51.2	71.8	73.3	79.9	17.4	15.6	109.1	30.9	0.0	49.8	43.2	43.1
LnGrp LOS	D	E	E	E	B	B	F	C		D	D	D
Approach Vol, veh/h		1080			1046			693			693	
Approach Delay, s/veh		71.2			41.0			51.5			43.6	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	30.9	26.0	33.0	14.0	25.9	9.9	49.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	22.0	29.0	10.0	28.0	9.0	42.0
Max Q Clear Time (g_c+I1), s	4.4	13.9	23.7	30.7	11.9	18.5	5.6	11.8
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	2.4	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
54: Morriaon St/Morrison St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	150	680	90	270	670	460	70	50	220	530	70	170
Future Volume (veh/h)	150	680	90	270	670	460	70	50	220	530	70	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	680	90	270	670	460	70	50	220	530	70	170
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	169	817	108	293	662	453	89	295	261	552	756	674
Arrive On Green	0.09	0.25	0.25	0.16	0.32	0.32	0.05	0.16	0.16	0.31	0.42	0.42
Sat Flow, veh/h	1810	3204	424	1810	2048	1402	1810	1805	1600	1810	1805	1609
Grp Volume(v), veh/h	150	383	387	270	590	540	70	50	220	530	70	170
Grp Sat Flow(s),veh/h/ln	1810	1805	1822	1810	1805	1645	1810	1805	1600	1810	1805	1609
Q Serve(g_s), s	11.4	27.9	28.0	20.5	45.0	45.0	5.3	3.3	18.6	40.1	3.3	9.6
Cycle Q Clear(g_c), s	11.4	27.9	28.0	20.5	45.0	45.0	5.3	3.3	18.6	40.1	3.3	9.6
Prop In Lane	1.00		0.23	1.00		0.85	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	460	465	293	584	532	89	295	261	552	756	674
V/C Ratio(X)	0.89	0.83	0.83	0.92	1.01	1.02	0.78	0.17	0.84	0.96	0.09	0.25
Avail Cap(c_a), veh/h	169	460	465	299	584	532	156	350	310	572	765	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.4	49.0	49.1	57.5	47.1	47.1	65.4	50.1	56.5	47.5	24.4	26.3
Incr Delay (d2), s/veh	39.1	12.3	12.3	32.3	40.1	42.8	13.7	0.3	16.3	27.4	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	15.5	15.7	12.8	28.9	26.7	3.0	1.7	9.4	24.2	1.6	4.3
LnGrp Delay(d),s/veh	101.5	61.3	61.3	89.8	87.2	89.9	79.2	50.4	72.8	74.9	24.5	26.5
LnGrp LOS	F	E	E	F	F	F	E	D	E	E	C	C
Approach Vol, veh/h		920			1400			340			770	
Approach Delay, s/veh		67.9			88.8			70.8			59.7	
Approach LOS		E			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.5	26.7	26.5	39.5	10.9	62.3	17.0	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	44.0	27.0	23.0	35.0	12.0	59.0	13.0	45.0
Max Q Clear Time (g_c+I1), s	42.1	20.6	22.5	30.0	7.3	11.6	13.4	47.0
Green Ext Time (p_c), s	0.4	1.7	0.0	3.9	0.0	3.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↱		↰↰	↑↑↱	
Traffic Volume (veh/h)	590	400	320	250	350	470	280	370	250	600	480	660
Future Volume (veh/h)	590	400	320	250	350	470	280	370	250	600	480	660
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	747	506	405	316	443	595	354	468	316	759	608	835
Adj No. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	507	697	558	339	493	439	328	645	299	538	853	396
Arrive On Green	0.28	0.37	0.37	0.19	0.27	0.27	0.09	0.19	0.19	0.15	0.25	0.25
Sat Flow, veh/h	1810	1905	1524	1810	1805	1606	3510	3458	1602	3510	3458	1605
Grp Volume(v), veh/h	747	479	432	316	443	595	354	468	316	759	608	835
Grp Sat Flow(s),veh/h/ln	1810	1805	1624	1810	1805	1606	1755	1729	1602	1755	1729	1605
Q Serve(g_s), s	42.0	34.4	34.4	25.8	35.5	41.0	14.0	19.1	28.0	23.0	24.1	37.0
Cycle Q Clear(g_c), s	42.0	34.4	34.4	25.8	35.5	41.0	14.0	19.1	28.0	23.0	24.1	37.0
Prop In Lane	1.00		0.94	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	507	661	594	339	493	439	328	645	299	538	853	396
V/C Ratio(X)	1.47	0.73	0.73	0.93	0.90	1.36	1.08	0.73	1.06	1.41	0.71	2.11
Avail Cap(c_a), veh/h	507	661	594	374	493	439	328	645	299	538	853	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	41.0	41.1	60.0	52.5	54.5	68.0	57.4	61.0	63.5	51.6	56.5
Incr Delay (d2), s/veh	224.0	4.0	4.4	28.6	19.1	174.2	72.9	4.1	67.8	195.4	2.8	507.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	52.5	17.9	16.2	15.6	20.3	39.4	10.1	9.5	18.0	25.7	11.8	72.2
LnGrp Delay(d),s/veh	278.0	45.0	45.5	88.6	71.5	228.7	140.9	61.4	128.8	258.9	54.5	564.0
LnGrp LOS	F	D	D	F	E	F	F	E	F	F	D	F
Approach Vol, veh/h		1658			1354			1138			2202	
Approach Delay, s/veh		150.1			144.6			104.8			318.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	32.0	32.1	58.9	18.0	41.0	46.0	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	23.0	28.0	31.0	52.0	14.0	37.0	42.0	41.0
Max Q Clear Time (g_c+I1), s	25.0	30.0	27.8	36.4	16.0	39.0	44.0	43.0
Green Ext Time (p_c), s	0.0	0.0	0.3	10.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	199.1
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1970	120	110	1170	230	140	540	180	460	300	130
Future Volume (veh/h)	190	1970	120	110	1170	230	140	540	180	460	300	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	2165	132	121	1286	253	154	593	198	505	330	143
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	232	1690	754	98	1713	337	202	692	231	381	1125	501
Arrive On Green	0.13	0.47	0.47	0.05	0.39	0.39	0.06	0.26	0.26	0.11	0.31	0.31
Sat Flow, veh/h	1810	3610	1610	1810	4348	855	3510	2657	885	3510	3610	1607
Grp Volume(v), veh/h	209	2165	132	121	1023	516	154	402	389	505	330	143
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1745	1755	1805	1738	1755	1805	1607
Q Serve(g_s), s	16.8	69.0	7.0	8.0	37.5	37.5	6.4	31.3	31.4	16.0	10.2	9.9
Cycle Q Clear(g_c), s	16.8	69.0	7.0	8.0	37.5	37.5	6.4	31.3	31.4	16.0	10.2	9.9
Prop In Lane	1.00		1.00	1.00		0.49	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	232	1690	754	98	1362	688	202	470	453	381	1125	501
V/C Ratio(X)	0.90	1.28	0.18	1.23	0.75	0.75	0.76	0.86	0.86	1.33	0.29	0.29
Avail Cap(c_a), veh/h	270	1690	754	98	1362	688	262	502	483	381	1127	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	39.2	22.7	69.7	38.4	38.4	68.5	51.9	51.9	65.7	38.4	38.3
Incr Delay (d2), s/veh	27.6	131.1	0.1	165.7	2.4	4.6	9.4	13.1	13.8	163.5	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	65.1	3.1	8.5	18.3	19.0	3.4	17.4	16.8	16.4	5.1	4.4
LnGrp Delay(d),s/veh	90.9	170.3	22.8	235.4	40.8	43.1	77.8	64.9	65.7	229.2	38.6	38.6
LnGrp LOS	F	F	C	F	D	D	E	E	E	F	D	D
Approach Vol, veh/h		2506			1660			945			978	
Approach Delay, s/veh		155.9			55.7			67.3			137.0	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	42.4	12.0	73.0	12.5	49.9	22.9	62.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	41.0	8.0	69.0	11.0	46.0	22.0	55.0
Max Q Clear Time (g_c+I1), s	18.0	33.4	10.0	71.0	8.4	12.2	18.8	39.5
Green Ext Time (p_c), s	0.0	4.4	0.0	0.0	0.1	9.6	0.2	15.0

Intersection Summary	
HCM 2010 Ctrl Delay	111.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	2060	320	250	1080	230	350	880	250	220	330	130
Future Volume (veh/h)	140	2060	320	250	1080	230	350	880	250	220	330	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	2239	0	272	1174	250	380	957	272	239	359	141
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	175	1444	646	162	1682	358	225	881	249	150	701	271
Arrive On Green	0.10	0.40	0.00	0.09	0.39	0.39	0.12	0.32	0.32	0.08	0.28	0.28
Sat Flow, veh/h	1810	3610	1615	1810	4281	912	1810	2776	786	1810	2543	983
Grp Volume(v), veh/h	152	2239	0	272	948	476	380	621	608	239	253	247
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1735	1810	1805	1757	1810	1805	1720
Q Serve(g_s), s	12.0	58.0	0.0	13.0	33.3	33.3	18.0	46.0	46.0	12.0	17.1	17.6
Cycle Q Clear(g_c), s	12.0	58.0	0.0	13.0	33.3	33.3	18.0	46.0	46.0	12.0	17.1	17.6
Prop In Lane	1.00		1.00	1.00		0.53	1.00		0.45	1.00		0.57
Lane Grp Cap(c), veh/h	175	1444	646	162	1358	681	225	573	557	150	498	475
V/C Ratio(X)	0.87	1.55	0.00	1.68	0.70	0.70	1.69	1.08	1.09	1.60	0.51	0.52
Avail Cap(c_a), veh/h	200	1444	646	162	1358	681	225	573	557	150	498	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.6	43.5	0.0	66.0	36.8	36.8	63.5	49.5	49.5	66.5	44.2	44.4
Incr Delay (d2), s/veh	28.4	251.2	0.0	329.8	1.6	3.1	329.7	62.7	65.1	297.2	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	79.3	0.0	21.4	16.2	16.6	29.6	32.9	32.4	18.4	8.6	8.5
LnGrp Delay(d),s/veh	93.0	294.7	0.0	395.8	38.4	40.0	393.2	112.2	114.6	363.7	45.1	45.4
LnGrp LOS	F	F		F	D	D	F	F	F	F	D	D
Approach Vol, veh/h		2391			1696			1609			739	
Approach Delay, s/veh		281.9			96.2			179.5			148.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	50.0	17.0	62.0	22.0	44.0	18.0	61.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	46.0	13.0	58.0	18.0	40.0	16.0	55.0
Max Q Clear Time (g_c+I1), s	14.0	48.0	15.0	60.0	20.0	19.6	14.0	35.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	12.1	0.1	18.8

Intersection Summary	
HCM 2010 Ctrl Delay	192.0
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	130	2220	140	70	1290	240	190	560	180	320	450	120
Future Volume (veh/h)	130	2220	140	70	1290	240	190	560	180	320	450	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	141	2413	152	76	1402	261	207	609	196	348	489	130
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	2121	865	89	1642	305	231	735	236	281	1087	620
Arrive On Green	0.08	0.41	0.41	0.05	0.37	0.37	0.13	0.27	0.27	0.16	0.30	0.30
Sat Flow, veh/h	1810	5187	1609	1810	4393	817	1810	2685	863	1810	3610	1607
Grp Volume(v), veh/h	141	2413	152	76	1103	560	207	409	396	348	489	130
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1752	1810	1805	1742	1810	1805	1607
Q Serve(g_s), s	11.0	58.0	6.9	5.9	41.6	41.7	16.0	30.2	30.3	22.0	15.5	7.7
Cycle Q Clear(g_c), s	11.0	58.0	6.9	5.9	41.6	41.7	16.0	30.2	30.3	22.0	15.5	7.7
Prop In Lane	1.00		1.00	1.00		0.47	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	153	2121	865	89	1292	655	231	494	477	281	1087	620
V/C Ratio(X)	0.92	1.14	0.18	0.85	0.85	0.86	0.89	0.83	0.83	1.24	0.45	0.21
Avail Cap(c_a), veh/h	153	2121	865	89	1292	655	268	534	516	281	1094	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.4	41.9	16.8	66.9	40.9	40.9	60.9	48.4	48.4	59.9	40.1	29.1
Incr Delay (d2), s/veh	49.9	68.3	0.1	50.4	5.8	10.8	27.1	9.8	10.3	134.5	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	40.9	3.1	4.2	21.0	22.2	9.7	16.4	15.9	21.4	7.8	3.4
LnGrp Delay(d),s/veh	114.4	110.2	16.9	117.3	46.6	51.6	88.0	58.2	58.7	194.4	40.4	29.3
LnGrp LOS	F	F	B	F	D	D	F	E	E	F	D	C
Approach Vol, veh/h		2706			1739			1012			967	
Approach Delay, s/veh		105.2			51.3			64.5			94.3	
Approach LOS		F			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	42.8	11.0	62.0	22.1	46.7	16.0	57.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	42.0	7.0	58.0	21.0	43.0	12.0	53.0
Max Q Clear Time (g_c+I1), s	24.0	32.3	7.9	60.0	18.0	17.5	13.0	43.7
Green Ext Time (p_c), s	0.0	5.8	0.0	0.0	0.2	10.3	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	82.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	250	2010	350	220	1230	90	230	630	180	230	570	110
Future Volume (veh/h)	250	2010	350	220	1230	90	230	630	180	230	570	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	272	2185	380	239	1337	98	250	685	196	250	620	120
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	292	1755	296	178	1625	119	190	807	231	190	880	170
Arrive On Green	0.16	0.39	0.39	0.10	0.33	0.33	0.11	0.29	0.29	0.11	0.29	0.29
Sat Flow, veh/h	1810	4469	753	1810	4931	361	1810	2769	792	1810	3016	583
Grp Volume(v), veh/h	272	1674	891	239	938	497	250	446	435	250	371	369
Grp Sat Flow(s),veh/h/ln	1810	1729	1764	1810	1729	1834	1810	1805	1755	1810	1805	1794
Q Serve(g_s), s	21.2	56.0	56.0	14.0	35.6	35.6	15.0	33.2	33.2	15.0	26.1	26.2
Cycle Q Clear(g_c), s	21.2	56.0	56.0	14.0	35.6	35.6	15.0	33.2	33.2	15.0	26.1	26.2
Prop In Lane	1.00		0.43	1.00		0.20	1.00		0.45	1.00		0.32
Lane Grp Cap(c), veh/h	292	1358	693	178	1140	605	190	526	512	190	526	523
V/C Ratio(X)	0.93	1.23	1.29	1.35	0.82	0.82	1.31	0.85	0.85	1.31	0.70	0.71
Avail Cap(c_a), veh/h	292	1358	693	178	1140	605	190	557	542	190	557	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.0	43.3	43.3	64.3	44.0	44.0	63.8	47.5	47.5	63.8	45.0	45.1
Incr Delay (d2), s/veh	35.1	111.4	139.4	188.0	5.0	9.0	173.2	11.3	11.6	173.2	3.8	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	47.6	53.9	16.2	17.7	19.5	16.6	18.1	17.7	16.6	13.5	13.5
LnGrp Delay(d),s/veh	94.1	154.7	182.7	252.3	48.9	52.9	237.0	58.8	59.2	237.0	48.8	48.9
LnGrp LOS	F	F	F	F	D	D	F	E	E	F	D	D
Approach Vol, veh/h		2837			1674			1131			990	
Approach Delay, s/veh		157.7			79.1			98.3			96.4	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	45.6	18.0	60.0	19.0	45.6	27.0	51.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	44.0	14.0	56.0	15.0	44.0	23.0	47.0
Max Q Clear Time (g_c+I1), s	17.0	35.2	16.0	58.0	17.0	28.2	23.2	37.6
Green Ext Time (p_c), s	0.0	6.0	0.0	0.0	0.0	9.3	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	118.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	1700	370	340	1070	170	330	1140	360	290	1010	200
Future Volume (veh/h)	320	1700	370	340	1070	170	330	1140	360	290	1010	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	360	1910	416	382	1202	191	371	1281	404	326	1135	225
Adj No. of Lanes	2	2	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	414	1662	741	304	1936	308	304	1416	438	258	1347	417
Arrive On Green	0.12	0.46	0.46	0.09	0.43	0.43	0.09	0.27	0.27	0.07	0.26	0.26
Sat Flow, veh/h	3510	3610	1610	3510	4512	717	3510	5187	1606	3510	5187	1606
Grp Volume(v), veh/h	360	1910	416	382	921	472	371	1281	404	326	1135	225
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1729	1771	1755	1729	1606	1755	1729	1606
Q Serve(g_s), s	15.1	69.0	28.2	13.0	31.1	31.1	13.0	35.7	36.6	11.0	31.1	18.1
Cycle Q Clear(g_c), s	15.1	69.0	28.2	13.0	31.1	31.1	13.0	35.7	36.6	11.0	31.1	18.1
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	1662	741	304	1484	760	304	1416	438	258	1347	417
V/C Ratio(X)	0.87	1.15	0.56	1.25	0.62	0.62	1.22	0.90	0.92	1.27	0.84	0.54
Avail Cap(c_a), veh/h	515	1662	741	304	1484	760	304	1419	439	258	1349	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	40.5	29.4	68.5	33.3	33.3	68.5	52.6	52.9	69.5	52.6	47.8
Incr Delay (d2), s/veh	12.6	74.8	1.0	138.8	0.8	1.6	124.5	8.5	24.8	146.7	5.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	51.6	12.7	12.2	15.0	15.5	11.6	18.2	19.3	10.6	15.4	8.2
LnGrp Delay(d),s/veh	77.6	115.3	30.4	207.2	34.1	34.9	193.0	61.2	77.7	216.1	57.6	49.2
LnGrp LOS	E	F	C	F	C	C	F	E	E	F	E	D
Approach Vol, veh/h		2686			1775			2056			1686	
Approach Delay, s/veh		97.1			71.6			88.2			87.2	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	44.9	17.0	73.0	17.0	42.9	21.7	68.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	13.0	69.0	13.0	39.0	22.0	60.0
Max Q Clear Time (g_c+I1), s	13.0	38.6	15.0	71.0	15.0	33.1	17.1	33.1
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	5.5	0.6	24.8

Intersection Summary	
HCM 2010 Ctrl Delay	87.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
	↗	→	←	↖	↘	↙
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	170	2540	1500	380	350	120
Future Volume (veh/h)	170	2540	1500	380	350	120
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	2702	1596	404	372	128
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	227	3694	2710	1098	560	461
Arrive On Green	0.13	0.71	0.52	0.52	0.16	0.16
Sat Flow, veh/h	1810	5358	5358	1607	3510	1615
Grp Volume(v), veh/h	181	2702	1596	404	372	128
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1607	1755	1615
Q Serve(g_s), s	6.1	19.5	13.2	6.7	6.2	3.8
Cycle Q Clear(g_c), s	6.1	19.5	13.2	6.7	6.2	3.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	227	3694	2710	1098	560	461
V/C Ratio(X)	0.80	0.73	0.59	0.37	0.66	0.28
Avail Cap(c_a), veh/h	319	3824	2710	1098	1744	1005
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	5.4	10.3	4.2	24.6	17.3
Incr Delay (d2), s/veh	9.1	0.7	0.3	0.2	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.3	6.3	4.4	3.1	3.8
LnGrp Delay(d),s/veh	35.6	6.1	10.6	4.4	26.0	17.6
LnGrp LOS	D	A	B	A	C	B
Approach Vol, veh/h		2883	2000		500	
Approach Delay, s/veh		8.0	9.4		23.9	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				48.4		14.0	11.8	36.6
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	11.0	31.0
Max Q Clear Time (g_c+I1), s				21.5		8.2	8.1	15.2
Green Ext Time (p_c), s				22.9		1.7	0.1	15.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	120	2410	380	120	1140	230	730	790	470	350	240	80
Future Volume (veh/h)	120	2410	380	120	1140	230	730	790	470	350	240	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	2537	400	126	1200	242	768	832	495	368	253	84
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	2039	632	100	1584	319	702	664	390	250	871	520
Arrive On Green	0.08	0.39	0.39	0.06	0.37	0.37	0.20	0.30	0.30	0.14	0.24	0.24
Sat Flow, veh/h	1810	5187	1609	1810	4327	873	3510	2187	1284	1810	3610	1605
Grp Volume(v), veh/h	126	2537	400	126	959	483	768	685	642	368	253	84
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1742	1755	1805	1666	1810	1805	1605
Q Serve(g_s), s	10.0	57.0	29.1	8.0	35.3	35.3	29.0	44.0	44.0	20.0	8.3	5.4
Cycle Q Clear(g_c), s	10.0	57.0	29.1	8.0	35.3	35.3	29.0	44.0	44.0	20.0	8.3	5.4
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.77	1.00		1.00
Lane Grp Cap(c), veh/h	149	2039	632	100	1266	638	702	548	506	250	871	520
V/C Ratio(X)	0.85	1.24	0.63	1.26	0.76	0.76	1.09	1.25	1.27	1.47	0.29	0.16
Avail Cap(c_a), veh/h	162	2039	632	100	1266	638	702	548	506	250	871	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	44.0	35.5	68.5	40.3	40.3	58.0	50.5	50.5	62.5	44.9	35.0
Incr Delay (d2), s/veh	30.3	114.2	2.1	176.1	2.7	5.2	62.4	127.0	136.7	233.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	48.8	13.2	8.9	17.3	17.8	20.1	41.2	39.4	26.2	4.2	2.4
LnGrp Delay(d),s/veh	96.0	158.2	37.6	244.6	43.0	45.5	120.4	177.5	187.2	296.4	45.1	35.2
LnGrp LOS	F	F	D	F	D	D	F	F	F	F	D	D
Approach Vol, veh/h		3063			1568			2095			705	
Approach Delay, s/veh		139.9			60.0			159.6			175.1	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	48.0	12.0	61.0	33.0	39.0	15.9	57.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	44.0	8.0	57.0	29.0	35.0	13.0	52.0
Max Q Clear Time (g_c+I1), s	22.0	46.0	10.0	59.0	31.0	10.3	12.0	37.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	13.4	0.0	14.4

Intersection Summary	
HCM 2010 Ctrl Delay	131.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	480	1600	1130	10	820	90	440	410	20	110	430	170
Future Volume (veh/h)	480	1600	1130	10	820	90	440	410	20	110	430	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	522	1739	1228	11	891	98	478	446	22	120	467	185
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	421	2541	1056	31	901	99	580	1052	52	144	543	213
Arrive On Green	0.23	0.49	0.49	0.02	0.27	0.27	0.17	0.30	0.30	0.08	0.21	0.21
Sat Flow, veh/h	1810	5187	1610	1810	3278	361	3510	3501	172	1810	2528	994
Grp Volume(v), veh/h	522	1739	1228	11	491	498	478	229	239	120	332	320
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1805	1834	1755	1805	1869	1810	1805	1716
Q Serve(g_s), s	33.0	36.5	54.3	0.9	38.4	38.4	18.7	14.5	14.5	9.3	25.2	25.5
Cycle Q Clear(g_c), s	33.0	36.5	54.3	0.9	38.4	38.4	18.7	14.5	14.5	9.3	25.2	25.5
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.09	1.00		0.58
Lane Grp Cap(c), veh/h	421	2541	1056	31	496	504	580	542	561	144	388	369
V/C Ratio(X)	1.24	0.68	1.16	0.35	0.99	0.99	0.82	0.42	0.43	0.83	0.86	0.87
Avail Cap(c_a), veh/h	421	2541	1056	89	496	504	692	559	579	229	432	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	27.8	15.5	69.0	51.3	51.3	57.2	39.8	39.8	64.4	53.6	53.8
Incr Delay (d2), s/veh	127.2	0.8	84.1	6.5	37.5	37.2	6.9	0.5	0.5	13.2	14.6	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.3	17.6	48.3	0.5	24.4	24.7	9.6	7.3	7.6	5.2	14.1	13.7
LnGrp Delay(d),s/veh	181.7	28.6	99.5	75.5	88.8	88.5	64.1	40.3	40.3	77.6	68.2	70.0
LnGrp LOS	F	C	F	E	F	F	E	D	D	E	E	E
Approach Vol, veh/h		3489			1000			946			772	
Approach Delay, s/veh		76.5			88.5			52.3			70.4	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	46.6	6.5	73.5	27.5	34.5	37.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	44.0	7.0	65.0	28.0	34.0	33.0	39.0
Max Q Clear Time (g_c+I1), s	11.3	16.5	2.9	56.3	20.7	27.5	35.0	40.4
Green Ext Time (p_c), s	0.1	4.9	0.0	8.4	2.8	2.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	120	1120	380	40	710	70	210	720	60	70	790	90
Future Volume (veh/h)	120	1120	380	40	710	70	210	720	60	70	790	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	1287	437	46	816	80	241	828	69	80	908	103
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	163	1251	410	76	1395	137	222	1076	90	100	824	93
Arrive On Green	0.09	0.47	0.47	0.04	0.42	0.42	0.12	0.32	0.32	0.06	0.25	0.25
Sat Flow, veh/h	1810	2671	876	1810	3321	326	1810	3373	281	1810	3266	371
Grp Volume(v), veh/h	138	855	869	46	444	452	241	443	454	80	502	509
Grp Sat Flow(s),veh/h/ln	1810	1805	1742	1810	1805	1841	1810	1805	1849	1810	1805	1832
Q Serve(g_s), s	10.4	65.0	65.0	3.5	26.2	26.2	17.0	30.8	30.8	6.1	35.0	35.0
Cycle Q Clear(g_c), s	10.4	65.0	65.0	3.5	26.2	26.2	17.0	30.8	30.8	6.1	35.0	35.0
Prop In Lane	1.00		0.50	1.00		0.18	1.00		0.15	1.00		0.20
Lane Grp Cap(c), veh/h	163	845	816	76	758	773	222	576	590	100	455	462
V/C Ratio(X)	0.85	1.01	1.06	0.61	0.58	0.59	1.09	0.77	0.77	0.80	1.10	1.10
Avail Cap(c_a), veh/h	235	845	816	91	758	773	222	576	590	117	455	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	36.9	36.9	65.4	30.9	31.0	60.9	42.6	42.7	64.8	51.9	51.9
Incr Delay (d2), s/veh	17.3	34.0	50.2	7.8	1.2	1.1	85.7	6.3	6.1	27.1	73.0	72.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	40.1	42.4	1.9	13.3	13.6	13.7	16.4	16.8	3.8	26.5	26.9
LnGrp Delay(d),s/veh	79.5	70.9	87.1	73.2	32.1	32.1	146.6	48.9	48.8	91.9	124.9	124.6
LnGrp LOS	E	F	F	E	C	C	F	D	D	F	F	F
Approach Vol, veh/h		1862			942			1138			1091	
Approach Delay, s/veh		79.1			34.1			69.6			122.3	
Approach LOS		E			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	48.3	9.8	69.0	21.0	39.0	16.5	62.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	7.0	65.0	17.0	35.0	18.0	54.0
Max Q Clear Time (g_c+I1), s	8.1	32.8	5.5	67.0	19.0	37.0	12.4	28.2
Green Ext Time (p_c), s	0.0	7.7	0.0	0.0	0.0	0.0	0.1	19.3

Intersection Summary	
HCM 2010 Ctrl Delay	77.9
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	80	880	200	100	540	180	190	1320	180	250	1210	50
Future Volume (veh/h)	80	880	200	100	540	180	190	1320	180	250	1210	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	1011	230	115	621	207	218	1517	207	287	1391	57
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	116	1009	229	115	917	305	230	1509	467	280	1626	67
Arrive On Green	0.06	0.35	0.35	0.06	0.34	0.34	0.13	0.29	0.29	0.15	0.32	0.32
Sat Flow, veh/h	1810	2922	663	1810	2659	885	1810	5187	1607	1810	5110	209
Grp Volume(v), veh/h	92	623	618	115	421	407	218	1517	207	287	941	507
Grp Sat Flow(s),veh/h/ln	1810	1805	1780	1810	1805	1739	1810	1729	1607	1810	1729	1862
Q Serve(g_s), s	5.5	38.0	38.0	7.0	21.9	22.0	13.1	32.0	9.3	17.0	28.0	28.0
Cycle Q Clear(g_c), s	5.5	38.0	38.0	7.0	21.9	22.0	13.1	32.0	9.3	17.0	28.0	28.0
Prop In Lane	1.00		0.37	1.00		0.51	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	116	624	615	115	622	600	230	1509	467	280	1100	592
V/C Ratio(X)	0.79	1.00	1.00	1.00	0.68	0.68	0.95	1.01	0.44	1.03	0.86	0.86
Avail Cap(c_a), veh/h	132	624	615	115	622	600	230	1509	467	280	1100	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	36.0	36.0	51.5	30.8	30.8	47.6	39.0	20.7	46.5	35.1	35.1
Incr Delay (d2), s/veh	24.6	36.0	37.4	83.4	2.9	3.1	44.5	24.5	3.0	60.8	8.6	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	25.1	25.0	6.2	11.4	11.0	9.4	18.6	4.5	13.2	14.6	16.8
LnGrp Delay(d),s/veh	75.3	72.0	73.4	134.9	33.7	33.9	92.1	63.5	23.7	107.3	43.7	49.8
LnGrp LOS	E	E	F	F	C	C	F	F	C	F	D	D
Approach Vol, veh/h		1333			943			1942			1735	
Approach Delay, s/veh		72.9			46.1			62.4			56.0	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	36.0	11.0	42.0	18.0	39.0	11.1	41.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	32.0	7.0	38.0	14.0	35.0	8.0	37.0
Max Q Clear Time (g_c+I1), s	19.0	34.0	9.0	40.0	15.1	30.0	7.5	24.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.5	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	60.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	250	2910	850	200	2370	220	450	310	200	140	450	280
Future Volume (veh/h)	250	2910	850	200	2370	220	450	310	200	140	450	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	3096	904	213	2521	234	479	330	213	149	479	298
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	2258	701	267	2258	701	267	866	894	261	860	382
Arrive On Green	0.08	0.44	0.44	0.08	0.44	0.44	0.08	0.24	0.24	0.07	0.24	0.24
Sat Flow, veh/h	1810	5187	1609	3510	5187	1609	3510	3610	2825	3510	3610	1605
Grp Volume(v), veh/h	266	3096	904	213	2521	234	479	330	213	149	479	298
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1755	1729	1609	1755	1805	1412	1755	1805	1605
Q Serve(g_s), s	7.0	40.0	28.4	5.5	40.0	8.8	7.0	7.0	5.1	3.8	10.7	12.5
Cycle Q Clear(g_c), s	7.0	40.0	28.4	5.5	40.0	8.8	7.0	7.0	5.1	3.8	10.7	12.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	2258	701	267	2258	701	267	866	894	261	860	382
V/C Ratio(X)	1.93	1.37	1.29	0.80	1.12	0.33	1.79	0.38	0.24	0.57	0.56	0.78
Avail Cap(c_a), veh/h	138	2258	701	267	2258	701	267	1689	1538	344	1768	786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	25.9	13.1	41.7	25.9	17.1	42.4	29.2	23.2	41.1	30.7	20.2
Incr Delay (d2), s/veh	443.9	169.9	141.2	15.4	59.2	0.3	370.7	0.3	0.1	2.0	0.6	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	54.5	39.9	3.2	31.2	3.9	17.1	3.5	2.0	1.9	5.4	6.1
LnGrp Delay(d),s/veh	486.3	195.9	154.3	57.1	85.1	17.4	413.1	29.5	23.4	43.1	31.3	23.7
LnGrp LOS	F	F	F	E	F	B	F	C	C	D	C	C
Approach Vol, veh/h		4266			2968			1022			926	
Approach Delay, s/veh		205.2			77.8			208.0			30.7	
Approach LOS		F			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	26.0	11.0	44.0	11.0	25.9	11.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	43.0	7.0	40.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	5.8	9.0	7.5	42.0	9.0	14.5	9.0	42.0
Green Ext Time (p_c), s	0.1	4.9	0.0	0.0	0.0	4.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	146.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	2310	920	0	2230	0	0	0	0	300	0	550
Future Volume (veh/h)	0	2310	920	0	2230	0	0	0	0	300	0	550
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2381	948	0	2299	0				206	0	677
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2574	909	0	3527	0				386	0	689
Arrive On Green	0.00	0.68	0.68	0.00	0.68	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	3957	1336	0	5529	0				1810	0	3230
Grp Volume(v), veh/h	0	2149	1180	0	2299	0				206	0	677
Grp Sat Flow(s),veh/h/ln	0	1729	1664	0	1729	0				1810	0	1615
Q Serve(g_s), s	0.0	39.4	51.0	0.0	19.1	0.0				7.6	0.0	15.6
Cycle Q Clear(g_c), s	0.0	39.4	51.0	0.0	19.1	0.0				7.6	0.0	15.6
Prop In Lane	0.00		0.80	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2351	1132	0	3527	0				386	0	689
V/C Ratio(X)	0.00	0.91	1.04	0.00	0.65	0.00				0.53	0.00	0.98
Avail Cap(c_a), veh/h	0	2351	1132	0	3527	0				386	0	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.00	0.28	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.1	12.0	0.0	6.9	0.0				26.2	0.0	29.4
Incr Delay (d2), s/veh	0.0	0.7	22.4	0.0	0.3	0.0				1.4	0.0	29.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.4	29.7	0.0	9.0	0.0				3.9	0.0	9.8
LnGrp Delay(d),s/veh	0.0	10.9	34.4	0.0	7.2	0.0				27.6	0.0	59.2
LnGrp LOS		B	F		A					C		E
Approach Vol, veh/h		3329			2299						883	
Approach Delay, s/veh		19.2			7.2						51.8	
Approach LOS		B			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				55.0		20.0		55.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				51.0		16.0		51.0
Max Q Clear Time (g_c+I1), s				53.0		17.6		21.1
Green Ext Time (p_c), s				0.0		0.0		29.8

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	330	2240	0	0	1620	220	740	10	200	0	0	0
Future Volume (veh/h)	330	2240	0	0	1620	220	740	10	200	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	337	2286	0	0	1653	224	822	0	139			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	366	3382	0	0	1848	250	897	0	400			
Arrive On Green	0.20	0.65	0.00	0.00	0.40	0.40	0.25	0.00	0.25			
Sat Flow, veh/h	1810	5358	0	0	4792	624	3619	0	1615			
Grp Volume(v), veh/h	337	2286	0	0	1235	642	822	0	139			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1787	1810	0	1615			
Q Serve(g_s), s	14.6	21.9	0.0	0.0	26.7	26.9	17.7	0.0	5.7			
Cycle Q Clear(g_c), s	14.6	21.9	0.0	0.0	26.7	26.9	17.7	0.0	5.7			
Prop In Lane	1.00		0.00	0.00		0.35	1.00		1.00			
Lane Grp Cap(c), veh/h	366	3382	0	0	1383	715	897	0	400			
V/C Ratio(X)	0.92	0.68	0.00	0.00	0.89	0.90	0.92	0.00	0.35			
Avail Cap(c_a), veh/h	366	3382	0	0	1383	715	905	0	404			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.22	0.22	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.3	8.7	0.0	0.0	22.4	22.5	29.3	0.0	24.8			
Incr Delay (d2), s/veh	9.0	0.2	0.0	0.0	9.1	16.3	13.7	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.2	10.4	0.0	0.0	14.5	16.4	10.5	0.0	2.6			
LnGrp Delay(d),s/veh	40.3	8.9	0.0	0.0	31.5	38.8	43.0	0.0	25.3			
LnGrp LOS	D	A			C	D	D		C			
Approach Vol, veh/h		2623			1877			961				
Approach Delay, s/veh		12.9			34.0			40.4				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		23.8		56.2			20.2	36.0
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		20.0		52.0			16.0	32.0
Max Q Clear Time (g_c+I1), s		19.7		23.9			16.6	28.9
Green Ext Time (p_c), s		0.2		21.8			0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	290	2180	50	10	1250	180	70	320	30	340	150	430
Future Volume (veh/h)	290	2180	50	10	1250	180	70	320	30	340	150	430
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	305	2295	53	11	1316	0	74	337	32	358	158	0
Adj No. of Lanes	2	3	0	1	3	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	389	2546	59	34	2053	639	224	475	213	347	937	419
Arrive On Green	0.11	0.49	0.49	0.02	0.40	0.00	0.06	0.13	0.13	0.19	0.26	0.00
Sat Flow, veh/h	3510	5216	120	1810	5187	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	305	1519	829	11	1316	0	74	337	32	358	158	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1878	1810	1729	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	8.0	37.7	38.0	0.6	19.3	0.0	1.9	8.4	1.6	18.0	3.2	0.0
Cycle Q Clear(g_c), s	8.0	37.7	38.0	0.6	19.3	0.0	1.9	8.4	1.6	18.0	3.2	0.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	1688	917	34	2053	639	224	475	213	347	937	419
V/C Ratio(X)	0.78	0.90	0.90	0.33	0.64	0.00	0.33	0.71	0.15	1.03	0.17	0.00
Avail Cap(c_a), veh/h	560	1692	919	135	2097	653	261	691	309	347	1114	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	22.0	22.0	45.5	23.0	0.0	42.1	39.1	36.2	38.0	26.9	0.0
Incr Delay (d2), s/veh	4.6	7.0	12.2	5.5	0.6	0.0	0.9	2.0	0.3	57.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	19.6	22.7	0.3	9.3	0.0	0.9	4.3	0.8	14.5	1.6	0.0
LnGrp Delay(d),s/veh	45.3	29.0	34.2	51.1	23.6	0.0	42.9	41.0	36.5	95.1	27.0	0.0
LnGrp LOS	D	C	C	D	C		D	D	D	F	C	
Approach Vol, veh/h		2653			1327			443			516	
Approach Delay, s/veh		32.5			23.9			41.0			74.3	
Approach LOS		C			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	16.4	5.7	49.9	10.0	28.4	14.4	41.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	18.0	7.0	46.0	7.0	29.0	15.0	38.0
Max Q Clear Time (g_c+I1), s	20.0	10.4	2.6	40.0	3.9	5.2	10.0	21.3
Green Ext Time (p_c), s	0.0	2.0	0.0	5.9	0.0	3.4	0.5	15.8

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
70: Day St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	500	1850	190	70	1120	560	50	490	60	540	680	200
Future Volume (veh/h)	500	1850	190	70	1120	560	50	490	60	540	680	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	526	1947	200	74	1179	589	53	516	63	568	716	211
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	1934	197	94	1401	434	84	704	86	365	1025	302
Arrive On Green	0.19	0.40	0.40	0.05	0.27	0.27	0.05	0.22	0.22	0.20	0.37	0.37
Sat Flow, veh/h	1810	4782	488	1810	5187	1606	1810	3238	394	1810	2748	810
Grp Volume(v), veh/h	526	1404	743	74	1179	589	53	287	292	568	470	457
Grp Sat Flow(s),veh/h/ln	1810	1729	1812	1810	1729	1606	1810	1805	1827	1810	1805	1753
Q Serve(g_s), s	24.0	52.1	52.1	5.2	27.7	22.2	3.7	19.0	19.2	26.0	28.4	28.4
Cycle Q Clear(g_c), s	24.0	52.1	52.1	5.2	27.7	22.2	3.7	19.0	19.2	26.0	28.4	28.4
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.22	1.00		0.46
Lane Grp Cap(c), veh/h	337	1399	733	94	1401	434	84	392	397	365	673	654
V/C Ratio(X)	1.56	1.00	1.01	0.79	0.84	1.36	0.63	0.73	0.74	1.55	0.70	0.70
Avail Cap(c_a), veh/h	337	1399	733	98	1410	437	126	617	624	365	855	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	38.3	38.3	60.3	44.4	19.1	60.3	46.9	46.9	51.4	34.2	34.2
Incr Delay (d2), s/veh	265.9	25.0	36.8	32.3	4.8	175.5	7.7	2.6	2.7	262.7	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	36.8	29.5	33.3	3.5	13.8	32.4	2.0	9.8	10.0	39.6	14.4	14.0
LnGrp Delay(d),s/veh	318.3	63.3	75.2	92.6	49.2	194.7	68.0	49.5	49.6	314.1	36.0	36.1
LnGrp LOS	F	F	F	F	D	F	E	D	D	F	D	D
Approach Vol, veh/h		2673			1842			632			1495	
Approach Delay, s/veh		116.8			97.4			51.1			141.7	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	32.0	10.7	56.1	9.9	52.0	28.0	38.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	44.0	7.0	52.0	9.0	61.0	24.0	35.0
Max Q Clear Time (g_c+I1), s	28.0	21.2	7.2	54.1	5.7	30.4	26.0	29.7
Green Ext Time (p_c), s	0.0	3.6	0.0	0.0	0.0	9.8	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	110.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
71: Elsworth St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	180	1960	330	120	1160	90	520	690	230	70	270	90
Future Volume (veh/h)	180	1960	330	120	1160	90	520	690	230	70	270	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	189	2063	347	126	1221	95	547	726	242	74	284	95
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	214	1840	302	108	1725	134	405	954	318	94	677	300
Arrive On Green	0.12	0.41	0.41	0.06	0.35	0.35	0.22	0.36	0.36	0.05	0.19	0.19
Sat Flow, veh/h	1810	4487	737	1810	4907	382	1810	2658	886	1810	3610	1602
Grp Volume(v), veh/h	189	1579	831	126	860	456	547	493	475	74	284	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1767	1810	1729	1831	1810	1805	1739	1810	1805	1602
Q Serve(g_s), s	13.8	55.0	55.0	8.0	28.8	28.8	30.0	32.3	32.3	5.4	9.3	6.9
Cycle Q Clear(g_c), s	13.8	55.0	55.0	8.0	28.8	28.8	30.0	32.3	32.3	5.4	9.3	6.9
Prop In Lane	1.00		0.42	1.00		0.21	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	214	1418	724	108	1216	644	405	648	624	94	677	300
V/C Ratio(X)	0.88	1.11	1.15	1.17	0.71	0.71	1.35	0.76	0.76	0.78	0.42	0.32
Avail Cap(c_a), veh/h	229	1418	724	108	1216	644	405	794	765	162	1103	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	39.6	39.6	63.1	37.5	37.6	52.1	37.9	37.9	62.8	48.1	47.1
Incr Delay (d2), s/veh	29.7	61.4	82.1	138.6	1.9	3.6	173.8	3.5	3.6	13.2	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	38.3	43.3	8.1	14.1	15.2	34.5	16.6	16.1	3.1	4.7	3.1
LnGrp Delay(d),s/veh	88.0	101.0	121.7	201.7	39.5	41.1	225.9	41.4	41.5	76.0	48.5	47.7
LnGrp LOS	F	F	F	F	D	D	F	D	D	E	D	D
Approach Vol, veh/h		2599			1442			1515			453	
Approach Delay, s/veh		106.7			54.2			108.1			52.8	
Approach LOS		F			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	52.2	12.0	59.0	34.0	29.1	19.8	51.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	59.0	8.0	55.0	30.0	41.0	17.0	46.0
Max Q Clear Time (g_c+I1), s	7.4	34.3	10.0	57.0	32.0	11.3	15.8	30.8
Green Ext Time (p_c), s	0.0	9.8	0.0	0.0	0.0	10.5	0.1	14.5

Intersection Summary	
HCM 2010 Ctrl Delay	90.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↱	↱
Traffic Volume (veh/h)	0	2370	220	1850	1230	0	0	0	0	0	0	540
Future Volume (veh/h)	0	2370	220	1850	1230	0	0	0	0	0	0	540
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	2663	247	2079	1382	0				0	0	607
Adj No. of Lanes	0	3	1	1	3	0				0	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1522	470	1182	5049	0				0	0	0
Arrive On Green	0.00	0.29	0.29	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1601	1810	5358	0					0	
Grp Volume(v), veh/h	0	2663	247	2079	1382	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1601	1810	1729	0						
Q Serve(g_s), s	0.0	44.0	19.3	98.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	44.0	19.3	98.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1522	470	1182	5049	0						
V/C Ratio(X)	0.00	1.75	0.53	1.76	0.27	0.00						
Avail Cap(c_a), veh/h	0	1522	470	1182	5049	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	53.0	44.3	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	340.3	4.2	341.7	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	68.9	9.1	112.2	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	393.3	48.5	341.7	0.0	0.0						
LnGrp LOS		F	D	F	A							
Approach Vol, veh/h		2910			3461							
Approach Delay, s/veh		364.1			205.2							
Approach LOS		F			F							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			102.0	48.0				150.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			76.0	44.0				124.0
Max Q Clear Time (g_c+I1), s			100.0	46.0				2.0
Green Ext Time (p_c), s			0.0	0.0				119.5

Intersection Summary	
HCM 2010 Ctrl Delay	277.8
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱			↑↑↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	400	2400	500	0	2990	400	210	660	20	210	20	1160
Future Volume (veh/h)	400	2400	500	0	2990	400	210	660	20	210	20	1160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	435	2609	543	0	3250	435	228	717	22	228	22	1261
Adj No. of Lanes	1	3	0	0	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	48	2034	397	0	2172	278	48	1716	53	303	866	775
Arrive On Green	0.93	0.93	0.93	0.00	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	40	4358	850	0	4825	597	438	3576	110	731	1805	1615
Grp Volume(v), veh/h	435	2034	1118	0	2378	1307	228	362	377	228	22	1261
Grp Sat Flow(s),veh/h/ln	40	1729	1750	0	1729	1792	438	1805	1881	731	1805	1615
Q Serve(g_s), s	0.0	70.0	70.0	0.0	70.0	70.0	0.0	19.6	19.6	44.2	1.0	72.0
Cycle Q Clear(g_c), s	70.0	70.0	70.0	0.0	70.0	70.0	72.0	19.6	19.6	63.8	1.0	72.0
Prop In Lane	1.00		0.49	0.00		0.33	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	48	1614	817	0	1614	836	48	866	903	303	866	775
V/C Ratio(X)	9.06	1.26	1.37	0.00	1.47	1.56	4.75	0.42	0.42	0.75	0.03	1.63
Avail Cap(c_a), veh/h	48	1614	817	0	1614	836	48	866	903	303	866	775
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	5.0	5.0	0.0	40.0	40.0	75.0	25.4	25.4	46.1	20.5	39.0
Incr Delay (d2), s/veh	3631.9	117.8	166.6	0.0	216.6	258.8	1733.7	0.3	0.3	10.0	0.0	287.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	50.4	53.7	65.5	0.0	81.9	94.8	25.1	9.8	10.2	9.8	0.5	94.1
LnGrp Delay(d),s/veh	3671.9	122.8	171.6	0.0	256.6	298.8	1808.7	25.7	25.7	56.1	20.5	326.9
LnGrp LOS	F	F	F		F	F	F	C	C	E	C	F
Approach Vol, veh/h		3587			3685			967			1511	
Approach Delay, s/veh		568.4			271.6			446.1			281.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		76.0		74.0		76.0		74.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		72.0		70.0		72.0		70.0
Max Q Clear Time (g_c+I1), s		74.0		72.0		74.0		72.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	399.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Traffic Volume (veh/h)	340	2160	460	120	1440	150	1270	420	300	180	50	240
Future Volume (veh/h)	340	2160	460	120	1440	150	1270	420	300	180	50	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	366	2323	0	129	1548	161	1366	452	323	124	152	258
Adj No. of Lanes	1	3	1	1	3	1	2	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	1632	508	103	1298	402	1242	354	253	309	324	469
Arrive On Green	0.12	0.31	0.00	0.06	0.25	0.25	0.34	0.34	0.34	0.17	0.17	0.17
Sat Flow, veh/h	1810	5187	1615	1810	5187	1605	3619	1030	736	1810	1900	1601
Grp Volume(v), veh/h	366	2323	0	129	1548	161	1366	0	775	124	152	258
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1605	1810	0	1766	1810	1900	1601
Q Serve(g_s), s	17.0	44.0	0.0	8.0	35.0	11.7	48.0	0.0	48.0	8.5	10.1	19.0
Cycle Q Clear(g_c), s	17.0	44.0	0.0	8.0	35.0	11.7	48.0	0.0	48.0	8.5	10.1	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	220	1632	508	103	1298	402	1242	0	606	309	324	469
V/C Ratio(X)	1.66	1.42	0.00	1.25	1.19	0.40	1.10	0.00	1.28	0.40	0.47	0.55
Avail Cap(c_a), veh/h	220	1632	508	103	1298	402	1242	0	606	440	462	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.4	47.9	0.0	65.9	52.4	43.7	45.9	0.0	45.9	51.6	52.3	41.8
Incr Delay (d2), s/veh	318.1	194.3	0.0	168.7	94.6	0.6	57.4	0.0	137.8	0.8	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.9	50.2	0.0	8.8	27.9	5.3	33.7	0.0	46.4	4.3	5.4	8.5
LnGrp Delay(d),s/veh	379.6	242.2	0.0	234.6	147.0	44.3	103.4	0.0	183.7	52.5	53.3	42.8
LnGrp LOS	F	F		F	F	D	F		F	D	D	D
Approach Vol, veh/h		2689			1838			2141			534	
Approach Delay, s/veh		260.9			144.2			132.4			48.0	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		52.0	12.0	48.0		27.9	21.0	39.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		48.0	8.0	44.0		34.0	17.0	35.0
Max Q Clear Time (g_c+I1), s		50.0	10.0	46.0		21.0	19.0	37.0
Green Ext Time (p_c), s		0.0	0.0	0.0		1.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	177.1
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑→		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1770	990	40	650	710	50
Future Volume (veh/h)	1770	990	40	650	710	50
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1883	1053	43	691	755	53
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1192	608	81	2145	612	618
Arrive On Green	0.52	0.52	0.04	0.59	0.34	0.34
Sat Flow, veh/h	2407	1179	1810	3705	1810	1615
Grp Volume(v), veh/h	1430	1506	43	691	755	53
Grp Sat Flow(s),veh/h/ln	1805	1685	1810	1805	1810	1615
Q Serve(g_s), s	61.0	61.0	2.8	11.4	40.0	2.5
Cycle Q Clear(g_c), s	61.0	61.0	2.8	11.4	40.0	2.5
Prop In Lane		0.70	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	931	869	81	2145	612	618
V/C Ratio(X)	1.54	1.73	0.53	0.32	1.23	0.09
Avail Cap(c_a), veh/h	931	869	107	2197	612	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	28.6	55.3	12.0	39.1	23.3
Incr Delay (d2), s/veh	247.0	334.5	5.3	0.1	119.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	94.1	109.0	1.5	5.7	40.1	1.1
LnGrp Delay(d),s/veh	275.6	363.1	60.6	12.1	158.1	23.3
LnGrp LOS	F	F	E	B	F	C
Approach Vol, veh/h	2936			734	808	
Approach Delay, s/veh	320.5			15.0	149.3	
Approach LOS	F			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		44.0	9.3	65.0				74.3
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		40.0	7.0	61.0				72.0
Max Q Clear Time (g_c+I1), s		42.0	4.8	63.0				13.4
Green Ext Time (p_c), s		0.0	0.0	0.0				56.0

Intersection Summary	
HCM 2010 Ctrl Delay	239.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	10	780	990	450	400	70	350	100	480	100	260	10
Future Volume (veh/h)	10	780	990	450	400	70	350	100	480	100	260	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	821	1042	474	421	74	368	105	505	105	274	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	462	1499	464	533	569	99	495	644	545	132	501	224
Arrive On Green	0.26	0.29	0.29	0.15	0.19	0.19	0.27	0.34	0.34	0.07	0.14	0.00
Sat Flow, veh/h	1810	5187	1607	3510	3067	535	1810	1900	1608	1810	3610	1615
Grp Volume(v), veh/h	11	821	1042	474	246	249	368	105	505	105	274	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1607	1755	1805	1797	1810	1900	1608	1810	1805	1615
Q Serve(g_s), s	0.5	14.6	16.1	14.4	14.0	14.2	20.2	4.2	33.0	6.2	7.7	0.0
Cycle Q Clear(g_c), s	0.5	14.6	16.1	14.4	14.0	14.2	20.2	4.2	33.0	6.2	7.7	0.0
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	462	1499	464	533	335	333	495	644	545	132	501	224
V/C Ratio(X)	0.02	0.55	2.24	0.89	0.74	0.75	0.74	0.16	0.93	0.79	0.55	0.00
Avail Cap(c_a), veh/h	462	2620	811	548	1077	1073	495	855	724	216	1260	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	32.7	10.2	45.3	41.8	41.9	36.1	25.2	34.7	49.7	43.7	0.0
Incr Delay (d2), s/veh	0.0	0.3	566.6	16.1	3.2	3.3	6.0	0.1	15.0	10.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.0	80.1	8.2	7.3	7.4	10.9	2.2	16.9	3.5	3.9	0.0
LnGrp Delay(d),s/veh	30.4	33.0	576.8	61.4	45.0	45.3	42.1	25.3	49.7	59.9	44.6	0.0
LnGrp LOS	C	C	F	E	D	D	D	C	D	E	D	
Approach Vol, veh/h		1874			969			978			379	
Approach Delay, s/veh		335.3			53.1			44.2			48.9	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	40.9	20.5	35.5	33.8	19.1	31.8	24.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	49.0	17.0	55.0	24.0	38.0	7.0	65.0
Max Q Clear Time (g_c+I1), s	8.2	35.0	16.4	18.1	22.2	9.7	2.5	16.2
Green Ext Time (p_c), s	0.1	2.0	0.1	13.4	0.8	1.6	3.4	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	176.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	10	10	70	0	0	0	0	720	590	690	800	0
Future Volume (veh/h)	10	10	70	0	0	0	0	720	590	690	800	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	11	0	81				0	766	628	734	851	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	183	0	326				0	1300	581	1050	2668	0
Arrive On Green	0.10	0.00	0.10				0.00	0.36	0.36	0.30	0.74	0.00
Sat Flow, veh/h	1810	0	3230				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	11	0	81				0	766	628	734	851	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1755	1805	0
Q Serve(g_s), s	0.3	0.0	1.2				0.0	8.6	18.0	9.3	4.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	1.2				0.0	8.6	18.0	9.3	4.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	183	0	326				0	1300	581	1050	2668	0
V/C Ratio(X)	0.06	0.00	0.25				0.00	0.59	1.08	0.70	0.32	0.00
Avail Cap(c_a), veh/h	253	0	452				0	1300	581	1050	2668	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.81	0.81	0.82	0.82	0.00
Uniform Delay (d), s/veh	20.3	0.0	20.7				0.0	13.0	16.0	15.5	2.2	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.4				0.0	1.6	57.4	1.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.5				0.0	4.5	17.2	4.7	2.0	0.0
LnGrp Delay(d),s/veh	20.5	0.0	21.1				0.0	14.6	73.4	17.2	2.5	0.0
LnGrp LOS	C		C					B	F	B	A	
Approach Vol, veh/h		92						1394			1585	
Approach Delay, s/veh		21.0						41.1			9.3	
Approach LOS		C						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			19.0	22.0		9.0		41.0
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			13.0	18.0		7.0		35.0
Max Q Clear Time (g_c+I1), s			11.3	20.0		3.2		6.0
Green Ext Time (p_c), s			1.3	0.0		0.1		9.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	300	310	720	0	0	1240
Future Volume (veh/h)	300	310	720	0	0	1240
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	319	330	766	0	0	1319
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	850	391	2158	0	0	2158
Arrive On Green	0.24	0.24	0.40	0.00	0.00	0.60
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	319	330	766	0	0	1319
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	3.8	9.7	7.4	0.0	0.0	11.6
Cycle Q Clear(g_c), s	3.8	9.7	7.4	0.0	0.0	11.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	850	391	2158	0	0	2158
V/C Ratio(X)	0.38	0.84	0.35	0.00	0.00	0.61
Avail Cap(c_a), veh/h	913	420	2158	0	0	2158
HCM Platoon Ratio	1.00	1.00	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.88	0.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	18.0	8.2	0.0	0.0	6.4
Incr Delay (d2), s/veh	0.3	13.8	0.4	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.8	3.8	0.0	0.0	6.1
LnGrp Delay(d),s/veh	16.1	31.8	8.7	0.0	0.0	7.7
LnGrp LOS	B	C	A			A
Approach Vol, veh/h	649		766			1319
Approach Delay, s/veh	24.1		8.7			7.7
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		33.9				33.9		16.1
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		29.0				29.0		13.0
Max Q Clear Time (g_c+I1), s		9.4				13.6		11.7
Green Ext Time (p_c), s		13.9				11.6		0.4

Intersection Summary		
HCM 2010 Ctrl Delay		11.8
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	3000	20	220	2830	860	70
Future Volume (veh/h)	3000	20	220	2830	860	70
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3061	20	224	2888	944	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3146	21	274	3707	1064	317
Arrive On Green	0.59	0.59	0.08	0.71	0.20	0.00
Sat Flow, veh/h	5488	35	3510	5358	5429	1615
Grp Volume(v), veh/h	1988	1093	224	2888	944	0
Grp Sat Flow(s),veh/h/ln	1729	1894	1755	1729	1810	1615
Q Serve(g_s), s	49.5	49.8	5.6	32.1	15.2	0.0
Cycle Q Clear(g_c), s	49.5	49.8	5.6	32.1	15.2	0.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2046	1121	274	3707	1064	317
V/C Ratio(X)	0.97	0.97	0.82	0.78	0.89	0.00
Avail Cap(c_a), veh/h	2047	1121	274	3708	1091	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.6	17.6	40.6	8.2	35.0	0.0
Incr Delay (d2), s/veh	13.8	21.0	17.2	1.1	8.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.1	32.3	3.4	15.4	8.4	0.0
LnGrp Delay(d),s/veh	31.4	38.6	57.8	9.3	43.9	0.0
LnGrp LOS	C	D	E	A	D	
Approach Vol, veh/h	3081			3112	944	
Approach Delay, s/veh	34.0			12.8	43.9	
Approach LOS	C			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		21.5	11.0	57.0				68.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	7.0	53.0				64.0
Max Q Clear Time (g_c+I1), s		17.2	7.6	51.8				34.1
Green Ext Time (p_c), s		0.4	0.0	1.1				26.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	140	2680	300	320	2350	200	300	340	290	500	950	210
Future Volume (veh/h)	140	2680	300	320	2350	200	300	340	290	500	950	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	2821	316	337	2474	211	316	358	305	526	1000	221
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	125	1746	541	242	1641	137	242	461	390	386	1138	251
Arrive On Green	0.07	0.34	0.34	0.07	0.34	0.34	0.07	0.24	0.24	0.21	0.39	0.39
Sat Flow, veh/h	1810	5187	1608	3510	4875	408	3510	1900	1605	1810	2940	648
Grp Volume(v), veh/h	147	2821	316	337	1740	945	316	358	305	526	613	608
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1755	1729	1824	1755	1900	1605	1810	1805	1783
Q Serve(g_s), s	8.0	39.0	14.9	8.0	39.0	39.0	8.0	20.4	16.8	24.7	36.5	36.7
Cycle Q Clear(g_c), s	8.0	39.0	14.9	8.0	39.0	39.0	8.0	20.4	16.8	24.7	36.5	36.7
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	125	1746	541	242	1164	614	242	461	390	386	699	690
V/C Ratio(X)	1.18	1.62	0.58	1.39	1.50	1.54	1.30	0.78	0.78	1.36	0.88	0.88
Avail Cap(c_a), veh/h	125	1746	541	242	1164	614	242	721	609	386	763	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	38.4	19.9	53.9	38.4	38.4	53.9	40.9	27.4	45.6	32.9	33.0
Incr Delay (d2), s/veh	135.7	279.8	1.6	199.1	227.5	250.4	163.4	2.8	3.5	178.5	10.7	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	63.7	6.8	10.5	55.2	62.2	9.3	11.0	7.8	31.4	20.3	20.2
LnGrp Delay(d),s/veh	189.7	318.3	21.5	253.0	265.9	288.8	217.3	43.8	30.9	224.0	43.6	44.1
LnGrp LOS	F	F	C	F	F	F	F	D	C	F	D	D
Approach Vol, veh/h		3284			3022			979			1747	
Approach Delay, s/veh		284.0			271.6			95.8			98.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.7	32.1	12.0	43.0	12.0	48.9	12.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	44.0	8.0	39.0	8.0	49.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	26.7	22.4	10.0	41.0	10.0	38.7	10.0	41.0
Green Ext Time (p_c), s	0.0	3.3	0.0	0.0	0.0	5.8	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		223.5
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	260	1170	790	270	860	340	340	770	130	240	820	220
Future Volume (veh/h)	260	1170	790	270	860	340	340	770	130	240	820	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	271	1219	823	281	896	354	354	802	135	250	854	229
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	1184	681	219	1091	627	333	1173	718	308	1148	748
Arrive On Green	0.15	0.33	0.33	0.12	0.30	0.30	0.09	0.33	0.33	0.09	0.32	0.32
Sat Flow, veh/h	1810	3610	1608	1810	3610	1607	3510	3610	1608	3510	3610	1607
Grp Volume(v), veh/h	271	1219	823	281	896	354	354	802	135	250	854	229
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1607	1755	1805	1608	1755	1805	1607
Q Serve(g_s), s	17.0	38.0	38.0	14.0	26.7	20.0	11.0	22.3	5.9	8.1	24.5	10.3
Cycle Q Clear(g_c), s	17.0	38.0	38.0	14.0	26.7	20.0	11.0	22.3	5.9	8.1	24.5	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	1184	681	219	1091	627	333	1173	718	308	1148	748
V/C Ratio(X)	1.02	1.03	1.21	1.28	0.82	0.56	1.06	0.68	0.19	0.81	0.74	0.31
Avail Cap(c_a), veh/h	266	1184	681	219	1091	627	333	1278	764	333	1278	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	38.9	33.4	50.9	37.5	27.6	52.4	33.9	19.4	51.9	35.3	19.4
Incr Delay (d2), s/veh	60.6	33.9	107.4	158.2	5.1	1.2	66.6	1.4	0.1	13.1	2.1	0.2
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	24.3	42.0	16.5	14.1	9.0	8.4	11.4	2.6	4.5	12.6	4.6
LnGrp Delay(d),s/veh	110.1	72.8	140.8	209.1	42.6	28.8	119.0	35.3	19.5	65.0	37.4	19.6
LnGrp LOS	F	F	F	F	D	C	F	D	B	E	D	B
Approach Vol, veh/h		2313			1531			1291			1333	
Approach Delay, s/veh		101.4			70.0			56.6			39.5	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	41.7	18.0	42.0	15.0	40.8	21.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	41.0	14.0	38.0	11.0	41.0	17.0	35.0
Max Q Clear Time (g_c+I1), s	10.1	24.3	16.0	40.0	13.0	26.5	19.0	28.7
Green Ext Time (p_c), s	0.1	10.8	0.0	0.0	0.0	9.8	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	72.3
HCM 2010 LOS	E

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	220	1380	1070	730	650	320
Future Volume (veh/h)	220	1380	1070	730	650	320
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	234	1468	1138	777	691	340
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	279	2269	1510	1089	936	667
Arrive On Green	0.15	0.63	0.42	0.42	0.26	0.26
Sat Flow, veh/h	1810	3705	3705	1605	3619	1615
Grp Volume(v), veh/h	234	1468	1138	777	691	340
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1605	1810	1615
Q Serve(g_s), s	8.9	18.1	19.0	21.5	12.4	11.1
Cycle Q Clear(g_c), s	8.9	18.1	19.0	21.5	12.4	11.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	279	2269	1510	1089	936	667
V/C Ratio(X)	0.84	0.65	0.75	0.71	0.74	0.51
Avail Cap(c_a), veh/h	331	2391	1526	1096	1785	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	8.2	17.5	7.2	24.1	15.5
Incr Delay (d2), s/veh	15.0	0.6	2.2	2.2	1.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	8.9	9.8	15.8	6.3	10.7
LnGrp Delay(d),s/veh	44.2	8.8	19.7	9.4	25.3	16.1
LnGrp LOS	D	A	B	A	C	B
Approach Vol, veh/h		1702	1915		1031	
Approach Delay, s/veh		13.7	15.5		22.2	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				48.6		22.4	14.9	33.7
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				47.0		35.0	13.0	30.0
Max Q Clear Time (g_c+I1), s				20.1		14.4	10.9	23.5
Green Ext Time (p_c), s				23.1		3.9	0.1	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	210	1140	1020	590	520	220	740	640	690	290	580	260
Future Volume (veh/h)	210	1140	1020	590	520	220	740	640	690	290	580	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	233	1267	1133	656	578	244	822	711	767	322	644	289
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	651	1834	891	209	822	365	700	1412	629	209	908	703
Arrive On Green	0.19	0.35	0.35	0.06	0.23	0.23	0.20	0.39	0.39	0.06	0.25	0.25
Sat Flow, veh/h	3510	5187	1608	3510	3610	1604	3510	3610	1609	3510	3610	1605
Grp Volume(v), veh/h	233	1267	1133	656	578	244	822	711	767	322	644	289
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1805	1604	1755	1805	1609	1755	1805	1605
Q Serve(g_s), s	6.8	24.6	31.6	7.0	17.3	13.6	23.4	17.6	46.0	7.0	19.1	0.0
Cycle Q Clear(g_c), s	6.8	24.6	31.6	7.0	17.3	13.6	23.4	17.6	46.0	7.0	19.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	651	1834	891	209	822	365	700	1412	629	209	908	703
V/C Ratio(X)	0.36	0.69	1.27	3.14	0.70	0.67	1.17	0.50	1.22	1.54	0.71	0.41
Avail Cap(c_a), veh/h	651	1941	924	209	1351	600	700	1412	629	209	1412	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	32.5	14.9	55.3	41.8	28.8	47.1	27.1	35.8	55.3	40.1	22.7
Incr Delay (d2), s/veh	0.3	1.0	131.3	974.9	1.1	2.1	93.2	0.3	112.3	265.8	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	11.9	51.0	31.7	8.8	6.3	20.3	8.7	40.0	11.1	9.7	6.5
LnGrp Delay(d),s/veh	42.1	33.5	146.2	1030.2	42.9	30.9	140.3	27.4	148.1	321.1	41.1	23.1
LnGrp LOS	D	C	F	F	D	C	F	C	F	F	D	C
Approach Vol, veh/h		2633			1478			2300			1255	
Approach Delay, s/veh		82.8			479.1			108.0			108.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	50.0	11.0	45.6	27.4	33.6	25.8	30.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	7.0	46.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	9.0	48.0	9.0	33.6	25.4	21.1	8.8	19.3
Green Ext Time (p_c), s	0.0	0.0	0.0	7.9	0.0	5.8	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	171.0
HCM 2010 LOS	F

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	860	1380	10	620	0	0	0	0	10	10	710
Future Volume (veh/h)	0	860	1380	10	620	0	0	0	0	10	10	710
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	945	1516	11	681	0				11	11	780
Adj No. of Lanes	0	1	2	1	2	0				1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	887	1507	120	1685	0				724	9	638
Arrive On Green	0.00	0.47	0.47	0.47	0.47	0.00				0.40	0.40	0.40
Sat Flow, veh/h	0	1900	3230	139	3705	0				1810	23	1596
Grp Volume(v), veh/h	0	945	1516	11	681	0				11	0	791
Grp Sat Flow(s),veh/h/ln	0	1900	1615	139	1805	0				1810	0	1618
Q Serve(g_s), s	0.0	28.0	28.0	0.0	7.4	0.0				0.2	0.0	24.0
Cycle Q Clear(g_c), s	0.0	28.0	28.0	28.0	7.4	0.0				0.2	0.0	24.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	887	1507	120	1685	0				724	0	647
V/C Ratio(X)	0.00	1.07	1.01	0.09	0.40	0.00				0.02	0.00	1.22
Avail Cap(c_a), veh/h	0	887	1507	120	1685	0				724	0	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.0	16.0	30.0	10.5	0.0				10.9	0.0	18.0
Incr Delay (d2), s/veh	0.0	49.3	24.6	0.3	0.2	0.0				0.0	0.0	113.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.7	17.5	0.2	3.7	0.0				0.1	0.0	31.0
LnGrp Delay(d),s/veh	0.0	65.3	40.6	30.3	10.7	0.0				10.9	0.0	131.3
LnGrp LOS		F	F	C	B					B		F
Approach Vol, veh/h		2461			692						802	
Approach Delay, s/veh		50.1			11.0						129.7	
Approach LOS		D			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				32.0		28.0		32.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				28.0		24.0		28.0
Max Q Clear Time (g_c+I1), s				30.0		26.0		30.0
Green Ext Time (p_c), s				0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.4
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	394
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1720	0	1130	390	0	0
Future Vol, veh/h	1720	0	1130	390	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1933	0	1270	438	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	401.7	385.3
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	50%	100%	100%
Vol Thru, %	0%	50%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	746	774	860	860
LT Vol	746	384	860	860
Through Vol	0	390	0	0
RT Vol	0	0	0	0
Lane Flow Rate	838	870	966	966
Geometry Grp	7	7	7	7
Degree of Util (X)	1.789	1.796	2.062	1.607
Departure Headway (Hd)	8.345	8.092	8.297	6.589
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	444	461	444	560
Service Time	6.045	5.792	5.997	4.289
HCM Lane V/C Ratio	1.887	1.887	2.176	1.725
HCM Control Delay	384.1	386.4	504.5	298.9
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	48.5	50.2	62.9	48.3

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	40	30	910	30	400	40	690	1420	750	990	10
Future Volume (veh/h)	20	40	30	910	30	400	40	690	1420	750	990	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	43	32	978	32	430	43	742	1527	806	1065	11
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	126	94	448	418	353	347	1608	717	407	1334	593
Arrive On Green	0.03	0.13	0.13	0.13	0.22	0.22	0.19	0.45	0.45	0.12	0.37	0.37
Sat Flow, veh/h	1810	1007	750	3510	1900	1604	1810	3610	1610	3510	3610	1604
Grp Volume(v), veh/h	22	0	75	978	32	430	43	742	1527	806	1065	11
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1755	1900	1604	1810	1805	1610	1755	1805	1604
Q Serve(g_s), s	1.0	0.0	3.4	11.0	1.2	13.9	1.7	12.4	23.1	10.0	22.7	0.3
Cycle Q Clear(g_c), s	1.0	0.0	3.4	11.0	1.2	13.9	1.7	12.4	23.1	10.0	22.7	0.3
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	0	220	448	418	353	347	1608	717	407	1334	593
V/C Ratio(X)	0.37	0.00	0.34	2.18	0.08	1.22	0.12	0.46	2.13	1.98	0.80	0.02
Avail Cap(c_a), veh/h	147	0	734	448	882	744	347	1759	784	407	1884	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	0.0	34.4	37.6	26.7	18.0	28.8	16.7	8.7	38.1	24.3	11.0
Incr Delay (d2), s/veh	3.7	0.0	0.9	539.9	0.1	107.6	0.2	0.2	513.3	449.5	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.7	38.9	0.6	17.0	0.9	6.2	112.3	30.2	11.6	0.2
LnGrp Delay(d),s/veh	44.5	0.0	35.3	577.5	26.8	125.6	29.0	16.9	522.0	487.6	26.0	11.1
LnGrp LOS	D		D	F	C	F	C	B	F	F	C	B
Approach Vol, veh/h		97			1440			2312			1882	
Approach Delay, s/veh		37.4			430.3			350.7			223.6	
Approach LOS		D			F			F			F	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	42.4	15.0	14.8	20.5	35.8	6.9	23.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	42.0	11.0	36.0	7.0	45.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	12.0	25.1	13.0	5.4	3.7	24.7	3.0	15.9
Green Ext Time (p_c), s	0.0	13.3	0.0	2.2	1.2	7.1	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	323.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥		↰	↑↱	
Traffic Volume (veh/h)	210	1790	110	50	1200	60	60	40	40	90	60	210
Future Volume (veh/h)	210	1790	110	50	1200	60	60	40	40	90	60	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1884	116	53	1263	63	63	42	42	95	63	221
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	253	1998	122	78	1683	84	117	78	59	313	98	344
Arrive On Green	0.14	0.58	0.58	0.04	0.48	0.48	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3456	211	1810	3499	174	259	294	221	1331	369	1294
Grp Volume(v), veh/h	221	974	1026	53	651	675	147	0	0	95	0	284
Grp Sat Flow(s),veh/h/ln	1810	1805	1862	1810	1805	1868	774	0	0	1331	0	1663
Q Serve(g_s), s	12.7	52.5	54.9	3.1	31.0	31.2	7.2	0.0	0.0	0.0	0.0	16.0
Cycle Q Clear(g_c), s	12.7	52.5	54.9	3.1	31.0	31.2	23.2	0.0	0.0	10.0	0.0	16.0
Prop In Lane	1.00		0.11	1.00		0.09	0.43		0.29	1.00		0.78
Lane Grp Cap(c), veh/h	253	1043	1076	78	868	899	254	0	0	313	0	442
V/C Ratio(X)	0.87	0.93	0.95	0.68	0.75	0.75	0.58	0.00	0.00	0.30	0.00	0.64
Avail Cap(c_a), veh/h	307	1055	1088	119	868	899	331	0	0	386	0	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.7	20.5	21.0	50.0	22.3	22.4	39.1	0.0	0.0	32.3	0.0	34.5
Incr Delay (d2), s/veh	20.1	14.4	17.1	10.0	3.7	3.6	2.1	0.0	0.0	0.5	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	30.2	33.0	1.7	16.2	16.8	4.3	0.0	0.0	2.3	0.0	7.6
LnGrp Delay(d),s/veh	64.8	35.0	38.1	60.0	26.0	25.9	41.2	0.0	0.0	32.8	0.0	36.4
LnGrp LOS	E	C	D	E	C	C	D			C		D
Approach Vol, veh/h		2221			1379			147			379	
Approach Delay, s/veh		39.4			27.3			41.2			35.5	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		32.2	8.6	65.3		32.2	18.9	55.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	62.0		34.0	18.0	51.0
Max Q Clear Time (g_c+I1), s		25.2	5.1	56.9		18.0	14.7	33.2
Green Ext Time (p_c), s		2.0	0.4	4.4		2.8	0.2	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	50	1630	260	300	950	300	390	1400	550	670	1290	110
Future Volume (veh/h)	50	1630	260	300	950	300	390	1400	550	670	1290	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1680	268	309	979	309	402	1443	567	691	1330	113
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	1116	173	142	1392	761	157	1224	672	305	1142	97
Arrive On Green	0.05	0.36	0.36	0.08	0.39	0.39	0.09	0.34	0.34	0.09	0.34	0.34
Sat Flow, veh/h	1810	3131	486	1810	3610	1609	1810	3610	1608	3510	3368	285
Grp Volume(v), veh/h	52	949	999	309	979	309	402	1443	567	691	711	732
Grp Sat Flow(s),veh/h/ln	1810	1805	1812	1810	1805	1609	1810	1805	1608	1755	1805	1848
Q Serve(g_s), s	3.2	41.0	41.0	9.0	26.3	14.4	10.0	39.0	36.5	10.0	39.0	39.0
Cycle Q Clear(g_c), s	3.2	41.0	41.0	9.0	26.3	14.4	10.0	39.0	36.5	10.0	39.0	39.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	89	644	646	142	1392	761	157	1224	672	305	612	627
V/C Ratio(X)	0.58	1.47	1.55	2.18	0.70	0.41	2.55	1.18	0.84	2.26	1.16	1.17
Avail Cap(c_a), veh/h	110	644	646	142	1392	761	157	1224	672	305	612	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	37.0	37.0	53.0	29.8	19.8	52.5	38.0	30.1	52.5	38.0	38.0
Incr Delay (d2), s/veh	5.9	222.0	253.6	554.4	1.6	0.3	718.0	89.1	9.6	579.0	89.6	92.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	60.1	66.0	26.3	13.4	6.5	36.4	34.5	17.9	29.4	34.6	35.9
LnGrp Delay(d),s/veh	59.4	259.0	290.6	607.4	31.4	20.2	770.5	127.1	39.8	631.5	127.6	130.2
LnGrp LOS	E	F	F	F	C	C	F	F	D	F	F	F
Approach Vol, veh/h		2000			1597			2412			2134	
Approach Delay, s/veh		269.6			140.7			213.8			291.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	43.0	13.0	45.0	14.0	43.0	9.7	48.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	39.0	9.0	41.0	10.0	39.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	12.0	41.0	11.0	43.0	12.0	41.0	5.2	28.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6

Intersection Summary	
HCM 2010 Ctrl Delay	233.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	240	170	2010	370	260	1680
Future Volume (veh/h)	240	170	2010	370	260	1680
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	183	2161	398	280	1806
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	253	226	2130	949	271	2816
Arrive On Green	0.14	0.14	0.59	0.59	0.15	0.78
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	258	183	2161	398	280	1806
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	14.0	11.0	59.0	13.5	15.0	22.0
Cycle Q Clear(g_c), s	14.0	11.0	59.0	13.5	15.0	22.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	253	226	2130	949	271	2816
V/C Ratio(X)	1.02	0.81	1.01	0.42	1.03	0.64
Avail Cap(c_a), veh/h	253	226	2130	949	271	2816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	41.7	20.5	11.2	42.5	4.8
Incr Delay (d2), s/veh	61.4	19.3	23.2	0.3	63.0	0.5
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	6.1	35.9	6.0	12.2	11.0
LnGrp Delay(d),s/veh	104.5	61.0	43.7	11.5	105.6	5.3
LnGrp LOS	F	E	F	B	F	A
Approach Vol, veh/h	441		2559			2086
Approach Delay, s/veh	86.5		38.7			18.8
Approach LOS	F		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.0	63.0				82.0		18.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	59.0				78.0		14.0
Max Q Clear Time (g_c+I1), s	17.0	61.0				24.0		16.0
Green Ext Time (p_c), s	0.0	0.0				51.3		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		34.7
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	70	2070	210	600	1420	440	0	0	0	870	100	340
Future Volume (veh/h)	70	2070	210	600	1420	440	0	0	0	870	100	340
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	71	2112	0	612	1449	0				961	0	347
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	96	1655	740	565	2045	915				1016	0	536
Arrive On Green	0.05	0.46	0.00	0.16	0.57	0.00				0.28	0.00	0.28
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1606
Grp Volume(v), veh/h	71	2112	0	612	1449	0				961	0	347
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1606
Q Serve(g_s), s	4.6	55.0	0.0	19.3	34.9	0.0				31.2	0.0	22.0
Cycle Q Clear(g_c), s	4.6	55.0	0.0	19.3	34.9	0.0				31.2	0.0	22.0
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	96	1655	740	565	2045	915				1016	0	536
V/C Ratio(X)	0.74	1.28	0.00	1.08	0.71	0.00				0.95	0.00	0.65
Avail Cap(c_a), veh/h	226	1655	740	565	2045	915				1025	0	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.78	0.78	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	56.0	32.5	0.0	50.3	18.8	0.0				42.3	0.0	34.0
Incr Delay (d2), s/veh	10.7	129.2	0.0	58.4	1.7	0.0				16.6	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	57.0	0.0	13.9	17.8	0.0				18.0	0.0	10.1
LnGrp Delay(d),s/veh	66.7	161.7	0.0	108.7	20.5	0.0				58.8	0.0	36.6
LnGrp LOS	E	F		F	C					E		D
Approach Vol, veh/h		2183			2061						1308	
Approach Delay, s/veh		158.6			46.7						52.9	
Approach LOS		F			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			23.3	59.0		37.7	10.3	72.0
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			19.0	55.0		34.0	15.0	59.0
Max Q Clear Time (g_c+I1), s			21.3	57.0		33.2	6.6	36.9
Green Ext Time (p_c), s			0.0	0.0		0.5	0.1	13.7

Intersection Summary	
HCM 2010 Ctrl Delay	92.2
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	2190	680	240	2150	250	300	0	1140	0	0	0
Future Volume (veh/h)	0	2190	680	240	2150	250	300	0	1140	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	2281	708	250	2240	0	312	0	0			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1986	1064	432	4264	1328	391	0	316			
Arrive On Green	0.00	0.37	0.37	0.32	1.00	0.00	0.11	0.00	0.00			
Sat Flow, veh/h	0	3705	1608	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	2281	708	250	2240	0	312	0	0			
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	66.0	35.6	13.9	0.0	0.0	10.4	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	66.0	35.6	13.9	0.0	0.0	10.4	0.0	0.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1986	1064	432	4264	1328	391	0	316			
V/C Ratio(X)	0.00	1.15	0.67	0.58	0.53	0.00	0.80	0.00	0.00			
Avail Cap(c_a), veh/h	0	1986	1064	432	4264	1328	819	0	663			
HCM Platoon Ratio	1.00	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.09	0.09	0.71	0.71	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	37.9	18.1	35.9	0.0	0.0	52.0	0.0	0.0			
Incr Delay (d2), s/veh	0.0	67.6	0.3	1.4	0.3	0.0	3.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	51.5	21.1	7.1	0.1	0.0	5.3	0.0	0.0			
LnGrp Delay(d),s/veh	0.0	105.5	18.4	37.3	0.3	0.0	55.8	0.0	0.0			
LnGrp LOS		F	B	D	A		E					
Approach Vol, veh/h		2989			2490			312				
Approach Delay, s/veh		84.9			4.0			55.8				
Approach LOS		F			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		17.4	32.6	70.0				102.6
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		28.0	14.0	66.0				84.0
Max Q Clear Time (g_c+I1), s		12.4	15.9	68.0				2.0
Green Ext Time (p_c), s		1.0	0.0	0.0				40.7

Intersection Summary	
HCM 2010 Ctrl Delay	48.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	2950	300	190	2380	10	210	10	100	0	10	10
Future Volume (veh/h)	10	2950	300	190	2380	10	210	10	100	0	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	3073	312	198	2479	10	166	83	104	0	10	10
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	370	2360	232	415	2755	11	297	137	171	0	155	155
Arrive On Green	0.27	0.65	0.65	0.23	0.52	0.52	0.18	0.18	0.18	0.00	0.18	0.18
Sat Flow, veh/h	1810	4800	471	1810	5333	21	1403	764	957	0	869	869
Grp Volume(v), veh/h	10	2185	1200	198	1607	882	166	0	187	0	0	20
Grp Sat Flow(s),veh/h/ln	1810	1729	1814	1810	1729	1896	1403	0	1722	0	0	1738
Q Serve(g_s), s	0.5	59.0	59.0	11.4	50.4	50.4	13.4	0.0	12.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	0.5	59.0	59.0	11.4	50.4	50.4	14.5	0.0	12.0	0.0	0.0	1.1
Prop In Lane	1.00		0.26	1.00		0.01	1.00		0.56	0.00		0.50
Lane Grp Cap(c), veh/h	370	1700	892	415	1787	980	297	0	308	0	0	311
V/C Ratio(X)	0.03	1.28	1.35	0.48	0.90	0.90	0.56	0.00	0.61	0.00	0.00	0.06
Avail Cap(c_a), veh/h	370	1700	892	415	1787	980	503	0	559	0	0	565
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	34.9	20.8	20.8	40.0	26.2	26.2	47.0	0.0	45.4	0.0	0.0	40.9
Incr Delay (d2), s/veh	0.0	128.7	156.4	0.9	7.7	12.9	1.6	0.0	1.9	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	58.1	67.8	5.8	25.8	29.7	5.3	0.0	5.9	0.0	0.0	0.6
LnGrp Delay(d),s/veh	34.9	149.4	177.1	40.8	33.9	39.1	48.6	0.0	47.3	0.0	0.0	41.0
LnGrp LOS	C	F	F	D	C	D	D		D			D
Approach Vol, veh/h		3395			2687			353			20	
Approach Delay, s/veh		158.9			36.1			47.9			41.0	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		25.5	31.5	63.0		25.5	28.5	66.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	10.0	59.0		39.0	7.0	62.0
Max Q Clear Time (g_c+I1), s		16.5	13.4	61.0		3.1	2.5	52.4
Green Ext Time (p_c), s		1.7	0.0	0.0		1.8	0.2	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	101.3
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	180	2640	160	20	2070	10	170	20	10	10	40	190
Future Volume (veh/h)	180	2640	160	20	2070	10	170	20	10	10	40	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	188	2750	167	21	2156	10	177	21	10	10	42	198
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	2519	151	60	2683	12	271	249	119	84	325	329
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	186	3460	208	88	3685	17	1152	1215	578	233	1581	1603
Grp Volume(v), veh/h	188	1421	1496	21	1055	1111	177	0	31	52	0	198
Grp Sat Flow(s),veh/h/ln	186	1805	1862	88	1805	1897	1152	0	1793	1815	0	1603
Q Serve(g_s), s	41.2	87.4	87.4	0.0	45.9	46.1	17.8	0.0	1.7	0.0	0.0	13.4
Cycle Q Clear(g_c), s	87.4	87.4	87.4	87.4	45.9	46.1	20.5	0.0	1.7	2.7	0.0	13.4
Prop In Lane	1.00		0.11	1.00		0.01	1.00		0.32	0.19		1.00
Lane Grp Cap(c), veh/h	124	1314	1356	60	1314	1381	271	0	368	408	0	329
V/C Ratio(X)	1.52	1.08	1.10	0.35	0.80	0.80	0.65	0.00	0.08	0.13	0.00	0.60
Avail Cap(c_a), veh/h	124	1314	1356	60	1314	1381	351	0	493	532	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.4	16.3	16.3	60.0	10.7	10.7	47.3	0.0	38.6	39.0	0.0	43.2
Incr Delay (d2), s/veh	269.9	50.0	57.9	1.4	0.5	0.5	2.7	0.0	0.1	0.1	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	61.0	65.9	0.7	22.8	23.9	5.9	0.0	0.8	1.4	0.0	6.1
LnGrp Delay(d),s/veh	319.3	66.3	74.2	61.4	11.2	11.2	50.1	0.0	38.7	39.1	0.0	45.0
LnGrp LOS	F	F	F	E	B	B	D		D	D		D
Approach Vol, veh/h		3105			2187			208			250	
Approach Delay, s/veh		85.4			11.7			48.4			43.8	
Approach LOS		F			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		28.6		91.4		28.6		91.4
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		79.0		33.0		79.0
Max Q Clear Time (g_c+I1), s		22.5		89.4		15.4		89.4
Green Ext Time (p_c), s		1.4		0.0		1.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	240	2400	20	320	1890	60	20	190	520	280	250	200
Future Volume (veh/h)	240	2400	20	320	1890	60	20	190	520	280	250	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	250	2500	21	333	1969	62	21	198	542	292	260	208
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	162	1545	13	178	1537	48	276	470	556	162	350	295
Arrive On Green	0.09	0.42	0.42	0.10	0.43	0.43	0.15	0.25	0.25	0.09	0.18	0.18
Sat Flow, veh/h	1810	3669	31	1810	3573	112	1810	1900	1605	1810	1900	1602
Grp Volume(v), veh/h	250	1228	1293	333	989	1042	21	198	542	292	260	208
Grp Sat Flow(s),veh/h/ln	1810	1805	1894	1810	1805	1879	1810	1900	1605	1810	1900	1602
Q Serve(g_s), s	10.0	47.0	47.0	11.0	48.0	48.0	1.1	9.8	22.0	10.0	14.4	10.9
Cycle Q Clear(g_c), s	10.0	47.0	47.0	11.0	48.0	48.0	1.1	9.8	22.0	10.0	14.4	10.9
Prop In Lane	1.00		0.02	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	760	798	178	776	808	276	470	556	162	350	295
V/C Ratio(X)	1.54	1.62	1.62	1.87	1.27	1.29	0.08	0.42	0.97	1.80	0.74	0.70
Avail Cap(c_a), veh/h	162	760	798	178	776	808	276	613	677	162	664	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	32.3	32.3	50.3	31.8	31.8	40.5	35.3	24.4	50.8	43.0	27.5
Incr Delay (d2), s/veh	272.2	283.2	285.0	410.8	133.5	139.1	0.1	0.6	26.0	383.9	3.1	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.2	83.0	87.5	25.8	52.5	55.9	0.6	5.2	16.5	22.2	7.9	5.5
LnGrp Delay(d),s/veh	323.0	315.5	317.3	461.1	165.3	170.9	40.6	35.9	50.4	434.7	46.2	30.6
LnGrp LOS	F	F	F	F	F	F	D	D	D	F	D	C
Approach Vol, veh/h		2771			2364			761			760	
Approach Delay, s/veh		317.0			209.4			46.4			191.2	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	31.6	15.0	51.0	21.0	24.6	14.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	36.0	11.0	47.0	7.0	39.0	10.0	48.0
Max Q Clear Time (g_c+I1), s	12.0	24.0	13.0	49.0	3.1	16.4	12.0	50.0
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	1.3	2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	233.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	80	1490	1420	520	1010	390	1030	1520	250	660	1710	60
Future Volume (veh/h)	80	1490	1420	520	1010	390	1030	1520	250	660	1710	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	1520	1449	531	1031	398	1051	1551	255	673	1745	61
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	178	1224	1330	305	1183	681	458	1224	686	336	1566	55
Arrive On Green	0.10	0.34	0.34	0.09	0.33	0.33	0.13	0.34	0.34	0.10	0.30	0.30
Sat Flow, veh/h	1810	3610	2830	3510	3610	1608	3510	3610	1608	3510	5145	180
Grp Volume(v), veh/h	82	1520	1449	531	1031	398	1051	1551	255	673	1172	634
Grp Sat Flow(s),veh/h/ln	1810	1805	1415	1755	1805	1608	1755	1805	1608	1755	1729	1867
Q Serve(g_s), s	4.9	39.0	31.9	10.0	30.9	14.1	15.0	39.0	12.4	11.0	35.0	35.0
Cycle Q Clear(g_c), s	4.9	39.0	31.9	10.0	30.9	14.1	15.0	39.0	12.4	11.0	35.0	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	178	1224	1330	305	1183	681	458	1224	686	336	1052	568
V/C Ratio(X)	0.46	1.24	1.09	1.74	0.87	0.58	2.30	1.27	0.37	2.00	1.11	1.12
Avail Cap(c_a), veh/h	178	1224	1330	305	1287	728	458	1224	686	336	1052	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	38.0	19.1	52.5	36.4	12.0	50.0	38.0	22.5	52.0	40.0	40.0
Incr Delay (d2), s/veh	1.8	115.8	52.7	346.1	6.4	1.1	589.8	126.7	0.3	462.4	64.6	73.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	39.1	22.1	19.5	16.4	6.4	44.8	40.9	5.6	26.9	26.1	29.6
LnGrp Delay(d),s/veh	50.8	153.8	71.8	398.6	42.8	13.1	639.8	164.7	22.8	514.4	104.6	113.4
LnGrp LOS	D	F	F	F	D	B	F	F	C	F	F	F
Approach Vol, veh/h		3051			1960			2857			2479	
Approach Delay, s/veh		112.1			133.2			326.8			218.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	43.0	14.0	43.0	19.0	39.0	15.3	41.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	39.0	10.0	39.0	15.0	35.0	8.0	41.0
Max Q Clear Time (g_c+I1), s	13.0	41.0	12.0	41.0	17.0	37.0	6.9	32.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	200.8
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	40	10	10	50	30	160	30	2540	30	170	3120	60
Future Volume (veh/h)	40	10	10	50	30	160	30	2540	30	170	3120	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	10	10	51	31	163	31	2592	31	173	3184	61
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	198	49	37	95	61	223	86	2949	35	205	3269	62
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.05	0.56	0.56	0.11	0.62	0.62
Sat Flow, veh/h	661	234	176	249	291	1074	1810	5284	63	1810	5240	100
Grp Volume(v), veh/h	61	0	0	245	0	0	31	1694	929	173	2094	1151
Grp Sat Flow(s),veh/h/ln	1071	0	0	1614	0	0	1810	1729	1889	1810	1729	1882
Q Serve(g_s), s	0.0	0.0	0.0	8.9	0.0	0.0	1.6	42.2	42.5	9.3	57.4	58.8
Cycle Q Clear(g_c), s	4.7	0.0	0.0	14.0	0.0	0.0	1.6	42.2	42.5	9.3	57.4	58.8
Prop In Lane	0.67		0.16	0.21		0.67	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	283	0	0	379	0	0	86	1930	1054	205	2157	1174
V/C Ratio(X)	0.22	0.00	0.00	0.65	0.00	0.00	0.36	0.88	0.88	0.84	0.97	0.98
Avail Cap(c_a), veh/h	530	0	0	672	0	0	127	1983	1083	219	2157	1174
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	0.0	0.0	36.6	0.0	0.0	45.9	19.0	19.1	43.2	17.8	18.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.8	0.0	0.0	2.5	4.8	8.5	23.9	13.2	21.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	6.5	0.0	0.0	0.9	21.3	24.4	6.0	31.0	37.1
LnGrp Delay(d),s/veh	33.1	0.0	0.0	38.5	0.0	0.0	48.4	23.8	27.6	67.1	31.1	39.6
LnGrp LOS	C			D			D	C	C	E	C	D
Approach Vol, veh/h		61			245			2654			3418	
Approach Delay, s/veh		33.1			38.5			25.4			35.8	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.3	59.5		24.7	8.7	66.0		24.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	12.0	57.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	11.3	44.5		6.7	3.6	60.8		16.0
Green Ext Time (p_c), s	0.0	11.0		2.1	3.2	1.1		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	50	50	20	50	80	70	2500	40	140	2980	140
Future Volume (veh/h)	70	50	50	20	50	80	70	2500	40	140	2980	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	52	52	21	52	82	72	2577	41	144	3072	144
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	312	204	171	315	205	172	113	2927	46	171	2990	138
Arrive On Green	0.07	0.11	0.11	0.07	0.11	0.11	0.06	0.56	0.56	0.09	0.59	0.59
Sat Flow, veh/h	1810	1900	1592	1810	1900	1593	1810	5259	83	1810	5081	235
Grp Volume(v), veh/h	72	52	52	21	52	82	72	1691	927	144	2076	1140
Grp Sat Flow(s),veh/h/ln	1810	1900	1592	1810	1900	1593	1810	1729	1885	1810	1729	1857
Q Serve(g_s), s	3.2	2.4	2.4	0.9	2.4	4.6	3.7	40.4	40.8	7.5	56.0	56.0
Cycle Q Clear(g_c), s	3.2	2.4	2.4	0.9	2.4	4.6	3.7	40.4	40.8	7.5	56.0	56.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.13
Lane Grp Cap(c), veh/h	312	204	171	315	205	172	113	1924	1049	171	2035	1093
V/C Ratio(X)	0.23	0.25	0.30	0.07	0.25	0.48	0.64	0.88	0.88	0.84	1.02	1.04
Avail Cap(c_a), veh/h	313	579	485	316	579	485	133	1962	1069	171	2035	1093
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	39.0	27.4	32.3	39.0	39.9	43.5	18.3	18.4	42.4	19.6	19.6
Incr Delay (d2), s/veh	0.4	0.6	1.0	0.1	0.6	2.1	7.4	4.9	8.8	29.7	25.2	39.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.3	1.2	0.5	1.3	2.1	2.1	20.3	23.7	5.1	33.4	40.2
LnGrp Delay(d),s/veh	33.7	39.6	28.4	32.4	39.6	42.0	51.0	23.2	27.2	72.0	44.8	58.8
LnGrp LOS	C	D	C	C	D	D	D	C	C	E	F	F
Approach Vol, veh/h		176			155			2690			3360	
Approach Delay, s/veh		33.9			39.9			25.3			50.7	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	57.0	11.0	14.2	10.0	60.0	11.0	14.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	54.0	7.0	29.0	7.0	56.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	9.5	42.8	2.9	4.4	5.7	58.0	5.2	6.6
Green Ext Time (p_c), s	0.0	9.9	0.0	1.0	1.2	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	39.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	⬑	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	230	150	580	1380	330	30	580	2360	1080	70	2940	160
Future Volume (veh/h)	230	150	580	1380	330	30	580	2360	1080	70	2940	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	160	617	1340	530	32	617	2511	1149	74	3128	170
Adj No. of Lanes	1	2	0	2	1	1	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	612	545	315	591	500	157	1939	742	110	1753	94
Arrive On Green	0.12	0.34	0.34	0.09	0.31	0.31	0.09	0.37	0.37	0.06	0.35	0.35
Sat Flow, veh/h	1810	1805	1608	3619	1900	1607	1810	5187	1609	1810	5040	269
Grp Volume(v), veh/h	245	160	617	1340	530	32	617	2511	1149	74	2128	1170
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1900	1607	1810	1729	1609	1810	1729	1851
Q Serve(g_s), s	13.2	7.4	39.0	10.0	30.7	1.6	10.0	43.0	36.8	4.6	40.0	40.0
Cycle Q Clear(g_c), s	13.2	7.4	39.0	10.0	30.7	1.6	10.0	43.0	36.8	4.6	40.0	40.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	208	612	545	315	591	500	157	1939	742	110	1203	644
V/C Ratio(X)	1.18	0.26	1.13	4.26	0.90	0.06	3.92	1.29	1.55	0.67	1.77	1.82
Avail Cap(c_a), veh/h	208	612	545	315	694	587	157	1939	742	110	1203	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	27.6	38.0	52.5	37.9	27.9	52.5	36.0	15.9	52.9	37.5	37.5
Incr Delay (d2), s/veh	117.9	0.2	80.2	1473.5	13.0	0.1	1329.7	136.6	253.6	14.8	349.7	373.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	3.7	29.4	69.4	18.2	0.7	63.1	45.0	68.3	2.8	77.5	87.2
LnGrp Delay(d),s/veh	168.8	27.8	118.2	1526.0	50.9	27.9	1382.2	172.6	269.5	67.6	387.2	411.0
LnGrp LOS	F	C	F	F	D	C	F	F	F	E	F	F
Approach Vol, veh/h		1022			1902			4277			3372	
Approach Delay, s/veh		116.2			1089.8			373.1			388.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	47.0	14.0	43.0	14.0	44.0	17.2	39.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	39.0	10.0	40.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	6.6	45.0	12.0	41.0	12.0	42.0	15.2	32.7
Green Ext Time (p_c), s	0.4	0.0	0.0	0.0	0.0	0.0	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	482.1
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	590	200	220	120	50	310	180	1340	210	480	1180	420
Future Volume (veh/h)	590	200	220	120	50	310	180	1340	210	480	1180	420
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	590	217	220	130	54	337	180	1340	228	522	1180	420
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	0.92	1.00	0.92	0.92	0.92	1.00	1.00	0.92	0.92	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	508	1624	967	897	2334	982	527	1513	469	556	1556	482
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.15	0.29	0.29	0.16	0.30	0.30
Sat Flow, veh/h	1009	3610	1610	1873	5187	1615	3510	5187	1607	3510	5187	1607
Grp Volume(v), veh/h	590	217	220	130	54	337	180	1340	228	522	1180	420
Grp Sat Flow(s),veh/h/ln	1009	1805	1610	936	1729	1615	1755	1729	1607	1755	1729	1607
Q Serve(g_s), s	53.3	4.2	0.0	5.2	0.7	12.4	5.5	29.6	14.1	17.6	24.7	29.7
Cycle Q Clear(g_c), s	54.0	4.2	0.0	9.5	0.7	12.4	5.5	29.6	14.1	17.6	24.7	29.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	508	1625	967	897	2334	982	527	1513	469	556	1556	482
V/C Ratio(X)	1.16	0.13	0.23	0.14	0.02	0.34	0.34	0.89	0.49	0.94	0.76	0.87
Avail Cap(c_a), veh/h	508	1625	967	897	2334	982	527	1513	469	556	1556	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	19.3	11.1	22.1	18.3	11.6	45.7	40.6	35.1	49.9	38.1	39.8
Incr Delay (d2), s/veh	92.6	0.0	0.1	0.1	0.0	0.2	0.4	8.0	3.6	24.1	3.5	19.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.9	2.1	3.4	1.4	0.3	5.6	2.7	15.3	6.7	10.4	12.3	15.7
LnGrp Delay(d),s/veh	129.1	19.3	11.2	22.2	18.3	11.8	46.1	48.6	38.7	74.0	41.6	58.8
LnGrp LOS	F	B	B	C	B	B	D	D	D	E	D	E
Approach Vol, veh/h		1027			521			1748			2122	
Approach Delay, s/veh		80.7			15.1			47.0			53.0	
Approach LOS		F			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.0	39.0		58.0	22.0	40.0		58.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	19.0	35.0		54.0	18.0	36.0		54.0
Max Q Clear Time (g_c+I1), s	19.6	31.6		56.0	7.5	31.7		14.4
Green Ext Time (p_c), s	0.0	2.6		0.0	6.8	3.1		10.0

Intersection Summary		
HCM 2010 Ctrl Delay		52.7
HCM 2010 LOS		D

Notes

User approved changes to right turn type.

HCM 2010 Signalized Intersection Summary
100: Evans Road & Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	160	10	140	40	0	40	90	1020	60	110	1610	160
Future Volume (veh/h)	160	10	140	40	0	40	90	1020	60	110	1610	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	10	140	40	0	40	90	1020	60	110	1610	160
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	261	18	246	162	0	261	114	2263	133	138	2211	217
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.06	0.65	0.65	0.08	0.67	0.67
Sat Flow, veh/h	1389	109	1523	1257	0	1615	1810	3465	204	1810	3321	326
Grp Volume(v), veh/h	160	0	150	40	0	40	90	531	549	110	867	903
Grp Sat Flow(s),veh/h/ln	1389	0	1631	1257	0	1615	1810	1805	1864	1810	1805	1842
Q Serve(g_s), s	12.3	0.0	9.3	3.3	0.0	2.3	5.4	15.9	15.9	6.6	34.0	35.3
Cycle Q Clear(g_c), s	14.7	0.0	9.3	12.7	0.0	2.3	5.4	15.9	15.9	6.6	34.0	35.3
Prop In Lane	1.00		0.93	1.00		1.00	1.00		0.11	1.00		0.18
Lane Grp Cap(c), veh/h	261	0	264	162	0	261	114	1179	1217	138	1202	1227
V/C Ratio(X)	0.61	0.00	0.57	0.25	0.00	0.15	0.79	0.45	0.45	0.80	0.72	0.74
Avail Cap(c_a), veh/h	352	0	371	244	0	367	165	1179	1217	214	1202	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.44	0.44	0.44	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	42.6	48.4	0.0	39.6	50.8	9.4	9.4	50.0	11.8	12.0
Incr Delay (d2), s/veh	2.3	0.0	1.9	0.8	0.0	0.3	6.8	0.5	0.5	11.1	3.8	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	4.3	1.2	0.0	1.1	2.9	8.0	8.3	3.7	17.9	19.2
LnGrp Delay(d),s/veh	48.3	0.0	44.5	49.2	0.0	39.9	57.6	9.9	9.9	61.1	15.6	16.0
LnGrp LOS	D		D	D		D	E	A	A	E	B	B
Approach Vol, veh/h		310			80			1170			1880	
Approach Delay, s/veh		46.4			44.5			13.6			18.4	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	75.8		21.8	11.0	77.2		21.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	13.0	60.0		25.0	10.0	63.0		25.0
Max Q Clear Time (g_c+I1), s	8.6	17.9		16.7	7.4	37.3		14.7
Green Ext Time (p_c), s	0.1	33.4		1.1	0.0	22.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	450	1300	460	180	1080	170	430	140	320	450	210	600
Future Volume (veh/h)	450	1300	460	180	1080	170	430	140	320	450	210	600
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	450	1300	460	180	1080	170	430	140	320	450	210	600
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	1045	368	148	1009	312	280	553	492	296	1139	507
Arrive On Green	0.16	0.28	0.28	0.08	0.19	0.19	0.15	0.31	0.31	0.16	0.32	0.32
Sat Flow, veh/h	1810	3783	1332	1810	5187	1603	1810	1805	1607	1810	3610	1607
Grp Volume(v), veh/h	450	1188	572	180	1080	170	430	140	320	450	210	600
Grp Sat Flow(s),veh/h/ln	1810	1729	1656	1810	1729	1603	1810	1805	1607	1810	1805	1607
Q Serve(g_s), s	18.0	30.4	30.4	9.0	21.4	10.5	17.0	6.4	19.0	18.0	4.7	34.7
Cycle Q Clear(g_c), s	18.0	30.4	30.4	9.0	21.4	10.5	17.0	6.4	19.0	18.0	4.7	34.7
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	296	956	458	148	1009	312	280	553	492	296	1139	507
V/C Ratio(X)	1.52	1.24	1.25	1.22	1.07	0.55	1.54	0.25	0.65	1.52	0.18	1.18
Avail Cap(c_a), veh/h	296	956	458	148	1009	312	280	558	497	296	1139	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	39.8	39.8	50.5	44.3	39.9	46.5	28.7	33.0	46.0	27.4	37.7
Incr Delay (d2), s/veh	249.2	117.6	128.3	131.6	44.7	4.6	259.1	0.2	2.9	250.5	0.1	101.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.5	30.1	30.2	9.9	14.4	5.1	28.6	3.2	8.8	29.6	2.3	29.6
LnGrp Delay(d),s/veh	295.2	157.4	168.1	182.1	89.0	44.5	305.6	28.9	36.0	296.5	27.4	138.8
LnGrp LOS	F	F	F	F	F	D	F	C	D	F	C	F
Approach Vol, veh/h		2210			1430			890			1260	
Approach Delay, s/veh		188.2			95.5			165.1			176.6	
Approach LOS		F			F			F			F	
Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	36.4	21.0	39.6	22.0	27.4	22.0	38.6				
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9				
Max Green Setting (Gmax), s	9.0	30.4	17.0	34.7	18.0	21.4	18.0	* 34				
Max Q Clear Time (g_c+I1), s	11.0	32.4	19.0	36.7	20.0	23.4	20.0	21.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5				

Intersection Summary		
HCM 2010 Ctrl Delay		159.2
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	600	1070	260	120	820	170	260	800	100	350	530	350
Future Volume (veh/h)	600	1070	260	120	820	170	260	800	100	350	530	350
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	600	1070	260	120	820	170	260	800	100	350	530	350
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	468	2243	696	175	1503	309	263	1463	453	263	1463	453
Arrive On Green	0.13	0.43	0.43	0.05	0.35	0.35	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	3510	5187	1609	3510	4310	887	3510	5187	1606	3510	5187	1606
Grp Volume(v), veh/h	600	1070	260	120	657	333	260	800	100	350	530	350
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1739	1755	1729	1606	1755	1729	1606
Q Serve(g_s), s	16.0	17.7	13.1	4.0	18.3	18.5	8.9	15.7	5.7	9.0	9.8	24.0
Cycle Q Clear(g_c), s	16.0	17.7	13.1	4.0	18.3	18.5	8.9	15.7	5.7	9.0	9.8	24.0
Prop In Lane	1.00		1.00	1.00		0.51	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	468	2243	696	175	1206	607	263	1463	453	263	1463	453
V/C Ratio(X)	1.28	0.48	0.37	0.69	0.54	0.55	0.99	0.55	0.22	1.33	0.36	0.77
Avail Cap(c_a), veh/h	468	2243	696	234	1206	607	263	1599	495	263	1599	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	24.4	23.1	56.1	31.4	31.5	55.4	36.6	33.0	55.5	34.5	39.5
Incr Delay (d2), s/veh	128.4	0.1	0.1	4.5	1.6	3.1	51.8	0.3	0.2	172.0	0.2	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	8.4	5.8	2.1	9.0	9.4	6.2	7.5	2.6	10.6	4.7	11.5
LnGrp Delay(d),s/veh	180.4	24.4	23.2	60.6	33.0	34.6	107.3	36.9	33.2	227.5	34.6	46.4
LnGrp LOS	F	C	C	E	C	C	F	D	C	F	C	D
Approach Vol, veh/h		1930			1110			1160			1230	
Approach Delay, s/veh		72.7			36.4			52.4			92.8	
Approach LOS		E			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	57.9	13.0	39.1	20.0	47.9	13.0	39.1
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	46.7	9.0	37.0	16.0	38.7	9.0	37.0
Max Q Clear Time (g_c+I1), s	6.0	19.7	10.9	26.0	18.0	20.5	11.0	17.7
Green Ext Time (p_c), s	0.1	16.6	0.0	7.3	0.0	12.7	0.0	10.6

Intersection Summary	
HCM 2010 Ctrl Delay	65.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
103: Evans Road & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	340	1340	570	70	570	470	220	790	60	550	1150	280
Future Volume (veh/h)	340	1340	570	70	570	470	220	790	60	550	1150	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	340	1340	0	70	570	470	220	790	60	550	1150	280
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	1628	507	90	1462	453	280	1082	82	479	1353	603
Arrive On Green	0.08	0.31	0.00	0.05	0.28	0.28	0.08	0.32	0.32	0.14	0.37	0.37
Sat Flow, veh/h	3510	5187	1615	1810	5187	1606	3510	3400	258	3510	3610	1609
Grp Volume(v), veh/h	340	1340	0	70	570	470	220	419	431	550	1150	280
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1606	1755	1805	1853	1755	1805	1609
Q Serve(g_s), s	9.0	26.3	0.0	4.2	9.8	31.0	6.8	22.7	22.7	15.0	32.2	14.5
Cycle Q Clear(g_c), s	9.0	26.3	0.0	4.2	9.8	31.0	6.8	22.7	22.7	15.0	32.2	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	287	1628	507	90	1462	453	280	574	590	479	1353	603
V/C Ratio(X)	1.18	0.82	0.00	0.78	0.39	1.04	0.79	0.73	0.73	1.15	0.85	0.46
Avail Cap(c_a), veh/h	287	1628	507	99	1462	453	287	574	590	479	1353	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	50.5	34.9	0.0	51.7	31.9	39.5	49.7	33.3	33.3	47.5	31.6	26.0
Incr Delay (d2), s/veh	105.8	3.6	0.0	29.3	0.8	52.5	13.1	8.0	7.8	81.2	4.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	13.1	0.0	2.8	4.8	20.3	3.8	12.6	12.9	12.6	16.8	6.7
LnGrp Delay(d),s/veh	156.3	38.5	0.0	81.0	32.7	92.0	62.8	41.3	41.1	128.7	35.7	27.6
LnGrp LOS	F	D		F	C	F	E	D	D	F	D	C
Approach Vol, veh/h		1680			1110			1070			1980	
Approach Delay, s/veh		62.3			60.8			45.6			60.4	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	40.5	12.8	47.2	13.0	37.0	19.0	41.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	34.0	9.0	41.0	9.0	31.0	15.0	35.0
Max Q Clear Time (g_c+I1), s	6.2	28.3	8.8	34.2	11.0	33.0	17.0	24.7
Green Ext Time (p_c), s	0.0	4.9	0.0	5.9	0.0	0.0	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	58.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	50	30	30	40	10	40	30	1060	20	50	790	10
Future Volume (veh/h)	50	30	30	40	10	40	30	1060	20	50	790	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	30	30	40	10	40	30	1060	20	50	790	10
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	316	139	51	144	127	39	3612	68	65	3647	1133
Arrive On Green	0.04	0.09	0.09	0.03	0.08	0.08	0.04	1.00	1.00	0.04	0.70	0.70
Sat Flow, veh/h	1810	3610	1587	1810	1805	1585	1810	5241	99	1810	5187	1612
Grp Volume(v), veh/h	50	30	30	40	10	40	30	699	381	50	790	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1587	1810	1805	1585	1810	1729	1882	1810	1729	1612
Q Serve(g_s), s	3.0	0.8	1.9	2.4	0.6	2.6	1.8	0.0	0.0	3.0	5.9	0.2
Cycle Q Clear(g_c), s	3.0	0.8	1.9	2.4	0.6	2.6	1.8	0.0	0.0	3.0	5.9	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	65	316	139	51	144	127	39	2383	1297	65	3647	1133
V/C Ratio(X)	0.77	0.09	0.22	0.78	0.07	0.32	0.76	0.29	0.29	0.77	0.22	0.01
Avail Cap(c_a), veh/h	165	1080	475	132	509	447	132	2383	1297	165	3647	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	46.2	46.7	53.1	46.8	47.8	52.3	0.0	0.0	52.6	5.7	4.9
Incr Delay (d2), s/veh	17.2	0.1	0.8	21.8	0.2	1.4	23.2	0.3	0.5	17.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.4	0.9	1.5	0.3	1.2	1.2	0.1	0.2	1.8	2.8	0.1
LnGrp Delay(d),s/veh	69.8	46.3	47.4	74.9	47.0	49.2	75.6	0.3	0.5	69.8	5.9	4.9
LnGrp LOS	E	D	D	E	D	D	E	A	A	E	A	A
Approach Vol, veh/h		110			90			1110			850	
Approach Delay, s/veh		57.3			60.3			2.4			9.6	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	81.1	7.1	13.8	6.4	82.6	7.9	13.0
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	10.0	41.6	8.0	* 33	8.0	43.6	10.0	* 31
Max Q Clear Time (g_c+I1), s	5.0	2.0	4.4	3.9	3.8	7.9	5.0	4.6
Green Ext Time (p_c), s	0.0	18.1	0.0	0.5	0.0	17.3	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	10	40	70	20	60	60	680	100	100	1800	50
Future Volume (veh/h)	40	10	40	70	20	60	60	680	100	100	1800	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	10	40	70	20	60	60	680	100	100	1800	50
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	51	275	120	82	336	148	66	2094	308	126	2515	1123
Arrive On Green	0.03	0.08	0.08	0.05	0.09	0.09	0.01	0.22	0.22	0.07	0.70	0.70
Sat Flow, veh/h	1810	3610	1583	1810	3610	1589	1810	3158	464	1810	3610	1612
Grp Volume(v), veh/h	40	10	40	70	20	60	60	388	392	100	1800	50
Grp Sat Flow(s),veh/h/ln	1810	1805	1583	1810	1805	1589	1810	1805	1817	1810	1805	1612
Q Serve(g_s), s	2.4	0.3	2.6	4.2	0.6	3.9	3.6	19.9	19.9	6.0	33.2	1.1
Cycle Q Clear(g_c), s	2.4	0.3	2.6	4.2	0.6	3.9	3.6	19.9	19.9	6.0	33.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	51	275	120	82	336	148	66	1197	1205	126	2515	1123
V/C Ratio(X)	0.78	0.04	0.33	0.85	0.06	0.41	0.91	0.32	0.32	0.79	0.72	0.04
Avail Cap(c_a), veh/h	82	1050	461	82	1050	462	66	1197	1205	197	2515	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	47.1	48.2	52.1	45.5	47.0	54.2	22.2	22.3	50.4	10.1	5.2
Incr Delay (d2), s/veh	22.0	0.1	1.6	53.4	0.1	1.8	67.6	0.5	0.5	11.0	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.1	1.2	3.3	0.3	1.8	3.1	10.1	10.2	3.4	16.9	0.5
LnGrp Delay(d),s/veh	75.1	47.1	49.8	105.5	45.6	48.8	121.7	22.8	22.8	61.4	11.9	5.3
LnGrp LOS	E	D	D	F	D	D	F	C	C	E	B	A
Approach Vol, veh/h		90			150			840			1950	
Approach Delay, s/veh		60.7			74.8			29.9			14.2	
Approach LOS		E			E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	77.0	9.0	12.4	8.0	80.6	7.1	14.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	45.0	5.0	32.0	4.0	53.0	5.0	32.0
Max Q Clear Time (g_c+I1), s	8.0	21.9	6.2	4.6	5.6	35.2	4.4	5.9
Green Ext Time (p_c), s	0.1	19.3	0.0	0.5	0.0	15.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	270	760	170	100	150	120	900	170	100	720	30
Future Volume (veh/h)	50	270	760	170	100	150	120	900	170	100	720	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	270	760	170	100	150	120	900	170	100	720	30
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	605	1753	782	312	1753	782	146	1623	503	124	1561	484
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.16	0.63	0.63	0.14	0.60	0.60
Sat Flow, veh/h	1145	3610	1610	556	3610	1610	1810	5187	1607	1810	5187	1607
Grp Volume(v), veh/h	50	270	760	170	100	150	120	900	170	100	720	30
Grp Sat Flow(s),veh/h/ln	1145	1805	1610	556	1805	1610	1810	1729	1607	1810	1729	1607
Q Serve(g_s), s	2.7	4.6	50.6	26.9	1.6	5.8	7.1	10.9	5.5	5.9	8.4	0.8
Cycle Q Clear(g_c), s	4.3	4.6	50.6	31.5	1.6	5.8	7.1	10.9	5.5	5.9	8.4	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	605	1753	782	312	1753	782	146	1623	503	124	1561	484
V/C Ratio(X)	0.08	0.15	0.97	0.54	0.06	0.19	0.82	0.55	0.34	0.80	0.46	0.06
Avail Cap(c_a), veh/h	608	1762	786	314	1762	786	181	1623	503	165	1561	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.99	0.99	0.99
Uniform Delay (d), s/veh	16.1	15.7	27.6	24.5	15.0	16.0	45.4	16.2	15.2	46.7	17.0	15.5
Incr Delay (d2), s/veh	0.1	0.0	25.2	1.9	0.0	0.1	20.4	1.3	1.7	18.6	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.3	27.8	4.3	0.8	2.6	4.4	5.4	2.6	3.6	4.0	0.4
LnGrp Delay(d),s/veh	16.2	15.8	52.8	26.4	15.0	16.2	65.8	17.5	16.9	65.3	17.9	15.7
LnGrp LOS	B	B	D	C	B	B	E	B	B	E	B	B
Approach Vol, veh/h		1080			420			1190			850	
Approach Delay, s/veh		41.8			20.0			22.3			23.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.6	39.7		58.7	12.9	38.4		58.7
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	10.0	31.7		53.7	11.0	30.7		53.7
Max Q Clear Time (g_c+I1), s	7.9	12.9		52.6	9.1	10.4		33.5
Green Ext Time (p_c), s	0.0	11.3		0.8	0.0	11.9		8.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	300	290	20	200	60	160	920	10	50	1360	190
Future Volume (veh/h)	240	300	290	20	200	60	160	920	10	50	1360	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	300	290	20	200	60	160	920	10	50	1360	190
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	451	401	30	433	126	115	2021	22	64	1670	231
Arrive On Green	0.11	0.25	0.25	0.02	0.16	0.16	0.06	0.55	0.55	0.07	1.00	1.00
Sat Flow, veh/h	1810	1805	1605	1810	2752	802	1810	3658	40	1810	3184	441
Grp Volume(v), veh/h	240	300	290	20	129	131	160	454	476	50	766	784
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1749	1810	1805	1893	1810	1805	1821
Q Serve(g_s), s	12.0	16.4	18.2	1.2	7.1	7.5	7.0	16.5	16.5	3.0	0.0	0.0
Cycle Q Clear(g_c), s	12.0	16.4	18.2	1.2	7.1	7.5	7.0	16.5	16.5	3.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.02	1.00		0.24
Lane Grp Cap(c), veh/h	197	451	401	30	284	275	115	997	1046	64	946	955
V/C Ratio(X)	1.22	0.67	0.72	0.66	0.45	0.47	1.39	0.46	0.46	0.78	0.81	0.82
Avail Cap(c_a), veh/h	197	607	540	99	509	493	115	997	1046	132	946	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.63	0.63	0.63
Uniform Delay (d), s/veh	49.0	37.1	37.8	53.8	42.1	42.2	51.5	14.7	14.7	50.6	0.0	0.0
Incr Delay (d2), s/veh	134.3	1.7	3.1	22.3	1.1	1.3	219.7	1.5	1.4	11.8	4.8	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	8.4	8.4	0.8	3.6	3.7	10.5	8.6	9.0	1.7	1.3	1.4
LnGrp Delay(d),s/veh	183.3	38.8	40.9	76.1	43.2	43.5	271.2	16.2	16.2	62.5	4.8	5.2
LnGrp LOS	F	D	D	E	D	D	F	B	B	E	A	A
Approach Vol, veh/h		830			280			1090			1600	
Approach Delay, s/veh		81.3			45.7			53.6			6.8	
Approach LOS		F			D			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	64.8	5.8	31.5	11.0	61.7	16.0	21.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	43.0	6.0	37.0	7.0	44.0	12.0	31.0
Max Q Clear Time (g_c+I1), s	5.0	18.5	3.2	20.2	9.0	2.0	14.0	9.5
Green Ext Time (p_c), s	0.0	18.6	0.0	5.0	0.0	27.3	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	39.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↱	↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	250	50	120	570	1300	0	0	2640	550
Future Volume (veh/h)	0	0	0	250	50	120	570	1300	0	0	2640	550
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				250	102	85	570	1300	0	0	2640	550
Adj No. of Lanes				1	1	1	1	3	0	0	3	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				312	327	276	395	3916	0	0	2596	804
Arrive On Green				0.17	0.17	0.17	0.44	1.00	0.00	0.00	0.17	0.17
Sat Flow, veh/h				1810	1900	1601	1810	5358	0	0	5358	1607
Grp Volume(v), veh/h				250	102	85	570	1300	0	0	2640	550
Grp Sat Flow(s),veh/h/ln				1810	1900	1601	1810	1729	0	0	1729	1607
Q Serve(g_s), s				14.6	5.2	5.1	24.0	0.0	0.0	0.0	55.0	35.4
Cycle Q Clear(g_c), s				14.6	5.2	5.1	24.0	0.0	0.0	0.0	55.0	35.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				312	327	276	395	3916	0	0	2596	804
V/C Ratio(X)				0.80	0.31	0.31	1.44	0.33	0.00	0.00	1.02	0.68
Avail Cap(c_a), veh/h				510	535	451	395	3916	0	0	2596	804
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	1.00	0.09	0.09	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh				43.7	39.8	39.8	31.0	0.0	0.0	0.0	45.9	37.7
Incr Delay (d2), s/veh				4.8	0.5	0.6	201.0	0.0	0.0	0.0	19.6	3.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.7	2.8	2.3	33.9	0.0	0.0	0.0	31.1	16.6
LnGrp Delay(d),s/veh				48.5	40.4	40.4	232.0	0.0	0.0	0.0	65.5	41.2
LnGrp LOS				D	D	D	F	A			F	D
Approach Vol, veh/h					437			1870			3190	
Approach Delay, s/veh					45.0			70.7			61.3	
Approach LOS					D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		87.0			28.0	59.0		23.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		71.0			24.0	43.0		31.0
Max Q Clear Time (g_c+I1), s		2.0			26.0	57.0		16.6
Green Ext Time (p_c), s		65.5			0.0	0.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	63.2
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	260	70	280	0	0	0	0	1620	430	570	2320	0
Future Volume (veh/h)	260	70	280	0	0	0	0	1620	430	570	2320	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	260	70	280				0	1620	430	570	2320	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	436	80	319				0	1618	423	461	3560	0
Arrive On Green	0.24	0.24	0.24				0.00	0.53	0.53	0.51	1.00	0.00
Sat Flow, veh/h	1810	331	1325				0	4262	1070	1810	5358	0
Grp Volume(v), veh/h	260	0	350				0	1366	684	570	2320	0
Grp Sat Flow(s),veh/h/ln	1810	0	1656				0	1729	1703	1810	1729	0
Q Serve(g_s), s	14.0	0.0	22.4				0.0	43.4	43.5	28.0	0.0	0.0
Cycle Q Clear(g_c), s	14.0	0.0	22.4				0.0	43.4	43.5	28.0	0.0	0.0
Prop In Lane	1.00		0.80				0.00		0.63	1.00		0.00
Lane Grp Cap(c), veh/h	436	0	399				0	1367	673	461	3560	0
V/C Ratio(X)	0.60	0.00	0.88				0.00	1.00	1.02	1.24	0.65	0.00
Avail Cap(c_a), veh/h	510	0	467				0	1367	673	461	3560	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.93	0.09	0.09	0.00
Uniform Delay (d), s/veh	37.0	0.0	40.2				0.0	26.0	26.1	27.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	15.3				0.0	23.2	37.5	108.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	11.9				0.0	24.8	27.3	27.5	0.0	0.0
LnGrp Delay(d),s/veh	38.4	0.0	55.5				0.0	49.2	63.6	135.7	0.1	0.0
LnGrp LOS	D		E					D	F	F	A	
Approach Vol, veh/h		610						2050			2890	
Approach Delay, s/veh		48.2						54.0			26.8	
Approach LOS		D						D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	12.0	47.5		30.5		79.5		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	8.0	39.0		31.0		71.0		
Max Q Clear Time (g_c+I1), s	30.0	45.5		24.4		2.0		
Green Ext Time (p_c), s	0.0	0.0		1.8		65.5		

Intersection Summary			
HCM 2010 Ctrl Delay			39.2
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✣		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	190	20	100	180	790	0	0	1420	160
Future Volume (veh/h)	0	0	0	190	20	100	180	790	0	0	1420	160
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				190	20	100	180	790	0	0	1420	160
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				218	23	115	208	2611	0	0	2065	920
Arrive On Green				0.20	0.20	0.20	0.23	1.00	0.00	0.00	0.57	0.57
Sat Flow, veh/h				1068	112	562	1810	3705	0	0	3705	1608
Grp Volume(v), veh/h				310	0	0	180	790	0	0	1420	160
Grp Sat Flow(s),veh/h/ln				1743	0	0	1810	1805	0	0	1805	1608
Q Serve(g_s), s				18.9	0.0	0.0	10.5	0.0	0.0	0.0	30.5	5.2
Cycle Q Clear(g_c), s				18.9	0.0	0.0	10.5	0.0	0.0	0.0	30.5	5.2
Prop In Lane				0.61		0.32	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				356	0	0	208	2611	0	0	2065	920
V/C Ratio(X)				0.87	0.00	0.00	0.87	0.30	0.00	0.00	0.69	0.17
Avail Cap(c_a), veh/h				444	0	0	280	2611	0	0	2065	920
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.88	0.88	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.4	0.0	0.0	41.5	0.0	0.0	0.0	16.6	11.2
Incr Delay (d2), s/veh				14.5	0.0	0.0	16.8	0.3	0.0	0.0	1.9	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.6	0.0	0.0	6.2	0.1	0.0	0.0	15.5	2.4
LnGrp Delay(d),s/veh				56.9	0.0	0.0	58.3	0.3	0.0	0.0	18.5	11.6
LnGrp LOS				E			E	A			B	B
Approach Vol, veh/h					310			970			1580	
Approach Delay, s/veh					56.9			11.0			17.8	
Approach LOS					E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		83.6			16.6	66.9		26.4
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		74.0			17.0	53.0		28.0
Max Q Clear Time (g_c+I1), s		2.0			12.5	32.5		20.9
Green Ext Time (p_c), s		36.1			0.2	16.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	140	40	390	0	0	0	0	830	250	160	1460	0
Future Volume (veh/h)	140	40	390	0	0	0	0	830	250	160	1460	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	140	40	390				0	830	250	160	1460	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	385	110	435				0	1862	829	189	2370	0
Arrive On Green	0.27	0.27	0.27				0.00	1.00	1.00	0.21	1.00	0.00
Sat Flow, veh/h	1422	406	1606				0	3705	1607	1810	3705	0
Grp Volume(v), veh/h	180	0	390				0	830	250	160	1460	0
Grp Sat Flow(s),veh/h/ln	1829	0	1606				0	1805	1607	1810	1805	0
Q Serve(g_s), s	8.8	0.0	25.7				0.0	0.0	0.0	9.4	0.0	0.0
Cycle Q Clear(g_c), s	8.8	0.0	25.7				0.0	0.0	0.0	9.4	0.0	0.0
Prop In Lane	0.78		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	495	0	435				0	1862	829	189	2370	0
V/C Ratio(X)	0.36	0.00	0.90				0.00	0.45	0.30	0.85	0.62	0.00
Avail Cap(c_a), veh/h	665	0	584				0	1862	829	296	2370	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.91	0.91	0.62	0.62	0.00
Uniform Delay (d), s/veh	32.4	0.0	38.6				0.0	0.0	0.0	42.7	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	13.4				0.0	0.7	0.8	8.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	13.0				0.0	0.2	0.2	5.0	0.2	0.0
LnGrp Delay(d),s/veh	32.9	0.0	52.1				0.0	0.7	0.8	50.9	0.8	0.0
LnGrp LOS	C		D					A	A	D	A	
Approach Vol, veh/h		570						1080			1620	
Approach Delay, s/veh		46.0						0.7			5.7	
Approach LOS		D						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.5	60.7		33.8		76.2		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	18.0	40.0		40.0		62.0		
Max Q Clear Time (g_c+I1), s	11.4	2.0		27.7		2.0		
Green Ext Time (p_c), s	0.2	26.8		2.0		35.9		

Intersection Summary			
HCM 2010 Ctrl Delay			11.1
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	60	640	360	230	150	70	90	900	160	130	1380	20
Future Volume (veh/h)	60	640	360	230	150	70	90	900	160	130	1380	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	60	640	360	230	150	70	90	900	160	130	1380	20
Adj No. of Lanes	2	2	2	2	2	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	107	803	745	297	998	444	145	2456	899	190	2561	37
Arrive On Green	0.03	0.22	0.22	0.08	0.28	0.28	0.08	0.95	0.95	0.05	0.49	0.49
Sat Flow, veh/h	3510	3610	2823	3510	3610	1606	3510	5187	1610	3510	5268	76
Grp Volume(v), veh/h	60	640	360	230	150	70	90	900	160	130	906	494
Grp Sat Flow(s),veh/h/ln	1755	1805	1412	1755	1805	1606	1755	1729	1610	1755	1729	1886
Q Serve(g_s), s	1.9	18.4	11.8	7.1	3.5	3.6	2.7	1.6	0.6	4.0	20.1	20.1
Cycle Q Clear(g_c), s	1.9	18.4	11.8	7.1	3.5	3.6	2.7	1.6	0.6	4.0	20.1	20.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	107	803	745	297	998	444	145	2456	899	190	1681	917
V/C Ratio(X)	0.56	0.80	0.48	0.77	0.15	0.16	0.62	0.37	0.18	0.68	0.54	0.54
Avail Cap(c_a), veh/h	160	922	839	415	1185	527	415	2456	899	255	1681	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.70	0.70	0.70
Uniform Delay (d), s/veh	52.6	40.4	34.2	49.3	30.0	30.1	49.6	1.6	1.1	51.1	19.7	19.7
Incr Delay (d2), s/veh	4.5	4.4	0.5	5.9	0.1	0.2	4.0	0.4	0.4	3.3	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	9.6	4.7	3.7	1.7	1.6	1.4	0.7	0.3	2.0	9.8	10.8
LnGrp Delay(d),s/veh	57.1	44.8	34.7	55.2	30.1	30.3	53.6	2.0	1.5	54.4	20.5	21.3
LnGrp LOS	E	D	C	E	C	C	D	A	A	D	C	C
Approach Vol, veh/h		1060			450			1150			1530	
Approach Delay, s/veh		42.1			43.0			5.9			23.7	
Approach LOS		D			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	57.4	13.3	29.4	8.5	58.8	7.4	35.3
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	8.0	42.7	13.0	28.1	13.0	37.7	5.0	36.1
Max Q Clear Time (g_c+I1), s	6.0	3.6	9.1	20.4	4.7	22.1	3.9	5.6
Green Ext Time (p_c), s	0.1	24.8	0.3	4.0	0.1	12.6	0.0	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

Notes

User approved changes to right turn type.

HCM 2010 Signalized Intersection Summary
113: Evans Rd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	220	10	120	10	0	30	20	840	40	130	1620	80
Future Volume (veh/h)	220	10	120	10	0	30	20	840	40	130	1620	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	220	10	120	10	0	30	20	840	40	130	1620	80
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	319	25	296	228	0	317	280	2565	122	534	2561	126
Arrive On Green	0.20	0.20	0.20	0.20	0.00	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1401	126	1508	1280	0	1615	293	3508	167	641	3502	172
Grp Volume(v), veh/h	220	0	130	10	0	30	20	432	448	130	831	869
Grp Sat Flow(s),veh/h/ln	1401	0	1634	1280	0	1615	293	1805	1871	641	1805	1870
Q Serve(g_s), s	16.8	0.0	7.6	0.8	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.5	0.0	7.6	8.4	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.92	1.00		1.00	1.00		0.09	1.00		0.09
Lane Grp Cap(c), veh/h	319	0	320	228	0	317	280	1320	1368	534	1320	1367
V/C Ratio(X)	0.69	0.00	0.41	0.04	0.00	0.09	0.07	0.33	0.33	0.24	0.63	0.64
Avail Cap(c_a), veh/h	426	0	446	326	0	440	280	1320	1368	534	1320	1367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.59	0.59	0.59	0.70	0.70	0.70
Uniform Delay (d), s/veh	43.8	0.0	38.6	42.3	0.0	36.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.8	0.1	0.0	0.1	0.3	0.4	0.4	0.8	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	3.5	0.3	0.0	0.8	0.0	0.1	0.1	0.1	0.6	0.6
LnGrp Delay(d),s/veh	46.7	0.0	39.4	42.4	0.0	36.3	0.3	0.4	0.4	0.8	1.6	1.6
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		350			40			900			1830	
Approach Delay, s/veh		44.0			37.8			0.4			1.5	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		84.4		25.6		84.4		25.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		72.0		30.0		72.0		30.0
Max Q Clear Time (g_c+I1), s		2.0		20.5		2.0		10.4
Green Ext Time (p_c), s		45.9		1.1		45.9		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
114: Evans Rd & Orange Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	120	190	80	60	120	150	110	1030	130	390	1470	180
Future Volume (veh/h)	120	190	80	60	120	150	110	1030	130	390	1470	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	120	190	80	60	120	150	110	1030	130	390	1470	180
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	406	165	78	239	213	132	1525	682	411	2083	932
Arrive On Green	0.07	0.16	0.16	0.04	0.13	0.13	0.07	0.42	0.42	0.15	0.39	0.39
Sat Flow, veh/h	1810	2507	1018	1810	1805	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	120	135	135	60	120	150	110	1030	130	390	1470	180
Grp Sat Flow(s),veh/h/ln	1810	1805	1720	1810	1805	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	7.2	7.4	7.9	3.6	6.8	9.8	6.6	25.4	5.6	23.5	37.8	8.1
Cycle Q Clear(g_c), s	7.2	7.4	7.9	3.6	6.8	9.8	6.6	25.4	5.6	23.5	37.8	8.1
Prop In Lane	1.00		0.59	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	132	292	279	78	239	213	132	1525	682	411	2083	932
V/C Ratio(X)	0.91	0.46	0.49	0.77	0.50	0.70	0.84	0.68	0.19	0.95	0.71	0.19
Avail Cap(c_a), veh/h	132	443	422	132	443	396	132	1525	682	411	2083	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	50.6	41.7	41.9	52.1	44.4	45.7	50.4	25.7	20.0	46.0	25.9	16.8
Incr Delay (d2), s/veh	52.5	1.1	1.3	14.7	1.6	4.2	35.1	2.4	0.6	25.2	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	3.8	3.8	2.1	3.5	4.6	4.6	13.1	2.6	14.7	19.3	3.7
LnGrp Delay(d),s/veh	103.1	42.9	43.2	66.8	46.0	49.8	85.4	28.1	20.6	71.2	27.3	17.1
LnGrp LOS	F	D	D	E	D	D	F	C	C	E	C	B
Approach Vol, veh/h		390			330			1270			2040	
Approach Delay, s/veh		61.5			51.5			32.3			34.8	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	50.5	8.7	21.8	12.0	67.5	12.0	18.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	34.0	8.0	27.0	8.0	51.0	8.0	27.0
Max Q Clear Time (g_c+I1), s	25.5	27.4	5.6	9.9	8.6	39.8	9.2	11.8
Green Ext Time (p_c), s	0.0	6.2	0.0	2.9	0.0	10.1	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
115: Evans Rd & Nuevo Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	380	390	270	180	310	260	140	560	160	320	790	290
Future Volume (veh/h)	380	390	270	180	310	260	140	560	160	320	790	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	390	270	180	310	260	140	560	160	320	790	290
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	465	1554	481	257	1248	386	213	1193	534	405	1390	620
Arrive On Green	0.13	0.30	0.30	0.07	0.24	0.24	0.06	0.33	0.33	0.12	0.39	0.39
Sat Flow, veh/h	3510	5187	1607	3510	5187	1605	3510	3610	1615	3510	3610	1609
Grp Volume(v), veh/h	380	390	270	180	310	260	140	560	160	320	790	290
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1729	1605	1755	1805	1615	1755	1805	1609
Q Serve(g_s), s	9.3	5.0	12.5	4.4	4.3	13.0	3.4	10.9	6.5	7.8	15.2	11.9
Cycle Q Clear(g_c), s	9.3	5.0	12.5	4.4	4.3	13.0	3.4	10.9	6.5	7.8	15.2	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	1554	481	257	1248	386	213	1193	534	405	1390	620
V/C Ratio(X)	0.82	0.25	0.56	0.70	0.25	0.67	0.66	0.47	0.30	0.79	0.57	0.47
Avail Cap(c_a), veh/h	557	1939	601	358	1645	509	318	1193	534	517	1390	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	23.4	26.0	40.0	27.1	30.4	40.6	23.4	22.0	38.0	21.4	20.4
Incr Delay (d2), s/veh	8.0	0.1	1.0	3.5	0.1	2.2	3.4	1.3	1.4	6.3	1.7	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.4	5.7	2.3	2.0	5.9	1.8	5.6	3.1	4.1	7.9	5.7
LnGrp Delay(d),s/veh	45.2	23.5	27.1	43.4	27.2	32.6	44.0	24.7	23.4	44.3	23.1	22.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1040			750			860			1400	
Approach Delay, s/veh		32.4			33.0			27.6			27.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	33.2	10.5	30.4	9.4	38.0	15.7	25.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	29.0	9.0	33.0	8.0	34.0	14.0	28.0
Max Q Clear Time (g_c+I1), s	9.8	12.9	6.4	14.5	5.4	17.2	11.3	15.0
Green Ext Time (p_c), s	0.4	9.8	0.1	6.4	0.1	10.1	0.4	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.9
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
	↗	→	←	↖	↘	↙
Lane Configurations	↰	↑↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	360	200	120	410	840	450
Future Volume (veh/h)	360	200	120	410	840	450
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	360	200	120	410	840	450
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	354	1280	1280	1498	1036	925
Arrive On Green	0.35	0.35	0.12	0.12	0.57	0.57
Sat Flow, veh/h	887	3705	3705	1615	1810	1615
Grp Volume(v), veh/h	360	200	120	410	840	450
Grp Sat Flow(s),veh/h/ln	887	1805	1805	1615	1810	1615
Q Serve(g_s), s	35.7	4.2	3.3	3.0	40.7	18.2
Cycle Q Clear(g_c), s	39.0	4.2	3.3	3.0	40.7	18.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	354	1280	1280	1498	1036	925
V/C Ratio(X)	1.02	0.16	0.09	0.27	0.81	0.49
Avail Cap(c_a), veh/h	354	1280	1280	1498	1036	925
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	40.4	24.3	32.8	0.5	18.7	13.9
Incr Delay (d2), s/veh	52.4	0.1	0.0	0.1	4.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.9	2.1	1.6	13.7	21.5	8.1
LnGrp Delay(d),s/veh	92.9	24.3	32.8	0.6	23.7	14.3
LnGrp LOS	F	C	C	A	C	B
Approach Vol, veh/h		560	530		1290	
Approach Delay, s/veh		68.4	7.9		20.4	
Approach LOS		E	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				43.0		67.0		43.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				39.0		63.0		39.0
Max Q Clear Time (g_c+I1), s				41.0		42.7		5.3
Green Ext Time (p_c), s				0.0		5.2		6.8

Intersection Summary			
HCM 2010 Ctrl Delay			28.9
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
117: I-215 SB Ramps & Ellis Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	540	510	440	330	0	0	0	0	290	280	200
Future Volume (veh/h)	0	540	510	440	330	0	0	0	0	290	280	200
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	540	0	440	330	0				290	280	200
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	627	280	468	1691	0				433	418	741
Arrive On Green	0.00	0.17	0.00	0.43	0.78	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3705	1615	1810	3705	0				943	910	1615
Grp Volume(v), veh/h	0	540	0	440	330	0				570	0	200
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1853	0	1615
Q Serve(g_s), s	0.0	16.0	0.0	25.6	2.6	0.0				26.4	0.0	8.4
Cycle Q Clear(g_c), s	0.0	16.0	0.0	25.6	2.6	0.0				26.4	0.0	8.4
Prop In Lane	0.00		1.00	1.00		0.00				0.51		1.00
Lane Grp Cap(c), veh/h	0	627	280	468	1691	0				850	0	741
V/C Ratio(X)	0.00	0.86	0.00	0.94	0.20	0.00				0.67	0.00	0.27
Avail Cap(c_a), veh/h	0	656	294	559	1903	0				850	0	741
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.72	0.00	0.84	0.84	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	44.2	0.0	30.5	6.6	0.0				23.3	0.0	18.4
Incr Delay (d2), s/veh	0.0	8.2	0.0	19.7	0.0	0.0				4.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.7	0.0	15.2	1.2	0.0				14.4	0.0	3.9
LnGrp Delay(d),s/veh	0.0	52.3	0.0	50.2	6.7	0.0				27.4	0.0	19.3
LnGrp LOS		D		D	A					C		B
Approach Vol, veh/h		540			770						770	
Approach Delay, s/veh		52.3			31.5						25.3	
Approach LOS		D			C						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			32.4	23.1		54.5		55.5
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			34.0	20.0		44.0		58.0
Max Q Clear Time (g_c+I1), s			27.6	18.0		28.4		4.6
Green Ext Time (p_c), s			0.8	1.1		4.1		7.2

Intersection Summary			
HCM 2010 Ctrl Delay			34.6
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
118: I-215 NB Ramps & Ellis Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱	↰	↑	↱			
Traffic Volume (veh/h)	100	730	0	0	430	40	350	30	250	0	0	0
Future Volume (veh/h)	100	730	0	0	430	40	350	30	250	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	100	730	0	0	430	40	350	30	250			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	126	1074	0	0	692	310	1139	1196	1017			
Arrive On Green	0.14	0.60	0.00	0.00	0.19	0.19	0.63	0.63	0.63			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1810	1900	1615			
Grp Volume(v), veh/h	100	730	0	0	430	40	350	30	250			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1810	1900	1615			
Q Serve(g_s), s	5.9	15.1	0.0	0.0	12.0	2.3	9.8	0.7	7.5			
Cycle Q Clear(g_c), s	5.9	15.1	0.0	0.0	12.0	2.3	9.8	0.7	7.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	126	1074	0	0	692	310	1139	1196	1017			
V/C Ratio(X)	0.79	0.68	0.00	0.00	0.62	0.13	0.31	0.03	0.25			
Avail Cap(c_a), veh/h	296	1674	0	0	952	426	1139	1196	1017			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.45	0.45	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	46.6	18.7	0.0	0.0	40.8	36.8	9.4	7.7	8.9			
Incr Delay (d2), s/veh	5.1	0.3	0.0	0.0	0.9	0.2	0.7	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.1	7.3	0.0	0.0	6.1	1.0	5.1	0.4	3.5			
LnGrp Delay(d),s/veh	51.7	19.0	0.0	0.0	41.7	37.0	10.1	7.7	9.5			
LnGrp LOS	D	B			D	D	B	A	A			
Approach Vol, veh/h		830			470			630				
Approach Delay, s/veh		23.0			41.3			9.7				
Approach LOS		C			D			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		73.3		36.7			11.7	25.1
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		51.0		51.0			18.0	29.0
Max Q Clear Time (g_c+I1), s		11.8		17.1			7.9	14.0
Green Ext Time (p_c), s		2.2		10.0			0.1	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
119: Evans Rd & San Jacinto Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	300	80	180	70	20	130	50	380	100	310	710	170
Future Volume (veh/h)	300	80	180	70	20	130	50	380	100	310	710	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	300	80	180	70	20	130	50	380	100	310	710	170
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	280	768	359	90	406	190	65	1188	309	296	1580	378
Arrive On Green	0.15	0.22	0.22	0.05	0.12	0.12	0.04	0.42	0.42	0.16	0.55	0.55
Sat Flow, veh/h	1810	3458	1615	1810	3458	1615	1810	2837	738	1810	2891	692
Grp Volume(v), veh/h	300	80	180	70	20	130	50	240	240	310	443	437
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1810	1805	1770	1810	1805	1778
Q Serve(g_s), s	17.0	2.0	10.7	4.2	0.6	8.5	3.0	9.8	10.0	18.0	16.2	16.2
Cycle Q Clear(g_c), s	17.0	2.0	10.7	4.2	0.6	8.5	3.0	9.8	10.0	18.0	16.2	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		0.39
Lane Grp Cap(c), veh/h	280	768	359	90	406	190	65	756	741	296	987	972
V/C Ratio(X)	1.07	0.10	0.50	0.77	0.05	0.69	0.77	0.32	0.32	1.05	0.45	0.45
Avail Cap(c_a), veh/h	280	1132	529	148	880	411	132	756	741	296	987	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	46.5	34.1	37.5	51.6	43.1	46.6	52.6	21.4	21.5	46.0	15.0	15.0
Incr Delay (d2), s/veh	74.5	0.1	1.1	13.0	0.0	4.3	17.3	1.1	1.2	60.7	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	1.0	4.9	2.4	0.3	4.0	1.8	5.1	5.1	14.0	8.3	8.2
LnGrp Delay(d),s/veh	121.0	34.1	38.6	64.7	43.1	50.9	69.9	22.5	22.6	106.7	16.2	16.2
LnGrp LOS	F	C	D	E	D	D	E	C	C	F	B	B
Approach Vol, veh/h		560			220			530			1190	
Approach Delay, s/veh		82.1			54.6			27.1			39.8	
Approach LOS		F			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	50.1	9.5	28.4	7.9	64.1	21.0	16.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	31.0	9.0	36.0	8.0	41.0	17.0	28.0
Max Q Clear Time (g_c+I1), s	20.0	12.0	6.2	12.7	5.0	18.2	19.0	10.5
Green Ext Time (p_c), s	0.0	8.7	0.0	2.7	0.0	9.5	0.0	2.4

Intersection Summary			
HCM 2010 Ctrl Delay			47.9
HCM 2010 LOS			D

HCM 2010 TWSC
120: Park Center Blvd & Ramona Expy WB Ramps

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥			↰			↱	
Traffic Vol, veh/h	0	0	0	0	0	40	20	420	0	0	180	460
Future Vol, veh/h	0	0	0	0	0	40	20	420	0	0	180	460
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	40	20	420	0	0	180	460

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	870	1100	420	640	0	-	-	-	0
Stage 1	460	460	-	-	-	-	-	-	-
Stage 2	410	640	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	325	214	638	954	-	0	0	-	-
Stage 1	640	569	-	-	-	0	0	-	-
Stage 2	674	473	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	316	0	638	954	-	-	-	-	-
Mov Cap-2 Maneuver	316	0	-	-	-	-	-	-	-
Stage 1	623	0	-	-	-	-	-	-	-
Stage 2	674	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	954	-	638	-	-
HCM Lane V/C Ratio	0.021	-	0.063	-	-
HCM Control Delay (s)	8.9	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

HCM 2010 TWSC
121: Park Center Blvd & Ramona Expy EB Ramps

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↱			↰	
Traffic Vol, veh/h	270	70	50	0	0	0	0	170	50	110	80	0
Future Vol, veh/h	270	70	50	0	0	0	0	170	50	110	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	270	70	50	0	0	0	0	170	50	110	80	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	495	520	80	-	0	0	220	0	0
Stage 1	300	300	-	-	-	-	-	-	-
Stage 2	195	220	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	537	463	986	0	-	-	1361	-	0
Stage 1	756	669	-	0	-	-	-	-	0
Stage 2	843	725	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	491	0	986	-	-	-	1361	-	-
Mov Cap-2 Maneuver	491	0	-	-	-	-	-	-	-
Stage 1	692	0	-	-	-	-	-	-	-
Stage 2	843	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	0	4.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	491	986	1361	-
HCM Lane V/C Ratio	-	-	0.55	0.122	0.081	-
HCM Control Delay (s)	-	-	20.9	9.2	7.9	0
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	3.3	0.4	0.3	-

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	3642.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	⋎		↰	↑	↱	
Traffic Vol, veh/h	400	20	40	1070	1910	470
Future Vol, veh/h	400	20	40	1070	1910	470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	421	21	42	1126	2011	495

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3469	2258	2505	0	-	0
Stage 1	2258	-	-	-	-	-
Stage 2	1211	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 8	53	184	-	-	-
Stage 1	~ 86	-	-	-	-	-
Stage 2	~ 285	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 6	53	184	-	-	-
Mov Cap-2 Maneuver	~ 6	-	-	-	-	-
Stage 1	~ 86	-	-	-	-	-
Stage 2	~ 220	-	-	-	-	-

Approach	EB		NB		SB
HCM Control Delay, s	$ 33910.2		1.1		0
HCM LOS	F				

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	184	-	6	-	-
HCM Lane V/C Ratio	0.229	-	73.684	-	-
HCM Control Delay (s)	30.3		$ 33910.2	-	-
HCM Lane LOS	D	-	F	-	-
HCM 95th %tile Q(veh)	0.8	-	57.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1584.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰↑	↱			
Traffic Vol, veh/h	60	1410	0	0	540	620	740	0	20	0	0	0
Future Vol, veh/h	60	1410	0	0	540	620	740	0	20	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	67	1567	0	0	600	689	822	0	22	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	600	0	-	-	-	0	2000	2300	783
Stage 1	-	-	-	-	-	-	1700	1700	-
Stage 2	-	-	-	-	-	-	300	600	-
Critical Hdwy	4.1	-	-	-	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	987	-	0	0	-	-	~ 53	39	341
Stage 1	-	-	0	0	-	-	~ 136	149	-
Stage 2	-	-	0	0	-	-	~ 731	493	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	987	-	-	-	-	-	~ 49	0	341
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 49	0	-
Stage 1	-	-	-	-	-	-	~ 127	0	-
Stage 2	-	-	-	-	-	-	~ 731	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0	$ 7066.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	49	341	987	-	-	-
HCM Lane V/C Ratio	16.78	0.065	0.068	-	-	-
HCM Control Delay (s)	$ 7256.8	16.3	8.9	-	-	-
HCM Lane LOS	F	C	A	-	-	-
HCM 95th %tile Q(veh)	99.7	0.2	0.2	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 TWSC
125: SR-79 SB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	189.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰↑	↱
Traffic Vol, veh/h	0	1230	970	40	1220	0	0	0	0	260	10	30
Future Vol, veh/h	0	1230	970	40	1220	0	0	0	0	260	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1323	1043	43	1312	0	0	0	0	280	11	32

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	-	0	0	1323	0	0				2059	2721	656
Stage 1	-	-	-	-	-	-				1398	1398	-
Stage 2	-	-	-	-	-	-				661	1323	-
Critical Hdwy	-	-	-	4.1	-	-				6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-				5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.8	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	529	-	0				~ 49	21	413
Stage 1	0	-	-	-	-	0				~ 198	209	-
Stage 2	0	-	-	-	-	0				481	228	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	529	-	-				~ 45	0	413
Mov Cap-2 Maneuver	-	-	-	-	-	-				~ 45	0	-
Stage 1	-	-	-	-	-	-				~ 182	0	-
Stage 2	-	-	-	-	-	-				481	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.4	$ 2368
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	529	-	45	413
HCM Lane V/C Ratio	-	-	0.081	-	6.452	0.078
HCM Control Delay (s)	-	-	12.4	$	2629.5	14.5
HCM Lane LOS	-	-	B	-	F	B
HCM 95th %tile Q(veh)	-	-	0.3	-	33.9	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

HCM 2010 Signalized Intersection Summary
127: Potrero Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	40	30	170	390	1970	0	0	1300	1040
Future Volume (veh/h)	0	0	0	40	30	170	390	1970	0	0	1300	1040
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				40	30	0	390	1970	0	0	1300	1040
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				70	52	107	433	3035	0	0	2003	896
Arrive On Green				0.07	0.07	0.00	0.24	0.84	0.00	0.00	0.55	0.55
Sat Flow, veh/h				1056	792	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				70	0	0	390	1970	0	0	1300	1040
Grp Sat Flow(s),veh/h/ln				1847	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				3.2	0.0	0.0	18.0	16.4	0.0	0.0	21.5	47.7
Cycle Q Clear(g_c), s				3.2	0.0	0.0	18.0	16.4	0.0	0.0	21.5	47.7
Prop In Lane				0.57		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				122	0	107	433	3035	0	0	2003	896
V/C Ratio(X)				0.57	0.00	0.00	0.90	0.65	0.00	0.00	0.65	1.16
Avail Cap(c_a), veh/h				774	0	677	527	3195	0	0	2003	896
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.9	0.0	0.0	31.7	2.4	0.0	0.0	13.3	19.1
Incr Delay (d2), s/veh				4.2	0.0	0.0	16.4	0.4	0.0	0.0	0.7	84.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	0.0	0.0	11.0	7.8	0.0	0.0	10.9	42.0
LnGrp Delay(d),s/veh				43.1	0.0	0.0	48.1	2.8	0.0	0.0	14.0	103.8
LnGrp LOS				D			D	A			B	F
Approach Vol, veh/h					70			2360			2340	
Approach Delay, s/veh					43.1			10.3			53.9	
Approach LOS					D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		76.2			24.5	51.7		9.7
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		76.0			25.0	47.0		36.0
Max Q Clear Time (g_c+I1), s		18.4			20.0	49.7		5.2
Green Ext Time (p_c), s		53.8			0.6	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
128: Potrero Blvd & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	1360	50	390	0	0	0	0	1000	40	150	1190	0
Future Volume (veh/h)	1360	50	390	0	0	0	0	1000	40	150	1190	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	1396	0	0				0	1000	40	150	1190	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1553	0	693				0	1166	522	165	1684	0
Arrive On Green	0.43	0.00	0.00				0.00	0.32	0.32	0.09	0.47	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	1396	0	0				0	1000	40	150	1190	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	27.5	0.0	0.0				0.0	19.9	1.3	6.3	20.1	0.0
Cycle Q Clear(g_c), s	27.5	0.0	0.0				0.0	19.9	1.3	6.3	20.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1553	0	693				0	1166	522	165	1684	0
V/C Ratio(X)	0.90	0.00	0.00				0.00	0.86	0.08	0.91	0.71	0.00
Avail Cap(c_a), veh/h	1701	0	759				0	1178	527	165	1697	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.3	0.0	0.0				0.0	24.3	18.0	34.5	16.3	0.0
Incr Delay (d2), s/veh	6.5	0.0	0.0				0.0	6.5	0.1	44.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	0.0	0.0				0.0	10.9	0.6	5.2	10.2	0.0
LnGrp Delay(d),s/veh	26.8	0.0	0.0				0.0	30.7	18.1	78.6	17.6	0.0
LnGrp LOS	C							C	B	E	B	
Approach Vol, veh/h		1396						1040			1340	
Approach Delay, s/veh		26.8						30.2			24.4	
Approach LOS		C						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.0	28.7		36.9		39.7		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	7.0	25.0		36.0		36.0		
Max Q Clear Time (g_c+I1), s	8.3	21.9		29.5		22.1		
Green Ext Time (p_c), s	0.0	2.9		3.4		11.3		

Intersection Summary		
HCM 2010 Ctrl Delay		26.9
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
129: California Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↱		↰	↱	
Traffic Volume (veh/h)	20	830	170	130	780	20	340	90	340	30	40	10
Future Volume (veh/h)	20	830	170	130	780	20	340	90	340	30	40	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	874	179	137	821	21	358	95	358	32	42	11
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	31	846	715	132	952	692	345	109	411	41	211	55
Arrive On Green	0.02	0.45	0.45	0.07	0.50	0.50	0.19	0.31	0.31	0.02	0.15	0.15
Sat Flow, veh/h	1810	1900	1606	1810	1900	1382	1810	347	1309	1810	1449	379
Grp Volume(v), veh/h	21	874	179	137	821	21	358	0	453	32	0	53
Grp Sat Flow(s),veh/h/ln	1810	1900	1606	1810	1900	1382	1810	0	1657	1810	0	1828
Q Serve(g_s), s	1.3	49.0	7.7	8.0	41.8	0.8	21.0	0.0	28.4	1.9	0.0	2.8
Cycle Q Clear(g_c), s	1.3	49.0	7.7	8.0	41.8	0.8	21.0	0.0	28.4	1.9	0.0	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		0.21
Lane Grp Cap(c), veh/h	31	846	715	132	952	692	345	0	520	41	0	266
V/C Ratio(X)	0.67	1.03	0.25	1.04	0.86	0.03	1.04	0.00	0.87	0.78	0.00	0.20
Avail Cap(c_a), veh/h	66	846	715	132	952	692	345	0	520	66	0	266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.7	30.5	19.0	51.0	24.1	13.9	44.5	0.0	35.7	53.5	0.0	41.4
Incr Delay (d2), s/veh	22.4	39.6	0.2	89.8	8.2	0.0	58.1	0.0	18.0	26.4	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	34.9	3.4	7.3	23.8	0.3	16.0	0.0	15.6	1.3	0.0	1.5
LnGrp Delay(d),s/veh	76.1	70.1	19.2	141.2	32.3	13.9	102.6	0.0	53.6	79.9	0.0	43.0
LnGrp LOS	E	F	B	F	C	B	F		D	E		D
Approach Vol, veh/h		1074			979			811			85	
Approach Delay, s/veh		61.8			47.2			75.3			56.9	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	38.5	12.0	53.0	25.0	20.0	5.9	59.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	33.0	8.0	49.0	21.0	16.0	4.0	53.0
Max Q Clear Time (g_c+I1), s	3.9	30.4	10.0	51.0	23.0	4.8	3.3	43.8
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	2.6	0.0	7.3

Intersection Summary			
HCM 2010 Ctrl Delay			60.5
HCM 2010 LOS			E

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	180	900	90	340	680	340	190	840	430	480	540	80
Future Volume (veh/h)	180	900	90	340	680	340	190	840	430	480	540	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	194	968	97	366	731	366	204	903	462	516	581	86
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	1629	163	212	934	866	231	638	322	241	885	131
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.13	0.28	0.28	0.13	0.28	0.28
Sat Flow, veh/h	522	3313	332	538	1900	1385	1810	2321	1170	1810	3153	465
Grp Volume(v), veh/h	194	527	538	366	731	366	204	699	666	516	332	335
Grp Sat Flow(s),veh/h/ln	522	1805	1840	538	1900	1385	1810	1805	1686	1810	1805	1813
Q Serve(g_s), s	20.9	25.2	25.2	33.8	38.1	16.2	13.3	33.0	33.0	16.0	19.5	19.6
Cycle Q Clear(g_c), s	59.0	25.2	25.2	59.0	38.1	16.2	13.3	33.0	33.0	16.0	19.5	19.6
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.69	1.00		0.26
Lane Grp Cap(c), veh/h	151	887	905	212	934	866	231	496	464	241	507	509
V/C Ratio(X)	1.29	0.59	0.59	1.73	0.78	0.42	0.88	1.41	1.44	2.14	0.66	0.66
Avail Cap(c_a), veh/h	151	887	905	212	934	866	241	496	464	241	507	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	21.9	21.9	47.9	25.2	11.5	51.5	43.5	43.5	52.0	38.0	38.1
Incr Delay (d2), s/veh	169.8	1.1	1.1	347.2	4.4	0.3	28.8	195.9	208.0	526.1	3.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	12.7	13.0	27.4	21.0	6.2	8.5	43.4	42.1	43.2	10.1	10.2
LnGrp Delay(d),s/veh	223.5	23.0	23.0	395.1	29.6	11.8	80.2	239.4	251.5	578.1	41.1	41.2
LnGrp LOS	F	C	C	F	C	B	F	F	F	F	D	D
Approach Vol, veh/h		1259			1463			1569			1183	
Approach Delay, s/veh		53.9			116.6			223.8			275.3	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	37.0		63.0	19.3	37.7		63.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	33.0		59.0	16.0	33.0		59.0
Max Q Clear Time (g_c+I1), s	18.0	35.0		61.0	15.3	21.6		61.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	9.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			167.2
HCM 2010 LOS			F

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱			↰↑	↰	↱
Traffic Volume (vph)	670	1460	20	530	1360	10
Future Volume (vph)	670	1460	20	530	1360	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	0.98
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.90			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3204			3603	1710	1590
Flt Permitted	1.00			0.67	0.95	1.00
Satd. Flow (perm)	3204			2432	1710	1590
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	728	1587	22	576	1478	11
RTOR Reduction (vph)	526	0	0	0	0	4
Lane Group Flow (vph)	1789	0	0	598	1478	7
Confl. Peds. (#/hr)		5	5			5
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases			8			2
Actuated Green, G (s)	30.0			30.0	35.0	35.0
Effective Green, g (s)	30.0			30.0	35.0	35.0
Actuated g/C Ratio	0.40			0.40	0.47	0.47
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1281			972	798	742
v/s Ratio Prot	c0.56				c0.86	
v/s Ratio Perm				0.25		0.00
v/c Ratio	1.35dr			0.62	1.85	0.01
Uniform Delay, d1	22.5			17.9	20.0	10.7
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	183.4			1.2	388.3	0.0
Delay (s)	205.9			19.1	408.3	10.7
Level of Service	F			B	F	B
Approach Delay (s)	205.9			19.1	405.4	
Approach LOS	F			B	F	

Intersection Summary			
HCM 2000 Control Delay	248.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.64		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	153.9%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	70.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↑↱			↰↑↱			↰↑↱	
Traffic Vol, veh/h	40	940	0	0	580	340	0	0	0	190	0	20
Future Vol, veh/h	40	940	0	0	580	340	0	0	0	190	0	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	1000	0	0	617	362	0	0	0	202	0	21
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	104.6	45.7	0	15.9
HCM LOS	F	E	-	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	11%	0%	0%	0%	90%
Vol Thru, %	100%	89%	100%	100%	36%	0%
Vol Right, %	0%	0%	0%	0%	64%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	353	627	387	533	210
LT Vol	0	40	0	0	0	190
Through Vol	0	313	627	387	193	0
RT Vol	0	0	0	0	340	20
Lane Flow Rate	0	376	667	411	567	223
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0	0.711	1.251	0.761	0.979	0.436
Departure Headway (Hd)	8.417	6.814	6.756	6.964	6.509	7.333
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	530	540	522	562	494
Service Time	6.417	4.546	4.488	4.664	4.209	5.333
HCM Lane V/C Ratio	0	0.709	1.235	0.787	1.009	0.451
HCM Control Delay	11.4	24.6	149.7	28.5	58.2	15.9
HCM Lane LOS	N	C	F	D	F	C
HCM 95th-tile Q	0	5.7	26.2	6.7	13.5	2.2

Intersection	
Intersection Delay, s/veh	357.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥		↰	↱	
Traffic Vol, veh/h	10	940	20	10	790	270	40	10	10	270	10	20
Future Vol, veh/h	10	940	20	10	790	270	40	10	10	270	10	20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	959	20	10	806	276	41	10	10	276	10	20
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	383.5	445.6	18.1	28.6
HCM LOS	F	F	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	67%	1%	1%	100%	0%
Vol Thru, %	17%	97%	74%	0%	33%
Vol Right, %	17%	2%	25%	0%	67%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	970	1070	270	30
LT Vol	40	10	10	270	0
Through Vol	10	940	790	0	10
RT Vol	10	20	270	0	20
Lane Flow Rate	61	990	1092	276	31
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.15	1.79	1.933	0.641	0.063
Departure Headway (Hd)	12.824	7.909	7.579	10.547	9.522
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	282	465	491	344	379
Service Time	10.824	5.909	5.579	8.247	7.222
HCM Lane V/C Ratio	0.216	2.129	2.224	0.802	0.082
HCM Control Delay	18.1	383.5	445.6	30.3	12.9
HCM Lane LOS	C	F	F	D	B
HCM 95th-tile Q	0.5	50.9	61	4.2	0.2

Intersection	
Intersection Delay, s/veh	670.6
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	620	820	410	510	700	580
Future Vol, veh/h	620	820	410	510	700	580
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	633	837	418	520	714	592
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	806	427.1	693.3
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	55%	0%	45%
Vol Thru, %	0%	43%	55%
Vol Right, %	45%	57%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1280	1440	920
LT Vol	700	0	410
Through Vol	0	620	510
RT Vol	580	820	0
Lane Flow Rate	1306	1469	939
Geometry Grp	1	1	1
Degree of Util (X)	2.48	2.717	1.848
Departure Headway (Hd)	9.209	11.915	14.029
Convergence, Y/N	Yes	Yes	Yes
Cap	405	323	272
Service Time	7.209	9.915	12.029
HCM Lane V/C Ratio	3.225	4.548	3.452
HCM Control Delay	693.3	806	427.1
HCM Lane LOS	F	F	F
HCM 95th-tile Q	77	69.3	32.6

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	11.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	80	120	200	50	100	270
Future Vol, veh/h	80	120	200	50	100	270
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	89	133	222	56	111	300

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	222	0	656	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1359	-	433	895
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1359	-	360	895
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	509	-

Approach	EB		WB		NB	
HCM Control Delay, s	0		6.5		20.2	
HCM LOS					C	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	639	-	-	1359	-
HCM Lane V/C Ratio	0.643	-	-	0.164	-
HCM Control Delay (s)	20.2	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.7	-	-	0.6	-

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	10	10	10	10	10	10	330	30	20	250	10
Future Vol, veh/h	10	10	10	10	10	10	10	330	30	20	250	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	11	11	11	11	363	33	22	275	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.7	11.6	10.3
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	33%	7%
Vol Thru, %	89%	33%	33%	89%
Vol Right, %	8%	33%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	30	30	280
LT Vol	10	10	10	20
Through Vol	330	10	10	250
RT Vol	30	10	10	10
Lane Flow Rate	407	33	33	308
Geometry Grp	1	1	1	1
Degree of Util (X)	0.492	0.049	0.049	0.384
Departure Headway (Hd)	4.358	5.361	5.361	4.487
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	825	665	665	803
Service Time	2.384	3.42	3.42	2.515
HCM Lane V/C Ratio	0.493	0.05	0.05	0.384
HCM Control Delay	11.6	8.7	8.7	10.3
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.8	0.2	0.2	1.8

Traffic Impact Analysis Report

for the World Logistics Center

Appendix H

Intersection LOS Worksheets
for 2040 Plus Build-out Conditions

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2040 AM-PP]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	B	A

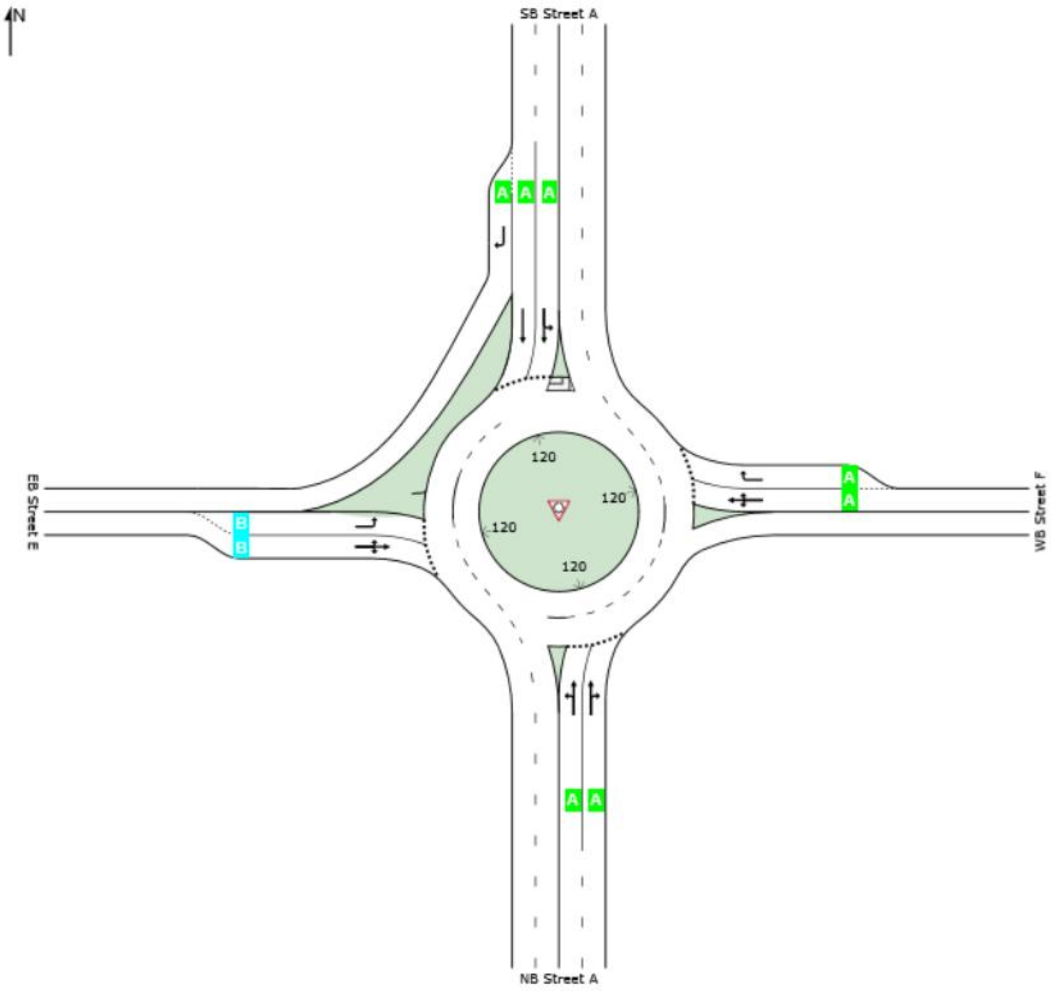

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int1_2040 AM-PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Street A													
Lane 1	455	0.0	909	0.501	100	7.9	LOS A	2.9	71.4	Full	1600	0.0	0.0
Lane 2[d]	466	0.0	929	0.501	100	7.8	LOS A	2.9	71.7	Full	1600	0.0	0.0
Approach	921	0.0		0.501		7.9	LOS A	2.9	71.7				
East: WB Street F													
Lane 1	292	0.0	706	0.414	100	8.3	LOS A	1.9	48.1	Full	1600	0.0	0.0
Lane 2[d]	318	0.0	766	0.414	100	7.0	LOS A	2.0	49.1	Short	200	0.0	NA
Approach	610	0.0		0.414		7.6	LOS A	2.0	49.1				
North: SB Street A													
Lane 1	569	0.0	1332	0.428	100	9.1	LOS A	3.1	78.5	Full	1600	0.0	0.0
Lane 2[d]	631	0.0	1475	0.428	100	4.0	LOS A	3.2	80.0	Full	1600	0.0	0.0
Lane 3	90	0.0	1675	0.054	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	1290	0.0		0.428		6.2	LOS A	3.2	80.0				
West: EB Street E													
Lane 1	81	0.0	681	0.118	100	13.1	LOS B	0.4	10.5	Short	200	0.0	NA
Lane 2[d]	90	0.0	763	0.118	100	10.5	LOS B	0.4	10.8	Full	1600	0.0	0.0
Approach	171	0.0		0.118		11.7	LOS B	0.4	10.8				
Intersection	2992	0.0		0.501		7.3	LOS A	3.2	80.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰↰	↑	↰	↱
Traffic Volume (veh/h)	10	170	700	10	130	430
Future Volume (veh/h)	10	170	700	10	130	430
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	170	700	10	130	430
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	762	648	1399	762	627	560
Arrive On Green	0.40	0.40	0.40	0.40	0.35	0.35
Sat Flow, veh/h	1900	1615	2373	1900	1810	1615
Grp Volume(v), veh/h	10	170	700	10	130	430
Grp Sat Flow(s),veh/h/ln	1900	1615	1187	1900	1810	1615
Q Serve(g_s), s	0.1	2.2	8.0	0.1	1.6	7.5
Cycle Q Clear(g_c), s	0.1	2.2	8.1	0.1	1.6	7.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	762	648	1399	762	627	560
V/C Ratio(X)	0.01	0.26	0.50	0.01	0.21	0.77
Avail Cap(c_a), veh/h	1079	917	1795	1079	1085	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.7	6.4	8.1	5.7	7.3	9.2
Incr Delay (d2), s/veh	0.0	0.2	0.3	0.0	0.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.0	2.6	0.1	0.8	3.6
LnGrp Delay(d),s/veh	5.7	6.6	8.4	5.7	7.5	11.5
LnGrp LOS	A	A	A	A	A	B
Approach Vol, veh/h	180			710	560	
Approach Delay, s/veh	6.5			8.4	10.5	
Approach LOS	A			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		15.0		16.7				16.7
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		19.0		18.0				18.0
Max Q Clear Time (g_c+I1), s		9.5		4.2				10.1
Green Ext Time (p_c), s		1.5		3.5				2.6

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2040 AM PP]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	B	A	A

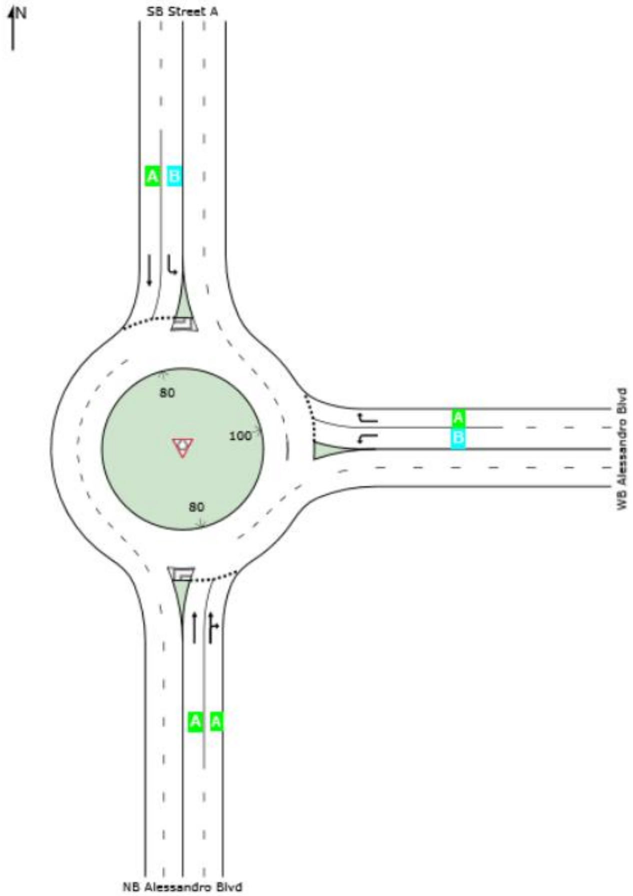

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int3_2040 AM PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	207	0.0	1148	0.180	75[5]	5.6	LOS A	1.0	25.4	Full	1600	0.0	0.0
Lane 2[d]	315	0.0	1315	0.240	100	5.5	LOS A	1.5	36.8	Full	1600	0.0	0.0
Approach	522	0.0		0.240		5.6	LOS A	1.5	36.8				
East: WB Alessandro Blvd													
Lane 1[d]	510	0.0	1134	0.450	100	11.8	LOS B	2.6	65.3	Full	1600	0.0	0.0
Lane 2	150	0.0	695	0.216	100	6.6	LOS A	0.9	22.8	Full	1600	0.0	0.0
Approach	660	0.0		0.450		10.6	LOS B	2.6	65.3				
North: SB Street A													
Lane 1	98	0.0	661	0.148	100	13.9	LOS B	0.7	18.1	Full	1600	0.0	0.0
Lane 2[d]	250	0.0	918	0.272	100	7.7	LOS A	1.6	39.6	Full	1600	0.0	0.0
Approach	348	0.0		0.272		9.5	LOS A	1.6	39.6				
Intersection	1530	0.0		0.450		8.6	LOS A	2.6	65.3				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Organisation: PARSONS BRINCKERHOFF | Processed: Friday, March 30, 2018 8:37:36 PM
Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 3.sip7

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int4_2040 AM PP]

New Site
Roundabout

All Movement Classes

	East	North	West	Intersection
LOS	A	B	A	A

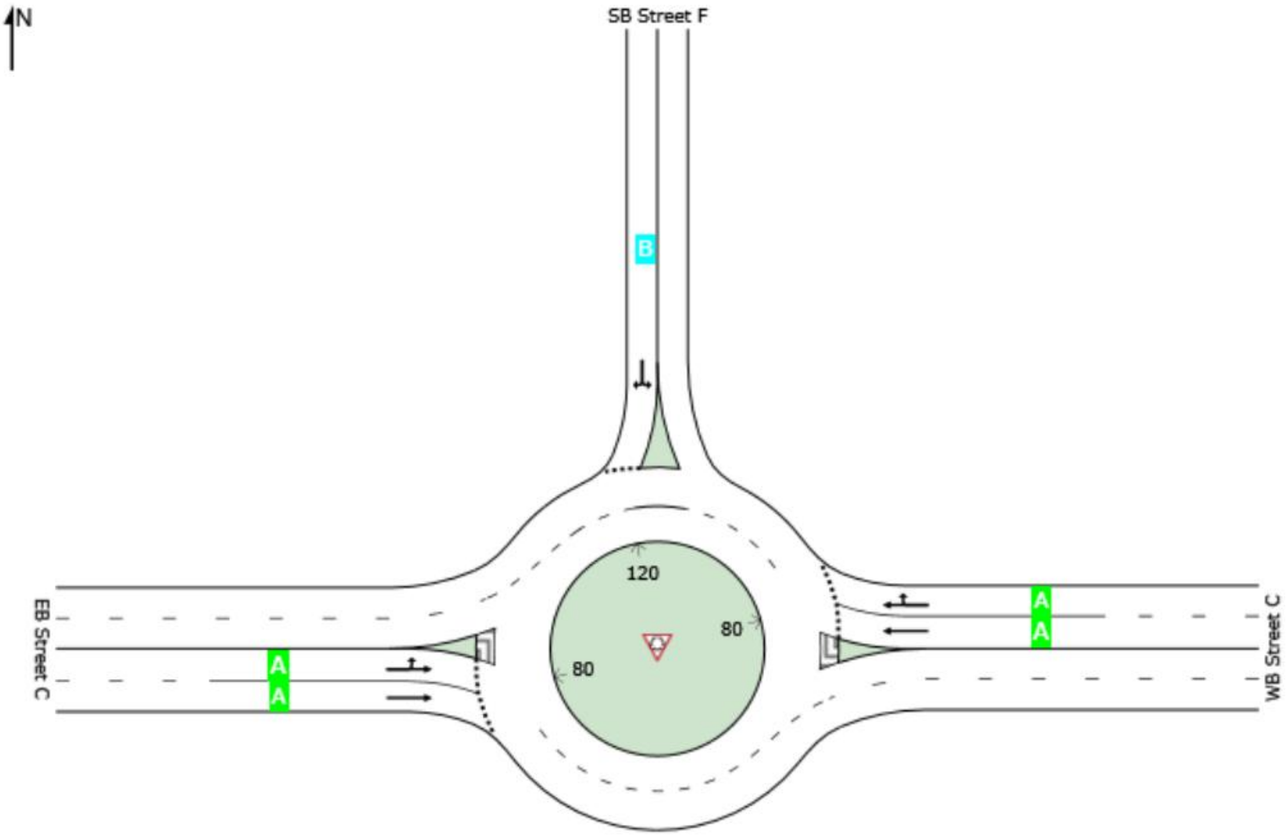

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Organisation: PARSONS BRINCKERHOFF | Processed: Friday, March 30, 2018 10:09:14 PM
Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 4.sip7

LANE SUMMARY

Site: 1 [Int4_2040 AM PP]

New Site
Roundabout

Lane Use and Performance	Demand Flows Total	HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue Veh	Dist	Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	veh/h	%	veh/h	v/c	%	sec			ft		ft	%	%
East: WB Street C													
Lane 1	379	0.0	1315	0.289	100	4.3	LOS A	1.6	40.2	Full	1600	0.0	0.0
Lane 2[d]	401	0.0	1388	0.289	100	4.6	LOS A	1.6	40.5	Full	1600	0.0	0.0
Approach	780	0.0		0.289		4.5	LOS A	1.6	40.5				
North: SB Street F													
Lane 1[d]	350	0.0	826	0.424	100	10.4	LOS B	2.0	48.9	Full	1600	0.0	0.0
Approach	350	0.0		0.424		10.4	LOS B	2.0	48.9				
West: EB Street C													
Lane 1	153	0.0	1103	0.139	100	7.9	LOS A	0.7	17.2	Full	1600	0.0	0.0
Lane 2[d]	157	0.0	1128	0.139	100	5.2	LOS A	0.7	17.3	Full	1600	0.0	0.0
Approach	310	0.0		0.139		6.5	LOS A	0.7	17.3				
Intersection	1440	0.0		0.424		6.3	LOS A	2.0	48.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[d] Dominant lane on roundabout approach

Organisation: PARSONS BRINCKERHOFF | Processed: Friday, March 30, 2018 10:09:14 PM
Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 4.sip7

HCM 2010 Signalized Intersection Summary
6: Gilman Springs Rd

Movement	EBL	EBR	NBL	NBT	SBT	SBR
	↗	↘	↖	↑	↓	↙
Lane Configurations	↰	↱↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	200	470	670	1680	1220	220
Future Volume (veh/h)	200	470	670	1680	1220	220
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	213	500	713	1787	1298	234
Adj No. of Lanes	1	2	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	355	558	727	3705	1389	433
Arrive On Green	0.20	0.20	0.40	0.71	0.27	0.27
Sat Flow, veh/h	1810	2842	1810	5358	5358	1615
Grp Volume(v), veh/h	213	500	713	1787	1298	234
Grp Sat Flow(s),veh/h/ln	1810	1421	1810	1729	1729	1615
Q Serve(g_s), s	9.6	15.4	34.8	13.5	21.9	11.1
Cycle Q Clear(g_c), s	9.6	15.4	34.8	13.5	21.9	11.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	355	558	727	3705	1389	433
V/C Ratio(X)	0.60	0.90	0.98	0.48	0.93	0.54
Avail Cap(c_a), veh/h	364	571	727	3705	1390	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	35.1	26.5	5.6	32.0	28.1
Incr Delay (d2), s/veh	2.6	16.5	28.5	0.1	11.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	12.5	23.0	6.3	12.0	5.1
LnGrp Delay(d),s/veh	35.4	51.6	54.9	5.7	43.8	29.4
LnGrp LOS	D	D	D	A	D	C
Approach Vol, veh/h	713			2500	1532	
Approach Delay, s/veh	46.8			19.7	41.6	
Approach LOS	D			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.0		21.6	40.0	28.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		64.0		18.0	36.0	24.0		
Max Q Clear Time (g_c+I1), s		15.5		17.4	36.8	23.9		
Green Ext Time (p_c), s		37.2		0.2	0.0	0.1		

Intersection Summary	
HCM 2010 Ctrl Delay	30.9
HCM 2010 LOS	C

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	10	30	180	1700	1410	70
Future Volume (veh/h)	10	30	180	1700	1410	70
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	30	180	1700	1410	70
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	121	108	445	3351	3351	1043
Arrive On Green	0.07	0.07	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1810	1615	362	5358	5358	1615
Grp Volume(v), veh/h	10	30	180	1700	1410	70
Grp Sat Flow(s),veh/h/ln	1810	1615	362	1729	1729	1615
Q Serve(g_s), s	0.1	0.5	13.4	4.8	3.7	0.4
Cycle Q Clear(g_c), s	0.1	0.5	17.1	4.8	3.7	0.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	121	108	445	3351	3351	1043
V/C Ratio(X)	0.08	0.28	0.40	0.51	0.42	0.07
Avail Cap(c_a), veh/h	1169	1043	445	3351	3351	1043
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	12.4	6.5	2.6	2.4	1.8
Incr Delay (d2), s/veh	0.3	1.4	0.6	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	1.4	2.2	1.7	0.2
LnGrp Delay(d),s/veh	12.5	13.7	7.1	2.7	2.5	1.9
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	40			1880	1480	
Approach Delay, s/veh	13.4			3.1	2.5	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.0		5.9		22.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		19.1		2.5		5.7		
Green Ext Time (p_c), s		0.0		0.1		11.9		

Intersection Summary	
HCM 2010 Ctrl Delay	3.0
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	160	5	20	10	5	10	10	630	10	5	820	170
Future Volume (veh/h)	160	5	20	10	5	10	10	630	10	5	820	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	5	22	11	5	11	11	685	11	5	891	185
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	408	16	32	218	109	141	310	1151	975	464	1151	975
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1218	78	159	478	537	698	533	1900	1608	760	1900	1608
Grp Volume(v), veh/h	201	0	0	27	0	0	11	685	11	5	891	185
Grp Sat Flow(s),veh/h/ln	1456	0	0	1714	0	0	533	1900	1608	760	1900	1608
Q Serve(g_s), s	4.8	0.0	0.0	0.0	0.0	0.0	0.7	9.3	0.1	0.2	14.5	2.1
Cycle Q Clear(g_c), s	5.3	0.0	0.0	0.5	0.0	0.0	15.2	9.3	0.1	9.5	14.5	2.1
Prop In Lane	0.87		0.11	0.41		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	456	0	0	468	0	0	310	1151	975	464	1151	975
V/C Ratio(X)	0.44	0.00	0.00	0.06	0.00	0.00	0.04	0.59	0.01	0.01	0.77	0.19
Avail Cap(c_a), veh/h	919	0	0	971	0	0	369	1364	1155	549	1364	1155
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	0.0	13.5	0.0	0.0	11.7	5.1	3.3	8.0	6.1	3.7
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	0.3	0.0	0.0	0.1	4.9	0.1	0.0	8.2	1.0
LnGrp Delay(d),s/veh	16.0	0.0	0.0	13.5	0.0	0.0	11.8	5.6	3.3	8.0	8.5	3.8
LnGrp LOS	B			B			B	A	A	A	A	A
Approach Vol, veh/h		201			27			707			1081	
Approach Delay, s/veh		16.0			13.5			5.6			7.7	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		29.3		12.5		29.3		12.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		17.2		7.3		16.5		2.5
Green Ext Time (p_c), s		8.1		0.9		8.4		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	140	70	50	30	110	30	40	530	60	10	720	140
Future Volume (veh/h)	140	70	50	30	110	30	40	530	60	10	720	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	71	51	31	112	31	41	541	61	10	735	143
Adj No. of Lanes	0	2	0	0	2	0	1	2	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	262	148	107	87	322	92	109	1277	144	33	1258	560
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.06	0.39	0.39	0.02	0.35	0.35
Sat Flow, veh/h	1810	1025	736	631	2342	669	1810	3270	368	1810	3610	1608
Grp Volume(v), veh/h	143	0	122	92	0	82	41	298	304	10	735	143
Grp Sat Flow(s),veh/h/ln	1810	0	1761	1868	0	1773	1810	1805	1832	1810	1805	1608
Q Serve(g_s), s	3.8	0.0	3.3	2.3	0.0	2.2	1.1	6.2	6.3	0.3	8.6	3.3
Cycle Q Clear(g_c), s	3.8	0.0	3.3	2.3	0.0	2.2	1.1	6.2	6.3	0.3	8.6	3.3
Prop In Lane	1.00		0.42	0.34		0.38	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	262	0	255	257	0	244	109	705	716	33	1258	560
V/C Ratio(X)	0.55	0.00	0.48	0.36	0.00	0.34	0.38	0.42	0.42	0.31	0.58	0.26
Avail Cap(c_a), veh/h	873	0	850	938	0	890	245	906	920	245	1812	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	20.4	20.3	0.0	20.2	23.4	11.5	11.5	25.1	13.8	12.1
Incr Delay (d2), s/veh	1.8	0.0	1.4	0.8	0.0	0.8	2.1	0.4	0.4	5.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.7	1.2	0.0	1.1	0.6	3.1	3.2	0.2	4.4	1.5
LnGrp Delay(d),s/veh	22.3	0.0	21.7	21.1	0.0	21.0	25.5	11.9	11.9	30.2	14.2	12.3
LnGrp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		265			174			643			888	
Approach Delay, s/veh		22.1			21.0			12.8			14.1	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	24.2		11.5	7.1	22.0		11.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	26.0		25.0	7.0	26.0		26.0
Max Q Clear Time (g_c+I1), s	2.3	8.3		5.8	3.1	10.6		4.3
Green Ext Time (p_c), s	0.0	7.7		1.2	0.0	7.1		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	43.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↑	↱	↰	↑
Traffic Vol, veh/h	470	50	120	350	100	40
Future Vol, veh/h	470	50	120	350	100	40
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	553	59	141	412	118	47

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	428	151	0	0	146	0
Stage 1	146	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	588	901	-	-	1448	-
Stage 1	886	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 538	894	-	-	1442	-
Mov Cap-2 Maneuver	~ 538	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	707	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	92.9	0	5.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	559	1442	-
HCM Lane V/C Ratio	-	-	1.094	0.082	-
HCM Control Delay (s)	-	-	92.9	7.7	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	18.8	0.3	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
13: Redlands Blvd & SR 60 WB Ramps/SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑	↱		↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	0	0	0	610	0	250	0	530	130	0	600	290
Future Volume (veh/h)	0	0	0	610	0	250	0	530	130	0	600	290
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				622	0	255	0	541	0	0	612	296
Adj No. of Lanes				1	1	1	0	2	1	0	2	1
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				766	805	682	0	1346	602	0	1346	600
Arrive On Green				0.42	0.00	0.42	0.00	0.37	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1810	1900	1609	0	3705	1615	0	3705	1609
Grp Volume(v), veh/h				622	0	255	0	541	0	0	612	296
Grp Sat Flow(s),veh/h/ln				1810	1900	1609	0	1805	1615	0	1805	1609
Q Serve(g_s), s				11.9	0.0	4.3	0.0	4.3	0.0	0.0	5.0	5.6
Cycle Q Clear(g_c), s				11.9	0.0	4.3	0.0	4.3	0.0	0.0	5.0	5.6
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				766	805	682	0	1346	602	0	1346	600
V/C Ratio(X)				0.81	0.00	0.37	0.00	0.40	0.00	0.00	0.45	0.49
Avail Cap(c_a), veh/h				1151	1209	1024	0	2021	904	0	2021	901
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.9	0.0	7.8	0.0	9.1	0.0	0.0	9.3	9.5
Incr Delay (d2), s/veh				2.7	0.0	0.3	0.0	0.2	0.0	0.0	0.2	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	0.0	1.9	0.0	2.1	0.0	0.0	2.5	2.6
LnGrp Delay(d),s/veh				12.7	0.0	8.1	0.0	9.3	0.0	0.0	9.5	10.1
LnGrp LOS				B		A		A			A	B
Approach Vol, veh/h					877			541			908	
Approach Delay, s/veh					11.4			9.3			9.7	
Approach LOS					B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		18.7				18.7		20.6
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		22.0				22.0		25.0
Max Q Clear Time (g_c+I1), s		6.3				7.6		13.9
Green Ext Time (p_c), s		7.0				6.7		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps/SR 60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱					↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	230	0	220	0	0	0	0	410	220	0	1120	140
Future Volume (veh/h)	230	0	220	0	0	0	0	410	220	0	1120	140
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	237	0	227				0	423	227	0	1155	0
Adj No. of Lanes	1	1	1				0	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	411	432	367				0	1906	853	0	1906	853
Arrive On Green	0.23	0.00	0.23				0.00	0.53	0.53	0.00	0.53	0.00
Sat Flow, veh/h	1810	1900	1615				0	3705	1615	0	3705	1615
Grp Volume(v), veh/h	237	0	227				0	423	227	0	1155	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1805	1615	0	1805	1615
Q Serve(g_s), s	3.8	0.0	4.1				0.0	2.0	2.5	0.0	7.3	0.0
Cycle Q Clear(g_c), s	3.8	0.0	4.1				0.0	2.0	2.5	0.0	7.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	411	432	367				0	1906	853	0	1906	853
V/C Ratio(X)	0.58	0.00	0.62				0.00	0.22	0.27	0.00	0.61	0.00
Avail Cap(c_a), veh/h	1384	1453	1235				0	2430	1087	0	2430	1087
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.2	0.0	11.4				0.0	4.1	4.2	0.0	5.4	0.0
Incr Delay (d2), s/veh	1.3	0.0	1.7				0.0	0.1	0.2	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	2.0				0.0	1.0	1.1	0.0	3.6	0.0
LnGrp Delay(d),s/veh	12.5	0.0	13.1				0.0	4.2	4.4	0.0	5.7	0.0
LnGrp LOS	B		B					A	A		A	
Approach Vol, veh/h		464						650			1155	
Approach Delay, s/veh		12.8						4.3			5.7	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		21.3		11.4		21.3		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		22.0		25.0		22.0		
Max Q Clear Time (g_c+I1), s		4.5		6.1		9.3		
Green Ext Time (p_c), s		9.9		1.4		8.0		

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	60	320	1180	420	100	400
Future Volume (veh/h)	60	320	1180	420	100	400
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	360	1326	472	112	449
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	468	417	1244	3114	3114	970
Arrive On Green	0.26	0.26	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1810	1615	1673	5358	5358	1615
Grp Volume(v), veh/h	67	360	1326	472	112	449
Grp Sat Flow(s),veh/h/ln	1810	1615	836	1729	1729	1615
Q Serve(g_s), s	1.6	12.0	33.5	2.3	0.5	8.7
Cycle Q Clear(g_c), s	1.6	12.0	34.0	2.3	0.5	8.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	468	417	1244	3114	3114	970
V/C Ratio(X)	0.14	0.86	1.07	0.15	0.04	0.46
Avail Cap(c_a), veh/h	575	513	1244	3114	3114	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	20.0	15.0	5.0	4.6	6.3
Incr Delay (d2), s/veh	0.1	12.1	45.1	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.7	17.3	1.1	0.2	4.0
LnGrp Delay(d),s/veh	16.3	32.1	60.1	5.0	4.6	6.6
LnGrp LOS	B	C	F	A	A	A
Approach Vol, veh/h	427			1798	561	
Approach Delay, s/veh	29.6			45.6	6.2	
Approach LOS	C			D	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		38.0		18.6		38.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		34.0		18.0		34.0		
Max Q Clear Time (g_c+I1), s		36.0		14.0		10.7		
Green Ext Time (p_c), s		0.0		0.6		16.7		

Intersection Summary			
HCM 2010 Ctrl Delay			35.2
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
16: Theodore St & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	220	0	910	0	0	0	0	1370	300	0	330	90
Future Volume (veh/h)	220	0	910	0	0	0	0	1370	300	0	330	90
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	293	0	0				0	1827	400	0	440	120
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.75	0.75	0.75				0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	388	0	610				0	2923	910	0	2923	910
Arrive On Green	0.21	0.00	0.00				0.00	0.56	0.56	0.00	0.56	0.56
Sat Flow, veh/h	1810	0	2842				0	5358	1615	0	5358	1615
Grp Volume(v), veh/h	293	0	0				0	1827	400	0	440	120
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1615	0	1729	1615
Q Serve(g_s), s	5.5	0.0	0.0				0.0	8.6	5.2	0.0	1.5	1.3
Cycle Q Clear(g_c), s	5.5	0.0	0.0				0.0	8.6	5.2	0.0	1.5	1.3
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	388	0	610				0	2923	910	0	2923	910
V/C Ratio(X)	0.75	0.00	0.00				0.00	0.63	0.44	0.00	0.15	0.13
Avail Cap(c_a), veh/h	1004	0	1577				0	3165	985	0	3165	985
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	0.0				0.0	5.3	4.6	0.0	3.8	3.7
Incr Delay (d2), s/veh	3.0	0.0	0.0				0.0	0.3	0.3	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0				0.0	4.0	2.3	0.0	0.7	0.5
LnGrp Delay(d),s/veh	16.3	0.0	0.0				0.0	5.6	4.9	0.0	3.8	3.8
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		293						2227			560	
Approach Delay, s/veh		16.3						5.5			3.8	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		24.3		11.7		24.3		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		22.0		20.0		22.0		
Max Q Clear Time (g_c+I1), s		10.6		7.5		3.5		
Green Ext Time (p_c), s		9.8		0.7		14.7		

Intersection Summary	
HCM 2010 Ctrl Delay	6.2
HCM 2010 LOS	A

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	180	50	100	70	40	130	80	230	60	290	620	410
Future Volume (veh/h)	180	50	100	70	40	130	80	230	60	290	620	410
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	196	54	109	76	43	141	87	250	65	315	674	446
Adj No. of Lanes	2	2	0	1	2	1	1	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	431	330	293	156	528	236	166	1154	516	458	1294	576
Arrive On Green	0.12	0.18	0.18	0.09	0.15	0.15	0.09	0.32	0.32	0.13	0.36	0.36
Sat Flow, veh/h	3510	1805	1602	1810	3610	1615	1810	3610	1615	3510	3610	1608
Grp Volume(v), veh/h	196	54	109	76	43	141	87	250	65	315	674	446
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1810	1805	1615	1810	1805	1615	1755	1805	1608
Q Serve(g_s), s	3.0	1.4	3.4	2.3	0.6	4.7	2.6	2.9	1.6	4.9	8.4	14.0
Cycle Q Clear(g_c), s	3.0	1.4	3.4	2.3	0.6	4.7	2.6	2.9	1.6	4.9	8.4	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	431	330	293	156	528	236	166	1154	516	458	1294	576
V/C Ratio(X)	0.45	0.16	0.37	0.49	0.08	0.60	0.52	0.22	0.13	0.69	0.52	0.77
Avail Cap(c_a), veh/h	1726	1173	1041	286	1141	510	286	1204	539	863	1521	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	19.6	20.4	24.8	21.0	22.7	24.7	14.2	13.7	23.7	14.4	16.2
Incr Delay (d2), s/veh	0.8	0.2	0.8	2.4	0.1	2.4	2.5	0.1	0.1	1.8	0.3	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.7	1.5	1.2	0.3	2.2	1.4	1.4	0.7	2.5	4.2	6.9
LnGrp Delay(d),s/veh	24.0	19.8	21.2	27.2	21.1	25.2	27.2	14.3	13.8	25.5	14.7	21.0
LnGrp LOS	C	B	C	C	C	C	C	B	B	C	B	C
Approach Vol, veh/h		359			260			402			1435	
Approach Delay, s/veh		22.5			25.1			17.0			19.0	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	22.2	8.9	14.4	9.2	24.4	11.0	12.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	19.0	9.0	37.0	9.0	24.0	28.0	18.0
Max Q Clear Time (g_c+I1), s	6.9	4.9	4.3	5.4	4.6	16.0	5.0	6.7
Green Ext Time (p_c), s	0.6	6.2	0.1	1.8	0.1	4.3	0.6	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
19: Fir Ave & Theodore St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	70	0	170	190	10	80	200	1530	50	10	1170	60
Future Volume (veh/h)	70	0	170	190	10	80	200	1530	50	10	1170	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	103	0	250	279	15	118	294	2250	74	15	1721	88
Adj No. of Lanes	1	1	2	1	1	0	2	3	1	1	3	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	380	568	310	37	292	450	3689	1148	158	3689	1148
Arrive On Green	0.20	0.00	0.20	0.20	0.20	0.20	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	1277	1900	2842	1148	185	1458	511	5187	1615	159	5187	1615
Grp Volume(v), veh/h	103	0	250	279	0	133	294	2250	74	15	1721	88
Grp Sat Flow(s),veh/h/ln	1277	1900	1421	1148	0	1643	256	1729	1615	159	1729	1615
Q Serve(g_s), s	6.9	0.0	6.9	18.0	0.0	6.3	51.1	19.9	1.2	4.8	12.9	1.5
Cycle Q Clear(g_c), s	13.2	0.0	6.9	18.0	0.0	6.3	64.0	19.9	1.2	24.7	12.9	1.5
Prop In Lane	1.00		1.00	1.00		0.89	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	380	568	310	0	329	450	3689	1148	158	3689	1148
V/C Ratio(X)	0.42	0.00	0.44	0.90	0.00	0.40	0.65	0.61	0.06	0.10	0.47	0.08
Avail Cap(c_a), veh/h	245	380	568	310	0	329	450	3689	1148	158	3689	1148
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	31.6	37.6	0.0	31.3	19.8	6.6	3.9	12.9	5.6	4.0
Incr Delay (d2), s/veh	1.1	0.0	0.5	27.7	0.0	0.8	3.4	0.3	0.0	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	2.8	9.3	0.0	3.0	3.8	9.5	0.6	0.2	6.1	0.7
LnGrp Delay(d),s/veh	38.2	0.0	32.1	65.3	0.0	32.1	23.1	6.9	4.0	13.2	5.7	4.0
LnGrp LOS	D		C	E		C	C	A	A	B	A	A
Approach Vol, veh/h		353			412			2618			1824	
Approach Delay, s/veh		33.9			54.6			8.7			5.7	
Approach LOS		C			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		68.0		22.0		68.0		22.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		64.0		18.0		64.0		18.0
Max Q Clear Time (g_c+I1), s		66.0		15.2		26.7		20.0
Green Ext Time (p_c), s		0.0		1.0		36.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

HCM 2010 TWSC
20: Oliver St & Alessandro Blvd

Intersection	
Int Delay, s/veh	14.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰	↱		↰↑↱	
Traffic Vol, veh/h	0	320	60	20	670	0	160	10	40	0	0	10
Future Vol, veh/h	0	320	60	20	670	0	160	10	40	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	400	75	25	838	0	200	13	50	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	838	0	0	475	0	0	907	1326	238	1094	1363	419
Stage 1	-	-	-	-	-	-	438	438	-	888	888	-
Stage 2	-	-	-	-	-	-	469	888	-	206	475	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	805	-	-	1098	-	-	234	157	769	171	149	589
Stage 1	-	-	-	-	-	-	573	582	-	309	365	-
Stage 2	-	-	-	-	-	-	549	365	-	782	561	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	805	-	-	1098	-	-	222	150	769	145	143	589
Mov Cap-2 Maneuver	-	-	-	-	-	-	222	150	-	145	143	-
Stage 1	-	-	-	-	-	-	573	582	-	309	349	-
Stage 2	-	-	-	-	-	-	514	349	-	715	561	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	86.1	11.2
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	769	805	-	-	1098	-	-	589
HCM Lane V/C Ratio	0.984	0.065	-	-	-	0.023	-	-	0.021
HCM Control Delay (s)	104	10	0	-	-	8.4	0.2	-	11.2
HCM Lane LOS	F	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	8.7	0.2	0	-	-	0.1	-	-	0.1

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	180	100	120	360	20	140	670	80	20	700	140
Future Volume (veh/h)	70	180	100	120	360	20	140	670	80	20	700	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	89	228	127	152	456	25	177	848	101	25	886	177
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	395	212	212	716	39	220	1990	236	71	1480	294
Arrive On Green	0.09	0.17	0.17	0.12	0.21	0.21	0.12	0.42	0.42	0.04	0.34	0.34
Sat Flow, veh/h	1810	2265	1213	1810	3479	190	1810	4700	557	1810	4339	863
Grp Volume(v), veh/h	89	180	175	152	236	245	177	623	326	25	705	358
Grp Sat Flow(s),veh/h/ln	1810	1805	1673	1810	1805	1865	1810	1729	1799	1810	1729	1743
Q Serve(g_s), s	3.1	5.9	6.3	5.3	7.8	7.8	6.2	8.2	8.3	0.9	11.0	11.1
Cycle Q Clear(g_c), s	3.1	5.9	6.3	5.3	7.8	7.8	6.2	8.2	8.3	0.9	11.0	11.1
Prop In Lane	1.00		0.73	1.00		0.10	1.00		0.31	1.00		0.49
Lane Grp Cap(c), veh/h	156	315	292	212	371	384	220	1464	762	71	1180	595
V/C Ratio(X)	0.57	0.57	0.60	0.72	0.64	0.64	0.81	0.43	0.43	0.35	0.60	0.60
Avail Cap(c_a), veh/h	222	721	668	222	721	745	250	1487	774	195	1381	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	24.6	24.8	27.7	23.6	23.6	27.9	13.2	13.2	30.5	17.8	17.8
Incr Delay (d2), s/veh	3.3	1.6	2.0	10.0	1.8	1.8	15.6	0.2	0.4	3.0	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.1	3.0	3.2	4.1	4.2	4.1	3.9	4.2	0.5	5.3	5.4
LnGrp Delay(d),s/veh	31.9	26.3	26.8	37.7	25.4	25.4	43.5	13.4	13.6	33.5	18.3	18.9
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		444			633			1126			1088	
Approach Delay, s/veh		27.6			28.4			18.2			18.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	31.6	11.6	15.4	11.9	26.2	9.6	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	8.0	26.0	9.0	26.0	8.0	26.0
Max Q Clear Time (g_c+I1), s	2.9	10.3	7.3	8.3	8.2	13.1	5.1	9.8
Green Ext Time (p_c), s	0.0	10.9	0.1	1.7	0.0	8.8	0.2	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
22: Quincy St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	90	180	10	0	350	20	10	0	0	10	0	110
Future Volume (veh/h)	90	180	10	0	350	20	10	0	0	10	0	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	180	10	0	350	20	10	0	0	10	0	110
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	695	1411	78	348	1409	80	542	395	0	645	0	334
Arrive On Green	0.41	0.41	0.41	0.00	0.41	0.41	0.21	0.00	0.00	0.21	0.00	0.21
Sat Flow, veh/h	1025	3478	192	1212	3471	198	1297	1900	0	1430	0	1608
Grp Volume(v), veh/h	90	93	97	0	181	189	10	0	0	10	0	110
Grp Sat Flow(s),veh/h/ln	1025	1805	1865	1212	1805	1864	1297	1900	0	1430	0	1608
Q Serve(g_s), s	1.3	0.7	0.7	0.0	1.4	1.4	0.1	0.0	0.0	0.1	0.0	1.2
Cycle Q Clear(g_c), s	2.7	0.7	0.7	0.0	1.4	1.4	1.3	0.0	0.0	0.1	0.0	1.2
Prop In Lane	1.00		0.10	1.00		0.11	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	695	732	757	348	732	756	542	395	0	645	0	334
V/C Ratio(X)	0.13	0.13	0.13	0.00	0.25	0.25	0.02	0.00	0.00	0.02	0.00	0.33
Avail Cap(c_a), veh/h	1566	2267	2342	1378	2267	2341	1901	2386	0	2143	0	2019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.0	3.9	3.9	0.0	4.1	4.1	7.5	0.0	0.0	6.5	0.0	7.0
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.4	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.6
LnGrp Delay(d),s/veh	5.0	3.9	3.9	0.0	4.2	4.2	7.6	0.0	0.0	6.6	0.0	7.5
LnGrp LOS	A	A	A		A	A	A			A		A
Approach Vol, veh/h		280			370			10			120	
Approach Delay, s/veh		4.3			4.2			7.6			7.5	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.3		12.4		8.3		12.4
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0
Max Q Clear Time (g_c+I1), s		3.3		4.7		3.2		3.4
Green Ext Time (p_c), s		0.6		3.4		0.6		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	4.8
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			✥			↰	↱		↰↑↱	
Traffic Vol, veh/h	50	10	60	10	10	10	100	310	10	10	420	90
Future Vol, veh/h	50	10	60	10	10	10	100	310	10	10	420	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	54	11	65	11	11	11	109	337	11	11	457	98
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	10.7	10.7	22.2	12.6
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	24%	0%	100%	0%	33%	5%	0%
Vol Thru, %	76%	0%	0%	14%	33%	95%	70%
Vol Right, %	0%	100%	0%	86%	33%	0%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	410	10	50	70	30	220	300
LT Vol	100	0	50	0	10	10	0
Through Vol	310	0	0	10	10	210	210
RT Vol	0	10	0	60	10	0	90
Lane Flow Rate	446	11	54	76	33	239	326
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.725	0.015	0.114	0.136	0.065	0.374	0.489
Departure Headway (Hd)	5.854	5.023	7.541	6.419	7.166	5.633	5.397
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	619	712	475	558	499	638	668
Service Time	3.589	2.757	5.289	4.166	5.227	3.365	3.13
HCM Lane V/C Ratio	0.721	0.015	0.114	0.136	0.066	0.375	0.488
HCM Control Delay	22.5	7.8	11.3	10.2	10.7	11.7	13.2
HCM Lane LOS	C	A	B	B	B	B	B
HCM 95th-tile Q	6.1	0	0.4	0.5	0.2	1.7	2.7

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	340	180	290	550	30	200	120	200	10	50	20
Future Volume (veh/h)	20	340	180	290	550	30	200	120	200	10	50	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	442	234	377	714	39	260	156	260	13	65	26
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	69	646	339	382	1585	87	310	398	354	157	348	131
Arrive On Green	0.04	0.28	0.28	0.21	0.46	0.46	0.17	0.22	0.22	0.09	0.14	0.14
Sat Flow, veh/h	1810	2286	1200	1810	3480	190	1810	1805	1604	1810	2557	965
Grp Volume(v), veh/h	26	348	328	377	370	383	260	156	260	13	45	46
Grp Sat Flow(s),veh/h/ln	1810	1805	1681	1810	1805	1865	1810	1805	1604	1810	1805	1717
Q Serve(g_s), s	1.1	13.8	14.0	16.7	11.3	11.3	11.2	5.9	12.1	0.5	1.8	1.9
Cycle Q Clear(g_c), s	1.1	13.8	14.0	16.7	11.3	11.3	11.2	5.9	12.1	0.5	1.8	1.9
Prop In Lane	1.00		0.71	1.00		0.10	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	69	510	475	382	822	849	310	398	354	157	246	234
V/C Ratio(X)	0.37	0.68	0.69	0.99	0.45	0.45	0.84	0.39	0.73	0.08	0.18	0.20
Avail Cap(c_a), veh/h	157	628	585	382	852	881	629	628	558	584	583	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	25.7	25.7	31.6	15.0	15.0	32.3	26.8	29.2	33.8	30.8	30.9
Incr Delay (d2), s/veh	3.3	2.3	2.6	42.3	0.4	0.4	6.0	0.6	3.0	0.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.2	6.8	12.8	5.6	5.8	6.1	3.0	5.6	0.3	0.9	0.9
LnGrp Delay(d),s/veh	41.1	27.9	28.3	73.9	15.4	15.4	38.3	27.4	32.2	34.0	31.2	31.3
LnGrp LOS	D	C	C	E	B	B	D	C	C	C	C	C
Approach Vol, veh/h		702			1130			676			104	
Approach Delay, s/veh		28.6			34.9			33.4			31.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.8	21.0	26.7	17.8	15.0	7.1	40.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	28.0	17.0	28.0	28.0	26.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	2.5	14.1	18.7	16.0	13.2	3.9	3.1	13.3
Green Ext Time (p_c), s	0.0	2.4	0.0	6.1	0.6	2.8	0.0	8.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	210	270	90	50	470	110	130	580	80	60	570	250
Future Volume (veh/h)	210	270	90	50	470	110	130	580	80	60	570	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	259	333	111	62	580	136	160	716	99	74	704	309
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	893	293	120	903	211	161	1170	628	129	1086	470
Arrive On Green	0.09	0.33	0.33	0.07	0.31	0.31	0.09	0.32	0.32	0.07	0.31	0.31
Sat Flow, veh/h	1810	2671	875	1810	2903	679	1810	3610	1608	1810	3544	1535
Grp Volume(v), veh/h	259	223	221	62	360	356	160	716	99	74	687	326
Grp Sat Flow(s),veh/h/ln	1810	1805	1741	1810	1805	1776	1810	1805	1608	1810	1729	1620
Q Serve(g_s), s	7.0	7.4	7.6	2.6	13.5	13.5	6.9	13.1	3.1	3.1	13.5	13.7
Cycle Q Clear(g_c), s	7.0	7.4	7.6	2.6	13.5	13.5	6.9	13.1	3.1	3.1	13.5	13.7
Prop In Lane	1.00		0.50	1.00		0.38	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	161	603	582	120	562	553	161	1170	628	129	1060	496
V/C Ratio(X)	1.60	0.37	0.38	0.52	0.64	0.64	0.99	0.61	0.16	0.57	0.65	0.66
Avail Cap(c_a), veh/h	161	966	932	161	966	951	161	1288	680	161	1234	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	19.8	19.9	35.4	23.2	23.3	35.7	22.3	15.5	35.3	23.5	23.6
Incr Delay (d2), s/veh	298.8	0.4	0.4	3.4	1.2	1.3	68.0	0.7	0.1	3.9	0.9	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	3.7	3.7	1.4	6.9	6.8	6.5	6.6	1.4	1.7	6.5	6.4
LnGrp Delay(d),s/veh	334.6	20.2	20.3	38.9	24.5	24.5	103.7	23.1	15.7	39.2	24.5	25.8
LnGrp LOS	F	C	C	D	C	C	F	C	B	D	C	C
Approach Vol, veh/h		703			778			975			1087	
Approach Delay, s/veh		136.1			25.6			35.6			25.9	
Approach LOS		F			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	29.4	9.2	30.2	11.0	28.0	11.0	28.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	28.0	7.0	42.0	7.0	28.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	5.1	15.1	4.6	9.6	8.9	15.7	9.0	15.5
Green Ext Time (p_c), s	0.0	8.1	0.0	7.2	0.0	7.9	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	50.4
HCM 2010 LOS	D

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		Y	
Traffic Volume (veh/h)	10	320	530	10	0	10
Future Volume (veh/h)	10	320	530	10	0	10
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	320	530	10	0	10
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	245	1667	1743	33	0	57
Arrive On Green	0.48	0.48	0.48	0.48	0.00	0.04
Sat Flow, veh/h	34	3554	3719	68	0	1484
Grp Volume(v), veh/h	177	153	264	276	0	11
Grp Sat Flow(s),veh/h/ln	1860	1643	1805	1888	0	1632
Q Serve(g_s), s	0.0	0.9	1.5	1.5	0.0	0.1
Cycle Q Clear(g_c), s	0.9	0.9	1.5	1.5	0.0	0.1
Prop In Lane	0.06			0.04	0.00	0.91
Lane Grp Cap(c), veh/h	1123	790	868	908	0	62
V/C Ratio(X)	0.16	0.19	0.30	0.30	0.00	0.18
Avail Cap(c_a), veh/h	2624	2173	2387	2497	0	2453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.5	2.5	2.6	2.6	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.2	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.4	0.8	0.8	0.0	0.1
LnGrp Delay(d),s/veh	2.5	2.6	2.8	2.8	0.0	9.1
LnGrp LOS	A	A	A	A		A
Approach Vol, veh/h		330	540		11	
Approach Delay, s/veh		2.6	2.8		9.1	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				12.0		4.6		12.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				2.9		2.1		3.5
Green Ext Time (p_c), s				4.4		0.0		4.3

Intersection Summary	
HCM 2010 Ctrl Delay	2.8
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	308.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			✥			↰↑↱			↰↑↱	
Traffic Vol, veh/h	100	120	90	460	280	120	70	120	80	210	270	90
Future Vol, veh/h	100	120	90	460	280	120	70	120	80	210	270	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	116	140	105	535	326	140	81	140	93	244	314	105
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	22.9	668	22.3	57.7
HCM LOS	C	F	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	54%	0%	62%	0%	53%	61%	0%
Vol Thru, %	46%	43%	38%	40%	33%	39%	60%
Vol Right, %	0%	57%	0%	60%	14%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	140	160	150	860	345	225
LT Vol	70	0	100	0	460	210	0
Through Vol	60	60	60	60	280	135	135
RT Vol	0	80	0	90	120	0	90
Lane Flow Rate	151	163	186	174	1000	401	262
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.389	0.389	0.474	0.409	2.426	0.961	0.585
Departure Headway (Hd)	12.453	11.727	11.729	10.943	8.733	11.62	10.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	292	309	309	331	430	317	332
Service Time	10.153	9.427	9.429	8.643	6.733	9.32	8.692
HCM Lane V/C Ratio	0.517	0.528	0.602	0.526	2.326	1.265	0.789
HCM Control Delay	22.9	21.7	24.6	21	668	77	28.1
HCM Lane LOS	C	C	C	C	F	F	D
HCM 95th-tile Q	1.8	1.8	2.4	1.9	78.3	9.8	3.5

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	30	20	10	770	40	310	10	430	430	140	610	30
Future Volume (veh/h)	30	20	10	770	40	310	10	430	430	140	610	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	25	12	962	50	388	12	538	538	175	762	38
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	77	264	117	786	904	806	35	1195	1071	157	1508	75
Arrive On Green	0.04	0.11	0.11	0.43	0.50	0.50	0.02	0.23	0.23	0.09	0.30	0.30
Sat Flow, veh/h	1810	2422	1075	1810	1805	1610	1810	5187	1604	1810	5061	252
Grp Volume(v), veh/h	38	18	19	962	50	388	12	538	538	175	520	280
Grp Sat Flow(s),veh/h/ln	1810	1805	1693	1810	1805	1610	1810	1729	1604	1810	1729	1854
Q Serve(g_s), s	2.4	1.0	1.2	50.0	1.6	18.2	0.8	10.2	19.5	10.0	14.3	14.4
Cycle Q Clear(g_c), s	2.4	1.0	1.2	50.0	1.6	18.2	0.8	10.2	19.5	10.0	14.3	14.4
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	77	197	185	786	904	806	35	1195	1071	157	1030	552
V/C Ratio(X)	0.49	0.09	0.10	1.22	0.06	0.48	0.34	0.45	0.50	1.11	0.50	0.51
Avail Cap(c_a), veh/h	126	690	647	786	1349	1203	110	1352	1120	157	1030	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	46.1	46.2	32.5	14.7	18.9	55.7	38.0	9.7	52.5	33.4	33.4
Incr Delay (d2), s/veh	4.7	0.2	0.2	111.9	0.0	0.4	5.7	0.3	0.4	105.3	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.5	0.6	49.3	0.8	8.2	0.4	4.9	8.6	9.6	6.8	7.5
LnGrp Delay(d),s/veh	58.6	46.3	46.4	144.5	14.8	19.3	61.4	38.3	10.1	157.9	33.8	34.2
LnGrp LOS	E	D	D	F	B	B	E	D	B	F	C	C
Approach Vol, veh/h		75			1400			1088			975	
Approach Delay, s/veh		52.6			105.2			24.6			56.2	
Approach LOS		D			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	30.5	54.0	16.6	6.2	38.3	8.9	61.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	30.0	50.0	44.0	7.0	33.0	8.0	86.0
Max Q Clear Time (g_c+I1), s	12.0	21.5	52.0	3.2	2.8	16.4	4.4	20.2
Green Ext Time (p_c), s	0.0	4.8	0.0	3.1	0.0	9.1	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	65.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
29: Heacock St & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	130	430	180	170	800	70	270	420	110	70	630	380
Future Volume (veh/h)	130	430	180	170	800	70	270	420	110	70	630	380
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	462	194	183	860	75	290	452	118	75	677	409
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	1179	755	154	1068	93	257	1362	745	107	1061	624
Arrive On Green	0.09	0.33	0.33	0.09	0.32	0.32	0.14	0.38	0.38	0.06	0.29	0.29
Sat Flow, veh/h	1810	3610	1608	1810	3359	293	1810	3610	1609	1810	3610	1607
Grp Volume(v), veh/h	140	462	194	183	462	473	290	452	118	75	677	409
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1847	1810	1805	1609	1810	1805	1607
Q Serve(g_s), s	8.0	10.4	7.7	9.0	24.7	24.7	15.0	9.4	4.5	4.3	17.2	22.0
Cycle Q Clear(g_c), s	8.0	10.4	7.7	9.0	24.7	24.7	15.0	9.4	4.5	4.3	17.2	22.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1179	755	154	574	587	257	1362	745	107	1061	624
V/C Ratio(X)	0.82	0.39	0.26	1.18	0.80	0.80	1.13	0.33	0.16	0.70	0.64	0.66
Avail Cap(c_a), veh/h	206	1369	840	154	633	648	257	1369	748	172	1198	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	27.4	16.9	48.2	33.0	33.0	45.2	23.4	16.4	48.7	32.3	26.5
Incr Delay (d2), s/veh	19.7	0.2	0.2	130.7	6.9	6.8	94.5	0.1	0.1	8.1	0.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	5.2	3.4	10.1	13.4	13.7	14.2	4.7	2.0	2.4	8.7	10.1
LnGrp Delay(d),s/veh	66.6	27.6	17.1	178.9	39.9	39.7	139.7	23.5	16.5	56.8	33.3	28.5
LnGrp LOS	E	C	B	F	D	D	F	C	B	E	C	C
Approach Vol, veh/h		796			1118			860			1161	
Approach Delay, s/veh		31.9			62.6			61.7			33.1	
Approach LOS		C			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	43.8	13.0	38.4	19.0	35.0	13.9	37.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	40.0	9.0	40.0	15.0	35.0	12.0	37.0
Max Q Clear Time (g_c+I1), s	10.3	11.4	11.0	12.4	17.0	24.0	10.0	26.7
Green Ext Time (p_c), s	0.0	10.9	0.0	11.9	0.0	6.5	0.1	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	47.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	590	10	550	190	590	0	0	980	130
Future Volume (veh/h)	0	0	0	590	10	550	190	590	0	0	980	130
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				634	11	591	204	634	0	0	1054	140
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				672	12	608	221	1925	0	0	1174	156
Arrive On Green				0.38	0.38	0.38	0.24	1.00	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1780	31	1609	1810	3705	0	0	3298	425
Grp Volume(v), veh/h				645	0	591	204	634	0	0	593	601
Grp Sat Flow(s),veh/h/ln				1811	0	1609	1810	1805	0	0	1805	1823
Q Serve(g_s), s				31.0	0.0	32.5	9.9	0.0	0.0	0.0	27.9	28.0
Cycle Q Clear(g_c), s				31.0	0.0	32.5	9.9	0.0	0.0	0.0	27.9	28.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		0.23
Lane Grp Cap(c), veh/h				684	0	608	221	1925	0	0	662	668
V/C Ratio(X)				0.94	0.00	0.97	0.92	0.33	0.00	0.00	0.90	0.90
Avail Cap(c_a), veh/h				684	0	608	221	1925	0	0	662	668
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.1	0.0	27.5	33.6	0.0	0.0	0.0	26.9	26.9
Incr Delay (d2), s/veh				21.5	0.0	29.6	38.3	0.4	0.0	0.0	17.2	17.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				19.5	0.0	19.3	7.2	0.1	0.0	0.0	17.0	17.2
LnGrp Delay(d),s/veh				48.6	0.0	57.1	71.9	0.4	0.0	0.0	44.1	44.2
LnGrp LOS				D		E	E	A			D	D
Approach Vol, veh/h					1236			838			1194	
Approach Delay, s/veh					52.7			17.8			44.2	
Approach LOS					D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		52.0			15.0	37.0		38.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		48.0			11.0	33.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			11.9	30.0		34.5
Green Ext Time (p_c), s		18.7			0.0	2.5		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			40.6
HCM 2010 LOS			D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↰↑	↱					↑↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	210	10	320	0	0	0	0	590	160	270	1380	0
Future Volume (veh/h)	210	10	320	0	0	0	0	590	160	270	1380	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	221	0	327				0	602	163	276	1408	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	879	0	390				0	1843	489	311	2412	0
Arrive On Green	0.24	0.00	0.24				0.00	0.45	0.45	0.34	1.00	0.00
Sat Flow, veh/h	3619	0	1605				0	4249	1082	1810	3705	0
Grp Volume(v), veh/h	221	0	327				0	509	256	276	1408	0
Grp Sat Flow(s),veh/h/ln	1810	0	1605				0	1729	1702	1810	1805	0
Q Serve(g_s), s	4.4	0.0	17.4				0.0	8.5	8.7	13.0	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	17.4				0.0	8.5	8.7	13.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	879	0	390				0	1563	769	311	2412	0
V/C Ratio(X)	0.25	0.00	0.84				0.00	0.33	0.33	0.89	0.58	0.00
Avail Cap(c_a), veh/h	1327	0	589				0	1563	769	462	2412	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.29	0.29	0.00
Uniform Delay (d), s/veh	27.5	0.0	32.4				0.0	15.8	15.9	28.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	6.7				0.0	0.6	1.2	4.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	8.4				0.0	4.1	4.3	6.8	0.1	0.0
LnGrp Delay(d),s/veh	27.6	0.0	39.1				0.0	16.4	17.1	33.2	0.3	0.0
LnGrp LOS	C		D					B	B	C	A	
Approach Vol, veh/h		548						765			1684	
Approach Delay, s/veh		34.4						16.6			5.7	
Approach LOS		C						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	19.5	44.7		25.9		64.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	23.0	22.0		33.0		49.0		
Max Q Clear Time (g_c+I1), s	15.0	10.7		19.4		2.0		
Green Ext Time (p_c), s	0.5	9.2		1.7		25.8		

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	350	250	290	40	150	830	100	1060	140	690	1280	410
Future Volume (veh/h)	350	250	290	40	150	830	100	1060	140	690	1280	410
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	361	258	299	41	155	856	103	1093	144	711	1320	423
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	424	916	407	75	332	811	126	1177	155	1150	1847	1017
Arrive On Green	0.12	0.25	0.25	0.04	0.17	0.17	0.07	0.25	0.25	0.66	1.00	1.00
Sat Flow, veh/h	3510	3610	1605	1810	1900	1615	1810	4636	610	3510	3610	1607
Grp Volume(v), veh/h	361	258	299	41	155	856	103	815	422	711	1320	423
Grp Sat Flow(s),veh/h/ln	1755	1805	1605	1810	1900	1615	1810	1729	1788	1755	1805	1607
Q Serve(g_s), s	13.1	7.5	22.2	2.9	9.5	19.9	7.3	29.9	30.0	15.3	0.0	0.0
Cycle Q Clear(g_c), s	13.1	7.5	22.2	2.9	9.5	19.9	7.3	29.9	30.0	15.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	424	916	407	75	332	811	126	878	454	1150	1847	1017
V/C Ratio(X)	0.85	0.28	0.73	0.54	0.47	1.06	0.81	0.93	0.93	0.62	0.71	0.42
Avail Cap(c_a), veh/h	540	1000	445	97	336	815	139	878	454	1150	1847	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	0.25	0.25	0.25
Uniform Delay (d), s/veh	56.0	39.0	44.5	61.1	48.2	13.6	59.6	47.3	47.4	17.7	0.0	0.0
Incr Delay (d2), s/veh	10.2	0.2	5.7	6.0	1.0	47.1	24.8	15.6	25.3	0.3	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	3.7	10.4	1.6	5.1	27.1	4.5	16.2	18.0	7.3	0.2	0.1
LnGrp Delay(d),s/veh	66.2	39.1	50.1	67.1	49.2	60.7	84.4	62.9	72.7	17.9	0.6	0.3
LnGrp LOS	E	D	D	E	D	F	F	E	E	B	A	A
Approach Vol, veh/h		918			1052			1340			2454	
Approach Delay, s/veh		53.4			59.3			67.6			5.6	
Approach LOS		D			E			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.6	37.0	9.4	37.0	13.1	70.5	19.7	26.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	38.0	33.0	7.0	36.0	10.0	61.0	20.0	23.0
Max Q Clear Time (g_c+I1), s	17.3	32.0	4.9	24.2	9.3	2.0	15.1	21.9
Green Ext Time (p_c), s	14.1	0.7	0.0	6.0	0.0	24.7	0.6	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	37.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↑↑↱		↰↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	310	10	240	410	1890	0	0	2080	300
Future Volume (veh/h)	0	0	0	310	10	240	410	1890	0	0	2080	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				320	10	247	423	1948	0	0	2144	309
Adj No. of Lanes				0	2	0	2	3	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				404	14	346	620	3390	0	0	2155	668
Arrive On Green				0.22	0.22	0.22	0.35	1.00	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1810	63	1551	3510	5358	0	0	5358	1609
Grp Volume(v), veh/h				320	0	257	423	1948	0	0	2144	309
Grp Sat Flow(s),veh/h/ln				1810	0	1614	1755	1729	0	0	1729	1609
Q Serve(g_s), s				10.8	0.0	9.6	6.7	0.0	0.0	0.0	26.8	9.0
Cycle Q Clear(g_c), s				10.8	0.0	9.6	6.7	0.0	0.0	0.0	26.8	9.0
Prop In Lane				1.00		0.96	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				404	0	360	620	3390	0	0	2155	668
V/C Ratio(X)				0.79	0.00	0.71	0.68	0.57	0.00	0.00	1.00	0.46
Avail Cap(c_a), veh/h				501	0	447	620	3390	0	0	2155	668
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.33	0.33	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.8	0.0	23.3	19.5	0.0	0.0	0.0	18.9	13.7
Incr Delay (d2), s/veh				6.8	0.0	4.0	1.0	0.2	0.0	0.0	18.3	2.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.2	0.0	4.6	3.2	0.1	0.0	0.0	16.3	4.4
LnGrp Delay(d),s/veh				30.7	0.0	27.3	20.5	0.2	0.0	0.0	37.2	16.0
LnGrp LOS				C		C	C	A			D	B
Approach Vol, veh/h					577			2371			2453	
Approach Delay, s/veh					29.2			3.8			34.5	
Approach LOS					C			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		46.5			15.5	31.0		18.5
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		39.0			8.0	27.0		18.0
Max Q Clear Time (g_c+I1), s		2.0			8.7	28.8		12.8
Green Ext Time (p_c), s		23.1			0.0	0.0		1.7

Intersection Summary			
HCM 2010 Ctrl Delay			20.5
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	40	140	130	160	340	160	110	1160	70	60	1560	30
Future Volume (veh/h)	40	140	130	160	340	160	110	1160	70	60	1560	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	149	138	170	362	170	117	1234	74	64	1660	32
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	384	329	166	589	272	152	2188	679	123	2106	653
Arrive On Green	0.05	0.21	0.21	0.09	0.25	0.25	0.08	0.42	0.42	0.07	0.41	0.41
Sat Flow, veh/h	1810	1838	1575	1810	2395	1106	1810	5187	1609	1810	5187	1609
Grp Volume(v), veh/h	43	146	141	170	271	261	117	1234	74	64	1660	32
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1697	1810	1729	1609	1810	1729	1609
Q Serve(g_s), s	1.8	5.3	5.8	7.0	10.2	10.5	4.8	13.8	2.1	2.6	21.4	0.9
Cycle Q Clear(g_c), s	1.8	5.3	5.8	7.0	10.2	10.5	4.8	13.8	2.1	2.6	21.4	0.9
Prop In Lane	1.00		0.98	1.00		0.65	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	377	336	166	443	417	152	2188	679	123	2106	653
V/C Ratio(X)	0.43	0.39	0.42	1.02	0.61	0.63	0.77	0.56	0.11	0.52	0.79	0.05
Avail Cap(c_a), veh/h	166	804	716	166	804	755	166	2188	679	166	2106	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	26.0	26.2	34.7	25.6	25.7	34.3	16.7	13.4	34.4	19.8	13.7
Incr Delay (d2), s/veh	3.0	0.7	0.8	76.6	1.4	1.5	18.1	1.1	0.3	3.4	3.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.7	2.7	7.0	5.2	5.0	3.2	6.7	1.0	1.4	10.7	0.4
LnGrp Delay(d),s/veh	37.9	26.7	27.0	111.5	26.9	27.2	52.4	17.8	13.7	37.7	22.9	13.9
LnGrp LOS	D	C	C	F	C	C	D	B	B	D	C	B
Approach Vol, veh/h		330			702			1425			1756	
Approach Delay, s/veh		28.3			47.5			20.4			23.3	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	36.2	11.0	19.9	10.4	35.0	8.2	22.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	7.0	31.0	7.0	34.0
Max Q Clear Time (g_c+I1), s	4.6	15.8	9.0	7.8	6.8	23.4	3.8	12.5
Green Ext Time (p_c), s	0.0	13.7	0.0	5.0	0.0	7.2	0.0	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	13.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	10	290	250	20	290	200
Future Vol, veh/h	10	290	250	20	290	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	309	266	21	309	213

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	564	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	553	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1621	-	490	1076
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	580	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1621	-	409	1076
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	484	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.1	25.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	409	1076	-	-	1621	-
HCM Lane V/C Ratio	0.754	0.198	-	-	0.164	-
HCM Control Delay (s)	36.3	9.2	-	-	7.7	0
HCM Lane LOS	E	A	-	-	A	A
HCM 95th %tile Q(veh)	6.2	0.7	-	-	0.6	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	160	170	60	370	160	20	120	340	330	20	430	180
Future Volume (veh/h)	160	170	60	370	160	20	120	340	330	20	430	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	211	224	79	487	211	26	158	447	434	26	566	237
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	294	101	498	830	101	140	399	423	25	547	245
Arrive On Green	0.13	0.11	0.11	0.28	0.26	0.26	0.28	0.28	0.28	0.23	0.23	0.23
Sat Flow, veh/h	1810	2631	900	1810	3238	394	509	1448	1536	108	2407	1080
Grp Volume(v), veh/h	211	152	151	487	116	121	582	0	457	456	0	373
Grp Sat Flow(s),veh/h/ln	1810	1805	1727	1810	1805	1828	1875	0	1619	1895	0	1701
Q Serve(g_s), s	16.7	11.8	12.4	38.8	7.4	7.6	40.0	0.0	40.0	33.0	0.0	31.6
Cycle Q Clear(g_c), s	16.7	11.8	12.4	38.8	7.4	7.6	40.0	0.0	40.0	33.0	0.0	31.6
Prop In Lane	1.00		0.52	1.00		0.22	0.27		0.95	0.06		0.64
Lane Grp Cap(c), veh/h	237	202	193	498	463	469	516	0	446	430	0	386
V/C Ratio(X)	0.89	0.75	0.78	0.98	0.25	0.26	1.13	0.00	1.03	1.06	0.00	0.97
Avail Cap(c_a), veh/h	349	261	250	498	463	469	516	0	446	430	0	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.1	62.5	62.8	52.2	42.9	43.0	52.6	0.0	52.6	56.1	0.0	55.6
Incr Delay (d2), s/veh	17.4	8.5	11.6	34.4	0.3	0.3	79.3	0.0	49.4	59.8	0.0	36.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	6.4	6.6	24.1	3.8	3.9	32.0	0.0	24.0	24.4	0.0	18.8
LnGrp Delay(d),s/veh	79.5	71.0	74.4	86.5	43.2	43.3	131.9	0.0	102.0	116.0	0.0	92.3
LnGrp LOS	E	E	E	F	D	D	F		F	F		F
Approach Vol, veh/h		514			724			1039			829	
Approach Delay, s/veh		75.5			72.4			118.8			105.3	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		44.0	44.0	20.3		37.0	23.0	41.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		40.0	40.0	21.0		33.0	28.0	33.0
Max Q Clear Time (g_c+I1), s		42.0	40.8	14.4		35.0	18.7	9.6
Green Ext Time (p_c), s		0.0	0.0	0.8		0.0	0.4	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	97.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

	⤴	→	⤵	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↑	↱					↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	170	10	450	0	0	0	0	910	250	80	1280	0
Future Volume (veh/h)	170	10	450	0	0	0	0	910	250	80	1280	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	199	0	506				0	1022	281	90	1438	0
Adj No. of Lanes	2	0	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1299	0	577				0	1558	428	150	2727	0
Arrive On Green	0.36	0.00	0.36				0.00	0.39	0.39	0.08	0.53	0.00
Sat Flow, veh/h	3619	0	1608				0	4217	1111	1810	5358	0
Grp Volume(v), veh/h	199	0	506				0	873	430	90	1438	0
Grp Sat Flow(s),veh/h/ln	1810	0	1608				0	1729	1699	1810	1729	0
Q Serve(g_s), s	2.6	0.0	20.4				0.0	14.4	14.5	3.3	12.6	0.0
Cycle Q Clear(g_c), s	2.6	0.0	20.4				0.0	14.4	14.5	3.3	12.6	0.0
Prop In Lane	1.00		1.00				0.00		0.65	1.00		0.00
Lane Grp Cap(c), veh/h	1299	0	577				0	1332	654	150	2727	0
V/C Ratio(X)	0.15	0.00	0.88				0.00	0.66	0.66	0.60	0.53	0.00
Avail Cap(c_a), veh/h	1720	0	764				0	1394	685	182	2913	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.1	0.0	20.8				0.0	17.6	17.6	30.7	10.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	8.9				0.0	1.1	2.2	3.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	10.4				0.0	7.0	7.1	1.8	6.0	0.0
LnGrp Delay(d),s/veh	15.2	0.0	29.8				0.0	18.6	19.7	34.5	11.0	0.0
LnGrp LOS	B		C					B	B	C	B	
Approach Vol, veh/h		705						1303			1528	
Approach Delay, s/veh		25.6						19.0			12.4	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.8	30.8		28.9		40.5		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	7.0	28.0		33.0		39.0		
Max Q Clear Time (g_c+I1), s	5.3	16.5		22.4		14.6		
Green Ext Time (p_c), s	0.0	10.2		2.1		19.6		

Intersection Summary			
HCM 2010 Ctrl Delay			17.4
HCM 2010 LOS			B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	80	210	130	180	190	120	150	1280	190	150	1030	80
Future Volume (veh/h)	80	210	130	180	190	120	150	1280	190	150	1030	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	94	247	153	212	224	141	176	1506	224	176	1212	94
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	126	452	270	237	583	352	212	1716	255	198	1912	593
Arrive On Green	0.07	0.21	0.21	0.13	0.27	0.27	0.12	0.38	0.38	0.11	0.37	0.37
Sat Flow, veh/h	1810	2170	1295	1810	2161	1305	1810	4558	677	1810	5187	1608
Grp Volume(v), veh/h	94	204	196	212	185	180	176	1142	588	176	1212	94
Grp Sat Flow(s),veh/h/ln	1810	1805	1660	1810	1805	1661	1810	1729	1777	1810	1729	1608
Q Serve(g_s), s	4.7	9.2	9.7	10.5	7.7	8.1	8.7	28.1	28.2	8.8	17.6	3.6
Cycle Q Clear(g_c), s	4.7	9.2	9.7	10.5	7.7	8.1	8.7	28.1	28.2	8.8	17.6	3.6
Prop In Lane	1.00		0.78	1.00		0.79	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	126	376	346	237	487	448	212	1302	669	198	1912	593
V/C Ratio(X)	0.75	0.54	0.57	0.89	0.38	0.40	0.83	0.88	0.88	0.89	0.63	0.16
Avail Cap(c_a), veh/h	237	710	653	237	710	654	277	1361	699	198	1912	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	32.3	32.5	39.1	27.2	27.3	39.5	26.6	26.6	40.2	23.8	19.4
Incr Delay (d2), s/veh	8.5	1.2	1.5	31.8	0.5	0.6	14.9	6.6	12.0	35.5	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.7	4.6	7.3	3.9	3.8	5.2	14.5	16.0	6.3	8.5	1.6
LnGrp Delay(d),s/veh	50.3	33.6	34.0	70.9	27.7	27.9	54.5	33.1	38.6	75.7	24.5	19.5
LnGrp LOS	D	C	C	E	C	C	D	C	D	E	C	B
Approach Vol, veh/h		494			577			1906			1482	
Approach Delay, s/veh		36.9			43.6			36.8			30.2	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	38.4	16.0	23.1	14.7	37.7	10.4	28.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	36.0	12.0	36.0	14.0	32.0	12.0	36.0
Max Q Clear Time (g_c+I1), s	10.8	30.2	12.5	11.7	10.7	19.6	6.7	10.1
Green Ext Time (p_c), s	0.0	4.2	0.0	5.0	0.1	11.2	0.1	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	70	230	220	430	420	90	240	980	280	90	1150	80
Future Volume (veh/h)	70	230	220	430	420	90	240	980	280	90	1150	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	261	250	489	477	102	273	1114	318	102	1307	91
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	375	333	482	1240	264	266	1788	554	125	1319	92
Arrive On Green	0.06	0.21	0.21	0.27	0.42	0.42	0.15	0.34	0.34	0.07	0.27	0.27
Sat Flow, veh/h	1810	1805	1603	1810	2962	630	1810	5187	1608	1810	4950	345
Grp Volume(v), veh/h	80	261	250	489	290	289	273	1114	318	102	913	485
Grp Sat Flow(s),veh/h/ln	1810	1805	1603	1810	1805	1786	1810	1729	1608	1810	1729	1837
Q Serve(g_s), s	6.2	19.1	20.9	38.0	15.8	16.0	21.0	25.6	23.0	7.9	37.5	37.5
Cycle Q Clear(g_c), s	6.2	19.1	20.9	38.0	15.8	16.0	21.0	25.6	23.0	7.9	37.5	37.5
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	101	375	333	482	756	748	266	1788	554	125	921	489
V/C Ratio(X)	0.79	0.70	0.75	1.01	0.38	0.39	1.02	0.62	0.57	0.82	0.99	0.99
Avail Cap(c_a), veh/h	165	468	416	482	785	776	266	1788	554	190	921	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.6	52.3	53.0	52.3	28.7	28.8	60.8	39.0	38.2	65.5	52.2	52.2
Incr Delay (d2), s/veh	13.1	3.3	5.8	44.7	0.3	0.3	61.7	0.7	1.4	14.9	27.4	38.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	9.8	9.8	24.9	8.0	7.9	15.0	12.3	10.4	4.5	21.4	24.2
LnGrp Delay(d),s/veh	79.6	55.6	58.8	97.0	29.0	29.1	122.6	39.7	39.6	80.4	79.5	90.4
LnGrp LOS	E	E	E	F	C	C	F	D	D	F	E	F
Approach Vol, veh/h		591			1068			1705			1500	
Approach Delay, s/veh		60.2			60.2			53.0			83.1	
Approach LOS		E			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	53.2	42.0	33.6	25.0	42.0	11.9	63.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	44.0	38.0	37.0	21.0	38.0	13.0	62.0
Max Q Clear Time (g_c+I1), s	9.9	27.6	40.0	22.9	23.0	39.5	8.2	18.0
Green Ext Time (p_c), s	0.1	13.6	0.0	5.1	0.0	0.0	0.1	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	60	560	100	690	880	120	170	220	440	80	290	150
Future Volume (veh/h)	60	560	100	690	880	120	170	220	440	80	290	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	596	106	734	936	128	181	234	468	85	309	160
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	612	109	624	1803	882	204	535	477	87	538	272
Arrive On Green	0.05	0.20	0.20	0.34	0.50	0.50	0.11	0.30	0.30	0.05	0.23	0.23
Sat Flow, veh/h	1810	3061	543	1810	3610	1610	1810	1805	1607	1810	2318	1172
Grp Volume(v), veh/h	64	351	351	734	936	128	181	234	468	85	239	230
Grp Sat Flow(s),veh/h/ln	1810	1805	1799	1810	1805	1610	1810	1805	1607	1810	1805	1684
Q Serve(g_s), s	5.1	28.0	28.1	50.0	25.4	5.7	14.3	15.2	41.9	6.8	17.0	17.6
Cycle Q Clear(g_c), s	5.1	28.0	28.1	50.0	25.4	5.7	14.3	15.2	41.9	6.8	17.0	17.6
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	82	361	360	624	1803	882	204	535	477	87	419	391
V/C Ratio(X)	0.78	0.97	0.98	1.18	0.52	0.15	0.89	0.44	0.98	0.97	0.57	0.59
Avail Cap(c_a), veh/h	137	361	360	624	1803	882	225	535	477	87	419	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.5	57.6	57.7	47.5	24.5	16.1	63.4	41.2	50.6	68.9	49.3	49.5
Incr Delay (d2), s/veh	14.7	39.8	40.9	95.4	0.3	0.1	30.1	0.6	36.5	87.1	1.9	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	17.9	18.0	41.5	12.7	2.5	8.8	7.7	23.4	5.5	8.7	8.4
LnGrp Delay(d),s/veh	83.2	97.3	98.5	142.9	24.8	16.2	93.5	41.8	87.1	156.0	51.1	51.8
LnGrp LOS	F	F	F	F	C	B	F	D	F	F	D	D
Approach Vol, veh/h		766			1798			883			554	
Approach Delay, s/veh		96.7			72.4			76.4			67.5	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	47.0	54.0	33.0	20.4	37.6	10.6	76.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	50.0	29.0	18.0	32.0	11.0	68.0
Max Q Clear Time (g_c+I1), s	8.8	43.9	52.0	30.1	16.3	19.6	7.1	27.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	5.5	0.0	14.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.2
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	830	240	890	1300	130	380	560	880	200	450	120
Future Volume (veh/h)	150	830	240	890	1300	130	380	560	880	200	450	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	892	258	957	1398	140	409	602	946	215	484	129
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	209	949	273	947	2146	215	379	1120	935	261	781	207
Arrive On Green	0.06	0.24	0.24	0.27	0.45	0.45	0.11	0.31	0.31	0.07	0.28	0.28
Sat Flow, veh/h	3510	3996	1151	3510	4792	480	3510	3610	1607	3510	2821	747
Grp Volume(v), veh/h	161	771	379	957	1009	529	409	602	946	215	309	304
Grp Sat Flow(s),veh/h/ln	1755	1729	1688	1755	1729	1813	1755	1805	1607	1755	1805	1763
Q Serve(g_s), s	6.7	32.5	32.7	40.0	33.7	33.7	16.0	20.5	46.0	9.0	22.1	22.4
Cycle Q Clear(g_c), s	6.7	32.5	32.7	40.0	33.7	33.7	16.0	20.5	46.0	9.0	22.1	22.4
Prop In Lane	1.00		0.68	1.00		0.26	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	209	821	401	947	1549	812	379	1120	935	261	500	488
V/C Ratio(X)	0.77	0.94	0.94	1.01	0.65	0.65	1.08	0.54	1.01	0.82	0.62	0.62
Avail Cap(c_a), veh/h	284	840	410	947	1549	812	379	1120	935	284	511	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.7	55.5	55.5	54.1	31.9	31.9	66.1	42.3	31.2	67.6	46.8	46.9
Incr Delay (d2), s/veh	8.6	17.9	30.2	31.8	1.0	1.9	69.1	0.5	32.5	16.5	2.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	17.6	18.6	23.5	16.3	17.3	11.4	10.3	46.4	5.0	11.4	11.2
LnGrp Delay(d),s/veh	77.3	73.3	85.8	85.9	32.9	33.8	135.2	42.8	63.7	84.1	48.9	49.2
LnGrp LOS	E	E	F	F	C	C	F	D	F	F	D	D
Approach Vol, veh/h		1311			2495			1957			828	
Approach Delay, s/veh		77.4			53.4			72.2			58.2	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	50.0	44.0	39.2	20.0	45.0	12.8	70.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	46.0	40.0	36.0	16.0	42.0	12.0	64.0
Max Q Clear Time (g_c+I1), s	11.0	48.0	42.0	34.7	18.0	24.4	8.7	35.7
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	10.8	0.1	20.5

Intersection Summary	
HCM 2010 Ctrl Delay	64.4
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
42: Iris Ave & Nason St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↱		↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	780	1100	30	20	1510	140	40	60	10	130	20	780
Future Volume (veh/h)	780	1100	30	20	1510	140	40	60	10	130	20	780
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	951	1341	37	24	1841	171	49	73	12	159	24	951
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	955	2951	81	54	1693	525	74	303	50	185	478	843
Arrive On Green	0.27	0.57	0.57	0.03	0.33	0.33	0.04	0.19	0.19	0.10	0.25	0.25
Sat Flow, veh/h	3510	5190	143	1810	5187	1608	1810	1592	262	1810	1900	1605
Grp Volume(v), veh/h	951	894	484	24	1841	171	49	0	85	159	24	951
Grp Sat Flow(s),veh/h/ln	1755	1729	1875	1810	1729	1608	1810	0	1854	1810	1900	1605
Q Serve(g_s), s	39.8	22.1	22.1	1.9	48.0	11.8	3.9	0.0	5.7	12.7	1.4	37.0
Cycle Q Clear(g_c), s	39.8	22.1	22.1	1.9	48.0	11.8	3.9	0.0	5.7	12.7	1.4	37.0
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	955	1966	1066	54	1693	525	74	0	353	185	478	843
V/C Ratio(X)	1.00	0.45	0.45	0.45	1.09	0.33	0.66	0.00	0.24	0.86	0.05	1.13
Avail Cap(c_a), veh/h	955	1966	1066	86	1693	525	111	0	353	332	478	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	18.4	18.4	70.1	49.5	37.3	69.5	0.0	50.5	65.0	41.7	35.1
Incr Delay (d2), s/veh	28.1	0.2	0.3	5.7	49.8	0.4	9.5	0.0	1.6	11.0	0.0	72.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.0	10.6	11.5	1.0	30.7	5.3	2.2	0.0	3.1	6.9	0.7	50.9
LnGrp Delay(d),s/veh	81.5	18.6	18.7	75.8	99.3	37.7	78.9	0.0	52.1	75.9	41.8	107.6
LnGrp LOS	F	B	B	E	F	D	E		D	E	D	F
Approach Vol, veh/h		2329			2036			134			1134	
Approach Delay, s/veh		44.3			93.8			61.9			101.7	
Approach LOS		D			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	32.0	8.4	87.6	10.1	41.0	44.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	19.0	7.0	81.0	9.0	37.0	40.0	48.0
Max Q Clear Time (g_c+I1), s	14.7	7.7	3.9	24.1	5.9	39.0	41.8	50.0
Green Ext Time (p_c), s	0.3	4.1	0.0	43.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.2
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
43: Iris Ave & Oliver St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	140	690	20	50	1170	110	80	50	80	70	30	190
Future Volume (veh/h)	140	690	20	50	1170	110	80	50	80	70	30	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	873	25	63	1481	139	101	63	101	89	38	241
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	2308	66	108	1874	176	152	95	214	247	106	308
Arrive On Green	0.12	0.45	0.45	0.06	0.39	0.39	0.13	0.13	0.13	0.19	0.19	0.19
Sat Flow, veh/h	1810	5183	148	1810	4824	453	1135	708	1597	1286	549	1602
Grp Volume(v), veh/h	177	582	316	63	1062	558	164	0	101	127	0	241
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1818	1843	0	1597	1836	0	1602
Q Serve(g_s), s	9.1	10.7	10.7	3.2	25.7	25.7	8.0	0.0	5.6	5.7	0.0	13.6
Cycle Q Clear(g_c), s	9.1	10.7	10.7	3.2	25.7	25.7	8.0	0.0	5.6	5.7	0.0	13.6
Prop In Lane	1.00		0.08	1.00		0.25	0.62		1.00	0.70		1.00
Lane Grp Cap(c), veh/h	211	1540	834	108	1343	706	248	0	214	353	0	308
V/C Ratio(X)	0.84	0.38	0.38	0.58	0.79	0.79	0.66	0.00	0.47	0.36	0.00	0.78
Avail Cap(c_a), veh/h	248	1540	834	191	1420	747	679	0	589	715	0	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.1	17.6	17.6	43.5	25.6	25.6	39.1	0.0	38.0	33.3	0.0	36.5
Incr Delay (d2), s/veh	19.4	0.2	0.3	4.9	3.0	5.5	3.0	0.0	1.6	0.6	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	5.1	5.6	1.8	12.8	14.0	4.3	0.0	2.5	3.0	0.0	6.4
LnGrp Delay(d),s/veh	60.5	17.7	17.9	48.4	28.6	31.1	42.1	0.0	39.6	33.9	0.0	40.8
LnGrp LOS	E	B	B	D	C	C	D		D	C		D
Approach Vol, veh/h		1075			1683			265			368	
Approach Delay, s/veh		24.8			30.2			41.1			38.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		16.8	9.7	46.3		22.3	15.1	40.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		35.0	10.0	42.0		37.0	13.0	39.0
Max Q Clear Time (g_c+I1), s		10.0	5.2	12.7		15.6	11.1	27.7
Green Ext Time (p_c), s		1.3	0.0	19.7		1.4	0.1	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	10	790	50	120	1220	10	40	30	60	10	20	40
Future Volume (veh/h)	10	790	50	120	1220	10	40	30	60	10	20	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	929	59	141	1435	12	47	35	71	12	24	47
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	38	2045	130	189	2618	22	114	383	492	38	91	178
Arrive On Green	0.02	0.41	0.41	0.10	0.49	0.49	0.06	0.20	0.20	0.02	0.16	0.16
Sat Flow, veh/h	1810	4985	316	1810	5306	44	1810	1900	1603	1810	571	1119
Grp Volume(v), veh/h	12	644	344	141	935	512	47	35	71	12	0	71
Grp Sat Flow(s),veh/h/ln	1810	1729	1843	1810	1729	1892	1810	1900	1603	1810	0	1690
Q Serve(g_s), s	0.4	8.2	8.2	4.6	11.4	11.4	1.5	0.9	2.0	0.4	0.0	2.2
Cycle Q Clear(g_c), s	0.4	8.2	8.2	4.6	11.4	11.4	1.5	0.9	2.0	0.4	0.0	2.2
Prop In Lane	1.00		0.17	1.00		0.02	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	38	1418	756	189	1706	934	114	383	492	38	0	270
V/C Ratio(X)	0.31	0.45	0.46	0.75	0.55	0.55	0.41	0.09	0.14	0.31	0.00	0.26
Avail Cap(c_a), veh/h	208	1704	908	268	1818	995	208	1342	1301	208	0	1194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	13.0	13.0	26.5	10.7	10.7	27.4	19.8	15.3	29.4	0.0	22.4
Incr Delay (d2), s/veh	4.6	0.2	0.4	6.8	0.3	0.6	2.4	0.1	0.1	4.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.0	4.3	2.7	5.4	6.0	0.8	0.5	0.9	0.2	0.0	1.1
LnGrp Delay(d),s/veh	34.0	13.2	13.4	33.3	11.0	11.3	29.8	19.9	15.5	34.0	0.0	23.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C		C
Approach Vol, veh/h		1000			1588			153			83	
Approach Delay, s/veh		13.6			13.1			20.9			24.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	16.3	10.4	29.0	7.8	13.7	5.3	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	9.0	30.0	7.0	43.0	7.0	32.0
Max Q Clear Time (g_c+I1), s	2.4	4.0	6.6	10.2	3.5	4.2	2.4	13.4
Green Ext Time (p_c), s	0.0	0.9	0.1	14.3	0.0	0.9	0.0	13.6

Intersection Summary			
HCM 2010 Ctrl Delay			14.0
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	30	170	150	390	230	220	110	1100	210	100	1600	10
Future Volume (veh/h)	30	170	150	390	230	220	110	1100	210	100	1600	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	187	165	429	253	242	121	1209	231	110	1758	11
Adj No. of Lanes	1	2	0	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	287	238	464	622	554	225	1879	583	138	1941	602
Arrive On Green	0.07	0.15	0.15	0.26	0.34	0.34	0.06	0.36	0.36	0.08	0.37	0.37
Sat Flow, veh/h	1810	1866	1548	1810	1805	1608	3510	5187	1608	1810	5187	1609
Grp Volume(v), veh/h	33	180	172	429	253	242	121	1209	231	110	1758	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1609	1810	1805	1608	1755	1729	1608	1810	1729	1609
Q Serve(g_s), s	1.8	10.0	10.7	24.5	11.3	12.3	3.5	20.5	11.3	6.3	34.0	0.5
Cycle Q Clear(g_c), s	1.8	10.0	10.7	24.5	11.3	12.3	3.5	20.5	11.3	6.3	34.0	0.5
Prop In Lane	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	278	248	464	622	554	225	1879	583	138	1941	602
V/C Ratio(X)	0.28	0.65	0.69	0.92	0.41	0.44	0.54	0.64	0.40	0.80	0.91	0.02
Avail Cap(c_a), veh/h	495	494	440	546	622	554	232	1879	583	188	2006	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	42.1	42.5	38.4	26.5	26.8	48.1	28.1	25.2	48.2	31.4	20.9
Incr Delay (d2), s/veh	1.2	2.6	3.4	19.7	0.4	0.5	2.3	0.8	0.4	15.6	6.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.2	5.0	14.7	5.7	5.5	1.8	9.9	5.1	3.8	17.2	0.2
LnGrp Delay(d),s/veh	48.3	44.7	45.9	58.1	26.9	27.3	50.4	28.9	25.6	63.7	37.6	20.9
LnGrp LOS	D	D	D	E	C	C	D	C	C	E	D	C
Approach Vol, veh/h		385			924			1561			1879	
Approach Delay, s/veh		45.5			41.5			30.0			39.1	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	42.4	31.2	20.3	10.8	43.7	11.0	40.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	37.0	32.0	29.0	7.0	41.0	29.0	32.0
Max Q Clear Time (g_c+I1), s	8.3	22.5	26.5	12.7	5.5	36.0	3.8	14.3
Green Ext Time (p_c), s	0.1	13.1	0.7	2.0	0.0	3.7	0.1	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	450	280	160	80	310	170	110	180	60	150	210	750
Future Volume (veh/h)	450	280	160	80	310	170	110	180	60	150	210	750
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	517	322	184	92	356	195	126	207	69	172	241	862
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	463	924	516	117	503	271	149	784	254	149	528	470
Arrive On Green	0.26	0.41	0.41	0.06	0.22	0.22	0.08	0.29	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1810	2232	1247	1810	2263	1218	1810	2679	867	1810	1805	1607
Grp Volume(v), veh/h	517	259	247	92	283	268	126	137	139	172	241	862
Grp Sat Flow(s),veh/h/ln	1810	1805	1675	1810	1805	1675	1810	1805	1742	1810	1805	1607
Q Serve(g_s), s	28.0	10.7	11.1	5.5	15.8	16.2	7.5	6.4	6.7	9.0	11.9	32.0
Cycle Q Clear(g_c), s	28.0	10.7	11.1	5.5	15.8	16.2	7.5	6.4	6.7	9.0	11.9	32.0
Prop In Lane	1.00		0.74	1.00		0.73	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	463	747	693	117	402	373	149	528	510	149	528	470
V/C Ratio(X)	1.12	0.35	0.36	0.78	0.70	0.72	0.85	0.26	0.27	1.15	0.46	1.83
Avail Cap(c_a), veh/h	463	760	705	199	495	460	149	528	510	149	528	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	21.9	22.0	50.4	39.2	39.3	49.5	29.6	29.7	50.2	31.6	38.7
Incr Delay (d2), s/veh	77.2	0.3	0.3	10.9	3.4	4.2	33.8	0.3	0.3	121.3	0.6	383.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.8	5.4	5.2	3.1	8.2	8.0	5.1	3.2	3.3	9.5	6.0	64.1
LnGrp Delay(d),s/veh	117.9	22.2	22.3	61.2	42.6	43.5	83.3	29.9	30.0	171.5	32.2	421.7
LnGrp LOS	F	C	C	E	D	D	F	C	C	F	C	F
Approach Vol, veh/h		1023			643			402			1275	
Approach Delay, s/veh		70.6			45.6			46.6			314.3	
Approach LOS		E			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	36.0	11.1	49.2	13.0	36.0	32.0	28.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	32.0	12.0	46.0	9.0	32.0	28.0	30.0
Max Q Clear Time (g_c+I1), s	11.0	8.7	7.5	13.1	9.5	34.0	30.0	18.2
Green Ext Time (p_c), s	0.0	10.3	0.1	7.9	0.0	0.0	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	155.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	360	210	140	120	160	130	190	1660	180	130	1060	140
Future Volume (veh/h)	360	210	140	120	160	130	190	1660	180	130	1060	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	383	223	149	128	170	138	202	1766	191	138	1128	149
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	420	379	242	153	283	216	230	1877	977	159	1541	203
Arrive On Green	0.12	0.18	0.18	0.08	0.14	0.14	0.13	0.52	0.52	0.09	0.48	0.48
Sat Flow, veh/h	3510	2107	1347	1810	1952	1490	1810	3610	1615	1810	3206	423
Grp Volume(v), veh/h	383	190	182	128	156	152	202	1766	191	138	634	643
Grp Sat Flow(s),veh/h/ln	1755	1805	1649	1810	1805	1637	1810	1805	1615	1810	1805	1824
Q Serve(g_s), s	13.5	12.1	12.8	8.7	10.2	10.9	13.7	57.6	6.6	9.4	35.2	35.4
Cycle Q Clear(g_c), s	13.5	12.1	12.8	8.7	10.2	10.9	13.7	57.6	6.6	9.4	35.2	35.4
Prop In Lane	1.00		0.82	1.00		0.91	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	420	324	296	153	261	237	230	1877	977	159	868	877
V/C Ratio(X)	0.91	0.58	0.62	0.84	0.60	0.64	0.88	0.94	0.20	0.87	0.73	0.73
Avail Cap(c_a), veh/h	420	504	461	159	447	405	289	1931	1001	159	868	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	47.1	47.4	56.5	50.2	50.5	53.7	28.3	11.1	56.4	26.0	26.1
Incr Delay (d2), s/veh	23.7	1.7	2.1	29.6	2.2	2.9	21.4	9.7	0.1	36.7	3.2	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	6.2	6.0	5.6	5.2	5.2	8.3	31.0	3.0	6.3	18.2	18.6
LnGrp Delay(d),s/veh	78.2	48.8	49.5	86.0	52.4	53.4	75.2	37.9	11.2	93.1	29.2	29.3
LnGrp LOS	E	D	D	F	D	D	E	D	B	F	C	C
Approach Vol, veh/h		755			436			2159			1415	
Approach Delay, s/veh		63.9			62.6			39.0			35.5	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	69.1	14.6	26.5	19.9	64.2	19.0	22.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	67.0	11.0	35.0	20.0	58.0	15.0	31.0
Max Q Clear Time (g_c+I1), s	11.4	59.6	10.7	14.8	15.7	37.4	15.5	12.9
Green Ext Time (p_c), s	0.0	5.6	0.0	4.2	0.2	18.2	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
48: Kitching St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	130	1060	110	100	1570	310	170	310	110	230	210	130
Future Volume (veh/h)	130	1060	110	100	1570	310	170	310	110	230	210	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	1293	134	122	1915	378	207	378	134	280	256	159
Adj No. of Lanes	1	3	0	1	3	1	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	1719	178	146	1860	806	261	399	141	257	792	475
Arrive On Green	0.08	0.36	0.36	0.08	0.36	0.36	0.07	0.30	0.30	0.14	0.37	0.37
Sat Flow, veh/h	1810	4774	495	1810	5187	1608	3510	1339	475	1810	2168	1301
Grp Volume(v), veh/h	159	937	490	122	1915	378	207	0	512	280	212	203
Grp Sat Flow(s),veh/h/ln	1810	1729	1810	1810	1729	1608	1755	0	1813	1810	1805	1664
Q Serve(g_s), s	11.0	31.8	31.8	8.9	48.0	4.6	7.8	0.0	37.0	19.0	11.3	11.8
Cycle Q Clear(g_c), s	11.0	31.8	31.8	8.9	48.0	4.6	7.8	0.0	37.0	19.0	11.3	11.8
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.26	1.00		0.78
Lane Grp Cap(c), veh/h	149	1245	652	146	1860	806	261	0	540	257	659	608
V/C Ratio(X)	1.07	0.75	0.75	0.84	1.03	0.47	0.79	0.00	0.95	1.09	0.32	0.33
Avail Cap(c_a), veh/h	149	1245	652	162	1860	806	341	0	555	257	659	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.4	37.6	37.6	60.6	42.9	10.5	60.9	0.0	46.0	57.4	30.5	30.7
Incr Delay (d2), s/veh	93.5	2.6	4.9	27.8	28.9	0.4	9.2	0.0	25.5	82.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	15.7	16.8	5.6	27.7	6.1	4.1	0.0	22.3	15.3	5.7	5.5
LnGrp Delay(d),s/veh	154.9	40.2	42.5	88.4	71.8	10.9	70.2	0.0	71.5	139.8	30.8	31.0
LnGrp LOS	F	D	D	F	F	B	E		E	F	C	C
Approach Vol, veh/h		1586			2415			719			695	
Approach Delay, s/veh		52.4			63.1			71.1			74.8	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	43.9	14.8	52.2	14.0	52.9	15.0	52.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	41.0	12.0	47.0	13.0	47.0	11.0	48.0
Max Q Clear Time (g_c+I1), s	21.0	39.0	10.9	33.8	9.8	13.8	13.0	50.0
Green Ext Time (p_c), s	0.0	0.6	0.0	12.5	0.2	3.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	100	1080	110	110	1560	100	190	340	160	80	290	180
Future Volume (veh/h)	100	1080	110	110	1560	100	190	340	160	80	290	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	1200	122	122	1733	111	211	378	178	89	322	200
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	1949	604	146	1965	740	209	528	577	146	525	319
Arrive On Green	0.08	0.38	0.38	0.08	0.38	0.38	0.12	0.28	0.28	0.08	0.24	0.24
Sat Flow, veh/h	1810	5187	1609	1810	5187	1609	1810	1900	1606	1810	2156	1309
Grp Volume(v), veh/h	111	1200	122	122	1733	111	211	378	178	89	268	254
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1609	1810	1900	1606	1810	1805	1660
Q Serve(g_s), s	5.2	16.3	4.4	5.8	27.0	3.5	10.0	15.5	6.9	4.1	11.4	11.8
Cycle Q Clear(g_c), s	5.2	16.3	4.4	5.8	27.0	3.5	10.0	15.5	6.9	4.1	11.4	11.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	140	1949	604	146	1965	740	209	528	577	146	439	404
V/C Ratio(X)	0.79	0.62	0.20	0.83	0.88	0.15	1.01	0.72	0.31	0.61	0.61	0.63
Avail Cap(c_a), veh/h	146	1975	613	146	1975	743	209	746	761	209	708	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	22.0	18.3	39.3	25.1	13.6	38.3	28.2	20.0	38.5	29.1	29.3
Incr Delay (d2), s/veh	24.0	0.6	0.2	32.1	5.0	0.1	65.0	1.9	0.3	4.0	1.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	7.9	2.0	4.2	13.8	1.6	8.7	8.4	3.1	2.2	5.8	5.6
LnGrp Delay(d),s/veh	63.3	22.5	18.4	71.4	30.1	13.7	103.4	30.1	20.3	42.5	30.5	30.9
LnGrp LOS	E	C	B	E	C	B	F	C	C	D	C	C
Approach Vol, veh/h		1433			1966			767			611	
Approach Delay, s/veh		25.3			31.8			48.0			32.4	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	28.1	11.0	36.6	14.0	25.1	10.7	36.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	34.0	7.0	33.0	10.0	34.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	6.1	17.5	7.8	18.3	12.0	13.8	7.2	29.0
Green Ext Time (p_c), s	0.1	5.2	0.0	13.3	0.0	5.6	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
50: Morrison St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	280	660	350	140	1010	120	420	50	110	90	40	310
Future Volume (veh/h)	280	660	350	140	1010	120	420	50	110	90	40	310
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	326	767	407	163	1174	140	488	58	128	105	47	360
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	1051	491	186	1166	139	424	742	664	130	448	398
Arrive On Green	0.16	0.30	0.30	0.10	0.25	0.25	0.23	0.41	0.41	0.07	0.25	0.25
Sat Flow, veh/h	1810	3458	1615	1810	4696	560	1810	1805	1615	1810	1805	1605
Grp Volume(v), veh/h	326	767	407	163	864	450	488	58	128	105	47	360
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1797	1810	1805	1615	1810	1805	1605
Q Serve(g_s), s	23.0	28.7	34.0	12.9	36.0	36.0	34.0	2.8	7.4	8.3	2.9	31.5
Cycle Q Clear(g_c), s	23.0	28.7	34.0	12.9	36.0	36.0	34.0	2.8	7.4	8.3	2.9	31.5
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	287	1051	491	186	859	446	424	742	664	130	448	398
V/C Ratio(X)	1.14	0.73	0.83	0.87	1.01	1.01	1.15	0.08	0.19	0.81	0.11	0.90
Avail Cap(c_a), veh/h	287	1051	491	212	859	446	424	742	664	200	511	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	45.1	46.9	64.1	54.5	54.5	55.5	26.0	27.3	66.3	42.1	52.8
Incr Delay (d2), s/veh	94.7	2.6	11.3	28.5	32.3	44.4	91.4	0.0	0.1	13.1	0.1	19.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.0	14.1	16.7	7.9	21.0	23.4	27.8	1.4	3.3	4.6	1.5	16.2
LnGrp Delay(d),s/veh	155.7	47.7	58.2	92.6	86.8	98.9	146.8	26.0	27.5	79.4	42.2	72.6
LnGrp LOS	F	D	E	F	F	F	F	C	C	E	D	E
Approach Vol, veh/h		1500			1477			674			512	
Approach Delay, s/veh		74.0			91.1			113.8			71.2	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	63.6	18.9	48.1	38.0	39.9	27.0	40.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	59.0	17.0	42.0	34.0	41.0	23.0	36.0
Max Q Clear Time (g_c+I1), s	10.3	9.4	14.9	36.0	36.0	33.5	25.0	38.0
Green Ext Time (p_c), s	0.1	4.1	0.1	5.3	0.0	1.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	86.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	170	260	410	110	520	110	430	1000	40	30	1270	280
Future Volume (veh/h)	170	260	410	110	520	110	430	1000	40	30	1270	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	218	333	526	141	667	141	551	1282	51	38	1628	359
Adj No. of Lanes	2	3	1	2	2	1	1	3	0	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	212	1254	388	187	846	376	535	2868	114	67	1567	486
Arrive On Green	0.06	0.24	0.24	0.05	0.23	0.23	0.30	0.56	0.56	0.04	0.30	0.30
Sat Flow, veh/h	3510	5187	1605	3510	3610	1605	1810	5118	204	1810	5187	1607
Grp Volume(v), veh/h	218	333	526	141	667	141	551	866	467	38	1628	359
Grp Sat Flow(s),veh/h/ln	1755	1729	1605	1755	1805	1605	1810	1729	1863	1810	1729	1607
Q Serve(g_s), s	9.0	7.7	36.0	5.9	25.8	11.0	44.0	21.9	21.9	3.1	45.0	29.9
Cycle Q Clear(g_c), s	9.0	7.7	36.0	5.9	25.8	11.0	44.0	21.9	21.9	3.1	45.0	29.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	212	1254	388	187	846	376	535	1938	1044	67	1567	486
V/C Ratio(X)	1.03	0.27	1.36	0.76	0.79	0.37	1.03	0.45	0.45	0.56	1.04	0.74
Avail Cap(c_a), veh/h	212	1254	388	212	873	388	535	1938	1044	134	1567	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.0	45.7	56.5	69.5	53.5	47.8	52.5	19.2	19.2	70.5	52.0	46.7
Incr Delay (d2), s/veh	69.1	0.1	176.1	12.7	4.7	0.6	47.0	0.2	0.3	7.2	33.4	5.9
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	3.7	34.9	3.2	13.4	4.9	29.0	10.5	11.4	1.7	26.3	14.1
LnGrp Delay(d),s/veh	139.2	45.9	232.6	82.2	58.3	48.5	99.4	19.4	19.5	77.7	85.4	52.6
LnGrp LOS	F	D	F	F	E	D	F	B	B	E	F	D
Approach Vol, veh/h		1077			949			1884			2025	
Approach Delay, s/veh		156.0			60.4			42.8			79.4	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	87.5	11.9	40.0	48.0	49.0	13.0	38.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	78.0	9.0	36.0	44.0	45.0	9.0	36.0
Max Q Clear Time (g_c+I1), s	5.1	23.9	7.9	38.0	46.0	47.0	11.0	27.8
Green Ext Time (p_c), s	0.0	40.5	0.0	0.0	0.0	0.0	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	100	610	90	50	1000	50	190	470	30	90	380	110
Future Volume (veh/h)	100	610	90	50	1000	50	190	470	30	90	380	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	744	110	61	1220	61	232	573	37	110	463	134
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	1231	182	101	1290	64	246	1108	71	138	499	421
Arrive On Green	0.08	0.39	0.39	0.06	0.37	0.37	0.14	0.32	0.32	0.08	0.26	0.26
Sat Flow, veh/h	1810	3154	466	1810	3499	175	1810	3443	222	1810	1900	1606
Grp Volume(v), veh/h	122	426	428	61	629	652	232	300	310	110	463	134
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1868	1810	1805	1860	1810	1900	1606
Q Serve(g_s), s	6.9	19.4	19.4	3.4	34.8	34.9	13.1	13.9	14.0	6.2	24.5	6.9
Cycle Q Clear(g_c), s	6.9	19.4	19.4	3.4	34.8	34.9	13.1	13.9	14.0	6.2	24.5	6.9
Prop In Lane	1.00		0.26	1.00		0.09	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	140	705	709	101	666	689	246	581	598	138	499	421
V/C Ratio(X)	0.87	0.60	0.60	0.60	0.94	0.95	0.94	0.52	0.52	0.79	0.93	0.32
Avail Cap(c_a), veh/h	140	705	709	158	683	707	246	581	598	211	516	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	25.1	25.1	47.5	31.5	31.5	44.1	28.4	28.4	46.8	37.1	30.6
Incr Delay (d2), s/veh	40.1	1.5	1.5	5.6	21.6	21.4	42.1	0.8	0.8	11.3	22.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	9.9	10.0	1.9	21.3	22.0	9.4	7.0	7.3	3.5	16.0	3.1
LnGrp Delay(d),s/veh	87.1	26.5	26.5	53.1	53.1	52.9	86.2	29.2	29.2	58.1	60.0	31.0
LnGrp LOS	F	C	C	D	D	D	F	C	C	E	E	C
Approach Vol, veh/h		976			1342			842			707	
Approach Delay, s/veh		34.1			53.0			44.9			54.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	37.2	9.8	44.2	18.0	31.0	12.0	42.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	30.0	9.0	38.0	14.0	28.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	8.2	16.0	5.4	21.4	15.1	26.5	8.9	36.9
Green Ext Time (p_c), s	0.1	5.6	0.0	11.2	0.0	0.5	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	70	460	180	280	830	70	140	530	210	80	380	80
Future Volume (veh/h)	70	460	180	280	830	70	140	530	210	80	380	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	523	205	318	943	80	159	602	0	91	432	91
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	714	279	285	1300	579	210	903	404	150	645	135
Arrive On Green	0.08	0.28	0.28	0.16	0.36	0.36	0.12	0.25	0.00	0.08	0.22	0.22
Sat Flow, veh/h	1810	2535	989	1810	3610	1608	1810	3610	1615	1810	2970	621
Grp Volume(v), veh/h	80	372	356	318	943	80	159	602	0	91	261	262
Grp Sat Flow(s),veh/h/ln	1810	1805	1719	1810	1805	1608	1810	1805	1615	1810	1805	1785
Q Serve(g_s), s	3.0	13.1	13.2	11.0	15.9	2.4	6.0	10.5	0.0	3.4	9.3	9.4
Cycle Q Clear(g_c), s	3.0	13.1	13.2	11.0	15.9	2.4	6.0	10.5	0.0	3.4	9.3	9.4
Prop In Lane	1.00		0.58	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	143	508	484	285	1300	579	210	903	404	150	392	388
V/C Ratio(X)	0.56	0.73	0.74	1.12	0.73	0.14	0.76	0.67	0.00	0.61	0.67	0.68
Avail Cap(c_a), veh/h	180	797	759	285	1800	802	232	1543	690	180	720	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	22.8	22.8	29.6	19.4	15.1	30.1	23.7	0.0	31.1	25.1	25.2
Incr Delay (d2), s/veh	3.4	2.0	2.2	88.6	0.9	0.1	12.3	0.9	0.0	4.0	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.8	6.5	12.5	8.0	1.1	3.7	5.4	0.0	1.9	4.9	4.9
LnGrp Delay(d),s/veh	34.6	24.9	25.0	118.2	20.4	15.2	42.3	24.5	0.0	35.1	27.1	27.3
LnGrp LOS	C	C	C	F	C	B	D	C		D	C	C
Approach Vol, veh/h		808			1341			761			614	
Approach Delay, s/veh		25.9			43.3			28.2			28.4	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	21.6	15.0	23.8	12.1	19.2	9.5	29.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	11.0	31.0	9.0	28.0	7.0	35.0
Max Q Clear Time (g_c+I1), s	5.4	12.5	13.0	15.2	8.0	11.4	5.0	17.9
Green Ext Time (p_c), s	0.0	3.7	0.0	3.6	0.5	2.5	0.0	6.7

Intersection Summary			
HCM 2010 Ctrl Delay			33.4
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
54: Morriaon St/Morrison St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	540	60	220	920	420	90	40	200	340	40	160
Future Volume (veh/h)	110	540	60	220	920	420	90	40	200	340	40	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	540	60	220	920	420	90	40	200	340	40	160
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	125	1073	119	256	967	437	115	306	272	369	560	498
Arrive On Green	0.07	0.33	0.33	0.14	0.40	0.40	0.06	0.17	0.17	0.20	0.31	0.31
Sat Flow, veh/h	1810	3276	363	1810	2417	1091	1810	1805	1601	1810	1805	1607
Grp Volume(v), veh/h	110	297	303	220	685	655	90	40	200	340	40	160
Grp Sat Flow(s),veh/h/ln	1810	1805	1834	1810	1805	1703	1810	1805	1601	1810	1805	1607
Q Serve(g_s), s	6.1	13.5	13.5	12.1	37.3	38.2	5.0	1.9	12.1	18.7	1.6	7.8
Cycle Q Clear(g_c), s	6.1	13.5	13.5	12.1	37.3	38.2	5.0	1.9	12.1	18.7	1.6	7.8
Prop In Lane	1.00		0.20	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	591	601	256	722	681	115	306	272	369	560	498
V/C Ratio(X)	0.88	0.50	0.50	0.86	0.95	0.96	0.78	0.13	0.74	0.92	0.07	0.32
Avail Cap(c_a), veh/h	125	591	601	374	728	686	196	444	393	374	621	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	27.5	27.6	42.7	29.5	29.8	46.9	35.9	40.1	39.7	24.8	26.9
Incr Delay (d2), s/veh	47.1	0.7	0.7	12.8	21.5	25.2	10.7	0.2	4.1	27.4	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	6.8	6.9	7.0	22.8	22.6	2.8	1.0	5.6	12.2	0.8	3.5
LnGrp Delay(d),s/veh	94.1	28.2	28.2	55.5	51.0	55.0	57.7	36.0	44.2	67.1	24.8	27.3
LnGrp LOS	F	C	C	E	D	D	E	D	D	E	C	C
Approach Vol, veh/h		710			1560			330			540	
Approach Delay, s/veh		38.4			53.3			46.9			52.2	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	21.3	18.4	37.3	10.5	35.5	11.0	44.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	25.0	21.0	27.0	11.0	35.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	20.7	14.1	14.1	15.5	7.0	9.8	8.1	40.2
Green Ext Time (p_c), s	0.0	2.0	0.3	8.0	0.1	2.8	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	49.1
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↱		↰↰	↑↑↱	
Traffic Volume (veh/h)	520	380	290	290	440	510	330	380	280	510	390	600
Future Volume (veh/h)	520	380	290	290	440	510	330	380	280	510	390	600
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	658	481	367	367	557	646	418	481	354	646	494	759
Adj No. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	465	651	496	391	529	471	426	692	321	476	741	344
Arrive On Green	0.26	0.33	0.33	0.22	0.29	0.29	0.12	0.20	0.20	0.14	0.21	0.21
Sat Flow, veh/h	1810	1950	1485	1810	1805	1607	3510	3458	1603	3510	3458	1604
Grp Volume(v), veh/h	658	445	403	367	557	646	418	481	354	646	494	759
Grp Sat Flow(s),veh/h/ln	1810	1805	1630	1810	1805	1607	1755	1729	1603	1755	1729	1604
Q Serve(g_s), s	36.0	30.5	30.6	27.9	41.0	41.0	16.6	18.1	28.0	19.0	18.3	30.0
Cycle Q Clear(g_c), s	36.0	30.5	30.6	27.9	41.0	41.0	16.6	18.1	28.0	19.0	18.3	30.0
Prop In Lane	1.00		0.91	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	602	544	391	529	471	426	692	321	476	741	344
V/C Ratio(X)	1.41	0.74	0.74	0.94	1.05	1.37	0.98	0.70	1.10	1.36	0.67	2.21
Avail Cap(c_a), veh/h	465	602	544	427	529	471	426	692	321	476	741	344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	41.2	41.3	53.9	49.5	49.5	61.3	52.0	56.0	60.5	50.4	55.0
Incr Delay (d2), s/veh	198.7	4.8	5.4	27.4	54.0	180.9	38.4	3.0	81.3	173.5	2.3	553.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	43.7	16.0	14.6	16.9	28.3	41.8	10.3	8.9	19.6	20.7	9.0	66.1
LnGrp Delay(d),s/veh	250.7	46.0	46.6	81.4	103.5	230.4	99.7	55.1	137.3	234.0	52.7	608.3
LnGrp LOS	F	D	D	F	F	F	F	E	F	F	D	F
Approach Vol, veh/h		1506			1570			1253			1899	
Approach Delay, s/veh		135.6			150.5			93.2			336.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	32.0	34.3	50.7	21.0	34.0	40.0	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	28.0	33.0	44.0	17.0	30.0	36.0	41.0
Max Q Clear Time (g_c+I1), s	21.0	30.0	29.9	32.6	18.6	32.0	38.0	43.0
Green Ext Time (p_c), s	0.0	0.0	0.4	8.4	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	192.1
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	230	1050	120	160	1710	180	70	260	20	200	440	220
Future Volume (veh/h)	230	1050	120	160	1710	180	70	260	20	200	440	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	253	1154	132	176	1879	198	77	286	22	220	484	242
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	278	1726	770	204	2083	218	186	699	53	257	816	363
Arrive On Green	0.15	0.48	0.48	0.11	0.44	0.44	0.05	0.21	0.21	0.07	0.23	0.23
Sat Flow, veh/h	1810	3610	1610	1810	4768	499	3510	3397	260	3510	3610	1604
Grp Volume(v), veh/h	253	1154	132	176	1359	718	77	151	157	220	484	242
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1810	1755	1805	1852	1755	1805	1604
Q Serve(g_s), s	16.9	30.1	5.7	11.7	44.8	45.4	2.6	8.9	9.0	7.6	14.7	16.9
Cycle Q Clear(g_c), s	16.9	30.1	5.7	11.7	44.8	45.4	2.6	8.9	9.0	7.6	14.7	16.9
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	278	1726	770	204	1511	791	186	371	381	257	816	363
V/C Ratio(X)	0.91	0.67	0.17	0.86	0.90	0.91	0.41	0.41	0.41	0.86	0.59	0.67
Avail Cap(c_a), veh/h	280	1726	770	250	1549	810	200	603	618	257	1264	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	24.6	18.2	53.6	32.1	32.3	56.3	42.3	42.3	56.3	42.5	43.3
Incr Delay (d2), s/veh	31.1	1.0	0.1	21.9	7.4	13.8	1.5	0.7	0.7	23.5	0.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	15.1	2.6	7.1	22.9	25.7	1.3	4.5	4.7	4.5	7.4	7.7
LnGrp Delay(d),s/veh	82.2	25.6	18.3	75.5	39.5	46.0	57.8	43.0	43.0	79.7	43.2	45.4
LnGrp LOS	F	C	B	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		1539			2253			385			946	
Approach Delay, s/veh		34.3			44.4			46.0			52.3	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	29.3	17.8	62.7	10.5	31.8	22.9	57.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	41.0	17.0	57.0	7.0	43.0	19.0	55.0
Max Q Clear Time (g_c+I1), s	9.6	11.0	13.7	32.1	4.6	18.9	18.9	47.4
Green Ext Time (p_c), s	0.0	6.7	0.1	22.2	0.0	6.4	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	42.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	50	1000	260	320	1770	130	150	390	80	210	640	120
Future Volume (veh/h)	50	1000	260	320	1770	130	150	390	80	210	640	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	1087	0	348	1924	141	163	424	87	228	696	130
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	1103	493	355	2256	165	188	749	152	237	844	157
Arrive On Green	0.04	0.31	0.00	0.20	0.46	0.46	0.10	0.25	0.25	0.13	0.28	0.28
Sat Flow, veh/h	1810	3610	1615	1810	4933	360	1810	2986	608	1810	3035	566
Grp Volume(v), veh/h	54	1087	0	348	1346	719	163	255	256	228	414	412
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1835	1810	1805	1788	1810	1805	1796
Q Serve(g_s), s	4.0	41.1	0.0	26.3	47.6	48.0	12.2	16.9	17.2	17.2	29.5	29.6
Cycle Q Clear(g_c), s	4.0	41.1	0.0	26.3	47.6	48.0	12.2	16.9	17.2	17.2	29.5	29.6
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.34	1.00		0.32
Lane Grp Cap(c), veh/h	80	1103	493	355	1582	839	188	453	449	237	502	499
V/C Ratio(X)	0.67	0.99	0.00	0.98	0.85	0.86	0.87	0.56	0.57	0.96	0.82	0.83
Avail Cap(c_a), veh/h	92	1103	493	355	1582	839	224	551	546	237	564	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.7	47.4	0.0	55.0	33.1	33.3	60.7	44.9	45.0	59.4	46.5	46.5
Incr Delay (d2), s/veh	14.6	23.6	0.0	42.1	4.7	8.7	25.3	1.1	1.1	47.8	8.8	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	24.1	0.0	17.3	23.7	26.4	7.4	8.6	8.7	11.8	15.9	15.9
LnGrp Delay(d),s/veh	79.3	71.0	0.0	97.0	37.8	42.0	86.0	46.0	46.2	107.3	55.3	55.4
LnGrp LOS	E	E		F	D	D	F	D	D	F	E	E
Approach Vol, veh/h		1141			2413			674			1054	
Approach Delay, s/veh		71.4			47.6			55.7			66.6	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	38.5	31.0	46.0	18.3	42.2	10.1	66.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	42.0	27.0	42.0	17.0	43.0	7.0	62.0
Max Q Clear Time (g_c+I1), s	19.2	19.2	28.3	43.1	14.2	31.6	6.0	50.0
Green Ext Time (p_c), s	0.0	9.3	0.0	0.0	0.1	6.3	0.0	11.1

Intersection Summary	
HCM 2010 Ctrl Delay	57.6
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	130	990	90	90	2090	360	160	480	40	210	430	190
Future Volume (veh/h)	130	990	90	90	2090	360	160	480	40	210	430	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	141	1076	98	98	2272	391	174	522	43	228	467	207
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	2441	935	122	2109	349	198	779	64	203	842	483
Arrive On Green	0.07	0.47	0.47	0.07	0.47	0.47	0.11	0.23	0.23	0.11	0.23	0.23
Sat Flow, veh/h	1810	5187	1610	1810	4481	743	1810	3376	277	1810	3610	1605
Grp Volume(v), veh/h	141	1076	98	98	1733	930	174	278	287	228	467	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1766	1810	1805	1849	1810	1805	1605
Q Serve(g_s), s	9.0	18.6	3.6	7.2	63.0	63.0	12.7	18.8	18.9	15.0	15.3	13.9
Cycle Q Clear(g_c), s	9.0	18.6	3.6	7.2	63.0	63.0	12.7	18.8	18.9	15.0	15.3	13.9
Prop In Lane	1.00		1.00	1.00		0.42	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	122	2441	935	122	1627	831	198	416	427	203	842	483
V/C Ratio(X)	1.16	0.44	0.10	0.81	1.07	1.12	0.88	0.67	0.67	1.12	0.55	0.43
Avail Cap(c_a), veh/h	122	2441	935	203	1627	831	203	566	580	203	1132	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.4	23.7	12.6	61.6	35.4	35.4	58.7	46.8	46.9	59.4	45.2	37.6
Incr Delay (d2), s/veh	130.7	0.1	0.0	11.7	42.0	69.2	32.0	1.9	1.8	100.7	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	8.9	1.6	4.0	39.3	46.4	8.1	9.6	9.9	13.1	7.7	6.2
LnGrp Delay(d),s/veh	193.1	23.8	12.6	73.3	77.4	104.7	90.7	48.7	48.7	160.2	45.8	38.2
LnGrp LOS	F	C	B	E	F	F	F	D	D	F	D	D
Approach Vol, veh/h		1315			2761			739			902	
Approach Delay, s/veh		41.1			86.4			58.6			73.0	
Approach LOS		D			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	34.9	13.0	67.0	18.7	35.2	13.0	67.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	42.0	15.0	57.0	15.0	42.0	9.0	63.0
Max Q Clear Time (g_c+I1), s	17.0	20.9	9.2	20.6	14.7	17.3	11.0	65.0
Green Ext Time (p_c), s	0.0	7.7	0.1	33.7	0.0	8.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	70.3
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	90	870	180	150	2160	60	260	420	140	120	420	170
Future Volume (veh/h)	90	870	180	150	2160	60	260	420	140	120	420	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	946	196	163	2348	65	283	457	152	130	457	185
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	1644	339	190	2257	62	253	825	272	156	642	258
Arrive On Green	0.05	0.38	0.38	0.10	0.43	0.43	0.14	0.31	0.31	0.09	0.26	0.26
Sat Flow, veh/h	1810	4307	890	1810	5189	143	1810	2665	879	1810	2512	1008
Grp Volume(v), veh/h	98	759	383	163	1562	851	283	308	301	130	327	315
Grp Sat Flow(s),veh/h/ln	1810	1729	1739	1810	1729	1874	1810	1805	1740	1810	1805	1715
Q Serve(g_s), s	7.0	23.6	23.7	12.0	59.0	59.0	19.0	19.3	19.6	9.6	22.4	22.7
Cycle Q Clear(g_c), s	7.0	23.6	23.7	12.0	59.0	59.0	19.0	19.3	19.6	9.6	22.4	22.7
Prop In Lane	1.00		0.51	1.00		0.08	1.00		0.51	1.00		0.59
Lane Grp Cap(c), veh/h	93	1320	664	190	1504	815	253	559	539	156	461	438
V/C Ratio(X)	1.05	0.58	0.58	0.86	1.04	1.04	1.12	0.55	0.56	0.84	0.71	0.72
Avail Cap(c_a), veh/h	93	1320	664	293	1504	815	253	599	577	240	585	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.3	33.2	33.3	59.7	38.3	38.3	58.3	39.0	39.1	61.1	45.9	46.0
Incr Delay (d2), s/veh	107.2	0.6	1.2	14.3	33.8	43.7	91.5	0.9	1.0	13.9	2.9	3.3
Initial Q Delay(d3),s/veh	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	11.4	11.6	6.8	35.1	40.2	15.9	9.7	9.6	5.4	11.6	11.1
LnGrp Delay(d),s/veh	172.4	33.8	34.5	74.0	72.2	82.1	149.8	39.9	40.1	75.0	48.8	49.3
LnGrp LOS	F	C	C	E	F	F	F	D	D	E	D	D
Approach Vol, veh/h		1240			2576			892			772	
Approach Delay, s/veh		45.0			75.6			74.9			53.4	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	46.0	18.2	55.8	23.0	38.7	11.0	63.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	45.0	22.0	44.0	19.0	44.0	7.0	59.0
Max Q Clear Time (g_c+I1), s	11.6	21.6	14.0	25.7	21.0	24.7	9.0	61.0
Green Ext Time (p_c), s	0.2	8.7	0.2	17.1	0.0	8.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	140	740	190	240	1670	140	380	900	250	240	990	380
Future Volume (veh/h)	140	740	190	240	1670	140	380	900	250	240	990	380
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	157	831	213	270	1876	157	427	1011	281	270	1112	427
Adj No. of Lanes	2	2	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	206	1204	536	331	1800	150	412	1789	555	327	1663	515
Arrive On Green	0.06	0.33	0.33	0.09	0.37	0.37	0.12	0.34	0.34	0.09	0.32	0.32
Sat Flow, veh/h	3510	3610	1608	3510	4878	406	3510	5187	1608	3510	5187	1607
Grp Volume(v), veh/h	157	831	213	270	1328	705	427	1011	281	270	1112	427
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1755	1729	1826	1755	1729	1608	1755	1729	1607
Q Serve(g_s), s	5.3	23.8	12.1	9.0	44.0	44.0	14.0	18.9	16.5	9.0	22.1	29.3
Cycle Q Clear(g_c), s	5.3	23.8	12.1	9.0	44.0	44.0	14.0	18.9	16.5	9.0	22.1	29.3
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	206	1204	536	331	1276	674	412	1789	555	327	1663	515
V/C Ratio(X)	0.76	0.69	0.40	0.81	1.04	1.05	1.04	0.57	0.51	0.83	0.67	0.83
Avail Cap(c_a), veh/h	206	1204	536	412	1276	674	412	1789	555	353	1697	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	34.4	30.5	53.0	37.6	37.6	52.6	31.8	31.0	53.1	35.0	37.5
Incr Delay (d2), s/veh	15.3	1.7	0.5	9.8	36.3	47.4	53.9	0.4	0.8	14.0	1.0	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	12.1	5.4	4.8	27.3	31.0	9.8	9.1	7.5	5.0	10.7	14.4
LnGrp Delay(d),s/veh	70.6	36.1	31.0	62.8	73.9	85.0	106.5	32.2	31.8	67.1	36.0	48.0
LnGrp LOS	E	D	C	E	F	F	F	C	C	E	D	D
Approach Vol, veh/h		1201			2303			1719			1809	
Approach Delay, s/veh		39.7			76.0			50.6			43.5	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	45.1	15.3	43.7	18.0	42.2	11.0	48.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	41.0	14.0	37.0	14.0	39.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	11.0	20.9	11.0	25.8	16.0	31.3	7.3	46.0
Green Ext Time (p_c), s	0.1	16.0	0.3	10.3	0.0	6.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.2
HCM 2010 LOS	E

61: Cactus Ave & Frederick St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	170	1540	2450	170	350	130
Future Volume (veh/h)	170	1540	2450	170	350	130
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	1638	2606	181	372	138
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	217	3948	3083	1190	510	428
Arrive On Green	0.12	0.76	0.59	0.59	0.15	0.15
Sat Flow, veh/h	1810	5358	5358	1608	3510	1615
Grp Volume(v), veh/h	181	1638	2606	181	372	138
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1608	1755	1615
Q Serve(g_s), s	8.4	9.4	35.0	2.8	8.7	5.9
Cycle Q Clear(g_c), s	8.4	9.4	35.0	2.8	8.7	5.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	217	3948	3083	1190	510	428
V/C Ratio(X)	0.83	0.41	0.85	0.15	0.73	0.32
Avail Cap(c_a), veh/h	233	4008	3097	1195	1274	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	3.6	14.1	3.3	34.9	25.2
Incr Delay (d2), s/veh	21.1	0.1	2.3	0.1	2.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	4.4	17.1	1.9	4.3	5.7
LnGrp Delay(d),s/veh	57.9	3.6	16.4	3.3	36.9	25.7
LnGrp LOS	E	A	B	A	D	C
Approach Vol, veh/h		1819	2787		510	
Approach Delay, s/veh		9.0	15.6		33.9	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				69.0		16.4	14.2	54.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				66.0		31.0	11.0	51.0
Max Q Clear Time (g_c+I1), s				11.4		10.7	10.4	37.0
Green Ext Time (p_c), s				51.6		1.7	0.0	13.8

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	60	1170	660	410	2360	260	190	150	20	230	650	60
Future Volume (veh/h)	60	1170	660	410	2360	260	190	150	20	230	650	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	1232	695	432	2484	274	200	158	21	242	684	63
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	1815	563	404	2502	268	254	605	79	216	850	454
Arrive On Green	0.05	0.35	0.35	0.22	0.53	0.53	0.07	0.19	0.19	0.12	0.24	0.24
Sat Flow, veh/h	1810	5187	1608	1810	4756	510	3510	3207	420	1810	3610	1605
Grp Volume(v), veh/h	63	1232	695	432	1787	971	200	88	91	242	684	63
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1810	1729	1808	1755	1805	1822	1810	1805	1605
Q Serve(g_s), s	4.6	27.2	47.0	30.0	68.1	70.7	7.5	5.6	5.7	16.0	24.0	3.9
Cycle Q Clear(g_c), s	4.6	27.2	47.0	30.0	68.1	70.7	7.5	5.6	5.7	16.0	24.0	3.9
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	85	1815	563	404	1819	951	254	341	344	216	850	454
V/C Ratio(X)	0.74	0.68	1.24	1.07	0.98	1.02	0.79	0.26	0.27	1.12	0.81	0.14
Avail Cap(c_a), veh/h	94	1815	563	404	1819	951	340	484	488	216	1048	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.2	37.2	43.7	52.2	31.2	31.8	61.3	46.5	46.5	59.2	48.5	36.0
Incr Delay (d2), s/veh	23.8	1.0	120.7	64.4	17.0	34.7	8.5	0.4	0.4	98.3	3.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	13.2	39.7	22.2	36.6	44.3	4.0	2.8	2.9	13.8	12.4	1.8
LnGrp Delay(d),s/veh	87.0	38.3	164.3	116.5	48.2	66.5	69.8	46.9	47.0	157.4	52.3	36.1
LnGrp LOS	F	D	F	F	D	F	E	D	D	F	D	D
Approach Vol, veh/h		1990			3190			379			989	
Approach Delay, s/veh		83.8			63.0			59.0			77.0	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	29.3	34.0	51.0	13.7	35.6	10.3	74.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	36.0	30.0	47.0	13.0	39.0	7.0	70.0
Max Q Clear Time (g_c+I1), s	18.0	7.7	32.0	49.0	9.5	26.0	6.6	72.7
Green Ext Time (p_c), s	0.0	6.7	0.0	0.0	0.2	4.9	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		71.2
HCM 2010 LOS		E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	170	770	390	0	1660	60	920	280	0	60	200	400
Future Volume (veh/h)	170	770	390	0	1660	60	920	280	0	60	200	400
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	185	837	424	0	1804	65	1000	304	0	65	217	435
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	2594	1117	1	1422	51	679	1351	0	83	409	364
Arrive On Green	0.07	0.50	0.50	0.00	0.40	0.40	0.19	0.37	0.00	0.05	0.23	0.23
Sat Flow, veh/h	1810	5187	1610	1810	3555	127	3510	3705	0	1810	1805	1604
Grp Volume(v), veh/h	185	837	424	0	911	958	1000	304	0	65	217	435
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1805	1877	1755	1805	0	1810	1805	1604
Q Serve(g_s), s	11.0	14.4	0.0	0.0	60.0	60.0	29.0	8.6	0.0	5.3	15.9	34.0
Cycle Q Clear(g_c), s	11.0	14.4	0.0	0.0	60.0	60.0	29.0	8.6	0.0	5.3	15.9	34.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	2594	1117	1	722	751	679	1351	0	83	409	364
V/C Ratio(X)	1.39	0.32	0.38	0.00	1.26	1.28	1.47	0.23	0.00	0.78	0.53	1.20
Avail Cap(c_a), veh/h	133	2594	1117	84	722	751	679	1351	0	133	409	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	22.4	6.5	0.0	45.0	45.0	60.5	32.1	0.0	70.8	51.0	58.0
Incr Delay (d2), s/veh	216.6	0.1	0.2	0.0	129.0	134.2	221.0	0.1	0.0	14.8	1.3	112.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	6.9	6.1	0.0	55.8	59.1	34.9	4.3	0.0	3.0	8.0	26.4
LnGrp Delay(d),s/veh	286.1	22.4	6.7	0.0	174.0	179.2	281.5	32.2	0.0	85.6	52.3	170.1
LnGrp LOS	F	C	A		F	F	F	C		F	D	F
Approach Vol, veh/h		1446			1869			1304			717	
Approach Delay, s/veh		51.6			176.7			223.4			126.8	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	60.1	0.0	79.0	33.0	38.0	15.0	64.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	52.0	7.0	64.0	29.0	34.0	11.0	60.0
Max Q Clear Time (g_c+I1), s	7.3	10.6	0.0	16.4	31.0	36.0	13.0	62.0
Green Ext Time (p_c), s	0.0	7.2	0.0	35.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	147.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	610	210	60	1280	90	210	590	70	130	540	70
Future Volume (veh/h)	80	610	210	60	1280	90	210	590	70	130	540	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	701	241	69	1471	103	241	678	80	149	621	80
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1197	412	94	1536	107	252	865	102	176	721	93
Arrive On Green	0.06	0.45	0.45	0.05	0.45	0.45	0.14	0.27	0.27	0.10	0.22	0.22
Sat Flow, veh/h	1810	2636	906	1810	3423	239	1810	3252	383	1810	3215	413
Grp Volume(v), veh/h	92	480	462	69	772	802	241	376	382	149	348	353
Grp Sat Flow(s),veh/h/ln	1810	1805	1737	1810	1805	1857	1810	1805	1830	1810	1805	1824
Q Serve(g_s), s	6.2	24.2	24.2	4.6	50.4	51.2	16.2	23.6	23.7	9.9	22.7	22.8
Cycle Q Clear(g_c), s	6.2	24.2	24.2	4.6	50.4	51.2	16.2	23.6	23.7	9.9	22.7	22.8
Prop In Lane	1.00		0.52	1.00		0.13	1.00		0.21	1.00		0.23
Lane Grp Cap(c), veh/h	104	820	789	94	810	833	252	480	487	176	405	409
V/C Ratio(X)	0.89	0.59	0.59	0.74	0.95	0.96	0.96	0.78	0.79	0.85	0.86	0.86
Avail Cap(c_a), veh/h	104	820	789	148	827	850	252	480	487	207	428	432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	24.8	24.8	57.2	32.5	32.7	52.3	41.6	41.6	54.3	45.6	45.6
Incr Delay (d2), s/veh	54.6	1.1	1.1	10.7	20.6	21.9	45.1	8.3	8.3	23.5	15.5	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	12.2	11.8	2.6	29.7	31.3	11.2	12.9	13.1	6.1	13.1	13.3
LnGrp Delay(d),s/veh	111.9	25.9	25.9	67.8	53.1	54.6	97.4	49.9	49.9	77.8	61.1	61.3
LnGrp LOS	F	C	C	E	D	D	F	D	D	E	E	E
Approach Vol, veh/h		1034			1643			999			850	
Approach Delay, s/veh		33.6			54.4			61.3			64.1	
Approach LOS		C			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	36.5	10.3	59.5	21.0	31.4	11.0	58.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	32.0	10.0	53.0	17.0	29.0	7.0	56.0
Max Q Clear Time (g_c+I1), s	11.9	25.7	6.6	26.2	18.2	24.8	8.2	53.2
Green Ext Time (p_c), s	0.1	4.3	0.0	18.8	0.0	2.5	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	120	540	170	140	1040	180	260	1110	140	130	1000	150
Future Volume (veh/h)	120	540	170	140	1040	180	260	1110	140	130	1000	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	621	195	161	1195	207	299	1276	161	149	1149	172
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	924	290	191	1144	197	276	1482	459	207	1127	169
Arrive On Green	0.08	0.34	0.34	0.11	0.37	0.37	0.15	0.29	0.29	0.11	0.25	0.25
Sat Flow, veh/h	1810	2703	848	1810	3079	530	1810	5187	1607	1810	4552	681
Grp Volume(v), veh/h	138	414	402	161	698	704	299	1276	161	149	873	448
Grp Sat Flow(s),veh/h/ln	1810	1805	1746	1810	1805	1804	1810	1729	1607	1810	1729	1775
Q Serve(g_s), s	8.0	20.6	20.6	9.2	39.0	39.0	16.0	24.5	6.2	8.3	26.0	26.0
Cycle Q Clear(g_c), s	8.0	20.6	20.6	9.2	39.0	39.0	16.0	24.5	6.2	8.3	26.0	26.0
Prop In Lane	1.00		0.49	1.00		0.29	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	138	617	597	191	670	670	276	1482	459	207	856	440
V/C Ratio(X)	1.00	0.67	0.67	0.84	1.04	1.05	1.08	0.86	0.35	0.72	1.02	1.02
Avail Cap(c_a), veh/h	138	617	597	207	670	670	276	1482	459	207	856	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	29.5	29.5	46.1	33.0	33.0	44.5	35.5	16.5	44.9	39.5	39.5
Incr Delay (d2), s/veh	76.9	2.8	3.0	24.3	45.8	48.9	78.5	6.8	2.1	11.5	35.7	48.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	10.7	10.4	5.9	27.9	28.5	14.0	12.6	3.0	4.8	16.6	18.6
LnGrp Delay(d),s/veh	125.4	32.3	32.5	70.4	78.8	81.9	123.0	42.3	18.6	56.4	75.2	87.6
LnGrp LOS	F	C	C	E	F	F	F	D	B	E	F	F
Approach Vol, veh/h		954			1563			1736			1470	
Approach Delay, s/veh		45.9			79.4			54.0			77.1	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	34.0	15.1	39.9	20.0	30.0	12.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	30.0	12.0	35.0	16.0	26.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	10.3	26.5	11.2	22.6	18.0	28.0	10.0	41.0
Green Ext Time (p_c), s	0.3	2.5	0.0	9.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	65.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	220	1860	290	130	2880	460	730	610	90	190	140	220
Future Volume (veh/h)	220	1860	290	130	2880	460	730	610	90	190	140	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	229	1938	302	135	3000	479	760	635	94	198	146	229
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	2374	737	248	2364	734	416	823	845	274	677	301
Arrive On Green	0.07	0.46	0.46	0.07	0.46	0.46	0.12	0.23	0.23	0.08	0.19	0.19
Sat Flow, veh/h	1810	5187	1610	3510	5187	1610	3510	3610	2824	3510	3610	1602
Grp Volume(v), veh/h	229	1938	302	135	3000	479	760	635	94	198	146	229
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1610	1755	1805	1412	1755	1805	1602
Q Serve(g_s), s	7.0	31.2	7.6	3.6	44.0	22.3	11.4	15.9	2.3	5.3	3.3	10.6
Cycle Q Clear(g_c), s	7.0	31.2	7.6	3.6	44.0	22.3	11.4	15.9	2.3	5.3	3.3	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	131	2374	737	248	2364	734	416	823	845	274	677	301
V/C Ratio(X)	1.75	0.82	0.41	0.54	1.27	0.65	1.83	0.77	0.11	0.72	0.22	0.76
Avail Cap(c_a), veh/h	131	2374	737	255	2364	734	416	1533	1400	436	1683	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	22.7	6.9	43.4	26.3	20.4	42.6	34.9	24.6	43.5	33.2	24.3
Incr Delay (d2), s/veh	365.0	2.3	0.4	2.3	124.6	2.1	382.3	1.6	0.1	3.6	0.2	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	15.4	4.4	1.8	48.1	10.2	27.5	8.1	0.9	2.7	1.7	5.2
LnGrp Delay(d),s/veh	409.7	25.0	7.3	45.6	150.8	22.4	424.9	36.5	24.6	47.1	33.4	28.3
LnGrp LOS	F	C	A	D	F	C	F	D	C	D	C	C
Approach Vol, veh/h		2469			3614			1489			573	
Approach Delay, s/veh		58.5			129.9			234.0			36.1	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	26.0	10.8	48.2	15.4	22.1	11.0	48.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	41.0	7.0	44.0	8.0	45.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	7.3	17.9	5.6	33.2	13.4	12.6	9.0	46.0
Green Ext Time (p_c), s	0.2	4.1	0.0	10.7	0.0	1.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	120.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
67: Alessandro Blvd & SR-215 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	1480	600	0	3090	0	0	0	0	180	0	450
Future Volume (veh/h)	0	1480	600	0	3090	0	0	0	0	180	0	450
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	0.95
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1526	619	0	3186	0				124	0	530
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2473	975	0	3505	0				374	0	634
Arrive On Green	0.00	0.68	0.68	0.00	0.68	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	3831	1443	0	5529	0				1810	0	3068
Grp Volume(v), veh/h	0	1439	706	0	3186	0				124	0	530
Grp Sat Flow(s),veh/h/ln	0	1729	1645	0	1729	0				1810	0	1534
Q Serve(g_s), s	0.0	15.7	16.6	0.0	35.1	0.0				4.0	0.0	11.3
Cycle Q Clear(g_c), s	0.0	15.7	16.6	0.0	35.1	0.0				4.0	0.0	11.3
Prop In Lane	0.00		0.88	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2337	1112	0	3505	0				374	0	634
V/C Ratio(X)	0.00	0.62	0.63	0.00	0.91	0.00				0.33	0.00	0.84
Avail Cap(c_a), veh/h	0	2337	1112	0	3506	0				425	0	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.1	6.3	0.0	9.3	0.0				23.0	0.0	25.9
Incr Delay (d2), s/veh	0.0	0.5	1.2	0.0	4.0	0.0				0.5	0.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	7.6	0.0	17.5	0.0				2.0	0.0	5.5
LnGrp Delay(d),s/veh	0.0	6.6	7.5	0.0	13.3	0.0				23.5	0.0	33.5
LnGrp LOS		A	A		B					C		C
Approach Vol, veh/h		2145			3186						654	
Approach Delay, s/veh		6.9			13.3						31.6	
Approach LOS		A			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				50.0		18.1		50.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				46.0		16.0		46.0
Max Q Clear Time (g_c+I1), s				18.6		13.3		37.1
Green Ext Time (p_c), s				27.3		0.8		8.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	✥	↱			
Traffic Volume (veh/h)	60	1550	0	0	2240	120	1160	10	290	0	0	0
Future Volume (veh/h)	60	1550	0	0	2240	120	1160	10	290	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	62	1598	0	0	2309	124	1293	0	203			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	99	2864	0	0	2323	124	1354	0	604			
Arrive On Green	0.05	0.55	0.00	0.00	0.46	0.46	0.37	0.00	0.37			
Sat Flow, veh/h	1810	5358	0	0	5212	269	3619	0	1615			
Grp Volume(v), veh/h	62	1598	0	0	1578	855	1293	0	203			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1852	1810	0	1615			
Q Serve(g_s), s	3.6	21.6	0.0	0.0	49.1	50.0	37.8	0.0	9.8			
Cycle Q Clear(g_c), s	3.6	21.6	0.0	0.0	49.1	50.0	37.8	0.0	9.8			
Prop In Lane	1.00		0.00	0.00		0.15	1.00		1.00			
Lane Grp Cap(c), veh/h	99	2864	0	0	1593	853	1354	0	604			
V/C Ratio(X)	0.63	0.56	0.00	0.00	0.99	1.00	0.96	0.00	0.34			
Avail Cap(c_a), veh/h	117	2916	0	0	1593	853	1367	0	610			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.2	15.7	0.0	0.0	29.0	29.3	33.1	0.0	24.3			
Incr Delay (d2), s/veh	7.8	0.2	0.0	0.0	20.2	31.3	14.9	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	10.3	0.0	0.0	27.7	32.8	21.7	0.0	4.4			
LnGrp Delay(d),s/veh	58.0	16.0	0.0	0.0	49.3	60.5	48.0	0.0	24.6			
LnGrp LOS	E	B			D	F	D		C			
Approach Vol, veh/h		1660			2433			1496				
Approach Delay, s/veh		17.5			53.2			44.8				
Approach LOS		B			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		44.6		63.9			9.9	54.0
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		41.0		61.0			7.0	50.0
Max Q Clear Time (g_c+I1), s		39.8		23.6			5.6	52.0
Green Ext Time (p_c), s		0.8		15.7			1.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	440	1170	210	70	2010	220	160	530	20	20	140	210
Future Volume (veh/h)	440	1170	210	70	2010	220	160	530	20	20	140	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	463	1232	221	74	2116	0	168	558	21	21	147	0
Adj No. of Lanes	2	3	0	1	3	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	514	2371	425	120	2364	736	272	670	300	58	505	226
Arrive On Green	0.15	0.54	0.54	0.07	0.46	0.00	0.08	0.19	0.19	0.03	0.14	0.00
Sat Flow, veh/h	3510	4422	793	1810	5187	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	463	963	490	74	2116	0	168	558	21	21	147	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1757	1810	1729	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	11.5	15.9	15.9	3.5	33.3	0.0	4.1	13.2	1.0	1.0	3.2	0.0
Cycle Q Clear(g_c), s	11.5	15.9	15.9	3.5	33.3	0.0	4.1	13.2	1.0	1.0	3.2	0.0
Prop In Lane	1.00		0.45	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	514	1854	942	120	2364	736	272	670	300	58	505	226
V/C Ratio(X)	0.90	0.52	0.52	0.62	0.89	0.00	0.62	0.83	0.07	0.36	0.29	0.00
Avail Cap(c_a), veh/h	514	1854	942	143	2396	746	277	732	327	143	732	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.2	13.2	13.2	40.4	22.2	0.0	39.7	34.8	29.8	42.1	34.2	0.0
Incr Delay (d2), s/veh	18.8	0.3	0.5	5.8	4.8	0.0	4.0	7.6	0.1	3.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	7.6	7.7	2.0	16.9	0.0	2.1	7.3	0.4	0.6	1.6	0.0
LnGrp Delay(d),s/veh	56.1	13.5	13.7	46.1	27.0	0.0	43.6	42.4	29.9	45.9	34.5	0.0
LnGrp LOS	E	B	B	D	C		D	D	C	D	C	
Approach Vol, veh/h		1916			2190			747			168	
Approach Delay, s/veh		23.9			27.7			42.4			36.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	20.5	9.9	51.6	10.9	16.4	17.0	44.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	47.0	7.0	18.0	13.0	41.0
Max Q Clear Time (g_c+I1), s	3.0	15.2	5.5	17.9	6.1	5.2	13.5	35.3
Green Ext Time (p_c), s	0.0	1.3	0.0	26.5	0.0	3.9	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	180	1050	40	50	1800	380	80	400	80	480	130	320
Future Volume (veh/h)	180	1050	40	50	1800	380	80	400	80	480	130	320
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	189	1105	42	53	1895	400	84	421	84	505	137	337
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	172	2031	77	85	1805	559	107	604	120	415	671	598
Arrive On Green	0.09	0.40	0.40	0.05	0.35	0.35	0.06	0.20	0.20	0.23	0.37	0.37
Sat Flow, veh/h	1810	5128	195	1810	5187	1608	1810	3001	594	1810	1805	1608
Grp Volume(v), veh/h	189	745	402	53	1895	400	84	252	253	505	137	337
Grp Sat Flow(s),veh/h/ln	1810	1729	1865	1810	1729	1608	1810	1805	1790	1810	1805	1608
Q Serve(g_s), s	12.0	21.0	21.0	3.6	44.0	15.1	5.8	16.4	16.6	29.0	6.5	21.1
Cycle Q Clear(g_c), s	12.0	21.0	21.0	3.6	44.0	15.1	5.8	16.4	16.6	29.0	6.5	21.1
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	172	1370	739	85	1805	559	107	363	360	415	671	598
V/C Ratio(X)	1.10	0.54	0.54	0.63	1.05	0.71	0.79	0.69	0.70	1.22	0.20	0.56
Avail Cap(c_a), veh/h	172	1370	739	129	1805	559	186	628	623	415	856	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	29.4	29.4	59.2	41.2	10.9	58.7	46.9	47.0	48.7	27.0	31.6
Incr Delay (d2), s/veh	98.2	0.4	0.8	7.4	35.7	4.3	12.0	2.4	2.5	117.8	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	10.1	11.0	2.0	26.9	9.8	3.3	8.4	8.5	28.0	3.3	9.5
LnGrp Delay(d),s/veh	155.4	29.8	30.2	66.6	76.9	15.2	70.8	49.2	49.5	166.5	27.2	32.4
LnGrp LOS	F	C	C	E	F	B	E	D	D	F	C	C
Approach Vol, veh/h		1336			2348			589			979	
Approach Delay, s/veh		47.7			66.2			52.4			100.9	
Approach LOS		D			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	29.5	9.9	54.1	11.4	51.0	16.0	48.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	29.0	44.0	9.0	47.0	13.0	60.0	12.0	44.0
Max Q Clear Time (g_c+I1), s	31.0	18.6	5.6	23.0	7.8	23.1	14.0	46.0
Green Ext Time (p_c), s	0.0	3.2	0.0	21.3	0.1	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	66.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	1190	370	180	1820	50	310	220	100	50	330	90
Future Volume (veh/h)	40	1190	370	180	1820	50	310	220	100	50	330	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	1253	389	189	1916	53	326	232	105	53	347	95
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1437	445	217	2292	63	355	797	349	89	648	287
Arrive On Green	0.04	0.37	0.37	0.12	0.44	0.44	0.20	0.33	0.33	0.05	0.18	0.18
Sat Flow, veh/h	1810	3922	1216	1810	5189	143	1810	2441	1069	1810	3610	1602
Grp Volume(v), veh/h	42	1105	537	189	1276	693	326	170	167	53	347	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1680	1810	1729	1874	1810	1805	1706	1810	1805	1602
Q Serve(g_s), s	2.6	34.5	34.6	11.9	37.9	38.0	20.5	8.1	8.5	3.3	10.1	6.0
Cycle Q Clear(g_c), s	2.6	34.5	34.6	11.9	37.9	38.0	20.5	8.1	8.5	3.3	10.1	6.0
Prop In Lane	1.00		0.72	1.00		0.08	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	81	1267	615	217	1527	828	355	589	557	89	648	287
V/C Ratio(X)	0.52	0.87	0.87	0.87	0.84	0.84	0.92	0.29	0.30	0.59	0.54	0.33
Avail Cap(c_a), veh/h	109	1281	622	234	1527	828	390	887	838	140	1276	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	34.2	34.3	50.2	28.7	28.7	45.7	29.1	29.2	54.0	43.2	41.5
Incr Delay (d2), s/veh	5.1	6.8	12.9	26.6	4.2	7.5	25.1	0.3	0.3	6.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	17.6	18.2	7.6	19.0	21.4	12.7	4.1	4.0	1.8	5.1	2.7
LnGrp Delay(d),s/veh	59.3	41.0	47.2	76.8	32.9	36.2	70.9	29.3	29.5	60.1	43.9	42.2
LnGrp LOS	E	D	D	E	C	D	E	C	C	E	D	D
Approach Vol, veh/h		1684			2158			663			495	
Approach Delay, s/veh		43.4			37.8			49.8			45.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	41.9	17.9	46.5	26.8	24.8	9.2	55.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	57.0	15.0	43.0	25.0	41.0	7.0	51.0
Max Q Clear Time (g_c+I1), s	5.3	10.5	13.9	36.6	22.5	12.1	4.6	40.0
Green Ext Time (p_c), s	0.0	5.4	0.1	5.9	0.3	5.1	0.0	10.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↳	↱
Traffic Volume (veh/h)	0	1060	180	860	2340	0	0	0	0	0	0	760
Future Volume (veh/h)	0	1060	180	860	2340	0	0	0	0	0	0	760
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	1191	202	966	2629	0				0	0	854
Adj No. of Lanes	0	3	1	1	3	0				0	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1179	363	1267	4998	0				0	0	0
Arrive On Green	0.00	0.23	0.23	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1597	1810	5358	0					0	
Grp Volume(v), veh/h	0	1191	202	966	2629	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1597	1810	1729	0						
Q Serve(g_s), s	0.0	25.0	12.3	0.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	25.0	12.3	0.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1179	363	1267	4998	0						
V/C Ratio(X)	0.00	1.01	0.56	0.76	0.53	0.00						
Avail Cap(c_a), veh/h	0	1179	363	1267	4998	0						
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	42.5	37.6	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	28.8	6.0	0.3	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	15.0	6.1	0.1	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	71.3	43.6	0.3	0.0	0.0						
LnGrp LOS		F	D	A	A							
Approach Vol, veh/h		1393			3595							
Approach Delay, s/veh		67.3			0.1							
Approach LOS		E			A							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			81.0	29.0				110.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			51.0	25.0				80.0
Max Q Clear Time (g_c+I1), s			2.0	27.0				2.0
Green Ext Time (p_c), s			41.3	0.0				60.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	2090	120	0	2480	590	740	680	10	380	0	680
Future Volume (veh/h)	60	2090	120	0	2480	590	740	680	10	380	0	680
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	2272	130	0	2696	641	804	739	11	413	0	739
Adj No. of Lanes	1	3	0	0	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	2237	127	0	1894	418	98	1754	26	319	870	778
Arrive On Green	0.89	0.89	0.89	0.00	0.45	0.45	0.48	0.48	0.48	0.48	0.00	0.48
Sat Flow, veh/h	57	5022	285	0	4422	938	731	3641	54	723	1805	1615
Grp Volume(v), veh/h	65	1559	843	0	2154	1183	804	366	384	413	0	739
Grp Sat Flow(s),veh/h/ln	57	1729	1850	0	1729	1731	731	1805	1890	723	1805	1615
Q Serve(g_s), s	0.0	49.0	49.0	0.0	49.0	49.0	4.9	14.5	14.5	38.5	0.0	48.1
Cycle Q Clear(g_c), s	49.0	49.0	49.0	0.0	49.0	49.0	53.0	14.5	14.5	53.0	0.0	48.1
Prop In Lane	1.00		0.15	0.00		0.54	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	65	1540	824	0	1540	771	98	870	911	319	870	778
V/C Ratio(X)	0.99	1.01	1.02	0.00	1.40	1.53	8.19	0.42	0.42	1.30	0.00	0.95
Avail Cap(c_a), veh/h	65	1540	824	0	1540	771	98	870	911	319	870	778
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	6.0	6.0	0.0	30.5	30.5	54.2	18.5	18.5	39.7	0.0	27.2
Incr Delay (d2), s/veh	31.7	10.1	16.1	0.0	183.2	247.2	3258.5	0.3	0.3	154.7	0.0	20.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	21.8	24.7	0.0	62.5	76.3	91.8	7.3	7.6	23.3	0.0	25.9
LnGrp Delay(d),s/veh	62.2	16.1	22.1	0.0	213.7	277.7	3312.7	18.9	18.8	194.4	0.0	48.1
LnGrp LOS	E	F	F		F	F	F	B	B	F		D
Approach Vol, veh/h		2467			3337			1554			1152	
Approach Delay, s/veh		19.4			236.4			1723.0			100.6	
Approach LOS		B			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		57.0		53.0		57.0		53.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		53.0		49.0		53.0		49.0
Max Q Clear Time (g_c+I1), s		55.0		51.0		55.0		51.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	426.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Traffic Volume (veh/h)	210	1470	1220	130	2280	140	380	90	160	100	200	290
Future Volume (veh/h)	210	1470	1220	130	2280	140	380	90	160	100	200	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	226	1581	0	140	2452	151	409	97	172	108	215	312
Adj No. of Lanes	1	3	1	1	3	1	2	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	178	2125	662	124	1968	610	711	120	213	369	388	486
Arrive On Green	0.10	0.41	0.00	0.07	0.38	0.38	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1810	5187	1615	1810	5187	1609	3619	612	1086	1810	1900	1603
Grp Volume(v), veh/h	226	1581	0	140	2452	151	409	0	269	108	215	312
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1609	1810	0	1699	1810	1900	1603
Q Serve(g_s), s	13.0	34.1	0.0	9.0	50.0	8.5	13.5	0.0	19.9	6.7	13.4	22.2
Cycle Q Clear(g_c), s	13.0	34.1	0.0	9.0	50.0	8.5	13.5	0.0	19.9	6.7	13.4	22.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	178	2125	662	124	1968	610	711	0	334	369	388	486
V/C Ratio(X)	1.27	0.74	0.00	1.13	1.25	0.25	0.58	0.00	0.81	0.29	0.55	0.64
Avail Cap(c_a), veh/h	178	2125	662	124	1968	610	1016	0	477	467	490	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	33.0	0.0	61.4	40.9	28.0	48.0	0.0	50.5	44.4	47.1	39.8
Incr Delay (d2), s/veh	156.5	1.5	0.0	121.1	115.2	0.2	0.7	0.0	6.6	0.4	1.2	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	16.5	0.0	8.6	44.7	3.8	6.8	0.0	10.0	3.4	7.2	10.0
LnGrp Delay(d),s/veh	215.9	34.5	0.0	182.5	156.1	28.2	48.7	0.0	57.1	44.8	48.3	41.7
LnGrp LOS	F	C		F	F	C	D		E	D	D	D
Approach Vol, veh/h		1807			2743			678			635	
Approach Delay, s/veh		57.2			150.4			52.1			44.4	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.9	13.0	58.0		30.9	17.0	54.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		37.0	9.0	54.0		34.0	13.0	50.0
Max Q Clear Time (g_c+I1), s		21.9	11.0	36.1		24.2	15.0	52.0
Green Ext Time (p_c), s		2.9	0.0	17.4		2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	98.8
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1310	150	10	960	1100	240
Future Volume (veh/h)	1310	150	10	960	1100	240
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1598	183	12	1171	1341	293
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1179	133	35	1496	935	866
Arrive On Green	0.36	0.36	0.02	0.41	0.52	0.52
Sat Flow, veh/h	3363	369	1810	3705	1810	1615
Grp Volume(v), veh/h	873	908	12	1171	1341	293
Grp Sat Flow(s),veh/h/ln	1805	1832	1810	1805	1810	1615
Q Serve(g_s), s	41.9	41.9	0.8	32.6	60.0	11.9
Cycle Q Clear(g_c), s	41.9	41.9	0.8	32.6	60.0	11.9
Prop In Lane		0.20	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	651	661	35	1496	935	866
V/C Ratio(X)	1.34	1.37	0.34	0.78	1.43	0.34
Avail Cap(c_a), veh/h	651	661	109	1616	935	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	37.1	56.2	29.5	28.1	15.3
Incr Delay (d2), s/veh	163.5	178.1	5.7	2.4	201.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	50.4	53.8	0.4	16.8	82.2	5.3
LnGrp Delay(d),s/veh	200.6	215.2	61.9	31.9	229.7	15.5
LnGrp LOS	F	F	E	C	F	B
Approach Vol, veh/h	1781			1183	1634	
Approach Delay, s/veh	208.0			32.2	191.3	
Approach LOS	F			C	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		64.0	6.2	45.9				52.1
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		60.0	7.0	41.0				52.0
Max Q Clear Time (g_c+I1), s		62.0	2.8	43.9				34.6
Green Ext Time (p_c), s		0.0	0.0	0.0				13.5

Intersection Summary	
HCM 2010 Ctrl Delay	156.8
HCM 2010 LOS	F

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	0	910	630	120	370	0	600	40	880	30	60	10
Future Volume (veh/h)	0	910	630	120	370	0	600	40	880	30	60	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	968	670	128	394	0	638	43	936	32	64	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	1246	386	230	570	0	782	950	805	73	390	175
Arrive On Green	0.00	0.24	0.24	0.07	0.16	0.00	0.43	0.50	0.50	0.04	0.11	0.00
Sat Flow, veh/h	1810	5187	1605	3510	3705	0	1810	1900	1610	1810	3610	1615
Grp Volume(v), veh/h	0	968	670	128	394	0	638	43	936	32	64	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1605	1755	1805	0	1810	1900	1610	1810	1805	1615
Q Serve(g_s), s	0.0	18.1	8.2	3.7	10.7	0.0	32.2	1.2	52.0	1.8	1.7	0.0
Cycle Q Clear(g_c), s	0.0	18.1	8.2	3.7	10.7	0.0	32.2	1.2	52.0	1.8	1.7	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	1246	386	230	570	0	782	950	805	73	390	175
V/C Ratio(X)	0.00	0.78	1.74	0.56	0.69	0.00	0.82	0.05	1.16	0.44	0.16	0.00
Avail Cap(c_a), veh/h	268	1396	432	236	971	0	782	950	805	122	1318	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	36.9	4.3	47.1	41.4	0.0	25.9	13.3	26.0	48.8	42.1	0.0
Incr Delay (d2), s/veh	0.0	2.5	342.5	2.7	1.5	0.0	6.7	0.0	86.9	4.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.0	44.9	1.9	5.5	0.0	17.4	0.6	42.5	1.0	0.8	0.0
LnGrp Delay(d),s/veh	0.0	39.5	346.8	49.9	42.9	0.0	32.6	13.3	112.9	52.8	42.3	0.0
LnGrp LOS		D	F	D	D		C	B	F	D	D	
Approach Vol, veh/h		1638			522			1617			96	
Approach Delay, s/veh		165.2			44.6			78.6			45.8	
Approach LOS		F			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	56.0	10.8	29.0	49.0	15.2	19.4	20.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	52.0	7.0	28.0	21.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	3.8	54.0	5.7	20.1	34.2	3.7	0.0	12.7
Green Ext Time (p_c), s	0.0	0.0	0.0	4.9	0.0	0.3	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	109.8
HCM 2010 LOS	F

HCM 2010 analysis cannot be performed with phasing conflicts.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	120	700	1410	0	0	690
Future Volume (veh/h)	120	700	1410	0	0	690
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	133	778	1567	0	0	767
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1555	715	1599	0	0	1599
Arrive On Green	0.44	0.44	0.59	0.00	0.00	0.44
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	133	778	1567	0	0	767
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	1.5	31.0	29.5	0.0	0.0	10.5
Cycle Q Clear(g_c), s	1.5	31.0	29.5	0.0	0.0	10.5
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1555	715	1599	0	0	1599
V/C Ratio(X)	0.09	1.09	0.98	0.00	0.00	0.48
Avail Cap(c_a), veh/h	1555	715	1599	0	0	1599
HCM Platoon Ratio	1.00	1.00	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.57	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.3	19.5	14.1	0.0	0.0	13.8
Incr Delay (d2), s/veh	0.0	60.0	13.0	0.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	25.6	17.2	0.0	0.0	5.4
LnGrp Delay(d),s/veh	11.3	79.5	27.1	0.0	0.0	14.8
LnGrp LOS	B	F	C			B
Approach Vol, veh/h	911		1567			767
Approach Delay, s/veh	69.6		27.1			14.8
Approach LOS	E		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		35.0				35.0		35.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		31.0				31.0		31.0
Max Q Clear Time (g_c+I1), s		31.5				12.5		33.0
Green Ext Time (p_c), s		0.0				14.2		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		36.1
HCM 2010 LOS		D

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰Y	
Traffic Volume (veh/h)	1980	10	140	3080	1550	10
Future Volume (veh/h)	1980	10	140	3080	1550	10
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2062	10	146	3208	1624	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2438	12	394	3164	1683	501
Arrive On Green	0.46	0.46	0.11	0.61	0.31	0.00
Sat Flow, veh/h	5498	26	3510	5358	5429	1615
Grp Volume(v), veh/h	1338	734	146	3208	1624	0
Grp Sat Flow(s),veh/h/ln	1729	1895	1755	1729	1810	1615
Q Serve(g_s), s	34.2	34.3	3.9	61.0	29.5	0.0
Cycle Q Clear(g_c), s	34.2	34.3	3.9	61.0	29.5	0.0
Prop In Lane		0.01	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1583	868	394	3164	1683	501
V/C Ratio(X)	0.85	0.85	0.37	1.01	0.97	0.00
Avail Cap(c_a), veh/h	1694	929	394	3164	1683	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.0	24.0	41.1	19.5	34.0	0.0
Incr Delay (d2), s/veh	3.9	6.9	0.6	19.5	14.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	19.4	1.9	34.4	17.0	0.0
LnGrp Delay(d),s/veh	27.9	30.9	41.7	39.0	48.5	0.0
LnGrp LOS	C	C	D	F	D	
Approach Vol, veh/h	2072			3354	1624	
Approach Delay, s/veh	29.0			39.2	48.5	
Approach LOS	C			D	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		35.0	15.2	49.8				65.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		31.0	8.0	49.0				61.0
Max Q Clear Time (g_c+I1), s		31.5	5.9	36.3				63.0
Green Ext Time (p_c), s		0.0	2.1	9.5				0.0

Intersection Summary			
HCM 2010 Ctrl Delay			38.3
HCM 2010 LOS			D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	200	1750	80	260	3000	620	110	850	220	130	260	50
Future Volume (veh/h)	200	1750	80	260	3000	620	110	850	220	130	260	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	215	1882	86	280	3226	667	118	914	237	140	280	54
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	1729	536	234	1417	274	1065	760	644	121	494	94
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.30	0.40	0.40	0.07	0.16	0.16
Sat Flow, veh/h	1810	5187	1608	3510	4359	842	3510	1900	1609	1810	3023	574
Grp Volume(v), veh/h	215	1882	86	280	2513	1380	118	914	237	140	166	168
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1755	1729	1744	1755	1900	1609	1810	1805	1792
Q Serve(g_s), s	9.0	40.0	2.0	8.0	39.0	39.0	2.9	48.0	12.4	8.0	10.1	10.4
Cycle Q Clear(g_c), s	9.0	40.0	2.0	8.0	39.0	39.0	2.9	48.0	12.4	8.0	10.1	10.4
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	136	1729	536	234	1124	567	1065	760	644	121	295	293
V/C Ratio(X)	1.58	1.09	0.16	1.20	2.24	2.44	0.11	1.20	0.37	1.16	0.56	0.58
Avail Cap(c_a), veh/h	136	1729	536	234	1124	567	1065	760	644	121	722	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	40.0	5.6	56.0	40.5	40.5	30.1	36.0	25.3	56.0	46.2	46.4
Incr Delay (d2), s/veh	295.0	50.0	0.1	122.3	558.9	651.6	0.0	103.6	0.4	131.5	1.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	27.1	0.9	7.8	105.8	121.3	1.4	47.0	5.6	8.4	5.2	5.3
LnGrp Delay(d),s/veh	350.5	90.0	5.7	178.3	599.4	692.1	30.2	139.6	25.7	187.5	47.9	48.1
LnGrp LOS	F	F	A	F	F	F	C	F	C	F	D	D
Approach Vol, veh/h		2183			4173			1269			474	
Approach Delay, s/veh		112.3			601.8			108.1			89.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	52.0	12.0	44.0	40.4	23.6	13.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	48.0	8.0	40.0	8.0	48.0	9.0	39.0
Max Q Clear Time (g_c+I1), s	10.0	50.0	10.0	42.0	4.9	12.4	11.0	41.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	2.1	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	362.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	140	830	320	90	440	130	710	1000	290	200	750	200
Future Volume (veh/h)	140	830	320	90	440	130	710	1000	290	200	750	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	976	376	106	518	153	835	1176	341	235	882	235
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	319	1135	782	114	727	475	602	1386	720	330	1106	777
Arrive On Green	0.18	0.31	0.31	0.06	0.20	0.20	0.17	0.38	0.38	0.09	0.31	0.31
Sat Flow, veh/h	1810	3610	1607	1810	3610	1603	3510	3610	1609	3510	3610	1607
Grp Volume(v), veh/h	165	976	376	106	518	153	835	1176	341	235	882	235
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1603	1755	1805	1609	1755	1805	1607
Q Serve(g_s), s	9.2	28.1	17.4	6.5	14.8	0.0	19.0	33.0	10.4	7.2	24.8	3.9
Cycle Q Clear(g_c), s	9.2	28.1	17.4	6.5	14.8	0.0	19.0	33.0	10.4	7.2	24.8	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	1135	782	114	727	475	602	1386	720	330	1106	777
V/C Ratio(X)	0.52	0.86	0.48	0.93	0.71	0.32	1.39	0.85	0.47	0.71	0.80	0.30
Avail Cap(c_a), veh/h	319	1239	829	114	1141	659	602	1598	814	330	1304	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	35.7	19.1	51.6	41.2	30.4	45.9	31.2	9.8	48.7	35.2	6.4
Incr Delay (d2), s/veh	1.5	5.9	0.5	61.4	1.3	0.4	183.8	4.0	0.5	7.0	3.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	14.9	7.8	5.2	7.5	3.7	24.5	17.1	4.7	3.8	12.8	2.0
LnGrp Delay(d),s/veh	42.8	41.6	19.6	113.0	42.5	30.8	229.7	35.2	10.3	55.7	38.3	6.7
LnGrp LOS	D	D	B	F	D	C	F	D	B	E	D	A
Approach Vol, veh/h		1517			777			2352			1352	
Approach Delay, s/veh		36.3			49.8			100.6			35.8	
Approach LOS		D			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	46.5	11.0	38.8	23.0	37.9	23.5	26.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	49.0	7.0	38.0	19.0	40.0	10.0	35.0
Max Q Clear Time (g_c+I1), s	9.2	35.0	8.5	30.1	21.0	26.8	11.2	16.8
Green Ext Time (p_c), s	0.6	7.5	0.0	4.2	0.0	6.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	63.2
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
	↗	→	←	↖	↘	↙
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	310	970	600	700	580	180
Future Volume (veh/h)	310	970	600	700	580	180
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	378	1183	732	854	707	220
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	410	2310	1300	987	917	775
Arrive On Green	0.23	0.64	0.36	0.36	0.25	0.25
Sat Flow, veh/h	1810	3705	3705	1604	3619	1615
Grp Volume(v), veh/h	378	1183	732	854	707	220
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1604	1810	1615
Q Serve(g_s), s	15.3	13.2	12.2	27.0	13.6	6.2
Cycle Q Clear(g_c), s	15.3	13.2	12.2	27.0	13.6	6.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	410	2310	1300	987	917	775
V/C Ratio(X)	0.92	0.51	0.56	0.87	0.77	0.28
Avail Cap(c_a), veh/h	410	2310	1300	987	1641	1098
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	7.2	19.3	10.8	26.0	11.7
Incr Delay (d2), s/veh	26.0	0.2	0.6	8.2	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	6.5	6.2	19.8	7.0	0.0
LnGrp Delay(d),s/veh	54.4	7.4	19.8	19.0	27.4	11.9
LnGrp LOS	D	A	B	B	C	B
Approach Vol, veh/h		1561	1586		927	
Approach Delay, s/veh		18.8	19.4		23.7	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				52.0		23.0	21.0	31.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				48.0		34.0	17.0	27.0
Max Q Clear Time (g_c+I1), s				15.2		15.6	17.3	29.0
Green Ext Time (p_c), s				22.3		3.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	240	560	540	410	690	230	1120	560	1110	60	340	100
Future Volume (veh/h)	240	560	540	410	690	230	1120	560	1110	60	340	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	273	636	614	466	784	261	1273	636	1261	68	386	114
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	1578	947	241	1063	473	996	1545	689	148	672	425
Arrive On Green	0.08	0.30	0.30	0.07	0.29	0.29	0.28	0.43	0.43	0.04	0.19	0.19
Sat Flow, veh/h	3510	5187	1607	3510	3610	1607	3510	3610	1609	3510	3610	1602
Grp Volume(v), veh/h	273	636	614	466	784	261	1273	636	1261	68	386	114
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1607	1755	1805	1609	1755	1805	1602
Q Serve(g_s), s	7.9	9.9	6.8	7.0	19.9	13.9	28.9	12.5	32.3	1.9	9.9	0.0
Cycle Q Clear(g_c), s	7.9	9.9	6.8	7.0	19.9	13.9	28.9	12.5	32.3	1.9	9.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	1578	947	241	1063	473	996	1545	689	148	672	425
V/C Ratio(X)	0.99	0.40	0.65	1.93	0.74	0.55	1.28	0.41	1.83	0.46	0.57	0.27
Avail Cap(c_a), veh/h	276	2191	1137	241	1489	663	996	1666	743	241	1666	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	28.1	5.1	47.4	32.4	30.3	36.5	20.2	16.1	47.6	37.7	29.6
Incr Delay (d2), s/veh	51.2	0.2	1.0	433.8	1.2	1.0	133.0	0.2	379.8	2.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	4.7	6.4	17.9	10.1	6.3	32.2	6.2	86.8	1.0	5.0	2.6
LnGrp Delay(d),s/veh	98.1	28.3	6.1	481.2	33.6	31.3	169.5	20.4	395.9	49.9	38.5	29.9
LnGrp LOS	F	C	A	F	C	C	F	C	F	D	D	C
Approach Vol, veh/h		1523			1511			3170			568	
Approach Delay, s/veh		31.8			171.2			229.6			38.2	
Approach LOS		C			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	47.6	11.0	35.0	32.9	23.0	12.0	34.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	47.0	7.0	43.0	7.0	47.0	8.0	42.0
Max Q Clear Time (g_c+I1), s	3.9	34.3	9.0	11.9	30.9	11.9	9.9	21.9
Green Ext Time (p_c), s	0.1	8.8	0.0	8.4	0.0	3.2	0.0	6.5

Intersection Summary		
HCM 2010 Ctrl Delay		156.1
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	1090	610	0	800	0	0	0	0	10	10	850
Future Volume (veh/h)	0	1090	610	0	800	0	0	0	0	10	10	850
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1284	630	0	889	0				11	11	944
Adj No. of Lanes	0	2	1	1	2	0				1	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1444	614	72	1372	0				977	10	864
Arrive On Green	0.00	0.38	0.38	0.00	0.38	0.00				0.54	0.54	0.54
Sat Flow, veh/h	0	3800	1615	238	3705	0				1810	19	1599
Grp Volume(v), veh/h	0	1284	630	0	889	0				11	0	955
Grp Sat Flow(s),veh/h/ln	0	1900	1615	238	1805	0				1810	0	1618
Q Serve(g_s), s	0.0	31.6	38.0	0.0	20.3	0.0				0.3	0.0	54.0
Cycle Q Clear(g_c), s	0.0	31.6	38.0	0.0	20.3	0.0				0.3	0.0	54.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1444	614	72	1372	0				977	0	874
V/C Ratio(X)	0.00	0.89	1.03	0.00	0.65	0.00				0.01	0.00	1.09
Avail Cap(c_a), veh/h	0	1444	614	72	1372	0				977	0	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.0	31.0	0.0	25.5	0.0				10.6	0.0	23.0
Incr Delay (d2), s/veh	0.0	7.2	43.3	0.0	1.1	0.0				0.0	0.0	59.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.0	24.3	0.0	10.2	0.0				0.1	0.0	38.1
LnGrp Delay(d),s/veh	0.0	36.2	74.3	0.0	26.6	0.0				10.6	0.0	82.1
LnGrp LOS		D	F		C					B		F
Approach Vol, veh/h		1914			889						966	
Approach Delay, s/veh		48.8			26.6						81.3	
Approach LOS		D			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				42.0		58.0		42.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				38.0		54.0		38.0
Max Q Clear Time (g_c+I1), s				40.0		56.0		22.3
Green Ext Time (p_c), s				0.0		0.0		13.6

Intersection Summary	
HCM 2010 Ctrl Delay	51.9
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	92.8
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1100	0	790	120	0	0
Future Vol, veh/h	1100	0	790	120	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1183	0	849	129	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	105.1	78
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	74%	100%	100%
Vol Thru, %	0%	26%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	450	460	550	550
LT Vol	450	340	550	550
Through Vol	0	120	0	0
RT Vol	0	0	0	0
Lane Flow Rate	484	494	591	591
Geometry Grp	7	7	7	7
Degree of Util (X)	1.028	1.031	1.248	0.984
Departure Headway (Hd)	7.944	7.812	7.8	5.987
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	460	470	473	603
Service Time	5.644	5.512	5.5	3.777
HCM Lane V/C Ratio	1.052	1.051	1.249	0.98
HCM Control Delay	77.9	78.1	152.9	57.2
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	14	14.3	23.5	14.2

HCM 2010 Signalized Intersection Summary
86: Chicago Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	0	10	10	1260	20	530	30	1340	870	240	800	0
Future Volume (veh/h)	0	10	10	1260	20	530	30	1340	870	240	800	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	11	11	1416	22	596	34	1506	978	270	899	0
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	164	164	577	749	635	78	1482	661	252	1586	709
Arrive On Green	0.00	0.19	0.19	0.16	0.39	0.39	0.04	0.41	0.41	0.07	0.44	0.00
Sat Flow, veh/h	1810	869	869	3510	1900	1609	1810	3610	1609	3510	3610	1615
Grp Volume(v), veh/h	0	0	22	1416	22	596	34	1506	978	270	899	0
Grp Sat Flow(s),veh/h/ln	1810	0	1738	1755	1900	1609	1810	1805	1609	1755	1805	1615
Q Serve(g_s), s	0.0	0.0	1.0	16.0	0.7	34.7	1.8	40.0	40.0	7.0	18.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	16.0	0.7	34.7	1.8	40.0	40.0	7.0	18.1	0.0
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	0	329	577	749	635	78	1482	661	252	1586	709
V/C Ratio(X)	0.00	0.00	0.07	2.46	0.03	0.94	0.43	1.02	1.48	1.07	0.57	0.00
Avail Cap(c_a), veh/h	130	0	642	577	878	743	130	1482	661	252	1586	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	32.4	40.7	18.1	28.4	45.4	28.7	28.7	45.2	20.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	660.5	0.0	18.2	3.8	27.5	224.2	76.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	60.6	0.4	18.6	1.0	25.4	58.8	6.0	9.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	32.5	701.2	18.1	46.6	49.2	56.2	253.0	121.8	20.9	0.0
LnGrp LOS			C	F	B	D	D	F	F	F	C	
Approach Vol, veh/h		22			2034			2518			1169	
Approach Delay, s/veh		32.5			502.0			132.5			44.2	
Approach LOS		C			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	44.0	20.0	22.4	8.2	46.8	0.0	42.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	40.0	16.0	36.0	7.0	40.0	7.0	45.0
Max Q Clear Time (g_c+I1), s	9.0	42.0	18.0	3.0	3.8	20.1	0.0	36.7
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	17.8	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	245.0
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			✣		↰	↱	
Traffic Volume (veh/h)	160	1040	50	10	1580	50	120	110	50	40	20	170
Future Volume (veh/h)	160	1040	50	10	1580	50	120	110	50	40	20	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	1095	53	11	1663	53	126	116	53	42	21	179
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	1885	91	34	1622	52	192	169	66	364	53	449
Arrive On Green	0.10	0.54	0.54	0.02	0.45	0.45	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	3505	170	1810	3571	113	433	549	215	1233	172	1462
Grp Volume(v), veh/h	168	564	584	11	838	878	295	0	0	42	0	200
Grp Sat Flow(s),veh/h/ln	1810	1805	1869	1810	1805	1879	1197	0	0	1233	0	1634
Q Serve(g_s), s	8.1	18.5	18.5	0.5	40.0	40.0	13.1	0.0	0.0	0.0	0.0	8.5
Cycle Q Clear(g_c), s	8.1	18.5	18.5	0.5	40.0	40.0	21.6	0.0	0.0	3.2	0.0	8.5
Prop In Lane	1.00		0.09	1.00		0.06	0.43		0.18	1.00		0.89
Lane Grp Cap(c), veh/h	185	971	1005	34	820	854	426	0	0	364	0	502
V/C Ratio(X)	0.91	0.58	0.58	0.32	1.02	1.03	0.69	0.00	0.00	0.12	0.00	0.40
Avail Cap(c_a), veh/h	185	971	1005	144	820	854	543	0	0	461	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.1	13.7	13.7	42.6	24.0	24.0	30.0	0.0	0.0	22.2	0.0	24.1
Incr Delay (d2), s/veh	41.3	0.9	0.8	5.4	37.1	38.3	2.6	0.0	0.0	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	9.3	9.6	0.3	28.3	29.7	7.0	0.0	0.0	0.8	0.0	3.9
LnGrp Delay(d),s/veh	80.4	14.6	14.5	48.1	61.1	62.3	32.7	0.0	0.0	22.4	0.0	24.6
LnGrp LOS	F	B	B	D	F	F	C			C		C
Approach Vol, veh/h		1316			1727			295			242	
Approach Delay, s/veh		23.0			61.7			32.7			24.2	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		31.1	5.7	51.3		31.1	13.0	44.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	42.0		34.0	9.0	40.0
Max Q Clear Time (g_c+I1), s		23.6	2.5	20.5		10.5	10.1	42.0
Green Ext Time (p_c), s		2.5	0.0	17.9		3.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	50	860	250	290	1410	580	250	1590	340	260	930	100
Future Volume (veh/h)	50	860	250	290	1410	580	250	1590	340	260	930	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	896	260	302	1469	604	260	1656	354	271	969	104
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	888	257	173	1329	690	173	1381	770	214	1144	123
Arrive On Green	0.05	0.32	0.32	0.10	0.37	0.37	0.10	0.38	0.38	0.06	0.35	0.35
Sat Flow, veh/h	1810	2760	799	1810	3610	1608	1810	3610	1609	3510	3288	353
Grp Volume(v), veh/h	52	585	571	302	1469	604	260	1656	354	271	532	541
Grp Sat Flow(s),veh/h/ln	1810	1805	1755	1810	1805	1608	1810	1805	1609	1755	1805	1836
Q Serve(g_s), s	3.2	37.0	37.0	11.0	42.3	39.5	11.0	44.0	16.9	7.0	31.3	31.3
Cycle Q Clear(g_c), s	3.2	37.0	37.0	11.0	42.3	39.5	11.0	44.0	16.9	7.0	31.3	31.3
Prop In Lane	1.00		0.46	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	89	581	564	173	1329	690	173	1381	770	214	628	639
V/C Ratio(X)	0.58	1.01	1.01	1.74	1.11	0.87	1.50	1.20	0.46	1.27	0.85	0.85
Avail Cap(c_a), veh/h	110	581	564	173	1329	690	173	1381	770	214	628	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	39.0	39.0	52.0	36.3	30.0	52.0	35.5	20.1	54.0	34.7	34.7
Incr Delay (d2), s/veh	5.9	39.4	40.6	358.0	58.9	12.1	253.7	96.8	0.4	152.3	10.5	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	24.7	24.2	22.7	31.9	19.7	17.7	40.4	7.6	7.9	17.3	17.6
LnGrp Delay(d),s/veh	59.4	78.4	79.6	410.0	95.3	42.1	305.7	132.3	20.5	206.3	45.2	45.0
LnGrp LOS	E	F	F	F	F	D	F	F	C	F	D	D
Approach Vol, veh/h		1208			2375			2270			1344	
Approach Delay, s/veh		78.1			121.8			134.7			77.6	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	48.0	15.0	41.0	15.0	44.0	9.7	46.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	44.0	11.0	37.0	11.0	40.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	9.0	46.0	13.0	39.0	13.0	33.3	5.2	44.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	110.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	70	180	2110	130	180	1860
Future Volume (veh/h)	70	180	2110	130	180	1860
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	202	2371	146	202	2090
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	141	126	2406	1073	221	3008
Arrive On Green	0.08	0.08	0.67	0.67	0.12	0.83
Sat Flow, veh/h	1810	1615	3705	1609	1810	3705
Grp Volume(v), veh/h	79	202	2371	146	202	2090
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1609	1810	1805
Q Serve(g_s), s	3.8	7.0	57.4	1.5	9.9	20.6
Cycle Q Clear(g_c), s	3.8	7.0	57.4	1.5	9.9	20.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	141	126	2406	1073	221	3008
V/C Ratio(X)	0.56	1.61	0.99	0.14	0.91	0.69
Avail Cap(c_a), veh/h	141	126	2407	1073	221	3009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	41.5	14.6	1.4	39.0	3.0
Incr Delay (d2), s/veh	5.0	307.2	15.0	0.1	37.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	13.8	33.0	0.7	7.3	10.2
LnGrp Delay(d),s/veh	45.0	348.7	29.6	1.4	76.7	3.7
LnGrp LOS	D	F	C	A	E	A
Approach Vol, veh/h	281		2517			2292
Approach Delay, s/veh	263.3		27.9			10.1
Approach LOS	F		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	64.0				79.0		11.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	11.0	60.0				75.0		7.0
Max Q Clear Time (g_c+I1), s	11.9	59.4				22.6		9.0
Green Ext Time (p_c), s	0.0	0.6				30.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
90: SR-91 WB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	80	1530	140	690	1620	310	0	0	0	770	60	640
Future Volume (veh/h)	80	1530	140	690	1620	310	0	0	0	770	60	640
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	83	1594	0	719	1688	0				846	0	667
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	302	1624	727	702	1745	781				905	0	670
Arrive On Green	0.17	0.45	0.00	0.20	0.48	0.00				0.25	0.00	0.25
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1605
Grp Volume(v), veh/h	83	1594	0	719	1688	0				846	0	667
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1605
Q Serve(g_s), s	4.8	52.2	0.0	24.0	54.5	0.0				27.5	0.0	29.6
Cycle Q Clear(g_c), s	4.8	52.2	0.0	24.0	54.5	0.0				27.5	0.0	29.6
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	302	1625	727	702	1745	781				905	0	670
V/C Ratio(X)	0.28	0.98	0.00	1.02	0.97	0.00				0.94	0.00	0.99
Avail Cap(c_a), veh/h	302	1625	727	702	1745	781				905	0	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.78	0.78	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	32.5	0.0	48.0	30.1	0.0				44.0	0.0	34.8
Incr Delay (d2), s/veh	0.5	18.3	0.0	36.3	12.8	0.0				16.5	0.0	33.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	30.0	0.0	15.1	30.1	0.0				15.8	0.0	19.1
LnGrp Delay(d),s/veh	44.2	50.8	0.0	84.3	42.9	0.0				60.5	0.0	68.2
LnGrp LOS	D	D		F	D					E		E
Approach Vol, veh/h		1677			2407						1513	
Approach Delay, s/veh		50.5			55.2						63.9	
Approach LOS		D			E						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			28.0	58.0		34.0	24.0	62.0
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			24.0	54.0		30.0	20.0	58.0
Max Q Clear Time (g_c+I1), s			26.0	54.2		31.6	6.8	56.5
Green Ext Time (p_c), s			0.0	0.0		0.0	2.5	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	56.2
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑↑	↱	↰↰		↱↱			
Traffic Volume (veh/h)	0	1730	550	300	2450	300	170	0	700	0	0	0
Future Volume (veh/h)	0	1730	550	300	2450	300	170	0	700	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	1747	556	303	2475	0	172	0	707			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1955	1261	211	3588	1117	848	0	687			
Arrive On Green	0.00	0.36	0.36	0.23	1.00	0.00	0.24	0.00	0.24			
Sat Flow, veh/h	0	3705	1608	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	1747	556	303	2475	0	172	0	707			
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	54.7	16.3	14.0	0.0	0.0	4.7	0.0	29.0			
Cycle Q Clear(g_c), s	0.0	54.7	16.3	14.0	0.0	0.0	4.7	0.0	29.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1955	1261	211	3588	1117	848	0	687			
V/C Ratio(X)	0.00	0.89	0.44	1.44	0.69	0.00	0.20	0.00	1.03			
Avail Cap(c_a), veh/h	0	1955	1261	211	3588	1117	848	0	687			
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.11	0.11	0.27	0.27	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	35.0	6.4	46.0	0.0	0.0	36.3	0.0	45.5			
Incr Delay (d2), s/veh	0.0	0.8	0.1	203.2	0.3	0.0	0.1	0.0	42.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	27.6	15.4	18.8	0.1	0.0	2.3	0.0	15.4			
LnGrp Delay(d),s/veh	0.0	35.8	6.5	249.2	0.3	0.0	36.4	0.0	87.5			
LnGrp LOS		D	A	F	A		D		F			
Approach Vol, veh/h		2303			2778			879				
Approach Delay, s/veh		28.7			27.4			77.5				
Approach LOS		C			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		33.0	18.0	69.0				87.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		29.0	14.0	65.0				83.0
Max Q Clear Time (g_c+I1), s		31.0	16.0	56.7				2.0
Green Ext Time (p_c), s		0.0	0.0	7.0				49.6

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	2120	280	80	2770	10	480	0	290	10	0	10
Future Volume (veh/h)	10	2120	280	80	2770	10	480	0	290	10	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	2232	295	84	2916	11	405	140	305	11	0	11
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	2402	310	106	2972	11	406	173	376	95	15	65
Arrive On Green	0.04	1.00	1.00	0.06	0.56	0.56	0.32	0.32	0.32	0.32	0.00	0.32
Sat Flow, veh/h	1810	4648	600	1810	5334	20	1422	531	1158	154	45	199
Grp Volume(v), veh/h	11	1647	880	84	1889	1038	405	0	445	22	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1791	1810	1729	1896	1422	0	1689	398	0	0
Q Serve(g_s), s	0.7	0.0	0.0	5.5	64.0	64.3	9.5	0.0	29.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	5.5	64.0	64.3	39.0	0.0	29.0	29.5	0.0	0.0
Prop In Lane	1.00		0.34	1.00		0.01	1.00		0.69	0.50		0.50
Lane Grp Cap(c), veh/h	32	1787	925	106	1926	1056	406	0	549	174	0	0
V/C Ratio(X)	0.34	0.92	0.95	0.80	0.98	0.98	1.00	0.00	0.81	0.13	0.00	0.00
Avail Cap(c_a), veh/h	106	1787	925	106	1926	1056	406	0	549	174	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.45	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.2	0.0	0.0	55.8	25.9	26.0	44.7	0.0	37.1	30.8	0.0	0.0
Incr Delay (d2), s/veh	2.8	4.7	11.3	33.2	16.4	23.8	43.7	0.0	8.9	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.2	2.9	3.7	34.8	40.4	18.3	0.0	14.8	0.5	0.0	0.0
LnGrp Delay(d),s/veh	59.9	4.7	11.3	89.0	42.3	49.8	88.4	0.0	46.0	31.1	0.0	0.0
LnGrp LOS	E	A	B	F	D	D	F		D	C		
Approach Vol, veh/h		2538			3011			850			22	
Approach Delay, s/veh		7.2			46.2			66.2			31.1	
Approach LOS		A			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		43.0	11.0	66.0		43.0	6.1	70.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	7.0	62.0		39.0	7.0	62.0
Max Q Clear Time (g_c+I1), s		41.0	7.5	2.0		31.5	2.7	66.3
Green Ext Time (p_c), s		0.0	0.0	37.9		2.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	170	1910	270	60	2540	0	220	90	40	10	50	170
Future Volume (veh/h)	170	1910	270	60	2540	0	220	90	40	10	50	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	2032	287	64	2702	0	234	96	43	11	53	181
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	2180	301	74	2470	0	318	309	139	87	395	400
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	109	3186	439	160	3705	0	1160	1242	556	209	1585	1605
Grp Volume(v), veh/h	181	1130	1189	64	2702	0	234	0	139	64	0	181
Grp Sat Flow(s),veh/h/ln	109	1805	1821	160	1805	0	1160	0	1798	1795	0	1605
Q Serve(g_s), s	0.0	63.4	71.4	10.8	82.1	0.0	23.6	0.0	7.6	0.0	0.0	11.5
Cycle Q Clear(g_c), s	82.1	63.4	71.4	82.1	82.1	0.0	26.7	0.0	7.6	3.1	0.0	11.5
Prop In Lane	1.00		0.24	1.00		0.00	1.00		0.31	0.17		1.00
Lane Grp Cap(c), veh/h	60	1235	1246	74	2470	0	318	0	448	482	0	400
V/C Ratio(X)	3.02	0.91	0.95	0.86	1.09	0.00	0.73	0.00	0.31	0.13	0.00	0.45
Avail Cap(c_a), veh/h	60	1235	1246	74	2470	0	349	0	494	528	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	60.0	16.0	17.2	58.8	18.9	0.0	45.4	0.0	36.7	35.0	0.0	38.1
Incr Delay (d2), s/veh	950.4	11.9	16.7	11.4	43.0	0.0	7.2	0.0	0.4	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	35.2	41.1	2.4	54.9	0.0	8.2	0.0	3.8	1.7	0.0	5.2
LnGrp Delay(d),s/veh	1010.4	27.9	34.0	70.2	61.9	0.0	52.6	0.0	37.1	35.1	0.0	38.9
LnGrp LOS	F	C	C	E	F		D		D	D		D
Approach Vol, veh/h		2500			2766			373			245	
Approach Delay, s/veh		101.9			62.1			46.8			37.9	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.9		86.1		33.9		86.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		79.0		33.0		79.0
Max Q Clear Time (g_c+I1), s		28.7		84.1		13.5		84.1
Green Ext Time (p_c), s		1.2		0.0		2.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	290	1530	20	340	2250	230	20	360	410	230	340	200
Future Volume (veh/h)	290	1530	20	340	2250	230	20	360	410	230	340	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	1700	22	378	2500	256	22	400	456	256	378	222
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	1558	20	177	1443	145	171	480	564	145	453	382
Arrive On Green	0.09	0.43	0.43	0.10	0.44	0.44	0.09	0.25	0.25	0.08	0.24	0.24
Sat Flow, veh/h	1810	3649	47	1810	3311	333	1810	1900	1605	1810	1900	1605
Grp Volume(v), veh/h	322	840	882	378	1343	1413	22	400	456	256	378	222
Grp Sat Flow(s),veh/h/ln	1810	1805	1891	1810	1805	1839	1810	1900	1605	1810	1900	1605
Q Serve(g_s), s	10.0	48.0	48.0	11.0	49.0	49.0	1.3	22.4	14.7	9.0	21.3	10.9
Cycle Q Clear(g_c), s	10.0	48.0	48.0	11.0	49.0	49.0	1.3	22.4	14.7	9.0	21.3	10.9
Prop In Lane	1.00		0.02	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	771	807	177	787	801	171	480	564	145	453	382
V/C Ratio(X)	2.00	1.09	1.09	2.14	1.71	1.76	0.13	0.83	0.81	1.77	0.83	0.58
Avail Cap(c_a), veh/h	161	771	807	177	787	801	171	608	672	145	642	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	32.2	32.2	50.7	31.7	31.7	46.6	39.7	21.7	51.7	40.7	23.6
Incr Delay (d2), s/veh	471.7	59.6	60.0	529.3	323.5	348.7	0.3	7.8	6.2	371.9	6.6	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.0	36.5	38.3	31.5	94.9	102.3	0.6	12.8	11.4	19.4	12.0	5.3
LnGrp Delay(d),s/veh	522.9	91.8	92.2	580.0	355.2	380.4	47.0	47.6	27.9	423.6	47.3	25.0
LnGrp LOS	F	F	F	F	F	F	D	D	C	F	D	C
Approach Vol, veh/h		2044			3134			878			856	
Approach Delay, s/veh		159.9			393.7			37.3			154.1	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	32.4	15.0	52.0	14.6	30.8	14.0	53.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	36.0	11.0	48.0	7.0	38.0	10.0	49.0
Max Q Clear Time (g_c+I1), s	11.0	24.4	13.0	50.0	3.3	23.3	12.0	51.0
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	1.5	2.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	249.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	80	910	1170	260	1270	480	1330	1380	700	410	1020	100
Future Volume (veh/h)	80	910	1170	260	1270	480	1330	1380	700	410	1020	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	968	1245	277	1351	511	1415	1468	745	436	1085	106
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	1158	1490	214	1163	644	720	1446	743	275	1316	128
Arrive On Green	0.06	0.32	0.32	0.06	0.32	0.32	0.20	0.40	0.40	0.08	0.27	0.27
Sat Flow, veh/h	1810	3610	2829	3510	3610	1607	3510	3610	1609	3510	4803	469
Grp Volume(v), veh/h	85	968	1245	277	1351	511	1415	1468	745	436	781	410
Grp Sat Flow(s),veh/h/ln	1810	1805	1415	1755	1805	1607	1755	1805	1609	1755	1729	1814
Q Serve(g_s), s	5.3	28.6	12.8	7.0	37.0	23.3	23.5	46.0	46.0	9.0	24.3	24.4
Cycle Q Clear(g_c), s	5.3	28.6	12.8	7.0	37.0	23.3	23.5	46.0	46.0	9.0	24.3	24.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	108	1158	1490	214	1163	644	720	1446	743	275	947	497
V/C Ratio(X)	0.79	0.84	0.84	1.29	1.16	0.79	1.97	1.02	1.00	1.58	0.82	0.83
Avail Cap(c_a), veh/h	110	1163	1494	214	1163	644	720	1446	743	275	1054	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	36.2	11.6	53.9	38.9	16.7	45.6	34.4	30.9	52.9	39.1	39.1
Incr Delay (d2), s/veh	30.3	5.4	4.3	162.6	82.5	6.7	439.9	27.5	33.7	279.8	5.0	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	15.1	14.2	8.2	31.6	11.4	55.3	28.2	30.4	15.0	12.3	13.5
LnGrp Delay(d),s/veh	83.6	41.6	15.9	216.6	121.4	23.4	485.6	61.9	64.6	332.7	44.1	48.2
LnGrp LOS	F	D	B	F	F	C	F	F	F	F	D	D
Approach Vol, veh/h		2298			2139			3628			1627	
Approach Delay, s/veh		29.2			110.3			227.7			122.5	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	50.0	11.0	40.8	27.5	35.5	10.8	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	46.0	7.0	37.0	20.0	35.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	11.0	48.0	9.0	30.6	25.5	26.4	7.3	39.0
Green Ext Time (p_c), s	0.0	0.0	0.0	5.2	0.0	4.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	137.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	50	50	20	70	30	140	30	3080	30	180	2240	30
Future Volume (veh/h)	50	50	20	70	30	140	30	3080	30	180	2240	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	53	21	74	32	149	32	3277	32	191	2383	32
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	144	49	128	60	201	208	3041	30	176	2936	39
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.11	0.57	0.57	0.10	0.56	0.56
Sat Flow, veh/h	482	679	230	392	284	951	1810	5297	52	1810	5274	71
Grp Volume(v), veh/h	127	0	0	255	0	0	32	2136	1173	191	1561	854
Grp Sat Flow(s),veh/h/ln	1392	0	0	1627	0	0	1810	1729	1891	1810	1729	1887
Q Serve(g_s), s	0.0	0.0	0.0	6.8	0.0	0.0	1.6	59.0	59.0	10.0	37.5	37.7
Cycle Q Clear(g_c), s	7.8	0.0	0.0	14.6	0.0	0.0	1.6	59.0	59.0	10.0	37.5	37.7
Prop In Lane	0.42		0.17	0.29		0.58	1.00		0.03	1.00		0.04
Lane Grp Cap(c), veh/h	344	0	0	390	0	0	208	1985	1086	176	1925	1051
V/C Ratio(X)	0.37	0.00	0.00	0.65	0.00	0.00	0.15	1.08	1.08	1.08	0.81	0.81
Avail Cap(c_a), veh/h	597	0	0	649	0	0	208	1985	1086	176	2086	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	0.0	37.5	0.0	0.0	41.0	21.9	21.9	46.4	18.4	18.4
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.9	0.0	0.0	0.3	44.0	51.9	92.2	2.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.0	6.9	0.0	0.0	0.8	40.0	46.1	9.5	18.4	20.7
LnGrp Delay(d),s/veh	35.3	0.0	0.0	39.4	0.0	0.0	41.3	65.9	73.8	138.6	20.8	22.8
LnGrp LOS	D			D			D	F	F	F	C	C
Approach Vol, veh/h		127			255			3341			2606	
Approach Delay, s/veh		35.3			39.4			68.4			30.1	
Approach LOS		D			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	63.0		25.8	15.8	61.2		25.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	10.0	59.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	12.0	61.0		9.8	3.6	39.7		16.6
Green Ext Time (p_c), s	0.0	0.0		2.6	3.3	17.5		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	50.8
HCM 2010 LOS	D

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	150	120	60	50	50	110	30	3000	20	50	2230	60
Future Volume (veh/h)	150	120	60	50	50	110	30	3000	20	50	2230	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	158	126	63	53	53	116	32	3158	21	53	2347	63
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	329	233	196	283	233	196	76	3147	21	77	3076	82
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.04	0.59	0.59	0.04	0.59	0.59
Sat Flow, veh/h	1810	1900	1595	1810	1900	1595	1810	5316	35	1810	5194	139
Grp Volume(v), veh/h	158	126	63	53	53	116	32	2052	1127	53	1560	850
Grp Sat Flow(s),veh/h/ln	1810	1900	1595	1810	1900	1595	1810	1729	1894	1810	1729	1875
Q Serve(g_s), s	7.0	5.9	3.4	2.3	2.4	5.6	1.6	56.0	56.0	2.7	31.7	32.0
Cycle Q Clear(g_c), s	7.0	5.9	3.4	2.3	2.4	5.6	1.6	56.0	56.0	2.7	31.7	32.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.07
Lane Grp Cap(c), veh/h	329	233	196	283	233	196	76	2047	1121	77	2048	1110
V/C Ratio(X)	0.48	0.54	0.32	0.19	0.23	0.59	0.42	1.00	1.01	0.69	0.76	0.77
Avail Cap(c_a), veh/h	329	582	489	283	582	489	134	2047	1121	134	2048	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	39.0	37.9	31.6	37.5	28.7	44.2	19.3	19.3	44.7	14.3	14.4
Incr Delay (d2), s/veh	1.1	1.9	0.9	0.3	0.5	2.9	3.7	20.4	28.3	10.6	1.7	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.2	1.6	1.2	1.3	2.8	0.9	32.3	37.8	1.6	15.4	17.3
LnGrp Delay(d),s/veh	34.7	40.9	38.9	32.0	37.9	31.6	47.8	39.7	47.6	55.3	16.1	17.7
LnGrp LOS	C	D	D	C	D	C	D	F	F	E	B	B
Approach Vol, veh/h		347			222			3211			2463	
Approach Delay, s/veh		37.7			33.2			42.6			17.5	
Approach LOS		D			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	60.0	11.0	15.6	8.0	60.0	11.0	15.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	56.0	7.0	29.0	7.0	56.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	4.7	58.0	4.3	7.9	3.6	34.0	9.0	7.6
Green Ext Time (p_c), s	0.9	0.0	0.0	1.5	0.0	16.8	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↰	↱	↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	280	220	360	640	140	10	370	2610	1810	20	2120	190
Future Volume (veh/h)	280	220	360	640	140	10	370	2610	1810	20	2120	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	232	379	611	236	11	389	2747	1905	21	2232	200
Adj No. of Lanes	1	2	0	2	1	1	1	3	1	1	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	354	496	442	356	338	285	178	2351	889	54	1867	165
Arrive On Green	0.20	0.28	0.28	0.10	0.18	0.18	0.10	0.45	0.45	0.03	0.38	0.38
Sat Flow, veh/h	1810	1805	1606	3619	1900	1601	1810	5187	1610	1810	4850	429
Grp Volume(v), veh/h	295	232	379	611	236	11	389	2747	1905	21	1583	849
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1900	1601	1810	1729	1610	1810	1729	1821
Q Serve(g_s), s	17.5	11.9	25.0	11.0	13.0	0.6	11.0	50.6	50.6	1.3	43.0	43.0
Cycle Q Clear(g_c), s	17.5	11.9	25.0	11.0	13.0	0.6	11.0	50.6	50.6	1.3	43.0	43.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	354	496	442	356	338	285	178	2351	889	54	1331	701
V/C Ratio(X)	0.83	0.47	0.86	1.71	0.70	0.04	2.18	1.17	2.14	0.39	1.19	1.21
Avail Cap(c_a), veh/h	354	630	561	356	697	588	178	2351	889	113	1331	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	33.7	38.4	50.4	43.1	29.2	50.4	30.5	25.1	53.2	34.4	34.4
Incr Delay (d2), s/veh	15.5	0.7	10.4	333.4	2.6	0.1	550.6	80.7	518.4	4.4	93.0	108.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	6.0	12.3	21.9	7.1	0.3	32.7	41.5	155.1	0.7	37.5	42.5
LnGrp Delay(d),s/veh	58.7	34.4	48.8	383.8	45.7	29.3	601.0	111.3	543.5	57.6	127.4	142.6
LnGrp LOS	E	C	D	F	D	C	F	F	F	E	F	F
Approach Vol, veh/h		906			858			5041			2453	
Approach Delay, s/veh		48.4			286.2			312.4			132.0	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	54.6	15.0	34.7	15.0	47.0	25.9	23.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	47.0	11.0	39.0	11.0	43.0	9.0	41.0
Max Q Clear Time (g_c+I1), s	3.3	52.6	13.0	27.0	13.0	45.0	19.5	15.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.5	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	236.3
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	490	50	190	170	110	440	310	1230	120	270	1100	700
Future Volume (veh/h)	490	50	190	170	110	440	310	1230	120	270	1100	700
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	490	54	190	185	120	478	310	1230	130	293	1100	700
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	0.92	1.00	0.92	0.92	0.92	1.00	1.00	0.92	0.92	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	422	1606	894	1100	2307	890	387	1787	554	372	1764	547
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.11	0.34	0.34	0.11	0.34	0.34
Sat Flow, veh/h	833	3610	1610	2233	5187	1615	3510	5187	1608	3510	5187	1608
Grp Volume(v), veh/h	490	54	190	185	120	478	310	1230	130	293	1100	700
Grp Sat Flow(s),veh/h/ln	833	1805	1610	1117	1729	1615	1755	1729	1608	1755	1729	1608
Q Serve(g_s), s	49.5	1.0	0.0	5.8	1.5	21.7	9.9	23.4	6.6	9.3	20.4	39.0
Cycle Q Clear(g_c), s	51.0	1.0	0.0	6.8	1.5	21.7	9.9	23.4	6.6	9.3	20.4	39.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	422	1606	894	1100	2307	890	387	1787	554	372	1764	547
V/C Ratio(X)	1.16	0.03	0.21	0.17	0.05	0.54	0.80	0.69	0.23	0.79	0.62	1.28
Avail Cap(c_a), veh/h	422	1606	894	1100	2307	890	551	1787	554	796	1764	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	17.9	12.9	19.9	18.1	16.4	49.8	32.3	26.8	50.0	31.7	37.8
Incr Delay (d2), s/veh	95.2	0.0	0.1	0.1	0.0	0.6	5.5	2.2	1.0	3.7	1.7	139.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.4	0.5	3.0	1.8	0.7	9.8	5.1	11.5	3.1	4.7	9.9	38.4
LnGrp Delay(d),s/veh	131.5	17.9	13.0	19.9	18.1	17.1	55.3	34.5	27.8	53.7	33.4	177.4
LnGrp LOS	F	B	B	B	B	B	E	C	C	D	C	F
Approach Vol, veh/h		734			783			1670			2093	
Approach Delay, s/veh		92.5			17.9			37.8			84.4	
Approach LOS		F			B			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.2	43.5		55.0	16.7	43.0		55.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	26.0	31.0		51.0	18.0	39.0		51.0
Max Q Clear Time (g_c+I1), s	11.3	25.4		53.0	11.9	41.0		23.7
Green Ext Time (p_c), s	0.8	4.0		0.0	0.8	0.0		9.4

Intersection Summary	
HCM 2010 Ctrl Delay	60.9
HCM 2010 LOS	E

Notes

User approved changes to right turn type.

HCM 2010 Signalized Intersection Summary
100: Evans Road & Harley Knox Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	0	60	30	0	40	120	1240	60	50	780	100
Future Volume (veh/h)	70	0	60	30	0	40	120	1240	60	50	780	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	70	0	60	30	0	40	120	1240	60	50	780	100
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	0	156	150	0	156	149	2658	129	65	2291	294
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.08	0.76	0.76	0.04	0.71	0.71
Sat Flow, veh/h	1389	0	1615	1364	0	1615	1810	3506	169	1810	3219	413
Grp Volume(v), veh/h	70	0	60	30	0	40	120	638	662	50	437	443
Grp Sat Flow(s),veh/h/ln	1389	0	1615	1364	0	1615	1810	1805	1870	1810	1805	1827
Q Serve(g_s), s	5.4	0.0	3.8	2.3	0.0	2.5	7.2	14.5	14.6	3.0	10.1	10.1
Cycle Q Clear(g_c), s	7.9	0.0	3.8	6.2	0.0	2.5	7.2	14.5	14.6	3.0	10.1	10.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.23
Lane Grp Cap(c), veh/h	168	0	156	150	0	156	149	1369	1418	65	1285	1300
V/C Ratio(X)	0.42	0.00	0.38	0.20	0.00	0.26	0.80	0.47	0.47	0.77	0.34	0.34
Avail Cap(c_a), veh/h	375	0	396	353	0	396	263	1369	1418	165	1285	1300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.11	0.11	0.11	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	0.0	46.6	49.5	0.0	46.0	49.6	5.0	5.0	52.6	6.0	6.0
Incr Delay (d2), s/veh	1.6	0.0	1.5	0.6	0.0	0.9	1.2	0.1	0.1	17.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.8	0.9	0.0	1.2	3.6	7.1	7.4	1.8	5.2	5.3
LnGrp Delay(d),s/veh	51.3	0.0	48.1	50.1	0.0	46.9	50.8	5.1	5.1	69.8	6.8	6.7
LnGrp LOS	D		D	D		D	D	A	A	E	A	A
Approach Vol, veh/h		130			70			1420			930	
Approach Delay, s/veh		49.9			48.3			9.0			10.1	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	87.4		14.6	13.1	82.3		14.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	10.0	61.0		27.0	16.0	55.0		27.0
Max Q Clear Time (g_c+I1), s	5.0	16.6		9.9	9.2	12.1		8.2
Green Ext Time (p_c), s	0.0	24.2		0.7	0.1	23.8		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	780	1000	330	190	1510	440	380	190	160	120	60	290
Future Volume (veh/h)	780	1000	330	190	1510	440	380	190	160	120	60	290
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	780	1000	330	190	1510	440	380	190	160	120	60	290
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	345	1512	499	197	1609	499	181	469	372	147	819	364
Arrive On Green	0.19	0.39	0.39	0.11	0.31	0.31	0.10	0.25	0.25	0.08	0.23	0.23
Sat Flow, veh/h	1810	3856	1272	1810	5187	1607	1810	1910	1517	1810	3610	1604
Grp Volume(v), veh/h	780	897	433	190	1510	440	380	179	171	120	60	290
Grp Sat Flow(s),veh/h/ln	1810	1729	1670	1810	1729	1607	1810	1805	1621	1810	1805	1604
Q Serve(g_s), s	21.0	23.4	23.4	11.5	31.2	28.6	11.0	9.1	9.8	7.2	1.4	18.8
Cycle Q Clear(g_c), s	21.0	23.4	23.4	11.5	31.2	28.6	11.0	9.1	9.8	7.2	1.4	18.8
Prop In Lane	1.00		0.76	1.00		1.00	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	345	1356	655	197	1609	499	181	443	398	147	819	364
V/C Ratio(X)	2.26	0.66	0.66	0.96	0.94	0.88	2.10	0.40	0.43	0.81	0.07	0.80
Avail Cap(c_a), veh/h	345	1356	655	197	1609	499	181	563	506	165	1083	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	27.4	27.4	48.8	36.9	36.0	49.5	34.8	35.0	49.7	33.4	40.1
Incr Delay (d2), s/veh	574.5	2.4	4.8	33.4	6.3	10.2	513.3	0.6	0.7	23.9	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	35.6	11.5	11.6	7.6	15.8	14.1	31.3	4.6	4.5	4.6	0.7	9.0
LnGrp Delay(d),s/veh	619.0	29.8	32.3	82.2	43.2	46.3	562.8	35.3	35.7	73.6	33.5	46.9
LnGrp LOS	F	C	C	F	D	D	F	D	D	E	C	D
Approach Vol, veh/h		2110			2140			730			470	
Approach Delay, s/veh		248.1			47.3			310.0			52.0	
Approach LOS		F			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	49.1	15.0	29.9	25.0	40.1	13.0	31.9
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	12.0	35.1	11.0	33.0	21.0	26.1	10.0	* 34
Max Q Clear Time (g_c+I1), s	13.5	25.4	13.0	20.8	23.0	33.2	9.2	11.8
Green Ext Time (p_c), s	0.0	8.9	0.0	2.9	0.0	0.0	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	160.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	430	580	220	190	1290	230	300	910	70	130	820	290
Future Volume (veh/h)	430	580	220	190	1290	230	300	910	70	130	820	290
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	430	580	220	190	1290	230	300	910	70	130	820	290
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	439	2084	646	249	1538	274	322	1627	504	185	1426	442
Arrive On Green	0.13	0.40	0.40	0.07	0.35	0.35	0.09	0.31	0.31	0.05	0.27	0.27
Sat Flow, veh/h	3510	5187	1609	3510	4426	789	3510	5187	1607	3510	5187	1606
Grp Volume(v), veh/h	430	580	220	190	1008	512	300	910	70	130	820	290
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1757	1755	1729	1607	1755	1729	1606
Q Serve(g_s), s	14.7	9.0	11.4	6.4	32.2	32.2	10.2	17.5	3.7	4.4	16.3	19.2
Cycle Q Clear(g_c), s	14.7	9.0	11.4	6.4	32.2	32.2	10.2	17.5	3.7	4.4	16.3	19.2
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	2084	646	249	1202	611	322	1627	504	185	1426	442
V/C Ratio(X)	0.98	0.28	0.34	0.76	0.84	0.84	0.93	0.56	0.14	0.70	0.58	0.66
Avail Cap(c_a), veh/h	439	2084	646	322	1202	611	322	1729	536	234	1599	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.54	0.54	0.54	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	24.2	24.9	54.8	36.0	36.0	54.1	34.3	29.5	55.9	37.5	38.5
Incr Delay (d2), s/veh	32.7	0.3	1.1	4.3	4.0	7.5	33.0	0.4	0.1	6.6	0.4	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	4.3	5.3	3.2	16.1	16.9	6.4	8.4	1.7	2.3	7.9	8.8
LnGrp Delay(d),s/veh	85.0	24.4	26.0	59.1	40.0	43.5	87.2	34.6	29.7	62.5	37.9	41.2
LnGrp LOS	F	C	C	E	D	D	F	C	C	E	D	D
Approach Vol, veh/h		1230			1710			1280			1240	
Approach Delay, s/veh		45.9			43.2			46.7			41.2	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	54.2	15.0	38.3	19.0	47.7	10.3	42.9
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	11.0	41.7	11.0	37.0	15.0	37.7	8.0	40.0
Max Q Clear Time (g_c+I1), s	8.4	13.4	12.2	21.2	16.7	34.2	6.4	19.5
Green Ext Time (p_c), s	0.1	17.4	0.0	11.1	0.0	3.1	0.1	13.3

Intersection Summary	
HCM 2010 Ctrl Delay	44.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
103: Evans Road & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	330	360	160	40	1080	680	400	1090	30	330	720	450
Future Volume (veh/h)	330	360	160	40	1080	680	400	1090	30	330	720	450
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	330	360	0	40	1080	680	400	1090	30	330	720	450
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	319	1833	571	51	1509	467	415	1207	33	351	1149	511
Arrive On Green	0.09	0.35	0.00	0.03	0.29	0.29	0.12	0.34	0.34	0.10	0.32	0.32
Sat Flow, veh/h	3510	5187	1615	1810	5187	1607	3510	3588	99	3510	3610	1607
Grp Volume(v), veh/h	330	360	0	40	1080	680	400	548	572	330	720	450
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1607	1755	1805	1882	1755	1805	1607
Q Serve(g_s), s	10.0	5.3	0.0	2.4	20.5	32.0	12.5	31.8	31.9	10.3	18.7	29.2
Cycle Q Clear(g_c), s	10.0	5.3	0.0	2.4	20.5	32.0	12.5	31.8	31.9	10.3	18.7	29.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	319	1833	571	51	1509	467	415	607	633	351	1149	511
V/C Ratio(X)	1.03	0.20	0.00	0.78	0.72	1.45	0.96	0.90	0.90	0.94	0.63	0.88
Avail Cap(c_a), veh/h	319	1833	571	99	1509	467	415	607	633	351	1149	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	50.0	24.7	0.0	53.1	34.9	39.0	48.3	34.8	34.8	49.2	31.9	35.5
Incr Delay (d2), s/veh	58.5	0.2	0.0	21.9	2.9	216.3	34.8	19.2	18.6	31.7	2.5	18.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	2.6	0.0	1.5	10.2	42.2	8.1	19.1	19.8	6.5	9.7	15.5
LnGrp Delay(d),s/veh	108.5	24.9	0.0	75.0	37.9	255.3	83.1	54.0	53.4	80.8	34.4	53.7
LnGrp LOS	F	C		E	D	F	F	D	D	F	C	D
Approach Vol, veh/h		690			1800			1520			1500	
Approach Delay, s/veh		64.9			120.8			61.4			50.4	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	44.9	17.0	41.0	14.0	38.0	15.0	43.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	36.0	13.0	35.0	10.0	32.0	11.0	37.0
Max Q Clear Time (g_c+I1), s	14.4	7.3	14.5	31.2	12.0	34.0	12.3	33.9
Green Ext Time (p_c), s	0.0	14.7	0.0	3.4	0.0	0.0	0.0	2.8

Intersection Summary			
HCM 2010 Ctrl Delay			78.3
HCM 2010 LOS			E

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	40	30	30	50	20	10	40	1160	30	0	1070	80
Future Volume (veh/h)	40	30	30	50	20	10	40	1160	30	0	1070	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	30	30	50	20	10	40	1160	30	0	1070	80
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	51	266	117	65	194	89	51	3991	103	2	3646	1133
Arrive On Green	0.03	0.07	0.07	0.04	0.08	0.08	0.04	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h	1810	3610	1582	1810	2390	1098	1810	5200	134	1810	5187	1612
Grp Volume(v), veh/h	40	30	30	50	15	15	40	771	419	0	1070	80
Grp Sat Flow(s),veh/h/ln	1810	1805	1582	1810	1805	1682	1810	1729	1876	1810	1729	1612
Q Serve(g_s), s	2.4	0.9	2.0	3.0	0.8	0.9	2.4	0.0	0.0	0.0	8.5	1.7
Cycle Q Clear(g_c), s	2.4	0.9	2.0	3.0	0.8	0.9	2.4	0.0	0.0	0.0	8.5	1.7
Prop In Lane	1.00		1.00	1.00		0.65	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	51	266	117	65	147	137	51	2654	1440	2	3646	1133
V/C Ratio(X)	0.78	0.11	0.26	0.77	0.10	0.11	0.78	0.29	0.29	0.00	0.29	0.07
Avail Cap(c_a), veh/h	132	1017	446	165	543	506	132	2654	1440	66	3646	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	0.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	47.6	48.1	52.6	46.8	46.9	52.6	0.0	0.0	0.0	6.1	5.1
Incr Delay (d2), s/veh	21.8	0.2	1.1	17.2	0.3	0.4	21.0	0.3	0.5	0.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.4	0.9	1.8	0.4	0.4	1.5	0.1	0.2	0.0	4.0	0.8
LnGrp Delay(d),s/veh	74.9	47.8	49.2	69.8	47.1	47.2	73.6	0.3	0.5	0.0	6.3	5.2
LnGrp LOS	E	D	D	E	D	D	E	A	A		A	A
Approach Vol, veh/h		100			80			1230			1150	
Approach Delay, s/veh		59.1			61.3			2.7			6.2	
Approach LOS		E			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	89.7	7.9	12.3	7.1	82.6	7.1	13.1
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2
Max Green Setting (Gmax), s	4.0	47.5	10.0	* 31	8.0	43.5	8.0	* 33
Max Q Clear Time (g_c+I1), s	0.0	2.0	5.0	4.0	4.4	10.5	4.4	2.9
Green Ext Time (p_c), s	0.0	25.8	0.0	0.4	0.0	21.3	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	8.3
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
105: Evans Rd & Morgan St/Loop Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	150	40	130	110	90	120	180	1210	70	30	450	120
Future Volume (veh/h)	150	40	130	110	90	120	180	1210	70	30	450	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	40	130	110	90	120	180	1210	70	30	450	120
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	535	237	137	452	200	208	2111	122	39	1860	830
Arrive On Green	0.10	0.15	0.15	0.08	0.13	0.13	0.23	1.00	1.00	0.02	0.52	0.52
Sat Flow, veh/h	1810	3610	1599	1810	3610	1596	1810	3469	200	1810	3610	1610
Grp Volume(v), veh/h	150	40	130	110	90	120	180	629	651	30	450	120
Grp Sat Flow(s),veh/h/ln	1810	1805	1599	1810	1805	1596	1810	1805	1864	1810	1805	1610
Q Serve(g_s), s	9.0	1.0	8.3	6.6	2.5	7.8	10.5	0.0	0.0	1.8	7.6	4.3
Cycle Q Clear(g_c), s	9.0	1.0	8.3	6.6	2.5	7.8	10.5	0.0	0.0	1.8	7.6	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	179	535	237	137	452	200	208	1099	1134	39	1860	830
V/C Ratio(X)	0.84	0.07	0.55	0.80	0.20	0.60	0.86	0.57	0.57	0.76	0.24	0.14
Avail Cap(c_a), veh/h	197	1050	465	197	1050	464	296	1099	1134	66	1860	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	40.4	43.4	50.0	43.2	45.5	41.5	0.0	0.0	53.5	14.8	14.0
Incr Delay (d2), s/veh	24.3	0.1	2.0	14.0	0.2	2.9	10.2	1.2	1.2	25.2	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.5	3.8	3.8	1.2	3.6	5.8	0.4	0.4	1.2	3.8	2.0
LnGrp Delay(d),s/veh	73.0	40.4	45.4	64.0	43.4	48.4	51.7	1.2	1.2	78.8	15.1	14.3
LnGrp LOS	E	D	D	E	D	D	D	A	A	E	B	B
Approach Vol, veh/h		320			320			1460			600	
Approach Delay, s/veh		57.7			52.3			7.4			18.1	
Approach LOS		E			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	70.9	12.3	20.3	16.7	60.7	14.9	17.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	46.0	12.0	32.0	18.0	32.0	12.0	32.0
Max Q Clear Time (g_c+I1), s	3.8	2.0	8.6	10.3	12.5	9.6	11.0	9.8
Green Ext Time (p_c), s	0.0	18.2	0.1	1.5	0.2	13.1	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	180	150	160	310	250	260	880	80	70	880	160
Future Volume (veh/h)	50	180	150	160	310	250	260	880	80	70	880	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	180	150	160	310	250	260	880	80	70	880	160
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	215	884	393	284	884	393	290	2968	922	91	2398	744
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.32	1.00	1.00	0.02	0.15	0.15
Sat Flow, veh/h	861	3610	1605	1063	3610	1605	1810	5187	1611	1810	5187	1610
Grp Volume(v), veh/h	50	180	150	160	310	250	260	880	80	70	880	160
Grp Sat Flow(s),veh/h/ln	861	1805	1605	1063	1805	1605	1810	1729	1611	1810	1729	1610
Q Serve(g_s), s	5.6	4.4	8.6	15.5	7.8	15.3	15.1	0.0	0.0	4.2	16.8	9.6
Cycle Q Clear(g_c), s	13.4	4.4	8.6	19.9	7.8	15.3	15.1	0.0	0.0	4.2	16.8	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	884	393	284	884	393	290	2968	922	91	2398	744
V/C Ratio(X)	0.23	0.20	0.38	0.56	0.35	0.64	0.90	0.30	0.09	0.77	0.37	0.22
Avail Cap(c_a), veh/h	268	1106	492	349	1106	492	461	2968	922	148	2398	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.49	0.49	0.49	0.97	0.97	0.97
Uniform Delay (d), s/veh	39.8	33.0	34.6	40.9	34.3	37.1	36.5	0.0	0.0	53.5	32.2	29.1
Incr Delay (d2), s/veh	0.5	0.1	0.6	1.8	0.2	1.8	7.2	0.1	0.1	12.4	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.2	3.9	4.7	3.9	7.0	8.1	0.0	0.0	2.4	8.1	4.4
LnGrp Delay(d),s/veh	40.4	33.1	35.2	42.7	34.5	39.0	43.7	0.1	0.1	65.8	32.6	29.8
LnGrp LOS	D	C	D	D	C	D	D	A	A	E	C	C
Approach Vol, veh/h		380			720			1220			1110	
Approach Delay, s/veh		34.9			37.9			9.4			34.3	
Approach LOS		C			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	68.2		32.2	21.6	56.1		32.2
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	9.0	52.7		33.7	28.0	33.7		33.7
Max Q Clear Time (g_c+I1), s	6.2	2.0		15.4	17.1	18.8		21.9
Green Ext Time (p_c), s	0.0	20.9		5.4	0.6	10.4		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	370	270	100	490	140	380	880	100	100	840	260
Future Volume (veh/h)	240	370	270	100	490	140	380	880	100	100	840	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	370	270	100	490	140	380	880	100	100	840	260
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	563	405	126	671	191	280	1417	161	126	947	293
Arrive On Green	0.11	0.28	0.28	0.07	0.24	0.24	0.15	0.43	0.43	0.05	0.23	0.23
Sat Flow, veh/h	1810	2002	1440	1810	2773	787	1810	3267	371	1810	2714	839
Grp Volume(v), veh/h	240	333	307	100	318	312	380	486	494	100	559	541
Grp Sat Flow(s),veh/h/ln	1810	1805	1637	1810	1805	1755	1810	1805	1833	1810	1805	1748
Q Serve(g_s), s	12.0	17.9	18.2	6.0	17.8	18.0	17.0	23.0	23.0	6.0	32.9	33.0
Cycle Q Clear(g_c), s	12.0	17.9	18.2	6.0	17.8	18.0	17.0	23.0	23.0	6.0	32.9	33.0
Prop In Lane	1.00		0.88	1.00		0.45	1.00		0.20	1.00		0.48
Lane Grp Cap(c), veh/h	197	508	461	126	437	425	280	783	795	126	630	610
V/C Ratio(X)	1.22	0.66	0.67	0.79	0.73	0.73	1.36	0.62	0.62	0.79	0.89	0.89
Avail Cap(c_a), veh/h	197	509	461	197	509	495	280	783	795	148	630	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	49.0	34.8	35.0	50.4	38.3	38.4	46.5	24.1	24.1	51.7	40.0	40.1
Incr Delay (d2), s/veh	134.3	3.0	3.6	11.0	4.4	4.7	183.0	3.7	3.6	20.8	16.1	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	9.3	8.7	3.4	9.5	9.3	22.7	12.1	12.3	3.7	19.3	18.8
LnGrp Delay(d),s/veh	183.3	37.9	38.6	61.4	42.7	43.2	229.5	27.8	27.8	72.5	56.1	56.7
LnGrp LOS	F	D	D	E	D	D	F	C	C	E	E	E
Approach Vol, veh/h		880			730			1360			1200	
Approach Delay, s/veh		77.8			45.5			84.1			57.8	
Approach LOS		E			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	51.7	11.7	35.0	21.0	42.4	16.0	30.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	42.0	12.0	31.0	17.0	34.0	12.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	25.0	8.0	20.2	19.0	35.0	14.0	20.0
Green Ext Time (p_c), s	0.0	12.0	0.1	5.8	0.0	0.0	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	68.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↱	↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	430	220	1160	350	1860	0	0	840	440
Future Volume (veh/h)	0	0	0	430	220	1160	350	1860	0	0	840	440
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				430	0	1307	350	1860	0	0	840	440
Adj No. of Lanes				1	0	2	1	3	0	0	3	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				790	0	1405	371	2546	0	0	1294	399
Arrive On Green				0.44	0.00	0.44	0.41	0.98	0.00	0.00	0.08	0.08
Sat Flow, veh/h				1810	0	3219	1810	5358	0	0	5358	1599
Grp Volume(v), veh/h				430	0	1307	350	1860	0	0	840	440
Grp Sat Flow(s),veh/h/ln				1810	0	1609	1810	1729	0	0	1729	1599
Q Serve(g_s), s				19.3	0.0	42.4	20.5	2.5	0.0	0.0	17.3	27.5
Cycle Q Clear(g_c), s				19.3	0.0	42.4	20.5	2.5	0.0	0.0	17.3	27.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				790	0	1405	371	2546	0	0	1294	399
V/C Ratio(X)				0.54	0.00	0.93	0.94	0.73	0.00	0.00	0.65	1.10
Avail Cap(c_a), veh/h				823	0	1463	378	2546	0	0	1294	399
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.58	0.58	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh				22.9	0.0	29.4	31.8	0.5	0.0	0.0	45.8	50.5
Incr Delay (d2), s/veh				0.7	0.0	10.6	22.1	1.1	0.0	0.0	2.3	74.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.8	0.0	20.8	12.4	0.6	0.0	0.0	8.6	20.4
LnGrp Delay(d),s/veh				23.6	0.0	40.1	54.0	1.6	0.0	0.0	48.1	124.6
LnGrp LOS				C		D	D	A			D	F
Approach Vol, veh/h					1737			2210			1280	
Approach Delay, s/veh					36.0			9.9			74.4	
Approach LOS					D			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		58.0			26.5	31.5		52.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		52.0			23.0	25.0		50.0
Max Q Clear Time (g_c+I1), s		4.5			22.5	29.5		44.4
Green Ext Time (p_c), s		37.1			0.1	0.0		3.6

Intersection Summary			
HCM 2010 Ctrl Delay			34.4
HCM 2010 LOS			C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	320	40	330	0	0	0	0	1890	210	130	1150	0
Future Volume (veh/h)	320	40	330	0	0	0	0	1890	210	130	1150	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	320	40	330				0	1890	210	130	1150	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	462	45	372				0	2601	287	157	3485	0
Arrive On Green	0.26	0.26	0.26				0.00	0.55	0.55	0.17	1.00	0.00
Sat Flow, veh/h	1810	177	1456				0	4911	523	1810	5358	0
Grp Volume(v), veh/h	320	0	370				0	1375	725	130	1150	0
Grp Sat Flow(s),veh/h/ln	1810	0	1633				0	1729	1805	1810	1729	0
Q Serve(g_s), s	17.6	0.0	24.0				0.0	32.8	33.3	7.6	0.0	0.0
Cycle Q Clear(g_c), s	17.6	0.0	24.0				0.0	32.8	33.3	7.6	0.0	0.0
Prop In Lane	1.00		0.89				0.00		0.29	1.00		0.00
Lane Grp Cap(c), veh/h	462	0	417				0	1898	991	157	3485	0
V/C Ratio(X)	0.69	0.00	0.89				0.00	0.72	0.73	0.83	0.33	0.00
Avail Cap(c_a), veh/h	526	0	475				0	1898	991	214	3485	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.95	0.95	0.72	0.72	0.00
Uniform Delay (d), s/veh	37.0	0.0	39.4				0.0	18.6	18.7	44.7	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	16.7				0.0	2.3	4.5	13.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	12.7				0.0	16.1	17.8	4.3	0.1	0.0
LnGrp Delay(d),s/veh	40.3	0.0	56.1				0.0	20.9	23.2	57.8	0.2	0.0
LnGrp LOS	D		E					C	C	E	A	
Approach Vol, veh/h		690						2100			1280	
Approach Delay, s/veh		48.8						21.7			6.0	
Approach LOS		D						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	13.5	64.4		32.1		77.9		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	13.0	53.0		32.0		70.0		
Max Q Clear Time (g_c+I1), s	9.6	35.3		26.0		2.0		
Green Ext Time (p_c), s	0.1	16.4		1.9		52.9		

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	160	70	140	430	930	0	0	650	270
Future Volume (veh/h)	0	0	0	160	70	140	430	930	0	0	650	270
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				160	70	140	430	930	0	0	650	270
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				180	79	157	456	2487	0	0	1446	643
Arrive On Green				0.24	0.24	0.24	0.50	1.00	0.00	0.00	0.40	0.40
Sat Flow, veh/h				753	329	659	1810	3705	0	0	3705	1605
Grp Volume(v), veh/h				370	0	0	430	930	0	0	650	270
Grp Sat Flow(s),veh/h/ln				1741	0	0	1810	1805	0	0	1805	1605
Q Serve(g_s), s				22.6	0.0	0.0	24.7	0.0	0.0	0.0	14.5	13.3
Cycle Q Clear(g_c), s				22.6	0.0	0.0	24.7	0.0	0.0	0.0	14.5	13.3
Prop In Lane				0.43		0.38	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				415	0	0	456	2487	0	0	1446	643
V/C Ratio(X)				0.89	0.00	0.00	0.94	0.37	0.00	0.00	0.45	0.42
Avail Cap(c_a), veh/h				522	0	0	609	2487	0	0	1446	643
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.84	0.84	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.5	0.0	0.0	26.5	0.0	0.0	0.0	24.1	23.8
Incr Delay (d2), s/veh				14.8	0.0	0.0	17.6	0.4	0.0	0.0	1.0	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.6	0.0	0.0	14.4	0.1	0.0	0.0	7.4	6.3
LnGrp Delay(d),s/veh				55.3	0.0	0.0	44.1	0.4	0.0	0.0	25.1	25.8
LnGrp LOS				E			D	A			C	C
Approach Vol, veh/h					370			1360			920	
Approach Delay, s/veh					55.3			14.2			25.3	
Approach LOS					E			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		79.8			31.7	48.0		30.2
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		69.0			37.0	28.0		33.0
Max Q Clear Time (g_c+I1), s		2.0			26.7	16.5		24.6
Green Ext Time (p_c), s		20.1			1.0	8.1		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	140	30	190	0	0	0	0	1210	220	100	720	0
Future Volume (veh/h)	140	30	190	0	0	0	0	1210	220	100	720	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	140	30	190				0	1210	220	100	720	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	231	49	245				0	2411	1074	126	2794	0
Arrive On Green	0.15	0.15	0.15				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1503	322	1599				0	3705	1609	1810	3705	0
Grp Volume(v), veh/h	170	0	190				0	1210	220	100	720	0
Grp Sat Flow(s),veh/h/ln	1825	0	1599				0	1805	1609	1810	1805	0
Q Serve(g_s), s	9.6	0.0	12.6				0.0	0.0	0.0	6.0	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	12.6				0.0	0.0	0.0	6.0	0.0	0.0
Prop In Lane	0.82		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	280	0	245				0	2411	1074	126	2794	0
V/C Ratio(X)	0.61	0.00	0.77				0.00	0.50	0.20	0.79	0.26	0.00
Avail Cap(c_a), veh/h	498	0	436				0	2411	1074	230	2794	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.89	0.89	0.87	0.87	0.00
Uniform Delay (d), s/veh	43.5	0.0	44.7				0.0	0.0	0.0	49.1	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	5.2				0.0	0.7	0.4	9.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	5.9				0.0	0.2	0.1	3.3	0.1	0.0
LnGrp Delay(d),s/veh	45.6	0.0	49.9				0.0	0.7	0.4	58.4	0.2	0.0
LnGrp LOS	D		D					A	A	E	A	
Approach Vol, veh/h		360						1430			820	
Approach Delay, s/veh		47.9						0.6			7.3	
Approach LOS		D						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.7	77.5		20.9		89.1		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	54.0		30.0		72.0		
Max Q Clear Time (g_c+I1), s	11.6	2.0		14.6		2.0		
Green Ext Time (p_c), s	0.1	25.2		1.4		28.1		

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	10	120	130	210	510	170	600	1070	160	40	1000	30
Future Volume (veh/h)	10	120	130	210	510	170	600	1070	160	40	1000	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	120	130	210	510	170	600	1070	160	40	1000	30
Adj No. of Lanes	2	2	2	2	2	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	34	464	916	278	715	317	685	3119	1096	90	2235	67
Arrive On Green	0.01	0.13	0.13	0.08	0.20	0.20	0.20	0.60	0.60	0.01	0.14	0.14
Sat Flow, veh/h	3510	3610	2809	3510	3610	1603	3510	5187	1611	3510	5175	155
Grp Volume(v), veh/h	10	120	130	210	510	170	600	1070	160	40	668	362
Grp Sat Flow(s),veh/h/ln	1755	1805	1405	1755	1805	1603	1755	1729	1611	1755	1729	1872
Q Serve(g_s), s	0.3	3.3	3.6	6.4	14.5	10.5	18.3	11.4	3.9	1.2	19.5	19.5
Cycle Q Clear(g_c), s	0.3	3.3	3.6	6.4	14.5	10.5	18.3	11.4	3.9	1.2	19.5	19.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	34	464	916	278	715	317	685	3119	1096	90	1493	808
V/C Ratio(X)	0.30	0.26	0.14	0.76	0.71	0.54	0.88	0.34	0.15	0.44	0.45	0.45
Avail Cap(c_a), veh/h	128	660	1068	415	955	424	830	3119	1096	128	1493	808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.96	0.96	0.96
Uniform Delay (d), s/veh	54.1	43.2	26.4	49.6	41.2	39.6	43.0	11.0	6.2	53.8	35.1	35.1
Incr Delay (d2), s/veh	4.8	0.3	0.1	4.4	1.7	1.4	8.4	0.3	0.3	3.3	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	1.4	3.3	7.4	4.8	9.6	5.5	1.8	0.6	9.5	10.5
LnGrp Delay(d),s/veh	58.9	43.5	26.5	54.0	42.9	41.0	51.4	11.3	6.5	57.0	36.1	36.9
LnGrp LOS	E	D	C	D	D	D	D	B	A	E	D	D
Approach Vol, veh/h		260			890			1830			1070	
Approach Delay, s/veh		35.6			45.1			24.0			37.1	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	71.5	12.7	19.0	25.5	52.8	5.1	26.7
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	4.0	54.7	13.0	20.1	26.0	32.7	4.0	29.1
Max Q Clear Time (g_c+I1), s	3.2	13.4	8.4	5.6	20.3	21.5	2.3	16.5
Green Ext Time (p_c), s	0.0	22.9	0.3	4.5	1.2	9.0	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

User approved changes to right turn type.

HCM 2010 Signalized Intersection Summary
113: Evans Rd & Placentia Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	0	10	10	0	80	10	1250	0	20	780	110
Future Volume (veh/h)	110	0	10	10	0	80	10	1250	0	20	780	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	0	10	10	0	80	10	1250	0	20	780	110
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	0	240	270	0	240	560	2811	0	417	2474	349
Arrive On Green	0.15	0.00	0.15	0.15	0.00	0.15	1.00	1.00	0.00	1.00	1.00	1.00
Sat Flow, veh/h	1339	0	1615	1427	0	1615	635	3705	0	452	3178	448
Grp Volume(v), veh/h	110	0	10	10	0	80	10	1250	0	20	443	447
Grp Sat Flow(s),veh/h/ln	1339	0	1615	1427	0	1615	635	1805	0	452	1805	1821
Q Serve(g_s), s	8.8	0.0	0.6	0.7	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.7	0.0	0.6	1.2	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.25
Lane Grp Cap(c), veh/h	205	0	240	270	0	240	560	2811	0	417	1405	1418
V/C Ratio(X)	0.54	0.00	0.04	0.04	0.00	0.33	0.02	0.44	0.00	0.05	0.32	0.32
Avail Cap(c_a), veh/h	371	0	440	447	0	440	560	2811	0	417	1405	1418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.39	0.39	0.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	48.1	0.0	40.1	40.7	0.0	41.9	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.1	0.1	0.0	0.8	0.0	0.2	0.0	0.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.3	0.3	0.0	2.2	0.0	0.1	0.0	0.0	0.2	0.2
LnGrp Delay(d),s/veh	50.3	0.0	40.2	40.7	0.0	42.8	0.0	0.2	0.0	0.2	0.6	0.6
LnGrp LOS	D		D	D		D	A	A		A	A	A
Approach Vol, veh/h		120			90			1260			910	
Approach Delay, s/veh		49.4			42.5			0.2			0.6	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		89.7		20.3		89.7		20.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		72.0		30.0		72.0		30.0
Max Q Clear Time (g_c+I1), s		2.0		15.7		2.0		6.9
Green Ext Time (p_c), s		30.4		0.7		30.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	4.4
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
114: Evans Rd & Orange Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	170	120	100	110	130	310	150	1280	190	290	920	130
Future Volume (veh/h)	170	120	100	110	130	310	150	1280	190	290	920	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	170	120	100	110	130	310	150	1280	190	290	920	130
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	165	456	351	136	395	353	181	1409	630	280	1605	718
Arrive On Green	0.09	0.23	0.23	0.08	0.22	0.22	0.10	0.39	0.39	0.15	0.44	0.44
Sat Flow, veh/h	1810	1945	1496	1810	1805	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	170	111	109	110	130	310	150	1280	190	290	920	130
Grp Sat Flow(s),veh/h/ln	1810	1805	1636	1810	1805	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	10.0	5.5	6.0	6.6	6.7	20.4	8.9	36.8	8.9	17.0	20.9	5.3
Cycle Q Clear(g_c), s	10.0	5.5	6.0	6.6	6.7	20.4	8.9	36.8	8.9	17.0	20.9	5.3
Prop In Lane	1.00		0.91	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	423	383	136	395	353	181	1409	630	280	1605	718
V/C Ratio(X)	1.03	0.26	0.29	0.81	0.33	0.88	0.83	0.91	0.30	1.04	0.57	0.18
Avail Cap(c_a), veh/h	165	459	416	148	443	396	280	1409	630	280	1605	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	50.0	34.3	34.5	50.1	36.2	41.5	48.6	31.7	23.2	46.5	22.8	18.4
Incr Delay (d2), s/veh	79.2	0.3	0.4	25.4	0.5	18.0	11.4	10.2	1.2	62.7	1.4	0.5
Initial Q Delay(d3),s/veh	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	2.8	2.8	4.3	3.4	10.9	5.0	20.3	4.2	13.3	10.7	2.5
LnGrp Delay(d),s/veh	129.5	34.7	35.0	75.4	36.6	59.6	60.0	41.9	24.4	109.2	24.2	19.0
LnGrp LOS	F	C	C	E	D	E	E	D	C	F	C	B
Approach Vol, veh/h		390			550			1620			1340	
Approach Delay, s/veh		76.1			57.3			41.5			42.1	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	46.9	12.3	29.8	15.0	52.9	14.0	28.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	40.0	9.0	28.0	17.0	40.0	10.0	27.0
Max Q Clear Time (g_c+I1), s	19.0	38.8	8.6	8.0	10.9	22.9	12.0	22.4
Green Ext Time (p_c), s	0.0	1.1	0.0	4.0	0.2	13.8	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	47.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
115: Evans Rd & Nuevo Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	280	90	150	240	310	450	280	390	130	240	400	530
Future Volume (veh/h)	280	90	150	240	310	450	280	390	130	240	400	530
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	90	150	240	310	450	280	390	130	240	400	530
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	351	1545	479	313	1490	461	351	1295	580	315	1259	561
Arrive On Green	0.10	0.30	0.30	0.09	0.29	0.29	0.10	0.36	0.36	0.09	0.35	0.35
Sat Flow, veh/h	3510	5187	1607	3510	5187	1607	3510	3610	1615	3510	3610	1608
Grp Volume(v), veh/h	280	90	150	240	310	450	280	390	130	240	400	530
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1729	1607	1755	1805	1615	1755	1805	1608
Q Serve(g_s), s	7.6	1.2	7.0	6.5	4.4	27.0	7.6	7.6	5.5	6.5	7.9	31.2
Cycle Q Clear(g_c), s	7.6	1.2	7.0	6.5	4.4	27.0	7.6	7.6	5.5	6.5	7.9	31.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	1545	479	313	1490	461	351	1295	580	315	1259	561
V/C Ratio(X)	0.80	0.06	0.31	0.77	0.21	0.98	0.80	0.30	0.22	0.76	0.32	0.95
Avail Cap(c_a), veh/h	396	1545	479	396	1490	461	396	1295	580	432	1259	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	24.4	26.5	43.4	26.3	34.4	42.9	22.5	21.8	43.3	23.2	30.8
Incr Delay (d2), s/veh	9.9	0.0	0.4	6.8	0.1	35.4	9.9	0.6	0.9	5.2	0.7	26.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.6	3.2	3.5	2.1	16.5	4.2	3.9	2.6	3.4	4.1	17.9
LnGrp Delay(d),s/veh	52.8	24.5	26.9	50.2	26.4	69.8	52.8	23.1	22.7	48.6	23.9	57.4
LnGrp LOS	D	C	C	D	C	E	D	C	C	D	C	E
Approach Vol, veh/h		520			1000			800			1170	
Approach Delay, s/veh		40.4			51.6			33.4			44.2	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	39.0	12.7	33.0	13.7	38.0	13.7	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	33.0	11.0	28.0	11.0	34.0	11.0	28.0
Max Q Clear Time (g_c+I1), s	8.5	9.6	8.5	9.0	9.6	33.2	9.6	29.0
Green Ext Time (p_c), s	0.3	8.6	0.2	4.7	0.1	0.6	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	300	170	110	320	400	240
Future Volume (veh/h)	300	170	110	320	400	240
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	300	170	110	320	400	240
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	403	1349	1349	1498	1002	894
Arrive On Green	0.37	0.37	0.12	0.12	0.55	0.55
Sat Flow, veh/h	973	3705	3705	1615	1810	1615
Grp Volume(v), veh/h	300	170	110	320	400	240
Grp Sat Flow(s),veh/h/ln	973	1805	1805	1615	1810	1615
Q Serve(g_s), s	32.0	3.4	3.0	2.4	13.9	8.6
Cycle Q Clear(g_c), s	35.0	3.4	3.0	2.4	13.9	8.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	403	1349	1349	1498	1002	894
V/C Ratio(X)	0.74	0.13	0.08	0.21	0.40	0.27
Avail Cap(c_a), veh/h	499	1707	1707	1658	1002	894
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	33.9	22.6	31.5	0.5	14.1	12.9
Incr Delay (d2), s/veh	4.7	0.0	0.0	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	1.7	1.5	10.7	7.0	3.8
LnGrp Delay(d),s/veh	38.6	22.7	31.5	0.6	14.3	13.0
LnGrp LOS	D	C	C	A	B	B
Approach Vol, veh/h		470	430		640	
Approach Delay, s/veh		32.9	8.5		13.8	
Approach LOS		C	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				45.1		64.9		45.1
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				52.0		50.0		52.0
Max Q Clear Time (g_c+I1), s				37.0		15.9		5.0
Green Ext Time (p_c), s				4.1		2.2		5.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
117: I-215 SB Ramps & Ellis Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	180	390	180	320	0	0	0	0	30	60	100
Future Volume (veh/h)	0	180	390	180	320	0	0	0	0	30	60	100
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	180	0	180	320	0				30	60	100
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	339	152	212	893	0				424	847	1098
Arrive On Green	0.00	0.09	0.00	0.23	0.49	0.00				0.68	0.68	0.68
Sat Flow, veh/h	0	3705	1615	1810	3705	0				623	1246	1615
Grp Volume(v), veh/h	0	180	0	180	320	0				90	0	100
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1869	0	1615
Q Serve(g_s), s	0.0	5.2	0.0	10.5	6.0	0.0				1.8	0.0	2.3
Cycle Q Clear(g_c), s	0.0	5.2	0.0	10.5	6.0	0.0				1.8	0.0	2.3
Prop In Lane	0.00		1.00	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	339	152	212	893	0				1271	0	1098
V/C Ratio(X)	0.00	0.53	0.00	0.85	0.36	0.00				0.07	0.00	0.09
Avail Cap(c_a), veh/h	0	853	382	576	2133	0				1271	0	1098
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.00	0.90	0.90	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	47.5	0.0	41.2	22.4	0.0				5.9	0.0	6.0
Incr Delay (d2), s/veh	0.0	1.2	0.0	8.3	0.2	0.0				0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	0.0	5.7	3.0	0.0				1.0	0.0	1.1
LnGrp Delay(d),s/veh	0.0	48.8	0.0	49.5	22.6	0.0				6.0	0.0	6.2
LnGrp LOS		D		D	C					A		A
Approach Vol, veh/h		180			500						190	
Approach Delay, s/veh		48.8			32.3						6.1	
Approach LOS		D			C						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			16.9	14.3		78.8		31.2
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			35.0	26.0		37.0		65.0
Max Q Clear Time (g_c+I1), s			12.5	7.2		4.3		8.0
Green Ext Time (p_c), s			0.5	3.1		0.8		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
118: I-215 NB Ramps & Ellis Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱	↰	↑	↱			
Traffic Volume (veh/h)	60	150	0	0	320	230	180	130	340	0	0	0
Future Volume (veh/h)	60	150	0	0	320	230	180	130	340	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	60	150	0	0	320	230	180	130	340			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	79	957	0	0	669	299	1198	1258	1069			
Arrive On Green	0.03	0.18	0.00	0.00	0.19	0.19	0.66	0.66	0.66			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1810	1900	1615			
Grp Volume(v), veh/h	60	150	0	0	320	230	180	130	340			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1810	1900	1615			
Q Serve(g_s), s	3.6	3.9	0.0	0.0	8.7	14.9	4.1	2.7	9.9			
Cycle Q Clear(g_c), s	3.6	3.9	0.0	0.0	8.7	14.9	4.1	2.7	9.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	79	957	0	0	669	299	1198	1258	1069			
V/C Ratio(X)	0.76	0.16	0.00	0.00	0.48	0.77	0.15	0.10	0.32			
Avail Cap(c_a), veh/h	247	1707	0	0	1083	484	1198	1258	1069			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	52.8	34.8	0.0	0.0	40.0	42.6	7.0	6.7	8.0			
Incr Delay (d2), s/veh	12.2	0.1	0.0	0.0	0.5	4.1	0.3	0.2	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	1.9	0.0	0.0	4.4	7.0	2.1	1.5	4.6			
LnGrp Delay(d),s/veh	65.1	34.9	0.0	0.0	40.6	46.7	7.2	6.9	8.7			
LnGrp LOS	E	C			D	D	A	A	A			
Approach Vol, veh/h		210			550			650				
Approach Delay, s/veh		43.5			43.1			8.0				
Approach LOS		D			D			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		76.8		33.2			8.8	24.4
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		50.0		52.0			15.0	33.0
Max Q Clear Time (g_c+I1), s		11.9		5.9			5.6	16.9
Green Ext Time (p_c), s		2.6		4.3			0.1	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
119: Evans Rd & San Jacinto Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	10	40	90	50	250	50	290	30	100	410	210
Future Volume (veh/h)	110	10	40	90	50	250	50	290	30	100	410	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	10	40	90	50	250	50	290	30	100	410	210
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	672	314	115	628	294	65	1740	179	127	1302	659
Arrive On Green	0.08	0.19	0.19	0.06	0.18	0.18	0.04	0.53	0.53	0.07	0.56	0.56
Sat Flow, veh/h	1810	3458	1615	1810	3458	1615	1810	3306	339	1810	2322	1176
Grp Volume(v), veh/h	110	10	40	90	50	250	50	157	163	100	318	302
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1810	1805	1840	1810	1805	1692
Q Serve(g_s), s	6.6	0.3	2.3	5.4	1.3	16.5	3.0	5.0	5.1	6.0	10.3	10.5
Cycle Q Clear(g_c), s	6.6	0.3	2.3	5.4	1.3	16.5	3.0	5.0	5.1	6.0	10.3	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.69
Lane Grp Cap(c), veh/h	138	672	314	115	628	294	65	950	969	127	1012	949
V/C Ratio(X)	0.80	0.01	0.13	0.78	0.08	0.85	0.77	0.17	0.17	0.79	0.31	0.32
Avail Cap(c_a), veh/h	247	912	426	230	880	411	132	950	969	230	1012	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	50.0	35.8	36.6	50.7	37.4	43.6	52.6	13.5	13.5	50.4	12.9	12.9
Incr Delay (d2), s/veh	9.9	0.0	0.2	10.9	0.1	11.6	17.3	0.4	0.4	9.7	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.1	1.0	3.0	0.6	8.3	1.8	2.5	2.7	3.3	5.3	5.1
LnGrp Delay(d),s/veh	59.9	35.8	36.8	61.6	37.4	55.1	69.9	13.9	13.9	60.0	13.6	13.7
LnGrp LOS	E	D	D	E	D	E	E	B	B	E	B	B
Approach Vol, veh/h		160			390			370			720	
Approach Delay, s/veh		52.6			54.4			21.5			20.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	61.9	11.0	25.4	7.9	65.7	12.4	24.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	37.0	14.0	29.0	8.0	43.0	15.0	28.0
Max Q Clear Time (g_c+I1), s	8.0	7.1	7.4	4.3	5.0	12.5	8.6	18.5
Green Ext Time (p_c), s	0.1	6.7	0.1	2.3	0.0	6.7	0.1	1.5

Intersection Summary			
HCM 2010 Ctrl Delay			31.7
HCM 2010 LOS			C

HCM 2010 TWSC
120: Park Center Blvd & Ramona Expy WB Ramps

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↑↱			↰↑			↑↱	
Traffic Vol, veh/h	0	0	0	0	10	90	40	330	0	0	100	290
Future Vol, veh/h	0	0	0	0	10	90	40	330	0	0	100	290
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	10	90	40	330	0	0	100	290

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	655	800	330	390	0	-	-	-	0
Stage 1	410	410	-	-	-	-	-	-	-
Stage 2	245	390	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	434	320	716	1180	-	0	0	-	-
Stage 1	674	599	-	-	-	0	0	-	-
Stage 2	800	611	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	416	0	716	1180	-	-	-	-	-
Mov Cap-2 Maneuver	416	0	-	-	-	-	-	-	-
Stage 1	646	0	-	-	-	-	-	-	-
Stage 2	800	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	1180	-	716	-	-
HCM Lane V/C Ratio	0.034	-	0.14	-	-
HCM Control Delay (s)	8.2	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

HCM 2010 TWSC
121: Park Center Blvd & Ramona Expy EB Ramps

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↱			↰	
Traffic Vol, veh/h	280	0	10	0	0	0	0	90	0	20	80	0
Future Vol, veh/h	280	0	10	0	0	0	0	90	0	20	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	280	0	10	0	0	0	0	90	0	20	80	0

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	210	210	80				-	0	0	90	0	0
Stage 1	120	120	-				-	-	-	-	-	-
Stage 2	90	90	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				-	-	-	2.2	-	-
Pot Cap-1 Maneuver	783	691	986				0	-	-	1518	-	0
Stage 1	910	800	-				0	-	-	-	-	0
Stage 2	939	824	-				0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	772	0	986				-	-	-	1518	-	-
Mov Cap-2 Maneuver	772	0	-				-	-	-	-	-	-
Stage 1	897	0	-				-	-	-	-	-	-
Stage 2	939	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	772	986	1518	-
HCM Lane V/C Ratio	-	-	0.363	0.01	0.013	-
HCM Control Delay (s)	-	-	12.3	8.7	7.4	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0	0	-

HCM 2010 TWSC
123: Gilman Springs Rd & Bridge St

Intersection	
Int Delay, s/veh	694

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱		↰	↑	↑↱	
Traffic Vol, veh/h	340	90	30	990	900	340
Future Vol, veh/h	340	90	30	990	900	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	374	99	33	1088	989	374

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2330	1176	1363	0	-	0
Stage 1	1176	-	-	-	-	-
Stage 2	1154	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 41	235	511	-	-	-
Stage 1	~ 296	-	-	-	-	-
Stage 2	~ 303	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 38	235	511	-	-	-
Mov Cap-2 Maneuver	~ 38	-	-	-	-	-
Stage 1	~ 296	-	-	-	-	-
Stage 2	~ 283	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 4340.8	0.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	511	-	46	-	-
HCM Lane V/C Ratio	0.065	-	10.272	-	-
HCM Control Delay (s)	12.5		$ 4340.8	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.2	-	56.5	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	79.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Traffic Vol, veh/h	40	520	0	0	770	300	360	10	10	0	0	0
Future Vol, veh/h	40	520	0	0	770	300	360	10	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	553	0	0	819	319	383	11	11	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	819	0	-	-	-	0	1048	1457	277
Stage 1	-	-	-	-	-	-	638	638	-
Stage 2	-	-	-	-	-	-	410	819	-
Critical Hdwy	4.1	-	-	-	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	818	-	0	0	-	-	~ 227	131	726
Stage 1	-	-	0	0	-	-	494	474	-
Stage 2	-	-	0	0	-	-	644	392	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	818	-	-	-	-	-	~ 215	0	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 215	0	-
Stage 1	-	-	-	-	-	-	468	0	-
Stage 2	-	-	-	-	-	-	644	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.7	0	$ 418.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	215	726	818	-	-	-
HCM Lane V/C Ratio	1.831	0.015	0.052	-	-	-
HCM Control Delay (s)	$ 429.4	10	9.6	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	27.7	0	0.2	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
125: SR-79 SB Ramps & Gilman Springs Rd

Intersection	
Int Delay, s/veh	133.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑						↰	↗
Traffic Vol, veh/h	0	200	990	20	1090	0	0	0	0	410	0	80
Future Vol, veh/h	0	200	990	20	1090	0	0	0	0	410	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	213	1053	21	1160	0	0	0	0	436	0	85

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	213	0	0	1308	1415	580
Stage 1	-	-	-	-	-	-	1202	1202	-
Stage 2	-	-	-	-	-	-	106	213	-
Critical Hdwy	-	-	-	4.1	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1369	-	0	~ 154	139	463
Stage 1	0	-	-	-	-	0	~ 251	260	-
Stage 2	0	-	-	-	-	0	913	730	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1369	-	-	~ 152	0	463
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 152	0	-
Stage 1	-	-	-	-	-	-	~ 247	0	-
Stage 2	-	-	-	-	-	-	913	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.1	$ 759.5
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1369	-	152	463
HCM Lane V/C Ratio	-	-	0.016	-	2.87	0.184
HCM Control Delay (s)	-	-	7.7	-	$ 904.9	14.5
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0	-	39.6	0.7

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

HCM 2010 Signalized Intersection Summary
127: Potrero Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	10	20	60	410	1420	0	0	720	1360
Future Volume (veh/h)	0	0	0	10	20	60	410	1420	0	0	720	1360
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				10	20	0	410	1420	0	0	720	1360
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				26	52	67	434	3131	0	0	2101	940
Arrive On Green				0.04	0.04	0.00	0.24	0.87	0.00	0.00	0.58	0.58
Sat Flow, veh/h				623	1246	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				30	0	0	410	1420	0	0	720	1360
Grp Sat Flow(s),veh/h/ln				1869	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				1.4	0.0	0.0	19.5	7.5	0.0	0.0	9.1	51.0
Cycle Q Clear(g_c), s				1.4	0.0	0.0	19.5	7.5	0.0	0.0	9.1	51.0
Prop In Lane				0.33		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				77	0	67	434	3131	0	0	2101	940
V/C Ratio(X)				0.39	0.00	0.00	0.95	0.45	0.00	0.00	0.34	1.45
Avail Cap(c_a), veh/h				768	0	663	434	3131	0	0	2101	940
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.9	0.0	0.0	32.8	1.3	0.0	0.0	9.6	18.3
Incr Delay (d2), s/veh				3.1	0.0	0.0	29.7	0.1	0.0	0.0	0.1	207.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	0.0	13.3	3.6	0.0	0.0	4.5	76.5
LnGrp Delay(d),s/veh				44.1	0.0	0.0	62.5	1.4	0.0	0.0	9.7	225.4
LnGrp LOS				D			E	A			A	F
Approach Vol, veh/h					30			1830			2080	
Approach Delay, s/veh					44.1			15.1			150.7	
Approach LOS					D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		80.0			25.0	55.0		7.6
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		76.0			21.0	51.0		36.0
Max Q Clear Time (g_c+I1), s		9.5			21.5	53.0		3.4
Green Ext Time (p_c), s		55.1			0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	86.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
128: Potrero Blvd & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	750	100	210	0	0	0	0	1080	140	230	490	0
Future Volume (veh/h)	750	100	210	0	0	0	0	1080	140	230	490	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	821	0	0				0	1080	140	230	490	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1031	0	460				0	1397	625	277	2160	0
Arrive On Green	0.28	0.00	0.00				0.00	0.39	0.39	0.15	0.60	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	821	0	0				0	1080	140	230	490	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	14.4	0.0	0.0				0.0	17.9	4.0	8.5	4.3	0.0
Cycle Q Clear(g_c), s	14.4	0.0	0.0				0.0	17.9	4.0	8.5	4.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1031	0	460				0	1397	625	277	2160	0
V/C Ratio(X)	0.80	0.00	0.00				0.00	0.77	0.22	0.83	0.23	0.00
Avail Cap(c_a), veh/h	1901	0	848				0	1527	683	343	2423	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.7	0.0	0.0				0.0	18.4	14.1	28.2	6.4	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0				0.0	2.3	0.2	13.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	0.0				0.0	9.3	1.8	5.2	2.1	0.0
LnGrp Delay(d),s/veh	24.1	0.0	0.0				0.0	20.7	14.3	41.3	6.5	0.0
LnGrp LOS	C							C	B	D	A	
Approach Vol, veh/h		821						1220			720	
Approach Delay, s/veh		24.1						20.0			17.6	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.5	30.5		23.5		45.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	13.0	29.0		36.0		46.0		
Max Q Clear Time (g_c+I1), s	10.5	19.9		16.4		6.3		
Green Ext Time (p_c), s	0.2	6.6		3.2		16.8		

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	10	530	310	310	830	20	390	90	60	50	90	10
Future Volume (veh/h)	10	530	310	310	830	20	390	90	60	50	90	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	541	316	316	847	20	398	92	61	51	92	10
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	17	656	554	345	1001	728	414	299	198	66	149	16
Arrive On Green	0.01	0.35	0.35	0.19	0.53	0.53	0.23	0.28	0.28	0.04	0.09	0.09
Sat Flow, veh/h	1810	1900	1603	1810	1900	1382	1810	1063	705	1810	1681	183
Grp Volume(v), veh/h	10	541	316	316	847	20	398	0	153	51	0	102
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1382	1810	0	1768	1810	0	1864
Q Serve(g_s), s	0.6	28.5	17.6	18.7	41.6	0.8	23.8	0.0	7.4	3.1	0.0	5.8
Cycle Q Clear(g_c), s	0.6	28.5	17.6	18.7	41.6	0.8	23.8	0.0	7.4	3.1	0.0	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.10
Lane Grp Cap(c), veh/h	17	656	554	345	1001	728	414	0	496	66	0	165
V/C Ratio(X)	0.58	0.82	0.57	0.92	0.85	0.03	0.96	0.00	0.31	0.77	0.00	0.62
Avail Cap(c_a), veh/h	66	713	601	364	1026	746	414	0	534	132	0	273
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	32.7	29.2	43.4	22.1	12.4	41.7	0.0	30.9	52.2	0.0	48.0
Incr Delay (d2), s/veh	26.8	7.3	1.1	26.4	6.6	0.0	34.3	0.0	0.3	17.0	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	16.2	7.9	11.9	23.5	0.3	15.8	0.0	3.7	1.8	0.0	3.1
LnGrp Delay(d),s/veh	80.7	40.0	30.3	69.7	28.7	12.4	76.0	0.0	31.3	69.2	0.0	51.8
LnGrp LOS	F	D	C	E	C	B	E		C	E		D
Approach Vol, veh/h		867			1183			551			153	
Approach Delay, s/veh		36.9			39.4			63.6			57.6	
Approach LOS		D			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	34.7	24.9	41.8	29.0	13.7	5.0	61.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	33.0	22.0	41.0	25.0	16.0	4.0	59.0
Max Q Clear Time (g_c+I1), s	5.1	9.4	20.7	30.5	25.8	7.8	2.6	43.6
Green Ext Time (p_c), s	0.0	1.5	0.1	7.3	0.0	0.9	0.0	9.7

Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	520	80	230	830	200	150	360	190	400	630	200
Future Volume (veh/h)	80	520	80	230	830	200	150	360	190	400	630	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	542	83	240	865	208	156	375	198	417	656	208
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	1549	236	376	937	715	184	499	259	339	816	258
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.10	0.22	0.22	0.19	0.30	0.30
Sat Flow, veh/h	534	3140	479	812	1900	1449	1810	2293	1192	1810	2693	853
Grp Volume(v), veh/h	83	311	314	240	865	208	156	294	279	417	440	424
Grp Sat Flow(s),veh/h/ln	534	1805	1814	812	1900	1449	1810	1805	1680	1810	1805	1741
Q Serve(g_s), s	8.2	12.4	12.5	30.2	49.8	10.0	10.0	17.9	18.3	22.0	26.4	26.4
Cycle Q Clear(g_c), s	58.0	12.4	12.5	42.7	49.8	10.0	10.0	17.9	18.3	22.0	26.4	26.4
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.71	1.00		0.49
Lane Grp Cap(c), veh/h	99	890	895	376	937	715	184	393	365	339	547	527
V/C Ratio(X)	0.84	0.35	0.35	0.64	0.92	0.29	0.85	0.75	0.76	1.23	0.80	0.80
Avail Cap(c_a), veh/h	99	890	895	376	937	715	215	430	400	339	553	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.9	18.2	18.3	31.3	27.7	17.6	51.9	43.0	43.2	47.8	37.8	37.8
Incr Delay (d2), s/veh	45.0	0.2	0.2	3.6	14.3	0.2	23.0	6.5	7.8	127.4	8.4	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	6.2	6.3	7.1	29.7	4.0	6.2	9.6	9.3	22.9	14.5	14.0
LnGrp Delay(d),s/veh	102.0	18.5	18.5	34.9	42.0	17.8	74.9	49.5	50.9	175.2	46.1	46.5
LnGrp LOS	F	B	B	C	D	B	E	D	D	F	D	D
Approach Vol, veh/h		708			1313			729			1281	
Approach Delay, s/veh		28.3			36.9			55.5			88.3	
Approach LOS		C			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.0	29.6		62.0	16.0	39.6		62.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	22.0	28.0		58.0	14.0	36.0		58.0
Max Q Clear Time (g_c+I1), s	24.0	20.3		60.0	12.0	28.4		51.8
Green Ext Time (p_c), s	0.0	5.0		0.0	0.1	4.9		5.2

Intersection Summary	
HCM 2010 Ctrl Delay	55.1
HCM 2010 LOS	E

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱			↰↑	↰	↱
Traffic Volume (vph)	310	830	20	330	1290	10
Future Volume (vph)	310	830	20	330	1290	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	0.98
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.89			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3175			3599	1710	1588
Flt Permitted	1.00			0.62	0.95	1.00
Satd. Flow (perm)	3175			2222	1710	1588
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	365	976	24	388	1518	12
RTOR Reduction (vph)	437	0	0	0	0	3
Lane Group Flow (vph)	904	0	0	412	1518	9
Confl. Peds. (#/hr)		5	5			5
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases			8			2
Actuated Green, G (s)	29.0			29.0	71.0	71.0
Effective Green, g (s)	29.0			29.0	71.0	71.0
Actuated g/C Ratio	0.26			0.26	0.65	0.65
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	837			585	1103	1024
v/s Ratio Prot	c0.28				c0.89	
v/s Ratio Perm				0.19		0.01
v/c Ratio	1.13dr			0.70	1.38	0.01
Uniform Delay, d1	40.5			36.6	19.5	7.0
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	54.9			3.8	175.1	0.0
Delay (s)	95.4			40.5	194.6	7.0
Level of Service	F			D	F	A
Approach Delay (s)	95.4			40.5	193.1	
Approach LOS	F			D	F	

Intersection Summary			
HCM 2000 Control Delay	134.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	119.5%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	94.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↑↱			↰↑↱			↰↑↱	
Traffic Vol, veh/h	20	580	0	0	1090	180	0	0	0	240	0	50
Future Vol, veh/h	20	580	0	0	1090	180	0	0	0	240	0	50
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	598	0	0	1124	186	0	0	0	247	0	52
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	26.5	143.3	0	19.1
HCM LOS	D	F	-	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	9%	0%	0%	0%	83%
Vol Thru, %	100%	91%	100%	100%	67%	0%
Vol Right, %	0%	0%	0%	0%	33%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	213	387	727	543	290
LT Vol	0	20	0	0	0	240
Through Vol	0	193	387	727	363	0
RT Vol	0	0	0	0	180	50
Lane Flow Rate	0	220	399	749	560	299
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0	0.436	0.785	1.384	0.998	0.574
Departure Headway (Hd)	8.406	7.516	7.468	6.653	6.416	7.022
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	482	486	547	566	517
Service Time	6.406	5.216	5.168	4.401	4.164	5.022
HCM Lane V/C Ratio	0	0.456	0.821	1.369	0.989	0.578
HCM Control Delay	11.4	15.9	32.3	203.7	62.6	19.1
HCM Lane LOS	N	C	D	F	F	C
HCM 95th-tile Q	0	2.2	7.1	34	14.4	3.6

HCM 2010 AWSC
133: Live Oak Canyon & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	383.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥		↰	↱	
Traffic Vol, veh/h	10	750	30	0	1100	100	20	10	10	210	10	150
Future Vol, veh/h	10	750	30	0	1100	100	20	10	10	210	10	150
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	789	32	0	1158	105	21	11	11	221	11	158
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	257.2	591.5	17.3	20.5
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	50%	1%	0%	100%	0%
Vol Thru, %	25%	95%	92%	0%	6%
Vol Right, %	25%	4%	8%	0%	94%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	790	1200	210	160
LT Vol	20	10	0	210	0
Through Vol	10	750	1100	0	10
RT Vol	10	30	100	0	150
Lane Flow Rate	42	832	1263	221	168
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.102	1.497	2.264	0.508	0.333
Departure Headway (Hd)	12.874	8.165	7.175	10.49	9.263
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	280	457	518	347	391
Service Time	10.874	6.165	5.175	8.19	6.963
HCM Lane V/C Ratio	0.15	1.821	2.438	0.637	0.43
HCM Control Delay	17.3	257.2	591.5	23.5	16.5
HCM Lane LOS	C	F	F	C	C
HCM 95th-tile Q	0.3	34.6	84.3	2.7	1.4

HCM 2010 AWSC
134: Redlands Blvd & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	503.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	440	540	470	670	650	310
Future Vol, veh/h	440	540	470	670	650	310
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	454	557	485	691	670	320
Number of Lanes	1	0	0	1	1	0

Approach	EB		WB		NB	
Opposing Approach	WB		EB			
Opposing Lanes	1		1		0	
Conflicting Approach Left			NB		EB	
Conflicting Lanes Left	0		1		1	
Conflicting Approach Right	NB				WB	
Conflicting Lanes Right	1		0		1	
HCM Control Delay	428.6		622.3		438.9	
HCM LOS	F		F		F	

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	68%	0%	41%
Vol Thru, %	0%	45%	59%
Vol Right, %	32%	55%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	960	980	1140
LT Vol	650	0	470
Through Vol	0	440	670
RT Vol	310	540	0
Lane Flow Rate	990	1010	1175
Geometry Grp	1	1	1
Degree of Util (X)	1.908	1.871	2.311
Departure Headway (Hd)	9.049	11.113	10.834
Convergence, Y/N	Yes	Yes	Yes
Cap	416	344	353
Service Time	7.049	9.113	8.834
HCM Lane V/C Ratio	2.38	2.936	3.329
HCM Control Delay	438.9	428.6	622.3
HCM Lane LOS	F	F	F
HCM 95th-tile Q	50.8	40.8	59.3

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	9.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	40	70	190	130	120	230
Future Vol, veh/h	40	70	190	130	120	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	72	196	134	124	237

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	113	0	603	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	526	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1489	-	465	990
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	597	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1489	-	399	990
Mov Cap-2 Maneuver	-	-	-	-	399	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	512	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	16.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	657	-	-	1489	-
HCM Lane V/C Ratio	0.549	-	-	0.132	-
HCM Control Delay (s)	16.9	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.4	-	-	0.5	-

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	10	10	30	10	30	0	240	10	10	230	10
Future Vol, veh/h	10	10	10	30	10	30	0	240	10	10	230	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	34	11	34	0	270	11	11	258	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.7	9.9	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	33%	43%	4%
Vol Thru, %	96%	33%	14%	92%
Vol Right, %	4%	33%	43%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	250	30	70	250
LT Vol	0	10	30	10
Through Vol	240	10	10	230
RT Vol	10	10	30	10
Lane Flow Rate	281	34	79	281
Geometry Grp	1	1	1	1
Degree of Util (X)	0.348	0.048	0.11	0.349
Departure Headway (Hd)	4.465	5.128	5.018	4.473
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	803	695	711	803
Service Time	2.498	3.185	3.069	2.505
HCM Lane V/C Ratio	0.35	0.049	0.111	0.35
HCM Control Delay	9.9	8.4	8.7	9.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.6	0.2	0.4	1.6

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int1_2040 PM-PP]

New Site
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	A	A	B	A

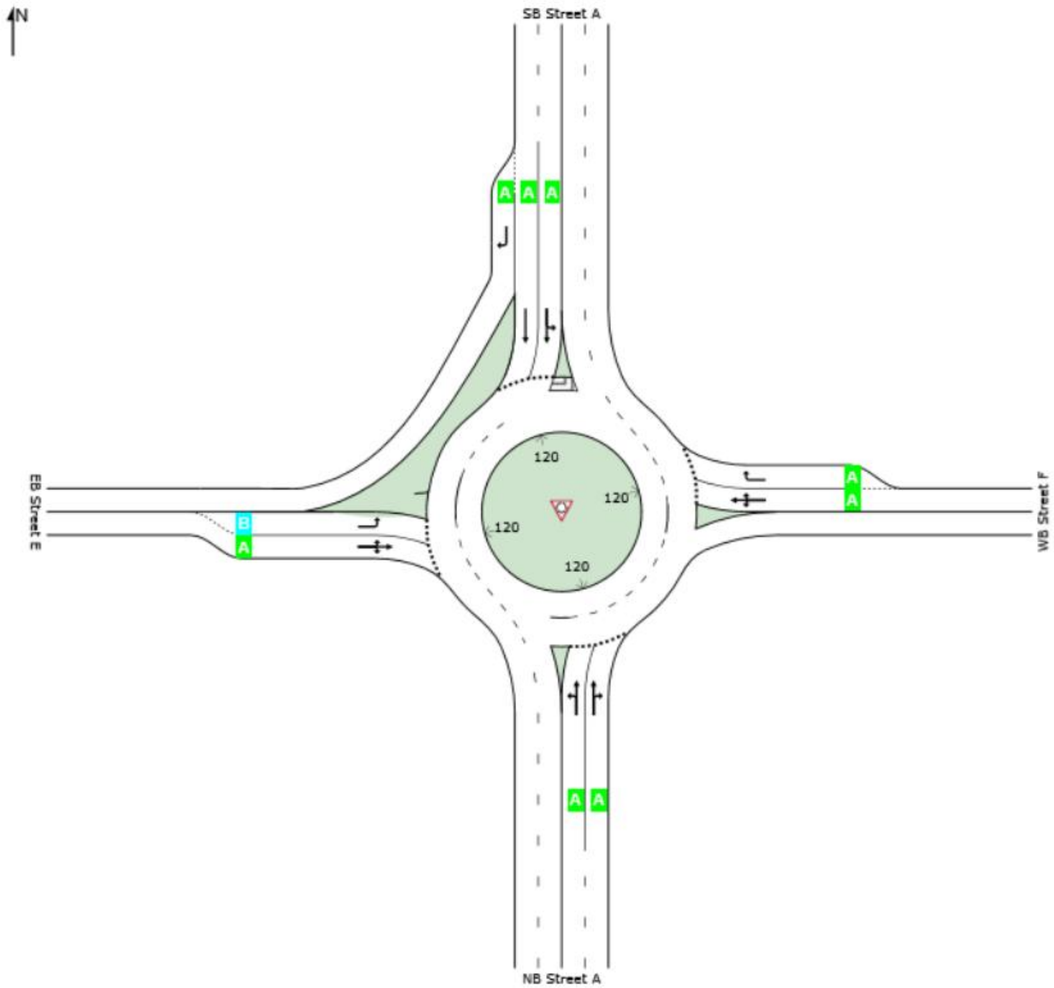

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int1_2040 PM-PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows		Cap.	Deg.	Lane	Average	Level of	95% Back of Queue		Lane	Lane	Cap.	Prob.
	Total veh/h	HV %	veh/h	Satn v/c	Util. %	Delay sec	Service	Veh	Dist ft	Config	Length ft	Adj. %	Block. %
South: NB Street A													
Lane 1	444	0.0	878	0.505	100	8.4	LOS A	2.9	73.2	Full	1600	0.0	0.0
Lane 2[d]	456	0.0	903	0.505	100	8.1	LOS A	2.9	73.7	Full	1600	0.0	0.0
Approach	900	0.0		0.505		8.2	LOS A	2.9	73.7				
East: WB Street F													
Lane 1	270	0.0	723	0.373	100	8.3	LOS A	1.7	42.0	Full	1600	0.0	0.0
Lane 2[d]	290	0.0	778	0.373	100	6.7	LOS A	1.7	42.7	Short	200	0.0	NA
Approach	560	0.0		0.373		7.5	LOS A	1.7	42.7				
North: SB Street A													
Lane 1	593	0.0	1322	0.449	100	9.4	LOS A	3.3	82.5	Full	1600	0.0	0.0
Lane 2[d]	657	0.0	1464	0.449	100	4.0	LOS A	3.4	83.9	Full	1600	0.0	0.0
Lane 3	100	0.0	1675	0.060	100	3.6	LOS A	0.0	0.0	Short	100	0.0	NA
Approach	1350	0.0		0.449		6.3	LOS A	3.4	83.9				
West: EB Street E													
Lane 1	89	0.0	657	0.136	100	13.3	LOS B	0.5	12.2	Short	200	0.0	NA
Lane 2[d]	101	0.0	744	0.136	100	9.1	LOS A	0.5	12.6	Full	1600	0.0	0.0
Approach	190	0.0		0.136		11.0	LOS B	0.5	12.6				
Intersection	3000	0.0		0.505		7.4	LOS A	3.4	83.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[d] Dominant lane on roundabout approach

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HCM 2010 Signalized Intersection Summary
2: Street D & Street E

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰↰	↑	↰	↱
Traffic Volume (veh/h)	10	130	470	10	190	730
Future Volume (veh/h)	10	130	470	10	190	730
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	130	470	10	190	730
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	536	456	1085	536	897	800
Arrive On Green	0.28	0.28	0.28	0.28	0.50	0.50
Sat Flow, veh/h	1900	1615	2461	1900	1810	1615
Grp Volume(v), veh/h	10	130	470	10	190	730
Grp Sat Flow(s),veh/h/ln	1900	1615	1230	1900	1810	1615
Q Serve(g_s), s	0.1	2.3	6.1	0.1	2.1	15.0
Cycle Q Clear(g_c), s	0.1	2.3	6.3	0.1	2.1	15.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	536	456	1085	536	897	800
V/C Ratio(X)	0.02	0.29	0.43	0.02	0.21	0.91
Avail Cap(c_a), veh/h	949	807	1620	949	954	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	10.1	11.6	9.3	5.1	8.4
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.1	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.1	2.1	0.1	1.1	9.5
LnGrp Delay(d),s/veh	9.3	10.4	11.9	9.3	5.2	21.8
LnGrp LOS	A	B	B	A	A	C
Approach Vol, veh/h	140			480	920	
Approach Delay, s/veh	10.4			11.8	18.4	
Approach LOS	B			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		21.9		14.2				14.2
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		19.0		18.0				18.0
Max Q Clear Time (g_c+I1), s		17.0		4.3				8.3
Green Ext Time (p_c), s		0.9		2.2				1.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int3_2040 PM PP]

New Site
Roundabout

All Movement Classes

	South	East	North	Intersection
LOS	A	B	A	A

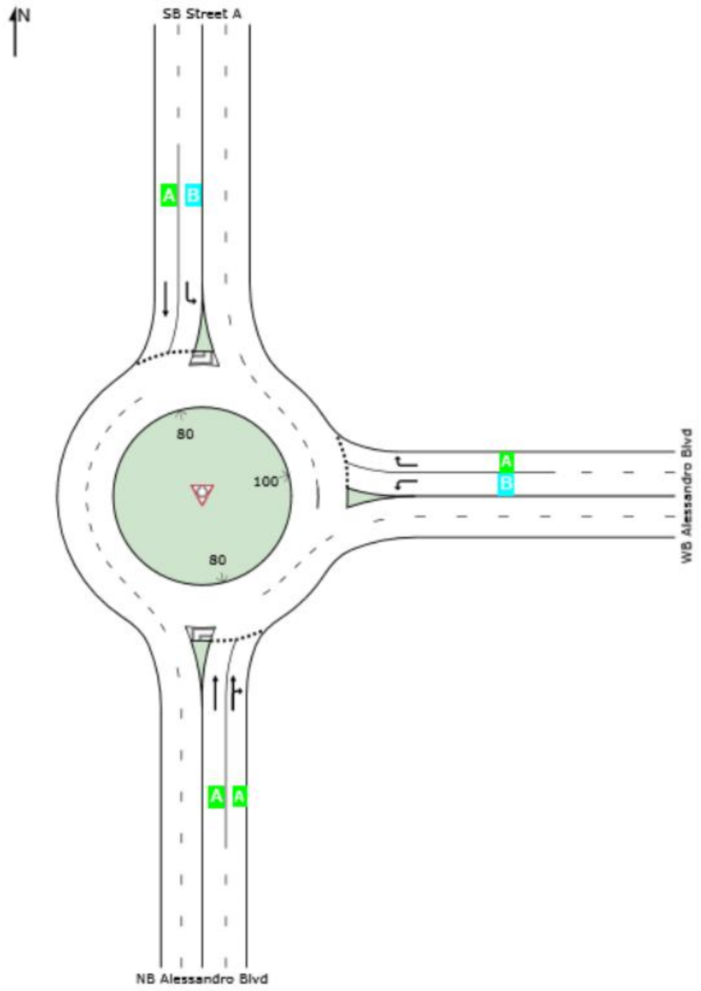

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: 1 [Int3_2040 PM PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Alessandro Blvd													
Lane 1	261	0.0	1037	0.252	60[5]	5.8	LOS A	1.5	36.4	Full	1600	0.0	0.0
Lane 2[d]	565	0.0	1343	0.421	100	5.7	LOS A	3.1	76.7	Full	1600	0.0	0.0
Approach	826	0.0		0.421		5.7	LOS A	3.1	76.7				
East: WB Alessandro Blvd													
Lane 1[d]	330	0.0	1042	0.317	100	11.9	LOS B	1.6	39.9	Full	1600	0.0	0.0
Lane 2	110	0.0	708	0.155	100	6.7	LOS A	0.6	15.8	Full	1600	0.0	0.0
Approach	440	0.0		0.317		10.6	LOS B	1.6	39.9				
North: SB Street A													
Lane 1	109	0.0	851	0.128	100	12.3	LOS B	0.6	15.3	Full	1600	0.0	0.0
Lane 2[d]	217	0.0	1054	0.206	100	6.6	LOS A	1.1	27.5	Full	1600	0.0	0.0
Approach	326	0.0		0.206		8.5	LOS A	1.1	27.5				
Intersection	1592	0.0		0.421		7.7	LOS A	3.1	76.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [Int4_2040 PM PP]

New Site
Roundabout

All Movement Classes

	East	North	West	Intersection
LOS	A	A	A	A

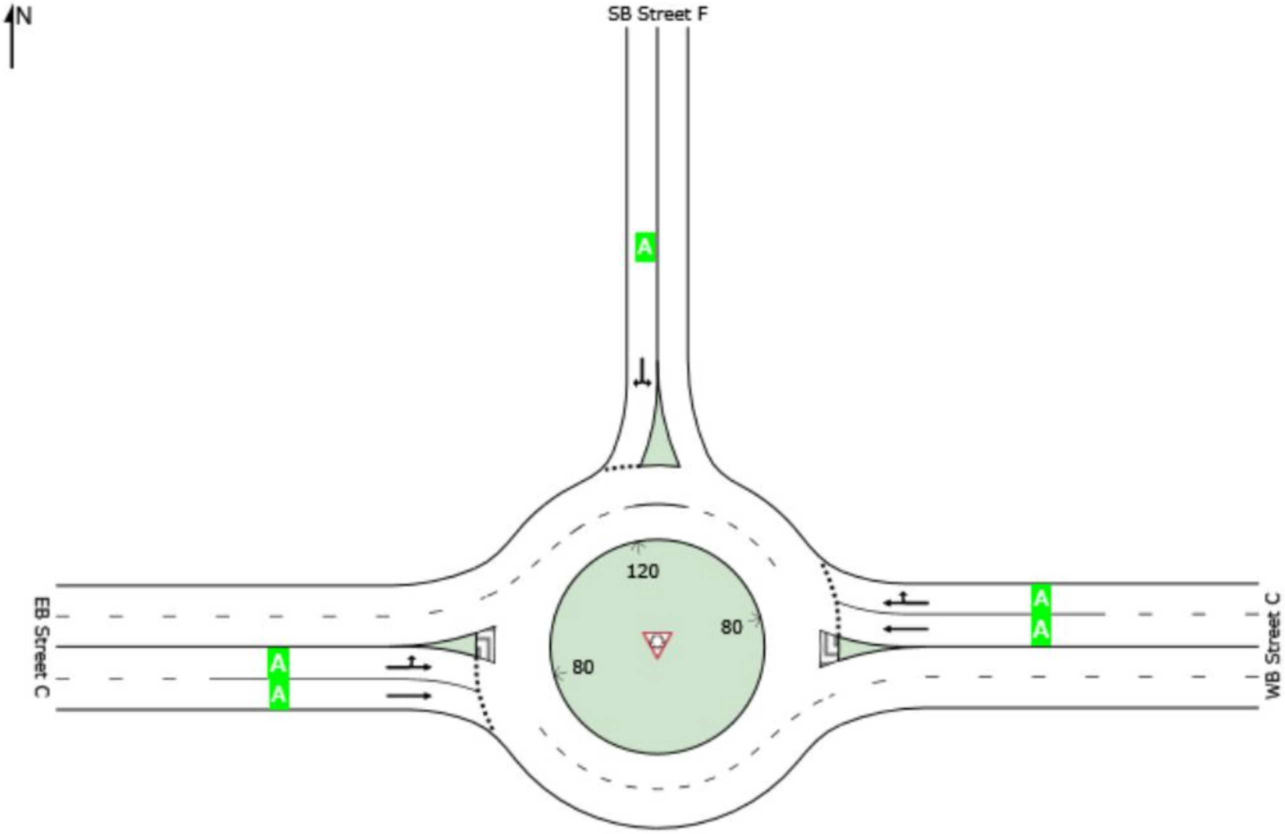

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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Project: C:\Users\caringula\Documents\World Logistics Center\2018 Analysis\Sidra\Intersection 4.sip7

LANE SUMMARY

Site: 1 [Int4_2040 PM PP]

New Site
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	Demand Flows HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	95% Back of Queue Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: WB Street C													
Lane 1	241	0.0	1257	0.192	100	4.4	LOS A	1.0	24.2	Full	1600	0.0	0.0
Lane 2[d]	249	0.0	1297	0.192	100	4.8	LOS A	1.0	24.4	Full	1600	0.0	0.0
Approach	490	0.0		0.192		4.6	LOS A	1.0	24.4				
North: SB Street F													
Lane 1[d]	340	0.0	933	0.365	100	9.7	LOS A	1.6	41.0	Full	1600	0.0	0.0
Approach	340	0.0		0.365		9.7	LOS A	1.6	41.0				
West: EB Street C													
Lane 1	252	0.0	1093	0.230	100	7.7	LOS A	1.2	29.9	Full	1600	0.0	0.0
Lane 2[d]	258	0.0	1120	0.230	100	5.3	LOS A	1.2	30.1	Full	1600	0.0	0.0
Approach	510	0.0		0.230		6.5	LOS A	1.2	30.1				
Intersection	1340	0.0		0.365		6.6	LOS A	1.6	41.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

[d] Dominant lane on roundabout approach

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	160	610	500	1660	2430	180
Future Volume (veh/h)	160	610	500	1660	2430	180
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	170	649	532	1766	2585	191
Adj No. of Lanes	1	2	1	3	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	251	394	515	4150	2514	783
Arrive On Green	0.14	0.14	0.28	0.80	0.48	0.48
Sat Flow, veh/h	1810	2842	1810	5358	5358	1615
Grp Volume(v), veh/h	170	649	532	1766	2585	191
Grp Sat Flow(s),veh/h/ln	1810	1421	1810	1729	1729	1615
Q Serve(g_s), s	11.6	18.0	37.0	13.4	63.0	9.0
Cycle Q Clear(g_c), s	11.6	18.0	37.0	13.4	63.0	9.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	251	394	515	4150	2514	783
V/C Ratio(X)	0.68	1.65	1.03	0.43	1.03	0.24
Avail Cap(c_a), veh/h	251	394	515	4150	2514	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	56.0	46.5	3.9	33.5	19.6
Incr Delay (d2), s/veh	7.2	303.3	48.4	0.1	25.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	23.6	25.4	6.2	36.0	4.0
LnGrp Delay(d),s/veh	60.4	359.3	94.9	4.0	59.2	19.7
LnGrp LOS	E	F	F	A	F	B
Approach Vol, veh/h	819			2298	2776	
Approach Delay, s/veh	297.2			25.1	56.5	
Approach LOS	F			C	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		108.0		22.0	41.0	67.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		104.0		18.0	37.0	63.0		
Max Q Clear Time (g_c+I1), s		15.4		20.0	39.0	65.0		
Green Ext Time (p_c), s		81.1		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	77.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
9: Gilman Springs Rd & Street B

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	100	150	60	1600	2470	60
Future Volume (veh/h)	100	150	60	1600	2470	60
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	150	60	1600	2470	60
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	351	313	243	2895	2895	901
Arrive On Green	0.19	0.19	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1810	1615	129	5358	5358	1615
Grp Volume(v), veh/h	100	150	60	1600	2470	60
Grp Sat Flow(s),veh/h/ln	1810	1615	129	1729	1729	1615
Q Serve(g_s), s	1.5	2.7	5.0	6.4	13.0	0.6
Cycle Q Clear(g_c), s	1.5	2.7	18.0	6.4	13.0	0.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	351	313	243	2895	2895	901
V/C Ratio(X)	0.28	0.48	0.25	0.55	0.85	0.07
Avail Cap(c_a), veh/h	1010	901	243	2895	2895	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	11.6	15.3	4.6	6.0	3.3
Incr Delay (d2), s/veh	0.4	1.1	0.5	0.2	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.3	0.6	3.0	6.7	0.2
LnGrp Delay(d),s/veh	11.5	12.7	15.8	4.8	8.7	3.3
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	250			1660	2530	
Approach Delay, s/veh	12.2			5.2	8.6	
Approach LOS	B			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		22.0		10.3		22.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		20.0		4.7		15.0		
Green Ext Time (p_c), s		0.0		0.6		3.0		

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
10: Redlands Blvd & Locust Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	150	5	30	20	15	10	20	840	10	5	930	50
Future Volume (veh/h)	150	5	30	20	15	10	20	840	10	5	930	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	163	5	33	22	16	11	22	913	11	5	1011	54
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	370	19	49	229	155	78	264	1188	1006	328	1188	1006
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	1136	95	242	576	771	390	538	1900	1609	615	1900	1609
Grp Volume(v), veh/h	201	0	0	49	0	0	22	913	11	5	1011	54
Grp Sat Flow(s),veh/h/ln	1473	0	0	1737	0	0	538	1900	1609	615	1900	1609
Q Serve(g_s), s	4.7	0.0	0.0	0.0	0.0	0.0	1.6	15.9	0.1	0.3	19.6	0.6
Cycle Q Clear(g_c), s	5.7	0.0	0.0	1.0	0.0	0.0	21.2	15.9	0.1	16.2	19.6	0.6
Prop In Lane	0.81		0.16	0.45		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	438	0	0	462	0	0	264	1188	1006	328	1188	1006
V/C Ratio(X)	0.46	0.00	0.00	0.11	0.00	0.00	0.08	0.77	0.01	0.02	0.85	0.05
Avail Cap(c_a), veh/h	834	0	0	898	0	0	278	1239	1049	344	1239	1049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	0.0	15.1	0.0	0.0	15.4	6.2	3.3	12.1	6.9	3.3
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.1	0.0	0.0	0.1	2.9	0.0	0.0	5.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	0.5	0.0	0.0	0.2	9.1	0.1	0.0	11.7	0.3
LnGrp Delay(d),s/veh	17.6	0.0	0.0	15.2	0.0	0.0	15.5	9.1	3.3	12.1	12.6	3.4
LnGrp LOS	B			B			B	A	A	B	B	A
Approach Vol, veh/h		201			49			946			1070	
Approach Delay, s/veh		17.6			15.2			9.2			12.1	
Approach LOS		B			B			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.8		13.2		32.8		13.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		23.2		7.7		21.6		3.0
Green Ext Time (p_c), s		5.6		1.0		6.7		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
11: Redlands Blvd & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	160	200	60	60	120	30	20	700	50	20	760	220
Future Volume (veh/h)	160	200	60	60	120	30	20	700	50	20	760	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	163	204	61	61	122	31	20	714	51	20	776	224
Adj No. of Lanes	0	2	0	0	2	0	1	2	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	256	340	104	134	279	73	60	1216	87	60	1285	572
Arrive On Green	0.19	0.19	0.19	0.13	0.13	0.13	0.03	0.36	0.36	0.03	0.36	0.36
Sat Flow, veh/h	1326	1766	542	1001	2095	549	1810	3416	244	1810	3610	1608
Grp Volume(v), veh/h	225	0	203	113	0	101	20	377	388	20	776	224
Grp Sat Flow(s),veh/h/ln	1834	0	1799	1850	0	1796	1810	1805	1855	1810	1805	1608
Q Serve(g_s), s	6.4	0.0	5.8	3.2	0.0	2.9	0.6	9.6	9.6	0.6	9.9	5.9
Cycle Q Clear(g_c), s	6.4	0.0	5.8	3.2	0.0	2.9	0.6	9.6	9.6	0.6	9.9	5.9
Prop In Lane	0.72		0.30	0.54		0.31	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	353	0	347	247	0	240	60	643	660	60	1285	572
V/C Ratio(X)	0.64	0.00	0.58	0.46	0.00	0.42	0.33	0.59	0.59	0.33	0.60	0.39
Avail Cap(c_a), veh/h	815	0	800	855	0	830	225	834	857	225	1669	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	20.7	22.5	0.0	22.4	26.6	14.7	14.7	26.6	14.9	13.6
Incr Delay (d2), s/veh	1.9	0.0	1.6	1.3	0.0	1.2	3.1	0.9	0.8	3.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	3.0	1.7	0.0	1.5	0.4	4.9	5.0	0.4	4.9	2.7
LnGrp Delay(d),s/veh	22.8	0.0	22.2	23.8	0.0	23.6	29.7	15.6	15.6	29.7	15.3	14.0
LnGrp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		428			214			785			1020	
Approach Delay, s/veh		22.5			23.7			16.0			15.3	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	24.0		14.8	5.9	24.0		11.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	7.0	26.0		25.0	7.0	26.0		26.0
Max Q Clear Time (g_c+I1), s	2.6	11.6		8.4	2.6	11.9		5.2
Green Ext Time (p_c), s	0.0	8.1		1.9	0.0	7.9		0.9

Intersection Summary			
HCM 2010 Ctrl Delay			17.5
HCM 2010 LOS			B

HCM 2010 TWSC
12: Theodore St & Ironwood Ave

Intersection	
Int Delay, s/veh	83.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑	↱	↰	↑
Traffic Vol, veh/h	440	70	140	370	120	150
Future Vol, veh/h	440	70	140	370	120	150
Conflicting Peds, #/hr	0	5	0	0	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	130	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	518	82	165	435	141	176

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	629	175	0	0	170	0
Stage 1	170	-	-	-	-	-
Stage 2	459	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 449	874	-	-	1420	-
Stage 1	865	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 403	867	-	-	1414	-
Mov Cap-2 Maneuver	~ 403	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	577	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	210.1	0	3.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	435	1414	-
HCM Lane V/C Ratio	-	-	1.379	0.1	-
HCM Control Delay (s)	-	-	210.1	7.8	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	28.5	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↑	↱		↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	0	0	0	550	0	180	0	700	140	0	650	330
Future Volume (veh/h)	0	0	0	550	0	180	0	700	140	0	650	330
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				561	0	184	0	714	0	0	663	337
Adj No. of Lanes				1	1	1	0	2	1	0	2	1
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				701	736	623	0	1481	663	0	1481	660
Arrive On Green				0.39	0.00	0.39	0.00	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1810	1900	1609	0	3705	1615	0	3705	1609
Grp Volume(v), veh/h				561	0	184	0	714	0	0	663	337
Grp Sat Flow(s),veh/h/ln				1810	1900	1609	0	1805	1615	0	1805	1609
Q Serve(g_s), s				10.9	0.0	3.1	0.0	5.7	0.0	0.0	5.2	6.2
Cycle Q Clear(g_c), s				10.9	0.0	3.1	0.0	5.7	0.0	0.0	5.2	6.2
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				701	736	623	0	1481	663	0	1481	660
V/C Ratio(X)				0.80	0.00	0.30	0.00	0.48	0.00	0.00	0.45	0.51
Avail Cap(c_a), veh/h				1144	1201	1017	0	2008	898	0	2008	895
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.8	0.0	8.4	0.0	8.6	0.0	0.0	8.4	8.7
Incr Delay (d2), s/veh				2.2	0.0	0.3	0.0	0.2	0.0	0.0	0.2	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.7	0.0	1.4	0.0	2.8	0.0	0.0	2.6	2.8
LnGrp Delay(d),s/veh				12.9	0.0	8.6	0.0	8.8	0.0	0.0	8.6	9.3
LnGrp LOS				B		A		A			A	A
Approach Vol, veh/h					745			714			1000	
Approach Delay, s/veh					11.9			8.8			8.9	
Approach LOS					B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		20.2				20.2		19.3
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		22.0				22.0		25.0
Max Q Clear Time (g_c+I1), s		7.7				8.2		12.9
Green Ext Time (p_c), s		7.9				7.7		2.2

Intersection Summary			
HCM 2010 Ctrl Delay			9.8
HCM 2010 LOS			A

HCM 2010 Signalized Intersection Summary
14: Redlands Blvd & SR-60 EB Ramps/SR 60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱					↑↑	↱		↑↑	↱
Traffic Volume (veh/h)	440	0	130	0	0	0	0	490	910	0	860	320
Future Volume (veh/h)	440	0	130	0	0	0	0	490	910	0	860	320
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	454	0	134				0	505	938	0	887	0
Adj No. of Lanes	1	1	1				0	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	550	578	491				0	1938	867	0	1938	867
Arrive On Green	0.30	0.00	0.30				0.00	0.54	0.54	0.00	0.54	0.00
Sat Flow, veh/h	1810	1900	1615				0	3705	1615	0	3705	1615
Grp Volume(v), veh/h	454	0	134				0	505	938	0	887	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1805	1615	0	1805	1615
Q Serve(g_s), s	11.7	0.0	3.2				0.0	3.8	27.0	0.0	7.6	0.0
Cycle Q Clear(g_c), s	11.7	0.0	3.2				0.0	3.8	27.0	0.0	7.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	550	578	491				0	1938	867	0	1938	867
V/C Ratio(X)	0.83	0.00	0.27				0.00	0.26	1.08	0.00	0.46	0.00
Avail Cap(c_a), veh/h	900	945	803				0	1938	867	0	1938	867
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	13.3				0.0	6.3	11.6	0.0	7.1	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.3				0.0	0.1	55.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	1.5				0.0	1.8	25.1	0.0	3.7	0.0
LnGrp Delay(d),s/veh	19.6	0.0	13.6				0.0	6.3	66.8	0.0	7.3	0.0
LnGrp LOS	B		B					A	F		A	
Approach Vol, veh/h		588						1443			887	
Approach Delay, s/veh		18.2						45.6			7.3	
Approach LOS		B						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		31.0		19.3		31.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		27.0		25.0		27.0		
Max Q Clear Time (g_c+I1), s		29.0		13.7		9.6		
Green Ext Time (p_c), s		0.0		1.6		11.7		

Intersection Summary		
HCM 2010 Ctrl Delay		28.5
HCM 2010 LOS		C

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰↰	↑↑↑	↑↑↑	↱
Traffic Volume (veh/h)	100	310	1020	410	340	250
Future Volume (veh/h)	100	310	1020	410	340	250
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	348	1146	461	382	281
Adj No. of Lanes	1	1	2	3	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	429	383	1149	3401	3401	1059
Arrive On Green	0.24	0.24	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1810	1615	1522	5358	5358	1615
Grp Volume(v), veh/h	112	348	1146	461	382	281
Grp Sat Flow(s),veh/h/ln	1810	1615	761	1729	1729	1615
Q Serve(g_s), s	3.8	15.7	47.0	2.5	2.0	5.4
Cycle Q Clear(g_c), s	3.8	15.7	49.0	2.5	2.0	5.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	429	383	1149	3401	3401	1059
V/C Ratio(X)	0.26	0.91	1.00	0.14	0.11	0.27
Avail Cap(c_a), veh/h	436	389	1149	3401	3401	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	27.7	17.8	4.9	4.8	5.4
Incr Delay (d2), s/veh	0.3	24.4	25.9	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.6	15.7	1.2	1.0	2.5
LnGrp Delay(d),s/veh	23.5	52.1	43.6	4.9	4.8	5.5
LnGrp LOS	C	D	D	A	A	A
Approach Vol, veh/h	460			1607	663	
Approach Delay, s/veh	45.2			32.5	5.1	
Approach LOS	D			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		53.0		21.7		53.0		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		49.0		18.0		49.0		
Max Q Clear Time (g_c+I1), s		51.0		17.7		7.4		
Green Ext Time (p_c), s		0.0		0.1		24.8		

Intersection Summary			
HCM 2010 Ctrl Delay			28.0
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰		↱↱					↑↑↑	↱		↑↑↑	↱
Traffic Volume (veh/h)	220	0	950	0	0	0	0	1210	350	0	610	40
Future Volume (veh/h)	220	0	950	0	0	0	0	1210	350	0	610	40
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900				0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	293	0	0				0	1613	467	0	813	53
Adj No. of Lanes	1	0	2				0	3	1	0	3	1
Peak Hour Factor	0.75	0.75	0.75				0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	394	0	619				0	2873	894	0	2873	894
Arrive On Green	0.22	0.00	0.00				0.00	0.55	0.55	0.00	0.55	0.55
Sat Flow, veh/h	1810	0	2842				0	5358	1615	0	5358	1615
Grp Volume(v), veh/h	293	0	0				0	1613	467	0	813	53
Grp Sat Flow(s),veh/h/ln	1810	0	1421				0	1729	1615	0	1729	1615
Q Serve(g_s), s	5.3	0.0	0.0				0.0	7.1	6.4	0.0	2.9	0.5
Cycle Q Clear(g_c), s	5.3	0.0	0.0				0.0	7.1	6.4	0.0	2.9	0.5
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	394	0	619				0	2873	894	0	2873	894
V/C Ratio(X)	0.74	0.00	0.00				0.00	0.56	0.52	0.00	0.28	0.06
Avail Cap(c_a), veh/h	1342	0	2109				0	3108	968	0	3108	968
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	0.0	0.0				0.0	5.1	4.9	0.0	4.1	3.6
Incr Delay (d2), s/veh	2.8	0.0	0.0				0.0	0.2	0.5	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0				0.0	3.3	2.8	0.0	1.4	0.2
LnGrp Delay(d),s/veh	15.6	0.0	0.0				0.0	5.3	5.4	0.0	4.2	3.6
LnGrp LOS	B							A	A		A	A
Approach Vol, veh/h		293						2080			866	
Approach Delay, s/veh		15.6						5.3			4.2	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		23.4		11.6		23.4		
Change Period (Y+Rc), s		4.0		4.0		4.0		
Max Green Setting (Gmax), s		21.0		26.0		21.0		
Max Q Clear Time (g_c+I1), s		9.1		7.3		4.9		
Green Ext Time (p_c), s		10.4		0.8		13.4		

Intersection Summary	
HCM 2010 Ctrl Delay	5.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
18: Redlands Blvd & Fir Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	620	80	180	60	40	220	100	570	80	200	440	270
Future Volume (veh/h)	620	80	180	60	40	220	100	570	80	200	440	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	674	87	196	65	43	239	109	620	87	217	478	293
Adj No. of Lanes	2	2	0	1	2	1	1	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	838	649	578	127	691	309	155	918	411	334	952	423
Arrive On Green	0.24	0.36	0.36	0.07	0.19	0.19	0.09	0.25	0.25	0.10	0.26	0.26
Sat Flow, veh/h	3510	1805	1608	1810	3610	1615	1810	3610	1615	3510	3610	1606
Grp Volume(v), veh/h	674	87	196	65	43	239	109	620	87	217	478	293
Grp Sat Flow(s),veh/h/ln	1755	1805	1608	1810	1805	1615	1810	1805	1615	1755	1805	1606
Q Serve(g_s), s	13.1	2.4	6.4	2.5	0.7	10.2	4.3	11.2	3.1	4.3	8.2	11.9
Cycle Q Clear(g_c), s	13.1	2.4	6.4	2.5	0.7	10.2	4.3	11.2	3.1	4.3	8.2	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	838	649	578	127	691	309	155	918	411	334	952	423
V/C Ratio(X)	0.80	0.13	0.34	0.51	0.06	0.77	0.70	0.68	0.21	0.65	0.50	0.69
Avail Cap(c_a), veh/h	1355	945	842	200	896	401	274	1144	512	484	1095	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	15.6	16.9	32.5	24.0	27.8	32.3	24.4	21.3	31.7	22.7	24.1
Incr Delay (d2), s/veh	1.9	0.1	0.3	3.1	0.0	6.8	5.7	1.1	0.3	2.1	0.4	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	1.2	2.9	1.4	0.4	5.1	2.4	5.7	1.4	2.2	4.1	5.7
LnGrp Delay(d),s/veh	27.9	15.7	17.3	35.6	24.0	34.7	37.9	25.5	21.6	33.8	23.1	27.6
LnGrp LOS	C	B	B	D	C	C	D	C	C	C	C	C
Approach Vol, veh/h		957			347			816			988	
Approach Delay, s/veh		24.6			33.5			26.7			26.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	22.4	9.1	30.1	10.2	23.1	21.3	17.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	23.0	8.0	38.0	11.0	22.0	28.0	18.0
Max Q Clear Time (g_c+I1), s	6.3	13.2	4.5	8.4	6.3	13.9	15.1	12.2
Green Ext Time (p_c), s	0.2	5.2	0.0	3.0	0.1	4.6	2.2	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰	↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	180	20	230	80	10	60	170	1350	150	110	1270	120
Future Volume (veh/h)	180	20	230	80	10	60	170	1350	150	110	1270	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	265	29	338	118	15	88	250	1985	221	162	1868	176
Adj No. of Lanes	1	1	2	1	1	0	2	3	1	1	3	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	506	595	891	467	75	442	407	2671	832	193	2671	832
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1312	1900	2842	1031	240	1411	406	5187	1615	179	5187	1615
Grp Volume(v), veh/h	265	29	338	118	0	103	250	1985	221	162	1868	176
Grp Sat Flow(s),veh/h/ln	1312	1900	1421	1031	0	1651	203	1729	1615	179	1729	1615
Q Serve(g_s), s	8.6	0.5	4.3	4.2	0.0	2.1	11.3	14.0	3.6	10.0	12.7	2.8
Cycle Q Clear(g_c), s	10.8	0.5	4.3	4.7	0.0	2.1	24.0	14.0	3.6	24.0	12.7	2.8
Prop In Lane	1.00		1.00	1.00		0.85	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	506	595	891	467	0	517	407	2671	832	193	2671	832
V/C Ratio(X)	0.52	0.05	0.38	0.25	0.00	0.20	0.61	0.74	0.27	0.84	0.70	0.21
Avail Cap(c_a), veh/h	601	734	1098	542	0	638	407	2671	832	193	2671	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	11.2	12.5	12.8	0.0	11.7	21.1	8.9	6.3	22.1	8.6	6.2
Incr Delay (d2), s/veh	0.8	0.0	0.3	0.3	0.0	0.2	2.7	1.2	0.2	26.8	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.3	1.7	1.2	0.0	1.0	1.7	6.9	1.6	3.5	6.1	1.3
LnGrp Delay(d),s/veh	16.5	11.2	12.7	13.1	0.0	11.9	23.8	10.0	6.5	49.0	9.4	6.3
LnGrp LOS	B	B	B	B		B	C	B	A	D	A	A
Approach Vol, veh/h		632			221			2456			2206	
Approach Delay, s/veh		14.2			12.5			11.1			12.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		28.0		18.6		28.0		18.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		24.0		18.0		24.0		18.0
Max Q Clear Time (g_c+I1), s		26.0		12.8		26.0		6.7
Green Ext Time (p_c), s		0.0		1.8		0.0		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	14.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰	↱		↰↑↱	
Traffic Vol, veh/h	10	660	100	70	470	0	80	0	120	0	0	10
Future Vol, veh/h	10	660	100	70	470	0	80	0	120	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	825	125	88	588	0	100	0	150	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	588	0	0	950	0	0	1382	1676	475	1201	1738	294
Stage 1	-	-	-	-	-	-	913	913	-	763	763	-
Stage 2	-	-	-	-	-	-	469	763	-	438	975	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	997	-	-	731	-	-	105	96	541	143	88	708
Stage 1	-	-	-	-	-	-	298	355	-	367	416	-
Stage 2	-	-	-	-	-	-	549	416	-	573	332	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	997	-	-	731	-	-	~ 87	77	541	87	70	708
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 87	77	-	87	70	-
Stage 1	-	-	-	-	-	-	290	345	-	357	342	-
Stage 2	-	-	-	-	-	-	443	342	-	403	323	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2	100.6	10.2
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	87	541	997	-	-	731	-	-	708
HCM Lane V/C Ratio	1.149	0.277	0.013	-	-	0.12	-	-	0.018
HCM Control Delay (s)	230.1	14.2	8.7	0.1	-	10.6	0.7	-	10.2
HCM Lane LOS	F	B	A	A	-	B	A	-	B
HCM 95th %tile Q(veh)	7	1.1	0	-	-	0.4	-	-	0.1

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
21: Moreno Beach Dr & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	190	410	190	180	330	60	100	900	150	30	1160	80
Future Volume (veh/h)	190	410	190	180	330	60	100	900	150	30	1160	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	241	519	241	228	418	76	127	1139	190	38	1468	101
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	354	642	297	226	603	109	159	1596	266	90	1581	109
Arrive On Green	0.20	0.27	0.27	0.13	0.20	0.20	0.09	0.36	0.36	0.05	0.32	0.32
Sat Flow, veh/h	1810	2395	1108	1810	3052	551	1810	4476	746	1810	4955	341
Grp Volume(v), veh/h	241	391	369	228	246	248	127	880	449	38	1024	545
Grp Sat Flow(s),veh/h/ln	1810	1805	1697	1810	1805	1798	1810	1729	1765	1810	1729	1838
Q Serve(g_s), s	9.9	16.2	16.3	10.0	10.1	10.3	5.5	17.5	17.6	1.6	22.9	22.9
Cycle Q Clear(g_c), s	9.9	16.2	16.3	10.0	10.1	10.3	5.5	17.5	17.6	1.6	22.9	22.9
Prop In Lane	1.00		0.65	1.00		0.31	1.00		0.42	1.00		0.19
Lane Grp Cap(c), veh/h	354	484	455	226	357	355	159	1233	629	90	1103	586
V/C Ratio(X)	0.68	0.81	0.81	1.01	0.69	0.70	0.80	0.71	0.71	0.42	0.93	0.93
Avail Cap(c_a), veh/h	354	587	552	226	587	585	159	1233	629	159	1125	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	27.3	27.4	35.0	29.8	29.8	35.8	22.2	22.2	36.8	26.3	26.3
Incr Delay (d2), s/veh	5.2	6.9	7.5	61.5	2.4	2.5	24.7	2.0	3.8	3.1	13.0	20.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	9.0	8.5	8.8	5.3	5.3	3.8	8.6	9.2	0.9	12.9	15.0
LnGrp Delay(d),s/veh	35.1	34.2	34.9	96.5	32.2	32.3	60.4	24.1	26.0	39.9	39.3	47.2
LnGrp LOS	D	C	C	F	C	C	E	C	C	D	D	D
Approach Vol, veh/h		1001			722			1456			1607	
Approach Delay, s/veh		34.7			52.5			27.9			42.0	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	32.5	14.0	25.4	11.0	29.5	19.6	19.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	10.0	26.0	7.0	26.0	10.0	26.0
Max Q Clear Time (g_c+I1), s	3.6	19.6	12.0	18.3	7.5	24.9	11.9	12.3
Green Ext Time (p_c), s	0.0	5.9	0.0	2.6	0.0	0.6	0.0	2.3

Intersection Summary			
HCM 2010 Ctrl Delay			37.8
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
22: Quincy St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	140	400	20	0	410	20	10	0	0	20	0	140
Future Volume (veh/h)	140	400	20	0	410	20	10	0	0	20	0	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	400	20	0	410	20	10	0	0	20	0	140
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	669	1654	82	278	1657	81	459	415	0	590	0	351
Arrive On Green	0.47	0.47	0.47	0.00	0.47	0.47	0.22	0.00	0.00	0.22	0.00	0.22
Sat Flow, veh/h	970	3499	174	982	3503	170	1263	1900	0	1430	0	1606
Grp Volume(v), veh/h	140	206	214	0	211	219	10	0	0	20	0	140
Grp Sat Flow(s),veh/h/ln	970	1805	1868	982	1805	1869	1263	1900	0	1430	0	1606
Q Serve(g_s), s	2.6	1.8	1.8	0.0	1.8	1.8	0.2	0.0	0.0	0.3	0.0	1.9
Cycle Q Clear(g_c), s	4.4	1.8	1.8	0.0	1.8	1.8	2.1	0.0	0.0	0.3	0.0	1.9
Prop In Lane	1.00		0.09	1.00		0.09	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	669	853	883	278	853	884	459	415	0	590	0	351
V/C Ratio(X)	0.21	0.24	0.24	0.00	0.25	0.25	0.02	0.00	0.00	0.03	0.00	0.40
Avail Cap(c_a), veh/h	1183	1810	1874	798	1810	1874	1450	1906	0	1712	0	1611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.4	4.1	4.1	0.0	4.1	4.1	9.6	0.0	0.0	8.0	0.0	8.7
Incr Delay (d2), s/veh	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	0.9	0.0	0.9	0.9	0.1	0.0	0.0	0.1	0.0	0.9
LnGrp Delay(d),s/veh	5.6	4.2	4.2	0.0	4.2	4.2	9.6	0.0	0.0	8.1	0.0	9.4
LnGrp LOS	A	A	A		A	A	A			A		A
Approach Vol, veh/h		560			430			10			160	
Approach Delay, s/veh		4.5			4.2			9.6			9.2	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.7		16.3		9.7		16.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0
Max Q Clear Time (g_c+I1), s		4.1		6.4		3.9		3.8
Green Ext Time (p_c), s		0.9		5.4		0.9		5.6

Intersection Summary	
HCM 2010 Ctrl Delay	5.1
HCM 2010 LOS	A

HCM 2010 AWSC
23: Redlands Blvd & Alessandro Blvd

Intersection	
Intersection Delay, s/veh	38.7
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↰↑↱			↰↑	↱		↰↑↑↱	
Traffic Vol, veh/h	160	10	70	10	10	10	140	380	10	10	390	150
Future Vol, veh/h	160	10	70	10	10	10	140	380	10	10	390	150
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	174	11	76	11	11	11	152	413	11	11	424	163
Number of Lanes	1	1	0	0	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	14.5	12.3	73.1	17.6
HCM LOS	B	B	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	27%	0%	100%	0%	33%	5%	0%
Vol Thru, %	73%	0%	0%	12%	33%	95%	57%
Vol Right, %	0%	100%	0%	88%	33%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	520	10	160	80	30	205	345
LT Vol	140	0	160	0	10	10	0
Through Vol	380	0	0	10	10	195	195
RT Vol	0	10	0	70	10	0	150
Lane Flow Rate	565	11	174	87	33	223	375
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	1.037	0.017	0.392	0.169	0.076	0.405	0.646
Departure Headway (Hd)	6.607	5.757	8.228	7.084	8.581	6.645	6.309
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	548	615	440	510	420	546	578
Service Time	4.403	3.552	5.928	4.784	6.581	4.345	4.009
HCM Lane V/C Ratio	1.031	0.018	0.395	0.171	0.079	0.408	0.649
HCM Control Delay	74.3	8.7	16.1	11.2	12.3	13.8	19.8
HCM Lane LOS	F	A	C	B	B	B	C
HCM 95th-tile Q	15.7	0.1	1.8	0.6	0.2	1.9	4.6

HCM 2010 Signalized Intersection Summary
24: Oliver St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	10	600	180	200	270	130	70	60	180	120	70	10
Future Volume (veh/h)	10	600	180	200	270	130	70	60	180	120	70	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	779	234	260	351	169	91	78	234	156	91	13
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	40	895	269	300	1120	530	153	364	323	203	727	102
Arrive On Green	0.02	0.33	0.33	0.17	0.47	0.47	0.08	0.20	0.20	0.11	0.23	0.23
Sat Flow, veh/h	1810	2734	821	1810	2376	1124	1810	1805	1603	1810	3178	445
Grp Volume(v), veh/h	13	514	499	260	265	255	91	78	234	156	51	53
Grp Sat Flow(s),veh/h/ln	1810	1805	1751	1810	1805	1695	1810	1805	1603	1810	1805	1818
Q Serve(g_s), s	0.6	22.2	22.2	11.6	7.5	7.7	4.0	3.0	11.3	6.9	1.9	1.9
Cycle Q Clear(g_c), s	0.6	22.2	22.2	11.6	7.5	7.7	4.0	3.0	11.3	6.9	1.9	1.9
Prop In Lane	1.00		0.47	1.00		0.66	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	40	591	573	300	851	799	153	364	323	203	413	416
V/C Ratio(X)	0.33	0.87	0.87	0.87	0.31	0.32	0.59	0.21	0.72	0.77	0.12	0.13
Avail Cap(c_a), veh/h	153	633	614	350	851	799	613	611	543	569	567	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	26.2	26.2	33.6	13.6	13.6	36.5	27.6	30.9	35.7	25.3	25.3
Incr Delay (d2), s/veh	4.7	12.0	12.3	17.9	0.2	0.2	3.6	0.3	3.1	6.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.0	12.6	7.3	3.8	3.7	2.2	1.5	5.3	3.8	0.9	1.0
LnGrp Delay(d),s/veh	44.6	38.2	38.5	51.5	13.8	13.8	40.1	27.9	34.0	41.7	25.4	25.5
LnGrp LOS	D	D	D	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		1026			780			403			260	
Approach Delay, s/veh		38.4			26.4			34.2			35.2	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	20.7	17.7	31.1	11.0	22.9	5.8	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	28.0	16.0	29.0	28.0	26.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	8.9	13.3	13.6	24.2	6.0	3.9	2.6	9.7
Green Ext Time (p_c), s	0.3	2.0	0.2	2.8	0.2	2.3	0.0	10.4

Intersection Summary		
HCM 2010 Ctrl Delay		33.6
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	160	510	200	50	290	130	120	800	70	190	1020	200
Future Volume (veh/h)	160	510	200	50	290	130	120	800	70	190	1020	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	630	247	62	358	160	148	988	86	235	1259	247
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	210	861	337	107	690	303	172	1065	570	248	1466	288
Arrive On Green	0.12	0.34	0.34	0.06	0.28	0.28	0.09	0.29	0.29	0.14	0.34	0.34
Sat Flow, veh/h	1810	2532	992	1810	2438	1071	1810	3610	1607	1810	4350	853
Grp Volume(v), veh/h	198	449	428	62	263	255	148	988	86	235	1001	505
Grp Sat Flow(s),veh/h/ln	1810	1805	1720	1810	1805	1704	1810	1805	1607	1810	1729	1745
Q Serve(g_s), s	10.3	20.7	20.7	3.2	11.6	11.9	7.6	25.2	3.5	12.2	25.6	25.6
Cycle Q Clear(g_c), s	10.3	20.7	20.7	3.2	11.6	11.9	7.6	25.2	3.5	12.2	25.6	25.6
Prop In Lane	1.00		0.58	1.00		0.63	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	210	613	584	107	511	483	172	1065	570	248	1166	588
V/C Ratio(X)	0.94	0.73	0.73	0.58	0.52	0.53	0.86	0.93	0.15	0.95	0.86	0.86
Avail Cap(c_a), veh/h	210	838	798	172	800	755	172	1066	570	248	1167	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	27.5	27.5	43.4	28.5	28.6	42.3	32.5	20.9	40.6	29.3	29.3
Incr Delay (d2), s/veh	46.2	2.1	2.3	4.8	0.8	0.9	33.3	13.6	0.1	42.7	6.6	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	10.6	10.2	1.7	5.9	5.7	5.4	14.5	1.6	9.0	13.3	14.3
LnGrp Delay(d),s/veh	87.8	29.6	29.8	48.2	29.3	29.5	75.6	46.1	21.0	83.2	35.9	41.5
LnGrp LOS	F	C	C	D	C	C	E	D	C	F	D	D
Approach Vol, veh/h		1075			580			1222			1741	
Approach Delay, s/veh		40.4			31.4			47.9			43.9	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	32.0	9.6	36.2	13.0	36.0	15.0	30.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	28.0	9.0	44.0	9.0	32.0	11.0	42.0
Max Q Clear Time (g_c+I1), s	14.2	27.2	5.2	22.7	9.6	27.6	12.3	13.9
Green Ext Time (p_c), s	0.0	0.8	0.0	8.2	0.0	4.0	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	42.6
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
26: Cactus Ave & Quincy St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		Y	
Traffic Volume (veh/h)	10	620	350	10	10	10
Future Volume (veh/h)	10	620	350	10	10	10
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	620	350	10	10	10
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	212	1772	1809	52	46	46
Arrive On Green	0.50	0.50	0.50	0.50	0.06	0.06
Sat Flow, veh/h	17	3597	3679	102	815	815
Grp Volume(v), veh/h	338	292	176	184	21	0
Grp Sat Flow(s),veh/h/ln	1885	1643	1805	1881	1712	0
Q Serve(g_s), s	0.0	2.0	1.0	1.0	0.2	0.0
Cycle Q Clear(g_c), s	1.9	2.0	1.0	1.0	0.2	0.0
Prop In Lane	0.03			0.05	0.48	0.48
Lane Grp Cap(c), veh/h	1155	829	911	949	96	0
V/C Ratio(X)	0.29	0.35	0.19	0.19	0.22	0.00
Avail Cap(c_a), veh/h	2460	1985	2181	2274	2351	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	2.7	2.7	2.5	2.5	8.2	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.1	0.1	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.9	0.5	0.5	0.1	0.0
LnGrp Delay(d),s/veh	2.9	3.0	2.6	2.6	9.4	0.0
LnGrp LOS	A	A	A	A	A	
Approach Vol, veh/h		630	360		21	
Approach Delay, s/veh		2.9	2.6		9.4	
Approach LOS		A	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				13.2		5.0		13.2
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				22.0		25.0		22.0
Max Q Clear Time (g_c+I1), s				4.0		2.2		3.0
Green Ext Time (p_c), s				5.0		0.0		5.1

Intersection Summary	
HCM 2010 Ctrl Delay	2.9
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	219.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↱			↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	120	330	80	180	170	240	120	170	490	160	320	90
Future Vol, veh/h	120	330	80	180	170	240	120	170	490	160	320	90
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	140	384	93	209	198	279	140	198	570	186	372	105
Number of Lanes	0	2	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	58.6	436.2	271.4	75.2
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	59%	0%	42%	0%	31%	50%	0%
Vol Thru, %	41%	15%	58%	67%	29%	50%	64%
Vol Right, %	0%	85%	0%	33%	41%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	575	285	245	590	320	250
LT Vol	120	0	120	0	180	160	0
Through Vol	85	85	165	165	170	160	160
RT Vol	0	490	0	80	240	0	90
Lane Flow Rate	238	669	331	285	686	372	291
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.667	1.706	0.924	0.76	1.89	1.035	0.768
Departure Headway (Hd)	11.797	10.84	12.259	11.787	10.847	12.32	11.777
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	310	341	298	311	343	298	311
Service Time	9.497	8.54	9.959	9.487	8.847	10.02	9.477
HCM Lane V/C Ratio	0.768	1.962	1.111	0.916	2	1.248	0.936
HCM Control Delay	35.3	355.6	71.3	43.8	436.2	99.1	44.7
HCM Lane LOS	E	F	F	E	F	F	E
HCM 95th-tile Q	4.5	35.3	8.8	5.8	42.5	11.3	5.9

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	320	20	50	20	890	700	200	950	60
Future Volume (veh/h)	20	10	10	320	20	50	20	890	700	200	950	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	12	12	400	25	62	25	1112	875	250	1188	75
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	223	190	441	594	529	65	1596	888	285	2142	135
Arrive On Green	0.04	0.12	0.12	0.24	0.33	0.33	0.04	0.31	0.31	0.16	0.43	0.43
Sat Flow, veh/h	1810	1838	1567	1810	1805	1608	1810	5187	1607	1810	4986	315
Grp Volume(v), veh/h	25	12	12	400	25	62	25	1112	875	250	824	439
Grp Sat Flow(s),veh/h/ln	1810	1805	1600	1810	1805	1608	1810	1729	1607	1810	1729	1843
Q Serve(g_s), s	1.3	0.5	0.6	20.2	0.9	2.5	1.3	17.8	29.0	12.7	16.8	16.8
Cycle Q Clear(g_c), s	1.3	0.5	0.6	20.2	0.9	2.5	1.3	17.8	29.0	12.7	16.8	16.8
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	65	219	194	441	594	529	65	1596	888	285	1486	792
V/C Ratio(X)	0.39	0.05	0.06	0.91	0.04	0.12	0.39	0.70	0.99	0.88	0.55	0.55
Avail Cap(c_a), veh/h	134	843	747	557	1264	1126	134	1596	888	326	1486	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	36.6	36.7	34.6	21.5	22.1	44.4	28.8	20.8	38.8	20.1	20.1
Incr Delay (d2), s/veh	3.8	0.1	0.1	16.2	0.0	0.1	3.8	1.3	26.6	20.6	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.3	0.3	12.1	0.4	1.1	0.7	8.6	28.8	8.0	8.1	8.7
LnGrp Delay(d),s/veh	48.2	36.7	36.8	50.8	21.5	22.2	48.2	30.1	47.5	59.4	20.6	21.0
LnGrp LOS	D	D	D	D	C	C	D	C	D	E	C	C
Approach Vol, veh/h		49			487			2012			1513	
Approach Delay, s/veh		42.6			45.7			37.9			27.1	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	33.0	27.0	15.5	7.4	44.5	7.4	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	29.0	29.0	44.0	7.0	39.0	7.0	66.0
Max Q Clear Time (g_c+I1), s	14.7	31.0	22.2	2.6	3.3	18.8	3.3	4.5
Green Ext Time (p_c), s	0.2	0.0	0.7	0.6	0.0	17.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	320	700	140	140	550	70	230	780	260	120	560	270
Future Volume (veh/h)	320	700	140	140	550	70	230	780	260	120	560	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	344	753	151	151	591	75	247	839	280	129	602	290
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	284	1226	736	177	905	115	213	1147	669	159	1039	716
Arrive On Green	0.16	0.34	0.34	0.10	0.28	0.28	0.12	0.32	0.32	0.09	0.29	0.29
Sat Flow, veh/h	1810	3610	1608	1810	3222	408	1810	3610	1607	1810	3610	1607
Grp Volume(v), veh/h	344	753	151	151	330	336	247	839	280	129	602	290
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1825	1810	1805	1607	1810	1805	1607
Q Serve(g_s), s	16.0	17.7	5.7	8.4	16.4	16.5	12.0	21.1	12.6	7.1	14.5	12.5
Cycle Q Clear(g_c), s	16.0	17.7	5.7	8.4	16.4	16.5	12.0	21.1	12.6	7.1	14.5	12.5
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	1226	736	177	507	512	213	1147	669	159	1039	716
V/C Ratio(X)	1.21	0.61	0.21	0.85	0.65	0.65	1.16	0.73	0.42	0.81	0.58	0.41
Avail Cap(c_a), veh/h	284	1452	837	177	620	627	213	1310	742	195	1275	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	28.1	16.6	45.2	32.3	32.3	45.0	30.9	21.1	45.7	31.0	19.2
Incr Delay (d2), s/veh	123.2	0.6	0.1	30.5	1.8	1.8	111.5	1.8	0.4	18.8	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.7	8.9	2.6	5.7	8.4	8.5	12.6	10.8	5.6	4.4	7.3	5.6
LnGrp Delay(d),s/veh	166.2	28.7	16.7	75.7	34.1	34.1	156.5	32.8	21.5	64.4	31.6	19.6
LnGrp LOS	F	C	B	E	C	C	F	C	C	E	C	B
Approach Vol, veh/h		1248			817			1366			1021	
Approach Delay, s/veh		65.1			41.8			52.8			32.3	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	36.4	14.0	38.6	16.0	33.3	20.0	32.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	37.0	10.0	41.0	12.0	36.0	16.0	35.0
Max Q Clear Time (g_c+I1), s	9.1	23.1	10.4	19.7	14.0	16.5	18.0	18.5
Green Ext Time (p_c), s	0.0	9.2	0.0	10.6	0.0	11.6	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	49.5
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
30: Heacock St & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↱	
Traffic Volume (veh/h)	0	0	0	190	10	220	330	1140	0	0	810	310
Future Volume (veh/h)	0	0	0	190	10	220	330	1140	0	0	810	310
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				204	11	237	355	1226	0	0	871	333
Adj No. of Lanes				0	1	1	1	2	0	0	2	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				329	18	306	362	2632	0	0	1250	476
Arrive On Green				0.19	0.19	0.19	0.27	0.97	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1721	93	1602	1810	3705	0	0	2651	974
Grp Volume(v), veh/h				215	0	237	355	1226	0	0	614	590
Grp Sat Flow(s),veh/h/ln				1814	0	1602	1810	1805	0	0	1805	1725
Q Serve(g_s), s				10.9	0.0	14.0	19.5	1.9	0.0	0.0	26.4	26.6
Cycle Q Clear(g_c), s				10.9	0.0	14.0	19.5	1.9	0.0	0.0	26.4	26.6
Prop In Lane				0.95		1.00	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				346	0	306	362	2632	0	0	883	843
V/C Ratio(X)				0.62	0.00	0.77	0.98	0.47	0.00	0.00	0.70	0.70
Avail Cap(c_a), veh/h				617	0	545	362	2632	0	0	883	843
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.41	0.41	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				37.1	0.0	38.4	36.5	0.4	0.0	0.0	19.8	19.8
Incr Delay (d2), s/veh				1.8	0.0	4.2	25.7	0.2	0.0	0.0	4.5	4.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.6	0.0	6.5	12.3	0.8	0.0	0.0	14.1	13.7
LnGrp Delay(d),s/veh				38.9	0.0	42.6	62.2	0.7	0.0	0.0	24.3	24.6
LnGrp LOS				D		D	E	A			C	C
Approach Vol, veh/h					452			1581			1204	
Approach Delay, s/veh					40.9			14.5			24.5	
Approach LOS					D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		76.9			24.0	52.9		23.1
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		58.0			20.0	34.0		34.0
Max Q Clear Time (g_c+I1), s		3.9			21.5	28.6		16.0
Green Ext Time (p_c), s		31.8			0.0	4.9		2.0

Intersection Summary		
HCM 2010 Ctrl Delay		21.9
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
31: Heacock St & SR-60 EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	⬑	↱					↑↑↱		↰	↑↑	
Traffic Volume (veh/h)	410	10	280	0	0	0	0	1230	340	450	770	0
Future Volume (veh/h)	410	10	280	0	0	0	0	1230	340	450	770	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	425	0	286				0	1255	347	459	786	0
Adj No. of Lanes	2	0	1				0	3	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	797	0	353				0	1654	457	452	2526	0
Arrive On Green	0.22	0.00	0.22				0.00	0.41	0.41	0.33	0.93	0.00
Sat Flow, veh/h	3619	0	1604				0	4209	1115	1810	3705	0
Grp Volume(v), veh/h	425	0	286				0	1075	527	459	786	0
Grp Sat Flow(s),veh/h/ln	1810	0	1604				0	1729	1695	1810	1805	0
Q Serve(g_s), s	10.4	0.0	16.9				0.0	26.6	26.7	25.0	2.1	0.0
Cycle Q Clear(g_c), s	10.4	0.0	16.9				0.0	26.6	26.7	25.0	2.1	0.0
Prop In Lane	1.00		1.00				0.00		0.66	1.00		0.00
Lane Grp Cap(c), veh/h	797	0	353				0	1417	695	452	2526	0
V/C Ratio(X)	0.53	0.00	0.81				0.00	0.76	0.76	1.01	0.31	0.00
Avail Cap(c_a), veh/h	1194	0	529				0	1417	695	452	2526	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.52	0.52	0.00
Uniform Delay (d), s/veh	34.4	0.0	37.0				0.0	25.3	25.3	33.4	1.1	0.0
Incr Delay (d2), s/veh	0.6	0.0	5.7				0.0	3.9	7.6	34.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	8.0				0.0	13.4	13.9	16.7	0.9	0.0
LnGrp Delay(d),s/veh	35.0	0.0	42.7				0.0	29.1	32.9	67.5	1.3	0.0
LnGrp LOS	D		D					C	C	F	A	
Approach Vol, veh/h		711						1602			1245	
Approach Delay, s/veh		38.1						30.4			25.7	
Approach LOS		D						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	29.0	45.0		26.0		74.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	25.0	30.0		33.0		59.0		
Max Q Clear Time (g_c+I1), s	27.0	28.7		18.9		4.1		
Green Ext Time (p_c), s	0.0	1.3		2.3		31.0		

Intersection Summary		
HCM 2010 Ctrl Delay		30.3
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	590	710	440	80	190	1010	180	1330	170	790	1010	290
Future Volume (veh/h)	590	710	440	80	190	1010	180	1330	170	790	1010	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	608	732	454	82	196	1041	186	1371	175	814	1041	299
Adj No. of Lanes	2	2	1	1	1	1	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	624	963	428	94	267	630	213	1461	187	874	1607	1002
Arrive On Green	0.18	0.27	0.27	0.05	0.14	0.14	0.12	0.31	0.31	0.42	0.74	0.74
Sat Flow, veh/h	3510	3610	1606	1810	1900	1615	1810	4656	594	3510	3610	1606
Grp Volume(v), veh/h	608	732	454	82	196	1041	186	1018	528	814	1041	299
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1810	1900	1615	1810	1729	1792	1755	1805	1606
Q Serve(g_s), s	23.3	25.2	36.0	6.1	13.3	19.0	13.6	38.7	38.7	29.8	19.3	6.4
Cycle Q Clear(g_c), s	23.3	25.2	36.0	6.1	13.3	19.0	13.6	38.7	38.7	29.8	19.3	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	624	963	428	94	267	630	213	1085	562	874	1607	1002
V/C Ratio(X)	0.97	0.76	1.06	0.87	0.73	1.65	0.87	0.94	0.94	0.93	0.65	0.30
Avail Cap(c_a), veh/h	624	963	428	94	267	630	308	1085	562	988	1607	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.58	0.58	0.58	0.59	0.59	0.59
Uniform Delay (d), s/veh	55.2	45.5	49.5	63.6	55.6	41.2	58.6	45.0	45.0	38.3	12.1	5.0
Incr Delay (d2), s/veh	29.5	3.6	60.3	54.5	9.9	301.2	10.7	10.5	17.3	9.2	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.9	13.0	23.1	4.5	7.8	76.0	7.5	20.0	21.8	15.4	9.6	2.8
LnGrp Delay(d),s/veh	84.7	49.1	109.8	118.0	65.5	342.4	69.2	55.6	62.3	47.5	13.3	5.4
LnGrp LOS	F	D	F	F	E	F	E	E	E	D	B	A
Approach Vol, veh/h		1794			1319			1732			2154	
Approach Delay, s/veh		76.5			287.3			59.1			25.1	
Approach LOS		E			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.6	46.4	11.0	40.0	19.9	64.1	28.0	23.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	38.0	38.0	7.0	36.0	23.0	53.0	24.0	19.0
Max Q Clear Time (g_c+I1), s	31.8	40.7	8.1	38.0	15.6	21.3	25.3	21.0
Green Ext Time (p_c), s	1.8	0.0	0.0	0.0	0.3	24.4	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		96.1
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary
33: Perris Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰↑↱		↰↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	220	10	160	510	2490	0	0	2030	320
Future Volume (veh/h)	0	0	0	220	10	160	510	2490	0	0	2030	320
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				227	10	165	526	2567	0	0	2093	330
Adj No. of Lanes				0	2	0	2	3	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				262	13	220	844	4129	0	0	2728	847
Arrive On Green				0.14	0.14	0.14	0.48	1.00	0.00	0.00	0.53	0.53
Sat Flow, veh/h				1810	92	1521	3510	5358	0	0	5358	1610
Grp Volume(v), veh/h				227	0	175	526	2567	0	0	2093	330
Grp Sat Flow(s),veh/h/ln				1810	0	1613	1755	1729	0	0	1729	1610
Q Serve(g_s), s				16.6	0.0	14.1	15.0	0.0	0.0	0.0	43.3	16.5
Cycle Q Clear(g_c), s				16.6	0.0	14.1	15.0	0.0	0.0	0.0	43.3	16.5
Prop In Lane				1.00		0.94	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				262	0	233	844	4129	0	0	2728	847
V/C Ratio(X)				0.87	0.00	0.75	0.62	0.62	0.00	0.00	0.77	0.39
Avail Cap(c_a), veh/h				308	0	275	844	4129	0	0	2728	847
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				56.5	0.0	55.4	30.5	0.0	0.0	0.0	25.4	19.1
Incr Delay (d2), s/veh				19.7	0.0	9.2	0.1	0.1	0.0	0.0	2.1	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.7	0.0	6.9	7.2	0.0	0.0	0.0	21.1	7.7
LnGrp Delay(d),s/veh				76.2	0.0	64.6	30.6	0.1	0.0	0.0	27.6	20.4
LnGrp LOS				E		E	C	A			C	C
Approach Vol, veh/h					402			3093			2423	
Approach Delay, s/veh					71.1			5.3			26.6	
Approach LOS					E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		111.5			36.5	75.0		23.5
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		104.0			29.0	71.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			17.0	45.3		18.6
Green Ext Time (p_c), s		65.5			11.2	19.8		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
34: Perris Blvd & Eucalyptus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	80	320	290	120	190	80	130	1590	130	90	1440	60
Future Volume (veh/h)	80	320	290	120	190	80	130	1590	130	90	1440	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	340	309	128	202	85	138	1691	138	96	1532	64
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	497	442	151	717	291	171	1955	606	135	1851	574
Arrive On Green	0.07	0.28	0.28	0.08	0.29	0.29	0.09	0.38	0.38	0.07	0.36	0.36
Sat Flow, veh/h	1810	1805	1606	1810	2503	1016	1810	5187	1609	1810	5187	1608
Grp Volume(v), veh/h	85	340	309	128	144	143	138	1691	138	96	1532	64
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1714	1810	1729	1609	1810	1729	1608
Q Serve(g_s), s	3.8	14.1	14.5	5.9	5.2	5.5	6.3	25.3	4.9	4.4	22.7	2.2
Cycle Q Clear(g_c), s	3.8	14.1	14.5	5.9	5.2	5.5	6.3	25.3	4.9	4.4	22.7	2.2
Prop In Lane	1.00		1.00	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	497	442	151	517	491	171	1955	606	135	1851	574
V/C Ratio(X)	0.65	0.68	0.70	0.85	0.28	0.29	0.81	0.86	0.23	0.71	0.83	0.11
Avail Cap(c_a), veh/h	194	730	649	151	687	652	172	1955	606	151	1851	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	27.2	27.4	38.0	23.3	23.4	37.3	24.2	17.9	38.0	24.7	18.1
Incr Delay (d2), s/veh	5.5	1.7	2.0	34.3	0.3	0.3	23.7	5.4	0.9	13.0	4.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	7.2	6.7	4.3	2.6	2.6	4.3	13.0	2.3	2.7	11.5	1.1
LnGrp Delay(d),s/veh	43.5	28.9	29.4	72.3	23.5	23.7	61.0	29.6	18.7	51.1	29.1	18.5
LnGrp LOS	D	C	C	E	C	C	E	C	B	D	C	B
Approach Vol, veh/h		734			415			1967			1692	
Approach Delay, s/veh		30.8			38.6			31.1			30.0	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	35.7	11.0	27.1	12.0	34.0	10.0	28.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	7.0	34.0	8.0	30.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	6.4	27.3	7.9	16.5	8.3	24.7	5.8	7.5
Green Ext Time (p_c), s	0.0	3.6	0.0	5.2	0.0	5.2	0.0	5.9

Intersection Summary		
HCM 2010 Ctrl Delay		31.3
HCM 2010 LOS		C

HCM 2010 TWSC
35: Moreno Beach Dr & Locust Ave

Intersection	
Int Delay, s/veh	16.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	50	530	110	20	530	220
Future Vol, veh/h	50	530	110	20	530	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	564	117	21	564	234

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	53	0	308	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	255	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1566	-	688	1020
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1566	-	636	1020
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	732	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.3	30.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	636	1020	-	-	1566	-
HCM Lane V/C Ratio	0.887	0.229	-	-	0.075	-
HCM Control Delay (s)	39.1	9.6	-	-	7.5	0
HCM Lane LOS	E	A	-	-	A	A
HCM 95th %tile Q(veh)	10.7	0.9	-	-	0.2	-

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱			↰↑↱			↰↑↱	
Traffic Volume (veh/h)	150	220	110	240	250	50	100	620	380	20	550	100
Future Volume (veh/h)	150	220	110	240	250	50	100	620	380	20	550	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	197	289	145	316	329	66	132	816	500	26	724	132
Adj No. of Lanes	1	2	0	1	2	0	0	2	0	0	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	219	326	159	302	554	110	115	722	467	23	662	128
Arrive On Green	0.12	0.14	0.14	0.17	0.18	0.18	0.37	0.37	0.37	0.22	0.22	0.22
Sat Flow, veh/h	1810	2344	1144	1810	3000	594	314	1967	1272	104	3004	580
Grp Volume(v), veh/h	197	221	213	316	196	199	792	0	656	474	0	408
Grp Sat Flow(s),veh/h/ln	1810	1805	1683	1810	1805	1789	1884	0	1669	1895	0	1793
Q Serve(g_s), s	16.1	18.0	18.7	25.0	14.9	15.3	55.0	0.0	55.0	33.0	0.0	33.0
Cycle Q Clear(g_c), s	16.1	18.0	18.7	25.0	14.9	15.3	55.0	0.0	55.0	33.0	0.0	33.0
Prop In Lane	1.00		0.68	1.00		0.33	0.17		0.76	0.05		0.32
Lane Grp Cap(c), veh/h	219	251	234	302	333	330	692	0	613	417	0	395
V/C Ratio(X)	0.90	0.88	0.91	1.05	0.59	0.60	1.14	0.00	1.07	1.14	0.00	1.03
Avail Cap(c_a), veh/h	242	253	236	302	333	330	692	0	613	417	0	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.9	63.3	63.6	62.4	55.9	56.0	47.4	0.0	47.4	58.4	0.0	58.4
Incr Delay (d2), s/veh	30.7	27.7	35.6	64.5	2.7	3.0	81.6	0.0	56.8	86.4	0.0	54.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	10.9	11.0	17.9	7.7	7.8	44.3	0.0	35.0	27.3	0.0	22.3
LnGrp Delay(d),s/veh	95.6	91.0	99.1	126.9	58.6	59.1	129.0	0.0	104.2	144.8	0.0	112.6
LnGrp LOS	F	F	F	F	E	E	F		F	F		F
Approach Vol, veh/h		631			711			1448			882	
Approach Delay, s/veh		95.2			89.1			117.8			129.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		59.0	29.0	24.8		37.0	22.2	31.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		55.0	25.0	21.0		33.0	20.0	26.0
Max Q Clear Time (g_c+I1), s		57.0	27.0	20.7		35.0	18.1	17.3
Green Ext Time (p_c), s		0.0	0.0	0.1		0.0	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	111.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
37: SR-60 EB Ramps/Eucalyptus Ave & Moreno Beach Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↰	↱					↑↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	290	20	580	0	0	0	0	1180	390	120	1240	0
Future Volume (veh/h)	290	20	580	0	0	0	0	1180	390	120	1240	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	342	0	652				0	1326	438	135	1393	0
Adj No. of Lanes	2	0	1				0	3	0	1	3	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1489	0	662				0	1456	479	141	2591	0
Arrive On Green	0.41	0.00	0.41				0.00	0.38	0.38	0.08	0.50	0.00
Sat Flow, veh/h	3619	0	1609				0	4030	1269	1810	5358	0
Grp Volume(v), veh/h	342	0	652				0	1187	577	135	1393	0
Grp Sat Flow(s),veh/h/ln	1810	0	1609				0	1729	1670	1810	1729	0
Q Serve(g_s), s	5.5	0.0	36.1				0.0	29.3	29.5	6.7	16.5	0.0
Cycle Q Clear(g_c), s	5.5	0.0	36.1				0.0	29.3	29.5	6.7	16.5	0.0
Prop In Lane	1.00		1.00				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	1489	0	662				0	1305	630	141	2591	0
V/C Ratio(X)	0.23	0.00	0.98				0.00	0.91	0.91	0.96	0.54	0.00
Avail Cap(c_a), veh/h	1489	0	662				0	1307	631	141	2596	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.2	0.0	26.2				0.0	26.6	26.6	41.3	15.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	31.1				0.0	9.7	18.0	63.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	21.6				0.0	15.6	16.6	5.8	7.9	0.0
LnGrp Delay(d),s/veh	17.3	0.0	57.2				0.0	36.2	44.7	104.4	15.6	0.0
LnGrp LOS	B		E					D	D	F	B	
Approach Vol, veh/h		994						1764			1528	
Approach Delay, s/veh		43.5						39.0			23.5	
Approach LOS		D						D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.0	37.9		41.0		48.9		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	7.0	34.0		37.0		45.0		
Max Q Clear Time (g_c+I1), s	8.7	31.5		38.1		18.5		
Green Ext Time (p_c), s	0.0	2.4		0.0		22.9		

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	140	330	240	160	200	60	230	1560	130	140	1130	100
Future Volume (veh/h)	140	330	240	160	200	60	230	1560	130	140	1130	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	388	282	188	235	71	271	1835	153	165	1329	118
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	194	513	368	209	726	214	301	1899	158	176	1662	515
Arrive On Green	0.11	0.26	0.26	0.12	0.26	0.26	0.17	0.39	0.39	0.10	0.32	0.32
Sat Flow, veh/h	1810	2003	1438	1810	2747	810	1810	4879	405	1810	5187	1607
Grp Volume(v), veh/h	165	349	321	188	152	154	271	1299	689	165	1329	118
Grp Sat Flow(s),veh/h/ln	1810	1805	1636	1810	1805	1752	1810	1729	1827	1810	1729	1607
Q Serve(g_s), s	10.1	20.1	20.5	11.6	7.7	8.0	16.6	41.4	41.8	10.2	26.4	6.1
Cycle Q Clear(g_c), s	10.1	20.1	20.5	11.6	7.7	8.0	16.6	41.4	41.8	10.2	26.4	6.1
Prop In Lane	1.00		0.88	1.00		0.46	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	194	462	419	209	477	463	301	1346	711	176	1662	515
V/C Ratio(X)	0.85	0.76	0.77	0.90	0.32	0.33	0.90	0.96	0.97	0.94	0.80	0.23
Avail Cap(c_a), veh/h	209	576	522	209	576	559	337	1349	712	176	1662	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	38.7	38.8	49.3	33.3	33.5	46.1	33.7	33.8	50.5	35.0	28.1
Incr Delay (d2), s/veh	25.9	4.4	5.3	36.6	0.4	0.4	24.4	16.8	26.3	49.2	2.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	10.6	9.9	7.9	3.9	3.9	10.3	22.8	26.3	7.5	13.0	2.7
LnGrp Delay(d),s/veh	75.4	43.1	44.1	85.9	33.7	33.9	70.5	50.5	60.1	99.7	37.9	28.3
LnGrp LOS	E	D	D	F	C	C	E	D	E	F	D	C
Approach Vol, veh/h		835			494			2259			1612	
Approach Delay, s/veh		49.9			53.6			55.8			43.5	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	47.9	17.0	32.9	22.8	40.2	16.1	33.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	44.0	13.0	36.0	21.0	34.0	13.0	36.0
Max Q Clear Time (g_c+I1), s	12.2	43.8	13.6	22.5	18.6	28.4	12.1	10.0
Green Ext Time (p_c), s	0.0	0.1	0.0	5.2	0.2	5.4	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	50.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	30	200	80	200	250	140	300	1560	440	220	960	20
Future Volume (veh/h)	30	200	80	200	250	140	300	1560	440	220	960	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	227	91	227	284	159	341	1773	500	250	1091	23
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	75	433	168	257	611	333	377	1986	616	281	1724	36
Arrive On Green	0.04	0.17	0.17	0.14	0.27	0.27	0.21	0.38	0.38	0.16	0.33	0.33
Sat Flow, veh/h	1810	2536	985	1810	2254	1227	1810	5187	1609	1810	5228	110
Grp Volume(v), veh/h	34	159	159	227	226	217	341	1773	500	250	722	392
Grp Sat Flow(s),veh/h/ln	1810	1805	1716	1810	1805	1676	1810	1729	1609	1810	1729	1880
Q Serve(g_s), s	2.0	8.6	9.1	13.2	11.2	11.6	19.7	34.4	29.8	14.5	18.9	19.0
Cycle Q Clear(g_c), s	2.0	8.6	9.1	13.2	11.2	11.6	19.7	34.4	29.8	14.5	18.9	19.0
Prop In Lane	1.00		0.57	1.00		0.73	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	75	308	293	257	490	455	377	1986	616	281	1141	620
V/C Ratio(X)	0.45	0.52	0.54	0.88	0.46	0.48	0.91	0.89	0.81	0.89	0.63	0.63
Avail Cap(c_a), veh/h	118	623	592	270	774	719	489	2080	645	304	1141	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	40.4	40.6	45.1	32.5	32.7	41.4	31.0	29.6	44.4	30.4	30.4
Incr Delay (d2), s/veh	4.2	1.3	1.6	26.4	0.7	0.8	17.1	5.2	7.5	25.1	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.4	4.4	8.5	5.7	5.5	11.6	17.4	14.5	9.2	9.2	10.2
LnGrp Delay(d),s/veh	54.4	41.8	42.2	71.6	33.2	33.5	58.6	36.2	37.1	69.5	31.6	32.5
LnGrp LOS	D	D	D	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		352			670			2614			1364	
Approach Delay, s/veh		43.2			46.3			39.3			38.8	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	45.1	19.2	22.3	26.3	39.4	8.5	33.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	43.0	16.0	37.0	29.0	32.0	7.0	46.0
Max Q Clear Time (g_c+I1), s	16.5	36.4	15.2	11.1	21.7	21.0	4.0	13.6
Green Ext Time (p_c), s	0.1	4.7	0.1	4.2	0.6	10.2	0.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
40: Kitching St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	70	880	110	590	700	150	90	240	800	140	220	80
Future Volume (veh/h)	70	880	110	590	700	150	90	240	800	140	220	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	936	117	628	745	160	96	255	851	149	234	85
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	801	100	487	1680	850	118	560	499	112	803	284
Arrive On Green	0.05	0.25	0.25	0.27	0.47	0.47	0.07	0.31	0.31	0.06	0.31	0.31
Sat Flow, veh/h	1810	3228	403	1810	3610	1610	1810	1805	1607	1810	2614	923
Grp Volume(v), veh/h	74	523	530	628	745	160	96	255	851	149	160	159
Grp Sat Flow(s),veh/h/ln	1810	1805	1826	1810	1805	1610	1810	1805	1607	1810	1805	1732
Q Serve(g_s), s	5.9	36.0	36.0	39.0	20.2	7.6	7.6	16.5	45.0	9.0	9.7	10.2
Cycle Q Clear(g_c), s	5.9	36.0	36.0	39.0	20.2	7.6	7.6	16.5	45.0	9.0	9.7	10.2
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	94	448	453	487	1680	850	118	560	499	112	554	532
V/C Ratio(X)	0.79	1.17	1.17	1.29	0.44	0.19	0.81	0.46	1.71	1.33	0.29	0.30
Avail Cap(c_a), veh/h	150	448	453	487	1680	850	187	560	499	112	554	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.0	54.5	54.5	53.0	26.1	18.0	66.9	40.2	50.0	68.0	38.2	38.3
Incr Delay (d2), s/veh	13.7	97.3	97.2	145.4	0.2	0.1	13.4	0.6	326.3	195.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	30.0	30.4	39.1	10.1	3.4	4.3	8.3	65.2	10.6	4.9	4.9
LnGrp Delay(d),s/veh	81.6	151.8	151.7	198.4	26.3	18.1	80.3	40.7	376.3	263.8	38.5	38.7
LnGrp LOS	F	F	F	F	C	B	F	D	F	F	D	D
Approach Vol, veh/h		1127			1533			1202			468	
Approach Delay, s/veh		147.1			95.9			281.4			110.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	49.0	43.0	40.0	13.5	48.5	11.5	71.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	45.0	39.0	36.0	15.0	39.0	12.0	63.0
Max Q Clear Time (g_c+I1), s	11.0	47.0	41.0	38.0	9.6	12.2	7.9	22.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	11.3	0.0	16.2

Intersection Summary	
HCM 2010 Ctrl Delay	162.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	230	1130	460	1080	1100	160	290	550	940	430	810	100
Future Volume (veh/h)	230	1130	460	1080	1100	160	290	550	940	430	810	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	247	1215	495	1161	1183	172	312	591	1011	462	871	108
Adj No. of Lanes	2	3	0	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	990	402	772	1870	272	328	1107	848	328	991	123
Arrive On Green	0.08	0.27	0.27	0.22	0.41	0.41	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	3510	3620	1469	3510	4573	665	3510	3610	1607	3510	3231	401
Grp Volume(v), veh/h	247	1160	550	1161	894	461	312	591	1011	462	487	492
Grp Sat Flow(s),veh/h/ln	1755	1729	1631	1755	1729	1780	1755	1805	1607	1755	1805	1827
Q Serve(g_s), s	10.4	41.0	41.0	33.0	30.9	30.9	13.3	20.4	46.0	14.0	38.4	38.4
Cycle Q Clear(g_c), s	10.4	41.0	41.0	33.0	30.9	30.9	13.3	20.4	46.0	14.0	38.4	38.4
Prop In Lane	1.00		0.90	1.00		0.37	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	296	945	446	772	1414	728	328	1107	848	328	554	560
V/C Ratio(X)	0.83	1.23	1.23	1.50	0.63	0.63	0.95	0.53	1.19	1.41	0.88	0.88
Avail Cap(c_a), veh/h	374	945	446	772	1414	728	328	1107	848	328	554	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	54.5	54.5	58.5	35.3	35.3	67.7	43.1	35.5	68.0	49.4	49.4
Incr Delay (d2), s/veh	12.2	111.8	123.0	233.2	0.9	1.8	37.1	0.5	98.0	201.8	15.0	14.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	34.2	33.7	41.0	15.0	15.6	8.1	10.3	58.0	16.0	21.5	21.7
LnGrp Delay(d),s/veh	79.8	166.3	177.5	291.7	36.3	37.1	104.8	43.6	133.6	269.8	64.4	64.2
LnGrp LOS	E	F	F	F	D	D	F	D	F	F	E	E
Approach Vol, veh/h		1957			2516			1914			1441	
Approach Delay, s/veh		158.5			154.3			101.1			130.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	50.0	37.0	45.0	18.0	50.0	16.7	65.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	46.0	33.0	41.0	14.0	46.0	16.0	58.0
Max Q Clear Time (g_c+I1), s	16.0	48.0	35.0	43.0	15.3	40.4	12.4	32.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.9	0.3	20.9

Intersection Summary	
HCM 2010 Ctrl Delay	137.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
42: Iris Ave & Nason St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑	↱
Traffic Volume (veh/h)	660	1800	20	30	1490	200	10	40	10	150	50	720
Future Volume (veh/h)	660	1800	20	30	1490	200	10	40	10	150	50	720
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	805	2195	24	37	1817	244	12	49	12	183	61	878
Adj No. of Lanes	2	3	0	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	867	2994	33	68	1851	574	34	249	61	210	505	826
Arrive On Green	0.25	0.57	0.57	0.04	0.36	0.36	0.02	0.17	0.17	0.12	0.27	0.27
Sat Flow, veh/h	3510	5290	58	1810	5187	1608	1810	1475	361	1810	1900	1606
Grp Volume(v), veh/h	805	1434	785	37	1817	244	12	0	61	183	61	878
Grp Sat Flow(s),veh/h/ln	1755	1729	1890	1810	1729	1608	1810	0	1836	1810	1900	1606
Q Serve(g_s), s	32.0	44.0	44.1	2.9	49.6	16.4	0.9	0.0	4.1	14.2	3.5	38.0
Cycle Q Clear(g_c), s	32.0	44.0	44.1	2.9	49.6	16.4	0.9	0.0	4.1	14.2	3.5	38.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	867	1957	1070	68	1851	574	34	0	309	210	505	826
V/C Ratio(X)	0.93	0.73	0.73	0.54	0.98	0.43	0.36	0.00	0.20	0.87	0.12	1.06
Avail Cap(c_a), veh/h	933	1959	1071	101	1851	574	89	0	309	342	505	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	23.0	23.0	67.6	45.5	34.9	69.3	0.0	51.1	62.1	39.8	34.9
Incr Delay (d2), s/veh	14.6	1.4	2.6	6.5	16.7	0.5	6.3	0.0	1.4	13.0	0.1	49.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	21.3	23.7	1.6	26.6	7.4	0.5	0.0	2.2	7.9	1.8	43.9
LnGrp Delay(d),s/veh	67.2	24.4	25.7	74.1	62.3	35.4	75.6	0.0	52.5	75.1	39.9	84.5
LnGrp LOS	E	C	C	E	E	D	E		D	E	D	F
Approach Vol, veh/h		3024			2098			73			1122	
Approach Delay, s/veh		36.1			59.3			56.3			80.5	
Approach LOS		D			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	28.1	9.4	84.9	6.7	42.0	39.3	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	18.0	8.0	81.0	7.0	38.0	38.0	51.0
Max Q Clear Time (g_c+I1), s	16.2	6.1	4.9	46.1	2.9	40.0	34.0	51.6
Green Ext Time (p_c), s	0.4	3.9	0.0	32.9	0.0	0.0	1.3	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			↰	↱		↰	↱
Traffic Volume (veh/h)	130	1430	40	90	900	170	40	30	80	150	30	90
Future Volume (veh/h)	130	1430	40	90	900	170	40	30	80	150	30	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	1810	51	114	1139	215	51	38	101	190	38	114
Adj No. of Lanes	1	3	0	1	3	0	0	1	1	0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	2409	68	144	1899	358	114	85	172	262	52	276
Arrive On Green	0.11	0.46	0.46	0.08	0.43	0.43	0.11	0.11	0.11	0.17	0.17	0.17
Sat Flow, veh/h	1810	5185	146	1810	4382	827	1058	789	1593	1520	304	1601
Grp Volume(v), veh/h	165	1207	654	114	899	455	89	0	101	228	0	114
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1751	1847	0	1593	1824	0	1601
Q Serve(g_s), s	8.1	26.2	26.2	5.6	18.1	18.2	4.1	0.0	5.5	10.8	0.0	5.8
Cycle Q Clear(g_c), s	8.1	26.2	26.2	5.6	18.1	18.2	4.1	0.0	5.5	10.8	0.0	5.8
Prop In Lane	1.00		0.08	1.00		0.47	0.57		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	200	1607	870	144	1499	759	199	0	172	315	0	276
V/C Ratio(X)	0.82	0.75	0.75	0.79	0.60	0.60	0.45	0.00	0.59	0.72	0.00	0.41
Avail Cap(c_a), veh/h	258	1668	904	179	1517	768	689	0	594	740	0	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	20.1	20.1	41.2	19.8	19.8	38.1	0.0	38.7	35.7	0.0	33.6
Incr Delay (d2), s/veh	15.4	1.9	3.4	17.5	0.6	1.3	1.6	0.0	3.2	3.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	12.8	14.3	3.5	8.7	9.0	2.2	0.0	2.6	5.7	0.0	2.6
LnGrp Delay(d),s/veh	55.1	22.0	23.5	58.7	20.4	21.1	39.7	0.0	41.9	38.9	0.0	34.6
LnGrp LOS	E	C	C	E	C	C	D		D	D		C
Approach Vol, veh/h		2026			1468			190			342	
Approach Delay, s/veh		25.2			23.6			40.9			37.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.9	11.2	46.4		19.7	14.1	43.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	9.0	44.0		37.0	13.0	40.0
Max Q Clear Time (g_c+I1), s		7.5	7.6	28.2		12.8	10.1	20.2
Green Ext Time (p_c), s		0.8	0.0	14.2		1.5	0.1	17.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
44: Via Del Lago & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↱	
Traffic Volume (veh/h)	30	1530	50	40	1150	10	70	10	70	10	10	20
Future Volume (veh/h)	30	1530	50	40	1150	10	70	10	70	10	10	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	1800	59	47	1353	12	82	12	82	12	12	24
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	2418	79	111	2543	23	149	396	433	38	83	166
Arrive On Green	0.05	0.47	0.47	0.06	0.48	0.48	0.08	0.21	0.21	0.02	0.15	0.15
Sat Flow, veh/h	1810	5159	169	1810	5302	47	1810	1900	1603	1810	563	1125
Grp Volume(v), veh/h	35	1206	653	47	882	483	82	12	82	12	0	36
Grp Sat Flow(s),veh/h/ln	1810	1729	1870	1810	1729	1891	1810	1900	1603	1810	0	1688
Q Serve(g_s), s	1.2	18.9	18.9	1.7	11.8	11.8	2.9	0.3	2.6	0.4	0.0	1.2
Cycle Q Clear(g_c), s	1.2	18.9	18.9	1.7	11.8	11.8	2.9	0.3	2.6	0.4	0.0	1.2
Prop In Lane	1.00		0.09	1.00		0.02	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	91	1621	876	111	1659	907	149	396	433	38	0	248
V/C Ratio(X)	0.39	0.74	0.75	0.42	0.53	0.53	0.55	0.03	0.19	0.32	0.00	0.14
Avail Cap(c_a), veh/h	191	1666	901	191	1666	911	191	1230	1137	191	0	1093
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	14.4	14.4	30.0	12.1	12.1	29.3	20.9	18.7	32.0	0.0	24.7
Incr Delay (d2), s/veh	2.7	1.8	3.3	2.6	0.3	0.6	3.2	0.0	0.2	4.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.3	10.4	0.9	5.7	6.3	1.6	0.2	1.2	0.3	0.0	0.6
LnGrp Delay(d),s/veh	33.2	16.2	17.7	32.6	12.4	12.7	32.5	21.0	18.9	36.7	0.0	24.9
LnGrp LOS	C	B	B	C	B	B	C	C	B	D		C
Approach Vol, veh/h		1894			1412			176			48	
Approach Delay, s/veh		17.0			13.2			25.4			27.9	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	17.8	8.1	35.1	9.5	13.8	7.3	35.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	7.0	32.0	7.0	43.0	7.0	32.0
Max Q Clear Time (g_c+I1), s	2.4	4.6	3.7	20.9	4.9	3.2	3.2	13.8
Green Ext Time (p_c), s	0.0	0.5	0.0	10.2	0.0	0.5	0.0	16.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
45: Perris Blvd & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	310	220	200	110	110	120	2070	340	120	1060	30
Future Volume (veh/h)	50	310	220	200	110	110	120	2070	340	120	1060	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	341	242	220	121	121	132	2275	374	132	1165	33
Adj No. of Lanes	1	2	0	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	407	283	252	513	457	193	2356	731	143	2482	770
Arrive On Green	0.06	0.20	0.20	0.14	0.28	0.28	0.05	0.45	0.45	0.08	0.48	0.48
Sat Flow, veh/h	1810	2031	1413	1810	1805	1606	3510	5187	1610	1810	5187	1610
Grp Volume(v), veh/h	55	302	281	220	121	121	132	2275	374	132	1165	33
Grp Sat Flow(s),veh/h/ln	1810	1805	1638	1810	1805	1606	1755	1729	1610	1810	1729	1610
Q Serve(g_s), s	3.7	20.3	20.9	15.0	6.5	7.4	4.7	53.8	20.8	9.1	19.1	1.4
Cycle Q Clear(g_c), s	3.7	20.3	20.9	15.0	6.5	7.4	4.7	53.8	20.8	9.1	19.1	1.4
Prop In Lane	1.00		0.86	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	362	329	252	513	457	193	2356	731	143	2482	770
V/C Ratio(X)	0.55	0.84	0.85	0.87	0.24	0.26	0.68	0.97	0.51	0.92	0.47	0.04
Avail Cap(c_a), veh/h	416	415	376	459	513	457	278	2384	740	143	2482	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.1	48.4	48.7	53.2	34.6	35.0	58.6	33.5	24.5	57.7	22.1	17.5
Incr Delay (d2), s/veh	4.6	12.4	15.6	9.2	0.2	0.3	4.3	11.4	0.6	52.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	11.4	10.9	8.2	3.3	3.3	2.4	28.0	9.4	6.7	9.1	0.6
LnGrp Delay(d),s/veh	62.7	60.9	64.2	62.4	34.9	35.3	62.8	44.9	25.1	109.7	22.3	17.5
LnGrp LOS	E	E	E	E	C	D	E	D	C	F	C	B
Approach Vol, veh/h		638			462			2781			1330	
Approach Delay, s/veh		62.5			48.1			43.1			30.8	
Approach LOS		E			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.3	21.6	29.3	10.9	64.4	11.0	39.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	58.0	32.0	29.0	10.0	58.0	29.0	32.0
Max Q Clear Time (g_c+I1), s	11.1	55.8	17.0	22.9	6.7	21.1	5.7	9.4
Green Ext Time (p_c), s	0.0	1.5	0.5	1.9	0.1	33.4	0.1	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
46: Kitching St & Krameria Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	970	230	30	20	210	80	20	80	30	110	100	680
Future Volume (veh/h)	970	230	30	20	210	80	20	80	30	110	100	680
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1115	264	34	23	241	92	23	92	34	126	115	782
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	812	1826	233	55	382	142	55	576	203	110	453	403
Arrive On Green	0.45	0.57	0.57	0.03	0.15	0.15	0.03	0.22	0.22	0.06	0.25	0.25
Sat Flow, veh/h	1810	3221	410	1810	2572	954	1810	2614	921	1810	1805	1605
Grp Volume(v), veh/h	1115	147	151	23	167	166	23	62	64	126	115	782
Grp Sat Flow(s),veh/h/ln	1810	1805	1826	1810	1805	1720	1810	1805	1730	1810	1805	1605
Q Serve(g_s), s	59.0	5.0	5.1	1.6	11.4	12.0	1.6	3.7	3.9	8.0	6.7	33.0
Cycle Q Clear(g_c), s	59.0	5.0	5.1	1.6	11.4	12.0	1.6	3.7	3.9	8.0	6.7	33.0
Prop In Lane	1.00		0.22	1.00		0.55	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	812	1023	1035	55	268	255	55	398	381	110	453	403
V/C Ratio(X)	1.37	0.14	0.15	0.42	0.62	0.65	0.42	0.16	0.17	1.14	0.25	1.94
Avail Cap(c_a), veh/h	812	1126	1139	96	412	392	96	439	421	110	453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	13.4	13.4	62.6	52.5	52.8	62.6	41.4	41.5	61.8	39.4	49.3
Incr Delay (d2), s/veh	175.8	0.1	0.1	5.0	2.4	2.8	5.0	0.2	0.2	129.9	0.3	432.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	69.0	2.5	2.6	0.9	5.9	5.9	0.9	1.8	1.9	7.9	3.4	63.0
LnGrp Delay(d),s/veh	212.1	13.5	13.5	67.7	54.9	55.5	67.7	41.6	41.7	191.7	39.7	481.8
LnGrp LOS	F	B	B	E	D	E	E	D	D	F	D	F
Approach Vol, veh/h		1413			356			149			1023	
Approach Delay, s/veh		170.2			56.0			45.7			396.4	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	33.0	8.0	78.5	8.0	37.0	63.0	23.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	32.0	7.0	82.0	7.0	33.0	59.0	30.0
Max Q Clear Time (g_c+I1), s	10.0	5.9	3.6	7.1	3.6	35.0	61.0	14.0
Green Ext Time (p_c), s	0.0	7.9	0.0	4.3	0.0	0.0	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	228.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
47: Lasselle St & Krameria Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	210	60	150	70	30	70	90	1660	60	130	2100	120
Future Volume (veh/h)	210	60	150	70	30	70	90	1660	60	130	2100	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	223	64	160	74	32	74	96	1766	64	138	2234	128
Adj No. of Lanes	2	2	0	1	2	0	1	2	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	274	249	220	94	202	181	95	2167	1053	163	2215	126
Arrive On Green	0.08	0.14	0.14	0.05	0.11	0.11	0.05	0.60	0.60	0.09	0.64	0.64
Sat Flow, veh/h	3510	1805	1597	1810	1805	1615	1810	3610	1615	1810	3473	197
Grp Volume(v), veh/h	223	64	160	74	32	74	96	1766	64	138	1151	1211
Grp Sat Flow(s),veh/h/ln	1755	1805	1597	1810	1805	1615	1810	1805	1615	1810	1805	1865
Q Serve(g_s), s	8.3	4.2	12.8	5.4	2.1	5.7	7.0	51.0	1.9	10.0	84.9	85.0
Cycle Q Clear(g_c), s	8.3	4.2	12.8	5.4	2.1	5.7	7.0	51.0	1.9	10.0	84.9	85.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	274	249	220	94	202	181	95	2167	1053	163	1151	1189
V/C Ratio(X)	0.82	0.26	0.73	0.79	0.16	0.41	1.01	0.81	0.06	0.85	1.00	1.02
Avail Cap(c_a), veh/h	290	474	419	95	420	376	95	2167	1053	176	1151	1189
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.5	51.4	55.0	62.5	53.5	55.1	63.1	20.8	8.4	59.8	24.1	24.1
Incr Delay (d2), s/veh	15.6	0.5	4.5	34.3	0.4	1.5	95.1	2.5	0.0	28.8	26.4	30.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.2	5.9	3.6	1.1	2.6	6.0	26.0	0.8	6.3	50.3	53.5
LnGrp Delay(d),s/veh	76.1	51.9	59.6	96.8	53.9	56.6	158.3	23.3	8.4	88.6	50.6	55.0
LnGrp LOS	E	D	E	F	D	E	F	C	A	F	D	F
Approach Vol, veh/h		447			180			1926			2500	
Approach Delay, s/veh		66.7			72.6			29.6			54.8	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	84.0	10.9	22.4	11.0	89.0	14.4	18.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	79.0	7.0	35.0	7.0	85.0	11.0	31.0
Max Q Clear Time (g_c+I1), s	12.0	53.0	7.4	14.8	9.0	87.0	10.3	7.7
Green Ext Time (p_c), s	0.0	25.3	0.0	1.9	0.0	0.0	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰↰	↱		↰	↑↱	
Traffic Volume (veh/h)	110	1790	250	140	1310	210	120	380	110	160	430	70
Future Volume (veh/h)	110	1790	250	140	1310	210	120	380	110	160	430	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	134	2183	305	171	1598	256	146	463	134	195	524	85
Adj No. of Lanes	1	3	0	1	3	1	2	1	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	1885	257	138	2064	835	195	402	116	218	1086	175
Arrive On Green	0.09	0.41	0.41	0.08	0.40	0.40	0.06	0.28	0.28	0.12	0.35	0.35
Sat Flow, veh/h	1810	4614	630	1810	5187	1609	3510	1415	410	1810	3111	503
Grp Volume(v), veh/h	134	1624	864	171	1598	256	146	0	597	195	303	306
Grp Sat Flow(s),veh/h/ln	1810	1729	1786	1810	1729	1609	1755	0	1825	1810	1805	1809
Q Serve(g_s), s	10.5	59.0	59.0	11.0	38.7	3.1	5.9	0.0	41.0	15.3	19.0	19.1
Cycle Q Clear(g_c), s	10.5	59.0	59.0	11.0	38.7	3.1	5.9	0.0	41.0	15.3	19.0	19.1
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.22	1.00		0.28
Lane Grp Cap(c), veh/h	157	1413	730	138	2064	835	195	0	518	218	630	631
V/C Ratio(X)	0.85	1.15	1.18	1.24	0.77	0.31	0.75	0.00	1.15	0.89	0.48	0.48
Avail Cap(c_a), veh/h	175	1413	730	138	2064	835	267	0	518	226	630	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	42.7	42.7	66.7	37.8	9.5	67.2	0.0	51.7	62.6	36.8	36.8
Incr Delay (d2), s/veh	29.2	75.9	96.6	155.2	1.9	0.2	7.5	0.0	88.7	32.5	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	42.9	48.6	11.4	18.9	3.7	3.1	0.0	33.4	9.7	9.5	9.7
LnGrp Delay(d),s/veh	94.2	118.6	139.4	222.0	39.7	9.7	74.7	0.0	140.5	95.1	37.3	37.4
LnGrp LOS	F	F	F	F	D	A	E		F	F	D	D
Approach Vol, veh/h		2622			2025			743			804	
Approach Delay, s/veh		124.2			51.3			127.5			51.4	
Approach LOS		F			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	45.0	15.0	63.0	12.0	54.4	16.5	61.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	41.0	11.0	59.0	11.0	48.0	14.0	56.0
Max Q Clear Time (g_c+I1), s	17.3	43.0	13.0	61.0	7.9	21.1	12.5	40.7
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.1	4.2	0.0	15.0

Intersection Summary	
HCM 2010 Ctrl Delay	91.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
49: Lasselle St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	110	1640	220	80	1310	150	150	340	140	150	290	120
Future Volume (veh/h)	110	1640	220	80	1310	150	150	340	140	150	290	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	1822	244	89	1456	167	167	378	156	167	322	133
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	1964	609	127	1888	749	183	514	547	183	678	274
Arrive On Green	0.08	0.38	0.38	0.07	0.36	0.36	0.10	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1810	5187	1609	1810	5187	1608	1810	1900	1606	1810	2505	1014
Grp Volume(v), veh/h	122	1822	244	89	1456	167	167	378	156	167	230	225
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1608	1810	1900	1606	1810	1805	1714
Q Serve(g_s), s	5.9	29.9	9.9	4.3	22.1	5.5	8.1	16.1	6.3	8.1	9.5	9.8
Cycle Q Clear(g_c), s	5.9	29.9	9.9	4.3	22.1	5.5	8.1	16.1	6.3	8.1	9.5	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	153	1964	609	127	1888	749	183	514	547	183	488	464
V/C Ratio(X)	0.80	0.93	0.40	0.70	0.77	0.22	0.91	0.74	0.28	0.91	0.47	0.48
Avail Cap(c_a), veh/h	183	1982	615	142	1888	749	183	726	727	183	690	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	26.5	20.3	40.5	25.0	14.2	39.6	29.6	21.4	39.6	27.1	27.2
Incr Delay (d2), s/veh	18.3	8.2	0.4	12.7	2.0	0.1	42.5	2.4	0.3	42.5	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	15.7	4.4	2.6	10.9	2.5	6.2	8.7	2.8	6.2	4.8	4.7
LnGrp Delay(d),s/veh	58.3	34.7	20.7	53.1	27.0	14.4	82.1	31.9	21.7	82.1	27.8	28.0
LnGrp LOS	E	C	C	D	C	B	F	C	C	F	C	C
Approach Vol, veh/h		2188			1712			701			622	
Approach Delay, s/veh		34.5			27.2			41.6			42.5	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	28.1	10.2	37.7	13.0	28.1	11.5	36.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	34.0	7.0	34.0	9.0	34.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	10.1	18.1	6.3	31.9	10.1	11.8	7.9	24.1
Green Ext Time (p_c), s	0.0	4.6	0.0	1.7	0.0	5.2	0.0	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	340	1070	490	180	770	120	410	60	200	180	80	350
Future Volume (veh/h)	340	1070	490	180	770	120	410	60	200	180	80	350
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	395	1244	570	209	895	140	477	70	233	209	93	407
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	353	1104	501	170	973	152	389	637	570	234	482	429
Arrive On Green	0.19	0.32	0.32	0.09	0.22	0.22	0.22	0.35	0.35	0.13	0.27	0.27
Sat Flow, veh/h	1810	3492	1586	1810	4523	704	1810	1805	1615	1810	1805	1606
Grp Volume(v), veh/h	395	1232	582	209	683	352	477	70	233	209	93	407
Grp Sat Flow(s),veh/h/ln	1810	1729	1620	1810	1729	1770	1810	1805	1615	1810	1805	1606
Q Serve(g_s), s	29.0	47.0	47.0	14.0	28.7	29.0	32.0	3.9	16.2	16.9	5.9	37.0
Cycle Q Clear(g_c), s	29.0	47.0	47.0	14.0	28.7	29.0	32.0	3.9	16.2	16.9	5.9	37.0
Prop In Lane	1.00		0.98	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	1093	512	170	744	381	389	637	570	234	482	429
V/C Ratio(X)	1.12	1.13	1.14	1.23	0.92	0.92	1.23	0.11	0.41	0.89	0.19	0.95
Avail Cap(c_a), veh/h	353	1093	512	170	744	381	389	637	570	329	498	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.9	50.9	50.9	67.4	57.1	57.2	58.4	32.4	36.4	63.7	42.1	53.5
Incr Delay (d2), s/veh	84.3	69.3	83.3	143.0	16.4	27.8	122.2	0.1	0.5	19.5	0.2	29.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.7	32.8	32.8	13.7	15.5	17.1	29.1	2.0	7.3	9.7	3.0	19.9
LnGrp Delay(d),s/veh	144.1	120.2	134.2	210.3	73.5	85.0	180.5	32.5	36.9	83.2	42.3	83.2
LnGrp LOS	F	F	F	F	E	F	F	C	D	F	D	F
Approach Vol, veh/h		2209			1244			780			709	
Approach Delay, s/veh		128.1			99.7			124.3			77.8	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	56.5	18.0	51.0	36.0	43.7	33.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	27.0	46.0	14.0	47.0	32.0	41.0	29.0	32.0
Max Q Clear Time (g_c+I1), s	18.9	18.2	16.0	49.0	34.0	39.0	31.0	31.0
Green Ext Time (p_c), s	0.3	5.4	0.0	0.0	0.0	0.6	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	360	550	570	40	430	40	450	1180	90	40	1100	190
Future Volume (veh/h)	360	550	570	40	430	40	450	1180	90	40	1100	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	462	705	731	51	551	51	577	1513	115	51	1410	244
Adj No. of Lanes	2	3	1	2	2	1	1	3	0	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	414	1656	513	148	879	391	515	2386	181	76	1260	390
Arrive On Green	0.12	0.32	0.32	0.04	0.24	0.24	0.28	0.49	0.49	0.04	0.24	0.24
Sat Flow, veh/h	3510	5187	1607	3510	3610	1605	1810	4917	374	1810	5187	1605
Grp Volume(v), veh/h	462	705	731	51	551	51	577	1064	564	51	1410	244
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1605	1810	1729	1833	1810	1729	1605
Q Serve(g_s), s	17.0	15.4	46.0	2.0	19.6	3.6	41.0	33.0	33.0	4.0	35.0	19.6
Cycle Q Clear(g_c), s	17.0	15.4	46.0	2.0	19.6	3.6	41.0	33.0	33.0	4.0	35.0	19.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	414	1656	513	148	879	391	515	1678	889	76	1260	390
V/C Ratio(X)	1.12	0.43	1.42	0.34	0.63	0.13	1.12	0.63	0.63	0.67	1.12	0.63
Avail Cap(c_a), veh/h	414	1656	513	171	902	401	515	1678	889	113	1260	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.5	38.6	49.0	67.1	48.7	42.6	51.5	27.6	27.6	68.0	54.5	48.7
Incr Delay (d2), s/veh	79.4	0.2	202.2	1.4	1.3	0.1	77.1	0.8	1.5	9.6	64.7	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	7.4	49.2	1.0	10.0	1.6	31.5	15.8	17.0	2.2	24.2	9.0
LnGrp Delay(d),s/veh	143.0	38.8	251.2	68.4	50.0	42.7	128.7	28.4	29.1	77.6	119.3	51.8
LnGrp LOS	F	D	F	E	D	D	F	C	C	E	F	D
Approach Vol, veh/h		1898			653			2205			1705	
Approach Delay, s/veh		146.0			50.9			54.8			108.4	
Approach LOS		F			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	73.9	10.1	50.0	45.0	39.0	21.0	39.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	67.0	7.0	46.0	41.0	35.0	17.0	36.0
Max Q Clear Time (g_c+I1), s	6.0	35.0	4.0	48.0	43.0	37.0	19.0	21.6
Green Ext Time (p_c), s	0.0	26.7	0.0	0.0	0.0	0.0	0.0	9.0

Intersection Summary	
HCM 2010 Ctrl Delay	95.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑	↱
Traffic Volume (veh/h)	60	970	210	80	620	70	110	560	40	110	650	70
Future Volume (veh/h)	60	970	210	80	620	70	110	560	40	110	650	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	1183	256	98	756	85	134	683	49	134	793	85
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	1114	239	97	1240	139	125	1221	88	160	716	606
Arrive On Green	0.05	0.38	0.38	0.05	0.38	0.38	0.07	0.36	0.36	0.09	0.38	0.38
Sat Flow, veh/h	1810	2956	634	1810	3271	368	1810	3416	245	1810	1900	1609
Grp Volume(v), veh/h	73	718	721	98	417	424	134	361	371	134	793	85
Grp Sat Flow(s),veh/h/ln	1810	1805	1785	1810	1805	1833	1810	1805	1856	1810	1900	1609
Q Serve(g_s), s	5.2	49.0	49.0	7.0	24.3	24.3	9.0	20.9	20.9	9.5	49.0	4.5
Cycle Q Clear(g_c), s	5.2	49.0	49.0	7.0	24.3	24.3	9.0	20.9	20.9	9.5	49.0	4.5
Prop In Lane	1.00		0.36	1.00		0.20	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	93	680	673	97	684	695	125	645	663	160	716	606
V/C Ratio(X)	0.78	1.06	1.07	1.01	0.61	0.61	1.07	0.56	0.56	0.84	1.11	0.14
Avail Cap(c_a), veh/h	153	680	673	97	684	695	125	645	663	237	716	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	40.5	40.5	61.5	32.6	32.6	60.5	33.5	33.5	58.3	40.5	26.6
Incr Delay (d2), s/veh	13.2	50.2	55.2	92.8	1.6	1.6	100.3	1.1	1.1	15.2	67.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	33.9	34.4	6.0	12.3	12.5	8.0	10.6	10.9	5.4	39.0	2.0
LnGrp Delay(d),s/veh	74.1	90.7	95.7	154.3	34.2	34.1	160.8	34.6	34.6	73.5	107.5	26.7
LnGrp LOS	E	F	F	F	C	C	F	C	C	E	F	C
Approach Vol, veh/h		1512			939			866			1012	
Approach Delay, s/veh		92.3			46.7			54.1			96.2	
Approach LOS		F			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	50.5	11.0	53.0	13.0	53.0	10.7	53.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	41.0	7.0	49.0	9.0	49.0	11.0	45.0
Max Q Clear Time (g_c+I1), s	11.5	22.9	9.0	51.0	11.0	51.0	7.2	26.3
Green Ext Time (p_c), s	0.1	9.3	0.0	0.0	0.0	0.0	0.0	13.1

Intersection Summary	
HCM 2010 Ctrl Delay	75.7
HCM 2010 LOS	E

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	60	660	320	480	560	80	150	410	400	40	540	30
Future Volume (veh/h)	60	660	320	480	560	80	150	410	400	40	540	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	750	364	545	636	91	170	466	0	45	614	34
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	724	351	516	1964	876	163	885	396	77	687	38
Arrive On Green	0.05	0.31	0.31	0.28	0.54	0.54	0.09	0.25	0.00	0.04	0.20	0.20
Sat Flow, veh/h	1810	2356	1141	1810	3610	1611	1810	3610	1615	1810	3477	192
Grp Volume(v), veh/h	68	574	540	545	636	91	170	466	0	45	318	330
Grp Sat Flow(s),veh/h/ln	1810	1805	1692	1810	1805	1611	1810	1805	1615	1810	1805	1864
Q Serve(g_s), s	5.0	41.0	41.0	38.0	13.0	3.6	12.0	14.9	0.0	3.3	22.9	23.0
Cycle Q Clear(g_c), s	5.0	41.0	41.0	38.0	13.0	3.6	12.0	14.9	0.0	3.3	22.9	23.0
Prop In Lane	1.00		0.67	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	87	555	520	516	1964	876	163	885	396	77	357	368
V/C Ratio(X)	0.78	1.03	1.04	1.06	0.32	0.10	1.04	0.53	0.00	0.58	0.89	0.89
Avail Cap(c_a), veh/h	149	555	520	516	1964	876	163	885	396	109	379	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.8	46.2	46.2	47.7	16.8	14.7	60.7	43.6	0.0	62.7	52.1	52.1
Incr Delay (d2), s/veh	13.8	47.5	49.5	55.5	0.1	0.1	82.7	0.6	0.0	6.8	21.7	21.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	27.7	26.2	26.9	6.5	1.6	9.7	7.5	0.0	1.8	13.6	14.0
LnGrp Delay(d),s/veh	76.5	93.7	95.7	103.2	16.9	14.7	143.5	44.2	0.0	69.5	73.8	73.6
LnGrp LOS	E	F	F	F	B	B	F	D		E	E	E
Approach Vol, veh/h		1182			1272			636			693	
Approach Delay, s/veh		93.6			53.7			70.7			73.4	
Approach LOS		F			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	36.7	42.0	45.0	16.0	30.4	10.4	76.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	32.0	38.0	41.0	12.0	28.0	11.0	68.0
Max Q Clear Time (g_c+I1), s	5.3	16.9	40.0	43.0	14.0	25.0	7.0	15.0
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.0	1.0	0.0	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	72.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
54: Morriaon St/Morrison St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	150	860	90	280	880	480	70	40	220	530	50	170
Future Volume (veh/h)	150	860	90	280	880	480	70	40	220	530	50	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	860	90	280	880	480	70	40	220	530	50	170
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	927	97	298	824	443	89	282	250	521	714	636
Arrive On Green	0.08	0.28	0.28	0.16	0.36	0.36	0.05	0.16	0.16	0.29	0.40	0.40
Sat Flow, veh/h	1810	3297	345	1810	2266	1218	1810	1805	1600	1810	1805	1609
Grp Volume(v), veh/h	150	471	479	280	698	662	70	40	220	530	50	170
Grp Sat Flow(s),veh/h/ln	1810	1805	1837	1810	1805	1679	1810	1805	1600	1810	1805	1609
Q Serve(g_s), s	12.0	37.0	37.0	22.3	53.0	53.0	5.6	2.8	19.6	42.0	2.5	10.4
Cycle Q Clear(g_c), s	12.0	37.0	37.0	22.3	53.0	53.0	5.6	2.8	19.6	42.0	2.5	10.4
Prop In Lane	1.00		0.19	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	508	516	298	656	610	89	282	250	521	714	636
V/C Ratio(X)	1.01	0.93	0.93	0.94	1.06	1.08	0.79	0.14	0.88	1.02	0.07	0.27
Avail Cap(c_a), veh/h	149	508	516	298	656	610	149	334	296	521	714	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	51.0	51.0	60.2	46.4	46.4	68.6	53.1	60.1	51.9	27.4	29.8
Incr Delay (d2), s/veh	75.7	23.5	23.2	36.5	53.5	61.4	14.0	0.2	22.1	43.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	21.7	22.1	14.2	36.0	34.8	3.1	1.4	10.2	27.2	1.3	4.7
LnGrp Delay(d),s/veh	142.6	74.4	74.1	96.7	99.9	107.8	82.6	53.3	82.3	95.7	27.5	30.0
LnGrp LOS	F	E	E	F	F	F	F	D	F	F	C	C
Approach Vol, veh/h		1100			1640			330			750	
Approach Delay, s/veh		83.6			102.6			78.8			76.2	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.0	26.8	28.0	45.0	11.2	61.6	16.0	57.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	42.0	27.0	24.0	41.0	12.0	57.0	12.0	53.0
Max Q Clear Time (g_c+I1), s	44.0	21.6	24.3	39.0	7.6	12.4	14.0	55.0
Green Ext Time (p_c), s	0.0	0.8	0.0	1.8	0.0	3.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	89.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↱		↰↰	↑↑↱	
Traffic Volume (veh/h)	560	520	290	270	440	500	280	320	300	680	390	640
Future Volume (veh/h)	560	520	290	270	440	500	280	320	300	680	390	640
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	709	658	367	342	557	633	354	405	380	861	494	810
Adj No. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	410	759	423	302	505	450	351	761	353	585	991	461
Arrive On Green	0.23	0.34	0.34	0.17	0.28	0.28	0.10	0.22	0.22	0.17	0.29	0.29
Sat Flow, veh/h	1810	2233	1245	1810	1805	1606	3510	3458	1604	3510	3458	1607
Grp Volume(v), veh/h	709	532	493	342	557	633	354	405	380	861	494	810
Grp Sat Flow(s),veh/h/ln	1810	1805	1674	1810	1805	1606	1755	1729	1604	1755	1729	1607
Q Serve(g_s), s	34.0	41.3	41.4	25.0	42.0	42.0	15.0	15.5	33.0	25.0	17.8	43.0
Cycle Q Clear(g_c), s	34.0	41.3	41.4	25.0	42.0	42.0	15.0	15.5	33.0	25.0	17.8	43.0
Prop In Lane	1.00		0.74	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	410	614	569	302	505	450	351	761	353	585	991	461
V/C Ratio(X)	1.73	0.87	0.87	1.13	1.10	1.41	1.01	0.53	1.08	1.47	0.50	1.76
Avail Cap(c_a), veh/h	410	614	569	302	505	450	351	761	353	585	991	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	46.3	46.3	62.5	54.0	54.0	67.5	51.7	58.5	62.5	44.5	53.5
Incr Delay (d2), s/veh	338.0	12.5	13.3	93.0	70.9	196.2	50.2	0.7	69.9	221.4	0.4	350.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	55.5	22.7	21.2	20.3	30.9	43.1	9.7	7.5	21.5	30.1	8.6	63.9
LnGrp Delay(d),s/veh	396.0	58.8	59.6	155.5	124.9	250.2	117.7	52.4	128.4	283.9	44.9	403.8
LnGrp LOS	F	E	E	F	F	F	F	D	F	F	D	F
Approach Vol, veh/h		1734			1532			1139			2165	
Approach Delay, s/veh		196.9			183.5			98.1			274.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	37.0	29.0	55.0	19.0	47.0	38.0	46.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	33.0	25.0	51.0	15.0	43.0	34.0	42.0
Max Q Clear Time (g_c+I1), s	27.0	35.0	27.0	43.4	17.0	45.0	36.0	44.0
Green Ext Time (p_c), s	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	202.1
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
56: Frederick St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	190	1930	120	110	1260	250	140	570	170	480	300	140
Future Volume (veh/h)	190	1930	120	110	1260	250	140	570	170	480	300	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	2121	132	121	1385	275	154	626	187	527	330	154
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	232	1686	752	98	1706	338	202	718	214	380	1130	503
Arrive On Green	0.13	0.47	0.47	0.05	0.39	0.39	0.06	0.26	0.26	0.11	0.31	0.31
Sat Flow, veh/h	1810	3610	1610	1810	4341	861	3510	2738	817	3510	3610	1607
Grp Volume(v), veh/h	209	2121	132	121	1103	557	154	412	401	527	330	154
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1744	1755	1805	1750	1755	1805	1607
Q Serve(g_s), s	16.8	69.0	7.0	8.0	42.0	42.1	6.4	32.3	32.4	16.0	10.2	10.8
Cycle Q Clear(g_c), s	16.8	69.0	7.0	8.0	42.0	42.1	6.4	32.3	32.4	16.0	10.2	10.8
Prop In Lane	1.00		1.00	1.00		0.49	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	232	1686	752	98	1359	686	202	473	459	380	1130	503
V/C Ratio(X)	0.90	1.26	0.18	1.23	0.81	0.81	0.76	0.87	0.87	1.39	0.29	0.31
Avail Cap(c_a), veh/h	257	1686	752	98	1359	686	261	501	486	380	1130	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.5	39.4	22.9	69.9	40.0	40.0	68.6	52.1	52.1	65.9	38.4	38.5
Incr Delay (d2), s/veh	29.9	121.1	0.1	166.8	3.8	7.4	9.5	14.8	15.4	189.3	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	62.5	3.1	8.5	20.8	21.7	3.4	18.0	17.7	17.7	5.1	4.8
LnGrp Delay(d),s/veh	93.4	160.4	23.0	236.7	43.8	47.4	78.1	66.9	67.6	255.2	38.5	38.9
LnGrp LOS	F	F	C	F	D	D	E	E	E	F	D	D
Approach Vol, veh/h		2462			1781			967			1011	
Approach Delay, s/veh		147.4			58.0			69.0			151.5	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	42.7	12.0	73.0	12.5	50.2	22.9	62.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	41.0	8.0	69.0	11.0	46.0	21.0	56.0
Max Q Clear Time (g_c+I1), s	18.0	34.4	10.0	71.0	8.4	12.8	18.8	44.1
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.1	9.9	0.1	11.6

Intersection Summary	
HCM 2010 Ctrl Delay	110.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
57: Graham St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	2030	320	230	1150	220	380	840	230	220	340	150
Future Volume (veh/h)	140	2030	320	230	1150	220	380	840	230	220	340	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	2207	0	250	1250	239	413	913	250	239	370	163
Adj No. of Lanes	1	2	1	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	175	1419	635	162	1687	322	237	908	248	150	675	293
Arrive On Green	0.10	0.39	0.00	0.09	0.39	0.39	0.13	0.32	0.32	0.08	0.28	0.28
Sat Flow, veh/h	1810	3610	1615	1810	4371	836	1810	2800	765	1810	2449	1062
Grp Volume(v), veh/h	152	2207	0	250	989	500	413	588	575	239	271	262
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1729	1749	1810	1805	1761	1810	1805	1706
Q Serve(g_s), s	12.0	57.0	0.0	13.0	35.7	35.7	19.0	47.0	47.0	12.0	18.6	19.0
Cycle Q Clear(g_c), s	12.0	57.0	0.0	13.0	35.7	35.7	19.0	47.0	47.0	12.0	18.6	19.0
Prop In Lane	1.00		1.00	1.00		0.48	1.00		0.43	1.00		0.62
Lane Grp Cap(c), veh/h	175	1419	635	162	1334	675	237	585	571	150	498	471
V/C Ratio(X)	0.87	1.56	0.00	1.54	0.74	0.74	1.74	1.00	1.01	1.60	0.54	0.56
Avail Cap(c_a), veh/h	200	1419	635	162	1334	675	237	585	571	150	498	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.6	44.0	0.0	66.0	38.3	38.3	63.0	49.0	49.0	66.5	44.7	44.9
Incr Delay (d2), s/veh	28.4	253.3	0.0	271.8	2.2	4.4	350.8	38.4	39.6	297.2	1.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	78.3	0.0	18.7	17.4	18.0	32.6	29.6	29.1	18.4	9.4	9.1
LnGrp Delay(d),s/veh	93.0	297.3	0.0	337.8	40.5	42.7	413.8	87.4	88.6	363.7	46.0	46.4
LnGrp LOS	F	F		F	D	D	F	F	F	F	D	D
Approach Vol, veh/h		2359			1739			1576			772	
Approach Delay, s/veh		284.2			83.9			173.4			144.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	51.0	17.0	61.0	23.0	44.0	18.0	60.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	47.0	13.0	57.0	19.0	40.0	16.0	54.0
Max Q Clear Time (g_c+I1), s	14.0	49.0	15.0	59.0	21.0	21.0	14.0	37.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	11.2	0.1	15.7

Intersection Summary	
HCM 2010 Ctrl Delay	186.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
58: Heacock St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	120	2170	140	80	1340	250	180	540	190	310	450	120
Future Volume (veh/h)	120	2170	140	80	1340	250	180	540	190	310	450	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	2359	152	87	1457	272	196	587	207	337	489	130
Adj No. of Lanes	1	3	1	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	2088	844	89	1644	306	220	713	251	294	1131	629
Arrive On Green	0.08	0.40	0.40	0.05	0.37	0.37	0.12	0.27	0.27	0.16	0.31	0.31
Sat Flow, veh/h	1810	5187	1609	1810	4392	818	1810	2616	921	1810	3610	1607
Grp Volume(v), veh/h	130	2359	152	87	1147	582	196	405	389	337	489	130
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1752	1810	1805	1732	1810	1805	1607
Q Serve(g_s), s	10.1	57.0	7.0	6.8	44.0	44.1	15.1	29.8	29.9	23.0	15.2	7.6
Cycle Q Clear(g_c), s	10.1	57.0	7.0	6.8	44.0	44.1	15.1	29.8	29.9	23.0	15.2	7.6
Prop In Lane	1.00		1.00	1.00		0.47	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	141	2088	844	89	1294	656	220	492	472	294	1131	629
V/C Ratio(X)	0.92	1.13	0.18	0.97	0.89	0.89	0.89	0.82	0.82	1.15	0.43	0.21
Avail Cap(c_a), veh/h	141	2088	844	89	1294	656	256	535	514	294	1147	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	42.3	17.7	67.2	41.5	41.5	61.2	48.3	48.3	59.3	38.6	28.6
Incr Delay (d2), s/veh	53.7	65.2	0.1	85.9	7.7	14.1	27.0	9.3	9.9	98.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	39.7	3.1	5.5	22.4	23.9	9.2	16.1	15.6	19.4	7.6	3.4
LnGrp Delay(d),s/veh	118.6	107.5	17.8	153.1	49.2	55.6	88.3	57.6	58.2	157.5	38.9	28.7
LnGrp LOS	F	F	B	F	D	E	F	E	E	F	D	C
Approach Vol, veh/h		2641			1816			990			956	
Approach Delay, s/veh		102.9			56.2			63.9			79.3	
Approach LOS		F			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	42.6	11.0	61.0	21.2	48.4	15.0	57.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	23.0	42.0	7.0	57.0	20.0	45.0	11.0	53.0
Max Q Clear Time (g_c+I1), s	25.0	31.9	8.8	59.0	17.1	17.2	12.1	46.1
Green Ext Time (p_c), s	0.0	6.0	0.0	0.0	0.1	10.6	0.0	6.8

Intersection Summary			
HCM 2010 Ctrl Delay			80.1
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
59: Indian St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	1950	350	230	1290	80	240	620	170	210	560	110
Future Volume (veh/h)	240	1950	350	230	1290	80	240	620	170	210	560	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	261	2120	380	250	1402	87	261	674	185	228	609	120
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	1681	293	190	1643	102	203	799	219	215	879	173
Arrive On Green	0.15	0.38	0.38	0.11	0.33	0.33	0.11	0.29	0.29	0.12	0.29	0.29
Sat Flow, veh/h	1810	4444	773	1810	4992	310	1810	2797	767	1810	3006	591
Grp Volume(v), veh/h	261	1635	865	250	971	518	261	435	424	228	365	364
Grp Sat Flow(s),veh/h/ln	1810	1729	1760	1810	1729	1844	1810	1805	1760	1810	1805	1792
Q Serve(g_s), s	20.4	54.0	54.0	15.0	37.4	37.4	16.0	32.4	32.4	17.0	25.6	25.7
Cycle Q Clear(g_c), s	20.4	54.0	54.0	15.0	37.4	37.4	16.0	32.4	32.4	17.0	25.6	25.7
Prop In Lane	1.00		0.44	1.00		0.17	1.00		0.44	1.00		0.33
Lane Grp Cap(c), veh/h	279	1308	666	190	1138	607	203	515	502	215	528	524
V/C Ratio(X)	0.94	1.25	1.30	1.31	0.85	0.85	1.29	0.84	0.84	1.06	0.69	0.69
Avail Cap(c_a), veh/h	279	1308	666	190	1138	607	203	544	530	215	556	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	44.4	44.4	63.9	44.7	44.7	63.4	48.0	48.0	62.9	44.8	44.8
Incr Delay (d2), s/veh	37.1	119.1	145.4	173.9	6.4	11.3	161.0	11.2	11.5	77.5	3.4	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	47.3	53.0	16.6	18.8	20.9	17.0	17.8	17.4	13.1	13.3	13.2
LnGrp Delay(d),s/veh	96.8	163.5	189.8	237.8	51.1	56.0	224.4	59.2	59.5	140.4	48.2	48.4
LnGrp LOS	F	F	F	F	D	E	F	E	E	F	D	D
Approach Vol, veh/h		2761			1739			1120			957	
Approach Delay, s/veh		165.4			79.4			97.8			70.2	
Approach LOS		F			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	44.8	19.0	58.0	20.0	45.8	26.0	51.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	43.0	15.0	54.0	16.0	44.0	22.0	47.0
Max Q Clear Time (g_c+I1), s	19.0	34.4	17.0	56.0	18.0	27.7	22.4	39.4
Green Ext Time (p_c), s	0.0	5.9	0.0	0.0	0.0	9.3	0.0	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	117.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
60: Perris Blvd & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰↰	↑↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	320	1620	370	360	1120	180	330	1160	350	290	1070	210
Future Volume (veh/h)	320	1620	370	360	1120	180	330	1160	350	290	1070	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	360	1820	416	404	1258	202	371	1303	393	326	1202	236
Adj No. of Lanes	2	2	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	414	1637	730	328	1932	310	304	1416	438	258	1347	417
Arrive On Green	0.12	0.45	0.45	0.09	0.43	0.43	0.09	0.27	0.27	0.07	0.26	0.26
Sat Flow, veh/h	3510	3610	1610	3510	4504	723	3510	5187	1606	3510	5187	1606
Grp Volume(v), veh/h	360	1820	416	404	966	494	371	1303	393	326	1202	236
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1729	1769	1755	1729	1606	1755	1729	1606
Q Serve(g_s), s	15.1	68.0	28.6	14.0	33.2	33.2	13.0	36.6	35.3	11.0	33.5	19.1
Cycle Q Clear(g_c), s	15.1	68.0	28.6	14.0	33.2	33.2	13.0	36.6	35.3	11.0	33.5	19.1
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	1637	730	328	1484	759	304	1416	438	258	1347	417
V/C Ratio(X)	0.87	1.11	0.57	1.23	0.65	0.65	1.22	0.92	0.90	1.27	0.89	0.57
Avail Cap(c_a), veh/h	515	1637	730	328	1484	759	304	1418	439	258	1349	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	41.0	30.2	68.0	33.9	33.9	68.5	52.9	52.5	69.5	53.5	48.2
Incr Delay (d2), s/veh	12.6	59.4	1.1	128.3	1.0	2.0	124.5	10.0	20.6	146.7	7.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	47.4	12.9	12.6	16.0	16.6	11.6	18.8	18.1	10.6	17.0	8.7
LnGrp Delay(d),s/veh	77.6	100.4	31.2	196.3	34.9	35.9	193.0	62.9	73.0	216.2	61.4	49.9
LnGrp LOS	E	F	C	F	C	D	F	E	E	F	E	D
Approach Vol, veh/h		2596			1864			2067			1764	
Approach Delay, s/veh		86.2			70.2			88.2			88.5	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	44.9	18.0	72.0	17.0	42.9	21.7	68.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	14.0	68.0	13.0	39.0	22.0	60.0
Max Q Clear Time (g_c+I1), s	13.0	38.6	16.0	70.0	15.0	35.5	17.1	35.2
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	3.4	0.6	22.9

Intersection Summary			
HCM 2010 Ctrl Delay			83.6
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
61: Cactus Ave & Frederick St

	↗	→	←	↖	↘	↙
Movement	**EBL**	**EBT**	**WBT**	**WBR**	**SBL**	**SBR**
Lane Configurations	↰	↑↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	160	2500	1600	400	350	120
Future Volume (veh/h)	160	2500	1600	400	350	120
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	170	2660	1702	426	372	128
Adj No. of Lanes	1	3	3	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	215	3690	2739	1107	561	450
Arrive On Green	0.12	0.71	0.53	0.53	0.16	0.16
Sat Flow, veh/h	1810	5358	5358	1607	3510	1615
Grp Volume(v), veh/h	170	2660	1702	426	372	128
Grp Sat Flow(s),veh/h/ln	1810	1729	1729	1607	1755	1615
Q Serve(g_s), s	5.7	18.9	14.3	7.0	6.2	3.9
Cycle Q Clear(g_c), s	5.7	18.9	14.3	7.0	6.2	3.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	215	3690	2739	1107	561	450
V/C Ratio(X)	0.79	0.72	0.62	0.38	0.66	0.28
Avail Cap(c_a), veh/h	320	3840	2739	1107	1752	998
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	5.3	10.3	4.1	24.5	17.6
Incr Delay (d2), s/veh	7.7	0.6	0.4	0.2	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	8.8	6.9	4.7	3.1	3.8
LnGrp Delay(d),s/veh	34.3	6.0	10.7	4.3	25.9	17.9
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		2830	2128		500	
Approach Delay, s/veh		7.7	9.5		23.8	
Approach LOS		A	A		C	

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				48.2		13.9	11.4	36.8
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				46.0		31.0	11.0	31.0
Max Q Clear Time (g_c+I1), s				20.9		8.2	7.7	16.3
Green Ext Time (p_c), s				23.3		1.7	0.1	14.5

Intersection Summary	
HCM 2010 Ctrl Delay	9.8
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
62: Graham St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	60	2380	370	120	1210	220	770	760	480	340	220	40
Future Volume (veh/h)	60	2380	370	120	1210	220	770	760	480	340	220	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	2505	389	126	1274	232	811	800	505	358	232	42
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	2075	644	97	1803	328	725	640	399	253	842	446
Arrive On Green	0.04	0.40	0.40	0.05	0.41	0.41	0.21	0.30	0.30	0.14	0.23	0.23
Sat Flow, veh/h	1810	5187	1609	1810	4410	803	3510	2133	1330	1810	3610	1605
Grp Volume(v), veh/h	63	2505	389	126	999	507	811	675	630	358	232	42
Grp Sat Flow(s),veh/h/ln	1810	1729	1609	1810	1729	1755	1755	1805	1658	1810	1805	1605
Q Serve(g_s), s	5.2	60.0	28.7	8.0	36.0	36.0	31.0	45.0	45.0	21.0	7.9	2.9
Cycle Q Clear(g_c), s	5.2	60.0	28.7	8.0	36.0	36.0	31.0	45.0	45.0	21.0	7.9	2.9
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	80	2075	644	97	1414	718	725	542	497	253	842	446
V/C Ratio(X)	0.78	1.21	0.60	1.31	0.71	0.71	1.12	1.25	1.27	1.41	0.28	0.09
Avail Cap(c_a), veh/h	97	2075	644	97	1414	718	725	542	497	253	842	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	45.0	35.6	71.0	36.8	36.8	59.5	52.5	52.5	64.5	47.1	40.2
Incr Delay (d2), s/veh	28.7	98.1	1.6	194.0	1.6	3.2	70.7	126.1	135.0	207.7	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	47.5	13.0	9.2	17.5	18.1	22.1	41.4	39.2	25.1	4.0	1.3
LnGrp Delay(d),s/veh	99.6	143.1	37.2	265.0	38.5	40.0	130.2	178.6	187.5	272.2	47.3	40.3
LnGrp LOS	F	F	D	F	D	D	F	F	F	F	D	D
Approach Vol, veh/h		2957			1632			2116			632	
Approach Delay, s/veh		128.3			56.4			162.7			174.2	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	49.0	12.0	64.0	35.0	39.0	10.7	65.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	45.0	8.0	60.0	31.0	35.0	8.0	60.0
Max Q Clear Time (g_c+I1), s	23.0	47.0	10.0	62.0	33.0	9.9	7.2	38.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	12.9	0.0	21.3

Intersection Summary		
HCM 2010 Ctrl Delay		126.2
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary
63: Heacock St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	490	1570	1140	0	840	90	460	320	0	100	370	180
Future Volume (veh/h)	490	1570	1140	0	840	90	460	320	0	100	370	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	533	1707	1239	0	913	98	500	348	0	109	402	196
Adj No. of Lanes	1	3	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	434	2819	1145	1	905	97	586	1077	0	133	483	233
Arrive On Green	0.24	0.54	0.54	0.00	0.28	0.28	0.17	0.30	0.00	0.07	0.20	0.20
Sat Flow, veh/h	1810	5187	1611	1810	3288	353	3510	3705	0	1810	2359	1136
Grp Volume(v), veh/h	533	1707	1239	0	501	510	500	348	0	109	306	292
Grp Sat Flow(s),veh/h/ln	1810	1729	1611	1810	1805	1835	1755	1805	0	1810	1805	1690
Q Serve(g_s), s	34.0	31.7	57.3	0.0	39.0	39.0	19.6	10.6	0.0	8.4	23.0	23.5
Cycle Q Clear(g_c), s	34.0	31.7	57.3	0.0	39.0	39.0	19.6	10.6	0.0	8.4	23.0	23.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.00	1.00		0.67
Lane Grp Cap(c), veh/h	434	2819	1145	1	497	505	586	1077	0	133	370	346
V/C Ratio(X)	1.23	0.61	1.08	0.00	1.01	1.01	0.85	0.32	0.00	0.82	0.83	0.84
Avail Cap(c_a), veh/h	434	2819	1145	89	497	505	669	1121	0	217	433	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	22.0	13.3	0.0	51.3	51.3	57.3	38.6	0.0	64.7	53.9	54.1
Incr Delay (d2), s/veh	121.2	0.4	51.8	0.0	42.6	42.3	9.4	0.2	0.0	11.9	11.1	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.5	15.1	41.1	0.0	25.2	25.6	10.3	5.3	0.0	4.6	12.6	12.2
LnGrp Delay(d),s/veh	175.0	22.4	65.0	0.0	94.0	93.6	66.8	38.8	0.0	76.6	65.1	67.2
LnGrp LOS	F	C	F		F	F	E	D		E	E	E
Approach Vol, veh/h		3479			1011			848			707	
Approach Delay, s/veh		61.0			93.8			55.3			67.7	
Approach LOS		E			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	46.3	0.0	81.0	27.6	33.0	38.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	44.0	7.0	66.0	27.0	34.0	34.0	39.0
Max Q Clear Time (g_c+I1), s	10.4	12.6	0.0	59.3	21.6	25.5	36.0	41.0
Green Ext Time (p_c), s	0.1	4.5	0.0	6.5	2.0	2.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	66.4
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	1110	350	40	720	70	200	720	60	70	790	80
Future Volume (veh/h)	110	1110	350	40	720	70	200	720	60	70	790	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	1276	402	46	828	80	230	828	69	80	908	92
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	1248	382	74	1386	134	226	1126	94	100	874	89
Arrive On Green	0.08	0.46	0.46	0.04	0.42	0.42	0.13	0.33	0.33	0.06	0.26	0.26
Sat Flow, veh/h	1810	2721	834	1810	3326	321	1810	3373	281	1810	3308	335
Grp Volume(v), veh/h	126	834	844	46	449	459	230	443	454	80	495	505
Grp Sat Flow(s),veh/h/ln	1810	1805	1750	1810	1805	1842	1810	1805	1849	1810	1805	1839
Q Serve(g_s), s	9.9	66.0	66.0	3.6	27.8	27.8	18.0	31.2	31.2	6.3	38.0	38.0
Cycle Q Clear(g_c), s	9.9	66.0	66.0	3.6	27.8	27.8	18.0	31.2	31.2	6.3	38.0	38.0
Prop In Lane	1.00		0.48	1.00		0.17	1.00		0.15	1.00		0.18
Lane Grp Cap(c), veh/h	150	828	803	74	752	768	226	603	617	100	477	486
V/C Ratio(X)	0.84	1.01	1.05	0.62	0.60	0.60	1.02	0.74	0.74	0.80	1.04	1.04
Avail Cap(c_a), veh/h	226	828	803	88	752	768	226	603	617	113	477	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.0	38.9	38.9	67.9	32.6	32.6	62.9	42.3	42.3	67.2	52.9	52.9
Incr Delay (d2), s/veh	15.7	33.2	46.1	9.5	1.3	1.3	64.0	4.7	4.6	29.2	51.8	51.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	40.3	41.9	2.0	14.1	14.4	13.0	16.3	16.7	4.0	25.7	26.1
LnGrp Delay(d),s/veh	80.8	72.1	85.0	77.4	33.9	33.9	127.1	47.0	46.9	96.4	104.7	104.3
LnGrp LOS	F	F	F	E	C	C	F	D	D	F	F	F
Approach Vol, veh/h		1804			954			1127			1080	
Approach Delay, s/veh		78.8			36.0			63.3			103.9	
Approach LOS		E			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	52.0	9.9	70.0	22.0	42.0	15.9	64.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	47.0	7.0	66.0	18.0	38.0	18.0	55.0
Max Q Clear Time (g_c+I1), s	8.3	33.2	5.6	68.0	20.0	40.0	11.9	29.8
Green Ext Time (p_c), s	0.0	9.7	0.0	0.0	0.0	0.0	0.1	18.7

Intersection Summary	
HCM 2010 Ctrl Delay	72.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	80	890	160	100	540	180	190	1350	180	270	1260	60
Future Volume (veh/h)	80	890	160	100	540	180	190	1350	180	270	1260	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	1023	184	115	621	207	218	1552	207	310	1448	69
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	116	1000	180	115	868	289	230	1509	467	313	1706	81
Arrive On Green	0.06	0.33	0.33	0.06	0.33	0.33	0.13	0.29	0.29	0.17	0.34	0.34
Sat Flow, veh/h	1810	3056	549	1810	2659	885	1810	5187	1607	1810	5072	242
Grp Volume(v), veh/h	92	603	604	115	421	407	218	1552	207	310	987	530
Grp Sat Flow(s),veh/h/ln	1810	1805	1800	1810	1805	1739	1810	1729	1607	1810	1729	1856
Q Serve(g_s), s	5.5	36.0	36.0	7.0	22.6	22.6	13.1	32.0	9.3	18.8	29.2	29.2
Cycle Q Clear(g_c), s	5.5	36.0	36.0	7.0	22.6	22.6	13.1	32.0	9.3	18.8	29.2	29.2
Prop In Lane	1.00		0.30	1.00		0.51	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	116	591	589	115	590	568	230	1509	467	313	1163	624
V/C Ratio(X)	0.79	1.02	1.02	1.00	0.71	0.72	0.95	1.03	0.44	0.99	0.85	0.85
Avail Cap(c_a), veh/h	132	591	589	115	590	568	230	1509	467	313	1163	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	37.0	37.0	51.5	32.5	32.5	47.6	39.0	20.7	45.4	33.9	33.9
Incr Delay (d2), s/veh	24.6	42.6	43.5	83.4	4.1	4.3	44.5	30.8	3.0	48.6	7.8	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	24.9	25.0	6.2	11.9	11.5	9.4	19.5	4.5	13.6	15.1	17.2
LnGrp Delay(d),s/veh	75.3	79.6	80.5	134.9	36.6	36.8	92.1	69.8	23.7	94.0	41.7	47.4
LnGrp LOS	E	F	F	F	D	D	F	F	C	F	D	D
Approach Vol, veh/h		1299			943			1977			1827	
Approach Delay, s/veh		79.7			48.7			67.4			52.2	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	36.0	11.0	40.0	18.0	41.0	11.1	39.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	32.0	7.0	36.0	14.0	37.0	8.0	35.0
Max Q Clear Time (g_c+I1), s	20.8	34.0	9.0	38.0	15.1	31.2	7.5	24.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.1	0.0	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	62.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
66: Sycamore Canyon Blvd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	250	2870	830	200	2470	230	460	310	200	140	450	280
Future Volume (veh/h)	250	2870	830	200	2470	230	460	310	200	140	450	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	3053	883	213	2628	245	489	330	213	149	479	298
Adj No. of Lanes	1	3	1	2	3	1	2	2	2	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	148	2332	724	251	2279	707	287	885	896	247	843	375
Arrive On Green	0.08	0.45	0.45	0.07	0.44	0.44	0.08	0.25	0.25	0.07	0.23	0.23
Sat Flow, veh/h	1810	5187	1610	3510	5187	1609	3510	3610	2825	3510	3610	1605
Grp Volume(v), veh/h	266	3053	883	213	2628	245	489	330	213	149	479	298
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1755	1729	1609	1755	1805	1413	1755	1805	1605
Q Serve(g_s), s	8.0	44.0	30.9	5.9	43.0	9.9	8.0	7.4	5.5	4.0	11.5	13.5
Cycle Q Clear(g_c), s	8.0	44.0	30.9	5.9	43.0	9.9	8.0	7.4	5.5	4.0	11.5	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	2332	724	251	2279	707	287	885	896	247	843	375
V/C Ratio(X)	1.80	1.31	1.22	0.85	1.15	0.35	1.70	0.37	0.24	0.60	0.57	0.79
Avail Cap(c_a), veh/h	148	2332	724	251	2279	707	287	1623	1473	323	1660	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	26.9	13.3	44.9	27.4	18.1	44.9	30.7	24.7	44.2	33.1	21.8
Incr Delay (d2), s/veh	384.8	142.3	111.3	22.9	74.4	0.3	331.3	0.3	0.1	2.4	0.6	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.8	51.7	36.0	3.6	36.0	4.4	17.0	3.7	2.1	2.0	5.8	6.5
LnGrp Delay(d),s/veh	429.7	169.2	124.6	67.8	101.8	18.4	376.3	31.0	24.9	46.5	33.7	25.7
LnGrp LOS	F	F	F	E	F	B	F	C	C	D	C	C
Approach Vol, veh/h		4202			3086			1032			926	
Approach Delay, s/veh		176.4			92.9			193.3			33.2	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	28.0	11.0	48.0	12.0	26.9	12.0	47.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	44.0	7.0	44.0	8.0	45.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	6.0	9.4	7.9	46.0	10.0	15.5	10.0	45.0
Green Ext Time (p_c), s	0.1	4.9	0.0	0.0	0.0	4.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	136.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↑					↰	✥	↱
Traffic Volume (veh/h)	0	2270	920	0	2310	0	0	0	0	300	0	560
Future Volume (veh/h)	0	2270	920	0	2310	0	0	0	0	300	0	560
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2340	948	0	2381	0				206	0	687
Adj No. of Lanes	0	3	0	0	3	0				1	0	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2544	912	0	3501	0				407	0	727
Arrive On Green	0.00	0.68	0.68	0.00	0.68	0.00				0.22	0.00	0.22
Sat Flow, veh/h	0	3940	1351	0	5529	0				1810	0	3230
Grp Volume(v), veh/h	0	2122	1166	0	2381	0				206	0	687
Grp Sat Flow(s),veh/h/ln	0	1729	1662	0	1729	0				1810	0	1615
Q Serve(g_s), s	0.0	41.3	54.0	0.0	22.1	0.0				8.0	0.0	16.7
Cycle Q Clear(g_c), s	0.0	41.3	54.0	0.0	22.1	0.0				8.0	0.0	16.7
Prop In Lane	0.00		0.81	0.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2334	1122	0	3501	0				407	0	727
V/C Ratio(X)	0.00	0.91	1.04	0.00	0.68	0.00				0.51	0.00	0.95
Avail Cap(c_a), veh/h	0	2334	1122	0	3501	0				407	0	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.9	13.0	0.0	7.8	0.0				27.1	0.0	30.5
Incr Delay (d2), s/veh	0.0	5.8	37.7	0.0	0.5	0.0				1.0	0.0	21.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	21.0	35.7	0.0	10.5	0.0				4.1	0.0	9.6
LnGrp Delay(d),s/veh	0.0	16.7	50.7	0.0	8.4	0.0				28.1	0.0	51.6
LnGrp LOS		B	F		A					C		D
Approach Vol, veh/h		3288			2381						893	
Approach Delay, s/veh		28.8			8.4						46.2	
Approach LOS		C			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				58.0		22.0		58.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				54.0		18.0		54.0
Max Q Clear Time (g_c+I1), s				56.0		18.7		24.1
Green Ext Time (p_c), s				0.0		0.0		29.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
68: SR-215 NB Ramps & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑			↑↑↱		↰	↰↑↱	↱			
Traffic Volume (veh/h)	330	2190	0	0	1720	220	720	10	200	0	0	0
Future Volume (veh/h)	330	2190	0	0	1720	220	720	10	200	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	337	2235	0	0	1755	224	802	0	139			
Adj No. of Lanes	1	3	0	0	3	0	2	0	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	363	3430	0	0	1913	243	863	0	385			
Arrive On Green	0.20	0.66	0.00	0.00	0.41	0.41	0.24	0.00	0.24			
Sat Flow, veh/h	1810	5358	0	0	4830	592	3619	0	1615			
Grp Volume(v), veh/h	337	2235	0	0	1300	679	802	0	139			
Grp Sat Flow(s),veh/h/ln	1810	1729	0	0	1729	1793	1810	0	1615			
Q Serve(g_s), s	14.6	20.4	0.0	0.0	28.3	28.6	17.3	0.0	5.7			
Cycle Q Clear(g_c), s	14.6	20.4	0.0	0.0	28.3	28.6	17.3	0.0	5.7			
Prop In Lane	1.00		0.00	0.00		0.33	1.00		1.00			
Lane Grp Cap(c), veh/h	363	3430	0	0	1419	736	863	0	385			
V/C Ratio(X)	0.93	0.65	0.00	0.00	0.92	0.92	0.93	0.00	0.36			
Avail Cap(c_a), veh/h	363	3448	0	0	1431	742	863	0	385			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.3	8.0	0.0	0.0	22.2	22.3	29.7	0.0	25.3			
Incr Delay (d2), s/veh	29.6	0.4	0.0	0.0	9.5	17.0	16.3	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.3	9.7	0.0	0.0	15.2	17.6	10.5	0.0	2.6			
LnGrp Delay(d),s/veh	60.9	8.5	0.0	0.0	31.7	39.3	46.0	0.0	25.9			
LnGrp LOS	E	A			C	D	D		C			
Approach Vol, veh/h		2572			1979			941				
Approach Delay, s/veh		15.3			34.3			43.0				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		23.0		56.7			20.0	36.7
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		19.0		53.0			16.0	33.0
Max Q Clear Time (g_c+I1), s		19.3		22.4			16.6	30.6
Green Ext Time (p_c), s		0.0		22.8			0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
69: Old 215 Frontage Rd & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	300	2120	50	10	1390	200	70	300	30	320	150	420
Future Volume (veh/h)	300	2120	50	10	1390	200	70	300	30	320	150	420
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	316	2232	53	11	1463	0	74	316	32	337	158	0
Adj No. of Lanes	2	3	0	1	3	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	400	2566	61	34	2059	641	224	456	204	348	919	411
Arrive On Green	0.11	0.49	0.49	0.02	0.40	0.00	0.06	0.13	0.13	0.19	0.25	0.00
Sat Flow, veh/h	3510	5212	123	1810	5187	1615	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	316	1479	806	11	1463	0	74	316	32	337	158	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1878	1810	1729	1615	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	8.2	35.5	35.8	0.6	22.2	0.0	1.9	7.9	1.7	17.3	3.2	0.0
Cycle Q Clear(g_c), s	8.2	35.5	35.8	0.6	22.2	0.0	1.9	7.9	1.7	17.3	3.2	0.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	1703	925	34	2059	641	224	456	204	348	919	411
V/C Ratio(X)	0.79	0.87	0.87	0.33	0.71	0.00	0.33	0.69	0.16	0.97	0.17	0.00
Avail Cap(c_a), veh/h	562	1703	925	135	2103	655	262	693	310	348	1117	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.4	21.1	21.2	45.4	23.7	0.0	42.0	39.2	36.5	37.6	27.2	0.0
Incr Delay (d2), s/veh	5.0	5.1	9.1	5.5	1.1	0.0	0.9	1.9	0.4	40.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	18.1	20.7	0.3	10.8	0.0	0.9	4.0	0.8	12.5	1.6	0.0
LnGrp Delay(d),s/veh	45.5	26.2	30.3	50.9	24.8	0.0	42.8	41.1	36.9	77.6	27.3	0.0
LnGrp LOS	D	C	C	D	C		D	D	D	E	C	
Approach Vol, veh/h		2601			1474			422			495	
Approach Delay, s/veh		29.8			25.0			41.1			61.6	
Approach LOS		C			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	15.8	5.7	50.1	10.0	27.8	14.7	41.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	18.0	7.0	46.0	7.0	29.0	15.0	38.0
Max Q Clear Time (g_c+I1), s	19.3	9.9	2.6	37.8	3.9	5.2	10.2	24.2
Green Ext Time (p_c), s	0.0	2.0	0.0	8.0	0.0	3.3	0.5	13.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	470	1790	190	80	1280	570	60	470	60	520	670	210
Future Volume (veh/h)	470	1790	190	80	1280	570	60	470	60	520	670	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	495	1884	200	84	1347	600	63	495	63	547	705	221
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	339	1932	204	99	1416	438	88	684	87	367	991	311
Arrive On Green	0.19	0.41	0.41	0.05	0.27	0.27	0.05	0.21	0.21	0.20	0.37	0.37
Sat Flow, veh/h	1810	4765	503	1810	5187	1606	1810	3221	408	1810	2704	847
Grp Volume(v), veh/h	495	1364	720	84	1347	600	63	276	282	547	471	455
Grp Sat Flow(s),veh/h/ln	1810	1729	1809	1810	1729	1606	1810	1805	1825	1810	1805	1746
Q Serve(g_s), s	24.0	49.7	50.4	5.9	32.7	22.2	4.4	18.3	18.4	26.0	28.7	28.7
Cycle Q Clear(g_c), s	24.0	49.7	50.4	5.9	32.7	22.2	4.4	18.3	18.4	26.0	28.7	28.7
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.22	1.00		0.49
Lane Grp Cap(c), veh/h	339	1402	734	99	1416	438	88	384	388	367	661	640
V/C Ratio(X)	1.46	0.97	0.98	0.85	0.95	1.37	0.71	0.72	0.73	1.49	0.71	0.71
Avail Cap(c_a), veh/h	339	1402	734	99	1416	438	155	619	626	367	830	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	37.4	37.7	60.1	45.8	18.8	60.1	47.0	47.0	51.1	34.8	34.8
Incr Delay (d2), s/veh	223.5	17.9	28.5	46.8	14.0	180.1	10.2	2.6	2.6	235.0	2.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.0	27.2	31.0	4.2	17.4	33.1	2.5	9.4	9.6	36.9	14.6	14.2
LnGrp Delay(d),s/veh	275.6	55.3	66.2	106.9	59.8	198.9	70.3	49.5	49.6	286.1	36.9	37.0
LnGrp LOS	F	E	E	F	E	F	E	D	D	F	D	D
Approach Vol, veh/h		2579			2031			621			1473	
Approach Delay, s/veh		100.6			102.9			51.7			129.5	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	31.3	11.0	56.0	10.3	51.0	28.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	44.0	7.0	52.0	11.0	59.0	24.0	35.0
Max Q Clear Time (g_c+I1), s	28.0	20.4	7.9	52.4	6.4	30.7	26.0	34.7
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.0	9.5	0.0	0.3

Intersection Summary			
HCM 2010 Ctrl Delay			103.1
HCM 2010 LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	170	1910	300	110	1270	80	570	650	220	60	300	120
Future Volume (veh/h)	170	1910	300	110	1270	80	570	650	220	60	300	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	179	2011	316	116	1337	84	600	684	232	63	316	126
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	1780	275	94	1664	105	443	1031	350	85	693	308
Arrive On Green	0.11	0.39	0.39	0.05	0.33	0.33	0.24	0.39	0.39	0.05	0.19	0.19
Sat Flow, veh/h	1810	4532	699	1810	4988	313	1810	2645	897	1810	3610	1602
Grp Volume(v), veh/h	179	1526	801	116	927	494	600	467	449	63	316	126
Grp Sat Flow(s),veh/h/ln	1810	1729	1773	1810	1729	1843	1810	1805	1738	1810	1805	1602
Q Serve(g_s), s	13.2	53.0	53.0	7.0	32.9	32.9	33.0	28.7	28.7	4.6	10.5	9.3
Cycle Q Clear(g_c), s	13.2	53.0	53.0	7.0	32.9	32.9	33.0	28.7	28.7	4.6	10.5	9.3
Prop In Lane	1.00		0.39	1.00		0.17	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	201	1358	697	94	1153	615	443	703	677	85	693	308
V/C Ratio(X)	0.89	1.12	1.15	1.24	0.80	0.80	1.36	0.66	0.66	0.74	0.46	0.41
Avail Cap(c_a), veh/h	201	1358	697	94	1153	615	443	843	811	148	1097	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.1	41.0	41.0	64.0	40.9	40.9	51.0	33.9	33.9	63.5	48.3	47.8
Incr Delay (d2), s/veh	35.0	65.6	83.6	169.0	4.2	7.6	174.3	1.5	1.6	11.9	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	37.7	42.1	7.9	16.4	18.0	37.9	14.6	14.0	2.6	5.3	4.2
LnGrp Delay(d),s/veh	94.1	106.6	124.5	233.0	45.2	48.6	225.2	35.4	35.5	75.3	48.7	48.7
LnGrp LOS	F	F	F	F	D	D	F	D	D	E	D	D
Approach Vol, veh/h		2506			1537			1516			505	
Approach Delay, s/veh		111.4			60.4			110.5			52.0	
Approach LOS		F			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	56.6	11.0	57.0	37.0	29.9	19.0	49.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	63.0	7.0	53.0	33.0	41.0	15.0	45.0
Max Q Clear Time (g_c+I1), s	16.6	30.7	9.0	55.0	35.0	12.5	15.2	34.9
Green Ext Time (p_c), s	0.0	10.7	0.0	0.0	0.0	10.3	0.0	9.7

Intersection Summary	
HCM 2010 Ctrl Delay	93.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
72: SR-215 SB Ramps & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↱	↱
Traffic Volume (veh/h)	0	2300	250	1850	1230	0	0	0	0	0	0	540
Future Volume (veh/h)	0	2300	250	1850	1230	0	0	0	0	0	0	540
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	1900	1900
Adj Flow Rate, veh/h	0	2584	281	2079	1382	0				0	0	607
Adj No. of Lanes	0	3	1	1	3	0				0	1	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1522	470	1182	5049	0				0	0	0
Arrive On Green	0.00	0.29	0.29	1.00	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	5358	1601	1810	5358	0					0	
Grp Volume(v), veh/h	0	2584	281	2079	1382	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1729	1601	1810	1729	0						
Q Serve(g_s), s	0.0	44.0	22.6	98.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	44.0	22.6	98.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	1522	470	1182	5049	0						
V/C Ratio(X)	0.00	1.70	0.60	1.76	0.27	0.00						
Avail Cap(c_a), veh/h	0	1522	470	1182	5049	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00						
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00						
Uniform Delay (d), s/veh	0.0	53.0	45.4	0.0	0.0	0.0						
Incr Delay (d2), s/veh	0.0	317.1	5.5	341.7	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	65.7	10.7	112.2	0.0	0.0						
LnGrp Delay(d),s/veh	0.0	370.1	51.0	341.7	0.0	0.0						
LnGrp LOS		F	D	F	A							
Approach Vol, veh/h		2865			3461							
Approach Delay, s/veh		338.8			205.2							
Approach LOS		F			F							

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			102.0	48.0				150.0
Change Period (Y+Rc), s			4.0	4.0				4.0
Max Green Setting (Gmax), s			76.0	44.0				124.0
Max Q Clear Time (g_c+I1), s			100.0	46.0				2.0
Green Ext Time (p_c), s			0.0	0.0				119.5

Intersection Summary	
HCM 2010 Ctrl Delay	265.7
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
73: SR-215 NB Ramps & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	330	2300	560	0	3050	410	210	670	20	240	30	1110
Future Volume (veh/h)	330	2300	560	0	3050	410	210	670	20	240	30	1110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	359	2500	609	0	3315	446	228	728	22	261	33	1207
Adj No. of Lanes	1	3	0	0	3	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	48	1975	446	0	2170	280	48	1717	52	299	866	775
Arrive On Green	0.93	0.93	0.93	0.00	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	37	4233	956	0	4822	599	456	3578	108	723	1805	1615
Grp Volume(v), veh/h	359	2007	1102	0	2427	1334	228	367	383	261	33	1207
Grp Sat Flow(s),veh/h/ln	37	1729	1731	0	1729	1792	456	1805	1881	723	1805	1615
Q Serve(g_s), s	0.0	70.0	70.0	0.0	70.0	70.0	0.0	19.9	19.9	52.1	1.5	72.0
Cycle Q Clear(g_c), s	70.0	70.0	70.0	0.0	70.0	70.0	72.0	19.9	19.9	72.0	1.5	72.0
Prop In Lane	1.00		0.55	0.00		0.33	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	48	1614	808	0	1614	836	48	866	903	299	866	775
V/C Ratio(X)	7.48	1.24	1.36	0.00	1.50	1.59	4.75	0.42	0.42	0.87	0.04	1.56
Avail Cap(c_a), veh/h	48	1614	808	0	1614	836	48	866	903	299	866	775
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	5.0	5.0	0.0	40.0	40.0	75.0	25.5	25.5	50.0	20.7	39.0
Incr Delay (d2), s/veh	2919.5	110.0	164.8	0.0	230.2	273.3	1733.7	0.3	0.3	23.4	0.0	257.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	40.9	52.0	63.9	0.0	85.0	98.1	25.1	10.0	10.4	12.7	0.7	87.4
LnGrp Delay(d),s/veh	2959.5	115.0	169.8	0.0	270.2	313.3	1808.7	25.8	25.8	73.4	20.7	296.0
LnGrp LOS	F	F	F		F	F	F	C	C	E	C	F
Approach Vol, veh/h		3468			3761			978			1501	
Approach Delay, s/veh		426.9			285.5			441.4			251.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		76.0		74.0		76.0		74.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		72.0		70.0		72.0		70.0
Max Q Clear Time (g_c+I1), s		74.0		72.0		74.0		72.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	346.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
74: Graeber St/Elsworth St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↑↱		↰	↰↑	↱
Traffic Volume (veh/h)	330	2110	440	130	1510	160	1270	420	300	180	50	240
Future Volume (veh/h)	330	2110	440	130	1510	160	1270	420	300	180	50	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	355	2269	0	140	1624	172	1366	452	323	124	152	258
Adj No. of Lanes	1	3	1	1	3	1	2	1	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	1630	507	103	1333	413	1241	353	252	311	326	459
Arrive On Green	0.11	0.31	0.00	0.06	0.26	0.26	0.34	0.34	0.34	0.17	0.17	0.17
Sat Flow, veh/h	1810	5187	1615	1810	5187	1606	3619	1030	736	1810	1900	1601
Grp Volume(v), veh/h	355	2269	0	140	1624	172	1366	0	775	124	152	258
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1606	1810	0	1766	1810	1900	1601
Q Serve(g_s), s	16.0	44.0	0.0	8.0	36.0	12.5	48.0	0.0	48.0	8.5	10.1	19.2
Cycle Q Clear(g_c), s	16.0	44.0	0.0	8.0	36.0	12.5	48.0	0.0	48.0	8.5	10.1	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	207	1630	507	103	1333	413	1241	0	605	311	326	459
V/C Ratio(X)	1.72	1.39	0.00	1.35	1.22	0.42	1.10	0.00	1.28	0.40	0.47	0.56
Avail Cap(c_a), veh/h	207	1630	507	103	1333	413	1241	0	605	439	461	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.0	48.0	0.0	66.0	52.0	43.3	46.0	0.0	46.0	51.6	52.2	42.6
Incr Delay (d2), s/veh	342.3	180.3	0.0	210.0	105.1	0.7	57.9	0.0	138.4	0.8	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.6	48.2	0.0	10.0	30.1	5.6	33.9	0.0	46.7	4.3	5.4	8.7
LnGrp Delay(d),s/veh	404.3	228.3	0.0	276.0	157.1	44.0	104.0	0.0	184.4	52.4	53.3	43.6
LnGrp LOS	F	F		F	F	D	F		F	D	D	D
Approach Vol, veh/h		2624			1936			2141			534	
Approach Delay, s/veh		252.2			155.6			133.1			48.4	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		52.0	12.0	48.0		28.0	20.0	40.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		48.0	8.0	44.0		34.0	16.0	36.0
Max Q Clear Time (g_c+I1), s		50.0	10.0	46.0		21.2	18.0	38.0
Green Ext Time (p_c), s		0.0	0.0	0.0		1.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	176.1
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱		↰	↑↑	↰	↱
Traffic Volume (veh/h)	1740	990	40	630	790	60
Future Volume (veh/h)	1740	990	40	630	790	60
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1851	1053	43	670	840	64
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1146	593	81	2084	642	646
Arrive On Green	0.50	0.50	0.04	0.58	0.36	0.36
Sat Flow, veh/h	2393	1190	1810	3705	1810	1615
Grp Volume(v), veh/h	1415	1489	43	670	840	64
Grp Sat Flow(s),veh/h/ln	1805	1683	1810	1805	1810	1615
Q Serve(g_s), s	59.0	59.0	2.8	11.4	42.0	2.9
Cycle Q Clear(g_c), s	59.0	59.0	2.8	11.4	42.0	2.9
Prop In Lane		0.71	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	900	839	81	2084	642	646
V/C Ratio(X)	1.57	1.77	0.53	0.32	1.31	0.10
Avail Cap(c_a), veh/h	900	839	107	2136	642	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	29.6	55.3	13.0	38.1	22.2
Incr Delay (d2), s/veh	262.6	353.2	5.3	0.1	149.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	94.9	109.6	1.5	5.7	47.5	1.3
LnGrp Delay(d),s/veh	292.2	382.9	60.6	13.1	187.5	22.3
LnGrp LOS	F	F	E	B	F	C
Approach Vol, veh/h	2904			713	904	
Approach Delay, s/veh	338.7			15.9	175.8	
Approach LOS	F			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		46.0	9.3	63.0				72.3
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		42.0	7.0	59.0				70.0
Max Q Clear Time (g_c+I1), s		44.0	4.8	61.0				13.4
Green Ext Time (p_c), s		0.0	0.0	0.0				53.8

Intersection Summary	
HCM 2010 Ctrl Delay	255.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↱		↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	0	780	960	450	350	30	340	60	510	30	110	0
Future Volume (veh/h)	0	780	960	450	350	30	340	60	510	30	110	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	821	1011	474	368	32	358	63	537	32	116	0
Adj No. of Lanes	1	3	1	2	2	0	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	450	1353	419	542	560	48	522	693	586	77	429	192
Arrive On Green	0.00	0.26	0.26	0.15	0.17	0.17	0.29	0.36	0.36	0.04	0.12	0.00
Sat Flow, veh/h	1810	5187	1606	3510	3358	290	1810	1900	1608	1810	3610	1615
Grp Volume(v), veh/h	0	821	1011	474	197	203	358	63	537	32	116	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1606	1755	1805	1844	1810	1900	1608	1810	1805	1615
Q Serve(g_s), s	0.0	12.5	11.5	11.9	9.2	9.3	15.8	2.0	28.7	1.6	2.6	0.0
Cycle Q Clear(g_c), s	0.0	12.5	11.5	11.9	9.2	9.3	15.8	2.0	28.7	1.6	2.6	0.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	450	1353	419	542	301	307	522	693	586	77	429	192
V/C Ratio(X)	0.00	0.61	2.41	0.87	0.65	0.66	0.69	0.09	0.92	0.41	0.27	0.00
Avail Cap(c_a), veh/h	450	1783	552	545	761	777	522	1096	927	140	1521	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	29.3	8.0	37.3	35.1	35.2	28.5	18.8	27.3	42.1	36.2	0.0
Incr Delay (d2), s/veh	0.0	0.4	643.5	14.6	2.4	2.4	3.7	0.1	9.2	3.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.1	82.4	6.9	4.8	4.9	8.4	1.0	14.2	0.8	1.3	0.0
LnGrp Delay(d),s/veh	0.0	29.7	651.5	51.9	37.6	37.6	32.2	18.9	36.5	45.5	36.5	0.0
LnGrp LOS		C	F	D	D	D	C	B	D	D	D	
Approach Vol, veh/h		1832			874			958			148	
Approach Delay, s/veh		372.9			45.3			33.7			38.5	
Approach LOS		F			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	36.9	17.9	27.5	30.0	14.7	26.4	19.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	52.0	14.0	31.0	21.0	38.0	7.0	38.0
Max Q Clear Time (g_c+I1), s	13.6	30.7	13.9	14.5	17.8	4.6	0.0	11.3
Green Ext Time (p_c), s	0.0	2.2	0.0	9.0	1.2	0.6	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	199.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
77: Central Ave & SR 60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱	↱					↑↑	↱	↰↰	↑↑	
Traffic Volume (veh/h)	20	10	70	0	0	0	0	740	580	730	750	0
Future Volume (veh/h)	20	10	70	0	0	0	0	740	580	730	750	0
Number	1	6	16				7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	21	0	81				0	787	617	777	798	0
Adj No. of Lanes	1	0	2				0	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	192	0	343				0	1227	549	1102	2650	0
Arrive On Green	0.11	0.00	0.11				0.00	0.34	0.34	0.31	0.73	0.00
Sat Flow, veh/h	1810	0	3230				0	3705	1615	3510	3705	0
Grp Volume(v), veh/h	21	0	81				0	787	617	777	798	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1755	1805	0
Q Serve(g_s), s	0.5	0.0	1.1				0.0	9.2	17.0	9.8	3.8	0.0
Cycle Q Clear(g_c), s	0.5	0.0	1.1				0.0	9.2	17.0	9.8	3.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	192	0	343				0	1227	549	1102	2650	0
V/C Ratio(X)	0.11	0.00	0.24				0.00	0.64	1.12	0.71	0.30	0.00
Avail Cap(c_a), veh/h	253	0	452				0	1227	549	1102	2650	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.82	0.82	0.81	0.81	0.00
Uniform Delay (d), s/veh	20.2	0.0	20.5				0.0	13.9	16.5	15.1	2.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.4				0.0	2.1	74.0	1.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.5				0.0	4.8	18.8	4.9	1.9	0.0
LnGrp Delay(d),s/veh	20.5	0.0	20.8				0.0	16.0	90.5	16.8	2.5	0.0
LnGrp LOS	C		C					B	F	B	A	
Approach Vol, veh/h		102						1404			1575	
Approach Delay, s/veh		20.8						48.7			9.6	
Approach LOS		C						D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			19.7	21.0		9.3		40.7
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			14.0	17.0		7.0		35.0
Max Q Clear Time (g_c+I1), s			11.8	19.0		3.1		5.8
Green Ext Time (p_c), s			1.6	0.0		0.1		8.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
78: Central Ave & SR60 WB Ramps

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Traffic Volume (veh/h)	300	310	760	0	0	1230
Future Volume (veh/h)	300	310	760	0	0	1230
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	0	1900
Adj Flow Rate, veh/h	319	330	809	0	0	1309
Adj No. of Lanes	2	1	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	878	404	2129	0	0	2129
Arrive On Green	0.25	0.25	1.00	0.00	0.00	0.59
Sat Flow, veh/h	3510	1615	3800	0	0	3800
Grp Volume(v), veh/h	319	330	809	0	0	1309
Grp Sat Flow(s),veh/h/ln	1755	1615	1805	0	0	1805
Q Serve(g_s), s	3.7	9.6	0.0	0.0	0.0	11.7
Cycle Q Clear(g_c), s	3.7	9.6	0.0	0.0	0.0	11.7
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	878	404	2129	0	0	2129
V/C Ratio(X)	0.36	0.82	0.38	0.00	0.00	0.61
Avail Cap(c_a), veh/h	1053	484	2129	0	0	2129
HCM Platoon Ratio	1.00	1.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	17.7	0.0	0.0	0.0	6.6
Incr Delay (d2), s/veh	0.3	9.0	0.4	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.2	0.1	0.0	0.0	6.0
LnGrp Delay(d),s/veh	15.7	26.6	0.4	0.0	0.0	7.9
LnGrp LOS	B	C	A			A
Approach Vol, veh/h	649		809			1309
Approach Delay, s/veh	21.3		0.4			7.9
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		33.5				33.5		16.5
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		27.0				27.0		15.0
Max Q Clear Time (g_c+I1), s		2.0				13.7		11.6
Green Ext Time (p_c), s		16.8				10.4		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
79: Trautwein Rd & Alessandro Blvd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱		↰↰	↑↑↑	↰↰⑂	
Traffic Volume (veh/h)	2980	20	220	2990	860	90
Future Volume (veh/h)	2980	20	220	2990	860	90
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3041	20	224	3051	964	0
Adj No. of Lanes	3	0	2	3	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3138	21	274	3698	1075	320
Arrive On Green	0.59	0.59	0.08	0.71	0.20	0.00
Sat Flow, veh/h	5488	35	3510	5358	5429	1615
Grp Volume(v), veh/h	1976	1085	224	3051	964	0
Grp Sat Flow(s),veh/h/ln	1729	1894	1755	1729	1810	1615
Q Serve(g_s), s	49.0	49.4	5.6	36.8	15.5	0.0
Cycle Q Clear(g_c), s	49.0	49.4	5.6	36.8	15.5	0.0
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2041	1118	274	3698	1075	320
V/C Ratio(X)	0.97	0.97	0.82	0.83	0.90	0.00
Avail Cap(c_a), veh/h	2042	1119	274	3700	1089	324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.6	17.6	40.7	9.0	35.1	0.0
Incr Delay (d2), s/veh	13.2	20.2	17.4	1.6	9.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.8	31.6	3.4	17.8	8.7	0.0
LnGrp Delay(d),s/veh	30.7	37.9	58.1	10.6	44.9	0.0
LnGrp LOS	C	D	E	B	D	
Approach Vol, veh/h	3061			3275	964	
Approach Delay, s/veh	33.3			13.9	44.9	
Approach LOS	C			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		21.8	11.0	57.0				68.0
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		18.0	7.0	53.0				64.0
Max Q Clear Time (g_c+I1), s		17.5	7.6	51.4				38.8
Green Ext Time (p_c), s		0.2	0.0	1.6				23.2

Intersection Summary			
HCM 2010 Ctrl Delay			26.1
HCM 2010 LOS			C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	140	2680	300	300	2440	190	340	350	290	480	930	230
Future Volume (veh/h)	140	2680	300	300	2440	190	340	350	290	480	930	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	2821	316	316	2568	200	358	368	305	505	979	242
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	1731	537	240	1640	125	270	471	398	386	1102	272
Arrive On Green	0.07	0.33	0.33	0.07	0.33	0.33	0.08	0.25	0.25	0.21	0.38	0.38
Sat Flow, veh/h	1810	5187	1608	3510	4914	375	3510	1900	1605	1810	2870	707
Grp Volume(v), veh/h	147	2821	316	316	1791	977	358	368	305	505	615	606
Grp Sat Flow(s),veh/h/ln	1810	1729	1608	1755	1729	1831	1755	1900	1605	1810	1805	1772
Q Serve(g_s), s	8.0	39.0	14.9	8.0	39.0	39.0	9.0	21.1	16.9	24.9	37.2	37.4
Cycle Q Clear(g_c), s	8.0	39.0	14.9	8.0	39.0	39.0	9.0	21.1	16.9	24.9	37.2	37.4
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	124	1731	537	240	1154	611	270	471	398	386	693	680
V/C Ratio(X)	1.19	1.63	0.59	1.31	1.55	1.60	1.32	0.78	0.77	1.31	0.89	0.89
Avail Cap(c_a), veh/h	124	1731	537	240	1154	611	270	797	673	386	741	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	38.9	19.7	54.4	38.9	38.9	53.9	41.0	27.3	46.0	33.6	33.7
Incr Delay (d2), s/veh	139.6	286.0	1.7	168.1	252.8	277.3	169.3	2.9	3.1	156.6	12.1	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	64.3	6.8	9.4	58.9	66.6	10.7	11.4	7.8	29.1	20.8	20.8
LnGrp Delay(d),s/veh	194.0	325.0	21.4	222.5	291.7	316.2	223.3	43.9	30.4	202.6	45.7	46.4
LnGrp LOS	F	F	C	F	F	F	F	D	C	F	D	D
Approach Vol, veh/h		3284			3084			1031			1726	
Approach Delay, s/veh		289.9			292.4			102.2			91.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.9	33.0	12.0	43.0	13.0	48.9	12.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	49.0	8.0	39.0	9.0	48.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	26.9	23.1	10.0	41.0	11.0	39.4	10.0	41.0
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.0	5.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	232.1
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
81: Chicago Ave & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	270	1160	770	270	880	360	350	820	130	230	790	220
Future Volume (veh/h)	270	1160	770	270	880	360	350	820	130	230	790	220
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	281	1208	802	281	917	375	365	854	135	240	823	229
Adj No. of Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	281	1181	679	234	1088	622	333	1157	724	299	1123	750
Arrive On Green	0.16	0.33	0.33	0.13	0.30	0.30	0.09	0.32	0.32	0.09	0.31	0.31
Sat Flow, veh/h	1810	3610	1608	1810	3610	1607	3510	3610	1607	3510	3610	1607
Grp Volume(v), veh/h	281	1208	802	281	917	375	365	854	135	240	823	229
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1607	1755	1805	1607	1755	1805	1607
Q Serve(g_s), s	18.0	38.0	38.0	15.0	27.6	21.7	11.0	24.4	5.9	7.8	23.6	10.3
Cycle Q Clear(g_c), s	18.0	38.0	38.0	15.0	27.6	21.7	11.0	24.4	5.9	7.8	23.6	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	1181	679	234	1088	622	333	1157	724	299	1123	750
V/C Ratio(X)	1.00	1.02	1.18	1.20	0.84	0.60	1.10	0.74	0.19	0.80	0.73	0.31
Avail Cap(c_a), veh/h	281	1181	679	234	1088	622	333	1244	762	333	1244	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	39.1	33.6	50.6	38.0	28.5	52.6	35.1	19.2	52.2	35.7	19.3
Incr Delay (d2), s/veh	54.2	32.0	96.1	124.4	6.1	1.6	78.1	2.2	0.1	12.1	2.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	24.1	39.8	15.5	14.7	9.9	8.9	12.6	2.6	4.3	12.1	4.6
LnGrp Delay(d),s/veh	103.2	71.1	129.7	175.0	44.1	30.1	130.7	37.3	19.3	64.3	37.7	19.5
LnGrp LOS	F	F	F	F	D	C	F	D	B	E	D	B
Approach Vol, veh/h		2291			1573			1354			1292	
Approach Delay, s/veh		95.5			64.2			60.7			39.4	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	41.2	19.0	42.0	15.0	40.1	22.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	40.0	15.0	38.0	11.0	40.0	18.0	35.0
Max Q Clear Time (g_c+I1), s	19.8	26.4	17.0	40.0	13.0	25.6	20.0	29.6
Green Ext Time (p_c), s	0.1	9.4	0.0	0.0	0.0	9.8	0.0	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	69.6
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
82: Martin Luther King Blvd & Iowa Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	220	1360	1100	750	640	320
Future Volume (veh/h)	220	1360	1100	750	640	320
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	234	1447	1170	798	681	340
Adj No. of Lanes	1	2	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	278	2293	1538	1094	919	658
Arrive On Green	0.15	0.64	0.43	0.43	0.25	0.25
Sat Flow, veh/h	1810	3705	3705	1606	3619	1615
Grp Volume(v), veh/h	234	1447	1170	798	681	340
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1606	1810	1615
Q Serve(g_s), s	9.1	17.6	19.9	22.8	12.5	11.4
Cycle Q Clear(g_c), s	9.1	17.6	19.9	22.8	12.5	11.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	278	2293	1538	1094	919	658
V/C Ratio(X)	0.84	0.63	0.76	0.73	0.74	0.52
Avail Cap(c_a), veh/h	326	2403	1552	1100	1706	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	8.0	17.6	7.3	24.7	16.0
Incr Delay (d2), s/veh	15.7	0.5	2.2	2.5	1.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	8.8	10.2	16.5	6.4	10.9
LnGrp Delay(d),s/veh	45.3	8.5	19.8	9.8	25.9	16.7
LnGrp LOS	D	A	B	A	C	B
Approach Vol, veh/h		1681	1968		1021	
Approach Delay, s/veh		13.6	15.8		22.8	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				49.8		22.3	15.1	34.7
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				48.0		34.0	13.0	31.0
Max Q Clear Time (g_c+I1), s				19.6		14.5	11.1	24.8
Green Ext Time (p_c), s				24.3		3.8	0.1	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
83: Canyon Crest Dr & Martin Luther King Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	230	1090	1020	590	550	240	750	670	640	280	580	270
Future Volume (veh/h)	230	1090	1020	590	550	240	750	670	640	280	580	270
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	256	1211	1133	656	611	267	833	744	711	311	644	300
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	614	1828	889	209	856	380	701	1415	631	209	909	687
Arrive On Green	0.18	0.35	0.35	0.06	0.24	0.24	0.20	0.39	0.39	0.06	0.25	0.25
Sat Flow, veh/h	3510	5187	1608	3510	3610	1605	3510	3610	1609	3510	3610	1605
Grp Volume(v), veh/h	256	1211	1133	656	611	267	833	744	711	311	644	300
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1805	1605	1755	1805	1609	1755	1805	1605
Q Serve(g_s), s	7.6	23.1	31.5	7.0	18.2	14.9	23.4	18.5	46.0	7.0	19.1	0.0
Cycle Q Clear(g_c), s	7.6	23.1	31.5	7.0	18.2	14.9	23.4	18.5	46.0	7.0	19.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	614	1828	889	209	856	380	701	1415	631	209	909	687
V/C Ratio(X)	0.42	0.66	1.27	3.13	0.71	0.70	1.19	0.53	1.13	1.49	0.71	0.44
Avail Cap(c_a), veh/h	614	1945	925	209	1353	602	701	1415	631	209	1415	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	32.1	14.9	55.2	41.1	28.4	47.0	27.3	35.7	55.2	40.0	23.7
Incr Delay (d2), s/veh	0.5	0.8	132.1	972.4	1.1	2.4	98.7	0.4	76.4	242.1	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	11.1	50.9	31.6	9.2	6.8	20.9	9.3	33.8	10.4	9.6	6.9
LnGrp Delay(d),s/veh	43.5	32.9	147.0	1027.5	42.2	30.8	145.7	27.7	112.1	297.3	41.0	24.1
LnGrp LOS	D	C	F	F	D	C	F	C	F	F	D	C
Approach Vol, veh/h		2600			1534			2288			1255	
Approach Delay, s/veh		83.7			461.6			96.9			100.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	50.0	11.0	45.4	27.4	33.6	24.5	31.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	46.0	7.0	44.0	7.0	46.0	7.0	44.0
Max Q Clear Time (g_c+I1), s	9.0	48.0	9.0	33.5	25.4	21.1	9.6	20.2
Green Ext Time (p_c), s	0.0	0.0	0.0	7.9	0.0	5.9	0.0	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	165.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
84: SR-60 EB On Ramp/SR-60 EB Off Ramp & Martin Luther King Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↱	↱	↰	↑↑					↰	↱	
Traffic Volume (veh/h)	0	750	1390	10	610	0	0	0	0	10	10	720
Future Volume (veh/h)	0	750	1390	10	610	0	0	0	0	10	10	720
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	824	1527	11	670	0				11	11	791
Adj No. of Lanes	0	1	2	1	2	0				1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	869	1477	109	1650	0				776	10	684
Arrive On Green	0.00	0.46	0.46	0.46	0.46	0.00				0.43	0.43	0.43
Sat Flow, veh/h	0	1900	3230	155	3705	0				1810	22	1596
Grp Volume(v), veh/h	0	824	1527	11	670	0				11	0	802
Grp Sat Flow(s),veh/h/ln	0	1900	1615	155	1805	0				1810	0	1618
Q Serve(g_s), s	0.0	29.1	32.0	2.9	8.7	0.0				0.2	0.0	30.0
Cycle Q Clear(g_c), s	0.0	29.1	32.0	32.0	8.7	0.0				0.2	0.0	30.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	869	1477	109	1650	0				776	0	694
V/C Ratio(X)	0.00	0.95	1.03	0.10	0.41	0.00				0.01	0.00	1.16
Avail Cap(c_a), veh/h	0	869	1477	109	1650	0				776	0	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.2	19.0	34.2	12.7	0.0				11.5	0.0	20.0
Incr Delay (d2), s/veh	0.0	19.2	32.7	0.4	0.2	0.0				0.0	0.0	86.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.7	20.9	0.2	4.3	0.0				0.1	0.0	29.9
LnGrp Delay(d),s/veh	0.0	37.4	51.7	34.6	12.8	0.0				11.5	0.0	106.0
LnGrp LOS		D	F	C	B					B		F
Approach Vol, veh/h		2351			681						813	
Approach Delay, s/veh		46.7			13.2						104.8	
Approach LOS		D			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				36.0		34.0		36.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				32.0		30.0		32.0
Max Q Clear Time (g_c+I1), s				34.0		32.0		34.0
Green Ext Time (p_c), s				0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 AWSC
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Intersection	
Intersection Delay, s/veh	364.7
Intersection LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Vol, veh/h	1620	0	1120	380	0	0
Future Vol, veh/h	1620	0	1120	380	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1820	0	1258	427	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	355.2	374.9
HCM LOS	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	50%	100%	100%
Vol Thru, %	0%	50%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	739	761	810	810
LT Vol	739	381	810	810
Through Vol	0	380	0	0
RT Vol	0	0	0	0
Lane Flow Rate	831	855	910	910
Geometry Grp	7	7	7	7
Degree of Util (X)	1.773	1.765	1.943	1.514
Departure Headway (Hd)	8.36	8.109	8.302	6.593
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	440	453	446	555
Service Time	6.06	5.809	6.002	4.293
HCM Lane V/C Ratio	1.889	1.887	2.04	1.64
HCM Control Delay	377.1	372.8	451.8	258.6
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	47.6	48.5	56.7	42.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑		↰↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	20	30	30	940	30	420	40	710	1400	710	970	0
Future Volume (veh/h)	20	30	30	940	30	420	40	710	1400	710	970	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	32	32	1011	32	452	43	763	1505	763	1043	0
Adj No. of Lanes	1	1	0	2	1	1	1	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	103	103	542	456	385	345	1509	673	465	1299	581
Arrive On Green	0.03	0.12	0.12	0.15	0.24	0.24	0.19	0.42	0.42	0.13	0.36	0.00
Sat Flow, veh/h	1810	867	867	3510	1900	1605	1810	3610	1609	3510	3610	1615
Grp Volume(v), veh/h	22	0	64	1011	32	452	43	763	1505	763	1043	0
Grp Sat Flow(s),veh/h/ln	1810	0	1734	1755	1900	1605	1810	1805	1609	1755	1805	1615
Q Serve(g_s), s	1.1	0.0	3.1	14.0	1.2	15.4	1.8	14.1	22.1	12.0	23.6	0.0
Cycle Q Clear(g_c), s	1.1	0.0	3.1	14.0	1.2	15.4	1.8	14.1	22.1	12.0	23.6	0.0
Prop In Lane	1.00		0.50	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	0	205	542	456	385	345	1509	673	465	1299	581
V/C Ratio(X)	0.37	0.00	0.31	1.86	0.07	1.17	0.12	0.51	2.24	1.64	0.80	0.00
Avail Cap(c_a), veh/h	140	0	689	542	902	762	345	1673	746	465	1873	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.9	0.0	36.6	38.3	26.6	17.3	30.4	19.5	9.0	39.3	26.1	0.0
Incr Delay (d2), s/veh	3.8	0.0	0.9	395.7	0.1	87.9	0.2	0.3	561.8	298.0	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.5	36.5	0.6	16.7	0.9	7.0	114.7	25.0	12.0	0.0
LnGrp Delay(d),s/veh	46.7	0.0	37.4	434.0	26.7	105.2	30.6	19.7	570.7	337.3	27.8	0.0
LnGrp LOS	D		D	F	C	F	C	B	F	F	C	
Approach Vol, veh/h		86			1495			2311			1806	
Approach Delay, s/veh		39.8			325.9			378.8			158.6	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	41.9	18.0	14.7	21.3	36.6	7.0	25.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	42.0	14.0	36.0	7.0	47.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	14.0	24.1	16.0	5.1	3.8	25.6	3.1	17.4
Green Ext Time (p_c), s	0.0	13.8	0.0	2.2	1.1	7.0	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	290.0
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
87: El Cerrito Dr & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥		↰	↱	
Traffic Volume (veh/h)	210	1730	110	60	1260	60	60	40	40	90	60	210
Future Volume (veh/h)	210	1730	110	60	1260	60	60	40	40	90	60	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1821	116	63	1326	63	63	42	42	95	63	221
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	251	1989	125	97	1725	82	112	75	57	302	97	340
Arrive On Green	0.14	0.58	0.58	0.05	0.49	0.49	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3448	217	1810	3508	166	253	285	215	1331	369	1294
Grp Volume(v), veh/h	221	944	993	63	681	708	147	0	0	95	0	284
Grp Sat Flow(s),veh/h/ln	1810	1805	1861	1810	1805	1870	753	0	0	1331	0	1663
Q Serve(g_s), s	13.4	52.0	54.4	3.8	34.6	34.7	7.9	0.0	0.0	0.0	0.0	17.0
Cycle Q Clear(g_c), s	13.4	52.0	54.4	3.8	34.6	34.7	24.9	0.0	0.0	10.7	0.0	17.0
Prop In Lane	1.00		0.12	1.00		0.09	0.43		0.29	1.00		0.78
Lane Grp Cap(c), veh/h	251	1041	1073	97	887	919	244	0	0	302	0	437
V/C Ratio(X)	0.88	0.91	0.93	0.65	0.77	0.77	0.60	0.00	0.00	0.31	0.00	0.65
Avail Cap(c_a), veh/h	290	1078	1111	113	901	933	300	0	0	356	0	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.4	21.1	21.5	52.1	23.3	23.3	42.1	0.0	0.0	34.5	0.0	36.8
Incr Delay (d2), s/veh	23.0	10.8	12.6	9.9	4.0	3.9	2.4	0.0	0.0	0.6	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	28.8	31.3	2.2	18.2	18.9	4.5	0.0	0.0	2.5	0.0	8.1
LnGrp Delay(d),s/veh	70.4	31.8	34.2	62.0	27.3	27.3	44.5	0.0	0.0	35.0	0.0	39.2
LnGrp LOS	E	C	C	E	C	C	D			D		D
Approach Vol, veh/h		2158			1452			147			379	
Approach Delay, s/veh		36.8			28.8			44.5			38.1	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		33.5	10.0	68.7		33.5	19.6	59.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		34.0	7.0	67.0		34.0	18.0	56.0
Max Q Clear Time (g_c+I1), s		26.9	5.8	56.4		19.0	15.4	36.7
Green Ext Time (p_c), s		1.8	0.9	8.4		2.7	0.1	9.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	50	1590	250	310	990	300	410	1390	560	680	1290	110
Future Volume (veh/h)	50	1590	250	310	990	300	410	1390	560	680	1290	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1639	258	320	1021	309	423	1433	577	701	1330	113
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	1098	169	151	1391	754	181	1264	697	293	1123	95
Arrive On Green	0.05	0.35	0.35	0.08	0.39	0.39	0.10	0.35	0.35	0.08	0.33	0.33
Sat Flow, veh/h	1810	3136	482	1810	3610	1609	1810	3610	1608	3510	3368	285
Grp Volume(v), veh/h	52	926	971	320	1021	309	423	1433	577	701	711	732
Grp Sat Flow(s),veh/h/ln	1810	1805	1813	1810	1805	1609	1810	1805	1608	1755	1805	1848
Q Serve(g_s), s	3.4	42.0	42.0	10.0	29.1	15.2	12.0	42.0	38.1	10.0	40.0	40.0
Cycle Q Clear(g_c), s	3.4	42.0	42.0	10.0	29.1	15.2	12.0	42.0	38.1	10.0	40.0	40.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	87	632	634	151	1391	754	181	1264	697	293	602	616
V/C Ratio(X)	0.60	1.47	1.53	2.12	0.73	0.41	2.34	1.13	0.83	2.40	1.18	1.19
Avail Cap(c_a), veh/h	121	632	634	151	1391	754	181	1264	697	293	602	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	39.0	39.0	55.0	31.6	21.0	54.0	39.0	30.0	55.0	40.0	40.0
Incr Delay (d2), s/veh	6.4	218.5	246.4	526.6	2.0	0.4	618.8	70.7	8.2	638.7	97.8	100.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	59.2	64.4	27.0	14.9	6.7	37.1	33.3	18.4	30.8	36.2	37.6
LnGrp Delay(d),s/veh	62.4	257.5	285.4	581.6	33.7	21.3	672.8	109.7	38.2	693.7	137.8	140.5
LnGrp LOS	E	F	F	F	C	C	F	F	D	F	F	F
Approach Vol, veh/h		1949			1650			2433			2144	
Approach Delay, s/veh		266.2			137.6			190.6			320.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	46.0	14.0	46.0	16.0	44.0	9.8	50.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	42.0	10.0	42.0	12.0	40.0	8.0	44.0
Max Q Clear Time (g_c+I1), s	12.0	44.0	12.0	44.0	14.0	42.0	5.4	31.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0

Intersection Summary	
HCM 2010 Ctrl Delay	232.0
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
89: Chicago Ave & Country Club Dr

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Traffic Volume (veh/h)	250	170	2000	380	270	1680
Future Volume (veh/h)	250	170	2000	380	270	1680
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	269	183	2151	409	290	1806
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	271	242	2136	952	287	2828
Arrive On Green	0.15	0.15	0.59	0.59	0.16	0.78
Sat Flow, veh/h	1810	1615	3705	1608	1810	3705
Grp Volume(v), veh/h	269	183	2151	409	290	1806
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1608	1810	1805
Q Serve(g_s), s	17.8	13.0	71.0	16.7	19.0	26.0
Cycle Q Clear(g_c), s	17.8	13.0	71.0	16.7	19.0	26.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	271	242	2136	952	287	2828
V/C Ratio(X)	0.99	0.76	1.01	0.43	1.01	0.64
Avail Cap(c_a), veh/h	271	242	2136	952	287	2828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	48.9	24.5	13.4	50.5	5.6
Incr Delay (d2), s/veh	52.0	12.7	21.2	0.3	56.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.1	0.0
%ile BackOfQ(50%),veh/ln	12.8	6.6	41.3	7.5	14.0	13.0
LnGrp Delay(d),s/veh	102.9	61.6	45.7	13.7	106.9	6.1
LnGrp LOS	F	E	F	B	F	A
Approach Vol, veh/h	452		2560			2096
Approach Delay, s/veh	86.2		40.6			20.1
Approach LOS	F		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.0	75.0				98.0		22.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	19.0	71.0				94.0		18.0
Max Q Clear Time (g_c+I1), s	21.0	73.0				28.0		19.8
Green Ext Time (p_c), s	0.0	0.0				62.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.2
HCM 2010 LOS	D

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱				↰	↰	↱
Traffic Volume (veh/h)	60	2040	210	630	1440	420	0	0	0	860	100	340
Future Volume (veh/h)	60	2040	210	630	1440	420	0	0	0	860	100	340
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	61	2082	0	643	1469	0				951	0	347
Adj No. of Lanes	1	2	1	2	2	1				2	0	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	92	1624	727	599	2057	920				1011	0	531
Arrive On Green	0.05	0.45	0.00	0.17	0.57	0.00				0.28	0.00	0.28
Sat Flow, veh/h	1810	3610	1615	3510	3610	1615				3619	0	1606
Grp Volume(v), veh/h	61	2082	0	643	1469	0				951	0	347
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1755	1805	1615				1810	0	1606
Q Serve(g_s), s	4.0	54.0	0.0	20.5	35.4	0.0				30.8	0.0	22.2
Cycle Q Clear(g_c), s	4.0	54.0	0.0	20.5	35.4	0.0				30.8	0.0	22.2
Prop In Lane	1.00		1.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	92	1625	727	599	2057	920				1011	0	531
V/C Ratio(X)	0.66	1.28	0.00	1.07	0.71	0.00				0.94	0.00	0.65
Avail Cap(c_a), veh/h	226	1625	727	599	2057	920				1025	0	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.77	0.77	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	56.0	33.0	0.0	49.8	18.7	0.0				42.3	0.0	34.3
Incr Delay (d2), s/veh	8.0	131.6	0.0	53.8	1.7	0.0				15.7	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	56.5	0.0	14.4	18.0	0.0				17.5	0.0	10.2
LnGrp Delay(d),s/veh	63.9	164.6	0.0	103.6	20.4	0.0				58.0	0.0	37.1
LnGrp LOS	E	F		F	C					E		D
Approach Vol, veh/h		2143			2112						1298	
Approach Delay, s/veh		161.7			45.7						52.4	
Approach LOS		F			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6	7	8
Phs Duration (G+Y+Rc), s			24.5	58.0		37.5	10.1	72.4
Change Period (Y+Rc), s			4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s			20.0	54.0		34.0	15.0	59.0
Max Q Clear Time (g_c+I1), s			22.5	56.0		32.8	6.0	37.4
Green Ext Time (p_c), s			0.0	0.0		0.7	0.1	13.8

Intersection Summary	
HCM 2010 Ctrl Delay	92.0
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
91: SR-91 EB Ramps & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↰	↑↑↑	↗	↰↰		↗↗			
Traffic Volume (veh/h)	0	2160	670	260	2200	260	280	0	1160	0	0	0
Future Volume (veh/h)	0	2160	670	260	2200	260	280	0	1160	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	1900	1900	0	1900			
Adj Flow Rate, veh/h	0	2250	698	271	2292	0	292	0	0			
Adj No. of Lanes	0	2	1	1	3	1	2	0	2			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	1955	1041	458	4295	1337	370	0	299			
Arrive On Green	0.00	0.36	0.36	0.34	1.00	0.00	0.11	0.00	0.00			
Sat Flow, veh/h	0	3705	1608	1810	5187	1615	3510	0	2842			
Grp Volume(v), veh/h	0	2250	698	271	2292	0	292	0	0			
Grp Sat Flow(s),veh/h/ln	0	1805	1608	1810	1729	1615	1755	0	1421			
Q Serve(g_s), s	0.0	65.0	36.1	14.9	0.0	0.0	9.7	0.0	0.0			
Cycle Q Clear(g_c), s	0.0	65.0	36.1	14.9	0.0	0.0	9.7	0.0	0.0			
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1955	1041	458	4295	1337	370	0	299			
V/C Ratio(X)	0.00	1.15	0.67	0.59	0.53	0.00	0.79	0.00	0.00			
Avail Cap(c_a), veh/h	0	1955	1041	458	4295	1337	819	0	663			
HCM Platoon Ratio	1.00	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.09	0.09	0.68	0.68	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	0.0	38.2	19.2	34.7	0.0	0.0	52.4	0.0	0.0			
Incr Delay (d2), s/veh	0.0	68.4	0.3	1.4	0.3	0.0	3.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	51.0	20.9	7.6	0.1	0.0	4.9	0.0	0.0			
LnGrp Delay(d),s/veh	0.0	106.6	19.6	36.1	0.3	0.0	56.2	0.0	0.0			
LnGrp LOS		F	B	D	A		E					
Approach Vol, veh/h		2948			2563			292				
Approach Delay, s/veh		86.0			4.1			56.2				
Approach LOS		F			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		16.6	34.4	69.0				103.4
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		28.0	15.0	65.0				84.0
Max Q Clear Time (g_c+I1), s		11.7	16.9	67.0				2.0
Green Ext Time (p_c), s		0.9	0.0	0.0				42.9

Intersection Summary			
HCM 2010 Ctrl Delay			48.3
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
92: Maude St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	✥			✥	
Traffic Volume (veh/h)	10	2930	300	190	2470	10	210	10	90	0	10	10
Future Volume (veh/h)	10	2930	300	190	2470	10	210	10	90	0	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	3052	312	198	2573	10	162	90	94	0	10	10
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	30	2359	233	420	3771	15	294	150	156	0	153	153
Arrive On Green	0.02	0.65	0.65	0.23	0.71	0.71	0.18	0.18	0.18	0.00	0.18	0.18
Sat Flow, veh/h	1810	4797	474	1810	5334	21	1403	848	886	0	869	869
Grp Volume(v), veh/h	10	2171	1193	198	1668	915	162	0	184	0	0	20
Grp Sat Flow(s),veh/h/ln	1810	1729	1813	1810	1729	1896	1403	0	1735	0	0	1738
Q Serve(g_s), s	0.7	59.0	59.0	11.3	32.7	32.8	13.1	0.0	11.7	0.0	0.0	1.2
Cycle Q Clear(g_c), s	0.7	59.0	59.0	11.3	32.7	32.8	14.2	0.0	11.7	0.0	0.0	1.2
Prop In Lane	1.00		0.26	1.00		0.01	1.00		0.51	0.00		0.50
Lane Grp Cap(c), veh/h	30	1700	892	420	2445	1341	294	0	306	0	0	306
V/C Ratio(X)	0.33	1.28	1.34	0.47	0.68	0.68	0.55	0.00	0.60	0.00	0.00	0.07
Avail Cap(c_a), veh/h	106	1700	892	420	2445	1341	502	0	564	0	0	565
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	58.0	20.8	20.8	39.7	9.9	10.0	47.1	0.0	45.5	0.0	0.0	41.2
Incr Delay (d2), s/veh	0.6	125.1	152.8	0.8	1.6	2.8	1.6	0.0	1.9	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	57.2	66.9	5.8	16.0	18.1	5.2	0.0	5.8	0.0	0.0	0.6
LnGrp Delay(d),s/veh	58.6	145.8	173.5	40.6	11.5	12.8	48.7	0.0	47.4	0.0	0.0	41.3
LnGrp LOS	E	F	F	D	B	B	D		D			D
Approach Vol, veh/h		3374			2781			346			20	
Approach Delay, s/veh		155.4			14.0			48.0			41.3	
Approach LOS		F			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		25.2	31.8	63.0		25.2	6.0	88.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		39.0	10.0	59.0		39.0	7.0	62.0
Max Q Clear Time (g_c+I1), s		16.2	13.3	61.0		3.2	2.7	34.8
Green Ext Time (p_c), s		1.7	0.0	0.0		1.8	0.0	22.3

Intersection Summary	
HCM 2010 Ctrl Delay	89.0
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	180	2630	160	20	2160	10	180	20	10	10	40	190
Future Volume (veh/h)	180	2630	160	20	2160	10	180	20	10	10	40	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	188	2740	167	21	2250	10	188	21	10	10	42	198
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	2492	150	60	2655	12	280	259	123	86	336	341
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	169	3459	209	89	3686	16	1153	1215	578	236	1577	1604
Grp Volume(v), veh/h	188	1416	1491	21	1101	1159	188	0	31	52	0	198
Grp Sat Flow(s),veh/h/ln	169	1805	1862	89	1805	1897	1153	0	1793	1813	0	1604
Q Serve(g_s), s	33.8	86.5	86.5	0.0	52.5	52.7	18.9	0.0	1.7	0.0	0.0	13.3
Cycle Q Clear(g_c), s	86.5	86.5	86.5	86.5	52.5	52.7	21.6	0.0	1.7	2.7	0.0	13.3
Prop In Lane	1.00		0.11	1.00		0.01	1.00		0.32	0.19		1.00
Lane Grp Cap(c), veh/h	108	1300	1342	60	1300	1367	280	0	382	422	0	341
V/C Ratio(X)	1.75	1.09	1.11	0.35	0.85	0.85	0.67	0.00	0.08	0.12	0.00	0.58
Avail Cap(c_a), veh/h	108	1300	1342	60	1300	1367	351	0	493	532	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.5	16.8	16.8	60.0	12.0	12.1	47.0	0.0	37.8	38.2	0.0	42.4
Incr Delay (d2), s/veh	371.3	52.9	61.0	1.4	0.7	0.7	3.5	0.0	0.1	0.1	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	61.4	66.3	0.7	25.9	27.3	6.3	0.0	0.8	1.4	0.0	6.0
LnGrp Delay(d),s/veh	423.8	69.7	77.8	61.4	12.7	12.7	50.4	0.0	37.9	38.3	0.0	44.0
LnGrp LOS	F	F	F	E	B	B	D		D	D		D
Approach Vol, veh/h		3095			2281			219			250	
Approach Delay, s/veh		95.1			13.2			48.7			42.8	
Approach LOS		F			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		29.5		90.5		29.5		90.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		79.0		33.0		79.0
Max Q Clear Time (g_c+I1), s		23.6		88.5		15.3		88.5
Green Ext Time (p_c), s		1.3		0.0		1.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	230	2400	20	320	1970	60	20	190	520	270	250	200
Future Volume (veh/h)	230	2400	20	320	1970	60	20	190	520	270	250	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	2500	21	333	2052	62	21	198	542	281	260	208
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	1559	13	176	1584	48	276	470	554	160	349	294
Arrive On Green	0.08	0.43	0.43	0.10	0.44	0.44	0.15	0.25	0.25	0.09	0.18	0.18
Sat Flow, veh/h	1810	3669	31	1810	3578	108	1810	1900	1605	1810	1900	1602
Grp Volume(v), veh/h	240	1228	1293	333	1030	1084	21	198	542	281	260	208
Grp Sat Flow(s),veh/h/ln	1810	1805	1894	1810	1805	1880	1810	1900	1605	1810	1900	1602
Q Serve(g_s), s	9.0	48.0	48.0	11.0	50.0	50.0	1.1	9.9	22.5	10.0	14.6	11.2
Cycle Q Clear(g_c), s	9.0	48.0	48.0	11.0	50.0	50.0	1.1	9.9	22.5	10.0	14.6	11.2
Prop In Lane	1.00		0.02	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	767	805	176	799	833	276	470	554	160	349	294
V/C Ratio(X)	1.66	1.60	1.61	1.89	1.29	1.30	0.08	0.42	0.98	1.75	0.75	0.71
Avail Cap(c_a), veh/h	144	767	805	176	799	833	276	589	655	160	639	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	32.5	32.5	51.0	31.5	31.5	41.0	35.7	25.0	51.5	43.6	28.8
Incr Delay (d2), s/veh	327.4	276.5	278.3	420.8	139.3	144.7	0.1	0.6	27.7	363.5	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.6	82.8	87.3	26.1	55.8	59.4	0.6	5.2	16.9	21.2	8.0	5.5
LnGrp Delay(d),s/veh	379.4	308.9	310.8	471.7	170.7	176.2	41.2	36.3	52.7	415.0	46.8	31.9
LnGrp LOS	F	F	F	F	F	F	D	D	D	F	D	C
Approach Vol, veh/h		2761			2447			761			749	
Approach Delay, s/veh		315.9			214.1			48.1			180.8	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	31.9	15.0	52.0	21.2	24.7	13.0	54.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	35.0	11.0	48.0	7.0	38.0	9.0	50.0
Max Q Clear Time (g_c+I1), s	12.0	24.5	13.0	50.0	3.1	16.6	11.0	52.0
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	1.3	2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	233.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	80	1490	1390	520	1040	390	1090	1580	250	660	1710	60
Future Volume (veh/h)	80	1490	1390	520	1040	390	1090	1580	250	660	1710	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	1520	1418	531	1061	398	1112	1612	255	673	1745	61
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	151	1193	1306	275	1175	678	458	1287	700	336	1656	58
Arrive On Green	0.08	0.33	0.33	0.08	0.33	0.33	0.13	0.36	0.36	0.10	0.32	0.32
Sat Flow, veh/h	1810	3610	2829	3510	3610	1608	3510	3610	1608	3510	5146	180
Grp Volume(v), veh/h	82	1520	1418	531	1061	398	1112	1612	255	673	1172	634
Grp Sat Flow(s),veh/h/ln	1810	1805	1415	1755	1805	1608	1755	1805	1608	1755	1729	1867
Q Serve(g_s), s	5.0	38.0	31.1	9.0	32.3	14.8	15.0	41.0	12.2	11.0	37.0	37.0
Cycle Q Clear(g_c), s	5.0	38.0	31.1	9.0	32.3	14.8	15.0	41.0	12.2	11.0	37.0	37.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	151	1193	1306	275	1175	678	458	1287	700	336	1113	601
V/C Ratio(X)	0.54	1.27	1.09	1.93	0.90	0.59	2.43	1.25	0.36	2.00	1.05	1.05
Avail Cap(c_a), veh/h	151	1193	1306	275	1224	700	458	1287	700	336	1113	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	38.5	19.8	53.0	37.0	12.8	50.0	37.0	21.8	52.0	39.0	39.0
Incr Delay (d2), s/veh	4.0	130.1	51.7	432.9	9.3	1.2	649.5	120.2	0.3	462.4	42.3	52.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	40.4	21.4	20.9	17.6	6.8	48.6	41.9	5.5	26.9	24.2	27.7
LnGrp Delay(d),s/veh	54.6	168.6	71.5	485.9	46.3	14.0	699.5	157.2	22.1	514.4	81.3	91.0
LnGrp LOS	D	F	F	F	D	B	F	F	C	F	F	F
Approach Vol, veh/h		3020			1990			2979			2479	
Approach Delay, s/veh		119.9			157.2			348.0			201.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	45.0	13.0	42.0	19.0	41.0	13.6	41.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	41.0	9.0	38.0	15.0	37.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	13.0	43.0	11.0	40.0	17.0	39.0	7.0	34.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	211.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
96: Alessandro Blvd & Century Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣		↰	↑↑↑↱		↰	↑↑↑↱	
Traffic Volume (veh/h)	40	10	10	50	30	180	30	2650	30	170	3120	60
Future Volume (veh/h)	40	10	10	50	30	180	30	2650	30	170	3120	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	10	10	51	31	184	31	2704	31	173	3184	61
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	193	47	36	92	58	243	112	2951	34	194	3162	60
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.06	0.56	0.56	0.11	0.60	0.60
Sat Flow, veh/h	618	218	164	229	268	1116	1810	5287	60	1810	5240	100
Grp Volume(v), veh/h	61	0	0	266	0	0	31	1766	969	173	2094	1151
Grp Sat Flow(s),veh/h/ln	999	0	0	1613	0	0	1810	1729	1889	1810	1729	1882
Q Serve(g_s), s	0.0	0.0	0.0	10.2	0.0	0.0	1.7	47.4	47.8	9.7	62.0	62.0
Cycle Q Clear(g_c), s	5.3	0.0	0.0	15.7	0.0	0.0	1.7	47.4	47.8	9.7	62.0	62.0
Prop In Lane	0.67		0.16	0.19		0.69	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	276	0	0	393	0	0	112	1930	1054	194	2087	1136
V/C Ratio(X)	0.22	0.00	0.00	0.68	0.00	0.00	0.28	0.91	0.92	0.89	1.00	1.01
Avail Cap(c_a), veh/h	490	0	0	650	0	0	123	1952	1066	194	2087	1136
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	0.0	0.0	37.5	0.0	0.0	46.0	20.5	20.6	45.3	20.4	20.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.0	0.0	0.0	1.3	7.2	12.4	36.7	20.6	30.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	7.2	0.0	0.0	0.9	24.2	28.4	6.8	35.2	41.3
LnGrp Delay(d),s/veh	33.5	0.0	0.0	39.5	0.0	0.0	47.3	27.7	33.0	82.0	41.0	50.4
LnGrp LOS	C			D			D	C	C	F	F	F
Approach Vol, veh/h		61			266			2766			3418	
Approach Delay, s/veh		33.5			39.5			29.8			46.2	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	61.4		26.4	10.4	66.0		26.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	11.0	58.0		39.0	7.0	62.0		39.0
Max Q Clear Time (g_c+I1), s	11.7	49.8		7.3	3.7	64.0		17.7
Green Ext Time (p_c), s	0.0	7.5		2.3	3.2	0.0		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
97: Alessandro Blvd & Via Vista Dr

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	70	50	50	20	50	90	70	2600	40	140	2980	130
Future Volume (veh/h)	70	50	50	20	50	90	70	2600	40	140	2980	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	52	52	21	52	93	72	2680	41	144	3072	134
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	316	215	180	320	215	180	122	2921	45	169	2963	127
Arrive On Green	0.07	0.11	0.11	0.07	0.11	0.11	0.07	0.56	0.56	0.09	0.58	0.58
Sat Flow, veh/h	1810	1900	1594	1810	1900	1594	1810	5263	80	1810	5099	219
Grp Volume(v), veh/h	72	52	52	21	52	93	72	1757	964	144	2069	1137
Grp Sat Flow(s),veh/h/ln	1810	1900	1594	1810	1900	1594	1810	1729	1885	1810	1729	1860
Q Serve(g_s), s	3.3	2.4	2.4	0.9	2.4	5.3	3.7	44.3	44.8	7.6	56.0	56.0
Cycle Q Clear(g_c), s	3.3	2.4	2.4	0.9	2.4	5.3	3.7	44.3	44.8	7.6	56.0	56.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.12
Lane Grp Cap(c), veh/h	316	215	180	320	215	180	122	1919	1046	169	2010	1081
V/C Ratio(X)	0.23	0.24	0.29	0.07	0.24	0.52	0.59	0.92	0.92	0.85	1.03	1.05
Avail Cap(c_a), veh/h	317	572	480	320	572	480	131	1938	1057	169	2010	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	39.0	27.0	32.4	39.0	40.2	43.7	19.4	19.5	43.0	20.2	20.2
Incr Delay (d2), s/veh	0.4	0.6	0.9	0.1	0.6	2.3	6.0	7.3	12.7	31.9	28.1	42.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.3	1.3	0.5	1.3	2.5	2.1	22.9	26.7	5.3	34.4	41.1
LnGrp Delay(d),s/veh	33.7	39.6	27.9	32.5	39.5	42.5	49.7	26.7	32.2	74.9	48.3	62.2
LnGrp LOS	C	D	C	C	D	D	D	C	C	E	F	F
Approach Vol, veh/h		176			166			2793			3350	
Approach Delay, s/veh		33.7			40.3			29.2			54.1	
Approach LOS		C			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	57.5	11.0	14.9	10.5	60.0	11.0	14.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	9.0	54.0	7.0	29.0	7.0	56.0	7.0	29.0				
Max Q Clear Time (g_c+I1), s	9.6	46.8	2.9	4.4	5.7	58.0	5.3	7.3				
Green Ext Time (p_c), s	0.0	6.7	0.0	1.0	1.2	0.0	0.0	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			42.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
98: Alessandro Blvd & Canyon Crest Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑ ↑↱		↰ ↰	↰↑	↱	↰	↑ ↑ ↑	↱	↰	↑ ↑ ↑↱	
Traffic Volume (veh/h)	230	140	580	1370	320	10	610	2470	1100	20	2690	150
Future Volume (veh/h)	230	140	580	1370	320	10	610	2470	1100	20	2690	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	149	617	1328	521	11	649	2628	1170	21	2862	160
Adj No. of Lanes	1	2	0	2	1	1	1	3	1	1	3	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	216	612	545	315	583	493	157	1939	742	110	1750	96
Arrive On Green	0.12	0.34	0.34	0.09	0.31	0.31	0.09	0.37	0.37	0.06	0.35	0.35
Sat Flow, veh/h	1810	1805	1608	3619	1900	1607	1810	5187	1609	1810	5032	276
Grp Volume(v), veh/h	245	149	617	1328	521	11	649	2628	1170	21	1950	1072
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1900	1607	1810	1729	1609	1810	1729	1850
Q Serve(g_s), s	13.7	6.8	39.0	10.0	30.1	0.5	10.0	43.0	36.8	1.3	40.0	40.0
Cycle Q Clear(g_c), s	13.7	6.8	39.0	10.0	30.1	0.5	10.0	43.0	36.8	1.3	40.0	40.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	216	612	545	315	583	493	157	1939	742	110	1203	643
V/C Ratio(X)	1.13	0.24	1.13	4.22	0.89	0.02	4.12	1.35	1.58	0.19	1.62	1.67
Avail Cap(c_a), veh/h	216	612	545	315	694	587	157	1939	742	110	1203	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	27.4	38.0	52.5	38.1	27.8	52.5	36.0	15.9	51.3	37.5	37.5
Incr Delay (d2), s/veh	102.3	0.2	80.2	1456.4	12.6	0.0	1421.0	163.2	266.2	0.8	283.5	306.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	3.4	29.4	68.6	17.8	0.2	67.1	49.8	70.9	0.7	66.4	75.1
LnGrp Delay(d),s/veh	152.9	27.6	118.2	1508.9	50.6	27.8	1473.5	199.2	282.0	52.1	321.0	343.8
LnGrp LOS	F	C	F	F	D	C	F	F	F	D	F	F
Approach Vol, veh/h		1011			1860			4447			3043	
Approach Delay, s/veh		113.2			1091.7			407.0			327.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	47.0	14.0	43.0	14.0	44.0	17.7	39.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	43.0	10.0	39.0	10.0	40.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	3.3	45.0	12.0	41.0	12.0	42.0	15.7	32.1
Green Ext Time (p_c), s	3.6	0.0	0.0	0.0	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	477.8
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
99: Perris Blvd & Oleander Ave/Harley Knox Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	600	90	210	110	40	320	190	1360	200	470	1150	440
Future Volume (veh/h)	600	90	210	110	40	320	190	1360	200	470	1150	440
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	600	98	210	120	43	348	190	1360	217	511	1150	440
Adj No. of Lanes	1	2	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	1.00	0.92	1.00	0.92	0.92	0.92	1.00	1.00	0.92	0.92	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	506	1558	1001	1027	2239	952	665	1474	457	554	1310	406
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.19	0.28	0.28	0.16	0.25	0.25
Sat Flow, veh/h	1009	3610	1609	2107	5187	1615	3510	5187	1606	3510	5187	1605
Grp Volume(v), veh/h	600	98	210	120	43	348	190	1360	217	511	1150	440
Grp Sat Flow(s),veh/h/ln	1009	1805	1609	1053	1729	1615	1755	1729	1606	1755	1729	1605
Q Serve(g_s), s	40.5	1.5	0.0	3.4	0.5	10.7	4.4	24.2	10.6	13.6	20.2	24.0
Cycle Q Clear(g_c), s	41.0	1.5	0.0	4.9	0.5	10.7	4.4	24.2	10.6	13.6	20.2	24.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	506	1558	1001	1027	2239	952	665	1474	457	554	1310	406
V/C Ratio(X)	1.19	0.06	0.21	0.12	0.02	0.37	0.29	0.92	0.48	0.92	0.88	1.08
Avail Cap(c_a), veh/h	506	1558	1001	1027	2239	952	665	1474	457	554	1310	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	15.8	7.8	17.2	15.5	10.2	33.0	33.0	28.1	39.4	34.1	35.5
Incr Delay (d2), s/veh	101.9	0.0	0.1	0.1	0.0	0.2	0.2	11.0	3.5	21.0	8.5	69.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.5	0.8	2.4	1.0	0.2	4.8	2.2	13.0	5.1	8.2	10.6	18.4
LnGrp Delay(d),s/veh	132.2	15.8	7.9	17.2	15.5	10.4	33.2	44.0	31.7	60.5	42.6	104.9
LnGrp LOS	F	B	A	B	B	B	C	D	C	E	D	F
Approach Vol, veh/h		908			511			1767			2101	
Approach Delay, s/veh		90.9			12.5			41.3			60.0	
Approach LOS		F			B			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.0	31.0		45.0	22.0	28.0		45.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	15.0	27.0		41.0	18.0	24.0		41.0
Max Q Clear Time (g_c+I1), s	15.6	26.2		43.0	6.4	26.0		12.7
Green Ext Time (p_c), s	0.0	0.7		0.0	7.4	0.0		8.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.5
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

HCM 2010 Signalized Intersection Summary
100: Evans Road & Harley Knox Blvd

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	150	10	90	30	0	50	80	1030	60	140	1550	180
Future Volume (veh/h)	150	10	90	30	0	50	80	1030	60	140	1550	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	10	90	30	0	50	80	1030	60	140	1550	180
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	248	26	235	203	0	257	102	2210	129	170	2203	253
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.06	0.64	0.64	0.09	0.67	0.67
Sat Flow, veh/h	1376	164	1476	1315	0	1615	1810	3467	202	1810	3264	375
Grp Volume(v), veh/h	150	0	100	30	0	50	80	536	554	140	849	881
Grp Sat Flow(s),veh/h/ln	1376	0	1640	1315	0	1615	1810	1805	1864	1810	1805	1834
Q Serve(g_s), s	11.7	0.0	6.0	2.3	0.0	3.0	4.8	16.9	16.9	8.4	31.8	33.1
Cycle Q Clear(g_c), s	14.6	0.0	6.0	8.3	0.0	3.0	4.8	16.9	16.9	8.4	31.8	33.1
Prop In Lane	1.00		0.90	1.00		1.00	1.00		0.11	1.00		0.20
Lane Grp Cap(c), veh/h	248	0	261	203	0	257	102	1150	1188	170	1218	1238
V/C Ratio(X)	0.61	0.00	0.38	0.15	0.00	0.19	0.78	0.47	0.47	0.82	0.70	0.71
Avail Cap(c_a), veh/h	341	0	373	293	0	367	132	1150	1188	263	1218	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.46	0.46	0.46	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	0.0	41.4	45.1	0.0	40.1	51.2	10.3	10.3	48.9	11.0	11.2
Incr Delay (d2), s/veh	2.4	0.0	0.9	0.3	0.0	0.4	10.1	0.6	0.6	11.3	3.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	2.8	0.9	0.0	1.3	2.7	8.5	8.8	4.7	16.7	17.6
LnGrp Delay(d),s/veh	48.8	0.0	42.3	45.4	0.0	40.5	61.3	10.9	10.9	60.2	14.3	14.7
LnGrp LOS	D		D	D		D	E	B	B	E	B	B
Approach Vol, veh/h		250			80			1170			1870	
Approach Delay, s/veh		46.2			42.3			14.4			17.9	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.4	74.1		21.5	10.2	78.2		21.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	57.0		25.0	8.0	65.0		25.0
Max Q Clear Time (g_c+I1), s	10.4	18.9		16.6	6.8	35.1		10.3
Green Ext Time (p_c), s	0.2	30.5		0.9	0.0	25.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↑	↱	↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	450	1300	490	190	1080	180	430	150	320	460	230	610
Future Volume (veh/h)	450	1300	490	190	1080	180	430	150	320	460	230	610
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	450	1300	490	190	1080	180	430	150	320	460	230	610
Adj No. of Lanes	1	3	0	1	3	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	280	1060	397	132	1056	326	263	553	492	296	1172	522
Arrive On Green	0.15	0.29	0.29	0.07	0.20	0.20	0.15	0.31	0.31	0.16	0.32	0.32
Sat Flow, veh/h	1810	3713	1391	1810	5187	1603	1810	1805	1607	1810	3610	1608
Grp Volume(v), veh/h	450	1210	580	190	1080	180	430	150	320	460	230	610
Grp Sat Flow(s),veh/h/ln	1810	1729	1646	1810	1729	1603	1810	1805	1607	1810	1805	1608
Q Serve(g_s), s	17.0	31.4	31.4	8.0	22.4	11.1	16.0	6.9	19.0	18.0	5.1	35.7
Cycle Q Clear(g_c), s	17.0	31.4	31.4	8.0	22.4	11.1	16.0	6.9	19.0	18.0	5.1	35.7
Prop In Lane	1.00		0.84	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	280	987	470	132	1056	326	263	553	492	296	1172	522
V/C Ratio(X)	1.61	1.23	1.23	1.44	1.02	0.55	1.63	0.27	0.65	1.55	0.20	1.17
Avail Cap(c_a), veh/h	280	987	470	132	1056	326	263	558	497	296	1172	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	39.3	39.3	51.0	43.8	39.3	47.0	28.9	33.0	46.0	26.8	37.1
Incr Delay (d2), s/veh	289.0	110.1	121.6	226.6	28.8	4.6	301.8	0.3	2.9	265.1	0.1	95.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.9	30.0	30.1	12.3	13.5	5.3	30.0	3.5	8.8	30.8	2.5	29.6
LnGrp Delay(d),s/veh	335.5	149.4	160.9	277.6	72.6	43.8	348.8	29.1	36.0	311.1	26.9	132.4
LnGrp LOS	F	F	F	F	F	D	F	C	D	F	C	F
Approach Vol, veh/h		2240			1450			900			1300	
Approach Delay, s/veh		189.7			95.9			184.3			176.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	37.4	20.0	40.6	21.0	28.4	22.0	38.6
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	8.0	31.4	16.0	35.7	17.0	22.4	18.0	* 34
Max Q Clear Time (g_c+I1), s	10.0	33.4	18.0	37.7	19.0	24.4	20.0	21.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	163.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
102: Perris Blvd & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↱		↰↰	↑↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	620	1070	260	120	820	160	260	830	100	320	530	340
Future Volume (veh/h)	620	1070	260	120	820	160	260	830	100	320	530	340
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	620	1070	260	120	820	160	260	830	100	320	530	340
Adj No. of Lanes	2	3	1	2	3	0	2	3	1	2	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	497	2254	699	175	1494	290	263	1451	449	263	1451	449
Arrive On Green	0.14	0.43	0.43	0.05	0.34	0.34	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	3510	5187	1609	3510	4360	845	3510	5187	1606	3510	5187	1606
Grp Volume(v), veh/h	620	1070	260	120	649	331	260	830	100	320	530	340
Grp Sat Flow(s),veh/h/ln	1755	1729	1609	1755	1729	1747	1755	1729	1606	1755	1729	1606
Q Serve(g_s), s	17.0	17.6	13.1	4.0	18.2	18.4	8.9	16.5	5.7	9.0	9.8	23.2
Cycle Q Clear(g_c), s	17.0	17.6	13.1	4.0	18.2	18.4	8.9	16.5	5.7	9.0	9.8	23.2
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	497	2254	699	175	1185	599	263	1451	449	263	1451	449
V/C Ratio(X)	1.25	0.47	0.37	0.69	0.55	0.55	0.99	0.57	0.22	1.22	0.37	0.76
Avail Cap(c_a), veh/h	497	2254	699	234	1185	599	263	1599	495	263	1599	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	24.2	22.9	56.1	31.9	32.0	55.4	37.1	33.2	55.5	34.7	39.5
Incr Delay (d2), s/veh	112.6	0.1	0.1	4.5	1.6	3.2	51.8	0.4	0.2	126.5	0.2	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	8.4	5.8	2.1	8.9	9.4	6.2	7.9	2.6	9.0	4.7	11.0
LnGrp Delay(d),s/veh	164.1	24.2	23.0	60.6	33.5	35.2	107.3	37.5	33.4	182.0	34.8	45.5
LnGrp LOS	F	C	C	E	C	D	F	D	C	F	C	D
Approach Vol, veh/h		1950			1100			1190			1190	
Approach Delay, s/veh		68.6			37.0			52.4			77.4	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	58.2	13.0	38.9	21.0	47.1	13.0	38.9
Change Period (Y+Rc), s	4.0	6.0	4.0	5.3	4.0	6.0	4.0	5.3
Max Green Setting (Gmax), s	8.0	46.7	9.0	37.0	17.0	37.7	9.0	37.0
Max Q Clear Time (g_c+I1), s	6.0	19.6	10.9	25.2	19.0	20.4	11.0	18.5
Green Ext Time (p_c), s	0.1	16.5	0.0	7.7	0.0	12.2	0.0	10.5

Intersection Summary	
HCM 2010 Ctrl Delay	60.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	350	1350	560	70	570	470	220	790	60	520	1080	280
Future Volume (veh/h)	350	1350	560	70	570	470	220	790	60	520	1080	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	350	1350	0	70	570	470	220	790	60	520	1080	280
Adj No. of Lanes	2	3	1	1	3	1	2	2	0	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	319	1675	522	90	1462	453	280	1082	82	447	1320	588
Arrive On Green	0.09	0.32	0.00	0.05	0.28	0.28	0.08	0.32	0.32	0.13	0.37	0.37
Sat Flow, veh/h	3510	5187	1615	1810	5187	1606	3510	3400	258	3510	3610	1608
Grp Volume(v), veh/h	350	1350	0	70	570	470	220	419	431	520	1080	280
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1606	1755	1805	1853	1755	1805	1608
Q Serve(g_s), s	10.0	26.2	0.0	4.2	9.8	31.0	6.8	22.7	22.7	14.0	29.8	14.7
Cycle Q Clear(g_c), s	10.0	26.2	0.0	4.2	9.8	31.0	6.8	22.7	22.7	14.0	29.8	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	319	1675	522	90	1462	453	280	574	590	447	1320	588
V/C Ratio(X)	1.10	0.81	0.00	0.78	0.39	1.04	0.79	0.73	0.73	1.16	0.82	0.48
Avail Cap(c_a), veh/h	319	1675	522	99	1462	453	287	574	590	447	1320	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.63	0.63	0.63
Uniform Delay (d), s/veh	50.0	34.1	0.0	51.7	31.9	39.5	49.7	33.3	33.3	48.0	31.6	26.8
Incr Delay (d2), s/veh	72.9	3.3	0.0	29.3	0.8	52.5	13.1	8.0	7.8	88.7	3.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	13.0	0.0	2.8	4.8	20.3	3.8	12.6	12.9	12.3	15.5	6.8
LnGrp Delay(d),s/veh	122.9	37.4	0.0	81.0	32.7	92.0	62.8	41.3	41.1	136.7	35.3	28.5
LnGrp LOS	F	D		F	C	F	E	D	D	F	D	C
Approach Vol, veh/h		1700			1110			1070			1880	
Approach Delay, s/veh		55.0			60.8			45.6			62.3	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	41.5	12.8	46.2	14.0	37.0	18.0	41.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	6.0	35.0	9.0	40.0	10.0	31.0	14.0	35.0
Max Q Clear Time (g_c+I1), s	6.2	28.2	8.8	31.8	12.0	33.0	16.0	24.7
Green Ext Time (p_c), s	0.0	5.7	0.0	6.8	0.0	0.0	0.0	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	56.8
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
104: Perris Blvd & Morgan St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	50	30	30	40	10	40	30	1100	20	50	790	10
Future Volume (veh/h)	50	30	30	40	10	40	30	1100	20	50	790	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	30	30	40	10	40	30	1100	20	50	790	10
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	316	139	51	144	127	39	3615	66	65	3647	1133
Arrive On Green	0.04	0.09	0.09	0.03	0.08	0.08	0.04	1.00	1.00	0.04	0.70	0.70
Sat Flow, veh/h	1810	3610	1587	1810	1805	1585	1810	5246	95	1810	5187	1612
Grp Volume(v), veh/h	50	30	30	40	10	40	30	725	395	50	790	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1587	1810	1805	1585	1810	1729	1883	1810	1729	1612
Q Serve(g_s), s	3.0	0.8	1.9	2.4	0.6	2.6	1.8	0.0	0.0	3.0	5.9	0.2
Cycle Q Clear(g_c), s	3.0	0.8	1.9	2.4	0.6	2.6	1.8	0.0	0.0	3.0	5.9	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	65	316	139	51	144	127	39	2383	1298	65	3647	1133
V/C Ratio(X)	0.77	0.09	0.22	0.78	0.07	0.32	0.76	0.30	0.30	0.77	0.22	0.01
Avail Cap(c_a), veh/h	165	1080	475	132	509	447	132	2383	1298	165	3647	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	46.2	46.7	53.1	46.8	47.8	52.3	0.0	0.0	52.6	5.7	4.9
Incr Delay (d2), s/veh	17.2	0.1	0.8	21.8	0.2	1.4	23.0	0.3	0.5	17.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.4	0.9	1.5	0.3	1.2	1.2	0.1	0.2	1.8	2.8	0.1
LnGrp Delay(d),s/veh	69.8	46.3	47.4	74.9	47.0	49.2	75.3	0.3	0.5	69.8	5.9	4.9
LnGrp LOS	E	D	D	E	D	D	E	A	A	E	A	A
Approach Vol, veh/h		110			90			1150			850	
Approach Delay, s/veh		57.3			60.3			2.3			9.6	
Approach LOS		E			E			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	81.1	7.1	13.8	6.4	82.6	7.9	13.0				
Change Period (Y+Rc), s	4.0	5.3	4.0	* 4.2	4.0	5.3	4.0	* 4.2				
Max Green Setting (Gmax), s	10.0	41.6	8.0	* 33	8.0	43.6	10.0	* 31				
Max Q Clear Time (g_c+I1), s	5.0	2.0	4.4	3.9	3.8	7.9	5.0	4.6				
Green Ext Time (p_c), s	0.0	18.7	0.0	0.5	0.0	17.8	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			10.3									
HCM 2010 LOS			B									
Notes												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	10	40	70	20	60	60	680	100	100	1720	50
Future Volume (veh/h)	40	10	40	70	20	60	60	680	100	100	1720	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	10	40	70	20	60	60	680	100	100	1720	50
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	51	275	120	82	336	148	66	2094	308	126	2515	1123
Arrive On Green	0.03	0.08	0.08	0.05	0.09	0.09	0.05	0.88	0.88	0.07	0.70	0.70
Sat Flow, veh/h	1810	3610	1583	1810	3610	1589	1810	3158	464	1810	3610	1612
Grp Volume(v), veh/h	40	10	40	70	20	60	60	388	392	100	1720	50
Grp Sat Flow(s),veh/h/ln	1810	1805	1583	1810	1805	1589	1810	1805	1817	1810	1805	1612
Q Serve(g_s), s	2.4	0.3	2.6	4.2	0.6	3.9	3.6	3.9	3.9	6.0	30.4	1.1
Cycle Q Clear(g_c), s	2.4	0.3	2.6	4.2	0.6	3.9	3.6	3.9	3.9	6.0	30.4	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	51	275	120	82	336	148	66	1197	1205	126	2515	1123
V/C Ratio(X)	0.78	0.04	0.33	0.85	0.06	0.41	0.91	0.32	0.32	0.79	0.68	0.04
Avail Cap(c_a), veh/h	82	1050	461	82	1050	462	66	1197	1205	197	2515	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	47.1	48.2	52.1	45.5	47.0	52.2	2.4	2.4	50.4	9.7	5.2
Incr Delay (d2), s/veh	22.0	0.1	1.6	53.4	0.1	1.8	68.4	0.6	0.5	11.0	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.1	1.2	3.3	0.3	1.8	3.1	2.0	2.0	3.4	15.3	0.5
LnGrp Delay(d),s/veh	75.1	47.1	49.8	105.5	45.6	48.8	120.6	3.0	3.0	61.4	11.2	5.3
LnGrp LOS	E	D	D	F	D	D	F	A	A	E	B	A
Approach Vol, veh/h		90			150			840			1870	
Approach Delay, s/veh		60.7			74.8			11.4			13.7	
Approach LOS		E			E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	77.0	9.0	12.4	8.0	80.6	7.1	14.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	45.0	5.0	32.0	4.0	53.0	5.0	32.0
Max Q Clear Time (g_c+I1), s	8.0	5.9	6.2	4.6	5.6	32.4	4.4	5.9
Green Ext Time (p_c), s	0.1	28.6	0.0	0.5	0.0	17.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
106: Perris Blvd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰	↑↑↑	↱	↰	↑↑↑	↱
Traffic Volume (veh/h)	50	270	770	170	100	150	130	940	170	100	720	30
Future Volume (veh/h)	50	270	770	170	100	150	130	940	170	100	720	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	270	770	170	100	150	130	940	170	100	720	30
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	597	1730	771	306	1730	771	157	1657	514	124	1565	485
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.17	0.64	0.64	0.14	0.60	0.60
Sat Flow, veh/h	1145	3610	1610	551	3610	1610	1810	5187	1607	1810	5187	1607
Grp Volume(v), veh/h	50	270	770	170	100	150	130	940	170	100	720	30
Grp Sat Flow(s),veh/h/ln	1145	1805	1610	551	1805	1610	1810	1729	1607	1810	1729	1607
Q Serve(g_s), s	2.7	4.6	52.5	27.7	1.6	5.9	7.6	11.3	5.3	5.9	8.4	0.8
Cycle Q Clear(g_c), s	4.3	4.6	52.5	32.3	1.6	5.9	7.6	11.3	5.3	5.9	8.4	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	597	1730	771	306	1730	771	157	1657	514	124	1565	485
V/C Ratio(X)	0.08	0.16	1.00	0.56	0.06	0.19	0.83	0.57	0.33	0.80	0.46	0.06
Avail Cap(c_a), veh/h	597	1730	771	306	1730	771	197	1657	514	165	1565	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.99	0.99	0.99
Uniform Delay (d), s/veh	16.5	16.1	28.6	25.2	15.3	16.5	44.7	15.6	14.5	46.7	16.9	15.4
Incr Delay (d2), s/veh	0.1	0.0	32.0	2.2	0.0	0.1	19.8	1.3	1.6	18.6	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.3	30.0	4.4	0.8	2.6	4.6	5.4	2.5	3.6	4.0	0.4
LnGrp Delay(d),s/veh	16.6	16.2	60.6	27.4	15.4	16.6	64.5	16.9	16.1	65.3	17.9	15.6
LnGrp LOS	B	B	E	C	B	B	E	B	B	E	B	B
Approach Vol, veh/h		1090			420			1240			850	
Approach Delay, s/veh		47.5			20.7			21.8			23.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.6	40.4		58.0	13.5	38.5		58.0
Change Period (Y+Rc), s	4.0	5.3		5.3	4.0	5.3		5.3
Max Green Setting (Gmax), s	10.0	32.7		52.7	12.0	30.7		52.7
Max Q Clear Time (g_c+I1), s	7.9	13.3		54.5	9.6	10.4		34.3
Green Ext Time (p_c), s	0.0	11.9		0.0	0.1	12.2		8.2

Intersection Summary			
HCM 2010 Ctrl Delay			29.8
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	240	300	290	20	200	60	170	930	10	50	1300	190
Future Volume (veh/h)	240	300	290	20	200	60	170	930	10	50	1300	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	300	290	20	200	60	170	930	10	50	1300	190
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	214	468	416	30	433	126	148	1988	21	64	1572	228
Arrive On Green	0.12	0.26	0.26	0.02	0.16	0.16	0.08	0.54	0.54	0.07	0.99	0.99
Sat Flow, veh/h	1810	1805	1606	1810	2752	802	1810	3659	39	1810	3163	459
Grp Volume(v), veh/h	240	300	290	20	129	131	170	459	481	50	738	752
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1749	1810	1805	1893	1810	1805	1817
Q Serve(g_s), s	13.0	16.2	18.0	1.2	7.1	7.5	9.0	17.1	17.1	3.0	1.4	1.5
Cycle Q Clear(g_c), s	13.0	16.2	18.0	1.2	7.1	7.5	9.0	17.1	17.1	3.0	1.4	1.5
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.02	1.00		0.25
Lane Grp Cap(c), veh/h	214	468	416	30	284	275	148	981	1028	64	897	903
V/C Ratio(X)	1.12	0.64	0.70	0.66	0.45	0.47	1.15	0.47	0.47	0.78	0.82	0.83
Avail Cap(c_a), veh/h	214	624	555	99	509	493	148	981	1028	132	897	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	48.5	36.2	36.9	53.8	42.1	42.2	50.5	15.4	15.4	50.6	0.2	0.2
Incr Delay (d2), s/veh	98.3	1.5	2.5	22.3	1.1	1.3	119.3	1.6	1.5	12.5	5.8	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	8.3	8.3	0.8	3.6	3.7	9.4	9.0	9.4	1.7	1.6	1.7
LnGrp Delay(d),s/veh	146.8	37.7	39.3	76.1	43.2	43.5	169.8	17.0	16.9	63.2	6.0	6.3
LnGrp LOS	F	D	D	E	D	D	F	B	B	E	A	A
Approach Vol, veh/h		830			280			1110			1540	
Approach Delay, s/veh		69.8			45.7			40.4			8.0	
Approach LOS		E			D			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	63.8	5.8	32.5	13.0	58.7	17.0	21.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	42.0	6.0	38.0	9.0	41.0	13.0	31.0
Max Q Clear Time (g_c+I1), s	15.0	19.1	3.2	20.0	11.0	3.5	15.0	9.5
Green Ext Time (p_c), s	0.0	17.3	0.0	5.2	0.0	24.6	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
108: Perris Blvd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↱	↰	↑↑↑			↑↑↑	↱
Traffic Volume (veh/h)	0	0	0	250	60	130	580	1320	0	0	2540	580
Future Volume (veh/h)	0	0	0	250	60	130	580	1320	0	0	2540	580
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				250	112	95	580	1320	0	0	2540	580
Adj No. of Lanes				1	1	1	1	3	0	0	3	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				313	329	277	395	3913	0	0	2592	803
Arrive On Green				0.17	0.17	0.17	0.44	1.00	0.00	0.00	0.16	0.16
Sat Flow, veh/h				1810	1900	1601	1810	5358	0	0	5358	1607
Grp Volume(v), veh/h				250	112	95	580	1320	0	0	2540	580
Grp Sat Flow(s),veh/h/ln				1810	1900	1601	1810	1729	0	0	1729	1607
Q Serve(g_s), s				14.6	5.7	5.7	24.0	0.0	0.0	0.0	53.7	37.6
Cycle Q Clear(g_c), s				14.6	5.7	5.7	24.0	0.0	0.0	0.0	53.7	37.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				313	329	277	395	3913	0	0	2592	803
V/C Ratio(X)				0.80	0.34	0.34	1.47	0.34	0.00	0.00	0.98	0.72
Avail Cap(c_a), veh/h				510	535	451	395	3913	0	0	2592	803
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	1.00	0.09	0.09	0.00	0.00	0.72	0.72
Uniform Delay (d), s/veh				43.7	40.0	40.0	31.0	0.0	0.0	0.0	45.4	38.7
Incr Delay (d2), s/veh				4.7	0.6	0.7	212.4	0.0	0.0	0.0	11.0	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.7	3.0	2.6	35.1	0.0	0.0	0.0	28.4	17.7
LnGrp Delay(d),s/veh				48.3	40.6	40.7	243.4	0.0	0.0	0.0	56.4	42.8
LnGrp LOS				D	D	D	F	A			E	D
Approach Vol, veh/h					457			1900			3120	
Approach Delay, s/veh					44.9			74.3			53.9	
Approach LOS					D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		87.0			28.0	59.0		23.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		71.0			24.0	43.0		31.0
Max Q Clear Time (g_c+I1), s		2.0			26.0	55.7		16.6
Green Ext Time (p_c), s		65.1			0.0	0.0		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	60.2
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
109: Perris Blvd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↑↑↱		↰	↑↑↑	
Traffic Volume (veh/h)	250	70	280	0	0	0	0	1650	450	540	2250	0
Future Volume (veh/h)	250	70	280	0	0	0	0	1650	450	540	2250	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	250	70	280				0	1650	450	540	2250	0
Adj No. of Lanes	1	1	0				0	3	0	1	3	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	436	80	319				0	1646	441	444	3561	0
Arrive On Green	0.24	0.24	0.24				0.00	0.54	0.54	0.49	1.00	0.00
Sat Flow, veh/h	1810	331	1325				0	4238	1090	1810	5358	0
Grp Volume(v), veh/h	250	0	350				0	1398	702	540	2250	0
Grp Sat Flow(s),veh/h/ln	1810	0	1656				0	1729	1700	1810	1729	0
Q Serve(g_s), s	13.4	0.0	22.4				0.0	44.4	44.5	27.0	0.0	0.0
Cycle Q Clear(g_c), s	13.4	0.0	22.4				0.0	44.4	44.5	27.0	0.0	0.0
Prop In Lane	1.00		0.80				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	436	0	399				0	1399	688	444	3561	0
V/C Ratio(X)	0.57	0.00	0.88				0.00	1.00	1.02	1.22	0.63	0.00
Avail Cap(c_a), veh/h	510	0	467				0	1399	688	444	3561	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.92	0.92	0.09	0.09	0.00
Uniform Delay (d), s/veh	36.8	0.0	40.2				0.0	25.4	25.4	28.0	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	15.4				0.0	22.9	38.1	99.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	11.9				0.0	25.3	27.8	25.6	0.0	0.0
LnGrp Delay(d),s/veh	38.0	0.0	55.6				0.0	48.3	63.5	127.1	0.1	0.0
LnGrp LOS	D		E					D	F	F	A	
Approach Vol, veh/h		600						2100			2790	
Approach Delay, s/veh		48.2						53.4			24.7	
Approach LOS		D						D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	31.0	48.5		30.5		79.5		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	27.0	40.0		31.0		71.0		
Max Q Clear Time (g_c+I1), s	29.0	46.5		24.4		2.0		
Green Ext Time (p_c), s	0.0	0.0		1.7		65.4		

Intersection Summary			
HCM 2010 Ctrl Delay			38.2
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
110: Evans Rd & Mid County Pkwy WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥		↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	200	20	100	180	800	0	0	1370	160
Future Volume (veh/h)	0	0	0	200	20	100	180	800	0	0	1370	160
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				200	20	100	180	800	0	0	1370	160
Adj No. of Lanes				0	1	0	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				228	23	114	208	2593	0	0	2047	912
Arrive On Green				0.21	0.21	0.21	0.23	1.00	0.00	0.00	0.57	0.57
Sat Flow, veh/h				1090	109	545	1810	3705	0	0	3705	1608
Grp Volume(v), veh/h				320	0	0	180	800	0	0	1370	160
Grp Sat Flow(s),veh/h/ln				1745	0	0	1810	1805	0	0	1805	1608
Q Serve(g_s), s				19.5	0.0	0.0	10.5	0.0	0.0	0.0	29.1	5.3
Cycle Q Clear(g_c), s				19.5	0.0	0.0	10.5	0.0	0.0	0.0	29.1	5.3
Prop In Lane				0.62		0.31	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				364	0	0	208	2593	0	0	2047	912
V/C Ratio(X)				0.88	0.00	0.00	0.87	0.31	0.00	0.00	0.67	0.18
Avail Cap(c_a), veh/h				444	0	0	280	2593	0	0	2047	912
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.87	0.87	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				42.2	0.0	0.0	41.5	0.0	0.0	0.0	16.6	11.4
Incr Delay (d2), s/veh				15.6	0.0	0.0	16.7	0.3	0.0	0.0	1.8	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.0	0.0	0.0	6.2	0.1	0.0	0.0	15.0	2.4
LnGrp Delay(d),s/veh				57.7	0.0	0.0	58.2	0.3	0.0	0.0	18.4	11.9
LnGrp LOS				E			E	A			B	B
Approach Vol, veh/h					320			980			1530	
Approach Delay, s/veh					57.7			10.9			17.7	
Approach LOS					E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		83.0			16.6	66.4		27.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		74.0			17.0	53.0		28.0
Max Q Clear Time (g_c+I1), s		2.0			12.5	31.1		21.5
Green Ext Time (p_c), s		34.8			0.2	16.6		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
111: Evans Rd & Mid County Pkwy EB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	150	40	380	0	0	0	0	840	250	170	1410	0
Future Volume (veh/h)	150	40	380	0	0	0	0	840	250	170	1410	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	150	40	380				0	840	250	170	1410	0
Adj No. of Lanes	0	1	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	383	102	426				0	1862	829	199	2390	0
Arrive On Green	0.27	0.27	0.27				0.00	1.00	1.00	0.22	1.00	0.00
Sat Flow, veh/h	1443	385	1606				0	3705	1607	1810	3705	0
Grp Volume(v), veh/h	190	0	380				0	840	250	170	1410	0
Grp Sat Flow(s),veh/h/ln	1828	0	1606				0	1805	1607	1810	1805	0
Q Serve(g_s), s	9.4	0.0	25.1				0.0	0.0	0.0	9.9	0.0	0.0
Cycle Q Clear(g_c), s	9.4	0.0	25.1				0.0	0.0	0.0	9.9	0.0	0.0
Prop In Lane	0.79		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	485	0	426				0	1862	829	199	2390	0
V/C Ratio(X)	0.39	0.00	0.89				0.00	0.45	0.30	0.85	0.59	0.00
Avail Cap(c_a), veh/h	665	0	584				0	1862	829	313	2390	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.91	0.91	0.65	0.65	0.00
Uniform Delay (d), s/veh	33.1	0.0	38.9				0.0	0.0	0.0	42.1	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	12.6				0.0	0.7	0.8	8.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	12.6				0.0	0.2	0.2	5.4	0.2	0.0
LnGrp Delay(d),s/veh	33.7	0.0	51.5				0.0	0.7	0.8	50.7	0.7	0.0
LnGrp LOS	C		D					A	A	D	A	
Approach Vol, veh/h		570						1090			1580	
Approach Delay, s/veh		45.6						0.7			6.1	
Approach LOS		D						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	16.1	60.7		33.2		76.8		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	19.0	39.0		40.0		62.0		
Max Q Clear Time (g_c+I1), s	11.9	2.0		27.1		2.0		
Green Ext Time (p_c), s	0.2	25.8		2.1		34.8		

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
112: Perris Blvd & Placentia Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	60	630	370	240	150	70	90	930	170	130	1290	10
Future Volume (veh/h)	60	630	370	240	150	70	90	930	170	130	1290	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	60	630	370	240	150	70	90	930	170	130	1290	10
Adj No. of Lanes	2	2	2	2	2	1	2	3	1	2	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	107	792	736	309	999	444	145	2454	904	190	2580	20
Arrive On Green	0.03	0.22	0.22	0.09	0.28	0.28	0.08	0.95	0.95	0.05	0.49	0.49
Sat Flow, veh/h	3510	3610	2823	3510	3610	1606	3510	5187	1610	3510	5309	41
Grp Volume(v), veh/h	60	630	370	240	150	70	90	930	170	130	840	460
Grp Sat Flow(s),veh/h/ln	1755	1805	1411	1755	1805	1606	1755	1729	1610	1755	1729	1893
Q Serve(g_s), s	1.9	18.2	12.3	7.4	3.4	3.6	2.7	1.6	0.7	4.0	18.1	18.1
Cycle Q Clear(g_c), s	1.9	18.2	12.3	7.4	3.4	3.6	2.7	1.6	0.7	4.0	18.1	18.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	107	792	736	309	999	444	145	2454	904	190	1681	920
V/C Ratio(X)	0.56	0.80	0.50	0.78	0.15	0.16	0.62	0.38	0.19	0.68	0.50	0.50
Avail Cap(c_a), veh/h	160	909	828	447	1204	536	415	2454	904	255	1681	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.73	0.73	0.73
Uniform Delay (d), s/veh	52.6	40.6	34.6	49.1	30.0	30.1	49.6	1.6	1.1	51.1	19.2	19.2
Incr Delay (d2), s/veh	4.5	4.4	0.5	5.3	0.1	0.2	4.0	0.4	0.4	3.4	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	9.5	4.9	3.8	1.7	1.6	1.4	0.8	0.3	2.0	8.8	9.8
LnGrp Delay(d),s/veh	57.1	45.0	35.1	54.4	30.1	30.2	53.6	2.0	1.5	54.5	20.0	20.6
LnGrp LOS	E	D	D	D	C	C	D	A	A	D	B	C
Approach Vol, veh/h		1060			460			1190			1430	
Approach Delay, s/veh		42.2			42.8			5.8			23.3	
Approach LOS		D			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	57.3	13.7	29.0	8.5	58.8	7.4	35.3
Change Period (Y+Rc), s	4.0	5.3	4.0	4.9	4.0	5.3	4.0	4.9
Max Green Setting (Gmax), s	8.0	42.1	14.0	27.7	13.0	37.1	5.0	36.7
Max Q Clear Time (g_c+I1), s	6.0	3.6	9.4	20.2	4.7	20.1	3.9	5.6
Green Ext Time (p_c), s	0.1	23.7	0.3	4.0	0.1	13.2	0.0	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.3
HCM 2010 LOS	C

Notes

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	220	10	120	10	0	30	20	850	40	130	1570	80
Future Volume (veh/h)	220	10	120	10	0	30	20	850	40	130	1570	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	220	10	120	10	0	30	20	850	40	130	1570	80
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	319	25	296	228	0	317	290	2567	121	529	2556	130
Arrive On Green	0.20	0.20	0.20	0.20	0.00	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1401	126	1508	1280	0	1615	308	3511	165	635	3496	177
Grp Volume(v), veh/h	220	0	130	10	0	30	20	437	453	130	807	843
Grp Sat Flow(s),veh/h/ln	1401	0	1634	1280	0	1615	308	1805	1871	635	1805	1869
Q Serve(g_s), s	16.8	0.0	7.6	0.8	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.5	0.0	7.6	8.4	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.92	1.00		1.00	1.00		0.09	1.00		0.09
Lane Grp Cap(c), veh/h	319	0	320	228	0	317	290	1320	1368	529	1320	1366
V/C Ratio(X)	0.69	0.00	0.41	0.04	0.00	0.09	0.07	0.33	0.33	0.25	0.61	0.62
Avail Cap(c_a), veh/h	426	0	446	326	0	440	290	1320	1368	529	1320	1366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.70	0.70	0.70	0.72	0.72	0.72
Uniform Delay (d), s/veh	43.8	0.0	38.6	42.3	0.0	36.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.8	0.1	0.0	0.1	0.3	0.5	0.5	0.8	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	3.5	0.3	0.0	0.8	0.0	0.2	0.2	0.1	0.6	0.6
LnGrp Delay(d),s/veh	46.7	0.0	39.4	42.4	0.0	36.3	0.3	0.5	0.5	0.8	1.5	1.5
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		350			40			910			1780	
Approach Delay, s/veh		44.0			37.8			0.5			1.5	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		84.4		25.6		84.4		25.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		72.0		30.0		72.0		30.0
Max Q Clear Time (g_c+I1), s		2.0		20.5		2.0		10.4
Green Ext Time (p_c), s		44.6		1.1		44.6		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

HCM 2010 Signalized Intersection Summary
114: Evans Rd & Orange Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	110	80	40	60	40	150	70	1030	130	380	1430	180
Future Volume (veh/h)	110	80	40	60	40	150	70	1030	130	380	1430	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	80	40	60	40	150	70	1030	130	380	1430	180
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	115	340	160	78	220	197	90	1600	716	409	2236	1000
Arrive On Green	0.06	0.14	0.14	0.04	0.12	0.12	0.05	0.44	0.44	0.15	0.41	0.41
Sat Flow, veh/h	1810	2386	1121	1810	1805	1615	1810	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	110	59	61	60	40	150	70	1030	130	380	1430	180
Grp Sat Flow(s),veh/h/ln	1810	1805	1702	1810	1805	1615	1810	1805	1615	1810	1805	1615
Q Serve(g_s), s	6.7	3.2	3.5	3.6	2.2	9.9	4.2	24.5	5.4	22.8	34.7	7.8
Cycle Q Clear(g_c), s	6.7	3.2	3.5	3.6	2.2	9.9	4.2	24.5	5.4	22.8	34.7	7.8
Prop In Lane	1.00		0.66	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	257	243	78	220	197	90	1600	716	409	2236	1000
V/C Ratio(X)	0.96	0.23	0.25	0.77	0.18	0.76	0.78	0.64	0.18	0.93	0.64	0.18
Avail Cap(c_a), veh/h	115	459	433	99	443	396	99	1600	716	411	2236	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	51.3	41.8	41.9	52.1	43.4	46.8	51.7	23.9	18.5	45.8	22.4	14.5
Incr Delay (d2), s/veh	69.6	0.5	0.5	24.6	0.4	6.0	29.3	2.0	0.6	22.2	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.6	1.7	2.3	1.1	4.7	2.8	12.6	2.5	13.9	17.7	3.5
LnGrp Delay(d),s/veh	121.0	42.3	42.5	76.7	43.8	52.8	81.0	25.9	19.1	68.0	23.4	14.8
LnGrp LOS	F	D	D	E	D	D	F	C	B	E	C	B
Approach Vol, veh/h		230			250			1230			1990	
Approach Delay, s/veh		80.0			57.1			28.3			31.2	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.8	52.8	8.7	19.7	9.5	72.1	11.0	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	35.0	6.0	28.0	6.0	54.0	7.0	27.0
Max Q Clear Time (g_c+I1), s	24.8	26.5	5.6	5.5	6.2	36.7	8.7	11.9
Green Ext Time (p_c), s	0.0	7.8	0.0	1.8	0.0	14.8	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	390	120	270	180	60	260	140	560	170	320	750	260
Future Volume (veh/h)	390	120	270	180	60	260	140	560	170	320	750	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	390	120	270	180	60	260	140	560	170	320	750	260
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	484	1468	455	261	1138	352	216	1213	543	410	1413	630
Arrive On Green	0.14	0.28	0.28	0.07	0.22	0.22	0.06	0.34	0.34	0.12	0.39	0.39
Sat Flow, veh/h	3510	5187	1606	3510	5187	1604	3510	3610	1615	3510	3610	1609
Grp Volume(v), veh/h	390	120	270	180	60	260	140	560	170	320	750	260
Grp Sat Flow(s),veh/h/ln	1755	1729	1606	1755	1729	1604	1755	1805	1615	1755	1805	1609
Q Serve(g_s), s	9.1	1.4	12.2	4.2	0.8	12.7	3.3	10.3	6.6	7.5	13.5	9.9
Cycle Q Clear(g_c), s	9.1	1.4	12.2	4.2	0.8	12.7	3.3	10.3	6.6	7.5	13.5	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	484	1468	455	261	1138	352	216	1213	543	410	1413	630
V/C Ratio(X)	0.81	0.08	0.59	0.69	0.05	0.74	0.65	0.46	0.31	0.78	0.53	0.41
Avail Cap(c_a), veh/h	625	2092	648	375	1723	533	333	1213	543	541	1413	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	22.2	26.0	38.1	26.0	30.7	38.7	22.0	20.8	36.2	19.7	18.6
Incr Delay (d2), s/veh	5.9	0.0	1.2	3.2	0.0	3.1	3.3	1.3	1.5	5.3	1.4	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.7	5.6	2.2	0.4	5.9	1.7	5.3	3.2	3.9	6.9	4.7
LnGrp Delay(d),s/veh	41.2	22.2	27.3	41.3	26.0	33.7	41.9	23.3	22.3	41.5	21.1	20.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		780			500			870			1330	
Approach Delay, s/veh		33.4			35.5			26.1			25.9	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	32.3	10.3	27.9	9.2	37.0	15.6	22.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	28.0	9.0	34.0	8.0	33.0	15.0	28.0
Max Q Clear Time (g_c+I1), s	9.5	12.3	6.2	14.2	5.3	15.5	11.1	14.7
Green Ext Time (p_c), s	0.4	9.4	0.1	2.9	0.1	10.0	0.5	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
116: Ellis Ave & Evans Rd

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰	↱
Traffic Volume (veh/h)	360	190	130	410	800	460
Future Volume (veh/h)	360	190	130	410	800	460
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	360	190	130	410	800	460
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	365	1346	1346	1498	1003	896
Arrive On Green	0.37	0.37	0.12	0.12	0.55	0.55
Sat Flow, veh/h	879	3705	3705	1615	1810	1615
Grp Volume(v), veh/h	360	190	130	410	800	460
Grp Sat Flow(s),veh/h/ln	879	1805	1805	1615	1810	1615
Q Serve(g_s), s	37.5	3.8	3.5	3.1	38.8	19.5
Cycle Q Clear(g_c), s	41.0	3.8	3.5	3.1	38.8	19.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	365	1346	1346	1498	1003	896
V/C Ratio(X)	0.99	0.14	0.10	0.27	0.80	0.51
Avail Cap(c_a), veh/h	365	1346	1346	1498	1003	896
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	39.4	22.8	31.8	0.6	19.6	15.3
Incr Delay (d2), s/veh	43.2	0.0	0.0	0.1	4.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	1.9	1.8	13.7	20.6	8.8
LnGrp Delay(d),s/veh	82.6	22.9	31.8	0.7	24.1	15.8
LnGrp LOS	F	C	C	A	C	B
Approach Vol, veh/h		550	540		1260	
Approach Delay, s/veh		62.0	8.2		21.1	
Approach LOS		E	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				45.0		65.0		45.0
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				41.0		61.0		41.0
Max Q Clear Time (g_c+I1), s				43.0		40.8		5.5
Green Ext Time (p_c), s				0.0		5.0		6.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
117: I-215 SB Ramps & Ellis Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	530	470	440	330	0	0	0	0	300	270	200
Future Volume (veh/h)	0	530	470	440	330	0	0	0	0	300	270	200
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	530	0	440	330	0				300	270	200
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	621	278	468	1685	0				449	404	744
Arrive On Green	0.00	0.17	0.00	0.43	0.78	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3705	1615	1810	3705	0				974	877	1615
Grp Volume(v), veh/h	0	530	0	440	330	0				570	0	200
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1851	0	1615
Q Serve(g_s), s	0.0	15.7	0.0	25.6	2.6	0.0				26.4	0.0	8.4
Cycle Q Clear(g_c), s	0.0	15.7	0.0	25.6	2.6	0.0				26.4	0.0	8.4
Prop In Lane	0.00		1.00	1.00		0.00				0.53		1.00
Lane Grp Cap(c), veh/h	0	621	278	468	1685	0				852	0	744
V/C Ratio(X)	0.00	0.85	0.00	0.94	0.20	0.00				0.67	0.00	0.27
Avail Cap(c_a), veh/h	0	656	294	559	1903	0				852	0	744
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.74	0.00	0.84	0.84	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	44.2	0.0	30.5	6.8	0.0				23.1	0.0	18.3
Incr Delay (d2), s/veh	0.0	7.8	0.0	19.8	0.0	0.0				4.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.5	0.0	15.2	1.3	0.0				14.4	0.0	3.9
LnGrp Delay(d),s/veh	0.0	52.0	0.0	50.2	6.8	0.0				27.3	0.0	19.2
LnGrp LOS		D		D	A					C		B
Approach Vol, veh/h		530			770						770	
Approach Delay, s/veh		52.0			31.6						25.2	
Approach LOS		D			C						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			32.4	22.9		54.6		55.4
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s			34.0	20.0		44.0		58.0
Max Q Clear Time (g_c+I1), s			27.6	17.7		28.4		4.6
Green Ext Time (p_c), s			0.8	1.3		4.1		7.1

Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱	↰	↑	↱			
Traffic Volume (veh/h)	100	720	0	0	420	40	350	30	250	0	0	0
Future Volume (veh/h)	100	720	0	0	420	40	350	30	250	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	100	720	0	0	420	40	350	30	250			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	126	1064	0	0	681	305	1145	1202	1022			
Arrive On Green	0.14	0.59	0.00	0.00	0.19	0.19	0.63	0.63	0.63			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1810	1900	1615			
Grp Volume(v), veh/h	100	720	0	0	420	40	350	30	250			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1810	1900	1615			
Q Serve(g_s), s	5.9	15.0	0.0	0.0	11.7	2.3	9.7	0.6	7.4			
Cycle Q Clear(g_c), s	5.9	15.0	0.0	0.0	11.7	2.3	9.7	0.6	7.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	126	1064	0	0	681	305	1145	1202	1022			
V/C Ratio(X)	0.79	0.68	0.00	0.00	0.62	0.13	0.31	0.02	0.24			
Avail Cap(c_a), veh/h	296	1674	0	0	952	426	1145	1202	1022			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.45	0.45	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	46.6	19.0	0.0	0.0	41.0	37.1	9.2	7.5	8.8			
Incr Delay (d2), s/veh	5.1	0.3	0.0	0.0	0.9	0.2	0.7	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.1	7.2	0.0	0.0	5.9	1.0	5.0	0.4	3.4			
LnGrp Delay(d),s/veh	51.7	19.4	0.0	0.0	41.9	37.3	9.9	7.6	9.4			
LnGrp LOS	D	B			D	D	A	A	A			
Approach Vol, veh/h		820			460			630				
Approach Delay, s/veh		23.3			41.5			9.6				
Approach LOS		C			D			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		73.6		36.4			11.7	24.8
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		51.0		51.0			18.0	29.0
Max Q Clear Time (g_c+I1), s		11.7		17.0			7.9	13.7
Green Ext Time (p_c), s		2.2		9.8			0.1	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	300	80	170	70	20	130	50	380	100	300	680	170
Future Volume (veh/h)	300	80	170	70	20	130	50	380	100	300	680	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	300	80	170	70	20	130	50	380	100	300	680	170
Adj No. of Lanes	1	3	0	1	3	0	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	280	766	358	90	404	189	65	1216	316	280	1567	392
Arrive On Green	0.15	0.22	0.22	0.05	0.12	0.12	0.04	0.43	0.43	0.15	0.55	0.55
Sat Flow, veh/h	1810	3458	1615	1810	3458	1615	1810	2837	738	1810	2863	715
Grp Volume(v), veh/h	300	80	170	70	20	130	50	240	240	300	428	422
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1810	1805	1770	1810	1805	1774
Q Serve(g_s), s	17.0	2.0	10.1	4.2	0.6	8.5	3.0	9.7	9.9	17.0	15.5	15.5
Cycle Q Clear(g_c), s	17.0	2.0	10.1	4.2	0.6	8.5	3.0	9.7	9.9	17.0	15.5	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		0.40
Lane Grp Cap(c), veh/h	280	766	358	90	404	189	65	774	758	280	988	971
V/C Ratio(X)	1.07	0.10	0.48	0.77	0.05	0.69	0.77	0.31	0.32	1.07	0.43	0.43
Avail Cap(c_a), veh/h	280	1132	529	148	880	411	132	774	758	280	988	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	46.5	34.1	37.3	51.6	43.1	46.6	52.6	20.7	20.8	46.5	14.8	14.8
Incr Delay (d2), s/veh	74.5	0.1	1.0	13.0	0.1	4.4	17.3	1.0	1.1	70.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	1.0	4.6	2.4	0.3	4.0	1.8	5.0	5.0	13.9	7.9	7.9
LnGrp Delay(d),s/veh	121.0	34.2	38.2	64.7	43.2	51.1	69.9	21.8	21.9	116.8	16.0	16.0
LnGrp LOS	F	C	D	E	D	D	E	C	C	F	B	B
Approach Vol, veh/h		550			220			530			1150	
Approach Delay, s/veh		82.8			54.7			26.4			42.3	
Approach LOS		F			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	51.1	9.5	28.4	7.9	64.2	21.0	16.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	32.0	9.0	36.0	8.0	41.0	17.0	28.0
Max Q Clear Time (g_c+I1), s	19.0	11.9	6.2	12.1	5.0	17.5	19.0	10.5
Green Ext Time (p_c), s	0.0	8.8	0.0	2.6	0.0	9.4	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	49.0
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					✥			↰			↱	
Traffic Vol, veh/h	0	0	0	0	0	30	10	470	0	0	200	490
Future Vol, veh/h	0	0	0	0	0	30	10	470	0	0	200	490
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	30	10	470	0	0	200	490

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	935	1180	470	690	0	-	-	-	0
Stage 1	490	490	-	-	-	-	-	-	-
Stage 2	445	690	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	297	192	598	914	-	0	0	-	-
Stage 1	620	552	-	-	-	0	0	-	-
Stage 2	650	449	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	293	0	598	914	-	-	-	-	-
Mov Cap-2 Maneuver	293	0	-	-	-	-	-	-	-
Stage 1	611	0	-	-	-	-	-	-	-
Stage 2	650	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR
Capacity (veh/h)	914	-	598	-	-
HCM Lane V/C Ratio	0.011	-	0.05	-	-
HCM Control Delay (s)	9	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 2010 TWSC
121: Park Center Blvd & Ramona Expy EB Ramps

Intersection	
Int Delay, s/veh	11.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱						↱			↰	
Traffic Vol, veh/h	300	80	50	0	0	0	0	180	40	120	80	0
Future Vol, veh/h	300	80	50	0	0	0	0	180	40	120	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	300	80	50	0	0	0	0	180	40	120	80	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	520	540	80	-	0	0	220	0	0
Stage 1	320	320	-	-	-	-	-	-	-
Stage 2	200	220	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	520	451	986	0	-	-	1361	-	0
Stage 1	741	656	-	0	-	-	-	-	0
Stage 2	838	725	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	472	0	986	-	-	-	1361	-	-
Mov Cap-2 Maneuver	472	0	-	-	-	-	-	-	-
Stage 1	673	0	-	-	-	-	-	-	-
Stage 2	838	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.2	0	4.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	472	986	1361	-
HCM Lane V/C Ratio	-	-	0.636	0.132	0.088	-
HCM Control Delay (s)	-	-	25	9.2	7.9	0
HCM Lane LOS	-	-	D	A	A	A
HCM 95th %tile Q(veh)	-	-	4.4	0.5	0.3	-

Intersection	
Int Delay, s/veh	3507.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↰	↑	↱	
Traffic Vol, veh/h	450	20	40	1110	1660	510
Future Vol, veh/h	450	20	40	1110	1660	510
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	474	21	42	1168	1747	537

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3269	2016	2284	0	-	0
Stage 1	2016	-	-	-	-	-
Stage 2	1253	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 10	74	225	-	-	-
Stage 1	~ 114	-	-	-	-	-
Stage 2	~ 272	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 8	74	225	-	-	-
Mov Cap-2 Maneuver	~ 8	-	-	-	-	-
Stage 1	~ 114	-	-	-	-	-
Stage 2	~ 221	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 28283.9	0.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	225	-	8	-	-
HCM Lane V/C Ratio	0.187	-	61.842	-	-
HCM Control Delay (s)	24.6	-	$ 28283.9	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	0.7	-	63.8	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1238.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Traffic Vol, veh/h	50	1240	0	0	550	640	770	0	10	0	0	0
Future Vol, veh/h	50	1240	0	0	550	640	770	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	230	-	-	-	-	290	-	-	240	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	56	1378	0	0	611	711	856	0	11	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	611	0	-	-	-	0	1795	2100	689
Stage 1	-	-	-	-	-	-	1489	1489	-
Stage 2	-	-	-	-	-	-	306	611	-
Critical Hdwy	4.1	-	-	-	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	978	-	0	0	-	-	~ 73	52	393
Stage 1	-	-	0	0	-	-	~ 177	189	-
Stage 2	-	-	0	0	-	-	~ 726	487	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	978	-	-	-	-	-	~ 69	0	393
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 69	0	-
Stage 1	-	-	-	-	-	-	~ 167	0	-
Stage 2	-	-	-	-	-	-	~ 726	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	$ 5176
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	69	393	978	-	-	-
HCM Lane V/C Ratio	12.399	0.028	0.057	-	-	-
HCM Control Delay (s)	$ 5243	14.4	8.9	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	101.5	0.1	0.2	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	186.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰↑	↱
Traffic Vol, veh/h	0	1050	880	50	1250	0	0	0	0	260	10	30
Future Vol, veh/h	0	1050	880	50	1250	0	0	0	0	260	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	310	220	-	-	-	-	-	-	-	160
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1129	946	54	1344	0	0	0	0	280	11	32

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	1129	0	0	2017	2581	672
Stage 1	-	-	-	-	-	-	1452	1452	-
Stage 2	-	-	-	-	-	-	565	1129	-
Critical Hdwy	-	-	-	4.1	-	-	6.8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.8	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	626	-	0	~ 52	26	403
Stage 1	0	-	-	-	-	0	~ 185	197	-
Stage 2	0	-	-	-	-	0	538	281	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	626	-	-	~ 48	0	403
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 48	0	-
Stage 1	-	-	-	-	-	-	~ 169	0	-
Stage 2	-	-	-	-	-	-	538	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.4	$ 2195.9
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	626	-	48	403
HCM Lane V/C Ratio	-	-	0.086	-	6.048	0.08
HCM Control Delay (s)	-	-	11.3	$	2438.3	14.7
HCM Lane LOS	-	-	B	-	F	B
HCM 95th %tile Q(veh)	-	-	0.3	-	33.5	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Pedestrian Green has to be less than Phase Max Green.

HCM 2010 Signalized Intersection Summary
127: Potrero Blvd & SR-60 WB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱	↰	↑↑			↑↑	↱
Traffic Volume (veh/h)	0	0	0	60	40	190	380	1900	0	0	1320	900
Future Volume (veh/h)	0	0	0	60	40	190	380	1900	0	0	1320	900
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				60	40	0	380	1900	0	0	1320	900
Adj No. of Lanes				0	1	1	1	2	0	0	2	1
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				87	58	126	509	2965	0	0	1768	791
Arrive On Green				0.08	0.08	0.00	0.28	0.82	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1107	738	1615	1810	3705	0	0	3705	1615
Grp Volume(v), veh/h				100	0	0	380	1900	0	0	1320	900
Grp Sat Flow(s),veh/h/ln				1845	0	1615	1810	1805	0	0	1805	1615
Q Serve(g_s), s				4.2	0.0	0.0	15.2	15.8	0.0	0.0	23.4	39.0
Cycle Q Clear(g_c), s				4.2	0.0	0.0	15.2	15.8	0.0	0.0	23.4	39.0
Prop In Lane				0.60		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				144	0	126	509	2965	0	0	1768	791
V/C Ratio(X)				0.69	0.00	0.00	0.75	0.64	0.00	0.00	0.75	1.14
Avail Cap(c_a), veh/h				834	0	730	523	2991	0	0	1768	791
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.8	0.0	0.0	26.0	2.7	0.0	0.0	16.4	20.3
Incr Delay (d2), s/veh				5.8	0.0	0.0	5.7	0.5	0.0	0.0	1.8	77.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	0.0	0.0	8.4	7.8	0.0	0.0	12.0	34.1
LnGrp Delay(d),s/veh				41.6	0.0	0.0	31.7	3.1	0.0	0.0	18.1	97.6
LnGrp LOS				D			C	A			B	F
Approach Vol, veh/h					100			2280			2220	
Approach Delay, s/veh					41.6			7.9			50.3	
Approach LOS					D			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.4			26.4	43.0		10.2
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		66.0			23.0	39.0		36.0
Max Q Clear Time (g_c+I1), s		17.8			17.2	41.0		6.2
Green Ext Time (p_c), s		29.4			5.2	0.0		0.5

Intersection Summary			
HCM 2010 Ctrl Delay			29.1
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
128: Potrero Blvd & SR-60 EB Ramps

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↱					↑↑	↱	↰	↑↑	
Traffic Volume (veh/h)	1290	40	330	0	0	0	0	990	30	140	1230	0
Future Volume (veh/h)	1290	40	330	0	0	0	0	990	30	140	1230	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	1319	0	0				0	990	30	140	1230	0
Adj No. of Lanes	2	0	1				0	2	1	1	2	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1547	0	690				0	1071	479	177	1638	0
Arrive On Green	0.43	0.00	0.00				0.00	0.30	0.30	0.10	0.45	0.00
Sat Flow, veh/h	3619	0	1615				0	3705	1615	1810	3705	0
Grp Volume(v), veh/h	1319	0	0				0	990	30	140	1230	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615				0	1805	1615	1810	1805	0
Q Serve(g_s), s	22.1	0.0	0.0				0.0	17.9	0.9	5.1	19.0	0.0
Cycle Q Clear(g_c), s	22.1	0.0	0.0				0.0	17.9	0.9	5.1	19.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1547	0	690				0	1071	479	177	1638	0
V/C Ratio(X)	0.85	0.00	0.00				0.00	0.92	0.06	0.79	0.75	0.00
Avail Cap(c_a), veh/h	1936	0	864				0	1073	480	188	1663	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.4	0.0	0.0				0.0	22.9	17.0	29.7	15.2	0.0
Incr Delay (d2), s/veh	3.2	0.0	0.0				0.0	13.1	0.1	19.2	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	0.0	0.0				0.0	10.7	0.4	3.5	9.8	0.0
LnGrp Delay(d),s/veh	20.6	0.0	0.0				0.0	36.0	17.0	48.9	17.2	0.0
LnGrp LOS	C							D	B	D	B	
Approach Vol, veh/h		1319						1020			1370	
Approach Delay, s/veh		20.6						35.4			20.4	
Approach LOS		C						D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.6	24.0		32.8		34.5		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	7.0	20.0		36.0		31.0		
Max Q Clear Time (g_c+I1), s	7.1	19.9		24.1		21.0		
Green Ext Time (p_c), s	0.0	0.1		4.7		6.2		

Intersection Summary			
HCM 2010 Ctrl Delay			24.6
HCM 2010 LOS			C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	20	760	170	140	760	20	340	90	330	60	40	10
Future Volume (veh/h)	20	760	170	140	760	20	340	90	330	60	40	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	800	179	147	800	21	358	95	347	63	42	11
Adj No. of Lanes	1	1	1	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	31	824	697	149	948	689	347	104	381	81	212	55
Arrive On Green	0.02	0.43	0.43	0.08	0.50	0.50	0.19	0.29	0.29	0.04	0.15	0.15
Sat Flow, veh/h	1810	1900	1606	1810	1900	1382	1810	356	1301	1810	1449	379
Grp Volume(v), veh/h	21	800	179	147	800	21	358	0	442	63	0	53
Grp Sat Flow(s),veh/h/ln	1810	1900	1606	1810	1900	1382	1810	0	1657	1810	0	1828
Q Serve(g_s), s	1.3	45.1	7.8	8.9	39.9	0.8	21.0	0.0	28.2	3.8	0.0	2.8
Cycle Q Clear(g_c), s	1.3	45.1	7.8	8.9	39.9	0.8	21.0	0.0	28.2	3.8	0.0	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		0.21
Lane Grp Cap(c), veh/h	31	824	697	149	948	689	347	0	485	81	0	267
V/C Ratio(X)	0.67	0.97	0.26	0.99	0.84	0.03	1.03	0.00	0.91	0.77	0.00	0.20
Avail Cap(c_a), veh/h	66	833	704	149	948	689	347	0	485	99	0	267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.5	30.3	19.8	50.2	23.8	14.0	44.3	0.0	37.3	51.7	0.0	41.1
Incr Delay (d2), s/veh	22.3	24.0	0.2	70.2	7.1	0.0	56.8	0.0	23.8	25.9	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	29.0	3.5	7.3	22.7	0.3	15.9	0.0	16.1	2.5	0.0	1.5
LnGrp Delay(d),s/veh	75.8	54.3	19.9	120.4	30.8	14.0	101.0	0.0	61.1	77.6	0.0	42.8
LnGrp LOS	E	D	B	F	C	B	F		E	E		D
Approach Vol, veh/h		1000			968			800			116	
Approach Delay, s/veh		48.6			44.1			79.0			61.7	
Approach LOS		D			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	36.1	13.0	51.5	25.0	20.0	5.9	58.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	31.0	9.0	48.0	21.0	16.0	4.0	53.0
Max Q Clear Time (g_c+I1), s	5.8	30.2	10.9	47.1	23.0	4.8	3.3	41.9
Green Ext Time (p_c), s	0.0	0.3	0.0	0.4	0.0	2.5	0.0	8.1

Intersection Summary	
HCM 2010 Ctrl Delay	56.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	190	870	100	330	670	350	200	910	430	480	560	90
Future Volume (veh/h)	190	870	100	330	670	350	200	910	430	480	560	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	204	935	108	355	720	376	215	978	462	516	602	97
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	1603	185	218	934	866	242	658	305	241	854	137
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.13	0.28	0.28	0.13	0.27	0.27
Sat Flow, veh/h	523	3261	377	549	1900	1385	1810	2393	1109	1810	3111	500
Grp Volume(v), veh/h	204	518	525	355	720	376	215	733	707	516	349	350
Grp Sat Flow(s),veh/h/ln	523	1805	1832	549	1900	1385	1810	1805	1697	1810	1805	1806
Q Serve(g_s), s	21.8	24.5	24.5	34.5	37.2	16.8	14.0	33.0	33.0	16.0	20.8	20.9
Cycle Q Clear(g_c), s	59.0	24.5	24.5	59.0	37.2	16.8	14.0	33.0	33.0	16.0	20.8	20.9
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.65	1.00		0.28
Lane Grp Cap(c), veh/h	155	887	901	218	934	866	242	496	467	241	495	496
V/C Ratio(X)	1.32	0.58	0.58	1.63	0.77	0.43	0.89	1.48	1.51	2.14	0.70	0.71
Avail Cap(c_a), veh/h	155	887	901	218	934	866	256	496	467	241	495	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	21.7	21.7	47.5	25.0	11.6	51.1	43.5	43.5	52.0	39.1	39.2
Incr Delay (d2), s/veh	180.9	1.0	1.0	303.3	4.0	0.3	28.2	225.4	242.3	526.1	4.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	12.5	12.6	25.6	20.4	6.5	8.9	47.5	46.8	43.2	11.0	11.0
LnGrp Delay(d),s/veh	234.2	22.7	22.7	350.8	29.0	11.9	79.2	268.9	285.8	578.1	43.6	43.7
LnGrp LOS	F	C	C	F	C	B	E	F	F	F	D	D
Approach Vol, veh/h		1247			1451			1655			1215	
Approach Delay, s/veh		57.3			103.3			251.5			270.6	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	37.0		63.0	20.1	36.9		63.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	16.0	33.0		59.0	17.0	32.0		59.0
Max Q Clear Time (g_c+I1), s	18.0	35.0		61.0	16.0	22.9		61.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	7.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	173.6
HCM 2010 LOS	F

HCM Signalized Intersection Capacity Analysis
131: Reche Vista Dr & Reche Canyon Rd

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱			↰↑	↰	↱
Traffic Volume (vph)	620	1460	20	550	1340	10
Future Volume (vph)	620	1460	20	550	1340	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.95	1.00	1.00
Frpb, ped/bikes	0.99			1.00	1.00	0.98
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	0.89			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3194			3604	1710	1590
Flt Permitted	1.00			0.67	0.95	1.00
Satd. Flow (perm)	3194			2432	1710	1590
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	674	1587	22	598	1457	11
RTOR Reduction (vph)	568	0	0	0	0	4
Lane Group Flow (vph)	1693	0	0	620	1457	7
Confl. Peds. (#/hr)		5	5			5
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases			8			2
Actuated Green, G (s)	30.0			30.0	35.0	35.0
Effective Green, g (s)	30.0			30.0	35.0	35.0
Actuated g/C Ratio	0.40			0.40	0.47	0.47
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1277			972	798	742
v/s Ratio Prot	c0.53				c0.85	
v/s Ratio Perm				0.25		0.00
v/c Ratio	1.30dr			0.64	1.83	0.01
Uniform Delay, d1	22.5			18.1	20.0	10.7
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	152.1			1.4	376.5	0.0
Delay (s)	174.6			19.5	396.5	10.7
Level of Service	F			B	F	B
Approach Delay (s)	174.6			19.5	393.6	
Approach LOS	F			B	F	

Intersection Summary			
HCM 2000 Control Delay	226.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.59		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	151.3%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	79.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱			↰↑↑↱			↰↑↱			↰↑↱	
Traffic Vol, veh/h	40	980	0	0	660	290	0	0	0	190	0	20
Future Vol, veh/h	40	980	0	0	660	290	0	0	0	190	0	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	1043	0	0	702	309	0	0	0	202	0	21
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	122.5	46.6	0	15.9
HCM LOS	F	E	-	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	11%	0%	0%	0%	90%
Vol Thru, %	100%	89%	100%	100%	43%	0%
Vol Right, %	0%	0%	0%	0%	57%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	367	653	440	510	210
LT Vol	0	40	0	0	0	190
Through Vol	0	327	653	440	220	0
RT Vol	0	0	0	0	290	20
Lane Flow Rate	0	390	695	468	543	223
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0	0.744	1.316	0.869	0.947	0.437
Departure Headway (Hd)	8.432	6.87	6.814	7.042	6.635	7.341
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	527	535	520	553	494
Service Time	6.432	4.603	4.548	4.742	4.335	5.341
HCM Lane V/C Ratio	0	0.74	1.299	0.9	0.982	0.451
HCM Control Delay	11.4	27	176.1	40.5	51.9	15.9
HCM Lane LOS	N	D	F	E	F	C
HCM 95th-tile Q	0	6.3	29.5	9.4	12.2	2.2

Intersection	
Intersection Delay, s/veh	387.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣		↰	↱	
Traffic Vol, veh/h	10	980	20	10	810	270	50	10	10	270	10	20
Future Vol, veh/h	10	980	20	10	810	270	50	10	10	270	10	20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	1000	20	10	827	276	51	10	10	276	10	20
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	426.3	472.8	19	29.3
HCM LOS	F	F	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	71%	1%	1%	100%	0%
Vol Thru, %	14%	97%	74%	0%	33%
Vol Right, %	14%	2%	25%	0%	67%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	1010	1090	270	30
LT Vol	50	10	10	270	0
Through Vol	10	980	810	0	10
RT Vol	10	20	270	0	20
Lane Flow Rate	71	1031	1112	276	31
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.176	1.886	1.993	0.645	0.063
Departure Headway (Hd)	13.208	8.094	7.809	10.776	9.749
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	274	464	478	339	370
Service Time	11.208	6.094	5.809	8.476	7.449
HCM Lane V/C Ratio	0.259	2.222	2.326	0.814	0.084
HCM Control Delay	19	426.3	472.8	31.1	13.1
HCM Lane LOS	C	F	F	D	B
HCM 95th-tile Q	0.6	55	62.7	4.2	0.2

HCM 2010 AWSC
134: Redlands Blvd & San Timoteo Canyon Rd

Intersection	
Intersection Delay, s/veh	663.2
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	630	820	430	510	700	530
Future Vol, veh/h	630	820	430	510	700	530
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	643	837	439	520	714	541
Number of Lanes	1	0	0	1	1	0

Approach	EB		WB		NB	
Opposing Approach	WB		EB			
Opposing Lanes	1		1		0	
Conflicting Approach Left			NB		EB	
Conflicting Lanes Left	0		1		1	
Conflicting Approach Right	NB				WB	
Conflicting Lanes Right	1		0		1	
HCM Control Delay	814		444.2		652.8	
HCM LOS	F		F		F	

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	57%	0%	46%
Vol Thru, %	0%	43%	54%
Vol Right, %	43%	57%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1230	1450	940
LT Vol	700	0	430
Through Vol	0	630	510
RT Vol	530	820	0
Lane Flow Rate	1255	1480	959
Geometry Grp	1	1	1
Degree of Util (X)	2.389	2.736	1.889
Departure Headway (Hd)	9.244	11.743	13.782
Convergence, Y/N	Yes	Yes	Yes
Cap	414	326	278
Service Time	7.244	9.743	11.782
HCM Lane V/C Ratio	3.031	4.54	3.45
HCM Control Delay	652.8	814	444.2
HCM Lane LOS	F	F	F
HCM 95th-tile Q	72.4	71	34.4

HCM 2010 TWSC
135: Alessandro Rd & Crescent Ave

Intersection	
Int Delay, s/veh	10.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	90	130	200	50	90	270
Future Vol, veh/h	90	130	200	50	90	270
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	144	222	56	100	300

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	244	0	672	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1334	-	424	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1334	-	351	877
Mov Cap-2 Maneuver	-	-	-	-	351	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	508	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.6	19.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	638	-	-	1334	-
HCM Lane V/C Ratio	0.627	-	-	0.167	-
HCM Control Delay (s)	19.6	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.4	-	-	0.6	-

HCM 2010 AWSC
136: Alessandro Rd & Sunset Dr

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	10	10	10	10	10	10	10	290	20	20	250	10
Future Vol, veh/h	10	10	10	10	10	10	10	290	20	20	250	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	11	11	11	11	11	11	319	22	22	275	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	8.6	10.6	10.1
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	33%	7%
Vol Thru, %	91%	33%	33%	89%
Vol Right, %	6%	33%	33%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	30	30	280
LT Vol	10	10	10	20
Through Vol	290	10	10	250
RT Vol	20	10	10	10
Lane Flow Rate	352	33	33	308
Geometry Grp	1	1	1	1
Degree of Util (X)	0.426	0.048	0.048	0.378
Departure Headway (Hd)	4.362	5.243	5.243	4.428
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	826	680	680	812
Service Time	2.386	3.294	3.294	2.453
HCM Lane V/C Ratio	0.426	0.049	0.049	0.379
HCM Control Delay	10.6	8.6	8.6	10.1
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.1	0.2	0.2	1.8

HCM 2010 Signalized Intersection Summary
12: Theodore St & Ironwood Ave

	↙	↖	↑	↗	↘	↓
Movement	**WBL**	**WBR**	**NBT**	**NBR**	**SBL**	**SBT**
Lane Configurations	⋎		↑	↱	↰	↑
Traffic Volume (veh/h)	470	50	120	350	100	40
Future Volume (veh/h)	470	50	120	350	100	40
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	553	59	141	412	118	47
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	669	71	661	562	471	661
Arrive On Green	0.41	0.41	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1613	172	1900	1615	869	1900
Grp Volume(v), veh/h	613	0	141	412	118	47
Grp Sat Flow(s),veh/h/ln	1788	0	1900	1615	869	1900
Q Serve(g_s), s	10.3	0.0	1.8	7.5	3.7	0.6
Cycle Q Clear(g_c), s	10.3	0.0	1.8	7.5	5.5	0.6
Prop In Lane	0.90	0.10		1.00	1.00	
Lane Grp Cap(c), veh/h	741	0	661	562	471	661
V/C Ratio(X)	0.83	0.00	0.21	0.73	0.25	0.07
Avail Cap(c_a), veh/h	1275	0	1016	863	633	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	7.7	9.6	9.7	7.3
Incr Delay (d2), s/veh	2.4	0.0	0.2	1.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	0.9	3.6	0.9	0.3
LnGrp Delay(d),s/veh	11.2	0.0	7.9	11.5	9.9	7.4
LnGrp LOS	B		A	B	A	A
Approach Vol, veh/h	613		553			165
Approach Delay, s/veh	11.2		10.6			9.2
Approach LOS	B		B			A

Timer	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		15.7				15.7		18.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		18.0				18.0		24.0
Max Q Clear Time (g_c+I1), s		9.5				7.5		12.3
Green Ext Time (p_c), s		2.0				2.3		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	210	270	90	50	470	110	130	580	80	60	570	250
Future Volume (veh/h)	210	270	90	50	470	110	130	580	80	60	570	250
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	259	333	111	62	580	136	160	716	99	74	704	309
Adj No. of Lanes	2	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	308	883	289	119	895	209	181	1534	210	128	1075	465
Arrive On Green	0.09	0.33	0.33	0.07	0.31	0.31	0.10	0.33	0.33	0.07	0.30	0.30
Sat Flow, veh/h	3510	2671	875	1810	2903	679	1810	4611	632	1810	3544	1535
Grp Volume(v), veh/h	259	223	221	62	360	356	160	535	280	74	687	326
Grp Sat Flow(s),veh/h/ln	1755	1805	1741	1810	1805	1776	1810	1729	1785	1810	1729	1620
Q Serve(g_s), s	5.8	7.5	7.8	2.6	13.8	13.8	7.0	9.8	9.9	3.2	13.8	14.0
Cycle Q Clear(g_c), s	5.8	7.5	7.8	2.6	13.8	13.8	7.0	9.8	9.9	3.2	13.8	14.0
Prop In Lane	1.00		0.50	1.00		0.38	1.00		0.35	1.00		0.95
Lane Grp Cap(c), veh/h	308	597	576	119	557	548	181	1151	594	128	1049	491
V/C Ratio(X)	0.84	0.37	0.38	0.52	0.65	0.65	0.88	0.47	0.47	0.58	0.65	0.66
Avail Cap(c_a), veh/h	308	927	894	159	927	912	181	1213	626	181	1213	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	20.4	20.5	36.1	23.8	23.9	35.5	21.0	21.1	35.9	24.2	24.3
Incr Delay (d2), s/veh	18.5	0.4	0.4	3.5	1.3	1.3	36.1	0.3	0.6	4.1	1.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.8	3.8	1.4	7.0	6.9	5.3	4.7	5.0	1.7	6.7	6.6
LnGrp Delay(d),s/veh	54.4	20.8	20.9	39.6	25.1	25.2	71.6	21.3	21.7	40.0	25.2	26.6
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		703			778			975			1087	
Approach Delay, s/veh		33.2			26.3			29.7			26.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	30.6	9.2	30.4	12.0	28.2	11.0	28.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	7.0	41.0	8.0	28.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	5.2	11.9	4.6	9.8	9.0	16.0	7.8	15.8
Green Ext Time (p_c), s	0.0	9.5	0.0	7.2	0.0	7.7	0.0	6.8

Intersection Summary	
HCM 2010 Ctrl Delay	28.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	100	120	90	460	280	120	70	120	80	210	270	90
Future Volume (veh/h)	100	120	90	460	280	120	70	120	80	210	270	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	140	105	535	326	140	81	140	93	244	314	105
Adj No. of Lanes	1	2	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	202	497	347	687	415	178	367	685	426	456	858	282
Arrive On Green	0.11	0.25	0.25	0.20	0.33	0.33	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1810	2028	1417	3510	1260	541	981	2132	1326	1160	2669	876
Grp Volume(v), veh/h	116	123	122	535	0	466	81	117	116	244	210	209
Grp Sat Flow(s),veh/h/ln	1810	1805	1640	1755	0	1802	981	1805	1654	1160	1805	1741
Q Serve(g_s), s	3.1	2.8	3.0	7.3	0.0	11.8	3.5	2.4	2.6	9.8	4.5	4.7
Cycle Q Clear(g_c), s	3.1	2.8	3.0	7.3	0.0	11.8	8.2	2.4	2.6	12.4	4.5	4.7
Prop In Lane	1.00		0.86	1.00		0.30	1.00		0.80	1.00		0.50
Lane Grp Cap(c), veh/h	202	443	402	687	0	593	367	580	532	456	580	560
V/C Ratio(X)	0.58	0.28	0.30	0.78	0.00	0.79	0.22	0.20	0.22	0.53	0.36	0.37
Avail Cap(c_a), veh/h	251	644	585	835	0	821	402	644	590	497	644	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	15.4	15.5	19.3	0.0	15.3	16.3	12.4	12.5	17.0	13.2	13.2
Incr Delay (d2), s/veh	2.6	0.3	0.4	3.9	0.0	3.5	0.3	0.2	0.2	1.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.4	1.4	3.9	0.0	6.4	1.0	1.2	1.2	3.2	2.3	2.3
LnGrp Delay(d),s/veh	23.9	15.8	15.9	23.2	0.0	18.8	16.6	12.6	12.7	18.0	13.5	13.6
LnGrp LOS	C	B	B	C		B	B	B	B	B	B	B
Approach Vol, veh/h		361			1001			314			663	
Approach Delay, s/veh		18.4			21.1			13.7			15.2	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	13.9	16.4		20.2	9.6	20.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		18.0	12.0	18.0		18.0	7.0	23.0
Max Q Clear Time (g_c+I1), s		10.2	9.3	5.0		14.4	5.1	13.8
Green Ext Time (p_c), s		3.0	0.6	3.3		1.7	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
28: Moreno Beach Dr & John F Kennedy Dr

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↰↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	30	20	10	770	40	310	10	430	430	140	610	30
Future Volume (veh/h)	30	20	10	770	40	310	10	430	430	140	610	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	25	12	962	50	388	12	538	538	175	762	38
Adj No. of Lanes	1	2	0	2	1	0	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	223	99	1232	64	494	36	1445	998	201	1870	93
Arrive On Green	0.09	0.09	0.09	0.34	0.34	0.34	0.02	0.28	0.28	0.11	0.37	0.37
Sat Flow, veh/h	1810	2421	1073	3619	187	1450	1810	5187	1606	1810	5061	252
Grp Volume(v), veh/h	38	18	19	962	0	438	12	538	538	175	520	280
Grp Sat Flow(s),veh/h/ln	1810	1805	1690	1810	0	1637	1810	1729	1606	1810	1729	1854
Q Serve(g_s), s	1.8	0.8	0.9	21.5	0.0	21.7	0.6	7.5	17.3	8.6	10.0	10.1
Cycle Q Clear(g_c), s	1.8	0.8	0.9	21.5	0.0	21.7	0.6	7.5	17.3	8.6	10.0	10.1
Prop In Lane	1.00		0.64	1.00		0.89	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	166	166	155	1232	0	557	36	1445	998	201	1278	685
V/C Ratio(X)	0.23	0.11	0.12	0.78	0.00	0.79	0.33	0.37	0.54	0.87	0.41	0.41
Avail Cap(c_a), veh/h	885	882	826	1648	0	745	141	1671	1067	201	1278	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	37.5	37.5	26.7	0.0	26.7	43.5	26.1	9.8	39.4	21.1	21.1
Incr Delay (d2), s/veh	0.7	0.3	0.3	1.8	0.0	4.0	5.1	0.2	0.5	31.2	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	0.4	11.0	0.0	10.4	0.3	3.6	13.4	6.0	4.8	5.2
LnGrp Delay(d),s/veh	38.6	37.8	37.9	28.4	0.0	30.7	48.6	26.3	10.3	70.6	21.3	21.5
LnGrp LOS	D	D	D	C		C	D	C	B	E	C	C
Approach Vol, veh/h		75			1400			1088			975	
Approach Delay, s/veh		38.2			29.2			18.6			30.2	
Approach LOS		D			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	29.1		12.3	5.8	37.3		34.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	10.0	29.0		44.0	7.0	32.0		41.0
Max Q Clear Time (g_c+I1), s	10.6	19.3		3.8	2.6	12.1		23.7
Green Ext Time (p_c), s	0.0	5.4		0.3	0.0	10.1		6.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
32: Perris Blvd & Sunnymead Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	250	290	40	150	830	100	1060	140	690	1280	410
Future Volume (veh/h)	350	250	290	40	150	830	100	1060	140	690	1280	410
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	361	258	299	41	155	856	103	1093	144	711	1320	423
Adj No. of Lanes	2	2	1	1	1	2	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	438	946	421	84	350	999	121	1722	227	588	1705	960
Arrive On Green	0.12	0.26	0.26	0.05	0.18	0.18	0.07	0.37	0.37	0.34	0.94	0.94
Sat Flow, veh/h	3510	3610	1606	1810	1900	2842	1810	4637	610	3510	3610	1606
Grp Volume(v), veh/h	361	258	299	41	155	856	103	815	422	711	1320	423
Grp Sat Flow(s),veh/h/ln	1755	1805	1606	1810	1900	1421	1810	1729	1789	1755	1805	1606
Q Serve(g_s), s	10.5	6.0	17.7	2.3	7.6	8.3	5.9	20.3	20.4	17.6	7.9	2.5
Cycle Q Clear(g_c), s	10.5	6.0	17.7	2.3	7.6	8.3	5.9	20.3	20.4	17.6	7.9	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	438	946	421	84	350	999	121	1284	665	588	1705	960
V/C Ratio(X)	0.83	0.27	0.71	0.49	0.44	0.86	0.85	0.63	0.64	1.21	0.77	0.44
Avail Cap(c_a), veh/h	568	1238	551	121	470	1180	121	1284	665	588	1705	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	0.50	0.50	0.50
Uniform Delay (d), s/veh	44.8	30.8	35.1	48.8	38.1	15.1	48.5	27.1	27.1	34.9	1.8	0.9
Incr Delay (d2), s/veh	7.6	0.2	2.9	4.3	0.9	5.6	37.2	2.1	4.0	102.3	1.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	3.0	8.2	1.3	4.1	3.9	4.2	10.1	10.8	16.8	3.1	1.0
LnGrp Delay(d),s/veh	52.4	30.9	38.0	53.1	38.9	20.7	85.7	29.2	31.1	137.2	3.5	1.7
LnGrp LOS	D	C	D	D	D	C	F	C	C	F	A	A
Approach Vol, veh/h		918			1052			1340			2454	
Approach Delay, s/veh		41.7			24.7			34.2			41.9	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	43.0	8.9	31.5	11.0	53.6	17.1	23.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	39.0	7.0	36.0	7.0	39.0	17.0	26.0
Max Q Clear Time (g_c+I1), s	19.6	22.4	4.3	19.7	7.9	9.9	12.5	10.3
Green Ext Time (p_c), s	0.0	7.3	0.0	7.1	0.0	17.6	0.6	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.9
HCM 2010 LOS	D

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Volume (veh/h)	10	290	250	20	290	200
Future Volume (veh/h)	10	290	250	20	290	200
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	309	266	21	309	213
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	699	594	695	699	534	476
Arrive On Green	0.37	0.37	0.37	0.37	0.30	0.30
Sat Flow, veh/h	1900	1615	1076	1900	1810	1615
Grp Volume(v), veh/h	11	309	266	21	309	213
Grp Sat Flow(s),veh/h/ln	1900	1615	1076	1900	1810	1615
Q Serve(g_s), s	0.1	3.5	5.0	0.2	3.4	2.5
Cycle Q Clear(g_c), s	0.1	3.5	5.0	0.2	3.4	2.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	699	594	695	699	534	476
V/C Ratio(X)	0.02	0.52	0.38	0.03	0.58	0.45
Avail Cap(c_a), veh/h	1441	1225	1116	1441	1449	1293
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.8	5.9	6.4	4.8	7.1	6.8
Incr Delay (d2), s/veh	0.0	0.7	0.3	0.0	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.7	1.5	0.1	1.9	1.2
LnGrp Delay(d),s/veh	4.8	6.6	6.7	4.8	8.1	7.4
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	320			287	522	
Approach Delay, s/veh	6.5			6.6	7.8	
Approach LOS	A			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		11.0		12.7				12.7
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		19.0		18.0				18.0
Max Q Clear Time (g_c+I1), s		5.4		5.5				7.0
Green Ext Time (p_c), s		1.3		2.0				1.8

Intersection Summary			
HCM 2010 Ctrl Delay			7.1
HCM 2010 LOS			A

HCM 2010 Signalized Intersection Summary
36: Moreno Beach Dr & Ironwood Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	160	170	60	370	160	20	120	340	330	20	430	180
Future Volume (veh/h)	160	170	60	370	160	20	120	340	330	20	430	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	211	224	79	487	211	26	158	447	434	26	566	237
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	255	357	122	539	947	115	204	520	463	153	645	269
Arrive On Green	0.14	0.14	0.14	0.30	0.29	0.29	0.11	0.29	0.29	0.08	0.26	0.26
Sat Flow, veh/h	1810	2633	901	1810	3239	394	1810	1805	1607	1810	2479	1036
Grp Volume(v), veh/h	211	151	152	487	116	121	158	447	434	26	412	391
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1828	1810	1805	1607	1810	1805	1710
Q Serve(g_s), s	9.4	6.5	6.9	21.3	4.0	4.1	7.0	19.3	21.8	1.1	18.0	18.1
Cycle Q Clear(g_c), s	9.4	6.5	6.9	21.3	4.0	4.1	7.0	19.3	21.8	1.1	18.0	18.1
Prop In Lane	1.00		0.52	1.00		0.22	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	255	245	234	539	528	535	204	520	463	153	469	445
V/C Ratio(X)	0.83	0.62	0.65	0.90	0.22	0.23	0.78	0.86	0.94	0.17	0.88	0.88
Avail Cap(c_a), veh/h	460	459	440	614	612	620	482	520	463	482	503	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	33.7	33.8	27.8	22.1	22.1	35.6	27.8	28.7	35.1	29.3	29.3
Incr Delay (d2), s/veh	6.7	2.5	3.0	15.5	0.2	0.2	6.2	13.7	27.1	0.5	15.3	16.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.4	3.5	12.9	2.0	2.1	3.9	11.5	13.1	0.6	10.9	10.5
LnGrp Delay(d),s/veh	41.2	36.2	36.8	43.4	22.3	22.3	41.8	41.5	55.7	35.6	44.6	45.7
LnGrp LOS	D	D	D	D	C	C	D	D	E	D	D	D
Approach Vol, veh/h		514			724			1039			829	
Approach Delay, s/veh		38.4			36.5			47.5			44.8	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	27.8	28.6	15.2	13.3	25.5	15.6	28.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	23.0	28.0	21.0	22.0	23.0	21.0	28.0
Max Q Clear Time (g_c+I1), s	3.1	23.8	23.3	8.9	9.0	20.1	11.4	6.1
Green Ext Time (p_c), s	0.0	0.0	1.3	1.1	0.3	1.3	0.4	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	42.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↑↱		↰	↑↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	70	230	220	430	420	90	240	980	280	90	1150	80
Future Volume (veh/h)	70	230	220	430	420	90	240	980	280	90	1150	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	261	250	489	477	102	273	1114	318	102	1307	91
Adj No. of Lanes	1	2	0	2	2	0	1	3	1	2	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	442	393	440	905	192	246	2047	635	240	1620	113
Arrive On Green	0.06	0.24	0.24	0.13	0.31	0.31	0.14	0.39	0.39	0.07	0.33	0.33
Sat Flow, veh/h	1810	1805	1605	3510	2961	629	1810	5187	1609	3510	4951	345
Grp Volume(v), veh/h	80	261	250	489	290	289	273	1114	318	102	913	485
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1755	1805	1785	1810	1729	1609	1755	1729	1837
Q Serve(g_s), s	4.1	12.2	13.3	12.0	12.7	12.9	13.0	15.9	14.3	2.7	23.1	23.1
Cycle Q Clear(g_c), s	4.1	12.2	13.3	12.0	12.7	12.9	13.0	15.9	14.3	2.7	23.1	23.1
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	117	442	393	440	552	546	246	2047	635	240	1131	601
V/C Ratio(X)	0.69	0.59	0.64	1.11	0.53	0.53	1.11	0.54	0.50	0.43	0.81	0.81
Avail Cap(c_a), veh/h	189	697	620	440	735	727	246	2058	638	257	1155	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	31.9	32.4	41.9	27.5	27.6	41.4	22.3	21.9	42.8	29.5	29.5
Incr Delay (d2), s/veh	7.0	1.3	1.7	76.9	0.8	0.8	90.6	0.3	0.6	1.2	4.3	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	6.2	6.1	10.4	6.5	6.5	12.6	7.6	6.5	1.3	11.7	13.0
LnGrp Delay(d),s/veh	50.8	33.2	34.1	118.8	28.3	28.4	132.0	22.6	22.5	44.0	33.7	37.2
LnGrp LOS	D	C	C	F	C	C	F	C	C	D	C	D
Approach Vol, veh/h		591			1068			1705			1500	
Approach Delay, s/veh		36.0			69.7			40.1			35.5	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	41.8	16.0	27.4	17.0	35.3	10.2	33.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	38.0	12.0	37.0	13.0	32.0	10.0	39.0
Max Q Clear Time (g_c+I1), s	4.7	17.9	14.0	15.3	15.0	25.1	6.1	14.9
Green Ext Time (p_c), s	0.0	16.1	0.0	6.1	0.0	6.2	0.0	6.3

Intersection Summary	
HCM 2010 Ctrl Delay	44.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰↰	↑↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	150	830	240	890	1300	130	380	560	880	200	450	120
Future Volume (veh/h)	150	830	240	890	1300	130	380	560	880	200	450	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	892	258	957	1398	140	409	602	946	215	484	129
Adj No. of Lanes	2	3	1	3	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	214	1323	409	1119	1980	198	446	1188	883	270	787	208
Arrive On Green	0.06	0.25	0.25	0.22	0.41	0.41	0.13	0.33	0.33	0.08	0.28	0.28
Sat Flow, veh/h	3510	5187	1605	5103	4791	480	3510	3610	1608	3510	2821	747
Grp Volume(v), veh/h	161	892	258	957	1009	529	409	602	946	215	309	304
Grp Sat Flow(s),veh/h/ln	1755	1729	1605	1701	1729	1813	1755	1805	1608	1755	1805	1763
Q Serve(g_s), s	6.0	20.7	19.1	24.1	32.3	32.3	15.4	17.9	44.0	8.1	19.9	20.1
Cycle Q Clear(g_c), s	6.0	20.7	19.1	24.1	32.3	32.3	15.4	17.9	44.0	8.1	19.9	20.1
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	214	1323	409	1119	1429	749	446	1188	883	270	503	492
V/C Ratio(X)	0.75	0.67	0.63	0.86	0.71	0.71	0.92	0.51	1.07	0.80	0.61	0.62
Avail Cap(c_a), veh/h	315	1397	432	1527	1656	868	446	1188	883	368	554	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	44.8	44.2	50.1	32.5	32.5	57.6	36.1	30.2	60.7	41.9	42.0
Incr Delay (d2), s/veh	5.6	1.2	2.7	3.7	1.2	2.2	23.6	0.4	51.2	8.3	1.7	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	10.1	8.7	11.7	15.6	16.6	8.9	9.0	45.0	4.2	10.2	10.1
LnGrp Delay(d),s/veh	67.4	46.0	46.9	53.9	33.7	34.7	81.2	36.5	81.4	69.0	43.6	43.9
LnGrp LOS	E	D	D	D	C	C	F	D	F	E	D	D
Approach Vol, veh/h		1311			2495			1957			828	
Approach Delay, s/veh		48.8			41.6			67.5			50.3	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	48.0	33.3	38.1	21.0	41.3	12.2	59.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	44.0	40.0	36.0	17.0	41.0	12.0	64.0
Max Q Clear Time (g_c+I1), s	10.1	46.0	26.1	22.7	17.4	22.1	8.0	34.3
Green Ext Time (p_c), s	0.2	0.0	3.2	11.0	0.0	11.3	0.2	20.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.8
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	170	260	410	110	520	110	430	1000	40	30	1270	280
Future Volume (veh/h)	170	260	410	110	520	110	430	1000	40	30	1270	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	218	333	526	141	667	141	551	1282	51	38	1628	359
Adj No. of Lanes	2	3	1	2	2	1	1	3	0	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	239	1266	865	189	829	429	530	2843	113	68	1556	592
Arrive On Green	0.07	0.24	0.24	0.05	0.23	0.23	0.29	0.56	0.56	0.04	0.30	0.30
Sat Flow, veh/h	3510	5187	1605	3510	3610	1604	1810	5118	204	1810	5187	1607
Grp Volume(v), veh/h	218	333	526	141	667	141	551	866	467	38	1628	359
Grp Sat Flow(s),veh/h/ln	1755	1729	1605	1755	1805	1604	1810	1729	1863	1810	1729	1607
Q Serve(g_s), s	9.1	7.6	33.1	5.8	25.6	10.4	43.0	21.8	21.8	3.0	44.0	26.7
Cycle Q Clear(g_c), s	9.1	7.6	33.1	5.8	25.6	10.4	43.0	21.8	21.8	3.0	44.0	26.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	239	1266	865	189	829	429	530	1921	1035	68	1556	592
V/C Ratio(X)	0.91	0.26	0.61	0.75	0.80	0.33	1.04	0.45	0.45	0.56	1.05	0.61
Avail Cap(c_a), veh/h	239	1273	867	263	911	465	530	1921	1035	99	1556	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	44.8	23.4	68.4	53.4	43.2	51.8	19.3	19.3	69.4	51.3	37.7
Incr Delay (d2), s/veh	35.2	0.1	1.2	7.2	4.9	0.4	49.5	0.2	0.3	7.0	36.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	3.7	14.9	3.0	13.3	4.7	28.7	10.4	11.2	1.7	26.1	12.1
LnGrp Delay(d),s/veh	103.1	44.9	24.6	75.6	58.3	43.6	101.3	19.5	19.6	76.4	87.3	39.5
LnGrp LOS	F	D	C	E	E	D	F	B	B	E	F	D
Approach Vol, veh/h		1077			949			1884			2025	
Approach Delay, s/veh		46.8			58.7			43.5			78.7	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	85.5	11.9	39.8	47.0	48.0	14.0	37.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	79.0	11.0	36.0	43.0	44.0	10.0	37.0
Max Q Clear Time (g_c+I1), s	5.0	23.8	7.8	35.1	45.0	46.0	11.1	27.6
Green Ext Time (p_c), s	0.0	41.1	0.1	0.7	0.0	0.0	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	58.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
52: Chelbana Way/Kitching St & Cactus Ave

	↰	→	↘	↙	←	↖	↰	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	100	610	90	50	1000	50	190	470	30	90	380	110
Future Volume (veh/h)	100	610	90	50	1000	50	190	470	30	90	380	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	744	110	61	1220	61	232	573	37	110	463	134
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	1317	195	102	1385	69	262	1013	65	139	624	179
Arrive On Green	0.08	0.42	0.42	0.06	0.40	0.40	0.15	0.29	0.29	0.08	0.23	0.23
Sat Flow, veh/h	1810	3155	466	1810	3499	175	1810	3443	222	1810	2765	794
Grp Volume(v), veh/h	122	426	428	61	629	652	232	300	310	110	301	296
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1868	1810	1805	1859	1810	1805	1754
Q Serve(g_s), s	6.9	18.5	18.5	3.4	33.2	33.3	12.9	14.5	14.5	6.2	16.0	16.2
Cycle Q Clear(g_c), s	6.9	18.5	18.5	3.4	33.2	33.3	12.9	14.5	14.5	6.2	16.0	16.2
Prop In Lane	1.00		0.26	1.00		0.09	1.00		0.12	1.00		0.45
Lane Grp Cap(c), veh/h	141	754	758	102	715	740	262	531	547	139	408	396
V/C Ratio(X)	0.87	0.56	0.57	0.60	0.88	0.88	0.88	0.56	0.57	0.79	0.74	0.75
Avail Cap(c_a), veh/h	141	754	758	158	754	781	264	531	547	229	491	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	22.8	22.8	47.4	28.8	28.8	43.2	30.7	30.8	46.7	37.0	37.1
Incr Delay (d2), s/veh	39.8	1.0	1.0	5.6	11.3	11.1	27.7	1.4	1.4	9.7	4.7	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	9.4	9.5	1.9	18.7	19.5	8.5	7.4	7.7	3.5	8.5	8.4
LnGrp Delay(d),s/veh	86.7	23.8	23.8	53.0	40.1	39.9	70.9	32.1	32.1	56.5	41.7	42.3
LnGrp LOS	F	C	C	D	D	D	E	C	C	E	D	D
Approach Vol, veh/h		976			1342			842			707	
Approach Delay, s/veh		31.7			40.6			42.8			44.3	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	34.3	9.8	47.0	18.9	27.2	12.0	44.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	30.0	9.0	42.0	15.0	28.0	8.0	43.0
Max Q Clear Time (g_c+I1), s	8.2	16.5	5.4	20.5	14.9	18.2	8.9	35.3
Green Ext Time (p_c), s	0.1	5.6	0.0	13.3	0.0	4.4	0.0	5.4

Intersection Summary		
HCM 2010 Ctrl Delay		39.5
HCM 2010 LOS		D

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	70	460	180	280	830	70	140	530	210	80	380	80
Future Volume (veh/h)	70	460	180	280	830	70	140	530	210	80	380	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	523	205	318	943	80	159	602	0	91	432	91
Adj No. of Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	706	275	547	1285	572	224	932	417	149	643	134
Arrive On Green	0.08	0.28	0.28	0.16	0.36	0.36	0.12	0.26	0.00	0.08	0.22	0.22
Sat Flow, veh/h	1810	2535	989	3510	3610	1608	1810	3610	1615	1810	2970	621
Grp Volume(v), veh/h	80	372	356	318	943	80	159	602	0	91	261	262
Grp Sat Flow(s),veh/h/ln	1810	1805	1719	1755	1805	1608	1810	1805	1615	1810	1805	1785
Q Serve(g_s), s	3.0	13.3	13.4	6.0	16.2	2.4	6.0	10.5	0.0	3.4	9.4	9.6
Cycle Q Clear(g_c), s	3.0	13.3	13.4	6.0	16.2	2.4	6.0	10.5	0.0	3.4	9.4	9.6
Prop In Lane	1.00		0.58	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	142	503	479	547	1285	572	224	932	417	149	391	386
V/C Ratio(X)	0.56	0.74	0.74	0.58	0.73	0.14	0.71	0.65	0.00	0.61	0.67	0.68
Avail Cap(c_a), veh/h	179	738	703	547	1679	748	281	1526	683	230	712	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	23.3	23.3	27.8	19.9	15.5	29.8	23.4	0.0	31.5	25.5	25.5
Incr Delay (d2), s/veh	3.5	2.2	2.4	1.6	1.2	0.1	6.0	0.8	0.0	4.0	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.9	6.7	3.0	8.2	1.1	3.4	5.4	0.0	1.9	4.9	4.9
LnGrp Delay(d),s/veh	35.0	25.5	25.7	29.4	21.1	15.6	35.8	24.2	0.0	35.5	27.5	27.6
LnGrp LOS	D	C	C	C	C	B	D	C		D	C	C
Approach Vol, veh/h		808			1341			761			614	
Approach Delay, s/veh		26.5			22.7			26.6			28.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	22.3	15.0	23.8	12.8	19.4	9.6	29.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0	11.0	29.0	11.0	28.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	5.4	12.5	8.0	15.4	8.0	11.6	5.0	18.2
Green Ext Time (p_c), s	0.1	3.7	2.0	3.4	1.2	2.5	0.0	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
54: Morriaon St/Morrison St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	540	60	220	920	420	90	40	200	340	40	160
Future Volume (veh/h)	110	540	60	220	920	420	90	40	200	340	40	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	540	60	220	920	420	90	40	200	340	40	160
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	945	105	218	1172	824	143	343	304	339	538	479
Arrive On Green	0.08	0.29	0.29	0.12	0.32	0.32	0.08	0.19	0.19	0.19	0.30	0.30
Sat Flow, veh/h	1810	3276	363	1810	3610	1608	1810	1805	1602	1810	1805	1607
Grp Volume(v), veh/h	110	297	303	220	920	420	90	40	200	340	40	160
Grp Sat Flow(s),veh/h/ln	1810	1805	1834	1810	1805	1608	1810	1805	1602	1810	1805	1607
Q Serve(g_s), s	4.4	10.5	10.5	9.0	17.3	12.9	3.6	1.4	8.6	14.0	1.2	5.8
Cycle Q Clear(g_c), s	4.4	10.5	10.5	9.0	17.3	12.9	3.6	1.4	8.6	14.0	1.2	5.8
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	521	529	218	1172	824	143	343	304	339	538	479
V/C Ratio(X)	0.72	0.57	0.57	1.01	0.78	0.51	0.63	0.12	0.66	1.00	0.07	0.33
Avail Cap(c_a), veh/h	194	603	613	218	1255	861	242	628	557	339	724	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	22.7	22.7	32.9	22.9	12.1	33.4	25.1	28.0	30.4	18.8	20.5
Incr Delay (d2), s/veh	9.3	1.0	1.0	63.6	3.2	0.5	4.5	0.1	2.4	49.8	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.3	5.4	8.3	9.1	5.8	2.0	0.7	4.0	11.6	0.6	2.6
LnGrp Delay(d),s/veh	42.7	23.6	23.7	96.6	26.0	12.5	37.8	25.2	30.4	80.2	18.9	20.9
LnGrp LOS	D	C	C	F	C	B	D	C	C	F	B	C
Approach Vol, veh/h		710			1560			330			540	
Approach Delay, s/veh		26.6			32.4			31.8			58.1	
Approach LOS		C			C			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	18.2	13.0	25.6	9.9	26.3	10.3	28.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	14.0	26.0	9.0	25.0	10.0	30.0	8.0	26.0
Max Q Clear Time (g_c+I1), s	16.0	10.6	11.0	12.5	5.6	7.8	6.4	19.3
Green Ext Time (p_c), s	0.0	2.4	0.0	8.0	0.1	2.7	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	520	380	290	290	440	510	330	380	280	510	390	600
Future Volume (veh/h)	520	380	290	290	440	510	330	380	280	510	390	600
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	658	481	367	367	557	646	418	481	354	646	494	759
Adj No. of Lanes	1	2	0	1	2	0	2	3	0	2	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	495	684	521	390	529	471	464	645	299	491	702	753
Arrive On Green	0.27	0.35	0.35	0.22	0.29	0.29	0.13	0.19	0.19	0.14	0.19	0.19
Sat Flow, veh/h	1810	1950	1485	1810	1805	1607	3510	3458	1602	3510	3610	1603
Grp Volume(v), veh/h	658	445	403	367	557	646	418	481	354	646	494	759
Grp Sat Flow(s),veh/h/ln	1810	1805	1630	1810	1805	1607	1755	1729	1602	1755	1805	1603
Q Serve(g_s), s	41.0	31.9	32.0	29.9	44.0	44.0	17.6	19.7	28.0	21.0	19.2	29.2
Cycle Q Clear(g_c), s	41.0	31.9	32.0	29.9	44.0	44.0	17.6	19.7	28.0	21.0	19.2	29.2
Prop In Lane	1.00		0.91	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	495	633	572	390	529	471	464	645	299	491	702	753
V/C Ratio(X)	1.33	0.70	0.70	0.94	1.05	1.37	0.90	0.75	1.18	1.31	0.70	1.01
Avail Cap(c_a), veh/h	495	633	572	434	529	471	491	645	299	491	702	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	41.9	42.0	57.9	53.0	53.0	64.1	57.6	61.0	64.5	56.4	40.0
Incr Delay (d2), s/veh	162.1	3.5	3.9	27.2	53.5	179.9	18.9	4.7	111.5	155.4	3.2	34.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.7	16.4	15.1	17.9	29.8	43.1	9.8	9.8	21.6	20.8	9.8	38.4
LnGrp Delay(d),s/veh	216.6	45.4	45.9	85.1	106.5	232.9	83.0	62.3	172.5	219.9	59.6	74.8
LnGrp LOS	F	D	D	F	F	F	F	E	F	F	E	F
Approach Vol, veh/h		1506			1570			1253			1899	
Approach Delay, s/veh		120.3			153.5			100.3			120.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	32.0	36.4	56.6	23.8	33.2	45.0	48.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	28.0	36.0	49.0	21.0	28.0	41.0	44.0
Max Q Clear Time (g_c+I1), s	23.0	30.0	31.9	34.0	19.6	31.2	43.0	46.0
Green Ext Time (p_c), s	0.0	0.0	0.4	10.4	0.2	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	124.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	80	610	210	60	1280	90	210	590	70	130	540	70
Future Volume (veh/h)	80	610	210	60	1280	90	210	590	70	130	540	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	701	241	69	1471	103	241	678	80	149	621	80
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	119	1124	386	110	1443	101	253	865	102	149	888	114
Arrive On Green	0.07	0.43	0.43	0.06	0.42	0.42	0.07	0.27	0.27	0.08	0.28	0.28
Sat Flow, veh/h	1810	2635	906	1810	3423	239	3510	3252	383	1810	3216	414
Grp Volume(v), veh/h	92	480	462	69	772	802	241	376	382	149	348	353
Grp Sat Flow(s),veh/h/ln	1810	1805	1736	1810	1805	1857	1755	1805	1830	1810	1805	1824
Q Serve(g_s), s	4.9	20.2	20.2	3.6	41.0	41.0	6.7	18.8	18.8	8.0	16.8	16.9
Cycle Q Clear(g_c), s	4.9	20.2	20.2	3.6	41.0	41.0	6.7	18.8	18.8	8.0	16.8	16.9
Prop In Lane	1.00		0.52	1.00		0.13	1.00		0.21	1.00		0.23
Lane Grp Cap(c), veh/h	119	770	741	110	761	783	253	480	487	149	498	504
V/C Ratio(X)	0.77	0.62	0.62	0.63	1.02	1.02	0.95	0.78	0.78	1.00	0.70	0.70
Avail Cap(c_a), veh/h	130	770	741	167	761	783	253	520	527	149	538	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	21.8	21.8	44.6	28.1	28.1	45.0	33.1	33.1	44.6	31.6	31.6
Incr Delay (d2), s/veh	22.5	1.6	1.6	5.7	36.5	38.5	44.0	7.2	7.2	74.1	3.6	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	10.3	10.0	2.0	28.0	29.2	4.8	10.4	10.5	7.0	8.9	9.0
LnGrp Delay(d),s/veh	67.2	23.4	23.4	50.4	64.7	66.6	88.9	40.3	40.3	118.8	35.2	35.3
LnGrp LOS	E	C	C	D	F	F	F	D	D	F	D	D
Approach Vol, veh/h		1034			1643			999			850	
Approach Delay, s/veh		27.3			65.0			52.0			49.9	
Approach LOS		C			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	29.9	9.9	45.5	11.0	30.9	10.4	45.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	28.0	9.0	39.0	7.0	29.0	7.0	41.0
Max Q Clear Time (g_c+I1), s	10.0	20.8	5.6	22.2	8.7	18.9	6.9	43.0
Green Ext Time (p_c), s	0.0	4.7	0.0	13.1	0.0	6.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	50.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
71: Elsworth St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	40	1190	370	180	1820	50	310	220	100	50	330	90
Future Volume (veh/h)	40	1190	370	180	1820	50	310	220	100	50	330	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	1253	389	189	1916	53	326	232	105	53	347	95
Adj No. of Lanes	1	3	0	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	1471	456	225	2323	64	373	616	270	107	740	329
Arrive On Green	0.05	0.38	0.38	0.12	0.45	0.45	0.11	0.25	0.25	0.06	0.21	0.21
Sat Flow, veh/h	1810	3922	1216	1810	5189	143	3510	2440	1068	1810	3610	1603
Grp Volume(v), veh/h	42	1105	537	189	1276	693	326	170	167	53	347	95
Grp Sat Flow(s),veh/h/ln	1810	1729	1680	1810	1729	1874	1755	1805	1704	1810	1805	1603
Q Serve(g_s), s	1.9	24.8	24.9	8.6	27.3	27.4	7.7	6.6	6.9	2.4	7.2	4.2
Cycle Q Clear(g_c), s	1.9	24.8	24.9	8.6	27.3	27.4	7.7	6.6	6.9	2.4	7.2	4.2
Prop In Lane	1.00		0.72	1.00		0.08	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	94	1297	630	225	1548	839	373	456	430	107	740	329
V/C Ratio(X)	0.45	0.85	0.85	0.84	0.82	0.83	0.87	0.37	0.39	0.50	0.47	0.29
Avail Cap(c_a), veh/h	150	1348	655	235	1548	839	373	896	846	171	1749	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	24.3	24.3	36.2	20.5	20.5	37.3	26.1	26.2	38.6	29.6	28.4
Incr Delay (d2), s/veh	3.3	5.3	10.3	22.1	3.8	6.8	19.8	0.5	0.6	3.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	12.8	13.3	5.7	13.8	15.6	4.8	3.3	3.3	1.3	3.6	1.9
LnGrp Delay(d),s/veh	42.2	29.6	34.6	58.3	24.2	27.3	57.0	26.6	26.8	42.2	30.0	28.9
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		1684			2158			663			495	
Approach Delay, s/veh		31.5			28.2			41.6			31.1	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	25.4	14.5	35.7	13.0	21.4	8.4	41.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	42.0	11.0	33.0	9.0	41.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	4.4	8.9	10.6	26.9	9.7	9.2	3.9	29.4
Green Ext Time (p_c), s	0.0	5.2	0.0	4.9	0.0	5.2	0.0	7.3

Intersection Summary	
HCM 2010 Ctrl Delay	31.4
HCM 2010 LOS	C

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱	↰	↑↑	↰Y	
Traffic Volume (veh/h)	1310	150	10	960	1100	240
Future Volume (veh/h)	1310	150	10	960	1100	240
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1598	183	12	1171	1614	0
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1566	697	35	1762	1602	715
Arrive On Green	0.43	0.43	0.02	0.49	0.44	0.00
Sat Flow, veh/h	3705	1606	1810	3705	3619	1615
Grp Volume(v), veh/h	1598	183	12	1171	1614	0
Grp Sat Flow(s),veh/h/ln	1805	1606	1810	1805	1810	1615
Q Serve(g_s), s	50.0	8.4	0.8	28.3	51.0	0.0
Cycle Q Clear(g_c), s	50.0	8.4	0.8	28.3	51.0	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1566	697	35	1762	1602	715
V/C Ratio(X)	1.02	0.26	0.34	0.66	1.01	0.00
Avail Cap(c_a), veh/h	1566	697	110	1911	1602	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	20.8	55.8	22.4	32.1	0.0
Incr Delay (d2), s/veh	28.0	0.2	5.7	0.8	24.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.9	3.7	0.4	14.2	30.8	0.0
LnGrp Delay(d),s/veh	60.6	21.0	61.4	23.1	56.5	0.0
LnGrp LOS	F	C	E	C	F	
Approach Vol, veh/h	1781			1183	1614	
Approach Delay, s/veh	56.5			23.5	56.5	
Approach LOS	E			C	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		55.0	6.2	54.0				60.2
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		51.0	7.0	50.0				61.0
Max Q Clear Time (g_c+I1), s		53.0	2.8	52.0				30.3
Green Ext Time (p_c), s		0.0	0.0	0.0				24.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱	↱	↰↰	↑↱		↰	↱	↱	↰	↑↑	↱
Traffic Volume (veh/h)	0	910	630	120	370	0	600	40	880	30	60	10
Future Volume (veh/h)	0	910	630	120	370	0	600	40	880	30	60	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	906	711	128	394	0	638	0	965	32	64	0
Adj No. of Lanes	1	2	2	2	2	0	1	0	2	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	355	1092	921	261	597	0	620	0	1347	77	428	192
Arrive On Green	0.00	0.29	0.29	0.07	0.17	0.00	0.34	0.00	0.42	0.04	0.12	0.00
Sat Flow, veh/h	1810	3800	3202	3510	3705	0	1810	0	3218	1810	3610	1615
Grp Volume(v), veh/h	0	906	711	128	394	0	638	0	965	32	64	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1755	1805	0	1810	0	1609	1810	1805	1615
Q Serve(g_s), s	0.0	20.2	7.3	3.2	9.2	0.0	31.0	0.0	22.5	1.6	1.4	0.0
Cycle Q Clear(g_c), s	0.0	20.2	7.3	3.2	9.2	0.0	31.0	0.0	22.5	1.6	1.4	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	355	1092	921	261	597	0	620	0	1347	77	428	192
V/C Ratio(X)	0.00	0.83	0.77	0.49	0.66	0.00	1.03	0.00	0.72	0.41	0.15	0.00
Avail Cap(c_a), veh/h	355	1176	991	272	1117	0	620	0	2206	140	1517	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	30.1	4.6	40.2	35.4	0.0	29.7	0.0	21.8	42.2	35.8	0.0
Incr Delay (d2), s/veh	0.0	4.8	3.6	1.4	1.3	0.0	43.7	0.0	0.7	3.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.3	6.7	1.6	4.7	0.0	22.9	0.0	10.1	0.9	0.7	0.0
LnGrp Delay(d),s/veh	0.0	35.0	8.2	41.7	36.6	0.0	73.4	0.0	22.6	45.7	35.9	0.0
LnGrp LOS		C	A	D	D		F		C	D	D	
Approach Vol, veh/h		1617			522			1603			96	
Approach Delay, s/veh		23.2			37.8			42.8			39.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	41.9	10.7	30.0	35.0	14.7	21.8	19.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	62.0	7.0	28.0	31.0	38.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	3.6	24.5	5.2	22.2	33.0	3.4	0.0	11.2
Green Ext Time (p_c), s	0.0	7.7	0.1	3.8	0.0	0.3	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	200	1750	80	260	3000	620	110	850	220	130	260	50
Future Volume (veh/h)	200	1750	80	260	3000	620	110	850	220	130	260	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	215	1882	86	280	3226	667	118	914	237	140	280	54
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1920	595	227	1920	595	917	1171	521	167	562	249
Arrive On Green	0.06	0.37	0.37	0.06	0.37	0.37	0.26	0.32	0.32	0.09	0.16	0.16
Sat Flow, veh/h	3510	5187	1608	3510	5187	1608	3510	3610	1608	1810	3610	1599
Grp Volume(v), veh/h	215	1882	86	280	3226	667	118	914	237	140	280	54
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1729	1608	1755	1805	1608	1810	1805	1599
Q Serve(g_s), s	6.6	38.8	1.8	7.0	40.0	29.4	2.8	24.7	12.6	8.2	7.7	3.2
Cycle Q Clear(g_c), s	6.6	38.8	1.8	7.0	40.0	29.4	2.8	24.7	12.6	8.2	7.7	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	1920	595	227	1920	595	917	1171	521	167	562	249
V/C Ratio(X)	0.95	0.98	0.14	1.23	1.68	1.12	0.13	0.78	0.45	0.84	0.50	0.22
Avail Cap(c_a), veh/h	227	1920	595	227	1920	595	917	1570	699	167	1671	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	33.6	4.9	50.5	34.0	18.4	30.5	33.0	28.9	48.2	41.8	39.9
Incr Delay (d2), s/veh	44.5	16.0	0.1	136.2	308.3	74.5	0.1	1.8	0.6	29.2	0.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	21.3	0.8	7.7	73.8	25.2	1.4	12.6	5.7	5.5	3.9	1.4
LnGrp Delay(d),s/veh	94.9	49.7	5.1	186.7	342.3	92.9	30.6	34.9	29.5	77.4	42.4	40.3
LnGrp LOS	F	D	A	F	F	F	C	C	C	E	D	D
Approach Vol, veh/h		2183			4173			1269			474	
Approach Delay, s/veh		52.4			292.0			33.5			52.5	
Approach LOS		D			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	39.0	11.0	44.0	32.2	20.8	11.0	44.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	47.0	7.0	40.0	7.0	50.0	7.0	40.0
Max Q Clear Time (g_c+I1), s	10.2	26.7	9.0	40.8	4.8	9.7	8.6	42.0
Green Ext Time (p_c), s	0.0	7.3	0.0	0.0	1.5	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	172.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↰		↰	↰↑		
Traffic Volume (veh/h)	1100	0	790	120	0	0
Future Volume (veh/h)	1100	0	790	120	0	0
Number	7	14	5	2		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	0	1900	1900		
Adj Flow Rate, veh/h	1183	0	941	0		
Adj No. of Lanes	2	0	2	1		
Peak Hour Factor	0.93	0.93	0.93	0.93		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	0	0	3612	1212		
Arrive On Green	0.00	0.00	0.64	0.00		
Sat Flow, veh/h	0		3619	1900		
Grp Volume(v), veh/h	0.0		941	0		
Grp Sat Flow(s),veh/h/ln			1810	1900		
Q Serve(g_s), s			1.4	0.0		
Cycle Q Clear(g_c), s			1.4	0.0		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			3612	1212		
V/C Ratio(X)			0.26	0.00		
Avail Cap(c_a), veh/h			9817	4470		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	0.00		
Uniform Delay (d), s/veh			1.0	0.0		
Incr Delay (d2), s/veh			0.0	0.0		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.7	0.0		
LnGrp Delay(d),s/veh			1.0	0.0		
LnGrp LOS			A			
Approach Vol, veh/h				941		
Approach Delay, s/veh				1.0		
Approach LOS				A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						
Phs Duration (G+Y+Rc), s		11.1						
Change Period (Y+Rc), s		4.0						
Max Green Setting (Gmax), s		26.0						
Max Q Clear Time (g_c+I1), s		3.4						
Green Ext Time (p_c), s		3.6						

Intersection Summary	
HCM 2010 Ctrl Delay	1.0
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	50	860	250	290	1410	580	250	1590	340	260	930	100
Future Volume (veh/h)	50	860	250	290	1410	580	250	1590	340	260	930	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	896	260	302	1469	604	260	1656	354	271	969	104
Adj No. of Lanes	1	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	1093	632	354	1282	666	315	1456	812	206	1344	677
Arrive On Green	0.05	0.30	0.30	0.10	0.36	0.36	0.09	0.40	0.40	0.06	0.37	0.37
Sat Flow, veh/h	1810	3610	1607	3510	3610	1608	3510	3610	1609	3510	3610	1608
Grp Volume(v), veh/h	52	896	260	302	1469	604	260	1656	354	271	969	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1805	1608	1755	1805	1609	1755	1805	1608
Q Serve(g_s), s	3.4	27.4	14.0	10.1	42.3	42.0	8.7	48.0	16.6	7.0	27.4	4.8
Cycle Q Clear(g_c), s	3.4	27.4	14.0	10.1	42.3	42.0	8.7	48.0	16.6	7.0	27.4	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	1093	632	354	1282	666	315	1456	812	206	1344	677
V/C Ratio(X)	0.60	0.82	0.41	0.85	1.15	0.91	0.82	1.14	0.44	1.31	0.72	0.15
Avail Cap(c_a), veh/h	106	1122	645	354	1282	666	324	1456	812	206	1344	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	38.5	26.2	52.6	38.4	32.7	53.2	35.5	18.8	56.0	32.1	21.4
Incr Delay (d2), s/veh	6.3	4.8	0.4	17.9	75.1	16.2	15.4	70.8	0.4	170.8	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	14.4	6.2	5.8	34.4	21.6	4.9	38.2	7.5	8.3	14.0	2.1
LnGrp Delay(d),s/veh	61.8	43.3	26.6	70.6	113.5	48.9	68.7	106.3	19.1	226.9	34.0	21.5
LnGrp LOS	E	D	C	E	F	D	E	F	B	F	C	C
Approach Vol, veh/h		1208			2375			2270			1344	
Approach Delay, s/veh		40.5			91.6			88.4			71.9	
Approach LOS		D			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	52.0	16.0	40.0	14.7	48.3	9.7	46.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	48.0	12.0	37.0	11.0	44.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	9.0	50.0	12.1	29.4	10.7	29.4	5.4	44.3
Green Ext Time (p_c), s	0.0	0.0	0.0	6.5	0.0	13.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.4
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	170	1910	270	60	2540	0	220	90	40	10	50	170
Future Volume (veh/h)	170	1910	270	60	2540	0	220	90	40	10	50	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	181	2032	287	64	2702	0	234	96	43	11	53	181
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	2470	1101	104	2470	0	318	309	139	87	395	400
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	109	3610	1609	160	3705	0	1160	1242	556	209	1585	1605
Grp Volume(v), veh/h	181	2032	287	64	2702	0	234	0	139	64	0	181
Grp Sat Flow(s),veh/h/ln	109	1805	1609	160	1805	0	1160	0	1798	1795	0	1605
Q Serve(g_s), s	0.0	48.8	8.2	33.3	82.1	0.0	23.6	0.0	7.6	0.0	0.0	11.5
Cycle Q Clear(g_c), s	82.1	48.8	8.2	82.1	82.1	0.0	26.7	0.0	7.6	3.1	0.0	11.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.31	0.17		1.00
Lane Grp Cap(c), veh/h	60	2470	1101	104	2470	0	318	0	448	482	0	400
V/C Ratio(X)	3.02	0.82	0.26	0.61	1.09	0.00	0.73	0.00	0.31	0.13	0.00	0.45
Avail Cap(c_a), veh/h	60	2470	1101	104	2470	0	349	0	494	528	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	60.0	13.7	7.3	48.5	18.9	0.0	45.4	0.0	36.7	35.0	0.0	38.1
Incr Delay (d2), s/veh	950.4	3.2	0.6	2.4	43.0	0.0	7.2	0.0	0.4	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	25.1	3.8	2.2	54.9	0.0	8.2	0.0	3.8	1.7	0.0	5.2
LnGrp Delay(d),s/veh	1010.4	16.9	7.9	50.9	61.9	0.0	52.6	0.0	37.1	35.1	0.0	38.9
LnGrp LOS	F	B	A	D	F		D		D	D		D
Approach Vol, veh/h		2500			2766			373			245	
Approach Delay, s/veh		87.8			61.6			46.8			37.9	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.9		86.1		33.9		86.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		79.0		33.0		79.0
Max Q Clear Time (g_c+I1), s		28.7		84.1		13.5		84.1
Green Ext Time (p_c), s		1.2		0.0		2.6		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			70.8
HCM 2010 LOS			E

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	290	1530	20	340	2250	230	20	360	410	230	340	200
Future Volume (veh/h)	290	1530	20	340	2250	230	20	360	410	230	340	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	1700	22	378	2500	256	22	400	456	256	378	222
Adj No. of Lanes	2	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	247	1479	19	207	1622	723	184	477	588	159	452	381
Arrive On Green	0.07	0.41	0.41	0.11	0.45	0.45	0.10	0.25	0.25	0.09	0.24	0.24
Sat Flow, veh/h	3510	3649	47	1810	3610	1610	1810	1900	1605	1810	1900	1605
Grp Volume(v), veh/h	322	840	882	378	2500	256	22	400	456	256	378	222
Grp Sat Flow(s),veh/h/ln	1755	1805	1891	1810	1805	1610	1810	1900	1605	1810	1900	1605
Q Serve(g_s), s	8.0	46.0	46.0	13.0	51.0	11.8	1.3	22.7	12.3	10.0	21.5	11.3
Cycle Q Clear(g_c), s	8.0	46.0	46.0	13.0	51.0	11.8	1.3	22.7	12.3	10.0	21.5	11.3
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	731	766	207	1622	723	184	477	588	159	452	381
V/C Ratio(X)	1.30	1.15	1.15	1.82	1.54	0.35	0.12	0.84	0.78	1.61	0.84	0.58
Avail Cap(c_a), veh/h	247	731	766	207	1622	723	184	586	680	159	636	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	33.8	33.8	50.3	31.3	20.5	46.4	40.3	19.5	51.8	41.2	25.4
Incr Delay (d2), s/veh	162.0	82.1	82.8	389.2	246.8	0.3	0.3	8.8	4.9	299.9	6.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	39.4	41.5	28.8	80.8	5.3	0.6	13.0	11.4	18.2	12.1	5.5
LnGrp Delay(d),s/veh	214.8	115.9	116.5	439.5	278.1	20.8	46.7	49.1	24.3	351.7	48.0	26.8
LnGrp LOS	F	F	F	F	F	C	D	D	C	F	D	C
Approach Vol, veh/h		2044			3134			878			856	
Approach Delay, s/veh		131.7			276.5			36.2			133.3	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	32.5	17.0	50.0	15.5	31.0	12.0	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	35.0	13.0	46.0	7.0	38.0	8.0	51.0
Max Q Clear Time (g_c+I1), s	12.0	24.7	15.0	48.0	3.3	23.5	10.0	53.0
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	1.5	2.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	185.4
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	80	910	1170	260	1270	480	1330	1380	700	410	1020	100
Future Volume (veh/h)	80	910	1170	260	1270	480	1330	1380	700	410	1020	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	968	1245	277	1351	511	1415	1468	745	436	1085	106
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	1113	1552	205	1113	630	840	1504	765	293	1353	419
Arrive On Green	0.06	0.31	0.31	0.06	0.31	0.31	0.24	0.42	0.42	0.08	0.26	0.26
Sat Flow, veh/h	1810	3610	2829	3510	3610	1607	3510	3610	1609	3510	5187	1606
Grp Volume(v), veh/h	85	968	1245	277	1351	511	1415	1468	745	436	1085	106
Grp Sat Flow(s),veh/h/ln	1810	1805	1414	1755	1805	1607	1755	1805	1609	1755	1729	1606
Q Serve(g_s), s	5.6	30.4	8.6	7.0	37.0	25.2	28.7	48.0	50.0	10.0	23.5	6.3
Cycle Q Clear(g_c), s	5.6	30.4	8.6	7.0	37.0	25.2	28.7	48.0	50.0	10.0	23.5	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	1113	1552	205	1113	630	840	1504	765	293	1353	419
V/C Ratio(X)	0.81	0.87	0.80	1.35	1.21	0.81	1.69	0.98	0.97	1.49	0.80	0.25
Avail Cap(c_a), veh/h	106	1113	1552	205	1113	630	840	1504	765	293	1556	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	39.2	10.1	56.5	41.5	18.6	45.6	34.4	30.8	55.0	41.5	35.1
Incr Delay (d2), s/veh	35.0	7.6	3.1	187.3	104.6	7.9	313.5	17.7	26.2	238.0	2.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	16.4	11.4	8.7	34.6	12.5	50.4	27.6	29.6	14.5	11.6	2.8
LnGrp Delay(d),s/veh	90.8	46.8	13.3	243.8	146.1	26.4	359.2	52.1	57.0	293.0	44.2	35.4
LnGrp LOS	F	D	B	F	F	C	F	D	E	F	D	D
Approach Vol, veh/h		2298			2139			3628			1627	
Approach Delay, s/veh		30.3			130.2			172.9			110.3	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	54.0	11.0	41.0	32.7	35.3	11.0	41.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	50.0	7.0	37.0	24.0	36.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	12.0	52.0	9.0	32.4	30.7	25.5	7.6	39.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.9	0.0	5.3	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			119.1
HCM 2010 LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	780	1000	330	190	1510	440	380	190	160	120	60	290
Future Volume (veh/h)	780	1000	330	190	1510	440	380	190	160	120	60	290
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	780	1000	330	190	1510	440	380	190	160	120	60	290
Adj No. of Lanes	1	3	1	1	3	1	2	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	395	2328	825	223	1835	657	223	728	522	99	696	661
Arrive On Green	0.22	0.45	0.45	0.12	0.35	0.35	0.06	0.20	0.20	0.05	0.19	0.19
Sat Flow, veh/h	1810	5187	1610	1810	5187	1608	3510	3610	1603	1810	3610	1602
Grp Volume(v), veh/h	780	1000	330	190	1510	440	380	190	160	120	60	290
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1608	1755	1805	1603	1810	1805	1602
Q Serve(g_s), s	24.0	14.5	13.8	11.3	29.2	24.5	7.0	4.9	8.2	6.0	1.5	14.3
Cycle Q Clear(g_c), s	24.0	14.5	13.8	11.3	29.2	24.5	7.0	4.9	8.2	6.0	1.5	14.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	2328	825	223	1835	657	223	728	522	99	696	661
V/C Ratio(X)	1.98	0.43	0.40	0.85	0.82	0.67	1.70	0.26	0.31	1.22	0.09	0.44
Avail Cap(c_a), veh/h	395	2328	825	329	1835	657	223	1126	698	99	1083	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	20.7	16.4	47.3	32.4	26.5	51.5	37.0	27.9	52.0	36.5	23.3
Incr Delay (d2), s/veh	447.4	0.5	1.3	6.5	2.0	2.5	333.9	0.2	0.3	159.6	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	61.0	7.0	6.4	6.1	14.2	11.3	13.7	2.4	3.7	7.4	0.8	6.4
LnGrp Delay(d),s/veh	490.4	21.2	17.8	53.8	34.4	29.0	385.4	37.2	28.2	211.6	36.5	23.8
LnGrp LOS	F	C	B	D	C	C	F	D	C	F	D	C
Approach Vol, veh/h		2110			2140			730			470	
Approach Delay, s/veh		194.1			35.0			216.5			73.4	
Approach LOS		F			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	55.4	11.0	26.1	28.0	44.9	10.0	27.1
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	20.0	31.1	7.0	33.0	24.0	27.1	6.0	* 34
Max Q Clear Time (g_c+I1), s	13.3	16.5	9.0	16.3	26.0	31.2	8.0	10.2
Green Ext Time (p_c), s	0.3	13.0	0.0	2.9	0.0	0.0	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	124.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	240	370	270	100	490	140	380	880	100	100	840	260
Future Volume (veh/h)	240	370	270	100	490	140	380	880	100	100	840	260
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	370	270	100	490	140	380	880	100	100	840	260
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	563	405	126	671	191	280	1417	161	126	1259	561
Arrive On Green	0.11	0.28	0.28	0.07	0.24	0.24	0.15	0.43	0.43	0.05	0.23	0.23
Sat Flow, veh/h	1810	2002	1440	1810	2773	787	1810	3267	371	1810	3610	1608
Grp Volume(v), veh/h	240	333	307	100	318	312	380	486	494	100	840	260
Grp Sat Flow(s),veh/h/ln	1810	1805	1637	1810	1805	1755	1810	1805	1833	1810	1805	1608
Q Serve(g_s), s	12.0	17.9	18.2	6.0	17.8	18.0	17.0	23.0	23.0	6.0	23.2	15.3
Cycle Q Clear(g_c), s	12.0	17.9	18.2	6.0	17.8	18.0	17.0	23.0	23.0	6.0	23.2	15.3
Prop In Lane	1.00		0.88	1.00		0.45	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	197	508	461	126	437	425	280	783	795	126	1259	561
V/C Ratio(X)	1.22	0.66	0.67	0.79	0.73	0.73	1.36	0.62	0.62	0.79	0.67	0.46
Avail Cap(c_a), veh/h	197	509	461	197	509	495	280	783	795	148	1259	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	49.0	34.8	35.0	50.4	38.3	38.4	46.5	24.1	24.1	51.7	36.3	33.3
Incr Delay (d2), s/veh	134.3	3.0	3.6	11.0	4.4	4.7	183.0	3.7	3.6	20.8	2.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	9.3	8.7	3.4	9.5	9.3	22.7	12.1	12.3	3.7	12.1	7.2
LnGrp Delay(d),s/veh	183.3	37.9	38.6	61.4	42.7	43.2	229.5	27.8	27.8	72.5	39.0	35.9
LnGrp LOS	F	D	D	E	D	D	F	C	C	E	D	D
Approach Vol, veh/h		880			730			1360			1200	
Approach Delay, s/veh		77.8			45.5			84.1			41.1	
Approach LOS		E			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	51.7	11.7	35.0	21.0	42.4	16.0	30.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	42.0	12.0	31.0	17.0	34.0	12.0	31.0
Max Q Clear Time (g_c+I1), s	8.0	25.0	8.0	20.2	19.0	25.2	14.0	20.0
Green Ext Time (p_c), s	0.0	11.6	0.1	5.8	0.0	6.8	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	63.6
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	80	520	80	230	830	200	150	360	190	400	630	200
Future Volume (veh/h)	80	520	80	230	830	200	150	360	190	400	630	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	542	83	240	865	208	156	375	198	417	656	208
Adj No. of Lanes	2	2	1	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	1151	513	273	827	630	185	720	320	346	778	246
Arrive On Green	0.03	0.32	0.32	0.15	0.44	0.44	0.10	0.20	0.20	0.19	0.29	0.29
Sat Flow, veh/h	3510	3610	1607	1810	1900	1448	1810	3610	1603	1810	2693	853
Grp Volume(v), veh/h	83	542	83	240	865	208	156	375	198	417	440	424
Grp Sat Flow(s),veh/h/ln	1755	1805	1607	1810	1900	1448	1810	1805	1603	1810	1805	1741
Q Serve(g_s), s	2.7	13.8	4.3	14.9	50.0	10.9	9.7	10.7	13.0	22.0	26.3	26.4
Cycle Q Clear(g_c), s	2.7	13.8	4.3	14.9	50.0	10.9	9.7	10.7	13.0	22.0	26.3	26.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	122	1151	513	273	827	630	185	720	320	346	521	503
V/C Ratio(X)	0.68	0.47	0.16	0.88	1.05	0.33	0.84	0.52	0.62	1.20	0.84	0.84
Avail Cap(c_a), veh/h	122	1151	513	394	827	630	220	879	390	346	565	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	31.4	28.1	47.8	32.5	21.4	50.7	41.1	42.0	46.5	38.4	38.4
Incr Delay (d2), s/veh	14.1	0.3	0.1	14.7	44.1	0.3	21.8	0.6	2.1	116.0	10.5	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.9	1.9	8.6	36.3	4.4	6.0	5.4	5.9	22.1	14.6	14.1
LnGrp Delay(d),s/veh	69.0	31.7	28.2	62.4	76.6	21.7	72.5	41.7	44.1	162.5	49.0	49.4
LnGrp LOS	E	C	C	E	F	C	E	D	D	F	D	D
Approach Vol, veh/h		708			1313			729			1281	
Approach Delay, s/veh		35.6			65.3			48.9			86.1	
Approach LOS		D			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	26.9	21.3	40.7	15.7	37.2	8.0	54.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	28.0	25.0	29.0	14.0	36.0	4.0	50.0
Max Q Clear Time (g_c+I1), s	24.0	15.0	16.9	15.8	11.7	28.4	4.7	52.0
Green Ext Time (p_c), s	0.0	7.1	0.4	8.7	0.1	4.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	63.7
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
132: San Timoteo Canyon Rd & Alessandro Rd

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰↱	
Traffic Volume (veh/h)	20	580	1090	180	240	50
Future Volume (veh/h)	20	580	1090	180	240	50
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	598	1124	186	247	0
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	112	1933	1773	292	341	0
Arrive On Green	0.57	0.57	0.57	0.57	0.19	0.00
Sat Flow, veh/h	36	3468	3198	512	1803	0
Grp Volume(v), veh/h	324	295	652	658	248	0
Grp Sat Flow(s),veh/h/ln	1775	1643	1805	1810	1810	0
Q Serve(g_s), s	0.0	3.9	10.1	10.2	5.4	0.0
Cycle Q Clear(g_c), s	3.7	3.9	10.1	10.2	5.4	0.0
Prop In Lane	0.06			0.28	1.00	0.00
Lane Grp Cap(c), veh/h	1106	939	1032	1034	342	0
V/C Ratio(X)	0.29	0.31	0.63	0.64	0.73	0.00
Avail Cap(c_a), veh/h	1372	1220	1340	1344	824	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	4.6	4.7	6.0	6.0	15.9	0.0
Incr Delay (d2), s/veh	0.1	0.2	0.6	0.7	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.8	5.1	5.1	3.0	0.0
LnGrp Delay(d),s/veh	4.8	4.9	6.6	6.7	18.8	0.0
LnGrp LOS	A	A	A	A	B	
Approach Vol, veh/h		619	1310		248	
Approach Delay, s/veh		4.8	6.7		18.8	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				28.9		12.9		28.9
Change Period (Y+Rc), s				5.0		5.0		5.0
Max Green Setting (Gmax), s				31.0		19.0		31.0
Max Q Clear Time (g_c+I1), s				5.9		7.4		12.2
Green Ext Time (p_c), s				13.9		0.5		11.6

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
133: Live Oak Canyon & San Timoteo Canyon Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣		↰	↱	
Traffic Volume (veh/h)	10	750	30	0	1100	100	20	10	10	210	10	150
Future Volume (veh/h)	10	750	30	0	1100	100	20	10	10	210	10	150
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	789	32	0	1158	105	21	11	11	221	11	158
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	926	37	0	1192	108	131	69	48	331	21	295
Arrive On Green	0.69	0.69	0.69	0.00	0.69	0.69	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	2	1333	53	0	1717	156	368	356	249	1412	106	1525
Grp Volume(v), veh/h	832	0	0	0	0	1263	43	0	0	221	0	169
Grp Sat Flow(s),veh/h/ln	1389	0	0	0	0	1873	973	0	0	1412	0	1631
Q Serve(g_s), s	5.4	0.0	0.0	0.0	0.0	56.6	0.2	0.0	0.0	6.6	0.0	8.3
Cycle Q Clear(g_c), s	62.0	0.0	0.0	0.0	0.0	56.6	8.5	0.0	0.0	15.1	0.0	8.3
Prop In Lane	0.01		0.04	0.00		0.08	0.49		0.26	1.00		0.93
Lane Grp Cap(c), veh/h	1005	0	0	0	0	1300	248	0	0	331	0	316
V/C Ratio(X)	0.83	0.00	0.00	0.00	0.00	0.97	0.17	0.00	0.00	0.67	0.00	0.54
Avail Cap(c_a), veh/h	1005	0	0	0	0	1300	260	0	0	342	0	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.6	0.0	0.0	0.0	0.0	12.8	30.0	0.0	0.0	35.5	0.0	32.4
Incr Delay (d2), s/veh	5.8	0.0	0.0	0.0	0.0	18.5	0.3	0.0	0.0	4.7	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	0.0	0.0	0.0	0.0	35.1	0.9	0.0	0.0	5.7	0.0	3.9
LnGrp Delay(d),s/veh	18.5	0.0	0.0	0.0	0.0	31.3	30.3	0.0	0.0	40.2	0.0	33.9
LnGrp LOS	B					C	C			D		C
Approach Vol, veh/h		832			1263			43			390	
Approach Delay, s/veh		18.5			31.3			30.3			37.5	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		67.0		22.3		67.0		22.3
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		62.0		18.0		62.0		18.0
Max Q Clear Time (g_c+I1), s		58.6		10.5		64.0		17.1
Green Ext Time (p_c), s		3.1		1.1		0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
12: Theodore St & Ironwood Ave

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↑	↱	↰	↑
Traffic Volume (veh/h)	440	70	140	370	120	150
Future Volume (veh/h)	440	70	140	370	120	150
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	518	82	165	435	141	176
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	622	99	698	593	460	698
Arrive On Green	0.41	0.41	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1534	243	1900	1615	832	1900
Grp Volume(v), veh/h	601	0	165	435	141	176
Grp Sat Flow(s),veh/h/ln	1779	0	1900	1615	832	1900
Q Serve(g_s), s	10.7	0.0	2.1	8.2	5.0	2.3
Cycle Q Clear(g_c), s	10.7	0.0	2.1	8.2	7.1	2.3
Prop In Lane	0.86	0.14		1.00	1.00	
Lane Grp Cap(c), veh/h	722	0	698	593	460	698
V/C Ratio(X)	0.83	0.00	0.24	0.73	0.31	0.25
Avail Cap(c_a), veh/h	1211	0	970	825	579	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	7.7	9.7	10.2	7.8
Incr Delay (d2), s/veh	2.6	0.0	0.2	2.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	1.1	4.0	1.2	1.2
LnGrp Delay(d),s/veh	12.0	0.0	7.9	11.8	10.6	8.0
LnGrp LOS	B		A	B	B	A
Approach Vol, veh/h	601		600			317
Approach Delay, s/veh	12.0		10.7			9.1
Approach LOS	B		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		16.9				16.9		18.3
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		18.0				18.0		24.0
Max Q Clear Time (g_c+I1), s		10.2				9.1		12.7
Green Ext Time (p_c), s		2.6				2.8		1.6

Intersection Summary		
HCM 2010 Ctrl Delay		10.9
HCM 2010 LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
25: Moreno Beach Dr & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	160	510	200	50	290	130	120	800	70	190	1020	200
Future Volume (veh/h)	160	510	200	50	290	130	120	800	70	190	1020	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	630	247	62	358	160	148	988	86	235	1259	247
Adj No. of Lanes	2	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	254	847	332	106	782	344	180	1420	123	270	1488	292
Arrive On Green	0.07	0.33	0.33	0.06	0.32	0.32	0.10	0.29	0.29	0.15	0.34	0.34
Sat Flow, veh/h	3510	2532	992	1810	2438	1072	1810	4859	422	1810	4350	853
Grp Volume(v), veh/h	198	449	428	62	263	255	148	703	371	235	1001	505
Grp Sat Flow(s),veh/h/ln	1755	1805	1720	1810	1805	1705	1810	1729	1823	1810	1729	1745
Q Serve(g_s), s	5.4	21.3	21.3	3.2	11.2	11.5	7.8	17.5	17.5	12.3	25.9	25.9
Cycle Q Clear(g_c), s	5.4	21.3	21.3	3.2	11.2	11.5	7.8	17.5	17.5	12.3	25.9	25.9
Prop In Lane	1.00		0.58	1.00		0.63	1.00		0.23	1.00		0.49
Lane Grp Cap(c), veh/h	254	604	575	106	579	547	180	1011	533	270	1183	597
V/C Ratio(X)	0.78	0.74	0.74	0.58	0.45	0.47	0.82	0.70	0.70	0.87	0.85	0.85
Avail Cap(c_a), veh/h	254	784	747	131	784	740	206	1011	533	318	1215	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	28.5	28.5	44.4	26.1	26.2	42.7	30.4	30.4	40.2	29.5	29.5
Incr Delay (d2), s/veh	14.3	2.8	2.9	5.0	0.6	0.6	20.7	2.1	4.0	19.8	5.6	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	11.1	10.6	1.8	5.7	5.5	4.9	8.6	9.4	7.6	13.3	14.2
LnGrp Delay(d),s/veh	58.4	31.3	31.5	49.4	26.7	26.8	63.4	32.5	34.4	60.1	35.1	39.9
LnGrp LOS	E	C	C	D	C	C	E	C	C	E	D	D
Approach Vol, veh/h		1075			580			1222			1741	
Approach Delay, s/veh		36.4			29.2			36.8			39.9	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	32.3	9.7	36.4	13.6	37.1	11.0	35.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	28.0	7.0	42.0	11.0	34.0	7.0	42.0
Max Q Clear Time (g_c+I1), s	14.3	19.5	5.2	23.3	9.8	27.9	7.4	13.5
Green Ext Time (p_c), s	0.2	7.3	0.0	7.7	0.0	5.2	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	36.9
HCM 2010 LOS	D

27: John F Kennedy Dr/Redlands Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	120	330	80	180	170	240	120	170	490	160	320	90
Future Volume (veh/h)	120	330	80	180	170	240	120	170	490	160	320	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	384	93	209	198	279	140	198	570	186	372	105
Adj No. of Lanes	1	2	0	2	1	0	1	2	0	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	192	852	204	401	216	304	394	701	623	158	1082	302
Arrive On Green	0.11	0.30	0.30	0.11	0.30	0.30	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1810	2887	692	3510	713	1004	930	1805	1605	711	2787	777
Grp Volume(v), veh/h	140	239	238	209	0	477	140	198	570	186	239	238
Grp Sat Flow(s),veh/h/ln	1810	1805	1774	1755	0	1717	930	1805	1605	711	1805	1759
Q Serve(g_s), s	4.4	6.4	6.5	3.3	0.0	15.9	7.4	4.5	20.0	3.0	5.5	5.7
Cycle Q Clear(g_c), s	4.4	6.4	6.5	3.3	0.0	15.9	13.1	4.5	20.0	23.0	5.5	5.7
Prop In Lane	1.00		0.39	1.00		0.58	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	192	533	523	401	0	520	394	701	623	158	701	683
V/C Ratio(X)	0.73	0.45	0.46	0.52	0.00	0.92	0.36	0.28	0.92	1.18	0.34	0.35
Avail Cap(c_a), veh/h	214	548	539	415	0	522	394	701	623	158	701	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	17.0	17.0	24.7	0.0	19.9	17.5	12.5	17.2	29.3	12.8	12.8
Incr Delay (d2), s/veh	10.6	0.6	0.6	1.1	0.0	21.1	0.5	0.2	18.3	127.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.3	3.3	1.7	0.0	10.5	2.0	2.2	11.9	8.1	2.8	2.8
LnGrp Delay(d),s/veh	36.2	17.6	17.6	25.8	0.0	41.0	18.0	12.7	35.5	157.1	13.1	13.1
LnGrp LOS	D	B	B	C		D	B	B	D	F	B	B
Approach Vol, veh/h		617			686			908			663	
Approach Delay, s/veh		21.8			36.4			27.8			53.5	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		27.0	10.8	21.5		27.0	10.3	22.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		23.0	7.0	18.0		23.0	7.0	18.0
Max Q Clear Time (g_c+I1), s		22.0	5.3	8.5		25.0	6.4	17.9
Green Ext Time (p_c), s		0.8	0.1	3.7		0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↰↱		↰	↑↑↑	↱	↰	↑↑↱	
Traffic Volume (veh/h)	20	10	10	320	20	50	20	890	700	200	950	60
Future Volume (veh/h)	20	10	10	320	20	50	20	890	700	200	950	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	12	12	400	25	62	25	1112	875	250	1188	75
Adj No. of Lanes	1	2	0	2	1	0	1	3	1	1	3	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	157	133	622	83	205	68	1961	886	295	2512	159
Arrive On Green	0.09	0.09	0.09	0.17	0.17	0.17	0.04	0.38	0.38	0.16	0.50	0.50
Sat Flow, veh/h	1810	1838	1560	3619	482	1195	1810	5187	1609	1810	4987	315
Grp Volume(v), veh/h	25	12	12	400	0	87	25	1112	875	250	824	439
Grp Sat Flow(s),veh/h/ln	1810	1805	1593	1810	0	1677	1810	1729	1609	1810	1729	1843
Q Serve(g_s), s	1.0	0.5	0.6	8.2	0.0	3.6	1.1	13.5	30.0	10.6	12.3	12.3
Cycle Q Clear(g_c), s	1.0	0.5	0.6	8.2	0.0	3.6	1.1	13.5	30.0	10.6	12.3	12.3
Prop In Lane	1.00		0.98	1.00		0.71	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	155	154	136	622	0	288	68	1961	886	295	1742	929
V/C Ratio(X)	0.16	0.08	0.09	0.64	0.00	0.30	0.37	0.57	0.99	0.85	0.47	0.47
Avail Cap(c_a), veh/h	1003	1001	883	1870	0	866	160	1961	886	433	1830	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	33.4	33.4	30.6	0.0	28.7	37.3	19.5	14.8	32.2	12.8	12.8
Incr Delay (d2), s/veh	0.5	0.2	0.3	1.1	0.0	0.6	3.3	0.4	27.2	9.9	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.3	4.2	0.0	1.7	0.6	6.5	25.7	6.2	5.9	6.3
LnGrp Delay(d),s/veh	34.1	33.6	33.7	31.7	0.0	29.3	40.6	19.9	42.0	42.2	13.0	13.2
LnGrp LOS	C	C	C	C		C	D	B	D	D	B	B
Approach Vol, veh/h		49			487			2012			1513	
Approach Delay, s/veh		33.9			31.3			29.8			17.9	
Approach LOS		C			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.9	34.0		10.8	7.0	44.0		17.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	19.0	30.0		44.0	7.0	42.0		41.0				
Max Q Clear Time (g_c+I1), s	12.6	32.0		3.0	3.1	14.3		10.2				
Green Ext Time (p_c), s	0.4	0.0		0.2	0.0	22.1		1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			25.6									
HCM 2010 LOS			C									
Notes												

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱↱	↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	590	710	440	80	190	1010	180	1330	170	790	1010	290
Future Volume (veh/h)	590	710	440	80	190	1010	180	1330	170	790	1010	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	608	732	454	82	196	1041	186	1371	175	814	1041	299
Adj No. of Lanes	2	2	1	1	1	2	1	3	0	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	669	1114	496	104	334	1043	215	1412	180	672	1357	911
Arrive On Green	0.19	0.31	0.31	0.06	0.18	0.18	0.12	0.30	0.30	0.13	0.25	0.25
Sat Flow, veh/h	3510	3610	1607	1810	1900	2842	1810	4656	594	3510	3610	1604
Grp Volume(v), veh/h	608	732	454	82	196	1041	186	1018	528	814	1041	299
Grp Sat Flow(s),veh/h/ln	1755	1805	1607	1810	1900	1421	1810	1729	1792	1755	1805	1604
Q Serve(g_s), s	19.5	20.2	31.3	5.1	10.9	20.2	11.6	33.4	33.5	22.0	30.7	12.7
Cycle Q Clear(g_c), s	19.5	20.2	31.3	5.1	10.9	20.2	11.6	33.4	33.5	22.0	30.7	12.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	669	1114	496	104	334	1043	215	1049	543	672	1357	911
V/C Ratio(X)	0.91	0.66	0.92	0.79	0.59	1.00	0.87	0.97	0.97	1.21	0.77	0.33
Avail Cap(c_a), veh/h	702	1130	503	110	334	1043	236	1049	543	672	1357	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.58	0.58	0.58	0.54	0.54	0.54
Uniform Delay (d), s/veh	45.6	34.5	38.3	53.5	43.6	36.4	49.8	39.6	39.6	50.1	38.3	16.3
Incr Delay (d2), s/veh	15.4	1.4	21.3	29.3	2.7	27.4	16.5	15.3	23.1	103.1	2.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	10.3	16.7	3.4	6.0	20.4	6.8	18.2	20.1	20.3	15.8	5.8
LnGrp Delay(d),s/veh	60.9	35.8	59.6	82.8	46.2	63.7	66.2	54.8	62.7	153.3	40.7	16.8
LnGrp LOS	E	D	E	F	D	E	E	D	E	F	D	B
Approach Vol, veh/h		1794			1319			1732			2154	
Approach Delay, s/veh		50.4			62.3			58.4			79.9	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	38.9	10.6	39.5	17.6	47.2	25.9	24.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	34.0	7.0	36.0	15.0	41.0	23.0	20.0
Max Q Clear Time (g_c+I1), s	24.0	35.5	7.1	33.3	13.6	32.7	21.5	22.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.1	7.5	0.4	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	63.7
HCM 2010 LOS	E

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Volume (veh/h)	50	530	110	20	530	220
Future Volume (veh/h)	50	530	110	20	530	220
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	564	117	21	564	234
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	775	658	513	775	683	610
Arrive On Green	0.41	0.41	0.41	0.41	0.38	0.38
Sat Flow, veh/h	1900	1615	819	1900	1810	1615
Grp Volume(v), veh/h	53	564	117	21	564	234
Grp Sat Flow(s),veh/h/ln	1900	1615	819	1900	1810	1615
Q Serve(g_s), s	0.6	11.8	3.8	0.2	10.5	3.9
Cycle Q Clear(g_c), s	0.6	11.8	4.4	0.2	10.5	3.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	775	658	513	775	683	610
V/C Ratio(X)	0.07	0.86	0.23	0.03	0.83	0.38
Avail Cap(c_a), veh/h	918	780	575	918	922	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.7	10.0	8.1	6.6	10.5	8.4
Incr Delay (d2), s/veh	0.0	8.2	0.2	0.0	4.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.7	0.9	0.1	6.0	1.8
LnGrp Delay(d),s/veh	6.8	18.2	8.3	6.6	15.1	8.8
LnGrp LOS	A	B	A	A	B	A
Approach Vol, veh/h	617			138	798	
Approach Delay, s/veh	17.3			8.0	13.2	
Approach LOS	B			A	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		18.1		19.2				19.2
Change Period (Y+Rc), s		4.0		4.0				4.0
Max Green Setting (Gmax), s		19.0		18.0				18.0
Max Q Clear Time (g_c+I1), s		12.5		13.8				6.4
Green Ext Time (p_c), s		1.6		1.4				2.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	150	220	110	240	250	50	100	620	380	20	550	100
Future Volume (veh/h)	150	220	110	240	250	50	100	620	380	20	550	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	197	289	145	316	329	66	132	816	500	26	724	132
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	232	381	186	358	696	138	170	876	530	129	1167	213
Arrive On Green	0.13	0.16	0.16	0.20	0.23	0.23	0.09	0.41	0.41	0.07	0.38	0.38
Sat Flow, veh/h	1810	2345	1145	1810	3001	595	1810	2161	1307	1810	3049	556
Grp Volume(v), veh/h	197	221	213	316	196	199	132	680	636	26	429	427
Grp Sat Flow(s),veh/h/ln	1810	1805	1685	1810	1805	1791	1810	1805	1664	1810	1805	1799
Q Serve(g_s), s	10.5	11.4	11.9	16.7	9.2	9.4	7.0	35.2	36.1	1.3	18.9	18.9
Cycle Q Clear(g_c), s	10.5	11.4	11.9	16.7	9.2	9.4	7.0	35.2	36.1	1.3	18.9	18.9
Prop In Lane	1.00		0.68	1.00		0.33	1.00		0.79	1.00		0.31
Lane Grp Cap(c), veh/h	232	293	274	358	419	415	170	732	674	129	691	689
V/C Ratio(X)	0.85	0.75	0.78	0.88	0.47	0.48	0.78	0.93	0.94	0.20	0.62	0.62
Avail Cap(c_a), veh/h	313	386	361	387	460	456	406	736	678	406	736	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	39.2	39.4	38.2	32.5	32.6	43.4	27.8	28.1	42.9	24.5	24.5
Incr Delay (d2), s/veh	14.9	5.8	7.8	19.6	0.8	0.9	7.4	18.1	21.7	0.8	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	6.2	6.1	10.3	4.7	4.7	3.8	21.2	20.5	0.7	9.7	9.7
LnGrp Delay(d),s/veh	56.7	45.0	47.2	57.9	33.3	33.4	50.8	45.9	49.8	43.7	26.0	26.0
LnGrp LOS	E	D	D	E	C	C	D	D	D	D	C	C
Approach Vol, veh/h		631			711			1448			882	
Approach Delay, s/veh		49.4			44.2			48.1			26.5	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	43.8	23.4	19.9	13.2	41.6	16.6	26.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	22.0	40.0	21.0	21.0	22.0	40.0	17.0	25.0
Max Q Clear Time (g_c+I1), s	3.3	38.1	18.7	13.9	9.0	20.9	12.5	11.4
Green Ext Time (p_c), s	0.0	1.6	0.8	1.3	0.2	12.5	0.2	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
39: Perris Blvd & Iris Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰↰	↑↑↱		↰	↑↑↑	↱	↰↰	↑↑↑↱	
Traffic Volume (veh/h)	30	200	80	200	250	140	300	1560	440	220	960	20
Future Volume (veh/h)	30	200	80	200	250	140	300	1560	440	220	960	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	227	91	227	284	159	341	1773	500	250	1091	23
Adj No. of Lanes	1	2	0	2	2	0	1	3	1	2	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	471	183	281	498	271	376	2374	737	327	1793	38
Arrive On Green	0.05	0.19	0.19	0.08	0.22	0.22	0.21	0.46	0.46	0.09	0.34	0.34
Sat Flow, veh/h	1810	2537	985	3510	2253	1226	1810	5187	1610	3510	5228	110
Grp Volume(v), veh/h	34	159	159	227	226	217	341	1773	500	250	722	392
Grp Sat Flow(s),veh/h/ln	1810	1805	1717	1755	1805	1674	1810	1729	1610	1755	1729	1880
Q Serve(g_s), s	1.6	6.9	7.2	5.6	9.7	10.1	16.1	24.6	21.3	6.1	15.1	15.1
Cycle Q Clear(g_c), s	1.6	6.9	7.2	5.6	9.7	10.1	16.1	24.6	21.3	6.1	15.1	15.1
Prop In Lane	1.00		0.57	1.00		0.73	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	81	335	319	281	399	370	376	2374	737	327	1186	645
V/C Ratio(X)	0.42	0.48	0.50	0.81	0.57	0.59	0.91	0.75	0.68	0.76	0.61	0.61
Avail Cap(c_a), veh/h	145	765	727	281	765	709	394	2435	756	362	1227	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	31.8	31.9	39.5	30.3	30.5	33.8	19.5	18.6	38.7	23.8	23.8
Incr Delay (d2), s/veh	3.4	1.0	1.2	15.8	1.3	1.5	23.4	1.3	2.4	8.5	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.6	3.5	3.3	5.0	4.9	10.5	11.9	9.8	3.3	7.4	8.1
LnGrp Delay(d),s/veh	44.0	32.8	33.1	55.3	31.6	31.9	57.2	20.8	21.0	47.2	24.7	25.4
LnGrp LOS	D	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		352			670			2614			1364	
Approach Delay, s/veh		34.0			39.7			25.6			29.0	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	44.0	11.0	20.2	22.2	33.9	7.9	23.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	41.0	7.0	37.0	19.0	31.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	8.1	26.6	7.6	9.2	18.1	17.1	3.6	12.1
Green Ext Time (p_c), s	0.1	13.1	0.0	4.3	0.1	12.7	0.0	4.2

Intersection Summary			
HCM 2010 Ctrl Delay			29.0
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
41: Lasselle St & Iris Ave

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	230	1130	460	1080	1100	160	290	550	940	430	810	100
Future Volume (veh/h)	230	1130	460	1080	1100	160	290	550	940	430	810	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	247	1215	495	1161	1183	172	312	591	1011	462	871	108
Adj No. of Lanes	2	3	1	3	3	0	2	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	297	1252	387	1238	1826	265	329	1089	876	376	1018	126
Arrive On Green	0.08	0.24	0.24	0.24	0.40	0.40	0.09	0.30	0.30	0.11	0.32	0.32
Sat Flow, veh/h	3510	5187	1605	5103	4573	665	3510	3610	1607	3510	3231	401
Grp Volume(v), veh/h	247	1215	495	1161	894	461	312	591	1011	462	487	492
Grp Sat Flow(s),veh/h/ln	1755	1729	1605	1701	1729	1780	1755	1805	1607	1755	1805	1827
Q Serve(g_s), s	10.3	34.6	36.0	33.3	31.3	31.3	13.2	20.4	45.0	16.0	37.7	37.7
Cycle Q Clear(g_c), s	10.3	34.6	36.0	33.3	31.3	31.3	13.2	20.4	45.0	16.0	37.7	37.7
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	297	1252	387	1238	1381	711	329	1089	876	376	569	576
V/C Ratio(X)	0.83	0.97	1.28	0.94	0.65	0.65	0.95	0.54	1.15	1.23	0.86	0.86
Avail Cap(c_a), veh/h	376	1252	387	1266	1381	711	329	1089	876	376	569	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	56.1	56.6	55.4	36.3	36.3	67.2	43.5	34.1	66.6	47.9	47.9
Incr Delay (d2), s/veh	12.0	18.8	143.7	13.0	1.1	2.1	35.8	0.6	82.1	123.6	12.2	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	18.7	31.4	17.2	15.1	15.8	8.1	10.3	55.8	14.2	20.7	20.9
LnGrp Delay(d),s/veh	79.3	74.8	200.3	68.4	37.4	38.4	103.0	44.1	116.1	190.2	60.1	60.0
LnGrp LOS	E	E	F	E	D	D	F	D	F	F	E	E
Approach Vol, veh/h		1957			2516			1914			1441	
Approach Delay, s/veh		107.1			51.9			91.7			101.8	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	49.0	40.2	40.0	18.0	51.0	16.6	63.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	45.0	37.0	36.0	14.0	47.0	16.0	57.0
Max Q Clear Time (g_c+I1), s	18.0	47.0	35.3	38.0	15.2	39.7	12.3	33.3
Green Ext Time (p_c), s	0.0	0.0	0.9	0.0	0.0	6.2	0.3	19.1

Intersection Summary			
HCM 2010 Ctrl Delay			84.6
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
51: Nason St & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑↑↱		↰	↑↑↑	↱
Traffic Volume (veh/h)	360	550	570	40	430	40	450	1180	90	40	1100	190
Future Volume (veh/h)	360	550	570	40	430	40	450	1180	90	40	1100	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	462	705	731	51	551	51	577	1513	115	51	1410	244
Adj No. of Lanes	2	3	1	2	2	1	1	3	0	1	3	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	400	1669	983	145	899	467	522	2401	182	75	1252	571
Arrive On Green	0.11	0.32	0.32	0.04	0.25	0.25	0.29	0.49	0.49	0.04	0.24	0.24
Sat Flow, veh/h	3510	5187	1607	3510	3610	1605	1810	4917	374	1810	5187	1605
Grp Volume(v), veh/h	462	705	731	51	551	51	577	1064	564	51	1410	244
Grp Sat Flow(s),veh/h/ln	1755	1729	1607	1755	1805	1605	1810	1729	1833	1810	1729	1605
Q Serve(g_s), s	17.0	15.9	48.0	2.1	20.2	3.5	43.0	33.9	33.9	4.1	36.0	17.2
Cycle Q Clear(g_c), s	17.0	15.9	48.0	2.1	20.2	3.5	43.0	33.9	33.9	4.1	36.0	17.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	400	1669	983	145	899	467	522	1689	895	75	1252	571
V/C Ratio(X)	1.15	0.42	0.74	0.35	0.61	0.11	1.11	0.63	0.63	0.68	1.13	0.43
Avail Cap(c_a), veh/h	400	1669	983	165	920	476	522	1689	895	109	1252	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.1	39.7	20.8	69.6	49.6	38.8	53.1	28.2	28.2	70.5	56.6	36.6
Incr Delay (d2), s/veh	94.4	0.2	3.1	1.5	1.2	0.1	71.7	0.8	1.4	10.5	67.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	7.6	22.2	1.1	10.2	1.6	31.8	16.3	17.4	2.3	25.0	7.7
LnGrp Delay(d),s/veh	160.5	39.9	23.9	71.0	50.8	38.9	124.8	29.0	29.6	81.0	124.2	37.1
LnGrp LOS	F	D	C	E	D	D	F	C	C	F	F	D
Approach Vol, veh/h		1898			653			2205			1705	
Approach Delay, s/veh		63.1			51.4			54.2			110.4	
Approach LOS		E			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	76.8	10.2	52.0	47.0	40.0	21.0	41.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	70.0	7.0	48.0	43.0	36.0	17.0	38.0
Max Q Clear Time (g_c+I1), s	6.1	35.9	4.1	50.0	45.0	38.0	19.0	22.2
Green Ext Time (p_c), s	0.0	28.1	0.0	0.0	0.0	0.0	0.0	9.6

Intersection Summary	
HCM 2010 Ctrl Delay	71.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	60	970	210	80	620	70	110	560	40	110	650	70
Future Volume (veh/h)	60	970	210	80	620	70	110	560	40	110	650	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	1183	256	98	756	85	134	683	49	134	793	85
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1293	277	118	1454	163	151	886	63	162	873	94
Arrive On Green	0.06	0.44	0.44	0.07	0.44	0.44	0.08	0.26	0.26	0.09	0.27	0.27
Sat Flow, veh/h	1810	2956	634	1810	3271	368	1810	3415	245	1810	3288	352
Grp Volume(v), veh/h	73	718	721	98	417	424	134	361	371	134	435	443
Grp Sat Flow(s),veh/h/ln	1810	1805	1785	1810	1805	1834	1810	1805	1855	1810	1805	1835
Q Serve(g_s), s	4.3	40.0	41.0	5.8	18.0	18.0	7.9	19.9	20.0	7.8	25.1	25.1
Cycle Q Clear(g_c), s	4.3	40.0	41.0	5.8	18.0	18.0	7.9	19.9	20.0	7.8	25.1	25.1
Prop In Lane	1.00		0.36	1.00		0.20	1.00		0.13	1.00		0.19
Lane Grp Cap(c), veh/h	104	789	781	118	803	815	151	468	481	162	479	487
V/C Ratio(X)	0.70	0.91	0.92	0.83	0.52	0.52	0.89	0.77	0.77	0.83	0.91	0.91
Avail Cap(c_a), veh/h	168	822	813	118	803	815	151	469	483	168	486	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	28.3	28.6	49.7	21.6	21.6	48.8	36.9	36.9	48.2	38.3	38.3
Incr Delay (d2), s/veh	8.2	13.8	15.6	37.5	0.6	0.6	41.8	7.7	7.5	26.6	20.7	20.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	23.0	23.4	4.1	9.1	9.2	5.7	10.9	11.2	5.1	15.2	15.4
LnGrp Delay(d),s/veh	58.0	42.1	44.2	87.3	22.2	22.2	90.6	44.6	44.5	74.8	59.0	58.8
LnGrp LOS	E	D	D	F	C	C	F	D	D	E	E	E
Approach Vol, veh/h		1512			939			866			1012	
Approach Delay, s/veh		43.9			29.0			51.6			61.0	
Approach LOS		D			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	31.9	11.0	51.1	13.0	32.6	10.2	51.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	28.0	7.0	49.0	9.0	29.0	10.0	46.0
Max Q Clear Time (g_c+I1), s	9.8	22.0	7.8	43.0	9.9	27.1	6.3	20.0
Green Ext Time (p_c), s	0.0	4.1	0.0	4.1	0.0	1.4	0.0	16.5

Intersection Summary	
HCM 2010 Ctrl Delay	46.2
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
53: Lasselle St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰↰	↑↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	60	660	320	480	560	80	150	410	400	40	540	30
Future Volume (veh/h)	60	660	320	480	560	80	150	410	400	40	540	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	750	364	545	636	91	170	466	0	45	614	34
Adj No. of Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	784	380	524	1507	672	187	1014	453	96	802	44
Arrive On Green	0.06	0.33	0.33	0.15	0.42	0.42	0.10	0.28	0.00	0.05	0.23	0.23
Sat Flow, veh/h	1810	2356	1141	3510	3610	1609	1810	3610	1615	1810	3477	192
Grp Volume(v), veh/h	68	574	540	545	636	91	170	466	0	45	318	330
Grp Sat Flow(s),veh/h/ln	1810	1805	1692	1755	1805	1609	1810	1805	1615	1810	1805	1865
Q Serve(g_s), s	3.2	27.1	27.2	13.0	10.9	3.0	8.1	9.3	0.0	2.1	14.4	14.4
Cycle Q Clear(g_c), s	3.2	27.1	27.2	13.0	10.9	3.0	8.1	9.3	0.0	2.1	14.4	14.4
Prop In Lane	1.00		0.67	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	117	601	564	524	1507	672	187	1014	453	96	416	430
V/C Ratio(X)	0.58	0.96	0.96	1.04	0.42	0.14	0.91	0.46	0.00	0.47	0.76	0.77
Avail Cap(c_a), veh/h	187	601	564	524	1507	672	187	1243	556	145	580	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	28.4	28.4	37.0	17.9	15.7	38.6	25.9	0.0	40.0	31.3	31.3
Incr Delay (d2), s/veh	4.5	26.0	27.6	50.1	0.2	0.1	41.2	0.3	0.0	3.5	4.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	17.7	16.9	9.9	5.4	1.4	6.2	4.6	0.0	1.1	7.6	7.9
LnGrp Delay(d),s/veh	44.0	54.4	56.0	87.2	18.1	15.8	79.8	26.2	0.0	43.5	35.2	35.2
LnGrp LOS	D	D	E	F	B	B	E	C		D	D	D
Approach Vol, veh/h		1182			1272			636			693	
Approach Delay, s/veh		54.6			47.5			40.5			35.8	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	28.5	17.0	33.0	13.0	24.1	9.6	40.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	30.0	13.0	29.0	9.0	28.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	4.1	11.3	15.0	29.2	10.1	16.4	5.2	12.9
Green Ext Time (p_c), s	0.0	3.0	0.0	0.0	0.0	2.7	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	46.4
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
54: Morriaon St/Morrison St & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	150	860	90	280	880	480	70	40	220	530	50	170
Future Volume (veh/h)	150	860	90	280	880	480	70	40	220	530	50	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	860	90	280	880	480	70	40	220	530	50	170
Adj No. of Lanes	1	2	0	1	2	1	1	2	0	1	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	839	88	288	1142	984	92	298	264	532	737	657
Arrive On Green	0.10	0.25	0.25	0.16	0.32	0.32	0.05	0.16	0.16	0.29	0.41	0.41
Sat Flow, veh/h	1810	3297	345	1810	3610	1607	1810	1805	1600	1810	1805	1609
Grp Volume(v), veh/h	150	471	479	280	880	480	70	40	220	530	50	170
Grp Sat Flow(s),veh/h/ln	1810	1805	1837	1810	1805	1607	1810	1805	1600	1810	1805	1609
Q Serve(g_s), s	10.3	32.0	32.0	19.4	27.7	20.8	4.8	2.4	16.7	36.8	2.1	8.8
Cycle Q Clear(g_c), s	10.3	32.0	32.0	19.4	27.7	20.8	4.8	2.4	16.7	36.8	2.1	8.8
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	459	467	288	1142	984	92	298	264	532	737	657
V/C Ratio(X)	0.85	1.03	1.03	0.97	0.77	0.49	0.76	0.13	0.83	1.00	0.07	0.26
Avail Cap(c_a), veh/h	187	459	467	288	1142	984	158	359	318	532	737	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	46.9	46.9	52.6	38.9	13.6	58.9	44.8	50.8	44.3	22.6	24.6
Incr Delay (d2), s/veh	28.6	48.5	48.2	45.5	3.3	0.4	12.1	0.2	14.7	37.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	22.0	22.4	13.3	14.3	9.3	2.7	1.2	8.5	23.8	1.1	4.0
LnGrp Delay(d),s/veh	84.4	95.4	95.0	98.1	42.1	14.0	71.0	45.0	65.5	82.0	22.7	24.8
LnGrp LOS	F	F	F	F	D	B	E	D	E	F	C	C
Approach Vol, veh/h		1100			1640			330			750	
Approach Delay, s/veh		93.8			43.4			64.2			65.1	
Approach LOS		F			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.0	24.7	24.0	36.0	10.4	55.4	16.2	43.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	37.0	25.0	20.0	32.0	11.0	51.0	13.0	39.0
Max Q Clear Time (g_c+I1), s	38.8	18.7	21.4	34.0	6.8	10.8	12.3	29.7
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	3.3	0.0	7.2

Intersection Summary	
HCM 2010 Ctrl Delay	64.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
55: Nason St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↑↱		↰↰	↑↑	↱
Traffic Volume (veh/h)	560	520	290	270	440	500	280	320	300	680	390	640
Future Volume (veh/h)	560	520	290	270	440	500	280	320	300	680	390	640
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	709	658	367	342	557	633	354	405	380	861	494	810
Adj No. of Lanes	1	2	0	1	2	0	2	3	0	2	2	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	470	760	424	362	505	450	408	645	299	585	856	800
Arrive On Green	0.26	0.34	0.34	0.20	0.28	0.28	0.12	0.19	0.19	0.17	0.24	0.24
Sat Flow, veh/h	1810	2233	1245	1810	1805	1606	3510	3458	1602	3510	3610	1605
Grp Volume(v), veh/h	709	532	493	342	557	633	354	405	380	861	494	810
Grp Sat Flow(s),veh/h/ln	1810	1805	1674	1810	1805	1606	1755	1729	1602	1755	1805	1605
Q Serve(g_s), s	39.0	41.3	41.4	28.0	42.0	42.0	14.9	16.2	28.0	25.0	18.1	35.6
Cycle Q Clear(g_c), s	39.0	41.3	41.4	28.0	42.0	42.0	14.9	16.2	28.0	25.0	18.1	35.6
Prop In Lane	1.00		0.74	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	614	569	362	505	450	408	645	299	585	856	800
V/C Ratio(X)	1.51	0.87	0.87	0.95	1.10	1.41	0.87	0.63	1.27	1.47	0.58	1.01
Avail Cap(c_a), veh/h	470	614	569	362	505	450	515	645	299	585	856	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	46.3	46.3	59.2	54.0	54.0	65.1	56.2	61.0	62.5	50.6	37.8
Incr Delay (d2), s/veh	239.0	12.4	13.3	33.5	70.9	196.2	12.2	1.9	145.5	221.4	1.0	34.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	50.7	22.6	21.1	17.3	30.9	43.1	7.9	7.9	24.5	30.1	9.2	40.7
LnGrp Delay(d),s/veh	294.5	58.7	59.6	92.7	124.9	250.2	77.4	58.1	206.5	283.9	51.5	72.6
LnGrp LOS	F	E	E	F	F	F	E	E	F	F	D	F
Approach Vol, veh/h		1734			1532			1139			2165	
Approach Delay, s/veh		155.4			169.5			113.6			151.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	32.0	34.0	55.0	21.4	39.6	43.0	46.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	28.0	30.0	51.0	22.0	31.0	39.0	42.0
Max Q Clear Time (g_c+I1), s	27.0	30.0	30.0	43.4	16.9	37.6	41.0	44.0
Green Ext Time (p_c), s	0.0	0.0	0.0	6.3	0.6	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	150.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
64: Indian St & Cactus Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	110	1110	350	40	720	70	200	720	60	70	790	80
Future Volume (veh/h)	110	1110	350	40	720	70	200	720	60	70	790	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	1276	402	46	828	80	230	828	69	80	908	92
Adj No. of Lanes	1	2	0	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	154	1286	394	83	1443	139	237	978	81	102	922	93
Arrive On Green	0.08	0.47	0.47	0.05	0.43	0.43	0.07	0.29	0.29	0.06	0.28	0.28
Sat Flow, veh/h	1810	2721	834	1810	3326	321	3510	3373	281	1810	3308	335
Grp Volume(v), veh/h	126	834	844	46	449	459	230	443	454	80	495	505
Grp Sat Flow(s),veh/h/ln	1810	1805	1750	1810	1805	1842	1755	1805	1849	1810	1805	1839
Q Serve(g_s), s	8.1	53.7	56.0	2.9	22.2	22.2	7.7	27.4	27.4	5.2	32.3	32.3
Cycle Q Clear(g_c), s	8.1	53.7	56.0	2.9	22.2	22.2	7.7	27.4	27.4	5.2	32.3	32.3
Prop In Lane	1.00		0.48	1.00		0.17	1.00		0.15	1.00		0.18
Lane Grp Cap(c), veh/h	154	853	827	83	783	799	237	523	536	102	503	512
V/C Ratio(X)	0.82	0.98	1.02	0.55	0.57	0.57	0.97	0.85	0.85	0.79	0.99	0.99
Avail Cap(c_a), veh/h	229	853	827	107	783	799	237	523	536	107	503	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	30.6	31.2	55.3	25.3	25.3	55.1	39.6	39.6	55.2	42.5	42.5
Incr Delay (d2), s/veh	13.5	25.3	36.4	5.6	1.0	1.0	49.9	12.3	12.0	30.1	36.2	35.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	32.7	35.3	1.6	11.3	11.6	5.4	15.4	15.8	3.5	21.2	21.5
LnGrp Delay(d),s/veh	66.8	55.9	67.7	60.9	26.3	26.3	105.0	51.8	51.6	85.3	78.7	78.3
LnGrp LOS	E	E	F	E	C	C	F	D	D	F	E	E
Approach Vol, veh/h		1804			954			1127			1080	
Approach Delay, s/veh		62.2			28.0			62.6			79.0	
Approach LOS		E			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	38.3	9.5	60.0	12.0	37.0	14.1	55.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	34.0	7.0	56.0	8.0	33.0	15.0	48.0
Max Q Clear Time (g_c+I1), s	7.2	29.4	4.9	58.0	9.7	34.3	10.1	24.2
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0	0.0	0.0	0.1	17.9

Intersection Summary	
HCM 2010 Ctrl Delay	59.4
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
65: Perris Blvd & Cactus Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↑	↱	↰↰	↑↑↱	
Traffic Volume (veh/h)	80	890	160	100	540	180	190	1350	180	270	1260	60
Future Volume (veh/h)	80	890	160	100	540	180	190	1350	180	270	1260	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	1023	184	115	621	207	218	1552	207	310	1448	69
Adj No. of Lanes	1	2	1	1	2	0	1	3	1	2	3	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	1299	579	145	980	326	145	1541	607	281	1507	72
Arrive On Green	0.07	0.36	0.36	0.08	0.37	0.37	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	1810	3610	1608	1810	2659	885	1810	5187	1607	3510	5072	242
Grp Volume(v), veh/h	92	1023	184	115	421	407	218	1552	207	310	987	530
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1740	1810	1729	1607	1755	1729	1856
Q Serve(g_s), s	4.4	22.1	5.3	5.5	16.8	16.9	7.0	26.0	5.2	7.0	24.6	24.6
Cycle Q Clear(g_c), s	4.4	22.1	5.3	5.5	16.8	16.9	7.0	26.0	5.2	7.0	24.6	24.6
Prop In Lane	1.00		1.00	1.00		0.51	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	129	1299	579	145	665	641	145	1541	607	281	1028	552
V/C Ratio(X)	0.71	0.79	0.32	0.79	0.63	0.63	1.51	1.01	0.34	1.10	0.96	0.96
Avail Cap(c_a), veh/h	186	1403	625	145	665	641	145	1541	607	281	1028	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	25.0	10.8	39.5	22.8	22.8	40.2	30.7	9.1	40.2	30.2	30.2
Incr Delay (d2), s/veh	7.0	2.9	0.3	25.5	2.0	2.1	260.0	24.6	1.5	84.4	20.0	29.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	11.5	2.9	3.7	8.7	8.4	13.9	15.8	2.6	6.6	14.5	17.1
LnGrp Delay(d),s/veh	46.8	27.9	11.2	65.0	24.7	24.8	300.2	55.3	10.6	124.6	50.3	60.0
LnGrp LOS	D	C	B	E	C	C	F	F	B	F	D	E
Approach Vol, veh/h		1299			943			1977			1827	
Approach Delay, s/veh		26.8			29.7			77.7			65.7	
Approach LOS		C			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.0	11.0	35.5	11.0	30.0	10.3	36.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	7.0	34.0	7.0	26.0	9.0	32.0
Max Q Clear Time (g_c+I1), s	9.0	28.0	7.5	24.1	9.0	26.6	6.4	18.9
Green Ext Time (p_c), s	0.0	0.0	0.0	7.0	0.0	0.0	0.0	9.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	170	1910	300	110	1270	80	570	650	220	60	300	120
Future Volume (veh/h)	170	1910	300	110	1270	80	570	650	220	60	300	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	179	2011	316	116	1337	84	600	684	232	63	316	126
Adj No. of Lanes	1	3	0	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	2016	311	121	1986	125	624	854	290	85	693	308
Arrive On Green	0.11	0.44	0.44	0.07	0.40	0.40	0.18	0.32	0.32	0.05	0.19	0.19
Sat Flow, veh/h	1810	4532	699	1810	4988	313	3510	2645	897	1810	3610	1602
Grp Volume(v), veh/h	179	1526	801	116	927	494	600	467	449	63	316	126
Grp Sat Flow(s),veh/h/ln	1810	1729	1774	1810	1729	1843	1755	1805	1737	1810	1805	1602
Q Serve(g_s), s	13.1	59.1	60.0	8.6	29.7	29.7	22.9	31.9	31.9	4.6	10.5	9.3
Cycle Q Clear(g_c), s	13.1	59.1	60.0	8.6	29.7	29.7	22.9	31.9	31.9	4.6	10.5	9.3
Prop In Lane	1.00		0.39	1.00		0.17	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	205	1538	789	121	1377	734	624	583	561	85	693	308
V/C Ratio(X)	0.87	0.99	1.02	0.96	0.67	0.67	0.96	0.80	0.80	0.74	0.46	0.41
Avail Cap(c_a), veh/h	255	1538	789	121	1377	734	624	722	695	148	1097	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	37.2	37.5	62.8	33.4	33.4	55.0	41.7	41.7	63.5	48.3	47.8
Incr Delay (d2), s/veh	23.1	21.0	36.1	69.5	1.3	2.4	26.5	5.2	5.4	11.9	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	32.7	37.3	6.6	14.4	15.6	13.4	16.7	16.1	2.6	5.3	4.2
LnGrp Delay(d),s/veh	82.0	58.2	73.5	132.3	34.7	35.8	81.5	46.9	47.1	75.3	48.7	48.7
LnGrp LOS	F	E	F	F	C	D	F	D	D	E	D	D
Approach Vol, veh/h		2506			1537			1516			505	
Approach Delay, s/veh		64.8			42.4			60.7			52.0	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	47.6	13.0	64.0	28.0	29.9	19.3	57.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	54.0	9.0	60.0	24.0	41.0	19.0	50.0
Max Q Clear Time (g_c+I1), s	6.6	33.9	10.6	62.0	24.9	12.5	15.1	31.7
Green Ext Time (p_c), s	0.0	8.9	0.0	0.0	0.0	10.3	0.2	17.3

Intersection Summary	
HCM 2010 Ctrl Delay	57.0
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
75: Lochmoor Dr & Central Ave

Movement	EBT	EBR	WBL	WBT	NBL	NBR
	→	↘	↙	←	↖	↗
Lane Configurations	↑↑	↱	↰	↑↑	↰ ↰↱	
Traffic Volume (veh/h)	1740	990	40	630	790	60
Future Volume (veh/h)	1740	990	40	630	790	60
Number	4	14	3	8	5	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1851	1053	43	670	900	0
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2106	938	82	2393	972	434
Arrive On Green	0.58	0.58	0.05	0.66	0.27	0.00
Sat Flow, veh/h	3705	1608	1810	3705	3619	1615
Grp Volume(v), veh/h	1851	1053	43	670	900	0
Grp Sat Flow(s),veh/h/ln	1805	1608	1810	1805	1810	1615
Q Serve(g_s), s	51.1	68.0	2.7	9.0	28.2	0.0
Cycle Q Clear(g_c), s	51.1	68.0	2.7	9.0	28.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2106	938	82	2393	972	434
V/C Ratio(X)	0.88	1.12	0.53	0.28	0.93	0.00
Avail Cap(c_a), veh/h	2106	938	109	2446	1024	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.8	24.3	54.4	8.1	41.5	0.0
Incr Delay (d2), s/veh	4.6	69.2	5.2	0.1	13.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.6	48.0	1.5	4.5	15.9	0.0
LnGrp Delay(d),s/veh	25.4	93.5	59.6	8.2	54.9	0.0
LnGrp LOS	C	F	E	A	D	
Approach Vol, veh/h	2904			713	900	
Approach Delay, s/veh	50.1			11.3	54.9	
Approach LOS	D			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		35.3	9.3	72.0				81.3
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		33.0	7.0	68.0				79.0
Max Q Clear Time (g_c+I1), s		30.2	4.7	70.0				11.0
Green Ext Time (p_c), s		1.1	0.0	0.0				51.4

Intersection Summary			
HCM 2010 Ctrl Delay			44.9
HCM 2010 LOS			D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
76: Sycamore Canyon Blvd & Central Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱	↱	↰↰	↑↱		↰	↱	↱	↰	↑↑	↱
Traffic Volume (veh/h)	0	780	960	450	350	30	340	60	510	30	110	0
Future Volume (veh/h)	0	780	960	450	350	30	340	60	510	30	110	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	821	1011	474	368	32	358	0	579	32	116	0
Adj No. of Lanes	1	2	2	2	2	0	1	0	2	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	515	1123	947	559	571	49	418	0	1001	79	449	201
Arrive On Green	0.00	0.30	0.30	0.16	0.17	0.17	0.23	0.00	0.31	0.04	0.12	0.00
Sat Flow, veh/h	1810	3800	3203	3510	3358	290	1810	0	3214	1810	3610	1615
Grp Volume(v), veh/h	0	821	1011	474	197	203	358	0	579	32	116	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1601	1755	1805	1844	1810	0	1607	1810	1805	1615
Q Serve(g_s), s	0.0	16.4	13.4	11.1	8.6	8.7	16.0	0.0	12.8	1.5	2.5	0.0
Cycle Q Clear(g_c), s	0.0	16.4	13.4	11.1	8.6	8.7	16.0	0.0	12.8	1.5	2.5	0.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	515	1123	947	559	307	314	418	0	1001	79	449	201
V/C Ratio(X)	0.00	0.73	1.07	0.85	0.64	0.65	0.86	0.00	0.58	0.40	0.26	0.00
Avail Cap(c_a), veh/h	515	1307	1102	624	792	809	472	0	2020	150	1627	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.7	8.6	34.4	32.6	32.6	31.1	0.0	24.4	39.2	33.4	0.0
Incr Delay (d2), s/veh	0.0	1.8	47.3	9.7	2.2	2.2	13.3	0.0	0.5	3.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.8	13.9	6.1	4.5	4.6	9.5	0.0	5.7	0.8	1.2	0.0
LnGrp Delay(d),s/veh	0.0	28.5	55.9	44.2	34.8	34.9	44.4	0.0	24.9	42.5	33.7	0.0
LnGrp LOS		C	F	D	C	C	D		C	D	C	
Approach Vol, veh/h		1832			874			937			148	
Approach Delay, s/veh		43.6			39.9			32.3			35.6	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	30.3	17.4	28.9	23.5	14.5	28.0	18.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	53.0	15.0	29.0	22.0	38.0	7.0	37.0
Max Q Clear Time (g_c+I1), s	3.5	14.8	13.1	18.4	18.0	4.5	0.0	10.7
Green Ext Time (p_c), s	0.0	3.6	0.4	6.6	1.5	0.6	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
80: Mission Grove Pkwy & Alessandro Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	140	2680	300	300	2440	190	340	350	290	480	930	230
Future Volume (veh/h)	140	2680	300	300	2440	190	340	350	290	480	930	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	2821	316	316	2568	200	358	368	305	505	979	242
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	255	1836	569	255	1836	569	287	816	363	366	1251	557
Arrive On Green	0.07	0.35	0.35	0.07	0.35	0.35	0.08	0.23	0.23	0.20	0.35	0.35
Sat Flow, veh/h	3510	5187	1608	3510	5187	1608	3510	3610	1604	1810	3610	1608
Grp Volume(v), veh/h	147	2821	316	316	2568	200	358	368	305	505	979	242
Grp Sat Flow(s),veh/h/ln	1755	1729	1608	1755	1729	1608	1755	1805	1604	1810	1805	1608
Q Serve(g_s), s	4.5	39.0	13.2	8.0	39.0	10.1	9.0	9.7	16.3	22.3	26.8	12.8
Cycle Q Clear(g_c), s	4.5	39.0	13.2	8.0	39.0	10.1	9.0	9.7	16.3	22.3	26.8	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	1836	569	255	1836	569	287	816	363	366	1251	557
V/C Ratio(X)	0.58	1.54	0.56	1.24	1.40	0.35	1.25	0.45	0.84	1.38	0.78	0.43
Avail Cap(c_a), veh/h	255	1836	569	255	1836	569	287	1606	714	366	1573	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	35.6	16.6	51.1	35.6	26.3	50.6	36.7	26.9	43.9	32.3	27.7
Incr Delay (d2), s/veh	3.2	244.1	1.2	136.6	182.7	0.4	137.4	0.4	5.3	187.5	2.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	60.0	6.3	8.7	49.6	4.5	9.8	4.8	7.8	30.1	13.7	5.7
LnGrp Delay(d),s/veh	52.6	279.7	17.8	187.7	218.3	26.6	188.0	37.1	32.2	231.5	34.4	28.2
LnGrp LOS	D	F	B	F	F	C	F	D	C	F	C	C
Approach Vol, veh/h		3284			3084			1031			1726	
Approach Delay, s/veh		244.3			202.7			88.1			91.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.3	28.9	12.0	43.0	13.0	42.2	12.0	43.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	49.0	8.0	39.0	9.0	48.0	8.0	39.0
Max Q Clear Time (g_c+I1), s	24.3	18.3	10.0	41.0	11.0	28.8	6.5	41.0
Green Ext Time (p_c), s	0.0	3.7	0.0	0.0	0.0	7.9	1.5	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	183.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
85: SR-60 WB Off Ramp/SR-60 WB On Ramp & Martin Luther King Blvd

	↗	↘	↖	↑	↓	↙
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↖		↖	↰		
Traffic Volume (veh/h)	1620	0	1120	380	0	0
Future Volume (veh/h)	1620	0	1120	380	0	0
Number	7	14	5	2		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	0	1900	1900		
Adj Flow Rate, veh/h	1820	0	842	1009		
Adj No. of Lanes	2	0	1	1		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	0	0	0	0		
Cap, veh/h	0	0	1808	1556		
Arrive On Green	0.00	0.00	0.82	0.82		
Sat Flow, veh/h	0		1810	1900		
Grp Volume(v), veh/h	0.0		842	1009		
Grp Sat Flow(s),veh/h/ln			1810	1900		
Q Serve(g_s), s			3.5	4.5		
Cycle Q Clear(g_c), s			3.5	4.5		
Prop In Lane			1.00			
Lane Grp Cap(c), veh/h			1808	1556		
V/C Ratio(X)			0.47	0.65		
Avail Cap(c_a), veh/h			2457	2237		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			0.7	0.8		
Incr Delay (d2), s/veh			0.2	0.5		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			1.5	2.2		
LnGrp Delay(d),s/veh			0.9	1.2		
LnGrp LOS			A	A		
Approach Vol, veh/h				1851		
Approach Delay, s/veh				1.1		
Approach LOS				A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						
Phs Duration (G+Y+Rc), s		22.1						
Change Period (Y+Rc), s		4.0						
Max Green Setting (Gmax), s		26.0						
Max Q Clear Time (g_c+I1), s		6.5						
Green Ext Time (p_c), s		11.5						

Intersection Summary			
HCM 2010 Ctrl Delay			1.1
HCM 2010 LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
88: Canyon Crest Ave & Central Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Traffic Volume (veh/h)	50	1590	250	310	990	300	410	1390	560	680	1290	110
Future Volume (veh/h)	50	1590	250	310	990	300	410	1390	560	680	1290	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1639	258	320	1021	309	423	1433	577	701	1330	113
Adj No. of Lanes	1	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	1264	563	234	1331	768	263	1233	657	380	1354	603
Arrive On Green	0.05	0.35	0.35	0.07	0.37	0.37	0.08	0.34	0.34	0.11	0.38	0.38
Sat Flow, veh/h	1810	3610	1608	3510	3610	1608	3510	3610	1608	3510	3610	1609
Grp Volume(v), veh/h	52	1639	258	320	1021	309	423	1433	577	701	1330	113
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1805	1608	1755	1805	1608	1755	1805	1609
Q Serve(g_s), s	3.4	42.0	11.7	8.0	29.9	14.9	9.0	41.0	39.7	13.0	43.8	4.6
Cycle Q Clear(g_c), s	3.4	42.0	11.7	8.0	29.9	14.9	9.0	41.0	39.7	13.0	43.8	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	1264	563	234	1331	768	263	1233	657	380	1354	603
V/C Ratio(X)	0.60	1.30	0.46	1.37	0.77	0.40	1.61	1.16	0.88	1.84	0.98	0.19
Avail Cap(c_a), veh/h	106	1264	563	234	1331	768	263	1233	657	380	1354	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	39.0	18.5	56.0	33.3	20.3	55.5	39.5	32.8	53.5	37.1	16.8
Incr Delay (d2), s/veh	6.4	139.7	0.6	190.2	2.8	0.3	290.0	82.1	12.9	389.6	20.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	45.4	5.3	10.0	15.4	6.7	15.0	34.5	20.0	26.9	25.6	2.1
LnGrp Delay(d),s/veh	62.4	178.7	19.1	246.2	36.1	20.7	345.5	121.6	45.7	443.1	57.4	17.0
LnGrp LOS	E	F	B	F	D	C	F	F	D	F	E	B
Approach Vol, veh/h		1949			1650			2433			2144	
Approach Delay, s/veh		154.5			74.0			142.5			181.4	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	45.0	12.0	46.0	13.0	49.0	9.8	48.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	41.0	8.0	42.0	9.0	45.0	7.0	43.0
Max Q Clear Time (g_c+I1), s	15.0	43.0	10.0	44.0	11.0	45.8	5.4	31.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3

Intersection Summary	
HCM 2010 Ctrl Delay	141.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
93: Horace St & Arlington Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↱			↰	↱
Traffic Volume (veh/h)	180	2630	160	20	2160	10	180	20	10	10	40	190
Future Volume (veh/h)	180	2630	160	20	2160	10	180	20	10	10	40	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	188	2740	167	21	2250	10	188	21	10	10	42	198
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	2601	1159	60	2655	12	280	259	123	86	336	341
Arrive On Green	0.72	0.72	0.72	0.72	0.72	0.72	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	169	3610	1609	89	3686	16	1153	1215	578	236	1577	1604
Grp Volume(v), veh/h	188	2740	167	21	1101	1159	188	0	31	52	0	198
Grp Sat Flow(s),veh/h/ln	169	1805	1609	89	1805	1897	1153	0	1793	1813	0	1604
Q Serve(g_s), s	33.8	86.5	3.9	0.0	52.5	52.7	18.9	0.0	1.7	0.0	0.0	13.3
Cycle Q Clear(g_c), s	86.5	86.5	3.9	86.5	52.5	52.7	21.6	0.0	1.7	2.7	0.0	13.3
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.32	0.19		1.00
Lane Grp Cap(c), veh/h	108	2601	1159	60	1300	1367	280	0	382	422	0	341
V/C Ratio(X)	1.75	1.05	0.14	0.35	0.85	0.85	0.67	0.00	0.08	0.12	0.00	0.58
Avail Cap(c_a), veh/h	108	2601	1159	60	1300	1367	351	0	493	532	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.5	16.8	5.2	60.0	12.0	12.1	47.0	0.0	37.8	38.2	0.0	42.4
Incr Delay (d2), s/veh	371.3	33.8	0.3	1.4	0.7	0.7	3.5	0.0	0.1	0.1	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	54.5	1.8	0.7	25.9	27.3	6.3	0.0	0.8	1.4	0.0	6.0
LnGrp Delay(d),s/veh	423.8	50.6	5.5	61.4	12.7	12.7	50.4	0.0	37.9	38.3	0.0	44.0
LnGrp LOS	F	F	A	E	B	B	D		D	D		D
Approach Vol, veh/h		3095			2281			219			250	
Approach Delay, s/veh		70.8			13.2			48.7			42.8	
Approach LOS		E			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		29.5		90.5		29.5		90.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		33.0		79.0		33.0		79.0
Max Q Clear Time (g_c+I1), s		23.6		88.5		15.3		88.5
Green Ext Time (p_c), s		1.3		0.0		1.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.3
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
94: Victoria Ave & Arlington Ave

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↱		↰	↑↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	230	2400	20	320	1970	60	20	190	520	270	250	200
Future Volume (veh/h)	230	2400	20	320	1970	60	20	190	520	270	250	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	2500	21	333	2052	62	21	198	542	281	260	208
Adj No. of Lanes	2	2	0	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	1545	13	178	1650	736	276	470	556	162	350	396
Arrive On Green	0.06	0.42	0.42	0.10	0.46	0.46	0.15	0.25	0.25	0.09	0.18	0.18
Sat Flow, veh/h	3510	3669	31	1810	3610	1610	1810	1900	1605	1810	1900	1602
Grp Volume(v), veh/h	240	1228	1293	333	2052	62	21	198	542	281	260	208
Grp Sat Flow(s),veh/h/ln	1755	1805	1894	1810	1805	1610	1810	1900	1605	1810	1900	1602
Q Serve(g_s), s	7.0	47.0	47.0	11.0	51.0	2.4	1.1	9.8	22.0	10.0	14.4	8.2
Cycle Q Clear(g_c), s	7.0	47.0	47.0	11.0	51.0	2.4	1.1	9.8	22.0	10.0	14.4	8.2
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	760	798	178	1650	736	276	470	556	162	350	396
V/C Ratio(X)	1.09	1.62	1.62	1.87	1.24	0.08	0.08	0.42	0.97	1.73	0.74	0.52
Avail Cap(c_a), veh/h	220	760	798	178	1650	736	276	613	677	162	664	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	32.3	32.3	50.3	30.3	17.1	40.5	35.3	24.4	50.8	43.0	17.9
Incr Delay (d2), s/veh	86.7	283.2	285.0	410.8	115.1	0.0	0.1	0.6	26.0	354.3	3.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	83.0	87.5	25.8	51.6	1.1	0.6	5.2	16.5	20.9	7.9	3.8
LnGrp Delay(d),s/veh	139.0	315.5	317.3	461.1	145.4	17.2	40.6	35.9	50.4	405.1	46.2	18.9
LnGrp LOS	F	F	F	F	F	B	D	D	D	F	D	B
Approach Vol, veh/h		2761			2447			761			749	
Approach Delay, s/veh		301.0			185.1			46.4			173.3	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	31.6	15.0	51.0	21.0	24.6	11.0	55.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	36.0	11.0	47.0	7.0	39.0	7.0	51.0
Max Q Clear Time (g_c+I1), s	12.0	24.0	13.0	49.0	3.1	16.4	9.0	53.0
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	1.3	2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	215.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
95: Alessandro Blvd & Arlington Ave/Chicago Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑↑	↱
Traffic Volume (veh/h)	80	1490	1390	520	1040	390	1090	1580	250	660	1710	60
Future Volume (veh/h)	80	1490	1390	520	1040	390	1090	1580	250	660	1710	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	1520	1418	531	1061	398	1112	1612	255	673	1745	61
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1224	1330	275	1189	684	458	1256	686	336	1624	503
Arrive On Green	0.09	0.34	0.34	0.08	0.33	0.33	0.13	0.35	0.35	0.10	0.31	0.31
Sat Flow, veh/h	1810	3610	2830	3510	3610	1608	3510	3610	1608	3510	5187	1607
Grp Volume(v), veh/h	82	1520	1418	531	1061	398	1112	1612	255	673	1745	61
Grp Sat Flow(s),veh/h/ln	1810	1805	1415	1755	1805	1608	1755	1805	1608	1755	1729	1607
Q Serve(g_s), s	5.0	39.0	31.9	9.0	32.1	14.5	15.0	40.0	12.4	11.0	36.0	3.1
Cycle Q Clear(g_c), s	5.0	39.0	31.9	9.0	32.1	14.5	15.0	40.0	12.4	11.0	36.0	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	1224	1330	275	1189	684	458	1256	686	336	1624	503
V/C Ratio(X)	0.52	1.24	1.07	1.93	0.89	0.58	2.43	1.28	0.37	2.00	1.07	0.12
Avail Cap(c_a), veh/h	159	1224	1330	275	1256	714	458	1256	686	336	1624	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	38.0	19.4	53.0	36.6	12.3	50.0	37.5	22.5	52.0	39.5	28.2
Incr Delay (d2), s/veh	2.9	115.8	44.3	432.9	8.1	1.1	649.5	133.9	0.3	462.4	45.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	39.1	20.6	20.9	17.3	6.6	48.6	43.2	5.6	26.9	24.0	1.4
LnGrp Delay(d),s/veh	53.0	153.8	63.7	485.9	44.7	13.5	699.5	171.4	22.8	514.4	84.9	28.3
LnGrp LOS	D	F	F	F	D	B	F	F	C	F	F	C
Approach Vol, veh/h		3020			1990			2979			2479	
Approach Delay, s/veh		108.7			156.2			355.8			200.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	44.0	13.0	43.0	19.0	40.0	14.1	41.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	40.0	9.0	39.0	15.0	36.0	8.0	40.0
Max Q Clear Time (g_c+I1), s	13.0	42.0	11.0	41.0	17.0	38.0	7.0	34.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	209.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
101: Indian St & Ramona Expy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	450	1300	490	190	1080	180	430	150	320	460	230	610
Future Volume (veh/h)	450	1300	490	190	1080	180	430	150	320	460	230	610
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	450	1300	490	190	1080	180	430	150	320	460	230	610
Adj No. of Lanes	1	3	1	1	3	1	2	2	1	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	280	1416	664	165	1086	600	490	1085	630	296	1172	771
Arrive On Green	0.15	0.27	0.27	0.09	0.21	0.21	0.14	0.30	0.30	0.16	0.32	0.32
Sat Flow, veh/h	1810	5187	1606	1810	5187	1603	3510	3610	1607	1810	3610	1608
Grp Volume(v), veh/h	450	1300	490	190	1080	180	430	150	320	460	230	610
Grp Sat Flow(s),veh/h/ln	1810	1729	1606	1810	1729	1603	1755	1805	1607	1810	1805	1608
Q Serve(g_s), s	17.0	26.7	28.4	10.0	22.9	8.7	13.2	3.3	16.6	18.0	5.1	35.0
Cycle Q Clear(g_c), s	17.0	26.7	28.4	10.0	22.9	8.7	13.2	3.3	16.6	18.0	5.1	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	280	1416	664	165	1086	600	490	1085	630	296	1172	771
V/C Ratio(X)	1.61	0.92	0.74	1.15	0.99	0.30	0.88	0.14	0.51	1.55	0.20	0.79
Avail Cap(c_a), veh/h	280	1416	664	165	1086	600	511	1116	644	296	1172	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	38.8	27.3	50.0	43.4	24.4	46.4	28.1	25.4	46.0	26.8	24.1
Incr Delay (d2), s/veh	289.0	10.2	6.6	106.4	21.3	0.9	15.4	0.1	0.6	265.1	0.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.9	14.1	13.7	9.8	13.0	4.0	7.4	1.7	7.5	30.8	2.5	16.7
LnGrp Delay(d),s/veh	335.5	49.0	33.9	156.4	64.7	25.2	61.8	28.1	26.1	311.1	26.9	29.6
LnGrp LOS	F	D	C	F	E	C	E	C	C	F	C	C
Approach Vol, veh/h		2240			1450			900			1300	
Approach Delay, s/veh		103.3			71.8			43.5			128.8	
Approach LOS		F			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	36.0	19.4	40.6	21.0	29.0	22.0	38.0
Change Period (Y+Rc), s	4.0	6.0	4.0	4.9	4.0	6.0	4.0	* 4.9
Max Green Setting (Gmax), s	10.0	29.4	16.0	35.7	17.0	22.4	18.0	* 34
Max Q Clear Time (g_c+I1), s	12.0	30.4	15.2	37.0	19.0	24.9	20.0	18.6
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.0	0.0	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	92.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
107: Evans Rd & Rider St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	240	300	290	20	200	60	170	930	10	50	1300	190
Future Volume (veh/h)	240	300	290	20	200	60	170	930	10	50	1300	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	300	290	20	200	60	170	930	10	50	1300	190
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	230	484	431	30	433	126	165	1954	21	64	1729	771
Arrive On Green	0.13	0.27	0.27	0.02	0.16	0.16	0.09	0.53	0.53	0.07	0.96	0.96
Sat Flow, veh/h	1810	1805	1606	1810	2752	802	1810	3659	39	1810	3610	1610
Grp Volume(v), veh/h	240	300	290	20	129	131	170	459	481	50	1300	190
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1810	1805	1749	1810	1805	1893	1810	1805	1610
Q Serve(g_s), s	14.0	16.0	17.7	1.2	7.1	7.5	10.0	17.5	17.5	3.0	6.0	0.7
Cycle Q Clear(g_c), s	14.0	16.0	17.7	1.2	7.1	7.5	10.0	17.5	17.5	3.0	6.0	0.7
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	230	484	431	30	284	275	165	964	1011	64	1729	771
V/C Ratio(X)	1.04	0.62	0.67	0.66	0.45	0.47	1.03	0.48	0.48	0.78	0.75	0.25
Avail Cap(c_a), veh/h	230	640	569	99	509	493	165	964	1011	132	1729	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	48.0	35.3	36.0	53.8	42.1	42.2	50.0	16.0	16.0	50.6	1.3	1.2
Incr Delay (d2), s/veh	70.8	1.3	2.0	22.3	1.1	1.3	79.2	1.7	1.6	12.5	2.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	8.2	8.1	0.8	3.6	3.7	8.6	9.1	9.5	1.7	2.3	0.4
LnGrp Delay(d),s/veh	118.8	36.6	37.9	76.1	43.2	43.5	129.5	17.7	17.6	63.2	3.4	1.7
LnGrp LOS	F	D	D	E	D	D	F	B	B	E	A	A
Approach Vol, veh/h		830			280			1110			1540	
Approach Delay, s/veh		60.8			45.7			34.8			5.2	
Approach LOS		E			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	62.8	5.8	33.5	14.0	56.7	18.0	21.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	41.0	6.0	39.0	10.0	39.0	14.0	31.0
Max Q Clear Time (g_c+I1), s	5.0	19.5	3.2	19.7	12.0	8.0	16.0	9.5
Green Ext Time (p_c), s	0.0	16.2	0.0	5.3	0.0	21.2	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
130: Beaumont Ave & 6th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↱	
Traffic Volume (veh/h)	190	870	100	330	670	350	200	910	430	480	560	90
Future Volume (veh/h)	190	870	100	330	670	350	200	910	430	480	560	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	204	935	108	355	720	376	215	978	462	516	602	97
Adj No. of Lanes	2	2	1	1	1	1	1	2	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	902	401	256	665	773	243	963	428	377	1060	170
Arrive On Green	0.04	0.25	0.25	0.14	0.35	0.35	0.13	0.27	0.27	0.21	0.34	0.34
Sat Flow, veh/h	3510	3610	1605	1810	1900	1383	1810	3610	1606	1810	3112	500
Grp Volume(v), veh/h	204	935	108	355	720	376	215	978	462	516	349	350
Grp Sat Flow(s),veh/h/ln	1755	1805	1605	1810	1900	1383	1810	1805	1606	1810	1805	1807
Q Serve(g_s), s	5.0	30.0	6.5	17.0	42.0	19.8	14.0	32.0	32.0	25.0	18.9	19.0
Cycle Q Clear(g_c), s	5.0	30.0	6.5	17.0	42.0	19.8	14.0	32.0	32.0	25.0	18.9	19.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	146	903	401	256	665	773	243	963	428	377	615	616
V/C Ratio(X)	1.39	1.04	0.27	1.38	1.08	0.49	0.88	1.02	1.08	1.37	0.57	0.57
Avail Cap(c_a), veh/h	146	903	401	256	665	773	271	963	428	377	615	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	45.0	36.2	51.5	39.0	16.1	51.0	44.0	44.0	47.5	32.3	32.4
Incr Delay (d2), s/veh	213.7	39.7	0.4	195.5	59.4	0.5	25.6	33.0	66.3	182.1	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	19.9	2.9	22.4	33.0	7.6	8.7	20.3	22.0	31.5	9.6	9.8
LnGrp Delay(d),s/veh	271.2	84.7	36.5	247.0	98.4	16.5	76.7	77.0	110.3	229.6	33.5	33.6
LnGrp LOS	F	F	D	F	F	B	E	F	F	F	C	C
Approach Vol, veh/h		1247			1451			1655			1215	
Approach Delay, s/veh		111.0			113.6			86.3			116.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	36.0	21.0	34.0	20.1	44.9	9.0	46.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	25.0	32.0	17.0	30.0	18.0	39.0	5.0	42.0
Max Q Clear Time (g_c+I1), s	27.0	34.0	19.0	32.0	16.0	21.0	7.0	44.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	12.4	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			105.6
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
132: San Timoteo Canyon Rd & Alessandro Rd

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	980	660	290	190	20
Future Volume (veh/h)	40	980	660	290	190	20
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	1043	702	309	202	0
Adj No. of Lanes	0	2	2	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	131	1937	1416	623	311	0
Arrive On Green	0.58	0.58	0.58	0.58	0.17	0.00
Sat Flow, veh/h	61	3426	2536	1074	1801	0
Grp Volume(v), veh/h	564	522	519	492	203	0
Grp Sat Flow(s),veh/h/ln	1757	1643	1805	1710	1810	0
Q Serve(g_s), s	0.0	7.9	6.9	6.9	4.2	0.0
Cycle Q Clear(g_c), s	7.2	7.9	6.9	6.9	4.2	0.0
Prop In Lane	0.08			0.63	1.00	0.00
Lane Grp Cap(c), veh/h	1115	953	1047	992	313	0
V/C Ratio(X)	0.51	0.55	0.50	0.50	0.65	0.00
Avail Cap(c_a), veh/h	1414	1258	1382	1310	850	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	5.1	5.2	5.0	5.0	15.6	0.0
Incr Delay (d2), s/veh	0.4	0.5	0.4	0.4	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.6	3.4	3.2	2.3	0.0
LnGrp Delay(d),s/veh	5.4	5.7	5.4	5.4	17.9	0.0
LnGrp LOS	A	A	A	A	B	
Approach Vol, veh/h		1086	1011		203	
Approach Delay, s/veh		5.6	5.4		17.9	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				28.5		12.0		28.5
Change Period (Y+Rc), s				5.0		5.0		5.0
Max Green Setting (Gmax), s				31.0		19.0		31.0
Max Q Clear Time (g_c+I1), s				9.9		6.2		8.9
Green Ext Time (p_c), s				13.5		0.4		14.0

Intersection Summary		
HCM 2010 Ctrl Delay		6.6
HCM 2010 LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
133: Live Oak Canyon & San Timoteo Canyon Rd

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣		↰	↱	
Traffic Volume (veh/h)	10	980	20	10	810	270	50	10	10	270	10	20
Future Volume (veh/h)	10	980	20	10	810	270	50	10	10	270	10	20
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	1000	20	10	827	276	51	10	10	276	10	20
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	1248	25	46	919	304	275	54	42	390	116	232
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	6	1839	37	5	1355	448	991	266	206	1414	567	1133
Grp Volume(v), veh/h	1030	0	0	1113	0	0	71	0	0	276	0	30
Grp Sat Flow(s),veh/h/ln	1882	0	0	1808	0	0	1464	0	0	1414	0	1700
Q Serve(g_s), s	0.0	0.0	0.0	4.5	0.0	0.0	2.4	0.0	0.0	11.5	0.0	1.2
Cycle Q Clear(g_c), s	32.7	0.0	0.0	43.4	0.0	0.0	3.7	0.0	0.0	15.2	0.0	1.2
Prop In Lane	0.01		0.02	0.01		0.25	0.72		0.14	1.00		0.67
Lane Grp Cap(c), veh/h	1319	0	0	1269	0	0	372	0	0	390	0	347
V/C Ratio(X)	0.78	0.00	0.00	0.88	0.00	0.00	0.19	0.00	0.00	0.71	0.00	0.09
Avail Cap(c_a), veh/h	1386	0	0	1333	0	0	398	0	0	416	0	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.7	0.0	0.0	11.4	0.0	0.0	28.5	0.0	0.0	32.7	0.0	27.5
Incr Delay (d2), s/veh	2.8	0.0	0.0	6.7	0.0	0.0	0.2	0.0	0.0	5.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.9	0.0	0.0	23.7	0.0	0.0	1.4	0.0	0.0	6.8	0.0	0.6
LnGrp Delay(d),s/veh	12.5	0.0	0.0	18.0	0.0	0.0	28.8	0.0	0.0	37.8	0.0	27.6
LnGrp LOS	B			B			C			D		C
Approach Vol, veh/h		1030			1113			71			306	
Approach Delay, s/veh		12.5			18.0			28.8			36.8	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		62.9		22.5		62.9		22.5
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		61.0		19.0		61.0		19.0
Max Q Clear Time (g_c+I1), s		45.4		5.7		34.7		17.2
Green Ext Time (p_c), s		12.5		1.0		18.9		0.3

Intersection Summary			
HCM 2010 Ctrl Delay			18.3
HCM 2010 LOS			B

Traffic Impact Analysis Report

for the World Logistics Center

Appendix I

Freeway LOS Worksheets
for Existing Conditions

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2018_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6024           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1619           v
Trucks and buses                            18             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.916
Driver population factor, fp                1.00
Flow rate, vp                               1768           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1768           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          4
Density, D                                  26.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2018_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6467          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1650          v
Trucks and buses                            19            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               1810          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1810          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.7          mi/h
Number of lanes, N                          4
Density, D                                  27.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8109           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2180           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2228           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2228           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.7           mi/h
Number of lanes, N                          4
Density, D                                  38.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9400          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2398          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2451          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2451          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              51.8          mi/h
Number of lanes, N                          4
Density, D                                  47.3          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2018_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1933           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1975           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1975           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.0           mi/h
Number of lanes, N                          4
Density, D                                  31.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2018_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8271           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2110           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2156           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2156           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.4           mi/h
Number of lanes, N                          4
Density, D                                  36.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7513          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2020          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2064          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2064          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.3          mi/h
Number of lanes, N                          4
Density, D                                  33.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8231           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2100           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2146           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2146           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.6           mi/h
Number of lanes, N                          4
Density, D                                  36.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7423          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1995          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2039          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2039          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.8          mi/h
Number of lanes, N                          4
Density, D                                  33.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8339           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2127           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2174           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2174           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.0           mi/h
Number of lanes, N                          4
Density, D                                  36.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2018_AM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6809          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1830          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1871          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1871          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.8          mi/h
Number of lanes, N                          4
Density, D                                  28.9          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2018_PM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9236           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2356           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2408           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2408           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.1           mi/h
Number of lanes, N                          4
Density, D                                  45.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2018_AM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6662           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1791           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1821           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1821           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          4
Density, D                                  27.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2018_PM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9400          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2398          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2451          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2451          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              51.8          mi/h
Number of lanes, N                          4
Density, D                                  47.3          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2018_AM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6718           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1806           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1837           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1837           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          4
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2018_PM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6764          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1726          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1763          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1763          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.3          mi/h
Number of lanes, N                          4
Density, D                                  26.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2018_AM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7667           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2061           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1702           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1702           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          5
Density, D                                  25.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2018_PM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7366           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1879           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1544           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1544           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          5
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2018_AM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4225           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1136           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1178           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1178           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2018_PM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5182           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1322           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1351           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1351           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2018_AM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3541          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     952           v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               978           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               978           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2018_PM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4369          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1115          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1139          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1139          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   16.3          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2018_AM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2913           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     783            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               804            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               804            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2018_PM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3567           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     910            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               930            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               930            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2018_AM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2437           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     655            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               689            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               689            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2018_PM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    2959           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      755            v
Trucks and buses                             10             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.951
Driver population factor, fp                 1.00
Flow rate, vp                                794            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                794            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   11.3           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2018_AM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    2650           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      712            v
Trucks and buses                             9              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.955
Driver population factor, fp                 1.00
Flow rate, vp                                746            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                746            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   10.7           pc/mi/ln
Level of service, LOS                        A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2018_PM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3232           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     824            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               863            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               863            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2018_AM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3348           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     900            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               933            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               933            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2018_PM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3642           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     929            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               968            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               968            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2018_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4515          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1214          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1654          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1654          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.6          mi/h
Number of lanes, N                          3
Density, D                                  24.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2018_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5262           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1342           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1829           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1829           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          3
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2018_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4697           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1263           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1721           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1721           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          3
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2018_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5477           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1397           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1913           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1913           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          3
Density, D                                  29.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2018_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4971           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1336           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1821           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1821           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          3
Density, D                                  27.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2018_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6433           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1641           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2247           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2247           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.3           mi/h
Number of lanes, N                          3
Density, D                                  39.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9400           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2527           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.948
Driver population factor, fp                1.00
Flow rate, vp                               2666           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2666           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.1           mi/h
Number of lanes, N                          4
Density, D                                  59.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9400           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2398           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.948
Driver population factor, fp                1.00
Flow rate, vp                               2530           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2530           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.5           mi/h
Number of lanes, N                          4
Density, D                                  51.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2018_AM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5188           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1395           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1418           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1418           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2018_PM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6193          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1580          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1607          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1607          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.1          mi/h
Number of lanes, N                          4
Density, D                                  23.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2828           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     760            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1584           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1584           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          2
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Pigeon Pass Rd to Heacock St
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4700          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1199          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2463          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2463          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               51.5          mi/h
Number of lanes, N                           2
Density, D                                   47.8          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2018_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2529           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     680            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1403           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1403           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          2
Density, D                                  20.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2018_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3336           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     851            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1731           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1731           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          2
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2018_AM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2269          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     610           v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1253          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1253          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  17.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2018_PM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2843          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     725           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1475          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1475          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.1          mi/h
Number of lanes, N                          2
Density, D                                  21.3          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2018_AM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1977           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     531            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               735            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               735            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.5           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2018_PM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2468           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     630            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               858            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               858            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2018_AM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1757           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     472            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               656            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               656            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  9.4            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2018_PM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2053           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     524            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               714            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               714            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.2           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2018_AM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1671           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     449            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               941            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               941            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2018_PM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1708           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     436            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               895            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               895            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 35_2018_AM_Peak_SR-60_EB_Theodore_St_to_Gilman_Spring.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Theodore St to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1600          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     430           v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               901           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               901           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  12.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 35_2018_PM_Peak_SR-60_EB_Theodore_St_to_Gilman_Spring.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Theodore St to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1738           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     443            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               911            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               911            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2018_AM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1271          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     342           v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Mountainous
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.725
Driver population factor, fp                1.00
Flow rate, vp                               943           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               943           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  13.5          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2018_PM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    1319           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      336            v
Trucks and buses                             7              %
Recreational vehicles                        1              %
Terrain type:                                Mountainous
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     4.5
Recreational vehicle PCE, ER                 4.0
Heavy vehicle adjustment, fHV                0.784
Driver population factor, fp                 1.00
Flow rate, vp                                858            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                858            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           2
Density, D                                   12.3           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2018_AM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1272          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     342           v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               716           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               716           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  10.2          pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2018_PM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1317           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     336            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               697            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               697            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  10.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2018_AM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1121           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     289            v
Trucks and buses                            17             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.920
Driver population factor, fp                1.00
Flow rate, vp                               628            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               628            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  9.0            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2018_PM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1165           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     307            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               651            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               651            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  9.3            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2018_AM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1121           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     289            v
Trucks and buses                            17             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.615
Driver population factor, fp                1.00
Flow rate, vp                               939            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               939            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2018_PM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1165           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     307            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.690
Driver population factor, fp                1.00
Flow rate, vp                               889            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               889            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 40_2018_AM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Gilman Springs Rd to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    1460          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      376           v
Trucks and buses                             12            %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.942
Driver population factor, fp                 1.00
Flow rate, vp                                799           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                799           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           2
Density, D                                   11.4          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 40_2018_PM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Gilman Springs Rd to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1486           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     391            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               819            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               819            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2018_AM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1481           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     382            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               811            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               811            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2018_PM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1504           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     396            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               829            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               829            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2018_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1817           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     468            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               981            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               981            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2018_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1882           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     495            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1027           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1027           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2018_AM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2592           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     668            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1359           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1359           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          2
Density, D                                  19.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2018_PM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2695           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     709            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1457           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1457           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          2
Density, D                                  21.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2018_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3192           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     823            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1690           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1690           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          2
Density, D                                  25.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2018_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3003           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     790            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1631           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1631           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          2
Density, D                                  24.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2488           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2488           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.8           mi/h
Number of lanes, N                          2
Density, D                                  49.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2786           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     733            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1506           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1506           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          2
Density, D                                  21.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4328           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1115           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2313           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2313           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.6           mi/h
Number of lanes, N                          2
Density, D                                  41.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3251           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     856            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1774           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1774           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          2
Density, D                                  26.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7385           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1903           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1945           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1945           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          4
Density, D                                  30.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8085          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2128          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2174          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2174          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.0          mi/h
Number of lanes, N                          4
Density, D                                  36.9          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2018_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    7050           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1817           v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Rolling
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     2.5
Recreational vehicle PCE, ER                 2.0
Heavy vehicle adjustment, fHV                0.885
Driver population factor, fp                 1.00
Flow rate, vp                                2053           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                2053           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               61.6           mi/h
Number of lanes, N                           4
Density, D                                   33.3           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2018_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6885          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1812          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Rolling
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               1939          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1939          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.7          mi/h
Number of lanes, N                          4
Density, D                                  30.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2018_AM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2464           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2464           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.5           mi/h
Number of lanes, N                          3
Density, D                                  47.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2018_PM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4062           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1069           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1457           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1457           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          3
Density, D                                  21.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2018_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6485           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1671           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2278           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2278           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.5           mi/h
Number of lanes, N                          3
Density, D                                  40.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2018_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5115          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1346          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1825          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1825          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.5          mi/h
Number of lanes, N                          3
Density, D                                  27.9          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2018_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4697          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211          v
Trucks and buses                            2             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1633          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1633          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.8          mi/h
Number of lanes, N                          3
Density, D                                  24.1          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2018_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5477          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1441          v
Trucks and buses                            2             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1945          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1945          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.6          mi/h
Number of lanes, N                          3
Density, D                                  30.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2018_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4515           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1164           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1586           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1586           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          3
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2018_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5262           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1385           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1887           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1887           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          3
Density, D                                  29.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2018_AM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4326           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1115           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1151           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1151           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2018_PM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5020           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1321           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1363           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1363           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2018_AM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4296           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1107           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1143           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1143           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2018_PM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4981           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1311           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1353           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1353           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2018_AM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4277          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1102          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1138          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1138          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.3          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2018_PM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4958           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1305           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1346           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1346           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2018_AM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5070          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1307          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1342          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1342          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.8          mi/h
Number of lanes, N                          4
Density, D                                  19.2          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2018_PM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5970           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1571           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1613           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1613           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.0           mi/h
Number of lanes, N                          4
Density, D                                  23.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2018_AM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4888           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1260           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1030           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1030           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2018_PM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4648           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1223           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1000           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1000           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2018_AM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5456           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1406           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1444           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1444           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2018_PM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5111           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1345           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1368           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1368           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2018_AM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7339           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1891           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1539           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1539           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          5
Density, D                                  22.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2018_PM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5698           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1499           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1226           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1226           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7821           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2016           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2110           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2110           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.4           mi/h
Number of lanes, N                          4
Density, D                                  34.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9400          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2474          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2565          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2565          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              48.4          mi/h
Number of lanes, N                          4
Density, D                                  53.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6656           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1715           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1745           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1745           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          4
Density, D                                  26.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9400           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2474           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2528           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2528           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.5           mi/h
Number of lanes, N                          4
Density, D                                  51.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2018_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7108           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1832           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1891           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1891           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          4
Density, D                                  29.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2018_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

__________________________Operational Analysis___________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Grove Ave to Euclid Ave
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________Flow Inputs and Adjustments____________________________

Volume, V                                    7527            veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      1981            v
Trucks and buses                             4               %
Recreational vehicles                        1               %
Terrain type:                                Level
    Grade                                    -               %
    Segment length                           -               mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2024            pc/h/ln

__________________________Speed Inputs and Adjustments___________________________

Lane width                                   -               ft
Right-side lateral clearance                 -               ft
Total ramp density, TRD                      -               ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0            mi/h
Lane width adjustment, fLW                   -               mi/h
Lateral clearance adjustment, fLC            -               mi/h
TRD adjustment                               -               mi/h
Free-flow speed, FFS                         70.0            mi/h

__________________________LOS and Performance Measures___________________________

Flow rate, vp                                2024            pc/h/ln
Free-flow speed, FFS                         70.0            mi/h
Average passenger-car speed, S               62.1            mi/h
Number of lanes, N                           4
Density, D                                   32.6            pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2018_AM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6859           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1768           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1869           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1869           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2018_PM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6883           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1811           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1878           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1878           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          4
Density, D                                  29.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2018_AM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6751           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1740           v
Trucks and buses                             12             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.942
Driver population factor, fp                 1.00
Flow rate, vp                                1848           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1848           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               65.1           mi/h
Number of lanes, N                           4
Density, D                                   28.4           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2018_PM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6489           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1708           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1779           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1779           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          4
Density, D                                  26.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2018_AM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6167           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1589           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1648           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1648           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.7           mi/h
Number of lanes, N                          4
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2018_PM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6459           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1700           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1737           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1737           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  26.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2018_AM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6638           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1711           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1748           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1748           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          4
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2018_PM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6223           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1638           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1674           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1674           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2018_AM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4206           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1084           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1102           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1102           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2018_PM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6373           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1713           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1742           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1742           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          4
Density, D                                  26.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2018_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4797          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1236          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1676          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1676          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.4          mi/h
Number of lanes, N                          3
Density, D                                  24.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2018_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5269          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1416          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1921          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1921          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.0          mi/h
Number of lanes, N                          3
Density, D                                  30.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6354           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1638           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2253           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2253           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.1           mi/h
Number of lanes, N                          3
Density, D                                  39.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2595           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2595           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.4           mi/h
Number of lanes, N                          3
Density, D                                  54.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2018_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1857           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1857           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          4
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2018_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1937           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1937           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.7           mi/h
Number of lanes, N                          4
Density, D                                  30.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2018_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7101           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1830           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1861           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1861           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          4
Density, D                                  28.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2018_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7990           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2148           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2184           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2184           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.8           mi/h
Number of lanes, N                          4
Density, D                                  37.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2018_AM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4763           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1228           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1248           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1248           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2018_PM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4956           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1332           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1355           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1355           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7451           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1920           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2642           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2642           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.9           mi/h
Number of lanes, N                          3
Density, D                                  57.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8209           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2207           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               3022           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3022           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              31.5           mi/h
Number of lanes, N                          3
Density, D                                  96.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2018_AM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7677           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1979           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2042           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2042           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.8           mi/h
Number of lanes, N                          4
Density, D                                  33.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2018_PM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5386           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1448           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1487           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1487           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2549           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2549           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.9           mi/h
Number of lanes, N                          3
Density, D                                  52.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5797           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1558           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2144           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2144           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.7           mi/h
Number of lanes, N                          3
Density, D                                  35.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2018_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4644           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1197           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1217           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1217           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2018_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4194           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1127           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1141           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1141           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2018_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5924           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1527           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1254           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1254           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2018_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5450          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1465          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1204          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1204          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  17.2          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2018_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5805           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1496           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1529           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1529           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2018_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1918           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1918           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.0           mi/h
Number of lanes, N                          4
Density, D                                  30.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2018_AM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5166           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1331           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1361           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1361           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2018_PM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-91 WB
From/To:                 14th St to Central Ave
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7050          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1895          v
Trucks and buses                             2             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.988
Driver population factor, fp                 1.00
Flow rate, vp                                1918          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1918          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               64.0          mi/h
Number of lanes, N                           4
Density, D                                   30.0          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2476           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2476           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.1           mi/h
Number of lanes, N                          3
Density, D                                  48.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               2557           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2557           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.6           mi/h
Number of lanes, N                          3
Density, D                                  52.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2018_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5931           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1529           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1562           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1562           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          4
Density, D                                  22.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2018_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7582           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2038           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2073           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2073           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.2           mi/h
Number of lanes, N                          4
Density, D                                  33.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6381           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1645           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1681           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1681           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.3           mi/h
Number of lanes, N                          4
Density, D                                  25.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7990           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2148           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2184           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2184           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.8           mi/h
Number of lanes, N                          4
Density, D                                  37.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6106           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1574           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1608           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1608           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7990           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2148           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2184           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2184           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.8           mi/h
Number of lanes, N                          4
Density, D                                  37.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5943           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1532           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2087           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2087           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.9           mi/h
Number of lanes, N                          3
Density, D                                  34.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2570           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2570           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.2           mi/h
Number of lanes, N                          3
Density, D                                  53.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7050           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1817           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2476           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2476           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               51.1           mi/h
Number of lanes, N                           3
Density, D                                   48.4           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2570          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2570          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              48.2          mi/h
Number of lanes, N                          3
Density, D                                  53.3          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2476           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2476           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.1           mi/h
Number of lanes, N                          3
Density, D                                  48.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2570           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2570           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.2           mi/h
Number of lanes, N                          3
Density, D                                  53.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2500           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2500           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.4           mi/h
Number of lanes, N                          3
Density, D                                  49.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1895           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2608           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2608           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.0           mi/h
Number of lanes, N                          3
Density, D                                  55.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2018_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6576          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1695          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1749          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1749          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.5          mi/h
Number of lanes, N                          4
Density, D                                  26.3          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2018_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7158           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1924           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1976           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1976           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.0           mi/h
Number of lanes, N                          4
Density, D                                  31.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2018_AM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3462          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     931           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               951           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               951           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  13.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2018_PM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4847           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1289           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1311           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1311           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2018_AM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   3519          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     946           v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               981           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               981           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2018_PM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4927           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1310           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1352           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1352           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2018_AM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3689          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     992           v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1023          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1023          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2018_PM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5165           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1374           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1418           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1418           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2018_AM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3547          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     953           v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               989           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               989           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2018_PM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   4966            veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1321            v
Trucks and buses                            6               %
Recreational vehicles                       1               %
Terrain type:                               Level
    Grade                                   -               %
    Segment length                          -               mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1363            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -               ft
Right-side lateral clearance                -               ft
Total ramp density, TRD                     -               ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0            mi/h
Lane width adjustment, fLW                  -               mi/h
Lateral clearance adjustment, fLC           -               mi/h
TRD adjustment                              -               mi/h
Free-flow speed, FFS                        70.0            mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1363            pc/h/ln
Free-flow speed, FFS                        70.0            mi/h
Average passenger-car speed, S              69.7            mi/h
Number of lanes, N                          4
Density, D                                  19.6            pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2018_AM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3462           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     931            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               772            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               772            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  11.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2018_PM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4847           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1289           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1064           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1064           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2018_AM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3406           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     916            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               949            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               949            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2018_PM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4768           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1268           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1309           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1309           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2018_AM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3406           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     916            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               949            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               949            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2018_PM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4768          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1268          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1309          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1309          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.9          mi/h
Number of lanes, N                          4
Density, D                                  18.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2018_AM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3065           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     824            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               859            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               859            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2018_PM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4291           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1141           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1183           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1183           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2018_AM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 EB
From/To:                 Field Rd  to Main St
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2923          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     786           v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               819           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               819           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  11.7          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2018_PM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4092           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1088           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1129           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1129           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2018_AM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2583           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     694            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               717            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               717            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.2           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2018_PM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3616          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     962           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               983           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               983           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2018_AM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2583           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     694            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               706            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               706            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.1           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2018_PM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3616           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     962            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               978            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               978            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2018_AM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2242           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     603            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               613            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               613            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  8.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2018_PM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3139          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     835           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               849           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               849           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  12.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2018_AM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2242           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     603            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               616            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               616            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  8.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2018_PM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3139           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     835            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               849            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               849            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2018_AM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3165           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     920            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               936            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               936            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2018_PM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2713           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      699            v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                718            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                718            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   10.3           pc/mi/ln
Level of service, LOS                        A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2018_AM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3165           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     920            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               936            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               936            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2018_PM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  2713          veh/h
Peak-hour factor, PHF                      0.97
Peak 15-min volume, v15                    699           v
Trucks and buses                           3             %
Recreational vehicles                      1             %
Terrain type:                              Level
    Grade                                  -             %
    Segment length                         -             mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.983
Driver population factor, fp               1.00
Flow rate, vp                              711           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -             ft
Right-side lateral clearance               -             ft
Total ramp density, TRD                    -             ramps/mi
Number of lanes, N                         4
Free-flow speed:                           Measured
     FFS or BFFS                           70.0          mi/h
Lane width adjustment, fLW                 -             mi/h
Lateral clearance adjustment, fLC          -             mi/h
TRD adjustment                             -             mi/h
Free-flow speed, FFS                       70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              711           pc/h/ln
Free-flow speed, FFS                       70.0          mi/h
Average passenger-car speed, S             70.0          mi/h
Number of lanes, N                         4
Density, D                                 10.2          pc/mi/ln
Level of service, LOS                      A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2018_AM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 WB
From/To:                 Haugen-Lehmann Way to Main
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3646          veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1060          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1078          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1078          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   15.4          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2018_PM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3125          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     805           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               819           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               819           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  11.7          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2018_AM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3646          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1060          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1078          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1078          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  15.4          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2018_PM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3125           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     805            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               823            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               823            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2018_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4127          veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1200          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1238          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1238          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   17.7          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2018_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3537           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     912            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               950            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               950            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2018_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4327           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1258           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1298           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1298           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2018_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3709           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     956            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               996            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               996            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2018_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4808           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1398           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1435           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1435           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2018_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4121           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1062           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1101           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2018_AM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4808           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1398           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1435           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1435           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2018_PM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4121           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1062           v
Trucks and buses                             7              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1101           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   15.7           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2018_AM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4888           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1421           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1167           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1167           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2018_PM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4190           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1080           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               896            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               896            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2018_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5009           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1456           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1495           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1495           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2018_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4293           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1106           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1147           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1147           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2018_AM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5209           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1514           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1555           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1555           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          4
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2018_PM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4465           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1151           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1188           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1188           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2018_AM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4968           veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1444           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1483           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1483           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.1           mi/h
Number of lanes, N                           4
Density, D                                   21.5           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2018_PM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4259           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1098           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1138           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1138           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2018_AM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4888           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1421           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1445           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1445           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2018_PM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4190          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1080          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1104          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1104          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  15.8          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2018_AM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2739          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     744           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1009          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1009          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  14.4          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2018_PM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3285           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     847            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1148           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1148           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2018_AM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1900           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     516            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               700            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               700            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2018_PM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   2047           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     528            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               715            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               715            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.2           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2018_AM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2457           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     668            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               905            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               905            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2018_PM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3293           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     849            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1151           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1151           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2018_AM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3787           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1029           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1395           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1395           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          3
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2018_PM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     812            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1101           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2018_AM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3350           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     910            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1253           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1253           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  17.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2018_PM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4181           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1078           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1476           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1476           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          3
Density, D                                  21.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2018_AM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6697           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1820           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1869           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1869           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2018_PM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1857           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1857           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          4
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2018_AM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5146           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1398           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1906           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1906           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          3
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2018_PM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5293          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1364          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1850          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1850          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               65.1          mi/h
Number of lanes, N                           3
Density, D                                   28.4          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2018_AM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5191           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1411           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1913           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1913           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          3
Density, D                                  29.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2018_PM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4937          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1272          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1725          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1725          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.8          mi/h
Number of lanes, N                          3
Density, D                                  25.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5708          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1551          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2124          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2124          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               60.1          mi/h
Number of lanes, N                           3
Density, D                                   35.3          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5640           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1454           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2000           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2000           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          3
Density, D                                  32.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2018_AM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6088           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1654           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1724           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1724           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.8           mi/h
Number of lanes, N                          4
Density, D                                  25.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2018_PM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5802           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1495           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1543           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1543           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          4
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5201           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1413           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1437           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1437           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9400          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2423          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2464          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2464          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              51.5          mi/h
Number of lanes, N                          4
Density, D                                  47.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2018_AM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3158           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     858            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               877            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               877            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2018_PM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1232           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1232           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2018_AM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1232           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1232           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2018_PM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 SB
From/To:                 Highland Ave to Baseline Rd
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3704          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      945           v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                961           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                961           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   13.7          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2018_AM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6123           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1578           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1613           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1613           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.0           mi/h
Number of lanes, N                          4
Density, D                                  23.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2018_PM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5837          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1489          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1514          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1514          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.9          mi/h
Number of lanes, N                          4
Density, D                                  22.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2018_AM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5726           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1476           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1523           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1523           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2018_PM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 SB
From/To:                 I-10 to Washington St
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5432          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1386          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1423          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1423          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.4          mi/h
Number of lanes, N                           4
Density, D                                   20.5          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5974          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1540          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2098          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2098          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.6          mi/h
Number of lanes, N                          3
Density, D                                  34.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1798           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2439           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2439           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.2           mi/h
Number of lanes, N                          3
Density, D                                  46.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2500           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2500           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.4           mi/h
Number of lanes, N                          3
Density, D                                  49.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1798           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2439           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2439           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.2           mi/h
Number of lanes, N                          3
Density, D                                  46.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2512          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2512          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              50.0          mi/h
Number of lanes, N                          3
Density, D                                  50.2          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1798           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2451           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2451           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.8           mi/h
Number of lanes, N                          3
Density, D                                  47.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2018_AM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1902           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1902           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          4
Density, D                                  29.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2018_PM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1798           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1847           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1847           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          4
Density, D                                  28.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2018_AM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4515          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1164          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1586          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1586          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.3          mi/h
Number of lanes, N                           3
Density, D                                   23.2          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2018_PM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1199           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1634           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1634           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          3
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2018_AM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2882           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     743            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1007           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1007           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2018_PM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3854           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     983            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1333           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1333           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          3
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2018_AM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3069           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     791            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1073           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1073           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2018_PM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2539           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     648            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               878            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               878            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2018_AM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2528           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     652            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               883            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               883            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2018_PM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3111           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     794            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1076           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1076           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2018_AM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 SB
From/To:                 Newport Rd to Scott Rd
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2294          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      591           v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                802           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                802           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   11.5          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2018_PM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2318           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     591            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               802            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               802            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2018_AM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    4431           veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1204           v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1633           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1633           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               67.8           mi/h
Number of lanes, N                           3
Density, D                                   24.1           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2018_PM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3185          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     821           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1119          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1119          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  16.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2018_AM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3500           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     951            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               967            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               967            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2018_PM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 D St to Nuevo St
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4813          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1240          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1262          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1262          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   18.0          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2018_AM_Peak_I-215_NB_Nuevo_St_to_Ramona_Expy.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    4515           veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1227           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1672           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1672           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               67.4           mi/h
Number of lanes, N                           3
Density, D                                   24.8           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2018_PM_Peak_I-215_NB_Nuevo_St_to_Ramona_Expy.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    5262           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1356           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1848           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1848           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               65.1           mi/h
Number of lanes, N                           3
Density, D                                   28.4           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2018_AM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4913           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1335           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1819           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1819           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.6           mi/h
Number of lanes, N                          3
Density, D                                  27.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2018_PM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5947           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1533           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2089           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2089           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.8           mi/h
Number of lanes, N                          3
Density, D                                  34.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2018_AM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5097           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1385           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1878           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1878           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          3
Density, D                                  29.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2018_PM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 Harley Knox to Van Buren
Jurisdiction:            Caltrans
Analysis Year:           2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4415          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1138          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1566          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1566          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.4          mi/h
Number of lanes, N                           3
Density, D                                   22.9          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2018_AM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4817           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1309           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1338           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1338           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2018_PM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4206           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1084           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1102           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1102           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2018_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4515           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1227           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1672           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1672           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          3
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2018_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5262           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1356           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1848           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1848           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          3
Density, D                                  28.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4877           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1325           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1806           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1806           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          3
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5885          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1517          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2067          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2067          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.3          mi/h
Number of lanes, N                          3
Density, D                                  33.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2018_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5031           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1297           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1767           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1767           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          3
Density, D                                  26.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2018_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6129           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1564           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2131           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2131           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.9           mi/h
Number of lanes, N                          3
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2018_AM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3572           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     921            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               936            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               936            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2018_PM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6195           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1580           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1607           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1607           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2018_AM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3802          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     980           v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1374          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1374          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.6          mi/h
Number of lanes, N                          3
Density, D                                  19.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2018_PM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1798           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2439           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2439           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.2           mi/h
Number of lanes, N                          3
Density, D                                  46.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2018_AM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2658           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     685            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               933            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               933            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2018_PM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5310           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1355           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1837           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1837           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          3
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2018_AM_Peak_I-215_SB_Ramona_Expy_to_Nuevo.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Nuevo
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4515           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1164           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1586           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1586           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          3
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2018_PM_Peak_I-215_SB_Ramona_Expy_to_Nuevo.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Nuevo
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5262          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1342          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1829          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1829          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.4          mi/h
Number of lanes, N                          3
Density, D                                  28.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2018_AM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3380           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     871            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               890            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               890            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2018_PM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3249           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     829            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               847            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               847            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2018_AM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2538           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     654            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               891            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               891            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2018_PM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   2634           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     672            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               916            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               916            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2018_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4221    786     294     33      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1135    211     79      9
Trucks and buses                       4       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4639    868     320     36      pc/h

Volume ratio, VR                               0.203

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1188        lc/h
Weaving lane changes, LCW                  1746        lc/h
Non-weaving vehicle index, INW             556
Non-weaving lane change, LCNW              921         lc/h
Total lane changes, LCALL                  2667        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.322
Average weaving speed, SW                  56.6        mi/h
Average non-weaving speed, SNW             55.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 20.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.538
Weaving segment flow rate, v               5863        pc/h
Weaving segment capacity, cW               10670       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4563        1700         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400        2181         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00        0.538        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2018_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5971    509     303     34      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1523    130     77      9
Trucks and buses                       5       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6257    533     313     35      pc/h

Volume ratio, VR                               0.119

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        846         lc/h
Weaving lane changes, LCW                  1404        lc/h
Non-weaving vehicle index, INW             749
Non-weaving lane change, LCNW              1255        lc/h
Total lane changes, LCALL                  2659        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.322
Average weaving speed, SW                  56.6        mi/h
Average non-weaving speed, SNW             57.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.0        mi/h
Weaving segment density, D                 25.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.636
Weaving segment flow rate, v               7138        pc/h
Weaving segment capacity, cW               10930       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3720        1700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2245         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.636        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5313    649     615     68      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1428    174     165     18
Trucks and buses                       4       2       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5839    706     719     74      pc/h

Volume ratio, VR                               0.194

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        719         lc/h
Weaving lane changes, LCW                  936         lc/h
Non-weaving vehicle index, INW             414
Non-weaving lane change, LCNW              827         lc/h
Total lane changes, LCALL                  1763        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.468
Average weaving speed, SW                  52.5        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 33.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.865
Weaving segment flow rate, v               7338        pc/h
Weaving segment capacity, cW               8262        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4477        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2111         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.865        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5657    519     814     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1443    132     208     15
Trucks and buses                       4       2       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5899    536     903     60      pc/h

Volume ratio, VR                               0.195

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        903         lc/h
Weaving lane changes, LCW                  1120        lc/h
Non-weaving vehicle index, INW             417
Non-weaving lane change, LCNW              837         lc/h
Total lane changes, LCALL                  1957        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.509
Average weaving speed, SW                  51.5        mi/h
Average non-weaving speed, SNW             54.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.0        mi/h
Weaving segment density, D                 34.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.870
Weaving segment flow rate, v               7398        pc/h
Weaving segment capacity, cW               8262        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4480        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2110         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.870        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2018_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4337    1311    438     49      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1166    352     118     13
Trucks and buses                       4       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4766    1441    477     53      pc/h

Volume ratio, VR                               0.285

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1441        lc/h
Weaving lane changes, LCW                  1964        lc/h
Non-weaving vehicle index, INW             602
Non-weaving lane change, LCNW              707         lc/h
Total lane changes, LCALL                  2671        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.411
Average weaving speed, SW                  54.0        mi/h
Average non-weaving speed, SNW             53.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 25.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.613
Weaving segment flow rate, v               6737        pc/h
Weaving segment capacity, cW               10768       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3854        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2201         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.613        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                   HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2018_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7102    1674    561     62      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1812    427     143     16
Trucks and buses                       15      4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7805    1746    579     64      pc/h

Volume ratio, VR                               0.228

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3            ln
Interchange density, ID                    1.0          int/mi
Minimum RF lane changes, LCRF              1            lc/pc
Minimum FR lane changes, LCFR              0            lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN        1746         lc/h
Weaving lane changes, LCW                  2269         lc/h
Non-weaving vehicle index, INW             984
Non-weaving lane change, LCNW              1336         lc/h
Total lane changes, LCALL                  3605         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.521
Average weaving speed, SW                  51.2         mi/h
Average non-weaving speed, SNW             47.6         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  48.4        mi/h
Weaving segment density, D                42.1        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.920
Weaving segment flow rate, v              10194       pc/h
Weaving segment capacity, cW              10427       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3259         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2246         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.920        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2018_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5284    392     365     19      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1420    105     98      5
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5807    427     397     21      pc/h

Volume ratio, VR                               0.124

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        824         lc/h
Weaving lane changes, LCW                  1436        lc/h
Non-weaving vehicle index, INW             932
Non-weaving lane change, LCNW              1105        lc/h
Total lane changes, LCALL                  2541        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.326
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             57.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.5        mi/h
Weaving segment density, D                 23.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.596
Weaving segment flow rate, v               6652        pc/h
Weaving segment capacity, cW               10930       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3773        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2234         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.596        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2018_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5637    921     465     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1438    235     119     6
Trucks and buses                       14      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6166    951     480     26      pc/h

Volume ratio, VR                               0.188

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1431        lc/h
Weaving lane changes, LCW                  2043        lc/h
Non-weaving vehicle index, INW             991
Non-weaving lane change, LCNW              1180        lc/h
Total lane changes, LCALL                  3223        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.393
Average weaving speed, SW                  54.5        mi/h
Average non-weaving speed, SNW             52.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.8        mi/h
Weaving segment density, D                 28.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.706
Weaving segment flow rate, v               7623        pc/h
Weaving segment capacity, cW               10191       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4411        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2185         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.706        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2018_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5110    277     562     15      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1374    74      151     4
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5698    301     612     16      pc/h

Volume ratio, VR                               0.138

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        612         lc/h
Weaving lane changes, LCW                  1092        lc/h
Non-weaving vehicle index, INW             629
Non-weaving lane change, LCNW              810         lc/h
Total lane changes, LCALL                  1902        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.348
Average weaving speed, SW                  55.8        mi/h
Average non-weaving speed, SNW             59.2        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.7        mi/h
Weaving segment density, D                 22.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.609
Weaving segment flow rate, v               6627        pc/h
Weaving segment capacity, cW               10535       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3910        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2185         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.609        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                       HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2018_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            University Ave to MLK Blvd
Analysis Year:               2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5947    836     253     13      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1517    213     65      3
Trucks and buses                       7       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6293    863     260     13      pc/h

Volume ratio, VR                               0.151

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        260         lc/h
Weaving lane changes, LCW                  740         lc/h
Non-weaving vehicle index, INW             694
Non-weaving lane change, LCNW              932         lc/h
Total lane changes, LCALL                  1672        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.314
Average weaving speed, SW                  56.8        mi/h
Average non-weaving speed, SNW             61.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.3        mi/h
Weaving segment density, D                 24.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.686
Weaving segment flow rate, v               7429        pc/h
Weaving segment capacity, cW               10487       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4043        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2175         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.686        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2018_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

____________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   2800        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Rolling
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5140    429     389     21      veh/h
Peak hour factor, PHF                   0.93    0.93    0.93    0.93
Peak 15-min volume, v15                 1382    115     105     6
Trucks and buses                        11      1       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER            2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV           0.851   0.976   0.962   0.962
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            6494    473     435     23      pc/h

Volume ratio, VR                                0.122

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.2         int/mi
Minimum RF lane changes, LCRF               0           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         435         lc/h
Weaving lane changes, LCW                   1351        lc/h
Non-weaving vehicle index, INW              2190
Non-weaving lane change, LCNW               3142        lc/h
Total lane changes, LCALL                   4493        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                 0.328
Average weaving speed, SW                   56.4        mi/h
Average non-weaving speed, SNW              59.7        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  59.3        mi/h
Weaving segment density, D                25.0        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.649
Weaving segment flow rate, v              7425        pc/h
Weaving segment capacity, cW              9902        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3757         2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2327         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.649        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2018_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            Central Ave to Box Springs
Analysis Year:               2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   2800        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Rolling
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               6482    1183    431     23      veh/h
Peak hour factor, PHF                   0.98    0.98    0.98    0.98
Peak 15-min volume, v15                 1654    302     110     6
Trucks and buses                        7       1       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER            2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV           0.897   0.976   0.962   0.962
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            7375    1237    457     24      pc/h

Volume ratio, VR                                0.186

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.2         int/mi
Minimum RF lane changes, LCRF               0           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         457         lc/h
Weaving lane changes, LCW                   1373        lc/h
Non-weaving vehicle index, INW              2486
Non-weaving lane change, LCNW               3339        lc/h
Total lane changes, LCALL                   4712        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.341
Average weaving speed, SW                   56.0        mi/h
Average non-weaving speed, SNW              58.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.6        mi/h
Weaving segment density, D                 31.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.811
Weaving segment flow rate, v               9093        pc/h
Weaving segment capacity, cW               10215       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4397        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2278         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.811        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2018_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1565    1195    251     28      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                421     321     67      8
Trucks and buses                       10      4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1770    1313    273     30      pc/h

Volume ratio, VR                               0.468

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1313        lc/h
Weaving lane changes, LCW                  1781        lc/h
Non-weaving vehicle index, INW             173
Non-weaving lane change, LCNW              58          lc/h
Total lane changes, LCALL                  1839        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.317
Average weaving speed, SW                  56.8        mi/h
Average non-weaving speed, SNW             57.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.1        mi/h
Weaving segment density, D                 11.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.460
Weaving segment flow rate, v               3386        pc/h
Weaving segment capacity, cW               7103        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5893        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2041         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.460        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2018_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6844    2003    496     55      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1746    511     127     14
Trucks and buses                       4       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7137    2089    512     57      pc/h

Volume ratio, VR                               0.266

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2089        lc/h
Weaving lane changes, LCW                  2557        lc/h
Non-weaving vehicle index, INW             691
Non-weaving lane change, LCNW              1169        lc/h
Total lane changes, LCALL                  3726        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.553
Average weaving speed, SW                  50.4        mi/h
Average non-weaving speed, SNW             45.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   46.8        mi/h
Weaving segment density, D                 41.9        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.886
Weaving segment flow rate, v               9795        pc/h
Weaving segment capacity, cW               10822       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3651        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2212         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.886        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2018_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1684    414     1075    22      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                453     111     289     6
Trucks and buses                       9       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1896    451     1170    24      pc/h

Volume ratio, VR                               0.458

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        451         lc/h
Weaving lane changes, LCW                  822         lc/h
Non-weaving vehicle index, INW             300
Non-weaving lane change, LCNW              330         lc/h
Total lane changes, LCALL                  1152        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.205
Average weaving speed, SW                  60.6        mi/h
Average non-weaving speed, SNW             62.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.6        mi/h
Weaving segment density, D                 14.4        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.470
Weaving segment flow rate, v               3541        pc/h
Weaving segment capacity, cW               7302        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5771        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2058         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.470        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2018_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                     Volume Components
                                    VFF     VRF     VFR     VRR
Volume, V                            4942    705     1364    37      veh/h
Peak hour factor, PHF                0.98    0.98    0.98    0.98
Peak 15-min volume, v15              1261    180     348     9
Trucks and buses                     4       2       2       2         %
Recreational vehicles                1       1       1       1         %
Trucks and buses PCE, ET             1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER         1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV        0.978   0.988   0.988   0.988
Driver population adjustment, fP     1.00    1.00    1.00    1.00
Flow rate, v                         5154    728     1409    38      pc/h

Volume ratio, VR                             0.292

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        728         lc/h
Weaving lane changes, LCW                  1099        lc/h
Non-weaving vehicle index, INW             810
Non-weaving lane change, LCNW              1004        lc/h
Total lane changes, LCALL                  2103        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.330
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.1        mi/h
Weaving segment density, D                 32.7        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.836
Weaving segment flow rate, v               7329        pc/h
Weaving segment capacity, cW               8607        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3928        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2199         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.836        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2018_AM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1596    487     117     6       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                411     126     30      2
Trucks and buses                       8       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1714    508     122     6       pc/h

Volume ratio, VR                               0.268

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        122         lc/h
Weaving lane changes, LCW                  343         lc/h
Non-weaving vehicle index, INW             241
Non-weaving lane change, LCNW              861         lc/h
Total lane changes, LCALL                  1204        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.151
Average weaving speed, SW                  62.8        mi/h
Average non-weaving speed, SNW             65.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.6        mi/h
Weaving segment density, D                 12.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.367
Weaving segment flow rate, v               2350        pc/h
Weaving segment capacity, cW               6196        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5244        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2152         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.367        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2018_PM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1674    460     110     6       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                441     121     29      2
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1818    490     117     6       pc/h

Volume ratio, VR                               0.250

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        117         lc/h
Weaving lane changes, LCW                  338         lc/h
Non-weaving vehicle index, INW             255
Non-weaving lane change, LCNW              882         lc/h
Total lane changes, LCALL                  1220        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.153
Average weaving speed, SW                  62.7        mi/h
Average non-weaving speed, SNW             65.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.6        mi/h
Weaving segment density, D                 12.5        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.376
Weaving segment flow rate, v               2431        pc/h
Weaving segment capacity, cW               6299        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5051        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2166         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.376        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2018_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3367    681     617     33      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                868     176     159     9
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3530    710     644     34      pc/h

Volume ratio, VR                               0.275

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1354        lc/h
Weaving lane changes, LCW                  1626        lc/h
Non-weaving vehicle index, INW             855
Non-weaving lane change, LCNW              1240        lc/h
Total lane changes, LCALL                  2866        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.300
Average weaving speed, SW                  57.3        mi/h
Average non-weaving speed, SNW             52.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  53.7         mi/h
Weaving segment density, D                30.6         pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.765
Weaving segment flow rate, v              4918         pc/h
Weaving segment capacity, cW              6330         veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5321         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2146        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.765       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2018_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2301    361     597     19      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                606     95      157     5
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2488    385     636     20      pc/h

Volume ratio, VR                               0.289

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1021        lc/h
Weaving lane changes, LCW                  1293        lc/h
Non-weaving vehicle index, INW             602
Non-weaving lane change, LCNW              1023        lc/h
Total lane changes, LCALL                  2316        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.254
Average weaving speed, SW                  58.9        mi/h
Average non-weaving speed, SNW             57.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  57.5        mi/h
Weaving segment density, D                20.4        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.553
Weaving segment flow rate, v              3529        pc/h
Weaving segment capacity, cW              6237        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5470        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2135         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.553        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5892    552     577     29      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1519    142     149     7
Trucks and buses                       4       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.935   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6499    592     610     31      pc/h

Volume ratio, VR                               0.155

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        592         lc/h
Weaving lane changes, LCW                  998         lc/h
Non-weaving vehicle index, INW             1175
Non-weaving lane change, LCNW              1388        lc/h
Total lane changes, LCALL                  2386        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.326
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             56.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.5        mi/h
Weaving segment density, D                 34.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.837
Weaving segment flow rate, v               7732        pc/h
Weaving segment capacity, cW               8680        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2520        1500         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2322         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.837        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6146    405     477     21      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1617    107     126     6
Trucks and buses                       4       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.935   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6922    443     515     23      pc/h

Volume ratio, VR                               0.121

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        443         lc/h
Weaving lane changes, LCW                  849         lc/h
Non-weaving vehicle index, INW             1250
Non-weaving lane change, LCNW              1473        lc/h
Total lane changes, LCALL                  2322        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.319
Average weaving speed, SW                  56.7        mi/h
Average non-weaving speed, SNW             57.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.2        mi/h
Weaving segment density, D                 34.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.845
Weaving segment flow rate, v               7903        pc/h
Weaving segment capacity, cW               8778        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2181        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2348         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.845        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5384    1056    579     30      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1388    272     149     8
Trucks and buses                       9       1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.993   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5811    1096    604     31      pc/h

Volume ratio, VR                               0.225

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1700        lc/h
Weaving lane changes, LCW                  2007        lc/h
Non-weaving vehicle index, INW             643
Non-weaving lane change, LCNW              1029        lc/h
Total lane changes, LCALL                  3036        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.503
Average weaving speed, SW                  51.6        mi/h
Average non-weaving speed, SNW             48.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   49.3        mi/h
Weaving segment density, D                 38.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.898
Weaving segment flow rate, v               7542        pc/h
Weaving segment capacity, cW               8088        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4798        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2117         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.898        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5045    1427    548     29      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1328    376     144     8
Trucks and buses                       7       50      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.799   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5507    1881    584     31      pc/h

Volume ratio, VR                               0.308

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2772        lc/h
Non-weaving vehicle index, INW             609
Non-weaving lane change, LCNW              967         lc/h
Total lane changes, LCALL                  3739        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.593
Average weaving speed, SW                  49.5        mi/h
Average non-weaving speed, SNW             42.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   44.6        mi/h
Weaving segment density, D                 44.9        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.987
Weaving segment flow rate, v               8003        pc/h
Weaving segment capacity, cW               7514        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5670        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2050         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.987        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2018_AM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5838    235     481     12      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1505    61      124     3
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6151    245     502     13      pc/h

Volume ratio, VR                               0.108

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        245         lc/h
Weaving lane changes, LCW                  808         lc/h
Non-weaving vehicle index, INW             863
Non-weaving lane change, LCNW              1066        lc/h
Total lane changes, LCALL                  1874        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.284
Average weaving speed, SW                  57.8        mi/h
Average non-weaving speed, SNW             61.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.2        mi/h
Weaving segment density, D                 22.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.589
Weaving segment flow rate, v               6911        pc/h
Weaving segment capacity, cW               11497       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2052        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2350         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.589        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                       HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2018_PM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5345    460     443     23      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1407    121     117     6
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5750    490     472     25      pc/h

Volume ratio, VR                               0.143

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        490         lc/h
Weaving lane changes, LCW                  1053        lc/h
Non-weaving vehicle index, INW             809
Non-weaving lane change, LCNW              985         lc/h
Total lane changes, LCALL                  2038        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.304
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             60.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.6        mi/h
Weaving segment density, D                 22.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.581
Weaving segment flow rate, v               6737        pc/h
Weaving segment capacity, cW               11370       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2394        1400         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2324         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.581        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2018_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3592    1106    864     96      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                926     285     223     25
Trucks and buses                       4       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3785    1154    910     100     pc/h

Volume ratio, VR                               0.347

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1154        lc/h
Weaving lane changes, LCW                  1649        lc/h
Non-weaving vehicle index, INW             447
Non-weaving lane change, LCNW              461         lc/h
Total lane changes, LCALL                  2110        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.365
Average weaving speed, SW                  55.3        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.7        mi/h
Weaving segment density, D                 21.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.591
Weaving segment flow rate, v               5949        pc/h
Weaving segment capacity, cW               9871        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4527         1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2142         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.591        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2018_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3932    875     818     91      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1035    230     215     24
Trucks and buses                       4       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4230    932     880     97      pc/h

Volume ratio, VR                               0.295

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        932         lc/h
Weaving lane changes, LCW                  1427        lc/h
Non-weaving vehicle index, INW             498
Non-weaving lane change, LCNW              552         lc/h
Total lane changes, LCALL                  1979        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.347
Average weaving speed, SW                  55.8        mi/h
Average non-weaving speed, SNW             57.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.9        mi/h
Weaving segment density, D                 21.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.563
Weaving segment flow rate, v               6139        pc/h
Weaving segment capacity, cW               10690       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum    Maximum       Actual       Note
Weaving length (ft)          300            3966         1150        a,b
                                     Maximum       Analyzed
Density-based capacty,                      2400         2185         c
cIWL (pc/h/ln)
                                     Maximum       Analyzed
v/c ratio                                   1.00         0.563        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2018_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            Haven Ave to Archibald Ave
Analysis Year:               2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   2400        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5580    590     475     25      veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 1438    152     122     6
Trucks and buses                        13      2       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.937   0.988   0.988   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            6138    616     496     26      pc/h

Volume ratio, VR                                0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                2           ln
Interchange density, ID                      0.8         int/mi
Minimum RF lane changes, LCRF                1           lc/pc
Minimum FR lane changes, LCFR                1           lc/pc
Minimum RR lane changes, LCRR                            lc/pc

Minimum weaving lane changes, LCMIN          1112        lc/h
Weaving lane changes, LCW                    1827        lc/h
Non-weaving vehicle index, INW               1183
Non-weaving lane change, LCNW                1608        lc/h
Total lane changes, LCALL                    3435        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                  0.300
Average weaving speed, SW                    57.3        mi/h
Average non-weaving speed, SNW               55.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 26.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.646
Weaving segment flow rate, v               7276        pc/h
Weaving segment capacity, cW               10651       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4060        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2273         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.646        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2018_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6614    755     449     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1741    199     118     6
Trucks and buses                       13      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7429    804     478     26      pc/h

Volume ratio, VR                               0.147

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1282        lc/h
Weaving lane changes, LCW                  1997        lc/h
Non-weaving vehicle index, INW             1431
Non-weaving lane change, LCNW              2172        lc/h
Total lane changes, LCALL                  4169        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.349
Average weaving speed, SW                  55.8        mi/h
Average non-weaving speed, SNW             52.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                 52.9        mi/h
Weaving segment density, D               33.1        pc/mi/ln
Level of service, LOS                    D
Weaving segment v/c ratio                0.773
Weaving segment flow rate, v             8737        pc/h
Weaving segment capacity, cW             10675       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3999         2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2277         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.773        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2018_AM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3918    464     1030    52      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1010    120     265     13
Trucks and buses                       11      2       8       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.960   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4269    484     1106    54      pc/h

Volume ratio, VR                               0.269

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        484         lc/h
Weaving lane changes, LCW                  1108        lc/h
Non-weaving vehicle index, INW             620
Non-weaving lane change, LCNW              1039        lc/h
Total lane changes, LCALL                  2147        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.234
Average weaving speed, SW                  59.6        mi/h
Average non-weaving speed, SNW             60.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.5        mi/h
Weaving segment density, D                 19.6        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.523
Weaving segment flow rate, v               5913        pc/h
Weaving segment capacity, cW               10762       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3687        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2275         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.523        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2018_PM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4405    440     975     49      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1159    116     257     13
Trucks and buses                       8       2       8       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.960   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4832    469     1069    52      pc/h

Volume ratio, VR                               0.239

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        469         lc/h
Weaving lane changes, LCW                  1093        lc/h
Non-weaving vehicle index, INW             701
Non-weaving lane change, LCNW              1154        lc/h
Total lane changes, LCALL                  2247        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.243
Average weaving speed, SW                  59.2        mi/h
Average non-weaving speed, SNW             60.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.2        mi/h
Weaving segment density, D                 21.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.560
Weaving segment flow rate, v               6422        pc/h
Weaving segment capacity, cW               11027       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3378        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.560        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2018_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5589    587     717     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1440    151     185     8
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5917    612     748     32      pc/h

Volume ratio, VR                               0.186

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                 3           ln
Interchange density, ID                       0.8         int/mi
Minimum RF lane changes, LCRF                 1           lc/pc
Minimum FR lane changes, LCFR                 0           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           612         lc/h
Weaving lane changes, LCW                     986         lc/h
Non-weaving vehicle index, INW                809
Non-weaving lane change, LCNW                 1376        lc/h
Total lane changes, LCALL                     2362        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.293
Average weaving speed, SW                     57.5        mi/h
Average non-weaving speed, SNW                56.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.0        mi/h
Weaving segment density, D                 32.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.792
Weaving segment flow rate, v               7309        pc/h
Weaving segment capacity, cW               9013        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2828        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2314         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.792        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2018_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-91 EB
Weaving Location:            Magnolia Ave to La Sierra
Analysis Year:               2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                     Volume Components
                                    VFF     VRF     VFR     VRR
Volume, V                            5167    743     1100    39      veh/h
Peak hour factor, PHF                0.93    0.93    0.93    0.93
Peak 15-min volume, v15              1389    200     296     10
Trucks and buses                     4       2       2       2         %
Recreational vehicles                1       1       1       1         %
Trucks and buses PCE, ET             1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER         1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV        0.978   0.988   0.988   0.988
Driver population adjustment, fP     1.00    1.00    1.00    1.00
Flow rate, v                         5678    809     1197    42      pc/h

Volume ratio, VR                             0.260

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         809         lc/h
Weaving lane changes, LCW                   1183        lc/h
Non-weaving vehicle index, INW              778
Non-weaving lane change, LCNW               1329        lc/h
Total lane changes, LCALL                   2512        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.308
Average weaving speed, SW                   57.1        mi/h
Average non-weaving speed, SNW              54.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.4        mi/h
Weaving segment density, D                 34.8        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.859
Weaving segment flow rate, v               7726        pc/h
Weaving segment capacity, cW               8826        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3589        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2255         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.859        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2018_AM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6265    540     232     12      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1615    139     60      3
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6665    563     242     13      pc/h

Volume ratio, VR                               0.108

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        805         lc/h
Weaving lane changes, LCW                  1145        lc/h
Non-weaving vehicle index, INW             467
Non-weaving lane change, LCNW              792         lc/h
Total lane changes, LCALL                  1937        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.505
Average weaving speed, SW                  51.6        mi/h
Average non-weaving speed, SNW             57.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 26.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.689
Weaving segment flow rate, v               7483        pc/h
Weaving segment capacity, cW               10547       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3613        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2177         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.689        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2018_PM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4024    537     341     18      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1082    144     92      5
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4444    584     371     20      pc/h

Volume ratio, VR                               0.176

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        955         lc/h
Weaving lane changes, LCW                  1295        lc/h
Non-weaving vehicle index, INW             312
Non-weaving lane change, LCNW              336         lc/h
Total lane changes, LCALL                  1631        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.441
Average weaving speed, SW                  53.2        mi/h
Average non-weaving speed, SNW             57.9        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.0        mi/h
Weaving segment density, D                 19.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.511
Weaving segment flow rate, v               5419        pc/h
Weaving segment capacity, cW               10346       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4295        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2125         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.511        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2018_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7116    649     301     34      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1834    167     78      9
Trucks and buses                       4       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7497    727     314     35      pc/h

Volume ratio, VR                               0.121

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        314         lc/h
Weaving lane changes, LCW                  698         lc/h
Non-weaving vehicle index, INW             669
Non-weaving lane change, LCNW              990         lc/h
Total lane changes, LCALL                  1688        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.433
Average weaving speed, SW                  53.4        mi/h
Average non-weaving speed, SNW             59.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.7        mi/h
Weaving segment density, D                 29.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.745
Weaving segment flow rate, v               8573        pc/h
Weaving segment capacity, cW               11204       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2183         740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2290         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.745        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2018_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              10512   831     365     41      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2826    223     98      11
Trucks and buses                       2       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.988   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           11439   971     397     45      pc/h

Volume ratio, VR                               0.106

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.111
Weaving segment flow rate, v               12852       pc/h
Weaving segment capacity, cW               11369       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2036        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2301         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.111        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6090    649     295     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1570    167     76      4
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6416    677     308     17      pc/h

Volume ratio, VR                               0.133

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        677         lc/h
Weaving lane changes, LCW                  865         lc/h
Non-weaving vehicle index, INW             386
Non-weaving lane change, LCNW              880         lc/h
Total lane changes, LCALL                  1745        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.525
Average weaving speed, SW                  51.1        mi/h
Average non-weaving speed, SNW             56.2        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 33.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.818
Weaving segment flow rate, v               7418        pc/h
Weaving segment capacity, cW               8885        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2295        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2270         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.818        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5876    872     287     15      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1580    234     77      4
Trucks and buses                       2       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.988   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6394    949     312     16      pc/h

Volume ratio, VR                               0.164

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        949         lc/h
Weaving lane changes, LCW                  1137        lc/h
Non-weaving vehicle index, INW             385
Non-weaving lane change, LCNW              875         lc/h
Total lane changes, LCALL                  2012        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.587
Average weaving speed, SW                  49.7        mi/h
Average non-weaving speed, SNW             54.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.2        mi/h
Weaving segment density, D                 36.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.854
Weaving segment flow rate, v               7671        pc/h
Weaving segment capacity, cW               8877        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2609         600         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2247         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.854        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2018_AM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1614    80      885     4       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                434     22      238     1
Trucks and buses                       5       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1782    87      973     4       pc/h

Volume ratio, VR                               0.372

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        87          lc/h
Weaving lane changes, LCW                  544         lc/h
Non-weaving vehicle index, INW             129
Non-weaving lane change, LCNW              191         lc/h
Total lane changes, LCALL                  735         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.132
Average weaving speed, SW                  63.6        mi/h
Average non-weaving speed, SNW             66.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   65.5        mi/h
Weaving segment density, D                 8.7         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.304
Weaving segment flow rate, v               2846        pc/h
Weaving segment capacity, cW               9150        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4808         1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2143         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.304        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2018_PM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       I-10 EB
Weaving Location:            Haugen-Lehmann to SR-111
Analysis Year:               2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   1450        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                      Volume Components
                                     VFF     VRF     VFR     VRR
Volume, V                             2868    61      684     3       veh/h
Peak hour factor, PHF                 0.94    0.94    0.94    0.94
Peak 15-min volume, v15               763     16      182     1
Trucks and buses                      3       2       5       2         %
Recreational vehicles                 1       1       1       1         %
Trucks and buses PCE, ET              1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER          1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV         0.983   0.988   0.974   0.988
Driver population adjustment, fP      1.00    1.00    1.00    1.00
Flow rate, v                          3103    66      747     3       pc/h

Volume ratio, VR                              0.207

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.5         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         66          lc/h
Weaving lane changes, LCW                   523         lc/h
Non-weaving vehicle index, INW              225
Non-weaving lane change, LCNW               463         lc/h
Total lane changes, LCALL                   986         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.167
Average weaving speed, SW                   62.1        mi/h
Average non-weaving speed, SNW              65.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   65.0        mi/h
Weaving segment density, D                 12.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.343
Weaving segment flow rate, v               3919        pc/h
Weaving segment capacity, cW               11200       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3047         1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2278         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.343        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2018_AM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3218    386     40      2       veh/h
Peak hour factor, PHF                  0.86    0.86    0.86    0.86
Peak 15-min volume, v15                935     112     12      1
Trucks and buses                       3       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3805    456     47      2       pc/h

Volume ratio, VR                               0.117

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        503         lc/h
Weaving lane changes, LCW                  884         lc/h
Non-weaving vehicle index, INW             209
Non-weaving lane change, LCNW              417         lc/h
Total lane changes, LCALL                  1301        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.258
Average weaving speed, SW                  58.7        mi/h
Average non-weaving speed, SNW             62.2        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.8        mi/h
Weaving segment density, D                 13.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.392
Weaving segment flow rate, v               4310        pc/h
Weaving segment capacity, cW               10821       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3702        1100         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2201         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.392        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2018_PM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1692    1333    95      5       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                436     344     24      1
Trucks and buses                       3       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1774    1398    99      5       pc/h

Volume ratio, VR                               0.457

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1497        lc/h
Weaving lane changes, LCW                  1878        lc/h
Non-weaving vehicle index, INW             98
Non-weaving lane change, LCNW              0           lc/h
Total lane changes, LCALL                  1878        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.345
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             56.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.0        mi/h
Weaving segment density, D                11.7        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.624
Weaving segment flow rate, v              3276        pc/h
Weaving segment capacity, cW              5164        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7328         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         1924         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.624        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2018_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1993    1972    278     31      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                542     536     76      8
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2225    2212    306     34      pc/h

Volume ratio, VR                               0.527

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.048
Weaving segment flow rate, v               4777        pc/h
Weaving segment capacity, cW               4433        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            8145        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1938         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.048        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2018_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2154    1628    481     53      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                555     420     124     14
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2281    1732    502     55      pc/h

Volume ratio, VR                               0.489

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       2234        lc/h
Weaving lane changes, LCW                 2695        lc/h
Non-weaving vehicle index, INW            491
Non-weaving lane change, LCNW             849         lc/h
Total lane changes, LCALL                 3544        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.342
Average weaving speed, SW                 56.0        mi/h
Average non-weaving speed, SNW            48.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.9        mi/h
Weaving segment density, D                 22.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.931
Weaving segment flow rate, v               4570        pc/h
Weaving segment capacity, cW               4781        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           7696        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1972         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.931        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5321    369     568     41      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1446    100     154     11
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5882    412     625     45      pc/h

Volume ratio, VR                               0.149

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        412         lc/h
Weaving lane changes, LCW                  893         lc/h
Non-weaving vehicle index, INW             593
Non-weaving lane change, LCNW              935         lc/h
Total lane changes, LCALL                  1828        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.305
Average weaving speed, SW                  57.1        mi/h
Average non-weaving speed, SNW             60.3        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.8        mi/h
Weaving segment density, D                 23.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.603
Weaving segment flow rate, v               6964        pc/h
Weaving segment capacity, cW               11347       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2455        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2308         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.603        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7835    514     993     57      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2019    132     256     15
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8215    544     1036    59      pc/h

Volume ratio, VR                               0.160

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        544         lc/h
Weaving lane changes, LCW                  1025        lc/h
Non-weaving vehicle index, INW             827
Non-weaving lane change, LCNW              1419        lc/h
Total lane changes, LCALL                  2444        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.384
Average weaving speed, SW                  54.8        mi/h
Average non-weaving speed, SNW             56.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.3        mi/h
Weaving segment density, D                 35.0        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.857
Weaving segment flow rate, v               9854        pc/h
Weaving segment capacity, cW               11303       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2569        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.857        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2018_AM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4856    489     516     26      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1320    133     140     7
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5421    538     568     29      pc/h

Volume ratio, VR                               0.169

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       538         lc/h
Weaving lane changes, LCW                 936         lc/h
Non-weaving vehicle index, INW            463
Non-weaving lane change, LCNW             620         lc/h
Total lane changes, LCALL                 1556        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.364
Average weaving speed, SW                 55.3        mi/h
Average non-weaving speed, SNW            59.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.0        mi/h
Weaving segment density, D                 22.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.581
Weaving segment flow rate, v               6556        pc/h
Weaving segment capacity, cW               11013       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2653        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2262         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.581        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2018_PM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5270    843     891     44      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1358    217     230     11
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5553    880     930     46      pc/h

Volume ratio, VR                               0.244

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        880         lc/h
Weaving lane changes, LCW                  1278        lc/h
Non-weaving vehicle index, INW             476
Non-weaving lane change, LCNW              651         lc/h
Total lane changes, LCALL                  1929        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.431
Average weaving speed, SW                  53.4        mi/h
Average non-weaving speed, SNW             56.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.8        mi/h
Weaving segment density, D                 26.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.674
Weaving segment flow rate, v               7409        pc/h
Weaving segment capacity, cW               10778       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3428        850          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2203         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.674        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2018_AM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3118    366     751     19      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                847     99      204     5
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3447    403     826     21      pc/h

Volume ratio, VR                               0.262

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        403         lc/h
Weaving lane changes, LCW                  1442        lc/h
Non-weaving vehicle index, INW             770
Non-weaving lane change, LCNW              562         lc/h
Total lane changes, LCALL                  2004        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.241
Average weaving speed, SW                  59.3        mi/h
Average non-weaving speed, SNW             63.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.2        mi/h
Weaving segment density, D                 12.6        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.352
Weaving segment flow rate, v               4697        pc/h
Weaving segment capacity, cW               13153       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3610        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2265         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.352        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2018_PM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5218    996     793     42      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1345    257     204     11
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5471    1039    827     44      pc/h

Volume ratio, VR                               0.253

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1039        lc/h
Weaving lane changes, LCW                  2078        lc/h
Non-weaving vehicle index, INW             1224
Non-weaving lane change, LCNW              983         lc/h
Total lane changes, LCALL                  3061        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.336
Average weaving speed, SW                  56.2        mi/h
Average non-weaving speed, SNW             56.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.5        mi/h
Weaving segment density, D                 21.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.542
Weaving segment flow rate, v               7381        pc/h
Weaving segment capacity, cW               13404       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3517        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2272         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.542        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2018_AM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5833    898     302     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1503    231     78      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6116    937     315     17      pc/h

Volume ratio, VR                               0.170

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1252        lc/h
Weaving lane changes, LCW                  2043        lc/h
Non-weaving vehicle index, INW             883
Non-weaving lane change, LCNW              758         lc/h
Total lane changes, LCALL                  2801        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.441
Average weaving speed, SW                  53.2        mi/h
Average non-weaving speed, SNW             55.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.7        mi/h
Weaving segment density, D                 22.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.568
Weaving segment flow rate, v               7385        pc/h
Weaving segment capacity, cW               12791       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4227         1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2168         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.568        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2018_PM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4456    770     508     27      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1137    196     130     7
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4624    795     525     28      pc/h

Volume ratio, VR                               0.221

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1320        lc/h
Weaving lane changes, LCW                  2111        lc/h
Non-weaving vehicle index, INW             670
Non-weaving lane change, LCNW              453         lc/h
Total lane changes, LCALL                  2564        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.411
Average weaving speed, SW                  54.0        mi/h
Average non-weaving speed, SNW             55.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 18.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.551
Weaving segment flow rate, v               5972        pc/h
Weaving segment capacity, cW               10677       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4752        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2128         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.551        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2018_AM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6544    176     320     9       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1687    45      82      2
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6962    184     334     9       pc/h

Volume ratio, VR                               0.069

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        184         lc/h
Weaving lane changes, LCW                  564         lc/h
Non-weaving vehicle index, INW             558
Non-weaving lane change, LCNW              907         lc/h
Total lane changes, LCALL                  1471        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.365
Average weaving speed, SW                  55.3        mi/h
Average non-weaving speed, SNW             61.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.0        mi/h
Weaving segment density, D                 24.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.643
Weaving segment flow rate, v               7489        pc/h
Weaving segment capacity, cW               11303       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1677        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2333         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.643        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2018_PM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5397    469     528     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1377    120     135     6
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5656    484     545     26      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        484         lc/h
Weaving lane changes, LCW                  864         lc/h
Non-weaving vehicle index, INW             455
Non-weaving lane change, LCNW              641         lc/h
Total lane changes, LCALL                  1505        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.372
Average weaving speed, SW                  55.1        mi/h
Average non-weaving speed, SNW             60.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.3        mi/h
Weaving segment density, D                 22.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.593
Weaving segment flow rate, v               6711        pc/h
Weaving segment capacity, cW               11052       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2499        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2270         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.593        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2018_AM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5156    70      1076    8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1329    18      277     2
Trucks and buses                       7       3       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.983   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5512    73      1134    8       pc/h

Volume ratio, VR                               0.179

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        146         lc/h
Weaving lane changes, LCW                  652         lc/h
Non-weaving vehicle index, INW             596
Non-weaving lane change, LCNW              906         lc/h
Total lane changes, LCALL                  1558        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.253
Average weaving speed, SW                  58.9        mi/h
Average non-weaving speed, SNW             62.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.8        mi/h
Weaving segment density, D                 21.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.589
Weaving segment flow rate, v               6727        pc/h
Weaving segment capacity, cW               11051       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2761         1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2292         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.589        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2018_PM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5233    206     798     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1335    53      204     6
Trucks and buses                       6       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5511    213     832     24      pc/h

Volume ratio, VR                               0.159

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        426         lc/h
Weaving lane changes, LCW                  932         lc/h
Non-weaving vehicle index, INW             598
Non-weaving lane change, LCNW              909         lc/h
Total lane changes, LCALL                  1841        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.289
Average weaving speed, SW                  57.7        mi/h
Average non-weaving speed, SNW             60.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.1        mi/h
Weaving segment density, D                 21.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.571
Weaving segment flow rate, v               6580        pc/h
Weaving segment capacity, cW               11182       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2553        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2308         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.571        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2018_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5179    647     1151    72      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1335    167     297     19
Trucks and buses                       12      2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5670    675     1213    75      pc/h

Volume ratio, VR                               0.247

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        675         lc/h
Weaving lane changes, LCW                  808         lc/h
Non-weaving vehicle index, INW             259
Non-weaving lane change, LCNW              657         lc/h
Total lane changes, LCALL                  1465        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.574
Average weaving speed, SW                  50.0        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.4        mi/h
Weaving segment density, D                 35.1        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.889
Weaving segment flow rate, v               7633        pc/h
Weaving segment capacity, cW               8173        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3460        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2170         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.889        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2018_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4208    782     1971    87      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1073    199     503     22
Trucks and buses                       9       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4496    808     2055    90      pc/h

Volume ratio, VR                               0.384

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        808         lc/h
Weaving lane changes, LCW                  941         lc/h
Non-weaving vehicle index, INW             206
Non-weaving lane change, LCNW              418         lc/h
Total lane changes, LCALL                  1359        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.541
Average weaving speed, SW                  50.7        mi/h
Average non-weaving speed, SNW             55.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 34.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.916
Weaving segment flow rate, v               7449        pc/h
Weaving segment capacity, cW               7855        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4940        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2057         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.916        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2018_AM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3238    287     975     15      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                880     78      265     4
Trucks and buses                       4       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3597    325     1073    17      pc/h

Volume ratio, VR                               0.279

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1398        lc/h
Weaving lane changes, LCW                  1698        lc/h
Non-weaving vehicle index, INW             347
Non-weaving lane change, LCNW              624         lc/h
Total lane changes, LCALL                  2322        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.380
Average weaving speed, SW                  54.8        mi/h
Average non-weaving speed, SNW             53.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.2        mi/h
Weaving segment density, D                 23.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.602
Weaving segment flow rate, v               5012        pc/h
Weaving segment capacity, cW               8149        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5359        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2082         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.602        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2018_PM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4506    151     597     8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1161    39      154     2
Trucks and buses                       4       6       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.969   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4748    161     626     8       pc/h

Volume ratio, VR                               0.142

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        787         lc/h
Weaving lane changes, LCW                  1087        lc/h
Non-weaving vehicle index, INW             457
Non-weaving lane change, LCNW              860         lc/h
Total lane changes, LCALL                  1947        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.331
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             57.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.5        mi/h
Weaving segment density, D                 24.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.633
Weaving segment flow rate, v               5543        pc/h
Weaving segment capacity, cW               8568        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3952        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2189         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.633        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2018_AM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5107    378     491     42      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1316    97      127     11
Trucks and buses                       4       35      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.850   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5381    459     512     44      pc/h

Volume ratio, VR                               0.152

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        459         lc/h
Weaving lane changes, LCW                  908         lc/h
Non-weaving vehicle index, INW             543
Non-weaving lane change, LCNW              697         lc/h
Total lane changes, LCALL                  1605        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.328
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             60.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.9        mi/h
Weaving segment density, D                 21.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.554
Weaving segment flow rate, v               6396        pc/h
Weaving segment capacity, cW               11189       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2483        1000         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2286         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.554        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2018_PM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5617    522     819     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1433    133     209     15
Trucks and buses                       4       35      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.850   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5858    627     846     60      pc/h

Volume ratio, VR                               0.199

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        627         lc/h
Weaving lane changes, LCW                  1076        lc/h
Non-weaving vehicle index, INW             592
Non-weaving lane change, LCNW              798         lc/h
Total lane changes, LCALL                  1874        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.371
Average weaving speed, SW                  55.1        mi/h
Average non-weaving speed, SNW             58.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.7        mi/h
Weaving segment density, D                 25.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.650
Weaving segment flow rate, v               7391        pc/h
Weaving segment capacity, cW               11008       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2963        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2250         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.650        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2018_AM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3996    315     708     17      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1030    81      182     4
Trucks and buses                       4       4       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4210    332     764     18      pc/h

Volume ratio, VR                               0.206

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        764         lc/h
Weaving lane changes, LCW                  1088        lc/h
Non-weaving vehicle index, INW             457
Non-weaving lane change, LCNW              832         lc/h
Total lane changes, LCALL                  1920        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.298
Average weaving speed, SW                  57.4        mi/h
Average non-weaving speed, SNW             58.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.0        mi/h
Weaving segment density, D                 23.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.616
Weaving segment flow rate, v               5324        pc/h
Weaving segment capacity, cW               8423        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4596        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2152         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.616        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2018_PM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2018
Description:  Wolrd Logistics Center - Existing Conditions

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4906    399     813     21      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1252    102     207     5
Trucks and buses                       4       2       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5116    412     860     22      pc/h

Volume ratio, VR                               0.198

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   0.8         int/mi
Minimum RF lane changes, LCRF             0           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       860         lc/h
Weaving lane changes, LCW                 1184        lc/h
Non-weaving vehicle index, INW            555
Non-weaving lane change, LCNW             1020        lc/h
Total lane changes, LCALL                 2204        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.333
Average weaving speed, SW                 56.3        mi/h
Average non-weaving speed, SNW            56.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.1        mi/h
Weaving segment density, D                 28.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.742
Weaving segment flow rate, v               6410        pc/h
Weaving segment capacity, cW               8442        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4520        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2158         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.742        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9134           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              266            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     577            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9134        266         577       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2455        70          152       v
Trucks and buses                       3           4           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.978       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9988        286         615       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =           (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.182   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1818   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     10274         9600            Yes
      FO
     v  or v               4085 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 4588                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4874          4600                  Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   37.1    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.761
                                              S
Space mean speed in ramp influence area,     S  = 48.7    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 54.5    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8384           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1016           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     266            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8384        1016        266       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2139        267         70        v
Trucks and buses                       3           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8701        1077        282       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.083   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  724    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     9778          9600            Yes
      FO
     v  or v               3988 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3480                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4557          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   34.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.623
                                              S
Space mean speed in ramp influence area,     S  = 52.6    mph
                                              R
Space mean speed in outer lanes,             S  = 61.6    mph
                                              0
Space mean speed for all vehicles,           S  = 57.0    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2018_AM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5529           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              450            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     167            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5529        450         167       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                1486        118         44        v
Trucks and buses                       12          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6314        477         178       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.158   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  759    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5276          12000           No
      FO
     v  or v               2020 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1919                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2396          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.259
                                              S
Space mean speed in ramp influence area,     S  = 62.8    mph
                                              R
Space mean speed in outer lanes,             S  = 66.6    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2018_PM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6913           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1206           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     74             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6913        1206        74        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1764        317         19        v
Trucks and buses                       8           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7350        1278        78        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.058   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  311    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     6644          12000           No
      FO
     v  or v               2527 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2146                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3424          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   22.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.336
                                              S
Space mean speed in ramp influence area,     S  = 60.6    mph
                                              R
Space mean speed in outer lanes,             S  = 66.0    mph
                                              0
Space mean speed for all vehicles,           S  = 63.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2018_AM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1757           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              278            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     96             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1757        278         96        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                472         73          25        v
Trucks and buses                       8           8           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.960       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1969        305         104       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.697   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1464   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1969          7200            No
      Fi   F
     v  = v - v            1664          7200            No
      FO   F   R
     v                     305           2000            No
      R
     v  or v               505  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1464                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1464          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   3.3     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.455
                                              S
Space mean speed in ramp influence area,     S  = 57.2    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 61.2    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2018_PM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           2053          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              543           vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     99            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2053        543         99        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                524         143         26        v
Trucks and buses                       4           2           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.988       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2141        578         107       pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.680   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1641   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2141          7200            No
      Fi   F
     v  = v - v            1563          7200            No
      FO   F   R
     v                     578           2000            No
      R
     v  or v               500  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1641                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1641          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   4.9     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                D  = 0.480
                                             S
Space mean speed in ramp influence area,    S  = 56.6    mph
                                             R
Space mean speed in outer lanes,            S  = 76.8    mph
                                             0
Space mean speed for all vehicles,          S  = 60.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2018_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                          Merge
Number of lanes in freeway                2
Free-flow speed on freeway                70.0           mph
Volume on freeway                         1575           vph

__________________________________On Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0           mph
Volume on ramp                            96             vph
Length of first accel/decel lane          750            ft
Length of second accel/decel lane                        ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   278            vph
Position of adjacent ramp                 Upstream
Type of adjacent ramp                     Off
Distance to adjacent ramp                 1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                  Freeway     Ramp        Adjacent
                                                             Ramp
Volume, V (vph)                      1575        96          278       vph
Peak-hour factor, PHF                0.93        0.95        0.95
Peak 15-min volume, v15              423         25          73        v
Trucks and buses                     9           6           8         %
Recreational vehicles                1           1           1         %
Terrain type:                        Level       Level       Level
     Grade                                   %           %   0.00    %
     Length                                  mi          mi  0.00    mi
Trucks and buses PCE, ET             1.5         1.5         1.5
Recreational vehicle PCE, ER         1.2         1.2         1.2
Heavy vehicle adjustment, fHV        0.955       0.969       0.960
Driver population factor, fP         1.00        1.00        1.00
Flow rate, vp                        1773        104         305       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1773   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1877          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1773                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1877          4600                 No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.294
                                              S
Space mean speed in ramp influence area,     S  = 61.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2018_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1609           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              99             vph
Length of first accel/decel lane            750            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     543            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1609        99          543       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                410         26          143       v
Trucks and buses                       5           5           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.974       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1686        107         578       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1686   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1793          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1686                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1793          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.292
                                              S
Space mean speed in ramp influence area,     S  = 61.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2018_AM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1671           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              133            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     31             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1671        133         31        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                449         35          8         v
Trucks and buses                       9           22          10        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.899       0.951
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1881        156         34        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1881   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1881          4800            No
      Fi   F
     v  = v - v            1725          4800            No
      FO   F   R
     v                     156           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1881                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1881          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   18.6    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.442
                                              S
Space mean speed in ramp influence area,     S  = 57.6    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2018_PM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1708           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              40             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     35             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1708        40          35        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                436         11          9         v
Trucks and buses                       5           23          3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.895       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1790        47          37        pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =           (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1790   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1790          4800            No
      Fi   F
     v  = v - v            1743          4800            No
      FO   F   R
     v                     47            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1790                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1790          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   17.8    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.432
                                              S
Space mean speed in ramp influence area,     S  = 57.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2018_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1569           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              31             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     133            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1569        31          133       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                422         8           35        v
Trucks and buses                       9           10          22        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.951       0.899
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1766        34          156       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1766   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1800          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1766                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1800          4600                 No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.327
                                              S
Space mean speed in ramp influence area,     S  = 60.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2018_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1703           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              35             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     40             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1703        35          40        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                434         9           11        v
Trucks and buses                       5           3           23        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.983       0.895
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1785        37          47        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1785   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1822          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1785                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1822          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   18.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.328
                                              S
Space mean speed in ramp influence area,     S  = 60.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 23_2018_AM_Peak_SR-60_EB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1600           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              335            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     7              vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1600        335         7         vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                430         88          2         v
Trucks and buses                       9           2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1801        357         7         pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1801   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1801          4800            No
      Fi   F
     v  = v - v            1444          4800            No
      FO   F   R
     v                     357           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1801                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                1801          4400                  No
      12
_________________Level of Service Determination (if not F)______________________

Density,              D = 4.252 + 0.0086 v  - 0.009  L   =   17.9    pc/mi/ln
                       R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                D  = 0.460
                                             S
Space mean speed in ramp influence area,    S  = 57.1    mph
                                             R
Space mean speed in outer lanes,            S  =  N/A    mph
                                             0
Space mean speed for all vehicles,          S  = 57.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 23_2018_PM_Peak_SR-60_EB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                          Diverge
Number of lanes in freeway                2
Free-flow speed on freeway                70.0          mph
Volume on freeway                         1738          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0          mph
Volume on ramp                            428           vph
Length of first accel/decel lane          200           ft
Length of second accel/decel lane                       ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   9             vph
Position of adjacent ramp                 Downstream
Type of adjacent ramp                     On
Distance to adjacent ramp                 2000          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                  Freeway     Ramp        Adjacent
                                                             Ramp
Volume, V (vph)                      1738        428         9         vph
Peak-hour factor, PHF                0.98        0.95        0.95
Peak 15-min volume, v15              443         113                   v
Trucks and buses                     5           2           1         %
Recreational vehicles                1           1           1         %
Terrain type:                        Level       Level       Level
     Grade                                  %           %    0.00    %
     Length                                 mi          mi   0.00    mi
Trucks and buses PCE, ET             1.5         1.5         1.5
Recreational vehicle PCE, ER         1.2         1.2         1.2
Heavy vehicle adjustment, fHV        0.974       0.988       0.993
Driver population factor, fP         1.00        1.00        1.00
Flow rate, vp                        1821        456         10        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1821   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1821          4800            No
      Fi   F
     v  = v - v            1365          4800            No
      FO   F   R
     v                     456           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1821                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1821          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   18.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.469
                                              S
Space mean speed in ramp influence area,     S  = 56.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 56.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2018_AM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1263           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              7              vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     335            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1263        7           335       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                340         2           88        v
Trucks and buses                       10          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1429        7           357       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =           (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1429   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1436          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1429                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1436          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.309
                                              S
Space mean speed in ramp influence area,     S  = 61.3    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2018_PM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1309           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              9              vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     428            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1309        9           428       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                334                     113       v
Trucks and buses                       7           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1385        10          456       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1385   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1395          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1385                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1395          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.309
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2018_AM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           1121          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              10            vph
Length of first accel/decel lane            200           ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     349           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1121        10          349       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                289         3           92        v
Trucks and buses                       17          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.920       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1256        11          372       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1256   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1256          4800            No
      Fi   F
     v  = v - v            1245          4800            No
      FO   F   R
     v                     11            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1256                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1256          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.3    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 58.0    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2018_PM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                           Diverge
Number of lanes in freeway                 2
Free-flow speed on freeway                 70.0           mph
Volume on freeway                          1165           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                            Right
Number of lanes in ramp                    1
Free-Flow speed on ramp                    35.0           mph
Volume on ramp                             9              vph
Length of first accel/decel lane           200            ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                  Yes
Volume on adjacent ramp                    330            vph
Position of adjacent ramp                  Downstream
Type of adjacent ramp                      On
Distance to adjacent ramp                  1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                   Freeway     Ramp        Adjacent
                                                              Ramp
Volume, V (vph)                       1165        9           330       vph
Peak-hour factor, PHF                 0.95        0.95        0.95
Peak 15-min volume, v15               307                     87        v
Trucks and buses                      12          1           2         %
Recreational vehicles                 1           1           1         %
Terrain type:                         Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET              1.5         1.5         1.5
Recreational vehicle PCE, ER          1.2         1.2         1.2
Heavy vehicle adjustment, fHV         0.942       0.993       0.988
Driver population factor, fP          1.00        1.00        1.00
Flow rate, vp                         1302        10          352       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1302   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1302          4800            No
      Fi   F
     v  = v - v            1292          4800            No
      FO   F   R
     v                     10            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1302                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1302          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.6    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 58.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 26_2018_AM_Peak_SR-60_WB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1110           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              349            vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     10             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1110        349         10        vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                286         92          3         v
Trucks and buses                       15          2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1232        372         11        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1232   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1604          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1232                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1604          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.312
                                              S
Space mean speed in ramp influence area,     S  = 61.3    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 26_2018_PM_Peak_SR-60_WB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1155           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              330            vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     9              vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1155        330         9         vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                304         87                    v
Trucks and buses                       11          2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1285        352         10        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1285   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1637          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1285                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1637          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.313
                                              S
Space mean speed in ramp influence area,     S  = 61.2    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.2    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 27_2018_AM_Peak_SR-60_WB_Off-Ramp_to_Theodore_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1460           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              38             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     59             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1460        38          59        vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                376         10          16        v
Trucks and buses                       12          13          31        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.937       0.864
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1598        43          72        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1598   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1598          4800            No
      Fi   F
     v  = v - v            1555          4800            No
      FO   F   R
     v                     43            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1598                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1598          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   15.7    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.432
                                              S
Space mean speed in ramp influence area,     S  = 57.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.9    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 27_2018_PM_Peak_SR-60_WB_Off-Ramp_to_Theodore_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1486           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              29             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     47             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1486        29          47        vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                391         8           12        v
Trucks and buses                       9           3           17        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.983       0.920
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1638        31          54        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1638   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1638          4800            No
      Fi   F
     v  = v - v            1607          4800            No
      FO   F   R
     v                     31            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1638                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1638          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   16.1    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                D  = 0.431
                                             S
Space mean speed in ramp influence area,    S  = 57.9    mph
                                             R
Space mean speed in outer lanes,            S  =  N/A    mph
                                             0
Space mean speed for all vehicles,          S  = 57.9    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2018_AM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1422           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              59             vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     38             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1422        59          38        vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                366         16          10        v
Trucks and buses                       11          31          13        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.864       0.937
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1550        72          43        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1550   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1622          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1550                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1622          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   12.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.281
                                              S
Space mean speed in ramp influence area,     S  = 62.1    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2018_PM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1457           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              47             vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     29             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1457        47          29        vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                383         12          8         v
Trucks and buses                       9           17          3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.920       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1606        54          31        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1606   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1660          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1606                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1660          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.282
                                              S
Space mean speed in ramp influence area,     S  = 62.1    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2018_AM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1481           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              73             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     390            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1481        73          390       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                382         19          103       v
Trucks and buses                       12          3           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.983       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1621        78          420       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1621   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1621          4800            No
      Fi   F
     v  = v - v            1543          4800            No
      FO   F   R
     v                     78            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1621                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1621          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   16.4    pc/mi/ln
                        R                   12         D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                D  = 0.435
                                             S
Space mean speed in ramp influence area,    S  = 57.8    mph
                                             R
Space mean speed in outer lanes,            S  =  N/A    mph
                                             0
Space mean speed for all vehicles,          S  = 57.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2018_PM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1504           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              73             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     434            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1504        73          434       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                396         19          114       v
Trucks and buses                       9           3           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.983       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1658        78          465       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1658   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1658          4800            No
      Fi   F
     v  = v - v            1580          4800            No
      FO   F   R
     v                     78            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1658                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1658          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   16.7    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.435
                                              S
Space mean speed in ramp influence area,     S  = 57.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2018_AM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1427           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              390            vph
Length of first accel/decel lane            800            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     73             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1427        390         73        vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                368         103         19        v
Trucks and buses                       10          4           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.978       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1548        420         78        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1548   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1968          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1548                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1968          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.293
                                              S
Space mean speed in ramp influence area,     S  = 61.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2018_PM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1448           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              434            vph
Length of first accel/decel lane            800            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     73             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1448        434         73        vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                381         114         19        v
Trucks and buses                       8           3           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.983       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1588        465         78        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1588   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2053          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1588                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2053          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   16.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.295
                                              S
Space mean speed in ramp influence area,     S  = 61.7    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2018_AM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7050           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              606            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     635            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7050        606         635       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1817        159         167       v
Trucks and buses                       4           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7428        642         676       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2406   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks__________________________________

                           Actual        Maximum         LOS F?
     v  = v                7428          9600            No
      Fi   F
     v  = v - v            6786          9600            No
      FO   F   R
     v                     642           4000            No
      R
     v  or v               2511 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2971                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                2971          4400                  No
      12A
_________________Level of Service Determination (if not F)______________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   2.8     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation___________________________________

Intermediate speed variable,                 D  = 0.486
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 72.0    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2018_PM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7050           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              498            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     819            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7050        498         819       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1855        131         216       v
Trucks and buses                       4           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7584        528         872       pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2363   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7584          9600            No
      Fi   F
     v  = v - v            7056          9600            No
      FO   F   R
     v                     528           4000            No
      R
     v  or v               2610 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3033                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3033          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   3.3     pc/mi/ln
                        R                  12         D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.476
                                              S
Space mean speed in ramp influence area,     S  = 56.7    mph
                                              R
Space mean speed in outer lanes,             S  = 71.8    mph
                                              0
Space mean speed for all vehicles,           S  = 64.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2018_AM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7050           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              595            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1086           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7050        595         1086      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1817        157         286       v
Trucks and buses                       8           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7573        631         1151      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3658   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7573          9600            No
      Fi   F
     v  = v - v            6942          9600            No
      FO   F   R
     v                     631           2000            No
      R
     v  or v               1957 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3658                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3658          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.2    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.485
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 73.1    mph
                                              0
Space mean speed for all vehicles,           S  = 64.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2018_PM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2018
Description:  Wolrd Logistics Center - Existing Conditions

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6885           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              976            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1456           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6885        976         1456      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1812        257         383       v
Trucks and buses                       4           50          50        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.799       0.799
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7407        1286        1919      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3955   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7407          9600            No
      Fi   F
     v  = v - v            6121          9600            No
      FO   F   R
     v                     1286          2000            No
      R
     v  or v               1726 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3955                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                3955          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   24.8    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.544
                                              S
Space mean speed in ramp influence area,     S  = 54.8    mph
                                              R
Space mean speed in outer lanes,             S  = 74.0    mph
                                              0
Space mean speed for all vehicles,           S  = 62.3    mph
_______________________________________________________________________________
```

Traffic Impact Analysis Report

for the World Logistics Center

Appendix J

Freeway LOS Worksheets
for Existing Plus Phase 1 Conditions

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2018_Ph1_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1659           v
Trucks and buses                            18             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.916
Driver population factor, fp                1.00
Flow rate, vp                               1811           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1811           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          4
Density, D                                  27.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2018_Ph1_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6400           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1633           v
Trucks and buses                            20             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.907
Driver population factor, fp                1.00
Flow rate, vp                               1799           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1799           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          4
Density, D                                  27.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_Ph1_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8280           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2226           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2286           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2286           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.3           mi/h
Number of lanes, N                          4
Density, D                                  40.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_Ph1_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Ramona Ave to Central Ave
Jurisdiction:            Caltrans
Analysis Year:           2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9310           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      2375           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2439           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2439           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               52.2           mi/h
Number of lanes, N                           4
Density, D                                   46.7           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2018_Ph1_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7370           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1981           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2035           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2035           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.9           mi/h
Number of lanes, N                          4
Density, D                                  32.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2018_Ph1_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8180           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2087           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2143           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2143           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.7           mi/h
Number of lanes, N                          4
Density, D                                  35.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_Ph1_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7690           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2067           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2123           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2123           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.1           mi/h
Number of lanes, N                          4
Density, D                                  35.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_Ph1_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8130           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2074           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2130           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2130           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          4
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_Ph1_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7600          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2043          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2098          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2098          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.6          mi/h
Number of lanes, N                          4
Density, D                                  34.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_Ph1_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8240           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2102           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2159           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2159           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.3           mi/h
Number of lanes, N                          4
Density, D                                  36.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2018_Ph1_AM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6980           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1876           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1927           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1927           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.9           mi/h
Number of lanes, N                          4
Density, D                                  30.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2018_Ph1_PM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9140           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2332           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2395           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2395           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.4           mi/h
Number of lanes, N                          4
Density, D                                  44.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2018_Ph1_AM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6830           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1836           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1876           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1876           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          4
Density, D                                  29.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2018_Ph1_PM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9290           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2370           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2434           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2434           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.3           mi/h
Number of lanes, N                          4
Density, D                                  46.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2018_Ph1_AM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6890          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1852          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1893          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1893          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               64.4          mi/h
Number of lanes, N                           4
Density, D                                   29.4          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2018_Ph1_PM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6660           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1699           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1745           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1745           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          4
Density, D                                  26.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2018_Ph1_AM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7840           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2108           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1748           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1748           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          5
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2018_Ph1_PM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7250           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1849           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1527           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1527           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          5
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2018_Ph1_AM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1177           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1227           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1227           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2018_Ph1_PM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5090           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1298           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1340           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1340           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2018_Ph1_AM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3740           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1005           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1043           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1043           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2018_Ph1_PM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4220           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1077           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1111           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1111           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2018_Ph1_AM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Etiwanda Ave to Mission Blvd
Jurisdiction:            Caltrans
Analysis Year:           2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3160           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      849            v
Trucks and buses                             7              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                881            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                881            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   12.6           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2018_Ph1_PM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3440           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     878            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               910            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               910            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2018_Ph1_AM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2680           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     720            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               761            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               761            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.9           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2018_Ph1_PM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2870           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     732            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               781            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               781            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2018_Ph1_AM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2910          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      782           v
Trucks and buses                             11            %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                827           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                827           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   11.8          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2018_Ph1_PM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3070           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     783            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               832            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               832            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2018_Ph1_AM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3620           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     973            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1014           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1014           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2018_Ph1_PM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3520           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     898            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               945            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               945            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2018_Ph1_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1274          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1745          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1745          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.6          mi/h
Number of lanes, N                          3
Density, D                                  26.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2018_Ph1_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5160           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1316           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1811           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1811           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          3
Density, D                                  27.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2018_Ph1_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4790          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1288          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1763          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1763          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.3          mi/h
Number of lanes, N                          3
Density, D                                  26.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2018_Ph1_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5370           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1370           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1894           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1894           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.4           mi/h
Number of lanes, N                          3
Density, D                                  29.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2018_Ph1_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1398           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1914           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1914           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          3
Density, D                                  29.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2018_Ph1_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6260           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1597           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2197           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2197           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.5           mi/h
Number of lanes, N                          3
Density, D                                  37.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_Ph1_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9740           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2618           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2802           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2802           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              40.2           mi/h
Number of lanes, N                          4
Density, D                                  69.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_Ph1_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9320           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2378           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2544           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2544           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.0           mi/h
Number of lanes, N                          4
Density, D                                  51.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2018_Ph1_AM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5540           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1489           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1529           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1529           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2018_Ph1_PM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6060           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1546           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1588           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1588           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          4
Density, D                                  23.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_Ph1_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2960           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     796            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1698           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1698           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          2
Density, D                                  25.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_Ph1_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Pigeon Pass Rd to Heacock St
Jurisdiction:            Caltrans
Analysis Year:           2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4690          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1196          v
Trucks and buses                             9             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.955
Driver population factor, fp                 1.00
Flow rate, vp                                2505          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2505          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               50.2          mi/h
Number of lanes, N                           2
Density, D                                   49.9          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2018_Ph1_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2770           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     745            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1582           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1582           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          2
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2018_Ph1_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3290           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     839            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1749           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1749           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          2
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2018_Ph1_AM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2480           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     667            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1416           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1416           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          2
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2018_Ph1_PM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2830          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     722           v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1512          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1512          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.9          mi/h
Number of lanes, N                          2
Density, D                                  22.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2018_Ph1_AM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2110           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     567            v
Trucks and buses                            15             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               815            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               815            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2018_Ph1_PM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2500           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     638            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               899            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               899            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2018_Ph1_AM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1860           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     500            v
Trucks and buses                            18             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.916
Driver population factor, fp                1.00
Flow rate, vp                               728            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               728            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.4           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2018_Ph1_PM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2140           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     546            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               777            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               777            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2018_Ph1_AM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1850           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     497            v
Trucks and buses                            18             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.916
Driver population factor, fp                1.00
Flow rate, vp                               1086           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1086           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2018_Ph1_PM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1850           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     472            v
Trucks and buses                            15             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               1017           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1017           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2018_Ph1_AM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1270           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     341            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.707
Driver population factor, fp                1.00
Flow rate, vp                               966            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               966            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2018_Ph1_PM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1280           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     327            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.743
Driver population factor, fp                1.00
Flow rate, vp                               878            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               878            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2018_Ph1_AM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1270           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     341            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               722            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               722            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  10.3           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2018_Ph1_PM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1280           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     327            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               684            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               684            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  9.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2018_Ph1_AM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     294            v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               645            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               645            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  9.2            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2018_Ph1_PM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1120          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     295           v
Trucks and buses                            14            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               632           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               632           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  9.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2018_Ph1_AM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     294            v
Trucks and buses                            18             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.602
Driver population factor, fp                1.00
Flow rate, vp                               975            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               975            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2018_Ph1_PM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1120           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     295            v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.658
Driver population factor, fp                1.00
Flow rate, vp                               896            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               896            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2018_Ph1_AM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     456            v
Trucks and buses                            23             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.895
Driver population factor, fp                1.00
Flow rate, vp                               1019           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1019           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2018_Ph1_PM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1670           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     439            v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               964            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               964            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2018_Ph1_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     515            v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               1131           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1131           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  16.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2018_Ph1_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1960           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     516            v
Trucks and buses                            18             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.916
Driver population factor, fp                1.00
Flow rate, vp                               1126           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1126           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  16.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2018_Ph1_AM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     696            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1471           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1471           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          2
Density, D                                  21.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2018_Ph1_PM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2810           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     739            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1571           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1571           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          2
Density, D                                  23.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2018_Ph1_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3240           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     835            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1765           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1765           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          2
Density, D                                  26.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2018_Ph1_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3070          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     808           v
Trucks and buses                            11            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1708          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1708          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.0          mi/h
Number of lanes, N                          2
Density, D                                  25.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_Ph1_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1222           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2558           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2558           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.6           mi/h
Number of lanes, N                          2
Density, D                                  52.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_Ph1_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2800           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     737            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1558           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1558           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          2
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_Ph1_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1113           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               2354           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2354           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.6           mi/h
Number of lanes, N                          2
Density, D                                  43.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_Ph1_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3230           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     850            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1805           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1805           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          2
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_Ph1_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1874           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1934           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1934           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.8           mi/h
Number of lanes, N                          4
Density, D                                  30.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_Ph1_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8230           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2166           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2235           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2235           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.6           mi/h
Number of lanes, N                          4
Density, D                                  38.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2018_Ph1_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6940           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1789           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.862
Driver population factor, fp                1.00
Flow rate, vp                               2075           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2075           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.1           mi/h
Number of lanes, N                          4
Density, D                                  34.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2018_Ph1_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1834           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               2018           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2018           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.2           mi/h
Number of lanes, N                          4
Density, D                                  32.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2018_Ph1_AM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    6830           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1760           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2410           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                2410           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               53.0           mi/h
Number of lanes, N                           3
Density, D                                   45.5           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2018_Ph1_PM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4330           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1139           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1568           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1568           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          3
Density, D                                  22.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2018_Ph1_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6310          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1626          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2227          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2227          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              57.8          mi/h
Number of lanes, N                          3
Density, D                                  38.6          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2018_Ph1_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5220           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1374           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1881           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1881           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.6           mi/h
Number of lanes, N                          3
Density, D                                  29.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2018_Ph1_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4520           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1165           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1587           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1587           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          3
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2018_Ph1_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5610           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1476           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2012           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2012           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.4           mi/h
Number of lanes, N                          3
Density, D                                  32.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2018_Ph1_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4520           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1165           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1603           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1603           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          3
Density, D                                  23.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2018_Ph1_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5400           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1421           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1955           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1955           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.4           mi/h
Number of lanes, N                          3
Density, D                                  30.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2018_Ph1_AM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4170          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1075          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1120          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1120          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2018_Ph1_PM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5100          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1342          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1392          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1392          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.6          mi/h
Number of lanes, N                          4
Density, D                                  20.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2018_Ph1_AM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1072           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1117           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1117           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2018_Ph1_PM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5120           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1347           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1397           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1397           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2018_Ph1_AM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1070           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1115           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1115           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2018_Ph1_PM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5090           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1339           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1389           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1389           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  20.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2018_Ph1_AM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1289           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1336           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1336           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2018_Ph1_PM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6120           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1611           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1662           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1662           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.5           mi/h
Number of lanes, N                          4
Density, D                                  24.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2018_Ph1_AM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4680           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1206           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               996            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               996            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2018_Ph1_PM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4780           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1258           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1039           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1039           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2018_Ph1_AM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5330           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1374           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1418           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1418           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2018_Ph1_PM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5240           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1379           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1409           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1409           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2018_Ph1_AM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1861           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1521           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1521           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          5
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2018_Ph1_PM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5820          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1532          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1258          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1258          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  18.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_Ph1_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1987           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2090           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2090           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.8           mi/h
Number of lanes, N                          4
Density, D                                  34.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_Ph1_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9510          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2503          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2595          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2595          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              47.4          mi/h
Number of lanes, N                          4
Density, D                                  54.7          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_Ph1_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1693           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1731           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1731           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_Ph1_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9510           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2503           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2570           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2570           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.2           mi/h
Number of lanes, N                          4
Density, D                                  53.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2018_Ph1_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7020           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1809           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1876           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1876           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          4
Density, D                                  29.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2018_Ph1_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Grove Ave to Euclid Ave
Jurisdiction:            Caltrans
Analysis Year:           2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7630          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      2008          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2062          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2062          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               61.4          mi/h
Number of lanes, N                           4
Density, D                                   33.6          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2018_Ph1_AM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6770          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1745          v
Trucks and buses                            12            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1853          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1853          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.1          mi/h
Number of lanes, N                          4
Density, D                                  28.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2018_Ph1_PM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6990           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      1839           v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1917           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1917           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               64.0           mi/h
Number of lanes, N                           4
Density, D                                   29.9           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2018_Ph1_AM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6650           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1714           v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1829           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1829           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          4
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2018_Ph1_PM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6600           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1737           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1818           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1818           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.6           mi/h
Number of lanes, N                          4
Density, D                                  27.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2018_Ph1_AM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6090          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1570          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1643          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1643          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.7          mi/h
Number of lanes, N                          4
Density, D                                  24.3          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2018_Ph1_PM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6560           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1726           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1773           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1773           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          4
Density, D                                  26.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2018_Ph1_AM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6560           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1691           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1736           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1736           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  26.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2018_Ph1_PM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6330           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1666           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1711           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1711           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          4
Density, D                                  25.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2018_Ph1_AM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4270          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1101          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1125          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1125          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2018_Ph1_PM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  6340          veh/h
Peak-hour factor, PHF                      0.93
Peak 15-min volume, v15                    1704          v
Trucks and buses                           4             %
Recreational vehicles                      1             %
Terrain type:                              Level
    Grade                                  -             %
    Segment length                         -             mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.978
Driver population factor, fp               1.00
Flow rate, vp                              1742          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -             ft
Right-side lateral clearance               -             ft
Total ramp density, TRD                    -             ramps/mi
Number of lanes, N                         4
Free-flow speed:                           Measured
     FFS or BFFS                           70.0          mi/h
Lane width adjustment, fLW                 -             mi/h
Lateral clearance adjustment, fLC          -             mi/h
TRD adjustment                             -             mi/h
Free-flow speed, FFS                       70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              1742          pc/h/ln
Free-flow speed, FFS                       70.0          mi/h
Average passenger-car speed, S             66.6          mi/h
Number of lanes, N                         4
Density, D                                 26.2          pc/mi/ln
Level of service, LOS                      D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2018_Ph1_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4890           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1260           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1717           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1717           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          3
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2018_Ph1_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5250           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1411           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1923           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1923           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.9           mi/h
Number of lanes, N                          3
Density, D                                  30.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_Ph1_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6450           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1662           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2299           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2299           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.0           mi/h
Number of lanes, N                          3
Density, D                                  41.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_Ph1_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7030           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1890           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2588           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2588           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.7           mi/h
Number of lanes, N                          3
Density, D                                  54.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2018_Ph1_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7130          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1838          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1887          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1887          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.5          mi/h
Number of lanes, N                          4
Density, D                                  29.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2018_Ph1_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7020          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1887          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1938          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1938          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.7          mi/h
Number of lanes, N                          4
Density, D                                  30.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2018_Ph1_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1848           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1889           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1889           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          4
Density, D                                  29.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2018_Ph1_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7970           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2142           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2179           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2179           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.9           mi/h
Number of lanes, N                          4
Density, D                                  37.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2018_Ph1_AM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4800           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1237           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1264           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1264           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  18.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2018_Ph1_PM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4940           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1328           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1357           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1357           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_Ph1_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7500           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1933           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2673           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2673           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.8           mi/h
Number of lanes, N                          3
Density, D                                  59.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_Ph1_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2202           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               3015           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3015           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              31.8           mi/h
Number of lanes, N                          3
Density, D                                  94.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2018_Ph1_AM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1987           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2061           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2061           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.4           mi/h
Number of lanes, N                          4
Density, D                                  33.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2018_Ph1_PM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5370           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1444           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1490           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1490           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_Ph1_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7000          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1804          v
Trucks and buses                            11            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               2543          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2543          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              49.1          mi/h
Number of lanes, N                          3
Density, D                                  51.8          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_Ph1_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5800           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1559           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2156           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2156           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.4           mi/h
Number of lanes, N                          3
Density, D                                  36.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2018_Ph1_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1178           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1204           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1204           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2018_Ph1_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4240           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1140           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1153           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1153           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2018_Ph1_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5880           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1515           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1251           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1251           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2018_Ph1_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5500           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1478           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1215           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1215           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2018_Ph1_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5830           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1503           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1543           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1543           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          4
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2018_Ph1_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6990           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1879           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1911           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1911           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          4
Density, D                                  29.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2018_Ph1_AM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5150          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1327          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1363          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1363          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.7          mi/h
Number of lanes, N                          4
Density, D                                  19.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2018_Ph1_PM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7020           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1887           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1919           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1919           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.0           mi/h
Number of lanes, N                          4
Density, D                                  30.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_Ph1_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1804           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2470           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2470           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.3           mi/h
Number of lanes, N                          3
Density, D                                  48.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_Ph1_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7030          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1890          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2563          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2563          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              48.4          mi/h
Number of lanes, N                          3
Density, D                                  52.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2018_Ph1_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5870          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1513          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1554          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1554          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.5          mi/h
Number of lanes, N                           4
Density, D                                   22.7          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2018_Ph1_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7590           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2040           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2085           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2085           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.9           mi/h
Number of lanes, N                          4
Density, D                                  34.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_Ph1_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6310           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1626           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1670           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1670           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_Ph1_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8010          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2153          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2201          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2201          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              58.4          mi/h
Number of lanes, N                          4
Density, D                                  37.7          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_Ph1_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1557           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1599           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1599           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_Ph1_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8020           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2156           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2203           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2203           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.3           mi/h
Number of lanes, N                          4
Density, D                                  37.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_Ph1_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5870           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1513           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2072           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2072           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.2           mi/h
Number of lanes, N                          3
Density, D                                  33.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_Ph1_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1909          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2601          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2601          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              47.2          mi/h
Number of lanes, N                          3
Density, D                                  55.1          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_Ph1_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6990           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1802           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2467           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2467           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.4           mi/h
Number of lanes, N                          3
Density, D                                  48.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_Ph1_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7090           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1906           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2597           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2597           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.4           mi/h
Number of lanes, N                          3
Density, D                                  54.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_Ph1_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6960           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1794           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2456           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2456           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.7           mi/h
Number of lanes, N                          3
Density, D                                  47.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_Ph1_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1909           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2601           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2601           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.2           mi/h
Number of lanes, N                          3
Density, D                                  55.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_Ph1_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6960           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1794           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2480           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2480           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.0           mi/h
Number of lanes, N                          3
Density, D                                  48.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_Ph1_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1909           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2626           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2626           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.4           mi/h
Number of lanes, N                          3
Density, D                                  56.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2018_Ph1_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6480           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1670           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1732           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1732           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  26.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2018_Ph1_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7220           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1941           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2003           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2003           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.5           mi/h
Number of lanes, N                          4
Density, D                                  32.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2018_Ph1_AM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3490          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     938           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               959           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               959           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  13.7          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2018_Ph1_PM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1261           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1282           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1282           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2018_Ph1_AM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3530           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     949            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               984            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               984            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2018_Ph1_PM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4890           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1301           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1342           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1342           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2018_Ph1_AM_Peak_I-10_EB_Pennsylvania_to_Highland_Sprin.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Sprin
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3700           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     995            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1031           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1031           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2018_Ph1_PM_Peak_I-10_EB_Pennsylvania_to_Highland_Sprin.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Sprin
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5120           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1362           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1405           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1405           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2018_Ph1_AM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3540           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     952            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               987            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               987            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2018_Ph1_PM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4960          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1319          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1361          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1361          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.7          mi/h
Number of lanes, N                          4
Density, D                                  19.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2018_Ph1_AM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3450           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     927            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               769            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               769            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  11.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2018_Ph1_PM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4850           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1290           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1065           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1065           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2018_Ph1_AM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3390          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     911           v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               945           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               945           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  13.5          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2018_Ph1_PM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4770           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1269           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1309           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1309           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2018_Ph1_AM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     909            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               942            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               942            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2018_Ph1_PM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4770           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1269           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1309           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1309           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2018_Ph1_AM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3040           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     817            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               852            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               852            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2018_Ph1_PM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4300           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1144           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1186           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1186           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2018_Ph1_AM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2890           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     777            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               813            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               813            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2018_Ph1_PM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4110           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1093           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1134           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1134           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2018_Ph1_AM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2560           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     688            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               710            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               710            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.1           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2018_Ph1_PM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3630          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     965           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               987           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               987           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2018_Ph1_AM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2560           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     688            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               700            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               700            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2018_Ph1_PM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3640           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     968            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               985            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               985            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2018_Ph1_AM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2230          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     599           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               613           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               613           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  8.8           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2018_Ph1_PM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3160          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     840           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               855           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               855           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  12.2          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2018_Ph1_AM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2230           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     599            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               616            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               616            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  8.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2018_Ph1_PM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3160           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     840            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               855            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               855            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2018_Ph1_AM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3190           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     927            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               948            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               948            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2018_Ph1_PM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2680           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     691            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               709            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               709            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.1           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2018_Ph1_AM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3190           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     927            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               943            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               943            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2018_Ph1_PM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  2680           veh/h
Peak-hour factor, PHF                      0.97
Peak 15-min volume, v15                    691            v
Trucks and buses                           3              %
Recreational vehicles                      1              %
Terrain type:                              Level
    Grade                                  -              %
    Segment length                         -              mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.983
Driver population factor, fp               1.00
Flow rate, vp                              702            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -              ft
Right-side lateral clearance               -              ft
Total ramp density, TRD                    -              ramps/mi
Number of lanes, N                         4
Free-flow speed:                           Measured
     FFS or BFFS                           70.0           mi/h
Lane width adjustment, fLW                 -              mi/h
Lateral clearance adjustment, fLC          -              mi/h
TRD adjustment                             -              mi/h
Free-flow speed, FFS                       70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              702            pc/h/ln
Free-flow speed, FFS                       70.0           mi/h
Average passenger-car speed, S             70.0           mi/h
Number of lanes, N                         4
Density, D                                 10.0           pc/mi/ln
Level of service, LOS                      A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2018_Ph1_AM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3680           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1070           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1088           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1088           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2018_Ph1_PM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3080           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     794            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               807            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               807            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2018_Ph1_AM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3670           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1067           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1085           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1085           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2018_Ph1_PM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3080           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     794            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               811            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               811            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2018_Ph1_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4150           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1206           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1245           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1245           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2018_Ph1_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3490           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     899            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               942            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               942            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2018_Ph1_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4350           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1265           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1305           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1305           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2018_Ph1_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    3660           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      943            v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                983            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                983            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   14.0           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2018_Ph1_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4820           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1401           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1439           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1439           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2018_Ph1_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4080           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1052           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1090           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1090           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2018_Ph1_AM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4820           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1401           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1439           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1439           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2018_Ph1_PM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4090          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1054          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1093          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1093          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  15.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2018_Ph1_AM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4900           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1424           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1170           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1170           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2018_Ph1_PM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1072           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               889            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               889            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2018_Ph1_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5010           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1456           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1496           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1496           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2018_Ph1_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1101           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1141           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1141           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2018_Ph1_AM_Peak_I-10_WB_Highland_Springs_to_Pennsylvan.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvan
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5190           veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1509           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1549           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1549           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               68.6           mi/h
Number of lanes, N                           4
Density, D                                   22.6           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2018_Ph1_PM_Peak_I-10_WB_Highland_Springs_to_Pennsylvan.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvan
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4440           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1144           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1187           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1187           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2018_Ph1_AM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4970           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1445           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1484           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1484           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          4
Density, D                                  21.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2018_Ph1_PM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1082           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1123           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1123           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2018_Ph1_AM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4910           veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1427           v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1452           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1452           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.3           mi/h
Number of lanes, N                           4
Density, D                                   21.0           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2018_Ph1_PM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1072           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1096           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1096           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2018_Ph1_AM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2730           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     742            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1006           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1006           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2018_Ph1_PM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     843            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1143           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1143           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2018_Ph1_AM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    1840           veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      500            v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                681            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                681            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   9.7            pc/mi/ln
Level of service, LOS                        A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2018_Ph1_PM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     526            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               713            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               713            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.2           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2018_Ph1_AM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2350           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     639            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               866            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               866            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2018_Ph1_PM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3280           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     845            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1146           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1146           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2018_Ph1_AM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3670           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     997            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1352           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1352           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          3
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2018_Ph1_PM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     809            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1097           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1097           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2018_Ph1_AM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 NB
From/To:                 SR-74 to Redlands Blvd
Jurisdiction:            Caltrans
Analysis Year:           2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3200          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      870           v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1197          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1197          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   17.1          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2018_Ph1_PM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4180           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1077           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1475           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1475           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.1           mi/h
Number of lanes, N                           3
Density, D                                   21.3           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2018_Ph1_AM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6660           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1810           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1868           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1868           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2018_Ph1_PM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1830           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1870           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1870           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2018_Ph1_AM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5120           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1391           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1896           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1896           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.4           mi/h
Number of lanes, N                          3
Density, D                                  29.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2018_Ph1_PM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5310           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1369           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1856           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1856           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          3
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2018_Ph1_AM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5160           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1402           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1901           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1901           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          3
Density, D                                  29.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2018_Ph1_PM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4980           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1284           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1740           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1740           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          3
Density, D                                  26.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_Ph1_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5690           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1546           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2128           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2128           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          3
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_Ph1_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1469           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2021           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2021           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.2           mi/h
Number of lanes, N                          3
Density, D                                  32.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2018_Ph1_AM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6070           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1649           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1719           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1719           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          4
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2018_Ph1_PM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5880          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1515          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1564          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1564          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.5          mi/h
Number of lanes, N                          4
Density, D                                  22.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_Ph1_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5190           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1410           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1434           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1434           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_Ph1_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9440          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2433          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2474          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2474          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              51.2          mi/h
Number of lanes, N                          4
Density, D                                  48.3          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2018_Ph1_AM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3140           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     853            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               872            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               872            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2018_Ph1_PM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4730           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1219           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1240           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1240           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2018_Ph1_AM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4670          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1204          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1224          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1224          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  17.5          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2018_Ph1_PM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3700           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     944            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               960            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               960            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2018_Ph1_AM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6110          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1575          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1609          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1609          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.1          mi/h
Number of lanes, N                           4
Density, D                                   23.6          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2018_Ph1_PM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5830           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1487           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1513           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1513           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2018_Ph1_AM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5780           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1490           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1537           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1537           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2018_Ph1_PM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5420           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1383           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1420           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1420           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_Ph1_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1549           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2121           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2121           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.2           mi/h
Number of lanes, N                          3
Density, D                                  35.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_Ph1_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7040           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1796           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2435           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2435           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.3           mi/h
Number of lanes, N                          3
Density, D                                  46.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_Ph1_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1830           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2518           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2518           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.8           mi/h
Number of lanes, N                          3
Density, D                                  50.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_Ph1_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7030          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1793          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                2432          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2432          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               52.4          mi/h
Number of lanes, N                           3
Density, D                                   46.4          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_Ph1_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7070           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1822           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2519           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2519           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.8           mi/h
Number of lanes, N                          3
Density, D                                  50.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_Ph1_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7010           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1788           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2449           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2449           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.9           mi/h
Number of lanes, N                          3
Density, D                                  47.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2018_Ph1_AM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7070           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1822           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1908           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1908           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          4
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2018_Ph1_PM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6990           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1783           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1831           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1831           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          4
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2018_Ph1_AM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4540          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1170          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1594          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1594          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.2          mi/h
Number of lanes, N                          3
Density, D                                  23.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2018_Ph1_PM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4610           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1176           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1603           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1603           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          3
Density, D                                  23.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2018_Ph1_AM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     747            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1014           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1014           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2018_Ph1_PM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3760           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     959            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1301           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1301           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          3
Density, D                                  18.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2018_Ph1_AM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3080           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     794            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1076           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1076           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2018_Ph1_PM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2440           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     622            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               844            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               844            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2018_Ph1_AM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2530          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     652           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               884           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               884           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  12.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2018_Ph1_PM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3020           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     770            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1045           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1045           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2018_Ph1_AM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 SB
From/To:                 Newport Rd to Scott Rd
Jurisdiction:            Caltrans
Analysis Year:           2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2290          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      590           v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                800           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                800           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   11.4          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2018_Ph1_PM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2270           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     579            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               785            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               785            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2018_Ph1_AM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4290           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1166           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1581           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1581           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          3
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2018_Ph1_PM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3190           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     822            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1120           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1120           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2018_Ph1_AM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3360           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     913            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               933            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               933            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2018_Ph1_PM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4780           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1232           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1259           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1259           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2018_Ph1_AM_Peak_I-215_NB_Nuevo_St_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4520           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1228           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1674           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1674           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          3
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2018_Ph1_PM_Peak_I-215_NB_Nuevo_St_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5230           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1348           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1837           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1837           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          3
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2018_Ph1_AM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4920           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1337           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1822           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1822           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          3
Density, D                                  27.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2018_Ph1_PM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5940           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1531           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2086           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2086           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.9           mi/h
Number of lanes, N                          3
Density, D                                  34.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2018_Ph1_AM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5070           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1378           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1868           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1868           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          3
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2018_Ph1_PM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4430          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1142          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1571          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1571          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.4          mi/h
Number of lanes, N                          3
Density, D                                  23.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2018_Ph1_AM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4770           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1296           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1325           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1325           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2018_Ph1_PM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4210           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1085           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1109           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1109           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2018_Ph1_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4450           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1209           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1648           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1648           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.7           mi/h
Number of lanes, N                          3
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2018_Ph1_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5350           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1379           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1879           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1879           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          3
Density, D                                  29.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_Ph1_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4820           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1310           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1785           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1785           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.0           mi/h
Number of lanes, N                          3
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_Ph1_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1549           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2111           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2111           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.4           mi/h
Number of lanes, N                          3
Density, D                                  35.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2018_Ph1_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5110           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1317           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1795           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1795           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.9           mi/h
Number of lanes, N                          3
Density, D                                  27.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2018_Ph1_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6070           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1548           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2110           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2110           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.4           mi/h
Number of lanes, N                          3
Density, D                                  34.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2018_Ph1_AM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3600           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     928            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               944            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               944            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2018_Ph1_PM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1574          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1601          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1601          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.1          mi/h
Number of lanes, N                          4
Density, D                                  23.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2018_Ph1_AM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3850           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     992            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1392           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1392           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          3
Density, D                                  20.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2018_Ph1_PM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7000           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1786           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2421           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2421           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.7           mi/h
Number of lanes, N                          3
Density, D                                  45.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2018_Ph1_AM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2680           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     691            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               941            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               941            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2018_Ph1_PM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5260           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1342           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1820           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1820           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          3
Density, D                                  27.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2018_Ph1_AM_Peak_I-215_SB_Ramona_Expy_to_Nuevo.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Nuevo
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4550           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1173           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1598           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1598           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          3
Density, D                                  23.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2018_Ph1_PM_Peak_I-215_SB_Ramona_Expy_to_Nuevo.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Nuevo
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5240           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1337           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1822           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1822           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          3
Density, D                                  27.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2018_Ph1_AM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     879            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               898            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               898            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2018_Ph1_PM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 SB
From/To:                 Nuevo St to D St
Jurisdiction:            Caltrans
Analysis Year:           2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  3160          veh/h
Peak-hour factor, PHF                      0.98
Peak 15-min volume, v15                    806           v
Trucks and buses                           4             %
Recreational vehicles                      1             %
Terrain type:                              Level
    Grade                                  -             %
    Segment length                         -             mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.978
Driver population factor, fp               1.00
Flow rate, vp                              824           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -             ft
Right-side lateral clearance               -             ft
Total ramp density, TRD                    -             ramps/mi
Number of lanes, N                         4
Free-flow speed:                           Measured
     FFS or BFFS                           70.0          mi/h
Lane width adjustment, fLW                 -             mi/h
Lateral clearance adjustment, fLC          -             mi/h
TRD adjustment                             -             mi/h
Free-flow speed, FFS                       70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              824           pc/h/ln
Free-flow speed, FFS                       70.0          mi/h
Average passenger-car speed, S             70.0          mi/h
Number of lanes, N                         4
Density, D                                 11.8          pc/mi/ln
Level of service, LOS                      B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2018_Ph1_AM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     662            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               907            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               907            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2018_Ph1_PM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2550           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     651            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               891            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               891            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2018_Ph1_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4353    797     297     33      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1170    214     80      9
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4807    884     323     36      pc/h

Volume ratio, VR                               0.200

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1207        lc/h
Weaving lane changes, LCW                  1765        lc/h
Non-weaving vehicle index, INW             576
Non-weaving lane change, LCNW              956         lc/h
Total lane changes, LCALL                  2721        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.328
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             55.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.7        mi/h
Weaving segment density, D                 21.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.554
Weaving segment flow rate, v               6050        pc/h
Weaving segment capacity, cW               10628       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4531        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2183         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.554        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2018_Ph1_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5885    525     315     35      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1501    134     80      9
Trucks and buses                       6       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6197    556     325     36      pc/h

Volume ratio, VR                               0.124

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        881         lc/h
Weaving lane changes, LCW                  1439        lc/h
Non-weaving vehicle index, INW             742
Non-weaving lane change, LCNW              1242        lc/h
Total lane changes, LCALL                  2681        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.324
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             56.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 25.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.635
Weaving segment flow rate, v               7114        pc/h
Weaving segment capacity, cW               10858       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3772        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2241         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.635        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_Ph1_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5530    660     630     70      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1487    177     169     19
Trucks and buses                       5       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6107    722     736     76      pc/h

Volume ratio, VR                               0.191

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        736         lc/h
Weaving lane changes, LCW                  953         lc/h
Non-weaving vehicle index, INW             433
Non-weaving lane change, LCNW              883         lc/h
Total lane changes, LCALL                  1836        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.484
Average weaving speed, SW                  52.1        mi/h
Average non-weaving speed, SNW             55.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 34.8        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.900
Weaving segment flow rate, v               7641        pc/h
Weaving segment capacity, cW               8234        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4442        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2114         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.900        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_Ph1_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            Main St to SR-91
Analysis Year:               2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           4           ln
Weaving segment length, LS                   700         ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5538    522     822     58      veh/h
Peak hour factor, PHF                   0.98    0.98    0.98    0.98
Peak 15-min volume, v15                 1413    133     210     15
Trucks and buses                        5       3       17      2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.974   0.983   0.920   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            5804    542     912     60      pc/h

Volume ratio, VR                                0.199

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               0           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         912         lc/h
Weaving lane changes, LCW                   1129        lc/h
Non-weaving vehicle index, INW              410
Non-weaving lane change, LCNW               817         lc/h
Total lane changes, LCALL                   1946        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.506
Average weaving speed, SW                   51.5        mi/h
Average non-weaving speed, SNW              54.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.0        mi/h
Weaving segment density, D                 33.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.863
Weaving segment flow rate, v               7318        pc/h
Weaving segment capacity, cW               8210        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4523        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2107         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.863        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2018_Ph1_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4530    1320    450     50      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1218    355     121     13
Trucks and buses                       6       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5027    1458    490     54      pc/h

Volume ratio, VR                               0.277

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1458        lc/h
Weaving lane changes, LCW                  1981        lc/h
Non-weaving vehicle index, INW             635
Non-weaving lane change, LCNW              761         lc/h
Total lane changes, LCALL                  2742        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.420
Average weaving speed, SW                  53.7        mi/h
Average non-weaving speed, SNW             52.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.0        mi/h
Weaving segment density, D                 26.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.639
Weaving segment flow rate, v               7029        pc/h
Weaving segment capacity, cW               10693       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3774         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2207         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.639        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2018_Ph1_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6843    1677    567     63      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1746    428     145     16
Trucks and buses                       17      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.920   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7590    1757    586     65      pc/h

Volume ratio, VR                               0.234

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1757        lc/h
Weaving lane changes, LCW                  2280        lc/h
Non-weaving vehicle index, INW             957
Non-weaving lane change, LCNW              1291        lc/h
Total lane changes, LCALL                  3571        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.517
Average weaving speed, SW                  51.2        mi/h
Average non-weaving speed, SNW             47.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.5        mi/h
Weaving segment density, D                 41.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.906
Weaving segment flow rate, v               9998        pc/h
Weaving segment capacity, cW               10308       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3324        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2242         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.906        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2018_Ph1_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5363    427     427     23      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1442    115     115     6
Trucks and buses                       6       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5951    467     465     25      pc/h

Volume ratio, VR                               0.135

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        932         lc/h
Weaving lane changes, LCW                  1544        lc/h
Non-weaving vehicle index, INW             956
Non-weaving lane change, LCNW              1135        lc/h
Total lane changes, LCALL                  2679        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.339
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             56.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.6        mi/h
Weaving segment density, D                 24.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.622
Weaving segment flow rate, v               6908        pc/h
Weaving segment capacity, cW               10780       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3882        1600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2225         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.622        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2018_Ph1_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5455    925     475     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1392    236     121     6
Trucks and buses                       16      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6023    955     493     26      pc/h

Volume ratio, VR                               0.193

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1448        lc/h
Weaving lane changes, LCW                  2060        lc/h
Non-weaving vehicle index, INW             968
Non-weaving lane change, LCNW              1150        lc/h
Total lane changes, LCALL                  3210        lc/h

_______________________Weaving and Non-Weaving Speeds_________________________
Weaving intensity factor, W                0.391
Average weaving speed, SW                  54.5        mi/h
Average non-weaving speed, SNW             52.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.8        mi/h
Weaving segment density, D                 28.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.697
Weaving segment flow rate, v               7497        pc/h
Weaving segment capacity, cW               10079       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4466        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2181         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.697        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2018_Ph1_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5239    351     581     19      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1408    94      156     5
Trucks and buses                       8       4       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.978   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5870    386     635     21      pc/h

Volume ratio, VR                               0.148

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        635         lc/h
Weaving lane changes, LCW                  1115        lc/h
Non-weaving vehicle index, INW             648
Non-weaving lane change, LCNW              847         lc/h
Total lane changes, LCALL                  1962        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.357
Average weaving speed, SW                  55.5        mi/h
Average non-weaving speed, SNW             58.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.3        mi/h
Weaving segment density, D                 23.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.637
Weaving segment flow rate, v               6912        pc/h
Weaving segment capacity, cW               10446       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4009        1100       a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2177         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.637        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2018_Ph1_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5825    855     285     15      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1486    218     73      4
Trucks and buses                       9       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6223    883     294     15      pc/h

Volume ratio, VR                               0.159

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        294         lc/h
Weaving lane changes, LCW                  774         lc/h
Non-weaving vehicle index, INW             686
Non-weaving lane change, LCNW              918         lc/h
Total lane changes, LCALL                  1692        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.317
Average weaving speed, SW                  56.7        mi/h
Average non-weaving speed, SNW             60.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.1        mi/h
Weaving segment density, D                 24.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.688
Weaving segment flow rate, v               7415        pc/h
Weaving segment capacity, cW               10358       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4119        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2169         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.688        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2018_Ph1_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5314    476     446     24      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1428    128     120     6
Trucks and buses                       13      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.830   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6885    532     499     27      pc/h

Volume ratio, VR                               0.130

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.2         int/mi
Minimum RF lane changes, LCRF             0           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       499         lc/h
Weaving lane changes, LCW                 1415        lc/h
Non-weaving vehicle index, INW            2322
Non-weaving lane change, LCNW             3230        lc/h
Total lane changes, LCALL                 4645        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.337
Average weaving speed, SW                 56.1        mi/h
Average non-weaving speed, SNW            58.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.4        mi/h
Weaving segment density, D                 27.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.699
Weaving segment flow rate, v               7943        pc/h
Weaving segment capacity, cW               9631        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3831        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2321         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.699        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2018_Ph1_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            Central Ave to Box Springs
Analysis Year:               2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6343    1207    437     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1618    308     111     6
Trucks and buses                       9       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.873   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7411    1281    464     24      pc/h

Volume ratio, VR                               0.190

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        464         lc/h
Weaving lane changes, LCW                  1380        lc/h
Non-weaving vehicle index, INW             2498
Non-weaving lane change, LCNW              3347        lc/h
Total lane changes, LCALL                  4727        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.342
Average weaving speed, SW                  56.0        mi/h
Average non-weaving speed, SNW             57.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.5        mi/h
Weaving segment density, D                 31.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.823
Weaving segment flow rate, v               9180        pc/h
Weaving segment capacity, cW               9934        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4435        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2275         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.823        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2018_Ph1_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1780    1200    270     30      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                478     323     73      8
Trucks and buses                       14      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2052    1325    294     33      pc/h

Volume ratio, VR                               0.437

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1325        lc/h
Weaving lane changes, LCW                  1793        lc/h
Non-weaving vehicle index, INW             200
Non-weaving lane change, LCNW              117         lc/h
Total lane changes, LCALL                  1910        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.326
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             56.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 13.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.472
Weaving segment flow rate, v               3704        pc/h
Weaving segment capacity, cW               7470        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5534        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2068         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.472        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2018_Ph1_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6656    2014    504     56      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1698    514     129     14
Trucks and buses                       6       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7009    2111    520     58      pc/h

Volume ratio, VR                               0.271

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2111        lc/h
Weaving lane changes, LCW                  2579        lc/h
Non-weaving vehicle index, INW             678
Non-weaving lane change, LCNW              1143        lc/h
Total lane changes, LCALL                  3722        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.552
Average weaving speed, SW                  50.4        mi/h
Average non-weaving speed, SNW             45.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   46.7        mi/h
Weaving segment density, D                 41.5        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.880
Weaving segment flow rate, v               9698        pc/h
Weaving segment capacity, cW               10698       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3712         1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2208         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.880        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2018_Ph1_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1812    418     1078    22      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                487     112     290     6
Trucks and buses                       14      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2089    455     1173    24      pc/h

Volume ratio, VR                               0.435

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        455         lc/h
Weaving lane changes, LCW                  826         lc/h
Non-weaving vehicle index, INW             330
Non-weaving lane change, LCNW              369         lc/h
Total lane changes, LCALL                  1195        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.211
Average weaving speed, SW                  60.4        mi/h
Average non-weaving speed, SNW             62.2        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.4        mi/h
Weaving segment density, D                 15.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.477
Weaving segment flow rate, v               3741        pc/h
Weaving segment capacity, cW               7503        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5513        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2078         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.477        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2018_Ph1_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4888    712     1372    38      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1247    182     350     10
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5147    735     1417    39      pc/h

Volume ratio, VR                               0.293

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        735         lc/h
Weaving lane changes, LCW                  1106        lc/h
Non-weaving vehicle index, INW             809
Non-weaving lane change, LCNW              1003        lc/h
Total lane changes, LCALL                  2109        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.331
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             55.9        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 32.7        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.840
Weaving segment flow rate, v               7338        pc/h
Weaving segment capacity, cW               8519        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3946        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2198         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.840        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2018_Ph1_AM_Peak_SR-60_EB_Theodore_St_to_Gilman_Springs_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Theodore St to Gilman Springs
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1137    123     333     7       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                306     33      90      2
Trucks and buses                       10      19      3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.912   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1286    145     364     8       pc/h

Volume ratio, VR                               0.282

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        509         lc/h
Weaving lane changes, LCW                  741         lc/h
Non-weaving vehicle index, INW             207
Non-weaving lane change, LCNW              773         lc/h
Total lane changes, LCALL                  1514        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.181
Average weaving speed, SW                  61.6        mi/h
Average non-weaving speed, SNW             63.5        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.9        mi/h
Weaving segment density, D                 9.6         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.282
Weaving segment flow rate, v               1803        pc/h
Weaving segment capacity, cW               6103        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5395        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2141         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.282        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2018_Ph1_PM_Peak_SR-60_EB_Theodore_St_to_Gilman_Springs_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Theodore St to Gilman Springs
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1047    123     423     7       veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                267     31      108     2
Trucks and buses                       7       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1108    136     437     7       pc/h

Volume ratio, VR                               0.339

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        573         lc/h
Weaving lane changes, LCW                  805         lc/h
Non-weaving vehicle index, INW             178
Non-weaving lane change, LCNW              736         lc/h
Total lane changes, LCALL                  1541        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.184
Average weaving speed, SW                  61.5        mi/h
Average non-weaving speed, SNW             63.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.6        mi/h
Weaving segment density, D                 9.0         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.270
Weaving segment flow rate, v               1688        pc/h
Weaving segment capacity, cW               6055        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           6011         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2094         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.270        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2018_Ph1_AM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Gilman Springs Rd to Theodore
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              729     341     161     9       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                188     88      41      2
Trucks and buses                       16      2       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.988   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           813     356     180     9       pc/h

Volume ratio, VR                               0.395

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        536         lc/h
Weaving lane changes, LCW                  799         lc/h
Non-weaving vehicle index, INW             164
Non-weaving lane change, LCNW              947         lc/h
Total lane changes, LCALL                  1746        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.170
Average weaving speed, SW                  62.0        mi/h
Average non-weaving speed, SNW             64.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   63.2        mi/h
Weaving segment density, D                 7.2         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.227
Weaving segment flow rate, v               1358        pc/h
Weaving segment capacity, cW               5620        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           6622        2500         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2084         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.227        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2018_Ph1_PM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Gilman Springs Rd to Theodore
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              927     333     123     7       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                244     88      32      2
Trucks and buses                       11      2       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1031    355     141     7       pc/h

Volume ratio, VR                               0.323

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        496         lc/h
Weaving lane changes, LCW                  759         lc/h
Non-weaving vehicle index, INW             208
Non-weaving lane change, LCNW              991         lc/h
Total lane changes, LCALL                  1750        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.171
Average weaving speed, SW                  62.0        mi/h
Average non-weaving speed, SNW             64.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   63.3        mi/h
Weaving segment density, D                 8.1         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.240
Weaving segment flow rate, v               1534        pc/h
Weaving segment capacity, cW               6088        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5836        2500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2145         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.240        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2018_Ph1_AM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1717    493     123     7       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                443     127     32      2
Trucks and buses                       16      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1915    514     129     7       pc/h

Volume ratio, VR                               0.251

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        129         lc/h
Weaving lane changes, LCW                  350         lc/h
Non-weaving vehicle index, INW             269
Non-weaving lane change, LCNW              902         lc/h
Total lane changes, LCALL                  1252        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.156
Average weaving speed, SW                  62.6        mi/h
Average non-weaving speed, SNW             65.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.3        mi/h
Weaving segment density, D                 13.3        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.402
Weaving segment flow rate, v               2565        pc/h
Weaving segment capacity, cW               6006        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5061         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2166         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.402        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2018_Ph1_PM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1666    464     114     6       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                438     122     30      2
Trucks and buses                       15      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1889    494     122     6       pc/h

Volume ratio, VR                               0.245

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL          2           ln
Interchange density, ID                0.7         int/mi
Minimum RF lane changes, LCRF          0           lc/pc
Minimum FR lane changes, LCFR          1           lc/pc
Minimum RR lane changes, LCRR                      lc/pc

Minimum weaving lane changes, LCMIN    122         lc/h
Weaving lane changes, LCW              343         lc/h
Non-weaving vehicle index, INW         265
Non-weaving lane change, LCNW          897         lc/h
Total lane changes, LCALL              1240        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W            0.155
Average weaving speed, SW              62.6        mi/h
Average non-weaving speed, SNW         65.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.5        mi/h
Weaving segment density, D                 13.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.392
Weaving segment flow rate, v               2511        pc/h
Weaving segment capacity, cW               6045        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5005        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2170         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.392        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2018_Ph1_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3353    687     627     33      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                864     177     162     9
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3585    717     654     34      pc/h

Volume ratio, VR                               0.275

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1371        lc/h
Weaving lane changes, LCW                  1643        lc/h
Non-weaving vehicle index, INW             869
Non-weaving lane change, LCNW              1252        lc/h
Total lane changes, LCALL                  2895        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.303
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             52.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 31.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.781
Weaving segment flow rate, v               4990        pc/h
Weaving segment capacity, cW               6208        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5315        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2146         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.781        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2018_Ph1_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2243    437     627     23      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                590     115     165     6
Trucks and buses                       10      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2484    466     668     25      pc/h

Volume ratio, VR                               0.311

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1134        lc/h
Weaving lane changes, LCW                  1406        lc/h
Non-weaving vehicle index, INW             602
Non-weaving lane change, LCNW              1023        lc/h
Total lane changes, LCALL                  2429        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.263
Average weaving speed, SW                  58.5        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 21.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.581
Weaving segment flow rate, v               3643        pc/h
Weaving segment capacity, cW               6037        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5705        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2117         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.581        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_Ph1_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5690    560     640     30      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1466    144     165     8
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6453    600     686     32      pc/h

Volume ratio, VR                               0.165

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        600         lc/h
Weaving lane changes, LCW                  1006        lc/h
Non-weaving vehicle index, INW             1167
Non-weaving lane change, LCNW              1379        lc/h
Total lane changes, LCALL                  2385        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.326
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             56.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 34.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.848
Weaving segment flow rate, v               7771        pc/h
Weaving segment capacity, cW               8415        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2620         1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2315         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.848        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_Ph1_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6212    408     498     22      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1635    107     131     6
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7193    447     545     24      pc/h

Volume ratio, VR                               0.121

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.2         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         447         lc/h
Weaving lane changes, LCW                   853         lc/h
Non-weaving vehicle index, INW              1299
Non-weaving lane change, LCNW               1529        lc/h
Total lane changes, LCALL                   2382        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.326
Average weaving speed, SW                   56.5        mi/h
Average non-weaving speed, SNW              56.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.9        mi/h
Weaving segment density, D                 36.1        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.880
Weaving segment flow rate, v               8209        pc/h
Weaving segment capacity, cW               8538        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2177        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2348         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.880        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_Ph1_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5271    1059    579     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1359    273     149     8
Trucks and buses                       11      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5744    1105    604     32      pc/h

Volume ratio, VR                               0.228

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1709        lc/h
Weaving lane changes, LCW                  2016        lc/h
Non-weaving vehicle index, INW             635
Non-weaving lane change, LCNW              1016        lc/h
Total lane changes, LCALL                  3032        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.503
Average weaving speed, SW                  51.6        mi/h
Average non-weaving speed, SNW             48.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   49.3        mi/h
Weaving segment density, D                 37.9        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.894
Weaving segment flow rate, v               7485        pc/h
Weaving segment capacity, cW               8004        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4828        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2115         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.894        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_Ph1_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5100    1400    570     30      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1342    368     150     8
Trucks and buses                       9       52      2       2          %
Recreational vehicles                  1       1       1       1          %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.792   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5621    1860    607     32      pc/h

Volume ratio, VR                               0.304

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2774        lc/h
Non-weaving vehicle index, INW             622
Non-weaving lane change, LCNW              990         lc/h
Total lane changes, LCALL                  3764        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.597
Average weaving speed, SW                  49.4        mi/h
Average non-weaving speed, SNW             42.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   44.4        mi/h
Weaving segment density, D                 45.7        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.991
Weaving segment flow rate, v               8120        pc/h
Weaving segment capacity, cW               7545        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5625        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2054         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.991        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2018_Ph1_AM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5724    266     486     14      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1475    69      125     4
Trucks and buses                       6       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6090    279     510     15      pc/h

Volume ratio, VR                               0.114

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        279         lc/h
Weaving lane changes, LCW                  842         lc/h
Non-weaving vehicle index, INW             855
Non-weaving lane change, LCNW              1053        lc/h
Total lane changes, LCALL                  1895        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.287
Average weaving speed, SW                  57.7        mi/h
Average non-weaving speed, SNW             61.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.9        mi/h
Weaving segment density, D                 22.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.589
Weaving segment flow rate, v               6894        pc/h
Weaving segment capacity, cW               11361       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2114        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2346         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.589        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2018_Ph1_PM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5434    466     446     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1430    123     117     6
Trucks and buses                       6       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5903    496     477     26      pc/h

Volume ratio, VR                               0.141

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         496         lc/h
Weaving lane changes, LCW                   1059        lc/h
Non-weaving vehicle index, INW              830
Non-weaving lane change, LCNW               1017        lc/h
Total lane changes, LCALL                   2076        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.308
Average weaving speed, SW                   57.0        mi/h
Average non-weaving speed, SNW              59.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.4        mi/h
Weaving segment density, D                 23.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.595
Weaving segment flow rate, v               6902        pc/h
Weaving segment capacity, cW               11265       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2376        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2325         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.595        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2018_Ph1_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3470    1110    900     100     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                894     286     232     26
Trucks and buses                       7       2       8       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.960   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3710    1158    967     104     pc/h

Volume ratio, VR                               0.358

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1158        lc/h
Weaving lane changes, LCW                  1653        lc/h
Non-weaving vehicle index, INW             439
Non-weaving lane change, LCNW              446         lc/h
Total lane changes, LCALL                  2099        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.363
Average weaving speed, SW                  55.3        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.7        mi/h
Weaving segment density, D                 21.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.610
Weaving segment flow rate, v               5939        pc/h
Weaving segment capacity, cW               9433        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4646        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2132         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.610        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2018_Ph1_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3986    874     864     96      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1049    230     227     25
Trucks and buses                       7       2       8       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.960   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4351    931     948     102     pc/h

Volume ratio, VR                               0.297

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       931         lc/h
Weaving lane changes, LCW                 1426        lc/h
Non-weaving vehicle index, INW            512
Non-weaving lane change, LCNW             578         lc/h
Total lane changes, LCALL                 2004        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.350
Average weaving speed, SW                 55.7        mi/h
Average non-weaving speed, SNW            57.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 22.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.582
Weaving segment flow rate, v               6332        pc/h
Weaving segment capacity, cW               10526       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3983        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2183         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.582        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2018_Ph1_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5445    595     475     25      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1403    153     122     6
Trucks and buses                       15      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6046    621     496     26      pc/h

Volume ratio, VR                               0.155

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1117        lc/h
Weaving lane changes, LCW                  1832        lc/h
Non-weaving vehicle index, INW             1166
Non-weaving lane change, LCNW              1589        lc/h
Total lane changes, LCALL                  3421        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.299
Average weaving speed, SW                  57.3        mi/h
Average non-weaving speed, SNW             55.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.4        mi/h
Weaving segment density, D                 26.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.640
Weaving segment flow rate, v               7189        pc/h
Weaving segment capacity, cW               10543       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4085         2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2271         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.640        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                         HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2018_Ph1_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6714    756     456     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1767    199     120     6
Trucks and buses                       14      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7576    805     486     26      pc/h

Volume ratio, VR                               0.145

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1291        lc/h
Weaving lane changes, LCW                  2006        lc/h
Non-weaving vehicle index, INW             1460
Non-weaving lane change, LCNW              2267        lc/h
Total lane changes, LCALL                  4273        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.356
Average weaving speed, SW                  55.6        mi/h
Average non-weaving speed, SNW             52.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.6        mi/h
Weaving segment density, D                 33.8        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.787
Weaving segment flow rate, v               8893        pc/h
Weaving segment capacity, cW               10630       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3983        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2279         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.787        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2018_Ph1_AM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3833    477     1047    53      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                988     123     270     14
Trucks and buses                       13      2       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4216    498     1130    55      pc/h

Volume ratio, VR                               0.276

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        498         lc/h
Weaving lane changes, LCW                  1122        lc/h
Non-weaving vehicle index, INW             613
Non-weaving lane change, LCNW              1028        lc/h
Total lane changes, LCALL                  2150        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.235
Average weaving speed, SW                  59.5        mi/h
Average non-weaving speed, SNW             60.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.4        mi/h
Weaving segment density, D                 19.5        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.525
Weaving segment flow rate, v               5899        pc/h
Weaving segment capacity, cW               10633       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3762        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2269         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.525        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2018_Ph1_PM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            Reservoir Rd to SR-71
Analysis Year:               2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   2050        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               4491    459     989     51      veh/h
Peak hour factor, PHF                   0.95    0.95    0.95    0.95
Peak 15-min volume, v15                 1182    121     260     13
Trucks and buses                        9       2       9       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.955   0.988   0.955   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            4950    489     1090    54      pc/h

Volume ratio, VR                                0.240

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.7         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         489         lc/h
Weaving lane changes, LCW                   1113        lc/h
Non-weaving vehicle index, INW              718
Non-weaving lane change, LCNW               1179        lc/h
Total lane changes, LCALL                   2292        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.247
Average weaving speed, SW                   59.1        mi/h
Average non-weaving speed, SNW              60.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.9        mi/h
Weaving segment density, D                 22.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.575
Weaving segment flow rate, v               6583        pc/h
Weaving segment capacity, cW               10974       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3382        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2298         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.575        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2018_Ph1_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5681    589     729     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1464    152     188     8
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6044    615     761     32      pc/h

Volume ratio, VR                               0.185

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        615         lc/h
Weaving lane changes, LCW                  989         lc/h
Non-weaving vehicle index, INW             826
Non-weaving lane change, LCNW              1403        lc/h
Total lane changes, LCALL                  2392        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.296
Average weaving speed, SW                  57.4        mi/h
Average non-weaving speed, SNW             56.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 32.8        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.808
Weaving segment flow rate, v               7452        pc/h
Weaving segment capacity, cW               8973        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2814        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2315         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.808        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2018_Ph1_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5120    750     1100    40      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1376    202     296     11
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5654    816     1197    44      pc/h

Volume ratio, VR                               0.261

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        816         lc/h
Weaving lane changes, LCW                  1190        lc/h
Non-weaving vehicle index, INW             775
Non-weaving lane change, LCNW              1325        lc/h
Total lane changes, LCALL                  2515        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.308
Average weaving speed, SW                  57.1        mi/h
Average non-weaving speed, SNW             54.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.4        mi/h
Weaving segment density, D                 34.8        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.859
Weaving segment flow rate, v               7711        pc/h
Weaving segment capacity, cW               8779        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3604        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2254         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.859        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2018_Ph1_AM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6215    545     285     15      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1602    140     73      4
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6644    569     297     16      pc/h

Volume ratio, VR                               0.115

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        866         lc/h
Weaving lane changes, LCW                  1206        lc/h
Non-weaving vehicle index, INW             466
Non-weaving lane change, LCNW              788         lc/h
Total lane changes, LCALL                  1994        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.516
Average weaving speed, SW                  51.3        mi/h
Average non-weaving speed, SNW             56.5        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 26.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.695
Weaving segment flow rate, v               7526        pc/h
Weaving segment capacity, cW               10473       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3686        700          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2172         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.695        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2018_Ph1_PM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4008    542     342     18      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1077    146     92      5
Trucks and buses                       6       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4448    590     374     20      pc/h

Volume ratio, VR                               0.177

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        964         lc/h
Weaving lane changes, LCW                  1304        lc/h
Non-weaving vehicle index, INW             313
Non-weaving lane change, LCNW              337         lc/h
Total lane changes, LCALL                  1641        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.443
Average weaving speed, SW                  53.1        mi/h
Average non-weaving speed, SNW             57.8        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.9        mi/h
Weaving segment density, D                 19.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.513
Weaving segment flow rate, v               5432        pc/h
Weaving segment capacity, cW               10291       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4307        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2124         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.513        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2018_Ph1_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7114    666     306     34      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1834    172     79      9
Trucks and buses                       5       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7532    746     319     35      pc/h

Volume ratio, VR                               0.123

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        319         lc/h
Weaving lane changes, LCW                  703         lc/h
Non-weaving vehicle index, INW             672
Non-weaving lane change, LCNW              997         lc/h
Total lane changes, LCALL                  1700        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.436
Average weaving speed, SW                  53.3        mi/h
Average non-weaving speed, SNW             59.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  58.6        mi/h
Weaving segment density, D                29.5        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.752
Weaving segment flow rate, v              8632        pc/h
Weaving segment capacity, cW              11139       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2202         740         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2288         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.752        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2018_Ph1_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              10441   839     369     41      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2807    226     99      11
Trucks and buses                       2       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.988   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           11362   981     402     45      pc/h

Volume ratio, VR                               0.108

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.106
Weaving segment flow rate, v               12790       pc/h
Weaving segment capacity, cW               11364       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2053        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2300         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.106        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_Ph1_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5996    654     304     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1545    169     78      4
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6348    682     317     17      pc/h

Volume ratio, VR                               0.136

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         682         lc/h
Weaving lane changes, LCW                   870         lc/h
Non-weaving vehicle index, INW              382
Non-weaving lane change, LCNW               866         lc/h
Total lane changes, LCALL                   1736        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.523
Average weaving speed, SW                   51.1        mi/h
Average non-weaving speed, SNW              56.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 33.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.813
Weaving segment flow rate, v               7364        pc/h
Weaving segment capacity, cW               8833        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2323        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2268         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.813        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_Ph1_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5836    904     294     16      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1569    243     79      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6382    984     320     17      pc/h

Volume ratio, VR                               0.169

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        984         lc/h
Weaving lane changes, LCW                  1172        lc/h
Non-weaving vehicle index, INW             384
Non-weaving lane change, LCNW              873         lc/h
Total lane changes, LCALL                  2045        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.595
Average weaving speed, SW                  49.5        mi/h
Average non-weaving speed, SNW             53.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.9        mi/h
Weaving segment density, D                 36.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.859
Weaving segment flow rate, v               7703        pc/h
Weaving segment capacity, cW               8822        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2659        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2243         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.859        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2018_Ph1_AM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1585    85      885     5       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                426     23      238     1
Trucks and buses                       5       2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1750    92      977     5       pc/h

Volume ratio, VR                               0.379

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        92          lc/h
Weaving lane changes, LCW                  549         lc/h
Non-weaving vehicle index, INW             127
Non-weaving lane change, LCNW              184         lc/h
Total lane changes, LCALL                  733         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.132
Average weaving speed, SW                  63.6        mi/h
Average non-weaving speed, SNW             66.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   65.4        mi/h
Weaving segment density, D                 8.6         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.306
Weaving segment flow rate, v               2824        pc/h
Weaving segment capacity, cW               9003        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4876        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2138         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.306        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2018_Ph1_PM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       I-10 EB
Weaving Location:            Haugen-Lehmann to SR-111
Analysis Year:               2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   1450        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2884    66      686     4       veh/h
Peak hour factor, PHF                  0.94    0.94    0.94    0.94
Peak 15-min volume, v15                767     18      182     1
Trucks and buses                       4       1       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.993   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3136    71      749     4       pc/h

Volume ratio, VR                               0.207

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.5         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         71          lc/h
Weaving lane changes, LCW                   528         lc/h
Non-weaving vehicle index, INW              228
Non-weaving lane change, LCNW               470         lc/h
Total lane changes, LCALL                   998         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.168
Average weaving speed, SW                   62.1        mi/h
Average non-weaving speed, SNW              65.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.9        mi/h
Weaving segment density, D                 12.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.347
Weaving segment flow rate, v               3960        pc/h
Weaving segment capacity, cW               11145       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3043        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2278         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.347        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2018_Ph1_AM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3243    387     47      3       veh/h
Peak hour factor, PHF                  0.86    0.86    0.86    0.86
Peak 15-min volume, v15                943     113     14      1
Trucks and buses                       3       3       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3835    458     55      4       pc/h

Volume ratio, VR                               0.118

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        513         lc/h
Weaving lane changes, LCW                  894         lc/h
Non-weaving vehicle index, INW             211
Non-weaving lane change, LCNW              424         lc/h
Total lane changes, LCALL                  1318        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.261
Average weaving speed, SW                  58.6        mi/h
Average non-weaving speed, SNW             62.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.7        mi/h
Weaving segment density, D                 14.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.396
Weaving segment flow rate, v               4352        pc/h
Weaving segment capacity, cW               10816       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3714        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2200         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.396        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2018_Ph1_PM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1636    1334    104     6       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                422     344     27      2
Trucks and buses                       3       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1715    1399    109     6       pc/h

Volume ratio, VR                               0.467

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1508        lc/h
Weaving lane changes, LCW                  1889        lc/h
Non-weaving vehicle index, INW             95
Non-weaving lane change, LCNW              0           lc/h
Total lane changes, LCALL                  1889        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.346
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 11.5        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.628
Weaving segment flow rate, v               3229        pc/h
Weaving segment capacity, cW               5053        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7443        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1915         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.628        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2018_Ph1_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1963    1987    297     33      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                533     540     81      9
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2191    2229    327     36      pc/h

Volume ratio, VR                               0.534

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.064
Weaving segment flow rate, v               4783        pc/h
Weaving segment capacity, cW               4373        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           8231         2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         1931         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         1.064        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2018_Ph1_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2194    1636    486     54      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                565     422     125     14
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2323    1741    507     56      pc/h

Volume ratio, VR                               0.486

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2248        lc/h
Weaving lane changes, LCW                  2709        lc/h
Non-weaving vehicle index, INW             500
Non-weaving lane change, LCNW              858         lc/h
Total lane changes, LCALL                  3567        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.343
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             48.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.7        mi/h
Weaving segment density, D                 22.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.937
Weaving segment flow rate, v               4627        pc/h
Weaving segment capacity, cW               4810        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7661        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1974         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.937        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_Ph1_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5273    387     567     43      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1433    105     154     12
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5829    432     624     47      pc/h

Volume ratio, VR                               0.152

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        432         lc/h
Weaving lane changes, LCW                  913         lc/h
Non-weaving vehicle index, INW             588
Non-weaving lane change, LCNW              925         lc/h
Total lane changes, LCALL                  1838        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.306
Average weaving speed, SW                  57.1        mi/h
Average non-weaving speed, SNW             60.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.7        mi/h
Weaving segment density, D                 23.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.601
Weaving segment flow rate, v               6932        pc/h
Weaving segment capacity, cW               11332       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2489        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.601        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_Ph1_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7868    522     992     58      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2028    135     256     15
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8249    553     1035    61      pc/h

Volume ratio, VR                               0.160

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        553         lc/h
Weaving lane changes, LCW                  1034        lc/h
Non-weaving vehicle index, INW             831
Non-weaving lane change, LCNW              1426        lc/h
Total lane changes, LCALL                  2460        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.386
Average weaving speed, SW                  54.7        mi/h
Average non-weaving speed, SNW             56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.2        mi/h
Weaving segment density, D                35.2        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.861
Weaving segment flow rate, v              9898        pc/h
Weaving segment capacity, cW              11303       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2570         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.861        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2018_Ph1_AM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4816    494     524     26      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1309    134     142     7
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5376    543     576     29      pc/h

Volume ratio, VR                               0.172

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        543         lc/h
Weaving lane changes, LCW                  941         lc/h
Non-weaving vehicle index, INW             459
Non-weaving lane change, LCNW              611         lc/h
Total lane changes, LCALL                  1552        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.363
Average weaving speed, SW                  55.3        mi/h
Average non-weaving speed, SNW             59.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  59.0        mi/h
Weaving segment density, D                22.1        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.579
Weaving segment flow rate, v              6524        pc/h
Weaving segment capacity, cW              11003       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2681        850          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2260          c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.579         d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2018_Ph1_PM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5295    845     895     45      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1365    218     231     12
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5579    882     934     47      pc/h

Volume ratio, VR                               0.244

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        882         lc/h
Weaving lane changes, LCW                  1280        lc/h
Non-weaving vehicle index, INW             478
Non-weaving lane change, LCNW              657         lc/h
Total lane changes, LCALL                  1937        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.433
Average weaving speed, SW                  53.4        mi/h
Average non-weaving speed, SNW             56.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.7        mi/h
Weaving segment density, D                 26.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.677
Weaving segment flow rate, v               7442        pc/h
Weaving segment capacity, cW               10778       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3425        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2203         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.677        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2018_Ph1_AM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3100    370     750     20      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                842     101     204     5
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3427    407     825     22      pc/h

Volume ratio, VR                               0.263

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        407         lc/h
Weaving lane changes, LCW                  1446        lc/h
Non-weaving vehicle index, INW             766
Non-weaving lane change, LCNW              558         lc/h
Total lane changes, LCALL                  2004        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.241
Average weaving speed, SW                  59.3        mi/h
Average non-weaving speed, SNW             63.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  62.2        mi/h
Weaving segment density, D                12.5        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.352
Weaving segment flow rate, v              4681        pc/h
Weaving segment capacity, cW              13076       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3626         1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2264         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.352        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2018_Ph1_PM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs_______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           6           ln
Weaving segment length, LS                   1850        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5242    998     798     42      veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 1351    257     206     11
Trucks and buses                        3       2       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.983   0.988   0.988   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            5496    1041    833     44      pc/h

Volume ratio, VR                                0.253

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.2         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         1041        lc/h
Weaving lane changes, LCW                   2080        lc/h
Non-weaving vehicle index, INW              1230
Non-weaving lane change, LCNW               988         lc/h
Total lane changes, LCALL                   3068        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                 0.337
Average weaving speed, SW                   56.1        mi/h
Average non-weaving speed, SNW              56.6        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.5        mi/h
Weaving segment density, D                21.9        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.545
Weaving segment flow rate, v              7414        pc/h
Weaving segment capacity, cW              13404       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3517        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2272         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.545        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2018_Ph1_AM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5816    904     304     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1499    233     78      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6098    943     317     17      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1260        lc/h
Weaving lane changes, LCW                  2051        lc/h
Non-weaving vehicle index, INW             881
Non-weaving lane change, LCNW              754         lc/h
Total lane changes, LCALL                  2805        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.442
Average weaving speed, SW                  53.2        mi/h
Average non-weaving speed, SNW             55.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.7        mi/h
Weaving segment density, D                 22.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.568
Weaving segment flow rate, v               7375        pc/h
Weaving segment capacity, cW               12785       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4240        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2167         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.568        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2018_Ph1_PM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4437    773     513     27      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1132    197     131     7
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4605    798     530     28      pc/h

Volume ratio, VR                               0.223

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1328        lc/h
Weaving lane changes, LCW                  2119        lc/h
Non-weaving vehicle index, INW             667
Non-weaving lane change, LCNW              449         lc/h
Total lane changes, LCALL                  2568        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.412
Average weaving speed, SW                  54.0        mi/h
Average non-weaving speed, SNW             55.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 18.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.554
Weaving segment flow rate, v               5961        pc/h
Weaving segment capacity, cW               10593       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4770        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2127         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.554        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2018_Ph1_AM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6530    180     320     10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1683    46      82      3
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6947    188     334     10      pc/h

Volume ratio, VR                               0.070

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        188         lc/h
Weaving lane changes, LCW                  568         lc/h
Non-weaving vehicle index, INW             557
Non-weaving lane change, LCNW              904         lc/h
Total lane changes, LCALL                  1472        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.366
Average weaving speed, SW                  55.3        mi/h
Average non-weaving speed, SNW             61.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.0        mi/h
Weaving segment density, D                 24.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.642
Weaving segment flow rate, v               7479        pc/h
Weaving segment capacity, cW               11298       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1683        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2332         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.642        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2018_Ph1_PM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5355    475     535     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1366    121     136     6
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5612    491     552     26      pc/h

Volume ratio, VR                               0.156

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       491         lc/h
Weaving lane changes, LCW                 871         lc/h
Non-weaving vehicle index, INW            451
Non-weaving lane change, LCNW             632         lc/h
Total lane changes, LCALL                 1503        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.372
Average weaving speed, SW                 55.1        mi/h
Average non-weaving speed, SNW            60.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.2        mi/h
Weaving segment density, D                 22.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.591
Weaving segment flow rate, v               6681        pc/h
Weaving segment capacity, cW               11042       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2526        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2268         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.591        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2018_Ph1_AM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5128    72      1082    8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1322    19      279     2
Trucks and buses                       7       1       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.993   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5482    75      1140    8       pc/h

Volume ratio, VR                               0.181

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        150         lc/h
Weaving lane changes, LCW                  656         lc/h
Non-weaving vehicle index, INW             593
Non-weaving lane change, LCNW              900         lc/h
Total lane changes, LCALL                  1556        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.253
Average weaving speed, SW                  58.9        mi/h
Average non-weaving speed, SNW             62.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.8        mi/h
Weaving segment density, D                 21.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.587
Weaving segment flow rate, v               6705        pc/h
Weaving segment capacity, cW               11046       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2779        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2291         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.587        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2018_Ph1_PM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5183    207     807     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1322    53      206     6
Trucks and buses                       6       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5458    214     842     24      pc/h

Volume ratio, VR                               0.162

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        428         lc/h
Weaving lane changes, LCW                  934         lc/h
Non-weaving vehicle index, INW             592
Non-weaving lane change, LCNW              898         lc/h
Total lane changes, LCALL                  1832        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.288
Average weaving speed, SW                  57.7        mi/h
Average non-weaving speed, SNW             60.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.1        mi/h
Weaving segment density, D                 21.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.568
Weaving segment flow rate, v               6538        pc/h
Weaving segment capacity, cW               11172       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2581        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.568        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2018_Ph1_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5133    657     1157    73      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1323    169     298     19
Trucks and buses                       12      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5620    685     1225    76      pc/h

Volume ratio, VR                               0.251

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        685         lc/h
Weaving lane changes, LCW                  818         lc/h
Non-weaving vehicle index, INW             256
Non-weaving lane change, LCNW              647         lc/h
Total lane changes, LCALL                  1465        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.574
Average weaving speed, SW                  50.0        mi/h
Average non-weaving speed, SNW             55.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.3        mi/h
Weaving segment density, D                 35.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.887
Weaving segment flow rate, v               7606        pc/h
Weaving segment capacity, cW               8162        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3499        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2167         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.887        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2018_Ph1_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4137    783     1983    87      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1055    200     506     22
Trucks and buses                       9       2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4420    809     2078    90      pc/h

Volume ratio, VR                               0.390

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        809         lc/h
Weaving lane changes, LCW                  942         lc/h
Non-weaving vehicle index, INW             203
Non-weaving lane change, LCNW              403         lc/h
Total lane changes, LCALL                  1345        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.536
Average weaving speed, SW                  50.8        mi/h
Average non-weaving speed, SNW             55.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.5        mi/h
Weaving segment density, D                 34.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.910
Weaving segment flow rate, v               7397        pc/h
Weaving segment capacity, cW               7836        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5007        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2052         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.910        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2018_Ph1_AM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3156    294     1034    16      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                858     80      281     4
Trucks and buses                       4       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3506    333     1137    18      pc/h

Volume ratio, VR                               0.294

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1470        lc/h
Weaving lane changes, LCW                  1770        lc/h
Non-weaving vehicle index, INW             338
Non-weaving lane change, LCNW              606         lc/h
Total lane changes, LCALL                  2376        lc/h

_______________________Weaving and Non-Weaving Speeds_________________________
Weaving intensity factor, W                0.387
Average weaving speed, SW                  54.6        mi/h
Average non-weaving speed, SNW             53.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.8        mi/h
Weaving segment density, D                 23.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.613
Weaving segment flow rate, v               4994        pc/h
Weaving segment capacity, cW               7978        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5523        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2070         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.613        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2018_Ph1_PM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4510    180     600     10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1162    46      155     3
Trucks and buses                       4       5       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.974   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4752    191     629     10      pc/h

Volume ratio, VR                               0.147

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        820         lc/h
Weaving lane changes, LCW                  1120        lc/h
Non-weaving vehicle index, INW             457
Non-weaving lane change, LCNW              861         lc/h
Total lane changes, LCALL                  1981        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.336
Average weaving speed, SW                  56.2        mi/h
Average non-weaving speed, SNW             57.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.2        mi/h
Weaving segment density, D                 24.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.639
Weaving segment flow rate, v               5582        pc/h
Weaving segment capacity, cW               8556        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4001        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2186         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.639        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2018_Ph1_AM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5202    378     498     42      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1341    97      128     11
Trucks and buses                       4       35      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.850   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5481    459     520     44      pc/h

Volume ratio, VR                               0.151

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        459         lc/h
Weaving lane changes, LCW                  908         lc/h
Non-weaving vehicle index, INW             553
Non-weaving lane change, LCNW              717         lc/h
Total lane changes, LCALL                  1625        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.331
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             60.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.8        mi/h
Weaving segment density, D                 21.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.564
Weaving segment flow rate, v               6504        pc/h
Weaving segment capacity, cW               11189       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2471        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2287         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.564        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2018_Ph1_PM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5518    522     822     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1408    133     210     15
Trucks and buses                       4       35      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.850   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5754    627     849     60      pc/h

Volume ratio, VR                               0.202

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        627         lc/h
Weaving lane changes, LCW                  1076        lc/h
Non-weaving vehicle index, INW             581
Non-weaving lane change, LCNW              777         lc/h
Total lane changes, LCALL                  1853        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.368
Average weaving speed, SW                  55.2        mi/h
Average non-weaving speed, SNW             58.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.8        mi/h
Weaving segment density, D                 25.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.642
Weaving segment flow rate, v               7290        pc/h
Weaving segment capacity, cW               10993       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2995        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2248         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.642        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2018_Ph1_AM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4007    323     753     17      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1033    83      194     4
Trucks and buses                       4       4       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4222    340     813     18      pc/h

Volume ratio, VR                               0.214

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        813         lc/h
Weaving lane changes, LCW                  1137        lc/h
Non-weaving vehicle index, INW             458
Non-weaving lane change, LCNW              835         lc/h
Total lane changes, LCALL                  1972        lc/h

_______________________Weaving and Non-Weaving Speeds_________________________
Weaving intensity factor, W                0.305
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             57.7        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.6        mi/h
Weaving segment density, D                 23.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.626
Weaving segment flow rate, v               5393        pc/h
Weaving segment capacity, cW               8395        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4678        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2145         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.626        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2018_Ph1_PM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4821    399     819     21      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1230    102     209     5
Trucks and buses                       4       2       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5028    412     867     22      pc/h

Volume ratio, VR                               0.202

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        867         lc/h
Weaving lane changes, LCW                  1191        lc/h
Non-weaving vehicle index, INW             545
Non-weaving lane change, LCNW              1002        lc/h
Total lane changes, LCALL                  2193        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.331
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             56.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.2        mi/h
Weaving segment density, D                 28.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.733
Weaving segment flow rate, v               6329        pc/h
Weaving segment capacity, cW               8434        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4558        1350         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2155         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.733        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_Ph1_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9360           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              380            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     600            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9360        380         600       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2516        100         158       v
Trucks and buses                       4           8           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.960       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10286       417         642       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.166   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1704   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     10703         9600            Yes
      FO
     v  or v               4291 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 4886                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                5303          4600                  Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   40.4    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 1.035
                                              S
Space mean speed in ramp influence area,     S  = 41.0    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 49.2    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_Ph1_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8280           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1040           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     300            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8280        1040        300       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2112        274         79        v
Trucks and buses                       4           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8635        1108        320       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.079   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  685    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     9743          9600            Yes
      FO
     v  or v               3975 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3454                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                4562          4600                  No
      R12
_________________Level of Service Determination (if not F)______________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   34.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.625
                                              S
Space mean speed in ramp influence area,     S  = 52.5    mph
                                              R
Space mean speed in outer lanes,             S  = 61.7    mph
                                              0
Space mean speed for all vehicles,           S  = 57.0    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2018_Ph1_AM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5760           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              500            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     180            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5760        500         180       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                1548        132         47        v
Trucks and buses                       14          2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6639        533         192       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.151   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  733    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5380          12000           No
      FO
     v  or v               2057 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1938                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2471          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.262
                                              S
Space mean speed in ramp influence area,     S  = 62.7    mph
                                              R
Space mean speed in outer lanes,             S  = 66.6    mph
                                              0
Space mean speed for all vehicles,           S  = 64.7    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2018_Ph1_PM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6780           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1230           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     80             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6780        1230        80        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1730        324         21        v
Trucks and buses                       10          2           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.988       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7278        1310        86        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.054   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  287    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     6623          12000           No
      FO
     v  or v               2513 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2125                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3435          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   22.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.337
                                              S
Space mean speed in ramp influence area,     S  = 60.6    mph
                                              R
Space mean speed in outer lanes,             S  = 66.1    mph
                                              0
Space mean speed for all vehicles,           S  = 63.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2018_Ph1_AM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1860           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              430            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     110            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1860        430         110       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                500         113         29        v
Trucks and buses                       18          8           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.916       0.960       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2184        472         119       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.684   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1642   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2184          7200            No
      Fi   F
     v  = v - v            1712          7200            No
      FO   F   R
     v                     472           2000            No
      R
     v  or v               542  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1642                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1642          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   4.9     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.470
                                              S
Space mean speed in ramp influence area,     S  = 56.8    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2018_Ph1_PM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis_____________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2140           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              560            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     120            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2140        560         120       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                546         147         32        v
Trucks and buses                       13          4           13        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.978       0.937
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2330        602         135       pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.674   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1767   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2330          7200            No
      Fi   F
     v  = v - v            1728          7200            No
      FO   F   R
     v                     602           2000            No
      R
     v  or v               563  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1767                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1767          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   5.9     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.482
                                              S
Space mean speed in ramp influence area,     S  = 56.5    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2018_Ph1_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1740           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              110            vph
Length of first accel/decel lane            750            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     430            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1740        110         430       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                468         29          113       v
Trucks and buses                       19          5           8         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.912       0.974       0.960
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2052        119         472       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  2052   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2171          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2052                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2171          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.303
                                              S
Space mean speed in ramp influence area,     S  = 61.5    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2018_Ph1_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1730           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              120            vph
Length of first accel/decel lane            750            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     560            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1730        120         560       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                441         32          147       v
Trucks and buses                       15          13          4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.937       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1901        135         602       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1901   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2036          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1901                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2036          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   16.6    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.298
                                              S
Space mean speed in ramp influence area,     S  = 61.6    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2018_Ph1_AM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1850           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              410            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     20             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1850        410         20         vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                497         108         5          v
Trucks and buses                       18          49          21         %
Recreational vehicles                  1           1           1          %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.916       0.802       0.903
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2172        538         23         pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2172   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2172          4800            No
      Fi   F
     v  = v - v            1634          4800            No
      FO   F   R
     v                     538           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2172                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2172          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   21.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.476
                                              S
Space mean speed in ramp influence area,     S  = 56.7    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 56.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2018_Ph1_PM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1850           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              420            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     20             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1850        420         20        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                472         111         5         v
Trucks and buses                       15          44          2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.818       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2033        540         21        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2033   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2033          4800            No
      Fi   F
     v  = v - v            1493          4800            No
      FO   F   R
     v                     540           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 2033                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2033          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   19.9    pc/mi/ln
                        R                   12         D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.477
                                              S
Space mean speed in ramp influence area,     S  = 56.7    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 56.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2018_Ph1_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1580           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              20             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     410            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1580        20          410       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                425         5           108       v
Trucks and buses                       10          21          49        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.903       0.802
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1787        23          538       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1787   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1810          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1787                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1810          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   18.0    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.327
                                              S
Space mean speed in ramp influence area,     S  = 60.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2018_Ph1_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1580           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              20             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     420            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1580        20          420       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                403         5           111       v
Trucks and buses                       7           2           44        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.988       0.818
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1672        21          540       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1672   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1693          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1672                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1693          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.1    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.325
                                              S
Space mean speed in ramp influence area,     S  = 60.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 60.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2018_Ph1_AM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1260           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     340            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1260        10          340       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                339         3           89        v
Trucks and buses                       11          1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1432        11          364       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1432   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1443          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1432                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1443          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.310
                                              S
Space mean speed in ramp influence area,     S  = 61.3    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2018_Ph1_PM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1270           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     430            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1270        10          430       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                324         3           113       v
Trucks and buses                       9           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                   %           %   0.00    %
     Length                                  mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1357        11          458       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1357   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1368          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1357                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1368          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.308
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2018_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1140           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     350            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1140        10          350       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                294         3           92        v
Trucks and buses                       18          4           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.916       0.978       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1283        11          373       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =             (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1283   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1283          4800            No
      Fi   F
     v  = v - v            1272          4800            No
      FO   F   R
     v                     11            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1283                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1283          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.5    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 58.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2018_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1120           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     340            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1120        10          340       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                295         3           89        v
Trucks and buses                       14          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1264        11          362       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1264   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1264          4800            No
      Fi   F
     v  = v - v            1253          4800            No
      FO   F   R
     v                     11            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1264                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1264          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.3    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 58.0    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2018_Ph1_AM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1090           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              680            vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     170            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1090        680         170       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                281         179         45        v
Trucks and buses                       14          38          17        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.839       0.920
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1205        853         195       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1205   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2058          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1205                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2058          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.292
                                              S
Space mean speed in ramp influence area,     S  = 61.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.8    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2018_Ph1_PM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1260           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              410            vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1260        410         130       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                332         108         34        v
Trucks and buses                       11          45          17        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.815       0.920
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1402        530         149       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1402   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1932          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1402                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1932          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.0    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.288
                                              S
Space mean speed in ramp influence area,     S  = 61.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.9    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2018_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                           Diverge
Number of lanes in freeway                 2
Free-flow speed on freeway                 70.0           mph
Volume on freeway                          1770           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                            Right
Number of lanes in ramp                    1
Free-Flow speed on ramp                    35.0           mph
Volume on ramp                             150            vph
Length of first accel/decel lane           200            ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                  Yes
Volume on adjacent ramp                    410            vph
Position of adjacent ramp                  Downstream
Type of adjacent ramp                      On
Distance to adjacent ramp                  1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                   Freeway     Ramp        Adjacent
                                                              Ramp
Volume, V (vph)                       1770        150         410       vph
Peak-hour factor, PHF                 0.97        0.95        0.95
Peak 15-min volume, v15               456         39          108       v
Trucks and buses                      23          20          3         %
Recreational vehicles                 1           1           1         %
Terrain type:                         Level       Level       Level
     Grade                                  %           %     0.00    %
     Length                                 mi          mi    0.00    mi
Trucks and buses PCE, ET              1.5         1.5         1.5
Recreational vehicle PCE, ER          1.2         1.2         1.2
Heavy vehicle adjustment, fHV         0.895       0.907       0.983
Driver population factor, fP          1.00        1.00        1.00
Flow rate, vp                         2038        174         439       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2038   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2038          4800            No
      Fi   F
     v  = v - v            1864          4800            No
      FO   F   R
     v                     174           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2038                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2038          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   20.0    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                D  = 0.444
                                             S
Space mean speed in ramp influence area,    S  = 57.6    mph
                                             R
Space mean speed in outer lanes,            S  =  N/A    mph
                                             0
Space mean speed for all vehicles,          S  = 57.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2018_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1670           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              90             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     510            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1670        90          510       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                439         24          134       v
Trucks and buses                       19          3           10        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.912       0.983       0.951
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1928        96          565       pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1928   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks__________________________________

                           Actual        Maximum         LOS F?
     v  = v                1928          4800            No
      Fi   F
     v  = v - v            1832          4800            No
      FO   F   R
     v                     96            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1928                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                1928          4400                  No
      12
_________________Level of Service Determination (if not F)______________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   19.0    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation___________________________________

Intermediate speed variable,                 D  = 0.437
                                              S
Space mean speed in ramp influence area,     S  = 57.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.8    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2018_Ph1_AM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1590           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              410            vph
Length of first accel/decel lane            800            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     150            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1590        410         150       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                410         108         39        v
Trucks and buses                       23          3           20        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.895       0.983       0.907
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1831        439         174       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1831   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2270          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1831                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2270          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   18.0    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.303
                                              S
Space mean speed in ramp influence area,     S  = 61.5    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2018_Ph1_PM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1450           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              510            vph
Length of first accel/decel lane            800            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1450        510         90        vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                382         134         24        v
Trucks and buses                       21          10          3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.903       0.951       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1690        565         96        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1690   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2255          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1690                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2255          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.302
                                              S
Space mean speed in ramp influence area,     S  = 61.5    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2018_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6920           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              670            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     640            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6920        670         640       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1784        176         168       v
Trucks and buses                       6           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7362        714         682       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2442   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7362          9600            No
      Fi   F
     v  = v - v            6648          9600            No
      FO   F   R
     v                     714           4000            No
      R
     v  or v               2460 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2944                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2944          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   2.6     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.492
                                              S
Space mean speed in ramp influence area,     S  = 56.2    mph
                                              R
Space mean speed in outer lanes,             S  = 72.1    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2018_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7140           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              520            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     820            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7140        520         820       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1879        137         216       v
Trucks and buses                       6           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7756        554         874       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2427   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7756          9600            No
      Fi   F
     v  = v - v            7202          9600            No
      FO   F   R
     v                     554           4000            No
      R
     v  or v               2664 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3102                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3102          4400                   No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   3.9     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.478
                                              S
Space mean speed in ramp influence area,     S  = 56.6    mph
                                              R
Space mean speed in outer lanes,             S  = 71.6    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2018_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6940           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              600            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1090           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6940        600         1090      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1789        158         287       v
Trucks and buses                       10          2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7527        639         1161      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3642   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7527          9600            No
      Fi   F
     v  = v - v            6888          9600            No
      FO   F   R
     v                     639           2000            No
      R
     v  or v               1942 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3642                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3642          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.486
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 73.1    mph
                                              0
Space mean speed for all vehicles,           S  = 63.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2018_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1
Description:  World Logistic Center - Existing Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6970           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              980            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1430           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6970        980         1430      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1834        258         376       v
Trucks and buses                       6           51          52        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.796       0.792
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7572        1297        1900      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4033   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7572          9600            No
      Fi   F
     v  = v - v            6275          9600            No
      FO   F   R
     v                     1297          2000            No
      R
     v  or v               1769 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4033                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4033          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   25.4    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.545
                                              S
Space mean speed in ramp influence area,     S  = 54.7    mph
                                              R
Space mean speed in outer lanes,             S  = 73.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.3    mph
_______________________________________________________________________________
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_Ph1_Mit_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8280          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2226          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1829          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1829          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.4          mi/h
Number of lanes, N                          5
Density, D                                  28.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_Ph1_Mit_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9310           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2375           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1951           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1951           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.5           mi/h
Number of lanes, N                          5
Density, D                                  30.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_Ph1_Mit_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7690           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2067           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1698           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1698           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          5
Density, D                                  25.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_Ph1_Mit_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8130           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2074           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1704           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1704           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          5
Density, D                                  25.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_Ph1_Mit_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9740           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2618           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2241           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2241           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.4           mi/h
Number of lanes, N                          5
Density, D                                  39.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_Ph1_Mit_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9320           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2378           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2035           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2035           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.9           mi/h
Number of lanes, N                          5
Density, D                                  32.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_Ph1_Mit_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2960           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     796            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1132           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1132           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_Ph1_Mit_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4690           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1196           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1670           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1670           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          3
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_Ph1_Mit_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1222           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1705           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1705           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          3
Density, D                                  25.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_Ph1_Mit_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2800           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      737            v
Trucks and buses                             11             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                1038           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1038           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   14.8           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_Ph1_Mit_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1113           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1569           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1569           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          3
Density, D                                  22.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_Ph1_Mit_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3230           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     850            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1204           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1204           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  17.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_Ph1_Mit_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1874           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1547           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1547           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          5
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_Ph1_Mit_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8230           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2166           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1788           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1788           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.0           mi/h
Number of lanes, N                          5
Density, D                                  27.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_Ph1_Mit_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1987           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1672           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1672           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          5
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_Ph1_Mit_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9510           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2503           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2076           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2076           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.1           mi/h
Number of lanes, N                          5
Density, D                                  34.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_Ph1_Mit_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1693           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1384           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1384           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          5
Density, D                                  19.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_Ph1_Mit_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9510          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2503          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2056          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2056          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.5          mi/h
Number of lanes, N                          5
Density, D                                  33.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_Ph1_Mit_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6450           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1662           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1724           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1724           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.8           mi/h
Number of lanes, N                          4
Density, D                                  25.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_Ph1_Mit_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7030           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1890           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1941           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1941           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          4
Density, D                                  30.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_Ph1_Mit_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7500           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1933           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2005           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2005           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.5           mi/h
Number of lanes, N                          4
Density, D                                  32.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_Ph1_Mit_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2202           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2261           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2261           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.9           mi/h
Number of lanes, N                          4
Density, D                                  39.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_Ph1_Mit_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1804           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1907           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1907           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          4
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_Ph1_Mit_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5800          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1559          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1617          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1617          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.0          mi/h
Number of lanes, N                          4
Density, D                                  23.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_Ph1_Mit_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1804           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1853           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1853           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          4
Density, D                                  28.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_Ph1_Mit_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7030           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1890           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1922           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1922           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.0           mi/h
Number of lanes, N                          4
Density, D                                  30.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_Ph1_Mit_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6310           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1626           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1336           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1336           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          5
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_Ph1_Mit_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2153           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1760           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1760           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.4           mi/h
Number of lanes, N                          5
Density, D                                  26.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_Ph1_Mit_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1557           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1279           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1279           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          5
Density, D                                  18.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_Ph1_Mit_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8020          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2156          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1763          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1763          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               66.3          mi/h
Number of lanes, N                           5
Density, D                                   26.6          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_Ph1_Mit_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5870           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1513           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1554           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1554           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               68.5           mi/h
Number of lanes, N                           4
Density, D                                   22.7           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_Ph1_Mit_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1909           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1951           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1951           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.5           mi/h
Number of lanes, N                          4
Density, D                                  30.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_Ph1_Mit_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6990          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1802          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1850          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1850          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               65.1          mi/h
Number of lanes, N                           4
Density, D                                   28.4          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_Ph1_Mit_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7090           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1906           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1948           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1948           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.5           mi/h
Number of lanes, N                          4
Density, D                                  30.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_Ph1_Mit_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6960          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1794          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1842          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1842          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.2          mi/h
Number of lanes, N                          4
Density, D                                  28.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_Ph1_Mit_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1909           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1951           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1951           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.5           mi/h
Number of lanes, N                          4
Density, D                                  30.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_Ph1_Mit_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6960          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1794          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1860          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1860          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               64.9          mi/h
Number of lanes, N                           4
Density, D                                   28.6          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_Ph1_Mit_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                     7100          veh/h
Peak-hour factor, PHF                         0.93
Peak 15-min volume, v15                       1909          v
Trucks and buses                              6             %
Recreational vehicles                         1             %
Terrain type:                                 Level
    Grade                                     -             %
    Segment length                            -             mi
Trucks and buses PCE, ET                      1.5
Recreational vehicle PCE, ER                  1.2
Heavy vehicle adjustment, fHV                 0.969
Driver population factor, fp                  1.00
Flow rate, vp                                 1970          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                    -             ft
Right-side lateral clearance                  -             ft
Total ramp density, TRD                       -             ramps/mi
Number of lanes, N                            4
Free-flow speed:                              Measured
     FFS or BFFS                              70.0          mi/h
Lane width adjustment, fLW                    -             mi/h
Lateral clearance adjustment, fLC             -             mi/h
TRD adjustment                                -             mi/h
Free-flow speed, FFS                          70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                 1970          pc/h/ln
Free-flow speed, FFS                          70.0          mi/h
Average passenger-car speed, S                63.1          mi/h
Number of lanes, N                            4
Density, D                                    31.2          pc/mi/ln
Level of service, LOS                         D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 134_2018_Ph1_Mit_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-60 to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1163          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1194          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1194          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  17.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 134_2018_Ph1_Mit_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-60 to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4370           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1126           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1157           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1157           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_Ph1_Mit_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5690           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1546           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1596           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1596           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_Ph1_Mit_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1469           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1516           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1516           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_Ph1_Mit_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5190           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1410           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1147           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1147           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_Ph1_Mit_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9440          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2433          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1979          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1979          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.0          mi/h
Number of lanes, N                          5
Density, D                                  31.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_Ph1_Mit_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1549           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1591           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1591           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_Ph1_Mit_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7040          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1796          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1826          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1826          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.5          mi/h
Number of lanes, N                          4
Density, D                                  27.9          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_Ph1_Mit_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1830           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1888           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1888           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          4
Density, D                                  29.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_Ph1_Mit_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7030          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1793          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1824          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1824          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               65.5          mi/h
Number of lanes, N                           4
Density, D                                   27.9          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_Ph1_Mit_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7070           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1822           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1890           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1890           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          4
Density, D                                  29.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_Ph1_Mit_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7010           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1788           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1837           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1837           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          4
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_Ph1_Mit_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5690    560     640     30      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1466    144     165     8
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6453    600     686     32      pc/h

Volume ratio, VR                              0.165

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        600         lc/h
Weaving lane changes, LCW                  1235        lc/h
Non-weaving vehicle index, INW             1167
Non-weaving lane change, LCNW              1186        lc/h
Total lane changes, LCALL                  2421        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.330
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             58.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.9        mi/h
Weaving segment density, D                 26.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.678
Weaving segment flow rate, v               7771        pc/h
Weaving segment capacity, cW               10518       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2620        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2315         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.678        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_Ph1_Mit_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6212    408     498     22      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1635    107     131     6
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7193    447     545     24      pc/h

Volume ratio, VR                               0.121

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        447         lc/h
Weaving lane changes, LCW                  1082        lc/h
Non-weaving vehicle index, INW             1299
Non-weaving lane change, LCNW              1337        lc/h
Total lane changes, LCALL                  2419        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.330
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             58.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.6        mi/h
Weaving segment density, D                 28.0        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.704
Weaving segment flow rate, v               8209        pc/h
Weaving segment capacity, cW               10673       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2177        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2348         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.704        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_Ph1_Mit_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5271    1059    579     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1359    273     149     8
Trucks and buses                       11      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5744    1105    604     32      pc/h

Volume ratio, VR                               0.228

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1709        lc/h
Weaving lane changes, LCW                  2189        lc/h
Non-weaving vehicle index, INW             635
Non-weaving lane change, LCNW              823         lc/h
Total lane changes, LCALL                  3012        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.500
Average weaving speed, SW                  51.7        mi/h
Average non-weaving speed, SNW             50.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  50.8        mi/h
Weaving segment density, D                29.5        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.719
Weaving segment flow rate, v              7485        pc/h
Weaving segment capacity, cW              9945        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4828         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2115         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.719        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_Ph1_Mit_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5100    1400    570     30      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1342    368     150     8
Trucks and buses                       9       52      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.792   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5621    1860    607     32      pc/h

Volume ratio, VR                               0.304

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2467        lc/h
Weaving lane changes, LCW                  2947        lc/h
Non-weaving vehicle index, INW             622
Non-weaving lane change, LCNW              798         lc/h
Total lane changes, LCALL                  3745        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.594
Average weaving speed, SW                  49.5        mi/h
Average non-weaving speed, SNW             44.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   45.9        mi/h
Weaving segment density, D                 35.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.991
Weaving segment flow rate, v               8120        pc/h
Weaving segment capacity, cW               7545        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5625        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2054         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.991        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_Ph1_Mit_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5996    654     304     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1545    169     78      4
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6348    682     317     17      pc/h

Volume ratio, VR                               0.136

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        682         lc/h
Weaving lane changes, LCW                  976         lc/h
Non-weaving vehicle index, INW             382
Non-weaving lane change, LCNW              673         lc/h
Total lane changes, LCALL                  1649        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.502
Average weaving speed, SW                  51.6        mi/h
Average non-weaving speed, SNW             58.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.1        mi/h
Weaving segment density, D                 25.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.651
Weaving segment flow rate, v               7364        pc/h
Weaving segment capacity, cW               11042       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2323        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2268         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.651        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_Ph1_Mit_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5836    904     294     16      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1569    243     79      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6382    984     320     17      pc/h

Volume ratio, VR                               0.169

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        984         lc/h
Weaving lane changes, LCW                  1278        lc/h
Non-weaving vehicle index, INW             384
Non-weaving lane change, LCNW              680         lc/h
Total lane changes, LCALL                  1958        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.575
Average weaving speed, SW                  49.9        mi/h
Average non-weaving speed, SNW             55.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.5        mi/h
Weaving segment density, D                 28.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.687
Weaving segment flow rate, v               7703        pc/h
Weaving segment capacity, cW               11028       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2659        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2243         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.687        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_Ph1_Mit_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5273    387     567     43      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1433    105     154     12
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5829    432     624     47      pc/h

Volume ratio, VR                               0.152

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   0.8         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       432         lc/h
Weaving lane changes, LCW                 1125        lc/h
Non-weaving vehicle index, INW            588
Non-weaving lane change, LCNW             732         lc/h
Total lane changes, LCALL                 1857        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.309
Average weaving speed, SW                 57.0        mi/h
Average non-weaving speed, SNW            61.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.6        mi/h
Weaving segment density, D                 19.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.501
Weaving segment flow rate, v               6932        pc/h
Weaving segment capacity, cW               13599       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2489        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.501        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_Ph1_Mit_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7868    522     992     58      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2028    135     256     15
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8249    553     1035    61      pc/h

Volume ratio, VR                               0.160

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        553         lc/h
Weaving lane changes, LCW                  1246        lc/h
Non-weaving vehicle index, INW             831
Non-weaving lane change, LCNW              1234        lc/h
Total lane changes, LCALL                  2480        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.388
Average weaving speed, SW                  54.6        mi/h
Average non-weaving speed, SNW             58.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.5        mi/h
Weaving segment density, D                 28.7        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.718
Weaving segment flow rate, v               9898        pc/h
Weaving segment capacity, cW               13563       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2570        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.718        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_Ph1_Mit_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9360           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              380            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     600            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9360        380         600       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2516        100         158       v
Trucks and buses                       4           8           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.960       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10286       417         642       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.166   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1290   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     8203          12000           No
      FO
     v  or v               3248 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3114                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3531          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   26.6    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.384
                                              S
Space mean speed in ramp influence area,     S  = 59.2    mph
                                              R
Space mean speed in outer lanes,             S  = 63.3    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_Ph1_Mit_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8280           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1040           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     300            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8280        1040        300       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2112        274         79        v
Trucks and buses                       4           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8635        1108        320       pcph

_________________________Estimation of V12 Merge Areas________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.079   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  487    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7243          12000           No
      FO
     v  or v               2824 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2454                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3562          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   26.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.388
                                              S
Space mean speed in ramp influence area,     S  = 59.1    mph
                                              R
Space mean speed in outer lanes,             S  = 65.2    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 86_2018_Ph1_Mit_AM_Peak_I-215_NB_SR-60_WB_Connector.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               SR-60 WB Connector
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2260           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              2020           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     330            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2260        2020        330       vph
Peak-hour factor, PHF                  0.92        0.95        0.95
Peak 15-min volume, v15                614         532         87        v
Trucks and buses                       4           6           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.969       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2511        2194        352       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.421   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1058   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4705          9600            No
      FO
     v  or v               726  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1058                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3252          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   20.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.317
                                              S
Space mean speed in ramp influence area,     S  = 61.1    mph
                                              R
Space mean speed in outer lanes,             S  = 69.2    mph
                                              0
Space mean speed for all vehicles,           S  = 63.4    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 86_2018_Ph1_Mit_PM_Peak_I-215_NB_SR-60_WB_Connector.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               SR-60 WB Connector
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           2680          vph

__________________________________On Ramp Data__________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              1690          vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     540           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2100          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2680        1690        540       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                691         445         142       v
Trucks and buses                       4           6           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.969       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2824        1836        575       pcph

_________________________Estimation of V12 Merge Areas________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    -0.012  Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  -32    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4660          9600            No
      FO
     v  or v               1428 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1129                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2965          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   18.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.292
                                              S
Space mean speed in ramp influence area,     S  = 61.8    mph
                                              R
Space mean speed in outer lanes,             S  = 68.8    mph
                                              0
Space mean speed for all vehicles,           S  = 64.2    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 87_2018_Ph1_Mit_AM_Peak_I-215_NB_Off-Ramp_to_Columbia_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               Off-Ramp to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4280           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              330            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     2020           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4280        330         2020      vph
Peak-hour factor, PHF                  0.92        0.95        0.95
Peak 15-min volume, v15                1163        87          532       v
Trucks and buses                       5           2           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4778        352         2194      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2282   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum        LOS F?
     v  = v                4778          9600           No
      Fi   F
     v  = v - v            4426          9600           No
      FO   F   R
     v                     352           2000           No
      R
     v  or v               1248 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2282                    (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2282          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   21.2    pc/mi/ln
                        R                  12         D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.460
                                              S
Space mean speed in ramp influence area,     S  = 57.1    mph
                                              R
Space mean speed in outer lanes,             S  = 75.8    mph
                                              0
Space mean speed for all vehicles,           S  = 65.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 87_2018_Ph1_Mit_PM_Peak_I-215_NB_Off-Ramp_to_Columbia_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               Off-Ramp to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 Ph1 Mit
Description:  World Logistics Center - Existing Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4370           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              540            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1690           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4370        540         1690      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1126        142         445       v
Trucks and buses                       5           2           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4627        575         1836      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2342   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                4627          9600            No
      Fi   F
     v  = v - v            4052          9600            No
      FO   F   R
     v                     575           2000            No
      R
     v  or v               1142 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2342                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2342          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,              D = 4.252 + 0.0086 v  - 0.009  L   =   21.7    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.480
                                              S
Space mean speed in ramp influence area,     S  = 56.6    mph
                                              R
Space mean speed in outer lanes,             S  = 76.2    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

Traffic Impact Analysis Report

for the World Logistics Center

Appendix K

Freeway LOS Worksheets
for Existing Plus Build-out Conditions

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2018_WP_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6280           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1688           v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               1852           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1852           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          4
Density, D                                  28.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2018_WP_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6330           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1615           v
Trucks and buses                            21             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.903
Driver population factor, fp                1.00
Flow rate, vp                               1788           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1788           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.0           mi/h
Number of lanes, N                          4
Density, D                                  27.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_WP_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2253           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2314           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2314           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.6           mi/h
Number of lanes, N                          4
Density, D                                  41.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_WP_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9240           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2357           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2421           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2421           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.7           mi/h
Number of lanes, N                          4
Density, D                                  45.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2018_WP_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7480           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2011           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2065           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2065           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.3           mi/h
Number of lanes, N                          4
Density, D                                  33.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2018_WP_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   8120           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2071           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2127           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               2127           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          4
Density, D                                  35.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_WP_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   7810           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2099           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2156           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2156           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.4           mi/h
Number of lanes, N                          4
Density, D                                  36.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_WP_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   8060           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2056           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2112           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               2112           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.4           mi/h
Number of lanes, N                          4
Density, D                                  35.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_WP_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7720           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2075           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2131           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2131           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.9           mi/h
Number of lanes, N                          4
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_WP_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8180           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2087           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2143           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2143           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.7           mi/h
Number of lanes, N                          4
Density, D                                  35.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2018_WP_AM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7080           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1903           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1955           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1955           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               63.4           mi/h
Number of lanes, N                           4
Density, D                                   30.8           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2018_WP_PM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9080           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2316           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2379           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2379           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.9           mi/h
Number of lanes, N                          4
Density, D                                  44.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2018_WP_AM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1868           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1909           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1909           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          4
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2018_WP_PM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9210           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2349           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2413           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2413           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.9           mi/h
Number of lanes, N                          4
Density, D                                  45.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2018_WP_AM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1884           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1935           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1935           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.7           mi/h
Number of lanes, N                          4
Density, D                                  30.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2018_WP_PM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6560           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1673           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1727           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1727           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.8           mi/h
Number of lanes, N                          4
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2018_WP_AM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7970           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2142           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1786           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1786           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.0           mi/h
Number of lanes, N                          5
Density, D                                  27.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2018_WP_PM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7150           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1824           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1513           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1513           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          5
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2018_WP_AM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4500           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1210           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1260           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1260           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2018_WP_PM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1276           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1323           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1323           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2018_WP_AM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3890          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1046          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1090          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1090          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  15.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2018_WP_PM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4100           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1046           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1085           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1085           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2018_WP_AM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3340           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     898            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               936            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               936            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2018_WP_PM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3400           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     867            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               904            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               904            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2018_WP_AM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2860           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      769            v
Trucks and buses                             12             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.942
Driver population factor, fp                 1.00
Flow rate, vp                                816            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                816            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   11.7           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2018_WP_PM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2770          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     707           v
Trucks and buses                            15            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               761           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               761           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  10.9          pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2018_WP_AM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3020           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     812            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               862            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               862            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2018_WP_PM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3130           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     798            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               852            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               852            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2018_WP_AM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3750           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1008           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1060           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1060           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2018_WP_PM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3520          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      898           v
Trucks and buses                             12            %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.942
Driver population factor, fp                 1.00
Flow rate, vp                                954           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                954           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   13.6          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2018_WP_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4900           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1317           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1812           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1812           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          3
Density, D                                  27.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2018_WP_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5130          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1309          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1809          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1809          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.7          mi/h
Number of lanes, N                          3
Density, D                                  27.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2018_WP_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4950           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1331           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1831           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1831           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          3
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2018_WP_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5310           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1355           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1882           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1882           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.6           mi/h
Number of lanes, N                          3
Density, D                                  29.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2018_WP_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5310           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1427           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1964           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1964           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               63.2           mi/h
Number of lanes, N                           3
Density, D                                   31.1           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2018_WP_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6220          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1587          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2194          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2194          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              58.5          mi/h
Number of lanes, N                          3
Density, D                                  37.5          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_WP_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9870           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2653           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.922
Driver population factor, fp                1.00
Flow rate, vp                               2879           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2879           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              37.3           mi/h
Number of lanes, N                          4
Density, D                                  77.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_WP_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9250          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2360          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Rolling
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.922
Driver population factor, fp                1.00
Flow rate, vp                               2560          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2560          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              48.5          mi/h
Number of lanes, N                          4
Density, D                                  52.7          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2018_WP_AM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5530          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1487          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1542          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1542          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.6          mi/h
Number of lanes, N                          4
Density, D                                  22.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2018_WP_PM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6190           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1579           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1638           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1638           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          4
Density, D                                  24.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_WP_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2990           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     804            v
Trucks and buses                            17             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.920
Driver population factor, fp                1.00
Flow rate, vp                               1747           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1747           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          2
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_WP_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4690           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1196           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               2529           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2529           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.5           mi/h
Number of lanes, N                          2
Density, D                                  51.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2018_WP_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2880          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     774           v
Trucks and buses                            15            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               1668          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1668          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.5          mi/h
Number of lanes, N                          2
Density, D                                  24.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2018_WP_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3190           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     814            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1728           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1728           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.8           mi/h
Number of lanes, N                          2
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2018_WP_AM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2550          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     685           v
Trucks and buses                            16            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               1483          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1483          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.1          mi/h
Number of lanes, N                          2
Density, D                                  21.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2018_WP_PM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2750          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     702           v
Trucks and buses                            14            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               1504          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1504          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.9          mi/h
Number of lanes, N                          2
Density, D                                  21.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2018_WP_AM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     565            v
Trucks and buses                            21             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.903
Driver population factor, fp                1.00
Flow rate, vp                               833            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               833            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2018_WP_PM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2430           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     620            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               894            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               894            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2018_WP_AM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1780           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     478            v
Trucks and buses                            25             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.887
Driver population factor, fp                1.00
Flow rate, vp                               719            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               719            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.3           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2018_WP_PM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     523            v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               765            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               765            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.9           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2018_WP_AM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1910           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     513            v
Trucks and buses                            22             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.899
Driver population factor, fp                1.00
Flow rate, vp                               1142           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1142           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2018_WP_PM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1870           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     477            v
Trucks and buses                            22             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.899
Driver population factor, fp                1.00
Flow rate, vp                               1061           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1061           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2018_WP_AM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1260           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     339            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.673
Driver population factor, fp                1.00
Flow rate, vp                               1006           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1006           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2018_WP_PM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1240           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     316            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.725
Driver population factor, fp                1.00
Flow rate, vp                               873            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               873            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2018_WP_AM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   1270           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     341            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               725            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               725            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  10.4           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2018_WP_PM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1240           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     316            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               666            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               666            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  9.5            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2018_WP_AM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1130          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     291           v
Trucks and buses                            21            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.903
Driver population factor, fp                1.00
Flow rate, vp                               645           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               645           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  9.2           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2018_WP_PM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1090           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     287            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               621            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               621            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  8.9            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2018_WP_AM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1130           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     291            v
Trucks and buses                            20             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.578
Driver population factor, fp                1.00
Flow rate, vp                               1008           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1008           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2018_WP_PM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1090           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     287            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.629
Driver population factor, fp                1.00
Flow rate, vp                               912            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               912            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2018_WP_AM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1860           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     479            v
Trucks and buses                            31             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.864
Driver population factor, fp                1.00
Flow rate, vp                               1109           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1109           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2018_WP_PM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1630           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     429            v
Trucks and buses                            24             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.891
Driver population factor, fp                1.00
Flow rate, vp                               963            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               963            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2018_WP_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1980           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     510            v
Trucks and buses                            27             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.880
Driver population factor, fp                1.00
Flow rate, vp                               1160           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1160           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2018_WP_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1890           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     497            v
Trucks and buses                            26             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.883
Driver population factor, fp                1.00
Flow rate, vp                               1126           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1126           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  16.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2018_WP_AM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     706            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               1528           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1528           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          2
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2018_WP_PM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2890           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     761            v
Trucks and buses                            17             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.920
Driver population factor, fp                1.00
Flow rate, vp                               1653           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1653           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          2
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2018_WP_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Perris Blvd to Heacock St
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3280          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     845           v
Trucks and buses                            15            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               1821          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1821          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.5          mi/h
Number of lanes, N                          2
Density, D                                  27.8          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2018_WP_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3120           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     821            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               1777           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1777           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          2
Density, D                                  26.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_WP_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1222           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               2583           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2583           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.8           mi/h
Number of lanes, N                          2
Density, D                                  54.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                   HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_WP_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Heacock St to Pigeon Pass Rd
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2850          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      750           v
Trucks and buses                             16            %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.924
Driver population factor, fp                 1.00
Flow rate, vp                                1623          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1623          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               67.9          mi/h
Number of lanes, N                           2
Density, D                                   23.9          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_WP_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1103           v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               2365           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2365           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.3           mi/h
Number of lanes, N                          2
Density, D                                  43.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_WP_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3220           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     847            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               1834           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1834           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          2
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_WP_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1848           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1926           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1926           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.9           mi/h
Number of lanes, N                          4
Density, D                                  30.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_WP_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8340           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2195           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2276           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2276           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.6           mi/h
Number of lanes, N                          4
Density, D                                  40.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2018_WP_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6870           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1771           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.840
Driver population factor, fp                1.00
Flow rate, vp                               2107           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2107           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.5           mi/h
Number of lanes, N                          4
Density, D                                  34.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2018_WP_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7000           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1842           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.885
Driver population factor, fp                1.00
Flow rate, vp                               2082           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2082           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.0           mi/h
Number of lanes, N                          4
Density, D                                  34.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2018_WP_AM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6610           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1704           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2344           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2344           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.8           mi/h
Number of lanes, N                          3
Density, D                                  42.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2018_WP_PM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4500           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1184           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1637           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1637           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          3
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2018_WP_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1559           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2156           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2156           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.4           mi/h
Number of lanes, N                          3
Density, D                                  36.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2018_WP_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5380           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1416           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1948           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1948           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.5           mi/h
Number of lanes, N                          3
Density, D                                  30.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                    HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2018_WP_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4270          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1101          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1514          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1514          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.9          mi/h
Number of lanes, N                           3
Density, D                                   22.0          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2018_WP_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5760           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1516           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2076           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2076           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.1           mi/h
Number of lanes, N                          3
Density, D                                  34.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2018_WP_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4400           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1134           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1576           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1576           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          3
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2018_WP_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5550           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1461           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2019           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2019           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.2           mi/h
Number of lanes, N                          3
Density, D                                  32.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2018_WP_AM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4070           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1049           v
Trucks and buses                             10             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.951
Driver population factor, fp                 1.00
Flow rate, vp                                1104           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1104           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   15.8           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2018_WP_PM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5340           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1405           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1464           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1464           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2018_WP_AM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1041           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1095           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1095           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2018_WP_PM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5310           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1397           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1456           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1456           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2018_WP_AM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4060           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1046           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1101           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2018_WP_PM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5270           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1387           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1445           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1445           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2018_WP_AM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4880          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1258          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1311          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1311          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.9          mi/h
Number of lanes, N                          4
Density, D                                  18.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2018_WP_PM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6290           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1655           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1717           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1717           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          4
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2018_WP_AM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4630           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1193           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               995            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               995            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2018_WP_PM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4940           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1300           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1078           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1078           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2018_WP_AM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1340          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1390          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1390          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.6          mi/h
Number of lanes, N                          4
Density, D                                  20.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2018_WP_PM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5350           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1408           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1446           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1446           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2018_WP_AM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1840           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1512           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1512           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          5
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2018_WP_PM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5920          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1558          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1286          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1286          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.9          mi/h
Number of lanes, N                          5
Density, D                                  18.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_WP_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7620           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1964           v
Trucks and buses                             11             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                2076           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2076           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               61.1           mi/h
Number of lanes, N                           4
Density, D                                   34.0           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_WP_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9590           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2524           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2630           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2630           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.3           mi/h
Number of lanes, N                          4
Density, D                                  56.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_WP_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6480          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1670          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1715          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1715          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.9          mi/h
Number of lanes, N                          4
Density, D                                  25.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_WP_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9600          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      2526          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2595          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2595          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               47.4          mi/h
Number of lanes, N                           4
Density, D                                   54.7          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2018_WP_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6940           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1789           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1864           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1864           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          4
Density, D                                  28.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2018_WP_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7720           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2032           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2086           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2086           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.9           mi/h
Number of lanes, N                          4
Density, D                                  34.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2018_WP_AM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1727           v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1842           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1842           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          4
Density, D                                  28.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2018_WP_PM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7080          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1863          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1951          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1951          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.5          mi/h
Number of lanes, N                          4
Density, D                                  30.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2018_WP_AM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6580          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1696          v
Trucks and buses                            14            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               1818          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1818          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.6          mi/h
Number of lanes, N                          4
Density, D                                  27.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2018_WP_PM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6690           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1761           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1852           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1852           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          4
Density, D                                  28.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2018_WP_AM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Central Ave to Ramona Ave
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                     6000          veh/h
Peak-hour factor, PHF                         0.97
Peak 15-min volume, v15                       1546          v
Trucks and buses                              10            %
Recreational vehicles                         1             %
Terrain type:                                 Level
    Grade                                     -             %
    Segment length                            -             mi
Trucks and buses PCE, ET                      1.5
Recreational vehicle PCE, ER                  1.2
Heavy vehicle adjustment, fHV                 0.951
Driver population factor, fp                  1.00
Flow rate, vp                                 1627          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                    -             ft
Right-side lateral clearance                  -             ft
Total ramp density, TRD                       -             ramps/mi
Number of lanes, N                            4
Free-flow speed:                              Measured
     FFS or BFFS                              70.0          mi/h
Lane width adjustment, fLW                    -             mi/h
Lateral clearance adjustment, fLC             -             mi/h
TRD adjustment                                -             mi/h
Free-flow speed, FFS                          70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                 1627          pc/h/ln
Free-flow speed, FFS                          70.0          mi/h
Average passenger-car speed, S                67.9          mi/h
Number of lanes, N                            4
Density, D                                    24.0          pc/mi/ln
Level of service, LOS                         C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2018_WP_PM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6640           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1747           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1803           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1803           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          4
Density, D                                  27.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2018_WP_AM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6470           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1668           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1721           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1721           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          4
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2018_WP_PM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6410           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1687           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1741           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1741           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          4
Density, D                                  26.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2018_WP_AM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4380           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1129           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1159           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1159           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2018_WP_PM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6300           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1694           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1731           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1731           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2018_WP_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1276           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1738           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1738           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          3
Density, D                                  26.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2018_WP_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5210          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1401          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1908          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1908          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.2          mi/h
Number of lanes, N                          3
Density, D                                  29.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_WP_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6520           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1680           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2323           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2323           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.4           mi/h
Number of lanes, N                          3
Density, D                                  42.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_WP_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1884           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2593           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2593           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.5           mi/h
Number of lanes, N                          3
Density, D                                  54.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2018_WP_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7180          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1851          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1900          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1900          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.3          mi/h
Number of lanes, N                          4
Density, D                                  29.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2018_WP_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1884           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1935           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1935           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.7           mi/h
Number of lanes, N                          4
Density, D                                  30.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2018_WP_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1856           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1896           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1896           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.4           mi/h
Number of lanes, N                          4
Density, D                                  29.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2018_WP_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7950           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2137           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2184           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2184           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.8           mi/h
Number of lanes, N                          4
Density, D                                  37.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2018_WP_AM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4810           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1240           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1273           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1273           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2018_WP_PM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4940          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1328          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1357          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1357          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.7          mi/h
Number of lanes, N                          4
Density, D                                  19.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_WP_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7530           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1941           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2683           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2683           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.5           mi/h
Number of lanes, N                          3
Density, D                                  60.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_WP_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-91 EB
From/To:                 Adam St to Madison St
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8190          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2202          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                3029          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                3029          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               31.2          mi/h
Number of lanes, N                           3
Density, D                                   97.1          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2018_WP_AM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-91 EB
From/To:                 Madison St to Indiana Ave
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7720          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1990          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                2063          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2063          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               61.4          mi/h
Number of lanes, N                           4
Density, D                                   33.6          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2018_WP_PM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5370           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1444           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1490           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1490           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_WP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796          v
Trucks and buses                            11            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               2532          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2532          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              49.4          mi/h
Number of lanes, N                          3
Density, D                                  51.2          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_WP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5810           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1562           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2159           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2159           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.3           mi/h
Number of lanes, N                          3
Density, D                                  36.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2018_WP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4550           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1173           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1198           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1198           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2018_WP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1151          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1170          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1170          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.7          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2018_WP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5850           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1508           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1245           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1245           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2018_WP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5530           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1487           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1221           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1221           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2018_WP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5840           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1505           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1546           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1546           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          4
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2018_WP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6960           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1871           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1903           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1903           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          4
Density, D                                  29.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2018_WP_AM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1325           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1367           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1367           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2018_WP_PM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1874           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1906           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1906           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          4
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_WP_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   7010            veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1807            v
Trucks and buses                            5               %
Recreational vehicles                       1               %
Terrain type:                               Level
    Grade                                   -               %
    Segment length                          -               mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2474            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -               ft
Right-side lateral clearance                -               ft
Total ramp density, TRD                     -               ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0            mi/h
Lane width adjustment, fLW                  -               mi/h
Lateral clearance adjustment, fLC           -               mi/h
TRD adjustment                              -               mi/h
Free-flow speed, FFS                        70.0            mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               2474            pc/h/ln
Free-flow speed, FFS                        70.0            mi/h
Average passenger-car speed, S              51.2            mi/h
Number of lanes, N                          3
Density, D                                  48.3            pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2018_WP_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1884           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2555           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2555           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.7           mi/h
Number of lanes, N                          3
Density, D                                  52.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2018_WP_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5870           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1513           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1554           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1554           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          4
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2018_WP_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7590           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2040           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2085           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2085           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.9           mi/h
Number of lanes, N                          4
Density, D                                  34.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_WP_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6310           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1626           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1670           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1670           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_WP_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8020           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2156           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2203           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2203           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               58.3           mi/h
Number of lanes, N                           4
Density, D                                   37.8           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_WP_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6050          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1559          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1601          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1601          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.1          mi/h
Number of lanes, N                          4
Density, D                                  23.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_WP_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-91 WB
From/To:                 Van Buren Blvd to Tyler St
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8050          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2164          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2212          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2212          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               58.1          mi/h
Number of lanes, N                           4
Density, D                                   38.1          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_WP_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5860           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1510           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2068           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2068           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.3           mi/h
Number of lanes, N                          3
Density, D                                  33.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_WP_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1919           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2615           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2615           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.8           mi/h
Number of lanes, N                          3
Density, D                                  55.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_WP_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2460           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2460           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.6           mi/h
Number of lanes, N                          3
Density, D                                  47.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_WP_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7130          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1917          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2612          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2612          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              46.9          mi/h
Number of lanes, N                          3
Density, D                                  55.7          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_WP_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1791           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2453           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2453           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.8           mi/h
Number of lanes, N                          3
Density, D                                  47.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_WP_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1919           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2615           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2615           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.8           mi/h
Number of lanes, N                          3
Density, D                                  55.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_WP_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1791          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2477          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2477          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              51.1          mi/h
Number of lanes, N                          3
Density, D                                  48.5          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_WP_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1919           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2654           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2654           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.5           mi/h
Number of lanes, N                          3
Density, D                                  58.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2018_WP_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6470           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1668           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1729           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1729           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.8           mi/h
Number of lanes, N                          4
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2018_WP_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7290           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1960           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2022           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2022           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.2           mi/h
Number of lanes, N                          4
Density, D                                  32.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2018_WP_AM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3500           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     941            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               966            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               966            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2018_WP_PM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4730           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1258           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1286           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1286           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2018_WP_AM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3520           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     946            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               986            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               986            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2018_WP_PM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-10 EB
From/To:                 Beaumont to Pennsylvania
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4860          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1293          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1340          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1340          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.8          mi/h
Number of lanes, N                          4
Density, D                                  19.2          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2018_WP_AM_Peak_I-10_EB_Pennsylvania_to_Highland_Sprin.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Sprin
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3670           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     987            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1023           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1023           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2018_WP_PM_Peak_I-10_EB_Pennsylvania_to_Highland_Sprin.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Sprin
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5080           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1351           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1394           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1394           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  20.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2018_WP_AM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3500           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     941            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               980            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               980            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2018_WP_PM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4960          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1319          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1361          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1361          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.7          mi/h
Number of lanes, N                          4
Density, D                                  19.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2018_WP_AM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3410           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     917            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               764            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               764            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  10.9           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2018_WP_PM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4850           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1290           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1065           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1065           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2018_WP_AM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3350           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     901            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               938            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               938            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2018_WP_PM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4770           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1269           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1316           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1316           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2018_WP_AM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3340           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     898            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               936            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               936            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2018_WP_PM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4780          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1271          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1318          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1318          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.8          mi/h
Number of lanes, N                          4
Density, D                                  18.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2018_WP_AM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2980           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     801            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               839            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               839            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2018_WP_PM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4310          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1146          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1189          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1189          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  17.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2018_WP_AM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2840           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     763            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               799            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               799            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2018_WP_PM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4120           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1096           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1142           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1142           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2018_WP_AM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2500           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     672            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               697            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               697            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2018_WP_PM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3650           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     971            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               992            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               992            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2018_WP_AM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2500          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     672           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               687           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               687           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  9.8           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2018_WP_PM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3660          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     973           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               995           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               995           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.2          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2018_WP_AM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     589            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               602            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               602            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  8.6            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2018_WP_PM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3180           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     846            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               864            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               864            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2018_WP_AM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     589            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               605            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               605            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  8.6            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2018_WP_PM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3180           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     846            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               864            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               864            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2018_WP_AM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3210           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     933            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               954            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               954            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2018_WP_PM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2640           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     680            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               702            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               702            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2018_WP_AM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3210          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     933           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               949           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               949           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  13.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2018_WP_PM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-10 WB
From/To:                 Tipton Rd to SR-111
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2640          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     680           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               695           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               695           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  9.9           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2018_WP_AM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3700           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1076           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1094           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1094           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2018_WP_PM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     784            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               801            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               801            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2018_WP_AM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3690          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1073          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1091          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1091          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  15.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2018_WP_PM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     784            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               805            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               805            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2018_WP_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4170          veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1212          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1251          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1251          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   17.9          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2018_WP_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3450           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     889            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               931            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               931            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2018_WP_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   4360           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1267           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1308           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1308           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2018_WP_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3620           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     933            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               972            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               972            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2018_WP_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4830           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1404           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1442           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1442           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2018_WP_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1044           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1088           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1088           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2018_WP_AM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4820          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1401          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1439          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1439          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.3          mi/h
Number of lanes, N                          4
Density, D                                  20.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2018_WP_PM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1044           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1088           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1088           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2018_WP_AM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4900           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1424           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1170           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1170           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2018_WP_PM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1072           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               889            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               889            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2018_WP_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5010           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1456           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1496           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1496           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2018_WP_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1101           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1141           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1141           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2018_WP_AM_Peak_I-10_WB_Highland_Springs_to_Pennsylvan.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvan
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5170           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1503           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1543           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1543           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          4
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2018_WP_PM_Peak_I-10_WB_Highland_Springs_to_Pennsylvan.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvan
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4400           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1134           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1176           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1176           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2018_WP_AM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4920           veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1430           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1469           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1469           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.2           mi/h
Number of lanes, N                           4
Density, D                                   21.2           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2018_WP_PM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-10 WB
From/To:                 Pennsylvania to Beaumont
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4210          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1085          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1125          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1125          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2018_WP_AM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4830           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1404           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1435           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1435           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2018_WP_PM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4170           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1075           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1104           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1104           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   15.8           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2018_WP_AM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2670           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     726            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               989            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               989            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2018_WP_PM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3270          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     843           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1143          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1143          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  16.3          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2018_WP_AM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1790           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     486            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               663            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               663            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  9.5            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2018_WP_PM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 Newport Rd to MacCall Blvd
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2030          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      523           v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                713           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                713           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   10.2          pc/mi/ln
Level of service, LOS                        A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2018_WP_AM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2280           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     620            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               844            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               844            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2018_WP_PM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3280           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     845            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1146           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1146           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2018_WP_AM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3590           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     976            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1329           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1329           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          3
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2018_WP_PM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    3140           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      809            v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1097           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1097           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   15.7           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2018_WP_AM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3090          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      840           v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1161          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1161          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   16.6          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2018_WP_PM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4190          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1080          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1486          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1486          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.1          mi/h
Number of lanes, N                          3
Density, D                                  21.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2018_WP_AM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6650          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1807          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1865          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1865          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.9          mi/h
Number of lanes, N                          4
Density, D                                  28.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2018_WP_PM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7100           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1830           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1870           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1870           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2018_WP_AM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5110          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1389          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1901          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1901          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.3          mi/h
Number of lanes, N                          3
Density, D                                  29.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2018_WP_PM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5330          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1374          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1863          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1863          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.9          mi/h
Number of lanes, N                          3
Density, D                                  28.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2018_WP_AM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5150          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1399          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1898          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1898          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.3          mi/h
Number of lanes, N                          3
Density, D                                  29.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2018_WP_PM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1291           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1751           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1751           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          3
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_WP_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    5650           veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1535           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                2113           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                2113           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               60.3           mi/h
Number of lanes, N                           3
Density, D                                   35.0           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2018_WP_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 Barton Rd to Washington St
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5740           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1479           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                2036           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2036           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               61.9           mi/h
Number of lanes, N                           3
Density, D                                   32.9           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2018_WP_AM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6040          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1641          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1710          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1710          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.0          mi/h
Number of lanes, N                          4
Density, D                                  25.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2018_WP_PM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5930           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1528           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1577           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1577           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          4
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_WP_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5150           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1399           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1423           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1423           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_WP_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9480          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2443          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2485          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2485          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              50.8          mi/h
Number of lanes, N                          4
Density, D                                  48.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2018_WP_AM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3130           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     851            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               874            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               874            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2018_WP_PM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4760            veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1227            v
Trucks and buses                            3               %
Recreational vehicles                       1               %
Terrain type:                               Level
    Grade                                   -               %
    Segment length                          -               mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1248            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -               ft
Right-side lateral clearance                -               ft
Total ramp density, TRD                     -               ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0            mi/h
Lane width adjustment, fLW                  -               mi/h
Lateral clearance adjustment, fLC           -               mi/h
TRD adjustment                              -               mi/h
Free-flow speed, FFS                        70.0            mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1248            pc/h/ln
Free-flow speed, FFS                        70.0            mi/h
Average passenger-car speed, S              70.0            mi/h
Number of lanes, N                          4
Density, D                                  17.8            pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2018_WP_AM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4680          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1206          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1227          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1227          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   17.5          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2018_WP_PM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3680           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     939            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               955            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               955            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2018_WP_AM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6130           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1580           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1615           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1615           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.0           mi/h
Number of lanes, N                          4
Density, D                                  23.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2018_WP_PM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5810           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1482           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1507           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1507           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2018_WP_AM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5840           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1505           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1553           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1553           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          4
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2018_WP_PM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5410           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1380           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1417           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1417           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_WP_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6060          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1562          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2139          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2139          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               59.8          mi/h
Number of lanes, N                           3
Density, D                                   35.8          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_WP_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1798           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2439           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2439           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.2           mi/h
Number of lanes, N                          3
Density, D                                  46.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_WP_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7150          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1843          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2536          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2536          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              49.3          mi/h
Number of lanes, N                          3
Density, D                                  51.4          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_WP_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7020           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1791           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2428           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2428           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.5           mi/h
Number of lanes, N                          3
Density, D                                  46.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_WP_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1827           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2527           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2527           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.6           mi/h
Number of lanes, N                          3
Density, D                                  51.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_WP_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1773          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2428          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2428          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              52.5          mi/h
Number of lanes, N                          3
Density, D                                  46.2          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2018_WP_AM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1827           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1913           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1913           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          4
Density, D                                  29.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2018_WP_PM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7000           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1786           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1834           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1834           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          4
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2018_WP_AM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4560           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1175           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1609           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1609           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          3
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2018_WP_PM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4540          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1158          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1586          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1586          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.3          mi/h
Number of lanes, N                          3
Density, D                                  23.2          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2018_WP_AM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2910           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     750            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1022           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1022           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2018_WP_PM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3660           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     934            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1272           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1272           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          3
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2018_WP_AM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3080           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     794            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1082           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1082           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2018_WP_PM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2350          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      599           v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                817           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                817           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   11.7          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2018_WP_AM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2530           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     652            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               889            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               889            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2018_WP_PM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2950           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      753            v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1025           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1025           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   14.6           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2018_WP_AM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 SB
From/To:                 Newport Rd to Scott Rd
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2290          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      590           v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                804           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                804           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   11.5          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2018_WP_PM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2220          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     566           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               772           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               772           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  11.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2018_WP_AM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4210           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1144           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1551           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1551           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          3
Density, D                                  22.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2018_WP_PM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3220          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     830           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1131          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1131          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  16.2          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2018_WP_AM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3290           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     894            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               914            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               914            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2018_WP_PM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4800           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1237           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1264           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1264           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  18.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2018_WP_AM_Peak_I-215_NB_Nuevo_St_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4460           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1212           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1651           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1651           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          3
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2018_WP_PM_Peak_I-215_NB_Nuevo_St_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 Nuevo St to Ramona Expy
Jurisdiction:            Caltrans
Analysis Year:           2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5240          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1351          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1840          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1840          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.2          mi/h
Number of lanes, N                          3
Density, D                                  28.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2018_WP_AM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4870           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1323           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1803           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1803           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          3
Density, D                                  27.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2018_WP_PM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1534           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2090           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2090           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.8           mi/h
Number of lanes, N                          3
Density, D                                  34.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2018_WP_AM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5030           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1367           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1853           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1853           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          3
Density, D                                  28.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2018_WP_PM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4460          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1149          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1582          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1582          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.3          mi/h
Number of lanes, N                          3
Density, D                                  23.2          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2018_WP_AM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1288           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1316           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1316           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2018_WP_PM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4230           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1090           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1114           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1114           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2018_WP_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4400           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1196           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1637           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1637           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          3
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2018_WP_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5400           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1392           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1906           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1906           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          3
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_WP_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4770           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1296           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1766           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1766           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          3
Density, D                                  26.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_WP_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    6110           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1575           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2146           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                2146           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               59.6           mi/h
Number of lanes, N                           3
Density, D                                   36.0           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2018_WP_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5180          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1335          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1819          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1819          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.6          mi/h
Number of lanes, N                          3
Density, D                                  27.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2018_WP_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6060           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1546           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2107           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2107           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.5           mi/h
Number of lanes, N                          3
Density, D                                  34.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2018_WP_AM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3640           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     938            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               959            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               959            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2018_WP_PM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6180           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1577           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1603           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1603           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2018_WP_AM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   3890           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1003           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1406           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1406           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          3
Density, D                                  20.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2018_WP_PM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6990           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1783           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2418           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2418           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.8           mi/h
Number of lanes, N                          3
Density, D                                  45.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2018_WP_AM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2690           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     693            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               945            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               945            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2018_WP_PM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5230           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1334           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1809           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1809           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          3
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2018_WP_AM_Peak_I-215_SB_Ramona_Expy_to_Nuevo.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Nuevo
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4580           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1180           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1616           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1616           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.0           mi/h
Number of lanes, N                          3
Density, D                                  23.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2018_WP_PM_Peak_I-215_SB_Ramona_Expy_to_Nuevo.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Nuevo
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5230          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1334          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1818          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1818          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.6          mi/h
Number of lanes, N                          3
Density, D                                  27.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2018_WP_AM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3450           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     889            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               909            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               909            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2018_WP_PM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3110          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     793           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               811           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               811           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  11.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2018_WP_AM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2600           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     670            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               918            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               918            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2018_WP_PM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    2490           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      635            v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                870            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                870            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   12.4           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2018_WP_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4463    797     297     33      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1200    214     80      9
Trucks and buses                       6       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4952    884     323     36      pc/h

Volume ratio, VR                               0.195

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     0.7         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         1207        lc/h
Weaving lane changes, LCW                   1765        lc/h
Non-weaving vehicle index, INW              594
Non-weaving lane change, LCNW               986         lc/h
Total lane changes, LCALL                   2751        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.330
Average weaving speed, SW                   56.3        mi/h
Average non-weaving speed, SNW              55.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.6        mi/h
Weaving segment density, D                 22.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.567
Weaving segment flow rate, v               6195        pc/h
Weaving segment capacity, cW               10596       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4483         1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2187         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.567        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2018_WP_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5795    535     315     35      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1478    136     80      9
Trucks and buses                       6       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6102    569     325     36      pc/h

Volume ratio, VR                               0.127

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        894         lc/h
Weaving lane changes, LCW                  1452        lc/h
Non-weaving vehicle index, INW             730
Non-weaving lane change, LCNW              1223        lc/h
Total lane changes, LCALL                  2675        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.323
Average weaving speed, SW                  56.6        mi/h
Average non-weaving speed, SNW             56.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 24.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.628
Weaving segment flow rate, v               7032        pc/h
Weaving segment capacity, cW               10848       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3805        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2239         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.628        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_WP_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5560    660     630     70      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1495    177     169     19
Trucks and buses                       6       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6170    722     736     76      pc/h

Volume ratio, VR                               0.189

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        736         lc/h
Weaving lane changes, LCW                  953         lc/h
Non-weaving vehicle index, INW             437
Non-weaving lane change, LCNW              896         lc/h
Total lane changes, LCALL                  1849        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.486
Average weaving speed, SW                  52.0        mi/h
Average non-weaving speed, SNW             55.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 35.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.908
Weaving segment flow rate, v               7704        pc/h
Weaving segment capacity, cW               8198        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4427        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2115         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.908        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_WP_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5368    522     822     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1369    133     210     15
Trucks and buses                       6       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5653    542     912     60      pc/h

Volume ratio, VR                               0.203

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        912         lc/h
Weaving lane changes, LCW                  1129        lc/h
Non-weaving vehicle index, INW             400
Non-weaving lane change, LCNW              786         lc/h
Total lane changes, LCALL                  1915        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.500
Average weaving speed, SW                  51.7        mi/h
Average non-weaving speed, SNW             54.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.2        mi/h
Weaving segment density, D                 33.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.847
Weaving segment flow rate, v               7167        pc/h
Weaving segment capacity, cW               8155        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4566         700         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2104         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.847        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2018_WP_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4590    1320    450     50      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1234    355     121     13
Trucks and buses                       7       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5118    1458    490     54      pc/h

Volume ratio, VR                               0.274

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1458        lc/h
Weaving lane changes, LCW                  1981        lc/h
Non-weaving vehicle index, INW             647
Non-weaving lane change, LCNW              780         lc/h
Total lane changes, LCALL                  2761        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.422
Average weaving speed, SW                  53.7        mi/h
Average non-weaving speed, SNW             52.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.9        mi/h
Weaving segment density, D                 26.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.647
Weaving segment flow rate, v               7120        pc/h
Weaving segment capacity, cW               10656       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3736        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2209         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.647        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2018_WP_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6813    1687    567     63      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1738    430     145     16
Trucks and buses                       18      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.916   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7592    1768    586     65      pc/h

Volume ratio, VR                               0.235

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                3           ln
Interchange density, ID                      1.0         int/mi
Minimum RF lane changes, LCRF                1           lc/pc
Minimum FR lane changes, LCFR                0           lc/pc
Minimum RR lane changes, LCRR                            lc/pc

Minimum weaving lane changes, LCMIN          1768        lc/h
Weaving lane changes, LCW                    2291        lc/h
Non-weaving vehicle index, INW               957
Non-weaving lane change, LCNW                1292        lc/h
Total lane changes, LCALL                    3583        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                  0.519
Average weaving speed, SW                    51.2        mi/h
Average non-weaving speed, SNW               47.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.5        mi/h
Weaving segment density, D                 41.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.908
Weaving segment flow rate, v               10011       pc/h
Weaving segment capacity, cW               10261       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3333        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2241         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.908        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2018_WP_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                     Volume Components
                                    VFF     VRF     VFR     VRR
Volume, V                            5490    430     370     20      veh/h
Peak hour factor, PHF                0.93    0.93    0.93    0.93
Peak 15-min volume, v15              1476    116     99      5
Trucks and buses                     7       3       2       2         %
Recreational vehicles                1       1       1       1         %
Trucks and buses PCE, ET             1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER         1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV        0.964   0.983   0.988   0.988
Driver population adjustment, fP     1.00    1.00    1.00    1.00
Flow rate, v                         6122    470     403     22      pc/h

Volume ratio, VR                             0.124

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         873         lc/h
Weaving lane changes, LCW                   1485        lc/h
Non-weaving vehicle index, INW              983
Non-weaving lane change, LCNW               1170        lc/h
Total lane changes, LCALL                   2655        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.337
Average weaving speed, SW                   56.1        mi/h
Average non-weaving speed, SNW              57.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.9        mi/h
Weaving segment density, D                 24.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.630
Weaving segment flow rate, v               7017        pc/h
Weaving segment capacity, cW               10767       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3778        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2234         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.630        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2018_WP_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5425    925     475     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1384    236     121     6
Trucks and buses                       18      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.916   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6045    955     491     26      pc/h

Volume ratio, VR                               0.192

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       1446        lc/h
Weaving lane changes, LCW                 2058        lc/h
Non-weaving vehicle index, INW            971
Non-weaving lane change, LCNW             1155        lc/h
Total lane changes, LCALL                 3213        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.392
Average weaving speed, SW                 54.5        mi/h
Average non-weaving speed, SNW            52.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.8        mi/h
Weaving segment density, D                 28.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.700
Weaving segment flow rate, v               7517        pc/h
Weaving segment capacity, cW               9986        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4458        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2182         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.700        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2018_WP_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5309    351     581     19      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1427    94      156     5
Trucks and buses                       10      4       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.978   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6005    386     635     21      pc/h

Volume ratio, VR                               0.145

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        635         lc/h
Weaving lane changes, LCW                  1115        lc/h
Non-weaving vehicle index, INW             663
Non-weaving lane change, LCNW              875         lc/h
Total lane changes, LCALL                  1990        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.361
Average weaving speed, SW                  55.4        mi/h
Average non-weaving speed, SNW             58.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.2        mi/h
Weaving segment density, D                 24.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.650
Weaving segment flow rate, v               7047        pc/h
Weaving segment capacity, cW               10361       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3980        1100         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2180         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.650        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2018_WP_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5765    845     275     15      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1471    216     70      4
Trucks and buses                       10      3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6189    877     284     15      pc/h

Volume ratio, VR                               0.158

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        284         lc/h
Weaving lane changes, LCW                  764         lc/h
Non-weaving vehicle index, INW             682
Non-weaving lane change, LCNW              911         lc/h
Total lane changes, LCALL                  1675        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.315
Average weaving speed, SW                  56.8        mi/h
Average non-weaving speed, SNW             60.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.2        mi/h
Weaving segment density, D                 24.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.683
Weaving segment flow rate, v               7365        pc/h
Weaving segment capacity, cW               10314       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4108         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2170         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.683        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2018_WP_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5494    476     446     24      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1477    128     120     6
Trucks and buses                       14      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.820   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7207    532     499     27      pc/h

Volume ratio, VR                               0.125

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        499         lc/h
Weaving lane changes, LCW                  1415        lc/h
Non-weaving vehicle index, INW             2431
Non-weaving lane change, LCNW              3302        lc/h
Total lane changes, LCALL                  4717        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.341
Average weaving speed, SW                  56.0        mi/h
Average non-weaving speed, SNW             58.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  58.2        mi/h
Weaving segment density, D                28.4        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.727
Weaving segment flow rate, v              8265        pc/h
Weaving segment capacity, cW              9529        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                         Minimum       Maximum       Actual       Note
Weaving length (ft)         300            3781        2800        a,b
                                       Maximum       Analyzed
Density-based capacty,                     2400        2325         c
cIWL (pc/h/ln)
                                       Maximum       Analyzed
v/c ratio                                  1.00        0.727        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2018_WP_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6353    1187    437     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1621    303     111     6
Trucks and buses                       10      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.862   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7520    1260    464     24      pc/h

Volume ratio, VR                               0.186

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        464         lc/h
Weaving lane changes, LCW                  1380        lc/h
Non-weaving vehicle index, INW             2535
Non-weaving lane change, LCNW              3371        lc/h
Total lane changes, LCALL                  4751        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.343
Average weaving speed, SW                  56.0        mi/h
Average non-weaving speed, SNW             57.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.4        mi/h
Weaving segment density, D                 32.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.831
Weaving segment flow rate, v               9268        pc/h
Weaving segment capacity, cW               9819        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4394        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2278         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.831        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2018_WP_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1870    1200    270     30      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                503     323     73      8
Trucks and buses                       17      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.920   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2186    1325    294     33      pc/h

Volume ratio, VR                               0.422

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1325        lc/h
Weaving lane changes, LCW                  1793        lc/h
Non-weaving vehicle index, INW             213
Non-weaving lane change, LCNW              145         lc/h
Total lane changes, LCALL                  1938        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.330
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             56.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.6        mi/h
Weaving segment density, D                 13.6        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.475
Weaving segment flow rate, v               3838        pc/h
Weaving segment capacity, cW               7633        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5361        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2082         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.475        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2018_WP_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6656    2014    504     56      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1698    514     129     14
Trucks and buses                       7       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7043    2111    520     58      pc/h

Volume ratio, VR                               0.270

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2111        lc/h
Weaving lane changes, LCW                  2579        lc/h
Non-weaving vehicle index, INW             682
Non-weaving lane change, LCNW              1150        lc/h
Total lane changes, LCALL                  3729        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.553
Average weaving speed, SW                  50.4        mi/h
Average non-weaving speed, SNW             45.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   46.7        mi/h
Weaving segment density, D                 41.7        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.884
Weaving segment flow rate, v               9732        pc/h
Weaving segment capacity, cW               10651       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3702        1200         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2209         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.884        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2018_WP_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1822    418     1078    22      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                490     112     290     6
Trucks and buses                       17      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.920   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2130    455     1173    24      pc/h

Volume ratio, VR                               0.430

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        455         lc/h
Weaving lane changes, LCW                  826         lc/h
Non-weaving vehicle index, INW             336
Non-weaving lane change, LCNW              378         lc/h
Total lane changes, LCALL                  1204        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.213
Average weaving speed, SW                  60.4        mi/h
Average non-weaving speed, SNW             62.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.4        mi/h
Weaving segment density, D                 15.4        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.480
Weaving segment flow rate, v               3782        pc/h
Weaving segment capacity, cW               7480        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5459        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2082         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.480        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2018_WP_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4858    712     1372    38      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1239    182     350     10
Trucks and buses                       8       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5165    735     1417    39      pc/h

Volume ratio, VR                               0.293

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        735         lc/h
Weaving lane changes, LCW                  1106        lc/h
Non-weaving vehicle index, INW             812
Non-weaving lane change, LCNW              1006        lc/h
Total lane changes, LCALL                  2112        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.331
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             55.9        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 32.8        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.844
Weaving segment flow rate, v               7356        pc/h
Weaving segment capacity, cW               8438        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3938        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2198         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.844        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2018_WP_AM_Peak_SR-60_EB_Theodore_St_to_Gilman_Springs_.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            Theodore St to Gilman Springs
Analysis Year:               2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           3           ln
Weaving segment length, LS                   2000        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                         Volume Components
                                        VFF     VRF     VFR     VRR
Volume, V                                1117    123     333     7       veh/h
Peak hour factor, PHF                    0.93    0.93    0.93    0.93
Peak 15-min volume, v15                  300     33      90      2
Trucks and buses                         13      19      3       2         %
Recreational vehicles                    1       1       1       1         %
Trucks and buses PCE, ET                 1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER             1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV            0.937   0.912   0.983   0.988
Driver population adjustment, fP         1.00    1.00    1.00    1.00
Flow rate, v                             1282    145     364     8       pc/h

Volume ratio, VR                                 0.283

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         509         lc/h
Weaving lane changes, LCW                   741         lc/h
Non-weaving vehicle index, INW              206
Non-weaving lane change, LCNW               772         lc/h
Total lane changes, LCALL                   1513        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.181
Average weaving speed, SW                   61.6        mi/h
Average non-weaving speed, SNW              63.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.9        mi/h
Weaving segment density, D                 9.5         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.282
Weaving segment flow rate, v               1799        pc/h
Weaving segment capacity, cW               6017        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5402        2000         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2140         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.282        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2018_WP_PM_Peak_SR-60_EB_Theodore_St_to_Gilman_Springs_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Theodore St to Gilman Springs
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              789     161     451     9       veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                201     41      115     2
Trucks and buses                       11      21      9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.903   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           851     182     482     9       pc/h

Volume ratio, VR                               0.436

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                  2           ln
Interchange density, ID                        0.8         int/mi
Minimum RF lane changes, LCRF                  1           lc/pc
Minimum FR lane changes, LCFR                  1           lc/pc
Minimum RR lane changes, LCRR                              lc/pc

Minimum weaving lane changes, LCMIN            664         lc/h
Weaving lane changes, LCW                      896         lc/h
Non-weaving vehicle index, INW                 138
Non-weaving lane change, LCNW                  683         lc/h
Total lane changes, LCALL                      1579        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                    0.188
Average weaving speed, SW                      61.3        mi/h
Average non-weaving speed, SNW                 62.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.1        mi/h
Weaving segment density, D                 8.2         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.276
Weaving segment flow rate, v               1524        pc/h
Weaving segment capacity, cW               5211        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7085        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2011         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.276        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                      HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2018_WP_AM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore_.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            Gilman Springs Rd to Theodore
Analysis Year:               2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           3           ln
Weaving segment length, LS                   2500        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               519     341     161     9       veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 134     88      41      2
Trucks and buses                        24      2       17      2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.891   0.988   0.920   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            600     356     180     9       pc/h

Volume ratio, VR                                0.468

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         536         lc/h
Weaving lane changes, LCW                   799         lc/h
Non-weaving vehicle index, INW              122
Non-weaving lane change, LCNW               903         lc/h
Total lane changes, LCALL                   1702        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.167
Average weaving speed, SW                   62.1        mi/h
Average non-weaving speed, SNW              64.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   63.3        mi/h
Weaving segment density, D                 6.0         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.232
Weaving segment flow rate, v               1145        pc/h
Weaving segment capacity, cW               4569        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7456        2500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2021         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.232        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2018_WP_PM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Gilman Springs Rd to Theodore
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              800     370     190     10      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                211     97      50      3
Trucks and buses                       16      16      17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.924   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           911     421     217     11      pc/h

Volume ratio, VR                               0.409

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        638         lc/h
Weaving lane changes, LCW                  901         lc/h
Non-weaving vehicle index, INW             184
Non-weaving lane change, LCNW              967         lc/h
Total lane changes, LCALL                  1868        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.180
Average weaving speed, SW                  61.6        mi/h
Average non-weaving speed, SNW             62.9        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.4        mi/h
Weaving segment density, D                 8.3         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.266
Weaving segment flow rate, v               1560        pc/h
Weaving segment capacity, cW               5424        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           6782        2500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2072         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.266        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2018_WP_AM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1747    493     123     7       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                450     127     32      2
Trucks and buses                       22      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.899   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2003    514     129     7       pc/h

Volume ratio, VR                               0.242

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        129         lc/h
Weaving lane changes, LCW                  350         lc/h
Non-weaving vehicle index, INW             281
Non-weaving lane change, LCNW              920         lc/h
Total lane changes, LCALL                  1270        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.158
Average weaving speed, SW                  62.5        mi/h
Average non-weaving speed, SNW             64.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.2        mi/h
Weaving segment density, D                 13.8        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.417
Weaving segment flow rate, v               2653        pc/h
Weaving segment capacity, cW               5860        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4974        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2173         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.417        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2018_WP_PM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1576    524     114     6       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                415     138     30      2
Trucks and buses                       22      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.899   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1845    558     122     6       pc/h

Volume ratio, VR                               0.269

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   0.7         int/mi
Minimum RF lane changes, LCRF             0           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       122         lc/h
Weaving lane changes, LCW                 343         lc/h
Non-weaving vehicle index, INW            259
Non-weaving lane change, LCNW             888         lc/h
Total lane changes, LCALL                 1231        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.154
Average weaving speed, SW                 62.7        mi/h
Average non-weaving speed, SNW            65.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.4        mi/h
Weaving segment density, D                 13.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.403
Weaving segment flow rate, v               2531        pc/h
Weaving segment capacity, cW               5803        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5250        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2151         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.403        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2018_WP_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3343    687     627     33      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                862     177     162     9
Trucks and buses                       10      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3626    717     654     34      pc/h

Volume ratio, VR                               0.273

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1371        lc/h
Weaving lane changes, LCW                  1643        lc/h
Non-weaving vehicle index, INW             878
Non-weaving lane change, LCNW              1260        lc/h
Total lane changes, LCALL                  2903        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.303
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             52.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 31.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.789
Weaving segment flow rate, v               5031        pc/h
Weaving segment capacity, cW               6125        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5291        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2148         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.789        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2018_WP_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2215    465     645     25      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                583     122     170     7
Trucks and buses                       14      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2499    495     687     27      pc/h

Volume ratio, VR                               0.319

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1182        lc/h
Weaving lane changes, LCW                  1454        lc/h
Non-weaving vehicle index, INW             606
Non-weaving lane change, LCNW              1027        lc/h
Total lane changes, LCALL                  2481        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.268
Average weaving speed, SW                  58.4        mi/h
Average non-weaving speed, SNW             55.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 21.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.597
Weaving segment flow rate, v               3708        pc/h
Weaving segment capacity, cW               5905        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5786        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2110         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.597        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_WP_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5660    560     640     30      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1459    144     165     8
Trucks and buses                       8       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.885   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6594    600     686     32      pc/h

Volume ratio, VR                               0.163

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        600         lc/h
Weaving lane changes, LCW                  1006        lc/h
Non-weaving vehicle index, INW             1193
Non-weaving lane change, LCNW              1408        lc/h
Total lane changes, LCALL                  2414        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.329
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             56.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.2        mi/h
Weaving segment density, D                 35.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.866
Weaving segment flow rate, v               7912        pc/h
Weaving segment capacity, cW               8202        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2591        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2316         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.866        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_WP_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6212    408     518     22      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1635    107     136     6
Trucks and buses                       8       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.885   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7389    447     567     24      pc/h

Volume ratio, VR                               0.120

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        447         lc/h
Weaving lane changes, LCW                  853         lc/h
Non-weaving vehicle index, INW             1334
Non-weaving lane change, LCNW              1663        lc/h
Total lane changes, LCALL                  2516        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.340
Average weaving speed, SW                  56.0        mi/h
Average non-weaving speed, SNW             56.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.6        mi/h
Weaving segment density, D                 37.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.906
Weaving segment flow rate, v               8427        pc/h
Weaving segment capacity, cW               8315        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2172        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2349         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.906        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_WP_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5181    1059    579     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1335    273     149     8
Trucks and buses                       13      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5699    1105    604     32      pc/h

Volume ratio, VR                               0.230

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1709        lc/h
Weaving lane changes, LCW                  2016        lc/h
Non-weaving vehicle index, INW             630
Non-weaving lane change, LCNW              1006        lc/h
Total lane changes, LCALL                  3022        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.502
Average weaving speed, SW                  51.6        mi/h
Average non-weaving speed, SNW             48.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   49.4        mi/h
Weaving segment density, D                 37.7        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.891
Weaving segment flow rate, v               7440        pc/h
Weaving segment capacity, cW               7925        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4842        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2113         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.891        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_WP_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5151    1389    589     31      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1356    366     155     8
Trucks and buses                       11      52      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.792   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5731    1845    627     33      pc/h

Volume ratio, VR                               0.300

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2779        lc/h
Non-weaving vehicle index, INW             634
Non-weaving lane change, LCNW              1013        lc/h
Total lane changes, LCALL                  3792        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.600
Average weaving speed, SW                  49.4        mi/h
Average non-weaving speed, SNW             42.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   44.2        mi/h
Weaving segment density, D                 46.6        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.996
Weaving segment flow rate, v               8236        pc/h
Weaving segment capacity, cW               7565        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5585        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2057         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.996        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2018_WP_AM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5624    266     486     14      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1449    69      125     4
Trucks and buses                       8       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6041    279     510     15      pc/h

Volume ratio, VR                               0.115

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        279         lc/h
Weaving lane changes, LCW                  842         lc/h
Non-weaving vehicle index, INW             848
Non-weaving lane change, LCNW              1043        lc/h
Total lane changes, LCALL                  1885        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.286
Average weaving speed, SW                  57.8        mi/h
Average non-weaving speed, SNW             61.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.0        mi/h
Weaving segment density, D                 22.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.585
Weaving segment flow rate, v               6845        pc/h
Weaving segment capacity, cW               11252       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2122        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2345         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.585        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2018_WP_PM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5474    466     446     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1441    123     117     6
Trucks and buses                       8       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6004    496     477     26      pc/h

Volume ratio, VR                               0.139

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        496         lc/h
Weaving lane changes, LCW                  1059        lc/h
Non-weaving vehicle index, INW             844
Non-weaving lane change, LCNW              1038        lc/h
Total lane changes, LCALL                  2097        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.311
Average weaving speed, SW                  57.0        mi/h
Average non-weaving speed, SNW             59.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.3        mi/h
Weaving segment density, D                 23.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.604
Weaving segment flow rate, v               7003        pc/h
Weaving segment capacity, cW               11166       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2355        1400         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2327         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.604        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2018_WP_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            W Blaine St to SR-91
Analysis Year:               2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   1150        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                          Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               3370    1110    900     100     veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 869     286     232     26
Trucks and buses                        9       2       8       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.955   0.988   0.960   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            3638    1158    967     104     pc/h

Volume ratio, VR                                0.362

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         1158        lc/h
Weaving lane changes, LCW                   1653        lc/h
Non-weaving vehicle index, INW              430
Non-weaving lane change, LCNW               431         lc/h
Total lane changes, LCALL                   2084        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.361
Average weaving speed, SW                   55.4        mi/h
Average non-weaving speed, SNW              56.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.8        mi/h
Weaving segment density, D                 21.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.612
Weaving segment flow rate, v               5867        pc/h
Weaving segment capacity, cW               9230        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4695        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2129         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.612        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2018_WP_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3987    873     883     97      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1049    230     232     26
Trucks and buses                       8       2       11      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.946   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4373    930     982     103     pc/h

Volume ratio, VR                               0.299

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        930         lc/h
Weaving lane changes, LCW                  1425        lc/h
Non-weaving vehicle index, INW             515
Non-weaving lane change, LCNW              582         lc/h
Total lane changes, LCALL                  2007        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.351
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             57.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 22.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.587
Weaving segment flow rate, v               6388        pc/h
Weaving segment capacity, cW               10465       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4011         1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2181         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.587        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2018_WP_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5385    595     475     25      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1388    153     122     6
Trucks and buses                       15      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5979    621     496     26      pc/h

Volume ratio, VR                               0.157

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1117        lc/h
Weaving lane changes, LCW                  1832        lc/h
Non-weaving vehicle index, INW             1153
Non-weaving lane change, LCNW              1575        lc/h
Total lane changes, LCALL                  3407        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.298
Average weaving speed, SW                  57.4        mi/h
Average non-weaving speed, SNW             55.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 25.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.634
Weaving segment flow rate, v               7122        pc/h
Weaving segment capacity, cW               10539       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4100         2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2270         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.634        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2018_WP_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6804    756     456     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1791    199     120     6
Trucks and buses                       14      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7678    805     486     26      pc/h

Volume ratio, VR                               0.144

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1291        lc/h
Weaving lane changes, LCW                  2006        lc/h
Non-weaving vehicle index, INW             1479
Non-weaving lane change, LCNW              2333        lc/h
Total lane changes, LCALL                  4339        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.361
Average weaving speed, SW                  55.4        mi/h
Average non-weaving speed, SNW             52.1        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.5        mi/h
Weaving segment density, D                 34.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.796
Weaving segment flow rate, v               8995        pc/h
Weaving segment capacity, cW               10634       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3967        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2280         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.796        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2018_WP_AM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3743    477     1047    53      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                965     123     270     14
Trucks and buses                       14      2       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4137    498     1130    55      pc/h

Volume ratio, VR                               0.280

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        498         lc/h
Weaving lane changes, LCW                  1122        lc/h
Non-weaving vehicle index, INW             602
Non-weaving lane change, LCNW              1012        lc/h
Total lane changes, LCALL                  2134        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.233
Average weaving speed, SW                  59.6        mi/h
Average non-weaving speed, SNW             60.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.5        mi/h
Weaving segment density, D                 19.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.519
Weaving segment flow rate, v               5820        pc/h
Weaving segment capacity, cW               10569       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3801        2050         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400        2266          c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00        0.519         d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2018_WP_PM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4551    459     999     51      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1198    121     263     13
Trucks and buses                       10      2       10      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.988   0.951   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5040    489     1106    54      pc/h

Volume ratio, VR                               0.238

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        489         lc/h
Weaving lane changes, LCW                  1113        lc/h
Non-weaving vehicle index, INW             731
Non-weaving lane change, LCNW              1197        lc/h
Total lane changes, LCALL                  2310        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.248
Average weaving speed, SW                  59.1        mi/h
Average non-weaving speed, SNW             60.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.8        mi/h
Weaving segment density, D                 22.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.584
Weaving segment flow rate, v               6689        pc/h
Weaving segment capacity, cW               10927       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3367        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2300         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.584        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2018_WP_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                            Freeway
Weaving configuration                   One-Sided
Number of lanes, N                      4           ln
Weaving segment length, LS              1700        ft
Freeway free-flow speed, FFS            70          mi/h
Minimum segment speed, SMIN             15          mi/h
Freeway maximum capacity, cIFL          2400        pc/h/ln

Terrain type                            Level
    Grade                               -           %
    Length                              -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5721    589     729     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1474    152     188     8
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6087    615     761     32      pc/h

Volume ratio, VR                               0.184

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        615         lc/h
Weaving lane changes, LCW                  989         lc/h
Non-weaving vehicle index, INW             832
Non-weaving lane change, LCNW              1412        lc/h
Total lane changes, LCALL                  2401        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.297
Average weaving speed, SW                  57.4        mi/h
Average non-weaving speed, SNW             56.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 33.0        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.812
Weaving segment flow rate, v               7495        pc/h
Weaving segment capacity, cW               8977        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2803         1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2315         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.812        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2018_WP_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5090    750     1100    40      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1368    202     296     11
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5621    816     1197    44      pc/h

Volume ratio, VR                               0.262

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        816         lc/h
Weaving lane changes, LCW                  1190        lc/h
Non-weaving vehicle index, INW             770
Non-weaving lane change, LCNW              1318        lc/h
Total lane changes, LCALL                  2508        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.307
Average weaving speed, SW                  57.1        mi/h
Average non-weaving speed, SNW             54.9        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 34.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.855
Weaving segment flow rate, v               7678        pc/h
Weaving segment capacity, cW               8775        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3616        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2254         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.855        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2018_WP_AM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6205    545     285     15      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1599    140     73      4
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6634    569     297     16      pc/h

Volume ratio, VR                               0.115

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        866         lc/h
Weaving lane changes, LCW                  1206        lc/h
Non-weaving vehicle index, INW             466
Non-weaving lane change, LCNW              786         lc/h
Total lane changes, LCALL                  1992        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.516
Average weaving speed, SW                  51.3        mi/h
Average non-weaving speed, SNW             56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 26.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.694
Weaving segment flow rate, v               7516        pc/h
Weaving segment capacity, cW               10468       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3688        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2172         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.694        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2018_WP_PM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3998    542     342     18      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1075    146     92      5
Trucks and buses                       6       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4436    590     374     20      pc/h

Volume ratio, VR                               0.178

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       964         lc/h
Weaving lane changes, LCW                 1304        lc/h
Non-weaving vehicle index, INW            312
Non-weaving lane change, LCNW             334         lc/h
Total lane changes, LCALL                 1638        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.442
Average weaving speed, SW                 53.1        mi/h
Average non-weaving speed, SNW            57.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.0        mi/h
Weaving segment density, D                 19.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.512
Weaving segment flow rate, v               5420        pc/h
Weaving segment capacity, cW               10291       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4311        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2124         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.512        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2018_WP_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7134    666     306     34      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1839    172     79      9
Trucks and buses                       5       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7553    746     319     35      pc/h

Volume ratio, VR                               0.123

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        319         lc/h
Weaving lane changes, LCW                  703         lc/h
Non-weaving vehicle index, INW             674
Non-weaving lane change, LCNW              1001        lc/h
Total lane changes, LCALL                  1704        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.436
Average weaving speed, SW                  53.3        mi/h
Average non-weaving speed, SNW             59.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.6        mi/h
Weaving segment density, D                 29.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.753
Weaving segment flow rate, v               8653        pc/h
Weaving segment capacity, cW               11139       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2199        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2288         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.753        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2018_WP_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              10412   838     378     42      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2799    225     102     11
Trucks and buses                       3       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           11386   979     411     46      pc/h

Volume ratio, VR                               0.108

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.110
Weaving segment flow rate, v               12822       pc/h
Weaving segment capacity, cW               11303       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2055        740          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2300         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.110        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_WP_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5966    654     304     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1538    169     78      4
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6317    682     317     17      pc/h

Volume ratio, VR                               0.136

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        682         lc/h
Weaving lane changes, LCW                  870         lc/h
Non-weaving vehicle index, INW             380
Non-weaving lane change, LCNW              860         lc/h
Total lane changes, LCALL                  1730        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.521
Average weaving speed, SW                  51.2        mi/h
Average non-weaving speed, SNW             56.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 33.0        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.810
Weaving segment flow rate, v               7333        pc/h
Weaving segment capacity, cW               8833        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2329        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2268         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.810        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_WP_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5806    914     294     16      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1561    246     79      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6349    995     320     17      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        995         lc/h
Weaving lane changes, LCW                  1183        lc/h
Non-weaving vehicle index, INW             382
Non-weaving lane change, LCNW              866         lc/h
Total lane changes, LCALL                  2049        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.596
Average weaving speed, SW                  49.5        mi/h
Average non-weaving speed, SNW             53.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.9        mi/h
Weaving segment density, D                 36.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.858
Weaving segment flow rate, v               7681        pc/h
Weaving segment capacity, cW               8814        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2678        600          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2241         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.858        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2018_WP_AM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1525    85      885     5       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                410     23      238     1
Trucks and buses                       6       2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1692    92      977     5       pc/h

Volume ratio, VR                               0.386

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        92          lc/h
Weaving lane changes, LCW                  549         lc/h
Non-weaving vehicle index, INW             123
Non-weaving lane change, LCNW              172         lc/h
Total lane changes, LCALL                  721         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.130
Average weaving speed, SW                  63.7        mi/h
Average non-weaving speed, SNW             66.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   65.5        mi/h
Weaving segment density, D                 8.4         pc/mi/ln
Level of service, LOS                      A
Weaving segment v/c ratio                  0.306
Weaving segment flow rate, v               2766        pc/h
Weaving segment capacity, cW               8775        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4964        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2132         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.306        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                       HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2018_WP_PM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2904    66      686     4       veh/h
Peak hour factor, PHF                  0.94    0.94    0.94    0.94
Peak 15-min volume, v15                772     18      182     1
Trucks and buses                       4       1       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.993   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3157    71      749     4       pc/h

Volume ratio, VR                               0.206

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        71          lc/h
Weaving lane changes, LCW                  528         lc/h
Non-weaving vehicle index, INW             229
Non-weaving lane change, LCNW              474         lc/h
Total lane changes, LCALL                  1002        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.169
Average weaving speed, SW                  62.1        mi/h
Average non-weaving speed, SNW             65.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.9        mi/h
Weaving segment density, D                 12.3        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.349
Weaving segment flow rate, v               3981        pc/h
Weaving segment capacity, cW               11150       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3031         1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2279         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.349        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2018_WP_AM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3263    387     47      3       veh/h
Peak hour factor, PHF                  0.86    0.86    0.86    0.86
Peak 15-min volume, v15                949     113     14      1
Trucks and buses                       3       3       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3859    458     55      4       pc/h

Volume ratio, VR                               0.117

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        513         lc/h
Weaving lane changes, LCW                  894         lc/h
Non-weaving vehicle index, INW             212
Non-weaving lane change, LCNW              429         lc/h
Total lane changes, LCALL                  1323        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.261
Average weaving speed, SW                  58.6        mi/h
Average non-weaving speed, SNW             62.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  61.7        mi/h
Weaving segment density, D                14.2        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.398
Weaving segment flow rate, v              4376        pc/h
Weaving segment capacity, cW              10821       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3708        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2201         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.398        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2018_WP_PM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions___________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1596    1334    104     6       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                411     344     27      2
Trucks and buses                       4       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1682    1399    109     6       pc/h

Volume ratio, VR                               0.472

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1508        lc/h
Weaving lane changes, LCW                  1889        lc/h
Non-weaving vehicle index, INW             93
Non-weaving lane change, LCNW              0           lc/h
Total lane changes, LCALL                  1889        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.346
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             56.1        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 11.4        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.630
Weaving segment flow rate, v               3196        pc/h
Weaving segment capacity, cW               4977        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           7499         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         1910         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.630        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2018_WP_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1943    1987    297     33      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                528     540     81      9
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2169    2229    327     36      pc/h

Volume ratio, VR                               0.537

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.064
Weaving segment flow rate, v               4761        pc/h
Weaving segment capacity, cW               4353        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           8260         2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         1929         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         1.064        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2018_WP_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs_____________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2194    1646    486     54      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                565     424     125     14
Trucks and buses                       5       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2323    1760    507     56      pc/h

Volume ratio, VR                               0.488

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2267        lc/h
Weaving lane changes, LCW                  2728        lc/h
Non-weaving vehicle index, INW             500
Non-weaving lane change, LCNW              858         lc/h
Total lane changes, LCALL                  3586        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.345
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             48.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.6        mi/h
Weaving segment density, D                 22.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.943
Weaving segment flow rate, v               4646        pc/h
Weaving segment capacity, cW               4789        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           7686        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1973         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.943        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_WP_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

____________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   1250        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5253    387     567     43      veh/h
Peak hour factor, PHF                   0.92    0.92    0.92    0.92
Peak 15-min volume, v15                 1427    105     154     12
Trucks and buses                        3       5       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.983   0.974   0.988   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            5807    432     624     47      pc/h

Volume ratio, VR                                0.153

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         432         lc/h
Weaving lane changes, LCW                   913         lc/h
Non-weaving vehicle index, INW              585
Non-weaving lane change, LCNW               920         lc/h
Total lane changes, LCALL                   1833        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                 0.306
Average weaving speed, SW                   57.1        mi/h
Average non-weaving speed, SNW              60.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.8        mi/h
Weaving segment density, D                 23.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.599
Weaving segment flow rate, v               6910        pc/h
Weaving segment capacity, cW               11332       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2494        1250         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.599        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_WP_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7888    522     992     58      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2033    135     256     15
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8270    553     1035    61      pc/h

Volume ratio, VR                               0.160

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         553         lc/h
Weaving lane changes, LCW                   1034        lc/h
Non-weaving vehicle index, INW              833
Non-weaving lane change, LCNW               1431        lc/h
Total lane changes, LCALL                   2465        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.386
Average weaving speed, SW                   54.7        mi/h
Average non-weaving speed, SNW              56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.2        mi/h
Weaving segment density, D                35.3        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.863
Weaving segment flow rate, v              9919        pc/h
Weaving segment capacity, cW              11303       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2566        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.863        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2018_WP_AM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               4796    494     524     26      veh/h
Peak hour factor, PHF                   0.92    0.92    0.92    0.92
Peak 15-min volume, v15                 1303    134     142     7
Trucks and buses                        6       2       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.969   0.988   0.988   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            5380    543     576     29      pc/h

Volume ratio, VR                                0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         543         lc/h
Weaving lane changes, LCW                   941         lc/h
Non-weaving vehicle index, INW              460
Non-weaving lane change, LCNW               612         lc/h
Total lane changes, LCALL                   1553        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.364
Average weaving speed, SW                   55.3        mi/h
Average non-weaving speed, SNW              59.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.0        mi/h
Weaving segment density, D                 22.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.580
Weaving segment flow rate, v               6528        pc/h
Weaving segment capacity, cW               10950       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2680        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2260         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.580        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2018_WP_PM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5315    845     895     45      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1370    218     231     12
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5600    882     934     47      pc/h

Volume ratio, VR                               0.243

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       882         lc/h
Weaving lane changes, LCW                 1280        lc/h
Non-weaving vehicle index, INW            480
Non-weaving lane change, LCNW             661         lc/h
Total lane changes, LCALL                 1941        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.434
Average weaving speed, SW                 53.4        mi/h
Average non-weaving speed, SNW            56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  55.7        mi/h
Weaving segment density, D                26.8        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.679
Weaving segment flow rate, v              7463        pc/h
Weaving segment capacity, cW              10783       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3418        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2204         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.679        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2018_WP_AM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       I-215 NB
Weaving Location:            2rd St to Baseline Rd
Analysis Year:               2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           6           ln
Weaving segment length, LS                   1850        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3080    370     750     20      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                837     101     204     5
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3405    407     825     22      pc/h

Volume ratio, VR                               0.264

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.2         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         407         lc/h
Weaving lane changes, LCW                   1446        lc/h
Non-weaving vehicle index, INW              761
Non-weaving lane change, LCNW               553         lc/h
Total lane changes, LCALL                   1999        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.240
Average weaving speed, SW                   59.3        mi/h
Average non-weaving speed, SNW              63.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  62.2        mi/h
Weaving segment density, D                12.5        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.352
Weaving segment flow rate, v              4659        pc/h
Weaving segment capacity, cW              13015       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3640         1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2263        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.352       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2018_WP_PM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5272    998     798     42      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1359    257     206     11
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5527    1041    833     44      pc/h

Volume ratio, VR                               0.252

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1041        lc/h
Weaving lane changes, LCW                  2080        lc/h
Non-weaving vehicle index, INW             1237
Non-weaving lane change, LCNW              995         lc/h
Total lane changes, LCALL                  3075        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.337
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             56.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 22.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.547
Weaving segment flow rate, v               7445        pc/h
Weaving segment capacity, cW               13410       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3506        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2273         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.547        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2018_WP_AM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5836    904     304     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1504    233     78      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6119    943     317     17      pc/h

Volume ratio, VR                               0.170

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1260        lc/h
Weaving lane changes, LCW                  2051        lc/h
Non-weaving vehicle index, INW             884
Non-weaving lane change, LCNW              759         lc/h
Total lane changes, LCALL                  2810        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.442
Average weaving speed, SW                  53.1        mi/h
Average non-weaving speed, SNW             55.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                54.7        mi/h
Weaving segment density, D              22.5        pc/mi/ln
Level of service, LOS                   C
Weaving segment v/c ratio               0.569
Weaving segment flow rate, v            7396        pc/h
Weaving segment capacity, cW            12791       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4235         1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2168         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.569        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2018_WP_PM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4427    773     513     27      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1129    197     131     7
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4594    798     530     28      pc/h

Volume ratio, VR                               0.223

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1328        lc/h
Weaving lane changes, LCW                  2119        lc/h
Non-weaving vehicle index, INW             666
Non-weaving lane change, LCNW              447         lc/h
Total lane changes, LCALL                  2566        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.412
Average weaving speed, SW                  54.0        mi/h
Average non-weaving speed, SNW             55.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 17.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.554
Weaving segment flow rate, v               5950        pc/h
Weaving segment capacity, cW               10573       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4775        1200         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2127         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.554        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2018_WP_AM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6550    180     320     10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1688    46      82      3
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6969    188     334     10      pc/h

Volume ratio, VR                               0.070

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        188         lc/h
Weaving lane changes, LCW                  568         lc/h
Non-weaving vehicle index, INW             558
Non-weaving lane change, LCNW              908         lc/h
Total lane changes, LCALL                  1476        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.366
Average weaving speed, SW                  55.3        mi/h
Average non-weaving speed, SNW             61.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.0        mi/h
Weaving segment density, D                 24.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.644
Weaving segment flow rate, v               7501        pc/h
Weaving segment capacity, cW               11303       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1681        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2332         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.644        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2018_WP_PM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5335    475     535     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1361    121     136     6
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5618    491     552     26      pc/h

Volume ratio, VR                               0.156

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        491         lc/h
Weaving lane changes, LCW                  871         lc/h
Non-weaving vehicle index, INW             452
Non-weaving lane change, LCNW              633         lc/h
Total lane changes, LCALL                  1504        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.372
Average weaving speed, SW                  55.1        mi/h
Average non-weaving speed, SNW             60.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.2        mi/h
Weaving segment density, D                 22.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.592
Weaving segment flow rate, v               6687        pc/h
Weaving segment capacity, cW               10988       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2525        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2268         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.592        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2018_WP_AM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5148    72      1082    8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1327    19      279     2
Trucks and buses                       7       1       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.993   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5504    75      1140    8       pc/h

Volume ratio, VR                               0.181

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        150         lc/h
Weaving lane changes, LCW                  656         lc/h
Non-weaving vehicle index, INW             595
Non-weaving lane change, LCNW              904         lc/h
Total lane changes, LCALL                  1560        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.253
Average weaving speed, SW                  58.9        mi/h
Average non-weaving speed, SNW             62.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.8        mi/h
Weaving segment density, D                 21.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.589
Weaving segment flow rate, v               6727        pc/h
Weaving segment capacity, cW               11046       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2773        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2291         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.589        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2018_WP_PM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5163    207     807     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1317    53      206     6
Trucks and buses                       7       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5463    214     842     24      pc/h

Volume ratio, VR                               0.161

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        428         lc/h
Weaving lane changes, LCW                  934         lc/h
Non-weaving vehicle index, INW             593
Non-weaving lane change, LCNW              899         lc/h
Total lane changes, LCALL                  1833        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.288
Average weaving speed, SW                  57.7        mi/h
Average non-weaving speed, SNW             60.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.1        mi/h
Weaving segment density, D                 21.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.569
Weaving segment flow rate, v               6543        pc/h
Weaving segment capacity, cW               11119       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2579        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2306         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.569        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2018_WP_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5123    657     1157    73      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1320    169     298     19
Trucks and buses                       13      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5635    685     1225    76      pc/h

Volume ratio, VR                               0.251

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        685         lc/h
Weaving lane changes, LCW                  818         lc/h
Non-weaving vehicle index, INW             257
Non-weaving lane change, LCNW              650         lc/h
Total lane changes, LCALL                  1468        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.574
Average weaving speed, SW                  49.9        mi/h
Average non-weaving speed, SNW             55.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  54.3        mi/h
Weaving segment density, D                35.1        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.890
Weaving segment flow rate, v              7621        pc/h
Weaving segment capacity, cW              8124        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3494         450         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2167         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.890        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2018_WP_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4137    783     1983    87      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1055    200     506     22
Trucks and buses                       9       2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4420    809     2078    90      pc/h

Volume ratio, VR                               0.390

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       809         lc/h
Weaving lane changes, LCW                 942         lc/h
Non-weaving vehicle index, INW            203
Non-weaving lane change, LCNW             403         lc/h
Total lane changes, LCALL                 1345        lc/h

_______________________Weaving and Non-Weaving Speeds_________________________
Weaving intensity factor, W               0.536
Average weaving speed, SW                 50.8        mi/h
Average non-weaving speed, SNW            55.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  53.5       mi/h
Weaving segment density, D                34.6       pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.910
Weaving segment flow rate, v              7397       pc/h
Weaving segment capacity, cW              7836       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5007        450          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2052         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.910        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2018_WP_AM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3126    294     1034    16      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                849     80      281     4
Trucks and buses                       5       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3490    333     1137    18      pc/h

Volume ratio, VR                               0.295

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1470        lc/h
Weaving lane changes, LCW                  1770        lc/h
Non-weaving vehicle index, INW             337
Non-weaving lane change, LCNW              603         lc/h
Total lane changes, LCALL                  2373        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.387
Average weaving speed, SW                  54.7        mi/h
Average non-weaving speed, SNW             53.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.8        mi/h
Weaving segment density, D                 23.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.614
Weaving segment flow rate, v               4978        pc/h
Weaving segment capacity, cW               7914        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5534        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2069         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.614        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2018_WP_PM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4530    190     620     10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1168    49      160     3
Trucks and buses                       4       5       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.974   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4773    201     650     10      pc/h

Volume ratio, VR                               0.151

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        851         lc/h
Weaving lane changes, LCW                  1151        lc/h
Non-weaving vehicle index, INW             459
Non-weaving lane change, LCNW              865         lc/h
Total lane changes, LCALL                  2016        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.340
Average weaving speed, SW                  56.0        mi/h
Average non-weaving speed, SNW             57.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.9        mi/h
Weaving segment density, D                 24.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.646
Weaving segment flow rate, v               5634        pc/h
Weaving segment capacity, cW               8544        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4042        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2183         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.646        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2018_WP_AM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5302    378     498     42      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1366    97      128     11
Trucks and buses                       4       35      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.850   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5586    459     520     44      pc/h

Volume ratio, VR                               0.148

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        459         lc/h
Weaving lane changes, LCW                  908         lc/h
Non-weaving vehicle index, INW             563
Non-weaving lane change, LCNW              739         lc/h
Total lane changes, LCALL                  1647        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.335
Average weaving speed, SW                  56.2        mi/h
Average non-weaving speed, SNW             60.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.7        mi/h
Weaving segment density, D                 22.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.573
Weaving segment flow rate, v               6609        pc/h
Weaving segment capacity, cW               11199       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2447        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2289         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.573        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2018_WP_PM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5448    522     832     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1390    133     212     15
Trucks and buses                       4       35      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.850   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5681    627     859     60      pc/h

Volume ratio, VR                               0.206

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        627         lc/h
Weaving lane changes, LCW                  1076        lc/h
Non-weaving vehicle index, INW             574
Non-weaving lane change, LCNW              762         lc/h
Total lane changes, LCALL                  1838        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.365
Average weaving speed, SW                  55.3        mi/h
Average non-weaving speed, SNW             58.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.8        mi/h
Weaving segment density, D                 25.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.637
Weaving segment flow rate, v               7227        pc/h
Weaving segment capacity, cW               10983       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3028        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2245         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.637        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2018_WP_AM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       I-215 SB
Weaving Location:            Alessandro Blvd to Cactus
Analysis Year:               2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                      Volume Components
                                     VFF     VRF     VFR     VRR
Volume, V                             4067    323     753     17      veh/h
Peak hour factor, PHF                 0.97    0.97    0.97    0.97
Peak 15-min volume, v15               1048    83      194     4
Trucks and buses                      4       4       9       2         %
Recreational vehicles                 1       1       1       1         %
Trucks and buses PCE, ET              1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER          1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV         0.978   0.978   0.955   0.988
Driver population adjustment, fP      1.00    1.00    1.00    1.00
Flow rate, v                          4285    340     813     18      pc/h

Volume ratio, VR                              0.211

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               0           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         813         lc/h
Weaving lane changes, LCW                   1137        lc/h
Non-weaving vehicle index, INW              465
Non-weaving lane change, LCNW               848         lc/h
Total lane changes, LCALL                   1985        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.306
Average weaving speed, SW                   57.1        mi/h
Average non-weaving speed, SNW              57.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.5        mi/h
Weaving segment density, D                 23.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.633
Weaving segment flow rate, v               5456        pc/h
Weaving segment capacity, cW               8403        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4652        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2148         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.633        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                      HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2018_WP_PM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4821    399     819     21      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1230    102     209     5
Trucks and buses                       4       2       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5028    412     867     22      pc/h

Volume ratio, VR                               0.202

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                 2           ln
Interchange density, ID                       0.8         int/mi
Minimum RF lane changes, LCRF                 0           lc/pc
Minimum FR lane changes, LCFR                 1           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           867         lc/h
Weaving lane changes, LCW                     1191        lc/h
Non-weaving vehicle index, INW                545
Non-weaving lane change, LCNW                 1002        lc/h
Total lane changes, LCALL                     2193        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.331
Average weaving speed, SW                     56.3        mi/h
Average non-weaving speed, SNW                56.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.2        mi/h
Weaving segment density, D                28.2        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.733
Weaving segment flow rate, v              6329        pc/h
Weaving segment capacity, cW              8434        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4558         1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2155         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.733        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_WP_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           9490          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              380           vph
Length of first accel/decel lane            1000          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     600           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9490        380         600       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2551        100         158       v
Trucks and buses                       5           8           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.960       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10480       417         642       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.166   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1736   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     10897         9600            Yes
      FO
     v  or v               4372 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 5080                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                5497          4600                  Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   41.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 1.202
                                              S
Space mean speed in ramp influence area,     S  = 36.3    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 45.5    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_WP_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8220           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1030           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     290            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8220        1030        290       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2097        271         76        v
Trucks and buses                       5           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8614        1097        309       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.081   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  695    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     9711          9600            Yes
      FO
     v  or v               3959 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 3445                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                4542          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   34.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.617
                                              S
Space mean speed in ramp influence area,     S  = 52.7    mph
                                              R
Space mean speed in outer lanes,             S  = 61.8    mph
                                              0
Space mean speed for all vehicles,           S  = 57.2    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2018_WP_AM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           5940          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              500           vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     180           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5940        500         180       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                1597        132         47        v
Trucks and buses                       15          2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6879        533         192       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.151   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  759    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5555          12000           No
      FO
     v  or v               2131 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2008                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2541          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.266
                                              S
Space mean speed in ramp influence area,     S  = 62.6    mph
                                              R
Space mean speed in outer lanes,             S  = 66.4    mph
                                              0
Space mean speed for all vehicles,           S  = 64.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2018_WP_PM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6790           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1210           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     80             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6790        1210        80        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1732        318         21        v
Trucks and buses                       11          2           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.988       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7324        1289        86        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.057   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  303    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     6636          12000           No
      FO
     v  or v               2522 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2138                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3427          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   22.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.336
                                              S
Space mean speed in ramp influence area,     S  = 60.6    mph
                                              R
Space mean speed in outer lanes,             S  = 66.0    mph
                                              0
Space mean speed for all vehicles,           S  = 63.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2018_WP_AM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                           Diverge
Number of lanes in freeway                 3
Free-flow speed on freeway                 70.0          mph
Volume on freeway                          1780          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                            Right
Number of lanes in ramp                    1
Free-Flow speed on ramp                    35.0          mph
Volume on ramp                             430           vph
Length of first accel/decel lane           1500          ft
Length of second accel/decel lane                        ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                  Yes
Volume on adjacent ramp                    110           vph
Position of adjacent ramp                  Downstream
Type of adjacent ramp                      On
Distance to adjacent ramp                  1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                   Freeway     Ramp        Adjacent
                                                              Ramp
Volume, V (vph)                       1780        430         110       vph
Peak-hour factor, PHF                 0.93        0.95        0.95
Peak 15-min volume, v15               478         113         29        v
Trucks and buses                      25          8           5         %
Recreational vehicles                 1           1           1         %
Terrain type:                         Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET              1.5         1.5         1.5
Recreational vehicle PCE, ER          1.2         1.2         1.2
Heavy vehicle adjustment, fHV         0.887       0.960       0.974
Driver population factor, fP          1.00        1.00        1.00
Flow rate, vp                         2157        472         119       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.684   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1625   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2157          7200            No
      Fi   F
     v  = v - v            1685          7200            No
      FO   F   R
     v                     472           2000            No
      R
     v  or v               532  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1625                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1625          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   4.7     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.470
                                              S
Space mean speed in ramp influence area,     S  = 56.8    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2018_WP_PM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2050           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              550            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2050        550         130       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                523         145         34         v
Trucks and buses                       19          4           18         %
Recreational vehicles                  1           1           1          %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.912       0.978       0.916
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2295        592         149       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.675   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1742   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2295          7200            No
      Fi   F
     v  = v - v            1703          7200            No
      FO   F   R
     v                     592           2000            No
      R
     v  or v               553  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1742                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1742          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   5.7     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.481
                                              S
Space mean speed in ramp influence area,     S  = 56.5    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2018_WP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1800           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              110            vph
Length of first accel/decel lane            750            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     430            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1800        110         430       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                484         29          113       v
Trucks and buses                       23          5           8         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.895       0.974       0.960
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2162        119         472       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  2162   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2281          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2162                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2281          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   18.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.307
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2018_WP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1740           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              130            vph
Length of first accel/decel lane            750            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     550            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1740        130         550       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                444         34          145       v
Trucks and buses                       22          18          4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.899       0.916       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1974        149         592       pcph

_________________________Estimation of V12 Merge Areas________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1974   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2123          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1974                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2123          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.3    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.301
                                              S
Space mean speed in ramp influence area,     S  = 61.6    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2018_WP_AM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1910           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              410            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     20             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1910        410         20        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                513         108         5         v
Trucks and buses                       22          49          21        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.899       0.802       0.903
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2284        538         23        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2284   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2284          4800            No
      Fi   F
     v  = v - v            1746          4800            No
      FO   F   R
     v                     538           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2284                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2284          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.476
                                              S
Space mean speed in ramp influence area,     S  = 56.7    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 56.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2018_WP_PM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1870           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              670            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     20             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1870        670         20        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                477         176         5         v
Trucks and buses                       22          43          2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.899       0.822       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2122        858         21        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2122   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2122          4800            No
      Fi   F
     v  = v - v            1264          4800            No
      FO   F   R
     v                     858           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2122                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2122          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,              D = 4.252 + 0.0086 v  - 0.009  L   =   20.7    pc/mi/ln
                       R                   12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.505
                                              S
Space mean speed in ramp influence area,     S  = 55.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 55.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2018_WP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1560           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              20             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     410            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1560        20          410       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                419         5           108       v
Trucks and buses                       13          21          49         %
Recreational vehicles                  1           1           1          %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.903       0.802
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1790        23          538       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1790   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1813          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1790                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1813          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   18.0    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.327
                                              S
Space mean speed in ramp influence area,     S  = 60.8    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2018_WP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1390           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              20             vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     670            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1390        20          670       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                355         5           176       v
Trucks and buses                       11          2           43        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.988       0.822
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1499        21          858       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1499   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1520          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1499                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1520          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.321
                                              S
Space mean speed in ramp influence area,     S  = 61.0    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2018_WP_AM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1250           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     340            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1250        10          340       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                336         3           89        v
Trucks and buses                       13          1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1434        11          364       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1434   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1445          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1434                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1445          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.2    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.310
                                              S
Space mean speed in ramp influence area,     S  = 61.3    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2018_WP_PM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1220           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              20             vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     460            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1220        20          460       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                311         5           121       v
Trucks and buses                       10          23          9         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.895       0.955
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1310        24          507       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1310   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1334          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1310                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1334          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.308
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2018_WP_AM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1130           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     350            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1130        10          350       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                291         3           92        v
Trucks and buses                       20          4           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.907       0.978       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1284        11          373       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1284   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1284          4800            No
      Fi   F
     v  = v - v            1273          4800            No
      FO   F   R
     v                     11            2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1284                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1284          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 58.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2018_WP_PM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1090           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              30             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     380            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1090        30          380       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                287         8           100       v
Trucks and buses                       16          16          16        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.924       0.924       0.924
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1241        34          433       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1241   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum        LOS F?
     v  = v                1241          4800           No
      Fi   F
     v  = v - v            1207          4800           No
      FO   F   R
     v                     34            2000           No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1241                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1241          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.431
                                              S
Space mean speed in ramp influence area,     S  = 57.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.9    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2018_WP_AM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1180           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              680            vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     170            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1180        680         170       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                304         179         45        v
Trucks and buses                       27          38          17        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                  mi          mi    0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.880       0.839       0.920
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1383        853         195       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1383   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2236          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1383                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2236          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.298
                                              S
Space mean speed in ramp influence area,     S  = 61.7    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2018_WP_PM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1170           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              460            vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     200            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1170        460         200       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                308         121         53        v
Trucks and buses                       15          47          17        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.808       0.920
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1326        599         229       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1326   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1925          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1326                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1925          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.9    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.288
                                              S
Space mean speed in ramp influence area,     S  = 61.9    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.9    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2018_WP_AM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1860           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              150            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     410            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1860        150         410       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                479         39          108       v
Trucks and buses                       31          20          3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.864       0.907       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2219        174         439       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2219   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2219          4800            No
      Fi   F
     v  = v - v            2045          4800            No
      FO   F   R
     v                     174           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2219                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2219          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   21.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.444
                                              S
Space mean speed in ramp influence area,     S  = 57.6    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2018_WP_PM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1630           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              100            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     550            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1630        100         550       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                429         26          145       v
Trucks and buses                       24          9           24        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.891       0.955       0.891
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1925        110         650       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1925   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1925          4800            No
      Fi   F
     v  = v - v            1815          4800            No
      FO   F   R
     v                     110           2000            No
      R
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1925                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1925          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   19.0    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.438
                                              S
Space mean speed in ramp influence area,     S  = 57.7    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 57.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2018_WP_AM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1570           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              410            vph
Length of first accel/decel lane            800            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     150            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1570        410         150       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                405         108         39        v
Trucks and buses                       33          3           20        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.857       0.983       0.907
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1889        439         174       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1889   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2328          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1889                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2328          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   18.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.305
                                              S
Space mean speed in ramp influence area,     S  = 61.5    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2018_WP_PM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  2
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1340           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              550            vph
Length of first accel/decel lane            800            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     100            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1340        550         100       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                353         145         26        v
Trucks and buses                       27          24          9         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.880       0.891       0.955
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1604        650         110       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    1.000   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1604   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2254          4800            No
      FO
     v  or v               0    pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1604                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2254          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.302
                                              S
Space mean speed in ramp influence area,     S  = 61.5    mph
                                              R
Space mean speed in outer lanes,             S  =  N/A    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2018_WP_AM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6890           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              670            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     640            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6890        670         640       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1776        176         168       v
Trucks and buses                       8           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7401        714         682       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2453   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7401          9600            No
      Fi   F
     v  = v - v            6687          9600            No
      FO   F   R
     v                     714           4000            No
      R
     v  or v               2474 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2960                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2960          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   2.7     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.492
                                              S
Space mean speed in ramp influence area,     S  = 56.2    mph
                                              R
Space mean speed in outer lanes,             S  = 72.0    mph
                                              0
Space mean speed for all vehicles,           S  = 64.7    mph
_______________________________________________________________________________
```

```
          HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2018_WP_PM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                          Diverge
Number of lanes in freeway                4
Free-flow speed on freeway                70.0          mph
Volume on freeway                         7160          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   2
Free-Flow speed on ramp                   35.0          mph
Volume on ramp                            540           vph
Length of first accel/decel lane          1500          ft
Length of second accel/decel lane         0             ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   820           vph
Position of adjacent ramp                 Downstream
Type of adjacent ramp                     On
Distance to adjacent ramp                 2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                  Freeway     Ramp        Adjacent
                                                             Ramp
Volume, V (vph)                      7160        540         820       vph
Peak-hour factor, PHF                0.95        0.95        0.95
Peak 15-min volume, v15              1884        142         216       v
Trucks and buses                     8           2           2         %
Recreational vehicles                1           1           1         %
Terrain type:                        Level       Level       Level
     Grade                                   %           %   0.00    %
     Length                                  mi          mi  0.00    mi
Trucks and buses PCE, ET             1.5         1.5         1.5
Recreational vehicle PCE, ER         1.2         1.2         1.2
Heavy vehicle adjustment, fHV        0.960       0.988       0.988
Driver population factor, fP         1.00        1.00        1.00
Flow rate, vp                        7853        575         874       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2467   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7853          9600            No
      Fi   F
     v  = v - v            7278          9600            No
      FO   F   R
     v                     575           4000            No
      R
     v  or v               2693 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3141                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                3141          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   4.3     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.480
                                              S
Space mean speed in ramp influence area,     S  = 56.6    mph
                                              R
Space mean speed in outer lanes,             S  = 71.5    mph
                                              0
Space mean speed for all vehicles,           S  = 64.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2018_WP_AM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6870           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              600            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1090           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6870        600         1090      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1771        158         287       v
Trucks and buses                       12          2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7522        639         1161      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3640   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7522          9600            No
      Fi   F
     v  = v - v            6883          9600            No
      FO   F   R
     v                     639           2000            No
      R
     v  or v               1941 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3640                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3640          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.486
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 73.1    mph
                                              0
Space mean speed for all vehicles,           S  = 63.9    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2018_WP_PM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 WP
Description:  Wold Logistics Center - Existing Plus Build-Out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7000           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              950            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1420           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7000        950         1420      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1842        250         374       v
Trucks and buses                       8           53          52        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.789       0.792
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7678        1267        1886      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4062   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7678          9600            No
      Fi   F
     v  = v - v            6411          9600            No
      FO   F   R
     v                     1267          2000            No
      R
     v  or v               1808 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4062                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                4062          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   25.7    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.542
                                              S
Space mean speed in ramp influence area,     S  = 54.8    mph
                                              R
Space mean speed in outer lanes,             S  = 73.6    mph
                                              0
Space mean speed for all vehicles,           S  = 62.3    mph
_______________________________________________________________________________
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_WP_Mit_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2253           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1851           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1851           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          5
Density, D                                  28.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2018_WP_Mit_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9240           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2357           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1937           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1937           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.7           mi/h
Number of lanes, N                          5
Density, D                                  30.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_WP_Mit_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7810           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2099           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1725           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1725           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.8           mi/h
Number of lanes, N                          5
Density, D                                  25.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2018_WP_Mit_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8060           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      2056           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1689           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1689           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               67.2           mi/h
Number of lanes, N                           5
Density, D                                   25.1           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_WP_Mit_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7720           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2075           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1705           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1705           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          5
Density, D                                  25.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2018_WP_Mit_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8180           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2087           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1714           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1714           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          5
Density, D                                  25.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_WP_Mit_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9870           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2653           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.922
Driver population factor, fp                1.00
Flow rate, vp                               2303           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2303           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.9           mi/h
Number of lanes, N                          5
Density, D                                  41.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2018_WP_Mit_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9250           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2360           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.922
Driver population factor, fp                1.00
Flow rate, vp                               2048           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2048           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.7           mi/h
Number of lanes, N                          5
Density, D                                  33.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_WP_Mit_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2990          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     804           v
Trucks and buses                            17            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.920
Driver population factor, fp                1.00
Flow rate, vp                               1165          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1165          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  16.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2018_WP_Mit_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4690           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1196           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1686           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1686           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.3           mi/h
Number of lanes, N                          3
Density, D                                  25.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_WP_Mit_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1222           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1722           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1722           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.8           mi/h
Number of lanes, N                          3
Density, D                                  25.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2018_WP_Mit_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2850           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     750            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               1082           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1082           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_WP_Mit_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1103           v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               1577           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1577           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          3
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2018_WP_Mit_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3220           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     847            v
Trucks and buses                            16             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.924
Driver population factor, fp                1.00
Flow rate, vp                               1222           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1222           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  17.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_WP_Mit_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1848           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1540           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1540           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          5
Density, D                                  22.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2018_WP_Mit_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 WB
From/To:                 I-215 to Box Springs Rd
Jurisdiction:            Caltrans
Analysis Year:           2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8340          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      2195          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1821          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1821          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               65.5          mi/h
Number of lanes, N                           5
Density, D                                   27.8          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_WP_Mit_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7620           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1964           v
Trucks and buses                             11             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                1661           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1661           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               67.5           mi/h
Number of lanes, N                           5
Density, D                                   24.6           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2018_WP_Mit_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9590          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2524          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2104          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2104          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.5          mi/h
Number of lanes, N                          5
Density, D                                  34.8          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_WP_Mit_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6480           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1670           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1372           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1372           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          5
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2018_WP_Mit_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9600           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2526           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2076           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2076           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.1           mi/h
Number of lanes, N                          5
Density, D                                  34.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_WP_Mit_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6520           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1680           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1743           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1743           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          4
Density, D                                  26.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2018_WP_Mit_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1884           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1945           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1945           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          4
Density, D                                  30.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_WP_Mit_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7530           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1941           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2013           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2013           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.3           mi/h
Number of lanes, N                          4
Density, D                                  32.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2018_WP_Mit_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2202           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2272           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2272           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.7           mi/h
Number of lanes, N                          4
Density, D                                  40.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_WP_Mit_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1899           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1899           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          4
Density, D                                  29.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2018_WP_Mit_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5810          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1562          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1620          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1620          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.0          mi/h
Number of lanes, N                          4
Density, D                                  23.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_WP_Mit_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6310           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1626           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1336           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1336           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          5
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2018_WP_Mit_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8020          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2156          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1763          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1763          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.3          mi/h
Number of lanes, N                          5
Density, D                                  26.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_WP_Mit_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1559           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1281           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1281           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          5
Density, D                                  18.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2018_WP_Mit_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8050           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2164           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1769           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1769           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          5
Density, D                                  26.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_WP_Mit_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5860          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1510          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1551          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1551          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.6          mi/h
Number of lanes, N                          4
Density, D                                  22.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2018_WP_Mit_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1919           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1962           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1962           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          4
Density, D                                  31.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_WP_Mit_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1845           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1845           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          4
Density, D                                  28.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2018_WP_Mit_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7130           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1917           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1959           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1959           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          4
Density, D                                  30.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_WP_Mit_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1791          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1840          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1840          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.2          mi/h
Number of lanes, N                          4
Density, D                                  28.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2018_WP_Mit_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1919          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1962          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1962          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.3          mi/h
Number of lanes, N                          4
Density, D                                  31.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_WP_Mit_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1791           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1858           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1858           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          4
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2018_WP_Mit_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1919          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1990          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1990          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.8          mi/h
Number of lanes, N                          4
Density, D                                  31.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_WP_Mit_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5150           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1399           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1139           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1139           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2018_WP_Mit_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9480           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2443           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1988           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1988           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.8           mi/h
Number of lanes, N                          5
Density, D                                  31.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_WP_Mit_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6060           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1562           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1604           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1604           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2018_WP_Mit_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1798           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1829           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1829           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          4
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_WP_Mit_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1843           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1902           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1902           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          4
Density, D                                  29.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2018_WP_Mit_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7020           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1791           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1821           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1821           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          4
Density, D                                  27.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_WP_Mit_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1827           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1895           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1895           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.4           mi/h
Number of lanes, N                          4
Density, D                                  29.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2018_WP_Mit_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1773          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1821          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1821          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.5          mi/h
Number of lanes, N                          4
Density, D                                  27.8          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_WP_Mit_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4770           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1296           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1325           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1325           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2018_WP_Mit_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6110          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1575          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1609          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1609          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.1          mi/h
Number of lanes, N                          4
Density, D                                  23.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_WP_Mit_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5560    660     630     70      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1495    177     169     19
Trucks and buses                       6       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6170    722     736     76      pc/h

Volume ratio, VR                               0.189

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        736         lc/h
Weaving lane changes, LCW                  1076        lc/h
Non-weaving vehicle index, INW             437
Non-weaving lane change, LCNW              703         lc/h
Total lane changes, LCALL                  1779        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.472
Average weaving speed, SW                  52.4        mi/h
Average non-weaving speed, SNW             57.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.3        mi/h
Weaving segment density, D                 27.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.726
Weaving segment flow rate, v               7704        pc/h
Weaving segment capacity, cW               10247       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4427        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2115         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.726        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2018_WP_Mit_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5368    522     822     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1369    133     210     15
Trucks and buses                       6       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5653    542     912     60      pc/h

Volume ratio, VR                               0.203

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        912         lc/h
Weaving lane changes, LCW                  1252        lc/h
Non-weaving vehicle index, INW             400
Non-weaving lane change, LCNW              593         lc/h
Total lane changes, LCALL                  1845        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.486
Average weaving speed, SW                  52.0        mi/h
Average non-weaving speed, SNW             56.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.6        mi/h
Weaving segment density, D                 25.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.678
Weaving segment flow rate, v               7167        pc/h
Weaving segment capacity, cW               10194       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4566        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2104         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.678        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_WP_Mit_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5660    560     640     30      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1459    144     165     8
Trucks and buses                       8       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.885   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6594    600     686     32      pc/h

Volume ratio, VR                               0.163

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        600         lc/h
Weaving lane changes, LCW                  1235        lc/h
Non-weaving vehicle index, INW             1193
Non-weaving lane change, LCNW              1215        lc/h
Total lane changes, LCALL                  2450        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.333
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             58.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.8        mi/h
Weaving segment density, D                 27.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.693
Weaving segment flow rate, v               7912        pc/h
Weaving segment capacity, cW               10252       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2591        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2316         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.693        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2018_WP_Mit_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6212    408     518     22      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1635    107     136     6
Trucks and buses                       8       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.885   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7389    447     567     24      pc/h

Volume ratio, VR                               0.120

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        447         lc/h
Weaving lane changes, LCW                  1082        lc/h
Non-weaving vehicle index, INW             1334
Non-weaving lane change, LCNW              1481        lc/h
Total lane changes, LCALL                  2563        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.345
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             58.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.3        mi/h
Weaving segment density, D                 28.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.725
Weaving segment flow rate, v               8427        pc/h
Weaving segment capacity, cW               10394       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2172        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2349         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.725        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_WP_Mit_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5181    1059    579     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1335    273     149     8
Trucks and buses                       13      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5699    1105    604     32      pc/h

Volume ratio, VR                               0.230

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1709        lc/h
Weaving lane changes, LCW                  2189        lc/h
Non-weaving vehicle index, INW             630
Non-weaving lane change, LCNW              814         lc/h
Total lane changes, LCALL                  3003        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.499
Average weaving speed, SW                  51.7        mi/h
Average non-weaving speed, SNW             50.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  50.8        mi/h
Weaving segment density, D                29.3        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.721
Weaving segment flow rate, v              7440        pc/h
Weaving segment capacity, cW              9792        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4842         1100         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2113          c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.721         d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2018_WP_Mit_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5151    1389    589     31      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1356    366     155     8
Trucks and buses                       11      52      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.792   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5731    1845    627     33      pc/h

Volume ratio, VR                               0.300

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2472        lc/h
Weaving lane changes, LCW                  2952        lc/h
Non-weaving vehicle index, INW             634
Non-weaving lane change, LCNW              821         lc/h
Total lane changes, LCALL                  3773        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.598
Average weaving speed, SW                  49.4        mi/h
Average non-weaving speed, SNW             44.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   45.7        mi/h
Weaving segment density, D                 36.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.996
Weaving segment flow rate, v               8236        pc/h
Weaving segment capacity, cW               7565        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5585        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2057         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.996        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_WP_Mit_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5966    654     304     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1538    169     78      4
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6317    682     317     17      pc/h

Volume ratio, VR                               0.136

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        682         lc/h
Weaving lane changes, LCW                  976         lc/h
Non-weaving vehicle index, INW             380
Non-weaving lane change, LCNW              667         lc/h
Total lane changes, LCALL                  1643        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.500
Average weaving speed, SW                  51.7        mi/h
Average non-weaving speed, SNW             58.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.1        mi/h
Weaving segment density, D                 25.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.648
Weaving segment flow rate, v               7333        pc/h
Weaving segment capacity, cW               11042       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2329        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2268         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.648        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2018_WP_Mit_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5806    914     294     16      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1561    246     79      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6349    995     320     17      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        995         lc/h
Weaving lane changes, LCW                  1289        lc/h
Non-weaving vehicle index, INW             382
Non-weaving lane change, LCNW              674         lc/h
Total lane changes, LCALL                  1963        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.576
Average weaving speed, SW                  49.9        mi/h
Average non-weaving speed, SNW             55.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  54.4        mi/h
Weaving segment density, D                28.2        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.686
Weaving segment flow rate, v              7681        pc/h
Weaving segment capacity, cW              11018       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2678        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2241         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.686        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

 ______________________________________________________________________________
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_WP_Mit_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5253    387     567     43      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1427    105     154     12
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5807    432     624     47      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                 3           ln
Interchange density, ID                       0.8         int/mi
Minimum RF lane changes, LCRF                 1           lc/pc
Minimum FR lane changes, LCFR                 0           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           432         lc/h
Weaving lane changes, LCW                     1125        lc/h
Non-weaving vehicle index, INW                585
Non-weaving lane change, LCNW                 728         lc/h
Total lane changes, LCALL                     1853        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.308
Average weaving speed, SW                     57.0        mi/h
Average non-weaving speed, SNW                61.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.7        mi/h
Weaving segment density, D                 19.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.500
Weaving segment flow rate, v               6910        pc/h
Weaving segment capacity, cW               13599       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2494        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.500        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

 ______________________________________________________________________________
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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2018_WP_Mit_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       I-215 NB
Weaving Location:            I-10 to Auto Plaza Dr
Analysis Year:               2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           6           ln
Weaving segment length, LS                   1250        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                         Volume Components
                                        VFF     VRF     VFR     VRR
Volume, V                                7888    522     992     58      veh/h
Peak hour factor, PHF                    0.97    0.97    0.97    0.97
Peak 15-min volume, v15                  2033    135     256     15
Trucks and buses                         3       5       2       2         %
Recreational vehicles                    1       1       1       1         %
Trucks and buses PCE, ET                 1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER             1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV            0.983   0.974   0.988   0.988
Driver population adjustment, fP         1.00    1.00    1.00    1.00
Flow rate, v                             8270    553     1035    61      pc/h

Volume ratio, VR                                 0.160

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         553         lc/h
Weaving lane changes, LCW                   1246        lc/h
Non-weaving vehicle index, INW              833
Non-weaving lane change, LCNW               1238        lc/h
Total lane changes, LCALL                   2484        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.389
Average weaving speed, SW                   54.6        mi/h
Average non-weaving speed, SNW              58.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.5        mi/h
Weaving segment density, D                 28.8        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.719
Weaving segment flow rate, v               9919        pc/h
Weaving segment capacity, cW               13563       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2566        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.719        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

 ______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_WP_Mit_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9490           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              380            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     600            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9490        380         600       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2551        100         158       v
Trucks and buses                       5           8           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.960       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10480       417         642       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.166   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1322   pc/h
                   12   F   FM

_______________________________Capacity Checks__________________________________

                           Actual        Maximum         LOS F?
     v                     8397          12000           No
      FO
     v  or v               3329 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3192                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                3609          4600                  No
      R12
_________________Level of Service Determination (if not F)______________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   27.2    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.395
                                              S
Space mean speed in ramp influence area,     S  = 58.9    mph
                                              R
Space mean speed in outer lanes,             S  = 62.9    mph
                                              0
Space mean speed for all vehicles,           S  = 61.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2018_WP_Mit_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2018 WP Mit
Description:  World Logistics Center-2018 + Build-Out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8220           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1030           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     290            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8220        1030        290       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2097        271         76        v
Trucks and buses                       5           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8614        1097        309       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.081   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  493    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7211          12000           No
      FO
     v  or v               2810 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2445                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3542          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   26.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.386
                                              S
Space mean speed in ramp influence area,     S  = 59.2    mph
                                              R
Space mean speed in outer lanes,             S  = 65.2    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

Traffic Impact Analysis Report
for the World Logistics Center

Appendix L

Freeway LOS Worksheets
for 2025 No-Project Conditions

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2025_NP_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   6520            veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1753            v
Trucks and buses                            17              %
Recreational vehicles                       1               %
Terrain type:                               Level
    Grade                                   -               %
    Segment length                          -               mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.920
Driver population factor, fp                1.00
Flow rate, vp                               1905            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -               ft
Right-side lateral clearance                -               ft
Total ramp density, TRD                     -               ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0            mi/h
Lane width adjustment, fLW                  -               mi/h
Lateral clearance adjustment, fLC           -               mi/h
TRD adjustment                              -               mi/h
Free-flow speed, FFS                        70.0            mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1905            pc/h/ln
Free-flow speed, FFS                        70.0            mi/h
Average passenger-car speed, S              64.2            mi/h
Number of lanes, N                          4
Density, D                                  29.7            pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2025_NP_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6580           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1679           v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               1841           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1841           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          4
Density, D                                  28.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2025_NP_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8600           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2312           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2363           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2363           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.3           mi/h
Number of lanes, N                          4
Density, D                                  43.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2025_NP_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9500           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2423           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2477           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2477           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.1           mi/h
Number of lanes, N                          4
Density, D                                  48.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2025_NP_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2073           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2118           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2118           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.2           mi/h
Number of lanes, N                          4
Density, D                                  35.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2025_NP_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8390           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2140           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2187           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2187           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.7           mi/h
Number of lanes, N                          4
Density, D                                  37.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2025_NP_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8040           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2161           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2209           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2209           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.2           mi/h
Number of lanes, N                          4
Density, D                                  38.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2025_NP_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8390           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2140           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2187           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2187           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.7           mi/h
Number of lanes, N                          4
Density, D                                  37.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2025_NP_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7960           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2140           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2187           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2187           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.7           mi/h
Number of lanes, N                          4
Density, D                                  37.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2025_NP_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8560           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2184           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2232           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2232           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.6           mi/h
Number of lanes, N                          4
Density, D                                  38.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2025_NP_AM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7320          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1968          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2011          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2011          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.4          mi/h
Number of lanes, N                          4
Density, D                                  32.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2025_NP_PM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9460           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2413           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2466           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2466           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.4           mi/h
Number of lanes, N                          4
Density, D                                  48.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2025_NP_AM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1938           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1971           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1971           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.1           mi/h
Number of lanes, N                          4
Density, D                                  31.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2025_NP_PM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9610          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2452          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2505          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2505          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              50.2          mi/h
Number of lanes, N                          4
Density, D                                  49.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2025_NP_AM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7290          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1960          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2003          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2003          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.5          mi/h
Number of lanes, N                          4
Density, D                                  32.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2025_NP_PM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6980           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1781           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1820           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1820           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          4
Density, D                                  27.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2025_NP_AM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8240           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2215           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1838           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1838           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          5
Density, D                                  28.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2025_NP_PM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7640           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1949           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1601           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1601           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          5
Density, D                                  23.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2025_NP_AM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4670           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1255           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1302           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1302           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2025_NP_PM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  5430          veh/h
Peak-hour factor, PHF                      0.98
Peak 15-min volume, v15                    1385          v
Trucks and buses                           5             %
Recreational vehicles                      1             %
Terrain type:                              Level
    Grade                                  -             %
    Segment length                         -             mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.974
Driver population factor, fp               1.00
Flow rate, vp                              1423          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -             ft
Right-side lateral clearance               -             ft
Total ramp density, TRD                    -             ramps/mi
Number of lanes, N                         4
Free-flow speed:                           Measured
     FFS or BFFS                           70.0          mi/h
Lane width adjustment, fLW                 -             mi/h
Lateral clearance adjustment, fLC          -             mi/h
TRD adjustment                             -             mi/h
Free-flow speed, FFS                       70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              1423          pc/h/ln
Free-flow speed, FFS                       70.0          mi/h
Average passenger-car speed, S             69.4          mi/h
Number of lanes, N                         4
Density, D                                 20.5          pc/mi/ln
Level of service, LOS                      C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2025_NP_AM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1132           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1168           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1168           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2025_NP_PM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   4820          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1230          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1257          pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1257          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  18.0          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2025_NP_AM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3640           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     978            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1010           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1010           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2025_NP_PM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3970           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1013           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1040           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1040           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2025_NP_AM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3120          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     839           v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               882           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               882           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  12.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2025_NP_PM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3430           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     875            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               916            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               916            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2025_NP_AM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3290           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     884            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               926            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               926            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2025_NP_PM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3760           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     959            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1004           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1004           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2025_NP_AM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3940           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1059           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1104           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1104           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2025_NP_PM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4170           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1064           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1108           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1108           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2025_NP_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5110          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1374          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1881          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1881          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.6          mi/h
Number of lanes, N                          3
Density, D                                  29.1          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2025_NP_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5840          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1490          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2030          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2030          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               62.0          mi/h
Number of lanes, N                           3
Density, D                                   32.7          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2025_NP_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1430           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1958           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1958           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          3
Density, D                                  30.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2025_NP_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6110          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1559          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2134          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2134          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.9          mi/h
Number of lanes, N                          3
Density, D                                  35.6          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2025_NP_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5780           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1554           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2128           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2128           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          3
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2025_NP_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6910           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1763           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2414           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2414           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               52.9           mi/h
Number of lanes, N                           3
Density, D                                   45.6           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2025_NP_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9930           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2669           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2856           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2856           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              38.2           mi/h
Number of lanes, N                          4
Density, D                                  74.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2025_NP_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10270          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2620           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.948
Driver population factor, fp                1.00
Flow rate, vp                               2764           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2764           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              41.6           mi/h
Number of lanes, N                          4
Density, D                                  66.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2025_NP_AM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5300           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1425           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1456           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1456           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2025_NP_PM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6590           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1681           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1710           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1710           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          4
Density, D                                  25.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2025_NP_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3020           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     812            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1700           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1700           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          2
Density, D                                  25.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2025_NP_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5100           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1301           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2672           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2672           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.9           mi/h
Number of lanes, N                          2
Density, D                                  59.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2025_NP_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2770           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     745            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1544           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1544           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          2
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2025_NP_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3740           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     954            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1941           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1941           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          2
Density, D                                  30.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2025_NP_AM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2530           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     680            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1404           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1404           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          2
Density, D                                  20.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2025_NP_PM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    3410           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      870            v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1769           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1769           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               66.2           mi/h
Number of lanes, N                           2
Density, D                                   26.7           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2025_NP_AM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2270           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     610            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               844            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               844            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2025_NP_PM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3140           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     801            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1086           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1086           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2025_NP_AM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2120           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     570            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               792            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               792            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2025_NP_PM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2910           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     742            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1007           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1007           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2025_NP_AM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1800           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     484            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               672            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               672            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  9.6            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2025_NP_PM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2790           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     712            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               965            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               965            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 35_2025_NP_AM_Peak_SR-60_EB_Theodore_St_to_Gilman_Spring.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Theodore St to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1930          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     519           v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               541           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               541           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  7.7           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 35_2025_NP_PM_Peak_SR-60_EB_Theodore_St_to_Gilman_Spring.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Theodore St to Gilman Spring
Jurisdiction:            Caltrans
Analysis Year:           2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3050           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      778            v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                791            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                791            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   11.3           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2025_NP_AM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     371            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.881
Driver population factor, fp                1.00
Flow rate, vp                               561            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               561            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  8.0            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2025_NP_PM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2220           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     566            v
Trucks and buses                            1              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.939
Driver population factor, fp                1.00
Flow rate, vp                               804            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               804            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2025_NP_AM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_Potero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to Potero Blvd
Jurisdiction:           d
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1500          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     403           v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               848           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               848           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  12.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2025_NP_PM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_Potero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to Potero Blvd
Jurisdiction:           d
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2270          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     579           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1178          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1178          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  16.8          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2025_NP_AM_Peak_SR-60_WB_I-10_to_Potero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Potero Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     376            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               803            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               803            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2025_NP_PM_Peak_SR-60_WB_I-10_to_Potero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Potero Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1390           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     366            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               777            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               777            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2025_NP_AM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Jack Rabbit to Gilman Springs
Jurisdiction:            Caltrans
Analysis Year:           2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    1810          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      466           v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Mountainous
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     4.5
Recreational vehicle PCE, ER                 4.0
Heavy vehicle adjustment, fHV                0.881
Driver population factor, fp                 1.00
Flow rate, vp                                706           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                706           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           3
Density, D                                   10.1          pc/mi/ln
Level of service, LOS                        A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2025_NP_PM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1580           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     416            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.881
Driver population factor, fp                1.00
Flow rate, vp                               629            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               629            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  9.0            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 40_2025_NP_AM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Gilman Springs Rd to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2530           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     652            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               676            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               676            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.7            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 40_2025_NP_PM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Gilman Springs Rd to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2040           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     537            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               559            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               559            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  8.0            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2025_NP_AM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2500           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      644            v
Trucks and buses                             7              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                891            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                891            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   12.7           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2025_NP_PM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2050           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     539            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               750            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               750            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  10.7           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2025_NP_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2780           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     716            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1479           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1479           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          2
Density, D                                  21.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2025_NP_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2410           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     634            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1315           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1315           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          2
Density, D                                  18.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2025_NP_AM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     861            v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1742           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1742           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          2
Density, D                                  26.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2025_NP_PM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2920           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     768            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1586           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1586           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          2
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2025_NP_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3730           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      961            v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1975           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1975           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               63.0           mi/h
Number of lanes, N                           2
Density, D                                   31.3           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2025_NP_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3160          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     832           v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1716          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1716          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.9          mi/h
Number of lanes, N                          2
Density, D                                  25.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2025_NP_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5080           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1309           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2676           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2676           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.7           mi/h
Number of lanes, N                          2
Density, D                                  59.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2025_NP_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2860           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     753            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1553           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1553           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          2
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2025_NP_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1222           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2521           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2521           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.8           mi/h
Number of lanes, N                          2
Density, D                                  50.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2025_NP_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3260           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     858            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1779           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1779           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          2
Density, D                                  26.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2025_NP_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7540           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1943           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1986           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1986           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.8           mi/h
Number of lanes, N                          4
Density, D                                  31.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2025_NP_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8230           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2166           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2224           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2224           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.8           mi/h
Number of lanes, N                          4
Density, D                                  38.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2025_NP_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2003           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.897
Driver population factor, fp                1.00
Flow rate, vp                               2233           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2233           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.6           mi/h
Number of lanes, N                          4
Density, D                                  38.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2025_NP_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7500           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1974           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.922
Driver population factor, fp                1.00
Flow rate, vp                               2141           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2141           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.7           mi/h
Number of lanes, N                          4
Density, D                                  35.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2025_NP_AM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7450          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1920          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2616          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2616          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               46.7          mi/h
Number of lanes, N                           3
Density, D                                   56.0          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2025_NP_PM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4820          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1268          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1737          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1737          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.7          mi/h
Number of lanes, N                          3
Density, D                                  26.1          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2025_NP_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7070           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1822           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2483           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2483           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.9           mi/h
Number of lanes, N                          3
Density, D                                  48.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2025_NP_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5810           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1529           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2083           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2083           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.0           mi/h
Number of lanes, N                          3
Density, D                                  34.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2025_NP_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1376           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1857           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1857           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          3
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2025_NP_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6210           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1634           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2216           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2216           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.0           mi/h
Number of lanes, N                          3
Density, D                                  38.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2025_NP_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1332           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1816           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1816           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.6           mi/h
Number of lanes, N                          3
Density, D                                  27.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2025_NP_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5930           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      1561           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2137           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2137           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               59.8           mi/h
Number of lanes, N                           3
Density, D                                   35.7           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2025_NP_AM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4940           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1273           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1314           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1314           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2025_NP_PM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5650          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1487          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1534          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1534          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.7          mi/h
Number of lanes, N                          4
Density, D                                  22.3          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2025_NP_AM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4760          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1227          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1266          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1266          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.9          mi/h
Number of lanes, N                          4
Density, D                                  18.1          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2025_NP_PM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5670           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1492           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1540           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1540           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2025_NP_AM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4790           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1235           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1274           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1274           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2025_NP_PM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5670           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1492           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1540           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1540           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2025_NP_AM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5480           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1412           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1451           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1451           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2025_NP_PM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6690           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1761           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1808           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1808           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          4
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2025_NP_AM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1340           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1101           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2025_NP_PM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5290           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1392           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1144           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1144           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2025_NP_AM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5640           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1454           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1493           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1493           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2025_NP_PM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5880           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1547           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1574           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1574           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          4
Density, D                                  23.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2025_NP_AM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7510           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1936           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1575           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1575           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          5
Density, D                                  23.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2025_NP_PM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6280          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1653          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1351          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1351          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.7          mi/h
Number of lanes, N                          5
Density, D                                  19.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2025_NP_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7980           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2057           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2153           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2153           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.5           mi/h
Number of lanes, N                          4
Density, D                                  36.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2025_NP_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9930           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2613           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2710           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2710           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              43.6           mi/h
Number of lanes, N                          4
Density, D                                  62.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2025_NP_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6820           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1758           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1788           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1788           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.0           mi/h
Number of lanes, N                          4
Density, D                                  27.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2025_NP_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9890           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2603           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2660           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2660           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.3           mi/h
Number of lanes, N                          4
Density, D                                  58.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2025_NP_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7250           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1869           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1938           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1938           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.7           mi/h
Number of lanes, N                          4
Density, D                                  30.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2025_NP_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7930           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2087           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2133           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2133           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.9           mi/h
Number of lanes, N                          4
Density, D                                  35.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2025_NP_AM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1899           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1899           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          4
Density, D                                  29.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2025_NP_PM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   7260           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1911           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1991           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1991           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.7           mi/h
Number of lanes, N                          4
Density, D                                  31.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2025_NP_AM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6850           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1765           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1875           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1875           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          4
Density, D                                  29.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2025_NP_PM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6860           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1805           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1890           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1890           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          4
Density, D                                  29.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2025_NP_AM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6250          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1611          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1678          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1678          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.3          mi/h
Number of lanes, N                          4
Density, D                                  24.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2025_NP_PM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6780           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1784           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1832           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1832           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          4
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2025_NP_AM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1727           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1765           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1765           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          4
Density, D                                  26.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2025_NP_PM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6540           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1721           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1759           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1759           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.4           mi/h
Number of lanes, N                          4
Density, D                                  26.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2025_NP_AM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4670           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1204           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1224           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1224           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2025_NP_PM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6840           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1839           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1870           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1870           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2025_NP_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5230           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1348           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1828           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1828           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          3
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2025_NP_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5840           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1570           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2129           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2129           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          3
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2025_NP_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1742           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2397           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2397           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.4           mi/h
Number of lanes, N                          3
Density, D                                  44.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2025_NP_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7590           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2040           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2794           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2794           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              40.5           mi/h
Number of lanes, N                          3
Density, D                                  68.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2025_NP_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7390           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1905           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1947           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1947           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.5           mi/h
Number of lanes, N                          4
Density, D                                  30.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2025_NP_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7530          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2024          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2069          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2069          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.2          mi/h
Number of lanes, N                          4
Density, D                                  33.8          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2025_NP_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    7410           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1910           v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1942           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1942           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               63.6           mi/h
Number of lanes, N                           4
Density, D                                   30.5           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2025_NP_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8330           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2239           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2277           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2277           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.5           mi/h
Number of lanes, N                          4
Density, D                                  40.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2025_NP_AM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1276           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1297           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1297           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2025_NP_PM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5280           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1419           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1443           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1443           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2025_NP_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7670           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1977           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2720           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2720           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              43.2           mi/h
Number of lanes, N                          3
Density, D                                  63.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2025_NP_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8550           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2298           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               3147           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3147           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              26.0           mi/h
Number of lanes, N                          3
Density, D                                  120.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2025_NP_AM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7840           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2021           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2085           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2085           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.9           mi/h
Number of lanes, N                          4
Density, D                                  34.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2025_NP_PM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5710           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1535           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1576           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1576           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          4
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2025_NP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7300           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1881           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2626           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2626           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.4           mi/h
Number of lanes, N                          3
Density, D                                  56.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2025_NP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6200          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1667          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2293          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2293          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              56.1          mi/h
Number of lanes, N                          3
Density, D                                  40.8          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2025_NP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4820           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1242           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1257           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1257           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2025_NP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4600           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1237           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1251           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1251           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2025_NP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1582           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1294           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1294           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          5
Density, D                                  18.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2025_NP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5880           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1581           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1292           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1292           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          5
Density, D                                  18.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2025_NP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1634           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1670           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1670           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2025_NP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7290           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1960           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1983           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1983           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.9           mi/h
Number of lanes, N                          4
Density, D                                  31.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2025_NP_AM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5650           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1456           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1488           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1488           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2025_NP_PM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7260           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1952           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1975           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1975           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.0           mi/h
Number of lanes, N                          4
Density, D                                  31.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2025_NP_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7440          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1918          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2613          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2613          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              46.8          mi/h
Number of lanes, N                          3
Density, D                                  55.8          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2025_NP_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7240           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1946           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               2626           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2626           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.4           mi/h
Number of lanes, N                          3
Density, D                                  56.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2025_NP_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1629           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1665           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1665           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.5           mi/h
Number of lanes, N                          4
Density, D                                  24.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2025_NP_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7790           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2094           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2130           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2130           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          4
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2025_NP_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1742           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1781           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1781           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          4
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2025_NP_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8230           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2212           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2250           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2250           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.2           mi/h
Number of lanes, N                          4
Density, D                                  39.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2025_NP_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6470          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1668          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1704          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1704          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.1          mi/h
Number of lanes, N                          4
Density, D                                  25.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2025_NP_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8280           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2226           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2264           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2264           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.9           mi/h
Number of lanes, N                          4
Density, D                                  39.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2025_NP_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-91 WB
From/To:                 Tyler St to La Sierra Ave
Jurisdiction:            Caltrans
Analysis Year:           2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6320          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1629          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2220          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2220          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               57.9          mi/h
Number of lanes, N                           3
Density, D                                   38.3          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2025_NP_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7390           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1987           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2694           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2694           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.1           mi/h
Number of lanes, N                          3
Density, D                                  61.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2025_NP_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1910           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2602           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2602           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.2           mi/h
Number of lanes, N                          3
Density, D                                  55.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2025_NP_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7330           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1970           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2672           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2672           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.9           mi/h
Number of lanes, N                          3
Density, D                                  59.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2025_NP_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1871           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2550           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2550           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.9           mi/h
Number of lanes, N                          3
Density, D                                  52.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2025_NP_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7260           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1952           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2646           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2646           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.7           mi/h
Number of lanes, N                          3
Density, D                                  57.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2025_NP_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7250           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1869           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2571           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2571           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.2           mi/h
Number of lanes, N                          3
Density, D                                  53.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2025_NP_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7330           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1970           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2711           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2711           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              43.5           mi/h
Number of lanes, N                          3
Density, D                                  62.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2025_NP_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1727           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1782           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1782           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          4
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2025_NP_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7610           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2046           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2101           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.6           mi/h
Number of lanes, N                          4
Density, D                                  34.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2025_NP_AM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1102           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1126           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1126           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2025_NP_PM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5400           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1436           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1461           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1461           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2025_NP_AM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1132           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1174           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1174           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2025_NP_PM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5850          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1556          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1606          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1606          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.1          mi/h
Number of lanes, N                          4
Density, D                                  23.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2025_NP_AM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4400          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1183          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1221          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1221          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   17.4          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2025_NP_PM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6080           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1617           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1669           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1669           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2025_NP_AM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                 4320          veh/h
Peak-hour factor, PHF                     0.93
Peak 15-min volume, v15                   1161          v
Trucks and buses                          7             %
Recreational vehicles                     1             %
Terrain type:                             Level
    Grade                                 -             %
    Segment length                        -             mi
Trucks and buses PCE, ET                  1.5
Recreational vehicle PCE, ER              1.2
Heavy vehicle adjustment, fHV             0.964
Driver population factor, fp              1.00
Flow rate, vp                             1204          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                -             ft
Right-side lateral clearance              -             ft
Total ramp density, TRD                   -             ramps/mi
Number of lanes, N                        4
Free-flow speed:                          Measured
     FFS or BFFS                          70.0          mi/h
Lane width adjustment, fLW                -             mi/h
Lateral clearance adjustment, fLC         -             mi/h
TRD adjustment                            -             mi/h
Free-flow speed, FFS                      70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                             1204          pc/h/ln
Free-flow speed, FFS                      70.0          mi/h
Average passenger-car speed, S            70.0          mi/h
Number of lanes, N                        4
Density, D                                17.2          pc/mi/ln
Level of service, LOS                     B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2025_NP_PM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5930           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1577           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1628           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1628           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.9           mi/h
Number of lanes, N                          4
Density, D                                  24.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2025_NP_AM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4220           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1134           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               941            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               941            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2025_NP_PM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5700          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1516          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1252          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1252          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  17.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2025_NP_AM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4120           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1108           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1149           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1149           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2025_NP_PM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5560           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1479           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1526           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1526           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2025_NP_AM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4110           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1105           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1146           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1146           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2025_NP_PM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5490           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1460           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1507           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1507           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2025_NP_AM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3790           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1019           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1057           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1057           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2025_NP_PM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4970           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1322           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1371           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1371           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2025_NP_AM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3630          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     976           v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1017          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1017          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.5          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2025_NP_PM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1261           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1307           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1307           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2025_NP_AM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3260           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     876            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               904            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               904            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2025_NP_PM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4250           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1130           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1155           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1155           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2025_NP_AM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3290           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     884            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               904            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               904            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2025_NP_PM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4260          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1133          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1158          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1158          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.5          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2025_NP_AM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2870           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     772            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               788            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               788            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2025_NP_PM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3710           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     987            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1008           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1008           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2025_NP_AM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2740          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     737           v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               756           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               756           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  10.8          pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2025_NP_PM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3740           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     995            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1017           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1017           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2025_NP_AM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3590           veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1044           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1067           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1067           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   15.2           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2025_NP_PM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-10 WB
From/To:                 SR-62 to Tipton Rd
Jurisdiction:            Caltrans
Analysis Year:           2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3580          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      923           v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                948           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                948           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   13.5          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2025_NP_AM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3570           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1038           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1061           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1061           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2025_NP_PM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     920            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               936            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               936            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2025_NP_AM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4100           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1192           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1218           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1218           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2025_NP_PM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1082           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1106           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1106           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2025_NP_AM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4110           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1195           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1221           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1221           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2025_NP_PM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1070           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1093           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1093           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2025_NP_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4620           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1343           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1386           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1386           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2025_NP_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4560           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1175           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1219           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1219           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2025_NP_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4830           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1404           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1449           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1449           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2025_NP_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4660           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1201           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1245           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1245           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2025_NP_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5390           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1567           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1609           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1609           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2025_NP_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4980           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1284           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1331           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1331           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2025_NP_AM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5460          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1587          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1630          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1630          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.9          mi/h
Number of lanes, N                          4
Density, D                                  24.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2025_NP_PM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4960           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1278           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1326           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1326           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2025_NP_AM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5580           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1622           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1333           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1333           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          5
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2025_NP_PM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5060           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1304           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1082           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1082           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2025_NP_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5810          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1689          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1735          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1735          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.7          mi/h
Number of lanes, N                          4
Density, D                                  26.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2025_NP_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1327           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1376           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1376           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2025_NP_AM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6330          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1840          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1890          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1890          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.5          mi/h
Number of lanes, N                          4
Density, D                                  29.3          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2025_NP_PM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5480           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1412           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1458           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1458           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2025_NP_AM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5880           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1709           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1755           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1755           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.4           mi/h
Number of lanes, N                          4
Density, D                                  26.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2025_NP_PM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments__________________________

Volume, V                                   5330           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1374           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1418           pc/h/ln

_________________________Speed Inputs and Adjustments_________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures_________________________

Flow rate, vp                               1418           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2025_NP_AM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5750           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1672           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1700           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1700           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          4
Density, D                                  25.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2025_NP_PM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5190           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1338           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1367           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1367           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2025_NP_AM_Peak_I-215_NB_Scott_Rd_to_Garboni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Garboni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3430           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     932            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               948            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               948            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2025_NP_PM_Peak_I-215_NB_Scott_Rd_to_Garboni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Garboni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4650           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1198           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1219           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1219           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2025_NP_AM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 NB
From/To:                 Newport Rd to MacCall Blvd
Jurisdiction:            Caltrans
Analysis Year:           2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2500          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     679           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               691           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               691           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  9.9           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2025_NP_PM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     784            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               797            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               797            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2025_NP_AM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3110           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     845            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               859            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               859            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2025_NP_PM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4290           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1106           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1124           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1124           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2025_NP_AM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 NB
From/To:                 Ethanac Rd to SR-74
Jurisdiction:            Caltrans
Analysis Year:           2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4230          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1149          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1169          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1169          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   16.7          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2025_NP_PM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4070           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1049           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1067           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1067           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2025_NP_AM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3600           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     978            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1010           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1010           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2025_NP_PM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4910          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1265          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1300          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1300          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.9          mi/h
Number of lanes, N                          4
Density, D                                  18.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2025_NP_AM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1894           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1945           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1945           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          4
Density, D                                  30.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2025_NP_PM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7380          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1902          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1944          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1944          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               63.6          mi/h
Number of lanes, N                           4
Density, D                                   30.6          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2025_NP_AM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5390           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1465           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1996           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1996           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.7           mi/h
Number of lanes, N                          3
Density, D                                  31.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2025_NP_PM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5620          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1448          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1964          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1964          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.2          mi/h
Number of lanes, N                          3
Density, D                                  31.1          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2025_NP_AM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5470          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1486          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                2016          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2016          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               62.3          mi/h
Number of lanes, N                           3
Density, D                                   32.4          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2025_NP_PM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5400           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1392           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1887           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1887           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          3
Density, D                                  29.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2025_NP_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5930           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1611           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2207           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2207           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.2           mi/h
Number of lanes, N                          3
Density, D                                  37.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2025_NP_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6150          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1585          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2170          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2170          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.1          mi/h
Number of lanes, N                          3
Density, D                                  36.7          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2025_NP_AM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6380           veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1734           v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1807           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1807           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               65.7           mi/h
Number of lanes, N                           4
Density, D                                   27.5           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2025_NP_PM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6370           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1642           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1694           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1694           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          4
Density, D                                  25.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2025_NP_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5470          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1486          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1512          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1512          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.9          mi/h
Number of lanes, N                           4
Density, D                                   22.0          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2025_NP_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2552           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2595           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2595           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.4           mi/h
Number of lanes, N                          4
Density, D                                  54.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2025_NP_AM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3230           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     878            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               897            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               897            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2025_NP_PM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5020           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1294           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1316           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1316           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2025_NP_AM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4930           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1271           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1292           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1292           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2025_NP_PM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3740           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     954            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               970            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               970            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2025_NP_AM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1665           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1702           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1702           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          4
Density, D                                  25.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2025_NP_PM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6020          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1536          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1562          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1562          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.5          mi/h
Number of lanes, N                          4
Density, D                                  22.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2025_NP_AM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6350           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1637           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1689           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1689           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          4
Density, D                                  25.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2025_NP_PM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5840           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1490           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1530           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1530           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2025_NP_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6570          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1693          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2307          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2307          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              55.8          mi/h
Number of lanes, N                          3
Density, D                                  41.4          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2025_NP_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7460           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1903           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2581           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2581           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.9           mi/h
Number of lanes, N                          3
Density, D                                  53.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2025_NP_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  7720          veh/h
Peak-hour factor, PHF                      0.97
Peak 15-min volume, v15                    1990          v
Trucks and buses                           6             %
Recreational vehicles                      1             %
Terrain type:                              Level
    Grade                                  -             %
    Segment length                         -             mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.969
Driver population factor, fp               1.00
Flow rate, vp                              2738          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -             ft
Right-side lateral clearance               -             ft
Total ramp density, TRD                    -             ramps/mi
Number of lanes, N                         3
Free-flow speed:                           Measured
     FFS or BFFS                           70.0          mi/h
Lane width adjustment, fLW                 -             mi/h
Lateral clearance adjustment, fLC          -             mi/h
TRD adjustment                             -             mi/h
Free-flow speed, FFS                       70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              2738          pc/h/ln
Free-flow speed, FFS                       70.0          mi/h
Average passenger-car speed, S             42.6          mi/h
Number of lanes, N                         3
Density, D                                 64.3          pc/mi/ln
Level of service, LOS                      F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2025_NP_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7400           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1888           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2560           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2560           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.5           mi/h
Number of lanes, N                          3
Density, D                                  52.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2025_NP_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1987          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2734          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2734          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              42.7          mi/h
Number of lanes, N                          3
Density, D                                  64.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2025_NP_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7280          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1857          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2531          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2531          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              49.4          mi/h
Number of lanes, N                          3
Density, D                                  51.2          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2025_NP_AM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7630           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1966           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2049           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2049           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.6           mi/h
Number of lanes, N                          4
Density, D                                  33.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2025_NP_PM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7220           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1842           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1892           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1892           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.4           mi/h
Number of lanes, N                          4
Density, D                                  29.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2025_NP_AM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1340           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1376           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1376           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2025_NP_PM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1276           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1304           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1304           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2025_NP_AM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     954            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               975            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               975            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2025_NP_PM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4350          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1110          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1129          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1129          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2025_NP_AM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3910           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1008           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1030           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1030           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2025_NP_PM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3290           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      839            v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                854            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                854            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   12.2           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2025_NP_AM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     817            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               835            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               835            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2025_NP_PM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3680           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     939            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               955            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               955            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2025_NP_AM_Peak_I-215_SB_Newport_Rd_to_Gambroni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Gambroni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2990          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     771           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               784           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               784           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  11.2          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2025_NP_PM_Peak_I-215_SB_Newport_Rd_to_Gambroni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Gambroni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2930           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      747            v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                760            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                760            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   10.9           pc/mi/ln
Level of service, LOS                        A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2025_NP_AM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1420           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     382            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               803            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               803            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2025_NP_PM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1340           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     342            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               702            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               702            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  10.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2025_NP_AM_Peak_SR-60_WB_Potero_Blvd_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potero Blvd to Jack Rabbit Trail
Jurisdiction:           l
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                 1940          veh/h
Peak-hour factor, PHF                     0.97
Peak 15-min volume, v15                   500           v
Trucks and buses                          1             %
Recreational vehicles                     1             %
Terrain type:                             Level
    Grade                                 -             %
    Segment length                        -             mi
Trucks and buses PCE, ET                  1.5
Recreational vehicle PCE, ER              1.2
Heavy vehicle adjustment, fHV             0.993
Driver population factor, fp              1.00
Flow rate, vp                             1007          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                -             ft
Right-side lateral clearance              -             ft
Total ramp density, TRD                   -             ramps/mi
Number of lanes, N                        2
Free-flow speed:                          Measured
     FFS or BFFS                          70.0          mi/h
Lane width adjustment, fLW                -             mi/h
Lateral clearance adjustment, fLC         -             mi/h
TRD adjustment                            -             mi/h
Free-flow speed, FFS                      70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                             1007          pc/h/ln
Free-flow speed, FFS                      70.0          mi/h
Average passenger-car speed, S            70.0          mi/h
Number of lanes, N                        2
Density, D                                14.4          pc/mi/ln
Level of service, LOS                     B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2025_NP_PM_Peak_SR-60_WB_Potero_Blvd_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potero Blvd to Jack Rabbit Trail
Jurisdiction:           l
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1720           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     453            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               934            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               934            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2025_NP_AM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3150          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     856           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               871           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               871           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  12.4          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2025_NP_PM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1067           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1085           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1085           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2025_NP_AM_Peak_I-215_SB_Gambroni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Gambroni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3030           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     781            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               794            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               794            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2025_NP_PM_Peak_I-215_SB_Gambroni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Gambroni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2500          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     638           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               649           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               649           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  9.3           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2025_NP_AM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4810           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1307           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1329           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1329           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2025_NP_PM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4010          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1034          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1056          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1056          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  15.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2025_NP_AM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4100           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1114           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               906            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               906            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2025_NP_PM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5590          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1441          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1178          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1178          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  16.8          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2025_NP_AM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4110           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1117           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               918            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               918            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  13.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2025_NP_PM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4960           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1278           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1050           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1050           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2025_NP_AM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4970           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1351           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1104           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1104           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2025_NP_PM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5850           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1508           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1239           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1239           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2025_NP_AM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox Blvd
Jurisdiction:
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4440          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1207          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               991           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               991           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  14.2          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2025_NP_PM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox Blvd
Jurisdiction:
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5920          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1526          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1254          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1254          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  17.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2025_NP_AM_Peak_I-215_NB_Harley_Knox_Blvd_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox Blvd to Van Buren Blvd
Jurisdiction:           lvd
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4570           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1242           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1692           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1692           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          3
Density, D                                  25.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2025_NP_PM_Peak_I-215_NB_Harley_Knox_Blvd_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox Blvd to Van Buren Blvd
Jurisdiction:           lvd
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4230           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1090           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1515           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1515           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          3
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2025_NP_AM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4860           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1321           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1350           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1350           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2025_NP_PM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1113           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1143           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1143           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2025_NP_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4470           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1215           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1663           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1663           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.5           mi/h
Number of lanes, N                          3
Density, D                                  24.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2025_NP_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5380           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1387           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1899           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1899           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          3
Density, D                                  29.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2025_NP_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4730          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1285          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1760          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1760          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.4          mi/h
Number of lanes, N                          3
Density, D                                  26.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2025_NP_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5960          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1536          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2103          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2103          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.5          mi/h
Number of lanes, N                          3
Density, D                                  34.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2025_NP_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1394           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1900           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1900           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          3
Density, D                                  29.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2025_NP_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5950          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1518          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2078          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2078          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.1          mi/h
Number of lanes, N                          3
Density, D                                  34.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2025_NP_AM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4000          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1031          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1054          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1054          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  15.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2025_NP_PM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6260           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1597           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1632           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1632           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          4
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2025_NP_AM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     972            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1376           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1376           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          3
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2025_NP_PM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6720           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1714           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2336           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2336           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.0           mi/h
Number of lanes, N                          3
Density, D                                  42.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2025_NP_AM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona Expy
Jurisdiction:
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2790           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     719            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               594            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               594            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  8.5            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2025_NP_PM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona Expy
Jurisdiction:
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5460           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1393           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1139           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1139           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           5
Density, D                                   16.3           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2025_NP_AM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4830          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1245          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1023          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1023          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  14.6          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2025_NP_PM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5980           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1526           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1247           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1247           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2025_NP_AM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4430          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1142          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               938           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               938           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  13.4          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2025_NP_PM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   4080           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1041           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               859            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               859            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2025_NP_AM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4020           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1036           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                847            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                847            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           5
Density, D                                   12.1           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2025_NP_PM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3250           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     829            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               678            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               678            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  9.7            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2025_NP_AM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3160           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      814            v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                836            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                836            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   11.9           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2025_NP_PM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2640           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     673            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               688            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               688            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2025_NP_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4616    844     324     36      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1241    227     87      10
Trucks and buses                       5       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5097    932     353     39      pc/h

Volume ratio, VR                               0.200

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1285        lc/h
Weaving lane changes, LCW                  1843        lc/h
Non-weaving vehicle index, INW             611
Non-weaving lane change, LCNW              1016        lc/h
Total lane changes, LCALL                  2859        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.341
Average weaving speed, SW                  56.0        mi/h
Average non-weaving speed, SNW             54.6        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.9        mi/h
Weaving segment density, D                 23.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.589
Weaving segment flow rate, v               6421        pc/h
Weaving segment capacity, cW               10628       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4537        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2183         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.589        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2025_NP_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6026    544     324     36      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1537    139     83      9
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6315    573     335     37      pc/h

Volume ratio, VR                               0.125

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     0.7         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         908         lc/h
Weaving lane changes, LCW                   1466        lc/h
Non-weaving vehicle index, INW              756
Non-weaving lane change, LCNW               1267        lc/h
Total lane changes, LCALL                   2733        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.329
Average weaving speed, SW                   56.4        mi/h
Average non-weaving speed, SNW              56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.5        mi/h
Weaving segment density, D                25.7        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.648
Weaving segment flow rate, v              7260        pc/h
Weaving segment capacity, cW              10910       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3785        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2241         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.648        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2025_NP_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5952    678     648     72      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1600    182     174     19
Trucks and buses                       5       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6573    741     757     78      pc/h

Volume ratio, VR                               0.184

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        757         lc/h
Weaving lane changes, LCW                  974         lc/h
Non-weaving vehicle index, INW             466
Non-weaving lane change, LCNW              979         lc/h
Total lane changes, LCALL                  1953        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.508
Average weaving speed, SW                  51.5        mi/h
Average non-weaving speed, SNW             54.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.1        mi/h
Weaving segment density, D                 37.6        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.958
Weaving segment flow rate, v               8149        pc/h
Weaving segment capacity, cW               8253        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4371        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2119         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.958        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2025_NP_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6130    540     840     60      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1564    138     214     15
Trucks and buses                       4       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6393    560     932     62      pc/h

Volume ratio, VR                               0.188

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        932         lc/h
Weaving lane changes, LCW                  1149        lc/h
Non-weaving vehicle index, INW             452
Non-weaving lane change, LCNW              939         lc/h
Total lane changes, LCALL                  2088        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.535
Average weaving speed, SW                  50.8        mi/h
Average non-weaving speed, SNW             53.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  53.2        mi/h
Weaving segment density, D                37.4        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.933
Weaving segment flow rate, v              7947        pc/h
Weaving segment capacity, cW              8282        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4411         700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2116         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.933        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2025_NP_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4754    1306    486     54      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1278    351     131     15
Trucks and buses                       4       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5224    1435    529     59      pc/h

Volume ratio, VR                               0.271

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1435        lc/h
Weaving lane changes, LCW                  1958        lc/h
Non-weaving vehicle index, INW             660
Non-weaving lane change, LCNW              803         lc/h
Total lane changes, LCALL                  2761        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.422
Average weaving speed, SW                  53.7        mi/h
Average non-weaving speed, SNW             52.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.0        mi/h
Weaving segment density, D                 27.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.656
Weaving segment flow rate, v               7247        pc/h
Weaving segment capacity, cW               10822       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3709        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2212         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.656        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2025_NP_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7494    1676    576     64      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1912    428     147     16
Trucks and buses                       15      4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8236    1748    595     66      pc/h

Volume ratio, VR                               0.220

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2271        lc/h
Non-weaving vehicle index, INW             1038
Non-weaving lane change, LCNW              1425        lc/h
Total lane changes, LCALL                  3696        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.532
Average weaving speed, SW                  50.9        mi/h
Average non-weaving speed, SNW             47.2        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.0        mi/h
Weaving segment density, D                 44.4        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.957
Weaving segment flow rate, v               10645       pc/h
Weaving segment capacity, cW               10460       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3177        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2253         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.957        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2025_NP_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5523    487     427     23      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1485    131     115     6
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6099    533     465     25      pc/h

Volume ratio, VR                               0.140

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        998         lc/h
Weaving lane changes, LCW                  1610        lc/h
Non-weaving vehicle index, INW             980
Non-weaving lane change, LCNW              1166        lc/h
Total lane changes, LCALL                  2776        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.349
Average weaving speed, SW                  55.8        mi/h
Average non-weaving speed, SNW             56.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 25.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.642
Weaving segment flow rate, v               7122        pc/h
Weaving segment capacity, cW               10813       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3933         1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2222         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.642        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2025_NP_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5915    1085    465     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1509    277     119     6
Trucks and buses                       14      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6470    1120    480     26      pc/h

Volume ratio, VR                               0.198

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1600        lc/h
Weaving lane changes, LCW                  2212        lc/h
Non-weaving vehicle index, INW             1039
Non-weaving lane change, LCNW              1242        lc/h
Total lane changes, LCALL                  3454        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.415
Average weaving speed, SW                  53.9        mi/h
Average non-weaving speed, SNW             50.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  51.3        mi/h
Weaving segment density, D                31.6        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.753
Weaving segment flow rate, v              8096        pc/h
Weaving segment capacity, cW              10154       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4512         1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2177         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.753        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2025_NP_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5322    418     638     22      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1431    112     172     6
Trucks and buses                       7       3       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.983   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5934    457     701     24      pc/h

Volume ratio, VR                               0.163

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        701         lc/h
Weaving lane changes, LCW                  1181        lc/h
Non-weaving vehicle index, INW             655
Non-weaving lane change, LCNW              861         lc/h
Total lane changes, LCALL                  2042        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.368
Average weaving speed, SW                  55.2        mi/h
Average non-weaving speed, SNW             58.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.6        mi/h
Weaving segment density, D                 24.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.659
Weaving segment flow rate, v               7116        pc/h
Weaving segment capacity, cW               10444       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4159        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2166         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.659        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2025_NP_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6475    985     275     15      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1652    251     70      4
Trucks and buses                       7       4       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.978   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6852    1027    283     15      pc/h

Volume ratio, VR                               0.160

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        283         lc/h
Weaving lane changes, LCW                  763         lc/h
Non-weaving vehicle index, INW             755
Non-weaving lane change, LCNW              1048        lc/h
Total lane changes, LCALL                  1811        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.335
Average weaving speed, SW                  56.2        mi/h
Average non-weaving speed, SNW             60.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  59.4        mi/h
Weaving segment density, D                27.5        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.757
Weaving segment flow rate, v              8177        pc/h
Weaving segment capacity, cW              10453       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4133         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2168         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.757        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2025_NP_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5571    499     389     21      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1498    134     105     6
Trucks and buses                       11      1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.851   0.976   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7039    550     435     23      pc/h

Volume ratio, VR                               0.122

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        435         lc/h
Weaving lane changes, LCW                  1351        lc/h
Non-weaving vehicle index, INW             2373
Non-weaving lane change, LCNW              3264        lc/h
Total lane changes, LCALL                  4615        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.335
Average weaving speed, SW                  56.2        mi/h
Average non-weaving speed, SNW             59.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.8        mi/h
Weaving segment density, D                 27.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.704
Weaving segment flow rate, v               8047        pc/h
Weaving segment capacity, cW               9902        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3758        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2327         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.704        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2025_NP_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7183    1407    437     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1832    359     111     6
Trucks and buses                       7       1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.897   0.976   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8172    1472    464     24      pc/h

Volume ratio, VR                               0.191

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        464         lc/h
Weaving lane changes, LCW                  1380        lc/h
Non-weaving vehicle index, INW             2754
Non-weaving lane change, LCNW              3517        lc/h
Total lane changes, LCALL                  4897        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.351
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             56.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 35.7        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.906
Weaving segment flow rate, v               10132       pc/h
Weaving segment capacity, cW               10197       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4445        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2274         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.906        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2025_NP_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1838    1202    252     28      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                494     323     68      8
Trucks and buses                       9       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2069    1321    274     30      pc/h

Volume ratio, VR                               0.432

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1321        lc/h
Weaving lane changes, LCW                  1789        lc/h
Non-weaving vehicle index, INW             202
Non-weaving lane change, LCNW              120         lc/h
Total lane changes, LCALL                  1909        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.326
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             56.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 13.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.461
Weaving segment flow rate, v               3694        pc/h
Weaving segment capacity, cW               7742        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5474        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2073         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.461        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2025_NP_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7986    2004    504     56      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2037    511     129     14
Trucks and buses                       4       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8328    2090    520     58      pc/h

Volume ratio, VR                               0.237

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2558        lc/h
Non-weaving vehicle index, INW             805
Non-weaving lane change, LCNW              1415        lc/h
Total lane changes, LCALL                  3973        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.581
Average weaving speed, SW                  49.8        mi/h
Average non-weaving speed, SNW             44.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   45.6        mi/h
Weaving segment density, D                 48.3        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.985
Weaving segment flow rate, v               10996       pc/h
Weaving segment capacity, cW               10934       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3356        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2235         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.985        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2025_NP_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1873    427     1077    23      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                503     115     290     6
Trucks and buses                       9       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2109    465     1172    25      pc/h

Volume ratio, VR                               0.434

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        465         lc/h
Weaving lane changes, LCW                  836         lc/h
Non-weaving vehicle index, INW             333
Non-weaving lane change, LCNW              374         lc/h
Total lane changes, LCALL                  1210        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                0.214
Average weaving speed, SW                  60.3        mi/h
Average non-weaving speed, SNW             62.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.3        mi/h
Weaving segment density, D                 15.4        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.475
Weaving segment flow rate, v               3771        pc/h
Weaving segment capacity, cW               7701        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5500        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2079         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.475        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2025_NP_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5468    712     1372    38      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1395    182     350     10
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5702    735     1417    39      pc/h

Volume ratio, VR                               0.273

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        735         lc/h
Weaving lane changes, LCW                  1106        lc/h
Non-weaving vehicle index, INW             896
Non-weaving lane change, LCNW              1117        lc/h
Total lane changes, LCALL                  2223        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.345
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             55.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.4        mi/h
Weaving segment density, D                 35.6        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.894
Weaving segment flow rate, v               7893        pc/h
Weaving segment capacity, cW               8665        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3726        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2214         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.894        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2025_NP_AM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2101    409     199     11      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                541     105     51      3
Trucks and buses                       6       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2235    427     207     11      pc/h

Volume ratio, VR                               0.220

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        207         lc/h
Weaving lane changes, LCW                  428         lc/h
Non-weaving vehicle index, INW             314
Non-weaving lane change, LCNW              969         lc/h
Total lane changes, LCALL                  1397        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.170
Average weaving speed, SW                  62.0        mi/h
Average non-weaving speed, SNW             63.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   63.5        mi/h
Weaving segment density, D                 15.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.440
Weaving segment flow rate, v               2880        pc/h
Weaving segment capacity, cW               6366        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4743         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2190         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.440        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2025_NP_PM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1740    410     180     10      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                458     108     47      3
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1899    437     192     11      pc/h

Volume ratio, VR                               0.248

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   0.7         int/mi
Minimum RF lane changes, LCRF             0           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       192         lc/h
Weaving lane changes, LCW                 413         lc/h
Non-weaving vehicle index, INW            267
Non-weaving lane change, LCNW             900         lc/h
Total lane changes, LCALL                 1313        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.162
Average weaving speed, SW                 62.3        mi/h
Average non-weaving speed, SNW            64.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.0        mi/h
Weaving segment density, D                 13.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.393
Weaving segment flow rate, v               2539        pc/h
Weaving segment capacity, cW               6272        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5030         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2168         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.393        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2025_NP_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3486    684     874     36      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                898     176     225     9
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3655    714     912     38      pc/h

Volume ratio, VR                               0.306

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1626        lc/h
Weaving lane changes, LCW                  1898        lc/h
Non-weaving vehicle index, INW             886
Non-weaving lane change, LCNW              1267        lc/h
Total lane changes, LCALL                  3165        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.325
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             49.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.7        mi/h
Weaving segment density, D                 34.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.837
Weaving segment flow rate, v               5319        pc/h
Weaving segment capacity, cW               6257        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5645        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2121         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.837        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2025_NP_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2410    370     660     20      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                634     97      174     5
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2618    394     703     21      pc/h

Volume ratio, VR                               0.294

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.2         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       1097        lc/h
Weaving lane changes, LCW                 1369        lc/h
Non-weaving vehicle index, INW            633
Non-weaving lane change, LCNW             1050        lc/h
Total lane changes, LCALL                 2419        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.263
Average weaving speed, SW                 58.6        mi/h
Average non-weaving speed, SNW            56.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                 56.8        mi/h
Weaving segment density, D               21.9        pc/mi/ln
Level of service, LOS                    C
Weaving segment v/c ratio                0.588
Weaving segment flow rate, v             3736        pc/h
Weaving segment capacity, cW             6195        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5516         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2131         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.588        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2025_NP_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6630    560     680     30      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1709    144     175     8
Trucks and buses                       4       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.935   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7314    600     719     32      pc/h

Volume ratio, VR                               0.152

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        600         lc/h
Weaving lane changes, LCW                  1006        lc/h
Non-weaving vehicle index, INW             1322
Non-weaving lane change, LCNW              1617        lc/h
Total lane changes, LCALL                  2623        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.351
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             55.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 39.1        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.937
Weaving segment flow rate, v               8665        pc/h
Weaving segment capacity, cW               8688        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2488        1500         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2325         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.937        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2025_NP_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6602    408     518     22      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1737    107     136     6
Trucks and buses                       5       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.922   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7540    447     559     24      pc/h

Volume ratio, VR                               0.117

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        447         lc/h
Weaving lane changes, LCW                  853         lc/h
Non-weaving vehicle index, INW             1362
Non-weaving lane change, LCNW              1769        lc/h
Total lane changes, LCALL                  2622        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.351
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 38.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.917
Weaving segment flow rate, v               8570        pc/h
Weaving segment capacity, cW               8667        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2143         1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2351         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.917        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2025_NP_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5993    1057    627     33      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1545    272     162     9
Trucks and buses                       8       1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.993   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6438    1097    654     34      pc/h

Volume ratio, VR                               0.213

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1751        lc/h
Weaving lane changes, LCW                  2058        lc/h
Non-weaving vehicle index, INW             712
Non-weaving lane change, LCNW              1159        lc/h
Total lane changes, LCALL                  3217        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.527
Average weaving speed, SW                  51.0        mi/h
Average non-weaving speed, SNW             47.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.2        mi/h
Weaving segment density, D                 42.6        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.973
Weaving segment flow rate, v               8223        pc/h
Weaving segment capacity, cW               8165        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4669        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2127         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.973        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2025_NP_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5542    1428    608     32      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1458    376     160     8
Trucks and buses                       8       51      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.796   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6079    1889    648     34      pc/h

Volume ratio, VR                               0.293

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN                   lc/h
Weaving lane changes, LCW                             lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                         lc/h
Total lane changes, LCALL                             lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                             mi/h
Average non-weaving speed, SNW                        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.020
Weaving segment flow rate, v               8650        pc/h
Weaving segment capacity, cW               7853        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5512        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2063         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.020        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2025_NP_AM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6613    237     527     13      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1704    61      136     3
Trucks and buses                       4       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6968    247     547     14      pc/h

Volume ratio, VR                               0.102

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        247         lc/h
Weaving lane changes, LCW                  810         lc/h
Non-weaving vehicle index, INW             977
Non-weaving lane change, LCNW              1234        lc/h
Total lane changes, LCALL                  2044        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.305
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             60.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.4        mi/h
Weaving segment density, D                 25.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.661
Weaving segment flow rate, v               7776        pc/h
Weaving segment capacity, cW               11522       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1994        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2355         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.661        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2025_NP_PM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5986    504     494     26      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1575    133     130     7
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6471    537     526     28      pc/h

Volume ratio, VR                               0.141

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        537         lc/h
Weaving lane changes, LCW                  1100        lc/h
Non-weaving vehicle index, INW             910
Non-weaving lane change, LCNW              1135        lc/h
Total lane changes, LCALL                  2235        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.327
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             58.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.5        mi/h
Weaving segment density, D                 25.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.652
Weaving segment flow rate, v               7562        pc/h
Weaving segment capacity, cW               11324       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2372        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2325         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.652        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2025_NP_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4269    1101    981     109     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1100    284     253     28
Trucks and buses                       4       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4498    1149    1029    114     pc/h

Volume ratio, VR                               0.321

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       1149        lc/h
Weaving lane changes, LCW                 1644        lc/h
Non-weaving vehicle index, INW            530
Non-weaving lane change, LCNW             610         lc/h
Total lane changes, LCALL                 2254        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.384
Average weaving speed, SW                 54.7        mi/h
Average non-weaving speed, SNW            55.2        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.1        mi/h
Weaving segment density, D                 24.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.629
Weaving segment flow rate, v               6790        pc/h
Weaving segment capacity, cW               10582       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4242        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2163         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.629        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2025_NP_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4531    909     819     91      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1192    239     216     24
Trucks and buses                       5       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4898    968     881     97      pc/h

Volume ratio, VR                               0.270

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        968         lc/h
Weaving lane changes, LCW                  1463        lc/h
Non-weaving vehicle index, INW             574
Non-weaving lane change, LCNW              689         lc/h
Total lane changes, LCALL                  2152        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.371
Average weaving speed, SW                  55.1        mi/h
Average non-weaving speed, SNW             56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.1        mi/h
Weaving segment density, D                 24.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.623
Weaving segment flow rate, v               6844        pc/h
Weaving segment capacity, cW               10735       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3700         1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                   2400         2205         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                1.00         0.623        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2025_NP_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5736    594     484     26      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1478    153     125     7
Trucks and buses                       13      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6310    620     507     27      pc/h

Volume ratio, VR                               0.151

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1127        lc/h
Weaving lane changes, LCW                  1842        lc/h
Non-weaving vehicle index, INW             1217
Non-weaving lane change, LCNW              1643        lc/h
Total lane changes, LCALL                  3485        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.303
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             54.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.1        mi/h
Weaving segment density, D                 27.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.662
Weaving segment flow rate, v               7464        pc/h
Weaving segment capacity, cW               10656       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4041        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2274         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.662        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2025_NP_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7124    756     456     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1875    199     120     6
Trucks and buses                       13      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8001    805     486     26      pc/h

Volume ratio, VR                               0.139

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1291        lc/h
Weaving lane changes, LCW                  2006        lc/h
Non-weaving vehicle index, INW             1541
Non-weaving lane change, LCNW              2543        lc/h
Total lane changes, LCALL                  4549        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.374
Average weaving speed, SW                  55.0        mi/h
Average non-weaving speed, SNW             51.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  52.2        mi/h
Weaving segment density, D                35.7        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.822
Weaving segment flow rate, v              9318        pc/h
Weaving segment capacity, cW              10703       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3918         2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2284         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.822        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2025_NP_AM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3967    513     1033    57      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1022    132     266     15
Trucks and buses                       11      2       8       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.960   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4323    535     1110    59      pc/h

Volume ratio, VR                               0.273

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        535         lc/h
Weaving lane changes, LCW                  1159        lc/h
Non-weaving vehicle index, INW             629
Non-weaving lane change, LCNW              1051        lc/h
Total lane changes, LCALL                  2210        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.240
Average weaving speed, SW                  59.4        mi/h
Average non-weaving speed, SNW             60.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.1        mi/h
Weaving segment density, D                 20.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.534
Weaving segment flow rate, v               6027        pc/h
Weaving segment capacity, cW               10747       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3729        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2271         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.534        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2025_NP_PM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            Reservoir Rd to SR-71
Analysis Year:               2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   2050        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                     Volume Components
                                    VFF     VRF     VFR     VRR
Volume, V                            4724    486     976     54      veh/h
Peak hour factor, PHF                0.95    0.95    0.95    0.95
Peak 15-min volume, v15              1243    128     257     14
Trucks and buses                     8       1       8       2         %
Recreational vehicles                1       1       1       1         %
Trucks and buses PCE, ET             1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER         1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV        0.960   0.993   0.960   0.988
Driver population adjustment, fP     1.00    1.00    1.00    1.00
Flow rate, v                         5181    515     1071    58      pc/h

Volume ratio, VR                             0.232

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL           3           ln
Interchange density, ID                 0.7         int/mi
Minimum RF lane changes, LCRF           1           lc/pc
Minimum FR lane changes, LCFR           0           lc/pc
Minimum RR lane changes, LCRR                       lc/pc

Minimum weaving lane changes, LCMIN     515         lc/h
Weaving lane changes, LCW               1139        lc/h
Non-weaving vehicle index, INW          752
Non-weaving lane change, LCNW           1227        lc/h
Total lane changes, LCALL               2366        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W             0.253
Average weaving speed, SW               58.9        mi/h
Average non-weaving speed, SNW          59.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.5        mi/h
Weaving segment density, D                 22.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.594
Weaving segment flow rate, v               6825        pc/h
Weaving segment capacity, cW               11056       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3304        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2304         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.594        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2025_NP_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5912    598     778     32      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1524    154     201     8
Trucks and buses                       5       3       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6259    627     808     33      pc/h

Volume ratio, VR                               0.186

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   0.8         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       627         lc/h
Weaving lane changes, LCW                 1001        lc/h
Non-weaving vehicle index, INW            856
Non-weaving lane change, LCNW             1447        lc/h
Total lane changes, LCALL                 2448        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.301
Average weaving speed, SW                 57.3        mi/h
Average non-weaving speed, SNW            56.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 34.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.837
Weaving segment flow rate, v               7727        pc/h
Weaving segment capacity, cW               9013        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2825        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2314         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.837        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2025_NP_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5670    750     1130    40      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1524    202     304     11
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6231    816     1230    44      pc/h

Volume ratio, VR                               0.246

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        816         lc/h
Weaving lane changes, LCW                  1190        lc/h
Non-weaving vehicle index, INW             853
Non-weaving lane change, LCNW              1444        lc/h
Total lane changes, LCALL                  2634        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                0.319
Average weaving speed, SW                  56.7        mi/h
Average non-weaving speed, SNW             54.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.7        mi/h
Weaving segment density, D                 38.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.920
Weaving segment flow rate, v               8321        pc/h
Weaving segment capacity, cW               8873        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3445        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2266         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.920        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2025_NP_AM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6434    596     256     14      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1658    154     66      4
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6845    622     267     15      pc/h

Volume ratio, VR                               0.115

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        889         lc/h
Weaving lane changes, LCW                  1229        lc/h
Non-weaving vehicle index, INW             480
Non-weaving lane change, LCNW              830         lc/h
Total lane changes, LCALL                  2059        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.529
Average weaving speed, SW                  51.0        mi/h
Average non-weaving speed, SNW             56.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 27.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.715
Weaving segment flow rate, v               7749        pc/h
Weaving segment capacity, cW               10523       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3683        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2172         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.715        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2025_NP_PM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4281    559     389     21      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1151    150     105     6
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4728    608     423     23      pc/h

Volume ratio, VR                               0.178

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1031        lc/h
Weaving lane changes, LCW                  1371        lc/h
Non-weaving vehicle index, INW             333
Non-weaving lane change, LCNW              395         lc/h
Total lane changes, LCALL                  1766        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.469
Average weaving speed, SW                  52.4        mi/h
Average non-weaving speed, SNW             57.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.2        mi/h
Weaving segment density, D                 20.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.546
Weaving segment flow rate, v               5782        pc/h
Weaving segment capacity, cW               10336       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4316        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2124         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.546        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2025_NP_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7619    681     351     39      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1964    176     90      10
Trucks and buses                       4       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8027    763     366     41      pc/h

Volume ratio, VR                               0.123

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        366         lc/h
Weaving lane changes, LCW                  750         lc/h
Non-weaving vehicle index, INW             716
Non-weaving lane change, LCNW              1100        lc/h
Total lane changes, LCALL                  1850        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.466
Average weaving speed, SW                  52.5        mi/h
Average non-weaving speed, SNW             58.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  57.7        mi/h
Weaving segment density, D                31.9        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.800
Weaving segment flow rate, v              9197        pc/h
Weaving segment capacity, cW              11199       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2196        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2288        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.800       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2025_NP_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              10726   854     414     46      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2883    230     111     12
Trucks and buses                       2       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.988   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           11672   998     451     50      pc/h

Volume ratio, VR                               0.110

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                                   mi/h
Weaving segment density, D                                 pc/mi/ln
Level of service, LOS                   F
Weaving segment v/c ratio               1.140
Weaving segment flow rate, v            13171       pc/h
Weaving segment capacity, cW            11354       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2071         740         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2298         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         1.140        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2025_NP_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6506    724     304     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1677    187     78      4
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6855    755     317     17      pc/h

Volume ratio, VR                               0.135

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        755         lc/h
Weaving lane changes, LCW                  943         lc/h
Non-weaving vehicle index, INW             412
Non-weaving lane change, LCNW              970         lc/h
Total lane changes, LCALL                  1913        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.564
Average weaving speed, SW                  50.2        mi/h
Average non-weaving speed, SNW             55.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.3        mi/h
Weaving segment density, D                 36.6        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.876
Weaving segment flow rate, v               7944        pc/h
Weaving segment capacity, cW               8881        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2316        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2269         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.876        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                      HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2025_NP_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6007    973     323     17      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1615    262     87      5
Trucks and buses                       2       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.988   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6537    1059    351     18      pc/h

Volume ratio, VR                               0.177

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1059        lc/h
Weaving lane changes, LCW                  1247        lc/h
Non-weaving vehicle index, INW             393
Non-weaving lane change, LCNW              905         lc/h
Total lane changes, LCALL                  2152        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.619
Average weaving speed, SW                  49.0        mi/h
Average non-weaving speed, SNW             52.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.1        mi/h
Weaving segment density, D                 38.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.890
Weaving segment flow rate, v               7965        pc/h
Weaving segment capacity, cW               8842        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2737        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2237         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.890        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2025_NP_AM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2206    104     964     6       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                593     28      259     2
Trucks and buses                       5       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2436    113     1059    7       pc/h

Volume ratio, VR                               0.324

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        113         lc/h
Weaving lane changes, LCW                  570         lc/h
Non-weaving vehicle index, INW             177
Non-weaving lane change, LCNW              326         lc/h
Total lane changes, LCALL                  896         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.155
Average weaving speed, SW                  62.6        mi/h
Average non-weaving speed, SNW             65.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.7        mi/h
Weaving segment density, D                 11.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.336
Weaving segment flow rate, v               3615        pc/h
Weaving segment capacity, cW               10512       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4279        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2184         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.336        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2025_NP_PM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3405    85      765     5       veh/h
Peak hour factor, PHF                  0.94    0.94    0.94    0.94
Peak 15-min volume, v15                906     23      203     1
Trucks and buses                       4       1       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.993   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3702    91      836     5       pc/h

Volume ratio, VR                               0.200

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   0.5         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       91          lc/h
Weaving lane changes, LCW                 548         lc/h
Non-weaving vehicle index, INW            269
Non-weaving lane change, LCNW             587         lc/h
Total lane changes, LCALL                 1135        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.186
Average weaving speed, SW                 61.4        mi/h
Average non-weaving speed, SNW            64.9        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  64.2        mi/h
Weaving segment density, D                14.4        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.406
Weaving segment flow rate, v              4634        pc/h
Weaving segment capacity, cW              11174       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2971        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2284         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.406        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2025_NP_AM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3603    437     57      3       veh/h
Peak hour factor, PHF                  0.86    0.86    0.86    0.86
Peak 15-min volume, v15                1047    127     17      1
Trucks and buses                       4       4       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4282    519     67      4       pc/h

Volume ratio, VR                               0.120

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        586         lc/h
Weaving lane changes, LCW                  967         lc/h
Non-weaving vehicle index, INW             236
Non-weaving lane change, LCNW              516         lc/h
Total lane changes, LCALL                  1483        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.286
Average weaving speed, SW                  57.8        mi/h
Average non-weaving speed, SNW             61.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.7        mi/h
Weaving segment density, D                 16.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.443
Weaving segment flow rate, v               4872        pc/h
Weaving segment capacity, cW               10753       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3737        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2198         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.443        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2025_NP_PM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2517    1543    123     7       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                649     398     32      2
Trucks and buses                       4       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2652    1626    128     7       pc/h

Volume ratio, VR                               0.397

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1754        lc/h
Weaving lane changes, LCW                  2135        lc/h
Non-weaving vehicle index, INW             146
Non-weaving lane change, LCNW              181         lc/h
Total lane changes, LCALL                  2316        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.407
Average weaving speed, SW                  54.1        mi/h
Average non-weaving speed, SNW             53.1        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.5        mi/h
Weaving segment density, D                 16.5        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.731
Weaving segment flow rate, v               4413        pc/h
Weaving segment capacity, cW               5908        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            6653        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1976         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.731        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2025_NP_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2235    2005    315     35      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                607     545     86      10
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2495    2249    347     39      pc/h

Volume ratio, VR                               0.506

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.080
Weaving segment flow rate, v               5130        pc/h
Weaving segment capacity, cW               4618        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           7897         2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         1957        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         1.080       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2025_NP_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2370    1710    540     60      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                611     441     139     15
Trucks and buses                       4       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2497    1819    563     63      pc/h

Volume ratio, VR                               0.482

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2382        lc/h
Weaving lane changes, LCW                  2843        lc/h
Non-weaving vehicle index, INW             538
Non-weaving lane change, LCNW              895         lc/h
Total lane changes, LCALL                  3738        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.356
Average weaving speed, SW                  55.6        mi/h
Average non-weaving speed, SNW             46.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   50.7        mi/h
Weaving segment density, D                 24.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.990
Weaving segment flow rate, v               4942        pc/h
Weaving segment capacity, cW               4872        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7617        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1978         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.990        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2025_NP_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5526    414     584     46      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1502    113     159     13
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6109    462     642     51      pc/h

Volume ratio, VR                               0.152

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        462         lc/h
Weaving lane changes, LCW                  943         lc/h
Non-weaving vehicle index, INW             616
Non-weaving lane change, LCNW              983         lc/h
Total lane changes, LCALL                  1926        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.318
Average weaving speed, SW                  56.7        mi/h
Average non-weaving speed, SNW             59.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.2        mi/h
Weaving segment density, D                 24.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.630
Weaving segment flow rate, v               7264        pc/h
Weaving segment capacity, cW               11337       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2485        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.630        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2025_NP_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8321    549     999     61      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2145    141     257     16
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8724    581     1042    64      pc/h

Volume ratio, VR                               0.156

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        581         lc/h
Weaving lane changes, LCW                  1062        lc/h
Non-weaving vehicle index, INW             879
Non-weaving lane change, LCNW              1525        lc/h
Total lane changes, LCALL                  2587        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.401
Average weaving speed, SW                  54.3        mi/h
Average non-weaving speed, SNW             55.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.6        mi/h
Weaving segment density, D                 37.5        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.904
Weaving segment flow rate, v               10411       pc/h
Weaving segment capacity, cW               11323       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2524        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2302         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.904        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2025_NP_AM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4987    513     533     27      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1355    139     145     7
Trucks and buses                       5       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5567    564     589     30      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                 3           ln
Interchange density, ID                       1.0         int/mi
Minimum RF lane changes, LCRF                 1           lc/pc
Minimum FR lane changes, LCFR                 0           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           564         lc/h
Weaving lane changes, LCW                     962         lc/h
Non-weaving vehicle index, INW                476
Non-weaving lane change, LCNW                 651         lc/h
Total lane changes, LCALL                     1613        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.375
Average weaving speed, SW                     55.0        mi/h
Average non-weaving speed, SNW                59.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.6        mi/h
Weaving segment density, D                 23.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.599
Weaving segment flow rate, v               6750        pc/h
Weaving segment capacity, cW               11003       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2674        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2260         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.599        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2025_NP_PM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5695    845     895     45      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1468    218     231     12
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6000    882     934     47      pc/h

Volume ratio, VR                               0.231

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        882         lc/h
Weaving lane changes, LCW                  1280        lc/h
Non-weaving vehicle index, INW             514
Non-weaving lane change, LCNW              743         lc/h
Total lane changes, LCALL                  2023        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.448
Average weaving speed, SW                  53.0        mi/h
Average non-weaving speed, SNW             56.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 28.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.712
Weaving segment flow rate, v               7863        pc/h
Weaving segment capacity, cW               10827       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3289         850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2213         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.712        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2025_NP_AM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3210    370     770     20      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                872     101     209     5
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3548    407     847     22      pc/h

Volume ratio, VR                               0.260

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        407         lc/h
Weaving lane changes, LCW                  1446        lc/h
Non-weaving vehicle index, INW             793
Non-weaving lane change, LCNW              583         lc/h
Total lane changes, LCALL                  2029        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.243
Average weaving speed, SW                  59.2        mi/h
Average non-weaving speed, SNW             63.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.1        mi/h
Weaving segment density, D                 12.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.359
Weaving segment flow rate, v               4824        pc/h
Weaving segment capacity, cW               13239       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3592        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2267         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.359        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2025_NP_PM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5662    1008    798     42      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1459    260     206     11
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5936    1052    833     44      pc/h

Volume ratio, VR                               0.240

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1052        lc/h
Weaving lane changes, LCW                  2091        lc/h
Non-weaving vehicle index, INW             1328
Non-weaving lane change, LCNW              1161        lc/h
Total lane changes, LCALL                  3252        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.353
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             56.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 23.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.575
Weaving segment flow rate, v               7865        pc/h
Weaving segment capacity, cW               13469       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3380        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2283         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.575        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2025_NP_AM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6197    923     323     17      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1597    238     83      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6497    963     337     18      pc/h

Volume ratio, VR                               0.166

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1300        lc/h
Weaving lane changes, LCW                  2091        lc/h
Non-weaving vehicle index, INW             938
Non-weaving lane change, LCNW              837         lc/h
Total lane changes, LCALL                  2928        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.457
Average weaving speed, SW                  52.8        mi/h
Average non-weaving speed, SNW             54.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.1        mi/h
Weaving segment density, D                 24.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.600
Weaving segment flow rate, v               7815        pc/h
Weaving segment capacity, cW               12808       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4195        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2171         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.600        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2025_NP_PM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4629    771     541     29      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1181    197     138     7
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4804    796     559     30      pc/h

Volume ratio, VR                               0.219

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1355        lc/h
Weaving lane changes, LCW                  2146        lc/h
Non-weaving vehicle index, INW             696
Non-weaving lane change, LCNW              491         lc/h
Total lane changes, LCALL                  2637        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.421
Average weaving speed, SW                  53.7        mi/h
Average non-weaving speed, SNW             55.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.9        mi/h
Weaving segment density, D                 18.8        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.565
Weaving segment flow rate, v               6189        pc/h
Weaving segment capacity, cW               10779       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4731        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2130         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.565        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2025_NP_AM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs_______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   800         ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               6850    190     380     10      veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 1765    49      98      3
Trucks and buses                        5       4       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.974   0.978   0.988   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            7253    200     396     10      pc/h

Volume ratio, VR                                0.076

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         200         lc/h
Weaving lane changes, LCW                   580         lc/h
Non-weaving vehicle index, INW              581
Non-weaving lane change, LCNW               967         lc/h
Total lane changes, LCALL                   1547        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                 0.380
Average weaving speed, SW                   54.8        mi/h
Average non-weaving speed, SNW              61.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.5        mi/h
Weaving segment density, D                 26.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.676
Weaving segment flow rate, v               7859        pc/h
Weaving segment capacity, cW               11334       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           1741         800         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2328         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.676        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2025_NP_PM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5555    475     545     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1417    121     139     6
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5821    493     563     26      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        493         lc/h
Weaving lane changes, LCW                  873         lc/h
Non-weaving vehicle index, INW             468
Non-weaving lane change, LCNW              675         lc/h
Total lane changes, LCALL                  1548        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.380
Average weaving speed, SW                  54.8        mi/h
Average non-weaving speed, SNW             59.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.0        mi/h
Weaving segment density, D                 23.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.609
Weaving segment flow rate, v               6903        pc/h
Weaving segment capacity, cW               11052       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2495        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2270         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.609        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2025_NP_AM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5570    90      1080    10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1436    23      278     3
Trucks and buses                       7       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5955    94      1138    10      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               2           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         188         lc/h
Weaving lane changes, LCW                   694         lc/h
Non-weaving vehicle index, INW              644
Non-weaving lane change, LCNW               997         lc/h
Total lane changes, LCALL                   1691        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.270
Average weaving speed, SW                   58.3        mi/h
Average non-weaving speed, SNW              61.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.1        mi/h
Weaving segment density, D                 23.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.628
Weaving segment flow rate, v               7197        pc/h
Weaving segment capacity, cW               11080       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2678        1350         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.628        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2025_NP_PM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5495    225     795     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1402    57      203     6
Trucks and buses                       6       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5787    232     825     26      pc/h

Volume ratio, VR                               0.154

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        464         lc/h
Weaving lane changes, LCW                  970         lc/h
Non-weaving vehicle index, INW             628
Non-weaving lane change, LCNW              966         lc/h
Total lane changes, LCALL                  1936        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.300
Average weaving speed, SW                  57.3        mi/h
Average non-weaving speed, SNW             60.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.6        mi/h
Weaving segment density, D                 23.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.596
Weaving segment flow rate, v               6870        pc/h
Weaving segment capacity, cW               11202       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2504        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2312         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.596        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2025_NP_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5643    657     1157    73      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1454    169     298     19
Trucks and buses                       12      2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6178    685     1219    76      pc/h

Volume ratio, VR                               0.233

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        685         lc/h
Weaving lane changes, LCW                  818         lc/h
Non-weaving vehicle index, INW             281
Non-weaving lane change, LCNW              762         lc/h
Total lane changes, LCALL                  1580        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.609
Average weaving speed, SW                  49.2        mi/h
Average non-weaving speed, SNW             55.3        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.7        mi/h
Weaving segment density, D                 38.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.945
Weaving segment flow rate, v               8158        pc/h
Weaving segment capacity, cW               8215        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3314        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2181         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.945        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2025_NP_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4388    792     1972    88      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1119    202     503     22
Trucks and buses                       9       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4688    818     2057    91      pc/h

Volume ratio, VR                               0.376

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         818         lc/h
Weaving lane changes, LCW                   951         lc/h
Non-weaving vehicle index, INW              215
Non-weaving lane change, LCNW               458         lc/h
Total lane changes, LCALL                   1409        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.556
Average weaving speed, SW                   50.3        mi/h
Average non-weaving speed, SNW              54.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.1        mi/h
Weaving segment density, D                 36.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.937
Weaving segment flow rate, v               7654        pc/h
Weaving segment capacity, cW               7885        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4843        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2064         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.937        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2025_NP_AM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3126    294     1064    16      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                849     80      289     4
Trucks and buses                       5       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3490    333     1170    18      pc/h

Volume ratio, VR                               0.300

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1503        lc/h
Weaving lane changes, LCW                  1803        lc/h
Non-weaving vehicle index, INW             337
Non-weaving lane change, LCNW              603         lc/h
Total lane changes, LCALL                  2406        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.391
Average weaving speed, SW                  54.5        mi/h
Average non-weaving speed, SNW             53.2        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.6        mi/h
Weaving segment density, D                 23.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.628
Weaving segment flow rate, v               5011        pc/h
Weaving segment capacity, cW               7791        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5583        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2065         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.628        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2025_NP_PM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4508    152     702     8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1162    39      181     2
Trucks and buses                       5       6       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4773    162     740     8       pc/h

Volume ratio, VR                               0.159

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        902         lc/h
Weaving lane changes, LCW                  1202        lc/h
Non-weaving vehicle index, INW             459
Non-weaving lane change, LCNW              865         lc/h
Total lane changes, LCALL                  2067        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.347
Average weaving speed, SW                  55.8        mi/h
Average non-weaving speed, SNW             56.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.5        mi/h
Weaving segment density, D                 25.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.653
Weaving segment flow rate, v               5683        pc/h
Weaving segment capacity, cW               8479        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4119        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400        2177         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00        0.653        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2025_NP_AM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5156    414     494     46      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1329    107     127     12
Trucks and buses                       5       39      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.835   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5459    511     515     48      pc/h

Volume ratio, VR                               0.157

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        511         lc/h
Weaving lane changes, LCW                  960         lc/h
Non-weaving vehicle index, INW             551
Non-weaving lane change, LCNW              713         lc/h
Total lane changes, LCALL                  1673        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.339
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             60.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.4        mi/h
Weaving segment density, D                 22.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.567
Weaving segment flow rate, v               6533        pc/h
Weaving segment capacity, cW               11115       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2536        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2283         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.567        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2025_NP_PM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5098    792     822     88      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1301    202     210     22
Trucks and buses                       5       28      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.876   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5342    923     849     91      pc/h

Volume ratio, VR                               0.246

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        923         lc/h
Weaving lane changes, LCW                  1372        lc/h
Non-weaving vehicle index, INW             543
Non-weaving lane change, LCNW              698         lc/h
Total lane changes, LCALL                  2070        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.401
Average weaving speed, SW                  54.3        mi/h
Average non-weaving speed, SNW             56.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 25.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.644
Weaving segment flow rate, v               7205        pc/h
Weaving segment capacity, cW               10774       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3445        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2213         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.644        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2025_NP_AM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4840    460     180     10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1247    119     46      3
Trucks and buses                       5       8       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.960   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5124    494     202     10      pc/h

Volume ratio, VR                               0.119

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        202         lc/h
Weaving lane changes, LCW                  526         lc/h
Non-weaving vehicle index, INW             554
Non-weaving lane change, LCNW              1019        lc/h
Total lane changes, LCALL                  1545        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.251
Average weaving speed, SW                  59.0        mi/h
Average non-weaving speed, SNW             61.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.2        mi/h
Weaving segment density, D                 23.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.655
Weaving segment flow rate, v               5830        pc/h
Weaving segment capacity, cW               8639        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3729        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2218         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.655        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2025_NP_PM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2025 NP
Description:  World Logistics Center - 2025 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5367    803     123     7       veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1369    205     31      2
Trucks and buses                       4       2       20      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.907   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5597    829     138     7       pc/h

Volume ratio, VR                               0.147

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        138         lc/h
Weaving lane changes, LCW                  462         lc/h
Non-weaving vehicle index, INW             605
Non-weaving lane change, LCNW              1116        lc/h
Total lane changes, LCALL                  1578        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.256
Average weaving speed, SW                  58.8        mi/h
Average non-weaving speed, SNW             61.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.8        mi/h
Weaving segment density, D                 27.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.748
Weaving segment flow rate, v               6571        pc/h
Weaving segment capacity, cW               8599        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4003        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2197         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.748        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2025_NP_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis_________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data__________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9500           vph

__________________________________On Ramp Data__________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              430            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     660            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9500        430         660       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2554        113         174       v
Trucks and buses                       4           6           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.969       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10440       467         710       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.159   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1664   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     10907         9600            Yes
      FO
     v  or v               4388 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 5040                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                5507          4600                   Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   41.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 1.212
                                              S
Space mean speed in ramp influence area,     S  = 36.1    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 45.2    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2025_NP_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9220           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1050           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     290            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9220        1050        290       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2352        276         76        v
Trucks and buses                       3           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9568        1113        307       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.079   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  753    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     10681         9600            Yes
      FO
     v  or v               4407 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 4168                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                5281          4600                   Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   39.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 1.018
                                              S
Space mean speed in ramp influence area,     S  = 41.5    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 49.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2025_NP_AM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           5960          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              520           vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     180           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5960        520         180       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                1602        137         47        v
Trucks and buses                       12          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6806        551         192       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.149   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  740    pc/h
                   12   F   FM

_______________________________Capacity Checks__________________________________

                           Actual        Maximum         LOS F?
     v                     5520          12000           No
      FO
     v  or v               2114 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1987                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                2538          4600                  No
      R12
_________________Level of Service Determination (if not F)______________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation___________________________________

Intermediate speed variable,                 M  = 0.265
                                              S
Space mean speed in ramp influence area,     S  = 62.6    mph
                                              R
Space mean speed in outer lanes,             S  = 66.4    mph
                                              0
Space mean speed for all vehicles,           S  = 64.6    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2025_NP_PM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           7620          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              1430          vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7620        1430        90        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1944        376         24        v
Trucks and buses                       8           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8102        1516        95        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.028   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  164    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7309          12000           No
      FO
     v  or v               2814 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2317                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3833          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   25.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.396
                                              S
Space mean speed in ramp influence area,     S  = 58.9    mph
                                              R
Space mean speed in outer lanes,             S  = 65.5    mph
                                              0
Space mean speed for all vehicles,           S  = 61.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2025_NP_AM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2120           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              570            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     120            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2120        570         120       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                570         150         32        v
Trucks and buses                       8           8           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.960       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2375        625         130       pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.672   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1801   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2375          7200            No
      Fi   F
     v  = v - v            1750          7200            No
      FO   F   R
     v                     625           2000            No
      R
     v  or v               574  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1801                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1801          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   6.2     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.484
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2025_NP_PM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2910           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              860            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     320            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2910        860         320       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                742         226         84        v
Trucks and buses                       3           4           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.978       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3020        925         341       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.642   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2270   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3020          7200            No
      Fi   F
     v  = v - v            2095          7200            No
      FO   F   R
     v                     925           2000            No
      R
     v  or v               750  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2270                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2270          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   10.3    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.511
                                              S
Space mean speed in ramp influence area,     S  = 55.7    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 59.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2025_NP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1680           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              120            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     570            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1680        120         570       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                452         32          150       v
Trucks and buses                       8           5           8         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.974       0.960
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1882        130         625       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    302.77  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1140   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2012          7200            No
      FO
     v  or v               742  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1140                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1270          4600                 No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   9.1     pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.265
                                              S
Space mean speed in ramp influence area,     S  = 62.6    mph
                                              R
Space mean speed in outer lanes,             S  = 69.1    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2025_NP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2470           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              320            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     860            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2470        320         860       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                630         84          226       v
Trucks and buses                       3           2           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.988       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2563        341         925       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    493.66  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1552   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2904          7200            No
      FO
     v  or v               1011 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1552                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area______________________
                      Actual        Max Desirable        Violation?
     v                1893          4600                 No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.277
                                              S
Space mean speed in ramp influence area,     S  = 62.2    mph
                                              R
Space mean speed in outer lanes,             S  = 68.2    mph
                                              0
Space mean speed for all vehicles,           S  = 64.2    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2025_NP_AM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1800           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              90             vph
Length of first accel/decel lane            500            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     60             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1800        90          60        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                484         24          16        v
Trucks and buses                       8           61          9         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.765       0.955
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2017        124         66        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.704   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1456   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2017          7200            No
      Fi   F
     v  = v - v            1893          7200            No
      FO   F   R
     v                     124           2000            No
      R
     v  or v               561  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 1456                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1456          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   12.3    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.439
                                              S
Space mean speed in ramp influence area,     S  = 57.7    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.0    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2025_NP_PM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2790           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              70             vph
Length of first accel/decel lane            500            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     110            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2790        70          110       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                712         18          29        v
Trucks and buses                       3           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2895        74          117       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.684   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2004   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2895          7200            No
      Fi   F
     v  = v - v            2821          7200            No
      FO   F   R
     v                     74            2000            No
      R
     v  or v               891  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2004                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2004          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   17.0    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.435
                                              S
Space mean speed in ramp influence area,     S  = 57.8    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.6    mph
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2025_NP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1870           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              60             vph
Length of first accel/decel lane            1400           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1870        60          90        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                503         16          24        v
Trucks and buses                       8           9           61        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.955       0.765
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2095        66          124       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    512.25  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1292   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2161          7200            No
      FO
     v  or v               803  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1292                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1358          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   7.3     pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.238
                                              S
Space mean speed in ramp influence area,     S  = 63.3    mph
                                              R
Space mean speed in outer lanes,             S  = 68.9    mph
                                              0
Space mean speed for all vehicles,           S  = 65.3    mph
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2025_NP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2940           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              110            vph
Length of first accel/decel lane            1400           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     70             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2940        110         70        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                750         29          18        v
Trucks and buses                       3           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3051        117         74        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    727.75  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1882   pc/h
                   12   F   FM
_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3168          7200            No
      FO
     v  or v               1169 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1882                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1999          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   12.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.252
                                              S
Space mean speed in ramp influence area,     S  = 62.9    mph
                                              R
Space mean speed in outer lanes,             S  = 67.6    mph
                                              0
Space mean speed for all vehicles,           S  = 64.6    mph
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 23_2025_NP_AM_Peak_SR-60_EB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1930           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              340            vph
Length of first accel/decel lane            1200           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     10             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1930        340         10        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                519         89          3         v
Trucks and buses                       8           2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2162        362         11        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.689   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1603   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2162          7200            No
      Fi   F
     v  = v - v            1800          7200            No
      FO   F   R
     v                     362           2000            No
      R
     v  or v               559  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1603                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1603          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   7.2     pc/mi/ln
                        R                  12           D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.461
                                              S
Space mean speed in ramp influence area,     S  = 57.1    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 61.2    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 23_2025_NP_PM_Peak_SR-60_EB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3050           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              760            vph
Length of first accel/decel lane            1200           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     10             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3050        760         10        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                778         200         3         v
Trucks and buses                       3           3           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.983       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3165        814         11        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.643   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2327   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3165          7200            No
      Fi   F
     v  = v - v            2351          7200            No
      FO   F   R
     v                     814           2000            No
      R
     v  or v               838  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2327                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2327          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.5    pc/mi/ln
                        R                   12         D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.501
                                              S
Space mean speed in ramp influence area,     S  = 56.0    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.3    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2025_NP_AM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1370           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     340            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1370        10          340       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                368         3           89        v
Trucks and buses                       3           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1498        11          362       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    -71.27  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  882    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1509          7200            No
      FO
     v  or v               616  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 882                    (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                893           4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   9.9     pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.303
                                              S
Space mean speed in ramp influence area,     S  = 61.5    mph
                                              R
Space mean speed in outer lanes,             S  = 69.6    mph
                                              0
Space mean speed for all vehicles,           S  = 64.6    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2025_NP_PM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2210           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     760            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2210        10          760       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                564         3           200       v
Trucks and buses                       1           1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.993       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2271        11          814       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    94.15   (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1337   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2282          7200            No
      FO
     v  or v               934  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1337                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1348          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.308
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  = 68.4    mph
                                              0
Space mean speed for all vehicles,           S  = 64.1    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2025_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1810           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              10             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     520            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1810        10          520       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                466         3           137       v
Trucks and buses                       3           1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1898        11          557       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.712   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1355   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1898          7200            No
      Fi   F
     v  = v - v            1887          7200            No
      FO   F   R
     v                     11            2000            No
      R
     v  or v               543  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1355                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1355          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   14.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2025_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1580           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              50             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     390            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1580        50          390       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                416         13          103       v
Trucks and buses                       3           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1691        53          413       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.715   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1225   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1691          7200            No
      Fi   F
     v  = v - v            1638          7200            No
      FO   F   R
     v                     53            2000            No
      R
     v  or v               466  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1225                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1225          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   13.0    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.433
                                              S
Space mean speed in ramp influence area,     S  = 57.9    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 26_2025_NP_AM_Peak_SR-60_WB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2010           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              520            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     10             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2010        520         10        vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                518         137         3         v
Trucks and buses                       8           3           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.983       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2159        557         11        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    675.42  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.619   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1338   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2716          7200            No
      FO
     v  or v               821  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1338                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1895          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   10.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.242
                                              S
Space mean speed in ramp influence area,     S  = 63.2    mph
                                              R
Space mean speed in outer lanes,             S  = 68.8    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 26_2025_NP_PM_Peak_SR-60_WB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1650           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              390            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     50             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1650        390         50        vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                434         103         13        v
Trucks and buses                       10          1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1827        413         53        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    573.56  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.619   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1132   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2240          7200            No
      FO
     v  or v               695  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1132                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1545          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   7.9     pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.234
                                              S
Space mean speed in ramp influence area,     S  = 63.4    mph
                                              R
Space mean speed in outer lanes,             S  = 69.3    mph
                                              0
Space mean speed for all vehicles,           S  = 65.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 27_2025_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Theodore_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           2530          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              90            vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     70            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2530        90          70         vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                652         24          18         v
Trucks and buses                       7           5           30         %
Recreational vehicles                  1           1           1          %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.974       0.868
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2705        97          85         pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.688   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1891   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2705          7200            No
      Fi   F
     v  = v - v            2608          7200            No
      FO   F   R
     v                     97            2000            No
      R
     v  or v               814  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1891                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1891          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   7.0     pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.437
                                              S
Space mean speed in ramp influence area,     S  = 57.8    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 27_2025_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Theodore_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2040           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              40             vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     60             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2040        40          60        vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                537         11          16        v
Trucks and buses                       8           3           17        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.983       0.920
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2238        43          69        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.702   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1584   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2238          7200            No
      Fi   F
     v  = v - v            2195          7200            No
      FO   F   R
     v                     43            2000            No
      R
     v  or v               654  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1584                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1584          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   4.4     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.432
                                              S
Space mean speed in ramp influence area,     S  = 57.9    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2025_NP_AM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2430           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              70             vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2430        70          90        vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                626         18          24        v
Trucks and buses                       6           30          5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.868       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2585        85          97        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    376.98  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1554   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2670          7200            No
      FO
     v  or v               1031 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1554                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1639          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   12.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.282
                                              S
Space mean speed in ramp influence area,     S  = 62.1    mph
                                              R
Space mean speed in outer lanes,             S  = 68.1    mph
                                              0
Space mean speed for all vehicles,           S  = 64.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2025_NP_PM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1990           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              60             vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     40             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1990        60          40        vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                524         16          11        v
Trucks and buses                       8           17          3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.920       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2183        69          43        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    287.53  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1313   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2252          7200            No
      FO
     v  or v               870  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1313                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1382          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   10.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.277
                                              S
Space mean speed in ramp influence area,     S  = 62.2    mph
                                              R
Space mean speed in outer lanes,             S  = 68.7    mph
                                              0
Space mean speed for all vehicles,           S  = 64.6    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2025_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                 MM
Agency/Co.:              WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Dir of Travel:   SR-60 WB
Junction:                Off-Ramp to Redlands
Jurisdiction:            Caltrans
Analysis Year:           2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                          Diverge
Number of lanes in freeway                3
Free-flow speed on freeway                70.0          mph
Volume on freeway                         2500          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0          mph
Volume on ramp                            220           vph
Length of first accel/decel lane          1500          ft
Length of second accel/decel lane                       ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   690           vph
Position of adjacent ramp                 Downstream
Type of adjacent ramp                     On
Distance to adjacent ramp                 1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                  Freeway     Ramp        Adjacent
                                                             Ramp
Volume, V (vph)                      2500        220         690       vph
Peak-hour factor, PHF                0.97        0.95        0.95
Peak 15-min volume, v15              644         58          182       v
Trucks and buses                     7           2           4         %
Recreational vehicles                1           1           1         %
Terrain type:                        Level       Level       Level
     Grade                                   %           %   0.00    %
     Length                                  mi          mi  0.00    mi
Trucks and buses PCE, ET             1.5         1.5         1.5
Recreational vehicle PCE, ER         1.2         1.2         1.2
Heavy vehicle adjustment, fHV        0.964       0.988       0.978
Driver population factor, fP         1.00        1.00        1.00
Flow rate, vp                        2673        234         742       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.682   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1898   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2673          7200            No
      Fi   F
     v  = v - v            2439          7200            No
      FO   F   R
     v                     234           2000            No
      R
     v  or v               775  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1898                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1898          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   7.1     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.449
                                              S
Space mean speed in ramp influence area,     S  = 57.4    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2025_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2050           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              150            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     600            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2050        150         600       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                539         39          158       v
Trucks and buses                       8           3           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.983       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2249        161         649       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.696   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1615   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2249          7200            No
      Fi   F
     v  = v - v            2088          7200            No
      FO   F   R
     v                     161           2000            No
      R
     v  or v               634  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1615                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1615          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   4.6     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.442
                                              S
Space mean speed in ramp influence area,     S  = 57.6    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2025_NP_AM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2090           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              690            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     220            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2090        690         220       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                539         182         58        v
Trucks and buses                       7           4           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.978       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2234        742         234       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    509.06  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1353   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2976          7200            No
      FO
     v  or v               881  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1353                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2095          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.283
                                              S
Space mean speed in ramp influence area,     S  = 62.1    mph
                                              R
Space mean speed in outer lanes,             S  = 68.6    mph
                                              0
Space mean speed for all vehicles,           S  = 63.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2025_NP_PM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           1810          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              600           vph
Length of first accel/decel lane            1000          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     150           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1810        600         150       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                476         158         39        v
Trucks and buses                       8           5           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.974       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1985        649         161       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    435.88  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1202   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2634          7200            No
      FO
     v  or v               783  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1202                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1851          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.3    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.276
                                              S
Space mean speed in ramp influence area,     S  = 62.3    mph
                                              R
Space mean speed in outer lanes,             S  = 69.0    mph
                                              0
Space mean speed for all vehicles,           S  = 64.1    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2025_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7900           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              710            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     640            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7900        710         640       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                2036        187         168       v
Trucks and buses                       4           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8324        753         682       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2721   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8324          9600            No
      Fi   F
     v  = v - v            7571          9600            No
      FO   F   R
     v                     753           4000            No
      R
     v  or v               2801 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3329                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                3329          4400                 No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   5.9     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.496
                                              S
Space mean speed in ramp influence area,     S  = 56.1    mph
                                              R
Space mean speed in outer lanes,             S  = 71.0    mph
                                              0
Space mean speed for all vehicles,           S  = 64.2    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2025_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7550           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              540            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     830            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7550        540         830       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1987        142         218       v
Trucks and buses                       5           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8162        572         880       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2545   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8162          9600            No
      Fi   F
     v  = v - v            7590          9600            No
      FO   F   R
     v                     572           4000            No
      R
     v  or v               2808 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3264                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                3264          4400                 No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   5.3     pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.479
                                              S
Space mean speed in ramp influence area,     S  = 56.6    mph
                                              R
Space mean speed in outer lanes,             S  = 71.1    mph
                                              0
Space mean speed for all vehicles,           S  = 64.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2025_NP_AM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7770           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              650            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1090           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7770        650         1090      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                2003        171         287       v
Trucks and buses                       7           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8307        689         1155      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4010   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8307          9600            No
      Fi   F
     v  = v - v            7618          9600            No
      FO   F   R
     v                     689           2000            No
      R
     v  or v               2148 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4010                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4010          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   25.2    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.490
                                              S
Space mean speed in ramp influence area,     S  = 56.3    mph
                                              R
Space mean speed in outer lanes,             S  = 72.3    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2025_NP_PM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 NP
Description:  World Logistics Center - 2025 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7500           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1010           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1460           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7500        1010        1460      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1974        266         384       v
Trucks and buses                       5           49          51        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.802       0.796
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8108        1326        1932      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4283   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8108          9600            No
      Fi   F
     v  = v - v            6782          9600            No
      FO   F   R
     v                     1326          2000            No
      R
     v  or v               1912 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4283                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                4283          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   27.6    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.547
                                              S
Space mean speed in ramp influence area,     S  = 54.7    mph
                                              R
Space mean speed in outer lanes,             S  = 73.2    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

Traffic Impact Analysis Report
for the World Logistics Center

Appendix M

Freeway LOS Worksheets
for 2025 Plus Phase 1 Conditions

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2025_Ph1_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6640           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1785           v
Trucks and buses                            17             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.920
Driver population factor, fp                1.00
Flow rate, vp                               1940           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1940           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          4
Density, D                                  30.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2025_Ph1_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Reservoir Rd to Ramona Ave
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6530           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1666           v
Trucks and buses                             20             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.907
Driver population factor, fp                 1.00
Flow rate, vp                                1836           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1836           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               65.3           mi/h
Number of lanes, N                           4
Density, D                                   28.1           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2025_Ph1_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8730          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2347          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2410          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2410          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              53.0          mi/h
Number of lanes, N                          4
Density, D                                  45.5          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2025_Ph1_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9460          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      2413          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2478          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2478          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               51.1          mi/h
Number of lanes, N                           4
Density, D                                   48.5          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2025_Ph1_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7850           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2110           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2167           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2167           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.2           mi/h
Number of lanes, N                          4
Density, D                                  36.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2025_Ph1_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8350           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2130           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2188           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2188           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.7           mi/h
Number of lanes, N                          4
Density, D                                  37.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2025_Ph1_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2202           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2261           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2261           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.9           mi/h
Number of lanes, N                          4
Density, D                                  39.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2025_Ph1_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8340           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2128           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2185           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2185           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.7           mi/h
Number of lanes, N                          4
Density, D                                  37.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2025_Ph1_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8110           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2180           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2239           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2239           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.5           mi/h
Number of lanes, N                          4
Density, D                                  39.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2025_Ph1_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8500          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2168          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2227          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2227          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              57.8          mi/h
Number of lanes, N                          4
Density, D                                  38.6          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2025_Ph1_AM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7480           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2011           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2065           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2065           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.3           mi/h
Number of lanes, N                          4
Density, D                                  33.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2025_Ph1_PM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9390           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2395           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2460           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2460           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.6           mi/h
Number of lanes, N                          4
Density, D                                  47.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2025_Ph1_AM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7360           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1978           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2022           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2022           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.2           mi/h
Number of lanes, N                          4
Density, D                                  32.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2025_Ph1_PM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9530           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2431           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2497           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2497           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.5           mi/h
Number of lanes, N                          4
Density, D                                  49.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2025_Ph1_AM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7440           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2000           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2044           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2044           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.7           mi/h
Number of lanes, N                          4
Density, D                                  33.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2025_Ph1_PM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   6900            veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1760            v
Trucks and buses                            5               %
Recreational vehicles                       1               %
Terrain type:                               Level
    Grade                                   -               %
    Segment length                          -               mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1808            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -               ft
Right-side lateral clearance                -               ft
Total ramp density, TRD                     -               ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0            mi/h
Lane width adjustment, fLW                  -               mi/h
Lateral clearance adjustment, fLC           -               mi/h
TRD adjustment                              -               mi/h
Free-flow speed, FFS                        70.0            mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1808            pc/h/ln
Free-flow speed, FFS                        70.0            mi/h
Average passenger-car speed, S              65.7            mi/h
Number of lanes, N                          4
Density, D                                  27.5            pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2025_Ph1_AM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8390           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2255           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1871           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1871           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          5
Density, D                                  28.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2025_Ph1_PM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7520          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1918          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1584          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1584          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.3          mi/h
Number of lanes, N                          5
Density, D                                  23.2          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2025_Ph1_AM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4820           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1296           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1344           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1344           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2025_Ph1_PM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5310           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1355           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1398           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1398           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2025_Ph1_AM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4430           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1191           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1229           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1229           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2025_Ph1_PM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1199           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1237           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1237           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2025_Ph1_AM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                               3830          veh/h
Peak-hour factor, PHF                   0.93
Peak 15-min volume, v15                 1030          v
Trucks and buses                        7             %
Recreational vehicles                   1             %
Terrain type:                           Level
    Grade                               -             %
    Segment length                      -             mi
Trucks and buses PCE, ET                1.5
Recreational vehicle PCE, ER            1.2
Heavy vehicle adjustment, fHV           0.964
Driver population factor, fp            1.00
Flow rate, vp                           1068          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                              -             ft
Right-side lateral clearance            -             ft
Total ramp density, TRD                 -             ramps/mi
Number of lanes, N                      4
Free-flow speed:                        Measured
     FFS or BFFS                        70.0          mi/h
Lane width adjustment, fLW              -             mi/h
Lateral clearance adjustment, fLC       -             mi/h
TRD adjustment                          -             mi/h
Free-flow speed, FFS                    70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                           1068          pc/h/ln
Free-flow speed, FFS                    70.0          mi/h
Average passenger-car speed, S          70.0          mi/h
Number of lanes, N                      4
Density, D                              15.3          pc/mi/ln
Level of service, LOS                   B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2025_Ph1_PM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3810           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     972            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1003           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1003           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2025_Ph1_AM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3370           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     906            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               958            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               958            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2025_Ph1_PM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3340           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     852            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               901            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               901            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2025_Ph1_AM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3520           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     946            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               995            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               995            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2025_Ph1_PM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3670           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     936            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               990            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               990            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2025_Ph1_AM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4240           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1140           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1188           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1188           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2025_Ph1_PM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4060           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1036           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1084           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1084           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2025_Ph1_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5400           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1452           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1997           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1997           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          3
Density, D                                  31.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2025_Ph1_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5700           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1454           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2001           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2001           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          3
Density, D                                  32.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2025_Ph1_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5450          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1465          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2016          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2016          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.3          mi/h
Number of lanes, N                          3
Density, D                                  32.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2025_Ph1_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5970           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1523           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2096           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2096           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.7           mi/h
Number of lanes, N                          3
Density, D                                  34.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2025_Ph1_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

________________________Operational Analysis_______________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

________________________Flow Inputs and Adjustments________________________

Volume, V                                 5890          veh/h
Peak-hour factor, PHF                     0.93
Peak 15-min volume, v15                   1583          v
Trucks and buses                          5             %
Recreational vehicles                     1             %
Terrain type:                             Level
    Grade                                 -             %
    Segment length                        -             mi
Trucks and buses PCE, ET                  1.5
Recreational vehicle PCE, ER              1.2
Heavy vehicle adjustment, fHV             0.974
Driver population factor, fp              1.00
Flow rate, vp                             2168          pc/h/ln

________________________Speed Inputs and Adjustments_______________________

Lane width                                -             ft
Right-side lateral clearance              -             ft
Total ramp density, TRD                   -             ramps/mi
Number of lanes, N                        3
Free-flow speed:                          Measured
     FFS or BFFS                          70.0          mi/h
Lane width adjustment, fLW                -             mi/h
Lateral clearance adjustment, fLC         -             mi/h
TRD adjustment                            -             mi/h
Free-flow speed, FFS                      70.0          mi/h

________________________LOS and Performance Measures_______________________

Flow rate, vp                             2168          pc/h/ln
Free-flow speed, FFS                      70.0          mi/h
Average passenger-car speed, S            59.1          mi/h
Number of lanes, N                        3
Density, D                                36.7          pc/mi/ln
Level of service, LOS                     E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2025_Ph1_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6870           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1753           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2412           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2412           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.0           mi/h
Number of lanes, N                          3
Density, D                                  45.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2025_Ph1_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10310          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2772           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2966           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2966           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              33.8           mi/h
Number of lanes, N                          4
Density, D                                  87.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2025_Ph1_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10130         veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2584          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Rolling
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2765          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2765          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              41.6          mi/h
Number of lanes, N                          4
Density, D                                  66.5          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2025_Ph1_AM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5540           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1489           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1529           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1529           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2025_Ph1_PM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                 6340           veh/h
Peak-hour factor, PHF                     0.98
Peak 15-min volume, v15                   1617           v
Trucks and buses                          5              %
Recreational vehicles                     1              %
Terrain type:                             Level
    Grade                                 -              %
    Segment length                        -              mi
Trucks and buses PCE, ET                  1.5
Recreational vehicle PCE, ER              1.2
Heavy vehicle adjustment, fHV             0.974
Driver population factor, fp              1.00
Flow rate, vp                             1661           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                -              ft
Right-side lateral clearance              -              ft
Total ramp density, TRD                   -              ramps/mi
Number of lanes, N                        4
Free-flow speed:                          Measured
     FFS or BFFS                          70.0           mi/h
Lane width adjustment, fLW                -              mi/h
Lateral clearance adjustment, fLC         -              mi/h
TRD adjustment                            -              mi/h
Free-flow speed, FFS                      70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                             1661           pc/h/ln
Free-flow speed, FFS                      70.0           mi/h
Average passenger-car speed, S            67.5           mi/h
Number of lanes, N                        4
Density, D                                24.6           pc/mi/ln
Level of service, LOS                     C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2025_Ph1_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3140           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     844            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1801           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1801           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          2
Density, D                                  27.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2025_Ph1_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4980           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1270           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2648           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2648           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.7           mi/h
Number of lanes, N                          2
Density, D                                  58.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2025_Ph1_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     809            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1711           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1711           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          2
Density, D                                  25.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2025_Ph1_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3690           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     941            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1952           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1952           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.4           mi/h
Number of lanes, N                          2
Density, D                                  30.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2025_Ph1_AM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2790           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     750            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1586           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1586           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          2
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2025_Ph1_PM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3400           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     867            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1799           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1799           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          2
Density, D                                  27.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2025_Ph1_AM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2490           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     669            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               952            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               952            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2025_Ph1_PM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3120           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      796            v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1106           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1106           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   15.8           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2025_Ph1_AM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     640            v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               914            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               914            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  13.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2025_Ph1_PM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2900           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     740            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1033           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1033           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2025_Ph1_AM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2320           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     624            v
Trucks and buses                            15             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               896            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               896            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2025_Ph1_PM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2880           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     735            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1026           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1026           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2025_Ph1_AM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1330           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     358            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.881
Driver population factor, fp                1.00
Flow rate, vp                               541            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               541            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  7.7            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2025_Ph1_PM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2150           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     548            v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               804            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               804            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2025_Ph1_AM_Peak_SR-60_EB_Jack_Rabbit_Tr_to_Potero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Tr to Potero Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1440           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     387            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               814            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               814            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2025_Ph1_PM_Peak_SR-60_EB_Jack_Rabbit_Tr_to_Potero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Tr to Potero Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2230           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     569            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1168           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1168           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2025_Ph1_AM_Peak_SR-60_WB_I-10_to_Potrero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Potrero Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1520           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     392            v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               840            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               840            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  12.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2025_Ph1_PM_Peak_SR-60_WB_I-10_to_Potrero_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 WB
From/To:                 I-10 to Potrero Blvd
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  1320          veh/h
Peak-hour factor, PHF                      0.95
Peak 15-min volume, v15                    347           v
Trucks and buses                           13            %
Recreational vehicles                      1             %
Terrain type:                              Level
    Grade                                  -             %
    Segment length                         -             mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.937
Driver population factor, fp               1.00
Flow rate, vp                              741           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -             ft
Right-side lateral clearance               -             ft
Total ramp density, TRD                    -             ramps/mi
Number of lanes, N                         2
Free-flow speed:                           Measured
     FFS or BFFS                           70.0          mi/h
Lane width adjustment, fLW                 -             mi/h
Lateral clearance adjustment, fLC          -             mi/h
TRD adjustment                             -             mi/h
Free-flow speed, FFS                       70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              741           pc/h/ln
Free-flow speed, FFS                       70.0          mi/h
Average passenger-car speed, S             70.0          mi/h
Number of lanes, N                         2
Density, D                                 10.6          pc/mi/ln
Level of service, LOS                      A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2025_Ph1_AM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1810          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     466           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Mountainous
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.881
Driver population factor, fp                1.00
Flow rate, vp                               706           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               706           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  10.1          pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2025_Ph1_PM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1500           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     395            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.881
Driver population factor, fp                1.00
Flow rate, vp                               597            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               597            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  8.5            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2025_Ph1_AM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2720           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     701            v
Trucks and buses                            15             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               1007           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1007           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2025_Ph1_PM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Theodore St to Redlands Blvd
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2460           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      647            v
Trucks and buses                             14             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.933
Driver population factor, fp                 1.00
Flow rate, vp                                925            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                925            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   13.2           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2025_Ph1_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2820           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     727            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1551           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1551           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          2
Density, D                                  22.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2025_Ph1_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2690           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      708            v
Trucks and buses                             14             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.933
Driver population factor, fp                 1.00
Flow rate, vp                                1518           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1518           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               68.8           mi/h
Number of lanes, N                           2
Density, D                                   22.1           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2025_Ph1_AM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     856            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1783           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1783           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          2
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2025_Ph1_PM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3180           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     837            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1769           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1769           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          2
Density, D                                  26.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2025_Ph1_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3680           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     948            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1996           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1996           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.7           mi/h
Number of lanes, N                          2
Density, D                                  31.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2025_Ph1_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3370           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     887            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1875           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1875           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          2
Density, D                                  29.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2025_Ph1_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1289           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2686           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2686           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.4           mi/h
Number of lanes, N                          2
Density, D                                  60.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2025_Ph1_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3050           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     803            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1697           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1697           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          2
Density, D                                  25.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2025_Ph1_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1227           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2581           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2581           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.9           mi/h
Number of lanes, N                          2
Density, D                                  53.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2025_Ph1_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3410           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     897            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1906           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1906           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          2
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2025_Ph1_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7540          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1943          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                2005          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2005          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               62.5          mi/h
Number of lanes, N                           4
Density, D                                   32.1          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2025_Ph1_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8580           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2258           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2330           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2330           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.2           mi/h
Number of lanes, N                          4
Density, D                                  42.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2025_Ph1_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7650           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1972           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.873
Driver population factor, fp                1.00
Flow rate, vp                               2258           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2258           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.0           mi/h
Number of lanes, N                          4
Density, D                                  39.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2025_Ph1_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7790           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2050           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               2255           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2255           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.1           mi/h
Number of lanes, N                          4
Density, D                                  39.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2025_Ph1_AM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7300           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1881           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2576           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2576           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.0           mi/h
Number of lanes, N                          3
Density, D                                  53.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2025_Ph1_PM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5070           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1334           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1845           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1845           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          3
Density, D                                  28.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2025_Ph1_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1778           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2435           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2435           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.3           mi/h
Number of lanes, N                          3
Density, D                                  46.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2025_Ph1_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6020           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1584           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2169           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2169           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.1           mi/h
Number of lanes, N                          3
Density, D                                  36.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2025_Ph1_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5210           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1343           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1830           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1830           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          3
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2025_Ph1_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6450           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1697           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2313           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2313           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.6           mi/h
Number of lanes, N                          3
Density, D                                  41.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2025_Ph1_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1289          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1773          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1773          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.2          mi/h
Number of lanes, N                          3
Density, D                                  26.8          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2025_Ph1_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1624           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2234           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2234           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.6           mi/h
Number of lanes, N                          3
Density, D                                  38.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2025_Ph1_AM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4790          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1235          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1280          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1280          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.9          mi/h
Number of lanes, N                          4
Density, D                                  18.3          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2025_Ph1_PM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5890           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1550           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1607           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1607           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2025_Ph1_AM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4580           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1180           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1224           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1224           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2025_Ph1_PM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5830           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1534           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1591           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1591           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2025_Ph1_AM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4600           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1186           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1229           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1229           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2025_Ph1_PM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5860           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1542           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1599           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1599           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2025_Ph1_AM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5330          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1374          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1418          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1418          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.4          mi/h
Number of lanes, N                           4
Density, D                                   20.4          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2025_Ph1_PM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6870           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1808           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1866           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1866           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          4
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2025_Ph1_AM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Etiwanda Ave to I-15
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5060          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1304          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1077          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1077          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           5
Density, D                                   15.4          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2025_Ph1_PM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5440           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1432           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1182           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1182           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2025_Ph1_AM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    5360           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1381           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1426           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1426           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.4           mi/h
Number of lanes, N                           4
Density, D                                   20.5           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2025_Ph1_PM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5980          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      1574          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1608          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1608          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.1          mi/h
Number of lanes, N                           4
Density, D                                   23.6          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2025_Ph1_AM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1892           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1547           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1547           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          5
Density, D                                  22.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2025_Ph1_PM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6380           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1679           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1379           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1379           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          5
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2025_Ph1_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7850           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2023           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2128           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2128           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          4
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2025_Ph1_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10010          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2634           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2732           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2732           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              42.8           mi/h
Number of lanes, N                          4
Density, D                                  63.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2025_Ph1_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1729           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1767           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1767           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          4
Density, D                                  26.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2025_Ph1_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9970           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2624           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2695           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2695           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              44.1           mi/h
Number of lanes, N                          4
Density, D                                  61.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2025_Ph1_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1843           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1911           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1911           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          4
Density, D                                  29.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2025_Ph1_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8000           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2105           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2162           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2162           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.3           mi/h
Number of lanes, N                          4
Density, D                                  36.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2025_Ph1_AM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6890           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1776           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1886           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1886           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          4
Density, D                                  29.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2025_Ph1_PM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7330           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1929           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2010           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2010           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.4           mi/h
Number of lanes, N                          4
Density, D                                  32.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2025_Ph1_AM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1745           v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1862           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1862           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          4
Density, D                                  28.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2025_Ph1_PM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6930           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1824           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1909           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1909           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          4
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2025_Ph1_AM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1590           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1665           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1665           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.5           mi/h
Number of lanes, N                          4
Density, D                                  24.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2025_Ph1_PM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6850          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1803          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1860          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1860          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.9          mi/h
Number of lanes, N                          4
Density, D                                  28.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2025_Ph1_AM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6620           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1706           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1752           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1752           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          4
Density, D                                  26.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2025_Ph1_PM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6610          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1739          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1786          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1786          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.0          mi/h
Number of lanes, N                          4
Density, D                                  27.1          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2025_Ph1_AM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4790           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1235           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1262           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1262           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2025_Ph1_PM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6730           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1809           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1840           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1840           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          4
Density, D                                  28.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2025_Ph1_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5350           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1379           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1870           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1870           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          3
Density, D                                  28.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2025_Ph1_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5720          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1538          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2085          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2085          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.9          mi/h
Number of lanes, N                          3
Density, D                                  34.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2025_Ph1_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6880           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1773           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2440           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2440           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.2           mi/h
Number of lanes, N                          3
Density, D                                  46.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2025_Ph1_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7490           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2013           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2757           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2757           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               41.9           mi/h
Number of lanes, N                           3
Density, D                                   65.8           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2025_Ph1_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1923           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1975           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1975           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.0           mi/h
Number of lanes, N                          4
Density, D                                  31.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2025_Ph1_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7450           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2003           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2057           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2057           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.5           mi/h
Number of lanes, N                          4
Density, D                                  33.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2025_Ph1_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7480           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1928           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1961           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1961           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          4
Density, D                                  31.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2025_Ph1_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8320            veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2237            v
Trucks and buses                            3               %
Recreational vehicles                       1               %
Terrain type:                               Level
    Grade                                   -               %
    Segment length                          -               mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2275            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -               ft
Right-side lateral clearance                -               ft
Total ramp density, TRD                     -               ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0            mi/h
Lane width adjustment, fLW                  -               mi/h
Lateral clearance adjustment, fLC           -               mi/h
TRD adjustment                              -               mi/h
Free-flow speed, FFS                        70.0            mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2275            pc/h/ln
Free-flow speed, FFS                        70.0            mi/h
Average passenger-car speed, S              56.6            mi/h
Number of lanes, N                          4
Density, D                                  40.2            pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2025_Ph1_AM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1291           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1320           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1320           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2025_Ph1_PM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5280           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1419           v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1443           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1443           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.3           mi/h
Number of lanes, N                           4
Density, D                                   20.8           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2025_Ph1_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7720           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1990           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2738           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2738           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              42.6           mi/h
Number of lanes, N                          3
Density, D                                  64.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2025_Ph1_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8560           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2301           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               3151           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3151           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              25.8           mi/h
Number of lanes, N                          3
Density, D                                  121.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2025_Ph1_AM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7870           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2028           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2093           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2093           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.7           mi/h
Number of lanes, N                          4
Density, D                                  34.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2025_Ph1_PM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5730           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1540           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1582           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1582           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          4
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2025_Ph1_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   7310           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1884           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2643           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               2643           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.8           mi/h
Number of lanes, N                          3
Density, D                                  57.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2025_Ph1_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6200           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1667           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2293           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2293           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.1           mi/h
Number of lanes, N                          3
Density, D                                  40.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2025_Ph1_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-91 EB
From/To:                 Central Ave to 14th St
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4770          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1229          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1256          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1256          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   18.0          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2025_Ph1_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4630          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1245          v
Trucks and buses                            2             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1260          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1260          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  18.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2025_Ph1_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1570           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1290           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1290           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          5
Density, D                                  18.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2025_Ph1_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5920          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1591          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1307          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1307          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.9          mi/h
Number of lanes, N                          5
Density, D                                  18.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2025_Ph1_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6360           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1639           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1675           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1675           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2025_Ph1_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1938           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1961           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1961           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          4
Density, D                                  31.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2025_Ph1_AM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5680           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1464           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1496           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1496           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2025_Ph1_PM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7260           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1952           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1985           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1985           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.9           mi/h
Number of lanes, N                          4
Density, D                                  31.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2025_Ph1_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7440           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1918           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2613           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2613           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.8           mi/h
Number of lanes, N                          3
Density, D                                  55.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2025_Ph1_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7240           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1946           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2639           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2639           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.0           mi/h
Number of lanes, N                          3
Density, D                                  57.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2025_Ph1_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6300          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1624          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1659          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1659          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.6          mi/h
Number of lanes, N                          4
Density, D                                  24.6          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2025_Ph1_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7820           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2102           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2148           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2148           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.6           mi/h
Number of lanes, N                          4
Density, D                                  36.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2025_Ph1_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1737           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1775           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1775           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          4
Density, D                                  26.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2025_Ph1_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8280           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2226           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2264           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2264           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.9           mi/h
Number of lanes, N                          4
Density, D                                  39.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2025_Ph1_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6440          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1660          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1696          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1696          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.1          mi/h
Number of lanes, N                          4
Density, D                                  25.3          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2025_Ph1_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8340           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2242           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2280           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2280           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.5           mi/h
Number of lanes, N                          4
Density, D                                  40.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2025_Ph1_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1613           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2209           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2209           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.2           mi/h
Number of lanes, N                          3
Density, D                                  38.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2025_Ph1_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                     7450           veh/h
Peak-hour factor, PHF                         0.93
Peak 15-min volume, v15                       2003           v
Trucks and buses                              3              %
Recreational vehicles                         1              %
Terrain type:                                 Level
    Grade                                     -              %
    Segment length                            -              mi
Trucks and buses PCE, ET                      1.5
Recreational vehicle PCE, ER                  1.2
Heavy vehicle adjustment, fHV                 0.983
Driver population factor, fp                  1.00
Flow rate, vp                                 2716           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                    -              ft
Right-side lateral clearance                  -              ft
Total ramp density, TRD                       -              ramps/mi
Number of lanes, N                            3
Free-flow speed:                              Measured
     FFS or BFFS                              70.0           mi/h
Lane width adjustment, fLW                    -              mi/h
Lateral clearance adjustment, fLC             -              mi/h
TRD adjustment                                -              mi/h
Free-flow speed, FFS                          70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                 2716           pc/h/ln
Free-flow speed, FFS                          70.0           mi/h
Average passenger-car speed, S                43.3           mi/h
Number of lanes, N                            3
Density, D                                    62.7           pc/mi/ln
Level of service, LOS                         F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2025_Ph1_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7340          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1892          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2578          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2578          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              48.0          mi/h
Number of lanes, N                          3
Density, D                                  53.7          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2025_Ph1_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7390           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1987           v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                2694           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2694           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               44.1           mi/h
Number of lanes, N                           3
Density, D                                   61.1           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2025_Ph1_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1861           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2536           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2536           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.3           mi/h
Number of lanes, N                          3
Density, D                                  51.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2025_Ph1_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7320           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1968           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2668           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2668           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              45.0           mi/h
Number of lanes, N                          3
Density, D                                  59.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2025_Ph1_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7190           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1853           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2550           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2550           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.9           mi/h
Number of lanes, N                          3
Density, D                                  52.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2025_Ph1_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7400           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1989           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2737           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2737           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              42.6           mi/h
Number of lanes, N                          3
Density, D                                  64.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2025_Ph1_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6630           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1709           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1772           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1772           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          4
Density, D                                  26.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2025_Ph1_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7660           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2059           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2115           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2115           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.3           mi/h
Number of lanes, N                          4
Density, D                                  35.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2025_Ph1_AM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4060           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1091           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1115           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1115           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2025_Ph1_PM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   5330           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1418           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1449           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1449           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2025_Ph1_AM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4180           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1124           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1165           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1165           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2025_Ph1_PM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5800           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1543           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1592           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1592           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2025_Ph1_AM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4370           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1175           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1218           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1218           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2025_Ph1_PM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-10 EB
From/To:                 Pennsylvania to Highland Springs
Jurisdiction:            s
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                     6040          veh/h
Peak-hour factor, PHF                         0.94
Peak 15-min volume, v15                       1606          v
Trucks and buses                              6             %
Recreational vehicles                         1             %
Terrain type:                                 Level
    Grade                                     -             %
    Segment length                            -             mi
Trucks and buses PCE, ET                      1.5
Recreational vehicle PCE, ER                  1.2
Heavy vehicle adjustment, fHV                 0.969
Driver population factor, fp                  1.00
Flow rate, vp                                 1658          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                    -             ft
Right-side lateral clearance                  -             ft
Total ramp density, TRD                       -             ramps/mi
Number of lanes, N                            4
Free-flow speed:                              Measured
     FFS or BFFS                              70.0          mi/h
Lane width adjustment, fLW                    -             mi/h
Lateral clearance adjustment, fLC             -             mi/h
TRD adjustment                                -             mi/h
Free-flow speed, FFS                          70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                 1658          pc/h/ln
Free-flow speed, FFS                          70.0          mi/h
Average passenger-car speed, S                67.6          mi/h
Number of lanes, N                            4
Density, D                                    24.5          pc/mi/ln
Level of service, LOS                         C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2025_Ph1_AM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4270           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1148           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1190           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1190           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2025_Ph1_PM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5900           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1569           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1619           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1619           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.0           mi/h
Number of lanes, N                          4
Density, D                                  23.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2025_Ph1_AM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4170           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1121           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               930            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               930            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2025_Ph1_PM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5690           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1513           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1249           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1249           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2025_Ph1_AM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4070           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1094           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1135           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1135           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2025_Ph1_PM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5550           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1476           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1523           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1523           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2025_Ph1_AM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4050          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1089          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1129          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1129          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2025_Ph1_PM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5490           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1460           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1507           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1507           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2025_Ph1_AM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3720           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1000           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1042           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1042           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2025_Ph1_PM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4980           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1324           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1373           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1373           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2025_Ph1_AM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3560           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     957            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               997            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               997            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2025_Ph1_PM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4760           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1266           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1313           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1313           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2025_Ph1_AM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     858            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               885            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               885            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2025_Ph1_PM_Peak_I-10_EB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4270           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1136           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1166           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1166           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2025_Ph1_AM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3220           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     866            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               885            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               885            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2025_Ph1_PM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1138           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1163           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1163           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2025_Ph1_AM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2740           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     737            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               753            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               753            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.8           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2025_Ph1_PM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3740          veh/h
Peak-hour factor, PHF                        0.94
Peak 15-min volume, v15                      995           v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1017          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1017          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   14.5          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2025_Ph1_AM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2690           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     723            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               743            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               743            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.6           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2025_Ph1_PM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3770           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1003           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1025           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1025           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2025_Ph1_AM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3620           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1052           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1081           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1081           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2025_Ph1_PM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3550           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     915            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               940            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               940            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2025_Ph1_AM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3600           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1047           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1070           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1070           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2025_Ph1_PM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3540           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     912            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               932            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               932            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2025_Ph1_AM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4130          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1201          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1227          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1227          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  17.5          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2025_Ph1_PM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4140           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1067           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1090           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1090           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2025_Ph1_AM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4140           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1203           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1230           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1230           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2025_Ph1_PM_Peak_I-10_WB_Main_St_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1054           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1083           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1083           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2025_Ph1_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4650           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1352           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1395           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1395           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2025_Ph1_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4510           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1162           v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1211           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1211           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   17.3           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2025_Ph1_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4860           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1413           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1458           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1458           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2025_Ph1_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4600           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1186           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1229           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1229           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2025_Ph1_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5400          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1570          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1620          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1620          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.0          mi/h
Number of lanes, N                          4
Density, D                                  23.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2025_Ph1_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4930           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1271           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1318           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1318           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2025_Ph1_AM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5470          veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1590          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1641          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1641          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               67.7          mi/h
Number of lanes, N                           4
Density, D                                   24.2          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2025_Ph1_PM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4930           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1271           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1318           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1318           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2025_Ph1_AM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5590          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1625          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1335          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1335          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.8          mi/h
Number of lanes, N                          5
Density, D                                  19.1          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2025_Ph1_PM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5020           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1294           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1073           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1073           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2025_Ph1_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5800           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1686           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1732           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1732           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  26.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2025_Ph1_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5100           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1314           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1363           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1363           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2025_Ph1_AM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6290           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1828           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1878           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1878           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.7           mi/h
Number of lanes, N                          4
Density, D                                  29.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2025_Ph1_PM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5440           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1402           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1447           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1447           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2025_Ph1_AM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5840           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1698           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1744           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1744           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          4
Density, D                                  26.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2025_Ph1_PM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5300           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1366           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1410           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1410           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2025_Ph1_AM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5710           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1660           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1696           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1696           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          4
Density, D                                  25.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2025_Ph1_PM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1330           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1359           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1359           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2025_Ph1_AM_Peak_I-215_NB_Scott_Rd_to_Garboni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Garboni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3410           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     927            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               942            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               942            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2025_Ph1_PM_Peak_I-215_NB_Scott_Rd_to_Garboni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Garboni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4610           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1188           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1208           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1208           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2025_Ph1_AM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2450           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     666            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               677            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               677            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.7            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2025_Ph1_PM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3030           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     781            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               794            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               794            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2025_Ph1_AM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3040           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     826            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               840            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               840            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2025_Ph1_PM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1103           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1122           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1122           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2025_Ph1_AM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4130           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1122           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1147           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1147           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2025_Ph1_PM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1044           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1062           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1062           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2025_Ph1_AM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3490           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     948            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               979            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               979            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2025_Ph1_PM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1263           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1297           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1297           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2025_Ph1_AM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6950          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1889          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1940          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1940          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.6          mi/h
Number of lanes, N                          4
Density, D                                  30.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2025_Ph1_PM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1910           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1952           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1952           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.4           mi/h
Number of lanes, N                          4
Density, D                                  30.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2025_Ph1_AM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5380           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1462           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1992           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1992           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.7           mi/h
Number of lanes, N                          3
Density, D                                  31.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2025_Ph1_PM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5660          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1459          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1978          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1978          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.0          mi/h
Number of lanes, N                          3
Density, D                                  31.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2025_Ph1_AM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5450           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1481           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2008           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2008           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.4           mi/h
Number of lanes, N                          3
Density, D                                  32.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2025_Ph1_PM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1407           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1908           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1908           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          3
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2025_Ph1_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5910           veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1606           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2199           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2199           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               58.4           mi/h
Number of lanes, N                           3
Density, D                                   37.6           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2025_Ph1_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1603           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2206           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2206           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.3           mi/h
Number of lanes, N                          3
Density, D                                  37.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2025_Ph1_AM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6330           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1720           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1792           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1792           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.9           mi/h
Number of lanes, N                          4
Density, D                                  27.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2025_Ph1_PM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1665           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1718           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1718           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          4
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2025_Ph1_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5420           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1473           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1498           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1498           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2025_Ph1_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2570           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2613           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2613           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              46.8           mi/h
Number of lanes, N                          4
Density, D                                  55.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2025_Ph1_AM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 NB
From/To:                 Baseline Rd to Highland Ave
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                     3200          veh/h
Peak-hour factor, PHF                         0.92
Peak 15-min volume, v15                       870           v
Trucks and buses                              4             %
Recreational vehicles                         1             %
Terrain type:                                 Level
    Grade                                     -             %
    Segment length                            -             mi
Trucks and buses PCE, ET                      1.5
Recreational vehicle PCE, ER                  1.2
Heavy vehicle adjustment, fHV                 0.978
Driver population factor, fp                  1.00
Flow rate, vp                                 889           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                    -             ft
Right-side lateral clearance                  -             ft
Total ramp density, TRD                       -             ramps/mi
Number of lanes, N                            4
Free-flow speed:                              Measured
     FFS or BFFS                              70.0          mi/h
Lane width adjustment, fLW                    -             mi/h
Lateral clearance adjustment, fLC             -             mi/h
TRD adjustment                                -             mi/h
Free-flow speed, FFS                          70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                 889           pc/h/ln
Free-flow speed, FFS                          70.0          mi/h
Average passenger-car speed, S                70.0          mi/h
Number of lanes, N                            4
Density, D                                    12.7          pc/mi/ln
Level of service, LOS                         B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2025_Ph1_PM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1302           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1324           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1324           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2025_Ph1_AM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5000          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1289          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1311          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1311          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.9          mi/h
Number of lanes, N                           4
Density, D                                   18.8          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2025_Ph1_PM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3750          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     957           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               973           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               973           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  13.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2025_Ph1_AM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6520           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1680           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1717           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1717           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          4
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2025_Ph1_PM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6010           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1533           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1559           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1559           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          4
Density, D                                  22.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2025_Ph1_AM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1652           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1705           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1705           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          4
Density, D                                  25.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2025_Ph1_PM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5810           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1482           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1522           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1522           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2025_Ph1_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6620           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1706           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2325           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2325           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.3           mi/h
Number of lanes, N                          3
Density, D                                  42.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2025_Ph1_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7430           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1895           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2570           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2570           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.2           mi/h
Number of lanes, N                          3
Density, D                                  53.3           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2025_Ph1_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2003           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2756           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2756           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              41.9           mi/h
Number of lanes, N                          3
Density, D                                  65.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2025_Ph1_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7380           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1883           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2553           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2553           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.8           mi/h
Number of lanes, N                          3
Density, D                                  52.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2025_Ph1_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2003           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2756           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2756           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              41.9           mi/h
Number of lanes, N                          3
Density, D                                  65.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2025_Ph1_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7320          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1867          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2545          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2545          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              49.0          mi/h
Number of lanes, N                          3
Density, D                                  51.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2025_Ph1_AM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7650           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1972           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2054           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2054           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.5           mi/h
Number of lanes, N                          4
Density, D                                  33.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2025_Ph1_PM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7230           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1844           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1894           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1894           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.4           mi/h
Number of lanes, N                          4
Density, D                                  29.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2025_Ph1_AM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5210           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1343           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1379           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1379           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2025_Ph1_PM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4900           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1250           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1277           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1277           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2025_Ph1_AM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3700          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     954           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               975           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               975           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  13.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2025_Ph1_PM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4250           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1084           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1103           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1103           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2025_Ph1_AM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3920           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1010           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1033           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1033           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2025_Ph1_PM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3210           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     819            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               833            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               833            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2025_Ph1_AM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3180           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     820            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               838            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               838            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2025_Ph1_PM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3630           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     926            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               942            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               942            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2025_Ph1_AM_Peak_I-215_SB_Newport_Rd_to_Gambroni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Gambroni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     776            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               789            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               789            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2025_Ph1_PM_Peak_I-215_SB_Newport_Rd_to_Gambroni_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Gambroni Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2450           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     625            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               636            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               636            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.1            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2025_Ph1_AM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1360           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     366            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               769            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               769            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  11.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2025_Ph1_PM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1400          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     357           v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               744           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               744           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  10.6          pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2025_Ph1_AM_Peak_SR-60_WB_Potrero_Blvd_to_Jack_Rabbit_Tr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potrero Blvd to Jack Rabbit Tr
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1960           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     505            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1027           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1027           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2025_Ph1_PM_Peak_SR-60_WB_Potrero_Blvd_to_Jack_Rabbit_Tr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potrero Blvd to Jack Rabbit Tr
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1640           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     432            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               891            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               891            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2025_Ph1_AM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3120          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     848           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               862           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               862           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  12.3          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2025_Ph1_PM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4110           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1059           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1077           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1077           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2025_Ph1_AM_Peak_I-215_SB_Gambroni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Gambroni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1420           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     366            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               385            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               385            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  5.5            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2025_Ph1_PM_Peak_I-215_SB_Gambroni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Gambroni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1320           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     337            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               349            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               349            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  5.0            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2025_Ph1_AM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4760          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1293          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1315          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1315          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.8          mi/h
Number of lanes, N                           4
Density, D                                   18.8          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2025_Ph1_PM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1034           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1056           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1056           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2025_Ph1_AM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 NB
From/To:                 D St to Nuevo St
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4040          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1098          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                898           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                898           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           5
Density, D                                   12.8          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2025_Ph1_PM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1436           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1174           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1174           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2025_Ph1_AM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4020           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1092           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               898            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               898            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2025_Ph1_PM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4930          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1271          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1044          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1044          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  14.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2025_Ph1_AM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4860           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1321           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1080           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1080           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2025_Ph1_PM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5850           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1508           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1239           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1239           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2025_Ph1_AM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox Blvd
Jurisdiction:
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4370          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1187          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               976           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               976           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  13.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2025_Ph1_PM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 Ramona Expy to Harley Knox Blvd
Jurisdiction:
Analysis Year:           2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5900          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1521          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1249          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1249          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  17.8          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2025_Ph1_AM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4470           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1215           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1655           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1655           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          3
Density, D                                  24.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2025_Ph1_PM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4340          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1119          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1554          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1554          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.5          mi/h
Number of lanes, N                          3
Density, D                                  22.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2025_Ph1_AM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4840           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1315           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1351           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1351           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2025_Ph1_PM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4420           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1139           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1170           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1170           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2025_Ph1_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4430           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1204           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1648           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1648           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.7           mi/h
Number of lanes, N                          3
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2025_Ph1_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5530           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1425           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1952           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1952           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.4           mi/h
Number of lanes, N                          3
Density, D                                  30.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2025_Ph1_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4720           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1283           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1756           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1756           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.4           mi/h
Number of lanes, N                          3
Density, D                                  26.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2025_Ph1_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1590           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2178           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2178           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.9           mi/h
Number of lanes, N                          3
Density, D                                  37.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2025_Ph1_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5470          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1410          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1930          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1930          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               63.8          mi/h
Number of lanes, N                           3
Density, D                                   30.2          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2025_Ph1_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5800           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1480           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2026           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2026           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.1           mi/h
Number of lanes, N                          3
Density, D                                  32.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2025_Ph1_AM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4020           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1036           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1064           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1064           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2025_Ph1_PM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6150          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1569          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1603          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1603          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.1          mi/h
Number of lanes, N                          4
Density, D                                  23.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2025_Ph1_AM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3840           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     990            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1401           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1401           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          3
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2025_Ph1_PM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6720           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1714           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2336           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2336           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.0           mi/h
Number of lanes, N                          3
Density, D                                  42.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2025_Ph1_AM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2840           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     732            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               604            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               604            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  8.6            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2025_Ph1_PM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5420          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1383          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1130          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1130          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  16.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2025_Ph1_AM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

__________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________Flow Inputs and Adjustments____________________________

Volume, V                                    4870           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1255           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1031           pc/h/ln

__________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

__________________________LOS and Performance Measures___________________________

Flow rate, vp                                1031           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           5
Density, D                                   14.7           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2025_Ph1_PM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6010           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1533           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1254           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1254           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2025_Ph1_AM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4430           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1142           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                943            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                943            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           5
Density, D                                   13.5           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2025_Ph1_PM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4120           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1051           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                868            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                868            pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           5
Density, D                                   12.4           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2025_Ph1_AM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1041           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               855            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               855            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2025_Ph1_PM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3250           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     829            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               678            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               678            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  9.7            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2025_Ph1_AM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     817            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               843            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               843            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2025_Ph1_PM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2630           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     671            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               686            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               686            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2025_Ph1_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4753    836     324     36      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1278    225     87      10
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5249    928     353     39      pc/h

Volume ratio, VR                               0.195

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1281        lc/h
Weaving lane changes, LCW                  1839        lc/h
Non-weaving vehicle index, INW             629
Non-weaving lane change, LCNW              1048        lc/h
Total lane changes, LCALL                  2887        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.343
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             54.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 24.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.601
Weaving segment flow rate, v               6569        pc/h
Weaving segment capacity, cW               10648       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4485        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2187         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.601        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2025_Ph1_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6004    521     318     35      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1532    133     81      9
Trucks and buses                       6       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6323    551     328     36      pc/h

Volume ratio, VR                               0.121

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        879         lc/h
Weaving lane changes, LCW                  1437        lc/h
Non-weaving vehicle index, INW             757
Non-weaving lane change, LCNW              1268        lc/h
Total lane changes, LCALL                  2705        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.326
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             56.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 25.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.646
Weaving segment flow rate, v               7238        pc/h
Weaving segment capacity, cW               10867       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3749        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2244         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.646        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2025_Ph1_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6162    668     647     72      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1656    180     174     19
Trucks and buses                       5       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6805    730     756     78      pc/h

Volume ratio, VR                               0.178

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        756         lc/h
Weaving lane changes, LCW                  973         lc/h
Non-weaving vehicle index, INW             482
Non-weaving lane change, LCNW              1027        lc/h
Total lane changes, LCALL                  2000        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.517
Average weaving speed, SW                  51.2        mi/h
Average non-weaving speed, SNW             54.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  53.9       mi/h
Weaving segment density, D                38.8       pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.981
Weaving segment flow rate, v              8369       pc/h
Weaving segment capacity, cW              8273       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4308         700         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2124         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.981        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2025_Ph1_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6002    526     821     59      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1531    134     209     15
Trucks and buses                       5       3       18      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.916   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6290    546     915     61      pc/h

Volume ratio, VR                               0.187

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        915         lc/h
Weaving lane changes, LCW                  1132        lc/h
Non-weaving vehicle index, INW             445
Non-weaving lane change, LCNW              917         lc/h
Total lane changes, LCALL                  2049        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.527
Average weaving speed, SW                  51.0        mi/h
Average non-weaving speed, SNW             54.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 36.5        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.917
Weaving segment flow rate, v               7812        pc/h
Weaving segment capacity, cW               8245        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4404        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2117         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.917        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2025_Ph1_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4855    1331    506     56      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1305    358     136     15
Trucks and buses                       6       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5387    1470    551     61      pc/h

Volume ratio, VR                               0.271

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1470        lc/h
Weaving lane changes, LCW                  1993        lc/h
Non-weaving vehicle index, INW             681
Non-weaving lane change, LCNW              837         lc/h
Total lane changes, LCALL                  2830        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.431
Average weaving speed, SW                  53.4        mi/h
Average non-weaving speed, SNW             52.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  52.6        mi/h
Weaving segment density, D                28.4        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.677
Weaving segment flow rate, v              7469        pc/h
Weaving segment capacity, cW              10717       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3705         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2212         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.677        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2025_Ph1_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7460    1735    570     63      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1903    443     145     16
Trucks and buses                       16      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8236    1818    589     65      pc/h

Volume ratio, VR                               0.225

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2341        lc/h
Non-weaving vehicle index, INW             1038
Non-weaving lane change, LCNW              1425        lc/h
Total lane changes, LCALL                  3766        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.540
Average weaving speed, SW                  50.7        mi/h
Average non-weaving speed, SNW             46.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   47.5        mi/h
Weaving segment density, D                 45.1        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.965
Weaving segment flow rate, v               10708       pc/h
Weaving segment capacity, cW               10393       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3225        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2249         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.965        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2025_Ph1_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5665    469     366     19      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1523    126     98      5
Trucks and buses                       6       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6286    513     398     21      pc/h

Volume ratio, VR                               0.126

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        911         lc/h
Weaving lane changes, LCW                  1523        lc/h
Non-weaving vehicle index, INW             1009
Non-weaving lane change, LCNW              1203        lc/h
Total lane changes, LCALL                  2726        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.344
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 25.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.648
Weaving segment flow rate, v               7218        pc/h
Weaving segment capacity, cW               10814       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3796        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2232         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.648        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2025_Ph1_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            Blaine St to University Ave
Analysis Year:               2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   1600        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5976    1099    488     26      veh/h
Peak hour factor, PHF                   0.98    0.98    0.98    0.98
Peak 15-min volume, v15                 1524    280     124     7
Trucks and buses                        15      2       3       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.929   0.988   0.983   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            6568    1135    506     27      pc/h

Volume ratio, VR                                0.199

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         1641        lc/h
Weaving lane changes, LCW                   2253        lc/h
Non-weaving vehicle index, INW              1055
Non-weaving lane change, LCNW               1263        lc/h
Total lane changes, LCALL                   3516        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.421
Average weaving speed, SW                   53.7        mi/h
Average non-weaving speed, SNW              50.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   50.9        mi/h
Weaving segment density, D                 32.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.767
Weaving segment flow rate, v               8236        pc/h
Weaving segment capacity, cW               10102       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4528        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2176         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.767        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2025_Ph1_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5543    476     595     25      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1490    128     160     7
Trucks and buses                       8       4       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.978   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6211    523     651     27      pc/h

Volume ratio, VR                               0.158

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        651         lc/h
Weaving lane changes, LCW                  1131        lc/h
Non-weaving vehicle index, INW             686
Non-weaving lane change, LCNW              918         lc/h
Total lane changes, LCALL                  2049        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                0.369
Average weaving speed, SW                  55.2        mi/h
Average non-weaving speed, SNW             58.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.7        mi/h
Weaving segment density, D                 25.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.686
Weaving segment flow rate, v               7412        pc/h
Weaving segment capacity, cW               10408       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4115        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2170         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.686        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2025_Ph1_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6430    909     275     15      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1640    232     70      4
Trucks and buses                       8       3       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.983   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6837    943     283     15      pc/h

Volume ratio, VR                               0.152

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        283         lc/h
Weaving lane changes, LCW                  763         lc/h
Non-weaving vehicle index, INW             754
Non-weaving lane change, LCNW              1045        lc/h
Total lane changes, LCALL                  1808        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.334
Average weaving speed, SW                  56.2        mi/h
Average non-weaving speed, SNW             60.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.6        mi/h
Weaving segment density, D                 27.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.746
Weaving segment flow rate, v               8078        pc/h
Weaving segment capacity, cW               10432       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4049        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2174         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.746        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2025_Ph1_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5920    567     429     23      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1591    152     115     6
Trucks and buses                       12      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.840   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7575    634     480     26      pc/h

Volume ratio, VR                               0.128

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.2         int/mi
Minimum RF lane changes, LCRF             0           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       480         lc/h
Weaving lane changes, LCW                 1396        lc/h
Non-weaving vehicle index, INW            2554
Non-weaving lane change, LCNW             3384        lc/h
Total lane changes, LCALL                 4780        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.345
Average weaving speed, SW                 55.9        mi/h
Average non-weaving speed, SNW            58.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.9        mi/h
Weaving segment density, D                 30.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.764
Weaving segment flow rate, v               8715        pc/h
Weaving segment capacity, cW               9761        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3812        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2322         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.764        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2025_Ph1_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7007    1387    442     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1788    354     113     6
Trucks and buses                       8       1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.885   0.976   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8079    1451    469     24      pc/h

Volume ratio, VR                               0.192

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        469         lc/h
Weaving lane changes, LCW                  1385        lc/h
Non-weaving vehicle index, INW             2723
Non-weaving lane change, LCNW              3496        lc/h
Total lane changes, LCALL                  4881        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.350
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             57.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 35.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.898
Weaving segment flow rate, v               10023       pc/h
Weaving segment capacity, cW               10062       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4450        2800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2273         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.898        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2025_Ph1_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2138    1203    268     30      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                575     323     72      8
Trucks and buses                       12      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2441    1328    292     33      pc/h

Volume ratio, VR                               0.396

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1328        lc/h
Weaving lane changes, LCW                  1796        lc/h
Non-weaving vehicle index, INW             238
Non-weaving lane change, LCNW              197         lc/h
Total lane changes, LCALL                  1993        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.337
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             56.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 14.5        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.470
Weaving segment flow rate, v               4094        pc/h
Weaving segment capacity, cW               8329        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5067        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2104         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.470        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2025_Ph1_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7893    2064    496     55      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2014    527     127     14
Trucks and buses                       5       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8272    2163    512     57      pc/h

Volume ratio, VR                               0.243

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2631        lc/h
Non-weaving vehicle index, INW             800
Non-weaving lane change, LCNW              1403        lc/h
Total lane changes, LCALL                  4034        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.588
Average weaving speed, SW                  49.6        mi/h
Average non-weaving speed, SNW             43.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   45.1        mi/h
Weaving segment density, D                 48.8        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.987
Weaving segment flow rate, v               11004       pc/h
Weaving segment capacity, cW               10862       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3416        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2231         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.987        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2025_Ph1_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                             Volume Components
                                            VFF     VRF     VFR     VRR
Volume, V                                    2093    421     1082    22      veh/h
Peak hour factor, PHF                        0.93    0.93    0.93    0.93
Peak 15-min volume, v15                      563     113     291     6
Trucks and buses                             13      2       2       2         %
Recreational vehicles                        1       1       1       1         %
Trucks and buses PCE, ET                     1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER                 1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV                0.937   0.988   0.988   0.988
Driver population adjustment, fP             1.00    1.00    1.00    1.00
Flow rate, v                                 2401    458     1177    24      pc/h

Volume ratio, VR                                     0.403

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        458         lc/h
Weaving lane changes, LCW                  829         lc/h
Non-weaving vehicle index, INW             378
Non-weaving lane change, LCNW              434         lc/h
Total lane changes, LCALL                  1263        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.221
Average weaving speed, SW                  60.0        mi/h
Average non-weaving speed, SNW             61.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.1        mi/h
Weaving segment density, D                 16.6        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.493
Weaving segment flow rate, v               4060        pc/h
Weaving segment capacity, cW               7895        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5146        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2106         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.493        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2025_Ph1_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5389    707     1365    37      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1375    180     348     9
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5675    730     1410    38      pc/h

Volume ratio, VR                               0.273

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        730         lc/h
Weaving lane changes, LCW                  1101        lc/h
Non-weaving vehicle index, INW             891
Non-weaving lane change, LCNW              1111        lc/h
Total lane changes, LCALL                  2212        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.344
Average weaving speed, SW                  55.9        mi/h
Average non-weaving speed, SNW             55.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 35.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.892
Weaving segment flow rate, v               7853        pc/h
Weaving segment capacity, cW               8581        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3725        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2214         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.892        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2025_Ph1_AM_Peak_SR-60_EB_Theodore__to_Gilman_Springs_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Theodore  to Gilman Springs Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1378    152     331     8       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                370     41      89      2
Trucks and buses                       9       20      3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.907   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1551    180     362     9       pc/h

Volume ratio, VR                               0.258

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        542         lc/h
Weaving lane changes, LCW                  774         lc/h
Non-weaving vehicle index, INW             250
Non-weaving lane change, LCNW              828         lc/h
Total lane changes, LCALL                  1602        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.190
Average weaving speed, SW                  61.2        mi/h
Average non-weaving speed, SNW             62.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.3        mi/h
Weaving segment density, D                 11.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.325
Weaving segment flow rate, v               2102        pc/h
Weaving segment capacity, cW               6189        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5136        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2160         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.325        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2025_Ph1_PM_Peak_SR-60_EB_Theodore__to_Gilman_Springs_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Theodore  to Gilman Springs Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2038    209     501     11      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                520     53      128     3
Trucks and buses                       4       15      3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.929   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2125    230     520     11      pc/h

Volume ratio, VR                               0.260

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        750         lc/h
Weaving lane changes, LCW                  982         lc/h
Non-weaving vehicle index, INW             342
Non-weaving lane change, LCNW              946         lc/h
Total lane changes, LCALL                  1928        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.220
Average weaving speed, SW                  60.1        mi/h
Average non-weaving speed, SNW             60.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.0        mi/h
Weaving segment density, D                 16.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.444
Weaving segment flow rate, v               2886        pc/h
Weaving segment capacity, cW               6335        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5157        2000         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2158         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.444        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2025_Ph1_AM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Gilman Springs Rd to Theodore
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1747    342     152     8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                450     88      39      2
Trucks and buses                       9       2       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1886    357     170     8       pc/h

Volume ratio, VR                               0.218

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   0.8         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       527         lc/h
Weaving lane changes, LCW                 790         lc/h
Non-weaving vehicle index, INW            379
Non-weaving lane change, LCNW             1167        lc/h
Total lane changes, LCALL                 1957        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.186
Average weaving speed, SW                 61.4        mi/h
Average non-weaving speed, SNW            62.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.1        mi/h
Weaving segment density, D                 13.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.363
Weaving segment flow rate, v               2421        pc/h
Weaving segment capacity, cW               6390        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4718         2500        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2230         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.363        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2025_Ph1_PM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Gilman Springs Rd to Theodore
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1424    345     161     9       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                375     91      42      2
Trucks and buses                       9       3       16      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.983   0.924   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1569    369     183     10      pc/h

Volume ratio, VR                               0.259

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        552         lc/h
Weaving lane changes, LCW                  815         lc/h
Non-weaving vehicle index, INW             316
Non-weaving lane change, LCNW              1102        lc/h
Total lane changes, LCALL                  1917        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.183
Average weaving speed, SW                  61.5        mi/h
Average non-weaving speed, SNW             62.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   62.3        mi/h
Weaving segment density, D                 11.4        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.324
Weaving segment flow rate, v               2131        pc/h
Weaving segment capacity, cW               6295        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5149        2500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2197         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.324        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2025_Ph1_AM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2141    406     201     11      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                552     105     52      3
Trucks and buses                       13      3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2355    426     210     11      pc/h

Volume ratio, VR                               0.212

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        210         lc/h
Weaving lane changes, LCW                  431         lc/h
Non-weaving vehicle index, INW             331
Non-weaving lane change, LCNW              994         lc/h
Total lane changes, LCALL                  1425        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.173
Average weaving speed, SW                  61.9        mi/h
Average non-weaving speed, SNW             63.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   63.3        mi/h
Weaving segment density, D                 15.8        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.460
Weaving segment flow rate, v               3002        pc/h
Weaving segment capacity, cW               6177        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4658        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2197         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.460        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                       HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2025_Ph1_PM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1939    430     133     7       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                510     113     35      2
Trucks and buses                       14      3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2188    460     142     7       pc/h

Volume ratio, VR                               0.215

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        142         lc/h
Weaving lane changes, LCW                  363         lc/h
Non-weaving vehicle index, INW             307
Non-weaving lane change, LCNW              958         lc/h
Total lane changes, LCALL                  1321        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.163
Average weaving speed, SW                  62.3        mi/h
Average non-weaving speed, SNW             64.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  64.0        mi/h
Weaving segment density, D                14.6        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.430
Weaving segment flow rate, v              2797        pc/h
Weaving segment capacity, cW              6140        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4693        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2194         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.430        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2025_Ph1_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3457    681     875     36      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                891     176     226     9
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3678    710     913     38      pc/h

Volume ratio, VR                               0.304

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1623        lc/h
Weaving lane changes, LCW                  1895        lc/h
Non-weaving vehicle index, INW             892
Non-weaving lane change, LCNW              1272        lc/h
Total lane changes, LCALL                  3167        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.325
Average weaving speed, SW                  56.5        mi/h
Average non-weaving speed, SNW             49.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.6        mi/h
Weaving segment density, D                 34.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.843
Weaving segment flow rate, v               5339        pc/h
Weaving segment capacity, cW               6172        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5627        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2123         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.843        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2025_Ph1_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2496    417     704     22      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                657     110     185     6
Trucks and buses                       10      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2764    444     750     23      pc/h

Volume ratio, VR                               0.300

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1194        lc/h
Weaving lane changes, LCW                  1466        lc/h
Non-weaving vehicle index, INW             669
Non-weaving lane change, LCNW              1080        lc/h
Total lane changes, LCALL                  2546        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.273
Average weaving speed, SW                  58.2        mi/h
Average non-weaving speed, SNW             55.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 23.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.632
Weaving segment flow rate, v               3981        pc/h
Weaving segment capacity, cW               6063        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5583         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2126         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.632        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2025_Ph1_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6427    552     651     29      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1656    142     168     7
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7288    592     698     31      pc/h

Volume ratio, VR                               0.150

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        592         lc/h
Weaving lane changes, LCW                  998         lc/h
Non-weaving vehicle index, INW             1317
Non-weaving lane change, LCNW              1598        lc/h
Total lane changes, LCALL                  2596        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.348
Average weaving speed, SW                  55.8        mi/h
Average non-weaving speed, SNW             55.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 38.8        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.934
Weaving segment flow rate, v               8609        pc/h
Weaving segment capacity, cW               8458        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2464        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2326         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.934        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2025_Ph1_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6904    405     519     21      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1817    107     137     6
Trucks and buses                       6       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7994    443     560     23      pc/h

Volume ratio, VR                               0.111

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        443         lc/h
Weaving lane changes, LCW                  849         lc/h
Non-weaving vehicle index, INW             1443
Non-weaving lane change, LCNW              2086        lc/h
Total lane changes, LCALL                  2935        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.384
Average weaving speed, SW                  54.7        mi/h
Average non-weaving speed, SNW             56.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.8        mi/h
Weaving segment density, D                 40.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.965
Weaving segment flow rate, v               9020        pc/h
Weaving segment capacity, cW               8564        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2083        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2356         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.965        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2025_Ph1_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5875    1057    624     33      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1514    272     161     9
Trucks and buses                       10      1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.993   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6372    1097    651     34      pc/h

Volume ratio, VR                               0.214

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         1748        lc/h
Weaving lane changes, LCW                   2055        lc/h
Non-weaving vehicle index, INW              705
Non-weaving lane change, LCNW               1145        lc/h
Total lane changes, LCALL                   3200        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.525
Average weaving speed, SW                   51.1        mi/h
Average non-weaving speed, SNW              47.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.3        mi/h
Weaving segment density, D                 42.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.968
Weaving segment flow rate, v               8154        pc/h
Weaving segment capacity, cW               8084        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4684        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2126         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.968        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2025_Ph1_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5811    1427    628     33      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1529    376     165     9
Trucks and buses                       9       51      3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.796   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6404    1888    672     35      pc/h

Volume ratio, VR                               0.284

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN                   lc/h
Weaving lane changes, LCW                             lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                         lc/h
Total lane changes, LCALL                             lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                             mi/h
Average non-weaving speed, SNW                        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.051
Weaving segment flow rate, v               8999        pc/h
Weaving segment capacity, cW               7908        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5418        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2070         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.051        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2025_Ph1_AM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6491    237     518     13      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1673    61      134     3
Trucks and buses                       6       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6906    248     540     14      pc/h

Volume ratio, VR                               0.102

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        248         lc/h
Weaving lane changes, LCW                  811         lc/h
Non-weaving vehicle index, INW             969
Non-weaving lane change, LCNW              1221        lc/h
Total lane changes, LCALL                  2032        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.303
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             60.8        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.4        mi/h
Weaving segment density, D                 25.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.656
Weaving segment flow rate, v               7708        pc/h
Weaving segment capacity, cW               11405       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1995        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2355         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.656        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2025_Ph1_PM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6174    496     492     26      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1625    131     129     7
Trucks and buses                       6       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6707    528     527     28      pc/h

Volume ratio, VR                               0.135

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        528         lc/h
Weaving lane changes, LCW                  1091        lc/h
Non-weaving vehicle index, INW             943
Non-weaving lane change, LCNW              1183        lc/h
Total lane changes, LCALL                  2274        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.331
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             58.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.4        mi/h
Weaving segment density, D                 26.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.670
Weaving segment flow rate, v               7790        pc/h
Weaving segment capacity, cW               11289       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2321        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2330         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.670        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2025_Ph1_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4152    1095    964     107     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1070    282     248     28
Trucks and buses                       6       2       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4417    1142    1026    112     pc/h

Volume ratio, VR                               0.324

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1142        lc/h
Weaving lane changes, LCW                  1637        lc/h
Non-weaving vehicle index, INW             521
Non-weaving lane change, LCNW              593         lc/h
Total lane changes, LCALL                  2230        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.381
Average weaving speed, SW                  54.8        mi/h
Average non-weaving speed, SNW             55.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.2        mi/h
Weaving segment density, D                 24.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.622
Weaving segment flow rate, v               6697        pc/h
Weaving segment capacity, cW               10470       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4274        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2161         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.622        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2025_Ph1_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4710    888     874     97      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1239    234     230     26
Trucks and buses                       6       2       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5117    946     954     103     pc/h

Volume ratio, VR                               0.267

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        946         lc/h
Weaving lane changes, LCW                  1441        lc/h
Non-weaving vehicle index, INW             600
Non-weaving lane change, LCNW              736         lc/h
Total lane changes, LCALL                  2177        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.374
Average weaving speed, SW                  55.0        mi/h
Average non-weaving speed, SNW             56.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.0        mi/h
Weaving segment density, D                25.4        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.646
Weaving segment flow rate, v              7120        pc/h
Weaving segment capacity, cW              10698       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3665         1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2207         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.646        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2025_Ph1_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5576    594     484     25      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1437    153     125     6
Trucks and buses                       14      2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6162    620     510     26      pc/h

Volume ratio, VR                               0.154

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1130        lc/h
Weaving lane changes, LCW                  1845        lc/h
Non-weaving vehicle index, INW             1188
Non-weaving lane change, LCNW              1613        lc/h
Total lane changes, LCALL                  3458        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.301
Average weaving speed, SW                  57.3        mi/h
Average non-weaving speed, SNW             54.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  55.2        mi/h
Weaving segment density, D                26.5        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.650
Weaving segment flow rate, v              7318        pc/h
Weaving segment capacity, cW              10597       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4075         2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2272         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.650        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2025_Ph1_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7197    755     463     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1894    199     122     6
Trucks and buses                       13      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8083    804     496     26      pc/h

Volume ratio, VR                               0.138

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1300        lc/h
Weaving lane changes, LCW                  2015        lc/h
Non-weaving vehicle index, INW             1557
Non-weaving lane change, LCNW              2597        lc/h
Total lane changes, LCALL                  4612        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.378
Average weaving speed, SW                  54.9        mi/h
Average non-weaving speed, SNW             51.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.0        mi/h
Weaving segment density, D                 36.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.830
Weaving segment flow rate, v               9409        pc/h
Weaving segment capacity, cW               10703       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3914        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2284         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.830        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2025_Ph1_AM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3877    524     1040    58      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                999     135     268     15
Trucks and buses                       12      2       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4245    547     1123    61      pc/h

Volume ratio, VR                               0.279

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        547         lc/h
Weaving lane changes, LCW                  1171        lc/h
Non-weaving vehicle index, INW             618
Non-weaving lane change, LCNW              1035        lc/h
Total lane changes, LCALL                  2206        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.239
Average weaving speed, SW                  59.4        mi/h
Average non-weaving speed, SNW             60.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.1        mi/h
Weaving segment density, D                 19.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.531
Weaving segment flow rate, v               5976        pc/h
Weaving segment capacity, cW               10669       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3799        2050         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2267         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.531        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2025_Ph1_PM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4787    502     984     56      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1260    132     259     15
Trucks and buses                       9       2       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5276    535     1084    60      pc/h

Volume ratio, VR                               0.233

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        535         lc/h
Weaving lane changes, LCW                  1159        lc/h
Non-weaving vehicle index, INW             766
Non-weaving lane change, LCNW              1247        lc/h
Total lane changes, LCALL                  2406        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.256
Average weaving speed, SW                  58.8        mi/h
Average non-weaving speed, SNW             59.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.3        mi/h
Weaving segment density, D                 23.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.605
Weaving segment flow rate, v               6955        pc/h
Weaving segment capacity, cW               11003       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3308        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2304         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.605        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2025_Ph1_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5996    593     798     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1545    153     206     8
Trucks and buses                       6       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6379    622     833     32      pc/h

Volume ratio, VR                               0.185

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        622         lc/h
Weaving lane changes, LCW                  996         lc/h
Non-weaving vehicle index, INW             872
Non-weaving lane change, LCNW              1472        lc/h
Total lane changes, LCALL                  2468        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.303
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             56.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                 56.3        mi/h
Weaving segment density, D               34.9        pc/mi/ln
Level of service, LOS                    D
Weaving segment v/c ratio                0.852
Weaving segment flow rate, v             7866        pc/h
Weaving segment capacity, cW             8973        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2817         1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2315         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.852        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2025_Ph1_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5569    762     1108    40      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1497    205     298     11
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6150    829     1206    44      pc/h

Volume ratio, VR                               0.247

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        829         lc/h
Weaving lane changes, LCW                  1203        lc/h
Non-weaving vehicle index, INW             842
Non-weaving lane change, LCNW              1427        lc/h
Total lane changes, LCALL                  2630        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.319
Average weaving speed, SW                  56.7        mi/h
Average non-weaving speed, SNW             54.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 37.6        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.912
Weaving segment flow rate, v               8229        pc/h
Weaving segment capacity, cW               8822        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3459        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2266         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.912        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2025_Ph1_AM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6465    585     303     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1666    151     78      4
Trucks and buses                       6       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6878    610     318     17      pc/h

Volume ratio, VR                               0.119

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        928         lc/h
Weaving lane changes, LCW                  1268        lc/h
Non-weaving vehicle index, INW             483
Non-weaving lane change, LCNW              837         lc/h
Total lane changes, LCALL                  2105        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.539
Average weaving speed, SW                  50.7        mi/h
Average non-weaving speed, SNW             55.8        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.2        mi/h
Weaving segment density, D                 28.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.723
Weaving segment flow rate, v               7823        pc/h
Weaving segment capacity, cW               10509       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3721         700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2169         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.723        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2025_Ph1_PM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4268    572     398     21      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1147    154     107     6
Trucks and buses                       5       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4713    622     435     23      pc/h

Volume ratio, VR                               0.182

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1057        lc/h
Weaving lane changes, LCW                  1397        lc/h
Non-weaving vehicle index, INW             332
Non-weaving lane change, LCNW              392         lc/h
Total lane changes, LCALL                  1789        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.474
Average weaving speed, SW                  52.3        mi/h
Average non-weaving speed, SNW             56.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 20.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.548
Weaving segment flow rate, v               5793        pc/h
Weaving segment capacity, cW               10321       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4358        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2121         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.548        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2025_Ph1_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7642    680     348     39      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1970    175     90      10
Trucks and buses                       4       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8052    762     363     41      pc/h

Volume ratio, VR                               0.122

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        363         lc/h
Weaving lane changes, LCW                  747         lc/h
Non-weaving vehicle index, INW             719
Non-weaving lane change, LCNW              1105        lc/h
Total lane changes, LCALL                  1852        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.466
Average weaving speed, SW                  52.5        mi/h
Average non-weaving speed, SNW             58.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.7        mi/h
Weaving segment density, D                 31.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.802
Weaving segment flow rate, v               9218        pc/h
Weaving segment capacity, cW               11199       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2189         740         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2289         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.802        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2025_Ph1_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              10674   834     415     46      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2869    224     112     12
Trucks and buses                       2       18      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.988   0.916   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           11615   979     452     50      pc/h

Volume ratio, VR                               0.109

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.133
Weaving segment flow rate, v               13096       pc/h
Weaving segment capacity, cW               11359       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2064        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.133        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2025_Ph1_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6543    692     308     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1686    178     79      4
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6894    722     321     17      pc/h

Volume ratio, VR                               0.131

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                 3           ln
Interchange density, ID                       1.0         int/mi
Minimum RF lane changes, LCRF                 1           lc/pc
Minimum FR lane changes, LCFR                 0           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           722         lc/h
Weaving lane changes, LCW                     910         lc/h
Non-weaving vehicle index, INW                415
Non-weaving lane change, LCNW                 978         lc/h
Total lane changes, LCALL                     1888        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.558
Average weaving speed, SW                     50.3        mi/h
Average non-weaving speed, SNW                55.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.6        mi/h
Weaving segment density, D                 36.5        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.876
Weaving segment flow rate, v               7954        pc/h
Weaving segment capacity, cW               8892        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2278         600         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2272         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.876        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2025_Ph1_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6006    976     319     17      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1615    262     86      5
Trucks and buses                       2       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.988   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6536    1062    347     18      pc/h

Volume ratio, VR                               0.177

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1062        lc/h
Weaving lane changes, LCW                  1250        lc/h
Non-weaving vehicle index, INW             393
Non-weaving lane change, LCNW              905         lc/h
Total lane changes, LCALL                  2155        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.620
Average weaving speed, SW                  49.0        mi/h
Average non-weaving speed, SNW             52.8        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.1        mi/h
Weaving segment density, D                 38.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.890
Weaving segment flow rate, v               7963        pc/h
Weaving segment capacity, cW               8842        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2736        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2237         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.890        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2025_Ph1_AM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2080    105     1017    6       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                559     28      273     2
Trucks and buses                       5       2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2297    114     1123    7       pc/h

Volume ratio, VR                               0.349

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        114         lc/h
Weaving lane changes, LCW                  571         lc/h
Non-weaving vehicle index, INW             167
Non-weaving lane change, LCNW              298         lc/h
Total lane changes, LCALL                  869         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.151
Average weaving speed, SW                  62.8        mi/h
Average non-weaving speed, SNW             65.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.7        mi/h
Weaving segment density, D                 10.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.354
Weaving segment flow rate, v               3541        pc/h
Weaving segment capacity, cW               9756        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4553        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2163         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.354        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2025_Ph1_PM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3435    88      760     5       veh/h
Peak hour factor, PHF                  0.94    0.94    0.94    0.94
Peak 15-min volume, v15                914     23      202     1
Trucks and buses                       4       1       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.993   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3735    94      830     5       pc/h

Volume ratio, VR                               0.198

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        94          lc/h
Weaving lane changes, LCW                  551         lc/h
Non-weaving vehicle index, INW             271
Non-weaving lane change, LCNW              593         lc/h
Total lane changes, LCALL                  1144        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.187
Average weaving speed, SW                  61.3        mi/h
Average non-weaving speed, SNW             64.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   64.1        mi/h
Weaving segment density, D                 14.5        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.408
Weaving segment flow rate, v               4664        pc/h
Weaving segment capacity, cW               11179       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2951        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2285         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.408        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2025_Ph1_AM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3637    438     60      3       veh/h
Peak hour factor, PHF                  0.86    0.86    0.86    0.86
Peak 15-min volume, v15                1057    127     17      1
Trucks and buses                       4       4       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4322    521     70      4       pc/h

Volume ratio, VR                               0.120

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        591         lc/h
Weaving lane changes, LCW                  972         lc/h
Non-weaving vehicle index, INW             238
Non-weaving lane change, LCNW              524         lc/h
Total lane changes, LCALL                  1496        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.288
Average weaving speed, SW                  57.7        mi/h
Average non-weaving speed, SNW             61.0        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.6        mi/h
Weaving segment density, D                 16.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.447
Weaving segment flow rate, v               4917        pc/h
Weaving segment capacity, cW               10753       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3737        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2198         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.447        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2025_Ph1_PM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2491    1515    125     7       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                642     390     32      2
Trucks and buses                       4       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2625    1596    130     7       pc/h

Volume ratio, VR                               0.396

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1726        lc/h
Weaving lane changes, LCW                  2107        lc/h
Non-weaving vehicle index, INW             145
Non-weaving lane change, LCNW              175         lc/h
Total lane changes, LCALL                  2282        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.402
Average weaving speed, SW                  54.2        mi/h
Average non-weaving speed, SNW             53.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  53.7        mi/h
Weaving segment density, D                16.2        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.720
Weaving segment flow rate, v              4358        pc/h
Weaving segment capacity, cW              5929        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           6637         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         1976         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.720        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2025_Ph1_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2236    2004    304     34      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                608     545     83      9
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2496    2248    334     37      pc/h

Volume ratio, VR                               0.505

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN                   lc/h
Weaving lane changes, LCW                             lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                         lc/h
Total lane changes, LCALL                             lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                             mi/h
Average non-weaving speed, SNW                        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.075
Weaving segment flow rate, v               5115        pc/h
Weaving segment capacity, cW               4629        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7882        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1957         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.075        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2025_Ph1_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2406    1719    553     61      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                620     443     143     16
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2547    1829    577     64      pc/h

Volume ratio, VR                               0.480

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.003
Weaving segment flow rate, v               5017        pc/h
Weaving segment capacity, cW               4873        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7589        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1980         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.003        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2025_Ph1_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5473    415     584     46      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1487    113     159     13
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6050    463     642     51      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        463         lc/h
Weaving lane changes, LCW                  944         lc/h
Non-weaving vehicle index, INW             610
Non-weaving lane change, LCNW              971         lc/h
Total lane changes, LCALL                  1915        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.316
Average weaving speed, SW                  56.8        mi/h
Average non-weaving speed, SNW             59.7        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.3        mi/h
Weaving segment density, D                 24.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.625
Weaving segment flow rate, v               7206        pc/h
Weaving segment capacity, cW               11327       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2499        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.625        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2025_Ph1_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8366    557     994     62      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2156    144     256     16
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8771    590     1037    65      pc/h

Volume ratio, VR                               0.156

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        590         lc/h
Weaving lane changes, LCW                  1071        lc/h
Non-weaving vehicle index, INW             884
Non-weaving lane change, LCNW              1535        lc/h
Total lane changes, LCALL                  2606        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.404
Average weaving speed, SW                  54.2        mi/h
Average non-weaving speed, SNW             55.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 37.7        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.909
Weaving segment flow rate, v               10463       pc/h
Weaving segment capacity, cW               11323       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2520        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2302         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.909        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2025_Ph1_AM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4959    504     528     27      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1348    137     143     7
Trucks and buses                       5       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5536    554     584     30      pc/h

Volume ratio, VR                               0.170

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        554         lc/h
Weaving lane changes, LCW                  952         lc/h
Non-weaving vehicle index, INW             473
Non-weaving lane change, LCNW              644         lc/h
Total lane changes, LCALL                  1596        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.372
Average weaving speed, SW                  55.1        mi/h
Average non-weaving speed, SNW             59.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.8        mi/h
Weaving segment density, D                 22.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.594
Weaving segment flow rate, v               6704        pc/h
Weaving segment capacity, cW               11008       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2663        850          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2261         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.594        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2025_Ph1_PM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5732    846     896     45      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1477    218     231     12
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6039    883     935     47      pc/h

Volume ratio, VR                               0.230

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        883         lc/h
Weaving lane changes, LCW                  1281        lc/h
Non-weaving vehicle index, INW             517
Non-weaving lane change, LCNW              751         lc/h
Total lane changes, LCALL                  2032        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.450
Average weaving speed, SW                  52.9        mi/h
Average non-weaving speed, SNW             56.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 28.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.716
Weaving segment flow rate, v               7904        pc/h
Weaving segment capacity, cW               10832       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3279        850          a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400        2214          c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00        0.716         d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2025_Ph1_AM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3188    373     767     20      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                866     101     208     5
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3524    410     844     22      pc/h

Volume ratio, VR                               0.261

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        410         lc/h
Weaving lane changes, LCW                  1449        lc/h
Non-weaving vehicle index, INW             787
Non-weaving lane change, LCNW              578         lc/h
Total lane changes, LCALL                  2027        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.243
Average weaving speed, SW                  59.3        mi/h
Average non-weaving speed, SNW             63.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  62.1        mi/h
Weaving segment density, D                12.9        pc/mi/ln
Level of service, LOS                     B
Weaving segment v/c ratio                 0.359
Weaving segment flow rate, v              4800        pc/h
Weaving segment capacity, cW              13173       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3606         1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2266         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.359        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2025_Ph1_PM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5697    1006    793     42      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1468    259     204     11
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5973    1050    827     44      pc/h

Volume ratio, VR                               0.238

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1050        lc/h
Weaving lane changes, LCW                  2089        lc/h
Non-weaving vehicle index, INW             1336
Non-weaving lane change, LCNW              1194        lc/h
Total lane changes, LCALL                  3283        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.355
Average weaving speed, SW                  55.6        mi/h
Average non-weaving speed, SNW             56.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 23.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.577
Weaving segment flow rate, v               7894        pc/h
Weaving segment capacity, cW               13475       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3360        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2284         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.577        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2025_Ph1_AM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6271    908     322     17      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1616    234     83      4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6575    947     336     18      pc/h

Volume ratio, VR                               0.163

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1283        lc/h
Weaving lane changes, LCW                  2074        lc/h
Non-weaving vehicle index, INW             949
Non-weaving lane change, LCNW              853         lc/h
Total lane changes, LCALL                  2927        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.457
Average weaving speed, SW                  52.8        mi/h
Average non-weaving speed, SNW             54.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.2        mi/h
Weaving segment density, D                 24.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.604
Weaving segment flow rate, v               7876        pc/h
Weaving segment capacity, cW               12826       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4160        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2173         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.604        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2025_Ph1_PM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4620    769     541     28      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1179    196     138     7
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4794    794     559     29      pc/h

Volume ratio, VR                               0.219

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1353        lc/h
Weaving lane changes, LCW                  2144        lc/h
Non-weaving vehicle index, INW             695
Non-weaving lane change, LCNW              488         lc/h
Total lane changes, LCALL                  2632        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.420
Average weaving speed, SW                  53.7        mi/h
Average non-weaving speed, SNW             55.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.0        mi/h
Weaving segment density, D                 18.7        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.564
Weaving segment flow rate, v               6176        pc/h
Weaving segment capacity, cW               10772       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4732        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2130         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.564        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2025_Ph1_AM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6922    183     383     10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1784    47      99      3
Trucks and buses                       5       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7329    193     400     10      pc/h

Volume ratio, VR                               0.075

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        193         lc/h
Weaving lane changes, LCW                  573         lc/h
Non-weaving vehicle index, INW             587
Non-weaving lane change, LCNW              982         lc/h
Total lane changes, LCALL                  1555        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.382
Average weaving speed, SW                  54.8        mi/h
Average non-weaving speed, SNW             61.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.5        mi/h
Weaving segment density, D                 26.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.682
Weaving segment flow rate, v               7932        pc/h
Weaving segment capacity, cW               11339       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1730        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2329         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.682        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2025_Ph1_PM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5554    473     536     25      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1417    121     137     6
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5820    491     554     26      pc/h

Volume ratio, VR                               0.152

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        491         lc/h
Weaving lane changes, LCW                  871         lc/h
Non-weaving vehicle index, INW             468
Non-weaving lane change, LCNW              675         lc/h
Total lane changes, LCALL                  1546        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.380
Average weaving speed, SW                  54.9        mi/h
Average non-weaving speed, SNW             59.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.0        mi/h
Weaving segment density, D                 23.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.608
Weaving segment flow rate, v               6891        pc/h
Weaving segment capacity, cW               11056       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2482        800          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2271         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.608        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2025_Ph1_AM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5610    90      1088    10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1446    23      280     3
Trucks and buses                       7       1       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.993   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5997    93      1146    10      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3            ln
Interchange density, ID                    0.8          int/mi
Minimum RF lane changes, LCRF              2            lc/pc
Minimum FR lane changes, LCFR              0            lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN        186          lc/h
Weaving lane changes, LCW                  692          lc/h
Non-weaving vehicle index, INW             649
Non-weaving lane change, LCNW              1006         lc/h
Total lane changes, LCALL                  1698         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.271
Average weaving speed, SW                  58.3         mi/h
Average non-weaving speed, SNW             61.7         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.1        mi/h
Weaving segment density, D                 23.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.632
Weaving segment flow rate, v               7246        pc/h
Weaving segment capacity, cW               11085       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2676        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2299         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.632        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                         HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2025_Ph1_PM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5467    218     800     24      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1395    56      204     6
Trucks and buses                       6       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5757    225     834     25      pc/h

Volume ratio, VR                               0.155

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               2           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         450         lc/h
Weaving lane changes, LCW                   956         lc/h
Non-weaving vehicle index, INW              624
Non-weaving lane change, LCNW               960         lc/h
Total lane changes, LCALL                   1916        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.298
Average weaving speed, SW                   57.4        mi/h
Average non-weaving speed, SNW              60.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.7        mi/h
Weaving segment density, D                 22.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.593
Weaving segment flow rate, v               6841        pc/h
Weaving segment capacity, cW               11197       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2513        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2311         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.593        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2025_Ph1_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5649    657     1160    73      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1456    169     299     19
Trucks and buses                       12      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6185    685     1228    76      pc/h

Volume ratio, VR                               0.234

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        685         lc/h
Weaving lane changes, LCW                  818         lc/h
Non-weaving vehicle index, INW             282
Non-weaving lane change, LCNW              763         lc/h
Total lane changes, LCALL                  1581        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.609
Average weaving speed, SW                  49.2        mi/h
Average non-weaving speed, SNW             55.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.7        mi/h
Weaving segment density, D                 38.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.947
Weaving segment flow rate, v               8174        pc/h
Weaving segment capacity, cW               8211        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3321        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2180         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.947        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2025_Ph1_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4342    787     2032    87      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1108    201     518     22
Trucks and buses                       9       2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4639    813     2129    90      pc/h

Volume ratio, VR                               0.384

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        813         lc/h
Weaving lane changes, LCW                  946         lc/h
Non-weaving vehicle index, INW             213
Non-weaving lane change, LCNW              448         lc/h
Total lane changes, LCALL                  1394        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.552
Average weaving speed, SW                  50.4        mi/h
Average non-weaving speed, SNW             54.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.1        mi/h
Weaving segment density, D                 36.1        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.941
Weaving segment flow rate, v               7671        pc/h
Weaving segment capacity, cW               7859        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4931        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2057         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.941        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2025_Ph1_AM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3092    287     1045    15      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                840     78      284     4
Trucks and buses                       5       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3452    325     1150    17      pc/h

Volume ratio, VR                               0.298

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1475        lc/h
Weaving lane changes, LCW                  1775        lc/h
Non-weaving vehicle index, INW             333
Non-weaving lane change, LCNW              595         lc/h
Total lane changes, LCALL                  2370        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.387
Average weaving speed, SW                  54.7        mi/h
Average non-weaving speed, SNW             53.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.8        mi/h
Weaving segment density, D                 23.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.616
Weaving segment flow rate, v               4944        pc/h
Weaving segment capacity, cW               7833        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5566        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2066         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.616        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2025_Ph1_PM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4618    151     702     8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1190    39      181     2
Trucks and buses                       5       6       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4889    161     740     8       pc/h

Volume ratio, VR                               0.155

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        901         lc/h
Weaving lane changes, LCW                  1201        lc/h
Non-weaving vehicle index, INW             470
Non-weaving lane change, LCNW              889         lc/h
Total lane changes, LCALL                  2090        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                0.350
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             56.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.4        mi/h
Weaving segment density, D                 25.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.666
Weaving segment flow rate, v               5798        pc/h
Weaving segment capacity, cW               8487        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4085        1200         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2180         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.666        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2025_Ph1_AM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5253    411     488     46      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1354    106     126     12
Trucks and buses                       5       39      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.835   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5562    507     509     48      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        507         lc/h
Weaving lane changes, LCW                  956         lc/h
Non-weaving vehicle index, INW             561
Non-weaving lane change, LCNW              735         lc/h
Total lane changes, LCALL                  1691        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.342
Average weaving speed, SW                  56.0        mi/h
Average non-weaving speed, SNW             60.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  59.3        mi/h
Weaving segment density, D                22.3        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.574
Weaving segment flow rate, v              6626        pc/h
Weaving segment capacity, cW              11125       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2499         1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2286         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.574        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2025_Ph1_PM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4907    763     814     85      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1252    195     208     22
Trucks and buses                       5       28      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.876   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5142    889     841     88      pc/h

Volume ratio, VR                               0.249

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       889         lc/h
Weaving lane changes, LCW                 1338        lc/h
Non-weaving vehicle index, INW            523
Non-weaving lane change, LCNW             656         lc/h
Total lane changes, LCALL                 1994        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.390
Average weaving speed, SW                 54.6        mi/h
Average non-weaving speed, SNW            56.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.3        mi/h
Weaving segment density, D                 24.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.623
Weaving segment flow rate, v               6960        pc/h
Weaving segment capacity, cW               10764       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3473        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2210         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.623        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2025_Ph1_AM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4919    481     171     9       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1268    124     44      2
Trucks and buses                       5       7       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.964   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5208    514     192     9       pc/h

Volume ratio, VR                               0.119

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        192         lc/h
Weaving lane changes, LCW                  516         lc/h
Non-weaving vehicle index, INW             563
Non-weaving lane change, LCNW              1036        lc/h
Total lane changes, LCALL                  1552        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.252
Average weaving speed, SW                  58.9        mi/h
Average non-weaving speed, SNW             61.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.2        mi/h
Weaving segment density, D                 24.2        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.666
Weaving segment flow rate, v               5923        pc/h
Weaving segment capacity, cW               8639        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3727        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2218         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.666        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2025_Ph1_PM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5236    794     114     6       veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1336    203     29      2
Trucks and buses                       5       2       25      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.887   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5487    820     131     6       pc/h

Volume ratio, VR                               0.148

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        131         lc/h
Weaving lane changes, LCW                  455         lc/h
Non-weaving vehicle index, INW             593
Non-weaving lane change, LCNW              1093        lc/h
Total lane changes, LCALL                  1548        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.252
Average weaving speed, SW                  58.9        mi/h
Average non-weaving speed, SNW             61.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.0        mi/h
Weaving segment density, D                 26.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.733
Weaving segment flow rate, v               6444        pc/h
Weaving segment capacity, cW               8557        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4007         1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2196         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.733        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2025_Ph1_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                           Merge
Number of lanes in freeway                 4
Free-flow speed on freeway                 70.0           mph
Volume on freeway                          9780           vph

__________________________________On Ramp Data_________________________________

Side of freeway                            Right
Number of lanes in ramp                    1
Free-Flow speed on ramp                    35.0           mph
Volume on ramp                             530            vph
Length of first accel/decel lane           1000           ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                  Yes
Volume on adjacent ramp                    620            vph
Position of adjacent ramp                  Upstream
Type of adjacent ramp                      Off
Distance to adjacent ramp                  2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                   Freeway     Ramp        Adjacent
                                                              Ramp
Volume, V (vph)                       9780        530         620       vph
Peak-hour factor, PHF                 0.93        0.95        0.95
Peak 15-min volume, v15               2629        139         163       v
Trucks and buses                      4           8           3         %
Recreational vehicles                 1           1           1         %
Terrain type:                         Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET              1.5         1.5         1.5
Recreational vehicle PCE, ER          1.2         1.2         1.2
Heavy vehicle adjustment, fHV         0.978       0.960       0.983
Driver population factor, fP          1.00        1.00        1.00
Flow rate, vp                         10747       581         664       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.145   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1560   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     11328         9600            Yes
      FO
     v  or v               4593 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 5347                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                5928          4600                   Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   45.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 1.715
                                              S
Space mean speed in ramp influence area,     S  = 22.0    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 31.6    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2025_Ph1_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9060           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1070           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     290            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9060        1070        290       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2311        282         76        v
Trucks and buses                       4           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9448        1134        307       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.076   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  719    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     10582         9600            Yes
      FO
     v  or v               4364 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 4048                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                5182          4600                  Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   39.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.945
                                              S
Space mean speed in ramp influence area,     S  = 43.5    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 51.0    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2025_Ph1_AM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6350           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              590            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     180            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6350        590         180       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                1707        155         47        v
Trucks and buses                       13          2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7285        629         192       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =           (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.139   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  740    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5948          12000           No
      FO
     v  or v               2289 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2127                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2756          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.277
                                              S
Space mean speed in ramp influence area,     S  = 62.2    mph
                                              R
Space mean speed in outer lanes,             S  = 66.1    mph
                                              0
Space mean speed for all vehicles,           S  = 64.2    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2025_Ph1_PM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7450           vph

__________________________________On Ramp Data__________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1410           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7450        1410        90        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1901        371         24        v
Trucks and buses                       9           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00     mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          7959        1495        95        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.031   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  176    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7186          12000           No
      FO
     v  or v               2757 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2276                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3771          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   24.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.385
                                              S
Space mean speed in ramp influence area,     S  = 59.2    mph
                                              R
Space mean speed in outer lanes,             S  = 65.7    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2025_Ph1_AM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2380           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              590            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2380        590         130       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                640         155         34        v
Trucks and buses                       14          7           11        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.964       0.946
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2743        644         145       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.662   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2033   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2743          7200            No
      Fi   F
     v  = v - v            2099          7200            No
      FO   F   R
     v                     644           2000            No
      R
     v  or v               710  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2033                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2033          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   8.2     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.486
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2025_Ph1_PM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2900           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              810            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     330            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2900        810         330       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                740         213         87        v
Trucks and buses                       9           4           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.978       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3098        871         357       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.642   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2302   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3098          7200            No
      Fi   F
     v  = v - v            2227          7200            No
      FO   F   R
     v                     871           2000            No
      R
     v  or v               796  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2302                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2302          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   10.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.506
                                              S
Space mean speed in ramp influence area,     S  = 55.8    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2025_Ph1_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2190           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              130            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     590            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2190        130         590       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                589         34          155       v
Trucks and buses                       15          11          7         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.946       0.964
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2536        145         644       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    445.93  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1536   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2681          7200            No
      FO
     v  or v               1000 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1536                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1681          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   12.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.272
                                              S
Space mean speed in ramp influence area,     S  = 62.4    mph
                                              R
Space mean speed in outer lanes,             S  = 68.2    mph
                                              0
Space mean speed for all vehicles,           S  = 64.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2025_Ph1_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2550           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              330            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     810            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2550        330         810       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                651         87          213       v
Trucks and buses                       10          5           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.974       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2737        357         871       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    534.32  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1657   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3094          7200            No
      FO
     v  or v               1080 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1657                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2014          4600                 No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.280
                                              S
Space mean speed in ramp influence area,     S  = 62.2    mph
                                              R
Space mean speed in outer lanes,             S  = 67.9    mph
                                              0
Space mean speed for all vehicles,           S  = 64.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2025_Ph1_AM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2320           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              460            vph
Length of first accel/decel lane            500            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     20             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2320        460         20        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                624         121         5         v
Trucks and buses                       15          43          1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.822       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2687        589         21        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =             (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.666   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1986   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2687          7200            No
      Fi   F
     v  = v - v            2098          7200            No
      FO   F   R
     v                     589           2000            No
      R
     v  or v               701  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1986                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1986          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   16.8    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.481
                                              S
Space mean speed in ramp influence area,     S  = 56.5    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2025_Ph1_PM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2880           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              510            vph
Length of first accel/decel lane            500            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     20             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2880        510         20        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                735         134         5         v
Trucks and buses                       9           36          1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.846       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3077        635         21        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.654   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2232   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3077          7200            No
      Fi   F
     v  = v - v            2442          7200            No
      FO   F   R
     v                     635           2000            No
      R
     v  or v               845  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2232                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2232          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   18.9    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.485
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2025_Ph1_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1850           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              20             vph
Length of first accel/decel lane            1400           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     460            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1850        20          460       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                497         5           121       v
Trucks and buses                       9           1           43        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.993       0.822
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2083        21          589       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    500.06  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1285   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2104          7200            No
      FO
     v  or v               798  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1285                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1306          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   6.9     pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.237
                                              S
Space mean speed in ramp influence area,     S  = 63.4    mph
                                              R
Space mean speed in outer lanes,             S  = 68.9    mph
                                              0
Space mean speed for all vehicles,           S  = 65.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2025_Ph1_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           2740          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              20            vph
Length of first accel/decel lane            1400          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     510           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2740        20          510       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                699         5           134       v
Trucks and buses                       4           1           36        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.993       0.846
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2857        21          635       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    665.69  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1762   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2878          7200            No
      FO
     v  or v               1095 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1762                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1783          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   10.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.246
                                              S
Space mean speed in ramp influence area,     S  = 63.1    mph
                                              R
Space mean speed in outer lanes,             S  = 67.9    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2025_Ph1_AM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1322           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              7              vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     339            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1322        7           339       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                355         2           89        v
Trucks and buses                       3           1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1446        7           363       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    -83.26  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  851    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     1453          7200            No
      FO
     v  or v               595  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 851                    (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                858           4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v    - 0.00627 L   =   9.7     pc/mi/ln
          R                   R           12              A
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.302
                                              S
Space mean speed in ramp influence area,     S  = 61.5    mph
                                              R
Space mean speed in outer lanes,             S  = 69.7    mph
                                              0
Space mean speed for all vehicles,           S  = 64.6    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2025_Ph1_PM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2140           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              9              vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     512            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2140        9           512       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                546                     135       v
Trucks and buses                       2           1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.988       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2210        10          548       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    80.88   (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1301   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2220          7200            No
      FO
     v  or v               909  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1301                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1311          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.307
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  = 68.5    mph
                                              0
Space mean speed for all vehicles,           S  = 64.1    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2025_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1810           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              11             vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     350            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1810        11          350       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                466         3           92        v
Trucks and buses                       3           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1898        12          373       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.712   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1355   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1898          7200            No
      Fi   F
     v  = v - v            1886          7200            No
      FO   F   R
     v                     12            2000            No
      R
     v  or v               543  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1355                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1355          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   14.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2025_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                          Diverge
Number of lanes in freeway                3
Free-flow speed on freeway                70.0          mph
Volume on freeway                         1500          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0          mph
Volume on ramp                            36            vph
Length of first accel/decel lane          200           ft
Length of second accel/decel lane                       ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   354           vph
Position of adjacent ramp                 Downstream
Type of adjacent ramp                     On
Distance to adjacent ramp                 1800          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                  Freeway     Ramp        Adjacent
                                                             Ramp
Volume, V (vph)                      1500        36          354       vph
Peak-hour factor, PHF                0.95        0.95        0.95
Peak 15-min volume, v15              395         9           93        v
Trucks and buses                     3           1           3         %
Recreational vehicles                1           1           1         %
Terrain type:                        Level       Level       Level
     Grade                                   %           %   0.00    %
     Length                                  mi          mi  0.00    mi
Trucks and buses PCE, ET             1.5         1.5         1.5
Recreational vehicle PCE, ER         1.2         1.2         1.2
Heavy vehicle adjustment, fHV        0.983       0.993       0.983
Driver population factor, fP         1.00        1.00        1.00
Flow rate, vp                        1606        38          379       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.718   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1164   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                1606          7200            No
      Fi   F
     v  = v - v            1568          7200            No
      FO   F   R
     v                     38            2000            No
      R
     v  or v               442  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1164                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                1164          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   12.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.431
                                              S
Space mean speed in ramp influence area,     S  = 57.9    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2025_Ph1_AM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                          Merge
Number of lanes in freeway                3
Free-flow speed on freeway                70.0           mph
Volume on freeway                         2090           vph

__________________________________On Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0           mph
Volume on ramp                            630            vph
Length of first accel/decel lane          850            ft
Length of second accel/decel lane                        ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   160            vph
Position of adjacent ramp                 Upstream
Type of adjacent ramp                     Off
Distance to adjacent ramp                 1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                   Freeway     Ramp        Adjacent
                                                              Ramp
Volume, V (vph)                       2090        630         160       vph
Peak-hour factor, PHF                 0.97        0.95        0.95
Peak 15-min volume, v15               539         166         42        v
Trucks and buses                      8           39          17        %
Recreational vehicles                 1           1           1         %
Terrain type:                         Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET              1.5         1.5         1.5
Recreational vehicle PCE, ER          1.2         1.2         1.2
Heavy vehicle adjustment, fHV         0.960       0.835       0.920
Driver population factor, fP          1.00        1.00        1.00
Flow rate, vp                         2245        794         183       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    455.95  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1350   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3039          7200            No
      FO
     v  or v               895  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1350                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2144          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   16.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.295
                                              S
Space mean speed in ramp influence area,     S  = 61.7    mph
                                              R
Space mean speed in outer lanes,             S  = 68.6    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2025_Ph1_PM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis_________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

___________________________________Freeway Data_________________________________

Type of analysis                             Merge
Number of lanes in freeway                   3
Free-flow speed on freeway                   70.0           mph
Volume on freeway                            2040           vph

___________________________________On Ramp Data_________________________________

Side of freeway                              Right
Number of lanes in ramp                      1
Free-Flow speed on ramp                      35.0           mph
Volume on ramp                               420            vph
Length of first accel/decel lane             850            ft
Length of second accel/decel lane                           ft

_________________________Adjacent Ramp Data (if one exists)_____________________

Does adjacent ramp exist?                    Yes
Volume on adjacent ramp                      170            vph
Position of adjacent ramp                    Upstream
Type of adjacent ramp                        Off
Distance to adjacent ramp                    1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                     Freeway     Ramp        Adjacent
                                                                Ramp
Volume, V (vph)                         2040        420         170       vph
Peak-hour factor, PHF                   0.95        0.95        0.95
Peak 15-min volume, v15                 537         111         45        v
Trucks and buses                        7           47          16        %
Recreational vehicles                   1           1           1         %
Terrain type:                           Level       Level       Level
     Grade                                      %           %   0.00    %
     Length                                     mi          mi  0.00    mi
Trucks and buses PCE, ET                1.5         1.5         1.5
Recreational vehicle PCE, ER            1.2         1.2         1.2
Heavy vehicle adjustment, fHV           0.964       0.808       0.924
Driver population factor, fP            1.00        1.00        1.00
Flow rate, vp                           2227        547         194       pcph

_________________________Estimation of V12 Merge Areas__________________________

                  L  =    399.24  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1339   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2774          7200            No
      FO
     v  or v               888  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1339                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1886          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   14.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.287
                                              S
Space mean speed in ramp influence area,     S  = 62.0    mph
                                              R
Space mean speed in outer lanes,             S  = 68.6    mph
                                              0
Space mean speed for all vehicles,           S  = 63.9    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2025_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2720           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              340            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     640            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2720        340         640       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                701         89          168       v
Trucks and buses                       15          8           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.960       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3020        373         685       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.667   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2139   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3020          7200            No
      Fi   F
     v  = v - v            2647          7200            No
      FO   F   R
     v                     373           2000            No
      R
     v  or v               881  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2139                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2139          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   9.1     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.462
                                              S
Space mean speed in ramp influence area,     S  = 57.1    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 61.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2025_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2460           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              150            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     580            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2460        150         580       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                647         39          153       v
Trucks and buses                       14          3           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.983       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2776        161         630       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.683   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  1948   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2776          7200            No
      Fi   F
     v  = v - v            2615          7200            No
      FO   F   R
     v                     161           2000            No
      R
     v  or v               828  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1948                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1948          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   7.5     pc/mi/ln
                        R                   12         D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                D  = 0.442
                                             S
Space mean speed in ramp influence area,    S  = 57.6    mph
                                             R
Space mean speed in outer lanes,            S  = 76.8    mph
                                             0
Space mean speed for all vehicles,          S  = 62.2    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2025_Ph1_AM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2180           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              640            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     340            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2180        640         340       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                562         168         89        v
Trucks and buses                       16          3           8         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.924       0.983       0.960
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2432        685         373       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    539.24  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1473   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3117          7200            No
      FO
     v  or v               959  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1473                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2158          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.285
                                              S
Space mean speed in ramp influence area,     S  = 62.0    mph
                                              R
Space mean speed in outer lanes,             S  = 68.3    mph
                                              0
Space mean speed for all vehicles,           S  = 63.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2025_Ph1_PM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2110           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              580            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     150            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2110        580         150       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                555         153         39        v
Trucks and buses                       16          6           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.924       0.969       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2403        630         161       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    521.26  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1455   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3033          7200            No
      FO
     v  or v               948  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1455                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2085          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   15.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.282
                                              S
Space mean speed in ramp influence area,     S  = 62.1    mph
                                              R
Space mean speed in outer lanes,             S  = 68.4    mph
                                              0
Space mean speed for all vehicles,           S  = 63.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2025_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7660           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              680            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     637            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7660        680         637       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1974        179         168       v
Trucks and buses                       6           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8150        724         679       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2655   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8150          9600            No
      Fi   F
     v  = v - v            7426          9600            No
      FO   F   R
     v                     724           4000            No
      R
     v  or v               2747 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3260                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3260          4400                   No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   5.3     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.493
                                              S
Space mean speed in ramp influence area,     S  = 56.2    mph
                                              R
Space mean speed in outer lanes,             S  = 71.2    mph
                                              0
Space mean speed for all vehicles,           S  = 64.3    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2025_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7850           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              540            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     819            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7850        540         819       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                2066        142         216       v
Trucks and buses                       6           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8528        572         872       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2641   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8528          9600            No
      Fi   F
     v  = v - v            7956          9600            No
      FO   F   R
     v                     572           4000            No
      R
     v  or v               2943 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3411                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3411          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   6.6     pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence A

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.479
                                              S
Space mean speed in ramp influence area,     S  = 56.6    mph
                                              R
Space mean speed in outer lanes,             S  = 70.7    mph
                                              0
Space mean speed for all vehicles,           S  = 64.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2025_Ph1_AM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7650           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              660            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1090           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7650        660         1090      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1972        174         287       v
Trucks and buses                       9           2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8257        703         1155      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3997   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8257          9600            No
      Fi   F
     v  = v - v            7554          9600            No
      FO   F   R
     v                     703           2000            No
      R
     v  or v               2130 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3997                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                3997          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   25.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.491
                                              S
Space mean speed in ramp influence area,     S  = 56.2    mph
                                              R
Space mean speed in outer lanes,             S  = 72.4    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2025_Ph1_PM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1
Description:  World Logistics Center - 2025 Plus Phase 1

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7790           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1020           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1460           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7790        1020        1460      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                2050        268         384       v
Trucks and buses                       6           51          51        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.796       0.796
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8462        1350        1932      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4451   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8462          9600            No
      Fi   F
     v  = v - v            7112          9600            No
      FO   F   R
     v                     1350          2000            No
      R
     v  or v               2005 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4451                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4451          4400                  Yes
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   29.0    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.549
                                              S
Space mean speed in ramp influence area,     S  = 54.6    mph
                                              R
Space mean speed in outer lanes,             S  = 72.9    mph
                                              0
Space mean speed for all vehicles,           S  = 62.0    mph
_______________________________________________________________________________
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2025_Ph1_Mit_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8730          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2347          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1928          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1928          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.9          mi/h
Number of lanes, N                          5
Density, D                                  30.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2025_Ph1_Mit_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9460           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2413           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1983           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1983           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.9           mi/h
Number of lanes, N                          5
Density, D                                  31.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2025_Ph1_Mit_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7850           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2110           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1734           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1734           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          5
Density, D                                  26.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2025_Ph1_Mit_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8350           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2130           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1750           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1750           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          5
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2025_Ph1_Mit_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2202           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1809           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1809           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          5
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2025_Ph1_Mit_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8340           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2128           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1748           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1748           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          5
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2025_Ph1_Mit_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8110           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2180           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1791           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1791           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.9           mi/h
Number of lanes, N                          5
Density, D                                  27.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2025_Ph1_Mit_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8500           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2168           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1782           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1782           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          5
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2025_Ph1_Mit_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5890          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1583          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1626          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1626          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.9          mi/h
Number of lanes, N                          4
Density, D                                  23.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2025_Ph1_Mit_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6870           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1753           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1809           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1809           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          4
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2025_Ph1_Mit_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10310          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2772           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2372           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2372           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.1           mi/h
Number of lanes, N                          5
Density, D                                  43.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2025_Ph1_Mit_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    10130          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      2584           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Rolling
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     2.5
Recreational vehicle PCE, ER                 2.0
Heavy vehicle adjustment, fHV                0.935
Driver population factor, fp                 1.00
Flow rate, vp                                2212           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2212           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               58.1           mi/h
Number of lanes, N                           5
Density, D                                   38.1           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2025_Ph1_Mit_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1289           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1790           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1790           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.0           mi/h
Number of lanes, N                          3
Density, D                                  27.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2025_Ph1_Mit_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3050           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     803            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1131           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1131           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2025_Ph1_Mit_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4760          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1227          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1721          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1721          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.9          mi/h
Number of lanes, N                          3
Density, D                                  25.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2025_Ph1_Mit_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3410           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     897            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1271           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1271           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          3
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2025_Ph1_Mit_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7540           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1943           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1604           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1604           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          5
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2025_Ph1_Mit_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8580           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2258           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1864           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1864           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          5
Density, D                                  28.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2025_Ph1_Mit_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7650          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1972          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Rolling
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.873
Driver population factor, fp                1.00
Flow rate, vp                               1806          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1806          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.7          mi/h
Number of lanes, N                          5
Density, D                                  27.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2025_Ph1_Mit_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7790          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2050          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Rolling
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               1804          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1804          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.8          mi/h
Number of lanes, N                          5
Density, D                                  27.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 52_2025_Ph1_Mit_AM_Peak_I-215_SB_MLK_Blvd_to_University_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MLK Blvd to University Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7590          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1956          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2058          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2058          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.5          mi/h
Number of lanes, N                          4
Density, D                                  33.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 52_2025_Ph1_Mit_PM_Peak_I-215_SB_MLK_Blvd_to_University_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MLK Blvd to University Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7900           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2015           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2110           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2110           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.4           mi/h
Number of lanes, N                          4
Density, D                                  34.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2025_Ph1_Mit_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Main St to Market St
Jurisdiction:            Caltrans
Analysis Year:           2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1778           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1826           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1826           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          4
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2025_Ph1_Mit_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6020           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1584           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1627           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1627           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.9           mi/h
Number of lanes, N                          4
Density, D                                  24.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2025_Ph1_Mit_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5210           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1343           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1372           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1372           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.7           mi/h
Number of lanes, N                           4
Density, D                                   19.7           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2025_Ph1_Mit_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6450           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1697           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1735           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1735           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  26.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2025_Ph1_Mit_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1289           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1330           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1330           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2025_Ph1_Mit_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1624           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1676           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1676           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2025_Ph1_Mit_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7850          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2023          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1703          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1703          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.1          mi/h
Number of lanes, N                          5
Density, D                                  25.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2025_Ph1_Mit_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10010          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2634           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2185           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2185           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.7           mi/h
Number of lanes, N                          5
Density, D                                  37.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2025_Ph1_Mit_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1729           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1414           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1414           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          5
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2025_Ph1_Mit_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9970          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      2624          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2156          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2156          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               59.4          mi/h
Number of lanes, N                           5
Density, D                                   36.3          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2025_Ph1_Mit_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1843           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1529           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1529           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          5
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2025_Ph1_Mit_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8000           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2105           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1730           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1730           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          5
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2025_Ph1_Mit_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6880           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1773           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1830           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1830           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          4
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2025_Ph1_Mit_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7490          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2013          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2068          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2068          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               61.3          mi/h
Number of lanes, N                           4
Density, D                                   33.8          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2025_Ph1_Mit_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7720           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1990           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2053           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2053           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.6           mi/h
Number of lanes, N                          4
Density, D                                  33.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2025_Ph1_Mit_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8560           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2301           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2363           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2363           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.3           mi/h
Number of lanes, N                          4
Density, D                                  43.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2025_Ph1_Mit_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7310           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1884           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1982           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1982           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.9           mi/h
Number of lanes, N                          4
Density, D                                  31.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2025_Ph1_Mit_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6200          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1667          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1720          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1720          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               66.9          mi/h
Number of lanes, N                           4
Density, D                                   25.7          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2025_Ph1_Mit_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7440           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1918           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1960           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1960           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          4
Density, D                                  31.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2025_Ph1_Mit_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7240          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1946          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1979          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1979          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.0          mi/h
Number of lanes, N                          4
Density, D                                  31.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2025_Ph1_Mit_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6300           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1624           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1328           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1328           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          5
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2025_Ph1_Mit_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7820          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2102          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1719          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1719          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               66.9          mi/h
Number of lanes, N                           5
Density, D                                   25.7          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2025_Ph1_Mit_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6740          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1737          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1420          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1420          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.4          mi/h
Number of lanes, N                          5
Density, D                                  20.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2025_Ph1_Mit_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8280           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2226           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1811           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1811           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          5
Density, D                                  27.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2025_Ph1_Mit_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6440           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1660           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1357           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1357           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          5
Density, D                                  19.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2025_Ph1_Mit_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8340           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2242           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1824           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1824           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          5
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2025_Ph1_Mit_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6260          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1613          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1657          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1657          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.6          mi/h
Number of lanes, N                          4
Density, D                                  24.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2025_Ph1_Mit_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7450          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2003          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2037          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2037          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.9          mi/h
Number of lanes, N                          4
Density, D                                  32.9          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2025_Ph1_Mit_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1892           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1933           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1933           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.8           mi/h
Number of lanes, N                          4
Density, D                                  30.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2025_Ph1_Mit_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   7390           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1987           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2020           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               2020           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.2           mi/h
Number of lanes, N                          4
Density, D                                  32.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2025_Ph1_Mit_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1861           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1902           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1902           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          4
Density, D                                  29.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2025_Ph1_Mit_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7320           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1968           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2001           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2001           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          4
Density, D                                  32.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2025_Ph1_Mit_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7190           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1853           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1912           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1912           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          4
Density, D                                  29.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2025_Ph1_Mit_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7400          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1989          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2053          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2053          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.6          mi/h
Number of lanes, N                          4
Density, D                                  33.3          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2025_Ph1_Mit_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6630          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1709          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1418          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1418          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.4          mi/h
Number of lanes, N                           5
Density, D                                   20.4          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2025_Ph1_Mit_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7660           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2059           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1692           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1692           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          5
Density, D                                  25.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 134_2025_Ph1_Mit_AM_Peak_I-215_SB_SR-60_to_Columbia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-60 to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4580           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1180           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1212           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1212           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 134_2025_Ph1_Mit_PM_Peak_I-215_SB_SR-60_to_Columbia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-60 to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4740           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1209           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1242           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1242           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2025_Ph1_Mit_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5910           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1606           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1649           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1649           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.7           mi/h
Number of lanes, N                          4
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2025_Ph1_Mit_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1603           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1654           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1654           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          4
Density, D                                  24.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2025_Ph1_Mit_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5420          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1473          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1198          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1198          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          5
Density, D                                  17.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2025_Ph1_Mit_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2570           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2091           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2091           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.8           mi/h
Number of lanes, N                          5
Density, D                                  34.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2025_Ph1_Mit_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6620           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1706           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1744           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1744           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          4
Density, D                                  26.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2025_Ph1_Mit_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7430           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1895           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1928           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1928           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.9           mi/h
Number of lanes, N                          4
Density, D                                  30.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2025_Ph1_Mit_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2003           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2067           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2067           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.3           mi/h
Number of lanes, N                          4
Density, D                                  33.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2025_Ph1_Mit_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7380           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1883           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1915           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1915           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          4
Density, D                                  29.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2025_Ph1_Mit_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2003           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2067           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2067           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.3           mi/h
Number of lanes, N                          4
Density, D                                  33.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2025_Ph1_Mit_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7320           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1867           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1908           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1908           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          4
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2025_Ph1_Mit_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4720           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1283           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1317           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1317           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2025_Ph1_Mit_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1590           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1633           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1633           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          4
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2025_Ph1_Mit_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6162    668     647     72      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1656    180     174     19
Trucks and buses                       5       3       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6805    730     756     78      pc/h

Volume ratio, VR                               0.178

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        756         lc/h
Weaving lane changes, LCW                  1096        lc/h
Non-weaving vehicle index, INW             482
Non-weaving lane change, LCNW              834         lc/h
Total lane changes, LCALL                  1930        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.503
Average weaving speed, SW                  51.6        mi/h
Average non-weaving speed, SNW             56.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.6        mi/h
Weaving segment density, D                 30.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.785
Weaving segment flow rate, v               8369        pc/h
Weaving segment capacity, cW               10341       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4308        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2124         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.785        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2025_Ph1_Mit_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6002    526     821     59      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1531    134     209     15
Trucks and buses                       5       3       18      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.916   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6290    546     915     61      pc/h

Volume ratio, VR                               0.187

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        915         lc/h
Weaving lane changes, LCW                  1255        lc/h
Non-weaving vehicle index, INW             445
Non-weaving lane change, LCNW              725         lc/h
Total lane changes, LCALL                  1980        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.513
Average weaving speed, SW                  51.3        mi/h
Average non-weaving speed, SNW             55.9        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.0        mi/h
Weaving segment density, D                 28.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.733
Weaving segment flow rate, v               7812        pc/h
Weaving segment capacity, cW               10307       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4404        700          a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2117         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.733        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2025_Ph1_Mit_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4855    1331    506     56      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1305    358     136     15
Trucks and buses                       6       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5387    1470    551     61      pc/h

Volume ratio, VR                               0.271

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1470        lc/h
Weaving lane changes, LCW                  2223        lc/h
Non-weaving vehicle index, INW             681
Non-weaving lane change, LCNW              644         lc/h
Total lane changes, LCALL                  2867        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.435
Average weaving speed, SW                  53.3        mi/h
Average non-weaving speed, SNW             53.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 23.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.579
Weaving segment flow rate, v               7469        pc/h
Weaving segment capacity, cW               12534       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3705        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2212         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.579        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2025_Ph1_Mit_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7460    1735    570     63      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1903    443     145     16
Trucks and buses                       16      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8236    1818    589     65      pc/h

Volume ratio, VR                               0.225

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1818        lc/h
Weaving lane changes, LCW                  2571        lc/h
Non-weaving vehicle index, INW             1038
Non-weaving lane change, LCNW              1232        lc/h
Total lane changes, LCALL                  3803        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.544
Average weaving speed, SW                  50.6        mi/h
Average non-weaving speed, SNW             48.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.8        mi/h
Weaving segment density, D                 36.5        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.804
Weaving segment flow rate, v               10708       pc/h
Weaving segment capacity, cW               12471       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3225        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2249         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.804        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2025_Ph1_Mit_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2138    1203    268     30      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                575     323     72      8
Trucks and buses                       12      5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2441    1328    292     33      pc/h

Volume ratio, VR                               0.396

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1328        lc/h
Weaving lane changes, LCW                  2002        lc/h
Non-weaving vehicle index, INW             238
Non-weaving lane change, LCNW              4           lc/h
Total lane changes, LCALL                  2006        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.339
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             57.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 12.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.470
Weaving segment flow rate, v               4094        pc/h
Weaving segment capacity, cW               8329        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5067        1200         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2104         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.470        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2025_Ph1_Mit_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

____________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           6           ln
Weaving segment length, LS                   1200        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               7893    2064    496     55      veh/h
Peak hour factor, PHF                   0.98    0.98    0.98    0.98
Peak 15-min volume, v15                 2014    527     127     14
Trucks and buses                        5       5       2       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.974   0.974   0.988   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            8272    2163    512     57      pc/h

Volume ratio, VR                                0.243

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         2163        lc/h
Weaving lane changes, LCW                   2837        lc/h
Non-weaving vehicle index, INW              800
Non-weaving lane change, LCNW               1211        lc/h
Total lane changes, LCALL                   4048        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                 0.590
Average weaving speed, SW                   49.6        mi/h
Average non-weaving speed, SNW              45.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   46.5        mi/h
Weaving segment density, D                 39.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.823
Weaving segment flow rate, v               11004       pc/h
Weaving segment capacity, cW               13034       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3416        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2231         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.823        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2025_Ph1_Mit_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6427    552     651     29      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1656    142     168     7
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7288    592     698     31      pc/h

Volume ratio, VR                               0.150

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        592         lc/h
Weaving lane changes, LCW                  1227        lc/h
Non-weaving vehicle index, INW             1317
Non-weaving lane change, LCNW              1410        lc/h
Total lane changes, LCALL                  2637        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.353
Average weaving speed, SW                  55.7        mi/h
Average non-weaving speed, SNW             57.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.2        mi/h
Weaving segment density, D                 30.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.747
Weaving segment flow rate, v               8609        pc/h
Weaving segment capacity, cW               10573       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2464        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2326         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.747        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2025_Ph1_Mit_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6904    405     519     21      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1817    107     137     6
Trucks and buses                       6       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7994    443     560     23      pc/h

Volume ratio, VR                               0.111

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.2         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         443         lc/h
Weaving lane changes, LCW                   1078        lc/h
Non-weaving vehicle index, INW              1443
Non-weaving lane change, LCNW               1936        lc/h
Total lane changes, LCALL                   3014        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                 0.392
Average weaving speed, SW                   54.5        mi/h
Average non-weaving speed, SNW              58.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.7        mi/h
Weaving segment density, D                 31.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.772
Weaving segment flow rate, v               9020        pc/h
Weaving segment capacity, cW               10705       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2083         1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2356         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.772        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2025_Ph1_Mit_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5576    594     484     25      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1437    153     125     6
Trucks and buses                       14      2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6162    620     510     26      pc/h

Volume ratio, VR                               0.154

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1130        lc/h
Weaving lane changes, LCW                  2160        lc/h
Non-weaving vehicle index, INW             1188
Non-weaving lane change, LCNW              1420        lc/h
Total lane changes, LCALL                  3580        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.310
Average weaving speed, SW                  57.0        mi/h
Average non-weaving speed, SNW             56.0        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.2        mi/h
Weaving segment density, D                21.7        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.541
Weaving segment flow rate, v              7318        pc/h
Weaving segment capacity, cW              12716       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4075        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2272         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.541        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2025_Ph1_Mit_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            Haven Ave to Archibald Ave
Analysis Year:               2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                               Freeway
Weaving configuration                      One-Sided
Number of lanes, N                         6           ln
Weaving segment length, LS                 2400        ft
Freeway free-flow speed, FFS               70          mi/h
Minimum segment speed, SMIN                15          mi/h
Freeway maximum capacity, cIFL             2400        pc/h/ln

Terrain type                               Level
    Grade                                  -           %
    Length                                 -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7197    755     463     24      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1894    199     122     6
Trucks and buses                       13      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8083    804     496     26      pc/h

Volume ratio, VR                               0.138

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1300        lc/h
Weaving lane changes, LCW                  2330        lc/h
Non-weaving vehicle index, INW             1557
Non-weaving lane change, LCNW              2480        lc/h
Total lane changes, LCALL                  4810        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.391
Average weaving speed, SW                  54.5        mi/h
Average non-weaving speed, SNW             53.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  53.3        mi/h
Weaving segment density, D                29.4        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.692
Weaving segment flow rate, v              9409        pc/h
Weaving segment capacity, cW              12843       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3914        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2284        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.692       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2025_Ph1_Mit_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5473    415     584     46      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1487    113     159     13
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6050    463     642     51      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        463         lc/h
Weaving lane changes, LCW                  1156        lc/h
Non-weaving vehicle index, INW             610
Non-weaving lane change, LCNW              779         lc/h
Total lane changes, LCALL                  1935        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.319
Average weaving speed, SW                  56.7        mi/h
Average non-weaving speed, SNW             60.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.2        mi/h
Weaving segment density, D                 19.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.521
Weaving segment flow rate, v               7206        pc/h
Weaving segment capacity, cW               13593       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2499        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2305         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.521        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2025_Ph1_Mit_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8366    557     994     62      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2156    144     256     16
Trucks and buses                       3       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8771    590     1037    65      pc/h

Volume ratio, VR                               0.156

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        590         lc/h
Weaving lane changes, LCW                  1283        lc/h
Non-weaving vehicle index, INW             884
Non-weaving lane change, LCNW              1342        lc/h
Total lane changes, LCALL                  2625        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.406
Average weaving speed, SW                  54.1        mi/h
Average non-weaving speed, SNW             57.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 30.7        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.757
Weaving segment flow rate, v               10463       pc/h
Weaving segment capacity, cW               13587       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2520        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2302         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.757        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2025_Ph1_Mit_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5649    657     1160    73      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1456    169     299     19
Trucks and buses                       12      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6185    685     1228    76      pc/h

Volume ratio, VR                               0.234

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        685         lc/h
Weaving lane changes, LCW                  893         lc/h
Non-weaving vehicle index, INW             282
Non-weaving lane change, LCNW              571         lc/h
Total lane changes, LCALL                  1464        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.573
Average weaving speed, SW                  50.0        mi/h
Average non-weaving speed, SNW             57.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.3        mi/h
Weaving segment density, D                 29.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.757
Weaving segment flow rate, v               8174        pc/h
Weaving segment capacity, cW               10264       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3321        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2180         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.757        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2025_Ph1_Mit_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4342    787     2032    87      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1108    201     518     22
Trucks and buses                       9       2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4639    813     2129    90      pc/h

Volume ratio, VR                               0.384

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        813         lc/h
Weaving lane changes, LCW                  1021        lc/h
Non-weaving vehicle index, INW             213
Non-weaving lane change, LCNW              255         lc/h
Total lane changes, LCALL                  1276        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.514
Average weaving speed, SW                  51.3        mi/h
Average non-weaving speed, SNW             56.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                 54.6        mi/h
Weaving segment density, D               28.1        pc/mi/ln
Level of service, LOS                    D
Weaving segment v/c ratio                0.849
Weaving segment flow rate, v             7671        pc/h
Weaving segment capacity, cW             8716        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4931         450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2057         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.849        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2025_Ph1_Mit_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9780           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              530            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     620            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9780        530         620       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2629        139         163       v
Trucks and buses                       4           8           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.960       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10747       581         664       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.145   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1197   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     8828          12000           No
      FO
     v  or v               3525 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3298                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3879          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   29.2    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.440
                                              S
Space mean speed in ramp influence area,     S  = 57.7    mph
                                              R
Space mean speed in outer lanes,             S  = 62.4    mph
                                              0
Space mean speed for all vehicles,           S  = 60.3    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2025_Ph1_Mit_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9060           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1070           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     290            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9060        1070        290       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2311        282         76        v
Trucks and buses                       4           1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9448        1134        307       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.076   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  528    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     8082          12000           No
      FO
     v  or v               3210 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2779                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3913          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   29.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.446
                                              S
Space mean speed in ramp influence area,     S  = 57.5    mph
                                              R
Space mean speed in outer lanes,             S  = 64.3    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 49_2025_Ph1_Mit_AM_Peak_SR-60_WB_On-Ramp_from_Martin_Luther_Kin.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Martin Luther Kin
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                          Merge
Number of lanes in freeway                4
Free-flow speed on freeway                70.0          mph
Volume on freeway                         6500          vph

__________________________________On Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0          mph
Volume on ramp                            1090          vph
Length of first accel/decel lane          1500          ft
Length of second accel/decel lane                       ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   657           vph
Position of adjacent ramp                 Downstream
Type of adjacent ramp                     Off
Distance to adjacent ramp                 1100          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                  Freeway     Ramp        Adjacent
                                                             Ramp
Volume, V (vph)                      6500        1090        657       vph
Peak-hour factor, PHF                0.97        0.95        0.95
Peak 15-min volume, v15              1675        287         173       v
Trucks and buses                     12          1           2         %
Recreational vehicles                1           1           1         %
Terrain type:                        Level       Level       Level
     Grade                                  %           %    0.00    %
     Length                                 mi          mi   0.00    mi
Trucks and buses PCE, ET             1.5         1.5         1.5
Recreational vehicle PCE, ER         1.2         1.2         1.2
Heavy vehicle adjustment, fHV        0.942       0.993       0.988
Driver population factor, fP         1.00        1.00        1.00
Flow rate, vp                        7116        1155        700       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.073   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  522    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     8271          9600            No
      FO
     v  or v               3297 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2846                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                4001          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   26.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.429
                                              S
Space mean speed in ramp influence area,     S  = 58.0    mph
                                              R
Space mean speed in outer lanes,             S  = 64.1    mph
                                              0
Space mean speed for all vehicles,           S  = 61.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 49_2025_Ph1_Mit_PM_Peak_SR-60_WB_On-Ramp_from_Martin_Luther_Kin.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Martin Luther Kin
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6440           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1460           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     661            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6440        1460        661       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1695        384         174       v
Trucks and buses                       0           51          3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.998       0.796       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6793        1932        708       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    -0.024  Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  -160   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     8725          9600            No
      FO
     v  or v               3476 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2717                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                4649          4600                   Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   31.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.623
                                              S
Space mean speed in ramp influence area,     S  = 52.5    mph
                                              R
Space mean speed in outer lanes,             S  = 64.5    mph
                                              0
Space mean speed for all vehicles,           S  = 57.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 62_2025_Ph1_Mit_AM_Peak_SR-60_WB_Off-Ramp_to_University_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to University Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7590           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              657            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1090           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7590        657         1090      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1956        173         287       v
Trucks and buses                       10          2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8232        700         1155      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3984   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8232          9600            No
      Fi   F
     v  = v - v            7532          9600            No
      FO   F   R
     v                     700           2000            No
      R
     v  or v               2124 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3984                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3984          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   35.8    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence E

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.491
                                              S
Space mean speed in ramp influence area,     S  = 56.3    mph
                                              R
Space mean speed in outer lanes,             S  = 72.4    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 62_2025_Ph1_Mit_PM_Peak_SR-60_WB_Off-Ramp_to_University_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to University Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7900           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              661            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1460           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7900        661         1460      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                2079        174         384       v
Trucks and buses                       9           3           51        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.983       0.796
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8707        708         1932      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4196   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8707          9600            No
      Fi   F
     v  = v - v            7999          9600            No
      FO   F   R
     v                     708           2000            No
      R
     v  or v               2255 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4196                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                4196          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   37.6    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence E

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.492
                                              S
Space mean speed in ramp influence area,     S  = 56.2    mph
                                              R
Space mean speed in outer lanes,             S  = 71.9    mph
                                              0
Space mean speed for all vehicles,           S  = 63.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 86_2025_Ph1_Mit_AM_Peak_I-215_NB_SR-60_WB_Connector.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               SR-60 WB Connector
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           2541          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              2038          vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     338           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2100          ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2541        2038        338       vph
Peak-hour factor, PHF                  0.92        0.95        0.95
Peak 15-min volume, v15                690         536         89        v
Trucks and buses                       4           6           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.969       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2823        2214        360       pcph

_________________________Estimation of V12 Merge Areas________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    -0.059  Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  -165   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5037          9600            No
      FO
     v  or v               1494 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1129                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3343          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.326
                                              S
Space mean speed in ramp influence area,     S  = 60.9    mph
                                              R
Space mean speed in outer lanes,             S  = 68.8    mph
                                              0
Space mean speed for all vehicles,           S  = 63.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 86_2025_Ph1_Mit_PM_Peak_I-215_NB_SR-60_WB_Connector.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               SR-60 WB Connector
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2959           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1780           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     614            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2959        1780        614       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                763         468         162       v
Trucks and buses                       4           6           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.969       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3118        1934        654       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    -0.024  Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  -74    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5052          9600            No
      FO
     v  or v               1596 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1247                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3181          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   20.0    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.310
                                              S
Space mean speed in ramp influence area,     S  = 61.3    mph
                                              R
Space mean speed in outer lanes,             S  = 68.4    mph
                                              0
Space mean speed for all vehicles,           S  = 63.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 87_2025_Ph1_Mit_AM_Peak_I-215_NB_Off-Ramp_to_Columbia_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               Off-Ramp to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4580           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              338            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     2038           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4580        338         2038      vph
Peak-hour factor, PHF                  0.92        0.95        0.95
Peak 15-min volume, v15                1245        89          536       v
Trucks and buses                       5           2           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5113        360         2214      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2432   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                5113          9600            No
      Fi   F
     v  = v - v            4753          9600            No
      FO   F   R
     v                     360           2000            No
      R
     v  or v               1340 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2432                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2432          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.460
                                              S
Space mean speed in ramp influence area,     S  = 57.1    mph
                                              R
Space mean speed in outer lanes,             S  = 75.5    mph
                                              0
Space mean speed for all vehicles,           S  = 65.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 87_2025_Ph1_Mit_PM_Peak_I-215_NB_Off-Ramp_to_Columbia_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               Off-Ramp to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2025 Ph1 Mit
Description:  World Logistics Center - 2025 Plus Phase 1 - Mitigated

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4740           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              614            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1780           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4740        614         1780      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1222        162         468       v
Trucks and buses                       5           2           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5019        654         1934      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2557   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                5019          9600            No
      Fi   F
     v  = v - v            4365          9600            No
      FO   F   R
     v                     654           2000            No
      R
     v  or v               1231 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2557                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2557          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   23.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.487
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 75.9    mph
                                              0
Space mean speed for all vehicles,           S  = 64.5    mph
_______________________________________________________________________________
```

Traffic Impact Analysis Report
for the World Logistics Center

Appendix N

Freeway LOS Worksheets
for 2040 No-Project Conditions

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2040_NP_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2207           v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               2366           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2366           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.2           mi/h
Number of lanes, N                          4
Density, D                                  43.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2040_NP_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7210          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1839          v
Trucks and buses                            18            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.916
Driver population factor, fp                1.00
Flow rate, vp                               2008          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2008          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.4          mi/h
Number of lanes, N                          4
Density, D                                  32.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2040_NP_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10170          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2734           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2235           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2235           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.6           mi/h
Number of lanes, N                          5
Density, D                                  38.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2040_NP_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9940           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2536           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2083           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2083           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.0           mi/h
Number of lanes, N                          5
Density, D                                  34.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2040_NP_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9310           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2503           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2046           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2046           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.7           mi/h
Number of lanes, N                          5
Density, D                                  33.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2040_NP_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8810           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2247           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1847           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1847           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          5
Density, D                                  28.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2040_NP_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9710          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2610          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2134          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2134          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.9          mi/h
Number of lanes, N                          5
Density, D                                  35.6          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2040_NP_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8770           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2237           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1838           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1838           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          5
Density, D                                  28.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2040_NP_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9500           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2554           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2088           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2088           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.9           mi/h
Number of lanes, N                          5
Density, D                                  34.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2040_NP_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Euclid Ave to Grove Ave
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8430          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      2151          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1767          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1767          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               66.3          mi/h
Number of lanes, N                           5
Density, D                                   26.7          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2040_NP_AM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8980           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2414           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1964           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1964           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.2           mi/h
Number of lanes, N                          5
Density, D                                  31.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2040_NP_PM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9410           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2401           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1972           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1972           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.1           mi/h
Number of lanes, N                          5
Density, D                                  31.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2040_NP_AM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8820           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2371           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1929           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1929           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.8           mi/h
Number of lanes, N                          5
Density, D                                  30.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2040_NP_PM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9670           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      2467           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2027           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2027           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               62.1           mi/h
Number of lanes, N                           5
Density, D                                   32.7           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2040_NP_AM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8880           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2387           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1942           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1942           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          5
Density, D                                  30.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2040_NP_PM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6990           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1783           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1472           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1472           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          5
Density, D                                  21.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                    HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2040_NP_AM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    10160          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2731           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1879           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           6
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1879           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               64.7           mi/h
Number of lanes, N                           6
Density, D                                   29.1           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2040_NP_PM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8130           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2074           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1434           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1434           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          6
Density, D                                  20.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2040_NP_AM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5460          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1468          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1507          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1507          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.9          mi/h
Number of lanes, N                           4
Density, D                                   21.9          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2040_NP_PM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5190           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1324           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1353           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1353           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2040_NP_AM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 EB
From/To:                 I-15 to Etiwanda Ave
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4900           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1317           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1346           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1346           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  19.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2040_NP_PM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4370           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1115           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1139           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1139           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2040_NP_AM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1263           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1291           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1291           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2040_NP_PM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3570           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     911            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               931            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               931            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2040_NP_AM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  4120           veh/h
Peak-hour factor, PHF                      0.93
Peak 15-min volume, v15                    1108           v
Trucks and buses                           7              %
Recreational vehicles                      1              %
Terrain type:                              Level
    Grade                                  -              %
    Segment length                         -              mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.964
Driver population factor, fp               1.00
Flow rate, vp                              1149           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -              ft
Right-side lateral clearance               -              ft
Total ramp density, TRD                    -              ramps/mi
Number of lanes, N                         4
Free-flow speed:                           Measured
     FFS or BFFS                           70.0           mi/h
Lane width adjustment, fLW                 -              mi/h
Lateral clearance adjustment, fLC          -              mi/h
TRD adjustment                             -              mi/h
Free-flow speed, FFS                       70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              1149           pc/h/ln
Free-flow speed, FFS                       70.0           mi/h
Average passenger-car speed, S             70.0           mi/h
Number of lanes, N                         4
Density, D                                 16.4           pc/mi/ln
Level of service, LOS                      B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2040_NP_PM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2960           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     755            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               794            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               794            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2040_NP_AM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4430          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1191          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1229          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1229          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   17.6          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2040_NP_PM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3240           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     827            v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               865            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               865            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2040_NP_AM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1347           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1383           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1383           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2040_NP_PM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3650           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     931            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               970            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               970            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2040_NP_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6200           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1667           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2271           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2271           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.7           mi/h
Number of lanes, N                          3
Density, D                                  40.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2040_NP_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5270           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1344           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1832           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1832           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          3
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2040_NP_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6080           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1634           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2227           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2227           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.8           mi/h
Number of lanes, N                          3
Density, D                                  38.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2040_NP_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5480           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1398           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1914           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1914           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.1           mi/h
Number of lanes, N                          3
Density, D                                  29.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2040_NP_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6460          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1737          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2366          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2366          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               54.2          mi/h
Number of lanes, N                           3
Density, D                                   43.6          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2040_NP_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5710          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1457          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2004          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2004          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.5          mi/h
Number of lanes, N                          3
Density, D                                  32.1          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2040_NP_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   12700          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     3414           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.948
Driver population factor, fp                1.00
Flow rate, vp                               3602           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3602           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              3.1            mi/h
Number of lanes, N                          4
Density, D                                  1172.3         pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2040_NP_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   11030          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2814           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               3011           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3011           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              32.0           mi/h
Number of lanes, N                          4
Density, D                                  94.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2040_NP_AM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6240          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1677          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1706          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1706          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.0          mi/h
Number of lanes, N                          4
Density, D                                  25.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2040_NP_PM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5460          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1393          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1423          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1423          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.4          mi/h
Number of lanes, N                           4
Density, D                                   20.5          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2040_NP_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3690           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     992            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2067           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2067           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.3           mi/h
Number of lanes, N                          2
Density, D                                  33.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2040_NP_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5220           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1332           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2748           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2748           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              42.2           mi/h
Number of lanes, N                          2
Density, D                                  65.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2040_NP_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3520           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     946            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1953           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1953           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.4           mi/h
Number of lanes, N                          2
Density, D                                  30.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2040_NP_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4210          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1074          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2195          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2195          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               58.5          mi/h
Number of lanes, N                           2
Density, D                                   37.5          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2040_NP_AM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     863            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1772           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1772           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          2
Density, D                                  26.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2040_NP_PM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3920          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1000          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2044          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2044          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               61.7          mi/h
Number of lanes, N                           2
Density, D                                   33.1          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2040_NP_AM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     833            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1147           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1147           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2040_NP_PM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3940           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1005           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1370           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1370           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          3
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2040_NP_AM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2960           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     796            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1100           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1100           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2040_NP_PM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3790           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     967            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1317           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1317           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          3
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2040_NP_AM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3080           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     828            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1139           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1139           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2040_NP_PM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5370           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1370           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1858           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1858           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          3
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 35_2040_NP_AM_Peak_SR-60_EB_Theodore_St_to_Gilman_Spring.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Theodore St to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3120          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     839           v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               866           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               866           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  12.4          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 35_2040_NP_PM_Peak_SR-60_EB_Theodore_St_to_Gilman_Spring.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Theodore St to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5700           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1454           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1479           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1479           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          4
Density, D                                  21.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2040_NP_AM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     565            v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               828            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               828            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2040_NP_PM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4180           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1066           v
Trucks and buses                            1              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.939
Driver population factor, fp                1.00
Flow rate, vp                               1514           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1514           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          3
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2040_NP_AM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2400           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     645            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1345           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1345           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          2
Density, D                                  19.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2040_NP_PM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4630           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1181           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2414           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2414           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.9           mi/h
Number of lanes, N                          2
Density, D                                  45.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2040_NP_AM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4360           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1124           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2319           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2319           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.5           mi/h
Number of lanes, N                          2
Density, D                                  41.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2040_NP_PM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3200           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     842            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1738           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1738           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.6           mi/h
Number of lanes, N                          2
Density, D                                  26.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2040_NP_AM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1005           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               1474           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1474           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          3
Density, D                                  21.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2040_NP_PM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2860           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     753            v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               1104           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1104           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 40_2040_NP_AM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Gilman Springs Rd to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1371           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1408           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1408           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 40_2040_NP_PM_Peak_SR-60_WB_Gilman_Springs_Rd_to_Theodore.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Gilman Springs Rd to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3640           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     958            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               984            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               984            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2040_NP_AM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5230           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1348           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1837           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1837           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          3
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2040_NP_PM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3750           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     987            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1351           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1351           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          3
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2040_NP_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Redlands Blvd to Moreno Beach
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4120          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1062          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2181          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2181          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               58.8          mi/h
Number of lanes, N                           2
Density, D                                   37.1          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2040_NP_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3270           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     861            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1776           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1776           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          2
Density, D                                  26.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2040_NP_AM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3990           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1028           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1394           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1394           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          3
Density, D                                  20.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2040_NP_PM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3530           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     929            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1272           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1272           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          3
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2040_NP_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4380           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1129           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2319           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2319           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.5           mi/h
Number of lanes, N                          2
Density, D                                  41.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2040_NP_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4020           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1058           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2173           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2173           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.0           mi/h
Number of lanes, N                          2
Density, D                                  36.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2040_NP_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5610           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1446           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2970           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2970           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              33.7           mi/h
Number of lanes, N                          2
Density, D                                  88.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2040_NP_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3750           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     987            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2027           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2027           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.1           mi/h
Number of lanes, N                          2
Density, D                                  32.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2040_NP_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4630          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1193          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                2475          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2475          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               51.1          mi/h
Number of lanes, N                           2
Density, D                                   48.4          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2040_NP_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4080           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1074           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2216           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2216           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.0           mi/h
Number of lanes, N                          2
Density, D                                  38.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2040_NP_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 I-215 to Box Springs Rd
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8070          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2080          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2146          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2146          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.6          mi/h
Number of lanes, N                          4
Density, D                                  36.0          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2040_NP_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10560          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2779           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2854           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2854           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              38.3           mi/h
Number of lanes, N                          4
Density, D                                  74.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2040_NP_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9320          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2402          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Rolling
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.885
Driver population factor, fp                1.00
Flow rate, vp                               2171          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2171          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.1          mi/h
Number of lanes, N                          5
Density, D                                  36.8          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2040_NP_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10420          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2742           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2347           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2347           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.7           mi/h
Number of lanes, N                          5
Density, D                                  42.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2040_NP_AM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6530          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1683          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2293          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2293          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              56.1          mi/h
Number of lanes, N                          3
Density, D                                  40.8          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2040_NP_PM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5680           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1495           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2027           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2027           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.1           mi/h
Number of lanes, N                          3
Density, D                                  32.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2040_NP_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6030           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1554           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2128           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2128           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          3
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2040_NP_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6250           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1645           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               2219           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2219           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.0           mi/h
Number of lanes, N                          3
Density, D                                  38.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2040_NP_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211           v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.988
Driver population factor, fp                1.00
Flow rate, vp                               1635           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1635           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          3
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2040_NP_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6710           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1766           v
Trucks and buses                            1              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.993
Driver population factor, fp                1.00
Flow rate, vp                               2371           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2371           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.1           mi/h
Number of lanes, N                          3
Density, D                                  43.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2040_NP_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Rubidoux Blvd to Valley Way
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4520          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1165          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1587          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1587          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.3          mi/h
Number of lanes, N                           3
Density, D                                   23.2          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2040_NP_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6670           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      1755           v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                2380           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2380           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               53.8           mi/h
Number of lanes, N                           3
Density, D                                   44.2           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2040_NP_AM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4330           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1116           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1152           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1152           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2040_NP_PM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6110           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1608           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1643           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1643           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.7           mi/h
Number of lanes, N                          4
Density, D                                  24.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2040_NP_AM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4300          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1108          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1144          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1144          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  16.3          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2040_NP_PM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6450           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1697           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1735           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1735           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          4
Density, D                                  26.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2040_NP_AM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1103           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1138           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1138           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2040_NP_PM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6330           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1666           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1702           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1702           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          4
Density, D                                  25.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2040_NP_AM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5070          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1307          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1342          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1342          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.8          mi/h
Number of lanes, N                          4
Density, D                                  19.2          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2040_NP_PM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7350          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1934          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1967          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1967          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.2          mi/h
Number of lanes, N                          4
Density, D                                  31.1          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2040_NP_AM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4890           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1260           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1030           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1030           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2040_NP_PM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6470          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      1703          v
Trucks and buses                             2             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.988
Driver population factor, fp                 1.00
Flow rate, vp                                1378          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1378          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.6          mi/h
Number of lanes, N                           5
Density, D                                   19.8          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2040_NP_AM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1407           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1445           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1445           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2040_NP_PM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7180           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      1889           v
Trucks and buses                             1              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.993
Driver population factor, fp                 1.00
Flow rate, vp                                1903           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1903           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               64.3           mi/h
Number of lanes, N                           4
Density, D                                   29.6           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2040_NP_AM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7340          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1892          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1539          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1539          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.7          mi/h
Number of lanes, N                          5
Density, D                                  22.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2040_NP_PM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7830           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2061           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1676           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1676           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          5
Density, D                                  24.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2040_NP_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7830           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2018           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1690           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1690           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          5
Density, D                                  25.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2040_NP_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10530          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2771           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2277           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2277           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.5           mi/h
Number of lanes, N                          5
Density, D                                  40.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2040_NP_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6660           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1716           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1397           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1397           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          5
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2040_NP_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10570          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2782           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2263           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2263           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.9           mi/h
Number of lanes, N                          5
Density, D                                  39.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2040_NP_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7110           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1832           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1513           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1513           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          5
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2040_NP_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8950          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      2355          v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1916          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1916          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               64.1          mi/h
Number of lanes, N                           5
Density, D                                   29.9          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2040_NP_AM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6860           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1768           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1495           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1495           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          5
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2040_NP_PM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8410           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2213           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1827           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1827           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          5
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2040_NP_AM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6760          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1742          v
Trucks and buses                            12            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1480          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1480          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.1          mi/h
Number of lanes, N                          5
Density, D                                  21.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2040_NP_PM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7730           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2034           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1688           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1688           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          5
Density, D                                  25.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2040_NP_AM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1590           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1319           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1319           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          5
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2040_NP_PM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8050          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2118          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1724          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1724          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.8          mi/h
Number of lanes, N                          5
Density, D                                  25.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2040_NP_AM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6640           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1711           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1749           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1749           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          4
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2040_NP_PM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-60 WB
From/To:                 Ramona Ave to S Reservoir St
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7610           veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      2003           v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                2037           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2037           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               61.9           mi/h
Number of lanes, N                           4
Density, D                                   32.9           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2040_NP_AM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7030           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1812           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1843           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1843           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          4
Density, D                                  28.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2040_NP_PM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8550           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2298           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2349           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2349           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.7           mi/h
Number of lanes, N                          4
Density, D                                  43.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2040_NP_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6820           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1758           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2395           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2395           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.4           mi/h
Number of lanes, N                          3
Density, D                                  44.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2040_NP_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6550           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1761           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2411           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2411           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.0           mi/h
Number of lanes, N                          3
Density, D                                  45.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2040_NP_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8280           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2134           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2936           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2936           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              35.0           mi/h
Number of lanes, N                          3
Density, D                                  83.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2040_NP_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8300           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2231           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               3070           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3070           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              29.4           mi/h
Number of lanes, N                          3
Density, D                                  104.3          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2040_NP_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2258           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2307           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2307           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.8           mi/h
Number of lanes, N                          4
Density, D                                  41.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2040_NP_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8320          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2237          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2308          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2308          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              55.8          mi/h
Number of lanes, N                          4
Density, D                                  41.4          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2040_NP_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8790           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2265           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2315           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2315           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.6           mi/h
Number of lanes, N                          4
Density, D                                  41.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2040_NP_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9080           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2441           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2495           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2495           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.5           mi/h
Number of lanes, N                          4
Density, D                                  49.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2040_NP_AM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6110           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1575           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1609           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1609           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2040_NP_PM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6510           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1750           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1797           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1797           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.9           mi/h
Number of lanes, N                          4
Density, D                                  27.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2040_NP_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2258           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               3107           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3107           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              27.8           mi/h
Number of lanes, N                          3
Density, D                                  111.7          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2040_NP_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9970           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2680           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               3688           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3688           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S                             mi/h
Number of lanes, N                          3
Density, D                                                 pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2040_NP_AM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8430           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2173           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2242           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2242           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.4           mi/h
Number of lanes, N                          4
Density, D                                  39.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2040_NP_PM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6870           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1847           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1906           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1906           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.2           mi/h
Number of lanes, N                          4
Density, D                                  29.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2040_NP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                     7100          veh/h
Peak-hour factor, PHF                         0.97
Peak 15-min volume, v15                       1830          v
Trucks and buses                              11            %
Recreational vehicles                         1             %
Terrain type:                                 Level
    Grade                                     -             %
    Segment length                            -             mi
Trucks and buses PCE, ET                      1.5
Recreational vehicle PCE, ER                  1.2
Heavy vehicle adjustment, fHV                 0.946
Driver population factor, fp                  1.00
Flow rate, vp                                 2579          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                    -             ft
Right-side lateral clearance                  -             ft
Total ramp density, TRD                       -             ramps/mi
Number of lanes, N                            3
Free-flow speed:                              Measured
     FFS or BFFS                              70.0          mi/h
Lane width adjustment, fLW                    -             mi/h
Lateral clearance adjustment, fLC             -             mi/h
TRD adjustment                                -             mi/h
Free-flow speed, FFS                          70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                 2579          pc/h/ln
Free-flow speed, FFS                          70.0          mi/h
Average passenger-car speed, S                47.9          mi/h
Number of lanes, N                            3
Density, D                                    53.8          pc/mi/ln
Level of service, LOS                         F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2040_NP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6400           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1720           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2379           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2379           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.9           mi/h
Number of lanes, N                          3
Density, D                                  44.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2040_NP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4930          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1271          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1299          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1299          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.9          mi/h
Number of lanes, N                           4
Density, D                                   18.6          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2040_NP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1401           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1431           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1431           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2040_NP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6450           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1662           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1372           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1372           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          5
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2040_NP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7020           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1887           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1558           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1558           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          5
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2040_NP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7560           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1948           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2001           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2001           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          4
Density, D                                  32.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2040_NP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7800           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2097           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2132           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2132           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.9           mi/h
Number of lanes, N                          4
Density, D                                  35.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2040_NP_AM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6340          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1634          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1678          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1678          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.3          mi/h
Number of lanes, N                          4
Density, D                                  24.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2040_NP_PM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-91 WB
From/To:                 14th St to Central Ave
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7390          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1987          v
Trucks and buses                             4             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2030          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2030          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               62.0          mi/h
Number of lanes, N                           4
Density, D                                   32.7          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2040_NP_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2307           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               3159           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3159           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              25.5           mi/h
Number of lanes, N                          3
Density, D                                  124.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2040_NP_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8460           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2274           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               3084           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3084           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              28.8           mi/h
Number of lanes, N                          3
Density, D                                  107.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2040_NP_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1987           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2041           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2041           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.8           mi/h
Number of lanes, N                          4
Density, D                                  33.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2040_NP_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9100           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2446           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2500           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2500           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.4           mi/h
Number of lanes, N                          4
Density, D                                  49.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2040_NP_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7820           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2015           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2070           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2070           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.2           mi/h
Number of lanes, N                          4
Density, D                                  33.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2040_NP_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9410           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2530           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2585           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2585           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.7           mi/h
Number of lanes, N                          4
Density, D                                  54.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2040_NP_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1892           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1943           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1943           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          4
Density, D                                  30.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2040_NP_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9450           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2540           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2596           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2596           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.4           mi/h
Number of lanes, N                          4
Density, D                                  54.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2040_NP_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2460           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2460           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.6           mi/h
Number of lanes, N                          3
Density, D                                  47.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2040_NP_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8520           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2290           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               3121           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3121           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              27.2           mi/h
Number of lanes, N                          3
Density, D                                  114.8          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2040_NP_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8190           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2111           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2890           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2890           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              36.9           mi/h
Number of lanes, N                          3
Density, D                                  78.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2040_NP_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8980          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2414          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               3273          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3273          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              20.2          mi/h
Number of lanes, N                          3
Density, D                                  162.4         pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2040_NP_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8400           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2165           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2965           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2965           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              33.9           mi/h
Number of lanes, N                          3
Density, D                                  87.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2040_NP_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9450           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2540           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               3445           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3445           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              11.5           mi/h
Number of lanes, N                          3
Density, D                                  298.6          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2040_NP_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8440          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2175          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               3008          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3008          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              32.1          mi/h
Number of lanes, N                          3
Density, D                                  93.8          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2040_NP_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10000          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2688           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               3681           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3681           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S                             mi/h
Number of lanes, N                          3
Density, D                                                 pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2040_NP_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2085           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2162           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2162           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.3           mi/h
Number of lanes, N                          4
Density, D                                  36.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2040_NP_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10760          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2892           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2971           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2971           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              33.6           mi/h
Number of lanes, N                          4
Density, D                                  88.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2040_NP_AM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5350           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1438           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1499           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1499           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2040_NP_PM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7510           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1997           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2071           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2071           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.2           mi/h
Number of lanes, N                          4
Density, D                                  33.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2040_NP_AM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5360           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1441           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1516           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1516           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2040_NP_PM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7590           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     2019           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2113           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2113           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.3           mi/h
Number of lanes, N                          4
Density, D                                  35.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2040_NP_AM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5530          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1487          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1564          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1564          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.5          mi/h
Number of lanes, N                          4
Density, D                                  22.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2040_NP_PM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7760          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     2064          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2151          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2151          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.5          mi/h
Number of lanes, N                          4
Density, D                                  36.1          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2040_NP_AM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5590           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1503           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1581           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1581           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          4
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2040_NP_PM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-10 EB
From/To:                 Highland Springs to Sunset
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7740          veh/h
Peak-hour factor, PHF                        0.94
Peak 15-min volume, v15                      2059          v
Trucks and buses                             9             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.955
Driver population factor, fp                 1.00
Flow rate, vp                                2155          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2155          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               59.4          mi/h
Number of lanes, N                           4
Density, D                                   36.3          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2040_NP_AM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1398           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1182           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1182           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2040_NP_PM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7130           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1896           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1596           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1596           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          5
Density, D                                  23.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2040_NP_AM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 EB
From/To:                 22nd St to S 8th St
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5190          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1395          v
Trucks and buses                             11            %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                1475          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1475          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.1          mi/h
Number of lanes, N                           4
Density, D                                   21.3          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2040_NP_PM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6910          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1838          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1933          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1933          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.8          mi/h
Number of lanes, N                          4
Density, D                                  30.3          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2040_NP_AM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5330           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1433           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1514           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1514           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2040_NP_PM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7140           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1899           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1998           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1998           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          4
Density, D                                  31.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2040_NP_AM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5350           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1438           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1520           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1520           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2040_NP_PM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6990           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1859           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1956           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1956           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.4           mi/h
Number of lanes, N                          4
Density, D                                  30.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2040_NP_AM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4800          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1290          v
Trucks and buses                            12            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1370          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1370          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.7          mi/h
Number of lanes, N                          4
Density, D                                  19.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2040_NP_PM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6500           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1729           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1827           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1827           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          4
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2040_NP_AM_Peak_I-10_EB_Morongo_Pkwy_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Morongo Pkwy to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5040           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1355           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1425           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1425           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2040_NP_PM_Peak_I-10_EB_Morongo_Pkwy_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Morongo Pkwy to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6790           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1806           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1882           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1882           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.6           mi/h
Number of lanes, N                          4
Density, D                                  29.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2040_NP_AM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 EB
From/To:                 Main to Haugen-Lehmann Way
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4920          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1323          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1378          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1378          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.6          mi/h
Number of lanes, N                          4
Density, D                                  19.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2040_NP_PM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6420           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1707           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1779           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1779           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          4
Density, D                                  26.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2040_NP_AM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 EB
From/To:                 SR-111 to Tipton Rd
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4380          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1177          v
Trucks and buses                             9             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.955
Driver population factor, fp                 1.00
Flow rate, vp                                1233          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1233          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   17.6          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2040_NP_PM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5880           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1564           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1637           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1637           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          4
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2040_NP_AM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4370           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1175           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1230           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1230           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2040_NP_PM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5930           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1577           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1651           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1651           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          4
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2040_NP_AM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5820          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1692          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1763          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1763          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.3          mi/h
Number of lanes, N                          4
Density, D                                  26.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2040_NP_PM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5600           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1443           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1511           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1511           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2040_NP_AM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5780          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1680          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1742          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1742          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.6          mi/h
Number of lanes, N                          4
Density, D                                  26.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2040_NP_PM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5590           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1441           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1501           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1501           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2040_NP_AM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6450          veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      1875          v
Trucks and buses                             8             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1954          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1954          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               63.4          mi/h
Number of lanes, N                           4
Density, D                                   30.8          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2040_NP_PM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5530           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1425           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1485           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1485           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          4
Density, D                                  21.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2040_NP_AM_Peak_I-10_WB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6860          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1994          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2068          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2068          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.3          mi/h
Number of lanes, N                          4
Density, D                                  33.8          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2040_NP_PM_Peak_I-10_WB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5710          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1472          v
Trucks and buses                             9             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.955
Driver population factor, fp                 1.00
Flow rate, vp                                1541          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1541          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.7          mi/h
Number of lanes, N                           4
Density, D                                   22.4          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2040_NP_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6980           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2029           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2124           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2124           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.1           mi/h
Number of lanes, N                          4
Density, D                                  35.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2040_NP_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1312           v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1400           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1400           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2040_NP_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7400          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2151          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2242          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2242          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              57.4          mi/h
Number of lanes, N                          4
Density, D                                  39.1          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2040_NP_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5610          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1446          v
Trucks and buses                             12            %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.942
Driver population factor, fp                 1.00
Flow rate, vp                                1536          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1536          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.7          mi/h
Number of lanes, N                           4
Density, D                                   22.4          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2040_NP_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7680           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2233           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2326           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2326           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.3           mi/h
Number of lanes, N                          4
Density, D                                  42.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2040_NP_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1485           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1569           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1569           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          4
Density, D                                  22.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2040_NP_AM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7560           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2198           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2290           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2290           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.2           mi/h
Number of lanes, N                          4
Density, D                                  40.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2040_NP_PM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5510           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1420           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1501           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1501           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2040_NP_AM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7630           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2218           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1849           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1849           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.1           mi/h
Number of lanes, N                          5
Density, D                                  28.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2040_NP_PM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5770           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1487           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1258           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1258           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2040_NP_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7990          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2323          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2409          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2409          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              53.0          mi/h
Number of lanes, N                          4
Density, D                                  45.4          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2040_NP_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1534           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1621           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1621           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.9           mi/h
Number of lanes, N                          4
Density, D                                  23.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2040_NP_AM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8510          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2474          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2565          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2565          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              48.4          mi/h
Number of lanes, N                          4
Density, D                                  53.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2040_NP_PM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6240           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1608           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1692           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1692           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          4
Density, D                                  25.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2040_NP_AM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7990           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2323           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2409           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2409           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.0           mi/h
Number of lanes, N                          4
Density, D                                  45.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2040_NP_PM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1598           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1681           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1681           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.3           mi/h
Number of lanes, N                          4
Density, D                                  25.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2040_NP_AM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8010           veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      2328           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                2403           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2403           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               53.2           mi/h
Number of lanes, N                           4
Density, D                                   45.2           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2040_NP_PM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   6300           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1624           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1692           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1692           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          4
Density, D                                  25.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2040_NP_AM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2800          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     761           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               774           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               774           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  11.1          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2040_NP_PM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4530           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1168           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1193           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1193           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2040_NP_AM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2510           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     682            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               694            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               694            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.9            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2040_NP_PM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3380           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     871            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               890            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               890            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2040_NP_AM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2870           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     780            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               793            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               793            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2040_NP_PM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4500           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1160           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1185           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1185           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2040_NP_AM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4150           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1128           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1147           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1147           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2040_NP_PM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4650           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1198           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1225           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1225           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2040_NP_AM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3930           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1068           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1102           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1102           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2040_NP_PM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 SR-74 to Redlands Blvd
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5780          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1490          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1530          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1530          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               68.7          mi/h
Number of lanes, N                           4
Density, D                                   22.3          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2040_NP_AM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4800           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1304           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1366           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1366           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2040_NP_PM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5420           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1397           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1442           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1442           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2040_NP_AM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4180           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1136           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1571           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1571           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          3
Density, D                                  23.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2040_NP_PM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1659           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1659           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          3
Density, D                                  24.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2040_NP_AM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4270           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1160           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1589           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1589           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          3
Density, D                                  23.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2040_NP_PM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1088           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1489           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1489           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          3
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2040_NP_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4840           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1315           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1827           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1827           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          3
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2040_NP_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4920           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1268           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1762           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1762           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          3
Density, D                                  26.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2040_NP_AM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5370           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1459           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1535           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1535           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2040_NP_PM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6650           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1714           v
Trucks and buses                             7              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1777           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1777           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               66.1           mi/h
Number of lanes, N                           4
Density, D                                   26.9           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2040_NP_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5420           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1473           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1505           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1505           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2040_NP_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   11080          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2856           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2904           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2904           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              36.3           mi/h
Number of lanes, N                          4
Density, D                                  80.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2040_NP_AM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3230           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     878            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               901            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               901            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2040_NP_PM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6230           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1606           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1633           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1633           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.8           mi/h
Number of lanes, N                          4
Density, D                                  24.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2040_NP_AM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6740           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1737           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1767           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1767           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          4
Density, D                                  26.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2040_NP_PM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4470           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1140           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1165           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1165           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2040_NP_AM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7940           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2046           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2081           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2081           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.0           mi/h
Number of lanes, N                          4
Density, D                                  34.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2040_NP_PM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6220          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1587          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1622          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1622          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.9          mi/h
Number of lanes, N                          4
Density, D                                  23.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2040_NP_AM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6830           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1760           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1817           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1817           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.6           mi/h
Number of lanes, N                          4
Density, D                                  27.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2040_NP_PM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4770           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1217           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1262           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1262           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2040_NP_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1588           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2174           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2174           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.0           mi/h
Number of lanes, N                          3
Density, D                                  36.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2040_NP_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5720           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1459           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1998           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1998           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          3
Density, D                                  31.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2040_NP_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6750           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1740           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2405           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2405           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.2           mi/h
Number of lanes, N                          3
Density, D                                  45.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2040_NP_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5360           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1367           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1872           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1872           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          3
Density, D                                  28.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2040_NP_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1987           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2748           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2748           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              42.2           mi/h
Number of lanes, N                          3
Density, D                                  65.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2040_NP_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6040          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1541          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2120          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2120          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.2          mi/h
Number of lanes, N                          3
Density, D                                  35.2          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2040_NP_AM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6810           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1755           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1846           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1846           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          4
Density, D                                  28.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2040_NP_PM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5510           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1406           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1465           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1465           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2040_NP_AM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5600           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1443           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1482           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1482           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          4
Density, D                                  21.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2040_NP_PM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4890           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1247           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1281           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1281           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2040_NP_AM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1098           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1122           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1122           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2040_NP_PM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4460           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1138           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1157           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1157           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2040_NP_AM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4110           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1059           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1083           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1083           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2040_NP_PM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3400           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     867            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               882            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               882            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2040_NP_AM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3610           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     930            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               951            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               951            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2040_NP_PM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4020           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1026           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1043           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1043           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2040_NP_AM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3040           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     784            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               797            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               797            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2040_NP_PM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2880           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     735            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               747            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               747            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.7           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2040_NP_AM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1860           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     500            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1042           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1042           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  14.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2040_NP_PM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3080           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     786            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1614           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1614           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.0           mi/h
Number of lanes, N                          2
Density, D                                  23.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2040_NP_AM_Peak_SR-60_WB_Potrero_Blvd_to_Jack_Rabbit_Trail.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potrero Blvd to Jack Rabbit Trail
Jurisdiction:           il
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2490           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      642            v
Trucks and buses                             3              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                1305           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1305           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.9           mi/h
Number of lanes, N                           2
Density, D                                   18.7           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2040_NP_PM_Peak_SR-60_WB_Potrero_Blvd_to_Jack_Rabbit_Trail.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potrero Blvd to Jack Rabbit Trail
Jurisdiction:           il
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2010           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     529            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1086           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1086           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2040_NP_AM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2800           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     761            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               774            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               774            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2040_NP_PM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4150           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1070           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1093           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1093           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 164_2040_NP_AM_Peak_I-215_NB_Ellis_Ave_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ellis Ave to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2700           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     734            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               765            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               765            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  10.9           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 164_2040_NP_PM_Peak_I-215_NB_Ellis_Ave_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ellis Ave to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4380           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1129           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1171           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1171           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 165_2040_NP_AM_Peak_I-215_SB_Ellis_Ave_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ellis Ave to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6060           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1562           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1596           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1596           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 165_2040_NP_PM_Peak_I-215_SB_Ellis_Ave_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ellis Ave to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4380           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1117           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1148           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1148           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2040_NP_AM_Peak_I-215_SB_Garboni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Garboni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     920            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               936            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               936            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2040_NP_PM_Peak_I-215_SB_Garboni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Garboni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3030          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      773           v
Trucks and buses                             3             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.983
Driver population factor, fp                 1.00
Flow rate, vp                                786           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                786           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   11.2          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2040_NP_AM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4950           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1345           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1375           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1375           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2040_NP_PM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4330           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1116           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1146           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1146           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2040_NP_AM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4620           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1255           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1021           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1021           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2040_NP_PM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6080           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1567           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1281           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1281           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          5
Density, D                                  18.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2040_NP_AM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1359           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1116           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1116           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2040_NP_PM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5630           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1451           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1198           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1198           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2040_NP_AM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7120           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1935           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1582           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1582           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          5
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2040_NP_PM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1874           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1539           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1539           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          5
Density, D                                  22.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2040_NP_AM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6210           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1687           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1386           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1386           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          5
Density, D                                  19.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2040_NP_PM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1848           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1518           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1518           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          5
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2040_NP_AM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6020           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1636           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1680           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1680           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.3           mi/h
Number of lanes, N                          4
Density, D                                  25.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2040_NP_PM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5580           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1438           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1491           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1491           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2040_NP_AM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5650          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1535          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1577          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1577          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.4          mi/h
Number of lanes, N                          4
Density, D                                  23.1          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2040_NP_PM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1394           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1432           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1432           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2040_NP_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4570           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1242           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1717           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1717           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          3
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2040_NP_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6420           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1655           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2277           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2277           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.5           mi/h
Number of lanes, N                          3
Density, D                                  40.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2040_NP_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4760          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1293          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1788          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1788          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.0          mi/h
Number of lanes, N                          3
Density, D                                  27.1          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2040_NP_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6990           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1802           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2467           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2467           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.4           mi/h
Number of lanes, N                          3
Density, D                                  48.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2040_NP_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1856           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2529           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2529           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.5           mi/h
Number of lanes, N                          3
Density, D                                  51.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2040_NP_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 SB
From/To:                 Eucalyptus to Alessandro
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6070          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1548          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2131          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2131          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              59.9          mi/h
Number of lanes, N                          3
Density, D                                  35.5          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2040_NP_AM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1356           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1392           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1392           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  20.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2040_NP_PM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7460           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1903           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1945           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1945           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          4
Density, D                                  30.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2040_NP_AM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1312           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1380           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1380           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2040_NP_PM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7880           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2010           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2054           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2054           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.5           mi/h
Number of lanes, N                          4
Density, D                                  33.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2040_NP_AM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3960           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1021           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               843            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               843            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2040_NP_PM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6670           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1702           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1391           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1391           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          5
Density, D                                  20.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2040_NP_AM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5960           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1536           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1262           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1262           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2040_NP_PM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/23/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 SB
From/To:                 Ramona Expy to Mid-County Pkwy
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7370          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1880          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1537          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1537          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.7          mi/h
Number of lanes, N                          5
Density, D                                  22.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2040_NP_AM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1340           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1101           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2040_NP_PM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5100           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1301           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1069           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1069           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2040_NP_AM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4710          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1214          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                997           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                997           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           5
Density, D                                   14.2          pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2040_NP_PM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3850           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     982            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               803            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               803            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2040_NP_AM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3780          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     974           v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1001          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1001          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  14.3          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2040_NP_PM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3160           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     806            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               828            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               828            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 337_2040_NP_AM_Peak_I-10_EB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4980           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1339           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1408           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1408           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 337_2040_NP_PM_Peak_I-10_EB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6470           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1721           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1802           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1802           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          4
Density, D                                  27.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 338_2040_NP_AM_Peak_I-10_WB_Morongo_Pkwy_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Morongo Pkwy to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6720           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1953           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2026           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2026           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.1           mi/h
Number of lanes, N                          4
Density, D                                  32.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 338_2040_NP_PM_Peak_I-10_WB_Morongo_Pkwy_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Morongo Pkwy to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5460          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1407          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1473          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1473          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.1          mi/h
Number of lanes, N                          4
Density, D                                  21.3          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2040_NP_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            SR-71 to Reservoir Rd
Analysis Year:               2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5358    1862    342     38      veh/h
Peak hour factor, PHF                   0.93    0.93    0.93    0.93
Peak 15-min volume, v15                 1440    501     92      10
Trucks and buses                        3       6       1       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.983   0.969   0.993   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            5859    2066    370     41      pc/h

Volume ratio, VR                                0.292

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     0.7         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN                     lc/h
Weaving lane changes, LCW                               lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                           lc/h
Total lane changes, LCALL                               lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                               mi/h
Average non-weaving speed, SNW                          mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.012
Weaving segment flow rate, v               8336        pc/h
Weaving segment capacity, cW               8076        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5501        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2109         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.012        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2040_NP_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6077    1333    333     37      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1550    340     85      9
Trucks and buses                       5       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6368    1404    344     38      pc/h

Volume ratio, VR                               0.214

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1748        lc/h
Weaving lane changes, LCW                  2306        lc/h
Non-weaving vehicle index, INW             762
Non-weaving lane change, LCNW              1278        lc/h
Total lane changes, LCALL                  3584        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.407
Average weaving speed, SW                  54.1        mi/h
Average non-weaving speed, SNW             49.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   50.5        mi/h
Weaving segment density, D                 32.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.751
Weaving segment flow rate, v               8154        pc/h
Weaving segment capacity, cW               10574       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4684        1700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2172         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.751        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2040_NP_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6869    751     621     69      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1847    202     167     19
Trucks and buses                       4       2       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7549    817     726     75      pc/h

Volume ratio, VR                               0.168

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.071
Weaving segment flow rate, v               9167        pc/h
Weaving segment capacity, cW               8341        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4215         700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2131         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         1.071        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2040_NP_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5648    522     822     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1441    133     210     15
Trucks and buses                       4       2       17      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.920   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5890    539     912     60      pc/h

Volume ratio, VR                               0.196

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        912         lc/h
Weaving lane changes, LCW                  1129        lc/h
Non-weaving vehicle index, INW             417
Non-weaving lane change, LCNW              835         lc/h
Total lane changes, LCALL                  1964        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.510
Average weaving speed, SW                  51.4        mi/h
Average non-weaving speed, SNW             54.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.9        mi/h
Weaving segment density, D                 34.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.871
Weaving segment flow rate, v               7401        pc/h
Weaving segment capacity, cW               8258        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4496        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2110         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.871        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2040_NP_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6613    2037    567     63      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1778    548     152     17
Trucks and buses                       4       4       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7267    2239    620     69      pc/h

Volume ratio, VR                               0.280

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2762        lc/h
Non-weaving vehicle index, INW             917
Non-weaving lane change, LCNW              1226        lc/h
Total lane changes, LCALL                  3988        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.564
Average weaving speed, SW                  50.2        mi/h
Average non-weaving speed, SNW             44.1        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   45.6        mi/h
Weaving segment density, D                 44.7        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.925
Weaving segment flow rate, v               10195       pc/h
Weaving segment capacity, cW               10783       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3809         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2205         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.925        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2040_NP_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8003    2147    567     63      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2042    548     145     16
Trucks and buses                       15      6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8795    2261    586     65      pc/h

Volume ratio, VR                               0.243

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.061
Weaving segment flow rate, v               11707       pc/h
Weaving segment capacity, cW               10371       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3417        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2234         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.061        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2040_NP_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8099    551     631     29      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2177    148     170     8
Trucks and buses                       4       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8900    603     687     32      pc/h

Volume ratio, VR                               0.126

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1290        lc/h
Weaving lane changes, LCW                  1902        lc/h
Non-weaving vehicle index, INW             1429
Non-weaving lane change, LCNW              2129        lc/h
Total lane changes, LCALL                  4031        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.469
Average weaving speed, SW                  52.5        mi/h
Average non-weaving speed, SNW             50.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.1        mi/h
Weaving segment density, D                 40.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.917
Weaving segment flow rate, v               10222       pc/h
Weaving segment capacity, cW               10920       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3796        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2232         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.917        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2040_NP_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7296    1024    484     26      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1861    261     123     7
Trucks and buses                       14      2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.933   0.988   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7981    1057    497     27      pc/h

Volume ratio, VR                               0.163

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1554        lc/h
Weaving lane changes, LCW                  2166        lc/h
Non-weaving vehicle index, INW             1281
Non-weaving lane change, LCNW              1554        lc/h
Total lane changes, LCALL                  3720        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.440
Average weaving speed, SW                  53.2        mi/h
Average non-weaving speed, SNW             49.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   50.2        mi/h
Weaving segment density, D                 38.1        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.876
Weaving segment flow rate, v               9562        pc/h
Weaving segment capacity, cW               10280       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4157        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2204         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.876        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2040_NP_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7822    598     838     32      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2103    161     225     9
Trucks and buses                       6       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8680    660     912     35      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        912         lc/h
Weaving lane changes, LCW                  1392        lc/h
Non-weaving vehicle index, INW             959
Non-weaving lane change, LCNW              1428        lc/h
Total lane changes, LCALL                  2820        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.475
Average weaving speed, SW                  52.3        mi/h
Average non-weaving speed, SNW             53.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 38.6        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.948
Weaving segment flow rate, v               10287       pc/h
Weaving segment capacity, cW               10533       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4059        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2173         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.948        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2040_NP_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7275    815     665     35      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1856    208     170     9
Trucks and buses                       8       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7735    842     690     36      pc/h

Volume ratio, VR                               0.165

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        690         lc/h
Weaving lane changes, LCW                  1170        lc/h
Non-weaving vehicle index, INW             855
Non-weaving lane change, LCNW              1234        lc/h
Total lane changes, LCALL                  2404        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.419
Average weaving speed, SW                  53.8        mi/h
Average non-weaving speed, SNW             56.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.7        mi/h
Weaving segment density, D                 33.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.863
Weaving segment flow rate, v               9303        pc/h
Weaving segment capacity, cW               10389       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4178         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2164         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.863        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2040_NP_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7749    991     541     29      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2083    266     145     8
Trucks and buses                       9       5       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.873   0.922   0.935   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9540    1156    622     32      pc/h

Volume ratio, VR                               0.157

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        622         lc/h
Weaving lane changes, LCW                  1538        lc/h
Non-weaving vehicle index, INW             3216
Non-weaving lane change, LCNW              3824        lc/h
Total lane changes, LCALL                  5362        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.377
Average weaving speed, SW                  54.9        mi/h
Average non-weaving speed, SNW             54.6        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.7        mi/h
Weaving segment density, D                 41.5        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.996
Weaving segment flow rate, v               11350       pc/h
Weaving segment capacity, cW               10048       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4098        2800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2300         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.996        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2040_NP_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7489    1251    731     39      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1910    319     186     10
Trucks and buses                       8       1       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.885   0.976   0.948   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8635    1308    787     41      pc/h

Volume ratio, VR                               0.195

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                 2           ln
Interchange density, ID                       1.2         int/mi
Minimum RF lane changes, LCRF                 0           lc/pc
Minimum FR lane changes, LCFR                 1           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           787         lc/h
Weaving lane changes, LCW                     1703        lc/h
Non-weaving vehicle index, INW                2915
Non-weaving lane change, LCNW                 3624        lc/h
Total lane changes, LCALL                     5327        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.375
Average weaving speed, SW                     55.0        mi/h
Average non-weaving speed, SNW                54.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  54.2        mi/h
Weaving segment density, D                39.8        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.966
Weaving segment flow rate, v              10771       pc/h
Weaving segment capacity, cW              10049       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4480         2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2271         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.966        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2040_NP_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1781    1889    639     71      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                479     508     172     19
Trucks and buses                       8       4       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.978   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1995    2076    692     77      pc/h

Volume ratio, VR                               0.572

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2076        lc/h
Weaving lane changes, LCW                  2544        lc/h
Non-weaving vehicle index, INW             199
Non-weaving lane change, LCNW              114         lc/h
Total lane changes, LCALL                  2658        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.423
Average weaving speed, SW                  53.6        mi/h
Average non-weaving speed, SNW             50.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.2        mi/h
Weaving segment density, D                 18.5        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.802
Weaving segment flow rate, v               4840        pc/h
Weaving segment capacity, cW               5873        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7113        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1948         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.802        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2040_NP_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8016    2474    504     56      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2045    631     129     14
Trucks and buses                       4       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8360    2605    520     58      pc/h

Volume ratio, VR                               0.271

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.044
Weaving segment flow rate, v               11543       pc/h
Weaving segment capacity, cW               10802       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3706        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2208         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.044        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2040_NP_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2287    703     1313    37      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                615     189     353     10
Trucks and buses                       8       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2562    765     1429    40      pc/h

Volume ratio, VR                               0.457

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        765         lc/h
Weaving lane changes, LCW                  1136        lc/h
Non-weaving vehicle index, INW             406
Non-weaving lane change, LCNW              470         lc/h
Total lane changes, LCALL                  1606        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.267
Average weaving speed, SW                  58.4        mi/h
Average non-weaving speed, SNW             58.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.6        mi/h
Weaving segment density, D                 20.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.636
Weaving segment flow rate, v               4796        pc/h
Weaving segment capacity, cW               7342        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5767        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2059         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.636        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2040_NP_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4951    1159    2289    61      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1263    296     584     16
Trucks and buses                       4       1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.993   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5163    1191    2364    63      pc/h

Volume ratio, VR                               0.405

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.048
Weaving segment flow rate, v               8781        pc/h
Weaving segment capacity, cW               8235        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5170        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2104         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.048        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2040_NP_AM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3038    402     332     18      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                783     104     86      5
Trucks and buses                       6       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3232    419     345     19      pc/h

Volume ratio, VR                               0.190

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        345         lc/h
Weaving lane changes, LCW                  566         lc/h
Non-weaving vehicle index, INW             455
Non-weaving lane change, LCNW              1176        lc/h
Total lane changes, LCALL                  1742        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.203
Average weaving speed, SW                  60.7        mi/h
Average non-weaving speed, SNW             61.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.0        mi/h
Weaving segment density, D                 21.9        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.607
Weaving segment flow rate, v               4015        pc/h
Weaving segment capacity, cW               6436        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4437        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2214         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.607        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2040_NP_PM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2448    412     152     8       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                644     108     40      2
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2659    439     162     9       pc/h

Volume ratio, VR                               0.184

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        162         lc/h
Weaving lane changes, LCW                  383         lc/h
Non-weaving vehicle index, INW             374
Non-weaving lane change, LCNW              1056        lc/h
Total lane changes, LCALL                  1439        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.174
Average weaving speed, SW                  61.8        mi/h
Average non-weaving speed, SNW             63.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   63.3        mi/h
Weaving segment density, D                 17.2        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.493
Weaving segment flow rate, v               3269        pc/h
Weaving segment capacity, cW               6451        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4372         2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2218         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.493        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2040_NP_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               3476    684     1184    36      veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 896     176     305     9
Trucks and buses                        4       2       1       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.978   0.988   0.993   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            3662    714     1229    38      pc/h

Volume ratio, VR                                0.344

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                  2           ln
Interchange density, ID                        1.2         int/mi
Minimum RF lane changes, LCRF                  1           lc/pc
Minimum FR lane changes, LCFR                  1           lc/pc
Minimum RR lane changes, LCRR                              lc/pc

Minimum weaving lane changes, LCMIN            1943        lc/h
Weaving lane changes, LCW                      2215        lc/h
Non-weaving vehicle index, INW                 888
Non-weaving lane change, LCNW                  1268        lc/h
Total lane changes, LCALL                      3483        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                    0.350
Average weaving speed, SW                      55.7        mi/h
Average non-weaving speed, SNW                 47.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   49.7        mi/h
Weaving segment density, D                 37.9        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.904
Weaving segment flow rate, v               5643        pc/h
Weaving segment capacity, cW               6132        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            6064        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2089         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.904        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2040_NP_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2730    380     960     20      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                718     100     253     5
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2951    405     1023    21      pc/h

Volume ratio, VR                               0.325

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1428        lc/h
Weaving lane changes, LCW                  1700        lc/h
Non-weaving vehicle index, INW             713
Non-weaving lane change, LCNW              1118        lc/h
Total lane changes, LCALL                  2818        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.296
Average weaving speed, SW                  57.4        mi/h
Average non-weaving speed, SNW             52.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.1        mi/h
Weaving segment density, D                 27.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.700
Weaving segment flow rate, v               4400        pc/h
Weaving segment capacity, cW               6152        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5849        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2105         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.700        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2040_NP_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7724    636     736     34      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1991    164     190     9
Trucks and buses                       5       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.922   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8640    682     778     36      pc/h

Volume ratio, VR                               0.144

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.095
Weaving segment flow rate, v               10136       pc/h
Weaving segment capacity, cW               8594        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2406        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2331         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.095        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2040_NP_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8941    789     579     31      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2353    208     152     8
Trucks and buses                       4       1       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.935   0.976   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           10070   851     625     34      pc/h

Volume ratio, VR                               0.127

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.243
Weaving segment flow rate, v               11580       pc/h
Weaving segment capacity, cW               8759        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2242        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2344         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.243        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2040_NP_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7285    1145    655     35      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1878    295     169     9
Trucks and buses                       9       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7863    1195    683     37      pc/h

Volume ratio, VR                               0.192

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   1.0         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN                   lc/h
Weaving lane changes, LCW                             lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                         lc/h
Total lane changes, LCALL                             lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                             mi/h
Average non-weaving speed, SNW                        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.148
Weaving segment flow rate, v               9778        pc/h
Weaving segment capacity, cW               8187        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4455         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2143         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.148        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                      HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2040_NP_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            MLK Blvd to University Ave
Analysis Year:               2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                      Volume Components
                                     VFF     VRF     VFR     VRR
Volume, V                             8100    1690    750     40      veh/h
Peak hour factor, PHF                 0.95    0.95    0.95    0.95
Peak 15-min volume, v15               2132    445     197     11
Trucks and buses                      6       42      3       2         %
Recreational vehicles                 1       1       1       1         %
Trucks and buses PCE, ET              1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER          1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV         0.969   0.825   0.983   0.988
Driver population adjustment, fP      1.00    1.00    1.00    1.00
Flow rate, v                          8799    2156    803     43      pc/h

Volume ratio, VR                              0.251

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2          ln
Interchange density, ID                   1.0        int/mi
Minimum RF lane changes, LCRF             1          lc/pc
Minimum FR lane changes, LCFR             1          lc/pc
Minimum RR lane changes, LCRR                        lc/pc

Minimum weaving lane changes, LCMIN                  lc/h
Weaving lane changes, LCW                            lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                        lc/h
Total lane changes, LCALL                            lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                            mi/h
Average non-weaving speed, SNW                       mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.370
Weaving segment flow rate, v               11801       pc/h
Weaving segment capacity, cW               8128        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5062         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2097         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         1.370        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2040_NP_AM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6833    237     557     13      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1761    61      144     3
Trucks and buses                       6       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7270    247     584     14      pc/h

Volume ratio, VR                               0.102

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        247         lc/h
Weaving lane changes, LCW                  810         lc/h
Non-weaving vehicle index, INW             1020
Non-weaving lane change, LCNW              1296        lc/h
Total lane changes, LCALL                  2106        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.312
Average weaving speed, SW                  56.9        mi/h
Average non-weaving speed, SNW             60.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.1        mi/h
Weaving segment density, D                 27.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.691
Weaving segment flow rate, v               8115        pc/h
Weaving segment capacity, cW               11405       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1997        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2355         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.691        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2040_NP_PM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7897    513     523     27      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2078    135     138     7
Trucks and buses                       5       1       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.993   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8537    544     565     29      pc/h

Volume ratio, VR                               0.115

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        544         lc/h
Weaving lane changes, LCW                  1107        lc/h
Non-weaving vehicle index, INW             1199
Non-weaving lane change, LCNW              1560        lc/h
Total lane changes, LCALL                  2667        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.376
Average weaving speed, SW                  55.0        mi/h
Average non-weaving speed, SNW             56.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  56.6        mi/h
Weaving segment density, D                34.2        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.826
Weaving segment flow rate, v              9675        pc/h
Weaving segment capacity, cW              11417       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2116        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2345         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.826        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2040_NP_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3491    1269    1979    141     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                900     327     510     36
Trucks and buses                       6       2       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3714    1324    2116    147     pc/h

Volume ratio, VR                               0.471

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1324        lc/h
Weaving lane changes, LCW                  1819        lc/h
Non-weaving vehicle index, INW             444
Non-weaving lane change, LCNW              456         lc/h
Total lane changes, LCALL                  2275        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.387
Average weaving speed, SW                  54.6        mi/h
Average non-weaving speed, SNW             53.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.0        mi/h
Weaving segment density, D                 27.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.985
Weaving segment flow rate, v               7301        pc/h
Weaving segment capacity, cW               7198        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5925        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2035         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.985        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2040_NP_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5914    1116    1476    124     veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1556    294     388     33
Trucks and buses                       4       2       8       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.960   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6362    1189    1619    132     pc/h

Volume ratio, VR                               0.302

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1189        lc/h
Weaving lane changes, LCW                  1684        lc/h
Non-weaving vehicle index, INW             747
Non-weaving lane change, LCNW              998         lc/h
Total lane changes, LCALL                  2682        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.441
Average weaving speed, SW                  53.2        mi/h
Average non-weaving speed, SNW             52.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.7        mi/h
Weaving segment density, D                 35.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.852
Weaving segment flow rate, v               9302        pc/h
Weaving segment capacity, cW               10660       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4038        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2179         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.852        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2040_NP_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5202    598     848     32      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1341    154     219     8
Trucks and buses                       13      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5722    624     898     33      pc/h

Volume ratio, VR                               0.209

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1522        lc/h
Weaving lane changes, LCW                  2237        lc/h
Non-weaving vehicle index, INW             1105
Non-weaving lane change, LCNW              1523        lc/h
Total lane changes, LCALL                  3760        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.322
Average weaving speed, SW                  56.6        mi/h
Average non-weaving speed, SNW             52.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.9        mi/h
Weaving segment density, D                 27.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.659
Weaving segment flow rate, v               7277        pc/h
Weaving segment capacity, cW               10445       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4630        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2230         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.659        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2040_NP_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7783    817     1017    43      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2048    215     268     11
Trucks and buses                       11      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8660    870     1099    46      pc/h

Volume ratio, VR                               0.184

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2684        lc/h
Non-weaving vehicle index, INW             1672
Non-weaving lane change, LCNW              2988        lc/h
Total lane changes, LCALL                  5672        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.445
Average weaving speed, SW                  53.0        mi/h
Average non-weaving speed, SNW             45.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   46.8        mi/h
Weaving segment density, D                 45.6        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.956
Weaving segment flow rate, v               10675       pc/h
Weaving segment capacity, cW               10639       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4378        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2249         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.956        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2040_NP_AM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2732    558     1858    62      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                704     144     479     16
Trucks and buses                       13      2       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.937   0.988   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3005    582     2005    65      pc/h

Volume ratio, VR                               0.457

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        582         lc/h
Weaving lane changes, LCW                  1206        lc/h
Non-weaving vehicle index, INW             441
Non-weaving lane change, LCNW              781         lc/h
Total lane changes, LCALL                  1987        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.221
Average weaving speed, SW                  60.1        mi/h
Average non-weaving speed, SNW             60.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.2        mi/h
Weaving segment density, D                 18.8        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.749
Weaving segment flow rate, v               5657        pc/h
Weaving segment capacity, cW               7173        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5766        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2116         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.749        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2040_NP_PM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            Reservoir Rd to SR-71
Analysis Year:               2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   2050        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                      Volume Components
                                     VFF     VRF     VFR     VRR
Volume, V                             4519    621     2311    69      veh/h
Peak hour factor, PHF                 0.95    0.95    0.95    0.95
Peak 15-min volume, v15               1189    163     608     18
Trucks and buses                      6       1       6       2         %
Recreational vehicles                 1       1       1       1         %
Trucks and buses PCE, ET              1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER          1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV         0.969   0.993   0.969   0.988
Driver population adjustment, fP      1.00    1.00    1.00    1.00
Flow rate, v                          4909    658     2510    74      pc/h

Volume ratio, VR                              0.389

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   0.7         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       658         lc/h
Weaving lane changes, LCW                 1282        lc/h
Non-weaving vehicle index, INW            715
Non-weaving lane change, LCNW             1175        lc/h
Total lane changes, LCALL                 2457        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.261
Average weaving speed, SW                 58.6        mi/h
Average non-weaving speed, SNW            57.4        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.9        mi/h
Weaving segment density, D                 28.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.907
Weaving segment flow rate, v               8151        pc/h
Weaving segment capacity, cW               8726        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4988        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2175         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.907        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2040_NP_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7281    589     829     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1877    152     214     8
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7709    615     865     32      pc/h

Volume ratio, VR                               0.161

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        615         lc/h
Weaving lane changes, LCW                  989         lc/h
Non-weaving vehicle index, INW             1053
Non-weaving lane change, LCNW              1746        lc/h
Total lane changes, LCALL                  2735        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.329
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             54.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 42.1        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.990
Weaving segment flow rate, v               9221        pc/h
Weaving segment capacity, cW               9087        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2570         1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2333         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.990        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2040_NP_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6193    817     1097    43      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1665    220     295     12
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6872    889     1194    47      pc/h

Volume ratio, VR                               0.231

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        889         lc/h
Weaving lane changes, LCW                  1263        lc/h
Non-weaving vehicle index, INW             941
Non-weaving lane change, LCNW              1576        lc/h
Total lane changes, LCALL                  2839        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.339
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             52.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.5        mi/h
Weaving segment density, D                 42.0        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.993
Weaving segment flow rate, v               9002        pc/h
Weaving segment capacity, cW               8829        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3294        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2278         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.993        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2040_NP_AM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6283    537     427     23      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1619    138     110     6
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6717    560     445     24      pc/h

Volume ratio, VR                               0.130

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1005        lc/h
Weaving lane changes, LCW                  1345        lc/h
Non-weaving vehicle index, INW             472
Non-weaving lane change, LCNW              805         lc/h
Total lane changes, LCALL                  2150        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.548
Average weaving speed, SW                  50.5        mi/h
Average non-weaving speed, SNW             55.3        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.7        mi/h
Weaving segment density, D                 28.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.719
Weaving segment flow rate, v               7746        pc/h
Weaving segment capacity, cW               10419       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3831         700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2160         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.719        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2040_NP_PM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-91 EB
Weaving Location:            Arlington Ave to Central Ave
Analysis Year:               2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   700         ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               4498    562     342     18      veh/h
Peak hour factor, PHF                   0.93    0.93    0.93    0.93
Peak 15-min volume, v15                 1209    151     92      5
Trucks and buses                        6       1       3       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.969   0.993   0.983   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            4991    609     374     20      pc/h

Volume ratio, VR                                0.164

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         983         lc/h
Weaving lane changes, LCW                   1323        lc/h
Non-weaving vehicle index, INW              351
Non-weaving lane change, LCNW               449         lc/h
Total lane changes, LCALL                   1772        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.470
Average weaving speed, SW                   52.4        mi/h
Average non-weaving speed, SNW              57.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.3        mi/h
Weaving segment density, D                 21.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.564
Weaving segment flow rate, v               5994        pc/h
Weaving segment capacity, cW               10339       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4171        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2134         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.564        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2040_NP_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8909    621     841     69      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2296    160     217     18
Trucks and buses                       5       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9433    696     877     72      pc/h

Volume ratio, VR                               0.142

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        877         lc/h
Weaving lane changes, LCW                  1261        lc/h
Non-weaving vehicle index, INW             844
Non-weaving lane change, LCNW              1396        lc/h
Total lane changes, LCALL                  2657        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.620
Average weaving speed, SW                  49.0        mi/h
Average non-weaving speed, SNW             53.1        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.4        mi/h
Weaving segment density, D                 42.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.972
Weaving segment flow rate, v               11078       pc/h
Weaving segment capacity, cW               11071       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2386        740          a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400        2274         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00        0.972        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2040_NP_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              11286   804     684     76      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                3034    216     184     20
Trucks and buses                       3       17      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.920   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           12342   940     744     83      pc/h

Volume ratio, VR                               0.119

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.227
Weaving segment flow rate, v               14109       pc/h
Weaving segment capacity, cW               11264       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2162        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2291         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.227        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2040_NP_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7023    647     437     23      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1810    167     113     6
Trucks and buses                       5       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7436    675     456     24      pc/h

Volume ratio, VR                               0.132

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         675         lc/h
Weaving lane changes, LCW                   863         lc/h
Non-weaving vehicle index, INW              448
Non-weaving lane change, LCNW               1092        lc/h
Total lane changes, LCALL                   1955        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.574
Average weaving speed, SW                   49.9        mi/h
Average non-weaving speed, SNW              54.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.1        mi/h
Weaving segment density, D                 39.7        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.948
Weaving segment flow rate, v               8591        pc/h
Weaving segment capacity, cW               8845        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2283        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2271         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.948        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2040_NP_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5992    978     408     22      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1611    263     110     6
Trucks and buses                       3       1       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.993   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6553    1059    446     24      pc/h

Volume ratio, VR                               0.186

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1059        lc/h
Weaving lane changes, LCW                  1247        lc/h
Non-weaving vehicle index, INW             395
Non-weaving lane change, LCNW              910         lc/h
Total lane changes, LCALL                  2157        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.620
Average weaving speed, SW                  48.9        mi/h
Average non-weaving speed, SNW             52.7        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.9        mi/h
Weaving segment density, D                 38.9        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.908
Weaving segment flow rate, v               8082        pc/h
Weaving segment capacity, cW               8767        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2830        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2230         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.908        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2040_NP_AM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3526    304     1364    16      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                948     82      367     4
Trucks and buses                       9       6       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.969   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3970    337     1506    17      pc/h

Volume ratio, VR                               0.316

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        337         lc/h
Weaving lane changes, LCW                  794         lc/h
Non-weaving vehicle index, INW             289
Non-weaving lane change, LCNW              644         lc/h
Total lane changes, LCALL                  1438        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.225
Average weaving speed, SW                  59.9        mi/h
Average non-weaving speed, SNW             62.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.3        mi/h
Weaving segment density, D                 19.0        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.536
Weaving segment flow rate, v               5830        pc/h
Weaving segment capacity, cW               10458       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4192         1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2190         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.536        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                          HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2040_NP_PM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                         Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5281    389     1149    21      veh/h
Peak hour factor, PHF                   0.94    0.94    0.94    0.94
Peak 15-min volume, v15                 1405    103     306     6
Trucks and buses                        8       4       6       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.960   0.978   0.969   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            5854    423     1261    23      pc/h

Volume ratio, VR                                0.223

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        423         lc/h
Weaving lane changes, LCW                  880         lc/h
Non-weaving vehicle index, INW             426
Non-weaving lane change, LCNW              1034        lc/h
Total lane changes, LCALL                  1914        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.281
Average weaving speed, SW                  57.9        mi/h
Average non-weaving speed, SNW             59.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.3        mi/h
Weaving segment density, D                 25.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.669
Weaving segment flow rate, v               7561        pc/h
Weaving segment capacity, cW               10873       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3204        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2266         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.669        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2040_NP_AM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5709    751     161     9       veh/h
Peak hour factor, PHF                  0.86    0.86    0.86    0.86
Peak 15-min volume, v15                1660    218     47      3
Trucks and buses                       7       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6884    906     189     11      pc/h

Volume ratio, VR                               0.137

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1095        lc/h
Weaving lane changes, LCW                  1476        lc/h
Non-weaving vehicle index, INW             379
Non-weaving lane change, LCNW              1054        lc/h
Total lane changes, LCALL                  2530        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.436
Average weaving speed, SW                  53.3        mi/h
Average non-weaving speed, SNW             54.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.3        mi/h
Weaving segment density, D                 29.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.731
Weaving segment flow rate, v               7990        pc/h
Weaving segment capacity, cW               10540       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3903        1100         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2186         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.731        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2040_NP_PM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3558    1942    1102    58      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                917     501     284     15
Trucks and buses                       8       4       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.978   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3822    2046    1178    61      pc/h

Volume ratio, VR                               0.454

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.352
Weaving segment flow rate, v               7107        pc/h
Weaving segment capacity, cW               5077        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7290        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1926         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.352        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2040_NP_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              538     1962    432     48      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                146     533     117     13
Trucks and buses                       9       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           612     2212    475     53      pc/h

Volume ratio, VR                               0.802

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.133
Weaving segment flow rate, v               3352        pc/h
Weaving segment capacity, cW               2860        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           11559        2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1676         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.133        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2040_NP_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              835     1925    675     75      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                215     496     174     19
Trucks and buses                       8       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           897     2058    704     78      pc/h

Volume ratio, VR                               0.739

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                            mi/h
Weaving segment density, D                          pc/mi/ln
Level of service, LOS                   F
Weaving segment v/c ratio               1.161
Weaving segment flow rate, v            3737        pc/h
Weaving segment capacity, cW            3116        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            10752       2100         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400       1738         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00       1.161        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2040_NP_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4944    636     576     64      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1343    173     157     17
Trucks and buses                       4       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5492    703     634     70      pc/h

Volume ratio, VR                               0.194

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        703         lc/h
Weaving lane changes, LCW                  1184        lc/h
Non-weaving vehicle index, INW             556
Non-weaving lane change, LCNW              860         lc/h
Total lane changes, LCALL                  2044        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.333
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             58.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.9        mi/h
Weaving segment density, D                 23.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.608
Weaving segment flow rate, v               6899        pc/h
Weaving segment capacity, cW               11120       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2907        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2273         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.608        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2040_NP_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              9086    954     994     106     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2342    246     256     27
Trucks and buses                       3       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9526    1000    1037    111     pc/h

Volume ratio, VR                               0.174

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.021
Weaving segment flow rate, v               11674       pc/h
Weaving segment capacity, cW               11249       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2711         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2289         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         1.021        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2040_NP_AM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4827    513     583     27      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1312    139     158     7
Trucks and buses                       6       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5415    567     644     30      pc/h

Volume ratio, VR                               0.182

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        567         lc/h
Weaving lane changes, LCW                  965         lc/h
Non-weaving vehicle index, INW             463
Non-weaving lane change, LCNW              619         lc/h
Total lane changes, LCALL                  1584        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.369
Average weaving speed, SW                  55.2        mi/h
Average non-weaving speed, SNW             59.5        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.7        mi/h
Weaving segment density, D                 22.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.593
Weaving segment flow rate, v               6656        pc/h
Weaving segment capacity, cW               10911       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2786        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2252         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.593        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2040_NP_PM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6825    845     1005    45      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1759    218     259     12
Trucks and buses                       4       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7191    882     1049    47      pc/h

Volume ratio, VR                               0.211

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        882         lc/h
Weaving lane changes, LCW                  1280        lc/h
Non-weaving vehicle index, INW             615
Non-weaving lane change, LCNW              989         lc/h
Total lane changes, LCALL                  2269        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.490
Average weaving speed, SW                  51.9        mi/h
Average non-weaving speed, SNW             54.8        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  54.2        mi/h
Weaving segment density, D                33.8        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.824
Weaving segment flow rate, v              9169        pc/h
Weaving segment capacity, cW              10905       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3079        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2229         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.824        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2040_NP_AM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2984    446     806     24      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                811     121     219     7
Trucks and buses                       4       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3315    493     887     26      pc/h

Volume ratio, VR                               0.292

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        493         lc/h
Weaving lane changes, LCW                  1532        lc/h
Non-weaving vehicle index, INW             742
Non-weaving lane change, LCNW              535         lc/h
Total lane changes, LCALL                  2067        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.247
Average weaving speed, SW                  59.1        mi/h
Average non-weaving speed, SNW             62.7        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.6        mi/h
Weaving segment density, D                 12.8        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.395
Weaving segment flow rate, v               4721        pc/h
Weaving segment capacity, cW               11716       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3936         1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2241         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.395        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2040_NP_PM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6516    1134    874     46      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1679    292     225     12
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6832    1183    912     48      pc/h

Volume ratio, VR                               0.233

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1183        lc/h
Weaving lane changes, LCW                  2222        lc/h
Non-weaving vehicle index, INW             1527
Non-weaving lane change, LCNW              1950        lc/h
Total lane changes, LCALL                  4172        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.429
Average weaving speed, SW                  53.5        mi/h
Average non-weaving speed, SNW             54.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.1        mi/h
Weaving segment density, D                 27.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.654
Weaving segment flow rate, v               8975        pc/h
Weaving segment capacity, cW               13499       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3315        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2288         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.654        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2040_NP_AM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7646    1004    494     26      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1971    259     127     7
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8016    1047    515     27      pc/h

Volume ratio, VR                               0.163

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1562        lc/h
Weaving lane changes, LCW                  2353        lc/h
Non-weaving vehicle index, INW             1158
Non-weaving lane change, LCNW              1152        lc/h
Total lane changes, LCALL                  3505        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.526
Average weaving speed, SW                  51.0        mi/h
Average non-weaving speed, SNW             51.1        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.1        mi/h
Weaving segment density, D                 31.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.737
Weaving segment flow rate, v               9605        pc/h
Weaving segment capacity, cW               12826       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4158        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2173         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.737        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2040_NP_PM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4859    881     541     29      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1240    225     138     7
Trucks and buses                       4       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5067    910     561     30      pc/h

Volume ratio, VR                               0.224

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1471        lc/h
Weaving lane changes, LCW                  2262        lc/h
Non-weaving vehicle index, INW             734
Non-weaving lane change, LCNW              545         lc/h
Total lane changes, LCALL                  2807        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.442
Average weaving speed, SW                  53.1        mi/h
Average non-weaving speed, SNW             54.2        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.9        mi/h
Weaving segment density, D                 20.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.614
Weaving segment flow rate, v               6568        pc/h
Weaving segment capacity, cW               10485       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4783        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2126         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.614        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2040_NP_AM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/23/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       I-215 SB
Weaving Location:            2rd St to Mill St
Analysis Year:               2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8364    256     546     14      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2156    66      141     4
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8855    268     570     15      pc/h

Volume ratio, VR                               0.086

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        268         lc/h
Weaving lane changes, LCW                  648         lc/h
Non-weaving vehicle index, INW             710
Non-weaving lane change, LCNW              1298        lc/h
Total lane changes, LCALL                  1946        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.456
Average weaving speed, SW                  52.8        mi/h
Average non-weaving speed, SNW             58.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.2        mi/h
Weaving segment density, D                 33.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.838
Weaving segment flow rate, v               9708        pc/h
Weaving segment capacity, cW               11295       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           1841         800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2321         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.838        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2040_NP_PM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5878    532     612     28      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1499    136     156     7
Trucks and buses                       6       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6190    552     632     29      pc/h

Volume ratio, VR                               0.160

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        552         lc/h
Weaving lane changes, LCW                  932         lc/h
Non-weaving vehicle index, INW             498
Non-weaving lane change, LCNW              752         lc/h
Total lane changes, LCALL                  1684        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.407
Average weaving speed, SW                  54.1        mi/h
Average non-weaving speed, SNW             58.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.1        mi/h
Weaving segment density, D                 25.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.656
Weaving segment flow rate, v               7403        pc/h
Weaving segment capacity, cW               10974       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2565        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2265         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.656        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2040_NP_AM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6227    153     1443    17      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1605    39      372     4
Trucks and buses                       6       4       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.978   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6625    161     1520    18      pc/h

Volume ratio, VR                               0.202

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        322         lc/h
Weaving lane changes, LCW                  828         lc/h
Non-weaving vehicle index, INW             717
Non-weaving lane change, LCNW              1137        lc/h
Total lane changes, LCALL                  1965        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.304
Average weaving speed, SW                  57.2        mi/h
Average non-weaving speed, SNW             59.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.2        mi/h
Weaving segment density, D                 28.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.733
Weaving segment flow rate, v               8324        pc/h
Weaving segment capacity, cW               11022       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2990        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2274         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.733        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2040_NP_PM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5191    279     859     31      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1324    71      219     8
Trucks and buses                       7       2       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5493    288     905     32      pc/h

Volume ratio, VR                               0.178

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              2           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        576         lc/h
Weaving lane changes, LCW                  1082        lc/h
Non-weaving vehicle index, INW             597
Non-weaving lane change, LCNW              907         lc/h
Total lane changes, LCALL                  1989        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.307
Average weaving speed, SW                  57.1        mi/h
Average non-weaving speed, SNW             59.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.0        mi/h
Weaving segment density, D                 22.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.587
Weaving segment flow rate, v               6718        pc/h
Weaving segment capacity, cW               11056       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2742        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2293         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.587        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2040_NP_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs_______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           4           ln
Weaving segment length, LS                   450         ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               4442    1548    1788    172     veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 1145    399     461     44
Trucks and buses                        12      3       4       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.942   0.983   0.978   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            4863    1623    1884    179     pc/h

Volume ratio, VR                                0.410

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN                     lc/h
Weaving lane changes, LCW                               lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                           lc/h
Total lane changes, LCALL                               lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W
Average weaving speed, SW                               mi/h
Average non-weaving speed, SNW                          mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.070
Weaving segment flow rate, v               8549        pc/h
Weaving segment capacity, cW               7661        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5230         450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2035         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.070        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2040_NP_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2635    1755    2335    195     veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                672     448     596     50
Trucks and buses                       11      3       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.983   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2842    1821    2459    201     pc/h

Volume ratio, VR                               0.584

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.246
Weaving segment flow rate, v               7323        pc/h
Weaving segment capacity, cW               5666        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           7264         450         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         1879         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         1.246        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2040_NP_AM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2952    608     1428    32      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                802     165     388     9
Trucks and buses                       6       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3311    689     1571    35      pc/h

Volume ratio, VR                               0.403

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2260        lc/h
Weaving lane changes, LCW                  2560        lc/h
Non-weaving vehicle index, INW             321
Non-weaving lane change, LCNW              569         lc/h
Total lane changes, LCALL                  3129        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.481
Average weaving speed, SW                  52.1        mi/h
Average non-weaving speed, SNW             47.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.9        mi/h
Weaving segment density, D                 28.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.946
Weaving segment flow rate, v               5606        pc/h
Weaving segment capacity, cW               5769        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            6716        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1978         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.946        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2040_NP_PM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5605    285     905     15      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1445    73      233     4
Trucks and buses                       5       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5934    299     949     16      pc/h

Volume ratio, VR                               0.173

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1248        lc/h
Weaving lane changes, LCW                  1548        lc/h
Non-weaving vehicle index, INW             571
Non-weaving lane change, LCNW              1106        lc/h
Total lane changes, LCALL                  2654        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.423
Average weaving speed, SW                  53.7        mi/h
Average non-weaving speed, SNW             52.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  52.6        mi/h
Weaving segment density, D                34.2        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.833
Weaving segment flow rate, v              7198        pc/h
Weaving segment capacity, cW              8432        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4266        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2166         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.833        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2040_NP_AM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6815    405     755     45      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1756    104     195     12
Trucks and buses                       4       29      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.872   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7180    479     788     47      pc/h

Volume ratio, VR                               0.149

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        479         lc/h
Weaving lane changes, LCW                  928         lc/h
Non-weaving vehicle index, INW             723
Non-weaving lane change, LCNW              1068        lc/h
Total lane changes, LCALL                  1996        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.390
Average weaving speed, SW                  54.6        mi/h
Average non-weaving speed, SNW             58.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.8        mi/h
Weaving segment density, D                 29.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.738
Weaving segment flow rate, v               8494        pc/h
Weaving segment capacity, cW               11199       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2457        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2289         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.738        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2040_NP_PM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4835    855     915     95      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1233    218     233     24
Trucks and buses                       6       20      3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.907   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5092    961     950     98      pc/h

Volume ratio, VR                               0.269

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        961         lc/h
Weaving lane changes, LCW                  1410        lc/h
Non-weaving vehicle index, INW             519
Non-weaving lane change, LCNW              648         lc/h
Total lane changes, LCALL                  2058        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.399
Average weaving speed, SW                  54.3        mi/h
Average non-weaving speed, SNW             56.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.7        mi/h
Weaving segment density, D                 25.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.643
Weaving segment flow rate, v               7101        pc/h
Weaving segment capacity, cW               10630       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3689        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2194         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.643        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2040_NP_AM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6099    551     591     29      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1572    142     152     7
Trucks and buses                       5       4       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.978   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6457    581     632     30      pc/h

Volume ratio, VR                               0.158

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        632         lc/h
Weaving lane changes, LCW                  956         lc/h
Non-weaving vehicle index, INW             701
Non-weaving lane change, LCNW              1298        lc/h
Total lane changes, LCALL                  2254        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.339
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             56.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.2        mi/h
Weaving segment density, D                 34.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.879
Weaving segment flow rate, v               7700        pc/h
Weaving segment capacity, cW               8526        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4107        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2189         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.879        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2040_NP_PM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/23/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2040 NP
Description:  World Logistics Center - 2040 No Project

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5213    887     437     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1330    226     111     6
Trucks and buses                       6       2       11      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.946   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5490    916     471     24      pc/h

Volume ratio, VR                               0.201

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        471         lc/h
Weaving lane changes, LCW                  795         lc/h
Non-weaving vehicle index, INW             596
Non-weaving lane change, LCNW              1097        lc/h
Total lane changes, LCALL                  1892        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.295
Average weaving speed, SW                  57.5        mi/h
Average non-weaving speed, SNW             58.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.2        mi/h
Weaving segment density, D                 29.7        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.801
Weaving segment flow rate, v               6901        pc/h
Weaving segment capacity, cW               8353        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4546        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2155         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.801        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2040_NP_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           12190          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              540            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     870            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        12190       540         870       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                3277        142         229       v
Trucks and buses                       4           5           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.974       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          13396       584         927       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.145   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1940   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     13980         9600            Yes
      FO
     v  or v               5728 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 7996                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                8580          4600                  Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   65.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 21.015
                                              S
Space mean speed in ramp influence area,     S  = -518.4  mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 194.5   mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2040_NP_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9650           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1400           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     700            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9650        1400        700       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2462        368         184       v
Trucks and buses                       7           1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10211       1484        749       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.032   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  330    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     11695         9600            Yes
      FO
     v  or v               4940 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 4811                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                6295          4600                 Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   47.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 2.364
                                              S
Space mean speed in ramp influence area,     S  = 3.8     mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 6.7     mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2040_NP_AM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8280           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1020           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     320            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8280        1020        320       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2226        268         84        v
Trucks and buses                       11          5           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.974       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9411        1103        341       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.080   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  552    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     8014          12000           No
      FO
     v  or v               3179 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2764                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3867          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   25.7    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.402
                                              S
Space mean speed in ramp influence area,     S  = 58.7    mph
                                              R
Space mean speed in outer lanes,             S  = 64.3    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2040_NP_PM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8210           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1290           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8210        1290        90        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2094        339         24        v
Trucks and buses                       11          1           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.993       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8855        1367        95        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.047   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  298    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7722          12000           No
      FO
     v  or v               3028 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2542                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3909          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   25.9    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.410
                                              S
Space mean speed in ramp influence area,     S  = 58.5    mph
                                              R
Space mean speed in outer lanes,             S  = 64.9    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2040_NP_AM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2750           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              460            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     110            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2750        460         110       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                739         121         29        v
Trucks and buses                       15          8           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.960       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3185        505         118       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.657   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2266   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3185          7200            No
      Fi   F
     v  = v - v            2680          7200            No
      FO   F   R
     v                     505           2000            No
      R
     v  or v               919  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 2266                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2266          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   10.2    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.473
                                              S
Space mean speed in ramp influence area,     S  = 56.7    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 61.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2040_NP_PM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3760           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              520            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     270            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3760        520         270       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                959         137         71        v
Trucks and buses                       11          6           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.969       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4055        565         288       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.633   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2773   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                4055          7200            No
      Fi   F
     v  = v - v            3490          7200            No
      FO   F   R
     v                     565           2000            No
      R
     v  or v               1282 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2773                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2773          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   14.6    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.479
                                              S
Space mean speed in ramp influence area,     S  = 56.6    mph
                                              R
Space mean speed in outer lanes,             S  = 75.7    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2040_NP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3180           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              110            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     460            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3180        110         460       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                855         29          121       v
Trucks and buses                       13          4           8         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.978       0.960
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3648        118         505       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    678.12  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2209   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3766          7200            No
      FO
     v  or v               1439 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2209                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2327          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.291
                                              S
Space mean speed in ramp influence area,     S  = 61.9    mph
                                              R
Space mean speed in outer lanes,             S  = 66.6    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2040_NP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5050           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              270            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     520            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5050        270         520       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1288        71          137       v
Trucks and buses                       8           2           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.988       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5369        288         565       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    1082.80 (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  3251   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5657          7200            No
      FO
     v  or v               2118 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3251                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                3539          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   26.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation___________________________________

Intermediate speed variable,                 M  = 0.385
                                              S
Space mean speed in ramp influence area,     S  = 59.2    mph
                                              R
Space mean speed in outer lanes,             S  = 64.2    mph
                                              0
Space mean speed for all vehicles,           S  = 61.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 19_2040_NP_AM_Peak_SR-60_EB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3180           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              110            vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     110            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3180        110         110       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                855         29          29        v
Trucks and buses                       13          5           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.974       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3648        119         118       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2132   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3767          7200            No
      FO
     v  or v               1516 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2132                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2251          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.341
                                              S
Space mean speed in ramp influence area,     S  = 60.5    mph
                                              R
Space mean speed in outer lanes,             S  = 66.3    mph
                                              0
Space mean speed for all vehicles,           S  = 62.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 19_2040_NP_PM_Peak_SR-60_EB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4360           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              960            vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     270            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4360        960         270       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1112        253         71        v
Trucks and buses                       9           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4658        1023        288       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2723   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5681          7200            No
      FO
     v  or v               1935 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2723                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3746          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   32.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.469
                                              S
Space mean speed in ramp influence area,     S  = 56.9    mph
                                              R
Space mean speed in outer lanes,             S  = 64.8    mph
                                              0
Space mean speed for all vehicles,           S  = 59.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2040_NP_AM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3290           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              240            vph
Length of first accel/decel lane            500            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     140            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3290        240         140       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                884         63          37        v
Trucks and buses                       13          15          4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.929       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3775        272         151       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.653   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2560   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3775          7200            No
      Fi   F
     v  = v - v            3503          7200            No
      FO   F   R
     v                     272           2000            No
      R
     v  or v               1215 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2560                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2560          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   21.8    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.452
                                              S
Space mean speed in ramp influence area,     S  = 57.3    mph
                                              R
Space mean speed in outer lanes,             S  = 76.0    mph
                                              0
Space mean speed for all vehicles,           S  = 62.2    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2040_NP_PM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           5320          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              90            vph
Length of first accel/decel lane            500           ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     300           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5320        90          300       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1357        24          79        v
Trucks and buses                       8           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5657        95          320       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.614   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  3511   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                5657          7200            No
      Fi   F
     v  = v - v            5562          7200            No
      FO   F   R
     v                     95            2000            No
      R
     v  or v               2146 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3511                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3511          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   29.9    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.437
                                              S
Space mean speed in ramp influence area,     S  = 57.8    mph
                                              R
Space mean speed in outer lanes,             S  = 72.3    mph
                                              0
Space mean speed for all vehicles,           S  = 62.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2040_NP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2830           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              140            vph
Length of first accel/decel lane            1400           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     240            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2830        140         240       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                761         37          63        v
Trucks and buses                       8           4           15        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.978       0.929
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3171        151         272       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    760.71  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1956   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3322          7200            No
      FO
     v  or v               1215 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1956                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2107          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.255
                                              S
Space mean speed in ramp influence area,     S  = 62.9    mph
                                              R
Space mean speed in outer lanes,             S  = 67.4    mph
                                              0
Space mean speed for all vehicles,           S  = 64.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2040_NP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4790           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              300            vph
Length of first accel/decel lane            1400           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4790        300         90        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1222        79          24        v
Trucks and buses                       5           2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5020        320         95        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    1192.56 (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  3096   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5340          7200            No
      FO
     v  or v               1924 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3096                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3416          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   23.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.342
                                              S
Space mean speed in ramp influence area,     S  = 60.4    mph
                                              R
Space mean speed in outer lanes,             S  = 64.9    mph
                                              0
Space mean speed for all vehicles,           S  = 62.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 23_2040_NP_AM_Peak_SR-60_EB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2970           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1010           vph
Length of first accel/decel lane            1200           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     110            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2970        1010        110       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                798         266         29        v
Trucks and buses                       8           1           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.993       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3328        1071        118       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.628   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2487   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3328          7200            No
      Fi   F
     v  = v - v            2257          7200            No
      FO   F   R
     v                     1071          2000            No
      R
     v  or v               841  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2487                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2487          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   14.8    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.524
                                              S
Space mean speed in ramp influence area,     S  = 55.3    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 59.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 23_2040_NP_PM_Peak_SR-60_EB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5090           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1690           vph
Length of first accel/decel lane            1200           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     310            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5090        1690        310       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1298        445         82        v
Trucks and buses                       5           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5334        1800        330       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.544   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  3722   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                5334          7200            No
      Fi   F
     v  = v - v            3534          7200            No
      FO   F   R
     v                     1800          2000            No
      R
     v  or v               1612 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3722                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3722          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   25.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.590
                                              S
Space mean speed in ramp influence area,     S  = 53.5    mph
                                              R
Space mean speed in outer lanes,             S  = 74.4    mph
                                              0
Space mean speed for all vehicles,           S  = 58.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2040_NP_AM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1890           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              110            vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1010           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1890        110         1010      vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                508         29          266       v
Trucks and buses                       3           4           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.978       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2067        118         1071      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    73.39   (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1217   pc/h
                   12   F   FM
_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2185          7200            No
      FO
     v  or v               850  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1217                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1335          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.3    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.308
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  = 68.7    mph
                                              0
Space mean speed for all vehicles,           S  = 64.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2040_NP_PM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3630           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              310            vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1690           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3630        310         1690      vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                926         82          445       v
Trucks and buses                       1           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.993       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3730        330         1800      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    474.64  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2196   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4060          7200            No
      FO
     v  or v               1534 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2196                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2526          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   22.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.342
                                              S
Space mean speed in ramp influence area,     S  = 60.4    mph
                                              R
Space mean speed in outer lanes,             S  = 66.3    mph
                                              0
Space mean speed for all vehicles,           S  = 62.5    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2040_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                 MM
Agency/Co.:              WSP
Date Performed:          04/23/2018
Analysis Time Period:    AM Peak
Freeway/Dir of Travel:   SR-60 WB
Junction:                Off-Ramp to Gilman Spring
Jurisdiction:            Caltrans
Analysis Year:           2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                             Diverge
Number of lanes in freeway                   3
Free-flow speed on freeway                   70.0          mph
Volume on freeway                            3660          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                              Right
Number of lanes in ramp                      1
Free-Flow speed on ramp                      35.0          mph
Volume on ramp                               140           vph
Length of first accel/decel lane             200           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                    Yes
Volume on adjacent ramp                      1380          vph
Position of adjacent ramp                    Downstream
Type of adjacent ramp                        On
Distance to adjacent ramp                    1800          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                     Freeway     Ramp        Adjacent
                                                                Ramp
Volume, V (vph)                         3660        140         1380      vph
Peak-hour factor, PHF                   0.97        0.95        0.95
Peak 15-min volume, v15                 943         37          363       v
Trucks and buses                        2           2           2         %
Recreational vehicles                   1           1           1         %
Terrain type:                           Level       Level       Level
     Grade                                      %           %   0.00    %
     Length                                     mi          mi  0.00    mi
Trucks and buses PCE, ET                1.5         1.5         1.5
Recreational vehicle PCE, ER            1.2         1.2         1.2
Heavy vehicle adjustment, fHV           0.988       0.988       0.988
Driver population factor, fP            1.00        1.00        1.00
Flow rate, vp                           3818        149         1470      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.658   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2562   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3818          7200            No
      Fi   F
     v  = v - v            3669          7200            No
      FO   F   R
     v                     149           2000            No
      R
     v  or v               1256 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2562                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2562          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   24.5    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.441
                                              S
Space mean speed in ramp influence area,     S  = 57.6    mph
                                              R
Space mean speed in outer lanes,             S  = 75.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2040_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2620           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              550            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1210           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2620        550         1210      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                689         145         318       v
Trucks and buses                       3           2           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.988       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2805        586         1283      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.663   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2057   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2805          7200            No
      Fi   F
     v  = v - v            2219          7200            No
      FO   F   R
     v                     586           2000            No
      R
     v  or v               748  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2057                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2057          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   20.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.481
                                              S
Space mean speed in ramp influence area,     S  = 56.5    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 26_2040_NP_AM_Peak_SR-60_WB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                           Merge
Number of lanes in freeway                 3
Free-flow speed on freeway                 70.0           mph
Volume on freeway                          3210           vph

__________________________________On Ramp Data_________________________________

Side of freeway                            Right
Number of lanes in ramp                    1
Free-Flow speed on ramp                    35.0           mph
Volume on ramp                             1380           vph
Length of first accel/decel lane           1500           ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                  Yes
Volume on adjacent ramp                    140            vph
Position of adjacent ramp                  Upstream
Type of adjacent ramp                      Off
Distance to adjacent ramp                  1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                   Freeway     Ramp        Adjacent
                                                              Ramp
Volume, V (vph)                       3210        1380        140       vph
Peak-hour factor, PHF                 0.97        0.95        0.95
Peak 15-min volume, v15               827         363         37        v
Trucks and buses                      8           2           2         %
Recreational vehicles                 1           1           1         %
Terrain type:                         Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET              1.5         1.5         1.5
Recreational vehicle PCE, ER          1.2         1.2         1.2
Heavy vehicle adjustment, fHV         0.960       0.988       0.988
Driver population factor, fP          1.00        1.00        1.00
Flow rate, vp                         3448        1470        149       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    1146.65 (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.619   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2136   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4918          7200            No
      FO
     v  or v               1312 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2136                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3606          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   23.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.360
                                              S
Space mean speed in ramp influence area,     S  = 59.9    mph
                                              R
Space mean speed in outer lanes,             S  = 67.1    mph
                                              0
Space mean speed for all vehicles,           S  = 61.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 26_2040_NP_PM_Peak_SR-60_WB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2260           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1210           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     550            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2260        1210        550       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                595         318         145       v
Trucks and buses                       10          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2503        1283        586       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    904.40  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.619   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1551   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3786          7200            No
      FO
     v  or v               952  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1551                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                2834          4600                  No
      R12
_________________Level of Service Determination (if not F)______________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.6    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.282
                                              S
Space mean speed in ramp influence area,     S  = 62.1    mph
                                              R
Space mean speed in outer lanes,             S  = 68.4    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 27_2040_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Theodore_.xhr

_________________________________Diverge Analysis_____________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4590           vph

_________________________________Off Ramp Data________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              420            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     330            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4590        420         330       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1183        111         87        v
Trucks and buses                       6           2           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.988       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4883        447         358       pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.617   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  3186   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                4883          7200            No
      Fi   F
     v  = v - v            4436          7200            No
      FO   F   R
     v                     447           2000            No
      R
     v  or v               1697 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3186                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3186          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   18.2    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.468
                                              S
Space mean speed in ramp influence area,     S  = 56.9    mph
                                              R
Space mean speed in outer lanes,             S  = 74.1    mph
                                              0
Space mean speed for all vehicles,           S  = 61.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 27_2040_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Theodore_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3470           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              160            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     260            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3470        160         260       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                913         42          68        v
Trucks and buses                       7           2           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.988       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3788        170         280       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.657   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2549   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3788          7200            No
      Fi   F
     v  = v - v            3618          7200            No
      FO   F   R
     v                     170           2000            No
      R
     v  or v               1239 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2549                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2549          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   12.7    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.443
                                              S
Space mean speed in ramp influence area,     S  = 57.6    mph
                                              R
Space mean speed in outer lanes,             S  = 75.9    mph
                                              0
Space mean speed for all vehicles,           S  = 62.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2040_NP_AM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4920           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              330            vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     420            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4920        330         420       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1268        87          111       v
Trucks and buses                       10          6           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.969       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5336        358         447       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    1024.12 (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  3209   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5694          7200            No
      FO
     v  or v               2127 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3209                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3567          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   27.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.400
                                              S
Space mean speed in ramp influence area,     S  = 58.8    mph
                                              R
Space mean speed in outer lanes,             S  = 64.1    mph
                                              0
Space mean speed for all vehicles,           S  = 60.7    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2040_NP_PM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                          Merge
Number of lanes in freeway                3
Free-flow speed on freeway                70.0          mph
Volume on freeway                         3640          vph

__________________________________On Ramp Data_________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0          mph
Volume on ramp                            260           vph
Length of first accel/decel lane          850           ft
Length of second accel/decel lane                       ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   160           vph
Position of adjacent ramp                 Upstream
Type of adjacent ramp                     Off
Distance to adjacent ramp                 1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                  Freeway     Ramp        Adjacent
                                                             Ramp
Volume, V (vph)                      3640        260         160       vph
Peak-hour factor, PHF                0.95        0.95        0.95
Peak 15-min volume, v15              958         68          42        v
Trucks and buses                     13          4           2         %
Recreational vehicles                1           1           1         %
Terrain type:                        Level       Level       Level
     Grade                                  %           %    0.00    %
     Length                                 mi          mi   0.00    mi
Trucks and buses PCE, ET             1.5         1.5         1.5
Recreational vehicle PCE, ER         1.2         1.2         1.2
Heavy vehicle adjustment, fHV        0.937       0.978       0.988
Driver population factor, fP         1.00        1.00        1.00
Flow rate, vp                        4088        280         170       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    740.35  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2458   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4368          7200            No
      FO
     v  or v               1630 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2458                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2738          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.322
                                              S
Space mean speed in ramp influence area,     S  = 61.0    mph
                                              R
Space mean speed in outer lanes,             S  = 65.9    mph
                                              0
Space mean speed for all vehicles,           S  = 62.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2040_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5250           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              870            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     120            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5250        870         120       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1353        229         32        v
Trucks and buses                       10          1           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.993       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5694        922         130       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.575   Using Equation  9
```

```
                   FD
                  v   = v  + (v - v ) P  =  3667   pc/h
                   12    R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                5694          7200            No
      Fi   F
     v  = v - v            4772          7200            No
      FO   F   R
     v                     922           2000            No
      R
     v  or v               2027 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3667                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3667          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.3    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.511
                                              S
Space mean speed in ramp influence area,     S  = 55.7    mph
                                              R
Space mean speed in outer lanes,             S  = 72.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2040_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3900           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              600            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3900        600         130       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1026        158         34        v
Trucks and buses                       12          3           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.983       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4360        642         141       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.621   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2953   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                4360          7200            No
      Fi   F
     v  = v - v            3718          7200            No
      FO   F   R
     v                     642           2000            No
      R
     v  or v               1407 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2953                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2953          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   16.1    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.486
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 75.2    mph
                                              0
Space mean speed for all vehicles,           S  = 61.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2040_NP_AM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4060           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              120            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     870            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4060        120         870       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1046        32          229       v
Trucks and buses                       12          6           1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.969       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4445        130         922       pcph

_________________________Estimation of V12 Merge Areas________________________

                  L  =    851.25  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2691   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4575          7200            No
      FO
     v  or v               1754 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2691                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2821          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.316
                                              S
Space mean speed in ramp influence area,     S  = 61.1    mph
                                              R
Space mean speed in outer lanes,             S  = 65.5    mph
                                              0
Space mean speed for all vehicles,           S  = 62.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2040_NP_PM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3030           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              130            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     600            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3030        130         600       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                797         34          158       v
Trucks and buses                       14          5           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.974       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3419        141         642       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    634.04  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2070   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3560          7200            No
      FO
     v  or v               1349 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2070                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2211          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   16.4    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.287
                                              S
Space mean speed in ramp influence area,     S  = 62.0    mph
                                              R
Space mean speed in outer lanes,             S  = 66.9    mph
                                              0
Space mean speed for all vehicles,           S  = 63.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 31_2040_NP_AM_Peak_SR-60_WB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3910           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              270            vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     120            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3910        270         120       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1008        71          32        v
Trucks and buses                       13          4           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.978       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4301        290         130       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2514   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4591          7200            No
      FO
     v  or v               1787 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2514                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2804          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   25.6    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.368
                                              S
Space mean speed in ramp influence area,     S  = 59.7    mph
                                              R
Space mean speed in outer lanes,             S  = 65.4    mph
                                              0
Space mean speed for all vehicles,           S  = 61.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 31_2040_NP_PM_Peak_SR-60_WB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           2850          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              310           vph
Length of first accel/decel lane            250           ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2850        310         130       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                750         82          34        v
Trucks and buses                       15          4           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.978       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3231        333         141       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1889   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3564          7200            No
      FO
     v  or v               1342 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1889                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2222          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.339
                                              S
Space mean speed in ramp influence area,     S  = 60.5    mph
                                              R
Space mean speed in outer lanes,             S  = 67.0    mph
                                              0
Space mean speed for all vehicles,           S  = 62.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2040_NP_AM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9020           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              770            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     640            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9020        770         640       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                2325        203         168       v
Trucks and buses                       7           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9643        816         682       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3111   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                9643          9600            Yes
      Fi   F
     v  = v - v            8827          9600            No
      FO   F   R
     v                     816           4000            No
      R
     v  or v               3266 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 4243                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4243          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,              D = 4.252 + 0.0086 v  - 0.009  L   =   13.7    pc/mi/ln
                       R                  12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.501
                                              S
Space mean speed in ramp influence area,     S  = 56.0    mph
                                              R
Space mean speed in outer lanes,             S  = 70.2    mph
                                              0
Space mean speed for all vehicles,           S  = 63.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2040_NP_PM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           10330          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              610            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     820            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        10330       610         820       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                2718        161         216       v
Trucks and buses                       6           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          11222       647         874       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3396   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                11222         9600            Yes
      Fi   F
     v  = v - v            10575         9600            Yes
      FO   F   R
     v                     647           4000            No
      R
     v  or v               3913 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 5822                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                5822          4400                 No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   27.3    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                D  = 0.486
                                             S
Space mean speed in ramp influence area,    S  = 56.4    mph
                                             R
Space mean speed in outer lanes,            S  = 70.2    mph
                                             0
Space mean speed for all vehicles,          S  = 62.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2040_NP_AM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9220           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              920            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1180           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9220        920         1180      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                2376        242         311       v
Trucks and buses                       10          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9999        975         1257      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4909   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                9999          9600            Yes
      Fi   F
     v  = v - v            9024          9600            No
      FO   F   R
     v                     975           2000            No
      R
     v  or v               2545 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4909                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4909          4400                  Yes
      12
_________________Level of Service Determination (if not F)_____________________

Density,                D = 4.252 + 0.0086 v  - 0.009  L   =   33.0    pc/mi/ln
                         R                   12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.516
                                              S
Space mean speed in ramp influence area,     S  = 55.6    mph
                                              R
Space mean speed in outer lanes,             S  = 70.8    mph
                                              0
Space mean speed for all vehicles,           S  = 62.4    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2040_NP_PM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/23/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 NP
Description:  World Logistics Center - 2040 No Project

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           10430          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1270           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1730           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        10430       1270        1730      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                2745        334         455       v
Trucks and buses                       6           39          42        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.835       0.825
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          11330       1600        2207      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  5842   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                11330         9600            Yes
      Fi   F
     v  = v - v            9730          9600            Yes
      FO   F   R
     v                     1600          2000            No
      R
     v  or v               2744 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 5930                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                5930          4400                  Yes
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   41.8    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.572
                                              S
Space mean speed in ramp influence area,     S  = 54.0    mph
                                              R
Space mean speed in outer lanes,             S  = 70.2    mph
                                              0
Space mean speed for all vehicles,           S  = 60.6    mph
_______________________________________________________________________________
```

Traffic Impact Analysis Report
for the World Logistics Center

Appendix O

Freeway LOS Worksheets
for 2040 Plus Build-out Conditions

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2040_WP_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2253           v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               2415           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2415           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.9           mi/h
Number of lanes, N                          4
Density, D                                  45.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2040_WP_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7110           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1814           v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               1990           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1990           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.8           mi/h
Number of lanes, N                          4
Density, D                                  31.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2040_WP_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    10340          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2780           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2273           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2273           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               56.6           mi/h
Number of lanes, N                           5
Density, D                                   40.1           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2040_WP_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9860          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2515          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2077          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2077          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              61.1          mi/h
Number of lanes, N                          5
Density, D                                  34.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2040_WP_AM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9480           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2548           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2084           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2084           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               60.9           mi/h
Number of lanes, N                           5
Density, D                                   34.2           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
```

```
                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 4_2040_WP_PM_Peak_SR-60_EB_Central_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Central Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8750           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2232           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1843           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1843           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          5
Density, D                                  28.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2040_WP_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9860           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2651           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2167           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2167           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               59.2           mi/h
Number of lanes, N                           5
Density, D                                   36.6           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2040_WP_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8680           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2214           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1828           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1828           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          5
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2040_WP_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9670           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2599           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2125           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2125           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.1           mi/h
Number of lanes, N                          5
Density, D                                  35.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2040_WP_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8370          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      2135          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1763          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1763          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               66.3          mi/h
Number of lanes, N                           5
Density, D                                   26.6          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2040_WP_AM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9170           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2465           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2015           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2015           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.3           mi/h
Number of lanes, N                          5
Density, D                                  32.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 7_2040_WP_PM_Peak_SR-60_EB_Grove_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Grove Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9350           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2385           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1969           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1969           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.1           mi/h
Number of lanes, N                          5
Density, D                                  31.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2040_WP_AM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9000           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2419           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1968           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1968           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.2           mi/h
Number of lanes, N                          5
Density, D                                  31.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 8_2040_WP_PM_Peak_SR-60_EB_Vineyard_Ave_to_Archibald_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Vineyard Ave to Archibald Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9600           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2449           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2022           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2022           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.2           mi/h
Number of lanes, N                          5
Density, D                                  32.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2040_WP_AM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9070           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2438           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1993           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1993           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.7           mi/h
Number of lanes, N                          5
Density, D                                  31.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 9_2040_WP_PM_Peak_SR-60_EB_Archibald_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Archibald Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6920           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1765           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1464           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1464           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          5
Density, D                                  21.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2040_WP_AM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10380          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2790           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1920           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1920           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.0           mi/h
Number of lanes, N                          6
Density, D                                  30.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 10_2040_WP_PM_Peak_SR-60_EB_Haven_Ave_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Haven Ave to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8030           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2048           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1423           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1423           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          6
Density, D                                  20.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2040_WP_AM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5660           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1522           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1570           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1570           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          4
Density, D                                  22.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 11_2040_WP_PM_Peak_SR-60_EB_Miliken_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Miliken Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5170           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1319           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1361           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1361           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2040_WP_AM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5070          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1363          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1400          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1400          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.5          mi/h
Number of lanes, N                           4
Density, D                                   20.1          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 12_2040_WP_PM_Peak_SR-60_EB_I-15_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                I-15 to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4360           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1112           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1148           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1148           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   16.4           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2040_WP_AM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4960           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1333           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1369           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1369           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 13_2040_WP_PM_Peak_SR-60_EB_Etiwanda_Ave_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Etiwanda Ave to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3520           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     898            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               931            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               931            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2040_WP_AM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1177           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1227           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1227           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 14_2040_WP_PM_Peak_SR-60_EB_Mission_Blvd_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mission Blvd to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2940           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     750            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               800            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               800            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2040_WP_AM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4670           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1255           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1302           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1302           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 15_2040_WP_PM_Peak_SR-60_EB_Pedley_Rd_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pedley Rd to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3180           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     811            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               862            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               862            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2040_WP_AM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5220           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1403           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1448           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1448           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 16_2040_WP_PM_Peak_SR-60_EB_Pyrite_St_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pyrite St to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3590           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     916            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               968            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               968            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2040_WP_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6340           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1704           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2334           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2334           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.1           mi/h
Number of lanes, N                          3
Density, D                                  42.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2040_WP_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1327           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1825           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1825           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          3
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2040_WP_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1664           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2279           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2279           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.5           mi/h
Number of lanes, N                          3
Density, D                                  40.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2040_WP_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1357          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1876          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1876          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.7          mi/h
Number of lanes, N                          3
Density, D                                  29.0          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2040_WP_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6590           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1772           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2426           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2426           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.6           mi/h
Number of lanes, N                          3
Density, D                                  46.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2040_WP_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5590          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1426          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1981          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1981          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.9          mi/h
Number of lanes, N                          3
Density, D                                  31.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2040_WP_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   12730          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     3422           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               3662           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3662           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S                             mi/h
Number of lanes, N                          4
Density, D                                                 pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2040_WP_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   11050          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2819           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               3101           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3101           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              28.1           mi/h
Number of lanes, N                          4
Density, D                                  110.4          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2040_WP_AM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6450           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1734           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1781           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1781           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          4
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 26_2040_WP_PM_Peak_SR-60_EB_Box_Springs_Rd_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Box Springs Rd to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5540           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1413           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1466           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1466           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2040_WP_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3530           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     949            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               2025           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2025           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.1           mi/h
Number of lanes, N                          2
Density, D                                  32.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2040_WP_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1327           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2791           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2791           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              40.6           mi/h
Number of lanes, N                          2
Density, D                                  68.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2040_WP_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3520           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      946            v
Trucks and buses                             11             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                2000           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           2
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2000           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               62.6           mi/h
Number of lanes, N                           2
Density, D                                   32.0           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2040_WP_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4150           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1059           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2217           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2217           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.0           mi/h
Number of lanes, N                          2
Density, D                                  38.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2040_WP_AM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3210           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     863            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1833           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1833           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.4           mi/h
Number of lanes, N                          2
Density, D                                  28.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 31_2040_WP_PM_Peak_SR-60_EB_Perris_Blvd_to_Nason_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Perris Blvd to Nason St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3860           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     985            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2072           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2072           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.2           mi/h
Number of lanes, N                          2
Density, D                                  33.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2040_WP_AM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3020           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     812            v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               1160           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1160           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 32_2040_WP_PM_Peak_SR-60_EB_Nason_St_to_Moreno_Beach_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Nason St to Moreno Beach Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3910           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     997            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1399           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1399           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          3
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2040_WP_AM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2750          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     739           v
Trucks and buses                            15            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.929
Driver population factor, fp                1.00
Flow rate, vp                               1062          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1062          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          3
Density, D                                  15.2          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 33_2040_WP_PM_Peak_SR-60_EB_Moreno_Beach_to_Redlands_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Moreno Beach to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3760          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     959           v
Trucks and buses                            11            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1352          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1352          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.7          mi/h
Number of lanes, N                          3
Density, D                                  19.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2040_WP_AM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Redlands Blvd to Theodore St
Jurisdiction:            Caltrans
Analysis Year:           2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    3290           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      884            v
Trucks and buses                             13             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.937
Driver population factor, fp                 1.00
Flow rate, vp                                1258           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1258           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           3
Density, D                                   18.0           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 34_2040_WP_PM_Peak_SR-60_EB_Redlands_Blvd_to_Theodore_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Redlands Blvd to Theodore St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1357           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1886           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1886           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.5           mi/h
Number of lanes, N                          3
Density, D                                  29.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2040_WP_AM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2000           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     538            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.881
Driver population factor, fp                1.00
Flow rate, vp                               814            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               814            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  11.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 36_2040_WP_PM_Peak_SR-60_EB_Gilman_Springs_to_Jack_Rabbit.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Gilman Springs to Jack Rabbit
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3940           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1005           v
Trucks and buses                            1              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.939
Driver population factor, fp                1.00
Flow rate, vp                               1427           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1427           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          3
Density, D                                  20.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2040_WP_AM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2270           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     610            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1272           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1272           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          2
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 37_2040_WP_PM_Peak_SR-60_EB_Jack_Rabbit_Trail_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Jack Rabbit Trail to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4420           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1128           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2316           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2316           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.6           mi/h
Number of lanes, N                          2
Density, D                                  41.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2040_WP_AM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4100           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1057           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2181           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2181           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.8           mi/h
Number of lanes, N                          2
Density, D                                  37.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 38_2040_WP_PM_Peak_SR-60_WB_I-10_to_Jack_Rabbit_Trail_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-10 to Jack Rabbit Trail
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2970           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     782            v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1621           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1621           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.9           mi/h
Number of lanes, N                          2
Density, D                                  23.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2040_WP_AM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3660           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     943            v
Trucks and buses                            2              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               1384           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1384           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          3
Density, D                                  19.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 39_2040_WP_PM_Peak_SR-60_WB_Jack_Rabbit_to_Gilman_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Jack Rabbit to Gilman Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2620           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     689            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Mountainous
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    4.5
Recreational vehicle PCE, ER                4.0
Heavy vehicle adjustment, fHV               0.881
Driver population factor, fp                1.00
Flow rate, vp                               1043           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1043           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  14.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2040_WP_AM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5250           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1353           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1898           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1898           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.3           mi/h
Number of lanes, N                          3
Density, D                                  29.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 41_2040_WP_PM_Peak_SR-60_WB_Theodore_St_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Theodore St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3900           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1026           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1453           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1453           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          3
Density, D                                  21.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2040_WP_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4180           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1077           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               2288           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2288           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.3           mi/h
Number of lanes, N                          2
Density, D                                  40.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2040_WP_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3160           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     832            v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               1783           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1783           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          2
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2040_WP_AM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1054           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1472           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1472           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          3
Density, D                                  21.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 44_2040_WP_PM_Peak_SR-60_WB_Nason_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Nason St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3420           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     900            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1280           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1280           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          3
Density, D                                  18.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2040_WP_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4510           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1162           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               2446           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2446           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.0           mi/h
Number of lanes, N                          2
Density, D                                  47.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2040_WP_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3790          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     997           v
Trucks and buses                            12            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               2118          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2118          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.2          mi/h
Number of lanes, N                          2
Density, D                                  35.2          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2040_WP_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5680          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1464          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               3065          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3065          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              29.7          mi/h
Number of lanes, N                          2
Density, D                                  103.4         pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2040_WP_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3580           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     942            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1992           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1992           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.7           mi/h
Number of lanes, N                          2
Density, D                                  31.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2040_WP_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1214           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               2578           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2578           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.0           mi/h
Number of lanes, N                          2
Density, D                                  53.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2040_WP_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3990           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1050           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               2230           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2230           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.7           mi/h
Number of lanes, N                          2
Density, D                                  38.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2040_WP_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2062           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2148           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2148           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.6           mi/h
Number of lanes, N                          4
Density, D                                  36.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2040_WP_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10420          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2742           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2830           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2830           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              39.2           mi/h
Number of lanes, N                          4
Density, D                                  72.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2040_WP_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2376           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.862
Driver population factor, fp                1.00
Flow rate, vp                               2205           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2205           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.3           mi/h
Number of lanes, N                          5
Density, D                                  37.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2040_WP_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10430          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2745           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               2415           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2415           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.9           mi/h
Number of lanes, N                          5
Density, D                                  45.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2040_WP_AM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1665           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2291           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2291           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.2           mi/h
Number of lanes, N                          3
Density, D                                  40.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 55_2040_WP_PM_Peak_SR-60_WB_SR-91_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                SR-91 to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5620           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1479           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2025           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2025           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.1           mi/h
Number of lanes, N                          3
Density, D                                  32.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2040_WP_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1521           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2103           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2103           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.5           mi/h
Number of lanes, N                          3
Density, D                                  34.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2040_WP_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6290           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1655           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2267           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2267           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.8           mi/h
Number of lanes, N                          3
Density, D                                  39.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2040_WP_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1659           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1659           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          3
Density, D                                  24.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2040_WP_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6770           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1782           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2416           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2416           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.8           mi/h
Number of lanes, N                          3
Density, D                                  45.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2040_WP_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1137           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1572           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1572           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          3
Density, D                                  23.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2040_WP_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6660           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1753           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2400           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2400           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.3           mi/h
Number of lanes, N                          3
Density, D                                  45.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2040_WP_AM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4240           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1093           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1139           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1139           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 59_2040_WP_PM_Peak_SR-60_WB_Valley_Way_to_Pyrite_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Valley Way to Pyrite St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6160           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1621           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1673           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1673           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2040_WP_AM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4150           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1070           v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1115           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1115           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   15.9           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 60_2040_WP_PM_Peak_SR-60_WB_Pyrite_St_to_Pedley_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pyrite St to Pedley Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6510           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1713           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1768           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1768           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          4
Density, D                                  26.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2040_WP_AM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4180           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1077           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1123           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1123           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 61_2040_WP_PM_Peak_SR-60_WB_Pedley_Rd_to_Mission_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Pedley Rd to Mission Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  6400           veh/h
Peak-hour factor, PHF                      0.95
Peak 15-min volume, v15                    1684           v
Trucks and buses                           6              %
Recreational vehicles                      1              %
Terrain type:                              Level
    Grade                                  -              %
    Segment length                         -              mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.969
Driver population factor, fp               1.00
Flow rate, vp                              1738           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -              ft
Right-side lateral clearance               -              ft
Total ramp density, TRD                    -              ramps/mi
Number of lanes, N                         4
Free-flow speed:                           Measured
     FFS or BFFS                           70.0           mi/h
Lane width adjustment, fLW                 -              mi/h
Lateral clearance adjustment, fLC          -              mi/h
TRD adjustment                             -              mi/h
Free-flow speed, FFS                       70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              1738           pc/h/ln
Free-flow speed, FFS                       70.0           mi/h
Average passenger-car speed, S             66.6           mi/h
Number of lanes, N                         4
Density, D                                 26.1           pc/mi/ln
Level of service, LOS                      D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2040_WP_AM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4970           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1281           v
Trucks and buses                             7              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1328           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1328           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.8           mi/h
Number of lanes, N                           4
Density, D                                   19.0           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 62_2040_WP_PM_Peak_SR-60_WB_Mission_Blvd_to_Etiwanda_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mission Blvd to Etiwanda Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7460           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1963           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2016           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2016           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.3           mi/h
Number of lanes, N                          4
Density, D                                  32.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2040_WP_AM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4780           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1232           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1017           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1017           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 63_2040_WP_PM_Peak_SR-60_WB_Etiwanda_Ave_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Etiwanda Ave to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6520           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1716           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1403           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1403           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          5
Density, D                                  20.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2040_WP_AM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5380           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1387           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1431           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1431           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.4           mi/h
Number of lanes, N                          4
Density, D                                  20.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 64_2040_WP_PM_Peak_SR-60_WB_I-15_to_Miliken_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-15 to Miliken Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7330           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1929           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1962           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1962           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          4
Density, D                                  31.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2040_WP_AM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1871           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1530           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1530           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          5
Density, D                                  22.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 65_2040_WP_PM_Peak_SR-60_WB_Miliken_Ave_to_Haven_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Miliken Ave to Haven Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7940           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2089           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1708           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1708           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          5
Density, D                                  25.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2040_WP_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7760           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      2000           v
Trucks and buses                             10             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.951
Driver population factor, fp                 1.00
Flow rate, vp                                1683           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1683           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               67.3           mi/h
Number of lanes, N                           5
Density, D                                   25.0           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2040_WP_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10640          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2800           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2312           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2312           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.7           mi/h
Number of lanes, N                          5
Density, D                                  41.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2040_WP_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    6610           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1704           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1393           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                1393           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.6           mi/h
Number of lanes, N                           5
Density, D                                   20.0           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2040_WP_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10690          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2813           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2300           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2300           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.0           mi/h
Number of lanes, N                          5
Density, D                                  41.1           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2040_WP_AM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7050           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1817           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1515           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1515           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          5
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 69_2040_WP_PM_Peak_SR-60_WB_Grove_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Grove Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9040           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2379           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1945           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1945           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.6           mi/h
Number of lanes, N                          5
Density, D                                  30.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2040_WP_AM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6810           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1755           v
Trucks and buses                             12             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.942
Driver population factor, fp                 1.00
Flow rate, vp                                1491           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1491           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.0           mi/h
Number of lanes, N                           5
Density, D                                   21.6           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 70_2040_WP_PM_Peak_SR-60_WB_Euclid_Ave_to_Mountain_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Euclid Ave to Mountain Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8490          veh/h
Peak-hour factor, PHF                        0.95
Peak 15-min volume, v15                      2234          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1854          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1854          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               65.0          mi/h
Number of lanes, N                           5
Density, D                                   28.5          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2040_WP_AM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1727           v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1474           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1474           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          5
Density, D                                  21.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 71_2040_WP_PM_Peak_SR-60_WB_Mountain_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Mountain Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7820           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2058           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1715           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1715           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          5
Density, D                                  25.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2040_WP_AM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6100           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1572           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1317           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1317           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          5
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 72_2040_WP_PM_Peak_SR-60_WB_Central_Ave_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central Ave to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8180          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2153          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1760          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1760          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.4          mi/h
Number of lanes, N                          5
Density, D                                  26.5          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2040_WP_AM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6530          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1683          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1728          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1728          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.8          mi/h
Number of lanes, N                          4
Density, D                                  25.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 73_2040_WP_PM_Peak_SR-60_WB_Ramona_Ave_to_S_Reservoir_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Ramona Ave to S Reservoir St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7710           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2029           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2074           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2074           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.1           mi/h
Number of lanes, N                          4
Density, D                                  33.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2040_WP_AM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7230          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1863          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1904          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1904          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.3          mi/h
Number of lanes, N                          4
Density, D                                  29.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 75_2040_WP_PM_Peak_SR-91_EB_I-15_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                I-15 to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8500           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2285           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2347           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2347           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.7           mi/h
Number of lanes, N                          4
Density, D                                  42.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2040_WP_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6880          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1773          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2416          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2416          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              52.8          mi/h
Number of lanes, N                          3
Density, D                                  45.7          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2040_WP_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6490           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1745           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2401           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2401           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.3           mi/h
Number of lanes, N                          3
Density, D                                  45.1           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2040_WP_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2149           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2958           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2958           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              34.1           mi/h
Number of lanes, N                          3
Density, D                                  86.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2040_WP_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8240           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2215           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               3063           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3063           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              29.7           mi/h
Number of lanes, N                          3
Density, D                                  103.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2040_WP_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    8790          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      2265          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2327          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2327          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               55.3          mi/h
Number of lanes, N                           4
Density, D                                   42.1          pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2040_WP_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8300           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2231           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2303           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2303           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.9           mi/h
Number of lanes, N                          4
Density, D                                  41.2           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2040_WP_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8810           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2271           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2321           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2321           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.4           mi/h
Number of lanes, N                          4
Density, D                                  41.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2040_WP_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9040          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2430          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2496          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2496          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               50.5          mi/h
Number of lanes, N                           4
Density, D                                   49.4          pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2040_WP_AM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6120          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1577          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1612          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1612          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.0          mi/h
Number of lanes, N                          4
Density, D                                  23.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 81_2040_WP_PM_Peak_SR-91_EB_Van_Buren_Blvd_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Van Buren Blvd to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6430          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1728          v
Trucks and buses                             6             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1784          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1784          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               66.0          mi/h
Number of lanes, N                           4
Density, D                                   27.0          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2040_WP_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2258           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               3122           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3122           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              27.1           mi/h
Number of lanes, N                          3
Density, D                                  115.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2040_WP_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    9910           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2664           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                3666           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                3666           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S                              mi/h
Number of lanes, N                           3
Density, D                                                  pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2040_WP_AM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8370           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2157           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2237           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2237           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.5           mi/h
Number of lanes, N                          4
Density, D                                  38.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 83_2040_WP_PM_Peak_SR-91_EB_Madison_St_to_Indiana_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Madison St to Indiana Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6840          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1839          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1907          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1907          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.2          mi/h
Number of lanes, N                          4
Density, D                                  29.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2040_WP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796          v
Trucks and buses                            12            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               2544          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2544          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              49.0          mi/h
Number of lanes, N                          3
Density, D                                  51.9          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2040_WP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6420           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1726           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2398           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2398           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.4           mi/h
Number of lanes, N                          3
Density, D                                  44.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2040_WP_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4800           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1237           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1271           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1271           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 86_2040_WP_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5210          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1401          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1438          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1438          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.3          mi/h
Number of lanes, N                          4
Density, D                                  20.7          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2040_WP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1629           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1345           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1345           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          5
Density, D                                  19.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 87_2040_WP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7020           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1887           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1558           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1558           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          5
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2040_WP_AM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7560           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1948           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2011           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2011           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.4           mi/h
Number of lanes, N                          4
Density, D                                  32.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 89_2040_WP_PM_Peak_SR-91_EB_University_Ave_to_Spruce_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                University Ave to Spruce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7740          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2081          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2126          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2126          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.1          mi/h
Number of lanes, N                          4
Density, D                                  35.4          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2040_WP_AM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6200          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1598          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1649          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1649          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.7          mi/h
Number of lanes, N                          4
Density, D                                  24.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 90_2040_WP_PM_Peak_SR-91_WB_14th_St_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                14th St to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7340           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1973           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2017           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2017           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.3           mi/h
Number of lanes, N                          4
Density, D                                  32.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2040_WP_AM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8900          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2294          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               3141          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3141          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              26.3          mi/h
Number of lanes, N                          3
Density, D                                  119.4         pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 92_2040_WP_PM_Peak_SR-91_WB_Arlington_Ave_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Arlington Ave to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8420          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2263          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               3084          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3084          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              28.8          mi/h
Number of lanes, N                          3
Density, D                                  107.0         pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2040_WP_AM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7610          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1961          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2014          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2014          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              62.3          mi/h
Number of lanes, N                          4
Density, D                                  32.3          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 93_2040_WP_PM_Peak_SR-91_WB_Madison_St_to_Adam_St.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Madison St to Adam St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    9060           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2435           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                2489           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                2489           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               50.7           mi/h
Number of lanes, N                           4
Density, D                                   49.1           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2040_WP_AM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7720           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1990           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2043           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2043           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.8           mi/h
Number of lanes, N                          4
Density, D                                  33.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 94_2040_WP_PM_Peak_SR-91_WB_Adam_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Adam St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9370           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2519           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2574           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2574           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              48.1           mi/h
Number of lanes, N                          4
Density, D                                  53.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2040_WP_AM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7250           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1869           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1928           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1928           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.9           mi/h
Number of lanes, N                          4
Density, D                                  30.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 95_2040_WP_PM_Peak_SR-91_WB_Van_Buren_Blvd_to_Tyler_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Van Buren Blvd to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9440           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2538           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2593           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2593           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.5           mi/h
Number of lanes, N                          4
Density, D                                  54.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2040_WP_AM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6840           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1763           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2426           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2426           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              52.6           mi/h
Number of lanes, N                          3
Density, D                                  46.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 96_2040_WP_PM_Peak_SR-91_WB_Tyler_St_to_La_Sierra_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Tyler St to La Sierra Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8520           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2290           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               3121           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3121           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              27.2           mi/h
Number of lanes, N                          3
Density, D                                  114.8          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2040_WP_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8060          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2077          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2858          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2858          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              38.1          mi/h
Number of lanes, N                          3
Density, D                                  75.0          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2040_WP_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2422           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               3300           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3300           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              18.8           mi/h
Number of lanes, N                          3
Density, D                                  175.1          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2040_WP_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2131           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2933           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2933           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              35.2           mi/h
Number of lanes, N                          3
Density, D                                  83.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2040_WP_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9490           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2551           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               3476           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3476           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              9.9            mi/h
Number of lanes, N                          3
Density, D                                  350.8          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2040_WP_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8290           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2137           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2968           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2968           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              33.7           mi/h
Number of lanes, N                          3
Density, D                                  88.0           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2040_WP_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10050          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2702           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               3717           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               3717           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S                             mi/h
Number of lanes, N                          3
Density, D                                                 pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2040_WP_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7930           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2044           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2130           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2130           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          4
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2040_WP_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                    10840          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2914           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2993           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                                2993           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               32.7           mi/h
Number of lanes, N                           4
Density, D                                   91.5           pc/mi/ln
Level of service, LOS                        F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2040_WP_AM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5390           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1449           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1510           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1510           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 101_2040_WP_PM_Peak_I-10_EB_SR-60_to_Beaumont_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-60 to Beaumont Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7350           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1955           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2027           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2027           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.1           mi/h
Number of lanes, N                          4
Density, D                                  32.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2040_WP_AM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5430           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1460           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1536           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1536           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.7           mi/h
Number of lanes, N                          4
Density, D                                  22.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 102_2040_WP_PM_Peak_I-10_EB_Beaumont_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Beaumont to Pennsylvania
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7440           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1979           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2072           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2072           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.2           mi/h
Number of lanes, N                          4
Density, D                                  33.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2040_WP_AM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5530          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1487          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1564          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1564          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.5          mi/h
Number of lanes, N                          4
Density, D                                  22.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 103_2040_WP_PM_Peak_I-10_EB_Pennsylvania_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Pennsylvania to Highland Springs
Jurisdiction:           s
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7590          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     2019          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2113          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2113          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              60.3          mi/h
Number of lanes, N                          4
Density, D                                  35.0          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2040_WP_AM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 EB
From/To:                 Highland Springs to Sunset
Jurisdiction:            Caltrans
Analysis Year:           2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5590           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1503           v
Trucks and buses                             11             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                1588           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1588           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               68.3           mi/h
Number of lanes, N                           4
Density, D                                   23.3           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 104_2040_WP_PM_Peak_I-10_EB_Highland_Springs_to_Sunset.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Highland Springs to Sunset
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7640           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     2032           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2127           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2127           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          4
Density, D                                  35.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2040_WP_AM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1395           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1180           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1180           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 105_2040_WP_PM_Peak_I-10_EB_Sunset_Ave_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Sunset Ave to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7060          veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1878          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1580          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1580          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.3          mi/h
Number of lanes, N                          5
Density, D                                  23.1          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2040_WP_AM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5180          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1392          v
Trucks and buses                            11            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1472          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1472          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.1          mi/h
Number of lanes, N                          4
Density, D                                  21.3          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 106_2040_WP_PM_Peak_I-10_EB_22nd_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                22nd St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6860           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1824           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1919           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1919           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.0           mi/h
Number of lanes, N                          4
Density, D                                  30.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2040_WP_AM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1430          v
Trucks and buses                            11            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1512          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1512          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.9          mi/h
Number of lanes, N                          4
Density, D                                  22.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 107_2040_WP_PM_Peak_I-10_EB_S_8th_St_to_S_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S 8th St to S Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7120           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1894           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1992           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1992           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.7           mi/h
Number of lanes, N                          4
Density, D                                  31.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2040_WP_AM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5320           veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      1430           v
Trucks and buses                             11             %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.946
Driver population factor, fp                 1.00
Flow rate, vp                                1512           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1512           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               68.9           mi/h
Number of lanes, N                           4
Density, D                                   22.0           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 108_2040_WP_PM_Peak_I-10_EB_S_Hargrave_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                S Hargrave St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6980           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1856           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1962           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1962           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.3           mi/h
Number of lanes, N                          4
Density, D                                  31.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2040_WP_AM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4760           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1280           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1359           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1359           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 109_2040_WP_PM_Peak_I-10_EB_Field_Rd__to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Field Rd  to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6530           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1737           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1836           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1836           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          4
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2040_WP_AM_Peak_I-10_EB_Morongo_Pkwy_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Morongo Pkwy to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4890          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1315          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1376          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1376          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.6          mi/h
Number of lanes, N                          4
Density, D                                  19.8          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 110_2040_WP_PM_Peak_I-10_EB_Morongo_Pkwy_to_Main_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-10 EB
From/To:                 Morongo Pkwy to Main St
Jurisdiction:            Caltrans
Analysis Year:           2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6800          veh/h
Peak-hour factor, PHF                        0.94
Peak 15-min volume, v15                      1809          v
Trucks and buses                             9             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.955
Driver population factor, fp                 1.00
Flow rate, vp                                1894          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1894          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               64.4          mi/h
Number of lanes, N                           4
Density, D                                   29.4          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2040_WP_AM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4890           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1315           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1376           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1376           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 111_2040_WP_PM_Peak_I-10_EB_Main_to_Haugen-Lehmann_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main to Haugen-Lehmann Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6440           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1713           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1793           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1793           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.9           mi/h
Number of lanes, N                          4
Density, D                                  27.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2040_WP_AM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 EB
From/To:                 SR-111 to Tipton Rd
Jurisdiction:            Caltrans
Analysis Year:           2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4340          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1167          v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1221          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1221          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  17.4          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 113_2040_WP_PM_Peak_I-10_EB_SR-111_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                SR-111 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   5920           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1574           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1648           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1648           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.7           mi/h
Number of lanes, N                          4
Density, D                                  24.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2040_WP_AM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4340          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1167          v
Trucks and buses                            10            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1227          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1227          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  17.5          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 114_2040_WP_PM_Peak_I-10_EB_Tipton_Rd_to_SR-62.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Tipton Rd to SR-62
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5970           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1588           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1662           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1662           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.5           mi/h
Number of lanes, N                          4
Density, D                                  24.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2040_WP_AM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5890           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1712           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1784           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1784           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.0           mi/h
Number of lanes, N                          4
Density, D                                  27.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 115_2040_WP_PM_Peak_I-10_WB_SR-62_to_Tipton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                SR-62 to Tipton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5550           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1430           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1505           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1505           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          4
Density, D                                  21.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2040_WP_AM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5850          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1701          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1772          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1772          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              66.2          mi/h
Number of lanes, N                          4
Density, D                                  26.8          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 116_2040_WP_PM_Peak_I-10_WB_Tipton_Rd_to_SR-111.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Tipton Rd to SR-111
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5540           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1428           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1495           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1495           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2040_WP_AM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6530           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1898           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1978           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1978           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.0           mi/h
Number of lanes, N                          4
Density, D                                  31.4           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 118_2040_WP_PM_Peak_I-10_WB_Haugen-Lehmann_Way_to_Main.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Haugen-Lehmann Way to Main
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5350           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1379           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1437           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1437           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.3           mi/h
Number of lanes, N                          4
Density, D                                  20.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2040_WP_AM_Peak_I-10_WB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6930           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2015           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2089           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2089           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.8           mi/h
Number of lanes, N                          4
Density, D                                  34.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 119_2040_WP_PM_Peak_I-10_WB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5780           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1490           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1560           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1560           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          4
Density, D                                  22.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2040_WP_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7030           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2044           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2140           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2140           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.8           mi/h
Number of lanes, N                          4
Density, D                                  35.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2040_WP_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5160          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1330          v
Trucks and buses                             13            %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.937
Driver population factor, fp                 1.00
Flow rate, vp                                1419          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1419          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.4          mi/h
Number of lanes, N                           4
Density, D                                   20.4          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2040_WP_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7420           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2157           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2258           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2258           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.0           mi/h
Number of lanes, N                          4
Density, D                                  39.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2040_WP_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   5340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1376           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1462           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1462           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          4
Density, D                                  21.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2040_WP_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7700           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2238           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2332           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2332           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              55.1           mi/h
Number of lanes, N                          4
Density, D                                  42.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2040_WP_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5690           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1466           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1557           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1557           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.5           mi/h
Number of lanes, N                          4
Density, D                                  22.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2040_WP_AM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7550           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2195           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2287           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2287           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.3           mi/h
Number of lanes, N                          4
Density, D                                  40.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 123_2040_WP_PM_Peak_I-10_WB_S_8th_St_to_22nd_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                S 8th St to 22nd St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5460           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1407           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1494           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1494           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2040_WP_AM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7630          veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2218          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1849          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1849          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.1          mi/h
Number of lanes, N                          5
Density, D                                  28.4          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 124_2040_WP_PM_Peak_I-10_WB_22nd_St_to_Sunset_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                22nd St to Sunset Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5790           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1492           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1262           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1262           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2040_WP_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7960           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2314           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2411           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2411           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.0           mi/h
Number of lanes, N                          4
Density, D                                  45.5           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2040_WP_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1539           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1626           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1626           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.9           mi/h
Number of lanes, N                          4
Density, D                                  23.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2040_WP_AM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8420           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2448           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2538           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2538           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              49.2           mi/h
Number of lanes, N                          4
Density, D                                  51.6           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 126_2040_WP_PM_Peak_I-10_WB_Highland_Springs_to_Pennsylvania.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Highland Springs to Pennsylvania
Jurisdiction:           a
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6250           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1611           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1695           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1695           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.2           mi/h
Number of lanes, N                          4
Density, D                                  25.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2040_WP_AM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7920           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2302           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2388           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2388           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.6           mi/h
Number of lanes, N                          4
Density, D                                  44.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 127_2040_WP_PM_Peak_I-10_WB_Pennsylvania_to_Beaumont.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Pennsylvania to Beaumont
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6180           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1593           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1676           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1676           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.4           mi/h
Number of lanes, N                          4
Density, D                                  24.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2040_WP_AM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7920           veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      2302           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                2376           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2376           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               54.0           mi/h
Number of lanes, N                           4
Density, D                                   44.0           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 128_2040_WP_PM_Peak_I-10_WB_Beaumont_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Beaumont Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6250          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1611          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1678          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1678          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.3          mi/h
Number of lanes, N                          4
Density, D                                  24.9          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2040_WP_AM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2800           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     761            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               778            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               778            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 129_2040_WP_PM_Peak_I-215_NB_Scott_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Scott Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4480           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1155           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1180           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1180           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2040_WP_AM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2480           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     674            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               685            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               685            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  9.8            pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 130_2040_WP_PM_Peak_I-215_NB_Newport_Rd_to_MacCall_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Newport Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     856            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               874            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               874            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2040_WP_AM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2780           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     755            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               768            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               768            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 131_2040_WP_PM_Peak_I-215_NB_MacCall_Blvd_to_Ethanac_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                MacCall Blvd to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4440           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1144           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1170           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1170           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2040_WP_AM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4090           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1111           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1130           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1130           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 132_2040_WP_PM_Peak_I-215_NB_Ethanac_Rd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ethanac Rd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4590           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1183           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1209           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1209           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2040_WP_AM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3860           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1049           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1082           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1082           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 133_2040_WP_PM_Peak_I-215_NB_SR-74_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-74 to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5730          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1477          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1517          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1517          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.8          mi/h
Number of lanes, N                          4
Density, D                                  22.0          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2040_WP_AM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4810           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1307           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1368           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1368           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 135_2040_WP_PM_Peak_I-215_NB_Columbia_Ave_to_Center_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Columbia Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5490           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1415           v
Trucks and buses                             6              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.969
Driver population factor, fp                 1.00
Flow rate, vp                                1460           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1460           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.2           mi/h
Number of lanes, N                           4
Density, D                                   21.1           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2040_WP_AM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Center St to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4170           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1133           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1567           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1567           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          3
Density, D                                  22.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 136_2040_WP_PM_Peak_I-215_NB_Center_St_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 NB
From/To:                 Center St to Iowa Ave
Jurisdiction:            Caltrans
Analysis Year:           2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4860          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1253          v
Trucks and buses                             5             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1715          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1715          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               66.9          mi/h
Number of lanes, N                           3
Density, D                                   25.6          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2040_WP_AM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4280          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1163          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1600          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1600          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              68.1          mi/h
Number of lanes, N                          3
Density, D                                  23.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 137_2040_WP_PM_Peak_I-215_NB_Iowa_Ave_to_Barton_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Iowa Ave to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4260           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1098           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1503           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1503           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               68.9           mi/h
Number of lanes, N                           3
Density, D                                   21.8           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2040_WP_AM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4840          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1315          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1827          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1827          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.4          mi/h
Number of lanes, N                          3
Density, D                                  27.9          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 138_2040_WP_PM_Peak_I-215_NB_Barton_Rd_to_Washington_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Barton Rd to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4950           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1276           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1772           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1772           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.2           mi/h
Number of lanes, N                          3
Density, D                                  26.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2040_WP_AM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5290           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1437           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1519           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1519           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          4
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 139_2040_WP_PM_Peak_I-215_NB_Washington_St_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Washington St to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1727           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1791           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1791           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.9           mi/h
Number of lanes, N                          4
Density, D                                  27.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2040_WP_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1446           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1477           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1477           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          4
Density, D                                  21.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2040_WP_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   11160          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2876           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2925           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2925           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              35.5           mi/h
Number of lanes, N                          4
Density, D                                  82.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2040_WP_AM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-215 NB
From/To:                 Baseline Rd to Highland Ave
Jurisdiction:            Caltrans
Analysis Year:           2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3210          veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     872           v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               900           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               900           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  12.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 144_2040_WP_PM_Peak_I-215_NB_Baseline_Rd_to_Highland_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Baseline Rd to Highland Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1616           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1643           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1643           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.7           mi/h
Number of lanes, N                          4
Density, D                                  24.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2040_WP_AM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6780           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1747           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1777           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1777           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.1           mi/h
Number of lanes, N                          4
Density, D                                  26.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 145_2040_WP_PM_Peak_I-215_SB_Highland_Ave_to_Baseline_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Highland Ave to Baseline Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4470           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1140           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1165           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1165           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2040_WP_AM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7990           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2059           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2094           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2094           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.7           mi/h
Number of lanes, N                          4
Density, D                                  34.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 148_2040_WP_PM_Peak_I-215_SB_Mill_St_to_Auto_Plaza_Dr.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mill St to Auto Plaza Dr
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1574           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1609           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1609           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.1           mi/h
Number of lanes, N                          4
Density, D                                  23.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2040_WP_AM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1778           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1835           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1835           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          4
Density, D                                  28.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 150_2040_WP_PM_Peak_I-215_SB_I-10_to_Washington_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                I-10 to Washington St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4730          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1207          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1251          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1251          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  17.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2040_WP_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1613           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2209           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2209           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.2           mi/h
Number of lanes, N                          3
Density, D                                  38.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2040_WP_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5680           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1449           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1984           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1984           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.9           mi/h
Number of lanes, N                          3
Density, D                                  31.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2040_WP_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                  6830          veh/h
Peak-hour factor, PHF                      0.97
Peak 15-min volume, v15                    1760          v
Trucks and buses                           7             %
Recreational vehicles                      1             %
Terrain type:                              Level
    Grade                                  -             %
    Segment length                         -             mi
Trucks and buses PCE, ET                   1.5
Recreational vehicle PCE, ER               1.2
Heavy vehicle adjustment, fHV              0.964
Driver population factor, fp               1.00
Flow rate, vp                              2434          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                 -             ft
Right-side lateral clearance               -             ft
Total ramp density, TRD                    -             ramps/mi
Number of lanes, N                         3
Free-flow speed:                           Measured
     FFS or BFFS                           70.0          mi/h
Lane width adjustment, fLW                 -             mi/h
Lateral clearance adjustment, fLC          -             mi/h
TRD adjustment                             -             mi/h
Free-flow speed, FFS                       70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                              2434          pc/h/ln
Free-flow speed, FFS                       70.0          mi/h
Average passenger-car speed, S             52.3          mi/h
Number of lanes, N                         3
Density, D                                 46.5          pc/mi/ln
Level of service, LOS                      F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2040_WP_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1357           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1858           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1858           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          3
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2040_WP_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1985           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2744           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2744           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              42.3           mi/h
Number of lanes, N                          3
Density, D                                  64.8           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2040_WP_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6030           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1538           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2127           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2127           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              60.0           mi/h
Number of lanes, N                          3
Density, D                                  35.4           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2040_WP_AM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6790           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1750           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1841           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1841           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.2           mi/h
Number of lanes, N                          4
Density, D                                  28.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 154_2040_WP_PM_Peak_I-215_SB_Center_St_to_Columbia_Ave_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Center St to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5510           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1406           v
Trucks and buses                             8              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1465           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1465           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.2           mi/h
Number of lanes, N                           4
Density, D                                   21.2           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2040_WP_AM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5530          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1425          v
Trucks and buses                            5             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1464          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1464          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              69.2          mi/h
Number of lanes, N                          4
Density, D                                  21.2          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 156_2040_WP_PM_Peak_I-215_SB_Redlands_Blvd_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Redlands Blvd to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4900           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1250           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1284           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1284           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          4
Density, D                                  18.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2040_WP_AM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4190           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1080           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1104           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1104           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 157_2040_WP_PM_Peak_I-215_SB_SR-74_to_Ethanac_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                SR-74 to Ethanac Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4430           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1130           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1149           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1149           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2040_WP_AM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ethanac Rd to MacCall Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4030           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1039           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1062           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1062           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  15.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 158_2040_WP_PM_Peak_I-215_SB_Ethanac_Rd_to_MacCall_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 SB
From/To:                 Ethanac Rd to MacCall Blvd
Jurisdiction:            Caltrans
Analysis Year:           2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3360           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     857            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               872            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               872            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2040_WP_AM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3530          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     910           v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               930           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               930           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  13.3          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 159_2040_WP_PM_Peak_I-215_SB_MacCall_Blvd_to_Newport_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                MacCall Blvd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3990           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1018           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1035           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1035           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2040_WP_AM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     773            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               786            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               786            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 160_2040_WP_PM_Peak_I-215_SB_Newport_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Newport Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2860          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     730           v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               742           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               742           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          4
Density, D                                  10.6          pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2040_WP_AM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1730          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     465           v
Trucks and buses                            9             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               974           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               974           pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              70.0          mi/h
Number of lanes, N                          2
Density, D                                  13.9          pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 161_2040_WP_PM_Peak_SR-60_EB_Potrero_Blvd_to_I-10.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Potrero Blvd to I-10
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3010           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     768            v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1585           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1585           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          2
Density, D                                  23.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2040_WP_AM_Peak_SR-60_WB_Potrero_Blvd_to_Jack_Rabbit_Trail.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potrero Blvd to Jack Rabbit Trail
Jurisdiction:           il
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2430           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     626            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1274           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1274           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          2
Density, D                                  18.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 162_2040_WP_PM_Peak_SR-60_WB_Potrero_Blvd_to_Jack_Rabbit_Trail.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Potrero Blvd to Jack Rabbit Trail
Jurisdiction:           il
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   1990           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     524            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1076           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          2
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1076           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          2
Density, D                                  15.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2040_WP_AM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   2770           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     753            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               769            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               769            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.0           pc/mi/ln
Level of service, LOS                       A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 163_2040_WP_PM_Peak_I-215_NB_Garboni_Rd_to_Newport_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Garboni Rd to Newport Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4100           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1057           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1080           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1080           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           4
Density, D                                   15.4           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 164_2040_WP_AM_Peak_I-215_NB_Ellis_Ave_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ellis Ave to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    2690          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      731           v
Trucks and buses                             8             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                762           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                762           pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               70.0          mi/h
Number of lanes, N                           4
Density, D                                   10.9          pc/mi/ln
Level of service, LOS                        A

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 164_2040_WP_PM_Peak_I-215_NB_Ellis_Ave_to_Redlands_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ellis Ave to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4320           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1113           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1155           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1155           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 165_2040_WP_AM_Peak_I-215_SB_Ellis_Ave_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ellis Ave to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5990           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1544           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1578           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1578           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          4
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 165_2040_WP_PM_Peak_I-215_SB_Ellis_Ave_to_SR-74.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ellis Ave to SR-74
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4350           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1110           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1145           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1145           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.4           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2040_WP_AM_Peak_I-215_SB_Garboni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Garboni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3500           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     902            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               917            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               917            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 166_2040_WP_PM_Peak_I-215_SB_Garboni_Rd_to_Scott_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Garboni Rd to Scott Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3000           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     765            v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               778            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               778            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2040_WP_AM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4930           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1340           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1369           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1369           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 167_2040_WP_PM_Peak_I-215_NB_Redlands_Blvd_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Redlands Blvd to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1098           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1128           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1128           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2040_WP_AM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4610           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1253           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1024           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1024           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 168_2040_WP_PM_Peak_I-215_NB_D_St_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                D St to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5980           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1541           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1260           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1260           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2040_WP_AM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4970           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1351           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1110           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1110           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 169_2040_WP_PM_Peak_I-215_NB_Nuevo_St_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Nuevo St to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5510           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1420           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1167           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1167           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2040_WP_AM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7110           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1932           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1580           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1580           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          5
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 170_2040_WP_PM_Peak_I-215_NB_Mid-County_Pkwy_to_Ramona_Expy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Mid-County Pkwy to Ramona Expy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1845           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1516           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1516           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          5
Density, D                                  22.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2040_WP_AM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6170           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1677           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1378           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1378           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          5
Density, D                                  19.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 171_2040_WP_PM_Peak_I-215_NB_Ramona_Expy_to_Harley_Knox.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Ramona Expy to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7090           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1827           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1501           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1501           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.9           mi/h
Number of lanes, N                          5
Density, D                                  21.8           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2040_WP_AM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5940           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1614           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1658           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1658           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          4
Density, D                                  24.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 172_2040_WP_PM_Peak_I-215_NB_Harley_Knox_to_Van_Buren_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Harley Knox to Van Buren
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5570           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1436           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1489           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1489           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2040_WP_AM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5660           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1538           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1580           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1580           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.3           mi/h
Number of lanes, N                          4
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 173_2040_WP_PM_Peak_I-215_NB_Van_Buren_Blvd_to_Cactus_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Van Buren Blvd to Cactus Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5370           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1384           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1421           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1421           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               69.4           mi/h
Number of lanes, N                           4
Density, D                                   20.5           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2040_WP_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   4560            veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1239            v
Trucks and buses                            7               %
Recreational vehicles                       1               %
Terrain type:                               Level
    Grade                                   -               %
    Segment length                          -               mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1713            pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -               ft
Right-side lateral clearance                -               ft
Total ramp density, TRD                     -               ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0            mi/h
Lane width adjustment, fLW                  -               mi/h
Lateral clearance adjustment, fLC           -               mi/h
TRD adjustment                              -               mi/h
Free-flow speed, FFS                        70.0            mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1713            pc/h/ln
Free-flow speed, FFS                        70.0            mi/h
Average passenger-car speed, S              66.9            mi/h
Number of lanes, N                          3
Density, D                                  25.6            pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2040_WP_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6500           veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1675           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                2294           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           3
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                2294           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               56.1           mi/h
Number of lanes, N                           3
Density, D                                   40.9           pc/mi/ln
Level of service, LOS                        E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2040_WP_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4690           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1274           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1762           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1762           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.3           mi/h
Number of lanes, N                          3
Density, D                                  26.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2040_WP_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7060           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1820           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2492           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2492           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              50.6           mi/h
Number of lanes, N                          3
Density, D                                  49.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2040_WP_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7290          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1879          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2560          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2560          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              48.5          mi/h
Number of lanes, N                          3
Density, D                                  52.7          pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2040_WP_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6070           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1548           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2131           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2131           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.9           mi/h
Number of lanes, N                          3
Density, D                                  35.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2040_WP_AM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5330           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1374           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1411           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1411           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 180_2040_WP_PM_Peak_I-215_SB_Cactus_Ave_to_Van_Buren_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Cactus Ave to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7510          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1916          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1958          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1958          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              63.3          mi/h
Number of lanes, N                          4
Density, D                                  30.9          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2040_WP_AM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5170           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1332           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1395           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1395           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  20.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 181_2040_WP_PM_Peak_I-215_SB_Van_Buren_to_Harley_Knox_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Van Buren to Harley Knox
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7960           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2031           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2075           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2075           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.1           mi/h
Number of lanes, N                          4
Density, D                                  34.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2040_WP_AM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4010           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1034           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               849            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               849            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  12.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 182_2040_WP_PM_Peak_I-215_SB_Harley_Knox_Blvd_to_Ramona_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Harley Knox Blvd to Ramona
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   6740           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1719           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1406           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1406           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          5
Density, D                                  20.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2040_WP_AM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5930           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1528           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1256           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1256           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  18.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 183_2040_WP_PM_Peak_I-215_SB_Ramona_Expy_to_Mid-County_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Ramona Expy to Mid-County Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7430           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1895           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1550           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1550           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.6           mi/h
Number of lanes, N                          5
Density, D                                  22.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2040_WP_AM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1330           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1093           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1093           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  15.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 184_2040_WP_PM_Peak_I-215_SB_Mid-Count_Pkwy_to_Nuevo_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Mid-Count Pkwy to Nuevo St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5130           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1309           v
Trucks and buses                             5              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.974
Driver population factor, fp                 1.00
Flow rate, vp                                1075           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1075           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               70.0           mi/h
Number of lanes, N                           5
Density, D                                   15.4           pc/mi/ln
Level of service, LOS                        B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2040_WP_AM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4650           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1198           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               985            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               985            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 185_2040_WP_PM_Peak_I-215_SB_Nuevo_St_to_D_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Nuevo St to D St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3850           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     982            v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               803            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               803            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  11.5           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2040_WP_AM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3730           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     961            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               987            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               987            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  14.1           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 186_2040_WP_PM_Peak_I-215_SB_D_St_to_Redlands_Blvd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                D St to Redlands Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3150           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     804            v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               825            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               825            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  11.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 337_2040_WP_AM_Peak_I-10_EB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5000           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1344           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1414           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1414           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          4
Density, D                                  20.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 337_2040_WP_PM_Peak_I-10_EB_Main_St_to_Morongo_Pkwy.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 EB
From/To:                Main St to Morongo Pkwy
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6510           veh/h
Peak-hour factor, PHF                       0.94
Peak 15-min volume, v15                     1731           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1813           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1813           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.6           mi/h
Number of lanes, N                          4
Density, D                                  27.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 338_2040_WP_AM_Peak_I-10_WB_Morongo_Pkwy_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Morongo Pkwy to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6770           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     1968           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2051           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2051           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.6           mi/h
Number of lanes, N                          4
Density, D                                  33.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 338_2040_WP_PM_Peak_I-10_WB_Morongo_Pkwy_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Morongo Pkwy to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5530          veh/h
Peak-hour factor, PHF                        0.97
Peak 15-min volume, v15                      1425          v
Trucks and buses                             9             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.955
Driver population factor, fp                 1.00
Flow rate, vp                                1492          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1492          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.0          mi/h
Number of lanes, N                           4
Density, D                                   21.6          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2040_WP_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5513    1867    357     33      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1482    502     96      9
Trucks and buses                       4       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6058    2082    388     36      pc/h

Volume ratio, VR                               0.288

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.026
Weaving segment flow rate, v               8564        pc/h
Weaving segment capacity, cW               8142        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5460        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2113         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.026        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 1_2040_WP_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-71 to Reservoir Rd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5963    1347    327     33      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1521    344     83      8
Trucks and buses                       6       8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6279    1432    338     34      pc/h

Volume ratio, VR                               0.219

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1770        lc/h
Weaving lane changes, LCW                  2328        lc/h
Non-weaving vehicle index, INW             751
Non-weaving lane change, LCNW              1259        lc/h
Total lane changes, LCALL                  3587        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.407
Average weaving speed, SW                  54.1        mi/h
Average non-weaving speed, SNW             49.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   50.4        mi/h
Weaving segment density, D                 32.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.745
Weaving segment flow rate, v               8083        pc/h
Weaving segment capacity, cW               10504       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4731        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2168         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.745        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2040_WP_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       SR-60 EB
Weaving Location:            Main St to SR-91
Analysis Year:               2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                               Freeway
Weaving configuration                      One-Sided
Number of lanes, N                         4           ln
Weaving segment length, LS                 700         ft
Freeway free-flow speed, FFS               70          mi/h
Minimum segment speed, SMIN                15          mi/h
Freeway maximum capacity, cIFL             2400        pc/h/ln

Terrain type                               Level
    Grade                                  -           %
    Length                                 -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                      Volume Components
                                     VFF     VRF     VFR     VRR
Volume, V                             7110    730     620     70      veh/h
Peak hour factor, PHF                 0.93    0.93    0.93    0.93
Peak 15-min volume, v15               1911    196     167     19
Trucks and buses                      5       3       18      2         %
Recreational vehicles                 1       1       1       1         %
Trucks and buses PCE, ET              1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER          1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV         0.974   0.983   0.916   0.988
Driver population adjustment, fP      1.00    1.00    1.00    1.00
Flow rate, v                          7852    798     728     76      pc/h

Volume ratio, VR                              0.161

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2          ln
Interchange density, ID                   1.0        int/mi
Minimum RF lane changes, LCRF             0          lc/pc
Minimum FR lane changes, LCFR             1          lc/pc
Minimum RR lane changes, LCRR                        lc/pc

Minimum weaving lane changes, LCMIN                  lc/h
Weaving lane changes, LCW                            lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                        lc/h
Total lane changes, LCALL                            lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                            mi/h
Average non-weaving speed, SNW                       mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.103
Weaving segment flow rate, v               9454        pc/h
Weaving segment capacity, cW               8319        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4145        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2137         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.103        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2040_WP_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5360    510     810     70      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1367    130     207     18
Trucks and buses                       6       3       18      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.916   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5644    529     903     72      pc/h

Volume ratio, VR                               0.200

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        903         lc/h
Weaving lane changes, LCW                  1120        lc/h
Non-weaving vehicle index, INW             400
Non-weaving lane change, LCNW              786         lc/h
Total lane changes, LCALL                  1906        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.498
Average weaving speed, SW                  51.7        mi/h
Average non-weaving speed, SNW             54.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.2        mi/h
Weaving segment density, D                 32.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.844
Weaving segment flow rate, v               7148        pc/h
Weaving segment capacity, cW               8163        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4540        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2107         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.844        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                                 HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2040_WP_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6640    2010    600     50      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1785    540     161     13
Trucks and buses                       5       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7333    2209    653     54      pc/h

Volume ratio, VR                               0.279

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2732        lc/h
Non-weaving vehicle index, INW             923
Non-weaving lane change, LCNW              1236        lc/h
Total lane changes, LCALL                  3968        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.562
Average weaving speed, SW                  50.2        mi/h
Average non-weaving speed, SNW             44.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   45.8        mi/h
Weaving segment density, D                 44.8        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.932
Weaving segment flow rate, v               10249       pc/h
Weaving segment capacity, cW               10735       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3796        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2205         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.932        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2040_WP_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7930    2210    580     50      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2023    564     148     13
Trucks and buses                       16      7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8755    2339    599     52      pc/h

Volume ratio, VR                               0.250

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.067
Weaving segment flow rate, v               11745       pc/h
Weaving segment capacity, cW               10300       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3489        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2229         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.067        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2040_WP_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8043    557     627     23      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2162    150     169     6
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8882    609     682     25      pc/h

Volume ratio, VR                               0.127

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1291        lc/h
Weaving lane changes, LCW                  1903        lc/h
Non-weaving vehicle index, INW             1425
Non-weaving lane change, LCNW              2112        lc/h
Total lane changes, LCALL                  4015        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.467
Average weaving speed, SW                  52.5        mi/h
Average non-weaving speed, SNW             50.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.1        mi/h
Weaving segment density, D                 39.9        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.915
Weaving segment flow rate, v               10198       pc/h
Weaving segment capacity, cW               10867       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3800        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2231         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.915        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2040_WP_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7343    997     487     23      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1873    254     124     6
Trucks and buses                       15      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8070    1030    503     24      pc/h

Volume ratio, VR                               0.159

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1533        lc/h
Weaving lane changes, LCW                  2145        lc/h
Non-weaving vehicle index, INW             1295
Non-weaving lane change, LCNW              1572        lc/h
Total lane changes, LCALL                  3717        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.439
Average weaving speed, SW                  53.2        mi/h
Average non-weaving speed, SNW             49.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   50.2        mi/h
Weaving segment density, D                 38.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.881
Weaving segment flow rate, v               9627        pc/h
Weaving segment capacity, cW               10246       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4124        1600        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2207         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.881        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2040_WP_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7779    651     831     19      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2091    175     223     5
Trucks and buses                       7       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8674    719     904     21      pc/h

Volume ratio, VR                               0.157

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        904         lc/h
Weaving lane changes, LCW                  1384        lc/h
Non-weaving vehicle index, INW             956
Non-weaving lane change, LCNW              1424        lc/h
Total lane changes, LCALL                  2808        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.473
Average weaving speed, SW                  52.3        mi/h
Average non-weaving speed, SNW             53.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 38.7        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.954
Weaving segment flow rate, v               10318       pc/h
Weaving segment capacity, cW               10463       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4104        1100         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2170         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.954        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2040_WP_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7289    831     691     19      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1859    212     176     5
Trucks and buses                       10      3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7825    862     717     20      pc/h

Volume ratio, VR                               0.168

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        717         lc/h
Weaving lane changes, LCW                  1197        lc/h
Non-weaving vehicle index, INW             863
Non-weaving lane change, LCNW              1249        lc/h
Total lane changes, LCALL                  2446        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.425
Average weaving speed, SW                  53.6        mi/h
Average non-weaving speed, SNW             55.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.4        mi/h
Weaving segment density, D                 34.0        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.877
Weaving segment flow rate, v               9424        pc/h
Weaving segment capacity, cW               10276       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4207        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2162         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.877        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2040_WP_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7774    966     536     24      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2090    260     144     6
Trucks and buses                       10      6       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.862   0.909   0.922   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9697    1143    625     27      pc/h

Volume ratio, VR                               0.154

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.007
Weaving segment flow rate, v               11492       pc/h
Weaving segment capacity, cW               9927        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4070        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2303         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.007        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2040_WP_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7454    1236    786     24      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1902    315     201     6
Trucks and buses                       10      3       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.862   0.948   0.935   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8823    1331    858     25      pc/h

Volume ratio, VR                               0.198

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL                 2           ln
Interchange density, ID                       1.2         int/mi
Minimum RF lane changes, LCRF                 0           lc/pc
Minimum FR lane changes, LCFR                 1           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           858         lc/h
Weaving lane changes, LCW                     1774        lc/h
Non-weaving vehicle index, INW                2973
Non-weaving lane change, LCNW                 3662        lc/h
Total lane changes, LCALL                     5436        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.381
Average weaving speed, SW                     54.8        mi/h
Average non-weaving speed, SNW                53.2        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.5        mi/h
Weaving segment density, D                 41.2        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.992
Weaving segment flow rate, v               11037       pc/h
Weaving segment capacity, cW               9776        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4519        2800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2269         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.992        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2040_WP_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1750    1890    740     30      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                470     508     199     8
Trucks and buses                       12      4       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.978   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           1998    2077    801     33      pc/h

Volume ratio, VR                               0.586

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         2077        lc/h
Weaving lane changes, LCW                   2545        lc/h
Non-weaving vehicle index, INW              195
Non-weaving lane change, LCNW               106         lc/h
Total lane changes, LCALL                   2651        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.422
Average weaving speed, SW                   53.7        mi/h
Average non-weaving speed, SNW              50.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.2        mi/h
Weaving segment density, D                 18.8        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.844
Weaving segment flow rate, v               4909        pc/h
Weaving segment capacity, cW               5621        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7286        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1935         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.844        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2040_WP_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7990    2550    530     30      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2038    651     135     8
Trucks and buses                       6       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8414    2685    547     31      pc/h

Volume ratio, VR                               0.277

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                                 mi/h
Weaving segment density, D                               pc/mi/ln
Level of service, LOS                     F
Weaving segment v/c ratio                 1.061
Weaving segment flow rate, v              11677       pc/h
Weaving segment capacity, cW              10673       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3770         1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2203         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         1.061        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2040_WP_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2132    698     1418    22      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                573     188     381     6
Trucks and buses                       12      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2435    760     1551    24      pc/h

Volume ratio, VR                               0.484

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        760         lc/h
Weaving lane changes, LCW                  1131        lc/h
Non-weaving vehicle index, INW             384
Non-weaving lane change, LCNW              441         lc/h
Total lane changes, LCALL                  1572        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.263
Average weaving speed, SW                  58.6        mi/h
Average non-weaving speed, SNW             58.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.7        mi/h
Weaving segment density, D                 20.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.675
Weaving segment flow rate, v               4770        pc/h
Weaving segment capacity, cW               6802        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           6080         1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2035         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.675        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2040_WP_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5002    1188    2328    22      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1276    303     594     6
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5293    1227    2404    23      pc/h

Volume ratio, VR                               0.406

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.074
Weaving segment flow rate, v               8947        pc/h
Weaving segment capacity, cW               8112        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5181        1300         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2103         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.074        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2040_WP_AM_Peak_SR-60_EB_Theodore_St_to_Gilman_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Theodore St to Gilman Springs
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1827    203     933     7       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                491     55      251     2
Trucks and buses                       8       26      4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.883   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2047    247     1025    8       pc/h

Volume ratio, VR                               0.382

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   0.8         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       1272        lc/h
Weaving lane changes, LCW                 1504        lc/h
Non-weaving vehicle index, INW            329
Non-weaving lane change, LCNW             930         lc/h
Total lane changes, LCALL                 2434        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.264
Average weaving speed, SW                 58.5        mi/h
Average non-weaving speed, SNW            55.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.6        mi/h
Weaving segment density, D                 19.6        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.539
Weaving segment flow rate, v               3327        pc/h
Weaving segment capacity, cW               5922        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            6484        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2057         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.539        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 35_2040_WP_PM_Peak_SR-60_EB_Theodore_St_to_Gilman_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Theodore St to Gilman Springs
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3537    253     1293    7       veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                902     65      330     2
Trucks and buses                       5       20      4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.907   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3707    284     1348    7       pc/h

Volume ratio, VR                               0.305

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1632        lc/h
Weaving lane changes, LCW                  1864        lc/h
Non-weaving vehicle index, INW             594
Non-weaving lane change, LCNW              1271        lc/h
Total lane changes, LCALL                  3135        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.322
Average weaving speed, SW                  56.6        mi/h
Average non-weaving speed, SNW             49.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.6        mi/h
Weaving segment density, D                 34.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.838
Weaving segment flow rate, v               5346        pc/h
Weaving segment capacity, cW               6196        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5641        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2122         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.838        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2040_WP_AM_Peak_SR-60_WB_Gilman_Springs_to_Theodore_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Gilman Springs to Theodore St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3199    1061    321     9       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                824     273     83      2
Trucks and buses                       6       5       10      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.974   0.951   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3403    1123    348     9       pc/h

Volume ratio, VR                               0.301

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1471        lc/h
Weaving lane changes, LCW                  1734        lc/h
Non-weaving vehicle index, INW             682
Non-weaving lane change, LCNW              1480        lc/h
Total lane changes, LCALL                  3214        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.276
Average weaving speed, SW                  58.1        mi/h
Average non-weaving speed, SNW             51.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  53.4        mi/h
Weaving segment density, D                30.5        pc/mi/ln
Level of service, LOS                     D
Weaving segment v/c ratio                 0.753
Weaving segment flow rate, v              4883        pc/h
Weaving segment capacity, cW              6288        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5597        2500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2163         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.753        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 40_2040_WP_PM_Peak_SR-60_WB_Gilman_Springs_to_Theodore_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Gilman Springs to Theodore St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1989    1141    331     9       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                523     300     87      2
Trucks and buses                       7       4       13      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.978   0.937   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2171    1227    372     10      pc/h

Volume ratio, VR                               0.423

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1599        lc/h
Weaving lane changes, LCW                  1862        lc/h
Non-weaving vehicle index, INW             436
Non-weaving lane change, LCNW              1226        lc/h
Total lane changes, LCALL                  3088        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.267
Average weaving speed, SW                  58.4        mi/h
Average non-weaving speed, SNW             52.4        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 23.0        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.668
Weaving segment flow rate, v               3780        pc/h
Weaving segment capacity, cW               5471        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            6941        2500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2060         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.668        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2040_WP_AM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3137    413     353     7       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                809     106     91      2
Trucks and buses                       12      3       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.983   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3435    433     366     7       pc/h

Volume ratio, VR                               0.188

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        366         lc/h
Weaving lane changes, LCW                  587         lc/h
Non-weaving vehicle index, INW             482
Non-weaving lane change, LCNW              1215        lc/h
Total lane changes, LCALL                  1802        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.208
Average weaving speed, SW                  60.5        mi/h
Average non-weaving speed, SNW             60.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.6        mi/h
Weaving segment density, D                 23.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.644
Weaving segment flow rate, v               4241        pc/h
Weaving segment capacity, cW               6257        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4418        2000         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2215         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.644        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 43_2040_WP_PM_Peak_SR-60_WB_Moreno_Beach_Dr_to_Nason.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Moreno Beach Dr to Nason
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2357    473     113     7       veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                620     124     30      2
Trucks and buses                       15      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2672    504     121     7       pc/h

Volume ratio, VR                               0.189

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   0.7         int/mi
Minimum RF lane changes, LCRF             0           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       121         lc/h
Weaving lane changes, LCW                 342         lc/h
Non-weaving vehicle index, INW            375
Non-weaving lane change, LCNW             1058        lc/h
Total lane changes, LCALL                 1400        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.171
Average weaving speed, SW                 62.0        mi/h
Average non-weaving speed, SNW            63.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   63.5        mi/h
Weaving segment density, D                 17.3        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.504
Weaving segment flow rate, v               3304        pc/h
Weaving segment capacity, cW               6167        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4426        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2215         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.504        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2040_WP_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3563    687     1187    33      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                918     177     306     9
Trucks and buses                       8       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3827    720     1238    34      pc/h

Volume ratio, VR                               0.336

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1958        lc/h
Weaving lane changes, LCW                  2230        lc/h
Non-weaving vehicle index, INW             927
Non-weaving lane change, LCNW              1302        lc/h
Total lane changes, LCALL                  3532        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.354
Average weaving speed, SW                  55.6        mi/h
Average non-weaving speed, SNW             46.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   49.3        mi/h
Weaving segment density, D                 39.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.934
Weaving segment flow rate, v               5819        pc/h
Weaving segment capacity, cW               6035        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5979        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2096         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.934        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2040_WP_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          3           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2713    357     857     33      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                714     94      226     9
Trucks and buses                       11      4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3019    384     913     35      pc/h

Volume ratio, VR                               0.298

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1297        lc/h
Weaving lane changes, LCW                  1569        lc/h
Non-weaving vehicle index, INW             733
Non-weaving lane change, LCNW              1135        lc/h
Total lane changes, LCALL                  2704        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.287
Average weaving speed, SW                  57.7        mi/h
Average non-weaving speed, SNW             53.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 26.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.690
Weaving segment flow rate, v               4351        pc/h
Weaving segment capacity, cW               6037        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5563        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2127         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.690        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2040_WP_AM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7560    650     780     30      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1948    168     201     8
Trucks and buses                       7       2       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.897   0.962   0.976   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8690    697     824     32      pc/h

Volume ratio, VR                               0.148

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.114
Weaving segment flow rate, v               10243       pc/h
Weaving segment capacity, cW               8348        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2450        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2328         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.114        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 50_2040_WP_PM_Peak_SR-60_WB_Box_Springs_Rd_to_Central.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Box Springs Rd to Central
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1500        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              9010    730     560     30      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2371    192     147     8
Trucks and buses                       6       1       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.909   0.976   0.962   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           10433   788     613     33      pc/h

Volume ratio, VR                               0.118

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.273
Weaving segment flow rate, v               11867       pc/h
Weaving segment capacity, cW               8545        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2150        1500        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2350         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.273        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                      HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2040_WP_AM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       SR-60 WB
Weaving Location:            MLK Blvd to University Ave
Analysis Year:               2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           4           ln
Weaving segment length, LS                   1100        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               7201    1159    659     31      veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 1856    299     170     8
Trucks and buses                        11      2       3       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.946   0.988   0.983   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            7847    1209    691     32      pc/h

Volume ratio, VR                                0.194

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               2           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               1           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN                     lc/h
Weaving lane changes, LCW                               lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                           lc/h
Total lane changes, LCALL                               lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                               mi/h
Average non-weaving speed, SNW                          mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.151
Weaving segment flow rate, v               9779        pc/h
Weaving segment capacity, cW               8106        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4478        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2142         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.151        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 52_2040_WP_PM_Peak_SR-60_WB_MLK_Blvd_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             MLK Blvd to University Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8101    1599    769     31      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2132    421     202     8
Trucks and buses                       8       45      3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.815   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8886    2065    823     33      pc/h

Volume ratio, VR                               0.245

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                                 mi/h
Weaving segment density, D                               pc/mi/ln
Level of service, LOS                    F
Weaving segment v/c ratio                1.370
Weaving segment flow rate, v             11807       pc/h
Weaving segment capacity, cW             8069        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4997        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2102         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.370        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2040_WP_AM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6784    236     566     14      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1748    61      146     4
Trucks and buses                       8       2       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.988   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7288    246     596     15      pc/h

Volume ratio, VR                               0.103

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        246         lc/h
Weaving lane changes, LCW                  809         lc/h
Non-weaving vehicle index, INW             1022
Non-weaving lane change, LCNW              1300        lc/h
Total lane changes, LCALL                  2109        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.312
Average weaving speed, SW                  56.9        mi/h
Average non-weaving speed, SNW             60.4        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.0        mi/h
Weaving segment density, D                 27.1        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.694
Weaving segment flow rate, v               8145        pc/h
Weaving segment capacity, cW               11296       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2006         1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2354         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.694        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 53_2040_WP_PM_Peak_SR-60_WB_University_Ave_to_W_Blaine.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             University Ave to W Blaine
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7814    496     536     14      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2056    131     141     4
Trucks and buses                       6       2       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8488    528     582     15      pc/h

Volume ratio, VR                               0.115

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        528         lc/h
Weaving lane changes, LCW                  1091        lc/h
Non-weaving vehicle index, INW             1190
Non-weaving lane change, LCNW              1547        lc/h
Total lane changes, LCALL                  2638        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.373
Average weaving speed, SW                  55.1        mi/h
Average non-weaving speed, SNW             57.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.7        mi/h
Weaving segment density, D                 33.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.821
Weaving segment flow rate, v               9613        pc/h
Weaving segment capacity, cW               11361       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2124        1400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2345         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.821        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2040_WP_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3420    1310    2000    100     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                881     338     515     26
Trucks and buses                       9       2       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3691    1367    2159    104     pc/h

Volume ratio, VR                               0.482

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.014
Weaving segment flow rate, v               7321        pc/h
Weaving segment capacity, cW               6941        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            6046        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2025         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.014        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2040_WP_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5830    1150    1460    100     veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1534    303     384     26
Trucks and buses                       6       2       12      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.942   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6333    1225    1632    107     pc/h

Volume ratio, VR                               0.307

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1225        lc/h
Weaving lane changes, LCW                  1720        lc/h
Non-weaving vehicle index, INW             741
Non-weaving lane change, LCNW              987         lc/h
Total lane changes, LCALL                  2707        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.444
Average weaving speed, SW                  53.1        mi/h
Average non-weaving speed, SNW             52.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.5        mi/h
Weaving segment density, D                 35.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.853
Weaving segment flow rate, v               9297        pc/h
Weaving segment capacity, cW               10538       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4096         1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2175         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.853        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2040_WP_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5125    605     845     25      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1321    156     218     6
Trucks and buses                       15      2       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5690    631     899     26      pc/h

Volume ratio, VR                               0.211

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1530        lc/h
Weaving lane changes, LCW                  2245        lc/h
Non-weaving vehicle index, INW             1097
Non-weaving lane change, LCNW              1515        lc/h
Total lane changes, LCALL                  3760        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.322
Average weaving speed, SW                  56.6        mi/h
Average non-weaving speed, SNW             52.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.9        mi/h
Weaving segment density, D                 27.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.658
Weaving segment flow rate, v               7246        pc/h
Weaving segment capacity, cW               10344       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4651        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2228         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.658        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2040_WP_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7855    835     1045    25      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2067    220     275     7
Trucks and buses                       11      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8740    889     1130    27      pc/h

Volume ratio, VR                               0.187

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  2734        lc/h
Non-weaving vehicle index, INW             1683
Non-weaving lane change, LCNW              3028        lc/h
Total lane changes, LCALL                  5762        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.451
Average weaving speed, SW                  52.9        mi/h
Average non-weaving speed, SNW             45.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   46.4        mi/h
Weaving segment density, D                 46.5        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.967
Weaving segment flow rate, v               10786       pc/h
Weaving segment capacity, cW               10629       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4406        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2247         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.967        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2040_WP_AM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2593    577     1877    53      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                668     149     484     14
Trucks and buses                       15      3       11      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.983   0.946   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2879    605     2045    55      pc/h

Volume ratio, VR                               0.475

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.7         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        605         lc/h
Weaving lane changes, LCW                  1229        lc/h
Non-weaving vehicle index, INW             421
Non-weaving lane change, LCNW              753         lc/h
Total lane changes, LCALL                  1982        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.220
Average weaving speed, SW                  60.1        mi/h
Average non-weaving speed, SNW             60.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   60.2        mi/h
Weaving segment density, D                 18.6        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.768
Weaving segment flow rate, v               5584        pc/h
Weaving segment capacity, cW               6848        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5965        2050        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2100         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.768        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 74_2040_WP_PM_Peak_SR-60_WB_Reservoir_Rd_to_SR-71.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Reservoir Rd to SR-71
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  2050        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4613    647     2347    53      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1214    170     618     14
Trucks and buses                       7       1       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.993   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5035    686     2562    56      pc/h

Volume ratio, VR                               0.389

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3            ln
Interchange density, ID                   0.7          int/mi
Minimum RF lane changes, LCRF             1            lc/pc
Minimum FR lane changes, LCFR             0            lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN       686          lc/h
Weaving lane changes, LCW                 1310         lc/h
Non-weaving vehicle index, INW            731
Non-weaving lane change, LCNW             1197         lc/h
Total lane changes, LCALL                 2507         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.265
Average weaving speed, SW                 58.5         mi/h
Average non-weaving speed, SNW            57.1         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.6        mi/h
Weaving segment density, D                 29.0        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.931
Weaving segment flow rate, v               8339        pc/h
Weaving segment capacity, cW               8665        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum    Maximum          Actual       Note
Weaving length (ft)          300            4998       2050         a,b
                                     Maximum          Analyzed
Density-based capacty,                      2400       2175          c
cIWL (pc/h/ln)
                                     Maximum          Analyzed
v/c ratio                                   1.00       0.931         d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2040_WP_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7311    589     799     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1884    152     206     8
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7778    615     834     32      pc/h

Volume ratio, VR                               0.156

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        615         lc/h
Weaving lane changes, LCW                  989         lc/h
Non-weaving vehicle index, INW             1062
Non-weaving lane change, LCNW              1760        lc/h
Total lane changes, LCALL                  2749        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.330
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             54.5        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.7        mi/h
Weaving segment density, D                 42.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.994
Weaving segment flow rate, v               9259        pc/h
Weaving segment capacity, cW               9054        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2530        1700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2337         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.994        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2040_WP_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6141    829     1109    31      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1651    223     298     8
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6815    902     1207    34      pc/h

Volume ratio, VR                               0.235

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        902         lc/h
Weaving lane changes, LCW                  1276        lc/h
Non-weaving vehicle index, INW             931
Non-weaving lane change, LCNW              1562        lc/h
Total lane changes, LCALL                  2838        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.339
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             52.8        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.5        mi/h
Weaving segment density, D                 41.9        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.989
Weaving segment flow rate, v               8958        pc/h
Weaving segment capacity, cW               8818        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3336        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2275         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.989        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2040_WP_AM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6155    545     455     15      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1586    140     117     4
Trucks and buses                       7       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6580    569     477     16      pc/h

Volume ratio, VR                               0.137

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1046        lc/h
Weaving lane changes, LCW                  1386        lc/h
Non-weaving vehicle index, INW             462
Non-weaving lane change, LCNW              775         lc/h
Total lane changes, LCALL                  2161        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.550
Average weaving speed, SW                  50.5        mi/h
Average non-weaving speed, SNW             55.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.4        mi/h
Weaving segment density, D                 28.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.711
Weaving segment flow rate, v               7642        pc/h
Weaving segment capacity, cW               10391       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3901        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2155         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.711        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 84_2040_WP_PM_Peak_SR-91_EB_Arlington_Ave_to_Central_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Arlington Ave to Central Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4485    575     375     15      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1206    155     101     4
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5001    626     408     16      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1034        lc/h
Weaving lane changes, LCW                  1374        lc/h
Non-weaving vehicle index, INW             351
Non-weaving lane change, LCNW              450         lc/h
Total lane changes, LCALL                  1824        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.481
Average weaving speed, SW                  52.1        mi/h
Average non-weaving speed, SNW             56.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 21.6        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.571
Weaving segment flow rate, v               6051        pc/h
Weaving segment capacity, cW               10265       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4241        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2129         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.571        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2040_WP_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8854    656     876     34      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2282    169     226     9
Trucks and buses                       5       18      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.916   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9374    739     914     35      pc/h

Volume ratio, VR                               0.149

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        914         lc/h
Weaving lane changes, LCW                  1298        lc/h
Non-weaving vehicle index, INW             836
Non-weaving lane change, LCNW              1376        lc/h
Total lane changes, LCALL                  2674        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.623
Average weaving speed, SW                  48.9        mi/h
Average non-weaving speed, SNW             52.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  52.2        mi/h
Weaving segment density, D                42.4        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.973
Weaving segment flow rate, v              11062       pc/h
Weaving segment capacity, cW              11042       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2460         740         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2269         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.973        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2040_WP_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              11184   846     706     34      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                3006    227     190     9
Trucks and buses                       3       18      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.916   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           12230   993     768     37      pc/h

Volume ratio, VR                               0.126

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.221
Weaving segment flow rate, v               14028       pc/h
Weaving segment capacity, cW               11244       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2223        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2286         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.221        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2040_WP_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6956    654     464     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1793    169     120     4
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7401    682     484     17      pc/h

Volume ratio, VR                               0.136

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        682         lc/h
Weaving lane changes, LCW                  870         lc/h
Non-weaving vehicle index, INW             445
Non-weaving lane change, LCNW              1083        lc/h
Total lane changes, LCALL                  1953        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.573
Average weaving speed, SW                  50.0        mi/h
Average non-weaving speed, SNW             54.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  54.1        mi/h
Weaving segment density, D                39.7        pc/mi/ln
Level of service, LOS                     E
Weaving segment v/c ratio                 0.949
Weaving segment flow rate, v              8584        pc/h
Weaving segment capacity, cW              8791        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2325         600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2268        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.949       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2040_WP_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5926    1014    414     16      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1593    273     111     4
Trucks and buses                       4       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6512    1103    453     17      pc/h

Volume ratio, VR                               0.192

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1103        lc/h
Weaving lane changes, LCW                  1291        lc/h
Non-weaving vehicle index, INW             392
Non-weaving lane change, LCNW              900         lc/h
Total lane changes, LCALL                  2191        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.628
Average weaving speed, SW                  48.8        mi/h
Average non-weaving speed, SNW             52.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.6        mi/h
Weaving segment density, D                 39.1        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.910
Weaving segment flow rate, v               8085        pc/h
Weaving segment capacity, cW               8708        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2893        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2225         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.910        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2040_WP_AM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3485    305     1375    5       veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                937     82      370     1
Trucks and buses                       9       6       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.969   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3923    338     1518    5       pc/h

Volume ratio, VR                               0.321

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        338         lc/h
Weaving lane changes, LCW                  795         lc/h
Non-weaving vehicle index, INW             285
Non-weaving lane change, LCNW              632         lc/h
Total lane changes, LCALL                  1427        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.223
Average weaving speed, SW                  60.0        mi/h
Average non-weaving speed, SNW             62.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.3        mi/h
Weaving segment density, D                 18.9        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.534
Weaving segment flow rate, v               5784        pc/h
Weaving segment capacity, cW               10418       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4243        1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2186         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.534        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 112_2040_WP_PM_Peak_I-10_EB_Haugen-Lehmann_to_SR-111.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 EB
Weaving Location:             Haugen-Lehmann to SR-111
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1450        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5275    435     1175    5       veh/h
Peak hour factor, PHF                  0.94    0.94    0.94    0.94
Peak 15-min volume, v15                1403    116     313     1
Trucks and buses                       8       4       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.978   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5847    473     1290    5       pc/h

Volume ratio, VR                               0.232

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.5         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        473         lc/h
Weaving lane changes, LCW                  930         lc/h
Non-weaving vehicle index, INW             424
Non-weaving lane change, LCNW              1028        lc/h
Total lane changes, LCALL                  1958        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.286
Average weaving speed, SW                  57.8        mi/h
Average non-weaving speed, SNW             59.3        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.9        mi/h
Weaving segment density, D                 25.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.676
Weaving segment flow rate, v               7615        pc/h
Weaving segment capacity, cW               10840       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3295         1450        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2258         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.676        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2040_WP_AM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                     Volume Components
                                    VFF     VRF     VFR     VRR
Volume, V                            5763    767     177     3       veh/h
Peak hour factor, PHF                0.86    0.86    0.86    0.86
Peak 15-min volume, v15              1675    223     51      1
Trucks and buses                     8       8       2       2         %
Recreational vehicles                1       1       1       1         %
Trucks and buses PCE, ET             1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER         1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV        0.960   0.960   0.988   0.988
Driver population adjustment, fP     1.00    1.00    1.00    1.00
Flow rate, v                         6983    929     208     4       pc/h

Volume ratio, VR                             0.140

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2            ln
Interchange density, ID                    0.5          int/mi
Minimum RF lane changes, LCRF              1            lc/pc
Minimum FR lane changes, LCFR              1            lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN        1137         lc/h
Weaving lane changes, LCW                  1518         lc/h
Non-weaving vehicle index, INW             384
Non-weaving lane change, LCNW              1073         lc/h
Total lane changes, LCALL                  2591         lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.444
Average weaving speed, SW                  53.1         mi/h
Average non-weaving speed, SNW             54.0         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.9        mi/h
Weaving segment density, D                 30.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.745
Weaving segment flow rate, v               8124        pc/h
Weaving segment capacity, cW               10475       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3932         1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2183         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.745        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 117_2040_WP_PM_Peak_I-10_WB_SR-111_to_Hugen-Lehmann_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-10 WB
Weaving Location:             SR-111 to Hugen-Lehmann
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3333    1987    1267    3       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                859     512     327     1
Trucks and buses                       8       5       8       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.974   0.960   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3580    2104    1361    3       pc/h

Volume ratio, VR                               0.492

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             2           ln
Interchange density, ID                   0.5         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             1           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN                   lc/h
Weaving lane changes, LCW                             lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                         lc/h
Total lane changes, LCALL                             lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                             mi/h
Average non-weaving speed, SNW                        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                            mi/h
Weaving segment density, D                          pc/mi/ln
Level of service, LOS                   F
Weaving segment v/c ratio               1.450
Weaving segment flow rate, v            7048        pc/h
Weaving segment capacity, cW            4685        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            7729        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1893         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.450        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2040_WP_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              483     2027    457     33      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                131     551     124     9
Trucks and buses                       10      8       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.960   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           552     2296    503     36      pc/h

Volume ratio, VR                               0.826

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.181
Weaving segment flow rate, v               3387        pc/h
Weaving segment capacity, cW               2761        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            11884       2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1652         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.181        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 134_2040_WP_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             SR-60 to Columbia Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              843     1987    727     33      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                217     512     187     9
Trucks and buses                       8       7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           906     2124    758     34      pc/h

Volume ratio, VR                               0.754

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.211
Weaving segment flow rate, v               3822        pc/h
Weaving segment capacity, cW               3055        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            10944       2100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1723         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.211        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2040_WP_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4843    667     607     43      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1316    181     165     12
Trucks and buses                       4       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5380    737     668     47      pc/h

Volume ratio, VR                               0.206

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        737         lc/h
Weaving lane changes, LCW                  1218        lc/h
Non-weaving vehicle index, INW             543
Non-weaving lane change, LCNW              832         lc/h
Total lane changes, LCALL                  2050        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.334
Average weaving speed, SW                  56.2        mi/h
Average non-weaving speed, SNW             58.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.7        mi/h
Weaving segment density, D                 23.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.605
Weaving segment flow rate, v               6832        pc/h
Weaving segment capacity, cW               11076       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3028        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2264         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.605        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2040_WP_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              9073    987     1057    43      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2338    254     272     11
Trucks and buses                       3       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9513    1035    1103    45      pc/h

Volume ratio, VR                               0.183

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.026
Weaving segment flow rate, v               11696       pc/h
Weaving segment capacity, cW               11219       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2795         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2282         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         1.026        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2040_WP_AM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4756    514     584     26      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1292    140     159     7
Trucks and buses                       6       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5335    568     646     29      pc/h

Volume ratio, VR                               0.185

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        568         lc/h
Weaving lane changes, LCW                  966         lc/h
Non-weaving vehicle index, INW             456
Non-weaving lane change, LCNW              603         lc/h
Total lane changes, LCALL                  1569        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.367
Average weaving speed, SW                  55.2        mi/h
Average non-weaving speed, SNW             59.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.7        mi/h
Weaving segment density, D                 22.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.586
Weaving segment flow rate, v               6578        pc/h
Weaving segment capacity, cW               10901       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2813        850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2249         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.586        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 142_2040_WP_PM_Peak_I-215_NB_Mill_St_to_2rd_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Mill St to 2rd St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  850         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6786    874     1024    26      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1749    225     264     7
Trucks and buses                       4       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7150    912     1074    27      pc/h

Volume ratio, VR                               0.217

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        912         lc/h
Weaving lane changes, LCW                  1310        lc/h
Non-weaving vehicle index, INW             610
Non-weaving lane change, LCNW              976         lc/h
Total lane changes, LCALL                  2286        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.493
Average weaving speed, SW                  51.8        mi/h
Average non-weaving speed, SNW             54.6        mi/h
```

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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.0        mi/h
Weaving segment density, D                 33.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.825
Weaving segment flow rate, v               9163        pc/h
Weaving segment capacity, cW               10886       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3142         850         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2224        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.825       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2040_WP_AM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2930    450     820     20      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                796     122     223     5
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3271    497     902     22      pc/h

Volume ratio, VR                               0.298

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        497         lc/h
Weaving lane changes, LCW                  1536        lc/h
Non-weaving vehicle index, INW             731
Non-weaving lane change, LCNW              525         lc/h
Total lane changes, LCALL                  2061        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.246
Average weaving speed, SW                  59.1        mi/h
Average non-weaving speed, SNW             62.7        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   61.6        mi/h
Weaving segment density, D                 12.7        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.401
Weaving segment flow rate, v               4692        pc/h
Weaving segment capacity, cW               11430       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3998        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2236         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.401        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 143_2040_WP_PM_Peak_I-215_NB_2rd_St_to_Baseline_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             2rd St to Baseline Rd
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1850        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6510    1160    900     20      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1678    299     232     5
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6825    1210    939     21      pc/h

Volume ratio, VR                               0.239

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1210        lc/h
Weaving lane changes, LCW                  2249        lc/h
Non-weaving vehicle index, INW             1520
Non-weaving lane change, LCNW              1920        lc/h
Total lane changes, LCALL                  4169        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.429
Average weaving speed, SW                  53.5        mi/h
Average non-weaving speed, SNW             54.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.9        mi/h
Weaving segment density, D                 27.8        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.657
Weaving segment flow rate, v               8995        pc/h
Weaving segment capacity, cW               13475       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3372        1850        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2283         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.657        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2040_WP_AM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7676    1014    504     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1978    261     130     4
Trucks and buses                       3       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8048    1058    526     17      pc/h

Volume ratio, VR                               0.164

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1584        lc/h
Weaving lane changes, LCW                  2375        lc/h
Non-weaving vehicle index, INW             1161
Non-weaving lane change, LCNW              1156        lc/h
Total lane changes, LCALL                  3531        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.530
Average weaving speed, SW                  51.0        mi/h
Average non-weaving speed, SNW             50.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   50.9        mi/h
Weaving segment density, D                 31.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.741
Weaving segment flow rate, v               9649        pc/h
Weaving segment capacity, cW               12820       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4173        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2173         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.741        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 146_2040_WP_PM_Peak_I-215_SB_Baseline_Rd_to_2rd_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Baseline Rd to 2rd St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4816    894     564     16      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1229    228     144     4
Trucks and buses                       4       2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5022    923     585     17      pc/h

Volume ratio, VR                               0.230

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1508        lc/h
Weaving lane changes, LCW                  2299        lc/h
Non-weaving vehicle index, INW             726
Non-weaving lane change, LCNW              533         lc/h
Total lane changes, LCALL                  2832        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.445
Average weaving speed, SW                  53.1        mi/h
Average non-weaving speed, SNW             53.9        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.7        mi/h
Weaving segment density, D                 20.3        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.630
Weaving segment flow rate, v               6547        pc/h
Weaving segment capacity, cW               10195       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4849        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2121         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.630        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2040_WP_AM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8380    260     560     10      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2160    67      144     3
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8872    273     584     10      pc/h

Volume ratio, VR                               0.088

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        273         lc/h
Weaving lane changes, LCW                  653         lc/h
Non-weaving vehicle index, INW             711
Non-weaving lane change, LCNW              1300        lc/h
Total lane changes, LCALL                  1953        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.457
Average weaving speed, SW                  52.7        mi/h
Average non-weaving speed, SNW             58.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.1        mi/h
Weaving segment density, D                 33.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.841
Weaving segment flow rate, v               9739        pc/h
Weaving segment capacity, cW               11290       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            1858        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2319         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.841        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 147_2040_WP_PM_Peak_I-215_SB_2rd_St_to_Mill_St_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             2rd St to Mill St
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  800         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5840    550     630     10      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1490    140     161     3
Trucks and buses                       6       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6150    571     651     10      pc/h

Volume ratio, VR                               0.166

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        571         lc/h
Weaving lane changes, LCW                  951         lc/h
Non-weaving vehicle index, INW             493
Non-weaving lane change, LCNW              740         lc/h
Total lane changes, LCALL                  1691        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.408
Average weaving speed, SW                  54.1        mi/h
Average non-weaving speed, SNW             58.8        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.0        mi/h
Weaving segment density, D                 25.5        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.655
Weaving segment flow rate, v               7382        pc/h
Weaving segment capacity, cW               10954       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2621        800         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2260         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.655        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2040_WP_AM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6248    162     1452    8       veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1610    42      374     2
Trucks and buses                       6       4       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.978   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6647    171     1522    8       pc/h

Volume ratio, VR                               0.203

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   0.8         int/mi
Minimum RF lane changes, LCRF             2           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       342         lc/h
Weaving lane changes, LCW                 848         lc/h
Non-weaving vehicle index, INW            719
Non-weaving lane change, LCNW             1140        lc/h
Total lane changes, LCALL                 1988        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.307
Average weaving speed, SW                 57.1        mi/h
Average non-weaving speed, SNW            59.5        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.0        mi/h
Weaving segment density, D                 28.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.736
Weaving segment flow rate, v               8348        pc/h
Weaving segment capacity, cW               11017       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2999        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2274         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.736        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 149_2040_WP_PM_Peak_I-215_SB_Auto_Plaza_Dr_to_I-10_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Auto Plaza Dr to I-10
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                         Volume Components
                                        VFF     VRF     VFR     VRR
Volume, V                                5128    302     862     8       veh/h
Peak hour factor, PHF                    0.98    0.98    0.98    0.98
Peak 15-min volume, v15                  1308    77      220     2
Trucks and buses                         7       2       6       2         %
Recreational vehicles                    1       1       1       1         %
Trucks and buses PCE, ET                 1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER             1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV            0.964   0.988   0.969   0.988
Driver population adjustment, fP         1.00    1.00    1.00    1.00
Flow rate, v                             5426    312     908     8       pc/h

Volume ratio, VR                                 0.183

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               2           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         624         lc/h
Weaving lane changes, LCW                   1130        lc/h
Non-weaving vehicle index, INW              587
Non-weaving lane change, LCNW               888         lc/h
Total lane changes, LCALL                   2018        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.310
Average weaving speed, SW                   57.0        mi/h
Average non-weaving speed, SNW              59.1        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.7        mi/h
Weaving segment density, D                 22.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.582
Weaving segment flow rate, v               6654        pc/h
Weaving segment capacity, cW               11037       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2801        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2289         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.582        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2040_WP_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4313    1647    1847    73      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1112    424     476     19
Trucks and buses                       12      3       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.983   0.978   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4722    1727    1946    76      pc/h

Volume ratio, VR                               0.434

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.071
Weaving segment flow rate, v               8471        pc/h
Weaving segment capacity, cW               7586        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5495        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2014         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.071        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 155_2040_WP_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Columbia Ave to SR-60
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  450         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2453    1897    2507    73      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                626     484     640     19
Trucks and buses                       11      3       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.983   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2646    1969    2640    75      pc/h

Volume ratio, VR                               0.629

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.343
Weaving segment flow rate, v               7330        pc/h
Weaving segment capacity, cW               5266        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           7804        450         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1837        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.343       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2040_WP_AM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2906    634     1424    16      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                790     172     387     4
Trucks and buses                       7       9       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.955   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3276    722     1566    18      pc/h

Volume ratio, VR                               0.410

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2288        lc/h
Weaving lane changes, LCW                  2588        lc/h
Non-weaving vehicle index, INW             316
Non-weaving lane change, LCNW              559         lc/h
Total lane changes, LCALL                  3147        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.484
Average weaving speed, SW                  52.1        mi/h
Average non-weaving speed, SNW             46.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.8        mi/h
Weaving segment density, D                 28.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.959
Weaving segment flow rate, v               5582        pc/h
Weaving segment capacity, cW               5646        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           6792         1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         1972        c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.959       d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 174_2040_WP_PM_Peak_I-215_NB_Cactus_Ave_to_Alessandro_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             Cactus Ave to Alessandro
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5646    294     884     16      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1455    76      228     4
Trucks and buses                       5       3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5978    308     927     17      pc/h

Volume ratio, VR                               0.171

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1235        lc/h
Weaving lane changes, LCW                  1535        lc/h
Non-weaving vehicle index, INW             576
Non-weaving lane change, LCNW              1115        lc/h
Total lane changes, LCALL                  2650        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.422
Average weaving speed, SW                  53.7        mi/h
Average non-weaving speed, SNW             52.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.6        mi/h
Weaving segment density, D                 34.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.835
Weaving segment flow rate, v               7230        pc/h
Weaving segment capacity, cW               8440        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4240        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2167         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.835        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                    HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2040_WP_AM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        AM Peak
Freeway/Dir of Travel:       I-215 SB
Weaving Location:            SR-60 to Eucalyptus Ave
Analysis Year:               2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   1000        ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               6892    458     768     42      veh/h
Peak hour factor, PHF                   0.97    0.97    0.97    0.97
Peak 15-min volume, v15                 1776    118     198     11
Trucks and buses                        4       29      1       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.978   0.872   0.993   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            7261    542     797     44      pc/h

Volume ratio, VR                                0.155

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         542         lc/h
Weaving lane changes, LCW                   991         lc/h
Non-weaving vehicle index, INW              731
Non-weaving lane change, LCNW               1084        lc/h
Total lane changes, LCALL                   2075        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.402
Average weaving speed, SW                   54.2        mi/h
Average non-weaving speed, SNW              57.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   57.2        mi/h
Weaving segment density, D                 30.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.753
Weaving segment flow rate, v               8644        pc/h
Weaving segment capacity, cW               11174       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2514        1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2284         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.753        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 177_2040_WP_PM_Peak_I-215_SB_SR-60_to_Eucalyptus_Ave_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             SR-60 to Eucalyptus Ave
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4692    958     958     42      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1197    244     244     11
Trucks and buses                       7       20      3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.907   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           4965    1077    994     43      pc/h

Volume ratio, VR                               0.293

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1077        lc/h
Weaving lane changes, LCW                  1526        lc/h
Non-weaving vehicle index, INW             501
Non-weaving lane change, LCNW              611         lc/h
Total lane changes, LCALL                  2137        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.411
Average weaving speed, SW                  54.0        mi/h
Average non-weaving speed, SNW             55.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                  55.0        mi/h
Weaving segment density, D                25.7        pc/mi/ln
Level of service, LOS                     C
Weaving segment v/c ratio                 0.647
Weaving segment flow rate, v              7079        pc/h
Weaving segment capacity, cW              10487       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3938         1000        a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400         2175         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00         0.647        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2040_WP_AM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6117    563     673     17      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1577    145     173     4
Trucks and buses                       4       4       7       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.978   0.964   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6445    593     719     18      pc/h

Volume ratio, VR                               0.169

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        719         lc/h
Weaving lane changes, LCW                  1043        lc/h
Non-weaving vehicle index, INW             698
Non-weaving lane change, LCNW              1293        lc/h
Total lane changes, LCALL                  2336        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.348
Average weaving speed, SW                  55.8        mi/h
Average non-weaving speed, SNW             55.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.5        mi/h
Weaving segment density, D                 35.0        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.890
Weaving segment flow rate, v               7775        pc/h
Weaving segment capacity, cW               8536        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4219        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2180         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.890        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 179_2040_WP_PM_Peak_I-215_SB_Alessandro_Blvd_to_Cactus_.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 SB
Weaving Location:             Alessandro Blvd to Cactus
Analysis Year:                2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  1350        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5197    893     433     17      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1326    228     110     4
Trucks and buses                       6       2       14      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.933   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5473    922     474     18      pc/h

Volume ratio, VR                               0.203

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        474         lc/h
Weaving lane changes, LCW                  798         lc/h
Non-weaving vehicle index, INW             593
Non-weaving lane change, LCNW              1092        lc/h
Total lane changes, LCALL                  1890        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.295
Average weaving speed, SW                  57.5        mi/h
Average non-weaving speed, SNW             58.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.2        mi/h
Weaving segment density, D                 29.6        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.799
Weaving segment flow rate, v               6887        pc/h
Weaving segment capacity, cW               8349        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4564        1350        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2154         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.799        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2040_WP_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           12170         vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              560           vph
Length of first accel/decel lane            1000          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     850           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        12170       560         850       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                3272        147         224       v
Trucks and buses                       4           7           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.964       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          13374       611         905       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.141   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1891   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     13985         9600            Yes
      FO
     v  or v               5741 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 7974                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                8585          4600                  Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   65.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 21.119
                                              S
Space mean speed in ramp influence area,     S  = -521.3  mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 194.4   mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2040_WP_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9660           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1390           vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     710            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9660        1390        710       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2464        366         187       v
Trucks and buses                       7           1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10222       1473        760       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.034   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  344    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     11695         9600            Yes
      FO
     v  or v               4939 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 4822                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                6295          4600                  Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   47.6    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 2.364
                                              S
Space mean speed in ramp influence area,     S  = 3.8     mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 6.7     mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2040_WP_AM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8310           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              990            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     320            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8310        990         320       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2234        261         84        v
Trucks and buses                       10          6           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.969       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9400        1075        341       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.083   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  576    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7975          12000           No
      FO
     v  or v               3162 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2760                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3835          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   25.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.397
                                              S
Space mean speed in ramp influence area,     S  = 58.9    mph
                                              R
Space mean speed in outer lanes,             S  = 64.3    mph
                                              0
Space mean speed for all vehicles,           S  = 61.6    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 4_2040_WP_PM_Peak_SR-60_EB_On-Ramp_from_Central.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           8240           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1260           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        8240        1260        90        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2102        332         24        v
Trucks and buses                       11          3           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.983       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8887        1349        97        pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.049   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  314    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7736          12000           No
      FO
     v  or v               3036 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2554                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3903          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   25.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.409
                                              S
Space mean speed in ramp influence area,     S  = 58.5    mph
                                              R
Space mean speed in outer lanes,             S  = 64.9    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2040_WP_AM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2750           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              380            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2750        380         130       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                739         100         34        v
Trucks and buses                       15          12          5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.942       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3185        425         141       pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.661   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2249   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3185          7200            No
      Fi   F
     v  = v - v            2760          7200            No
      FO   F   R
     v                     425           2000            No
      R
     v  or v               936  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2249                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2249          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   10.1    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.466
                                              S
Space mean speed in ramp influence area,     S  = 56.9    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 61.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 17_2040_WP_PM_Peak_SR-60_EB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3760           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              530            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     300            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3760        530         300       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                959         139         79        v
Trucks and buses                       11          6           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.946       0.969       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4055        576         324       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.632   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2775   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                4055          7200            No
      Fi   F
     v  = v - v            3479          7200            No
      FO   F   R
     v                     576           2000            No
      R
     v  or v               1280 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2775                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2775          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   14.6    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.480
                                              S
Space mean speed in ramp influence area,     S  = 56.6    mph
                                              R
Space mean speed in outer lanes,             S  = 75.7    mph
                                              0
Space mean speed for all vehicles,           S  = 61.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2040_WP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3160           vph

__________________________________On Ramp Data__________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              130            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     380            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3160        130         380       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                849         34          100       v
Trucks and buses                       13          5           12        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.974       0.942
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3626        141         425       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    678.34  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2196   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3767          7200            No
      FO
     v  or v               1430 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2196                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2337          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.291
                                              S
Space mean speed in ramp influence area,     S  = 61.8    mph
                                              R
Space mean speed in outer lanes,             S  = 66.7    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 18_2040_WP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analysis:               MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5020           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              300            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)___________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     530            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5020        300         530       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1281        79          139       v
Trucks and buses                       8           5           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.974       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5338        324         576       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    1083.87 (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  3232   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5662          7200            No
      FO
     v  or v               2106 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3232                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3556          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   26.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.388
                                              S
Space mean speed in ramp influence area,     S  = 59.1    mph
                                              R
Space mean speed in outer lanes,             S  = 64.2    mph
                                              0
Space mean speed for all vehicles,           S  = 60.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 19_2040_WP_AM_Peak_SR-60_EB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3080           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              210            vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3080        210         130       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                828         55          34        v
Trucks and buses                       14          4           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.978       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3550        226         141       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2075   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3776          7200            No
      FO
     v  or v               1475 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2075                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2301          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.342
                                              S
Space mean speed in ramp influence area,     S  = 60.4    mph
                                              R
Space mean speed in outer lanes,             S  = 66.5    mph
                                              0
Space mean speed for all vehicles,           S  = 62.6    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 19_2040_WP_PM_Peak_SR-60_EB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4420           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              900            vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     300            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4420        900         300       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1128        237         79        v
Trucks and buses                       9           2           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.988       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4722        959         324       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2760   pc/h
                   12   F   FM

_______________________________Capacity Checks__________________________________

                           Actual        Maximum         LOS F?
     v                     5681          7200            No
      FO
     v  or v               1962 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2760                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area______________________
                      Actual        Max Desirable         Violation?
     v                3719          4600                  No
      R12
_________________Level of Service Determination (if not F)______________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   32.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation___________________________________

Intermediate speed variable,                 M  = 0.464
                                              S
Space mean speed in ramp influence area,     S  = 57.0    mph
                                              R
Space mean speed in outer lanes,             S  = 64.7    mph
                                              0
Space mean speed for all vehicles,           S  = 59.5    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2040_WP_AM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3290           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              650            vph
Length of first accel/decel lane            500            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     90             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3290        650         90        vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                884         171         24        v
Trucks and buses                       13          41          1         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.829       0.993
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3775        826         95        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.628   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2677   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks__________________________________

                           Actual        Maximum         LOS F?
     v  = v                3775          7200            No
      Fi   F
     v  = v - v            2949          7200            No
      FO   F   R
     v                     826           2000            No
      R
     v  or v               1098 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2677                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area______________________
                      Actual        Max Desirable        Violation?
     v                2677          4400                 No
      12
_________________Level of Service Determination (if not F)______________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.8    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation___________________________________

Intermediate speed variable,                 D  = 0.502
                                              S
Space mean speed in ramp influence area,     S  = 55.9    mph
                                              R
Space mean speed in outer lanes,             S  = 76.4    mph
                                              0
Space mean speed for all vehicles,           S  = 60.7    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 20_2040_WP_PM_Peak_SR-60_EB_Off-Ramp_to_Theodore.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off-Ramp to Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5320           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              700            vph
Length of first accel/decel lane            500            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     40             vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5320        700         40        vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1357        184         11        v
Trucks and buses                       8           36          3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.846       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5657        871         43        pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.579   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  3640   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                5657          7200            No
      Fi   F
     v  = v - v            4786          7200            No
      FO   F   R
     v                     871           2000            No
      R
     v  or v               2017 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34        12
If yes, v    = 3640                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3640          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   31.1    pc/mi/ln
                        R                   12         D
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.506
                                              S
Space mean speed in ramp influence area,     S  = 55.8    mph
                                              R
Space mean speed in outer lanes,             S  = 72.8    mph
                                              0
Space mean speed for all vehicles,           S  = 60.9    mph
________________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2040_WP_AM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2880           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              90             vph
Length of first accel/decel lane            1400           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     650            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2880        90          650       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                774         24          171       v
Trucks and buses                       8           1           41        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.993       0.829
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3227        95          826       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    760.71  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1990   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3322          7200            No
      FO
     v  or v               1237 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1990                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2085          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   12.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.254
                                              S
Space mean speed in ramp influence area,     S  = 62.9    mph
                                              R
Space mean speed in outer lanes,             S  = 67.3    mph
                                              0
Space mean speed for all vehicles,           S  = 64.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 21_2040_WP_PM_Peak_SR-60_EB_Loop_On-Ramp_from_Theodore.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Loop On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5050           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              40             vph
Length of first accel/decel lane            1400           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     700            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5050        40          700       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1288        11          184       v
Trucks and buses                       5           3           36        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.983       0.846
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5292        43          871       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    1191.49 (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.617   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  3264   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5335          7200            No
      FO
     v  or v               2028 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3264                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3307          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   22.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.329
                                              S
Space mean speed in ramp influence area,     S  = 60.8    mph
                                              R
Space mean speed in outer lanes,             S  = 64.5    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2040_WP_AM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1900           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              100            vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     940            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1900        100         940       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                511         26          247       v
Trucks and buses                       3           10          4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.951       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2078        111         1011      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    74.25   (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1223   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     2189          7200            No
      FO
     v  or v               855  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1223                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                1334          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   13.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.308
                                              S
Space mean speed in ramp influence area,     S  = 61.4    mph
                                              R
Space mean speed in outer lanes,             S  = 68.7    mph
                                              0
Space mean speed for all vehicles,           S  = 64.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 24_2040_WP_PM_Peak_SR-60_EB_On-Ramp_from_Gilman_Spring.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3630           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              310            vph
Length of first accel/decel lane            400            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1300           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3630        310         1300      vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                926         82          342       v
Trucks and buses                       1           3           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.993       0.983       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3730        332         1399      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    475.07  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.589   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2196   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4062          7200            No
      FO
     v  or v               1534 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2196                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2528          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   22.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.342
                                              S
Space mean speed in ramp influence area,     S  = 60.4    mph
                                              R
Space mean speed in outer lanes,             S  = 66.3    mph
                                              0
Space mean speed for all vehicles,           S  = 62.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2040_WP_AM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis_____________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data________________________________

Type of analysis                          Diverge
Number of lanes in freeway                3
Free-flow speed on freeway                70.0           mph
Volume on freeway                         3660           vph

_________________________________Off Ramp Data________________________________

Side of freeway                           Right
Number of lanes in ramp                   1
Free-Flow speed on ramp                   35.0           mph
Volume on ramp                            310            vph
Length of first accel/decel lane          200            ft
Length of second accel/decel lane                        ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                 Yes
Volume on adjacent ramp                   1070           vph
Position of adjacent ramp                 Downstream
Type of adjacent ramp                     On
Distance to adjacent ramp                 1800           ft

____________________Conversion to pc/h Under Base Conditions__________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3660        310         1070      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                943         82          282       v
Trucks and buses                       2           7           5         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.988       0.964       0.974
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3818        338         1157      pcph

_________________________Estimation of V12 Diverge Areas______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.649   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2597   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3818          7200            No
      Fi   F
     v  = v - v            3480          7200            No
      FO   F   R
     v                     338           2000            No
      R
     v  or v               1221 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2597                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2597          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   24.8    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.458
                                              S
Space mean speed in ramp influence area,     S  = 57.2    mph
                                              R
Space mean speed in outer lanes,             S  = 75.9    mph
                                              0
Space mean speed for all vehicles,           S  = 62.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 25_2040_WP_PM_Peak_SR-60_WB_Off-Ramp_to_Gilman_Spring.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Gilman Spring
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2620           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              450            vph
Length of first accel/decel lane            200            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1150           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1800           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2620        450         1150      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                689         118         303       v
Trucks and buses                       3           3           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.983       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          2805        482         1237      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.668   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2033   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                2805          7200            No
      Fi   F
     v  = v - v            2323          7200            No
      FO   F   R
     v                     482           2000            No
      R
     v  or v               772  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2033                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                2033          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   19.9    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.471
                                              S
Space mean speed in ramp influence area,     S  = 56.8    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 61.2    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2040_WP_AM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4260           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              990            vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     330            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4260        990         330       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1098        261         87        v
Trucks and buses                       5           33          10        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.974       0.857       0.951
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4510        1216        365       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    1030.96 (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2712   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     5726          7200            No
      FO
     v  or v               1798 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2712                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3928          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   30.2    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.460
                                              S
Space mean speed in ramp influence area,     S  = 57.1    mph
                                              R
Space mean speed in outer lanes,             S  = 65.3    mph
                                              0
Space mean speed for all vehicles,           S  = 59.5    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 28_2040_WP_PM_Peak_SR-60_WB_On-Ramp_from_Theodore_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               On-Ramp from Theodore
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3140           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              760            vph
Length of first accel/decel lane            850            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     340            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3140        760         340       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                826         200         89        v
Trucks and buses                       6           37          13        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.842       0.937
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3411        950         382       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    738.85  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.601   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2051   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4361          7200            No
      FO
     v  or v               1360 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2051                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3001          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   23.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.340
                                              S
Space mean speed in ramp influence area,     S  = 60.5    mph
                                              R
Space mean speed in outer lanes,             S  = 66.9    mph
                                              0
Space mean speed for all vehicles,           S  = 62.3    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2040_WP_AM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           5250           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              810            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     120            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5250        810         120       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1353        213         32        v
Trucks and buses                       10          4           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.978       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5694        871         129       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.578   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  3657   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                5694          7200            No
      Fi   F
     v  = v - v            4823          7200            No
      FO   F   R
     v                     871           2000            No
      R
     v  or v               2037 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3657                    (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3657          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   22.2    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.506
                                              S
Space mean speed in ramp influence area,     S  = 55.8    mph
                                              R
Space mean speed in outer lanes,             S  = 72.7    mph
                                              0
Space mean speed for all vehicles,           S  = 60.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 29_2040_WP_PM_Peak_SR-60_WB_Off-Ramp_to_Redlands_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3900           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              710            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3900        710         130       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                1026        187         34        v
Trucks and buses                       12          3           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.983       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4360        760         141       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.616   Using Equation  9
```

```
                   FD
                  v  = v  + (v - v ) P  =  2978   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                4360          7200            No
      Fi   F
     v  = v - v            3600          7200            No
      FO   F   R
     v                     760           2000            No
      R
     v  or v               1382 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2978                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable             Violation?
     v                2978          4400                      No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   16.4    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.496
                                              S
Space mean speed in ramp influence area,     S  = 56.1    mph
                                              R
Space mean speed in outer lanes,             S  = 75.3    mph
                                              0
Space mean speed for all vehicles,           S  = 61.0    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2040_WP_AM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4060           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              120            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     810            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4060        120         810       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1046        32          213       v
Trucks and buses                       12          4           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.978       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4445        129         871       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    851.04  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2691   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4574          7200            No
      FO
     v  or v               1754 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2691                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2820          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.316
                                              S
Space mean speed in ramp influence area,     S  = 61.1    mph
                                              R
Space mean speed in outer lanes,             S  = 65.5    mph
                                              0
Space mean speed for all vehicles,           S  = 62.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 30_2040_WP_PM_Peak_SR-60_WB_Loop_On-Ramp_from_Redlands_.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Loop On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           3030          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              130           vph
Length of first accel/decel lane            1000          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     710           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1200          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3030        130         710       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                797         34          187       v
Trucks and buses                       14          6           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.969       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3419        141         760       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =    634.04  (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.605   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2070   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3560          7200            No
      FO
     v  or v               1349 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2070                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2211          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   16.4    pc/mi/ln
          R                   R           12            A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.287
                                              S
Space mean speed in ramp influence area,     S  = 62.0    mph
                                              R
Space mean speed in outer lanes,             S  = 66.9    mph
                                              0
Space mean speed for all vehicles,           S  = 63.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 31_2040_WP_AM_Peak_SR-60_WB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3900           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              280            vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     120            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3900        280         120       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1005        74          32        v
Trucks and buses                       13          4           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.937       0.978       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          4290        301         129       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  2508   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     4591          7200            No
      FO
     v  or v               1782 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 2508                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                2809          4600                     No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   25.7    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.368
                                              S
Space mean speed in ramp influence area,     S  = 59.7    mph
                                              R
Space mean speed in outer lanes,             S  = 65.4    mph
                                              0
Space mean speed for all vehicles,           S  = 61.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 31_2040_WP_PM_Peak_SR-60_WB_Direct_On-Ramp_from_Redlands.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Direct On-Ramp from Redlands
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  3
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           2850           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              310            vph
Length of first accel/decel lane            250            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     130            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1300           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        2850        310         130       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                750         82          34        v
Trucks and buses                       15          5           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.974       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3231        335         141       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.585   Using Equation  3
```

```
                   FM
                  v  = v  (P  ) =  1889   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3566          7200            No
      FO
     v  or v               1342 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1889                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2224          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   21.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.340
                                              S
Space mean speed in ramp influence area,     S  = 60.5    mph
                                              R
Space mean speed in outer lanes,             S  = 67.0    mph
                                              0
Space mean speed for all vehicles,           S  = 62.8    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2040_WP_AM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9020           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              810            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     640            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9020        810         640       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                2325        213         168       v
Trucks and buses                       7           1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9643        859         682       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3143   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                9643          9600            Yes
      Fi   F
     v  = v - v            8784          9600            No
      FO   F   R
     v                     859           4000            No
      R
     v  or v               3250 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 4243                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4243          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,              D = 4.252 + 0.0086 v  - 0.009  L   =   13.7    pc/mi/ln
                       R                   12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.505
                                              S
Space mean speed in ramp influence area,     S  = 55.9    mph
                                              R
Space mean speed in outer lanes,             S  = 70.2    mph
                                              0
Space mean speed for all vehicles,           S  = 63.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 46_2040_WP_PM_Peak_SR-60_WB_Off-Ramp_to_Central_.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           10330         vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              590           vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane           0             ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     820           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        10330       590         820       vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                2718        155         216       v
Trucks and buses                       6           2           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.988       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          11222       629         878       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =           (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3383   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                11222         9600            Yes
      Fi   F
     v  = v - v            10593         9600            Yes
      FO   F   R
     v                     629           4000            No
      R
     v  or v               3919 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 5822                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                5822          4400                  No
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   27.3    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.485
                                              S
Space mean speed in ramp influence area,     S  = 56.4    mph
                                              R
Space mean speed in outer lanes,             S  = 70.2    mph
                                              0
Space mean speed for all vehicles,           S  = 62.3    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2040_WP_AM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           9220           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              900            vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1190           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9220        900         1190      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                2376        237         313       v
Trucks and buses                       10          1           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.993       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          9999        954         1268      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4898   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                9999          9600            Yes
      Fi   F
     v  = v - v            9045          9600            No
      FO   F   R
     v                     954           2000            No
      R
     v  or v               2550 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4898                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                4898          4400                 Yes
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   32.9    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.514
                                              S
Space mean speed in ramp influence area,     S  = 55.6    mph
                                              R
Space mean speed in outer lanes,             S  = 70.7    mph
                                              0
Space mean speed for all vehicles,           S  = 62.4    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 48_2040_WP_PM_Peak_SR-60_WB_Off-Ramp_to_MLK.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 WB
Junction:               Off-Ramp to MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 WP
Description:  World Logistics Center - 2040 Plus Build-out

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           10430          vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1240           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1630           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        10430       1240        1630      vph
Peak-hour factor, PHF                  0.95        0.95        0.95
Peak 15-min volume, v15                2745        326         429       v
Trucks and buses                       6           40          45        %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.832       0.815
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          11330       1569        2105      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  5825   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                11330         9600            Yes
      Fi   F
     v  = v - v            9761          9600            Yes
      FO   F   R
     v                     1569          2000            No
      R
     v  or v               2752 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 5930                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                5930          4400                   Yes
      12A
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   41.8    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence F

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.569
                                              S
Space mean speed in ramp influence area,     S  = 54.1    mph
                                              R
Space mean speed in outer lanes,             S  = 70.2    mph
                                              0
Space mean speed for all vehicles,           S  = 60.7    mph
_______________________________________________________________________________
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 1_2040_WP_Mit_AM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                SR-71 to Reservoir Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7770          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2089          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1708          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1708          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.0          mi/h
Number of lanes, N                          5
Density, D                                  25.5          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 1_2040_WP_Mit_PM_Peak_SR-60_EB_SR-71_to_Reservoir_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                SR-71 to Reservoir Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7670           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1957           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1615           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1615           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.0           mi/h
Number of lanes, N                          5
Density, D                                  23.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2040_WP_Mit_AM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments__________________________

Volume, V                                   8380           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2253           v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               1932           pc/h/ln

_________________________Speed Inputs and Adjustments_________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures_________________________

Flow rate, vp                               1932           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.8           mi/h
Number of lanes, N                          5
Density, D                                  30.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 2_2040_WP_Mit_PM_Peak_SR-60_EB_Reservoir_Rd_to_Ramona_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Reservoir Rd to Ramona Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7110           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1814           v
Trucks and buses                            19             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.912
Driver population factor, fp                1.00
Flow rate, vp                               1592           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1592           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          5
Density, D                                  23.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2040_WP_Mit_AM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Ramona Ave to Central Ave
Jurisdiction:            Caltrans
Analysis Year:           2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    10340          veh/h
Peak-hour factor, PHF                        0.93
Peak 15-min volume, v15                      2780           v
Trucks and buses                             4              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.978
Driver population factor, fp                 1.00
Flow rate, vp                                1894           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           6
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1894           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               64.4           mi/h
Number of lanes, N                           6
Density, D                                   29.4           pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 3_2040_WP_Mit_PM_Peak_SR-60_EB_Ramona_Ave_to_Central_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Ramona Ave to Central Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9860           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2515           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1731           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1731           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.7           mi/h
Number of lanes, N                          6
Density, D                                  25.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2040_WP_Mit_AM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9860           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2651           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1806           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1806           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          6
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 5_2040_WP_Mit_PM_Peak_SR-60_EB_Mountain_Ave_to_Euclid_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Mountain Ave to Euclid Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8680           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2214           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1523           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1523           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          6
Density, D                                  22.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2040_WP_Mit_AM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       SR-60 EB
From/To:                 Euclid Ave to Grove Ave
Jurisdiction:            Caltrans
Analysis Year:           2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                      9670          veh/h
Peak-hour factor, PHF                          0.93
Peak 15-min volume, v15                        2599          v
Trucks and buses                               4             %
Recreational vehicles                          1             %
Terrain type:                                  Level
    Grade                                      -             %
    Segment length                             -             mi
Trucks and buses PCE, ET                       1.5
Recreational vehicle PCE, ER                   1.2
Heavy vehicle adjustment, fHV                  0.978
Driver population factor, fp                   1.00
Flow rate, vp                                  1771          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                     -             ft
Right-side lateral clearance                   -             ft
Total ramp density, TRD                        -             ramps/mi
Number of lanes, N                             6
Free-flow speed:                               Measured
     FFS or BFFS                               70.0          mi/h
Lane width adjustment, fLW                     -             mi/h
Lateral clearance adjustment, fLC              -             mi/h
TRD adjustment                                 -             mi/h
Free-flow speed, FFS                           70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                  1771          pc/h/ln
Free-flow speed, FFS                           70.0          mi/h
Average passenger-car speed, S                 66.2          mi/h
Number of lanes, N                             6
Density, D                                     26.7          pc/mi/ln
Level of service, LOS                          D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 6_2040_WP_Mit_PM_Peak_SR-60_EB_Euclid_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis___________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Euclid Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   8370           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2135           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1469           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1469           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.2           mi/h
Number of lanes, N                          6
Density, D                                  21.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2040_WP_Mit_AM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6340           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1704           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1750           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1750           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.5           mi/h
Number of lanes, N                          4
Density, D                                  26.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 17_2040_WP_Mit_PM_Peak_SR-60_EB_Valley_Way_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Valley Way to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1327           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1369           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1369           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          4
Density, D                                  19.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2040_WP_Mit_AM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6190           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1664           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1709           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1709           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          4
Density, D                                  25.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 18_2040_WP_Mit_PM_Peak_SR-60_EB_Rubidoux_Blvd_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Rubidoux Blvd to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    5320          veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1357          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1407          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1407          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.5          mi/h
Number of lanes, N                           4
Density, D                                   20.2          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2040_WP_Mit_AM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6590           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1772           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1819           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1819           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.6           mi/h
Number of lanes, N                          4
Density, D                                  27.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 19_2040_WP_Mit_PM_Peak_SR-60_EB_Market_St_to_Main_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Market St to Main St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments____________________________

Volume, V                                   5590           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1426           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1486           pc/h/ln

_________________________Speed Inputs and Adjustments___________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures___________________________

Flow rate, vp                               1486           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          4
Density, D                                  21.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2040_WP_Mit_AM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   12730          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     3422           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.935
Driver population factor, fp                1.00
Flow rate, vp                               2929           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2929           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              35.3           mi/h
Number of lanes, N                          5
Density, D                                  82.9           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 24_2040_WP_Mit_PM_Peak_SR-60_EB_Martin_Luther_King_to_Central.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Martin Luther King to Central
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   11050          veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     2819           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               2481           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2481           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.0           mi/h
Number of lanes, N                          5
Density, D                                  48.7           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2040_WP_Mit_AM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3530           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     949            v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1350           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1350           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.7           mi/h
Number of lanes, N                          3
Density, D                                  19.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 29_2040_WP_Mit_PM_Peak_SR-60_EB_Pigeon_Pass_Rd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Pigeon Pass Rd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5200           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1327           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1861           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1861           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          3
Density, D                                  28.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2040_WP_Mit_AM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3520           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     946            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1334           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1334           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          3
Density, D                                  19.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 30_2040_WP_Mit_PM_Peak_SR-60_EB_Heacock_St_to_Perris_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 EB
From/To:                Heacock St to Perris Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4150           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1059           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1478           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1478           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.1           mi/h
Number of lanes, N                          3
Density, D                                  21.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2040_WP_Mit_AM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4180           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1077           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1525           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1525           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.8           mi/h
Number of lanes, N                          3
Density, D                                  22.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 42_2040_WP_Mit_PM_Peak_SR-60_WB_Redlands_Blvd_to_Moreno_Beach.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Redlands Blvd to Moreno Beach
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3160           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     832            v
Trucks and buses                            14             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.933
Driver population factor, fp                1.00
Flow rate, vp                               1189           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1189           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          3
Density, D                                  17.0           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2040_WP_Mit_AM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4510           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1162           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1630           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1630           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.9           mi/h
Number of lanes, N                          3
Density, D                                  24.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 45_2040_WP_Mit_PM_Peak_SR-60_WB_Perris_Blvd_to_Heacock_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Perris Blvd to Heacock St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3790           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     997            v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1412           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1412           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          3
Density, D                                  20.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2040_WP_Mit_AM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5680           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1464           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               2044           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2044           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.7           mi/h
Number of lanes, N                          3
Density, D                                  33.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 46_2040_WP_Mit_PM_Peak_SR-60_WB_Heacock_St_to_Pigeon_Pass_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Heacock St to Pigeon Pass Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3580           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     942            v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1328           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1328           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          3
Density, D                                  19.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2040_WP_Mit_AM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4710           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1214           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1719           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1719           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          3
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 48_2040_WP_Mit_PM_Peak_SR-60_WB_Day_St_to_I-215.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Day St to I-215
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3990           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1050           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1487           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          3
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1487           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          3
Density, D                                  21.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2040_WP_Mit_AM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8000           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2062           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1719           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1719           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          5
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 49_2040_WP_Mit_PM_Peak_SR-60_WB_I-215_to_Box_Springs_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                I-215 to Box Springs Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10420          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2742           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2264           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2264           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.9           mi/h
Number of lanes, N                          5
Density, D                                  39.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2040_WP_Mit_AM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9220           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2376           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.862
Driver population factor, fp                1.00
Flow rate, vp                               1838           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1838           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.3           mi/h
Number of lanes, N                          6
Density, D                                  28.2           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 51_2040_WP_Mit_PM_Peak_SR-60_WB_Central_to_Martin_Luther_King.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Central to Martin Luther King
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10430          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2745           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Rolling
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    2.5
Recreational vehicle PCE, ER                2.0
Heavy vehicle adjustment, fHV               0.909
Driver population factor, fp                1.00
Flow rate, vp                               2013           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2013           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.3           mi/h
Number of lanes, N                          6
Density, D                                  32.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2040_WP_Mit_AM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5900           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1521           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1577           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1577           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.4           mi/h
Number of lanes, N                          4
Density, D                                  23.1           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 56_2040_WP_Mit_PM_Peak_SR-60_WB_Main_St_to_Market_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Main St to Market St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6290           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1655           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1700           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1700           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.1           mi/h
Number of lanes, N                          4
Density, D                                  25.3           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2040_WP_Mit_AM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1211           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1244           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1244           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 57_2040_WP_Mit_PM_Peak_SR-60_WB_Market_St_to_Rubidoux_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Market St to Rubidoux Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6770          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1782          v
Trucks and buses                            3             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               1812          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1812          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.7          mi/h
Number of lanes, N                          4
Density, D                                  27.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2040_WP_Mit_AM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4410           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1137           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1179           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1179           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  16.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 58_2040_WP_Mit_PM_Peak_SR-60_WB_Rubidoux_Blvd_to_Valley_Way.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Rubidoux Blvd to Valley Way
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6660           veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     1753           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1800           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1800           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          4
Density, D                                  27.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2040_WP_Mit_AM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7760           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2000           v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               1403           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1403           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.5           mi/h
Number of lanes, N                          6
Density, D                                  20.2           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 67_2040_WP_Mit_PM_Peak_SR-60_WB_Archibald_Ave_to_Vineyard_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Archibald Ave to Vineyard Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10640          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2800           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1926           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1926           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              63.9           mi/h
Number of lanes, N                          6
Density, D                                  30.1           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2040_WP_Mit_AM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6610           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1704           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1161           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1161           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          6
Density, D                                  16.6           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 68_2040_WP_Mit_PM_Peak_SR-60_WB_Vineyard_Ave_to_Grove_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-60 WB
From/To:                Vineyard Ave to Grove Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10690          veh/h
Peak-hour factor, PHF                       0.95
Peak 15-min volume, v15                     2813           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1917           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          6
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1917           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.0           mi/h
Number of lanes, N                          6
Density, D                                  29.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2040_WP_Mit_AM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6880          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1773          v
Trucks and buses                            4             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1812          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1812          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.7          mi/h
Number of lanes, N                          4
Density, D                                  27.6          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 76_2040_WP_Mit_PM_Peak_SR-91_EB_McKinley_St_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                McKinley St to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6490           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1745           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1800           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1800           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.8           mi/h
Number of lanes, N                          4
Density, D                                  27.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2040_WP_Mit_AM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2149           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2218           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2218           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.0           mi/h
Number of lanes, N                          4
Density, D                                  38.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 77_2040_WP_Mit_PM_Peak_SR-91_EB_Pierce_St_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Pierce St to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8240           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2215           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2297           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2297           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              56.0           mi/h
Number of lanes, N                          4
Density, D                                  41.0           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2040_WP_Mit_AM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8790           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2265           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1861           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1861           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          5
Density, D                                  28.7           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 79_2040_WP_Mit_PM_Peak_SR-91_EB_La_Sierra_Ave_to_Tyler_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                La Sierra Ave to Tyler St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8300          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2231          v
Trucks and buses                            6             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1842          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1842          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              65.2          mi/h
Number of lanes, N                          5
Density, D                                  28.2          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2040_WP_Mit_AM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8810           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2271           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1856           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1856           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.0           mi/h
Number of lanes, N                          5
Density, D                                  28.6           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 80_2040_WP_Mit_PM_Peak_SR-91_EB_Tyler_St_to_Van_Buren_Blvd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Tyler St to Van Buren Blvd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9040           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2430           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1997           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1997           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              62.6           mi/h
Number of lanes, N                          5
Density, D                                  31.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2040_WP_Mit_AM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8760          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2258          v
Trucks and buses                            7             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2341          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2341          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              54.9          mi/h
Number of lanes, N                          4
Density, D                                  42.6          pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 82_2040_WP_Mit_PM_Peak_SR-91_EB_Adam_St_to_Madison_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Adam St to Madison St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9910           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2664           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2749           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2749           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              42.2           mi/h
Number of lanes, N                          4
Density, D                                  65.2           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2040_WP_Mit_AM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6970          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1796          v
Trucks and buses                            12            %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1908          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1908          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              64.2          mi/h
Number of lanes, N                          4
Density, D                                  29.7          pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 85_2040_WP_Mit_PM_Peak_SR-91_EB_Central_Ave_to_14th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 EB
From/To:                Central Ave to 14th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6420           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     1726           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1798           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1798           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.9           mi/h
Number of lanes, N                          4
Density, D                                  27.3           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2040_WP_Mit_AM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8060           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2077           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2144           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2144           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.7           mi/h
Number of lanes, N                          4
Density, D                                  35.9           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 97_2040_WP_Mit_PM_Peak_SR-91_WB_La_Sierra_Ave_to_Magnolia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                La Sierra Ave to Magnolia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9010           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2422           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2475           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2475           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              51.1           mi/h
Number of lanes, N                          4
Density, D                                  48.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2040_WP_Mit_AM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8270           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2131           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2200           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2200           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              58.4           mi/h
Number of lanes, N                          4
Density, D                                  37.7           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 98_2040_WP_Mit_PM_Peak_SR-91_WB_Magnolia_Ave_to_Pierce_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                Magnolia Ave to Pierce St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   9490           veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2551           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               2607           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2607           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              47.0           mi/h
Number of lanes, N                          4
Density, D                                  55.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2040_WP_Mit_AM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                Pierce St to McKinley St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   8290           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2137           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               2226           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2226           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              57.8           mi/h
Number of lanes, N                          4
Density, D                                  38.5           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 99_2040_WP_Mit_PM_Peak_SR-91_WB_Pierce_St_to_McKinley_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       SR-91 WB
From/To:                 Pierce St to McKinley St
Jurisdiction:            Caltrans
Analysis Year:           2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10050          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2702           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               2788           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2788           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              40.7           mi/h
Number of lanes, N                          4
Density, D                                  68.4           pc/mi/ln
Level of service, LOS                       F

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2040_WP_Mit_AM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7930          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2044          v
Trucks and buses                            8             %
Recreational vehicles                       1             %
Terrain type:                               Level
    Grade                                   -             %
    Segment length                          -             mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1704          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -             ft
Right-side lateral clearance                -             ft
Total ramp density, TRD                     -             ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0          mi/h
Lane width adjustment, fLW                  -             mi/h
Lateral clearance adjustment, fLC           -             mi/h
TRD adjustment                              -             mi/h
Free-flow speed, FFS                        70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1704          pc/h/ln
Free-flow speed, FFS                        70.0          mi/h
Average passenger-car speed, S              67.1          mi/h
Number of lanes, N                          5
Density, D                                  25.4          pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 100_2040_WP_Mit_PM_Peak_SR-91_WB_McKinley_St_to_I-15.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      SR-91 WB
From/To:                McKinley St to I-15
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   10840          veh/h
Peak-hour factor, PHF                       0.93
Peak 15-min volume, v15                     2914           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               2394           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2394           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              53.5           mi/h
Number of lanes, N                          5
Density, D                                  44.8           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2040_WP_Mit_AM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7030           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2044           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1712           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1712           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.0           mi/h
Number of lanes, N                          5
Density, D                                  25.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 120_2040_WP_Mit_PM_Peak_I-10_WB_Main_St_to_Field_Rd.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Main St to Field Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5160           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1330           v
Trucks and buses                            13             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.937
Driver population factor, fp                1.00
Flow rate, vp                               1135           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1135           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.2           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2040_WP_Mit_AM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7420           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2157           v
Trucks and buses                            9              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.955
Driver population factor, fp                1.00
Flow rate, vp                               1807           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1807           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.7           mi/h
Number of lanes, N                          5
Density, D                                  27.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 121_2040_WP_Mit_PM_Peak_I-10_WB_Field_Rd_to_N_Hargrave_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Field Rd to N Hargrave St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5340           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1376           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1169           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1169           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.7           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2040_WP_Mit_AM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7700           veh/h
Peak-hour factor, PHF                       0.86
Peak 15-min volume, v15                     2238           v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               1866           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1866           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.9           mi/h
Number of lanes, N                          5
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 122_2040_WP_Mit_PM_Peak_I-10_WB_N_Hargrave_St_to_S_8th_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                N Hargrave St to S 8th St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5690           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1466           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               1246           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1246           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  17.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2040_WP_Mit_AM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Direction:       I-10 WB
From/To:                 Sunset to Highland Springs
Jurisdiction:            Caltrans
Analysis Year:           2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    7960          veh/h
Peak-hour factor, PHF                        0.86
Peak 15-min volume, v15                      2314          v
Trucks and buses                             8             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.960
Driver population factor, fp                 1.00
Flow rate, vp                                1929          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           5
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1929          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               63.8          mi/h
Number of lanes, N                           5
Density, D                                   30.2          pc/mi/ln
Level of service, LOS                        D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 125_2040_WP_Mit_PM_Peak_I-10_WB_Sunset_to_Highland_Springs.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-10 WB
From/To:                Sunset to Highland Springs
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5970           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1539           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1301           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1301           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.9           mi/h
Number of lanes, N                          5
Density, D                                  18.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 134_2040_WP_Mit_AM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-60 to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3000           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     815            v
Trucks and buses                            10             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.951
Driver population factor, fp                1.00
Flow rate, vp                               858            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               858            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  12.3           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 134_2040_WP_Mit_PM_Peak_I-215_NB_SR-60_to_Columbia_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                SR-60 to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   3590           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     925            v
Trucks and buses                            8              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.960
Driver population factor, fp                1.00
Flow rate, vp                               964            pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               964            pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          4
Density, D                                  13.8           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2040_WP_Mit_AM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1446           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1182           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1182           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              70.0           mi/h
Number of lanes, N                          5
Density, D                                  16.9           pc/mi/ln
Level of service, LOS                       B

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 141_2040_WP_Mit_PM_Peak_I-215_NB_Auto_Plaza_Dr_to_Mill_St.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Auto Plaza Dr to Mill St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   11160          veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2876           v
Trucks and buses                            3              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.983
Driver population factor, fp                1.00
Flow rate, vp                               2340           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          5
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2340           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              54.9           mi/h
Number of lanes, N                          5
Density, D                                  42.6           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2040_WP_Mit_AM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6260           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1613           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1657           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1657           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              67.6           mi/h
Number of lanes, N                          4
Density, D                                  24.5           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 151_2040_WP_Mit_PM_Peak_I-215_SB_Washington_St_to_Barton_Rd_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Washington St to Barton Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5680           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1449           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1488           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1488           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.0           mi/h
Number of lanes, N                          4
Density, D                                  21.6           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2040_WP_Mit_AM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6830           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1760           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1825           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1825           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              65.5           mi/h
Number of lanes, N                          4
Density, D                                  27.9           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 152_2040_WP_Mit_PM_Peak_I-215_SB_Barton_Rd_to_Iowa_Ave.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Barton Rd to Iowa Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   5320           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1357           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1394           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1394           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.6           mi/h
Number of lanes, N                          4
Density, D                                  20.0           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2040_WP_Mit_AM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Iowa Ave to Center St
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7700           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1985           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               2058           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2058           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              61.5           mi/h
Number of lanes, N                          4
Density, D                                  33.5           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                    HCS 2010: Basic Freeway Segments Release 6.3

File Name: 153_2040_WP_Mit_PM_Peak_I-215_SB_Iowa_Ave_to_Center_St_.xhf

_________________________Operational Analysis__________________________________

Analyst:                 MM
Agency or Company:       WSP
Date Performed:          04/24/2018
Analysis Time Period:    PM Peak
Freeway/Direction:       I-215 SB
From/To:                 Iowa Ave to Center St
Jurisdiction:            Caltrans
Analysis Year:           2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    6030           veh/h
Peak-hour factor, PHF                        0.98
Peak 15-min volume, v15                      1538           v
Trucks and buses                             7              %
Recreational vehicles                        1              %
Terrain type:                                Level
    Grade                                    -              %
    Segment length                           -              mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1595           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -              ft
Right-side lateral clearance                 -              ft
Total ramp density, TRD                      -              ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0           mi/h
Lane width adjustment, fLW                   -              mi/h
Lateral clearance adjustment, fLC            -              mi/h
TRD adjustment                               -              mi/h
Free-flow speed, FFS                         70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1595           pc/h/ln
Free-flow speed, FFS                         70.0           mi/h
Average passenger-car speed, S               68.2           mi/h
Number of lanes, N                           4
Density, D                                   23.4           pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 155_2040_WP_Mit_AM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Columbia Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7880           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     2031           v
Trucks and buses                            12             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.942
Driver population factor, fp                1.00
Flow rate, vp                               2157           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               2157           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              59.4           mi/h
Number of lanes, N                          4
Density, D                                  36.3           pc/mi/ln
Level of service, LOS                       E

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 155_2040_WP_Mit_PM_Peak_I-215_SB_Columbia_Ave_to_SR-60_.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Columbia Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6930           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1768           v
Trucks and buses                            11             %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.946
Driver population factor, fp                1.00
Flow rate, vp                               1869           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1869           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                  HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2040_WP_Mit_AM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                    4560          veh/h
Peak-hour factor, PHF                        0.92
Peak 15-min volume, v15                      1239          v
Trucks and buses                             7             %
Recreational vehicles                        1             %
Terrain type:                                Level
    Grade                                    -             %
    Segment length                           -             mi
Trucks and buses PCE, ET                     1.5
Recreational vehicle PCE, ER                 1.2
Heavy vehicle adjustment, fHV                0.964
Driver population factor, fp                 1.00
Flow rate, vp                                1285          pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                   -             ft
Right-side lateral clearance                 -             ft
Total ramp density, TRD                      -             ramps/mi
Number of lanes, N                           4
Free-flow speed:                             Measured
     FFS or BFFS                             70.0          mi/h
Lane width adjustment, fLW                   -             mi/h
Lateral clearance adjustment, fLC            -             mi/h
TRD adjustment                               -             mi/h
Free-flow speed, FFS                         70.0          mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                                1285          pc/h/ln
Free-flow speed, FFS                         70.0          mi/h
Average passenger-car speed, S               69.9          mi/h
Number of lanes, N                           4
Density, D                                   18.4          pc/mi/ln
Level of service, LOS                        C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 175_2040_WP_Mit_PM_Peak_I-215_NB_Alessandro_Blvd_to_Eucalyptus.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Alessandro Blvd to Eucalyptus
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6500           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1675           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1720           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1720           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              66.9           mi/h
Number of lanes, N                          4
Density, D                                  25.7           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2040_WP_Mit_AM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   4690           veh/h
Peak-hour factor, PHF                       0.92
Peak 15-min volume, v15                     1274           v
Trucks and buses                            7              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.964
Driver population factor, fp                1.00
Flow rate, vp                               1322           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1322           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              69.8           mi/h
Number of lanes, N                          4
Density, D                                  18.9           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 176_2040_WP_Mit_PM_Peak_I-215_NB_Eucalyptus_Ave_to_SR-60.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 NB
From/To:                Eucalyptus Ave to SR-60
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7060           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1820           v
Trucks and buses                            5              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.974
Driver population factor, fp                1.00
Flow rate, vp                               1869           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1869           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.8           mi/h
Number of lanes, N                          4
Density, D                                  28.8           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2040_WP_Mit_AM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   7290           veh/h
Peak-hour factor, PHF                       0.97
Peak 15-min volume, v15                     1879           v
Trucks and buses                            4              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.978
Driver population factor, fp                1.00
Flow rate, vp                               1920           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1920           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              64.0           mi/h
Number of lanes, N                          4
Density, D                                  30.0           pc/mi/ln
Level of service, LOS                       D

  Overall results are not computed when free-flow speed is less than 55 mph.
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                 HCS 2010: Basic Freeway Segments Release 6.3

File Name: 178_2040_WP_Mit_PM_Peak_I-215_SB_Eucalyptus_to_Alessandro.xhf

_________________________Operational Analysis__________________________________

Analyst:                MM
Agency or Company:      WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Direction:      I-215 SB
From/To:                Eucalyptus to Alessandro
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

_________________________Flow Inputs and Adjustments___________________________

Volume, V                                   6070           veh/h
Peak-hour factor, PHF                       0.98
Peak 15-min volume, v15                     1548           v
Trucks and buses                            6              %
Recreational vehicles                       1              %
Terrain type:                               Level
    Grade                                   -              %
    Segment length                          -              mi
Trucks and buses PCE, ET                    1.5
Recreational vehicle PCE, ER                1.2
Heavy vehicle adjustment, fHV               0.969
Driver population factor, fp                1.00
Flow rate, vp                               1598           pc/h/ln

_________________________Speed Inputs and Adjustments__________________________

Lane width                                  -              ft
Right-side lateral clearance                -              ft
Total ramp density, TRD                     -              ramps/mi
Number of lanes, N                          4
Free-flow speed:                            Measured
     FFS or BFFS                            70.0           mi/h
Lane width adjustment, fLW                  -              mi/h
Lateral clearance adjustment, fLC           -              mi/h
TRD adjustment                              -              mi/h
Free-flow speed, FFS                        70.0           mi/h

_________________________LOS and Performance Measures__________________________

Flow rate, vp                               1598           pc/h/ln
Free-flow speed, FFS                        70.0           mi/h
Average passenger-car speed, S              68.2           mi/h
Number of lanes, N                          4
Density, D                                  23.4           pc/mi/ln
Level of service, LOS                       C

  Overall results are not computed when free-flow speed is less than 55 mph.
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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2040_WP_Mit_AM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7109    731     621     69      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1911    197     167     19
Trucks and buses                       5       3       18      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.916   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7850    799     729     75      pc/h

Volume ratio, VR                               0.162

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        729         lc/h
Weaving lane changes, LCW                  1069        lc/h
Non-weaving vehicle index, INW             555
Non-weaving lane change, LCNW              1049        lc/h
Total lane changes, LCALL                  2118        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.541
Average weaving speed, SW                  50.7        mi/h
Average non-weaving speed, SNW             55.7        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.8        mi/h
Weaving segment density, D                 34.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.882
Weaving segment flow rate, v               9453        pc/h
Weaving segment capacity, cW               10399       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4148        700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2136         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.882        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 20_2040_WP_Mit_PM_Peak_SR-60_EB_Main_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Main St to SR-91
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  700         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5348    522     822     58      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1364    133     210     15
Trucks and buses                       6       3       18      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.983   0.916   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5632    542     916     60      pc/h

Volume ratio, VR                               0.204

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        916         lc/h
Weaving lane changes, LCW                  1256        lc/h
Non-weaving vehicle index, INW             398
Non-weaving lane change, LCNW              589         lc/h
Total lane changes, LCALL                  1845        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.486
Average weaving speed, SW                  52.0        mi/h
Average non-weaving speed, SNW             56.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.6        mi/h
Weaving segment density, D                 25.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.676
Weaving segment flow rate, v               7150        pc/h
Weaving segment capacity, cW               10189       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4576         700         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2103         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.676        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2040_WP_Mit_AM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6655    1995    585     65      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1789    536     157     17
Trucks and buses                       5       4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7349    2192    637     71      pc/h

Volume ratio, VR                               0.276

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2192        lc/h
Weaving lane changes, LCW                  2945        lc/h
Non-weaving vehicle index, INW             928
Non-weaving lane change, LCNW              1050        lc/h
Total lane changes, LCALL                  3995        lc/h

_______________________Weaving and Non-Weaving Speeds_________________________
Weaving intensity factor, W                0.565
Average weaving speed, SW                  50.1        mi/h
Average non-weaving speed, SNW             46.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   47.1        mi/h
Weaving segment density, D                 36.3        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.810
Weaving segment flow rate, v               10249       pc/h
Weaving segment capacity, cW               12347       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3762         1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2208         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.810        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 21_2040_WP_Mit_PM_Peak_SR-60_EB_SR-91_to_Blaine_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             SR-91 to Blaine St
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7943    2197    567     63      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2026    560     145     16
Trucks and buses                       16      7       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.924   0.964   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8770    2325    586     65      pc/h

Volume ratio, VR                               0.248

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                  3078        lc/h
Non-weaving vehicle index, INW             1104
Non-weaving lane change, LCNW              1342        lc/h
Total lane changes, LCALL                  4420        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.612
Average weaving speed, SW                  49.1        mi/h
Average non-weaving speed, SNW             43.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   45.1        mi/h
Weaving segment density, D                 43.4        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.888
Weaving segment flow rate, v               11746       pc/h
Weaving segment capacity, cW               12372       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3465        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2230         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.888        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2040_WP_Mit_AM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8049    551     621     29      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2164    148     167     8
Trucks and buses                       5       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8889    603     676     32      pc/h

Volume ratio, VR                               0.125

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1279        lc/h
Weaving lane changes, LCW                  2160        lc/h
Non-weaving vehicle index, INW             1427
Non-weaving lane change, LCNW              1966        lc/h
Total lane changes, LCALL                  4126        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.477
Average weaving speed, SW                  52.2        mi/h
Average non-weaving speed, SNW             52.6        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.6        mi/h
Weaving segment density, D                 32.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.762
Weaving segment flow rate, v               10200       pc/h
Weaving segment capacity, cW               13046       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           3788        1600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2233         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.762        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 22_2040_WP_Mit_PM_Peak_SR-60_EB_Blaine_St_to_University_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Blaine St to University Ave
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1600        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7346    994     484     26      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1874    254     123     7
Trucks and buses                       15      2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8073    1026    500     27      pc/h

Volume ratio, VR                               0.159

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1526        lc/h
Weaving lane changes, LCW                  2407        lc/h
Non-weaving vehicle index, INW             1296
Non-weaving lane change, LCNW              1380        lc/h
Total lane changes, LCALL                  3787        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.446
Average weaving speed, SW                  53.0        mi/h
Average non-weaving speed, SNW             51.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.6        mi/h
Weaving segment density, D                 31.1        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.734
Weaving segment flow rate, v               9626        pc/h
Weaving segment capacity, cW               12295       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4117        1600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2207         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.734        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2040_WP_Mit_AM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7794    636     816     34      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2095    171     219     9
Trucks and buses                       7       5       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.974   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8691    702     888     37      pc/h

Volume ratio, VR                               0.154

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        888         lc/h
Weaving lane changes, LCW                  1579        lc/h
Non-weaving vehicle index, INW             960
Non-weaving lane change, LCNW              1239        lc/h
Total lane changes, LCALL                  2818        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.475
Average weaving speed, SW                  52.3        mi/h
Average non-weaving speed, SNW             55.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.9        mi/h
Weaving segment density, D                 31.3        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.794
Weaving segment flow rate, v               10318       pc/h
Weaving segment capacity, cW               12573       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4072        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2173         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.794        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 23_2040_WP_Mit_PM_Peak_SR-60_EB_University_Ave_to_MLK_Blvd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             University Ave to MLK Blvd
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1100        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7306    814     674     36      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1864    208     172     9
Trucks and buses                       10      3       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.951   0.983   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7843    845     699     37      pc/h

Volume ratio, VR                               0.164

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        699         lc/h
Weaving lane changes, LCW                  1390        lc/h
Non-weaving vehicle index, INW             867
Non-weaving lane change, LCNW              1064        lc/h
Total lane changes, LCALL                  2454        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.426
Average weaving speed, SW                  53.6        mi/h
Average non-weaving speed, SNW             57.4        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.8        mi/h
Weaving segment density, D                 27.7        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.730
Weaving segment flow rate, v               9424        pc/h
Weaving segment capacity, cW               12348       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4170        1100        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2165         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.730        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2040_WP_Mit_AM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis______________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs_______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions_____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7778    962     532     28      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                2091    259     143     8
Trucks and buses                       10      6       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.862   0.909   0.922   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9702    1138    621     31      pc/h

Volume ratio, VR                               0.153

_________________________Configuration Characteristics__________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        621         lc/h
Weaving lane changes, LCW                  1940        lc/h
Non-weaving vehicle index, INW             3270
Non-weaving lane change, LCNW              3859        lc/h
Total lane changes, LCALL                  5799        lc/h

_______________________Weaving and Non-Weaving Speeds___________________________
Weaving intensity factor, W                0.401
Average weaving speed, SW                  54.2        mi/h
Average non-weaving speed, SNW             56.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.0        mi/h
Weaving segment density, D                 34.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.839
Weaving segment flow rate, v               11492       pc/h
Weaving segment capacity, cW               11912       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4062        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2304         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.839        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 25_2040_WP_Mit_PM_Peak_SR-60_EB_Central_Ave_to_Box_Springs.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Central Ave to Box Springs
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  2800        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Rolling
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7471    1219    769     41      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1906    311     196     10
Trucks and buses                       10      3       4       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               2.5     2.5     2.5     2.5
Recreational vehicle PCE, ER           2.0     2.0     2.0     2.0
Heavy vehicle adjustment, fHV          0.862   0.948   0.935   0.962
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8843    1312    840     44      pc/h

Volume ratio, VR                               0.195

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        840         lc/h
Weaving lane changes, LCW                  2159        lc/h
Non-weaving vehicle index, INW             2986
Non-weaving lane change, LCNW              3671        lc/h
Total lane changes, LCALL                  5830        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.403
Average weaving speed, SW                  54.2        mi/h
Average non-weaving speed, SNW             55.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.9        mi/h
Weaving segment density, D                 33.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.913
Weaving segment flow rate, v               11039       pc/h
Weaving segment capacity, cW               10613       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4485        2800        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2271         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.913        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2040_WP_Mit_AM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              1797    1843    693     77      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                483     495     186     21
Trucks and buses                       12      4       1       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.978   0.993   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2052    2025    750     84      pc/h

Volume ratio, VR                               0.565

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        2025        lc/h
Weaving lane changes, LCW                  2699        lc/h
Non-weaving vehicle index, INW             205
Non-weaving lane change, LCNW              0           lc/h
Total lane changes, LCALL                  2699        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.428
Average weaving speed, SW                  53.5        mi/h
Average non-weaving speed, SNW             51.5        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   52.6        mi/h
Weaving segment density, D                 15.6        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.813
Weaving segment flow rate, v               4911        pc/h
Weaving segment capacity, cW               5832        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           7031        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        1954         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.813        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 27_2040_WP_Mit_PM_Peak_SR-60_EB_I-215_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             I-215 to Day St
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1200        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8016    2524    504     56      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                2045    644     129     14
Trucks and buses                       6       6       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.969   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8441    2658    520     58      pc/h

Volume ratio, VR                               0.272

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     0.8         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN                     lc/h
Weaving lane changes, LCW                   3332        lc/h
Non-weaving vehicle index, INW              816
Non-weaving lane change, LCNW               1246        lc/h
Total lane changes, LCALL                   4578        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.650
Average weaving speed, SW                   48.3        mi/h
Average non-weaving speed, SNW              41.5        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   43.2        mi/h
Weaving segment density, D                 45.1        pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  0.909
Weaving segment flow rate, v               11677       pc/h
Weaving segment capacity, cW               12461       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3721        1200        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2207         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.909        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2040_WP_Mit_AM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2146    684     1404    36      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                577     184     377     10
Trucks and buses                       12      2       3       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.942   0.988   0.983   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           2451    744     1535    39      pc/h

Volume ratio, VR                               0.478

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        744         lc/h
Weaving lane changes, LCW                  1323        lc/h
Non-weaving vehicle index, INW             388
Non-weaving lane change, LCNW              255         lc/h
Total lane changes, LCALL                  1578        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.263
Average weaving speed, SW                  58.5        mi/h
Average non-weaving speed, SNW             60.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   59.3        mi/h
Weaving segment density, D                 16.1        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.666
Weaving segment flow rate, v               4769        pc/h
Weaving segment capacity, cW               6896        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            6003        1300        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2040         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.666        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 28_2040_WP_Mit_PM_Peak_SR-60_EB_Day_St_to_Pigeon_Pass_Rd.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 EB
Weaving Location:             Day St to Pigeon Pass Rd
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1300        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5041    1149    2289    61      veh/h
Peak hour factor, PHF                  0.98    0.98    0.98    0.98
Peak 15-min volume, v15                1286    293     584     16
Trucks and buses                       7       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.964   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5334    1187    2364    63      pc/h

Volume ratio, VR                               0.397

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.025
Weaving segment flow rate, v               8948        pc/h
Weaving segment capacity, cW               8505        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5080        1300         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2111         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        1.025        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2040_WP_Mit_AM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3566    684     1184    36      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                919     176     305     9
Trucks and buses                       8       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.960   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3831    717     1235    38      pc/h

Volume ratio, VR                               0.335

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1952        lc/h
Weaving lane changes, LCW                  2435        lc/h
Non-weaving vehicle index, INW             929
Non-weaving lane change, LCNW              1111        lc/h
Total lane changes, LCALL                  3546        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.355
Average weaving speed, SW                  55.6        mi/h
Average non-weaving speed, SNW             49.0        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   51.0        mi/h
Weaving segment density, D                 28.5        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.821
Weaving segment flow rate, v               5821        pc/h
Weaving segment capacity, cW               6868        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5966        2000        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2097         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.821        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 47_2040_WP_Mit_PM_Peak_SR-60_WB_Pigeon_Pass_Rd_to_Day_St.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Pigeon Pass Rd to Day St
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          4           ln
Weaving segment length, LS                  2000        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              2700    370     870     20      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                711     97      229     5
Trucks and buses                       11      4       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.978   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3004    398     927     21      pc/h

Volume ratio, VR                               0.305

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1325        lc/h
Weaving lane changes, LCW                  1808        lc/h
Non-weaving vehicle index, INW             726
Non-weaving lane change, LCNW              937         lc/h
Total lane changes, LCALL                  2745        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.290
Average weaving speed, SW                  57.6        mi/h
Average non-weaving speed, SNW             55.2        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 19.4        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.559
Weaving segment flow rate, v               4350        pc/h
Weaving segment capacity, cW               7454        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           5633        2000         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2122         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.559        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2040_WP_Mit_AM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              3461    1269    1959    141     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                892     327     505     36
Trucks and buses                       9       2       9       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.955   0.988   0.955   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           3736    1324    2115    147     pc/h

Volume ratio, VR                               0.470

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1324        lc/h
Weaving lane changes, LCW                  2037        lc/h
Non-weaving vehicle index, INW             447
Non-weaving lane change, LCNW              268         lc/h
Total lane changes, LCALL                  2305        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.391
Average weaving speed, SW                  54.5        mi/h
Average non-weaving speed, SNW             54.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   54.6        mi/h
Weaving segment density, D                 22.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.989
Weaving segment flow rate, v               7322        pc/h
Weaving segment capacity, cW               7117        veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            5908        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2036         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.989        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 54_2040_WP_Mit_PM_Peak_SR-60_WB_W_Blaine_St_to_SR-91.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             W Blaine St to SR-91
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1150        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5855    1125    1435    125     veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                1541    296     378     33
Trucks and buses                       6       2       12      2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.942   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6360    1198    1604    133     pc/h

Volume ratio, VR                               0.301

_________________________Configuration Characteristics________________________
Number of maneuver lanes, NWL                 3           ln
Interchange density, ID                       1.0         int/mi
Minimum RF lane changes, LCRF                 1           lc/pc
Minimum FR lane changes, LCFR                 0           lc/pc
Minimum RR lane changes, LCRR                             lc/pc

Minimum weaving lane changes, LCMIN           1198        lc/h
Weaving lane changes, LCW                     1911        lc/h
Non-weaving vehicle index, INW                747
Non-weaving lane change, LCNW                 805         lc/h
Total lane changes, LCALL                     2716        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                   0.445
Average weaving speed, SW                     53.1        mi/h
Average non-weaving speed, SNW                53.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.7        mi/h
Weaving segment density, D                 28.9        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.799
Weaving segment flow rate, v               9295        pc/h
Weaving segment capacity, cW               11250       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4033        1150        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2180         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.799        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2040_WP_Mit_AM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              5132    598     838     32      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1323    154     216     8
Trucks and buses                       15      2       6       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.929   0.988   0.969   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5698    624     892     33      pc/h

Volume ratio, VR                               0.209

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1516        lc/h
Weaving lane changes, LCW                  2546        lc/h
Non-weaving vehicle index, INW             1100
Non-weaving lane change, LCNW              1326        lc/h
Total lane changes, LCALL                  3872        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.330
Average weaving speed, SW                  56.4        mi/h
Average non-weaving speed, SNW             53.3        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.9        mi/h
Weaving segment density, D                 22.4        pc/mi/ln
Level of service, LOS                      C
Weaving segment v/c ratio                  0.639
Weaving segment flow rate, v               7247        pc/h
Weaving segment capacity, cW               10653       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           4630         2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400         2230         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00         0.639        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 66_2040_WP_Mit_PM_Peak_SR-60_WB_Haven_Ave_to_Archibald_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-60 WB
Weaving Location:             Haven Ave to Archibald Ave
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  2400        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7873    817     1027    43      veh/h
Peak hour factor, PHF                  0.95    0.95    0.95    0.95
Peak 15-min volume, v15                2072    215     270     11
Trucks and buses                       11      2       5       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.946   0.988   0.974   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           8760    870     1110    46      pc/h

Volume ratio, VR                               0.184

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              2           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        1980        lc/h
Weaving lane changes, LCW                  3010        lc/h
Non-weaving vehicle index, INW             1691
Non-weaving lane change, LCNW              2977        lc/h
Total lane changes, LCALL                  5987        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.465
Average weaving speed, SW                  52.5        mi/h
Average non-weaving speed, SNW             47.1        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   48.0        mi/h
Weaving segment density, D                 37.4        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.831
Weaving segment flow rate, v               10786       pc/h
Weaving segment capacity, cW               12369       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            4369        2400        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2249         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.831        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2040_WP_Mit_AM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              7311    589     799     31      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1884    152     206     8
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7778    615     834     32      pc/h

Volume ratio, VR                               0.156

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        615         lc/h
Weaving lane changes, LCW                  1199        lc/h
Non-weaving vehicle index, INW             1062
Non-weaving lane change, LCNW              1567        lc/h
Total lane changes, LCALL                  2766        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.332
Average weaving speed, SW                  56.3        mi/h
Average non-weaving speed, SNW             56.7        mi/h
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```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   56.6        mi/h
Weaving segment density, D                 32.7        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.795
Weaving segment flow rate, v               9259        pc/h
Weaving segment capacity, cW               11318       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2530        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2337         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.795        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 78_2040_WP_Mit_PM_Peak_SR-91_EB_Magnolia_Ave_to_La_Sierra.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 EB
Weaving Location:             Magnolia Ave to La Sierra
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  1700        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6153    817     1097    43      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                1654    220     295     12
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           6828    889     1194    47      pc/h

Volume ratio, VR                               0.233

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        889         lc/h
Weaving lane changes, LCW                  1473        lc/h
Non-weaving vehicle index, INW             935
Non-weaving lane change, LCNW              1375        lc/h
Total lane changes, LCALL                  2848        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.340
Average weaving speed, SW                  56.1        mi/h
Average non-weaving speed, SNW             55.0        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.2        mi/h
Weaving segment density, D                 32.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.790
Weaving segment flow rate, v               8958        pc/h
Weaving segment capacity, cW               11032       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            3305        1700        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2277         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.790        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2040_WP_Mit_AM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              8889    621     841     69      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2291    160     217     18
Trucks and buses                       5       18      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.974   0.916   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9411    699     877     72      pc/h

Volume ratio, VR                               0.143

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        877         lc/h
Weaving lane changes, LCW                  1430        lc/h
Non-weaving vehicle index, INW             842
Non-weaving lane change, LCNW              1199        lc/h
Total lane changes, LCALL                  2629        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.614
Average weaving speed, SW                  49.1        mi/h
Average non-weaving speed, SNW             54.8        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.9        mi/h
Weaving segment density, D                 34.2        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.809
Weaving segment flow rate, v               11059       pc/h
Weaving segment capacity, cW               13285       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2391        740         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2273         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.809        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 88_2040_WP_Mit_PM_Peak_SR-91_WB_SR-60_to_Mission_Inn_Ave.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             SR-60 to Mission Inn Ave
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  740         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              11224   806     666     74      veh/h
Peak hour factor, PHF                  0.93    0.93    0.93    0.93
Peak 15-min volume, v15                3017    217     179     20
Trucks and buses                       3       18      2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.916   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           12274   946     725     81      pc/h

Volume ratio, VR                               0.119

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.2         int/mi
Minimum RF lane changes, LCRF              0           lc/pc
Minimum FR lane changes, LCFR              1           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN                    lc/h
Weaving lane changes, LCW                              lc/h
Non-weaving vehicle index, INW
Non-weaving lane change, LCNW                          lc/h
Total lane changes, LCALL                              lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W
Average weaving speed, SW                              mi/h
Average non-weaving speed, SNW                         mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                               mi/h
Weaving segment density, D                             pc/mi/ln
Level of service, LOS                      F
Weaving segment v/c ratio                  1.016
Weaving segment flow rate, v               14026       pc/h
Weaving segment capacity, cW               13516       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300           2160         740         a,b
                                        Maximum       Analyzed
Density-based capacty,                     2400        2291          c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                  1.00        1.016         d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2040_WP_Mit_AM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        SR-91 WB
Weaving Location:             Central Ave to Arlington
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          5           ln
Weaving segment length, LS                  600         ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              6964    646     456     24      veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                1795    166     118     6
Trucks and buses                       6       2       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.969   0.988   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           7409    674     476     25      pc/h

Volume ratio, VR                               0.134

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    1.0         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        674         lc/h
Weaving lane changes, LCW                  968         lc/h
Non-weaving vehicle index, INW             446
Non-weaving lane change, LCNW              894         lc/h
Total lane changes, LCALL                  1862        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.552
Average weaving speed, SW                  50.4        mi/h
Average non-weaving speed, SNW             56.9        mi/h
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_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   55.9        mi/h
Weaving segment density, D                 30.7        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.759
Weaving segment flow rate, v               8584        pc/h
Weaving segment capacity, cW               10993       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2306        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2269         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.759        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                     HCS 2010: Freeway Weaving Release 6.3

File Name: 91_2040_WP_Mit_PM_Peak_SR-91_WB_Central_Ave_to_Arlington.xhw

______________________________Operational Analysis_____________________________

Analyst:                     MM
Agency/Co.:                  WSP
Date Performed:              04/24/2018
Analysis Time Period:        PM Peak
Freeway/Dir of Travel:       SR-91 WB
Weaving Location:            Central Ave to Arlington
Analysis Year:               2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                 Freeway
Weaving configuration                        One-Sided
Number of lanes, N                           5           ln
Weaving segment length, LS                   600         ft
Freeway free-flow speed, FFS                 70          mi/h
Minimum segment speed, SMIN                  15          mi/h
Freeway maximum capacity, cIFL               2400        pc/h/ln

Terrain type                                 Level
    Grade                                    -           %
    Length                                   -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                        Volume Components
                                       VFF     VRF     VFR     VRR
Volume, V                               5932    1008    408     22      veh/h
Peak hour factor, PHF                   0.93    0.93    0.93    0.93
Peak 15-min volume, v15                 1595    271     110     6
Trucks and buses                        4       2       3       2         %
Recreational vehicles                   1       1       1       1         %
Trucks and buses PCE, ET                1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER            1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV           0.978   0.988   0.983   0.988
Driver population adjustment, fP        1.00    1.00    1.00    1.00
Flow rate, v                            6519    1097    446     24      pc/h

Volume ratio, VR                                0.191

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL               3           ln
Interchange density, ID                     1.0         int/mi
Minimum RF lane changes, LCRF               1           lc/pc
Minimum FR lane changes, LCFR               0           lc/pc
Minimum RR lane changes, LCRR                           lc/pc

Minimum weaving lane changes, LCMIN         1097        lc/h
Weaving lane changes, LCW                   1391        lc/h
Non-weaving vehicle index, INW              393
Non-weaving lane change, LCNW               710         lc/h
Total lane changes, LCALL                   2101        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                 0.607
Average weaving speed, SW                   49.2        mi/h
Average non-weaving speed, SNW              54.3        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.3        mi/h
Weaving segment density, D                 30.4        pc/mi/ln
Level of service, LOS                      D
Weaving segment v/c ratio                  0.728
Weaving segment flow rate, v               8086        pc/h
Weaving segment capacity, cW               10890       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2877        600         a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2226         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.728        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2040_WP_Mit_AM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         AM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              4865    645     585     65      veh/h
Peak hour factor, PHF                  0.92    0.92    0.92    0.92
Peak 15-min volume, v15                1322    175     159     18
Trucks and buses                       4       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.978   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           5404    713     644     72      pc/h

Volume ratio, VR                               0.199

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL             3           ln
Interchange density, ID                   0.8         int/mi
Minimum RF lane changes, LCRF             1           lc/pc
Minimum FR lane changes, LCFR             0           lc/pc
Minimum RR lane changes, LCRR                         lc/pc

Minimum weaving lane changes, LCMIN       713         lc/h
Weaving lane changes, LCW                 1406        lc/h
Non-weaving vehicle index, INW            548
Non-weaving lane change, LCNW             650         lc/h
Total lane changes, LCALL                 2056        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W               0.335
Average weaving speed, SW                 56.2        mi/h
Average non-weaving speed, SNW            59.4        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   58.7        mi/h
Weaving segment density, D                 19.4        pc/mi/ln
Level of service, LOS                      B
Weaving segment v/c ratio                  0.503
Weaving segment flow rate, v               6833        pc/h
Weaving segment capacity, cW               13321       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2956        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2269         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.503        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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                        HCS 2010: Freeway Weaving Release 6.3

File Name: 140_2040_WP_Mit_PM_Peak_I-215_NB_I-10_to_Auto_Plaza_Dr.xhw

______________________________Operational Analysis_____________________________

Analyst:                      MM
Agency/Co.:                   WSP
Date Performed:               04/24/2018
Analysis Time Period:         PM Peak
Freeway/Dir of Travel:        I-215 NB
Weaving Location:             I-10 to Auto Plaza Dr
Analysis Year:                2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

___________________________________Inputs______________________________________

Segment Type                                Freeway
Weaving configuration                       One-Sided
Number of lanes, N                          6           ln
Weaving segment length, LS                  1250        ft
Freeway free-flow speed, FFS                70          mi/h
Minimum segment speed, SMIN                 15          mi/h
Freeway maximum capacity, cIFL              2400        pc/h/ln

Terrain type                                Level
    Grade                                   -           %
    Length                                  -           mi

___________________Conversion to pc/h Under Base Conditions____________________
                                       Volume Components
                                      VFF     VRF     VFR     VRR
Volume, V                              9133    927     997     103     veh/h
Peak hour factor, PHF                  0.97    0.97    0.97    0.97
Peak 15-min volume, v15                2354    239     257     27
Trucks and buses                       3       3       2       2         %
Recreational vehicles                  1       1       1       1         %
Trucks and buses PCE, ET               1.5     1.5     1.5     1.5
Recreational vehicle PCE, ER           1.2     1.2     1.2     1.2
Heavy vehicle adjustment, fHV          0.983   0.983   0.988   0.988
Driver population adjustment, fP       1.00    1.00    1.00    1.00
Flow rate, v                           9576    972     1040    107     pc/h

Volume ratio, VR                               0.172

_________________________Configuration Characteristics_________________________
Number of maneuver lanes, NWL              3           ln
Interchange density, ID                    0.8         int/mi
Minimum RF lane changes, LCRF              1           lc/pc
Minimum FR lane changes, LCFR              0           lc/pc
Minimum RR lane changes, LCRR                          lc/pc

Minimum weaving lane changes, LCMIN        972         lc/h
Weaving lane changes, LCW                  1665        lc/h
Non-weaving vehicle index, INW             968
Non-weaving lane change, LCNW              1517        lc/h
Total lane changes, LCALL                  3182        lc/h

_______________________Weaving and Non-Weaving Speeds__________________________
Weaving intensity factor, W                0.472
Average weaving speed, SW                  52.4        mi/h
Average non-weaving speed, SNW             53.6        mi/h
```

```
_________Weaving Segment Speed, Density, Level of Service and Capacity_________
Weaving segment speed, S                   53.4        mi/h
Weaving segment density, D                 36.5        pc/mi/ln
Level of service, LOS                      E
Weaving segment v/c ratio                  0.852
Weaving segment flow rate, v               11695       pc/h
Weaving segment capacity, cW               13510       veh/h

_______________________Limitations on Weaving Segments_________________________
If limit reached, see note.

                          Minimum       Maximum       Actual       Note
Weaving length (ft)          300            2686        1250        a,b
                                        Maximum       Analyzed
Density-based capacty,                      2400        2290         c
cIWL (pc/h/ln)
                                        Maximum       Analyzed
v/c ratio                                   1.00        0.852        d

Notes:
a.  In weaving segments shorter than 300 ft, weaving vehicles are assumed to
    make only necessary lane changes.
b.  Weaving segments longer than the calculated maximum length should be
    treated as isolated merge and diverge areas using the procedures of
    Chapter 13, 'Freeway Merge and Diverge Segments.'
c.  The density-based capacity exceeds the capacity of a basic freeway segment,
    under equivalent ideal conditions.
d.  Volumes exceed the weaving segment capacity. The level of service is F.

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2040_WP_Mit_AM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           12170          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              560            vph
Length of first accel/decel lane            1000           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     850            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        12170       560         850       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                3272        147         224       v
Trucks and buses                       4           7           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.964       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          13374       611         905       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.141   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  1538   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     11485         12000           No
      FO
     v  or v               4668 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 5474                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                6085          4600                   Yes
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   46.4    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence E

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 1.964
                                              S
Space mean speed in ramp influence area,     S  = 15.0    mph
                                              R
Space mean speed in outer lanes,             S  = 61.1    mph
                                              0
Space mean speed for all vehicles,           S  = 23.3    mph
_______________________________________________________________________________
```

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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 2_2040_WP_Mit_PM_Peak_SR-60_EB_On-Ramp_from_MLK.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On-Ramp from MLK
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           9660          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              1390          vph
Length of first accel/decel lane            1000          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     710           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2400          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        9660        1390        710       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                2464        366         187       v
Trucks and buses                       7           1           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.964       0.993       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          10222       1473        760       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.034   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  260    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     9195          12000           No
      FO
     v  or v               3731 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 3088                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4561          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   34.1    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.624
                                              S
Space mean speed in ramp influence area,     S  = 52.5    mph
                                              R
Space mean speed in outer lanes,             S  = 63.4    mph
                                              0
Space mean speed for all vehicles,           S  = 57.5    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 50_2040_WP_Mit_AM_Peak_SR-60_EB_On_Ramp_from_SR-71_SB.xhr

_________________________________Merge Analysis________________________________

Analyst:                 MM
Agency/Co.:              WSP
Date Performed:          04/24/2018
Analysis Time Period:    AM Peak
Freeway/Dir of Travel:   SR-60 EB
Junction:                On Ramp from SR-71 SB
Jurisdiction:            Caltrans
Analysis Year:           2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0          mph
Volume on freeway                           5870          vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0          mph
Volume on ramp                              1900          vph
Length of first accel/decel lane            1500          ft
Length of second accel/decel lane                         ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1900          vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1700          ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        5870        1900        1900      vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                1578        500         500       v
Trucks and buses                       3           7           7         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.983       0.964       0.964
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6419        2074        2074      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    -0.041  Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  -201   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     6953          12000           No
      FO
     v  or v               2540 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 1951                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4025          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   26.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.434
                                              S
Space mean speed in ramp influence area,     S  = 57.8    mph
                                              R
Space mean speed in outer lanes,             S  = 66.5    mph
                                              0
Space mean speed for all vehicles,           S  = 61.2    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 50_2040_WP_Mit_PM_Peak_SR-60_EB_On_Ramp_from_SR-71_SB.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               On Ramp from SR-71 SB
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6290           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1380           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1380           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1700           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6290        1380        1380      vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1605        363         363       v
Trucks and buses                       6           8           8         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.960       0.960
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6624        1514        1514      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.029   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  138    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     6350          12000           No
      FO
     v  or v               2349 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 1934                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3448          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   22.3    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.339
                                              S
Space mean speed in ramp influence area,     S  = 60.5    mph
                                              R
Space mean speed in outer lanes,             S  = 66.6    mph
                                              0
Space mean speed for all vehicles,           S  = 63.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 51_2040_WP_Mit_AM_Peak_SR-60_EB_Off_Ramp_to_Reservoir_Rd.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off Ramp to Reservoir Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7770           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              390            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     390            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1700           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7770        390         390       vph
Peak-hour factor, PHF                  0.93        0.95        0.95
Peak 15-min volume, v15                2089        103         103       v
Trucks and buses                       4           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.978       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8539        415         415       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3213   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                6832          9600            No
      Fi   F
     v  = v - v            6417          9600            No
      FO   F   R
     v                     415           2000            No
      R
     v  or v               1809 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3213                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                3213          4400                   No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   29.2    pc/mi/ln
                        R                   12          D
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.465
                                              S
Space mean speed in ramp influence area,     S  = 57.0    mph
                                              R
Space mean speed in outer lanes,             S  = 73.6    mph
                                              0
Space mean speed for all vehicles,           S  = 64.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 51_2040_WP_Mit_PM_Peak_SR-60_EB_Off_Ramp_to_Reservoir_Rd.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  SR-60 EB
Junction:               Off Ramp to Reservoir Rd
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  5
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7670           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              360            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     360            vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1700           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7670        360         360       vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1957        95          95        v
Trucks and buses                       6           2           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.969       0.988       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8077        383         383       pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3033   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                6462          9600            No
      Fi   F
     v  = v - v            6079          9600            No
      FO   F   R
     v                     383           2000            No
      R
     v  or v               1714 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3033                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                3033          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   27.6    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence C

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.462
                                              S
Space mean speed in ramp influence area,     S  = 57.1    mph
                                              R
Space mean speed in outer lanes,             S  = 74.0    mph
                                              0
Space mean speed for all vehicles,           S  = 64.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 86_2040_WP_Mit_AM_Peak_I-215_NB_SR-60_WB_Connector.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               SR-60 WB Connector
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           940            vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              2060           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     490            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        940         2060        490       vph
Peak-hour factor, PHF                  0.92        0.95        0.95
Peak 15-min volume, v15                255         542         129       v
Trucks and buses                       14          8           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.960       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1095        2259        522       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.413   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  453    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3354          9600            No
      FO
     v  or v               321  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 453                    (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2712          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   16.2    pc/mi/ln
          R                   R            12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.275
                                              S
Space mean speed in ramp influence area,     S  = 62.3    mph
                                              R
Space mean speed in outer lanes,             S  = 70.0    mph
                                              0
Space mean speed for all vehicles,           S  = 63.6    mph
_______________________________________________________________________________
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           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 86_2040_WP_Mit_PM_Peak_I-215_NB_SR-60_WB_Connector.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               SR-60 WB Connector
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           1570           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              2020           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     760            vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        1570        2020        760       vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                405         532         200       v
Trucks and buses                       9           7           2         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.955       0.964       0.988
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          1695        2205        810       pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    0.420   Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  712    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     3900          9600            No
      FO
     v  or v               491  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34        12
If yes, v    = 712                    (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2917          4600                  No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   17.8    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.288
                                              S
Space mean speed in ramp influence area,     S  = 61.9    mph
                                              R
Space mean speed in outer lanes,             S  = 70.0    mph
                                              0
Space mean speed for all vehicles,           S  = 63.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 87_2040_WP_Mit_AM_Peak_I-215_NB_Off-Ramp_to_Columbia_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               Off-Ramp to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3000           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              490            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     2060           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3000        490         2060      vph
Peak-hour factor, PHF                  0.92        0.95        0.95
Peak 15-min volume, v15                815         129         542       v
Trucks and buses                       10          2           8         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.951       0.988       0.960
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3430        522         2259      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  1790   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3430          9600            No
      Fi   F
     v  = v - v            2908          9600            No
      FO   F   R
     v                     522           2000            No
      R
     v  or v               820  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 1790                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                1790          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   16.9    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.475
                                              S
Space mean speed in ramp influence area,     S  = 56.7    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 64.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 87_2040_WP_Mit_PM_Peak_I-215_NB_Off-Ramp_to_Columbia_Ave.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 NB
Junction:               Off-Ramp to Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           3590           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              760            vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     2020           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   2100           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        3590        760         2020      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                925         200         532       v
Trucks and buses                       8           2           7         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.960       0.988       0.964
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          3856        810         2205      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.436   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  2138   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                3856          9600            No
      Fi   F
     v  = v - v            3046          9600            No
      FO   F   R
     v                     810           2000            No
      R
     v  or v               859  pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 2138                 (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                2138          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   19.9    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence B

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.501
                                              S
Space mean speed in ramp influence area,     S  = 56.0    mph
                                              R
Space mean speed in outer lanes,             S  = 76.8    mph
                                              0
Space mean speed for all vehicles,           S  = 63.7    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 100_2040_WP_Mit_AM_Peak_I-215_SB_On-Ramp_from_Columbia_Ave.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 SB
Junction:               On-Ramp from Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           6160           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1720           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1920           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        6160        1720        1920      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                1588        453         505       v
Trucks and buses                       15          3           4         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                     %           %   0.00    %
     Length                                    mi          mi  0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.929       0.983       0.978
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          6840        1841        2066      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    -0.012  Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  -83    pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     8681          9600            No
      FO
     v  or v               3461 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2736                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                4577          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   30.9    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.595
                                              S
Space mean speed in ramp influence area,     S  = 53.3    mph
                                              R
Space mean speed in outer lanes,             S  = 64.4    mph
                                              0
Space mean speed for all vehicles,           S  = 58.1    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 100_2040_WP_Mit_PM_Peak_I-215_SB_On-Ramp_from_Columbia_Ave.xhr

_________________________________Merge Analysis________________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 SB
Junction:               On-Ramp from Columbia Ave
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Merge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           4960           vph

__________________________________On Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     1
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1970           vph
Length of first accel/decel lane            1500           ft
Length of second accel/decel lane                          ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     2580           vph
Position of adjacent ramp                   Downstream
Type of adjacent ramp                       Off
Distance to adjacent ramp                   1000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        4960        1970        2580      vph
Peak-hour factor, PHF                  0.98        0.95        0.95
Peak 15-min volume, v15                1265        518         679       v
Trucks and buses                       14          3           6         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.933       0.983       0.969
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          5426        2109        2803      pcph

_________________________Estimation of V12 Merge Areas_________________________

                  L  =            (Equation 13-6 or 13-7)
                   EQ
                  P  =    -0.046  Using Equation  0
```

```
                   FM
                  v  = v  (P  ) =  -248   pc/h
                   12   F   FM

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v                     7535          9600            No
      FO
     v  or v               2837 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           Yes
      3     av34
Is   v  or v      > 1.5 v  /2            Yes
      3     av34         12
If yes, v    = 2170                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

________________________Flow Entering Merge Influence Area_____________________
                      Actual        Max Desirable          Violation?
     v                4279          4600                   No
      R12
_________________Level of Service Determination (if not F)_____________________

Density, D = 5.475 + 0.00734 v  + 0.0078 v   - 0.00627 L   =   28.5    pc/mi/ln
          R                   R           12             A
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 M  = 0.497
                                              S
Space mean speed in ramp influence area,     S  = 56.1    mph
                                              R
Space mean speed in outer lanes,             S  = 65.9    mph
                                              0
Space mean speed for all vehicles,           S  = 59.9    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 101_2040_WP_Mit_AM_Peak_I-215_SB_SR-60_EB_Connector.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   AM Peak
Freeway/Dir of Travel:  I-215 SB
Junction:               SR-60 EB Connector
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                            Diverge
Number of lanes in freeway                  4
Free-flow speed on freeway                  70.0           mph
Volume on freeway                           7880           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                             Right
Number of lanes in ramp                     2
Free-Flow speed on ramp                     35.0           mph
Volume on ramp                              1920           vph
Length of first accel/decel lane            300            ft
Length of second accel/decel lane           0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                   Yes
Volume on adjacent ramp                     1720           vph
Position of adjacent ramp                   Upstream
Type of adjacent ramp                       On
Distance to adjacent ramp                   1000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                    Freeway     Ramp        Adjacent
                                                               Ramp
Volume, V (vph)                        7880        1920        1720      vph
Peak-hour factor, PHF                  0.97        0.95        0.95
Peak 15-min volume, v15                2031        505         453       v
Trucks and buses                       12          4           3         %
Recreational vehicles                  1           1           1         %
Terrain type:                          Level       Level       Level
     Grade                                    %           %    0.00    %
     Length                                   mi          mi   0.00    mi
Trucks and buses PCE, ET               1.5         1.5         1.5
Recreational vehicle PCE, ER           1.2         1.2         1.2
Heavy vehicle adjustment, fHV          0.942       0.978       0.983
Driver population factor, fP           1.00        1.00        1.00
Flow rate, vp                          8627        2066        1841      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  3772   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                8627          9600            No
      Fi   F
     v  = v - v            6561          9600            No
      FO   F   R
     v                     2066          4000            No
      R
     v  or v               2427 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 3772                  (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable        Violation?
     v                3772          4400                 No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   31.3    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.614
                                              S
Space mean speed in ramp influence area,     S  = 52.8    mph
                                              R
Space mean speed in outer lanes,             S  = 71.2    mph
                                              0
Space mean speed for all vehicles,           S  = 61.8    mph
_______________________________________________________________________________
```

```
           HCS 2010:  Freeway Merge and Diverge Segments Release 6.3

File Name: 101_2040_WP_Mit_PM_Peak_I-215_SB_SR-60_EB_Connector.xhr

_________________________________Diverge Analysis______________________________

Analyst:                MM
Agency/Co.:             WSP
Date Performed:         04/24/2018
Analysis Time Period:   PM Peak
Freeway/Dir of Travel:  I-215 SB
Junction:               SR-60 EB Connector
Jurisdiction:           Caltrans
Analysis Year:          2040 WP Mit
Description:  World Logistics Center-2040 + Build-out-W/ Mitigations

__________________________________Freeway Data_________________________________

Type of analysis                           Diverge
Number of lanes in freeway                 4
Free-flow speed on freeway                 70.0           mph
Volume on freeway                          6930           vph

_________________________________Off Ramp Data_________________________________

Side of freeway                            Right
Number of lanes in ramp                    2
Free-Flow speed on ramp                    35.0           mph
Volume on ramp                             2580           vph
Length of first accel/decel lane           300            ft
Length of second accel/decel lane          0              ft

_________________________Adjacent Ramp Data (if one exists)____________________

Does adjacent ramp exist?                  Yes
Volume on adjacent ramp                    1970           vph
Position of adjacent ramp                  Upstream
Type of adjacent ramp                      On
Distance to adjacent ramp                  1000           ft

____________________Conversion to pc/h Under Base Conditions___________________

Junction Components                   Freeway     Ramp        Adjacent
                                                              Ramp
Volume, V (vph)                       6930        2580        1970      vph
Peak-hour factor, PHF                 0.98        0.95        0.95
Peak 15-min volume, v15               1768        679         518       v
Trucks and buses                      11          6           3         %
Recreational vehicles                 1           1           1         %
Terrain type:                         Level       Level       Level
     Grade                                    %           %   0.00    %
     Length                                   mi          mi  0.00    mi
Trucks and buses PCE, ET              1.5         1.5         1.5
Recreational vehicle PCE, ER          1.2         1.2         1.2
Heavy vehicle adjustment, fHV         0.946       0.969       0.983
Driver population factor, fP          1.00        1.00        1.00
Flow rate, vp                         7475        2803        2109      pcph

_________________________Estimation of V12 Diverge Areas_______________________

                  L  =            (Equation 13-12 or 13-13)
                   EQ
                  P  =    0.260   Using Equation  0
```

```
                   FD
                  v  = v  + (v - v ) P  =  4018   pc/h
                   12   R     F   R   FD

_______________________________Capacity Checks_________________________________

                           Actual        Maximum         LOS F?
     v  = v                7475          9600            No
      Fi   F
     v  = v - v            4672          9600            No
      FO   F   R
     v                     2803          4000            No
      R
     v  or v               1728 pc/h     (Equation 13-14 or 13-17)
      3     av34
Is   v  or v      > 2700 pc/h?           No
      3     av34
Is   v  or v      > 1.5 v  /2            No
      3     av34         12
If yes, v    = 4018                   (Equation 13-15, 13-16, 13-18, or 13-19)
         12A

______________________Flow Entering Diverge Influence Area_____________________
                      Actual        Max Desirable         Violation?
     v                4018          4400                  No
      12
_________________Level of Service Determination (if not F)_____________________

Density,               D = 4.252 + 0.0086 v  - 0.009  L   =   33.4    pc/mi/ln
                        R                  12          D
Level of service for ramp-freeway junction areas of influence D

_____________________________Speed Estimation__________________________________

Intermediate speed variable,                 D  = 0.680
                                              S
Space mean speed in ramp influence area,     S  = 51.0    mph
                                              R
Space mean speed in outer lanes,             S  = 74.0    mph
                                              0
Space mean speed for all vehicles,           S  = 59.5    mph
_______________________________________________________________________________
```

Traffic Impact Analysis Report for the World Logistics Center

Appendix P

Signal Warrant Worksheets

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing
Intersection: 10 – Redlands Boulevard & Locust Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Redlands Blvd (NB-SB)
Minor Street (Orientation): Locust Ave (EB-WB)

	Minor Street Approach Volume (Locust Ave)			Major Street Approach Volume (Redlands Blvd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	16	2	16	634	596	1230	No
PM Peak	19	18	19	774	836	1627	No

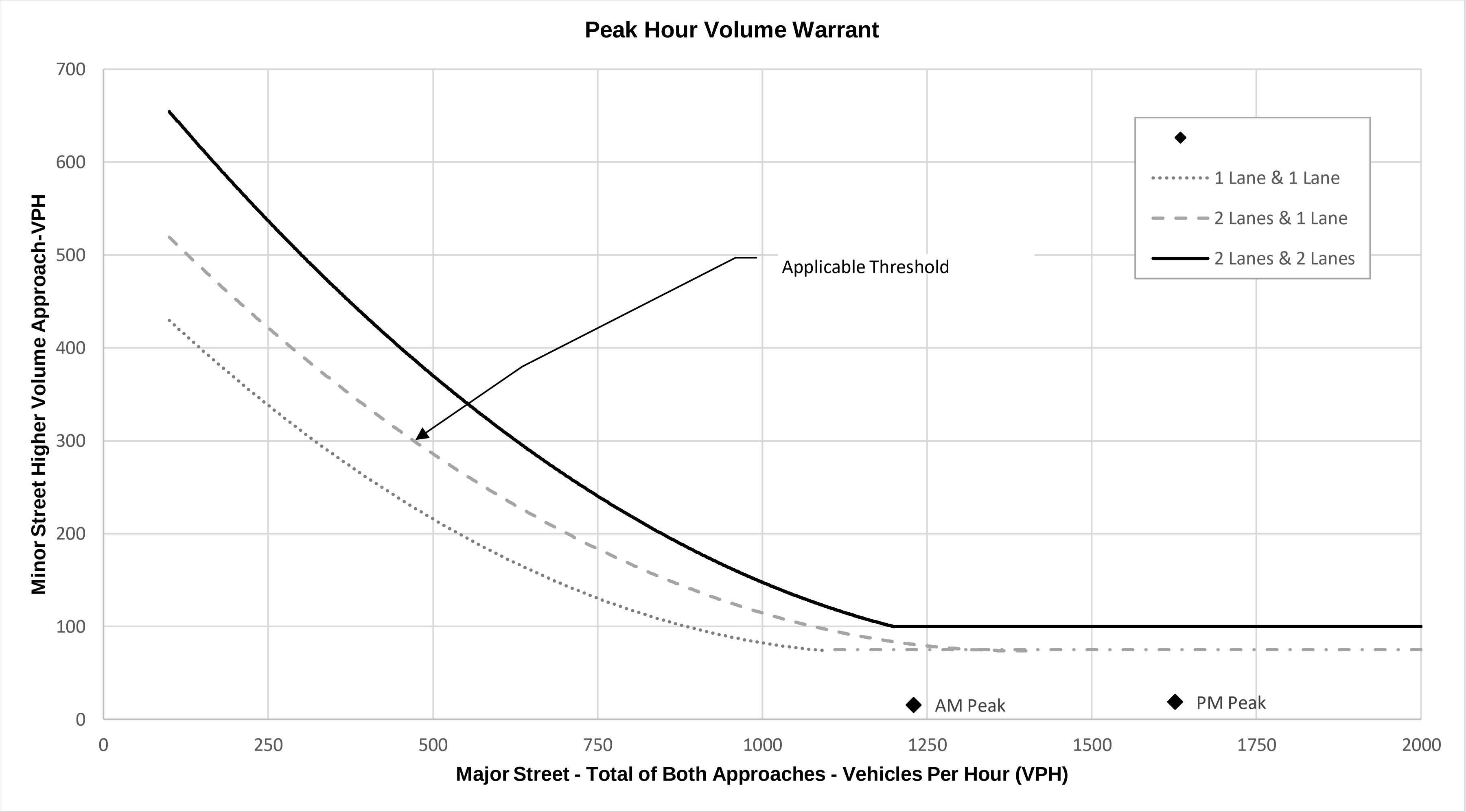

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing
Intersection: 85 – Martin Luther King Blvd & SR-60 NB Ramp
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): MLK Blvd (EB
Minor Street (Orientation):) SR-60 Ramp (NB)

	Minor Street Approach Volume (SR-60 Ramp)			Major Street Approach Volume (MLK Blvd))			Satisfies
Time	EB	n/a	Higher Vol	NB	n/a	Total	Warrant 3
AM Peak	982	n/a	982	605	n/a	605	Yes
PM Peak	1223	n/a	1223	1442	n/a	1442	Yes

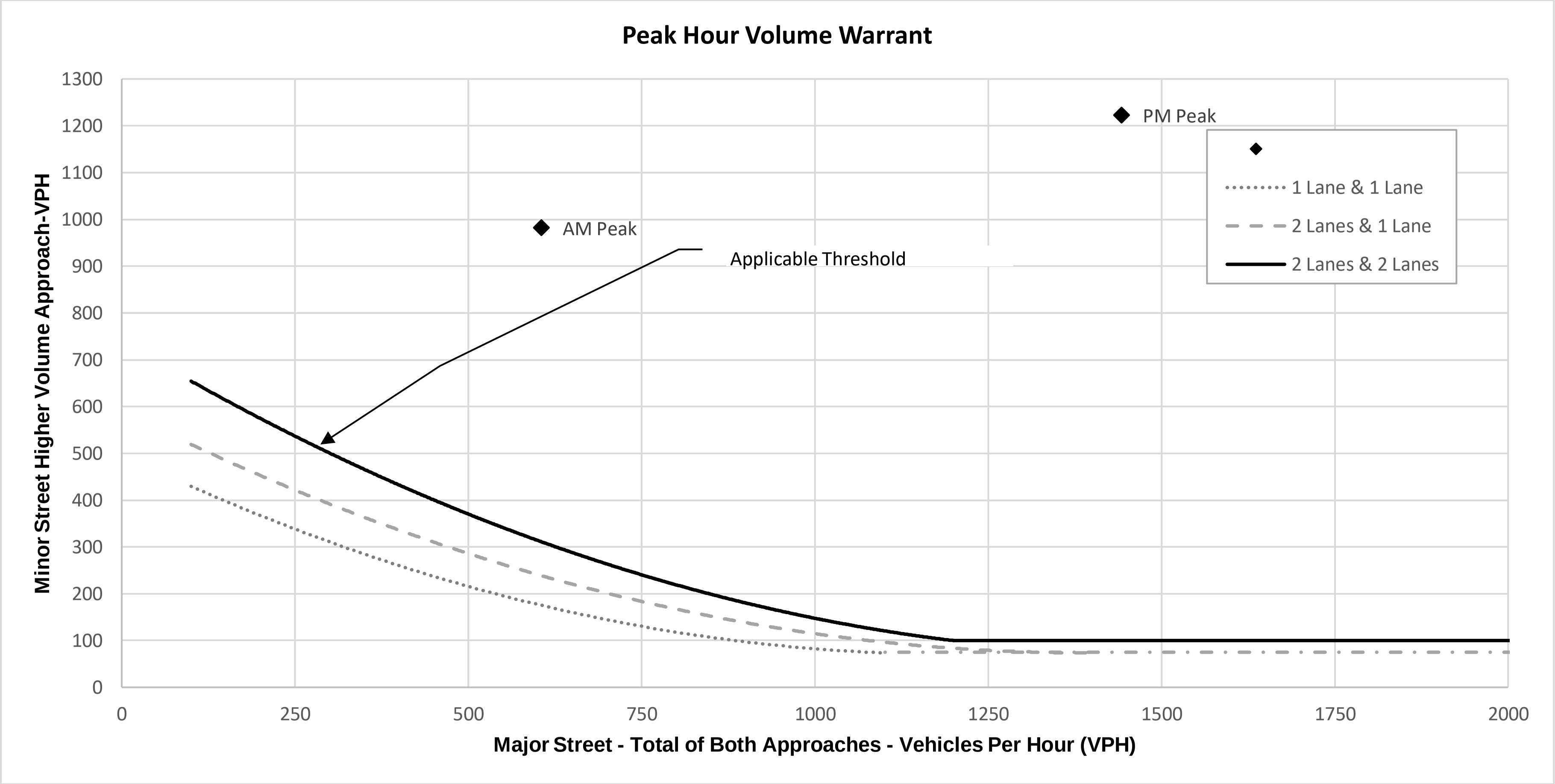

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing
Intersection: 114 Evans Road & Orange Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Evans Rd(NB-SB)
Minor Street (Orientation): Orange Ave (EB-WB)

	Minor Street Approach Volume (Orange Ave)			Major Street Approach Volume (Evans Rd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	341	264	341	581	451	1032	Yes
PM Peak	296	162	296	364	362	726	Yes

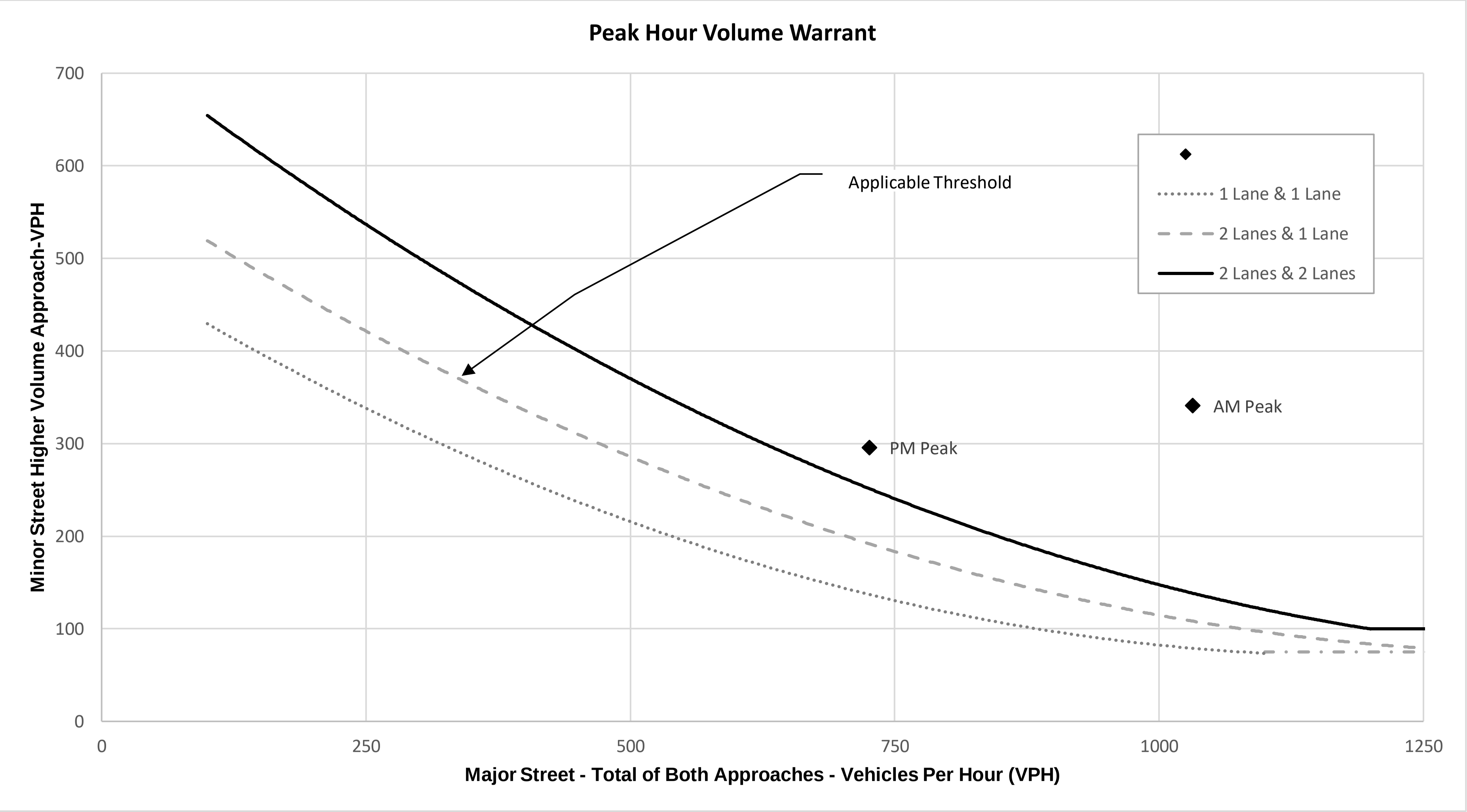

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing
Intersection: 124 – Gilman Springs Road & SR-79 NB Ramps
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Gilman Spring Rd (EB-WB)
Minor Street (Orientation): SR-79 NB Ramps

	Minor Street Approach Volume (SR-79 NB)			Major Street Approach Volume (Gilman Spring)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	360	0	360	342	456	798	Yes
PM Peak	238	0	238	695	299	994	Yes

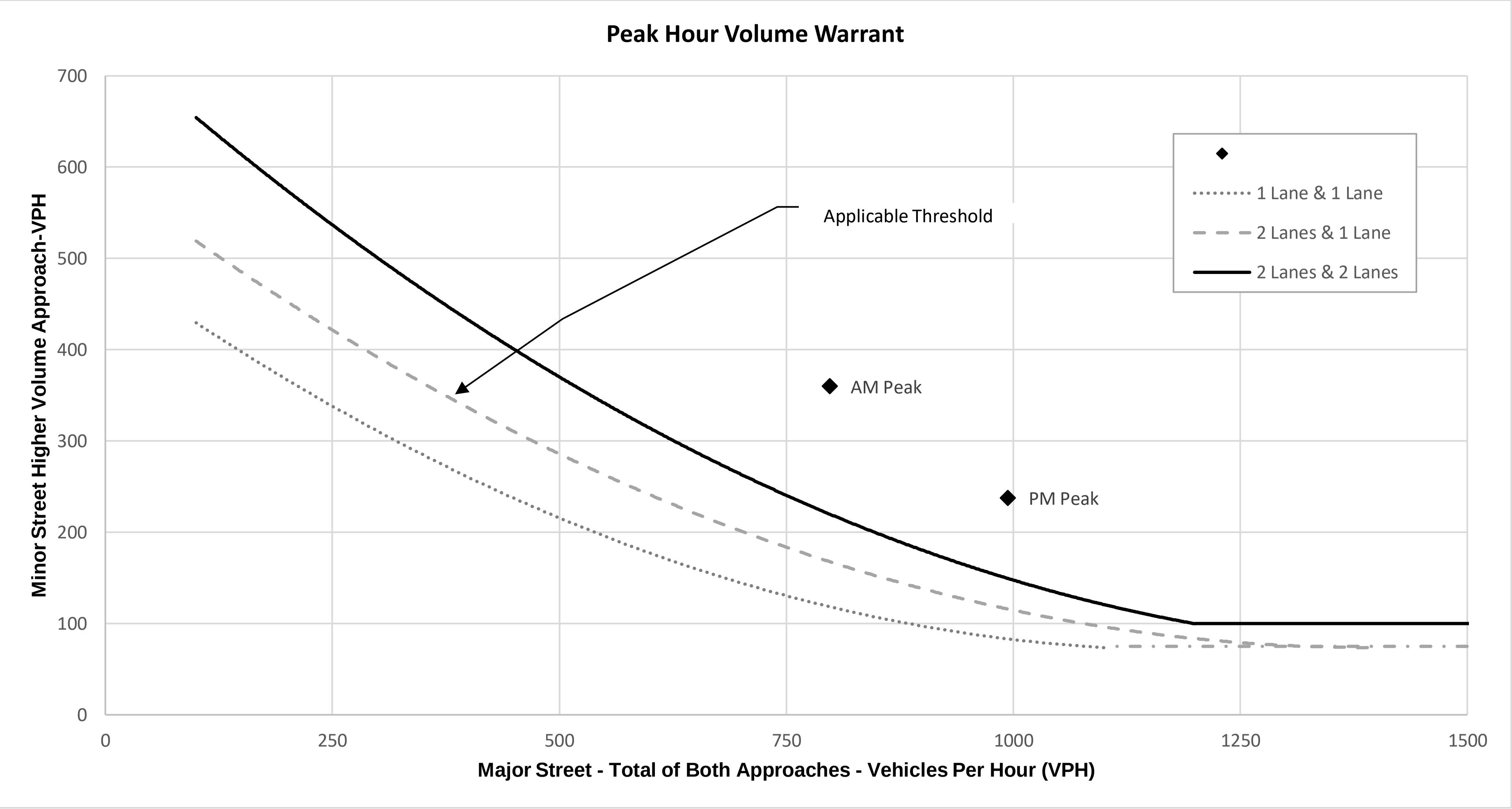
Peak Hour Volume Warrant

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing
Intersection: 132 – San Timoteo Canyon Road & Alessandro Road
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Alessandro Rd (SB)

	Minor Street Approach Volume (Alessandro)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	0	253	253	182	764	946	Yes
PM Peak	0	218	218	501	368	869	Yes

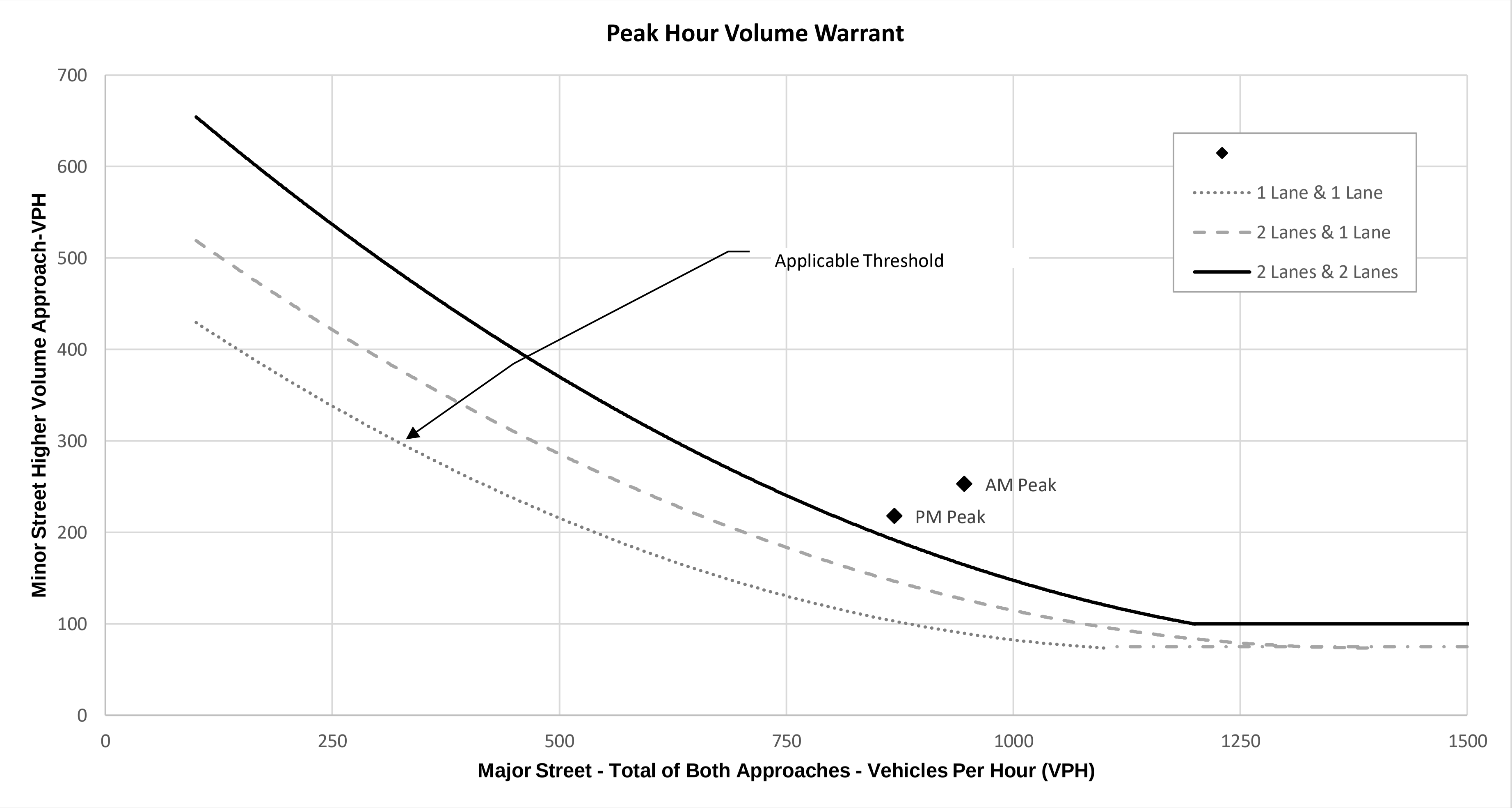

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing
Intersection: 133 – Live Oak Canyon & San Timoteo Canyon Road
Type: 1 Lane & 2 Lanes
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Live Oak Rd (NB-SB)

	Minor Street Approach Volume (Live Oak)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	10	344	344	367	733	1100	Yes
PM Peak	11	116	116	628	514	1142	Yes

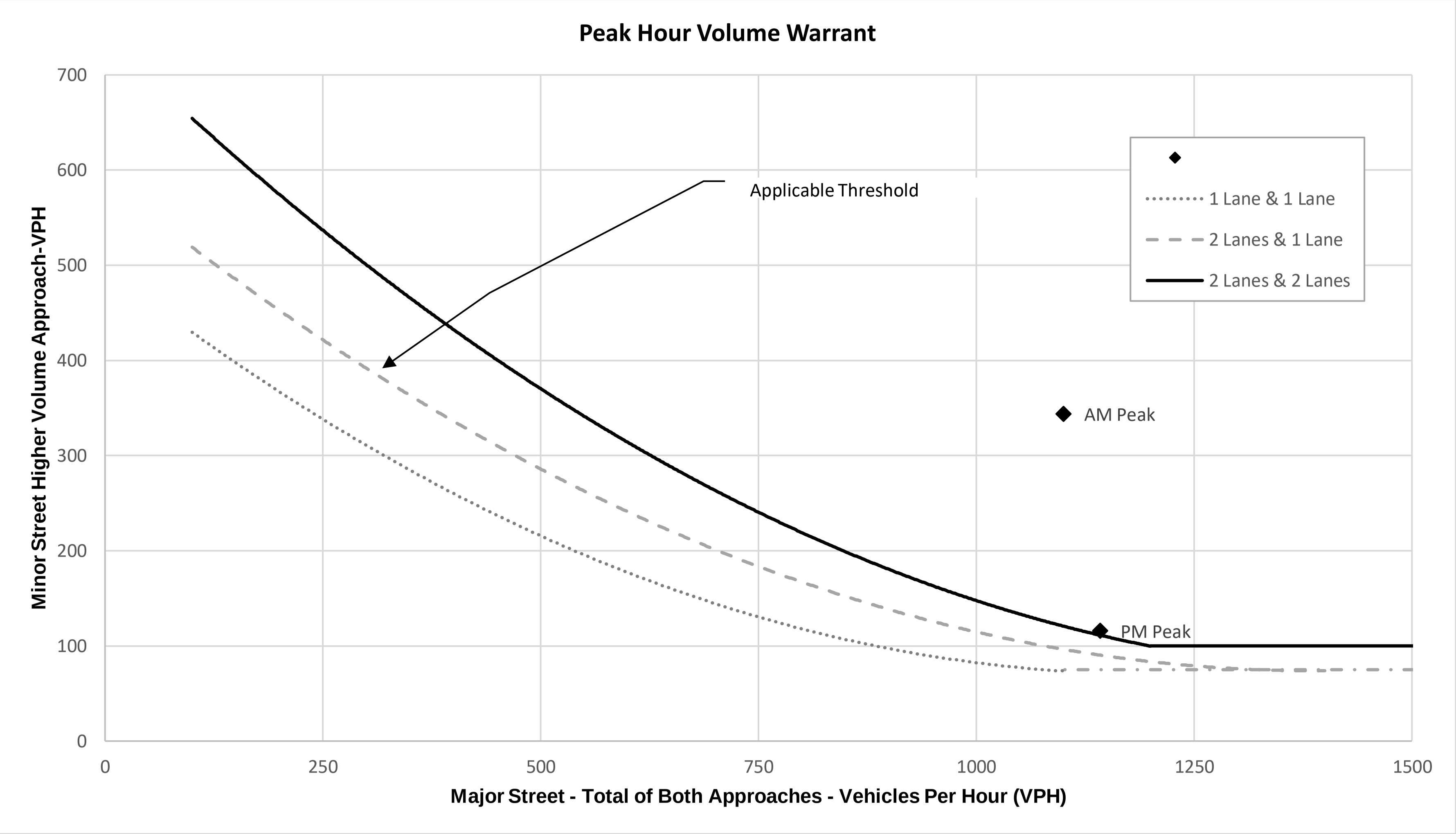

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing
Intersection: 134 – San Timoteo Canyon Road & Redlands Boulevard
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Redlands Blvd (NB)

	Minor Street Approach Volume (Redlands)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	669	0	669	559	166	725	Yes
PM Peak	787	0	787	879	65	944	Yes

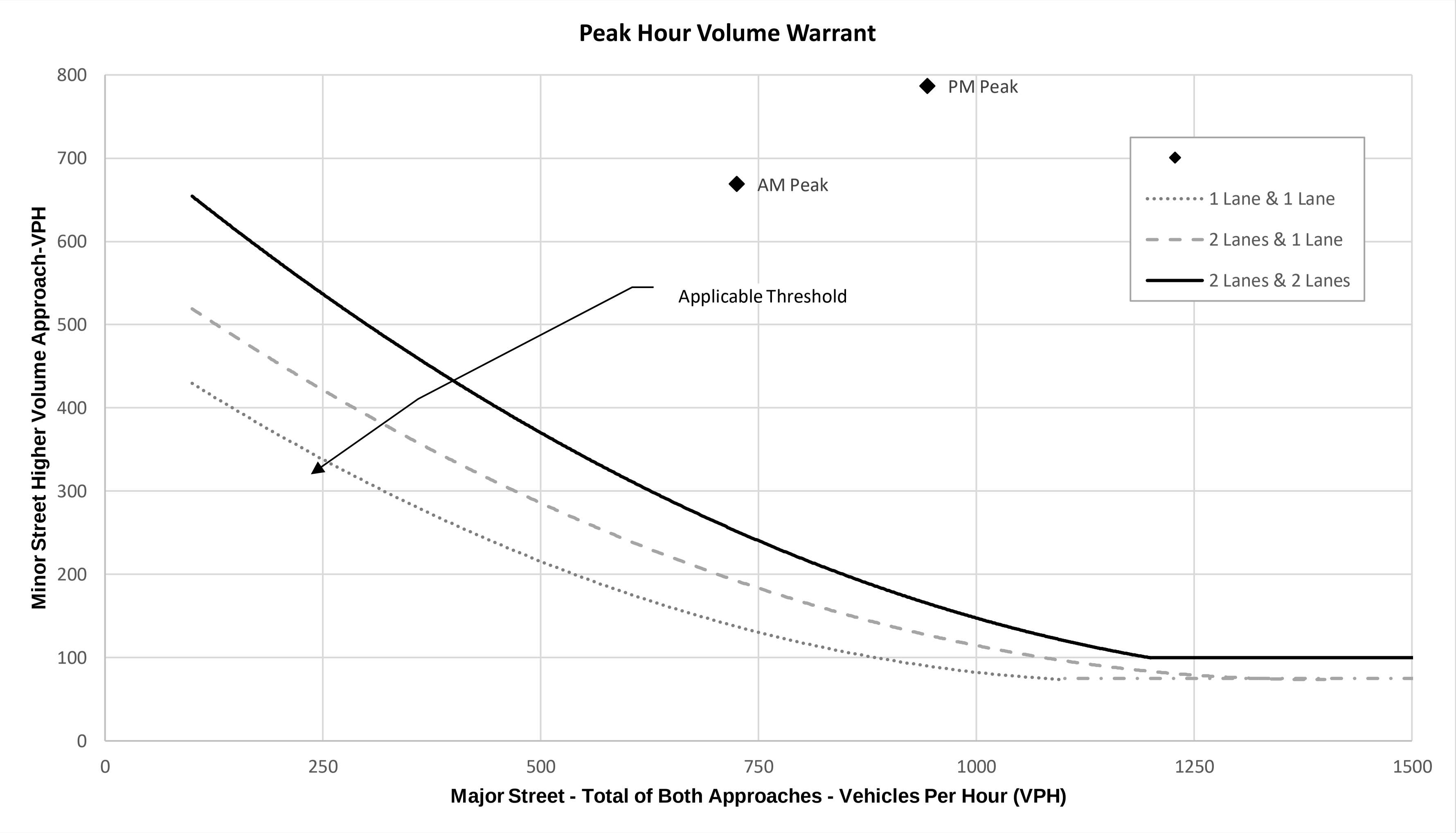

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Phase 1
Intersection: 10 – Redlands Boulevard & Locust Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Redlands Blvd (NB-SB)
Minor Street (Orientation): Locust Ave (EB-WB)

	Minor Street Approach Volume (Locust Ave)			Major Street Approach Volume (Redlands Blvd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	75	15	75	640	615	1255	No
PM Peak	75	30	75	800	845	1645	No

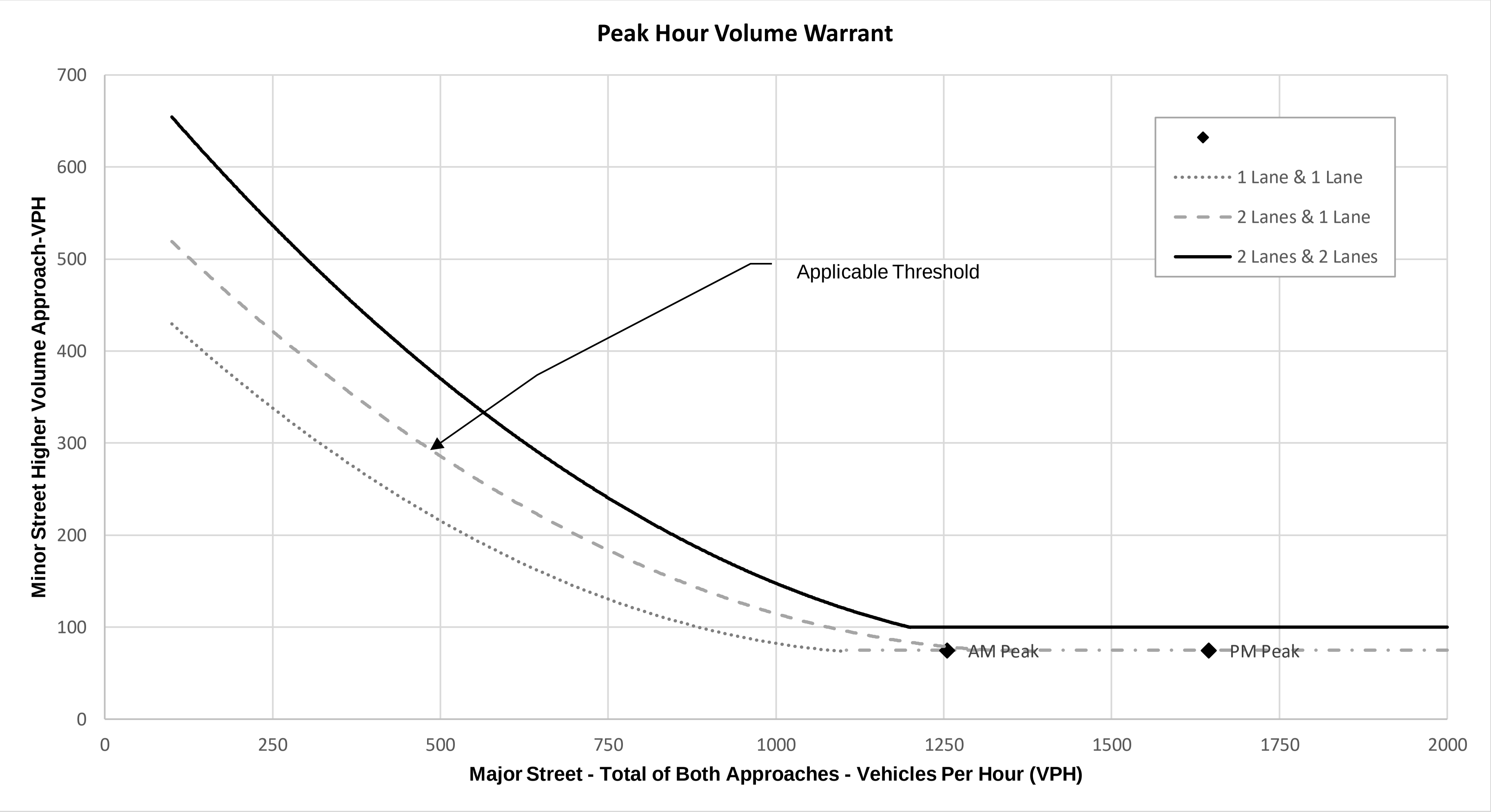

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Phase 1
Intersection: 85 – Martin Luther King Blvd & SR-60 NB Ramp
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): MLK Blvd (EB
Minor Street (Orientation):) SR-60 Ramp (NB)

	Minor Street Approach Volume (SR-60 Ramp)			Major Street Approach Volume (MLK Blvd))			Satisfies
Time	EB	n/a	Higher Vol	NB	n/a	Total	Warrant 3
AM Peak	980	n/a	610	610	n/a	980	Yes
PM Peak	1250	n/a	1250	1442	n/a	1420	Yes

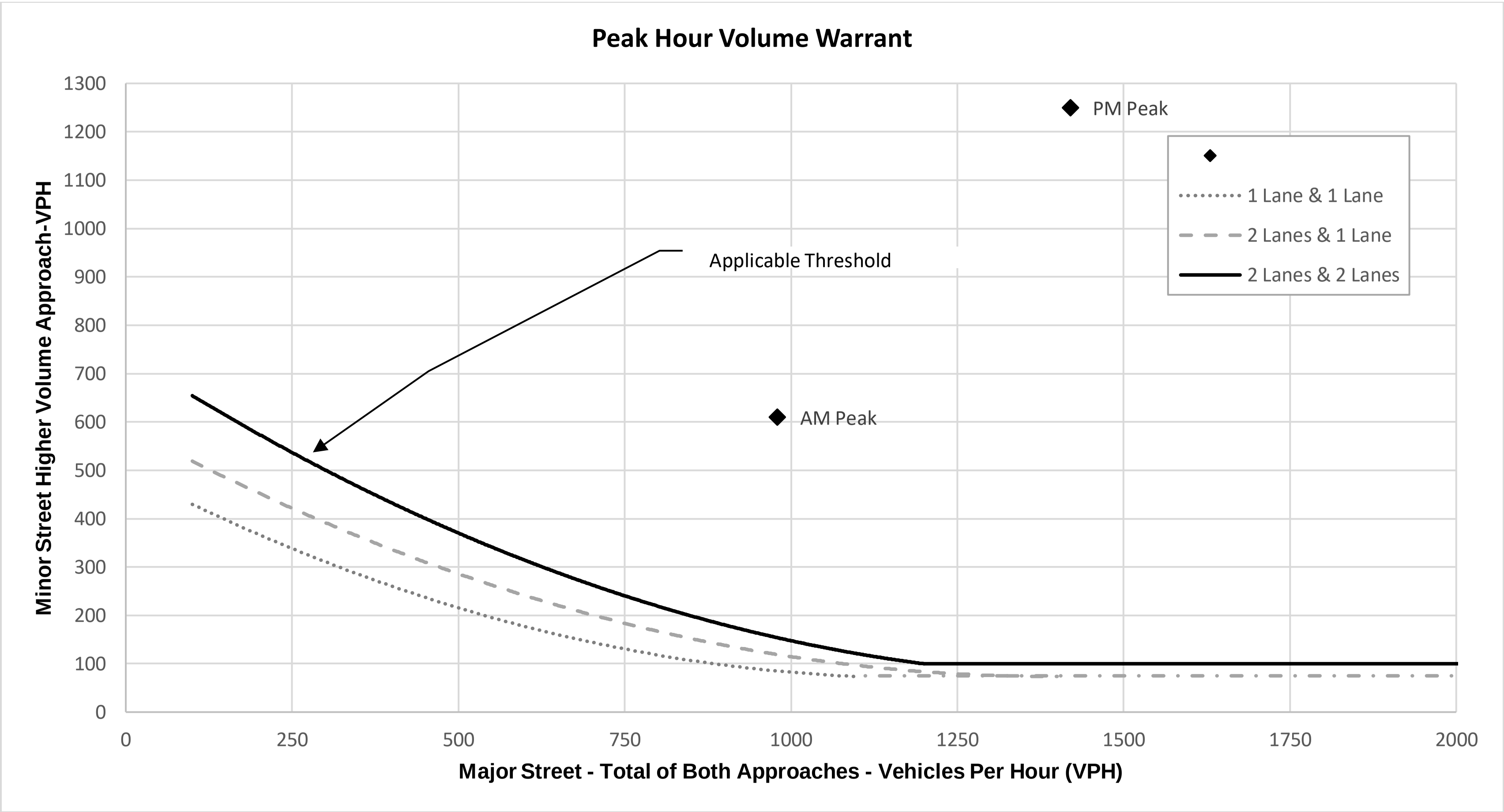

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Phase 1
Intersection: 114 Evans Road & Orange Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Evans Rd(NB-SB)
Minor Street (Orientation): Orange Ave (EB-WB)

	Minor Street Approach Volume (Orange Ave)			Major Street Approach Volume (Evans Rd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	350	260	350	580	450	1030	Yes
PM Peak	300	300	300	360	370	730	Yes

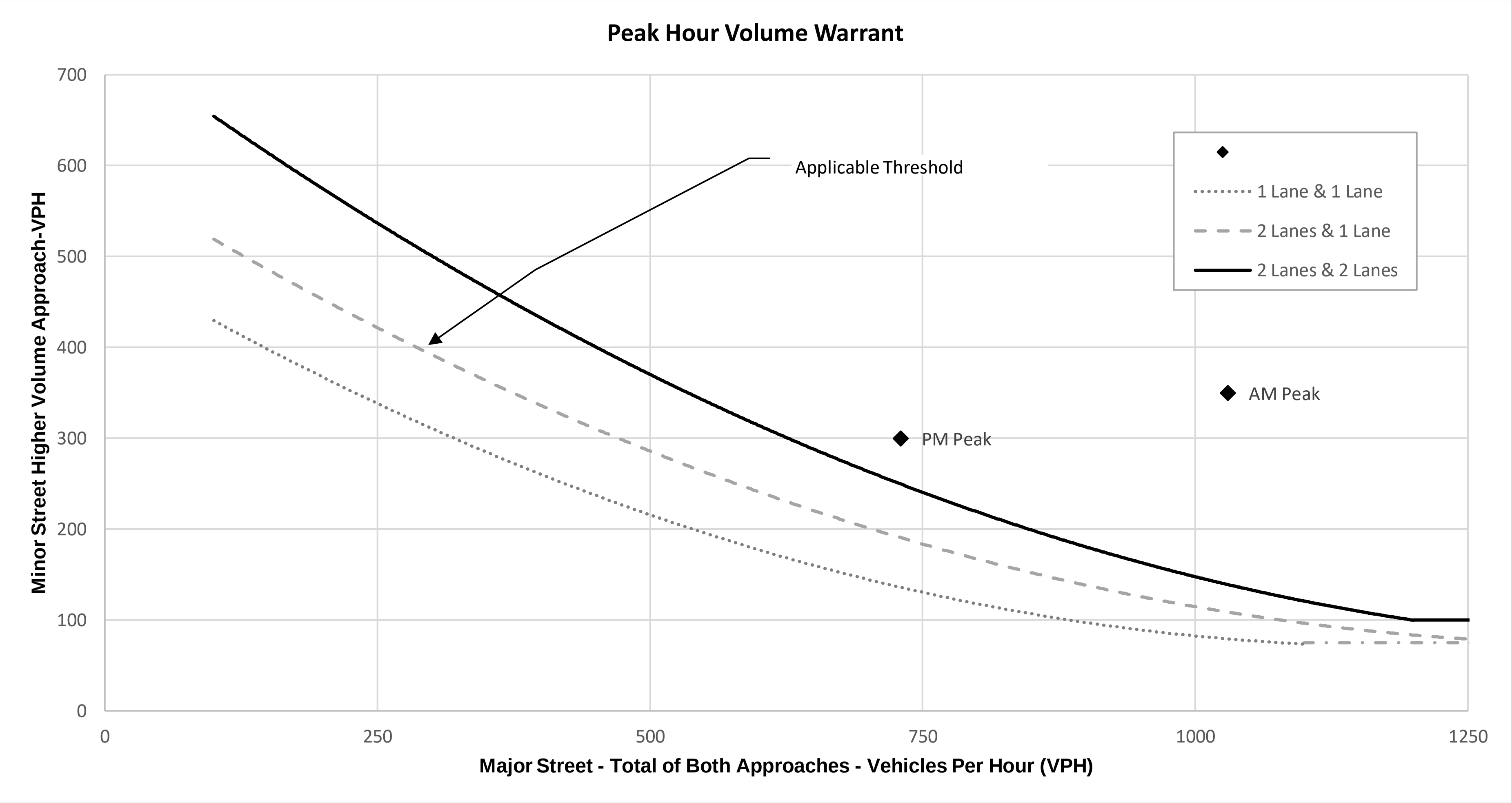
Peak Hour Volume Warrant

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Phase 1
Intersection: 124 – Gilman Springs Road & SR-79 NB Ramps
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Gilman Spring Rd (EB-WB)
Minor Street (Orientation): SR-79 NB Ramps

	Minor Street Approach Volume (SR-79 NB)			Major Street Approach Volume (Gilman Spring)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	370	0	370	360	460	820	Yes
PM Peak	240	0	240	700	300	1000	Yes

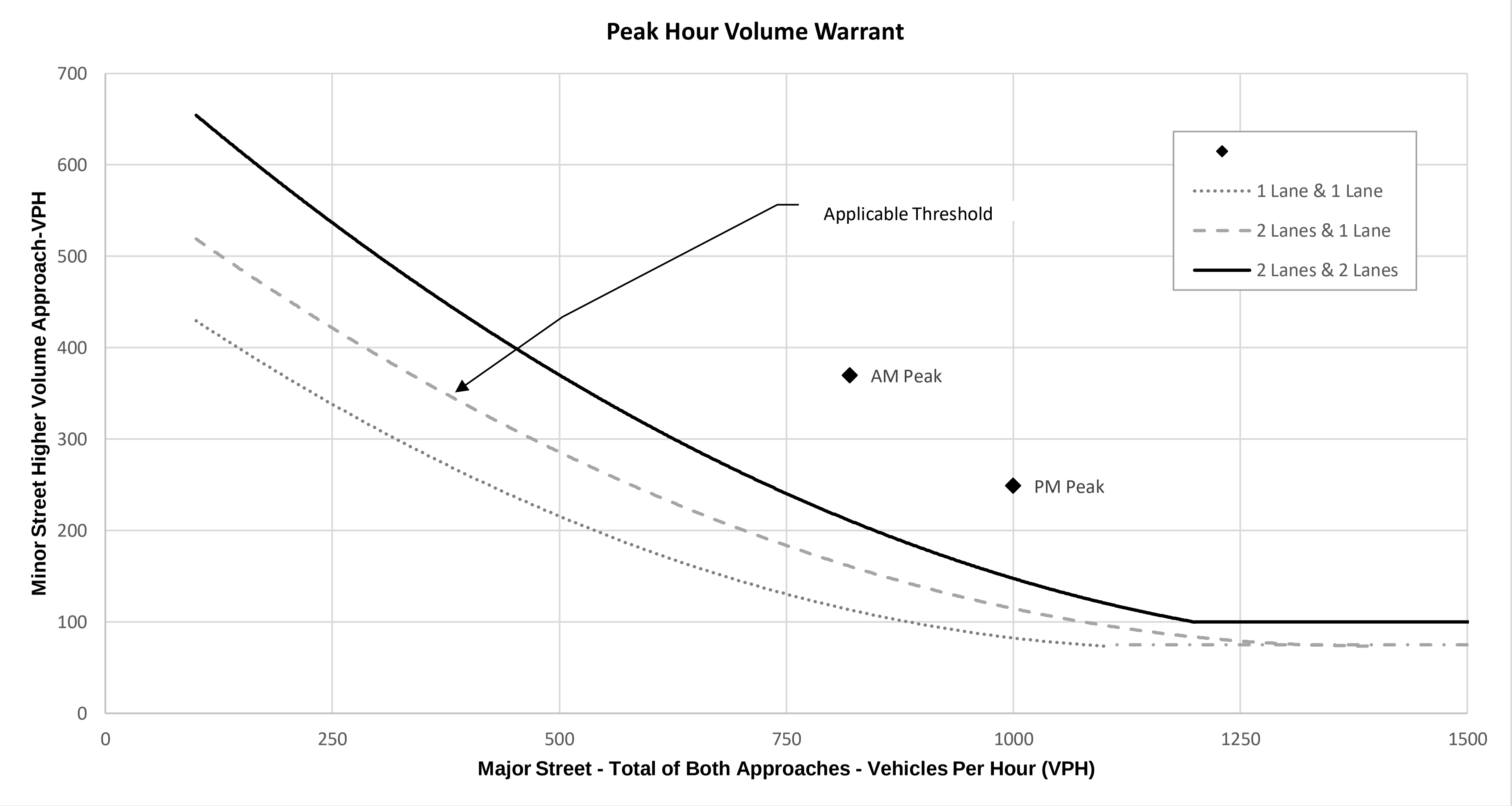
Peak Hour Volume Warrant

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Phase 1
Intersection: 132 – San Timoteo Canyon Road & Alessandro Road
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Alessandro Rd (SB)

	Minor Street Approach Volume (Alessandro)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	0	270	270	220	800	1020	Yes
PM Peak	0	210	210	490	590	1080	Yes

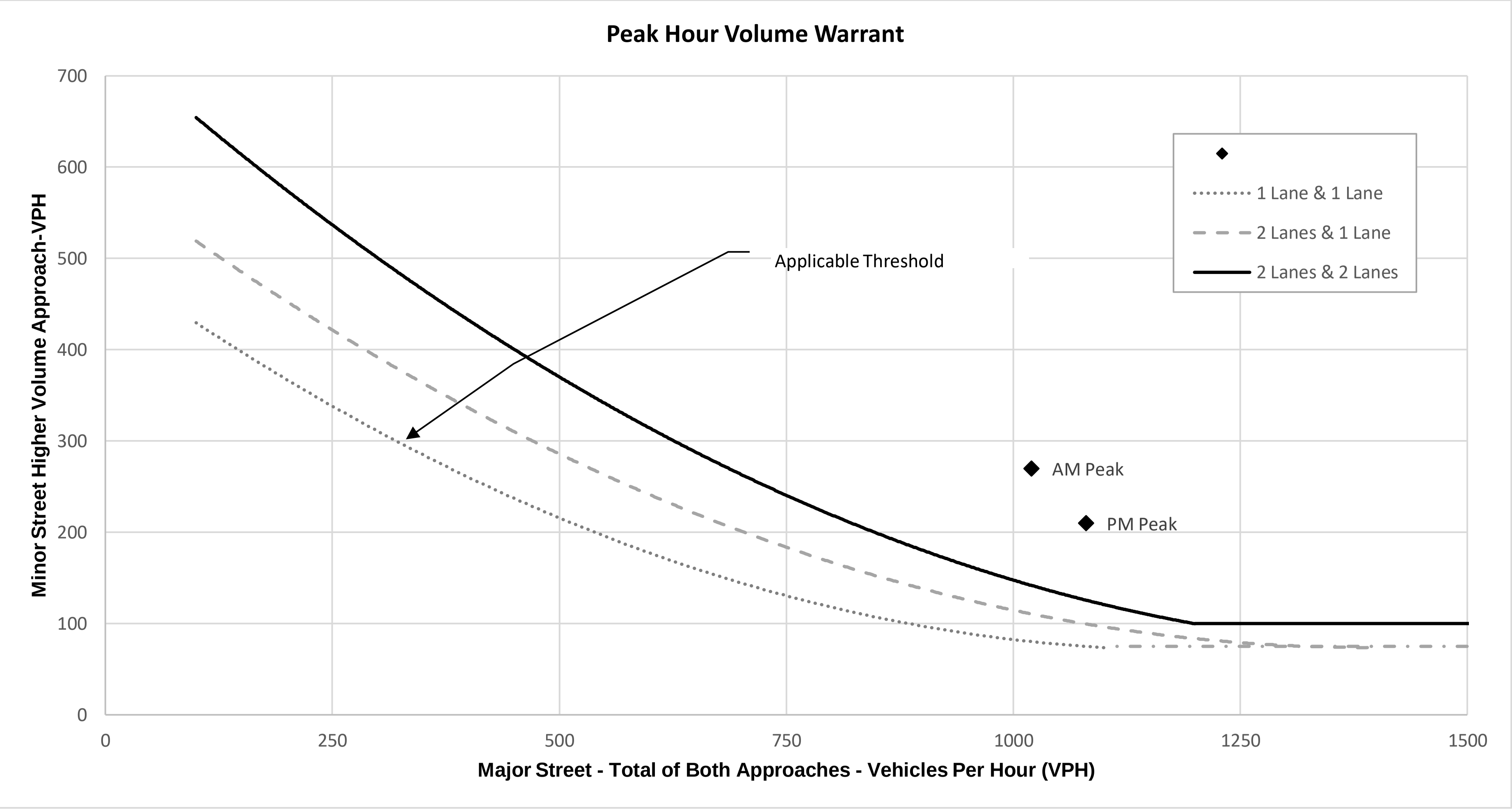

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2018 + Phase 1
Intersection: 133 – Live Oak Canyon & San Timoteo Canyon Road
Type: 1 Lane & 2 Lanes
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Live Oak Rd (NB-SB)

	Minor Street Approach Volume (Live Oak)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	30	360	360	420	770	1190	Yes
PM Peak	30	300	300	650	790	1440	Yes

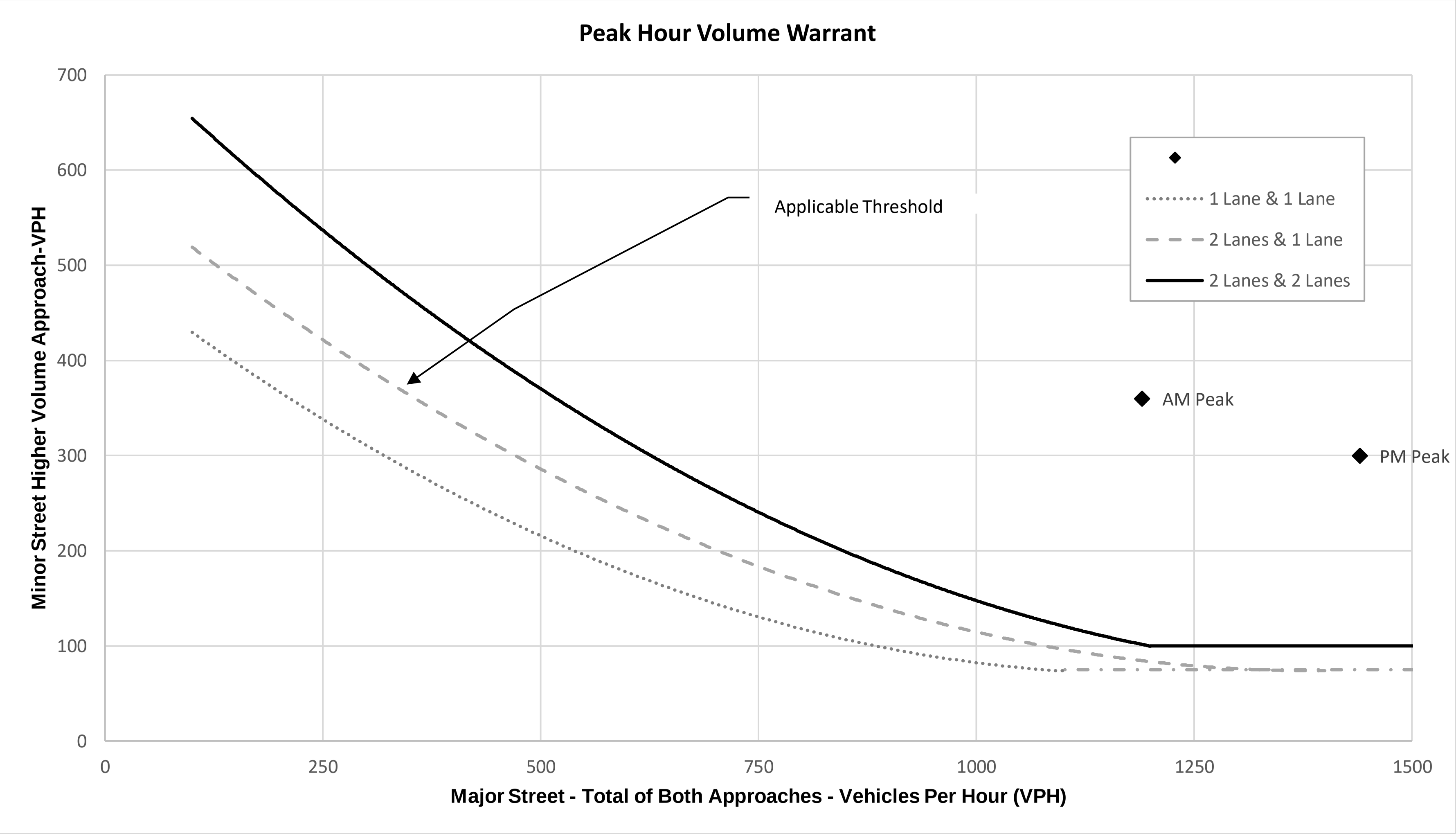

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2018 + Phase 1
Intersection: 134 – San Timoteo Canyon Road & Redlands Boulevard
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Redlands Blvd (NB)

	Minor Street Approach Volume (Redlands)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	720	0	720	610	170	780	Yes
PM Peak	800	0	800	890	70	960	Yes

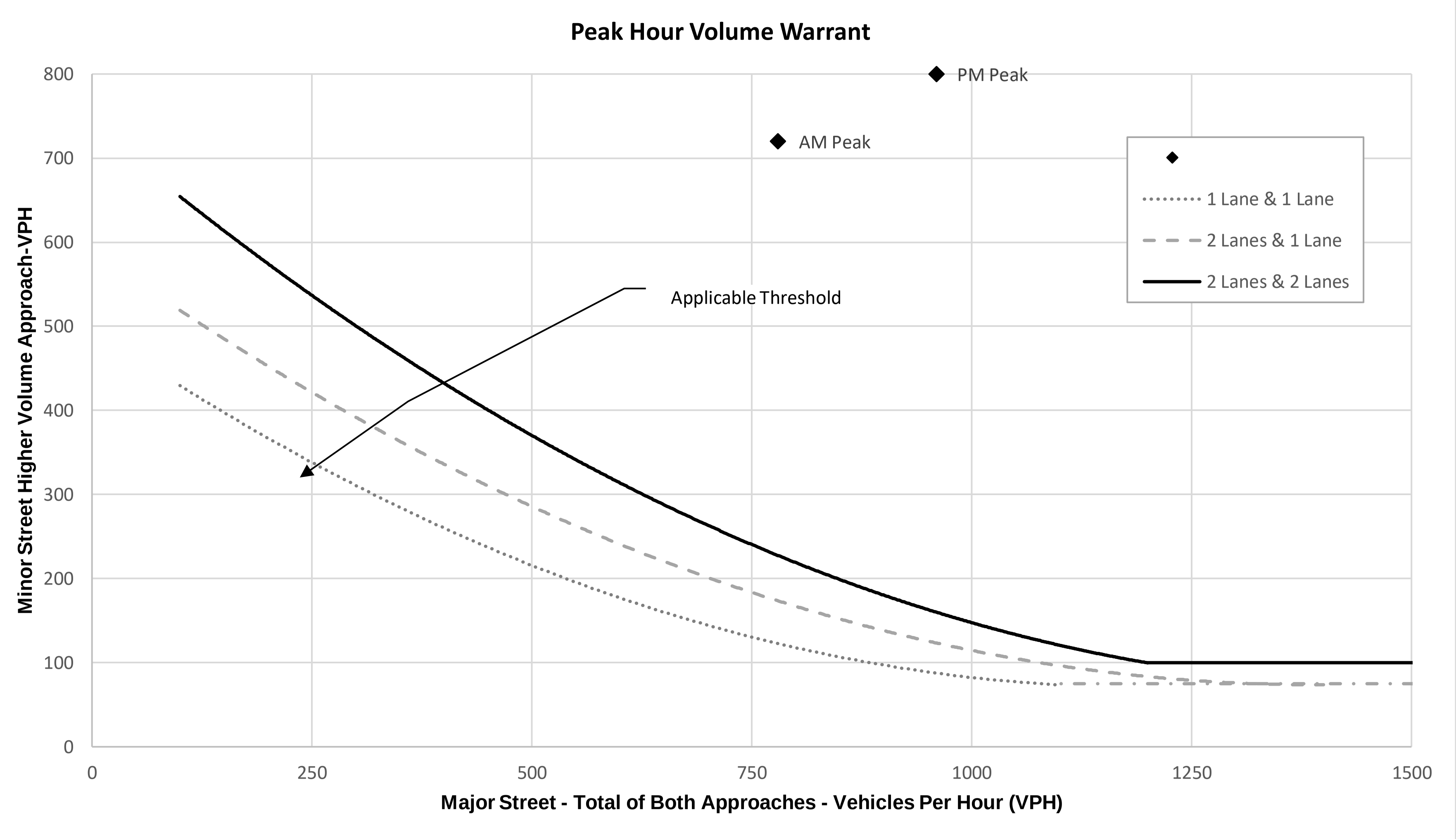

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Build Out
Intersection: 10 – Redlands Boulevard & Locust Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Redlands Blvd (NB-SB)
Minor Street (Orientation): Locust Ave (EB-WB)

	Minor Street Approach Volume (Locust Ave)			Major Street Approach Volume (Redlands Blvd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	145	15	145	640	605	1245	Yes
PM Peak	145	30	145	800	845	1645	Yes

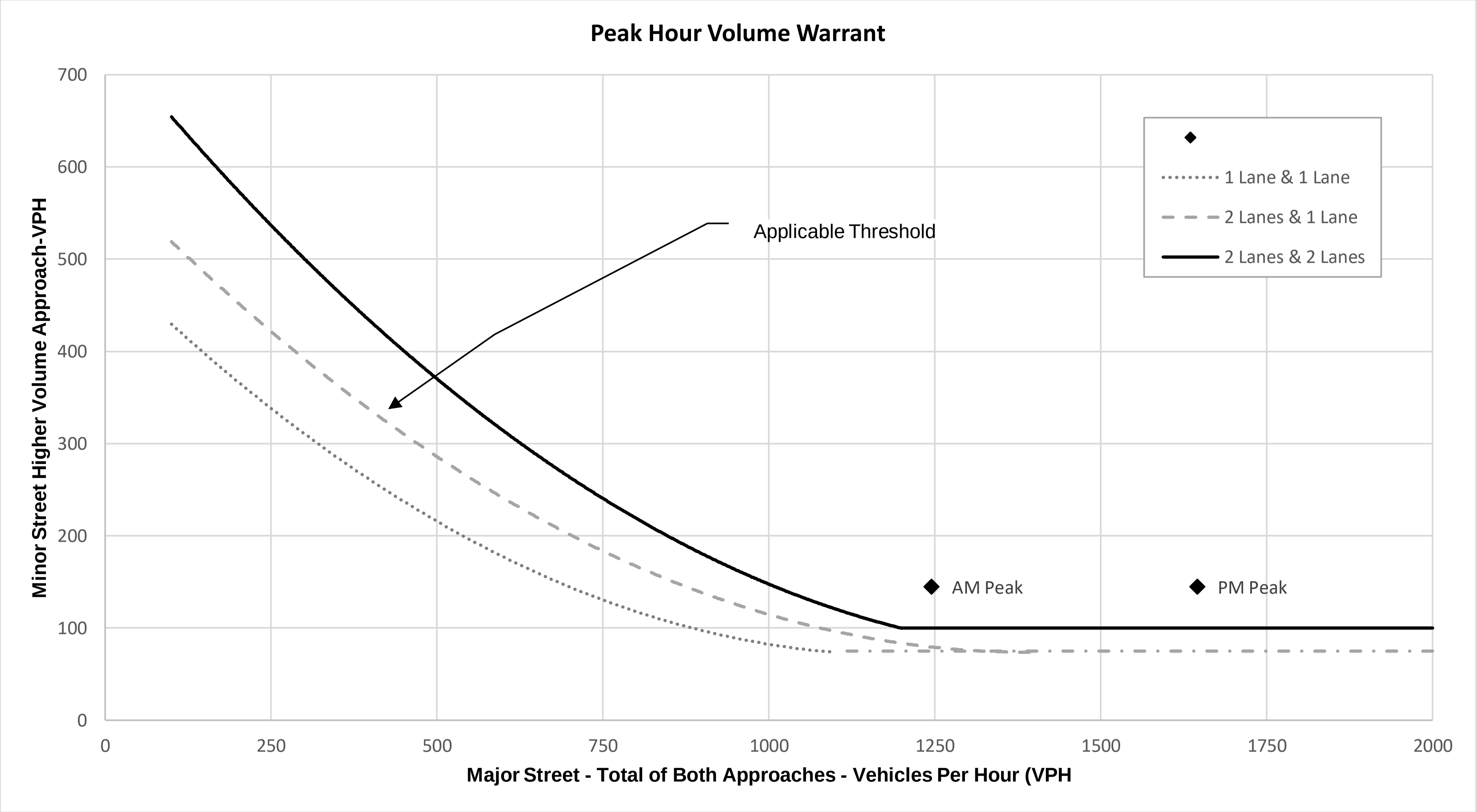

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Build Out
Intersection: 85 – Martin Luther King Blvd & SR-60 NB Ramp
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): MLK Blvd (EB
Minor Street (Orientation):) SR-60 Ramp (NB)

	Minor Street Approach Volume (SR-60 Ramp)			Major Street Approach Volume (MLK Blvd))			Satisfies
Time	NB	n/a	Higher Vol	EB	n/a	Total	Warrant 3
AM Peak	630	n/a	630	970	n/a	970	Yes
PM Peak	1230	n/a	1230	1410	n/a	1410	Yes

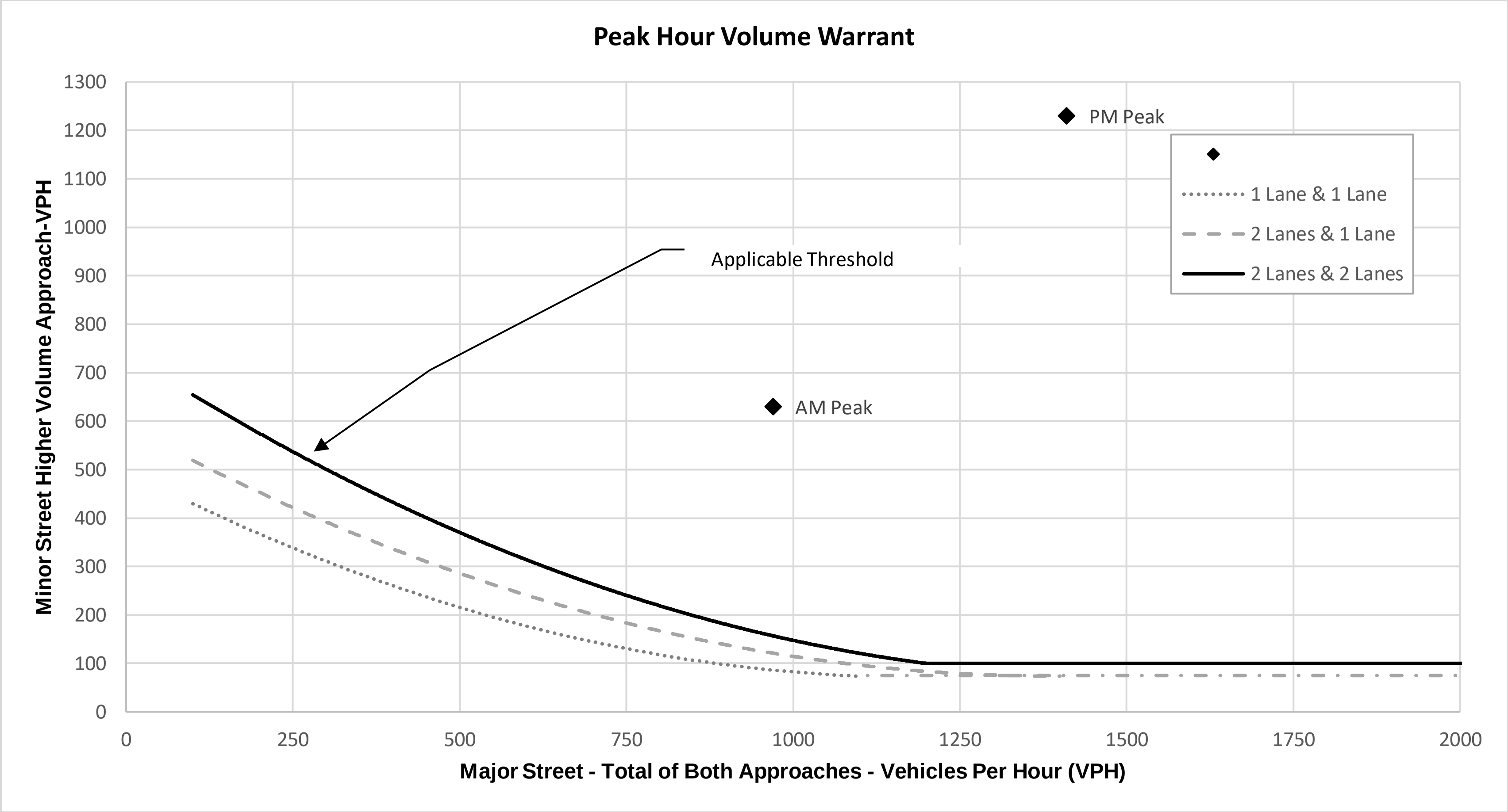

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Build Out
Intersection: 114 Evans Road & Orange Avenue
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): Evans Rd(NB-SB)
Minor Street (Orientation): Orange Ave (EB-WB)

	Minor Street Approach Volume (Orange Ave)			Major Street Approach Volume (Evans Rd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	350	260	350	580	580	1160	Yes
PM Peak	290	290	290	360	380	740	Yes

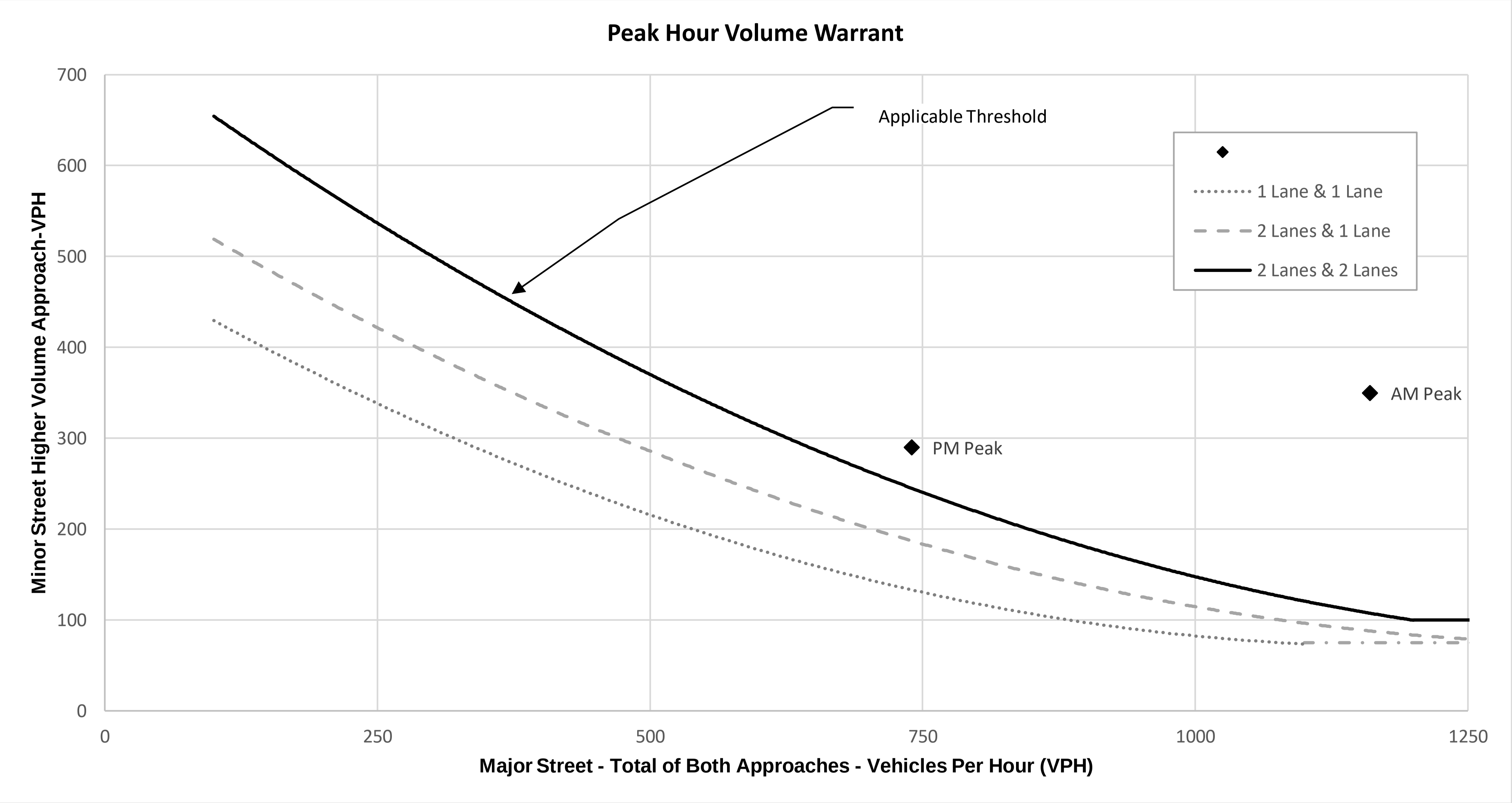

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Build Out
Intersection: 124 – Gilman Springs Road & SR-79 NB Ramps
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Gilman Spring Rd (EB-WB)
Minor Street (Orientation): SR-79 NB Ramps

	Minor Street Approach Volume (SR-79 NB)			Major Street Approach Volume (Gilman Spring)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	370	0	370	380	460	840	Yes
PM Peak	240	0	240	700	300	1000	Yes

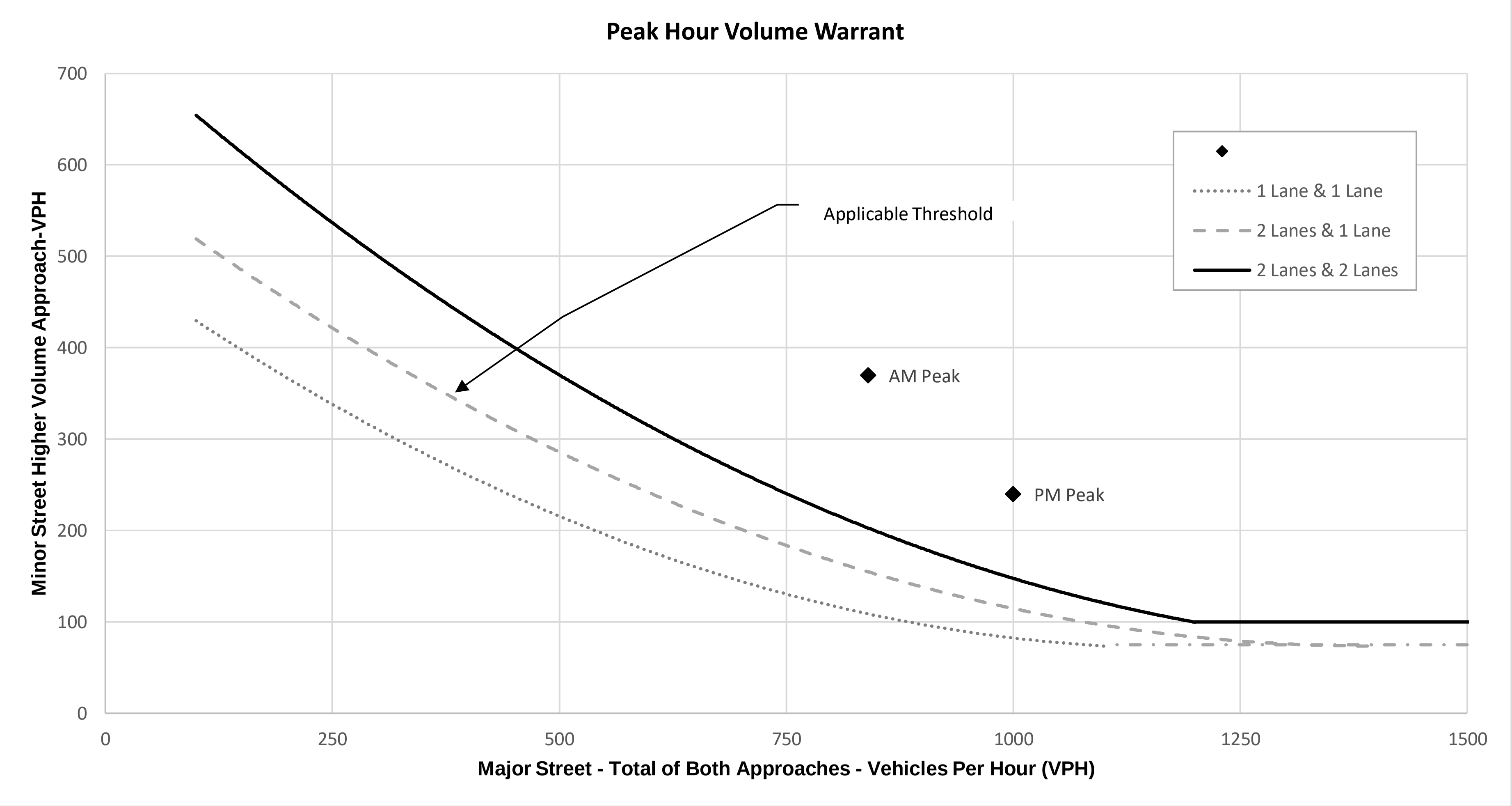

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: Existing + Build Out
Intersection: 132 – San Timoteo Canyon Road & Alessandro Road
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Alessandro Rd (SB)

	Minor Street Approach Volume (Alessandro)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	0	270	270	260	830	1090	Yes
PM Peak	0	210	210	520	610	1130	Yes

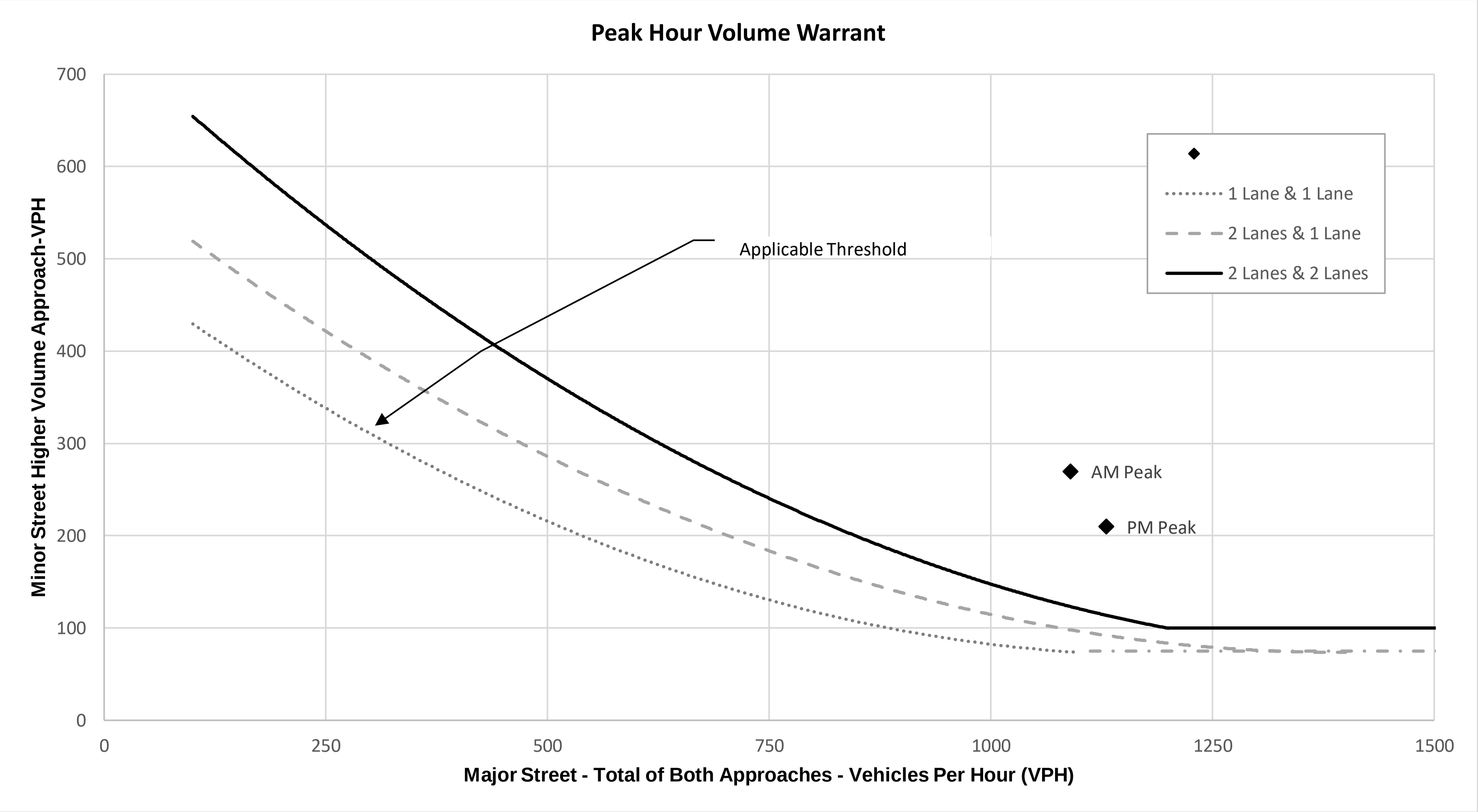

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2018 - Build Out
Intersection: 133 – Live Oak Canyon & San Timoteo Canyon Road
Type: 1 Lane & 2 Lanes
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Live Oak Rd (NB-SB)

	Minor Street Approach Volume (Live Oak)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	30	360	360	490	800	1290	Yes
PM Peak	30	300	300	650	790	1440	Yes

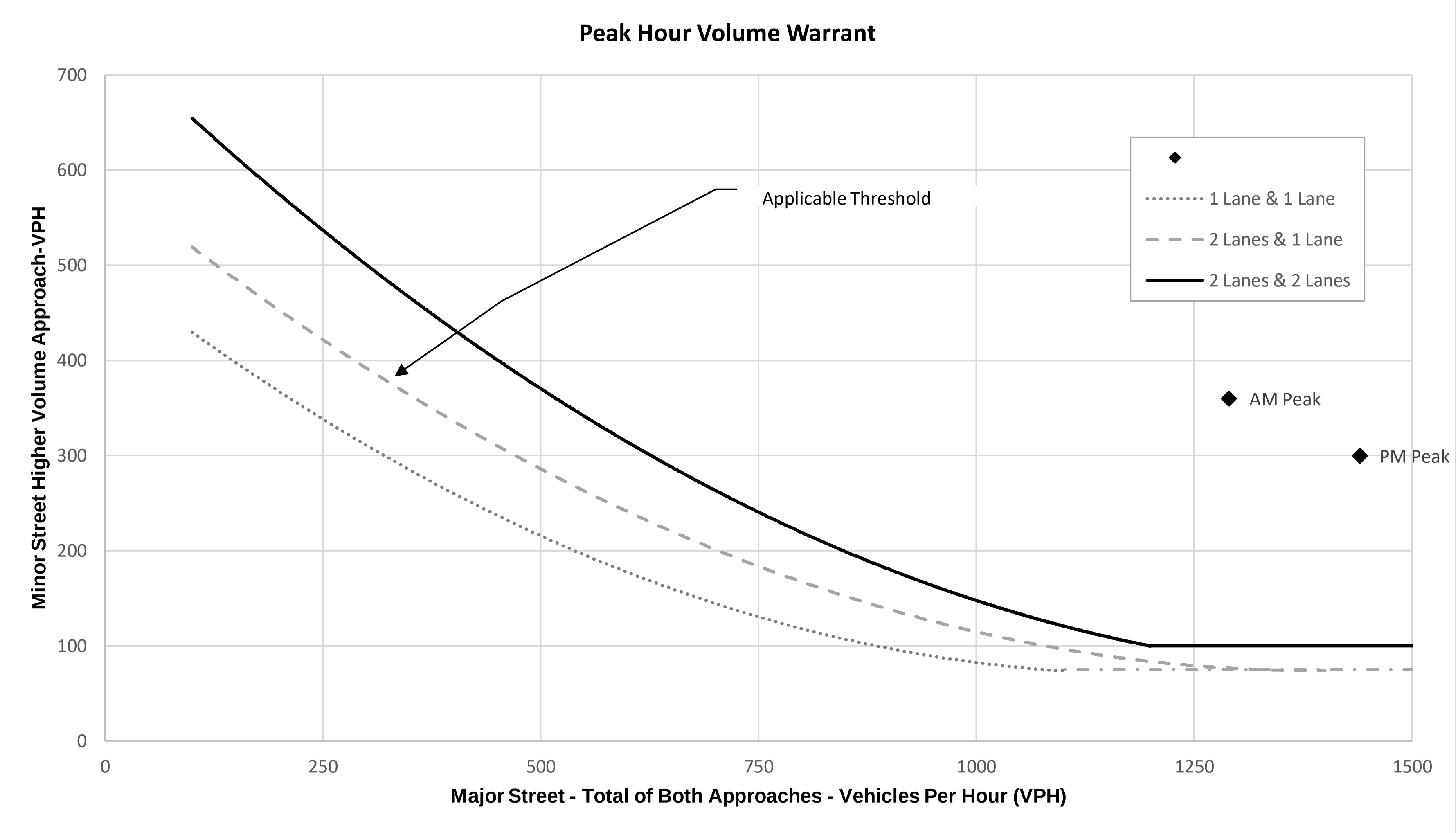

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2018 + Build Out
Intersection: 134 – San Timoteo Canyon Road & Redlands Boulevard
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Redlands Blvd (NB)

	Minor Street Approach Volume (Redlands)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	750	0	750	640	170	810	Yes
PM Peak	800	0	800	900	70	970	Yes

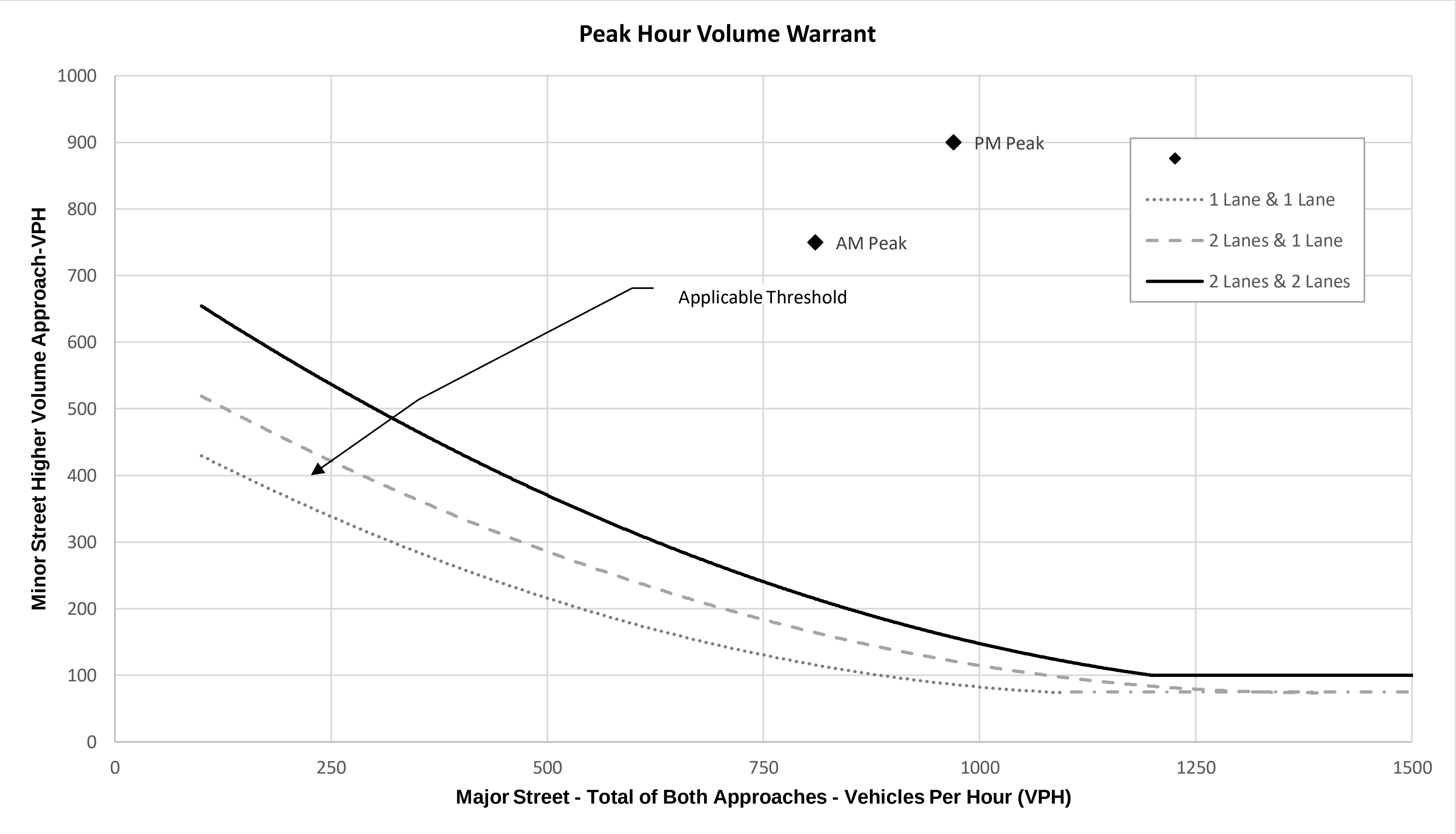

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 - No Build
Intersection: 10 – Redlands Boulevard & Locust Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Redlands Blvd (NB-SB)
Minor Street (Orientation): Locust Ave (EB-WB)

	Minor Street Approach Volume (Locust Ave)			Major Street Approach Volume (Redlands Blvd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	25	15	25	930	1005	1935	No
PM Peak	25	35	35	1120	1160	2280	No

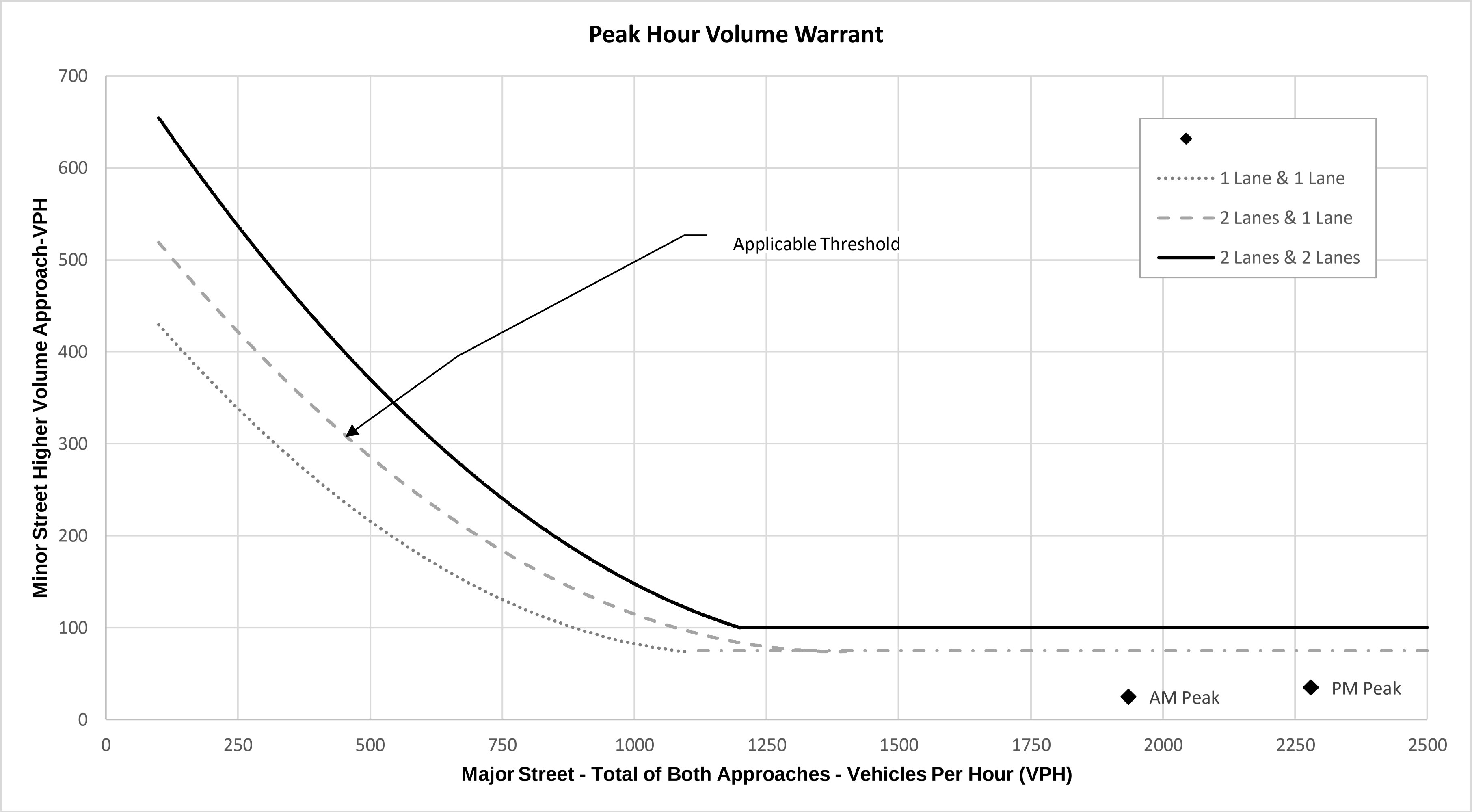

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 – No Build
Intersection: 85 – Martin Luther King Blvd & SR-60 NB Ramp
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): MLK Blvd (EB
Minor Street (Orientation):) SR-60 Ramp (NB)

	Minor Street Approach Volume (SR-60 Ramp)			Major Street Approach Volume (MLK Blvd))			Satisfies
Time	NB	n/a	Higher Vol	EB	n/a	Total	Warrant 3
AM Peak	660	n/a	660	990	n/a	990	Yes
PM Peak	1270	n/a	1270	1450	n/a	1450	Yes

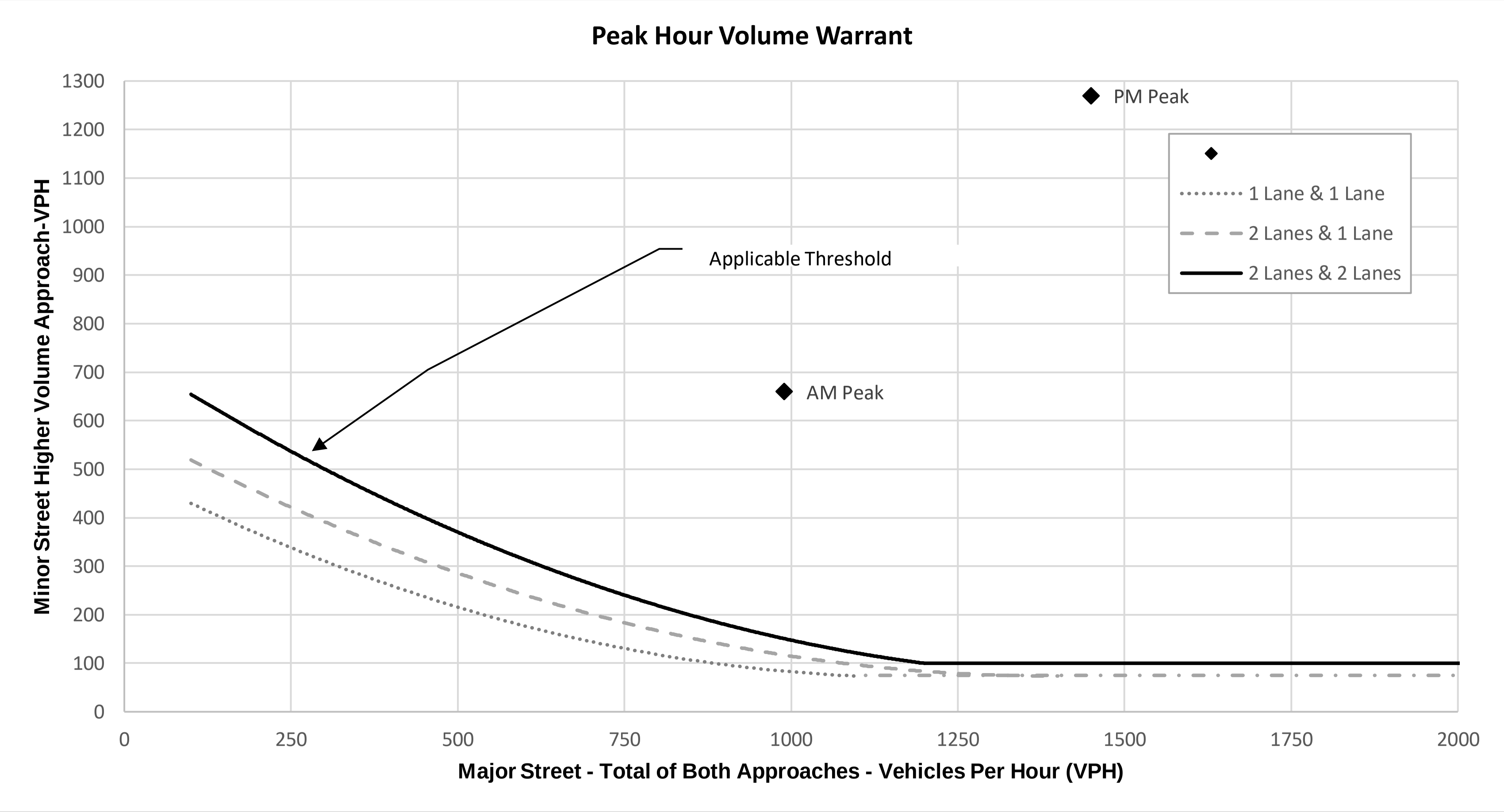

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 – No Build
Intersection: 114 Evans Road & Orange Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Evans Rd(NB-SB)
Minor Street (Orientation): Orange Ave (EB-WB)

	Minor Street Approach Volume (Orange Ave)			Major Street Approach Volume (Evans Rd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	360	280	360	840	460	1400	Yes
PM Peak	310	220	310	540	610	1150	Yes

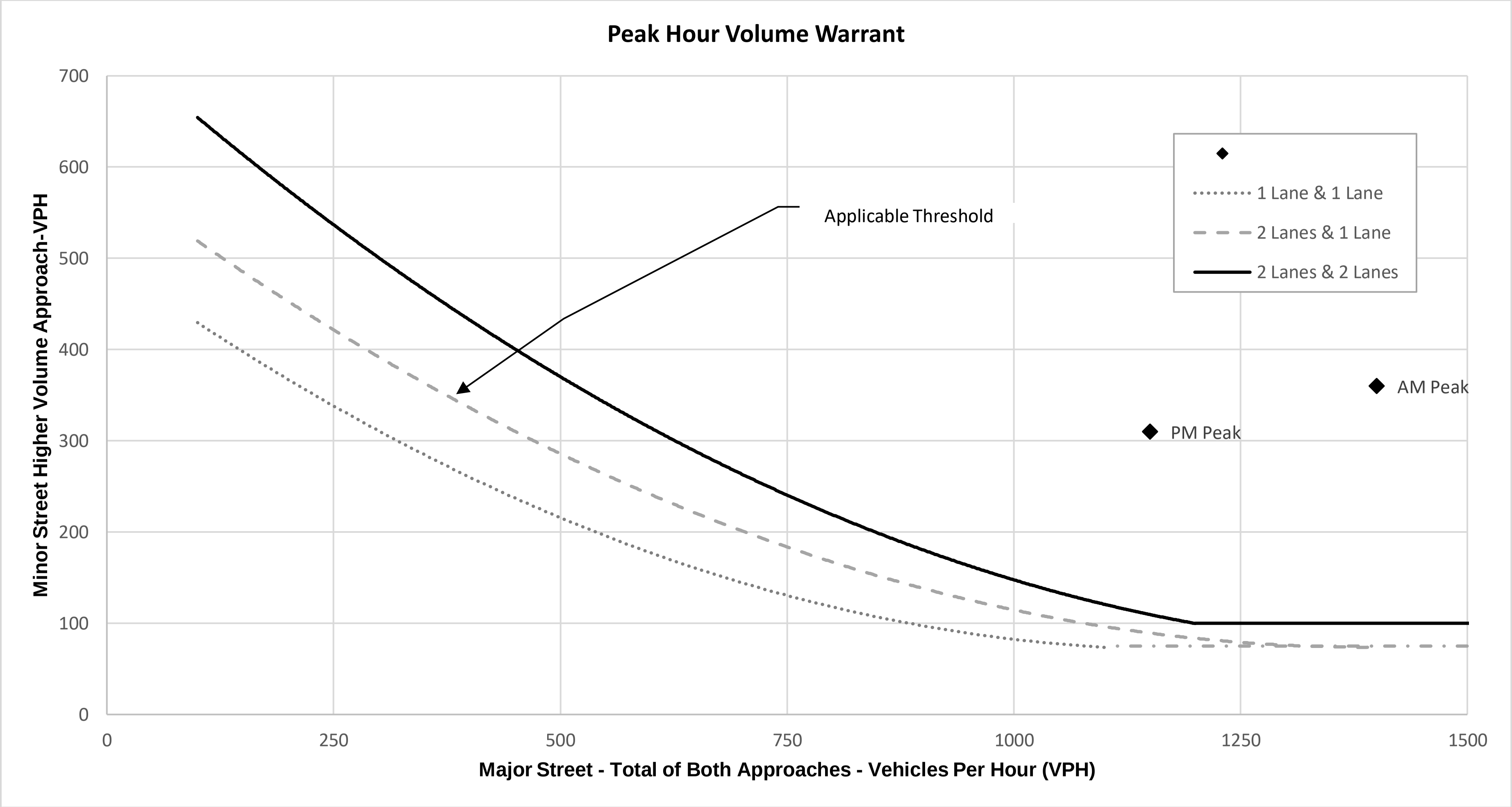

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 – No Build
Intersection: 124 – Gilman Springs Road & SR-79 NB Ramps
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Gilman Spring Rd (EB-WB)
Minor Street (Orientation): SR-79 NB Ramps

	Minor Street Approach Volume (SR-79 NB)			Major Street Approach Volume (Gilman Spring)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	370	0	370	480	610	1090	Yes
PM Peak	420	0	420	700	300	1000	Yes

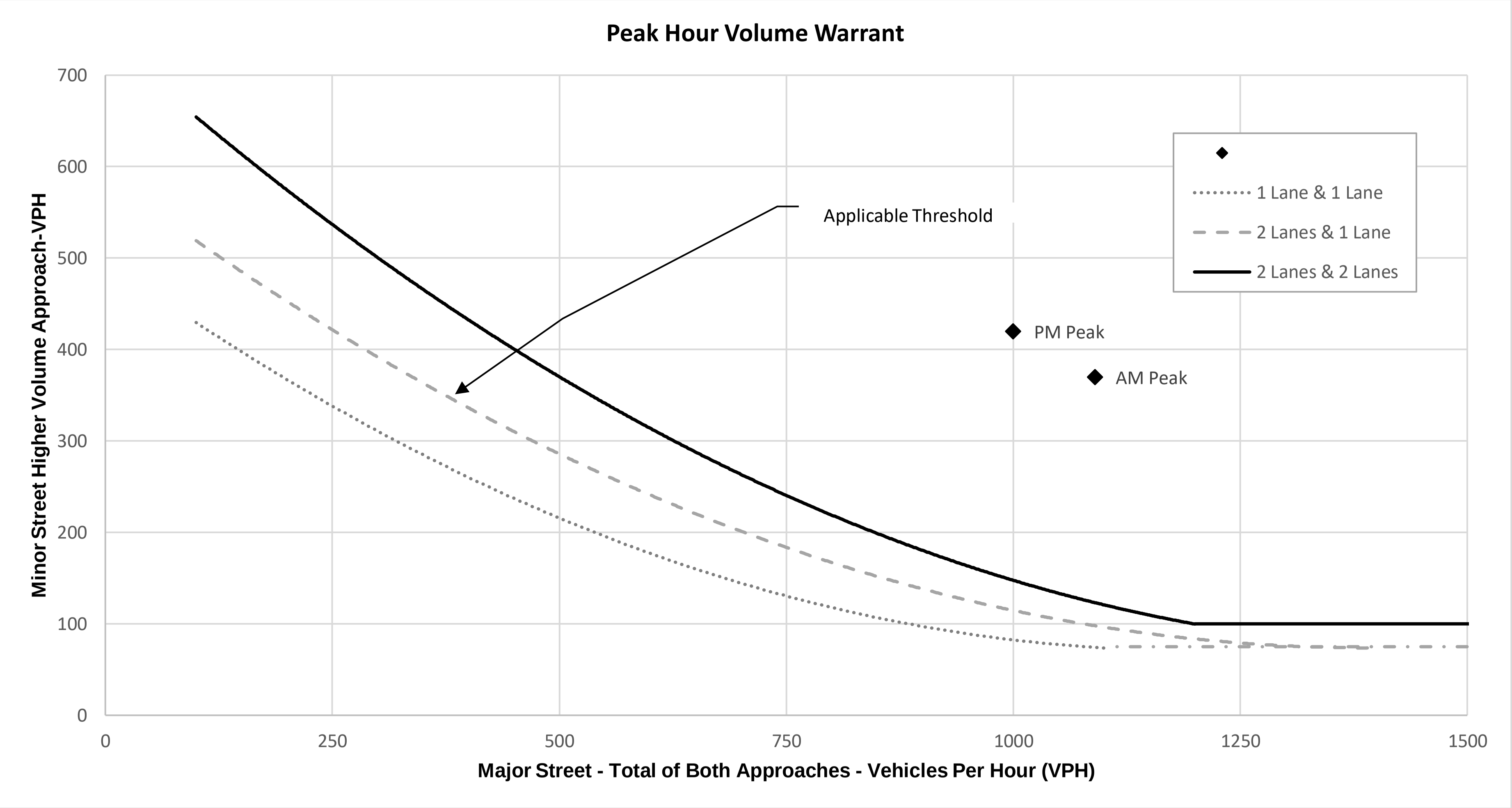

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 – No Build
Intersection: 132 – San Timoteo Canyon Road & Alessandro Road
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Alessandro Rd (SB)

	Minor Street Approach Volume (Alessandro)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	0	320	320	390	1190	1580	Yes
PM Peak	0	240	240	770	860	1630	Yes

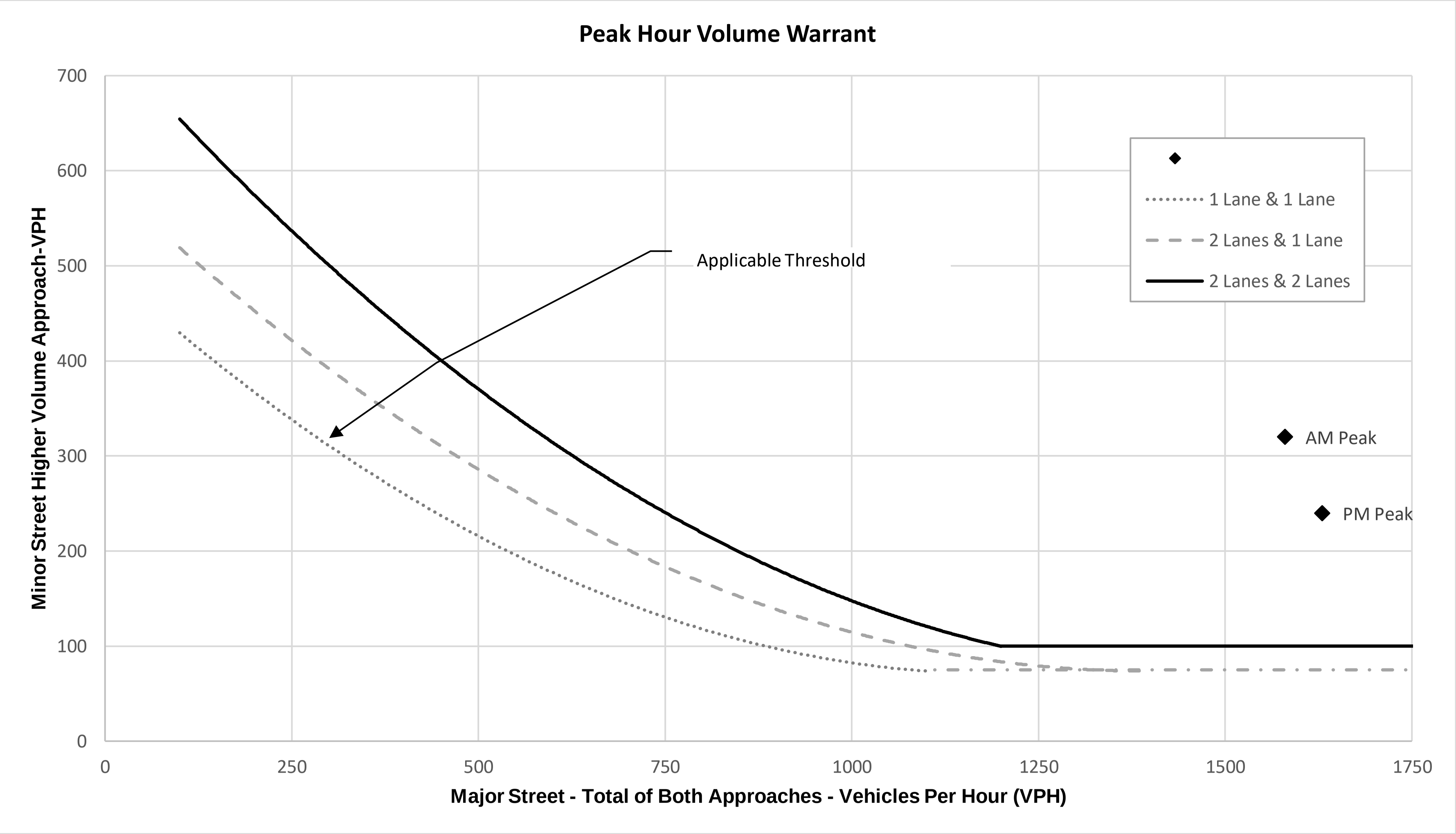

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 – No Build
Intersection: 133 – Live Oak Canyon & San Timoteo Canyon Road
Type: 1 Lane & 2 Lanes
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Live Oak Rd (NB-SB)

	Minor Street Approach Volume (Live Oak)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	40	360	360	630	1160	1790	Yes
PM Peak	50	300	300	950	1070	2020	Yes

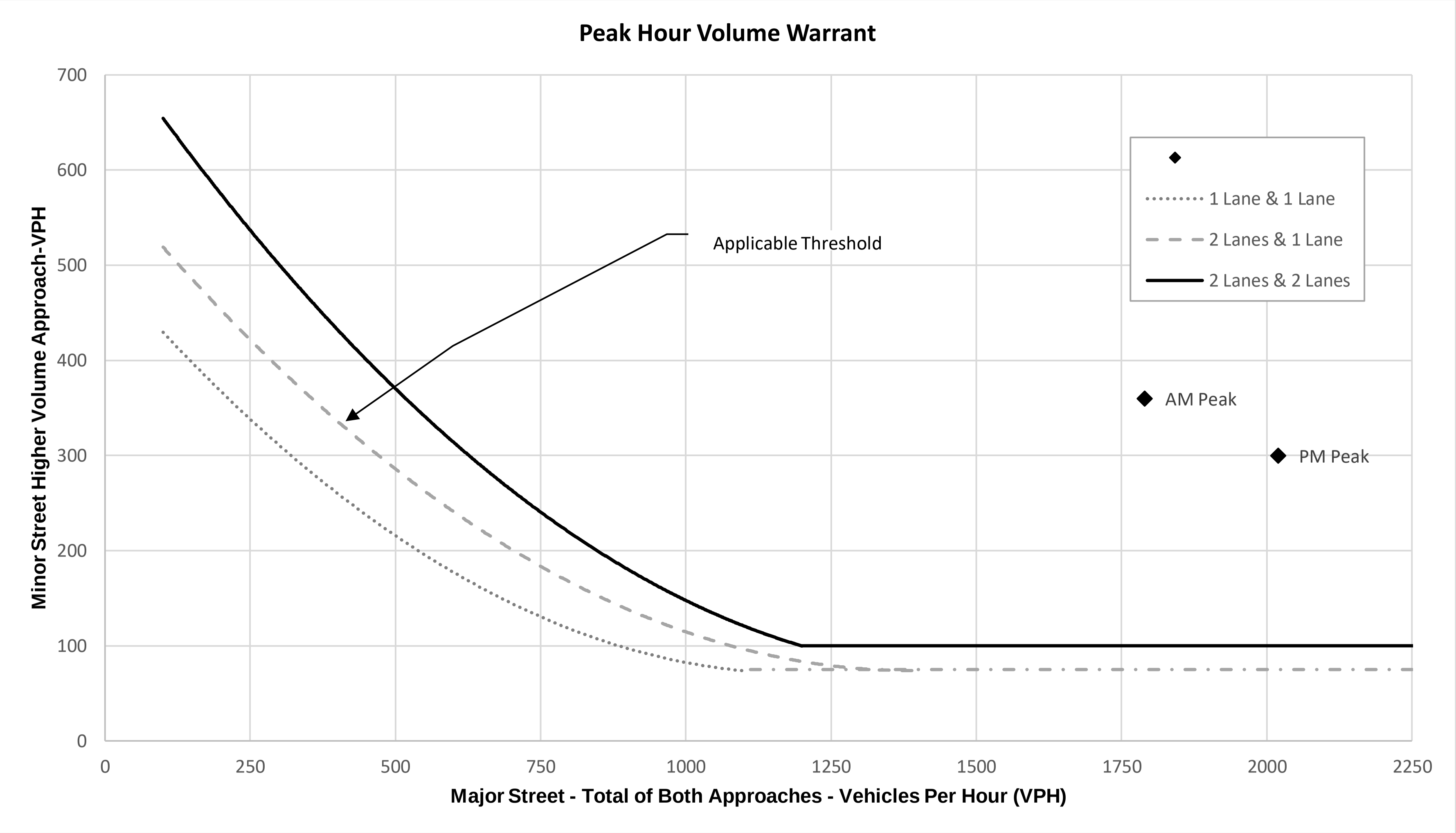

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 + Phase 1
Intersection: 10 – Redlands Boulevard & Locust Avenue
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): Redlands Blvd (NB-SB)
Minor Street (Orientation): Locust Ave (EB-WB)

	Minor Street Approach Volume (Locust Ave)			Major Street Approach Volume (Redlands Blvd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	35	15	35	970	1005	1975	No
PM Peak	25	35	35	1100	1155	2255	No

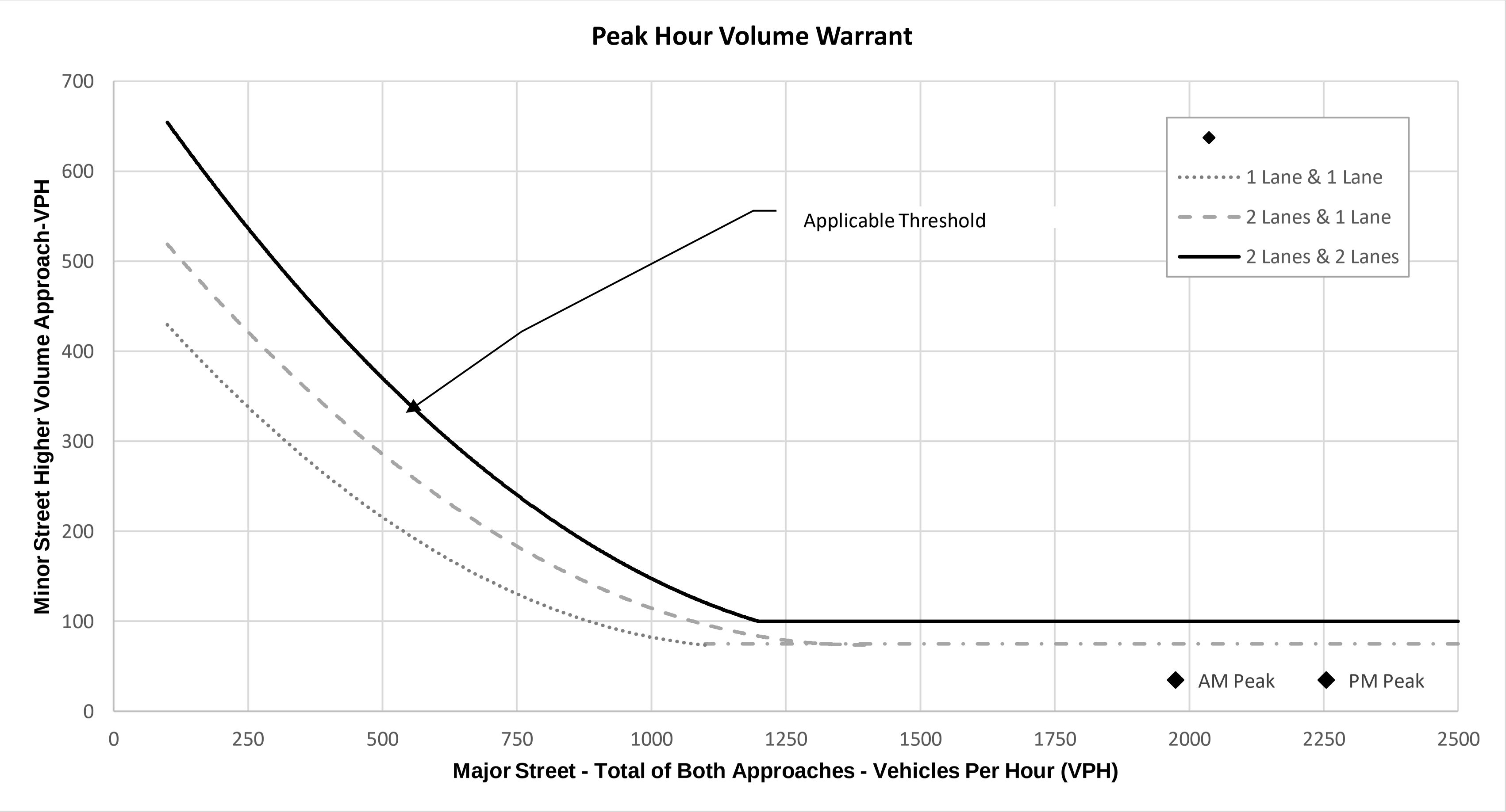
Peak Hour Volume Warrant

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 + Phase 1
Intersection: 85 – Martin Luther King Blvd & SR-60 NB Ramp
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): MLK Blvd (EB
Minor Street (Orientation):) SR-60 Ramp (NB)

	Minor Street Approach Volume (SR-60 Ramp)			Major Street Approach Volume (MLK Blvd))			Satisfies
Time	NB	n/a	Higher Vol	EB	n/a	Total	Warrant 3
AM Peak	680	n/a	680	990	n/a	990	Yes
PM Peak	1310	n/a	1310	1390	n/a	1390	Yes

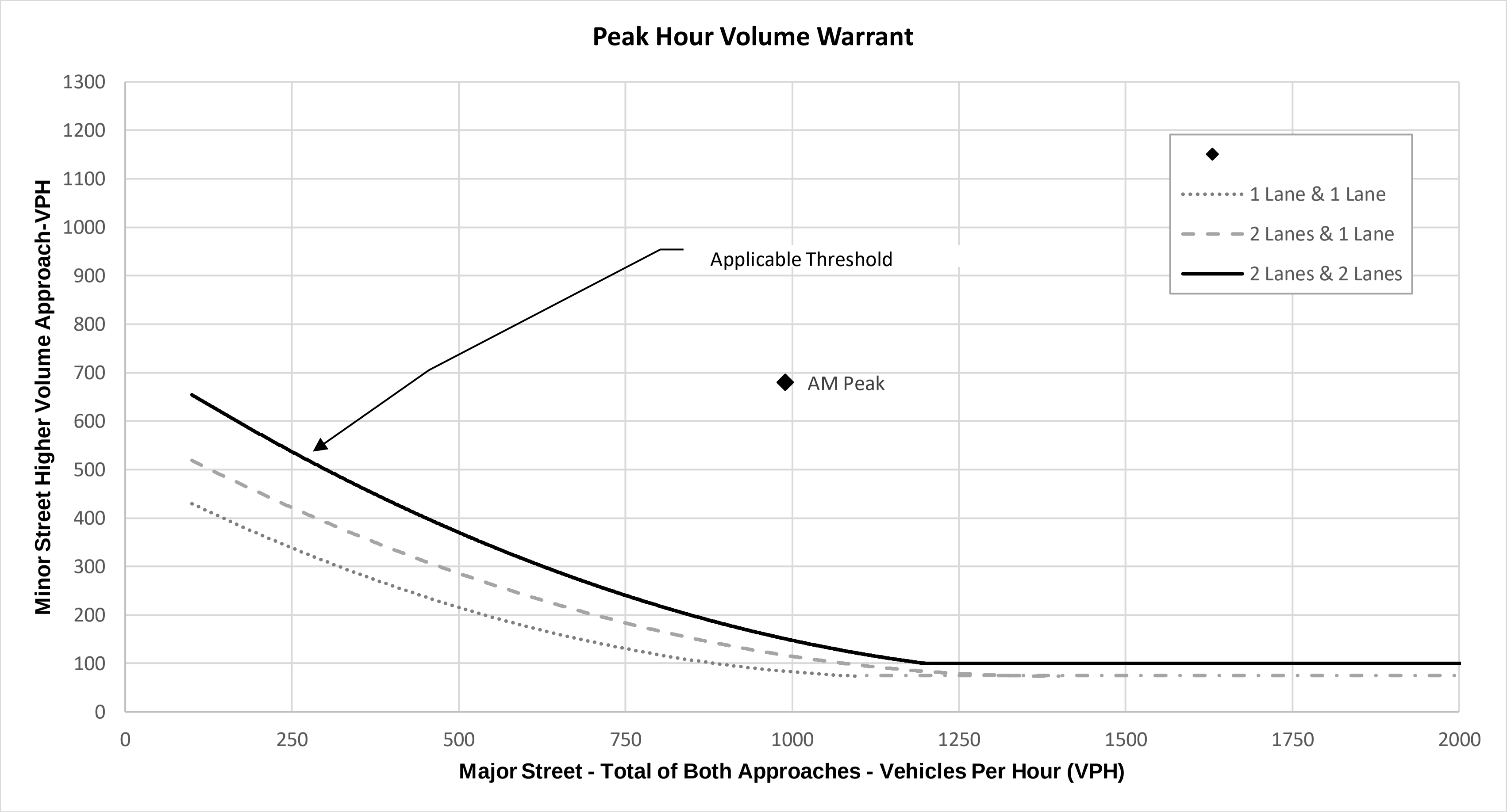

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 + Phase 1
Intersection: 114 Evans Road & Orange Avenue
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Evans Rd(NB-SB)
Minor Street (Orientation): Orange Ave (EB-WB)

	Minor Street Approach Volume (Orange Ave)			Major Street Approach Volume (Evans Rd)			Satisfies
Time	EB	WB	Higher Vol	NB	SB	Total	Warrant 3
AM Peak	290	250	290	550	840	1390	Yes
PM Peak	250	170	250	520	610	1330	Yes

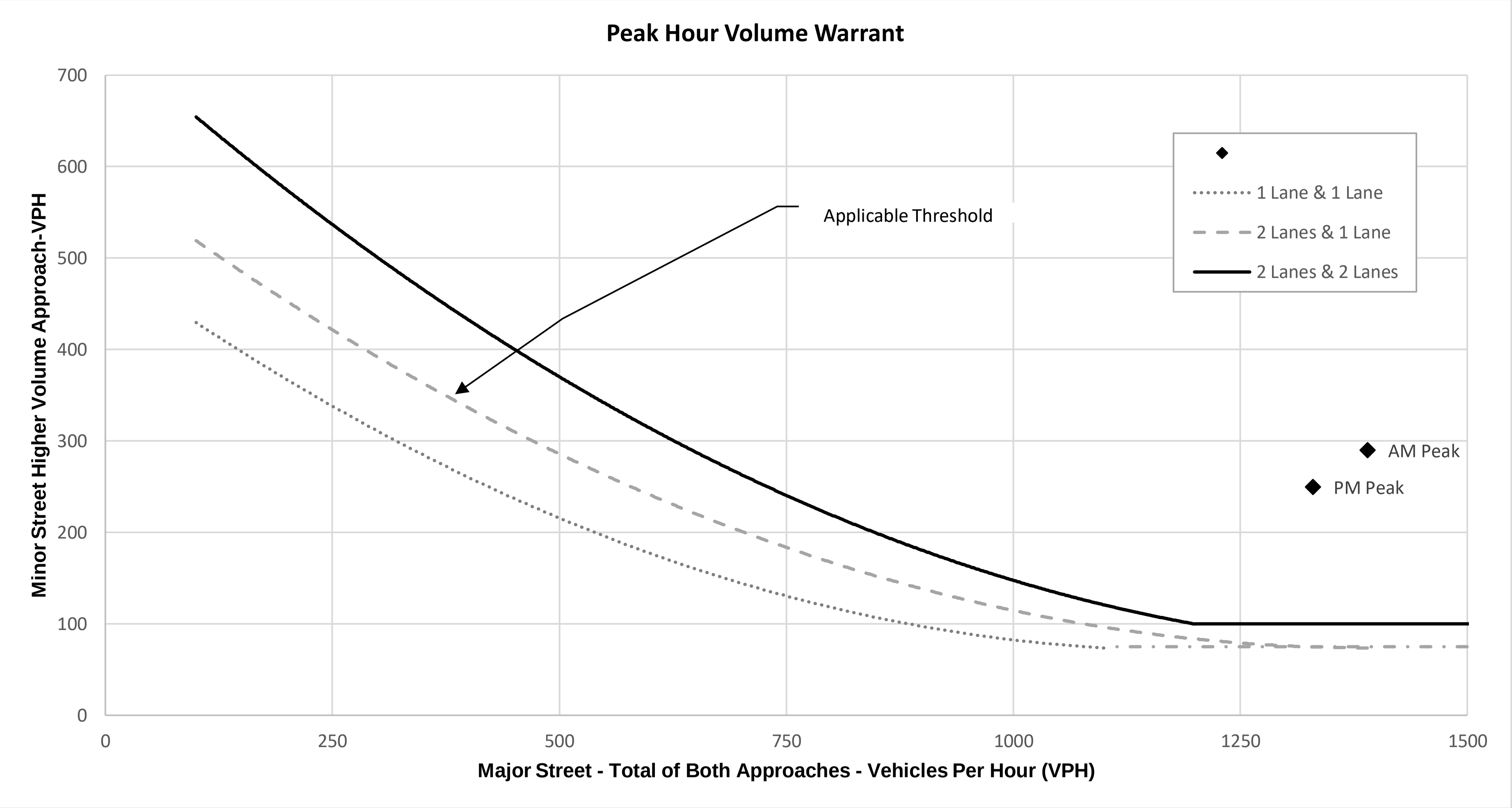

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 + Phase 1
Intersection: 124 – Gilman Springs Road & SR-79 NB Ramps
Type: 2 Lanes & 1 Lane
Major Street (Orientation): Gilman Spring Rd (EB-WB)
Minor Street (Orientation): SR-79 NB Ramps

	Minor Street Approach Volume (SR-79 NB)			Major Street Approach Volume (Gilman Spring)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	370	0	370	500	460	960	Yes
PM Peak	420	0	420	700	300	1000	Yes

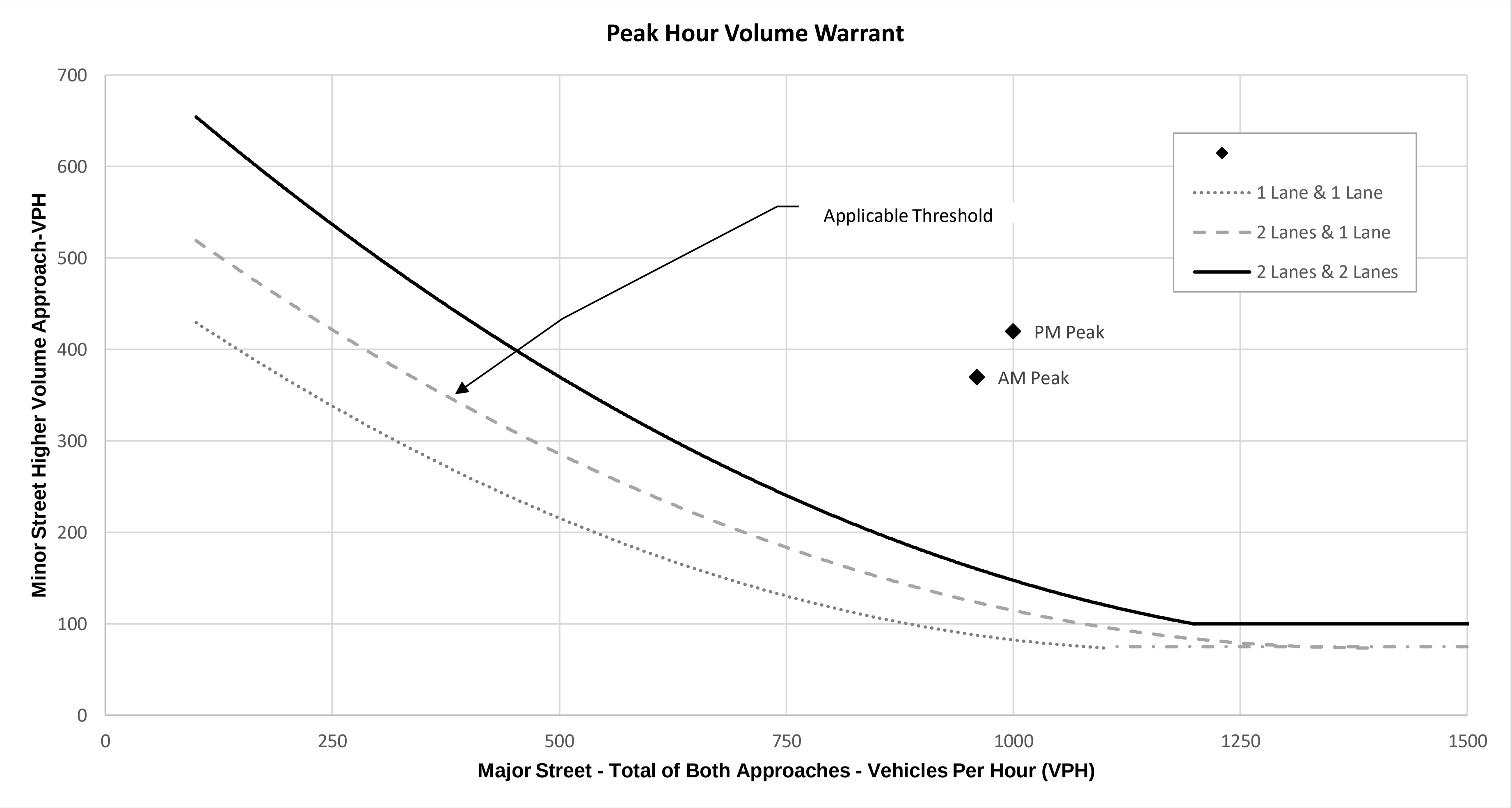

Peak Hour Volume Warrant

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 + Phase 1
Intersection: 132 – San Timoteo Canyon Road & Alessandro Road
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Alessandro Rd (SB)

	Minor Street Approach Volume (Alessandro)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	0	320	320	390	1190	1580	Yes
PM Peak	0	240	240	780	860	1640	Yes

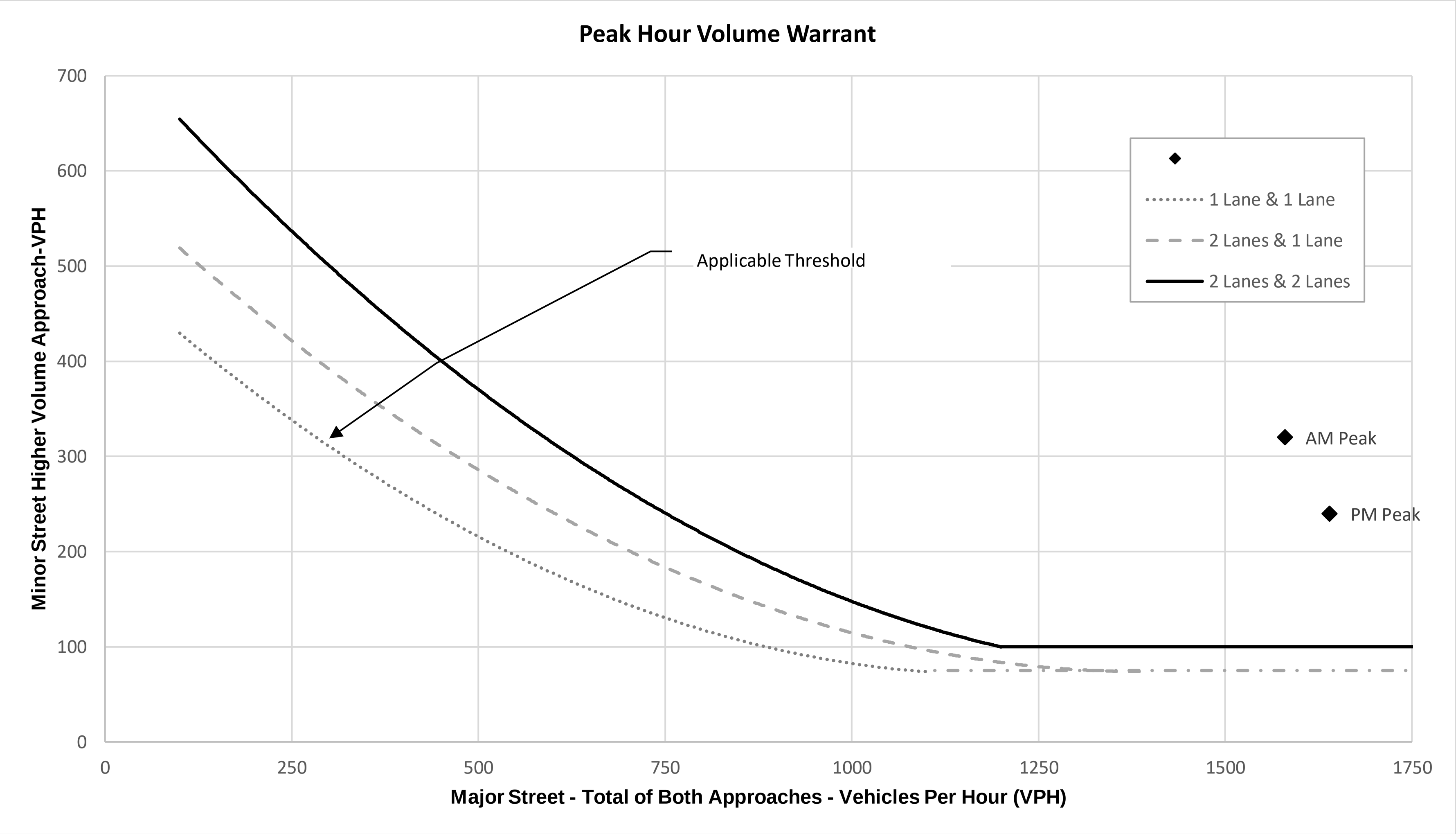

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2025 + Phase 1
Intersection: 133 – Live Oak Canyon & San Timoteo Canyon Road
Type: 1 Lane & 2 Lanes
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Live Oak Rd (NB-SB)

	Minor Street Approach Volume (Live Oak)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	40	360	360	680	1180	1860	Yes
PM Peak	50	300	300	950	1080	2030	Yes

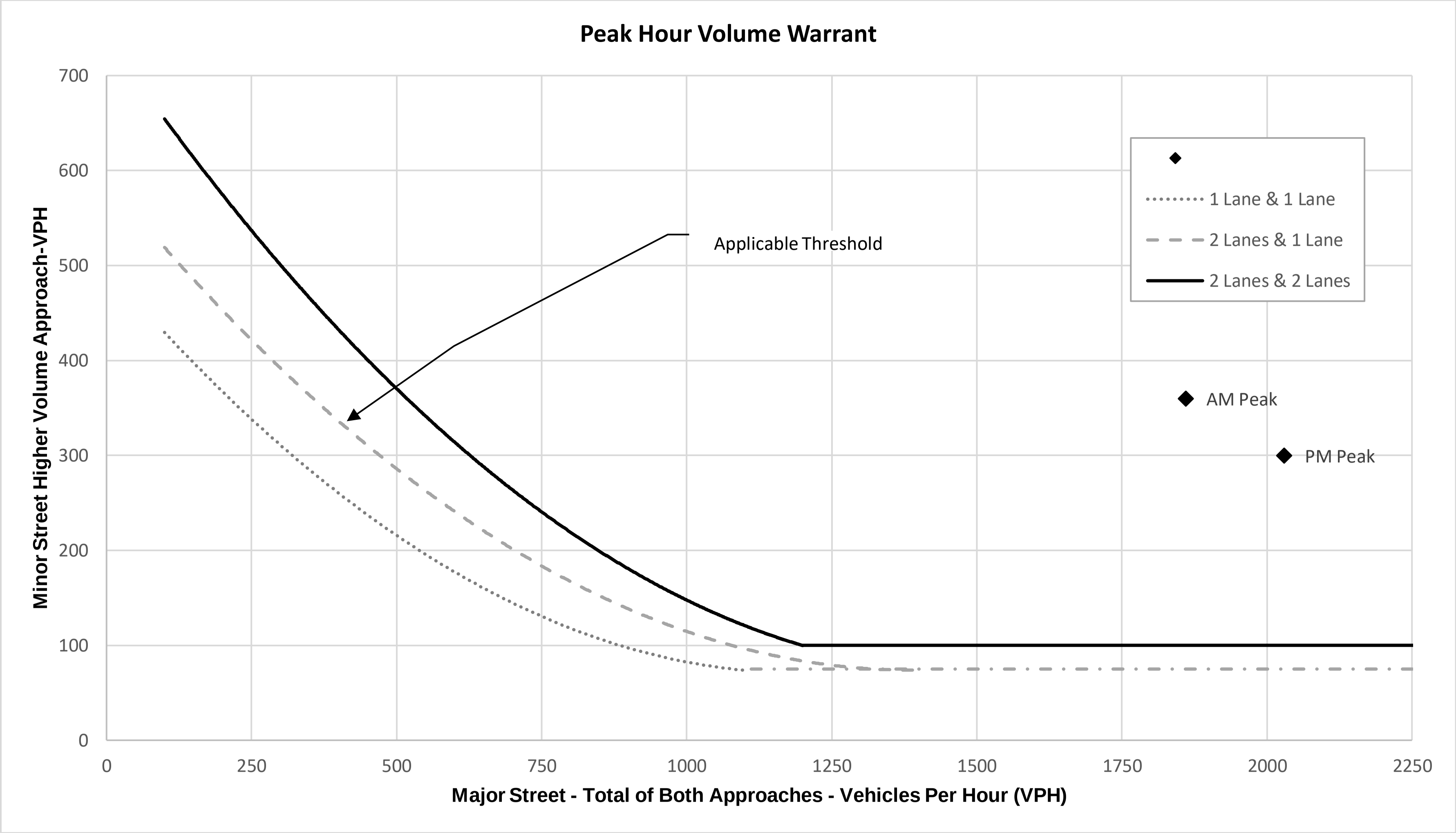

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2040 No Build
Intersection: 85 – Martin Luther King Blvd & SR-60 NB Ramp
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): MLK Blvd (EB
Minor Street (Orientation):) SR-60 Ramp (NB)

	Minor Street Approach Volume (SR-60 Ramp)			Major Street Approach Volume (MLK Blvd))			Satisfies
Time	NB	n/a	Higher Vol	EB	n/a	Total	Warrant 3
AM Peak	920	n/a	920	1090	n/a	1090	Yes
PM Peak	1520	n/a	1520	1720	n/a	1720	Yes

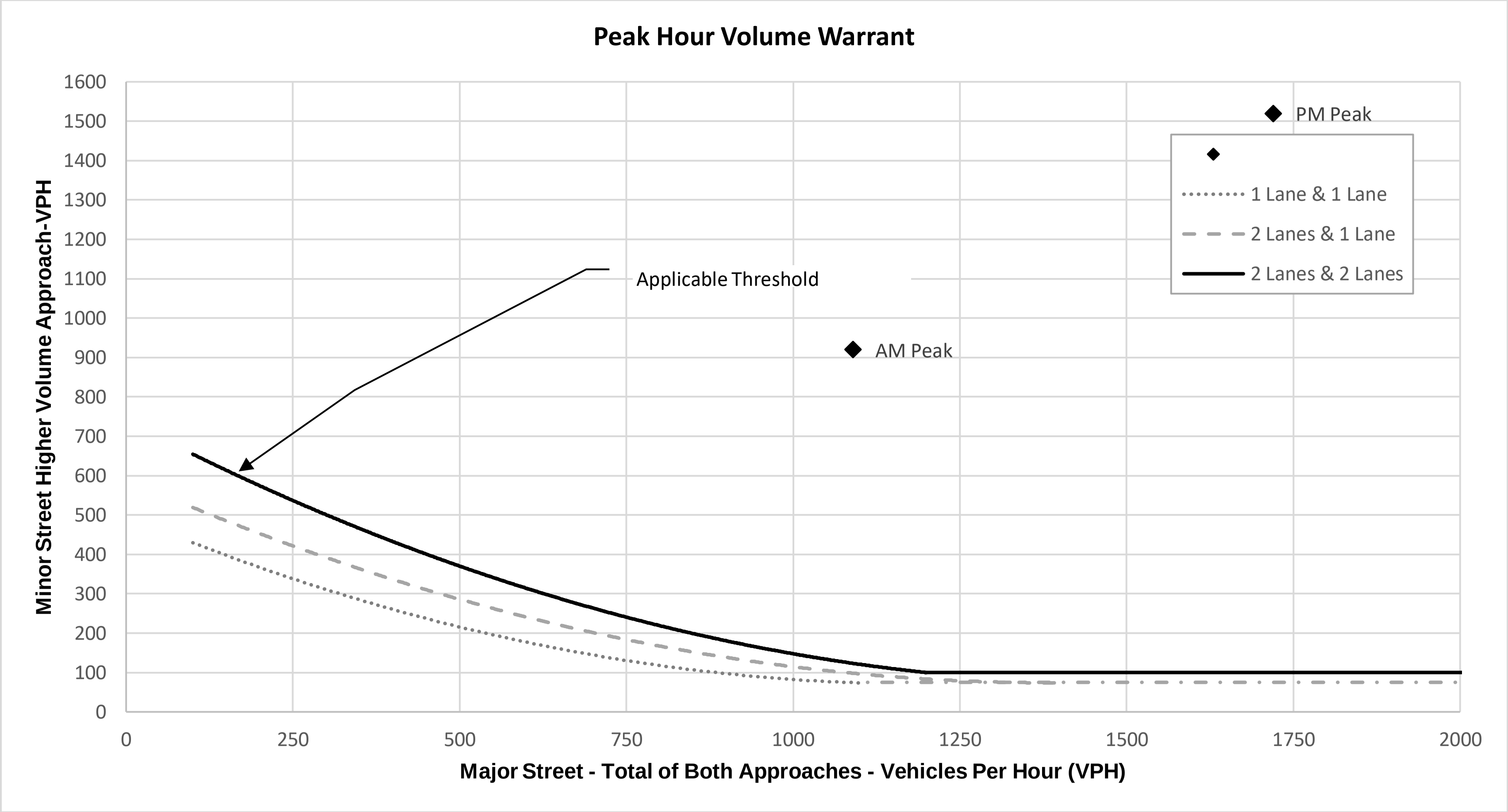

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2040 – No Build
Intersection: 132 – San Timoteo Canyon Road & Alessandro Road
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Alessandro Rd (SB)

	Minor Street Approach Volume (Alessandro)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	0	330	330	500	1220	1720	Yes
PM Peak	0	210	210	980	920	1900	Yes

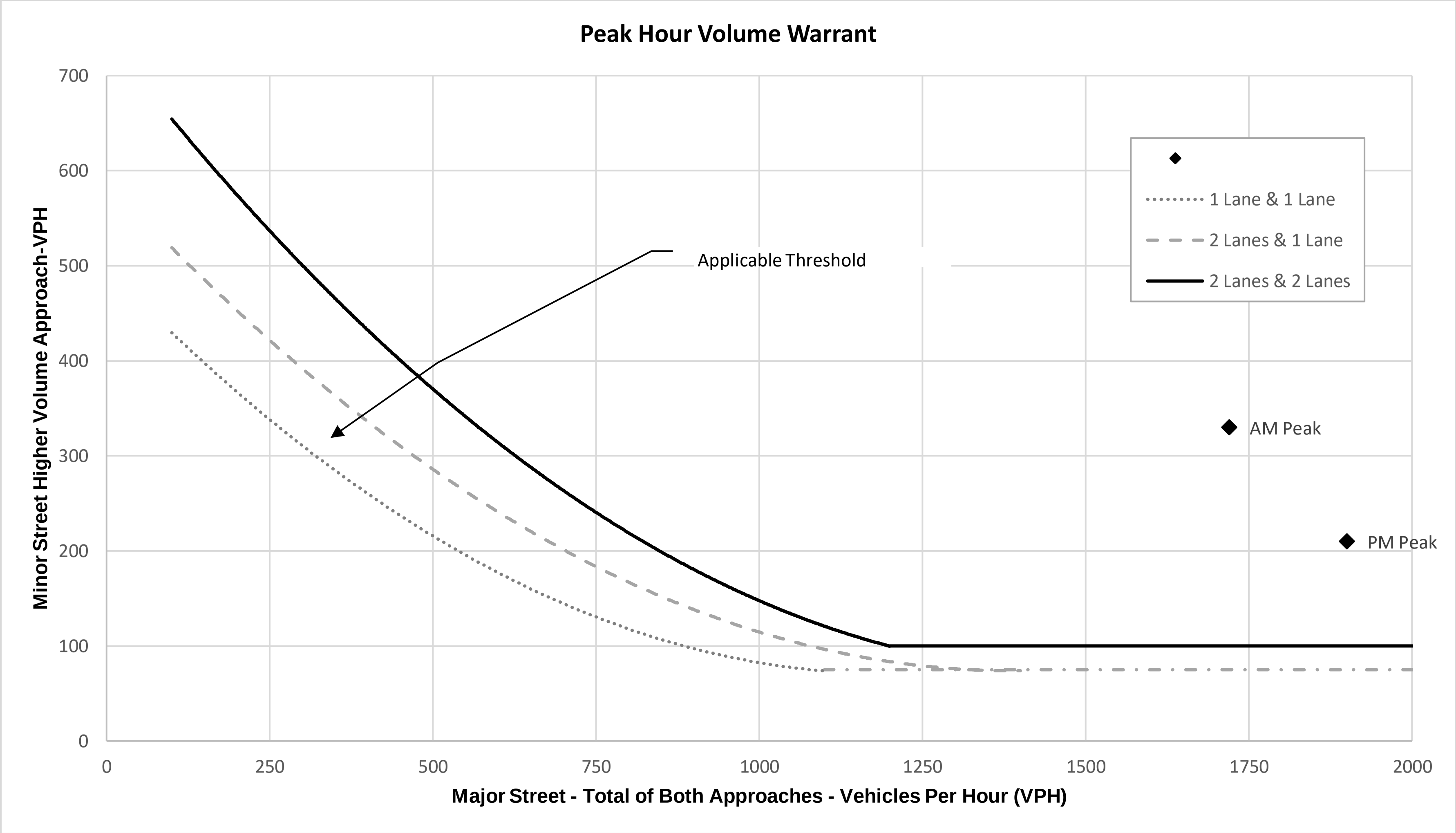

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2040 – No Build
Intersection: 133 – Live Oak Canyon & San Timoteo Canyon Road
Type: 1 Lane & 2 Lanes
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Live Oak Rd (NB-SB)

	Minor Street Approach Volume (Live Oak)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	40	400	400	740	1130	1870	Yes
PM Peak	60	300	300	970	1070	2040	Yes

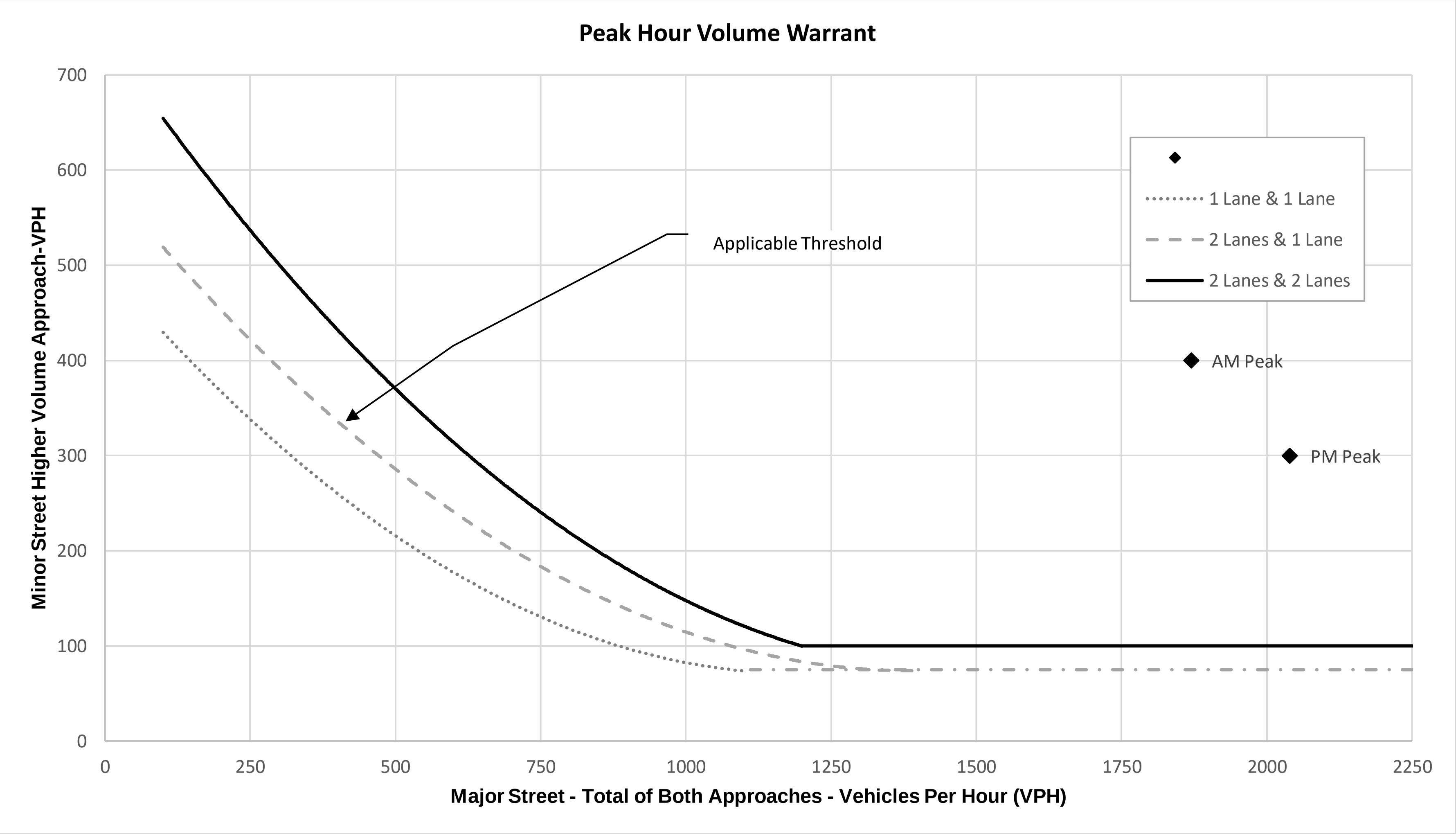

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2040 + Build-out
Intersection: 85 – Martin Luther King Blvd & SR-60 NB Ramp
Type: 2 Lanes & 2 Lanes
Major Street (Orientation): MLK Blvd (EB
Minor Street (Orientation):) SR-60 Ramp (NB)

	Minor Street Approach Volume (SR-60 Ramp)			Major Street Approach Volume (MLK Blvd))			Satisfies
Time	NB	n/a	Higher Vol	EB	n/a	Total	Warrant 3
AM Peak	910	n/a	910	1100	n/a	1100	Yes
PM Peak	1230	n/a	1230	1410	n/a	1410	Yes

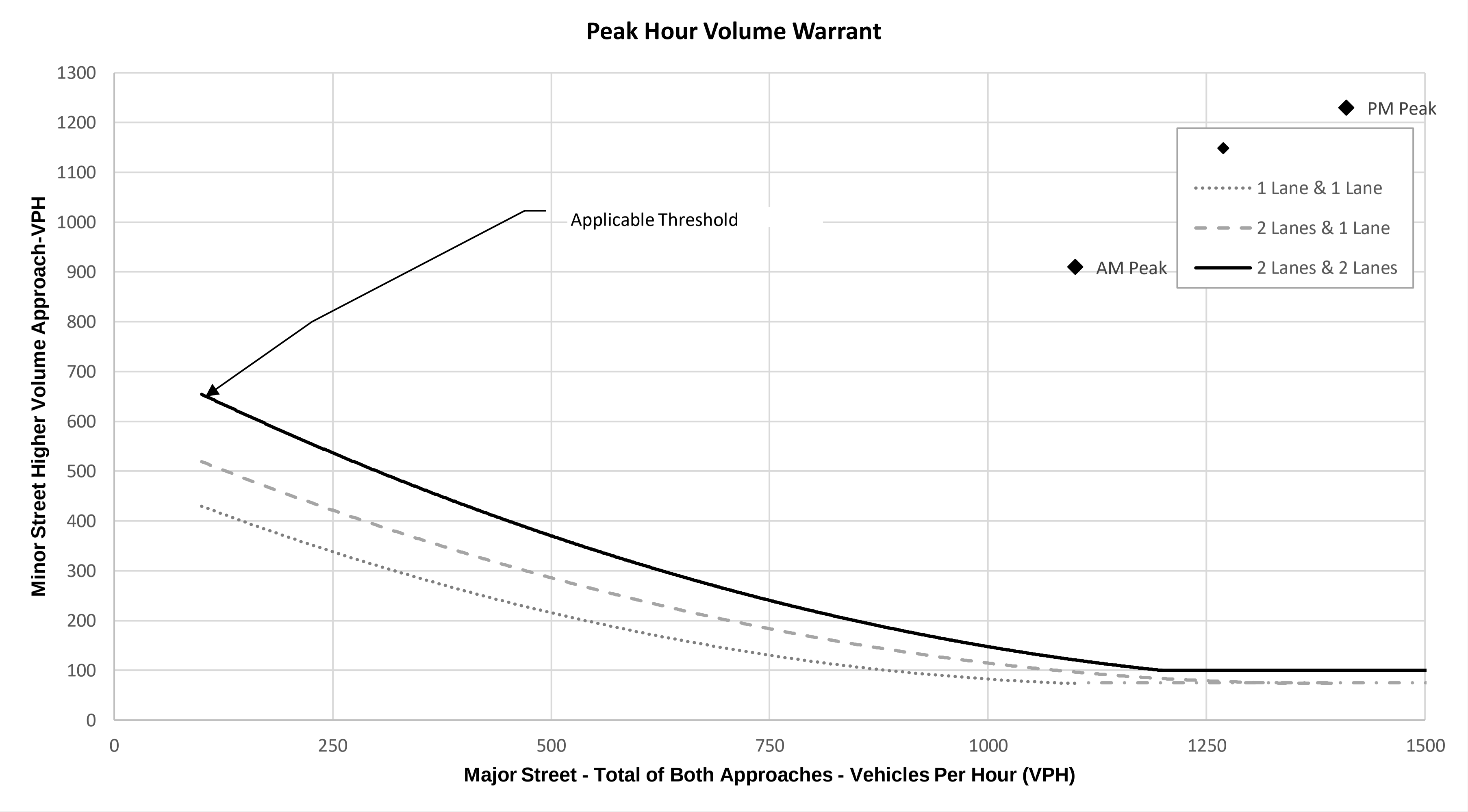

Peak Hour Volume Warrant

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2040 + Build Out
Intersection: 132 – San Timoteo Canyon Road & Alessandro Road
Type: 1 Lane & 1 Lane
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Alessandro Rd (SB)

	Minor Street Approach Volume (Alessandro)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	0	290	290	600	1270	1870	Yes
PM Peak	0	210	210	1020	950	1970	Yes

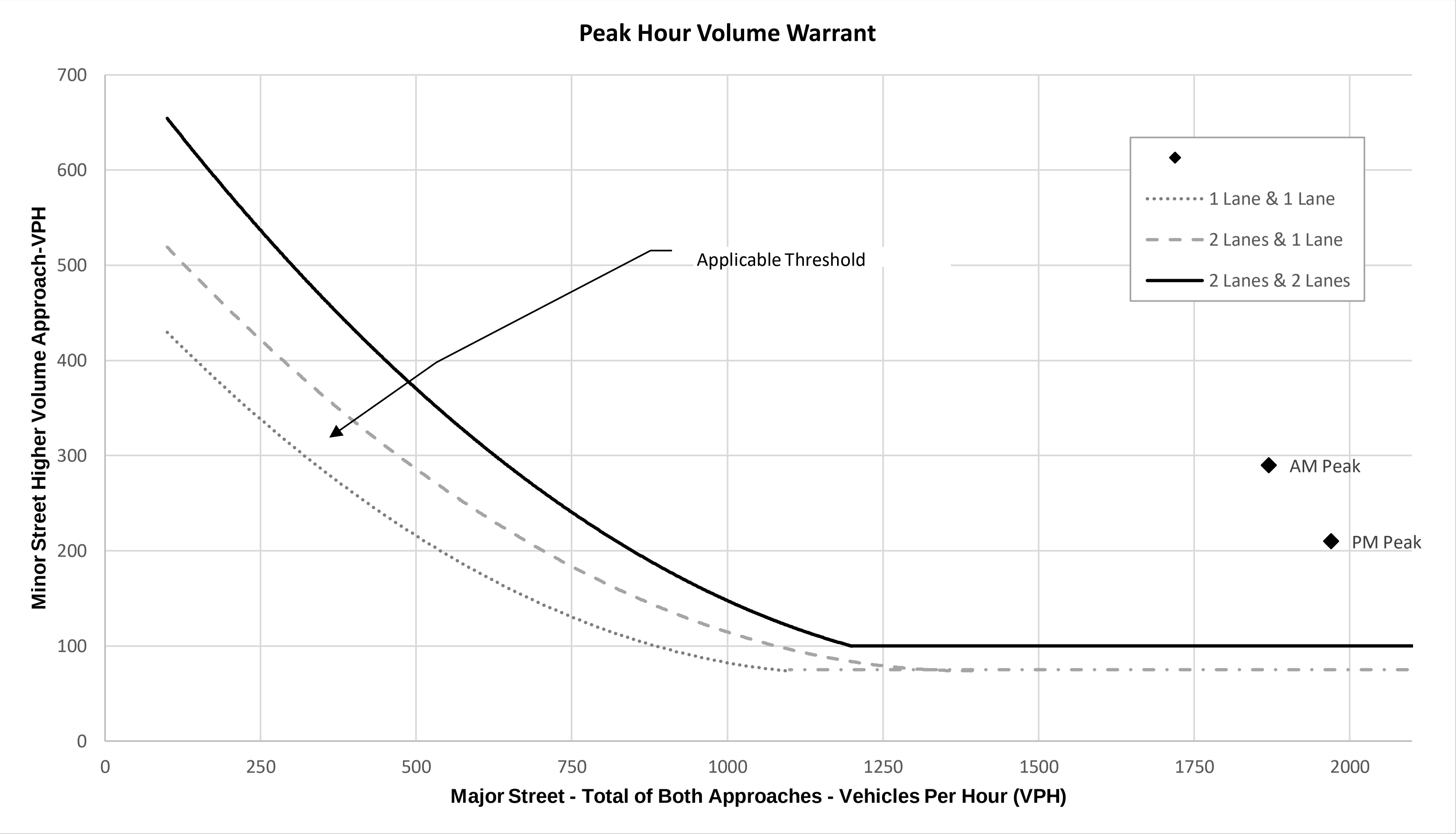

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

Scenario: 2040 – Build Out
Intersection: 133 – Live Oak Canyon & San Timoteo Canyon Road
Type: 1 Lane & 2 Lanes
Major Street (Orientation): San Timoteo C. Rd (EB-WB)
Minor Street (Orientation): Live Oak Rd (NB-SB)

	Minor Street Approach Volume (Live Oak)			Major Street Approach Volume (San Timoteo)			Satisfies
Time	NB	SB	Higher Vol	EB	WB	Total	Warrant 3
AM Peak	40	370	370	790	1200	1990	Yes
PM Peak	70	300	300	1010	1090	2100	Yes

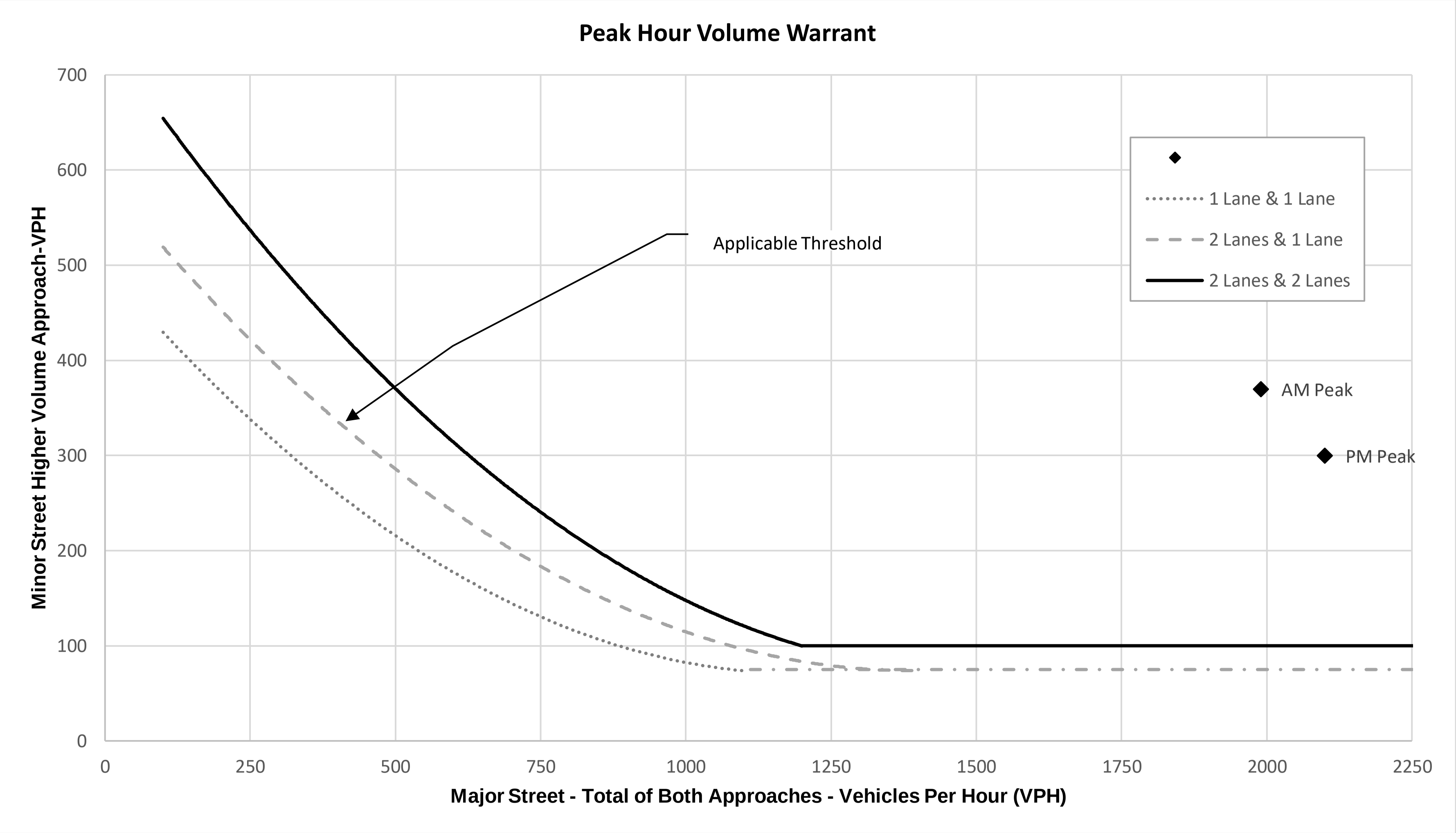

Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane